

Total *possible* number of input NetCDF variables,
including those that are included in the input
NetCDF file and those that are not = 999
Input NetCDF filename = /scratch/s1/FrancisTam/khlau/WRF-
4.1/CTL_5/tracker_input_CTL_5_d01.nc

List of NetCDF variables follows. A value of X
indicates the variable is not included in the
input file and no attempt will be made to read in
that variable:

NetCDF variable name for 850 mb vort =	ABS_VORTICITY_850
NetCDF variable name for 700 mb vort =	ABS_VORTICITY_700
NetCDF variable name for 850 mb u-comp =	U_850
NetCDF variable name for 850 mb v-comp =	V_850
NetCDF variable name for 700 mb u-comp =	U_700
NetCDF variable name for 700 mb v-comp =	V_700
NetCDF variable name for 850 mb gp height =	Z_850
NetCDF variable name for 700 mb gp height =	Z_700
NetCDF variable name for MSLP =	slp
NetCDF variable name for near-sfc u-comp =	u_10m_gr
NetCDF variable name for near-sfc v-comp =	v_10m_gr
NetCDF variable name for 500 mb u-comp =	U_500
NetCDF variable name for 500 mb v-comp =	V_500
NetCDF variable name for 300-500 mb Mean T =	X
NetCDF variable name for 500 mb gp height =	Z_500
NetCDF variable name for 200 mb gp height =	Z_200
NetCDF variable name for land-sea mask =	X
NetCDF variable name for 900 mb gp height =	X
NetCDF variable name for 800 mb gp height =	X
NetCDF variable name for 750 mb gp height =	X
NetCDF variable name for 650 mb gp height =	X
NetCDF variable name for 600 mb gp height =	X
NetCDF variable name for 550 mb gp height =	X
NetCDF variable name for 450 mb gp height =	X
NetCDF variable name for 400 mb gp height =	X
NetCDF variable name for 350 mb gp height =	X
NetCDF variable name for 300 mb gp height =	X
NetCDF variable name for time =	time
NetCDF variable name for longitudes =	lon
NetCDF variable name for latitudes =	lat
NetCDF time value (hours days) =	hours

Values read in from parmreflist namelist:

user_wants_to_track_zeta850=	y
user_wants_to_track_zeta700=	y
user_wants_to_track_wcirc850=	y
user_wants_to_track_wcirc700=	y
user_wants_to_track_gph850=	y
user_wants_to_track_gph700=	y
user_wants_to_track_mslp=	y
user_wants_to_track_wcircsfc=	y
user_wants_to_track_zetasfc=	y
user_wants_to_track_thick500850=	y
user_wants_to_track_thick200500=	y
user_wants_to_track_thick200850=	y

Values read in from phaseinfo namelist:

Storm phase flag = n Phase scheme = both
Storm phase, warm core depth (wcore_depth) = 1.00

Values read in from structinfo namelist:
Structure flag = n
IKE flag = n

Values read in for grib file name from fnameinfo namelist:
Model name description = gmodname = hwrf
Forecast run description = rundescr = 25x25
Optional ATCF / Storm name description = atcfdescr = AL142016

Value read in for verbose output for most output:
Value read in for verbose flag = verb = 3

Value read in for verbose output for grib2 output:
Value read in for GRIB2 verbose flag = verb_g2 = 0

Values read in from waitinfo namelist:
Flag for input file waiting = use_waitfor = n
min age (time in seconds since last mod) = wait_min_age = 0
min file size in bytes = wait_min_size = 0
max number of seconds to wait for each file = wait_max_wait = 0
number of seconds to sleep between checks = wait_sleeptime = 0

Top of while loop in read_fhours		
1	0	
readloop, ict=	1	inpmin= 0
Top of while loop in read_fhours		
2	60	
readloop, ict=	2	inpmin= 60
Top of while loop in read_fhours		
3	120	
readloop, ict=	3	inpmin= 120
Top of while loop in read_fhours		
4	180	
readloop, ict=	4	inpmin= 180
Top of while loop in read_fhours		
5	240	
readloop, ict=	5	inpmin= 240
Top of while loop in read_fhours		
6	300	
readloop, ict=	6	inpmin= 300
Top of while loop in read_fhours		
7	360	
readloop, ict=	7	inpmin= 360
Top of while loop in read_fhours		
8	420	
readloop, ict=	8	inpmin= 420
Top of while loop in read_fhours		
9	480	
readloop, ict=	9	inpmin= 480
Top of while loop in read_fhours		
10	540	
readloop, ict=	10	inpmin= 540
Top of while loop in read_fhours		
11	600	
readloop, ict=	11	inpmin= 600
Top of while loop in read_fhours		
12	660	
readloop, ict=	12	inpmin= 660

```

Top of while loop in read_fhours
13 720
readloop, ict=          13  inpmin=          720
Top of while loop in read_fhours
14 780
readloop, ict=          14  inpmin=          780
Top of while loop in read_fhours
15 840
readloop, ict=          15  inpmin=          840
Top of while loop in read_fhours
16 900
readloop, ict=          16  inpmin=          900
Top of while loop in read_fhours
17 960
readloop, ict=          17  inpmin=          960
Top of while loop in read_fhours
18 1020
readloop, ict=         18  inpmin=         1020
Top of while loop in read_fhours
19 1080
readloop, ict=         19  inpmin=         1080
Top of while loop in read_fhours
20 1140
readloop, ict=         20  inpmin=         1140
Top of while loop in read_fhours
21 1200
readloop, ict=         21  inpmin=         1200
Top of while loop in read_fhours
22 1260
readloop, ict=         22  inpmin=         1260
Top of while loop in read_fhours
23 1320
readloop, ict=         23  inpmin=         1320
Top of while loop in read_fhours
24 1380
readloop, ict=         24  inpmin=         1380
Top of while loop in read_fhours
25 1440
readloop, ict=         25  inpmin=         1440
Top of while loop in read_fhours
26 1500
readloop, ict=         26  inpmin=         1500
Top of while loop in read_fhours
27 1560
readloop, ict=         27  inpmin=         1560
Top of while loop in read_fhours
28 1620
readloop, ict=         28  inpmin=         1620
Top of while loop in read_fhours
29 1680
readloop, ict=         29  inpmin=         1680
Top of while loop in read_fhours
30 1740
readloop, ict=         30  inpmin=         1740
Top of while loop in read_fhours
31 1800
readloop, ict=         31  inpmin=         1800
Top of while loop in read_fhours
32 1860
readloop, ict=         32  inpmin=         1860

```

```

Top of while loop in read_fhours
33 1920
readloop, ict=          33  inpmin=          1920
Top of while loop in read_fhours
34 1980
readloop, ict=          34  inpmin=          1980
Top of while loop in read_fhours
35 2040
readloop, ict=          35  inpmin=          2040
Top of while loop in read_fhours
36 2100
readloop, ict=          36  inpmin=          2100
Top of while loop in read_fhours
37 2160
readloop, ict=          37  inpmin=          2160
Top of while loop in read_fhours
38 2220
readloop, ict=          38  inpmin=          2220
Top of while loop in read_fhours
39 2280
readloop, ict=          39  inpmin=          2280
Top of while loop in read_fhours
40 2340
readloop, ict=          40  inpmin=          2340
Top of while loop in read_fhours
41 2400
readloop, ict=          41  inpmin=          2400
Top of while loop in read_fhours
42 2460
readloop, ict=          42  inpmin=          2460
Top of while loop in read_fhours
43 2520
readloop, ict=          43  inpmin=          2520
Top of while loop in read_fhours
44 2580
readloop, ict=          44  inpmin=          2580
Top of while loop in read_fhours
45 2640
readloop, ict=          45  inpmin=          2640
Top of while loop in read_fhours
46 2700
readloop, ict=          46  inpmin=          2700
Top of while loop in read_fhours
47 2760
readloop, ict=          47  inpmin=          2760
Top of while loop in read_fhours
48 2820
readloop, ict=          48  inpmin=          2820
Top of while loop in read_fhours
49 2880
readloop, ict=          49  inpmin=          2880
Top of while loop in read_fhours
50 2940
readloop, ict=          50  inpmin=          2940
Top of while loop in read_fhours
51 3000
readloop, ict=          51  inpmin=          3000
Top of while loop in read_fhours
52 3060
readloop, ict=          52  inpmin=          3060

```

```

Top of while loop in read_fhours
53 3120
readloop, ict=          53  inpmin=          3120
Top of while loop in read_fhours
54 3180
readloop, ict=          54  inpmin=          3180
Top of while loop in read_fhours
55 3240
readloop, ict=          55  inpmin=          3240
Top of while loop in read_fhours
56 3300
readloop, ict=          56  inpmin=          3300
Top of while loop in read_fhours
57 3360
readloop, ict=          57  inpmin=          3360
Top of while loop in read_fhours
58 3420
readloop, ict=          58  inpmin=          3420
Top of while loop in read_fhours
59 3480
readloop, ict=          59  inpmin=          3480
Top of while loop in read_fhours
60 3540
readloop, ict=          60  inpmin=          3540
Top of while loop in read_fhours
61 3600
readloop, ict=          61  inpmin=          3600
Top of while loop in read_fhours
62 3660
readloop, ict=          62  inpmin=          3660
Top of while loop in read_fhours
63 3720
readloop, ict=          63  inpmin=          3720
Top of while loop in read_fhours
64 3780
readloop, ict=          64  inpmin=          3780
Top of while loop in read_fhours
65 3840
readloop, ict=          65  inpmin=          3840
Top of while loop in read_fhours
66 3900
readloop, ict=          66  inpmin=          3900
Top of while loop in read_fhours
67 3960
readloop, ict=          67  inpmin=          3960
Top of while loop in read_fhours
68 4020
readloop, ict=          68  inpmin=          4020
Top of while loop in read_fhours
69 4080
readloop, ict=          69  inpmin=          4080
Top of while loop in read_fhours
70 4140
readloop, ict=          70  inpmin=          4140
Top of while loop in read_fhours
71 4200
readloop, ict=          71  inpmin=          4200
Top of while loop in read_fhours
72 4260
readloop, ict=          72  inpmin=          4260

```

```

Top of while loop in read_fhours
73 4320
readloop, ict=          73  inpmin=          4320
Top of while loop in read_fhours
74 4380
readloop, ict=          74  inpmin=          4380
Top of while loop in read_fhours
75 4440
readloop, ict=          75  inpmin=          4440
Top of while loop in read_fhours
76 4500
readloop, ict=          76  inpmin=          4500
Top of while loop in read_fhours
77 4560
readloop, ict=          77  inpmin=          4560
Top of while loop in read_fhours
78 4620
readloop, ict=          78  inpmin=          4620
Top of while loop in read_fhours
79 4680
readloop, ict=          79  inpmin=          4680
Top of while loop in read_fhours
80 4740
readloop, ict=          80  inpmin=          4740
Top of while loop in read_fhours
81 4800
readloop, ict=          81  inpmin=          4800
Top of while loop in read_fhours
82 4860
readloop, ict=          82  inpmin=          4860
Top of while loop in read_fhours
83 4920
readloop, ict=          83  inpmin=          4920
Top of while loop in read_fhours
84 4980
readloop, ict=          84  inpmin=          4980
Top of while loop in read_fhours
85 5040
readloop, ict=          85  inpmin=          5040
Top of while loop in read_fhours
86 5100
readloop, ict=          86  inpmin=          5100
Top of while loop in read_fhours
87 5160
readloop, ict=          87  inpmin=          5160
Top of while loop in read_fhours
88 5220
readloop, ict=          88  inpmin=          5220
Top of while loop in read_fhours
89 5280
readloop, ict=          89  inpmin=          5280
Top of while loop in read_fhours
90 5340
readloop, ict=          90  inpmin=          5340
Top of while loop in read_fhours
91 5400
readloop, ict=          91  inpmin=          5400
Top of while loop in read_fhours
92 5460
readloop, ict=          92  inpmin=          5460

```

```

Top of while loop in read_fhours
93 5520
readloop, ict=          93  inpmin=          5520
Top of while loop in read_fhours
94 5580
readloop, ict=          94  inpmin=          5580
Top of while loop in read_fhours
95 5640
readloop, ict=          95  inpmin=          5640
Top of while loop in read_fhours
96 5700
readloop, ict=          96  inpmin=          5700
Top of while loop in read_fhours
97 5760
readloop, ict=          97  inpmin=          5760
Top of while loop in read_fhours
98 5820
readloop, ict=          98  inpmin=          5820
Top of while loop in read_fhours
99 5880
readloop, ict=          99  inpmin=          5880
Top of while loop in read_fhours
100 5940
readloop, ict=         100  inpmin=          5940
Top of while loop in read_fhours
101 6000
readloop, ict=         101  inpmin=          6000
Top of while loop in read_fhours
102 6060
readloop, ict=         102  inpmin=          6060
Top of while loop in read_fhours
103 6120
readloop, ict=         103  inpmin=          6120
Top of while loop in read_fhours
104 6180
readloop, ict=         104  inpmin=          6180
Top of while loop in read_fhours
105 6240
readloop, ict=         105  inpmin=          6240
Top of while loop in read_fhours
106 6300
readloop, ict=         106  inpmin=          6300
Top of while loop in read_fhours
107 6360
readloop, ict=         107  inpmin=          6360
Top of while loop in read_fhours
108 6420
readloop, ict=         108  inpmin=          6420
Top of while loop in read_fhours
109 6480
readloop, ict=         109  inpmin=          6480
Top of while loop in read_fhours
110 6540
readloop, ict=         110  inpmin=          6540
Top of while loop in read_fhours
111 6600
readloop, ict=         111  inpmin=          6600
Top of while loop in read_fhours
112 6660
readloop, ict=         112  inpmin=          6660

```



```

Top of while loop in read_fhours
113 6720
readloop, ict=          113 inpmin=          6720
Top of while loop in read_fhours
114 6780
readloop, ict=          114 inpmin=          6780
Top of while loop in read_fhours
115 6840
readloop, ict=          115 inpmin=          6840
Top of while loop in read_fhours
116 6900
readloop, ict=          116 inpmin=          6900
Top of while loop in read_fhours
117 6960
readloop, ict=          117 inpmin=          6960
Top of while loop in read_fhours
118 7020
readloop, ict=          118 inpmin=          7020
Top of while loop in read_fhours
119 7080
readloop, ict=          119 inpmin=          7080
Top of while loop in read_fhours
120 7140
readloop, ict=          120 inpmin=          7140
Top of while loop in read_fhours
121 7200
readloop, ict=          121 inpmin=          7200
Top of while loop in read_fhours

```

```

i= 1 input lead time index= 1 minutes= 0 real_lead_time=
0.00 clock_lead_time= 0: 0
i= 2 input lead time index= 2 minutes= 60 real_lead_time=
1.00 clock_lead_time= 1: 0
i= 3 input lead time index= 3 minutes= 120 real_lead_time=
2.00 clock_lead_time= 2: 0
i= 4 input lead time index= 4 minutes= 180 real_lead_time=
3.00 clock_lead_time= 3: 0
i= 5 input lead time index= 5 minutes= 240 real_lead_time=
4.00 clock_lead_time= 4: 0
i= 6 input lead time index= 6 minutes= 300 real_lead_time=
5.00 clock_lead_time= 5: 0
i= 7 input lead time index= 7 minutes= 360 real_lead_time=
6.00 clock_lead_time= 6: 0
i= 8 input lead time index= 8 minutes= 420 real_lead_time=
7.00 clock_lead_time= 7: 0
i= 9 input lead time index= 9 minutes= 480 real_lead_time=
8.00 clock_lead_time= 8: 0
i= 10 input lead time index= 10 minutes= 540 real_lead_time=
9.00 clock_lead_time= 9: 0
i= 11 input lead time index= 11 minutes= 600 real_lead_time=
10.00 clock_lead_time= 10: 0
i= 12 input lead time index= 12 minutes= 660 real_lead_time=
11.00 clock_lead_time= 11: 0
i= 13 input lead time index= 13 minutes= 720 real_lead_time=
12.00 clock_lead_time= 12: 0
i= 14 input lead time index= 14 minutes= 780 real_lead_time=
13.00 clock_lead_time= 13: 0
i= 15 input lead time index= 15 minutes= 840 real_lead_time=
14.00 clock_lead_time= 14: 0

```

i= 16	input lead time index=	16 minutes=	900	real_lead_time=
15.00	clock_lead_time=	15: 0		
i= 17	input lead time index=	17 minutes=	960	real_lead_time=
16.00	clock_lead_time=	16: 0		
i= 18	input lead time index=	18 minutes=	1020	real_lead_time=
17.00	clock_lead_time=	17: 0		
i= 19	input lead time index=	19 minutes=	1080	real_lead_time=
18.00	clock_lead_time=	18: 0		
i= 20	input lead time index=	20 minutes=	1140	real_lead_time=
19.00	clock_lead_time=	19: 0		
i= 21	input lead time index=	21 minutes=	1200	real_lead_time=
20.00	clock_lead_time=	20: 0		
i= 22	input lead time index=	22 minutes=	1260	real_lead_time=
21.00	clock_lead_time=	21: 0		
i= 23	input lead time index=	23 minutes=	1320	real_lead_time=
22.00	clock_lead_time=	22: 0		
i= 24	input lead time index=	24 minutes=	1380	real_lead_time=
23.00	clock_lead_time=	23: 0		
i= 25	input lead time index=	25 minutes=	1440	real_lead_time=
24.00	clock_lead_time=	24: 0		
i= 26	input lead time index=	26 minutes=	1500	real_lead_time=
25.00	clock_lead_time=	25: 0		
i= 27	input lead time index=	27 minutes=	1560	real_lead_time=
26.00	clock_lead_time=	26: 0		
i= 28	input lead time index=	28 minutes=	1620	real_lead_time=
27.00	clock_lead_time=	27: 0		
i= 29	input lead time index=	29 minutes=	1680	real_lead_time=
28.00	clock_lead_time=	28: 0		
i= 30	input lead time index=	30 minutes=	1740	real_lead_time=
29.00	clock_lead_time=	29: 0		
i= 31	input lead time index=	31 minutes=	1800	real_lead_time=
30.00	clock_lead_time=	30: 0		
i= 32	input lead time index=	32 minutes=	1860	real_lead_time=
31.00	clock_lead_time=	31: 0		
i= 33	input lead time index=	33 minutes=	1920	real_lead_time=
32.00	clock_lead_time=	32: 0		
i= 34	input lead time index=	34 minutes=	1980	real_lead_time=
33.00	clock_lead_time=	33: 0		
i= 35	input lead time index=	35 minutes=	2040	real_lead_time=
34.00	clock_lead_time=	34: 0		
i= 36	input lead time index=	36 minutes=	2100	real_lead_time=
35.00	clock_lead_time=	35: 0		
i= 37	input lead time index=	37 minutes=	2160	real_lead_time=
36.00	clock_lead_time=	36: 0		
i= 38	input lead time index=	38 minutes=	2220	real_lead_time=
37.00	clock_lead_time=	37: 0		
i= 39	input lead time index=	39 minutes=	2280	real_lead_time=
38.00	clock_lead_time=	38: 0		
i= 40	input lead time index=	40 minutes=	2340	real_lead_time=
39.00	clock_lead_time=	39: 0		
i= 41	input lead time index=	41 minutes=	2400	real_lead_time=
40.00	clock_lead_time=	40: 0		
i= 42	input lead time index=	42 minutes=	2460	real_lead_time=
41.00	clock_lead_time=	41: 0		
i= 43	input lead time index=	43 minutes=	2520	real_lead_time=
42.00	clock_lead_time=	42: 0		
i= 44	input lead time index=	44 minutes=	2580	real_lead_time=
43.00	clock_lead_time=	43: 0		
i= 45	input lead time index=	45 minutes=	2640	real_lead_time=
44.00	clock_lead_time=	44: 0		

i= 46	input lead time index=	46 minutes=	2700	real_lead_time=
45.00	clock_lead_time=	45: 0		
i= 47	input lead time index=	47 minutes=	2760	real_lead_time=
46.00	clock_lead_time=	46: 0		
i= 48	input lead time index=	48 minutes=	2820	real_lead_time=
47.00	clock_lead_time=	47: 0		
i= 49	input lead time index=	49 minutes=	2880	real_lead_time=
48.00	clock_lead_time=	48: 0		
i= 50	input lead time index=	50 minutes=	2940	real_lead_time=
49.00	clock_lead_time=	49: 0		
i= 51	input lead time index=	51 minutes=	3000	real_lead_time=
50.00	clock_lead_time=	50: 0		
i= 52	input lead time index=	52 minutes=	3060	real_lead_time=
51.00	clock_lead_time=	51: 0		
i= 53	input lead time index=	53 minutes=	3120	real_lead_time=
52.00	clock_lead_time=	52: 0		
i= 54	input lead time index=	54 minutes=	3180	real_lead_time=
53.00	clock_lead_time=	53: 0		
i= 55	input lead time index=	55 minutes=	3240	real_lead_time=
54.00	clock_lead_time=	54: 0		
i= 56	input lead time index=	56 minutes=	3300	real_lead_time=
55.00	clock_lead_time=	55: 0		
i= 57	input lead time index=	57 minutes=	3360	real_lead_time=
56.00	clock_lead_time=	56: 0		
i= 58	input lead time index=	58 minutes=	3420	real_lead_time=
57.00	clock_lead_time=	57: 0		
i= 59	input lead time index=	59 minutes=	3480	real_lead_time=
58.00	clock_lead_time=	58: 0		
i= 60	input lead time index=	60 minutes=	3540	real_lead_time=
59.00	clock_lead_time=	59: 0		
i= 61	input lead time index=	61 minutes=	3600	real_lead_time=
60.00	clock_lead_time=	60: 0		
i= 62	input lead time index=	62 minutes=	3660	real_lead_time=
61.00	clock_lead_time=	61: 0		
i= 63	input lead time index=	63 minutes=	3720	real_lead_time=
62.00	clock_lead_time=	62: 0		
i= 64	input lead time index=	64 minutes=	3780	real_lead_time=
63.00	clock_lead_time=	63: 0		
i= 65	input lead time index=	65 minutes=	3840	real_lead_time=
64.00	clock_lead_time=	64: 0		
i= 66	input lead time index=	66 minutes=	3900	real_lead_time=
65.00	clock_lead_time=	65: 0		
i= 67	input lead time index=	67 minutes=	3960	real_lead_time=
66.00	clock_lead_time=	66: 0		
i= 68	input lead time index=	68 minutes=	4020	real_lead_time=
67.00	clock_lead_time=	67: 0		
i= 69	input lead time index=	69 minutes=	4080	real_lead_time=
68.00	clock_lead_time=	68: 0		
i= 70	input lead time index=	70 minutes=	4140	real_lead_time=
69.00	clock_lead_time=	69: 0		
i= 71	input lead time index=	71 minutes=	4200	real_lead_time=
70.00	clock_lead_time=	70: 0		
i= 72	input lead time index=	72 minutes=	4260	real_lead_time=
71.00	clock_lead_time=	71: 0		
i= 73	input lead time index=	73 minutes=	4320	real_lead_time=
72.00	clock_lead_time=	72: 0		
i= 74	input lead time index=	74 minutes=	4380	real_lead_time=
73.00	clock_lead_time=	73: 0		
i= 75	input lead time index=	75 minutes=	4440	real_lead_time=
74.00	clock_lead_time=	74: 0		

i= 76	input lead time index=	76 minutes=	4500	real_lead_time=
75.00	clock_lead_time= 75: 0			
i= 77	input lead time index=	77 minutes=	4560	real_lead_time=
76.00	clock_lead_time= 76: 0			
i= 78	input lead time index=	78 minutes=	4620	real_lead_time=
77.00	clock_lead_time= 77: 0			
i= 79	input lead time index=	79 minutes=	4680	real_lead_time=
78.00	clock_lead_time= 78: 0			
i= 80	input lead time index=	80 minutes=	4740	real_lead_time=
79.00	clock_lead_time= 79: 0			
i= 81	input lead time index=	81 minutes=	4800	real_lead_time=
80.00	clock_lead_time= 80: 0			
i= 82	input lead time index=	82 minutes=	4860	real_lead_time=
81.00	clock_lead_time= 81: 0			
i= 83	input lead time index=	83 minutes=	4920	real_lead_time=
82.00	clock_lead_time= 82: 0			
i= 84	input lead time index=	84 minutes=	4980	real_lead_time=
83.00	clock_lead_time= 83: 0			
i= 85	input lead time index=	85 minutes=	5040	real_lead_time=
84.00	clock_lead_time= 84: 0			
i= 86	input lead time index=	86 minutes=	5100	real_lead_time=
85.00	clock_lead_time= 85: 0			
i= 87	input lead time index=	87 minutes=	5160	real_lead_time=
86.00	clock_lead_time= 86: 0			
i= 88	input lead time index=	88 minutes=	5220	real_lead_time=
87.00	clock_lead_time= 87: 0			
i= 89	input lead time index=	89 minutes=	5280	real_lead_time=
88.00	clock_lead_time= 88: 0			
i= 90	input lead time index=	90 minutes=	5340	real_lead_time=
89.00	clock_lead_time= 89: 0			
i= 91	input lead time index=	91 minutes=	5400	real_lead_time=
90.00	clock_lead_time= 90: 0			
i= 92	input lead time index=	92 minutes=	5460	real_lead_time=
91.00	clock_lead_time= 91: 0			
i= 93	input lead time index=	93 minutes=	5520	real_lead_time=
92.00	clock_lead_time= 92: 0			
i= 94	input lead time index=	94 minutes=	5580	real_lead_time=
93.00	clock_lead_time= 93: 0			
i= 95	input lead time index=	95 minutes=	5640	real_lead_time=
94.00	clock_lead_time= 94: 0			
i= 96	input lead time index=	96 minutes=	5700	real_lead_time=
95.00	clock_lead_time= 95: 0			
i= 97	input lead time index=	97 minutes=	5760	real_lead_time=
96.00	clock_lead_time= 96: 0			
i= 98	input lead time index=	98 minutes=	5820	real_lead_time=
97.00	clock_lead_time= 97: 0			
i= 99	input lead time index=	99 minutes=	5880	real_lead_time=
98.00	clock_lead_time= 98: 0			
i= 100	input lead time index=	100 minutes=	5940	real_lead_time=
99.00	clock_lead_time= 99: 0			
i= 101	input lead time index=	101 minutes=	6000	real_lead_time=
100.00	clock_lead_time= 100: 0			
i= 102	input lead time index=	102 minutes=	6060	real_lead_time=
101.00	clock_lead_time= 101: 0			
i= 103	input lead time index=	103 minutes=	6120	real_lead_time=
102.00	clock_lead_time= 102: 0			
i= 104	input lead time index=	104 minutes=	6180	real_lead_time=
103.00	clock_lead_time= 103: 0			
i= 105	input lead time index=	105 minutes=	6240	real_lead_time=
104.00	clock_lead_time= 104: 0			

```

i= 106 input lead time index= 106 minutes= 6300 real_lead_time=
105.00 clock_lead_time= 105: 0
i= 107 input lead time index= 107 minutes= 6360 real_lead_time=
106.00 clock_lead_time= 106: 0
i= 108 input lead time index= 108 minutes= 6420 real_lead_time=
107.00 clock_lead_time= 107: 0
i= 109 input lead time index= 109 minutes= 6480 real_lead_time=
108.00 clock_lead_time= 108: 0
i= 110 input lead time index= 110 minutes= 6540 real_lead_time=
109.00 clock_lead_time= 109: 0
i= 111 input lead time index= 111 minutes= 6600 real_lead_time=
110.00 clock_lead_time= 110: 0
i= 112 input lead time index= 112 minutes= 6660 real_lead_time=
111.00 clock_lead_time= 111: 0
i= 113 input lead time index= 113 minutes= 6720 real_lead_time=
112.00 clock_lead_time= 112: 0
i= 114 input lead time index= 114 minutes= 6780 real_lead_time=
113.00 clock_lead_time= 113: 0
i= 115 input lead time index= 115 minutes= 6840 real_lead_time=
114.00 clock_lead_time= 114: 0
i= 116 input lead time index= 116 minutes= 6900 real_lead_time=
115.00 clock_lead_time= 115: 0
i= 117 input lead time index= 117 minutes= 6960 real_lead_time=
116.00 clock_lead_time= 116: 0
i= 118 input lead time index= 118 minutes= 7020 real_lead_time=
117.00 clock_lead_time= 117: 0
i= 119 input lead time index= 119 minutes= 7080 real_lead_time=
118.00 clock_lead_time= 118: 0
i= 120 input lead time index= 120 minutes= 7140 real_lead_time=
119.00 clock_lead_time= 119: 0
i= 121 input lead time index= 121 minutes= 7200 real_lead_time=
120.00 clock_lead_time= 120: 0

```

```

+++ TC Vitals file for existing, RSMC-numbered
storms exists and will be opened with unit= lucard= 12

```

```

+++ TC vitals file tcvit_rsmc_storms.txt has
been opened with unit= lucard= 12

```

Following are the storms to be processed:

```

JTWC 26W MANGKHUT 20180912 0000 139N 1362E 0 0 0 0 0 0 0
0 0 0 0
After read_tcv_card, num vitals = 1
2018091200 F000 139N 1362E 26W 20180912 0000 139N 1362E 0 0 0 0
0 0 0 0 0 0 0
After read_gen_vitals, total number of vitals (both TC and non-TC) now =
1

```

```

before open_ncfile call, ncfile=
/scratch/s1/FrancisTam/khlau/WRF-4.1/CTL_5/tracker_input_CTL_5_d01.nc

```

```

after open_ncfile call, ncfile_id= 65536

```

```

in read_netcdf_hours...
ncfile_id= 65536
netcdfinfo%time_name= time
ncfile_tmax= 0
in getgridinfo_netcdf, ncfile_id= 65536

```

```
Num netcdf time levs=  ncfile_tmax=          121
k=          1  netcdf_file_time_values(k)=    0.000000E+00
k=          2  netcdf_file_time_values(k)=     1.000000
k=          3  netcdf_file_time_values(k)=     2.000000
k=          4  netcdf_file_time_values(k)=     3.000000
k=          5  netcdf_file_time_values(k)=     4.000000
k=          6  netcdf_file_time_values(k)=     5.000000
k=          7  netcdf_file_time_values(k)=     6.000000
k=          8  netcdf_file_time_values(k)=     7.000000
k=          9  netcdf_file_time_values(k)=     8.000000
k=         10  netcdf_file_time_values(k)=     9.000000
k=         11  netcdf_file_time_values(k)=    10.000000
k=         12  netcdf_file_time_values(k)=    11.000000
k=         13  netcdf_file_time_values(k)=    12.000000
k=         14  netcdf_file_time_values(k)=    13.000000
k=         15  netcdf_file_time_values(k)=    14.000000
k=         16  netcdf_file_time_values(k)=    15.000000
k=         17  netcdf_file_time_values(k)=    16.000000
k=         18  netcdf_file_time_values(k)=    17.000000
k=         19  netcdf_file_time_values(k)=    18.000000
k=         20  netcdf_file_time_values(k)=    19.000000
k=         21  netcdf_file_time_values(k)=    20.000000
k=         22  netcdf_file_time_values(k)=    21.000000
k=         23  netcdf_file_time_values(k)=    22.000000
k=         24  netcdf_file_time_values(k)=    23.000000
k=         25  netcdf_file_time_values(k)=    24.000000
k=         26  netcdf_file_time_values(k)=    25.000000
k=         27  netcdf_file_time_values(k)=    26.000000
k=         28  netcdf_file_time_values(k)=    27.000000
k=         29  netcdf_file_time_values(k)=    28.000000
k=         30  netcdf_file_time_values(k)=    29.000000
k=         31  netcdf_file_time_values(k)=    30.000000
k=         32  netcdf_file_time_values(k)=    31.000000
k=         33  netcdf_file_time_values(k)=    32.000000
k=         34  netcdf_file_time_values(k)=    33.000000
k=         35  netcdf_file_time_values(k)=    34.000000
k=         36  netcdf_file_time_values(k)=    35.000000
k=         37  netcdf_file_time_values(k)=    36.000000
k=         38  netcdf_file_time_values(k)=    37.000000
k=         39  netcdf_file_time_values(k)=    38.000000
k=         40  netcdf_file_time_values(k)=    39.000000
k=         41  netcdf_file_time_values(k)=    40.000000
k=         42  netcdf_file_time_values(k)=    41.000000
k=         43  netcdf_file_time_values(k)=    42.000000
k=         44  netcdf_file_time_values(k)=    43.000000
k=         45  netcdf_file_time_values(k)=    44.000000
k=         46  netcdf_file_time_values(k)=    45.000000
k=         47  netcdf_file_time_values(k)=    46.000000
k=         48  netcdf_file_time_values(k)=    47.000000
k=         49  netcdf_file_time_values(k)=    48.000000
k=         50  netcdf_file_time_values(k)=    49.000000
k=         51  netcdf_file_time_values(k)=    50.000000
k=         52  netcdf_file_time_values(k)=    51.000000
k=         53  netcdf_file_time_values(k)=    52.000000
k=         54  netcdf_file_time_values(k)=    53.000000
k=         55  netcdf_file_time_values(k)=    54.000000
k=         56  netcdf_file_time_values(k)=    55.000000
k=         57  netcdf_file_time_values(k)=    56.000000
k=         58  netcdf_file_time_values(k)=    57.000000
k=         59  netcdf_file_time_values(k)=    58.000000
```

k=	60	netcdf_file_time_values(k)=	59.00000
k=	61	netcdf_file_time_values(k)=	60.00000
k=	62	netcdf_file_time_values(k)=	61.00000
k=	63	netcdf_file_time_values(k)=	62.00000
k=	64	netcdf_file_time_values(k)=	63.00000
k=	65	netcdf_file_time_values(k)=	64.00000
k=	66	netcdf_file_time_values(k)=	65.00000
k=	67	netcdf_file_time_values(k)=	66.00000
k=	68	netcdf_file_time_values(k)=	67.00000
k=	69	netcdf_file_time_values(k)=	68.00000
k=	70	netcdf_file_time_values(k)=	69.00000
k=	71	netcdf_file_time_values(k)=	70.00000
k=	72	netcdf_file_time_values(k)=	71.00000
k=	73	netcdf_file_time_values(k)=	72.00000
k=	74	netcdf_file_time_values(k)=	73.00000
k=	75	netcdf_file_time_values(k)=	74.00000
k=	76	netcdf_file_time_values(k)=	75.00000
k=	77	netcdf_file_time_values(k)=	76.00000
k=	78	netcdf_file_time_values(k)=	77.00000
k=	79	netcdf_file_time_values(k)=	78.00000
k=	80	netcdf_file_time_values(k)=	79.00000
k=	81	netcdf_file_time_values(k)=	80.00000
k=	82	netcdf_file_time_values(k)=	81.00000
k=	83	netcdf_file_time_values(k)=	82.00000
k=	84	netcdf_file_time_values(k)=	83.00000
k=	85	netcdf_file_time_values(k)=	84.00000
k=	86	netcdf_file_time_values(k)=	85.00000
k=	87	netcdf_file_time_values(k)=	86.00000
k=	88	netcdf_file_time_values(k)=	87.00000
k=	89	netcdf_file_time_values(k)=	88.00000
k=	90	netcdf_file_time_values(k)=	89.00000
k=	91	netcdf_file_time_values(k)=	90.00000
k=	92	netcdf_file_time_values(k)=	91.00000
k=	93	netcdf_file_time_values(k)=	92.00000
k=	94	netcdf_file_time_values(k)=	93.00000
k=	95	netcdf_file_time_values(k)=	94.00000
k=	96	netcdf_file_time_values(k)=	95.00000
k=	97	netcdf_file_time_values(k)=	96.00000
k=	98	netcdf_file_time_values(k)=	97.00000
k=	99	netcdf_file_time_values(k)=	98.00000
k=	100	netcdf_file_time_values(k)=	99.00000
k=	101	netcdf_file_time_values(k)=	100.0000
k=	102	netcdf_file_time_values(k)=	101.0000
k=	103	netcdf_file_time_values(k)=	102.0000
k=	104	netcdf_file_time_values(k)=	103.0000
k=	105	netcdf_file_time_values(k)=	104.0000
k=	106	netcdf_file_time_values(k)=	105.0000
k=	107	netcdf_file_time_values(k)=	106.0000
k=	108	netcdf_file_time_values(k)=	107.0000
k=	109	netcdf_file_time_values(k)=	108.0000
k=	110	netcdf_file_time_values(k)=	109.0000
k=	111	netcdf_file_time_values(k)=	110.0000
k=	112	netcdf_file_time_values(k)=	111.0000
k=	113	netcdf_file_time_values(k)=	112.0000
k=	114	netcdf_file_time_values(k)=	113.0000
k=	115	netcdf_file_time_values(k)=	114.0000
k=	116	netcdf_file_time_values(k)=	115.0000
k=	117	netcdf_file_time_values(k)=	116.0000
k=	118	netcdf_file_time_values(k)=	117.0000
k=	119	netcdf_file_time_values(k)=	118.0000

k=	120	netcdf_file_time_values(k)=	119.0000
k=	121	netcdf_file_time_values(k)=	120.0000
1	netcdf_file_time_values(k)=	0.0000	nctotalmins(k)= 0
2	netcdf_file_time_values(k)=	1.0000	nctotalmins(k)= 60
3	netcdf_file_time_values(k)=	2.0000	nctotalmins(k)= 120
4	netcdf_file_time_values(k)=	3.0000	nctotalmins(k)= 180
5	netcdf_file_time_values(k)=	4.0000	nctotalmins(k)= 240
6	netcdf_file_time_values(k)=	5.0000	nctotalmins(k)= 300
7	netcdf_file_time_values(k)=	6.0000	nctotalmins(k)= 360
8	netcdf_file_time_values(k)=	7.0000	nctotalmins(k)= 420
9	netcdf_file_time_values(k)=	8.0000	nctotalmins(k)= 480
10	netcdf_file_time_values(k)=	9.0000	nctotalmins(k)= 540
11	netcdf_file_time_values(k)=	10.0000	nctotalmins(k)= 600
12	netcdf_file_time_values(k)=	11.0000	nctotalmins(k)= 660
13	netcdf_file_time_values(k)=	12.0000	nctotalmins(k)= 720
14	netcdf_file_time_values(k)=	13.0000	nctotalmins(k)= 780
15	netcdf_file_time_values(k)=	14.0000	nctotalmins(k)= 840
16	netcdf_file_time_values(k)=	15.0000	nctotalmins(k)= 900
17	netcdf_file_time_values(k)=	16.0000	nctotalmins(k)= 960
18	netcdf_file_time_values(k)=	17.0000	nctotalmins(k)= 1020
19	netcdf_file_time_values(k)=	18.0000	nctotalmins(k)= 1080
20	netcdf_file_time_values(k)=	19.0000	nctotalmins(k)= 1140
21	netcdf_file_time_values(k)=	20.0000	nctotalmins(k)= 1200
22	netcdf_file_time_values(k)=	21.0000	nctotalmins(k)= 1260
23	netcdf_file_time_values(k)=	22.0000	nctotalmins(k)= 1320
24	netcdf_file_time_values(k)=	23.0000	nctotalmins(k)= 1380
25	netcdf_file_time_values(k)=	24.0000	nctotalmins(k)= 1440
26	netcdf_file_time_values(k)=	25.0000	nctotalmins(k)= 1500
27	netcdf_file_time_values(k)=	26.0000	nctotalmins(k)= 1560
28	netcdf_file_time_values(k)=	27.0000	nctotalmins(k)= 1620
29	netcdf_file_time_values(k)=	28.0000	nctotalmins(k)= 1680
30	netcdf_file_time_values(k)=	29.0000	nctotalmins(k)= 1740
31	netcdf_file_time_values(k)=	30.0000	nctotalmins(k)= 1800
32	netcdf_file_time_values(k)=	31.0000	nctotalmins(k)= 1860
33	netcdf_file_time_values(k)=	32.0000	nctotalmins(k)= 1920
34	netcdf_file_time_values(k)=	33.0000	nctotalmins(k)= 1980
35	netcdf_file_time_values(k)=	34.0000	nctotalmins(k)= 2040
36	netcdf_file_time_values(k)=	35.0000	nctotalmins(k)= 2100
37	netcdf_file_time_values(k)=	36.0000	nctotalmins(k)= 2160
38	netcdf_file_time_values(k)=	37.0000	nctotalmins(k)= 2220
39	netcdf_file_time_values(k)=	38.0000	nctotalmins(k)= 2280
40	netcdf_file_time_values(k)=	39.0000	nctotalmins(k)= 2340
41	netcdf_file_time_values(k)=	40.0000	nctotalmins(k)= 2400
42	netcdf_file_time_values(k)=	41.0000	nctotalmins(k)= 2460
43	netcdf_file_time_values(k)=	42.0000	nctotalmins(k)= 2520
44	netcdf_file_time_values(k)=	43.0000	nctotalmins(k)= 2580
45	netcdf_file_time_values(k)=	44.0000	nctotalmins(k)= 2640
46	netcdf_file_time_values(k)=	45.0000	nctotalmins(k)= 2700
47	netcdf_file_time_values(k)=	46.0000	nctotalmins(k)= 2760
48	netcdf_file_time_values(k)=	47.0000	nctotalmins(k)= 2820
49	netcdf_file_time_values(k)=	48.0000	nctotalmins(k)= 2880
50	netcdf_file_time_values(k)=	49.0000	nctotalmins(k)= 2940
51	netcdf_file_time_values(k)=	50.0000	nctotalmins(k)= 3000
52	netcdf_file_time_values(k)=	51.0000	nctotalmins(k)= 3060
53	netcdf_file_time_values(k)=	52.0000	nctotalmins(k)= 3120
54	netcdf_file_time_values(k)=	53.0000	nctotalmins(k)= 3180
55	netcdf_file_time_values(k)=	54.0000	nctotalmins(k)= 3240
56	netcdf_file_time_values(k)=	55.0000	nctotalmins(k)= 3300
57	netcdf_file_time_values(k)=	56.0000	nctotalmins(k)= 3360
58	netcdf_file_time_values(k)=	57.0000	nctotalmins(k)= 3420

59	netcdf_file_time_values(k) =	58.0000	nctotalmins(k) =	3480
60	netcdf_file_time_values(k) =	59.0000	nctotalmins(k) =	3540
61	netcdf_file_time_values(k) =	60.0000	nctotalmins(k) =	3600
62	netcdf_file_time_values(k) =	61.0000	nctotalmins(k) =	3660
63	netcdf_file_time_values(k) =	62.0000	nctotalmins(k) =	3720
64	netcdf_file_time_values(k) =	63.0000	nctotalmins(k) =	3780
65	netcdf_file_time_values(k) =	64.0000	nctotalmins(k) =	3840
66	netcdf_file_time_values(k) =	65.0000	nctotalmins(k) =	3900
67	netcdf_file_time_values(k) =	66.0000	nctotalmins(k) =	3960
68	netcdf_file_time_values(k) =	67.0000	nctotalmins(k) =	4020
69	netcdf_file_time_values(k) =	68.0000	nctotalmins(k) =	4080
70	netcdf_file_time_values(k) =	69.0000	nctotalmins(k) =	4140
71	netcdf_file_time_values(k) =	70.0000	nctotalmins(k) =	4200
72	netcdf_file_time_values(k) =	71.0000	nctotalmins(k) =	4260
73	netcdf_file_time_values(k) =	72.0000	nctotalmins(k) =	4320
74	netcdf_file_time_values(k) =	73.0000	nctotalmins(k) =	4380
75	netcdf_file_time_values(k) =	74.0000	nctotalmins(k) =	4440
76	netcdf_file_time_values(k) =	75.0000	nctotalmins(k) =	4500
77	netcdf_file_time_values(k) =	76.0000	nctotalmins(k) =	4560
78	netcdf_file_time_values(k) =	77.0000	nctotalmins(k) =	4620
79	netcdf_file_time_values(k) =	78.0000	nctotalmins(k) =	4680
80	netcdf_file_time_values(k) =	79.0000	nctotalmins(k) =	4740
81	netcdf_file_time_values(k) =	80.0000	nctotalmins(k) =	4800
82	netcdf_file_time_values(k) =	81.0000	nctotalmins(k) =	4860
83	netcdf_file_time_values(k) =	82.0000	nctotalmins(k) =	4920
84	netcdf_file_time_values(k) =	83.0000	nctotalmins(k) =	4980
85	netcdf_file_time_values(k) =	84.0000	nctotalmins(k) =	5040
86	netcdf_file_time_values(k) =	85.0000	nctotalmins(k) =	5100
87	netcdf_file_time_values(k) =	86.0000	nctotalmins(k) =	5160
88	netcdf_file_time_values(k) =	87.0000	nctotalmins(k) =	5220
89	netcdf_file_time_values(k) =	88.0000	nctotalmins(k) =	5280
90	netcdf_file_time_values(k) =	89.0000	nctotalmins(k) =	5340
91	netcdf_file_time_values(k) =	90.0000	nctotalmins(k) =	5400
92	netcdf_file_time_values(k) =	91.0000	nctotalmins(k) =	5460
93	netcdf_file_time_values(k) =	92.0000	nctotalmins(k) =	5520
94	netcdf_file_time_values(k) =	93.0000	nctotalmins(k) =	5580
95	netcdf_file_time_values(k) =	94.0000	nctotalmins(k) =	5640
96	netcdf_file_time_values(k) =	95.0000	nctotalmins(k) =	5700
97	netcdf_file_time_values(k) =	96.0000	nctotalmins(k) =	5760
98	netcdf_file_time_values(k) =	97.0000	nctotalmins(k) =	5820
99	netcdf_file_time_values(k) =	98.0000	nctotalmins(k) =	5880
100	netcdf_file_time_values(k) =	99.0000	nctotalmins(k) =	5940
101	netcdf_file_time_values(k) =	100.0000	nctotalmins(k) =	6000
102	netcdf_file_time_values(k) =	101.0000	nctotalmins(k) =	6060
103	netcdf_file_time_values(k) =	102.0000	nctotalmins(k) =	6120
104	netcdf_file_time_values(k) =	103.0000	nctotalmins(k) =	6180
105	netcdf_file_time_values(k) =	104.0000	nctotalmins(k) =	6240
106	netcdf_file_time_values(k) =	105.0000	nctotalmins(k) =	6300
107	netcdf_file_time_values(k) =	106.0000	nctotalmins(k) =	6360
108	netcdf_file_time_values(k) =	107.0000	nctotalmins(k) =	6420
109	netcdf_file_time_values(k) =	108.0000	nctotalmins(k) =	6480
110	netcdf_file_time_values(k) =	109.0000	nctotalmins(k) =	6540
111	netcdf_file_time_values(k) =	110.0000	nctotalmins(k) =	6600
112	netcdf_file_time_values(k) =	111.0000	nctotalmins(k) =	6660
113	netcdf_file_time_values(k) =	112.0000	nctotalmins(k) =	6720
114	netcdf_file_time_values(k) =	113.0000	nctotalmins(k) =	6780
115	netcdf_file_time_values(k) =	114.0000	nctotalmins(k) =	6840
116	netcdf_file_time_values(k) =	115.0000	nctotalmins(k) =	6900
117	netcdf_file_time_values(k) =	116.0000	nctotalmins(k) =	6960
118	netcdf_file_time_values(k) =	117.0000	nctotalmins(k) =	7020

```
119 netcdf_file_time_values(k)= 118.0000 nctotalmins(k)= 7080
120 netcdf_file_time_values(k)= 119.0000 nctotalmins(k)= 7140
121 netcdf_file_time_values(k)= 120.0000 nctotalmins(k)= 7200
+++ Time match for usertime= 0
```

```
+++ For the input NetCDF file, an hour0 data
record exists in the data file.
```

```
+++ Time match for usertime= 60
+++ Time match for usertime= 120
+++ Time match for usertime= 180
+++ Time match for usertime= 240
+++ Time match for usertime= 300
+++ Time match for usertime= 360
+++ Time match for usertime= 420
+++ Time match for usertime= 480
+++ Time match for usertime= 540
+++ Time match for usertime= 600
+++ Time match for usertime= 660
+++ Time match for usertime= 720
+++ Time match for usertime= 780
+++ Time match for usertime= 840
+++ Time match for usertime= 900
+++ Time match for usertime= 960
+++ Time match for usertime= 1020
+++ Time match for usertime= 1080
+++ Time match for usertime= 1140
+++ Time match for usertime= 1200
+++ Time match for usertime= 1260
+++ Time match for usertime= 1320
+++ Time match for usertime= 1380
+++ Time match for usertime= 1440
+++ Time match for usertime= 1500
+++ Time match for usertime= 1560
+++ Time match for usertime= 1620
+++ Time match for usertime= 1680
+++ Time match for usertime= 1740
+++ Time match for usertime= 1800
+++ Time match for usertime= 1860
+++ Time match for usertime= 1920
+++ Time match for usertime= 1980
+++ Time match for usertime= 2040
+++ Time match for usertime= 2100
+++ Time match for usertime= 2160
+++ Time match for usertime= 2220
+++ Time match for usertime= 2280
+++ Time match for usertime= 2340
+++ Time match for usertime= 2400
+++ Time match for usertime= 2460
+++ Time match for usertime= 2520
+++ Time match for usertime= 2580
+++ Time match for usertime= 2640
+++ Time match for usertime= 2700
+++ Time match for usertime= 2760
+++ Time match for usertime= 2820
+++ Time match for usertime= 2880
+++ Time match for usertime= 2940
+++ Time match for usertime= 3000
+++ Time match for usertime= 3060
+++ Time match for usertime= 3120
+++ Time match for usertime= 3180
```

+++ Time match for usertime=	3240
+++ Time match for usertime=	3300
+++ Time match for usertime=	3360
+++ Time match for usertime=	3420
+++ Time match for usertime=	3480
+++ Time match for usertime=	3540
+++ Time match for usertime=	3600
+++ Time match for usertime=	3660
+++ Time match for usertime=	3720
+++ Time match for usertime=	3780
+++ Time match for usertime=	3840
+++ Time match for usertime=	3900
+++ Time match for usertime=	3960
+++ Time match for usertime=	4020
+++ Time match for usertime=	4080
+++ Time match for usertime=	4140
+++ Time match for usertime=	4200
+++ Time match for usertime=	4260
+++ Time match for usertime=	4320
+++ Time match for usertime=	4380
+++ Time match for usertime=	4440
+++ Time match for usertime=	4500
+++ Time match for usertime=	4560
+++ Time match for usertime=	4620
+++ Time match for usertime=	4680
+++ Time match for usertime=	4740
+++ Time match for usertime=	4800
+++ Time match for usertime=	4860
+++ Time match for usertime=	4920
+++ Time match for usertime=	4980
+++ Time match for usertime=	5040
+++ Time match for usertime=	5100
+++ Time match for usertime=	5160
+++ Time match for usertime=	5220
+++ Time match for usertime=	5280
+++ Time match for usertime=	5340
+++ Time match for usertime=	5400
+++ Time match for usertime=	5460
+++ Time match for usertime=	5520
+++ Time match for usertime=	5580
+++ Time match for usertime=	5640
+++ Time match for usertime=	5700
+++ Time match for usertime=	5760
+++ Time match for usertime=	5820
+++ Time match for usertime=	5880
+++ Time match for usertime=	5940
+++ Time match for usertime=	6000
+++ Time match for usertime=	6060
+++ Time match for usertime=	6120
+++ Time match for usertime=	6180
+++ Time match for usertime=	6240
+++ Time match for usertime=	6300
+++ Time match for usertime=	6360
+++ Time match for usertime=	6420
+++ Time match for usertime=	6480
+++ Time match for usertime=	6540
+++ Time match for usertime=	6600
+++ Time match for usertime=	6660
+++ Time match for usertime=	6720
+++ Time match for usertime=	6780

```
+++ Time match for usertime=      6840
+++ Time match for usertime=      6900
+++ Time match for usertime=      6960
+++ Time match for usertime=      7020
+++ Time match for usertime=      7080
+++ Time match for usertime=      7140
+++ Time match for usertime=      7200
top of tracker, ifh=                1  ifhmax=                121
```

```
*-----*
*   New forecast hour:    0:00
*-----*
in getgridinfo_netcdf, ncfile_id=    65536
```

```
In getgridinfo, grid dimensions follow:
imax=      409  jmax=      349
dx=      0.1722946  dy=      0.1621475
```

```
DX:  midi=  204 dx=  0.1723
DY:  midj=  174 dy=  0.1621
```

```
Data Grid Lat/Lon boundaries follow:
Min Lat:  -9.516  Min Lon:  92.852
Max Lat:   44.929  Max Lon: 163.148
TEST after getgridinfo in sub tracker, iggret=      0
in beginning of tracker, imax=      409  jmax=      349
TIMING: b4 getdata ... 14:39:29
```

```
NOTE: Program is now in subroutine  getdata_netcdf.
+++ Time match in getdata_netcdf for usertime=      0
    netcdf file index= ncix=      1
+++ NetCDF read requested for parm #      1 ... parm=
ABS_VORTICITY_850
```

```
In get_var3_tlev_double, ifh=      1
                        ltix(ifh)=  1
```

```
After read, parm= ABS_VORTICITY_850      ifh=      1
lead time index=      1  parm# (ip) =      1  ncix=
1
  igvret=      0
parmread lead time      parm#      parm_id      minval      maxval
  0:00      1      ABS_VORTICITY_850      -
0.2102E-03  0.1908E-02
+++ NetCDF read requested for parm #      2 ... parm=
ABS_VORTICITY_700
```

```
In get_var3_tlev_double, ifh=      1
                        ltix(ifh)=  1
```

```
After read, parm= ABS_VORTICITY_700      ifh=      1
lead time index=      1  parm# (ip) =      2  ncix=
1
  igvret=      0
parmread lead time      parm#      parm_id      minval      maxval
  0:00      2      ABS_VORTICITY_700      -
0.2345E-03  0.1694E-02
+++ NetCDF read requested for parm #      3 ... parm=
U_850
```

```

In get_var3_tlev_double, ifh=          1
                        ltix(ifh)=      1

After read, parm= U_850                ifh=          1
lead time index=          1 parm# (ip) =          3 ncix=
1
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  0:00                3          U_850
57.96      0.1000E+21
+++ NetCDF read requested for parm #          4 ... parm=
V_850

In get_var3_tlev_double, ifh=          1
                        ltix(ifh)=      1

After read, parm= V_850                ifh=          1
lead time index=          1 parm# (ip) =          4 ncix=
1
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  0:00                4          V_850
47.09      0.1000E+21
+++ NetCDF read requested for parm #          5 ... parm=
U_700

In get_var3_tlev_double, ifh=          1
                        ltix(ifh)=      1

After read, parm= U_700                ifh=          1
lead time index=          1 parm# (ip) =          5 ncix=
1
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  0:00                5          U_700
52.54      0.1000E+21
+++ NetCDF read requested for parm #          6 ... parm=
V_700

In get_var3_tlev_double, ifh=          1
                        ltix(ifh)=      1

After read, parm= V_700                ifh=          1
lead time index=          1 parm# (ip) =          6 ncix=
1
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  0:00                6          V_700
42.68      0.1000E+21
+++ NetCDF read requested for parm #          7 ... parm=
Z_850

In get_var3_tlev_double, ifh=          1
                        ltix(ifh)=      1

After read, parm= Z_850                ifh=          1
lead time index=          1 parm# (ip) =          7 ncix=
1
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval

```

```

0:00          7          Z_850
1074.      0.1000E+21
+++ NetCDF read requested for parm #      8 ... parm=
Z_700

In get_var3_tlev_double, ifh=      1
                           ltix(ifh)=      1

After read, parm= Z_700          ifh=      1
lead time index=      1 parm# (ip) =      8 ncix=
1
igvret=      0
parmread lead time      parm#      parm_id      minval      maxval
0:00          8          Z_700
2751.      0.1000E+21
+++ NetCDF read requested for parm #      9 ... parm=
slp

In get_var3_tlev_double, ifh=      1
                           ltix(ifh)=      1

After read, parm= slp          ifh=      1
lead time index=      1 parm# (ip) =      9 ncix=
1
igvret=      0
parmread lead time      parm#      parm_id      minval      maxval
0:00          9          slp
0.9601E+05  0.1029E+06
+++ NetCDF read requested for parm #      10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=      1
                           ltix(ifh)=      1

After read, parm= u_10m_gr          ifh=      1
lead time index=      1 parm# (ip) =      10 ncix=
1
igvret=      0
parmread lead time      parm#      parm_id      minval      maxval
0:00          10          u_10m_gr      -
33.63      28.06
+++ NetCDF read requested for parm #      11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=      1
                           ltix(ifh)=      1

After read, parm= v_10m_gr          ifh=      1
lead time index=      1 parm# (ip) =      11 ncix=
1
igvret=      0
parmread lead time      parm#      parm_id      minval      maxval
0:00          11          v_10m_gr      -
31.80      27.41
+++ NetCDF read requested for parm #      12 ... parm=
U_500

In get_var3_tlev_double, ifh=      1
                           ltix(ifh)=      1

```

```

After read, parm= U_500          ifh=          1
lead time index=          1 parm# (ip) =          12 ncix=
1
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  0:00          12          U_500
44.66          31.47
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=          1
                        ltix(ifh)=          1

After read, parm= V_500          ifh=          1
lead time index=          1 parm# (ip) =          13 ncix=
1
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  0:00          13          V_500
37.48          37.60
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15 ... parm=
Z_500

In get_var3_tlev_double, ifh=          1
                        ltix(ifh)=          1

After read, parm= Z_500          ifh=          1
lead time index=          1 parm# (ip) =          15 ncix=
1
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  0:00          15          Z_500
5551.          5926.
+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=          1
                        ltix(ifh)=          1

After read, parm= Z_200          ifh=          1
lead time index=          1 parm# (ip) =          16 ncix=
1
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  0:00          16          Z_200
0.1187E+05  0.1255E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:39:30

Of          17 readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =          38316.57          dlat_inter =
          36059.95
-----
|          *** TOP OF STORM LOOP ***
| Beginning of storm loop in tracker for
| Storm number          1
| Forecast hour:          0:00
| Storm name = MANGKHUT

```

| Storm ID = 26W
Gen ID (if available): 2018091200_F000_139N_1362E_26W

--- --- ---
Now calling find_maxmin for zeta at 850 mb

At beg of find_maxmin, rads= 200.0000 re= 75.00000 ri=
150.0000 cparm= zeta dx= 0.1722946 dy= 0.1621475

Beginning of get_ij_bounds...
geslat= 13.90000 geslon= 136.2000

+++ Near top of get_ij_bounds,
+++ geslat= 13.90000 geslon= 136.2000
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 22
+++ jlatfix= 192
+++ jbeg= 170 jend= 214
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 21 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 253
+++ (orig) ibeg= 232 iend= 274
+++

guesslon= 136.200E (223.800W) guesslat= 13.900
ilonfix= 253 jlatfix= 192 npts= 10
ibeg= 232 jbeg= 170 imax= 409
iend= 274 jend= 214 jmax= 349
TIMING: find_maxmin 1 14:39:30

After 1st findmax loop, # calls to barnes = 24
Total # of barnes loop iterations = 3168
!!! Zeta check, fmax= 9.3605334E-04 fmin= 1.0000000E+12
After first run, ctlon= 223.466W ctlat= 13.566 fmax (x10e5) =
0.936E+02 fmin (x10e5) = 0.100E+18

Beginning of get_ij_bounds...
geslat= 13.56556 geslon= 136.5344

+++ Near top of get_ij_bounds,
+++ geslat= 13.56556 geslon= 136.5344
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 2
+++ npts= 5
+++ jhlatpts= 5 jripts= 9
+++ jbmaxlatpts= 14
+++ jlatfix= 194
+++ jbeg= 180 jend= 208
+++ rdeg= 0.6270790 ri= 150.0000 cosfac= 0.9721022


```
+++ dtr= 1.7453292E-02 dtk= 111.1949 dlon= 1.387697
+++ ibmaxlonpts= 16 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 255
+++ (orig) ibeg= 239 iend= 271
+++
```

After first pass through barnes, re and ri have NOT been changed. re = 75.00000 ri = 150.0000
TIMING: find_maxmin kloop, k= 1 14:39:30

```
find_maxmin nhalf loop, cparm= zeta k= 1
guesslon= 136.534E ( 223.466W) guesslat= 13.566
ilonfix= 255 jlatfix= 194 npts= 5
ibeg= 239 jbeg= 180 imax= 409
iend= 271 jend= 208 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 1 ctlon= 223.549W ctlat= 13.315 fmax (x10e5) =
0.878E+02 fmin (x10e5) = 0.100E+21
TIMING: find_maxmin kloop, k= 2 14:39:30
```

```
find_maxmin nhalf loop, cparm= zeta k= 2
guesslon= 136.451E ( 223.549W) guesslat= 13.315
ilonfix= 255 jlatfix= 194 npts= 5
ibeg= 239 jbeg= 180 imax= 409
iend= 271 jend= 208 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 2 ctlon= 223.758W ctlat= 13.273 fmax (x10e5) =
0.911E+02 fmin (x10e5) = 0.100E+21
```

ppp after 2nd findmax loop, # calls to barnes = 72
ppp Total # of barnes loop iterations = 18360

--- --- ---
Now calling find_maxmin for zeta at 700 mb

```
At beg of find_maxmin, rads= 200.0000 re= 75.00000 ri=
150.0000 cparm= zeta dx= 0.1722946 dy= 0.1621475
```

Beginning of get_ij_bounds...
geslat= 13.90000 geslon= 136.2000

```
+++ Near top of get_ij_bounds,
+++ geslat= 13.90000 geslon= 136.2000
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 22
+++ jlatfix= 192
+++ jbeg= 170 jend= 214
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 21 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 253
+++ (orig) ibeg= 232 iend= 274
+++
```

```
guesslon= 136.200E ( 223.800W) guesslat= 13.900
```

ilonfix= 253 jlatfix= 192 npts= 10
ibeg= 232 jbeg= 170 imax= 409
iend= 274 jend= 214 jmax= 349
TIMING: find_maxmin 1 14:39:30

After 1st findmax loop, # calls to barnes = 24
Total # of barnes loop iterations = 3168
!!! Zeta check, fmax= 8.2039321E-04 fmin= 1.0000000E+12
After first run, ctlon= 223.466W ctlat= 13.566 fmax (x10e5) =
0.820E+02 fmin (x10e5) = 0.100E+18

Beginning of get_ij_bounds...
geslat= 13.56556 geslon= 136.5344

+++ Near top of get_ij_bounds,
+++ geslat= 13.56556 geslon= 136.5344
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 2
+++ npts= 5
+++ jhlatpts= 5 jripts= 9
+++ jbmaxlatpts= 14
+++ jlatfix= 194
+++ jbeg= 180 jend= 208
+++ rdeg= 0.6270790 ri= 150.0000 cosfac= 0.9721022
+++ dtr= 1.7453292E-02 dtk= 111.1949 dlon= 1.387697
+++ ibmaxlonpts= 16 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 255
+++ (orig) ibeg= 239 iend= 271
+++

After first pass through barnes, re and ri have NOT
been changed. re = 75.00000 ri = 150.0000
TIMING: find_maxmin kloop, k= 1 14:39:30

find_maxmin nhalf loop, cparm= zeta k= 1
guesslon= 136.534E (223.466W) guesslat= 13.566
ilonfix= 255 jlatfix= 194 npts= 5
ibeg= 239 jbeg= 180 imax= 409
iend= 271 jend= 208 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 1 ctlon= 223.884W ctlat= 13.315 fmax (x10e5) =
0.850E+02 fmin (x10e5) = 0.100E+21
TIMING: find_maxmin kloop, k= 2 14:39:30

find_maxmin nhalf loop, cparm= zeta k= 2
guesslon= 136.116E (223.884W) guesslat= 13.315
ilonfix= 255 jlatfix= 194 npts= 5
ibeg= 239 jbeg= 180 imax= 409
iend= 271 jend= 208 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 2 ctlon= 223.758W ctlat= 13.273 fmax (x10e5) =
0.908E+02 fmin (x10e5) = 0.100E+21

ppp after 2nd findmax loop, # calls to barnes = 72
ppp Total # of barnes loop iterations = 18360

--- --- ---

Now calling find_maxmin for hgt at 850 mb

At beg of find_maxmin, rads= 200.0000 re= 75.00000 ri=
150.0000 cparm= hgt dx= 0.1722946 dy= 0.1621475

Beginning of get_ij_bounds...

geslat= 13.90000 geslon= 136.2000

```
+++ Near top of get_ij_bounds,  
+++ geslat= 13.90000 geslon= 136.2000  
+++ rglatmax= 44.92863 rglatmin= -9.516106  
+++ rglonmax= 163.1479 rglonmin= 92.85205  
+++ imax= 409 jmax= 349  
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0  
+++ npts= 10  
+++ nhalf<=0 so jhlatpts and jripts unused  
+++ jbmaxlatpts= 22  
+++ jlatfix= 192  
+++ jbeg= 170 jend= 214  
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused  
+++ ibmaxlonpts= 21 dx= 0.1722946 dy= 0.1621475  
+++ (orig) ilonfix= 253  
+++ (orig) ibeg= 232 iend= 274  
+++
```

guesslon= 136.200E (223.800W) guesslat= 13.900
ilonfix= 253 jlatfix= 192 npts= 10
ibeg= 232 jbeg= 170 imax= 409
iend= 274 jend= 214 jmax= 349
TIMING: find_maxmin 1 14:39:30

After 1st findmax loop, # calls to barnes = 24
Total # of barnes loop iterations = 3168
After first run, ctlon= 224.134W ctlat= 12.228 fmax = -
0.100E+13 fmin = 0.000E+00

Beginning of get_ij_bounds...

geslat= 12.22779 geslon= 135.8656

```
+++ Near top of get_ij_bounds,  
+++ geslat= 12.22779 geslon= 135.8656  
+++ rglatmax= 44.92863 rglatmin= -9.516106  
+++ rglonmax= 163.1479 rglonmin= 92.85205  
+++ imax= 409 jmax= 349  
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 2  
+++ npts= 5  
+++ jhlatpts= 5 jripts= 9  
+++ jbmaxlatpts= 14  
+++ jlatfix= 202  
+++ jbeg= 188 jend= 216  
+++ rdeg= 0.6270790 ri= 150.0000 cosfac= 0.9773133  
+++ dtr= 1.7453292E-02 dtk= 111.1949 dlon= 1.380297  
+++ ibmaxlonpts= 16 dx= 0.1722946 dy= 0.1621475  
+++ (orig) ilonfix= 251  
+++ (orig) ibeg= 235 iend= 267  
+++
```

After first pass through barnes, re and ri have NOT

been changed. re = 75.00000 ri = 150.0000
TIMING: find_maxmin kloop, k= 1 14:39:30

find_maxmin nhalf loop, cparm= hgt k= 1
guesslon= 135.866E (224.134W) guesslat= 12.228
ilonfix= 251 jlatfix= 202 npts= 5
ibeg= 235 jbeg= 188 imax= 409
iend= 267 jend= 216 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 1 ctlon= 224.552W ctlat= 11.810 fmax = -
0.100E+16 fmin = 0.000E+00
TIMING: find_maxmin kloop, k= 2 14:39:30

find_maxmin nhalf loop, cparm= hgt k= 2
guesslon= 135.448E (224.552W) guesslat= 11.810
ilonfix= 251 jlatfix= 202 npts= 5
ibeg= 235 jbeg= 188 imax= 409
iend= 267 jend= 216 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 2 ctlon= 224.762W ctlat= 11.601 fmax = -
0.100E+16 fmin = 0.000E+00

ppp after 2nd findmax loop, # calls to barnes = 72
ppp Total # of barnes loop iterations = 18360

--- --- ---

Now calling find_maxmin for hgt at 700 mb

At beg of find_maxmin, rads= 200.0000 re= 75.00000 ri=
150.0000 cparm= hgt dx= 0.1722946 dy= 0.1621475

Beginning of get_ij_bounds...

geslat= 13.90000 geslon= 136.2000

+++ Near top of get_ij_bounds,
+++ geslat= 13.90000 geslon= 136.2000
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jmaxlatpts= 22
+++ jlatfix= 192
+++ jbeg= 170 jend= 214
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 21 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 253
+++ (orig) ibeg= 232 iend= 274
+++

guesslon= 136.200E (223.800W) guesslat= 13.900
ilonfix= 253 jlatfix= 192 npts= 10
ibeg= 232 jbeg= 170 imax= 409
iend= 274 jend= 214 jmax= 349
TIMING: find_maxmin 1 14:39:30

After 1st findmax loop, # calls to barnes = 24
Total # of barnes loop iterations = 3168

After first run, ctlon= 224.134W ctlat= 12.228 fmax = -
0.100E+13 fmin = 0.000E+00

Beginning of get_ij_bounds...

geslat= 12.22779 geslon= 135.8656

```
+++ Near top of get_ij_bounds,
+++ geslat= 12.22779 geslon= 135.8656
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 2
+++ npts= 5
+++ jhlatpts= 5 jripts= 9
+++ jbmaxlatpts= 14
+++ jlatfix= 202
+++ jbeg= 188 jend= 216
+++ rdeg= 0.6270790 ri= 150.0000 cosfac= 0.9773133
+++ dtr= 1.7453292E-02 dtk= 111.1949 dlon= 1.380297
+++ ibmaxlonpts= 16 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 251
+++ (orig) ibeg= 235 iend= 267
+++
```

After first pass through barnes, re and ri have NOT
been changed. re = 75.00000 ri = 150.0000
TIMING: find_maxmin kloop, k= 1 14:39:30

```
find_maxmin nhalf loop, cparm= hgt k= 1
guesslon= 135.866E ( 224.134W) guesslat= 12.228
ilonfix= 251 jlatfix= 202 npts= 5
ibeg= 235 jbeg= 188 imax= 409
iend= 267 jend= 216 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 1 ctlon= 224.552W ctlat= 11.810 fmax = -
0.100E+16 fmin = 0.000E+00
TIMING: find_maxmin kloop, k= 2 14:39:30
```

```
find_maxmin nhalf loop, cparm= hgt k= 2
guesslon= 135.448E ( 224.552W) guesslat= 11.810
ilonfix= 251 jlatfix= 202 npts= 5
ibeg= 235 jbeg= 188 imax= 409
iend= 267 jend= 216 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 2 ctlon= 224.762W ctlat= 11.601 fmax = -
0.100E+16 fmin = 0.000E+00
```

ppp after 2nd findmax loop, # calls to barnes = 72
ppp Total # of barnes loop iterations = 18360

--- --- ---

Now calling find_maxmin for mslp

At beg of find_maxmin, rads= 200.0000 re= 75.00000 ri=
150.0000 cparm= slp dx= 0.1722946 dy= 0.1621475

Beginning of get_ij_bounds...

geslat= 13.90000 geslon= 136.2000

```

+++ Near top of get_ij_bounds,
+++ geslat= 13.90000 geslon= 136.2000
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 22
+++ jlatfix= 192
+++ jbeg= 170 jend= 214
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 21 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 253
+++ (orig) ibeg= 232 iend= 274
+++

```

```

guesslon= 136.200E ( 223.800W) guesslat= 13.900
ilonfix= 253 jlatfix= 192 npts= 10
ibeg= 232 jbeg= 170 imax= 409
iend= 274 jend= 214 jmax= 349
TIMING: find_maxmin 1 14:39:30

```

```

After 1st findmax loop, # calls to barnes = 24
Total # of barnes loop iterations = 3168
After first run, ctlon= 224.134W ctlat= 12.228 fmax = -
0.100E+13 fmin = 0.000E+00

```

```

Beginning of get_ij_bounds...
geslat= 12.22779 geslon= 135.8656

```

```

+++ Near top of get_ij_bounds,
+++ geslat= 12.22779 geslon= 135.8656
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 2
+++ npts= 5
+++ jhlatpts= 5 jripts= 9
+++ jbmaxlatpts= 14
+++ jlatfix= 202
+++ jbeg= 188 jend= 216
+++ rdeg= 0.6270790 ri= 150.0000 cosfac= 0.9773133
+++ dtr= 1.7453292E-02 dtk= 111.1949 dlon= 1.380297
+++ ibmaxlonpts= 16 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 251
+++ (orig) ibeg= 235 iend= 267
+++

```

```

After first pass through barnes, re and ri have NOT
been changed. re = 75.00000 ri = 150.0000
TIMING: find_maxmin kloop, k= 1 14:39:30

```

```

find_maxmin nhalf loop, cparm= slp k= 1
guesslon= 135.866E ( 224.134W) guesslat= 12.228
ilonfix= 251 jlatfix= 202 npts= 5
ibeg= 235 jbeg= 188 imax= 409
iend= 267 jend= 216 jmax= 349

```

nhalf= 2 iskip= 2
nhalf findmax, k= 1 ctlon= 224.552W ctlat= 11.810 fmax = -
0.100E+16 fmin = 0.000E+00
TIMING: find_maxmin kloop, k= 2 14:39:30

find_maxmin nhalf loop, cparm= slp k= 2
guesslon= 135.448E (224.552W) guesslat= 11.810
ilonfix= 251 jlatfix= 202 npts= 5
ibeg= 235 jbeg= 188 imax= 409
iend= 267 jend= 216 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 2 ctlon= 224.762W ctlat= 11.601 fmax = -
0.100E+16 fmin = 0.000E+00

ppp after 2nd findmax loop, # calls to barnes = 72
ppp Total # of barnes loop iterations = 18360

--- --- ---
Now calling find_maxmin for sfc zeta

At beg of find_maxmin, rads= 200.0000 re= 75.00000 ri=
150.0000 cparm= zeta dx= 0.1722946 dy= 0.1621475

Beginning of get_ij_bounds...
geslat= 13.90000 geslon= 136.2000

+++ Near top of get_ij_bounds,
+++ geslat= 13.90000 geslon= 136.2000
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 22
+++ jlatfix= 192
+++ jbeg= 170 jend= 214
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 21 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 253
+++ (orig) ibeg= 232 iend= 274
+++

guesslon= 136.200E (223.800W) guesslat= 13.900
ilonfix= 253 jlatfix= 192 npts= 10
ibeg= 232 jbeg= 170 imax= 409
iend= 274 jend= 214 jmax= 349
TIMING: find_maxmin 1 14:39:30

After 1st findmax loop, # calls to barnes = 24
Total # of barnes loop iterations = 3168
!!! Zeta check, fmax= 4.5888554E-04 fmin= 1.0000000E+12
After first run, ctlon= 223.466W ctlat= 14.234 fmax (x10e5) =
0.459E+02 fmin (x10e5) = 0.100E+18

Beginning of get_ij_bounds...
geslat= 14.23444 geslon= 136.5344

```

+++ Near top of get_ij_bounds,
+++ geslat= 14.23444 geslon= 136.5344
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 2
+++ npts= 5
+++ jhlatpts= 5 jripts= 9
+++ jbmaxlatpts= 14
+++ jlatfix= 190
+++ jbeg= 176 jend= 204
+++ rdeg= 0.6270790 ri= 150.0000 cosfac= 0.9692977
+++ dtr= 1.7453292E-02 dtk= 111.1949 dlon= 1.391711
+++ ibmaxlonpts= 16 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 255
+++ (orig) ibeg= 239 iend= 271
+++

```

After first pass through barnes, re and ri have NOT been changed. re = 75.00000 ri = 150.0000
TIMING: find_maxmin kloop, k= 1 14:39:30

```

find_maxmin nhalf loop, cparm= zeta k= 1
guesslon= 136.534E ( 223.466W) guesslat= 14.234
ilonfix= 255 jlatfix= 190 npts= 5
ibeg= 239 jbeg= 176 imax= 409
iend= 271 jend= 204 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 1 ctlon= 223.884W ctlat= 13.984 fmax (x10e5) =
0.704E+01 fmin (x10e5) = 0.100E+21
TIMING: find_maxmin kloop, k= 2 14:39:30

```

```

find_maxmin nhalf loop, cparm= zeta k= 2
guesslon= 136.116E ( 223.884W) guesslat= 13.984
ilonfix= 255 jlatfix= 190 npts= 5
ibeg= 239 jbeg= 176 imax= 409
iend= 271 jend= 204 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 2 ctlon= 223.842W ctlat= 13.942 fmax (x10e5) =
0.712E+01 fmin (x10e5) = 0.100E+21

```

ppp after 2nd findmax loop, # calls to barnes = 72
ppp Total # of barnes loop iterations = 18360

--- --- ---

Now calling find_maxmin for thickness in the 500-850 mb layer.

At beg of find_maxmin, rads= 200.0000 re= 75.00000 ri=
150.0000 cparm= thick dx= 0.1722946 dy= 0.1621475

Beginning of get_ij_bounds...

```

geslat= 13.90000 geslon= 136.2000

```

```

+++ Near top of get_ij_bounds,
+++ geslat= 13.90000 geslon= 136.2000
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349

```



```

+++ dx= 0.1722946      dy= 0.1621475      nhalf= 0
+++ npts= 10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 22
+++ jlatfix= 192
+++ jbeg= 170 jend= 214
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 21 dx= 0.1722946      dy= 0.1621475
+++ (orig) ilonfix= 253
+++ (orig) ibeg= 232 iend= 274
+++

```

```

guesslon= 136.200E ( 223.800W)  guesslat= 13.900
ilonfix= 253 jlatfix= 192 npts= 10
ibeg= 232 jbeg= 170 imax= 409
iend= 274 jend= 214 jmax= 349
TIMING: find_maxmin 1 14:39:30

```

```

After 1st findmax loop, # calls to barnes = 24
Total # of barnes loop iterations = 3168
After first run, ctlon= 223.466W  ctlat= 13.566 fmax =
0.443E+04 fmin = 0.100E+13

```

```

Beginning of get_ij_bounds...
  geslat= 13.56556      geslon= 136.5344

```

```

+++ Near top of get_ij_bounds,
+++ geslat= 13.56556      geslon= 136.5344
+++ rglatmax= 44.92863      rglatmin= -9.516106
+++ rglonmax= 163.1479      rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946      dy= 0.1621475      nhalf= 2
+++ npts= 5
+++ jhlatpts= 5 jripts= 9
+++ jbmaxlatpts= 14
+++ jlatfix= 194
+++ jbeg= 180 jend= 208
+++ rdeg= 0.6270790      ri= 150.0000      cosfac= 0.9721022
+++ dtr= 1.7453292E-02  dtk= 111.1949      dlon= 1.387697
+++ ibmaxlonpts= 16 dx= 0.1722946      dy= 0.1621475
+++ (orig) ilonfix= 255
+++ (orig) ibeg= 239 iend= 271
+++

```

```

After first pass through barnes, re and ri have NOT
been changed. re = 75.00000      ri = 150.0000
TIMING: find_maxmin kloop, k= 1 14:39:30

```

```

find_maxmin nhalf loop, cparm= thick k= 1
guesslon= 136.534E ( 223.466W)  guesslat= 13.566
ilonfix= 255 jlatfix= 194 npts= 5
ibeg= 239 jbeg= 180 imax= 409
iend= 271 jend= 208 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 1 ctlon= 223.884W  ctlat= 13.315 fmax =
0.443E+04 fmin = 0.100E+16
TIMING: find_maxmin kloop, k= 2 14:39:30

```

```

find_maxmin nhalf loop, cparm= thick k= 2

```

```
guesslon= 136.116E ( 223.884W)   guesslat= 13.315
ilonfix=      255  jlatfix=      194  npts=      5
ibeg=      239  jbeg=      180  imax=      409
iend=      271  jend=      208  jmax=      349
nhalf=      2  iskip=      2
nhalf findmax, k= 2  ctlon= 223.758W  ctlat= 13.273  fmax =
0.443E+04  fmin =      0.100E+16
```

```
ppp after 2nd findmax loop, # calls to barnes =      72
ppp Total # of barnes loop iterations =      18360
```

```
--- --- ---
Now calling find_maxmin for thickness in
the 200-500 mb layer.
```

```
At beg of find_maxmin, rads=      200.0000      re=      75.00000      ri=
150.0000      cparm= thick dx=      0.1722946      dy=      0.1621475
```

```
Beginning of get_ij_bounds...
  geslat=      13.90000      geslon=      136.2000
```

```
+++ Near top of get_ij_bounds,
+++ geslat=      13.90000      geslon=      136.2000
+++ rglatmax=      44.92863      rglatmin=      -9.516106
+++ rglonmax=      163.1479      rglonmin=      92.85205
+++ imax=      409  jmax=      349
+++ dx=      0.1722946      dy=      0.1621475      nhalf=      0
+++ npts=      10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts=      22
+++ jlatfix=      192
+++ jbeg=      170  jend=      214
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts=      21  dx=      0.1722946      dy=      0.1621475
+++ (orig) ilonfix=      253
+++ (orig) ibeg=      232  iend=      274
+++
```

```
guesslon= 136.200E ( 223.800W)   guesslat= 13.900
ilonfix=      253  jlatfix=      192  npts=      10
ibeg=      232  jbeg=      170  imax=      409
iend=      274  jend=      214  jmax=      349
TIMING: find_maxmin 1  14:39:30
```

```
After 1st findmax loop, # calls to barnes =      24
Total # of barnes loop iterations =      3168
After first run, ctlon= 223.466W  ctlat= 13.566  fmax =
0.676E+04  fmin =      0.100E+13
```

```
Beginning of get_ij_bounds...
  geslat=      13.56556      geslon=      136.5344
```

```
+++ Near top of get_ij_bounds,
+++ geslat=      13.56556      geslon=      136.5344
+++ rglatmax=      44.92863      rglatmin=      -9.516106
+++ rglonmax=      163.1479      rglonmin=      92.85205
+++ imax=      409  jmax=      349
+++ dx=      0.1722946      dy=      0.1621475      nhalf=      2
```

```

+++ npts=                5
+++ jhlatpts=            5  jripts=            9
+++ jbmaxlatpts=        14
+++ jlatfix=            194
+++ jbeg=                180  jend=            208
+++ rdeg=    0.6270790    ri=    150.0000    cosfac=    0.9721022
+++ dtr=    1.7453292E-02  dtk=    111.1949    dlon=    1.387697
+++ ibmaxlonpts=        16  dx=    0.1722946    dy=    0.1621475
+++ (orig) ilonfix=      255
+++ (orig) ibeg=        239  iend=            271
+++

```

After first pass through barnes, re and ri have NOT been changed. re = 75.00000 ri = 150.0000
TIMING: find_maxmin kloop, k= 1 14:39:30

```

find_maxmin nhalf loop, cparm= thick k=            1
guesslon= 136.534E ( 223.466W)  guesslat= 13.566
ilonfix=    255  jlatfix=    194  npts=            5
ibeg=    239  jbeg=    180  imax=    409
iend=    271  jend=    208  jmax=    349
nhalf=    2  iskip=    2
nhalf findmax, k= 1 ctlon= 223.549W  ctlat= 13.315 fmax =
0.675E+04 fmin =    0.100E+16
TIMING: find_maxmin kloop, k= 2 14:39:30

```

```

find_maxmin nhalf loop, cparm= thick k=            2
guesslon= 136.451E ( 223.549W)  guesslat= 13.315
ilonfix=    255  jlatfix=    194  npts=            5
ibeg=    239  jbeg=    180  imax=    409
iend=    271  jend=    208  jmax=    349
nhalf=    2  iskip=    2
nhalf findmax, k= 2 ctlon= 223.758W  ctlat= 13.273 fmax =
0.675E+04 fmin =    0.100E+16

```

ppp after 2nd findmax loop, # calls to barnes = 72
ppp Total # of barnes loop iterations = 18360

--- --- ---

Now calling find_maxmin for thickness in the 200-850 mb layer.

At beg of find_maxmin, rads= 200.0000 re= 75.00000 ri=
150.0000 cparm= thick dx= 0.1722946 dy= 0.1621475

Beginning of get_ij_bounds...

geslat= 13.90000 geslon= 136.2000

```

+++ Near top of get_ij_bounds,
+++ geslat= 13.90000    geslon= 136.2000
+++ rglatmax= 44.92863    rglatmin= -9.516106
+++ rglonmax= 163.1479    rglonmin= 92.85205
+++ imax=    409  jmax=    349
+++ dx=    0.1722946    dy=    0.1621475    nhalf=    0
+++ npts=    10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts=    22
+++ jlatfix=    192
+++ jbeg=    170  jend=    214

```

```
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts=      21 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix=      253
+++ (orig) ibeg=      232 iend=      274
+++
```

```
guesslon= 136.200E ( 223.800W) guesslat= 13.900
ilonfix=      253 jlatfix=      192 npts=      10
ibeg=      232 jbeg=      170 imax=      409
iend=      274 jend=      214 jmax=      349
TIMING: find_maxmin 1 14:39:30
```

```
After 1st findmax loop, # calls to barnes =      24
Total # of barnes loop iterations =      3168
After first run, ctlon= 223.466W ctlat= 13.566 fmax =
0.112E+05 fmin =      0.100E+13
```

```
Beginning of get_ij_bounds...
geslat= 13.56556 geslon= 136.5344
```

```
+++ Near top of get_ij_bounds,
+++ geslat= 13.56556 geslon= 136.5344
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 2
+++ npts= 5
+++ jhlatpts= 5 jripts= 9
+++ jbmaxlatpts= 14
+++ jlatfix= 194
+++ jbeg= 180 jend= 208
+++ rdeg= 0.6270790 ri= 150.0000 cosfac= 0.9721022
+++ dtr= 1.7453292E-02 dtk= 111.1949 dlon= 1.387697
+++ ibmaxlonpts= 16 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 255
+++ (orig) ibeg= 239 iend= 271
+++
```

```
After first pass through barnes, re and ri have NOT
been changed. re = 75.00000 ri = 150.0000
TIMING: find_maxmin kloop, k= 1 14:39:30
```

```
find_maxmin nhalf loop, cparm= thick k= 1
guesslon= 136.534E ( 223.466W) guesslat= 13.566
ilonfix= 255 jlatfix= 194 npts= 5
ibeg= 239 jbeg= 180 imax= 409
iend= 271 jend= 208 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 1 ctlon= 223.549W ctlat= 13.315 fmax =
0.112E+05 fmin = 0.100E+16
TIMING: find_maxmin kloop, k= 2 14:39:30
```

```
find_maxmin nhalf loop, cparm= thick k= 2
guesslon= 136.451E ( 223.549W) guesslat= 13.315
ilonfix= 255 jlatfix= 194 npts= 5
ibeg= 239 jbeg= 180 imax= 409
iend= 271 jend= 208 jmax= 349
nhalf= 2 iskip= 2
```

nhalf findmax, k= 2 ctlon= 223.758W ctlat= 13.273 fmax =
0.112E+05 fmin = 0.100E+16

ppp after 2nd findmax loop, # calls to barnes = 72
ppp Total # of barnes loop iterations = 18360

--- --- ---

Now calling get_wind_circulation for 850 mb

Before first call to get_wind_circulation,

glatmax= 44.92863
glatmin= -9.516106
glonmax= 163.1479
glonmin= 92.85205
trkrinfo%gridtype= regional
inp%modtyp= regional
cmaxmin= max
nlev850= 1
u(1,1,nlev850)= 3.161179
u(imax,jmax,nlev850)= -5.250742
imax= 409 jmax= 349
uvgeslon= 136.2190 uvgeslat= 13.50855
dx= 0.1722946 dy= 0.1621475 ist= 1
calcparm(3,ist)= T
clon(ist,ifh,3)= 0.0000000E+00
clat(ist,ifh,3)= 0.0000000E+00
xval(3)= 0.0000000E+00

TIMING: Before GWC 850 ... 14:39:30

top of get_wind_circulation,

glatmax= 44.92863
glatmin= -9.516106
glonmax= 163.1479
glonmin= 92.85205
trkrinfo%gridtype= regional
cmodel_type= regional
maxmin= max
imax= 409 jmax= 349
uvgeslon= 136.2190 uvgeslat= 13.50855
dx= 0.1722946 dy= 0.1621475 ist= 1
cflag= T
ctlon= 0.0000000E+00 ctlat= 0.0000000E+00
fxval= 0.0000000E+00
igwcret= 64

At beg of get_wind_circulation, rads= 200.0000 ri= 150.0000
dx=

0.1722946 dy= 0.1621475
in get_wind_circulation, nlev= 1

Beginning of get_ij_bounds...

geslat= 13.50855 geslon= 136.2190

+++ Near top of get_ij_bounds,
+++ geslat= 13.50855 geslon= 136.2190
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0

```

+++ npts=                10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts=        22
+++ jlatfix=            194
+++ jbeg=                172  jend=                216
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts=        21  dx=    0.1722946      dy=    0.1621475
+++ (orig) ilonfix=      253
+++ (orig) ibeg=         232  iend=                274
+++

```

```

In get_wind_circulation, prior to first loop,
  npts=                10  dell=    0.1672211      rads=    200.0000

```

```

After first run, Wind Circulation (NHEM) ctlon= 222.778W  ctlat=
14.512  circ_diff_mean =    -26.649

```

```

Beginning of get_ij_bounds...
  geslat=    14.51188      geslon=    137.2223

```

```

+++ Near top of get_ij_bounds,
+++ geslat=    14.51188      geslon=    137.2223
+++ rglatmax=    44.92863      rglatmin=   -9.516106
+++ rglonmax=    163.1479      rglonmin=    92.85205
+++ imax=        409  jmax=        349
+++ dx=    0.1722946      dy=    0.1621475      nhalf=        2
+++ npts=        10
+++ jhlatpts=        9  jripts=        9
+++ jbmaxlatpts=        18
+++ jlatfix=        188
+++ jbeg=        170  jend=        206
+++ rdeg=    1.254158      ri=    150.0000      cosfac=    0.9680957
+++ dtr=    1.7453292E-02  dtk=    111.1949      dlon=    1.393439
+++ ibmaxlonpts=        20  dx=    0.1722946      dy=    0.1621475
+++ (orig) ilonfix=      259
+++ (orig) ibeg=         239  iend=        279
+++

```

```

TIMING: get_wind_circ kloop, k= 1  14:39:30

```

```

get_wind_circ nhalf loop, k=                1
guesslon= 137.222E ( 222.778W)  guesslat=  14.512
ilonfix=        259  jlatfix=        188  npts=        10
ibeg=        239  jbeg=        170  imax=        409
iend=        279  jend=        206  jmax=        349
nhalf=        2  iskip=        2  rads=    100.0000

```

```

In get_wind_circulation, prior to loop k=                1
  npts=                10  dell=    8.3610535E-02  rads=    100.0000

```

```

---> xmax_circ_diff_mean=   -27.59839
nhalf get_wind_circ, k= 1 ctlon= 223.447W  ctlat=  14.345 Wind
Circulation (NHEM: Max) =   -27.598

```

```

TIMING: get_wind_circ kloop, k= 2  14:39:30

```

```

get_wind_circ nhalf loop, k=                2
guesslon= 136.553E ( 223.447W)  guesslat=  14.345
ilonfix=        259  jlatfix=        188  npts=        10
ibeg=        239  jbeg=        170  imax=        409
iend=        279  jend=        206  jmax=        349

```

```

nhalf=          2  iskip=          2  rads=    100.0000

In get_wind_circulation, prior to loop k=          2
  npts=          10  dell=    4.1805267E-02  rads=    100.0000

---> xmax_circ_diff_mean=   -27.59839
nhalf get_wind_circ, k= 2  ctlon=  223.447W  ctlat=   14.345 Wind
Circulation (NHEM: Max) =   -27.598
TIMING: After GWC 850 ... 14:39:30

      ---      ---      ---
Now calling get_wind_circulation for 700 mb
TIMING: Before GWC 700 ... 14:39:30

top of get_wind_circulation,
  glatmax=    44.92863
  glatmin=   -9.516106
  glonmax=   163.1479
  glonmin=    92.85205
  trkrinfo%gridtype= regional
  cmodel_type= regional
  maxmin= max
  imax=         409  jmax=         349
  uvgeslon=   136.2190  uvgeslat=    13.50855
  dx=    0.1722946  dy=    0.1621475  ist=          1
  cflag= T
  ctlon=  0.0000000E+00  ctlat=  0.0000000E+00
  fxval=  0.0000000E+00
  igwcret=          0

At beg of get_wind_circulation, rads=    200.0000  ri=    150.0000
dx=
  0.1722946  dy=    0.1621475
in get_wind_circulation, nlev=          2

Beginning of get_ij_bounds...
  geslat=    13.50855  geslon=    136.2190

+++ Near top of get_ij_bounds,
+++ geslat=    13.50855  geslon=    136.2190
+++ rglatmax=    44.92863  rglatmin=   -9.516106
+++ rglonmax=   163.1479  rglonmin=    92.85205
+++ imax=         409  jmax=         349
+++ dx=    0.1722946  dy=    0.1621475  nhalf=          0
+++ npts=          10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jmaxlatpts=          22
+++ jlatfix=          194
+++ jbeg=          172  jend=          216
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts=          21  dx=    0.1722946  dy=    0.1621475
+++ (orig) ilonfix=          253
+++ (orig) ibeg=          232  iend=          274
+++

In get_wind_circulation, prior to first loop,
  npts=          10  dell=    0.1672211  rads=    200.0000

```

After first run, Wind Circulation (NHEM) ctlon= 224.115W ctlat= 11.836 circ_diff_mean = -33.021

Beginning of get_ij_bounds...

geslat= 11.83634 geslon= 135.8846

```
+++ Near top of get_ij_bounds,
+++ geslat= 11.83634 geslon= 135.8846
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 2
+++ npts= 10
+++ jhlatpts= 9 jripts= 9
+++ jbmaxlatpts= 18
+++ jlatfix= 205
+++ jbeg= 187 jend= 223
+++ rdeg= 1.254158 ri= 150.0000 cosfac= 0.9787375
+++ dtr= 1.7453292E-02 dtk= 111.1949 dlon= 1.378289
+++ ibmaxlonpts= 19 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 251
+++ (orig) ibeg= 232 iend= 270
+++
```

TIMING: get_wind_circ kloop, k= 1 14:39:30

```
get_wind_circ nhalf loop, k= 1
guesslon= 135.885E ( 224.115W) guesslat= 11.836
ilonfix= 251 jlatfix= 205 npts= 10
ibeg= 232 jbeg= 187 imax= 409
iend= 270 jend= 223 jmax= 349
nhalf= 2 iskip= 2 rads= 100.0000
```

```
In get_wind_circulation, prior to loop k= 1
npts= 10 dell= 8.3610535E-02 rads= 100.0000
```

---> xmax_circ_diff_mean= -46.04165
nhalf get_wind_circ, k= 1 ctlon= 223.447W ctlat= 12.672 Wind
Circulation (NHEM: Max) = -46.042

TIMING: get_wind_circ kloop, k= 2 14:39:30

```
get_wind_circ nhalf loop, k= 2
guesslon= 136.553E ( 223.447W) guesslat= 12.672
ilonfix= 251 jlatfix= 205 npts= 10
ibeg= 232 jbeg= 187 imax= 409
iend= 270 jend= 223 jmax= 349
nhalf= 2 iskip= 2 rads= 100.0000
```

```
In get_wind_circulation, prior to loop k= 2
npts= 10 dell= 4.1805267E-02 rads= 100.0000
```

---> xmax_circ_diff_mean= -46.04165
nhalf get_wind_circ, k= 2 ctlon= 223.447W ctlat= 12.672 Wind
Circulation (NHEM: Max) = -46.042

TIMING: After GWC 700 ... 14:39:30

--- --- ---

Now calling get_wind_circulation for the
surface (10m) level

TIMING: Before GWC Sfc ... 14:39:30


```
top of get_wind_circulation,
  glatmax= 44.92863
  glatmin= -9.516106
  glonmax= 163.1479
  glonmin= 92.85205
  trkrinfo%gridtype= regional
  cmodel_type= regional
  maxmin= max
  imax= 409 jmax= 349
  uvgeslon= 136.2190 uvgeslat= 13.50855
  dx= 0.1722946 dy= 0.1621475 ist= 1
  cflag= T
  ctlon= 0.0000000E+00 ctlat= 0.0000000E+00
  fxval= 0.0000000E+00
  igwcret= 0
```

```
At beg of get_wind_circulation, rads= 200.0000 ri= 150.0000
dx= 0.1722946 dy= 0.1621475
in get_wind_circulation, nlev= 4
```

```
Beginning of get_ij_bounds...
  geslat= 13.50855 geslon= 136.2190
```

```
+++ Near top of get_ij_bounds,
+++ geslat= 13.50855 geslon= 136.2190
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 22
+++ jlatfix= 194
+++ jbeg= 172 jend= 216
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dk,dlon unused
+++ ibmaxlonpts= 21 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 253
+++ (orig) ibeg= 232 iend= 274
+++
```

```
In get_wind_circulation, prior to first loop,
  npts= 10 dell= 0.1672211 rads= 200.0000
```

```
After first run, Wind Circulation (NHEM) ctlon= 225.453W ctlat=
13.843 circ_diff_mean = -13.766
```

```
Beginning of get_ij_bounds...
  geslat= 13.84299 geslon= 134.5468
```

```
+++ Near top of get_ij_bounds,
+++ geslat= 13.84299 geslon= 134.5468
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 2
+++ npts= 10
```

```

+++ jhlatpts=          9  jripts=          9
+++ jbmaxlatpts=      18
+++ jlatfix=          192
+++ jbeg=             174  jend=           210
+++ rdeg=      1.254158  ri=      150.0000  cosfac=    0.9709550
+++ dtr=      1.7453292E-02  dtk=      111.1949  dlon=      1.389336
+++ ibmaxlonpts=      20  dx=      0.1722946  dy=      0.1621475
+++ (orig) ilonfix=      243
+++ (orig) ibeg=      223  iend=           263
+++
TIMING: get_wind_circ kloop, k= 1  14:39:30

get_wind_circ nhalf loop, k=          1
guesslon= 134.547E ( 225.453W)  guesslat= 13.843
ilonfix=      243  jlatfix=          192  npts=          10
ibeg=      223  jbeg=          174  imax=          409
iend=      263  jend=          210  jmax=          349
nhalf=      2  iskip=          2  rads=      100.0000

In get_wind_circulation, prior to loop k=          1
npts=      10  dell=      8.3610535E-02  rads=      100.0000

---> xmax_circ_diff_mean= -19.76688
nhalf get_wind_circ, k= 1  ctlon= 224.617W  ctlat= 13.843 Wind
Circulation (NHEM: Max) = -19.767
TIMING: get_wind_circ kloop, k= 2  14:39:30

get_wind_circ nhalf loop, k=          2
guesslon= 135.383E ( 224.617W)  guesslat= 13.843
ilonfix=      243  jlatfix=          192  npts=          10
ibeg=      223  jbeg=          174  imax=          409
iend=      263  jend=          210  jmax=          349
nhalf=      2  iskip=          2  rads=      100.0000

In get_wind_circulation, prior to loop k=          2
npts=      10  dell=      4.1805267E-02  rads=      100.0000

---> xmax_circ_diff_mean= -18.37783
nhalf get_wind_circ, k= 2  ctlon= 224.199W  ctlat= 13.676 Wind
Circulation (NHEM: Max) = -18.378
TIMING: After GWC Sfc ... 14:39:30

At beg of fixcenter, stderr(ist,ifh-1) = N/A  xavg_stderr= N/A
At beg of fixcenter, errpgro = 1.250000
At beg of fixcenter, errinit = 300.0000
At beg of fixcenter, errpmax = 485.0000
At beg of fixcenter, ifh= 1  errmax= 300.0000

-----
Individual fixes follow..., fhr= 0:00 26W MANGKHUT
Gen ID (if available): 2018091200_F000_139N_1362E_26W
Model name = WRF
Values of -99.99 indicate that a fix was unable to be
made for that paramater. Parameters 4 & 6 are not
used. Vorticity data values are scaled by 1e5.
errdist is the distance that the position estimate is
from the guess position for this time. MSLP value
here may differ from that in the atcfunix file since
the one here is that derived from the area-averaged
barnes analysis, while that in the atcfunix file is

```

from a specific gridpoint.

Guess location for this time: 136.20E (223.80W) 13.90

parm#	parm	Max/Min	Lon_fix(E)	Lon_fix(W)	Lat_fix	
Max/Min_value	calcparm	errdist (km)				
-----	-----	-----	-----	-----	-----	-----
1	zeta 850	Max	136.24	223.76	13.27	
91.10	T	69.84				
2	zeta 700	Max	136.24	223.76	13.27	
90.75	T	69.84				
3	circ 850	Max	136.55	223.45	14.34	-
27.60	T	62.41				
4	NOT USED	NOT USED	0.00	0.00	0.00	
0.00	F	0.00				
5	circ 700	Max	136.55	223.45	12.67	-
46.04	T	141.76				
6	NOT USED	NOT USED	0.00	0.00	0.00	
0.00	F	0.00				
7	gph 850	Min	135.24	224.76	11.60	
0.00	T	276.11				
8	gph 700	Min	135.24	224.76	11.60	
0.00	T	276.11				
9	MSLP	Min	135.24	224.76	11.60	
0.00	T	276.11				
10	circ sfc	Max	135.80	224.20	13.68	-
18.38	T	49.77				
11	zeta sfc	Max	136.16	223.84	13.94	
7.12	T	6.60				
12	thk 5-8	Max	136.24	223.76	13.27	
4428.63	T	69.84				
13	thk 2-5	Max	136.24	223.76	13.27	
6749.85	T	69.84				
14	thk 2-8	Max	136.24	223.76	13.27	
11178.49	T	69.84				

After stdevcalc, xmn_dist_from_mean= 95.90192 stderr_close= 56.98511 isret= 0

ip= 1	kprm= 1	dist_from_mean= 41.446	devia= 0.727	wtpos= 0.78471
136.24	223.76	13.27		
ip= 2	kprm= 2	dist_from_mean= 41.446	devia= 0.727	wtpos= 0.78471
136.24	223.76	13.27		
ip= 3	kprm= 3	dist_from_mean= 162.767	devia= 2.856	wtpos= 0.38593
136.55	223.45	14.34		
ip= 5	kprm= 4	dist_from_mean= 69.317	devia= 1.216	wtpos= 0.66666
136.55	223.45	12.67		
ip= 7	kprm= 5	dist_from_mean= 174.559	devia= 3.063	wtpos= 0.36020
135.24	224.76	11.60		
ip= 8	kprm= 6	dist_from_mean= 174.559	devia= 3.063	wtpos= 0.36020
135.24	224.76	11.60		
ip= 9	kprm= 7	dist_from_mean= 174.559	devia= 3.063	wtpos= 0.36020
135.24	224.76	11.60		
ip= 10	kprm= 8	dist_from_mean= 79.889	devia= 1.402	wtpos= 0.62669
135.80	224.20	13.68		
ip= 11	kprm= 9	dist_from_mean= 107.943	devia= 1.894	wtpos= 0.53184
136.16	223.84	13.94		
ip= 12	kprm= 10	dist_from_mean= 41.446	devia= 0.727	wtpos= 0.78471
136.24	223.76	13.27		
ip= 13	kprm= 11	dist_from_mean= 41.446	devia= 0.727	wtpos= 0.78471
136.24	223.76	13.27		

ip= 14 kprm= 12 dist_from_mean= 41.446 devia= 0.727 wtpos= 0.78471
136.24 223.76 13.27

At end of fixcenter: 26W fhr= 0:00 Fix position= 136.09E
(223.91W) 13.11

ttest, ifret= 0
ttest, calcparm(9,ist)= T
ttest, in IF part:
clon(ist,ifh,9)= 135.2385
clat(ist,ifh,9)= 11.60071
xval(9)= 0.0000000E+00

Beginning of get_ij_bounds...
geslat= 11.60071 geslon= 135.2385

+++ Near top of get_ij_bounds,
+++ geslat= 11.60071 geslon= 135.2385
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 17
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 36
+++ jlatfix= 206
+++ jbeg= 170 jend= 242
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 27 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 248
+++ (orig) ibeg= 221 iend= 275
+++

After get_ij B, ibeg jbeg = 221 170
After get_ij B, iend jend = 275 242

In is_it_a_storm, ilonfix= 248 jlatfix= 206
ibeg jbeg iend jend = 221 170 275 242
cparm= slp parmlon parmlat = 135.2385 11.60071
parmval= 0.0000000E+00

i= 245 j= 210 glon= 134.89 glat= 14.24 dist= 295.84 slp=
99440.58 pgradient= *****

In is_it_a_storm, valid pgradient found.
pgradient threshold = 0.00150
pgradient found = *****
mslp center = 135.2385 11.60071 0.0000000E+00
pgrad loc = 134.8918 14.23978 99440.58
ttest at location C IF....
xinp_fixlat= 11.60071
xinp_fixlon= 135.2385
ttest at location D
ttest at location E, ifilret= 0
ttest at location F

Checking 850 mb Vt speed using 850 mb
wind circulation fix:
850 mb wcirc fix lon= 136.5535

850 mb wcirc fix lat= 14.34465
Multi-param fix lon= 136.0926
Multi-param fix lat= 13.10861

Beginning of get_ij_bounds...

geslat= 14.34465 geslon= 136.5535

+++ Near top of get_ij_bounds,
+++ geslat= 14.34465 geslon= 136.5535
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 13
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 28
+++ jlatfix= 189
+++ jbeg= 161 jend= 217
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 24 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 255
+++ (orig) ibeg= 231 iend= 279
+++

After get_ij B, ibeg jbeg = 231 161
After get_ij B, iend jend = 279 217

In is_it_a_storm, ilonfix= 255 jlatfix= 189
ibeg jbeg iend jend = 231 161 279 217
cparm= v850 parmlon parmlat = 136.5535 14.34465
parmval= -27.59839

i= 249 j= 199 glon= 135.58 glat= 16.07 u= -30.7375 v= -6.9923 vr=
8.58308 vt= 30.33177
i= 251 j= 199 glon= 135.93 glat= 16.07 u= -32.2225 v= -4.3761 vr=
6.57257 vt= 31.84719
i= 253 j= 199 glon= 136.27 glat= 16.07 u= -32.6088 v= -1.3360 vr=
3.78320 vt= 32.41614
i= 255 j= 199 glon= 136.61 glat= 16.07 u= -32.2236 v= 1.7859 vr=
0.72682 vt= 32.26486
i= 257 j= 199 glon= 136.96 glat= 16.07 u= -30.8028 v= 4.2601 vr=
-2.67517 vt= 30.98070
i= 259 j= 199 glon= 137.30 glat= 16.07 u= -28.7921 v= 6.2789 vr=
-5.38112 vt= 28.97336
i= 261 j= 199 glon= 137.65 glat= 16.07 u= -26.2539 v= 7.6925 vr=
-7.18861 vt= 26.39636
i= 247 j= 201 glon= 135.24 glat= 15.74 u= -30.8256 v= -12.1579 vr=
11.85221 vt= 30.94445
i= 249 j= 201 glon= 135.58 glat= 15.74 u= -34.1116 v= -9.9601 vr=
10.84717 vt= 33.83997
i= 251 j= 201 glon= 135.93 glat= 15.74 u= -36.5327 v= -6.6556 vr=
8.50317 vt= 36.14737
i= 253 j= 201 glon= 136.27 glat= 15.74 u= -37.1468 v= -2.8310 vr=
4.37631 vt= 36.99658
i= 255 j= 201 glon= 136.61 glat= 15.74 u= -36.4971 v= 1.2345 vr=
-0.27517 vt= 36.51696
i= 257 j= 201 glon= 136.96 glat= 15.74 u= -34.6370 v= 4.6613 vr=
-4.90608 vt= 34.60318

i= 259 j= 201 glon= 137.30 glat= 15.74 u= -31.9235 v= 7.1086 vr=
-8.45207 vt= 31.59438
i= 261 j= 201 glon= 137.65 glat= 15.74 u= -28.7143 v= 8.6939 vr= -
10.47036 vt= 28.11522
i= 263 j= 201 glon= 137.99 glat= 15.74 u= -25.4391 v= 9.8151 vr= -
11.06169 vt= 24.92235
i= 245 j= 203 glon= 134.89 glat= 15.41 u= -28.7600 v= -17.0605 vr=
14.64586 vt= 30.06155
i= 247 j= 203 glon= 135.24 glat= 15.41 u= -33.2508 v= -16.4429 vr=
15.06209 vt= 33.89861
i= 249 j= 203 glon= 135.58 glat= 15.41 u= -37.7269 v= -14.3487 vr=
14.31513 vt= 37.73967
i= 251 j= 203 glon= 135.93 glat= 15.41 u= -41.2400 v= -10.3495 vr=
11.51345 vt= 40.93033
i= 253 j= 203 glon= 136.27 glat= 15.41 u= -42.8506 v= -4.4398 vr=
6.38454 vt= 42.60426
i= 255 j= 203 glon= 136.61 glat= 15.41 u= -41.8963 v= 2.1156 vr=
-0.11679 vt= 41.94954
i= 257 j= 203 glon= 136.96 glat= 15.41 u= -38.7693 v= 7.3139 vr=
-6.58529 vt= 38.89974
i= 259 j= 203 glon= 137.30 glat= 15.41 u= -34.8775 v= 10.5235 vr= -
11.01888 vt= 34.72412
i= 261 j= 203 glon= 137.65 glat= 15.41 u= -30.9680 v= 11.7186 vr= -
13.60700 vt= 30.18599
i= 263 j= 203 glon= 137.99 glat= 15.41 u= -27.2291 v= 11.9289 vr= -
14.45733 vt= 25.97511
i= 245 j= 205 glon= 134.89 glat= 15.07 u= -29.3511 v= -21.7502 vr=
17.80894 vt= 31.89673
i= 247 j= 205 glon= 135.24 glat= 15.07 u= -35.2889 v= -22.3248 vr=
19.60142 vt= 36.87126
i= 249 j= 205 glon= 135.58 glat= 15.07 u= -41.7456 v= -21.2927 vr=
20.00848 vt= 42.37611
i= 251 j= 205 glon= 135.93 glat= 15.07 u= -48.1601 v= -15.6196 vr=
18.86541 vt= 46.98365
i= 253 j= 205 glon= 136.27 glat= 15.07 u= -51.3490 v= -5.5977 vr=
12.81167 vt= 50.03916
i= 255 j= 205 glon= 136.61 glat= 15.07 u= -48.8393 v= 6.1428 vr=
2.31202 vt= 49.16977
i= 257 j= 205 glon= 136.96 glat= 15.07 u= -42.6200 v= 13.7309 vr=
-8.13060 vt= 44.03287
i= 259 j= 205 glon= 137.30 glat= 15.07 u= -36.2135 v= 16.7124 vr= -
13.74535 vt= 37.44048
i= 261 j= 205 glon= 137.65 glat= 15.07 u= -31.4369 v= 17.0400 vr= -
16.27904 vt= 31.83760
i= 263 j= 205 glon= 137.99 glat= 15.07 u= -27.6508 v= 15.8222 vr= -
17.20501 vt= 26.81222
i= 265 j= 205 glon= 138.34 glat= 15.07 u= -24.0228 v= 14.2003 vr= -
16.65203 vt= 22.39322
i= 243 j= 207 glon= 134.55 glat= 14.74 u= -21.3937 v= -24.4094 vr=
16.15210 vt= 28.15349
i= 245 j= 207 glon= 134.89 glat= 14.74 u= -28.0199 v= -27.2294 vr=
20.76147 vt= 33.09859
i= 247 j= 207 glon= 135.24 glat= 14.74 u= -35.3033 v= -30.3025 vr=
24.79000 vt= 39.37026
i= 249 j= 207 glon= 135.58 glat= 14.74 u= -44.1862 v= -30.8168 vr=
28.83414 vt= 45.50488
i= 251 j= 207 glon= 135.93 glat= 14.74 u= -53.8549 v= -21.8679 vr=
33.22729 vt= 47.69176
i= 253 j= 207 glon= 136.27 glat= 14.74 u= -57.9552 v= -3.3240 vr=
30.23493 vt= 49.55510

i= 255 j= 207 glon= 136.61 glat= 14.74 u= -52.6204 v= 15.6748 vr=
7.89448 vt= 54.33491
i= 257 j= 207 glon= 136.96 glat= 14.74 u= -43.1332 v= 25.1841 vr= -
12.51388 vt= 48.35403
i= 259 j= 207 glon= 137.30 glat= 14.74 u= -34.3061 v= 25.9922 vr= -
17.72127 vt= 39.22323
i= 261 j= 207 glon= 137.65 glat= 14.74 u= -29.0746 v= 23.6772 vr= -
18.99054 vt= 32.33118
i= 263 j= 207 glon= 137.99 glat= 14.74 u= -25.8951 v= 20.8856 vr= -
19.24476 vt= 27.13670
i= 265 j= 207 glon= 138.34 glat= 14.74 u= -23.1504 v= 17.6714 vr= -
18.66196 vt= 22.35956
i= 243 j= 209 glon= 134.55 glat= 14.41 u= -16.3170 v= -27.5537 vr=
15.47331 vt= 28.03617
i= 245 j= 209 glon= 134.89 glat= 14.41 u= -22.8107 v= -32.8562 vr=
21.55621 vt= 33.69259
i= 247 j= 209 glon= 135.24 glat= 14.41 u= -29.8484 v= -38.7613 vr=
27.92213 vt= 40.17117
i= 249 j= 209 glon= 135.58 glat= 14.41 u= -37.0958 v= -40.8538 vr=
34.31872 vt= 43.21291
i= 251 j= 209 glon= 135.93 glat= 14.41 u= -44.4442 v= -27.7644 vr=
41.30365 vt= 32.25146
i= 253 j= 209 glon= 136.27 glat= 14.41 u= -47.0141 v= 2.0341 vr=
46.24800 vt= 8.69420
i= 255 j= 209 glon= 136.61 glat= 14.41 u= -42.2063 v= 27.5449 vr=
-7.95351 vt= 49.76783
i= 257 j= 209 glon= 136.96 glat= 14.41 u= -32.9827 v= 37.7071 vr= -
26.50919 vt= 42.50817
i= 259 j= 209 glon= 137.30 glat= 14.41 u= -26.1652 v= 36.3402 vr= -
22.96563 vt= 38.44230
i= 261 j= 209 glon= 137.65 glat= 14.41 u= -23.2703 v= 30.4790 vr= -
21.44282 vt= 31.79126
i= 263 j= 209 glon= 137.99 glat= 14.41 u= -21.9831 v= 25.8284 vr= -
20.80820 vt= 26.78404
i= 265 j= 209 glon= 138.34 glat= 14.41 u= -20.5870 v= 21.3913 vr= -
19.82342 vt= 22.10078
i= 243 j= 211 glon= 134.55 glat= 14.07 u= -9.4239 v= -28.5475 vr=
13.34533 vt= 26.93829
i= 245 j= 211 glon= 134.89 glat= 14.07 u= -13.3172 v= -35.9192 vr=
19.17678 vt= 33.16299
i= 247 j= 211 glon= 135.24 glat= 14.07 u= -16.8302 v= -44.3879 vr=
25.77431 vt= 39.86511
i= 249 j= 211 glon= 135.58 glat= 14.07 u= -17.4439 v= -46.5768 vr=
29.71525 vt= 39.88341
i= 251 j= 211 glon= 135.93 glat= 14.07 u= -16.4462 v= -29.8963 vr=
27.23392 vt= 20.55685
i= 253 j= 211 glon= 136.27 glat= 14.07 u= -14.4182 v= 4.4658 vr=
7.07326 vt= -13.33405
i= 255 j= 211 glon= 136.61 glat= 14.07 u= -14.6516 v= 33.5470 vr= -
35.85650 vt= -7.37416
i= 257 j= 211 glon= 136.96 glat= 14.07 u= -11.7894 v= 44.3226 vr= -
34.94543 vt= 29.70347
i= 259 j= 211 glon= 137.30 glat= 14.07 u= -12.3748 v= 41.7469 vr= -
26.24470 vt= 34.74414
i= 261 j= 211 glon= 137.65 glat= 14.07 u= -14.4639 v= 35.1234 vr= -
22.76939 vt= 30.40412
i= 263 j= 211 glon= 137.99 glat= 14.07 u= -16.2195 v= 29.5797 vr= -
21.62435 vt= 25.89242
i= 265 j= 211 glon= 138.34 glat= 14.07 u= -16.8498 v= 24.2549 vr= -
20.45646 vt= 21.30142

i= 245	j= 213	glon= 134.89	glat= 13.74	u= -2.2784	v= -33.8783	vr=
14.12019	vt= 30.87967					
i= 247	j= 213	glon= 135.24	glat= 13.74	u= -0.2776	v= -42.2965	vr=
18.44403	vt= 38.06429					
i= 249	j= 213	glon= 135.58	glat= 13.74	u= 5.1690	v= -44.2328	vr=
19.61494	vt= 39.98139					
i= 251	j= 213	glon= 135.93	glat= 13.74	u= 12.1390	v= -28.3026	vr=
11.38903	vt= 28.61269					
i= 253	j= 213	glon= 136.27	glat= 13.74	u= 17.2910	v= 4.3578	vr= -
11.09205	vt= 13.96187					
i= 255	j= 213	glon= 136.61	glat= 13.74	u= 14.6403	v= 31.6431	vr= -
30.10052	vt= 17.59491					
i= 257	j= 213	glon= 136.96	glat= 13.74	u= 8.9526	v= 41.6055	vr= -
30.04540	vt= 30.14034					
i= 259	j= 213	glon= 137.30	glat= 13.74	u= 0.7081	v= 40.3075	vr= -
25.28353	vt= 31.39967					
i= 261	j= 213	glon= 137.65	glat= 13.74	u= -5.0947	v= 35.8386	vr= -
22.23070	vt= 28.56841					
i= 263	j= 213	glon= 137.99	glat= 13.74	u= -9.5752	v= 31.1287	vr= -
21.22244	vt= 24.70405					
i= 265	j= 213	glon= 138.34	glat= 13.74	u= -12.3800	v= 25.7832	vr= -
20.24884	vt= 20.19960					
i= 245	j= 215	glon= 134.89	glat= 13.40	u= 5.6282	v= -28.1816	vr=
9.39205	vt= 27.16010					
i= 247	j= 215	glon= 135.24	glat= 13.40	u= 11.7956	v= -33.1680	vr=
10.21408	vt= 33.68866					
i= 249	j= 215	glon= 135.58	glat= 13.40	u= 20.2115	v= -34.1835	vr=
9.86472	vt= 38.46696					
i= 251	j= 215	glon= 135.93	glat= 13.40	u= 29.7526	v= -22.2638	vr=
2.54471	vt= 37.07317					
i= 253	j= 215	glon= 136.27	glat= 13.40	u= 36.0161	v= 3.1942	vr= -
13.12904	vt= 33.68963					
i= 255	j= 215	glon= 136.61	glat= 13.40	u= 31.6428	v= 23.7162	vr= -
21.76452	vt= 33.01558					
i= 257	j= 215	glon= 136.96	glat= 13.40	u= 20.3996	v= 33.3956	vr= -
22.95337	vt= 31.69466					
i= 259	j= 215	glon= 137.30	glat= 13.40	u= 9.5224	v= 35.2852	vr= -
22.10352	vt= 29.10599					
i= 261	j= 215	glon= 137.65	glat= 13.40	u= 2.4232	v= 33.3506	vr= -
20.32895	vt= 26.54938					
i= 263	j= 215	glon= 137.99	glat= 13.40	u= -3.4456	v= 30.1500	vr= -
19.73817	vt= 23.04990					
i= 265	j= 215	glon= 138.34	glat= 13.40	u= -7.7577	v= 25.7906	vr= -
19.16776	vt= 18.91916					
i= 247	j= 217	glon= 135.24	glat= 13.07	u= 15.8730	v= -23.5231	vr=
5.41893	vt= 27.85541					
i= 249	j= 217	glon= 135.58	glat= 13.07	u= 24.0440	v= -21.9120	vr=
3.34646	vt= 32.35816					
i= 251	j= 217	glon= 135.93	glat= 13.07	u= 32.2902	v= -13.3807	vr=
-1.81926	vt= 34.90550					
i= 253	j= 217	glon= 136.27	glat= 13.07	u= 35.7255	v= 2.1707	vr=
-9.61437	vt= 34.47592					
i= 255	j= 217	glon= 136.61	glat= 13.07	u= 31.4725	v= 16.3762	vr= -
14.96906	vt= 32.16556					
i= 257	j= 217	glon= 136.96	glat= 13.07	u= 22.5665	v= 25.5255	vr= -
17.75338	vt= 29.07944					
i= 259	j= 217	glon= 137.30	glat= 13.07	u= 14.0913	v= 29.3314	vr= -
18.50848	vt= 26.76439					
i= 261	j= 217	glon= 137.65	glat= 13.07	u= 7.1376	v= 29.3898	vr= -
18.04019	vt= 24.27466					

i= 263 j= 217 glon= 137.99 glat= 13.07 u= 1.0928 v= 27.4718 vr= -
17.74846 vt= 20.99733

In is_it_a_storm, average 850 tangential winds are OKAY (>= +
1.500000
m/s for a NH storm).
Avg 850 tangential winds = 32.01365 m/s

Distance between the parm centers for
850 zeta and mslp is 215.4908 (km)

In get_max_wind, ibeg= 234 iend= 269
jbeg= 180 jend= 215
ilonfix= 252 jlatfix= 197
At end of get_max_wind, vmax= 34.64002 rmax= 87.77917

AT BEGINNING OF GETRADII, input radmax= 500.0000

xcenlon= 136.0926 xcenlat= 13.10861
imax= 409 jmax= 349 dx= 0.1722946 dy=
0.1621475

In getradii, ibeg= 224 iend= 279
jbeg= 169 jend= 226
ilonfix= 252 jlatfix= 197
in getradii, numalloc= 3305 radmax= 500.0000

After loop, quadct(1)= 578 quadct(2)= 263
quadct(3)= 260 quadct(4)= 553

quadmax: 26W 000 NE lon: 136.79E lat: 14.41 radius: 87.78 nm
vmag: 67.30 kts
quadmax: 26W 000 SE lon: 136.27E lat: 13.07 radius: 10.75 nm
vmag: 48.80 kts
quadmax: 26W 000 SW lon: 136.10E lat: 13.07 radius: 2.37 nm
vmag: 48.71 kts
quadmax: 26W 000 NW lon: 135.75E lat: 14.57 radius: 90.10 nm
vmag: 63.65 kts

---> R34 search underway for quadrant 1 radmax= 500.0000

dtemp(isortix(quadct(k)))= 499.803344726562
isortix(1) = 552
isortix(quadct(k)) = 5
iwindix= 1 exactdistnm = 206.4392
vradius(iwindix,k) = 206
iwindix= 2 exactdistnm = 124.6489
vradius(iwindix,k) = 125
iwindix= 3 exactdistnm = 97.23786
vradius(iwindix,k) = 97

---> R34 search underway for quadrant 2 radmax= 500.0000

dtemp(isortix(quadct(k)))= 499.381561279297
isortix(1) = 1
isortix(quadct(k)) = 263
iwindix= 1 exactdistnm = 91.09296
vradius(iwindix,k) = 91

---> R34 search underway for quadrant 3 radmax= 500.0000

dtemp(isortix(quadct(k)))= 499.401000976562
isortix(1) = 27
isortix(quadct(k)) = 160
iwindix= 1 exactdistnm = 50.43651
vradius(iwindix,k) = 50

---> R34 search underway for quadrant 4 radmax= 500.0000

dtemp(isortix(quadct(k)))= 499.638580322266
isortix(1) = 553
isortix(quadct(k)) = 1
iwindix= 1 exactdistnm = 188.6079
vradius(iwindix,k) = 189
iwindix= 2 exactdistnm = 118.3163
vradius(iwindix,k) = 118

After call to fixcenter, fix positions at
forecast hour= 0:00 follow:

fixpos 26W fhr= 0:00 Fix position= 136.09E (223.91W) 13.11
Max Wind= 67 kts

TTT top of atcfunix, ist= 1 ifh= 0

in output_atcfunix, tcv_storm_id= 26W
in output_atcfunix, tcv_storm_id(3:3)= W
output: rlastbar= 1.5382053E-41 irlastbar= -99
output: plastbar= 27695.30 iplastbar= -99
rmax= 87.77917 irmax= 88

Beginning of get_ij_bounds...

geslat= 13.10861 geslon= 136.0926

+++ Near top of get_ij_bounds,
+++ geslat= 13.10861 geslon= 136.0926
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 54
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jmaxlatpts= 110
+++ jlatfix= 197
+++ jbeg= 87 jend= 307
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 110 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 252
+++ (orig) ibeg= 142 iend= 362
+++

--- barnlon= 223.99W barnlat= 13.12
--- extraplon= 223.91W extraplat= 13.11

Current fix & updated fix positions
In get_next_ges, current fcst hour = 0.0000000E+00
current storm number = 1

```
| Return code from get_next_ges = 0
| Storm Name = MANGKHUT
| Storm ID = 26W
| Gen ID (if available): 2018091200_F000_139N_1362E_26W
| Current fix lat is 13.11
| Current fix lon is 223.91W (136.09E)
| Updated guess lat for next fcst hour is 13.11
| Updated guess lon for next fcst hour is 223.95W (136.05E)
-----
```

```
iocheck, dist= 5.388136 distm= 5388.136
iocheck, stmspd= 1.496704 istmspd= 15
iocheck, xincr= -4.3090820E-02 yincr= 5.2938461E-03
iocheck, stmdir= 277.0039 istmdir= 277
+++ RPT_STORM_MOTION: istmspd= 15 istmdir= 277 rcc= 0
```

Beginning of get_ij_bounds...

```
geslat= 13.10861 geslon= 136.0926
```

```
+++ Near top of get_ij_bounds,
+++ geslat= 13.10861 geslon= 136.0926
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 142741
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 285484
+++ jlatfix= 197
+++ jbeg= 1 jend= 349
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 142797 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 252
+++ (orig) ibeg= -142545 iend= 143049
+++
```

```
#-----#
# Entering loop to determine the mean and gridpoint #
# max zeta values at 850 and 700 mb for the purpose #
# of reporting them on the modified atcfunix file. #
#-----#
```

```
--- In get_zeta_values, ist= 1 ifh= 1
Fix location for this time: 136.09E (223.91W) 13.11
ilonfix= 252 jlatfix= 197
```

```
At beg of find_maxmin, rads= 200.0000 re= 75.00000 ri=
150.0000 cparm= zeta dx= 0.1722946 dy= 0.1621475
```

Beginning of get_ij_bounds...

```
geslat= 13.10861 geslon= 136.0926
```

```
+++ Near top of get_ij_bounds,
+++ geslat= 13.10861 geslon= 136.0926
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
```

```

+++ npts=                10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts=        22
+++ jlatfix=            197
+++ jbeg=                175  jend=                219
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts=        21  dx=    0.1722946      dy=    0.1621475
+++ (orig) ilonfix=      252
+++ (orig) ibeg=         231  iend=                273
+++

```

```

guesslon= 136.093E ( 223.907W)  guesslat= 13.109
ilonfix=   252  jlatfix=         197  npts=           10
ibeg=      231  jbeg=           175  imax=           409
iend=      273  jend=           219  jmax=           349
TIMING: find_maxmin 1 14:39:30

```

```

After 1st findmax loop, # calls to barnes =           24
Total # of barnes loop iterations =           3168
!!! Zeta check, fmax= 9.4839802E-04  fmin= 1.0000000E+12
After first run, ctlon= 223.573W  ctlat= 14.112  fmax (x10e5) =
0.948E+02  fmin (x10e5) =           0.100E+18

```

```

Beginning of get_ij_bounds...
  geslat= 14.11194      geslon= 136.4270

```

```

+++ Near top of get_ij_bounds,
+++ geslat= 14.11194      geslon= 136.4270
+++ rglatmax= 44.92863    rglatmin= -9.516106
+++ rglonmax= 163.1479   rglonmin= 92.85205
+++ imax=      409  jmax=      349
+++ dx= 0.1722946  dy= 0.1621475  nhalf=           2
+++ npts=           5
+++ jhlatpts=           5  jripts=           9
+++ jbmaxlatpts=         14
+++ jlatfix=           191
+++ jbeg=           177  jend=           205
+++ rdeg= 0.6270790    ri= 150.0000    cosfac= 0.9698212
+++ dtr= 1.7453292E-02  dtk= 111.1949    dlon= 1.390960
+++ ibmaxlonpts=        16  dx= 0.1722946  dy= 0.1621475
+++ (orig) ilonfix=      254
+++ (orig) ibeg=         238  iend=           270
+++

```

```

After first pass through barnes, re and ri have NOT
been changed.  re = 75.00000    ri = 150.0000
TIMING: find_maxmin kloop, k= 1 14:39:30

```

```

find_maxmin nhalf loop, cparm= zeta k=           1
guesslon= 136.427E ( 223.573W)  guesslat= 14.112
ilonfix=   254  jlatfix=         191  npts=           5
ibeg=      238  jbeg=           177  imax=           409
iend=      270  jend=           205  jmax=           349
nhalf=       2  iskip=           2
nhalf findmax, k= 1 ctlon= 223.489W  ctlat= 13.861  fmax (x10e5) =
0.828E+01  fmin (x10e5) =           0.100E+21
TIMING: find_maxmin kloop, k= 2 14:39:30

```

```

find_maxmin nhalf loop, cparm= zeta k=           2

```

```
guesslon= 136.511E ( 223.489W)   guesslat= 13.861
ilonfix=      254  jlatfix=      191  npts=      5
ibeg=      238  jbeg=      177  imax=      409
iend=      270  jend=      205  jmax=      349
nhalf=      2  iskip=      2
nhalf findmax, k= 2  ctlon= 223.448W  ctlat= 13.736  fmax (x10e5) =
0.109E+02  fmin (x10e5) =      0.100E+21
```

```
ppp after 2nd findmax loop, # calls to barnes =      72
ppp Total # of barnes loop iterations =      18360
+++ RPT_MEAN_ZETA: n= 1 lev= 850 xmeanzeta= 0.000109  imeanzeta
(*1e6)=      109
--- mean zeta raw = 1.0879694E-04
+++ RPT_GRID_ZETA: n= 1 lev= 850 grid zeta= 0.000008  igrd zeta
(*1e6)=      8  ifilret= 0
--- grid zeta raw= 8.1426406E-06
```

```
At beg of find_maxmin, rads= 200.0000      re= 75.00000      ri=
150.0000      cparm= zeta dx= 0.1722946      dy= 0.1621475
```

Beginning of get_ij_bounds...

```
geslat= 13.10861      geslon= 136.0926
```

```
+++ Near top of get_ij_bounds,
+++ geslat= 13.10861      geslon= 136.0926
+++ rglatmax= 44.92863      rglatmin= -9.516106
+++ rglonmax= 163.1479      rglonmin= 92.85205
+++ imax= 409  jmax= 349
+++ dx= 0.1722946      dy= 0.1621475      nhalf= 0
+++ npts= 10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 22
+++ jlatfix= 197
+++ jbeg= 175  jend= 219
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 21  dx= 0.1722946      dy= 0.1621475
+++ (orig) ilonfix= 252
+++ (orig) ibeg= 231  iend= 273
+++
```

```
guesslon= 136.093E ( 223.907W)   guesslat= 13.109
ilonfix=      252  jlatfix=      197  npts=      10
ibeg=      231  jbeg=      175  imax=      409
iend=      273  jend=      219  jmax=      349
TIMING: find_maxmin 1 14:39:30
```

```
After 1st findmax loop, # calls to barnes =      24
Total # of barnes loop iterations =      3168
!!! Zeta check, fmax= 8.8744808E-04  fmin= 1.0000000E+12
After first run, ctlon= 223.573W  ctlat= 14.112  fmax (x10e5) =
0.887E+02  fmin (x10e5) =      0.100E+18
```

Beginning of get_ij_bounds...

```
geslat= 14.11194      geslon= 136.4270
```

```
+++ Near top of get_ij_bounds,
+++ geslat= 14.11194      geslon= 136.4270
+++ rglatmax= 44.92863      rglatmin= -9.516106
```

```

+++ rglonmax=    163.1479    rglonmin=    92.85205
+++ imax=        409    jmax=        349
+++ dx=    0.1722946    dy=    0.1621475    nhalf=    2
+++ npts=        5
+++ jhlatpts=        5    jripts=        9
+++ jbmaxlatpts=        14
+++ jlatfix=        191
+++ jbeg=        177    jend=        205
+++ rdeg=    0.6270790    ri=    150.0000    cosfac=    0.9698212
+++ dtr=    1.7453292E-02    dtk=    111.1949    dlon=    1.390960
+++ ibmaxlonpts=        16    dx=    0.1722946    dy=    0.1621475
+++ (orig) ilonfix=        254
+++ (orig) ibeg=        238    iend=        270
+++

```

After first pass through barnes, re and ri have NOT been changed. re = 75.00000 ri = 150.0000
TIMING: find_maxmin kloop, k= 1 14:39:30

```

find_maxmin nhalf loop, cparm= zeta k=        1
guesslon= 136.427E ( 223.573W)    guesslat=    14.112
ilonfix=        254    jlatfix=        191    npts=        5
ibeg=        238    jbeg=        177    imax=        409
iend=        270    jend=        205    jmax=        349
nhalf=        2    iskip=        2
nhalf findmax, k= 1 ctlon= 223.489W ctlat=    13.861 fmax (x10e5) =
0.133E+02 fmin (x10e5) =    0.100E+21
TIMING: find_maxmin kloop, k= 2 14:39:30

```

```

find_maxmin nhalf loop, cparm= zeta k=        2
guesslon= 136.511E ( 223.489W)    guesslat=    13.861
ilonfix=        254    jlatfix=        191    npts=        5
ibeg=        238    jbeg=        177    imax=        409
iend=        270    jend=        205    jmax=        349
nhalf=        2    iskip=        2
nhalf findmax, k= 2 ctlon= 223.698W ctlat=    13.736 fmax (x10e5) =
0.142E+02 fmin (x10e5) =    0.100E+21

```

```

ppp after 2nd findmax loop, # calls to barnes =        72
ppp Total # of barnes loop iterations =    18360
+++ RPT_MEAN_ZETA: n= 2 lev= 700 xmeanzeta= 0.000142 imeanzeta
(*1e6)=    142
--- mean zeta raw =    1.4243709E-04
+++ RPT_GRID_ZETA: n= 2 lev= 700 grid zeta= 0.000062 igrid zeta
(*1e6)=    62 ifilret= 0
--- grid zeta raw=    6.2489475E-05

```

```

#-----#
# End of loop to get 850 & 700 zeta for atcf file. #
#-----#

```

```

+++ Top of output_atcf_sink, ist=        1    ifh=        0

```

Beginning of get_ij_bounds...

```

geslat=    13.10861    geslon=    136.0926

```

```

+++ Near top of get_ij_bounds,
+++ geslat=    13.10861    geslon=    136.0926
+++ rglatmax=    44.92863    rglatmin=    -9.516106

```

```

+++ rglonmax=    163.1479    rglonmin=    92.85205
+++ imax=        409    jmax=        349
+++ dx=    0.1722946    dy=    0.1621475    nhalf=    0
+++ npts=        54
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts=    110
+++ jlatfix=        197
+++ jbeg=        87    jend=        307
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts=    110    dx=    0.1722946    dy=    0.1621475
+++ (orig) ilonfix=    252
+++ (orig) ibeg=    142    iend=    362
+++

```

```

--- barnlon=    223.99W    barnlat=    13.12
--- extraplon=    223.91W    extraplat=    13.11

```

```

-----
|           Current fix & updated fix positions           |
-----
| In get_next_ges, current fcst hour    =    0.0000000E+00
|           current storm number    =    1
| Return code from get_next_ges    =    0
| Storm Name = MANGKHUT
| Storm ID = 26W
| Gen ID (if available): 2018091200_F000_139N_1362E_26W
| Current fix lat is    13.11
| Current fix lon is    223.91W    ( 136.09E)
| Updated guess lat for next fcst hour is    13.11
| Updated guess lon for next fcst hour is    223.95W    ( 136.05E)
-----

```

```

iocheck, dist=    5.388136    distm=    5388.136
iocheck, stmspd=    1.496704    istmspd=    15
iocheck, xincr= -4.3090820E-02    yincr=    5.2938461E-03
iocheck, stmdir=    277.0039    istmdir=    277

```

```

*-----*
*   New forecast hour:    1:00
*-----*
in getgridinfo_netcdf, ncfile_id=    65536

```

```

In getgridinfo, grid dimensions follow:
imax=    409    jmax=    349
dx=    0.1722946    dy=    0.1621475

```

```

DX:  midi=    204    dx=    0.1723
DY:  midj=    174    dy=    0.1621

```

```

Data Grid Lat/Lon boundaries follow:
Min Lat:    -9.516    Min Lon:    92.852
Max Lat:    44.929    Max Lon:    163.148
TEST after getgridinfo in sub tracker, iggret=    0
in beginning of tracker, imax=    409    jmax=    349
TIMING: b4 getdata ... 14:39:30

```

```

NOTE: Program is now in subroutine getdata_netcdf.
+++ Time match in getdata_netcdf for usertime=    60
    netcdf file index= ncix=    2
+++ NetCDF read requested for parm #    1 ... parm=

```

```

ABS_VORTICITY_850

In get_var3_tlev_double, ifh=          2
                        ltix(ifh)=    2

After read, parm= ABS_VORTICITY_850      ifh=          2
  lead time index=          2 parm# (ip) =          1 ncix=
2
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  1:00          1          ABS_VORTICITY_850          -
0.3918E-03  0.2252E-02
+++ NetCDF read requested for parm #          2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh=          2
                        ltix(ifh)=    2

After read, parm= ABS_VORTICITY_700      ifh=          2
  lead time index=          2 parm# (ip) =          2 ncix=
2
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  1:00          2          ABS_VORTICITY_700          -
0.2820E-03  0.1641E-02
+++ NetCDF read requested for parm #          3 ... parm=
U_850

In get_var3_tlev_double, ifh=          2
                        ltix(ifh)=    2

After read, parm= U_850                  ifh=          2
  lead time index=          2 parm# (ip) =          3 ncix=
2
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  1:00          3          U_850          -
64.70          0.1000E+21
+++ NetCDF read requested for parm #          4 ... parm=
V_850

In get_var3_tlev_double, ifh=          2
                        ltix(ifh)=    2

After read, parm= V_850                  ifh=          2
  lead time index=          2 parm# (ip) =          4 ncix=
2
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  1:00          4          V_850          -
58.66          0.1000E+21
+++ NetCDF read requested for parm #          5 ... parm=
U_700

In get_var3_tlev_double, ifh=          2
                        ltix(ifh)=    2

After read, parm= U_700                  ifh=          2
  lead time index=          2 parm# (ip) =          5 ncix=
2

```



```

    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      1:00              5        U_700
56.52      0.1000E+21
+++ NetCDF read requested for parm #    6 ... parm=
V_700

    In get_var3_tlev_double, ifh=          2
                          ltix(ifh)=      2

    After read, parm= V_700
    lead time index=          2 parm# (ip) =          6 ncix=          2
2

    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      1:00              6        V_700
44.57      0.1000E+21
+++ NetCDF read requested for parm #    7 ... parm=
Z_850

    In get_var3_tlev_double, ifh=          2
                          ltix(ifh)=      2

    After read, parm= Z_850
    lead time index=          2 parm# (ip) =          7 ncix=          2
2

    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      1:00              7        Z_850
1051.      0.1000E+21
+++ NetCDF read requested for parm #    8 ... parm=
Z_700

    In get_var3_tlev_double, ifh=          2
                          ltix(ifh)=      2

    After read, parm= Z_700
    lead time index=          2 parm# (ip) =          8 ncix=          2
2

    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      1:00              8        Z_700
2725.      0.1000E+21
+++ NetCDF read requested for parm #    9 ... parm=
slp

    In get_var3_tlev_double, ifh=          2
                          ltix(ifh)=      2

    After read, parm= slp
    lead time index=          2 parm# (ip) =          9 ncix=          2
2

    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      1:00              9        slp
0.9577E+05  0.1028E+06
+++ NetCDF read requested for parm #   10 ... parm=
u_10m_gr

    In get_var3_tlev_double, ifh=          2

```

```

                ltix(ifh)=                2

After read, parm= u_10m_gr                ifh=                2
  lead time index=                2  parm# (ip) =                10  ncix=
2
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  1:00                10        u_10m_gr
39.14                34.47
+++ NetCDF read requested for parm #                11  ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=                2
                ltix(ifh)=                2

After read, parm= v_10m_gr                ifh=                2
  lead time index=                2  parm# (ip) =                11  ncix=
2
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  1:00                11        v_10m_gr
37.15                34.63
+++ NetCDF read requested for parm #                12  ... parm=
U_500

In get_var3_tlev_double, ifh=                2
                ltix(ifh)=                2

After read, parm= U_500                ifh=                2
  lead time index=                2  parm# (ip) =                12  ncix=
2
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  1:00                12        U_500
46.90                33.40
+++ NetCDF read requested for parm #                13  ... parm=
V_500

In get_var3_tlev_double, ifh=                2
                ltix(ifh)=                2

After read, parm= V_500                ifh=                2
  lead time index=                2  parm# (ip) =                13  ncix=
2
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  1:00                13        V_500
39.97                46.96
!!! NetCDF read NOT requested for parm #                14
+++ NetCDF read requested for parm #                15  ... parm=
Z_500

In get_var3_tlev_double, ifh=                2
                ltix(ifh)=                2

After read, parm= Z_500                ifh=                2
  lead time index=                2  parm# (ip) =                15  ncix=
2
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval

```

```

1:00          15          Z_500
5527.      5925.
+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=          2
                        ltix(ifh)=          2

After read, parm= Z_200          ifh=          2
lead time index=          2 parm# (ip) =          16 ncix=
2
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
1:00          16          Z_200
0.1187E+05  0.1253E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:39:31

Of          17 readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =          38316.57          dlat_inter =
36059.95

```

```

-----
|          *** TOP OF STORM LOOP ***
| Beginning of storm loop in tracker for
| Storm number          1
| Forecast hour:      1:00
| Storm name = MANGKHUT
| Storm ID   = 26W
| Gen ID (if available): 2018091200_F000_139N_1362E_26W
-----

```

```

---      ---      ---
Now calling find_maxmin for zeta at 850 mb

```

```

At beg of find_maxmin, rads=          200.0000          re=          75.00000          ri=
150.0000          cparm= zeta dx=          0.1722946          dy=          0.1621475

```

```

Beginning of get_ij_bounds...

```

```

geslat=          13.11391          geslon=          136.0495

```

```

+++ Near top of get_ij_bounds,
+++ geslat=          13.11391          geslon=          136.0495
+++ rglatmax=          44.92863          rglatmin=          -9.516106
+++ rglonmax=          163.1479          rglonmin=          92.85205
+++ imax=          409          jmax=          349
+++ dx=          0.1722946          dy=          0.1621475          nhalf=          0
+++ npts=          10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts=          22
+++ jlatfix=          197
+++ jbeg=          175          jend=          219
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts=          21          dx=          0.1722946          dy=          0.1621475
+++ (orig) ilonfix=          252
+++ (orig) ibeg=          231          iend=          273
+++

```

guesslon= 136.049E (223.951W) guesslat= 13.114
ilonfix= 252 jlatfix= 197 npts= 10
ibeg= 231 jbeg= 175 imax= 409
iend= 273 jend= 219 jmax= 349
TIMING: find_maxmin 1 14:39:31

After 1st findmax loop, # calls to barnes = 24
Total # of barnes loop iterations = 3168
!!! Zeta check, fmax= 8.4560137E-04 fmin= 1.0000000E+12
After first run, ctlon= 223.616W ctlat= 14.117 fmax (x10e5) =
0.846E+02 fmin (x10e5) = 0.100E+18

Beginning of get_ij_bounds...
geslat= 14.11724 geslon= 136.3839

+++ Near top of get_ij_bounds,
+++ geslat= 14.11724 geslon= 136.3839
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 2
+++ npts= 5
+++ jhlatpts= 5 jripts= 9
+++ jbmaxlatpts= 14
+++ jlatfix= 191
+++ jbeg= 177 jend= 205
+++ rdeg= 0.6270790 ri= 150.0000 cosfac= 0.9697987
+++ dtr= 1.7453292E-02 dtk= 111.1949 dlon= 1.390993
+++ ibmaxlonpts= 16 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 254
+++ (orig) ibeg= 238 iend= 270
+++

After first pass through barnes, re and ri have NOT
been changed. re = 75.00000 ri = 150.0000
TIMING: find_maxmin kloop, k= 1 14:39:31

find_maxmin nhalf loop, cparm= zeta k= 1
guesslon= 136.384E (223.616W) guesslat= 14.117
ilonfix= 254 jlatfix= 191 npts= 5
ibeg= 238 jbeg= 177 imax= 409
iend= 270 jend= 205 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 1 ctlon= 223.867W ctlat= 13.866 fmax (x10e5) =
0.116E+02 fmin (x10e5) = 0.100E+21
TIMING: find_maxmin kloop, k= 2 14:39:31

find_maxmin nhalf loop, cparm= zeta k= 2
guesslon= 136.133E (223.867W) guesslat= 13.866
ilonfix= 254 jlatfix= 191 npts= 5
ibeg= 238 jbeg= 177 imax= 409
iend= 270 jend= 205 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 2 ctlon= 223.658W ctlat= 13.741 fmax (x10e5) =
0.120E+02 fmin (x10e5) = 0.100E+21

ppp after 2nd findmax loop, # calls to barnes = 72
ppp Total # of barnes loop iterations = 18360

--- --- ---
Now calling find_maxmin for zeta at 700 mb

At beg of find_maxmin, rads= 200.0000 re= 75.00000 ri=
150.0000 cparm= zeta dx= 0.1722946 dy= 0.1621475

Beginning of get_ij_bounds...

geslat= 13.11391 geslon= 136.0495

```
+++ Near top of get_ij_bounds,
+++ geslat= 13.11391 geslon= 136.0495
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 22
+++ jlatfix= 197
+++ jbeg= 175 jend= 219
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 21 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 252
+++ (orig) ibeg= 231 iend= 273
+++
```

guesslon= 136.049E (223.951W) guesslat= 13.114
ilonfix= 252 jlatfix= 197 npts= 10
ibeg= 231 jbeg= 175 imax= 409
iend= 273 jend= 219 jmax= 349
TIMING: find_maxmin 1 14:39:31

After 1st findmax loop, # calls to barnes = 24
Total # of barnes loop iterations = 3168
!!! Zeta check, fmax= 8.3675189E-04 fmin= 1.0000000E+12
After first run, ctlon= 224.285W ctlat= 14.117 fmax (x10e5) =
0.837E+02 fmin (x10e5) = 0.100E+18

Beginning of get_ij_bounds...

geslat= 14.11724 geslon= 135.7150

```
+++ Near top of get_ij_bounds,
+++ geslat= 14.11724 geslon= 135.7150
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 2
+++ npts= 5
+++ jhlatpts= 5 jripts= 9
+++ jbmaxlatpts= 14
+++ jlatfix= 191
+++ jbeg= 177 jend= 205
+++ rdeg= 0.6270790 ri= 150.0000 cosfac= 0.9697987
+++ dtr= 1.7453292E-02 dtk= 111.1949 dlon= 1.390993
+++ ibmaxlonpts= 16 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 250
+++ (orig) ibeg= 234 iend= 266
+++
```

After first pass through barnes, re and ri have NOT
been changed. re = 75.00000 ri = 150.0000
TIMING: find_maxmin kloop, k= 1 14:39:31

```
find_maxmin nhalf loop, cparm= zeta k= 1
guesslon= 135.715E ( 224.285W) guesslat= 14.117
ilonfix= 250 jlatfix= 191 npts= 5
ibeg= 234 jbeg= 177 imax= 409
iend= 266 jend= 205 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 1 ctlon= 224.201W ctlat= 13.866 fmax (x10e5) =
0.129E+02 fmin (x10e5) = 0.100E+21
TIMING: find_maxmin kloop, k= 2 14:39:31
```

```
find_maxmin nhalf loop, cparm= zeta k= 2
guesslon= 135.799E ( 224.201W) guesslat= 13.866
ilonfix= 250 jlatfix= 191 npts= 5
ibeg= 234 jbeg= 177 imax= 409
iend= 266 jend= 205 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 2 ctlon= 223.992W ctlat= 13.741 fmax (x10e5) =
0.167E+02 fmin (x10e5) = 0.100E+21
```

ppp after 2nd findmax loop, # calls to barnes = 72
ppp Total # of barnes loop iterations = 18360

--- --- ---
Now calling find_maxmin for hgt at 850 mb

At beg of find_maxmin, rads= 200.0000 re= 75.00000 ri=
150.0000 cparm= hgt dx= 0.1722946 dy= 0.1621475

Beginning of get_ij_bounds...
geslat= 13.11391 geslon= 136.0495

```
+++ Near top of get_ij_bounds,
+++ geslat= 13.11391 geslon= 136.0495
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jmaxlatpts= 22
+++ jlatfix= 197
+++ jbeg= 175 jend= 219
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 21 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 252
+++ (orig) ibeg= 231 iend= 273
+++
```

```
guesslon= 136.049E ( 223.951W) guesslat= 13.114
ilonfix= 252 jlatfix= 197 npts= 10
ibeg= 231 jbeg= 175 imax= 409
iend= 273 jend= 219 jmax= 349
TIMING: find_maxmin 1 14:39:31
```

After 1st findmax loop, # calls to barnes = 24
Total # of barnes loop iterations = 3168
After first run, ctlon= 224.285W ctlat= 14.117 fmax = -
0.100E+13 fmin = 0.120E+04

Beginning of get_ij_bounds...
geslat= 14.11724 geslon= 135.7150

+++ Near top of get_ij_bounds,
+++ geslat= 14.11724 geslon= 135.7150
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 2
+++ npts= 5
+++ jhlatpts= 5 jripts= 9
+++ jbmaxlatpts= 14
+++ jlatfix= 191
+++ jbeg= 177 jend= 205
+++ rdeg= 0.6270790 ri= 150.0000 cosfac= 0.9697987
+++ dtr= 1.7453292E-02 dtk= 111.1949 dlon= 1.390993
+++ ibmaxlonpts= 16 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 250
+++ (orig) ibeg= 234 iend= 266
+++

After first pass through barnes, re and ri have NOT
been changed. re = 75.00000 ri = 150.0000
TIMING: find_maxmin kloop, k= 1 14:39:31

find_maxmin nhalf loop, cparm= hgt k= 1
guesslon= 135.715E (224.285W) guesslat= 14.117
ilonfix= 250 jlatfix= 191 npts= 5
ibeg= 234 jbeg= 177 imax= 409
iend= 266 jend= 205 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 1 ctlon= 224.703W ctlat= 13.699 fmax = -
0.100E+16 fmin = 0.000E+00
TIMING: find_maxmin kloop, k= 2 14:39:31

find_maxmin nhalf loop, cparm= hgt k= 2
guesslon= 135.297E (224.703W) guesslat= 13.699
ilonfix= 250 jlatfix= 191 npts= 5
ibeg= 234 jbeg= 177 imax= 409
iend= 266 jend= 205 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 2 ctlon= 224.912W ctlat= 13.490 fmax = -
0.100E+16 fmin = 0.000E+00

ppp after 2nd findmax loop, # calls to barnes = 72
ppp Total # of barnes loop iterations = 18360

--- --- ---

Now calling find_maxmin for hgt at 700 mb

At beg of find_maxmin, rads= 200.0000 re= 75.00000 ri=
150.0000 cparm= hgt dx= 0.1722946 dy= 0.1621475

Beginning of get_ij_bounds...

geslat= 13.11391 geslon= 136.0495

```
+++ Near top of get_ij_bounds,
+++ geslat= 13.11391 geslon= 136.0495
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 22
+++ jlatfix= 197
+++ jbeg= 175 jend= 219
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 21 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 252
+++ (orig) ibeg= 231 iend= 273
+++
```

```
guesslon= 136.049E ( 223.951W) guesslat= 13.114
ilonfix= 252 jlatfix= 197 npts= 10
ibeg= 231 jbeg= 175 imax= 409
iend= 273 jend= 219 jmax= 349
TIMING: find_maxmin 1 14:39:31
```

```
After 1st findmax loop, # calls to barnes = 24
Total # of barnes loop iterations = 3168
After first run, ctlon= 224.285W ctlat= 14.117 fmax = -
0.100E+13 fmin = 0.286E+04
```

```
Beginning of get_ij_bounds...
geslat= 14.11724 geslon= 135.7150
```

```
+++ Near top of get_ij_bounds,
+++ geslat= 14.11724 geslon= 135.7150
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 2
+++ npts= 5
+++ jhlatpts= 5 jripts= 9
+++ jbmaxlatpts= 14
+++ jlatfix= 191
+++ jbeg= 177 jend= 205
+++ rdeg= 0.6270790 ri= 150.0000 cosfac= 0.9697987
+++ dtr= 1.7453292E-02 dtk= 111.1949 dlon= 1.390993
+++ ibmaxlonpts= 16 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 250
+++ (orig) ibeg= 234 iend= 266
+++
```

```
After first pass through barnes, re and ri have NOT
been changed. re = 75.00000 ri = 150.0000
TIMING: find_maxmin kloop, k= 1 14:39:31
```

```
find_maxmin nhalf loop, cparm= hgt k= 1
guesslon= 135.715E ( 224.285W) guesslat= 14.117
ilonfix= 250 jlatfix= 191 npts= 5
```


ibeg= 234 jbeg= 177 imax= 409
iend= 266 jend= 205 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 1 ctlon= 224.703W ctlat= 13.699 fmax = -
0.100E+16 fmin = 0.000E+00
TIMING: find_maxmin kloop, k= 2 14:39:31

find_maxmin nhalf loop, cparm= hgt k= 2
guesslon= 135.297E (224.703W) guesslat= 13.699
ilonfix= 250 jlatfix= 191 npts= 5
ibeg= 234 jbeg= 177 imax= 409
iend= 266 jend= 205 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 2 ctlon= 224.912W ctlat= 13.490 fmax = -
0.100E+16 fmin = 0.000E+00

ppp after 2nd findmax loop, # calls to barnes = 72
ppp Total # of barnes loop iterations = 18360

--- --- ---
Now calling find_maxmin for mslp

At beg of find_maxmin, rads= 200.0000 re= 75.00000 ri=
150.0000 cparm= slp dx= 0.1722946 dy= 0.1621475

Beginning of get_ij_bounds...
geslat= 13.11391 geslon= 136.0495

+++ Near top of get_ij_bounds,
+++ geslat= 13.11391 geslon= 136.0495
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 22
+++ jlatfix= 197
+++ jbeg= 175 jend= 219
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 21 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 252
+++ (orig) ibeg= 231 iend= 273
+++

guesslon= 136.049E (223.951W) guesslat= 13.114
ilonfix= 252 jlatfix= 197 npts= 10
ibeg= 231 jbeg= 175 imax= 409
iend= 273 jend= 219 jmax= 349
TIMING: find_maxmin 1 14:39:31

After 1st findmax loop, # calls to barnes = 24
Total # of barnes loop iterations = 3168
After first run, ctlon= 224.285W ctlat= 14.117 fmax = -
0.100E+13 fmin = 0.975E+05

Beginning of get_ij_bounds...
geslat= 14.11724 geslon= 135.7150

```

+++ Near top of get_ij_bounds,
+++ geslat=    14.11724      geslon=    135.7150
+++ rglatmax=   44.92863      rglatmin=  -9.516106
+++ rglonmax=  163.1479      rglonmin=   92.85205
+++ imax=      409   jmax=    349
+++ dx=    0.1722946      dy=    0.1621475      nhalf=      2
+++ npts=      5
+++ jhlatpts=      5   jripts=      9
+++ jbmaxlatpts=      14
+++ jlatfix=      191
+++ jbeg=      177   jend=      205
+++ rdeg=   0.6270790      ri=    150.0000      cosfac=   0.9697987
+++ dtr=   1.7453292E-02   dtk=   111.1949      dlon=    1.390993
+++ ibmaxlonpts=      16   dx=    0.1722946      dy=    0.1621475
+++ (orig) ilonfix=      250
+++ (orig) ibeg=      234   iend=      266
+++

```

After first pass through barnes, re and ri have NOT been changed. re = 75.00000 ri = 150.0000
TIMING: find_maxmin kloop, k= 1 14:39:31

```

find_maxmin nhalf loop, cparm= slp k=      1
guesslon= 135.715E ( 224.285W) guesslat=  14.117
ilonfix=      250   jlatfix=      191   npts=      5
ibeg=      234   jbeg=      177   imax=      409
iend=      266   jend=      205   jmax=      349
nhalf=      2   iskip=      2
nhalf findmax, k= 1 ctlon= 224.703W ctlat=  13.699 fmax =      -
0.100E+16 fmin =      0.000E+00
TIMING: find_maxmin kloop, k= 2 14:39:31

```

```

find_maxmin nhalf loop, cparm= slp k=      2
guesslon= 135.297E ( 224.703W) guesslat=  13.699
ilonfix=      250   jlatfix=      191   npts=      5
ibeg=      234   jbeg=      177   imax=      409
iend=      266   jend=      205   jmax=      349
nhalf=      2   iskip=      2
nhalf findmax, k= 2 ctlon= 224.912W ctlat=  13.490 fmax =      -
0.100E+16 fmin =      0.000E+00

```

ppp after 2nd findmax loop, # calls to barnes = 72
ppp Total # of barnes loop iterations = 18360

--- --- ---
Now calling find_maxmin for sfc zeta

```

At beg of find_maxmin, rads=    200.0000      re=    75.00000      ri=
150.0000      cparm= zeta dx=    0.1722946      dy=    0.1621475

```

Beginning of get_ij_bounds...

```

geslat=    13.11391      geslon=    136.0495

```

```

+++ Near top of get_ij_bounds,
+++ geslat=    13.11391      geslon=    136.0495
+++ rglatmax=   44.92863      rglatmin=  -9.516106
+++ rglonmax=  163.1479      rglonmin=   92.85205
+++ imax=      409   jmax=    349

```

```

+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 22
+++ jlatfix= 197
+++ jbeg= 175 jend= 219
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 21 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 252
+++ (orig) ibeg= 231 iend= 273
+++

```

```

guesslon= 136.049E ( 223.951W) guesslat= 13.114
ilonfix= 252 jlatfix= 197 npts= 10
ibeg= 231 jbeg= 175 imax= 409
iend= 273 jend= 219 jmax= 349
TIMING: find_maxmin 1 14:39:31

```

```

After 1st findmax loop, # calls to barnes = 24
Total # of barnes loop iterations = 3168
!!! Zeta check, fmax= 5.1249639E-04 fmin= 1.0000000E+12
After first run, ctlon= 224.285W ctlat= 14.117 fmax (x10e5) =
0.512E+02 fmin (x10e5) = 0.100E+18

```

```

Beginning of get_ij_bounds...
geslat= 14.11724 geslon= 135.7150

```

```

+++ Near top of get_ij_bounds,
+++ geslat= 14.11724 geslon= 135.7150
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 2
+++ npts= 5
+++ jhlatpts= 5 jripts= 9
+++ jbmaxlatpts= 14
+++ jlatfix= 191
+++ jbeg= 177 jend= 205
+++ rdeg= 0.6270790 ri= 150.0000 cosfac= 0.9697987
+++ dtr= 1.7453292E-02 dtk= 111.1949 dlon= 1.390993
+++ ibmaxlonpts= 16 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 250
+++ (orig) ibeg= 234 iend= 266
+++

```

```

After first pass through barnes, re and ri have NOT
been changed. re = 75.00000 ri = 150.0000
TIMING: find_maxmin kloop, k= 1 14:39:31

```

```

find_maxmin nhalf loop, cparm= zeta k= 1
guesslon= 135.715E ( 224.285W) guesslat= 14.117
ilonfix= 250 jlatfix= 191 npts= 5
ibeg= 234 jbeg= 177 imax= 409
iend= 266 jend= 205 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 1 ctlon= 224.536W ctlat= 13.866 fmax (x10e5) =
0.416E+01 fmin (x10e5) = 0.100E+21
TIMING: find_maxmin kloop, k= 2 14:39:31

```

```
find_maxmin nhalf loop, cparm= zeta k=          2
guesslon= 135.464E ( 224.536W)  guesslat= 13.866
ilonfix=      250  jlatfix=      191  npts=          5
ibeg=      234  jbeg=      177  imax=      409
iend=      266  jend=      205  jmax=      349
nhalf=      2  iskip=      2
nhalf findmax, k= 2  ctlon= 224.745W  ctlat= 13.741  fmax (x10e5) =
0.427E+01  fmin (x10e5) =      0.100E+21
```

```
ppp after 2nd findmax loop, # calls to barnes =          72
ppp Total # of barnes loop iterations =      18360
```

```
--- --- ---
Now calling find_maxmin for thickness in
the 500-850 mb layer.
```

```
At beg of find_maxmin, rads=      200.0000      re=      75.00000      ri=
150.0000      cparm= thick dx= 0.1722946      dy= 0.1621475
```

```
Beginning of get_ij_bounds...
  geslat= 13.11391      geslon= 136.0495
```

```
+++ Near top of get_ij_bounds,
+++ geslat= 13.11391      geslon= 136.0495
+++ rglatmax= 44.92863      rglatmin= -9.516106
+++ rglonmax= 163.1479      rglonmin= 92.85205
+++ imax= 409  jmax= 349
+++ dx= 0.1722946      dy= 0.1621475      nhalf= 0
+++ npts= 10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 22
+++ jlatfix= 197
+++ jbeg= 175  jend= 219
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 21  dx= 0.1722946      dy= 0.1621475
+++ (orig) ilonfix= 252
+++ (orig) ibeg= 231  iend= 273
+++
```

```
guesslon= 136.049E ( 223.951W)  guesslat= 13.114
ilonfix=      252  jlatfix=      197  npts=          10
ibeg=      231  jbeg=      175  imax=      409
iend=      273  jend=      219  jmax=      349
TIMING: find_maxmin 1 14:39:31
```

```
After 1st findmax loop, # calls to barnes =          24
Total # of barnes loop iterations =      3168
After first run, ctlon= 224.285W  ctlat= 14.117  fmax =
0.443E+04  fmin =      0.100E+13
```

```
Beginning of get_ij_bounds...
  geslat= 14.11724      geslon= 135.7150
```

```
+++ Near top of get_ij_bounds,
+++ geslat= 14.11724      geslon= 135.7150
+++ rglatmax= 44.92863      rglatmin= -9.516106
+++ rglonmax= 163.1479      rglonmin= 92.85205
+++ imax= 409  jmax= 349
```

```

+++ dx= 0.1722946 dy= 0.1621475 nhalf= 2
+++ npts= 5
+++ jhlatpts= 5 jripts= 9
+++ jbmaxlatpts= 14
+++ jlatfix= 191
+++ jbeg= 177 jend= 205
+++ rdeg= 0.6270790 ri= 150.0000 cosfac= 0.9697987
+++ dtr= 1.7453292E-02 dtk= 111.1949 dlon= 1.390993
+++ ibmaxlonpts= 16 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 250
+++ (orig) ibeg= 234 iend= 266
+++

```

After first pass through barnes, re and ri have NOT been changed. re = 75.00000 ri = 150.0000
TIMING: find_maxmin kloop, k= 1 14:39:31

```

find_maxmin nhalf loop, cparm= thick k= 1
guesslon= 135.715E ( 224.285W) guesslat= 14.117
ilonfix= 250 jlatfix= 191 npts= 5
ibeg= 234 jbeg= 177 imax= 409
iend= 266 jend= 205 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 1 ctlon= 224.201W ctlat= 13.866 fmax =
0.437E+04 fmin = 0.100E+16
TIMING: find_maxmin kloop, k= 2 14:39:31

```

```

find_maxmin nhalf loop, cparm= thick k= 2
guesslon= 135.799E ( 224.201W) guesslat= 13.866
ilonfix= 250 jlatfix= 191 npts= 5
ibeg= 234 jbeg= 177 imax= 409
iend= 266 jend= 205 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 2 ctlon= 224.327W ctlat= 13.741 fmax =
0.438E+04 fmin = 0.100E+16

```

ppp after 2nd findmax loop, # calls to barnes = 72
ppp Total # of barnes loop iterations = 18360

--- --- ---

Now calling find_maxmin for thickness in the 200-500 mb layer.

At beg of find_maxmin, rads= 200.0000 re= 75.00000 ri= 150.0000
cparm= thick dx= 0.1722946 dy= 0.1621475

Beginning of get_ij_bounds...

geslat= 13.11391 geslon= 136.0495

```

+++ Near top of get_ij_bounds,
+++ geslat= 13.11391 geslon= 136.0495
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 22
+++ jlatfix= 197

```

```

+++ jbeg=          175  jend=          219
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts=          21  dx=    0.1722946  dy=    0.1621475
+++ (orig) ilonfix=          252
+++ (orig) ibeg=          231  iend=          273
+++

```

```

guesslon= 136.049E ( 223.951W)  guesslat= 13.114
ilonfix=          252  jlatfix=          197  npts=          10
ibeg=          231  jbeg=          175  imax=          409
iend=          273  jend=          219  jmax=          349
TIMING: find_maxmin 1 14:39:31

```

```

After 1st findmax loop, # calls to barnes =          24
Total # of barnes loop iterations =          3168
After first run, ctlon= 224.285W  ctlat= 14.117  fmax =
0.674E+04  fmin =          0.100E+13

```

```

Beginning of get_ij_bounds...
  geslat= 14.11724  geslon= 135.7150

```

```

+++ Near top of get_ij_bounds,
+++ geslat= 14.11724  geslon= 135.7150
+++ rglatmax= 44.92863  rglatmin= -9.516106
+++ rglonmax= 163.1479  rglonmin= 92.85205
+++ imax=          409  jmax=          349
+++ dx=    0.1722946  dy=    0.1621475  nhalf=          2
+++ npts=          5
+++ jhlatpts=          5  jripts=          9
+++ jbmaxlatpts=          14
+++ jlatfix=          191
+++ jbeg=          177  jend=          205
+++ rdeg= 0.6270790  ri= 150.0000  cosfac= 0.9697987
+++ dtr= 1.7453292E-02  dtk= 111.1949  dlon= 1.390993
+++ ibmaxlonpts=          16  dx=    0.1722946  dy=    0.1621475
+++ (orig) ilonfix=          250
+++ (orig) ibeg=          234  iend=          266
+++

```

```

After first pass through barnes, re and ri have NOT
been changed.  re = 75.00000  ri = 150.0000
TIMING: find_maxmin kloop, k= 1 14:39:31

```

```

find_maxmin nhalf loop, cparm= thick k=          1
guesslon= 135.715E ( 224.285W)  guesslat= 14.117
ilonfix=          250  jlatfix=          191  npts=          5
ibeg=          234  jbeg=          177  imax=          409
iend=          266  jend=          205  jmax=          349
nhalf=          2  iskip=          2
nhalf findmax, k= 1  ctlon= 223.867W  ctlat= 13.866  fmax =
0.669E+04  fmin =          0.100E+16
TIMING: find_maxmin kloop, k= 2 14:39:31

```

```

find_maxmin nhalf loop, cparm= thick k=          2
guesslon= 136.133E ( 223.867W)  guesslat= 13.866
ilonfix=          250  jlatfix=          191  npts=          5
ibeg=          234  jbeg=          177  imax=          409
iend=          266  jend=          205  jmax=          349
nhalf=          2  iskip=          2

```

nhalf findmax, k= 2 ctlon= 223.992W ctlat= 13.741 fmax =
0.669E+04 fmin = 0.100E+16

ppp after 2nd findmax loop, # calls to barnes = 72
ppp Total # of barnes loop iterations = 18360

--- --- ---
Now calling find_maxmin for thickness in
the 200-850 mb layer.

At beg of find_maxmin, rads= 200.0000 re= 75.00000 ri=
150.0000 cparm= thick dx= 0.1722946 dy= 0.1621475

Beginning of get_ij_bounds...
geslat= 13.11391 geslon= 136.0495

+++ Near top of get_ij_bounds,
+++ geslat= 13.11391 geslon= 136.0495
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 22
+++ jlatfix= 197
+++ jbeg= 175 jend= 219
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 21 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 252
+++ (orig) ibeg= 231 iend= 273
+++

guesslon= 136.049E (223.951W) guesslat= 13.114
ilonfix= 252 jlatfix= 197 npts= 10
ibeg= 231 jbeg= 175 imax= 409
iend= 273 jend= 219 jmax= 349
TIMING: find_maxmin 1 14:39:31

After 1st findmax loop, # calls to barnes = 24
Total # of barnes loop iterations = 3168
After first run, ctlon= 224.285W ctlat= 14.117 fmax =
0.112E+05 fmin = 0.100E+13

Beginning of get_ij_bounds...
geslat= 14.11724 geslon= 135.7150

+++ Near top of get_ij_bounds,
+++ geslat= 14.11724 geslon= 135.7150
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 2
+++ npts= 5
+++ jhlatpts= 5 jripts= 9
+++ jbmaxlatpts= 14
+++ jlatfix= 191
+++ jbeg= 177 jend= 205

```
+++ rdeg= 0.6270790 ri= 150.0000 cosfac= 0.9697987
+++ dtr= 1.7453292E-02 dtk= 111.1949 dlon= 1.390993
+++ ibmaxlonpts= 16 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 250
+++ (orig) ibeg= 234 iend= 266
+++
```

After first pass through barnes, re and ri have NOT
been changed. re = 75.00000 ri = 150.0000
TIMING: find_maxmin kloop, k= 1 14:39:31

```
find_maxmin nhalf loop, cparm= thick k= 1
guesslon= 135.715E ( 224.285W) guesslat= 14.117
ilonfix= 250 jlatfix= 191 npts= 5
ibeg= 234 jbeg= 177 imax= 409
iend= 266 jend= 205 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 1 ctlon= 223.867W ctlat= 13.866 fmax =
0.111E+05 fmin = 0.100E+16
TIMING: find_maxmin kloop, k= 2 14:39:31
```

```
find_maxmin nhalf loop, cparm= thick k= 2
guesslon= 136.133E ( 223.867W) guesslat= 13.866
ilonfix= 250 jlatfix= 191 npts= 5
ibeg= 234 jbeg= 177 imax= 409
iend= 266 jend= 205 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 2 ctlon= 223.992W ctlat= 13.741 fmax =
0.111E+05 fmin = 0.100E+16
```

ppp after 2nd findmax loop, # calls to barnes = 72
ppp Total # of barnes loop iterations = 18360

--- --- ---

Now calling get_wind_circulation for 850 mb

```
Before first call to get_wind_circulation,
glatmax= 44.92863
glatmin= -9.516106
glonmax= 163.1479
glonmin= 92.85205
trkrinfo%gridtype= regional
inp%modtyp= regional
cmaxmin= max
nlev850= 1
u(1,1,nlev850)= 2.720405
u(imax,jmax,nlev850)= -5.250233
imax= 409 jmax= 349
uvgeslon= 135.7330 uvgeslat= 13.59766
dx= 0.1722946 dy= 0.1621475 ist= 1
calcparm(3,ist)= T
clon(ist,ifh,3)= 0.0000000E+00
clat(ist,ifh,3)= 0.0000000E+00
xval(3)= 0.0000000E+00
TIMING: Before GWC 850 ... 14:39:31
```

```
top of get_wind_circulation,
glatmax= 44.92863
glatmin= -9.516106
glonmax= 163.1479
```



```
glonmin= 92.85205
trkrinfo%gridtype= regional
cmodel_type= regional
maxmin= max
imax= 409 jmax= 349
uvgeslon= 135.7330 uvgeslat= 13.59766
dx= 0.1722946 dy= 0.1621475 ist= 1
cflag= T
ctlon= 0.0000000E+00 ctlat= 0.0000000E+00
fxval= 0.0000000E+00
igwcret= 0
```

```
At beg of get_wind_circulation, rads= 200.0000 ri= 150.0000
dx= 0.1722946 dy= 0.1621475
in get_wind_circulation, nlev= 1
```

```
Beginning of get_ij_bounds...
geslat= 13.59766 geslon= 135.7330
```

```
+++ Near top of get_ij_bounds,
+++ geslat= 13.59766 geslon= 135.7330
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 22
+++ jlatfix= 194
+++ jbeg= 172 jend= 216
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 21 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 250
+++ (orig) ibeg= 229 iend= 271
+++
```

```
In get_wind_circulation, prior to first loop,
npts= 10 dell= 0.1672211 rads= 200.0000
```

```
After first run, Wind Circulation (NHEM) ctlon= 223.933W ctlat=
11.925 circ_diff_mean = -26.737
```

```
Beginning of get_ij_bounds...
geslat= 11.92544 geslon= 136.0674
```

```
+++ Near top of get_ij_bounds,
+++ geslat= 11.92544 geslon= 136.0674
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 2
+++ npts= 10
+++ jhlatpts= 9 jripts= 9
+++ jbmaxlatpts= 18
+++ jlatfix= 204
+++ jbeg= 186 jend= 222
+++ rdeg= 1.254158 ri= 150.0000 cosfac= 0.9784173
```

```

+++ dtr= 1.7453292E-02 dtk= 111.1949 dlon= 1.378740
+++ ibmaxlonpts= 20 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 252
+++ (orig) ibeg= 232 iend= 272
+++
TIMING: get_wind_circ kloop, k= 1 14:39:31

get_wind_circ nhalf loop, k= 1
guesslon= 136.067E ( 223.933W) guesslat= 11.925
ilonfix= 252 jlatfix= 204 npts= 10
ibeg= 232 jbeg= 186 imax= 409
iend= 272 jend= 222 jmax= 349
nhalf= 2 iskip= 2 rads= 100.0000

In get_wind_circulation, prior to loop k= 1
npts= 10 dell= 8.3610535E-02 rads= 100.0000

---> xmax_circ_diff_mean= -73.13734
nhalf get_wind_circ, k= 1 ctlon= 224.601W ctlat= 12.762 Wind
Circulation (NHEM: Max) = -73.137
TIMING: get_wind_circ kloop, k= 2 14:39:31

get_wind_circ nhalf loop, k= 2
guesslon= 135.399E ( 224.601W) guesslat= 12.762
ilonfix= 252 jlatfix= 204 npts= 10
ibeg= 232 jbeg= 186 imax= 409
iend= 272 jend= 222 jmax= 349
nhalf= 2 iskip= 2 rads= 100.0000

In get_wind_circulation, prior to loop k= 2
npts= 10 dell= 4.1805267E-02 rads= 100.0000

---> xmax_circ_diff_mean= -59.43549
nhalf get_wind_circ, k= 2 ctlon= 225.020W ctlat= 13.180 Wind
Circulation (NHEM: Max) = -59.435
TIMING: After GWC 850 ... 14:39:31

--- --- ---
Now calling get_wind_circulation for 700 mb
TIMING: Before GWC 700 ... 14:39:31

top of get_wind_circulation,
glatmax= 44.92863
glatmin= -9.516106
glonmax= 163.1479
glonmin= 92.85205
trkrinfo%gridtype= regional
cmodel_type= regional
maxmin= max
imax= 409 jmax= 349
uvgeslon= 135.7330 uvgeslat= 13.59766
dx= 0.1722946 dy= 0.1621475 ist= 1
cflag= T
ctlon= 0.0000000E+00 ctlat= 0.0000000E+00
fxval= 0.0000000E+00
igwcret= 0

At beg of get_wind_circulation, rads= 200.0000 ri= 150.0000
dx= 0.1722946 dy= 0.1621475

```

in get_wind_circulation, nlev= 2

Beginning of get_ij_bounds...

geslat= 13.59766 geslon= 135.7330

+++ Near top of get_ij_bounds,

+++ geslat= 13.59766 geslon= 135.7330
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 22
+++ jlatfix= 194
+++ jbeg= 172 jend= 216
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 21 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 250
+++ (orig) ibeg= 229 iend= 271
+++

In get_wind_circulation, prior to first loop,

npts= 10 dell= 0.1672211 rads= 200.0000

After first run, Wind Circulation (NHEM) ctlon= 224.601W ctlat=
15.270 circ_diff_mean = -31.751

Beginning of get_ij_bounds...

geslat= 15.26987 geslon= 135.3985

+++ Near top of get_ij_bounds,

+++ geslat= 15.26987 geslon= 135.3985
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 2
+++ npts= 10
+++ jhlatpts= 9 jripts= 9
+++ jbmaxlatpts= 18
+++ jlatfix= 183
+++ jbeg= 165 jend= 201
+++ rdeg= 1.254158 ri= 150.0000 cosfac= 0.9646960
+++ dtr= 1.7453292E-02 dtk= 111.1949 dlon= 1.398350
+++ ibmaxlonpts= 20 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 248
+++ (orig) ibeg= 228 iend= 268
+++

TIMING: get_wind_circ kloop, k= 1 14:39:31

get_wind_circ nhalf loop, k= 1
guesslon= 135.399E (224.601W) guesslat= 15.270
ilonfix= 248 jlatfix= 183 npts= 10
ibeg= 228 jbeg= 165 imax= 409
iend= 268 jend= 201 jmax= 349
nhalf= 2 iskip= 2 rads= 100.0000

In get_wind_circulation, prior to loop k= 1

```

npts=          10 dell=  8.3610535E-02 rads=  100.0000

---> xmax_circ_diff_mean= -48.63411
nhalf get_wind_circ, k= 1 ctlon= 224.601W  ctlat= 14.434 Wind
Circulation (NHEM: Max) = -48.634
TIMING: get_wind_circ kloop, k= 2 14:39:31

get_wind_circ nhalf loop, k=          2
guesslon= 135.399E ( 224.601W)  guesslat= 14.434
ilonfix= 248  jlatfix= 183  npts= 10
ibeg= 228  jbeg= 165  imax= 409
iend= 268  jend= 201  jmax= 349
nhalf= 2  iskip= 2  rads= 100.0000

In get_wind_circulation, prior to loop k=          2
npts= 10 dell= 4.1805267E-02 rads= 100.0000

---> xmax_circ_diff_mean= -45.52413
nhalf get_wind_circ, k= 2 ctlon= 225.020W  ctlat= 14.016 Wind
Circulation (NHEM: Max) = -45.524
TIMING: After GWC 700 ... 14:39:31

---      ---      ---
Now calling get_wind_circulation for the
surface (10m) level
TIMING: Before GWC Sfc ... 14:39:31

top of get_wind_circulation,
glatmax= 44.92863
glatmin= -9.516106
glonmax= 163.1479
glonmin= 92.85205
trkrinfo%gridtype= regional
cmodel_type= regional
maxmin= max
imax= 409  jmax= 349
uvgeslon= 135.7330  uvgeslat= 13.59766
dx= 0.1722946  dy= 0.1621475  ist= 1
cflag= T
ctlon= 0.0000000E+00  ctlat= 0.0000000E+00
fxval= 0.0000000E+00
igwcret= 0

At beg of get_wind_circulation, rads= 200.0000  ri= 150.0000
dx=
0.1722946  dy= 0.1621475
in get_wind_circulation, nlev= 4

Beginning of get_ij_bounds...
geslat= 13.59766  geslon= 135.7330

+++ Near top of get_ij_bounds,
+++ geslat= 13.59766  geslon= 135.7330
+++ rglatmax= 44.92863  rglatmin= -9.516106
+++ rglonmax= 163.1479  rglonmin= 92.85205
+++ imax= 409  jmax= 349
+++ dx= 0.1722946  dy= 0.1621475  nhalf= 0
+++ npts= 10
+++ nhalf<=0 so jhlatpts and jripts unused

```

```
+++ jbmaxlatpts=          22
+++ jlatfix=             194
+++ jbeg=                172  jend=                216
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts=        21  dx=    0.1722946      dy=    0.1621475
+++ (orig) ilonfix=      250
+++ (orig) ibeg=         229  iend=                271
+++
```

```
In get_wind_circulation, prior to first loop,
  npts=          10  dell=    0.1672211      rads=    200.0000
```

```
After first run, Wind Circulation (NHEM) ctlon= 225.939W  ctlat=
13.932  circ_diff_mean =    -14.584
```

```
Beginning of get_ij_bounds...
  geslat=    13.93210      geslon=    134.0607
```

```
+++ Near top of get_ij_bounds,
+++ geslat=    13.93210      geslon=    134.0607
+++ rglatmax=    44.92863      rglatmin=   -9.516106
+++ rglonmax=    163.1479      rglonmin=    92.85205
+++ imax=        409  jmax=        349
+++ dx=    0.1722946      dy=    0.1621475      nhalf=        2
+++ npts=        10
+++ jhlatpts=        9  jripts=        9
+++ jbmaxlatpts=        18
+++ jlatfix=        192
+++ jbeg=        174  jend=        210
+++ rdeg=    1.254158      ri=    150.0000      cosfac=    0.9705818
+++ dtr=    1.7453292E-02  dtk=    111.1949      dlon=    1.389870
+++ ibmaxlonpts=        20  dx=    0.1722946      dy=    0.1621475
+++ (orig) ilonfix=        241
+++ (orig) ibeg=        221  iend=        261
+++
```

```
TIMING: get_wind_circ kloop, k= 1  14:39:31
```

```
get_wind_circ nhalf loop, k=          1
guesslon= 134.061E ( 225.939W)  guesslat= 13.932
ilonfix=    241  jlatfix=    192  npts=          10
ibeg=        221  jbeg=        174  imax=        409
iend=        261  jend=        210  jmax=        349
nhalf=        2  iskip=        2  rads=    100.0000
```

```
In get_wind_circulation, prior to loop k=          1
  npts=          10  dell=    8.3610535E-02  rads=    100.0000
```

```
---> xmax_circ_diff_mean=   -16.49233
nhalf get_wind_circ, k= 1 ctlon= 225.103W  ctlat= 13.932 Wind
Circulation (NHEM: Max) =   -16.492
```

```
TIMING: get_wind_circ kloop, k= 2  14:39:31
```

```
get_wind_circ nhalf loop, k=          2
guesslon= 134.897E ( 225.103W)  guesslat= 13.932
ilonfix=    241  jlatfix=    192  npts=          10
ibeg=        221  jbeg=        174  imax=        409
iend=        261  jend=        210  jmax=        349
nhalf=        2  iskip=        2  rads=    100.0000
```

In get_wind_circulation, prior to loop k= 2
 npts= 10 dell= 4.1805267E-02 rads= 100.0000

---> xmax_circ_diff_mean= -16.49233
 nhalf get_wind_circ, k= 2 ctlon= 225.103W ctlat= 13.932 Wind
 Circulation (NHEM: Max) = -16.492
 TIMING: After GWC Sfc ... 14:39:31

At beg of fixcenter, stderr(ist,ifh-1) = 94.55 xavg_stderr= 94.55
 At beg of fixcenter, errpgro = 1.250000
 At beg of fixcenter, errinit = 225.0000
 At beg of fixcenter, errpmax = 485.0000
 At beg of fixcenter, ifh= 2 errmax= 354.5533

 Individual fixes follow..., fhr= 1:00 26W MANGKHUT
 Gen ID (if available): 2018091200_F000_139N_1362E_26W
 Model name = WRF

Values of -99.99 indicate that a fix was unable to be made for that parameter. Parameters 4 & 6 are not used. Vorticity data values are scaled by 1e5. errrdist is the distance that the position estimate is from the guess position for this time. MSLP value here may differ from that in the atcfunix file since the one here is that derived from the area-averaged barnes analysis, while that in the atcfunix file is from a specific gridpoint.

Guess location for this time: 136.05E (223.95W) 13.11

parm#	parm	Max/Min	Lon_fix(E)	Lon_fix(W)	Lat_fix	
Max/Min_value	calcparm	errrdist	(km)			
-----	-----	-----	-----	-----	-----	-----
1	zeta 850	Max	136.34	223.66	13.74	
11.97	T	76.61				
2	zeta 700	Max	136.01	223.99	13.74	
16.72	T	69.91				
3	circ 850	Max	134.98	225.02	13.18	-
59.44	T	115.98				
4	NOT USED	NOT USED	0.00	0.00	0.00	
0.00	F	0.00				
5	circ 700	Max	134.98	225.02	14.02	-
45.52	T	152.99				
6	NOT USED	NOT USED	0.00	0.00	0.00	
0.00	F	0.00				
7	gph 850	Min	135.09	224.91	13.49	
0.00	T	112.12				
8	gph 700	Min	135.09	224.91	13.49	
0.00	T	112.12				
9	MSLP	Min	135.09	224.91	13.49	
0.00	T	112.12				
10	circ sfc	Max	134.90	225.10	13.93	-
16.49	T	154.28				
11	zeta sfc	Max	135.26	224.74	13.74	
4.27	T	110.67				
12	thk 5-8	Max	135.67	224.33	13.74	
4376.38	T	80.76				
13	thk 2-5	Max	136.01	223.99	13.74	
6691.24	T	69.91				

```
14      thk 2-8      Max      136.01      223.99      13.74
11065.21      T      69.91
```

```
After stdevcalc, xmn_dist_from_mean= 55.23203      stderr_close=
19.84398      isret= 0
ip= 1 kprm= 1 dist_from_mean= 96.537 devia= 4.865 wtpos= 0.19758
136.34 223.66 13.74
ip= 2 kprm= 2 dist_from_mean= 60.602 devia= 3.054 wtpos= 0.36133
136.01 223.99 13.74
ip= 3 kprm= 3 dist_from_mean= 74.596 devia= 3.759 wtpos= 0.28564
134.98 225.02 13.18
ip= 5 kprm= 4 dist_from_mean= 63.716 devia= 3.211 wtpos= 0.34291
134.98 225.02 14.02
ip= 7 kprm= 5 dist_from_mean= 43.994 devia= 2.217 wtpos= 0.47759
135.09 224.91 13.49
ip= 8 kprm= 6 dist_from_mean= 43.994 devia= 2.217 wtpos= 0.47759
135.09 224.91 13.49
ip= 9 kprm= 7 dist_from_mean= 43.994 devia= 2.217 wtpos= 0.47759
135.09 224.91 13.49
ip= 10 kprm= 8 dist_from_mean= 66.539 devia= 3.353 wtpos= 0.32703
134.90 225.10 13.93
ip= 11 kprm= 9 dist_from_mean= 22.433 devia= 1.130 wtpos= 0.68604
135.26 224.74 13.74
ip= 12 kprm= 10 dist_from_mean= 25.177 devia= 1.269 wtpos= 0.65514
135.67 224.33 13.74
ip= 13 kprm= 11 dist_from_mean= 60.602 devia= 3.054 wtpos= 0.36133
136.01 223.99 13.74
ip= 14 kprm= 12 dist_from_mean= 60.602 devia= 3.054 wtpos= 0.36133
136.01 223.99 13.74
```

```
At end of fixcenter: 26W fhr= 1:00 Fix position= 135.41E
(224.59W) 13.67
```

```
ttest, ifret= 0
ttest, calcparm(9,ist)= T
ttest, in IF part:
clon(ist,ifh,9)= 135.0879
clat(ist,ifh,9)= 13.49016
xval(9)= 0.0000000E+00
```

```
Beginning of get_ij_bounds...
geslat= 13.49016 geslon= 135.0879
```

```
+++ Near top of get_ij_bounds,
+++ geslat= 13.49016 geslon= 135.0879
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 17
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jmaxlatpts= 36
+++ jlatfix= 194
+++ jbeg= 158 jend= 230
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 28 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 247
+++ (orig) ibeg= 219 iend= 275
+++
```

```
After get_ij B, ibeg jbeg =          219          158
After get_ij B, iend jend =          275          230
```

```
In is_it_a_storm, ilonfix=          247  jlatfix=          194
ibeg jbeg iend jend =          219          158          275          230
cparm= slp  parmlon parmlat =          135.0879          13.49016
parmval=  0.0000000E+00
```

```
i= 239 j= 200 glon= 133.86 glat= 15.90 dist= 299.17 slp=
100141.32 pgradient= *****
```

```
In is_it_a_storm, valid pgradient found.
pgradient threshold = 0.00150
pgradient found      = *****
mslp center =          135.0879          13.49016          0.0000000E+00
pgrad loc   =          133.8580          15.90340          100141.3
ttest at location C IF....
  xinp_fixlat=          13.49016
  xinp_fixlon=          135.0879
ttest at location D
ttest at location E, ifilret=          0
ttest at location F
```

Checking 850 mb Vt speed using 850 mb

wind circulation fix:

```
850 mb wcirc fix lon=          134.9805
850 mb wcirc fix lat=          13.17960
Multi-parm fix lon=          135.4098
Multi-parm fix lat=          13.66854
```

Beginning of get_ij_bounds...

```
geslat= 13.17960 geslon= 134.9805
```

```
+++ Near top of get_ij_bounds,
+++ geslat= 13.17960 geslon= 134.9805
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 13
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jmaxlatpts= 28
+++ jlatfix= 196
+++ jbeg= 168 jend= 224
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 24 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 246
+++ (orig) ibeg= 222 iend= 270
+++
```

```
After get_ij B, ibeg jbeg =          222          168
After get_ij B, iend jend =          270          224
```

```
In is_it_a_storm, ilonfix=          246  jlatfix=          196
ibeg jbeg iend jend =          222          168          270          224
cparm= v850  parmlon parmlat =          134.9805          13.17960
parmval= -59.43549
```


i= 240 j= 206 glon= 134.03 glat= 14.91 u= -17.4361 v= -20.9414 vr= -
10.24029 vt= 25.25269
i= 242 j= 206 glon= 134.37 glat= 14.91 u= -23.1527 v= -23.4362 vr= -
14.71305 vt= 29.47590
i= 244 j= 206 glon= 134.72 glat= 14.91 u= -29.4497 v= -25.8634 vr= -
21.30401 vt= 32.89893
i= 246 j= 206 glon= 135.06 glat= 14.91 u= -37.6934 v= -27.2160 vr= -
28.97888 vt= 36.35555
i= 248 j= 206 glon= 135.41 glat= 14.91 u= -46.7147 v= -25.0461 vr= -
35.29066 vt= 39.54921
i= 250 j= 206 glon= 135.75 glat= 14.91 u= -52.1361 v= -17.1424 vr= -
36.51855 vt= 40.96865
i= 238 j= 208 glon= 133.69 glat= 14.57 u= -11.7777 v= -19.9789 vr= -
-6.92067 vt= 22.13540
i= 240 j= 208 glon= 134.03 glat= 14.57 u= -14.7621 v= -22.8389 vr= -
10.87553 vt= 24.92499
i= 242 j= 208 glon= 134.37 glat= 14.57 u= -19.7298 v= -27.2843 vr= -
17.45626 vt= 28.79192
i= 244 j= 208 glon= 134.72 glat= 14.57 u= -24.5998 v= -32.2417 vr= -
27.31446 vt= 29.97659
i= 246 j= 208 glon= 135.06 glat= 14.57 u= -32.2096 v= -37.6293 vr= -
39.44800 vt= 29.95464
i= 248 j= 208 glon= 135.41 glat= 14.57 u= -43.5983 v= -39.1056 vr= -
49.94475 vt= 30.58731
i= 250 j= 208 glon= 135.75 glat= 14.57 u= -60.0891 v= -24.4761 vr= -
50.06440 vt= 41.27155
i= 252 j= 208 glon= 136.10 glat= 14.57 u= -64.6965 v= 0.7470 vr= -
39.20066 vt= 51.47338
i= 254 j= 208 glon= 136.44 glat= 14.57 u= -55.1289 v= 22.4265 vr= -
23.69790 vt= 54.59439
i= 236 j= 210 glon= 133.34 glat= 14.24 u= -7.6101 v= -19.8046 vr= -
-4.60486 vt= 20.71067
i= 238 j= 210 glon= 133.69 glat= 14.24 u= -8.8314 v= -20.9835 vr= -
-6.74158 vt= 21.74512
i= 240 j= 210 glon= 134.03 glat= 14.24 u= -10.6537 v= -23.6849 vr= -
10.84421 vt= 23.59834
i= 242 j= 210 glon= 134.37 glat= 14.24 u= -13.6681 v= -29.9169 vr= -
19.51325 vt= 26.47772
i= 244 j= 210 glon= 134.72 glat= 14.24 u= -15.1953 v= -36.6758 vr= -
32.13181 vt= 23.31437
i= 246 j= 210 glon= 135.06 glat= 14.24 u= -18.5011 v= -46.4418 vr= -
47.72329 vt= 14.88699
i= 248 j= 210 glon= 135.41 glat= 14.24 u= -30.6817 v= -54.1540 vr= -
61.62236 vt= 8.75868
i= 250 j= 210 glon= 135.75 glat= 14.24 u= -36.6670 v= -22.3086 vr= -
39.41031 vt= 16.99916
i= 252 j= 210 glon= 136.10 glat= 14.24 u= -30.1236 v= 6.8142 vr= -
16.81819 vt= 25.90397
i= 254 j= 210 glon= 136.44 glat= 14.24 u= -32.5029 v= 40.0623 vr= -
-2.15810 vt= 51.54385
i= 236 j= 212 glon= 133.34 glat= 13.91 u= -4.7481 v= -19.8741 vr= -
-3.88396 vt= 20.06089
i= 238 j= 212 glon= 133.69 glat= 13.91 u= -5.5615 v= -21.4646 vr= -
-5.87838 vt= 21.37998
i= 240 j= 212 glon= 134.03 glat= 13.91 u= -5.7035 v= -23.2911 vr= -
-9.88615 vt= 21.84652
i= 242 j= 212 glon= 134.37 glat= 13.91 u= -6.2027 v= -29.4297 vr= -
18.93752 vt= 23.36562

i= 244 j= 212 glon= 134.72 glat= 13.91 u= -3.6676 v= -37.3146 vr= -
34.01162 vt= 15.78101
i= 246 j= 212 glon= 135.06 glat= 13.91 u= 0.7641 v= -46.6287 vr= -
46.24823 vt= -5.99343
i= 248 j= 212 glon= 135.41 glat= 13.91 u= 3.3740 v= -57.3839 vr= -
48.09176 vt= -31.48765
i= 250 j= 212 glon= 135.75 glat= 13.91 u= -2.3606 v= -21.9186 vr= -
16.91627 vt= -14.13633
i= 252 j= 212 glon= 136.10 glat= 13.91 u= 0.8141 v= 9.6278 vr= -
6.01823 vt= 7.55894
i= 254 j= 212 glon= 136.44 glat= 13.91 u= 9.2506 v= 38.5153 vr= -
25.71332 vt= 30.13011
i= 256 j= 212 glon= 136.79 glat= 13.91 u= -0.9303 v= 49.3896 vr= -
17.92362 vt= 46.03193
i= 234 j= 214 glon= 133.00 glat= 13.57 u= -2.2132 v= -15.9659 vr= -
-0.97090 vt= 16.08934
i= 236 j= 214 glon= 133.34 glat= 13.57 u= -1.7588 v= -19.2297 vr= -
-2.83985 vt= 19.09997
i= 238 j= 214 glon= 133.69 glat= 13.57 u= -1.9293 v= -21.9209 vr= -
-4.63286 vt= 21.51243
i= 240 j= 214 glon= 134.03 glat= 13.57 u= -1.2243 v= -22.7361 vr= -
-7.71519 vt= 21.42204
i= 242 j= 214 glon= 134.37 glat= 13.57 u= 0.2155 v= -26.0849 vr= -
14.59937 vt= 21.61780
i= 244 j= 214 glon= 134.72 glat= 13.57 u= 4.9330 v= -32.9039 vr= -
30.28142 vt= 13.78548
i= 246 j= 214 glon= 135.06 glat= 13.57 u= 15.2656 v= -38.5537 vr= -
34.63174 vt= -22.80495
i= 248 j= 214 glon= 135.41 glat= 13.57 u= 32.1651 v= -38.3319 vr= -
-2.77614 vt= -49.96222
i= 250 j= 214 glon= 135.75 glat= 13.57 u= 43.1568 v= -20.8787 vr= -
28.68338 vt= -38.41467
i= 252 j= 214 glon= 136.10 glat= 13.57 u= 43.8670 v= 12.8237 vr= -
45.62093 vt= -2.73635
i= 254 j= 214 glon= 136.44 glat= 13.57 u= 38.4808 v= 35.1824 vr= -
46.39978 vt= 23.78308
i= 256 j= 214 glon= 136.79 glat= 13.57 u= 17.4140 v= 40.3756 vr= -
25.70893 vt= 35.67199
i= 234 j= 216 glon= 133.00 glat= 13.24 u= -0.0615 v= -15.2973 vr= -
-0.35198 vt= 15.29338
i= 236 j= 216 glon= 133.34 glat= 13.24 u= 0.8963 v= -17.8532 vr= -
-1.50150 vt= 17.81248
i= 238 j= 216 glon= 133.69 glat= 13.24 u= 1.8276 v= -20.5993 vr= -
-2.71041 vt= 20.50186
i= 240 j= 216 glon= 134.03 glat= 13.24 u= 2.9394 v= -22.2456 vr= -
-4.27767 vt= 22.02740
i= 242 j= 216 glon= 134.37 glat= 13.24 u= 4.5879 v= -23.5197 vr= -
-6.79085 vt= 22.98060
i= 244 j= 216 glon= 134.72 glat= 13.24 u= 9.2027 v= -25.8035 vr= -
14.53872 vt= 23.21931
i= 246 j= 216 glon= 135.06 glat= 13.24 u= 18.0254 v= -27.7084 vr= -
-0.82139 vt= -33.04539
i= 248 j= 216 glon= 135.41 glat= 13.24 u= 29.9788 v= -24.8989 vr= -
26.39790 vt= -28.66767
i= 250 j= 216 glon= 135.75 glat= 13.24 u= 40.7294 v= -12.4227 vr= -
39.73202 vt= -15.31575
i= 252 j= 216 glon= 136.10 glat= 13.24 u= 41.6579 v= 5.5440 vr= -
41.88209 vt= 3.46497
i= 254 j= 216 glon= 136.44 glat= 13.24 u= 33.9341 v= 22.0270 vr= -
34.74729 vt= 20.72046

i= 256 j= 216 glon= 136.79 glat= 13.24 u= 22.9659 v= 27.8477 vr=
23.81235 vt= 27.12745
i= 234 j= 218 glon= 133.00 glat= 12.90 u= 1.9530 v= -14.3049 vr=
0.14682 vt= 14.43682
i= 236 j= 218 glon= 133.34 glat= 12.90 u= 3.0533 v= -16.4944 vr=
-0.13298 vt= 16.77404
i= 238 j= 218 glon= 133.69 glat= 12.90 u= 4.7622 v= -18.6208 vr=
-0.58695 vt= 19.21116
i= 240 j= 218 glon= 134.03 glat= 12.90 u= 6.3216 v= -19.5559 vr=
-0.36580 vt= 20.54902
i= 242 j= 218 glon= 134.37 glat= 12.90 u= 8.6523 v= -20.8160 vr=
1.12278 vt= 22.51457
i= 244 j= 218 glon= 134.72 glat= 12.90 u= 11.6408 v= -21.8615 vr=
8.34785 vt= 23.31837
i= 246 j= 218 glon= 135.06 glat= 12.90 u= 17.7491 v= -20.8480 vr=
25.02948 vt= 11.09927
i= 248 j= 218 glon= 135.41 glat= 12.90 u= 25.3491 v= -16.6340 vr=
30.31769 vt= 0.32044
i= 250 j= 218 glon= 135.75 glat= 12.90 u= 32.0545 v= -8.2910 vr=
32.93232 vt= 3.41950
i= 252 j= 218 glon= 136.10 glat= 12.90 u= 33.9399 v= 3.2286 vr=
32.05055 vt= 11.62336
i= 254 j= 218 glon= 136.44 glat= 12.90 u= 29.6823 v= 12.9978 vr=
26.58977 vt= 18.51929
i= 256 j= 218 glon= 136.79 glat= 12.90 u= 22.4261 v= 19.8255 vr=
18.99092 vt= 23.13711
i= 236 j= 220 glon= 133.34 glat= 12.56 u= 4.9712 v= -14.6029 vr=
0.63624 vt= 15.41270
i= 238 j= 220 glon= 133.69 glat= 12.56 u= 7.0822 v= -16.4896 vr=
0.88752 vt= 17.92422
i= 240 j= 220 glon= 134.03 glat= 12.56 u= 9.5290 v= -17.2240 vr=
1.61762 vt= 19.61762
i= 242 j= 220 glon= 134.37 glat= 12.56 u= 11.2864 v= -17.3067 vr=
4.69595 vt= 20.12096
i= 244 j= 220 glon= 134.72 glat= 12.56 u= 14.1319 v= -17.0489 vr=
10.36786 vt= 19.56736
i= 246 j= 220 glon= 135.06 glat= 12.56 u= 18.3513 v= -15.4345 vr=
17.71398 vt= 16.16191
i= 248 j= 220 glon= 135.41 glat= 12.56 u= 23.0533 v= -12.0893 vr=
22.93632 vt= 12.30986
i= 250 j= 220 glon= 135.75 glat= 12.56 u= 26.8087 v= -5.8570 vr=
24.45533 vt= 12.44784
i= 252 j= 220 glon= 136.10 glat= 12.56 u= 27.5877 v= 1.8540 vr=
23.08587 vt= 15.21712
i= 254 j= 220 glon= 136.44 glat= 12.56 u= 25.1460 v= 9.3238 vr=
19.35846 vt= 18.56088
i= 256 j= 220 glon= 136.79 glat= 12.56 u= 20.7659 v= 16.0902 vr=
14.25172 vt= 22.06818
i= 236 j= 222 glon= 133.34 glat= 12.23 u= 6.5164 v= -12.5197 vr=
0.82877 vt= 14.08966
i= 238 j= 222 glon= 133.69 glat= 12.23 u= 8.4149 v= -13.7062 vr=
1.55265 vt= 16.00812
i= 240 j= 222 glon= 134.03 glat= 12.23 u= 10.9158 v= -14.5373 vr=
2.82066 vt= 17.95913
i= 242 j= 222 glon= 134.37 glat= 12.23 u= 13.6251 v= -14.4260 vr=
5.08929 vt= 19.17945
i= 244 j= 222 glon= 134.72 glat= 12.23 u= 16.2500 v= -13.4002 vr=
8.75378 vt= 19.15725
i= 246 j= 222 glon= 135.06 glat= 12.23 u= 18.9100 v= -11.4776 vr=
13.04028 vt= 17.86822

```

i= 248 j= 222 glon= 135.41 glat= 12.23 u= 21.6556 v= -8.3496 vr=
16.33413 vt= 16.48876
i= 250 j= 222 glon= 135.75 glat= 12.23 u= 23.8426 v= -3.6570 vr=
17.65386 vt= 16.43725
i= 252 j= 222 glon= 136.10 glat= 12.23 u= 24.3552 v= 2.1480 vr=
16.90806 vt= 17.66088
i= 254 j= 222 glon= 136.44 glat= 12.23 u= 22.9994 v= 8.4934 vr=
14.38194 vt= 19.85623
i= 256 j= 222 glon= 136.79 glat= 12.23 u= 20.2351 v= 13.6093 vr=
11.29413 vt= 21.61285
i= 238 j= 224 glon= 133.69 glat= 11.89 u= 9.4387 v= -11.0602 vr=
1.30880 vt= 14.48119
i= 240 j= 224 glon= 134.03 glat= 11.89 u= 11.4708 v= -11.5256 vr=
2.67206 vt= 16.03995
i= 242 j= 224 glon= 134.37 glat= 11.89 u= 13.9712 v= -11.3220 vr=
4.47913 vt= 17.41604
i= 244 j= 224 glon= 134.72 glat= 11.89 u= 16.5625 v= -10.1511 vr=
6.74948 vt= 18.21557
i= 246 j= 224 glon= 135.06 glat= 11.89 u= 19.1046 v= -8.1367 vr=
9.33434 vt= 18.54886
i= 248 j= 224 glon= 135.41 glat= 11.89 u= 21.2032 v= -5.3477 vr=
11.61789 vt= 18.52558
i= 250 j= 224 glon= 135.75 glat= 11.89 u= 22.4316 v= -1.5071 vr=
12.61596 vt= 18.60873
i= 252 j= 224 glon= 136.10 glat= 11.89 u= 22.5129 v= 3.0975 vr=
12.15417 vt= 19.20160
i= 254 j= 224 glon= 136.44 glat= 11.89 u= 21.3208 v= 7.5769 vr=
10.71266 vt= 19.93053

```

```

In is_it_a_storm, average 850 tangential winds are OKAY (>= +
1.500000
m/s for a NH storm).
Avg 850 tangential winds = 17.21833 m/s

```

```

Distance between the parm centers for
850 zeta and mslp is 138.3740 (km)

```

```

The average speed that the storm moved
at since the previous forecast time is 52.13577 knots.

```

```

In get_max_wind, ibeg= 231 iend= 266
jbeg= 176 jend= 211
ilonfix= 249 jlatfix= 193
At end of get_max_wind, vmax= 40.25555 rmax= 62.04570

```

```

*****
AT BEGINNING OF GETRADII, input radmax= 500.0000
*****

```

```

xcenlon= 135.4098 xcenlat= 13.66854
imax= 409 jmax= 349 dx= 0.1722946 dy=
0.1621475

```

```

In getradii, ibeg= 221 iend= 276
jbeg= 165 jend= 222
ilonfix= 249 jlatfix= 193
in getradii, numalloc= 3305 radmax= 500.0000

```

```

After loop, quadct(1)= 560 quadct(2)= 231

```

```

quadct(3)=          240  quadct(4)=          587

quadmax: 26W 001 NE lon: 135.93E lat: 14.57 radius: 62.05 nm
vmag: 78.20 kts
quadmax: 26W 001 SE lon: 136.27E lat: 13.57 radius: 50.50 nm
vmag: 70.84 kts
quadmax: 26W 001 SW lon: 135.41E lat: 13.57 radius: 5.82 nm
vmag: 64.26 kts
quadmax: 26W 001 NW lon: 135.41E lat: 14.24 radius: 34.28 nm
vmag: 72.18 kts

---> R34 search underway for quadrant          1  radmax= 500.0000

dtemp(isortix(quadct(k)))= 499.066253662109
isortix(1) = 535
isortix(quadct(k)) = 6
iwindix= 1 exactdistnm = 173.3213
vradius(iwindix,k) = 173
iwindix= 2 exactdistnm = 124.7776
vradius(iwindix,k) = 125
iwindix= 3 exactdistnm = 102.7293
vradius(iwindix,k) = 103
---> R34 search underway for quadrant          2  radmax= 500.0000

dtemp(isortix(quadct(k)))= 495.872741699219
isortix(1) = 1
isortix(quadct(k)) = 156
iwindix= 1 exactdistnm = 160.8016
vradius(iwindix,k) = 161
iwindix= 2 exactdistnm = 100.6154
vradius(iwindix,k) = 101
iwindix= 3 exactdistnm = 60.65707
vradius(iwindix,k) = 61
---> R34 search underway for quadrant          3  radmax= 500.0000

dtemp(isortix(quadct(k)))= 496.116882324219
isortix(1) = 27
isortix(quadct(k)) = 136
iwindix= 1 exactdistnm = 77.01583
vradius(iwindix,k) = 77
iwindix= 2 exactdistnm = 28.80529
vradius(iwindix,k) = 29
iwindix= 3 exactdistnm = 6.146882
vradius(iwindix,k) = 6
---> R34 search underway for quadrant          4  radmax= 500.0000

dtemp(isortix(quadct(k)))= 499.119628906250
isortix(1) = 587
isortix(quadct(k)) = 1
iwindix= 1 exactdistnm = 144.3824
vradius(iwindix,k) = 144
iwindix= 2 exactdistnm = 84.31129
vradius(iwindix,k) = 84
iwindix= 3 exactdistnm = 54.52285
vradius(iwindix,k) = 55

```

After call to fixcenter, fix positions at
forecast hour= 1:00 follow:

fixpos 26W fhr= 1:00 Fix position= 135.41E (224.59W) 13.67
Max Wind= 78 kts

TTT top of atcfunix, ist= 1 ifh= 1

in output_atcfunix, tcv_storm_id= 26W
in output_atcfunix, tcv_storm_id(3:3)= W
output: rlastbar= 1.5382053E-41 irlastbar= -99
output: plastbar= 27695.30 iplastbar= -99
rmax= 62.04570 irmax= 62

Beginning of get_ij_bounds...

geslat= 13.66854 geslon= 135.4098

+++ Near top of get_ij_bounds,
+++ geslat= 13.66854 geslon= 135.4098
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 54
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 110
+++ jlatfix= 193
+++ jbeg= 83 jend= 303
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 110 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 249
+++ (orig) ibeg= 139 iend= 359
+++

--- barnlon= 224.74W barnlat= 13.64
--- extraplon= 225.27W extraplat= 14.23

Current fix & updated fix positions
In get_next_ges, current fcst hour = 1.000000
current storm number = 1
Return code from get_next_ges = 0
Storm Name = MANGKHUT
Storm ID = 26W
Gen ID (if available): 2018091200_F000_139N_1362E_26W
Current fix lat is 13.67
Current fix lon is 224.59W (135.41E)
Updated guess lat for next fcst hour is 13.94
Updated guess lon for next fcst hour is 225.01W (134.99E)

iocheck, dist= 53.97125 distm= 53971.25
iocheck, stmspd= 14.99201 istmspd= 150
iocheck, xincr= -0.4174957 yincr= 0.2669878
iocheck, stmdir= 302.5988 istmdir= 303
+++ RPT_STORM_MOTION: istmspd= 150 istmdir= 303 rcc= 0

Beginning of get_ij_bounds...

geslat= 13.66854 geslon= 135.4098

```

+++ Near top of get_ij_bounds,
+++ geslat= 13.66854 geslon= 135.4098
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 142741
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 285484
+++ jlatfix= 193
+++ jbeg= 1 jend= 349
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 142797 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 249
+++ (orig) ibeg= -142548 iend= 143046
+++

```

```

#-----#
# Entering loop to determine the mean and gridpoint #
# max zeta values at 850 and 700 mb for the purpose #
# of reporting them on the modified atcfunix file. #
#-----#

```

```

--- In get_zeta_values, ist= 1 ifh= 2
Fix location for this time: 135.41E (224.59W) 13.67
ilonfix= 249 jlatfix= 193

```

```

At beg of find_maxmin, rads= 200.0000 re= 75.00000 ri=
150.0000 cparm= zeta dx= 0.1722946 dy= 0.1621475

```

```

Beginning of get_ij_bounds...
geslat= 13.66854 geslon= 135.4098

```

```

+++ Near top of get_ij_bounds,
+++ geslat= 13.66854 geslon= 135.4098
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 22
+++ jlatfix= 193
+++ jbeg= 171 jend= 215
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 21 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 249
+++ (orig) ibeg= 228 iend= 270
+++

```

```

guesslon= 135.410E ( 224.590W) guesslat= 13.669
ilonfix= 249 jlatfix= 193 npts= 10
ibeg= 228 jbeg= 171 imax= 409
iend= 270 jend= 215 jmax= 349
TIMING: find_maxmin 1 14:39:31

```

```

After 1st findmax loop, # calls to barnes = 24
Total # of barnes loop iterations = 3168
!!! Zeta check, fmax= 8.9323602E-04 fmin= 1.0000000E+12

```

After first run, ctlon= 224.256W ctlat= 14.003 fmax (x10e5) =
0.893E+02 fmin (x10e5) = 0.100E+18

Beginning of get_ij_bounds...

geslat= 14.00298 geslon= 135.7442

```
+++ Near top of get_ij_bounds,
+++ geslat= 14.00298 geslon= 135.7442
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 2
+++ npts= 5
+++ jhlatpts= 5 jripts= 9
+++ jbmaxlatpts= 14
+++ jlatfix= 191
+++ jbeg= 177 jend= 205
+++ rdeg= 0.6270790 ri= 150.0000 cosfac= 0.9702832
+++ dtr= 1.7453292E-02 dtk= 111.1949 dlon= 1.390298
+++ ibmaxlonpts= 16 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 250
+++ (orig) ibeg= 234 iend= 266
+++
```

After first pass through barnes, re and ri have NOT
been changed. re = 75.00000 ri = 150.0000
TIMING: find_maxmin kloop, k= 1 14:39:31

```
find_maxmin nhalf loop, cparm= zeta k= 1
guesslon= 135.744E ( 224.256W) guesslat= 14.003
ilonfix= 250 jlatfix= 191 npts= 5
ibeg= 234 jbeg= 177 imax= 409
iend= 266 jend= 205 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 1 ctlon= 223.838W ctlat= 13.752 fmax (x10e5) =
0.116E+02 fmin (x10e5) = 0.100E+21
TIMING: find_maxmin kloop, k= 2 14:39:31
```

```
find_maxmin nhalf loop, cparm= zeta k= 2
guesslon= 136.162E ( 223.838W) guesslat= 13.752
ilonfix= 250 jlatfix= 191 npts= 5
ibeg= 234 jbeg= 177 imax= 409
iend= 266 jend= 205 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 2 ctlon= 223.712W ctlat= 13.794 fmax (x10e5) =
0.116E+02 fmin (x10e5) = 0.100E+21
```

```
ppp after 2nd findmax loop, # calls to barnes = 72
ppp Total # of barnes loop iterations = 18360
+++ RPT_MEAN_ZETA: n= 1 lev= 850 xmeanzeta= 0.000116 imeanzeta
(*1e6)= 116
--- mean zeta raw = 1.1635662E-04
+++ RPT_GRID_ZETA: n= 1 lev= 850 grid zeta= 0.000023 igrid zeta
(*1e6)= 23 ifilret= 0
--- grid zeta raw= 2.2619421E-05
```

At beg of find_maxmin, rads= 200.0000 re= 75.00000 ri=
150.0000 cparm= zeta dx= 0.1722946 dy= 0.1621475

Beginning of get_ij_bounds...

geslat= 13.66854 geslon= 135.4098

+++ Near top of get_ij_bounds,

+++ geslat= 13.66854 geslon= 135.4098
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 22
+++ jlatfix= 193
+++ jbeg= 171 jend= 215
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 21 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 249
+++ (orig) ibeg= 228 iend= 270
+++

guesslon= 135.410E (224.590W) guesslat= 13.669
ilonfix= 249 jlatfix= 193 npts= 10
ibeg= 228 jbeg= 171 imax= 409
iend= 270 jend= 215 jmax= 349
TIMING: find_maxmin 1 14:39:31

After 1st findmax loop, # calls to barnes = 24
Total # of barnes loop iterations = 3168
!!! Zeta check, fmax= 8.5233769E-04 fmin= 1.0000000E+12
After first run, ctlon= 224.256W ctlat= 14.003 fmax (x10e5) =
0.852E+02 fmin (x10e5) = 0.100E+18

Beginning of get_ij_bounds...

geslat= 14.00298 geslon= 135.7442

+++ Near top of get_ij_bounds,

+++ geslat= 14.00298 geslon= 135.7442
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 2
+++ npts= 5
+++ jhlatpts= 5 jripts= 9
+++ jbmaxlatpts= 14
+++ jlatfix= 191
+++ jbeg= 177 jend= 205
+++ rdeg= 0.6270790 ri= 150.0000 cosfac= 0.9702832
+++ dtr= 1.7453292E-02 dtk= 111.1949 dlon= 1.390298
+++ ibmaxlonpts= 16 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 250
+++ (orig) ibeg= 234 iend= 266
+++

After first pass through barnes, re and ri have NOT
been changed. re = 75.00000 ri = 150.0000
TIMING: find_maxmin kloop, k= 1 14:39:31

find_maxmin nhalf loop, cparm= zeta k= 1

```
guesslon= 135.744E ( 224.256W)   guesslat= 14.003
ilonfix=      250   jlatfix=      191   npts=      5
ibeg=      234   jbeg=      177   imax=      409
iend=      266   jend=      205   jmax=      349
nhalf=      2   iskip=      2
nhalf findmax, k= 1   ctlon= 224.005W   ctlat= 13.752   fmax (x10e5) =
0.144E+02   fmin (x10e5) =      0.100E+21
TIMING: find_maxmin kloop, k= 2   14:39:31
```

```
find_maxmin nhalf loop, cparm= zeta k=      2
guesslon= 135.995E ( 224.005W)   guesslat= 13.752
ilonfix=      250   jlatfix=      191   npts=      5
ibeg=      234   jbeg=      177   imax=      409
iend=      266   jend=      205   jmax=      349
nhalf=      2   iskip=      2
nhalf findmax, k= 2   ctlon= 224.047W   ctlat= 13.794   fmax (x10e5) =
0.144E+02   fmin (x10e5) =      0.100E+21
```

```
ppp after 2nd findmax loop, # calls to barnes =      72
ppp Total # of barnes loop iterations =      18360
+++ RPT_MEAN_ZETA: n= 2 lev= 700 xmeanzeta= 0.000144   imeanzeta
(*1e6)=      144
--- mean zeta raw =      1.4379330E-04
+++ RPT_GRID_ZETA: n= 2 lev= 700 grid zeta= 0.000032   igrd zeta
(*1e6)=      32   ifilret= 0
--- grid zeta raw=      3.1623837E-05
```

```
#-----#
# End of loop to get 850 & 700 zeta for atcf file. #
#-----#
```

```
+++ Top of output_atcf_sink, ist=      1   ifh=      1
```

```
Beginning of get_ij_bounds...
```

```
geslat= 13.66854   geslon= 135.4098
```

```
+++ Near top of get_ij_bounds,
```

```
+++ geslat= 13.66854   geslon= 135.4098
+++ rglatmax= 44.92863   rglatmin= -9.516106
+++ rglonmax= 163.1479   rglonmin= 92.85205
+++ imax= 409   jmax= 349
+++ dx= 0.1722946   dy= 0.1621475   nhalf= 0
+++ npts= 54
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jmaxlatpts= 110
+++ jlatfix= 193
+++ jbeg= 83   jend= 303
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 110   dx= 0.1722946   dy= 0.1621475
+++ (orig) ilonfix= 249
+++ (orig) ibeg= 139   iend= 359
+++
```

```
--- barnlon= 224.74W   barnlat= 13.64
--- extraplon= 225.27W   extraplat= 14.23
```

```
-----
|      Current fix & updated fix positions      |
-----
```

```

| In get_next_ges, current fcst hour   = 1.000000
|           current storm number     = 1
| Return code from get_next_ges = 0
| Storm Name = MANGKHUT
| Storm ID = 26W
| Gen ID (if available): 2018091200_F000_139N_1362E_26W
| Current fix lat is 13.67
| Current fix lon is 224.59W (135.41E)
| Updated guess lat for next fcst hour is 13.94
| Updated guess lon for next fcst hour is 225.01W (134.99E)
-----

```

```

iocheck, dist= 53.97125      distm= 53971.25
iocheck, stmspd= 14.99201    istmspd= 150
iocheck, xincr= -0.4174957   yincr= 0.2669878
iocheck, stmdir= 302.5988    istmdir= 303

```

```

*-----*
*   New forecast hour:    2:00
*-----*
in getgridinfo_netcdf, ncfile_id= 65536

```

```

In getgridinfo, grid dimensions follow:
imax= 409  jmax= 349
dx= 0.1722946  dy= 0.1621475

```

```

DX: midi= 204 dx= 0.1723
DY: midj= 174 dy= 0.1621

```

```

Data Grid Lat/Lon boundaries follow:
Min Lat: -9.516  Min Lon: 92.852
Max Lat: 44.929  Max Lon: 163.148
TEST after getgridinfo in sub tracker, iggret= 0
in beginning of tracker, imax= 409  jmax= 349
TIMING: b4 getdata ... 14:39:31

```

```

NOTE: Program is now in subroutine getdata_netcdf.
+++ Time match in getdata_netcdf for usertime= 120
netcdf file index= ncix= 3
+++ NetCDF read requested for parm # 1 ... parm=
ABS_VORTICITY_850

```

```

In get_var3_tlev_double, ifh= 3
ltix(ifh)= 3

```

```

After read, parm= ABS_VORTICITY_850 ifh= 3
lead time index= 3 parm# (ip) = 1 ncix= 3
3
igvret= 0
parmread lead time parm# parm_id minval maxval
2:00 1 ABS_VORTICITY_850 -
0.4316E-03 0.2632E-02

```

```

+++ NetCDF read requested for parm # 2 ... parm=
ABS_VORTICITY_700

```

```

In get_var3_tlev_double, ifh= 3
ltix(ifh)= 3

```

```

After read, parm= ABS_VORTICITY_700 ifh= 3

```

```

    lead time index=          3  parm# (ip) =          2  ncix=
3
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    2:00              2          ABS_VORTICITY_700    -
0.3194E-03  0.2056E-02
+++ NetCDF read requested for parm #          3  ... parm=
U_850

In get_var3_tlev_double, ifh=          3
                        ltix(ifh)=          3

After read, parm= U_850          ifh=          3
lead time index=          3  parm# (ip) =          3  ncix=
3
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    2:00              3          U_850    -
70.08          0.1000E+21
+++ NetCDF read requested for parm #          4  ... parm=
V_850

In get_var3_tlev_double, ifh=          3
                        ltix(ifh)=          3

After read, parm= V_850          ifh=          3
lead time index=          3  parm# (ip) =          4  ncix=
3
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    2:00              4          V_850    -
67.46          0.1000E+21
+++ NetCDF read requested for parm #          5  ... parm=
U_700

In get_var3_tlev_double, ifh=          3
                        ltix(ifh)=          3

After read, parm= U_700          ifh=          3
lead time index=          3  parm# (ip) =          5  ncix=
3
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    2:00              5          U_700    -
60.26          0.1000E+21
+++ NetCDF read requested for parm #          6  ... parm=
V_700

In get_var3_tlev_double, ifh=          3
                        ltix(ifh)=          3

After read, parm= V_700          ifh=          3
lead time index=          3  parm# (ip) =          6  ncix=
3
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    2:00              6          V_700    -
55.70          0.1000E+21
+++ NetCDF read requested for parm #          7  ... parm=
Z_850

```

```

In get_var3_tlev_double, ifh=          3
                        ltix(ifh)=      3

After read, parm= Z_850                ifh=          3
lead time index=          3 parm# (ip) =          7 ncix=
3
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  2:00                7          Z_850
1017.          0.1000E+21
+++ NetCDF read requested for parm #          8 ... parm=
Z_700

In get_var3_tlev_double, ifh=          3
                        ltix(ifh)=      3

After read, parm= Z_700                ifh=          3
lead time index=          3 parm# (ip) =          8 ncix=
3
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  2:00                8          Z_700
2697.          0.1000E+21
+++ NetCDF read requested for parm #          9 ... parm=
slp

In get_var3_tlev_double, ifh=          3
                        ltix(ifh)=      3

After read, parm= slp                  ifh=          3
lead time index=          3 parm# (ip) =          9 ncix=
3
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  2:00                9          slp
0.9544E+05  0.1028E+06
+++ NetCDF read requested for parm #         10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          3
                        ltix(ifh)=      3

After read, parm= u_10m_gr             ifh=          3
lead time index=          3 parm# (ip) =         10 ncix=
3
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  2:00               10          u_10m_gr
40.49          38.41
+++ NetCDF read requested for parm #         11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          3
                        ltix(ifh)=      3

After read, parm= v_10m_gr             ifh=          3
lead time index=          3 parm# (ip) =         11 ncix=
3
  igvret=          0

```

```

parmread lead time      parm#      parm_id      minval      maxval
  2:00                11         v_10m_gr
41.18      38.22
+++ NetCDF read requested for parm #      12 ... parm=
U_500

In get_var3_tlev_double, ifh=      3
                        ltix(ifh)=  3

After read, parm= U_500                ifh=      3
lead time index=      3 parm# (ip) =      12 ncix=
3
igvret=      0
parmread lead time      parm#      parm_id      minval      maxval
  2:00                12         U_500
54.27      36.07
+++ NetCDF read requested for parm #      13 ... parm=
V_500

In get_var3_tlev_double, ifh=      3
                        ltix(ifh)=  3

After read, parm= V_500                ifh=      3
lead time index=      3 parm# (ip) =      13 ncix=
3
igvret=      0
parmread lead time      parm#      parm_id      minval      maxval
  2:00                13         V_500
40.28      44.40
!!! NetCDF read NOT requested for parm #      14
+++ NetCDF read requested for parm #      15 ... parm=
Z_500

In get_var3_tlev_double, ifh=      3
                        ltix(ifh)=  3

After read, parm= Z_500                ifh=      3
lead time index=      3 parm# (ip) =      15 ncix=
3
igvret=      0
parmread lead time      parm#      parm_id      minval      maxval
  2:00                15         Z_500
5504.      5924.
+++ NetCDF read requested for parm #      16 ... parm=
Z_200

In get_var3_tlev_double, ifh=      3
                        ltix(ifh)=  3

After read, parm= Z_200                ifh=      3
lead time index=      3 parm# (ip) =      16 ncix=
3
igvret=      0
parmread lead time      parm#      parm_id      minval      maxval
  2:00                16         Z_200
0.1187E+05  0.1254E+05
!!! NetCDF read NOT requested for parm #      17
TIMING: after getdata ... 14:39:32

Of      17 readable parms, you read in      15

```

parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter = 38316.57 dlat_inter =
36059.95

```
-----  
| *** TOP OF STORM LOOP ***  
| Beginning of storm loop in tracker for  
| Storm number 1  
| Forecast hour: 2:00  
| Storm name = MANGKHUT  
| Storm ID = 26W  
| Gen ID (if available): 2018091200_F000_139N_1362E_26W  
-----
```

--- --- ---
Now calling find_maxmin for zeta at 850 mb

At beg of find_maxmin, rads= 200.0000 re= 75.00000 ri=
150.0000 cparm= zeta dx= 0.1722946 dy= 0.1621475

Beginning of get_ij_bounds...
geslat= 13.93553 geslon= 134.9923

```
+++ Near top of get_ij_bounds,  
+++ geslat= 13.93553 geslon= 134.9923  
+++ rglatmax= 44.92863 rglatmin= -9.516106  
+++ rglonmax= 163.1479 rglonmin= 92.85205  
+++ imax= 409 jmax= 349  
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0  
+++ npts= 10  
+++ nhalf<=0 so jhlatpts and jripts unused  
+++ jbmaxlatpts= 22  
+++ jlatfix= 192  
+++ jbeg= 170 jend= 214  
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused  
+++ ibmaxlonpts= 21 dx= 0.1722946 dy= 0.1621475  
+++ (orig) ilonfix= 246  
+++ (orig) ibeg= 225 iend= 267  
+++
```

guesslon= 134.992E (225.008W) guesslat= 13.936
ilonfix= 246 jlatfix= 192 npts= 10
ibeg= 225 jbeg= 170 imax= 409
iend= 267 jend= 214 jmax= 349
TIMING: find_maxmin 1 14:39:32

After 1st findmax loop, # calls to barnes = 24
Total # of barnes loop iterations = 3168
!!! Zeta check, fmax= 2.4207879E-03 fmin= 1.0000000E+12
After first run, ctlon= 224.673W ctlat= 12.263 fmax (x10e5) =
0.242E+03 fmin (x10e5) = 0.100E+18

Beginning of get_ij_bounds...
geslat= 12.26332 geslon= 135.3267

```
+++ Near top of get_ij_bounds,  
+++ geslat= 12.26332 geslon= 135.3267  
+++ rglatmax= 44.92863 rglatmin= -9.516106
```

```

+++ rglonmax=    163.1479    rglonmin=    92.85205
+++ imax=        409    jmax=        349
+++ dx=    0.1722946    dy=    0.1621475    nhalf=    2
+++ npts=        5
+++ jhlatpts=        5    jripts=        9
+++ jbmaxlatpts=        14
+++ jlatfix=        202
+++ jbeg=        188    jend=        216
+++ rdeg=    0.6270790    ri=    150.0000    cosfac=    0.9771818
+++ dtr=    1.7453292E-02    dtk=    111.1949    dlon=    1.380483
+++ ibmaxlonpts=        16    dx=    0.1722946    dy=    0.1621475
+++ (orig) ilonfix=        248
+++ (orig) ibeg=        232    iend=        264
+++

```

After first pass through barnes, re and ri have NOT been changed. re = 75.00000 ri = 150.0000
TIMING: find_maxmin kloop, k= 1 14:39:32

```

find_maxmin nhalf loop, cparm= zeta k=        1
guesslon= 135.327E ( 224.673W)    guesslat=    12.263
ilonfix=        248    jlatfix=        202    npts=        5
ibeg=        232    jbeg=        188    imax=        409
iend=        264    jend=        216    jmax=        349
nhalf=        2    iskip=        2
nhalf findmax, k= 1 ctlon= 224.255W ctlat=    12.681 fmax (x10e5) =
0.459E+02 fmin (x10e5) =    0.100E+21
TIMING: find_maxmin kloop, k= 2 14:39:32

```

```

find_maxmin nhalf loop, cparm= zeta k=        2
guesslon= 135.745E ( 224.255W)    guesslat=    12.681
ilonfix=        248    jlatfix=        202    npts=        5
ibeg=        232    jbeg=        188    imax=        409
iend=        264    jend=        216    jmax=        349
nhalf=        2    iskip=        2
nhalf findmax, k= 2 ctlon= 224.297W ctlat=    12.890 fmax (x10e5) =
0.565E+02 fmin (x10e5) =    0.100E+21

```

ppp after 2nd findmax loop, # calls to barnes = 72
ppp Total # of barnes loop iterations = 18360

--- --- ---
Now calling find_maxmin for zeta at 700 mb

At beg of find_maxmin, rads= 200.0000 re= 75.00000 ri=
150.0000 cparm= zeta dx= 0.1722946 dy= 0.1621475

Beginning of get_ij_bounds...

geslat= 13.93553 geslon= 134.9923

```

+++ Near top of get_ij_bounds,
+++ geslat=    13.93553    geslon=    134.9923
+++ rglatmax=    44.92863    rglatmin=   -9.516106
+++ rglonmax=    163.1479    rglonmin=    92.85205
+++ imax=        409    jmax=        349
+++ dx=    0.1722946    dy=    0.1621475    nhalf=    0
+++ npts=        10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts=        22

```



```
+++ jlatfix=          192
+++ jbeg=            170 jend=          214
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts=    21 dx=  0.1722946 dy=  0.1621475
+++ (orig) ilonfix=    246
+++ (orig) ibeg=      225 iend=        267
+++
```

```
guesslon= 134.992E ( 225.008W) guesslat= 13.936
ilonfix=   246 jlatfix=   192 npts=          10
ibeg=      225 jbeg=      170 imax=         409
iend=      267 jend=      214 jmax=         349
TIMING: find_maxmin 1 14:39:32
```

```
After 1st findmax loop, # calls to barnes = 24
Total # of barnes loop iterations = 3168
!!! Zeta check, fmax= 1.9059525E-03 fmin= 1.0000000E+12
After first run, ctlon= 224.673W ctlat= 12.263 fmax (x10e5) =
0.191E+03 fmin (x10e5) = 0.100E+18
```

```
Beginning of get_ij_bounds...
geslat= 12.26332 geslon= 135.3267
```

```
+++ Near top of get_ij_bounds,
+++ geslat= 12.26332 geslon= 135.3267
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 2
+++ npts= 5
+++ jhlatpts= 5 jripts= 9
+++ jbmaxlatpts= 14
+++ jlatfix= 202
+++ jbeg= 188 jend= 216
+++ rdeg= 0.6270790 ri= 150.0000 cosfac= 0.9771818
+++ dtr= 1.7453292E-02 dtk= 111.1949 dlon= 1.380483
+++ ibmaxlonpts= 16 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 248
+++ (orig) ibeg= 232 iend= 264
+++
```

```
After first pass through barnes, re and ri have NOT
been changed. re = 75.00000 ri = 150.0000
TIMING: find_maxmin kloop, k= 1 14:39:32
```

```
find_maxmin nhalf loop, cparm= zeta k= 1
guesslon= 135.327E ( 224.673W) guesslat= 12.263
ilonfix= 248 jlatfix= 202 npts= 5
ibeg= 232 jbeg= 188 imax= 409
iend= 264 jend= 216 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 1 ctlon= 224.255W ctlat= 12.681 fmax (x10e5) =
0.603E+02 fmin (x10e5) = 0.100E+21
TIMING: find_maxmin kloop, k= 2 14:39:32
```

```
find_maxmin nhalf loop, cparm= zeta k= 2
guesslon= 135.745E ( 224.255W) guesslat= 12.681
ilonfix= 248 jlatfix= 202 npts= 5
ibeg= 232 jbeg= 188 imax= 409
```

iend= 264 jend= 216 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 2 ctlon= 224.213W ctlat= 12.890 fmax (x10e5) =
0.677E+02 fmin (x10e5) = 0.100E+21

ppp after 2nd findmax loop, # calls to barnes = 72
ppp Total # of barnes loop iterations = 18360

--- --- ---
Now calling find_maxmin for hgt at 850 mb

At beg of find_maxmin, rads= 200.0000 re= 75.00000 ri=
150.0000 cparm= hgt dx= 0.1722946 dy= 0.1621475

Beginning of get_ij_bounds...
geslat= 13.93553 geslon= 134.9923

+++ Near top of get_ij_bounds,
+++ geslat= 13.93553 geslon= 134.9923
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 22
+++ jlatfix= 192
+++ jbeg= 170 jend= 214
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 21 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 246
+++ (orig) ibeg= 225 iend= 267
+++

guesslon= 134.992E (225.008W) guesslat= 13.936
ilonfix= 246 jlatfix= 192 npts= 10
ibeg= 225 jbeg= 170 imax= 409
iend= 267 jend= 214 jmax= 349
TIMING: find_maxmin 1 14:39:32

After 1st findmax loop, # calls to barnes = 24
Total # of barnes loop iterations = 3168
After first run, ctlon= 224.673W ctlat= 12.263 fmax = -
0.100E+13 fmin = 0.110E+04

Beginning of get_ij_bounds...
geslat= 12.26332 geslon= 135.3267

+++ Near top of get_ij_bounds,
+++ geslat= 12.26332 geslon= 135.3267
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 2
+++ npts= 5
+++ jhlatpts= 5 jripts= 9
+++ jbmaxlatpts= 14
+++ jlatfix= 202

```

+++ jbeg=          188  jend=          216
+++ rdeg=   0.6270790   ri=   150.0000   cosfac=   0.9771818
+++ dtr=   1.7453292E-02  dtk=   111.1949   dlon=   1.380483
+++ ibmaxlonpts=          16  dx=   0.1722946   dy=   0.1621475
+++ (orig) ilonfix=          248
+++ (orig) ibeg=          232  iend=          264
+++

```

After first pass through barnes, re and ri have NOT been changed. re = 75.00000 ri = 150.0000
TIMING: find_maxmin kloop, k= 1 14:39:32

```

find_maxmin nhalf loop, cparm= hgt k=          1
guesslon= 135.327E ( 224.673W)  guesslat= 12.263
ilonfix=          248  jlatfix=          202  npts=          5
ibeg=          232  jbeg=          188  imax=          409
iend=          264  jend=          216  jmax=          349
nhalf=          2  iskip=          2
nhalf findmax, k= 1 ctlon= 225.091W  ctlat= 11.845 fmax = -
0.100E+16 fmin =          0.000E+00
TIMING: find_maxmin kloop, k= 2 14:39:32

```

```

find_maxmin nhalf loop, cparm= hgt k=          2
guesslon= 134.909E ( 225.091W)  guesslat= 11.845
ilonfix=          248  jlatfix=          202  npts=          5
ibeg=          232  jbeg=          188  imax=          409
iend=          264  jend=          216  jmax=          349
nhalf=          2  iskip=          2
nhalf findmax, k= 2 ctlon= 225.300W  ctlat= 11.636 fmax = -
0.100E+16 fmin =          0.000E+00

```

ppp after 2nd findmax loop, # calls to barnes = 72
ppp Total # of barnes loop iterations = 18360

--- --- ---

Now calling find_maxmin for hgt at 700 mb

```

At beg of find_maxmin, rads= 200.0000   re= 75.00000   ri=
150.0000   cparm= hgt dx= 0.1722946   dy= 0.1621475

```

Beginning of get_ij_bounds...

```

geslat= 13.93553   geslon= 134.9923

```

```

+++ Near top of get_ij_bounds,
+++ geslat= 13.93553   geslon= 134.9923
+++ rglatmax= 44.92863   rglatmin= -9.516106
+++ rglonmax= 163.1479   rglonmin= 92.85205
+++ imax=          409  jmax=          349
+++ dx= 0.1722946   dy= 0.1621475   nhalf=          0
+++ npts=          10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts=          22
+++ jlatfix=          192
+++ jbeg=          170  jend=          214
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts=          21  dx= 0.1722946   dy= 0.1621475
+++ (orig) ilonfix=          246
+++ (orig) ibeg=          225  iend=          267
+++

```

guesslon= 134.992E (225.008W) guesslat= 13.936
ilonfix= 246 jlatfix= 192 npts= 10
ibeg= 225 jbeg= 170 imax= 409
iend= 267 jend= 214 jmax= 349
TIMING: find_maxmin 1 14:39:32

After 1st findmax loop, # calls to barnes = 24
Total # of barnes loop iterations = 3168
After first run, ctlon= 224.673W ctlat= 12.263 fmax = -
0.100E+13 fmin = 0.275E+04

Beginning of get_ij_bounds...
geslat= 12.26332 geslon= 135.3267

+++ Near top of get_ij_bounds,
+++ geslat= 12.26332 geslon= 135.3267
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 2
+++ npts= 5
+++ jhlatpts= 5 jripts= 9
+++ jbmaxlatpts= 14
+++ jlatfix= 202
+++ jbeg= 188 jend= 216
+++ rdeg= 0.6270790 ri= 150.0000 cosfac= 0.9771818
+++ dtr= 1.7453292E-02 dtk= 111.1949 dlon= 1.380483
+++ ibmaxlonpts= 16 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 248
+++ (orig) ibeg= 232 iend= 264
+++

After first pass through barnes, re and ri have NOT
been changed. re = 75.00000 ri = 150.0000
TIMING: find_maxmin kloop, k= 1 14:39:32

find_maxmin nhalf loop, cparm= hgt k= 1
guesslon= 135.327E (224.673W) guesslat= 12.263
ilonfix= 248 jlatfix= 202 npts= 5
ibeg= 232 jbeg= 188 imax= 409
iend= 264 jend= 216 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 1 ctlon= 225.091W ctlat= 11.845 fmax = -
0.100E+16 fmin = 0.000E+00
TIMING: find_maxmin kloop, k= 2 14:39:32

find_maxmin nhalf loop, cparm= hgt k= 2
guesslon= 134.909E (225.091W) guesslat= 11.845
ilonfix= 248 jlatfix= 202 npts= 5
ibeg= 232 jbeg= 188 imax= 409
iend= 264 jend= 216 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 2 ctlon= 225.300W ctlat= 11.636 fmax = -
0.100E+16 fmin = 0.000E+00

ppp after 2nd findmax loop, # calls to barnes = 72
ppp Total # of barnes loop iterations = 18360

--- --- ---
Now calling find_maxmin for mslp

At beg of find_maxmin, rads= 200.0000 re= 75.00000 ri=
150.0000 cparm= slp dx= 0.1722946 dy= 0.1621475

Beginning of get_ij_bounds...

geslat= 13.93553 geslon= 134.9923

```
+++ Near top of get_ij_bounds,
+++ geslat= 13.93553 geslon= 134.9923
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 22
+++ jlatfix= 192
+++ jbeg= 170 jend= 214
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 21 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 246
+++ (orig) ibeg= 225 iend= 267
+++
```

guesslon= 134.992E (225.008W) guesslat= 13.936
ilonfix= 246 jlatfix= 192 npts= 10
ibeg= 225 jbeg= 170 imax= 409
iend= 267 jend= 214 jmax= 349
TIMING: find_maxmin 1 14:39:32

After 1st findmax loop, # calls to barnes = 24
Total # of barnes loop iterations = 3168
After first run, ctlon= 224.673W ctlat= 12.263 fmax = -
0.100E+13 fmin = 0.963E+05

Beginning of get_ij_bounds...

geslat= 12.26332 geslon= 135.3267

```
+++ Near top of get_ij_bounds,
+++ geslat= 12.26332 geslon= 135.3267
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 2
+++ npts= 5
+++ jhlatpts= 5 jripts= 9
+++ jbmaxlatpts= 14
+++ jlatfix= 202
+++ jbeg= 188 jend= 216
+++ rdeg= 0.6270790 ri= 150.0000 cosfac= 0.9771818
+++ dtr= 1.7453292E-02 dtk= 111.1949 dlon= 1.380483
+++ ibmaxlonpts= 16 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 248
+++ (orig) ibeg= 232 iend= 264
+++
```

After first pass through barnes, re and ri have NOT
been changed. re = 75.00000 ri = 150.0000
TIMING: find_maxmin kloop, k= 1 14:39:32

```
find_maxmin nhalf loop, cparm= slp k= 1
guesslon= 135.327E ( 224.673W) guesslat= 12.263
ilonfix= 248 jlatfix= 202 npts= 5
ibeg= 232 jbeg= 188 imax= 409
iend= 264 jend= 216 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 1 ctilon= 225.091W ctlat= 11.845 fmax = -
0.100E+16 fmin = 0.000E+00
TIMING: find_maxmin kloop, k= 2 14:39:32
```

```
find_maxmin nhalf loop, cparm= slp k= 2
guesslon= 134.909E ( 225.091W) guesslat= 11.845
ilonfix= 248 jlatfix= 202 npts= 5
ibeg= 232 jbeg= 188 imax= 409
iend= 264 jend= 216 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 2 ctilon= 225.300W ctlat= 11.636 fmax = -
0.100E+16 fmin = 0.000E+00
```

ppp after 2nd findmax loop, # calls to barnes = 72
ppp Total # of barnes loop iterations = 18360

--- --- ---

Now calling find_maxmin for sfc zeta

At beg of find_maxmin, rads= 200.0000 re= 75.00000 ri=
150.0000 cparm= zeta dx= 0.1722946 dy= 0.1621475

Beginning of get_ij_bounds...

geslat= 13.93553 geslon= 134.9923

```
+++ Near top of get_ij_bounds,
+++ geslat= 13.93553 geslon= 134.9923
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jmaxlatpts= 22
+++ jlatfix= 192
+++ jbeg= 170 jend= 214
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 21 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 246
+++ (orig) ibeg= 225 iend= 267
+++
```

```
guesslon= 134.992E ( 225.008W) guesslat= 13.936
ilonfix= 246 jlatfix= 192 npts= 10
ibeg= 225 jbeg= 170 imax= 409
iend= 267 jend= 214 jmax= 349
TIMING: find_maxmin 1 14:39:32
```

After 1st findmax loop, # calls to barnes = 24

Total # of barnes loop iterations = 3168
!!! Zeta check, fmax= 1.2614350E-03 fmin= 1.0000000E+12
After first run, ctlon= 224.673W ctlat= 12.263 fmax (x10e5) =
0.126E+03 fmin (x10e5) = 0.100E+18

Beginning of get_ij_bounds...
geslat= 12.26332 geslon= 135.3267

+++ Near top of get_ij_bounds,
+++ geslat= 12.26332 geslon= 135.3267
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 2
+++ npts= 5
+++ jhlatpts= 5 jripts= 9
+++ jbmaxlatpts= 14
+++ jlatfix= 202
+++ jbeg= 188 jend= 216
+++ rdeg= 0.6270790 ri= 150.0000 cosfac= 0.9771818
+++ dtr= 1.7453292E-02 dtk= 111.1949 dlon= 1.380483
+++ ibmaxlonpts= 16 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 248
+++ (orig) ibeg= 232 iend= 264
+++

After first pass through barnes, re and ri have NOT
been changed. re = 75.00000 ri = 150.0000
TIMING: find_maxmin kloop, k= 1 14:39:32

find_maxmin nhalf loop, cparm= zeta k= 1
guesslon= 135.327E (224.673W) guesslat= 12.263
ilonfix= 248 jlatfix= 202 npts= 5
ibeg= 232 jbeg= 188 imax= 409
iend= 264 jend= 216 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 1 ctlon= 224.255W ctlat= 12.681 fmax (x10e5) =
0.253E+02 fmin (x10e5) = 0.100E+21
TIMING: find_maxmin kloop, k= 2 14:39:32

find_maxmin nhalf loop, cparm= zeta k= 2
guesslon= 135.745E (224.255W) guesslat= 12.681
ilonfix= 248 jlatfix= 202 npts= 5
ibeg= 232 jbeg= 188 imax= 409
iend= 264 jend= 216 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 2 ctlon= 224.213W ctlat= 12.890 fmax (x10e5) =
0.309E+02 fmin (x10e5) = 0.100E+21

ppp after 2nd findmax loop, # calls to barnes = 72
ppp Total # of barnes loop iterations = 18360

--- --- ---

Now calling find_maxmin for thickness in
the 500-850 mb layer.

At beg of find_maxmin, rads= 200.0000 re= 75.00000 ri=
150.0000 cparm= thick dx= 0.1722946 dy= 0.1621475

Beginning of get_ij_bounds...

geslat= 13.93553 geslon= 134.9923

+++ Near top of get_ij_bounds,

+++ geslat= 13.93553 geslon= 134.9923
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 22
+++ jlatfix= 192
+++ jbeg= 170 jend= 214
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 21 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 246
+++ (orig) ibeg= 225 iend= 267
+++

guesslon= 134.992E (225.008W) guesslat= 13.936
ilonfix= 246 jlatfix= 192 npts= 10
ibeg= 225 jbeg= 170 imax= 409
iend= 267 jend= 214 jmax= 349
TIMING: find_maxmin 1 14:39:32

After 1st findmax loop, # calls to barnes = 24
Total # of barnes loop iterations = 3168
After first run, ctlon= 224.673W ctlat= 12.263 fmax =
0.446E+04 fmin = 0.100E+13

Beginning of get_ij_bounds...

geslat= 12.26332 geslon= 135.3267

+++ Near top of get_ij_bounds,

+++ geslat= 12.26332 geslon= 135.3267
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 2
+++ npts= 5
+++ jhlatpts= 5 jripts= 9
+++ jbmaxlatpts= 14
+++ jlatfix= 202
+++ jbeg= 188 jend= 216
+++ rdeg= 0.6270790 ri= 150.0000 cosfac= 0.9771818
+++ dtr= 1.7453292E-02 dtk= 111.1949 dlon= 1.380483
+++ ibmaxlonpts= 16 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 248
+++ (orig) ibeg= 232 iend= 264
+++

After first pass through barnes, re and ri have NOT
been changed. re = 75.00000 ri = 150.0000
TIMING: find_maxmin kloop, k= 1 14:39:32

find_maxmin nhalf loop, cparm= thick k= 1
guesslon= 135.327E (224.673W) guesslat= 12.263


```
ilonfix=          248  jlatfix=          202  npts=          5
ibeg=            232  jbeg=            188  imax=          409
iend=            264  jend=            216  jmax=          349
nhalf=           2   iskip=           2
nhalf findmax, k= 1  ctlon= 224.255W  ctlat= 12.681 fmax =
0.442E+04 fmin =          0.100E+16
TIMING: find_maxmin kloop, k= 2  14:39:32
```

```
find_maxmin nhalf loop, cparm= thick k=          2
guesslon= 135.745E ( 224.255W)  guesslat= 12.681
ilonfix=          248  jlatfix=          202  npts=          5
ibeg=            232  jbeg=            188  imax=          409
iend=            264  jend=            216  jmax=          349
nhalf=           2   iskip=           2
nhalf findmax, k= 2  ctlon= 224.297W  ctlat= 12.890 fmax =
0.442E+04 fmin =          0.100E+16
```

```
ppp after 2nd findmax loop, # calls to barnes =          72
ppp Total # of barnes loop iterations =          18360
```

--- --- ---

Now calling find_maxmin for thickness in
the 200-500 mb layer.

```
At beg of find_maxmin, rads= 200.0000  re= 75.00000  ri=
150.0000  cparm= thick dx= 0.1722946  dy= 0.1621475
```

Beginning of get_ij_bounds...

```
geslat= 13.93553  geslon= 134.9923
```

```
+++ Near top of get_ij_bounds,
+++ geslat= 13.93553  geslon= 134.9923
+++ rglatmax= 44.92863  rglatmin= -9.516106
+++ rglonmax= 163.1479  rglonmin= 92.85205
+++ imax= 409  jmax= 349
+++ dx= 0.1722946  dy= 0.1621475  nhalf= 0
+++ npts= 10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jmaxlatpts= 22
+++ jlatfix= 192
+++ jbeg= 170  jend= 214
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 21  dx= 0.1722946  dy= 0.1621475
+++ (orig) ilonfix= 246
+++ (orig) ibeg= 225  iend= 267
+++
```

```
guesslon= 134.992E ( 225.008W)  guesslat= 13.936
ilonfix= 246  jlatfix= 192  npts= 10
ibeg= 225  jbeg= 170  imax= 409
iend= 267  jend= 214  jmax= 349
TIMING: find_maxmin 1  14:39:32
```

```
After 1st findmax loop, # calls to barnes =          24
Total # of barnes loop iterations =          3168
After first run, ctlon= 224.673W  ctlat= 12.263 fmax =
0.681E+04 fmin =          0.100E+13
```

Beginning of get_ij_bounds...

geslat= 12.26332 geslon= 135.3267

```
+++ Near top of get_ij_bounds,
+++ geslat= 12.26332 geslon= 135.3267
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 2
+++ npts= 5
+++ jhlatpts= 5 jripts= 9
+++ jbmaxlatpts= 14
+++ jlatfix= 202
+++ jbeg= 188 jend= 216
+++ rdeg= 0.6270790 ri= 150.0000 cosfac= 0.9771818
+++ dtr= 1.7453292E-02 dtk= 111.1949 dlon= 1.380483
+++ ibmaxlonpts= 16 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 248
+++ (orig) ibeg= 232 iend= 264
+++
```

After first pass through barnes, re and ri have NOT
been changed. re = 75.00000 ri = 150.0000
TIMING: find_maxmin kloop, k= 1 14:39:32

```
find_maxmin nhalf loop, cparm= thick k= 1
guesslon= 135.327E ( 224.673W) guesslat= 12.263
ilonfix= 248 jlatfix= 202 npts= 5
ibeg= 232 jbeg= 188 imax= 409
iend= 264 jend= 216 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 1 ctlon= 224.255W ctlat= 12.012 fmax =
0.676E+04 fmin = 0.100E+16
TIMING: find_maxmin kloop, k= 2 14:39:32
```

```
find_maxmin nhalf loop, cparm= thick k= 2
guesslon= 135.745E ( 224.255W) guesslat= 12.012
ilonfix= 248 jlatfix= 202 npts= 5
ibeg= 232 jbeg= 188 imax= 409
iend= 264 jend= 216 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 2 ctlon= 224.381W ctlat= 11.971 fmax =
0.676E+04 fmin = 0.100E+16
```

ppp after 2nd findmax loop, # calls to barnes = 72
ppp Total # of barnes loop iterations = 18360

--- --- ---

Now calling find_maxmin for thickness in
the 200-850 mb layer.

At beg of find_maxmin, rads= 200.0000 re= 75.00000 ri=
150.0000 cparm= thick dx= 0.1722946 dy= 0.1621475

Beginning of get_ij_bounds...

geslat= 13.93553 geslon= 134.9923

```
+++ Near top of get_ij_bounds,
+++ geslat= 13.93553 geslon= 134.9923
```

```

+++ rglatmax=    44.92863      rglatmin=   -9.516106
+++ rglonmax=   163.1479      rglonmin=    92.85205
+++ imax=       409   jmax=       349
+++ dx=    0.1722946      dy=    0.1621475      nhalf=      0
+++ npts=      10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts=      22
+++ jlatfix=      192
+++ jbeg=      170   jend=      214
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts=      21   dx=    0.1722946      dy=    0.1621475
+++ (orig) ilonfix=      246
+++ (orig) ibeg=      225   iend=      267
+++

```

```

guesslon= 134.992E ( 225.008W)   guesslat= 13.936
ilonfix=   246   jlatfix=      192   npts=      10
ibeg=      225   jbeg=      170   imax=      409
iend=      267   jend=      214   jmax=      349
TIMING: find_maxmin 1 14:39:32

```

```

After 1st findmax loop, # calls to barnes =      24
Total # of barnes loop iterations =      3168
After first run, ctlon= 224.673W   ctlat= 12.263   fmax =
0.113E+05   fmin =      0.100E+13

```

Beginning of get_ij_bounds...

```

geslat= 12.26332      geslon= 135.3267

```

```

+++ Near top of get_ij_bounds,
+++ geslat= 12.26332      geslon= 135.3267
+++ rglatmax=    44.92863      rglatmin=   -9.516106
+++ rglonmax=   163.1479      rglonmin=    92.85205
+++ imax=       409   jmax=       349
+++ dx=    0.1722946      dy=    0.1621475      nhalf=      2
+++ npts=      5
+++ jhlatpts=      5   jripts=      9
+++ jbmaxlatpts=      14
+++ jlatfix=      202
+++ jbeg=      188   jend=      216
+++ rdeg=    0.6270790      ri=    150.0000      cosfac=    0.9771818
+++ dtr=    1.7453292E-02   dtk=    111.1949      dlon=    1.380483
+++ ibmaxlonpts=      16   dx=    0.1722946      dy=    0.1621475
+++ (orig) ilonfix=      248
+++ (orig) ibeg=      232   iend=      264
+++

```

```

After first pass through barnes, re and ri have NOT
been changed. re =    75.00000      ri =    150.0000
TIMING: find_maxmin kloop, k= 1 14:39:32

```

```

find_maxmin nhalf loop, cparm= thick k=      1
guesslon= 135.327E ( 224.673W)   guesslat= 12.263
ilonfix=   248   jlatfix=      202   npts=      5
ibeg=      232   jbeg=      188   imax=      409
iend=      264   jend=      216   jmax=      349
nhalf=      2   iskip=      2
nhalf findmax, k= 1 ctlon= 224.255W   ctlat= 12.681   fmax =
0.112E+05   fmin =      0.100E+16

```

TIMING: find_maxmin kloop, k= 2 14:39:32

find_maxmin nhalf loop, cparm= thick k= 2
guesslon= 135.745E (224.255W) guesslat= 12.681
ilonfix= 248 jlatfix= 202 npts= 5
ibeg= 232 jbeg= 188 imax= 409
iend= 264 jend= 216 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 2 ctlon= 224.213W ctlat= 12.890 fmax =
0.112E+05 fmin = 0.100E+16

ppp after 2nd findmax loop, # calls to barnes = 72
ppp Total # of barnes loop iterations = 18360

--- --- ---

Now calling get_wind_circulation for 850 mb

Before first call to get_wind_circulation,
glatmax= 44.92863
glatmin= -9.516106
glonmax= 163.1479
glonmin= 92.85205
trkrinfo%gridtype= regional
inp%modtyp= regional
cmaxmin= max
nlev850= 1
u(1,1,nlev850)= 3.293619
u(imax,jmax,nlev850)= -4.956260
imax= 409 jmax= 349
uvgeslon= 135.6026 uvgeslat= 13.09942
dx= 0.1722946 dy= 0.1621475 ist= 1
calcparm(3,ist)= T
clon(ist,ifh,3)= 0.0000000E+00
clat(ist,ifh,3)= 0.0000000E+00
xval(3)= 0.0000000E+00

TIMING: Before GWC 850 ... 14:39:32

top of get_wind_circulation,
glatmax= 44.92863
glatmin= -9.516106
glonmax= 163.1479
glonmin= 92.85205
trkrinfo%gridtype= regional
cmodel_type= regional
maxmin= max
imax= 409 jmax= 349
uvgeslon= 135.6026 uvgeslat= 13.09942
dx= 0.1722946 dy= 0.1621475 ist= 1
cflag= T
ctlon= 0.0000000E+00 ctlat= 0.0000000E+00
fxval= 0.0000000E+00
igwcret= 0

At beg of get_wind_circulation, rads= 200.0000 ri= 150.0000
dx=

0.1722946 dy= 0.1621475
in get_wind_circulation, nlev= 1

Beginning of get_ij_bounds...

geslat= 13.09942 geslon= 135.6026

```

+++ Near top of get_ij_bounds,
+++ geslat=    13.09942      geslon=    135.6026
+++ rglatmax=   44.92863      rglatmin=   -9.516106
+++ rglonmax=  163.1479      rglonmin=   92.85205
+++ imax=      409   jmax=    349
+++ dx=    0.1722946      dy=    0.1621475      nhalf=    0
+++ npts=    10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts=    22
+++ jlatfix=    197
+++ jbeg=    175   jend=    219
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts=    21   dx=    0.1722946      dy=    0.1621475
+++ (orig) ilonfix=    250
+++ (orig) ibeg=    229   iend=    271
+++

```

```

In get_wind_circulation, prior to first loop,
  npts=    10   dell=    0.1672211      rads=    200.0000

```

```

After first run, Wind Circulation (NHEM) ctlon= 225.401W  ctlat=
14.103  circ_diff_mean =   -30.026

```

```

Beginning of get_ij_bounds...
  geslat=  14.10275      geslon=  134.5993

```

```

+++ Near top of get_ij_bounds,
+++ geslat=    14.10275      geslon=    134.5993
+++ rglatmax=   44.92863      rglatmin=   -9.516106
+++ rglonmax=  163.1479      rglonmin=   92.85205
+++ imax=      409   jmax=    349
+++ dx=    0.1722946      dy=    0.1621475      nhalf=    2
+++ npts=    10
+++ jhlatpts=    9   jripts=    9
+++ jbmaxlatpts=    18
+++ jlatfix=    191
+++ jbeg=    173   jend=    209
+++ rdeg=    1.254158      ri=    150.0000      cosfac=    0.9698603
+++ dtr=    1.7453292E-02  dtk=    111.1949      dlon=    1.390904
+++ ibmaxlonpts=    20   dx=    0.1722946      dy=    0.1621475
+++ (orig) ilonfix=    244
+++ (orig) ibeg=    224   iend=    264
+++

```

```

TIMING: get_wind_circ kloop, k= 1  14:39:32

```

```

get_wind_circ nhalf loop, k=    1
guesslon= 134.599E ( 225.401W)  guesslat=  14.103
ilonfix=    244   jlatfix=    191   npts=    10
ibeg=    224   jbeg=    173   imax=    409
iend=    264   jend=    209   jmax=    349
nhalf=    2   iskip=    2   rads=    100.0000

```

```

In get_wind_circulation, prior to loop k=    1
  npts=    10   dell=    8.3610535E-02  rads=    100.0000

```

```

---> xmax_circ_diff_mean=   -44.53394

```

```
nhalf get_wind_circ, k= 1 ctlon= 224.732W ctlat= 13.936 Wind
Circulation (NHEM: Max) = -44.534
TIMING: get_wind_circ kloop, k= 2 14:39:32
```

```
get_wind_circ nhalf loop, k= 2
guesslon= 135.268E ( 224.732W) guesslat= 13.936
ilonfix= 244 jlatfix= 191 npts= 10
ibeg= 224 jbeg= 173 imax= 409
iend= 264 jend= 209 jmax= 349
nhalf= 2 iskip= 2 rads= 100.0000
```

```
In get_wind_circulation, prior to loop k= 2
npts= 10 dell= 4.1805267E-02 rads= 100.0000
```

```
---> xmax_circ_diff_mean= -43.07402
nhalf get_wind_circ, k= 2 ctlon= 224.899W ctlat= 13.852 Wind
Circulation (NHEM: Max) = -43.074
TIMING: After GWC 850 ... 14:39:32
```

--- --- ---

```
Now calling get_wind_circulation for 700 mb
TIMING: Before GWC 700 ... 14:39:32
```

```
top of get_wind_circulation,
glatmax= 44.92863
glatmin= -9.516106
glonmax= 163.1479
glonmin= 92.85205
trkrinfo%gridtype= regional
cmodel_type= regional
maxmin= max
imax= 409 jmax= 349
uvgeslon= 135.6026 uvgeslat= 13.09942
dx= 0.1722946 dy= 0.1621475 ist= 1
cflag= T
ctlon= 0.0000000E+00 ctlat= 0.0000000E+00
fxval= 0.0000000E+00
igwcret= 0
```

```
At beg of get_wind_circulation, rads= 200.0000 ri= 150.0000
dx= 0.1722946 dy= 0.1621475
in get_wind_circulation, nlev= 2
```

```
Beginning of get_ij_bounds...
geslat= 13.09942 geslon= 135.6026
```

```
+++ Near top of get_ij_bounds,
+++ geslat= 13.09942 geslon= 135.6026
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 22
+++ jlatfix= 197
+++ jbeg= 175 jend= 219
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
```

```
+++ ibmaxlonpts=          21 dx=    0.1722946      dy=    0.1621475
+++ (orig) ilonfix=          250
+++ (orig) ibeg=          229 iend=          271
+++
```

```
In get_wind_circulation, prior to first loop,
  npts=          10 dell=    0.1672211      rads=    200.0000
```

```
After first run, Wind Circulation (NHEM) ctlon=  224.063W  ctlat=
11.427  circ_diff_mean =    60.330
```

```
Beginning of get_ij_bounds...
  geslat=   11.42721      geslon=   135.9371
```

```
+++ Near top of get_ij_bounds,
+++ geslat=   11.42721      geslon=   135.9371
+++ rglatmax=   44.92863      rglatmin=  -9.516106
+++ rglonmax=  163.1479      rglonmin=   92.85205
+++ imax=       409  jmax=       349
+++ dx=    0.1722946      dy=    0.1621475      nhalf=          2
+++ npts=          10
+++ jhlatpts=          9  jripts=          9
+++ jbmaxlatpts=          18
+++ jlatfix=          207
+++ jbeg=       189  jend=       225
+++ rdeg=    1.254158      ri=    150.0000      cosfac=   0.9801772
+++ dtr=    1.7453292E-02  dtk=    111.1949      dlon=    1.376264
+++ ibmaxlonpts=          19 dx=    0.1722946      dy=    0.1621475
+++ (orig) ilonfix=          252
+++ (orig) ibeg=          233 iend=          271
+++
```

```
TIMING: get_wind_circ kloop, k=  1  14:39:32
```

```
get_wind_circ nhalf loop, k=          1
guesslon=  135.937E ( 224.063W)  guesslat=  11.427
ilonfix=          252  jlatfix=          207  npts=          10
ibeg=          233  jbeg=          189  imax=          409
iend=          271  jend=          225  jmax=          349
nhalf=          2  iskip=          2  rads=    100.0000
```

```
In get_wind_circulation, prior to loop k=          1
  npts=          10 dell=   8.3610535E-02  rads=    100.0000
```

```
---> xmax_circ_diff_mean=  -24.19649
nhalf get_wind_circ, k=  1 ctlon=  224.230W  ctlat=  12.263 Wind
Circulation (NHEM: Max) =  -24.196
```

```
TIMING: get_wind_circ kloop, k=  2  14:39:32
```

```
get_wind_circ nhalf loop, k=          2
guesslon=  135.770E ( 224.230W)  guesslat=  12.263
ilonfix=          252  jlatfix=          207  npts=          10
ibeg=          233  jbeg=          189  imax=          409
iend=          271  jend=          225  jmax=          349
nhalf=          2  iskip=          2  rads=    100.0000
```

```
In get_wind_circulation, prior to loop k=          2
  npts=          10 dell=   4.1805267E-02  rads=    100.0000
```

```
---> xmax_circ_diff_mean=  -19.53895
```

nhalf get_wind_circ, k= 2 ctlon= 223.896W ctlat= 12.347 Wind
Circulation (NHEM: Max) = -19.539
TIMING: After GWC 700 ... 14:39:32

--- --- ---
Now calling get_wind_circulation for the
surface (10m) level
TIMING: Before GWC Sfc ... 14:39:32

top of get_wind_circulation,
glatmax= 44.92863
glatmin= -9.516106
glonmax= 163.1479
glonmin= 92.85205
trkrinfo%gridtype= regional
cmodel_type= regional
maxmin= max
imax= 409 jmax= 349
uvgeslon= 135.6026 uvgeslat= 13.09942
dx= 0.1722946 dy= 0.1621475 ist= 1
cflag= T
ctlon= 0.0000000E+00 ctlat= 0.0000000E+00
fxval= 0.0000000E+00
igwcret= 0

At beg of get_wind_circulation, rads= 200.0000 ri= 150.0000
dx= 0.1722946 dy= 0.1621475
in get_wind_circulation, nlev= 4

Beginning of get_ij_bounds...
geslat= 13.09942 geslon= 135.6026

+++ Near top of get_ij_bounds,
+++ geslat= 13.09942 geslon= 135.6026
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jmaxlatpts= 22
+++ jlatfix= 197
+++ jbeg= 175 jend= 219
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 21 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 250
+++ (orig) ibeg= 229 iend= 271
+++

In get_wind_circulation, prior to first loop,
npts= 10 dell= 0.1672211 rads= 200.0000

After first run, Wind Circulation (NHEM) ctlon= 226.070W ctlat=
13.434 circ_diff_mean = -16.446

Beginning of get_ij_bounds...
geslat= 13.43387 geslon= 133.9304


```

+++ Near top of get_ij_bounds,
+++ geslat= 13.43387 geslon= 133.9304
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 2
+++ npts= 10
+++ jhlatpts= 9 jripts= 9
+++ jbmaxlatpts= 18
+++ jlatfix= 195
+++ jbeg= 177 jend= 213
+++ rdeg= 1.254158 ri= 150.0000 cosfac= 0.9726387
+++ dtr= 1.7453292E-02 dtk= 111.1949 dlon= 1.386931
+++ ibmaxlonpts= 20 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 240
+++ (orig) ibeg= 220 iend= 260
+++

```

TIMING: get_wind_circ kloop, k= 1 14:39:32

```

get_wind_circ nhalf loop, k= 1
guesslon= 133.930E ( 226.070W) guesslat= 13.434
ilonfix= 240 jlatfix= 195 npts= 10
ibeg= 220 jbeg= 177 imax= 409
iend= 260 jend= 213 jmax= 349
nhalf= 2 iskip= 2 rads= 100.0000

```

In get_wind_circulation, prior to loop k= 1
npts= 10 dell= 8.3610535E-02 rads= 100.0000

```

---> xmax_circ_diff_mean= -21.93612
nhalf get_wind_circ, k= 1 ctlon= 225.233W ctlat= 13.434 Wind
Circulation (NHEM: Max) = -21.936
TIMING: get_wind_circ kloop, k= 2 14:39:32

```

```

get_wind_circ nhalf loop, k= 2
guesslon= 134.767E ( 225.233W) guesslat= 13.434
ilonfix= 240 jlatfix= 195 npts= 10
ibeg= 220 jbeg= 177 imax= 409
iend= 260 jend= 213 jmax= 349
nhalf= 2 iskip= 2 rads= 100.0000

```

In get_wind_circulation, prior to loop k= 2
npts= 10 dell= 4.1805267E-02 rads= 100.0000

```

---> xmax_circ_diff_mean= -17.48771
nhalf get_wind_circ, k= 2 ctlon= 224.899W ctlat= 13.852 Wind
Circulation (NHEM: Max) = -17.488
TIMING: After GWC Sfc ... 14:39:32

```

```

At beg of fixcenter, stderr(ist,ifh-1) = 28.98 xavg_stderr= 61.77
At beg of fixcenter, errpgro = 1.250000
At beg of fixcenter, errinit = 225.0000
At beg of fixcenter, errpmax = 485.0000
At beg of fixcenter, ifh= 3 ermax= 231.6234

```

```

-----
Individual fixes follow..., fhr= 2:00 26W MANGKHUT
Gen ID (if available): 2018091200_F000_139N_1362E_26W
Model name = WRF

```

Values of -99.99 indicate that a fix was unable to be made for that parameter. Parameters 4 & 6 are not used. Vorticity data values are scaled by 1e5. errdist is the distance that the position estimate is from the guess position for this time. MSLP value here may differ from that in the atcfunix file since the one here is that derived from the area-averaged barnes analysis, while that in the atcfunix file is from a specific gridpoint.

Guess location for this time: 134.99E (225.01W) 13.94

parm#	parm	Max/Min	Lon_fix(E)	Lon_fix(W)	Lat_fix	
Max/Min_value	calcparm	errdist (km)				
-----	-----	-----	-----	-----	-----	-----
1	zeta 850	Max	135.70	224.30	12.89	
56.48	T	139.33				
2	zeta 700	Max	135.79	224.21	12.89	
67.72	T	144.52				
3	circ 850	Max	135.10	224.90	13.85	-
43.07	T	14.92				
4	NOT USED	NOT USED	0.00	0.00	0.00	
0.00	F	0.00				
5	circ 700	Max	136.10	223.90	12.35	-
19.54	T	213.78				
6	NOT USED	NOT USED	0.00	0.00	0.00	
0.00	F	0.00				
7	gph 850	Min	134.70	225.30	11.64	
0.00	F	257.62				
8	gph 700	Min	134.70	225.30	11.64	
0.00	F	257.62				
9	MSLP	Min	134.70	225.30	11.64	
0.00	F	257.62				
10	circ sfc	Max	135.10	224.90	13.85	-
17.49	T	14.92				
11	zeta sfc	Max	135.79	224.21	12.89	
30.94	T	144.52				
12	thk 5-8	Max	135.70	224.30	12.89	
4418.60	T	139.33				
13	thk 2-5	Max	135.62	224.38	11.97	
6757.92	T	228.80				
14	thk 2-8	Max	135.79	224.21	12.89	
11178.44	T	144.52				

After stdevcalc, xmn_dist_from_mean= 55.20032 stderr_close= 46.49887 isret= 0

ip= 1 kprm= 1 dist_from_mean= 9.588 devia= 0.206 wtpos= 0.93357
135.70 224.30 12.89

ip= 2 kprm= 2 dist_from_mean= 17.735 devia= 0.381 wtpos= 0.88062
135.79 224.21 12.89

ip= 3 kprm= 3 dist_from_mean= 116.419 devia= 2.504 wtpos= 0.43406
135.10 224.90 13.85

ip= 5 kprm= 4 dist_from_mean= 83.618 devia= 1.798 wtpos= 0.54913
136.10 223.90 12.35

ip= 10 kprm= 5 dist_from_mean= 116.419 devia= 2.504 wtpos= 0.43406
135.10 224.90 13.85

ip= 11 kprm= 6 dist_from_mean= 17.735 devia= 0.381 wtpos= 0.88062
135.79 224.21 12.89

ip= 12 kprm= 7 dist_from_mean= 9.588 devia= 0.206 wtpos= 0.93357
135.70 224.30 12.89

ip= 13 kprm= 8 dist_from_mean= 107.966 devia= 2.322 wtpos= 0.46118
135.62 224.38 11.97
ip= 14 kprm= 9 dist_from_mean= 17.735 devia= 0.381 wtpos= 0.88062
135.79 224.21 12.89

At end of fixcenter: 26W fhr= 2:00 Fix position= 135.68E
(224.32W) 12.91

ttest, ifret= 0
ttest, calcparm(9,ist)= F
ttest, in ELSE part:
ttest ELSE, readflag(9)= T
ttest ELSE A, ist= 1 ifh= 3
ttest ELSE A, fixlon(ist,ifh)= 135.6842
ttest ELSE A, fixlat(ist,ifh)= 12.90795
ttest ELSE B, ifilret= 0
ttest ELSE B, ifilret= 0
ttest ELSE B, fixlon(ist,ifh)= 135.6842
ttest ELSE B, fixlat(ist,ifh)= 12.90795

Beginning of get_ij_bounds...

geslat= 12.90795 geslon= 135.6842

+++ Near top of get_ij_bounds,
+++ geslat= 12.90795 geslon= 135.6842
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 17
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 36
+++ jlatfix= 198
+++ jbeg= 162 jend= 234
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 28 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 250
+++ (orig) ibeg= 222 iend= 278
+++

After get_ij B, ibeg jbeg = 222 162
After get_ij B, iend jend = 278 234

In is_it_a_storm, ilonfix= 250 jlatfix= 198
ibeg jbeg iend jend = 222 162 278 234
cparm= slp parmlon parmlat = 135.6842 12.90795
parmval= 99256.03

i= 248 j= 202 glon= 135.41 glat= 15.57 dist= 297.69 slp=
99740.43 pgradient= 1.62721

In is_it_a_storm, valid pgradient found.

pgradient threshold = 0.00150

pgradient found = 1.62721

mslp center = 135.6842 12.90795 99256.03

pgrad loc = 135.4086 15.57172 99740.43

ttest at location C IF....

xinp_fixlat= 12.90795

xinp_fixlon= 135.6842

ttest at location D
ttest at location E, ifilret= 0
ttest at location F

Checking 850 mb Vt speed using 850 mb
wind circulation fix:

850 mb wcirc fix lon= 135.1010
850 mb wcirc fix lat= 13.85192
Multi-parm fix lon= 135.6842
Multi-parm fix lat= 12.90795

Beginning of get_ij_bounds...

geslat= 13.85192 geslon= 135.1010

+++ Near top of get_ij_bounds,
+++ geslat= 13.85192 geslon= 135.1010
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 13
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 28
+++ jlatfix= 192
+++ jbeg= 164 jend= 220
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 24 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 247
+++ (orig) ibeg= 223 iend= 271
+++

After get_ij B, ibeg jbeg = 223 164
After get_ij B, iend jend = 271 220

In is_it_a_storm, ilonfix= 247 jlatfix= 192
ibeg jbeg iend jend = 223 164 271 220
cparm= v850 parmlon parmlat = 135.1010 13.85192
parmval= -43.07402

i= 241 j= 202 glon= 134.20 glat= 15.57 u= -26.1415 v= -15.8194 vr=
-2.30087 vt= 30.46858
i= 243 j= 202 glon= 134.55 glat= 15.57 u= -31.3086 v= -14.9324 vr=
-4.92372 vt= 34.33606
i= 245 j= 202 glon= 134.89 glat= 15.57 u= -36.0541 v= -13.2670 vr=
-8.93840 vt= 37.36326
i= 247 j= 202 glon= 135.24 glat= 15.57 u= -38.9391 v= -11.1958 vr= -
14.13611 vt= 37.97062
i= 249 j= 202 glon= 135.58 glat= 15.57 u= -41.3735 v= -6.9243 vr= -
17.49135 vt= 38.12827
i= 251 j= 202 glon= 135.93 glat= 15.57 u= -42.1582 v= -1.9889 vr= -
19.57244 vt= 37.39241
i= 239 j= 204 glon= 133.86 glat= 15.24 u= -20.3425 v= -18.5788 vr=
-0.67325 vt= 27.54153
i= 241 j= 204 glon= 134.20 glat= 15.24 u= -26.8891 v= -19.7001 vr=
-2.38246 vt= 33.24822
i= 243 j= 204 glon= 134.55 glat= 15.24 u= -32.1898 v= -20.3739 vr=
-7.38200 vt= 37.37360

i= 245 j= 204 glon= 134.89 glat= 15.24 u= -36.7188 v= -19.7507 vr= -
14.21976 vt= 39.19391
i= 247 j= 204 glon= 135.24 glat= 15.24 u= -41.3976 v= -17.6587 vr= -
21.48111 vt= 39.54942
i= 249 j= 204 glon= 135.58 glat= 15.24 u= -46.2693 v= -12.7342 vr= -
26.78951 vt= 39.81617
i= 251 j= 204 glon= 135.93 glat= 15.24 u= -48.7880 v= -3.8988 vr= -
27.73724 vt= 40.32518
i= 253 j= 204 glon= 136.27 glat= 15.24 u= -47.5451 v= 4.7842 vr= -
26.39297 vt= 39.83514
i= 255 j= 204 glon= 136.61 glat= 15.24 u= -43.0070 v= 11.3649 vr= -
23.47248 vt= 37.78637
i= 237 j= 206 glon= 133.51 glat= 14.91 u= -13.6790 v= -19.2446 vr= -
0.43502 vt= 23.60676
i= 239 j= 206 glon= 133.86 glat= 14.91 u= -19.5213 v= -21.4725 vr= -
0.57291 vt= 29.01412
i= 241 j= 206 glon= 134.20 glat= 14.91 u= -25.1262 v= -24.7529 vr= -
-3.07158 vt= 35.13687
i= 243 j= 206 glon= 134.55 glat= 14.91 u= -29.9631 v= -26.8718 vr= -
10.34457 vt= 38.89565
i= 245 j= 206 glon= 134.89 glat= 14.91 u= -34.6865 v= -28.4693 vr= -
21.40016 vt= 39.44220
i= 247 j= 206 glon= 135.24 glat= 14.91 u= -42.1543 v= -28.4888 vr= -
33.46493 vt= 38.32353
i= 249 j= 206 glon= 135.58 glat= 14.91 u= -52.3504 v= -20.1525 vr= -
39.57686 vt= 39.75370
i= 251 j= 206 glon= 135.93 glat= 14.91 u= -59.3265 v= -1.2427 vr= -
36.83974 vt= 46.51899
i= 253 j= 206 glon= 136.27 glat= 14.91 u= -53.4742 v= 10.6218 vr= -
31.94680 vt= 44.17828
i= 255 j= 206 glon= 136.61 glat= 14.91 u= -46.1502 v= 18.9621 vr= -
26.45771 vt= 42.30123
i= 235 j= 208 glon= 133.17 glat= 14.57 u= -10.6910 v= -17.5473 vr= -
3.70936 vt= 20.21002
i= 237 j= 208 glon= 133.51 glat= 14.57 u= -11.1940 v= -20.6531 vr= -
1.40710 vt= 23.44944
i= 239 j= 208 glon= 133.86 glat= 14.57 u= -16.6173 v= -24.3291 vr= -
1.79686 vt= 29.40764
i= 241 j= 208 glon= 134.20 glat= 14.57 u= -20.5942 v= -29.4181 vr= -
-2.87819 vt= 35.79470
i= 243 j= 208 glon= 134.55 glat= 14.57 u= -23.9842 v= -33.7572 vr= -
12.74350 vt= 39.40042
i= 245 j= 208 glon= 134.89 glat= 14.57 u= -28.8003 v= -39.7649 vr= -
30.48333 vt= 38.48989
i= 247 j= 208 glon= 135.24 glat= 14.57 u= -40.2750 v= -40.4546 vr= -
46.98666 vt= 32.41771
i= 249 j= 208 glon= 135.58 glat= 14.57 u= -62.3774 v= -34.0631 vr= -
62.44460 vt= 33.93978
i= 251 j= 208 glon= 135.93 glat= 14.57 u= -69.7299 v= 4.6593 vr= -
48.67387 vt= 50.14803
i= 253 j= 208 glon= 136.27 glat= 14.57 u= -53.9213 v= 26.2294 vr= -
31.46456 vt= 51.04379
i= 255 j= 208 glon= 136.61 glat= 14.57 u= -43.7863 v= 30.2849 vr= -
26.00207 vt= 46.45761
i= 257 j= 208 glon= 136.96 glat= 14.57 u= -35.2185 v= 28.4449 vr= -
22.19342 vt= 39.45772
i= 235 j= 210 glon= 133.17 glat= 14.24 u= -7.5340 v= -18.2492 vr= -
3.71768 vt= 19.39005
i= 237 j= 210 glon= 133.51 glat= 14.24 u= -8.0103 v= -21.1576 vr= -
2.63583 vt= 22.46910

i= 239 j= 210 glon= 133.86 glat= 14.24 u= -11.6620 v= -26.1067 vr=
3.14619 vt= 28.41948
i= 241 j= 210 glon= 134.20 glat= 14.24 u= -13.0589 v= -32.3169 vr=
-1.18247 vt= 34.83564
i= 243 j= 210 glon= 134.55 glat= 14.24 u= -13.9993 v= -39.3032 vr= -
11.63436 vt= 40.06699
i= 245 j= 210 glon= 134.89 glat= 14.24 u= -15.6684 v= -49.4699 vr= -
36.52509 vt= 36.86031
i= 247 j= 210 glon= 135.24 glat= 14.24 u= -30.1039 v= -60.6014 vr= -
67.06059 vt= 9.03592
i= 249 j= 210 glon= 135.58 glat= 14.24 u= -32.7418 v= -20.2944 vr= -
38.14873 vt= 5.34437
i= 251 j= 210 glon= 135.93 glat= 14.24 u= -27.6062 v= 11.3439 vr= -
19.90215 vt= 22.24169
i= 253 j= 210 glon= 136.27 glat= 14.24 u= -29.2431 v= 55.9881 vr=
-9.63019 vt= 62.42667
i= 255 j= 210 glon= 136.61 glat= 14.24 u= -27.9026 v= 44.9764 vr= -
15.56569 vt= 50.58798
i= 257 j= 210 glon= 136.96 glat= 14.24 u= -27.7942 v= 37.9502 vr= -
19.27082 vt= 42.91124
i= 235 j= 212 glon= 133.17 glat= 13.91 u= -4.2977 v= -18.6044 vr=
3.79004 vt= 18.71438
i= 237 j= 212 glon= 133.51 glat= 13.91 u= -4.0595 v= -20.9100 vr=
3.36521 vt= 21.03291
i= 239 j= 212 glon= 133.86 glat= 13.91 u= -5.3323 v= -25.6372 vr=
4.20276 vt= 25.84644
i= 241 j= 212 glon= 134.20 glat= 13.91 u= -4.8525 v= -32.6583 vr=
2.86321 vt= 32.89246
i= 243 j= 212 glon= 134.55 glat= 13.91 u= -0.5779 v= -38.8919 vr=
-3.36635 vt= 38.75026
i= 245 j= 212 glon= 134.89 glat= 13.91 u= 5.3424 v= -50.9037 vr= -
18.36454 vt= 47.77522
i= 247 j= 212 glon= 135.24 glat= 13.91 u= 4.6145 v= -64.2127 vr= -
20.40394 vt= -61.05938
i= 249 j= 212 glon= 135.58 glat= 13.91 u= -2.1368 v= -14.8122 vr=
-3.85123 vt= -14.46147
i= 251 j= 212 glon= 135.93 glat= 13.91 u= 2.2469 v= 14.1946 vr=
3.21094 vt= 14.00806
i= 253 j= 212 glon= 136.27 glat= 13.91 u= 6.6815 v= 59.9138 vr=
9.46766 vt= 59.53717
i= 255 j= 212 glon= 136.61 glat= 13.91 u= -5.3471 v= 46.9629 vr=
-3.65147 vt= 47.12507
i= 257 j= 212 glon= 136.96 glat= 13.91 u= -10.7304 v= 39.1300 vr=
-9.61941 vt= 39.41780
i= 235 j= 214 glon= 133.17 glat= 13.57 u= -1.0573 v= -17.7686 vr=
3.71263 vt= 17.40855
i= 237 j= 214 glon= 133.51 glat= 13.57 u= -0.5707 v= -20.3984 vr=
4.25077 vt= 19.95878
i= 239 j= 214 glon= 133.86 glat= 13.57 u= 0.7324 v= -22.7524 vr=
4.47132 vt= 22.32073
i= 241 j= 214 glon= 134.20 glat= 13.57 u= 3.1581 v= -28.8880 vr=
5.87462 vt= 28.46015
i= 243 j= 214 glon= 134.55 glat= 13.57 u= 9.5498 v= -34.0492 vr=
7.32358 vt= 34.59638
i= 245 j= 214 glon= 134.89 glat= 13.57 u= 20.4609 v= -39.2410 vr=
19.77000 vt= 39.59352
i= 247 j= 214 glon= 135.24 glat= 13.57 u= 43.8254 v= -41.1294 vr=
55.80967 vt= 22.30639
i= 249 j= 214 glon= 135.58 glat= 13.57 u= 43.8990 v= -13.1744 vr=
44.39060 vt= 11.40893

i= 251 j= 214 glon= 135.93 glat= 13.57 u= 45.1809 v= 24.4385 vr=
34.50348 vt= 38.05342
i= 253 j= 214 glon= 136.27 glat= 13.57 u= 22.6406 v= 45.0251 vr=
11.10039 vt= 49.15931
i= 255 j= 214 glon= 136.61 glat= 13.57 u= 9.3186 v= 41.0984 vr=
1.36660 vt= 42.11942
i= 257 j= 214 glon= 136.96 glat= 13.57 u= 2.9583 v= 36.5388 vr=
-2.76918 vt= 36.55360
i= 235 j= 216 glon= 133.17 glat= 13.24 u= 1.0158 v= -16.5409 vr=
4.22431 vt= 16.02465
i= 237 j= 216 glon= 133.51 glat= 13.24 u= 1.2625 v= -19.0604 vr=
5.92625 vt= 18.15965
i= 239 j= 216 glon= 133.86 glat= 13.24 u= 3.4533 v= -20.0799 vr=
6.07072 vt= 19.44921
i= 241 j= 216 glon= 134.20 glat= 13.24 u= 8.0059 v= -21.9939 vr=
6.16102 vt= 22.58025
i= 243 j= 216 glon= 134.55 glat= 13.24 u= 15.8597 v= -25.4116 vr=
8.71713 vt= 28.65820
i= 245 j= 216 glon= 134.89 glat= 13.24 u= 26.2084 v= -25.6355 vr=
16.10853 vt= 32.93285
i= 247 j= 216 glon= 135.24 glat= 13.24 u= 41.7724 v= -19.1059 vr=
27.40274 vt= 36.86536
i= 249 j= 216 glon= 135.58 glat= 13.24 u= 51.8096 v= 2.3454 vr=
29.38794 vt= 42.73272
i= 251 j= 216 glon= 135.93 glat= 13.24 u= 42.7642 v= 21.2066 vr=
20.93350 vt= 42.89851
i= 253 j= 216 glon= 136.27 glat= 13.24 u= 28.1296 v= 28.9263 vr=
10.89511 vt= 38.84974
i= 255 j= 216 glon= 136.61 glat= 13.24 u= 17.5696 v= 30.9003 vr=
4.21152 vt= 35.29565
i= 257 j= 216 glon= 136.96 glat= 13.24 u= 10.1623 v= 29.8891 vr=
-0.09446 vt= 31.56936
i= 237 j= 218 glon= 133.51 glat= 12.90 u= 4.9785 v= -17.8486 vr=
5.15650 vt= 17.79800
i= 239 j= 218 glon= 133.86 glat= 12.90 u= 5.5021 v= -18.9474 vr=
7.41982 vt= 18.28176
i= 241 j= 218 glon= 134.20 glat= 12.90 u= 8.7917 v= -18.9516 vr=
8.03217 vt= 19.28583
i= 243 j= 218 glon= 134.55 glat= 12.90 u= 14.8798 v= -18.5881 vr=
8.85611 vt= 22.10194
i= 245 j= 218 glon= 134.89 glat= 12.90 u= 22.9381 v= -16.9428 vr=
11.75328 vt= 25.98224
i= 247 j= 218 glon= 135.24 glat= 12.90 u= 30.2739 v= -11.4612 vr=
15.51552 vt= 28.41010
i= 249 j= 218 glon= 135.58 glat= 12.90 u= 34.2834 v= -0.9995 vr=
15.98553 vt= 30.34486
i= 251 j= 218 glon= 135.93 glat= 12.90 u= 32.4684 v= 10.9228 vr=
12.54019 vt= 31.87867
i= 253 j= 218 glon= 136.27 glat= 12.90 u= 26.8068 v= 18.8585 vr=
8.41572 vt= 31.67681
i= 255 j= 218 glon= 136.61 glat= 12.90 u= 20.0631 v= 22.5000 vr=
4.58685 vt= 29.79489
i= 237 j= 220 glon= 133.51 glat= 12.56 u= 6.5210 v= -16.0883 vr=
5.31706 vt= 16.52532
i= 239 j= 220 glon= 133.86 glat= 12.56 u= 8.4724 v= -16.7399 vr=
6.42126 vt= 17.62872
i= 241 j= 220 glon= 134.20 glat= 12.56 u= 10.5643 v= -17.1312 vr=
8.25593 vt= 18.35542
i= 243 j= 220 glon= 134.55 glat= 12.56 u= 14.5619 v= -15.7929 vr=
8.95656 vt= 19.52548

```

i= 245 j= 220 glon= 134.89 glat= 12.56 u= 19.7643 v= -13.1495 vr=
9.90504 vt= 21.57372
i= 247 j= 220 glon= 135.24 glat= 12.56 u= 24.8599 v= -8.2961 vr=
10.77982 vt= 23.88802
i= 249 j= 220 glon= 135.58 glat= 12.56 u= 27.6877 v= -1.1521 vr=
10.51162 vt= 25.64068
i= 251 j= 220 glon= 135.93 glat= 12.56 u= 27.3586 v= 6.6610 vr=
8.79162 vt= 26.75016
i= 253 j= 220 glon= 136.27 glat= 12.56 u= 24.7615 v= 12.5638 vr=
6.95016 vt= 26.88264
i= 255 j= 220 glon= 136.61 glat= 12.56 u= 19.9952 v= 16.4105 vr=
4.21557 vt= 25.52142

```

```

In is_it_a_storm, average 850 tangential winds are OKAY (>= +
1.500000
m/s for a NH storm).
Avg 850 tangential winds = 30.64465 m/s

```

```

Distance between the parm centers for
850 zeta and mslp is 3.110842 (km)

```

```

The average speed that the storm moved
at since the previous forecast time is 48.36409 knots.

```

```

In get_max_wind, ibeg= 232 iend= 267
jbeg= 181 jend= 216
ilonfix= 250 jlatfix= 198
At end of get_max_wind, vmax= 42.66155 rmax= 91.35081

```

```

*****
AT BEGINNING OF GETRADII, input radmax= 500.0000
*****

```

```

xcenlon= 135.6842 xcenlat= 12.90795
imax= 409 jmax= 349 dx= 0.1722946 dy=
0.1621475

```

```

In getradii, ibeg= 222 iend= 277
jbeg= 170 jend= 227
ilonfix= 250 jlatfix= 198
in getradii, numalloc= 3305 radmax= 500.0000

```

```

After loop, quadct(1)= 575 quadct(2)= 249
quadct(3)= 246 quadct(4)= 570

```

```

quadmax: 26W 002 NE lon: 135.93E lat: 14.57 radius: 100.93 nm
vmag: 81.86 kts
quadmax: 26W 002 SE lon: 135.75E lat: 12.90 radius: 4.11 nm
vmag: 51.46 kts
quadmax: 26W 002 SW lon: 135.58E lat: 12.90 radius: 6.05 nm
vmag: 51.79 kts
quadmax: 26W 002 NW lon: 135.41E lat: 14.41 radius: 91.35 nm
vmag: 82.88 kts

```

```

---> R34 search underway for quadrant 1 radmax= 500.0000

```

```

dtemp(isortix(quadct(k))) = 499.240936279297
isortix(1) = 534
isortix(quadct(k)) = 33

```



```
iwindix=          1 exactdistnm =    201.0385
vradius(iwindix,k) =          201
iwindix=          2 exactdistnm =    151.7906
vradius(iwindix,k) =          152
iwindix=          3 exactdistnm =    127.8060
vradius(iwindix,k) =          128
---> R34 search underway for quadrant          2 radmax=    500.0000
```

```
dtemp(isortix(quadct(k)))=    499.430114746094
isortix(1) =          1
isortix(quadct(k)) =          120
iwindix=          1 exactdistnm =    104.9383
vradius(iwindix,k) =          105
iwindix=          2 exactdistnm =    24.27481
vradius(iwindix,k) =          24
---> R34 search underway for quadrant          3 radmax=    500.0000
```

```
dtemp(isortix(quadct(k)))=    498.522460937500
isortix(1) =          12
isortix(quadct(k)) =          40
iwindix=          1 exactdistnm =    67.46821
vradius(iwindix,k) =          67
iwindix=          2 exactdistnm =    16.87265
vradius(iwindix,k) =          17
---> R34 search underway for quadrant          4 radmax=    500.0000
```

```
dtemp(isortix(quadct(k)))=    499.260375976562
isortix(1) =          555
isortix(quadct(k)) =          475
iwindix=          1 exactdistnm =    199.6978
vradius(iwindix,k) =          200
iwindix=          2 exactdistnm =    140.8265
vradius(iwindix,k) =          141
iwindix=          3 exactdistnm =    120.0873
vradius(iwindix,k) =          120
```

After call to fixcenter, fix positions at
forecast hour= 2:00 follow:

```
fixpos 26W fhr= 2:00 Fix position= 135.68E (224.32W) 12.91
Max Wind= 83 kts
```

```
TTT top of atcfunix, ist=          1 ifh=          2
```

```
in output_atcfunix, tcv_storm_id= 26W
in output_atcfunix, tcv_storm_id(3:3)= W
output: rlastbar= 1.5382053E-41 irlastbar=          -99
output: plastbar= 27695.30      iplastbar=          -99
rmax= 91.35081      irmax=          91
```

Beginning of get_ij_bounds...

```
geslat= 12.90795      geslon= 135.6842
```

```
+++ Near top of get_ij_bounds,
+++ geslat= 12.90795      geslon= 135.6842
+++ rglatmax= 44.92863      rglatmin= -9.516106
+++ rglonmax= 163.1479      rglonmin= 92.85205
+++ imax= 409      jmax= 349
+++ dx= 0.1722946      dy= 0.1621475      nhalf= 0
```

```

+++ npts=                54
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts=        110
+++ jlatfix=            198
+++ jbeg=                88  jend=            308
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts=        110  dx=    0.1722946    dy=    0.1621475
+++ (orig) ilonfix=      250
+++ (orig) ibeg=         140  iend=            360
+++

```

```

--- barnlon=    224.37W    barnlat=    12.93
--- extraplon=  224.04W    extraplat=  12.15

```

```

-----
|           Current fix & updated fix positions           |
-----
| In get_next_ges, current fcst hour    =    2.000000
|           current storm number    =    1
| Return code from get_next_ges =    0
| Storm Name = MANGKHUT
| Storm ID = 26W
| Gen ID (if available): 2018091200_F000_139N_1362E_26W
| Current fix lat is    12.91
| Current fix lon is    224.32W    ( 135.68E)
| Updated guess lat for next fcst hour is    12.54
| Updated guess lon for next fcst hour is    224.21W    ( 135.79E)
-----

```

```

iocheck, dist=    42.76709    distm=    42767.09
iocheck, stmspd=    11.87975    istmspd=    119
iocheck, xincr=    0.1096344    yincr=    -0.3695631
iocheck, stmdir=    163.4765    istmdir=    163
+++ RPT_STORM_MOTION: istmspd=    119 istmdir=    163 rcc=    0

```

```

Beginning of get_ij_bounds...
  geslat=    12.90795    geslon=    135.6842

```

```

+++ Near top of get_ij_bounds,
+++ geslat=    12.90795    geslon=    135.6842
+++ rglatmax=    44.92863    rglatmin=    -9.516106
+++ rglonmax=    163.1479    rglonmin=    92.85205
+++ imax=        409  jmax=        349
+++ dx=    0.1722946    dy=    0.1621475    nhalf=    0
+++ npts=        142741
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts=    285484
+++ jlatfix=        198
+++ jbeg=            1  jend=            349
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts=    142797  dx=    0.1722946    dy=    0.1621475
+++ (orig) ilonfix=    250
+++ (orig) ibeg=    -142547  iend=            143047
+++

```

```

#-----#
# Entering loop to determine the mean and gridpoint #
# max zeta values at 850 and 700 mb for the purpose #
# of reporting them on the modified atcfunix file. #

```

#-----#

--- In get_zeta_values, ist= 1 ifh= 3
Fix location for this time: 135.68E (224.32W) 12.91
ilonfix= 250 jlatfix= 198

At beg of find_maxmin, rads= 200.0000 re= 75.00000 ri=
150.0000 cparm= zeta dx= 0.1722946 dy= 0.1621475

Beginning of get_ij_bounds...
geslat= 12.90795 geslon= 135.6842

+++ Near top of get_ij_bounds,
+++ geslat= 12.90795 geslon= 135.6842
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 22
+++ jlatfix= 198
+++ jbeg= 176 jend= 220
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 21 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 250
+++ (orig) ibeg= 229 iend= 271
+++

guesslon= 135.684E (224.316W) guesslat= 12.908
ilonfix= 250 jlatfix= 198 npts= 10
ibeg= 229 jbeg= 176 imax= 409
iend= 271 jend= 220 jmax= 349
TIMING: find_maxmin 1 14:39:32

After 1st findmax loop, # calls to barnes = 24
Total # of barnes loop iterations = 3168
!!! Zeta check, fmax= 1.0284438E-03 fmin= 1.0000000E+12
After first run, ctlon= 223.981W ctlat= 13.911 fmax (x10e5) =
0.103E+03 fmin (x10e5) = 0.100E+18

Beginning of get_ij_bounds...
geslat= 13.91128 geslon= 136.0186

+++ Near top of get_ij_bounds,
+++ geslat= 13.91128 geslon= 136.0186
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 2
+++ npts= 5
+++ jhlatpts= 5 jripts= 9
+++ jbmaxlatpts= 14
+++ jlatfix= 192
+++ jbeg= 178 jend= 206
+++ rdeg= 0.6270790 ri= 150.0000 cosfac= 0.9706692
+++ dtr= 1.7453292E-02 dtk= 111.1949 dlon= 1.389745
+++ ibmaxlonpts= 16 dx= 0.1722946 dy= 0.1621475

```
+++ (orig) ilonfix=          252
+++ (orig) ibeg=            236 iend=          268
+++
```

After first pass through barnes, re and ri have NOT been changed. re = 75.00000 ri = 150.0000
TIMING: find_maxmin kloop, k= 1 14:39:32

```
find_maxmin nhalf loop, cparm= zeta k=          1
guesslon= 136.019E ( 223.981W) guesslat= 13.911
ilonfix=          252 jlatfix=          192 npts=          5
ibeg=            236 jbeg=            178 imax=          409
iend=            268 jend=            206 jmax=          349
nhalf=           2 iskip=             2
nhalf findmax, k= 1 ctlon= 223.898W ctlat= 13.660 fmax (x10e5) =
0.112E+02 fmin (x10e5) =          0.100E+21
TIMING: find_maxmin kloop, k= 2 14:39:32
```

```
find_maxmin nhalf loop, cparm= zeta k=          2
guesslon= 136.102E ( 223.898W) guesslat= 13.660
ilonfix=          252 jlatfix=          192 npts=          5
ibeg=            236 jbeg=            178 imax=          409
iend=            268 jend=            206 jmax=          349
nhalf=           2 iskip=             2
nhalf findmax, k= 2 ctlon= 223.689W ctlat= 13.619 fmax (x10e5) =
0.114E+02 fmin (x10e5) =          0.100E+21
```

```
ppp after 2nd findmax loop, # calls to barnes =          72
ppp Total # of barnes loop iterations =          18360
+++ RPT_MEAN_ZETA: n= 1 lev= 850 xmeanzeta= 0.000114 imeanzeta
(*1e6)=          114
--- mean zeta raw = 1.1436056E-04
+++ RPT_GRID_ZETA: n= 1 lev= 850 grid zeta= 0.000088 igrid zeta
(*1e6)=          88 ifilret= 0
--- grid zeta raw= 8.8458226E-05
```

```
At beg of find_maxmin, rads= 200.0000 re= 75.00000 ri=
150.0000 cparm= zeta dx= 0.1722946 dy= 0.1621475
```

Beginning of get_ij_bounds...

```
geslat= 12.90795 geslon= 135.6842
```

```
+++ Near top of get_ij_bounds,
+++ geslat= 12.90795 geslon= 135.6842
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbxlatpts= 22
+++ jlatfix= 198
+++ jbeg= 176 jend= 220
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 21 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 250
+++ (orig) ibeg= 229 iend= 271
+++
```

guesslon= 135.684E (224.316W) guesslat= 12.908
ilonfix= 250 jlatfix= 198 npts= 10
ibeg= 229 jbeg= 176 imax= 409
iend= 271 jend= 220 jmax= 349
TIMING: find_maxmin 1 14:39:32

After 1st findmax loop, # calls to barnes = 24
Total # of barnes loop iterations = 3168
!!! Zeta check, fmax= 8.4830227E-04 fmin= 1.0000000E+12
After first run, ctlon= 223.981W ctlat= 13.911 fmax (x10e5) =
0.848E+02 fmin (x10e5) = 0.100E+18

Beginning of get_ij_bounds...
geslat= 13.91128 geslon= 136.0186

+++ Near top of get_ij_bounds,
+++ geslat= 13.91128 geslon= 136.0186
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 2
+++ npts= 5
+++ jhlatpts= 5 jripts= 9
+++ jbmaxlatpts= 14
+++ jlatfix= 192
+++ jbeg= 178 jend= 206
+++ rdeg= 0.6270790 ri= 150.0000 cosfac= 0.9706692
+++ dtr= 1.7453292E-02 dtk= 111.1949 dlon= 1.389745
+++ ibmaxlonpts= 16 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 252
+++ (orig) ibeg= 236 iend= 268
+++

After first pass through barnes, re and ri have NOT
been changed. re = 75.00000 ri = 150.0000
TIMING: find_maxmin kloop, k= 1 14:39:32

find_maxmin nhalf loop, cparm= zeta k= 1
guesslon= 136.019E (223.981W) guesslat= 13.911
ilonfix= 252 jlatfix= 192 npts= 5
ibeg= 236 jbeg= 178 imax= 409
iend= 268 jend= 206 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 1 ctlon= 224.399W ctlat= 13.660 fmax (x10e5) =
0.251E+02 fmin (x10e5) = 0.100E+21
TIMING: find_maxmin kloop, k= 2 14:39:32

find_maxmin nhalf loop, cparm= zeta k= 2
guesslon= 135.601E (224.399W) guesslat= 13.660
ilonfix= 252 jlatfix= 192 npts= 5
ibeg= 236 jbeg= 178 imax= 409
iend= 268 jend= 206 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 2 ctlon= 224.441W ctlat= 13.619 fmax (x10e5) =
0.265E+02 fmin (x10e5) = 0.100E+21

ppp after 2nd findmax loop, # calls to barnes = 72
ppp Total # of barnes loop iterations = 18360

```
+++ RPT_MEAN_ZETA: n= 2 lev= 700 xmeanzeta= 0.000265 imeanzeta
(*1e6)= 265
--- mean zeta raw = 2.6506552E-04
+++ RPT_GRID_ZETA: n= 2 lev= 700 grid zeta= 0.000139 igrid zeta
(*1e6)= 139 ifilret= 0
--- grid zeta raw= 1.3947432E-04
```

```
#-----#
# End of loop to get 850 & 700 zeta for atcf file. #
#-----#
```

```
+++ Top of output_atcf_sink, ist= 1 ifh= 2
```

```
Beginning of get_ij_bounds...
```

```
geslat= 12.90795 geslon= 135.6842
```

```
+++ Near top of get_ij_bounds,
+++ geslat= 12.90795 geslon= 135.6842
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 54
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 110
+++ jlatfix= 198
+++ jbeg= 88 jend= 308
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 110 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 250
+++ (orig) ibeg= 140 iend= 360
+++
```

```
--- barnlon= 224.37W barnlat= 12.93
--- extraplon= 224.04W extraplat= 12.15
```

```
-----
| Current fix & updated fix positions |
-----
| In get_next_ges, current fcst hour = 2.000000
| current storm number = 1
| Return code from get_next_ges = 0
| Storm Name = MANGKHUT
| Storm ID = 26W
| Gen ID (if available): 2018091200_F000_139N_1362E_26W
| Current fix lat is 12.91
| Current fix lon is 224.32W ( 135.68E)
| Updated guess lat for next fcst hour is 12.54
| Updated guess lon for next fcst hour is 224.21W ( 135.79E)
-----
```

```
iocheck, dist= 42.76709 distm= 42767.09
iocheck, stmspd= 11.87975 istmspd= 119
iocheck, xincr= 0.1096344 yincr= -0.3695631
iocheck, stmdir= 163.4765 istmdir= 163
```

```
*-----*
* New forecast hour: 3:00
*-----*
```

in getgridinfo_netcdf, ncfile_id= 65536

In getgridinfo, grid dimensions follow:

imax= 409 jmax= 349
dx= 0.1722946 dy= 0.1621475

DX: midi= 204 dx= 0.1723
DY: midj= 174 dy= 0.1621

Data Grid Lat/Lon boundaries follow:

Min Lat: -9.516 Min Lon: 92.852
Max Lat: 44.929 Max Lon: 163.148

TEST after getgridinfo in sub tracker, iggret= 0
in beginning of tracker, imax= 409 jmax= 349
TIMING: b4 getdata ... 14:39:32

NOTE: Program is now in subroutine getdata_netcdf.

+++ Time match in getdata_netcdf for usertime= 180
netcdf file index= ncix= 4
+++ NetCDF read requested for parm # 1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh= 4
ltix(ifh)= 4

After read, parm= ABS_VORTICITY_850 ifh= 4
lead time index= 4 parm# (ip) = 1 ncix=
4
igvret= 0
parmread lead time parm# parm_id minval maxval
3:00 1 ABS_VORTICITY_850 -
0.4919E-03 0.2773E-02
+++ NetCDF read requested for parm # 2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh= 4
ltix(ifh)= 4

After read, parm= ABS_VORTICITY_700 ifh= 4
lead time index= 4 parm# (ip) = 2 ncix=
4
igvret= 0
parmread lead time parm# parm_id minval maxval
3:00 2 ABS_VORTICITY_700 -
0.3700E-03 0.2474E-02
+++ NetCDF read requested for parm # 3 ... parm=
U_850

In get_var3_tlev_double, ifh= 4
ltix(ifh)= 4

After read, parm= U_850 ifh= 4
lead time index= 4 parm# (ip) = 3 ncix=
4
igvret= 0
parmread lead time parm# parm_id minval maxval
3:00 3 U_850 -
67.57 0.1000E+21
+++ NetCDF read requested for parm # 4 ... parm=
V_850

```

In get_var3_tlev_double, ifh=          4
                        ltix(ifh)=      4

After read, parm= V_850                ifh=          4
lead time index=          4 parm# (ip) =          4 ncix=
4
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  3:00                4        V_850
65.74    0.1000E+21
+++ NetCDF read requested for parm #    5 ... parm=
U_700

In get_var3_tlev_double, ifh=          4
                        ltix(ifh)=      4

After read, parm= U_700                ifh=          4
lead time index=          4 parm# (ip) =          5 ncix=
4
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  3:00                5        U_700
58.70    0.1000E+21
+++ NetCDF read requested for parm #    6 ... parm=
V_700

In get_var3_tlev_double, ifh=          4
                        ltix(ifh)=      4

After read, parm= V_700                ifh=          4
lead time index=          4 parm# (ip) =          6 ncix=
4
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  3:00                6        V_700
60.62    0.1000E+21
+++ NetCDF read requested for parm #    7 ... parm=
Z_850

In get_var3_tlev_double, ifh=          4
                        ltix(ifh)=      4

After read, parm= Z_850                ifh=          4
lead time index=          4 parm# (ip) =          7 ncix=
4
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  3:00                7        Z_850
986.8    0.1000E+21
+++ NetCDF read requested for parm #    8 ... parm=
Z_700

In get_var3_tlev_double, ifh=          4
                        ltix(ifh)=      4

After read, parm= Z_700                ifh=          4
lead time index=          4 parm# (ip) =          8 ncix=
4
  igvret=          0

```



```

parmread lead time      parm#      parm_id      minval      maxval
  3:00                8          z_700
2664.          0.1000E+21
+++ NetCDF read requested for parm #          9 ... parm=
slp

In get_var3_tlev_double, ifh=          4
                        ltix(ifh)=      4

After read, parm= slp                      ifh=          4
lead time index=          4 parm# (ip) =          9 ncix=
4
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  3:00                9          slp
0.9508E+05  0.1027E+06
+++ NetCDF read requested for parm #          10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          4
                        ltix(ifh)=      4

After read, parm= u_10m_gr                  ifh=          4
lead time index=          4 parm# (ip) =          10 ncix=
4
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  3:00                10         u_10m_gr      -
40.93         41.08
+++ NetCDF read requested for parm #          11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          4
                        ltix(ifh)=      4

After read, parm= v_10m_gr                  ifh=          4
lead time index=          4 parm# (ip) =          11 ncix=
4
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  3:00                11         v_10m_gr      -
44.17         41.47
+++ NetCDF read requested for parm #          12 ... parm=
U_500

In get_var3_tlev_double, ifh=          4
                        ltix(ifh)=      4

After read, parm= U_500                      ifh=          4
lead time index=          4 parm# (ip) =          12 ncix=
4
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  3:00                12          U_500          -
53.62         43.29
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=          4
                        ltix(ifh)=      4

```

```

After read, parm= V_500                ifh=                4
lead time index=                4  parm# (ip) =                13  ncix=
4
  igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
  3:00                13          V_500
48.54          52.30
!!! NetCDF read NOT requested for parm #                14
+++ NetCDF read requested for parm #                15 ... parm=
Z_500

In get_var3_tlev_double, ifh=                4
                        ltix(ifh)=                4

After read, parm= Z_500                ifh=                4
lead time index=                4  parm# (ip) =                15  ncix=
4
  igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
  3:00                15          Z_500
5474.          5923.
+++ NetCDF read requested for parm #                16 ... parm=
Z_200

In get_var3_tlev_double, ifh=                4
                        ltix(ifh)=                4

After read, parm= Z_200                ifh=                4
lead time index=                4  parm# (ip) =                16  ncix=
4
  igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
  3:00                16          Z_200
0.1188E+05  0.1254E+05
!!! NetCDF read NOT requested for parm #                17
TIMING: after getdata ... 14:39:33

Of                17  readable parms, you read in                15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =                38316.57      dlat_inter =
36059.95
-----
|          *** TOP OF STORM LOOP ***
| Beginning of storm loop in tracker for
| Storm number                1
| Forecast hour:                3:00
| Storm name = MANGKHUT
| Storm ID = 26W
| Gen ID (if available): 2018091200_F000_139N_1362E_26W
-----

---      ---      ---
Now calling find_maxmin for zeta at 850 mb

At beg of find_maxmin, rads=                200.0000      re=                75.00000      ri=
150.0000      cparm= zeta dx=                0.1722946      dy=                0.1621475

Beginning of get_ij_bounds...

```

geslat= 12.53839 geslon= 135.7938

```
+++ Near top of get_ij_bounds,
+++ geslat= 12.53839 geslon= 135.7938
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 22
+++ jlatfix= 200
+++ jbeg= 178 jend= 222
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 21 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 251
+++ (orig) ibeg= 230 iend= 272
+++
```

```
guesslon= 135.794E ( 224.206W) guesslat= 12.538
ilonfix= 251 jlatfix= 200 npts= 10
ibeg= 230 jbeg= 178 imax= 409
iend= 272 jend= 222 jmax= 349
TIMING: find_maxmin 1 14:39:33
```

```
After 1st findmax loop, # calls to barnes = 24
Total # of barnes loop iterations = 3168
!!! Zeta check, fmax= 1.3230480E-03 fmin= 1.0000000E+12
After first run, ctlon= 224.541W ctlat= 14.211 fmax (x10e5) =
0.132E+03 fmin (x10e5) = 0.100E+18
```

```
Beginning of get_ij_bounds...
geslat= 14.21060 geslon= 135.4594
```

```
+++ Near top of get_ij_bounds,
+++ geslat= 14.21060 geslon= 135.4594
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 2
+++ npts= 5
+++ jhlatpts= 5 jripts= 9
+++ jbmaxlatpts= 14
+++ jlatfix= 190
+++ jbeg= 176 jend= 204
+++ rdeg= 0.6270790 ri= 150.0000 cosfac= 0.9693999
+++ dtr= 1.7453292E-02 dtk= 111.1949 dlon= 1.391565
+++ ibmaxlonpts= 16 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 249
+++ (orig) ibeg= 233 iend= 265
+++
```

```
After first pass through barnes, re and ri have NOT
been changed. re = 75.00000 ri = 150.0000
TIMING: find_maxmin kloop, k= 1 14:39:33
```

```
find_maxmin nhalf loop, cparm= zeta k= 1
guesslon= 135.459E ( 224.541W) guesslat= 14.211
```

```
ilonfix=          249  jlatfix=          190  npts=          5
ibeg=            233  jbeg=            176  imax=          409
iend=            265  jend=            204  jmax=          349
nhalf=           2   iskip=           2
nhalf findmax, k= 1  ctlon= 224.290W  ctlat= 13.960 fmax (x10e5) =
0.400E+01 fmin (x10e5) =          0.100E+21
TIMING: find_maxmin kloop, k= 2  14:39:33
```

```
find_maxmin nhalf loop, cparm= zeta k=          2
guesslon= 135.710E ( 224.290W)  guesslat= 13.960
ilonfix=          249  jlatfix=          190  npts=          5
ibeg=            233  jbeg=            176  imax=          409
iend=            265  jend=            204  jmax=          349
nhalf=           2   iskip=           2
nhalf findmax, k= 2  ctlon= 224.081W  ctlat= 13.918 fmax (x10e5) =
0.958E+01 fmin (x10e5) =          0.100E+21
```

```
ppp after 2nd findmax loop, # calls to barnes =          72
ppp Total # of barnes loop iterations =          18360
```

```
---   ---   ---
Now calling find_maxmin for zeta at 700 mb
```

```
At beg of find_maxmin, rads=      200.0000      re=      75.00000      ri=
150.0000      cparm= zeta dx=      0.1722946      dy=      0.1621475
```

```
Beginning of get_ij_bounds...
geslat= 12.53839      geslon= 135.7938
```

```
+++ Near top of get_ij_bounds,
+++ geslat= 12.53839      geslon= 135.7938
+++ rglatmax= 44.92863      rglatmin= -9.516106
+++ rglonmax= 163.1479      rglonmin= 92.85205
+++ imax= 409  jmax= 349
+++ dx= 0.1722946  dy= 0.1621475  nhalf= 0
+++ npts= 10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 22
+++ jlatfix= 200
+++ jbeg= 178  jend= 222
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 21  dx= 0.1722946  dy= 0.1621475
+++ (orig) ilonfix= 251
+++ (orig) ibeg= 230  iend= 272
+++
```

```
guesslon= 135.794E ( 224.206W)  guesslat= 12.538
ilonfix= 251  jlatfix= 200  npts= 10
ibeg= 230  jbeg= 178  imax= 409
iend= 272  jend= 222  jmax= 349
TIMING: find_maxmin 1  14:39:33
```

```
After 1st findmax loop, # calls to barnes =          24
Total # of barnes loop iterations =          3168
!!! Zeta check, fmax= 1.1921531E-03  fmin= 1.0000000E+12
After first run, ctlon= 224.541W  ctlat= 14.211 fmax (x10e5) =
0.119E+03 fmin (x10e5) =          0.100E+18
```

```
Beginning of get_ij_bounds...
```

geslat= 14.21060 geslon= 135.4594

```
+++ Near top of get_ij_bounds,
+++ geslat= 14.21060 geslon= 135.4594
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 2
+++ npts= 5
+++ jhlatpts= 5 jripts= 9
+++ jbmaxlatpts= 14
+++ jlatfix= 190
+++ jbeg= 176 jend= 204
+++ rdeg= 0.6270790 ri= 150.0000 cosfac= 0.9693999
+++ dtr= 1.7453292E-02 dtk= 111.1949 dlon= 1.391565
+++ ibmaxlonpts= 16 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 249
+++ (orig) ibeg= 233 iend= 265
+++
```

After first pass through barnes, re and ri have NOT
been changed. re = 75.00000 ri = 150.0000
TIMING: find_maxmin kloop, k= 1 14:39:33

```
find_maxmin nhalf loop, cparm= zeta k= 1
guesslon= 135.459E ( 224.541W) guesslat= 14.211
ilonfix= 249 jlatfix= 190 npts= 5
ibeg= 233 jbeg= 176 imax= 409
iend= 265 jend= 204 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 1 ctlon= 224.290W ctlat= 13.960 fmax (x10e5) =
0.106E+02 fmin (x10e5) = 0.100E+21
TIMING: find_maxmin kloop, k= 2 14:39:33
```

```
find_maxmin nhalf loop, cparm= zeta k= 2
guesslon= 135.710E ( 224.290W) guesslat= 13.960
ilonfix= 249 jlatfix= 190 npts= 5
ibeg= 233 jbeg= 176 imax= 409
iend= 265 jend= 204 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 2 ctlon= 224.081W ctlat= 13.918 fmax (x10e5) =
0.143E+02 fmin (x10e5) = 0.100E+21
```

ppp after 2nd findmax loop, # calls to barnes = 72
ppp Total # of barnes loop iterations = 18360

--- --- ---

Now calling find_maxmin for hgt at 850 mb

At beg of find_maxmin, rads= 200.0000 re= 75.00000 ri=
150.0000 cparm= hgt dx= 0.1722946 dy= 0.1621475

Beginning of get_ij_bounds...

geslat= 12.53839 geslon= 135.7938

```
+++ Near top of get_ij_bounds,
+++ geslat= 12.53839 geslon= 135.7938
+++ rglatmax= 44.92863 rglatmin= -9.516106
```

```

+++ rglonmax=    163.1479    rglonmin=    92.85205
+++ imax=        409    jmax=        349
+++ dx=    0.1722946    dy=    0.1621475    nhalf=    0
+++ npts=        10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts=        22
+++ jlatfix=        200
+++ jbeg=        178    jend=        222
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts=        21    dx=    0.1722946    dy=    0.1621475
+++ (orig) ilonfix=        251
+++ (orig) ibeg=        230    iend=        272
+++

```

```

guesslon= 135.794E ( 224.206W)    guesslat= 12.538
ilonfix=    251    jlatfix=    200    npts=    10
ibeg=        230    jbeg=        178    imax=        409
iend=        272    jend=        222    jmax=        349
TIMING: find_maxmin 1 14:39:33

```

```

After 1st findmax loop, # calls to barnes =    24
Total # of barnes loop iterations =    3168
After first run, ctlon= 224.541W    ctlat= 10.866    fmax =    -
0.100E+13    fmin =    0.000E+00

```

```

Beginning of get_ij_bounds...
    geslat= 10.86618    geslon= 135.4594

```

```

+++ Near top of get_ij_bounds,
+++ geslat= 10.86618    geslon= 135.4594
+++ rglatmax= 44.92863    rglatmin= -9.516106
+++ rglonmax= 163.1479    rglonmin= 92.85205
+++ imax=    409    jmax=    349
+++ dx=    0.1722946    dy=    0.1621475    nhalf=    2
+++ npts=    5
+++ jhlatpts=    5    jripts=    9
+++ jbmaxlatpts=    14
+++ jlatfix=    211
+++ jbeg=    197    jend=    225
+++ rdeg= 0.6270790    ri= 150.0000    cosfac= 0.9820701
+++ dtr= 1.7453292E-02    dtk= 111.1949    dlon= 1.373611
+++ ibmaxlonpts=    15    dx=    0.1722946    dy=    0.1621475
+++ (orig) ilonfix=    249
+++ (orig) ibeg=    234    iend=    264
+++

```

```

After first pass through barnes, re and ri have NOT
been changed. re = 75.00000    ri = 150.0000
TIMING: find_maxmin kloop, k= 1 14:39:33

```

```

find_maxmin nhalf loop, cparm= hgt k=    1
guesslon= 135.459E ( 224.541W)    guesslat= 10.866
ilonfix=    249    jlatfix=    211    npts=    5
ibeg=    234    jbeg=    197    imax=    409
iend=    264    jend=    225    jmax=    349
nhalf=    2    iskip=    2
nhalf findmax, k= 1    ctlon= 224.457W    ctlat= 11.284    fmax =    -
0.100E+16    fmin =    0.140E+04
TIMING: find_maxmin kloop, k= 2 14:39:33

```

```
find_maxmin nhalf loop, cparm= hgt k=                2
guesslon= 135.543E ( 224.457W)  guesslat= 11.284
ilonfix=      249  jlatfix=      211  npts=          5
ibeg=      234  jbeg=      197  imax=      409
iend=      264  jend=      225  jmax=      349
nhalf=      2  iskip=      2
nhalf findmax, k= 2  ctlon= 224.415W  ctlat= 11.493  fmax = -
0.100E+16  fmin =      0.140E+04
```

```
ppp after 2nd findmax loop, # calls to barnes =          72
ppp Total # of barnes loop iterations =          17280
```

```
---      ---      ---
Now calling find_maxmin for hgt at 700 mb
```

```
At beg of find_maxmin, rads=      200.0000      re=      75.00000      ri=
150.0000      cparm= hgt dx=      0.1722946      dy=      0.1621475
```

```
Beginning of get_ij_bounds...
geslat=      12.53839      geslon=      135.7938
```

```
+++ Near top of get_ij_bounds,
+++ geslat=      12.53839      geslon=      135.7938
+++ rglatmax=      44.92863      rglatmin=      -9.516106
+++ rglonmax=      163.1479      rglonmin=      92.85205
+++ imax=      409  jmax=      349
+++ dx=      0.1722946      dy=      0.1621475      nhalf=          0
+++ npts=          10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts=          22
+++ jlatfix=          200
+++ jbeg=      178  jend=      222
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts=          21  dx=      0.1722946      dy=      0.1621475
+++ (orig) ilonfix=          251
+++ (orig) ibeg=      230  iend=      272
+++
```

```
guesslon= 135.794E ( 224.206W)  guesslat= 12.538
ilonfix=      251  jlatfix=      200  npts=          10
ibeg=      230  jbeg=      178  imax=      409
iend=      272  jend=      222  jmax=      349
TIMING: find_maxmin 1  14:39:33
```

```
After 1st findmax loop, # calls to barnes =          24
Total # of barnes loop iterations =          3168
After first run, ctlon= 224.541W  ctlat= 10.866  fmax = -
0.100E+13  fmin =      0.000E+00
```

```
Beginning of get_ij_bounds...
geslat=      10.86618      geslon=      135.4594
```

```
+++ Near top of get_ij_bounds,
+++ geslat=      10.86618      geslon=      135.4594
+++ rglatmax=      44.92863      rglatmin=      -9.516106
+++ rglonmax=      163.1479      rglonmin=      92.85205
+++ imax=      409  jmax=      349
```

```

+++ dx= 0.1722946      dy= 0.1621475      nhalf= 2
+++ npts= 5
+++ jhlatpts= 5      jripts= 9
+++ jbmaxlatpts= 14
+++ jlatfix= 211
+++ jbeg= 197      jend= 225
+++ rdeg= 0.6270790      ri= 150.0000      cosfac= 0.9820701
+++ dtr= 1.7453292E-02      dtk= 111.1949      dlon= 1.373611
+++ ibmaxlonpts= 15      dx= 0.1722946      dy= 0.1621475
+++ (orig) ilonfix= 249
+++ (orig) ibeg= 234      iend= 264
+++

```

After first pass through barnes, re and ri have NOT been changed. re = 75.00000 ri = 150.0000
TIMING: find_maxmin kloop, k= 1 14:39:33

```

find_maxmin nhalf loop, cparm= hgt k= 1
guesslon= 135.459E ( 224.541W)      guesslat= 10.866
ilonfix= 249      jlatfix= 211      npts= 5
ibeg= 234      jbeg= 197      imax= 409
iend= 264      jend= 225      jmax= 349
nhalf= 2      iskip= 2
nhalf findmax, k= 1      ctlon= 224.457W      ctlat= 11.284      fmax = -
0.100E+16      fmin = 0.305E+04
TIMING: find_maxmin kloop, k= 2 14:39:33

```

```

find_maxmin nhalf loop, cparm= hgt k= 2
guesslon= 135.543E ( 224.457W)      guesslat= 11.284
ilonfix= 249      jlatfix= 211      npts= 5
ibeg= 234      jbeg= 197      imax= 409
iend= 264      jend= 225      jmax= 349
nhalf= 2      iskip= 2
nhalf findmax, k= 2      ctlon= 224.415W      ctlat= 11.493      fmax = -
0.100E+16      fmin = 0.305E+04

```

ppp after 2nd findmax loop, # calls to barnes = 72
ppp Total # of barnes loop iterations = 17280

--- --- ---
Now calling find_maxmin for mslp

At beg of find_maxmin, rads= 200.0000 re= 75.00000 ri=
150.0000 cparm= slp dx= 0.1722946 dy= 0.1621475

Beginning of get_ij_bounds...
geslat= 12.53839 geslon= 135.7938

```

+++ Near top of get_ij_bounds,
+++ geslat= 12.53839      geslon= 135.7938
+++ rglatmax= 44.92863      rglatmin= -9.516106
+++ rglonmax= 163.1479      rglonmin= 92.85205
+++ imax= 409      jmax= 349
+++ dx= 0.1722946      dy= 0.1621475      nhalf= 0
+++ npts= 10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 22
+++ jlatfix= 200
+++ jbeg= 178      jend= 222

```



```
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts=      21 dx=  0.1722946 dy=  0.1621475
+++ (orig) ilonfix=      251
+++ (orig) ibeg=      230 iend=      272
+++
```

```
guesslon= 135.794E ( 224.206W) guesslat= 12.538
ilonfix=      251 jlatfix=      200 npts=      10
ibeg=      230 jbeg=      178 imax=      409
iend=      272 jend=      222 jmax=      349
TIMING: find_maxmin 1 14:39:33
```

```
After 1st findmax loop, # calls to barnes =      24
Total # of barnes loop iterations =      3168
After first run, ctlon= 224.541W ctlat= 10.866 fmax =      -
0.100E+13 fmin =      0.000E+00
```

```
Beginning of get_ij_bounds...
geslat= 10.86618 geslon= 135.4594
```

```
+++ Near top of get_ij_bounds,
+++ geslat= 10.86618 geslon= 135.4594
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 2
+++ npts= 5
+++ jhlatpts= 5 jripts= 9
+++ jbmaxlatpts= 14
+++ jlatfix= 211
+++ jbeg= 197 jend= 225
+++ rdeg= 0.6270790 ri= 150.0000 cosfac= 0.9820701
+++ dtr= 1.7453292E-02 dtk= 111.1949 dlon= 1.373611
+++ ibmaxlonpts= 15 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 249
+++ (orig) ibeg= 234 iend= 264
+++
```

```
After first pass through barnes, re and ri have NOT
been changed. re = 75.00000 ri = 150.0000
TIMING: find_maxmin kloop, k= 1 14:39:33
```

```
find_maxmin nhalf loop, cparm= slp k= 1
guesslon= 135.459E ( 224.541W) guesslat= 10.866
ilonfix= 249 jlatfix= 211 npts= 5
ibeg= 234 jbeg= 197 imax= 409
iend= 264 jend= 225 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 1 ctlon= 224.457W ctlat= 11.284 fmax =      -
0.100E+16 fmin = 0.998E+05
TIMING: find_maxmin kloop, k= 2 14:39:33
```

```
find_maxmin nhalf loop, cparm= slp k= 2
guesslon= 135.543E ( 224.457W) guesslat= 11.284
ilonfix= 249 jlatfix= 211 npts= 5
ibeg= 234 jbeg= 197 imax= 409
iend= 264 jend= 225 jmax= 349
nhalf= 2 iskip= 2
```

nhalf findmax, k= 2 ctlon= 224.415W ctlat= 11.493 fmax = -
0.100E+16 fmin = 0.998E+05

ppp after 2nd findmax loop, # calls to barnes = 72
ppp Total # of barnes loop iterations = 17280

--- --- ---
Now calling find_maxmin for sfc zeta

At beg of find_maxmin, rads= 200.0000 re= 75.00000 ri=
150.0000 cparm= zeta dx= 0.1722946 dy= 0.1621475

Beginning of get_ij_bounds...
geslat= 12.53839 geslon= 135.7938

+++ Near top of get_ij_bounds,
+++ geslat= 12.53839 geslon= 135.7938
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 22
+++ jlatfix= 200
+++ jbeg= 178 jend= 222
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 21 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 251
+++ (orig) ibeg= 230 iend= 272
+++

guesslon= 135.794E (224.206W) guesslat= 12.538
ilonfix= 251 jlatfix= 200 npts= 10
ibeg= 230 jbeg= 178 imax= 409
iend= 272 jend= 222 jmax= 349
TIMING: find_maxmin 1 14:39:33

After 1st findmax loop, # calls to barnes = 24
Total # of barnes loop iterations = 3168
!!! Zeta check, fmax= 5.9304311E-04 fmin= 1.0000000E+12
After first run, ctlon= 224.541W ctlat= 14.211 fmax (x10e5) =
0.593E+02 fmin (x10e5) = 0.100E+18

Beginning of get_ij_bounds...
geslat= 14.21060 geslon= 135.4594

+++ Near top of get_ij_bounds,
+++ geslat= 14.21060 geslon= 135.4594
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 2
+++ npts= 5
+++ jhlatpts= 5 jripts= 9
+++ jbmaxlatpts= 14
+++ jlatfix= 190
+++ jbeg= 176 jend= 204

```

+++ rdeg= 0.6270790 ri= 150.0000 cosfac= 0.9693999
+++ dtr= 1.7453292E-02 dtk= 111.1949 dlon= 1.391565
+++ ibmaxlonpts= 16 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 249
+++ (orig) ibeg= 233 iend= 265
+++

```

After first pass through barnes, re and ri have NOT been changed. re = 75.00000 ri = 150.0000
TIMING: find_maxmin kloop, k= 1 14:39:33

```

find_maxmin nhalf loop, cparm= zeta k= 1
guesslon= 135.459E ( 224.541W) guesslat= 14.211
ilonfix= 249 jlatfix= 190 npts= 5
ibeg= 233 jbeg= 176 imax= 409
iend= 265 jend= 204 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 1 ctlon= 224.959W ctlat= 14.461 fmax (x10e5) =
0.122E+01 fmin (x10e5) = 0.100E+21
TIMING: find_maxmin kloop, k= 2 14:39:33

```

```

find_maxmin nhalf loop, cparm= zeta k= 2
guesslon= 135.041E ( 224.959W) guesslat= 14.461
ilonfix= 249 jlatfix= 190 npts= 5
ibeg= 233 jbeg= 176 imax= 409
iend= 265 jend= 204 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 2 ctlon= 225.168W ctlat= 14.252 fmax (x10e5) =
0.195E+01 fmin (x10e5) = 0.100E+21

```

ppp after 2nd findmax loop, # calls to barnes = 72
ppp Total # of barnes loop iterations = 18360

--- --- ---

Now calling find_maxmin for thickness in the 500-850 mb layer.

At beg of find_maxmin, rads= 200.0000 re= 75.00000 ri= 150.0000
cparm= thick dx= 0.1722946 dy= 0.1621475

Beginning of get_ij_bounds...

geslat= 12.53839 geslon= 135.7938

```

+++ Near top of get_ij_bounds,
+++ geslat= 12.53839 geslon= 135.7938
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 22
+++ jlatfix= 200
+++ jbeg= 178 jend= 222
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 21 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 251
+++ (orig) ibeg= 230 iend= 272
+++

```

guesslon= 135.794E (224.206W) guesslat= 12.538
ilonfix= 251 jlatfix= 200 npts= 10
ibeg= 230 jbeg= 178 imax= 409
iend= 272 jend= 222 jmax= 349
TIMING: find_maxmin 1 14:39:33

After 1st findmax loop, # calls to barnes = 24
Total # of barnes loop iterations = 3168
After first run, ctlon= 224.541W ctlat= 14.211 fmax =
0.443E+04 fmin = 0.100E+13

Beginning of get_ij_bounds...
geslat= 14.21060 geslon= 135.4594

+++ Near top of get_ij_bounds,
+++ geslat= 14.21060 geslon= 135.4594
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 2
+++ npts= 5
+++ jhlatpts= 5 jripts= 9
+++ jbmaxlatpts= 14
+++ jlatfix= 190
+++ jbeg= 176 jend= 204
+++ rdeg= 0.6270790 ri= 150.0000 cosfac= 0.9693999
+++ dtr= 1.7453292E-02 dtk= 111.1949 dlon= 1.391565
+++ ibmaxlonpts= 16 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 249
+++ (orig) ibeg= 233 iend= 265
+++

After first pass through barnes, re and ri have NOT
been changed. re = 75.00000 ri = 150.0000
TIMING: find_maxmin kloop, k= 1 14:39:33

find_maxmin nhalf loop, cparm= thick k= 1
guesslon= 135.459E (224.541W) guesslat= 14.211
ilonfix= 249 jlatfix= 190 npts= 5
ibeg= 233 jbeg= 176 imax= 409
iend= 265 jend= 204 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 1 ctlon= 224.959W ctlat= 13.960 fmax =
0.438E+04 fmin = 0.100E+16
TIMING: find_maxmin kloop, k= 2 14:39:33

find_maxmin nhalf loop, cparm= thick k= 2
guesslon= 135.041E (224.959W) guesslat= 13.960
ilonfix= 249 jlatfix= 190 npts= 5
ibeg= 233 jbeg= 176 imax= 409
iend= 265 jend= 204 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 2 ctlon= 225.168W ctlat= 13.918 fmax =
0.438E+04 fmin = 0.100E+16

ppp after 2nd findmax loop, # calls to barnes = 72
ppp Total # of barnes loop iterations = 18360

--- --- ---
Now calling find_maxmin for thickness in
the 200-500 mb layer.

At beg of find_maxmin, rads= 200.0000 re= 75.00000 ri=
150.0000 cparm= thick dx= 0.1722946 dy= 0.1621475

Beginning of get_ij_bounds...
geslat= 12.53839 geslon= 135.7938

```
+++ Near top of get_ij_bounds,  
+++ geslat= 12.53839 geslon= 135.7938  
+++ rglatmax= 44.92863 rglatmin= -9.516106  
+++ rglonmax= 163.1479 rglonmin= 92.85205  
+++ imax= 409 jmax= 349  
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0  
+++ npts= 10  
+++ nhalf<=0 so jhlatpts and jripts unused  
+++ jbmaxlatpts= 22  
+++ jlatfix= 200  
+++ jbeg= 178 jend= 222  
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused  
+++ ibmaxlonpts= 21 dx= 0.1722946 dy= 0.1621475  
+++ (orig) ilonfix= 251  
+++ (orig) ibeg= 230 iend= 272  
+++
```

guesslon= 135.794E (224.206W) guesslat= 12.538
ilonfix= 251 jlatfix= 200 npts= 10
ibeg= 230 jbeg= 178 imax= 409
iend= 272 jend= 222 jmax= 349
TIMING: find_maxmin 1 14:39:33

After 1st findmax loop, # calls to barnes = 24
Total # of barnes loop iterations = 3168
After first run, ctlon= 224.541W ctlat= 14.211 fmax =
0.677E+04 fmin = 0.100E+13

Beginning of get_ij_bounds...
geslat= 14.21060 geslon= 135.4594

```
+++ Near top of get_ij_bounds,  
+++ geslat= 14.21060 geslon= 135.4594  
+++ rglatmax= 44.92863 rglatmin= -9.516106  
+++ rglonmax= 163.1479 rglonmin= 92.85205  
+++ imax= 409 jmax= 349  
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 2  
+++ npts= 5  
+++ jhlatpts= 5 jripts= 9  
+++ jbmaxlatpts= 14  
+++ jlatfix= 190  
+++ jbeg= 176 jend= 204  
+++ rdeg= 0.6270790 ri= 150.0000 cosfac= 0.9693999  
+++ dtr= 1.7453292E-02 dtk= 111.1949 dlon= 1.391565  
+++ ibmaxlonpts= 16 dx= 0.1722946 dy= 0.1621475  
+++ (orig) ilonfix= 249  
+++ (orig) ibeg= 233 iend= 265  
+++
```

After first pass through barnes, re and ri have NOT
been changed. re = 75.00000 ri = 150.0000
TIMING: find_maxmin kloop, k= 1 14:39:33

```
find_maxmin nhalf loop, cparm= thick k= 1
guesslon= 135.459E ( 224.541W) guesslat= 14.211
ilonfix= 249 jlatfix= 190 npts= 5
ibeg= 233 jbeg= 176 imax= 409
iend= 265 jend= 204 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 1 ctlon= 224.290W ctlat= 13.960 fmax =
0.669E+04 fmin = 0.100E+16
TIMING: find_maxmin kloop, k= 2 14:39:33
```

```
find_maxmin nhalf loop, cparm= thick k= 2
guesslon= 135.710E ( 224.290W) guesslat= 13.960
ilonfix= 249 jlatfix= 190 npts= 5
ibeg= 233 jbeg= 176 imax= 409
iend= 265 jend= 204 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 2 ctlon= 224.415W ctlat= 13.918 fmax =
0.669E+04 fmin = 0.100E+16
```

ppp after 2nd findmax loop, # calls to barnes = 72
ppp Total # of barnes loop iterations = 18360

--- --- ---
Now calling find_maxmin for thickness in
the 200-850 mb layer.

At beg of find_maxmin, rads= 200.0000 re= 75.00000 ri=
150.0000 cparm= thick dx= 0.1722946 dy= 0.1621475

Beginning of get_ij_bounds...

geslat= 12.53839 geslon= 135.7938

```
+++ Near top of get_ij_bounds,
+++ geslat= 12.53839 geslon= 135.7938
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jmaxlatpts= 22
+++ jlatfix= 200
+++ jbeg= 178 jend= 222
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 21 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 251
+++ (orig) ibeg= 230 iend= 272
+++
```

```
guesslon= 135.794E ( 224.206W) guesslat= 12.538
ilonfix= 251 jlatfix= 200 npts= 10
ibeg= 230 jbeg= 178 imax= 409
iend= 272 jend= 222 jmax= 349
TIMING: find_maxmin 1 14:39:33
```

After 1st findmax loop, # calls to barnes = 24
Total # of barnes loop iterations = 3168
After first run, ctlon= 224.541W ctlat= 14.211 fmax =
0.112E+05 fmin = 0.100E+13

Beginning of get_ij_bounds...
geslat= 14.21060 geslon= 135.4594

+++ Near top of get_ij_bounds,
+++ geslat= 14.21060 geslon= 135.4594
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 2
+++ npts= 5
+++ jhlatpts= 5 jripts= 9
+++ jbmaxlatpts= 14
+++ jlatfix= 190
+++ jbeg= 176 jend= 204
+++ rdeg= 0.6270790 ri= 150.0000 cosfac= 0.9693999
+++ dtr= 1.7453292E-02 dtk= 111.1949 dlon= 1.391565
+++ ibmaxlonpts= 16 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 249
+++ (orig) ibeg= 233 iend= 265
+++

After first pass through barnes, re and ri have NOT
been changed. re = 75.00000 ri = 150.0000
TIMING: find_maxmin kloop, k= 1 14:39:33

find_maxmin nhalf loop, cparm= thick k= 1
guesslon= 135.459E (224.541W) guesslat= 14.211
ilonfix= 249 jlatfix= 190 npts= 5
ibeg= 233 jbeg= 176 imax= 409
iend= 265 jend= 204 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 1 ctlon= 224.624W ctlat= 13.960 fmax =
0.111E+05 fmin = 0.100E+16
TIMING: find_maxmin kloop, k= 2 14:39:33

find_maxmin nhalf loop, cparm= thick k= 2
guesslon= 135.376E (224.624W) guesslat= 13.960
ilonfix= 249 jlatfix= 190 npts= 5
ibeg= 233 jbeg= 176 imax= 409
iend= 265 jend= 204 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 2 ctlon= 224.415W ctlat= 13.918 fmax =
0.111E+05 fmin = 0.100E+16

ppp after 2nd findmax loop, # calls to barnes = 72
ppp Total # of barnes loop iterations = 18360

--- --- ---

Now calling get_wind_circulation for 850 mb

Before first call to get_wind_circulation,
glatmax= 44.92863
glatmin= -9.516106

```
glonmax= 163.1479
glonmin= 92.85205
trkrinfo%gridtype= regional
inp%modtyp= regional
cmaxmin= max
nlev850= 1
u(1,1,nlev850)= 4.227068
u(imax,jmax,nlev850)= -6.095567
imax= 409 jmax= 349
uvgeslon= 135.5490 uvgeslat= 13.24908
dx= 0.1722946 dy= 0.1621475 ist= 1
calcparm(3,ist)= T
clon(ist,ifh,3)= 0.0000000E+00
clat(ist,ifh,3)= 0.0000000E+00
xval(3)= 0.0000000E+00
TIMING: Before GWC 850 ... 14:39:33
```

```
top of get_wind_circulation,
glatmax= 44.92863
glatmin= -9.516106
glonmax= 163.1479
glonmin= 92.85205
trkrinfo%gridtype= regional
cmodel_type= regional
maxmin= max
imax= 409 jmax= 349
uvgeslon= 135.5490 uvgeslat= 13.24908
dx= 0.1722946 dy= 0.1621475 ist= 1
cflag= T
ctlon= 0.0000000E+00 ctlat= 0.0000000E+00
fxval= 0.0000000E+00
igwcret= 0
```

```
At beg of get_wind_circulation, rads= 200.0000 ri= 150.0000
dx= 0.1722946 dy= 0.1621475
in get_wind_circulation, nlev= 1
```

```
Beginning of get_ij_bounds...
geslat= 13.24908 geslon= 135.5490
```

```
+++ Near top of get_ij_bounds,
+++ geslat= 13.24908 geslon= 135.5490
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jmaxlatpts= 22
+++ jlatfix= 196
+++ jbeg= 174 jend= 218
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 21 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 249
+++ (orig) ibeg= 228 iend= 270
+++
```

```
In get_wind_circulation, prior to first loop,
```



```

npts=          10 dell=  0.1672211      rads=   200.0000

After first run, Wind Circulation (NHEM) ctlon=  224.785W  ctlat=
14.921  circ_diff_mean =   -28.658

Beginning of get_ij_bounds...
  geslat=   14.92129      geslon=   135.2145

+++ Near top of get_ij_bounds,
+++ geslat=   14.92129      geslon=   135.2145
+++ rglatmax=   44.92863      rglatmin=  -9.516106
+++ rglonmax=  163.1479      rglonmin=   92.85205
+++ imax=      409  jmax=      349
+++ dx=   0.1722946      dy=   0.1621475      nhalf=      2
+++ npts=      10
+++ jhlatpts=      9  jripts=      9
+++ jbmaxlatpts=      18
+++ jlatfix=      186
+++ jbeg=      168  jend=      204
+++ rdeg=   1.254158      ri=   150.0000      cosfac=   0.9662805
+++ dtr=   1.7453292E-02  dtk=   111.1949      dlon=   1.396057
+++ ibmaxlonpts=      20  dx=   0.1722946      dy=   0.1621475
+++ (orig) ilonfix=      247
+++ (orig) ibeg=      227  iend=      267
+++
TIMING: get_wind_circ kloop, k=  1  14:39:33

get_wind_circ nhalf loop, k=      1
guesslon=  135.215E ( 224.785W)  guesslat=   14.921
ilonfix=      247  jlatfix=      186  npts=      10
ibeg=      227  jbeg=      168  imax=      409
iend=      267  jend=      204  jmax=      349
nhalf=      2  iskip=      2  rads=   100.0000

In get_wind_circulation, prior to loop k=      1
npts=      10  dell=   8.3610535E-02  rads=   100.0000

---> xmax_circ_diff_mean=  -44.87184
nhalf get_wind_circ, k=  1 ctlon=  224.785W  ctlat=   14.085 Wind
Circulation (NHEM: Max) =  -44.872
TIMING: get_wind_circ kloop, k=  2  14:39:33

get_wind_circ nhalf loop, k=      2
guesslon=  135.215E ( 224.785W)  guesslat=   14.085
ilonfix=      247  jlatfix=      186  npts=      10
ibeg=      227  jbeg=      168  imax=      409
iend=      267  jend=      204  jmax=      349
nhalf=      2  iskip=      2  rads=   100.0000

In get_wind_circulation, prior to loop k=      2
npts=      10  dell=   4.1805267E-02  rads=   100.0000

---> xmax_circ_diff_mean=  -43.74782
nhalf get_wind_circ, k=  2 ctlon=  224.953W  ctlat=   14.002 Wind
Circulation (NHEM: Max) =  -43.748
TIMING: After GWC 850 ... 14:39:33

---      ---      ---
Now calling get_wind_circulation for 700 mb

```

TIMING: Before GWC 700 ... 14:39:33

```
top of get_wind_circulation,
  glatmax= 44.92863
  glatmin= -9.516106
  glonmax= 163.1479
  glonmin= 92.85205
  trkrinfo%gridtype= regional
  cmodel_type= regional
  maxmin= max
  imax= 409 jmax= 349
  uvgeslon= 135.5490 uvgeslat= 13.24908
  dx= 0.1722946 dy= 0.1621475 ist= 1
  cflag= T
  ctlon= 0.0000000E+00 ctlat= 0.0000000E+00
  fxval= 0.0000000E+00
  igwcret= 0
```

```
At beg of get_wind_circulation, rads= 200.0000 ri= 150.0000
dx= 0.1722946 dy= 0.1621475
in get_wind_circulation, nlev= 2
```

```
Beginning of get_ij_bounds...
  geslat= 13.24908 geslon= 135.5490
```

```
+++ Near top of get_ij_bounds,
+++ geslat= 13.24908 geslon= 135.5490
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 22
+++ jlatfix= 196
+++ jbeg= 174 jend= 218
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 21 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 249
+++ (orig) ibeg= 228 iend= 270
+++
```

```
In get_wind_circulation, prior to first loop,
  npts= 10 dell= 0.1672211 rads= 200.0000
```

```
After first run, Wind Circulation (NHEM) ctlon= 224.785W ctlat=
11.577 circ_diff_mean = 27.692
```

```
Beginning of get_ij_bounds...
  geslat= 11.57687 geslon= 135.2145
```

```
+++ Near top of get_ij_bounds,
+++ geslat= 11.57687 geslon= 135.2145
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 2
```

```

+++ npts=                10
+++ jhlatpts=            9  jripts=                9
+++ jbmaxlatpts=        18
+++ jlatfix=            206
+++ jbeg=                188  jend=                224
+++ rdeg=    1.254158    ri=    150.0000    cosfac=    0.9796563
+++ dtr=    1.7453292E-02  dtk=    111.1949    dlon=    1.376996
+++ ibmaxlonpts=        19  dx=    0.1722946    dy=    0.1621475
+++ (orig) ilonfix=        247
+++ (orig) ibeg=        228  iend=                266
+++
TIMING: get_wind_circ kloop, k= 1  14:39:33

get_wind_circ nhalf loop, k=                1
guesslon= 135.215E ( 224.785W)  guesslat=  11.577
ilonfix=    247  jlatfix=    206  npts=                10
ibeg=        228  jbeg=        188  imax=                409
iend=        266  jend=        224  jmax=                349
nhalf=        2  iskip=        2  rads=    100.0000

In get_wind_circulation, prior to loop k=                1
npts=        10  dell=    8.3610535E-02  rads=    100.0000

---> xmax_circ_diff_mean=  -31.69874
nhalf get_wind_circ, k= 1  ctlon=  224.618W  ctlat=  12.413 Wind
Circulation (NHEM: Max) =  -31.699
TIMING: get_wind_circ kloop, k= 2  14:39:33

get_wind_circ nhalf loop, k=                2
guesslon= 135.382E ( 224.618W)  guesslat=  12.413
ilonfix=    247  jlatfix=    206  npts=                10
ibeg=        228  jbeg=        188  imax=                409
iend=        266  jend=        224  jmax=                349
nhalf=        2  iskip=        2  rads=    100.0000

In get_wind_circulation, prior to loop k=                2
npts=        10  dell=    4.1805267E-02  rads=    100.0000

---> xmax_circ_diff_mean=  -31.69874
nhalf get_wind_circ, k= 2  ctlon=  224.618W  ctlat=  12.413 Wind
Circulation (NHEM: Max) =  -31.699
TIMING: After GWC 700 ... 14:39:33

---      ---      ---
Now calling get_wind_circulation for the
surface (10m) level
TIMING: Before GWC Sfc ... 14:39:33

top of get_wind_circulation,
glatmax=    44.92863
glatmin=   -9.516106
glonmax=   163.1479
glonmin=   92.85205
trkrinfo%gridtype= regional
cmodel_type= regional
maxmin= max
imax=        409  jmax=        349
uvgeslon=    135.5490    uvgeslat=    13.24908
dx=    0.1722946    dy=    0.1621475    ist=        1
cflag= T

```

ctlon= 0.0000000E+00 ctlat= 0.0000000E+00
fxval= 0.0000000E+00
igwcret= 0

At beg of get_wind_circulation, rads= 200.0000 ri= 150.0000
dx= 0.1722946 dy= 0.1621475
in get_wind_circulation, nlev= 4

Beginning of get_ij_bounds...
geslat= 13.24908 geslon= 135.5490

+++ Near top of get_ij_bounds,
+++ geslat= 13.24908 geslon= 135.5490
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 22
+++ jlatfix= 196
+++ jbeg= 174 jend= 218
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 21 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 249
+++ (orig) ibeg= 228 iend= 270
+++

In get_wind_circulation, prior to first loop,
npts= 10 dell= 0.1672211 rads= 200.0000

After first run, Wind Circulation (NHEM) ctlon= 225.454W ctlat=
12.246 circ_diff_mean = -15.435

Beginning of get_ij_bounds...
geslat= 12.24575 geslon= 134.5457

+++ Near top of get_ij_bounds,
+++ geslat= 12.24575 geslon= 134.5457
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 2
+++ npts= 10
+++ jhlatpts= 9 jripts= 9
+++ jbmaxlatpts= 18
+++ jlatfix= 202
+++ jbeg= 184 jend= 220
+++ rdeg= 1.254158 ri= 150.0000 cosfac= 0.9772468
+++ dtr= 1.7453292E-02 dtk= 111.1949 dlon= 1.380391
+++ ibmaxlonpts= 20 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 243
+++ (orig) ibeg= 223 iend= 263
+++

TIMING: get_wind_circ kloop, k= 1 14:39:33

get_wind_circ nhalf loop, k= 1

```

guesslon= 134.546E ( 225.454W)   guesslat= 12.246
ilonfix=      243  jlatfix=      202  npts=      10
ibeg=      223  jbeg=      184  imax=      409
iend=      263  jend=      220  jmax=      349
nhalf=      2   iskip=      2   rads=    100.0000

```

```

In get_wind_circulation, prior to loop k=      1
  npts=      10  dell=  8.3610535E-02  rads=    100.0000

```

```

---> xmax_circ_diff_mean=  -18.40681
nhalf get_wind_circ, k=  1  ctlon=  224.785W  ctlat=  12.747  Wind
Circulation (NHEM: Max) =  -18.407
TIMING: get_wind_circ kloop, k=  2   14:39:33

```

```

get_wind_circ nhalf loop, k=      2
guesslon= 135.215E ( 224.785W)   guesslat= 12.747
ilonfix=      243  jlatfix=      202  npts=      10
ibeg=      223  jbeg=      184  imax=      409
iend=      263  jend=      220  jmax=      349
nhalf=      2   iskip=      2   rads=    100.0000

```

```

In get_wind_circulation, prior to loop k=      2
  npts=      10  dell=  4.1805267E-02  rads=    100.0000

```

```

---> xmax_circ_diff_mean=  -16.71449
nhalf get_wind_circ, k=  2  ctlon=  224.785W  ctlat=  12.664  Wind
Circulation (NHEM: Max) =  -16.714
TIMING: After GWC Sfc ... 14:39:33

```

```

At beg of fixcenter, stderr(ist,ifh-1) =    81.53  xavg_stderr=    68.35
At beg of fixcenter, errpgro =    1.250000
At beg of fixcenter, errinit =    225.0000
At beg of fixcenter, errpmax =    485.0000
At beg of fixcenter, ifh=      4  errmax=    256.3286

```

```

-----
Individual fixes follow..., fhr=      3:00  26W  MANGKHUT
Gen ID (if available): 2018091200_F000_139N_1362E_26W
Model name = WRF

```

```

Values of -99.99 indicate that a fix was unable to be
made for that parameter. Parameters 4 & 6 are not
used. Vorticity data values are scaled by 1e5.
errrdist is the distance that the position estimate is
from the guess position for this time. MSLP value
here may differ from that in the atcfunix file since
the one here is that derived from the area-averaged
barnes analysis, while that in the atcfunix file is
from a specific gridpoint.

```

```

Guess location for this time: 135.79E (224.21W) 12.54

```

parm#	parm	Max/Min	Lon_fix(E)	Lon_fix(W)	Lat_fix
Max/Min_value	calcparm	errrdist (km)			
1	zeta 850	Max	135.92	224.08	13.92
9.58	T	154.00			
2	zeta 700	Max	135.92	224.08	13.92
14.32	T	154.00			
3	circ 850	Max	135.05	224.95	14.00
43.75	T	181.65			

4	NOT USED	NOT USED	0.00	0.00	0.00	
0.00	F	0.00				
5	circ 700	Max	135.38	224.62	12.41	-
31.70	T	46.87				
6	NOT USED	NOT USED	0.00	0.00	0.00	
0.00	F	0.00				
7	gph 850	Min	135.58	224.42	11.49	
1400.67	T	118.42				
8	gph 700	Min	135.58	224.42	11.49	
3049.19	T	118.42				
9	MSLP	Min	135.58	224.42	11.49	
99752.18	T	118.42				
10	circ sfc	Max	135.21	224.79	12.66	-
16.71	T	64.36				
11	zeta sfc	Max	134.83	225.17	14.25	
1.95	T	217.11				
12	thk 5-8	Max	134.83	225.17	13.92	
4379.09	T	185.37				
13	thk 2-5	Max	135.58	224.42	13.92	
6694.18	T	155.06				
14	thk 2-8	Max	135.58	224.42	13.92	
11067.36	T	155.06				

```

After stdevcalc, xmn_dist_from_mean= 118.7273      stderr_close=
41.01531      isret= 0
ip= 1 kprm= 1 dist_from_mean= 104.017 devia= 2.536 wtpos= 0.42941
135.92 224.08 13.92
ip= 2 kprm= 2 dist_from_mean= 104.017 devia= 2.536 wtpos= 0.42941
135.92 224.08 13.92
ip= 3 kprm= 3 dist_from_mean= 106.431 devia= 2.595 wtpos= 0.42106
135.05 224.95 14.00
ip= 5 kprm= 4 dist_from_mean= 78.391 devia= 1.911 wtpos= 0.52883
135.38 224.62 12.41
ip= 7 kprm= 5 dist_from_mean= 181.371 devia= 4.422 wtpos= 0.22900
135.58 224.42 11.49
ip= 8 kprm= 6 dist_from_mean= 181.371 devia= 4.422 wtpos= 0.22900
135.58 224.42 11.49
ip= 9 kprm= 7 dist_from_mean= 181.371 devia= 4.422 wtpos= 0.22900
135.58 224.42 11.49
ip= 10 kprm= 8 dist_from_mean= 55.168 devia= 1.345 wtpos= 0.63868
135.21 224.79 12.66
ip= 11 kprm= 9 dist_from_mean= 141.469 devia= 3.449 wtpos= 0.31672
134.83 225.17 14.25
ip= 12 kprm= 10 dist_from_mean= 109.567 devia= 2.671 wtpos= 0.41047
134.83 225.17 13.92
ip= 13 kprm= 11 dist_from_mean= 90.777 devia= 2.213 wtpos= 0.47819
135.58 224.42 13.92
ip= 14 kprm= 12 dist_from_mean= 90.777 devia= 2.213 wtpos= 0.47819
135.58 224.42 13.92

```

```

At end of fixcenter: 26W fhr= 3:00 Fix position= 135.41E
(224.59W) 13.27

```

```

ttest, ifret= 0
ttest, calcparm(9,ist)= T
ttest, in IF part:
  clon(ist,ifh,9)= 135.5848
  clat(ist,ifh,9)= 11.49326
  xval(9)= 99752.18

```

Beginning of get_ij_bounds...

geslat= 11.49326 geslon= 135.5848

```
+++ Near top of get_ij_bounds,
+++ geslat= 11.49326 geslon= 135.5848
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 17
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 36
+++ jlatfix= 207
+++ jbeg= 171 jend= 243
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 27 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 250
+++ (orig) ibeg= 223 iend= 277
+++
```

```
After get_ij B, ibeg jbeg = 223 171
After get_ij B, iend jend = 277 243
```

```
In is_it_a_storm, ilonfix= 250 jlatfix= 207
ibeg jbeg iend jend = 223 171 277 243
cparm= slp parmlon parmlat = 135.5848 11.49326
parmval= 99752.18
```

```
i= 245 j= 211 glon= 134.89 glat= 14.07 dist= 296.50 slp=
97084.37 pgradient= -8.99778
i= 247 j= 211 glon= 135.24 glat= 14.07 dist= 289.30 slp=
95530.01 pgradient= *****
i= 249 j= 211 glon= 135.58 glat= 14.07 dist= 286.82 slp=
95104.56 pgradient= *****
i= 251 j= 211 glon= 135.93 glat= 14.07 dist= 289.19 slp=
95607.66 pgradient= *****
i= 253 j= 211 glon= 136.27 glat= 14.07 dist= 296.29 slp=
97565.64 pgradient= -7.37966
i= 241 j= 213 glon= 134.20 glat= 13.74 dist= 291.22 slp=
99357.97 pgradient= -1.35367
i= 243 j= 213 glon= 134.55 glat= 13.74 dist= 273.85 slp=
98839.86 pgradient= -3.33151
i= 245 j= 213 glon= 134.89 glat= 13.74 dist= 260.71 slp=
97770.48 pgradient= -7.60124
i= 247 j= 213 glon= 135.24 glat= 13.74 dist= 252.47 slp=
96091.59 pgradient= *****
i= 249 j= 213 glon= 135.58 glat= 13.74 dist= 249.63 slp=
95271.80 pgradient= *****
i= 251 j= 213 glon= 135.93 glat= 13.74 dist= 252.36 slp=
95988.10 pgradient= *****
i= 253 j= 213 glon= 136.27 glat= 13.74 dist= 260.47 slp=
97685.64 pgradient= -7.93400
i= 255 j= 213 glon= 136.61 glat= 13.74 dist= 273.50 slp=
98968.66 pgradient= -2.86476
i= 257 j= 213 glon= 136.96 glat= 13.74 dist= 290.78 slp=
99292.43 pgradient= -1.58107
i= 239 j= 215 glon= 133.86 glat= 13.40 dist= 283.30 slp=
99763.71 pgradient= 0.04070
```

```

In is_it_a_storm, valid pgradient found.
pgradient threshold = 0.00150
pgradient found      = 0.04070
mslp center =      135.5848      11.49326      99752.18
pgrad loc   =      133.8580      13.40327      99763.71
ttest at location C IF....
  xinp_fixlat=      11.49326
  xinp_fixlon=      135.5848
ttest at location D
ttest at location E, ifilret=      0
ttest at location F

```

```

Checking 850 mb Vt speed using 850 mb
wind circulation fix:
850 mb wcirc fix lon=      135.0473
850 mb wcirc fix lat=      14.00157
Multi-parm fix lon=      135.4125
Multi-parm fix lat=      13.27006

```

```

Beginning of get_ij_bounds...
  geslat=      14.00157      geslon=      135.0473

```

```

+++ Near top of get_ij_bounds,
+++ geslat=      14.00157      geslon=      135.0473
+++ rglatmax=      44.92863      rglatmin=      -9.516106
+++ rglonmax=      163.1479      rglonmin=      92.85205
+++ imax=      409      jmax=      349
+++ dx=      0.1722946      dy=      0.1621475      nhalf=      0
+++ npts=      13
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts=      28
+++ jlatfix=      191
+++ jbeg=      163      jend=      219
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts=      24      dx=      0.1722946      dy=      0.1621475
+++ (orig) ilonfix=      246
+++ (orig) ibeg=      222      iend=      270
+++

```

```

After get_ij B, ibeg jbeg =      222      163
After get_ij B, iend jend =      270      219

```

```

In is_it_a_storm, ilonfix=      246      jlatfix=      191
ibeg jbeg iend jend =      222      163      270      219
cparm= v850 parmlon parmlat =      135.0473      14.00157
parmval= -43.74782

```

```

i= 240 j= 201 glon= 134.03 glat= 15.74 u= -24.5899 v= -15.5260 vr=
-1.36520 vt= 29.04919
i= 242 j= 201 glon= 134.37 glat= 15.74 u= -30.2992 v= -14.0273 vr=
-2.49468 vt= 33.29534
i= 244 j= 201 glon= 134.72 glat= 15.74 u= -32.5128 v= -11.8852 vr=
-5.84174 vt= 34.12054
i= 246 j= 201 glon= 135.06 glat= 15.74 u= -36.5914 v= -8.7975 vr=
-9.02441 vt= 36.53608
i= 248 j= 201 glon= 135.41 glat= 15.74 u= -38.1476 v= -5.5017 vr= -
12.92789 vt= 36.30944

```


i= 250 j= 201 glon= 135.75 glat= 15.74 u= -38.4443 v= -1.4672 vr= -
15.44894 vt= 35.23415
i= 252 j= 201 glon= 136.10 glat= 15.74 u= -37.9419 v= 2.5440 vr= -
16.99661 vt= 34.01724
i= 238 j= 203 glon= 133.69 glat= 15.41 u= -19.3228 v= -18.5951 vr= -
-0.30534 vt= 26.81515
i= 240 j= 203 glon= 134.03 glat= 15.41 u= -26.5763 v= -18.8207 vr= -
-0.13292 vt= 32.56530
i= 242 j= 203 glon= 134.37 glat= 15.41 u= -30.9711 v= -18.4493 vr= -
-3.70726 vt= 35.85865
i= 244 j= 203 glon= 134.72 glat= 15.41 u= -34.5855 v= -17.8784 vr= -
-9.81574 vt= 37.67550
i= 246 j= 203 glon= 135.06 glat= 15.41 u= -39.5724 v= -13.5119 vr= -
13.68119 vt= 39.51419
i= 248 j= 203 glon= 135.41 glat= 15.41 u= -42.8400 v= -9.1764 vr= -
19.25409 vt= 39.35421
i= 250 j= 203 glon= 135.75 glat= 15.41 u= -45.0191 v= -2.3807 vr= -
21.84951 vt= 39.43332
i= 252 j= 203 glon= 136.10 glat= 15.41 u= -44.5867 v= 4.4158 vr= -
22.60328 vt= 38.68544
i= 254 j= 203 glon= 136.44 glat= 15.41 u= -40.5440 v= 9.4440 vr= -
21.33669 vt= 35.74562
i= 236 j= 205 glon= 133.34 glat= 15.07 u= -12.9479 v= -18.9578 vr= -
0.58418 vt= 22.95003
i= 238 j= 205 glon= 133.69 glat= 15.07 u= -19.1012 v= -21.4802 vr= -
1.31018 vt= 28.71477
i= 240 j= 205 glon= 134.03 glat= 15.07 u= -25.6127 v= -22.5547 vr= -
0.75055 vt= 34.11982
i= 242 j= 205 glon= 134.37 glat= 15.07 u= -31.4242 v= -22.8104 vr= -
-3.16697 vt= 38.70096
i= 244 j= 205 glon= 134.72 glat= 15.07 u= -37.4493 v= -23.6168 vr= -
12.00154 vt= 42.61654
i= 246 j= 205 glon= 135.06 glat= 15.07 u= -44.4916 v= -22.7081 vr= -
22.99715 vt= 44.34288
i= 248 j= 205 glon= 135.41 glat= 15.07 u= -49.8614 v= -15.0591 vr= -
29.79013 vt= 42.72569
i= 250 j= 205 glon= 135.75 glat= 15.07 u= -52.3608 v= -2.1006 vr= -
29.94327 vt= 43.00539
i= 252 j= 205 glon= 136.10 glat= 15.07 u= -51.5872 v= 5.2663 vr= -
31.73198 vt= 41.01286
i= 254 j= 205 glon= 136.44 glat= 15.07 u= -46.8018 v= 12.9011 vr= -
28.69827 vt= 39.15684
i= 256 j= 205 glon= 136.79 glat= 15.07 u= -38.9039 v= 17.3724 vr= -
23.55931 vt= 35.50031
i= 236 j= 207 glon= 133.34 glat= 14.74 u= -10.3042 v= -20.7486 vr= -
0.98390 vt= 23.14547
i= 238 j= 207 glon= 133.69 glat= 14.74 u= -17.3354 v= -24.7004 vr= -
3.09806 vt= 30.01712
i= 240 j= 207 glon= 134.03 glat= 14.74 u= -22.2094 v= -25.9962 vr= -
2.20695 vt= 34.12022
i= 242 j= 207 glon= 134.37 glat= 14.74 u= -25.7108 v= -28.0532 vr= -
-4.02177 vt= 37.83980
i= 244 j= 207 glon= 134.72 glat= 14.74 u= -33.8176 v= -36.3246 vr= -
20.00693 vt= 45.41838
i= 246 j= 207 glon= 135.06 glat= 14.74 u= -45.3738 v= -37.7517 vr= -
38.29802 vt= 44.91358
i= 248 j= 207 glon= 135.41 glat= 14.74 u= -59.9823 v= -22.1838 vr= -
45.72888 vt= 44.70871
i= 250 j= 207 glon= 135.75 glat= 14.74 u= -61.0628 v= 8.9497 vr= -
34.93619 vt= 50.87463

i= 252 j= 207 glon= 136.10 glat= 14.74 u= -50.6800 v= 24.6738 vr= -
26.57182 vt= 49.71117
i= 254 j= 207 glon= 136.44 glat= 14.74 u= -43.6224 v= 23.3552 vr= -
27.13634 vt= 41.37630
i= 256 j= 207 glon= 136.79 glat= 14.74 u= -33.5660 v= 23.3767 vr= -
21.42094 vt= 34.84668
i= 236 j= 209 glon= 133.34 glat= 14.41 u= -6.8524 v= -21.7731 vr= -
1.51671 vt= 22.77553
i= 238 j= 209 glon= 133.69 glat= 14.41 u= -12.7902 v= -27.0865 vr= -
4.31922 vt= 29.64139
i= 240 j= 209 glon= 134.03 glat= 14.41 u= -16.1941 v= -33.0821 vr= -
2.43466 vt= 36.75248
i= 242 j= 209 glon= 134.37 glat= 14.41 u= -20.1489 v= -36.2457 vr= -
-2.00895 vt= 41.42094
i= 244 j= 209 glon= 134.72 glat= 14.41 u= -24.8354 v= -47.3053 vr= -
21.90023 vt= 48.73366
i= 246 j= 209 glon= 135.06 glat= 14.41 u= -46.4832 v= -56.0223 vr= -
56.85923 vt= 45.45570
i= 248 j= 209 glon= 135.41 glat= 14.41 u= -64.6138 v= -5.7307 vr= -
46.57789 vt= 45.14739
i= 250 j= 209 glon= 135.75 glat= 14.41 u= -63.7010 v= 25.4869 vr= -
41.84715 vt= 54.37111
i= 252 j= 209 glon= 136.10 glat= 14.41 u= -48.3316 v= 40.3917 vr= -
30.03363 vt= 55.36622
i= 254 j= 209 glon= 136.44 glat= 14.41 u= -36.0334 v= 39.5919 vr= -
23.22009 vt= 48.23643
i= 256 j= 209 glon= 136.79 glat= 14.41 u= -28.5164 v= 31.8722 vr= -
20.34934 vt= 37.61549
i= 234 j= 211 glon= 133.00 glat= 14.07 u= -5.0223 v= -18.4208 vr= -
4.38651 vt= 18.58245
i= 236 j= 211 glon= 133.34 glat= 14.07 u= -2.9679 v= -21.9781 vr= -
2.05815 vt= 22.08189
i= 238 j= 211 glon= 133.69 glat= 14.07 u= -6.0181 v= -27.6922 vr= -
4.54756 vt= 27.97137
i= 240 j= 211 glon= 134.03 glat= 14.07 u= -5.8961 v= -33.6941 vr= -
3.40802 vt= 34.03593
i= 242 j= 211 glon= 134.37 glat= 14.07 u= -7.2496 v= -41.7082 vr= -
2.59072 vt= 42.25425
i= 244 j= 211 glon= 134.72 glat= 14.07 u= 1.0456 v= -51.0738 vr= -
12.38276 vt= 49.56101
i= 246 j= 211 glon= 135.06 glat= 14.07 u= -8.6351 v= -57.2329 vr= -
57.87764 vt= 0.59435
i= 248 j= 211 glon= 135.41 glat= 14.07 u= -15.1273 v= -11.1892 vr= -
17.08306 vt= -7.88687
i= 250 j= 211 glon= 135.75 glat= 14.07 u= -15.0187 v= 13.4569 vr= -
13.51605 vt= 14.96551
i= 252 j= 211 glon= 136.10 glat= 14.07 u= -35.2572 v= 54.7486 vr= -
31.35348 vt= 57.07397
i= 254 j= 211 glon= 136.44 glat= 14.07 u= -18.5390 v= 50.8130 vr= -
15.89560 vt= 51.70087
i= 256 j= 211 glon= 136.79 glat= 14.07 u= -18.2085 v= 37.7356 vr= -
16.63265 vt= 38.45616
i= 258 j= 211 glon= 137.13 glat= 14.07 u= -19.0856 v= 32.7880 vr= -
17.96642 vt= 33.41442
i= 234 j= 213 glon= 133.00 glat= 13.74 u= -1.7543 v= -18.1200 vr= -
4.15367 vt= 17.72452
i= 236 j= 213 glon= 133.34 glat= 13.74 u= 0.7505 v= -20.7825 vr= -
2.56208 vt= 20.63758
i= 238 j= 213 glon= 133.69 glat= 13.74 u= 1.2955 v= -26.1488 vr= -
3.88021 vt= 25.89169

i= 240 j= 213 glon= 134.03 glat= 13.74 u= 3.1153 v= -30.9900 vr=
5.02019 vt= 30.73893
i= 242 j= 213 glon= 134.37 glat= 13.74 u= 5.3838 v= -33.0583 vr=
7.42686 vt= 32.66002
i= 244 j= 213 glon= 134.72 glat= 13.74 u= 13.3463 v= -46.4383 vr=
19.36338 vt= 44.26847
i= 246 j= 213 glon= 135.06 glat= 13.74 u= 31.7331 v= -45.5397 vr=
46.58291 vt= 30.18092
i= 248 j= 213 glon= 135.41 glat= 13.74 u= 27.8921 v= -20.8022 vr=
34.79476 vt= 0.16538
i= 250 j= 213 glon= 135.75 glat= 13.74 u= 28.6634 v= 15.1586 vr=
21.28095 vt= 24.46420
i= 252 j= 213 glon= 136.10 glat= 13.74 u= 25.0885 v= 59.5417 vr=
9.31800 vt= 63.93605
i= 254 j= 213 glon= 136.44 glat= 13.74 u= 5.2624 v= 47.3288 vr=
-3.94279 vt= 47.45696
i= 256 j= 213 glon= 136.79 glat= 13.74 u= 0.3069 v= 38.5772 vr=
-5.72101 vt= 38.15181
i= 236 j= 215 glon= 133.34 glat= 13.40 u= 3.3893 v= -19.6349 vr=
3.51229 vt= 19.61324
i= 238 j= 215 glon= 133.69 glat= 13.40 u= 7.3758 v= -21.7436 vr=
2.27306 vt= 22.84778
i= 240 j= 215 glon= 134.03 glat= 13.40 u= 9.5180 v= -26.8225 vr=
5.78598 vt= 27.86687
i= 242 j= 215 glon= 134.37 glat= 13.40 u= 17.3068 v= -29.2533 vr=
7.03130 vt= 33.25423
i= 244 j= 215 glon= 134.72 glat= 13.40 u= 29.7025 v= -31.2347 vr=
13.63841 vt= 40.88808
i= 246 j= 215 glon= 135.06 glat= 13.40 u= 40.4971 v= -29.8360 vr=
30.20319 vt= 40.22391
i= 248 j= 215 glon= 135.41 glat= 13.40 u= 55.5120 v= -6.6320 vr=
33.76712 vt= 44.55726
i= 250 j= 215 glon= 135.75 glat= 13.40 u= 56.2551 v= 22.5570 vr=
27.50065 vt= 54.01079
i= 252 j= 215 glon= 136.10 glat= 13.40 u= 31.6999 v= 38.4702 vr=
7.83277 vt= 49.22898
i= 254 j= 215 glon= 136.44 glat= 13.40 u= 16.6143 v= 35.4468 vr=
0.82543 vt= 39.13856
i= 256 j= 215 glon= 136.79 glat= 13.40 u= 9.3052 v= 32.7651 vr=
-2.22593 vt= 33.98803
i= 236 j= 217 glon= 133.34 glat= 13.07 u= 5.5162 v= -17.9857 vr=
4.04864 vt= 18.37175
i= 238 j= 217 glon= 133.69 glat= 13.07 u= 8.9624 v= -19.7733 vr=
4.10425 vt= 21.31811
i= 240 j= 217 glon= 134.03 glat= 13.07 u= 12.9198 v= -20.3927 vr=
4.63607 vt= 23.69155
i= 242 j= 217 glon= 134.37 glat= 13.07 u= 18.4829 v= -21.7562 vr=
7.24841 vt= 27.61178
i= 244 j= 217 glon= 134.72 glat= 13.07 u= 26.9157 v= -19.8589 vr=
10.11118 vt= 31.88410
i= 246 j= 217 glon= 135.06 glat= 13.07 u= 34.4139 v= -14.6135 vr=
14.75084 vt= 34.35525
i= 248 j= 217 glon= 135.41 glat= 13.07 u= 43.8852 v= -6.0523 vr=
21.09757 vt= 38.95422
i= 250 j= 217 glon= 135.75 glat= 13.07 u= 41.7687 v= 12.6515 vr=
14.49899 vt= 41.16383
i= 252 j= 217 glon= 136.10 glat= 13.07 u= 28.6368 v= 20.9048 vr=
6.98939 vt= 34.75947
i= 254 j= 217 glon= 136.44 glat= 13.07 u= 21.7075 v= 25.1363 vr=
3.57685 vt= 33.01904

```

i= 256 j= 217 glon= 136.79 glat= 13.07 u= 13.4466 v= 26.9315 vr=
-1.29995 vt= 30.07375
i= 238 j= 219 glon= 133.69 glat= 12.73 u= 9.3564 v= -17.5958 vr=
5.44814 vt= 19.16957
i= 240 j= 219 glon= 134.03 glat= 12.73 u= 13.1091 v= -16.9268 vr=
5.31678 vt= 20.73874
i= 242 j= 219 glon= 134.37 glat= 12.73 u= 16.9711 v= -16.9365 vr=
7.30303 vt= 22.83698
i= 244 j= 219 glon= 134.72 glat= 12.73 u= 22.7958 v= -16.1762 vr=
10.15128 vt= 26.04358
i= 246 j= 219 glon= 135.06 glat= 12.73 u= 27.8715 v= -10.6499 vr=
10.88076 vt= 27.78217
i= 248 j= 219 glon= 135.41 glat= 12.73 u= 31.4378 v= -3.8321 vr=
12.06081 vt= 29.28412
i= 250 j= 219 glon= 135.75 glat= 12.73 u= 31.7881 v= 5.9988 vr=
9.81935 vt= 30.82283
i= 252 j= 219 glon= 136.10 glat= 12.73 u= 27.5701 v= 13.5215 vr=
6.72132 vt= 29.96271
i= 254 j= 219 glon= 136.44 glat= 12.73 u= 21.1307 v= 18.8310 vr=
2.52563 vt= 28.19109

```

```

In is_it_a_storm, average 850 tangential winds are OKAY (>= +
1.500000
m/s for a NH storm).
Avg 850 tangential winds = 34.42170 m/s

```

```

Distance between the parm centers for
850 zeta and mslp is 272.0370 (km)

```

```

The average speed that the storm moved
at since the previous forecast time is 26.93830 knots.

```

```

In get_max_wind, ibeg= 231 iend= 266
jbeg= 179 jend= 214
ilonfix= 249 jlatfix= 196
At end of get_max_wind, vmax= 44.56449 rmax= 65.42834

```

```

*****
AT BEGINNING OF GETRADII, input radmax= 500.0000
*****

```

```

xcenlon= 135.4125 xcenlat= 13.27006
imax= 409 jmax= 349 dx= 0.1722946 dy=
0.1621475

```

```

In getradii, ibeg= 221 iend= 276
jbeg= 168 jend= 225
ilonfix= 249 jlatfix= 196
in getradii, numalloc= 3305 radmax= 500.0000

```

```

After loop, quadct(1)= 555 quadct(2)= 255
quadct(3)= 265 quadct(4)= 579

```

```

quadmax: 26W 003 NE lon: 135.93E lat: 14.24 radius: 65.43 nm
vmag: 86.58 kts
quadmax: 26W 003 SE lon: 135.58E lat: 13.24 radius: 10.07 nm
vmag: 70.99 kts
quadmax: 26W 003 SW lon: 135.41E lat: 13.24 radius: 2.06 nm
vmag: 65.78 kts

```

quadmax: 26W 003 NW lon: 135.06E lat: 14.24 radius: 61.64 nm
vmag: 85.90 kts

---> R34 search underway for quadrant 1 radmax= 500.0000

dtemp(isortix(quadct(k)))= 499.958343505859
isortix(1) = 528
isortix(quadct(k)) = 4
iwindix= 1 exactdistnm = 195.3775
vradius(iwindix,k) = 195
iwindix= 2 exactdistnm = 132.9738
vradius(iwindix,k) = 133
iwindix= 3 exactdistnm = 101.4336
vradius(iwindix,k) = 101

---> R34 search underway for quadrant 2 radmax= 500.0000

dtemp(isortix(quadct(k)))= 499.061431884766
isortix(1) = 1
isortix(quadct(k)) = 180
iwindix= 1 exactdistnm = 141.7510
vradius(iwindix,k) = 142
iwindix= 2 exactdistnm = 50.60711
vradius(iwindix,k) = 51
iwindix= 3 exactdistnm = 30.05707
vradius(iwindix,k) = 30

---> R34 search underway for quadrant 3 radmax= 500.0000

dtemp(isortix(quadct(k)))= 499.876007080078
isortix(1) = 25
isortix(quadct(k)) = 161
iwindix= 1 exactdistnm = 85.85780
vradius(iwindix,k) = 86
iwindix= 2 exactdistnm = 42.03531
vradius(iwindix,k) = 42
iwindix= 3 exactdistnm = 5.225430
vradius(iwindix,k) = 5

---> R34 search underway for quadrant 4 radmax= 500.0000

dtemp(isortix(quadct(k)))= 499.289428710938
isortix(1) = 577
isortix(quadct(k)) = 312
iwindix= 1 exactdistnm = 179.0198
vradius(iwindix,k) = 179
iwindix= 2 exactdistnm = 118.7041
vradius(iwindix,k) = 119
iwindix= 3 exactdistnm = 98.73892
vradius(iwindix,k) = 99

After call to fixcenter, fix positions at
forecast hour= 3:00 follow:

fixpos 26W fhr= 3:00 Fix position= 135.41E (224.59W) 13.27
Max Wind= 87 kts

TTT top of atcfunix, ist= 1 ifh= 3

in output_atcfunix, tcv_storm_id= 26W
in output_atcfunix, tcv_storm_id(3:3)= W
output: rlastbar= 1.5382053E-41 irlastbar= -99
output: plastbar= 27695.30 iplastbar= -99

rmax= 65.42834 irmax= 65

Beginning of get_ij_bounds...

geslat= 13.27006 geslon= 135.4125

```
+++ Near top of get_ij_bounds,
+++ geslat= 13.27006 geslon= 135.4125
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 54
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 110
+++ jlatfix= 196
+++ jbeg= 86 jend= 306
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 110 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 249
+++ (orig) ibeg= 139 iend= 359
+++
```

--- barnlon= 224.67W barnlat= 13.29
--- extraplon= 224.86W extraplat= 13.63

```
-----
| Current fix & updated fix positions |
-----
| In get_next_ges, current fcst hour = 3.000000
| current storm number = 1
| Return code from get_next_ges = 0
| Storm Name = MANGKHUT
| Storm ID = 26W
| Gen ID (if available): 2018091200_F000_139N_1362E_26W
| Current fix lat is 13.27
| Current fix lon is 224.59W (135.41E)
| Updated guess lat for next fcst hour is 13.46
| Updated guess lon for next fcst hour is 224.77W (135.23E)
-----
```

```
iocheck, dist= 28.68057 distm= 28680.57
iocheck, stmspd= 7.966825 istmspd= 80
iocheck, xincr= -0.1777039 yincr= 0.1912155
iocheck, stmdir= 317.0975 istmdir= 317
+++ RPT_STORM_MOTION: istmspd= 80 istmdir= 317 rcc= 0
```

Beginning of get_ij_bounds...

geslat= 13.27006 geslon= 135.4125

```
+++ Near top of get_ij_bounds,
+++ geslat= 13.27006 geslon= 135.4125
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 142741
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 285484
```

```

+++ jlatfix=          196
+++ jbeg=             1  jend=          349
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts=     142797  dx=    0.1722946  dy=    0.1621475
+++ (orig) ilonfix=          249
+++ (orig) ibeg=      -142548  iend=          143046
+++

#-----#
# Entering loop to determine the mean and gridpoint #
# max zeta values at 850 and 700 mb for the purpose #
# of reporting them on the modified atcfunix file. #
#-----#

--- In get_zeta_values, ist=  1  ifh=  4
    Fix location for this time: 135.41E (224.59W) 13.27
    ilonfix= 249  jlatfix= 196

At beg of find_maxmin, rads=  200.0000  re=  75.00000  ri=
    150.0000  cparm= zeta dx=  0.1722946  dy=  0.1621475

Beginning of get_ij_bounds...
    geslat=  13.27006  geslon=  135.4125

+++ Near top of get_ij_bounds,
+++ geslat=  13.27006  geslon=  135.4125
+++ rglatmax=  44.92863  rglatmin=  -9.516106
+++ rglonmax= 163.1479  rglonmin=  92.85205
+++ imax=  409  jmax=  349
+++ dx=  0.1722946  dy=  0.1621475  nhalf=  0
+++ npts=  10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts=  22
+++ jlatfix=  196
+++ jbeg=  174  jend=  218
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts=  21  dx=  0.1722946  dy=  0.1621475
+++ (orig) ilonfix=  249
+++ (orig) ibeg=  228  iend=  270
+++

guesslon= 135.412E ( 224.588W)  guesslat=  13.270
ilonfix=  249  jlatfix=  196  npts=  10
ibeg=  228  jbeg=  174  imax=  409
iend=  270  jend=  218  jmax=  349
TIMING: find_maxmin 1 14:39:33

After 1st findmax loop, # calls to barnes = 24
Total # of barnes loop iterations = 3168
!!! Zeta check, fmax= 9.4397063E-04  fmin= 1.0000000E+12
After first run, ctlon= 224.253W  ctlat= 14.273  fmax (x10e5) =
0.944E+02  fmin (x10e5) = 0.100E+18

Beginning of get_ij_bounds...
    geslat=  14.27339  geslon=  135.7469

+++ Near top of get_ij_bounds,
+++ geslat=  14.27339  geslon=  135.7469

```

```

+++ rglatmax=    44.92863      rglatmin=   -9.516106
+++ rglonmax=   163.1479      rglonmin=   92.85205
+++ imax=       409   jmax=       349
+++ dx=    0.1722946      dy=    0.1621475      nhalf=      2
+++ npts=      5
+++ jhlatpts=      5   jripts=      9
+++ jbmaxlatpts=      14
+++ jlatfix=      190
+++ jbeg=      176   jend=      204
+++ rdeg=    0.6270790      ri=    150.0000      cosfac=    0.9691303
+++ dtr=    1.7453292E-02   dtk=    111.1949      dlon=    1.391952
+++ ibmaxlonpts=      16   dx=    0.1722946      dy=    0.1621475
+++ (orig) ilonfix=      250
+++ (orig) ibeg=      234   iend=      266
+++

```

After first pass through barnes, re and ri have NOT been changed. re = 75.00000 ri = 150.0000
TIMING: find_maxmin kloop, k= 1 14:39:33

```

find_maxmin nhalf loop, cparm= zeta k=      1
guesslon= 135.747E ( 224.253W)   guesslat= 14.273
ilonfix=      250   jlatfix=      190   npts=      5
ibeg=      234   jbeg=      176   imax=      409
iend=      266   jend=      204   jmax=      349
nhalf=      2   iskip=      2
nhalf findmax, k= 1 ctlon= 223.835W ctlat= 14.023 fmax (x10e5) =
0.237E+01 fmin (x10e5) = 0.100E+21
TIMING: find_maxmin kloop, k= 2 14:39:33

```

```

find_maxmin nhalf loop, cparm= zeta k=      2
guesslon= 136.165E ( 223.835W)   guesslat= 14.023
ilonfix=      250   jlatfix=      190   npts=      5
ibeg=      234   jbeg=      176   imax=      409
iend=      266   jend=      204   jmax=      349
nhalf=      2   iskip=      2
nhalf findmax, k= 2 ctlon= 223.960W ctlat= 13.897 fmax (x10e5) =
0.274E+01 fmin (x10e5) = 0.100E+21

```

```

ppp after 2nd findmax loop, # calls to barnes =      72
ppp Total # of barnes loop iterations =      18360
+++ RPT_MEAN_ZETA: n= 1 lev= 850 xmeanzeta= 0.000027 imeanzeta
(*1e6)=      27
--- mean zeta raw = 2.7433387E-05
+++ RPT_GRID_ZETA: n= 1 lev= 850 grid zeta= 0.000044 igrid zeta
(*1e6)=      44 ifilret= 0
--- grid zeta raw= 4.4482131E-05

```

At beg of find_maxmin, rads= 200.0000 re= 75.00000 ri=
150.0000 cparm= zeta dx= 0.1722946 dy= 0.1621475

Beginning of get_ij_bounds...
geslat= 13.27006 geslon= 135.4125

```

+++ Near top of get_ij_bounds,
+++ geslat= 13.27006      geslon= 135.4125
+++ rglatmax= 44.92863      rglatmin= -9.516106
+++ rglonmax= 163.1479      rglonmin= 92.85205
+++ imax= 409   jmax= 349

```



```

+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 22
+++ jlatfix= 196
+++ jbeg= 174 jend= 218
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 21 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 249
+++ (orig) ibeg= 228 iend= 270
+++

```

```

guesslon= 135.412E ( 224.588W) guesslat= 13.270
ilonfix= 249 jlatfix= 196 npts= 10
ibeg= 228 jbeg= 174 imax= 409
iend= 270 jend= 218 jmax= 349
TIMING: find_maxmin 1 14:39:33

```

```

After 1st findmax loop, # calls to barnes = 24
Total # of barnes loop iterations = 3168
!!! Zeta check, fmax= 8.9788769E-04 fmin= 1.0000000E+12
After first run, ctlon= 224.253W ctlat= 14.273 fmax (x10e5) =
0.898E+02 fmin (x10e5) = 0.100E+18

```

```

Beginning of get_ij_bounds...
geslat= 14.27339 geslon= 135.7469

```

```

+++ Near top of get_ij_bounds,
+++ geslat= 14.27339 geslon= 135.7469
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 2
+++ npts= 5
+++ jhlatpts= 5 jripts= 9
+++ jbmaxlatpts= 14
+++ jlatfix= 190
+++ jbeg= 176 jend= 204
+++ rdeg= 0.6270790 ri= 150.0000 cosfac= 0.9691303
+++ dtr= 1.7453292E-02 dtk= 111.1949 dlon= 1.391952
+++ ibmaxlonpts= 16 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 250
+++ (orig) ibeg= 234 iend= 266
+++

```

```

After first pass through barnes, re and ri have NOT
been changed. re = 75.00000 ri = 150.0000
TIMING: find_maxmin kloop, k= 1 14:39:33

```

```

find_maxmin nhalf loop, cparm= zeta k= 1
guesslon= 135.747E ( 224.253W) guesslat= 14.273
ilonfix= 250 jlatfix= 190 npts= 5
ibeg= 234 jbeg= 176 imax= 409
iend= 266 jend= 204 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 1 ctlon= 224.169W ctlat= 14.023 fmax (x10e5) =
0.112E+02 fmin (x10e5) = 0.100E+21
TIMING: find_maxmin kloop, k= 2 14:39:33

```

```
find_maxmin nhalf loop, cparm= zeta k=          2
guesslon= 135.831E ( 224.169W)  guesslat= 14.023
ilonfix=      250  jlatfix=      190  npts=      5
ibeg=      234  jbeg=      176  imax=      409
iend=      266  jend=      204  jmax=      349
nhalf=      2  iskip=      2
nhalf findmax, k= 2 ctlon= 223.960W  ctlat= 13.897 fmax (x10e5) =
0.226E+02 fmin (x10e5) =      0.100E+21
```

```
ppp after 2nd findmax loop, # calls to barnes =      72
ppp Total # of barnes loop iterations =      18360
+++ RPT_MEAN_ZETA: n= 2 lev= 700 xmeanzeta= 0.000226 imeanzeta
(*1e6)=      226
--- mean zeta raw = 2.2583884E-04
+++ RPT_GRID_ZETA: n= 2 lev= 700 grid zeta= 0.000094 igrd zeta
(*1e6)=      94 ifilret= 0
--- grid zeta raw= 9.3871684E-05
```

```
#-----#
# End of loop to get 850 & 700 zeta for atcf file. #
#-----#
```

```
+++ Top of output_atcf_sink, ist=      1  ifh=      3
```

```
Beginning of get_ij_bounds...
```

```
geslat= 13.27006 geslon= 135.4125
```

```
+++ Near top of get_ij_bounds,
+++ geslat= 13.27006 geslon= 135.4125
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 54
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 110
+++ jlatfix= 196
+++ jbeg= 86 jend= 306
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 110 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 249
+++ (orig) ibeg= 139 iend= 359
+++
```

```
--- barnlon= 224.67W barnlat= 13.29
--- extraplon= 224.86W extraplat= 13.63
```

```
-----
| Current fix & updated fix positions |
-----
| In get_next_ges, current fcst hour = 3.000000
| current storm number = 1
| Return code from get_next_ges = 0
| Storm Name = MANGKHUT
| Storm ID = 26W
| Gen ID (if available): 2018091200_F000_139N_1362E_26W
| Current fix lat is 13.27
| Current fix lon is 224.59W ( 135.41E)
| Updated guess lat for next fcst hour is 13.46
```

| Updated guess lon for next fcst hour is 224.77W (135.23E)

iocheck, dist= 28.68057 distm= 28680.57
iocheck, stmspd= 7.966825 istmspd= 80
iocheck, xincr= -0.1777039 yincr= 0.1912155
iocheck, stmdir= 317.0975 istmdir= 317

* New forecast hour: 4:00

in getgridinfo_netcdf, ncfile_id= 65536

In getgridinfo, grid dimensions follow:
imax= 409 jmax= 349
dx= 0.1722946 dy= 0.1621475

DX: midi= 204 dx= 0.1723
DY: midj= 174 dy= 0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat: -9.516 Min Lon: 92.852
Max Lat: 44.929 Max Lon: 163.148
TEST after getgridinfo in sub tracker, iggret= 0
in beginning of tracker, imax= 409 jmax= 349
TIMING: b4 getdata ... 14:39:33

NOTE: Program is now in subroutine getdata_netcdf.
+++ Time match in getdata_netcdf for usertime= 240
netcdf file index= ncix= 5
+++ NetCDF read requested for parm # 1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh= 5
ltix(ifh)= 5

After read, parm= ABS_VORTICITY_850 ifh= 5
lead time index= 5 parm# (ip) = 1 ncix=
5
igvret= 0
parmread lead time parm# parm_id minval maxval
4:00 1 ABS_VORTICITY_850 -
0.4301E-03 0.3213E-02
+++ NetCDF read requested for parm # 2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh= 5
ltix(ifh)= 5

After read, parm= ABS_VORTICITY_700 ifh= 5
lead time index= 5 parm# (ip) = 2 ncix=
5
igvret= 0
parmread lead time parm# parm_id minval maxval
4:00 2 ABS_VORTICITY_700 -
0.3577E-03 0.2594E-02
+++ NetCDF read requested for parm # 3 ... parm=
U_850

In get_var3_tlev_double, ifh= 5

```

                ltix(ifh)=                5

After read, parm= U_850                ifh=                5
lead time index=                5 parm# (ip) =                3 ncix=
5
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  4:00                3        U_850
72.66    0.1000E+21
+++ NetCDF read requested for parm #    4 ... parm=
V_850

In get_var3_tlev_double, ifh=                5
                ltix(ifh)=                5

After read, parm= V_850                ifh=                5
lead time index=                5 parm# (ip) =                4 ncix=
5
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  4:00                4        V_850
64.23    0.1000E+21
+++ NetCDF read requested for parm #    5 ... parm=
U_700

In get_var3_tlev_double, ifh=                5
                ltix(ifh)=                5

After read, parm= U_700                ifh=                5
lead time index=                5 parm# (ip) =                5 ncix=
5
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  4:00                5        U_700
63.22    0.1000E+21
+++ NetCDF read requested for parm #    6 ... parm=
V_700

In get_var3_tlev_double, ifh=                5
                ltix(ifh)=                5

After read, parm= V_700                ifh=                5
lead time index=                5 parm# (ip) =                6 ncix=
5
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  4:00                6        V_700
53.07    0.1000E+21
+++ NetCDF read requested for parm #    7 ... parm=
Z_850

In get_var3_tlev_double, ifh=                5
                ltix(ifh)=                5

After read, parm= Z_850                ifh=                5
lead time index=                5 parm# (ip) =                7 ncix=
5
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval

```

```

4:00          7          Z_850
945.0      0.1000E+21
+++ NetCDF read requested for parm #      8 ... parm=
Z_700

In get_var3_tlev_double, ifh=      5
                        ltix(ifh)=      5

After read, parm= Z_700          ifh=      5
lead time index=      5 parm# (ip) =      8 ncix=
5
igvret=      0
parmread lead time      parm#      parm_id      minval      maxval
4:00          8          Z_700
2627.      0.1000E+21
+++ NetCDF read requested for parm #      9 ... parm=
slp

In get_var3_tlev_double, ifh=      5
                        ltix(ifh)=      5

After read, parm= slp          ifh=      5
lead time index=      5 parm# (ip) =      9 ncix=
5
igvret=      0
parmread lead time      parm#      parm_id      minval      maxval
4:00          9          slp
0.9463E+05  0.1026E+06
+++ NetCDF read requested for parm #      10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=      5
                        ltix(ifh)=      5

After read, parm= u_10m_gr          ifh=      5
lead time index=      5 parm# (ip) =      10 ncix=
5
igvret=      0
parmread lead time      parm#      parm_id      minval      maxval
4:00          10          u_10m_gr      -
42.98      41.34
+++ NetCDF read requested for parm #      11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=      5
                        ltix(ifh)=      5

After read, parm= v_10m_gr          ifh=      5
lead time index=      5 parm# (ip) =      11 ncix=
5
igvret=      0
parmread lead time      parm#      parm_id      minval      maxval
4:00          11          v_10m_gr      -
42.80      41.96
+++ NetCDF read requested for parm #      12 ... parm=
U_500

In get_var3_tlev_double, ifh=      5
                        ltix(ifh)=      5

```

```

After read, parm= U_500                ifh= 5
lead time index= 5 parm# (ip) = 12 ncix=
5
  igvret= 0
parmread lead time  parm#  parm_id  minval  maxval
  4:00  12  U_500
55.72  47.18
+++ NetCDF read requested for parm # 13 ... parm=
V_500

In get_var3_tlev_double, ifh= 5
                        ltix(ifh)= 5

After read, parm= V_500                ifh= 5
lead time index= 5 parm# (ip) = 13 ncix=
5
  igvret= 0
parmread lead time  parm#  parm_id  minval  maxval
  4:00  13  V_500
45.53  49.46
!!! NetCDF read NOT requested for parm # 14
+++ NetCDF read requested for parm # 15 ... parm=
Z_500

In get_var3_tlev_double, ifh= 5
                        ltix(ifh)= 5

After read, parm= Z_500                ifh= 5
lead time index= 5 parm# (ip) = 15 ncix=
5
  igvret= 0
parmread lead time  parm#  parm_id  minval  maxval
  4:00  15  Z_500
5444.  5924.
+++ NetCDF read requested for parm # 16 ... parm=
Z_200

In get_var3_tlev_double, ifh= 5
                        ltix(ifh)= 5

After read, parm= Z_200                ifh= 5
lead time index= 5 parm# (ip) = 16 ncix=
5
  igvret= 0
parmread lead time  parm#  parm_id  minval  maxval
  4:00  16  Z_200
0.1188E+05  0.1254E+05
!!! NetCDF read NOT requested for parm # 17
TIMING: after getdata ... 14:39:34

Of 17 readable parms, you read in 15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter = 38316.57 dlat_inter =
36059.95
-----
| *** TOP OF STORM LOOP ***
| Beginning of storm loop in tracker for
| Storm number 1
| Forecast hour: 4:00
| Storm name = MANGKHUT

```

| Storm ID = 26W
Gen ID (if available): 2018091200_F000_139N_1362E_26W

--- --- ---
Now calling find_maxmin for zeta at 850 mb

At beg of find_maxmin, rads= 200.0000 re= 75.00000 ri=
150.0000 cparm= zeta dx= 0.1722946 dy= 0.1621475

Beginning of get_ij_bounds...
geslat= 13.46128 geslon= 135.2348

+++ Near top of get_ij_bounds,
+++ geslat= 13.46128 geslon= 135.2348
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 22
+++ jlatfix= 195
+++ jbeg= 173 jend= 217
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 21 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 247
+++ (orig) ibeg= 226 iend= 268
+++

guesslon= 135.235E (224.765W) guesslat= 13.461
ilonfix= 247 jlatfix= 195 npts= 10
ibeg= 226 jbeg= 173 imax= 409
iend= 268 jend= 217 jmax= 349
TIMING: find_maxmin 1 14:39:34

After 1st findmax loop, # calls to barnes = 24
Total # of barnes loop iterations = 3168
!!! Zeta check, fmax= 1.3682395E-03 fmin= 1.0000000E+12
After first run, ctlon= 224.431W ctlat= 13.796 fmax (x10e5) =
0.137E+03 fmin (x10e5) = 0.100E+18

Beginning of get_ij_bounds...
geslat= 13.79572 geslon= 135.5692

+++ Near top of get_ij_bounds,
+++ geslat= 13.79572 geslon= 135.5692
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 2
+++ npts= 5
+++ jhlatpts= 5 jripts= 9
+++ jbmaxlatpts= 14
+++ jlatfix= 193
+++ jbeg= 179 jend= 207
+++ rdeg= 0.6270790 ri= 150.0000 cosfac= 0.9711521

```
+++ dtr= 1.7453292E-02 dtk= 111.1949 dlon= 1.389054
+++ ibmaxlonpts= 16 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 249
+++ (orig) ibeg= 233 iend= 265
+++
```

After first pass through barnes, re and ri have NOT been changed. re = 75.00000 ri = 150.0000
TIMING: find_maxmin kloop, k= 1 14:39:34

```
find_maxmin nhalf loop, cparm= zeta k= 1
guesslon= 135.569E ( 224.431W) guesslat= 13.796
ilonfix= 249 jlatfix= 193 npts= 5
ibeg= 233 jbeg= 179 imax= 409
iend= 265 jend= 207 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 1 ctlon= 224.682W ctlat= 13.545 fmax (x10e5) =
0.254E+02 fmin (x10e5) = 0.100E+21
TIMING: find_maxmin kloop, k= 2 14:39:34
```

```
find_maxmin nhalf loop, cparm= zeta k= 2
guesslon= 135.318E ( 224.682W) guesslat= 13.545
ilonfix= 249 jlatfix= 193 npts= 5
ibeg= 233 jbeg= 179 imax= 409
iend= 265 jend= 207 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 2 ctlon= 224.891W ctlat= 13.419 fmax (x10e5) =
0.312E+02 fmin (x10e5) = 0.100E+21
```

ppp after 2nd findmax loop, # calls to barnes = 72
ppp Total # of barnes loop iterations = 18360

--- --- ---
Now calling find_maxmin for zeta at 700 mb

```
At beg of find_maxmin, rads= 200.0000 re= 75.00000 ri=
150.0000 cparm= zeta dx= 0.1722946 dy= 0.1621475
```

Beginning of get_ij_bounds...

```
geslat= 13.46128 geslon= 135.2348
```

```
+++ Near top of get_ij_bounds,
+++ geslat= 13.46128 geslon= 135.2348
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 22
+++ jlatfix= 195
+++ jbeg= 173 jend= 217
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 21 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 247
+++ (orig) ibeg= 226 iend= 268
+++
```

```
guesslon= 135.235E ( 224.765W) guesslat= 13.461
```


ilonfix= 247 jlatfix= 195 npts= 10
ibeg= 226 jbeg= 173 imax= 409
iend= 268 jend= 217 jmax= 349
TIMING: find_maxmin 1 14:39:34

After 1st findmax loop, # calls to barnes = 24
Total # of barnes loop iterations = 3168
!!! Zeta check, fmax= 1.2882364E-03 fmin= 1.0000000E+12
After first run, ctlon= 224.431W ctlat= 13.796 fmax (x10e5) =
0.129E+03 fmin (x10e5) = 0.100E+18

Beginning of get_ij_bounds...
geslat= 13.79572 geslon= 135.5692

+++ Near top of get_ij_bounds,
+++ geslat= 13.79572 geslon= 135.5692
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 2
+++ npts= 5
+++ jhlatpts= 5 jripts= 9
+++ jbmaxlatpts= 14
+++ jlatfix= 193
+++ jbeg= 179 jend= 207
+++ rdeg= 0.6270790 ri= 150.0000 cosfac= 0.9711521
+++ dtr= 1.7453292E-02 dtk= 111.1949 dlon= 1.389054
+++ ibmaxlonpts= 16 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 249
+++ (orig) ibeg= 233 iend= 265
+++

After first pass through barnes, re and ri have NOT
been changed. re = 75.00000 ri = 150.0000
TIMING: find_maxmin kloop, k= 1 14:39:34

find_maxmin nhalf loop, cparm= zeta k= 1
guesslon= 135.569E (224.431W) guesslat= 13.796
ilonfix= 249 jlatfix= 193 npts= 5
ibeg= 233 jbeg= 179 imax= 409
iend= 265 jend= 207 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 1 ctlon= 224.514W ctlat= 13.545 fmax (x10e5) =
0.452E+02 fmin (x10e5) = 0.100E+21
TIMING: find_maxmin kloop, k= 2 14:39:34

find_maxmin nhalf loop, cparm= zeta k= 2
guesslon= 135.486E (224.514W) guesslat= 13.545
ilonfix= 249 jlatfix= 193 npts= 5
ibeg= 233 jbeg= 179 imax= 409
iend= 265 jend= 207 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 2 ctlon= 224.473W ctlat= 13.419 fmax (x10e5) =
0.670E+02 fmin (x10e5) = 0.100E+21

ppp after 2nd findmax loop, # calls to barnes = 72
ppp Total # of barnes loop iterations = 18360

--- --- ---

Now calling find_maxmin for hgt at 850 mb

At beg of find_maxmin, rads= 200.0000 re= 75.00000 ri=
150.0000 cparm= hgt dx= 0.1722946 dy= 0.1621475

Beginning of get_ij_bounds...

geslat= 13.46128 geslon= 135.2348

```
+++ Near top of get_ij_bounds,
+++ geslat= 13.46128 geslon= 135.2348
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 22
+++ jlatfix= 195
+++ jbeg= 173 jend= 217
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 21 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 247
+++ (orig) ibeg= 226 iend= 268
+++
```

guesslon= 135.235E (224.765W) guesslat= 13.461
ilonfix= 247 jlatfix= 195 npts= 10
ibeg= 226 jbeg= 173 imax= 409
iend= 268 jend= 217 jmax= 349
TIMING: find_maxmin 1 14:39:34

After 1st findmax loop, # calls to barnes = 24
Total # of barnes loop iterations = 3168
After first run, ctlon= 224.431W ctlat= 13.796 fmax = -
0.100E+13 fmin = 0.114E+04

Beginning of get_ij_bounds...

geslat= 13.79572 geslon= 135.5692

```
+++ Near top of get_ij_bounds,
+++ geslat= 13.79572 geslon= 135.5692
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 2
+++ npts= 5
+++ jhlatpts= 5 jripts= 9
+++ jbmaxlatpts= 14
+++ jlatfix= 193
+++ jbeg= 179 jend= 207
+++ rdeg= 0.6270790 ri= 150.0000 cosfac= 0.9711521
+++ dtr= 1.7453292E-02 dtk= 111.1949 dlon= 1.389054
+++ ibmaxlonpts= 16 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 249
+++ (orig) ibeg= 233 iend= 265
+++
```

After first pass through barnes, re and ri have NOT

been changed. re = 75.00000 ri = 150.0000
TIMING: find_maxmin kloop, k= 1 14:39:34

find_maxmin nhalf loop, cparm= hgt k= 1
guesslon= 135.569E (224.431W) guesslat= 13.796
ilonfix= 249 jlatfix= 193 npts= 5
ibeg= 233 jbeg= 179 imax= 409
iend= 265 jend= 207 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 1 ctlon= 224.849W ctlat= 13.378 fmax = -
0.100E+16 fmin = 0.000E+00
TIMING: find_maxmin kloop, k= 2 14:39:34

find_maxmin nhalf loop, cparm= hgt k= 2
guesslon= 135.151E (224.849W) guesslat= 13.378
ilonfix= 249 jlatfix= 193 npts= 5
ibeg= 233 jbeg= 179 imax= 409
iend= 265 jend= 207 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 2 ctlon= 225.058W ctlat= 13.169 fmax = -
0.100E+16 fmin = 0.000E+00

ppp after 2nd findmax loop, # calls to barnes = 72
ppp Total # of barnes loop iterations = 18360

--- --- ---

Now calling find_maxmin for hgt at 700 mb

At beg of find_maxmin, rads= 200.0000 re= 75.00000 ri=
150.0000 cparm= hgt dx= 0.1722946 dy= 0.1621475

Beginning of get_ij_bounds...

geslat= 13.46128 geslon= 135.2348

+++ Near top of get_ij_bounds,
+++ geslat= 13.46128 geslon= 135.2348
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jmaxlatpts= 22
+++ jlatfix= 195
+++ jbeg= 173 jend= 217
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 21 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 247
+++ (orig) ibeg= 226 iend= 268
+++

guesslon= 135.235E (224.765W) guesslat= 13.461
ilonfix= 247 jlatfix= 195 npts= 10
ibeg= 226 jbeg= 173 imax= 409
iend= 268 jend= 217 jmax= 349
TIMING: find_maxmin 1 14:39:34

After 1st findmax loop, # calls to barnes = 24
Total # of barnes loop iterations = 3168

After first run, ctlon= 224.431W ctlat= 13.796 fmax = -
0.100E+13 fmin = 0.280E+04

Beginning of get_ij_bounds...

geslat= 13.79572 geslon= 135.5692

```
+++ Near top of get_ij_bounds,
+++ geslat= 13.79572 geslon= 135.5692
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 2
+++ npts= 5
+++ jhlatpts= 5 jripts= 9
+++ jbmaxlatpts= 14
+++ jlatfix= 193
+++ jbeg= 179 jend= 207
+++ rdeg= 0.6270790 ri= 150.0000 cosfac= 0.9711521
+++ dtr= 1.7453292E-02 dtk= 111.1949 dlon= 1.389054
+++ ibmaxlonpts= 16 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 249
+++ (orig) ibeg= 233 iend= 265
+++
```

After first pass through barnes, re and ri have NOT
been changed. re = 75.00000 ri = 150.0000
TIMING: find_maxmin kloop, k= 1 14:39:34

```
find_maxmin nhalf loop, cparm= hgt k= 1
guesslon= 135.569E ( 224.431W) guesslat= 13.796
ilonfix= 249 jlatfix= 193 npts= 5
ibeg= 233 jbeg= 179 imax= 409
iend= 265 jend= 207 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 1 ctlon= 224.849W ctlat= 13.378 fmax = -
0.100E+16 fmin = 0.000E+00
TIMING: find_maxmin kloop, k= 2 14:39:34
```

```
find_maxmin nhalf loop, cparm= hgt k= 2
guesslon= 135.151E ( 224.849W) guesslat= 13.378
ilonfix= 249 jlatfix= 193 npts= 5
ibeg= 233 jbeg= 179 imax= 409
iend= 265 jend= 207 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 2 ctlon= 225.058W ctlat= 13.169 fmax = -
0.100E+16 fmin = 0.000E+00
```

ppp after 2nd findmax loop, # calls to barnes = 72
ppp Total # of barnes loop iterations = 18360

--- --- ---

Now calling find_maxmin for mslp

At beg of find_maxmin, rads= 200.0000 re= 75.00000 ri=
150.0000 cparm= slp dx= 0.1722946 dy= 0.1621475

Beginning of get_ij_bounds...

geslat= 13.46128 geslon= 135.2348

```

+++ Near top of get_ij_bounds,
+++ geslat= 13.46128 geslon= 135.2348
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 22
+++ jlatfix= 195
+++ jbeg= 173 jend= 217
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 21 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 247
+++ (orig) ibeg= 226 iend= 268
+++

```

```

guesslon= 135.235E ( 224.765W) guesslat= 13.461
ilonfix= 247 jlatfix= 195 npts= 10
ibeg= 226 jbeg= 173 imax= 409
iend= 268 jend= 217 jmax= 349
TIMING: find_maxmin 1 14:39:34

```

```

After 1st findmax loop, # calls to barnes = 24
Total # of barnes loop iterations = 3168
After first run, ctlon= 224.431W ctlat= 13.796 fmax = -
0.100E+13 fmin = 0.969E+05

```

```

Beginning of get_ij_bounds...
geslat= 13.79572 geslon= 135.5692

```

```

+++ Near top of get_ij_bounds,
+++ geslat= 13.79572 geslon= 135.5692
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 2
+++ npts= 5
+++ jhlatpts= 5 jripts= 9
+++ jbmaxlatpts= 14
+++ jlatfix= 193
+++ jbeg= 179 jend= 207
+++ rdeg= 0.6270790 ri= 150.0000 cosfac= 0.9711521
+++ dtr= 1.7453292E-02 dtk= 111.1949 dlon= 1.389054
+++ ibmaxlonpts= 16 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 249
+++ (orig) ibeg= 233 iend= 265
+++

```

```

After first pass through barnes, re and ri have NOT
been changed. re = 75.00000 ri = 150.0000
TIMING: find_maxmin kloop, k= 1 14:39:34

```

```

find_maxmin nhalf loop, cparm= slp k= 1
guesslon= 135.569E ( 224.431W) guesslat= 13.796
ilonfix= 249 jlatfix= 193 npts= 5
ibeg= 233 jbeg= 179 imax= 409
iend= 265 jend= 207 jmax= 349

```

```
nhalf=          2  iskip=          2
nhalf findmax, k= 1 ctlon= 224.849W  ctlat= 13.378 fmax =      -
0.100E+16 fmin =          0.000E+00
TIMING: find_maxmin kloop, k= 2 14:39:34
```

```
find_maxmin nhalf loop, cparm= slp k=          2
guesslon= 135.151E ( 224.849W)  guesslat= 13.378
ilonfix=          249  jlatfix=          193  npts=          5
ibeg=          233  jbeg=          179  imax=          409
iend=          265  jend=          207  jmax=          349
nhalf=          2  iskip=          2
nhalf findmax, k= 2 ctlon= 225.058W  ctlat= 13.169 fmax =      -
0.100E+16 fmin =          0.000E+00
```

```
ppp after 2nd findmax loop, # calls to barnes =          72
ppp Total # of barnes loop iterations =          18360
```

```
--- --- ---
Now calling find_maxmin for sfc zeta
```

```
At beg of find_maxmin, rads=          200.0000      re=          75.00000      ri=
150.0000      cparm= zeta dx=          0.1722946      dy=          0.1621475
```

```
Beginning of get_ij_bounds...
geslat=          13.46128      geslon=          135.2348
```

```
+++ Near top of get_ij_bounds,
+++ geslat=          13.46128      geslon=          135.2348
+++ rglatmax=          44.92863      rglatmin=          -9.516106
+++ rglonmax=          163.1479      rglonmin=          92.85205
+++ imax=          409  jmax=          349
+++ dx=          0.1722946      dy=          0.1621475      nhalf=          0
+++ npts=          10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts=          22
+++ jlatfix=          195
+++ jbeg=          173  jend=          217
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts=          21  dx=          0.1722946      dy=          0.1621475
+++ (orig) ilonfix=          247
+++ (orig) ibeg=          226  iend=          268
+++
```

```
guesslon= 135.235E ( 224.765W)  guesslat= 13.461
ilonfix=          247  jlatfix=          195  npts=          10
ibeg=          226  jbeg=          173  imax=          409
iend=          268  jend=          217  jmax=          349
TIMING: find_maxmin 1 14:39:34
```

```
After 1st findmax loop, # calls to barnes =          24
Total # of barnes loop iterations =          3168
!!! Zeta check, fmax=          6.5558852E-04  fmin=          1.0000000E+12
After first run, ctlon= 224.431W  ctlat= 13.796 fmax (x10e5) =
0.656E+02 fmin (x10e5) =          0.100E+18
```

```
Beginning of get_ij_bounds...
geslat=          13.79572      geslon=          135.5692
```

```

+++ Near top of get_ij_bounds,
+++ geslat= 13.79572 geslon= 135.5692
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 2
+++ npts= 5
+++ jhlatpts= 5 jripts= 9
+++ jbmaxlatpts= 14
+++ jlatfix= 193
+++ jbeg= 179 jend= 207
+++ rdeg= 0.6270790 ri= 150.0000 cosfac= 0.9711521
+++ dtr= 1.7453292E-02 dtk= 111.1949 dlon= 1.389054
+++ ibmaxlonpts= 16 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 249
+++ (orig) ibeg= 233 iend= 265
+++

```

After first pass through barnes, re and ri have NOT been changed. re = 75.00000 ri = 150.0000
TIMING: find_maxmin kloop, k= 1 14:39:34

```

find_maxmin nhalf loop, cparm= zeta k= 1
guesslon= 135.569E ( 224.431W) guesslat= 13.796
ilonfix= 249 jlatfix= 193 npts= 5
ibeg= 233 jbeg= 179 imax= 409
iend= 265 jend= 207 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 1 ctlon= 224.682W ctlat= 13.545 fmax (x10e5) =
0.896E+01 fmin (x10e5) = 0.100E+21
TIMING: find_maxmin kloop, k= 2 14:39:34

```

```

find_maxmin nhalf loop, cparm= zeta k= 2
guesslon= 135.318E ( 224.682W) guesslat= 13.545
ilonfix= 249 jlatfix= 193 npts= 5
ibeg= 233 jbeg= 179 imax= 409
iend= 265 jend= 207 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 2 ctlon= 224.891W ctlat= 13.419 fmax (x10e5) =
0.151E+02 fmin (x10e5) = 0.100E+21

```

ppp after 2nd findmax loop, # calls to barnes = 72
ppp Total # of barnes loop iterations = 18360

--- --- ---

Now calling find_maxmin for thickness in the 500-850 mb layer.

At beg of find_maxmin, rads= 200.0000 re= 75.00000 ri= 150.0000
cparm= thick dx= 0.1722946 dy= 0.1621475

Beginning of get_ij_bounds...

```

geslat= 13.46128 geslon= 135.2348

```

```

+++ Near top of get_ij_bounds,
+++ geslat= 13.46128 geslon= 135.2348
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349

```

```

+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 22
+++ jlatfix= 195
+++ jbeg= 173 jend= 217
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 21 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 247
+++ (orig) ibeg= 226 iend= 268
+++

```

```

guesslon= 135.235E ( 224.765W) guesslat= 13.461
ilonfix= 247 jlatfix= 195 npts= 10
ibeg= 226 jbeg= 173 imax= 409
iend= 268 jend= 217 jmax= 349
TIMING: find_maxmin 1 14:39:34

```

```

After 1st findmax loop, # calls to barnes = 24
Total # of barnes loop iterations = 3168
After first run, ctlon= 224.431W ctlat= 13.796 fmax =
0.442E+04 fmin = 0.100E+13

```

```

Beginning of get_ij_bounds...
geslat= 13.79572 geslon= 135.5692

```

```

+++ Near top of get_ij_bounds,
+++ geslat= 13.79572 geslon= 135.5692
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 2
+++ npts= 5
+++ jhlatpts= 5 jripts= 9
+++ jbmaxlatpts= 14
+++ jlatfix= 193
+++ jbeg= 179 jend= 207
+++ rdeg= 0.6270790 ri= 150.0000 cosfac= 0.9711521
+++ dtr= 1.7453292E-02 dtk= 111.1949 dlon= 1.389054
+++ ibmaxlonpts= 16 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 249
+++ (orig) ibeg= 233 iend= 265
+++

```

```

After first pass through barnes, re and ri have NOT
been changed. re = 75.00000 ri = 150.0000
TIMING: find_maxmin kloop, k= 1 14:39:34

```

```

find_maxmin nhalf loop, cparm= thick k= 1
guesslon= 135.569E ( 224.431W) guesslat= 13.796
ilonfix= 249 jlatfix= 193 npts= 5
ibeg= 233 jbeg= 179 imax= 409
iend= 265 jend= 207 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 1 ctlon= 224.682W ctlat= 13.545 fmax =
0.439E+04 fmin = 0.100E+16
TIMING: find_maxmin kloop, k= 2 14:39:34

```

```

find_maxmin nhalf loop, cparm= thick k= 2

```



```
guesslon= 135.318E ( 224.682W)   guesslat= 13.545
ilonfix=      249   jlatfix=      193   npts=      5
ibeg=      233   jbeg=      179   imax=      409
iend=      265   jend=      207   jmax=      349
nhalf=      2   iskip=      2
nhalf findmax, k= 2   ctlon= 224.473W   ctlat= 13.419   fmax =
0.440E+04   fmin =      0.100E+16
```

```
ppp after 2nd findmax loop, # calls to barnes =      72
ppp Total # of barnes loop iterations =      18360
```

```
---   ---   ---
Now calling find_maxmin for thickness in
the 200-500 mb layer.
```

```
At beg of find_maxmin, rads=      200.0000   re=      75.00000   ri=
150.0000   cparm= thick   dx=      0.1722946   dy=      0.1621475
```

```
Beginning of get_ij_bounds...
  geslat=      13.46128   geslon=      135.2348
```

```
+++ Near top of get_ij_bounds,
+++ geslat=      13.46128   geslon=      135.2348
+++ rglatmax=      44.92863   rglatmin=     -9.516106
+++ rglonmax=      163.1479   rglonmin=     92.85205
+++ imax=      409   jmax=      349
+++ dx=      0.1722946   dy=      0.1621475   nhalf=      0
+++ npts=      10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts=      22
+++ jlatfix=      195
+++ jbeg=      173   jend=      217
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts=      21   dx=      0.1722946   dy=      0.1621475
+++ (orig) ilonfix=      247
+++ (orig) ibeg=      226   iend=      268
+++
```

```
guesslon= 135.235E ( 224.765W)   guesslat= 13.461
ilonfix=      247   jlatfix=      195   npts=      10
ibeg=      226   jbeg=      173   imax=      409
iend=      268   jend=      217   jmax=      349
TIMING: find_maxmin 1 14:39:34
```

```
After 1st findmax loop, # calls to barnes =      24
Total # of barnes loop iterations =      3168
After first run, ctlon= 224.431W   ctlat= 13.796   fmax =
0.677E+04   fmin =      0.100E+13
```

```
Beginning of get_ij_bounds...
  geslat=      13.79572   geslon=      135.5692
```

```
+++ Near top of get_ij_bounds,
+++ geslat=      13.79572   geslon=      135.5692
+++ rglatmax=      44.92863   rglatmin=     -9.516106
+++ rglonmax=      163.1479   rglonmin=     92.85205
+++ imax=      409   jmax=      349
+++ dx=      0.1722946   dy=      0.1621475   nhalf=      2
```

```

+++ npts=                5
+++ jhlatpts=           5  jripts=           9
+++ jbmaxlatpts=       14
+++ jlatfix=           193
+++ jbeg=               179  jend=           207
+++ rdeg=  0.6270790    ri=   150.0000    cosfac=  0.9711521
+++ dtr=  1.7453292E-02  dtk=   111.1949    dlon=   1.389054
+++ ibmaxlonpts=       16  dx=   0.1722946    dy=   0.1621475
+++ (orig) ilonfix=     249
+++ (orig) ibeg=       233  iend=           265
+++

```

After first pass through barnes, re and ri have NOT been changed. re = 75.00000 ri = 150.0000
TIMING: find_maxmin kloop, k= 1 14:39:34

```

find_maxmin nhalf loop, cparm= thick k=           1
guesslon= 135.569E ( 224.431W)  guesslat= 13.796
ilonfix=   249  jlatfix=   193  npts=           5
ibeg=      233  jbeg=      179  imax=           409
iend=      265  jend=      207  jmax=           349
nhalf=      2  iskip=      2
nhalf findmax, k= 1  ctlon= 224.514W  ctlat= 13.545  fmax =
0.673E+04  fmin = 0.100E+16
TIMING: find_maxmin kloop, k= 2 14:39:34

```

```

find_maxmin nhalf loop, cparm= thick k=           2
guesslon= 135.486E ( 224.514W)  guesslat= 13.545
ilonfix=   249  jlatfix=   193  npts=           5
ibeg=      233  jbeg=      179  imax=           409
iend=      265  jend=      207  jmax=           349
nhalf=      2  iskip=      2
nhalf findmax, k= 2  ctlon= 224.389W  ctlat= 13.419  fmax =
0.674E+04  fmin = 0.100E+16

```

ppp after 2nd findmax loop, # calls to barnes = 72
ppp Total # of barnes loop iterations = 18360

--- --- ---

Now calling find_maxmin for thickness in the 200-850 mb layer.

At beg of find_maxmin, rads= 200.0000 re= 75.00000 ri=
150.0000 cparm= thick dx= 0.1722946 dy= 0.1621475

Beginning of get_ij_bounds...

geslat= 13.46128 geslon= 135.2348

```

+++ Near top of get_ij_bounds,
+++ geslat= 13.46128  geslon= 135.2348
+++ rglatmax= 44.92863  rglatmin= -9.516106
+++ rglonmax= 163.1479  rglonmin= 92.85205
+++ imax= 409  jmax= 349
+++ dx= 0.1722946  dy= 0.1621475  nhalf= 0
+++ npts= 10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 22
+++ jlatfix= 195
+++ jbeg= 173  jend= 217

```

```
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts=      21 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix=      247
+++ (orig) ibeg=      226 iend=      268
+++
```

```
guesslon= 135.235E ( 224.765W) guesslat= 13.461
ilonfix=      247 jlatfix=      195 npts=      10
ibeg=      226 jbeg=      173 imax=      409
iend=      268 jend=      217 jmax=      349
TIMING: find_maxmin 1 14:39:34
```

```
After 1st findmax loop, # calls to barnes =      24
Total # of barnes loop iterations =      3168
After first run, ctlon= 224.431W ctlat= 13.796 fmax =
0.112E+05 fmin =      0.100E+13
```

```
Beginning of get_ij_bounds...
geslat= 13.79572 geslon= 135.5692
```

```
+++ Near top of get_ij_bounds,
+++ geslat= 13.79572 geslon= 135.5692
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 2
+++ npts= 5
+++ jhlatpts= 5 jripts= 9
+++ jbmaxlatpts= 14
+++ jlatfix= 193
+++ jbeg= 179 jend= 207
+++ rdeg= 0.6270790 ri= 150.0000 cosfac= 0.9711521
+++ dtr= 1.7453292E-02 dtk= 111.1949 dlon= 1.389054
+++ ibmaxlonpts= 16 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 249
+++ (orig) ibeg= 233 iend= 265
+++
```

```
After first pass through barnes, re and ri have NOT
been changed. re = 75.00000 ri = 150.0000
TIMING: find_maxmin kloop, k= 1 14:39:34
```

```
find_maxmin nhalf loop, cparm= thick k= 1
guesslon= 135.569E ( 224.431W) guesslat= 13.796
ilonfix= 249 jlatfix= 193 npts= 5
ibeg= 233 jbeg= 179 imax= 409
iend= 265 jend= 207 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 1 ctlon= 224.514W ctlat= 13.545 fmax =
0.111E+05 fmin = 0.100E+16
TIMING: find_maxmin kloop, k= 2 14:39:34
```

```
find_maxmin nhalf loop, cparm= thick k= 2
guesslon= 135.486E ( 224.514W) guesslat= 13.545
ilonfix= 249 jlatfix= 193 npts= 5
ibeg= 233 jbeg= 179 imax= 409
iend= 265 jend= 207 jmax= 349
nhalf= 2 iskip= 2
```

nhalf findmax, k= 2 ctlon= 224.473W ctlat= 13.419 fmax =
0.111E+05 fmin = 0.100E+16

ppp after 2nd findmax loop, # calls to barnes = 72
ppp Total # of barnes loop iterations = 18360

--- --- ---

Now calling get_wind_circulation for 850 mb

Before first call to get_wind_circulation,

glatmax= 44.92863
glatmin= -9.516106
glonmax= 163.1479
glonmin= 92.85205
trkrinfo%gridtype= regional
inp%modtyp= regional
cmaxmin= max
nlev850= 1
u(1,1,nlev850)= 5.134420
u(imax,jmax,nlev850)= -6.924207
imax= 409 jmax= 349
uvgeslon= 135.2467 uvgeslat= 13.37169
dx= 0.1722946 dy= 0.1621475 ist= 1
calcparm(3,ist)= T
clon(ist,ifh,3)= 0.0000000E+00
clat(ist,ifh,3)= 0.0000000E+00
xval(3)= 0.0000000E+00

TIMING: Before GWC 850 ... 14:39:34

top of get_wind_circulation,

glatmax= 44.92863
glatmin= -9.516106
glonmax= 163.1479
glonmin= 92.85205
trkrinfo%gridtype= regional
cmodel_type= regional
maxmin= max
imax= 409 jmax= 349
uvgeslon= 135.2467 uvgeslat= 13.37169
dx= 0.1722946 dy= 0.1621475 ist= 1
cflag= T
ctlon= 0.0000000E+00 ctlat= 0.0000000E+00
fxval= 0.0000000E+00
igwcret= 0

At beg of get_wind_circulation, rads= 200.0000 ri= 150.0000
dx=

0.1722946 dy= 0.1621475
in get_wind_circulation, nlev= 1

Beginning of get_ij_bounds...

geslat= 13.37169 geslon= 135.2467

+++ Near top of get_ij_bounds,
+++ geslat= 13.37169 geslon= 135.2467
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0

```

+++ npts=                10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts=        22
+++ jlatfix=            195
+++ jbeg=                173  jend=                217
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts=        21  dx=    0.1722946      dy=    0.1621475
+++ (orig) ilonfix=      248
+++ (orig) ibeg=         227  iend=                269
+++

```

```

In get_wind_circulation, prior to first loop,
  npts=                10  dell=    0.1672211      rads=    200.0000

```

```

After first run, Wind Circulation (NHEM) ctlon= 224.419W  ctlat=
11.699  circ_diff_mean =    26.617

```

```

Beginning of get_ij_bounds...
  geslat=    11.69948      geslon=    135.5812

```

```

+++ Near top of get_ij_bounds,
+++ geslat=    11.69948      geslon=    135.5812
+++ rglatmax=    44.92863      rglatmin=   -9.516106
+++ rglonmax=    163.1479      rglonmin=    92.85205
+++ imax=        409  jmax=        349
+++ dx=    0.1722946      dy=    0.1621475      nhalf=        2
+++ npts=        10
+++ jhlatpts=        9  jripts=        9
+++ jbmaxlatpts=        18
+++ jlatfix=        205
+++ jbeg=        187  jend=        223
+++ rdeg=    1.254158      ri=    150.0000      cosfac=    0.9792246
+++ dtr=    1.7453292E-02  dtk=    111.1949      dlon=    1.377603
+++ ibmaxlonpts=        19  dx=    0.1722946      dy=    0.1621475
+++ (orig) ilonfix=        250
+++ (orig) ibeg=        231  iend=        269
+++

```

```

TIMING: get_wind_circ kloop, k= 1  14:39:34

```

```

get_wind_circ nhalf loop, k=                1
guesslon= 135.581E ( 224.419W)  guesslat=  11.699
ilonfix=    250  jlatfix=    205  npts=        10
ibeg=        231  jbeg=        187  imax=        409
iend=        269  jend=        223  jmax=        349
nhalf=        2  iskip=        2  rads=    100.0000

```

```

In get_wind_circulation, prior to loop k=                1
  npts=                10  dell=    8.3610535E-02  rads=    100.0000

```

```

---> xmax_circ_diff_mean=   -23.43690
nhalf get_wind_circ, k= 1 ctlon= 224.419W  ctlat=  12.536 Wind
Circulation (NHEM: Max) =   -23.437

```

```

TIMING: get_wind_circ kloop, k= 2  14:39:34

```

```

get_wind_circ nhalf loop, k=                2
guesslon= 135.581E ( 224.419W)  guesslat=  12.536
ilonfix=    250  jlatfix=    205  npts=        10
ibeg=        231  jbeg=        187  imax=        409
iend=        269  jend=        223  jmax=        349

```

```

nhalf=          2  iskip=          2  rads=    100.0000

In get_wind_circulation, prior to loop k=          2
  npts=          10  dell=    4.1805267E-02  rads=    100.0000

---> xmax_circ_diff_mean=   -23.43690
nhalf get_wind_circ, k=  2  ctlon=   224.419W  ctlat=   12.536 Wind
Circulation (NHEM: Max) =   -23.437
TIMING: After GWC 850 ... 14:39:34

      ---      ---      ---
Now calling get_wind_circulation for 700 mb
TIMING: Before GWC 700 ... 14:39:34

top of get_wind_circulation,
  glatmax=    44.92863
  glatmin=   -9.516106
  glonmax=   163.1479
  glonmin=    92.85205
  trkrinfo%gridtype= regional
  cmodel_type= regional
  maxmin= max
  imax=         409  jmax=         349
  uvgeslon=   135.2467  uvgeslat=    13.37169
  dx=    0.1722946  dy=    0.1621475  ist=          1
  cflag= T
  ctlon=    0.0000000E+00  ctlat=    0.0000000E+00
  fxval=    0.0000000E+00
  igwcret=          0

At beg of get_wind_circulation, rads=    200.0000  ri=    150.0000
dx=
  0.1722946  dy=    0.1621475
in get_wind_circulation, nlev=          2

Beginning of get_ij_bounds...
  geslat=    13.37169  geslon=    135.2467

+++ Near top of get_ij_bounds,
+++ geslat=    13.37169  geslon=    135.2467
+++ rglatmax=    44.92863  rglatmin=   -9.516106
+++ rglonmax=   163.1479  rglonmin=    92.85205
+++ imax=         409  jmax=         349
+++ dx=    0.1722946  dy=    0.1621475  nhalf=          0
+++ npts=          10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jmaxlatpts=          22
+++ jlatfix=          195
+++ jbeg=          173  jend=          217
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts=          21  dx=    0.1722946  dy=    0.1621475
+++ (orig) ilonfix=          248
+++ (orig) ibeg=          227  iend=          269
+++

In get_wind_circulation, prior to first loop,
  npts=          10  dell=    0.1672211  rads=    200.0000

```

After first run, Wind Circulation (NHEM) ctlon= 225.088W ctlat=
11.699 circ_diff_mean = 3.125

Beginning of get_ij_bounds...

geslat= 11.69948 geslon= 134.9123

```
+++ Near top of get_ij_bounds,
+++ geslat= 11.69948 geslon= 134.9123
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 2
+++ npts= 10
+++ jhlatpts= 9 jripts= 9
+++ jbmaxlatpts= 18
+++ jlatfix= 205
+++ jbeg= 187 jend= 223
+++ rdeg= 1.254158 ri= 150.0000 cosfac= 0.9792246
+++ dtr= 1.7453292E-02 dtk= 111.1949 dlon= 1.377603
+++ ibmaxlonpts= 19 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 246
+++ (orig) ibeg= 227 iend= 265
+++
```

TIMING: get_wind_circ kloop, k= 1 14:39:34

```
get_wind_circ nhalf loop, k= 1
guesslon= 134.912E ( 225.088W) guesslat= 11.699
ilonfix= 246 jlatfix= 205 npts= 10
ibeg= 227 jbeg= 187 imax= 409
iend= 265 jend= 223 jmax= 349
nhalf= 2 iskip= 2 rads= 100.0000
```

```
In get_wind_circulation, prior to loop k= 1
npts= 10 dell= 8.3610535E-02 rads= 100.0000
```

```
---> xmax_circ_diff_mean= -20.66368
nhalf get_wind_circ, k= 1 ctlon= 224.419W ctlat= 12.536 Wind
Circulation (NHEM: Max) = -20.664
```

TIMING: get_wind_circ kloop, k= 2 14:39:34

```
get_wind_circ nhalf loop, k= 2
guesslon= 135.581E ( 224.419W) guesslat= 12.536
ilonfix= 246 jlatfix= 205 npts= 10
ibeg= 227 jbeg= 187 imax= 409
iend= 265 jend= 223 jmax= 349
nhalf= 2 iskip= 2 rads= 100.0000
```

```
In get_wind_circulation, prior to loop k= 2
npts= 10 dell= 4.1805267E-02 rads= 100.0000
```

```
---> xmax_circ_diff_mean= -20.66368
nhalf get_wind_circ, k= 2 ctlon= 224.419W ctlat= 12.536 Wind
Circulation (NHEM: Max) = -20.664
```

TIMING: After GWC 700 ... 14:39:34

--- --- ---

Now calling get_wind_circulation for the
surface (10m) level

TIMING: Before GWC Sfc ... 14:39:34

```
top of get_wind_circulation,
  glatmax= 44.92863
  glatmin= -9.516106
  glonmax= 163.1479
  glonmin= 92.85205
  trkrinfo%gridtype= regional
  cmodel_type= regional
  maxmin= max
  imax= 409 jmax= 349
  uvgeslon= 135.2467 uvgeslat= 13.37169
  dx= 0.1722946 dy= 0.1621475 ist= 1
  cflag= T
  ctlon= 0.0000000E+00 ctlat= 0.0000000E+00
  fxval= 0.0000000E+00
  igwcret= 0
```

```
At beg of get_wind_circulation, rads= 200.0000 ri= 150.0000
dx= 0.1722946 dy= 0.1621475
in get_wind_circulation, nlev= 4
```

```
Beginning of get_ij_bounds...
  geslat= 13.37169 geslon= 135.2467
```

```
+++ Near top of get_ij_bounds,
+++ geslat= 13.37169 geslon= 135.2467
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 22
+++ jlatfix= 195
+++ jbeg= 173 jend= 217
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 21 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 248
+++ (orig) ibeg= 227 iend= 269
+++
```

```
In get_wind_circulation, prior to first loop,
  npts= 10 dell= 0.1672211 rads= 200.0000
```

```
After first run, Wind Circulation (NHEM) ctlon= 224.419W ctlat=
11.699 circ_diff_mean = 46.114
```

```
Beginning of get_ij_bounds...
  geslat= 11.69948 geslon= 135.5812
```

```
+++ Near top of get_ij_bounds,
+++ geslat= 11.69948 geslon= 135.5812
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 2
+++ npts= 10
```



```

+++ jhlatpts=          9  jripts=          9
+++ jbmaxlatpts=      18
+++ jlatfix=          205
+++ jbeg=            187  jend=            223
+++ rdeg=      1.254158  ri=      150.0000  cosfac=      0.9792246
+++ dtr=      1.7453292E-02  dtk=      111.1949  dlon=      1.377603
+++ ibmaxlonpts=      19  dx=      0.1722946  dy=      0.1621475
+++ (orig) ilonfix=      250
+++ (orig) ibeg=      231  iend=            269
+++
TIMING: get_wind_circ kloop, k= 1  14:39:34

```

```

get_wind_circ nhalf loop, k=          1
guesslon= 135.581E ( 224.419W)  guesslat=  11.699
ilonfix=      250  jlatfix=      205  npts=          10
ibeg=      231  jbeg=      187  imax=          409
iend=      269  jend=      223  jmax=          349
nhalf=      2  iskip=      2  rads=      100.0000

```

```

In get_wind_circulation, prior to loop k=          1
npts=      10  dell=      8.3610535E-02  rads=      100.0000

```

```

---> xmax_circ_diff_mean=  -15.69933
nhalf get_wind_circ, k= 1  ctlon=  224.419W  ctlat=  12.536 Wind
Circulation (NHEM: Max) =  -15.699
TIMING: get_wind_circ kloop, k= 2  14:39:34

```

```

get_wind_circ nhalf loop, k=          2
guesslon= 135.581E ( 224.419W)  guesslat=  12.536
ilonfix=      250  jlatfix=      205  npts=          10
ibeg=      231  jbeg=      187  imax=          409
iend=      269  jend=      223  jmax=          349
nhalf=      2  iskip=      2  rads=      100.0000

```

```

In get_wind_circulation, prior to loop k=          2
npts=      10  dell=      4.1805267E-02  rads=      100.0000

```

```

---> xmax_circ_diff_mean=  -15.69933
nhalf get_wind_circ, k= 2  ctlon=  224.419W  ctlat=  12.536 Wind
Circulation (NHEM: Max) =  -15.699
TIMING: After GWC Sfc ... 14:39:34

```

```

At beg of fixcenter, stderr(ist,ifh-1) =      46.87  xavg_stderr=      52.46
At beg of fixcenter, errpgro =      1.250000
At beg of fixcenter, errinit =      225.0000
At beg of fixcenter, errpmax =      485.0000
At beg of fixcenter, ifh=      5  errmax=      225.0000

```

```

-----
Individual fixes follow..., fhr=      4:00  26W  MANGKHUT
Gen ID (if available): 2018091200_F000_139N_1362E_26W
Model name = WRF
Values of -99.99 indicate that a fix was unable to be
made for that parameter. Parameters 4 & 6 are not
used. Vorticity data values are scaled by 1e5.
errdist is the distance that the position estimate is
from the guess position for this time. MSLP value
here may differ from that in the atcfunix file since
the one here is that derived from the area-averaged
barnes analysis, while that in the atcfunix file is

```

from a specific gridpoint.

Guess location for this time: 135.23E (224.77W) 13.46

parm#	parm	Max/Min	Lon_fix(E)	Lon_fix(W)	Lat_fix	
Max/Min_value	calcparm	errdist (km)				
-----	-----	-----	-----	-----	-----	-----
1	zeta 850	Max	135.11	224.89	13.42	
31.18	T	14.26				
2	zeta 700	Max	135.53	224.47	13.42	
66.96	T	31.95				
3	circ 850	Max	135.58	224.42	12.54	-
23.44	T	109.55				
4	NOT USED	NOT USED	0.00	0.00	0.00	
0.00	F	0.00				
5	circ 700	Max	135.58	224.42	12.54	-
20.66	T	109.55				
6	NOT USED	NOT USED	0.00	0.00	0.00	
0.00	F	0.00				
7	gph 850	Min	134.94	225.06	13.17	
0.00	T	45.35				
8	gph 700	Min	134.94	225.06	13.17	
0.00	T	45.35				
9	MSLP	Min	134.94	225.06	13.17	
0.00	T	45.35				
10	circ sfc	Max	135.58	224.42	12.54	-
15.70	T	109.55				
11	zeta sfc	Max	135.11	224.89	13.42	
15.14	T	14.26				
12	thk 5-8	Max	135.53	224.47	13.42	
4395.44	T	31.95				
13	thk 2-5	Max	135.61	224.39	13.42	
6740.19	T	40.92				
14	thk 2-8	Max	135.53	224.47	13.42	
11135.63	T	31.95				

After stdevcalc, xmn_dist_from_mean= 48.32855 stderr_close= 13.80423 isret= 0

ip= 1	kprm= 1	dist_from_mean= 39.595	devia= 2.868	wtpos= 0.38439
135.11	224.89	13.42		
ip= 2	kprm= 2	dist_from_mean= 37.973	devia= 2.751	wtpos= 0.39974
135.53	224.47	13.42		
ip= 3	kprm= 3	dist_from_mean= 72.022	devia= 5.217	wtpos= 0.17568
135.58	224.42	12.54		
ip= 5	kprm= 4	dist_from_mean= 72.022	devia= 5.217	wtpos= 0.17568
135.58	224.42	12.54		
ip= 7	kprm= 5	dist_from_mean= 42.369	devia= 3.069	wtpos= 0.35948
134.94	225.06	13.17		
ip= 8	kprm= 6	dist_from_mean= 42.369	devia= 3.069	wtpos= 0.35948
134.94	225.06	13.17		
ip= 9	kprm= 7	dist_from_mean= 42.369	devia= 3.069	wtpos= 0.35948
134.94	225.06	13.17		
ip= 10	kprm= 8	dist_from_mean= 72.022	devia= 5.217	wtpos= 0.17568
135.58	224.42	12.54		
ip= 11	kprm= 9	dist_from_mean= 39.595	devia= 2.868	wtpos= 0.38439
135.11	224.89	13.42		
ip= 12	kprm= 10	dist_from_mean= 37.973	devia= 2.751	wtpos= 0.39974
135.53	224.47	13.42		
ip= 13	kprm= 11	dist_from_mean= 43.663	devia= 3.163	wtpos= 0.34842
135.61	224.39	13.42		

ip= 14 kprm= 12 dist_from_mean= 37.973 devia= 2.751 wtpos= 0.39974
135.53 224.47 13.42

At end of fixcenter: 26W fhr= 4:00 Fix position= 135.30E
(224.70W) 13.23

ttest, ifret= 0
ttest, calcparm(9,ist)= T
ttest, in IF part:
clon(ist,ifh,9)= 134.9421
clat(ist,ifh,9)= 13.16864
xval(9)= 0.0000000E+00

Beginning of get_ij_bounds...
geslat= 13.16864 geslon= 134.9421

+++ Near top of get_ij_bounds,
+++ geslat= 13.16864 geslon= 134.9421
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 17
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 36
+++ jlatfix= 196
+++ jbeg= 160 jend= 232
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 28 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 246
+++ (orig) ibeg= 218 iend= 274
+++

After get_ij B, ibeg jbeg = 218 160
After get_ij B, iend jend = 274 232

In is_it_a_storm, ilonfix= 246 jlatfix= 196
ibeg jbeg iend jend = 218 160 274 232
cparm= slp parmlon parmlat = 134.9421 13.16864
parmval= 0.0000000E+00

i= 238 j= 202 glon= 133.69 glat= 15.57 dist= 299.53 slp=
99947.45 pgradient= *****

In is_it_a_storm, valid pgradient found.
pgradient threshold = 0.00150
pgradient found = *****
mslp center = 134.9421 13.16864 0.0000000E+00
pgrad loc = 133.6857 15.57172 99947.45
ttest at location C IF....
xinp_fixlat= 13.16864
xinp_fixlon= 134.9421
ttest at location D
ttest at location E, ifilret= 0
ttest at location F

Checking 850 mb Vt speed using 850 mb
wind circulation fix:
850 mb wcirc fix lon= 135.5812

850 mb wcirc fix lat= 12.53559
Multi-param fix lon= 135.2992
Multi-param fix lat= 13.23172

Beginning of get_ij_bounds...

geslat= 12.53559 geslon= 135.5812

+++ Near top of get_ij_bounds,
+++ geslat= 12.53559 geslon= 135.5812
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 13
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 28
+++ jlatfix= 200
+++ jbeg= 172 jend= 228
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 24 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 250
+++ (orig) ibeg= 226 iend= 274
+++

After get_ij B, ibeg jbeg = 226 172
After get_ij B, iend jend = 274 228

In is_it_a_storm, ilonfix= 250 jlatfix= 200
ibeg jbeg iend jend = 226 172 274 228
cparm= v850 parmlon parmlat = 135.5812 12.53559
parmval= -23.43690

i= 244 j= 210 glon= 134.72 glat= 14.24 u= -15.3899 v= -55.9451 vr= -
43.37537 vt= 38.53927
i= 246 j= 210 glon= 135.06 glat= 14.24 u= -27.4609 v= -50.5745 vr= -
40.71230 vt= 40.67421
i= 248 j= 210 glon= 135.41 glat= 14.24 u= -20.2542 v= 2.0195 vr=
3.99649 vt= 19.95846
i= 250 j= 210 glon= 135.75 glat= 14.24 u= -18.5054 v= 68.1028 vr=
65.95922 vt= 25.09619
i= 252 j= 210 glon= 136.10 glat= 14.24 u= -20.0294 v= 52.5550 vr=
44.72582 vt= 34.09989
i= 254 j= 210 glon= 136.44 glat= 14.24 u= -15.2968 v= 37.1805 vr=
26.59232 vt= 30.15339
i= 242 j= 212 glon= 134.37 glat= 13.91 u= 1.7356 v= -44.9129 vr= -
35.19661 vt= 27.95309
i= 244 j= 212 glon= 134.72 glat= 13.91 u= 6.8208 v= -60.3645 vr= -
55.01980 vt= 25.75303
i= 246 j= 212 glon= 135.06 glat= 13.91 u= 10.0175 v= -50.5697 vr= -
50.91867 vt= 8.05825
i= 248 j= 212 glon= 135.41 glat= 13.91 u= 5.9536 v= 3.7838 vr=
3.03048 vt= -6.37014
i= 250 j= 212 glon= 135.75 glat= 13.91 u= 8.5664 v= 63.8924 vr=
64.46007 vt= -0.72046
i= 252 j= 212 glon= 136.10 glat= 13.91 u= 4.7359 v= 52.4801 vr=
50.88995 vt= 13.66752
i= 254 j= 212 glon= 136.44 glat= 13.91 u= -3.3840 v= 42.8326 vr=
34.74591 vt= 25.27460

i= 256	j= 212	glon= 136.79	glat= 13.91	u= -4.3157	v= 33.6788	vr=
22.73721	vt= 25.21713					
i= 240	j= 214	glon= 134.03	glat= 13.57	u= 14.1754	v= -27.6709	vr= -
27.31233	vt= 14.85459					
i= 242	j= 214	glon= 134.37	glat= 13.57	u= 13.9693	v= -40.8944	vr= -
37.48927	vt= 21.49529					
i= 244	j= 214	glon= 134.72	glat= 13.57	u= 28.8435	v= -39.6855	vr= -
48.98943	vt= 2.63132					
i= 246	j= 214	glon= 135.06	glat= 13.57	u= 53.2407	v= -32.6990	vr= -
52.71111	vt= -33.54605					
i= 248	j= 214	glon= 135.41	glat= 13.57	u= 59.1324	v= 4.7439	vr=
-4.76769	vt= -59.13047					
i= 250	j= 214	glon= 135.75	glat= 13.57	u= 43.8929	v= 49.7498	vr=
56.12536	vt= -35.37764					
i= 252	j= 214	glon= 136.10	glat= 13.57	u= 20.1960	v= 38.9645	vr=
43.87347	vt= -1.10765					
i= 254	j= 214	glon= 136.44	glat= 13.57	u= 11.7959	v= 37.5010	vr=
36.54987	vt= 14.47685					
i= 256	j= 214	glon= 136.79	glat= 13.57	u= 4.2170	v= 31.0350	vr=
23.65965	vt= 20.52255					
i= 258	j= 214	glon= 137.13	glat= 13.57	u= -4.4883	v= 30.5814	vr=
13.54478	vt= 27.78320					
i= 238	j= 216	glon= 133.69	glat= 13.24	u= 10.5730	v= -22.6621	vr= -
17.88295	vt= 17.48018					
i= 240	j= 216	glon= 134.03	glat= 13.24	u= 15.4751	v= -23.8940	vr= -
24.05989	vt= 15.21581					
i= 242	j= 216	glon= 134.37	glat= 13.24	u= 26.9728	v= -25.5333	vr= -
36.22818	vt= 8.18541					
i= 244	j= 216	glon= 134.72	glat= 13.24	u= 32.3687	v= -24.7666	vr= -
40.72292	vt= -1.66229					
i= 246	j= 216	glon= 135.06	glat= 13.24	u= 44.7377	v= -17.0836	vr= -
40.01734	vt= -26.30444					
i= 248	j= 216	glon= 135.41	glat= 13.24	u= 45.1271	v= 10.4221	vr=
-0.38217	vt= -46.31341					
i= 250	j= 216	glon= 135.75	glat= 13.24	u= 42.2218	v= 20.5339	vr=
29.80864	vt= -36.27349					
i= 252	j= 216	glon= 136.10	glat= 13.24	u= 26.5561	v= 25.4449	vr=
36.16712	vt= -6.67899					
i= 254	j= 216	glon= 136.44	glat= 13.24	u= 17.0036	v= 27.6025	vr=
30.72752	vt= 10.33619					
i= 256	j= 216	glon= 136.79	glat= 13.24	u= 10.7118	v= 27.3945	vr=
23.19934	vt= 18.08289					
i= 258	j= 216	glon= 137.13	glat= 13.24	u= 1.8591	v= 31.1449	vr=
14.73368	vt= 27.50238					
i= 260	j= 216	glon= 137.48	glat= 13.24	u= -1.9339	v= 26.7998	vr=
7.64003	vt= 25.76043					
i= 238	j= 218	glon= 133.69	glat= 12.90	u= 11.8381	v= -20.2538	vr= -
15.49913	vt= 17.61064					
i= 240	j= 218	glon= 134.03	glat= 12.90	u= 17.4191	v= -19.5322	vr= -
21.48888	vt= 14.93855					
i= 242	j= 218	glon= 134.37	glat= 12.90	u= 22.3736	v= -18.1442	vr= -
26.72867	vt= 10.74103					
i= 244	j= 218	glon= 134.72	glat= 12.90	u= 29.2462	v= -13.6712	vr= -
32.27023	vt= 0.93591					
i= 246	j= 218	glon= 135.06	glat= 12.90	u= 32.8942	v= -5.8655	vr= -
30.10473	vt= -14.49616					
i= 248	j= 218	glon= 135.41	glat= 12.90	u= 35.4494	v= 1.0085	vr= -
13.94279	vt= -32.60794					
i= 250	j= 218	glon= 135.75	glat= 12.90	u= 33.1712	v= 9.3953	vr=
22.43364	vt= -26.17884					

i= 252	j= 218	glon= 136.10	glat= 12.90	u= 24.1984	v= 16.4876	vr=
29.27043	vt= -0.80457					
i= 254	j= 218	glon= 136.44	glat= 12.90	u= 17.9976	v= 21.3625	vr=
25.00237	vt= 12.45603					
i= 256	j= 218	glon= 136.79	glat= 12.90	u= 12.2245	v= 22.3700	vr=
18.27878	vt= 17.76913					
i= 258	j= 218	glon= 137.13	glat= 12.90	u= 3.2589	v= 25.0041	vr=
8.98996	vt= 23.55858					
i= 260	j= 218	glon= 137.48	glat= 12.90	u= 0.8263	v= 25.5282	vr=
5.70309	vt= 24.89673					
i= 238	j= 220	glon= 133.69	glat= 12.56	u= 11.9512	v= -18.8500	vr= -
12.19486	vt= 18.69335					
i= 240	j= 220	glon= 134.03	glat= 12.56	u= 16.0626	v= -18.3436	vr= -
16.40046	vt= 18.04218					
i= 242	j= 220	glon= 134.37	glat= 12.56	u= 21.5403	v= -15.3495	vr= -
21.84880	vt= 14.90708					
i= 244	j= 220	glon= 134.72	glat= 12.56	u= 26.5871	v= -11.8398	vr= -
26.91419	vt= 11.07610					
i= 246	j= 220	glon= 135.06	glat= 12.56	u= 29.5956	v= -7.3461	vr= -
29.95833	vt= 5.68895					
i= 248	j= 220	glon= 135.41	glat= 12.56	u= 29.7194	v= -0.2032	vr= -
29.34466	vt= -4.70900					
i= 250	j= 220	glon= 135.75	glat= 12.56	u= 26.7054	v= 6.7590	vr=
27.45506	vt= 2.25461					
i= 252	j= 220	glon= 136.10	glat= 12.56	u= 21.7761	v= 12.7021	vr=
22.44921	vt= 11.47049					
i= 254	j= 220	glon= 136.44	glat= 12.56	u= 17.9657	v= 16.7604	vr=
18.51582	vt= 16.15057					
i= 256	j= 220	glon= 136.79	glat= 12.56	u= 11.2340	v= 21.6301	vr=
11.74729	vt= 21.35569					
i= 258	j= 220	glon= 137.13	glat= 12.56	u= 7.2796	v= 22.7942	vr=
7.64030	vt= 22.67586					
i= 260	j= 220	glon= 137.48	glat= 12.56	u= 4.1956	v= 21.6993	vr=
4.47690	vt= 21.64305					
i= 238	j= 222	glon= 133.69	glat= 12.23	u= 15.1737	v= -13.5773	vr= -
12.71246	vt= 15.90521					
i= 240	j= 222	glon= 134.03	glat= 12.23	u= 14.5829	v= -13.6809	vr= -
11.54030	vt= 16.32943					
i= 242	j= 222	glon= 134.37	glat= 12.23	u= 19.8585	v= -11.6322	vr= -
16.25268	vt= 16.29473					
i= 244	j= 222	glon= 134.72	glat= 12.23	u= 23.4292	v= -8.7947	vr= -
18.96630	vt= 16.32643					
i= 246	j= 222	glon= 135.06	glat= 12.23	u= 25.0408	v= -5.4582	vr= -
18.52380	vt= 17.71165					
i= 248	j= 222	glon= 135.41	glat= 12.23	u= 23.6831	v= -0.5817	vr= -
10.81598	vt= 21.07700					
i= 250	j= 222	glon= 135.75	glat= 12.23	u= 21.6563	v= 5.6028	vr=
5.43711	vt= 21.69851					
i= 252	j= 222	glon= 136.10	glat= 12.23	u= 20.0600	v= 9.9061	vr=
11.94820	vt= 18.91494					
i= 254	j= 222	glon= 136.44	glat= 12.23	u= 17.2729	v= 16.0743	vr=
10.67557	vt= 21.04206					
i= 256	j= 222	glon= 136.79	glat= 12.23	u= 12.6610	v= 18.8567	vr=
7.45405	vt= 21.45495					
i= 258	j= 222	glon= 137.13	glat= 12.23	u= 9.7528	v= 18.5629	vr=
5.82751	vt= 20.14294					
i= 260	j= 222	glon= 137.48	glat= 12.23	u= 8.3741	v= 17.8275	vr=
5.30135	vt= 18.96942					
i= 238	j= 224	glon= 133.69	glat= 11.89	u= 15.2864	v= -8.3085	vr= -
11.68056	vt= 12.89458					

i= 240	j= 224	glon= 134.03	glat= 11.89	u= 18.0779	v= -6.9542	vr= -
13.88920	vt= 13.50038					
i= 242	j= 224	glon= 134.37	glat= 11.89	u= 20.3108	v= -7.0128	vr= -
14.43263	vt= 15.91883					
i= 244	j= 224	glon= 134.72	glat= 11.89	u= 24.7521	v= -4.1396	vr= -
17.11589	vt= 18.35346					
i= 246	j= 224	glon= 135.06	glat= 11.89	u= 23.8974	v= -1.7664	vr= -
13.33340	vt= 19.91051					
i= 248	j= 224	glon= 135.41	glat= 11.89	u= 22.0874	v= 3.0857	vr=
-8.56261	vt= 20.59265					
i= 250	j= 224	glon= 135.75	glat= 11.89	u= 21.6898	v= 8.4236	vr=
-2.67417	vt= 23.11393					
i= 252	j= 224	glon= 136.10	glat= 11.89	u= 19.4153	v= 11.5340	vr=
2.87021	vt= 22.39974					
i= 254	j= 224	glon= 136.44	glat= 11.89	u= 17.0648	v= 13.6521	vr=
5.22041	vt= 21.22108					
i= 256	j= 224	glon= 136.79	glat= 11.89	u= 14.1153	v= 14.8698	vr=
5.21648	vt= 19.82775					
i= 258	j= 224	glon= 137.13	glat= 11.89	u= 11.9554	v= 14.5639	vr=
5.26793	vt= 18.09105					
i= 260	j= 224	glon= 137.48	glat= 11.89	u= 10.7144	v= 13.9438	vr=
5.50121	vt= 16.70221					
i= 240	j= 226	glon= 134.03	glat= 11.55	u= 17.1814	v= -6.6711	vr= -
10.77014	vt= 14.95681					
i= 242	j= 226	glon= 134.37	glat= 11.55	u= 19.9113	v= -5.1274	vr= -
11.99849	vt= 16.69686					
i= 244	j= 226	glon= 134.72	glat= 11.55	u= 21.8098	v= -2.0960	vr= -
12.59237	vt= 17.93016					
i= 246	j= 226	glon= 135.06	glat= 11.55	u= 21.9819	v= 2.1445	vr= -
11.95412	vt= 18.57158					
i= 248	j= 226	glon= 135.41	glat= 11.55	u= 20.2113	v= 5.2616	vr=
-8.59459	vt= 19.03454					
i= 250	j= 226	glon= 135.75	glat= 11.55	u= 19.2100	v= 7.7254	vr=
-4.37526	vt= 20.23766					
i= 252	j= 226	glon= 136.10	glat= 11.55	u= 17.9055	v= 9.7454	vr=
-0.48843	vt= 20.37990					
i= 254	j= 226	glon= 136.44	glat= 11.55	u= 16.1566	v= 11.1416	vr=
2.03924	vt= 19.51952					
i= 256	j= 226	glon= 136.79	glat= 11.55	u= 14.8281	v= 11.6054	vr=
3.94129	vt= 18.41255					
i= 258	j= 226	glon= 137.13	glat= 11.55	u= 13.6014	v= 11.5444	vr=
5.11112	vt= 17.09227					
i= 240	j= 228	glon= 134.03	glat= 11.22	u= 16.2749	v= -4.2123	vr=
-9.49306	vt= 13.87430					
i= 242	j= 228	glon= 134.37	glat= 11.22	u= 17.4153	v= -2.4827	vr=
-9.73957	vt= 14.64920					
i= 244	j= 228	glon= 134.72	glat= 11.22	u= 18.3623	v= -0.2605	vr=
-9.65059	vt= 15.62390					
i= 246	j= 228	glon= 135.06	glat= 11.22	u= 18.3767	v= 2.3629	vr=
-8.77460	vt= 16.31847					
i= 248	j= 228	glon= 135.41	glat= 11.22	u= 18.3575	v= 4.2092	vr=
-6.50136	vt= 17.67619					
i= 250	j= 228	glon= 135.75	glat= 11.22	u= 18.1568	v= 5.6675	vr=
-3.32113	vt= 18.72858					
i= 252	j= 228	glon= 136.10	glat= 11.22	u= 17.2815	v= 6.8302	vr=
-0.20742	vt= 18.58115					
i= 254	j= 228	glon= 136.44	glat= 11.22	u= 16.5483	v= 7.6447	vr=
2.44502	vt= 18.06406					
i= 256	j= 228	glon= 136.79	glat= 11.22	u= 15.9838	v= 8.4861	vr=
4.30284	vt= 17.57789					

i= 258 j= 228 glon= 137.13 glat= 11.22 u= 13.8839 v= 10.0414 vr= 3.85698 vt= 16.69479

In is_it_a_storm, average 850 tangential winds are OKAY (>= + 1.500000 m/s for a NH storm).
Avg 850 tangential winds = 12.42662 m/s

Distance between the parm centers for 850 zeta and mslp is 33.21474 (km)

The average speed that the storm moved at since the previous forecast time is 7.022626 knots.

In get_max_wind, ibeg= 230 iend= 265
 jbeg= 179 jend= 214
 ilonfix= 248 jlatfix= 196
At end of get_max_wind, vmax= 47.08568 rmax= 75.31076

AT BEGINNING OF GETRADII, input radmax= 500.0000

xcenlon= 135.2992 xcenlat= 13.23172
imax= 409 jmax= 349 dx= 0.1722946 dy= 0.1621475

In getradii, ibeg= 220 iend= 275
 jbeg= 168 jend= 225
 ilonfix= 248 jlatfix= 196
in getradii, numalloc= 3305 radmax= 500.0000

After loop, quadct(1)= 582 quadct(2)= 234
 quadct(3)= 237 quadct(4)= 589

quadmax: 26W 004 NE lon: 135.75E lat: 14.41 radius: 75.31 nm
vmag: 91.47 kts
quadmax: 26W 004 SE lon: 135.41E lat: 13.07 radius: 11.75 nm
vmag: 58.52 kts
quadmax: 26W 004 SW lon: 135.24E lat: 13.07 radius: 10.48 nm
vmag: 58.74 kts
quadmax: 26W 004 NW lon: 135.06E lat: 14.41 radius: 71.82 nm
vmag: 89.39 kts

---> R34 search underway for quadrant 1 radmax= 500.0000

dtemp(isortix(quadct(k)))= 499.711273193359
isortix(1) = 556
isortix(quadct(k)) = 2
iwindix= 1 exactdistnm = 198.1625
vradius(iwindix,k) = 198
iwindix= 2 exactdistnm = 133.0618
vradius(iwindix,k) = 133
iwindix= 3 exactdistnm = 111.7051
vradius(iwindix,k) = 112

---> R34 search underway for quadrant 2 radmax= 500.0000

dtemp(isortix(quadct(k)))= 498.439849853516
isortix(1) = 1


```

isortix(quadct(k)) =          54
iwindix=          1 exactdistnm =    137.7093
vradius(iwindix,k) =          138
iwindix=          2 exactdistnm =    29.03427
vradius(iwindix,k) =          29
---> R34 search underway for quadrant          3 radmax=    500.0000

```

```

dtemp(isortix(quadct(k)))=    497.919708251953
isortix(1) =          27
isortix(quadct(k)) =          82
iwindix=          1 exactdistnm =    85.53847
vradius(iwindix,k) =          86
iwindix=          2 exactdistnm =    36.14424
vradius(iwindix,k) =          36
---> R34 search underway for quadrant          4 radmax=    500.0000

```

```

dtemp(isortix(quadct(k)))=    499.706390380859
isortix(1) =          589
isortix(quadct(k)) =          181
iwindix=          1 exactdistnm =    181.7149
vradius(iwindix,k) =          182
iwindix=          2 exactdistnm =    121.5188
vradius(iwindix,k) =          122
iwindix=          3 exactdistnm =    101.4979
vradius(iwindix,k) =          101

```

After call to fixcenter, fix positions at
forecast hour= 4:00 follow:

```

fixpos 26W fhr= 4:00 Fix position= 135.30E (224.70W) 13.23
Max Wind= 91 kts

```

```

TTT top of atcfunix, ist=          1 ifh=          4

```

```

in output_atcfunix, tcv_storm_id= 26W
in output_atcfunix, tcv_storm_id(3:3)= W
output: rlastbar= 1.5382053E-41 irlastbar=          -99
output: plastbar= 27695.30      iplastbar=          -99
rmax= 75.31076      irmax=          75

```

Beginning of get_ij_bounds...

```

geslat= 13.23172      geslon= 135.2992

```

```

+++ Near top of get_ij_bounds,
+++ geslat= 13.23172      geslon= 135.2992
+++ rglatmax= 44.92863      rglatmin= -9.516106
+++ rglonmax= 163.1479      rglonmin= 92.85205
+++ imax= 409      jmax= 349
+++ dx= 0.1722946      dy= 0.1621475      nhalf= 0
+++ npts= 54
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 110
+++ jlatfix= 196
+++ jbeg= 86      jend= 306
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 110      dx= 0.1722946      dy= 0.1621475
+++ (orig) ilonfix= 248
+++ (orig) ibeg= 138      iend= 358
+++

```

--- barnlon= 224.76W barnlat= 13.26
--- extraplon= 224.81W extraplat= 13.19

```
-----  
| Current fix & updated fix positions |  
-----  
| In get_next_ges, current fcst hour = 4.000000  
| current storm number = 1  
| Return code from get_next_ges = 0  
| Storm Name = MANGKHUT  
| Storm ID = 26W  
| Gen ID (if available): 2018091200_F000_139N_1362E_26W  
| Current fix lat is 13.23  
| Current fix lon is 224.70W (135.30E)  
| Updated guess lat for next fcst hour is 13.23  
| Updated guess lon for next fcst hour is 224.79W (135.21E)  
-----
```

```
iocheck, dist= 9.588260 distm= 9588.260  
iocheck, stmspd= 2.663405 istmspd= 27  
iocheck, xincr= -8.8470459E-02 yincr= -4.4517517E-03  
iocheck, stmdir= 267.1194 istmdir= 267  
+++ RPT_STORM_MOTION: istmspd= 27 istmdir= 267 rcc= 0
```

Beginning of get_ij_bounds...
geslat= 13.23172 geslon= 135.2992

```
+++ Near top of get_ij_bounds,  
+++ geslat= 13.23172 geslon= 135.2992  
+++ rglatmax= 44.92863 rglatmin= -9.516106  
+++ rglonmax= 163.1479 rglonmin= 92.85205  
+++ imax= 409 jmax= 349  
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0  
+++ npts= 142741  
+++ nhalf<=0 so jhlatpts and jripts unused  
+++ jbmaxlatpts= 285484  
+++ jlatfix= 196  
+++ jbeg= 1 jend= 349  
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused  
+++ ibmaxlonpts= 142797 dx= 0.1722946 dy= 0.1621475  
+++ (orig) ilonfix= 248  
+++ (orig) ibeg= -142549 iend= 143045  
+++
```

```
#-----#  
# Entering loop to determine the mean and gridpoint #  
# max zeta values at 850 and 700 mb for the purpose #  
# of reporting them on the modified atcfunix file. #  
#-----#
```

```
--- In get_zeta_values, ist= 1 ifh= 5  
Fix location for this time: 135.30E (224.70W) 13.23  
ilonfix= 248 jlatfix= 196
```

```
At beg of find_maxmin, rads= 200.0000 re= 75.00000 ri=  
150.0000 cparm= zeta dx= 0.1722946 dy= 0.1621475
```

Beginning of get_ij_bounds...

geslat= 13.23172 geslon= 135.2992

```
+++ Near top of get_ij_bounds,
+++ geslat= 13.23172 geslon= 135.2992
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 22
+++ jlatfix= 196
+++ jbeg= 174 jend= 218
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 21 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 248
+++ (orig) ibeg= 227 iend= 269
+++
```

```
guesslon= 135.299E ( 224.701W) guesslat= 13.232
ilonfix= 248 jlatfix= 196 npts= 10
ibeg= 227 jbeg= 174 imax= 409
iend= 269 jend= 218 jmax= 349
TIMING: find_maxmin 1 14:39:34
```

```
After 1st findmax loop, # calls to barnes = 24
Total # of barnes loop iterations = 3168
!!! Zeta check, fmax= 1.1402628E-03 fmin= 1.0000000E+12
After first run, ctlon= 225.035W ctlat= 14.235 fmax (x10e5) =
0.114E+03 fmin (x10e5) = 0.100E+18
```

```
Beginning of get_ij_bounds...
geslat= 14.23505 geslon= 134.9647
```

```
+++ Near top of get_ij_bounds,
+++ geslat= 14.23505 geslon= 134.9647
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 2
+++ npts= 5
+++ jhlatpts= 5 jripts= 9
+++ jbmaxlatpts= 14
+++ jlatfix= 190
+++ jbeg= 176 jend= 204
+++ rdeg= 0.6270790 ri= 150.0000 cosfac= 0.9692951
+++ dtr= 1.7453292E-02 dtk= 111.1949 dlon= 1.391715
+++ ibmaxlonpts= 16 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 246
+++ (orig) ibeg= 230 iend= 262
+++
```

```
After first pass through barnes, re and ri have NOT
been changed. re = 75.00000 ri = 150.0000
TIMING: find_maxmin kloop, k= 1 14:39:34
```

```
find_maxmin nhalf loop, cparm= zeta k= 1
guesslon= 134.965E ( 225.035W) guesslat= 14.235
```

```
ilonfix=          246  jlatfix=          190  npts=          5
ibeg=            230  jbeg=            176  imax=          409
iend=            262  jend=            204  jmax=          349
nhalf=           2   iskip=           2
nhalf findmax, k= 1  ctlon= 224.617W  ctlat= 13.984  fmax (x10e5) =
0.116E+02  fmin (x10e5) =          0.100E+21
TIMING: find_maxmin kloop, k= 2   14:39:34
```

```
find_maxmin nhalf loop, cparm= zeta k=          2
guesslon= 135.383E ( 224.617W)  guesslat= 13.984
ilonfix=          246  jlatfix=          190  npts=          5
ibeg=            230  jbeg=            176  imax=          409
iend=            262  jend=            204  jmax=          349
nhalf=           2   iskip=           2
nhalf findmax, k= 2  ctlon= 224.408W  ctlat= 13.942  fmax (x10e5) =
0.184E+02  fmin (x10e5) =          0.100E+21
```

```
ppp after 2nd findmax loop, # calls to barnes =          72
ppp Total # of barnes loop iterations =          18360
+++ RPT_MEAN_ZETA: n= 1 lev= 850 xmeanzeta= 0.000184  imeanzeta
(*1e6)=          184
--- mean zeta raw = 1.8367622E-04
+++ RPT_GRID_ZETA: n= 1 lev= 850 grid zeta= 0.000079  igrd zeta
(*1e6)=          79  ifilret= 0
--- grid zeta raw= 7.9174119E-05
```

```
At beg of find_maxmin, rads= 200.0000      re= 75.00000      ri=
150.0000      cparm= zeta dx= 0.1722946      dy= 0.1621475
```

```
Beginning of get_ij_bounds...
geslat= 13.23172      geslon= 135.2992
```

```
+++ Near top of get_ij_bounds,
+++ geslat= 13.23172      geslon= 135.2992
+++ rglatmax= 44.92863      rglatmin= -9.516106
+++ rglonmax= 163.1479      rglonmin= 92.85205
+++ imax= 409      jmax= 349
+++ dx= 0.1722946      dy= 0.1621475      nhalf= 0
+++ npts= 10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 22
+++ jlatfix= 196
+++ jbeg= 174      jend= 218
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 21      dx= 0.1722946      dy= 0.1621475
+++ (orig) ilonfix= 248
+++ (orig) ibeg= 227      iend= 269
+++
```

```
guesslon= 135.299E ( 224.701W)  guesslat= 13.232
ilonfix=          248  jlatfix=          196  npts=          10
ibeg=            227  jbeg=            174  imax=          409
iend=            269  jend=            218  jmax=          349
TIMING: find_maxmin 1  14:39:34
```

```
After 1st findmax loop, # calls to barnes =          24
Total # of barnes loop iterations =          3168
!!! Zeta check, fmax= 8.3638489E-04  fmin= 1.0000000E+12
```

After first run, ctlon= 224.366W ctlat= 14.235 fmax (x10e5) =
0.836E+02 fmin (x10e5) = 0.100E+18

Beginning of get_ij_bounds...

geslat= 14.23505 geslon= 135.6336

```
+++ Near top of get_ij_bounds,
+++ geslat= 14.23505 geslon= 135.6336
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 2
+++ npts= 5
+++ jhlatpts= 5 jripts= 9
+++ jbmaxlatpts= 14
+++ jlatfix= 190
+++ jbeg= 176 jend= 204
+++ rdeg= 0.6270790 ri= 150.0000 cosfac= 0.9692951
+++ dtr= 1.7453292E-02 dtk= 111.1949 dlon= 1.391715
+++ ibmaxlonpts= 16 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 250
+++ (orig) ibeg= 234 iend= 266
+++
```

After first pass through barnes, re and ri have NOT
been changed. re = 75.00000 ri = 150.0000
TIMING: find_maxmin kloop, k= 1 14:39:34

```
find_maxmin nhalf loop, cparm= zeta k= 1
guesslon= 135.634E ( 224.366W) guesslat= 14.235
ilonfix= 250 jlatfix= 190 npts= 5
ibeg= 234 jbeg= 176 imax= 409
iend= 266 jend= 204 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 1 ctlon= 223.948W ctlat= 13.984 fmax (x10e5) =
0.223E+02 fmin (x10e5) = 0.100E+21
TIMING: find_maxmin kloop, k= 2 14:39:34
```

```
find_maxmin nhalf loop, cparm= zeta k= 2
guesslon= 136.052E ( 223.948W) guesslat= 13.984
ilonfix= 250 jlatfix= 190 npts= 5
ibeg= 234 jbeg= 176 imax= 409
iend= 266 jend= 204 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 2 ctlon= 224.157W ctlat= 13.942 fmax (x10e5) =
0.228E+02 fmin (x10e5) = 0.100E+21
```

```
ppp after 2nd findmax loop, # calls to barnes = 72
ppp Total # of barnes loop iterations = 18360
+++ RPT_MEAN_ZETA: n= 2 lev= 700 xmeanzeta= 0.000228 imeanzeta
(*1e6)= 228
--- mean zeta raw = 2.2753174E-04
+++ RPT_GRID_ZETA: n= 2 lev= 700 grid zeta= 0.000196 igrid zeta
(*1e6)= 196 ifilret= 0
--- grid zeta raw= 1.9590436E-04
```

```
#-----#
# End of loop to get 850 & 700 zeta for atcf file. #
#-----#
```

+++ Top of output_atcf_sink, ist= 1 ifh= 4

Beginning of get_ij_bounds...

geslat= 13.23172 geslon= 135.2992

+++ Near top of get_ij_bounds,

+++ geslat= 13.23172 geslon= 135.2992

+++ rglatmax= 44.92863 rglatmin= -9.516106

+++ rglonmax= 163.1479 rglonmin= 92.85205

+++ imax= 409 jmax= 349

+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0

+++ npts= 54

+++ nhalf<=0 so jhlatpts and jripts unused

+++ jbmaxlatpts= 110

+++ jlatfix= 196

+++ jbeg= 86 jend= 306

+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused

+++ ibmaxlonpts= 110 dx= 0.1722946 dy= 0.1621475

+++ (orig) ilonfix= 248

+++ (orig) ibeg= 138 iend= 358

+++

--- barnlon= 224.76W barnlat= 13.26

--- extraplon= 224.81W extraplat= 13.19

| Current fix & updated fix positions |

| In get_next_ges, current fcst hour = 4.000000

| current storm number = 1

| Return code from get_next_ges = 0

| Storm Name = MANGKHUT

| Storm ID = 26W

| Gen ID (if available): 2018091200_F000_139N_1362E_26W

| Current fix lat is 13.23

| Current fix lon is 224.70W (135.30E)

| Updated guess lat for next fcst hour is 13.23

| Updated guess lon for next fcst hour is 224.79W (135.21E)

iocheck, dist= 9.588260 distm= 9588.260

iocheck, stmspd= 2.663405 istmspd= 27

iocheck, xincr= -8.8470459E-02 yincr= -4.4517517E-03

iocheck, stmdir= 267.1194 istmdir= 267

* New forecast hour: 5:00

in getgridinfo_netcdf, ncfile_id= 65536

In getgridinfo, grid dimensions follow:

imax= 409 jmax= 349

dx= 0.1722946 dy= 0.1621475

DX: midi= 204 dx= 0.1723

DY: midj= 174 dy= 0.1621

Data Grid Lat/Lon boundaries follow:

Min Lat: -9.516 Min Lon: 92.852
Max Lat: 44.929 Max Lon: 163.148
TEST after getgridinfo in sub tracker, iggret= 0
in beginning of tracker, imax= 409 jmax= 349
TIMING: b4 getdata ... 14:39:34

NOTE: Program is now in subroutine getdata_netcdf.
+++ Time match in getdata_netcdf for usertime= 300
netcdf file index= ncix= 6
+++ NetCDF read requested for parm # 1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh= 6
ltix(ifh)= 6

After read, parm= ABS_VORTICITY_850 ifh= 6
lead time index= 6 parm# (ip) = 1 ncix= 6
igvret= 0
parmread lead time parm# parm_id minval maxval
5:00 1 ABS_VORTICITY_850 -
0.4145E-03 0.3220E-02

+++ NetCDF read requested for parm # 2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh= 6
ltix(ifh)= 6

After read, parm= ABS_VORTICITY_700 ifh= 6
lead time index= 6 parm# (ip) = 2 ncix= 6
igvret= 0
parmread lead time parm# parm_id minval maxval
5:00 2 ABS_VORTICITY_700 -
0.3818E-03 0.2476E-02

+++ NetCDF read requested for parm # 3 ... parm=
U_850

In get_var3_tlev_double, ifh= 6
ltix(ifh)= 6

After read, parm= U_850 ifh= 6
lead time index= 6 parm# (ip) = 3 ncix= 6
igvret= 0
parmread lead time parm# parm_id minval maxval
5:00 3 U_850 -
73.57 0.1000E+21

+++ NetCDF read requested for parm # 4 ... parm=
V_850

In get_var3_tlev_double, ifh= 6
ltix(ifh)= 6

After read, parm= V_850 ifh= 6
lead time index= 6 parm# (ip) = 4 ncix= 6
igvret= 0
parmread lead time parm# parm_id minval maxval

```

5:00          4          V_850          -
68.61      0.1000E+21
+++ NetCDF read requested for parm #          5 ... parm=
U_700

In get_var3_tlev_double, ifh=          6
                        ltix(ifh)=          6

After read, parm= U_700          ifh=          6
lead time index=          6 parm# (ip) =          5 ncix=
6
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
5:00          5          U_700          -
64.00      0.1000E+21
+++ NetCDF read requested for parm #          6 ... parm=
V_700

In get_var3_tlev_double, ifh=          6
                        ltix(ifh)=          6

After read, parm= V_700          ifh=          6
lead time index=          6 parm# (ip) =          6 ncix=
6
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
5:00          6          V_700          -
61.77      0.1000E+21
+++ NetCDF read requested for parm #          7 ... parm=
Z_850

In get_var3_tlev_double, ifh=          6
                        ltix(ifh)=          6

After read, parm= Z_850          ifh=          6
lead time index=          6 parm# (ip) =          7 ncix=
6
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
5:00          7          Z_850          -
924.9      0.1000E+21
+++ NetCDF read requested for parm #          8 ... parm=
Z_700

In get_var3_tlev_double, ifh=          6
                        ltix(ifh)=          6

After read, parm= Z_700          ifh=          6
lead time index=          6 parm# (ip) =          8 ncix=
6
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
5:00          8          Z_700          -
2611.      0.1000E+21
+++ NetCDF read requested for parm #          9 ... parm=
slp

In get_var3_tlev_double, ifh=          6
                        ltix(ifh)=          6

```



```

After read, parm= slp                      ifh= 6
lead time index= 6 parm# (ip) = 9 ncix=
6
  igvret= 0
parmread lead time  parm#  parm_id  minval  maxval
  5:00              9      slp
0.9439E+05  0.1026E+06
+++ NetCDF read requested for parm # 10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh= 6
                        ltix(ifh)= 6

After read, parm= u_10m_gr                  ifh= 6
lead time index= 6 parm# (ip) = 10 ncix=
6
  igvret= 0
parmread lead time  parm#  parm_id  minval  maxval
  5:00              10      u_10m_gr
43.44          41.79
+++ NetCDF read requested for parm # 11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh= 6
                        ltix(ifh)= 6

After read, parm= v_10m_gr                  ifh= 6
lead time index= 6 parm# (ip) = 11 ncix=
6
  igvret= 0
parmread lead time  parm#  parm_id  minval  maxval
  5:00              11      v_10m_gr
44.22          43.70
+++ NetCDF read requested for parm # 12 ... parm=
U_500

In get_var3_tlev_double, ifh= 6
                        ltix(ifh)= 6

After read, parm= U_500                     ifh= 6
lead time index= 6 parm# (ip) = 12 ncix=
6
  igvret= 0
parmread lead time  parm#  parm_id  minval  maxval
  5:00              12      U_500
56.59          42.15
+++ NetCDF read requested for parm # 13 ... parm=
V_500

In get_var3_tlev_double, ifh= 6
                        ltix(ifh)= 6

After read, parm= V_500                     ifh= 6
lead time index= 6 parm# (ip) = 13 ncix=
6
  igvret= 0
parmread lead time  parm#  parm_id  minval  maxval
  5:00              13      V_500
47.15          47.12
!!! NetCDF read NOT requested for parm # 14

```

```

+++ NetCDF read requested for parm #          15 ... parm=
Z_500

In get_var3_tlev_double, ifh=                6
                        ltix(ifh)=          6

After read, parm= Z_500                      ifh=                6
lead time index=          6 parm# (ip) =      15 ncix=
6
  igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
   5:00                15          Z_500
5430.                  5917.
+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=                6
                        ltix(ifh)=          6

After read, parm= Z_200                      ifh=                6
lead time index=          6 parm# (ip) =      16 ncix=
6
  igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
   5:00                16          Z_200
0.1188E+05  0.1254E+05
!!! NetCDF read NOT requested for parm #      17
TIMING: after getdata ... 14:39:34

Of          17 readable parms, you read in      15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =      38316.57      dlat_inter =
36059.95
-----
|          *** TOP OF STORM LOOP ***
| Beginning of storm loop in tracker for
| Storm number          1
| Forecast hour:       5:00
| Storm name = MANGKHUT
| Storm ID   = 26W
| Gen ID (if available): 2018091200_F000_139N_1362E_26W
-----

---      ---      ---
Now calling find_maxmin for zeta at 850 mb

At beg of find_maxmin, rads=      200.0000      re=      75.00000      ri=
150.0000      cparm= zeta dx=      0.1722946      dy=      0.1621475

Beginning of get_ij_bounds...
geslat=      13.22727      geslon=      135.2107

+++ Near top of get_ij_bounds,
+++ geslat=      13.22727      geslon=      135.2107
+++ rglatmax=      44.92863      rglatmin=      -9.516106
+++ rglonmax=      163.1479      rglonmin=      92.85205
+++ imax=          409      jmax=          349
+++ dx=      0.1722946      dy=      0.1621475      nhalf=          0

```

```

+++ npts= 10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 22
+++ jlatfix= 196
+++ jbeg= 174 jend= 218
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 21 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 247
+++ (orig) ibeg= 226 iend= 268
+++

```

```

guesslon= 135.211E ( 224.789W) guesslat= 13.227
ilonfix= 247 jlatfix= 196 npts= 10
ibeg= 226 jbeg= 174 imax= 409
iend= 268 jend= 218 jmax= 349
TIMING: find_maxmin 1 14:39:34

```

```

After 1st findmax loop, # calls to barnes = 24
Total # of barnes loop iterations = 3168
!!! Zeta check, fmax= 1.0180720E-03 fmin= 1.0000000E+12
After first run, ctlon= 225.124W ctlat= 14.231 fmax (x10e5) =
0.102E+03 fmin (x10e5) = 0.100E+18

```

```

Beginning of get_ij_bounds...
geslat= 14.23059 geslon= 134.8763

```

```

+++ Near top of get_ij_bounds,
+++ geslat= 14.23059 geslon= 134.8763
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 2
+++ npts= 5
+++ jhlatpts= 5 jripts= 9
+++ jbmaxlatpts= 14
+++ jlatfix= 190
+++ jbeg= 176 jend= 204
+++ rdeg= 0.6270790 ri= 150.0000 cosfac= 0.9693142
+++ dtr= 1.7453292E-02 dtk= 111.1949 dlon= 1.391688
+++ ibmaxlonpts= 16 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 245
+++ (orig) ibeg= 229 iend= 261
+++

```

```

After first pass through barnes, re and ri have NOT
been changed. re = 75.00000 ri = 150.0000
TIMING: find_maxmin kloop, k= 1 14:39:34

```

```

find_maxmin nhalf loop, cparm= zeta k= 1
guesslon= 134.876E ( 225.124W) guesslat= 14.231
ilonfix= 245 jlatfix= 190 npts= 5
ibeg= 229 jbeg= 176 imax= 409
iend= 261 jend= 204 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 1 ctlon= 224.873W ctlat= 13.980 fmax (x10e5) =
0.256E+02 fmin (x10e5) = 0.100E+21
TIMING: find_maxmin kloop, k= 2 14:39:34

```

```

find_maxmin nhalf loop, cparm= zeta k= 2

```

```
guesslon= 135.127E ( 224.873W)   guesslat= 13.980
ilonfix=      245   jlatfix=      190   npts=      5
ibeg=      229   jbeg=      176   imax=      409
iend=      261   jend=      204   jmax=      349
nhalf=      2   iskip=      2
nhalf findmax, k= 2   ctlon= 224.831W   ctlat= 14.022   fmax (x10e5) =
0.256E+02   fmin (x10e5) =      0.100E+21
```

```
ppp after 2nd findmax loop, # calls to barnes =      72
ppp Total # of barnes loop iterations =      18360
```

```
---   ---   ---
Now calling find_maxmin for zeta at 700 mb
```

```
At beg of find_maxmin, rads=      200.0000   re=      75.00000   ri=
150.0000   cparm= zeta   dx=      0.1722946   dy=      0.1621475
```

```
Beginning of get_ij_bounds...
geslat=      13.22727   geslon=      135.2107
```

```
+++ Near top of get_ij_bounds,
+++ geslat=      13.22727   geslon=      135.2107
+++ rglatmax=      44.92863   rglatmin=      -9.516106
+++ rglonmax=      163.1479   rglonmin=      92.85205
+++ imax=      409   jmax=      349
+++ dx=      0.1722946   dy=      0.1621475   nhalf=      0
+++ npts=      10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts=      22
+++ jlatfix=      196
+++ jbeg=      174   jend=      218
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts=      21   dx=      0.1722946   dy=      0.1621475
+++ (orig) ilonfix=      247
+++ (orig) ibeg=      226   iend=      268
+++
```

```
guesslon= 135.211E ( 224.789W)   guesslat= 13.227
ilonfix=      247   jlatfix=      196   npts=      10
ibeg=      226   jbeg=      174   imax=      409
iend=      268   jend=      218   jmax=      349
TIMING: find_maxmin 1 14:39:34
```

```
After 1st findmax loop, # calls to barnes =      24
Total # of barnes loop iterations =      3168
!!! Zeta check, fmax= 8.2913926E-04   fmin= 1.0000000E+12
After first run, ctlon= 224.455W   ctlat= 14.231   fmax (x10e5) =
0.829E+02   fmin (x10e5) =      0.100E+18
```

```
Beginning of get_ij_bounds...
geslat=      14.23059   geslon=      135.5451
```

```
+++ Near top of get_ij_bounds,
+++ geslat=      14.23059   geslon=      135.5451
+++ rglatmax=      44.92863   rglatmin=      -9.516106
+++ rglonmax=      163.1479   rglonmin=      92.85205
+++ imax=      409   jmax=      349
+++ dx=      0.1722946   dy=      0.1621475   nhalf=      2
```

```

+++ npts=                5
+++ jhlatpts=            5  jripts=            9
+++ jbmaxlatpts=        14
+++ jlatfix=            190
+++ jbeg=                176  jend=            204
+++ rdeg=    0.6270790    ri=    150.0000    cosfac=    0.9693142
+++ dtr=    1.7453292E-02  dtk=    111.1949    dlon=    1.391688
+++ ibmaxlonpts=        16  dx=    0.1722946    dy=    0.1621475
+++ (orig) ilonfix=      249
+++ (orig) ibeg=        233  iend=            265
+++

```

After first pass through barnes, re and ri have NOT been changed. re = 75.00000 ri = 150.0000
TIMING: find_maxmin kloop, k= 1 14:39:34

```

find_maxmin nhalf loop, cparm= zeta k=            1
guesslon= 135.545E ( 224.455W)  guesslat= 14.231
ilonfix=    249  jlatfix=    190  npts=            5
ibeg=    233  jbeg=    176  imax=    409
iend=    265  jend=    204  jmax=    349
nhalf=    2  iskip=    2
nhalf findmax, k= 1 ctlon= 224.204W  ctlat= 13.980 fmax (x10e5) =
0.219E+02 fmin (x10e5) =    0.100E+21
TIMING: find_maxmin kloop, k= 2 14:39:34

```

```

find_maxmin nhalf loop, cparm= zeta k=            2
guesslon= 135.796E ( 224.204W)  guesslat= 13.980
ilonfix=    249  jlatfix=    190  npts=            5
ibeg=    233  jbeg=    176  imax=    409
iend=    265  jend=    204  jmax=    349
nhalf=    2  iskip=    2
nhalf findmax, k= 2 ctlon= 224.162W  ctlat= 13.938 fmax (x10e5) =
0.228E+02 fmin (x10e5) =    0.100E+21

```

ppp after 2nd findmax loop, # calls to barnes = 72
ppp Total # of barnes loop iterations = 18360

--- --- ---

Now calling find_maxmin for hgt at 850 mb

At beg of find_maxmin, rads= 200.0000 re= 75.00000 ri=
150.0000 cparm= hgt dx= 0.1722946 dy= 0.1621475

Beginning of get_ij_bounds...

geslat= 13.22727 geslon= 135.2107

```

+++ Near top of get_ij_bounds,
+++ geslat= 13.22727  geslon= 135.2107
+++ rglatmax= 44.92863  rglatmin= -9.516106
+++ rglonmax= 163.1479  rglonmin= 92.85205
+++ imax= 409  jmax= 349
+++ dx= 0.1722946  dy= 0.1621475  nhalf= 0
+++ npts= 10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 22
+++ jlatfix= 196
+++ jbeg= 174  jend= 218
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dk,dlon unused

```

```

+++ ibmaxlonpts=          21 dx=  0.1722946      dy=  0.1621475
+++ (orig) ilonfix=      247
+++ (orig) ibeg=         226 iend=              268
+++

guesslon= 135.211E ( 224.789W)  guesslat=  13.227
ilonfix=   247  jlatfix=       196 npts=              10
ibeg=      226  jbeg=          174  imax=           409
iend=      268  jend=          218  jmax=           349
TIMING: find_maxmin 1  14:39:34

After 1st findmax loop, # calls to barnes =          24
Total # of barnes loop iterations =          3168
After first run, ctlon= 225.124W  ctlat=  11.555 fmax =          -
0.100E+13 fmin =          0.000E+00

Beginning of get_ij_bounds...
  geslat=  11.55506      geslon=  134.8763

+++ Near top of get_ij_bounds,
+++ geslat=  11.55506      geslon=  134.8763
+++ rglatmax=  44.92863      rglatmin=  -9.516106
+++ rglonmax= 163.1479      rglonmin=  92.85205
+++ imax=      409  jmax=      349
+++ dx=  0.1722946      dy=  0.1621475      nhalf=          2
+++ npts=          5
+++ jhlatpts=          5  jripts=          9
+++ jbmaxlatpts=          14
+++ jlatfix=          206
+++ jbeg=      192  jend=      220
+++ rdeg=  0.6270790      ri=  150.0000      cosfac=  0.9797327
+++ dtr=  1.7453292E-02  dtk=  111.1949      dlon=  1.376889
+++ ibmaxlonpts=      15 dx=  0.1722946      dy=  0.1621475
+++ (orig) ilonfix=      245
+++ (orig) ibeg=      230 iend=              260
+++

After first pass through barnes, re and ri have NOT
been changed. re =  75.00000      ri =  150.0000
TIMING: find_maxmin kloop, k= 1  14:39:34

find_maxmin nhalf loop, cparm= hgt k=          1
guesslon= 134.876E ( 225.124W)  guesslat=  11.555
ilonfix=   245  jlatfix=       206 npts=              5
ibeg=      230  jbeg=          192  imax=           409
iend=      260  jend=          220  jmax=           349
nhalf=      2  iskip=          2
nhalf findmax, k= 1 ctlon= 225.542W  ctlat=  11.137 fmax =          -
0.100E+16 fmin =          0.000E+00
TIMING: find_maxmin kloop, k= 2  14:39:34

find_maxmin nhalf loop, cparm= hgt k=          2
guesslon= 134.458E ( 225.542W)  guesslat=  11.137
ilonfix=   245  jlatfix=       206 npts=              5
ibeg=      230  jbeg=          192  imax=           409
iend=      260  jend=          220  jmax=           349
nhalf=      2  iskip=          2
nhalf findmax, k= 2 ctlon= 225.751W  ctlat=  10.928 fmax =          -
0.100E+16 fmin =          0.000E+00

```

ppp after 2nd findmax loop, # calls to barnes = 72
ppp Total # of barnes loop iterations = 17280

--- --- ---

Now calling find_maxmin for hgt at 700 mb

At beg of find_maxmin, rads= 200.0000 re= 75.00000 ri=
150.0000 cparm= hgt dx= 0.1722946 dy= 0.1621475

Beginning of get_ij_bounds...

geslat= 13.22727 geslon= 135.2107

+++ Near top of get_ij_bounds,
+++ geslat= 13.22727 geslon= 135.2107
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 22
+++ jlatfix= 196
+++ jbeg= 174 jend= 218
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 21 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 247
+++ (orig) ibeg= 226 iend= 268
+++

guesslon= 135.211E (224.789W) guesslat= 13.227
ilonfix= 247 jlatfix= 196 npts= 10
ibeg= 226 jbeg= 174 imax= 409
iend= 268 jend= 218 jmax= 349
TIMING: find_maxmin 1 14:39:34

After 1st findmax loop, # calls to barnes = 24
Total # of barnes loop iterations = 3168
After first run, ctlon= 225.124W ctlat= 11.555 fmax = -
0.100E+13 fmin = 0.000E+00

Beginning of get_ij_bounds...

geslat= 11.55506 geslon= 134.8763

+++ Near top of get_ij_bounds,
+++ geslat= 11.55506 geslon= 134.8763
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 2
+++ npts= 5
+++ jhlatpts= 5 jripts= 9
+++ jbmaxlatpts= 14
+++ jlatfix= 206
+++ jbeg= 192 jend= 220
+++ rdeg= 0.6270790 ri= 150.0000 cosfac= 0.9797327
+++ dtr= 1.7453292E-02 dtk= 111.1949 dlon= 1.376889
+++ ibmaxlonpts= 15 dx= 0.1722946 dy= 0.1621475

```
+++ (orig) ilonfix=          245
+++ (orig) ibeg=            230 iend=          260
+++
```

After first pass through barnes, re and ri have NOT been changed. re = 75.00000 ri = 150.0000
TIMING: find_maxmin kloop, k= 1 14:39:34

```
find_maxmin nhalf loop, cparm= hgt k=          1
guesslon= 134.876E ( 225.124W) guesslat= 11.555
ilonfix=          245 jlatfix=          206 npts=          5
ibeg=            230 jbeg=            192 imax=          409
iend=            260 jend=            220 jmax=          349
nhalf=           2 iskip=             2
nhalf findmax, k= 1 ctlon= 225.542W ctlat= 11.137 fmax = -
0.100E+16 fmin =          0.000E+00
TIMING: find_maxmin kloop, k= 2 14:39:34
```

```
find_maxmin nhalf loop, cparm= hgt k=          2
guesslon= 134.458E ( 225.542W) guesslat= 11.137
ilonfix=          245 jlatfix=          206 npts=          5
ibeg=            230 jbeg=            192 imax=          409
iend=            260 jend=            220 jmax=          349
nhalf=           2 iskip=             2
nhalf findmax, k= 2 ctlon= 225.751W ctlat= 10.928 fmax = -
0.100E+16 fmin =          0.000E+00
```

ppp after 2nd findmax loop, # calls to barnes = 72
ppp Total # of barnes loop iterations = 17280

--- --- ---

Now calling find_maxmin for mslp

```
At beg of find_maxmin, rads= 200.0000 re= 75.00000 ri=
150.0000 cparm= slp dx= 0.1722946 dy= 0.1621475
```

Beginning of get_ij_bounds...

```
geslat= 13.22727 geslon= 135.2107
```

```
+++ Near top of get_ij_bounds,
+++ geslat= 13.22727 geslon= 135.2107
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbxlatpts= 22
+++ jlatfix= 196
+++ jbeg= 174 jend= 218
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 21 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 247
+++ (orig) ibeg= 226 iend= 268
+++
```

```
guesslon= 135.211E ( 224.789W) guesslat= 13.227
ilonfix= 247 jlatfix= 196 npts= 10
ibeg= 226 jbeg= 174 imax= 409
```


iend= 268 jend= 218 jmax= 349
TIMING: find_maxmin 1 14:39:34

After 1st findmax loop, # calls to barnes = 24
Total # of barnes loop iterations = 3168
After first run, ctlon= 225.124W ctlat= 11.555 fmax = -
0.100E+13 fmin = 0.000E+00

Beginning of get_ij_bounds...
geslat= 11.55506 geslon= 134.8763

+++ Near top of get_ij_bounds,
+++ geslat= 11.55506 geslon= 134.8763
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 2
+++ npts= 5
+++ jhlatpts= 5 jripts= 9
+++ jbmaxlatpts= 14
+++ jlatfix= 206
+++ jbeg= 192 jend= 220
+++ rdeg= 0.6270790 ri= 150.0000 cosfac= 0.9797327
+++ dtr= 1.7453292E-02 dtk= 111.1949 dlon= 1.376889
+++ ibmaxlonpts= 15 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 245
+++ (orig) ibeg= 230 iend= 260
+++

After first pass through barnes, re and ri have NOT
been changed. re = 75.00000 ri = 150.0000
TIMING: find_maxmin kloop, k= 1 14:39:34

find_maxmin nhalf loop, cparm= slp k= 1
guesslon= 134.876E (225.124W) guesslat= 11.555
ilonfix= 245 jlatfix= 206 npts= 5
ibeg= 230 jbeg= 192 imax= 409
iend= 260 jend= 220 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 1 ctlon= 225.542W ctlat= 11.137 fmax = -
0.100E+16 fmin = 0.000E+00
TIMING: find_maxmin kloop, k= 2 14:39:34

find_maxmin nhalf loop, cparm= slp k= 2
guesslon= 134.458E (225.542W) guesslat= 11.137
ilonfix= 245 jlatfix= 206 npts= 5
ibeg= 230 jbeg= 192 imax= 409
iend= 260 jend= 220 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 2 ctlon= 225.751W ctlat= 10.928 fmax = -
0.100E+16 fmin = 0.000E+00

ppp after 2nd findmax loop, # calls to barnes = 72
ppp Total # of barnes loop iterations = 17280

--- --- ---
Now calling find_maxmin for sfc zeta

At beg of find_maxmin, rads= 200.0000 re= 75.00000 ri=

150.0000 cparm= zeta dx= 0.1722946 dy= 0.1621475

Beginning of get_ij_bounds...

geslat= 13.22727 geslon= 135.2107

```
+++ Near top of get_ij_bounds,
+++ geslat=    13.22727          geslon=    135.2107
+++ rglatmax=    44.92863          rglatmin=    -9.516106
+++ rglonmax=    163.1479          rglonmin=    92.85205
+++ imax=          409    jmax=          349
+++ dx=    0.1722946          dy=    0.1621475          nhalf=          0
+++ npts=          10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts=          22
+++ jlatfix=          196
+++ jbeg=          174    jend=          218
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts=          21    dx=    0.1722946          dy=    0.1621475
+++ (orig) ilonfix=          247
+++ (orig) ibeg=          226    iend=          268
+++
```

```
guesslon= 135.211E ( 224.789W)    guesslat= 13.227
ilonfix=    247    jlatfix=    196    npts=          10
ibeg=          226    jbeg=          174    imax=          409
iend=          268    jend=          218    jmax=          349
TIMING: find_maxmin 1 14:39:34
```

```
After 1st findmax loop, # calls to barnes =          24
Total # of barnes loop iterations =          3168
!!! Zeta check, fmax=    5.2682578E-04    fmin=    1.0000000E+12
After first run, ctlon= 225.124W    ctlat= 14.231    fmax (x10e5) =
0.527E+02    fmin (x10e5) =          0.100E+18
```

Beginning of get_ij_bounds...

geslat= 14.23059 geslon= 134.8763

```
+++ Near top of get_ij_bounds,
+++ geslat=    14.23059          geslon=    134.8763
+++ rglatmax=    44.92863          rglatmin=    -9.516106
+++ rglonmax=    163.1479          rglonmin=    92.85205
+++ imax=          409    jmax=          349
+++ dx=    0.1722946          dy=    0.1621475          nhalf=          2
+++ npts=          5
+++ jhlatpts=          5    jripts=          9
+++ jbmaxlatpts=          14
+++ jlatfix=          190
+++ jbeg=          176    jend=          204
+++ rdeg=    0.6270790          ri=    150.0000          cosfac=    0.9693142
+++ dtr=    1.7453292E-02    dtk=    111.1949          dlon=    1.391688
+++ ibmaxlonpts=          16    dx=    0.1722946          dy=    0.1621475
+++ (orig) ilonfix=          245
+++ (orig) ibeg=          229    iend=          261
+++
```

```
After first pass through barnes, re and ri have NOT
been changed.    re =    75.00000          ri =    150.0000
TIMING: find_maxmin kloop, k= 1 14:39:34
```

```

find_maxmin nhalf loop, cparm= zeta k=          1
guesslon= 134.876E ( 225.124W)  guesslat= 14.231
ilonfix=      245  jlatfix=      190  npts=      5
ibeg=      229  jbeg=      176  imax=      409
iend=      261  jend=      204  jmax=      349
nhalf=      2  iskip=      2
nhalf findmax, k= 1  ctlon= 224.873W  ctlat= 13.980  fmax (x10e5) =
0.896E+01  fmin (x10e5) =      0.100E+21
TIMING: find_maxmin kloop, k= 2  14:39:34

```

```

find_maxmin nhalf loop, cparm= zeta k=          2
guesslon= 135.127E ( 224.873W)  guesslat= 13.980
ilonfix=      245  jlatfix=      190  npts=      5
ibeg=      229  jbeg=      176  imax=      409
iend=      261  jend=      204  jmax=      349
nhalf=      2  iskip=      2
nhalf findmax, k= 2  ctlon= 224.664W  ctlat= 14.105  fmax (x10e5) =
0.927E+01  fmin (x10e5) =      0.100E+21

```

```

ppp after 2nd findmax loop, # calls to barnes =      72
ppp Total # of barnes loop iterations =      18360

```

--- --- ---

Now calling find_maxmin for thickness in the 500-850 mb layer.

```

At beg of find_maxmin, rads=      200.0000      re=      75.00000      ri=
150.0000      cparm= thick dx=      0.1722946      dy=      0.1621475

```

Beginning of get_ij_bounds...

```

geslat= 13.22727      geslon= 135.2107

```

```

+++ Near top of get_ij_bounds,
+++ geslat= 13.22727      geslon= 135.2107
+++ rglatmax= 44.92863      rglatmin= -9.516106
+++ rglonmax= 163.1479      rglonmin= 92.85205
+++ imax= 409      jmax= 349
+++ dx= 0.1722946      dy= 0.1621475      nhalf= 0
+++ npts= 10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jmaxlatpts= 22
+++ jlatfix= 196
+++ jbeg= 174      jend= 218
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 21      dx= 0.1722946      dy= 0.1621475
+++ (orig) ilonfix= 247
+++ (orig) ibeg= 226      iend= 268
+++

```

```

guesslon= 135.211E ( 224.789W)  guesslat= 13.227
ilonfix=      247  jlatfix=      196  npts=      10
ibeg=      226  jbeg=      174  imax=      409
iend=      268  jend=      218  jmax=      349
TIMING: find_maxmin 1  14:39:34

```

```

After 1st findmax loop, # calls to barnes =      24
Total # of barnes loop iterations =      3168

```

After first run, ctlon= 225.124W ctlat= 14.231 fmax =
0.442E+04 fmin = 0.100E+13

Beginning of get_ij_bounds...

geslat= 14.23059 geslon= 134.8763

```
+++ Near top of get_ij_bounds,
+++ geslat= 14.23059 geslon= 134.8763
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 2
+++ npts= 5
+++ jhlatpts= 5 jripts= 9
+++ jbmaxlatpts= 14
+++ jlatfix= 190
+++ jbeg= 176 jend= 204
+++ rdeg= 0.6270790 ri= 150.0000 cosfac= 0.9693142
+++ dtr= 1.7453292E-02 dtk= 111.1949 dlon= 1.391688
+++ ibmaxlonpts= 16 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 245
+++ (orig) ibeg= 229 iend= 261
+++
```

After first pass through barnes, re and ri have NOT
been changed. re = 75.00000 ri = 150.0000
TIMING: find_maxmin kloop, k= 1 14:39:34

```
find_maxmin nhalf loop, cparm= thick k= 1
guesslon= 134.876E ( 225.124W) guesslat= 14.231
ilonfix= 245 jlatfix= 190 npts= 5
ibeg= 229 jbeg= 176 imax= 409
iend= 261 jend= 204 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 1 ctlon= 225.542W ctlat= 14.649 fmax =
0.438E+04 fmin = 0.100E+16
TIMING: find_maxmin kloop, k= 2 14:39:34
```

```
find_maxmin nhalf loop, cparm= thick k= 2
guesslon= 134.458E ( 225.542W) guesslat= 14.649
ilonfix= 245 jlatfix= 190 npts= 5
ibeg= 229 jbeg= 176 imax= 409
iend= 261 jend= 204 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 2 ctlon= 225.584W ctlat= 14.858 fmax =
0.438E+04 fmin = 0.100E+16
```

ppp after 2nd findmax loop, # calls to barnes = 72
ppp Total # of barnes loop iterations = 18360

--- --- ---

Now calling find_maxmin for thickness in
the 200-500 mb layer.

At beg of find_maxmin, rads= 200.0000 re= 75.00000 ri=
150.0000 cparm= thick dx= 0.1722946 dy= 0.1621475

Beginning of get_ij_bounds...

geslat= 13.22727 geslon= 135.2107

```

+++ Near top of get_ij_bounds,
+++ geslat= 13.22727 geslon= 135.2107
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 22
+++ jlatfix= 196
+++ jbeg= 174 jend= 218
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 21 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 247
+++ (orig) ibeg= 226 iend= 268
+++

```

```

guesslon= 135.211E ( 224.789W) guesslat= 13.227
ilonfix= 247 jlatfix= 196 npts= 10
ibeg= 226 jbeg= 174 imax= 409
iend= 268 jend= 218 jmax= 349
TIMING: find_maxmin 1 14:39:34

```

```

After 1st findmax loop, # calls to barnes = 24
Total # of barnes loop iterations = 3168
After first run, ctlon= 225.124W ctlat= 14.231 fmax =
0.676E+04 fmin = 0.100E+13

```

Beginning of get_ij_bounds...

```

geslat= 14.23059 geslon= 134.8763

```

```

+++ Near top of get_ij_bounds,
+++ geslat= 14.23059 geslon= 134.8763
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 2
+++ npts= 5
+++ jhlatpts= 5 jripts= 9
+++ jbmaxlatpts= 14
+++ jlatfix= 190
+++ jbeg= 176 jend= 204
+++ rdeg= 0.6270790 ri= 150.0000 cosfac= 0.9693142
+++ dtr= 1.7453292E-02 dtk= 111.1949 dlon= 1.391688
+++ ibmaxlonpts= 16 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 245
+++ (orig) ibeg= 229 iend= 261
+++

```

```

After first pass through barnes, re and ri have NOT
been changed. re = 75.00000 ri = 150.0000
TIMING: find_maxmin kloop, k= 1 14:39:34

```

```

find_maxmin nhalf loop, cparm= thick k= 1
guesslon= 134.876E ( 225.124W) guesslat= 14.231
ilonfix= 245 jlatfix= 190 npts= 5
ibeg= 229 jbeg= 176 imax= 409

```

iend= 261 jend= 204 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 1 ctlon= 224.706W ctlat= 13.980 fmax =
0.669E+04 fmin = 0.100E+16
TIMING: find_maxmin kloop, k= 2 14:39:34

find_maxmin nhalf loop, cparm= thick k= 2
guesslon= 135.294E (224.706W) guesslat= 13.980
ilonfix= 245 jlatfix= 190 npts= 5
ibeg= 229 jbeg= 176 imax= 409
iend= 261 jend= 204 jmax= 349
nhalf= 2 iskip= 2
nhalf findmax, k= 2 ctlon= 224.664W ctlat= 13.938 fmax =
0.669E+04 fmin = 0.100E+16

ppp after 2nd findmax loop, # calls to barnes = 72
ppp Total # of barnes loop iterations = 18360

--- --- ---
Now calling find_maxmin for thickness in
the 200-850 mb layer.

At beg of find_maxmin, rads= 200.0000 re= 75.00000 ri=
150.0000 cparm= thick dx= 0.1722946 dy= 0.1621475

Beginning of get_ij_bounds...
geslat= 13.22727 geslon= 135.2107

+++ Near top of get_ij_bounds,
+++ geslat= 13.22727 geslon= 135.2107
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 22
+++ jlatfix= 196
+++ jbeg= 174 jend= 218
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 21 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 247
+++ (orig) ibeg= 226 iend= 268
+++

guesslon= 135.211E (224.789W) guesslat= 13.227
ilonfix= 247 jlatfix= 196 npts= 10
ibeg= 226 jbeg= 174 imax= 409
iend= 268 jend= 218 jmax= 349
TIMING: find_maxmin 1 14:39:34

After 1st findmax loop, # calls to barnes = 24
Total # of barnes loop iterations = 3168
After first run, ctlon= 225.124W ctlat= 14.231 fmax =
0.112E+05 fmin = 0.100E+13

Beginning of get_ij_bounds...
geslat= 14.23059 geslon= 134.8763

```

+++ Near top of get_ij_bounds,
+++ geslat=    14.23059      geslon=    134.8763
+++ rglatmax=   44.92863      rglatmin=  -9.516106
+++ rglonmax=  163.1479      rglonmin=   92.85205
+++ imax=      409   jmax=      349
+++ dx=    0.1722946      dy=    0.1621475      nhalf=      2
+++ npts=      5
+++ jhlatpts=      5   jripts=      9
+++ jbmaxlatpts=      14
+++ jlatfix=      190
+++ jbeg=      176   jend=      204
+++ rdeg=    0.6270790      ri=    150.0000      cosfac=    0.9693142
+++ dtr=    1.7453292E-02   dtk=    111.1949      dlon=    1.391688
+++ ibmaxlonpts=      16   dx=    0.1722946      dy=    0.1621475
+++ (orig) ilonfix=      245
+++ (orig) ibeg=      229   iend=      261
+++

```

After first pass through barnes, re and ri have NOT been changed. re = 75.00000 ri = 150.0000
TIMING: find_maxmin kloop, k= 1 14:39:34

```

find_maxmin nhalf loop, cparm= thick k=      1
guesslon= 134.876E ( 225.124W)  guesslat=  14.231
ilonfix=      245   jlatfix=      190   npts=      5
ibeg=      229   jbeg=      176   imax=      409
iend=      261   jend=      204   jmax=      349
nhalf=      2   iskip=      2
nhalf findmax, k= 1 ctlon= 224.706W ctlat=  13.980 fmax =
0.111E+05 fmin =      0.100E+16
TIMING: find_maxmin kloop, k= 2 14:39:34

```

```

find_maxmin nhalf loop, cparm= thick k=      2
guesslon= 135.294E ( 224.706W)  guesslat=  13.980
ilonfix=      245   jlatfix=      190   npts=      5
ibeg=      229   jbeg=      176   imax=      409
iend=      261   jend=      204   jmax=      349
nhalf=      2   iskip=      2
nhalf findmax, k= 2 ctlon= 224.664W ctlat=  13.938 fmax =
0.111E+05 fmin =      0.100E+16

```

ppp after 2nd findmax loop, # calls to barnes = 72
ppp Total # of barnes loop iterations = 18360

--- --- ---

Now calling get_wind_circulation for 850 mb

Before first call to get_wind_circulation,

```

glatmax=   44.92863
glatmin=  -9.516106
glonmax=   163.1479
glonmin=   92.85205
trkrinfo%gridtype= regional
inp%modtyp= regional
cmaxmin= max
nlev850=      1
u(1,1,nlev850)=   4.852509
u(imax,jmax,nlev850)=  -7.235047
imax=      409   jmax=      349

```

```
uvgeslon= 135.2905      uvgeslat= 13.93796
dx= 0.1722946      dy= 0.1621475      ist= 1
calcparm(3,ist)= T
clon(ist,ifh,3)= 0.0000000E+00
clat(ist,ifh,3)= 0.0000000E+00
xval(3)= 0.0000000E+00
TIMING: Before GWC 850 ... 14:39:34
```

```
top of get_wind_circulation,
glatmax= 44.92863
glatmin= -9.516106
glonmax= 163.1479
glonmin= 92.85205
trkrinfo%gridtype= regional
cmodel_type= regional
maxmin= max
imax= 409      jmax= 349
uvgeslon= 135.2905      uvgeslat= 13.93796
dx= 0.1722946      dy= 0.1621475      ist= 1
cflag= T
ctlon= 0.0000000E+00      ctlat= 0.0000000E+00
fxval= 0.0000000E+00
igwcret= 0
```

```
At beg of get_wind_circulation, rads= 200.0000      ri= 150.0000
dx= 0.1722946      dy= 0.1621475
in get_wind_circulation, nlev= 1
```

```
Beginning of get_ij_bounds...
geslat= 13.93796      geslon= 135.2905
```

```
+++ Near top of get_ij_bounds,
+++ geslat= 13.93796      geslon= 135.2905
+++ rglatmax= 44.92863      rglatmin= -9.516106
+++ rglonmax= 163.1479      rglonmin= 92.85205
+++ imax= 409      jmax= 349
+++ dx= 0.1722946      dy= 0.1621475      nhalf= 0
+++ npts= 10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 22
+++ jlatfix= 192
+++ jbeg= 170      jend= 214
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 21      dx= 0.1722946      dy= 0.1621475
+++ (orig) ilonfix= 248
+++ (orig) ibeg= 227      iend= 269
+++
```

```
In get_wind_circulation, prior to first loop,
npts= 10      dell= 0.1672211      rads= 200.0000
```

```
After first run, Wind Circulation (NHEM) ctlon= 225.044W      ctlat=
14.941      circ_diff_mean = -25.311
```

```
Beginning of get_ij_bounds...
geslat= 14.94128      geslon= 134.9561
```



```

+++ Near top of get_ij_bounds,
+++ geslat= 14.94128 geslon= 134.9561
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 2
+++ npts= 10
+++ jhlatpts= 9 jripts= 9
+++ jbmaxlatpts= 18
+++ jlatfix= 185
+++ jbeg= 167 jend= 203
+++ rdeg= 1.254158 ri= 150.0000 cosfac= 0.9661906
+++ dtr= 1.7453292E-02 dtk= 111.1949 dlon= 1.396187
+++ ibmaxlonpts= 20 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 246
+++ (orig) ibeg= 226 iend= 266
+++

```

TIMING: get_wind_circ kloop, k= 1 14:39:34

```

get_wind_circ nhalf loop, k= 1
guesslon= 134.956E ( 225.044W) guesslat= 14.941
ilonfix= 246 jlatfix= 185 npts= 10
ibeg= 226 jbeg= 167 imax= 409
iend= 266 jend= 203 jmax= 349
nhalf= 2 iskip= 2 rads= 100.0000

```

```

In get_wind_circulation, prior to loop k= 1
npts= 10 dell= 8.3610535E-02 rads= 100.0000

```

```

---> xmax_circ_diff_mean= -26.68738
nhalf get_wind_circ, k= 1 ctlon= 225.044W ctlat= 14.774 Wind
Circulation (NHEM: Max) = -26.687

```

TIMING: get_wind_circ kloop, k= 2 14:39:34

```

get_wind_circ nhalf loop, k= 2
guesslon= 134.956E ( 225.044W) guesslat= 14.774
ilonfix= 246 jlatfix= 185 npts= 10
ibeg= 226 jbeg= 167 imax= 409
iend= 266 jend= 203 jmax= 349
nhalf= 2 iskip= 2 rads= 100.0000

```

```

In get_wind_circulation, prior to loop k= 2
npts= 10 dell= 4.1805267E-02 rads= 100.0000

```

```

---> xmax_circ_diff_mean= -26.68738
nhalf get_wind_circ, k= 2 ctlon= 225.044W ctlat= 14.774 Wind
Circulation (NHEM: Max) = -26.687

```

TIMING: After GWC 850 ... 14:39:34

--- --- ---

Now calling get_wind_circulation for 700 mb

TIMING: Before GWC 700 ... 14:39:34

```

top of get_wind_circulation,
glatmax= 44.92863
glatmin= -9.516106
glonmax= 163.1479
glonmin= 92.85205
trkrinfo%gridtype= regional
cmodel_type= regional

```

```

maxmin= max
imax=      409   jmax=      349
uvgeslon=  135.2905   uvgeslat=  13.93796
dx=  0.1722946   dy=  0.1621475   ist=      1
cflag=  T
ctlon=  0.0000000E+00   ctlat=  0.0000000E+00
fxval=  0.0000000E+00
igwcret=      0

At beg of get_wind_circulation, rads=  200.0000   ri=  150.0000
dx=
  0.1722946   dy=  0.1621475
in get_wind_circulation, nlev=      2

Beginning of get_ij_bounds...
  geslat=  13.93796   geslon=  135.2905

+++ Near top of get_ij_bounds,
+++ geslat=  13.93796   geslon=  135.2905
+++ rglatmax=  44.92863   rglatmin=  -9.516106
+++ rglonmax=  163.1479   rglonmin=  92.85205
+++ imax=      409   jmax=      349
+++ dx=  0.1722946   dy=  0.1621475   nhalf=      0
+++ npts=      10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts=      22
+++ jlatfix=      192
+++ jbeg=      170   jend=      214
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts=      21   dx=  0.1722946   dy=  0.1621475
+++ (orig) ilonfix=      248
+++ (orig) ibeg=      227   iend=      269
+++

In get_wind_circulation, prior to first loop,
  npts=      10   dell=  0.1672211   rads=  200.0000

After first run, Wind Circulation (NHEM) ctlon=  224.375W   ctlat=
12.266   circ_diff_mean =  -14.922

Beginning of get_ij_bounds...
  geslat=  12.26575   geslon=  135.6250

+++ Near top of get_ij_bounds,
+++ geslat=  12.26575   geslon=  135.6250
+++ rglatmax=  44.92863   rglatmin=  -9.516106
+++ rglonmax=  163.1479   rglonmin=  92.85205
+++ imax=      409   jmax=      349
+++ dx=  0.1722946   dy=  0.1621475   nhalf=      2
+++ npts=      10
+++ jhlatpts=      9   jripts=      9
+++ jbmaxlatpts=      18
+++ jlatfix=      202
+++ jbeg=      184   jend=      220
+++ rdeg=  1.254158   ri=  150.0000   cosfac=  0.9771727
+++ dtr=  1.7453292E-02   dtk=  111.1949   dlon=  1.380496
+++ ibmaxlonpts=      20   dx=  0.1722946   dy=  0.1621475
+++ (orig) ilonfix=      250

```

```

+++ (orig) ibeg=          230 iend=          270
+++
TIMING: get_wind_circ kloop, k= 1 14:39:34

get_wind_circ nhalf loop, k=          1
guesslon= 135.625E ( 224.375W) guesslat= 12.266
ilonfix=          250 jlatfix=          202 npts=          10
ibeg=          230 jbeg=          184 imax=          409
iend=          270 jend=          220 jmax=          349
nhalf=          2 iskip=          2 rads= 100.0000

In get_wind_circulation, prior to loop k=          1
npts=          10 dell= 8.3610535E-02 rads= 100.0000

---> xmax_circ_diff_mean= -64.84675
nhalf get_wind_circ, k= 1 ctlon= 224.877W ctlat= 13.102 Wind
Circulation (NHEM: Max) = -64.847
TIMING: get_wind_circ kloop, k= 2 14:39:34

get_wind_circ nhalf loop, k=          2
guesslon= 135.123E ( 224.877W) guesslat= 13.102
ilonfix=          250 jlatfix=          202 npts=          10
ibeg=          230 jbeg=          184 imax=          409
iend=          270 jend=          220 jmax=          349
nhalf=          2 iskip=          2 rads= 100.0000

In get_wind_circulation, prior to loop k=          2
npts=          10 dell= 4.1805267E-02 rads= 100.0000

---> xmax_circ_diff_mean= -50.64907
nhalf get_wind_circ, k= 2 ctlon= 224.542W ctlat= 13.436 Wind
Circulation (NHEM: Max) = -50.649
TIMING: After GWC 700 ... 14:39:34

--- --- ---
Now calling get_wind_circulation for the
surface (10m) level
TIMING: Before GWC Sfc ... 14:39:34

top of get_wind_circulation,
glatmax= 44.92863
glatmin= -9.516106
glonmax= 163.1479
glonmin= 92.85205
trkrinfo%gridtype= regional
cmodel_type= regional
maxmin= max
imax=          409 jmax=          349
uvgeslon= 135.2905 uvgeslat= 13.93796
dx= 0.1722946 dy= 0.1621475 ist=          1
cflag= T
ctlon= 0.0000000E+00 ctlat= 0.0000000E+00
fxval= 0.0000000E+00
igwcret=          0

At beg of get_wind_circulation, rads= 200.0000 ri= 150.0000
dx=
0.1722946 dy= 0.1621475
in get_wind_circulation, nlev=          4

```

Beginning of get_ij_bounds...

geslat= 13.93796 geslon= 135.2905

+++ Near top of get_ij_bounds,

+++ geslat= 13.93796 geslon= 135.2905
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 10
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 22
+++ jlatfix= 192
+++ jbeg= 170 jend= 214
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 21 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 248
+++ (orig) ibeg= 227 iend= 269
+++

In get_wind_circulation, prior to first loop,

npts= 10 dell= 0.1672211 rads= 200.0000

After first run, Wind Circulation (NHEM) ctlon= 224.375W ctlat=
12.266 circ_diff_mean = -4.006

Beginning of get_ij_bounds...

geslat= 12.26575 geslon= 135.6250

+++ Near top of get_ij_bounds,

+++ geslat= 12.26575 geslon= 135.6250
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 2
+++ npts= 10
+++ jhlatpts= 9 jripts= 9
+++ jbmaxlatpts= 18
+++ jlatfix= 202
+++ jbeg= 184 jend= 220
+++ rdeg= 1.254158 ri= 150.0000 cosfac= 0.9771727
+++ dtr= 1.7453292E-02 dtk= 111.1949 dlon= 1.380496
+++ ibmaxlonpts= 20 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 250
+++ (orig) ibeg= 230 iend= 270
+++

TIMING: get_wind_circ kloop, k= 1 14:39:34

get_wind_circ nhalf loop, k= 1
guesslon= 135.625E (224.375W) guesslat= 12.266
ilonfix= 250 jlatfix= 202 npts= 10
ibeg= 230 jbeg= 184 imax= 409
iend= 270 jend= 220 jmax= 349
nhalf= 2 iskip= 2 rads= 100.0000

In get_wind_circulation, prior to loop k= 1

npts= 10 dell= 8.3610535E-02 rads= 100.0000

```

---> xmax_circ_diff_mean= -16.34598
nhalf get_wind_circ, k= 1 ctlon= 225.044W  ctlat= 13.102 Wind
Circulation (NHEM: Max) = -16.346
TIMING: get_wind_circ kloop, k= 2 14:39:34

```

```

get_wind_circ nhalf loop, k= 2
guesslon= 134.956E ( 225.044W)  guesslat= 13.102
ilonfix= 250  jlatfix= 202  npts= 10
ibeg= 230  jbeg= 184  imax= 409
iend= 270  jend= 220  jmax= 349
nhalf= 2  iskip= 2  rads= 100.0000

```

```

In get_wind_circulation, prior to loop k= 2
npts= 10  dell= 4.1805267E-02  rads= 100.0000

```

```

---> xmax_circ_diff_mean= -15.00619
nhalf get_wind_circ, k= 2 ctlon= 224.709W  ctlat= 13.269 Wind
Circulation (NHEM: Max) = -15.006
TIMING: After GWC Sfc ... 14:39:34

```

```

At beg of fixcenter, stderr(ist,ifh-1) = 34.45  xavg_stderr= 54.29
At beg of fixcenter, errpgro = 1.250000
At beg of fixcenter, errinit = 225.0000
At beg of fixcenter, errpmax = 485.0000
At beg of fixcenter, ifh= 6  errmax= 225.0000

```

```

-----
Individual fixes follow..., fhr= 5:00 26W MANGKHUT
Gen ID (if available): 2018091200_F000_139N_1362E_26W
Model name = WRF

```

Values of -99.99 indicate that a fix was unable to be made for that parameter. Parameters 4 & 6 are not used. Vorticity data values are scaled by 1e5. errrdist is the distance that the position estimate is from the guess position for this time. MSLP value here may differ from that in the atcfunix file since the one here is that derived from the area-averaged barnes analysis, while that in the atcfunix file is from a specific gridpoint.

```

Guess location for this time: 135.21E (224.79W) 13.23

```

parm#	parm	Max/Min	Lon_fix(E)	Lon_fix(W)	Lat_fix	
Max/Min_value	calcparm	errrdist (km)				
1	zeta 850	Max	135.17	224.83	14.02	
25.58	T	88.40				
2	zeta 700	Max	135.84	224.16	13.94	
22.81	T	104.11				
3	circ 850	Max	134.96	225.04	14.77	-
26.69	T	174.17				
4	NOT USED	NOT USED	0.00	0.00	0.00	
0.00	F	0.00				
5	circ 700	Max	135.46	224.54	13.44	-
50.65	T	35.33				
6	NOT USED	NOT USED	0.00	0.00	0.00	
0.00	F	0.00				
7	gph 850	Min	134.25	225.75	10.93	
0.00	F	276.21				

8	gph 700	Min	134.25	225.75	10.93	
0.00	F	276.21				
9	MSLP	Min	134.25	225.75	10.93	
0.00	F	276.21				
10	circ sfc	Max	135.29	224.71	13.27	-
15.01	T	9.59				
11	zeta sfc	Max	135.34	224.66	14.11	
9.27	T	98.52				
12	thk 5-8	Max	134.42	225.58	14.86	
4379.01	T	200.52				
13	thk 2-5	Max	135.34	224.66	13.94	
6689.09	T	80.16				
14	thk 2-8	Max	135.34	224.66	13.94	
11064.55	T	80.16				

```

After stdevcalc, xmn_dist_from_mean= 54.10968      stderr_close=
40.53599      isret= 0
ip= 1 kprm= 1 dist_from_mean= 7.296 devia= 0.180 wtpos= 0.94177
135.17 224.83 14.02
ip= 2 kprm= 2 dist_from_mean= 65.587 devia= 1.618 wtpos= 0.58314
135.84 224.16 13.94
ip= 3 kprm= 3 dist_from_mean= 88.016 devia= 2.171 wtpos= 0.48492
134.96 225.04 14.77
ip= 5 kprm= 4 dist_from_mean= 70.253 devia= 1.733 wtpos= 0.56119
135.46 224.54 13.44
ip= 10 kprm= 5 dist_from_mean= 84.910 devia= 2.095 wtpos= 0.49747
135.29 224.71 13.27
ip= 11 kprm= 6 dist_from_mean= 13.560 devia= 0.335 wtpos= 0.89449
135.34 224.66 14.11
ip= 12 kprm= 7 dist_from_mean= 127.528 devia= 3.146 wtpos= 0.35040
134.42 225.58 14.86
ip= 13 kprm= 8 dist_from_mean= 14.919 devia= 0.368 wtpos= 0.88455
135.34 224.66 13.94
ip= 14 kprm= 9 dist_from_mean= 14.919 devia= 0.368 wtpos= 0.88455
135.34 224.66 13.94

```

```

At end of fixcenter: 26W fhr= 5:00 Fix position= 135.28E
(224.72W) 13.99

```

```

ttest, ifret= 0
ttest, calcparm(9,ist)= F
ttest, in ELSE part:
ttest ELSE, readflag(9)= T
ttest ELSE A, ist= 1 ifh= 6
ttest ELSE A, fixlon(ist,ifh)= 135.2825
ttest ELSE A, fixlat(ist,ifh)= 13.99414
ttest ELSE B, ifilret= 0
ttest ELSE B, ifilret= 0
ttest ELSE B, fixlon(ist,ifh)= 135.2825
ttest ELSE B, fixlat(ist,ifh)= 13.99414

```

```

Beginning of get_ij_bounds...
geslat= 13.99414 geslon= 135.2825

```

```

+++ Near top of get_ij_bounds,
+++ geslat= 13.99414 geslon= 135.2825
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349

```

```

+++ dx= 0.1722946      dy= 0.1621475      nhalf= 0
+++ npts= 17
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jbmaxlatpts= 36
+++ jlatfix= 191
+++ jbeg= 155 jend= 227
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 28 dx= 0.1722946      dy= 0.1621475
+++ (orig) ilonfix= 248
+++ (orig) ibeg= 220 iend= 276
+++

```

```

After get_ij B, ibeg jbeg = 220 155
After get_ij B, iend jend = 276 227

```

```

In is_it_a_storm, ilonfix= 248 jlatfix= 191
ibeg jbeg iend jend = 220 155 276 227
cparm= slp parmlon parmlat = 135.2825 13.99414
parmval= 100085.8

```

```

i= 240 j= 197 glon= 134.03 glat= 16.40 dist= 299.35 slp=
100040.22 pgradient= -0.15210
i= 242 j= 197 glon= 134.37 glat= 16.40 dist= 284.67 slp=
99965.62 pgradient= -0.42201
i= 244 j= 197 glon= 134.72 glat= 16.40 dist= 274.23 slp=
99937.23 pgradient= -0.54156
i= 246 j= 197 glon= 135.06 glat= 16.40 dist= 268.53 slp=
99907.37 pgradient= -0.66430
i= 248 j= 197 glon= 135.41 glat= 16.40 dist= 267.84 slp=
99915.41 pgradient= -0.63596
i= 250 j= 197 glon= 135.75 glat= 16.40 dist= 272.22 slp=
99970.53 pgradient= -0.42325
i= 252 j= 197 glon= 136.10 glat= 16.40 dist= 281.45 slp=
99998.40 pgradient= -0.31037
i= 254 j= 197 glon= 136.44 glat= 16.40 dist= 295.03 slp=
100049.34 pgradient= -0.12342
i= 238 j= 199 glon= 133.69 glat= 16.07 dist= 287.46 slp=
100000.70 pgradient= -0.29588
i= 240 j= 199 glon= 134.03 glat= 16.07 dist= 267.05 slp=
99883.94 pgradient= -0.75572
i= 242 j= 199 glon= 134.37 glat= 16.07 dist= 250.46 slp=
99784.79 pgradient= -1.20162
i= 244 j= 199 glon= 134.72 glat= 16.07 dist= 238.51 slp=
99751.79 pgradient= -1.40022
i= 246 j= 199 glon= 135.06 glat= 16.07 dist= 231.91 slp=
99749.15 pgradient= -1.45142
i= 248 j= 199 glon= 135.41 glat= 16.07 dist= 231.12 slp=
99758.08 pgradient= -1.41777
i= 250 j= 199 glon= 135.75 glat= 16.07 dist= 236.19 slp=
99825.31 pgradient= -1.10265
i= 252 j= 199 glon= 136.10 glat= 16.07 dist= 246.77 slp=
99871.14 pgradient= -0.86966
i= 254 j= 199 glon= 136.44 glat= 16.07 dist= 262.20 slp=
99931.55 pgradient= -0.58812
i= 256 j= 199 glon= 136.79 glat= 16.07 dist= 281.66 slp=
99982.19 pgradient= -0.36768
i= 236 j= 201 glon= 133.34 glat= 15.74 dist= 284.81 slp=
99989.89 pgradient= -0.33658
i= 238 j= 201 glon= 133.69 glat= 15.74 dist= 258.91 slp=
99873.28 pgradient= -0.82063

```

i= 240 j= 201 glon= 134.03 glat= 15.74 dist= 236.00 slp=
99719.64 pgradient= -1.55133
i= 242 j= 201 glon= 134.37 glat= 15.74 dist= 217.02 slp=
99636.60 pgradient= -2.06958
i= 244 j= 201 glon= 134.72 glat= 15.74 dist= 203.08 slp=
99551.29 pgradient= -2.63171
i= 246 j= 201 glon= 135.06 glat= 15.74 dist= 195.29 slp=
99575.20 pgradient= -2.61440
i= 248 j= 201 glon= 135.41 glat= 15.74 dist= 194.34 slp=
99607.20 pgradient= -2.46244
i= 250 j= 201 glon= 135.75 glat= 15.74 dist= 200.36 slp=
99657.07 pgradient= -2.13953
i= 252 j= 201 glon= 136.10 glat= 15.74 dist= 212.76 slp=
99717.38 pgradient= -1.73144
i= 254 j= 201 glon= 136.44 glat= 15.74 dist= 230.49 slp=
99828.77 pgradient= -1.11492
i= 256 j= 201 glon= 136.79 glat= 15.74 dist= 252.45 slp=
99923.65 pgradient= -0.64212
i= 258 j= 201 glon= 137.13 glat= 15.74 dist= 277.62 slp=
99938.93 pgradient= -0.52885
i= 234 j= 203 glon= 133.00 glat= 15.41 dist= 291.69 slp=
100022.34 pgradient= -0.21737
i= 236 j= 203 glon= 133.34 glat= 15.41 dist= 261.21 slp=
99925.20 pgradient= -0.61463
i= 238 j= 203 glon= 133.69 glat= 15.41 dist= 232.65 slp=
99695.72 pgradient= -1.67646
i= 240 j= 203 glon= 134.03 glat= 15.41 dist= 206.82 slp=
99595.45 pgradient= -2.37073
i= 242 j= 203 glon= 134.37 glat= 15.41 dist= 184.83 slp=
99464.49 pgradient= -3.36118
i= 244 j= 203 glon= 134.72 glat= 15.41 dist= 168.24 slp=
99364.02 pgradient= -4.29004
i= 246 j= 203 glon= 135.06 glat= 15.41 dist= 158.70 slp=
99283.41 pgradient= -5.05559
i= 248 j= 203 glon= 135.41 glat= 15.41 dist= 157.54 slp=
99383.38 pgradient= -4.45840
i= 250 j= 203 glon= 135.75 glat= 15.41 dist= 164.91 slp=
99346.42 pgradient= -4.48326
i= 252 j= 203 glon= 136.10 glat= 15.41 dist= 179.79 slp=
99543.05 pgradient= -3.01850
i= 254 j= 203 glon= 136.44 glat= 15.41 dist= 200.49 slp=
99724.29 pgradient= -1.80285
i= 256 j= 203 glon= 136.79 glat= 15.41 dist= 225.44 slp=
99847.76 pgradient= -1.05570
i= 258 j= 203 glon= 137.13 glat= 15.41 dist= 253.35 slp=
99915.99 pgradient= -0.67007
i= 260 j= 203 glon= 137.48 glat= 15.41 dist= 283.37 slp=
99940.51 pgradient= -0.51256
i= 234 j= 205 glon= 133.00 glat= 15.07 dist= 273.75 slp=
99975.48 pgradient= -0.40283
i= 236 j= 205 glon= 133.34 glat= 15.07 dist= 240.96 slp=
99809.86 pgradient= -1.14497
i= 238 j= 205 glon= 133.69 glat= 15.07 dist= 209.60 slp=
99632.94 pgradient= -2.16031
i= 240 j= 205 glon= 134.03 glat= 15.07 dist= 180.45 slp=
99422.39 pgradient= -3.67617
i= 242 j= 205 glon= 134.37 glat= 15.07 dist= 154.72 slp=
99256.45 pgradient= -5.36001
i= 244 j= 205 glon= 134.72 glat= 15.07 dist= 134.42 slp=
98972.96 pgradient= -8.27856

i= 246 j= 205 glon= 135.06 glat= 15.07 dist= 122.26 slp=
98839.32 pgradient= *****
i= 248 j= 205 glon= 135.41 glat= 15.07 dist= 120.74 slp=
98821.19 pgradient= *****
i= 250 j= 205 glon= 135.75 glat= 15.07 dist= 130.23 slp=
98999.48 pgradient= -8.34113
i= 252 j= 205 glon= 136.10 glat= 15.07 dist= 148.66 slp=
99295.64 pgradient= -5.31495
i= 254 j= 205 glon= 136.44 glat= 15.07 dist= 173.15 slp=
99507.69 pgradient= -3.33843
i= 256 j= 205 glon= 136.79 glat= 15.07 dist= 201.54 slp=
99763.55 pgradient= -1.59865
i= 258 j= 205 glon= 137.13 glat= 15.07 dist= 232.39 slp=
99884.70 pgradient= -0.86512
i= 260 j= 205 glon= 137.48 glat= 15.07 dist= 264.85 slp=
99921.61 pgradient= -0.61974
i= 262 j= 205 glon= 137.82 glat= 15.07 dist= 298.39 slp=
99976.76 pgradient= -0.36526
i= 232 j= 207 glon= 132.65 glat= 14.74 dist= 295.25 slp=
100035.36 pgradient= -0.17067
i= 234 j= 207 glon= 133.00 glat= 14.74 dist= 259.83 slp=
99935.25 pgradient= -0.57922
i= 236 j= 207 glon= 133.34 glat= 14.74 dist= 224.97 slp=
99800.26 pgradient= -1.26901
i= 238 j= 207 glon= 133.69 glat= 14.74 dist= 190.96 slp=
99497.05 pgradient= -3.08277
i= 240 j= 207 glon= 134.03 glat= 14.74 dist= 158.35 slp=
99164.84 pgradient= -5.81557
i= 242 j= 207 glon= 134.37 glat= 14.74 dist= 128.21 slp=
98796.99 pgradient= *****
i= 244 j= 207 glon= 134.72 glat= 14.74 dist= 102.75 slp=
98077.26 pgradient= *****
i= 246 j= 207 glon= 135.06 glat= 14.74 dist= 86.21 slp=
97583.47 pgradient= *****
i= 248 j= 207 glon= 135.41 glat= 14.74 dist= 84.05 slp=
97733.28 pgradient= *****
i= 250 j= 207 glon= 135.75 glat= 14.74 dist= 97.21 slp=
98298.09 pgradient= *****
i= 252 j= 207 glon= 136.10 glat= 14.74 dist= 120.81 slp=
98858.22 pgradient= *****
i= 254 j= 207 glon= 136.44 glat= 14.74 dist= 149.97 slp=
99331.94 pgradient= -5.02640
i= 256 j= 207 glon= 136.79 glat= 14.74 dist= 182.06 slp=
99574.57 pgradient= -2.80770
i= 258 j= 207 glon= 137.13 glat= 14.74 dist= 215.76 slp=
99818.43 pgradient= -1.23897
i= 260 j= 207 glon= 137.48 glat= 14.74 dist= 250.42 slp=
99939.91 pgradient= -0.58236
i= 262 j= 207 glon= 137.82 glat= 14.74 dist= 285.72 slp=
99999.52 pgradient= -0.30181
i= 232 j= 209 glon= 132.65 glat= 14.41 dist= 287.25 slp=
100005.96 pgradient= -0.27777
i= 234 j= 209 glon= 133.00 glat= 14.41 dist= 250.66 slp=
99911.38 pgradient= -0.69567
i= 236 j= 209 glon= 133.34 glat= 14.41 dist= 214.24 slp=
99742.67 pgradient= -1.60137
i= 238 j= 209 glon= 133.69 glat= 14.41 dist= 178.14 slp=
99395.68 pgradient= -3.87374
i= 240 j= 209 glon= 134.03 glat= 14.41 dist= 142.58 slp=
98977.34 pgradient= -7.77411

i= 242 j= 209 glon= 134.37 glat= 14.41 dist= 108.06 slp=
98186.07 pgradient= *****
i= 244 j= 209 glon= 134.72 glat= 14.41 dist= 76.07 slp=
96754.62 pgradient= *****
i= 246 j= 209 glon= 135.06 glat= 14.41 dist= 51.59 slp=
95248.20 pgradient= *****
i= 248 j= 209 glon= 135.41 glat= 14.41 dist= 47.89 slp=
95561.34 pgradient= *****
i= 250 j= 209 glon= 135.75 glat= 14.41 dist= 68.40 slp=
97422.93 pgradient= *****
i= 252 j= 209 glon= 136.10 glat= 14.41 dist= 99.16 slp=
98541.59 pgradient= *****
i= 254 j= 209 glon= 136.44 glat= 14.41 dist= 133.19 slp=
99139.94 pgradient= -7.10130
i= 256 j= 209 glon= 136.79 glat= 14.41 dist= 168.55 slp=
99547.48 pgradient= -3.19349
i= 258 j= 209 glon= 137.13 glat= 14.41 dist= 204.53 slp=
99707.04 pgradient= -1.85159
i= 260 j= 209 glon= 137.48 glat= 14.41 dist= 240.88 slp=
99957.98 pgradient= -0.53041
i= 262 j= 209 glon= 137.82 glat= 14.41 dist= 277.44 slp=
99974.52 pgradient= -0.40094
i= 232 j= 211 glon= 132.65 glat= 14.07 dist= 283.90 slp=
99994.33 pgradient= -0.32202
i= 234 j= 211 glon= 133.00 glat= 14.07 dist= 246.76 slp=
99882.36 pgradient= -0.82423
i= 236 j= 211 glon= 133.34 glat= 14.07 dist= 209.62 slp=
99692.66 pgradient= -1.87526
i= 238 j= 211 glon= 133.69 glat= 14.07 dist= 172.48 slp=
99328.56 pgradient= -4.38996
i= 240 j= 211 glon= 134.03 glat= 14.07 dist= 135.37 slp=
98934.20 pgradient= -8.50679
i= 242 j= 211 glon= 134.37 glat= 14.07 dist= 98.30 slp=
97869.46 pgradient= *****
i= 244 j= 211 glon= 134.72 glat= 14.07 dist= 61.36 slp=
95593.97 pgradient= *****
i= 246 j= 211 glon= 135.06 glat= 14.07 dist= 25.18 slp=
94507.20 pgradient= *****
i= 248 j= 211 glon= 135.41 glat= 14.07 dist= 16.31 slp=
94467.66 pgradient= *****
i= 250 j= 211 glon= 135.75 glat= 14.07 dist= 51.54 slp=
96743.54 pgradient= *****
i= 252 j= 211 glon= 136.10 glat= 14.07 dist= 88.40 slp=
98402.44 pgradient= *****
i= 254 j= 211 glon= 136.44 glat= 14.07 dist= 125.44 slp=
99041.84 pgradient= -8.32184
i= 256 j= 211 glon= 136.79 glat= 14.07 dist= 162.54 slp=
99453.25 pgradient= -3.89125
i= 258 j= 211 glon= 137.13 glat= 14.07 dist= 199.66 slp=
99709.32 pgradient= -1.88535
i= 260 j= 211 glon= 137.48 glat= 14.07 dist= 236.81 slp=
99865.70 pgradient= -0.92926
i= 262 j= 211 glon= 137.82 glat= 14.07 dist= 273.96 slp=
99972.71 pgradient= -0.41261
i= 232 j= 213 glon= 132.65 glat= 13.74 dist= 285.40 slp=
100000.21 pgradient= -0.29972
i= 234 j= 213 glon= 133.00 glat= 13.74 dist= 248.42 slp=
99874.80 pgradient= -0.84916
i= 236 j= 213 glon= 133.34 glat= 13.74 dist= 211.50 slp=
99711.29 pgradient= -1.77049

i= 238 j= 213 glon= 133.69 glat= 13.74 dist= 174.71 slp=
99375.64 pgradient= -4.06446
i= 240 j= 213 glon= 134.03 glat= 13.74 dist= 138.15 slp=
99044.05 pgradient= -7.54051
i= 242 j= 213 glon= 134.37 glat= 13.74 dist= 102.02 slp=
98149.37 pgradient= *****
i= 244 j= 213 glon= 134.72 glat= 13.74 dist= 67.08 slp=
96457.60 pgradient= *****
i= 246 j= 213 glon= 135.06 glat= 13.74 dist= 36.94 slp=
95135.91 pgradient= *****
i= 248 j= 213 glon= 135.41 glat= 13.74 dist= 31.57 slp=
95202.47 pgradient= *****
i= 250 j= 213 glon= 135.75 glat= 13.74 dist= 58.20 slp=
97281.51 pgradient= *****
i= 252 j= 213 glon= 136.10 glat= 13.74 dist= 92.49 slp=
98497.84 pgradient= *****
i= 254 j= 213 glon= 136.44 glat= 13.74 dist= 128.42 slp=
99083.83 pgradient= -7.80214
i= 256 j= 213 glon= 136.79 glat= 13.74 dist= 164.89 slp=
99456.25 pgradient= -3.81761
i= 258 j= 213 glon= 137.13 glat= 13.74 dist= 201.63 slp=
99724.40 pgradient= -1.79219
i= 260 j= 213 glon= 137.48 glat= 13.74 dist= 238.52 slp=
99872.98 pgradient= -0.89204
i= 262 j= 213 glon= 137.82 glat= 13.74 dist= 275.48 slp=
99977.16 pgradient= -0.39416
i= 232 j= 215 glon= 132.65 glat= 13.40 dist= 291.67 slp=
100026.64 pgradient= -0.20266
i= 234 j= 215 glon= 133.00 glat= 13.40 dist= 255.54 slp=
99903.57 pgradient= -0.71291
i= 236 j= 215 glon= 133.34 glat= 13.40 dist= 219.78 slp=
99720.44 pgradient= -1.66215
i= 238 j= 215 glon= 133.69 glat= 13.40 dist= 184.57 slp=
99489.77 pgradient= -3.22902
i= 240 j= 215 glon= 134.03 glat= 13.40 dist= 150.39 slp=
99093.02 pgradient= -6.60104
i= 242 j= 215 glon= 134.37 glat= 13.40 dist= 118.01 slp=
98750.77 pgradient= *****
i= 244 j= 215 glon= 134.72 glat= 13.40 dist= 89.52 slp=
97954.94 pgradient= *****
i= 246 j= 215 glon= 135.06 glat= 13.40 dist= 69.77 slp=
97293.81 pgradient= *****
i= 248 j= 215 glon= 135.41 glat= 13.40 dist= 67.08 slp=
97493.71 pgradient= *****
i= 250 j= 215 glon= 135.75 glat= 13.40 dist= 83.07 slp=
98274.93 pgradient= *****
i= 252 j= 215 glon= 136.10 glat= 13.40 dist= 109.90 slp=
98813.09 pgradient= *****
i= 254 j= 215 glon= 136.44 glat= 13.40 dist= 141.47 slp=
99228.50 pgradient= -6.05962
i= 256 j= 215 glon= 136.79 glat= 13.40 dist= 175.29 slp=
99513.48 pgradient= -3.26463
i= 258 j= 215 glon= 137.13 glat= 13.40 dist= 210.28 slp=
99763.79 pgradient= -1.53107
i= 260 j= 215 glon= 137.48 glat= 13.40 dist= 245.91 slp=
99846.16 pgradient= -0.97432
i= 262 j= 215 glon= 137.82 glat= 13.40 dist= 281.96 slp=
99995.33 pgradient= -0.32069
i= 234 j= 217 glon= 133.00 glat= 13.07 dist= 267.74 slp=
99939.59 pgradient= -0.54588

i= 236 j= 217 glon= 133.34 glat= 13.07 dist= 233.79 slp=
99794.23 pgradient= -1.24690
i= 238 j= 217 glon= 133.69 glat= 13.07 dist= 201.03 slp=
99563.97 pgradient= -2.59560
i= 240 j= 217 glon= 134.03 glat= 13.07 dist= 170.11 slp=
99311.32 pgradient= -4.55256
i= 242 j= 217 glon= 134.37 glat= 13.07 dist= 142.27 slp=
99029.51 pgradient= -7.42416
i= 244 j= 217 glon= 134.72 glat= 13.07 dist= 119.66 slp=
98712.54 pgradient= *****
i= 246 j= 217 glon= 135.06 glat= 13.07 dist= 105.68 slp=
98630.59 pgradient= *****
i= 248 j= 217 glon= 135.41 glat= 13.07 dist= 103.92 slp=
98602.67 pgradient= *****
i= 250 j= 217 glon= 135.75 glat= 13.07 dist= 114.89 slp=
98966.45 pgradient= -9.74221
i= 252 j= 217 glon= 136.10 glat= 13.07 dist= 135.58 slp=
99189.43 pgradient= -6.61085
i= 254 j= 217 glon= 136.44 glat= 13.07 dist= 162.29 slp=
99377.25 pgradient= -4.36562
i= 256 j= 217 glon= 136.79 glat= 13.07 dist= 192.53 slp=
99628.95 pgradient= -2.37263
i= 258 j= 217 glon= 137.13 glat= 13.07 dist= 224.88 slp=
99769.07 pgradient= -1.40824
i= 260 j= 217 glon= 137.48 glat= 13.07 dist= 258.55 slp=
99882.57 pgradient= -0.78583
i= 262 j= 217 glon= 137.82 glat= 13.07 dist= 293.11 slp=
100018.52 pgradient= -0.22939
i= 234 j= 219 glon= 133.00 glat= 12.73 dist= 284.36 slp=
100011.98 pgradient= -0.25941
i= 236 j= 219 glon= 133.34 glat= 12.73 dist= 252.60 slp=
99873.61 pgradient= -0.83983
i= 238 j= 219 glon= 133.69 glat= 12.73 dist= 222.57 slp=
99709.73 pgradient= -1.68944
i= 240 j= 219 glon= 134.03 glat= 12.73 dist= 195.06 slp=
99464.41 pgradient= -3.18532
i= 242 j= 219 glon= 134.37 glat= 12.73 dist= 171.29 slp=
99245.22 pgradient= -4.90720
i= 244 j= 219 glon= 134.72 glat= 12.73 dist= 153.01 slp=
99113.95 pgradient= -6.35145
i= 246 j= 219 glon= 135.06 glat= 12.73 dist= 142.32 slp=
99040.82 pgradient= -7.34202
i= 248 j= 219 glon= 135.41 glat= 12.73 dist= 141.02 slp=
99094.38 pgradient= -7.02978
i= 250 j= 219 glon= 135.75 glat= 12.73 dist= 149.31 slp=
99273.48 pgradient= -5.44022
i= 252 j= 219 glon= 136.10 glat= 12.73 dist= 165.77 slp=
99408.02 pgradient= -4.08835
i= 254 j= 219 glon= 136.44 glat= 12.73 dist= 188.27 slp=
99564.72 pgradient= -2.76746
i= 256 j= 219 glon= 136.79 glat= 12.73 dist= 214.92 slp=
99742.17 pgradient= -1.59865
i= 258 j= 219 glon= 137.13 glat= 12.73 dist= 244.36 slp=
99824.41 pgradient= -1.06950
i= 260 j= 219 glon= 137.48 glat= 12.73 dist= 275.71 slp=
99949.27 pgradient= -0.49499
i= 236 j= 221 glon= 133.34 glat= 12.40 dist= 275.25 slp=
99937.27 pgradient= -0.53946
i= 238 j= 221 glon= 133.69 glat= 12.40 dist= 247.94 slp=
99820.83 pgradient= -1.06850

i= 240 j= 221 glon= 134.03 glat= 12.40 dist= 223.54 slp=
99710.08 pgradient= -1.68057
i= 242 j= 221 glon= 134.37 glat= 12.40 dist= 203.10 slp=
99564.16 pgradient= -2.56820
i= 244 j= 221 glon= 134.72 glat= 12.40 dist= 187.91 slp=
99453.50 pgradient= -3.36464
i= 246 j= 221 glon= 135.06 glat= 12.40 dist= 179.32 slp=
99396.66 pgradient= -3.84285
i= 248 j= 221 glon= 135.41 glat= 12.40 dist= 178.28 slp=
99420.29 pgradient= -3.73275
i= 250 j= 221 glon= 135.75 glat= 12.40 dist= 184.90 slp=
99519.02 pgradient= -3.06510
i= 252 j= 221 glon= 136.10 glat= 12.40 dist= 198.46 slp=
99628.70 pgradient= -2.30304
i= 254 j= 221 glon= 136.44 glat= 12.40 dist= 217.63 slp=
99713.65 pgradient= -1.70983
i= 256 j= 221 glon= 136.79 glat= 12.40 dist= 241.09 slp=
99798.56 pgradient= -1.19121
i= 258 j= 221 glon= 137.13 glat= 12.40 dist= 267.70 slp=
99888.97 pgradient= -0.73509
i= 260 j= 221 glon= 137.48 glat= 12.40 dist= 296.63 slp=
99981.07 pgradient= -0.35290
i= 238 j= 223 glon= 133.69 glat= 12.06 dist= 276.09 slp=
99888.66 pgradient= -0.71385
i= 240 j= 223 glon= 134.03 glat= 12.06 dist= 254.37 slp=
99849.23 pgradient= -0.92982
i= 242 j= 223 glon= 134.37 glat= 12.06 dist= 236.58 slp=
99770.38 pgradient= -1.33302
i= 244 j= 223 glon= 134.72 glat= 12.06 dist= 223.67 slp=
99712.52 pgradient= -1.66866
i= 246 j= 223 glon= 135.06 glat= 12.06 dist= 216.49 slp=
99657.80 pgradient= -1.97680
i= 248 j= 223 glon= 135.41 glat= 12.06 dist= 215.63 slp=
99648.41 pgradient= -2.02822
i= 250 j= 223 glon= 135.75 glat= 12.06 dist= 221.14 slp=
99744.96 pgradient= -1.54103
i= 252 j= 223 glon= 136.10 glat= 12.06 dist= 232.61 slp=
99797.98 pgradient= -1.23715
i= 254 j= 223 glon= 136.44 glat= 12.06 dist= 249.18 slp=
99816.29 pgradient= -1.08137
i= 256 j= 223 glon= 136.79 glat= 12.06 dist= 269.94 slp=
99907.85 pgradient= -0.65903
i= 258 j= 223 glon= 137.13 glat= 12.06 dist= 293.99 slp=
99993.60 pgradient= -0.31344
i= 240 j= 225 glon= 134.03 glat= 11.72 dist= 286.85 slp=
99958.15 pgradient= -0.44484
i= 242 j= 225 glon= 134.37 glat= 11.72 dist= 271.16 slp=
99866.80 pgradient= -0.80746
i= 244 j= 225 glon= 134.72 glat= 11.72 dist= 259.95 slp=
99810.11 pgradient= -1.06034
i= 246 j= 225 glon= 135.06 glat= 11.72 dist= 253.79 slp=
99779.84 pgradient= -1.20537
i= 248 j= 225 glon= 135.41 glat= 11.72 dist= 253.07 slp=
99772.95 pgradient= -1.23605
i= 250 j= 225 glon= 135.75 glat= 11.72 dist= 257.79 slp=
99841.62 pgradient= -0.94704
i= 252 j= 225 glon= 136.10 glat= 11.72 dist= 267.70 slp=
99910.01 pgradient= -0.65650
i= 254 j= 225 glon= 136.44 glat= 11.72 dist= 282.24 slp=
99945.16 pgradient= -0.49811

```
i= 244 j= 227 glon= 134.72 glat= 11.38 dist= 296.59 slp=
99950.63 pgradient= -0.45557
i= 246 j= 227 glon= 135.06 glat= 11.38 dist= 291.20 slp=
99921.84 pgradient= -0.56289
i= 248 j= 227 glon= 135.41 glat= 11.38 dist= 290.56 slp=
99922.64 pgradient= -0.56136
i= 250 j= 227 glon= 135.75 glat= 11.38 dist= 294.69 slp=
99965.16 pgradient= -0.40920
```

```
!!! In is_it_a_storm, valid pgradient NOT FOUND.
!!! (Max pgradient less than 0.00150 mb/km)
!!! Max pgradient (mb/km) found = -0.12342
```

```
ttest at location C ELSE....
  xinp_fixlat= 13.99414
  xinp_fixlon= 135.2825
ttest at location D
ttest at location E, ifilret= 0
ttest at location F
```

```
Checking 850 mb Vt speed using 850 mb
wind circulation fix:
850 mb wcirc fix lon= 134.9561
850 mb wcirc fix lat= 14.77406
Multi-parm fix lon= 135.2825
Multi-parm fix lat= 13.99414
```

```
Beginning of get_ij_bounds...
geslat= 14.77406 geslon= 134.9561
```

```
+++ Near top of get_ij_bounds,
+++ geslat= 14.77406 geslon= 134.9561
+++ rglatmax= 44.92863 rglatmin= -9.516106
+++ rglonmax= 163.1479 rglonmin= 92.85205
+++ imax= 409 jmax= 349
+++ dx= 0.1722946 dy= 0.1621475 nhalf= 0
+++ npts= 13
+++ nhalf<=0 so jhlatpts and jripts unused
+++ jmaxlatpts= 28
+++ jlatfix= 186
+++ jbeg= 158 jend= 214
+++ nhalf<=0 so rdeg,ri,cosfac,dtr,dtk,dlon unused
+++ ibmaxlonpts= 24 dx= 0.1722946 dy= 0.1621475
+++ (orig) ilonfix= 246
+++ (orig) ibeg= 222 iend= 270
+++
```

```
After get_ij B, ibeg jbeg = 222 158
After get_ij B, iend jend = 270 214
```

```
In is_it_a_storm, ilonfix= 246 jlatfix= 186
ibeg jbeg iend jend = 222 158 270 214
cparm= v850 parmlon parmlat = 134.9561 14.77406
parmval= -26.68738
```

```
i= 240 j= 196 glon= 134.03 glat= 16.57 u= -23.8229 v= -8.8799 vr=
2.69202 vt= 25.28114
```

i= 242 j= 196 glon= 134.37 glat= 16.57 u= -26.6613 v= -6.4620 vr=
1.80082 vt= 27.37409
i= 244 j= 196 glon= 134.72 glat= 16.57 u= -28.1556 v= -5.5829 vr=
-1.97466 vt= 28.63579
i= 246 j= 196 glon= 135.06 glat= 16.57 u= -28.6737 v= -2.9334 vr=
-4.59875 vt= 28.45408
i= 248 j= 196 glon= 135.41 glat= 16.57 u= -29.2144 v= 0.8818 vr=
-6.06212 vt= 28.59207
i= 250 j= 196 glon= 135.75 glat= 16.57 u= -28.3493 v= 3.4459 vr=
-8.02374 vt= 27.40757
i= 238 j= 198 glon= 133.69 glat= 16.23 u= -22.0672 v= -12.2726 vr=
4.80680 vt= 24.78851
i= 240 j= 198 glon= 134.03 glat= 16.23 u= -25.0331 v= -11.1405 vr=
3.57205 vt= 27.16629
i= 242 j= 198 glon= 134.37 glat= 16.23 u= -27.7903 v= -10.8346 vr=
-0.14472 vt= 29.82727
i= 244 j= 198 glon= 134.72 glat= 16.23 u= -28.7033 v= -5.7728 vr=
-1.25691 vt= 29.25108
i= 246 j= 198 glon= 135.06 glat= 16.23 u= -31.9829 v= -3.0163 vr=
-5.31454 vt= 31.68220
i= 248 j= 198 glon= 135.41 glat= 16.23 u= -32.6849 v= 0.0243 vr=
-9.34728 vt= 31.31979
i= 250 j= 198 glon= 135.75 glat= 16.23 u= -32.1322 v= 3.8604 vr= -
11.57004 vt= 30.22438
i= 252 j= 198 glon= 136.10 glat= 16.23 u= -31.2726 v= 6.7693 vr= -
13.44723 vt= 29.03393
i= 236 j= 200 glon= 133.34 glat= 15.90 u= -19.1619 v= -15.2065 vr=
6.62972 vt= 23.54706
i= 238 j= 200 glon= 133.69 glat= 15.90 u= -22.7192 v= -14.4974 vr=
6.91698 vt= 26.04787
i= 240 j= 200 glon= 134.03 glat= 15.90 u= -25.7783 v= -14.2773 vr=
4.81862 vt= 29.07132
i= 242 j= 200 glon= 134.37 glat= 15.90 u= -27.7675 v= -12.2809 vr=
1.36477 vt= 30.33133
i= 244 j= 200 glon= 134.72 glat= 15.90 u= -33.6084 v= -9.2579 vr=
-2.40545 vt= 34.77711
i= 246 j= 200 glon= 135.06 glat= 15.90 u= -35.5794 v= -6.7398 vr=
-9.99682 vt= 34.80489
i= 248 j= 200 glon= 135.41 glat= 15.90 u= -37.0362 v= 0.0312 vr= -
13.33392 vt= 34.55270
i= 250 j= 200 glon= 135.75 glat= 15.90 u= -36.3096 v= 4.8719 vr= -
16.43368 vt= 32.74232
i= 252 j= 200 glon= 136.10 glat= 15.90 u= -32.5389 v= 7.7670 vr= -
17.19036 vt= 28.69839
i= 254 j= 200 glon= 136.44 glat= 15.90 u= -30.2528 v= 11.5478 vr= -
16.66413 vt= 27.76489
i= 236 j= 202 glon= 133.34 glat= 15.57 u= -18.1109 v= -18.4024 vr=
7.78450 vt= 24.61814
i= 238 j= 202 glon= 133.69 glat= 15.57 u= -22.3408 v= -18.2093 vr=
8.83713 vt= 27.43348
i= 240 j= 202 glon= 134.03 glat= 15.57 u= -27.5634 v= -19.8838 vr=
7.35627 vt= 33.18122
i= 242 j= 202 glon= 134.37 glat= 15.57 u= -31.4033 v= -17.5600 vr=
3.72403 vt= 35.78617
i= 244 j= 202 glon= 134.72 glat= 15.57 u= -36.2348 v= -11.3504 vr=
-0.92529 vt= 37.95963
i= 246 j= 202 glon= 135.06 glat= 15.57 u= -40.3603 v= -10.9268 vr= -
16.09302 vt= 38.59229
i= 248 j= 202 glon= 135.41 glat= 15.57 u= -43.5949 v= -5.7657 vr= -
26.00858 vt= 35.45866

i= 250 j= 202 glon= 135.75 glat= 15.57 u= -43.5125 v= 2.6062 vr= -
28.36066 vt= 33.10292
i= 252 j= 202 glon= 136.10 glat= 15.57 u= -36.7878 v= 11.3536 vr= -
23.18036 vt= 30.73944
i= 254 j= 202 glon= 136.44 glat= 15.57 u= -32.6271 v= 14.2062 vr= -
21.65922 vt= 28.23514
i= 256 j= 202 glon= 136.79 glat= 15.57 u= -28.6548 v= 16.7184 vr= -
19.29443 vt= 26.98752
i= 234 j= 204 glon= 133.00 glat= 15.24 u= -13.0402 v= -18.7140 vr= -
8.24265 vt= 21.26785
i= 236 j= 204 glon= 133.34 glat= 15.24 u= -17.9014 v= -20.8013 vr= -
11.25510 vt= 25.02945
i= 238 j= 204 glon= 133.69 glat= 15.24 u= -18.1273 v= -24.8633 vr= -
8.17840 vt= 29.66307
i= 240 j= 204 glon= 134.03 glat= 15.24 u= -28.7161 v= -23.1080 vr= -
14.84426 vt= 33.73782
i= 242 j= 204 glon= 134.37 glat= 15.24 u= -34.1699 v= -21.0861 vr= -
12.87244 vt= 38.03298
i= 244 j= 204 glon= 134.72 glat= 15.24 u= -39.3273 v= -23.8225 vr= -
-4.05567 vt= 45.80064
i= 246 j= 204 glon= 135.06 glat= 15.24 u= -47.1079 v= -12.2219 vr= -
22.21282 vt= 43.30260
i= 248 j= 204 glon= 135.41 glat= 15.24 u= -48.1575 v= -2.2511 vr= -
34.61941 vt= 33.55160
i= 250 j= 204 glon= 135.75 glat= 15.24 u= -44.7832 v= 11.3188 vr= -
32.49907 vt= 32.82473
i= 252 j= 204 glon= 136.10 glat= 15.24 u= -39.4205 v= 13.4464 vr= -
31.12399 vt= 27.67805
i= 254 j= 204 glon= 136.44 glat= 15.24 u= -34.9045 v= 15.9900 vr= -
28.31880 vt= 25.92398
i= 256 j= 204 glon= 136.79 glat= 15.24 u= -29.2658 v= 18.4426 vr= -
23.66053 vt= 25.23478
i= 234 j= 206 glon= 133.00 glat= 14.91 u= -10.6572 v= -20.7994 vr= -
9.22922 vt= 21.47121
i= 236 j= 206 glon= 133.34 glat= 14.91 u= -12.4380 v= -23.5447 vr= -
10.44621 vt= 24.49358
i= 238 j= 206 glon= 133.69 glat= 14.91 u= -19.8507 v= -24.8347 vr= -
17.11632 vt= 26.79267
i= 240 j= 206 glon= 134.03 glat= 14.91 u= -26.4944 v= -29.1879 vr= -
21.98000 vt= 32.72258
i= 242 j= 206 glon= 134.37 glat= 14.91 u= -39.1964 v= -35.2476 vr= -
30.09684 vt= 43.27738
i= 244 j= 206 glon= 134.72 glat= 14.91 u= -43.9196 v= -25.5959 vr= -
25.16398 vt= 44.16847
i= 246 j= 206 glon= 135.06 glat= 14.91 u= -55.8865 v= -16.7253 vr= -
47.73947 vt= 33.52574
i= 248 j= 206 glon= 135.41 glat= 14.91 u= -51.8340 v= 6.9725 vr= -
47.57721 vt= 21.72060
i= 250 j= 206 glon= 135.75 glat= 14.91 u= -41.3702 v= 21.3154 vr= -
37.17848 vt= 27.99287
i= 252 j= 206 glon= 136.10 glat= 14.91 u= -32.8449 v= 21.5090 vr= -
30.07580 vt= 25.23626
i= 254 j= 206 glon= 136.44 glat= 14.91 u= -31.1824 v= 22.7963 vr= -
28.99342 vt= 25.52243
i= 256 j= 206 glon= 136.79 glat= 14.91 u= -29.9021 v= 19.7869 vr= -
28.38565 vt= 21.90691
i= 234 j= 208 glon= 133.00 glat= 14.57 u= -8.3095 v= -22.6961 vr= -
10.69613 vt= 21.67373
i= 236 j= 208 glon= 133.34 glat= 14.57 u= -11.2686 v= -27.1031 vr= -
14.66862 vt= 25.42423

i= 238 j= 208 glon= 133.69 glat= 14.57 u= -12.5512 v= -30.7684 vr=
17.37846 vt= 28.32339
i= 240 j= 208 glon= 134.03 glat= 14.57 u= -21.0896 v= -36.6677 vr=
28.61319 vt= 31.15409
i= 242 j= 208 glon= 134.37 glat= 14.57 u= -26.4129 v= -48.5402 vr=
41.22003 vt= 36.80622
i= 244 j= 208 glon= 134.72 glat= 14.57 u= -48.2834 v= -41.3734 vr=
63.58128 vt= -0.68537
i= 246 j= 208 glon= 135.06 glat= 14.57 u= -69.7695 v= -21.2393 vr= -
13.50926 vt= -71.66865
i= 248 j= 208 glon= 135.41 glat= 14.57 u= -66.9411 v= 15.4038 vr= -
67.26886 vt= -13.90300
i= 250 j= 208 glon= 135.75 glat= 14.57 u= -44.2885 v= 36.7802 vr= -
52.15239 vt= 24.37989
i= 252 j= 208 glon= 136.10 glat= 14.57 u= -33.3320 v= 30.0138 vr= -
38.19077 vt= 23.52257
i= 254 j= 208 glon= 136.44 glat= 14.57 u= -23.8389 v= 30.4894 vr= -
27.86884 vt= 26.85558
i= 256 j= 208 glon= 136.79 glat= 14.57 u= -23.1594 v= 27.7205 vr= -
26.17991 vt= 24.88775
i= 234 j= 210 glon= 133.00 glat= 14.24 u= -3.3934 v= -23.7428 vr=
9.75034 vt= 21.91271
i= 236 j= 210 glon= 133.34 glat= 14.24 u= -6.8971 v= -29.6024 vr=
16.14562 vt= 25.75253
i= 238 j= 210 glon= 133.69 glat= 14.24 u= -11.2950 v= -30.3993 vr=
22.50486 vt= 23.35002
i= 240 j= 210 glon= 134.03 glat= 14.24 u= -14.7679 v= -40.1592 vr=
33.27620 vt= 26.89888
i= 242 j= 210 glon= 134.37 glat= 14.24 u= -14.4743 v= -57.9072 vr=
50.39085 vt= 31.99234
i= 244 j= 210 glon= 134.72 glat= 14.24 u= -25.8152 v= -63.8692 vr=
68.87363 vt= 1.45571
i= 246 j= 210 glon= 135.06 glat= 14.24 u= -26.1444 v= -10.6513 vr=
5.39985 vt= -27.70962
i= 248 j= 210 glon= 135.41 glat= 14.24 u= -24.8230 v= 22.8634 vr= -
33.41649 vt= -4.71773
i= 250 j= 210 glon= 135.75 glat= 14.24 u= -19.5617 v= 63.5317 vr= -
52.28656 vt= 41.04947
i= 252 j= 210 glon= 136.10 glat= 14.24 u= -9.2505 v= 48.4412 vr= -
29.46440 vt= 39.54712
i= 254 j= 210 glon= 136.44 glat= 14.24 u= -12.1197 v= 34.1246 vr= -
23.28711 vt= 27.73243
i= 256 j= 210 glon= 136.79 glat= 14.24 u= -11.3224 v= 28.0474 vr= -
18.98271 vt= 23.54807
i= 236 j= 212 glon= 133.34 glat= 13.91 u= -0.1794 v= -27.5166 vr=
13.55286 vt= 23.94816
i= 238 j= 212 glon= 133.69 glat= 13.91 u= -5.3223 v= -35.9230 vr=
25.09575 vt= 26.24869
i= 240 j= 212 glon= 134.03 glat= 13.91 u= 2.8138 v= -42.8900 vr=
27.84595 vt= 32.74254
i= 242 j= 212 glon= 134.37 glat= 13.91 u= 7.9903 v= -53.4137 vr=
40.49653 vt= 35.73370
i= 244 j= 212 glon= 134.72 glat= 13.91 u= 26.5597 v= -60.9134 vr=
52.13750 vt= 41.20133
i= 246 j= 212 glon= 135.06 glat= 13.91 u= 4.5602 v= -12.8473 vr=
13.29918 vt= 2.99691
i= 248 j= 212 glon= 135.41 glat= 13.91 u= 9.5420 v= 22.6921 vr= -
15.96975 vt= 18.73365
i= 250 j= 212 glon= 135.75 glat= 13.91 u= 11.4411 v= 58.3352 vr= -
36.03294 vt= 47.28125

```

i= 252 j= 212 glon= 136.10 glat= 13.91 u= 3.0168 v= 47.3278 vr= -
26.90368 vt= 39.05393
i= 254 j= 212 glon= 136.44 glat= 13.91 u= -0.0054 v= 36.7975 vr= -
19.05879 vt= 31.47723
i= 256 j= 212 glon= 136.79 glat= 13.91 u= -3.1692 v= 29.8908 vr= -
16.04077 vt= 25.42043
i= 236 j= 214 glon= 133.34 glat= 13.57 u= 6.0742 v= -26.4417 vr=
11.33793 vt= 24.64771
i= 238 j= 214 glon= 133.69 glat= 13.57 u= 14.2604 v= -28.1250 vr=
9.49357 vt= 30.07072
i= 240 j= 214 glon= 134.03 glat= 13.57 u= 16.7366 v= -33.7630 vr=
17.08865 vt= 33.58616
i= 242 j= 214 glon= 134.37 glat= 13.57 u= 20.4702 v= -40.3848 vr=
27.91645 vt= 35.64598
i= 244 j= 214 glon= 134.72 glat= 13.57 u= 42.9280 v= -31.1150 vr=
22.54766 vt= 47.98494
i= 246 j= 214 glon= 135.06 glat= 13.57 u= 60.8047 v= -18.7626 vr=
23.94114 vt= 58.95817
i= 248 j= 214 glon= 135.41 glat= 13.57 u= 52.0767 v= 24.9309 vr=
-5.61581 vt= 57.46295
i= 250 j= 214 glon= 135.75 glat= 13.57 u= 27.2461 v= 47.6701 vr= -
25.42825 vt= 48.66405
i= 252 j= 214 glon= 136.10 glat= 13.57 u= 14.0956 v= 38.0776 vr= -
18.52486 vt= 36.13064
i= 254 j= 214 glon= 136.44 glat= 13.57 u= 7.8594 v= 31.5819 vr= -
14.25530 vt= 29.25704

```

```

In is_it_a_storm, average 850 tangential winds are OKAY (>= +
1.500000
m/s for a NH storm).
Avg 850 tangential winds = 27.87671 m/s

```

```

!!! At least one of the isastorm flags from
!!! subroutine is_it_a_storm is "N", so
!!! either we were unable to find a good
!!! mslp gradient and/or a valid 850 mb
!!! circulation for the storm at this time,
!!! or, for the cases of midlat or tcgen
!!! tracking, a closed mslp contour could
!!! not be found, thus we will stop tracking
!!! this storm.
!!! Storm ID = 26W
!!! Storm = MANGKHUT
!!! Fcst hr = 5:00
!!! mslp gradient flag = N
!!! closed contour flag = U
!!! 850 mb winds flag = Y

```

```

After call to fixcenter, fix positions at
forecast hour= 5:00 follow:

```

```

fixpos 26W fhr= 5:00 Fix not made for this forecast hour

```

```

!!! RETURN CODE from fixcenter not equal to 0,
!!! or output from is_it_a_storm indicated the
!!! system found was not our storm, or the
!!! speed calculated indicated we may have
!!! locked onto a different center, thus a fix

```

```
!!! was not made for this storm at this
!!! forecast hour.
!!! mslp gradient check          = N
!!! mslp closed contour check = U
!!! 850 mb winds check          = Y
!!! fixcenter return code = ifret = 0
```

```
*-----*
*   New forecast hour:      6:00
*-----*
in getgridinfo_netcdf, ncfile_id=      65536
```

```
In getgridinfo, grid dimensions follow:
imax=      409   jmax=      349
dx=      0.1722946   dy=      0.1621475
```

```
DX:  midi=  204 dx=  0.1723
DY:  midj=  174 dy=  0.1621
```

```
Data Grid Lat/Lon boundaries follow:
Min Lat:  -9.516   Min Lon:  92.852
Max Lat:  44.929   Max Lon:  163.148
TEST after getgridinfo in sub tracker, iggret=      0
in beginning of tracker, imax=      409   jmax=      349
TIMING: b4 getdata ... 14:39:34
```

```
NOTE: Program is now in subroutine  getdata_netcdf.
+++ Time match in getdata_netcdf for usertime=      360
    netcdf file index= ncix=      7
+++ NetCDF read requested for parm #      1 ... parm=
ABS_VORTICITY_850
```

```
In get_var3_tlev_double, ifh=      7
                        ltix(ifh)=      7
```

```
After read, parm= ABS_VORTICITY_850      ifh=      7
lead time index=      7   parm# (ip) =      1   ncix=
7
igvret=      0
parmread lead time      parm#      parm_id      minval      maxval
6:00      1      ABS_VORTICITY_850      -
0.4073E-03  0.3061E-02
```

```
+++ NetCDF read requested for parm #      2 ... parm=
ABS_VORTICITY_700
```

```
In get_var3_tlev_double, ifh=      7
                        ltix(ifh)=      7
```

```
After read, parm= ABS_VORTICITY_700      ifh=      7
lead time index=      7   parm# (ip) =      2   ncix=
7
igvret=      0
parmread lead time      parm#      parm_id      minval      maxval
6:00      2      ABS_VORTICITY_700      -
0.3498E-03  0.2538E-02
```

```
+++ NetCDF read requested for parm #      3 ... parm=
U_850
```

```
In get_var3_tlev_double, ifh=      7
```

```

                ltix(ifah)=                7

After read, parm= U_850                ifh=                7
lead time index=                7 parm# (ip) =                3 ncix=
7
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  6:00                3        U_850
65.94    0.1000E+21
+++ NetCDF read requested for parm #    4 ... parm=
U_850

In get_var3_tlev_double, ifh=                7
                ltix(ifah)=                7

After read, parm= V_850                ifh=                7
lead time index=                7 parm# (ip) =                4 ncix=
7
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  6:00                4        V_850
69.81    0.1000E+21
+++ NetCDF read requested for parm #    5 ... parm=
U_700

In get_var3_tlev_double, ifh=                7
                ltix(ifah)=                7

After read, parm= U_700                ifh=                7
lead time index=                7 parm# (ip) =                5 ncix=
7
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  6:00                5        U_700
58.97    0.1000E+21
+++ NetCDF read requested for parm #    6 ... parm=
V_700

In get_var3_tlev_double, ifh=                7
                ltix(ifah)=                7

After read, parm= V_700                ifh=                7
lead time index=                7 parm# (ip) =                6 ncix=
7
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  6:00                6        V_700
56.52    0.1000E+21
+++ NetCDF read requested for parm #    7 ... parm=
Z_850

In get_var3_tlev_double, ifh=                7
                ltix(ifah)=                7

After read, parm= Z_850                ifh=                7
lead time index=                7 parm# (ip) =                7 ncix=
7
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval

```

```

        6:00          7          Z_850
911.4      0.1000E+21
+++ NetCDF read requested for parm #      8 ... parm=
Z_700

In get_var3_tlev_double, ifh=          7
                        ltix(ifh)=      7

After read, parm= Z_700          ifh=          7
lead time index=          7 parm# (ip) =      8 ncix=
7
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
6:00          8          Z_700
2600.      0.1000E+21
+++ NetCDF read requested for parm #      9 ... parm=
slp

In get_var3_tlev_double, ifh=          7
                        ltix(ifh)=      7

After read, parm= slp          ifh=          7
lead time index=          7 parm# (ip) =      9 ncix=
7
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
6:00          9          slp
0.9428E+05  0.1026E+06
+++ NetCDF read requested for parm #      10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          7
                        ltix(ifh)=      7

After read, parm= u_10m_gr          ifh=          7
lead time index=          7 parm# (ip) =     10 ncix=
7
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
6:00          10          u_10m_gr          -
40.96      41.17
+++ NetCDF read requested for parm #      11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          7
                        ltix(ifh)=      7

After read, parm= v_10m_gr          ifh=          7
lead time index=          7 parm# (ip) =     11 ncix=
7
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
6:00          11          v_10m_gr          -
43.48      44.47
+++ NetCDF read requested for parm #      12 ... parm=
U_500

In get_var3_tlev_double, ifh=          7
                        ltix(ifh)=      7

```

```

After read, parm= U_500                ifh= 7
lead time index= 7 parm# (ip) = 12 ncix=
7
  igvret= 0
parmread lead time  parm#  parm_id  minval  maxval
  6:00  12  U_500
56.48  44.40
+++ NetCDF read requested for parm # 13 ... parm=
V_500

In get_var3_tlev_double, ifh= 7
                        ltix(ifh)= 7

After read, parm= V_500                ifh= 7
lead time index= 7 parm# (ip) = 13 ncix=
7
  igvret= 0
parmread lead time  parm#  parm_id  minval  maxval
  6:00  13  V_500
46.87  48.55
!!! NetCDF read NOT requested for parm # 14
+++ NetCDF read requested for parm # 15 ... parm=
Z_500

In get_var3_tlev_double, ifh= 7
                        ltix(ifh)= 7

After read, parm= Z_500                ifh= 7
lead time index= 7 parm# (ip) = 15 ncix=
7
  igvret= 0
parmread lead time  parm#  parm_id  minval  maxval
  6:00  15  Z_500
5422.  5922.
+++ NetCDF read requested for parm # 16 ... parm=
Z_200

In get_var3_tlev_double, ifh= 7
                        ltix(ifh)= 7

After read, parm= Z_200                ifh= 7
lead time index= 7 parm# (ip) = 16 ncix=
7
  igvret= 0
parmread lead time  parm#  parm_id  minval  maxval
  6:00  16  Z_200
0.1188E+05  0.1254E+05
!!! NetCDF read NOT requested for parm # 17
TIMING: after getdata ... 14:39:35

Of 17 readable parms, you read in 15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter = 38316.57 dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

```

```

*   New forecast hour:      7:00
*-----*
in getgridinfo_netcdf, ncfile_id=      65536

In getgridinfo, grid dimensions follow:
imax=      409   jmax=      349
dx=      0.1722946   dy=      0.1621475

DX:  midi=  204 dx=  0.1723
DY:  midj=  174 dy=  0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:  -9.516   Min Lon:  92.852
Max Lat:  44.929   Max Lon:  163.148
TEST after getgridinfo in sub tracker, iggret=      0
in beginning of tracker, imax=      409   jmax=      349
TIMING: b4 getdata ... 14:39:35

NOTE: Program is now in subroutine  getdata_netcdf.
+++ Time match in getdata_netcdf for usertime=      420
   netcdf file index= ncix=      8
+++ NetCDF read requested for parm #      1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh=      8
                           ltix(ifh)=      8

After read, parm= ABS_VORTICITY_850           ifh=      8
lead time index=      8   parm# (ip) =      1   ncix=
8
   igvret=      0
parmread lead time   parm#   parm_id   minval   maxval
   7:00              1         ABS_VORTICITY_850
0.4574E-03  0.3329E-02
+++ NetCDF read requested for parm #      2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh=      8
                           ltix(ifh)=      8

After read, parm= ABS_VORTICITY_700           ifh=      8
lead time index=      8   parm# (ip) =      2   ncix=
8
   igvret=      0
parmread lead time   parm#   parm_id   minval   maxval
   7:00              2         ABS_VORTICITY_700
0.3428E-03  0.2540E-02
+++ NetCDF read requested for parm #      3 ... parm=
U_850

In get_var3_tlev_double, ifh=      8
                           ltix(ifh)=      8

After read, parm= U_850                       ifh=      8
lead time index=      8   parm# (ip) =      3   ncix=
8
   igvret=      0
parmread lead time   parm#   parm_id   minval   maxval
   7:00              3         U_850
76.44        0.1000E+21

```

```

+++ NetCDF read requested for parm #          4 ... parm=
V_850

In get_var3_tlev_double, ifh=                8
                        ltix(ifh)=          8

After read, parm= V_850                      ifh=                8
lead time index=          8 parm# (ip) =          4 ncix=
8
  igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
  7:00                  4          V_850
64.28      0.1000E+21
+++ NetCDF read requested for parm #          5 ... parm=
U_700

In get_var3_tlev_double, ifh=                8
                        ltix(ifh)=          8

After read, parm= U_700                      ifh=                8
lead time index=          8 parm# (ip) =          5 ncix=
8
  igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
  7:00                  5          U_700
59.56      0.1000E+21
+++ NetCDF read requested for parm #          6 ... parm=
V_700

In get_var3_tlev_double, ifh=                8
                        ltix(ifh)=          8

After read, parm= V_700                      ifh=                8
lead time index=          8 parm# (ip) =          6 ncix=
8
  igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
  7:00                  6          V_700
53.44      0.1000E+21
+++ NetCDF read requested for parm #          7 ... parm=
Z_850

In get_var3_tlev_double, ifh=                8
                        ltix(ifh)=          8

After read, parm= Z_850                      ifh=                8
lead time index=          8 parm# (ip) =          7 ncix=
8
  igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
  7:00                  7          Z_850
893.2      0.1000E+21
+++ NetCDF read requested for parm #          8 ... parm=
Z_700

In get_var3_tlev_double, ifh=                8
                        ltix(ifh)=          8

After read, parm= Z_700                      ifh=                8

```



```

lead time index=          8  parm# (ip) =          8  ncix=
8
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  7:00          8          z_700
2581.          0.1000E+21
+++ NetCDF read requested for parm #          9  ... parm=
slp

In get_var3_tlev_double, ifh=          8
                        ltix(ifh)=          8

After read, parm= slp          ifh=          8
lead time index=          8  parm# (ip) =          9  ncix=
8
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  7:00          9          slp
0.9405E+05  0.1027E+06
+++ NetCDF read requested for parm #          10  ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          8
                        ltix(ifh)=          8

After read, parm= u_10m_gr          ifh=          8
lead time index=          8  parm# (ip) =          10  ncix=
8
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  7:00          10          u_10m_gr
44.11          42.58
+++ NetCDF read requested for parm #          11  ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          8
                        ltix(ifh)=          8

After read, parm= v_10m_gr          ifh=          8
lead time index=          8  parm# (ip) =          11  ncix=
8
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  7:00          11          v_10m_gr
43.07          45.84
+++ NetCDF read requested for parm #          12  ... parm=
U_500

In get_var3_tlev_double, ifh=          8
                        ltix(ifh)=          8

After read, parm= U_500          ifh=          8
lead time index=          8  parm# (ip) =          12  ncix=
8
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  7:00          12          U_500
55.91          43.87
+++ NetCDF read requested for parm #          13  ... parm=
V_500

```

```

In get_var3_tlev_double, ifh=      8
                        ltix(ifh)= 8

After read, parm= V_500                ifh=      8
lead time index=      8 parm# (ip) =    13 ncix=
8
  igvret=      0
parmread lead time    parm#    parm_id    minval    maxval
  7:00              13      V_500
47.10      49.65
!!! NetCDF read NOT requested for parm #    14
+++ NetCDF read requested for parm #    15 ... parm=
Z_500

In get_var3_tlev_double, ifh=      8
                        ltix(ifh)= 8

After read, parm= Z_500                ifh=      8
lead time index=      8 parm# (ip) =    15 ncix=
8
  igvret=      0
parmread lead time    parm#    parm_id    minval    maxval
  7:00              15      Z_500
5408.      5920.
+++ NetCDF read requested for parm #    16 ... parm=
Z_200

In get_var3_tlev_double, ifh=      8
                        ltix(ifh)= 8

After read, parm= Z_200                ifh=      8
lead time index=      8 parm# (ip) =    16 ncix=
8
  igvret=      0
parmread lead time    parm#    parm_id    minval    maxval
  7:00              16      Z_200
0.1188E+05  0.1254E+05
!!! NetCDF read NOT requested for parm #    17
TIMING: after getdata ... 14:39:36

Of      17 readable parms, you read in      15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =    38316.57      dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:      8:00
*-----*
in getgridinfo_netcdf, ncfile_id=    65536

In getgridinfo, grid dimensions follow:
imax=      409  jmax=      349
dx=      0.1722946  dy=      0.1621475

DX:  midi=  204 dx=  0.1723

```

DY: midj= 174 dy= 0.1621

Data Grid Lat/Lon boundaries follow:

Min Lat: -9.516 Min Lon: 92.852

Max Lat: 44.929 Max Lon: 163.148

TEST after getgridinfo in sub tracker, iggret= 0

in beginning of tracker, imax= 409 jmax= 349

TIMING: b4 getdata ... 14:39:36

NOTE: Program is now in subroutine getdata_netcdf.

+++ Time match in getdata_netcdf for usertime= 480

netcdf file index= ncix= 9

+++ NetCDF read requested for parm # 1 ... parm=

ABS_VORTICITY_850

In get_var3_tlev_double, ifh= 9

ltix(ifh)= 9

After read, parm= ABS_VORTICITY_850 ifh= 9

lead time index= 9 parm# (ip) = 1 ncix= 9

igvret= 0

parmread	lead time	parm#	parm_id	minval	maxval
8:00		1	ABS_VORTICITY_850		-

0.4085E-03 0.3140E-02

+++ NetCDF read requested for parm # 2 ... parm=

ABS_VORTICITY_700

In get_var3_tlev_double, ifh= 9

ltix(ifh)= 9

After read, parm= ABS_VORTICITY_700 ifh= 9

lead time index= 9 parm# (ip) = 2 ncix= 9

igvret= 0

parmread	lead time	parm#	parm_id	minval	maxval
8:00		2	ABS_VORTICITY_700		-

0.3769E-03 0.2467E-02

+++ NetCDF read requested for parm # 3 ... parm=

U_850

In get_var3_tlev_double, ifh= 9

ltix(ifh)= 9

After read, parm= U_850 ifh= 9

lead time index= 9 parm# (ip) = 3 ncix= 9

igvret= 0

parmread	lead time	parm#	parm_id	minval	maxval
8:00		3	U_850		-

70.69 0.1000E+21

+++ NetCDF read requested for parm # 4 ... parm=

V_850

In get_var3_tlev_double, ifh= 9

ltix(ifh)= 9

After read, parm= V_850 ifh= 9

lead time index= 9 parm# (ip) = 4 ncix= 9

9

```

    igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    8:00              4        V_850
65.95      0.1000E+21
+++ NetCDF read requested for parm #    5 ... parm=
U_700

In get_var3_tlev_double, ifh=          9
                        ltix(ifh)=    9

After read, parm= U_700
lead time index=          9 parm# (ip) =    5 ncix=    9
9

    igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    8:00              5        U_700
62.87      0.1000E+21
+++ NetCDF read requested for parm #    6 ... parm=
V_700

In get_var3_tlev_double, ifh=          9
                        ltix(ifh)=    9

After read, parm= V_700
lead time index=          9 parm# (ip) =    6 ncix=    9
9

    igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    8:00              6        V_700
56.03      0.1000E+21
+++ NetCDF read requested for parm #    7 ... parm=
Z_850

In get_var3_tlev_double, ifh=          9
                        ltix(ifh)=    9

After read, parm= Z_850
lead time index=          9 parm# (ip) =    7 ncix=    9
9

    igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    8:00              7        Z_850
878.6      0.1000E+21
+++ NetCDF read requested for parm #    8 ... parm=
Z_700

In get_var3_tlev_double, ifh=          9
                        ltix(ifh)=    9

After read, parm= Z_700
lead time index=          9 parm# (ip) =    8 ncix=    9
9

    igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    8:00              8        Z_700
2570.      0.1000E+21
+++ NetCDF read requested for parm #    9 ... parm=
slp

In get_var3_tlev_double, ifh=          9

```

```

          ltix(ifh)=          9

After read, parm= slp          ifh=          9
  lead time index=          9  parm# (ip) =          9  ncix=
9
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  8:00                9        slp
0.9389E+05  0.1027E+06
+++ NetCDF read requested for parm #          10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          9
          ltix(ifh)=          9

After read, parm= u_10m_gr          ifh=          9
  lead time index=          9  parm# (ip) =          10  ncix=
9
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  8:00                10        u_10m_gr
44.01        40.92
+++ NetCDF read requested for parm #          11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          9
          ltix(ifh)=          9

After read, parm= v_10m_gr          ifh=          9
  lead time index=          9  parm# (ip) =          11  ncix=
9
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  8:00                11        v_10m_gr
41.97        42.63
+++ NetCDF read requested for parm #          12 ... parm=
U_500

In get_var3_tlev_double, ifh=          9
          ltix(ifh)=          9

After read, parm= U_500          ifh=          9
  lead time index=          9  parm# (ip) =          12  ncix=
9
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  8:00                12        U_500
55.89        44.85
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=          9
          ltix(ifh)=          9

After read, parm= V_500          ifh=          9
  lead time index=          9  parm# (ip) =          13  ncix=
9
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval

```

```

      8:00          13          V_500          -
49.73      52.30
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15 ... parm=
Z_500

In get_var3_tlev_double, ifh=          9
                        ltix(ifh)=          9

After read, parm= Z_500          ifh=          9
lead time index=          9 parm# (ip) =          15 ncix=
9
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
      8:00          15          Z_500
5402.      5922.
+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=          9
                        ltix(ifh)=          9

After read, parm= Z_200          ifh=          9
lead time index=          9 parm# (ip) =          16 ncix=
9
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
      8:00          16          Z_200
0.1188E+05  0.1254E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:39:37

Of          17 readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =          38316.57          dlat_inter =
          36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:          9:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:
imax=          409 jmax=          349
dx=          0.1722946          dy=          0.1621475

DX: midi=          204 dx=          0.1723
DY: midj=          174 dy=          0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:          -9.516 Min Lon:          92.852
Max Lat:          44.929 Max Lon:          163.148
TEST after getgridinfo in sub tracker, iggret=          0
in beginning of tracker, imax=          409 jmax=          349
TIMING: b4 getdata ... 14:39:37

```

```

NOTE: Program is now in subroutine  getdata_netcdf.
+++ Time match in getdata_netcdf for usertime=          540
   netcdf file index= ncix=          10
+++ NetCDF read requested for parm #          1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh=          10
                        ltix(ifh)=      10

After read, parm= ABS_VORTICITY_850          ifh=          10
lead time index=          10 parm# (ip) =          1 ncix=
10
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
   9:00              1          ABS_VORTICITY_850          -
0.5025E-03  0.3268E-02
+++ NetCDF read requested for parm #          2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh=          10
                        ltix(ifh)=      10

After read, parm= ABS_VORTICITY_700          ifh=          10
lead time index=          10 parm# (ip) =          2 ncix=
10
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
   9:00              2          ABS_VORTICITY_700          -
0.3909E-03  0.2548E-02
+++ NetCDF read requested for parm #          3 ... parm=
U_850

In get_var3_tlev_double, ifh=          10
                        ltix(ifh)=      10

After read, parm= U_850          ifh=          10
lead time index=          10 parm# (ip) =          3 ncix=
10
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
   9:00              3          U_850          -
64.33      0.1000E+21
+++ NetCDF read requested for parm #          4 ... parm=
V_850

In get_var3_tlev_double, ifh=          10
                        ltix(ifh)=      10

After read, parm= V_850          ifh=          10
lead time index=          10 parm# (ip) =          4 ncix=
10
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
   9:00              4          V_850          -
69.35      0.1000E+21
+++ NetCDF read requested for parm #          5 ... parm=
U_700

In get_var3_tlev_double, ifh=          10
                        ltix(ifh)=      10

```

```

After read, parm= U_700                ifh=          10
  lead time index=          10  parm# (ip) =          5  ncix=
10
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  9:00                5        U_700
63.02    0.1000E+21
+++ NetCDF read requested for parm #          6  ... parm=
V_700

In get_var3_tlev_double, ifh=          10
                        ltix(ifh)=    10

After read, parm= V_700                ifh=          10
  lead time index=          10  parm# (ip) =          6  ncix=
10
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  9:00                6        V_700
54.98    0.1000E+21
+++ NetCDF read requested for parm #          7  ... parm=
Z_850

In get_var3_tlev_double, ifh=          10
                        ltix(ifh)=    10

After read, parm= Z_850                ifh=          10
  lead time index=          10  parm# (ip) =          7  ncix=
10
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  9:00                7        Z_850
882.7    0.1000E+21
+++ NetCDF read requested for parm #          8  ... parm=
Z_700

In get_var3_tlev_double, ifh=          10
                        ltix(ifh)=    10

After read, parm= Z_700                ifh=          10
  lead time index=          10  parm# (ip) =          8  ncix=
10
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  9:00                8        Z_700
2572.    0.1000E+21
+++ NetCDF read requested for parm #          9  ... parm=
slp

In get_var3_tlev_double, ifh=          10
                        ltix(ifh)=    10

After read, parm= slp                  ifh=          10
  lead time index=          10  parm# (ip) =          9  ncix=
10
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  9:00                9        slp
0.9394E+05  0.1027E+06

```



```

+++ NetCDF read requested for parm #          10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=                10
                        ltix(ifh)=          10

After read, parm= u_10m_gr                    ifh=                10
lead time index=          10 parm# (ip) =          10 ncix=
10
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
9:00                   10          u_10m_gr
42.00                   41.50
+++ NetCDF read requested for parm #          11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=                10
                        ltix(ifh)=          10

After read, parm= v_10m_gr                    ifh=                10
lead time index=          10 parm# (ip) =          11 ncix=
10
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
9:00                   11          v_10m_gr
44.96                   44.34
+++ NetCDF read requested for parm #          12 ... parm=
U_500

In get_var3_tlev_double, ifh=                10
                        ltix(ifh)=          10

After read, parm= U_500                       ifh=                10
lead time index=          10 parm# (ip) =          12 ncix=
10
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
9:00                   12          U_500
58.65                   44.10
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=                10
                        ltix(ifh)=          10

After read, parm= V_500                       ifh=                10
lead time index=          10 parm# (ip) =          13 ncix=
10
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
9:00                   13          V_500
49.28                   49.52
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15 ... parm=
Z_500

In get_var3_tlev_double, ifh=                10
                        ltix(ifh)=          10

After read, parm= Z_500                       ifh=                10

```

```

    lead time index=          10  parm# (ip) =          15  ncix=
10
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    9:00                15          Z_500
5398.          5920.
+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=          10
                        ltix(ifh)=          10

After read, parm= Z_200          ifh=          10
    lead time index=          10  parm# (ip) =          16  ncix=
10
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    9:00                16          Z_200
0.1188E+05  0.1254E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:39:38

Of          17 readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =          38316.57          dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:   10:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:
imax=          409  jmax=          349
dx=          0.1722946  dy=          0.1621475

DX:  midi=  204  dx=  0.1723
DY:  midj=  174  dy=  0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:  -9.516  Min Lon:  92.852
Max Lat:  44.929  Max Lon:  163.148
TEST after getgridinfo in sub tracker, iggret=          0
in beginning of tracker, imax=          409  jmax=          349
TIMING: b4 getdata ... 14:39:38

NOTE: Program is now in subroutine getdata_netcdf.
+++ Time match in getdata_netcdf for usertime=          600
    netcdf file index= ncix=          11
+++ NetCDF read requested for parm #          1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh=          11
                        ltix(ifh)=          11

After read, parm= ABS_VORTICITY_850          ifh=          11

```

```

    lead time index=          11  parm# (ip) =          1  ncix=
11
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    10:00              1          ABS_VORTICITY_850      -
0.4272E-03  0.3313E-02
+++ NetCDF read requested for parm #          2  ... parm=
ABS_VORTICITY_700

    In get_var3_tlev_double, ifh=          11
                                ltix(ifh)=          11

    After read, parm= ABS_VORTICITY_700          ifh=          11
    lead time index=          11  parm# (ip) =          2  ncix=
11
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    10:00              2          ABS_VORTICITY_700      -
0.5586E-03  0.2739E-02
+++ NetCDF read requested for parm #          3  ... parm=
U_850

    In get_var3_tlev_double, ifh=          11
                                ltix(ifh)=          11

    After read, parm= U_850          ifh=          11
    lead time index=          11  parm# (ip) =          3  ncix=
11
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    10:00              3          U_850          -
69.14      0.1000E+21
+++ NetCDF read requested for parm #          4  ... parm=
V_850

    In get_var3_tlev_double, ifh=          11
                                ltix(ifh)=          11

    After read, parm= V_850          ifh=          11
    lead time index=          11  parm# (ip) =          4  ncix=
11
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    10:00              4          V_850          -
68.86      0.1000E+21
+++ NetCDF read requested for parm #          5  ... parm=
U_700

    In get_var3_tlev_double, ifh=          11
                                ltix(ifh)=          11

    After read, parm= U_700          ifh=          11
    lead time index=          11  parm# (ip) =          5  ncix=
11
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    10:00              5          U_700          -
60.99      0.1000E+21
+++ NetCDF read requested for parm #          6  ... parm=
V_700

```

```

In get_var3_tlev_double, ifh=          11
                        ltix(ifh)=     11

After read, parm= V_700                ifh=          11
lead time index=          11 parm# (ip) =          6 ncix=
11
  igvret=                   0
parmread lead time    parm#    parm_id    minval    maxval
  10:00                6        V_700
59.94      0.1000E+21
+++ NetCDF read requested for parm #          7 ... parm=
Z_850

In get_var3_tlev_double, ifh=          11
                        ltix(ifh)=     11

After read, parm= Z_850                ifh=          11
lead time index=          11 parm# (ip) =          7 ncix=
11
  igvret=                   0
parmread lead time    parm#    parm_id    minval    maxval
  10:00                7        Z_850
872.6      0.1000E+21
+++ NetCDF read requested for parm #          8 ... parm=
Z_700

In get_var3_tlev_double, ifh=          11
                        ltix(ifh)=     11

After read, parm= Z_700                ifh=          11
lead time index=          11 parm# (ip) =          8 ncix=
11
  igvret=                   0
parmread lead time    parm#    parm_id    minval    maxval
  10:00                8        Z_700
2560.      0.1000E+21
+++ NetCDF read requested for parm #          9 ... parm=
slp

In get_var3_tlev_double, ifh=          11
                        ltix(ifh)=     11

After read, parm= slp                  ifh=          11
lead time index=          11 parm# (ip) =          9 ncix=
11
  igvret=                   0
parmread lead time    parm#    parm_id    minval    maxval
  10:00                9        slp
0.9383E+05  0.1027E+06
+++ NetCDF read requested for parm #         10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          11
                        ltix(ifh)=     11

After read, parm= u_10m_gr              ifh=          11
lead time index=          11 parm# (ip) =         10 ncix=
11
  igvret=                   0

```

```

parmread lead time      parm#      parm_id      minval      maxval      -
  10:00                10          u_10m_gr
43.42      42.94
+++ NetCDF read requested for parm #      11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=      11
                        ltix(ifh)=      11

After read, parm= v_10m_gr      ifh=      11
lead time index=      11 parm# (ip) =      11 ncix=
11
igvret=      0
parmread lead time      parm#      parm_id      minval      maxval      -
  10:00                11          v_10m_gr
44.25      43.85
+++ NetCDF read requested for parm #      12 ... parm=
U_500

In get_var3_tlev_double, ifh=      11
                        ltix(ifh)=      11

After read, parm= U_500      ifh=      11
lead time index=      11 parm# (ip) =      12 ncix=
11
igvret=      0
parmread lead time      parm#      parm_id      minval      maxval      -
  10:00                12          U_500
63.19      47.14
+++ NetCDF read requested for parm #      13 ... parm=
V_500

In get_var3_tlev_double, ifh=      11
                        ltix(ifh)=      11

After read, parm= V_500      ifh=      11
lead time index=      11 parm# (ip) =      13 ncix=
11
igvret=      0
parmread lead time      parm#      parm_id      minval      maxval      -
  10:00                13          V_500
49.08      51.27
!!! NetCDF read NOT requested for parm #      14
+++ NetCDF read requested for parm #      15 ... parm=
Z_500

In get_var3_tlev_double, ifh=      11
                        ltix(ifh)=      11

After read, parm= Z_500      ifh=      11
lead time index=      11 parm# (ip) =      15 ncix=
11
igvret=      0
parmread lead time      parm#      parm_id      minval      maxval      -
  10:00                15          Z_500
5392.      5924.
+++ NetCDF read requested for parm #      16 ... parm=
Z_200

In get_var3_tlev_double, ifh=      11

```

```

                ltix(ifh)=                11

After read, parm= Z_200                    ifh=                11
  lead time index=                11  parm# (ip) =                16  ncix=
11
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  10:00                16        Z_200
0.1188E+05  0.1254E+05
!!! NetCDF read NOT requested for parm #                17
TIMING: after getdata ... 14:39:39

Of                17  readable parms, you read in                15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =    38316.57    dlat_inter =
  36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:    11:00
*-----*
in getgridinfo_netcdf, ncfile_id=                65536

In getgridinfo, grid dimensions follow:
imax=                409  jmax=                349
dx=    0.1722946    dy=    0.1621475

DX:  midi=    204  dx=    0.1723
DY:  midj=    174  dy=    0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:   -9.516  Min Lon:   92.852
Max Lat:   44.929  Max Lon:  163.148
TEST after getgridinfo in sub tracker, iggret=                0
in beginning of tracker, imax=                409  jmax=                349
TIMING: b4 getdata ... 14:39:39

NOTE: Program is now in subroutine  getdata_netcdf.
+++ Time match in getdata_netcdf for usertime=                660
    netcdf file index= ncix=                12
+++ NetCDF read requested for parm #                1  ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh=                12
                ltix(ifh)=                12

After read, parm= ABS_VORTICITY_850        ifh=                12
  lead time index=                12  parm# (ip) =                1  ncix=
12
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  11:00                1        ABS_VORTICITY_850    -
0.4608E-03  0.3440E-02
+++ NetCDF read requested for parm #                2  ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh=                12

```

```

                ltix(ifh)=                12

After read, parm= ABS_VORTICITY_700          ifh=                12
lead time index=                12 parm# (ip) =                2 ncix=
12
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  11:00                2          ABS_VORTICITY_700
0.5570E-03  0.2762E-02
+++ NetCDF read requested for parm #        3 ... parm=
U_850

In get_var3_tlev_double, ifh=                12
                ltix(ifh)=                12

After read, parm= U_850                      ifh=                12
lead time index=                12 parm# (ip) =                3 ncix=
12
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  11:00                3          U_850
66.93      0.1000E+21
+++ NetCDF read requested for parm #        4 ... parm=
V_850

In get_var3_tlev_double, ifh=                12
                ltix(ifh)=                12

After read, parm= V_850                      ifh=                12
lead time index=                12 parm# (ip) =                4 ncix=
12
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  11:00                4          V_850
71.10     0.1000E+21
+++ NetCDF read requested for parm #        5 ... parm=
U_700

In get_var3_tlev_double, ifh=                12
                ltix(ifh)=                12

After read, parm= U_700                      ifh=                12
lead time index=                12 parm# (ip) =                5 ncix=
12
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  11:00                5          U_700
62.49     0.1000E+21
+++ NetCDF read requested for parm #        6 ... parm=
V_700

In get_var3_tlev_double, ifh=                12
                ltix(ifh)=                12

After read, parm= V_700                      ifh=                12
lead time index=                12 parm# (ip) =                6 ncix=
12
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval

```

```

11:00          6          V_700          -
56.96          0.1000E+21
+++ NetCDF read requested for parm #          7 ... parm=
Z_850

In get_var3_tlev_double, ifh=          12
                        ltix(ifh)=          12

After read, parm= Z_850          ifh=          12
lead time index=          12 parm# (ip) =          7 ncix=
12
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
11:00          7          Z_850
863.0          0.1000E+21
+++ NetCDF read requested for parm #          8 ... parm=
Z_700

In get_var3_tlev_double, ifh=          12
                        ltix(ifh)=          12

After read, parm= Z_700          ifh=          12
lead time index=          12 parm# (ip) =          8 ncix=
12
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
11:00          8          Z_700
2553.          0.1000E+21
+++ NetCDF read requested for parm #          9 ... parm=
slp

In get_var3_tlev_double, ifh=          12
                        ltix(ifh)=          12

After read, parm= slp          ifh=          12
lead time index=          12 parm# (ip) =          9 ncix=
12
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
11:00          9          slp
0.9373E+05  0.1027E+06
+++ NetCDF read requested for parm #          10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          12
                        ltix(ifh)=          12

After read, parm= u_10m_gr          ifh=          12
lead time index=          12 parm# (ip) =          10 ncix=
12
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
11:00          10          u_10m_gr
41.67          40.78
+++ NetCDF read requested for parm #          11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          12
                        ltix(ifh)=          12

```



```

After read, parm= v_10m_gr          ifh=          12
lead time index=          12  parm# (ip) =          11  ncix=
12
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  11:00          11          v_10m_gr          -
43.98      43.99
+++ NetCDF read requested for parm #          12  ... parm=
U_500

In get_var3_tlev_double, ifh=          12
                        ltix(ifh)=          12

After read, parm= U_500          ifh=          12
lead time index=          12  parm# (ip) =          12  ncix=
12
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  11:00          12          U_500          -
61.55      44.45
+++ NetCDF read requested for parm #          13  ... parm=
V_500

In get_var3_tlev_double, ifh=          12
                        ltix(ifh)=          12

After read, parm= V_500          ifh=          12
lead time index=          12  parm# (ip) =          13  ncix=
12
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  11:00          13          V_500          -
49.10      55.49
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15  ... parm=
Z_500

In get_var3_tlev_double, ifh=          12
                        ltix(ifh)=          12

After read, parm= Z_500          ifh=          12
lead time index=          12  parm# (ip) =          15  ncix=
12
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  11:00          15          Z_500          -
5388.      5925.
+++ NetCDF read requested for parm #          16  ... parm=
Z_200

In get_var3_tlev_double, ifh=          12
                        ltix(ifh)=          12

After read, parm= Z_200          ifh=          12
lead time index=          12  parm# (ip) =          16  ncix=
12
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  11:00          16          Z_200          -
0.1188E+05  0.1254E+05

```

!!! NetCDF read NOT requested for parm # 17
TIMING: after getdata ... 14:39:39

Of 17 readable parms, you read in 15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter = 38316.57 dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

* New forecast hour: 12:00

in getgridinfo_netcdf, ncfile_id= 65536

In getgridinfo, grid dimensions follow:
imax= 409 jmax= 349
dx= 0.1722946 dy= 0.1621475

DX: midi= 204 dx= 0.1723
DY: midj= 174 dy= 0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat: -9.516 Min Lon: 92.852
Max Lat: 44.929 Max Lon: 163.148
TEST after getgridinfo in sub tracker, iggret= 0
in beginning of tracker, imax= 409 jmax= 349
TIMING: b4 getdata ... 14:39:39

NOTE: Program is now in subroutine getdata_netcdf.
+++ Time match in getdata_netcdf for usertime= 720
netcdf file index= ncix= 13
+++ NetCDF read requested for parm # 1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh= 13
ltix(ifh)= 13

After read, parm= ABS_VORTICITY_850 ifh= 13
lead time index= 13 parm# (ip) = 1 ncix=
13
igvret= 0
parmread lead time parm# parm_id minval maxval
12:00 1 ABS_VORTICITY_850 -
0.4233E-03 0.3492E-02

+++ NetCDF read requested for parm # 2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh= 13
ltix(ifh)= 13

After read, parm= ABS_VORTICITY_700 ifh= 13
lead time index= 13 parm# (ip) = 2 ncix=
13
igvret= 0
parmread lead time parm# parm_id minval maxval
12:00 2 ABS_VORTICITY_700 -
0.4843E-03 0.2742E-02

```

+++ NetCDF read requested for parm #          3 ... parm=
U_850

In get_var3_tlev_double, ifh=                13
                        ltix(ifh)=          13

After read, parm= U_850                      ifh=                13
lead time index=          13 parm# (ip) =          3 ncix=
13
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
12:00                  3          U_850
64.84      0.1000E+21
+++ NetCDF read requested for parm #          4 ... parm=
V_850

In get_var3_tlev_double, ifh=                13
                        ltix(ifh)=          13

After read, parm= V_850                      ifh=                13
lead time index=          13 parm# (ip) =          4 ncix=
13
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
12:00                  4          V_850
64.66      0.1000E+21
+++ NetCDF read requested for parm #          5 ... parm=
U_700

In get_var3_tlev_double, ifh=                13
                        ltix(ifh)=          13

After read, parm= U_700                      ifh=                13
lead time index=          13 parm# (ip) =          5 ncix=
13
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
12:00                  5          U_700
64.34      0.1000E+21
+++ NetCDF read requested for parm #          6 ... parm=
V_700

In get_var3_tlev_double, ifh=                13
                        ltix(ifh)=          13

After read, parm= V_700                      ifh=                13
lead time index=          13 parm# (ip) =          6 ncix=
13
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
12:00                  6          V_700
57.64      0.1000E+21
+++ NetCDF read requested for parm #          7 ... parm=
Z_850

In get_var3_tlev_double, ifh=                13
                        ltix(ifh)=          13

After read, parm= Z_850                      ifh=                13

```

```

lead time index=          13  parm# (ip) =          7  ncix=
13
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  12:00          7          Z_850
855.9      0.1000E+21
+++ NetCDF read requested for parm #          8  ... parm=
Z_700

In get_var3_tlev_double, ifh=          13
                        ltix(ifh)=          13

After read, parm= Z_700          ifh=          13
lead time index=          13  parm# (ip) =          8  ncix=
13
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  12:00          8          Z_700
2547.      0.1000E+21
+++ NetCDF read requested for parm #          9  ... parm=
slp

In get_var3_tlev_double, ifh=          13
                        ltix(ifh)=          13

After read, parm= slp          ifh=          13
lead time index=          13  parm# (ip) =          9  ncix=
13
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  12:00          9          slp
0.9365E+05  0.1026E+06
+++ NetCDF read requested for parm #         10  ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          13
                        ltix(ifh)=          13

After read, parm= u_10m_gr          ifh=          13
lead time index=          13  parm# (ip) =         10  ncix=
13
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  12:00         10          u_10m_gr
44.80      43.56
+++ NetCDF read requested for parm #         11  ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          13
                        ltix(ifh)=          13

After read, parm= v_10m_gr          ifh=          13
lead time index=          13  parm# (ip) =         11  ncix=
13
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  12:00         11          v_10m_gr
42.27      46.54
+++ NetCDF read requested for parm #         12  ... parm=
U_500

```

```

In get_var3_tlev_double, ifh=          13
                        ltix(ifh)=      13

After read, parm= U_500                ifh=          13
lead time index=          13 parm# (ip) =          12 ncix=
13
igvret=                      0
parmread lead time    parm#    parm_id    minval    maxval
12:00                12        U_500
62.17                51.84
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=          13
                        ltix(ifh)=      13

After read, parm= V_500                ifh=          13
lead time index=          13 parm# (ip) =          13 ncix=
13
igvret=                      0
parmread lead time    parm#    parm_id    minval    maxval
12:00                13        V_500
52.33                47.85
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15 ... parm=
Z_500

In get_var3_tlev_double, ifh=          13
                        ltix(ifh)=      13

After read, parm= Z_500                ifh=          13
lead time index=          13 parm# (ip) =          15 ncix=
13
igvret=                      0
parmread lead time    parm#    parm_id    minval    maxval
12:00                15        Z_500
5384.                5929.
+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=          13
                        ltix(ifh)=      13

After read, parm= Z_200                ifh=          13
lead time index=          13 parm# (ip) =          16 ncix=
13
igvret=                      0
parmread lead time    parm#    parm_id    minval    maxval
12:00                16        Z_200
0.1187E+05  0.1254E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:39:40

Of          17 readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter = 38316.57      dlat_inter =
36059.95

```

!!! Case 2 in tracker for stormswitch

!!! Storm name = MANGKHUT
!!! Storm ID = 26W

* New forecast hour: 13:00

in getgridinfo_netcdf, ncfile_id= 65536

In getgridinfo, grid dimensions follow:
imax= 409 jmax= 349
dx= 0.1722946 dy= 0.1621475

DX: midi= 204 dx= 0.1723
DY: midj= 174 dy= 0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat: -9.516 Min Lon: 92.852
Max Lat: 44.929 Max Lon: 163.148
TEST after getgridinfo in sub tracker, iggret= 0
in beginning of tracker, imax= 409 jmax= 349
TIMING: b4 getdata ... 14:39:40

NOTE: Program is now in subroutine getdata_netcdf.
+++ Time match in getdata_netcdf for usertime= 780
netcdf file index= ncix= 14
+++ NetCDF read requested for parm # 1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh= 14
ltix(ifh)= 14

After read, parm= ABS_VORTICITY_850 ifh= 14
lead time index= 14 parm# (ip) = 1 ncix=
14
igvret= 0
parmread lead time parm# parm_id minval maxval
13:00 1 ABS_VORTICITY_850 -
0.5292E-03 0.3862E-02
+++ NetCDF read requested for parm # 2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh= 14
ltix(ifh)= 14

After read, parm= ABS_VORTICITY_700 ifh= 14
lead time index= 14 parm# (ip) = 2 ncix=
14
igvret= 0
parmread lead time parm# parm_id minval maxval
13:00 2 ABS_VORTICITY_700 -
0.5413E-03 0.2798E-02
+++ NetCDF read requested for parm # 3 ... parm=
U_850

In get_var3_tlev_double, ifh= 14
ltix(ifh)= 14

After read, parm= U_850 ifh= 14
lead time index= 14 parm# (ip) = 3 ncix=
14

```

    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      13:00              3        U_850
76.21      0.1000E+21
+++ NetCDF read requested for parm #    4 ... parm=
V_850

    In get_var3_tlev_double, ifh=          14
                          ltix(ifh)=      14

    After read, parm= V_850
    lead time index=          14 parm# (ip) =          4 ncix=
14
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      13:00              4        V_850
70.81      0.1000E+21
+++ NetCDF read requested for parm #    5 ... parm=
U_700

    In get_var3_tlev_double, ifh=          14
                          ltix(ifh)=      14

    After read, parm= U_700
    lead time index=          14 parm# (ip) =          5 ncix=
14
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      13:00              5        U_700
66.95      0.1000E+21
+++ NetCDF read requested for parm #    6 ... parm=
V_700

    In get_var3_tlev_double, ifh=          14
                          ltix(ifh)=      14

    After read, parm= V_700
    lead time index=          14 parm# (ip) =          6 ncix=
14
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      13:00              6        V_700
58.86      0.1000E+21
+++ NetCDF read requested for parm #    7 ... parm=
Z_850

    In get_var3_tlev_double, ifh=          14
                          ltix(ifh)=      14

    After read, parm= Z_850
    lead time index=          14 parm# (ip) =          7 ncix=
14
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      13:00              7        Z_850
841.9      0.1000E+21
+++ NetCDF read requested for parm #    8 ... parm=
Z_700

    In get_var3_tlev_double, ifh=          14

```

```

                ltix(ifh)=                14

After read, parm= Z_700                ifh=                14
  lead time index=                14  parm# (ip) =                8  ncix=
14
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  13:00                8        Z_700
2537.    0.1000E+21
+++ NetCDF read requested for parm #                9  ... parm=
slp

In get_var3_tlev_double, ifh=                14
                ltix(ifh)=                14

After read, parm= slp                ifh=                14
  lead time index=                14  parm# (ip) =                9  ncix=
14
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  13:00                9        slp
0.9352E+05  0.1026E+06
+++ NetCDF read requested for parm #                10  ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=                14
                ltix(ifh)=                14

After read, parm= u_10m_gr                ifh=                14
  lead time index=                14  parm# (ip) =                10  ncix=
14
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  13:00                10        u_10m_gr
45.09    45.11
+++ NetCDF read requested for parm #                11  ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=                14
                ltix(ifh)=                14

After read, parm= v_10m_gr                ifh=                14
  lead time index=                14  parm# (ip) =                11  ncix=
14
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  13:00                11        v_10m_gr
45.77    47.54
+++ NetCDF read requested for parm #                12  ... parm=
U_500

In get_var3_tlev_double, ifh=                14
                ltix(ifh)=                14

After read, parm= U_500                ifh=                14
  lead time index=                14  parm# (ip) =                12  ncix=
14
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval

```



```

13:00          12          U_500          -
64.61      46.06
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=          14
                        ltix(ifh)=          14

After read, parm= V_500          ifh=          14
lead time index=          14 parm# (ip) =          13 ncix=
14
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
13:00          13          V_500          -
48.71      56.11
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15 ... parm=
Z_500

In get_var3_tlev_double, ifh=          14
                        ltix(ifh)=          14

After read, parm= Z_500          ifh=          14
lead time index=          14 parm# (ip) =          15 ncix=
14
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
13:00          15          Z_500
5373.      5924.
+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=          14
                        ltix(ifh)=          14

After read, parm= Z_200          ifh=          14
lead time index=          14 parm# (ip) =          16 ncix=
14
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
13:00          16          Z_200
0.1187E+05  0.1256E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:39:41

Of          17 readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =          38316.57          dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:   14:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:

```

imax= 409 jmax= 349
dx= 0.1722946 dy= 0.1621475

DX: midi= 204 dx= 0.1723
DY: midj= 174 dy= 0.1621

Data Grid Lat/Lon boundaries follow:

Min Lat: -9.516 Min Lon: 92.852
Max Lat: 44.929 Max Lon: 163.148

TEST after getgridinfo in sub tracker, iggret= 0
in beginning of tracker, imax= 409 jmax= 349
TIMING: b4 getdata ... 14:39:41

NOTE: Program is now in subroutine getdata_netcdf.

+++ Time match in getdata_netcdf for usertime= 840
netcdf file index= ncix= 15
+++ NetCDF read requested for parm # 1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh= 15
ltix(ifh)= 15

After read, parm= ABS_VORTICITY_850 ifh= 15
lead time index= 15 parm# (ip) = 1 ncix=
15

igvret= 0
parmread lead time parm# parm_id minval maxval
14:00 1 ABS_VORTICITY_850 -
0.8303E-03 0.3648E-02

+++ NetCDF read requested for parm # 2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh= 15
ltix(ifh)= 15

After read, parm= ABS_VORTICITY_700 ifh= 15
lead time index= 15 parm# (ip) = 2 ncix=
15

igvret= 0
parmread lead time parm# parm_id minval maxval
14:00 2 ABS_VORTICITY_700 -
0.4114E-03 0.2740E-02

+++ NetCDF read requested for parm # 3 ... parm=
U_850

In get_var3_tlev_double, ifh= 15
ltix(ifh)= 15

After read, parm= U_850 ifh= 15
lead time index= 15 parm# (ip) = 3 ncix=
15

igvret= 0
parmread lead time parm# parm_id minval maxval
14:00 3 U_850 -
68.63 0.1000E+21

+++ NetCDF read requested for parm # 4 ... parm=
V_850

In get_var3_tlev_double, ifh= 15
ltix(ifh)= 15

```

After read, parm= V_850                ifh=          15
lead time index=          15 parm# (ip) =          4 ncix=
15
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  14:00              4        V_850
69.70      0.1000E+21
+++ NetCDF read requested for parm #    5 ... parm=
U_700

In get_var3_tlev_double, ifh=          15
                        ltix(ifh)=    15

After read, parm= U_700                ifh=          15
lead time index=          15 parm# (ip) =          5 ncix=
15
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  14:00              5        U_700
64.25      0.1000E+21
+++ NetCDF read requested for parm #    6 ... parm=
V_700

In get_var3_tlev_double, ifh=          15
                        ltix(ifh)=    15

After read, parm= V_700                ifh=          15
lead time index=          15 parm# (ip) =          6 ncix=
15
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  14:00              6        V_700
58.60      0.1000E+21
+++ NetCDF read requested for parm #    7 ... parm=
Z_850

In get_var3_tlev_double, ifh=          15
                        ltix(ifh)=    15

After read, parm= Z_850                ifh=          15
lead time index=          15 parm# (ip) =          7 ncix=
15
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  14:00              7        Z_850
823.2      0.1000E+21
+++ NetCDF read requested for parm #    8 ... parm=
Z_700

In get_var3_tlev_double, ifh=          15
                        ltix(ifh)=    15

After read, parm= Z_700                ifh=          15
lead time index=          15 parm# (ip) =          8 ncix=
15
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  14:00              8        Z_700
2523.      0.1000E+21

```

```

+++ NetCDF read requested for parm #          9 ... parm=
slp

In get_var3_tlev_double, ifh=                15
                        ltix(ifh)=          15

After read, parm= slp                        ifh=                15
lead time index=          15 parm# (ip) =          9 ncix=
15
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
  14:00                9          slp
0.9338E+05  0.1026E+06
+++ NetCDF read requested for parm #          10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=                15
                        ltix(ifh)=          15

After read, parm= u_10m_gr                    ifh=                15
lead time index=          15 parm# (ip) =          10 ncix=
15
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
  14:00                10          u_10m_gr
45.28      44.26
+++ NetCDF read requested for parm #          11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=                15
                        ltix(ifh)=          15

After read, parm= v_10m_gr                    ifh=                15
lead time index=          15 parm# (ip) =          11 ncix=
15
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
  14:00                11          v_10m_gr
48.72      47.00
+++ NetCDF read requested for parm #          12 ... parm=
U_500

In get_var3_tlev_double, ifh=                15
                        ltix(ifh)=          15

After read, parm= U_500                      ifh=                15
lead time index=          15 parm# (ip) =          12 ncix=
15
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
  14:00                12          U_500
61.39      45.96
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=                15
                        ltix(ifh)=          15

After read, parm= V_500                      ifh=                15

```

```

lead time index=          15  parm# (ip) =          13  ncix=
15
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  14:00          13          v_500
50.17          53.58
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15 ... parm=
Z_500

In get_var3_tlev_double, ifh=          15
                          ltix(ifh)=          15

After read, parm= Z_500          ifh=          15
lead time index=          15  parm# (ip) =          15  ncix=
15
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  14:00          15          Z_500
5364.          5922.
+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=          15
                          ltix(ifh)=          15

After read, parm= Z_200          ifh=          15
lead time index=          15  parm# (ip) =          16  ncix=
15
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  14:00          16          Z_200
0.1187E+05  0.1256E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:39:42

Of          17  readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =          38316.57          dlat_inter =
          36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:   15:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:
imax=          409  jmax=          349
dx=          0.1722946  dy=          0.1621475

DX:  midi=   204  dx=   0.1723
DY:  midj=   174  dy=   0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:   -9.516  Min Lon:   92.852
Max Lat:   44.929  Max Lon:  163.148

```

TEST after getgridinfo in sub tracker, iggret= 0
in beginning of tracker, imax= 409 jmax= 349
TIMING: b4 getdata ... 14:39:42

NOTE: Program is now in subroutine getdata_netcdf.
+++ Time match in getdata_netcdf for usertime= 900
netcdf file index= ncix= 16
+++ NetCDF read requested for parm # 1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh= 16
ltix(ifh)= 16

After read, parm= ABS_VORTICITY_850 ifh= 16
lead time index= 16 parm# (ip) = 1 ncix=
16
igvret= 0
parmread lead time parm# parm_id minval maxval
15:00 1 ABS_VORTICITY_850 -
0.6270E-03 0.3911E-02

+++ NetCDF read requested for parm # 2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh= 16
ltix(ifh)= 16

After read, parm= ABS_VORTICITY_700 ifh= 16
lead time index= 16 parm# (ip) = 2 ncix=
16
igvret= 0
parmread lead time parm# parm_id minval maxval
15:00 2 ABS_VORTICITY_700 -
0.3907E-03 0.3202E-02

+++ NetCDF read requested for parm # 3 ... parm=
U_850

In get_var3_tlev_double, ifh= 16
ltix(ifh)= 16

After read, parm= U_850 ifh= 16
lead time index= 16 parm# (ip) = 3 ncix=
16
igvret= 0
parmread lead time parm# parm_id minval maxval
15:00 3 U_850 -
70.58 0.1000E+21

+++ NetCDF read requested for parm # 4 ... parm=
V_850

In get_var3_tlev_double, ifh= 16
ltix(ifh)= 16

After read, parm= V_850 ifh= 16
lead time index= 16 parm# (ip) = 4 ncix=
16
igvret= 0
parmread lead time parm# parm_id minval maxval
15:00 4 V_850 -
72.96 0.1000E+21

+++ NetCDF read requested for parm # 5 ... parm=

```

U_700

In get_var3_tlev_double, ifh=          16
                        ltix(ifh)=     16

After read, parm= U_700                ifh=          16
lead time index=          16 parm# (ip) =          5 ncix=
16
  igvret=                   0
parmread lead time      parm#      parm_id      minval      maxval
  15:00                 5          U_700
69.99      0.1000E+21
+++ NetCDF read requested for parm #          6 ... parm=
V_700

In get_var3_tlev_double, ifh=          16
                        ltix(ifh)=     16

After read, parm= V_700                ifh=          16
lead time index=          16 parm# (ip) =          6 ncix=
16
  igvret=                   0
parmread lead time      parm#      parm_id      minval      maxval
  15:00                 6          V_700
57.67      0.1000E+21
+++ NetCDF read requested for parm #          7 ... parm=
Z_850

In get_var3_tlev_double, ifh=          16
                        ltix(ifh)=     16

After read, parm= Z_850                ifh=          16
lead time index=          16 parm# (ip) =          7 ncix=
16
  igvret=                   0
parmread lead time      parm#      parm_id      minval      maxval
  15:00                 7          Z_850
812.0      0.1000E+21
+++ NetCDF read requested for parm #          8 ... parm=
Z_700

In get_var3_tlev_double, ifh=          16
                        ltix(ifh)=     16

After read, parm= Z_700                ifh=          16
lead time index=          16 parm# (ip) =          8 ncix=
16
  igvret=                   0
parmread lead time      parm#      parm_id      minval      maxval
  15:00                 8          Z_700
2504.      0.1000E+21
+++ NetCDF read requested for parm #          9 ... parm=
slp

In get_var3_tlev_double, ifh=          16
                        ltix(ifh)=     16

After read, parm= slp                  ifh=          16
lead time index=          16 parm# (ip) =          9 ncix=
16

```

```

    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      15:00              9        slp
0.9318E+05  0.1026E+06
+++ NetCDF read requested for parm #          10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          16
                        ltix(ifh)=      16

After read, parm= u_10m_gr          ifh=          16
lead time index=          16 parm# (ip) =          10 ncix=
16
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      15:00             10      u_10m_gr
47.48      43.27
+++ NetCDF read requested for parm #          11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          16
                        ltix(ifh)=      16

After read, parm= v_10m_gr          ifh=          16
lead time index=          16 parm# (ip) =          11 ncix=
16
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      15:00             11      v_10m_gr
49.00      46.82
+++ NetCDF read requested for parm #          12 ... parm=
U_500

In get_var3_tlev_double, ifh=          16
                        ltix(ifh)=      16

After read, parm= U_500          ifh=          16
lead time index=          16 parm# (ip) =          12 ncix=
16
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      15:00             12        U_500
66.43      47.86
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=          16
                        ltix(ifh)=      16

After read, parm= V_500          ifh=          16
lead time index=          16 parm# (ip) =          13 ncix=
16
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      15:00             13        V_500
48.04      56.18
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15 ... parm=
Z_500

```



```

In get_var3_tlev_double, ifh=          16
                        ltix(ifh)=      16

After read, parm= Z_500                ifh=          16
lead time index=          16  parm# (ip) =          15  ncix=
16
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
      15:00          15          Z_500
5348.          5920.
+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=          16
                        ltix(ifh)=      16

After read, parm= Z_200                ifh=          16
lead time index=          16  parm# (ip) =          16  ncix=
16
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
      15:00          16          Z_200
0.1187E+05  0.1255E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:39:42

Of          17 readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =          38316.57      dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:   16:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:
imax=          409  jmax=          349
dx=          0.1722946      dy=          0.1621475

DX:  midi=   204  dx=   0.1723
DY:  midj=   174  dy=   0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:   -9.516  Min Lon:   92.852
Max Lat:   44.929  Max Lon:  163.148
TEST after getgridinfo in sub tracker, iggret=          0
in beginning of tracker, imax=          409  jmax=          349
TIMING: b4 getdata ... 14:39:42

NOTE: Program is now in subroutine getdata_netcdf.
+++ Time match in getdata_netcdf for usertime=          960
      netcdf file index= ncix=          17
+++ NetCDF read requested for parm #          1 ... parm=
ABS_VORTICITY_850

```

```

In get_var3_tlev_double, ifh=          17
                        ltix(ifh)=      17

After read, parm= ABS_VORTICITY_850          ifh=          17
lead time index=          17 parm# (ip) =          1 ncix=
17
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
16:00          1          ABS_VORTICITY_850          -
0.7801E-03  0.3899E-02
+++ NetCDF read requested for parm #          2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh=          17
                        ltix(ifh)=      17

After read, parm= ABS_VORTICITY_700          ifh=          17
lead time index=          17 parm# (ip) =          2 ncix=
17
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
16:00          2          ABS_VORTICITY_700          -
0.4026E-03  0.2892E-02
+++ NetCDF read requested for parm #          3 ... parm=
U_850

In get_var3_tlev_double, ifh=          17
                        ltix(ifh)=      17

After read, parm= U_850          ifh=          17
lead time index=          17 parm# (ip) =          3 ncix=
17
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
16:00          3          U_850          minval      maxval          -
82.53          0.1000E+21
+++ NetCDF read requested for parm #          4 ... parm=
V_850

In get_var3_tlev_double, ifh=          17
                        ltix(ifh)=      17

After read, parm= V_850          ifh=          17
lead time index=          17 parm# (ip) =          4 ncix=
17
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
16:00          4          V_850          minval      maxval          -
65.44          0.1000E+21
+++ NetCDF read requested for parm #          5 ... parm=
U_700

In get_var3_tlev_double, ifh=          17
                        ltix(ifh)=      17

After read, parm= U_700          ifh=          17
lead time index=          17 parm# (ip) =          5 ncix=
17
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval

```

```

16:00          5          U_700          -
70.16      0.1000E+21
+++ NetCDF read requested for parm #          6 ... parm=
V_700

In get_var3_tlev_double, ifh=          17
                        ltix(ifh)=          17

After read, parm= V_700          ifh=          17
lead time index=          17 parm# (ip) =          6 ncix=
17
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
16:00          6          V_700          -
60.17      0.1000E+21
+++ NetCDF read requested for parm #          7 ... parm=
Z_850

In get_var3_tlev_double, ifh=          17
                        ltix(ifh)=          17

After read, parm= Z_850          ifh=          17
lead time index=          17 parm# (ip) =          7 ncix=
17
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
16:00          7          Z_850
808.0      0.1000E+21
+++ NetCDF read requested for parm #          8 ... parm=
Z_700

In get_var3_tlev_double, ifh=          17
                        ltix(ifh)=          17

After read, parm= Z_700          ifh=          17
lead time index=          17 parm# (ip) =          8 ncix=
17
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
16:00          8          Z_700
2498.      0.1000E+21
+++ NetCDF read requested for parm #          9 ... parm=
slp

In get_var3_tlev_double, ifh=          17
                        ltix(ifh)=          17

After read, parm= slp          ifh=          17
lead time index=          17 parm# (ip) =          9 ncix=
17
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
16:00          9          slp
0.9314E+05  0.1026E+06
+++ NetCDF read requested for parm #          10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          17
                        ltix(ifh)=          17

```

```

After read, parm= u_10m_gr          ifh=          17
lead time index=          17 parm# (ip) =          10 ncix=
17
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  16:00          10          u_10m_gr          -
49.63          46.24
+++ NetCDF read requested for parm #          11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          17
                        ltix(ifh)=          17

After read, parm= v_10m_gr          ifh=          17
lead time index=          17 parm# (ip) =          11 ncix=
17
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  16:00          11          v_10m_gr          -
44.68          46.78
+++ NetCDF read requested for parm #          12 ... parm=
U_500

In get_var3_tlev_double, ifh=          17
                        ltix(ifh)=          17

After read, parm= U_500          ifh=          17
lead time index=          17 parm# (ip) =          12 ncix=
17
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  16:00          12          U_500          -
67.66          48.32
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=          17
                        ltix(ifh)=          17

After read, parm= V_500          ifh=          17
lead time index=          17 parm# (ip) =          13 ncix=
17
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  16:00          13          V_500          -
47.39          57.50
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15 ... parm=
Z_500

In get_var3_tlev_double, ifh=          17
                        ltix(ifh)=          17

After read, parm= Z_500          ifh=          17
lead time index=          17 parm# (ip) =          15 ncix=
17
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  16:00          15          Z_500          -
5340.          5918.

```

```

+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=                17
                             ltix(ifh)=      17

After read, parm= Z_200                      ifh=                17
lead time index=          17 parm# (ip) =      16 ncix=
17
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
16:00                  16          Z_200
0.1187E+05  0.1255E+05
!!! NetCDF read NOT requested for parm #      17
TIMING: after getdata ... 14:39:43

Of          17 readable parms, you read in      15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =      38316.57      dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:   17:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:
imax=          409  jmax=          349
dx=      0.1722946      dy=      0.1621475

DX:  midi=  204 dx=   0.1723
DY:  midj=  174 dy=   0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:   -9.516  Min Lon:   92.852
Max Lat:   44.929  Max Lon:  163.148
TEST after getgridinfo in sub tracker, iggret=          0
in beginning of tracker, imax=          409  jmax=          349
TIMING: b4 getdata ... 14:39:43

NOTE: Program is now in subroutine getdata_netcdf.
+++ Time match in getdata_netcdf for usertime=          1020
netcdf file index= ncix=          18
+++ NetCDF read requested for parm #          1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh=                18
                             ltix(ifh)=      18

After read, parm= ABS_VORTICITY_850          ifh=                18
lead time index=          18 parm# (ip) =      1  ncix=
18
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
17:00                  1          ABS_VORTICITY_850      -
0.5336E-03  0.4117E-02

```

```

+++ NetCDF read requested for parm #          2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh=                18
                        ltix(ifh)=          18

After read, parm= ABS_VORTICITY_700          ifh=                18
lead time index=          18 parm# (ip) =          2 ncix=
18
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
17:00                  2          ABS_VORTICITY_700      -
0.4013E-03  0.3051E-02
+++ NetCDF read requested for parm #          3 ... parm=
U_850

In get_var3_tlev_double, ifh=                18
                        ltix(ifh)=          18

After read, parm= U_850                      ifh=                18
lead time index=          18 parm# (ip) =          3 ncix=
18
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
17:00                  3          U_850                  -
76.34          0.1000E+21
+++ NetCDF read requested for parm #          4 ... parm=
V_850

In get_var3_tlev_double, ifh=                18
                        ltix(ifh)=          18

After read, parm= V_850                      ifh=                18
lead time index=          18 parm# (ip) =          4 ncix=
18
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
17:00                  4          V_850                  -
72.98          0.1000E+21
+++ NetCDF read requested for parm #          5 ... parm=
U_700

In get_var3_tlev_double, ifh=                18
                        ltix(ifh)=          18

After read, parm= U_700                      ifh=                18
lead time index=          18 parm# (ip) =          5 ncix=
18
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
17:00                  5          U_700                  -
68.61          0.1000E+21
+++ NetCDF read requested for parm #          6 ... parm=
V_700

In get_var3_tlev_double, ifh=                18
                        ltix(ifh)=          18

After read, parm= V_700                      ifh=                18

```

```

    lead time index=          18  parm# (ip) =          6  ncix=
18
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    17:00              6          v_700
59.57      0.1000E+21
+++ NetCDF read requested for parm #          7  ... parm=
Z_850

In get_var3_tlev_double, ifh=          18
                        ltix(ifh)=          18

After read, parm= Z_850          ifh=          18
    lead time index=          18  parm# (ip) =          7  ncix=
18
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    17:00              7          Z_850
792.1      0.1000E+21
+++ NetCDF read requested for parm #          8  ... parm=
Z_700

In get_var3_tlev_double, ifh=          18
                        ltix(ifh)=          18

After read, parm= Z_700          ifh=          18
    lead time index=          18  parm# (ip) =          8  ncix=
18
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    17:00              8          Z_700
2489.      0.1000E+21
+++ NetCDF read requested for parm #          9  ... parm=
slp

In get_var3_tlev_double, ifh=          18
                        ltix(ifh)=          18

After read, parm= slp          ifh=          18
    lead time index=          18  parm# (ip) =          9  ncix=
18
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    17:00              9          slp
0.9302E+05  0.1026E+06
+++ NetCDF read requested for parm #         10  ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          18
                        ltix(ifh)=          18

After read, parm= u_10m_gr          ifh=          18
    lead time index=          18  parm# (ip) =         10  ncix=
18
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    17:00             10          u_10m_gr
48.46      43.46
+++ NetCDF read requested for parm #         11  ... parm=
v_10m_gr

```

```

In get_var3_tlev_double, ifh=          18
                        ltix(ifh)=      18

After read, parm= v_10m_gr              ifh=          18
lead time index=          18  parm# (ip) =          11  ncix=
18
  igvret=                  0
parmread lead time      parm#      parm_id      minval      maxval
  17:00                11          v_10m_gr
46.54          45.95
+++ NetCDF read requested for parm #          12  ... parm=
U_500

In get_var3_tlev_double, ifh=          18
                        ltix(ifh)=      18

After read, parm= U_500                  ifh=          18
lead time index=          18  parm# (ip) =          12  ncix=
18
  igvret=                  0
parmread lead time      parm#      parm_id      minval      maxval
  17:00                12          U_500
66.30          44.10
+++ NetCDF read requested for parm #          13  ... parm=
V_500

In get_var3_tlev_double, ifh=          18
                        ltix(ifh)=      18

After read, parm= V_500                  ifh=          18
lead time index=          18  parm# (ip) =          13  ncix=
18
  igvret=                  0
parmread lead time      parm#      parm_id      minval      maxval
  17:00                13          V_500
50.43          60.74
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15  ... parm=
Z_500

In get_var3_tlev_double, ifh=          18
                        ltix(ifh)=      18

After read, parm= Z_500                  ifh=          18
lead time index=          18  parm# (ip) =          15  ncix=
18
  igvret=                  0
parmread lead time      parm#      parm_id      minval      maxval
  17:00                15          Z_500
5330.          5915.
+++ NetCDF read requested for parm #          16  ... parm=
Z_200

In get_var3_tlev_double, ifh=          18
                        ltix(ifh)=      18

After read, parm= Z_200                  ifh=          18
lead time index=          18  parm# (ip) =          16  ncix=
18

```



```

    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      17:00              16        Z_200
0.1186E+05  0.1255E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:39:44

Of          17 readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =    38316.57    dlat_inter =
  36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:   18:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:
imax=          409  jmax=          349
dx=    0.1722946    dy=    0.1621475

DX:  midi=   204 dx=    0.1723
DY:  midj=   174 dy=    0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:   -9.516  Min Lon:   92.852
Max Lat:   44.929  Max Lon:  163.148
TEST after getgridinfo in sub tracker, iggret=          0
in beginning of tracker, imax=          409  jmax=          349
TIMING: b4 getdata ... 14:39:44

NOTE: Program is now in subroutine  getdata_netcdf.
+++ Time match in getdata_netcdf for usertime=          1080
    netcdf file index= ncix=          19
+++ NetCDF read requested for parm #          1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh=          19
                        ltix(ifh)=          19

After read, parm= ABS_VORTICITY_850          ifh=          19
  lead time index=          19  parm# (ip) =          1  ncix=
19
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      18:00              1        ABS_VORTICITY_850    -
0.5519E-03  0.3721E-02
+++ NetCDF read requested for parm #          2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh=          19
                        ltix(ifh)=          19

After read, parm= ABS_VORTICITY_700          ifh=          19
  lead time index=          19  parm# (ip) =          2  ncix=
19

```

```

    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
    18:00                2        ABS_VORTICITY_700
0.4670E-03  0.3182E-02
+++ NetCDF read requested for parm #    3 ... parm=
U_850

    In get_var3_tlev_double, ifh=          19
                                ltix(ifh)=          19

    After read, parm= U_850                                ifh=          19
    lead time index=          19 parm# (ip) =          3 ncix=
19

    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
    18:00                3        U_850
74.06        0.1000E+21
+++ NetCDF read requested for parm #    4 ... parm=
V_850

    In get_var3_tlev_double, ifh=          19
                                ltix(ifh)=          19

    After read, parm= V_850                                ifh=          19
    lead time index=          19 parm# (ip) =          4 ncix=
19

    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
    18:00                4        V_850
77.37        0.1000E+21
+++ NetCDF read requested for parm #    5 ... parm=
U_700

    In get_var3_tlev_double, ifh=          19
                                ltix(ifh)=          19

    After read, parm= U_700                                ifh=          19
    lead time index=          19 parm# (ip) =          5 ncix=
19

    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
    18:00                5        U_700
68.99        0.1000E+21
+++ NetCDF read requested for parm #    6 ... parm=
V_700

    In get_var3_tlev_double, ifh=          19
                                ltix(ifh)=          19

    After read, parm= V_700                                ifh=          19
    lead time index=          19 parm# (ip) =          6 ncix=
19

    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
    18:00                6        V_700
68.52        0.1000E+21
+++ NetCDF read requested for parm #    7 ... parm=
Z_850

    In get_var3_tlev_double, ifh=          19

```

```

                ltix(ifh)=                19

After read, parm= Z_850                    ifh=                19
  lead time index=                19  parm# (ip) =                7  ncix=
19
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  18:00                7        Z_850
773.3    0.1000E+21
+++ NetCDF read requested for parm #                8  ... parm=
Z_700

In get_var3_tlev_double, ifh=                19
                ltix(ifh)=                19

After read, parm= Z_700                    ifh=                19
  lead time index=                19  parm# (ip) =                8  ncix=
19
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  18:00                8        Z_700
2467.    0.1000E+21
+++ NetCDF read requested for parm #                9  ... parm=
slp

In get_var3_tlev_double, ifh=                19
                ltix(ifh)=                19

After read, parm= slp                    ifh=                19
  lead time index=                19  parm# (ip) =                9  ncix=
19
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  18:00                9        slp
0.9278E+05  0.1026E+06
+++ NetCDF read requested for parm #                10  ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=                19
                ltix(ifh)=                19

After read, parm= u_10m_gr                    ifh=                19
  lead time index=                19  parm# (ip) =                10  ncix=
19
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  18:00                10        u_10m_gr
47.70    44.75
+++ NetCDF read requested for parm #                11  ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=                19
                ltix(ifh)=                19

After read, parm= v_10m_gr                    ifh=                19
  lead time index=                19  parm# (ip) =                11  ncix=
19
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval

```

```

18:00          11          v_10m_gr          -
47.92          47.37
+++ NetCDF read requested for parm #          12 ... parm=
U_500

In get_var3_tlev_double, ifh=          19
                        ltix(ifh)=          19

After read, parm= U_500          ifh=          19
lead time index=          19 parm# (ip) =          12 ncix=
19
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
18:00          12          U_500          -
67.64          42.92
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=          19
                        ltix(ifh)=          19

After read, parm= V_500          ifh=          19
lead time index=          19 parm# (ip) =          13 ncix=
19
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
18:00          13          V_500          -
54.27          55.36
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15 ... parm=
Z_500

In get_var3_tlev_double, ifh=          19
                        ltix(ifh)=          19

After read, parm= Z_500          ifh=          19
lead time index=          19 parm# (ip) =          15 ncix=
19
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
18:00          15          Z_500
5315.          5913.
+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=          19
                        ltix(ifh)=          19

After read, parm= Z_200          ifh=          19
lead time index=          19 parm# (ip) =          16 ncix=
19
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
18:00          16          Z_200
0.1185E+05  0.1254E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:39:45

Of          17 readable parms, you read in          15
parms for this fcst hour from the input grib file.

```

Just before inter rvcalc, dlon_inter = 38316.57 dlat_inter = 36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

* New forecast hour: 19:00

in getgridinfo_netcdf, ncfile_id= 65536

In getgridinfo, grid dimensions follow:
imax= 409 jmax= 349
dx= 0.1722946 dy= 0.1621475

DX: midi= 204 dx= 0.1723
DY: midj= 174 dy= 0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat: -9.516 Min Lon: 92.852
Max Lat: 44.929 Max Lon: 163.148
TEST after getgridinfo in sub tracker, iggret= 0
in beginning of tracker, imax= 409 jmax= 349
TIMING: b4 getdata ... 14:39:45

NOTE: Program is now in subroutine getdata_netcdf.
+++ Time match in getdata_netcdf for usertime= 1140
netcdf file index= ncix= 20
+++ NetCDF read requested for parm # 1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh= 20
ltix(ifh)= 20

After read, parm= ABS_VORTICITY_850 ifh= 20
lead time index= 20 parm# (ip) = 1 ncix=
20
igvret= 0
parmread lead time parm# parm_id minval maxval
19:00 1 ABS_VORTICITY_850 -
0.7059E-03 0.3746E-02

+++ NetCDF read requested for parm # 2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh= 20
ltix(ifh)= 20

After read, parm= ABS_VORTICITY_700 ifh= 20
lead time index= 20 parm# (ip) = 2 ncix=
20
igvret= 0
parmread lead time parm# parm_id minval maxval
19:00 2 ABS_VORTICITY_700 -
0.5368E-03 0.3171E-02

+++ NetCDF read requested for parm # 3 ... parm=
U_850

In get_var3_tlev_double, ifh= 20
ltix(ifh)= 20

```

After read, parm= U_850                ifh=                20
lead time index=                20  parm# (ip) =                3  ncix=
20
igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
19:00                3        U_850
72.28    0.1000E+21
+++ NetCDF read requested for parm #    4 ... parm=
V_850

In get_var3_tlev_double, ifh=                20
ltix(ifh)=                20

After read, parm= V_850                ifh=                20
lead time index=                20  parm# (ip) =                4  ncix=
20
igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
19:00                4        V_850
71.00    0.1000E+21
+++ NetCDF read requested for parm #    5 ... parm=
U_700

In get_var3_tlev_double, ifh=                20
ltix(ifh)=                20

After read, parm= U_700                ifh=                20
lead time index=                20  parm# (ip) =                5  ncix=
20
igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
19:00                5        U_700
72.50    0.1000E+21
+++ NetCDF read requested for parm #    6 ... parm=
V_700

In get_var3_tlev_double, ifh=                20
ltix(ifh)=                20

After read, parm= V_700                ifh=                20
lead time index=                20  parm# (ip) =                6  ncix=
20
igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
19:00                6        V_700
62.70    0.1000E+21
+++ NetCDF read requested for parm #    7 ... parm=
Z_850

In get_var3_tlev_double, ifh=                20
ltix(ifh)=                20

After read, parm= Z_850                ifh=                20
lead time index=                20  parm# (ip) =                7  ncix=
20
igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
19:00                7        Z_850
747.8    0.1000E+21

```

```

+++ NetCDF read requested for parm #      8 ... parm=
Z_700

In get_var3_tlev_double, ifh=             20
                        ltix(ifh)=       20

After read, parm= Z_700                    ifh=             20
lead time index=          20 parm# (ip) =          8 ncix=
20
igvret=                    0
parmread lead time      parm#      parm_id      minval      maxval
  19:00                8          Z_700
2456.          0.1000E+21
+++ NetCDF read requested for parm #      9 ... parm=
slp

In get_var3_tlev_double, ifh=             20
                        ltix(ifh)=       20

After read, parm= slp                      ifh=             20
lead time index=          20 parm# (ip) =          9 ncix=
20
igvret=                    0
parmread lead time      parm#      parm_id      minval      maxval
  19:00                9          slp
0.9263E+05  0.1026E+06
+++ NetCDF read requested for parm #     10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=             20
                        ltix(ifh)=       20

After read, parm= u_10m_gr                 ifh=             20
lead time index=          20 parm# (ip) =         10 ncix=
20
igvret=                    0
parmread lead time      parm#      parm_id      minval      maxval
  19:00               10          u_10m_gr
45.00          43.86
+++ NetCDF read requested for parm #     11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=             20
                        ltix(ifh)=       20

After read, parm= v_10m_gr                 ifh=             20
lead time index=          20 parm# (ip) =         11 ncix=
20
igvret=                    0
parmread lead time      parm#      parm_id      minval      maxval
  19:00               11          v_10m_gr
45.46          46.87
+++ NetCDF read requested for parm #     12 ... parm=
U_500

In get_var3_tlev_double, ifh=             20
                        ltix(ifh)=       20

After read, parm= U_500                    ifh=             20

```

```

    lead time index=          20  parm# (ip) =          12  ncix=
20
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    19:00          12          U_500
63.69      45.92
+++ NetCDF read requested for parm #          13  ... parm=
V_500

In get_var3_tlev_double, ifh=          20
                        ltix(ifh)=          20

After read, parm= V_500          ifh=          20
    lead time index=          20  parm# (ip) =          13  ncix=
20
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    19:00          13          V_500
53.39      55.77
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15  ... parm=
Z_500

In get_var3_tlev_double, ifh=          20
                        ltix(ifh)=          20

After read, parm= Z_500          ifh=          20
    lead time index=          20  parm# (ip) =          15  ncix=
20
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    19:00          15          Z_500
5308.      5914.
+++ NetCDF read requested for parm #          16  ... parm=
Z_200

In get_var3_tlev_double, ifh=          20
                        ltix(ifh)=          20

After read, parm= Z_200          ifh=          20
    lead time index=          20  parm# (ip) =          16  ncix=
20
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    19:00          16          Z_200
0.1185E+05  0.1253E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:39:45

Of          17  readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =          38316.57      dlat_inter =
          36059.95

```

```

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

```

```

*-----*

```

```

*   New forecast hour:   20:00

```

in getgridinfo_netcdf, ncfile_id= 65536

In getgridinfo, grid dimensions follow:
imax= 409 jmax= 349
dx= 0.1722946 dy= 0.1621475

DX: midi= 204 dx= 0.1723
DY: midj= 174 dy= 0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat: -9.516 Min Lon: 92.852
Max Lat: 44.929 Max Lon: 163.148
TEST after getgridinfo in sub tracker, iggret= 0
in beginning of tracker, imax= 409 jmax= 349
TIMING: b4 getdata ... 14:39:45

NOTE: Program is now in subroutine getdata_netcdf.
+++ Time match in getdata_netcdf for usertime= 1200
netcdf file index= ncix= 21
+++ NetCDF read requested for parm # 1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh= 21
ltix(ifh)= 21

After read, parm= ABS_VORTICITY_850 ifh= 21
lead time index= 21 parm# (ip) = 1 ncix=
21
igvret= 0
parmread lead time parm# parm_id minval maxval
20:00 1 ABS_VORTICITY_850 -
0.7355E-03 0.4043E-02
+++ NetCDF read requested for parm # 2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh= 21
ltix(ifh)= 21

After read, parm= ABS_VORTICITY_700 ifh= 21
lead time index= 21 parm# (ip) = 2 ncix=
21
igvret= 0
parmread lead time parm# parm_id minval maxval
20:00 2 ABS_VORTICITY_700 -
0.4458E-03 0.3009E-02
+++ NetCDF read requested for parm # 3 ... parm=
U_850

In get_var3_tlev_double, ifh= 21
ltix(ifh)= 21

After read, parm= U_850 ifh= 21
lead time index= 21 parm# (ip) = 3 ncix=
21
igvret= 0
parmread lead time parm# parm_id minval maxval
20:00 3 U_850 -
74.28 0.1000E+21
+++ NetCDF read requested for parm # 4 ... parm=

```

V_850

In get_var3_tlev_double, ifh=          21
                        ltix(ifh)=      21

After read, parm= V_850                ifh=          21
lead time index=          21 parm# (ip) =          4 ncix=
21
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  20:00                4          V_850
67.53      0.1000E+21
+++ NetCDF read requested for parm #          5 ... parm=
U_700

In get_var3_tlev_double, ifh=          21
                        ltix(ifh)=      21

After read, parm= U_700                ifh=          21
lead time index=          21 parm# (ip) =          5 ncix=
21
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  20:00                5          U_700
66.20      0.1000E+21
+++ NetCDF read requested for parm #          6 ... parm=
V_700

In get_var3_tlev_double, ifh=          21
                        ltix(ifh)=      21

After read, parm= V_700                ifh=          21
lead time index=          21 parm# (ip) =          6 ncix=
21
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  20:00                6          V_700
65.24      0.1000E+21
+++ NetCDF read requested for parm #          7 ... parm=
Z_850

In get_var3_tlev_double, ifh=          21
                        ltix(ifh)=      21

After read, parm= Z_850                ifh=          21
lead time index=          21 parm# (ip) =          7 ncix=
21
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  20:00                7          Z_850
753.1      0.1000E+21
+++ NetCDF read requested for parm #          8 ... parm=
Z_700

In get_var3_tlev_double, ifh=          21
                        ltix(ifh)=      21

After read, parm= Z_700                ifh=          21
lead time index=          21 parm# (ip) =          8 ncix=
21

```

```

    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      20:00              8        z_700
2455.          0.1000E+21
+++ NetCDF read requested for parm #          9 ... parm=
slp

In get_var3_tlev_double, ifh=          21
                        ltix(ifh)=      21

After read, parm= slp                      ifh=          21
lead time index=          21 parm# (ip) =          9 ncix=
21
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      20:00              9        slp
0.9259E+05  0.1026E+06
+++ NetCDF read requested for parm #          10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          21
                        ltix(ifh)=      21

After read, parm= u_10m_gr                  ifh=          21
lead time index=          21 parm# (ip) =          10 ncix=
21
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      20:00             10        u_10m_gr
45.52          46.69
+++ NetCDF read requested for parm #          11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          21
                        ltix(ifh)=      21

After read, parm= v_10m_gr                  ifh=          21
lead time index=          21 parm# (ip) =          11 ncix=
21
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      20:00             11        v_10m_gr
45.06          47.99
+++ NetCDF read requested for parm #          12 ... parm=
U_500

In get_var3_tlev_double, ifh=          21
                        ltix(ifh)=      21

After read, parm= U_500                      ifh=          21
lead time index=          21 parm# (ip) =          12 ncix=
21
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      20:00             12        U_500
65.54          47.75
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=          21

```

```

                ltix(ifah)=                21

After read, parm= V_500                      ifh=                21
  lead time index=                21  parm# (ip) =                13  ncix=
21
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  20:00                13        V_500
51.93    52.06
!!! NetCDF read NOT requested for parm #    14
+++ NetCDF read requested for parm #    15 ... parm=
Z_500

In get_var3_tlev_double, ifh=                21
                ltix(ifah)=                21

After read, parm= Z_500                      ifh=                21
  lead time index=                21  parm# (ip) =                15  ncix=
21
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  20:00                15        Z_500
5314.    5919.
+++ NetCDF read requested for parm #    16 ... parm=
Z_200

In get_var3_tlev_double, ifh=                21
                ltix(ifah)=                21

After read, parm= Z_200                      ifh=                21
  lead time index=                21  parm# (ip) =                16  ncix=
21
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  20:00                16        Z_200
0.1184E+05  0.1253E+05
!!! NetCDF read NOT requested for parm #    17
TIMING: after getdata ... 14:39:46

Of                17 readable parms, you read in                15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =    38316.57    dlat_inter =
    36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:    21:00
*-----*
in getgridinfo_netcdf, ncfile_id=                65536

In getgridinfo, grid dimensions follow:
imax=                409  jmax=                349
dx=    0.1722946    dy=    0.1621475

DX:  midi=    204 dx=    0.1723
DY:  midj=    174 dy=    0.1621

```

Data Grid Lat/Lon boundaries follow:

Min Lat: -9.516 Min Lon: 92.852

Max Lat: 44.929 Max Lon: 163.148

TEST after getgridinfo in sub tracker, iggret= 0

in beginning of tracker, imax= 409 jmax= 349

TIMING: b4 getdata ... 14:39:46

NOTE: Program is now in subroutine getdata_netcdf.

+++ Time match in getdata_netcdf for usertime= 1260

netcdf file index= ncix= 22

+++ NetCDF read requested for parm # 1 ... parm=

ABS_VORTICITY_850

In get_var3_tlev_double, ifh= 22

ltix(ifh)= 22

After read, parm= ABS_VORTICITY_850 ifh= 22

lead time index= 22 parm# (ip) = 1 ncix= 22

igvret= 0

parmread	lead time	parm#	parm_id	minval	maxval	
21:00		1	ABS_VORTICITY_850			-

0.6295E-03 0.3788E-02

+++ NetCDF read requested for parm # 2 ... parm=

ABS_VORTICITY_700

In get_var3_tlev_double, ifh= 22

ltix(ifh)= 22

After read, parm= ABS_VORTICITY_700 ifh= 22

lead time index= 22 parm# (ip) = 2 ncix= 22

igvret= 0

parmread	lead time	parm#	parm_id	minval	maxval	
21:00		2	ABS_VORTICITY_700			-

0.5405E-03 0.2926E-02

+++ NetCDF read requested for parm # 3 ... parm=

U_850

In get_var3_tlev_double, ifh= 22

ltix(ifh)= 22

After read, parm= U_850 ifh= 22

lead time index= 22 parm# (ip) = 3 ncix= 22

igvret= 0

parmread	lead time	parm#	parm_id	minval	maxval	
21:00		3	U_850			-

73.38 0.1000E+21

+++ NetCDF read requested for parm # 4 ... parm=

V_850

In get_var3_tlev_double, ifh= 22

ltix(ifh)= 22

After read, parm= V_850 ifh= 22

lead time index= 22 parm# (ip) = 4 ncix= 22

igvret= 0

parmread	lead time	parm#	parm_id	minval	maxval	
----------	-----------	-------	---------	--------	--------	--

```

21:00          4          V_850          -
66.94      0.1000E+21
+++ NetCDF read requested for parm #          5 ... parm=
U_700

In get_var3_tlev_double, ifh=          22
                        ltix(ifh)=          22

After read, parm= U_700          ifh=          22
lead time index=          22 parm# (ip) =          5 ncix=
22
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
21:00          5          U_700          -
68.64      0.1000E+21
+++ NetCDF read requested for parm #          6 ... parm=
V_700

In get_var3_tlev_double, ifh=          22
                        ltix(ifh)=          22

After read, parm= V_700          ifh=          22
lead time index=          22 parm# (ip) =          6 ncix=
22
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
21:00          6          V_700          -
58.05      0.1000E+21
+++ NetCDF read requested for parm #          7 ... parm=
Z_850

In get_var3_tlev_double, ifh=          22
                        ltix(ifh)=          22

After read, parm= Z_850          ifh=          22
lead time index=          22 parm# (ip) =          7 ncix=
22
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
21:00          7          Z_850          -
748.3      0.1000E+21
+++ NetCDF read requested for parm #          8 ... parm=
Z_700

In get_var3_tlev_double, ifh=          22
                        ltix(ifh)=          22

After read, parm= Z_700          ifh=          22
lead time index=          22 parm# (ip) =          8 ncix=
22
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
21:00          8          Z_700          -
2454.      0.1000E+21
+++ NetCDF read requested for parm #          9 ... parm=
slp

In get_var3_tlev_double, ifh=          22
                        ltix(ifh)=          22

```

```

After read, parm= slp                      ifh=          22
lead time index=          22 parm# (ip) =          9 ncix=
22
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  21:00                9          slp
0.9258E+05  0.1027E+06
+++ NetCDF read requested for parm #          10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          22
                        ltix(ifh)=          22

After read, parm= u_10m_gr                  ifh=          22
lead time index=          22 parm# (ip) =          10 ncix=
22
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  21:00                10          u_10m_gr
43.48          46.87
+++ NetCDF read requested for parm #          11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          22
                        ltix(ifh)=          22

After read, parm= v_10m_gr                  ifh=          22
lead time index=          22 parm# (ip) =          11 ncix=
22
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  21:00                11          v_10m_gr
44.79          46.21
+++ NetCDF read requested for parm #          12 ... parm=
U_500

In get_var3_tlev_double, ifh=          22
                        ltix(ifh)=          22

After read, parm= U_500                     ifh=          22
lead time index=          22 parm# (ip) =          12 ncix=
22
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  21:00                12          U_500
63.44          42.69
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=          22
                        ltix(ifh)=          22

After read, parm= V_500                     ifh=          22
lead time index=          22 parm# (ip) =          13 ncix=
22
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  21:00                13          V_500
53.63          53.50
!!! NetCDF read NOT requested for parm #          14

```

```

+++ NetCDF read requested for parm #          15 ... parm=
Z_500

In get_var3_tlev_double, ifh=                22
                        ltix(ifh)=          22

After read, parm= Z_500                      ifh=                22
lead time index=                22 parm# (ip) =          15 ncix=
22
igvret=                                0
parmread lead time      parm#      parm_id      minval      maxval
   21:00                15          Z_500
5317.                   5921.

+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=                22
                        ltix(ifh)=          22

After read, parm= Z_200                      ifh=                22
lead time index=                22 parm# (ip) =          16 ncix=
22
igvret=                                0
parmread lead time      parm#      parm_id      minval      maxval
   21:00                16          Z_200
0.1183E+05  0.1253E+05

!!! NetCDF read NOT requested for parm #      17
TIMING: after getdata ... 14:39:47

Of          17 readable parms, you read in      15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =      38316.57      dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:   22:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:
imax=          409  jmax=          349
dx=          0.1722946  dy=          0.1621475

DX:  midi=   204 dx=   0.1723
DY:  midj=   174 dy=   0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:   -9.516  Min Lon:   92.852
Max Lat:   44.929  Max Lon:  163.148
TEST after getgridinfo in sub tracker, iggret=          0
in beginning of tracker, imax=          409  jmax=          349
TIMING: b4 getdata ... 14:39:47

NOTE: Program is now in subroutine getdata_netcdf.
+++ Time match in getdata_netcdf for usertime=          1320
netcdf file index= ncix=          23

```



```

+++ NetCDF read requested for parm #          1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh=                23
                        ltix(ifh)=          23

After read, parm= ABS_VORTICITY_850          ifh=                23
lead time index=          23 parm# (ip) =          1 ncix=
23
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
22:00                  1          ABS_VORTICITY_850          -
0.6467E-03  0.4145E-02
+++ NetCDF read requested for parm #          2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh=                23
                        ltix(ifh)=          23

After read, parm= ABS_VORTICITY_700          ifh=                23
lead time index=          23 parm# (ip) =          2 ncix=
23
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
22:00                  2          ABS_VORTICITY_700          -
0.4642E-03  0.3041E-02
+++ NetCDF read requested for parm #          3 ... parm=
U_850

In get_var3_tlev_double, ifh=                23
                        ltix(ifh)=          23

After read, parm= U_850                      ifh=                23
lead time index=          23 parm# (ip) =          3 ncix=
23
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
22:00                  3          U_850          -
74.81          0.1000E+21
+++ NetCDF read requested for parm #          4 ... parm=
V_850

In get_var3_tlev_double, ifh=                23
                        ltix(ifh)=          23

After read, parm= V_850                      ifh=                23
lead time index=          23 parm# (ip) =          4 ncix=
23
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
22:00                  4          V_850          -
70.29          0.1000E+21
+++ NetCDF read requested for parm #          5 ... parm=
U_700

In get_var3_tlev_double, ifh=                23
                        ltix(ifh)=          23

After read, parm= U_700                      ifh=                23

```

```

    lead time index=          23  parm# (ip) =          5  ncix=
23
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    22:00              5          U_700
68.72      0.1000E+21
+++ NetCDF read requested for parm #          6  ... parm=
V_700

In get_var3_tlev_double, ifh=          23
                        ltix(ifh)=          23

After read, parm= V_700
    lead time index=          23  parm# (ip) =          6  ncix=
23
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    22:00              6          V_700
63.99      0.1000E+21
+++ NetCDF read requested for parm #          7  ... parm=
Z_850

In get_var3_tlev_double, ifh=          23
                        ltix(ifh)=          23

After read, parm= Z_850
    lead time index=          23  parm# (ip) =          7  ncix=
23
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    22:00              7          Z_850
745.8      0.1000E+21
+++ NetCDF read requested for parm #          8  ... parm=
Z_700

In get_var3_tlev_double, ifh=          23
                        ltix(ifh)=          23

After read, parm= Z_700
    lead time index=          23  parm# (ip) =          8  ncix=
23
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    22:00              8          Z_700
2448.      0.1000E+21
+++ NetCDF read requested for parm #          9  ... parm=
slp

In get_var3_tlev_double, ifh=          23
                        ltix(ifh)=          23

After read, parm= slp
    lead time index=          23  parm# (ip) =          9  ncix=
23
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    22:00              9          slp
0.9248E+05  0.1026E+06
+++ NetCDF read requested for parm #         10  ... parm=
u_10m_gr

```

```

In get_var3_tlev_double, ifh=          23
                        ltix(ifh)=      23

After read, parm= u_10m_gr              ifh=          23
lead time index=          23  parm# (ip) =          10  ncix=
23
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  22:00                10          u_10m_gr
47.15          43.89
+++ NetCDF read requested for parm #          11  ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          23
                        ltix(ifh)=      23

After read, parm= v_10m_gr              ifh=          23
lead time index=          23  parm# (ip) =          11  ncix=
23
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  22:00                11          v_10m_gr
48.77          46.61
+++ NetCDF read requested for parm #          12  ... parm=
U_500

In get_var3_tlev_double, ifh=          23
                        ltix(ifh)=      23

After read, parm= U_500                  ifh=          23
lead time index=          23  parm# (ip) =          12  ncix=
23
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  22:00                12          U_500
67.58          44.04
+++ NetCDF read requested for parm #          13  ... parm=
V_500

In get_var3_tlev_double, ifh=          23
                        ltix(ifh)=      23

After read, parm= V_500                  ifh=          23
lead time index=          23  parm# (ip) =          13  ncix=
23
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  22:00                13          V_500
55.03          52.83
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15  ... parm=
Z_500

In get_var3_tlev_double, ifh=          23
                        ltix(ifh)=      23

After read, parm= Z_500                  ifh=          23
lead time index=          23  parm# (ip) =          15  ncix=
23

```

```

    igvret=          0
parmread lead time    parm#      parm_id      minval      maxval
    22:00              15          Z_500
5313.          5923.
+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=          23
                        ltix(ifh)=      23

After read, parm= Z_200                      ifh=          23
lead time index=          23 parm# (ip) =          16 ncix=
23
    igvret=          0
parmread lead time    parm#      parm_id      minval      maxval
    22:00              16          Z_200
0.1183E+05  0.1253E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:39:48

Of          17 readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =          38316.57          dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:   23:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:
imax=          409 jmax=          349
dx=          0.1722946          dy=          0.1621475

DX:  midi=  204 dx=  0.1723
DY:  midj=  174 dy=  0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:  -9.516  Min Lon:  92.852
Max Lat:  44.929  Max Lon:  163.148
TEST after getgridinfo in sub tracker, iggret=          0
in beginning of tracker, imax=          409 jmax=          349
TIMING: b4 getdata ... 14:39:48

NOTE: Program is now in subroutine getdata_netcdf.
+++ Time match in getdata_netcdf for usertime=          1380
netcdf file index= ncix=          24
+++ NetCDF read requested for parm #          1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh=          24
                        ltix(ifh)=      24

After read, parm= ABS_VORTICITY_850          ifh=          24
lead time index=          24 parm# (ip) =          1 ncix=
24

```

```

    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      23:00              1      ABS_VORTICITY_850
0.7339E-03  0.3831E-02
+++ NetCDF read requested for parm #    2 ... parm=
ABS_VORTICITY_700

    In get_var3_tlev_double, ifh=          24
                          ltix(ifh)=      24

    After read, parm= ABS_VORTICITY_700          ifh=          24
    lead time index=          24 parm# (ip) =          2 ncix=
24
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      23:00              2      ABS_VORTICITY_700
0.4256E-03  0.3556E-02
+++ NetCDF read requested for parm #    3 ... parm=
U_850

    In get_var3_tlev_double, ifh=          24
                          ltix(ifh)=      24

    After read, parm= U_850          ifh=          24
    lead time index=          24 parm# (ip) =          3 ncix=
24
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      23:00              3      U_850
69.86      0.1000E+21
+++ NetCDF read requested for parm #    4 ... parm=
V_850

    In get_var3_tlev_double, ifh=          24
                          ltix(ifh)=      24

    After read, parm= V_850          ifh=          24
    lead time index=          24 parm# (ip) =          4 ncix=
24
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      23:00              4      V_850
65.61      0.1000E+21
+++ NetCDF read requested for parm #    5 ... parm=
U_700

    In get_var3_tlev_double, ifh=          24
                          ltix(ifh)=      24

    After read, parm= U_700          ifh=          24
    lead time index=          24 parm# (ip) =          5 ncix=
24
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      23:00              5      U_700
72.87      0.1000E+21
+++ NetCDF read requested for parm #    6 ... parm=
V_700

    In get_var3_tlev_double, ifh=          24

```

```

                ltix(ifh)=                24

After read, parm= V_700                ifh=                24
lead time index=                24  parm# (ip) =                6  ncix=
24
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  23:00                6        V_700
60.11    0.1000E+21
+++ NetCDF read requested for parm #                7  ... parm=
Z_850

In get_var3_tlev_double, ifh=                24
                ltix(ifh)=                24

After read, parm= Z_850                ifh=                24
lead time index=                24  parm# (ip) =                7  ncix=
24
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  23:00                7        Z_850
751.4    0.1000E+21
+++ NetCDF read requested for parm #                8  ... parm=
Z_700

In get_var3_tlev_double, ifh=                24
                ltix(ifh)=                24

After read, parm= Z_700                ifh=                24
lead time index=                24  parm# (ip) =                8  ncix=
24
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  23:00                8        Z_700
2450.    0.1000E+21
+++ NetCDF read requested for parm #                9  ... parm=
slp

In get_var3_tlev_double, ifh=                24
                ltix(ifh)=                24

After read, parm= slp                ifh=                24
lead time index=                24  parm# (ip) =                9  ncix=
24
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  23:00                9        slp
0.9254E+05  0.1027E+06
+++ NetCDF read requested for parm #                10  ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=                24
                ltix(ifh)=                24

After read, parm= u_10m_gr                ifh=                24
lead time index=                24  parm# (ip) =                10  ncix=
24
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval

```

```

23:00          10          u_10m_gr          -
45.89      47.89
+++ NetCDF read requested for parm #          11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          24
                        ltix(ifh)=          24

After read, parm= v_10m_gr          ifh=          24
lead time index=          24 parm# (ip) =          11 ncix=
24
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
23:00          11          v_10m_gr          -
45.43      49.01
+++ NetCDF read requested for parm #          12 ... parm=
U_500

In get_var3_tlev_double, ifh=          24
                        ltix(ifh)=          24

After read, parm= U_500          ifh=          24
lead time index=          24 parm# (ip) =          12 ncix=
24
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
23:00          12          U_500          -
69.79      48.42
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=          24
                        ltix(ifh)=          24

After read, parm= V_500          ifh=          24
lead time index=          24 parm# (ip) =          13 ncix=
24
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
23:00          13          V_500          -
56.32      53.82
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15 ... parm=
Z_500

In get_var3_tlev_double, ifh=          24
                        ltix(ifh)=          24

After read, parm= Z_500          ifh=          24
lead time index=          24 parm# (ip) =          15 ncix=
24
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
23:00          15          Z_500
5307.      5928.
+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=          24
                        ltix(ifh)=          24

```

```

After read, parm= Z_200                ifh=                24
  lead time index=                24  parm# (ip) =          16  ncix=
24
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  23:00                16        Z_200
0.1182E+05  0.1253E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:39:49

Of                17  readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =    38316.57    dlat_inter =
  36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:    24:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:
imax=          409  jmax=          349
dx=    0.1722946    dy=    0.1621475

DX:  midi=  204 dx=    0.1723
DY:  midj=  174 dy=    0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:   -9.516  Min Lon:   92.852
Max Lat:   44.929  Max Lon:  163.148
TEST after getgridinfo in sub tracker, iggret=                0
in beginning of tracker, imax=          409  jmax=          349
TIMING: b4 getdata ... 14:39:49

NOTE: Program is now in subroutine  getdata_netcdf.
+++ Time match in getdata_netcdf for usertime=          1440
  netcdf file index= ncix=          25
+++ NetCDF read requested for parm #          1  ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh=                25
  ltix(ifh)=                25

After read, parm= ABS_VORTICITY_850        ifh=                25
  lead time index=                25  parm# (ip) =          1  ncix=
25
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  24:00                1        ABS_VORTICITY_850    -
0.7471E-03  0.3905E-02
+++ NetCDF read requested for parm #          2  ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh=                25
  ltix(ifh)=                25

```



```

After read, parm= ABS_VORTICITY_700          ifh=          25
lead time index=          25 parm# (ip) =          2 ncix=
25
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
24:00                2        ABS_VORTICITY_700
0.3853E-03  0.3143E-02
+++ NetCDF read requested for parm #          3 ... parm=
U_850

In get_var3_tlev_double, ifh=          25
ltix(ifh)=          25

After read, parm= U_850                      ifh=          25
lead time index=          25 parm# (ip) =          3 ncix=
25
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
24:00                3        U_850
74.76                0.1000E+21
+++ NetCDF read requested for parm #          4 ... parm=
V_850

In get_var3_tlev_double, ifh=          25
ltix(ifh)=          25

After read, parm= V_850                      ifh=          25
lead time index=          25 parm# (ip) =          4 ncix=
25
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
24:00                4        V_850
63.94                0.1000E+21
+++ NetCDF read requested for parm #          5 ... parm=
U_700

In get_var3_tlev_double, ifh=          25
ltix(ifh)=          25

After read, parm= U_700                      ifh=          25
lead time index=          25 parm# (ip) =          5 ncix=
25
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
24:00                5        U_700
70.20                0.1000E+21
+++ NetCDF read requested for parm #          6 ... parm=
V_700

In get_var3_tlev_double, ifh=          25
ltix(ifh)=          25

After read, parm= V_700                      ifh=          25
lead time index=          25 parm# (ip) =          6 ncix=
25
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
24:00                6        V_700
58.52                0.1000E+21

```

```

+++ NetCDF read requested for parm #          7 ... parm=
Z_850

In get_var3_tlev_double, ifh=                25
                        ltix(ifh)=          25

After read, parm= Z_850                      ifh=                25
lead time index=                25 parm# (ip) =                7 ncix=
25
igvret=                                0
parmread lead time    parm#    parm_id    minval    maxval
  24:00                7        Z_850
737.0      0.1000E+21
+++ NetCDF read requested for parm #          8 ... parm=
Z_700

In get_var3_tlev_double, ifh=                25
                        ltix(ifh)=          25

After read, parm= Z_700                      ifh=                25
lead time index=                25 parm# (ip) =                8 ncix=
25
igvret=                                0
parmread lead time    parm#    parm_id    minval    maxval
  24:00                8        Z_700
2439.      0.1000E+21
+++ NetCDF read requested for parm #          9 ... parm=
slp

In get_var3_tlev_double, ifh=                25
                        ltix(ifh)=          25

After read, parm= slp                        ifh=                25
lead time index=                25 parm# (ip) =                9 ncix=
25
igvret=                                0
parmread lead time    parm#    parm_id    minval    maxval
  24:00                9        slp
0.9239E+05  0.1027E+06
+++ NetCDF read requested for parm #         10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=                25
                        ltix(ifh)=          25

After read, parm= u_10m_gr                    ifh=                25
lead time index=                25 parm# (ip) =               10 ncix=
25
igvret=                                0
parmread lead time    parm#    parm_id    minval    maxval
  24:00               10        u_10m_gr
48.18      50.38
+++ NetCDF read requested for parm #         11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=                25
                        ltix(ifh)=          25

After read, parm= v_10m_gr                    ifh=                25

```

```

    lead time index=          25  parm# (ip) =          11  ncix=
25
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    24:00          11          v_10m_gr      -
43.82      50.30
+++ NetCDF read requested for parm #          12  ... parm=
U_500

In get_var3_tlev_double, ifh=          25
                        ltix(ifh)=          25

After read, parm= U_500          ifh=          25
    lead time index=          25  parm# (ip) =          12  ncix=
25
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    24:00          12          U_500          -
66.81      52.34
+++ NetCDF read requested for parm #          13  ... parm=
V_500

In get_var3_tlev_double, ifh=          25
                        ltix(ifh)=          25

After read, parm= V_500          ifh=          25
    lead time index=          25  parm# (ip) =          13  ncix=
25
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    24:00          13          V_500          -
51.99      53.79
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15  ... parm=
Z_500

In get_var3_tlev_double, ifh=          25
                        ltix(ifh)=          25

After read, parm= Z_500          ifh=          25
    lead time index=          25  parm# (ip) =          15  ncix=
25
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    24:00          15          Z_500          -
5303.      5928.
+++ NetCDF read requested for parm #          16  ... parm=
Z_200

In get_var3_tlev_double, ifh=          25
                        ltix(ifh)=          25

After read, parm= Z_200          ifh=          25
    lead time index=          25  parm# (ip) =          16  ncix=
25
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    24:00          16          Z_200          -
0.1183E+05  0.1253E+05
!!! NetCDF read NOT requested for parm #          17

```

TIMING: after getdata ... 14:39:50

Of 17 readable parms, you read in 15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter = 38316.57 dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

* New forecast hour: 25:00

in getgridinfo_netcdf, ncfile_id= 65536

In getgridinfo, grid dimensions follow:
imax= 409 jmax= 349
dx= 0.1722946 dy= 0.1621475

DX: midi= 204 dx= 0.1723
DY: midj= 174 dy= 0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat: -9.516 Min Lon: 92.852
Max Lat: 44.929 Max Lon: 163.148
TEST after getgridinfo in sub tracker, iggret= 0
in beginning of tracker, imax= 409 jmax= 349
TIMING: b4 getdata ... 14:39:50

NOTE: Program is now in subroutine getdata_netcdf.
+++ Time match in getdata_netcdf for usertime= 1500
netcdf file index= ncix= 26
+++ NetCDF read requested for parm # 1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh= 26
ltix(ifh)= 26

After read, parm= ABS_VORTICITY_850 ifh= 26
lead time index= 26 parm# (ip) = 1 ncix=
26
igvret= 0
parmread lead time parm# parm_id minval maxval
25:00 1 ABS_VORTICITY_850 -
0.7506E-03 0.4067E-02
+++ NetCDF read requested for parm # 2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh= 26
ltix(ifh)= 26

After read, parm= ABS_VORTICITY_700 ifh= 26
lead time index= 26 parm# (ip) = 2 ncix=
26
igvret= 0
parmread lead time parm# parm_id minval maxval
25:00 2 ABS_VORTICITY_700 -
0.3679E-03 0.2941E-02
+++ NetCDF read requested for parm # 3 ... parm=

```

U_850

In get_var3_tlev_double, ifh=          26
                        ltix(ifh)=      26

After read, parm= U_850                ifh=          26
lead time index=          26 parm# (ip) =          3 ncix=
26
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  25:00                3          U_850
74.21      0.1000E+21
+++ NetCDF read requested for parm #      4 ... parm=
V_850

In get_var3_tlev_double, ifh=          26
                        ltix(ifh)=      26

After read, parm= V_850                ifh=          26
lead time index=          26 parm# (ip) =          4 ncix=
26
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  25:00                4          V_850
66.39      0.1000E+21
+++ NetCDF read requested for parm #      5 ... parm=
U_700

In get_var3_tlev_double, ifh=          26
                        ltix(ifh)=      26

After read, parm= U_700                ifh=          26
lead time index=          26 parm# (ip) =          5 ncix=
26
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  25:00                5          U_700
71.98      0.1000E+21
+++ NetCDF read requested for parm #      6 ... parm=
V_700

In get_var3_tlev_double, ifh=          26
                        ltix(ifh)=      26

After read, parm= V_700                ifh=          26
lead time index=          26 parm# (ip) =          6 ncix=
26
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  25:00                6          V_700
60.19      0.1000E+21
+++ NetCDF read requested for parm #      7 ... parm=
Z_850

In get_var3_tlev_double, ifh=          26
                        ltix(ifh)=      26

After read, parm= Z_850                ifh=          26
lead time index=          26 parm# (ip) =          7 ncix=
26

```

```

    igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    25:00              7        Z_850
726.8      0.1000E+21
+++ NetCDF read requested for parm #      8 ... parm=
Z_700

In get_var3_tlev_double, ifh=          26
                        ltix(ifh)=    26

After read, parm= Z_700                ifh=          26
lead time index=          26 parm# (ip) =          8 ncix=
26
    igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    25:00              8        Z_700
2431.      0.1000E+21
+++ NetCDF read requested for parm #      9 ... parm=
slp

In get_var3_tlev_double, ifh=          26
                        ltix(ifh)=    26

After read, parm= slp                  ifh=          26
lead time index=          26 parm# (ip) =          9 ncix=
26
    igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    25:00              9        slp
0.9229E+05  0.1026E+06
+++ NetCDF read requested for parm #     10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          26
                        ltix(ifh)=    26

After read, parm= u_10m_gr              ifh=          26
lead time index=          26 parm# (ip) =         10 ncix=
26
    igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    25:00             10        u_10m_gr
49.12      46.17
+++ NetCDF read requested for parm #     11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          26
                        ltix(ifh)=    26

After read, parm= v_10m_gr              ifh=          26
lead time index=          26 parm# (ip) =         11 ncix=
26
    igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    25:00             11        v_10m_gr
44.78      45.06
+++ NetCDF read requested for parm #     12 ... parm=
U_500

In get_var3_tlev_double, ifh=          26

```

```

                ltix(ifh)=                26

After read, parm= U_500                ifh=                26
lead time index=                26  parm# (ip) =                12  ncix=
26
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  25:00                12        U_500
68.73    47.67
+++ NetCDF read requested for parm #                13  ... parm=
V_500

In get_var3_tlev_double, ifh=                26
                ltix(ifh)=                26

After read, parm= V_500                ifh=                26
lead time index=                26  parm# (ip) =                13  ncix=
26
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  25:00                13        V_500
52.25    55.89
!!! NetCDF read NOT requested for parm #                14
+++ NetCDF read requested for parm #                15  ... parm=
Z_500

In get_var3_tlev_double, ifh=                26
                ltix(ifh)=                26

After read, parm= Z_500                ifh=                26
lead time index=                26  parm# (ip) =                15  ncix=
26
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  25:00                15        Z_500
5300.    5929.
+++ NetCDF read requested for parm #                16  ... parm=
Z_200

In get_var3_tlev_double, ifh=                26
                ltix(ifh)=                26

After read, parm= Z_200                ifh=                26
lead time index=                26  parm# (ip) =                16  ncix=
26
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  25:00                16        Z_200
0.1182E+05  0.1254E+05
!!! NetCDF read NOT requested for parm #                17
TIMING: after getdata ... 14:39:50

Of                17  readable parms, you read in                15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =    38316.57    dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

```

```

*-----*
*   New forecast hour:   26:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:
imax=          409  jmax=          349
dx=    0.1722946    dy=    0.1621475

DX:  midi=  204 dx=    0.1723
DY:  midj=  174 dy=    0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:  -9.516  Min Lon:   92.852
Max Lat:   44.929  Max Lon:  163.148
TEST after getgridinfo in sub tracker, iggret=          0
in beginning of tracker, imax=          409  jmax=          349
TIMING: b4 getdata ... 14:39:50

NOTE: Program is now in subroutine  getdata_netcdf.
+++ Time match in getdata_netcdf for usertime=          1560
   netcdf file index= ncix=          27
+++ NetCDF read requested for parm #          1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh=          27
                           ltix(ifh)=          27

After read, parm= ABS_VORTICITY_850          ifh=          27
  lead time index=          27  parm# (ip) =          1  ncix=
27
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  26:00                  1          ABS_VORTICITY_850          -
0.7163E-03  0.3889E-02
+++ NetCDF read requested for parm #          2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh=          27
                           ltix(ifh)=          27

After read, parm= ABS_VORTICITY_700          ifh=          27
  lead time index=          27  parm# (ip) =          2  ncix=
27
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  26:00                  2          ABS_VORTICITY_700          -
0.4550E-03  0.3160E-02
+++ NetCDF read requested for parm #          3 ... parm=
U_850

In get_var3_tlev_double, ifh=          27
                           ltix(ifh)=          27

After read, parm= U_850          ifh=          27
  lead time index=          27  parm# (ip) =          3  ncix=
27
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval

```



```

26:00          3          U_850          -
76.76      0.1000E+21
+++ NetCDF read requested for parm #          4 ... parm=
V_850

In get_var3_tlev_double, ifh=          27
                        ltix(ifh)=          27

After read, parm= V_850          ifh=          27
lead time index=          27 parm# (ip) =          4 ncix=
27
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
26:00          4          V_850          -
69.48      0.1000E+21
+++ NetCDF read requested for parm #          5 ... parm=
U_700

In get_var3_tlev_double, ifh=          27
                        ltix(ifh)=          27

After read, parm= U_700          ifh=          27
lead time index=          27 parm# (ip) =          5 ncix=
27
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
26:00          5          U_700          -
73.60      0.1000E+21
+++ NetCDF read requested for parm #          6 ... parm=
V_700

In get_var3_tlev_double, ifh=          27
                        ltix(ifh)=          27

After read, parm= V_700          ifh=          27
lead time index=          27 parm# (ip) =          6 ncix=
27
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
26:00          6          V_700          -
57.35      0.1000E+21
+++ NetCDF read requested for parm #          7 ... parm=
Z_850

In get_var3_tlev_double, ifh=          27
                        ltix(ifh)=          27

After read, parm= Z_850          ifh=          27
lead time index=          27 parm# (ip) =          7 ncix=
27
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
26:00          7          Z_850
702.7      0.1000E+21
+++ NetCDF read requested for parm #          8 ... parm=
Z_700

In get_var3_tlev_double, ifh=          27
                        ltix(ifh)=          27

```

```

After read, parm= z_700                ifh=                27
lead time index=                27  parm# (ip) =                8  ncix=
27
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  26:00                8        z_700
2415.        0.1000E+21
+++ NetCDF read requested for parm #                9  ... parm=
slp

In get_var3_tlev_double, ifh=                27
                        ltix(ifh)=                27

After read, parm= slp                ifh=                27
lead time index=                27  parm# (ip) =                9  ncix=
27
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  26:00                9        slp
0.9211E+05    0.1026E+06
+++ NetCDF read requested for parm #                10  ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=                27
                        ltix(ifh)=                27

After read, parm= u_10m_gr                ifh=                27
lead time index=                27  parm# (ip) =                10  ncix=
27
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  26:00                10        u_10m_gr
49.22        44.86
+++ NetCDF read requested for parm #                11  ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=                27
                        ltix(ifh)=                27

After read, parm= v_10m_gr                ifh=                27
lead time index=                27  parm# (ip) =                11  ncix=
27
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  26:00                11        v_10m_gr
46.60        49.00
+++ NetCDF read requested for parm #                12  ... parm=
U_500

In get_var3_tlev_double, ifh=                27
                        ltix(ifh)=                27

After read, parm= U_500                ifh=                27
lead time index=                27  parm# (ip) =                12  ncix=
27
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  26:00                12        U_500
65.36        49.87
+++ NetCDF read requested for parm #                13  ... parm=

```

V_500

In get_var3_tlev_double, ifh= 27
ltix(ifh)= 27

After read, parm= V_500 ifh= 27
lead time index= 27 parm# (ip) = 13 ncix=
27
igvret= 0
parmread lead time parm# parm_id minval maxval
26:00 13 V_500 -
52.97 56.61
!!! NetCDF read NOT requested for parm # 14
+++ NetCDF read requested for parm # 15 ... parm=
Z_500

In get_var3_tlev_double, ifh= 27
ltix(ifh)= 27

After read, parm= Z_500 ifh= 27
lead time index= 27 parm# (ip) = 15 ncix=
27
igvret= 0
parmread lead time parm# parm_id minval maxval
26:00 15 Z_500
5290. 5923.
+++ NetCDF read requested for parm # 16 ... parm=
Z_200

In get_var3_tlev_double, ifh= 27
ltix(ifh)= 27

After read, parm= Z_200 ifh= 27
lead time index= 27 parm# (ip) = 16 ncix=
27
igvret= 0
parmread lead time parm# parm_id minval maxval
26:00 16 Z_200
0.1182E+05 0.1254E+05
!!! NetCDF read NOT requested for parm # 17
TIMING: after getdata ... 14:39:51

Of 17 readable parms, you read in 15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter = 38316.57 dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

* New forecast hour: 27:00

in getgridinfo_netcdf, ncfile_id= 65536

In getgridinfo, grid dimensions follow:
imax= 409 jmax= 349
dx= 0.1722946 dy= 0.1621475

DX: midi= 204 dx= 0.1723
DY: midj= 174 dy= 0.1621

Data Grid Lat/Lon boundaries follow:

Min Lat: -9.516 Min Lon: 92.852

Max Lat: 44.929 Max Lon: 163.148

TEST after getgridinfo in sub tracker, iggret= 0

in beginning of tracker, imax= 409 jmax= 349

TIMING: b4 getdata ... 14:39:51

NOTE: Program is now in subroutine getdata_netcdf.

+++ Time match in getdata_netcdf for usertime= 1620

netcdf file index= ncix= 28

+++ NetCDF read requested for parm # 1 ... parm=

ABS_VORTICITY_850

In get_var3_tlev_double, ifh= 28

ltix(ifh)= 28

After read, parm= ABS_VORTICITY_850 ifh= 28

lead time index= 28 parm# (ip) = 1 ncix= 28

igvret= 0

parmread	lead time	parm#	parm_id	minval	maxval	
27:00		1	ABS_VORTICITY_850			-

0.7220E-03 0.3883E-02

+++ NetCDF read requested for parm # 2 ... parm=

ABS_VORTICITY_700

In get_var3_tlev_double, ifh= 28

ltix(ifh)= 28

After read, parm= ABS_VORTICITY_700 ifh= 28

lead time index= 28 parm# (ip) = 2 ncix= 28

igvret= 0

parmread	lead time	parm#	parm_id	minval	maxval	
27:00		2	ABS_VORTICITY_700			-

0.4192E-03 0.3218E-02

+++ NetCDF read requested for parm # 3 ... parm=

U_850

In get_var3_tlev_double, ifh= 28

ltix(ifh)= 28

After read, parm= U_850 ifh= 28

lead time index= 28 parm# (ip) = 3 ncix= 28

igvret= 0

parmread	lead time	parm#	parm_id	minval	maxval	
27:00		3	U_850			-

80.18 0.1000E+21

+++ NetCDF read requested for parm # 4 ... parm=

V_850

In get_var3_tlev_double, ifh= 28

ltix(ifh)= 28

After read, parm= V_850 ifh= 28

```

    lead time index=          28  parm# (ip) =          4  ncix=
28
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    27:00              4          V_850
71.37      0.1000E+21
+++ NetCDF read requested for parm #          5  ... parm=
U_700

In get_var3_tlev_double, ifh=          28
                        ltix(ifh)=          28

After read, parm= U_700
    lead time index=          28  parm# (ip) =          5  ncix=
28
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    27:00              5          U_700
69.66      0.1000E+21
+++ NetCDF read requested for parm #          6  ... parm=
V_700

In get_var3_tlev_double, ifh=          28
                        ltix(ifh)=          28

After read, parm= V_700
    lead time index=          28  parm# (ip) =          6  ncix=
28
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    27:00              6          V_700
62.17      0.1000E+21
+++ NetCDF read requested for parm #          7  ... parm=
Z_850

In get_var3_tlev_double, ifh=          28
                        ltix(ifh)=          28

After read, parm= Z_850
    lead time index=          28  parm# (ip) =          7  ncix=
28
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    27:00              7          Z_850
698.5      0.1000E+21
+++ NetCDF read requested for parm #          8  ... parm=
Z_700

In get_var3_tlev_double, ifh=          28
                        ltix(ifh)=          28

After read, parm= Z_700
    lead time index=          28  parm# (ip) =          8  ncix=
28
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    27:00              8          Z_700
2399.      0.1000E+21
+++ NetCDF read requested for parm #          9  ... parm=
slp

```

```

In get_var3_tlev_double, ifh=          28
                        ltix(ifh)=      28

After read, parm= slp                      ifh=          28
lead time index=          28 parm# (ip) =          9 ncix=
28
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  27:00                9          slp
0.9197E+05  0.1026E+06
+++ NetCDF read requested for parm #          10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          28
                        ltix(ifh)=      28

After read, parm= u_10m_gr                      ifh=          28
lead time index=          28 parm# (ip) =          10 ncix=
28
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  27:00                10          u_10m_gr
49.92        48.16
+++ NetCDF read requested for parm #          11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          28
                        ltix(ifh)=      28

After read, parm= v_10m_gr                      ifh=          28
lead time index=          28 parm# (ip) =          11 ncix=
28
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  27:00                11          v_10m_gr
49.26        49.59
+++ NetCDF read requested for parm #          12 ... parm=
U_500

In get_var3_tlev_double, ifh=          28
                        ltix(ifh)=      28

After read, parm= U_500                      ifh=          28
lead time index=          28 parm# (ip) =          12 ncix=
28
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  27:00                12          U_500
70.91        45.26
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=          28
                        ltix(ifh)=      28

After read, parm= V_500                      ifh=          28
lead time index=          28 parm# (ip) =          13 ncix=
28
igvret=          0

```

```

parmread lead time      parm#      parm_id      minval      maxval      -
  27:00                13         v_500
59.12          63.58
!!! NetCDF read NOT requested for parm #      14
+++ NetCDF read requested for parm #      15 ... parm=
Z_500

In get_var3_tlev_double, ifh=      28
                        ltix(ifh)=  28

After read, parm= Z_500                ifh=      28
lead time index=      28 parm# (ip) =      15 ncix=
28
igvret=      0
parmread lead time      parm#      parm_id      minval      maxval
  27:00                15         Z_500
5273.          5922.
+++ NetCDF read requested for parm #      16 ... parm=
Z_200

In get_var3_tlev_double, ifh=      28
                        ltix(ifh)=  28

After read, parm= Z_200                ifh=      28
lead time index=      28 parm# (ip) =      16 ncix=
28
igvret=      0
parmread lead time      parm#      parm_id      minval      maxval
  27:00                16         Z_200
0.1182E+05  0.1255E+05
!!! NetCDF read NOT requested for parm #      17
TIMING: after getdata ... 14:39:52

Of      17 readable parms, you read in      15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =      38316.57      dlat_inter =
  36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:   28:00
*-----*
in getgridinfo_netcdf, ncfile_id=      65536

In getgridinfo, grid dimensions follow:
imax=      409 jmax=      349
dx=      0.1722946      dy=      0.1621475

DX: midi=  204 dx=   0.1723
DY: midj=  174 dy=   0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:   -9.516 Min Lon:   92.852
Max Lat:   44.929 Max Lon:  163.148
TEST after getgridinfo in sub tracker, iggret=      0
in beginning of tracker, imax=      409 jmax=      349
TIMING: b4 getdata ... 14:39:52

```

```

NOTE: Program is now in subroutine  getdata_netcdf.
+++ Time match in getdata_netcdf for usertime=          1680
   netcdf file index= ncix=          29
+++ NetCDF read requested for parm #          1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh=          29
                        ltix(ifh)=      29

After read, parm= ABS_VORTICITY_850          ifh=          29
lead time index=          29 parm# (ip) =          1 ncix=
29
   igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
   28:00              1          ABS_VORTICITY_850          -
0.8102E-03  0.3987E-02
+++ NetCDF read requested for parm #          2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh=          29
                        ltix(ifh)=      29

After read, parm= ABS_VORTICITY_700          ifh=          29
lead time index=          29 parm# (ip) =          2 ncix=
29
   igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
   28:00              2          ABS_VORTICITY_700          -
0.3557E-03  0.3552E-02
+++ NetCDF read requested for parm #          3 ... parm=
U_850

In get_var3_tlev_double, ifh=          29
                        ltix(ifh)=      29

After read, parm= U_850          ifh=          29
lead time index=          29 parm# (ip) =          3 ncix=
29
   igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
   28:00              3          U_850          -
78.81      0.1000E+21
+++ NetCDF read requested for parm #          4 ... parm=
V_850

In get_var3_tlev_double, ifh=          29
                        ltix(ifh)=      29

After read, parm= V_850          ifh=          29
lead time index=          29 parm# (ip) =          4 ncix=
29
   igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
   28:00              4          V_850          -
74.12      0.1000E+21
+++ NetCDF read requested for parm #          5 ... parm=
U_700

In get_var3_tlev_double, ifh=          29

```



```

                ltix(ifh)=                29

After read, parm= U_700                ifh=                29
  lead time index=                29  parm# (ip) =                5  ncix=
29
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  28:00                5        U_700
73.60    0.1000E+21
+++ NetCDF read requested for parm #                6  ... parm=
V_700

In get_var3_tlev_double, ifh=                29
                ltix(ifh)=                29

After read, parm= V_700                ifh=                29
  lead time index=                29  parm# (ip) =                6  ncix=
29
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  28:00                6        V_700
61.99    0.1000E+21
+++ NetCDF read requested for parm #                7  ... parm=
Z_850

In get_var3_tlev_double, ifh=                29
                ltix(ifh)=                29

After read, parm= Z_850                ifh=                29
  lead time index=                29  parm# (ip) =                7  ncix=
29
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  28:00                7        Z_850
680.4    0.1000E+21
+++ NetCDF read requested for parm #                8  ... parm=
Z_700

In get_var3_tlev_double, ifh=                29
                ltix(ifh)=                29

After read, parm= Z_700                ifh=                29
  lead time index=                29  parm# (ip) =                8  ncix=
29
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  28:00                8        Z_700
2379.    0.1000E+21
+++ NetCDF read requested for parm #                9  ... parm=
slp

In get_var3_tlev_double, ifh=                29
                ltix(ifh)=                29

After read, parm= slp                ifh=                29
  lead time index=                29  parm# (ip) =                9  ncix=
29
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval

```

```

28:00          9          slp
0.9178E+05  0.1026E+06
+++ NetCDF read requested for parm #          10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          29
                        ltix(ifh)=      29

After read, parm= u_10m_gr          ifh=          29
lead time index=          29 parm# (ip) =          10 ncix=
29
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
28:00          10          u_10m_gr          -
49.45          46.29
+++ NetCDF read requested for parm #          11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          29
                        ltix(ifh)=      29

After read, parm= v_10m_gr          ifh=          29
lead time index=          29 parm# (ip) =          11 ncix=
29
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
28:00          11          v_10m_gr          -
47.83          49.38
+++ NetCDF read requested for parm #          12 ... parm=
U_500

In get_var3_tlev_double, ifh=          29
                        ltix(ifh)=      29

After read, parm= U_500          ifh=          29
lead time index=          29 parm# (ip) =          12 ncix=
29
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
28:00          12          U_500          -
71.78          53.67
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=          29
                        ltix(ifh)=      29

After read, parm= V_500          ifh=          29
lead time index=          29 parm# (ip) =          13 ncix=
29
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
28:00          13          V_500          -
57.48          57.11
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15 ... parm=
Z_500

In get_var3_tlev_double, ifh=          29
                        ltix(ifh)=      29

```

```

After read, parm= Z_500                      ifh= 29
lead time index= 29 parm# (ip) = 15 ncix=
29
igvret= 0
parmread lead time parm# parm_id minval maxval
28:00 15 Z_500
5254. 5918.
+++ NetCDF read requested for parm # 16 ... parm=
Z_200

In get_var3_tlev_double, ifh= 29
ltix(ifh)= 29

After read, parm= Z_200                      ifh= 29
lead time index= 29 parm# (ip) = 16 ncix=
29
igvret= 0
parmread lead time parm# parm_id minval maxval
28:00 16 Z_200
0.1182E+05 0.1255E+05
!!! NetCDF read NOT requested for parm # 17
TIMING: after getdata ... 14:39:53

Of 17 readable parms, you read in 15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter = 38316.57 dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
* New forecast hour: 29:00
*-----*
in getgridinfo_netcdf, ncfile_id= 65536

In getgridinfo, grid dimensions follow:
imax= 409 jmax= 349
dx= 0.1722946 dy= 0.1621475

DX: midi= 204 dx= 0.1723
DY: midj= 174 dy= 0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat: -9.516 Min Lon: 92.852
Max Lat: 44.929 Max Lon: 163.148
TEST after getgridinfo in sub tracker, iggret= 0
in beginning of tracker, imax= 409 jmax= 349
TIMING: b4 getdata ... 14:39:53

NOTE: Program is now in subroutine getdata_netcdf.
+++ Time match in getdata_netcdf for usertime= 1740
netcdf file index= ncix= 30
+++ NetCDF read requested for parm # 1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh= 30
ltix(ifh)= 30

```

```

After read, parm= ABS_VORTICITY_850          ifh=          30
  lead time index=          30 parm# (ip) =          1 ncix=
30
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  29:00              1        ABS_VORTICITY_850          -
0.7040E-03  0.4087E-02
+++ NetCDF read requested for parm #          2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh=          30
                        ltix(ifh)=          30

After read, parm= ABS_VORTICITY_700          ifh=          30
  lead time index=          30 parm# (ip) =          2 ncix=
30
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  29:00              2        ABS_VORTICITY_700          -
0.4288E-03  0.3431E-02
+++ NetCDF read requested for parm #          3 ... parm=
U_850

In get_var3_tlev_double, ifh=          30
                        ltix(ifh)=          30

After read, parm= U_850                      ifh=          30
  lead time index=          30 parm# (ip) =          3 ncix=
30
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  29:00              3          U_850          -
84.94          0.1000E+21
+++ NetCDF read requested for parm #          4 ... parm=
V_850

In get_var3_tlev_double, ifh=          30
                        ltix(ifh)=          30

After read, parm= V_850                      ifh=          30
  lead time index=          30 parm# (ip) =          4 ncix=
30
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  29:00              4          V_850          -
71.58          0.1000E+21
+++ NetCDF read requested for parm #          5 ... parm=
U_700

In get_var3_tlev_double, ifh=          30
                        ltix(ifh)=          30

After read, parm= U_700                      ifh=          30
  lead time index=          30 parm# (ip) =          5 ncix=
30
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  29:00              5          U_700          -
70.30          0.1000E+21

```

```

+++ NetCDF read requested for parm #          6 ... parm=
V_700

In get_var3_tlev_double, ifh=                30
                        ltix(ifh)=          30

After read, parm= V_700                      ifh=                30
lead time index=          30 parm# (ip) =          6 ncix=
30
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
 29:00                  6          V_700
65.15      0.1000E+21
+++ NetCDF read requested for parm #          7 ... parm=
Z_850

In get_var3_tlev_double, ifh=                30
                        ltix(ifh)=          30

After read, parm= Z_850                      ifh=                30
lead time index=          30 parm# (ip) =          7 ncix=
30
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
 29:00                  7          Z_850
646.0      0.1000E+21
+++ NetCDF read requested for parm #          8 ... parm=
Z_700

In get_var3_tlev_double, ifh=                30
                        ltix(ifh)=          30

After read, parm= Z_700                      ifh=                30
lead time index=          30 parm# (ip) =          8 ncix=
30
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
 29:00                  8          Z_700
2351.      0.1000E+21
+++ NetCDF read requested for parm #          9 ... parm=
slp

In get_var3_tlev_double, ifh=                30
                        ltix(ifh)=          30

After read, parm= slp                        ifh=                30
lead time index=          30 parm# (ip) =          9 ncix=
30
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
 29:00                  9          slp
0.9149E+05  0.1026E+06
+++ NetCDF read requested for parm #         10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=                30
                        ltix(ifh)=          30

After read, parm= u_10m_gr                    ifh=                30

```

```

lead time index=          30  parm# (ip) =          10  ncix=
30
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
29:00          10          u_10m_gr      -
53.42          45.30
+++ NetCDF read requested for parm #          11  ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          30
ltix(ifh)=          30

After read, parm= v_10m_gr          ifh=          30
lead time index=          30  parm# (ip) =          11  ncix=
30
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
29:00          11          v_10m_gr      -
47.78          51.45
+++ NetCDF read requested for parm #          12  ... parm=
U_500

In get_var3_tlev_double, ifh=          30
ltix(ifh)=          30

After read, parm= U_500          ifh=          30
lead time index=          30  parm# (ip) =          12  ncix=
30
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
29:00          12          U_500          -
69.74          51.98
+++ NetCDF read requested for parm #          13  ... parm=
V_500

In get_var3_tlev_double, ifh=          30
ltix(ifh)=          30

After read, parm= V_500          ifh=          30
lead time index=          30  parm# (ip) =          13  ncix=
30
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
29:00          13          V_500          -
64.24          61.98
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15  ... parm=
Z_500

In get_var3_tlev_double, ifh=          30
ltix(ifh)=          30

After read, parm= Z_500          ifh=          30
lead time index=          30  parm# (ip) =          15  ncix=
30
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
29:00          15          Z_500          -
5233.          5917.
+++ NetCDF read requested for parm #          16  ... parm=

```

Z_200

In get_var3_tlev_double, ifh= 30
ltix(ifh)= 30

After read, parm= Z_200 ifh= 30
lead time index= 30 parm# (ip) = 16 ncix=
30
igvret= 0
parmread lead time parm# parm_id minval maxval
29:00 16 Z_200
0.1182E+05 0.1254E+05
!!! NetCDF read NOT requested for parm # 17
TIMING: after getdata ... 14:39:54

Of 17 readable parms, you read in 15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter = 38316.57 dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

* New forecast hour: 30:00

in getgridinfo_netcdf, ncfile_id= 65536

In getgridinfo, grid dimensions follow:
imax= 409 jmax= 349
dx= 0.1722946 dy= 0.1621475

DX: midi= 204 dx= 0.1723
DY: midj= 174 dy= 0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat: -9.516 Min Lon: 92.852
Max Lat: 44.929 Max Lon: 163.148
TEST after getgridinfo in sub tracker, iggret= 0
in beginning of tracker, imax= 409 jmax= 349
TIMING: b4 getdata ... 14:39:54

NOTE: Program is now in subroutine getdata_netcdf.
+++ Time match in getdata_netcdf for usertime= 1800
netcdf file index= ncix= 31
+++ NetCDF read requested for parm # 1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh= 31
ltix(ifh)= 31

After read, parm= ABS_VORTICITY_850 ifh= 31
lead time index= 31 parm# (ip) = 1 ncix=
31
igvret= 0
parmread lead time parm# parm_id minval maxval
30:00 1 ABS_VORTICITY_850 -
0.7100E-03 0.4074E-02
+++ NetCDF read requested for parm # 2 ... parm=

ABS_VORTICITY_700

In get_var3_tlev_double, ifh= 31
ltix(ifh)= 31

After read, parm= ABS_VORTICITY_700 ifh= 31
lead time index= 31 parm# (ip) = 2 ncix=
31
igvret= 0
parmread lead time parm# parm_id minval maxval -
30:00 2 ABS_VORTICITY_700
0.4640E-03 0.3436E-02
+++ NetCDF read requested for parm # 3 ... parm=
U_850

In get_var3_tlev_double, ifh= 31
ltix(ifh)= 31

After read, parm= U_850 ifh= 31
lead time index= 31 parm# (ip) = 3 ncix=
31
igvret= 0
parmread lead time parm# parm_id minval maxval -
30:00 3 U_850
84.33 0.1000E+21
+++ NetCDF read requested for parm # 4 ... parm=
V_850

In get_var3_tlev_double, ifh= 31
ltix(ifh)= 31

After read, parm= V_850 ifh= 31
lead time index= 31 parm# (ip) = 4 ncix=
31
igvret= 0
parmread lead time parm# parm_id minval maxval -
30:00 4 V_850
75.36 0.1000E+21
+++ NetCDF read requested for parm # 5 ... parm=
U_700

In get_var3_tlev_double, ifh= 31
ltix(ifh)= 31

After read, parm= U_700 ifh= 31
lead time index= 31 parm# (ip) = 5 ncix=
31
igvret= 0
parmread lead time parm# parm_id minval maxval -
30:00 5 U_700
68.85 0.1000E+21
+++ NetCDF read requested for parm # 6 ... parm=
V_700

In get_var3_tlev_double, ifh= 31
ltix(ifh)= 31

After read, parm= V_700 ifh= 31
lead time index= 31 parm# (ip) = 6 ncix=
31


```

    igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    30:00              6        V_700
65.64      0.1000E+21
+++ NetCDF read requested for parm #    7 ... parm=
Z_850

In get_var3_tlev_double, ifh=          31
                        ltix(ifh)=    31

After read, parm= Z_850                ifh=          31
lead time index=          31 parm# (ip) =          7 ncix=
31
    igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    30:00              7        Z_850
628.5      0.1000E+21
+++ NetCDF read requested for parm #    8 ... parm=
Z_700

In get_var3_tlev_double, ifh=          31
                        ltix(ifh)=    31

After read, parm= Z_700                ifh=          31
lead time index=          31 parm# (ip) =          8 ncix=
31
    igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    30:00              8        Z_700
2336.      0.1000E+21
+++ NetCDF read requested for parm #    9 ... parm=
slp

In get_var3_tlev_double, ifh=          31
                        ltix(ifh)=    31

After read, parm= slp                  ifh=          31
lead time index=          31 parm# (ip) =          9 ncix=
31
    igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    30:00              9        slp
0.9133E+05  0.1025E+06
+++ NetCDF read requested for parm #   10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          31
                        ltix(ifh)=    31

After read, parm= u_10m_gr             ifh=          31
lead time index=          31 parm# (ip) =         10 ncix=
31
    igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    30:00             10        u_10m_gr
51.47      49.16
+++ NetCDF read requested for parm #   11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          31

```

```

                ltix(ifh)=                31

After read, parm= v_10m_gr                ifh=                31
lead time index=                31  parm# (ip) =                11  ncix=
31
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  30:00                11        v_10m_gr
48.19    51.30
+++ NetCDF read requested for parm #                12  ... parm=
U_500

In get_var3_tlev_double, ifh=                31
                ltix(ifh)=                31

After read, parm= U_500                ifh=                31
lead time index=                31  parm# (ip) =                12  ncix=
31
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  30:00                12        U_500
66.65    52.40
+++ NetCDF read requested for parm #                13  ... parm=
V_500

In get_var3_tlev_double, ifh=                31
                ltix(ifh)=                31

After read, parm= V_500                ifh=                31
lead time index=                31  parm# (ip) =                13  ncix=
31
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  30:00                13        V_500
62.76    56.80
!!! NetCDF read NOT requested for parm #                14
+++ NetCDF read requested for parm #                15  ... parm=
Z_500

In get_var3_tlev_double, ifh=                31
                ltix(ifh)=                31

After read, parm= Z_500                ifh=                31
lead time index=                31  parm# (ip) =                15  ncix=
31
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  30:00                15        Z_500
5220.    5917.
+++ NetCDF read requested for parm #                16  ... parm=
Z_200

In get_var3_tlev_double, ifh=                31
                ltix(ifh)=                31

After read, parm= Z_200                ifh=                31
lead time index=                31  parm# (ip) =                16  ncix=
31
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval

```

```

30:00          16          Z_200
0.1181E+05  0.1254E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:39:54

Of          17 readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =    38316.57    dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:   31:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:
imax=          409  jmax=          349
dx=    0.1722946    dy=    0.1621475

DX:  midi=   204 dx=    0.1723
DY:  midj=   174 dy=    0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:   -9.516  Min Lon:   92.852
Max Lat:   44.929  Max Lon:  163.148
TEST after getgridinfo in sub tracker, iggret=          0
in beginning of tracker, imax=          409  jmax=          349
TIMING: b4 getdata ... 14:39:54

NOTE: Program is now in subroutine getdata_netcdf.
+++ Time match in getdata_netcdf for usertime=          1860
netcdf file index= ncix=          32
+++ NetCDF read requested for parm #          1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh=          32
ltix(ifh)=          32

After read, parm= ABS_VORTICITY_850          ifh=          32
lead time index=          32  parm# (ip) =          1  ncix=
32
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
31:00                1          ABS_VORTICITY_850    -
0.6500E-03  0.4270E-02
+++ NetCDF read requested for parm #          2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh=          32
ltix(ifh)=          32

After read, parm= ABS_VORTICITY_700          ifh=          32
lead time index=          32  parm# (ip) =          2  ncix=
32
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval

```

```

31:00          2          ABS_VORTICITY_700          -
0.4079E-03  0.3562E-02
+++ NetCDF read requested for parm #          3 ... parm=
U_850

In get_var3_tlev_double, ifh=          32
                        ltix(ifh)=          32

After read, parm= U_850          ifh=          32
lead time index=          32 parm# (ip) =          3 ncix=
32
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
31:00          3          U_850          -
78.46          0.1000E+21
+++ NetCDF read requested for parm #          4 ... parm=
V_850

In get_var3_tlev_double, ifh=          32
                        ltix(ifh)=          32

After read, parm= V_850          ifh=          32
lead time index=          32 parm# (ip) =          4 ncix=
32
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
31:00          4          V_850          -
69.64          0.1000E+21
+++ NetCDF read requested for parm #          5 ... parm=
U_700

In get_var3_tlev_double, ifh=          32
                        ltix(ifh)=          32

After read, parm= U_700          ifh=          32
lead time index=          32 parm# (ip) =          5 ncix=
32
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
31:00          5          U_700          -
74.56          0.1000E+21
+++ NetCDF read requested for parm #          6 ... parm=
V_700

In get_var3_tlev_double, ifh=          32
                        ltix(ifh)=          32

After read, parm= V_700          ifh=          32
lead time index=          32 parm# (ip) =          6 ncix=
32
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
31:00          6          V_700          -
67.93          0.1000E+21
+++ NetCDF read requested for parm #          7 ... parm=
Z_850

In get_var3_tlev_double, ifh=          32
                        ltix(ifh)=          32

```

```

After read, parm= Z_850                ifh=          32
lead time index=          32 parm# (ip) =          7 ncix=
32
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  31:00              7        Z_850
614.5      0.1000E+21
+++ NetCDF read requested for parm #          8 ... parm=
Z_700

In get_var3_tlev_double, ifh=          32
                        ltix(ifh)=    32

After read, parm= Z_700                ifh=          32
lead time index=          32 parm# (ip) =          8 ncix=
32
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  31:00              8        Z_700
2318.      0.1000E+21
+++ NetCDF read requested for parm #          9 ... parm=
slp

In get_var3_tlev_double, ifh=          32
                        ltix(ifh)=    32

After read, parm= slp                  ifh=          32
lead time index=          32 parm# (ip) =          9 ncix=
32
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  31:00              9        slp
0.9112E+05  0.1025E+06
+++ NetCDF read requested for parm #         10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          32
                        ltix(ifh)=    32

After read, parm= u_10m_gr              ifh=          32
lead time index=          32 parm# (ip) =         10 ncix=
32
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  31:00             10        u_10m_gr
52.66      50.56
+++ NetCDF read requested for parm #         11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          32
                        ltix(ifh)=    32

After read, parm= v_10m_gr              ifh=          32
lead time index=          32 parm# (ip) =         11 ncix=
32
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  31:00             11        v_10m_gr
47.95      52.65
+++ NetCDF read requested for parm #         12 ... parm=

```

```

U_500

In get_var3_tlev_double, ifh=          32
                        ltix(ifh)=     32

After read, parm= U_500                ifh=          32
lead time index=          32 parm# (ip) =          12 ncix=
32
  igvret=                  0
parmread lead time      parm#      parm_id      minval      maxval
  31:00                12          U_500
69.70      58.09
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=          32
                        ltix(ifh)=     32

After read, parm= V_500                ifh=          32
lead time index=          32 parm# (ip) =          13 ncix=
32
  igvret=                  0
parmread lead time      parm#      parm_id      minval      maxval
  31:00                13          V_500
57.56      56.71
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15 ... parm=
Z_500

In get_var3_tlev_double, ifh=          32
                        ltix(ifh)=     32

After read, parm= Z_500                ifh=          32
lead time index=          32 parm# (ip) =          15 ncix=
32
  igvret=                  0
parmread lead time      parm#      parm_id      minval      maxval
  31:00                15          Z_500
5205.      5919.
+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=          32
                        ltix(ifh)=     32

After read, parm= Z_200                ifh=          32
lead time index=          32 parm# (ip) =          16 ncix=
32
  igvret=                  0
parmread lead time      parm#      parm_id      minval      maxval
  31:00                16          Z_200
0.1181E+05  0.1253E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:39:55

Of          17 readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =    38316.57      dlat_inter =
36059.95

```

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

```
*-----*
*   New forecast hour:   32:00
*-----*
in getgridinfo_netcdf, ncfile_id=      65536
```

In getgridinfo, grid dimensions follow:
imax= 409 jmax= 349
dx= 0.1722946 dy= 0.1621475

DX: midi= 204 dx= 0.1723
DY: midj= 174 dy= 0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat: -9.516 Min Lon: 92.852
Max Lat: 44.929 Max Lon: 163.148
TEST after getgridinfo in sub tracker, iggret= 0
in beginning of tracker, imax= 409 jmax= 349
TIMING: b4 getdata ... 14:39:55

NOTE: Program is now in subroutine getdata_netcdf.
+++ Time match in getdata_netcdf for usertime= 1920
netcdf file index= ncix= 33
+++ NetCDF read requested for parm # 1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh= 33
ltix(ifh)= 33

After read, parm= ABS_VORTICITY_850 ifh= 33
lead time index= 33 parm# (ip) = 1 ncix=
33
igvret= 0
parmread lead time parm# parm_id minval maxval -
32:00 1 ABS_VORTICITY_850 -
0.6702E-03 0.4235E-02
+++ NetCDF read requested for parm # 2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh= 33
ltix(ifh)= 33

After read, parm= ABS_VORTICITY_700 ifh= 33
lead time index= 33 parm# (ip) = 2 ncix=
33
igvret= 0
parmread lead time parm# parm_id minval maxval -
32:00 2 ABS_VORTICITY_700 -
0.3755E-03 0.3567E-02
+++ NetCDF read requested for parm # 3 ... parm=
U_850

In get_var3_tlev_double, ifh= 33
ltix(ifh)= 33

After read, parm= U_850 ifh= 33

```

    lead time index=          33  parm# (ip) =          3  ncix=
33
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    32:00          3          U_850
79.55      0.1000E+21
+++ NetCDF read requested for parm #          4  ... parm=
V_850

In get_var3_tlev_double, ifh=          33
                        ltix(ifh)=          33

After read, parm= V_850          ifh=          33
    lead time index=          33  parm# (ip) =          4  ncix=
33
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    32:00          4          V_850
71.20      0.1000E+21
+++ NetCDF read requested for parm #          5  ... parm=
U_700

In get_var3_tlev_double, ifh=          33
                        ltix(ifh)=          33

After read, parm= U_700          ifh=          33
    lead time index=          33  parm# (ip) =          5  ncix=
33
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    32:00          5          U_700
75.16      0.1000E+21
+++ NetCDF read requested for parm #          6  ... parm=
V_700

In get_var3_tlev_double, ifh=          33
                        ltix(ifh)=          33

After read, parm= V_700          ifh=          33
    lead time index=          33  parm# (ip) =          6  ncix=
33
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    32:00          6          V_700
65.53      0.1000E+21
+++ NetCDF read requested for parm #          7  ... parm=
Z_850

In get_var3_tlev_double, ifh=          33
                        ltix(ifh)=          33

After read, parm= Z_850          ifh=          33
    lead time index=          33  parm# (ip) =          7  ncix=
33
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    32:00          7          Z_850
611.6      0.1000E+21
+++ NetCDF read requested for parm #          8  ... parm=
Z_700

```



```

In get_var3_tlev_double, ifh=          33
                        ltix(ifh)=     33

After read, parm= Z_700                ifh=          33
lead time index=          33 parm# (ip) =          8 ncix=
33
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  32:00                8          Z_700
2309.          0.1000E+21
+++ NetCDF read requested for parm #          9 ... parm=
slp

In get_var3_tlev_double, ifh=          33
                        ltix(ifh)=     33

After read, parm= slp                  ifh=          33
lead time index=          33 parm# (ip) =          9 ncix=
33
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  32:00                9          slp
0.9107E+05  0.1025E+06
+++ NetCDF read requested for parm #         10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          33
                        ltix(ifh)=     33

After read, parm= u_10m_gr            ifh=          33
lead time index=          33 parm# (ip) =         10 ncix=
33
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  32:00               10          u_10m_gr
48.90        50.32
+++ NetCDF read requested for parm #         11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          33
                        ltix(ifh)=     33

After read, parm= v_10m_gr            ifh=          33
lead time index=          33 parm# (ip) =         11 ncix=
33
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  32:00               11          v_10m_gr
48.16        51.91
+++ NetCDF read requested for parm #         12 ... parm=
U_500

In get_var3_tlev_double, ifh=          33
                        ltix(ifh)=     33

After read, parm= U_500                ifh=          33
lead time index=          33 parm# (ip) =         12 ncix=
33
  igvret=          0

```

```

parmread lead time      parm#      parm_id      minval      maxval      -
  32:00                12         U_500
73.24      58.26
+++ NetCDF read requested for parm #      13 ... parm=
V_500

In get_var3_tlev_double, ifh=      33
                        ltix(ifh)=  33

After read, parm= V_500                ifh=      33
lead time index=      33 parm# (ip) =      13 ncix=
33
igvret=      0
parmread lead time      parm#      parm_id      minval      maxval      -
  32:00                13         V_500
61.86      60.29
!!! NetCDF read NOT requested for parm #      14
+++ NetCDF read requested for parm #      15 ... parm=
Z_500

In get_var3_tlev_double, ifh=      33
                        ltix(ifh)=  33

After read, parm= Z_500                ifh=      33
lead time index=      33 parm# (ip) =      15 ncix=
33
igvret=      0
parmread lead time      parm#      parm_id      minval      maxval
  32:00                15         Z_500
5195.      5922.
+++ NetCDF read requested for parm #      16 ... parm=
Z_200

In get_var3_tlev_double, ifh=      33
                        ltix(ifh)=  33

After read, parm= Z_200                ifh=      33
lead time index=      33 parm# (ip) =      16 ncix=
33
igvret=      0
parmread lead time      parm#      parm_id      minval      maxval
  32:00                16         Z_200
0.1181E+05  0.1253E+05
!!! NetCDF read NOT requested for parm #      17
TIMING: after getdata ... 14:39:56

Of      17 readable parms, you read in      15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =      38316.57      dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:   33:00
*-----*
in getgridinfo_netcdf, ncfile_id=      65536

```

In getgridinfo, grid dimensions follow:
imax= 409 jmax= 349
dx= 0.1722946 dy= 0.1621475

DX: midi= 204 dx= 0.1723
DY: midj= 174 dy= 0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat: -9.516 Min Lon: 92.852
Max Lat: 44.929 Max Lon: 163.148
TEST after getgridinfo in sub tracker, iggret= 0
in beginning of tracker, imax= 409 jmax= 349
TIMING: b4 getdata ... 14:39:56

NOTE: Program is now in subroutine getdata_netcdf.
+++ Time match in getdata_netcdf for usertime= 1980
netcdf file index= ncix= 34
+++ NetCDF read requested for parm # 1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh= 34
ltix(ifh)= 34

After read, parm= ABS_VORTICITY_850 ifh= 34
lead time index= 34 parm# (ip) = 1 ncix=
34
igvret= 0
parmread lead time parm# parm_id minval maxval
33:00 1 ABS_VORTICITY_850 -
0.6803E-03 0.4327E-02
+++ NetCDF read requested for parm # 2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh= 34
ltix(ifh)= 34

After read, parm= ABS_VORTICITY_700 ifh= 34
lead time index= 34 parm# (ip) = 2 ncix=
34
igvret= 0
parmread lead time parm# parm_id minval maxval
33:00 2 ABS_VORTICITY_700 -
0.3931E-03 0.3965E-02
+++ NetCDF read requested for parm # 3 ... parm=
U_850

In get_var3_tlev_double, ifh= 34
ltix(ifh)= 34

After read, parm= U_850 ifh= 34
lead time index= 34 parm# (ip) = 3 ncix=
34
igvret= 0
parmread lead time parm# parm_id minval maxval
33:00 3 U_850 -
78.41 0.1000E+21
+++ NetCDF read requested for parm # 4 ... parm=
V_850

In get_var3_tlev_double, ifh= 34

```

                ltix(ifh)=          34

After read, parm= V_850                ifh=          34
lead time index=          34 parm# (ip) =          4 ncix=
34
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  33:00              4          V_850
73.73      0.1000E+21
+++ NetCDF read requested for parm #          5 ... parm=
U_700

In get_var3_tlev_double, ifh=          34
                ltix(ifh)=          34

After read, parm= U_700                ifh=          34
lead time index=          34 parm# (ip) =          5 ncix=
34
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  33:00              5          U_700
72.15      0.1000E+21
+++ NetCDF read requested for parm #          6 ... parm=
V_700

In get_var3_tlev_double, ifh=          34
                ltix(ifh)=          34

After read, parm= V_700                ifh=          34
lead time index=          34 parm# (ip) =          6 ncix=
34
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  33:00              6          V_700
65.45      0.1000E+21
+++ NetCDF read requested for parm #          7 ... parm=
Z_850

In get_var3_tlev_double, ifh=          34
                ltix(ifh)=          34

After read, parm= Z_850                ifh=          34
lead time index=          34 parm# (ip) =          7 ncix=
34
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  33:00              7          Z_850
612.9      0.1000E+21
+++ NetCDF read requested for parm #          8 ... parm=
Z_700

In get_var3_tlev_double, ifh=          34
                ltix(ifh)=          34

After read, parm= Z_700                ifh=          34
lead time index=          34 parm# (ip) =          8 ncix=
34
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval

```

```

33:00      8      z_700
2311.      0.1000E+21
+++ NetCDF read requested for parm #      9 ... parm=
slp

In get_var3_tlev_double, ifh=      34
                        ltix(ifh)=      34

After read, parm= slp      ifh=      34
lead time index=      34 parm# (ip) =      9 ncix=
34
igvret=      0
parmread lead time      parm#      parm_id      minval      maxval
33:00      9      slp
0.9108E+05  0.1025E+06
+++ NetCDF read requested for parm #      10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=      34
                        ltix(ifh)=      34

After read, parm= u_10m_gr      ifh=      34
lead time index=      34 parm# (ip) =      10 ncix=
34
igvret=      0
parmread lead time      parm#      parm_id      minval      maxval
33:00      10      u_10m_gr      -
47.03      49.67
+++ NetCDF read requested for parm #      11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=      34
                        ltix(ifh)=      34

After read, parm= v_10m_gr      ifh=      34
lead time index=      34 parm# (ip) =      11 ncix=
34
igvret=      0
parmread lead time      parm#      parm_id      minval      maxval
33:00      11      v_10m_gr      -
45.86      48.59
+++ NetCDF read requested for parm #      12 ... parm=
U_500

In get_var3_tlev_double, ifh=      34
                        ltix(ifh)=      34

After read, parm= U_500      ifh=      34
lead time index=      34 parm# (ip) =      12 ncix=
34
igvret=      0
parmread lead time      parm#      parm_id      minval      maxval
33:00      12      U_500      -
71.16      54.30
+++ NetCDF read requested for parm #      13 ... parm=
V_500

In get_var3_tlev_double, ifh=      34
                        ltix(ifh)=      34

```

```

After read, parm= V_500                ifh=                34
lead time index=                34  parm# (ip) =          13  ncix=
34
  igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
  33:00                13          V_500
62.93          55.92
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15 ... parm=
Z_500

In get_var3_tlev_double, ifh=                34
                        ltix(ifh)=          34

After read, parm= Z_500                ifh=                34
lead time index=                34  parm# (ip) =          15  ncix=
34
  igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
  33:00                15          Z_500
5200.          5924.
+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=                34
                        ltix(ifh)=          34

After read, parm= Z_200                ifh=                34
lead time index=                34  parm# (ip) =          16  ncix=
34
  igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
  33:00                16          Z_200
0.1181E+05  0.1254E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:39:57

Of          17 readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =    38316.57      dlat_inter =
  36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:   34:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:
imax=          409  jmax=          349
dx=    0.1722946  dy=    0.1621475

DX:  midi=   204  dx=    0.1723
DY:  midj=   174  dy=    0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:   -9.516  Min Lon:   92.852

```

Max Lat: 44.929 Max Lon: 163.148
TEST after getgridinfo in sub tracker, iggret= 0
in beginning of tracker, imax= 409 jmax= 349
TIMING: b4 getdata ... 14:39:57

NOTE: Program is now in subroutine getdata_netcdf.
+++ Time match in getdata_netcdf for usertime= 2040
netcdf file index= ncix= 35
+++ NetCDF read requested for parm # 1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh= 35
ltix(ifh)= 35

After read, parm= ABS_VORTICITY_850 ifh= 35
lead time index= 35 parm# (ip) = 1 ncix=
35

igvret= 0
parmread lead time parm# parm_id minval maxval
34:00 1 ABS_VORTICITY_850 -
0.5241E-03 0.4721E-02

+++ NetCDF read requested for parm # 2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh= 35
ltix(ifh)= 35

After read, parm= ABS_VORTICITY_700 ifh= 35
lead time index= 35 parm# (ip) = 2 ncix=
35

igvret= 0
parmread lead time parm# parm_id minval maxval
34:00 2 ABS_VORTICITY_700 -
0.4621E-03 0.3841E-02

+++ NetCDF read requested for parm # 3 ... parm=
U_850

In get_var3_tlev_double, ifh= 35
ltix(ifh)= 35

After read, parm= U_850 ifh= 35
lead time index= 35 parm# (ip) = 3 ncix=
35

igvret= 0
parmread lead time parm# parm_id minval maxval
34:00 3 U_850 -
72.05 0.1000E+21

+++ NetCDF read requested for parm # 4 ... parm=
V_850

In get_var3_tlev_double, ifh= 35
ltix(ifh)= 35

After read, parm= V_850 ifh= 35
lead time index= 35 parm# (ip) = 4 ncix=
35

igvret= 0
parmread lead time parm# parm_id minval maxval
34:00 4 V_850 -
70.94 0.1000E+21

```

+++ NetCDF read requested for parm #          5 ... parm=
U_700

In get_var3_tlev_double, ifh=                35
                        ltix(ifh)=          35

After read, parm= U_700                      ifh=                35
lead time index=          35 parm# (ip) =          5 ncix=
35
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
  34:00                5          U_700
67.49      0.1000E+21
+++ NetCDF read requested for parm #          6 ... parm=
V_700

In get_var3_tlev_double, ifh=                35
                        ltix(ifh)=          35

After read, parm= V_700                      ifh=                35
lead time index=          35 parm# (ip) =          6 ncix=
35
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
  34:00                6          V_700
67.86      0.1000E+21
+++ NetCDF read requested for parm #          7 ... parm=
Z_850

In get_var3_tlev_double, ifh=                35
                        ltix(ifh)=          35

After read, parm= Z_850                      ifh=                35
lead time index=          35 parm# (ip) =          7 ncix=
35
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
  34:00                7          Z_850
603.0      0.1000E+21
+++ NetCDF read requested for parm #          8 ... parm=
Z_700

In get_var3_tlev_double, ifh=                35
                        ltix(ifh)=          35

After read, parm= Z_700                      ifh=                35
lead time index=          35 parm# (ip) =          8 ncix=
35
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
  34:00                8          Z_700
2306.      0.1000E+21
+++ NetCDF read requested for parm #          9 ... parm=
slp

In get_var3_tlev_double, ifh=                35
                        ltix(ifh)=          35

After read, parm= slp                        ifh=                35

```



```

    lead time index=          35  parm# (ip) =          9  ncix=
35
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    34:00              9          slp
0.9098E+05  0.1026E+06
+++ NetCDF read requested for parm #          10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          35
                        ltix(ifh)=          35

After read, parm= u_10m_gr          ifh=          35
lead time index=          35  parm# (ip) =          10  ncix=
35
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    34:00              10          u_10m_gr
50.79          51.61
+++ NetCDF read requested for parm #          11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          35
                        ltix(ifh)=          35

After read, parm= v_10m_gr          ifh=          35
lead time index=          35  parm# (ip) =          11  ncix=
35
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    34:00              11          v_10m_gr
46.45          52.87
+++ NetCDF read requested for parm #          12 ... parm=
U_500

In get_var3_tlev_double, ifh=          35
                        ltix(ifh)=          35

After read, parm= U_500          ifh=          35
lead time index=          35  parm# (ip) =          12  ncix=
35
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    34:00              12          U_500
72.63          56.49
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=          35
                        ltix(ifh)=          35

After read, parm= V_500          ifh=          35
lead time index=          35  parm# (ip) =          13  ncix=
35
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    34:00              13          V_500
62.17          57.14
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15 ... parm=

```

```

Z_500

In get_var3_tlev_double, ifh=          35
                        ltix(ifh)=      35

After read, parm= Z_500                ifh=          35
lead time index=          35  parm# (ip) =          15  ncix=
35
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
   34:00                15          Z_500
5197.          5929.
+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=          35
                        ltix(ifh)=      35

After read, parm= Z_200                ifh=          35
lead time index=          35  parm# (ip) =          16  ncix=
35
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
   34:00                16          Z_200
0.1181E+05  0.1253E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:39:58

Of          17 readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =          38316.57      dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:   35:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:
imax=          409  jmax=          349
dx=          0.1722946  dy=          0.1621475

DX:  midi=  204  dx=  0.1723
DY:  midj=  174  dy=  0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:  -9.516  Min Lon:  92.852
Max Lat:  44.929  Max Lon:  163.148
TEST after getgridinfo in sub tracker, iggret=          0
in beginning of tracker, imax=          409  jmax=          349
TIMING: b4 getdata ... 14:39:58

NOTE: Program is now in subroutine getdata_netcdf.
+++ Time match in getdata_netcdf for usertime=          2100
netcdf file index= ncix=          36
+++ NetCDF read requested for parm #          1 ... parm=

```

ABS_VORTICITY_850

In get_var3_tlev_double, ifh= 36
ltix(ifh)= 36

After read, parm= ABS_VORTICITY_850 ifh= 36
lead time index= 36 parm# (ip) = 1 ncix=
36
igvret= 0
parmread lead time parm# parm_id minval maxval -
35:00 1 ABS_VORTICITY_850
0.5045E-03 0.4344E-02
+++ NetCDF read requested for parm # 2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh= 36
ltix(ifh)= 36

After read, parm= ABS_VORTICITY_700 ifh= 36
lead time index= 36 parm# (ip) = 2 ncix=
36
igvret= 0
parmread lead time parm# parm_id minval maxval -
35:00 2 ABS_VORTICITY_700
0.6101E-03 0.3810E-02
+++ NetCDF read requested for parm # 3 ... parm=
U_850

In get_var3_tlev_double, ifh= 36
ltix(ifh)= 36

After read, parm= U_850 ifh= 36
lead time index= 36 parm# (ip) = 3 ncix=
36
igvret= 0
parmread lead time parm# parm_id minval maxval -
35:00 3 U_850
81.89 0.1000E+21
+++ NetCDF read requested for parm # 4 ... parm=
V_850

In get_var3_tlev_double, ifh= 36
ltix(ifh)= 36

After read, parm= V_850 ifh= 36
lead time index= 36 parm# (ip) = 4 ncix=
36
igvret= 0
parmread lead time parm# parm_id minval maxval -
35:00 4 V_850
72.58 0.1000E+21
+++ NetCDF read requested for parm # 5 ... parm=
U_700

In get_var3_tlev_double, ifh= 36
ltix(ifh)= 36

After read, parm= U_700 ifh= 36
lead time index= 36 parm# (ip) = 5 ncix=
36

```

    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      35:00              5        U_700
75.94      0.1000E+21
+++ NetCDF read requested for parm #    6 ... parm=
V_700

    In get_var3_tlev_double, ifh=          36
                          ltix(ifh)=      36

    After read, parm= V_700
    lead time index=          36 parm# (ip) =          6 ncix=          36
36
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      35:00              6        V_700
63.87      0.1000E+21
+++ NetCDF read requested for parm #    7 ... parm=
Z_850

    In get_var3_tlev_double, ifh=          36
                          ltix(ifh)=      36

    After read, parm= Z_850
    lead time index=          36 parm# (ip) =          7 ncix=          36
36
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      35:00              7        Z_850
615.4      0.1000E+21
+++ NetCDF read requested for parm #    8 ... parm=
Z_700

    In get_var3_tlev_double, ifh=          36
                          ltix(ifh)=      36

    After read, parm= Z_700
    lead time index=          36 parm# (ip) =          8 ncix=          36
36
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      35:00              8        Z_700
2314.      0.1000E+21
+++ NetCDF read requested for parm #    9 ... parm=
slp

    In get_var3_tlev_double, ifh=          36
                          ltix(ifh)=      36

    After read, parm= slp
    lead time index=          36 parm# (ip) =          9 ncix=          36
36
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      35:00              9        slp
0.9111E+05  0.1026E+06
+++ NetCDF read requested for parm #   10 ... parm=
u_10m_gr

    In get_var3_tlev_double, ifh=          36

```

```

                ltix(ifh)=          36

After read, parm= u_10m_gr          ifh=          36
lead time index=          36 parm# (ip) =          10 ncix=
36
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
   35:00             10      u_10m_gr
50.92      48.12
+++ NetCDF read requested for parm #          11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          36
                ltix(ifh)=          36

After read, parm= v_10m_gr          ifh=          36
lead time index=          36 parm# (ip) =          11 ncix=
36
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
   35:00             11      v_10m_gr
48.66      54.59
+++ NetCDF read requested for parm #          12 ... parm=
U_500

In get_var3_tlev_double, ifh=          36
                ltix(ifh)=          36

After read, parm= U_500            ifh=          36
lead time index=          36 parm# (ip) =          12 ncix=
36
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
   35:00             12      U_500
72.01      58.09
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=          36
                ltix(ifh)=          36

After read, parm= V_500            ifh=          36
lead time index=          36 parm# (ip) =          13 ncix=
36
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
   35:00             13      V_500
61.02      57.28
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15 ... parm=
Z_500

In get_var3_tlev_double, ifh=          36
                ltix(ifh)=          36

After read, parm= Z_500            ifh=          36
lead time index=          36 parm# (ip) =          15 ncix=
36
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval

```

```

35:00          15          Z_500
5203.          5932.
+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=          36
                    ltix(ifh)=          36

After read, parm= Z_200          ifh=          36
lead time index=          36 parm# (ip) =          16 ncix=
36
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
35:00                16        Z_200
0.1182E+05  0.1253E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:39:58

Of          17 readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =          38316.57          dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:   36:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:
imax=          409 jmax=          349
dx=          0.1722946          dy=          0.1621475

DX: midi= 204 dx= 0.1723
DY: midj= 174 dy= 0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:   -9.516   Min Lon:   92.852
Max Lat:   44.929   Max Lon:  163.148
TEST after getgridinfo in sub tracker, iggret=          0
in beginning of tracker, imax=          409 jmax=          349
TIMING: b4 getdata ... 14:39:58

NOTE: Program is now in subroutine getdata_netcdf.
+++ Time match in getdata_netcdf for usertime=          2160
netcdf file index= ncix=          37
+++ NetCDF read requested for parm #          1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh=          37
                    ltix(ifh)=          37

After read, parm= ABS_VORTICITY_850          ifh=          37
lead time index=          37 parm# (ip) =          1 ncix=
37
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval

```

```

36:00          1          ABS_VORTICITY_850          -
0.5339E-03  0.4440E-02
+++ NetCDF read requested for parm #          2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh=          37
                        ltix(ifh)=          37

After read, parm= ABS_VORTICITY_700          ifh=          37
lead time index=          37 parm# (ip) =          2 ncix=
37
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
36:00          2          ABS_VORTICITY_700          -
0.4769E-03  0.3622E-02
+++ NetCDF read requested for parm #          3 ... parm=
U_850

In get_var3_tlev_double, ifh=          37
                        ltix(ifh)=          37

After read, parm= U_850          ifh=          37
lead time index=          37 parm# (ip) =          3 ncix=
37
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
36:00          3          U_850          -
81.94          0.1000E+21
+++ NetCDF read requested for parm #          4 ... parm=
V_850

In get_var3_tlev_double, ifh=          37
                        ltix(ifh)=          37

After read, parm= V_850          ifh=          37
lead time index=          37 parm# (ip) =          4 ncix=
37
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
36:00          4          V_850          -
68.36          0.1000E+21
+++ NetCDF read requested for parm #          5 ... parm=
U_700

In get_var3_tlev_double, ifh=          37
                        ltix(ifh)=          37

After read, parm= U_700          ifh=          37
lead time index=          37 parm# (ip) =          5 ncix=
37
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
36:00          5          U_700          -
73.42          0.1000E+21
+++ NetCDF read requested for parm #          6 ... parm=
V_700

In get_var3_tlev_double, ifh=          37
                        ltix(ifh)=          37

```

```

After read, parm= V_700                ifh= 37
lead time index= 37 parm# (ip) = 6 ncix=
37
  igvret= 0
parmread lead time  parm#  parm_id  minval  maxval
  36:00             6      V_700
63.53 0.1000E+21
+++ NetCDF read requested for parm # 7 ... parm=
Z_850

In get_var3_tlev_double, ifh= 37
                        ltix(ifh)= 37

After read, parm= Z_850                ifh= 37
lead time index= 37 parm# (ip) = 7 ncix=
37
  igvret= 0
parmread lead time  parm#  parm_id  minval  maxval
  36:00             7      Z_850
621.7 0.1000E+21
+++ NetCDF read requested for parm # 8 ... parm=
Z_700

In get_var3_tlev_double, ifh= 37
                        ltix(ifh)= 37

After read, parm= Z_700                ifh= 37
lead time index= 37 parm# (ip) = 8 ncix=
37
  igvret= 0
parmread lead time  parm#  parm_id  minval  maxval
  36:00             8      Z_700
2318. 0.1000E+21
+++ NetCDF read requested for parm # 9 ... parm=
slp

In get_var3_tlev_double, ifh= 37
                        ltix(ifh)= 37

After read, parm= slp                  ifh= 37
lead time index= 37 parm# (ip) = 9 ncix=
37
  igvret= 0
parmread lead time  parm#  parm_id  minval  maxval
  36:00             9      slp
0.9117E+05 0.1027E+06
+++ NetCDF read requested for parm # 10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh= 37
                        ltix(ifh)= 37

After read, parm= u_10m_gr            ifh= 37
lead time index= 37 parm# (ip) = 10 ncix=
37
  igvret= 0
parmread lead time  parm#  parm_id  minval  maxval
  36:00            10      u_10m_gr
49.42 50.15
+++ NetCDF read requested for parm # 11 ... parm=

```



```

v_10m_gr

In get_var3_tlev_double, ifh=          37
                        ltix(ifh)=     37

After read, parm= v_10m_gr                ifh=          37
lead time index=          37  parm# (ip) =          11  ncix=
37
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  36:00                11          v_10m_gr
46.49          53.95
+++ NetCDF read requested for parm #          12  ... parm=
U_500

In get_var3_tlev_double, ifh=          37
                        ltix(ifh)=     37

After read, parm= U_500                    ifh=          37
lead time index=          37  parm# (ip) =          12  ncix=
37
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  36:00                12          U_500
71.54          52.51
+++ NetCDF read requested for parm #          13  ... parm=
V_500

In get_var3_tlev_double, ifh=          37
                        ltix(ifh)=     37

After read, parm= V_500                    ifh=          37
lead time index=          37  parm# (ip) =          13  ncix=
37
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  36:00                13          V_500
61.08          58.89
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15  ... parm=
Z_500

In get_var3_tlev_double, ifh=          37
                        ltix(ifh)=     37

After read, parm= Z_500                    ifh=          37
lead time index=          37  parm# (ip) =          15  ncix=
37
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  36:00                15          Z_500
5203.          5934.
+++ NetCDF read requested for parm #          16  ... parm=
Z_200

In get_var3_tlev_double, ifh=          37
                        ltix(ifh)=     37

After read, parm= Z_200                    ifh=          37

```

```

lead time index=          37  parm# (ip) =          16  ncix=
37
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  36:00          16          Z_200
0.1183E+05  0.1254E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:39:59

Of          17  readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =      38316.57      dlat_inter =
  36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:   37:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:
imax=          409  jmax=          349
dx=      0.1722946      dy=      0.1621475

DX:  midi=  204 dx=   0.1723
DY:  midj=  174 dy=   0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:   -9.516  Min Lon:   92.852
Max Lat:   44.929  Max Lon:  163.148
TEST after getgridinfo in sub tracker, iggret=          0
in beginning of tracker, imax=          409  jmax=          349
TIMING: b4 getdata ... 14:39:59

NOTE: Program is now in subroutine  getdata_netcdf.
+++ Time match in getdata_netcdf for usertime=          2220
    netcdf file index= ncix=          38
+++ NetCDF read requested for parm #          1  ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh=          38
                        ltix(ifh)=          38

After read, parm= ABS_VORTICITY_850          ifh=          38
lead time index=          38  parm# (ip) =          1  ncix=
38
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  37:00          1          ABS_VORTICITY_850          -
0.6233E-03  0.4303E-02
+++ NetCDF read requested for parm #          2  ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh=          38
                        ltix(ifh)=          38

After read, parm= ABS_VORTICITY_700          ifh=          38

```

```

    lead time index=          38  parm# (ip) =          2  ncix=
38
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    37:00          2          ABS_VORTICITY_700      -
0.6494E-03  0.3721E-02
+++ NetCDF read requested for parm #          3  ... parm=
U_850

In get_var3_tlev_double, ifh=          38
                        ltix(ifh)=          38

After read, parm= U_850          ifh=          38
    lead time index=          38  parm# (ip) =          3  ncix=
38
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    37:00          3          U_850          -
88.33          0.1000E+21
+++ NetCDF read requested for parm #          4  ... parm=
V_850

In get_var3_tlev_double, ifh=          38
                        ltix(ifh)=          38

After read, parm= V_850          ifh=          38
    lead time index=          38  parm# (ip) =          4  ncix=
38
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    37:00          4          V_850          -
69.28          0.1000E+21
+++ NetCDF read requested for parm #          5  ... parm=
U_700

In get_var3_tlev_double, ifh=          38
                        ltix(ifh)=          38

After read, parm= U_700          ifh=          38
    lead time index=          38  parm# (ip) =          5  ncix=
38
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    37:00          5          U_700          -
71.83          0.1000E+21
+++ NetCDF read requested for parm #          6  ... parm=
V_700

In get_var3_tlev_double, ifh=          38
                        ltix(ifh)=          38

After read, parm= V_700          ifh=          38
    lead time index=          38  parm# (ip) =          6  ncix=
38
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    37:00          6          V_700          -
70.73          0.1000E+21
+++ NetCDF read requested for parm #          7  ... parm=
Z_850

```

```

In get_var3_tlev_double, ifh=          38
                        ltix(ifh)=      38

After read, parm= Z_850                ifh=          38
lead time index=          38 parm# (ip) =          7 ncix=
38
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  37:00                7          Z_850
604.8      0.1000E+21
+++ NetCDF read requested for parm #      8 ... parm=
Z_700

In get_var3_tlev_double, ifh=          38
                        ltix(ifh)=      38

After read, parm= Z_700                ifh=          38
lead time index=          38 parm# (ip) =          8 ncix=
38
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  37:00                8          Z_700
2304.      0.1000E+21
+++ NetCDF read requested for parm #      9 ... parm=
slp

In get_var3_tlev_double, ifh=          38
                        ltix(ifh)=      38

After read, parm= slp                  ifh=          38
lead time index=          38 parm# (ip) =          9 ncix=
38
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  37:00                9          slp
0.9099E+05  0.1028E+06
+++ NetCDF read requested for parm #     10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          38
                        ltix(ifh)=      38

After read, parm= u_10m_gr             ifh=          38
lead time index=          38 parm# (ip) =         10 ncix=
38
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  37:00               10          u_10m_gr
51.85      45.56
+++ NetCDF read requested for parm #     11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          38
                        ltix(ifh)=      38

After read, parm= v_10m_gr            ifh=          38
lead time index=          38 parm# (ip) =         11 ncix=
38
  igvret=          0

```

```

parmread lead time      parm#      parm_id      minval      maxval      -
  37:00                11         v_10m_gr
45.66      51.99
+++ NetCDF read requested for parm #      12 ... parm=
U_500

In get_var3_tlev_double, ifh=      38
                        ltix(ifh)=  38

After read, parm= U_500                ifh=      38
lead time index=      38 parm# (ip) =      12 ncix=
38
igvret=      0
parmread lead time      parm#      parm_id      minval      maxval      -
  37:00                12         U_500
70.96      54.81
+++ NetCDF read requested for parm #      13 ... parm=
V_500

In get_var3_tlev_double, ifh=      38
                        ltix(ifh)=  38

After read, parm= V_500                ifh=      38
lead time index=      38 parm# (ip) =      13 ncix=
38
igvret=      0
parmread lead time      parm#      parm_id      minval      maxval      -
  37:00                13         V_500
61.78      61.16
!!! NetCDF read NOT requested for parm #      14
+++ NetCDF read requested for parm #      15 ... parm=
Z_500

In get_var3_tlev_double, ifh=      38
                        ltix(ifh)=  38

After read, parm= Z_500                ifh=      38
lead time index=      38 parm# (ip) =      15 ncix=
38
igvret=      0
parmread lead time      parm#      parm_id      minval      maxval
  37:00                15         Z_500
5197.      5933.
+++ NetCDF read requested for parm #      16 ... parm=
Z_200

In get_var3_tlev_double, ifh=      38
                        ltix(ifh)=  38

After read, parm= Z_200                ifh=      38
lead time index=      38 parm# (ip) =      16 ncix=
38
igvret=      0
parmread lead time      parm#      parm_id      minval      maxval
  37:00                16         Z_200
0.1183E+05  0.1254E+05
!!! NetCDF read NOT requested for parm #      17
TIMING: after getdata ... 14:40:00

Of      17 readable parms, you read in      15

```

parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter = 38316.57 dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

* New forecast hour: 38:00

in getgridinfo_netcdf, ncfile_id= 65536

In getgridinfo, grid dimensions follow:
imax= 409 jmax= 349
dx= 0.1722946 dy= 0.1621475

DX: midi= 204 dx= 0.1723
DY: midj= 174 dy= 0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat: -9.516 Min Lon: 92.852
Max Lat: 44.929 Max Lon: 163.148
TEST after getgridinfo in sub tracker, iggret= 0
in beginning of tracker, imax= 409 jmax= 349
TIMING: b4 getdata ... 14:40:00

NOTE: Program is now in subroutine getdata_netcdf.
+++ Time match in getdata_netcdf for usertime= 2280
netcdf file index= ncix= 39
+++ NetCDF read requested for parm # 1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh= 39
ltix(ifh)= 39

After read, parm= ABS_VORTICITY_850 ifh= 39
lead time index= 39 parm# (ip) = 1 ncix=
39
igvret= 0
parmread lead time parm# parm_id minval maxval
38:00 1 ABS_VORTICITY_850 -
0.5273E-03 0.4293E-02

+++ NetCDF read requested for parm # 2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh= 39
ltix(ifh)= 39

After read, parm= ABS_VORTICITY_700 ifh= 39
lead time index= 39 parm# (ip) = 2 ncix=
39
igvret= 0
parmread lead time parm# parm_id minval maxval
38:00 2 ABS_VORTICITY_700 -
0.5678E-03 0.3680E-02

+++ NetCDF read requested for parm # 3 ... parm=
U_850

In get_var3_tlev_double, ifh= 39

```

                ltix(ifh)=                39

After read, parm= U_850                ifh=                39
lead time index=                39  parm# (ip) =                3  ncix=
39
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  38:00                3        U_850
79.78    0.1000E+21
+++ NetCDF read requested for parm #    4 ... parm=
V_850

In get_var3_tlev_double, ifh=                39
                ltix(ifh)=                39

After read, parm= V_850                ifh=                39
lead time index=                39  parm# (ip) =                4  ncix=
39
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  38:00                4        V_850
72.40    0.1000E+21
+++ NetCDF read requested for parm #    5 ... parm=
U_700

In get_var3_tlev_double, ifh=                39
                ltix(ifh)=                39

After read, parm= U_700                ifh=                39
lead time index=                39  parm# (ip) =                5  ncix=
39
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  38:00                5        U_700
73.72    0.1000E+21
+++ NetCDF read requested for parm #    6 ... parm=
V_700

In get_var3_tlev_double, ifh=                39
                ltix(ifh)=                39

After read, parm= V_700                ifh=                39
lead time index=                39  parm# (ip) =                6  ncix=
39
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  38:00                6        V_700
67.74    0.1000E+21
+++ NetCDF read requested for parm #    7 ... parm=
Z_850

In get_var3_tlev_double, ifh=                39
                ltix(ifh)=                39

After read, parm= Z_850                ifh=                39
lead time index=                39  parm# (ip) =                7  ncix=
39
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval

```

```

38:00          7          Z_850
593.0          0.1000E+21
+++ NetCDF read requested for parm #          8 ... parm=
Z_700

In get_var3_tlev_double, ifh=          39
                        ltix(ifh)=          39

After read, parm= Z_700          ifh=          39
lead time index=          39 parm# (ip) =          8 ncix=
39
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
38:00          8          Z_700
2292.          0.1000E+21
+++ NetCDF read requested for parm #          9 ... parm=
slp

In get_var3_tlev_double, ifh=          39
                        ltix(ifh)=          39

After read, parm= slp          ifh=          39
lead time index=          39 parm# (ip) =          9 ncix=
39
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
38:00          9          slp
0.9089E+05  0.1029E+06
+++ NetCDF read requested for parm #          10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          39
                        ltix(ifh)=          39

After read, parm= u_10m_gr          ifh=          39
lead time index=          39 parm# (ip) =          10 ncix=
39
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
38:00          10          u_10m_gr          -
54.12          50.26
+++ NetCDF read requested for parm #          11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          39
                        ltix(ifh)=          39

After read, parm= v_10m_gr          ifh=          39
lead time index=          39 parm# (ip) =          11 ncix=
39
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
38:00          11          v_10m_gr          -
47.68          50.90
+++ NetCDF read requested for parm #          12 ... parm=
U_500

In get_var3_tlev_double, ifh=          39
                        ltix(ifh)=          39

```



```

After read, parm= U_500                ifh= 39
lead time index= 39 parm# (ip) = 12 ncix=
39
igvret= 0
parmread lead time  parm#  parm_id  minval  maxval
38:00 12 U_500 -
64.90 51.84
+++ NetCDF read requested for parm # 13 ... parm=
V_500

In get_var3_tlev_double, ifh= 39
ltix(ifh)= 39

After read, parm= V_500                ifh= 39
lead time index= 39 parm# (ip) = 13 ncix=
39
igvret= 0
parmread lead time  parm#  parm_id  minval  maxval
38:00 13 V_500 -
67.16 60.10
!!! NetCDF read NOT requested for parm # 14
+++ NetCDF read requested for parm # 15 ... parm=
Z_500

In get_var3_tlev_double, ifh= 39
ltix(ifh)= 39

After read, parm= Z_500                ifh= 39
lead time index= 39 parm# (ip) = 15 ncix=
39
igvret= 0
parmread lead time  parm#  parm_id  minval  maxval
38:00 15 Z_500
5181. 5931.
+++ NetCDF read requested for parm # 16 ... parm=
Z_200

In get_var3_tlev_double, ifh= 39
ltix(ifh)= 39

After read, parm= Z_200                ifh= 39
lead time index= 39 parm# (ip) = 16 ncix=
39
igvret= 0
parmread lead time  parm#  parm_id  minval  maxval
38:00 16 Z_200
0.1184E+05 0.1254E+05
!!! NetCDF read NOT requested for parm # 17
TIMING: after getdata ... 14:40:01

Of 17 readable parms, you read in 15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter = 38316.57 dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

```

```

*   New forecast hour:   39:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:
imax=          409   jmax=          349
dx=      0.1722946   dy=      0.1621475

DX:  midi=   204 dx=   0.1723
DY:  midj=   174 dy=   0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:   -9.516   Min Lon:   92.852
Max Lat:   44.929   Max Lon:  163.148
TEST after getgridinfo in sub tracker, iggret=          0
in beginning of tracker, imax=          409   jmax=          349
TIMING: b4 getdata ... 14:40:01

NOTE: Program is now in subroutine  getdata_netcdf.
+++ Time match in getdata_netcdf for usertime=          2340
   netcdf file index= ncix=          40
+++ NetCDF read requested for parm #          1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh=          40
                           ltix(ifh)=          40

After read, parm= ABS_VORTICITY_850           ifh=          40
lead time index=          40   parm# (ip) =          1   ncix=
40
   igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
   39:00                1          ABS_VORTICITY_850          -
0.6216E-03  0.4274E-02
+++ NetCDF read requested for parm #          2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh=          40
                           ltix(ifh)=          40

After read, parm= ABS_VORTICITY_700           ifh=          40
lead time index=          40   parm# (ip) =          2   ncix=
40
   igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
   39:00                2          ABS_VORTICITY_700          -
0.4884E-03  0.3649E-02
+++ NetCDF read requested for parm #          3 ... parm=
U_850

In get_var3_tlev_double, ifh=          40
                           ltix(ifh)=          40

After read, parm= U_850                       ifh=          40
lead time index=          40   parm# (ip) =          3   ncix=
40
   igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
   39:00                3          U_850          -
75.18          0.1000E+21

```

```

+++ NetCDF read requested for parm #          4 ... parm=
V_850

In get_var3_tlev_double, ifh=                40
                        ltix(ifh)=          40

After read, parm= V_850                      ifh=                40
lead time index=          40 parm# (ip) =          4 ncix=
40
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
39:00                   4          V_850
71.52      0.1000E+21
+++ NetCDF read requested for parm #          5 ... parm=
U_700

In get_var3_tlev_double, ifh=                40
                        ltix(ifh)=          40

After read, parm= U_700                      ifh=                40
lead time index=          40 parm# (ip) =          5 ncix=
40
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
39:00                   5          U_700
67.88      0.1000E+21
+++ NetCDF read requested for parm #          6 ... parm=
V_700

In get_var3_tlev_double, ifh=                40
                        ltix(ifh)=          40

After read, parm= V_700                      ifh=                40
lead time index=          40 parm# (ip) =          6 ncix=
40
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
39:00                   6          V_700
68.40      0.1000E+21
+++ NetCDF read requested for parm #          7 ... parm=
Z_850

In get_var3_tlev_double, ifh=                40
                        ltix(ifh)=          40

After read, parm= Z_850                      ifh=                40
lead time index=          40 parm# (ip) =          7 ncix=
40
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
39:00                   7          Z_850
582.2      0.1000E+21
+++ NetCDF read requested for parm #          8 ... parm=
Z_700

In get_var3_tlev_double, ifh=                40
                        ltix(ifh)=          40

After read, parm= Z_700                      ifh=                40

```

```

lead time index=          40  parm# (ip) =          8  ncix=
40
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  39:00                8          z_700
2281.          0.1000E+21
+++ NetCDF read requested for parm #          9  ... parm=
slp

In get_var3_tlev_double, ifh=          40
                        ltix(ifh)=          40

After read, parm= slp                                ifh=          40
lead time index=          40  parm# (ip) =          9  ncix=
40
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  39:00                9          slp
0.9079E+05  0.1030E+06
+++ NetCDF read requested for parm #          10  ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          40
                        ltix(ifh)=          40

After read, parm= u_10m_gr                            ifh=          40
lead time index=          40  parm# (ip) =          10  ncix=
40
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  39:00                10          u_10m_gr      -
50.66          51.40
+++ NetCDF read requested for parm #          11  ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          40
                        ltix(ifh)=          40

After read, parm= v_10m_gr                            ifh=          40
lead time index=          40  parm# (ip) =          11  ncix=
40
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  39:00                11          v_10m_gr      -
46.37          53.14
+++ NetCDF read requested for parm #          12  ... parm=
U_500

In get_var3_tlev_double, ifh=          40
                        ltix(ifh)=          40

After read, parm= U_500                                ifh=          40
lead time index=          40  parm# (ip) =          12  ncix=
40
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  39:00                12          U_500          -
66.98          58.66
+++ NetCDF read requested for parm #          13  ... parm=
V_500

```

```

In get_var3_tlev_double, ifh=          40
                        ltix(ifh)=      40

After read, parm= V_500                ifh=          40
lead time index=          40  parm# (ip) =          13  ncix=
40
  igvret=                    0
parmread lead time    parm#    parm_id    minval    maxval
  39:00                13        V_500
67.78    59.97
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15 ... parm=
Z_500

In get_var3_tlev_double, ifh=          40
                        ltix(ifh)=      40

After read, parm= Z_500                ifh=          40
lead time index=          40  parm# (ip) =          15  ncix=
40
  igvret=                    0
parmread lead time    parm#    parm_id    minval    maxval
  39:00                15        Z_500
5167.    5927.
+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=          40
                        ltix(ifh)=      40

After read, parm= Z_200                ifh=          40
lead time index=          40  parm# (ip) =          16  ncix=
40
  igvret=                    0
parmread lead time    parm#    parm_id    minval    maxval
  39:00                16        Z_200
0.1184E+05  0.1254E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:40:02

Of          17 readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =    38316.57    dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:   40:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:
imax=          409  jmax=          349
dx=    0.1722946  dy=    0.1621475

DX:  midi=  204 dx=    0.1723

```

DY: midj= 174 dy= 0.1621

Data Grid Lat/Lon boundaries follow:

Min Lat: -9.516 Min Lon: 92.852

Max Lat: 44.929 Max Lon: 163.148

TEST after getgridinfo in sub tracker, iggret= 0

in beginning of tracker, imax= 409 jmax= 349

TIMING: b4 getdata ... 14:40:02

NOTE: Program is now in subroutine getdata_netcdf.

+++ Time match in getdata_netcdf for usertime= 2400

netcdf file index= ncix= 41

+++ NetCDF read requested for parm # 1 ... parm=

ABS_VORTICITY_850

In get_var3_tlev_double, ifh= 41

ltix(ifh)= 41

After read, parm= ABS_VORTICITY_850 ifh= 41

lead time index= 41 parm# (ip) = 1 ncix=

41

igvret= 0

parmread	lead time	parm#	parm_id	minval	maxval
40:00		1	ABS_VORTICITY_850		-

0.5870E-03 0.4235E-02

+++ NetCDF read requested for parm # 2 ... parm=

ABS_VORTICITY_700

In get_var3_tlev_double, ifh= 41

ltix(ifh)= 41

After read, parm= ABS_VORTICITY_700 ifh= 41

lead time index= 41 parm# (ip) = 2 ncix=

41

igvret= 0

parmread	lead time	parm#	parm_id	minval	maxval
40:00		2	ABS_VORTICITY_700		-

0.5031E-03 0.3492E-02

+++ NetCDF read requested for parm # 3 ... parm=

U_850

In get_var3_tlev_double, ifh= 41

ltix(ifh)= 41

After read, parm= U_850 ifh= 41

lead time index= 41 parm# (ip) = 3 ncix=

41

igvret= 0

parmread	lead time	parm#	parm_id	minval	maxval
40:00		3	U_850		-

79.72 0.1000E+21

+++ NetCDF read requested for parm # 4 ... parm=

V_850

In get_var3_tlev_double, ifh= 41

ltix(ifh)= 41

After read, parm= V_850 ifh= 41

lead time index= 41 parm# (ip) = 4 ncix=

41

```

    igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    40:00            4        V_850
66.34      0.1000E+21
+++ NetCDF read requested for parm #    5 ... parm=
U_700

In get_var3_tlev_double, ifh=          41
                        ltix(ifh)=      41

After read, parm= U_700
lead time index=          41 parm# (ip) =          5 ncix=          41
41
    igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    40:00            5        U_700
71.08      0.1000E+21
+++ NetCDF read requested for parm #    6 ... parm=
V_700

In get_var3_tlev_double, ifh=          41
                        ltix(ifh)=      41

After read, parm= V_700
lead time index=          41 parm# (ip) =          6 ncix=          41
41
    igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    40:00            6        V_700
61.99      0.1000E+21
+++ NetCDF read requested for parm #    7 ... parm=
Z_850

In get_var3_tlev_double, ifh=          41
                        ltix(ifh)=      41

After read, parm= Z_850
lead time index=          41 parm# (ip) =          7 ncix=          41
41
    igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    40:00            7        Z_850
579.6      0.1000E+21
+++ NetCDF read requested for parm #    8 ... parm=
Z_700

In get_var3_tlev_double, ifh=          41
                        ltix(ifh)=      41

After read, parm= Z_700
lead time index=          41 parm# (ip) =          8 ncix=          41
41
    igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    40:00            8        Z_700
2277.      0.1000E+21
+++ NetCDF read requested for parm #    9 ... parm=
slp

In get_var3_tlev_double, ifh=          41

```

```

                ltix(ifh)=          41

After read, parm= slp                ifh=          41
lead time index=          41 parm# (ip) =          9 ncix=
41
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    40:00              9        slp
0.9074E+05  0.1029E+06
+++ NetCDF read requested for parm #          10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          41
                ltix(ifh)=          41

After read, parm= u_10m_gr            ifh=          41
lead time index=          41 parm# (ip) =          10 ncix=
41
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    40:00              10        u_10m_gr
49.30          50.36
+++ NetCDF read requested for parm #          11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          41
                ltix(ifh)=          41

After read, parm= v_10m_gr            ifh=          41
lead time index=          41 parm# (ip) =          11 ncix=
41
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    40:00              11        v_10m_gr
47.59          51.47
+++ NetCDF read requested for parm #          12 ... parm=
U_500

In get_var3_tlev_double, ifh=          41
                ltix(ifh)=          41

After read, parm= U_500                ifh=          41
lead time index=          41 parm# (ip) =          12 ncix=
41
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    40:00              12        U_500
66.90          57.75
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=          41
                ltix(ifh)=          41

After read, parm= V_500                ifh=          41
lead time index=          41 parm# (ip) =          13 ncix=
41
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval

```



```

40:00          13          V_500          -
65.11      62.91
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15 ... parm=
Z_500

In get_var3_tlev_double, ifh=          41
                        ltix(ifh)=          41

After read, parm= Z_500          ifh=          41
lead time index=          41 parm# (ip) =          15 ncix=
41
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
40:00          15          Z_500
5166.      5926.
+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=          41
                        ltix(ifh)=          41

After read, parm= Z_200          ifh=          41
lead time index=          41 parm# (ip) =          16 ncix=
41
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
40:00          16          Z_200
0.1184E+05  0.1257E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:40:02

Of          17 readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =          38316.57          dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:   41:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:
imax=          409  jmax=          349
dx=          0.1722946  dy=          0.1621475

DX:  midi=  204 dx=  0.1723
DY:  midj=  174 dy=  0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:  -9.516  Min Lon:  92.852
Max Lat:  44.929  Max Lon:  163.148
TEST after getgridinfo in sub tracker, iggret=          0
in beginning of tracker, imax=          409  jmax=          349
TIMING: b4 getdata ... 14:40:02

```

```

NOTE: Program is now in subroutine  getdata_netcdf.
+++ Time match in getdata_netcdf for usertime=          2460
  netcdf file index= ncix=          42
+++ NetCDF read requested for parm #          1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh=          42
                        ltix(ifh)=    42

After read, parm= ABS_VORTICITY_850          ifh=          42
  lead time index=          42 parm# (ip) =          1 ncix=
42
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  41:00              1          ABS_VORTICITY_850          -
0.6299E-03  0.3957E-02
+++ NetCDF read requested for parm #          2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh=          42
                        ltix(ifh)=    42

After read, parm= ABS_VORTICITY_700          ifh=          42
  lead time index=          42 parm# (ip) =          2 ncix=
42
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  41:00              2          ABS_VORTICITY_700          -
0.4775E-03  0.3509E-02
+++ NetCDF read requested for parm #          3 ... parm=
U_850

In get_var3_tlev_double, ifh=          42
                        ltix(ifh)=    42

After read, parm= U_850          ifh=          42
  lead time index=          42 parm# (ip) =          3 ncix=
42
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  41:00              3          U_850          -
83.10      0.1000E+21
+++ NetCDF read requested for parm #          4 ... parm=
V_850

In get_var3_tlev_double, ifh=          42
                        ltix(ifh)=    42

After read, parm= V_850          ifh=          42
  lead time index=          42 parm# (ip) =          4 ncix=
42
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  41:00              4          V_850          -
74.54      0.1000E+21
+++ NetCDF read requested for parm #          5 ... parm=
U_700

In get_var3_tlev_double, ifh=          42
                        ltix(ifh)=    42

```

```

After read, parm= U_700                ifh=          42
lead time index=          42 parm# (ip) =          5 ncix=
42
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  41:00              5        U_700
69.90      0.1000E+21
+++ NetCDF read requested for parm #          6 ... parm=
V_700

In get_var3_tlev_double, ifh=          42
                        ltix(ifh)=     42

After read, parm= V_700                ifh=          42
lead time index=          42 parm# (ip) =          6 ncix=
42
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  41:00              6        V_700
66.74      0.1000E+21
+++ NetCDF read requested for parm #          7 ... parm=
Z_850

In get_var3_tlev_double, ifh=          42
                        ltix(ifh)=     42

After read, parm= Z_850                ifh=          42
lead time index=          42 parm# (ip) =          7 ncix=
42
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  41:00              7        Z_850
555.1      0.1000E+21
+++ NetCDF read requested for parm #          8 ... parm=
Z_700

In get_var3_tlev_double, ifh=          42
                        ltix(ifh)=     42

After read, parm= Z_700                ifh=          42
lead time index=          42 parm# (ip) =          8 ncix=
42
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  41:00              8        Z_700
2254.      0.1000E+21
+++ NetCDF read requested for parm #          9 ... parm=
slp

In get_var3_tlev_double, ifh=          42
                        ltix(ifh)=     42

After read, parm= slp                  ifh=          42
lead time index=          42 parm# (ip) =          9 ncix=
42
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  41:00              9        slp
0.9054E+05  0.1030E+06

```

```

+++ NetCDF read requested for parm #          10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=                  42
                        ltix(ifh)=            42

After read, parm= u_10m_gr                      ifh=                  42
lead time index=          42 parm# (ip) =          10 ncix=
42
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
41:00                  10          u_10m_gr
50.17          47.32
+++ NetCDF read requested for parm #          11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=                  42
                        ltix(ifh)=            42

After read, parm= v_10m_gr                      ifh=                  42
lead time index=          42 parm# (ip) =          11 ncix=
42
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
41:00                  11          v_10m_gr
51.71          51.33
+++ NetCDF read requested for parm #          12 ... parm=
U_500

In get_var3_tlev_double, ifh=                  42
                        ltix(ifh)=            42

After read, parm= U_500                        ifh=                  42
lead time index=          42 parm# (ip) =          12 ncix=
42
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
41:00                  12          U_500
70.69          59.06
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=                  42
                        ltix(ifh)=            42

After read, parm= V_500                        ifh=                  42
lead time index=          42 parm# (ip) =          13 ncix=
42
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
41:00                  13          V_500
62.51          66.25
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15 ... parm=
Z_500

In get_var3_tlev_double, ifh=                  42
                        ltix(ifh)=            42

After read, parm= Z_500                        ifh=                  42

```

```

lead time index=          42  parm# (ip) =          15  ncix=
42
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  41:00          15          Z_500
5140.          5925.
+++ NetCDF read requested for parm #          16  ... parm=
Z_200

In get_var3_tlev_double, ifh=          42
                        ltix(ifh)=          42

After read, parm= Z_200          ifh=          42
lead time index=          42  parm# (ip) =          16  ncix=
42
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  41:00          16          Z_200
0.1184E+05  0.1254E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:40:03

Of          17  readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =          38316.57          dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:   42:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:
imax=          409  jmax=          349
dx=          0.1722946  dy=          0.1621475

DX:  midi=  204  dx=  0.1723
DY:  midj=  174  dy=  0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:  -9.516  Min Lon:  92.852
Max Lat:  44.929  Max Lon:  163.148
TEST after getgridinfo in sub tracker, iggret=          0
in beginning of tracker, imax=          409  jmax=          349
TIMING: b4 getdata ... 14:40:03

NOTE: Program is now in subroutine getdata_netcdf.
+++ Time match in getdata_netcdf for usertime=          2520
netcdf file index= ncix=          43
+++ NetCDF read requested for parm #          1  ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh=          43
                        ltix(ifh)=          43

After read, parm= ABS_VORTICITY_850          ifh=          43

```

```

lead time index=          43  parm# (ip) =          1  ncix=
43
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  42:00          1      ABS_VORTICITY_850      -
0.5128E-03  0.4157E-02
+++ NetCDF read requested for parm #          2  ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh=          43
                        ltix(ifh)=          43

After read, parm= ABS_VORTICITY_700      ifh=          43
lead time index=          43  parm# (ip) =          2  ncix=
43
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  42:00          2      ABS_VORTICITY_700      -
0.4375E-03  0.3530E-02
+++ NetCDF read requested for parm #          3  ... parm=
U_850

In get_var3_tlev_double, ifh=          43
                        ltix(ifh)=          43

After read, parm= U_850      ifh=          43
lead time index=          43  parm# (ip) =          3  ncix=
43
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  42:00          3      U_850      -
83.60      0.1000E+21
+++ NetCDF read requested for parm #          4  ... parm=
V_850

In get_var3_tlev_double, ifh=          43
                        ltix(ifh)=          43

After read, parm= V_850      ifh=          43
lead time index=          43  parm# (ip) =          4  ncix=
43
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  42:00          4      V_850      -
76.18      0.1000E+21
+++ NetCDF read requested for parm #          5  ... parm=
U_700

In get_var3_tlev_double, ifh=          43
                        ltix(ifh)=          43

After read, parm= U_700      ifh=          43
lead time index=          43  parm# (ip) =          5  ncix=
43
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  42:00          5      U_700      -
75.63      0.1000E+21
+++ NetCDF read requested for parm #          6  ... parm=
V_700

```

```

In get_var3_tlev_double, ifh=          43
                        ltix(ifh)=     43

After read, parm= V_700                ifh=          43
lead time index=          43 parm# (ip) =          6 ncix=
43
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  42:00                6          V_700
67.63      0.1000E+21
+++ NetCDF read requested for parm #          7 ... parm=
Z_850

In get_var3_tlev_double, ifh=          43
                        ltix(ifh)=     43

After read, parm= Z_850                ifh=          43
lead time index=          43 parm# (ip) =          7 ncix=
43
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  42:00                7          Z_850
550.9      0.1000E+21
+++ NetCDF read requested for parm #          8 ... parm=
Z_700

In get_var3_tlev_double, ifh=          43
                        ltix(ifh)=     43

After read, parm= Z_700                ifh=          43
lead time index=          43 parm# (ip) =          8 ncix=
43
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  42:00                8          Z_700
2245.      0.1000E+21
+++ NetCDF read requested for parm #          9 ... parm=
slp

In get_var3_tlev_double, ifh=          43
                        ltix(ifh)=     43

After read, parm= slp                  ifh=          43
lead time index=          43 parm# (ip) =          9 ncix=
43
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  42:00                9          slp
0.9044E+05  0.1030E+06
+++ NetCDF read requested for parm #         10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          43
                        ltix(ifh)=     43

After read, parm= u_10m_gr            ifh=          43
lead time index=          43 parm# (ip) =         10 ncix=
43
  igvret=          0

```

```

parmread lead time      parm#      parm_id      minval      maxval      -
    42:00              10          u_10m_gr
51.62      50.06
+++ NetCDF read requested for parm #      11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=      43
                        ltix(ifh)=      43

After read, parm= v_10m_gr      ifh=      43
lead time index=      43 parm# (ip) =      11 ncix=
43
igvret=      0
parmread lead time      parm#      parm_id      minval      maxval      -
    42:00              11          v_10m_gr
48.81      47.84
+++ NetCDF read requested for parm #      12 ... parm=
U_500

In get_var3_tlev_double, ifh=      43
                        ltix(ifh)=      43

After read, parm= U_500      ifh=      43
lead time index=      43 parm# (ip) =      12 ncix=
43
igvret=      0
parmread lead time      parm#      parm_id      minval      maxval      -
    42:00              12          U_500
70.00      56.74
+++ NetCDF read requested for parm #      13 ... parm=
V_500

In get_var3_tlev_double, ifh=      43
                        ltix(ifh)=      43

After read, parm= V_500      ifh=      43
lead time index=      43 parm# (ip) =      13 ncix=
43
igvret=      0
parmread lead time      parm#      parm_id      minval      maxval      -
    42:00              13          V_500
65.97      65.10
!!! NetCDF read NOT requested for parm #      14
+++ NetCDF read requested for parm #      15 ... parm=
Z_500

In get_var3_tlev_double, ifh=      43
                        ltix(ifh)=      43

After read, parm= Z_500      ifh=      43
lead time index=      43 parm# (ip) =      15 ncix=
43
igvret=      0
parmread lead time      parm#      parm_id      minval      maxval      -
    42:00              15          Z_500
5131.      5923.
+++ NetCDF read requested for parm #      16 ... parm=
Z_200

In get_var3_tlev_double, ifh=      43

```



```

                ltix(ifh)=                43

After read, parm= Z_200                    ifh=                43
  lead time index=                43  parm# (ip) =                16  ncix=
43
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  42:00                16        Z_200
0.1185E+05  0.1254E+05
!!! NetCDF read NOT requested for parm #                17
TIMING: after getdata ... 14:40:04

Of                17  readable parms, you read in                15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =    38316.57    dlat_inter =
  36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:    43:00
*-----*
in getgridinfo_netcdf, ncfile_id=                65536

In getgridinfo, grid dimensions follow:
imax=                409  jmax=                349
dx=    0.1722946    dy=    0.1621475

DX:  midi=    204  dx=    0.1723
DY:  midj=    174  dy=    0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:   -9.516  Min Lon:   92.852
Max Lat:   44.929  Max Lon:  163.148
TEST after getgridinfo in sub tracker, iggret=                0
in beginning of tracker, imax=                409  jmax=                349
TIMING: b4 getdata ... 14:40:04

NOTE: Program is now in subroutine  getdata_netcdf.
+++ Time match in getdata_netcdf for usertime=                2580
    netcdf file index= ncix=                44
+++ NetCDF read requested for parm #                1  ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh=                44
                ltix(ifh)=                44

After read, parm= ABS_VORTICITY_850        ifh=                44
  lead time index=                44  parm# (ip) =                1  ncix=
44
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  43:00                1        ABS_VORTICITY_850    -
0.5047E-03  0.3925E-02
+++ NetCDF read requested for parm #                2  ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh=                44

```

```

                ltix(ifh)=                44

After read, parm= ABS_VORTICITY_700          ifh=                44
lead time index=                44 parm# (ip) =                2 ncix=
44
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  43:00                2          ABS_VORTICITY_700    -
0.4204E-03  0.3562E-02
+++ NetCDF read requested for parm #                3 ... parm=
U_850

In get_var3_tlev_double, ifh=                44
                ltix(ifh)=                44

After read, parm= U_850                      ifh=                44
lead time index=                44 parm# (ip) =                3 ncix=
44
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  43:00                3          U_850                -
85.86        0.1000E+21
+++ NetCDF read requested for parm #                4 ... parm=
V_850

In get_var3_tlev_double, ifh=                44
                ltix(ifh)=                44

After read, parm= V_850                      ifh=                44
lead time index=                44 parm# (ip) =                4 ncix=
44
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  43:00                4          V_850                -
76.11        0.1000E+21
+++ NetCDF read requested for parm #                5 ... parm=
U_700

In get_var3_tlev_double, ifh=                44
                ltix(ifh)=                44

After read, parm= U_700                      ifh=                44
lead time index=                44 parm# (ip) =                5 ncix=
44
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  43:00                5          U_700                -
72.10        0.1000E+21
+++ NetCDF read requested for parm #                6 ... parm=
V_700

In get_var3_tlev_double, ifh=                44
                ltix(ifh)=                44

After read, parm= V_700                      ifh=                44
lead time index=                44 parm# (ip) =                6 ncix=
44
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval

```

```

43:00          6          V_700          -
65.63      0.1000E+21
+++ NetCDF read requested for parm #          7 ... parm=
Z_850

In get_var3_tlev_double, ifh=          44
                        ltix(ifh)=          44

After read, parm= Z_850          ifh=          44
lead time index=          44 parm# (ip) =          7 ncix=
44
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
43:00          7          Z_850
524.1      0.1000E+21
+++ NetCDF read requested for parm #          8 ... parm=
Z_700

In get_var3_tlev_double, ifh=          44
                        ltix(ifh)=          44

After read, parm= Z_700          ifh=          44
lead time index=          44 parm# (ip) =          8 ncix=
44
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
43:00          8          Z_700
2218.      0.1000E+21
+++ NetCDF read requested for parm #          9 ... parm=
slp

In get_var3_tlev_double, ifh=          44
                        ltix(ifh)=          44

After read, parm= slp          ifh=          44
lead time index=          44 parm# (ip) =          9 ncix=
44
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
43:00          9          slp
0.9017E+05  0.1030E+06
+++ NetCDF read requested for parm #          10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          44
                        ltix(ifh)=          44

After read, parm= u_10m_gr          ifh=          44
lead time index=          44 parm# (ip) =          10 ncix=
44
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
43:00          10          u_10m_gr
51.90      47.56
+++ NetCDF read requested for parm #          11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          44
                        ltix(ifh)=          44

```

```

After read, parm= v_10m_gr          ifh=          44
lead time index=          44 parm# (ip) =          11 ncix=
44
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  43:00          11          v_10m_gr          -
50.81          52.84
+++ NetCDF read requested for parm #          12 ... parm=
U_500

In get_var3_tlev_double, ifh=          44
                        ltix(ifh)=          44

After read, parm= U_500          ifh=          44
lead time index=          44 parm# (ip) =          12 ncix=
44
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  43:00          12          U_500          -
69.83          58.66
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=          44
                        ltix(ifh)=          44

After read, parm= V_500          ifh=          44
lead time index=          44 parm# (ip) =          13 ncix=
44
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  43:00          13          V_500          -
62.99          71.82
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15 ... parm=
Z_500

In get_var3_tlev_double, ifh=          44
                        ltix(ifh)=          44

After read, parm= Z_500          ifh=          44
lead time index=          44 parm# (ip) =          15 ncix=
44
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  43:00          15          Z_500          -
5099.          5923.
+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=          44
                        ltix(ifh)=          44

After read, parm= Z_200          ifh=          44
lead time index=          44 parm# (ip) =          16 ncix=
44
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  43:00          16          Z_200          -
0.1185E+05  0.1254E+05

```

!!! NetCDF read NOT requested for parm # 17
TIMING: after getdata ... 14:40:05

Of 17 readable parms, you read in 15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter = 38316.57 dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

* New forecast hour: 44:00

in getgridinfo_netcdf, ncfile_id= 65536

In getgridinfo, grid dimensions follow:
imax= 409 jmax= 349
dx= 0.1722946 dy= 0.1621475

DX: midi= 204 dx= 0.1723
DY: midj= 174 dy= 0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat: -9.516 Min Lon: 92.852
Max Lat: 44.929 Max Lon: 163.148
TEST after getgridinfo in sub tracker, iggret= 0
in beginning of tracker, imax= 409 jmax= 349
TIMING: b4 getdata ... 14:40:05

NOTE: Program is now in subroutine getdata_netcdf.
+++ Time match in getdata_netcdf for usertime= 2640
netcdf file index= ncix= 45
+++ NetCDF read requested for parm # 1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh= 45
ltix(ifh)= 45

After read, parm= ABS_VORTICITY_850 ifh= 45
lead time index= 45 parm# (ip) = 1 ncix=
45
igvret= 0
parmread lead time parm# parm_id minval maxval
44:00 1 ABS_VORTICITY_850 -
0.5262E-03 0.4028E-02

+++ NetCDF read requested for parm # 2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh= 45
ltix(ifh)= 45

After read, parm= ABS_VORTICITY_700 ifh= 45
lead time index= 45 parm# (ip) = 2 ncix=
45
igvret= 0
parmread lead time parm# parm_id minval maxval
44:00 2 ABS_VORTICITY_700 -
0.3968E-03 0.3442E-02

```

+++ NetCDF read requested for parm #          3 ... parm=
U_850

In get_var3_tlev_double, ifh=                45
                        ltix(ifh)=          45

After read, parm= U_850                      ifh=                45
lead time index=          45 parm# (ip) =          3 ncix=
45
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
  44:00                 3          U_850
82.33      0.1000E+21
+++ NetCDF read requested for parm #          4 ... parm=
V_850

In get_var3_tlev_double, ifh=                45
                        ltix(ifh)=          45

After read, parm= V_850                      ifh=                45
lead time index=          45 parm# (ip) =          4 ncix=
45
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
  44:00                 4          V_850
79.52      0.1000E+21
+++ NetCDF read requested for parm #          5 ... parm=
U_700

In get_var3_tlev_double, ifh=                45
                        ltix(ifh)=          45

After read, parm= U_700                      ifh=                45
lead time index=          45 parm# (ip) =          5 ncix=
45
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
  44:00                 5          U_700
79.81      0.1000E+21
+++ NetCDF read requested for parm #          6 ... parm=
V_700

In get_var3_tlev_double, ifh=                45
                        ltix(ifh)=          45

After read, parm= V_700                      ifh=                45
lead time index=          45 parm# (ip) =          6 ncix=
45
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
  44:00                 6          V_700
65.88      0.1000E+21
+++ NetCDF read requested for parm #          7 ... parm=
Z_850

In get_var3_tlev_double, ifh=                45
                        ltix(ifh)=          45

After read, parm= Z_850                      ifh=                45

```

```

lead time index=          45  parm# (ip) =          7  ncix=
45
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  44:00          7          Z_850
519.0      0.1000E+21
+++ NetCDF read requested for parm #          8  ... parm=
Z_700

In get_var3_tlev_double, ifh=          45
                        ltix(ifh)=          45

After read, parm= Z_700          ifh=          45
lead time index=          45  parm# (ip) =          8  ncix=
45
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  44:00          8          Z_700
2211.      0.1000E+21
+++ NetCDF read requested for parm #          9  ... parm=
slp

In get_var3_tlev_double, ifh=          45
                        ltix(ifh)=          45

After read, parm= slp          ifh=          45
lead time index=          45  parm# (ip) =          9  ncix=
45
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  44:00          9          slp
0.9012E+05  0.1030E+06
+++ NetCDF read requested for parm #         10  ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          45
                        ltix(ifh)=          45

After read, parm= u_10m_gr          ifh=          45
lead time index=          45  parm# (ip) =         10  ncix=
45
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  44:00         10          u_10m_gr      -
51.71      48.81
+++ NetCDF read requested for parm #         11  ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          45
                        ltix(ifh)=          45

After read, parm= v_10m_gr          ifh=          45
lead time index=          45  parm# (ip) =         11  ncix=
45
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  44:00         11          v_10m_gr      -
52.11      52.68
+++ NetCDF read requested for parm #         12  ... parm=
U_500

```

```

In get_var3_tlev_double, ifh=          45
                        ltix(ifh)=      45

After read, parm= U_500                ifh=          45
lead time index=          45 parm# (ip) =          12 ncix=
45
igvret=                      0
parmread lead time    parm#    parm_id    minval    maxval
  44:00              12      U_500
71.17      61.47
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=          45
                        ltix(ifh)=      45

After read, parm= V_500                ifh=          45
lead time index=          45 parm# (ip) =          13 ncix=
45
igvret=                      0
parmread lead time    parm#    parm_id    minval    maxval
  44:00              13      V_500
62.74      68.20
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15 ... parm=
Z_500

In get_var3_tlev_double, ifh=          45
                        ltix(ifh)=      45

After read, parm= Z_500                ifh=          45
lead time index=          45 parm# (ip) =          15 ncix=
45
igvret=                      0
parmread lead time    parm#    parm_id    minval    maxval
  44:00              15      Z_500
5088.      5929.
+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=          45
                        ltix(ifh)=      45

After read, parm= Z_200                ifh=          45
lead time index=          45 parm# (ip) =          16 ncix=
45
igvret=                      0
parmread lead time    parm#    parm_id    minval    maxval
  44:00              16      Z_200
0.1186E+05  0.1253E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:40:06

Of          17 readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =    38316.57    dlat_inter =
36059.95

```

!!! Case 2 in tracker for stormswitch

!!! Storm name = MANGKHUT
!!! Storm ID = 26W

* New forecast hour: 45:00

in getgridinfo_netcdf, ncfile_id= 65536

In getgridinfo, grid dimensions follow:
imax= 409 jmax= 349
dx= 0.1722946 dy= 0.1621475

DX: midi= 204 dx= 0.1723
DY: midj= 174 dy= 0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat: -9.516 Min Lon: 92.852
Max Lat: 44.929 Max Lon: 163.148
TEST after getgridinfo in sub tracker, iggret= 0
in beginning of tracker, imax= 409 jmax= 349
TIMING: b4 getdata ... 14:40:06

NOTE: Program is now in subroutine getdata_netcdf.
+++ Time match in getdata_netcdf for usertime= 2700
netcdf file index= ncix= 46
+++ NetCDF read requested for parm # 1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh= 46
ltix(ifh)= 46

After read, parm= ABS_VORTICITY_850 ifh= 46
lead time index= 46 parm# (ip) = 1 ncix=
46
igvret= 0
parmread lead time parm# parm_id minval maxval -
45:00 1 ABS_VORTICITY_850 -
0.4944E-03 0.4368E-02
+++ NetCDF read requested for parm # 2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh= 46
ltix(ifh)= 46

After read, parm= ABS_VORTICITY_700 ifh= 46
lead time index= 46 parm# (ip) = 2 ncix=
46
igvret= 0
parmread lead time parm# parm_id minval maxval -
45:00 2 ABS_VORTICITY_700 -
0.4858E-03 0.3620E-02
+++ NetCDF read requested for parm # 3 ... parm=
U_850

In get_var3_tlev_double, ifh= 46
ltix(ifh)= 46

After read, parm= U_850 ifh= 46
lead time index= 46 parm# (ip) = 3 ncix=
46

```

    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      45:00              3        U_850
86.79      0.1000E+21
+++ NetCDF read requested for parm #    4 ... parm=
V_850

    In get_var3_tlev_double, ifh=          46
                          ltix(ifh)=      46

    After read, parm= V_850
    lead time index=          46 parm# (ip) =          4 ncix=
46
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      45:00              4        V_850
79.08      0.1000E+21
+++ NetCDF read requested for parm #    5 ... parm=
U_700

    In get_var3_tlev_double, ifh=          46
                          ltix(ifh)=      46

    After read, parm= U_700
    lead time index=          46 parm# (ip) =          5 ncix=
46
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      45:00              5        U_700
72.97      0.1000E+21
+++ NetCDF read requested for parm #    6 ... parm=
V_700

    In get_var3_tlev_double, ifh=          46
                          ltix(ifh)=      46

    After read, parm= V_700
    lead time index=          46 parm# (ip) =          6 ncix=
46
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      45:00              6        V_700
72.14      0.1000E+21
+++ NetCDF read requested for parm #    7 ... parm=
Z_850

    In get_var3_tlev_double, ifh=          46
                          ltix(ifh)=      46

    After read, parm= Z_850
    lead time index=          46 parm# (ip) =          7 ncix=
46
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      45:00              7        Z_850
510.1      0.1000E+21
+++ NetCDF read requested for parm #    8 ... parm=
Z_700

    In get_var3_tlev_double, ifh=          46

```

```

                ltix(ifh)=          46

After read, parm= Z_700                ifh=          46
  lead time index=          46  parm# (ip) =          8  ncix=
46
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  45:00              8        Z_700
2208.      0.1000E+21
+++ NetCDF read requested for parm #          9  ... parm=
slp

In get_var3_tlev_double, ifh=          46
                ltix(ifh)=          46

After read, parm= slp                ifh=          46
  lead time index=          46  parm# (ip) =          9  ncix=
46
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  45:00              9        slp
0.9003E+05  0.1030E+06
+++ NetCDF read requested for parm #         10  ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          46
                ltix(ifh)=          46

After read, parm= u_10m_gr                ifh=          46
  lead time index=          46  parm# (ip) =         10  ncix=
46
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  45:00             10        u_10m_gr
50.99      51.83
+++ NetCDF read requested for parm #         11  ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          46
                ltix(ifh)=          46

After read, parm= v_10m_gr                ifh=          46
  lead time index=          46  parm# (ip) =         11  ncix=
46
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  45:00             11        v_10m_gr
49.23      51.83
+++ NetCDF read requested for parm #         12  ... parm=
U_500

In get_var3_tlev_double, ifh=          46
                ltix(ifh)=          46

After read, parm= U_500                ifh=          46
  lead time index=          46  parm# (ip) =         12  ncix=
46
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval

```

```

45:00          12          U_500          -
70.65      58.84
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=          46
                        ltix(ifh)=          46

After read, parm= V_500          ifh=          46
lead time index=          46 parm# (ip) =          13 ncix=
46
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
45:00          13          V_500          -
63.62      63.63
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15 ... parm=
Z_500

In get_var3_tlev_double, ifh=          46
                        ltix(ifh)=          46

After read, parm= Z_500          ifh=          46
lead time index=          46 parm# (ip) =          15 ncix=
46
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
45:00          15          Z_500
5089.      5930.
+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=          46
                        ltix(ifh)=          46

After read, parm= Z_200          ifh=          46
lead time index=          46 parm# (ip) =          16 ncix=
46
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
45:00          16          Z_200
0.1186E+05  0.1254E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:40:06

Of          17 readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =          38316.57          dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:   46:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:

```

imax= 409 jmax= 349
dx= 0.1722946 dy= 0.1621475

DX: midi= 204 dx= 0.1723
DY: midj= 174 dy= 0.1621

Data Grid Lat/Lon boundaries follow:

Min Lat: -9.516 Min Lon: 92.852
Max Lat: 44.929 Max Lon: 163.148

TEST after getgridinfo in sub tracker, iggret= 0
in beginning of tracker, imax= 409 jmax= 349
TIMING: b4 getdata ... 14:40:06

NOTE: Program is now in subroutine getdata_netcdf.

+++ Time match in getdata_netcdf for usertime= 2760
netcdf file index= ncix= 47

+++ NetCDF read requested for parm # 1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh= 47
ltix(ifh)= 47

After read, parm= ABS_VORTICITY_850 ifh= 47
lead time index= 47 parm# (ip) = 1 ncix=

47
igvret= 0
parmread lead time parm# parm_id minval maxval
46:00 1 ABS_VORTICITY_850 -
0.5683E-03 0.4111E-02

+++ NetCDF read requested for parm # 2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh= 47
ltix(ifh)= 47

After read, parm= ABS_VORTICITY_700 ifh= 47
lead time index= 47 parm# (ip) = 2 ncix=

47
igvret= 0
parmread lead time parm# parm_id minval maxval
46:00 2 ABS_VORTICITY_700 -
0.5044E-03 0.3607E-02

+++ NetCDF read requested for parm # 3 ... parm=
U_850

In get_var3_tlev_double, ifh= 47
ltix(ifh)= 47

After read, parm= U_850 ifh= 47
lead time index= 47 parm# (ip) = 3 ncix=

47
igvret= 0
parmread lead time parm# parm_id minval maxval
46:00 3 U_850 -
82.92 0.1000E+21

+++ NetCDF read requested for parm # 4 ... parm=
V_850

In get_var3_tlev_double, ifh= 47
ltix(ifh)= 47

```

After read, parm= V_850                ifh=          47
lead time index=          47 parm# (ip) =          4 ncix=
47
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  46:00              4        V_850
73.52      0.1000E+21
+++ NetCDF read requested for parm #          5 ... parm=
U_700

In get_var3_tlev_double, ifh=          47
                        ltix(ifh)=          47

After read, parm= U_700                ifh=          47
lead time index=          47 parm# (ip) =          5 ncix=
47
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  46:00              5        U_700
69.39      0.1000E+21
+++ NetCDF read requested for parm #          6 ... parm=
V_700

In get_var3_tlev_double, ifh=          47
                        ltix(ifh)=          47

After read, parm= V_700                ifh=          47
lead time index=          47 parm# (ip) =          6 ncix=
47
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  46:00              6        V_700
65.59      0.1000E+21
+++ NetCDF read requested for parm #          7 ... parm=
Z_850

In get_var3_tlev_double, ifh=          47
                        ltix(ifh)=          47

After read, parm= Z_850                ifh=          47
lead time index=          47 parm# (ip) =          7 ncix=
47
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  46:00              7        Z_850
502.5      0.1000E+21
+++ NetCDF read requested for parm #          8 ... parm=
Z_700

In get_var3_tlev_double, ifh=          47
                        ltix(ifh)=          47

After read, parm= Z_700                ifh=          47
lead time index=          47 parm# (ip) =          8 ncix=
47
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  46:00              8        Z_700
2198.      0.1000E+21

```

```

+++ NetCDF read requested for parm #          9 ... parm=
slp

In get_var3_tlev_double, ifh=                47
                        ltix(ifh)=          47

After read, parm= slp                        ifh=                47
lead time index=          47 parm# (ip) =          9 ncix=
47
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
  46:00                9          slp
0.8995E+05  0.1030E+06
+++ NetCDF read requested for parm #          10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=                47
                        ltix(ifh)=          47

After read, parm= u_10m_gr                    ifh=                47
lead time index=          47 parm# (ip) =          10 ncix=
47
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
  46:00                10          u_10m_gr
51.72          51.75
+++ NetCDF read requested for parm #          11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=                47
                        ltix(ifh)=          47

After read, parm= v_10m_gr                    ifh=                47
lead time index=          47 parm# (ip) =          11 ncix=
47
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
  46:00                11          v_10m_gr
50.66          56.53
+++ NetCDF read requested for parm #          12 ... parm=
U_500

In get_var3_tlev_double, ifh=                47
                        ltix(ifh)=          47

After read, parm= U_500                       ifh=                47
lead time index=          47 parm# (ip) =          12 ncix=
47
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
  46:00                12          U_500
71.31          61.15
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=                47
                        ltix(ifh)=          47

After read, parm= V_500                       ifh=                47

```

```

lead time index=          47  parm# (ip) =          13  ncix=
47
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  46:00          13          v_500
64.03          67.73
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15 ... parm=
Z_500

In get_var3_tlev_double, ifh=          47
                          ltix(ifh)=          47

After read, parm= Z_500          ifh=          47
lead time index=          47  parm# (ip) =          15  ncix=
47
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  46:00          15          Z_500
5078.          5932.
+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=          47
                          ltix(ifh)=          47

After read, parm= Z_200          ifh=          47
lead time index=          47  parm# (ip) =          16  ncix=
47
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  46:00          16          Z_200
0.1186E+05  0.1254E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:40:07

Of          17  readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =          38316.57          dlat_inter =
          36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:   47:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:
imax=          409  jmax=          349
dx=          0.1722946  dy=          0.1621475

DX:  midi=   204  dx=   0.1723
DY:  midj=   174  dy=   0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:   -9.516  Min Lon:   92.852
Max Lat:   44.929  Max Lon:  163.148

```


TEST after getgridinfo in sub tracker, iggret= 0
in beginning of tracker, imax= 409 jmax= 349
TIMING: b4 getdata ... 14:40:07

NOTE: Program is now in subroutine getdata_netcdf.

+++ Time match in getdata_netcdf for usertime= 2820
netcdf file index= ncix= 48

+++ NetCDF read requested for parm # 1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh= 48
ltix(ifh)= 48

After read, parm= ABS_VORTICITY_850 ifh= 48
lead time index= 48 parm# (ip) = 1 ncix=
48

igvret=	0				
parmread lead time	parm#	parm_id	minval	maxval	
47:00	1	ABS_VORTICITY_850			-
0.4910E-03	0.4245E-02				

+++ NetCDF read requested for parm # 2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh= 48
ltix(ifh)= 48

After read, parm= ABS_VORTICITY_700 ifh= 48
lead time index= 48 parm# (ip) = 2 ncix=
48

igvret=	0				
parmread lead time	parm#	parm_id	minval	maxval	
47:00	2	ABS_VORTICITY_700			-
0.5295E-03	0.3412E-02				

+++ NetCDF read requested for parm # 3 ... parm=
U_850

In get_var3_tlev_double, ifh= 48
ltix(ifh)= 48

After read, parm= U_850 ifh= 48
lead time index= 48 parm# (ip) = 3 ncix=
48

igvret=	0				
parmread lead time	parm#	parm_id	minval	maxval	
47:00	3	U_850			-
89.35	0.1000E+21				

+++ NetCDF read requested for parm # 4 ... parm=
V_850

In get_var3_tlev_double, ifh= 48
ltix(ifh)= 48

After read, parm= V_850 ifh= 48
lead time index= 48 parm# (ip) = 4 ncix=
48

igvret=	0				
parmread lead time	parm#	parm_id	minval	maxval	
47:00	4	V_850			-
77.35	0.1000E+21				

+++ NetCDF read requested for parm # 5 ... parm=

```

U_700

In get_var3_tlev_double, ifh=          48
                        ltix(ifh)=    48

After read, parm= U_700                ifh=          48
lead time index=          48 parm# (ip) =          5 ncix=
48
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  47:00                5          U_700
77.91      0.1000E+21
+++ NetCDF read requested for parm #          6 ... parm=
V_700

In get_var3_tlev_double, ifh=          48
                        ltix(ifh)=    48

After read, parm= V_700                ifh=          48
lead time index=          48 parm# (ip) =          6 ncix=
48
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  47:00                6          V_700
72.94      0.1000E+21
+++ NetCDF read requested for parm #          7 ... parm=
Z_850

In get_var3_tlev_double, ifh=          48
                        ltix(ifh)=    48

After read, parm= Z_850                ifh=          48
lead time index=          48 parm# (ip) =          7 ncix=
48
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  47:00                7          Z_850
494.2      0.1000E+21
+++ NetCDF read requested for parm #          8 ... parm=
Z_700

In get_var3_tlev_double, ifh=          48
                        ltix(ifh)=    48

After read, parm= Z_700                ifh=          48
lead time index=          48 parm# (ip) =          8 ncix=
48
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  47:00                8          Z_700
2190.      0.1000E+21
+++ NetCDF read requested for parm #          9 ... parm=
slp

In get_var3_tlev_double, ifh=          48
                        ltix(ifh)=    48

After read, parm= slp                  ifh=          48
lead time index=          48 parm# (ip) =          9 ncix=
48

```

```

    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      47:00              9        slp
0.8986E+05  0.1030E+06
+++ NetCDF read requested for parm #          10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          48
                        ltix(ifh)=     48

After read, parm= u_10m_gr                ifh=          48
lead time index=          48 parm# (ip) =          10 ncix=
48
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      47:00             10        u_10m_gr
52.90      51.86
+++ NetCDF read requested for parm #          11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          48
                        ltix(ifh)=     48

After read, parm= v_10m_gr                ifh=          48
lead time index=          48 parm# (ip) =          11 ncix=
48
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      47:00             11        v_10m_gr
51.23      51.45
+++ NetCDF read requested for parm #          12 ... parm=
U_500

In get_var3_tlev_double, ifh=          48
                        ltix(ifh)=     48

After read, parm= U_500                   ifh=          48
lead time index=          48 parm# (ip) =          12 ncix=
48
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      47:00             12        U_500
70.86      58.72
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=          48
                        ltix(ifh)=     48

After read, parm= V_500                   ifh=          48
lead time index=          48 parm# (ip) =          13 ncix=
48
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      47:00             13        V_500
64.41      73.15
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15 ... parm=
Z_500

```

```

In get_var3_tlev_double, ifh=          48
                        ltix(ifh)=     48

After read, parm= Z_500                ifh=          48
lead time index=          48  parm# (ip) =          15  ncix=
48
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  47:00                15          Z_500
5070.          5933.
+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=          48
                        ltix(ifh)=     48

After read, parm= Z_200                ifh=          48
lead time index=          48  parm# (ip) =          16  ncix=
48
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  47:00                16          Z_200
0.1187E+05  0.1253E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:40:08

Of          17 readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =          38316.57      dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:   48:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:
imax=          409  jmax=          349
dx=          0.1722946  dy=          0.1621475

DX:  midi=  204  dx=  0.1723
DY:  midj=  174  dy=  0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:  -9.516  Min Lon:  92.852
Max Lat:  44.929  Max Lon:  163.148
TEST after getgridinfo in sub tracker, iggret=          0
in beginning of tracker, imax=          409  jmax=          349
TIMING: b4 getdata ... 14:40:08

NOTE: Program is now in subroutine  getdata_netcdf.
+++ Time match in getdata_netcdf for usertime=          2880
      netcdf file index= ncix=          49
+++ NetCDF read requested for parm #          1 ... parm=
ABS_VORTICITY_850

```

```

In get_var3_tlev_double, ifh=          49
                        ltix(ifh)=      49

After read, parm= ABS_VORTICITY_850          ifh=          49
lead time index=          49 parm# (ip) =          1 ncix=
49
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
48:00          1          ABS_VORTICITY_850          -
0.6582E-03  0.3858E-02
+++ NetCDF read requested for parm #          2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh=          49
                        ltix(ifh)=      49

After read, parm= ABS_VORTICITY_700          ifh=          49
lead time index=          49 parm# (ip) =          2 ncix=
49
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
48:00          2          ABS_VORTICITY_700          -
0.5690E-03  0.3472E-02
+++ NetCDF read requested for parm #          3 ... parm=
U_850

In get_var3_tlev_double, ifh=          49
                        ltix(ifh)=      49

After read, parm= U_850          ifh=          49
lead time index=          49 parm# (ip) =          3 ncix=
49
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
48:00          3          U_850          -
87.18          0.1000E+21
+++ NetCDF read requested for parm #          4 ... parm=
V_850

In get_var3_tlev_double, ifh=          49
                        ltix(ifh)=      49

After read, parm= V_850          ifh=          49
lead time index=          49 parm# (ip) =          4 ncix=
49
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
48:00          4          V_850          -
80.74          0.1000E+21
+++ NetCDF read requested for parm #          5 ... parm=
U_700

In get_var3_tlev_double, ifh=          49
                        ltix(ifh)=      49

After read, parm= U_700          ifh=          49
lead time index=          49 parm# (ip) =          5 ncix=
49
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval

```

```

48:00          5          U_700          -
77.56      0.1000E+21
+++ NetCDF read requested for parm #          6 ... parm=
V_700

In get_var3_tlev_double, ifh=          49
                        ltix(ifh)=          49

After read, parm= V_700          ifh=          49
lead time index=          49 parm# (ip) =          6 ncix=
49
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
48:00          6          V_700          -
69.50      0.1000E+21
+++ NetCDF read requested for parm #          7 ... parm=
Z_850

In get_var3_tlev_double, ifh=          49
                        ltix(ifh)=          49

After read, parm= Z_850          ifh=          49
lead time index=          49 parm# (ip) =          7 ncix=
49
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
48:00          7          Z_850
490.6      0.1000E+21
+++ NetCDF read requested for parm #          8 ... parm=
Z_700

In get_var3_tlev_double, ifh=          49
                        ltix(ifh)=          49

After read, parm= Z_700          ifh=          49
lead time index=          49 parm# (ip) =          8 ncix=
49
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
48:00          8          Z_700
2190.      0.1000E+21
+++ NetCDF read requested for parm #          9 ... parm=
slp

In get_var3_tlev_double, ifh=          49
                        ltix(ifh)=          49

After read, parm= slp          ifh=          49
lead time index=          49 parm# (ip) =          9 ncix=
49
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
48:00          9          slp
0.8988E+05  0.1030E+06
+++ NetCDF read requested for parm #          10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          49
                        ltix(ifh)=          49

```

```

After read, parm= u_10m_gr          ifh=          49
lead time index=          49 parm# (ip) =          10 ncix=
49
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
48:00          10          u_10m_gr          -
55.51          50.17
+++ NetCDF read requested for parm #          11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          49
ltix(ifh)=          49

After read, parm= v_10m_gr          ifh=          49
lead time index=          49 parm# (ip) =          11 ncix=
49
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
48:00          11          v_10m_gr          -
48.38          53.70
+++ NetCDF read requested for parm #          12 ... parm=
U_500

In get_var3_tlev_double, ifh=          49
ltix(ifh)=          49

After read, parm= U_500          ifh=          49
lead time index=          49 parm# (ip) =          12 ncix=
49
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
48:00          12          U_500          -
73.90          62.37
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=          49
ltix(ifh)=          49

After read, parm= V_500          ifh=          49
lead time index=          49 parm# (ip) =          13 ncix=
49
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
48:00          13          V_500          -
64.26          68.58
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15 ... parm=
Z_500

In get_var3_tlev_double, ifh=          49
ltix(ifh)=          49

After read, parm= Z_500          ifh=          49
lead time index=          49 parm# (ip) =          15 ncix=
49
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
48:00          15          Z_500          -
5070.          5936.

```

```

+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=                49
                        ltix(ifh)=          49

After read, parm= Z_200                      ifh=                49
  lead time index=          49 parm# (ip) =          16 ncix=
49
  igvret=                    0
parmread lead time      parm#      parm_id      minval      maxval
  48:00                  16          Z_200
0.1187E+05  0.1254E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:40:09

Of          17 readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =          38316.57          dlat_inter =
  36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:   49:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:
imax=          409  jmax=          349
dx=          0.1722946  dy=          0.1621475

DX:  midi=  204 dx=  0.1723
DY:  midj=  174 dy=  0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:  -9.516  Min Lon:  92.852
Max Lat:  44.929  Max Lon: 163.148
TEST after getgridinfo in sub tracker, iggret=          0
in beginning of tracker, imax=          409  jmax=          349
TIMING: b4 getdata ... 14:40:09

NOTE: Program is now in subroutine getdata_netcdf.
+++ Time match in getdata_netcdf for usertime=          2940
      netcdf file index= ncix=          50
+++ NetCDF read requested for parm #          1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh=                50
                        ltix(ifh)=          50

After read, parm= ABS_VORTICITY_850          ifh=                50
  lead time index=          50 parm# (ip) =          1 ncix=
50
  igvret=                    0
parmread lead time      parm#      parm_id      minval      maxval
  49:00                  1          ABS_VORTICITY_850
0.6159E-03  0.4056E-02

```



```

+++ NetCDF read requested for parm #          2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh=                50
                        ltix(ifh)=          50

After read, parm= ABS_VORTICITY_700          ifh=                50
lead time index=          50 parm# (ip) =          2 ncix=
50
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
 49:00                  2          ABS_VORTICITY_700          -
0.5249E-03  0.3383E-02
+++ NetCDF read requested for parm #          3 ... parm=
U_850

In get_var3_tlev_double, ifh=                50
                        ltix(ifh)=          50

After read, parm= U_850                      ifh=                50
lead time index=          50 parm# (ip) =          3 ncix=
50
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
 49:00                  3          U_850                      -
89.15          0.1000E+21
+++ NetCDF read requested for parm #          4 ... parm=
V_850

In get_var3_tlev_double, ifh=                50
                        ltix(ifh)=          50

After read, parm= V_850                      ifh=                50
lead time index=          50 parm# (ip) =          4 ncix=
50
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
 49:00                  4          V_850                      -
84.53          0.1000E+21
+++ NetCDF read requested for parm #          5 ... parm=
U_700

In get_var3_tlev_double, ifh=                50
                        ltix(ifh)=          50

After read, parm= U_700                      ifh=                50
lead time index=          50 parm# (ip) =          5 ncix=
50
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
 49:00                  5          U_700                      -
75.39          0.1000E+21
+++ NetCDF read requested for parm #          6 ... parm=
V_700

In get_var3_tlev_double, ifh=                50
                        ltix(ifh)=          50

After read, parm= V_700                      ifh=                50

```

```

lead time index=          50  parm# (ip) =          6  ncix=
50
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  49:00                6          v_700
66.53      0.1000E+21
+++ NetCDF read requested for parm #          7  ... parm=
Z_850

In get_var3_tlev_double, ifh=          50
                        ltix(ifh)=          50

After read, parm= Z_850          ifh=          50
lead time index=          50  parm# (ip) =          7  ncix=
50
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  49:00                7          Z_850
490.5      0.1000E+21
+++ NetCDF read requested for parm #          8  ... parm=
Z_700

In get_var3_tlev_double, ifh=          50
                        ltix(ifh)=          50

After read, parm= Z_700          ifh=          50
lead time index=          50  parm# (ip) =          8  ncix=
50
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  49:00                8          Z_700
2191.      0.1000E+21
+++ NetCDF read requested for parm #          9  ... parm=
slp

In get_var3_tlev_double, ifh=          50
                        ltix(ifh)=          50

After read, parm= slp          ifh=          50
lead time index=          50  parm# (ip) =          9  ncix=
50
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  49:00                9          slp
0.8986E+05  0.1030E+06
+++ NetCDF read requested for parm #         10  ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          50
                        ltix(ifh)=          50

After read, parm= u_10m_gr          ifh=          50
lead time index=          50  parm# (ip) =         10  ncix=
50
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  49:00               10          u_10m_gr
53.99      50.70
+++ NetCDF read requested for parm #         11  ... parm=
v_10m_gr

```

```

In get_var3_tlev_double, ifh=          50
                        ltix(ifh)=     50

After read, parm= v_10m_gr              ifh=          50
lead time index=          50 parm# (ip) =          11 ncix=
50
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  49:00                11          v_10m_gr
52.51          52.22
+++ NetCDF read requested for parm #          12 ... parm=
U_500

In get_var3_tlev_double, ifh=          50
                        ltix(ifh)=     50

After read, parm= U_500                  ifh=          50
lead time index=          50 parm# (ip) =          12 ncix=
50
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  49:00                12          U_500
72.21          58.85
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=          50
                        ltix(ifh)=     50

After read, parm= V_500                  ifh=          50
lead time index=          50 parm# (ip) =          13 ncix=
50
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  49:00                13          V_500
65.18          70.35
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15 ... parm=
Z_500

In get_var3_tlev_double, ifh=          50
                        ltix(ifh)=     50

After read, parm= Z_500                  ifh=          50
lead time index=          50 parm# (ip) =          15 ncix=
50
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  49:00                15          Z_500
5067.          5935.
+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=          50
                        ltix(ifh)=     50

After read, parm= Z_200                  ifh=          50
lead time index=          50 parm# (ip) =          16 ncix=
50

```

```

    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      49:00              16        Z_200
0.1187E+05  0.1254E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:40:10

Of          17 readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =    38316.57    dlat_inter =
  36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:    50:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:
imax=          409  jmax=          349
dx=    0.1722946    dy=    0.1621475

DX:  midi=   204 dx=    0.1723
DY:  midj=   174 dy=    0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:   -9.516  Min Lon:   92.852
Max Lat:   44.929  Max Lon:  163.148
TEST after getgridinfo in sub tracker, iggret=          0
in beginning of tracker, imax=          409  jmax=          349
TIMING: b4 getdata ... 14:40:10

NOTE: Program is now in subroutine  getdata_netcdf.
+++ Time match in getdata_netcdf for usertime=          3000
    netcdf file index= ncix=          51
+++ NetCDF read requested for parm #          1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh=          51
                        ltix(ifh)=          51

After read, parm= ABS_VORTICITY_850          ifh=          51
  lead time index=          51  parm# (ip) =          1  ncix=
51
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      50:00              1        ABS_VORTICITY_850    -
0.6050E-03  0.4022E-02
+++ NetCDF read requested for parm #          2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh=          51
                        ltix(ifh)=          51

After read, parm= ABS_VORTICITY_700          ifh=          51
  lead time index=          51  parm# (ip) =          2  ncix=
51

```

```

    igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    50:00              2        ABS_VORTICITY_700
0.4329E-03  0.3429E-02
+++ NetCDF read requested for parm #    3 ... parm=
U_850

In get_var3_tlev_double, ifh=          51
                        ltix(ifh)=     51

After read, parm= U_850
lead time index=          51 parm# (ip) =          3 ncix=          51
51
    igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    50:00              3        U_850
89.58      0.1000E+21
+++ NetCDF read requested for parm #    4 ... parm=
V_850

In get_var3_tlev_double, ifh=          51
                        ltix(ifh)=     51

After read, parm= V_850
lead time index=          51 parm# (ip) =          4 ncix=          51
51
    igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    50:00              4        V_850
77.66      0.1000E+21
+++ NetCDF read requested for parm #    5 ... parm=
U_700

In get_var3_tlev_double, ifh=          51
                        ltix(ifh)=     51

After read, parm= U_700
lead time index=          51 parm# (ip) =          5 ncix=          51
51
    igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    50:00              5        U_700
78.53      0.1000E+21
+++ NetCDF read requested for parm #    6 ... parm=
V_700

In get_var3_tlev_double, ifh=          51
                        ltix(ifh)=     51

After read, parm= V_700
lead time index=          51 parm# (ip) =          6 ncix=          51
51
    igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    50:00              6        V_700
67.55      0.1000E+21
+++ NetCDF read requested for parm #    7 ... parm=
Z_850

In get_var3_tlev_double, ifh=          51

```

```

                ltix(ifh)=          51

After read, parm= Z_850                ifh=          51
  lead time index=          51  parm# (ip) =          7  ncix=
51
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  50:00              7        Z_850
482.4      0.1000E+21
+++ NetCDF read requested for parm #          8  ... parm=
Z_700

In get_var3_tlev_double, ifh=          51
                ltix(ifh)=          51

After read, parm= Z_700                ifh=          51
  lead time index=          51  parm# (ip) =          8  ncix=
51
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  50:00              8        Z_700
2178.      0.1000E+21
+++ NetCDF read requested for parm #          9  ... parm=
slp

In get_var3_tlev_double, ifh=          51
                ltix(ifh)=          51

After read, parm= slp                  ifh=          51
  lead time index=          51  parm# (ip) =          9  ncix=
51
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  50:00              9        slp
0.8973E+05  0.1030E+06
+++ NetCDF read requested for parm #         10  ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          51
                ltix(ifh)=          51

After read, parm= u_10m_gr            ifh=          51
  lead time index=          51  parm# (ip) =         10  ncix=
51
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  50:00             10        u_10m_gr
55.19      52.18
+++ NetCDF read requested for parm #         11  ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          51
                ltix(ifh)=          51

After read, parm= v_10m_gr            ifh=          51
  lead time index=          51  parm# (ip) =         11  ncix=
51
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval

```

```

50:00          11          v_10m_gr          -
52.02      52.58
+++ NetCDF read requested for parm #          12 ... parm=
U_500

In get_var3_tlev_double, ifh=          51
                        ltix(ifh)=          51

After read, parm= U_500          ifh=          51
lead time index=          51 parm# (ip) =          12 ncix=
51
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
50:00          12          U_500          -
76.08      61.44
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=          51
                        ltix(ifh)=          51

After read, parm= V_500          ifh=          51
lead time index=          51 parm# (ip) =          13 ncix=
51
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
50:00          13          V_500          -
64.28      78.05
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15 ... parm=
Z_500

In get_var3_tlev_double, ifh=          51
                        ltix(ifh)=          51

After read, parm= Z_500          ifh=          51
lead time index=          51 parm# (ip) =          15 ncix=
51
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
50:00          15          Z_500
5056.      5935.
+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=          51
                        ltix(ifh)=          51

After read, parm= Z_200          ifh=          51
lead time index=          51 parm# (ip) =          16 ncix=
51
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
50:00          16          Z_200
0.1188E+05  0.1254E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:40:11

Of          17 readable parms, you read in          15
parms for this fcst hour from the input grib file.

```

Just before inter rvcalc, dlon_inter = 38316.57 dlat_inter = 36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

* New forecast hour: 51:00

in getgridinfo_netcdf, ncfile_id= 65536

In getgridinfo, grid dimensions follow:
imax= 409 jmax= 349
dx= 0.1722946 dy= 0.1621475

DX: midi= 204 dx= 0.1723
DY: midj= 174 dy= 0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat: -9.516 Min Lon: 92.852
Max Lat: 44.929 Max Lon: 163.148
TEST after getgridinfo in sub tracker, iggret= 0
in beginning of tracker, imax= 409 jmax= 349
TIMING: b4 getdata ... 14:40:11

NOTE: Program is now in subroutine getdata_netcdf.
+++ Time match in getdata_netcdf for usertime= 3060
netcdf file index= ncix= 52
+++ NetCDF read requested for parm # 1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh= 52
ltix(ifh)= 52

After read, parm= ABS_VORTICITY_850 ifh= 52
lead time index= 52 parm# (ip) = 1 ncix=
52
igvret= 0
parmread lead time parm# parm_id minval maxval
51:00 1 ABS_VORTICITY_850 -
0.5916E-03 0.3801E-02

+++ NetCDF read requested for parm # 2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh= 52
ltix(ifh)= 52

After read, parm= ABS_VORTICITY_700 ifh= 52
lead time index= 52 parm# (ip) = 2 ncix=
52
igvret= 0
parmread lead time parm# parm_id minval maxval
51:00 2 ABS_VORTICITY_700 -
0.4203E-03 0.3351E-02

+++ NetCDF read requested for parm # 3 ... parm=
U_850

In get_var3_tlev_double, ifh= 52
ltix(ifh)= 52


```

After read, parm= U_850                ifh=          52
lead time index=          52 parm# (ip) =          3 ncix=
52
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  51:00              3        U_850
94.93      0.1000E+21
+++ NetCDF read requested for parm #          4 ... parm=
V_850

In get_var3_tlev_double, ifh=          52
                        ltix(ifh)=    52

After read, parm= V_850                ifh=          52
lead time index=          52 parm# (ip) =          4 ncix=
52
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  51:00              4        V_850
83.53      0.1000E+21
+++ NetCDF read requested for parm #          5 ... parm=
U_700

In get_var3_tlev_double, ifh=          52
                        ltix(ifh)=    52

After read, parm= U_700                ifh=          52
lead time index=          52 parm# (ip) =          5 ncix=
52
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  51:00              5        U_700
85.50      0.1000E+21
+++ NetCDF read requested for parm #          6 ... parm=
V_700

In get_var3_tlev_double, ifh=          52
                        ltix(ifh)=    52

After read, parm= V_700                ifh=          52
lead time index=          52 parm# (ip) =          6 ncix=
52
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  51:00              6        V_700
70.31      0.1000E+21
+++ NetCDF read requested for parm #          7 ... parm=
Z_850

In get_var3_tlev_double, ifh=          52
                        ltix(ifh)=    52

After read, parm= Z_850                ifh=          52
lead time index=          52 parm# (ip) =          7 ncix=
52
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  51:00              7        Z_850
470.4      0.1000E+21

```

```

+++ NetCDF read requested for parm #      8 ... parm=
Z_700

In get_var3_tlev_double, ifh=             52
                        ltix(ifh)=        52

After read, parm= Z_700                    ifh=             52
lead time index=          52 parm# (ip) =          8 ncix=
52
igvret=                      0
parmread lead time    parm#    parm_id    minval    maxval
  51:00                8        Z_700
2169.          0.1000E+21
+++ NetCDF read requested for parm #      9 ... parm=
slp

In get_var3_tlev_double, ifh=             52
                        ltix(ifh)=        52

After read, parm= slp                      ifh=             52
lead time index=          52 parm# (ip) =          9 ncix=
52
igvret=                      0
parmread lead time    parm#    parm_id    minval    maxval
  51:00                9        slp
0.8961E+05  0.1030E+06
+++ NetCDF read requested for parm #     10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=             52
                        ltix(ifh)=        52

After read, parm= u_10m_gr                 ifh=             52
lead time index=          52 parm# (ip) =         10 ncix=
52
igvret=                      0
parmread lead time    parm#    parm_id    minval    maxval
  51:00               10        u_10m_gr
54.34          50.04
+++ NetCDF read requested for parm #     11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=             52
                        ltix(ifh)=        52

After read, parm= v_10m_gr                 ifh=             52
lead time index=          52 parm# (ip) =         11 ncix=
52
igvret=                      0
parmread lead time    parm#    parm_id    minval    maxval
  51:00               11        v_10m_gr
52.10          50.92
+++ NetCDF read requested for parm #     12 ... parm=
U_500

In get_var3_tlev_double, ifh=             52
                        ltix(ifh)=        52

After read, parm= U_500                    ifh=             52

```

```

    lead time index=          52  parm# (ip) =          12  ncix=
52
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    51:00          12          U_500
76.94      56.43
+++ NetCDF read requested for parm #          13  ... parm=
V_500

In get_var3_tlev_double, ifh=          52
                        ltix(ifh)=          52

After read, parm= V_500          ifh=          52
    lead time index=          52  parm# (ip) =          13  ncix=
52
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    51:00          13          V_500
63.24      73.30
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15  ... parm=
Z_500

In get_var3_tlev_double, ifh=          52
                        ltix(ifh)=          52

After read, parm= Z_500          ifh=          52
    lead time index=          52  parm# (ip) =          15  ncix=
52
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    51:00          15          Z_500
5047.      5935.
+++ NetCDF read requested for parm #          16  ... parm=
Z_200

In get_var3_tlev_double, ifh=          52
                        ltix(ifh)=          52

After read, parm= Z_200          ifh=          52
    lead time index=          52  parm# (ip) =          16  ncix=
52
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    51:00          16          Z_200
0.1188E+05  0.1255E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:40:12

Of          17  readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =          38316.57      dlat_inter =
          36059.95

```

```

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

```

```

*-----*

```

```

*   New forecast hour:   52:00

```

in getgridinfo_netcdf, ncfile_id= 65536

In getgridinfo, grid dimensions follow:
imax= 409 jmax= 349
dx= 0.1722946 dy= 0.1621475

DX: midi= 204 dx= 0.1723
DY: midj= 174 dy= 0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat: -9.516 Min Lon: 92.852
Max Lat: 44.929 Max Lon: 163.148
TEST after getgridinfo in sub tracker, iggret= 0
in beginning of tracker, imax= 409 jmax= 349
TIMING: b4 getdata ... 14:40:12

NOTE: Program is now in subroutine getdata_netcdf.
+++ Time match in getdata_netcdf for usertime= 3120
netcdf file index= ncix= 53
+++ NetCDF read requested for parm # 1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh= 53
ltix(ifh)= 53

After read, parm= ABS_VORTICITY_850 ifh= 53
lead time index= 53 parm# (ip) = 1 ncix=
53
igvret= 0
parmread lead time parm# parm_id minval maxval
52:00 1 ABS_VORTICITY_850 -
0.5307E-03 0.3941E-02
+++ NetCDF read requested for parm # 2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh= 53
ltix(ifh)= 53

After read, parm= ABS_VORTICITY_700 ifh= 53
lead time index= 53 parm# (ip) = 2 ncix=
53
igvret= 0
parmread lead time parm# parm_id minval maxval
52:00 2 ABS_VORTICITY_700 -
0.4003E-03 0.3606E-02
+++ NetCDF read requested for parm # 3 ... parm=
U_850

In get_var3_tlev_double, ifh= 53
ltix(ifh)= 53

After read, parm= U_850 ifh= 53
lead time index= 53 parm# (ip) = 3 ncix=
53
igvret= 0
parmread lead time parm# parm_id minval maxval
52:00 3 U_850 -
88.94 0.1000E+21
+++ NetCDF read requested for parm # 4 ... parm=

```

V_850

In get_var3_tlev_double, ifh=          53
                        ltix(ifh)=     53

After read, parm= V_850                ifh=          53
lead time index=          53 parm# (ip) =          4 ncix=
53
  igvret=                   0
parmread lead time    parm#    parm_id    minval    maxval
  52:00                4        V_850
83.08      0.1000E+21
+++ NetCDF read requested for parm #    5 ... parm=
U_700

In get_var3_tlev_double, ifh=          53
                        ltix(ifh)=     53

After read, parm= U_700                ifh=          53
lead time index=          53 parm# (ip) =          5 ncix=
53
  igvret=                   0
parmread lead time    parm#    parm_id    minval    maxval
  52:00                5        U_700
83.78      0.1000E+21
+++ NetCDF read requested for parm #    6 ... parm=
V_700

In get_var3_tlev_double, ifh=          53
                        ltix(ifh)=     53

After read, parm= V_700                ifh=          53
lead time index=          53 parm# (ip) =          6 ncix=
53
  igvret=                   0
parmread lead time    parm#    parm_id    minval    maxval
  52:00                6        V_700
73.56      0.1000E+21
+++ NetCDF read requested for parm #    7 ... parm=
Z_850

In get_var3_tlev_double, ifh=          53
                        ltix(ifh)=     53

After read, parm= Z_850                ifh=          53
lead time index=          53 parm# (ip) =          7 ncix=
53
  igvret=                   0
parmread lead time    parm#    parm_id    minval    maxval
  52:00                7        Z_850
450.3      0.1000E+21
+++ NetCDF read requested for parm #    8 ... parm=
Z_700

In get_var3_tlev_double, ifh=          53
                        ltix(ifh)=     53

After read, parm= Z_700                ifh=          53
lead time index=          53 parm# (ip) =          8 ncix=
53

```

```

    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      52:00              8        z_700
2150.          0.1000E+21
+++ NetCDF read requested for parm #          9 ... parm=
slp

In get_var3_tlev_double, ifh=          53
                        ltix(ifh)=      53

After read, parm= slp                      ifh=          53
lead time index=          53 parm# (ip) =          9 ncix=
53
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      52:00              9        slp
0.8941E+05  0.1029E+06
+++ NetCDF read requested for parm #          10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          53
                        ltix(ifh)=      53

After read, parm= u_10m_gr                  ifh=          53
lead time index=          53 parm# (ip) =          10 ncix=
53
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      52:00             10        u_10m_gr
55.52          50.17
+++ NetCDF read requested for parm #          11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          53
                        ltix(ifh)=      53

After read, parm= v_10m_gr                  ifh=          53
lead time index=          53 parm# (ip) =          11 ncix=
53
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      52:00             11        v_10m_gr
51.90          52.91
+++ NetCDF read requested for parm #          12 ... parm=
U_500

In get_var3_tlev_double, ifh=          53
                        ltix(ifh)=      53

After read, parm= U_500                      ifh=          53
lead time index=          53 parm# (ip) =          12 ncix=
53
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      52:00             12        U_500
81.58          57.15
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=          53

```

```

                ltix(ifah)=          53

After read, parm= V_500                ifh=          53
  lead time index=          53  parm# (ip) =          13  ncix=
53
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  52:00              13        V_500
65.26      73.85
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15 ... parm=
Z_500

In get_var3_tlev_double, ifh=          53
                ltix(ifah)=          53

After read, parm= Z_500                ifh=          53
  lead time index=          53  parm# (ip) =          15  ncix=
53
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  52:00              15        Z_500
5028.      5934.
+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=          53
                ltix(ifah)=          53

After read, parm= Z_200                ifh=          53
  lead time index=          53  parm# (ip) =          16  ncix=
53
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  52:00              16        Z_200
0.1188E+05  0.1255E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:40:12

Of          17 readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =    38316.57    dlat_inter =
  36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:    53:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:
imax=          409  jmax=          349
dx=    0.1722946  dy=    0.1621475

DX:  midi=   204  dx=    0.1723
DY:  midj=   174  dy=    0.1621

```

Data Grid Lat/Lon boundaries follow:

Min Lat: -9.516 Min Lon: 92.852

Max Lat: 44.929 Max Lon: 163.148

TEST after getgridinfo in sub tracker, iggret= 0

in beginning of tracker, imax= 409 jmax= 349

TIMING: b4 getdata ... 14:40:12

NOTE: Program is now in subroutine getdata_netcdf.

+++ Time match in getdata_netcdf for usertime= 3180

netcdf file index= ncix= 54

+++ NetCDF read requested for parm # 1 ... parm=

ABS_VORTICITY_850

In get_var3_tlev_double, ifh= 54

ltix(ifh)= 54

After read, parm= ABS_VORTICITY_850 ifh= 54

lead time index= 54 parm# (ip) = 1 ncix=

54

igvret= 0

parmread lead time parm# parm_id minval maxval

53:00 1 ABS_VORTICITY_850 -

0.6058E-03 0.4083E-02

+++ NetCDF read requested for parm # 2 ... parm=

ABS_VORTICITY_700

In get_var3_tlev_double, ifh= 54

ltix(ifh)= 54

After read, parm= ABS_VORTICITY_700 ifh= 54

lead time index= 54 parm# (ip) = 2 ncix=

54

igvret= 0

parmread lead time parm# parm_id minval maxval

53:00 2 ABS_VORTICITY_700 -

0.4007E-03 0.3589E-02

+++ NetCDF read requested for parm # 3 ... parm=

U_850

In get_var3_tlev_double, ifh= 54

ltix(ifh)= 54

After read, parm= U_850 ifh= 54

lead time index= 54 parm# (ip) = 3 ncix=

54

igvret= 0

parmread lead time parm# parm_id minval maxval

53:00 3 U_850 -

89.00 0.1000E+21

+++ NetCDF read requested for parm # 4 ... parm=

V_850

In get_var3_tlev_double, ifh= 54

ltix(ifh)= 54

After read, parm= V_850 ifh= 54

lead time index= 54 parm# (ip) = 4 ncix=

54

igvret= 0

parmread lead time parm# parm_id minval maxval


```

53:00          4          V_850          -
81.41      0.1000E+21
+++ NetCDF read requested for parm #          5 ... parm=
U_700

In get_var3_tlev_double, ifh=          54
                        ltix(ifh)=          54

After read, parm= U_700          ifh=          54
lead time index=          54 parm# (ip) =          5 ncix=
54
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
53:00          5          U_700          -
82.70      0.1000E+21
+++ NetCDF read requested for parm #          6 ... parm=
V_700

In get_var3_tlev_double, ifh=          54
                        ltix(ifh)=          54

After read, parm= V_700          ifh=          54
lead time index=          54 parm# (ip) =          6 ncix=
54
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
53:00          6          V_700          -
76.51      0.1000E+21
+++ NetCDF read requested for parm #          7 ... parm=
Z_850

In get_var3_tlev_double, ifh=          54
                        ltix(ifh)=          54

After read, parm= Z_850          ifh=          54
lead time index=          54 parm# (ip) =          7 ncix=
54
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
53:00          7          Z_850          -
438.4      0.1000E+21
+++ NetCDF read requested for parm #          8 ... parm=
Z_700

In get_var3_tlev_double, ifh=          54
                        ltix(ifh)=          54

After read, parm= Z_700          ifh=          54
lead time index=          54 parm# (ip) =          8 ncix=
54
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
53:00          8          Z_700          -
2140.      0.1000E+21
+++ NetCDF read requested for parm #          9 ... parm=
slp

In get_var3_tlev_double, ifh=          54
                        ltix(ifh)=          54

```

```

After read, parm= slp                      ifh=          54
lead time index=          54 parm# (ip) =          9 ncix=
54
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  53:00                9          slp
0.8929E+05  0.1029E+06
+++ NetCDF read requested for parm #          10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          54
                        ltix(ifh)=          54

After read, parm= u_10m_gr                  ifh=          54
lead time index=          54 parm# (ip) =          10 ncix=
54
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  53:00                10          u_10m_gr      -
56.06          54.08
+++ NetCDF read requested for parm #          11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          54
                        ltix(ifh)=          54

After read, parm= v_10m_gr                  ifh=          54
lead time index=          54 parm# (ip) =          11 ncix=
54
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  53:00                11          v_10m_gr      -
54.97          50.01
+++ NetCDF read requested for parm #          12 ... parm=
U_500

In get_var3_tlev_double, ifh=          54
                        ltix(ifh)=          54

After read, parm= U_500                      ifh=          54
lead time index=          54 parm# (ip) =          12 ncix=
54
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  53:00                12          U_500          -
77.17          56.85
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=          54
                        ltix(ifh)=          54

After read, parm= V_500                      ifh=          54
lead time index=          54 parm# (ip) =          13 ncix=
54
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  53:00                13          V_500          -
69.31          75.23
!!! NetCDF read NOT requested for parm #          14

```

```

+++ NetCDF read requested for parm #          15 ... parm=
Z_500

In get_var3_tlev_double, ifh=          54
                        ltix(ifh)=      54

After read, parm= Z_500                      ifh=          54
lead time index=          54 parm# (ip) =      15 ncix=
54
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
   53:00                15          Z_500
5017.          5928.
+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=          54
                        ltix(ifh)=      54

After read, parm= Z_200                      ifh=          54
lead time index=          54 parm# (ip) =      16 ncix=
54
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
   53:00                16          Z_200
0.1188E+05  0.1255E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:40:13

Of          17 readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =      38316.57      dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:    54:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:
imax=          409  jmax=          349
dx=          0.1722946  dy=          0.1621475

DX:  midi=  204 dx=  0.1723
DY:  midj=  174 dy=  0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:  -9.516  Min Lon:  92.852
Max Lat:  44.929  Max Lon:  163.148
TEST after getgridinfo in sub tracker, iggret=          0
in beginning of tracker, imax=          409  jmax=          349
TIMING: b4 getdata ... 14:40:13

NOTE: Program is now in subroutine  getdata_netcdf.
+++ Time match in getdata_netcdf for usertime=          3240
netcdf file index= ncix=          55

```

```

+++ NetCDF read requested for parm #          1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh=                55
                        ltix(ifh)=          55

After read, parm= ABS_VORTICITY_850          ifh=                55
lead time index=          55 parm# (ip) =          1 ncix=
55
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
54:00                  1          ABS_VORTICITY_850      -
0.7112E-03  0.4052E-02
+++ NetCDF read requested for parm #          2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh=                55
                        ltix(ifh)=          55

After read, parm= ABS_VORTICITY_700          ifh=                55
lead time index=          55 parm# (ip) =          2 ncix=
55
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
54:00                  2          ABS_VORTICITY_700      -
0.3758E-03  0.3826E-02
+++ NetCDF read requested for parm #          3 ... parm=
U_850

In get_var3_tlev_double, ifh=                55
                        ltix(ifh)=          55

After read, parm= U_850                      ifh=                55
lead time index=          55 parm# (ip) =          3 ncix=
55
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
54:00                  3          U_850              -
92.02                0.1000E+21
+++ NetCDF read requested for parm #          4 ... parm=
V_850

In get_var3_tlev_double, ifh=                55
                        ltix(ifh)=          55

After read, parm= V_850                      ifh=                55
lead time index=          55 parm# (ip) =          4 ncix=
55
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
54:00                  4          V_850              -
90.28                0.1000E+21
+++ NetCDF read requested for parm #          5 ... parm=
U_700

In get_var3_tlev_double, ifh=                55
                        ltix(ifh)=          55

After read, parm= U_700                      ifh=                55

```

```

lead time index=          55  parm# (ip) =          5  ncix=
55
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  54:00          5          U_700
80.49      0.1000E+21
+++ NetCDF read requested for parm #          6  ... parm=
V_700

In get_var3_tlev_double, ifh=          55
                        ltix(ifh)=          55

After read, parm= V_700
lead time index=          55  parm# (ip) =          6  ncix=
55
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  54:00          6          V_700
79.17      0.1000E+21
+++ NetCDF read requested for parm #          7  ... parm=
Z_850

In get_var3_tlev_double, ifh=          55
                        ltix(ifh)=          55

After read, parm= Z_850
lead time index=          55  parm# (ip) =          7  ncix=
55
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  54:00          7          Z_850
420.8      0.1000E+21
+++ NetCDF read requested for parm #          8  ... parm=
Z_700

In get_var3_tlev_double, ifh=          55
                        ltix(ifh)=          55

After read, parm= Z_700
lead time index=          55  parm# (ip) =          8  ncix=
55
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  54:00          8          Z_700
2123.      0.1000E+21
+++ NetCDF read requested for parm #          9  ... parm=
slp

In get_var3_tlev_double, ifh=          55
                        ltix(ifh)=          55

After read, parm= slp
lead time index=          55  parm# (ip) =          9  ncix=
55
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  54:00          9          slp
0.8911E+05  0.1028E+06
+++ NetCDF read requested for parm #         10  ... parm=
u_10m_gr

```

```

In get_var3_tlev_double, ifh=          55
                        ltix(ifh)=      55

After read, parm= u_10m_gr                ifh=          55
lead time index=          55 parm# (ip) =          10 ncix=
55
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  54:00          10          u_10m_gr          -
54.09          52.06
+++ NetCDF read requested for parm #          11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          55
                        ltix(ifh)=      55

After read, parm= v_10m_gr                ifh=          55
lead time index=          55 parm# (ip) =          11 ncix=
55
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  54:00          11          v_10m_gr          -
54.80          52.02
+++ NetCDF read requested for parm #          12 ... parm=
U_500

In get_var3_tlev_double, ifh=          55
                        ltix(ifh)=      55

After read, parm= U_500                    ifh=          55
lead time index=          55 parm# (ip) =          12 ncix=
55
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  54:00          12          U_500          -
76.59          57.35
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=          55
                        ltix(ifh)=      55

After read, parm= V_500                    ifh=          55
lead time index=          55 parm# (ip) =          13 ncix=
55
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  54:00          13          V_500          -
71.72          71.56
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15 ... parm=
Z_500

In get_var3_tlev_double, ifh=          55
                        ltix(ifh)=      55

After read, parm= Z_500                    ifh=          55
lead time index=          55 parm# (ip) =          15 ncix=
55

```

```

    igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    54:00            15        Z_500
5006.          5923.
+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=          55
                        ltix(ifh)=      55

After read, parm= Z_200                ifh=          55
lead time index=          55 parm# (ip) =          16 ncix=
55
    igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    54:00            16        Z_200
0.1188E+05  0.1255E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:40:14

Of          17 readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =      38316.57      dlat_inter =
    36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:   55:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:
imax=          409  jmax=          349
dx=      0.1722946  dy=      0.1621475

DX:  midi=  204 dx=  0.1723
DY:  midj=  174 dy=  0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:   -9.516  Min Lon:   92.852
Max Lat:   44.929  Max Lon:  163.148
TEST after getgridinfo in sub tracker, iggret=          0
in beginning of tracker, imax=          409  jmax=          349
TIMING: b4 getdata ... 14:40:14

NOTE: Program is now in subroutine getdata_netcdf.
+++ Time match in getdata_netcdf for usertime=          3300
netcdf file index= ncix=          56
+++ NetCDF read requested for parm #          1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh=          56
                        ltix(ifh)=      56

After read, parm= ABS_VORTICITY_850        ifh=          56
lead time index=          56 parm# (ip) =          1 ncix=
56

```

```

    igvret=          0
parmread lead time    parm#      parm_id      minval      maxval
    55:00              1          ABS_VORTICITY_850      -
0.6096E-03  0.4430E-02
+++ NetCDF read requested for parm #      2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh=          56
                        ltix(ifh)=     56

After read, parm= ABS_VORTICITY_700      ifh=          56
lead time index=          56 parm# (ip) =      2 ncix=
56
    igvret=          0
parmread lead time    parm#      parm_id      minval      maxval
    55:00              2          ABS_VORTICITY_700      -
0.3735E-03  0.3802E-02
+++ NetCDF read requested for parm #      3 ... parm=
U_850

In get_var3_tlev_double, ifh=          56
                        ltix(ifh)=     56

After read, parm= U_850      ifh=          56
lead time index=          56 parm# (ip) =      3 ncix=
56
    igvret=          0
parmread lead time    parm#      parm_id      minval      maxval
    55:00              3          U_850      -
86.02      0.1000E+21
+++ NetCDF read requested for parm #      4 ... parm=
V_850

In get_var3_tlev_double, ifh=          56
                        ltix(ifh)=     56

After read, parm= V_850      ifh=          56
lead time index=          56 parm# (ip) =      4 ncix=
56
    igvret=          0
parmread lead time    parm#      parm_id      minval      maxval
    55:00              4          V_850      -
80.64      0.1000E+21
+++ NetCDF read requested for parm #      5 ... parm=
U_700

In get_var3_tlev_double, ifh=          56
                        ltix(ifh)=     56

After read, parm= U_700      ifh=          56
lead time index=          56 parm# (ip) =      5 ncix=
56
    igvret=          0
parmread lead time    parm#      parm_id      minval      maxval
    55:00              5          U_700      -
81.90      0.1000E+21
+++ NetCDF read requested for parm #      6 ... parm=
V_700

In get_var3_tlev_double, ifh=          56

```



```

                ltix(ifh)=          56

After read, parm= V_700                ifh=          56
lead time index=          56 parm# (ip) =          6 ncix=
56
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  55:00              6        V_700
74.95      0.1000E+21
+++ NetCDF read requested for parm #          7 ... parm=
Z_850

In get_var3_tlev_double, ifh=          56
                ltix(ifh)=          56

After read, parm= Z_850                ifh=          56
lead time index=          56 parm# (ip) =          7 ncix=
56
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  55:00              7        Z_850
400.0      0.1000E+21
+++ NetCDF read requested for parm #          8 ... parm=
Z_700

In get_var3_tlev_double, ifh=          56
                ltix(ifh)=          56

After read, parm= Z_700                ifh=          56
lead time index=          56 parm# (ip) =          8 ncix=
56
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  55:00              8        Z_700
2107.      0.1000E+21
+++ NetCDF read requested for parm #          9 ... parm=
slp

In get_var3_tlev_double, ifh=          56
                ltix(ifh)=          56

After read, parm= slp                  ifh=          56
lead time index=          56 parm# (ip) =          9 ncix=
56
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  55:00              9        slp
0.8894E+05  0.1028E+06
+++ NetCDF read requested for parm #         10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          56
                ltix(ifh)=          56

After read, parm= u_10m_gr            ifh=          56
lead time index=          56 parm# (ip) =         10 ncix=
56
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval

```

```

55:00          10          u_10m_gr          -
54.55      52.40
+++ NetCDF read requested for parm #          11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          56
                        ltix(ifh)=          56

After read, parm= v_10m_gr          ifh=          56
lead time index=          56 parm# (ip) =          11 ncix=
56
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
55:00          11          v_10m_gr          -
53.33      54.32
+++ NetCDF read requested for parm #          12 ... parm=
U_500

In get_var3_tlev_double, ifh=          56
                        ltix(ifh)=          56

After read, parm= U_500          ifh=          56
lead time index=          56 parm# (ip) =          12 ncix=
56
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
55:00          12          U_500          -
76.80      58.29
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=          56
                        ltix(ifh)=          56

After read, parm= V_500          ifh=          56
lead time index=          56 parm# (ip) =          13 ncix=
56
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
55:00          13          V_500          -
71.98      68.42
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15 ... parm=
Z_500

In get_var3_tlev_double, ifh=          56
                        ltix(ifh)=          56

After read, parm= Z_500          ifh=          56
lead time index=          56 parm# (ip) =          15 ncix=
56
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
55:00          15          Z_500
4987.      5926.
+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=          56
                        ltix(ifh)=          56

```

```

After read, parm= Z_200                ifh=                56
  lead time index=                56  parm# (ip) =          16  ncix=
56
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  55:00                16        Z_200
0.1189E+05  0.1255E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:40:15

Of                17  readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =    38316.57    dlat_inter =
  36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:    56:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:
imax=          409  jmax=          349
dx=    0.1722946    dy=    0.1621475

DX:  midi=  204 dx=    0.1723
DY:  midj=  174 dy=    0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:   -9.516  Min Lon:   92.852
Max Lat:   44.929  Max Lon:  163.148
TEST after getgridinfo in sub tracker, iggret=                0
in beginning of tracker, imax=          409  jmax=          349
TIMING: b4 getdata ... 14:40:15

NOTE: Program is now in subroutine  getdata_netcdf.
+++ Time match in getdata_netcdf for usertime=          3360
  netcdf file index= ncix=          57
+++ NetCDF read requested for parm #          1  ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh=                57
  ltix(ifh)=                57

After read, parm= ABS_VORTICITY_850        ifh=                57
  lead time index=                57  parm# (ip) =          1  ncix=
57
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  56:00                1        ABS_VORTICITY_850    -
0.5907E-03  0.4211E-02
+++ NetCDF read requested for parm #          2  ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh=                57
  ltix(ifh)=                57

```

```

After read, parm= ABS_VORTICITY_700          ifh=          57
lead time index=          57 parm# (ip) =          2 ncix=
57
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
56:00                2        ABS_VORTICITY_700
0.4890E-03  0.3754E-02
+++ NetCDF read requested for parm #          3 ... parm=
U_850

In get_var3_tlev_double, ifh=          57
ltix(ifh)=          57

After read, parm= U_850                      ifh=          57
lead time index=          57 parm# (ip) =          3 ncix=
57
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
56:00                3        U_850
80.48                0.1000E+21
+++ NetCDF read requested for parm #          4 ... parm=
V_850

In get_var3_tlev_double, ifh=          57
ltix(ifh)=          57

After read, parm= V_850                      ifh=          57
lead time index=          57 parm# (ip) =          4 ncix=
57
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
56:00                4        V_850
81.27                0.1000E+21
+++ NetCDF read requested for parm #          5 ... parm=
U_700

In get_var3_tlev_double, ifh=          57
ltix(ifh)=          57

After read, parm= U_700                      ifh=          57
lead time index=          57 parm# (ip) =          5 ncix=
57
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
56:00                5        U_700
79.59                0.1000E+21
+++ NetCDF read requested for parm #          6 ... parm=
V_700

In get_var3_tlev_double, ifh=          57
ltix(ifh)=          57

After read, parm= V_700                      ifh=          57
lead time index=          57 parm# (ip) =          6 ncix=
57
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
56:00                6        V_700
74.00                0.1000E+21

```

```

+++ NetCDF read requested for parm #          7 ... parm=
Z_850

In get_var3_tlev_double, ifh=                57
                        ltix(ifh)=          57

After read, parm= Z_850                      ifh=                57
lead time index=          57 parm# (ip) =          7 ncix=
57
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
56:00                  7          Z_850
398.1      0.1000E+21
+++ NetCDF read requested for parm #          8 ... parm=
Z_700

In get_var3_tlev_double, ifh=                57
                        ltix(ifh)=          57

After read, parm= Z_700                      ifh=                57
lead time index=          57 parm# (ip) =          8 ncix=
57
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
56:00                  8          Z_700
2101.      0.1000E+21
+++ NetCDF read requested for parm #          9 ... parm=
slp

In get_var3_tlev_double, ifh=                57
                        ltix(ifh)=          57

After read, parm= slp                        ifh=                57
lead time index=          57 parm# (ip) =          9 ncix=
57
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
56:00                  9          slp
0.8894E+05  0.1028E+06
+++ NetCDF read requested for parm #         10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=                57
                        ltix(ifh)=          57

After read, parm= u_10m_gr                    ifh=                57
lead time index=          57 parm# (ip) =         10 ncix=
57
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
56:00                 10          u_10m_gr
53.81      50.72
+++ NetCDF read requested for parm #         11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=                57
                        ltix(ifh)=          57

After read, parm= v_10m_gr                    ifh=                57

```

```

    lead time index=          57  parm# (ip) =          11  ncix=
57
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    56:00          11          v_10m_gr      -
54.05          57.00
+++ NetCDF read requested for parm #          12  ... parm=
U_500

In get_var3_tlev_double, ifh=          57
                        ltix(ifh)=          57

After read, parm= U_500          ifh=          57
lead time index=          57  parm# (ip) =          12  ncix=
57
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    56:00          12          U_500          -
77.09          64.50
+++ NetCDF read requested for parm #          13  ... parm=
V_500

In get_var3_tlev_double, ifh=          57
                        ltix(ifh)=          57

After read, parm= V_500          ifh=          57
lead time index=          57  parm# (ip) =          13  ncix=
57
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    56:00          13          V_500          -
73.14          69.96
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15  ... parm=
Z_500

In get_var3_tlev_double, ifh=          57
                        ltix(ifh)=          57

After read, parm= Z_500          ifh=          57
lead time index=          57  parm# (ip) =          15  ncix=
57
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    56:00          15          Z_500          -
4983.          5926.
+++ NetCDF read requested for parm #          16  ... parm=
Z_200

In get_var3_tlev_double, ifh=          57
                        ltix(ifh)=          57

After read, parm= Z_200          ifh=          57
lead time index=          57  parm# (ip) =          16  ncix=
57
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    56:00          16          Z_200          -
0.1189E+05  0.1254E+05
!!! NetCDF read NOT requested for parm #          17

```

TIMING: after getdata ... 14:40:16

Of 17 readable parms, you read in 15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter = 38316.57 dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

* New forecast hour: 57:00

in getgridinfo_netcdf, ncfile_id= 65536

In getgridinfo, grid dimensions follow:
imax= 409 jmax= 349
dx= 0.1722946 dy= 0.1621475

DX: midi= 204 dx= 0.1723
DY: midj= 174 dy= 0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat: -9.516 Min Lon: 92.852
Max Lat: 44.929 Max Lon: 163.148
TEST after getgridinfo in sub tracker, iggret= 0
in beginning of tracker, imax= 409 jmax= 349
TIMING: b4 getdata ... 14:40:16

NOTE: Program is now in subroutine getdata_netcdf.
+++ Time match in getdata_netcdf for usertime= 3420
netcdf file index= ncix= 58
+++ NetCDF read requested for parm # 1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh= 58
ltix(ifh)= 58

After read, parm= ABS_VORTICITY_850 ifh= 58
lead time index= 58 parm# (ip) = 1 ncix=
58
igvret= 0
parmread lead time parm# parm_id minval maxval
57:00 1 ABS_VORTICITY_850 -
0.5995E-03 0.4243E-02
+++ NetCDF read requested for parm # 2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh= 58
ltix(ifh)= 58

After read, parm= ABS_VORTICITY_700 ifh= 58
lead time index= 58 parm# (ip) = 2 ncix=
58
igvret= 0
parmread lead time parm# parm_id minval maxval
57:00 2 ABS_VORTICITY_700 -
0.4773E-03 0.3745E-02
+++ NetCDF read requested for parm # 3 ... parm=

```

U_850

In get_var3_tlev_double, ifh=          58
                        ltix(ifh)=     58

After read, parm= U_850                ifh=          58
lead time index=          58 parm# (ip) =          3 ncix=
58
igvret=                    0
parmread lead time      parm#      parm_id      minval      maxval
  57:00                3          U_850
89.60      0.1000E+21
+++ NetCDF read requested for parm #      4 ... parm=
V_850

In get_var3_tlev_double, ifh=          58
                        ltix(ifh)=     58

After read, parm= V_850                ifh=          58
lead time index=          58 parm# (ip) =          4 ncix=
58
igvret=                    0
parmread lead time      parm#      parm_id      minval      maxval
  57:00                4          V_850
80.53      0.1000E+21
+++ NetCDF read requested for parm #      5 ... parm=
U_700

In get_var3_tlev_double, ifh=          58
                        ltix(ifh)=     58

After read, parm= U_700                ifh=          58
lead time index=          58 parm# (ip) =          5 ncix=
58
igvret=                    0
parmread lead time      parm#      parm_id      minval      maxval
  57:00                5          U_700
79.77      0.1000E+21
+++ NetCDF read requested for parm #      6 ... parm=
V_700

In get_var3_tlev_double, ifh=          58
                        ltix(ifh)=     58

After read, parm= V_700                ifh=          58
lead time index=          58 parm# (ip) =          6 ncix=
58
igvret=                    0
parmread lead time      parm#      parm_id      minval      maxval
  57:00                6          V_700
69.55      0.1000E+21
+++ NetCDF read requested for parm #      7 ... parm=
Z_850

In get_var3_tlev_double, ifh=          58
                        ltix(ifh)=     58

After read, parm= Z_850                ifh=          58
lead time index=          58 parm# (ip) =          7 ncix=
58

```



```

    igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    57:00              7        Z_850
414.4      0.1000E+21
+++ NetCDF read requested for parm #      8 ... parm=
Z_700

In get_var3_tlev_double, ifh=          58
                        ltix(ifh)=     58

After read, parm= Z_700                ifh=          58
lead time index=          58 parm# (ip) =          8 ncix=
58
    igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    57:00              8        Z_700
2115.      0.1000E+21
+++ NetCDF read requested for parm #      9 ... parm=
slp

In get_var3_tlev_double, ifh=          58
                        ltix(ifh)=     58

After read, parm= slp                ifh=          58
lead time index=          58 parm# (ip) =          9 ncix=
58
    igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    57:00              9        slp
0.8904E+05  0.1028E+06
+++ NetCDF read requested for parm #     10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          58
                        ltix(ifh)=     58

After read, parm= u_10m_gr            ifh=          58
lead time index=          58 parm# (ip) =         10 ncix=
58
    igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    57:00             10        u_10m_gr
55.96      52.80
+++ NetCDF read requested for parm #     11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          58
                        ltix(ifh)=     58

After read, parm= v_10m_gr            ifh=          58
lead time index=          58 parm# (ip) =         11 ncix=
58
    igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    57:00             11        v_10m_gr
49.40      54.84
+++ NetCDF read requested for parm #     12 ... parm=
U_500

In get_var3_tlev_double, ifh=          58

```

```

                ltix(ifh)=          58

After read, parm= U_500                ifh=          58
lead time index=          58 parm# (ip) =          12 ncix=
58
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  57:00              12      U_500
74.67      60.02
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=          58
                ltix(ifh)=          58

After read, parm= V_500                ifh=          58
lead time index=          58 parm# (ip) =          13 ncix=
58
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  57:00              13      V_500
76.12      77.42
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15 ... parm=
Z_500

In get_var3_tlev_double, ifh=          58
                ltix(ifh)=          58

After read, parm= Z_500                ifh=          58
lead time index=          58 parm# (ip) =          15 ncix=
58
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  57:00              15      Z_500
4989.      5929.
+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=          58
                ltix(ifh)=          58

After read, parm= Z_200                ifh=          58
lead time index=          58 parm# (ip) =          16 ncix=
58
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  57:00              16      Z_200
0.1190E+05  0.1255E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:40:17

Of          17 readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =    38316.57    dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

```

```

*-----*
*   New forecast hour:   58:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:
imax=          409  jmax=          349
dx=    0.1722946    dy=    0.1621475

DX:  midi=  204 dx=    0.1723
DY:  midj=  174 dy=    0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:  -9.516  Min Lon:   92.852
Max Lat:   44.929  Max Lon:  163.148
TEST after getgridinfo in sub tracker, iggret=          0
in beginning of tracker, imax=          409  jmax=          349
TIMING: b4 getdata ... 14:40:17

NOTE: Program is now in subroutine  getdata_netcdf.
+++ Time match in getdata_netcdf for usertime=          3480
   netcdf file index= ncix=          59
+++ NetCDF read requested for parm #          1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh=          59
                           ltix(ifh)=          59

After read, parm= ABS_VORTICITY_850          ifh=          59
  lead time index=          59  parm# (ip) =          1  ncix=
59
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  58:00              1          ABS_VORTICITY_850          -
0.7708E-03  0.4155E-02
+++ NetCDF read requested for parm #          2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh=          59
                           ltix(ifh)=          59

After read, parm= ABS_VORTICITY_700          ifh=          59
  lead time index=          59  parm# (ip) =          2  ncix=
59
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  58:00              2          ABS_VORTICITY_700          -
0.5019E-03  0.3864E-02
+++ NetCDF read requested for parm #          3 ... parm=
U_850

In get_var3_tlev_double, ifh=          59
                           ltix(ifh)=          59

After read, parm= U_850          ifh=          59
  lead time index=          59  parm# (ip) =          3  ncix=
59
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval

```

```

58:00          3          U_850          -
93.38      0.1000E+21
+++ NetCDF read requested for parm #          4 ... parm=
V_850

In get_var3_tlev_double, ifh=          59
                        ltix(ifh)=          59

After read, parm= V_850          ifh=          59
lead time index=          59 parm# (ip) =          4 ncix=
59
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
58:00          4          V_850          -
80.95      0.1000E+21
+++ NetCDF read requested for parm #          5 ... parm=
U_700

In get_var3_tlev_double, ifh=          59
                        ltix(ifh)=          59

After read, parm= U_700          ifh=          59
lead time index=          59 parm# (ip) =          5 ncix=
59
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
58:00          5          U_700          -
83.81      0.1000E+21
+++ NetCDF read requested for parm #          6 ... parm=
V_700

In get_var3_tlev_double, ifh=          59
                        ltix(ifh)=          59

After read, parm= V_700          ifh=          59
lead time index=          59 parm# (ip) =          6 ncix=
59
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
58:00          6          V_700          -
70.65      0.1000E+21
+++ NetCDF read requested for parm #          7 ... parm=
Z_850

In get_var3_tlev_double, ifh=          59
                        ltix(ifh)=          59

After read, parm= Z_850          ifh=          59
lead time index=          59 parm# (ip) =          7 ncix=
59
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
58:00          7          Z_850
413.3      0.1000E+21
+++ NetCDF read requested for parm #          8 ... parm=
Z_700

In get_var3_tlev_double, ifh=          59
                        ltix(ifh)=          59

```

```

After read, parm= z_700                      ifh=          59
  lead time index=          59  parm# (ip) =          8  ncix=
59
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  58:00              8        z_700
2117.      0.1000E+21
+++ NetCDF read requested for parm #          9  ... parm=
slp

In get_var3_tlev_double, ifh=          59
                        ltix(ifh)=    59

After read, parm= slp                      ifh=          59
  lead time index=          59  parm# (ip) =          9  ncix=
59
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  58:00              9        slp
0.8906E+05  0.1028E+06
+++ NetCDF read requested for parm #         10  ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          59
                        ltix(ifh)=    59

After read, parm= u_10m_gr                  ifh=          59
  lead time index=          59  parm# (ip) =         10  ncix=
59
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  58:00             10        u_10m_gr
57.23      48.53
+++ NetCDF read requested for parm #         11  ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          59
                        ltix(ifh)=    59

After read, parm= v_10m_gr                  ifh=          59
  lead time index=          59  parm# (ip) =         11  ncix=
59
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  58:00             11        v_10m_gr
55.55      52.12
+++ NetCDF read requested for parm #         12  ... parm=
U_500

In get_var3_tlev_double, ifh=          59
                        ltix(ifh)=    59

After read, parm= U_500                      ifh=          59
  lead time index=          59  parm# (ip) =         12  ncix=
59
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  58:00             12        U_500
78.11      61.66
+++ NetCDF read requested for parm #         13  ... parm=

```

V_500

In get_var3_tlev_double, ifh= 59
ltix(ifh)= 59

After read, parm= V_500 ifh= 59
lead time index= 59 parm# (ip) = 13 ncix=
59
igvret= 0
parmread lead time parm# parm_id minval maxval
58:00 13 V_500 -
72.56 70.85
!!! NetCDF read NOT requested for parm # 14
+++ NetCDF read requested for parm # 15 ... parm=
Z_500

In get_var3_tlev_double, ifh= 59
ltix(ifh)= 59

After read, parm= Z_500 ifh= 59
lead time index= 59 parm# (ip) = 15 ncix=
59
igvret= 0
parmread lead time parm# parm_id minval maxval
58:00 15 Z_500
4993. 5933.
+++ NetCDF read requested for parm # 16 ... parm=
Z_200

In get_var3_tlev_double, ifh= 59
ltix(ifh)= 59

After read, parm= Z_200 ifh= 59
lead time index= 59 parm# (ip) = 16 ncix=
59
igvret= 0
parmread lead time parm# parm_id minval maxval
58:00 16 Z_200
0.1190E+05 0.1255E+05
!!! NetCDF read NOT requested for parm # 17
TIMING: after getdata ... 14:40:17

Of 17 readable parms, you read in 15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter = 38316.57 dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

* New forecast hour: 59:00

in getgridinfo_netcdf, ncfile_id= 65536

In getgridinfo, grid dimensions follow:
imax= 409 jmax= 349
dx= 0.1722946 dy= 0.1621475

DX: midi= 204 dx= 0.1723
DY: midj= 174 dy= 0.1621

Data Grid Lat/Lon boundaries follow:

Min Lat: -9.516 Min Lon: 92.852

Max Lat: 44.929 Max Lon: 163.148

TEST after getgridinfo in sub tracker, iggret= 0

in beginning of tracker, imax= 409 jmax= 349

TIMING: b4 getdata ... 14:40:17

NOTE: Program is now in subroutine getdata_netcdf.

+++ Time match in getdata_netcdf for usertime= 3540

netcdf file index= ncix= 60

+++ NetCDF read requested for parm # 1 ... parm=

ABS_VORTICITY_850

In get_var3_tlev_double, ifh= 60

ltix(ifh)= 60

After read, parm= ABS_VORTICITY_850 ifh= 60

lead time index= 60 parm# (ip) = 1 ncix= 60

igvret= 0

parmread	lead time	parm#	parm_id	minval	maxval	
59:00		1	ABS_VORTICITY_850			-

0.7316E-03 0.3925E-02

+++ NetCDF read requested for parm # 2 ... parm=

ABS_VORTICITY_700

In get_var3_tlev_double, ifh= 60

ltix(ifh)= 60

After read, parm= ABS_VORTICITY_700 ifh= 60

lead time index= 60 parm# (ip) = 2 ncix= 60

igvret= 0

parmread	lead time	parm#	parm_id	minval	maxval	
59:00		2	ABS_VORTICITY_700			-

0.5391E-03 0.3504E-02

+++ NetCDF read requested for parm # 3 ... parm=

U_850

In get_var3_tlev_double, ifh= 60

ltix(ifh)= 60

After read, parm= U_850 ifh= 60

lead time index= 60 parm# (ip) = 3 ncix= 60

igvret= 0

parmread	lead time	parm#	parm_id	minval	maxval	
59:00		3	U_850			-

88.60 0.1000E+21

+++ NetCDF read requested for parm # 4 ... parm=

V_850

In get_var3_tlev_double, ifh= 60

ltix(ifh)= 60

After read, parm= V_850 ifh= 60

```

lead time index=          60  parm# (ip) =          4  ncix=
60
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
59:00          4          V_850
88.50          0.1000E+21
+++ NetCDF read requested for parm #          5  ... parm=
U_700

In get_var3_tlev_double, ifh=          60
ltix(ifh)=          60

After read, parm= U_700          ifh=          60
lead time index=          60  parm# (ip) =          5  ncix=
60
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
59:00          5          U_700
80.04          0.1000E+21
+++ NetCDF read requested for parm #          6  ... parm=
V_700

In get_var3_tlev_double, ifh=          60
ltix(ifh)=          60

After read, parm= V_700          ifh=          60
lead time index=          60  parm# (ip) =          6  ncix=
60
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
59:00          6          V_700
77.29          0.1000E+21
+++ NetCDF read requested for parm #          7  ... parm=
Z_850

In get_var3_tlev_double, ifh=          60
ltix(ifh)=          60

After read, parm= Z_850          ifh=          60
lead time index=          60  parm# (ip) =          7  ncix=
60
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
59:00          7          Z_850
417.9          0.1000E+21
+++ NetCDF read requested for parm #          8  ... parm=
Z_700

In get_var3_tlev_double, ifh=          60
ltix(ifh)=          60

After read, parm= Z_700          ifh=          60
lead time index=          60  parm# (ip) =          8  ncix=
60
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
59:00          8          Z_700
2128.          0.1000E+21
+++ NetCDF read requested for parm #          9  ... parm=
slp

```



```

In get_var3_tlev_double, ifh=          60
                        ltix(ifh)=     60

After read, parm= slp                      ifh=          60
lead time index=          60 parm# (ip) =          9 ncix=
60
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  59:00                9          slp
0.8916E+05  0.1029E+06
+++ NetCDF read requested for parm #          10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          60
                        ltix(ifh)=     60

After read, parm= u_10m_gr                      ifh=          60
lead time index=          60 parm# (ip) =          10 ncix=
60
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  59:00                10          u_10m_gr
53.99          50.23
+++ NetCDF read requested for parm #          11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          60
                        ltix(ifh)=     60

After read, parm= v_10m_gr                      ifh=          60
lead time index=          60 parm# (ip) =          11 ncix=
60
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  59:00                11          v_10m_gr
54.51          51.64
+++ NetCDF read requested for parm #          12 ... parm=
U_500

In get_var3_tlev_double, ifh=          60
                        ltix(ifh)=     60

After read, parm= U_500                      ifh=          60
lead time index=          60 parm# (ip) =          12 ncix=
60
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  59:00                12          U_500
72.92          62.75
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=          60
                        ltix(ifh)=     60

After read, parm= V_500                      ifh=          60
lead time index=          60 parm# (ip) =          13 ncix=
60
igvret=          0

```

```

parmread lead time      parm#      parm_id      minval      maxval      -
59:00                  13          v_500
71.82          67.81
!!! NetCDF read NOT requested for parm #      14
+++ NetCDF read requested for parm #      15 ... parm=
Z_500

In get_var3_tlev_double, ifh=      60
                        ltix(ifh)=      60

After read, parm= Z_500                        ifh=      60
lead time index=      60 parm# (ip) =      15 ncix=
60
igvret=      0
parmread lead time      parm#      parm_id      minval      maxval
59:00                  15          Z_500
5003.          5934.
+++ NetCDF read requested for parm #      16 ... parm=
Z_200

In get_var3_tlev_double, ifh=      60
                        ltix(ifh)=      60

After read, parm= Z_200                        ifh=      60
lead time index=      60 parm# (ip) =      16 ncix=
60
igvret=      0
parmread lead time      parm#      parm_id      minval      maxval
59:00                  16          Z_200
0.1191E+05  0.1255E+05
!!! NetCDF read NOT requested for parm #      17
TIMING: after getdata ... 14:40:18

Of      17 readable parms, you read in      15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =      38316.57      dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:   60:00
*-----*
in getgridinfo_netcdf, ncfile_id=      65536

In getgridinfo, grid dimensions follow:
imax=      409  jmax=      349
dx=      0.1722946  dy=      0.1621475

DX:  midi=  204 dx=  0.1723
DY:  midj=  174 dy=  0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:  -9.516  Min Lon:  92.852
Max Lat:  44.929  Max Lon:  163.148
TEST after getgridinfo in sub tracker, iggret=      0
in beginning of tracker, imax=      409  jmax=      349
TIMING: b4 getdata ... 14:40:18

```

```

NOTE: Program is now in subroutine  getdata_netcdf.
+++ Time match in getdata_netcdf for usertime=          3600
    netcdf file index= ncix=          61
+++ NetCDF read requested for parm #          1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh=          61
                        ltix(ifh)=          61

After read, parm= ABS_VORTICITY_850          ifh=          61
lead time index=          61 parm# (ip) =          1 ncix=
61
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
60:00                1        ABS_VORTICITY_850          -
0.8504E-03  0.4203E-02
+++ NetCDF read requested for parm #          2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh=          61
                        ltix(ifh)=          61

After read, parm= ABS_VORTICITY_700          ifh=          61
lead time index=          61 parm# (ip) =          2 ncix=
61
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
60:00                2        ABS_VORTICITY_700          -
0.6446E-03  0.3678E-02
+++ NetCDF read requested for parm #          3 ... parm=
U_850

In get_var3_tlev_double, ifh=          61
                        ltix(ifh)=          61

After read, parm= U_850          ifh=          61
lead time index=          61 parm# (ip) =          3 ncix=
61
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
60:00                3        U_850          -
84.82          0.1000E+21
+++ NetCDF read requested for parm #          4 ... parm=
V_850

In get_var3_tlev_double, ifh=          61
                        ltix(ifh)=          61

After read, parm= V_850          ifh=          61
lead time index=          61 parm# (ip) =          4 ncix=
61
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
60:00                4        V_850          -
77.83          0.1000E+21
+++ NetCDF read requested for parm #          5 ... parm=
U_700

In get_var3_tlev_double, ifh=          61

```

```

        ltix(ifh)=          61

After read, parm= U_700          ifh=          61
  lead time index=          61  parm# (ip) =          5  ncix=
61
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  60:00              5        U_700
71.92      0.1000E+21
+++ NetCDF read requested for parm #          6  ... parm=
V_700

In get_var3_tlev_double, ifh=          61
        ltix(ifh)=          61

After read, parm= V_700          ifh=          61
  lead time index=          61  parm# (ip) =          6  ncix=
61
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  60:00              6        V_700
66.85      0.1000E+21
+++ NetCDF read requested for parm #          7  ... parm=
Z_850

In get_var3_tlev_double, ifh=          61
        ltix(ifh)=          61

After read, parm= Z_850          ifh=          61
  lead time index=          61  parm# (ip) =          7  ncix=
61
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  60:00              7        Z_850
436.4      0.1000E+21
+++ NetCDF read requested for parm #          8  ... parm=
Z_700

In get_var3_tlev_double, ifh=          61
        ltix(ifh)=          61

After read, parm= Z_700          ifh=          61
  lead time index=          61  parm# (ip) =          8  ncix=
61
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  60:00              8        Z_700
2141.      0.1000E+21
+++ NetCDF read requested for parm #          9  ... parm=
slp

In get_var3_tlev_double, ifh=          61
        ltix(ifh)=          61

After read, parm= slp          ifh=          61
  lead time index=          61  parm# (ip) =          9  ncix=
61
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval

```

```

60:00          9          slp
0.8927E+05  0.1029E+06
+++ NetCDF read requested for parm #          10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          61
                        ltix(ifh)=      61

After read, parm= u_10m_gr          ifh=          61
lead time index=          61 parm# (ip) =          10 ncix=
61
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
60:00          10          u_10m_gr          -
52.13          48.96
+++ NetCDF read requested for parm #          11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          61
                        ltix(ifh)=      61

After read, parm= v_10m_gr          ifh=          61
lead time index=          61 parm# (ip) =          11 ncix=
61
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
60:00          11          v_10m_gr          -
48.73          56.01
+++ NetCDF read requested for parm #          12 ... parm=
U_500

In get_var3_tlev_double, ifh=          61
                        ltix(ifh)=      61

After read, parm= U_500          ifh=          61
lead time index=          61 parm# (ip) =          12 ncix=
61
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
60:00          12          U_500          -
76.59          66.49
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=          61
                        ltix(ifh)=      61

After read, parm= V_500          ifh=          61
lead time index=          61 parm# (ip) =          13 ncix=
61
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
60:00          13          V_500          -
70.68          65.18
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15 ... parm=
Z_500

In get_var3_tlev_double, ifh=          61
                        ltix(ifh)=      61

```

```

After read, parm= Z_500                ifh=                61
  lead time index=                61  parm# (ip) =                15  ncix=
61
  igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
  60:00                15          Z_500
5018.                5937.
+++ NetCDF read requested for parm #                16  ... parm=
Z_200

In get_var3_tlev_double, ifh=                61
                        ltix(ifh)=                61

After read, parm= Z_200                ifh=                61
  lead time index=                61  parm# (ip) =                16  ncix=
61
  igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
  60:00                16          Z_200
0.1191E+05  0.1255E+05
!!! NetCDF read NOT requested for parm #                17
TIMING: after getdata ... 14:40:19

Of                17  readable parms, you read in                15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =                38316.57      dlat_inter =
  36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:    61:00
*-----*
in getgridinfo_netcdf, ncfile_id=                65536

In getgridinfo, grid dimensions follow:
imax=                409  jmax=                349
dx=                0.1722946      dy=                0.1621475

DX:  midi=    204  dx=    0.1723
DY:  midj=   174  dy=    0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:   -9.516  Min Lon:   92.852
Max Lat:   44.929  Max Lon:  163.148
TEST after getgridinfo in sub tracker, iggret=                0
in beginning of tracker, imax=                409  jmax=                349
TIMING: b4 getdata ... 14:40:19

NOTE: Program is now in subroutine getdata_netcdf.
+++ Time match in getdata_netcdf for usertime=                3660
  netcdf file index= ncix=                62
+++ NetCDF read requested for parm #                1  ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh=                62
                        ltix(ifh)=                62

```

```

After read, parm= ABS_VORTICITY_850          ifh=          62
  lead time index=          62 parm# (ip) =          1 ncix=
62
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  61:00              1          ABS_VORTICITY_850          -
0.1029E-02  0.3909E-02
+++ NetCDF read requested for parm #          2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh=          62
                        ltix(ifh)=          62

After read, parm= ABS_VORTICITY_700          ifh=          62
  lead time index=          62 parm# (ip) =          2 ncix=
62
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  61:00              2          ABS_VORTICITY_700          -
0.6882E-03  0.3733E-02
+++ NetCDF read requested for parm #          3 ... parm=
U_850

In get_var3_tlev_double, ifh=          62
                        ltix(ifh)=          62

After read, parm= U_850                      ifh=          62
  lead time index=          62 parm# (ip) =          3 ncix=
62
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  61:00              3          U_850          -
86.94        0.1000E+21
+++ NetCDF read requested for parm #          4 ... parm=
V_850

In get_var3_tlev_double, ifh=          62
                        ltix(ifh)=          62

After read, parm= V_850                      ifh=          62
  lead time index=          62 parm# (ip) =          4 ncix=
62
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  61:00              4          V_850          -
79.31        0.1000E+21
+++ NetCDF read requested for parm #          5 ... parm=
U_700

In get_var3_tlev_double, ifh=          62
                        ltix(ifh)=          62

After read, parm= U_700                      ifh=          62
  lead time index=          62 parm# (ip) =          5 ncix=
62
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  61:00              5          U_700          -
72.37        0.1000E+21

```

```

+++ NetCDF read requested for parm #          6 ... parm=
V_700

In get_var3_tlev_double, ifh=                62
                        ltix(ifh)=          62

After read, parm= V_700                      ifh=                62
lead time index=          62 parm# (ip) =          6 ncix=
62
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
61:00                  6          V_700
71.15      0.1000E+21
+++ NetCDF read requested for parm #          7 ... parm=
Z_850

In get_var3_tlev_double, ifh=                62
                        ltix(ifh)=          62

After read, parm= Z_850                      ifh=                62
lead time index=          62 parm# (ip) =          7 ncix=
62
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
61:00                  7          Z_850
462.8      0.1000E+21
+++ NetCDF read requested for parm #          8 ... parm=
Z_700

In get_var3_tlev_double, ifh=                62
                        ltix(ifh)=          62

After read, parm= Z_700                      ifh=                62
lead time index=          62 parm# (ip) =          8 ncix=
62
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
61:00                  8          Z_700
2165.      0.1000E+21
+++ NetCDF read requested for parm #          9 ... parm=
slp

In get_var3_tlev_double, ifh=                62
                        ltix(ifh)=          62

After read, parm= slp                        ifh=                62
lead time index=          62 parm# (ip) =          9 ncix=
62
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
61:00                  9          slp
0.8953E+05  0.1030E+06
+++ NetCDF read requested for parm #         10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=                62
                        ltix(ifh)=          62

After read, parm= u_10m_gr                    ifh=                62

```



```

lead time index=          62  parm# (ip) =          10  ncix=
62
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
61:00          10          u_10m_gr      -
56.44          49.20
+++ NetCDF read requested for parm #          11  ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          62
ltix(ifh)=          62

After read, parm= v_10m_gr          ifh=          62
lead time index=          62  parm# (ip) =          11  ncix=
62
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
61:00          11          v_10m_gr      -
48.91          55.47
+++ NetCDF read requested for parm #          12  ... parm=
U_500

In get_var3_tlev_double, ifh=          62
ltix(ifh)=          62

After read, parm= U_500          ifh=          62
lead time index=          62  parm# (ip) =          12  ncix=
62
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
61:00          12          U_500          -
76.12          60.21
+++ NetCDF read requested for parm #          13  ... parm=
V_500

In get_var3_tlev_double, ifh=          62
ltix(ifh)=          62

After read, parm= V_500          ifh=          62
lead time index=          62  parm# (ip) =          13  ncix=
62
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
61:00          13          V_500          -
66.38          59.59
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15  ... parm=
Z_500

In get_var3_tlev_double, ifh=          62
ltix(ifh)=          62

After read, parm= Z_500          ifh=          62
lead time index=          62  parm# (ip) =          15  ncix=
62
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
61:00          15          Z_500          -
5046.          5938.
+++ NetCDF read requested for parm #          16  ... parm=

```

Z_200

In get_var3_tlev_double, ifh= 62
ltix(ifh)= 62

After read, parm= Z_200 ifh= 62
lead time index= 62 parm# (ip) = 16 ncix=
62
igvret= 0
parmread lead time parm# parm_id minval maxval
61:00 16 Z_200
0.1192E+05 0.1256E+05
!!! NetCDF read NOT requested for parm # 17
TIMING: after getdata ... 14:40:20

Of 17 readable parms, you read in 15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter = 38316.57 dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

* New forecast hour: 62:00

in getgridinfo_netcdf, ncfile_id= 65536

In getgridinfo, grid dimensions follow:
imax= 409 jmax= 349
dx= 0.1722946 dy= 0.1621475

DX: midi= 204 dx= 0.1723
DY: midj= 174 dy= 0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat: -9.516 Min Lon: 92.852
Max Lat: 44.929 Max Lon: 163.148
TEST after getgridinfo in sub tracker, iggret= 0
in beginning of tracker, imax= 409 jmax= 349
TIMING: b4 getdata ... 14:40:20

NOTE: Program is now in subroutine getdata_netcdf.
+++ Time match in getdata_netcdf for usertime= 3720
netcdf file index= ncix= 63
+++ NetCDF read requested for parm # 1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh= 63
ltix(ifh)= 63

After read, parm= ABS_VORTICITY_850 ifh= 63
lead time index= 63 parm# (ip) = 1 ncix=
63
igvret= 0
parmread lead time parm# parm_id minval maxval
62:00 1 ABS_VORTICITY_850 -
0.8769E-03 0.3950E-02
+++ NetCDF read requested for parm # 2 ... parm=

ABS_VORTICITY_700

In get_var3_tlev_double, ifh= 63
ltix(ifh)= 63

After read, parm= ABS_VORTICITY_700 ifh= 63
lead time index= 63 parm# (ip) = 2 ncix=

63
igvret= 0
parmread lead time parm# parm_id minval maxval -
62:00 2 ABS_VORTICITY_700
0.7189E-03 0.3926E-02
+++ NetCDF read requested for parm # 3 ... parm=
U_850

In get_var3_tlev_double, ifh= 63
ltix(ifh)= 63

After read, parm= U_850 ifh= 63
lead time index= 63 parm# (ip) = 3 ncix=

63
igvret= 0
parmread lead time parm# parm_id minval maxval -
62:00 3 U_850
97.25 0.1000E+21
+++ NetCDF read requested for parm # 4 ... parm=
V_850

In get_var3_tlev_double, ifh= 63
ltix(ifh)= 63

After read, parm= V_850 ifh= 63
lead time index= 63 parm# (ip) = 4 ncix=

63
igvret= 0
parmread lead time parm# parm_id minval maxval -
62:00 4 V_850
76.21 0.1000E+21
+++ NetCDF read requested for parm # 5 ... parm=
U_700

In get_var3_tlev_double, ifh= 63
ltix(ifh)= 63

After read, parm= U_700 ifh= 63
lead time index= 63 parm# (ip) = 5 ncix=

63
igvret= 0
parmread lead time parm# parm_id minval maxval -
62:00 5 U_700
82.93 0.1000E+21
+++ NetCDF read requested for parm # 6 ... parm=
V_700

In get_var3_tlev_double, ifh= 63
ltix(ifh)= 63

After read, parm= V_700 ifh= 63
lead time index= 63 parm# (ip) = 6 ncix=

63

```

    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      62:00              6        v_700
63.88      0.1000E+21
+++ NetCDF read requested for parm #    7 ... parm=
Z_850

In get_var3_tlev_double, ifh=          63
                        ltix(ifh)=     63

After read, parm= Z_850                ifh=          63
lead time index=          63 parm# (ip) =          7 ncix=
63
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      62:00              7        Z_850
477.3     0.1000E+21
+++ NetCDF read requested for parm #    8 ... parm=
Z_700

In get_var3_tlev_double, ifh=          63
                        ltix(ifh)=     63

After read, parm= Z_700                ifh=          63
lead time index=          63 parm# (ip) =          8 ncix=
63
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      62:00              8        Z_700
2188.     0.1000E+21
+++ NetCDF read requested for parm #    9 ... parm=
slp

In get_var3_tlev_double, ifh=          63
                        ltix(ifh)=     63

After read, parm= slp                  ifh=          63
lead time index=          63 parm# (ip) =          9 ncix=
63
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      62:00              9        slp
0.8977E+05 0.1030E+06
+++ NetCDF read requested for parm #   10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          63
                        ltix(ifh)=     63

After read, parm= u_10m_gr              ifh=          63
lead time index=          63 parm# (ip) =         10 ncix=
63
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      62:00             10        u_10m_gr
58.64     47.12
+++ NetCDF read requested for parm #   11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          63

```

```

                ltix(ifh)=          63

After read, parm= v_10m_gr          ifh=          63
lead time index=          63  parm# (ip) =          11  ncix=
63
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  62:00          11          v_10m_gr          -
48.35          55.55
+++ NetCDF read requested for parm #          12  ... parm=
U_500

In get_var3_tlev_double, ifh=          63
                ltix(ifh)=          63

After read, parm= U_500          ifh=          63
lead time index=          63  parm# (ip) =          12  ncix=
63
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  62:00          12          U_500          -
74.07          56.50
+++ NetCDF read requested for parm #          13  ... parm=
V_500

In get_var3_tlev_double, ifh=          63
                ltix(ifh)=          63

After read, parm= V_500          ifh=          63
lead time index=          63  parm# (ip) =          13  ncix=
63
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  62:00          13          V_500          -
66.42          58.37
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15  ... parm=
Z_500

In get_var3_tlev_double, ifh=          63
                ltix(ifh)=          63

After read, parm= Z_500          ifh=          63
lead time index=          63  parm# (ip) =          15  ncix=
63
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  62:00          15          Z_500          -
5061.          5940.
+++ NetCDF read requested for parm #          16  ... parm=
Z_200

In get_var3_tlev_double, ifh=          63
                ltix(ifh)=          63

After read, parm= Z_200          ifh=          63
lead time index=          63  parm# (ip) =          16  ncix=
63
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval

```

```

62:00          16          Z_200
0.1192E+05  0.1257E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:40:21

Of          17 readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =    38316.57    dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:    63:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:
imax=          409  jmax=          349
dx=    0.1722946    dy=    0.1621475

DX:  midi=  204 dx=    0.1723
DY:  midj=  174 dy=    0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:   -9.516  Min Lon:   92.852
Max Lat:   44.929  Max Lon:  163.148
TEST after getgridinfo in sub tracker, iggret=          0
in beginning of tracker, imax=          409  jmax=          349
TIMING: b4 getdata ... 14:40:21

NOTE: Program is now in subroutine  getdata_netcdf.
+++ Time match in getdata_netcdf for usertime=          3780
netcdf file index= ncix=          64
+++ NetCDF read requested for parm #          1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh=          64
ltix(ifh)=          64

After read, parm= ABS_VORTICITY_850          ifh=          64
lead time index=          64  parm# (ip) =          1  ncix=
64
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
63:00                1          ABS_VORTICITY_850    -
0.7050E-03  0.3925E-02
+++ NetCDF read requested for parm #          2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh=          64
ltix(ifh)=          64

After read, parm= ABS_VORTICITY_700          ifh=          64
lead time index=          64  parm# (ip) =          2  ncix=
64
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval

```

```

63:00          2          ABS_VORTICITY_700          -
0.8354E-03  0.3809E-02
+++ NetCDF read requested for parm #          3 ... parm=
U_850

In get_var3_tlev_double, ifh=          64
                        ltix(ifh)=          64

After read, parm= U_850          ifh=          64
lead time index=          64 parm# (ip) =          3 ncix=
64
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
63:00          3          U_850          -
88.42          0.1000E+21
+++ NetCDF read requested for parm #          4 ... parm=
V_850

In get_var3_tlev_double, ifh=          64
                        ltix(ifh)=          64

After read, parm= V_850          ifh=          64
lead time index=          64 parm# (ip) =          4 ncix=
64
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
63:00          4          V_850          -
71.91          0.1000E+21
+++ NetCDF read requested for parm #          5 ... parm=
U_700

In get_var3_tlev_double, ifh=          64
                        ltix(ifh)=          64

After read, parm= U_700          ifh=          64
lead time index=          64 parm# (ip) =          5 ncix=
64
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
63:00          5          U_700          -
74.60          0.1000E+21
+++ NetCDF read requested for parm #          6 ... parm=
V_700

In get_var3_tlev_double, ifh=          64
                        ltix(ifh)=          64

After read, parm= V_700          ifh=          64
lead time index=          64 parm# (ip) =          6 ncix=
64
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
63:00          6          V_700          -
68.84          0.1000E+21
+++ NetCDF read requested for parm #          7 ... parm=
Z_850

In get_var3_tlev_double, ifh=          64
                        ltix(ifh)=          64

```

```

After read, parm= Z_850                ifh=                64
lead time index=                64 parm# (ip) =                7 ncix=
64
igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
63:00                7        Z_850
518.4                0.1000E+21
+++ NetCDF read requested for parm #                8 ... parm=
Z_700

In get_var3_tlev_double, ifh=                64
ltix(ifh)=                64

After read, parm= Z_700                ifh=                64
lead time index=                64 parm# (ip) =                8 ncix=
64
igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
63:00                8        Z_700
2222.                0.1000E+21
+++ NetCDF read requested for parm #                9 ... parm=
slp

In get_var3_tlev_double, ifh=                64
ltix(ifh)=                64

After read, parm= slp                ifh=                64
lead time index=                64 parm# (ip) =                9 ncix=
64
igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
63:00                9        slp
0.9011E+05  0.1030E+06
+++ NetCDF read requested for parm #                10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=                64
ltix(ifh)=                64

After read, parm= u_10m_gr                ifh=                64
lead time index=                64 parm# (ip) =                10 ncix=
64
igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
63:00                10       u_10m_gr
55.25                43.52
+++ NetCDF read requested for parm #                11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=                64
ltix(ifh)=                64

After read, parm= v_10m_gr                ifh=                64
lead time index=                64 parm# (ip) =                11 ncix=
64
igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
63:00                11       v_10m_gr
45.84                54.56
+++ NetCDF read requested for parm #                12 ... parm=

```



```

U_500

In get_var3_tlev_double, ifh=          64
                        ltix(ifh)=     64

After read, parm= U_500                ifh=          64
lead time index=          64 parm# (ip) =          12 ncix=
64
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
63:00                 12          U_500
74.10                 53.88
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=          64
                        ltix(ifh)=     64

After read, parm= V_500                ifh=          64
lead time index=          64 parm# (ip) =          13 ncix=
64
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
63:00                 13          V_500
71.78                 52.62
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15 ... parm=
Z_500

In get_var3_tlev_double, ifh=          64
                        ltix(ifh)=     64

After read, parm= Z_500                ifh=          64
lead time index=          64 parm# (ip) =          15 ncix=
64
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
63:00                 15          Z_500
5095.                 5937.
+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=          64
                        ltix(ifh)=     64

After read, parm= Z_200                ifh=          64
lead time index=          64 parm# (ip) =          16 ncix=
64
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
63:00                 16          Z_200
0.1192E+05  0.1257E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:40:22

Of          17 readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter = 38316.57      dlat_inter =
36059.95

```

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

```
*-----*
*   New forecast hour:   64:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536
```

In getgridinfo, grid dimensions follow:
imax= 409 jmax= 349
dx= 0.1722946 dy= 0.1621475

DX: midi= 204 dx= 0.1723
DY: midj= 174 dy= 0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat: -9.516 Min Lon: 92.852
Max Lat: 44.929 Max Lon: 163.148
TEST after getgridinfo in sub tracker, iggret= 0
in beginning of tracker, imax= 409 jmax= 349
TIMING: b4 getdata ... 14:40:22

NOTE: Program is now in subroutine getdata_netcdf.
+++ Time match in getdata_netcdf for usertime= 3840
 netcdf file index= ncix= 65
+++ NetCDF read requested for parm # 1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh= 65
 ltix(ifh)= 65

After read, parm= ABS_VORTICITY_850 ifh= 65
lead time index= 65 parm# (ip) = 1 ncix=
65
igvret= 0
parmread lead time parm# parm_id minval maxval
64:00 1 ABS_VORTICITY_850 -
0.8926E-03 0.3925E-02
+++ NetCDF read requested for parm # 2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh= 65
 ltix(ifh)= 65

After read, parm= ABS_VORTICITY_700 ifh= 65
lead time index= 65 parm# (ip) = 2 ncix=
65
igvret= 0
parmread lead time parm# parm_id minval maxval
64:00 2 ABS_VORTICITY_700 -
0.6691E-03 0.3699E-02
+++ NetCDF read requested for parm # 3 ... parm=
U_850

In get_var3_tlev_double, ifh= 65
 ltix(ifh)= 65

After read, parm= U_850 ifh= 65

```

lead time index=          65  parm# (ip) =          3  ncix=
65
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  64:00          3          U_850
83.65      0.1000E+21
+++ NetCDF read requested for parm #          4  ... parm=
V_850

In get_var3_tlev_double, ifh=          65
                        ltix(ifh)=          65

After read, parm= V_850          ifh=          65
lead time index=          65  parm# (ip) =          4  ncix=
65
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  64:00          4          V_850
64.59      0.1000E+21
+++ NetCDF read requested for parm #          5  ... parm=
U_700

In get_var3_tlev_double, ifh=          65
                        ltix(ifh)=          65

After read, parm= U_700          ifh=          65
lead time index=          65  parm# (ip) =          5  ncix=
65
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  64:00          5          U_700
65.59      0.1000E+21
+++ NetCDF read requested for parm #          6  ... parm=
V_700

In get_var3_tlev_double, ifh=          65
                        ltix(ifh)=          65

After read, parm= V_700          ifh=          65
lead time index=          65  parm# (ip) =          6  ncix=
65
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  64:00          6          V_700
56.78      0.1000E+21
+++ NetCDF read requested for parm #          7  ... parm=
Z_850

In get_var3_tlev_double, ifh=          65
                        ltix(ifh)=          65

After read, parm= Z_850          ifh=          65
lead time index=          65  parm# (ip) =          7  ncix=
65
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  64:00          7          Z_850
590.2      0.1000E+21
+++ NetCDF read requested for parm #          8  ... parm=
Z_700

```

```

In get_var3_tlev_double, ifh=          65
                        ltix(ifh)=     65

After read, parm= Z_700                ifh=          65
lead time index=          65 parm# (ip) =          8 ncix=
65
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  64:00              8        Z_700
2272.      0.1000E+21
+++ NetCDF read requested for parm #          9 ... parm=
slp

In get_var3_tlev_double, ifh=          65
                        ltix(ifh)=     65

After read, parm= slp                  ifh=          65
lead time index=          65 parm# (ip) =          9 ncix=
65
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  64:00              9        slp
0.9086E+05  0.1030E+06
+++ NetCDF read requested for parm #         10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          65
                        ltix(ifh)=     65

After read, parm= u_10m_gr             ifh=          65
lead time index=          65 parm# (ip) =         10 ncix=
65
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  64:00             10        u_10m_gr
53.36      34.26
+++ NetCDF read requested for parm #         11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          65
                        ltix(ifh)=     65

After read, parm= v_10m_gr            ifh=          65
lead time index=          65 parm# (ip) =         11 ncix=
65
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  64:00             11        v_10m_gr
42.80      51.12
+++ NetCDF read requested for parm #         12 ... parm=
U_500

In get_var3_tlev_double, ifh=          65
                        ltix(ifh)=     65

After read, parm= U_500                ifh=          65
lead time index=          65 parm# (ip) =         12 ncix=
65
igvret=          0

```

```

parmread lead time      parm#      parm_id      minval      maxval      -
  64:00                12        U_500
70.61      51.36
+++ NetCDF read requested for parm #      13 ... parm=
V_500

In get_var3_tlev_double, ifh=      65
                        ltix(ifh)=      65

After read, parm= V_500                        ifh=      65
lead time index=      65 parm# (ip) =      13 ncix=
65
igvret=      0
parmread lead time      parm#      parm_id      minval      maxval      -
  64:00                13        V_500
74.48      47.16
!!! NetCDF read NOT requested for parm #      14
+++ NetCDF read requested for parm #      15 ... parm=
Z_500

In get_var3_tlev_double, ifh=      65
                        ltix(ifh)=      65

After read, parm= Z_500                        ifh=      65
lead time index=      65 parm# (ip) =      15 ncix=
65
igvret=      0
parmread lead time      parm#      parm_id      minval      maxval
  64:00                15        Z_500
5152.      5934.
+++ NetCDF read requested for parm #      16 ... parm=
Z_200

In get_var3_tlev_double, ifh=      65
                        ltix(ifh)=      65

After read, parm= Z_200                        ifh=      65
lead time index=      65 parm# (ip) =      16 ncix=
65
igvret=      0
parmread lead time      parm#      parm_id      minval      maxval
  64:00                16        Z_200
0.1192E+05  0.1259E+05
!!! NetCDF read NOT requested for parm #      17
TIMING: after getdata ... 14:40:23

Of      17 readable parms, you read in      15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =      38316.57      dlat_inter =
      36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:   65:00
*-----*
in getgridinfo_netcdf, ncfile_id=      65536

```

In getgridinfo, grid dimensions follow:
imax= 409 jmax= 349
dx= 0.1722946 dy= 0.1621475

DX: midi= 204 dx= 0.1723
DY: midj= 174 dy= 0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat: -9.516 Min Lon: 92.852
Max Lat: 44.929 Max Lon: 163.148
TEST after getgridinfo in sub tracker, iggret= 0
in beginning of tracker, imax= 409 jmax= 349
TIMING: b4 getdata ... 14:40:23

NOTE: Program is now in subroutine getdata_netcdf.
+++ Time match in getdata_netcdf for usertime= 3900
netcdf file index= ncix= 66
+++ NetCDF read requested for parm # 1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh= 66
ltix(ifh)= 66

After read, parm= ABS_VORTICITY_850 ifh= 66
lead time index= 66 parm# (ip) = 1 ncix=
66
igvret= 0
parmread lead time parm# parm_id minval maxval
65:00 1 ABS_VORTICITY_850 -
0.6088E-03 0.3711E-02
+++ NetCDF read requested for parm # 2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh= 66
ltix(ifh)= 66

After read, parm= ABS_VORTICITY_700 ifh= 66
lead time index= 66 parm# (ip) = 2 ncix=
66
igvret= 0
parmread lead time parm# parm_id minval maxval
65:00 2 ABS_VORTICITY_700 -
0.5483E-03 0.3343E-02
+++ NetCDF read requested for parm # 3 ... parm=
U_850

In get_var3_tlev_double, ifh= 66
ltix(ifh)= 66

After read, parm= U_850 ifh= 66
lead time index= 66 parm# (ip) = 3 ncix=
66
igvret= 0
parmread lead time parm# parm_id minval maxval
65:00 3 U_850 -
84.19 0.1000E+21
+++ NetCDF read requested for parm # 4 ... parm=
V_850

In get_var3_tlev_double, ifh= 66

```

                ltix(ifh)=                66

After read, parm= V_850                ifh=                66
lead time index=                66 parm# (ip) =                4 ncix=
66
igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
65:00                4        V_850
53.43    0.1000E+21
+++ NetCDF read requested for parm #                5 ... parm=
U_700

In get_var3_tlev_double, ifh=                66
                ltix(ifh)=                66

After read, parm= U_700                ifh=                66
lead time index=                66 parm# (ip) =                5 ncix=
66
igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
65:00                5        U_700
66.88    0.1000E+21
+++ NetCDF read requested for parm #                6 ... parm=
V_700

In get_var3_tlev_double, ifh=                66
                ltix(ifh)=                66

After read, parm= V_700                ifh=                66
lead time index=                66 parm# (ip) =                6 ncix=
66
igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
65:00                6        V_700
51.35    0.1000E+21
+++ NetCDF read requested for parm #                7 ... parm=
Z_850

In get_var3_tlev_double, ifh=                66
                ltix(ifh)=                66

After read, parm= Z_850                ifh=                66
lead time index=                66 parm# (ip) =                7 ncix=
66
igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
65:00                7        Z_850
702.2    0.1000E+21
+++ NetCDF read requested for parm #                8 ... parm=
Z_700

In get_var3_tlev_double, ifh=                66
                ltix(ifh)=                66

After read, parm= Z_700                ifh=                66
lead time index=                66 parm# (ip) =                8 ncix=
66
igvret=                0
parmread lead time    parm#    parm_id    minval    maxval

```

```

65:00          8          Z_700
2395.      0.1000E+21
+++ NetCDF read requested for parm #          9 ... parm=
slp

In get_var3_tlev_double, ifh=          66
                        ltix(ifh)=      66

After read, parm= slp          ifh=          66
lead time index=          66 parm# (ip) =          9 ncix=
66
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
65:00          9          slp
0.9202E+05  0.1030E+06
+++ NetCDF read requested for parm #          10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          66
                        ltix(ifh)=      66

After read, parm= u_10m_gr          ifh=          66
lead time index=          66 parm# (ip) =          10 ncix=
66
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
65:00          10          u_10m_gr          -
49.91      32.37
+++ NetCDF read requested for parm #          11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          66
                        ltix(ifh)=      66

After read, parm= v_10m_gr          ifh=          66
lead time index=          66 parm# (ip) =          11 ncix=
66
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
65:00          11          v_10m_gr          -
31.48      51.37
+++ NetCDF read requested for parm #          12 ... parm=
U_500

In get_var3_tlev_double, ifh=          66
                        ltix(ifh)=      66

After read, parm= U_500          ifh=          66
lead time index=          66 parm# (ip) =          12 ncix=
66
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
65:00          12          U_500          -
61.10      44.83
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=          66
                        ltix(ifh)=      66

```



```

After read, parm= V_500                ifh= 66
lead time index= 66 parm# (ip) = 13 ncix=
66
igvret= 0
parmread lead time    parm#    parm_id    minval    maxval
65:00                13      V_500
57.57                48.68
!!! NetCDF read NOT requested for parm # 14
+++ NetCDF read requested for parm # 15 ... parm=
Z_500

In get_var3_tlev_double, ifh= 66
ltix(ifh)= 66

After read, parm= Z_500                ifh= 66
lead time index= 66 parm# (ip) = 15 ncix=
66
igvret= 0
parmread lead time    parm#    parm_id    minval    maxval
65:00                15      Z_500
5223.                5934.
+++ NetCDF read requested for parm # 16 ... parm=
Z_200

In get_var3_tlev_double, ifh= 66
ltix(ifh)= 66

After read, parm= Z_200                ifh= 66
lead time index= 66 parm# (ip) = 16 ncix=
66
igvret= 0
parmread lead time    parm#    parm_id    minval    maxval
65:00                16      Z_200
0.1192E+05  0.1256E+05
!!! NetCDF read NOT requested for parm # 17
TIMING: after getdata ... 14:40:23

Of 17 readable parms, you read in 15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter = 38316.57 dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
* New forecast hour: 66:00
*-----*
in getgridinfo_netcdf, ncfile_id= 65536

In getgridinfo, grid dimensions follow:
imax= 409 jmax= 349
dx= 0.1722946 dy= 0.1621475

DX: midi= 204 dx= 0.1723
DY: midj= 174 dy= 0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat: -9.516 Min Lon: 92.852

```

Max Lat: 44.929 Max Lon: 163.148
TEST after getgridinfo in sub tracker, iggret= 0
in beginning of tracker, imax= 409 jmax= 349
TIMING: b4 getdata ... 14:40:23

NOTE: Program is now in subroutine getdata_netcdf.
+++ Time match in getdata_netcdf for usertime= 3960
netcdf file index= ncix= 67
+++ NetCDF read requested for parm # 1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh= 67
ltix(ifh)= 67

After read, parm= ABS_VORTICITY_850 ifh= 67
lead time index= 67 parm# (ip) = 1 ncix=
67
igvret= 0
parmread lead time parm# parm_id minval maxval
66:00 1 ABS_VORTICITY_850 -
0.6351E-03 0.2727E-02

+++ NetCDF read requested for parm # 2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh= 67
ltix(ifh)= 67

After read, parm= ABS_VORTICITY_700 ifh= 67
lead time index= 67 parm# (ip) = 2 ncix=
67
igvret= 0
parmread lead time parm# parm_id minval maxval
66:00 2 ABS_VORTICITY_700 -
0.6186E-03 0.2667E-02

+++ NetCDF read requested for parm # 3 ... parm=
U_850

In get_var3_tlev_double, ifh= 67
ltix(ifh)= 67

After read, parm= U_850 ifh= 67
lead time index= 67 parm# (ip) = 3 ncix=
67
igvret= 0
parmread lead time parm# parm_id minval maxval
66:00 3 U_850 -
73.85 0.1000E+21

+++ NetCDF read requested for parm # 4 ... parm=
V_850

In get_var3_tlev_double, ifh= 67
ltix(ifh)= 67

After read, parm= V_850 ifh= 67
lead time index= 67 parm# (ip) = 4 ncix=
67
igvret= 0
parmread lead time parm# parm_id minval maxval
66:00 4 V_850 -
49.18 0.1000E+21

```

+++ NetCDF read requested for parm #          5 ... parm=
U_700

In get_var3_tlev_double, ifh=                67
                        ltix(ifh)=          67

After read, parm= U_700                      ifh=                67
lead time index=          67 parm# (ip) =          5 ncix=
67
  igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
  66:00                 5          U_700
75.52      0.1000E+21
+++ NetCDF read requested for parm #          6 ... parm=
V_700

In get_var3_tlev_double, ifh=                67
                        ltix(ifh)=          67

After read, parm= V_700                      ifh=                67
lead time index=          67 parm# (ip) =          6 ncix=
67
  igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
  66:00                 6          V_700
52.24      0.1000E+21
+++ NetCDF read requested for parm #          7 ... parm=
Z_850

In get_var3_tlev_double, ifh=                67
                        ltix(ifh)=          67

After read, parm= Z_850                      ifh=                67
lead time index=          67 parm# (ip) =          7 ncix=
67
  igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
  66:00                 7          Z_850
813.6      0.1000E+21
+++ NetCDF read requested for parm #          8 ... parm=
Z_700

In get_var3_tlev_double, ifh=                67
                        ltix(ifh)=          67

After read, parm= Z_700                      ifh=                67
lead time index=          67 parm# (ip) =          8 ncix=
67
  igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
  66:00                 8          Z_700
2492.      0.1000E+21
+++ NetCDF read requested for parm #          9 ... parm=
slp

In get_var3_tlev_double, ifh=                67
                        ltix(ifh)=          67

After read, parm= slp                        ifh=                67

```

```

lead time index=          67  parm# (ip) =          9  ncix=
67
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  66:00          9          slp
0.9323E+05  0.1030E+06
+++ NetCDF read requested for parm #          10  ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          67
                        ltix(ifh)=          67

After read, parm= u_10m_gr          ifh=          67
lead time index=          67  parm# (ip) =          10  ncix=
67
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  66:00          10          u_10m_gr          -
44.04          27.51
+++ NetCDF read requested for parm #          11  ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          67
                        ltix(ifh)=          67

After read, parm= v_10m_gr          ifh=          67
lead time index=          67  parm# (ip) =          11  ncix=
67
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  66:00          11          v_10m_gr          -
30.36          40.50
+++ NetCDF read requested for parm #          12  ... parm=
U_500

In get_var3_tlev_double, ifh=          67
                        ltix(ifh)=          67

After read, parm= U_500          ifh=          67
lead time index=          67  parm# (ip) =          12  ncix=
67
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  66:00          12          U_500          -
59.90          38.16
+++ NetCDF read requested for parm #          13  ... parm=
V_500

In get_var3_tlev_double, ifh=          67
                        ltix(ifh)=          67

After read, parm= V_500          ifh=          67
lead time index=          67  parm# (ip) =          13  ncix=
67
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  66:00          13          V_500          -
49.76          47.46
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15  ... parm=

```

Z_500

In get_var3_tlev_double, ifh= 67
ltix(ifh)= 67

After read, parm= Z_500 ifh= 67
lead time index= 67 parm# (ip) = 15 ncix=
67
igvret= 0
parmread lead time parm# parm_id minval maxval
66:00 15 Z_500
5310. 5934.
+++ NetCDF read requested for parm # 16 ... parm=
Z_200

In get_var3_tlev_double, ifh= 67
ltix(ifh)= 67

After read, parm= Z_200 ifh= 67
lead time index= 67 parm# (ip) = 16 ncix=
67
igvret= 0
parmread lead time parm# parm_id minval maxval
66:00 16 Z_200
0.1191E+05 0.1256E+05
!!! NetCDF read NOT requested for parm # 17
TIMING: after getdata ... 14:40:24

Of 17 readable parms, you read in 15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter = 38316.57 dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

* New forecast hour: 67:00

in getgridinfo_netcdf, ncfile_id= 65536

In getgridinfo, grid dimensions follow:
imax= 409 jmax= 349
dx= 0.1722946 dy= 0.1621475

DX: midi= 204 dx= 0.1723
DY: midj= 174 dy= 0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat: -9.516 Min Lon: 92.852
Max Lat: 44.929 Max Lon: 163.148
TEST after getgridinfo in sub tracker, iggret= 0
in beginning of tracker, imax= 409 jmax= 349
TIMING: b4 getdata ... 14:40:24

NOTE: Program is now in subroutine getdata_netcdf.
+++ Time match in getdata_netcdf for usertime= 4020
netcdf file index= ncix= 68
+++ NetCDF read requested for parm # 1 ... parm=

ABS_VORTICITY_850

In get_var3_tlev_double, ifh= 68
ltix(ifh)= 68

After read, parm= ABS_VORTICITY_850 ifh= 68
lead time index= 68 parm# (ip) = 1 ncix=

68

igvret= 0
parmread lead time parm# parm_id minval maxval -
67:00 1 ABS_VORTICITY_850
0.7337E-03 0.2561E-02
+++ NetCDF read requested for parm # 2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh= 68
ltix(ifh)= 68

After read, parm= ABS_VORTICITY_700 ifh= 68
lead time index= 68 parm# (ip) = 2 ncix=

68

igvret= 0
parmread lead time parm# parm_id minval maxval -
67:00 2 ABS_VORTICITY_700
0.7468E-03 0.2354E-02
+++ NetCDF read requested for parm # 3 ... parm=
U_850

In get_var3_tlev_double, ifh= 68
ltix(ifh)= 68

After read, parm= U_850 ifh= 68
lead time index= 68 parm# (ip) = 3 ncix=

68

igvret= 0
parmread lead time parm# parm_id minval maxval -
67:00 3 U_850
58.66 0.1000E+21
+++ NetCDF read requested for parm # 4 ... parm=
V_850

In get_var3_tlev_double, ifh= 68
ltix(ifh)= 68

After read, parm= V_850 ifh= 68
lead time index= 68 parm# (ip) = 4 ncix=

68

igvret= 0
parmread lead time parm# parm_id minval maxval -
67:00 4 V_850
46.18 0.1000E+21
+++ NetCDF read requested for parm # 5 ... parm=
U_700

In get_var3_tlev_double, ifh= 68
ltix(ifh)= 68

After read, parm= U_700 ifh= 68
lead time index= 68 parm# (ip) = 5 ncix=

68

```

    igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    67:00          5        U_700
53.25      0.1000E+21
+++ NetCDF read requested for parm #    6 ... parm=
V_700

In get_var3_tlev_double, ifh=          68
                        ltix(ifh)=      68

After read, parm= V_700                      ifh=          68
lead time index=          68 parm# (ip) =          6 ncix=
68

    igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    67:00          6        V_700
44.27      0.1000E+21
+++ NetCDF read requested for parm #    7 ... parm=
Z_850

In get_var3_tlev_double, ifh=          68
                        ltix(ifh)=      68

After read, parm= Z_850                      ifh=          68
lead time index=          68 parm# (ip) =          7 ncix=
68

    igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    67:00          7        Z_850
916.6      0.1000E+21
+++ NetCDF read requested for parm #    8 ... parm=
Z_700

In get_var3_tlev_double, ifh=          68
                        ltix(ifh)=      68

After read, parm= Z_700                      ifh=          68
lead time index=          68 parm# (ip) =          8 ncix=
68

    igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    67:00          8        Z_700
2594.      0.1000E+21
+++ NetCDF read requested for parm #    9 ... parm=
slp

In get_var3_tlev_double, ifh=          68
                        ltix(ifh)=      68

After read, parm= slp                      ifh=          68
lead time index=          68 parm# (ip) =          9 ncix=
68

    igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    67:00          9        slp
0.9451E+05  0.1030E+06
+++ NetCDF read requested for parm #   10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          68

```

```

                ltix(ifah)=          68

After read, parm= u_10m_gr          ifh=          68
lead time index=          68 parm# (ip) =          10 ncix=
68
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  67:00              10      u_10m_gr
34.31      26.57
+++ NetCDF read requested for parm #          11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          68
                ltix(ifah)=          68

After read, parm= v_10m_gr          ifh=          68
lead time index=          68 parm# (ip) =          11 ncix=
68
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  67:00              11      v_10m_gr
31.77      36.11
+++ NetCDF read requested for parm #          12 ... parm=
U_500

In get_var3_tlev_double, ifh=          68
                ltix(ifah)=          68

After read, parm= U_500          ifh=          68
lead time index=          68 parm# (ip) =          12 ncix=
68
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  67:00              12      U_500
54.83      38.60
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=          68
                ltix(ifah)=          68

After read, parm= V_500          ifh=          68
lead time index=          68 parm# (ip) =          13 ncix=
68
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  67:00              13      V_500
42.26      49.18
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15 ... parm=
Z_500

In get_var3_tlev_double, ifh=          68
                ltix(ifah)=          68

After read, parm= Z_500          ifh=          68
lead time index=          68 parm# (ip) =          15 ncix=
68
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval

```



```

67:00          15          Z_500
5392.          5928.
+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=          68
                    ltix(ifh)=          68

After read, parm= Z_200          ifh=          68
lead time index=          68 parm# (ip) =          16 ncix=
68
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
67:00                16        Z_200
0.1191E+05  0.1255E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:40:25

Of          17 readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =          38316.57          dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:    68:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:
imax=          409 jmax=          349
dx=          0.1722946          dy=          0.1621475

DX: midi= 204 dx= 0.1723
DY: midj= 174 dy= 0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:   -9.516   Min Lon:   92.852
Max Lat:   44.929   Max Lon:  163.148
TEST after getgridinfo in sub tracker, iggret=          0
in beginning of tracker, imax=          409 jmax=          349
TIMING: b4 getdata ... 14:40:25

NOTE: Program is now in subroutine getdata_netcdf.
+++ Time match in getdata_netcdf for usertime=          4080
netcdf file index= ncix=          69
+++ NetCDF read requested for parm #          1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh=          69
                    ltix(ifh)=          69

After read, parm= ABS_VORTICITY_850          ifh=          69
lead time index=          69 parm# (ip) =          1 ncix=
69
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval

```

```

68:00          1          ABS_VORTICITY_850          -
0.7516E-03  0.2143E-02
+++ NetCDF read requested for parm #          2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh=          69
                        ltix(ifh)=          69

After read, parm= ABS_VORTICITY_700          ifh=          69
lead time index=          69 parm# (ip) =          2 ncix=
69
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
68:00          2          ABS_VORTICITY_700          -
0.7982E-03  0.1781E-02
+++ NetCDF read requested for parm #          3 ... parm=
U_850

In get_var3_tlev_double, ifh=          69
                        ltix(ifh)=          69

After read, parm= U_850          ifh=          69
lead time index=          69 parm# (ip) =          3 ncix=
69
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
68:00          3          U_850          -
54.81          0.1000E+21
+++ NetCDF read requested for parm #          4 ... parm=
V_850

In get_var3_tlev_double, ifh=          69
                        ltix(ifh)=          69

After read, parm= V_850          ifh=          69
lead time index=          69 parm# (ip) =          4 ncix=
69
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
68:00          4          V_850          -
47.70          0.1000E+21
+++ NetCDF read requested for parm #          5 ... parm=
U_700

In get_var3_tlev_double, ifh=          69
                        ltix(ifh)=          69

After read, parm= U_700          ifh=          69
lead time index=          69 parm# (ip) =          5 ncix=
69
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
68:00          5          U_700          -
56.18          0.1000E+21
+++ NetCDF read requested for parm #          6 ... parm=
V_700

In get_var3_tlev_double, ifh=          69
                        ltix(ifh)=          69

```

```

After read, parm= V_700                      ifh= 69
lead time index= 69 parm# (ip) = 6 ncix=
69
igvret= 0
parmread lead time parm# parm_id minval maxval
68:00 6 V_700 -
43.52 0.1000E+21
+++ NetCDF read requested for parm # 7 ... parm=
Z_850

In get_var3_tlev_double, ifh= 69
ltix(ifh)= 69

After read, parm= Z_850                      ifh= 69
lead time index= 69 parm# (ip) = 7 ncix=
69
igvret= 0
parmread lead time parm# parm_id minval maxval
68:00 7 Z_850
1026. 0.1000E+21
+++ NetCDF read requested for parm # 8 ... parm=
Z_700

In get_var3_tlev_double, ifh= 69
ltix(ifh)= 69

After read, parm= Z_700                      ifh= 69
lead time index= 69 parm# (ip) = 8 ncix=
69
igvret= 0
parmread lead time parm# parm_id minval maxval
68:00 8 Z_700
2684. 0.1000E+21
+++ NetCDF read requested for parm # 9 ... parm=
slp

In get_var3_tlev_double, ifh= 69
ltix(ifh)= 69

After read, parm= slp                      ifh= 69
lead time index= 69 parm# (ip) = 9 ncix=
69
igvret= 0
parmread lead time parm# parm_id minval maxval
68:00 9 slp
0.9568E+05 0.1030E+06
+++ NetCDF read requested for parm # 10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh= 69
ltix(ifh)= 69

After read, parm= u_10m_gr                  ifh= 69
lead time index= 69 parm# (ip) = 10 ncix=
69
igvret= 0
parmread lead time parm# parm_id minval maxval
68:00 10 u_10m_gr -
33.14 29.39
+++ NetCDF read requested for parm # 11 ... parm=

```

```

v_10m_gr

In get_var3_tlev_double, ifh=          69
                        ltix(ifh)=    69

After read, parm= v_10m_gr                ifh=          69
lead time index=          69  parm# (ip) =          11  ncix=
69
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
68:00          11          v_10m_gr
33.31          34.47
+++ NetCDF read requested for parm #          12  ... parm=
U_500

In get_var3_tlev_double, ifh=          69
                        ltix(ifh)=    69

After read, parm= U_500                    ifh=          69
lead time index=          69  parm# (ip) =          12  ncix=
69
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
68:00          12          U_500
54.12          42.37
+++ NetCDF read requested for parm #          13  ... parm=
V_500

In get_var3_tlev_double, ifh=          69
                        ltix(ifh)=    69

After read, parm= V_500                    ifh=          69
lead time index=          69  parm# (ip) =          13  ncix=
69
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
68:00          13          V_500
42.92          48.27
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15  ... parm=
Z_500

In get_var3_tlev_double, ifh=          69
                        ltix(ifh)=    69

After read, parm= Z_500                    ifh=          69
lead time index=          69  parm# (ip) =          15  ncix=
69
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
68:00          15          Z_500
5461.          5929.
+++ NetCDF read requested for parm #          16  ... parm=
Z_200

In get_var3_tlev_double, ifh=          69
                        ltix(ifh)=    69

After read, parm= Z_200                    ifh=          69

```

```

lead time index=          69  parm# (ip) =          16  ncix=
69
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
68:00          16          Z_200
0.1191E+05  0.1255E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:40:26

Of          17  readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =      38316.57      dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:   69:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:
imax=          409  jmax=          349
dx=      0.1722946      dy=      0.1621475

DX:  midi=  204 dx=   0.1723
DY:  midj=  174 dy=   0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:   -9.516  Min Lon:   92.852
Max Lat:   44.929  Max Lon:  163.148
TEST after getgridinfo in sub tracker, iggret=          0
in beginning of tracker, imax=          409  jmax=          349
TIMING: b4 getdata ... 14:40:26

NOTE: Program is now in subroutine getdata_netcdf.
+++ Time match in getdata_netcdf for usertime=          4140
netcdf file index= ncix=          70
+++ NetCDF read requested for parm #          1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh=          70
ltix(ifh)=          70

After read, parm= ABS_VORTICITY_850          ifh=          70
lead time index=          70  parm# (ip) =          1  ncix=
70
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
69:00          1          ABS_VORTICITY_850          -
0.7015E-03  0.1680E-02
+++ NetCDF read requested for parm #          2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh=          70
ltix(ifh)=          70

After read, parm= ABS_VORTICITY_700          ifh=          70

```

```

    lead time index=          70  parm# (ip) =          2  ncix=
70
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    69:00          2          ABS_VORTICITY_700      -
0.8311E-03  0.1513E-02
+++ NetCDF read requested for parm #          3  ... parm=
U_850

In get_var3_tlev_double, ifh=          70
                        ltix(ifh)=          70

After read, parm= U_850          ifh=          70
    lead time index=          70  parm# (ip) =          3  ncix=
70
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    69:00          3          U_850          -
54.09          0.1000E+21
+++ NetCDF read requested for parm #          4  ... parm=
V_850

In get_var3_tlev_double, ifh=          70
                        ltix(ifh)=          70

After read, parm= V_850          ifh=          70
    lead time index=          70  parm# (ip) =          4  ncix=
70
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    69:00          4          V_850          -
49.31          0.1000E+21
+++ NetCDF read requested for parm #          5  ... parm=
U_700

In get_var3_tlev_double, ifh=          70
                        ltix(ifh)=          70

After read, parm= U_700          ifh=          70
    lead time index=          70  parm# (ip) =          5  ncix=
70
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    69:00          5          U_700          -
53.70          0.1000E+21
+++ NetCDF read requested for parm #          6  ... parm=
V_700

In get_var3_tlev_double, ifh=          70
                        ltix(ifh)=          70

After read, parm= V_700          ifh=          70
    lead time index=          70  parm# (ip) =          6  ncix=
70
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    69:00          6          V_700          -
41.12          0.1000E+21
+++ NetCDF read requested for parm #          7  ... parm=
Z_850

```

```

In get_var3_tlev_double, ifh=          70
                        ltix(ifh)=      70

After read, parm= Z_850                ifh=          70
lead time index=          70 parm# (ip) =          7 ncix=
70
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
69:00                7          Z_850
1060.          0.1000E+21
+++ NetCDF read requested for parm #          8 ... parm=
Z_700

In get_var3_tlev_double, ifh=          70
                        ltix(ifh)=      70

After read, parm= Z_700                ifh=          70
lead time index=          70 parm# (ip) =          8 ncix=
70
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
69:00                8          Z_700
2718.          0.1000E+21
+++ NetCDF read requested for parm #          9 ... parm=
slp

In get_var3_tlev_double, ifh=          70
                        ltix(ifh)=      70

After read, parm= slp                  ifh=          70
lead time index=          70 parm# (ip) =          9 ncix=
70
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
69:00                9          slp
0.9601E+05  0.1030E+06
+++ NetCDF read requested for parm #         10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          70
                        ltix(ifh)=      70

After read, parm= u_10m_gr             ifh=          70
lead time index=          70 parm# (ip) =         10 ncix=
70
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
69:00                10         u_10m_gr
33.30          26.05
+++ NetCDF read requested for parm #         11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          70
                        ltix(ifh)=      70

After read, parm= v_10m_gr            ifh=          70
lead time index=          70 parm# (ip) =         11 ncix=
70
igvret=          0

```

```

parmread lead time      parm#      parm_id      minval      maxval
69:00                  11         v_10m_gr
33.43      35.74
+++ NetCDF read requested for parm #      12 ... parm=
U_500

In get_var3_tlev_double, ifh=      70
                        ltix(ifh)=      70

After read, parm= U_500                        ifh=      70
lead time index=      70 parm# (ip) =      12 ncix=
70
igvret=      0
parmread lead time      parm#      parm_id      minval      maxval
69:00                  12         U_500
54.99      41.66
+++ NetCDF read requested for parm #      13 ... parm=
V_500

In get_var3_tlev_double, ifh=      70
                        ltix(ifh)=      70

After read, parm= V_500                        ifh=      70
lead time index=      70 parm# (ip) =      13 ncix=
70
igvret=      0
parmread lead time      parm#      parm_id      minval      maxval
69:00                  13         V_500
41.15      43.66
!!! NetCDF read NOT requested for parm #      14
+++ NetCDF read requested for parm #      15 ... parm=
Z_500

In get_var3_tlev_double, ifh=      70
                        ltix(ifh)=      70

After read, parm= Z_500                        ifh=      70
lead time index=      70 parm# (ip) =      15 ncix=
70
igvret=      0
parmread lead time      parm#      parm_id      minval      maxval
69:00                  15         Z_500
5495.      5933.
+++ NetCDF read requested for parm #      16 ... parm=
Z_200

In get_var3_tlev_double, ifh=      70
                        ltix(ifh)=      70

After read, parm= Z_200                        ifh=      70
lead time index=      70 parm# (ip) =      16 ncix=
70
igvret=      0
parmread lead time      parm#      parm_id      minval      maxval
69:00                  16         Z_200
0.1191E+05  0.1254E+05
!!! NetCDF read NOT requested for parm #      17
TIMING: after getdata ... 14:40:26

Of      17 readable parms, you read in      15

```


parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter = 38316.57 dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

* New forecast hour: 70:00

in getgridinfo_netcdf, ncfile_id= 65536

In getgridinfo, grid dimensions follow:
imax= 409 jmax= 349
dx= 0.1722946 dy= 0.1621475

DX: midi= 204 dx= 0.1723
DY: midj= 174 dy= 0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat: -9.516 Min Lon: 92.852
Max Lat: 44.929 Max Lon: 163.148
TEST after getgridinfo in sub tracker, iggret= 0
in beginning of tracker, imax= 409 jmax= 349
TIMING: b4 getdata ... 14:40:26

NOTE: Program is now in subroutine getdata_netcdf.
+++ Time match in getdata_netcdf for usertime= 4200
netcdf file index= ncix= 71
+++ NetCDF read requested for parm # 1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh= 71
ltix(ifh)= 71

After read, parm= ABS_VORTICITY_850 ifh= 71
lead time index= 71 parm# (ip) = 1 ncix=
71
igvret= 0
parmread lead time parm# parm_id minval maxval
70:00 1 ABS_VORTICITY_850 -
0.7636E-03 0.1503E-02
+++ NetCDF read requested for parm # 2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh= 71
ltix(ifh)= 71

After read, parm= ABS_VORTICITY_700 ifh= 71
lead time index= 71 parm# (ip) = 2 ncix=
71
igvret= 0
parmread lead time parm# parm_id minval maxval
70:00 2 ABS_VORTICITY_700 -
0.8367E-03 0.1250E-02
+++ NetCDF read requested for parm # 3 ... parm=
U_850

In get_var3_tlev_double, ifh= 71

```

                ltix(ifh)=                71

After read, parm= U_850                ifh=                71
lead time index=                71  parm# (ip) =                3  ncix=
71
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  70:00                3        U_850
55.40    0.1000E+21
+++ NetCDF read requested for parm #    4 ... parm=
V_850

In get_var3_tlev_double, ifh=                71
                ltix(ifh)=                71

After read, parm= V_850                ifh=                71
lead time index=                71  parm# (ip) =                4  ncix=
71
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  70:00                4        V_850
49.05    0.1000E+21
+++ NetCDF read requested for parm #    5 ... parm=
U_700

In get_var3_tlev_double, ifh=                71
                ltix(ifh)=                71

After read, parm= U_700                ifh=                71
lead time index=                71  parm# (ip) =                5  ncix=
71
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  70:00                5        U_700
54.50    0.1000E+21
+++ NetCDF read requested for parm #    6 ... parm=
V_700

In get_var3_tlev_double, ifh=                71
                ltix(ifh)=                71

After read, parm= V_700                ifh=                71
lead time index=                71  parm# (ip) =                6  ncix=
71
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  70:00                6        V_700
42.96    0.1000E+21
+++ NetCDF read requested for parm #    7 ... parm=
Z_850

In get_var3_tlev_double, ifh=                71
                ltix(ifh)=                71

After read, parm= Z_850                ifh=                71
lead time index=                71  parm# (ip) =                7  ncix=
71
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval

```

```

70:00          7          Z_850
1089.    0.1000E+21
+++ NetCDF read requested for parm #      8 ... parm=
Z_700

In get_var3_tlev_double, ifh=          71
                        ltix(ifh)=      71

After read, parm= Z_700          ifh=          71
lead time index=          71 parm# (ip) =          8 ncix=
71
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
70:00          8          Z_700
2754.    0.1000E+21
+++ NetCDF read requested for parm #      9 ... parm=
slp

In get_var3_tlev_double, ifh=          71
                        ltix(ifh)=      71

After read, parm= slp          ifh=          71
lead time index=          71 parm# (ip) =          9 ncix=
71
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
70:00          9          slp
0.9630E+05  0.1030E+06
+++ NetCDF read requested for parm #     10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          71
                        ltix(ifh)=      71

After read, parm= u_10m_gr          ifh=          71
lead time index=          71 parm# (ip) =         10 ncix=
71
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
70:00          10          u_10m_gr          -
32.49    27.10
+++ NetCDF read requested for parm #     11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          71
                        ltix(ifh)=      71

After read, parm= v_10m_gr          ifh=          71
lead time index=          71 parm# (ip) =         11 ncix=
71
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
70:00          11          v_10m_gr          -
32.11    32.05
+++ NetCDF read requested for parm #     12 ... parm=
U_500

In get_var3_tlev_double, ifh=          71
                        ltix(ifh)=      71

```

```

After read, parm= U_500                ifh= 71
lead time index= 71 parm# (ip) = 12 ncix=
71
  igvret= 0
parmread lead time  parm#  parm_id  minval  maxval
  70:00             12      U_500
54.24      37.14
+++ NetCDF read requested for parm # 13 ... parm=
V_500

In get_var3_tlev_double, ifh= 71
                        ltix(ifh)= 71

After read, parm= V_500                ifh= 71
lead time index= 71 parm# (ip) = 13 ncix=
71
  igvret= 0
parmread lead time  parm#  parm_id  minval  maxval
  70:00             13      V_500
42.14      45.30
!!! NetCDF read NOT requested for parm # 14
+++ NetCDF read requested for parm # 15 ... parm=
Z_500

In get_var3_tlev_double, ifh= 71
                        ltix(ifh)= 71

After read, parm= Z_500                ifh= 71
lead time index= 71 parm# (ip) = 15 ncix=
71
  igvret= 0
parmread lead time  parm#  parm_id  minval  maxval
  70:00             15      Z_500
5535.      5936.
+++ NetCDF read requested for parm # 16 ... parm=
Z_200

In get_var3_tlev_double, ifh= 71
                        ltix(ifh)= 71

After read, parm= Z_200                ifh= 71
lead time index= 71 parm# (ip) = 16 ncix=
71
  igvret= 0
parmread lead time  parm#  parm_id  minval  maxval
  70:00             16      Z_200
0.1191E+05  0.1254E+05
!!! NetCDF read NOT requested for parm # 17
TIMING: after getdata ... 14:40:27

Of 17 readable parms, you read in 15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter = 38316.57 dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

```

```

*   New forecast hour:   71:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:
imax=          409  jmax=          349
dx=      0.1722946  dy=      0.1621475

DX:  midi=   204 dx=   0.1723
DY:  midj=   174 dy=   0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:   -9.516  Min Lon:   92.852
Max Lat:   44.929  Max Lon:  163.148
TEST after getgridinfo in sub tracker, iggret=          0
in beginning of tracker, imax=          409  jmax=          349
TIMING: b4 getdata ... 14:40:27

NOTE: Program is now in subroutine  getdata_netcdf.
+++ Time match in getdata_netcdf for usertime=          4260
    netcdf file index= ncix=          72
+++ NetCDF read requested for parm #          1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh=          72
                        ltix(ifh)=          72

After read, parm= ABS_VORTICITY_850          ifh=          72
lead time index=          72  parm# (ip) =          1  ncix=
72
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
71:00                1          ABS_VORTICITY_850
0.8517E-03  0.1720E-02
+++ NetCDF read requested for parm #          2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh=          72
                        ltix(ifh)=          72

After read, parm= ABS_VORTICITY_700          ifh=          72
lead time index=          72  parm# (ip) =          2  ncix=
72
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
71:00                2          ABS_VORTICITY_700
0.7695E-03  0.1277E-02
+++ NetCDF read requested for parm #          3 ... parm=
U_850

In get_var3_tlev_double, ifh=          72
                        ltix(ifh)=          72

After read, parm= U_850          ifh=          72
lead time index=          72  parm# (ip) =          3  ncix=
72
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
71:00                3          U_850
53.99          0.1000E+21

```

```

+++ NetCDF read requested for parm #          4 ... parm=
V_850

In get_var3_tlev_double, ifh=                72
                        ltix(ifh)=          72

After read, parm= V_850                      ifh=                72
lead time index=          72 parm# (ip) =          4 ncix=
72
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
71:00                   4          V_850
55.11      0.1000E+21
+++ NetCDF read requested for parm #          5 ... parm=
U_700

In get_var3_tlev_double, ifh=                72
                        ltix(ifh)=          72

After read, parm= U_700                      ifh=                72
lead time index=          72 parm# (ip) =          5 ncix=
72
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
71:00                   5          U_700
51.85      0.1000E+21
+++ NetCDF read requested for parm #          6 ... parm=
V_700

In get_var3_tlev_double, ifh=                72
                        ltix(ifh)=          72

After read, parm= V_700                      ifh=                72
lead time index=          72 parm# (ip) =          6 ncix=
72
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
71:00                   6          V_700
47.72      0.1000E+21
+++ NetCDF read requested for parm #          7 ... parm=
Z_850

In get_var3_tlev_double, ifh=                72
                        ltix(ifh)=          72

After read, parm= Z_850                      ifh=                72
lead time index=          72 parm# (ip) =          7 ncix=
72
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
71:00                   7          Z_850
1107.      0.1000E+21
+++ NetCDF read requested for parm #          8 ... parm=
Z_700

In get_var3_tlev_double, ifh=                72
                        ltix(ifh)=          72

After read, parm= Z_700                      ifh=                72

```

```

    lead time index=          72  parm# (ip) =          8  ncix=
72
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    71:00                8          z_700
2777.          0.1000E+21
+++ NetCDF read requested for parm #          9  ... parm=
slp

In get_var3_tlev_double, ifh=          72
                        ltix(ifh)=          72

After read, parm= slp                                ifh=          72
    lead time index=          72  parm# (ip) =          9  ncix=
72
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    71:00                9          slp
0.9646E+05  0.1031E+06
+++ NetCDF read requested for parm #          10  ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          72
                        ltix(ifh)=          72

After read, parm= u_10m_gr                            ifh=          72
    lead time index=          72  parm# (ip) =          10  ncix=
72
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    71:00                10         u_10m_gr
33.21          29.89
+++ NetCDF read requested for parm #          11  ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          72
                        ltix(ifh)=          72

After read, parm= v_10m_gr                            ifh=          72
    lead time index=          72  parm# (ip) =          11  ncix=
72
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    71:00                11         v_10m_gr
30.54          29.82
+++ NetCDF read requested for parm #          12  ... parm=
U_500

In get_var3_tlev_double, ifh=          72
                        ltix(ifh)=          72

After read, parm= U_500                                ifh=          72
    lead time index=          72  parm# (ip) =          12  ncix=
72
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    71:00                12         U_500
54.43          39.62
+++ NetCDF read requested for parm #          13  ... parm=
V_500

```

```

In get_var3_tlev_double, ifh=          72
                        ltix(ifh)=      72

After read, parm= V_500                ifh=          72
lead time index=          72 parm# (ip) =          13 ncix=
72
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
71:00                13          V_500
43.29                46.98
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15 ... parm=
Z_500

In get_var3_tlev_double, ifh=          72
                        ltix(ifh)=      72

After read, parm= Z_500                ifh=          72
lead time index=          72 parm# (ip) =          15 ncix=
72
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
71:00                15          Z_500
5547.                5939.
+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=          72
                        ltix(ifh)=      72

After read, parm= Z_200                ifh=          72
lead time index=          72 parm# (ip) =          16 ncix=
72
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
71:00                16          Z_200
0.1191E+05  0.1254E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:40:28

Of          17 readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =          38316.57          dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:   72:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:
imax=          409  jmax=          349
dx=          0.1722946  dy=          0.1621475

DX:  midi=  204 dx=  0.1723

```


DY: midj= 174 dy= 0.1621

Data Grid Lat/Lon boundaries follow:

Min Lat: -9.516 Min Lon: 92.852

Max Lat: 44.929 Max Lon: 163.148

TEST after getgridinfo in sub tracker, iggret= 0

in beginning of tracker, imax= 409 jmax= 349

TIMING: b4 getdata ... 14:40:28

NOTE: Program is now in subroutine getdata_netcdf.

+++ Time match in getdata_netcdf for usertime= 4320

netcdf file index= ncix= 73

+++ NetCDF read requested for parm # 1 ... parm=

ABS_VORTICITY_850

In get_var3_tlev_double, ifh= 73

ltix(ifh)= 73

After read, parm= ABS_VORTICITY_850 ifh= 73

lead time index= 73 parm# (ip) = 1 ncix=

73

igvret= 0

parmread lead time parm# parm_id minval maxval

72:00 1 ABS_VORTICITY_850 -

0.7691E-03 0.1769E-02

+++ NetCDF read requested for parm # 2 ... parm=

ABS_VORTICITY_700

In get_var3_tlev_double, ifh= 73

ltix(ifh)= 73

After read, parm= ABS_VORTICITY_700 ifh= 73

lead time index= 73 parm# (ip) = 2 ncix=

73

igvret= 0

parmread lead time parm# parm_id minval maxval

72:00 2 ABS_VORTICITY_700 -

0.6496E-03 0.1423E-02

+++ NetCDF read requested for parm # 3 ... parm=

U_850

In get_var3_tlev_double, ifh= 73

ltix(ifh)= 73

After read, parm= U_850 ifh= 73

lead time index= 73 parm# (ip) = 3 ncix=

73

igvret= 0

parmread lead time parm# parm_id minval maxval

72:00 3 U_850 -

53.05 0.1000E+21

+++ NetCDF read requested for parm # 4 ... parm=

V_850

In get_var3_tlev_double, ifh= 73

ltix(ifh)= 73

After read, parm= V_850 ifh= 73

lead time index= 73 parm# (ip) = 4 ncix=

73

```

    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      72:00              4        V_850
49.77      0.1000E+21
+++ NetCDF read requested for parm #    5 ... parm=
U_700

    In get_var3_tlev_double, ifh=          73
                          ltix(ifh)=      73

    After read, parm= U_700                      ifh=          73
    lead time index=          73 parm# (ip) =          5 ncix=
73

    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      72:00              5        U_700
51.19      0.1000E+21
+++ NetCDF read requested for parm #    6 ... parm=
V_700

    In get_var3_tlev_double, ifh=          73
                          ltix(ifh)=      73

    After read, parm= V_700                      ifh=          73
    lead time index=          73 parm# (ip) =          6 ncix=
73

    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      72:00              6        V_700
47.29      0.1000E+21
+++ NetCDF read requested for parm #    7 ... parm=
Z_850

    In get_var3_tlev_double, ifh=          73
                          ltix(ifh)=      73

    After read, parm= Z_850                      ifh=          73
    lead time index=          73 parm# (ip) =          7 ncix=
73

    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      72:00              7        Z_850
1126.      0.1000E+21
+++ NetCDF read requested for parm #    8 ... parm=
Z_700

    In get_var3_tlev_double, ifh=          73
                          ltix(ifh)=      73

    After read, parm= Z_700                      ifh=          73
    lead time index=          73 parm# (ip) =          8 ncix=
73

    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      72:00              8        Z_700
2786.      0.1000E+21
+++ NetCDF read requested for parm #    9 ... parm=
slp

    In get_var3_tlev_double, ifh=          73

```

```

                ltix(ifh)=                73

After read, parm= slp                                ifh=                73
  lead time index=                73  parm# (ip) =                9  ncix=
73
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  72:00                9        slp
0.9667E+05  0.1031E+06
+++ NetCDF read requested for parm #                10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=                73
                ltix(ifh)=                73

After read, parm= u_10m_gr                                ifh=                73
  lead time index=                73  parm# (ip) =                10  ncix=
73
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  72:00                10        u_10m_gr
31.75        30.82
+++ NetCDF read requested for parm #                11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=                73
                ltix(ifh)=                73

After read, parm= v_10m_gr                                ifh=                73
  lead time index=                73  parm# (ip) =                11  ncix=
73
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  72:00                11        v_10m_gr
29.65        28.26
+++ NetCDF read requested for parm #                12 ... parm=
U_500

In get_var3_tlev_double, ifh=                73
                ltix(ifh)=                73

After read, parm= U_500                                ifh=                73
  lead time index=                73  parm# (ip) =                12  ncix=
73
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  72:00                12        U_500
52.99        36.93
+++ NetCDF read requested for parm #                13 ... parm=
V_500

In get_var3_tlev_double, ifh=                73
                ltix(ifh)=                73

After read, parm= V_500                                ifh=                73
  lead time index=                73  parm# (ip) =                13  ncix=
73
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval

```

```

72:00          13          V_500          -
37.47          46.60
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15 ... parm=
Z_500

In get_var3_tlev_double, ifh=          73
                        ltix(ifh)=          73

After read, parm= Z_500          ifh=          73
lead time index=          73 parm# (ip) =          15 ncix=
73
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
72:00          15          Z_500
5567.          5943.
+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=          73
                        ltix(ifh)=          73

After read, parm= Z_200          ifh=          73
lead time index=          73 parm# (ip) =          16 ncix=
73
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
72:00          16          Z_200
0.1191E+05  0.1255E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:40:29

Of          17 readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =          38316.57          dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:   73:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:
imax=          409  jmax=          349
dx=          0.1722946  dy=          0.1621475

DX:  midi=  204 dx=  0.1723
DY:  midj=  174 dy=  0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:  -9.516  Min Lon:  92.852
Max Lat:  44.929  Max Lon:  163.148
TEST after getgridinfo in sub tracker, iggret=          0
in beginning of tracker, imax=          409  jmax=          349
TIMING: b4 getdata ... 14:40:29

```

```

NOTE: Program is now in subroutine  getdata_netcdf.
+++ Time match in getdata_netcdf for usertime=          4380
   netcdf file index= ncix=          74
+++ NetCDF read requested for parm #          1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh=          74
                        ltix(ifh)=      74

After read, parm= ABS_VORTICITY_850          ifh=          74
lead time index=          74 parm# (ip) =          1 ncix=
74
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
73:00                1        ABS_VORTICITY_850
0.6921E-03  0.1934E-02
+++ NetCDF read requested for parm #          2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh=          74
                        ltix(ifh)=      74

After read, parm= ABS_VORTICITY_700          ifh=          74
lead time index=          74 parm# (ip) =          2 ncix=
74
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
73:00                2        ABS_VORTICITY_700
0.5958E-03  0.1512E-02
+++ NetCDF read requested for parm #          3 ... parm=
U_850

In get_var3_tlev_double, ifh=          74
                        ltix(ifh)=      74

After read, parm= U_850          ifh=          74
lead time index=          74 parm# (ip) =          3 ncix=
74
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
73:00                3        U_850
53.51        0.1000E+21
+++ NetCDF read requested for parm #          4 ... parm=
V_850

In get_var3_tlev_double, ifh=          74
                        ltix(ifh)=      74

After read, parm= V_850          ifh=          74
lead time index=          74 parm# (ip) =          4 ncix=
74
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
73:00                4        V_850
50.96        0.1000E+21
+++ NetCDF read requested for parm #          5 ... parm=
U_700

In get_var3_tlev_double, ifh=          74
                        ltix(ifh)=      74

```

```

After read, parm= U_700                ifh=          74
  lead time index=          74  parm# (ip) =          5  ncix=
74
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  73:00              5        U_700
51.86      0.1000E+21
+++ NetCDF read requested for parm #          6  ... parm=
V_700

In get_var3_tlev_double, ifh=          74
                        ltix(ifh)=          74

After read, parm= V_700                ifh=          74
  lead time index=          74  parm# (ip) =          6  ncix=
74
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  73:00              6        V_700
46.74      0.1000E+21
+++ NetCDF read requested for parm #          7  ... parm=
Z_850

In get_var3_tlev_double, ifh=          74
                        ltix(ifh)=          74

After read, parm= Z_850                ifh=          74
  lead time index=          74  parm# (ip) =          7  ncix=
74
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  73:00              7        Z_850
1139.      0.1000E+21
+++ NetCDF read requested for parm #          8  ... parm=
Z_700

In get_var3_tlev_double, ifh=          74
                        ltix(ifh)=          74

After read, parm= Z_700                ifh=          74
  lead time index=          74  parm# (ip) =          8  ncix=
74
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  73:00              8        Z_700
2797.      0.1000E+21
+++ NetCDF read requested for parm #          9  ... parm=
slp

In get_var3_tlev_double, ifh=          74
                        ltix(ifh)=          74

After read, parm= slp                  ifh=          74
  lead time index=          74  parm# (ip) =          9  ncix=
74
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  73:00              9        slp
0.9683E+05  0.1031E+06

```

```

+++ NetCDF read requested for parm #          10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=                74
                        ltix(ifh)=          74

After read, parm= u_10m_gr                    ifh=                74
lead time index=          74 parm# (ip) =          10 ncix=
74
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
73:00                  10          u_10m_gr
31.62          30.78
+++ NetCDF read requested for parm #          11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=                74
                        ltix(ifh)=          74

After read, parm= v_10m_gr                    ifh=                74
lead time index=          74 parm# (ip) =          11 ncix=
74
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
73:00                  11          v_10m_gr
30.83          29.50
+++ NetCDF read requested for parm #          12 ... parm=
U_500

In get_var3_tlev_double, ifh=                74
                        ltix(ifh)=          74

After read, parm= U_500                      ifh=                74
lead time index=          74 parm# (ip) =          12 ncix=
74
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
73:00                  12          U_500
50.21          37.61
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=                74
                        ltix(ifh)=          74

After read, parm= V_500                      ifh=                74
lead time index=          74 parm# (ip) =          13 ncix=
74
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
73:00                  13          V_500
42.54          46.39
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15 ... parm=
Z_500

In get_var3_tlev_double, ifh=                74
                        ltix(ifh)=          74

After read, parm= Z_500                      ifh=                74

```

```

    lead time index=          74  parm# (ip) =          15  ncix=
74
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    73:00          15          Z_500
5578.          5944.
+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=          74
                        ltix(ifh)=          74

After read, parm= Z_200          ifh=          74
    lead time index=          74  parm# (ip) =          16  ncix=
74
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    73:00          16          Z_200
0.1191E+05  0.1255E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:40:30

Of          17 readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =          38316.57          dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:   74:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:
imax=          409  jmax=          349
dx=          0.1722946  dy=          0.1621475

DX:  midi=  204  dx=  0.1723
DY:  midj=  174  dy=  0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:  -9.516  Min Lon:  92.852
Max Lat:  44.929  Max Lon:  163.148
TEST after getgridinfo in sub tracker, iggret=          0
in beginning of tracker, imax=          409  jmax=          349
TIMING: b4 getdata ... 14:40:30

NOTE: Program is now in subroutine getdata_netcdf.
+++ Time match in getdata_netcdf for usertime=          4440
    netcdf file index= ncix=          75
+++ NetCDF read requested for parm #          1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh=          75
                        ltix(ifh)=          75

After read, parm= ABS_VORTICITY_850          ifh=          75

```



```

    lead time index=          75  parm# (ip) =          1  ncix=
75
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    74:00              1          ABS_VORTICITY_850      -
0.8962E-03  0.1733E-02
+++ NetCDF read requested for parm #          2  ... parm=
ABS_VORTICITY_700

    In get_var3_tlev_double, ifh=          75
                             ltix(ifh)=          75

    After read, parm= ABS_VORTICITY_700          ifh=          75
    lead time index=          75  parm# (ip) =          2  ncix=
75
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    74:00              2          ABS_VORTICITY_700      -
0.8056E-03  0.1628E-02
+++ NetCDF read requested for parm #          3  ... parm=
U_850

    In get_var3_tlev_double, ifh=          75
                             ltix(ifh)=          75

    After read, parm= U_850          ifh=          75
    lead time index=          75  parm# (ip) =          3  ncix=
75
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    74:00              3          U_850          -
54.43      0.1000E+21
+++ NetCDF read requested for parm #          4  ... parm=
V_850

    In get_var3_tlev_double, ifh=          75
                             ltix(ifh)=          75

    After read, parm= V_850          ifh=          75
    lead time index=          75  parm# (ip) =          4  ncix=
75
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    74:00              4          V_850          -
55.79      0.1000E+21
+++ NetCDF read requested for parm #          5  ... parm=
U_700

    In get_var3_tlev_double, ifh=          75
                             ltix(ifh)=          75

    After read, parm= U_700          ifh=          75
    lead time index=          75  parm# (ip) =          5  ncix=
75
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    74:00              5          U_700          -
58.10      0.1000E+21
+++ NetCDF read requested for parm #          6  ... parm=
V_700

```

```

In get_var3_tlev_double, ifh=          75
                        ltix(ifh)=      75

After read, parm= V_700                ifh=          75
lead time index=          75 parm# (ip) =          6 ncix=
75
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  74:00                6          V_700
53.15      0.1000E+21
+++ NetCDF read requested for parm #          7 ... parm=
Z_850

In get_var3_tlev_double, ifh=          75
                        ltix(ifh)=      75

After read, parm= Z_850                ifh=          75
lead time index=          75 parm# (ip) =          7 ncix=
75
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  74:00                7          Z_850
1119.      0.1000E+21
+++ NetCDF read requested for parm #          8 ... parm=
Z_700

In get_var3_tlev_double, ifh=          75
                        ltix(ifh)=      75

After read, parm= Z_700                ifh=          75
lead time index=          75 parm# (ip) =          8 ncix=
75
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  74:00                8          Z_700
2775.      0.1000E+21
+++ NetCDF read requested for parm #          9 ... parm=
slp

In get_var3_tlev_double, ifh=          75
                        ltix(ifh)=      75

After read, parm= slp                  ifh=          75
lead time index=          75 parm# (ip) =          9 ncix=
75
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  74:00                9          slp
0.9664E+05  0.1031E+06
+++ NetCDF read requested for parm #         10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          75
                        ltix(ifh)=      75

After read, parm= u_10m_gr            ifh=          75
lead time index=          75 parm# (ip) =         10 ncix=
75
  igvret=          0

```

```

parmread lead time      parm#      parm_id      minval      maxval
  74:00                10         u_10m_gr
32.28      32.13
+++ NetCDF read requested for parm #      11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=      75
                        ltix(ifh)=  75

After read, parm= v_10m_gr      ifh=      75
lead time index=      75 parm# (ip) =      11 ncix=
75
igvret=      0
parmread lead time      parm#      parm_id      minval      maxval
  74:00                11         v_10m_gr
31.12      37.48
+++ NetCDF read requested for parm #      12 ... parm=
U_500

In get_var3_tlev_double, ifh=      75
                        ltix(ifh)=  75

After read, parm= U_500      ifh=      75
lead time index=      75 parm# (ip) =      12 ncix=
75
igvret=      0
parmread lead time      parm#      parm_id      minval      maxval
  74:00                12         U_500
50.86      32.40
+++ NetCDF read requested for parm #      13 ... parm=
V_500

In get_var3_tlev_double, ifh=      75
                        ltix(ifh)=  75

After read, parm= V_500      ifh=      75
lead time index=      75 parm# (ip) =      13 ncix=
75
igvret=      0
parmread lead time      parm#      parm_id      minval      maxval
  74:00                13         V_500
40.44      47.88
!!! NetCDF read NOT requested for parm #      14
+++ NetCDF read requested for parm #      15 ... parm=
Z_500

In get_var3_tlev_double, ifh=      75
                        ltix(ifh)=  75

After read, parm= Z_500      ifh=      75
lead time index=      75 parm# (ip) =      15 ncix=
75
igvret=      0
parmread lead time      parm#      parm_id      minval      maxval
  74:00                15         Z_500
5573.      5945.
+++ NetCDF read requested for parm #      16 ... parm=
Z_200

In get_var3_tlev_double, ifh=      75

```

```

                ltix(ifh)=                75

After read, parm= Z_200                    ifh=                75
  lead time index=                75  parm# (ip) =                16  ncix=
75
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  74:00                16        Z_200
0.1191E+05  0.1256E+05
!!! NetCDF read NOT requested for parm #                17
TIMING: after getdata ... 14:40:31

Of                17  readable parms, you read in                15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =    38316.57    dlat_inter =
  36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:    75:00
*-----*
in getgridinfo_netcdf, ncfile_id=                65536

In getgridinfo, grid dimensions follow:
imax=                409  jmax=                349
dx=    0.1722946    dy=    0.1621475

DX:  midi=    204  dx=    0.1723
DY:  midj=    174  dy=    0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:   -9.516  Min Lon:   92.852
Max Lat:   44.929  Max Lon:  163.148
TEST after getgridinfo in sub tracker, iggret=                0
in beginning of tracker, imax=                409  jmax=                349
TIMING: b4 getdata ... 14:40:31

NOTE: Program is now in subroutine  getdata_netcdf.
+++ Time match in getdata_netcdf for usertime=                4500
    netcdf file index= ncix=                76
+++ NetCDF read requested for parm #                1  ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh=                76
                ltix(ifh)=                76

After read, parm= ABS_VORTICITY_850        ifh=                76
  lead time index=                76  parm# (ip) =                1  ncix=
76
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  75:00                1        ABS_VORTICITY_850    -
0.1028E-02  0.1890E-02
+++ NetCDF read requested for parm #                2  ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh=                76

```

```

                ltix(ifh)=                76

After read, parm= ABS_VORTICITY_700          ifh=                76
  lead time index=                76  parm# (ip) =                2  ncix=
76
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  75:00                2          ABS_VORTICITY_700
0.6595E-03  0.1352E-02
+++ NetCDF read requested for parm #                3  ... parm=
U_850

In get_var3_tlev_double, ifh=                76
                ltix(ifh)=                76

After read, parm= U_850                      ifh=                76
  lead time index=                76  parm# (ip) =                3  ncix=
76
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  75:00                3          U_850
54.55        0.1000E+21
+++ NetCDF read requested for parm #                4  ... parm=
V_850

In get_var3_tlev_double, ifh=                76
                ltix(ifh)=                76

After read, parm= V_850                      ifh=                76
  lead time index=                76  parm# (ip) =                4  ncix=
76
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  75:00                4          V_850
57.21        0.1000E+21
+++ NetCDF read requested for parm #                5  ... parm=
U_700

In get_var3_tlev_double, ifh=                76
                ltix(ifh)=                76

After read, parm= U_700                      ifh=                76
  lead time index=                76  parm# (ip) =                5  ncix=
76
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  75:00                5          U_700
55.13        0.1000E+21
+++ NetCDF read requested for parm #                6  ... parm=
V_700

In get_var3_tlev_double, ifh=                76
                ltix(ifh)=                76

After read, parm= V_700                      ifh=                76
  lead time index=                76  parm# (ip) =                6  ncix=
76
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval

```

```

75:00          6          v_700          -
50.43      0.1000E+21
+++ NetCDF read requested for parm #          7 ... parm=
Z_850

In get_var3_tlev_double, ifh=          76
                        ltix(ifh)=          76

After read, parm= Z_850          ifh=          76
lead time index=          76 parm# (ip) =          7 ncix=
76
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
75:00          7          Z_850
1117.      0.1000E+21
+++ NetCDF read requested for parm #          8 ... parm=
Z_700

In get_var3_tlev_double, ifh=          76
                        ltix(ifh)=          76

After read, parm= Z_700          ifh=          76
lead time index=          76 parm# (ip) =          8 ncix=
76
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
75:00          8          Z_700
2783.      0.1000E+21
+++ NetCDF read requested for parm #          9 ... parm=
slp

In get_var3_tlev_double, ifh=          76
                        ltix(ifh)=          76

After read, parm= slp          ifh=          76
lead time index=          76 parm# (ip) =          9 ncix=
76
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
75:00          9          slp
0.9659E+05  0.1030E+06
+++ NetCDF read requested for parm #          10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          76
                        ltix(ifh)=          76

After read, parm= u_10m_gr          ifh=          76
lead time index=          76 parm# (ip) =          10 ncix=
76
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
75:00          10          u_10m_gr          -
30.95      34.88
+++ NetCDF read requested for parm #          11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          76
                        ltix(ifh)=          76

```

```

After read, parm= v_10m_gr          ifh=          76
lead time index=          76 parm# (ip) =          11 ncix=
76
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
75:00          11          v_10m_gr          -
29.60          35.64
+++ NetCDF read requested for parm #          12 ... parm=
U_500

In get_var3_tlev_double, ifh=          76
ltix(ifh)=          76

After read, parm= U_500          ifh=          76
lead time index=          76 parm# (ip) =          12 ncix=
76
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
75:00          12          U_500          -
50.76          33.06
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=          76
ltix(ifh)=          76

After read, parm= V_500          ifh=          76
lead time index=          76 parm# (ip) =          13 ncix=
76
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
75:00          13          V_500          -
41.44          46.13
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15 ... parm=
Z_500

In get_var3_tlev_double, ifh=          76
ltix(ifh)=          76

After read, parm= Z_500          ifh=          76
lead time index=          76 parm# (ip) =          15 ncix=
76
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
75:00          15          Z_500          -
5574.          5943.
+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=          76
ltix(ifh)=          76

After read, parm= Z_200          ifh=          76
lead time index=          76 parm# (ip) =          16 ncix=
76
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
75:00          16          Z_200          -
0.1191E+05  0.1255E+05

```

!!! NetCDF read NOT requested for parm # 17
TIMING: after getdata ... 14:40:32

Of 17 readable parms, you read in 15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter = 38316.57 dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

* New forecast hour: 76:00

in getgridinfo_netcdf, ncfile_id= 65536

In getgridinfo, grid dimensions follow:
imax= 409 jmax= 349
dx= 0.1722946 dy= 0.1621475

DX: midi= 204 dx= 0.1723
DY: midj= 174 dy= 0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat: -9.516 Min Lon: 92.852
Max Lat: 44.929 Max Lon: 163.148
TEST after getgridinfo in sub tracker, iggret= 0
in beginning of tracker, imax= 409 jmax= 349
TIMING: b4 getdata ... 14:40:32

NOTE: Program is now in subroutine getdata_netcdf.
+++ Time match in getdata_netcdf for usertime= 4560
netcdf file index= ncix= 77
+++ NetCDF read requested for parm # 1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh= 77
ltix(ifh)= 77

After read, parm= ABS_VORTICITY_850 ifh= 77
lead time index= 77 parm# (ip) = 1 ncix=
77
igvret= 0
parmread lead time parm# parm_id minval maxval
76:00 1 ABS_VORTICITY_850 -
0.1005E-02 0.1856E-02

+++ NetCDF read requested for parm # 2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh= 77
ltix(ifh)= 77

After read, parm= ABS_VORTICITY_700 ifh= 77
lead time index= 77 parm# (ip) = 2 ncix=
77
igvret= 0
parmread lead time parm# parm_id minval maxval
76:00 2 ABS_VORTICITY_700 -
0.1034E-02 0.1326E-02


```

+++ NetCDF read requested for parm #          3 ... parm=
U_850

In get_var3_tlev_double, ifh=                77
                        ltix(ifh)=          77

After read, parm= U_850                      ifh=                77
lead time index=          77 parm# (ip) =          3 ncix=
77
  igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
  76:00                 3          U_850
54.77      0.1000E+21
+++ NetCDF read requested for parm #          4 ... parm=
V_850

In get_var3_tlev_double, ifh=                77
                        ltix(ifh)=          77

After read, parm= V_850                      ifh=                77
lead time index=          77 parm# (ip) =          4 ncix=
77
  igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
  76:00                 4          V_850
56.76      0.1000E+21
+++ NetCDF read requested for parm #          5 ... parm=
U_700

In get_var3_tlev_double, ifh=                77
                        ltix(ifh)=          77

After read, parm= U_700                      ifh=                77
lead time index=          77 parm# (ip) =          5 ncix=
77
  igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
  76:00                 5          U_700
52.19      0.1000E+21
+++ NetCDF read requested for parm #          6 ... parm=
V_700

In get_var3_tlev_double, ifh=                77
                        ltix(ifh)=          77

After read, parm= V_700                      ifh=                77
lead time index=          77 parm# (ip) =          6 ncix=
77
  igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
  76:00                 6          V_700
52.68      0.1000E+21
+++ NetCDF read requested for parm #          7 ... parm=
Z_850

In get_var3_tlev_double, ifh=                77
                        ltix(ifh)=          77

After read, parm= Z_850                      ifh=                77

```

```

lead time index=          77  parm# (ip) =          7  ncix=
77
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  76:00          7          Z_850
1110.          0.1000E+21
+++ NetCDF read requested for parm #          8  ... parm=
Z_700

In get_var3_tlev_double, ifh=          77
                        ltix(ifh)=          77

After read, parm= Z_700          ifh=          77
lead time index=          77  parm# (ip) =          8  ncix=
77
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  76:00          8          Z_700
2784.          0.1000E+21
+++ NetCDF read requested for parm #          9  ... parm=
slp

In get_var3_tlev_double, ifh=          77
                        ltix(ifh)=          77

After read, parm= slp          ifh=          77
lead time index=          77  parm# (ip) =          9  ncix=
77
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  76:00          9          slp
0.9645E+05  0.1029E+06
+++ NetCDF read requested for parm #         10  ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          77
                        ltix(ifh)=          77

After read, parm= u_10m_gr          ifh=          77
lead time index=          77  parm# (ip) =         10  ncix=
77
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  76:00         10          u_10m_gr          -
32.00         34.59
+++ NetCDF read requested for parm #         11  ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          77
                        ltix(ifh)=          77

After read, parm= v_10m_gr          ifh=          77
lead time index=          77  parm# (ip) =         11  ncix=
77
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  76:00         11          v_10m_gr          -
30.03         36.71
+++ NetCDF read requested for parm #         12  ... parm=
U_500

```

```

In get_var3_tlev_double, ifh=          77
                        ltix(ifh)=     77

After read, parm= U_500                ifh=          77
lead time index=          77 parm# (ip) =          12 ncix=
77
igvret=                      0
parmread lead time    parm#    parm_id    minval    maxval
76:00                12        U_500
53.72                35.80
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=          77
                        ltix(ifh)=     77

After read, parm= V_500                ifh=          77
lead time index=          77 parm# (ip) =          13 ncix=
77
igvret=                      0
parmread lead time    parm#    parm_id    minval    maxval
76:00                13        V_500
40.62                48.69
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15 ... parm=
Z_500

In get_var3_tlev_double, ifh=          77
                        ltix(ifh)=     77

After read, parm= Z_500                ifh=          77
lead time index=          77 parm# (ip) =          15 ncix=
77
igvret=                      0
parmread lead time    parm#    parm_id    minval    maxval
76:00                15        Z_500
5574.                5937.
+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=          77
                        ltix(ifh)=     77

After read, parm= Z_200                ifh=          77
lead time index=          77 parm# (ip) =          16 ncix=
77
igvret=                      0
parmread lead time    parm#    parm_id    minval    maxval
76:00                16        Z_200
0.1191E+05  0.1256E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:40:33

Of          17 readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter = 38316.57      dlat_inter =
36059.95

```

!!! Case 2 in tracker for stormswitch

!!! Storm name = MANGKHUT
!!! Storm ID = 26W

* New forecast hour: 77:00

in getgridinfo_netcdf, ncfile_id= 65536

In getgridinfo, grid dimensions follow:
imax= 409 jmax= 349
dx= 0.1722946 dy= 0.1621475

DX: midi= 204 dx= 0.1723
DY: midj= 174 dy= 0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat: -9.516 Min Lon: 92.852
Max Lat: 44.929 Max Lon: 163.148
TEST after getgridinfo in sub tracker, iggret= 0
in beginning of tracker, imax= 409 jmax= 349
TIMING: b4 getdata ... 14:40:33

NOTE: Program is now in subroutine getdata_netcdf.
+++ Time match in getdata_netcdf for usertime= 4620
netcdf file index= ncix= 78
+++ NetCDF read requested for parm # 1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh= 78
ltix(ifh)= 78

After read, parm= ABS_VORTICITY_850 ifh= 78
lead time index= 78 parm# (ip) = 1 ncix=
78
igvret= 0
parmread lead time parm# parm_id minval maxval
77:00 1 ABS_VORTICITY_850 -
0.1339E-02 0.1673E-02
+++ NetCDF read requested for parm # 2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh= 78
ltix(ifh)= 78

After read, parm= ABS_VORTICITY_700 ifh= 78
lead time index= 78 parm# (ip) = 2 ncix=
78
igvret= 0
parmread lead time parm# parm_id minval maxval
77:00 2 ABS_VORTICITY_700 -
0.9742E-03 0.1583E-02
+++ NetCDF read requested for parm # 3 ... parm=
U_850

In get_var3_tlev_double, ifh= 78
ltix(ifh)= 78

After read, parm= U_850 ifh= 78
lead time index= 78 parm# (ip) = 3 ncix=
78

```

    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      77:00              3        U_850
52.68      0.1000E+21
+++ NetCDF read requested for parm #    4 ... parm=
V_850

    In get_var3_tlev_double, ifh=          78
                          ltix(ifh)=      78

    After read, parm= V_850
    lead time index=          78 parm# (ip) =          4 ncix=
78
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      77:00              4        V_850
58.98      0.1000E+21
+++ NetCDF read requested for parm #    5 ... parm=
U_700

    In get_var3_tlev_double, ifh=          78
                          ltix(ifh)=      78

    After read, parm= U_700
    lead time index=          78 parm# (ip) =          5 ncix=
78
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      77:00              5        U_700
52.32      0.1000E+21
+++ NetCDF read requested for parm #    6 ... parm=
V_700

    In get_var3_tlev_double, ifh=          78
                          ltix(ifh)=      78

    After read, parm= V_700
    lead time index=          78 parm# (ip) =          6 ncix=
78
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      77:00              6        V_700
50.82      0.1000E+21
+++ NetCDF read requested for parm #    7 ... parm=
Z_850

    In get_var3_tlev_double, ifh=          78
                          ltix(ifh)=      78

    After read, parm= Z_850
    lead time index=          78 parm# (ip) =          7 ncix=
78
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      77:00              7        Z_850
1098.      0.1000E+21
+++ NetCDF read requested for parm #    8 ... parm=
Z_700

    In get_var3_tlev_double, ifh=          78

```

```

                ltix(ifh)=          78

After read, parm= Z_700                ifh=          78
  lead time index=          78  parm# (ip) =          8  ncix=
78
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  77:00              8        Z_700
2771.        0.1000E+21
+++ NetCDF read requested for parm #          9  ... parm=
slp

In get_var3_tlev_double, ifh=          78
                ltix(ifh)=          78

After read, parm= slp                ifh=          78
  lead time index=          78  parm# (ip) =          9  ncix=
78
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  77:00              9        slp
0.9629E+05  0.1029E+06
+++ NetCDF read requested for parm #         10  ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          78
                ltix(ifh)=          78

After read, parm= u_10m_gr                ifh=          78
  lead time index=          78  parm# (ip) =         10  ncix=
78
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  77:00             10        u_10m_gr
33.27        35.52
+++ NetCDF read requested for parm #         11  ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          78
                ltix(ifh)=          78

After read, parm= v_10m_gr                ifh=          78
  lead time index=          78  parm# (ip) =         11  ncix=
78
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  77:00             11        v_10m_gr
30.52        39.42
+++ NetCDF read requested for parm #         12  ... parm=
U_500

In get_var3_tlev_double, ifh=          78
                ltix(ifh)=          78

After read, parm= U_500                ifh=          78
  lead time index=          78  parm# (ip) =         12  ncix=
78
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval

```

```

77:00          12          U_500          -
52.19      38.66
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=          78
                        ltix(ifh)=          78

After read, parm= V_500          ifh=          78
lead time index=          78 parm# (ip) =          13 ncix=
78
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
77:00          13          V_500          -
41.34      49.95
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15 ... parm=
Z_500

In get_var3_tlev_double, ifh=          78
                        ltix(ifh)=          78

After read, parm= Z_500          ifh=          78
lead time index=          78 parm# (ip) =          15 ncix=
78
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
77:00          15          Z_500
5564.      5933.
+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=          78
                        ltix(ifh)=          78

After read, parm= Z_200          ifh=          78
lead time index=          78 parm# (ip) =          16 ncix=
78
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
77:00          16          Z_200
0.1191E+05  0.1255E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:40:34

Of          17 readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =          38316.57          dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:    78:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:

```

imax= 409 jmax= 349
dx= 0.1722946 dy= 0.1621475

DX: midi= 204 dx= 0.1723
DY: midj= 174 dy= 0.1621

Data Grid Lat/Lon boundaries follow:

Min Lat: -9.516 Min Lon: 92.852
Max Lat: 44.929 Max Lon: 163.148

TEST after getgridinfo in sub tracker, iggret= 0
in beginning of tracker, imax= 409 jmax= 349
TIMING: b4 getdata ... 14:40:34

NOTE: Program is now in subroutine getdata_netcdf.

+++ Time match in getdata_netcdf for usertime= 4680
netcdf file index= ncix= 79

+++ NetCDF read requested for parm # 1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh= 79
ltix(ifh)= 79

After read, parm= ABS_VORTICITY_850 ifh= 79
lead time index= 79 parm# (ip) = 1 ncix=

79
igvret= 0
parmread lead time parm# parm_id minval maxval
78:00 1 ABS_VORTICITY_850 -
0.9597E-03 0.1906E-02

+++ NetCDF read requested for parm # 2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh= 79
ltix(ifh)= 79

After read, parm= ABS_VORTICITY_700 ifh= 79
lead time index= 79 parm# (ip) = 2 ncix=

79
igvret= 0
parmread lead time parm# parm_id minval maxval
78:00 2 ABS_VORTICITY_700 -
0.8202E-03 0.1778E-02

+++ NetCDF read requested for parm # 3 ... parm=
U_850

In get_var3_tlev_double, ifh= 79
ltix(ifh)= 79

After read, parm= U_850 ifh= 79
lead time index= 79 parm# (ip) = 3 ncix=

79
igvret= 0
parmread lead time parm# parm_id minval maxval
78:00 3 U_850 -
58.58 0.1000E+21

+++ NetCDF read requested for parm # 4 ... parm=
V_850

In get_var3_tlev_double, ifh= 79
ltix(ifh)= 79


```

After read, parm= V_850                ifh=          79
lead time index=          79 parm# (ip) =          4 ncix=
79
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
78:00                4        V_850
58.85    0.1000E+21
+++ NetCDF read requested for parm #    5 ... parm=
U_700

In get_var3_tlev_double, ifh=          79
ltix(ifh)=          79

After read, parm= U_700                ifh=          79
lead time index=          79 parm# (ip) =          5 ncix=
79
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
78:00                5        U_700
50.20    0.1000E+21
+++ NetCDF read requested for parm #    6 ... parm=
V_700

In get_var3_tlev_double, ifh=          79
ltix(ifh)=          79

After read, parm= V_700                ifh=          79
lead time index=          79 parm# (ip) =          6 ncix=
79
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
78:00                6        V_700
49.56    0.1000E+21
+++ NetCDF read requested for parm #    7 ... parm=
Z_850

In get_var3_tlev_double, ifh=          79
ltix(ifh)=          79

After read, parm= Z_850                ifh=          79
lead time index=          79 parm# (ip) =          7 ncix=
79
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
78:00                7        Z_850
1083.    0.1000E+21
+++ NetCDF read requested for parm #    8 ... parm=
Z_700

In get_var3_tlev_double, ifh=          79
ltix(ifh)=          79

After read, parm= Z_700                ifh=          79
lead time index=          79 parm# (ip) =          8 ncix=
79
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
78:00                8        Z_700
2758.    0.1000E+21

```

```

+++ NetCDF read requested for parm #          9 ... parm=
slp

In get_var3_tlev_double, ifh=                  79
                        ltix(ifh)=            79

After read, parm= slp                          ifh=                  79
lead time index=          79 parm# (ip) =          9 ncix=
79
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
78:00                  9          slp
0.9612E+05  0.1027E+06
+++ NetCDF read requested for parm #          10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=                  79
                        ltix(ifh)=            79

After read, parm= u_10m_gr                      ifh=                  79
lead time index=          79 parm# (ip) =          10 ncix=
79
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
78:00                  10         u_10m_gr
35.02          36.62
+++ NetCDF read requested for parm #          11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=                  79
                        ltix(ifh)=            79

After read, parm= v_10m_gr                      ifh=                  79
lead time index=          79 parm# (ip) =          11 ncix=
79
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
78:00                  11         v_10m_gr
33.00          40.31
+++ NetCDF read requested for parm #          12 ... parm=
U_500

In get_var3_tlev_double, ifh=                  79
                        ltix(ifh)=            79

After read, parm= U_500                          ifh=                  79
lead time index=          79 parm# (ip) =          12 ncix=
79
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
78:00                  12          U_500
49.11          36.34
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=                  79
                        ltix(ifh)=            79

After read, parm= V_500                          ifh=                  79

```

```

lead time index=          79  parm# (ip) =          13  ncix=
79
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  78:00          13          v_500
43.87          49.65
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15 ... parm=
Z_500

In get_var3_tlev_double, ifh=          79
                          ltix(ifh)=          79

After read, parm= Z_500          ifh=          79
lead time index=          79  parm# (ip) =          15  ncix=
79
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  78:00          15          Z_500
5548.          5932.
+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=          79
                          ltix(ifh)=          79

After read, parm= Z_200          ifh=          79
lead time index=          79  parm# (ip) =          16  ncix=
79
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  78:00          16          Z_200
0.1191E+05  0.1255E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:40:35

Of          17  readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =          38316.57          dlat_inter =
          36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:   79:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:
imax=          409  jmax=          349
dx=          0.1722946  dy=          0.1621475

DX:  midi=   204  dx=   0.1723
DY:  midj=   174  dy=   0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:   -9.516  Min Lon:   92.852
Max Lat:   44.929  Max Lon:  163.148

```

TEST after getgridinfo in sub tracker, iggret= 0
in beginning of tracker, imax= 409 jmax= 349
TIMING: b4 getdata ... 14:40:35

NOTE: Program is now in subroutine getdata_netcdf.
+++ Time match in getdata_netcdf for usertime= 4740
netcdf file index= ncix= 80
+++ NetCDF read requested for parm # 1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh= 80
ltix(ifh)= 80

After read, parm= ABS_VORTICITY_850 ifh= 80
lead time index= 80 parm# (ip) = 1 ncix=
80
igvret= 0
parmread lead time parm# parm_id minval maxval
79:00 1 ABS_VORTICITY_850 -
0.1038E-02 0.1841E-02

+++ NetCDF read requested for parm # 2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh= 80
ltix(ifh)= 80

After read, parm= ABS_VORTICITY_700 ifh= 80
lead time index= 80 parm# (ip) = 2 ncix=
80
igvret= 0
parmread lead time parm# parm_id minval maxval
79:00 2 ABS_VORTICITY_700 -
0.7478E-03 0.1619E-02

+++ NetCDF read requested for parm # 3 ... parm=
U_850

In get_var3_tlev_double, ifh= 80
ltix(ifh)= 80

After read, parm= U_850 ifh= 80
lead time index= 80 parm# (ip) = 3 ncix=
80
igvret= 0
parmread lead time parm# parm_id minval maxval
79:00 3 U_850 -
61.96 0.1000E+21

+++ NetCDF read requested for parm # 4 ... parm=
V_850

In get_var3_tlev_double, ifh= 80
ltix(ifh)= 80

After read, parm= V_850 ifh= 80
lead time index= 80 parm# (ip) = 4 ncix=
80
igvret= 0
parmread lead time parm# parm_id minval maxval
79:00 4 V_850 -
54.56 0.1000E+21

+++ NetCDF read requested for parm # 5 ... parm=

```

U_700

In get_var3_tlev_double, ifh=          80
                        ltix(ifh)=    80

After read, parm= U_700                ifh=          80
lead time index=          80 parm# (ip) =          5 ncix=
80
igvret=                    0
parmread lead time      parm#      parm_id      minval      maxval
79:00                   5          U_700
59.25      0.1000E+21
+++ NetCDF read requested for parm #          6 ... parm=
V_700

In get_var3_tlev_double, ifh=          80
                        ltix(ifh)=    80

After read, parm= V_700                ifh=          80
lead time index=          80 parm# (ip) =          6 ncix=
80
igvret=                    0
parmread lead time      parm#      parm_id      minval      maxval
79:00                   6          V_700
51.14      0.1000E+21
+++ NetCDF read requested for parm #          7 ... parm=
Z_850

In get_var3_tlev_double, ifh=          80
                        ltix(ifh)=    80

After read, parm= Z_850                ifh=          80
lead time index=          80 parm# (ip) =          7 ncix=
80
igvret=                    0
parmread lead time      parm#      parm_id      minval      maxval
79:00                   7          Z_850
1069.      0.1000E+21
+++ NetCDF read requested for parm #          8 ... parm=
Z_700

In get_var3_tlev_double, ifh=          80
                        ltix(ifh)=    80

After read, parm= Z_700                ifh=          80
lead time index=          80 parm# (ip) =          8 ncix=
80
igvret=                    0
parmread lead time      parm#      parm_id      minval      maxval
79:00                   8          Z_700
2744.      0.1000E+21
+++ NetCDF read requested for parm #          9 ... parm=
slp

In get_var3_tlev_double, ifh=          80
                        ltix(ifh)=    80

After read, parm= slp                  ifh=          80
lead time index=          80 parm# (ip) =          9 ncix=
80

```

```

    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      79:00              9        slp
0.9596E+05  0.1027E+06
+++ NetCDF read requested for parm #          10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          80
                        ltix(ifh)=      80

After read, parm= u_10m_gr                ifh=          80
lead time index=          80 parm# (ip) =          10 ncix=
80
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      79:00             10        u_10m_gr
41.08      35.70
+++ NetCDF read requested for parm #          11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          80
                        ltix(ifh)=      80

After read, parm= v_10m_gr                ifh=          80
lead time index=          80 parm# (ip) =          11 ncix=
80
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      79:00             11        v_10m_gr
29.54      39.94
+++ NetCDF read requested for parm #          12 ... parm=
U_500

In get_var3_tlev_double, ifh=          80
                        ltix(ifh)=      80

After read, parm= U_500                    ifh=          80
lead time index=          80 parm# (ip) =          12 ncix=
80
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      79:00             12        U_500
48.27      39.97
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=          80
                        ltix(ifh)=      80

After read, parm= V_500                    ifh=          80
lead time index=          80 parm# (ip) =          13 ncix=
80
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      79:00             13        V_500
43.16      49.36
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15 ... parm=
Z_500

```

```

In get_var3_tlev_double, ifh=          80
                        ltix(ifh)=      80

After read, parm= Z_500                ifh=          80
lead time index=          80  parm# (ip) =          15  ncix=
80
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
79:00                15          Z_500
5538.                5935.
+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=          80
                        ltix(ifh)=      80

After read, parm= Z_200                ifh=          80
lead time index=          80  parm# (ip) =          16  ncix=
80
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
79:00                16          Z_200
0.1191E+05  0.1255E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:40:36

Of          17 readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =          38316.57      dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:   80:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:
imax=          409  jmax=          349
dx=          0.1722946      dy=          0.1621475

DX:  midi=   204  dx=   0.1723
DY:  midj=   174  dy=   0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:   -9.516  Min Lon:   92.852
Max Lat:   44.929  Max Lon:  163.148
TEST after getgridinfo in sub tracker, iggret=          0
in beginning of tracker, imax=          409  jmax=          349
TIMING: b4 getdata ... 14:40:36

NOTE: Program is now in subroutine getdata_netcdf.
+++ Time match in getdata_netcdf for usertime=          4800
netcdf file index= ncix=          81
+++ NetCDF read requested for parm #          1 ... parm=
ABS_VORTICITY_850

```

```

In get_var3_tlev_double, ifh=          81
                        ltix(ifh)=     81

After read, parm= ABS_VORTICITY_850      ifh=          81
lead time index=          81 parm# (ip) =          1 ncix=
81
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
80:00                  1          ABS_VORTICITY_850      -
0.1199E-02  0.1847E-02
+++ NetCDF read requested for parm #          2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh=          81
                        ltix(ifh)=     81

After read, parm= ABS_VORTICITY_700      ifh=          81
lead time index=          81 parm# (ip) =          2 ncix=
81
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
80:00                  2          ABS_VORTICITY_700      -
0.6390E-03  0.1404E-02
+++ NetCDF read requested for parm #          3 ... parm=
U_850

In get_var3_tlev_double, ifh=          81
                        ltix(ifh)=     81

After read, parm= U_850                  ifh=          81
lead time index=          81 parm# (ip) =          3 ncix=
81
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
80:00                  3          U_850                  -
62.98          0.1000E+21
+++ NetCDF read requested for parm #          4 ... parm=
V_850

In get_var3_tlev_double, ifh=          81
                        ltix(ifh)=     81

After read, parm= V_850                  ifh=          81
lead time index=          81 parm# (ip) =          4 ncix=
81
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
80:00                  4          V_850                  -
57.00          0.1000E+21
+++ NetCDF read requested for parm #          5 ... parm=
U_700

In get_var3_tlev_double, ifh=          81
                        ltix(ifh)=     81

After read, parm= U_700                  ifh=          81
lead time index=          81 parm# (ip) =          5 ncix=
81
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval

```



```

      80:00          5          U_700          -
55.83      0.1000E+21
+++ NetCDF read requested for parm #          6 ... parm=
V_700

In get_var3_tlev_double, ifh=          81
                        ltix(ifh)=          81

After read, parm= V_700          ifh=          81
lead time index=          81 parm# (ip) =          6 ncix=
81
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
80:00          6          V_700
48.50      0.1000E+21
+++ NetCDF read requested for parm #          7 ... parm=
Z_850

In get_var3_tlev_double, ifh=          81
                        ltix(ifh)=          81

After read, parm= Z_850          ifh=          81
lead time index=          81 parm# (ip) =          7 ncix=
81
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
80:00          7          Z_850
1055.      0.1000E+21
+++ NetCDF read requested for parm #          8 ... parm=
Z_700

In get_var3_tlev_double, ifh=          81
                        ltix(ifh)=          81

After read, parm= Z_700          ifh=          81
lead time index=          81 parm# (ip) =          8 ncix=
81
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
80:00          8          Z_700
2735.      0.1000E+21
+++ NetCDF read requested for parm #          9 ... parm=
slp

In get_var3_tlev_double, ifh=          81
                        ltix(ifh)=          81

After read, parm= slp          ifh=          81
lead time index=          81 parm# (ip) =          9 ncix=
81
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
80:00          9          slp
0.9588E+05  0.1027E+06
+++ NetCDF read requested for parm #          10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          81
                        ltix(ifh)=          81

```

```

After read, parm= u_10m_gr          ifh=          81
lead time index=          81 parm# (ip) =          10 ncix=
81
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
80:00          10          u_10m_gr          -
40.81          36.45
+++ NetCDF read requested for parm #          11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          81
ltix(ifh)=          81

After read, parm= v_10m_gr          ifh=          81
lead time index=          81 parm# (ip) =          11 ncix=
81
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
80:00          11          v_10m_gr          -
31.51          40.53
+++ NetCDF read requested for parm #          12 ... parm=
U_500

In get_var3_tlev_double, ifh=          81
ltix(ifh)=          81

After read, parm= U_500          ifh=          81
lead time index=          81 parm# (ip) =          12 ncix=
81
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
80:00          12          U_500          -
51.98          39.25
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=          81
ltix(ifh)=          81

After read, parm= V_500          ifh=          81
lead time index=          81 parm# (ip) =          13 ncix=
81
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
80:00          13          V_500          -
41.67          52.87
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15 ... parm=
Z_500

In get_var3_tlev_double, ifh=          81
ltix(ifh)=          81

After read, parm= Z_500          ifh=          81
lead time index=          81 parm# (ip) =          15 ncix=
81
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
80:00          15          Z_500          -
5530.          5935.

```

```

+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=                81
                        ltix(ifh)=          81

After read, parm= Z_200                      ifh=                81
lead time index=          81 parm# (ip) =      16 ncix=
81
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
      80:00              16          Z_200
0.1191E+05  0.1255E+05
!!! NetCDF read NOT requested for parm #      17
TIMING: after getdata ... 14:40:37

Of          17 readable parms, you read in      15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =      38316.57      dlat_inter =
      36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:   81:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:
imax=          409  jmax=          349
dx=      0.1722946      dy=      0.1621475

DX:  midi=  204 dx=   0.1723
DY:  midj=  174 dy=   0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:   -9.516  Min Lon:   92.852
Max Lat:   44.929  Max Lon:  163.148
TEST after getgridinfo in sub tracker, iggret=          0
in beginning of tracker, imax=          409  jmax=          349
TIMING: b4 getdata ... 14:40:37

NOTE: Program is now in subroutine getdata_netcdf.
+++ Time match in getdata_netcdf for usertime=          4860
      netcdf file index= ncix=          82
+++ NetCDF read requested for parm #          1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh=                82
                        ltix(ifh)=          82

After read, parm= ABS_VORTICITY_850          ifh=                82
lead time index=          82 parm# (ip) =      1 ncix=
82
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
      81:00              1          ABS_VORTICITY_850      -
0.9069E-03  0.1782E-02

```

```

+++ NetCDF read requested for parm #          2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh=                82
                        ltix(ifh)=          82

After read, parm= ABS_VORTICITY_700          ifh=                82
lead time index=          82 parm# (ip) =          2 ncix=
82
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
81:00                  2          ABS_VORTICITY_700          -
0.5937E-03  0.1485E-02
+++ NetCDF read requested for parm #          3 ... parm=
U_850

In get_var3_tlev_double, ifh=                82
                        ltix(ifh)=          82

After read, parm= U_850                      ifh=                82
lead time index=          82 parm# (ip) =          3 ncix=
82
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
81:00                  3          U_850                      -
67.45          0.1000E+21
+++ NetCDF read requested for parm #          4 ... parm=
V_850

In get_var3_tlev_double, ifh=                82
                        ltix(ifh)=          82

After read, parm= V_850                      ifh=                82
lead time index=          82 parm# (ip) =          4 ncix=
82
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
81:00                  4          V_850                      -
54.28          0.1000E+21
+++ NetCDF read requested for parm #          5 ... parm=
U_700

In get_var3_tlev_double, ifh=                82
                        ltix(ifh)=          82

After read, parm= U_700                      ifh=                82
lead time index=          82 parm# (ip) =          5 ncix=
82
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
81:00                  5          U_700                      -
62.65          0.1000E+21
+++ NetCDF read requested for parm #          6 ... parm=
V_700

In get_var3_tlev_double, ifh=                82
                        ltix(ifh)=          82

After read, parm= V_700                      ifh=                82

```

```

lead time index=          82  parm# (ip) =          6  ncix=
82
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  81:00          6          v_700
49.34      0.1000E+21
+++ NetCDF read requested for parm #          7  ... parm=
Z_850

In get_var3_tlev_double, ifh=          82
                        ltix(ifh)=          82

After read, parm= Z_850          ifh=          82
lead time index=          82  parm# (ip) =          7  ncix=
82
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  81:00          7          Z_850
1051.      0.1000E+21
+++ NetCDF read requested for parm #          8  ... parm=
Z_700

In get_var3_tlev_double, ifh=          82
                        ltix(ifh)=          82

After read, parm= Z_700          ifh=          82
lead time index=          82  parm# (ip) =          8  ncix=
82
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  81:00          8          Z_700
2728.      0.1000E+21
+++ NetCDF read requested for parm #          9  ... parm=
slp

In get_var3_tlev_double, ifh=          82
                        ltix(ifh)=          82

After read, parm= slp          ifh=          82
lead time index=          82  parm# (ip) =          9  ncix=
82
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  81:00          9          slp
0.9576E+05  0.1027E+06
+++ NetCDF read requested for parm #          10  ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          82
                        ltix(ifh)=          82

After read, parm= u_10m_gr          ifh=          82
lead time index=          82  parm# (ip) =          10  ncix=
82
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  81:00          10          u_10m_gr
40.00      36.23
+++ NetCDF read requested for parm #          11  ... parm=
v_10m_gr

```

```

In get_var3_tlev_double, ifh=          82
                        ltix(ifh)=     82

After read, parm= v_10m_gr              ifh=          82
lead time index=          82  parm# (ip) =          11  ncix=
82
  igvret=                   0
parmread lead time      parm#      parm_id      minval      maxval
  81:00                 11          v_10m_gr
30.66      41.70
+++ NetCDF read requested for parm #          12  ... parm=
U_500

In get_var3_tlev_double, ifh=          82
                        ltix(ifh)=     82

After read, parm= U_500                  ifh=          82
lead time index=          82  parm# (ip) =          12  ncix=
82
  igvret=                   0
parmread lead time      parm#      parm_id      minval      maxval
  81:00                 12          U_500
48.63      38.73
+++ NetCDF read requested for parm #          13  ... parm=
V_500

In get_var3_tlev_double, ifh=          82
                        ltix(ifh)=     82

After read, parm= V_500                  ifh=          82
lead time index=          82  parm# (ip) =          13  ncix=
82
  igvret=                   0
parmread lead time      parm#      parm_id      minval      maxval
  81:00                 13          V_500
44.04      48.76
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15  ... parm=
Z_500

In get_var3_tlev_double, ifh=          82
                        ltix(ifh)=     82

After read, parm= Z_500                  ifh=          82
lead time index=          82  parm# (ip) =          15  ncix=
82
  igvret=                   0
parmread lead time      parm#      parm_id      minval      maxval
  81:00                 15          Z_500
5527.      5940.
+++ NetCDF read requested for parm #          16  ... parm=
Z_200

In get_var3_tlev_double, ifh=          82
                        ltix(ifh)=     82

After read, parm= Z_200                  ifh=          82
lead time index=          82  parm# (ip) =          16  ncix=
82

```

```

    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      81:00             16        Z_200
0.1192E+05  0.1255E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:40:38

Of          17 readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =    38316.57    dlat_inter =
  36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:    82:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:
imax=          409  jmax=          349
dx=    0.1722946    dy=    0.1621475

DX:  midi=  204 dx=    0.1723
DY:  midj=  174 dy=    0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:   -9.516  Min Lon:   92.852
Max Lat:   44.929  Max Lon:  163.148
TEST after getgridinfo in sub tracker, iggret=          0
in beginning of tracker, imax=          409  jmax=          349
TIMING: b4 getdata ... 14:40:38

NOTE: Program is now in subroutine  getdata_netcdf.
+++ Time match in getdata_netcdf for usertime=          4920
    netcdf file index= ncix=          83
+++ NetCDF read requested for parm #          1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh=          83
                        ltix(ifh)=          83

After read, parm= ABS_VORTICITY_850          ifh=          83
  lead time index=          83  parm# (ip) =          1  ncix=
83
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      82:00             1        ABS_VORTICITY_850    -
0.9083E-03  0.1893E-02
+++ NetCDF read requested for parm #          2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh=          83
                        ltix(ifh)=          83

After read, parm= ABS_VORTICITY_700          ifh=          83
  lead time index=          83  parm# (ip) =          2  ncix=
83

```

```

    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      82:00              2        ABS_VORTICITY_700
0.6926E-03  0.1492E-02
+++ NetCDF read requested for parm #    3 ... parm=
U_850

    In get_var3_tlev_double, ifh=          83
                          ltix(ifh)=      83

    After read, parm= U_850
    lead time index=          83 parm# (ip) =          3 ncix=
83
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      82:00              3        U_850
71.89      0.1000E+21
+++ NetCDF read requested for parm #    4 ... parm=
V_850

    In get_var3_tlev_double, ifh=          83
                          ltix(ifh)=      83

    After read, parm= V_850
    lead time index=          83 parm# (ip) =          4 ncix=
83
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      82:00              4        V_850
52.88      0.1000E+21
+++ NetCDF read requested for parm #    5 ... parm=
U_700

    In get_var3_tlev_double, ifh=          83
                          ltix(ifh)=      83

    After read, parm= U_700
    lead time index=          83 parm# (ip) =          5 ncix=
83
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      82:00              5        U_700
63.43      0.1000E+21
+++ NetCDF read requested for parm #    6 ... parm=
V_700

    In get_var3_tlev_double, ifh=          83
                          ltix(ifh)=      83

    After read, parm= V_700
    lead time index=          83 parm# (ip) =          6 ncix=
83
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      82:00              6        V_700
52.35      0.1000E+21
+++ NetCDF read requested for parm #    7 ... parm=
Z_850

    In get_var3_tlev_double, ifh=          83

```



```

                ltix(ifh)=                83

After read, parm= Z_850                ifh=                83
lead time index=                83  parm# (ip) =                7  ncix=
83
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  82:00                7        Z_850
1037.    0.1000E+21
+++ NetCDF read requested for parm #                8  ... parm=
Z_700

In get_var3_tlev_double, ifh=                83
                ltix(ifh)=                83

After read, parm= Z_700                ifh=                83
lead time index=                83  parm# (ip) =                8  ncix=
83
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  82:00                8        Z_700
2723.    0.1000E+21
+++ NetCDF read requested for parm #                9  ... parm=
slp

In get_var3_tlev_double, ifh=                83
                ltix(ifh)=                83

After read, parm= slp                ifh=                83
lead time index=                83  parm# (ip) =                9  ncix=
83
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  82:00                9        slp
0.9574E+05  0.1027E+06
+++ NetCDF read requested for parm #                10  ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=                83
                ltix(ifh)=                83

After read, parm= u_10m_gr                ifh=                83
lead time index=                83  parm# (ip) =                10  ncix=
83
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  82:00                10        u_10m_gr
40.98    35.66
+++ NetCDF read requested for parm #                11  ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=                83
                ltix(ifh)=                83

After read, parm= v_10m_gr                ifh=                83
lead time index=                83  parm# (ip) =                11  ncix=
83
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval

```

```

      82:00          11          v_10m_gr          -
31.15      41.21
+++ NetCDF read requested for parm #          12 ... parm=
U_500

In get_var3_tlev_double, ifh=          83
                        ltix(ifh)=          83

After read, parm= U_500          ifh=          83
lead time index=          83 parm# (ip) =          12 ncix=
83
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
      82:00          12          U_500          -
53.99      38.35
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=          83
                        ltix(ifh)=          83

After read, parm= V_500          ifh=          83
lead time index=          83 parm# (ip) =          13 ncix=
83
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
      82:00          13          V_500          -
44.05      53.25
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15 ... parm=
Z_500

In get_var3_tlev_double, ifh=          83
                        ltix(ifh)=          83

After read, parm= Z_500          ifh=          83
lead time index=          83 parm# (ip) =          15 ncix=
83
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
      82:00          15          Z_500
5522.      5941.
+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=          83
                        ltix(ifh)=          83

After read, parm= Z_200          ifh=          83
lead time index=          83 parm# (ip) =          16 ncix=
83
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
      82:00          16          Z_200
0.1192E+05  0.1255E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:40:39

Of          17 readable parms, you read in          15
parms for this fcst hour from the input grib file.

```

Just before inter rvcalc, dlon_inter = 38316.57 dlat_inter = 36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

* New forecast hour: 83:00

in getgridinfo_netcdf, ncfile_id= 65536

In getgridinfo, grid dimensions follow:
imax= 409 jmax= 349
dx= 0.1722946 dy= 0.1621475

DX: midi= 204 dx= 0.1723
DY: midj= 174 dy= 0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat: -9.516 Min Lon: 92.852
Max Lat: 44.929 Max Lon: 163.148
TEST after getgridinfo in sub tracker, iggret= 0
in beginning of tracker, imax= 409 jmax= 349
TIMING: b4 getdata ... 14:40:39

NOTE: Program is now in subroutine getdata_netcdf.
+++ Time match in getdata_netcdf for usertime= 4980
netcdf file index= ncix= 84
+++ NetCDF read requested for parm # 1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh= 84
ltix(ifh)= 84

After read, parm= ABS_VORTICITY_850 ifh= 84
lead time index= 84 parm# (ip) = 1 ncix=
84
igvret= 0
parmread lead time parm# parm_id minval maxval
83:00 1 ABS_VORTICITY_850 -
0.7348E-03 0.1912E-02

+++ NetCDF read requested for parm # 2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh= 84
ltix(ifh)= 84

After read, parm= ABS_VORTICITY_700 ifh= 84
lead time index= 84 parm# (ip) = 2 ncix=
84
igvret= 0
parmread lead time parm# parm_id minval maxval
83:00 2 ABS_VORTICITY_700 -
0.5936E-03 0.1817E-02

+++ NetCDF read requested for parm # 3 ... parm=
U_850

In get_var3_tlev_double, ifh= 84
ltix(ifh)= 84

```

After read, parm= U_850                ifh=                84
  lead time index=                84  parm# (ip) =                3  ncix=
84
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  83:00                3        U_850
69.04    0.1000E+21
+++ NetCDF read requested for parm #    4 ... parm=
V_850

In get_var3_tlev_double, ifh=                84
                          ltix(ifh)=                84

After read, parm= V_850                ifh=                84
  lead time index=                84  parm# (ip) =                4  ncix=
84
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  83:00                4        V_850
53.02    0.1000E+21
+++ NetCDF read requested for parm #    5 ... parm=
U_700

In get_var3_tlev_double, ifh=                84
                          ltix(ifh)=                84

After read, parm= U_700                ifh=                84
  lead time index=                84  parm# (ip) =                5  ncix=
84
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  83:00                5        U_700
62.30    0.1000E+21
+++ NetCDF read requested for parm #    6 ... parm=
V_700

In get_var3_tlev_double, ifh=                84
                          ltix(ifh)=                84

After read, parm= V_700                ifh=                84
  lead time index=                84  parm# (ip) =                6  ncix=
84
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  83:00                6        V_700
50.47    0.1000E+21
+++ NetCDF read requested for parm #    7 ... parm=
Z_850

In get_var3_tlev_double, ifh=                84
                          ltix(ifh)=                84

After read, parm= Z_850                ifh=                84
  lead time index=                84  parm# (ip) =                7  ncix=
84
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  83:00                7        Z_850
1047.    0.1000E+21

```

```

+++ NetCDF read requested for parm #      8 ... parm=
Z_700

In get_var3_tlev_double, ifh=             84
                        ltix(ifh)=        84

After read, parm= Z_700                    ifh=             84
lead time index=          84 parm# (ip) =          8 ncix=
84
igvret=                      0
parmread lead time    parm#    parm_id    minval    maxval
  83:00                8        Z_700
2723.          0.1000E+21
+++ NetCDF read requested for parm #      9 ... parm=
slp

In get_var3_tlev_double, ifh=             84
                        ltix(ifh)=        84

After read, parm= slp                      ifh=             84
lead time index=          84 parm# (ip) =          9 ncix=
84
igvret=                      0
parmread lead time    parm#    parm_id    minval    maxval
  83:00                9          slp
0.9579E+05  0.1027E+06
+++ NetCDF read requested for parm #     10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=             84
                        ltix(ifh)=        84

After read, parm= u_10m_gr                 ifh=             84
lead time index=          84 parm# (ip) =         10 ncix=
84
igvret=                      0
parmread lead time    parm#    parm_id    minval    maxval
  83:00               10        u_10m_gr
39.33          35.10
+++ NetCDF read requested for parm #     11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=             84
                        ltix(ifh)=        84

After read, parm= v_10m_gr                 ifh=             84
lead time index=          84 parm# (ip) =         11 ncix=
84
igvret=                      0
parmread lead time    parm#    parm_id    minval    maxval
  83:00               11        v_10m_gr
33.33          42.59
+++ NetCDF read requested for parm #     12 ... parm=
U_500

In get_var3_tlev_double, ifh=             84
                        ltix(ifh)=        84

After read, parm= U_500                    ifh=             84

```

```

lead time index=          84  parm# (ip) =          12  ncix=
84
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  83:00          12          U_500
51.54      42.36
+++ NetCDF read requested for parm #          13  ... parm=
V_500

In get_var3_tlev_double, ifh=          84
                        ltix(ifh)=          84

After read, parm= V_500          ifh=          84
lead time index=          84  parm# (ip) =          13  ncix=
84
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  83:00          13          V_500
42.94      55.23
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15  ... parm=
Z_500

In get_var3_tlev_double, ifh=          84
                        ltix(ifh)=          84

After read, parm= Z_500          ifh=          84
lead time index=          84  parm# (ip) =          15  ncix=
84
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  83:00          15          Z_500
5529.      5944.
+++ NetCDF read requested for parm #          16  ... parm=
Z_200

In get_var3_tlev_double, ifh=          84
                        ltix(ifh)=          84

After read, parm= Z_200          ifh=          84
lead time index=          84  parm# (ip) =          16  ncix=
84
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  83:00          16          Z_200
0.1192E+05  0.1256E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:40:40

Of          17  readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =          38316.57          dlat_inter =
          36059.95

```

```

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

```

```

*-----*

```

```

*   New forecast hour:   84:00

```

in getgridinfo_netcdf, ncfile_id= 65536

In getgridinfo, grid dimensions follow:
imax= 409 jmax= 349
dx= 0.1722946 dy= 0.1621475

DX: midi= 204 dx= 0.1723
DY: midj= 174 dy= 0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat: -9.516 Min Lon: 92.852
Max Lat: 44.929 Max Lon: 163.148
TEST after getgridinfo in sub tracker, iggret= 0
in beginning of tracker, imax= 409 jmax= 349
TIMING: b4 getdata ... 14:40:40

NOTE: Program is now in subroutine getdata_netcdf.
+++ Time match in getdata_netcdf for usertime= 5040
netcdf file index= ncix= 85
+++ NetCDF read requested for parm # 1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh= 85
ltix(ifh)= 85

After read, parm= ABS_VORTICITY_850 ifh= 85
lead time index= 85 parm# (ip) = 1 ncix=
85
igvret= 0
parmread lead time parm# parm_id minval maxval
84:00 1 ABS_VORTICITY_850 -
0.9646E-03 0.1905E-02
+++ NetCDF read requested for parm # 2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh= 85
ltix(ifh)= 85

After read, parm= ABS_VORTICITY_700 ifh= 85
lead time index= 85 parm# (ip) = 2 ncix=
85
igvret= 0
parmread lead time parm# parm_id minval maxval
84:00 2 ABS_VORTICITY_700 -
0.5444E-03 0.1645E-02
+++ NetCDF read requested for parm # 3 ... parm=
U_850

In get_var3_tlev_double, ifh= 85
ltix(ifh)= 85

After read, parm= U_850 ifh= 85
lead time index= 85 parm# (ip) = 3 ncix=
85
igvret= 0
parmread lead time parm# parm_id minval maxval
84:00 3 U_850 -
70.29 0.1000E+21
+++ NetCDF read requested for parm # 4 ... parm=

```

V_850

In get_var3_tlev_double, ifh=      85
                        ltix(ifh)= 85

After read, parm= V_850                ifh=      85
lead time index=      85 parm# (ip) =      4 ncix=
85
igvret=      0
parmread lead time    parm#    parm_id    minval    maxval
84:00              4          V_850
53.83      0.1000E+21
+++ NetCDF read requested for parm #      5 ... parm=
U_700

In get_var3_tlev_double, ifh=      85
                        ltix(ifh)= 85

After read, parm= U_700                ifh=      85
lead time index=      85 parm# (ip) =      5 ncix=
85
igvret=      0
parmread lead time    parm#    parm_id    minval    maxval
84:00              5          U_700
62.61      0.1000E+21
+++ NetCDF read requested for parm #      6 ... parm=
V_700

In get_var3_tlev_double, ifh=      85
                        ltix(ifh)= 85

After read, parm= V_700                ifh=      85
lead time index=      85 parm# (ip) =      6 ncix=
85
igvret=      0
parmread lead time    parm#    parm_id    minval    maxval
84:00              6          V_700
52.10      0.1000E+21
+++ NetCDF read requested for parm #      7 ... parm=
Z_850

In get_var3_tlev_double, ifh=      85
                        ltix(ifh)= 85

After read, parm= Z_850                ifh=      85
lead time index=      85 parm# (ip) =      7 ncix=
85
igvret=      0
parmread lead time    parm#    parm_id    minval    maxval
84:00              7          Z_850
1053.      0.1000E+21
+++ NetCDF read requested for parm #      8 ... parm=
Z_700

In get_var3_tlev_double, ifh=      85
                        ltix(ifh)= 85

After read, parm= Z_700                ifh=      85
lead time index=      85 parm# (ip) =      8 ncix=
85

```



```

    igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    84:00            8        z_700
2732.        0.1000E+21
+++ NetCDF read requested for parm #          9 ... parm=
slp

In get_var3_tlev_double, ifh=          85
                        ltix(ifh)=      85

After read, parm= slp                                ifh=          85
lead time index=          85 parm# (ip) =          9 ncix=
85
    igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    84:00            9        slp
0.9585E+05  0.1026E+06
+++ NetCDF read requested for parm #          10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          85
                        ltix(ifh)=      85

After read, parm= u_10m_gr                            ifh=          85
lead time index=          85 parm# (ip) =          10 ncix=
85
    igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    84:00           10        u_10m_gr
42.89        31.73
+++ NetCDF read requested for parm #          11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          85
                        ltix(ifh)=      85

After read, parm= v_10m_gr                            ifh=          85
lead time index=          85 parm# (ip) =          11 ncix=
85
    igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    84:00           11        v_10m_gr
33.20        39.88
+++ NetCDF read requested for parm #          12 ... parm=
U_500

In get_var3_tlev_double, ifh=          85
                        ltix(ifh)=      85

After read, parm= U_500                                ifh=          85
lead time index=          85 parm# (ip) =          12 ncix=
85
    igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    84:00           12        U_500
54.83        37.26
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=          85

```

```

                ltix(iph)=                85

After read, parm= V_500                    ifh=                85
  lead time index=                85  parm# (ip) =                13  ncix=
85
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  84:00                13        V_500
43.33    58.17
!!! NetCDF read NOT requested for parm #    14
+++ NetCDF read requested for parm #    15 ... parm=
Z_500

In get_var3_tlev_double, ifh=                85
                ltix(iph)=                85

After read, parm= Z_500                    ifh=                85
  lead time index=                85  parm# (ip) =                15  ncix=
85
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  84:00                15        Z_500
5536.    5946.
+++ NetCDF read requested for parm #    16 ... parm=
Z_200

In get_var3_tlev_double, ifh=                85
                ltix(iph)=                85

After read, parm= Z_200                    ifh=                85
  lead time index=                85  parm# (ip) =                16  ncix=
85
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  84:00                16        Z_200
0.1192E+05  0.1256E+05
!!! NetCDF read NOT requested for parm #    17
TIMING: after getdata ... 14:40:40

Of                17  readable parms, you read in                15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =    38316.57    dlat_inter =
    36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:    85:00
*-----*
in getgridinfo_netcdf, ncfile_id=                65536

In getgridinfo, grid dimensions follow:
imax=                409  jmax=                349
dx=    0.1722946    dy=    0.1621475

DX:  midi=    204  dx=    0.1723
DY:  midj=    174  dy=    0.1621

```

Data Grid Lat/Lon boundaries follow:

Min Lat: -9.516 Min Lon: 92.852

Max Lat: 44.929 Max Lon: 163.148

TEST after getgridinfo in sub tracker, iggret= 0

in beginning of tracker, imax= 409 jmax= 349

TIMING: b4 getdata ... 14:40:40

NOTE: Program is now in subroutine getdata_netcdf.

+++ Time match in getdata_netcdf for usertime= 5100

netcdf file index= ncix= 86

+++ NetCDF read requested for parm # 1 ... parm=

ABS_VORTICITY_850

In get_var3_tlev_double, ifh= 86

ltix(ifh)= 86

After read, parm= ABS_VORTICITY_850 ifh= 86

lead time index= 86 parm# (ip) = 1 ncix=

86

igvret= 0

parmread	lead time	parm#	parm_id	minval	maxval
85:00		1	ABS_VORTICITY_850		-

0.6921E-03 0.1802E-02

+++ NetCDF read requested for parm # 2 ... parm=

ABS_VORTICITY_700

In get_var3_tlev_double, ifh= 86

ltix(ifh)= 86

After read, parm= ABS_VORTICITY_700 ifh= 86

lead time index= 86 parm# (ip) = 2 ncix=

86

igvret= 0

parmread	lead time	parm#	parm_id	minval	maxval
85:00		2	ABS_VORTICITY_700		-

0.5081E-03 0.1470E-02

+++ NetCDF read requested for parm # 3 ... parm=

U_850

In get_var3_tlev_double, ifh= 86

ltix(ifh)= 86

After read, parm= U_850 ifh= 86

lead time index= 86 parm# (ip) = 3 ncix=

86

igvret= 0

parmread	lead time	parm#	parm_id	minval	maxval
85:00		3	U_850		-

75.23 0.1000E+21

+++ NetCDF read requested for parm # 4 ... parm=

V_850

In get_var3_tlev_double, ifh= 86

ltix(ifh)= 86

After read, parm= V_850 ifh= 86

lead time index= 86 parm# (ip) = 4 ncix=

86

igvret= 0

parmread	lead time	parm#	parm_id	minval	maxval
----------	-----------	-------	---------	--------	--------

```

85:00          4          V_850          -
50.50          0.1000E+21
+++ NetCDF read requested for parm #          5 ... parm=
U_700

In get_var3_tlev_double, ifh=          86
                        ltix(ifh)=          86

After read, parm= U_700          ifh=          86
lead time index=          86 parm# (ip) =          5 ncix=
86
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
85:00          5          U_700          -
63.66          0.1000E+21
+++ NetCDF read requested for parm #          6 ... parm=
V_700

In get_var3_tlev_double, ifh=          86
                        ltix(ifh)=          86

After read, parm= V_700          ifh=          86
lead time index=          86 parm# (ip) =          6 ncix=
86
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
85:00          6          V_700          -
49.32          0.1000E+21
+++ NetCDF read requested for parm #          7 ... parm=
Z_850

In get_var3_tlev_double, ifh=          86
                        ltix(ifh)=          86

After read, parm= Z_850          ifh=          86
lead time index=          86 parm# (ip) =          7 ncix=
86
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
85:00          7          Z_850          -
1060.          0.1000E+21
+++ NetCDF read requested for parm #          8 ... parm=
Z_700

In get_var3_tlev_double, ifh=          86
                        ltix(ifh)=          86

After read, parm= Z_700          ifh=          86
lead time index=          86 parm# (ip) =          8 ncix=
86
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
85:00          8          Z_700          -
2736.          0.1000E+21
+++ NetCDF read requested for parm #          9 ... parm=
slp

In get_var3_tlev_double, ifh=          86
                        ltix(ifh)=          86

```

```

After read, parm= slp                      ifh= 86
lead time index= 86 parm# (ip) = 9 ncix=
86
igvret= 0
parmread lead time parm# parm_id minval maxval
85:00 9 slp
0.9584E+05 0.1026E+06
+++ NetCDF read requested for parm # 10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh= 86
ltix(ifh)= 86

After read, parm= u_10m_gr                  ifh= 86
lead time index= 86 parm# (ip) = 10 ncix=
86
igvret= 0
parmread lead time parm# parm_id minval maxval
85:00 10 u_10m_gr -
43.29 31.40
+++ NetCDF read requested for parm # 11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh= 86
ltix(ifh)= 86

After read, parm= v_10m_gr                  ifh= 86
lead time index= 86 parm# (ip) = 11 ncix=
86
igvret= 0
parmread lead time parm# parm_id minval maxval
85:00 11 v_10m_gr -
32.41 41.33
+++ NetCDF read requested for parm # 12 ... parm=
U_500

In get_var3_tlev_double, ifh= 86
ltix(ifh)= 86

After read, parm= U_500                      ifh= 86
lead time index= 86 parm# (ip) = 12 ncix=
86
igvret= 0
parmread lead time parm# parm_id minval maxval
85:00 12 U_500 -
57.45 38.68
+++ NetCDF read requested for parm # 13 ... parm=
V_500

In get_var3_tlev_double, ifh= 86
ltix(ifh)= 86

After read, parm= V_500                      ifh= 86
lead time index= 86 parm# (ip) = 13 ncix=
86
igvret= 0
parmread lead time parm# parm_id minval maxval
85:00 13 V_500 -
47.46 53.51
!!! NetCDF read NOT requested for parm # 14

```

```

+++ NetCDF read requested for parm #          15 ... parm=
Z_500

In get_var3_tlev_double, ifh=                86
                        ltix(ifh)=          86

After read, parm= Z_500                      ifh=                86
lead time index=          86 parm# (ip) =      15 ncix=
86
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
      85:00              15          Z_500
5533.          5948.
+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=                86
                        ltix(ifh)=          86

After read, parm= Z_200                      ifh=                86
lead time index=          86 parm# (ip) =      16 ncix=
86
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
      85:00              16          Z_200
0.1192E+05  0.1256E+05
!!! NetCDF read NOT requested for parm #      17
TIMING: after getdata ... 14:40:41

Of          17 readable parms, you read in      15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =      38316.57      dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:   86:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:
imax=          409  jmax=          349
dx=          0.1722946  dy=          0.1621475

DX:  midi=   204 dx=   0.1723
DY:  midj=   174 dy=   0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:   -9.516  Min Lon:   92.852
Max Lat:   44.929  Max Lon:  163.148
TEST after getgridinfo in sub tracker, iggret=          0
in beginning of tracker, imax=          409  jmax=          349
TIMING: b4 getdata ... 14:40:41

NOTE: Program is now in subroutine  getdata_netcdf.
+++ Time match in getdata_netcdf for usertime=          5160
netcdf file index= ncix=          87

```

```

+++ NetCDF read requested for parm #          1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh=                87
                        ltix(ifh)=          87

After read, parm= ABS_VORTICITY_850          ifh=                87
lead time index=          87 parm# (ip) =          1 ncix=
87
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
86:00                  1          ABS_VORTICITY_850      -
0.7996E-03  0.1799E-02
+++ NetCDF read requested for parm #          2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh=                87
                        ltix(ifh)=          87

After read, parm= ABS_VORTICITY_700          ifh=                87
lead time index=          87 parm# (ip) =          2 ncix=
87
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
86:00                  2          ABS_VORTICITY_700      -
0.5634E-03  0.1365E-02
+++ NetCDF read requested for parm #          3 ... parm=
U_850

In get_var3_tlev_double, ifh=                87
                        ltix(ifh)=          87

After read, parm= U_850                      ifh=                87
lead time index=          87 parm# (ip) =          3 ncix=
87
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
86:00                  3          U_850                -
72.87                0.1000E+21
+++ NetCDF read requested for parm #          4 ... parm=
V_850

In get_var3_tlev_double, ifh=                87
                        ltix(ifh)=          87

After read, parm= V_850                      ifh=                87
lead time index=          87 parm# (ip) =          4 ncix=
87
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
86:00                  4          V_850                -
53.16                0.1000E+21
+++ NetCDF read requested for parm #          5 ... parm=
U_700

In get_var3_tlev_double, ifh=                87
                        ltix(ifh)=          87

After read, parm= U_700                      ifh=                87

```

```

lead time index=          87  parm# (ip) =          5  ncix=
87
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  86:00          5          U_700
67.20      0.1000E+21
+++ NetCDF read requested for parm #          6  ... parm=
V_700

In get_var3_tlev_double, ifh=          87
                        ltix(ifh)=          87

After read, parm= V_700          ifh=          87
lead time index=          87  parm# (ip) =          6  ncix=
87
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  86:00          6          V_700
45.06      0.1000E+21
+++ NetCDF read requested for parm #          7  ... parm=
Z_850

In get_var3_tlev_double, ifh=          87
                        ltix(ifh)=          87

After read, parm= Z_850          ifh=          87
lead time index=          87  parm# (ip) =          7  ncix=
87
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  86:00          7          Z_850
1064.      0.1000E+21
+++ NetCDF read requested for parm #          8  ... parm=
Z_700

In get_var3_tlev_double, ifh=          87
                        ltix(ifh)=          87

After read, parm= Z_700          ifh=          87
lead time index=          87  parm# (ip) =          8  ncix=
87
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  86:00          8          Z_700
2739.      0.1000E+21
+++ NetCDF read requested for parm #          9  ... parm=
slp

In get_var3_tlev_double, ifh=          87
                        ltix(ifh)=          87

After read, parm= slp          ifh=          87
lead time index=          87  parm# (ip) =          9  ncix=
87
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  86:00          9          slp
0.9588E+05  0.1027E+06
+++ NetCDF read requested for parm #          10  ... parm=
u_10m_gr

```



```

In get_var3_tlev_double, ifh=      87
                        ltix(ifh)= 87

After read, parm= u_10m_gr          ifh=      87
lead time index=      87 parm# (ip) =      10 ncix=
87
  igvret=              0
parmread lead time    parm#      parm_id    minval      maxval
  86:00              10          u_10m_gr
41.92              33.39
+++ NetCDF read requested for parm #      11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=      87
                        ltix(ifh)= 87

After read, parm= v_10m_gr          ifh=      87
lead time index=      87 parm# (ip) =      11 ncix=
87
  igvret=              0
parmread lead time    parm#      parm_id    minval      maxval
  86:00              11          v_10m_gr
34.70              40.27
+++ NetCDF read requested for parm #      12 ... parm=
U_500

In get_var3_tlev_double, ifh=      87
                        ltix(ifh)= 87

After read, parm= U_500             ifh=      87
lead time index=      87 parm# (ip) =      12 ncix=
87
  igvret=              0
parmread lead time    parm#      parm_id    minval      maxval
  86:00              12          U_500
59.70              34.55
+++ NetCDF read requested for parm #      13 ... parm=
V_500

In get_var3_tlev_double, ifh=      87
                        ltix(ifh)= 87

After read, parm= V_500             ifh=      87
lead time index=      87 parm# (ip) =      13 ncix=
87
  igvret=              0
parmread lead time    parm#      parm_id    minval      maxval
  86:00              13          V_500
42.02              45.91
!!! NetCDF read NOT requested for parm #      14
+++ NetCDF read requested for parm #      15 ... parm=
Z_500

In get_var3_tlev_double, ifh=      87
                        ltix(ifh)= 87

After read, parm= Z_500             ifh=      87
lead time index=      87 parm# (ip) =      15 ncix=
87

```

```

    igvret=          0
parmread lead time    parm#      parm_id      minval      maxval
    86:00             15          Z_500
5536.          5942.
+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=          87
                        ltix(ifh)=      87

After read, parm= Z_200                ifh=          87
lead time index=          87 parm# (ip) =          16 ncix=
87
    igvret=          0
parmread lead time    parm#      parm_id      minval      maxval
    86:00             16          Z_200
0.1192E+05  0.1257E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:40:42

Of          17 readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =      38316.57      dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:   87:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:
imax=          409  jmax=          349
dx=      0.1722946      dy=      0.1621475

DX:  midi=  204 dx=   0.1723
DY:  midj=  174 dy=   0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:   -9.516  Min Lon:   92.852
Max Lat:   44.929  Max Lon:  163.148
TEST after getgridinfo in sub tracker, iggret=          0
in beginning of tracker, imax=          409  jmax=          349
TIMING: b4 getdata ... 14:40:42

NOTE: Program is now in subroutine getdata_netcdf.
+++ Time match in getdata_netcdf for usertime=          5220
netcdf file index= ncix=          88
+++ NetCDF read requested for parm #          1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh=          88
                        ltix(ifh)=      88

After read, parm= ABS_VORTICITY_850        ifh=          88
lead time index=          88 parm# (ip) =          1 ncix=
88

```

```

    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      87:00              1      ABS_VORTICITY_850
0.8374E-03  0.1957E-02
+++ NetCDF read requested for parm #    2 ... parm=
ABS_VORTICITY_700

    In get_var3_tlev_double, ifh=          88
                          ltix(ifh)=      88

    After read, parm= ABS_VORTICITY_700          ifh=          88
    lead time index=          88 parm# (ip) =          2 ncix=
88
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      87:00              2      ABS_VORTICITY_700
0.6273E-03  0.1347E-02
+++ NetCDF read requested for parm #    3 ... parm=
U_850

    In get_var3_tlev_double, ifh=          88
                          ltix(ifh)=      88

    After read, parm= U_850          ifh=          88
    lead time index=          88 parm# (ip) =          3 ncix=
88
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      87:00              3      U_850
70.55      0.1000E+21
+++ NetCDF read requested for parm #    4 ... parm=
V_850

    In get_var3_tlev_double, ifh=          88
                          ltix(ifh)=      88

    After read, parm= V_850          ifh=          88
    lead time index=          88 parm# (ip) =          4 ncix=
88
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      87:00              4      V_850
53.67      0.1000E+21
+++ NetCDF read requested for parm #    5 ... parm=
U_700

    In get_var3_tlev_double, ifh=          88
                          ltix(ifh)=      88

    After read, parm= U_700          ifh=          88
    lead time index=          88 parm# (ip) =          5 ncix=
88
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      87:00              5      U_700
66.66      0.1000E+21
+++ NetCDF read requested for parm #    6 ... parm=
V_700

    In get_var3_tlev_double, ifh=          88

```

```

                ltix(ifh)=                88

After read, parm= V_700                ifh=                88
lead time index=                88 parm# (ip) =                6 ncix=
88
igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
87:00                6        V_700
48.60    0.1000E+21
+++ NetCDF read requested for parm #    7 ... parm=
Z_850

In get_var3_tlev_double, ifh=                88
                ltix(ifh)=                88

After read, parm= Z_850                ifh=                88
lead time index=                88 parm# (ip) =                7 ncix=
88
igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
87:00                7        Z_850
1057.    0.1000E+21
+++ NetCDF read requested for parm #    8 ... parm=
Z_700

In get_var3_tlev_double, ifh=                88
                ltix(ifh)=                88

After read, parm= Z_700                ifh=                88
lead time index=                88 parm# (ip) =                8 ncix=
88
igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
87:00                8        Z_700
2733.    0.1000E+21
+++ NetCDF read requested for parm #    9 ... parm=
slp

In get_var3_tlev_double, ifh=                88
                ltix(ifh)=                88

After read, parm= slp                ifh=                88
lead time index=                88 parm# (ip) =                9 ncix=
88
igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
87:00                9        slp
0.9580E+05  0.1026E+06
+++ NetCDF read requested for parm #    10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=                88
                ltix(ifh)=                88

After read, parm= u_10m_gr                ifh=                88
lead time index=                88 parm# (ip) =                10 ncix=
88
igvret=                0
parmread lead time    parm#    parm_id    minval    maxval

```

```

      87:00          10          u_10m_gr          -
39.45      30.28
+++ NetCDF read requested for parm #          11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          88
                        ltix(ifh)=          88

After read, parm= v_10m_gr          ifh=          88
lead time index=          88 parm# (ip) =          11 ncix=
88
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
87:00          11          v_10m_gr          -
32.90      40.78
+++ NetCDF read requested for parm #          12 ... parm=
U_500

In get_var3_tlev_double, ifh=          88
                        ltix(ifh)=          88

After read, parm= U_500          ifh=          88
lead time index=          88 parm# (ip) =          12 ncix=
88
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
87:00          12          U_500          -
57.88      36.02
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=          88
                        ltix(ifh)=          88

After read, parm= V_500          ifh=          88
lead time index=          88 parm# (ip) =          13 ncix=
88
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
87:00          13          V_500          -
45.43      50.59
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15 ... parm=
Z_500

In get_var3_tlev_double, ifh=          88
                        ltix(ifh)=          88

After read, parm= Z_500          ifh=          88
lead time index=          88 parm# (ip) =          15 ncix=
88
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
87:00          15          Z_500
5531.      5939.
+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=          88
                        ltix(ifh)=          88

```

```

After read, parm= Z_200                      ifh= 88
  lead time index= 88  parm# (ip) = 16  ncix=
88
  igvret= 0
parmread lead time  parm#  parm_id  minval  maxval
  87:00  16  Z_200
0.1192E+05  0.1257E+05
!!! NetCDF read NOT requested for parm # 17
TIMING: after getdata ... 14:40:43

Of 17 readable parms, you read in 15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter = 38316.57  dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
* New forecast hour: 88:00
*-----*
in getgridinfo_netcdf, ncfile_id= 65536

In getgridinfo, grid dimensions follow:
imax= 409  jmax= 349
dx= 0.1722946  dy= 0.1621475

DX: midi= 204 dx= 0.1723
DY: midj= 174 dy= 0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat: -9.516  Min Lon: 92.852
Max Lat: 44.929  Max Lon: 163.148
TEST after getgridinfo in sub tracker, iggret= 0
in beginning of tracker, imax= 409  jmax= 349
TIMING: b4 getdata ... 14:40:43

NOTE: Program is now in subroutine getdata_netcdf.
+++ Time match in getdata_netcdf for usertime= 5280
netcdf file index= ncix= 89
+++ NetCDF read requested for parm # 1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh= 89
ltix(ifh)= 89

After read, parm= ABS_VORTICITY_850  ifh= 89
  lead time index= 89  parm# (ip) = 1  ncix=
89
  igvret= 0
parmread lead time  parm#  parm_id  minval  maxval
  88:00  1  ABS_VORTICITY_850  -
0.7055E-03  0.1880E-02
+++ NetCDF read requested for parm # 2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh= 89
ltix(ifh)= 89

```

```

After read, parm= ABS_VORTICITY_700          ifh=          89
  lead time index=          89 parm# (ip) =          2 ncix=
89
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  88:00              2          ABS_VORTICITY_700
0.4815E-03  0.1533E-02
+++ NetCDF read requested for parm #          3 ... parm=
U_850

In get_var3_tlev_double, ifh=          89
                        ltix(ifh)=          89

After read, parm= U_850                      ifh=          89
  lead time index=          89 parm# (ip) =          3 ncix=
89
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  88:00              3          U_850
66.90          0.1000E+21
+++ NetCDF read requested for parm #          4 ... parm=
V_850

In get_var3_tlev_double, ifh=          89
                        ltix(ifh)=          89

After read, parm= V_850                      ifh=          89
  lead time index=          89 parm# (ip) =          4 ncix=
89
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  88:00              4          V_850
55.31          0.1000E+21
+++ NetCDF read requested for parm #          5 ... parm=
U_700

In get_var3_tlev_double, ifh=          89
                        ltix(ifh)=          89

After read, parm= U_700                      ifh=          89
  lead time index=          89 parm# (ip) =          5 ncix=
89
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  88:00              5          U_700
59.36          0.1000E+21
+++ NetCDF read requested for parm #          6 ... parm=
V_700

In get_var3_tlev_double, ifh=          89
                        ltix(ifh)=          89

After read, parm= V_700                      ifh=          89
  lead time index=          89 parm# (ip) =          6 ncix=
89
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  88:00              6          V_700
51.68          0.1000E+21

```

```

+++ NetCDF read requested for parm #          7 ... parm=
Z_850

In get_var3_tlev_double, ifh=                89
                        ltix(ifh)=          89

After read, parm= Z_850                      ifh=                89
lead time index=          89 parm# (ip) =          7 ncix=
89
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
  88:00                7          Z_850
1061.          0.1000E+21
+++ NetCDF read requested for parm #          8 ... parm=
Z_700

In get_var3_tlev_double, ifh=                89
                        ltix(ifh)=          89

After read, parm= Z_700                      ifh=                89
lead time index=          89 parm# (ip) =          8 ncix=
89
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
  88:00                8          Z_700
2735.          0.1000E+21
+++ NetCDF read requested for parm #          9 ... parm=
slp

In get_var3_tlev_double, ifh=                89
                        ltix(ifh)=          89

After read, parm= slp                        ifh=                89
lead time index=          89 parm# (ip) =          9 ncix=
89
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
  88:00                9          slp
0.9584E+05  0.1026E+06
+++ NetCDF read requested for parm #         10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=                89
                        ltix(ifh)=          89

After read, parm= u_10m_gr                    ifh=                89
lead time index=          89 parm# (ip) =         10 ncix=
89
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
  88:00               10          u_10m_gr
37.03          31.14
+++ NetCDF read requested for parm #         11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=                89
                        ltix(ifh)=          89

After read, parm= v_10m_gr                    ifh=                89

```



```

lead time index=          89  parm# (ip) =          11  ncix=
89
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
88:00          11          v_10m_gr      -
35.98          40.72
+++ NetCDF read requested for parm #          12  ... parm=
U_500

In get_var3_tlev_double, ifh=          89
ltix(ifh)=          89

After read, parm= U_500          ifh=          89
lead time index=          89  parm# (ip) =          12  ncix=
89
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
88:00          12          U_500          -
55.07          40.48
+++ NetCDF read requested for parm #          13  ... parm=
V_500

In get_var3_tlev_double, ifh=          89
ltix(ifh)=          89

After read, parm= V_500          ifh=          89
lead time index=          89  parm# (ip) =          13  ncix=
89
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
88:00          13          V_500          -
49.75          51.97
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15  ... parm=
Z_500

In get_var3_tlev_double, ifh=          89
ltix(ifh)=          89

After read, parm= Z_500          ifh=          89
lead time index=          89  parm# (ip) =          15  ncix=
89
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
88:00          15          Z_500          -
5531.          5936.
+++ NetCDF read requested for parm #          16  ... parm=
Z_200

In get_var3_tlev_double, ifh=          89
ltix(ifh)=          89

After read, parm= Z_200          ifh=          89
lead time index=          89  parm# (ip) =          16  ncix=
89
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
88:00          16          Z_200          -
0.1191E+05  0.1257E+05
!!! NetCDF read NOT requested for parm #          17

```

TIMING: after getdata ... 14:40:44

Of 17 readable parms, you read in 15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter = 38316.57 dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

* New forecast hour: 89:00

in getgridinfo_netcdf, ncfile_id= 65536

In getgridinfo, grid dimensions follow:
imax= 409 jmax= 349
dx= 0.1722946 dy= 0.1621475

DX: midi= 204 dx= 0.1723
DY: midj= 174 dy= 0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat: -9.516 Min Lon: 92.852
Max Lat: 44.929 Max Lon: 163.148
TEST after getgridinfo in sub tracker, iggret= 0
in beginning of tracker, imax= 409 jmax= 349
TIMING: b4 getdata ... 14:40:44

NOTE: Program is now in subroutine getdata_netcdf.
+++ Time match in getdata_netcdf for usertime= 5340
netcdf file index= ncix= 90
+++ NetCDF read requested for parm # 1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh= 90
ltix(ifh)= 90

After read, parm= ABS_VORTICITY_850 ifh= 90
lead time index= 90 parm# (ip) = 1 ncix=
90
igvret= 0
parmread lead time parm# parm_id minval maxval
89:00 1 ABS_VORTICITY_850 -
0.6387E-03 0.1868E-02
+++ NetCDF read requested for parm # 2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh= 90
ltix(ifh)= 90

After read, parm= ABS_VORTICITY_700 ifh= 90
lead time index= 90 parm# (ip) = 2 ncix=
90
igvret= 0
parmread lead time parm# parm_id minval maxval
89:00 2 ABS_VORTICITY_700 -
0.4866E-03 0.1453E-02
+++ NetCDF read requested for parm # 3 ... parm=

```

U_850

In get_var3_tlev_double, ifh=          90
                        ltix(ifh)=     90

After read, parm= U_850                ifh=          90
lead time index=          90 parm# (ip) =          3 ncix=
90
igvret=                    0
parmread lead time      parm#      parm_id      minval      maxval
89:00                   3          U_850
68.91      0.1000E+21
+++ NetCDF read requested for parm #          4 ... parm=
V_850

In get_var3_tlev_double, ifh=          90
                        ltix(ifh)=     90

After read, parm= V_850                ifh=          90
lead time index=          90 parm# (ip) =          4 ncix=
90
igvret=                    0
parmread lead time      parm#      parm_id      minval      maxval
89:00                   4          V_850
58.44      0.1000E+21
+++ NetCDF read requested for parm #          5 ... parm=
U_700

In get_var3_tlev_double, ifh=          90
                        ltix(ifh)=     90

After read, parm= U_700                ifh=          90
lead time index=          90 parm# (ip) =          5 ncix=
90
igvret=                    0
parmread lead time      parm#      parm_id      minval      maxval
89:00                   5          U_700
66.18      0.1000E+21
+++ NetCDF read requested for parm #          6 ... parm=
V_700

In get_var3_tlev_double, ifh=          90
                        ltix(ifh)=     90

After read, parm= V_700                ifh=          90
lead time index=          90 parm# (ip) =          6 ncix=
90
igvret=                    0
parmread lead time      parm#      parm_id      minval      maxval
89:00                   6          V_700
52.64      0.1000E+21
+++ NetCDF read requested for parm #          7 ... parm=
Z_850

In get_var3_tlev_double, ifh=          90
                        ltix(ifh)=     90

After read, parm= Z_850                ifh=          90
lead time index=          90 parm# (ip) =          7 ncix=
90

```

```

    igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    89:00            7        Z_850
1047.        0.1000E+21
+++ NetCDF read requested for parm #    8    ... parm=
Z_700

In get_var3_tlev_double, ifh=          90
                        ltix(ifh)=    90

After read, parm= Z_700                ifh=          90
lead time index=          90 parm# (ip) =          8 ncix=
90
    igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    89:00            8        Z_700
2726.        0.1000E+21
+++ NetCDF read requested for parm #    9    ... parm=
slp

In get_var3_tlev_double, ifh=          90
                        ltix(ifh)=    90

After read, parm= slp                ifh=          90
lead time index=          90 parm# (ip) =          9 ncix=
90
    igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    89:00            9        slp
0.9570E+05  0.1025E+06
+++ NetCDF read requested for parm #    10    ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          90
                        ltix(ifh)=    90

After read, parm= u_10m_gr            ifh=          90
lead time index=          90 parm# (ip) =          10 ncix=
90
    igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    89:00            10       u_10m_gr
39.87        33.81
+++ NetCDF read requested for parm #    11    ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          90
                        ltix(ifh)=    90

After read, parm= v_10m_gr            ifh=          90
lead time index=          90 parm# (ip) =          11 ncix=
90
    igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    89:00            11       v_10m_gr
34.82        38.19
+++ NetCDF read requested for parm #    12    ... parm=
U_500

In get_var3_tlev_double, ifh=          90

```

```

                ltix(ifh)=          90

After read, parm= U_500                ifh=          90
  lead time index=          90  parm# (ip) =          12  ncix=
90
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  89:00              12      U_500
56.14      41.19
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=          90
                ltix(ifh)=          90

After read, parm= V_500                ifh=          90
  lead time index=          90  parm# (ip) =          13  ncix=
90
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  89:00              13      V_500
47.99      44.76
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15 ... parm=
Z_500

In get_var3_tlev_double, ifh=          90
                ltix(ifh)=          90

After read, parm= Z_500                ifh=          90
  lead time index=          90  parm# (ip) =          15  ncix=
90
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  89:00              15      Z_500
5521.      5935.
+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=          90
                ltix(ifh)=          90

After read, parm= Z_200                ifh=          90
  lead time index=          90  parm# (ip) =          16  ncix=
90
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  89:00              16      Z_200
0.1191E+05  0.1256E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:40:45

Of          17 readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =    38316.57    dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

```

```

*-----*
*   New forecast hour:   90:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:
imax=          409  jmax=          349
dx=    0.1722946    dy=    0.1621475

DX:  midi=  204 dx=    0.1723
DY:  midj=  174 dy=    0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:  -9.516  Min Lon:   92.852
Max Lat:   44.929  Max Lon:  163.148
TEST after getgridinfo in sub tracker, iggret=          0
in beginning of tracker, imax=          409  jmax=          349
TIMING: b4 getdata ... 14:40:45

NOTE: Program is now in subroutine  getdata_netcdf.
+++ Time match in getdata_netcdf for usertime=          5400
   netcdf file index= ncix=          91
+++ NetCDF read requested for parm #          1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh=          91
                           ltix(ifh)=          91

After read, parm= ABS_VORTICITY_850          ifh=          91
lead time index=          91  parm# (ip) =          1  ncix=
91
   igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
90:00                  1          ABS_VORTICITY_850          -
0.6916E-03  0.1897E-02
+++ NetCDF read requested for parm #          2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh=          91
                           ltix(ifh)=          91

After read, parm= ABS_VORTICITY_700          ifh=          91
lead time index=          91  parm# (ip) =          2  ncix=
91
   igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
90:00                  2          ABS_VORTICITY_700          -
0.4848E-03  0.1657E-02
+++ NetCDF read requested for parm #          3 ... parm=
U_850

In get_var3_tlev_double, ifh=          91
                           ltix(ifh)=          91

After read, parm= U_850          ifh=          91
lead time index=          91  parm# (ip) =          3  ncix=
91
   igvret=          0
parmread lead time      parm#      parm_id      minval      maxval

```

```

90:00          3          U_850          -
62.78          0.1000E+21
+++ NetCDF read requested for parm #          4 ... parm=
V_850

In get_var3_tlev_double, ifh=          91
                        ltix(ifh)=          91

After read, parm= V_850          ifh=          91
lead time index=          91 parm# (ip) =          4 ncix=
91
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
90:00          4          V_850          -
58.39          0.1000E+21
+++ NetCDF read requested for parm #          5 ... parm=
U_700

In get_var3_tlev_double, ifh=          91
                        ltix(ifh)=          91

After read, parm= U_700          ifh=          91
lead time index=          91 parm# (ip) =          5 ncix=
91
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
90:00          5          U_700          -
60.20          0.1000E+21
+++ NetCDF read requested for parm #          6 ... parm=
V_700

In get_var3_tlev_double, ifh=          91
                        ltix(ifh)=          91

After read, parm= V_700          ifh=          91
lead time index=          91 parm# (ip) =          6 ncix=
91
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
90:00          6          V_700          -
49.65          0.1000E+21
+++ NetCDF read requested for parm #          7 ... parm=
Z_850

In get_var3_tlev_double, ifh=          91
                        ltix(ifh)=          91

After read, parm= Z_850          ifh=          91
lead time index=          91 parm# (ip) =          7 ncix=
91
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
90:00          7          Z_850
1038.          0.1000E+21
+++ NetCDF read requested for parm #          8 ... parm=
Z_700

In get_var3_tlev_double, ifh=          91
                        ltix(ifh)=          91

```

```

After read, parm= Z_700                      ifh=          91
  lead time index=          91 parm# (ip) =          8 ncix=
91
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  90:00              8        Z_700
2720.        0.1000E+21
+++ NetCDF read requested for parm #          9 ... parm=
slp

In get_var3_tlev_double, ifh=          91
                        ltix(ifh)=          91

After read, parm= slp                      ifh=          91
  lead time index=          91 parm# (ip) =          9 ncix=
91
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  90:00              9        slp
0.9560E+05  0.1025E+06
+++ NetCDF read requested for parm #         10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          91
                        ltix(ifh)=          91

After read, parm= u_10m_gr                  ifh=          91
  lead time index=          91 parm# (ip) =         10 ncix=
91
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  90:00             10        u_10m_gr
36.42        34.78
+++ NetCDF read requested for parm #         11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          91
                        ltix(ifh)=          91

After read, parm= v_10m_gr                  ifh=          91
  lead time index=          91 parm# (ip) =         11 ncix=
91
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  90:00             11        v_10m_gr
35.12        39.21
+++ NetCDF read requested for parm #         12 ... parm=
U_500

In get_var3_tlev_double, ifh=          91
                        ltix(ifh)=          91

After read, parm= U_500                      ifh=          91
  lead time index=          91 parm# (ip) =         12 ncix=
91
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  90:00             12        U_500
57.98        41.97
+++ NetCDF read requested for parm #         13 ... parm=

```


V_500

In get_var3_tlev_double, ifh= 91
ltix(ifh)= 91

After read, parm= V_500 ifh= 91
lead time index= 91 parm# (ip) = 13 ncix=
91
igvret= 0
parmread lead time parm# parm_id minval maxval
90:00 13 V_500 -
47.02 49.39
!!! NetCDF read NOT requested for parm # 14
+++ NetCDF read requested for parm # 15 ... parm=
Z_500

In get_var3_tlev_double, ifh= 91
ltix(ifh)= 91

After read, parm= Z_500 ifh= 91
lead time index= 91 parm# (ip) = 15 ncix=
91
igvret= 0
parmread lead time parm# parm_id minval maxval
90:00 15 Z_500
5520. 5933.
+++ NetCDF read requested for parm # 16 ... parm=
Z_200

In get_var3_tlev_double, ifh= 91
ltix(ifh)= 91

After read, parm= Z_200 ifh= 91
lead time index= 91 parm# (ip) = 16 ncix=
91
igvret= 0
parmread lead time parm# parm_id minval maxval
90:00 16 Z_200
0.1191E+05 0.1255E+05
!!! NetCDF read NOT requested for parm # 17
TIMING: after getdata ... 14:40:46

Of 17 readable parms, you read in 15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter = 38316.57 dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

* New forecast hour: 91:00

in getgridinfo_netcdf, ncfile_id= 65536

In getgridinfo, grid dimensions follow:
imax= 409 jmax= 349
dx= 0.1722946 dy= 0.1621475

DX: midi= 204 dx= 0.1723
DY: midj= 174 dy= 0.1621

Data Grid Lat/Lon boundaries follow:

Min Lat: -9.516 Min Lon: 92.852

Max Lat: 44.929 Max Lon: 163.148

TEST after getgridinfo in sub tracker, iggret= 0

in beginning of tracker, imax= 409 jmax= 349

TIMING: b4 getdata ... 14:40:46

NOTE: Program is now in subroutine getdata_netcdf.

+++ Time match in getdata_netcdf for usertime= 5460

netcdf file index= ncix= 92

+++ NetCDF read requested for parm # 1 ... parm=

ABS_VORTICITY_850

In get_var3_tlev_double, ifh= 92

ltix(ifh)= 92

After read, parm= ABS_VORTICITY_850 ifh= 92

lead time index= 92 parm# (ip) = 1 ncix= 92

igvret= 0

parmread	lead time	parm#	parm_id	minval	maxval	
91:00		1	ABS_VORTICITY_850			-

0.5929E-03 0.1908E-02

+++ NetCDF read requested for parm # 2 ... parm=

ABS_VORTICITY_700

In get_var3_tlev_double, ifh= 92

ltix(ifh)= 92

After read, parm= ABS_VORTICITY_700 ifh= 92

lead time index= 92 parm# (ip) = 2 ncix= 92

igvret= 0

parmread	lead time	parm#	parm_id	minval	maxval	
91:00		2	ABS_VORTICITY_700			-

0.4925E-03 0.1612E-02

+++ NetCDF read requested for parm # 3 ... parm=

U_850

In get_var3_tlev_double, ifh= 92

ltix(ifh)= 92

After read, parm= U_850 ifh= 92

lead time index= 92 parm# (ip) = 3 ncix= 92

igvret= 0

parmread	lead time	parm#	parm_id	minval	maxval	
91:00		3	U_850			-

70.50 0.1000E+21

+++ NetCDF read requested for parm # 4 ... parm=

V_850

In get_var3_tlev_double, ifh= 92

ltix(ifh)= 92

After read, parm= V_850 ifh= 92

```

lead time index=          92  parm# (ip) =          4  ncix=
92
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  91:00          4          V_850
58.77      0.1000E+21
+++ NetCDF read requested for parm #          5  ... parm=
U_700

In get_var3_tlev_double, ifh=          92
                        ltix(ifh)=          92

After read, parm= U_700          ifh=          92
lead time index=          92  parm# (ip) =          5  ncix=
92
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  91:00          5          U_700
60.60      0.1000E+21
+++ NetCDF read requested for parm #          6  ... parm=
V_700

In get_var3_tlev_double, ifh=          92
                        ltix(ifh)=          92

After read, parm= V_700          ifh=          92
lead time index=          92  parm# (ip) =          6  ncix=
92
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  91:00          6          V_700
57.75      0.1000E+21
+++ NetCDF read requested for parm #          7  ... parm=
Z_850

In get_var3_tlev_double, ifh=          92
                        ltix(ifh)=          92

After read, parm= Z_850          ifh=          92
lead time index=          92  parm# (ip) =          7  ncix=
92
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  91:00          7          Z_850
1022.      0.1000E+21
+++ NetCDF read requested for parm #          8  ... parm=
Z_700

In get_var3_tlev_double, ifh=          92
                        ltix(ifh)=          92

After read, parm= Z_700          ifh=          92
lead time index=          92  parm# (ip) =          8  ncix=
92
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  91:00          8          Z_700
2704.      0.1000E+21
+++ NetCDF read requested for parm #          9  ... parm=
slp

```

```

In get_var3_tlev_double, ifh=          92
                        ltix(ifh)=     92

After read, parm= slp                      ifh=          92
lead time index=          92 parm# (ip) =          9 ncix=
92
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  91:00                9          slp
0.9542E+05  0.1026E+06
+++ NetCDF read requested for parm #          10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          92
                        ltix(ifh)=     92

After read, parm= u_10m_gr                      ifh=          92
lead time index=          92 parm# (ip) =          10 ncix=
92
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  91:00                10          u_10m_gr
43.14        36.57
+++ NetCDF read requested for parm #          11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          92
                        ltix(ifh)=     92

After read, parm= v_10m_gr                      ifh=          92
lead time index=          92 parm# (ip) =          11 ncix=
92
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  91:00                11          v_10m_gr
36.30        41.36
+++ NetCDF read requested for parm #          12 ... parm=
U_500

In get_var3_tlev_double, ifh=          92
                        ltix(ifh)=     92

After read, parm= U_500                      ifh=          92
lead time index=          92 parm# (ip) =          12 ncix=
92
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  91:00                12          U_500
57.67        47.54
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=          92
                        ltix(ifh)=     92

After read, parm= V_500                      ifh=          92
lead time index=          92 parm# (ip) =          13 ncix=
92
igvret=          0

```

```

parmread lead time      parm#      parm_id      minval      maxval      -
  91:00                13         v_500
46.81          49.07
!!! NetCDF read NOT requested for parm #      14
+++ NetCDF read requested for parm #      15 ... parm=
Z_500

In get_var3_tlev_double, ifh=          92
                        ltix(ifh)=      92

After read, parm= Z_500                ifh=          92
lead time index=          92 parm# (ip) =      15 ncix=
92
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  91:00                15         Z_500
5504.          5933.
+++ NetCDF read requested for parm #      16 ... parm=
Z_200

In get_var3_tlev_double, ifh=          92
                        ltix(ifh)=      92

After read, parm= Z_200                ifh=          92
lead time index=          92 parm# (ip) =      16 ncix=
92
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  91:00                16         Z_200
0.1192E+05  0.1254E+05
!!! NetCDF read NOT requested for parm #      17
TIMING: after getdata ... 14:40:47

Of          17 readable parms, you read in      15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =      38316.57      dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:   92:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:
imax=          409  jmax=          349
dx=          0.1722946  dy=          0.1621475

DX:  midi=   204 dx=   0.1723
DY:  midj=   174 dy=   0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:   -9.516  Min Lon:   92.852
Max Lat:   44.929  Max Lon:  163.148
TEST after getgridinfo in sub tracker, iggret=          0
in beginning of tracker, imax=          409  jmax=          349
TIMING: b4 getdata ... 14:40:47

```

```

NOTE: Program is now in subroutine  getdata_netcdf.
+++ Time match in getdata_netcdf for usertime=          5520
    netcdf file index= ncix=          93
+++ NetCDF read requested for parm #          1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh=          93
                        ltix(ifh)=          93

After read, parm= ABS_VORTICITY_850          ifh=          93
lead time index=          93 parm# (ip) =          1 ncix=
93
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  92:00              1          ABS_VORTICITY_850          -
0.6304E-03  0.2134E-02
+++ NetCDF read requested for parm #          2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh=          93
                        ltix(ifh)=          93

After read, parm= ABS_VORTICITY_700          ifh=          93
lead time index=          93 parm# (ip) =          2 ncix=
93
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  92:00              2          ABS_VORTICITY_700          -
0.5967E-03  0.1817E-02
+++ NetCDF read requested for parm #          3 ... parm=
U_850

In get_var3_tlev_double, ifh=          93
                        ltix(ifh)=          93

After read, parm= U_850          ifh=          93
lead time index=          93 parm# (ip) =          3 ncix=
93
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  92:00              3          U_850          -
71.27      0.1000E+21
+++ NetCDF read requested for parm #          4 ... parm=
V_850

In get_var3_tlev_double, ifh=          93
                        ltix(ifh)=          93

After read, parm= V_850          ifh=          93
lead time index=          93 parm# (ip) =          4 ncix=
93
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  92:00              4          V_850          -
55.82      0.1000E+21
+++ NetCDF read requested for parm #          5 ... parm=
U_700

In get_var3_tlev_double, ifh=          93

```

```

          ltix(ifh)=          93

After read, parm= U_700          ifh=          93
  lead time index=          93  parm# (ip) =          5  ncix=
93
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  92:00              5        U_700
61.64      0.1000E+21
+++ NetCDF read requested for parm #          6  ... parm=
V_700

In get_var3_tlev_double, ifh=          93
          ltix(ifh)=          93

After read, parm= V_700          ifh=          93
  lead time index=          93  parm# (ip) =          6  ncix=
93
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  92:00              6        V_700
51.99      0.1000E+21
+++ NetCDF read requested for parm #          7  ... parm=
Z_850

In get_var3_tlev_double, ifh=          93
          ltix(ifh)=          93

After read, parm= Z_850          ifh=          93
  lead time index=          93  parm# (ip) =          7  ncix=
93
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  92:00              7        Z_850
1018.      0.1000E+21
+++ NetCDF read requested for parm #          8  ... parm=
Z_700

In get_var3_tlev_double, ifh=          93
          ltix(ifh)=          93

After read, parm= Z_700          ifh=          93
  lead time index=          93  parm# (ip) =          8  ncix=
93
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  92:00              8        Z_700
2697.      0.1000E+21
+++ NetCDF read requested for parm #          9  ... parm=
slp

In get_var3_tlev_double, ifh=          93
          ltix(ifh)=          93

After read, parm= slp          ifh=          93
  lead time index=          93  parm# (ip) =          9  ncix=
93
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval

```

```

    92:00          9          slp
0.9537E+05  0.1025E+06
+++ NetCDF read requested for parm #          10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          93
                        ltix(ifh)=      93

After read, parm= u_10m_gr          ifh=          93
lead time index=          93 parm# (ip) =          10 ncix=
93
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
92:00          10          u_10m_gr          -
41.56          36.38
+++ NetCDF read requested for parm #          11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          93
                        ltix(ifh)=      93

After read, parm= v_10m_gr          ifh=          93
lead time index=          93 parm# (ip) =          11 ncix=
93
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
92:00          11          v_10m_gr          -
35.00          41.92
+++ NetCDF read requested for parm #          12 ... parm=
U_500

In get_var3_tlev_double, ifh=          93
                        ltix(ifh)=      93

After read, parm= U_500          ifh=          93
lead time index=          93 parm# (ip) =          12 ncix=
93
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
92:00          12          U_500          -
54.80          41.59
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=          93
                        ltix(ifh)=      93

After read, parm= V_500          ifh=          93
lead time index=          93 parm# (ip) =          13 ncix=
93
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
92:00          13          V_500          -
43.40          56.93
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15 ... parm=
Z_500

In get_var3_tlev_double, ifh=          93
                        ltix(ifh)=      93

```



```

After read, parm= Z_500                      ifh=          93
  lead time index=          93  parm# (ip) =          15  ncix=
93
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  92:00                15          Z_500
5497.          5932.
+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=          93
                          ltix(ifh)=          93

After read, parm= Z_200                      ifh=          93
  lead time index=          93  parm# (ip) =          16  ncix=
93
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  92:00                16          Z_200
0.1193E+05  0.1253E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:40:48

Of          17 readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =          38316.57      dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:   93:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:
imax=          409  jmax=          349
dx=          0.1722946      dy=          0.1621475

DX:  midi=   204  dx=   0.1723
DY:  midj=   174  dy=   0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:   -9.516  Min Lon:   92.852
Max Lat:   44.929  Max Lon:  163.148
TEST after getgridinfo in sub tracker, iggret=          0
in beginning of tracker, imax=          409  jmax=          349
TIMING: b4 getdata ... 14:40:48

NOTE: Program is now in subroutine getdata_netcdf.
+++ Time match in getdata_netcdf for usertime=          5580
    netcdf file index= ncix=          94
+++ NetCDF read requested for parm #          1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh=          94
                          ltix(ifh)=          94

```

```

After read, parm= ABS_VORTICITY_850          ifh=          94
  lead time index=          94 parm# (ip) =          1 ncix=
94
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  93:00              1          ABS_VORTICITY_850          -
0.6739E-03  0.2394E-02
+++ NetCDF read requested for parm #          2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh=          94
                        ltix(ifh)=          94

After read, parm= ABS_VORTICITY_700          ifh=          94
  lead time index=          94 parm# (ip) =          2 ncix=
94
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  93:00              2          ABS_VORTICITY_700          -
0.5683E-03  0.2214E-02
+++ NetCDF read requested for parm #          3 ... parm=
U_850

In get_var3_tlev_double, ifh=          94
                        ltix(ifh)=          94

After read, parm= U_850                      ifh=          94
  lead time index=          94 parm# (ip) =          3 ncix=
94
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  93:00              3          U_850          -
70.10          0.1000E+21
+++ NetCDF read requested for parm #          4 ... parm=
V_850

In get_var3_tlev_double, ifh=          94
                        ltix(ifh)=          94

After read, parm= V_850                      ifh=          94
  lead time index=          94 parm# (ip) =          4 ncix=
94
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  93:00              4          V_850          -
58.67          0.1000E+21
+++ NetCDF read requested for parm #          5 ... parm=
U_700

In get_var3_tlev_double, ifh=          94
                        ltix(ifh)=          94

After read, parm= U_700                      ifh=          94
  lead time index=          94 parm# (ip) =          5 ncix=
94
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  93:00              5          U_700          -
64.97          0.1000E+21

```

```

+++ NetCDF read requested for parm #          6 ... parm=
V_700

In get_var3_tlev_double, ifh=                94
                        ltix(ifh)=          94

After read, parm= V_700                      ifh=                94
lead time index=          94 parm# (ip) =          6 ncix=
94
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
  93:00                6          V_700
52.49      0.1000E+21
+++ NetCDF read requested for parm #          7 ... parm=
Z_850

In get_var3_tlev_double, ifh=                94
                        ltix(ifh)=          94

After read, parm= Z_850                      ifh=                94
lead time index=          94 parm# (ip) =          7 ncix=
94
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
  93:00                7          Z_850
999.1      0.1000E+21
+++ NetCDF read requested for parm #          8 ... parm=
Z_700

In get_var3_tlev_double, ifh=                94
                        ltix(ifh)=          94

After read, parm= Z_700                      ifh=                94
lead time index=          94 parm# (ip) =          8 ncix=
94
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
  93:00                8          Z_700
2688.      0.1000E+21
+++ NetCDF read requested for parm #          9 ... parm=
slp

In get_var3_tlev_double, ifh=                94
                        ltix(ifh)=          94

After read, parm= slp                        ifh=                94
lead time index=          94 parm# (ip) =          9 ncix=
94
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
  93:00                9          slp
0.9531E+05  0.1025E+06
+++ NetCDF read requested for parm #         10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=                94
                        ltix(ifh)=          94

After read, parm= u_10m_gr                    ifh=                94

```

```

lead time index=          94  parm# (ip) =          10  ncix=
94
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
93:00          10          u_10m_gr      -
41.95          33.87
+++ NetCDF read requested for parm #          11  ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          94
ltix(ifh)=          94

After read, parm= v_10m_gr          ifh=          94
lead time index=          94  parm# (ip) =          11  ncix=
94
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
93:00          11          v_10m_gr      -
37.22          40.92
+++ NetCDF read requested for parm #          12  ... parm=
U_500

In get_var3_tlev_double, ifh=          94
ltix(ifh)=          94

After read, parm= U_500          ifh=          94
lead time index=          94  parm# (ip) =          12  ncix=
94
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
93:00          12          U_500          -
60.05          53.14
+++ NetCDF read requested for parm #          13  ... parm=
V_500

In get_var3_tlev_double, ifh=          94
ltix(ifh)=          94

After read, parm= V_500          ifh=          94
lead time index=          94  parm# (ip) =          13  ncix=
94
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
93:00          13          V_500          -
46.40          55.50
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15  ... parm=
Z_500

In get_var3_tlev_double, ifh=          94
ltix(ifh)=          94

After read, parm= Z_500          ifh=          94
lead time index=          94  parm# (ip) =          15  ncix=
94
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
93:00          15          Z_500          -
5486.          5935.
+++ NetCDF read requested for parm #          16  ... parm=

```

Z_200

In get_var3_tlev_double, ifh= 94
ltix(ifh)= 94

After read, parm= Z_200 ifh= 94
lead time index= 94 parm# (ip) = 16 ncix=
94
igvret= 0
parmread lead time parm# parm_id minval maxval
93:00 16 Z_200
0.1193E+05 0.1253E+05
!!! NetCDF read NOT requested for parm # 17
TIMING: after getdata ... 14:40:48

Of 17 readable parms, you read in 15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter = 38316.57 dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

* New forecast hour: 94:00

in getgridinfo_netcdf, ncfile_id= 65536

In getgridinfo, grid dimensions follow:
imax= 409 jmax= 349
dx= 0.1722946 dy= 0.1621475

DX: midi= 204 dx= 0.1723
DY: midj= 174 dy= 0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat: -9.516 Min Lon: 92.852
Max Lat: 44.929 Max Lon: 163.148
TEST after getgridinfo in sub tracker, iggret= 0
in beginning of tracker, imax= 409 jmax= 349
TIMING: b4 getdata ... 14:40:48

NOTE: Program is now in subroutine getdata_netcdf.
+++ Time match in getdata_netcdf for usertime= 5640
netcdf file index= ncix= 95
+++ NetCDF read requested for parm # 1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh= 95
ltix(ifh)= 95

After read, parm= ABS_VORTICITY_850 ifh= 95
lead time index= 95 parm# (ip) = 1 ncix=
95
igvret= 0
parmread lead time parm# parm_id minval maxval
94:00 1 ABS_VORTICITY_850 -
0.6787E-03 0.2152E-02
+++ NetCDF read requested for parm # 2 ... parm=

ABS_VORTICITY_700

In get_var3_tlev_double, ifh= 95
ltix(ifh)= 95

After read, parm= ABS_VORTICITY_700 ifh= 95
lead time index= 95 parm# (ip) = 2 ncix=
95

igvret= 0
parmread lead time parm# parm_id minval maxval -
94:00 2 ABS_VORTICITY_700
0.5501E-03 0.1916E-02
+++ NetCDF read requested for parm # 3 ... parm=
U_850

In get_var3_tlev_double, ifh= 95
ltix(ifh)= 95

After read, parm= U_850 ifh= 95
lead time index= 95 parm# (ip) = 3 ncix=
95

igvret= 0
parmread lead time parm# parm_id minval maxval -
94:00 3 U_850
74.02 0.1000E+21
+++ NetCDF read requested for parm # 4 ... parm=
V_850

In get_var3_tlev_double, ifh= 95
ltix(ifh)= 95

After read, parm= V_850 ifh= 95
lead time index= 95 parm# (ip) = 4 ncix=
95

igvret= 0
parmread lead time parm# parm_id minval maxval -
94:00 4 V_850
64.51 0.1000E+21
+++ NetCDF read requested for parm # 5 ... parm=
U_700

In get_var3_tlev_double, ifh= 95
ltix(ifh)= 95

After read, parm= U_700 ifh= 95
lead time index= 95 parm# (ip) = 5 ncix=
95

igvret= 0
parmread lead time parm# parm_id minval maxval -
94:00 5 U_700
67.79 0.1000E+21
+++ NetCDF read requested for parm # 6 ... parm=
V_700

In get_var3_tlev_double, ifh= 95
ltix(ifh)= 95

After read, parm= V_700 ifh= 95
lead time index= 95 parm# (ip) = 6 ncix=
95

```

    igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    94:00              6        v_700
57.91      0.1000E+21
+++ NetCDF read requested for parm #    7 ... parm=
Z_850

In get_var3_tlev_double, ifh=          95
                        ltix(ifh)=     95

After read, parm= Z_850                ifh=          95
lead time index=          95 parm# (ip) =          7 ncix=
95
    igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    94:00              7        Z_850
997.1      0.1000E+21
+++ NetCDF read requested for parm #    8 ... parm=
Z_700

In get_var3_tlev_double, ifh=          95
                        ltix(ifh)=     95

After read, parm= Z_700                ifh=          95
lead time index=          95 parm# (ip) =          8 ncix=
95
    igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    94:00              8        Z_700
2681.      0.1000E+21
+++ NetCDF read requested for parm #    9 ... parm=
slp

In get_var3_tlev_double, ifh=          95
                        ltix(ifh)=     95

After read, parm= slp                  ifh=          95
lead time index=          95 parm# (ip) =          9 ncix=
95
    igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    94:00              9        slp
0.9527E+05  0.1025E+06
+++ NetCDF read requested for parm #   10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          95
                        ltix(ifh)=     95

After read, parm= u_10m_gr              ifh=          95
lead time index=          95 parm# (ip) =         10 ncix=
95
    igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    94:00             10        u_10m_gr
41.97      36.64
+++ NetCDF read requested for parm #   11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          95

```

```

          ltix(ifh)=          95

After read, parm= v_10m_gr          ifh=          95
lead time index=          95  parm# (ip) =          11  ncix=
95
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  94:00          11          v_10m_gr          -
37.00          42.76
+++ NetCDF read requested for parm #          12  ... parm=
U_500

In get_var3_tlev_double, ifh=          95
          ltix(ifh)=          95

After read, parm= U_500          ifh=          95
lead time index=          95  parm# (ip) =          12  ncix=
95
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  94:00          12          U_500          -
59.07          40.62
+++ NetCDF read requested for parm #          13  ... parm=
V_500

In get_var3_tlev_double, ifh=          95
          ltix(ifh)=          95

After read, parm= V_500          ifh=          95
lead time index=          95  parm# (ip) =          13  ncix=
95
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  94:00          13          V_500          -
51.30          58.66
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15  ... parm=
Z_500

In get_var3_tlev_double, ifh=          95
          ltix(ifh)=          95

After read, parm= Z_500          ifh=          95
lead time index=          95  parm# (ip) =          15  ncix=
95
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  94:00          15          Z_500
5486.          5940.
+++ NetCDF read requested for parm #          16  ... parm=
Z_200

In get_var3_tlev_double, ifh=          95
          ltix(ifh)=          95

After read, parm= Z_200          ifh=          95
lead time index=          95  parm# (ip) =          16  ncix=
95
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval

```



```

    94:00          16          Z_200
0.1194E+05  0.1253E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:40:49

Of          17 readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =    38316.57    dlat_inter =
    36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:    95:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:
imax=          409  jmax=          349
dx=    0.1722946    dy=    0.1621475

DX:  midi=   204 dx=    0.1723
DY:  midj=   174 dy=    0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:   -9.516  Min Lon:   92.852
Max Lat:   44.929  Max Lon:  163.148
TEST after getgridinfo in sub tracker, iggret=          0
in beginning of tracker, imax=          409  jmax=          349
TIMING: b4 getdata ... 14:40:49

NOTE: Program is now in subroutine  getdata_netcdf.
+++ Time match in getdata_netcdf for usertime=          5700
    netcdf file index= ncix=          96
+++ NetCDF read requested for parm #          1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh=          96
                        ltix(ifh)=          96

After read, parm= ABS_VORTICITY_850          ifh=          96
  lead time index=          96  parm# (ip) =          1  ncix=
96
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  95:00              1          ABS_VORTICITY_850    -
0.6647E-03  0.2329E-02
+++ NetCDF read requested for parm #          2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh=          96
                        ltix(ifh)=          96

After read, parm= ABS_VORTICITY_700          ifh=          96
  lead time index=          96  parm# (ip) =          2  ncix=
96
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval

```

```

95:00          2          ABS_VORTICITY_700          -
0.5195E-03  0.2126E-02
+++ NetCDF read requested for parm #          3 ... parm=
U_850

In get_var3_tlev_double, ifh=          96
                        ltix(ifh)=          96

After read, parm= U_850          ifh=          96
lead time index=          96 parm# (ip) =          3 ncix=
96
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
95:00          3          U_850          -
72.01          0.1000E+21
+++ NetCDF read requested for parm #          4 ... parm=
V_850

In get_var3_tlev_double, ifh=          96
                        ltix(ifh)=          96

After read, parm= V_850          ifh=          96
lead time index=          96 parm# (ip) =          4 ncix=
96
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
95:00          4          V_850          -
63.35          0.1000E+21
+++ NetCDF read requested for parm #          5 ... parm=
U_700

In get_var3_tlev_double, ifh=          96
                        ltix(ifh)=          96

After read, parm= U_700          ifh=          96
lead time index=          96 parm# (ip) =          5 ncix=
96
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
95:00          5          U_700          -
61.23          0.1000E+21
+++ NetCDF read requested for parm #          6 ... parm=
V_700

In get_var3_tlev_double, ifh=          96
                        ltix(ifh)=          96

After read, parm= V_700          ifh=          96
lead time index=          96 parm# (ip) =          6 ncix=
96
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
95:00          6          V_700          -
58.23          0.1000E+21
+++ NetCDF read requested for parm #          7 ... parm=
Z_850

In get_var3_tlev_double, ifh=          96
                        ltix(ifh)=          96

```

```

After read, parm= Z_850                ifh=          96
lead time index=          96 parm# (ip) =          7 ncix=
96
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  95:00              7        Z_850
1006.      0.1000E+21
+++ NetCDF read requested for parm #          8 ... parm=
Z_700

In get_var3_tlev_double, ifh=          96
                        ltix(ifh)=    96

After read, parm= Z_700                ifh=          96
lead time index=          96 parm# (ip) =          8 ncix=
96
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  95:00              8        Z_700
2685.      0.1000E+21
+++ NetCDF read requested for parm #          9 ... parm=
slp

In get_var3_tlev_double, ifh=          96
                        ltix(ifh)=    96

After read, parm= slp                  ifh=          96
lead time index=          96 parm# (ip) =          9 ncix=
96
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  95:00              9        slp
0.9524E+05  0.1025E+06
+++ NetCDF read requested for parm #         10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          96
                        ltix(ifh)=    96

After read, parm= u_10m_gr            ifh=          96
lead time index=          96 parm# (ip) =         10 ncix=
96
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  95:00             10        u_10m_gr
43.10      38.10
+++ NetCDF read requested for parm #         11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          96
                        ltix(ifh)=    96

After read, parm= v_10m_gr           ifh=          96
lead time index=          96 parm# (ip) =         11 ncix=
96
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  95:00             11        v_10m_gr
38.67      40.88
+++ NetCDF read requested for parm #         12 ... parm=

```

```

U_500

In get_var3_tlev_double, ifh=          96
                        ltix(ifh)=     96

After read, parm= U_500                ifh=          96
lead time index=          96 parm# (ip) =          12 ncix=
96
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
95:00                  12          U_500
56.68      42.15
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=          96
                        ltix(ifh)=     96

After read, parm= V_500                ifh=          96
lead time index=          96 parm# (ip) =          13 ncix=
96
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
95:00                  13          V_500
52.55      56.23
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15 ... parm=
Z_500

In get_var3_tlev_double, ifh=          96
                        ltix(ifh)=     96

After read, parm= Z_500                ifh=          96
lead time index=          96 parm# (ip) =          15 ncix=
96
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
95:00                  15          Z_500
5488.      5943.
+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=          96
                        ltix(ifh)=     96

After read, parm= Z_200                ifh=          96
lead time index=          96 parm# (ip) =          16 ncix=
96
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
95:00                  16          Z_200
0.1194E+05  0.1253E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:40:50

Of          17 readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter = 38316.57      dlat_inter =
36059.95

```

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

* New forecast hour: 96:00

in getgridinfo_netcdf, ncfile_id= 65536

In getgridinfo, grid dimensions follow:
imax= 409 jmax= 349
dx= 0.1722946 dy= 0.1621475

DX: midi= 204 dx= 0.1723
DY: midj= 174 dy= 0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat: -9.516 Min Lon: 92.852
Max Lat: 44.929 Max Lon: 163.148
TEST after getgridinfo in sub tracker, iggret= 0
in beginning of tracker, imax= 409 jmax= 349
TIMING: b4 getdata ... 14:40:50

NOTE: Program is now in subroutine getdata_netcdf.
+++ Time match in getdata_netcdf for usertime= 5760
netcdf file index= ncix= 97
+++ NetCDF read requested for parm # 1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh= 97
ltix(ifh)= 97

After read, parm= ABS_VORTICITY_850 ifh= 97
lead time index= 97 parm# (ip) = 1 ncix=
97
igvret= 0
parmread lead time parm# parm_id minval maxval -
96:00 1 ABS_VORTICITY_850 -
0.6343E-03 0.2285E-02
+++ NetCDF read requested for parm # 2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh= 97
ltix(ifh)= 97

After read, parm= ABS_VORTICITY_700 ifh= 97
lead time index= 97 parm# (ip) = 2 ncix=
97
igvret= 0
parmread lead time parm# parm_id minval maxval -
96:00 2 ABS_VORTICITY_700 -
0.4621E-03 0.2183E-02
+++ NetCDF read requested for parm # 3 ... parm=
U_850

In get_var3_tlev_double, ifh= 97
ltix(ifh)= 97

After read, parm= U_850 ifh= 97

```

lead time index=          97  parm# (ip) =          3  ncix=
97
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  96:00          3          U_850
76.61      0.1000E+21
+++ NetCDF read requested for parm #          4  ... parm=
V_850

In get_var3_tlev_double, ifh=          97
                        ltix(ifh)=          97

After read, parm= V_850          ifh=          97
lead time index=          97  parm# (ip) =          4  ncix=
97
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  96:00          4          V_850
59.94      0.1000E+21
+++ NetCDF read requested for parm #          5  ... parm=
U_700

In get_var3_tlev_double, ifh=          97
                        ltix(ifh)=          97

After read, parm= U_700          ifh=          97
lead time index=          97  parm# (ip) =          5  ncix=
97
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  96:00          5          U_700
71.29      0.1000E+21
+++ NetCDF read requested for parm #          6  ... parm=
V_700

In get_var3_tlev_double, ifh=          97
                        ltix(ifh)=          97

After read, parm= V_700          ifh=          97
lead time index=          97  parm# (ip) =          6  ncix=
97
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  96:00          6          V_700
53.93      0.1000E+21
+++ NetCDF read requested for parm #          7  ... parm=
Z_850

In get_var3_tlev_double, ifh=          97
                        ltix(ifh)=          97

After read, parm= Z_850          ifh=          97
lead time index=          97  parm# (ip) =          7  ncix=
97
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  96:00          7          Z_850
1002.      0.1000E+21
+++ NetCDF read requested for parm #          8  ... parm=
Z_700

```

```

In get_var3_tlev_double, ifh=          97
                        ltix(ifh)=      97

After read, parm= Z_700                ifh=          97
lead time index=          97 parm# (ip) =          8 ncix=
97
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  96:00                8          Z_700
2684.          0.1000E+21
+++ NetCDF read requested for parm #          9 ... parm=
slp

In get_var3_tlev_double, ifh=          97
                        ltix(ifh)=      97

After read, parm= slp                  ifh=          97
lead time index=          97 parm# (ip) =          9 ncix=
97
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  96:00                9          slp
0.9522E+05  0.1025E+06
+++ NetCDF read requested for parm #          10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          97
                        ltix(ifh)=      97

After read, parm= u_10m_gr             ifh=          97
lead time index=          97 parm# (ip) =          10 ncix=
97
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  96:00                10         u_10m_gr      -
46.13          38.55
+++ NetCDF read requested for parm #          11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          97
                        ltix(ifh)=      97

After read, parm= v_10m_gr             ifh=          97
lead time index=          97 parm# (ip) =          11 ncix=
97
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  96:00                11         v_10m_gr      -
36.18          41.10
+++ NetCDF read requested for parm #          12 ... parm=
U_500

In get_var3_tlev_double, ifh=          97
                        ltix(ifh)=      97

After read, parm= U_500                ifh=          97
lead time index=          97 parm# (ip) =          12 ncix=
97
igvret=          0

```

```

parmread lead time      parm#      parm_id      minval      maxval      -
  96:00                12        U_500
62.05      45.59
+++ NetCDF read requested for parm #      13 ... parm=
V_500

In get_var3_tlev_double, ifh=      97
                        ltix(ifh)=      97

After read, parm= V_500                ifh=      97
lead time index=      97 parm# (ip) =      13 ncix=
97
igvret=      0
parmread lead time      parm#      parm_id      minval      maxval      -
  96:00                13        V_500
47.77      53.50
!!! NetCDF read NOT requested for parm #      14
+++ NetCDF read requested for parm #      15 ... parm=
Z_500

In get_var3_tlev_double, ifh=      97
                        ltix(ifh)=      97

After read, parm= Z_500                ifh=      97
lead time index=      97 parm# (ip) =      15 ncix=
97
igvret=      0
parmread lead time      parm#      parm_id      minval      maxval
  96:00                15        Z_500
5483.      5948.
+++ NetCDF read requested for parm #      16 ... parm=
Z_200

In get_var3_tlev_double, ifh=      97
                        ltix(ifh)=      97

After read, parm= Z_200                ifh=      97
lead time index=      97 parm# (ip) =      16 ncix=
97
igvret=      0
parmread lead time      parm#      parm_id      minval      maxval
  96:00                16        Z_200
0.1194E+05  0.1254E+05
!!! NetCDF read NOT requested for parm #      17
TIMING: after getdata ... 14:40:51

Of      17 readable parms, you read in      15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =      38316.57      dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:   97:00
*-----*
in getgridinfo_netcdf, ncfile_id=      65536

```


In getgridinfo, grid dimensions follow:
imax= 409 jmax= 349
dx= 0.1722946 dy= 0.1621475

DX: midi= 204 dx= 0.1723
DY: midj= 174 dy= 0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat: -9.516 Min Lon: 92.852
Max Lat: 44.929 Max Lon: 163.148
TEST after getgridinfo in sub tracker, iggret= 0
in beginning of tracker, imax= 409 jmax= 349
TIMING: b4 getdata ... 14:40:51

NOTE: Program is now in subroutine getdata_netcdf.
+++ Time match in getdata_netcdf for usertime= 5820
netcdf file index= ncix= 98
+++ NetCDF read requested for parm # 1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh= 98
ltix(ifh)= 98

After read, parm= ABS_VORTICITY_850 ifh= 98
lead time index= 98 parm# (ip) = 1 ncix=
98
igvret= 0
parmread lead time parm# parm_id minval maxval
97:00 1 ABS_VORTICITY_850 -
0.5715E-03 0.2396E-02
+++ NetCDF read requested for parm # 2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh= 98
ltix(ifh)= 98

After read, parm= ABS_VORTICITY_700 ifh= 98
lead time index= 98 parm# (ip) = 2 ncix=
98
igvret= 0
parmread lead time parm# parm_id minval maxval
97:00 2 ABS_VORTICITY_700 -
0.4003E-03 0.2011E-02
+++ NetCDF read requested for parm # 3 ... parm=
U_850

In get_var3_tlev_double, ifh= 98
ltix(ifh)= 98

After read, parm= U_850 ifh= 98
lead time index= 98 parm# (ip) = 3 ncix=
98
igvret= 0
parmread lead time parm# parm_id minval maxval
97:00 3 U_850 -
70.16 0.1000E+21
+++ NetCDF read requested for parm # 4 ... parm=
V_850

In get_var3_tlev_double, ifh= 98

```

          ltix(ifh)=          98

After read, parm= V_850          ifh=          98
  lead time index=          98  parm# (ip) =          4  ncix=
98
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  97:00              4        V_850
62.99      0.1000E+21
+++ NetCDF read requested for parm #          5  ... parm=
U_700

In get_var3_tlev_double, ifh=          98
          ltix(ifh)=          98

After read, parm= U_700          ifh=          98
  lead time index=          98  parm# (ip) =          5  ncix=
98
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  97:00              5        U_700
65.14      0.1000E+21
+++ NetCDF read requested for parm #          6  ... parm=
V_700

In get_var3_tlev_double, ifh=          98
          ltix(ifh)=          98

After read, parm= V_700          ifh=          98
  lead time index=          98  parm# (ip) =          6  ncix=
98
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  97:00              6        V_700
57.05      0.1000E+21
+++ NetCDF read requested for parm #          7  ... parm=
Z_850

In get_var3_tlev_double, ifh=          98
          ltix(ifh)=          98

After read, parm= Z_850          ifh=          98
  lead time index=          98  parm# (ip) =          7  ncix=
98
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  97:00              7        Z_850
992.4      0.1000E+21
+++ NetCDF read requested for parm #          8  ... parm=
Z_700

In get_var3_tlev_double, ifh=          98
          ltix(ifh)=          98

After read, parm= Z_700          ifh=          98
  lead time index=          98  parm# (ip) =          8  ncix=
98
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval

```

```

97:00          8          Z_700
2680.          0.1000E+21
+++ NetCDF read requested for parm #          9 ... parm=
slp

In get_var3_tlev_double, ifh=          98
                        ltix(ifh)=      98

After read, parm= slp          ifh=          98
lead time index=          98 parm# (ip) =          9 ncix=
98
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
97:00          9          slp
0.9510E+05  0.1025E+06
+++ NetCDF read requested for parm #          10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          98
                        ltix(ifh)=      98

After read, parm= u_10m_gr          ifh=          98
lead time index=          98 parm# (ip) =          10 ncix=
98
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
97:00          10          u_10m_gr          -
41.29          37.53
+++ NetCDF read requested for parm #          11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          98
                        ltix(ifh)=      98

After read, parm= v_10m_gr          ifh=          98
lead time index=          98 parm# (ip) =          11 ncix=
98
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
97:00          11          v_10m_gr          -
38.20          43.82
+++ NetCDF read requested for parm #          12 ... parm=
U_500

In get_var3_tlev_double, ifh=          98
                        ltix(ifh)=      98

After read, parm= U_500          ifh=          98
lead time index=          98 parm# (ip) =          12 ncix=
98
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
97:00          12          U_500          -
55.48          51.79
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=          98
                        ltix(ifh)=      98

```

```

After read, parm= V_500                      ifh=          98
lead time index=          98 parm# (ip) =          13 ncix=
98
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  97:00                13          V_500
52.80          63.48
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15 ... parm=
Z_500

In get_var3_tlev_double, ifh=          98
                        ltix(ifh)=          98

After read, parm= Z_500                      ifh=          98
lead time index=          98 parm# (ip) =          15 ncix=
98
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  97:00                15          Z_500
5485.          5952.
+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=          98
                        ltix(ifh)=          98

After read, parm= Z_200                      ifh=          98
lead time index=          98 parm# (ip) =          16 ncix=
98
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  97:00                16          Z_200
0.1194E+05  0.1254E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:40:51

Of          17 readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =          38316.57      dlat_inter =
          36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:   98:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:
imax=          409  jmax=          349
dx=          0.1722946  dy=          0.1621475

DX:  midi=   204 dx=   0.1723
DY:  midj=   174 dy=   0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:   -9.516  Min Lon:   92.852

```

Max Lat: 44.929 Max Lon: 163.148
TEST after getgridinfo in sub tracker, iggret= 0
in beginning of tracker, imax= 409 jmax= 349
TIMING: b4 getdata ... 14:40:51

NOTE: Program is now in subroutine getdata_netcdf.
+++ Time match in getdata_netcdf for usertime= 5880
netcdf file index= ncix= 99
+++ NetCDF read requested for parm # 1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh= 99
ltix(ifh)= 99

After read, parm= ABS_VORTICITY_850 ifh= 99
lead time index= 99 parm# (ip) = 1 ncix=
99

igvret=	0				
parmread lead time	parm#	parm_id	minval	maxval	
98:00	1	ABS_VORTICITY_850			-
0.5650E-03	0.2428E-02				

+++ NetCDF read requested for parm # 2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh= 99
ltix(ifh)= 99

After read, parm= ABS_VORTICITY_700 ifh= 99
lead time index= 99 parm# (ip) = 2 ncix=
99

igvret=	0				
parmread lead time	parm#	parm_id	minval	maxval	
98:00	2	ABS_VORTICITY_700			-
0.4963E-03	0.2087E-02				

+++ NetCDF read requested for parm # 3 ... parm=
U_850

In get_var3_tlev_double, ifh= 99
ltix(ifh)= 99

After read, parm= U_850 ifh= 99
lead time index= 99 parm# (ip) = 3 ncix=
99

igvret=	0				
parmread lead time	parm#	parm_id	minval	maxval	
98:00	3	U_850			-
80.33	0.1000E+21				

+++ NetCDF read requested for parm # 4 ... parm=
V_850

In get_var3_tlev_double, ifh= 99
ltix(ifh)= 99

After read, parm= V_850 ifh= 99
lead time index= 99 parm# (ip) = 4 ncix=
99

igvret=	0				
parmread lead time	parm#	parm_id	minval	maxval	
98:00	4	V_850			-
64.73	0.1000E+21				

```

+++ NetCDF read requested for parm #          5 ... parm=
U_700

In get_var3_tlev_double, ifh=                99
                        ltix(ifh)=          99

After read, parm= U_700                      ifh=                99
  lead time index=          99 parm# (ip) =          5 ncix=
99
  igvret=                    0
parmread lead time    parm#    parm_id    minval    maxval
  98:00                5        U_700
77.75      0.1000E+21
+++ NetCDF read requested for parm #          6 ... parm=
V_700

In get_var3_tlev_double, ifh=                99
                        ltix(ifh)=          99

After read, parm= V_700                      ifh=                99
  lead time index=          99 parm# (ip) =          6 ncix=
99
  igvret=                    0
parmread lead time    parm#    parm_id    minval    maxval
  98:00                6        V_700
61.27      0.1000E+21
+++ NetCDF read requested for parm #          7 ... parm=
Z_850

In get_var3_tlev_double, ifh=                99
                        ltix(ifh)=          99

After read, parm= Z_850                      ifh=                99
  lead time index=          99 parm# (ip) =          7 ncix=
99
  igvret=                    0
parmread lead time    parm#    parm_id    minval    maxval
  98:00                7        Z_850
966.3      0.1000E+21
+++ NetCDF read requested for parm #          8 ... parm=
Z_700

In get_var3_tlev_double, ifh=                99
                        ltix(ifh)=          99

After read, parm= Z_700                      ifh=                99
  lead time index=          99 parm# (ip) =          8 ncix=
99
  igvret=                    0
parmread lead time    parm#    parm_id    minval    maxval
  98:00                8        Z_700
2654.      0.1000E+21
+++ NetCDF read requested for parm #          9 ... parm=
slp

In get_var3_tlev_double, ifh=                99
                        ltix(ifh)=          99

After read, parm= slp                        ifh=                99

```

```

lead time index=          99  parm# (ip) =          9  ncix=
99
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  98:00                9          slp
0.9485E+05  0.1025E+06
+++ NetCDF read requested for parm #          10  ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          99
                        ltix(ifh)=          99

After read, parm= u_10m_gr          ifh=          99
lead time index=          99  parm# (ip) =          10  ncix=
99
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  98:00                10          u_10m_gr
45.69          36.70
+++ NetCDF read requested for parm #          11  ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          99
                        ltix(ifh)=          99

After read, parm= v_10m_gr          ifh=          99
lead time index=          99  parm# (ip) =          11  ncix=
99
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  98:00                11          v_10m_gr
36.24          44.45
+++ NetCDF read requested for parm #          12  ... parm=
U_500

In get_var3_tlev_double, ifh=          99
                        ltix(ifh)=          99

After read, parm= U_500          ifh=          99
lead time index=          99  parm# (ip) =          12  ncix=
99
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  98:00                12          U_500
58.73          44.80
+++ NetCDF read requested for parm #          13  ... parm=
V_500

In get_var3_tlev_double, ifh=          99
                        ltix(ifh)=          99

After read, parm= V_500          ifh=          99
lead time index=          99  parm# (ip) =          13  ncix=
99
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  98:00                13          V_500
50.46          64.55
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15  ... parm=

```

```

Z_500

In get_var3_tlev_double, ifh=          99
                        ltix(ifh)=     99

After read, parm= Z_500                ifh=          99
lead time index=          99  parm# (ip) =          15  ncix=
99
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  98:00                15          Z_500
5478.          5953.
+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=          99
                        ltix(ifh)=     99

After read, parm= Z_200                ifh=          99
lead time index=          99  parm# (ip) =          16  ncix=
99
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  98:00                16          Z_200
0.1194E+05  0.1254E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:40:52

Of          17 readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =          38316.57      dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:   99:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:
imax=          409  jmax=          349
dx=          0.1722946  dy=          0.1621475

DX:  midi=  204  dx=  0.1723
DY:  midj=  174  dy=  0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:   -9.516  Min Lon:   92.852
Max Lat:   44.929  Max Lon:  163.148
TEST after getgridinfo in sub tracker, iggret=          0
in beginning of tracker, imax=          409  jmax=          349
TIMING: b4 getdata ... 14:40:52

NOTE: Program is now in subroutine  getdata_netcdf.
+++ Time match in getdata_netcdf for usertime=          5940
      netcdf file index= ncix=          100
+++ NetCDF read requested for parm #          1 ... parm=

```



```

ABS_VORTICITY_850

In get_var3_tlev_double, ifh=          100
                        ltix(ifh)=     100

After read, parm= ABS_VORTICITY_850      ifh=          100
  lead time index=          100  parm# (ip) =          1  ncix=
100
  igvret=                    0
parmread lead time      parm#      parm_id      minval      maxval
  99:00                  1          ABS_VORTICITY_850          -
0.5468E-03  0.2308E-02
+++ NetCDF read requested for parm #          2  ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh=          100
                        ltix(ifh)=     100

After read, parm= ABS_VORTICITY_700      ifh=          100
  lead time index=          100  parm# (ip) =          2  ncix=
100
  igvret=                    0
parmread lead time      parm#      parm_id      minval      maxval
  99:00                  2          ABS_VORTICITY_700          -
0.3424E-03  0.1976E-02
+++ NetCDF read requested for parm #          3  ... parm=
U_850

In get_var3_tlev_double, ifh=          100
                        ltix(ifh)=     100

After read, parm= U_850                  ifh=          100
  lead time index=          100  parm# (ip) =          3  ncix=
100
  igvret=                    0
parmread lead time      parm#      parm_id      minval      maxval
  99:00                  3          U_850          -
79.17          0.1000E+21
+++ NetCDF read requested for parm #          4  ... parm=
V_850

In get_var3_tlev_double, ifh=          100
                        ltix(ifh)=     100

After read, parm= V_850                  ifh=          100
  lead time index=          100  parm# (ip) =          4  ncix=
100
  igvret=                    0
parmread lead time      parm#      parm_id      minval      maxval
  99:00                  4          V_850          -
64.17          0.1000E+21
+++ NetCDF read requested for parm #          5  ... parm=
U_700

In get_var3_tlev_double, ifh=          100
                        ltix(ifh)=     100

After read, parm= U_700                  ifh=          100
  lead time index=          100  parm# (ip) =          5  ncix=
100

```

```

    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      99:00              5        U_700
68.89      0.1000E+21
+++ NetCDF read requested for parm #    6 ... parm=
V_700

    In get_var3_tlev_double, ifh=          100
                          ltix(ifh)=      100

    After read, parm= V_700                ifh=          100
    lead time index=          100 parm# (ip) =          6 ncix=
100
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      99:00              6        V_700
54.76      0.1000E+21
+++ NetCDF read requested for parm #    7 ... parm=
Z_850

    In get_var3_tlev_double, ifh=          100
                          ltix(ifh)=      100

    After read, parm= Z_850                ifh=          100
    lead time index=          100 parm# (ip) =          7 ncix=
100
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      99:00              7        Z_850
949.6      0.1000E+21
+++ NetCDF read requested for parm #    8 ... parm=
Z_700

    In get_var3_tlev_double, ifh=          100
                          ltix(ifh)=      100

    After read, parm= Z_700                ifh=          100
    lead time index=          100 parm# (ip) =          8 ncix=
100
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      99:00              8        Z_700
2652.      0.1000E+21
+++ NetCDF read requested for parm #    9 ... parm=
slp

    In get_var3_tlev_double, ifh=          100
                          ltix(ifh)=      100

    After read, parm= slp                  ifh=          100
    lead time index=          100 parm# (ip) =          9 ncix=
100
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      99:00              9        slp
0.9480E+05  0.1025E+06
+++ NetCDF read requested for parm #   10 ... parm=
u_10m_gr

    In get_var3_tlev_double, ifh=          100

```

```

                ltix(ifh)=          100

After read, parm= u_10m_gr          ifh=          100
lead time index=          100 parm# (ip) =          10 ncix=
100
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  99:00              10      u_10m_gr
43.48      37.48
+++ NetCDF read requested for parm #          11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          100
                ltix(ifh)=          100

After read, parm= v_10m_gr          ifh=          100
lead time index=          100 parm# (ip) =          11 ncix=
100
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  99:00              11      v_10m_gr
40.49      43.81
+++ NetCDF read requested for parm #          12 ... parm=
U_500

In get_var3_tlev_double, ifh=          100
                ltix(ifh)=          100

After read, parm= U_500          ifh=          100
lead time index=          100 parm# (ip) =          12 ncix=
100
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  99:00              12      U_500
62.83      47.46
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=          100
                ltix(ifh)=          100

After read, parm= V_500          ifh=          100
lead time index=          100 parm# (ip) =          13 ncix=
100
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  99:00              13      V_500
47.67      59.46
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15 ... parm=
Z_500

In get_var3_tlev_double, ifh=          100
                ltix(ifh)=          100

After read, parm= Z_500          ifh=          100
lead time index=          100 parm# (ip) =          15 ncix=
100
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval

```

```

    99:00          15          Z_500
5478.          5947.
+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=          100
                    ltix(ifh)=          100

After read, parm= Z_200          ifh=          100
lead time index=          100 parm# (ip) =          16 ncix=
100
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  99:00              16        Z_200
0.1194E+05  0.1254E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:40:53

Of          17 readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =          38316.57          dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:  100:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:
imax=          409  jmax=          349
dx=          0.1722946  dy=          0.1621475

DX:  midi=  204 dx=  0.1723
DY:  midj=  174 dy=  0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:  -9.516  Min Lon:  92.852
Max Lat:  44.929  Max Lon:  163.148
TEST after getgridinfo in sub tracker, iggret=          0
in beginning of tracker, imax=          409  jmax=          349
TIMING: b4 getdata ... 14:40:53

NOTE: Program is now in subroutine getdata_netcdf.
+++ Time match in getdata_netcdf for usertime=          6000
netcdf file index= ncix=          101
+++ NetCDF read requested for parm #          1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh=          101
                    ltix(ifh)=          101

After read, parm= ABS_VORTICITY_850          ifh=          101
lead time index=          101 parm# (ip) =          1 ncix=
101
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval

```

```

100:00          1          ABS_VORTICITY_850          -
0.6219E-03  0.2219E-02
+++ NetCDF read requested for parm #          2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh=          101
                        ltix(ifh)=          101

After read, parm= ABS_VORTICITY_700          ifh=          101
lead time index=          101 parm# (ip) =          2 ncix=
101
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
100:00          2          ABS_VORTICITY_700          -
0.4911E-03  0.1802E-02
+++ NetCDF read requested for parm #          3 ... parm=
U_850

In get_var3_tlev_double, ifh=          101
                        ltix(ifh)=          101

After read, parm= U_850          ifh=          101
lead time index=          101 parm# (ip) =          3 ncix=
101
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
100:00          3          U_850          -
75.06          0.1000E+21
+++ NetCDF read requested for parm #          4 ... parm=
V_850

In get_var3_tlev_double, ifh=          101
                        ltix(ifh)=          101

After read, parm= V_850          ifh=          101
lead time index=          101 parm# (ip) =          4 ncix=
101
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
100:00          4          V_850          -
60.74          0.1000E+21
+++ NetCDF read requested for parm #          5 ... parm=
U_700

In get_var3_tlev_double, ifh=          101
                        ltix(ifh)=          101

After read, parm= U_700          ifh=          101
lead time index=          101 parm# (ip) =          5 ncix=
101
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
100:00          5          U_700          -
72.83          0.1000E+21
+++ NetCDF read requested for parm #          6 ... parm=
V_700

In get_var3_tlev_double, ifh=          101
                        ltix(ifh)=          101

```

```

After read, parm= V_700                ifh=          101
lead time index=          101 parm# (ip) =          6 ncix=
101
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
100:00                6        V_700
60.44    0.1000E+21
+++ NetCDF read requested for parm #          7 ... parm=
Z_850

In get_var3_tlev_double, ifh=          101
                        ltix(ifh)=          101

After read, parm= Z_850                ifh=          101
lead time index=          101 parm# (ip) =          7 ncix=
101
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
100:00                7        Z_850
959.5    0.1000E+21
+++ NetCDF read requested for parm #          8 ... parm=
Z_700

In get_var3_tlev_double, ifh=          101
                        ltix(ifh)=          101

After read, parm= Z_700                ifh=          101
lead time index=          101 parm# (ip) =          8 ncix=
101
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
100:00                8        Z_700
2655.    0.1000E+21
+++ NetCDF read requested for parm #          9 ... parm=
slp

In get_var3_tlev_double, ifh=          101
                        ltix(ifh)=          101

After read, parm= slp                  ifh=          101
lead time index=          101 parm# (ip) =          9 ncix=
101
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
100:00                9        slp
0.9476E+05  0.1024E+06
+++ NetCDF read requested for parm #         10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          101
                        ltix(ifh)=          101

After read, parm= u_10m_gr            ifh=          101
lead time index=          101 parm# (ip) =         10 ncix=
101
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
100:00               10        u_10m_gr
42.14    35.56
+++ NetCDF read requested for parm #         11 ... parm=

```

```

v_10m_gr

In get_var3_tlev_double, ifh=          101
                        ltix(ifh)=      101

After read, parm= v_10m_gr                ifh=          101
lead time index=          101  parm# (ip) =          11  ncix=
101
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
100:00                11          v_10m_gr
37.59          43.92
+++ NetCDF read requested for parm #          12  ... parm=
U_500

In get_var3_tlev_double, ifh=          101
                        ltix(ifh)=      101

After read, parm= U_500                    ifh=          101
lead time index=          101  parm# (ip) =          12  ncix=
101
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
100:00                12          U_500
63.22          40.88
+++ NetCDF read requested for parm #          13  ... parm=
V_500

In get_var3_tlev_double, ifh=          101
                        ltix(ifh)=      101

After read, parm= V_500                    ifh=          101
lead time index=          101  parm# (ip) =          13  ncix=
101
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
100:00                13          V_500
49.29          55.59
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15  ... parm=
Z_500

In get_var3_tlev_double, ifh=          101
                        ltix(ifh)=      101

After read, parm= Z_500                    ifh=          101
lead time index=          101  parm# (ip) =          15  ncix=
101
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
100:00                15          Z_500
5473.          5944.
+++ NetCDF read requested for parm #          16  ... parm=
Z_200

In get_var3_tlev_double, ifh=          101
                        ltix(ifh)=      101

After read, parm= Z_200                    ifh=          101

```

```

lead time index=          101  parm# (ip) =          16  ncix=
101
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  100:00          16          Z_200
0.1194E+05  0.1254E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:40:54

Of          17  readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =      38316.57      dlat_inter =
  36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:  101:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:
imax=          409  jmax=          349
dx=      0.1722946      dy=      0.1621475

DX:  midi=  204 dx=  0.1723
DY:  midj=  174 dy=  0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:  -9.516  Min Lon:  92.852
Max Lat:  44.929  Max Lon:  163.148
TEST after getgridinfo in sub tracker, iggret=          0
in beginning of tracker, imax=          409  jmax=          349
TIMING: b4 getdata ... 14:40:54

NOTE: Program is now in subroutine  getdata_netcdf.
+++ Time match in getdata_netcdf for usertime=          6060
  netcdf file index= ncix=          102
+++ NetCDF read requested for parm #          1  ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh=          102
  ltix(ifh)=          102

After read, parm= ABS_VORTICITY_850          ifh=          102
lead time index=          102  parm# (ip) =          1  ncix=
102
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  101:00          1          ABS_VORTICITY_850          -
0.6311E-03  0.2345E-02
+++ NetCDF read requested for parm #          2  ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh=          102
  ltix(ifh)=          102

After read, parm= ABS_VORTICITY_700          ifh=          102

```



```

    lead time index=          102  parm# (ip) =          2  ncix=
102
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    101:00              2          ABS_VORTICITY_700      -
0.4252E-03  0.1859E-02
+++ NetCDF read requested for parm #          3  ... parm=
U_850

In get_var3_tlev_double, ifh=          102
                        ltix(ifh)=          102

After read, parm= U_850          ifh=          102
    lead time index=          102  parm# (ip) =          3  ncix=
102
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    101:00              3          U_850          -
69.25          0.1000E+21
+++ NetCDF read requested for parm #          4  ... parm=
V_850

In get_var3_tlev_double, ifh=          102
                        ltix(ifh)=          102

After read, parm= V_850          ifh=          102
    lead time index=          102  parm# (ip) =          4  ncix=
102
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    101:00              4          V_850          -
65.28          0.1000E+21
+++ NetCDF read requested for parm #          5  ... parm=
U_700

In get_var3_tlev_double, ifh=          102
                        ltix(ifh)=          102

After read, parm= U_700          ifh=          102
    lead time index=          102  parm# (ip) =          5  ncix=
102
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    101:00              5          U_700          -
67.31          0.1000E+21
+++ NetCDF read requested for parm #          6  ... parm=
V_700

In get_var3_tlev_double, ifh=          102
                        ltix(ifh)=          102

After read, parm= V_700          ifh=          102
    lead time index=          102  parm# (ip) =          6  ncix=
102
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    101:00              6          V_700          -
60.64          0.1000E+21
+++ NetCDF read requested for parm #          7  ... parm=
Z_850

```

```

In get_var3_tlev_double, ifh=          102
                        ltix(ifh)=      102

After read, parm= Z_850                ifh=          102
lead time index=          102 parm# (ip) =          7 ncix=
102
igvret=                    0
parmread lead time    parm#    parm_id    minval    maxval
  101:00              7        Z_850
962.5      0.1000E+21
+++ NetCDF read requested for parm #      8 ... parm=
Z_700

In get_var3_tlev_double, ifh=          102
                        ltix(ifh)=      102

After read, parm= Z_700                ifh=          102
lead time index=          102 parm# (ip) =          8 ncix=
102
igvret=                    0
parmread lead time    parm#    parm_id    minval    maxval
  101:00              8        Z_700
2654.      0.1000E+21
+++ NetCDF read requested for parm #      9 ... parm=
slp

In get_var3_tlev_double, ifh=          102
                        ltix(ifh)=      102

After read, parm= slp                  ifh=          102
lead time index=          102 parm# (ip) =          9 ncix=
102
igvret=                    0
parmread lead time    parm#    parm_id    minval    maxval
  101:00              9        slp
0.9479E+05  0.1024E+06
+++ NetCDF read requested for parm #     10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          102
                        ltix(ifh)=      102

After read, parm= u_10m_gr            ifh=          102
lead time index=          102 parm# (ip) =         10 ncix=
102
igvret=                    0
parmread lead time    parm#    parm_id    minval    maxval
  101:00             10        u_10m_gr
41.62      35.73
+++ NetCDF read requested for parm #     11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          102
                        ltix(ifh)=      102

After read, parm= v_10m_gr            ifh=          102
lead time index=          102 parm# (ip) =         11 ncix=
102
igvret=                    0

```

```

parmread lead time      parm#      parm_id      minval      maxval
  101:00                11         v_10m_gr
38.08      41.45
+++ NetCDF read requested for parm #      12 ... parm=
U_500

In get_var3_tlev_double, ifh=      102
                        ltix(ifh)=  102

After read, parm= U_500                ifh=      102
lead time index=      102 parm# (ip) =      12 ncix=
102
igvret=      0
parmread lead time      parm#      parm_id      minval      maxval
  101:00                12         U_500
64.00      38.46
+++ NetCDF read requested for parm #      13 ... parm=
V_500

In get_var3_tlev_double, ifh=      102
                        ltix(ifh)=  102

After read, parm= V_500                ifh=      102
lead time index=      102 parm# (ip) =      13 ncix=
102
igvret=      0
parmread lead time      parm#      parm_id      minval      maxval
  101:00                13         V_500
50.50      59.96
!!! NetCDF read NOT requested for parm #      14
+++ NetCDF read requested for parm #      15 ... parm=
Z_500

In get_var3_tlev_double, ifh=      102
                        ltix(ifh)=  102

After read, parm= Z_500                ifh=      102
lead time index=      102 parm# (ip) =      15 ncix=
102
igvret=      0
parmread lead time      parm#      parm_id      minval      maxval
  101:00                15         Z_500
5475.      5940.
+++ NetCDF read requested for parm #      16 ... parm=
Z_200

In get_var3_tlev_double, ifh=      102
                        ltix(ifh)=  102

After read, parm= Z_200                ifh=      102
lead time index=      102 parm# (ip) =      16 ncix=
102
igvret=      0
parmread lead time      parm#      parm_id      minval      maxval
  101:00                16         Z_200
0.1194E+05  0.1253E+05
!!! NetCDF read NOT requested for parm #      17
TIMING: after getdata ... 14:40:55

Of      17 readable parms, you read in      15

```

parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter = 38316.57 dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

* New forecast hour: 102:00

in getgridinfo_netcdf, ncfile_id= 65536

In getgridinfo, grid dimensions follow:
imax= 409 jmax= 349
dx= 0.1722946 dy= 0.1621475

DX: midi= 204 dx= 0.1723
DY: midj= 174 dy= 0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat: -9.516 Min Lon: 92.852
Max Lat: 44.929 Max Lon: 163.148
TEST after getgridinfo in sub tracker, iggret= 0
in beginning of tracker, imax= 409 jmax= 349
TIMING: b4 getdata ... 14:40:55

NOTE: Program is now in subroutine getdata_netcdf.
+++ Time match in getdata_netcdf for usertime= 6120
netcdf file index= ncix= 103
+++ NetCDF read requested for parm # 1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh= 103
ltix(ifh)= 103

After read, parm= ABS_VORTICITY_850 ifh= 103
lead time index= 103 parm# (ip) = 1 ncix=
103
igvret= 0
parmread lead time parm# parm_id minval maxval
102:00 1 ABS_VORTICITY_850 -
0.5507E-03 0.2270E-02

+++ NetCDF read requested for parm # 2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh= 103
ltix(ifh)= 103

After read, parm= ABS_VORTICITY_700 ifh= 103
lead time index= 103 parm# (ip) = 2 ncix=
103
igvret= 0
parmread lead time parm# parm_id minval maxval
102:00 2 ABS_VORTICITY_700 -
0.5053E-03 0.1924E-02

+++ NetCDF read requested for parm # 3 ... parm=
U_850

In get_var3_tlev_double, ifh= 103

```

                ltix(ifh)=                103

After read, parm= U_850                ifh=                103
  lead time index=                103  parm# (ip) =                3  ncix=
103
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  102:00                3        U_850
75.56    0.1000E+21
+++ NetCDF read requested for parm #                4  ... parm=
  V_850

In get_var3_tlev_double, ifh=                103
                ltix(ifh)=                103

After read, parm= V_850                ifh=                103
  lead time index=                103  parm# (ip) =                4  ncix=
103
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  102:00                4        V_850
65.96    0.1000E+21
+++ NetCDF read requested for parm #                5  ... parm=
  U_700

In get_var3_tlev_double, ifh=                103
                ltix(ifh)=                103

After read, parm= U_700                ifh=                103
  lead time index=                103  parm# (ip) =                5  ncix=
103
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  102:00                5        U_700
70.77    0.1000E+21
+++ NetCDF read requested for parm #                6  ... parm=
  V_700

In get_var3_tlev_double, ifh=                103
                ltix(ifh)=                103

After read, parm= V_700                ifh=                103
  lead time index=                103  parm# (ip) =                6  ncix=
103
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  102:00                6        V_700
62.83    0.1000E+21
+++ NetCDF read requested for parm #                7  ... parm=
  Z_850

In get_var3_tlev_double, ifh=                103
                ltix(ifh)=                103

After read, parm= Z_850                ifh=                103
  lead time index=                103  parm# (ip) =                7  ncix=
103
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval

```

```

102:00          7          Z_850
969.0          0.1000E+21
+++ NetCDF read requested for parm #          8 ... parm=
Z_700

In get_var3_tlev_double, ifh=          103
                        ltix(ifh)=          103

After read, parm= Z_700          ifh=          103
lead time index=          103 parm# (ip) =          8 ncix=
103
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
102:00          8          Z_700
2656.          0.1000E+21
+++ NetCDF read requested for parm #          9 ... parm=
slp

In get_var3_tlev_double, ifh=          103
                        ltix(ifh)=          103

After read, parm= slp          ifh=          103
lead time index=          103 parm# (ip) =          9 ncix=
103
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
102:00          9          slp
0.9485E+05  0.1024E+06
+++ NetCDF read requested for parm #          10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          103
                        ltix(ifh)=          103

After read, parm= u_10m_gr          ifh=          103
lead time index=          103 parm# (ip) =          10 ncix=
103
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
102:00          10          u_10m_gr          -
41.83          38.25
+++ NetCDF read requested for parm #          11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          103
                        ltix(ifh)=          103

After read, parm= v_10m_gr          ifh=          103
lead time index=          103 parm# (ip) =          11 ncix=
103
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
102:00          11          v_10m_gr          -
38.04          43.37
+++ NetCDF read requested for parm #          12 ... parm=
U_500

In get_var3_tlev_double, ifh=          103
                        ltix(ifh)=          103

```

```

After read, parm= U_500                ifh=          103
  lead time index=          103  parm# (ip) =          12  ncix=
103
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  102:00             12        U_500
70.07             34.94
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=          103
                        ltix(ifh)=          103

After read, parm= V_500                ifh=          103
  lead time index=          103  parm# (ip) =          13  ncix=
103
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  102:00             13        V_500
49.56             55.21
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15 ... parm=
Z_500

In get_var3_tlev_double, ifh=          103
                        ltix(ifh)=          103

After read, parm= Z_500                ifh=          103
  lead time index=          103  parm# (ip) =          15  ncix=
103
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  102:00             15        Z_500
5465.             5937.
+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=          103
                        ltix(ifh)=          103

After read, parm= Z_200                ifh=          103
  lead time index=          103  parm# (ip) =          16  ncix=
103
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  102:00             16        Z_200
0.1193E+05  0.1253E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:40:56

Of          17 readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =    38316.57    dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

```

```

*   New forecast hour: 103:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:
imax=          409  jmax=          349
dx=      0.1722946  dy=      0.1621475

DX:  midi=  204 dx=   0.1723
DY:  midj=  174 dy=   0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:  -9.516  Min Lon:   92.852
Max Lat:   44.929  Max Lon:  163.148
TEST after getgridinfo in sub tracker, iggret=          0
in beginning of tracker, imax=          409  jmax=          349
TIMING: b4 getdata ... 14:40:56

NOTE: Program is now in subroutine  getdata_netcdf.
+++ Time match in getdata_netcdf for usertime=          6180
    netcdf file index= ncix=          104
+++ NetCDF read requested for parm #          1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh=          104
                        ltix(ifh)=          104

After read, parm= ABS_VORTICITY_850          ifh=          104
lead time index=          104  parm# (ip) =          1  ncix=
104
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
103:00                1          ABS_VORTICITY_850
0.1068E-02  0.2294E-02
+++ NetCDF read requested for parm #          2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh=          104
                        ltix(ifh)=          104

After read, parm= ABS_VORTICITY_700          ifh=          104
lead time index=          104  parm# (ip) =          2  ncix=
104
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
103:00                2          ABS_VORTICITY_700
0.5502E-03  0.1905E-02
+++ NetCDF read requested for parm #          3 ... parm=
U_850

In get_var3_tlev_double, ifh=          104
                        ltix(ifh)=          104

After read, parm= U_850          ifh=          104
lead time index=          104  parm# (ip) =          3  ncix=
104
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
103:00                3          U_850
70.24          0.1000E+21

```



```

+++ NetCDF read requested for parm #          4 ... parm=
V_850

In get_var3_tlev_double, ifh=                104
                        ltix(ifh)=          104

After read, parm= V_850                      ifh=                104
lead time index=          104 parm# (ip) =          4 ncix=
104
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
103:00                  4          V_850
64.71      0.1000E+21
+++ NetCDF read requested for parm #          5 ... parm=
U_700

In get_var3_tlev_double, ifh=                104
                        ltix(ifh)=          104

After read, parm= U_700                      ifh=                104
lead time index=          104 parm# (ip) =          5 ncix=
104
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
103:00                  5          U_700
64.01      0.1000E+21
+++ NetCDF read requested for parm #          6 ... parm=
V_700

In get_var3_tlev_double, ifh=                104
                        ltix(ifh)=          104

After read, parm= V_700                      ifh=                104
lead time index=          104 parm# (ip) =          6 ncix=
104
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
103:00                  6          V_700
61.70      0.1000E+21
+++ NetCDF read requested for parm #          7 ... parm=
Z_850

In get_var3_tlev_double, ifh=                104
                        ltix(ifh)=          104

After read, parm= Z_850                      ifh=                104
lead time index=          104 parm# (ip) =          7 ncix=
104
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
103:00                  7          Z_850
965.9      0.1000E+21
+++ NetCDF read requested for parm #          8 ... parm=
Z_700

In get_var3_tlev_double, ifh=                104
                        ltix(ifh)=          104

After read, parm= Z_700                      ifh=                104

```

```

    lead time index=          104  parm# (ip) =          8  ncix=
104
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    103:00              8          z_700
2657.          0.1000E+21
+++ NetCDF read requested for parm #          9  ... parm=
slp

In get_var3_tlev_double, ifh=          104
                        ltix(ifh)=          104

After read, parm= slp                      ifh=          104
    lead time index=          104  parm# (ip) =          9  ncix=
104
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    103:00              9          slp
0.9481E+05  0.1024E+06
+++ NetCDF read requested for parm #          10  ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          104
                        ltix(ifh)=          104

After read, parm= u_10m_gr                  ifh=          104
    lead time index=          104  parm# (ip) =          10  ncix=
104
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    103:00              10          u_10m_gr      -
40.56          37.69
+++ NetCDF read requested for parm #          11  ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          104
                        ltix(ifh)=          104

After read, parm= v_10m_gr                  ifh=          104
    lead time index=          104  parm# (ip) =          11  ncix=
104
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    103:00              11          v_10m_gr      -
38.71          43.70
+++ NetCDF read requested for parm #          12  ... parm=
U_500

In get_var3_tlev_double, ifh=          104
                        ltix(ifh)=          104

After read, parm= U_500                      ifh=          104
    lead time index=          104  parm# (ip) =          12  ncix=
104
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    103:00              12          U_500      -
57.69          47.12
+++ NetCDF read requested for parm #          13  ... parm=
V_500

```

```

In get_var3_tlev_double, ifh=          104
                        ltix(ifh)=      104

After read, parm= V_500                ifh=          104
lead time index=          104 parm# (ip) =          13 ncix=
104
igvret=                      0
parmread lead time    parm#    parm_id    minval    maxval
103:00                13        V_500
52.21                50.81
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15 ... parm=
Z_500

In get_var3_tlev_double, ifh=          104
                        ltix(ifh)=      104

After read, parm= Z_500                ifh=          104
lead time index=          104 parm# (ip) =          15 ncix=
104
igvret=                      0
parmread lead time    parm#    parm_id    minval    maxval
103:00                15        Z_500
5474.                5935.
+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=          104
                        ltix(ifh)=      104

After read, parm= Z_200                ifh=          104
lead time index=          104 parm# (ip) =          16 ncix=
104
igvret=                      0
parmread lead time    parm#    parm_id    minval    maxval
103:00                16        Z_200
0.1193E+05  0.1253E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:40:57

Of          17 readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =    38316.57    dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:  104:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:
imax=          409  jmax=          349
dx=    0.1722946  dy=    0.1621475

DX:  midi=  204 dx=    0.1723

```

DY: midj= 174 dy= 0.1621

Data Grid Lat/Lon boundaries follow:

Min Lat: -9.516 Min Lon: 92.852

Max Lat: 44.929 Max Lon: 163.148

TEST after getgridinfo in sub tracker, iggret= 0

in beginning of tracker, imax= 409 jmax= 349

TIMING: b4 getdata ... 14:40:57

NOTE: Program is now in subroutine getdata_netcdf.

+++ Time match in getdata_netcdf for usertime= 6240

netcdf file index= ncix= 105

+++ NetCDF read requested for parm # 1 ... parm=

ABS_VORTICITY_850

In get_var3_tlev_double, ifh= 105

ltix(ifh)= 105

After read, parm= ABS_VORTICITY_850 ifh= 105

lead time index= 105 parm# (ip) = 1 ncix=

105

igvret= 0

parmread lead time parm# parm_id minval maxval

104:00 1 ABS_VORTICITY_850 -

0.8445E-03 0.2314E-02

+++ NetCDF read requested for parm # 2 ... parm=

ABS_VORTICITY_700

In get_var3_tlev_double, ifh= 105

ltix(ifh)= 105

After read, parm= ABS_VORTICITY_700 ifh= 105

lead time index= 105 parm# (ip) = 2 ncix=

105

igvret= 0

parmread lead time parm# parm_id minval maxval

104:00 2 ABS_VORTICITY_700 -

0.5072E-03 0.1871E-02

+++ NetCDF read requested for parm # 3 ... parm=

U_850

In get_var3_tlev_double, ifh= 105

ltix(ifh)= 105

After read, parm= U_850 ifh= 105

lead time index= 105 parm# (ip) = 3 ncix=

105

igvret= 0

parmread lead time parm# parm_id minval maxval

104:00 3 U_850 -

68.04 0.1000E+21

+++ NetCDF read requested for parm # 4 ... parm=

V_850

In get_var3_tlev_double, ifh= 105

ltix(ifh)= 105

After read, parm= V_850 ifh= 105

lead time index= 105 parm# (ip) = 4 ncix=

105

```

    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
    104:00              4        V_850
58.88      0.1000E+21
+++ NetCDF read requested for parm #    5 ... parm=
U_700

    In get_var3_tlev_double, ifh=          105
                               ltix(ifh)=    105

    After read, parm= U_700                ifh=          105
    lead time index=          105 parm# (ip) =          5 ncix=
105
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
    104:00              5        U_700
62.28      0.1000E+21
+++ NetCDF read requested for parm #    6 ... parm=
V_700

    In get_var3_tlev_double, ifh=          105
                               ltix(ifh)=    105

    After read, parm= V_700                ifh=          105
    lead time index=          105 parm# (ip) =          6 ncix=
105
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
    104:00              6        V_700
58.47      0.1000E+21
+++ NetCDF read requested for parm #    7 ... parm=
Z_850

    In get_var3_tlev_double, ifh=          105
                               ltix(ifh)=    105

    After read, parm= Z_850                ifh=          105
    lead time index=          105 parm# (ip) =          7 ncix=
105
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
    104:00              7        Z_850
977.3      0.1000E+21
+++ NetCDF read requested for parm #    8 ... parm=
Z_700

    In get_var3_tlev_double, ifh=          105
                               ltix(ifh)=    105

    After read, parm= Z_700                ifh=          105
    lead time index=          105 parm# (ip) =          8 ncix=
105
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
    104:00              8        Z_700
2664.      0.1000E+21
+++ NetCDF read requested for parm #    9 ... parm=
slp

    In get_var3_tlev_double, ifh=          105

```

```

                ltix(ifh)=          105

After read, parm= slp                ifh=          105
lead time index=          105 parm# (ip) =          9 ncix=
105
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  104:00              9        slp
0.9493E+05  0.1025E+06
+++ NetCDF read requested for parm #          10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          105
                ltix(ifh)=          105

After read, parm= u_10m_gr            ifh=          105
lead time index=          105 parm# (ip) =          10 ncix=
105
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  104:00              10        u_10m_gr
40.24          34.27
+++ NetCDF read requested for parm #          11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          105
                ltix(ifh)=          105

After read, parm= v_10m_gr            ifh=          105
lead time index=          105 parm# (ip) =          11 ncix=
105
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  104:00              11        v_10m_gr
36.46          40.88
+++ NetCDF read requested for parm #          12 ... parm=
U_500

In get_var3_tlev_double, ifh=          105
                ltix(ifh)=          105

After read, parm= U_500                ifh=          105
lead time index=          105 parm# (ip) =          12 ncix=
105
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  104:00              12        U_500
61.85          42.06
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=          105
                ltix(ifh)=          105

After read, parm= V_500                ifh=          105
lead time index=          105 parm# (ip) =          13 ncix=
105
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval

```

```

104:00          13          V_500          -
50.93          45.64
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15 ... parm=
Z_500

In get_var3_tlev_double, ifh=          105
                        ltix(ifh)=          105

After read, parm= Z_500          ifh=          105
lead time index=          105 parm# (ip) =          15 ncix=
105
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
104:00          15          Z_500
5479.          5938.
+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=          105
                        ltix(ifh)=          105

After read, parm= Z_200          ifh=          105
lead time index=          105 parm# (ip) =          16 ncix=
105
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
104:00          16          Z_200
0.1193E+05  0.1253E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:40:57

Of          17 readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =          38316.57          dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour: 105:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:
imax=          409 jmax=          349
dx=          0.1722946          dy=          0.1621475

DX: midi= 204 dx= 0.1723
DY: midj= 174 dy= 0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat: -9.516 Min Lon: 92.852
Max Lat: 44.929 Max Lon: 163.148
TEST after getgridinfo in sub tracker, iggret=          0
in beginning of tracker, imax=          409 jmax=          349
TIMING: b4 getdata ... 14:40:57

```

```

NOTE: Program is now in subroutine  getdata_netcdf.
+++ Time match in getdata_netcdf for usertime=          6300
    netcdf file index= ncix=          106
+++ NetCDF read requested for parm #          1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh=          106
                        ltix(ifh)=          106

After read, parm= ABS_VORTICITY_850          ifh=          106
lead time index=          106 parm# (ip) =          1 ncix=
106
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
105:00                1        ABS_VORTICITY_850          -
0.7337E-03  0.2349E-02
+++ NetCDF read requested for parm #          2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh=          106
                        ltix(ifh)=          106

After read, parm= ABS_VORTICITY_700          ifh=          106
lead time index=          106 parm# (ip) =          2 ncix=
106
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
105:00                2        ABS_VORTICITY_700          -
0.5362E-03  0.2148E-02
+++ NetCDF read requested for parm #          3 ... parm=
U_850

In get_var3_tlev_double, ifh=          106
                        ltix(ifh)=          106

After read, parm= U_850          ifh=          106
lead time index=          106 parm# (ip) =          3 ncix=
106
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
105:00                3          U_850          -
68.82          0.1000E+21
+++ NetCDF read requested for parm #          4 ... parm=
V_850

In get_var3_tlev_double, ifh=          106
                        ltix(ifh)=          106

After read, parm= V_850          ifh=          106
lead time index=          106 parm# (ip) =          4 ncix=
106
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
105:00                4          V_850          -
59.28          0.1000E+21
+++ NetCDF read requested for parm #          5 ... parm=
U_700

In get_var3_tlev_double, ifh=          106
                        ltix(ifh)=          106

```



```

After read, parm= U_700                ifh=          106
lead time index=          106 parm# (ip) =          5 ncix=
106
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
105:00              5        U_700
67.11      0.1000E+21
+++ NetCDF read requested for parm #          6 ... parm=
V_700

In get_var3_tlev_double, ifh=          106
                        ltix(ifh)=          106

After read, parm= V_700                ifh=          106
lead time index=          106 parm# (ip) =          6 ncix=
106
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
105:00              6        V_700
54.29      0.1000E+21
+++ NetCDF read requested for parm #          7 ... parm=
Z_850

In get_var3_tlev_double, ifh=          106
                        ltix(ifh)=          106

After read, parm= Z_850                ifh=          106
lead time index=          106 parm# (ip) =          7 ncix=
106
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
105:00              7        Z_850
980.2      0.1000E+21
+++ NetCDF read requested for parm #          8 ... parm=
Z_700

In get_var3_tlev_double, ifh=          106
                        ltix(ifh)=          106

After read, parm= Z_700                ifh=          106
lead time index=          106 parm# (ip) =          8 ncix=
106
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
105:00              8        Z_700
2666.      0.1000E+21
+++ NetCDF read requested for parm #          9 ... parm=
slp

In get_var3_tlev_double, ifh=          106
                        ltix(ifh)=          106

After read, parm= slp                  ifh=          106
lead time index=          106 parm# (ip) =          9 ncix=
106
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
105:00              9        slp
0.9496E+05  0.1024E+06

```

```

+++ NetCDF read requested for parm #          10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=                106
                        ltix(ifh)=          106

After read, parm= u_10m_gr                    ifh=                106
lead time index=          106 parm# (ip) =          10 ncix=
106
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
105:00                  10          u_10m_gr
40.53      33.51
+++ NetCDF read requested for parm #          11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=                106
                        ltix(ifh)=          106

After read, parm= v_10m_gr                    ifh=                106
lead time index=          106 parm# (ip) =          11 ncix=
106
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
105:00                  11          v_10m_gr
35.20      42.49
+++ NetCDF read requested for parm #          12 ... parm=
U_500

In get_var3_tlev_double, ifh=                106
                        ltix(ifh)=          106

After read, parm= U_500                      ifh=                106
lead time index=          106 parm# (ip) =          12 ncix=
106
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
105:00                  12          U_500
57.10      48.09
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=                106
                        ltix(ifh)=          106

After read, parm= V_500                      ifh=                106
lead time index=          106 parm# (ip) =          13 ncix=
106
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
105:00                  13          V_500
48.83      52.97
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15 ... parm=
Z_500

In get_var3_tlev_double, ifh=                106
                        ltix(ifh)=          106

After read, parm= Z_500                      ifh=                106

```

```

lead time index=          106  parm# (ip) =          15  ncix=
106
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  105:00          15          Z_500
5484.          5942.
+++ NetCDF read requested for parm #          16  ... parm=
Z_200

In get_var3_tlev_double, ifh=          106
                        ltix(ifh)=          106

After read, parm= Z_200          ifh=          106
lead time index=          106  parm# (ip) =          16  ncix=
106
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  105:00          16          Z_200
0.1193E+05  0.1253E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:40:58

Of          17  readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =          38316.57          dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:  106:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:
imax=          409  jmax=          349
dx=          0.1722946  dy=          0.1621475

DX:  midi=  204  dx=  0.1723
DY:  midj=  174  dy=  0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:  -9.516  Min Lon:  92.852
Max Lat:  44.929  Max Lon:  163.148
TEST after getgridinfo in sub tracker, iggret=          0
in beginning of tracker, imax=          409  jmax=          349
TIMING: b4 getdata ... 14:40:58

NOTE: Program is now in subroutine  getdata_netcdf.
+++ Time match in getdata_netcdf for usertime=          6360
netcdf file index= ncix=          107
+++ NetCDF read requested for parm #          1  ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh=          107
                        ltix(ifh)=          107

After read, parm= ABS_VORTICITY_850          ifh=          107

```

```

lead time index=          107  parm# (ip) =          1  ncix=
107
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
106:00          1          ABS_VORTICITY_850      -
0.6726E-03  0.2445E-02
+++ NetCDF read requested for parm #          2  ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh=          107
ltix(ifh)=          107

After read, parm= ABS_VORTICITY_700      ifh=          107
lead time index=          107  parm# (ip) =          2  ncix=
107
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
106:00          2          ABS_VORTICITY_700      -
0.5559E-03  0.2067E-02
+++ NetCDF read requested for parm #          3  ... parm=
U_850

In get_var3_tlev_double, ifh=          107
ltix(ifh)=          107

After read, parm= U_850      ifh=          107
lead time index=          107  parm# (ip) =          3  ncix=
107
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
106:00          3          U_850      -
69.47          0.1000E+21
+++ NetCDF read requested for parm #          4  ... parm=
V_850

In get_var3_tlev_double, ifh=          107
ltix(ifh)=          107

After read, parm= V_850      ifh=          107
lead time index=          107  parm# (ip) =          4  ncix=
107
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
106:00          4          V_850      -
57.48          0.1000E+21
+++ NetCDF read requested for parm #          5  ... parm=
U_700

In get_var3_tlev_double, ifh=          107
ltix(ifh)=          107

After read, parm= U_700      ifh=          107
lead time index=          107  parm# (ip) =          5  ncix=
107
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
106:00          5          U_700      -
71.90          0.1000E+21
+++ NetCDF read requested for parm #          6  ... parm=
V_700

```

```

In get_var3_tlev_double, ifh=          107
                        ltix(ifh)=      107

After read, parm= V_700                ifh=          107
lead time index=          107 parm# (ip) =          6 ncix=
107
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  106:00              6        V_700
49.78      0.1000E+21
+++ NetCDF read requested for parm #          7 ... parm=
Z_850

In get_var3_tlev_double, ifh=          107
                        ltix(ifh)=      107

After read, parm= Z_850                ifh=          107
lead time index=          107 parm# (ip) =          7 ncix=
107
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  106:00              7        Z_850
976.9      0.1000E+21
+++ NetCDF read requested for parm #          8 ... parm=
Z_700

In get_var3_tlev_double, ifh=          107
                        ltix(ifh)=      107

After read, parm= Z_700                ifh=          107
lead time index=          107 parm# (ip) =          8 ncix=
107
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  106:00              8        Z_700
2666.      0.1000E+21
+++ NetCDF read requested for parm #          9 ... parm=
slp

In get_var3_tlev_double, ifh=          107
                        ltix(ifh)=      107

After read, parm= slp                  ifh=          107
lead time index=          107 parm# (ip) =          9 ncix=
107
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  106:00              9        slp
0.9505E+05  0.1024E+06
+++ NetCDF read requested for parm #         10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          107
                        ltix(ifh)=      107

After read, parm= u_10m_gr            ifh=          107
lead time index=          107 parm# (ip) =         10 ncix=
107
igvret=          0

```

```

parmread lead time      parm#      parm_id      minval      maxval      -
  106:00                10         u_10m_gr
41.06      31.46
+++ NetCDF read requested for parm #      11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=      107
                        ltix(ifh)=      107

After read, parm= v_10m_gr      ifh=      107
lead time index=      107 parm# (ip) =      11 ncix=
107
igvret=      0
parmread lead time      parm#      parm_id      minval      maxval      -
  106:00                11         v_10m_gr
34.98      43.38
+++ NetCDF read requested for parm #      12 ... parm=
U_500

In get_var3_tlev_double, ifh=      107
                        ltix(ifh)=      107

After read, parm= U_500      ifh=      107
lead time index=      107 parm# (ip) =      12 ncix=
107
igvret=      0
parmread lead time      parm#      parm_id      minval      maxval      -
  106:00                12         U_500
58.23      45.19
+++ NetCDF read requested for parm #      13 ... parm=
V_500

In get_var3_tlev_double, ifh=      107
                        ltix(ifh)=      107

After read, parm= V_500      ifh=      107
lead time index=      107 parm# (ip) =      13 ncix=
107
igvret=      0
parmread lead time      parm#      parm_id      minval      maxval      -
  106:00                13         V_500
41.38      51.78
!!! NetCDF read NOT requested for parm #      14
+++ NetCDF read requested for parm #      15 ... parm=
Z_500

In get_var3_tlev_double, ifh=      107
                        ltix(ifh)=      107

After read, parm= Z_500      ifh=      107
lead time index=      107 parm# (ip) =      15 ncix=
107
igvret=      0
parmread lead time      parm#      parm_id      minval      maxval
  106:00                15         Z_500
5492.      5945.
+++ NetCDF read requested for parm #      16 ... parm=
Z_200

In get_var3_tlev_double, ifh=      107

```

```

                ltix(ifh)=                107

After read, parm= Z_200                    ifh=                107
  lead time index=                107  parm# (ip) =                16  ncix=
107
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  106:00                16        Z_200
0.1192E+05  0.1255E+05
!!! NetCDF read NOT requested for parm #                17
TIMING: after getdata ... 14:40:59

Of                17  readable parms, you read in                15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =    38316.57    dlat_inter =
  36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:  107:00
*-----*
in getgridinfo_netcdf, ncfile_id=                65536

In getgridinfo, grid dimensions follow:
imax=                409  jmax=                349
dx=    0.1722946    dy=    0.1621475

DX:  midi=  204 dx=    0.1723
DY:  midj=  174 dy=    0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:   -9.516  Min Lon:   92.852
Max Lat:   44.929  Max Lon:  163.148
TEST after getgridinfo in sub tracker, iggret=                0
in beginning of tracker, imax=                409  jmax=                349
TIMING: b4 getdata ... 14:40:59

NOTE: Program is now in subroutine  getdata_netcdf.
+++ Time match in getdata_netcdf for usertime=                6420
    netcdf file index= ncix=                108
+++ NetCDF read requested for parm #                1  ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh=                108
                ltix(ifh)=                108

After read, parm= ABS_VORTICITY_850        ifh=                108
  lead time index=                108  parm# (ip) =                1  ncix=
108
  igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
  107:00                1        ABS_VORTICITY_850    -
0.8754E-03  0.2403E-02
+++ NetCDF read requested for parm #                2  ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh=                108

```

```

                ltix(ifah)=          108

After read, parm= ABS_VORTICITY_700          ifh=          108
  lead time index=          108  parm# (ip) =          2  ncix=
108
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  107:00              2          ABS_VORTICITY_700          -
0.5987E-03  0.1800E-02
+++ NetCDF read requested for parm #          3  ... parm=
U_850

In get_var3_tlev_double, ifh=          108
                        ltix(ifah)=          108

After read, parm= U_850          ifh=          108
  lead time index=          108  parm# (ip) =          3  ncix=
108
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  107:00              3          U_850          -
71.11          0.1000E+21
+++ NetCDF read requested for parm #          4  ... parm=
V_850

In get_var3_tlev_double, ifh=          108
                        ltix(ifah)=          108

After read, parm= V_850          ifh=          108
  lead time index=          108  parm# (ip) =          4  ncix=
108
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  107:00              4          V_850          -
56.65          0.1000E+21
+++ NetCDF read requested for parm #          5  ... parm=
U_700

In get_var3_tlev_double, ifh=          108
                        ltix(ifah)=          108

After read, parm= U_700          ifh=          108
  lead time index=          108  parm# (ip) =          5  ncix=
108
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  107:00              5          U_700          -
67.24          0.1000E+21
+++ NetCDF read requested for parm #          6  ... parm=
V_700

In get_var3_tlev_double, ifh=          108
                        ltix(ifah)=          108

After read, parm= V_700          ifh=          108
  lead time index=          108  parm# (ip) =          6  ncix=
108
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval

```



```

107:00          6          V_700          -
50.44          0.1000E+21
+++ NetCDF read requested for parm #          7 ... parm=
Z_850

In get_var3_tlev_double, ifh=          108
                        ltix(ifh)=          108

After read, parm= Z_850          ifh=          108
lead time index=          108 parm# (ip) =          7 ncix=
108
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
107:00          7          Z_850
988.9          0.1000E+21
+++ NetCDF read requested for parm #          8 ... parm=
Z_700

In get_var3_tlev_double, ifh=          108
                        ltix(ifh)=          108

After read, parm= Z_700          ifh=          108
lead time index=          108 parm# (ip) =          8 ncix=
108
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
107:00          8          Z_700
2681.          0.1000E+21
+++ NetCDF read requested for parm #          9 ... parm=
slp

In get_var3_tlev_double, ifh=          108
                        ltix(ifh)=          108

After read, parm= slp          ifh=          108
lead time index=          108 parm# (ip) =          9 ncix=
108
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
107:00          9          slp
0.9512E+05  0.1024E+06
+++ NetCDF read requested for parm #          10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          108
                        ltix(ifh)=          108

After read, parm= u_10m_gr          ifh=          108
lead time index=          108 parm# (ip) =          10 ncix=
108
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
107:00          10          u_10m_gr          -
41.19          27.63
+++ NetCDF read requested for parm #          11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          108
                        ltix(ifh)=          108

```

```

After read, parm= v_10m_gr          ifh=          108
lead time index=          108  parm# (ip) =          11  ncix=
108
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
107:00          11          v_10m_gr          -
34.91          41.45
+++ NetCDF read requested for parm #          12  ... parm=
U_500

In get_var3_tlev_double, ifh=          108
ltix(ifh)=          108

After read, parm= U_500          ifh=          108
lead time index=          108  parm# (ip) =          12  ncix=
108
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
107:00          12          U_500          -
57.46          36.87
+++ NetCDF read requested for parm #          13  ... parm=
V_500

In get_var3_tlev_double, ifh=          108
ltix(ifh)=          108

After read, parm= V_500          ifh=          108
lead time index=          108  parm# (ip) =          13  ncix=
108
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
107:00          13          V_500          -
44.68          54.43
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15  ... parm=
Z_500

In get_var3_tlev_double, ifh=          108
ltix(ifh)=          108

After read, parm= Z_500          ifh=          108
lead time index=          108  parm# (ip) =          15  ncix=
108
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
107:00          15          Z_500
5509.          5952.
+++ NetCDF read requested for parm #          16  ... parm=
Z_200

In get_var3_tlev_double, ifh=          108
ltix(ifh)=          108

After read, parm= Z_200          ifh=          108
lead time index=          108  parm# (ip) =          16  ncix=
108
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
107:00          16          Z_200
0.1193E+05  0.1254E+05

```

!!! NetCDF read NOT requested for parm # 17
TIMING: after getdata ... 14:40:59

Of 17 readable parms, you read in 15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter = 38316.57 dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

* New forecast hour: 108:00

in getgridinfo_netcdf, ncfile_id= 65536

In getgridinfo, grid dimensions follow:
imax= 409 jmax= 349
dx= 0.1722946 dy= 0.1621475

DX: midi= 204 dx= 0.1723
DY: midj= 174 dy= 0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat: -9.516 Min Lon: 92.852
Max Lat: 44.929 Max Lon: 163.148
TEST after getgridinfo in sub tracker, iggret= 0
in beginning of tracker, imax= 409 jmax= 349
TIMING: b4 getdata ... 14:40:59

NOTE: Program is now in subroutine getdata_netcdf.
+++ Time match in getdata_netcdf for usertime= 6480
netcdf file index= ncix= 109
+++ NetCDF read requested for parm # 1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh= 109
ltix(ifh)= 109

After read, parm= ABS_VORTICITY_850 ifh= 109
lead time index= 109 parm# (ip) = 1 ncix=
109
igvret= 0
parmread lead time parm# parm_id minval maxval
108:00 1 ABS_VORTICITY_850 -
0.1062E-02 0.2106E-02

+++ NetCDF read requested for parm # 2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh= 109
ltix(ifh)= 109

After read, parm= ABS_VORTICITY_700 ifh= 109
lead time index= 109 parm# (ip) = 2 ncix=
109
igvret= 0
parmread lead time parm# parm_id minval maxval
108:00 2 ABS_VORTICITY_700 -
0.6539E-03 0.1567E-02

```

+++ NetCDF read requested for parm #          3 ... parm=
U_850

In get_var3_tlev_double, ifh=                109
                        ltix(ifh)=          109

After read, parm= U_850                      ifh=                109
lead time index=          109 parm# (ip) =          3 ncix=
109
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
108:00                  3          U_850
65.38      0.1000E+21
+++ NetCDF read requested for parm #          4 ... parm=
V_850

In get_var3_tlev_double, ifh=                109
                        ltix(ifh)=          109

After read, parm= V_850                      ifh=                109
lead time index=          109 parm# (ip) =          4 ncix=
109
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
108:00                  4          V_850
53.70      0.1000E+21
+++ NetCDF read requested for parm #          5 ... parm=
U_700

In get_var3_tlev_double, ifh=                109
                        ltix(ifh)=          109

After read, parm= U_700                      ifh=                109
lead time index=          109 parm# (ip) =          5 ncix=
109
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
108:00                  5          U_700
67.65      0.1000E+21
+++ NetCDF read requested for parm #          6 ... parm=
V_700

In get_var3_tlev_double, ifh=                109
                        ltix(ifh)=          109

After read, parm= V_700                      ifh=                109
lead time index=          109 parm# (ip) =          6 ncix=
109
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
108:00                  6          V_700
50.33      0.1000E+21
+++ NetCDF read requested for parm #          7 ... parm=
Z_850

In get_var3_tlev_double, ifh=                109
                        ltix(ifh)=          109

After read, parm= Z_850                      ifh=                109

```

```

lead time index=          109  parm# (ip) =          7  ncix=
109
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
108:00          7          Z_850
1019.          0.1000E+21
+++ NetCDF read requested for parm #          8  ... parm=
Z_700

In get_var3_tlev_double, ifh=          109
ltix(ifh)=          109

After read, parm= Z_700          ifh=          109
lead time index=          109  parm# (ip) =          8  ncix=
109
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
108:00          8          Z_700
2707.          0.1000E+21
+++ NetCDF read requested for parm #          9  ... parm=
slp

In get_var3_tlev_double, ifh=          109
ltix(ifh)=          109

After read, parm= slp          ifh=          109
lead time index=          109  parm# (ip) =          9  ncix=
109
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
108:00          9          slp
0.9547E+05  0.1025E+06
+++ NetCDF read requested for parm #          10  ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          109
ltix(ifh)=          109

After read, parm= u_10m_gr          ifh=          109
lead time index=          109  parm# (ip) =          10  ncix=
109
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
108:00          10          u_10m_gr          -
36.59          28.08
+++ NetCDF read requested for parm #          11  ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          109
ltix(ifh)=          109

After read, parm= v_10m_gr          ifh=          109
lead time index=          109  parm# (ip) =          11  ncix=
109
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
108:00          11          v_10m_gr          -
30.87          40.30
+++ NetCDF read requested for parm #          12  ... parm=
U_500

```

```

In get_var3_tlev_double, ifh=          109
                        ltix(ifh)=      109

After read, parm= U_500                ifh=          109
lead time index=          109 parm# (ip) =          12 ncix=
109
igvret=                      0
parmread lead time    parm#    parm_id    minval    maxval
108:00                12        U_500
55.17      34.54
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=          109
                        ltix(ifh)=      109

After read, parm= V_500                ifh=          109
lead time index=          109 parm# (ip) =          13 ncix=
109
igvret=                      0
parmread lead time    parm#    parm_id    minval    maxval
108:00                13        V_500
37.88      47.30
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15 ... parm=
Z_500

In get_var3_tlev_double, ifh=          109
                        ltix(ifh)=      109

After read, parm= Z_500                ifh=          109
lead time index=          109 parm# (ip) =          15 ncix=
109
igvret=                      0
parmread lead time    parm#    parm_id    minval    maxval
108:00                15        Z_500
5532.      5954.
+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=          109
                        ltix(ifh)=      109

After read, parm= Z_200                ifh=          109
lead time index=          109 parm# (ip) =          16 ncix=
109
igvret=                      0
parmread lead time    parm#    parm_id    minval    maxval
108:00                16        Z_200
0.1193E+05  0.1254E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:41:00

Of          17 readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =    38316.57    dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch

```

!!! Storm name = MANGKHUT
!!! Storm ID = 26W

* New forecast hour: 109:00

in getgridinfo_netcdf, ncfile_id= 65536

In getgridinfo, grid dimensions follow:
imax= 409 jmax= 349
dx= 0.1722946 dy= 0.1621475

DX: midi= 204 dx= 0.1723
DY: midj= 174 dy= 0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat: -9.516 Min Lon: 92.852
Max Lat: 44.929 Max Lon: 163.148
TEST after getgridinfo in sub tracker, iggret= 0
in beginning of tracker, imax= 409 jmax= 349
TIMING: b4 getdata ... 14:41:00

NOTE: Program is now in subroutine getdata_netcdf.
+++ Time match in getdata_netcdf for usertime= 6540
netcdf file index= ncix= 110
+++ NetCDF read requested for parm # 1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh= 110
ltix(ifh)= 110

After read, parm= ABS_VORTICITY_850 ifh= 110
lead time index= 110 parm# (ip) = 1 ncix=
110
igvret= 0
parmread lead time parm# parm_id minval maxval
109:00 1 ABS_VORTICITY_850 -
0.6612E-03 0.2048E-02
+++ NetCDF read requested for parm # 2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh= 110
ltix(ifh)= 110

After read, parm= ABS_VORTICITY_700 ifh= 110
lead time index= 110 parm# (ip) = 2 ncix=
110
igvret= 0
parmread lead time parm# parm_id minval maxval
109:00 2 ABS_VORTICITY_700 -
0.6941E-03 0.1355E-02
+++ NetCDF read requested for parm # 3 ... parm=
U_850

In get_var3_tlev_double, ifh= 110
ltix(ifh)= 110

After read, parm= U_850 ifh= 110
lead time index= 110 parm# (ip) = 3 ncix=
110

```

    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
    109:00              3        U_850
50.77      0.1000E+21
+++ NetCDF read requested for parm #    4 ... parm=
V_850

    In get_var3_tlev_double, ifh=          110
                               ltix(ifh)=    110

    After read, parm= V_850
    lead time index=          110 parm# (ip) =          4 ncix=
110
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
    109:00              4        V_850
58.46      0.1000E+21
+++ NetCDF read requested for parm #    5 ... parm=
U_700

    In get_var3_tlev_double, ifh=          110
                               ltix(ifh)=    110

    After read, parm= U_700
    lead time index=          110 parm# (ip) =          5 ncix=
110
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
    109:00              5        U_700
55.58      0.1000E+21
+++ NetCDF read requested for parm #    6 ... parm=
V_700

    In get_var3_tlev_double, ifh=          110
                               ltix(ifh)=    110

    After read, parm= V_700
    lead time index=          110 parm# (ip) =          6 ncix=
110
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
    109:00              6        V_700
52.55      0.1000E+21
+++ NetCDF read requested for parm #    7 ... parm=
Z_850

    In get_var3_tlev_double, ifh=          110
                               ltix(ifh)=    110

    After read, parm= Z_850
    lead time index=          110 parm# (ip) =          7 ncix=
110
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
    109:00              7        Z_850
1045.      0.1000E+21
+++ NetCDF read requested for parm #    8 ... parm=
Z_700

    In get_var3_tlev_double, ifh=          110

```



```

                ltix(ifh)=                110

After read, parm= Z_700                ifh=                110
lead time index=                110  parm# (ip) =                8  ncix=
110
igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
109:00                8        Z_700
2728.    0.1000E+21
+++ NetCDF read requested for parm #                9  ... parm=
slp

In get_var3_tlev_double, ifh=                110
                ltix(ifh)=                110

After read, parm= slp                ifh=                110
lead time index=                110  parm# (ip) =                9  ncix=
110
igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
109:00                9        slp
0.9568E+05  0.1027E+06
+++ NetCDF read requested for parm #                10  ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=                110
                ltix(ifh)=                110

After read, parm= u_10m_gr                ifh=                110
lead time index=                110  parm# (ip) =                10  ncix=
110
igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
109:00                10        u_10m_gr    -
30.05    30.80
+++ NetCDF read requested for parm #                11  ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=                110
                ltix(ifh)=                110

After read, parm= v_10m_gr                ifh=                110
lead time index=                110  parm# (ip) =                11  ncix=
110
igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
109:00                11        v_10m_gr    -
33.71    38.00
+++ NetCDF read requested for parm #                12  ... parm=
U_500

In get_var3_tlev_double, ifh=                110
                ltix(ifh)=                110

After read, parm= U_500                ifh=                110
lead time index=                110  parm# (ip) =                12  ncix=
110
igvret=                0
parmread lead time    parm#    parm_id    minval    maxval

```

```

109:00          12          U_500          -
58.01      33.23
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=          110
                        ltix(ifh)=          110

After read, parm= V_500          ifh=          110
lead time index=          110 parm# (ip) =          13 ncix=
110
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
109:00          13          V_500          -
39.08      48.75
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15 ... parm=
Z_500

In get_var3_tlev_double, ifh=          110
                        ltix(ifh)=          110

After read, parm= Z_500          ifh=          110
lead time index=          110 parm# (ip) =          15 ncix=
110
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
109:00          15          Z_500
5550.      5955.
+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=          110
                        ltix(ifh)=          110

After read, parm= Z_200          ifh=          110
lead time index=          110 parm# (ip) =          16 ncix=
110
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
109:00          16          Z_200
0.1192E+05  0.1255E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:41:01

Of          17 readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =          38316.57          dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour: 110:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:

```

imax= 409 jmax= 349
dx= 0.1722946 dy= 0.1621475

DX: midi= 204 dx= 0.1723
DY: midj= 174 dy= 0.1621

Data Grid Lat/Lon boundaries follow:

Min Lat: -9.516 Min Lon: 92.852
Max Lat: 44.929 Max Lon: 163.148

TEST after getgridinfo in sub tracker, iggret= 0
in beginning of tracker, imax= 409 jmax= 349
TIMING: b4 getdata ... 14:41:01

NOTE: Program is now in subroutine getdata_netcdf.

+++ Time match in getdata_netcdf for usertime= 6600
netcdf file index= ncix= 111
+++ NetCDF read requested for parm # 1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh= 111
ltix(ifh)= 111

After read, parm= ABS_VORTICITY_850 ifh= 111
lead time index= 111 parm# (ip) = 1 ncix=
111

igvret= 0
parmread lead time parm# parm_id minval maxval -
110:00 1 ABS_VORTICITY_850 -
0.7305E-03 0.1792E-02

+++ NetCDF read requested for parm # 2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh= 111
ltix(ifh)= 111

After read, parm= ABS_VORTICITY_700 ifh= 111
lead time index= 111 parm# (ip) = 2 ncix=
111

igvret= 0
parmread lead time parm# parm_id minval maxval -
110:00 2 ABS_VORTICITY_700 -
0.6090E-03 0.1625E-02

+++ NetCDF read requested for parm # 3 ... parm=
U_850

In get_var3_tlev_double, ifh= 111
ltix(ifh)= 111

After read, parm= U_850 ifh= 111
lead time index= 111 parm# (ip) = 3 ncix=
111

igvret= 0
parmread lead time parm# parm_id minval maxval -
110:00 3 U_850 -
49.00 0.1000E+21

+++ NetCDF read requested for parm # 4 ... parm=
V_850

In get_var3_tlev_double, ifh= 111
ltix(ifh)= 111

```

After read, parm= V_850                ifh=          111
lead time index=          111 parm# (ip) =          4 ncix=
111
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
110:00              4          V_850
54.90      0.1000E+21
+++ NetCDF read requested for parm #          5 ... parm=
U_700

In get_var3_tlev_double, ifh=          111
                        ltix(ifh)=          111

After read, parm= U_700                ifh=          111
lead time index=          111 parm# (ip) =          5 ncix=
111
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
110:00              5          U_700
47.52      0.1000E+21
+++ NetCDF read requested for parm #          6 ... parm=
V_700

In get_var3_tlev_double, ifh=          111
                        ltix(ifh)=          111

After read, parm= V_700                ifh=          111
lead time index=          111 parm# (ip) =          6 ncix=
111
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
110:00              6          V_700
45.24      0.1000E+21
+++ NetCDF read requested for parm #          7 ... parm=
Z_850

In get_var3_tlev_double, ifh=          111
                        ltix(ifh)=          111

After read, parm= Z_850                ifh=          111
lead time index=          111 parm# (ip) =          7 ncix=
111
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
110:00              7          Z_850
1059.      0.1000E+21
+++ NetCDF read requested for parm #          8 ... parm=
Z_700

In get_var3_tlev_double, ifh=          111
                        ltix(ifh)=          111

After read, parm= Z_700                ifh=          111
lead time index=          111 parm# (ip) =          8 ncix=
111
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
110:00              8          Z_700
2744.      0.1000E+21

```

```

+++ NetCDF read requested for parm #          9 ... parm=
slp

In get_var3_tlev_double, ifh=                111
                        ltix(ifh)=          111

After read, parm= slp                        ifh=                111
lead time index=          111 parm# (ip) =          9 ncix=
111
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
  110:00                9          slp
0.9583E+05  0.1027E+06
+++ NetCDF read requested for parm #          10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=                111
                        ltix(ifh)=          111

After read, parm= u_10m_gr                   ifh=                111
lead time index=          111 parm# (ip) =          10 ncix=
111
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
  110:00                10          u_10m_gr
30.78          33.65
+++ NetCDF read requested for parm #          11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=                111
                        ltix(ifh)=          111

After read, parm= v_10m_gr                   ifh=                111
lead time index=          111 parm# (ip) =          11 ncix=
111
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
  110:00                11          v_10m_gr
30.75          37.60
+++ NetCDF read requested for parm #          12 ... parm=
U_500

In get_var3_tlev_double, ifh=                111
                        ltix(ifh)=          111

After read, parm= U_500                       ifh=                111
lead time index=          111 parm# (ip) =          12 ncix=
111
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
  110:00                12          U_500
47.25          33.31
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=                111
                        ltix(ifh)=          111

After read, parm= V_500                       ifh=                111

```

```

lead time index=          111  parm# (ip) =          13  ncix=
111
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  110:00          13          v_500
38.84          48.53
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15 ... parm=
Z_500

In get_var3_tlev_double, ifh=          111
                          ltix(ifh)=          111

After read, parm= Z_500          ifh=          111
lead time index=          111  parm# (ip) =          15  ncix=
111
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  110:00          15          Z_500
5560.          5955.
+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=          111
                          ltix(ifh)=          111

After read, parm= Z_200          ifh=          111
lead time index=          111  parm# (ip) =          16  ncix=
111
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  110:00          16          Z_200
0.1191E+05  0.1256E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:41:02

Of          17  readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =          38316.57          dlat_inter =
          36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:  111:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:
imax=          409  jmax=          349
dx=          0.1722946  dy=          0.1621475

DX:  midi=  204  dx=  0.1723
DY:  midj=  174  dy=  0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:  -9.516  Min Lon:  92.852
Max Lat:  44.929  Max Lon:  163.148

```

TEST after getgridinfo in sub tracker, iggret= 0
in beginning of tracker, imax= 409 jmax= 349
TIMING: b4 getdata ... 14:41:02

NOTE: Program is now in subroutine getdata_netcdf.

+++ Time match in getdata_netcdf for usertime= 6660
netcdf file index= ncix= 112
+++ NetCDF read requested for parm # 1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh= 112
ltix(ifh)= 112

After read, parm= ABS_VORTICITY_850 ifh= 112
lead time index= 112 parm# (ip) = 1 ncix=
112

igvret= 0
parmread lead time parm# parm_id minval maxval -
111:00 1 ABS_VORTICITY_850
0.7726E-03 0.1849E-02

+++ NetCDF read requested for parm # 2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh= 112
ltix(ifh)= 112

After read, parm= ABS_VORTICITY_700 ifh= 112
lead time index= 112 parm# (ip) = 2 ncix=
112

igvret= 0
parmread lead time parm# parm_id minval maxval -
111:00 2 ABS_VORTICITY_700
0.5815E-03 0.1360E-02

+++ NetCDF read requested for parm # 3 ... parm=
U_850

In get_var3_tlev_double, ifh= 112
ltix(ifh)= 112

After read, parm= U_850 ifh= 112
lead time index= 112 parm# (ip) = 3 ncix=
112

igvret= 0
parmread lead time parm# parm_id minval maxval -
111:00 3 U_850
48.49 0.1000E+21

+++ NetCDF read requested for parm # 4 ... parm=
V_850

In get_var3_tlev_double, ifh= 112
ltix(ifh)= 112

After read, parm= V_850 ifh= 112
lead time index= 112 parm# (ip) = 4 ncix=
112

igvret= 0
parmread lead time parm# parm_id minval maxval -
111:00 4 V_850
52.28 0.1000E+21

+++ NetCDF read requested for parm # 5 ... parm=

```

U_700

In get_var3_tlev_double, ifh=          112
                        ltix(ifh)=     112

After read, parm= U_700                ifh=          112
lead time index=          112 parm# (ip) =          5 ncix=
112
igvret=                      0
parmread lead time    parm#    parm_id    minval    maxval
  111:00              5        U_700
52.24      0.1000E+21
+++ NetCDF read requested for parm #    6 ... parm=
V_700

In get_var3_tlev_double, ifh=          112
                        ltix(ifh)=     112

After read, parm= V_700                ifh=          112
lead time index=          112 parm# (ip) =          6 ncix=
112
igvret=                      0
parmread lead time    parm#    parm_id    minval    maxval
  111:00              6        V_700
43.10      0.1000E+21
+++ NetCDF read requested for parm #    7 ... parm=
Z_850

In get_var3_tlev_double, ifh=          112
                        ltix(ifh)=     112

After read, parm= Z_850                ifh=          112
lead time index=          112 parm# (ip) =          7 ncix=
112
igvret=                      0
parmread lead time    parm#    parm_id    minval    maxval
  111:00              7        Z_850
1081.      0.1000E+21
+++ NetCDF read requested for parm #    8 ... parm=
Z_700

In get_var3_tlev_double, ifh=          112
                        ltix(ifh)=     112

After read, parm= Z_700                ifh=          112
lead time index=          112 parm# (ip) =          8 ncix=
112
igvret=                      0
parmread lead time    parm#    parm_id    minval    maxval
  111:00              8        Z_700
2758.      0.1000E+21
+++ NetCDF read requested for parm #    9 ... parm=
slp

In get_var3_tlev_double, ifh=          112
                        ltix(ifh)=     112

After read, parm= slp                  ifh=          112
lead time index=          112 parm# (ip) =          9 ncix=
112

```



```

    igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    111:00          9        slp
0.9610E+05  0.1028E+06
+++ NetCDF read requested for parm #    10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          112
                        ltix(ifh)=    112

After read, parm= u_10m_gr                ifh=          112
lead time index=          112 parm# (ip) =    10 ncix=
112
    igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    111:00          10        u_10m_gr
25.72      32.56
+++ NetCDF read requested for parm #    11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          112
                        ltix(ifh)=    112

After read, parm= v_10m_gr                ifh=          112
lead time index=          112 parm# (ip) =    11 ncix=
112
    igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    111:00          11        v_10m_gr
31.04      36.67
+++ NetCDF read requested for parm #    12 ... parm=
U_500

In get_var3_tlev_double, ifh=          112
                        ltix(ifh)=    112

After read, parm= U_500                    ifh=          112
lead time index=          112 parm# (ip) =    12 ncix=
112
    igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    111:00          12        U_500
44.46      34.43
+++ NetCDF read requested for parm #    13 ... parm=
V_500

In get_var3_tlev_double, ifh=          112
                        ltix(ifh)=    112

After read, parm= V_500                    ifh=          112
lead time index=          112 parm# (ip) =    13 ncix=
112
    igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    111:00          13        V_500
36.01      47.10
!!! NetCDF read NOT requested for parm #    14
+++ NetCDF read requested for parm #    15 ... parm=
Z_500

```

```

In get_var3_tlev_double, ifh=          112
                        ltix(ifh)=      112

After read, parm= Z_500                ifh=          112
lead time index=          112  parm# (ip) =          15  ncix=
112
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  111:00                15          Z_500
5575.          5952.
+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=          112
                        ltix(ifh)=      112

After read, parm= Z_200                ifh=          112
lead time index=          112  parm# (ip) =          16  ncix=
112
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  111:00                16          Z_200
0.1191E+05  0.1256E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:41:03

Of          17 readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =          38316.57      dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:  112:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:
imax=          409  jmax=          349
dx=          0.1722946      dy=          0.1621475

DX:  midi=  204 dx=  0.1723
DY:  midj=  174 dy=  0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:  -9.516  Min Lon:  92.852
Max Lat:  44.929  Max Lon:  163.148
TEST after getgridinfo in sub tracker, iggret=          0
in beginning of tracker, imax=          409  jmax=          349
TIMING: b4 getdata ... 14:41:03

NOTE: Program is now in subroutine  getdata_netcdf.
+++ Time match in getdata_netcdf for usertime=          6720
      netcdf file index= ncix=          113
+++ NetCDF read requested for parm #          1 ... parm=
ABS_VORTICITY_850

```

```

In get_var3_tlev_double, ifh=          113
                        ltix(ifh)=      113

After read, parm= ABS_VORTICITY_850          ifh=          113
lead time index=          113 parm# (ip) =          1 ncix=
113
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
112:00          1          ABS_VORTICITY_850          -
0.7341E-03  0.2007E-02
+++ NetCDF read requested for parm #          2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh=          113
                        ltix(ifh)=      113

After read, parm= ABS_VORTICITY_700          ifh=          113
lead time index=          113 parm# (ip) =          2 ncix=
113
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
112:00          2          ABS_VORTICITY_700          -
0.5588E-03  0.1232E-02
+++ NetCDF read requested for parm #          3 ... parm=
U_850

In get_var3_tlev_double, ifh=          113
                        ltix(ifh)=      113

After read, parm= U_850          ifh=          113
lead time index=          113 parm# (ip) =          3 ncix=
113
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
112:00          3          U_850          -
50.18          0.1000E+21
+++ NetCDF read requested for parm #          4 ... parm=
V_850

In get_var3_tlev_double, ifh=          113
                        ltix(ifh)=      113

After read, parm= V_850          ifh=          113
lead time index=          113 parm# (ip) =          4 ncix=
113
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
112:00          4          V_850          -
48.44          0.1000E+21
+++ NetCDF read requested for parm #          5 ... parm=
U_700

In get_var3_tlev_double, ifh=          113
                        ltix(ifh)=      113

After read, parm= U_700          ifh=          113
lead time index=          113 parm# (ip) =          5 ncix=
113
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval

```

```

112:00          5          U_700          -
47.43          0.1000E+21
+++ NetCDF read requested for parm #          6 ... parm=
V_700

In get_var3_tlev_double, ifh=          113
                        ltix(ifh)=          113

After read, parm= V_700          ifh=          113
lead time index=          113 parm# (ip) =          6 ncix=
113
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
112:00          6          V_700          -
37.15          0.1000E+21
+++ NetCDF read requested for parm #          7 ... parm=
Z_850

In get_var3_tlev_double, ifh=          113
                        ltix(ifh)=          113

After read, parm= Z_850          ifh=          113
lead time index=          113 parm# (ip) =          7 ncix=
113
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
112:00          7          Z_850
1087.          0.1000E+21
+++ NetCDF read requested for parm #          8 ... parm=
Z_700

In get_var3_tlev_double, ifh=          113
                        ltix(ifh)=          113

After read, parm= Z_700          ifh=          113
lead time index=          113 parm# (ip) =          8 ncix=
113
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
112:00          8          Z_700
2768.          0.1000E+21
+++ NetCDF read requested for parm #          9 ... parm=
slp

In get_var3_tlev_double, ifh=          113
                        ltix(ifh)=          113

After read, parm= slp          ifh=          113
lead time index=          113 parm# (ip) =          9 ncix=
113
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
112:00          9          slp
0.9630E+05  0.1027E+06
+++ NetCDF read requested for parm #          10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          113
                        ltix(ifh)=          113

```

```

After read, parm= u_10m_gr          ifh=          113
lead time index=          113  parm# (ip) =          10  ncix=
113
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  112:00          10          u_10m_gr          -
26.06          30.89
+++ NetCDF read requested for parm #          11  ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          113
                        ltix(ifh)=          113

After read, parm= v_10m_gr          ifh=          113
lead time index=          113  parm# (ip) =          11  ncix=
113
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  112:00          11          v_10m_gr          -
30.34          37.21
+++ NetCDF read requested for parm #          12  ... parm=
U_500

In get_var3_tlev_double, ifh=          113
                        ltix(ifh)=          113

After read, parm= U_500          ifh=          113
lead time index=          113  parm# (ip) =          12  ncix=
113
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  112:00          12          U_500          -
44.13          33.50
+++ NetCDF read requested for parm #          13  ... parm=
V_500

In get_var3_tlev_double, ifh=          113
                        ltix(ifh)=          113

After read, parm= V_500          ifh=          113
lead time index=          113  parm# (ip) =          13  ncix=
113
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  112:00          13          V_500          -
34.12          48.74
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15  ... parm=
Z_500

In get_var3_tlev_double, ifh=          113
                        ltix(ifh)=          113

After read, parm= Z_500          ifh=          113
lead time index=          113  parm# (ip) =          15  ncix=
113
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  112:00          15          Z_500          -
5588.          5949.

```

```

+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=                113
                        ltix(ifh)=          113

After read, parm= Z_200                      ifh=                113
lead time index=          113 parm# (ip) =          16 ncix=
113
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
  112:00                16          Z_200
0.1190E+05  0.1256E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:41:04

Of          17 readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =          38316.57          dlat_inter =
  36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:  113:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:
imax=          409  jmax=          349
dx=          0.1722946  dy=          0.1621475

DX:  midi=  204 dx=          0.1723
DY:  midj=  174 dy=          0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:  -9.516  Min Lon:  92.852
Max Lat:  44.929  Max Lon:  163.148
TEST after getgridinfo in sub tracker, iggret=          0
in beginning of tracker, imax=          409  jmax=          349
TIMING: b4 getdata ... 14:41:04

NOTE: Program is now in subroutine  getdata_netcdf.
+++ Time match in getdata_netcdf for usertime=          6780
netcdf file index= ncix=          114
+++ NetCDF read requested for parm #          1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh=                114
                        ltix(ifh)=          114

After read, parm= ABS_VORTICITY_850          ifh=                114
lead time index=          114 parm# (ip) =          1 ncix=
114
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
  113:00                1          ABS_VORTICITY_850
0.7394E-03  0.1793E-02

```

```

+++ NetCDF read requested for parm #          2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh=          114
                        ltix(ifh)=      114

After read, parm= ABS_VORTICITY_700          ifh=          114
lead time index=          114 parm# (ip) =          2 ncix=
114
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
113:00          2          ABS_VORTICITY_700          -
0.5740E-03  0.1146E-02
+++ NetCDF read requested for parm #          3 ... parm=
U_850

In get_var3_tlev_double, ifh=          114
                        ltix(ifh)=      114

After read, parm= U_850                      ifh=          114
lead time index=          114 parm# (ip) =          3 ncix=
114
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
113:00          3          U_850          -
48.21          0.1000E+21
+++ NetCDF read requested for parm #          4 ... parm=
V_850

In get_var3_tlev_double, ifh=          114
                        ltix(ifh)=      114

After read, parm= V_850                      ifh=          114
lead time index=          114 parm# (ip) =          4 ncix=
114
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
113:00          4          V_850          -
49.00          0.1000E+21
+++ NetCDF read requested for parm #          5 ... parm=
U_700

In get_var3_tlev_double, ifh=          114
                        ltix(ifh)=      114

After read, parm= U_700                      ifh=          114
lead time index=          114 parm# (ip) =          5 ncix=
114
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
113:00          5          U_700          -
50.89          0.1000E+21
+++ NetCDF read requested for parm #          6 ... parm=
V_700

In get_var3_tlev_double, ifh=          114
                        ltix(ifh)=      114

After read, parm= V_700                      ifh=          114

```

```

lead time index=          114  parm# (ip) =          6  ncix=
114
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  113:00          6          v_700
32.05      0.1000E+21
+++ NetCDF read requested for parm #          7  ... parm=
Z_850

In get_var3_tlev_double, ifh=          114
                        ltix(ifh)=          114

After read, parm= Z_850          ifh=          114
lead time index=          114  parm# (ip) =          7  ncix=
114
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  113:00          7          Z_850
1111.      0.1000E+21
+++ NetCDF read requested for parm #          8  ... parm=
Z_700

In get_var3_tlev_double, ifh=          114
                        ltix(ifh)=          114

After read, parm= Z_700          ifh=          114
lead time index=          114  parm# (ip) =          8  ncix=
114
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  113:00          8          Z_700
2785.      0.1000E+21
+++ NetCDF read requested for parm #          9  ... parm=
slp

In get_var3_tlev_double, ifh=          114
                        ltix(ifh)=          114

After read, parm= slp          ifh=          114
lead time index=          114  parm# (ip) =          9  ncix=
114
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  113:00          9          slp
0.9654E+05  0.1027E+06
+++ NetCDF read requested for parm #          10  ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          114
                        ltix(ifh)=          114

After read, parm= u_10m_gr          ifh=          114
lead time index=          114  parm# (ip) =          10  ncix=
114
  igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
  113:00          10          u_10m_gr
26.53      30.33
+++ NetCDF read requested for parm #          11  ... parm=
v_10m_gr

```



```

In get_var3_tlev_double, ifh=          114
                        ltix(ifh)=      114

After read, parm= v_10m_gr              ifh=          114
lead time index=          114  parm# (ip) =          11  ncix=
114
igvret=                    0
parmread lead time      parm#      parm_id      minval      maxval
  113:00                11          v_10m_gr
29.47          36.08
+++ NetCDF read requested for parm #          12 ... parm=
U_500

In get_var3_tlev_double, ifh=          114
                        ltix(ifh)=      114

After read, parm= U_500                  ifh=          114
lead time index=          114  parm# (ip) =          12  ncix=
114
igvret=                    0
parmread lead time      parm#      parm_id      minval      maxval
  113:00                12          U_500
42.80          33.24
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=          114
                        ltix(ifh)=      114

After read, parm= V_500                  ifh=          114
lead time index=          114  parm# (ip) =          13  ncix=
114
igvret=                    0
parmread lead time      parm#      parm_id      minval      maxval
  113:00                13          V_500
33.23          45.67
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15 ... parm=
Z_500

In get_var3_tlev_double, ifh=          114
                        ltix(ifh)=      114

After read, parm= Z_500                  ifh=          114
lead time index=          114  parm# (ip) =          15  ncix=
114
igvret=                    0
parmread lead time      parm#      parm_id      minval      maxval
  113:00                15          Z_500
5593.          5945.
+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=          114
                        ltix(ifh)=      114

After read, parm= Z_200                  ifh=          114
lead time index=          114  parm# (ip) =          16  ncix=
114

```

```

    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      113:00             16        Z_200
0.1189E+05  0.1255E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:41:05

Of          17 readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =    38316.57    dlat_inter =
  36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:  114:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:
imax=          409  jmax=          349
dx=    0.1722946    dy=    0.1621475

DX:  midi=  204 dx=    0.1723
DY:  midj=  174 dy=    0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:   -9.516  Min Lon:   92.852
Max Lat:   44.929  Max Lon:  163.148
TEST after getgridinfo in sub tracker, iggret=          0
in beginning of tracker, imax=          409  jmax=          349
TIMING: b4 getdata ... 14:41:05

NOTE: Program is now in subroutine  getdata_netcdf.
+++ Time match in getdata_netcdf for usertime=          6840
    netcdf file index= ncix=          115
+++ NetCDF read requested for parm #          1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh=          115
                        ltix(ifh)=          115

After read, parm= ABS_VORTICITY_850          ifh=          115
  lead time index=          115  parm# (ip) =          1  ncix=
115
  igvret=          0
  parmread lead time    parm#    parm_id    minval    maxval
    114:00             1        ABS_VORTICITY_850    -
0.6940E-03  0.1872E-02
+++ NetCDF read requested for parm #          2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh=          115
                        ltix(ifh)=          115

After read, parm= ABS_VORTICITY_700          ifh=          115
  lead time index=          115  parm# (ip) =          2  ncix=
115

```

```

    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      114:00              2        ABS_VORTICITY_700          -
0.5674E-03  0.1214E-02
+++ NetCDF read requested for parm #          3 ... parm=
U_850

    In get_var3_tlev_double, ifh=          115
                             ltix(ifh)=    115

    After read, parm= U_850                      ifh=          115
    lead time index=          115 parm# (ip) =          3 ncix=
115
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      114:00              3        U_850          -
45.90      0.1000E+21
+++ NetCDF read requested for parm #          4 ... parm=
V_850

    In get_var3_tlev_double, ifh=          115
                             ltix(ifh)=    115

    After read, parm= V_850                      ifh=          115
    lead time index=          115 parm# (ip) =          4 ncix=
115
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      114:00              4        V_850          -
47.06      0.1000E+21
+++ NetCDF read requested for parm #          5 ... parm=
U_700

    In get_var3_tlev_double, ifh=          115
                             ltix(ifh)=    115

    After read, parm= U_700                      ifh=          115
    lead time index=          115 parm# (ip) =          5 ncix=
115
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      114:00              5        U_700          -
48.33      0.1000E+21
+++ NetCDF read requested for parm #          6 ... parm=
V_700

    In get_var3_tlev_double, ifh=          115
                             ltix(ifh)=    115

    After read, parm= V_700                      ifh=          115
    lead time index=          115 parm# (ip) =          6 ncix=
115
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      114:00              6        V_700          -
29.40      0.1000E+21
+++ NetCDF read requested for parm #          7 ... parm=
Z_850

    In get_var3_tlev_double, ifh=          115

```

```

                ltix(ifh)=                115

After read, parm= Z_850                    ifh=                115
lead time index=                115  parm# (ip) =                7  ncix=
115
igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
114:00                7        Z_850
1122.    0.1000E+21
+++ NetCDF read requested for parm #                8  ... parm=
Z_700

In get_var3_tlev_double, ifh=                115
                ltix(ifh)=                115

After read, parm= Z_700                    ifh=                115
lead time index=                115  parm# (ip) =                8  ncix=
115
igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
114:00                8        Z_700
2799.    0.1000E+21
+++ NetCDF read requested for parm #                9  ... parm=
slp

In get_var3_tlev_double, ifh=                115
                ltix(ifh)=                115

After read, parm= slp                    ifh=                115
lead time index=                115  parm# (ip) =                9  ncix=
115
igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
114:00                9        slp
0.9657E+05  0.1026E+06
+++ NetCDF read requested for parm #                10  ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=                115
                ltix(ifh)=                115

After read, parm= u_10m_gr                    ifh=                115
lead time index=                115  parm# (ip) =                10  ncix=
115
igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
114:00                10        u_10m_gr
23.59    27.47
+++ NetCDF read requested for parm #                11  ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=                115
                ltix(ifh)=                115

After read, parm= v_10m_gr                    ifh=                115
lead time index=                115  parm# (ip) =                11  ncix=
115
igvret=                0
parmread lead time    parm#    parm_id    minval    maxval

```

```

114:00          11          v_10m_gr          -
26.68          34.30
+++ NetCDF read requested for parm #          12 ... parm=
U_500

In get_var3_tlev_double, ifh=          115
                        ltix(ifh)=          115

After read, parm= U_500          ifh=          115
lead time index=          115 parm# (ip) =          12 ncix=
115
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
114:00          12          U_500          -
40.62          33.14
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=          115
                        ltix(ifh)=          115

After read, parm= V_500          ifh=          115
lead time index=          115 parm# (ip) =          13 ncix=
115
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
114:00          13          V_500          -
33.31          46.02
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15 ... parm=
Z_500

In get_var3_tlev_double, ifh=          115
                        ltix(ifh)=          115

After read, parm= Z_500          ifh=          115
lead time index=          115 parm# (ip) =          15 ncix=
115
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
114:00          15          Z_500
5600.          5945.
+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=          115
                        ltix(ifh)=          115

After read, parm= Z_200          ifh=          115
lead time index=          115 parm# (ip) =          16 ncix=
115
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
114:00          16          Z_200
0.1190E+05  0.1254E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:41:06

Of          17 readable parms, you read in          15
parms for this fcst hour from the input grib file.

```

Just before inter rvcalc, dlon_inter = 38316.57 dlat_inter = 36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

* New forecast hour: 115:00

in getgridinfo_netcdf, ncfile_id= 65536

In getgridinfo, grid dimensions follow:
imax= 409 jmax= 349
dx= 0.1722946 dy= 0.1621475

DX: midi= 204 dx= 0.1723
DY: midj= 174 dy= 0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat: -9.516 Min Lon: 92.852
Max Lat: 44.929 Max Lon: 163.148
TEST after getgridinfo in sub tracker, iggret= 0
in beginning of tracker, imax= 409 jmax= 349
TIMING: b4 getdata ... 14:41:06

NOTE: Program is now in subroutine getdata_netcdf.
+++ Time match in getdata_netcdf for usertime= 6900
netcdf file index= ncix= 116
+++ NetCDF read requested for parm # 1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh= 116
ltix(ifh)= 116

After read, parm= ABS_VORTICITY_850 ifh= 116
lead time index= 116 parm# (ip) = 1 ncix=
116
igvret= 0
parmread lead time parm# parm_id minval maxval
115:00 1 ABS_VORTICITY_850 -
0.7184E-03 0.1532E-02
+++ NetCDF read requested for parm # 2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh= 116
ltix(ifh)= 116

After read, parm= ABS_VORTICITY_700 ifh= 116
lead time index= 116 parm# (ip) = 2 ncix=
116
igvret= 0
parmread lead time parm# parm_id minval maxval
115:00 2 ABS_VORTICITY_700 -
0.6119E-03 0.1061E-02
+++ NetCDF read requested for parm # 3 ... parm=
U_850

In get_var3_tlev_double, ifh= 116
ltix(ifh)= 116

```

After read, parm= U_850                ifh=          116
lead time index=          116 parm# (ip) =          3 ncix=
116
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
115:00              3        U_850
45.94      0.1000E+21
+++ NetCDF read requested for parm #          4 ... parm=
V_850

In get_var3_tlev_double, ifh=          116
                        ltix(ifh)=          116

After read, parm= V_850                ifh=          116
lead time index=          116 parm# (ip) =          4 ncix=
116
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
115:00              4        V_850
47.70      0.1000E+21
+++ NetCDF read requested for parm #          5 ... parm=
U_700

In get_var3_tlev_double, ifh=          116
                        ltix(ifh)=          116

After read, parm= U_700                ifh=          116
lead time index=          116 parm# (ip) =          5 ncix=
116
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
115:00              5        U_700
46.21      0.1000E+21
+++ NetCDF read requested for parm #          6 ... parm=
V_700

In get_var3_tlev_double, ifh=          116
                        ltix(ifh)=          116

After read, parm= V_700                ifh=          116
lead time index=          116 parm# (ip) =          6 ncix=
116
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
115:00              6        V_700
34.62      0.1000E+21
+++ NetCDF read requested for parm #          7 ... parm=
Z_850

In get_var3_tlev_double, ifh=          116
                        ltix(ifh)=          116

After read, parm= Z_850                ifh=          116
lead time index=          116 parm# (ip) =          7 ncix=
116
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
115:00              7        Z_850
1127.      0.1000E+21

```

```

+++ NetCDF read requested for parm #      8 ... parm=
Z_700

In get_var3_tlev_double, ifh=             116
                        ltix(ifh)=        116

After read, parm= Z_700                    ifh=             116
lead time index=          116 parm# (ip) =          8 ncix=
116
igvret=                    0
parmread lead time      parm#      parm_id      minval      maxval
115:00                  8          Z_700
2806.                    0.1000E+21
+++ NetCDF read requested for parm #      9 ... parm=
slp

In get_var3_tlev_double, ifh=             116
                        ltix(ifh)=        116

After read, parm= slp                      ifh=             116
lead time index=          116 parm# (ip) =          9 ncix=
116
igvret=                    0
parmread lead time      parm#      parm_id      minval      maxval
115:00                  9          slp
0.9673E+05  0.1025E+06
+++ NetCDF read requested for parm #     10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=             116
                        ltix(ifh)=        116

After read, parm= u_10m_gr                 ifh=             116
lead time index=          116 parm# (ip) =         10 ncix=
116
igvret=                    0
parmread lead time      parm#      parm_id      minval      maxval
115:00                 10          u_10m_gr      -
23.65                24.85
+++ NetCDF read requested for parm #     11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=             116
                        ltix(ifh)=        116

After read, parm= v_10m_gr                 ifh=             116
lead time index=          116 parm# (ip) =         11 ncix=
116
igvret=                    0
parmread lead time      parm#      parm_id      minval      maxval
115:00                 11          v_10m_gr      -
24.14                31.27
+++ NetCDF read requested for parm #     12 ... parm=
U_500

In get_var3_tlev_double, ifh=             116
                        ltix(ifh)=        116

After read, parm= U_500                    ifh=             116

```



```

    lead time index=          116  parm# (ip) =          12  ncix=
116
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    115:00          12          U_500
41.81      33.39
+++ NetCDF read requested for parm #          13  ... parm=
V_500

In get_var3_tlev_double, ifh=          116
                        ltix(ifh)=          116

After read, parm= V_500          ifh=          116
    lead time index=          116  parm# (ip) =          13  ncix=
116
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    115:00          13          V_500
31.71      45.10
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15  ... parm=
Z_500

In get_var3_tlev_double, ifh=          116
                        ltix(ifh)=          116

After read, parm= Z_500          ifh=          116
    lead time index=          116  parm# (ip) =          15  ncix=
116
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    115:00          15          Z_500
5605.      5945.
+++ NetCDF read requested for parm #          16  ... parm=
Z_200

In get_var3_tlev_double, ifh=          116
                        ltix(ifh)=          116

After read, parm= Z_200          ifh=          116
    lead time index=          116  parm# (ip) =          16  ncix=
116
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    115:00          16          Z_200
0.1189E+05  0.1253E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:41:07

Of          17  readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =          38316.57      dlat_inter =
36059.95

```

```

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

```

```

*-----*

```

```

*   New forecast hour:  116:00

```

```

*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:
imax=          409  jmax=          349
dx=      0.1722946  dy=      0.1621475

DX:  midi=  204 dx=  0.1723
DY:  midj=  174 dy=  0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:  -9.516  Min Lon:  92.852
Max Lat:  44.929  Max Lon:  163.148
TEST after getgridinfo in sub tracker, iggret=          0
in beginning of tracker, imax=          409  jmax=          349
TIMING: b4 getdata ... 14:41:07

NOTE: Program is now in subroutine  getdata_netcdf.
+++ Time match in getdata_netcdf for usertime=          6960
netcdf file index= ncix=          117
+++ NetCDF read requested for parm #          1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh=          117
ltix(ifh)=          117

After read, parm= ABS_VORTICITY_850          ifh=          117
lead time index=          117  parm# (ip) =          1  ncix=
117
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
116:00                1          ABS_VORTICITY_850          -
0.1033E-02  0.1325E-02
+++ NetCDF read requested for parm #          2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh=          117
ltix(ifh)=          117

After read, parm= ABS_VORTICITY_700          ifh=          117
lead time index=          117  parm# (ip) =          2  ncix=
117
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
116:00                2          ABS_VORTICITY_700          -
0.5425E-03  0.1086E-02
+++ NetCDF read requested for parm #          3 ... parm=
U_850

In get_var3_tlev_double, ifh=          117
ltix(ifh)=          117

After read, parm= U_850          ifh=          117
lead time index=          117  parm# (ip) =          3  ncix=
117
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
116:00                3          U_850          -
45.78          0.1000E+21
+++ NetCDF read requested for parm #          4 ... parm=

```

```

V_850

In get_var3_tlev_double, ifh=          117
                        ltix(ifh)=     117

After read, parm= V_850                ifh=          117
lead time index=          117 parm# (ip) =          4 ncix=
117
igvret=                      0
parmread lead time    parm#    parm_id    minval    maxval
  116:00              4        V_850
45.81      0.1000E+21
+++ NetCDF read requested for parm #          5 ... parm=
U_700

In get_var3_tlev_double, ifh=          117
                        ltix(ifh)=     117

After read, parm= U_700                ifh=          117
lead time index=          117 parm# (ip) =          5 ncix=
117
igvret=                      0
parmread lead time    parm#    parm_id    minval    maxval
  116:00              5        U_700
46.59      0.1000E+21
+++ NetCDF read requested for parm #          6 ... parm=
V_700

In get_var3_tlev_double, ifh=          117
                        ltix(ifh)=     117

After read, parm= V_700                ifh=          117
lead time index=          117 parm# (ip) =          6 ncix=
117
igvret=                      0
parmread lead time    parm#    parm_id    minval    maxval
  116:00              6        V_700
36.16      0.1000E+21
+++ NetCDF read requested for parm #          7 ... parm=
Z_850

In get_var3_tlev_double, ifh=          117
                        ltix(ifh)=     117

After read, parm= Z_850                ifh=          117
lead time index=          117 parm# (ip) =          7 ncix=
117
igvret=                      0
parmread lead time    parm#    parm_id    minval    maxval
  116:00              7        Z_850
1150.      0.1000E+21
+++ NetCDF read requested for parm #          8 ... parm=
Z_700

In get_var3_tlev_double, ifh=          117
                        ltix(ifh)=     117

After read, parm= Z_700                ifh=          117
lead time index=          117 parm# (ip) =          8 ncix=
117

```

```

    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      116:00              8        z_700
2824.      0.1000E+21
+++ NetCDF read requested for parm #          9 ... parm=
slp

In get_var3_tlev_double, ifh=          117
                        ltix(ifh)=      117

After read, parm= slp                      ifh=          117
lead time index=          117 parm# (ip) =          9 ncix=
117
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      116:00              9        slp
0.9692E+05  0.1024E+06
+++ NetCDF read requested for parm #          10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          117
                        ltix(ifh)=      117

After read, parm= u_10m_gr                  ifh=          117
lead time index=          117 parm# (ip) =          10 ncix=
117
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      116:00             10        u_10m_gr
23.94      25.44
+++ NetCDF read requested for parm #          11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          117
                        ltix(ifh)=      117

After read, parm= v_10m_gr                  ifh=          117
lead time index=          117 parm# (ip) =          11 ncix=
117
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      116:00             11        v_10m_gr
22.67      29.45
+++ NetCDF read requested for parm #          12 ... parm=
U_500

In get_var3_tlev_double, ifh=          117
                        ltix(ifh)=      117

After read, parm= U_500                      ifh=          117
lead time index=          117 parm# (ip) =          12 ncix=
117
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
      116:00             12        U_500
39.70      35.31
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=          117

```

```

                ltix(ifh)=                117

After read, parm= V_500                ifh=                117
lead time index=                117  parm# (ip) =                13  ncix=
117
igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
116:00                13        V_500
29.23                42.99
!!! NetCDF read NOT requested for parm #                14
+++ NetCDF read requested for parm #                15 ... parm=
Z_500

In get_var3_tlev_double, ifh=                117
                ltix(ifh)=                117

After read, parm= Z_500                ifh=                117
lead time index=                117  parm# (ip) =                15  ncix=
117
igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
116:00                15        Z_500
5601.                5944.
+++ NetCDF read requested for parm #                16 ... parm=
Z_200

In get_var3_tlev_double, ifh=                117
                ltix(ifh)=                117

After read, parm= Z_200                ifh=                117
lead time index=                117  parm# (ip) =                16  ncix=
117
igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
116:00                16        Z_200
0.1188E+05  0.1252E+05
!!! NetCDF read NOT requested for parm #                17
TIMING: after getdata ... 14:41:07

Of                17 readable parms, you read in                15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =                38316.57    dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour: 117:00
*-----*
in getgridinfo_netcdf, ncfile_id=                65536

In getgridinfo, grid dimensions follow:
imax=                409  jmax=                349
dx=                0.1722946    dy=                0.1621475

DX:  midi= 204 dx= 0.1723
DY:  midj= 174 dy= 0.1621

```

Data Grid Lat/Lon boundaries follow:

Min Lat: -9.516 Min Lon: 92.852

Max Lat: 44.929 Max Lon: 163.148

TEST after getgridinfo in sub tracker, iggret= 0

in beginning of tracker, imax= 409 jmax= 349

TIMING: b4 getdata ... 14:41:07

NOTE: Program is now in subroutine getdata_netcdf.

+++ Time match in getdata_netcdf for usertime= 7020

netcdf file index= ncix= 118

+++ NetCDF read requested for parm # 1 ... parm=

ABS_VORTICITY_850

In get_var3_tlev_double, ifh= 118

ltix(ifh)= 118

After read, parm= ABS_VORTICITY_850 ifh= 118

lead time index= 118 parm# (ip) = 1 ncix=

118

igvret= 0

parmread lead time parm# parm_id minval maxval

117:00 1 ABS_VORTICITY_850 -

0.6735E-03 0.1523E-02

+++ NetCDF read requested for parm # 2 ... parm=

ABS_VORTICITY_700

In get_var3_tlev_double, ifh= 118

ltix(ifh)= 118

After read, parm= ABS_VORTICITY_700 ifh= 118

lead time index= 118 parm# (ip) = 2 ncix=

118

igvret= 0

parmread lead time parm# parm_id minval maxval

117:00 2 ABS_VORTICITY_700 -

0.5682E-03 0.1067E-02

+++ NetCDF read requested for parm # 3 ... parm=

U_850

In get_var3_tlev_double, ifh= 118

ltix(ifh)= 118

After read, parm= U_850 ifh= 118

lead time index= 118 parm# (ip) = 3 ncix=

118

igvret= 0

parmread lead time parm# parm_id minval maxval

117:00 3 U_850 -

42.68 0.1000E+21

+++ NetCDF read requested for parm # 4 ... parm=

V_850

In get_var3_tlev_double, ifh= 118

ltix(ifh)= 118

After read, parm= V_850 ifh= 118

lead time index= 118 parm# (ip) = 4 ncix=

118

igvret= 0

parmread lead time parm# parm_id minval maxval

```

117:00          4          V_850          -
44.62          0.1000E+21
+++ NetCDF read requested for parm #          5 ... parm=
U_700

In get_var3_tlev_double, ifh=          118
                        ltix(ifh)=          118

After read, parm= U_700          ifh=          118
lead time index=          118 parm# (ip) =          5 ncix=
118
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
117:00          5          U_700          -
41.40          0.1000E+21
+++ NetCDF read requested for parm #          6 ... parm=
V_700

In get_var3_tlev_double, ifh=          118
                        ltix(ifh)=          118

After read, parm= V_700          ifh=          118
lead time index=          118 parm# (ip) =          6 ncix=
118
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
117:00          6          V_700          -
35.88          0.1000E+21
+++ NetCDF read requested for parm #          7 ... parm=
Z_850

In get_var3_tlev_double, ifh=          118
                        ltix(ifh)=          118

After read, parm= Z_850          ifh=          118
lead time index=          118 parm# (ip) =          7 ncix=
118
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
117:00          7          Z_850          -
1160.          0.1000E+21
+++ NetCDF read requested for parm #          8 ... parm=
Z_700

In get_var3_tlev_double, ifh=          118
                        ltix(ifh)=          118

After read, parm= Z_700          ifh=          118
lead time index=          118 parm# (ip) =          8 ncix=
118
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
117:00          8          Z_700          -
2829.          0.1000E+21
+++ NetCDF read requested for parm #          9 ... parm=
slp

In get_var3_tlev_double, ifh=          118
                        ltix(ifh)=          118

```

```

After read, parm= slp                      ifh=          118
lead time index=          118 parm# (ip) =          9 ncix=
118
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  117:00              9        slp
0.9704E+05  0.1024E+06
+++ NetCDF read requested for parm #          10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          118
                        ltix(ifh)=          118

After read, parm= u_10m_gr                  ifh=          118
lead time index=          118 parm# (ip) =          10 ncix=
118
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  117:00              10        u_10m_gr
21.63          26.79
+++ NetCDF read requested for parm #          11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          118
                        ltix(ifh)=          118

After read, parm= v_10m_gr                  ifh=          118
lead time index=          118 parm# (ip) =          11 ncix=
118
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  117:00              11        v_10m_gr
21.10          25.88
+++ NetCDF read requested for parm #          12 ... parm=
U_500

In get_var3_tlev_double, ifh=          118
                        ltix(ifh)=          118

After read, parm= U_500                     ifh=          118
lead time index=          118 parm# (ip) =          12 ncix=
118
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  117:00              12        U_500
40.42          36.31
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=          118
                        ltix(ifh)=          118

After read, parm= V_500                     ifh=          118
lead time index=          118 parm# (ip) =          13 ncix=
118
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  117:00              13        V_500
27.75          43.48
!!! NetCDF read NOT requested for parm #          14

```



```

+++ NetCDF read requested for parm #          15 ... parm=
Z_500

In get_var3_tlev_double, ifh=                118
                        ltix(ifh)=          118

After read, parm= Z_500                      ifh=                118
lead time index=          118 parm# (ip) =          15 ncix=
118
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
117:00                  15          Z_500
5597.                    5948.

+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=                118
                        ltix(ifh)=          118

After read, parm= Z_200                      ifh=                118
lead time index=          118 parm# (ip) =          16 ncix=
118
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
117:00                  16          Z_200
0.1188E+05  0.1252E+05

!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:41:08

Of          17 readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =          38316.57      dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:  118:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:
imax=          409  jmax=          349
dx=          0.1722946  dy=          0.1621475

DX:  midi=  204 dx=  0.1723
DY:  midj=  174 dy=  0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:  -9.516  Min Lon:  92.852
Max Lat:  44.929  Max Lon:  163.148
TEST after getgridinfo in sub tracker, iggret=          0
in beginning of tracker, imax=          409  jmax=          349
TIMING: b4 getdata ... 14:41:08

NOTE: Program is now in subroutine  getdata_netcdf.
+++ Time match in getdata_netcdf for usertime=          7080
netcdf file index= ncix=          119

```

```

+++ NetCDF read requested for parm #          1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh=                119
                        ltix(ifh)=          119

After read, parm= ABS_VORTICITY_850          ifh=                119
lead time index=          119 parm# (ip) =          1 ncix=
119
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
118:00                  1          ABS_VORTICITY_850          -
0.8271E-03  0.1620E-02
+++ NetCDF read requested for parm #          2 ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh=                119
                        ltix(ifh)=          119

After read, parm= ABS_VORTICITY_700          ifh=                119
lead time index=          119 parm# (ip) =          2 ncix=
119
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
118:00                  2          ABS_VORTICITY_700          -
0.7272E-03  0.1112E-02
+++ NetCDF read requested for parm #          3 ... parm=
U_850

In get_var3_tlev_double, ifh=                119
                        ltix(ifh)=          119

After read, parm= U_850                      ifh=                119
lead time index=          119 parm# (ip) =          3 ncix=
119
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
118:00                  3          U_850          -
40.85                0.1000E+21
+++ NetCDF read requested for parm #          4 ... parm=
V_850

In get_var3_tlev_double, ifh=                119
                        ltix(ifh)=          119

After read, parm= V_850                      ifh=                119
lead time index=          119 parm# (ip) =          4 ncix=
119
igvret=                0
parmread lead time      parm#      parm_id      minval      maxval
118:00                  4          V_850          -
43.31                0.1000E+21
+++ NetCDF read requested for parm #          5 ... parm=
U_700

In get_var3_tlev_double, ifh=                119
                        ltix(ifh)=          119

After read, parm= U_700                      ifh=                119

```

```

    lead time index=          119  parm# (ip) =          5  ncix=
119
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    118:00              5          U_700              -
41.05      0.1000E+21
+++ NetCDF read requested for parm #          6  ... parm=
V_700

In get_var3_tlev_double, ifh=          119
                        ltix(ifh)=          119

After read, parm= V_700          ifh=          119
    lead time index=          119  parm# (ip) =          6  ncix=
119
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    118:00              6          V_700              -
30.67      0.1000E+21
+++ NetCDF read requested for parm #          7  ... parm=
Z_850

In get_var3_tlev_double, ifh=          119
                        ltix(ifh)=          119

After read, parm= Z_850          ifh=          119
    lead time index=          119  parm# (ip) =          7  ncix=
119
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    118:00              7          Z_850              -
1180.      0.1000E+21
+++ NetCDF read requested for parm #          8  ... parm=
Z_700

In get_var3_tlev_double, ifh=          119
                        ltix(ifh)=          119

After read, parm= Z_700          ifh=          119
    lead time index=          119  parm# (ip) =          8  ncix=
119
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    118:00              8          Z_700              -
2850.      0.1000E+21
+++ NetCDF read requested for parm #          9  ... parm=
slp

In get_var3_tlev_double, ifh=          119
                        ltix(ifh)=          119

After read, parm= slp          ifh=          119
    lead time index=          119  parm# (ip) =          9  ncix=
119
    igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
    118:00              9          slp              -
0.9726E+05  0.1025E+06
+++ NetCDF read requested for parm #         10  ... parm=
u_10m_gr

```

```

In get_var3_tlev_double, ifh=          119
                        ltix(ifh)=      119

After read, parm= u_10m_gr              ifh=          119
lead time index=          119  parm# (ip) =          10  ncix=
119
igvret=                    0
parmread lead time      parm#      parm_id      minval      maxval
  118:00                10          u_10m_gr
21.42      25.60
+++ NetCDF read requested for parm #          11  ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          119
                        ltix(ifh)=      119

After read, parm= v_10m_gr              ifh=          119
lead time index=          119  parm# (ip) =          11  ncix=
119
igvret=                    0
parmread lead time      parm#      parm_id      minval      maxval
  118:00                11          v_10m_gr
22.03      26.19
+++ NetCDF read requested for parm #          12  ... parm=
U_500

In get_var3_tlev_double, ifh=          119
                        ltix(ifh)=      119

After read, parm= U_500                  ifh=          119
lead time index=          119  parm# (ip) =          12  ncix=
119
igvret=                    0
parmread lead time      parm#      parm_id      minval      maxval
  118:00                12          U_500
38.71      36.22
+++ NetCDF read requested for parm #          13  ... parm=
V_500

In get_var3_tlev_double, ifh=          119
                        ltix(ifh)=      119

After read, parm= V_500                  ifh=          119
lead time index=          119  parm# (ip) =          13  ncix=
119
igvret=                    0
parmread lead time      parm#      parm_id      minval      maxval
  118:00                13          V_500
28.07      40.89
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15  ... parm=
Z_500

In get_var3_tlev_double, ifh=          119
                        ltix(ifh)=      119

After read, parm= Z_500                  ifh=          119
lead time index=          119  parm# (ip) =          15  ncix=
119

```

```

    igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    118:00            15        Z_500
5597.          5951.
+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=          119
                        ltix(ifh)=      119

After read, parm= Z_200                ifh=          119
lead time index=          119 parm# (ip) =          16 ncix=
119
    igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
    118:00            16        Z_200
0.1188E+05  0.1252E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:41:09

Of          17 readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =      38316.57      dlat_inter =
36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:  119:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:
imax=          409  jmax=          349
dx=      0.1722946  dy=      0.1621475

DX:  midi=  204 dx=  0.1723
DY:  midj=  174 dy=  0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:  -9.516  Min Lon:  92.852
Max Lat:  44.929  Max Lon:  163.148
TEST after getgridinfo in sub tracker, iggret=          0
in beginning of tracker, imax=          409  jmax=          349
TIMING: b4 getdata ... 14:41:09

NOTE: Program is now in subroutine  getdata_netcdf.
+++ Time match in getdata_netcdf for usertime=          7140
netcdf file index= ncix=          120
+++ NetCDF read requested for parm #          1 ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh=          120
                        ltix(ifh)=      120

After read, parm= ABS_VORTICITY_850        ifh=          120
lead time index=          120 parm# (ip) =          1 ncix=
120

```

```

    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
    119:00              1        ABS_VORTICITY_850
0.6685E-03  0.1528E-02
+++ NetCDF read requested for parm #    2 ... parm=
ABS_VORTICITY_700

    In get_var3_tlev_double, ifh=          120
                             ltix(ifh)=    120

    After read, parm= ABS_VORTICITY_700          ifh=          120
    lead time index=          120 parm# (ip) =          2 ncix=
120
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
    119:00              2        ABS_VORTICITY_700
0.7908E-03  0.1044E-02
+++ NetCDF read requested for parm #    3 ... parm=
U_850

    In get_var3_tlev_double, ifh=          120
                             ltix(ifh)=    120

    After read, parm= U_850          ifh=          120
    lead time index=          120 parm# (ip) =          3 ncix=
120
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
    119:00              3          U_850
40.84      0.1000E+21
+++ NetCDF read requested for parm #    4 ... parm=
V_850

    In get_var3_tlev_double, ifh=          120
                             ltix(ifh)=    120

    After read, parm= V_850          ifh=          120
    lead time index=          120 parm# (ip) =          4 ncix=
120
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
    119:00              4          V_850
41.27      0.1000E+21
+++ NetCDF read requested for parm #    5 ... parm=
U_700

    In get_var3_tlev_double, ifh=          120
                             ltix(ifh)=    120

    After read, parm= U_700          ifh=          120
    lead time index=          120 parm# (ip) =          5 ncix=
120
    igvret=          0
    parmread lead time    parm#    parm_id    minval    maxval
    119:00              5          U_700
39.90      0.1000E+21
+++ NetCDF read requested for parm #    6 ... parm=
V_700

    In get_var3_tlev_double, ifh=          120

```

```

                ltix(ifh)=                120

After read, parm= V_700                ifh=                120
lead time index=                120  parm# (ip) =                6  ncix=
120
igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
119:00                6        V_700
30.72    0.1000E+21
+++ NetCDF read requested for parm #                7  ... parm=
Z_850

In get_var3_tlev_double, ifh=                120
                ltix(ifh)=                120

After read, parm= Z_850                ifh=                120
lead time index=                120  parm# (ip) =                7  ncix=
120
igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
119:00                7        Z_850
1195.    0.1000E+21
+++ NetCDF read requested for parm #                8  ... parm=
Z_700

In get_var3_tlev_double, ifh=                120
                ltix(ifh)=                120

After read, parm= Z_700                ifh=                120
lead time index=                120  parm# (ip) =                8  ncix=
120
igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
119:00                8        Z_700
2864.    0.1000E+21
+++ NetCDF read requested for parm #                9  ... parm=
slp

In get_var3_tlev_double, ifh=                120
                ltix(ifh)=                120

After read, parm= slp                ifh=                120
lead time index=                120  parm# (ip) =                9  ncix=
120
igvret=                0
parmread lead time    parm#    parm_id    minval    maxval
119:00                9        slp
0.9744E+05  0.1025E+06
+++ NetCDF read requested for parm #                10  ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=                120
                ltix(ifh)=                120

After read, parm= u_10m_gr                ifh=                120
lead time index=                120  parm# (ip) =                10  ncix=
120
igvret=                0
parmread lead time    parm#    parm_id    minval    maxval

```

```

119:00          10          u_10m_gr          -
20.51      24.89
+++ NetCDF read requested for parm #          11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          120
                        ltix(ifh)=          120

After read, parm= v_10m_gr          ifh=          120
lead time index=          120 parm# (ip) =          11 ncix=
120
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
119:00          11          v_10m_gr          -
21.56      26.69
+++ NetCDF read requested for parm #          12 ... parm=
U_500

In get_var3_tlev_double, ifh=          120
                        ltix(ifh)=          120

After read, parm= U_500          ifh=          120
lead time index=          120 parm# (ip) =          12 ncix=
120
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
119:00          12          U_500          -
36.33      36.20
+++ NetCDF read requested for parm #          13 ... parm=
V_500

In get_var3_tlev_double, ifh=          120
                        ltix(ifh)=          120

After read, parm= V_500          ifh=          120
lead time index=          120 parm# (ip) =          13 ncix=
120
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
119:00          13          V_500          -
26.61      41.51
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15 ... parm=
Z_500

In get_var3_tlev_double, ifh=          120
                        ltix(ifh)=          120

After read, parm= Z_500          ifh=          120
lead time index=          120 parm# (ip) =          15 ncix=
120
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
119:00          15          Z_500
5590.      5955.
+++ NetCDF read requested for parm #          16 ... parm=
Z_200

In get_var3_tlev_double, ifh=          120
                        ltix(ifh)=          120

```



```

After read, parm= Z_200                ifh=          120
  lead time index=          120  parm# (ip) =          16  ncix=
120
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  119:00              16        Z_200
0.1187E+05  0.1252E+05
!!! NetCDF read NOT requested for parm #          17
TIMING: after getdata ... 14:41:10

Of          17  readable parms, you read in          15
parms for this fcst hour from the input grib file.
Just before inter rvcalc, dlon_inter =    38316.57    dlat_inter =
  36059.95

!!! Case 2 in tracker for stormswitch
!!! Storm name = MANGKHUT
!!! Storm ID = 26W

*-----*
*   New forecast hour:  120:00
*-----*
in getgridinfo_netcdf, ncfile_id=          65536

In getgridinfo, grid dimensions follow:
imax=          409  jmax=          349
dx=    0.1722946    dy=    0.1621475

DX:  midi=  204 dx=    0.1723
DY:  midj=  174 dy=    0.1621

Data Grid Lat/Lon boundaries follow:
Min Lat:  -9.516  Min Lon:   92.852
Max Lat:   44.929  Max Lon:  163.148
TEST after getgridinfo in sub tracker, iggret=          0
in beginning of tracker, imax=          409  jmax=          349
TIMING: b4 getdata ... 14:41:10

NOTE: Program is now in subroutine  getdata_netcdf.
+++ Time match in getdata_netcdf for usertime=          7200
  netcdf file index= ncix=          121
+++ NetCDF read requested for parm #          1  ... parm=
ABS_VORTICITY_850

In get_var3_tlev_double, ifh=          121
  ltix(ifh)=          121

After read, parm= ABS_VORTICITY_850        ifh=          121
  lead time index=          121  parm# (ip) =          1  ncix=
121
  igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
  120:00              1        ABS_VORTICITY_850    -
0.8017E-03  0.1516E-02
+++ NetCDF read requested for parm #          2  ... parm=
ABS_VORTICITY_700

In get_var3_tlev_double, ifh=          121
  ltix(ifh)=          121

```

```

After read, parm= ABS_VORTICITY_700          ifh=          121
lead time index=          121 parm# (ip) =          2 ncix=
121
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
120:00                2        ABS_VORTICITY_700
0.8952E-03  0.1154E-02
+++ NetCDF read requested for parm #          3 ... parm=
U_850

In get_var3_tlev_double, ifh=          121
ltix(ifh)=          121

After read, parm= U_850                      ifh=          121
lead time index=          121 parm# (ip) =          3 ncix=
121
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
120:00                3        U_850
38.31      0.1000E+21
+++ NetCDF read requested for parm #          4 ... parm=
V_850

In get_var3_tlev_double, ifh=          121
ltix(ifh)=          121

After read, parm= V_850                      ifh=          121
lead time index=          121 parm# (ip) =          4 ncix=
121
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
120:00                4        V_850
40.24      0.1000E+21
+++ NetCDF read requested for parm #          5 ... parm=
U_700

In get_var3_tlev_double, ifh=          121
ltix(ifh)=          121

After read, parm= U_700                      ifh=          121
lead time index=          121 parm# (ip) =          5 ncix=
121
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
120:00                5        U_700
38.87      0.1000E+21
+++ NetCDF read requested for parm #          6 ... parm=
V_700

In get_var3_tlev_double, ifh=          121
ltix(ifh)=          121

After read, parm= V_700                      ifh=          121
lead time index=          121 parm# (ip) =          6 ncix=
121
igvret=          0
parmread lead time    parm#    parm_id    minval    maxval
120:00                6        V_700
29.67      0.1000E+21

```

```

+++ NetCDF read requested for parm #          7 ... parm=
Z_850

In get_var3_tlev_double, ifh=          121
                        ltix(ifh)=      121

After read, parm= Z_850                    ifh=          121
lead time index=          121 parm# (ip) =          7 ncix=
121
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
120:00                7          Z_850
1216.          0.1000E+21
+++ NetCDF read requested for parm #          8 ... parm=
Z_700

In get_var3_tlev_double, ifh=          121
                        ltix(ifh)=      121

After read, parm= Z_700                    ifh=          121
lead time index=          121 parm# (ip) =          8 ncix=
121
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
120:00                8          Z_700
2880.          0.1000E+21
+++ NetCDF read requested for parm #          9 ... parm=
slp

In get_var3_tlev_double, ifh=          121
                        ltix(ifh)=      121

After read, parm= slp                      ifh=          121
lead time index=          121 parm# (ip) =          9 ncix=
121
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
120:00                9          slp
0.9771E+05  0.1026E+06
+++ NetCDF read requested for parm #         10 ... parm=
u_10m_gr

In get_var3_tlev_double, ifh=          121
                        ltix(ifh)=      121

After read, parm= u_10m_gr                  ifh=          121
lead time index=          121 parm# (ip) =         10 ncix=
121
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
120:00                10         u_10m_gr      -
19.60          22.72
+++ NetCDF read requested for parm #         11 ... parm=
v_10m_gr

In get_var3_tlev_double, ifh=          121
                        ltix(ifh)=      121

After read, parm= v_10m_gr                  ifh=          121

```

```

lead time index=          121  parm# (ip) =          11  ncix=
121
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
120:00          11          v_10m_gr      -
22.08          25.68
+++ NetCDF read requested for parm #          12  ... parm=
U_500

In get_var3_tlev_double, ifh=          121
ltix(ifh)=          121

After read, parm= U_500          ifh=          121
lead time index=          121  parm# (ip) =          12  ncix=
121
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
120:00          12          U_500          -
39.61          35.68
+++ NetCDF read requested for parm #          13  ... parm=
V_500

In get_var3_tlev_double, ifh=          121
ltix(ifh)=          121

After read, parm= V_500          ifh=          121
lead time index=          121  parm# (ip) =          13  ncix=
121
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
120:00          13          V_500          -
23.58          42.10
!!! NetCDF read NOT requested for parm #          14
+++ NetCDF read requested for parm #          15  ... parm=
Z_500

In get_var3_tlev_double, ifh=          121
ltix(ifh)=          121

After read, parm= Z_500          ifh=          121
lead time index=          121  parm# (ip) =          15  ncix=
121
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
120:00          15          Z_500          -
5584.          5962.
+++ NetCDF read requested for parm #          16  ... parm=
Z_200

In get_var3_tlev_double, ifh=          121
ltix(ifh)=          121

After read, parm= Z_200          ifh=          121
lead time index=          121  parm# (ip) =          16  ncix=
121
igvret=          0
parmread lead time      parm#      parm_id      minval      maxval
120:00          16          Z_200          -
0.1187E+05  0.1254E+05
!!! NetCDF read NOT requested for parm #          17

```

