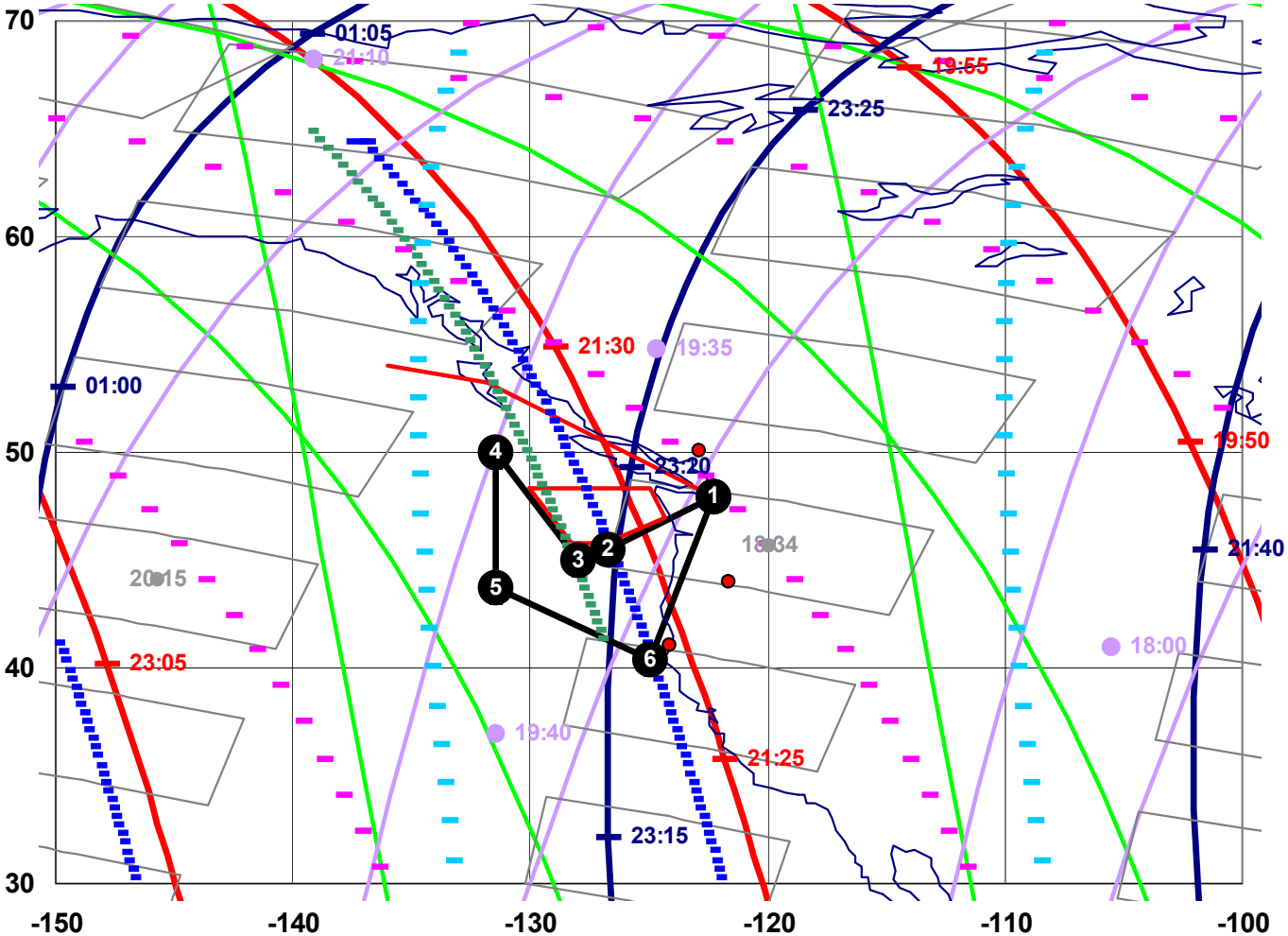
IMPEX C130 flight 6 (Seattle local 5)

1 May 2006.

doors open / power on:	0815 PDT
takeoff:	1115 PDT (1815 GMT)
estimated landing:	1905 PDT (0205 GMT)

Objectives:

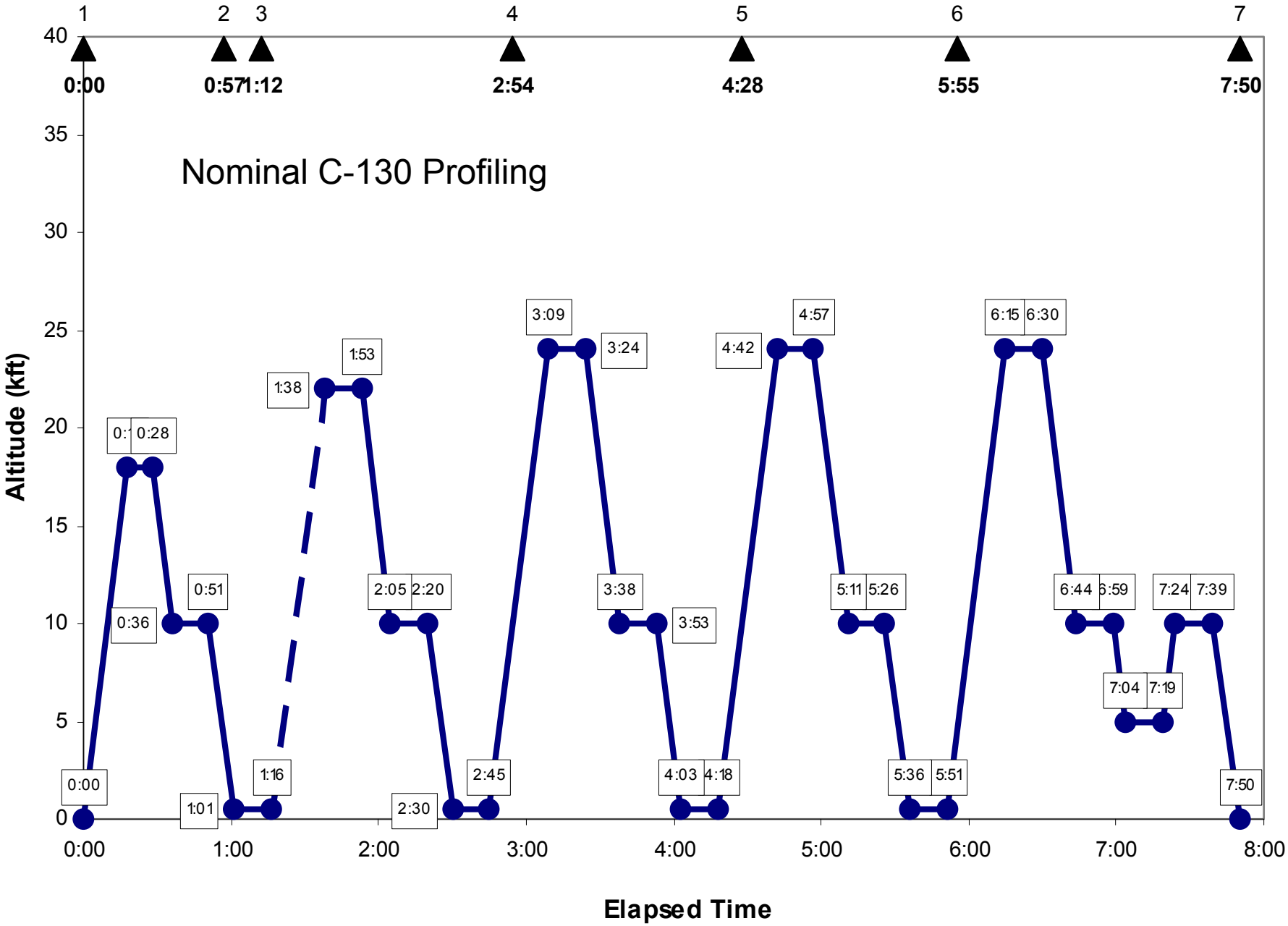
- spiral under a Terra (MISR, MOPITT) overpass
- sample mid-level Asian pollution
- learn the models' predictive capabilities for Asian plumes



Tentative C-130 flight plan for Monday, 1 May
Takeoff: 1115 local

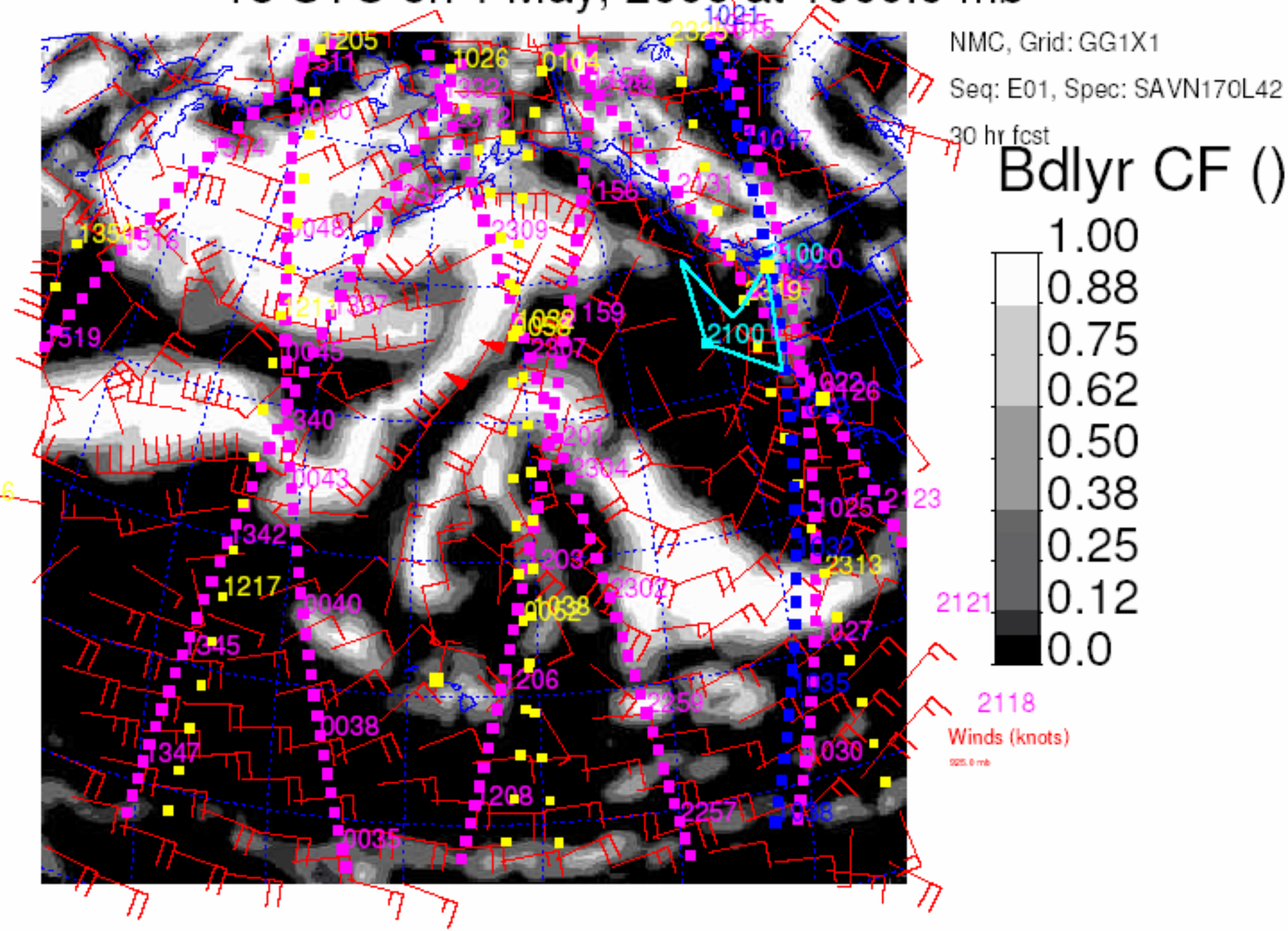
- MLS
- MLS timing
- HIRDLS
- HIRDLS timing
- TES
- TES timing
- TES-Special
- TES-Special timing
- TES-Limb
- OMI-East Edge
- OMI-West Edge
- AIRS swath
- MOPITT timing
- MOPITT swath
- SCIAMACHY
- SCIA timing
- Ground Sites
- C-130 Flight Path
- Restricted

	Latitude (N)		Longitude (W)							
Way Point	deg	min	deg	min	Cum. Time	Leg Time	Local Time	UTC	Delay	Note
1	47	54	122	17	0:00	0:00	11:15	18:15		
2	45	30	126	43	0:57	0:57	12:12	19:12		Sedar
3	45	0	128	0	1:12	0:15	12:27	19:27	0:20	Terra spiral
4	50	0	131	30	2:54	1:21	14:09	21:09		
5	43	42	131	30	4:28	1:33	15:43	22:43		
6	40	22	124	59	5:55	1:27	17:10	0:10		
7	47	54	122	17	7:50	1:55	19:05	2:05		



Note: In-Progress profiling in solid lines; Spirals in dashed lines; Way points annotated with triangles.

18 UTC on 1 May, 2006 at 1000.0 mb



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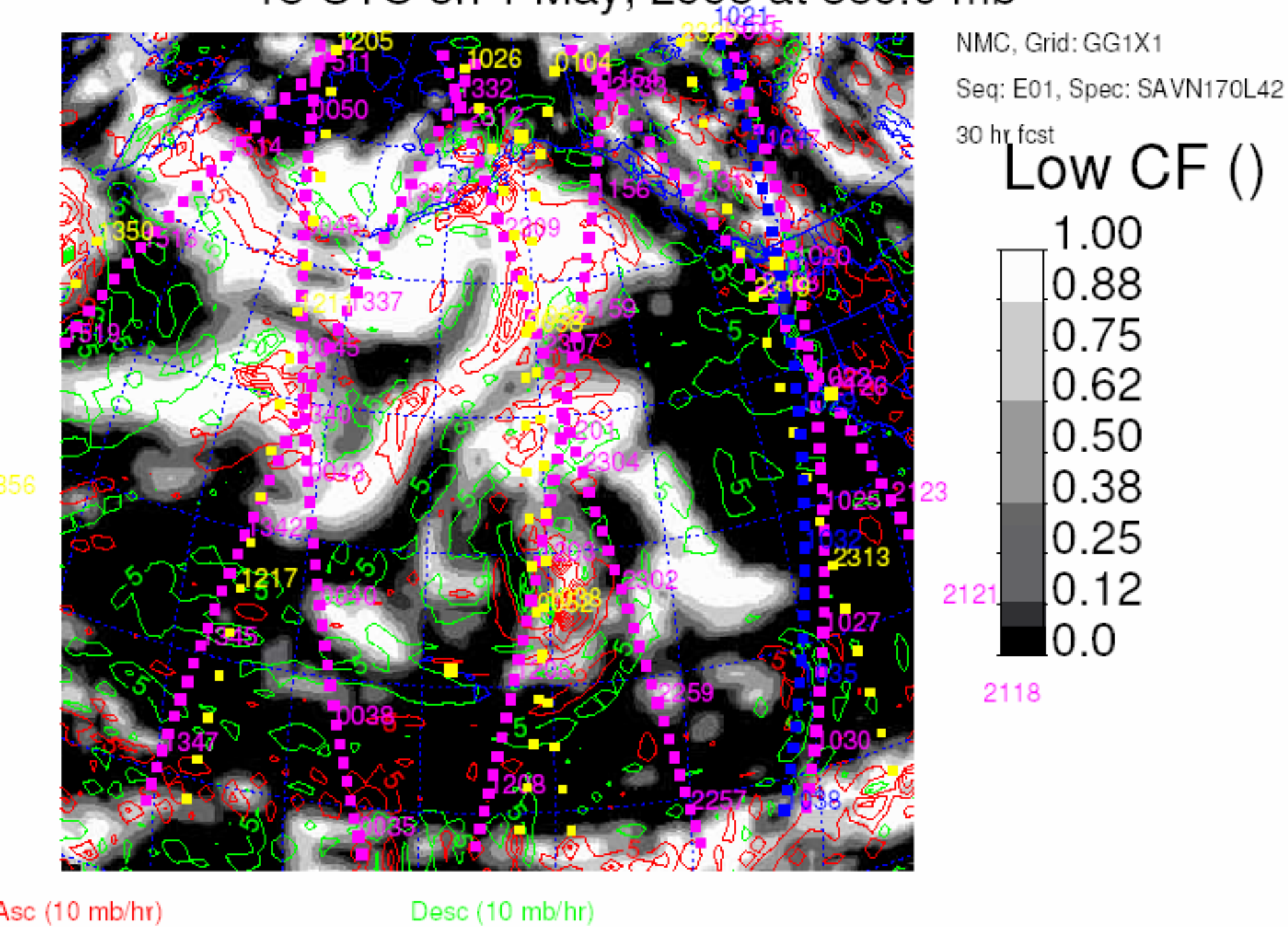

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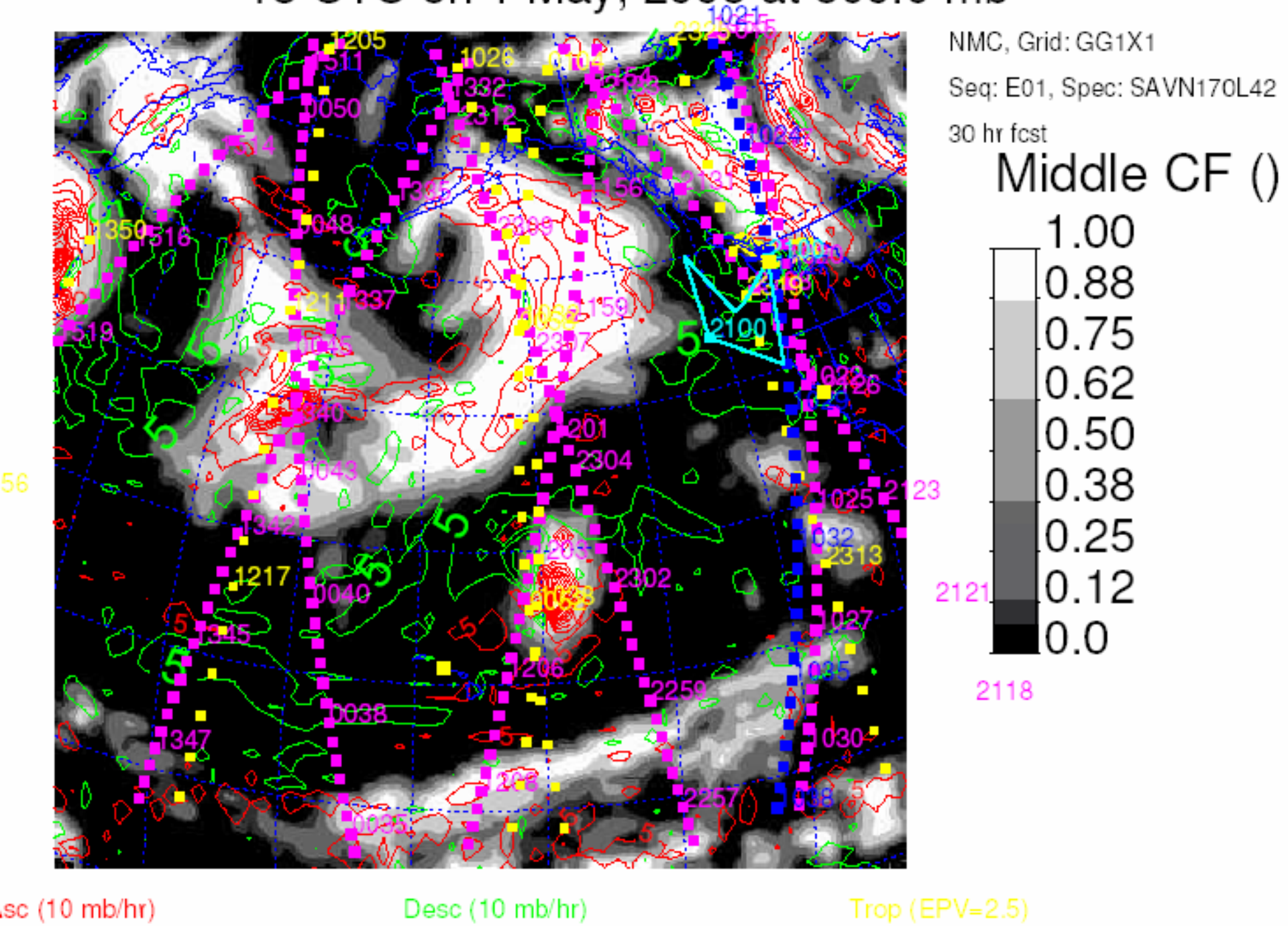

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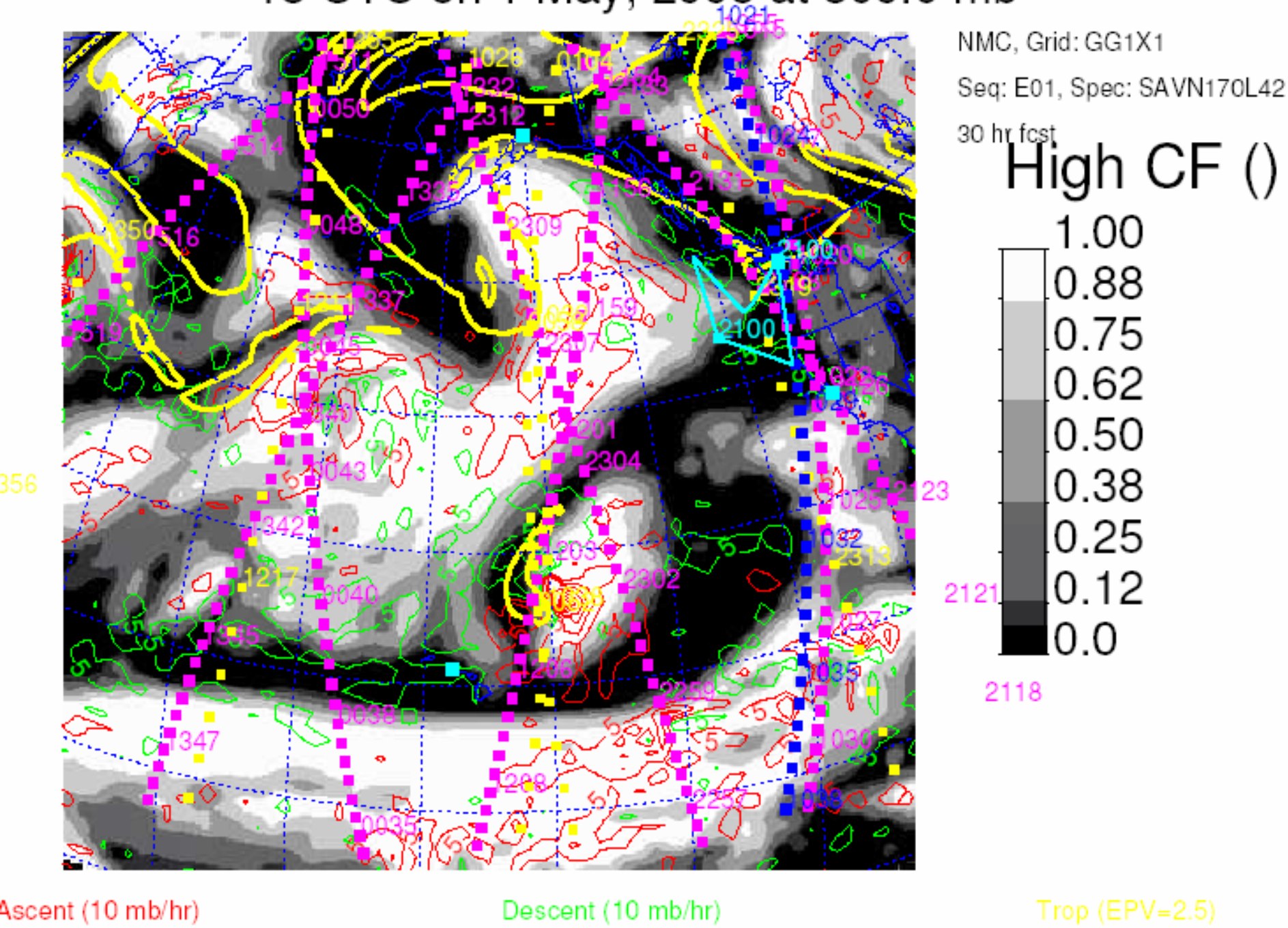
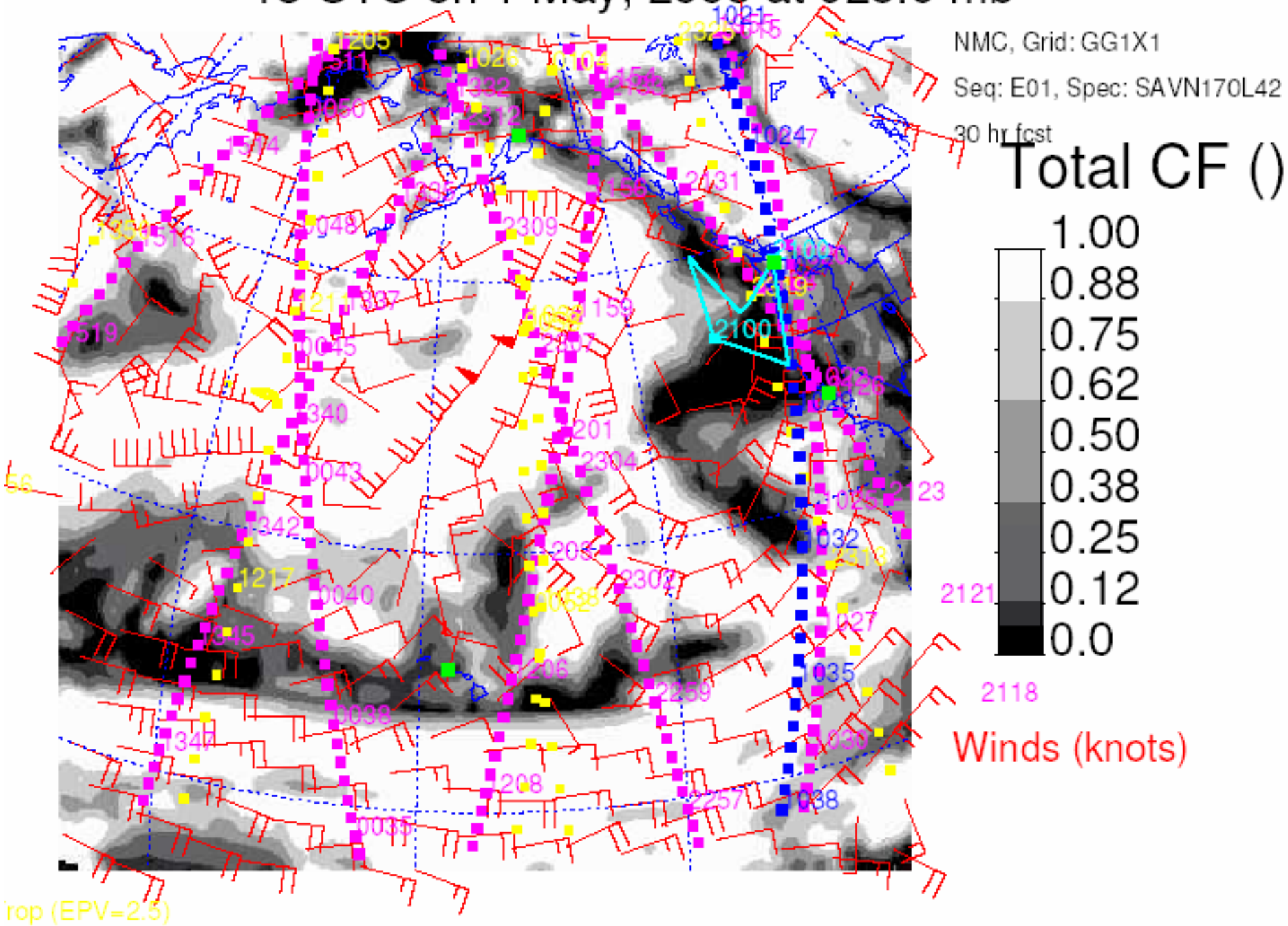
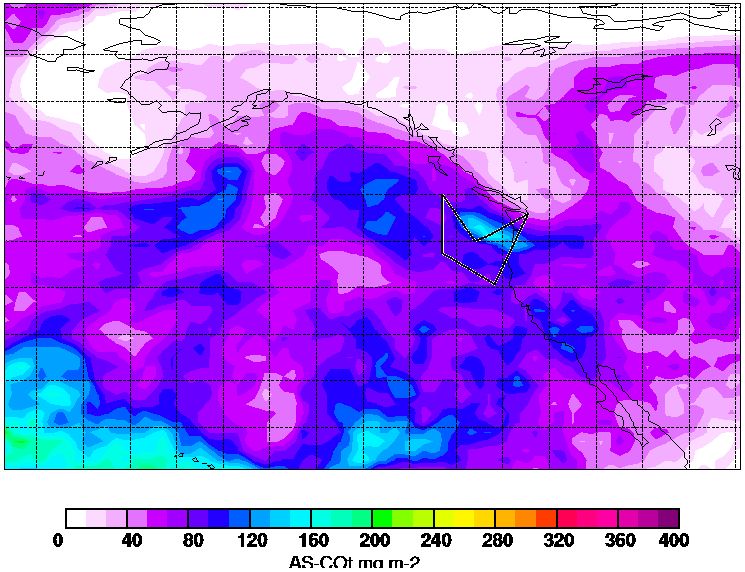


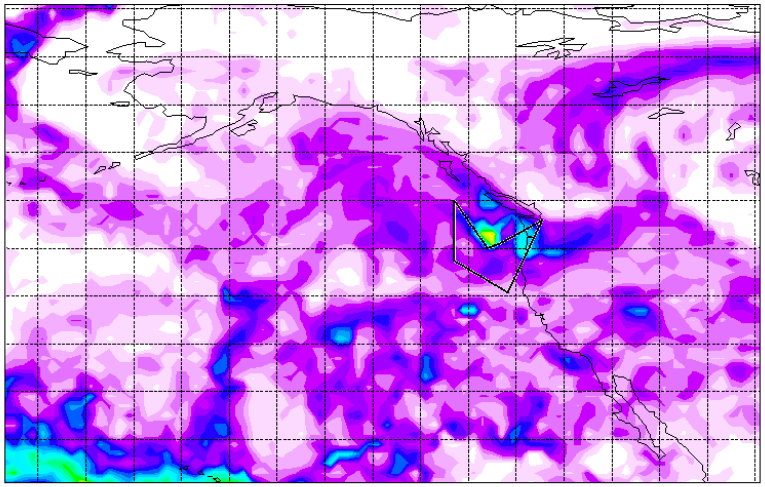
18 UTC on 1 May, 2006 at 925.0 mb



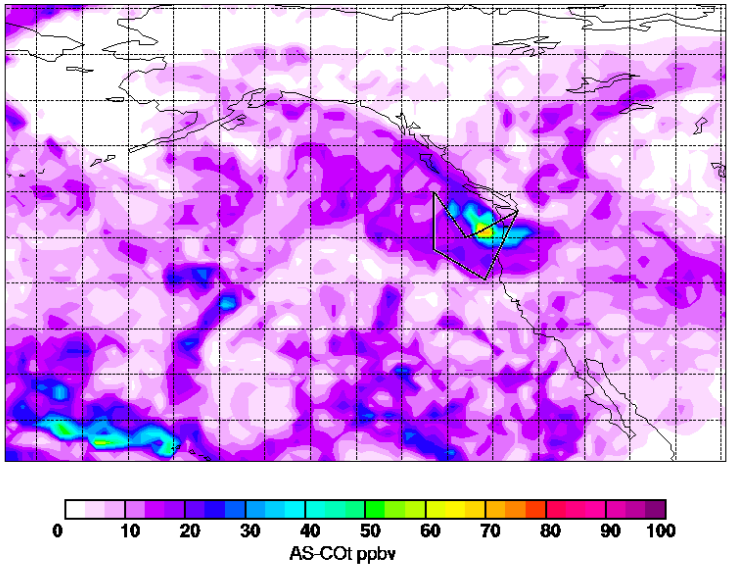
Total column of species AS-COt for age class 0 - 20.00 DAYS
Latest analysis time 20060430. 0 Actual time 20060501.210000
Mean value 0.422E+02 Maximum value 0.729E+03 Minimum value 0.000E+00
Distance of grid lines 5.0 deg



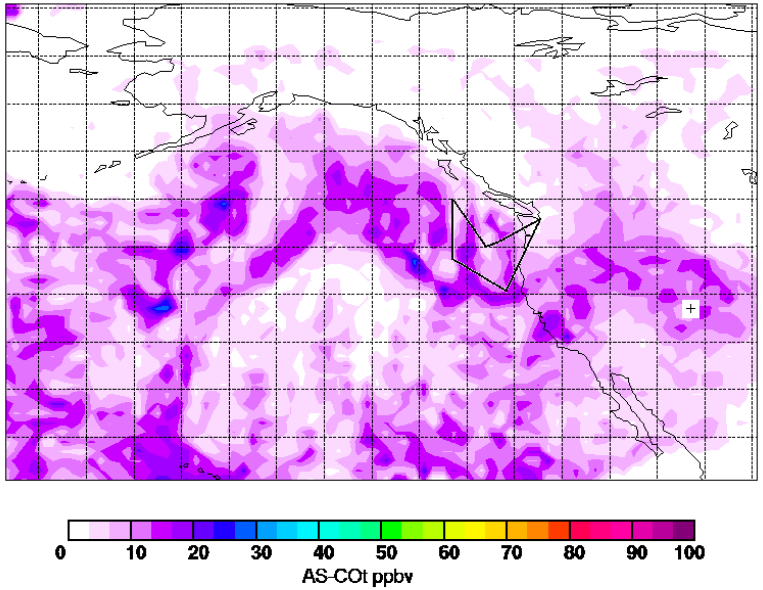
Mixing ratio of species AS-COt at 7000 m asl for age class 0 - 20.00 DAYS
Latest analysis time 20060430. 0 Actual time 20060501.210000
Mean value 0.488E+01 Maximum value 0.105E+03 Minimum value 0.000E+00
Distance of grid lines 5.0 deg

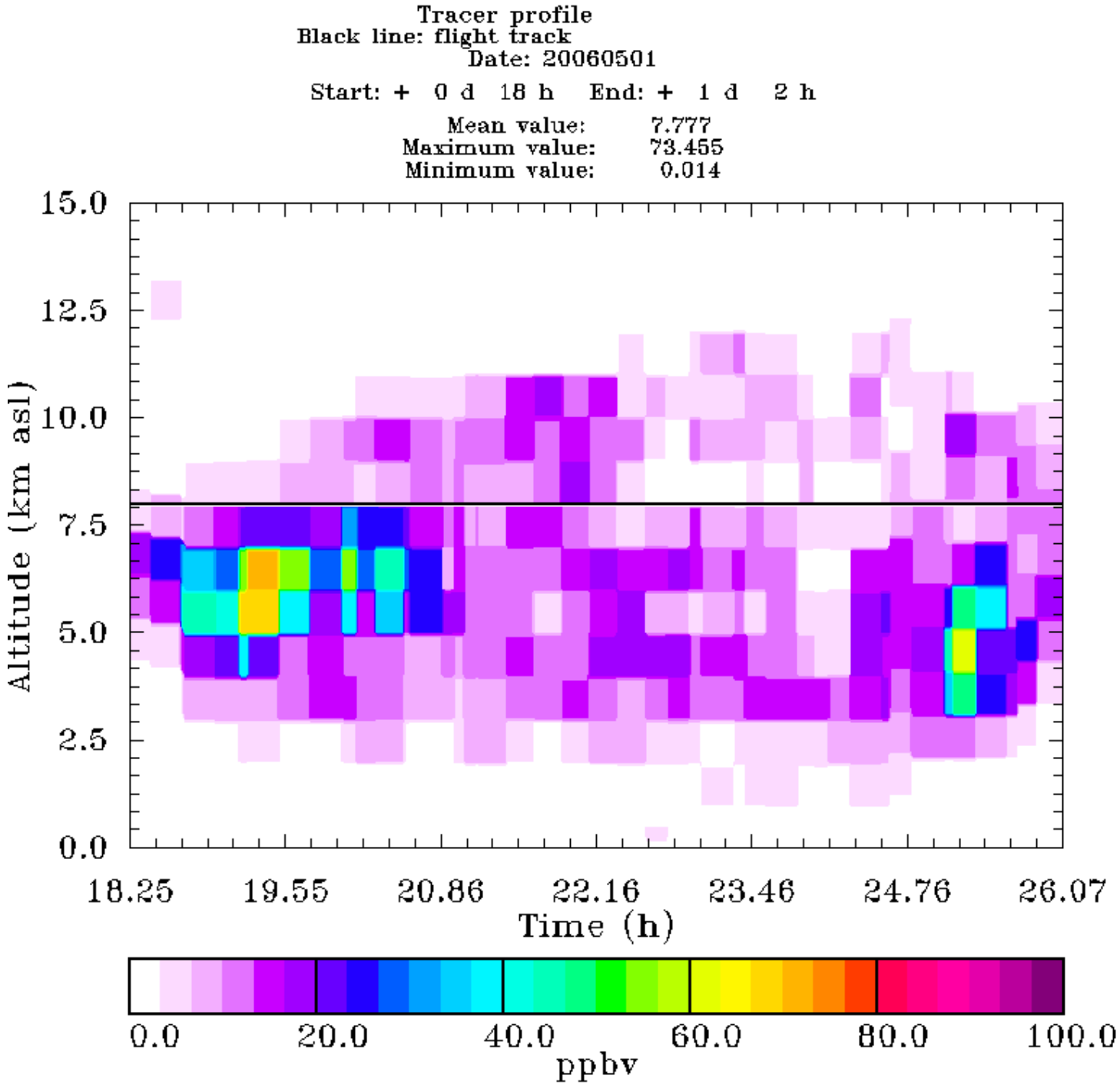


Mixing ratio of species AS-COt at 5000 m asl for age class 0 - 20.00 DAYS
Latest analysis time 20060430. 0 Actual time 20060501.210000
Mean value 0.520E+01 Maximum value 0.160E+03 Minimum value 0.000E+00
Distance of grid lines 5.0 deg



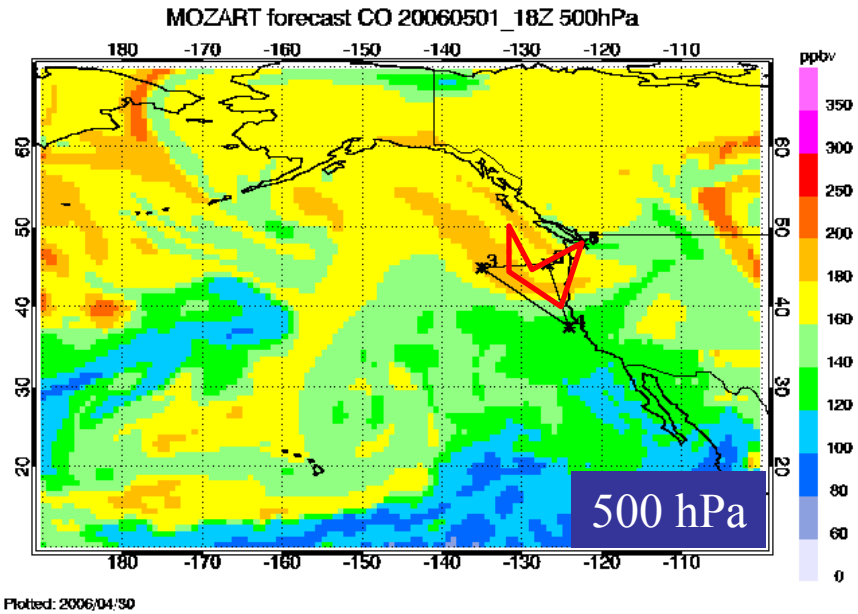
Mixing ratio of species AS-COt at 3000 m asl for age class 0 - 20.00 DAYS
Latest analysis time 20060430. 0 Actual time 20060501.210000
Mean value 0.589E+01 Maximum value 0.269E+03 Minimum value 0.000E+00
Distance of grid lines 5.0 deg

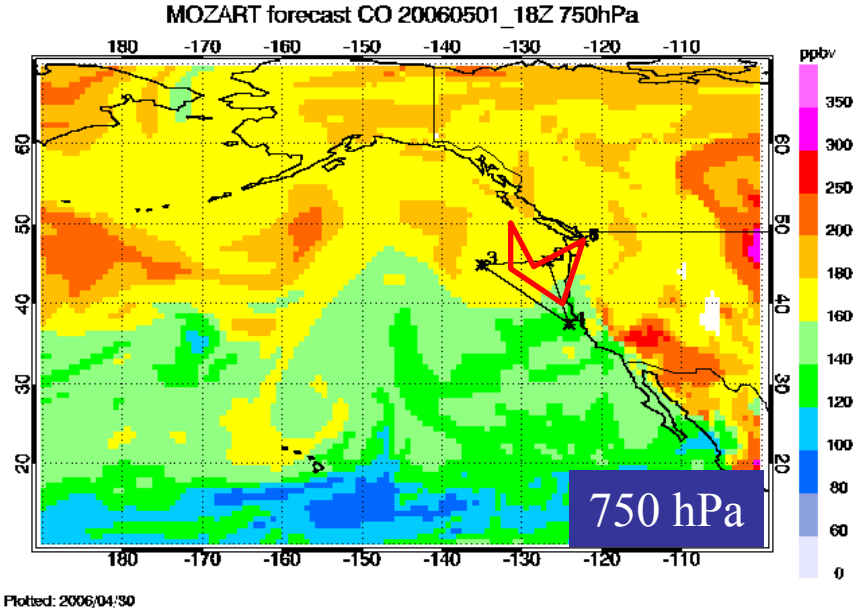


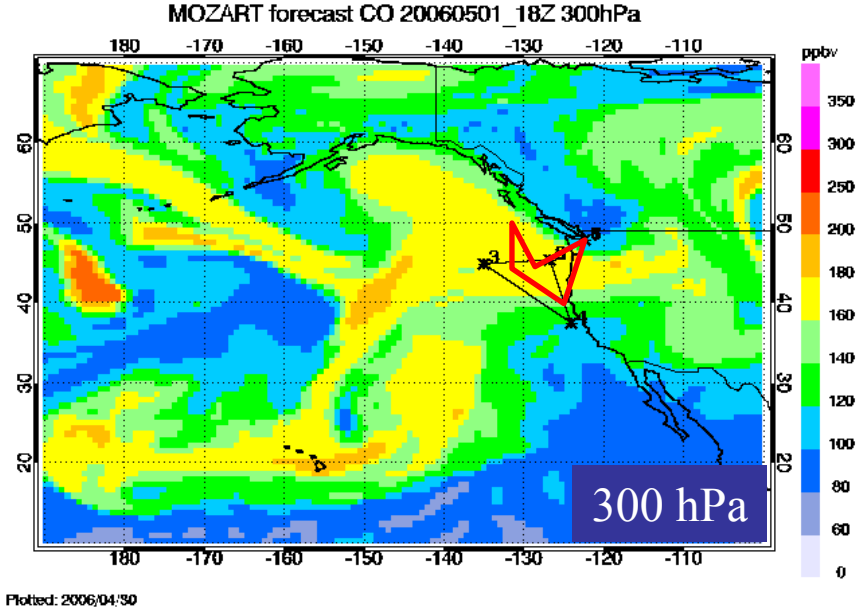

Tracer profile
Black line: flight track
Date: 20060501
Start: + 0 d 18 h End: + 1 d 2 h
Mean value: 7.777
Maximum value: 73.455
Minimum value: 0.014
15.0
12.5
10.0
7.5
5.0
2.5
0.0
Altitude (km asl)
18.25
19.55
20.86
22.16
23.46
24.76
26.07
Time (h)
0.0
20.0
40.0
60.0
80.0
100.0
ppbv

CO Forecast from 04/29 valid for 05/01 18Z

Total CO

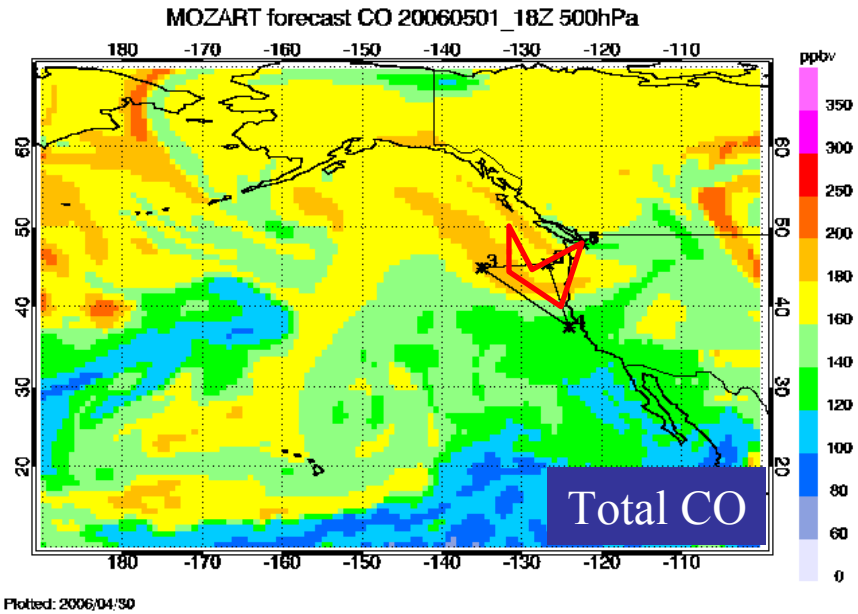


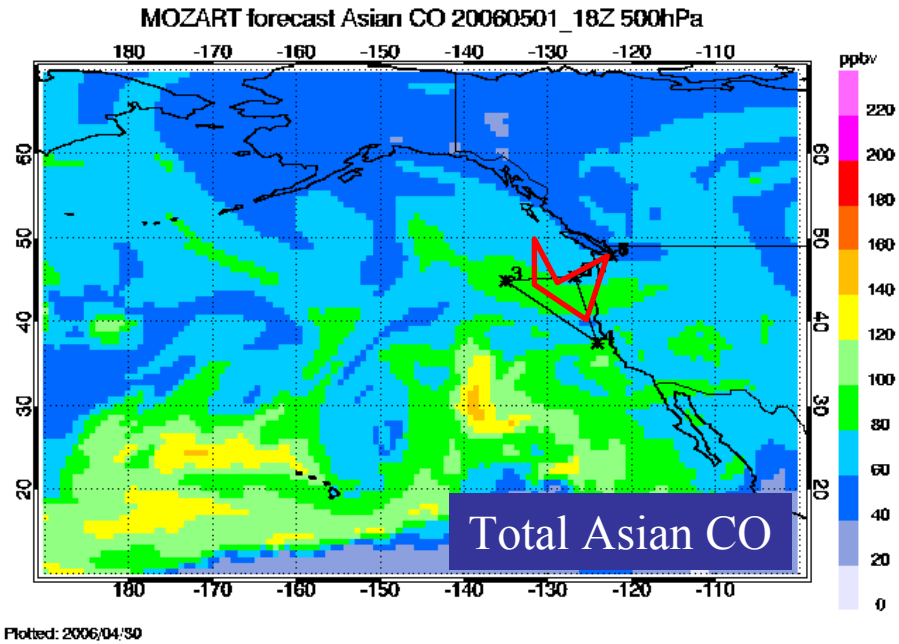


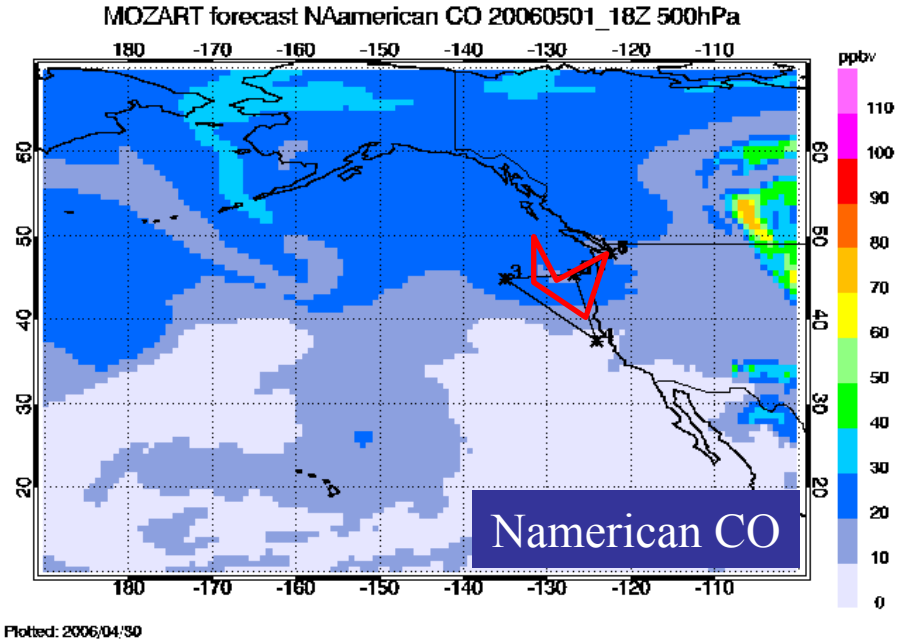


CO Forecast from 04/29 valid for 05/01 18Z

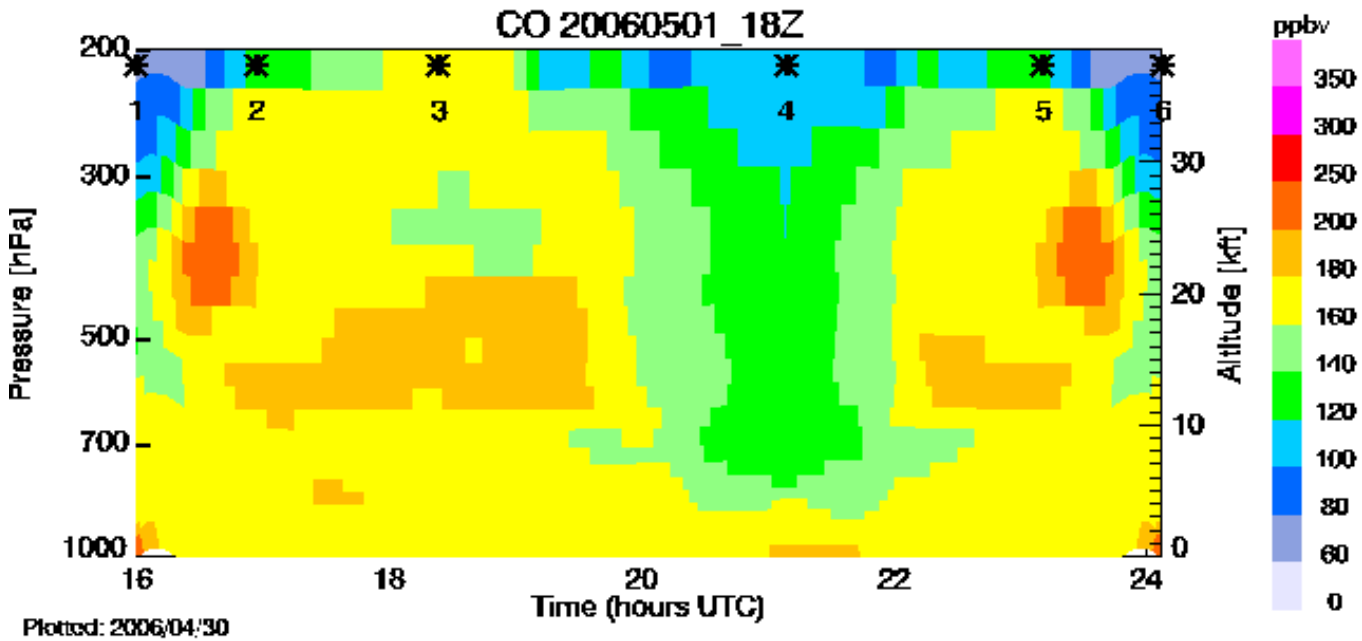
500 hPa

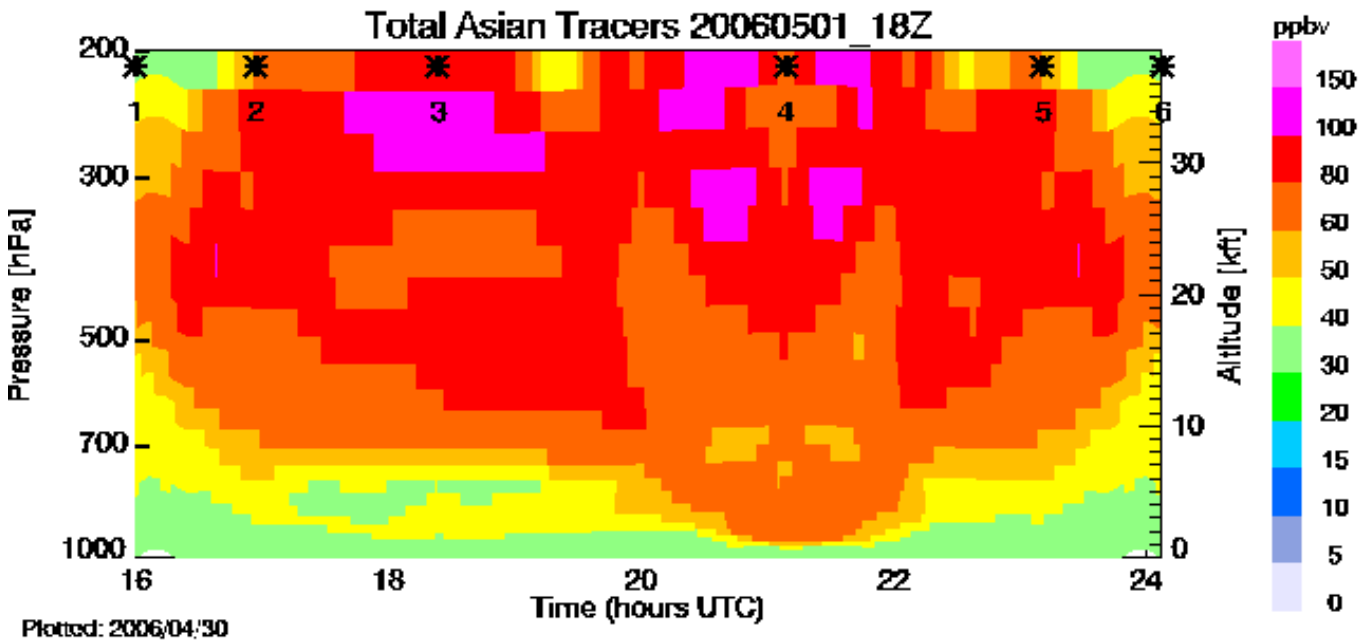




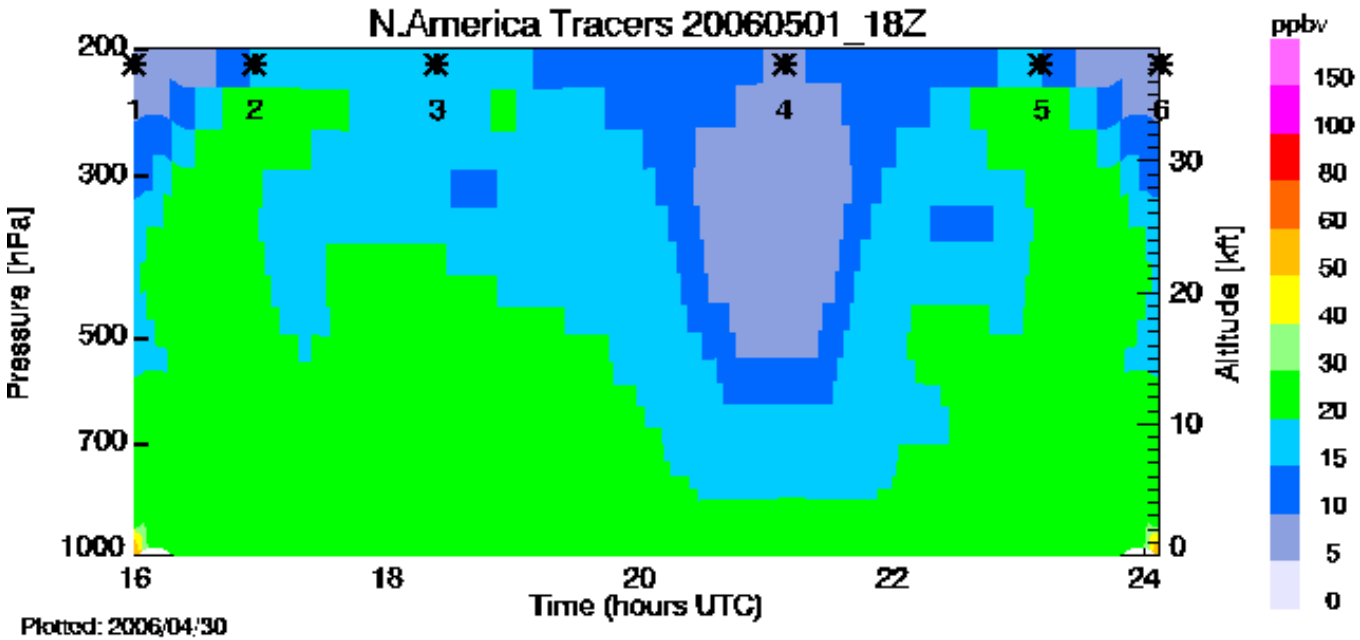


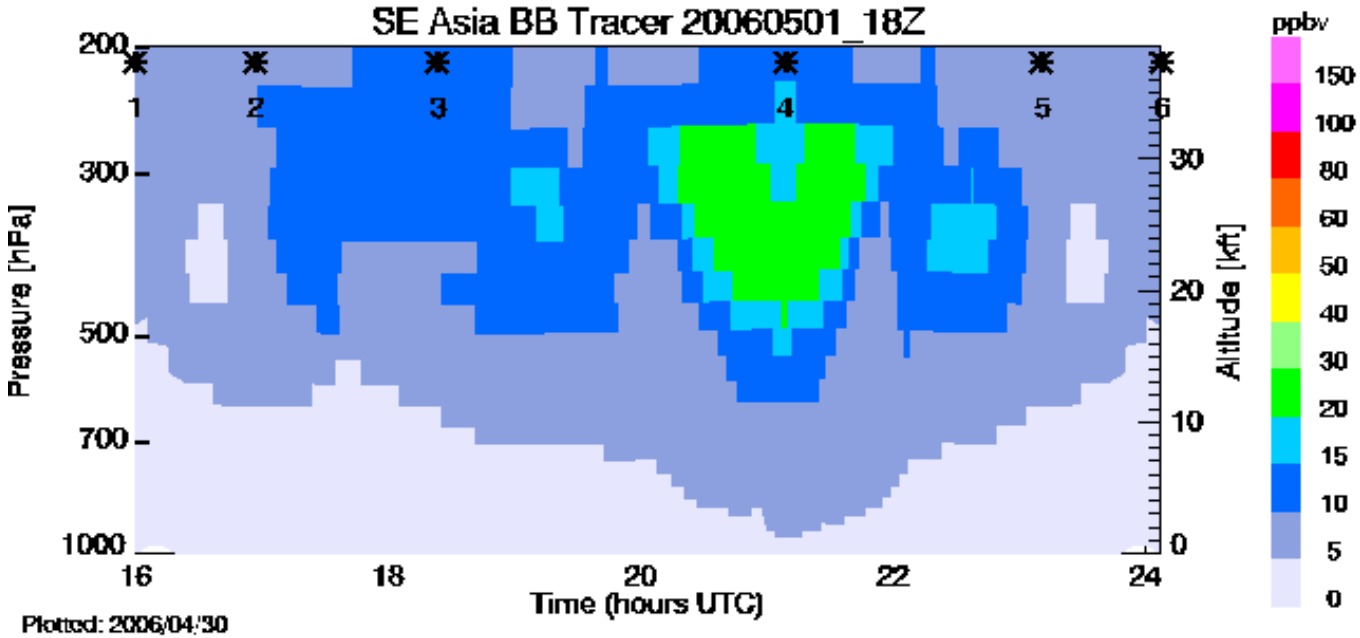
CO Forecast from 04/29 valid for 05/01 18Z





CO Forecast from 04/29 valid for 05/01 18Z

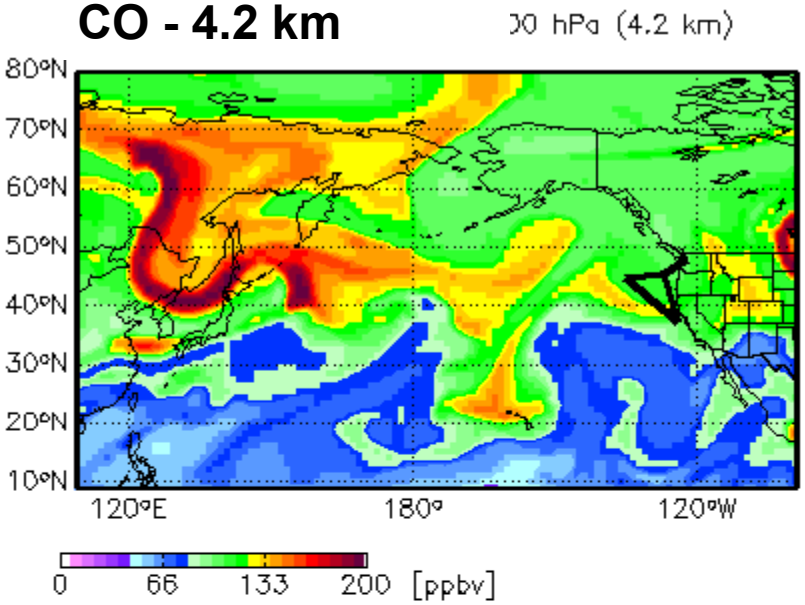




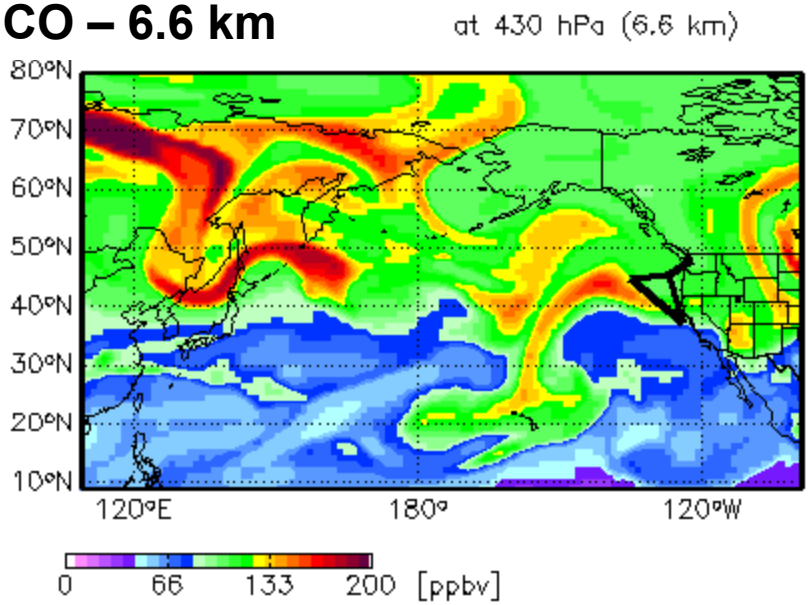
4/30 00Z forecast

Monday, 5/1, 18Z

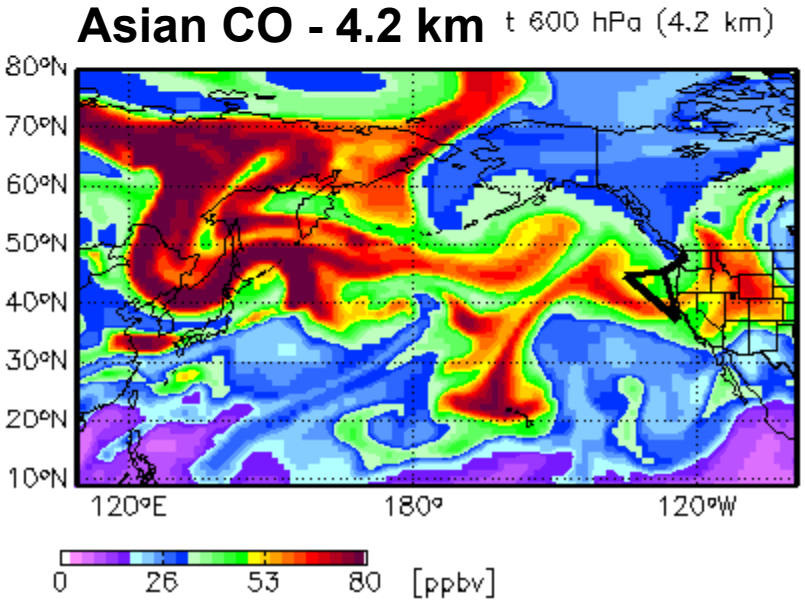
CO - 4.2 km



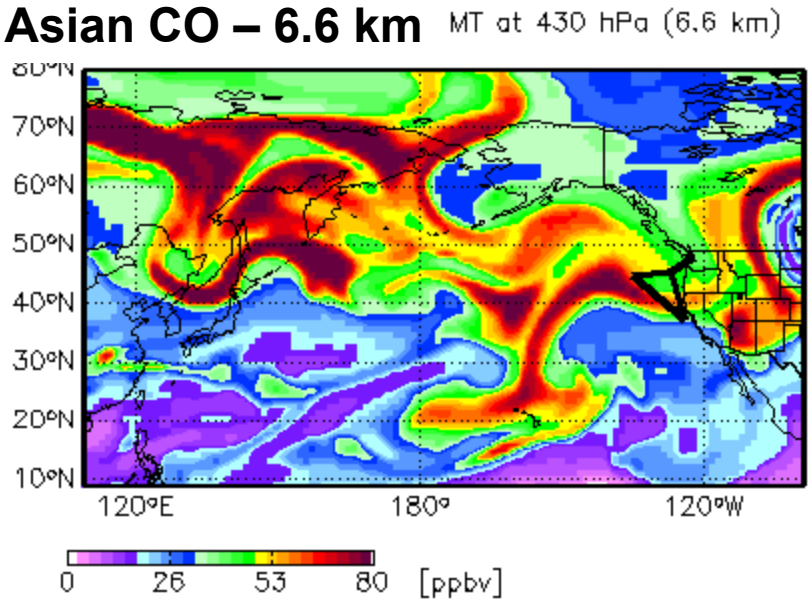
CO – 6.6 km



Asian CO - 4.2 km

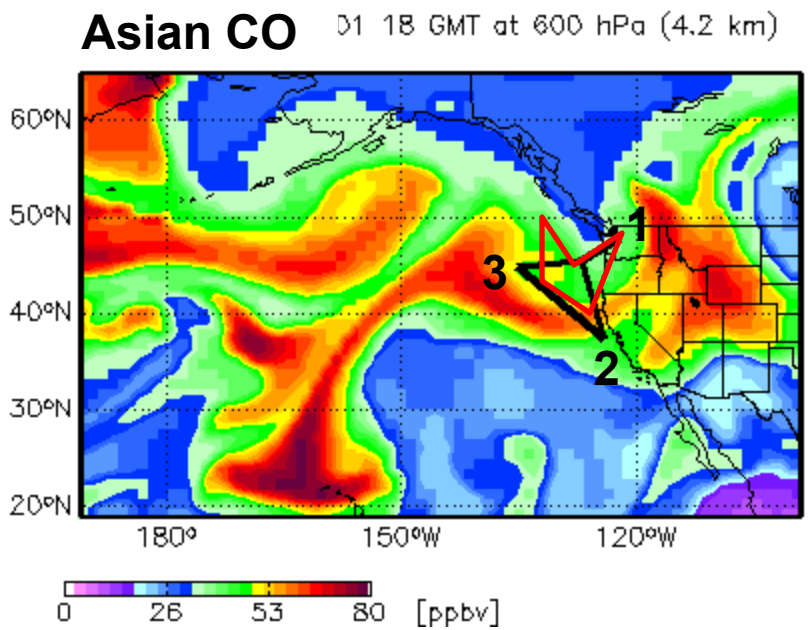


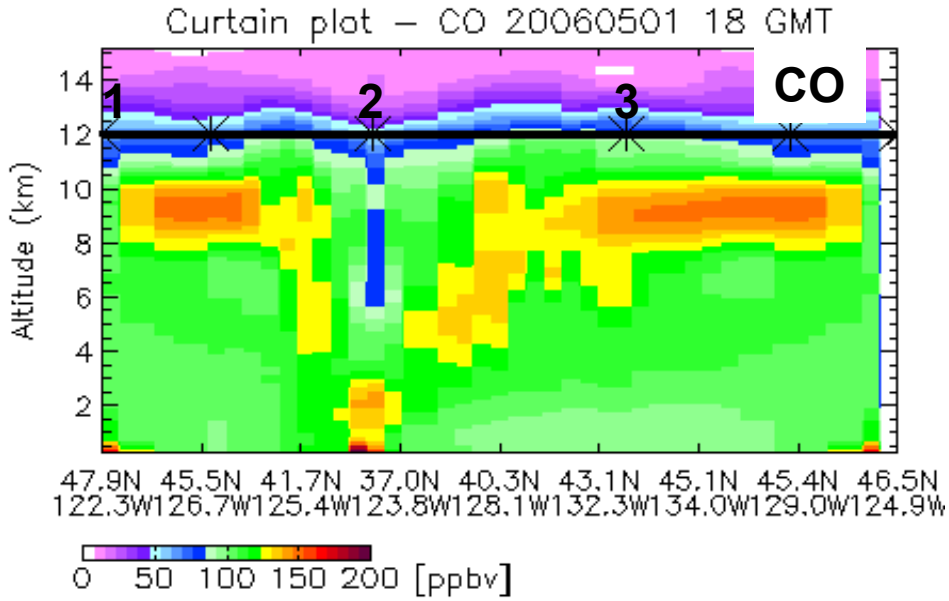
Asian CO – 6.6 km

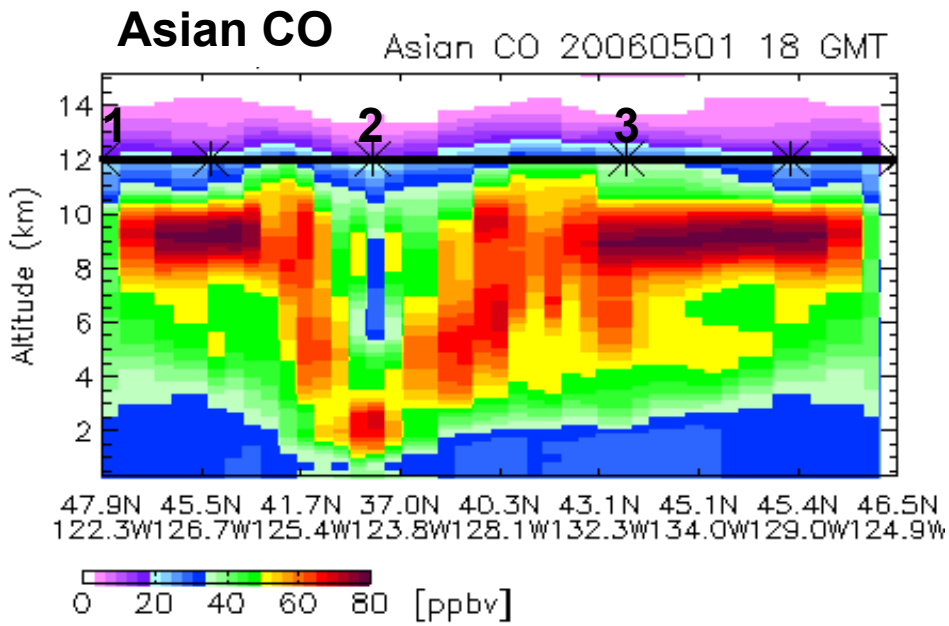


4/30 00Z forecast

Monday, 5/1, 18Z



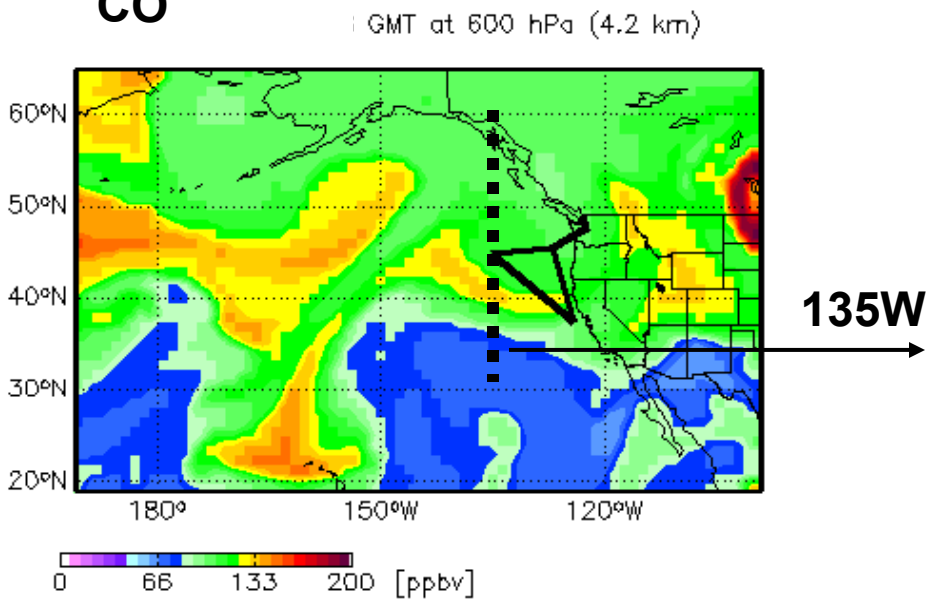




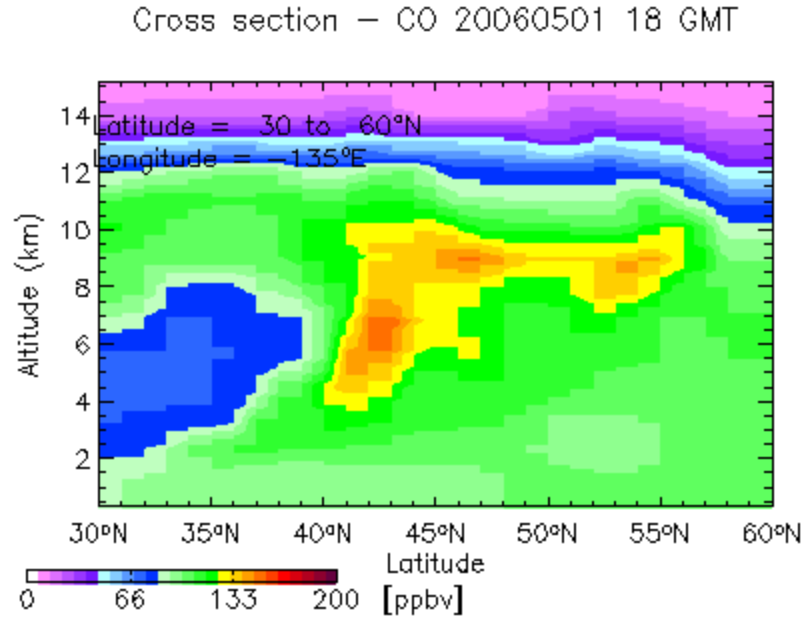
4/30 00Z forecast

Monday, 5/1, 18Z

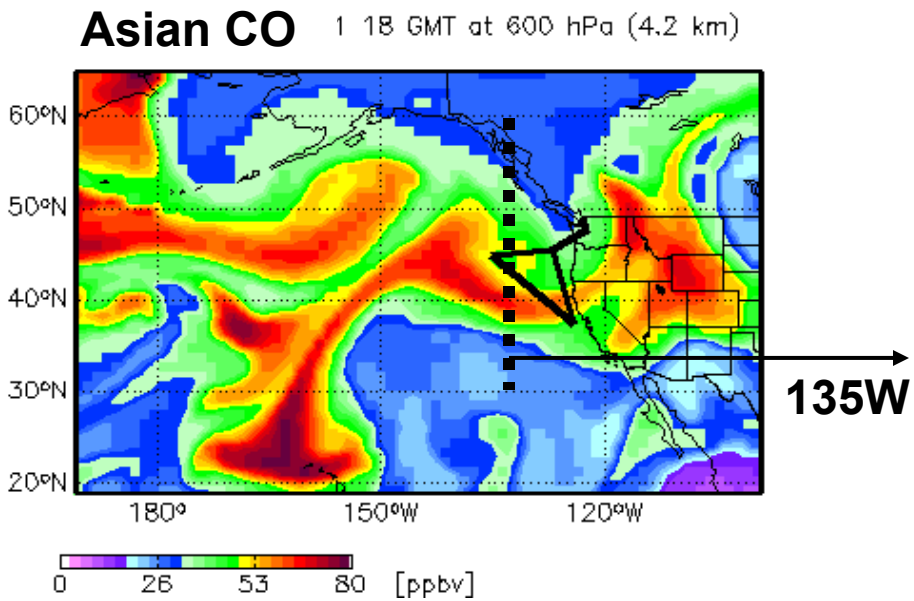
CO



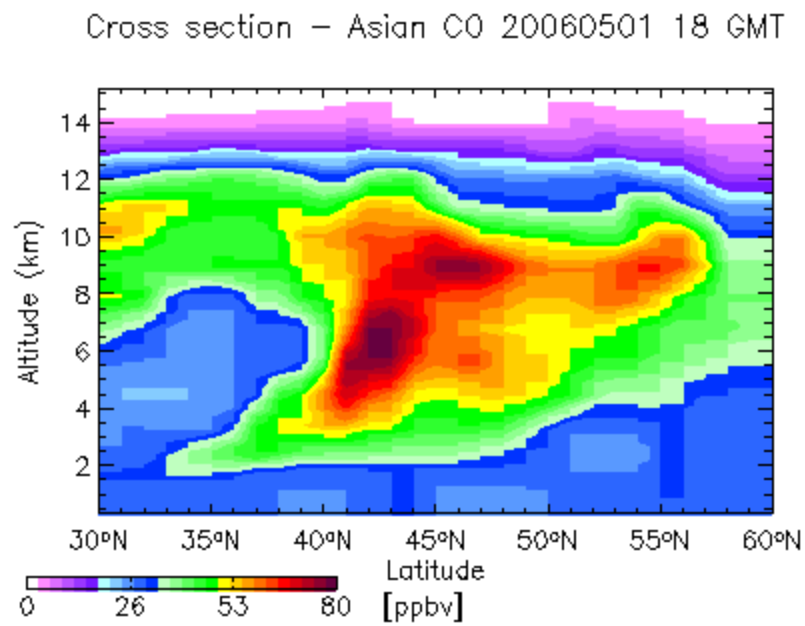
135W



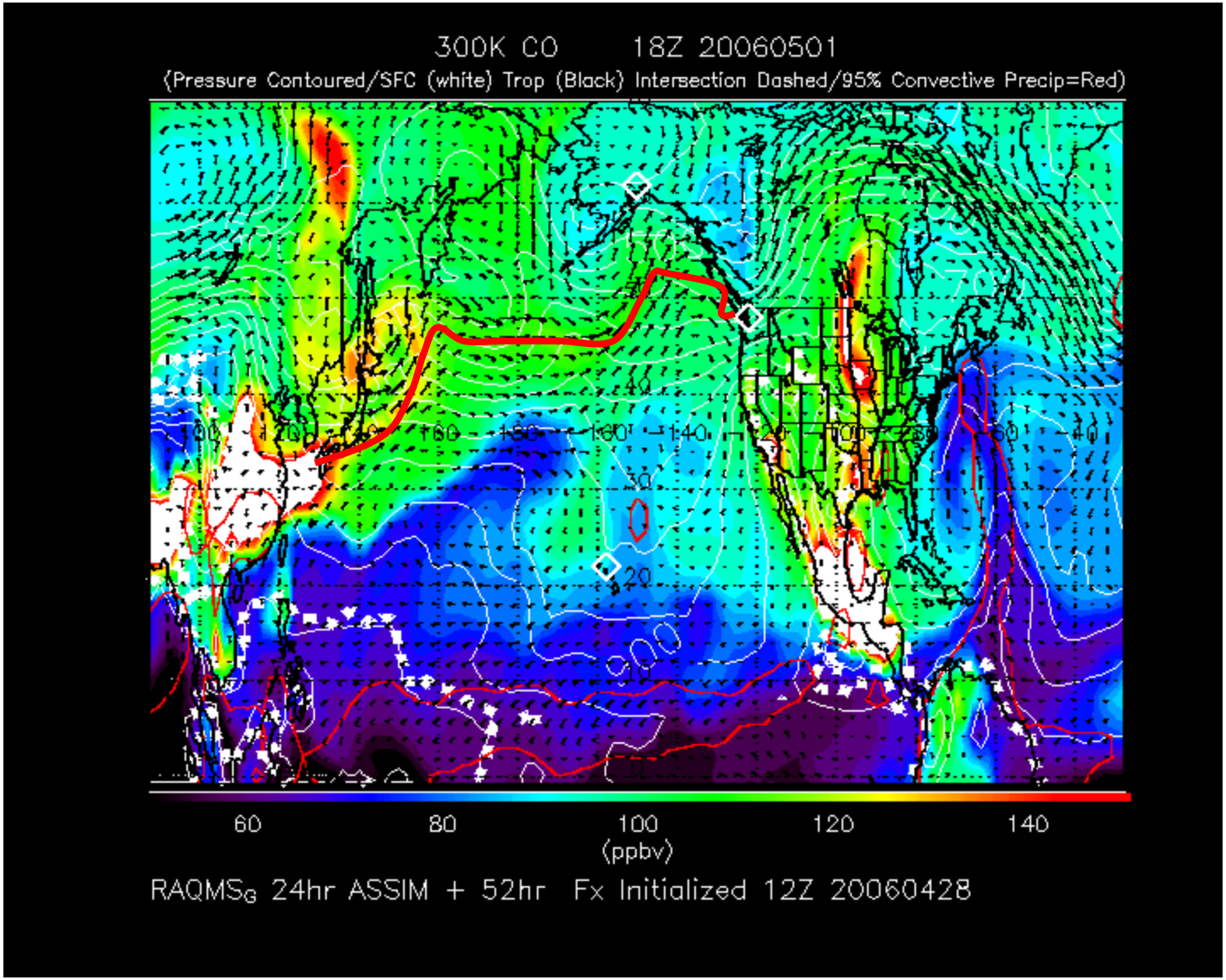
Asian CO



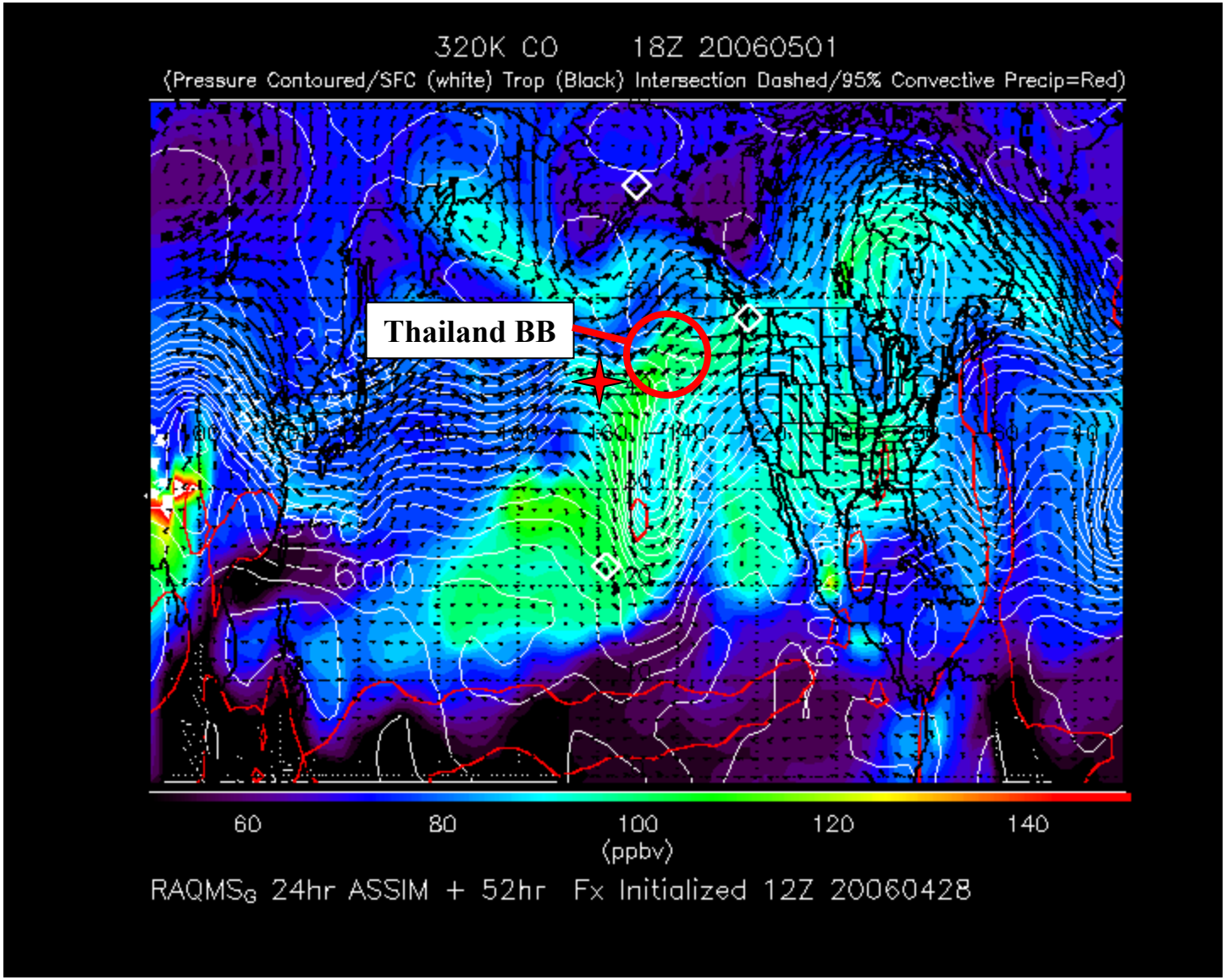
135W



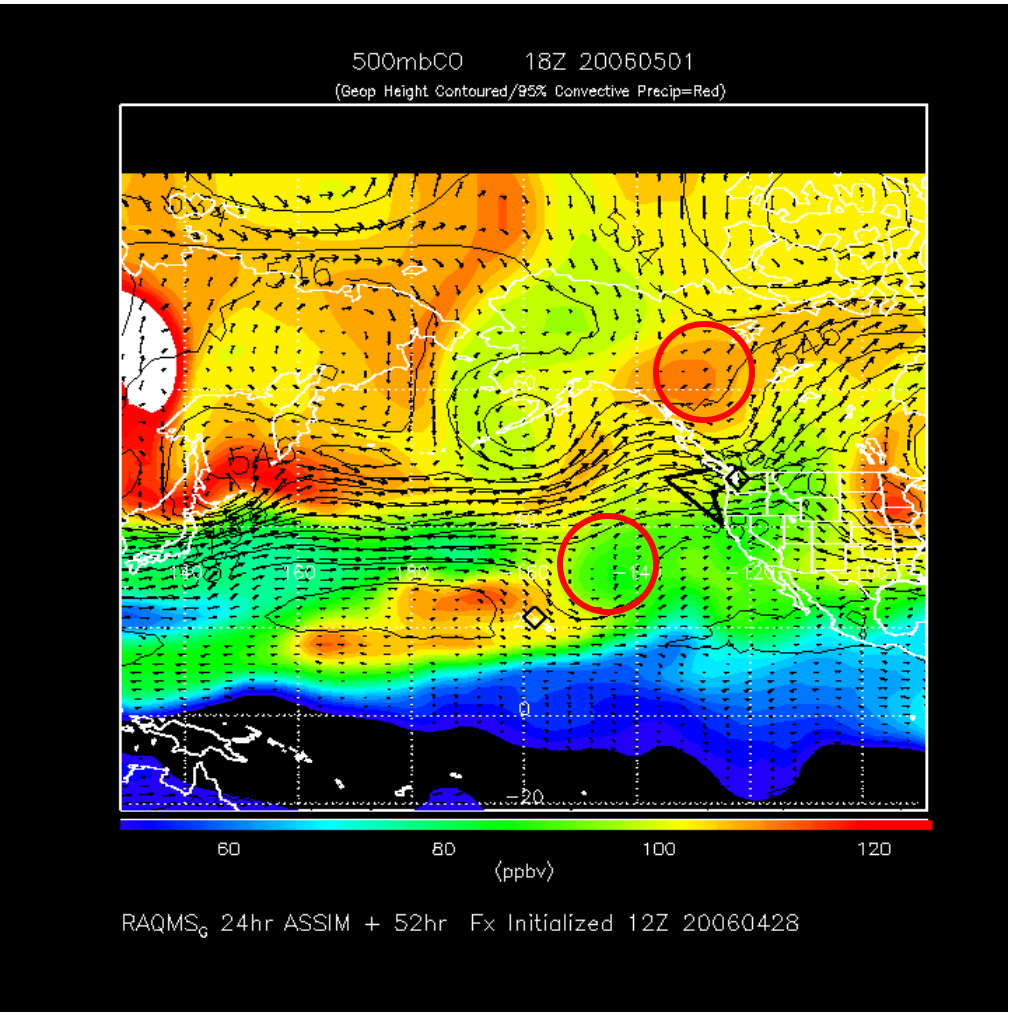
RAQMS 54hr FX 300K CO Valid 18Z 05/01/06



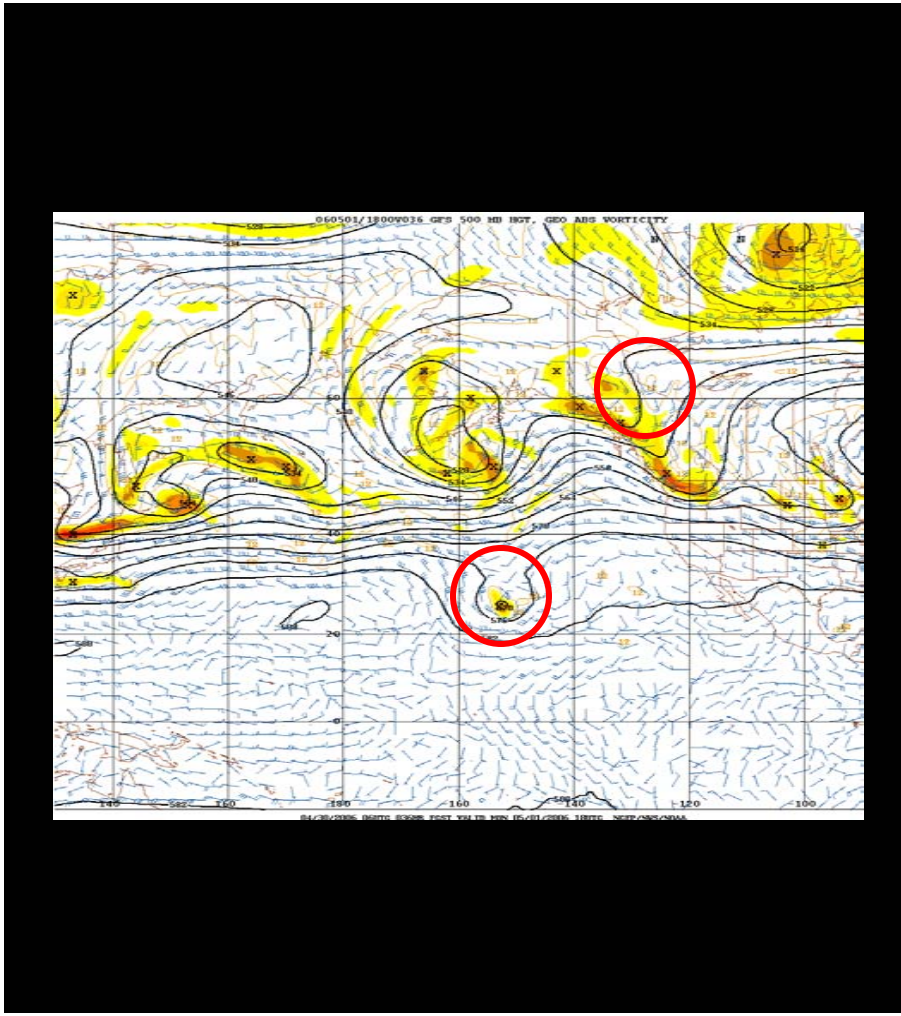
RAQMS 54hr FX 320K CO Valid 18Z 05/01/06



RAQMS 54hr CO FX (500mb)
Valid 18Z 05/01/06

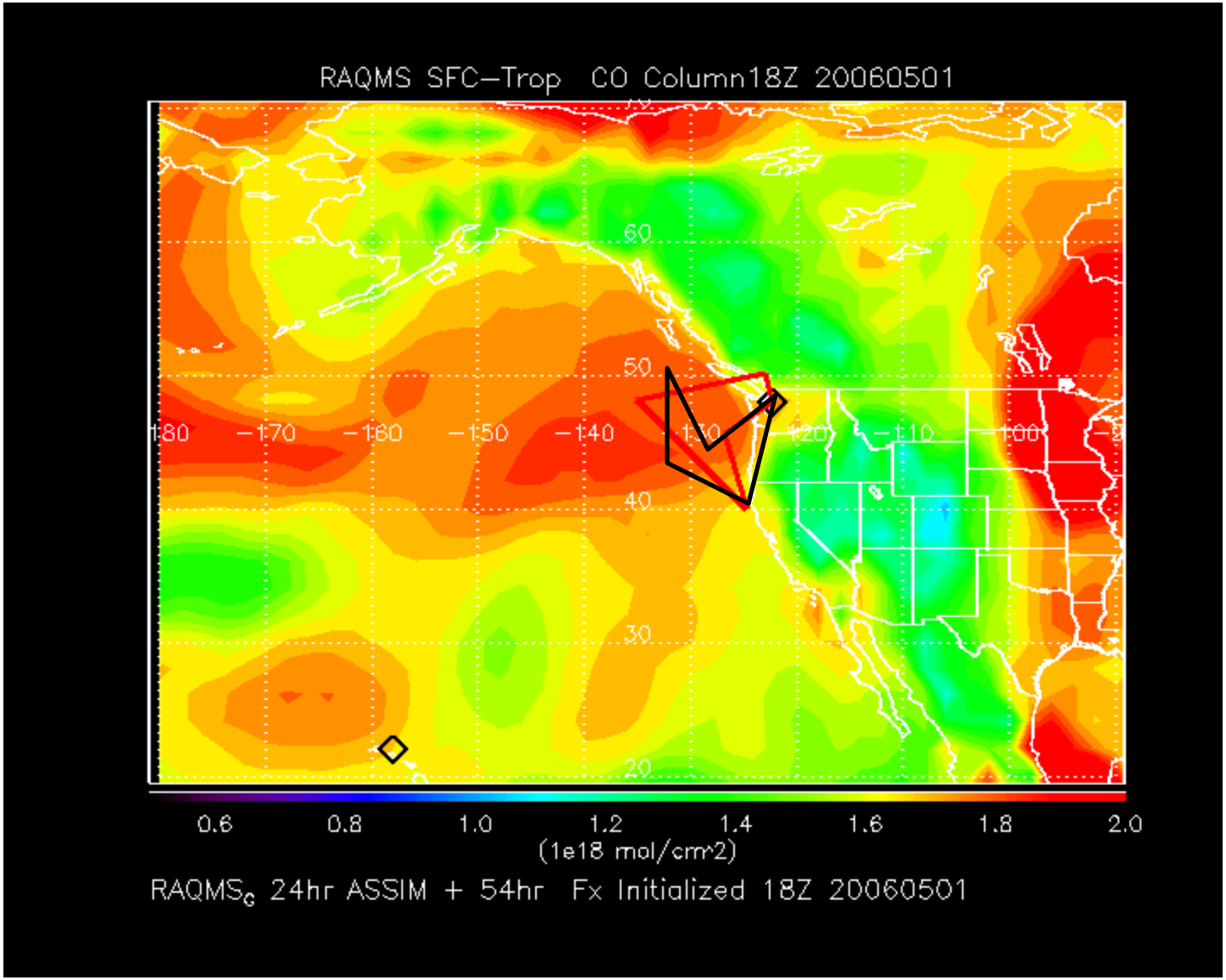


GFS 36hr FX (500mb)
Valid 18Z 05/01/06

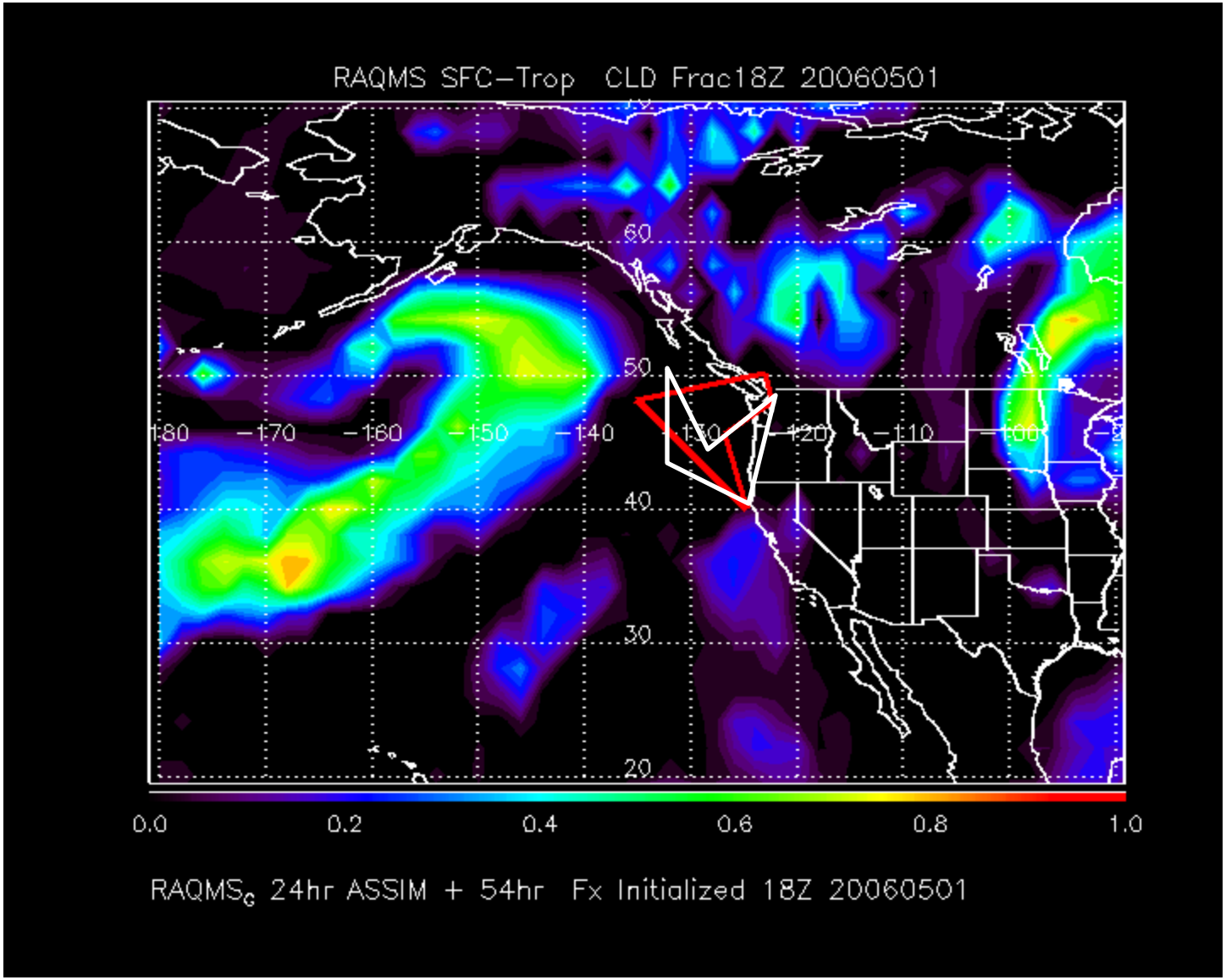


RAQMS shows weaker cut-off low to NW of Hawaii and weaker ridge to NE of Seattle

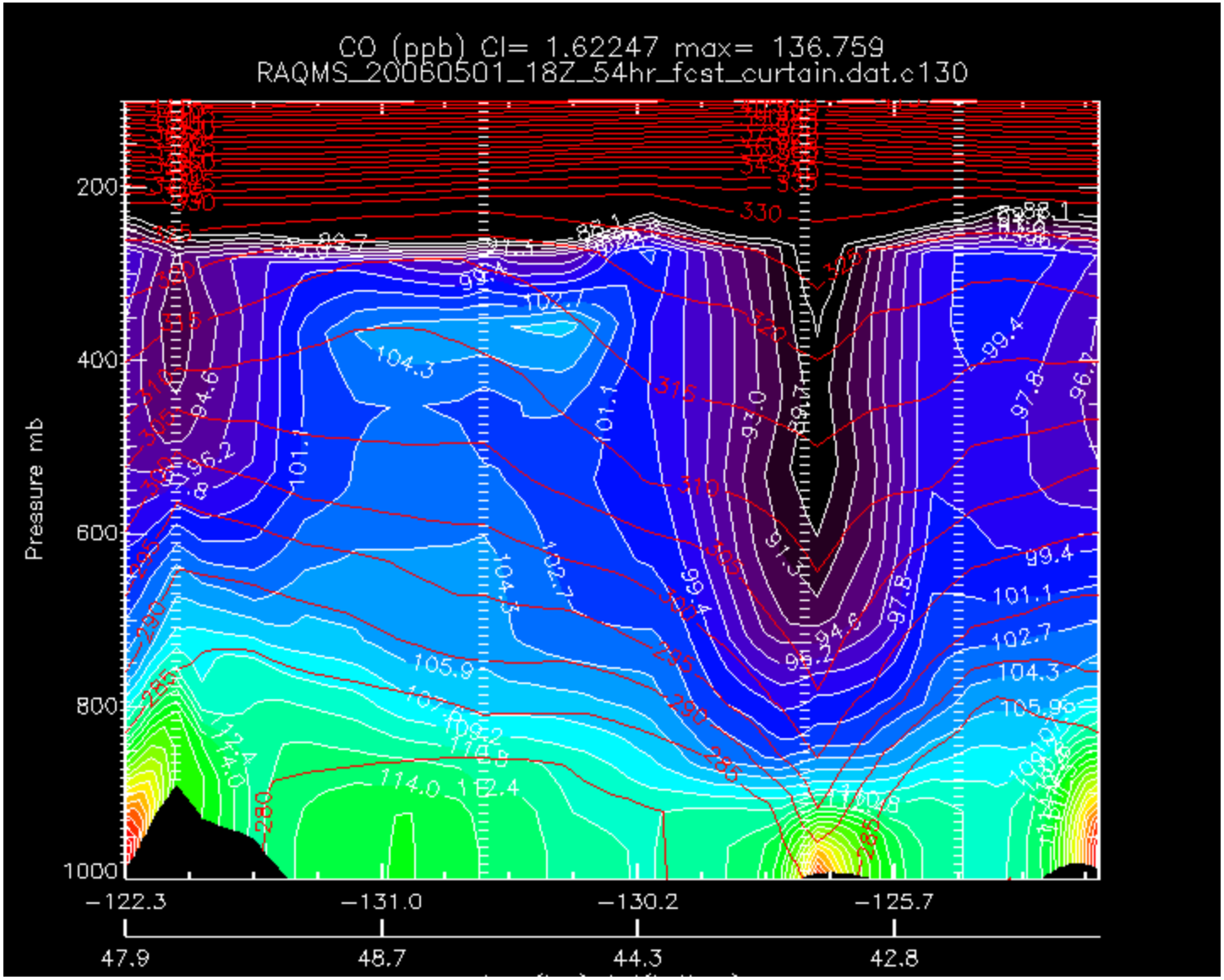
RAQMS 54hr FX CO Column Valid 18Z 05/01/06



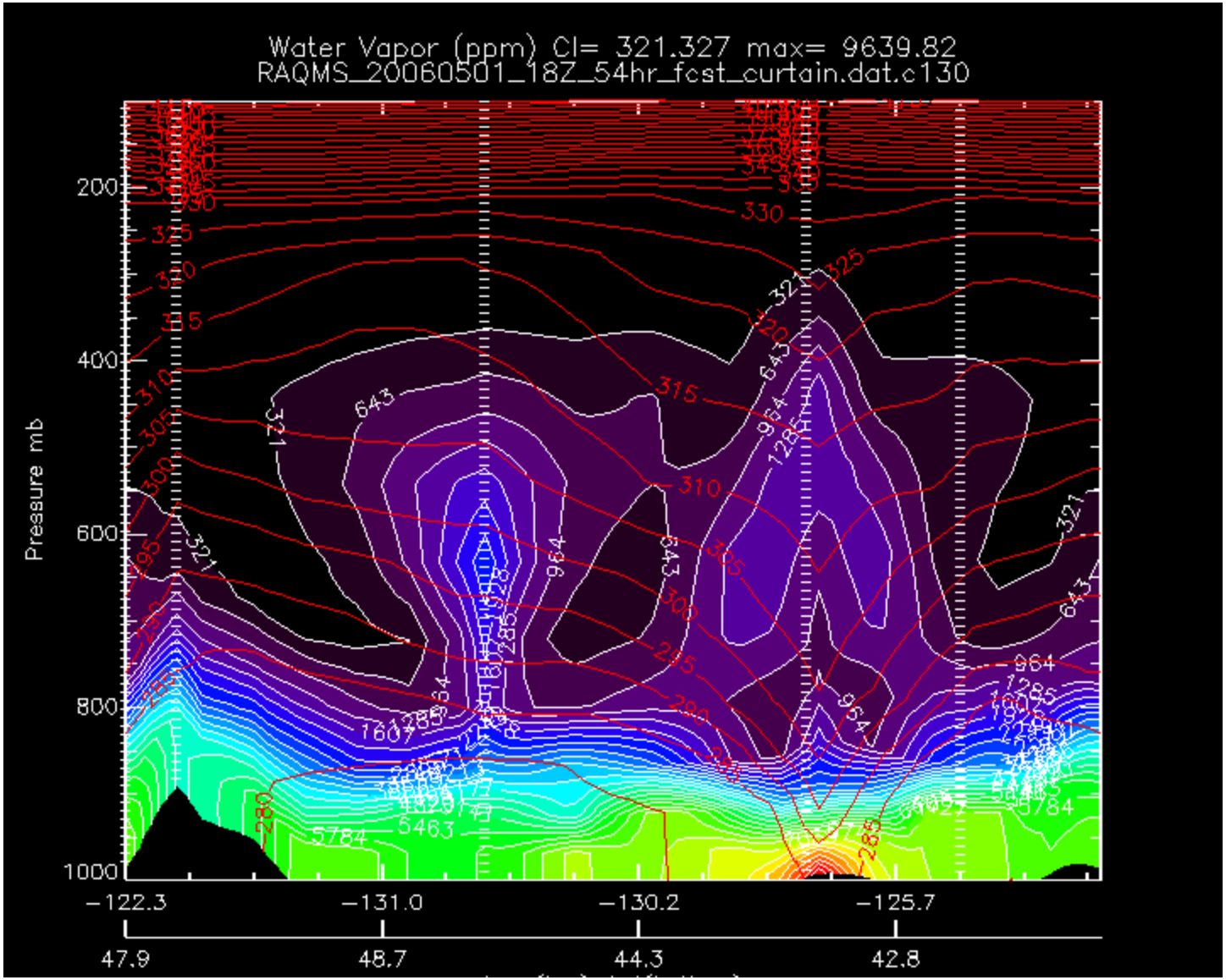
RAQMS 54hr FX Cld Column Valid 18Z 05/01/06



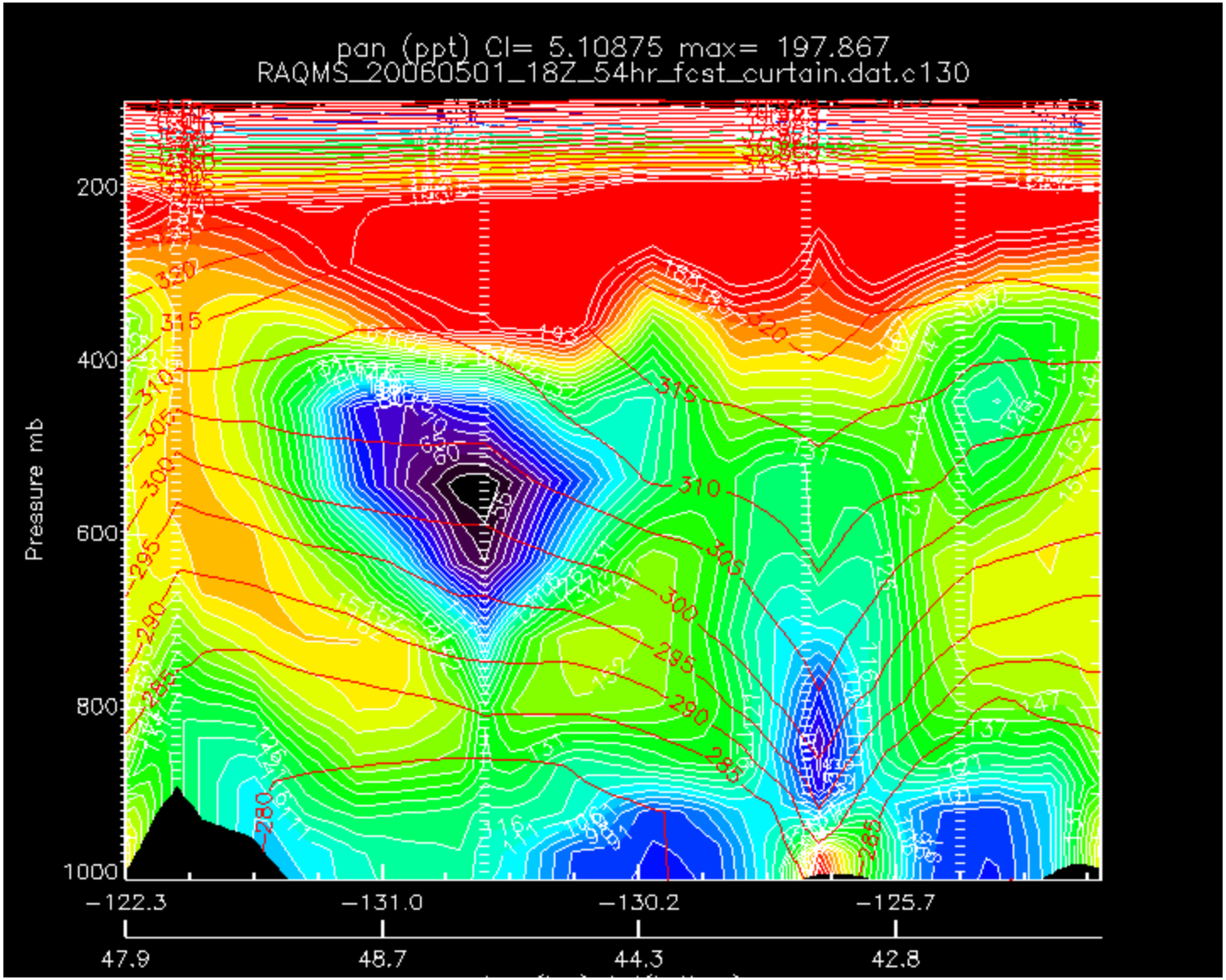
RAQMS 54hr FX CO Curtain Valid 18Z 05/01/06



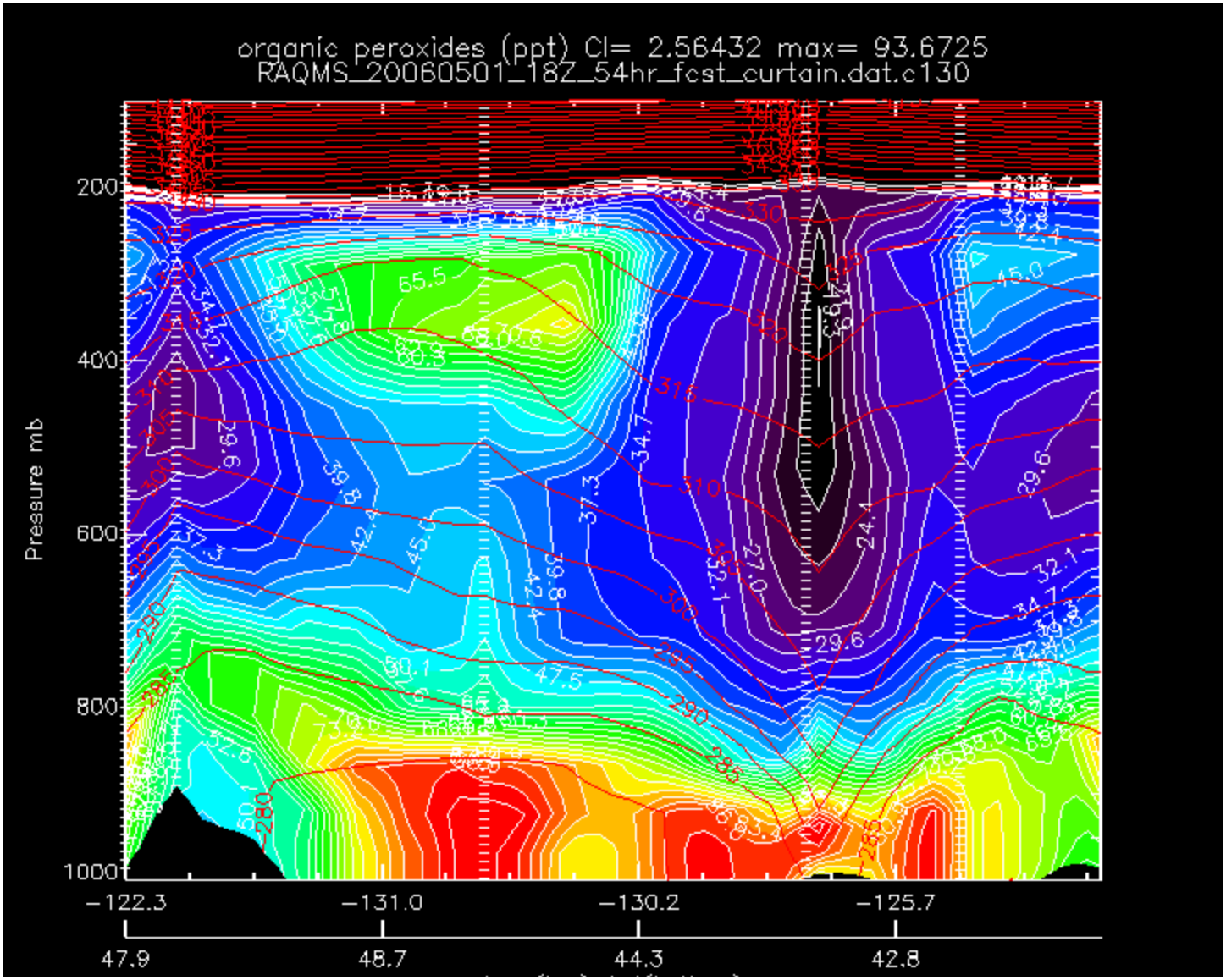
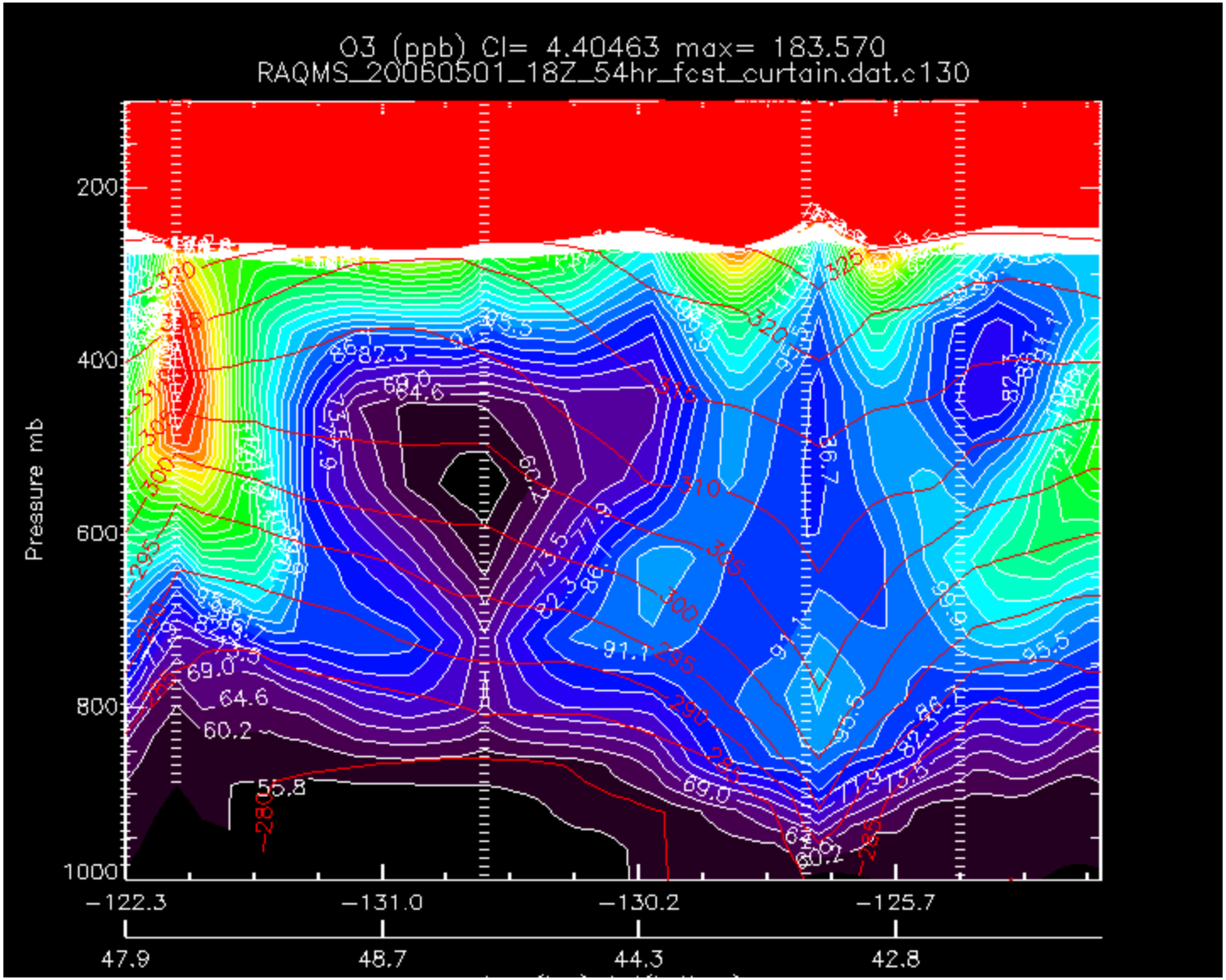
RAQMS 54hr FX H2O Curtain Valid 18Z 05/01/06



RAQMS 54hr FX PAN Curtain Valid 18Z 05/01/06



RAQMS 54hr FX ROOH Curtain Valid 18Z 05/01/06



RAQMS 54hr FX O3 Curtain Valid 18Z 05/01/06