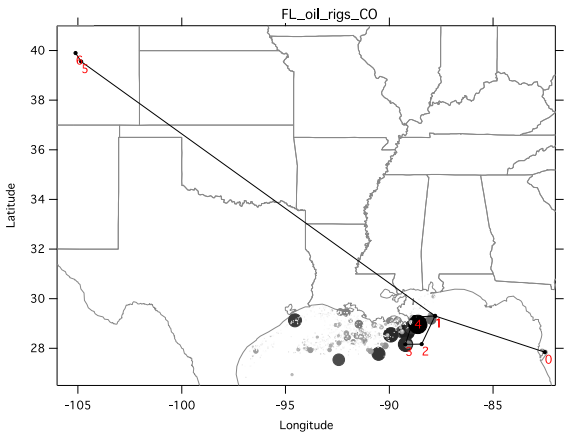
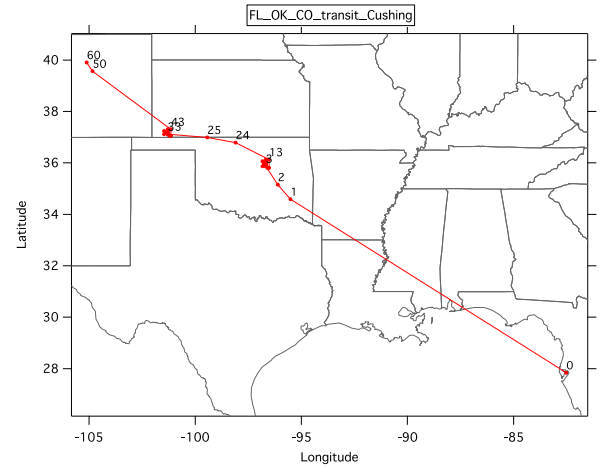
RAQMS 20150320 SONGNEX 54hr Forecast for 18Z March 21, 2015 Transit Flight 10 AM (14Z) take-off

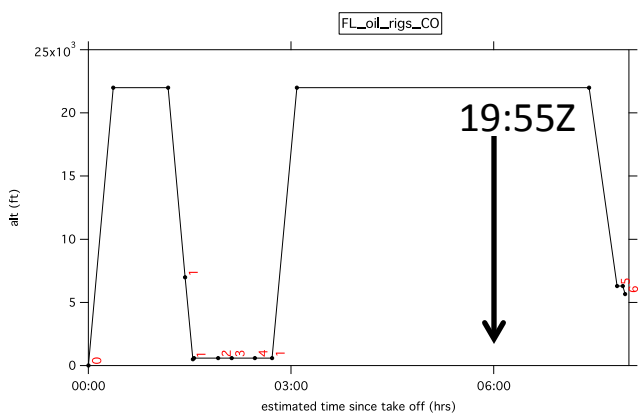


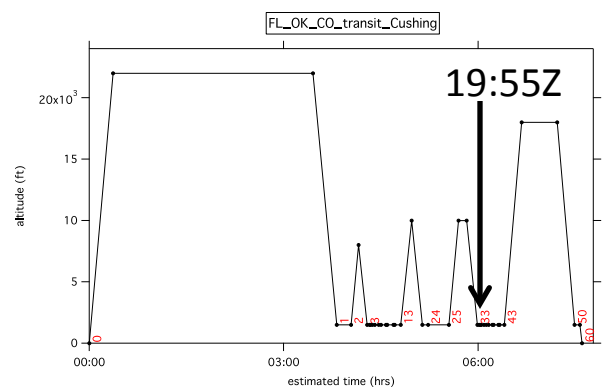
Circles in Gulf indicate locations of platforms scaled by NOx emission (2004). The platform information is outdated. Pt1 - Pt4 covers the area of the WP3 DWH research flights in 2010.

Pt5 (Centennial Airport) to Pt6 (Rocky Mountain Airport) is within the PBL across Denver.



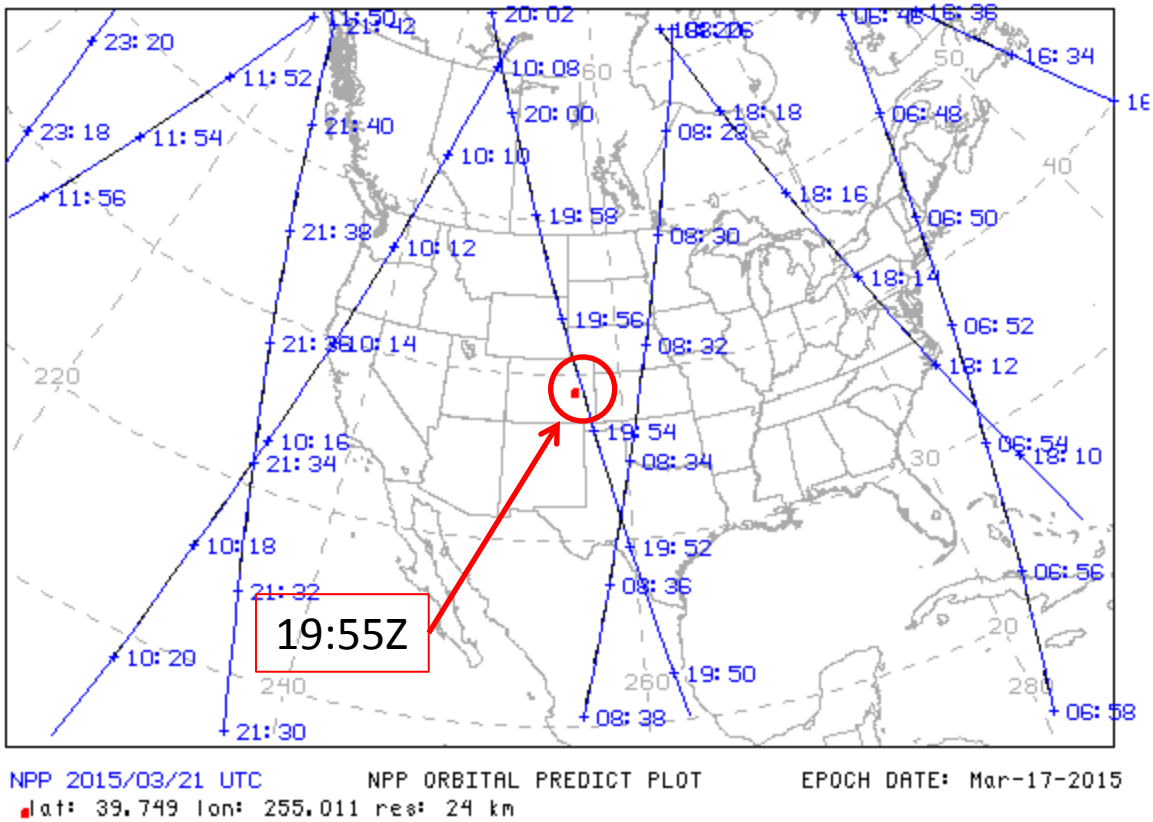
Tentative Flight Plans





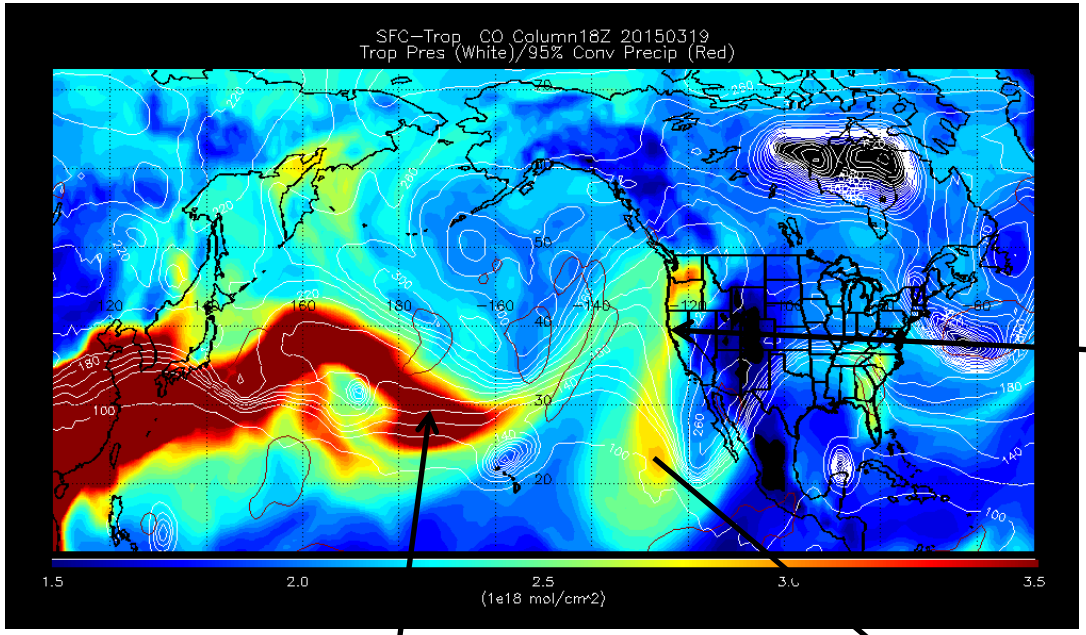
S-NPP (CrIS) overpass on 2015/03/21
NUCAPS CO2, O3, CO, CH4 Validation Opportunity

S-NPP overpass is just east of Denver (red dot) at 19:55Z (1:55pm Mountain)



http://raqms-ops.ssec.wisc.edu/index.php

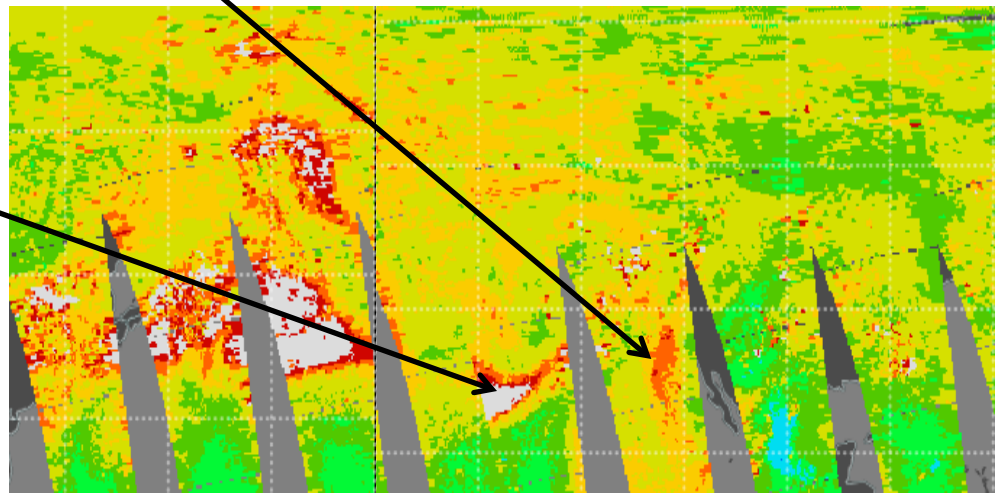
RAQMS 6hr CO column FX valid 18Z March 19, 2015



CO plume arriving on shore of US associated with Intercontinental pollution transport

CO plume over central Pacific

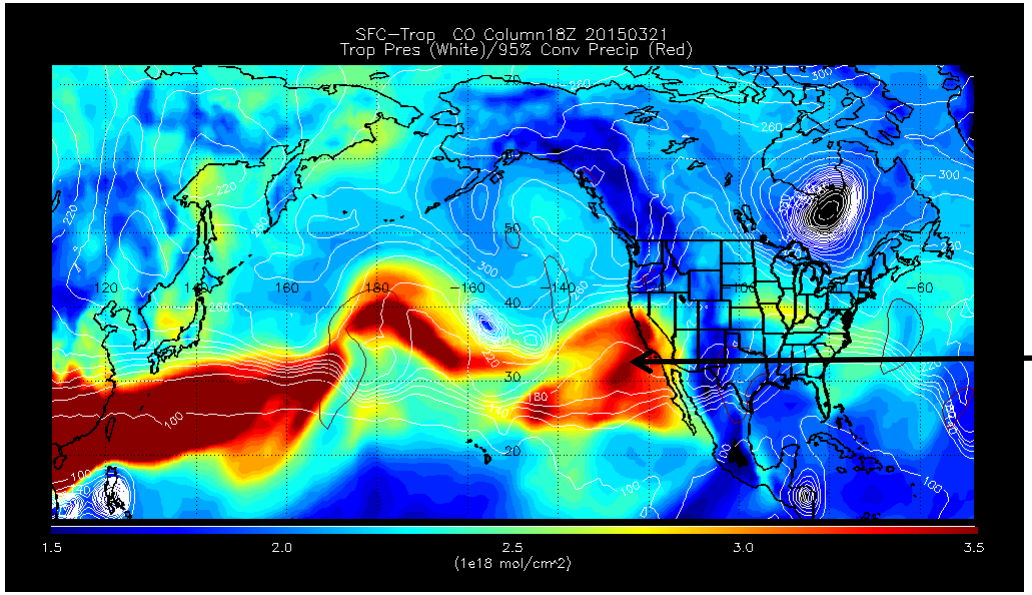
AIRS Column CO March 19, 2015



https://earthdata.nasa.gov/labs/worldview/

http://raqms-ops.ssec.wisc.edu/index.php

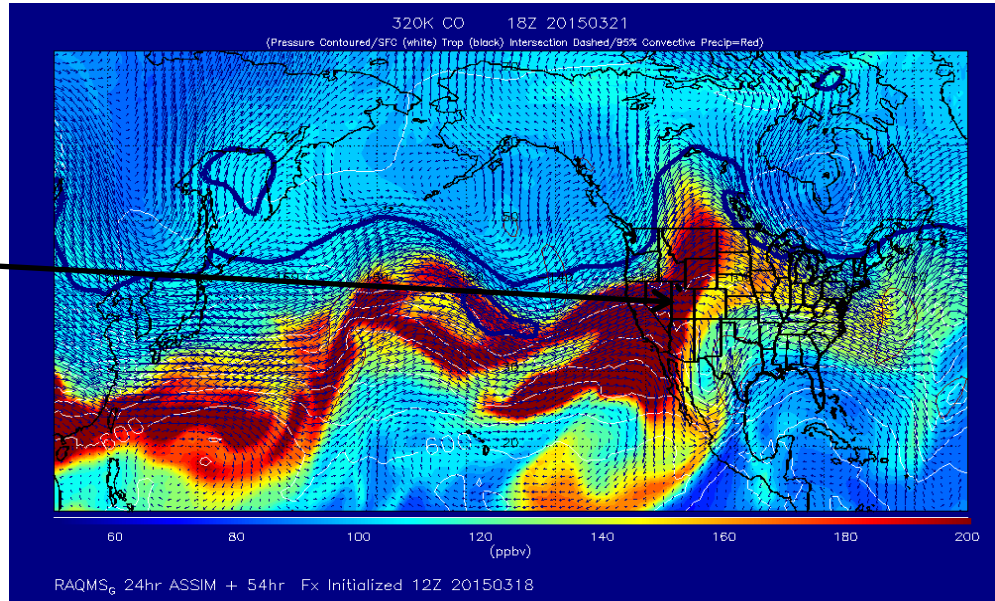
RAQMS 54hr CO column FX valid 18Z March 21, 2015



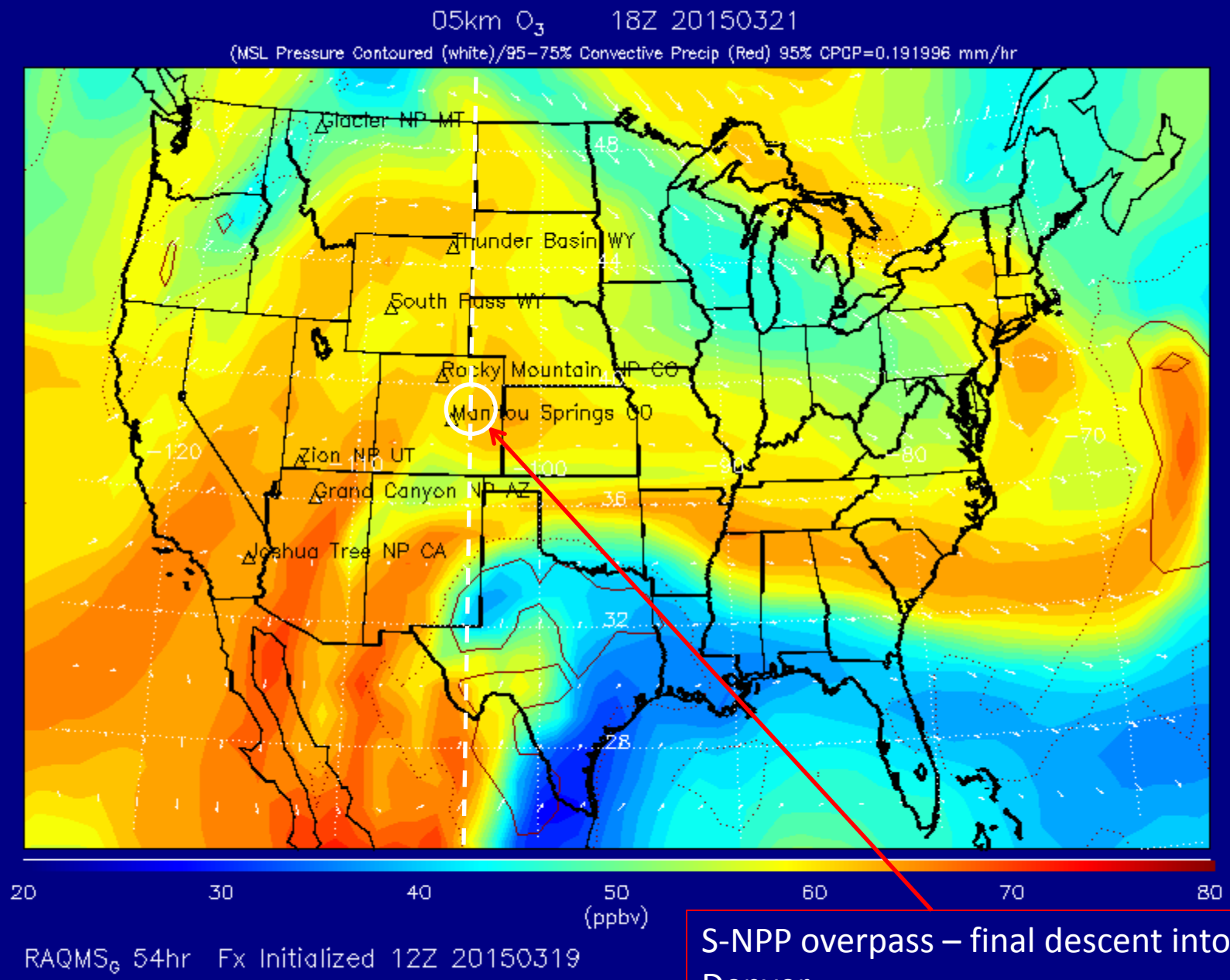
Large CO plume off shore of US associated with Intercontinental pollution transport

RAQMS 54hr 320K FX valid 18Z March 21, 2015

Leading edge of 320K CO plume over Utah at 18Z on March 21, 2015

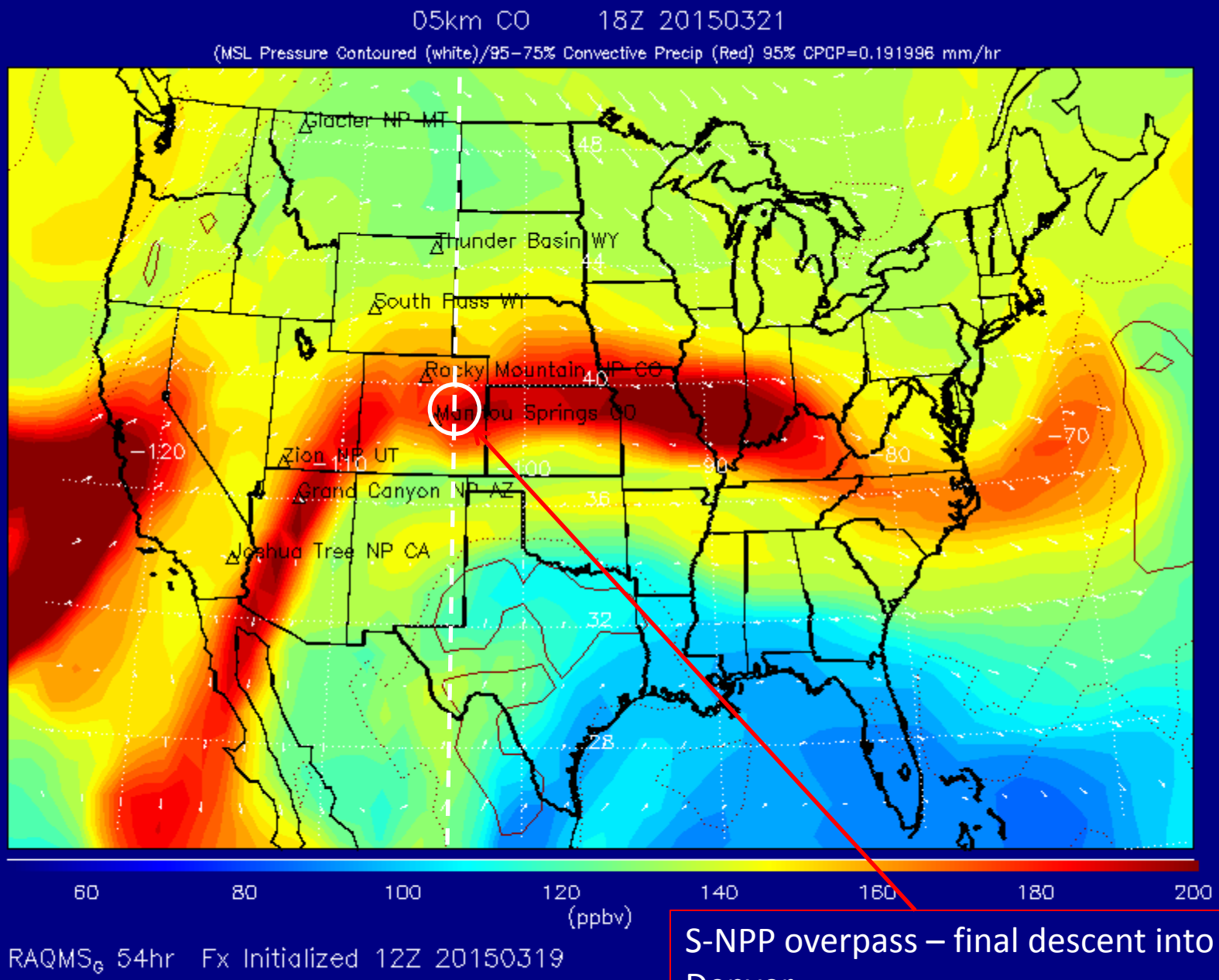


http://raqms.ssec.wisc.edu/forecast/view/20150319



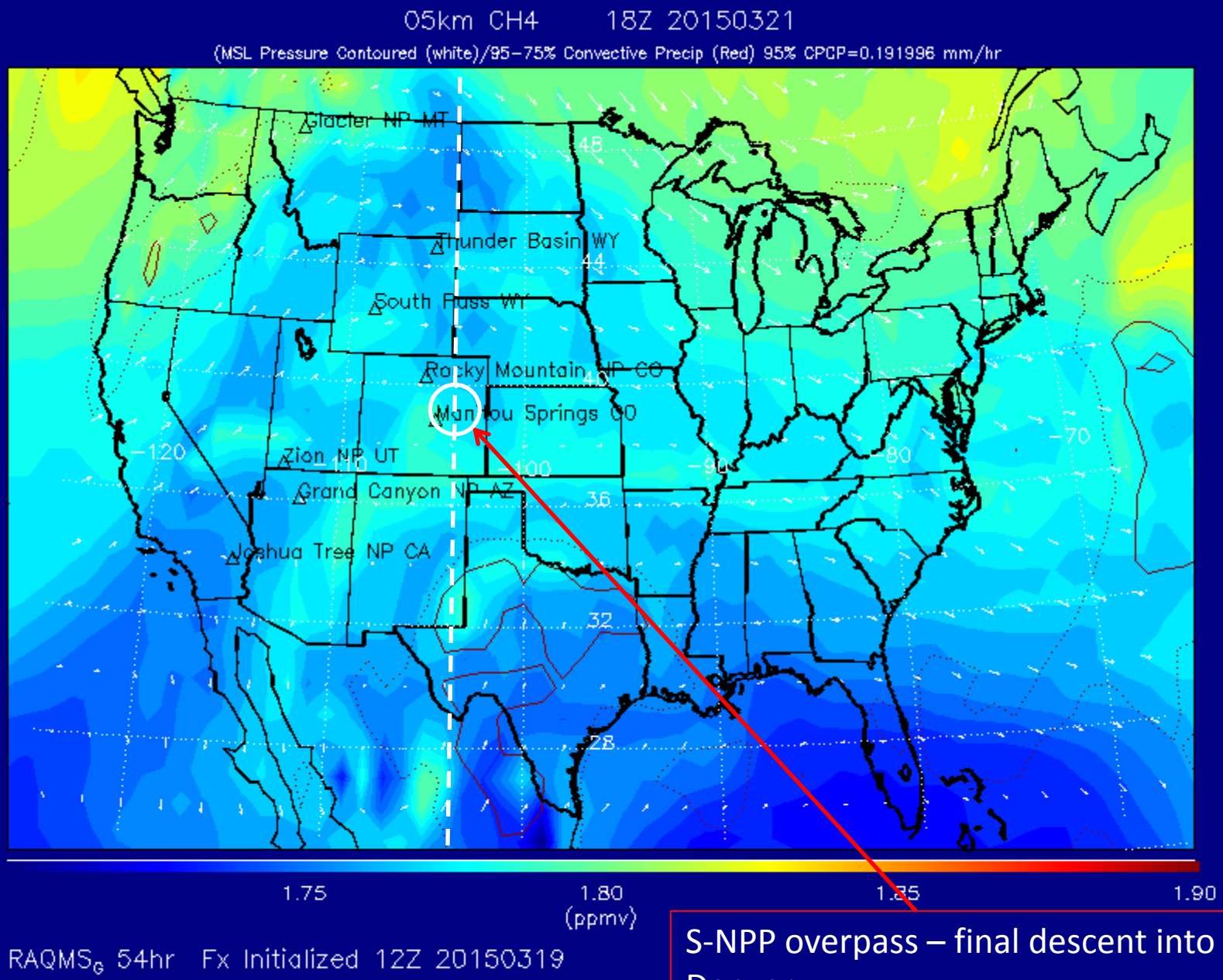
S-NPP overpass – final descent into Denver

http://raqms.ssec.wisc.edu/forecast/view/20150319



S-NPP overpass – final descent into Denver

http://raqms.ssec.wisc.edu/forecast/view/20150319

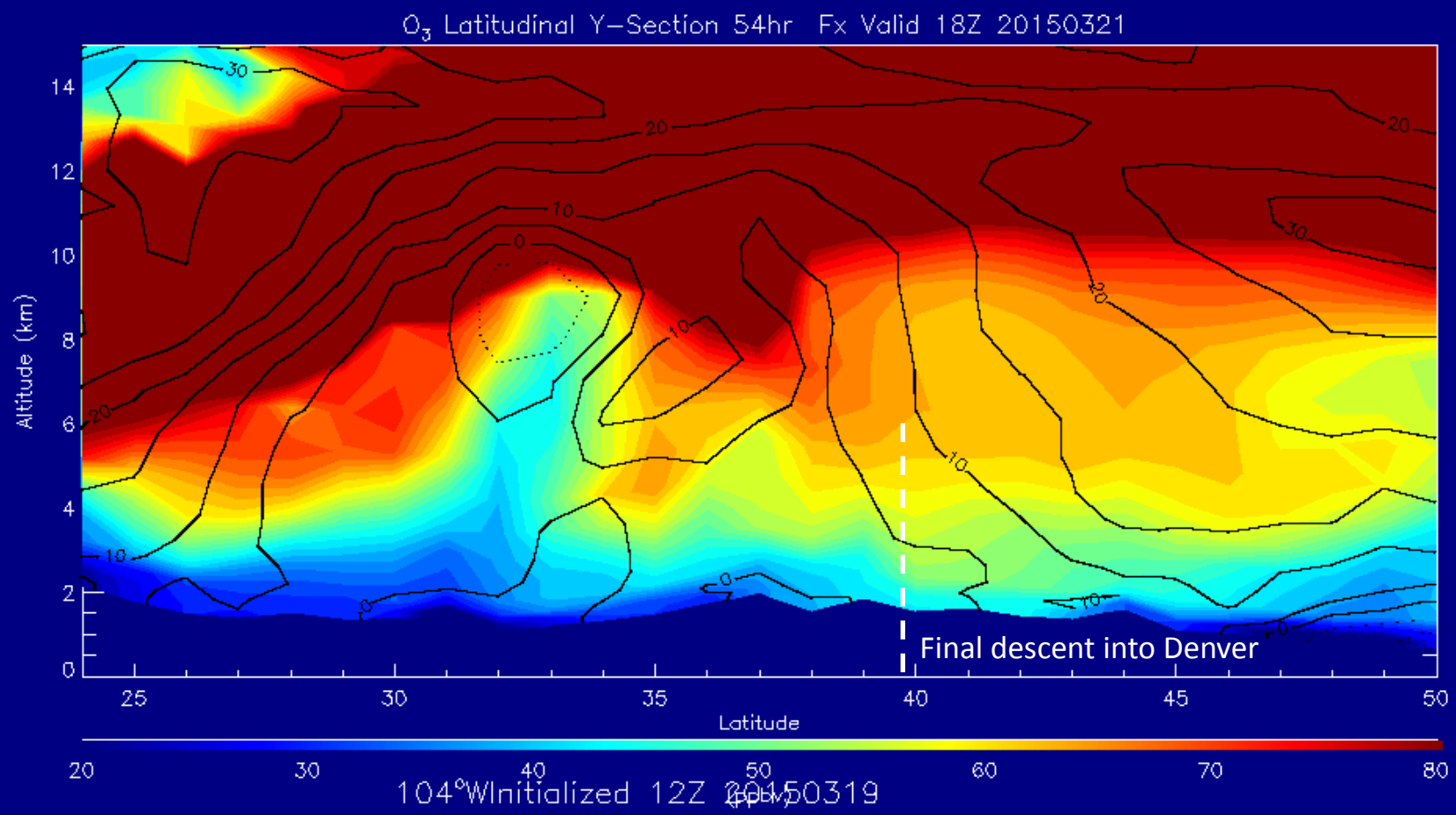


S-NPP overpass – final descent into Denver

RAQMS surface CH4 constrained with 1990 mixing ratio – introduces ~0.1ppmv low bias

http://raqms.ssec.wisc.edu/forecast/view/20150319

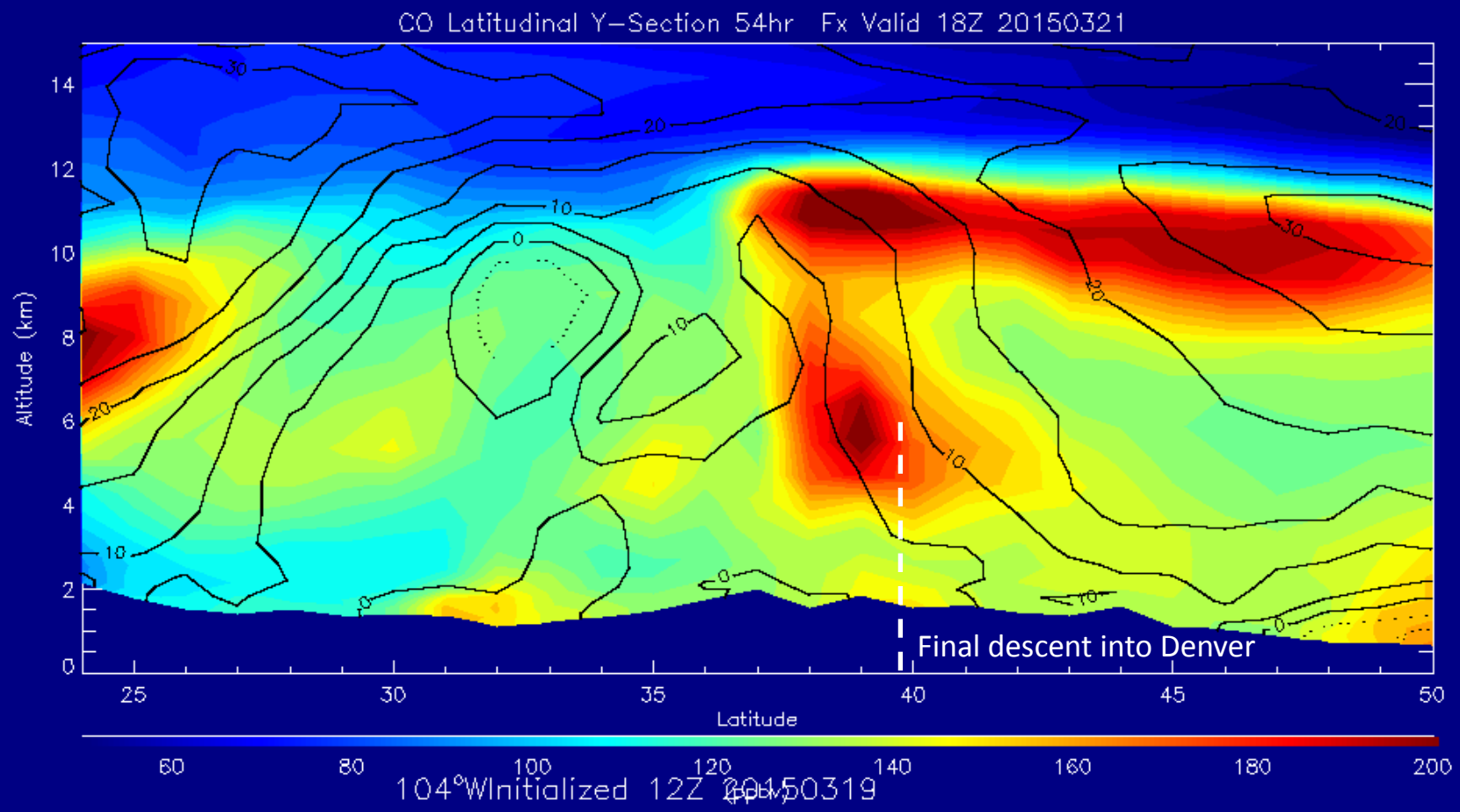
RAQMS O3 Cross-section at 104W



http://raqms.ssec.wisc.edu/forecast/view/20150319

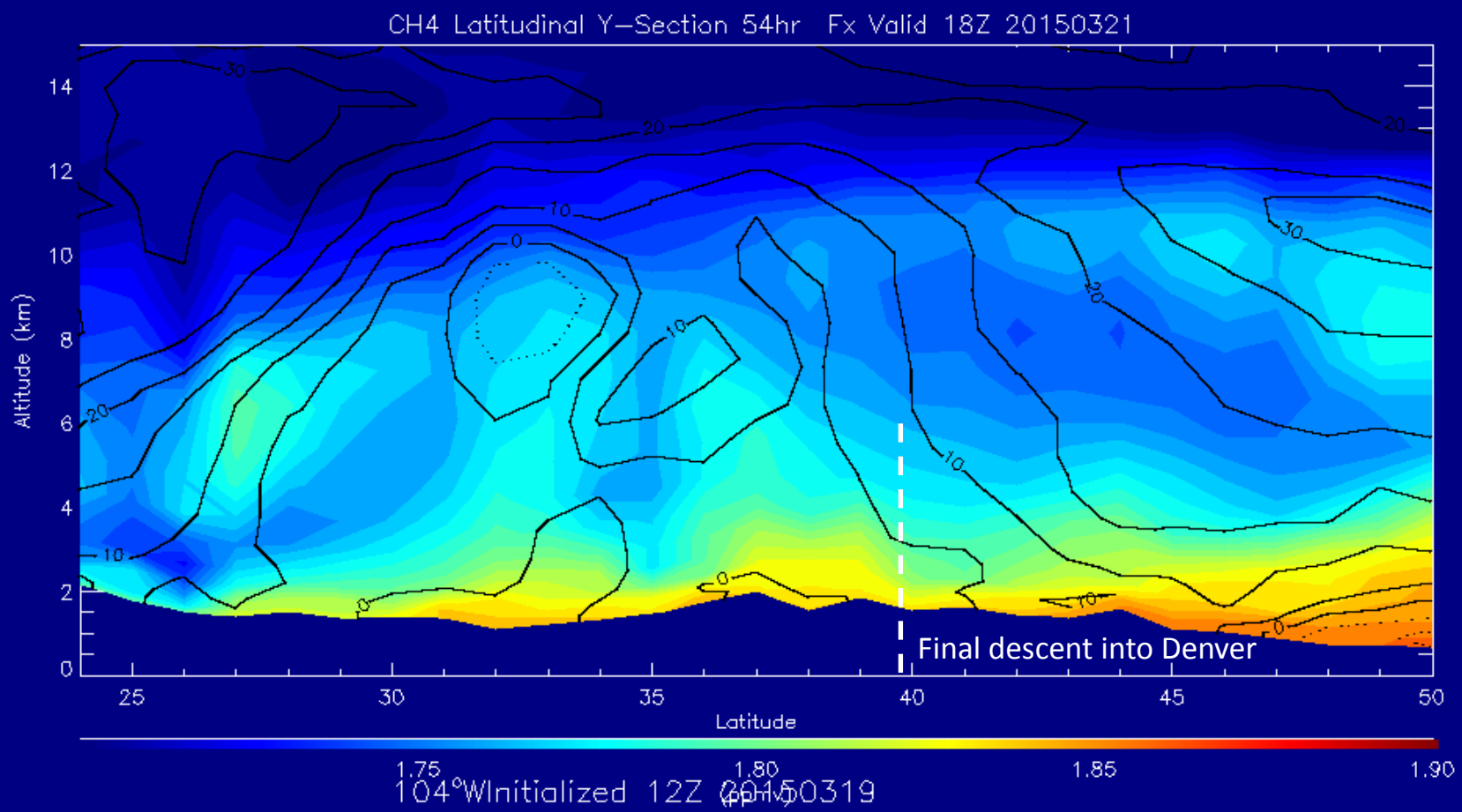
RAQMS CO Cross-section at 104W

Note: 54hr FX has CO plume at 6km further North than 78hr FX – Improved opportunity for sampling intercontinental transport plume during descent into Denver



http://raqms.ssec.wisc.edu/forecast/view/20150319

RAQMS CH4 Cross-section at 104W



RAQMS surface CH4 constrained with 1990 mixing ratio – introduces ~0.1ppmv low bias