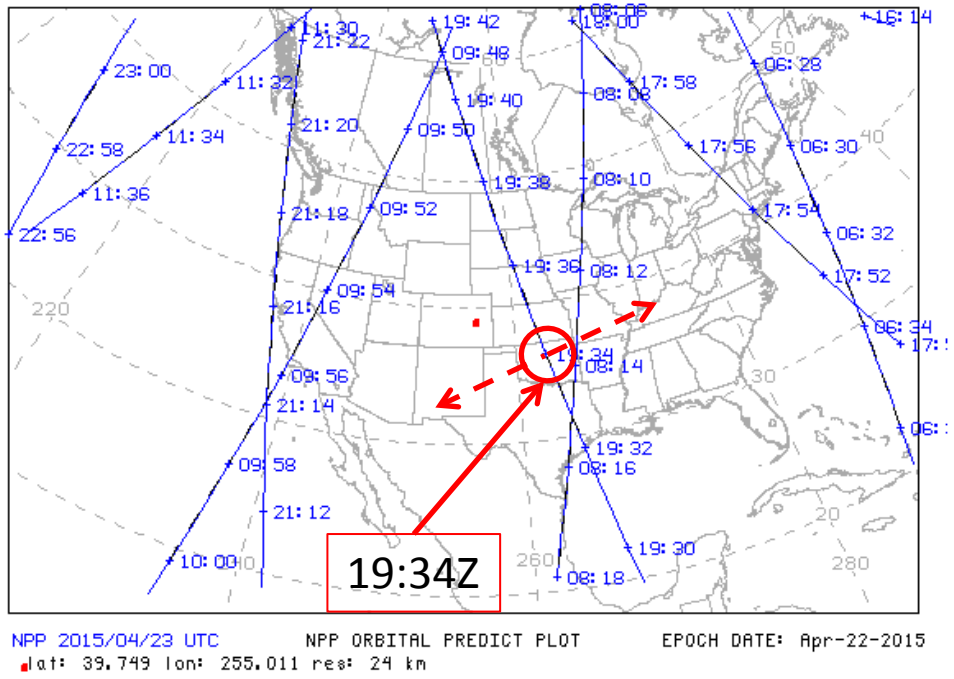
# RAQMS 20150422 SONGNEX
# 54hr FX for 18Z April 23 (Permian or Nebraska ethanol refineries), 2015

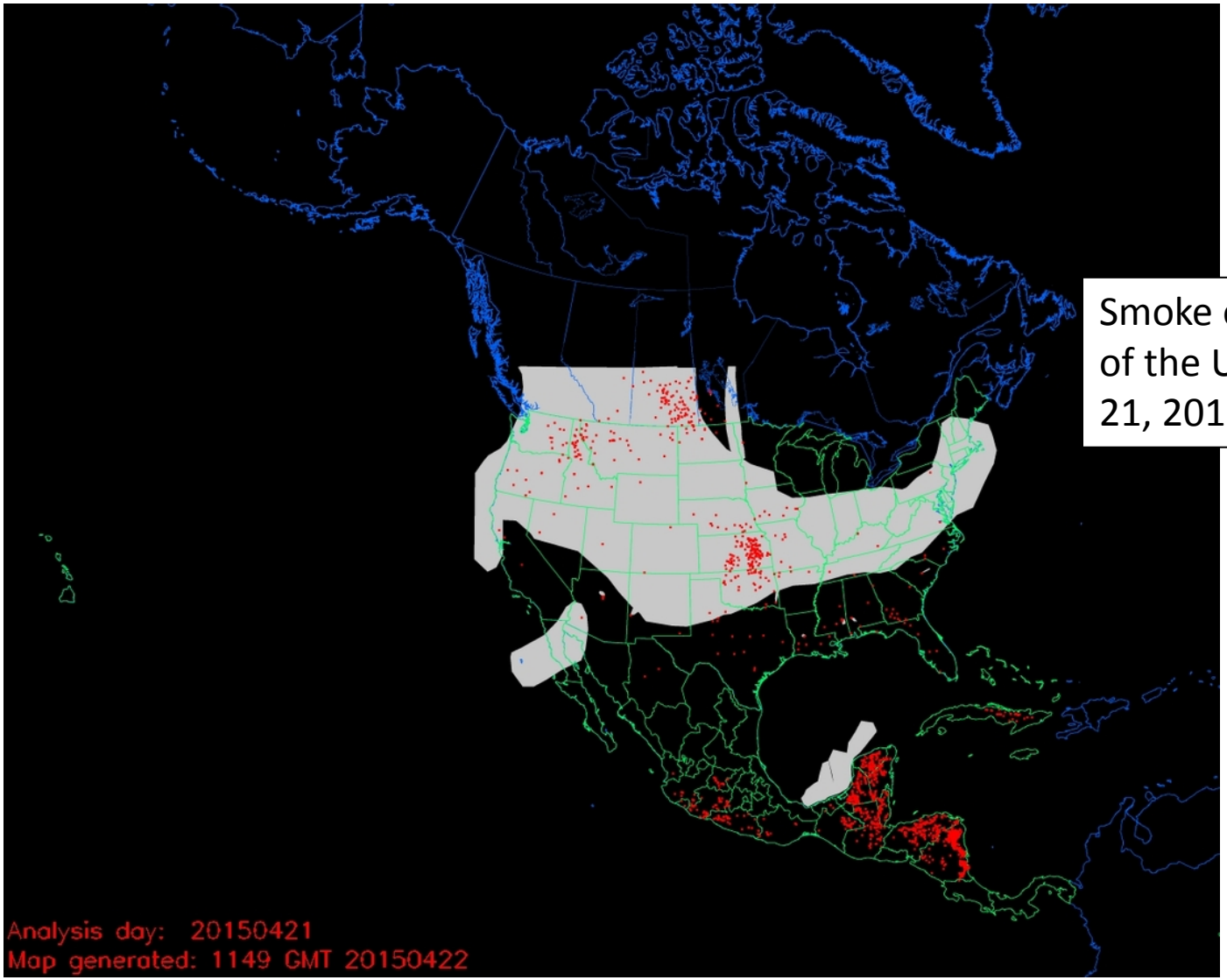
S-NPP (CrIS) overpass on 2015/04/23
NUCAPS CO2, O3, CO, CH4 Validation Opportunity
***Western swath (Permian) or nadir (Nebraska)***




**Approximate swath width**

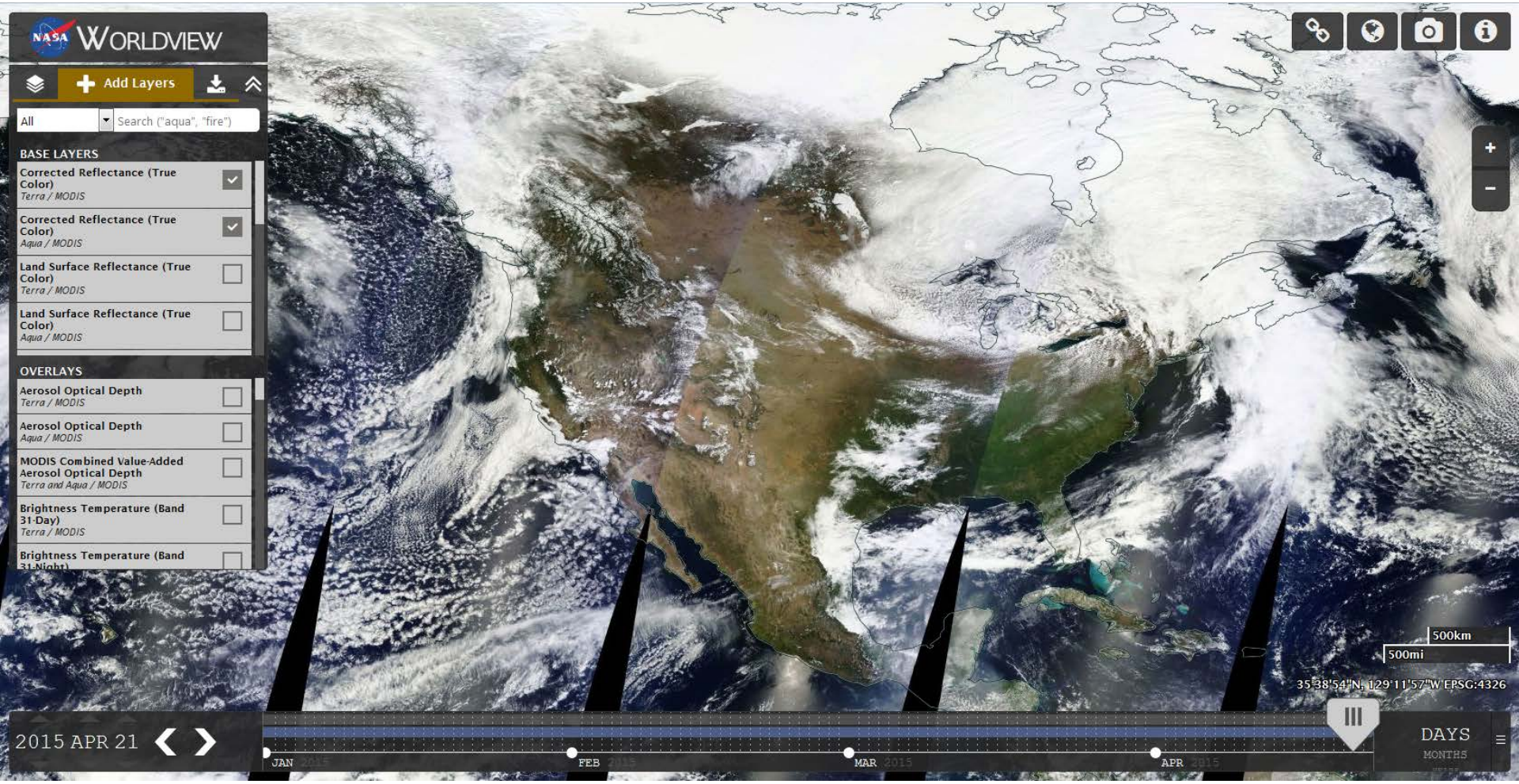
# NESDIS Hazard Mapping System (HMS)

http://www.ospo.noaa.gov/data/land/fire/currenthms.jpg

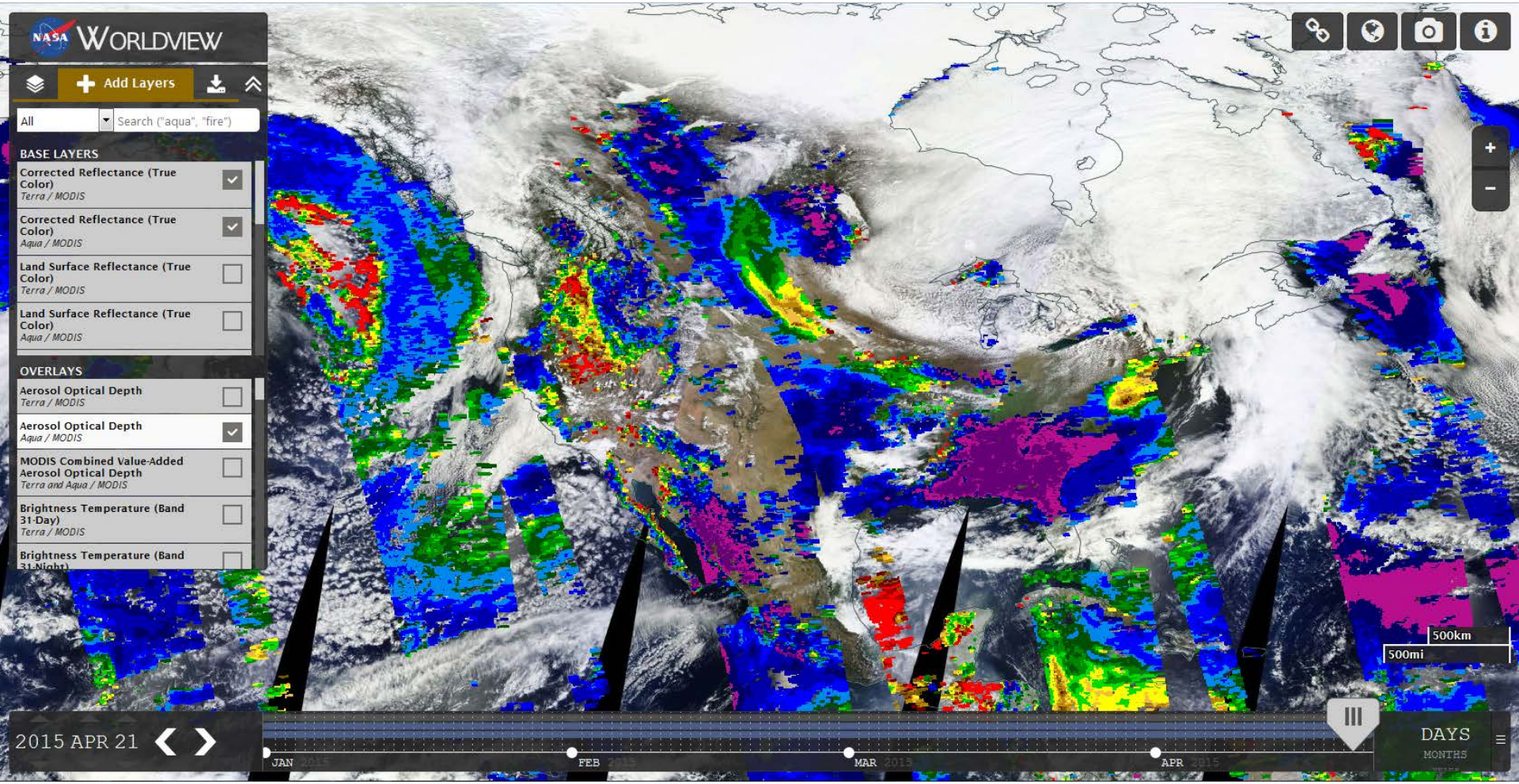



Smoke over much of the US on April 21, 2015

# NASA Worldview MODIS True Color image



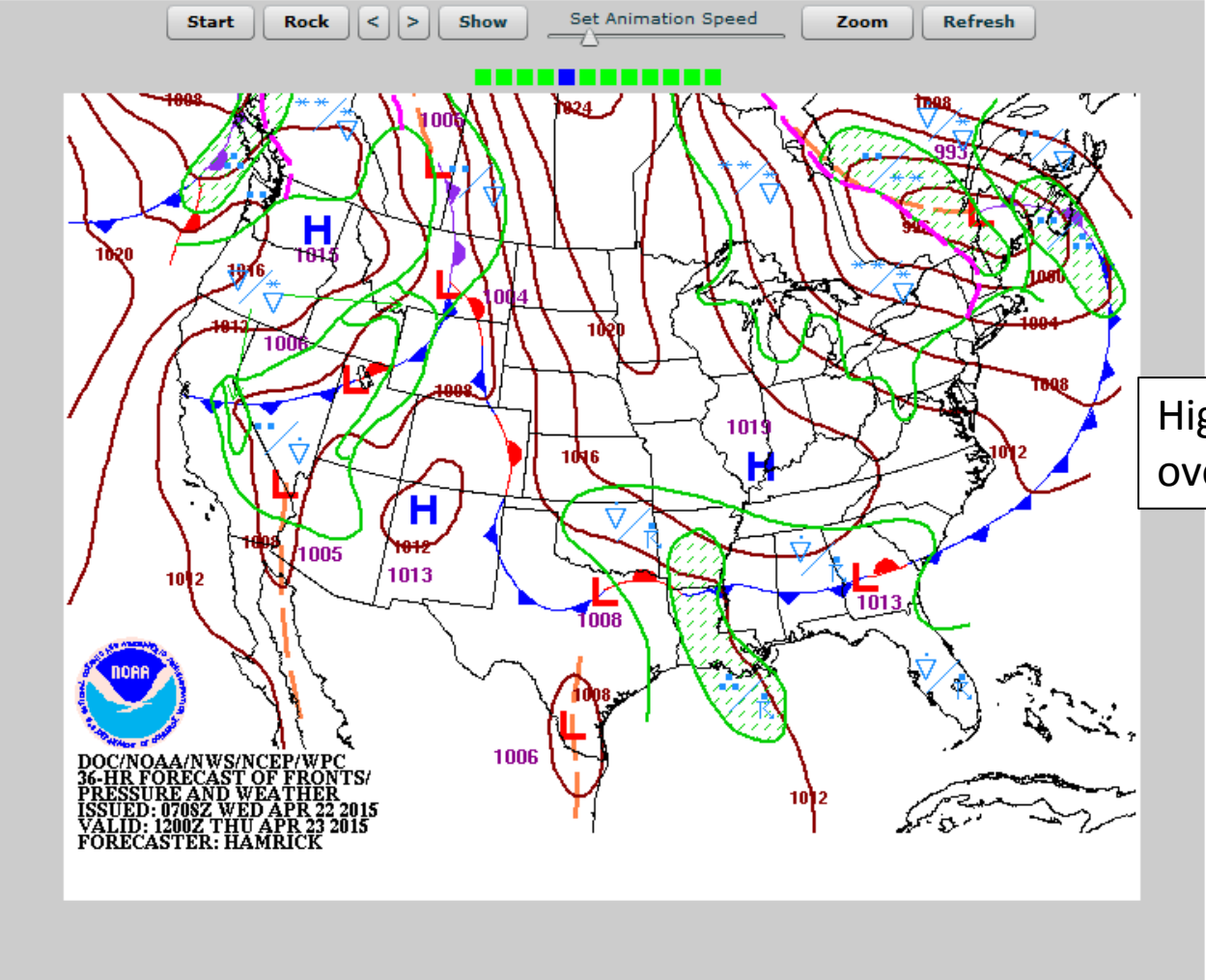
# NASA Worldview MODIS AOD




Smoke most pronounced over Intermountain West, Gulf, and Upper Midwest

New smoke plume over North Eastern Pacific

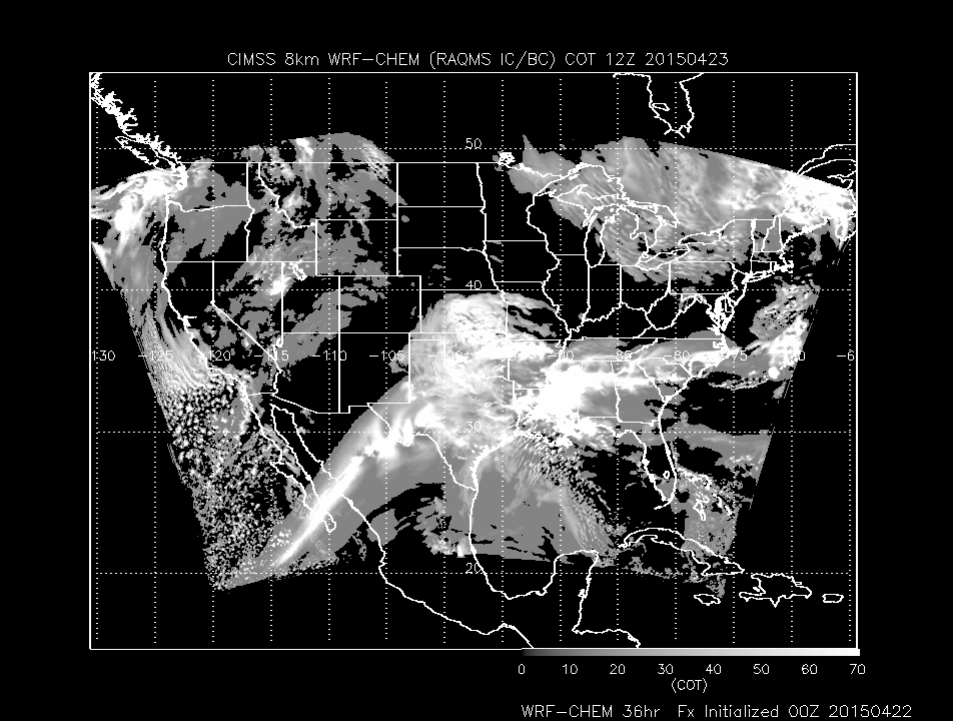
# 36hr NCEP/WPC forecast valid 12Z 04/23/2015

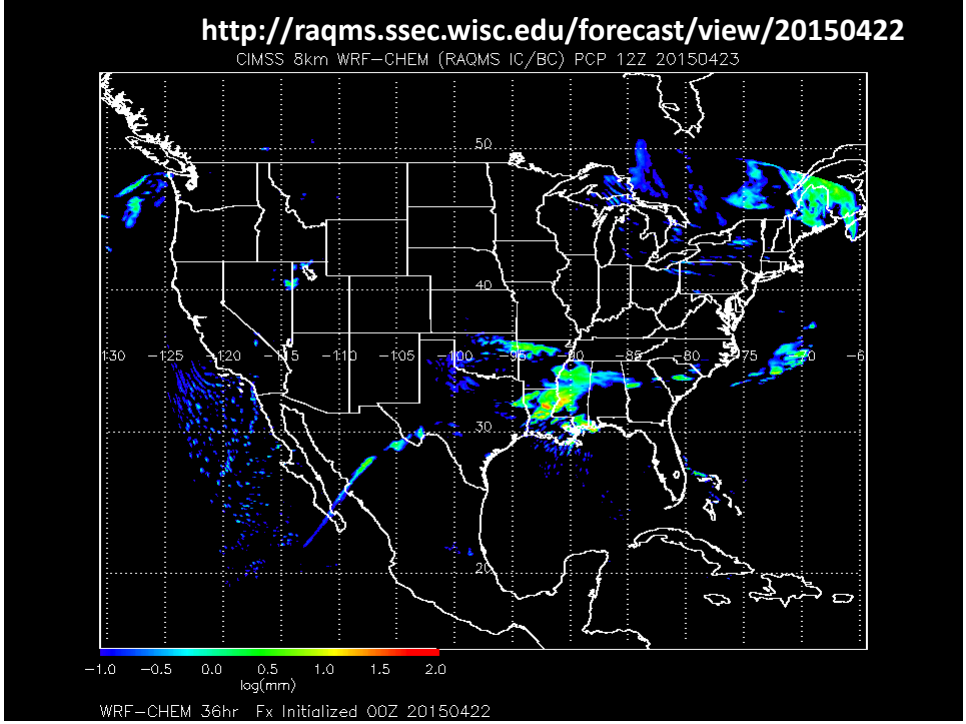



High pressure over 4-Corners

http://www.hpc.ncep.noaa.gov/basicwx/day0-7loop.html

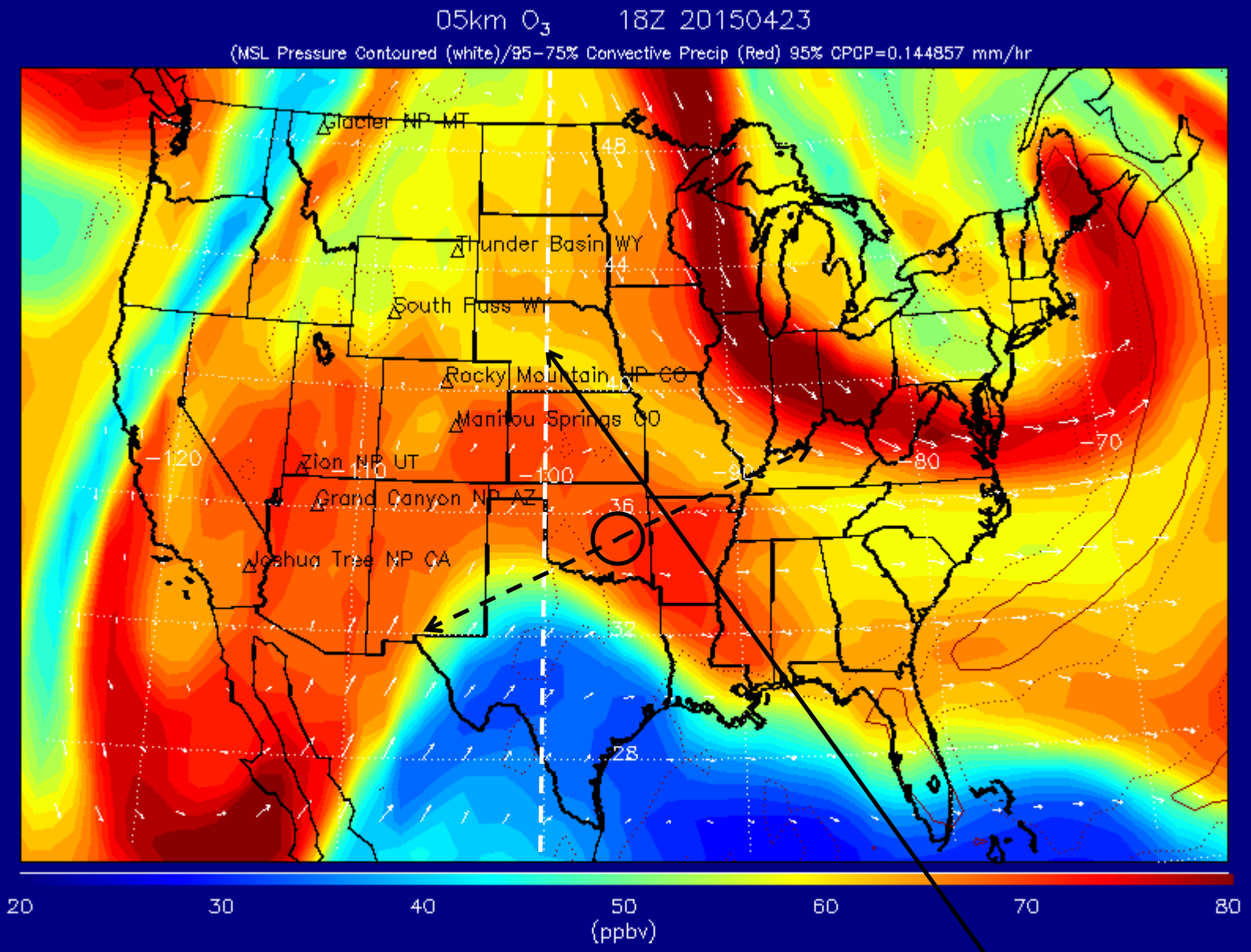
http://raqms.ssec.wisc.edu/forecast/view/20150422




Extensive clouds associated with low pressure over TX, clear over Nebraska during morning tomorrow

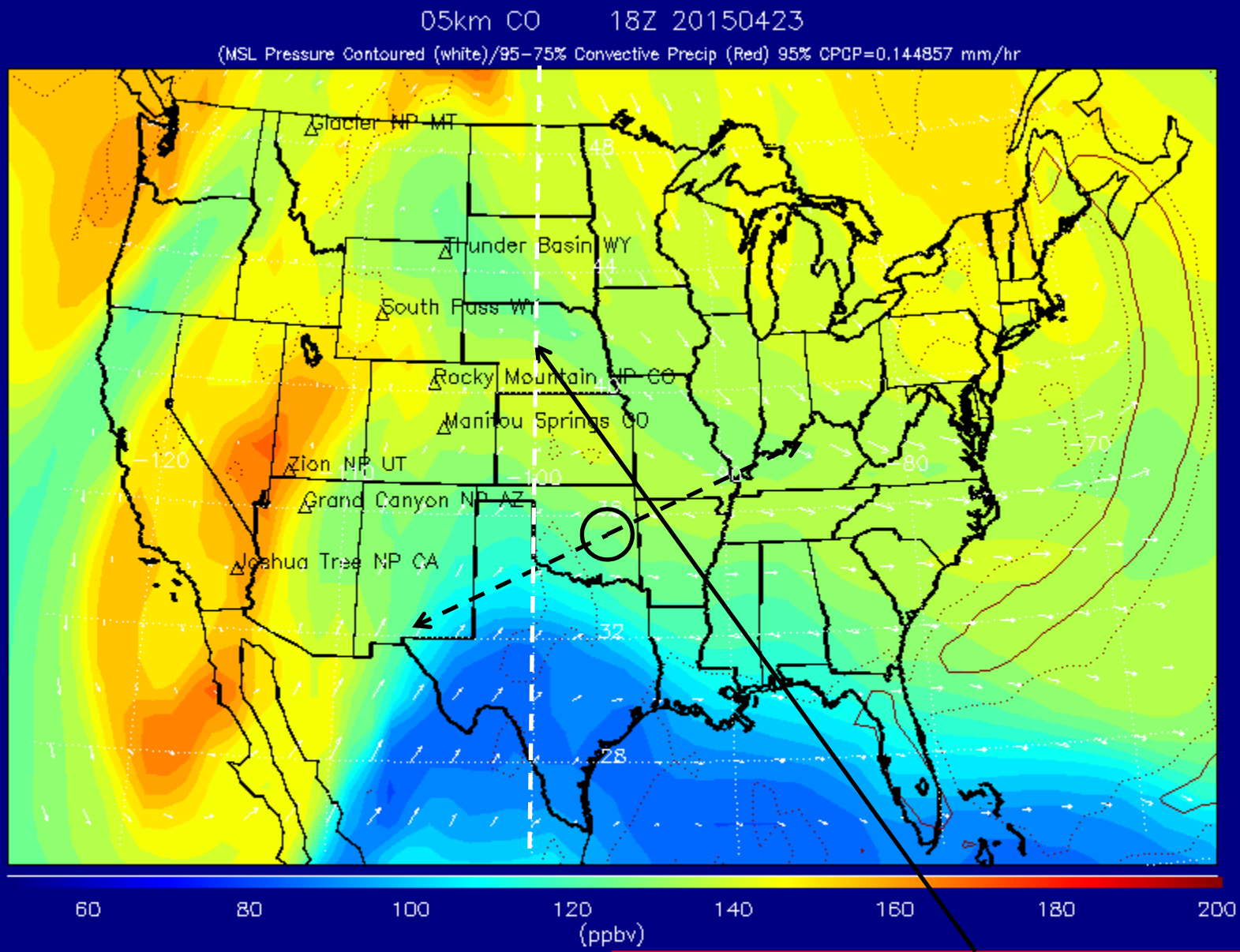
http://raqms.ssec.wisc.edu/forecast/view/20150421




Central Nebraska at nadir of swath

**Approximate swath width**

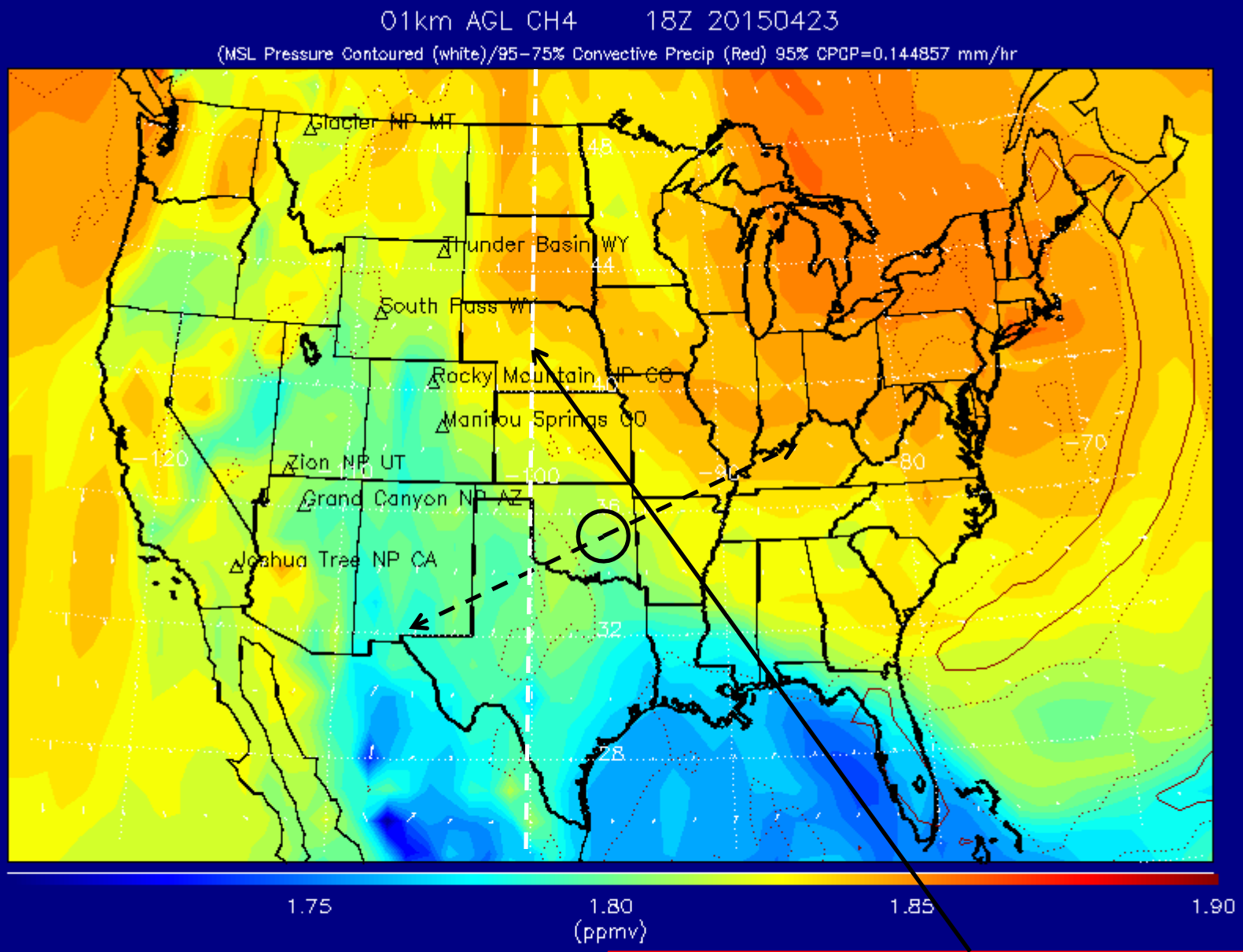
http://raqms.ssec.wisc.edu/forecast/view/20150421




Central Nebraska at nadir of swath

**Approximate swath width**

http://raqms.ssec.wisc.edu/forecast/view/20150421

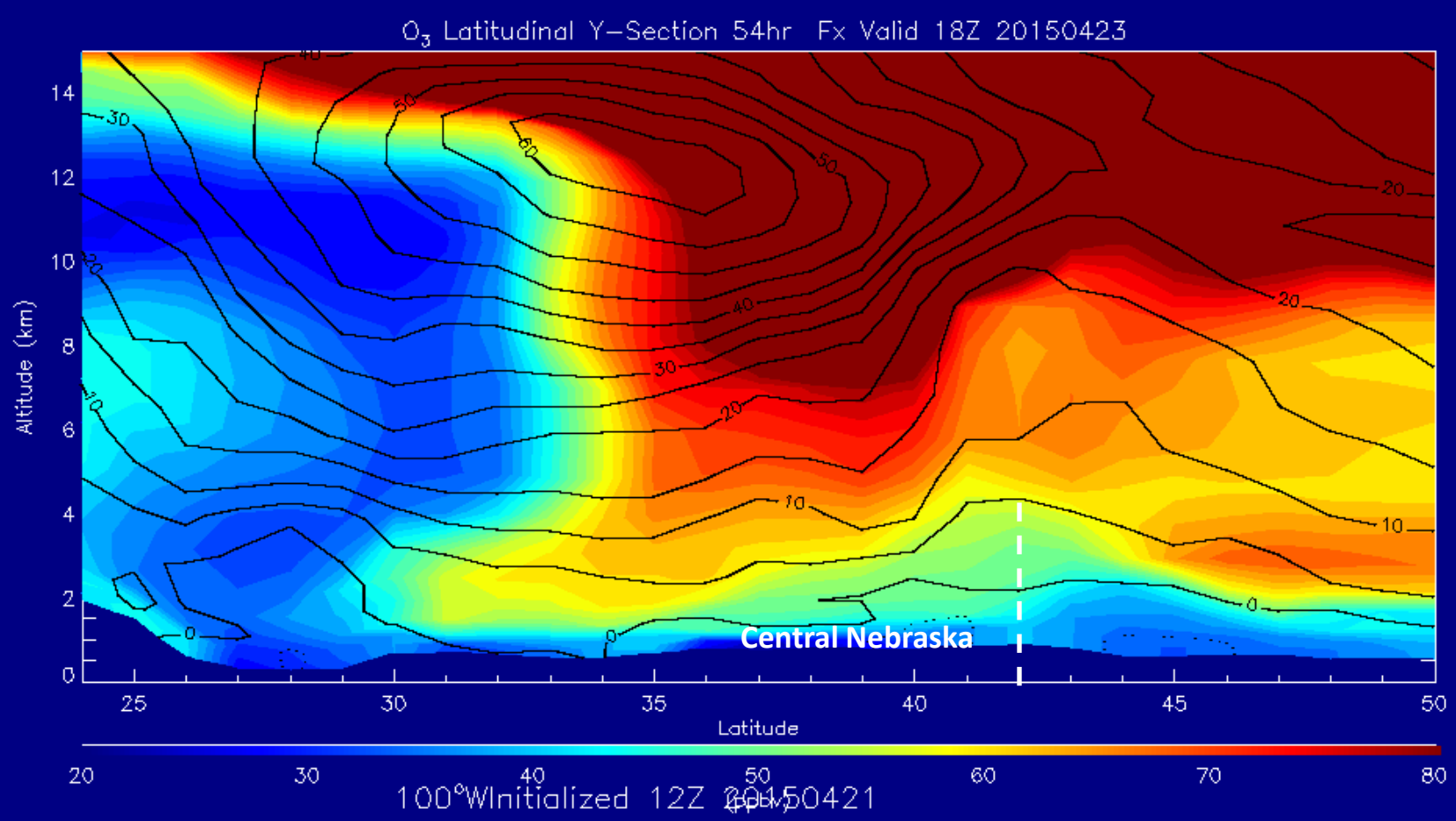



Central Nebraska at nadir of swath

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

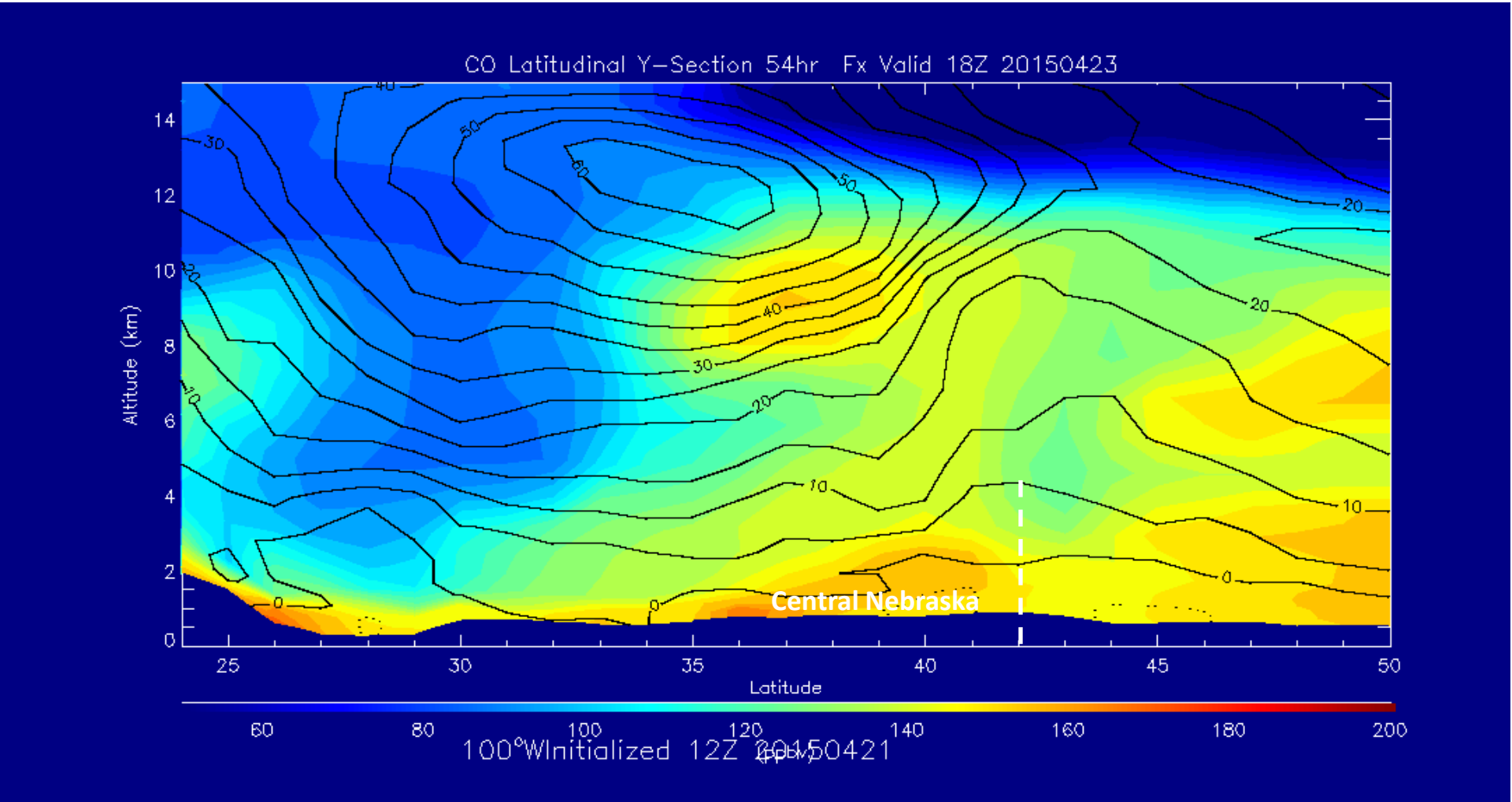
http://raqms.ssec.wisc.edu/forecast/view/20150421

# RAQMS 54hr FX O3 Cross-section at 100W (Central Nebraska)



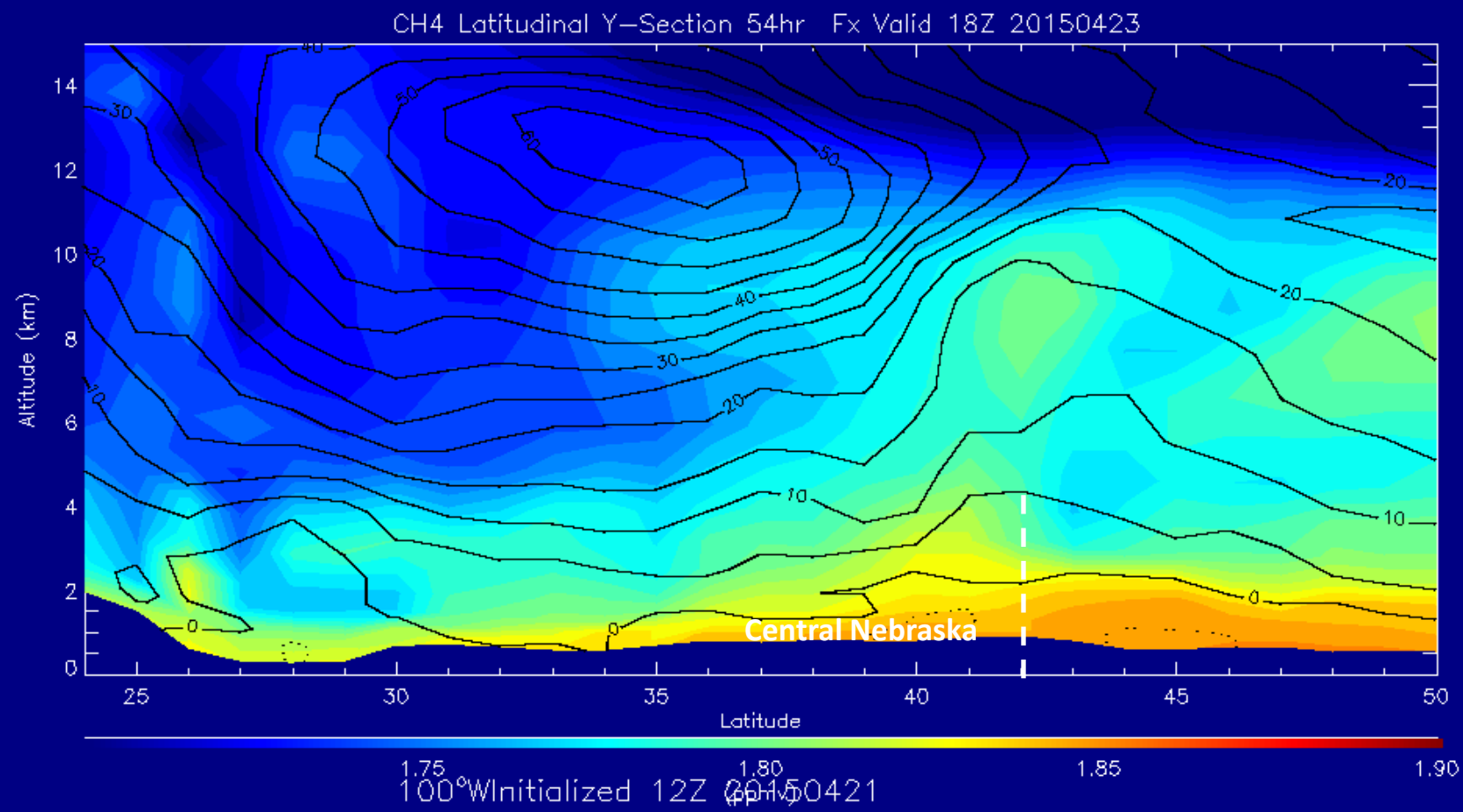
http://raqms.ssec.wisc.edu/forecast/view/20150421

# RAQMS 54hr FX CO Cross-section at 100W (Central Nebraska)



http://raqms.ssec.wisc.edu/forecast/view/20150421

# RAQMS 54hr FX CH4 Cross-section at 100W (Central Nebraska)




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