

# STT during the first CABOTS\* IOP (May 29 – June 18, 2016)

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and G. Kirgis

\***C**alifornia **B**aseline **O**zone **T**ransport **S**tudy

# CABOTS IOP-1

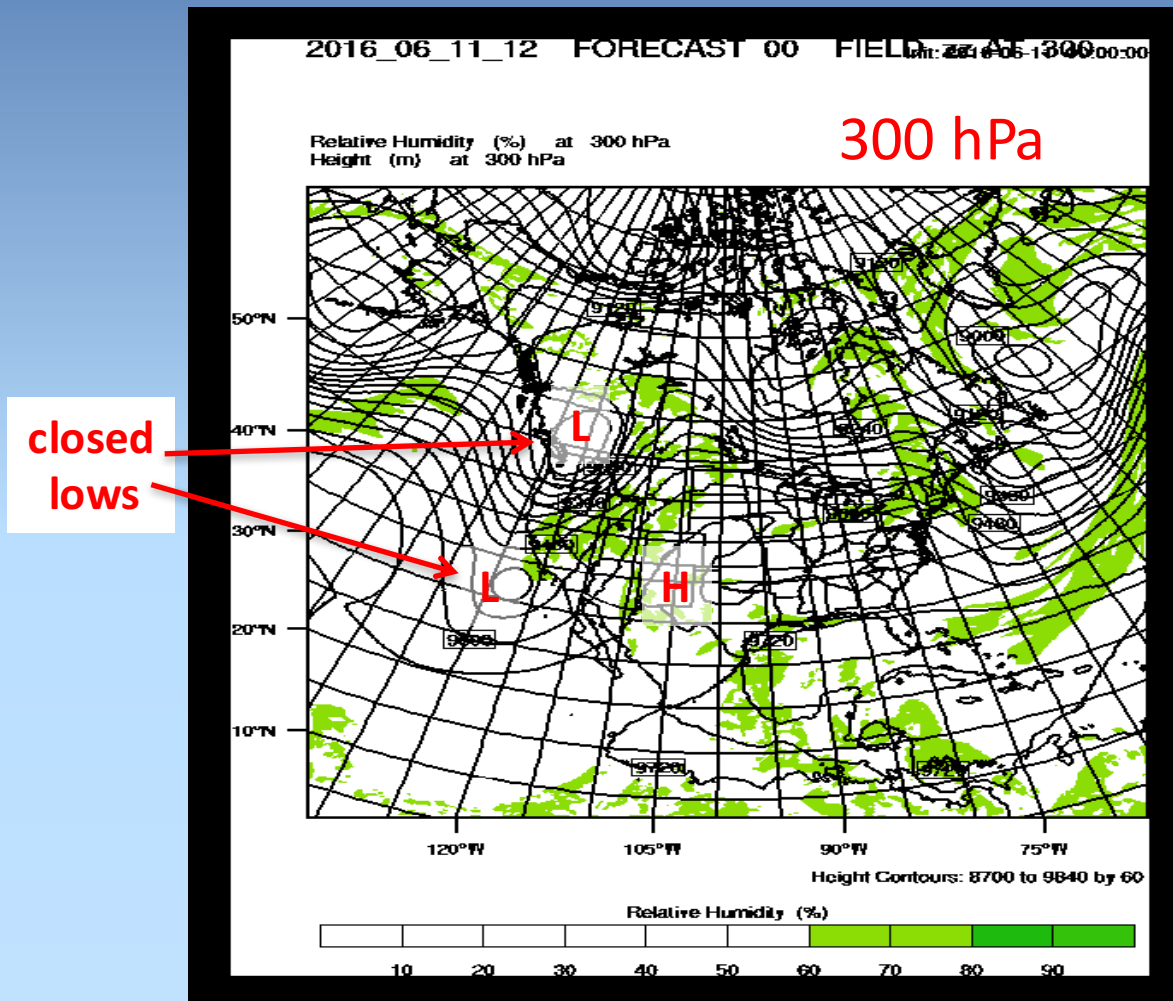
- Intrastate transport (SF, LA Basin)
- Trans-boundary transport (Asia, Mexico)
- Stratospheric intrusions

# CABOTS IOP-1

- Intrastate transport (SF, LA Basin)
- Trans-boundary transport (Asia, Mexico)
- **Stratospheric intrusions (June 12-13)**

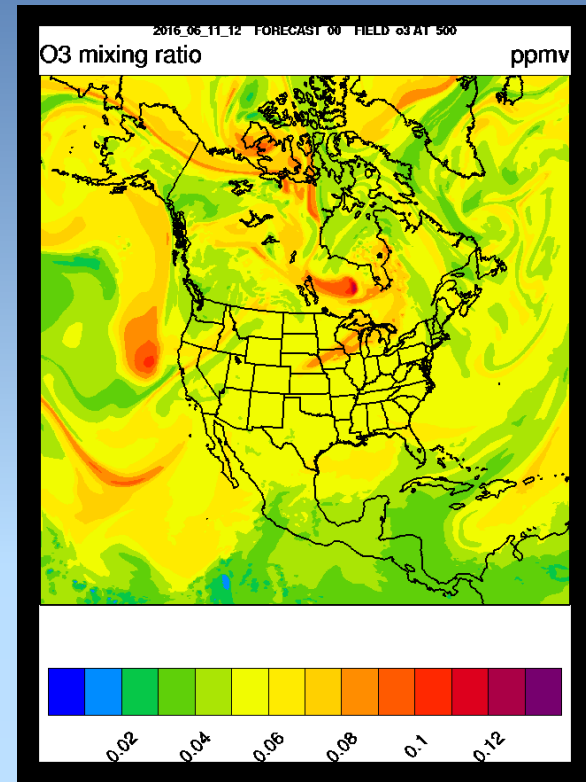
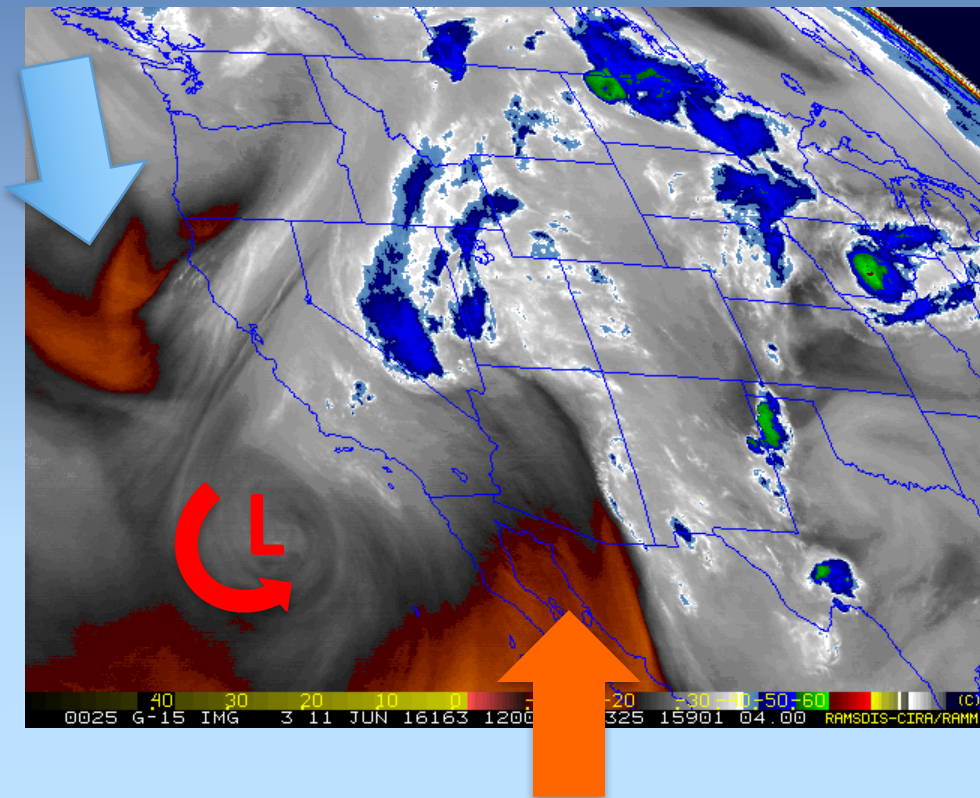
# Deep upper level trough poised off the coast of California

RR-Chem analysis for 12UT (05 PDT on June 11) model + 00h

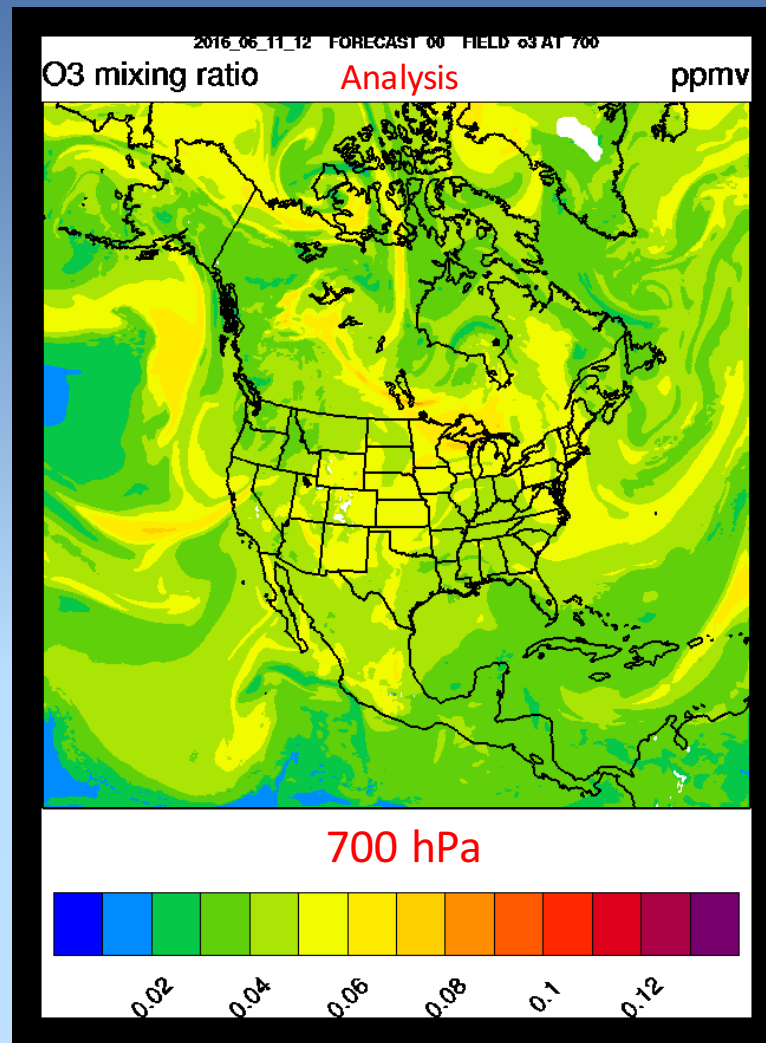
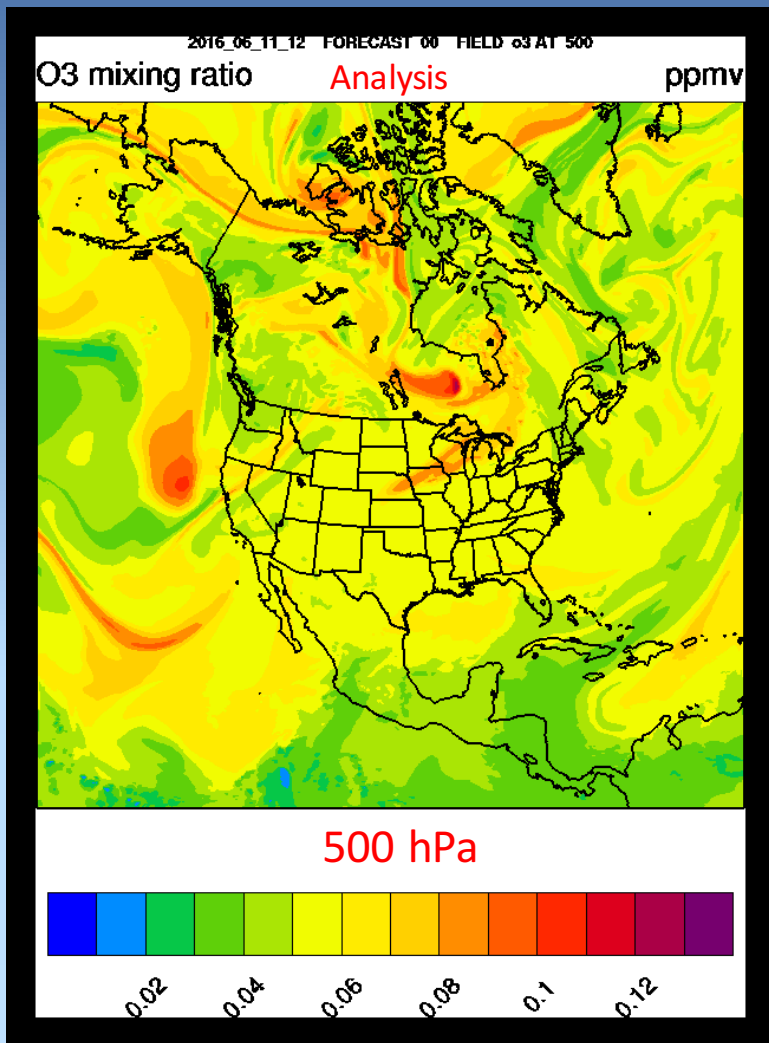


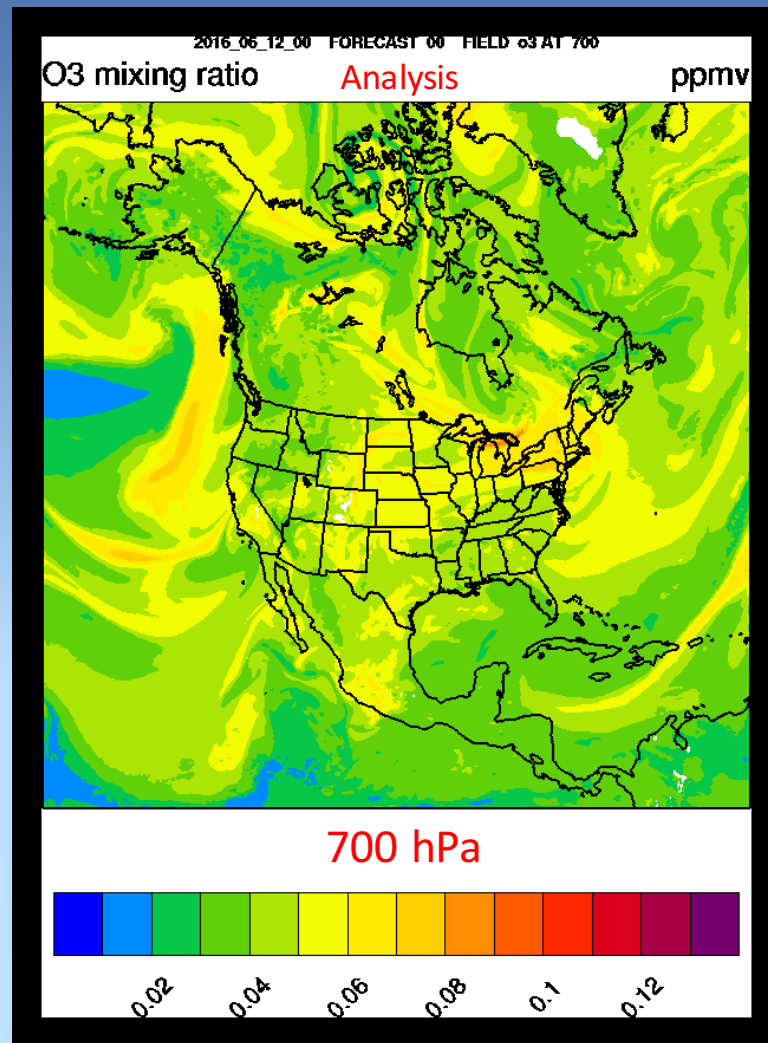
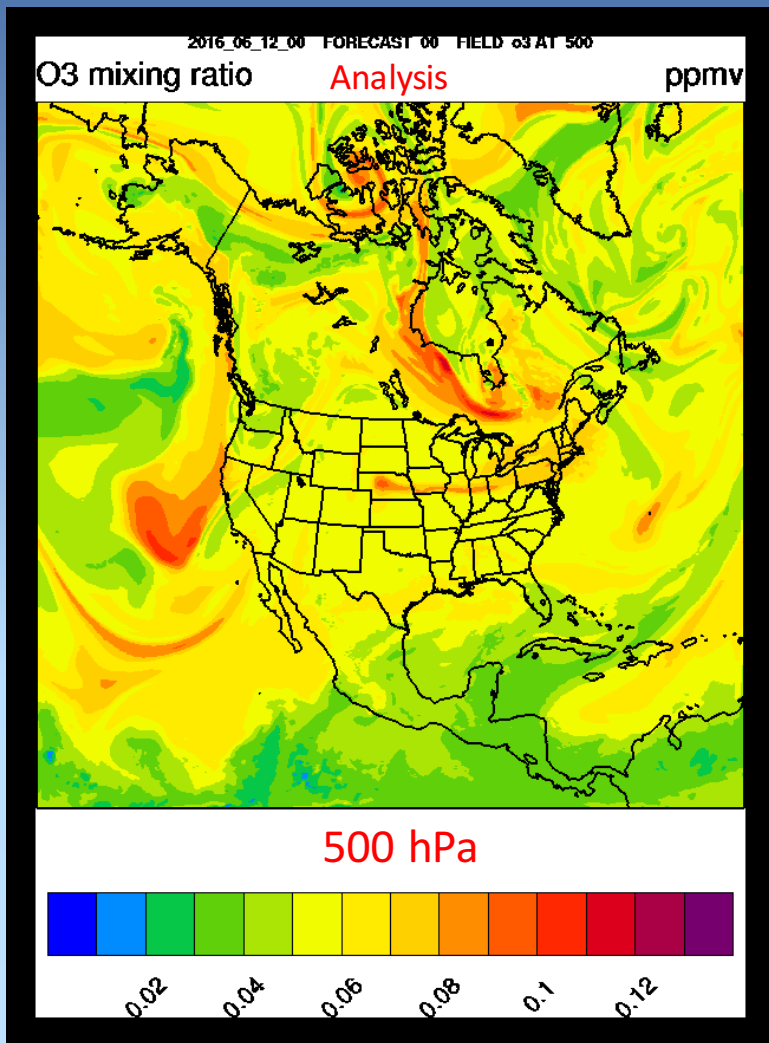
# GOES-WEST IR3 water vapor (left) and RR-Chem ozone forecast at 500 hPa (right)

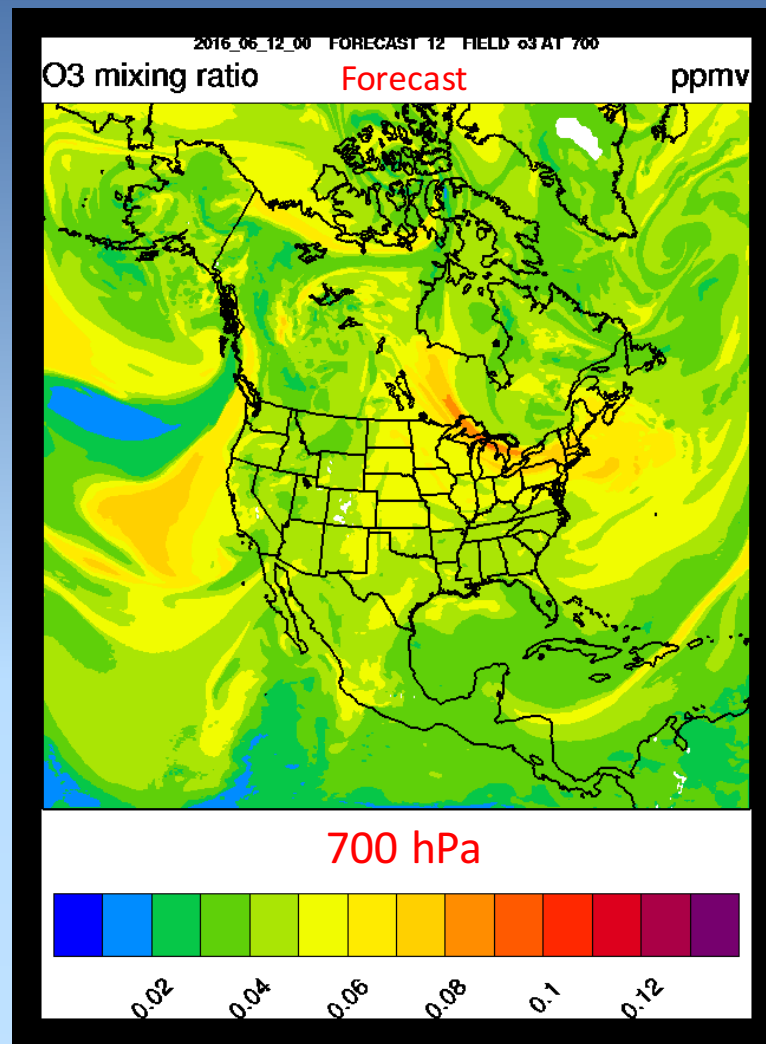
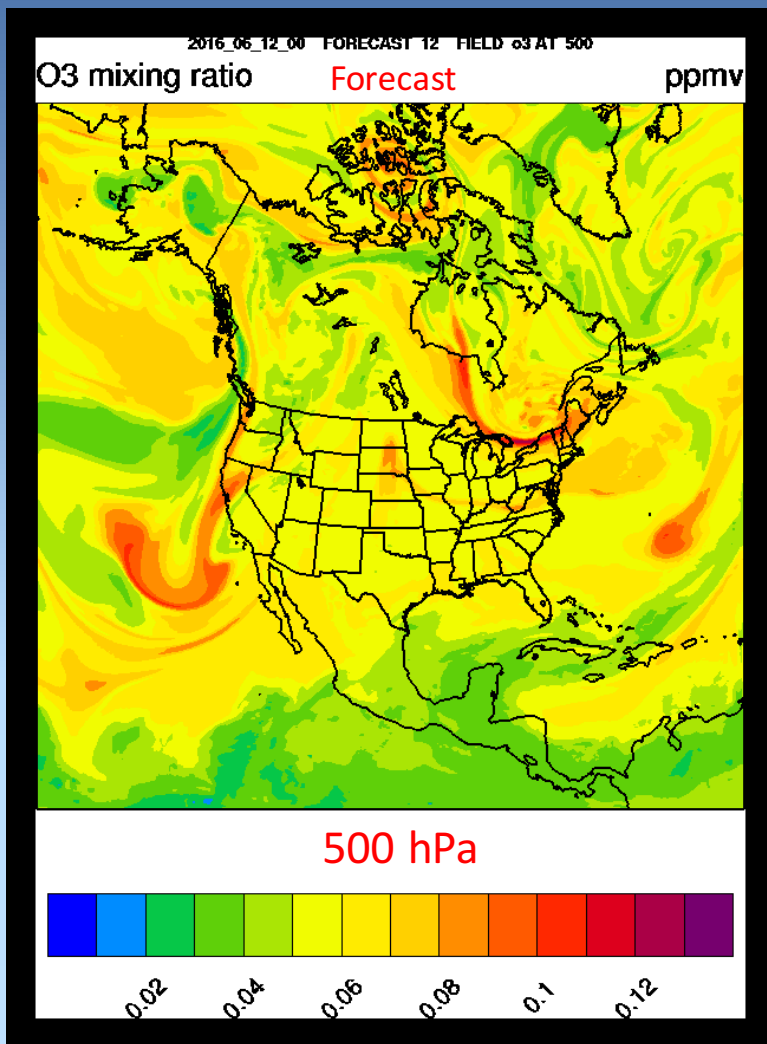
12UT (05 PDT on June 11) model + 00h



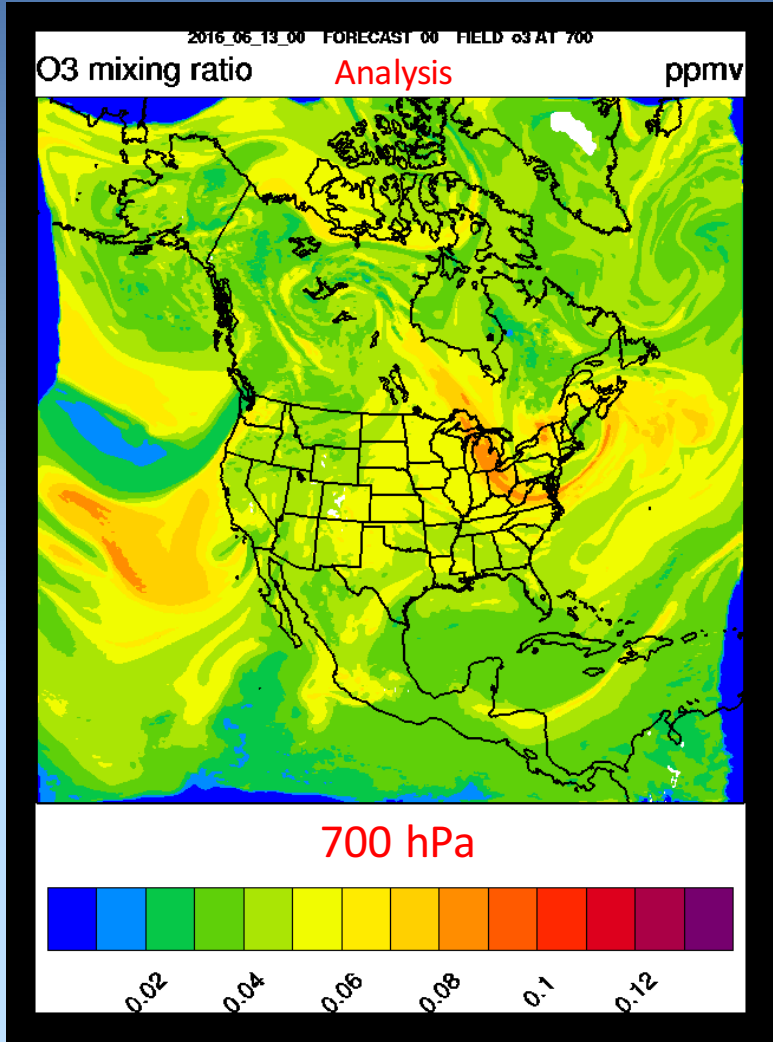
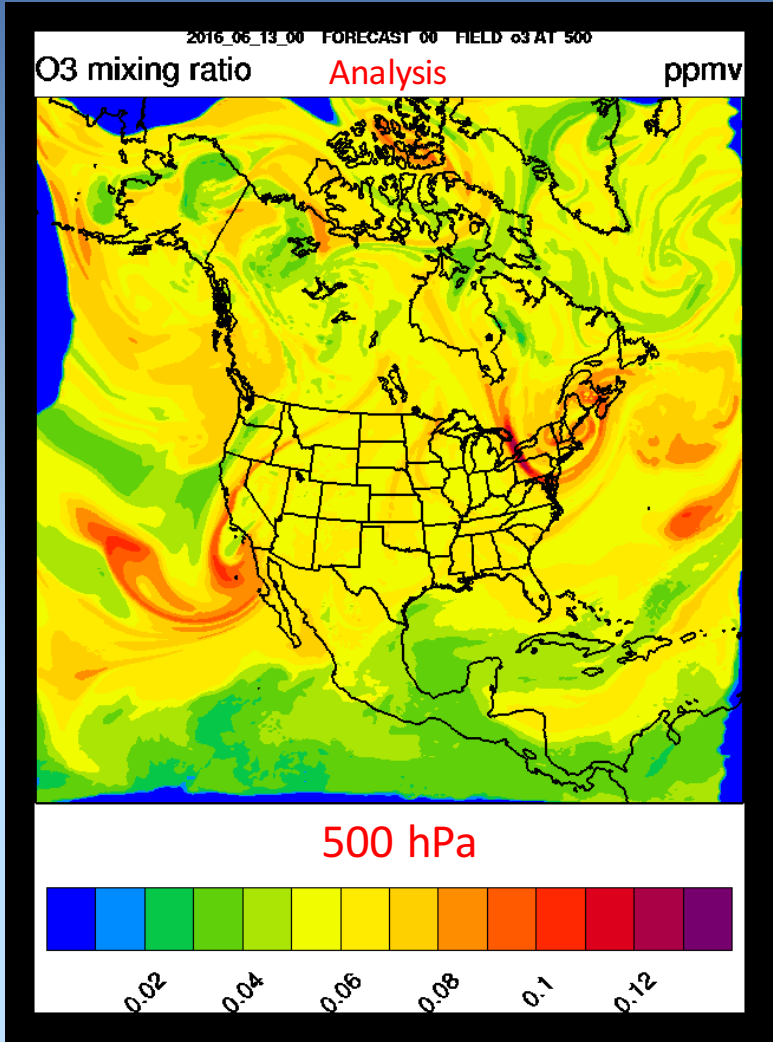
Dry, ozone-rich LS air descends equatorward beneath the jet stream (blue arrow). Dry tropospheric air from Mexico pushes northward and sinks anticyclonically into the Southwest (orange arrow).

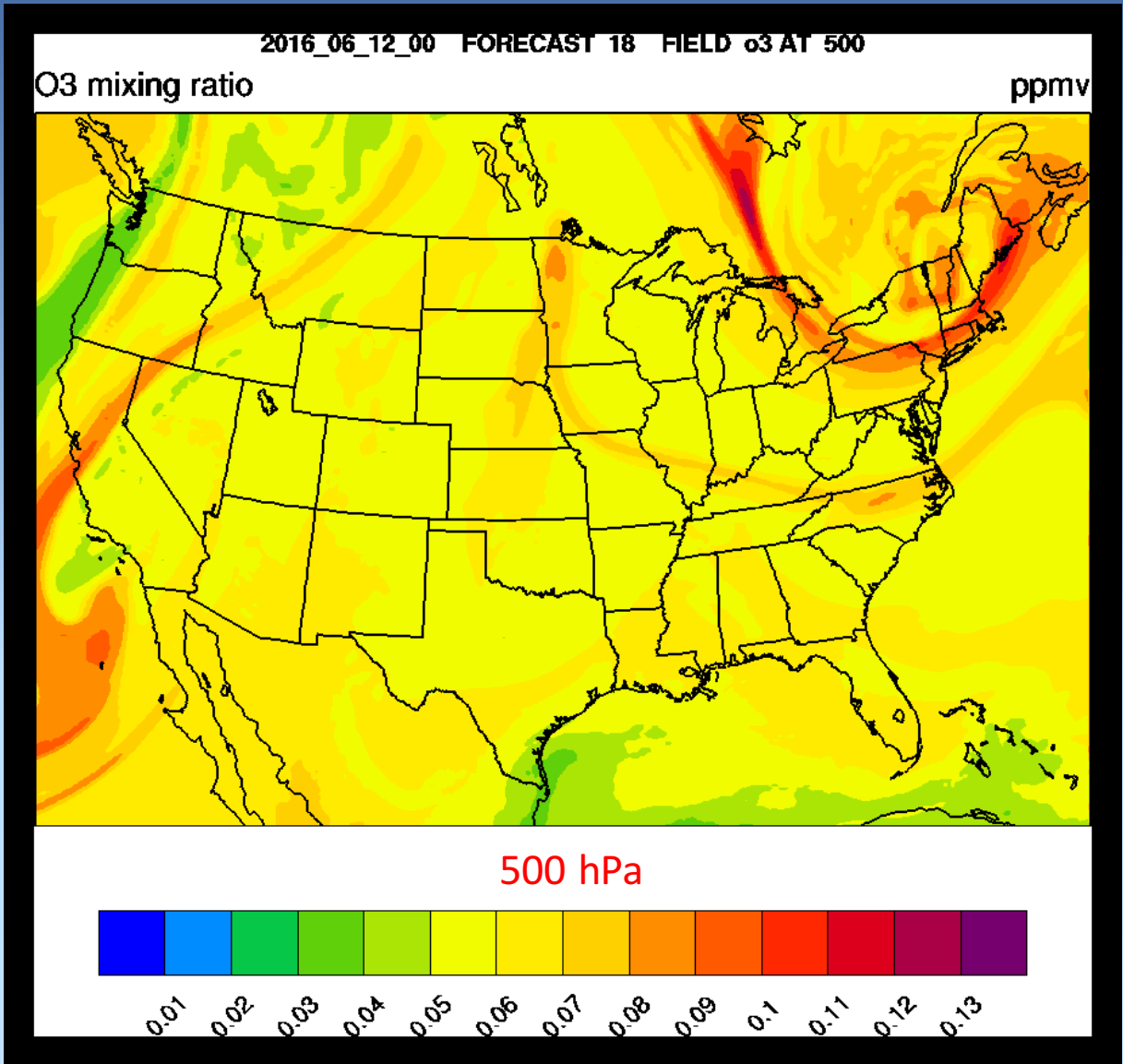


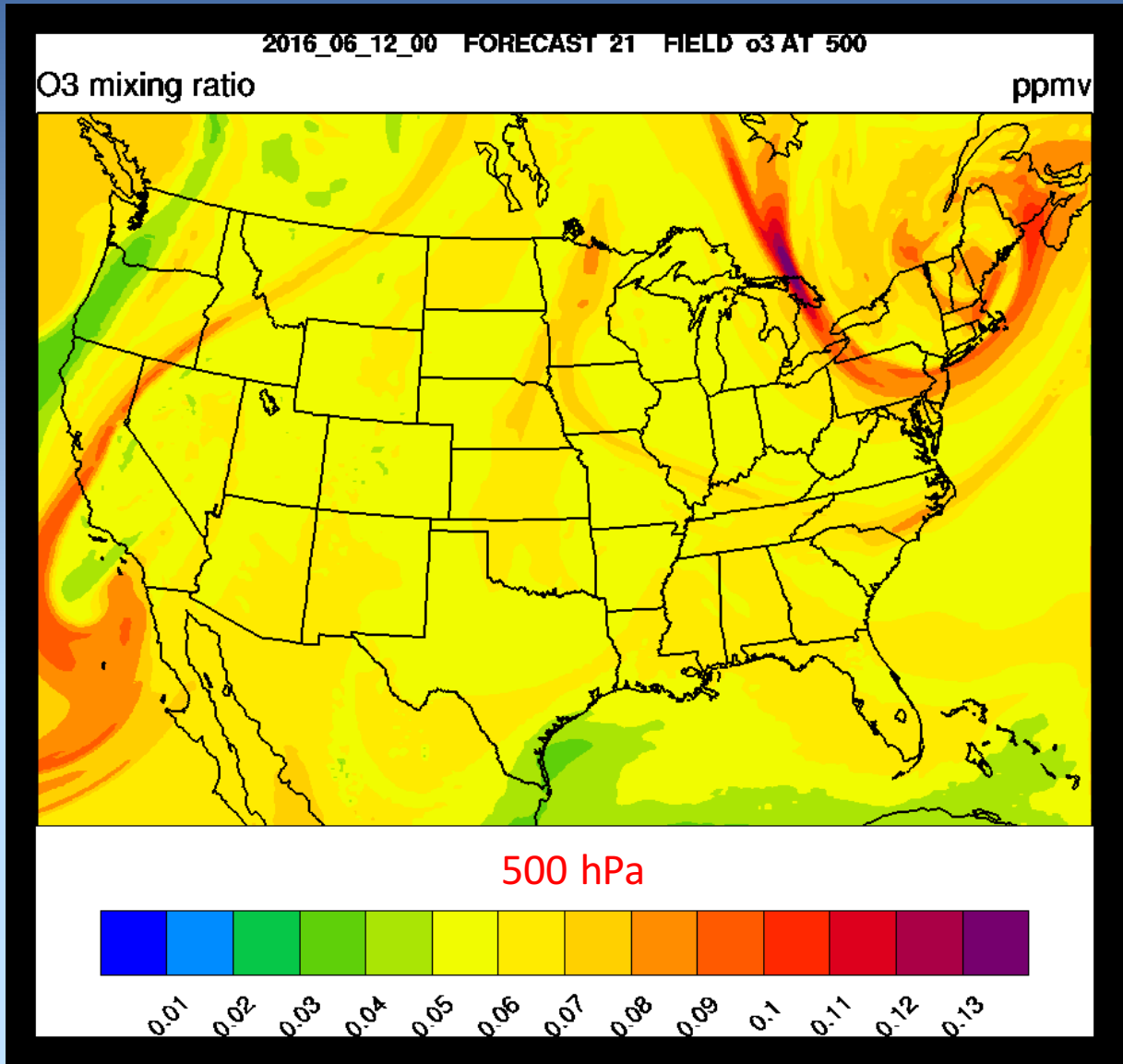


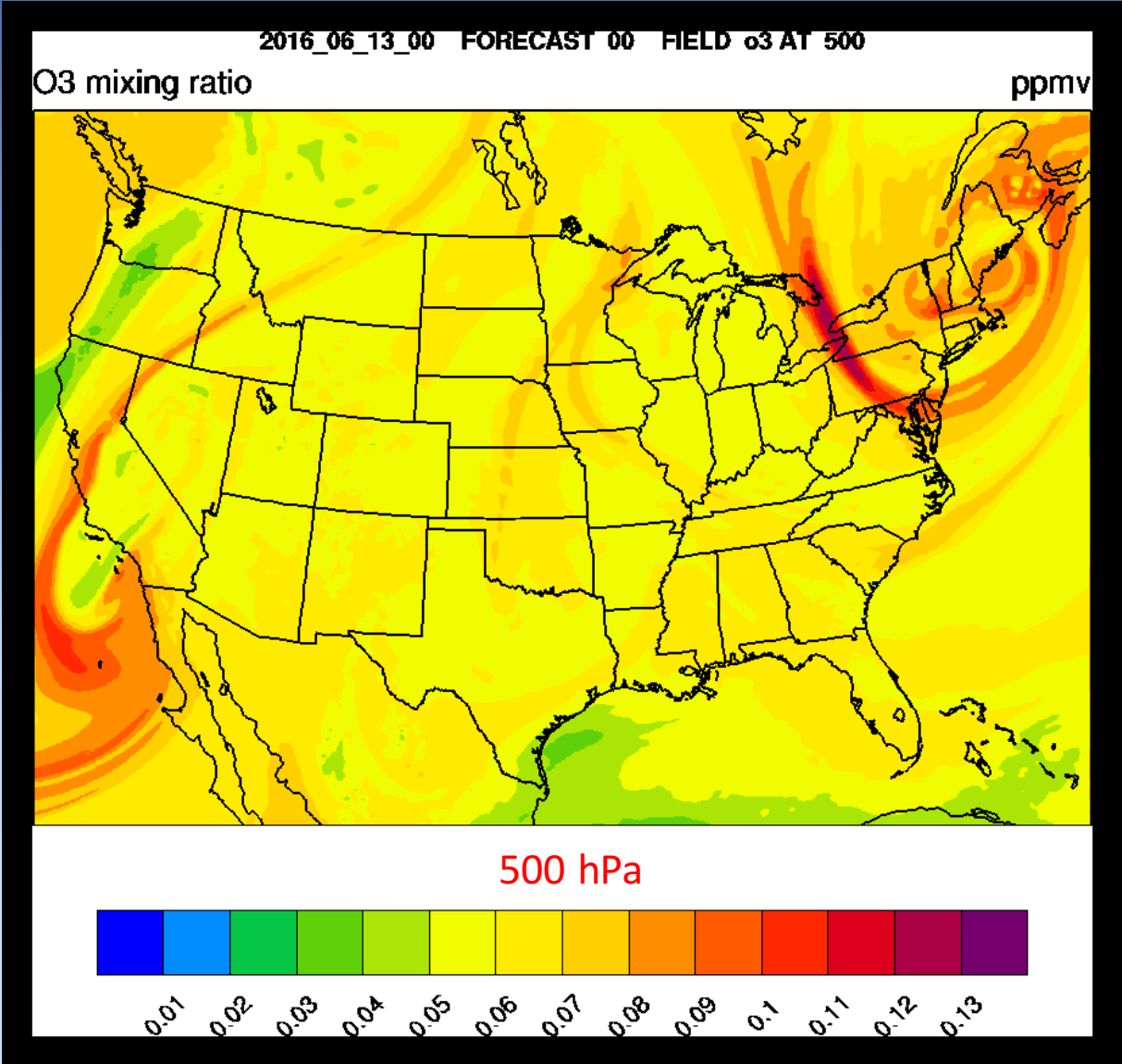


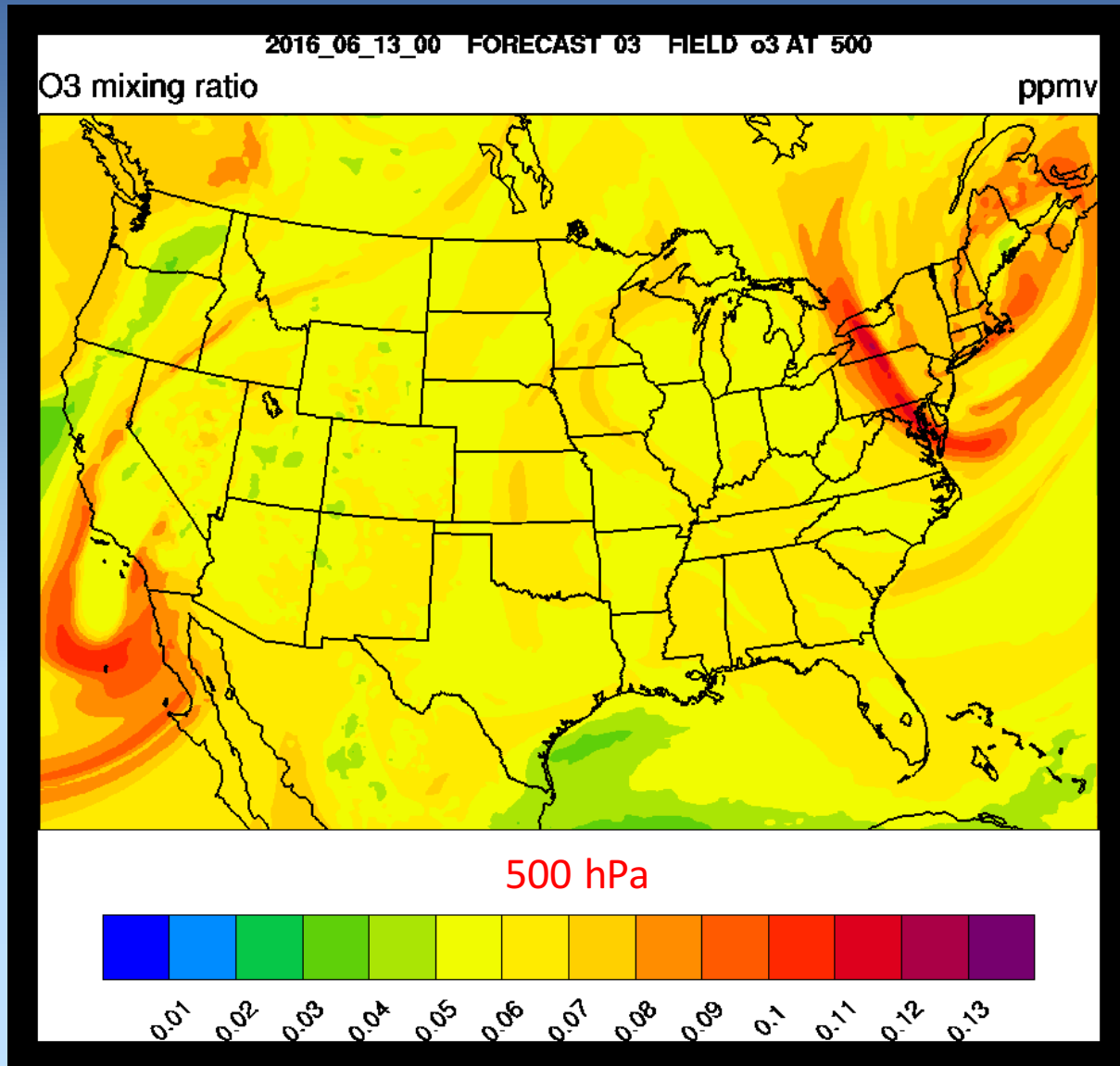


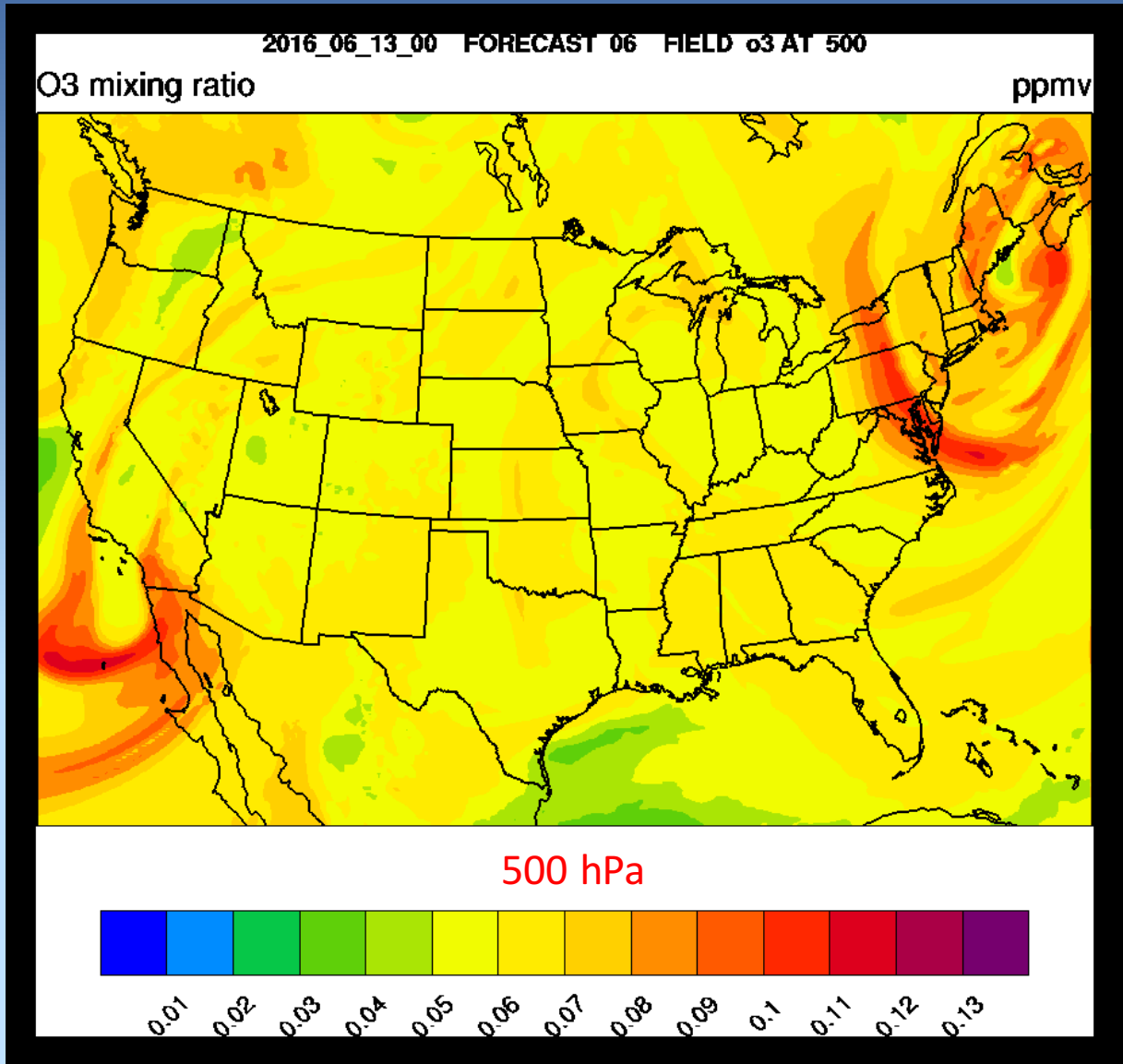


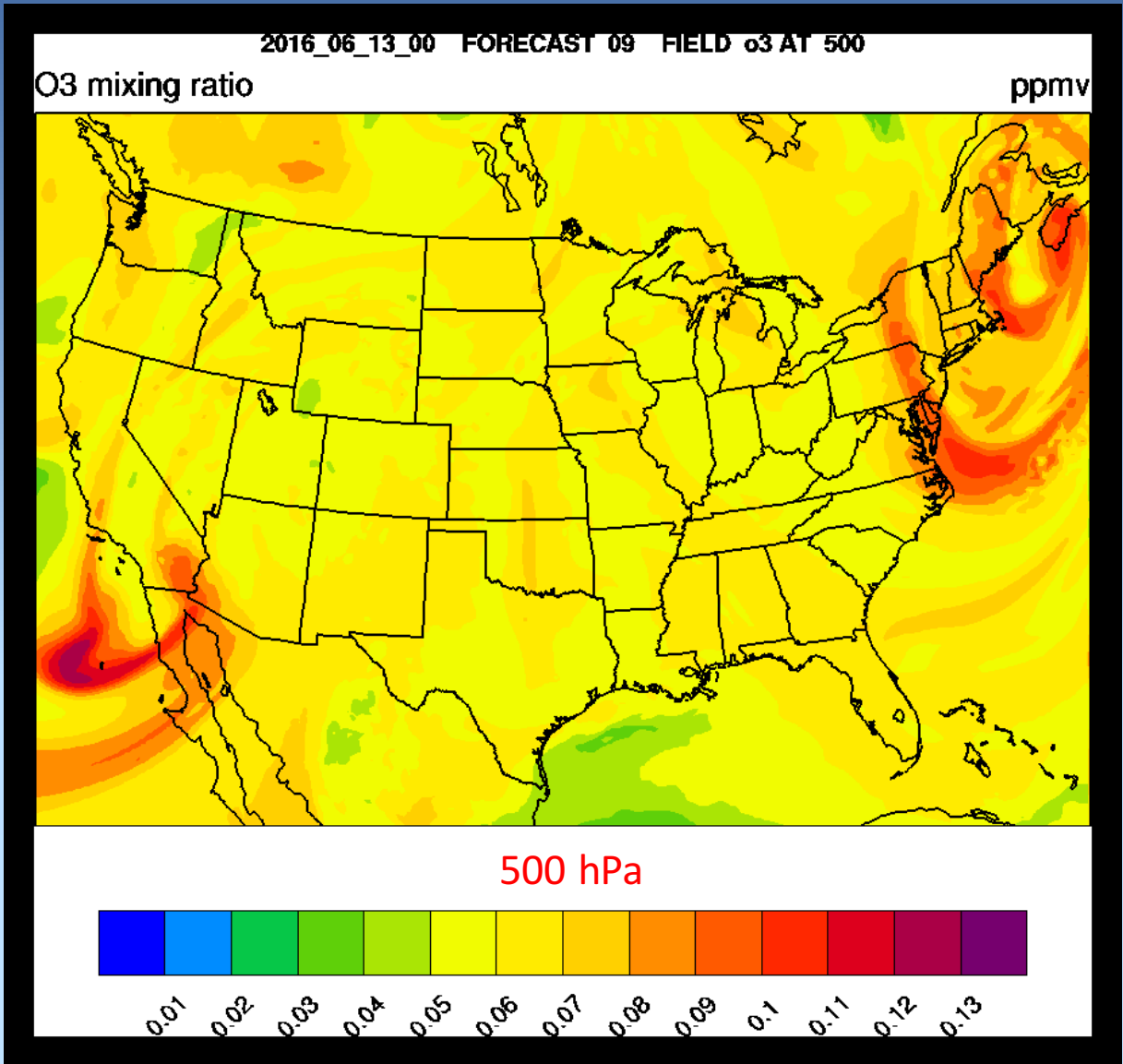


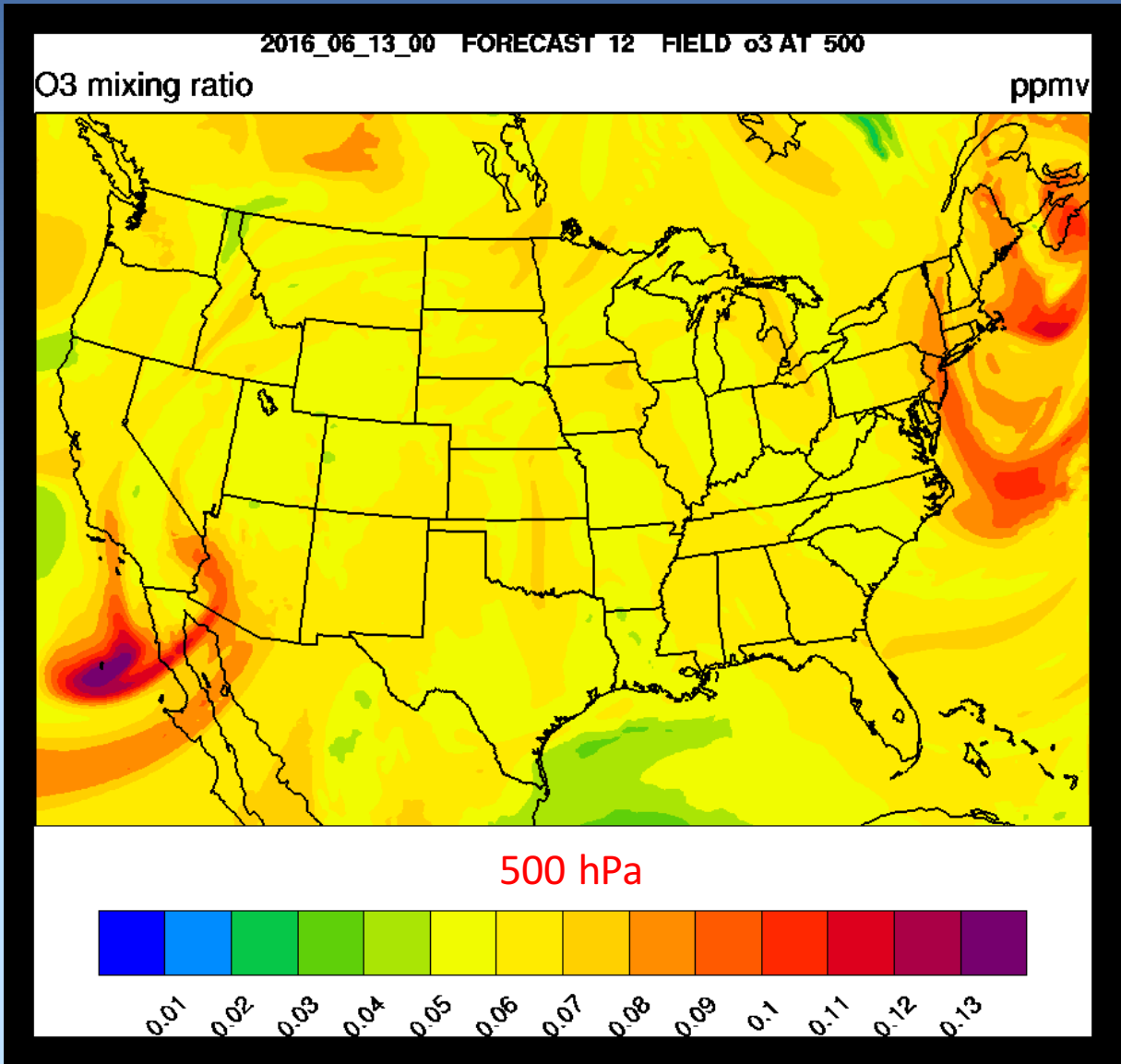




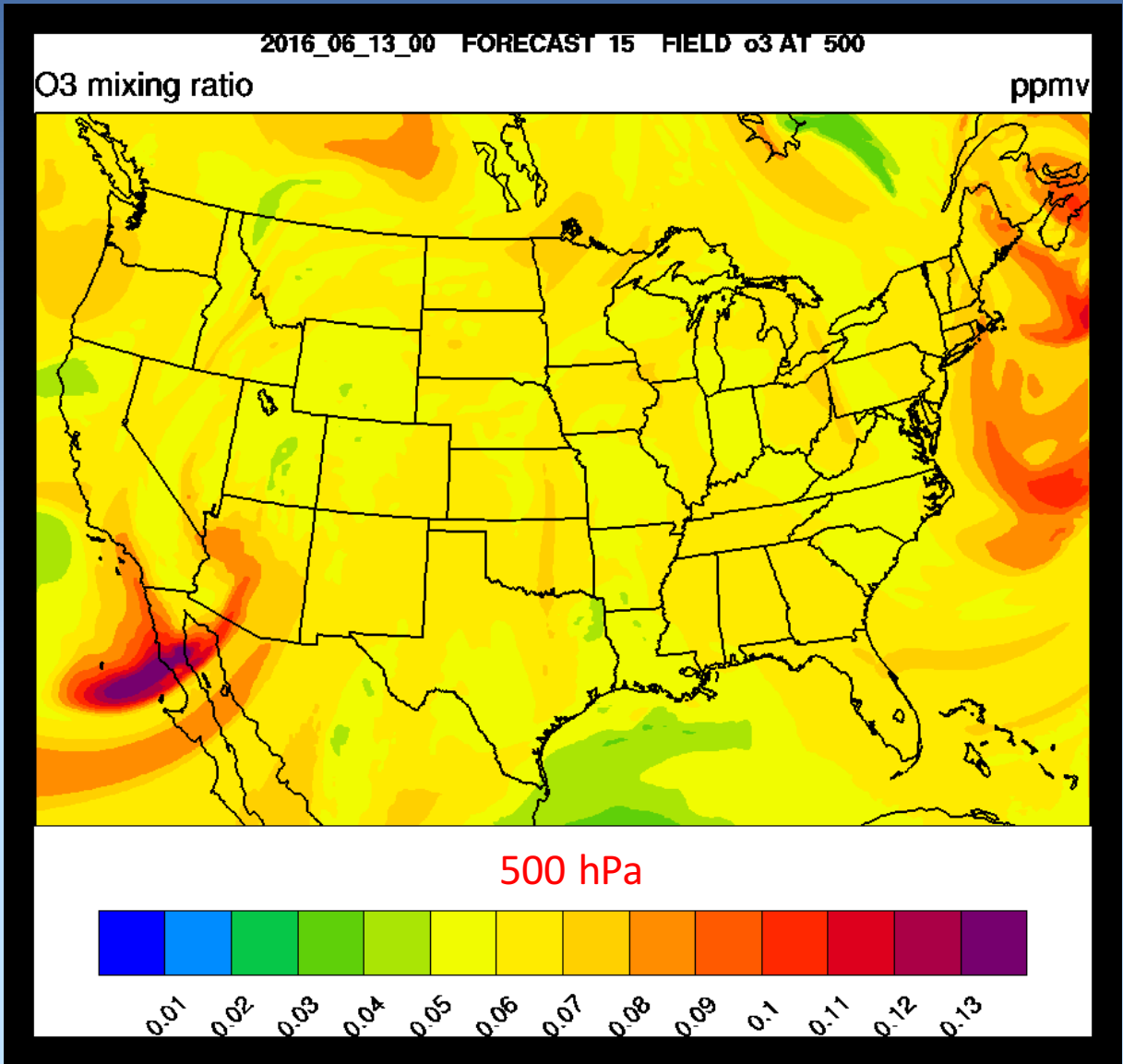


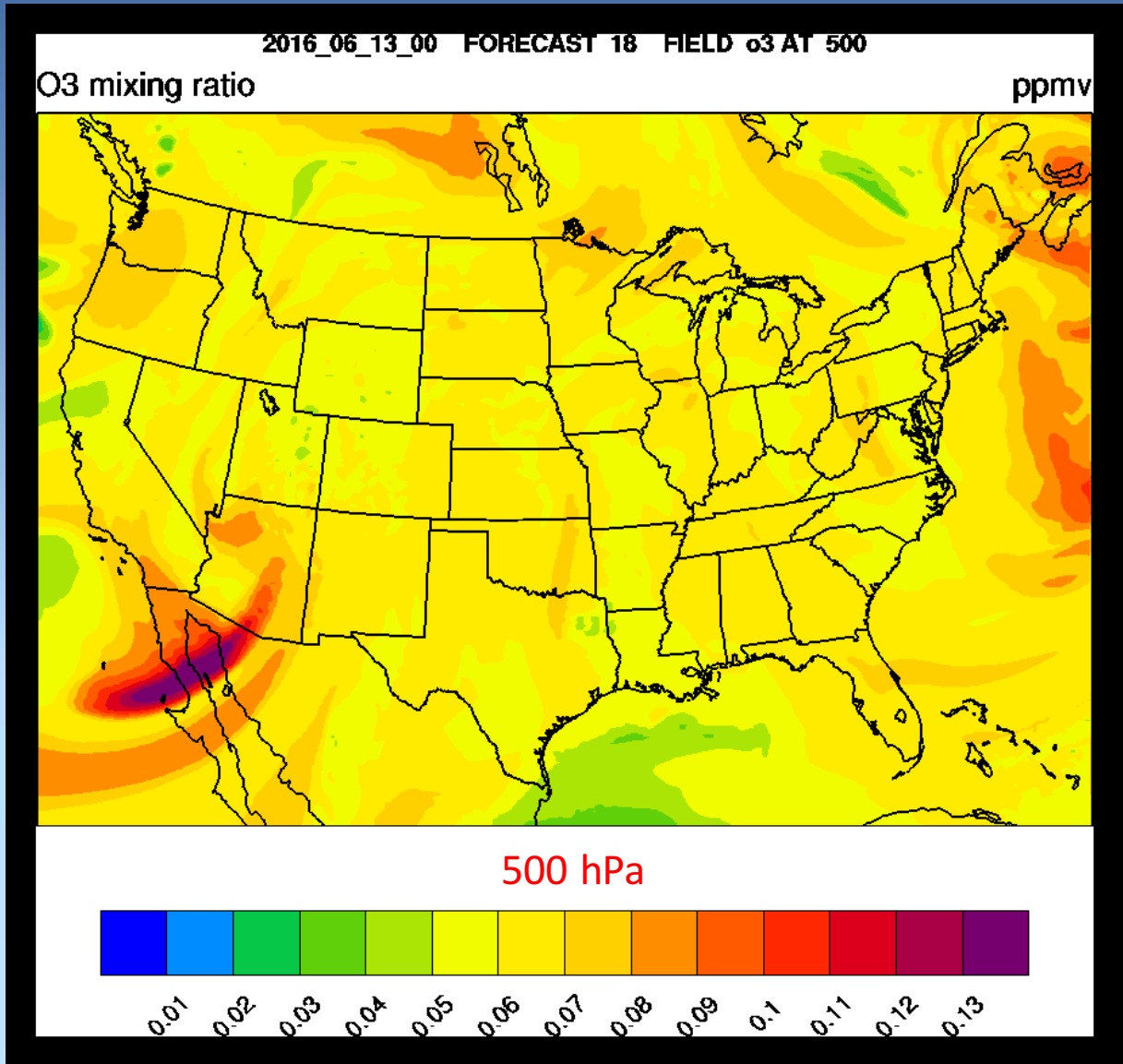




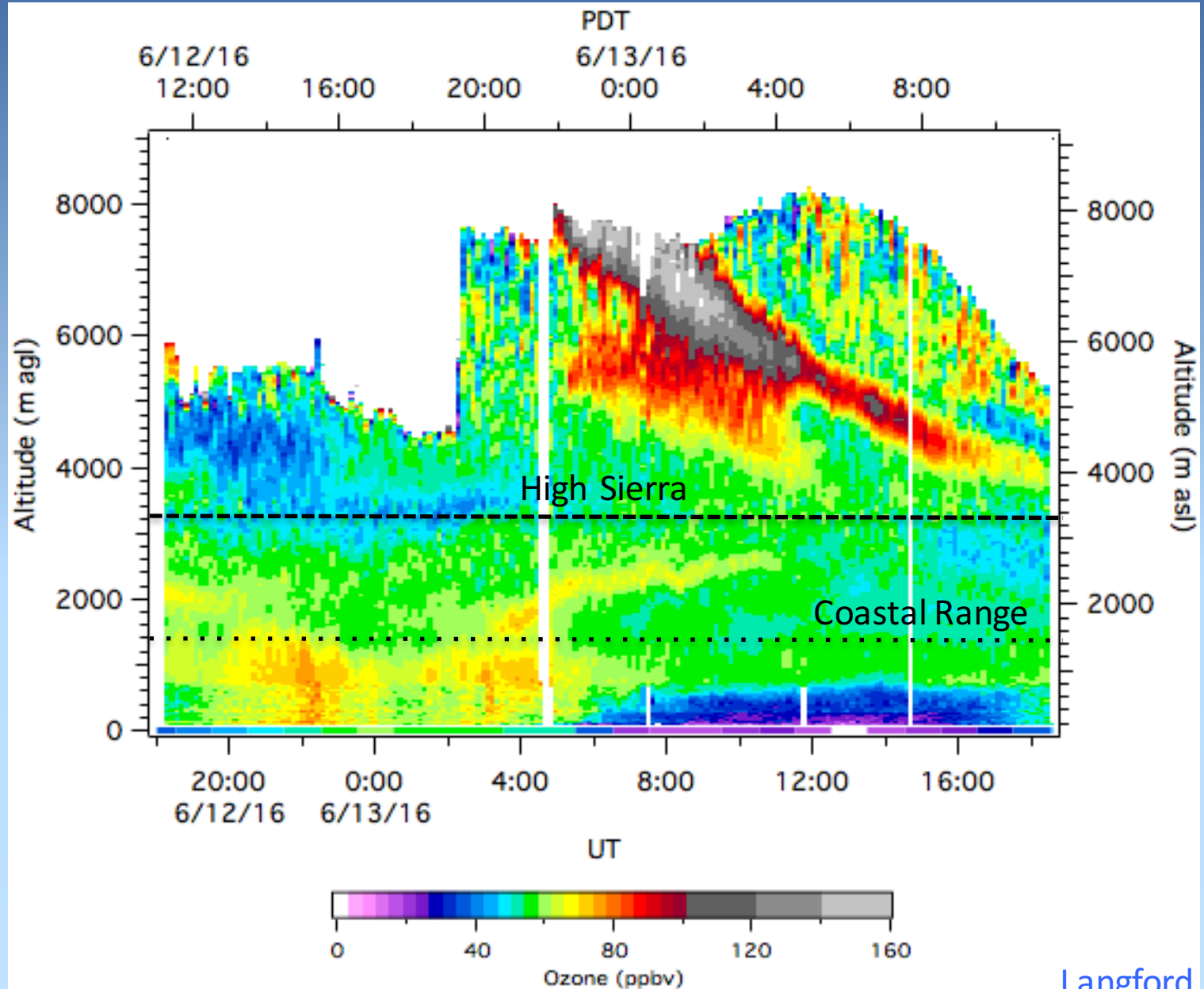




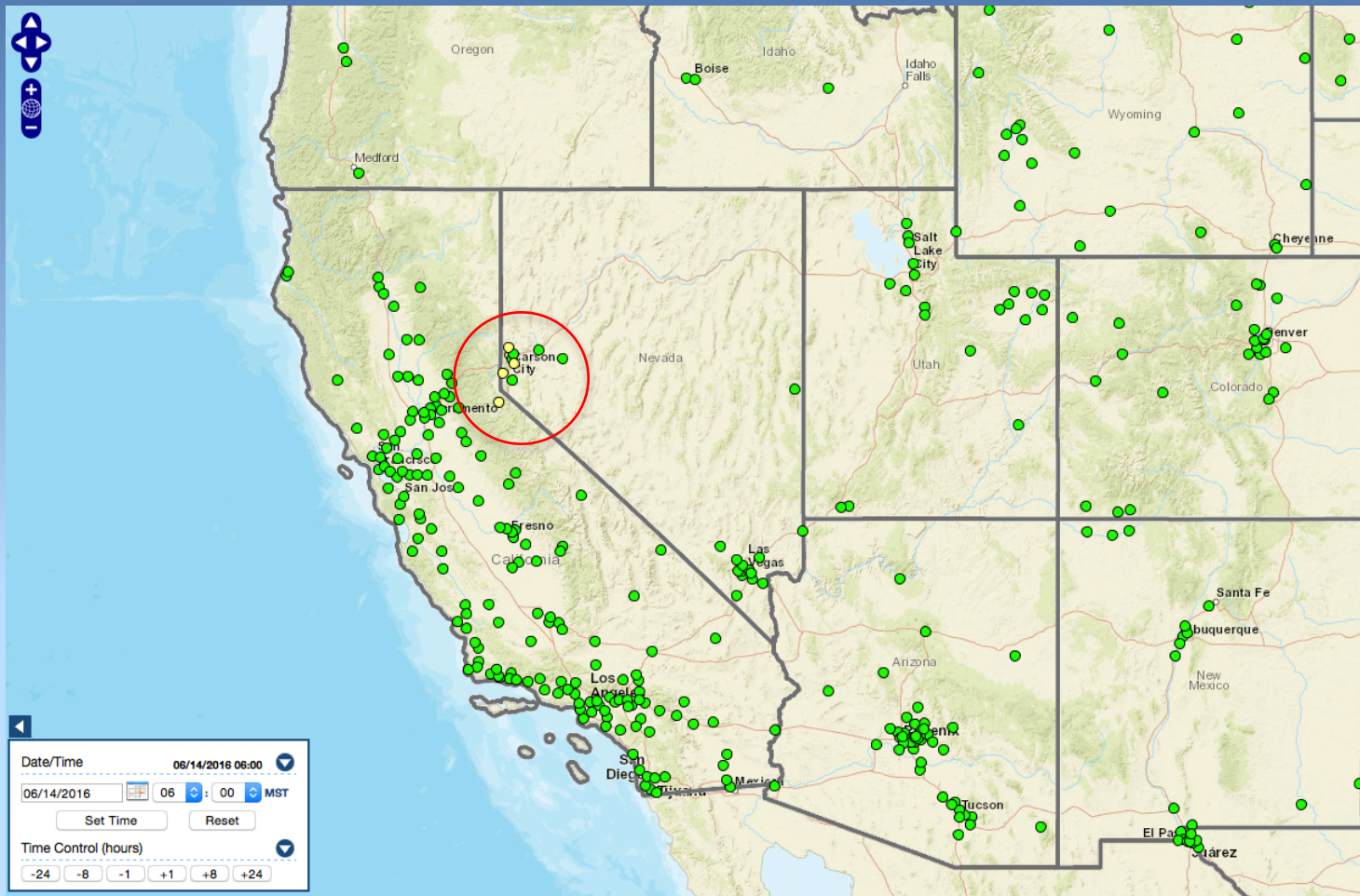




# 24-hour TOPAZ time series (June 12-13, 2016)



# Modest enhancement of surface O<sub>3</sub> near Lake Tahoe



71 ppbv at 0600 PDT June 14

