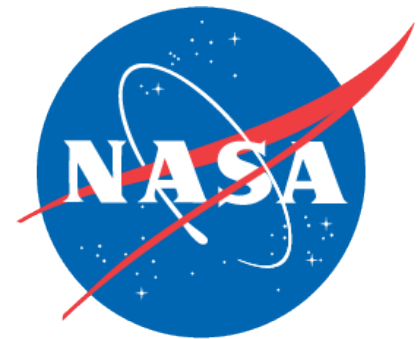


Weather and Air Quality: Reflection and Outlook During Smoke Conditions

Presenter: Megan Christiansen
Date: August 31, 2026

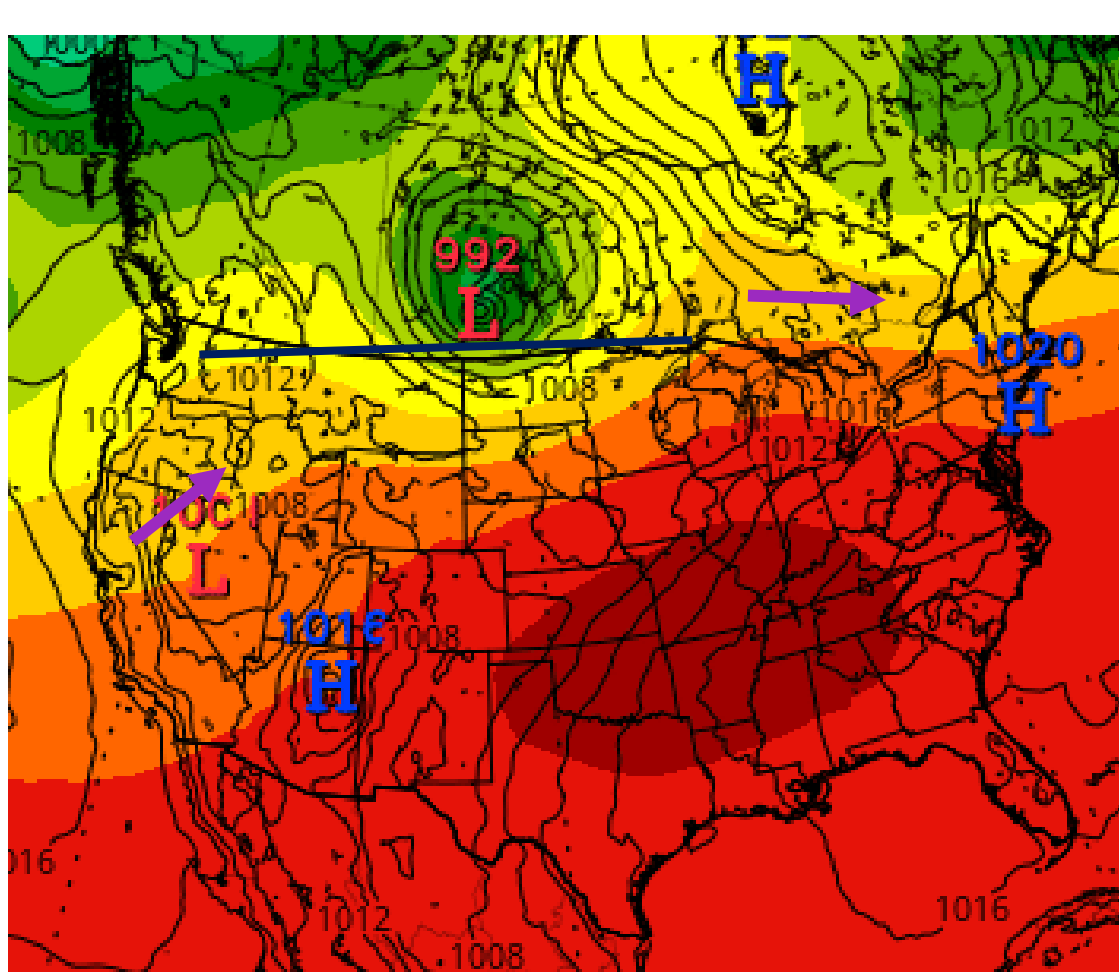


FireAQ is funded by NASA HAQ. We thank NASA GMAO and ECMWF for the model data products.

EARTH SCIENCE
APPLIED SCIENCES

Current Status: August 31, 2026

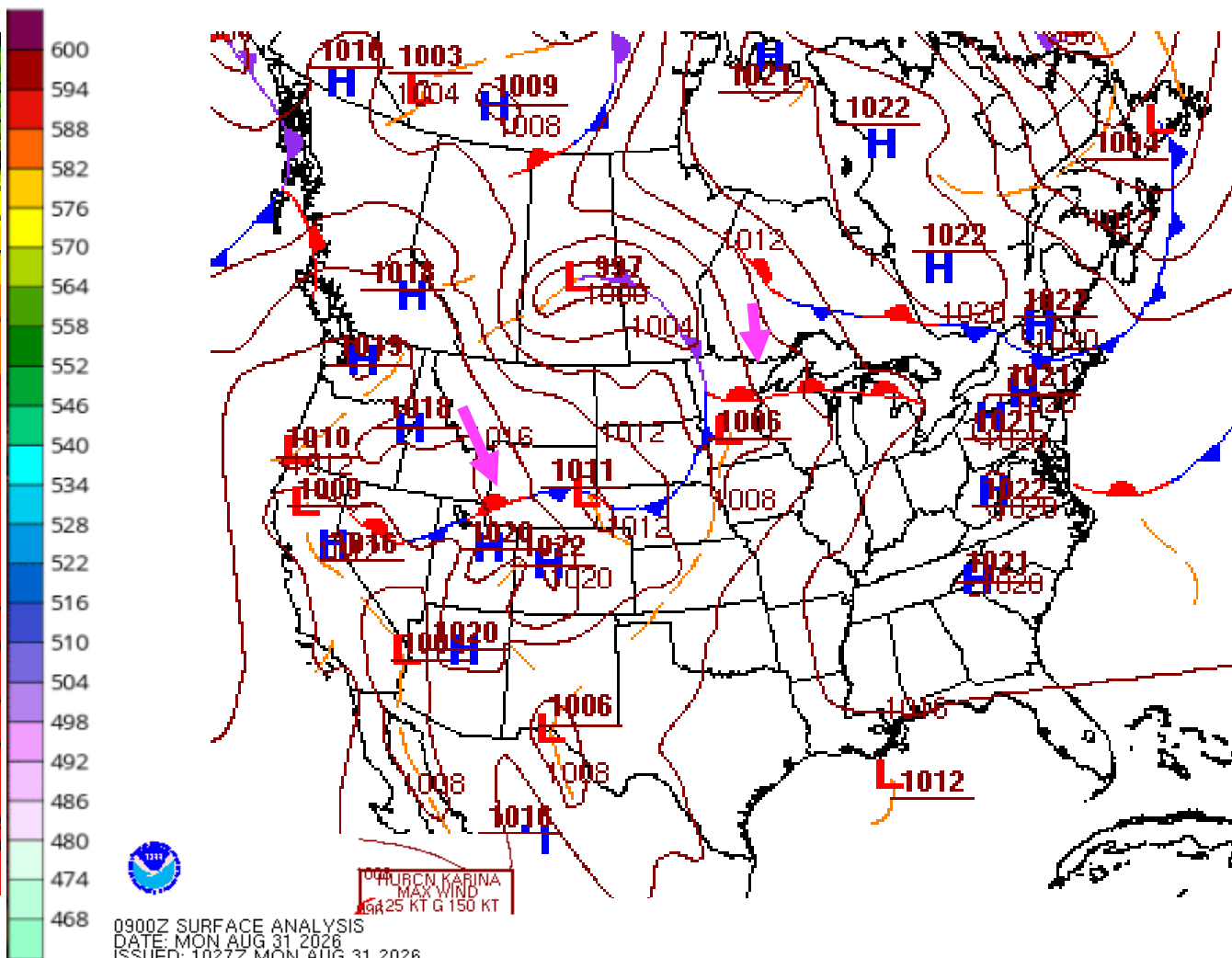
500 mb Contours



GFS 500mb Geopotential Height (dam) & MSLP (mb)

Init: 06z Aug 31 2026 Forecast Hour: [12] valid at 18z Mon, Aug 31 2026

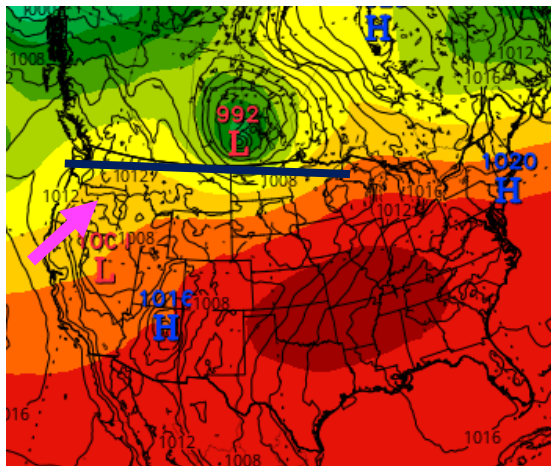
Surface Analysis



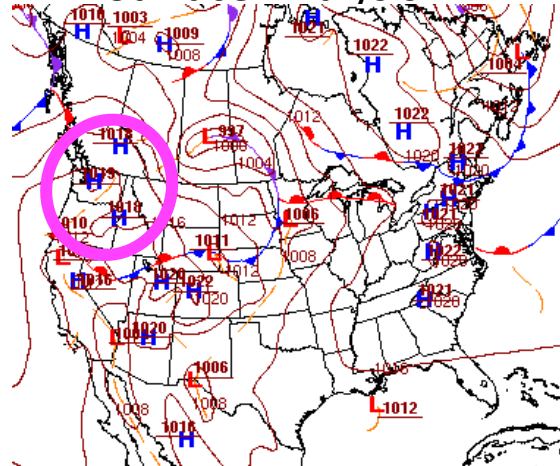
0900Z SURFACE ANALYSIS
DATE: MON AUG 31 2026
ISSUED: 1027Z MON AUG 31 2026
BY WPC ANALYST GREEN
COLLABORATING CENTERS: WPC, NHC, OPC

Current Status: August 31, 2026

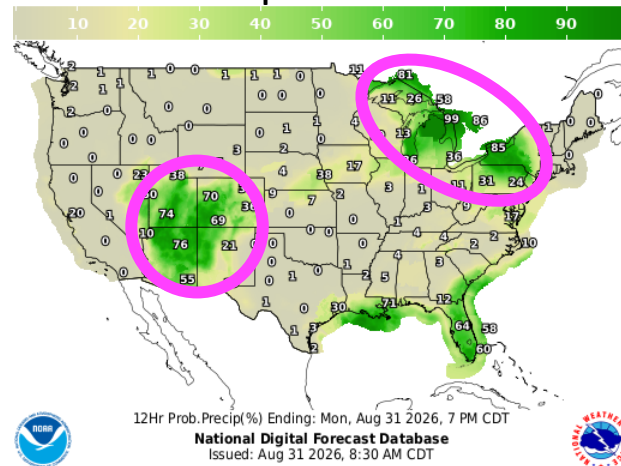
500 mb Contours



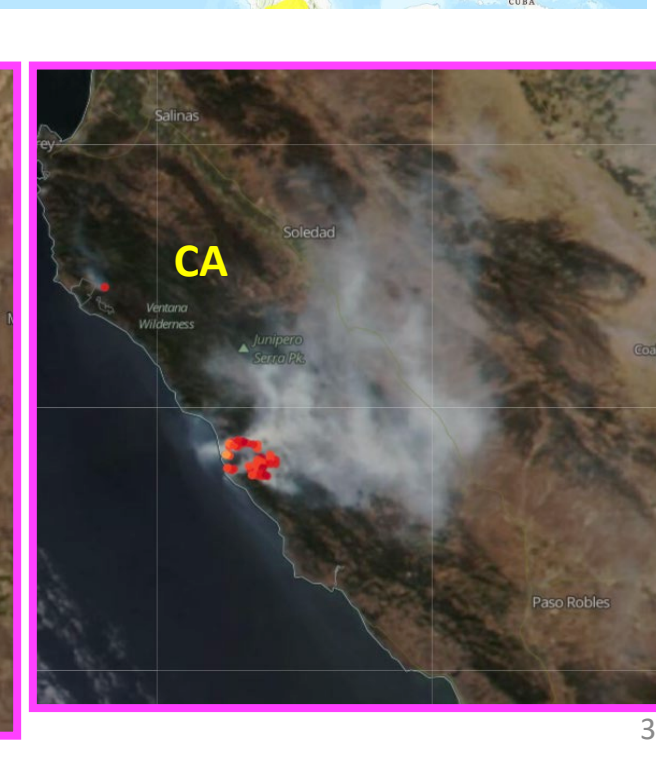
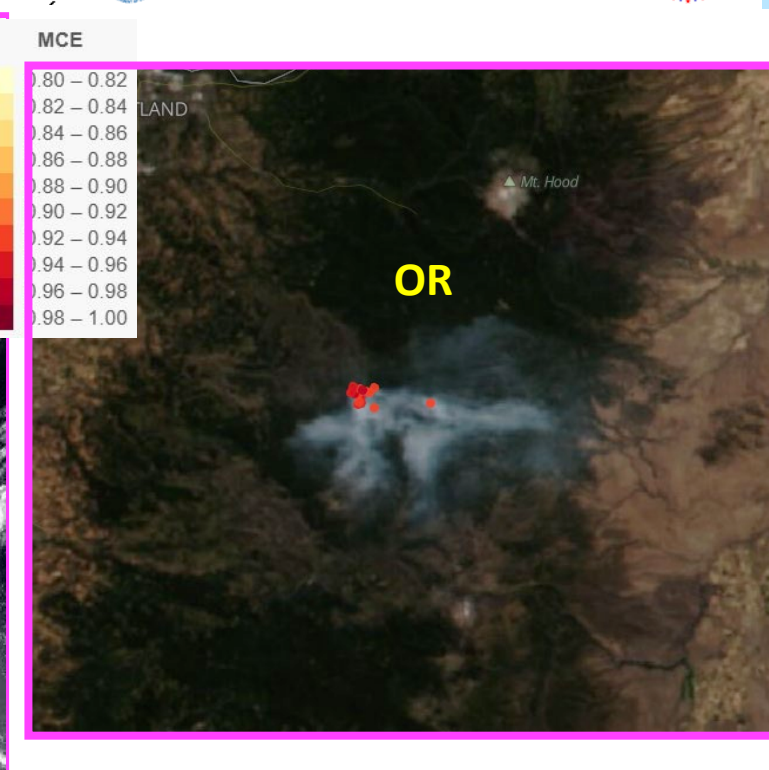
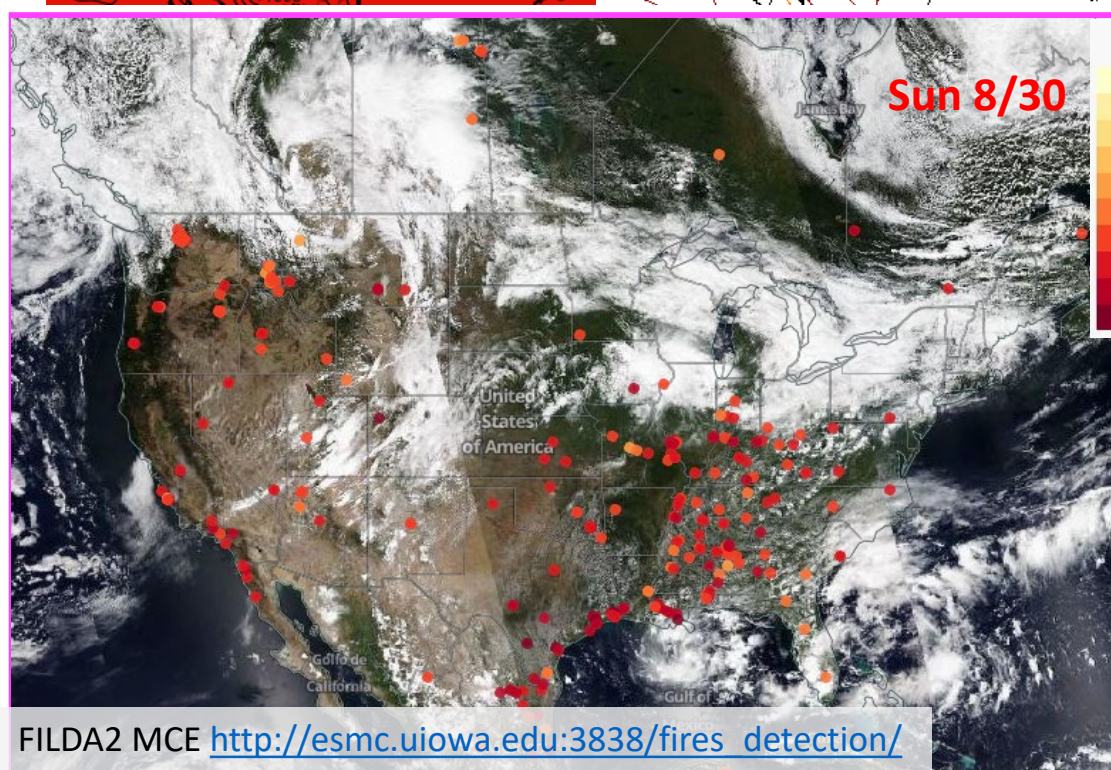
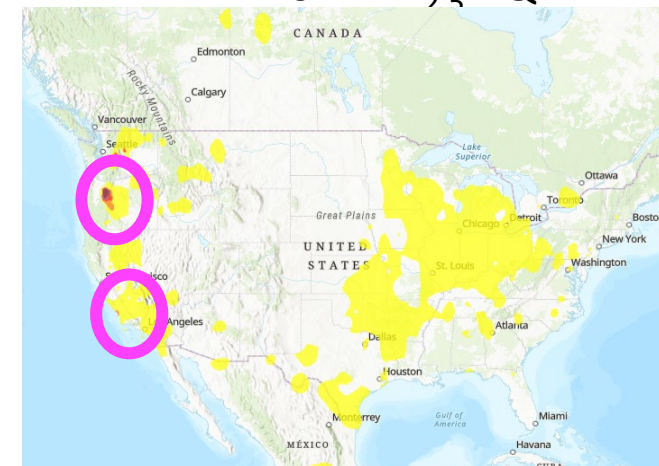
Surface Analysis



Precip. Prob.

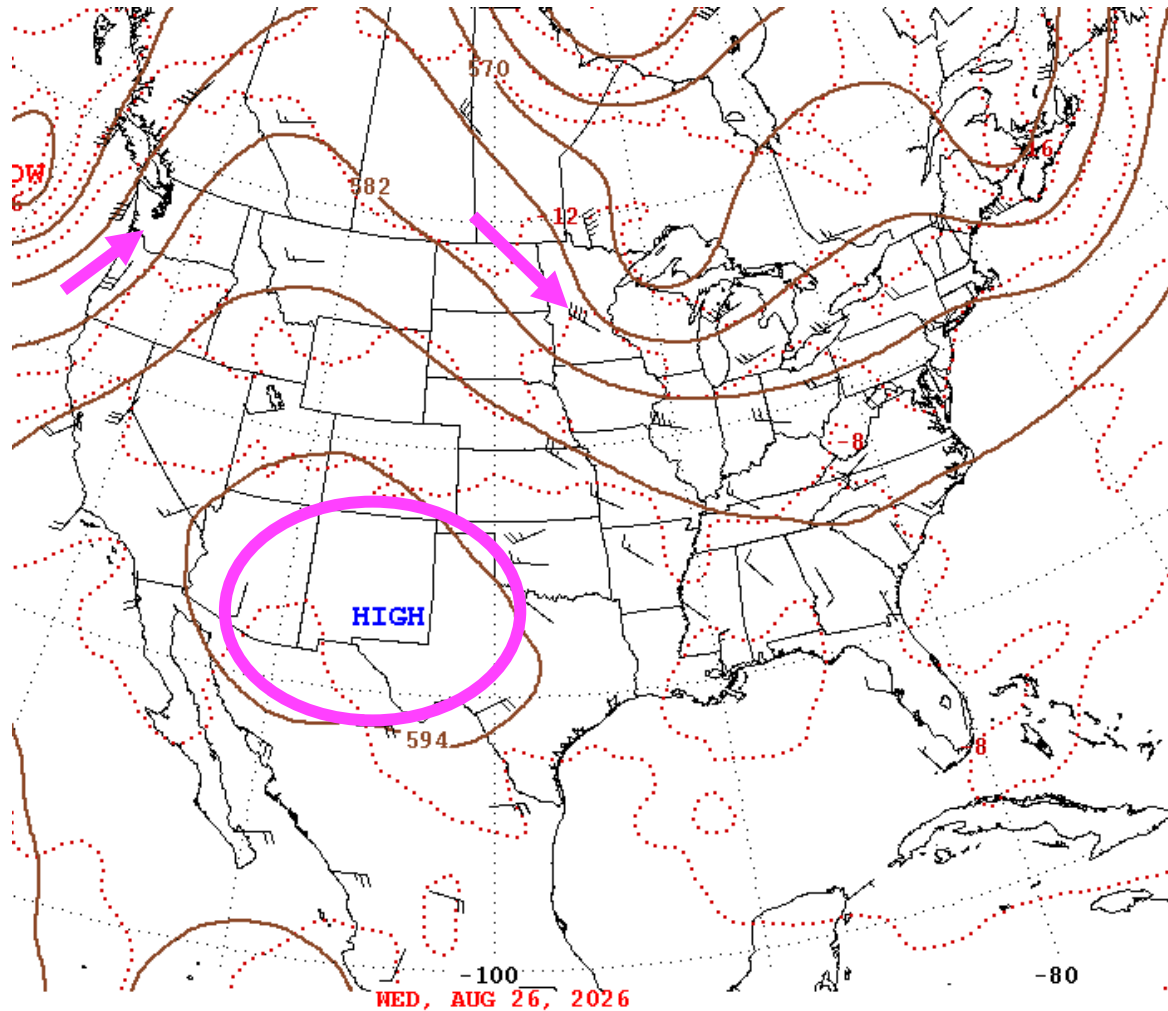


AirNow PM_{2.5} AQI



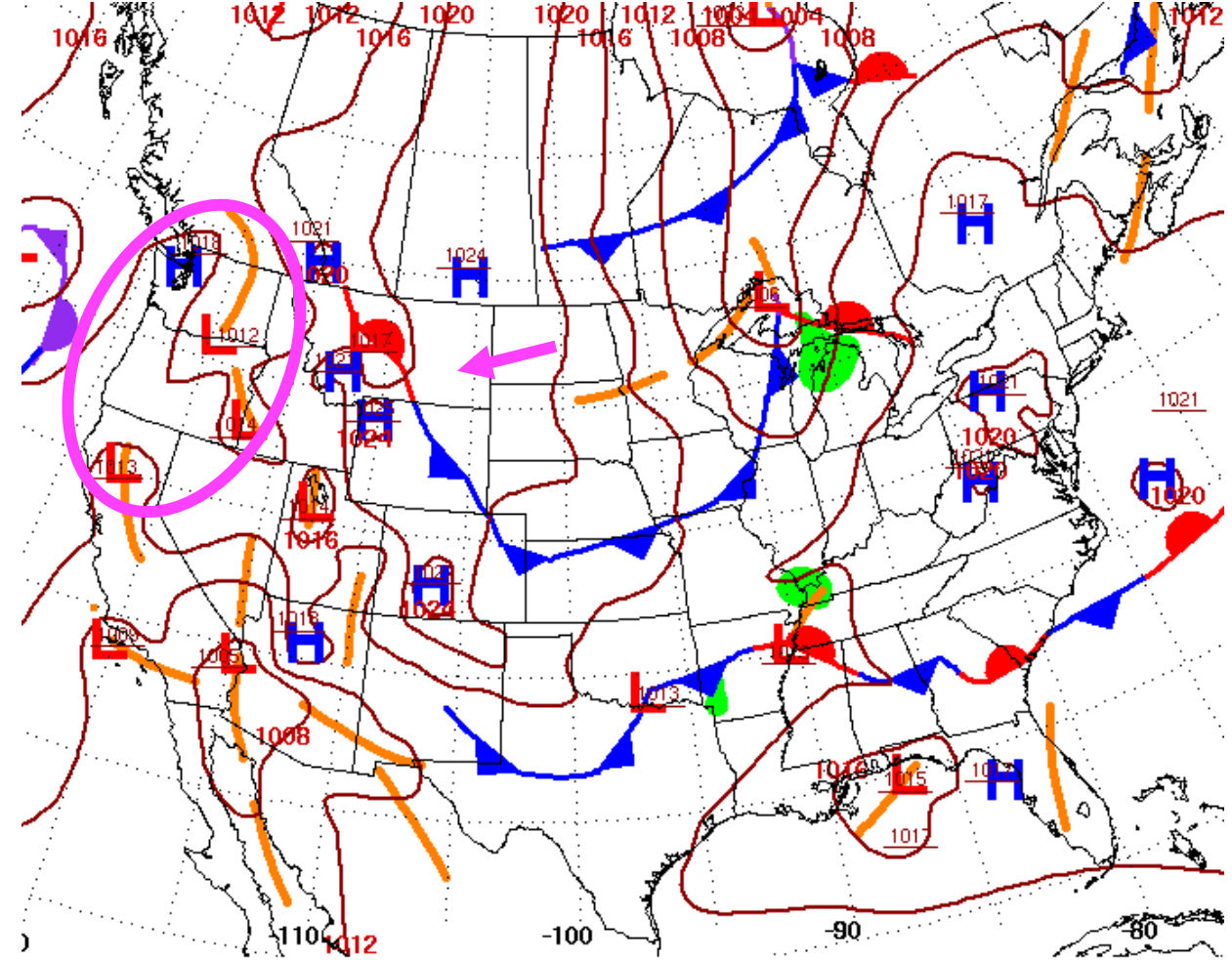
Air Quality Reflection: Wed Aug 26, 2026

500 mb Contours



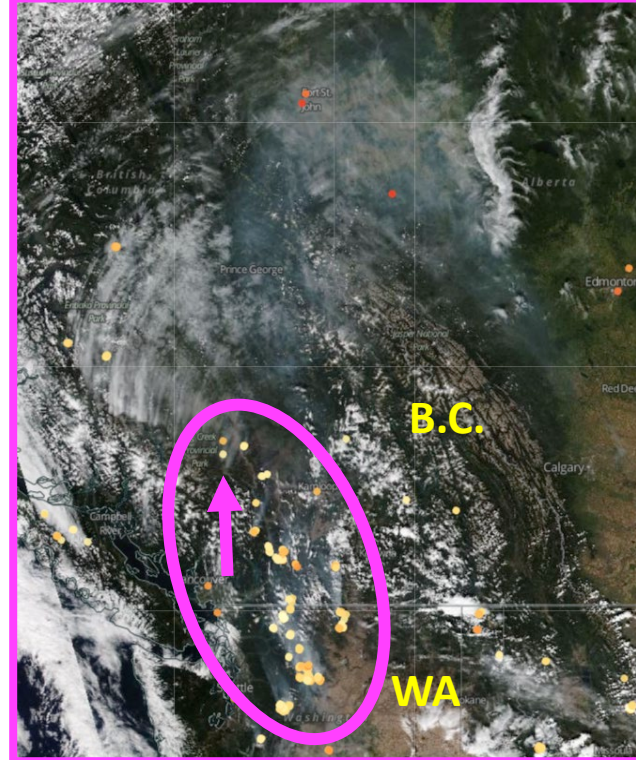
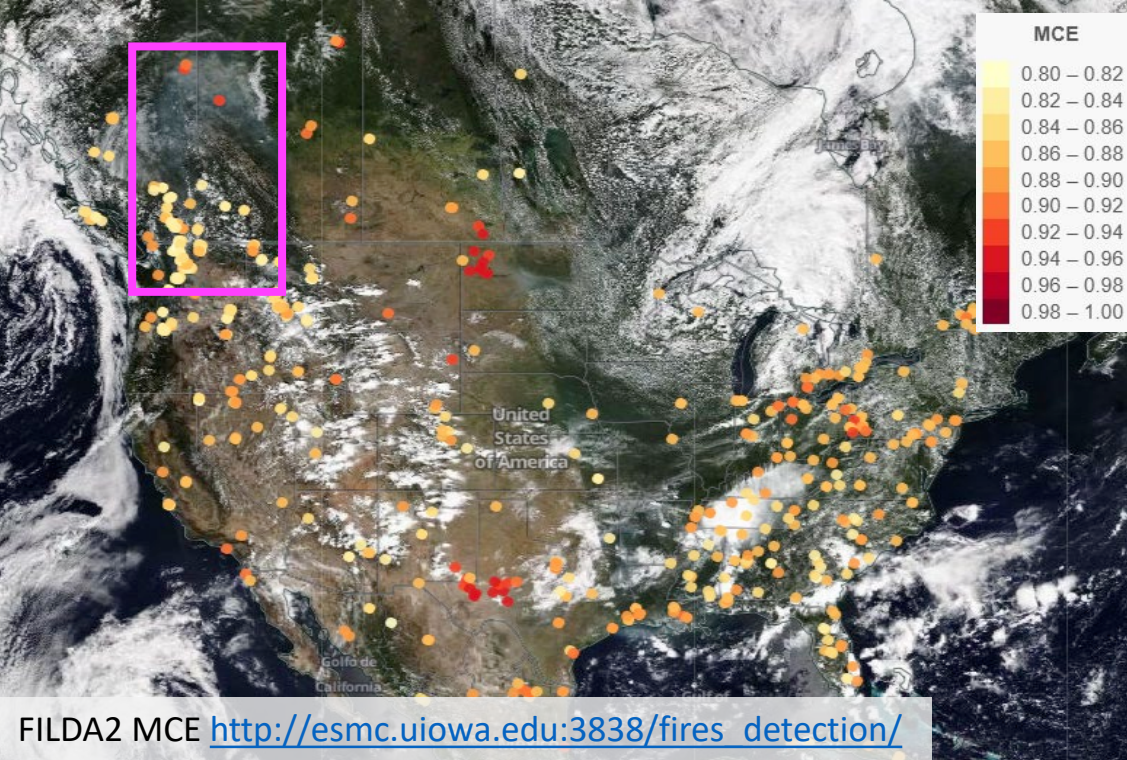
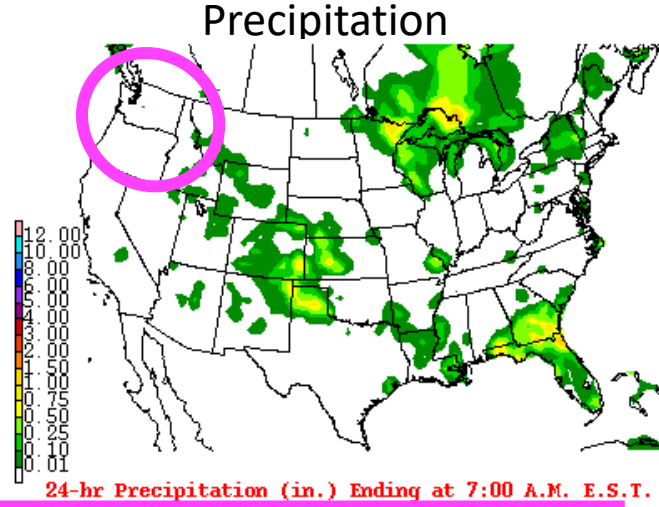
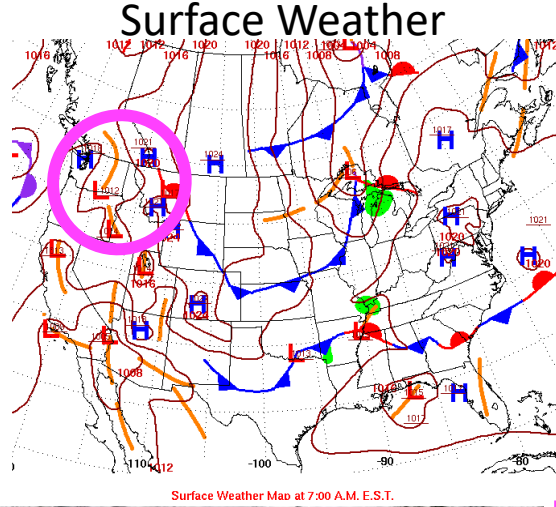
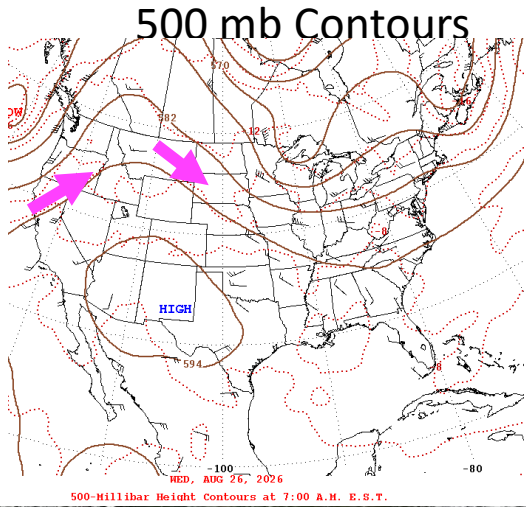
500-Millibar Height Contours at 7:00 A.M. E.S.T.

Surface Weather

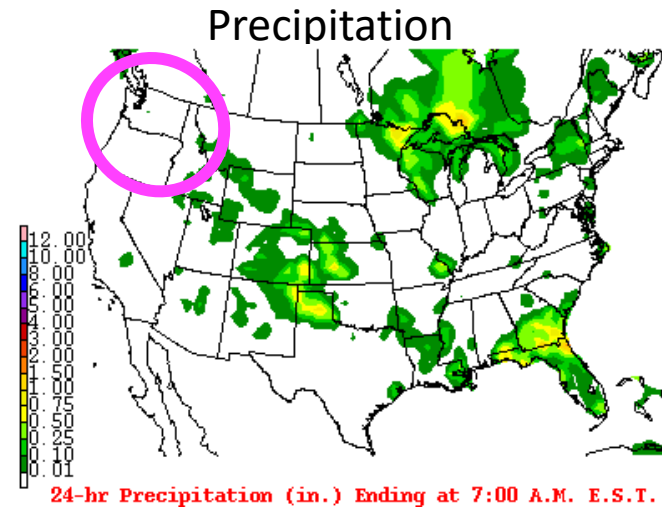
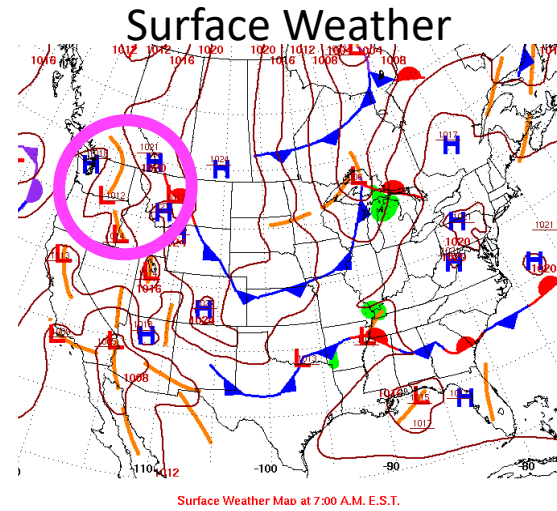
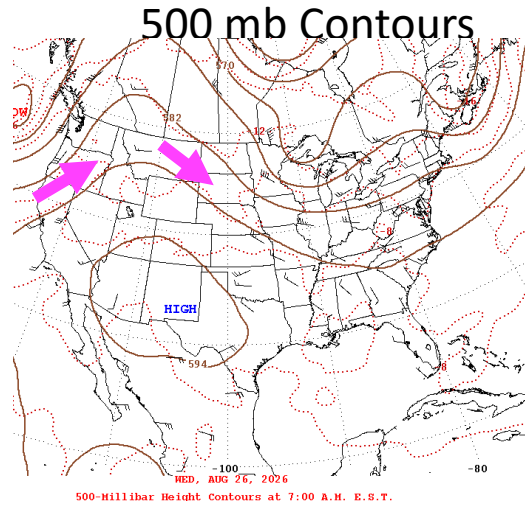


Surface Weather Map at 7:00 A.M. E.S.T.

Air Quality Reflection: Wed Aug 26, 2026



Air Quality Reflection: Wed Aug 26, 2026

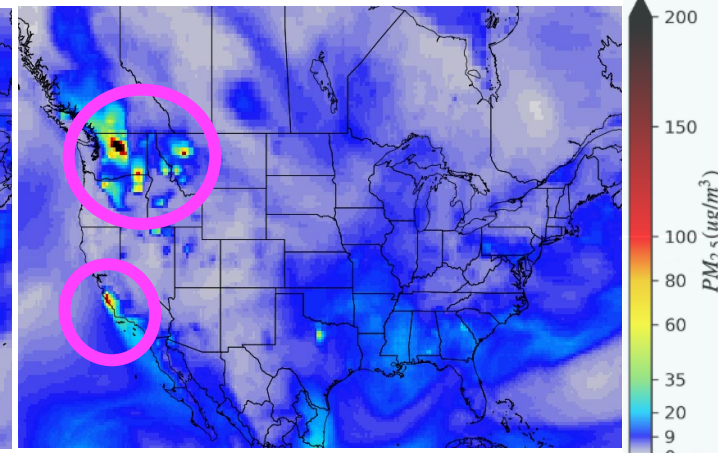
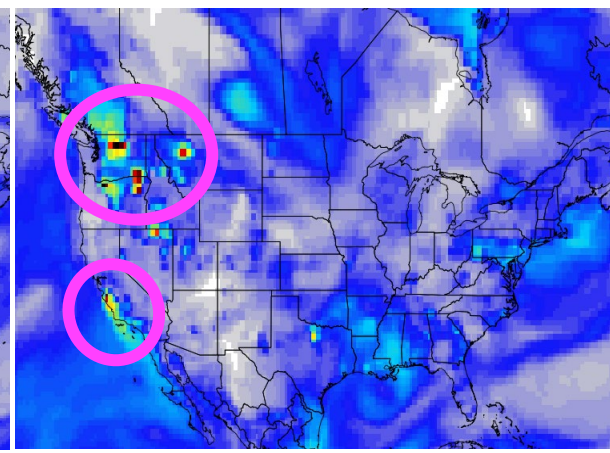
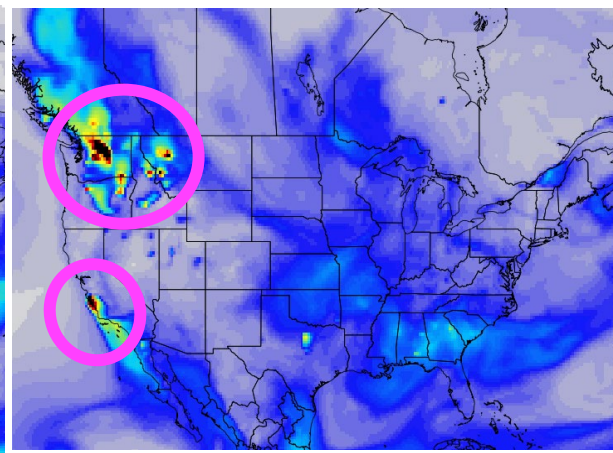
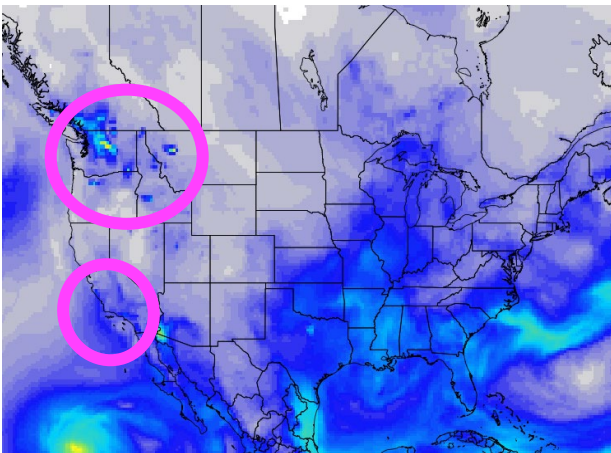


GEOS-FP

GEOS-CF

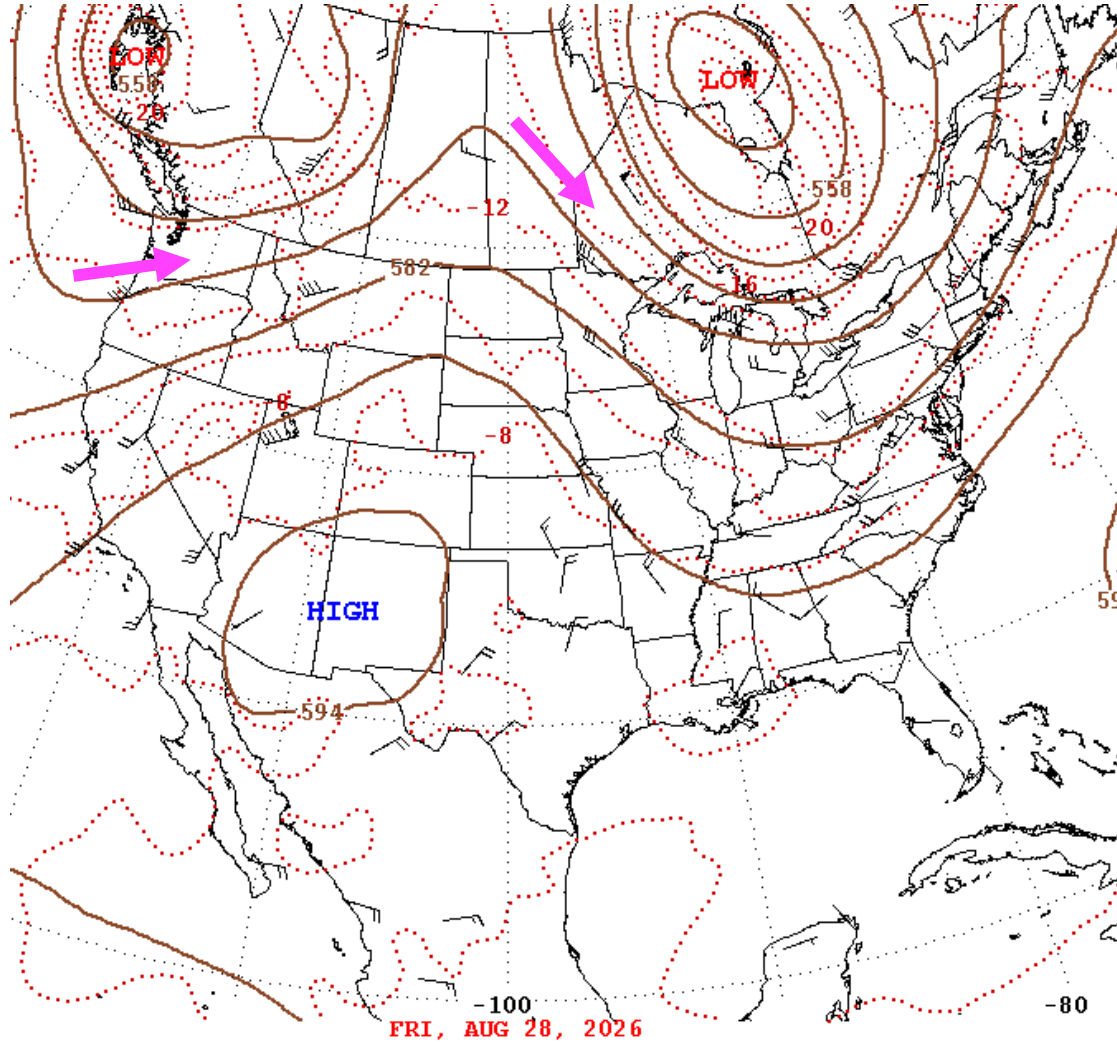
CAMS

Ensemble



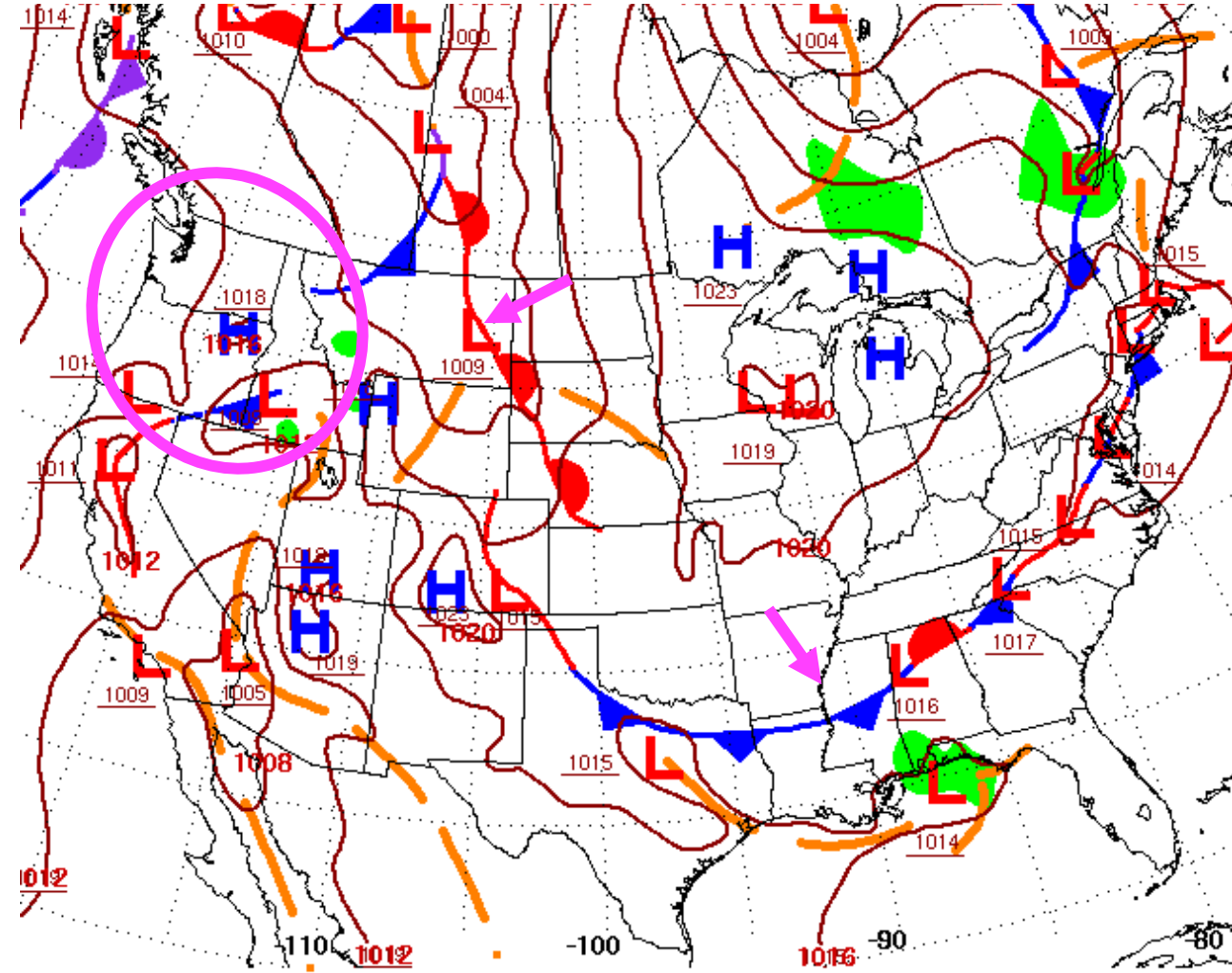
Air Quality Reflection: Friday Aug 28, 2026

500 mb Contours



500-Millibar Height Contours at 7:00 A.M. E.S.T.

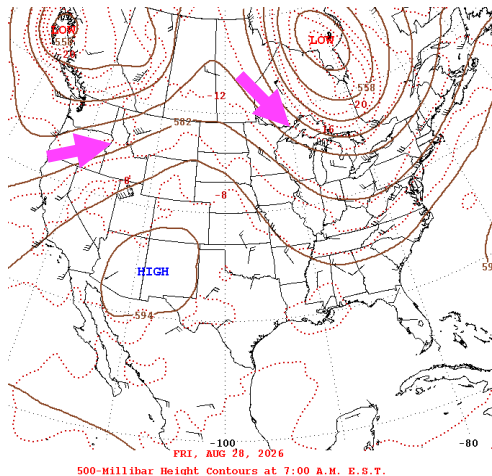
Surface Weather



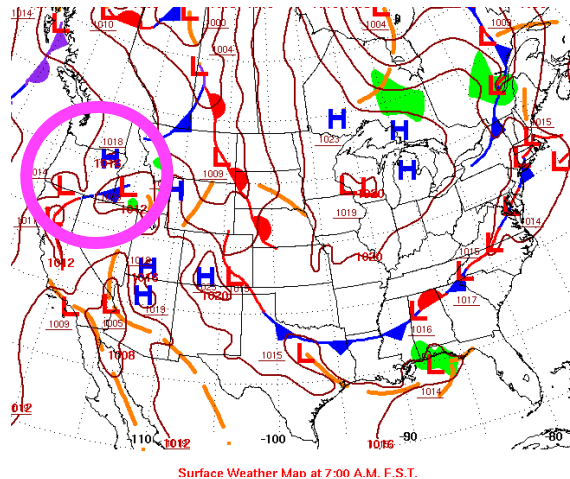
Surface Weather Map at 7:00 A.M. F.S.T.

Air Quality Reflection: Friday Aug 28, 2026

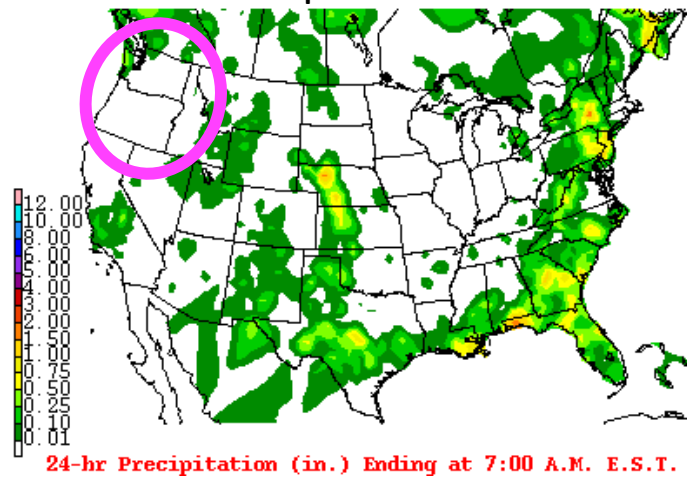
500 mb Contours



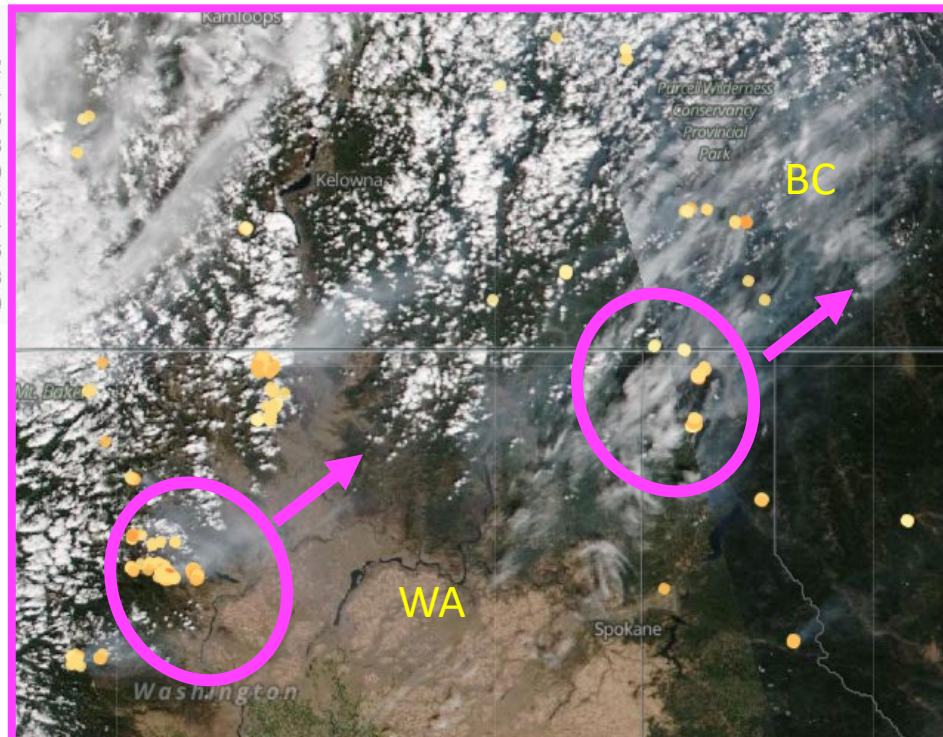
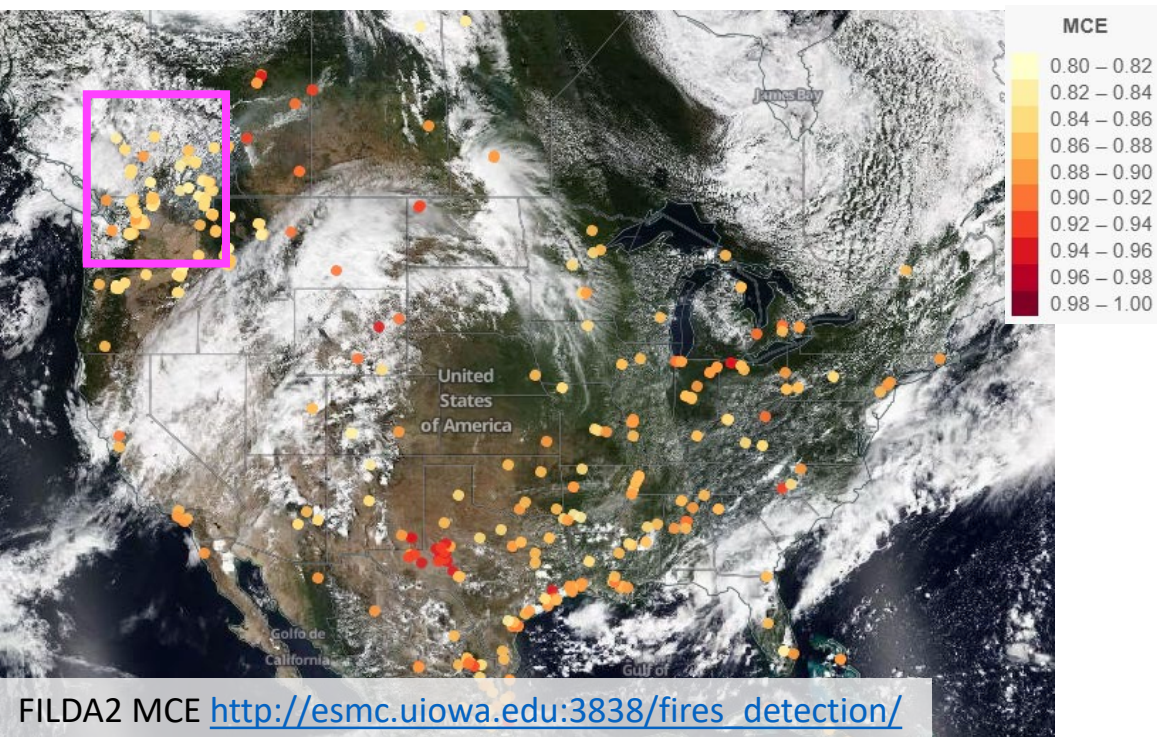
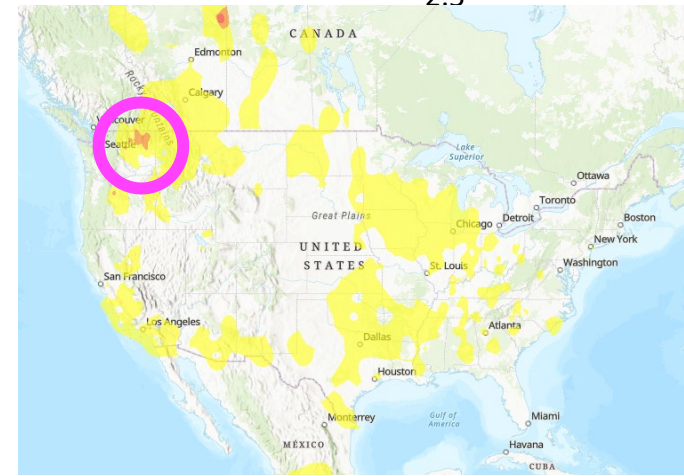
Surface Weather



Precipitation

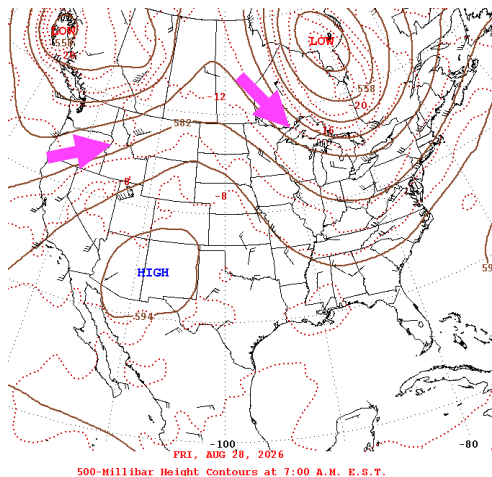


AirNow PM_{2.5} AQI

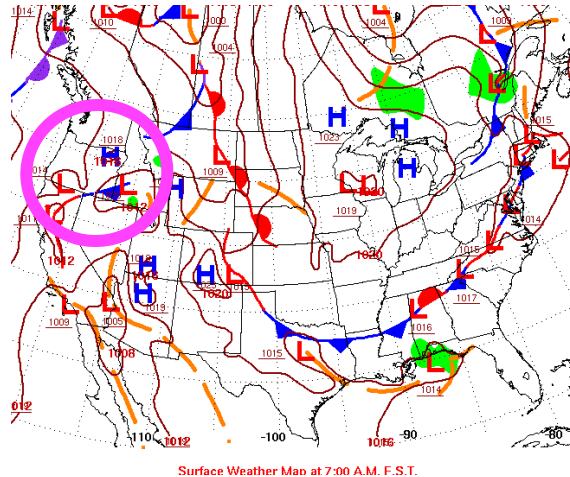


Air Quality Reflection: Friday Aug 28, 2026

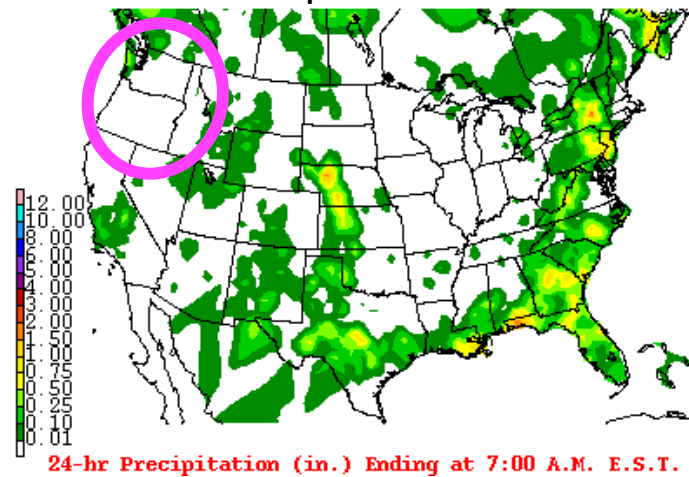
500 mb Contours



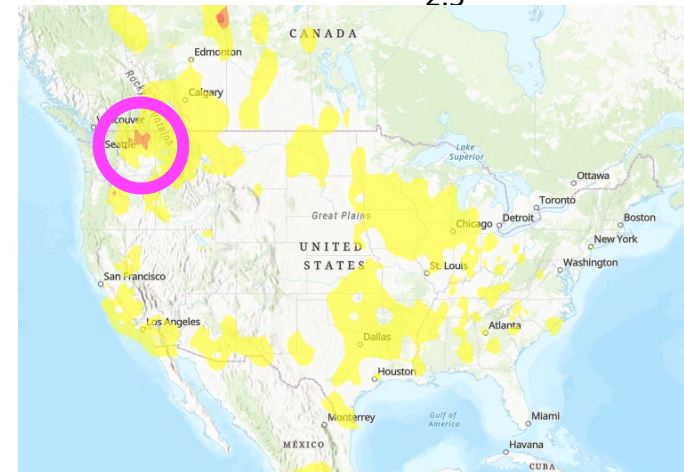
Surface Weather



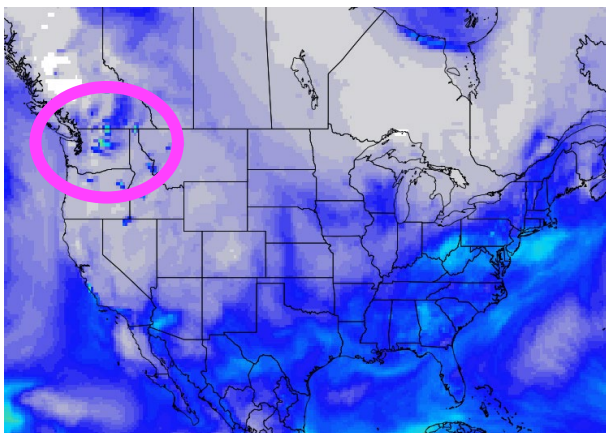
Precipitation



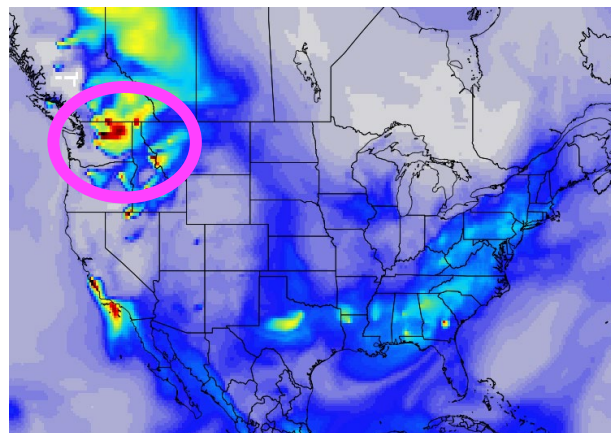
AirNow PM_{2.5} AQI



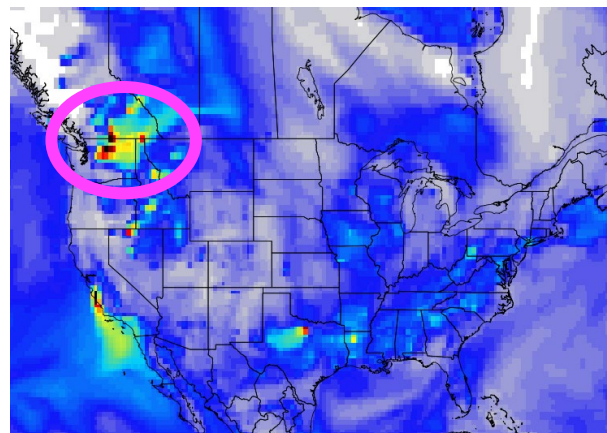
GEOS-FP



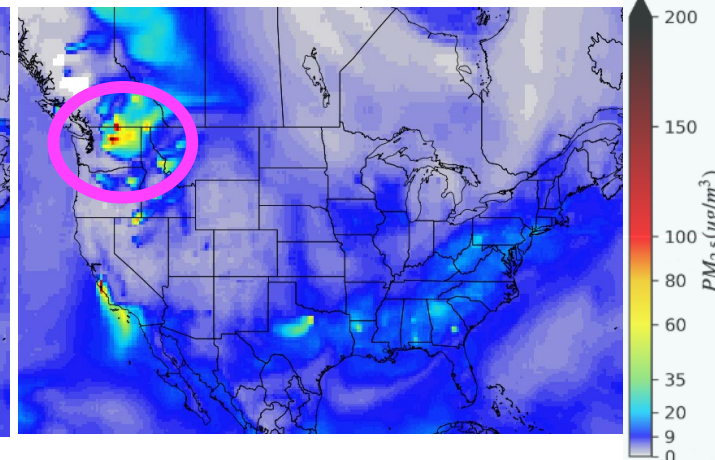
GEOS-CF



CAMS

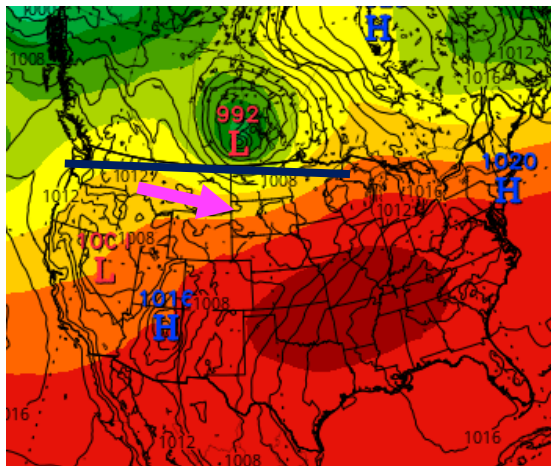


Ensemble

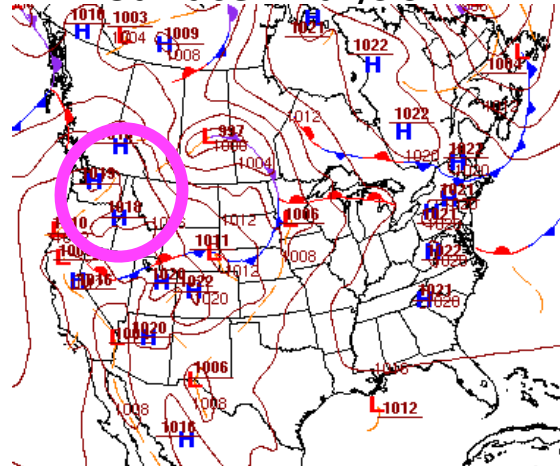


Current Status: August 31, 2026

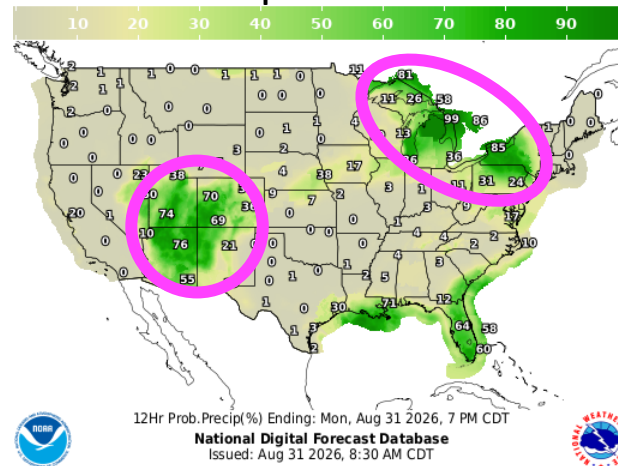
500 mb Contours



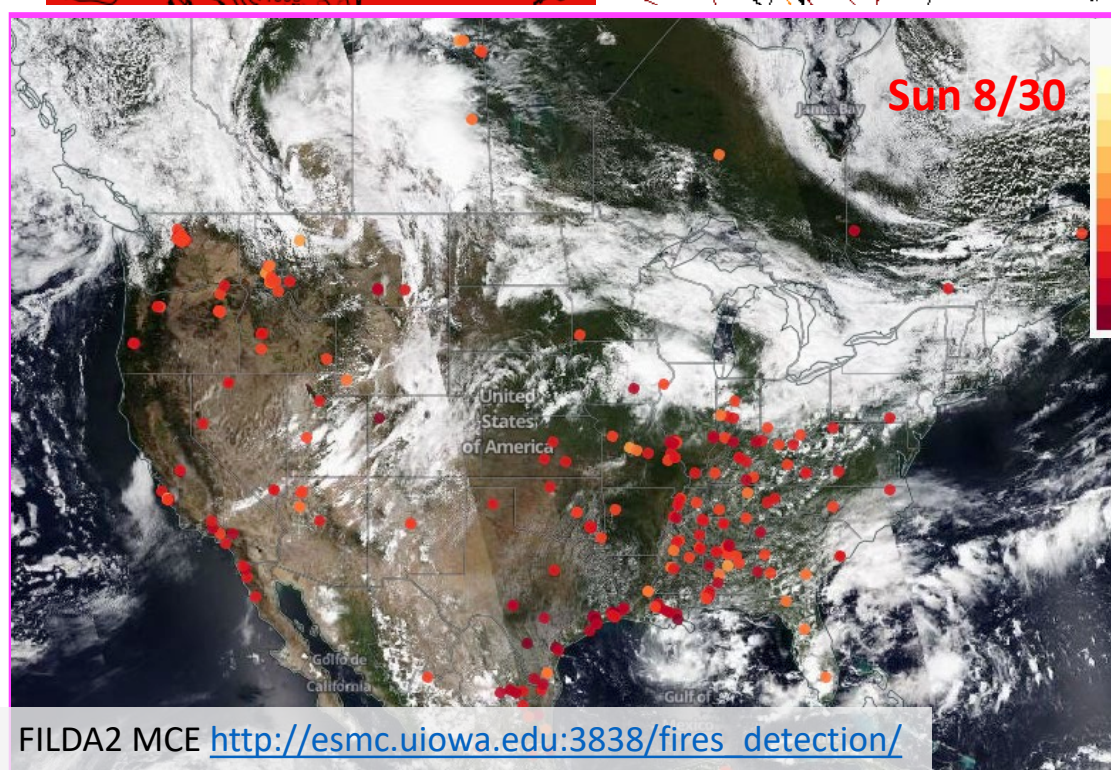
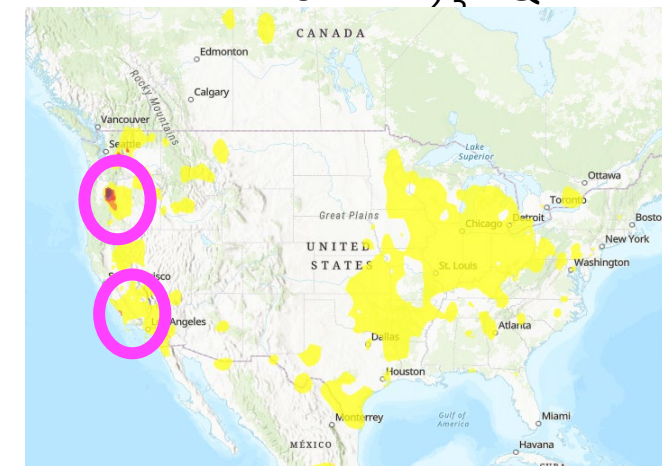
Surface Analysis



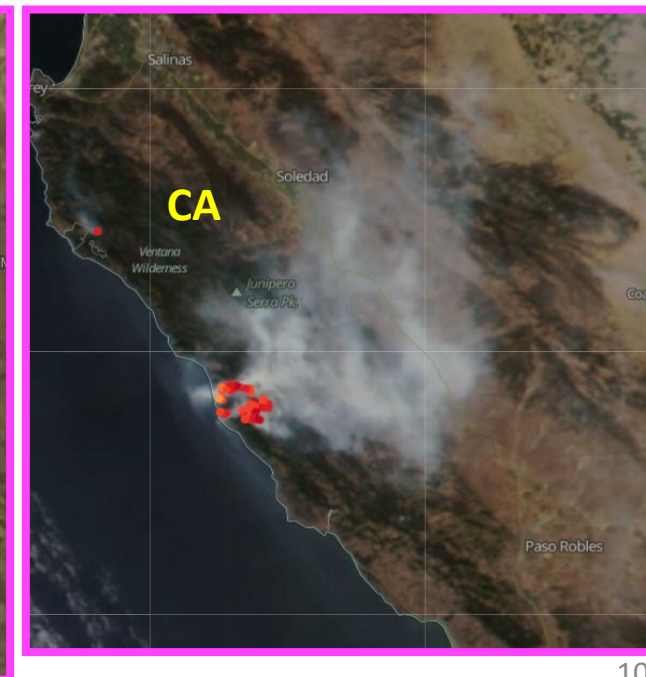
Precip. Prob.



AirNow PM_{2.5} AQI



MCE



Outlook: Short Range (1-3 days)

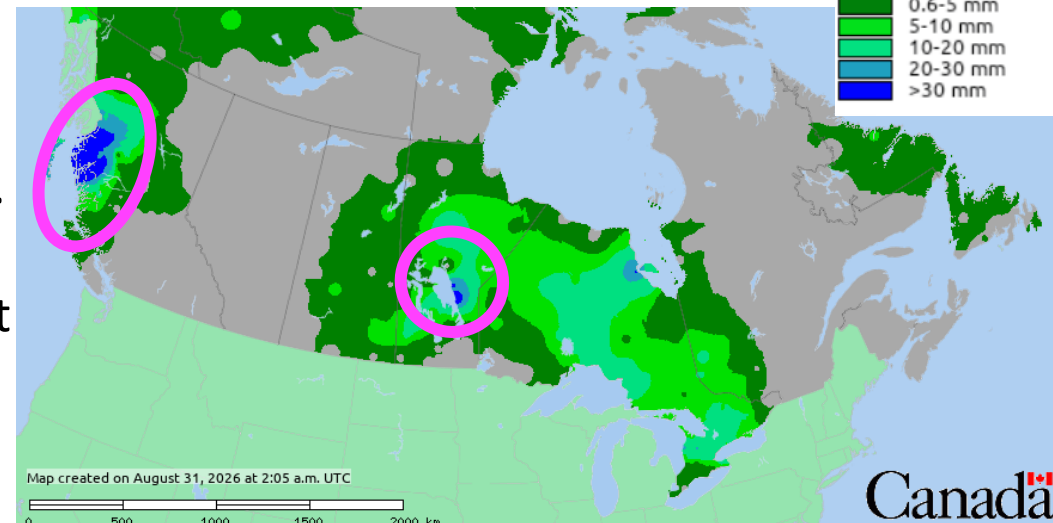
(Forecast **Tuesday 9/1**)

GFS 500 mb

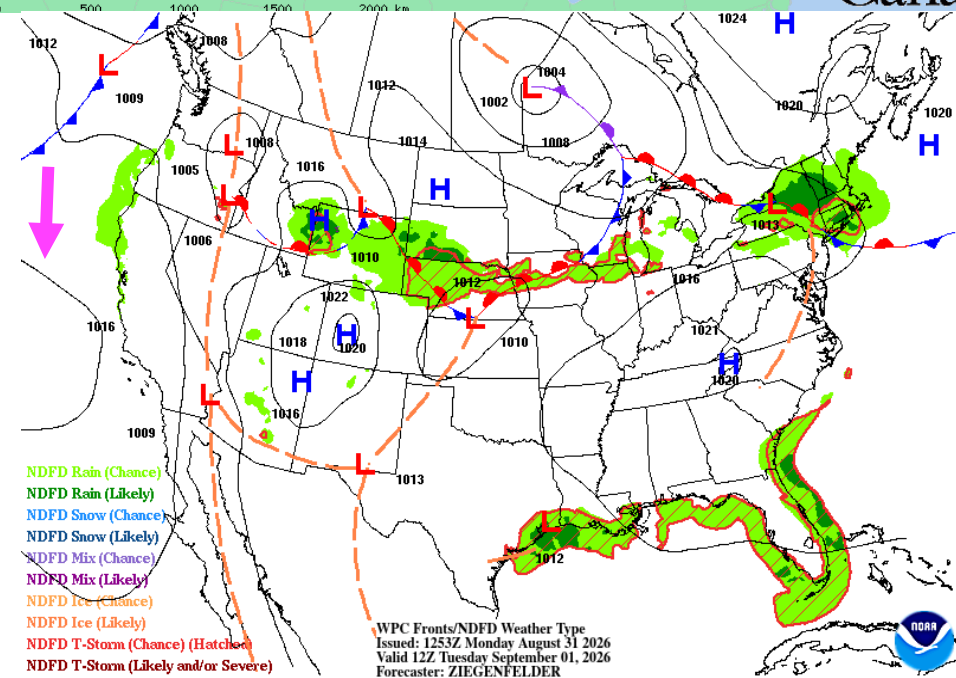
Precipitation
Forecast



Environ.
Canada
Forecast



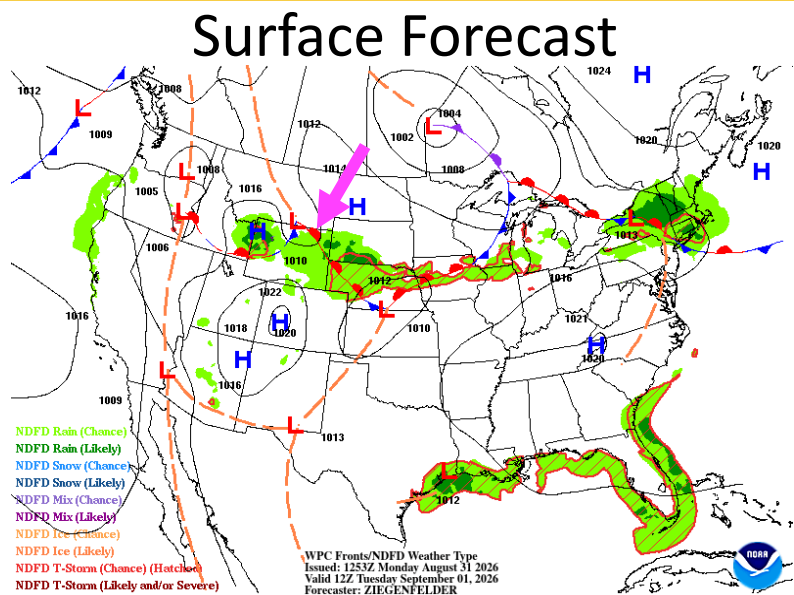
US NWS
Forecast



GFS 500mb Geopotential Height (dam) & MSLP (mb)

Init: 06z Aug 31 2026 Forecast Hour: [36] valid at 18z Tue, Sep 01 2026

Outlook: Short Range (1–3 days)

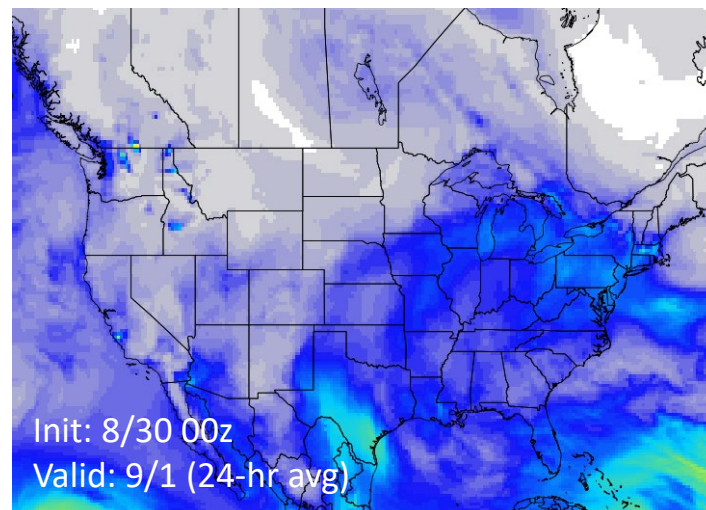


Canada MSC AniMET

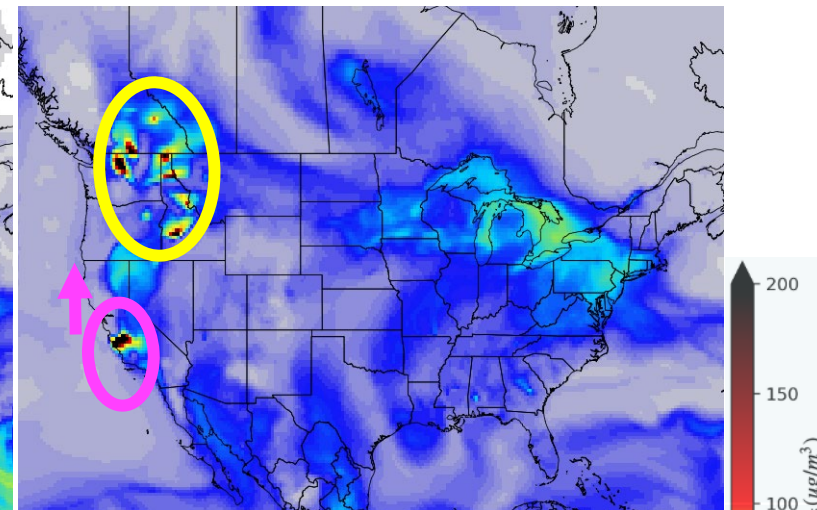
(Tuesday 9/1)

Model Means $PM_{2.5}$

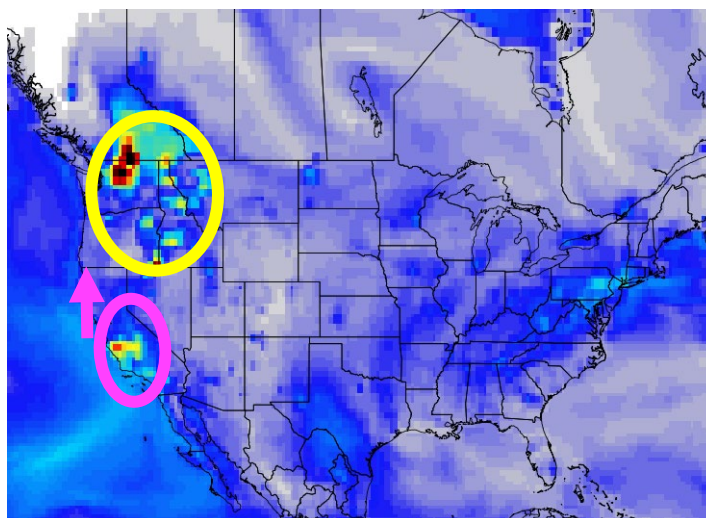
GEOS-FP



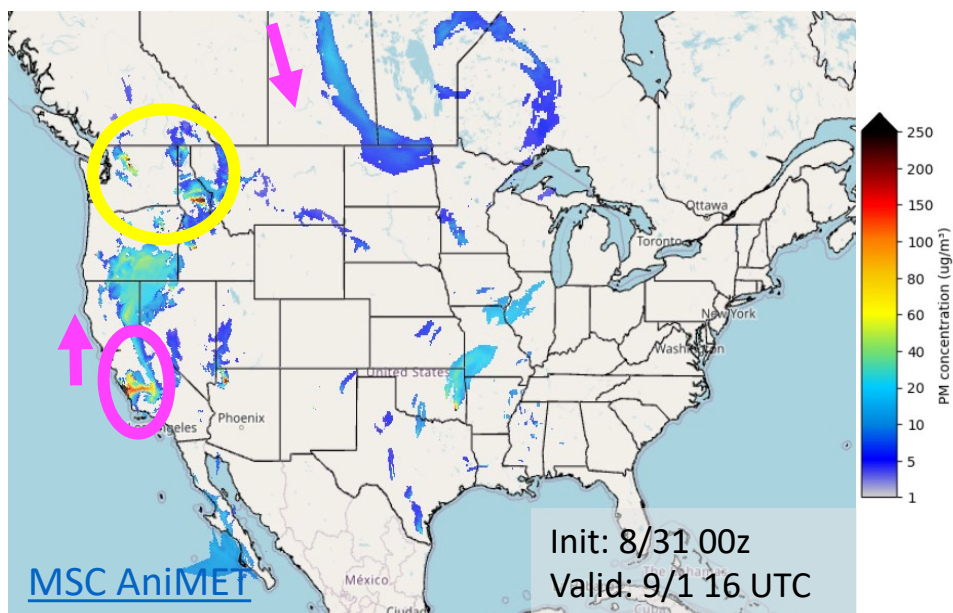
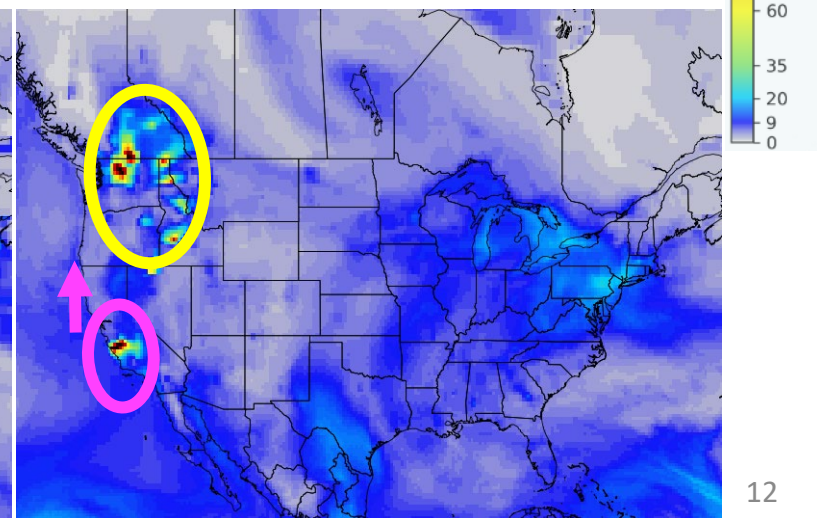
GEOS-CF



CAMS



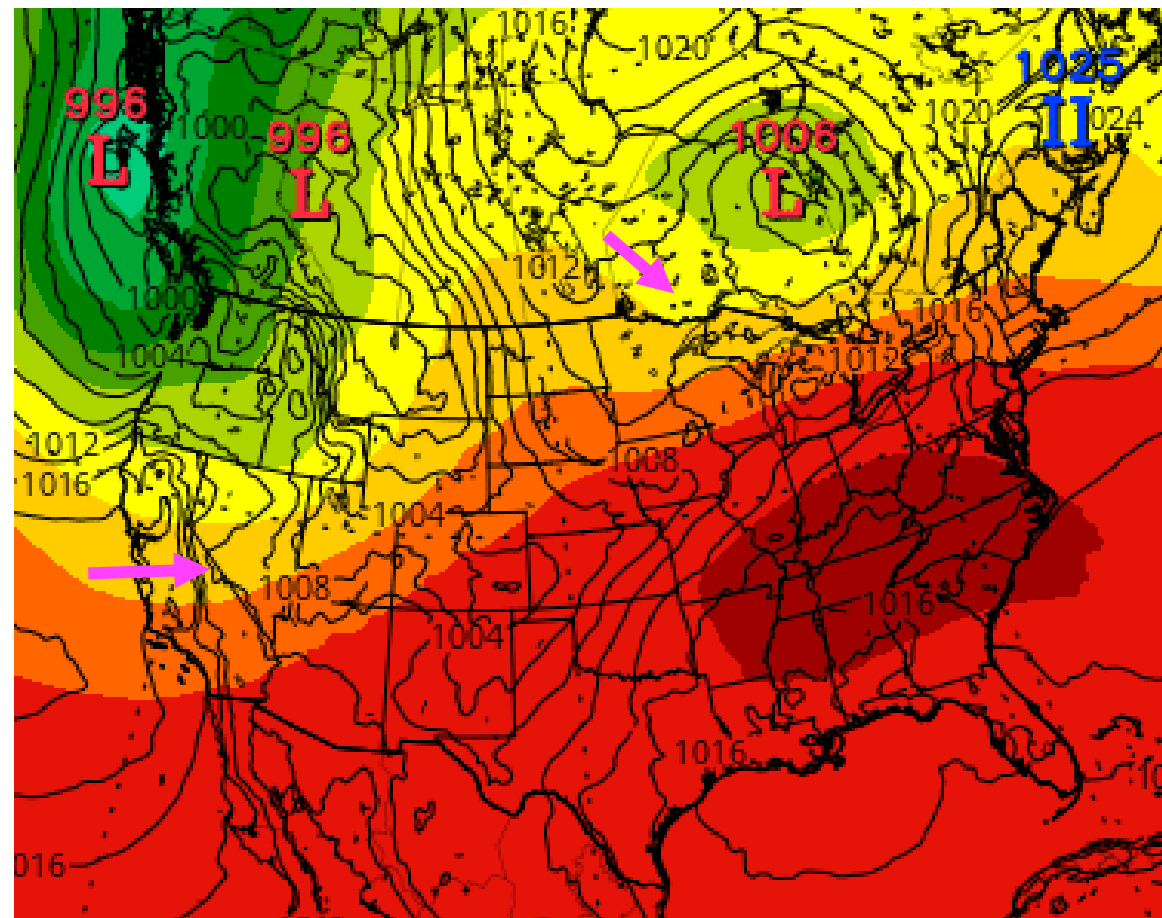
Ensemble



Outlook: Short Range (1–3 days)

(Forecast **Wednesday 9/2**)

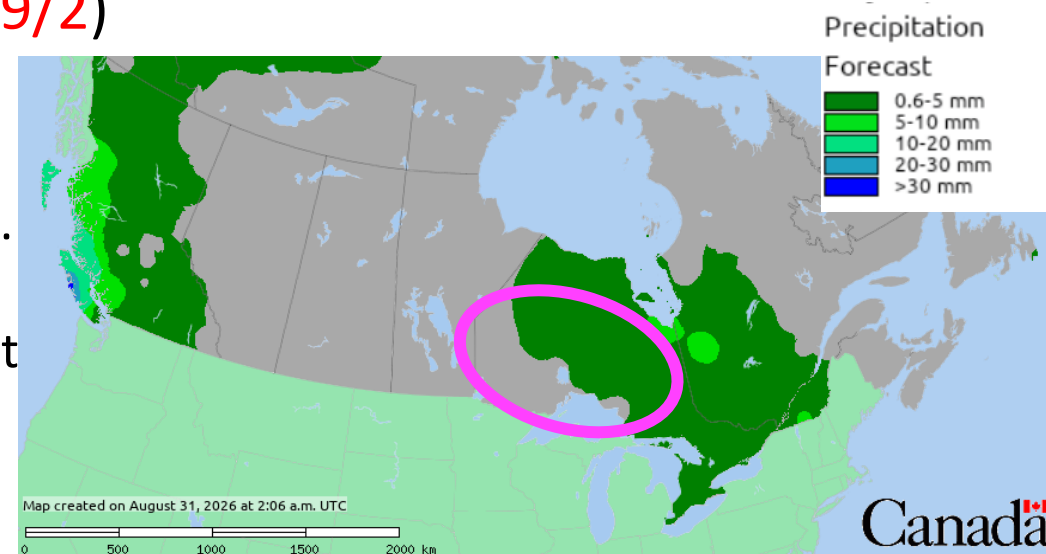
GFS 500 mb



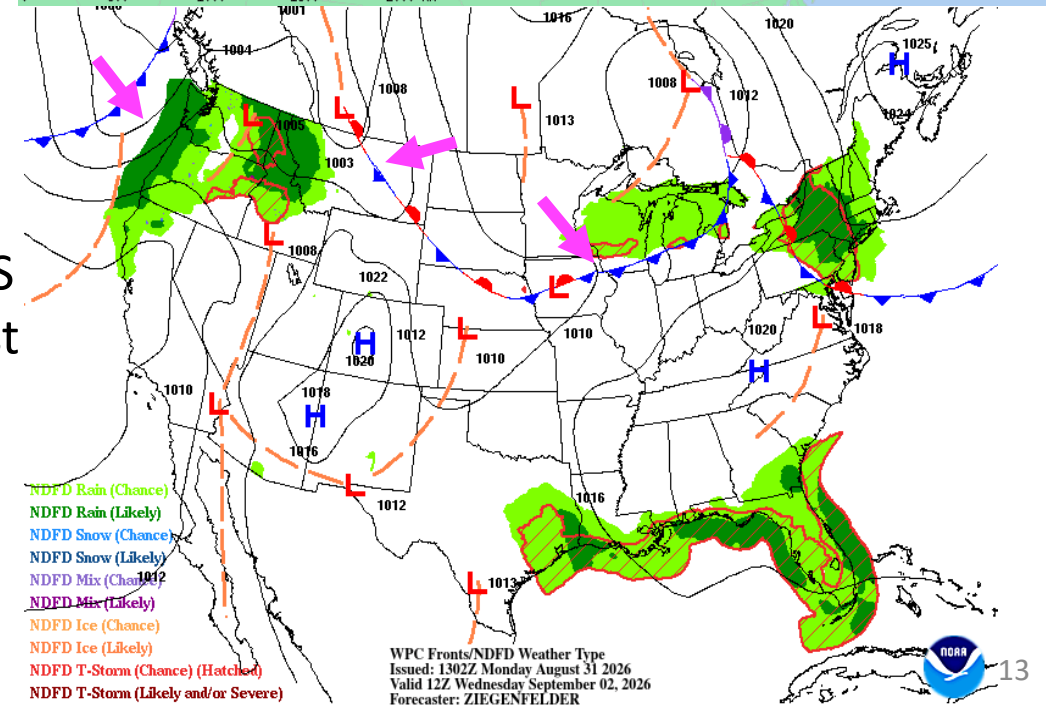
GFS 500mb Geopotential Height (dam) & MSLP (mb)

Init: 06z Aug 31 2026 Forecast Hour: [60] valid at 18z Wed, Sep 02 2026

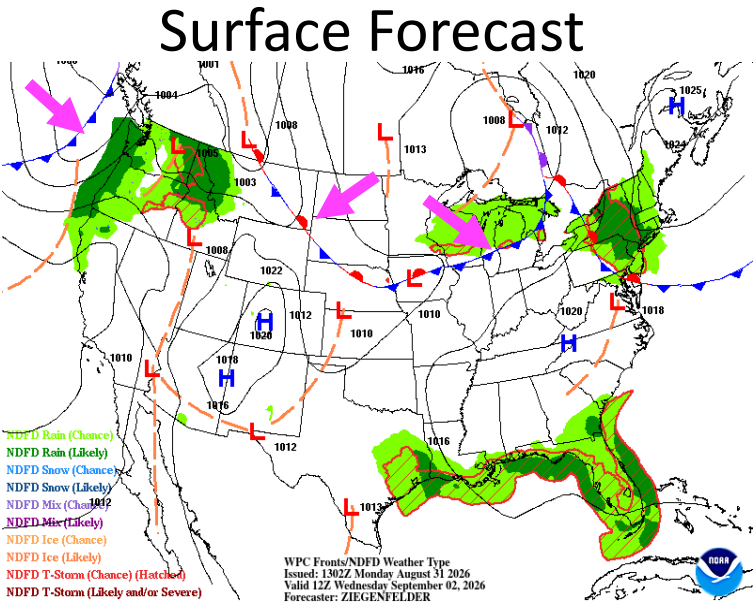
Environ.
Canada
Forecast



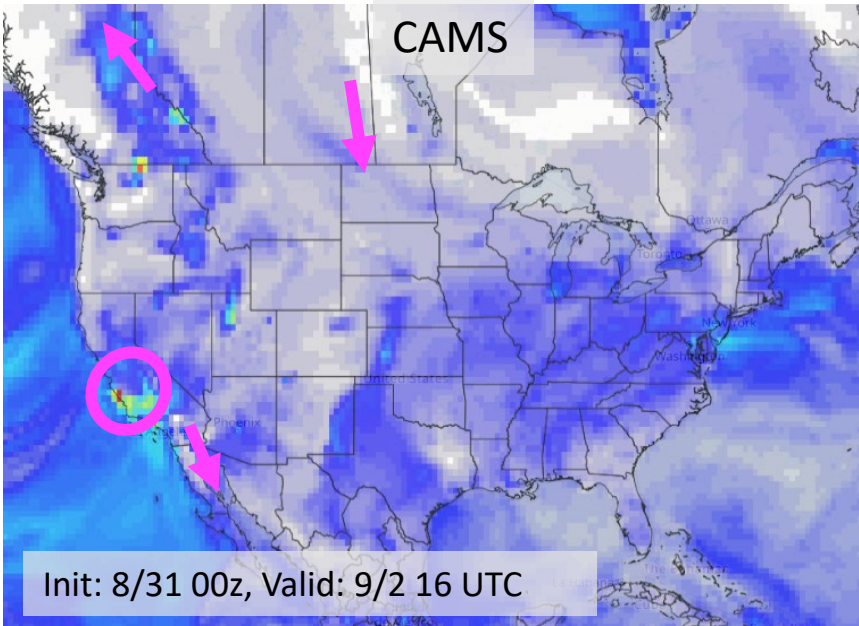
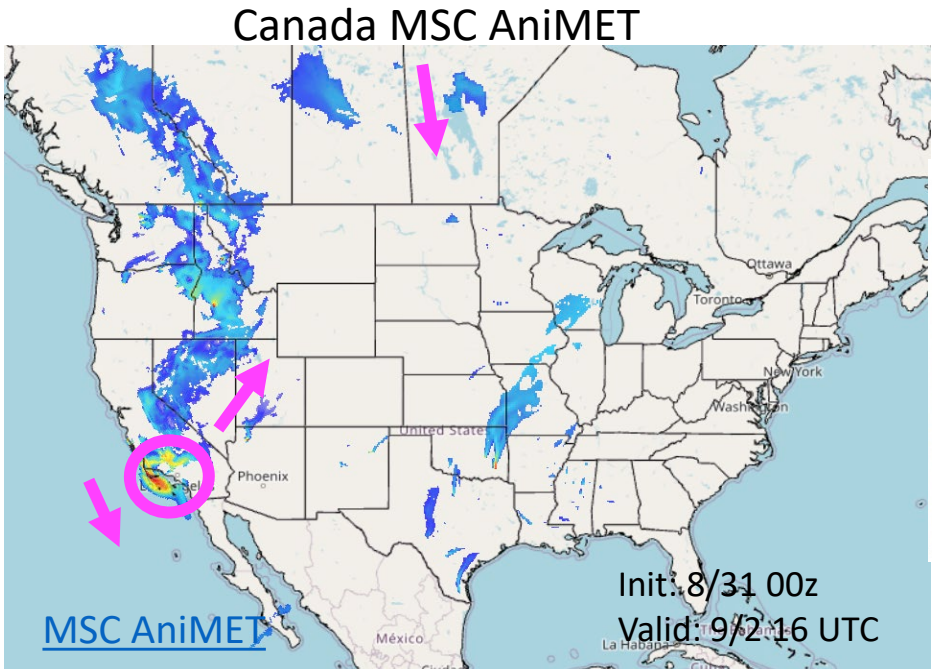
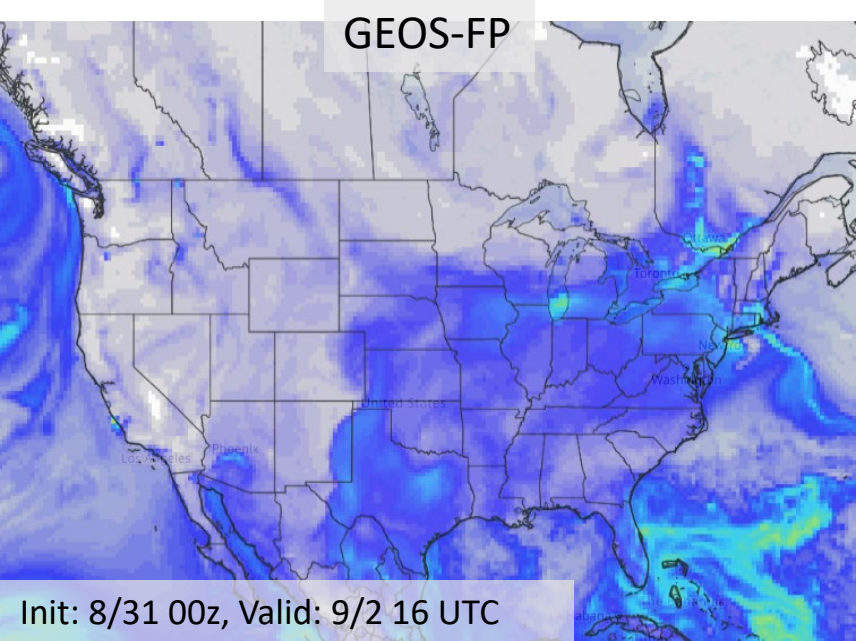
US NWS
Forecast



Outlook: Short Range (1–3 days)

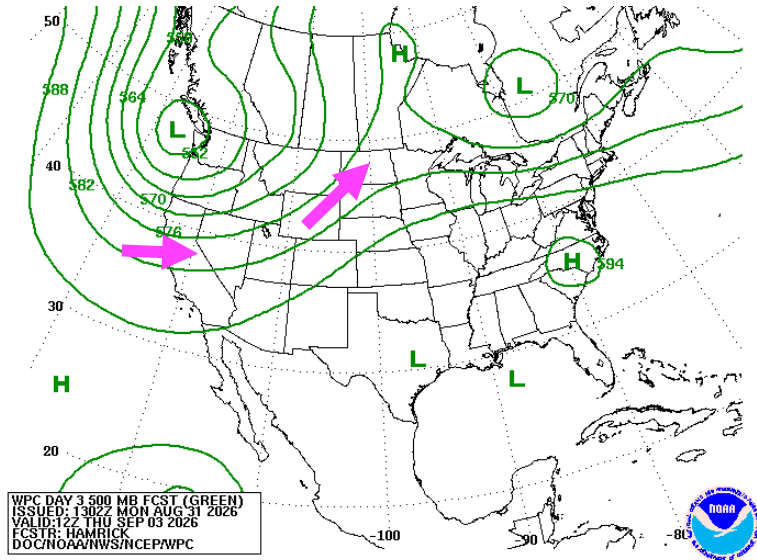


(Wednesday 9/2)

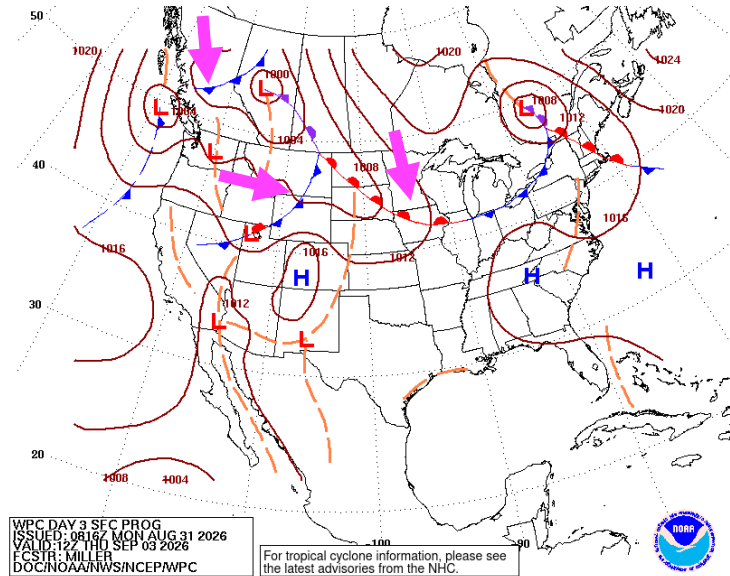


Outlook: Medium Range

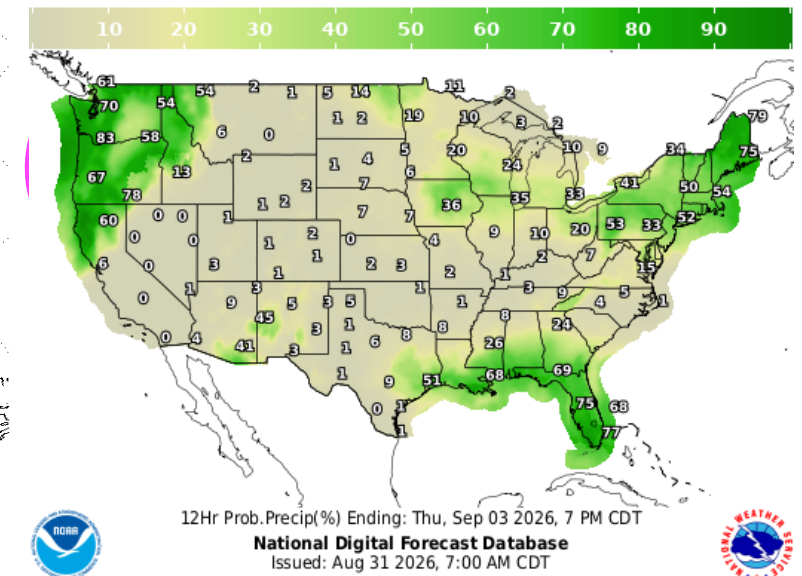
500 mb Contours



Sea Level

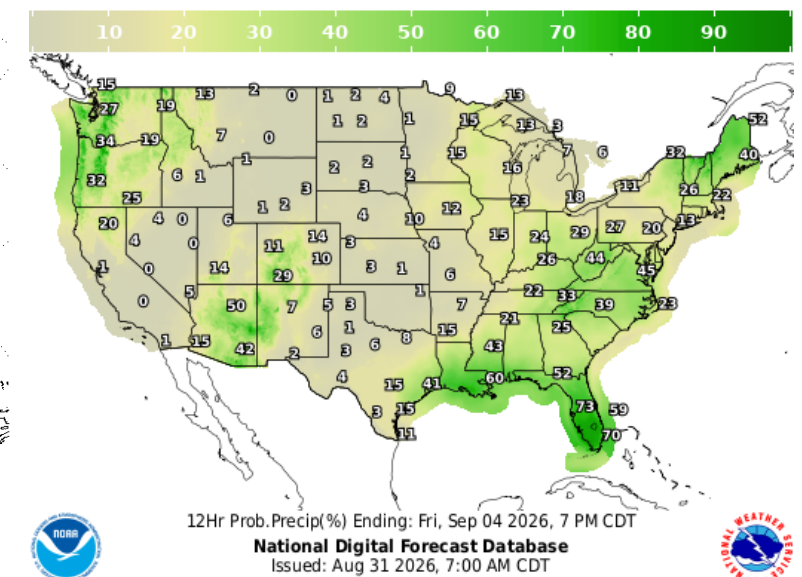
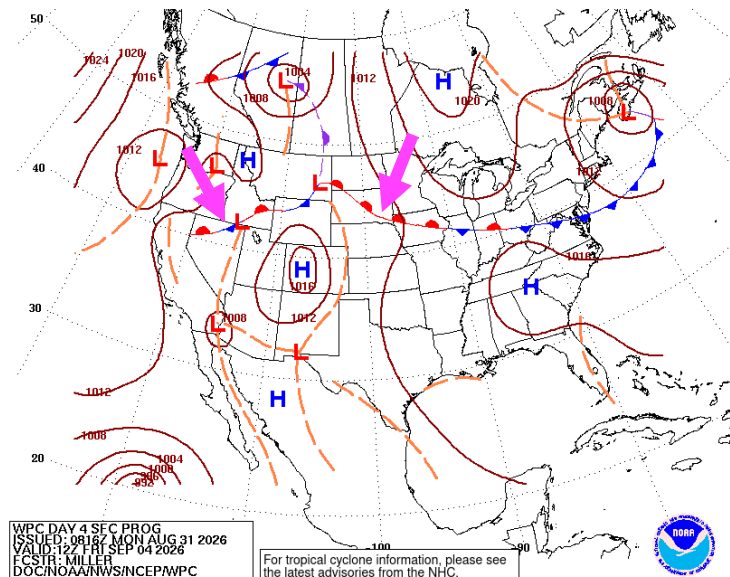
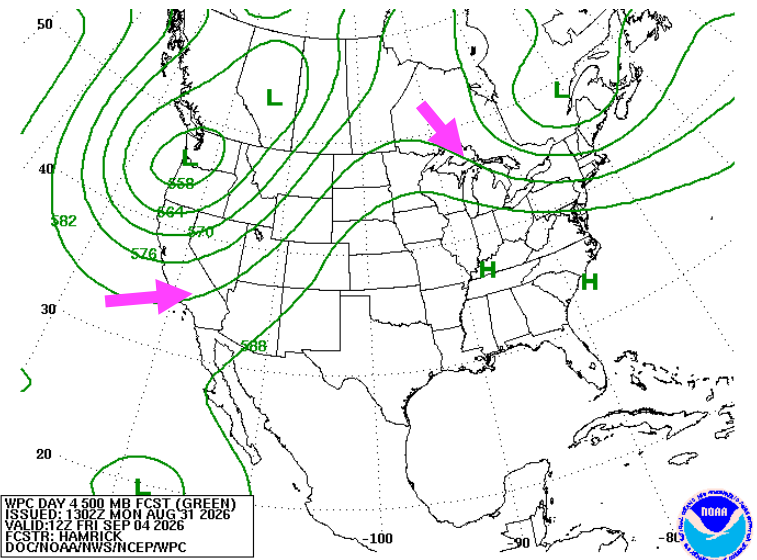


Precip Prob.



Thurs
9/3

Friday
9/4



Summary

Monday: OR wildfire smoke contributes to local hazardous AQI. Keep a watch on central CA wildfire northeasterly transport.

T → W: OR wildfire smoke continues to impact regional AQI with northerly transport. High chances of precip in the area beginning Wed. Aged smoke from CA wildfires continues northeasterly while fresh smoke transport shifts southerly along the coast.

Th → F: Aged smoke from OR wildfire in the upper atmosphere is likely transported NE, but low pressure at the surface suggests little impact to AQI. Precip in the PNW continues through Thurs. CA wildfire smoke transport is split between southerly (higher concentrations) and northeast (lower concentrations).

