

Weather and Air Quality: Reflection and Outlook During Smoke Conditions

Presenter: Megan Christiansen
Date: August 10, 2026

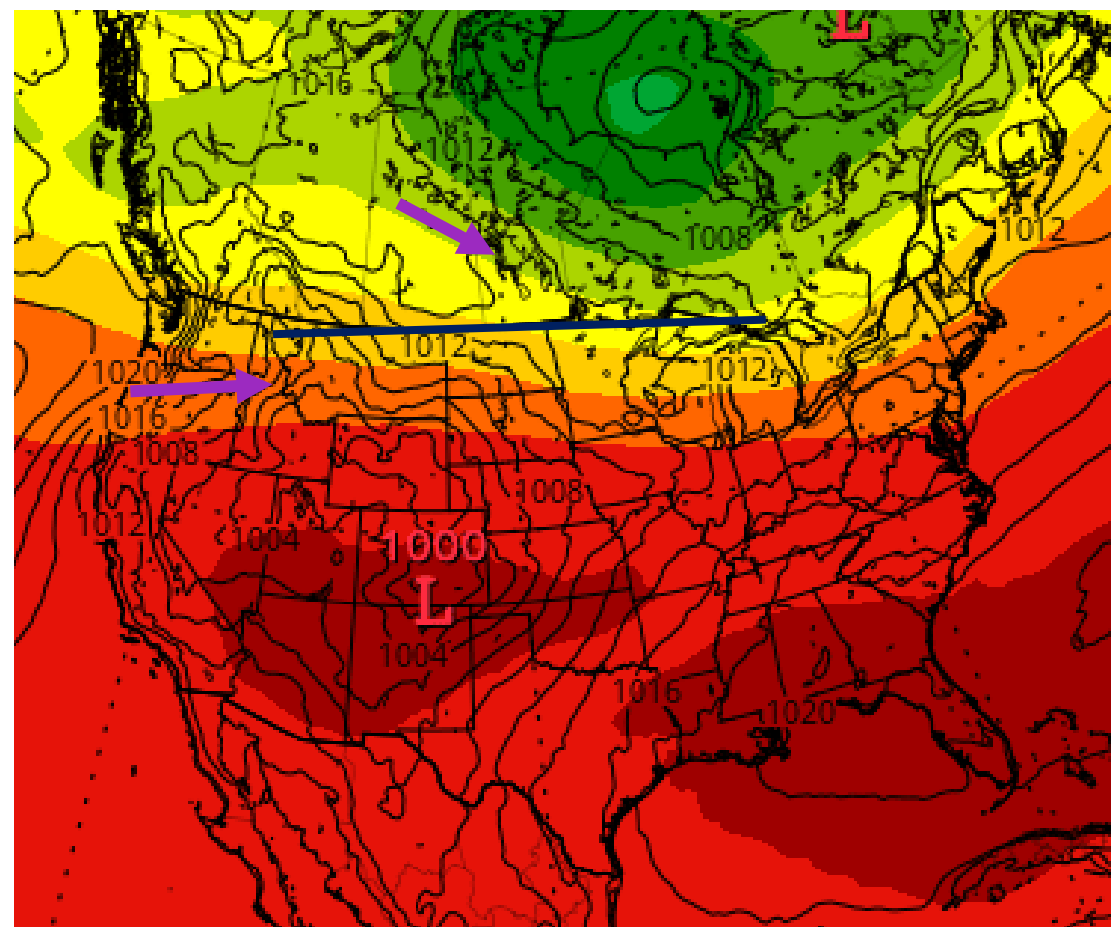


FireAQ is funded by NASA HAQ. We thank NASA GMAO and ECMWF for the model data products.

EARTH SCIENCE
APPLIED SCIENCES

Current Status: August 10, 2026

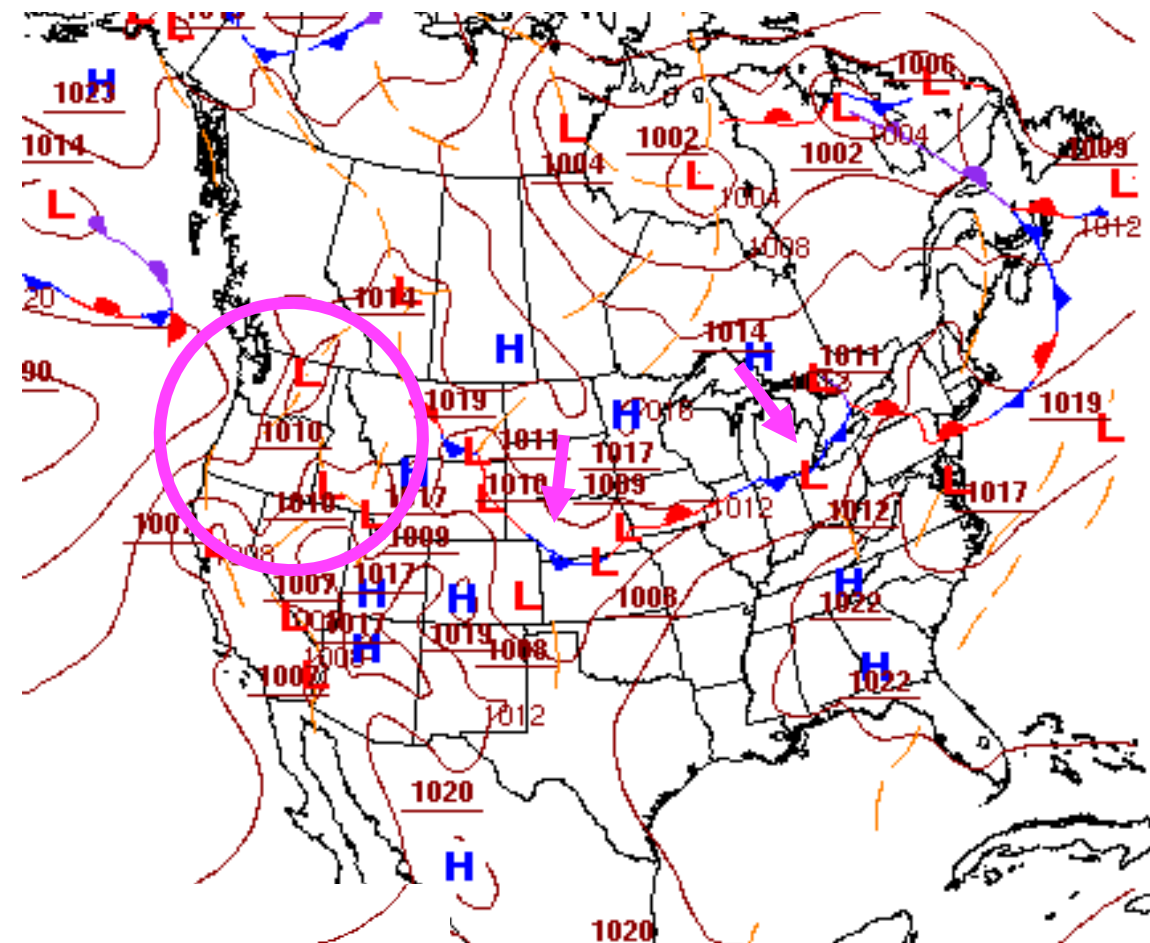
500 mb Contours



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

Init: 06z Aug 10 2026 Forecast Hour: [12] valid at 18z Mon, Aug 10 2026

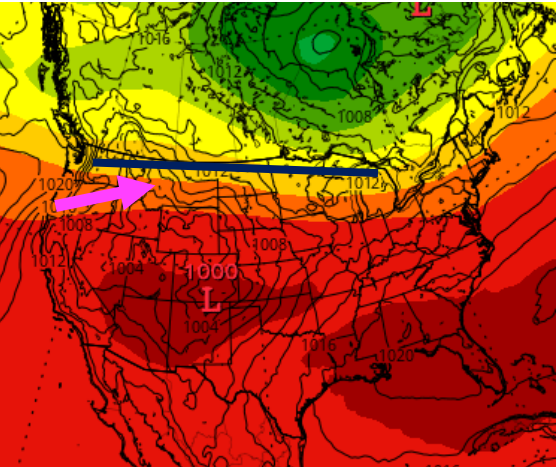
Surface Analysis



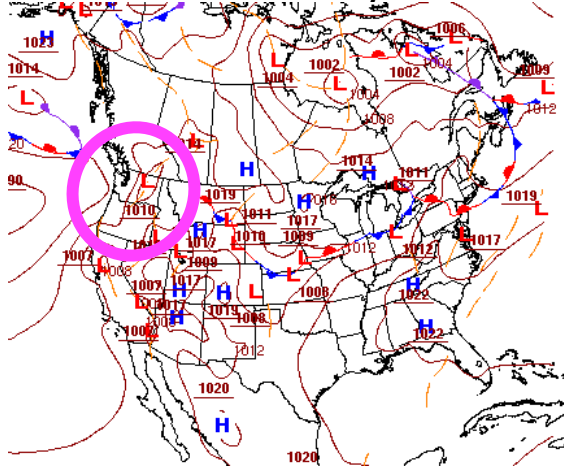
1200Z SURFACE ANALYSIS
DATE: MON AUG 10 2026
ISSUED: 1345Z MON AUG 10 2026
BY WPC ANALYST KONG
COLLABORATING CENTERS: WPC, NHC, OPC

Current Status: August 10, 2026

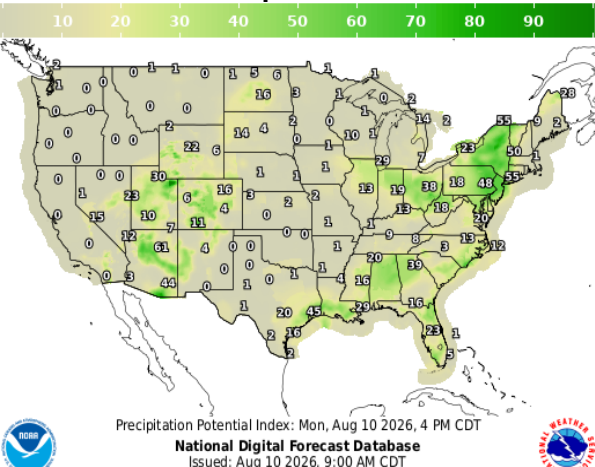
500 mb Contours



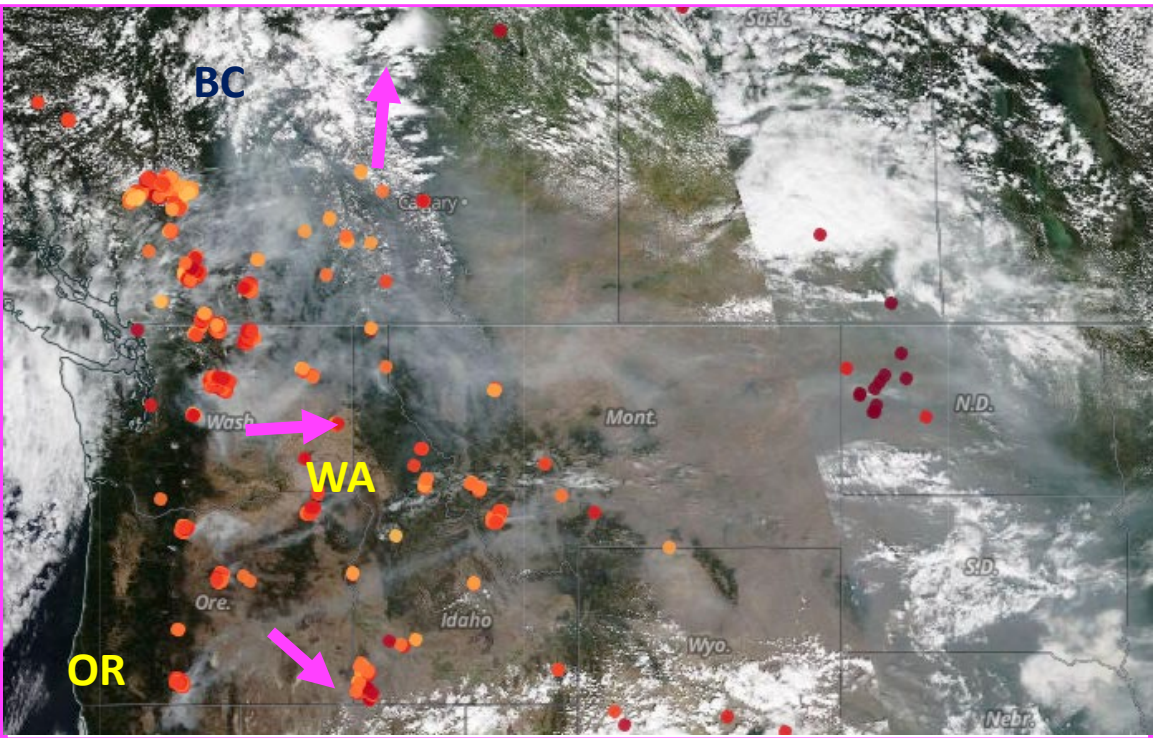
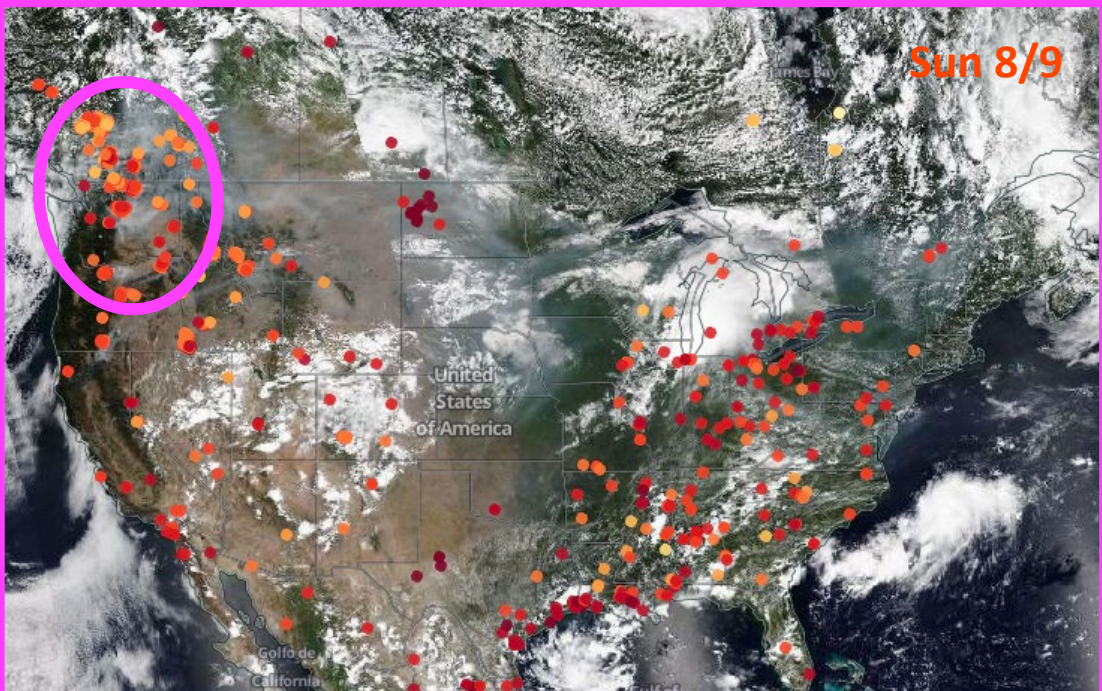
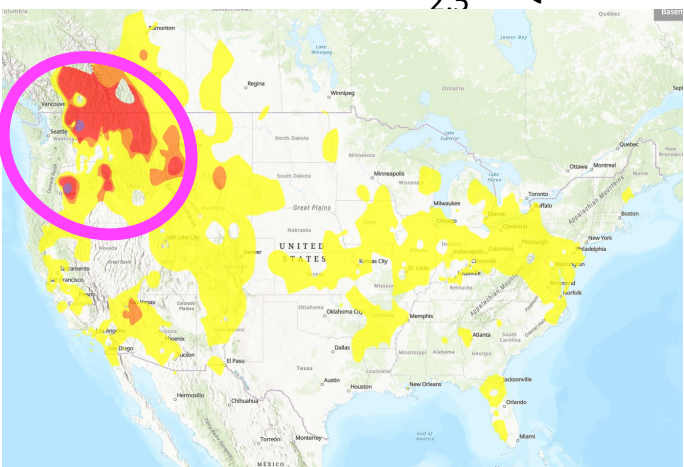
Surface Analysis



Precip. Prob.

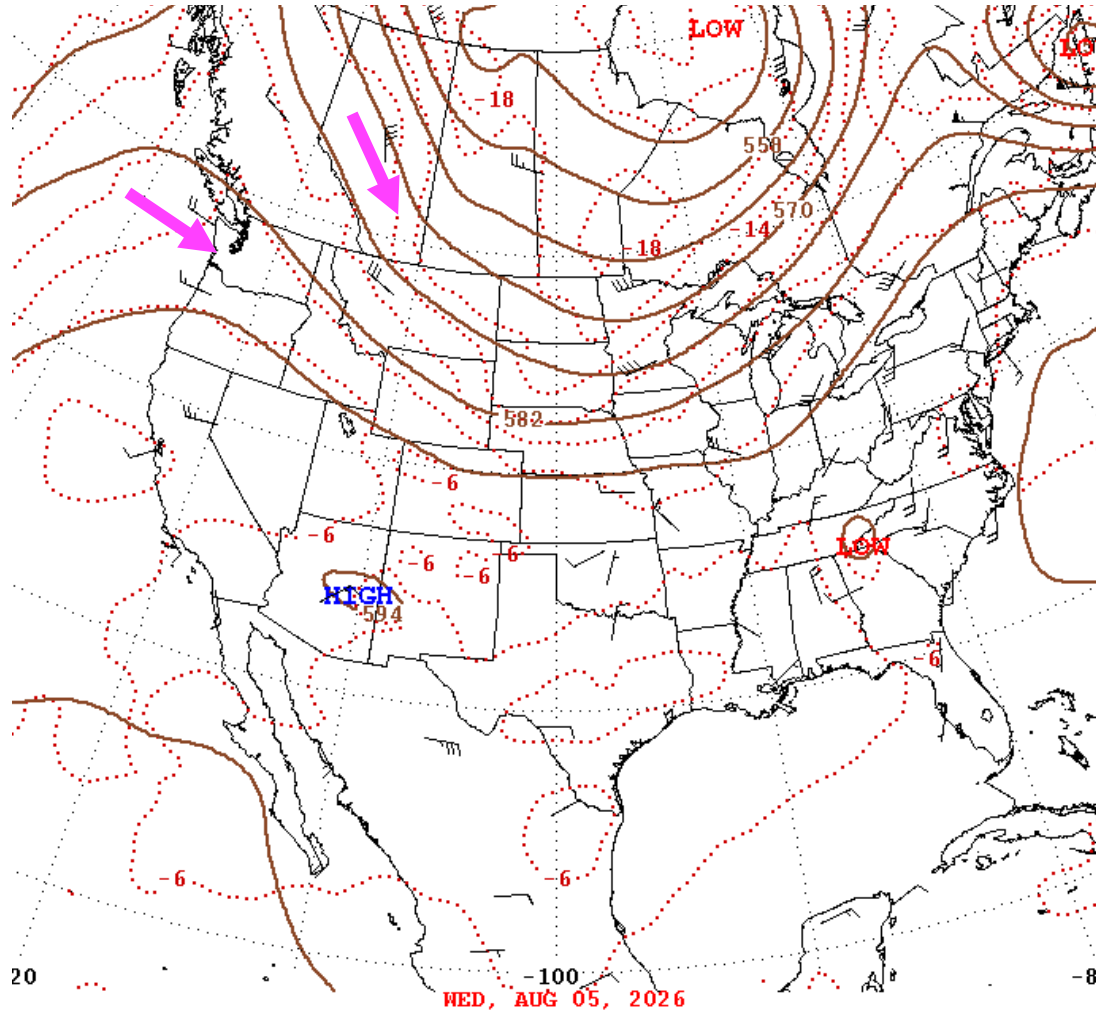


AirNow PM_{2.5} AQI



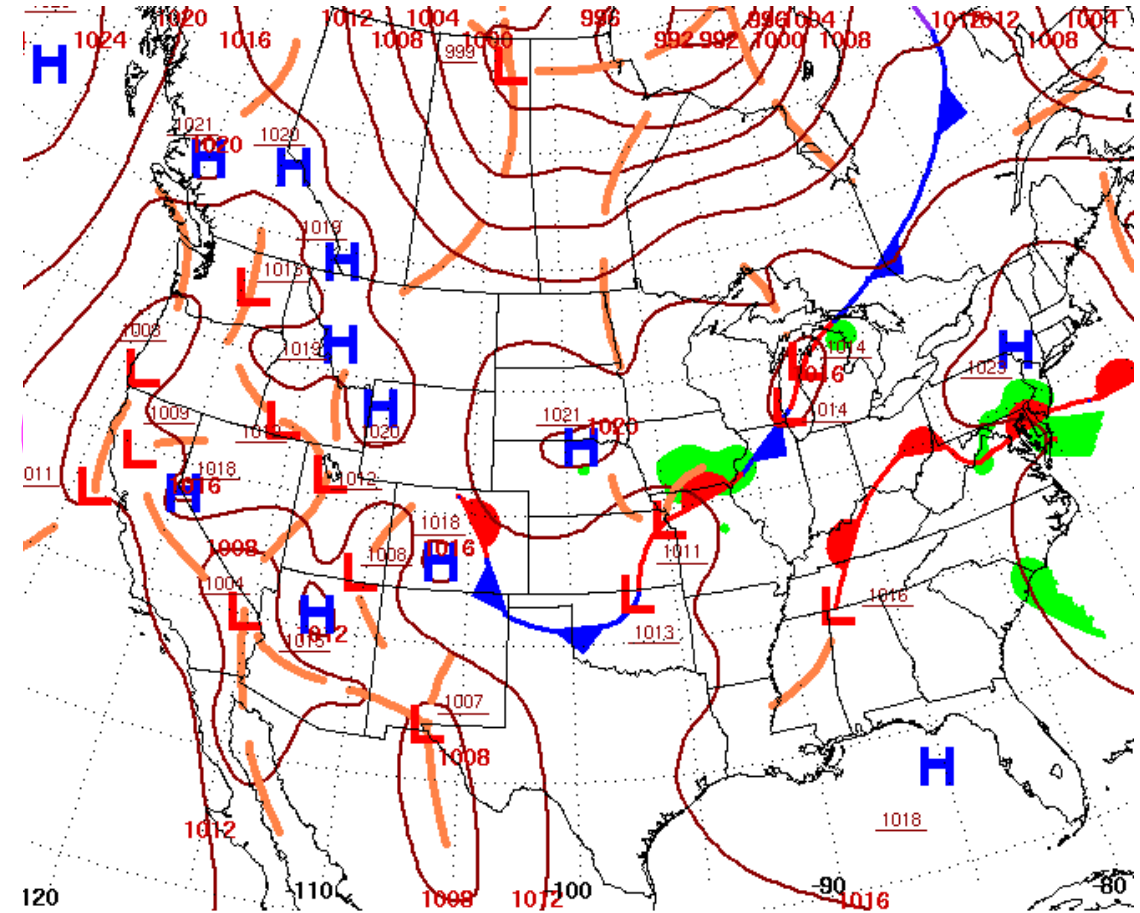
Air Quality Reflection: Wed Aug 5, 2026

500 mb Contours



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

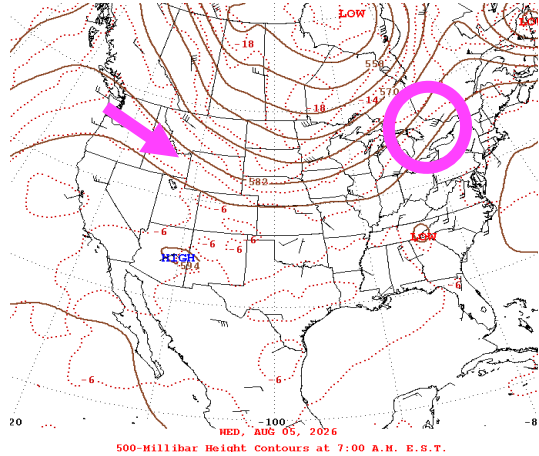
Surface Weather



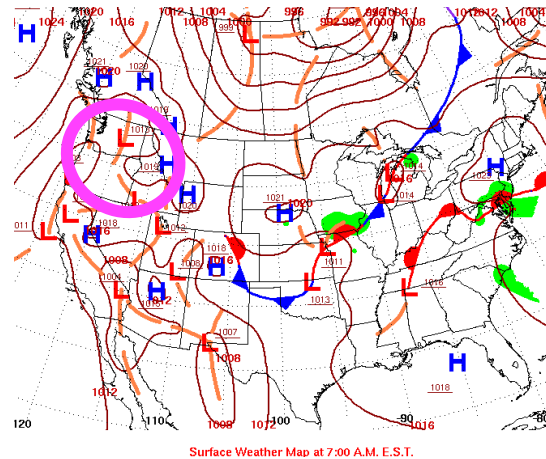
Surface Weather Map at 7:00 A.M. E.S.T.

Air Quality Reflection: Wed Aug 5, 2026

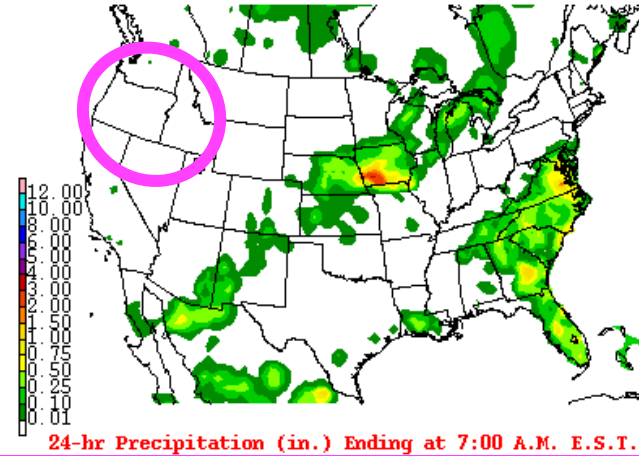
500 mb Contours



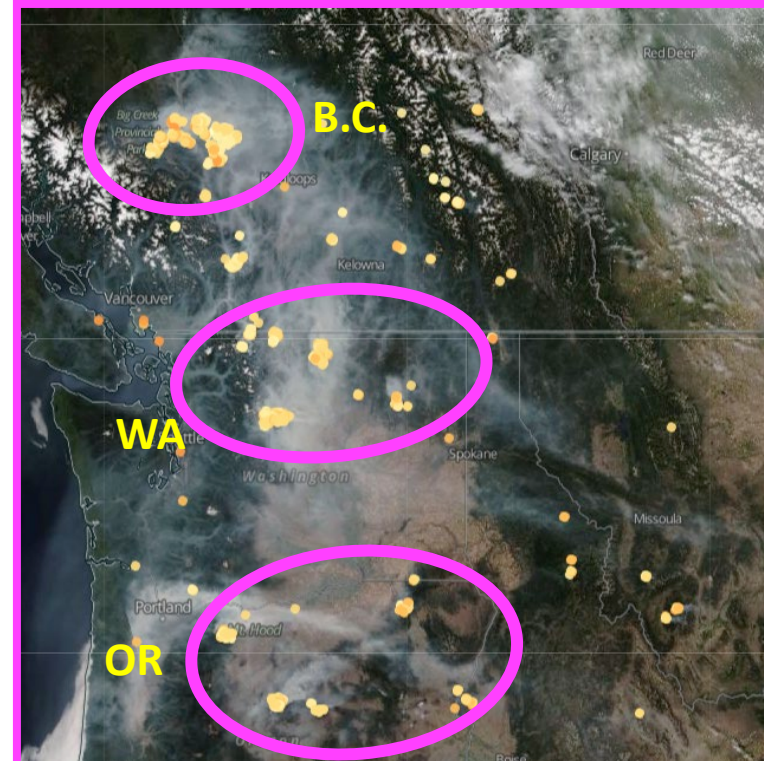
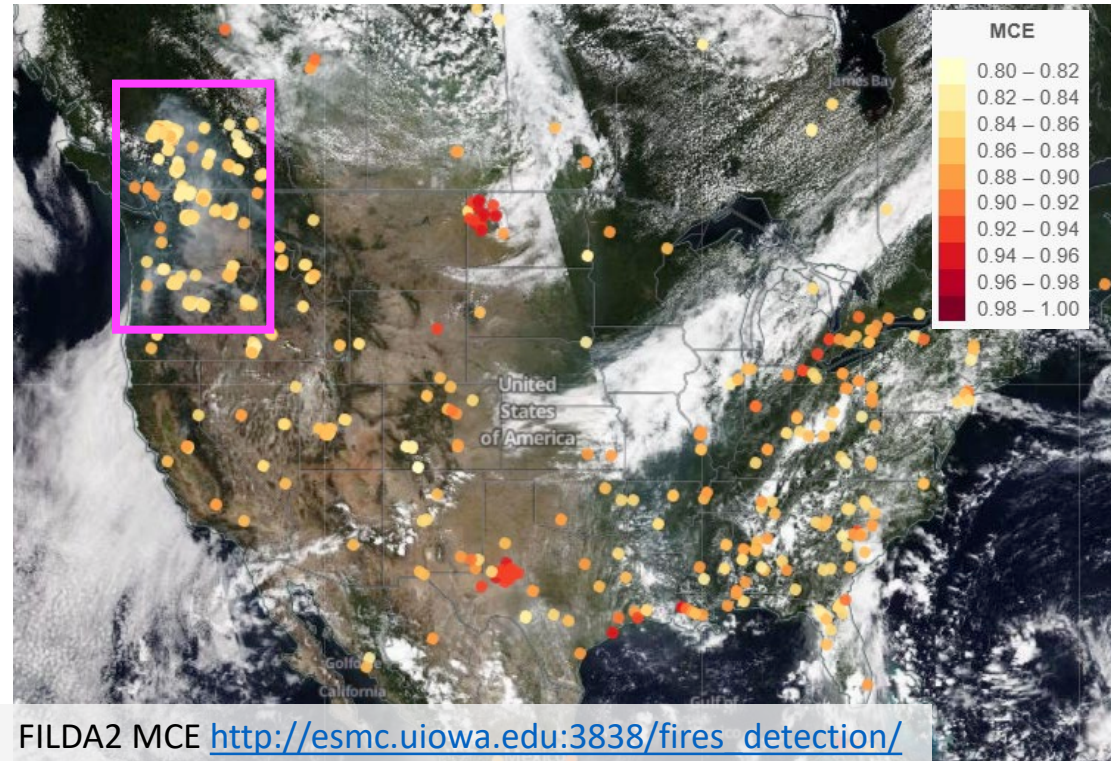
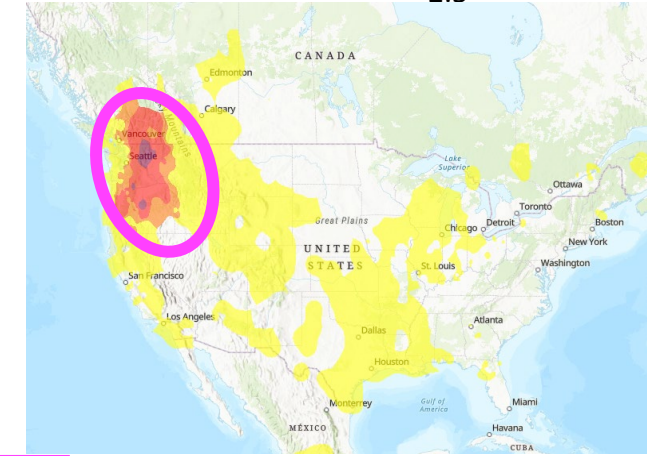
Surface Weather



Precipitation

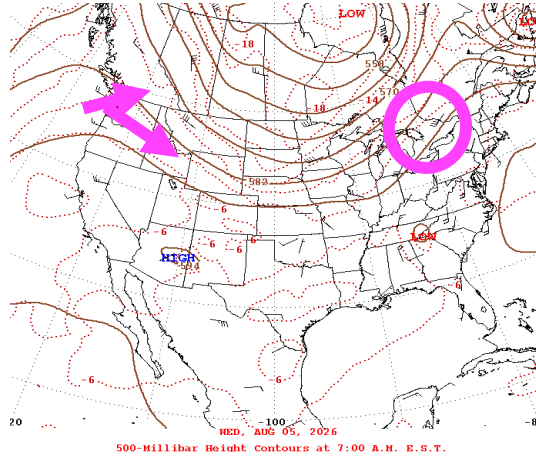


AirNow PM_{2.5} AQI

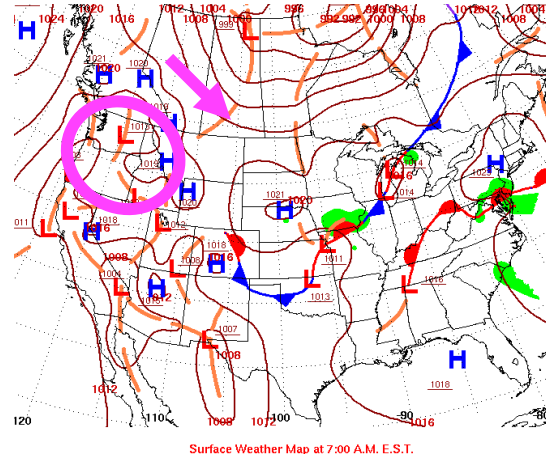


Air Quality Reflection: Wed Aug 5, 2026

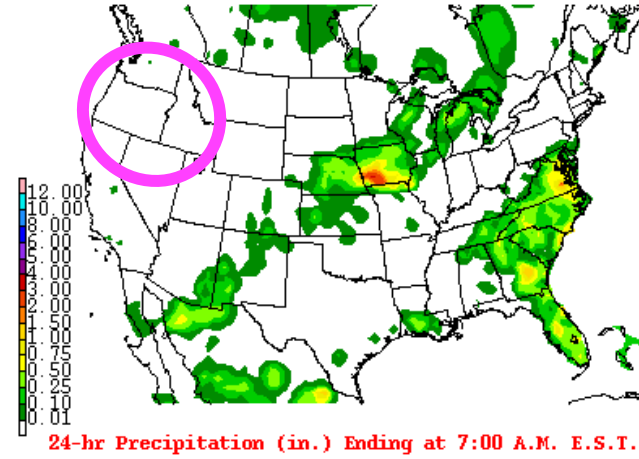
500 mb Contours



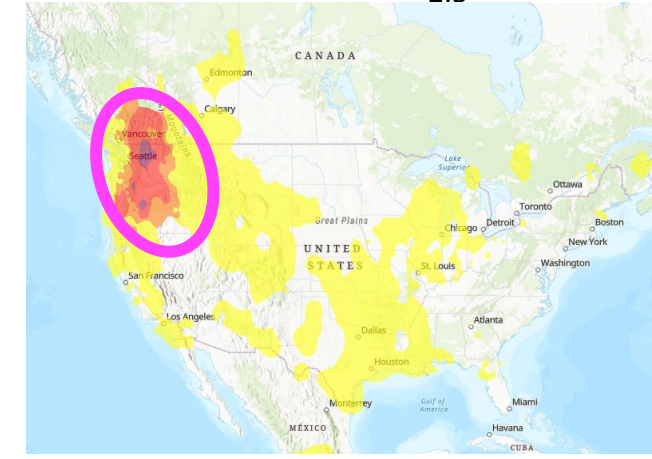
Surface Weather



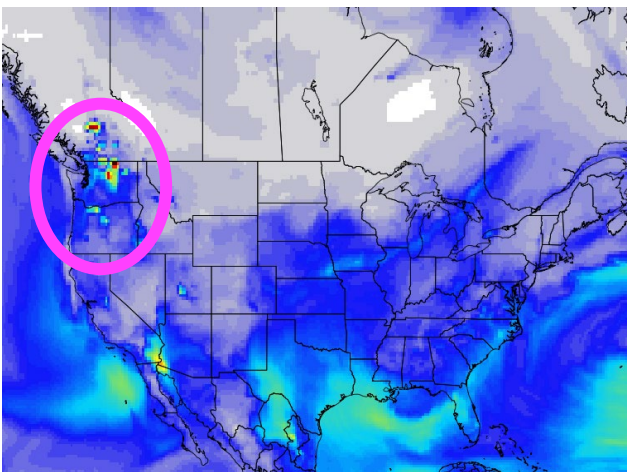
Precipitation



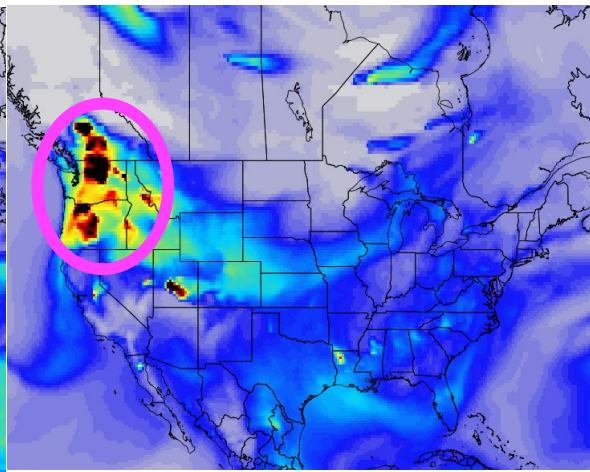
AirNow PM_{2.5} AQI



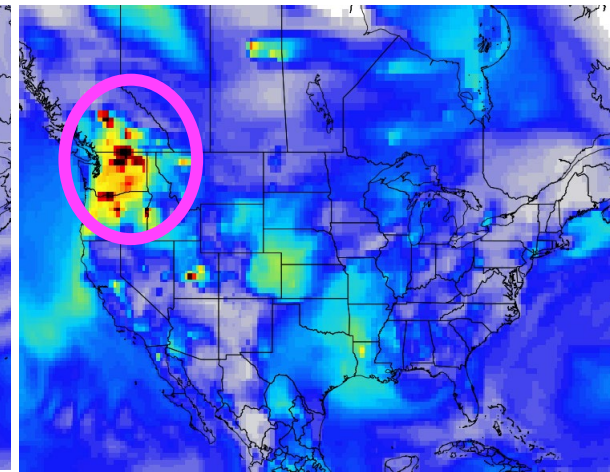
GEOS-FP



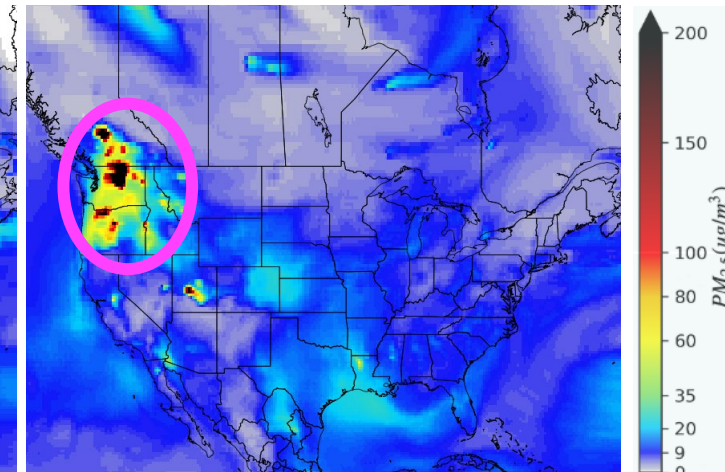
GEOS-CF



CAMS

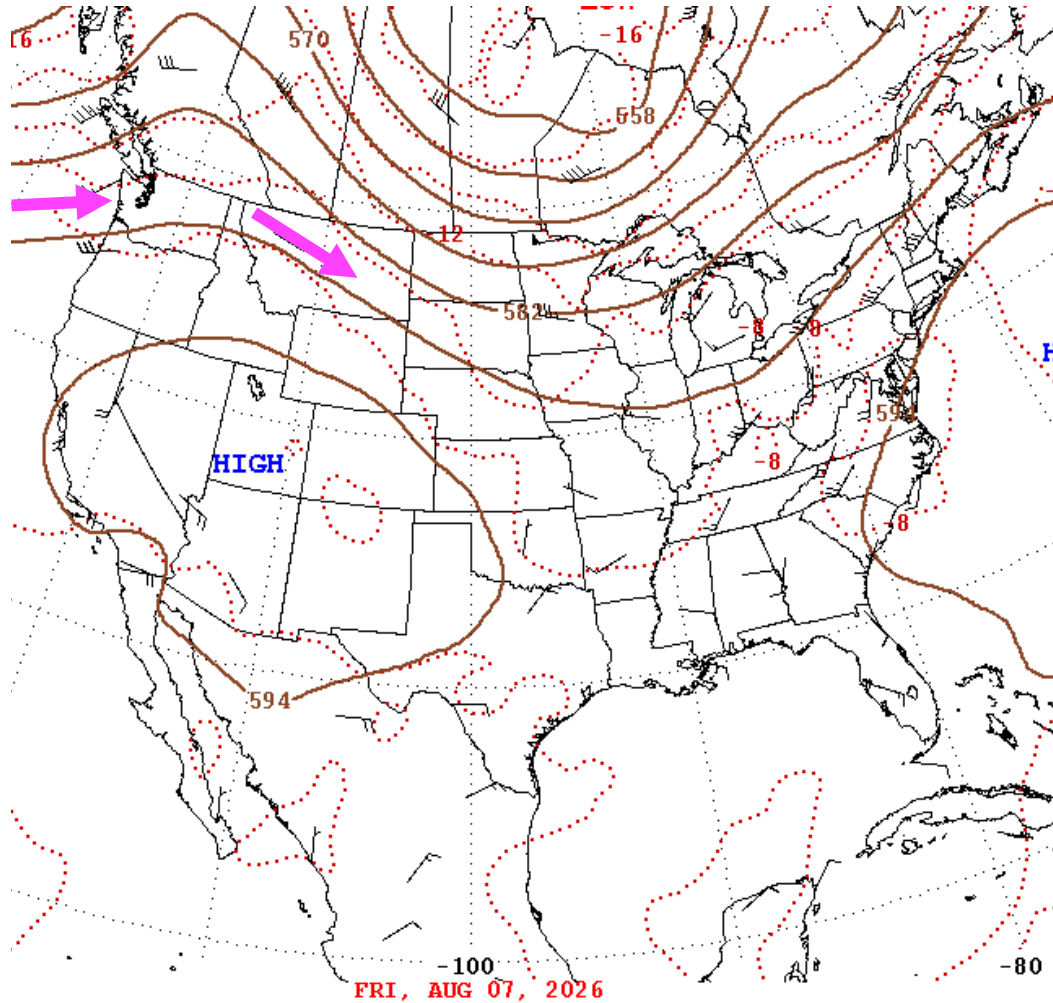


Ensemble



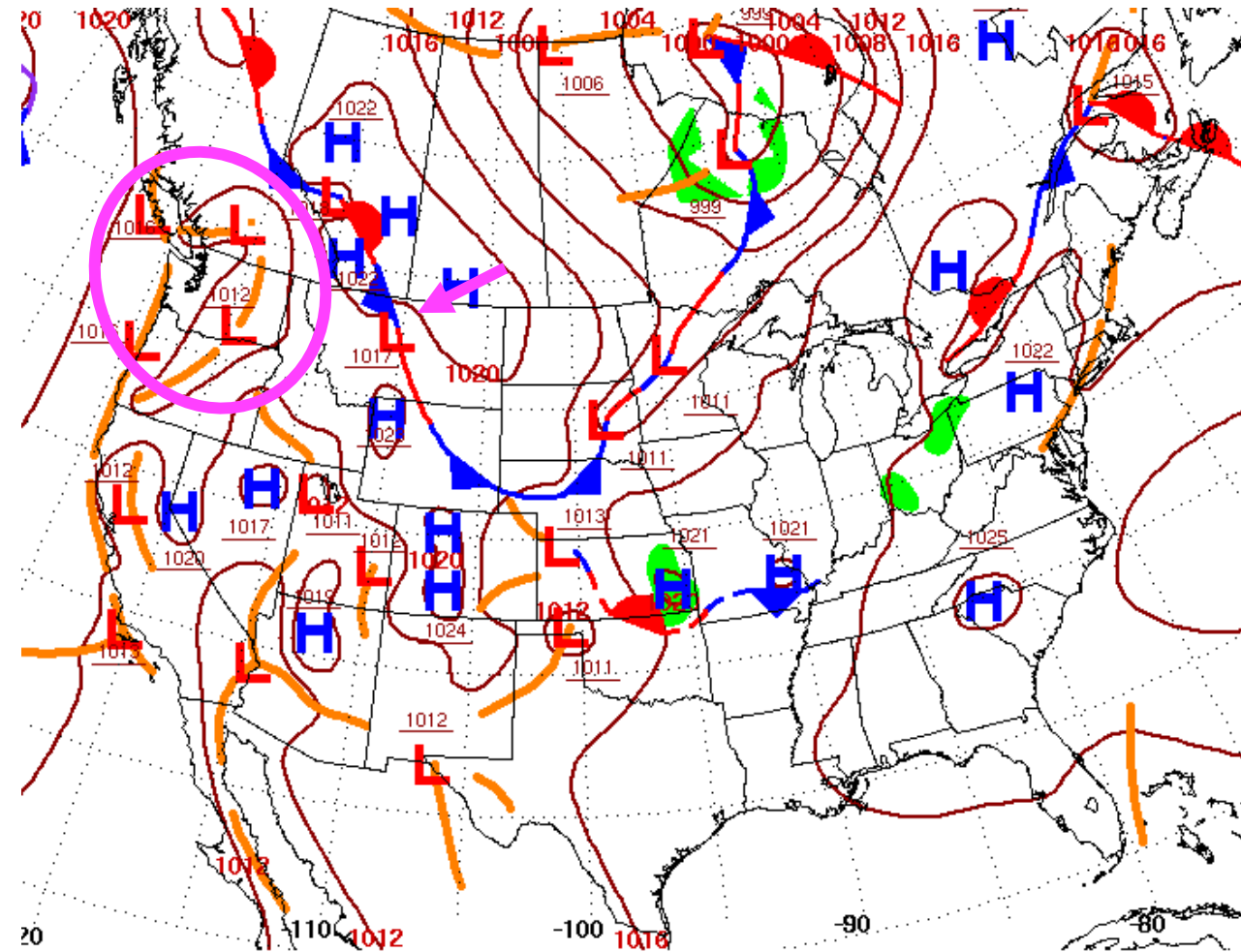
Air Quality Reflection: Friday Aug 7, 2026

500 mb Contours



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

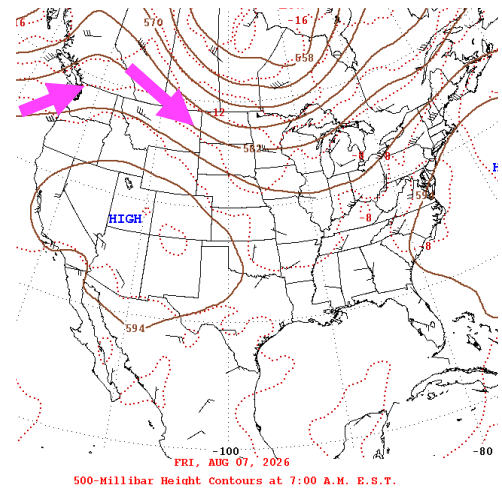
Surface Weather



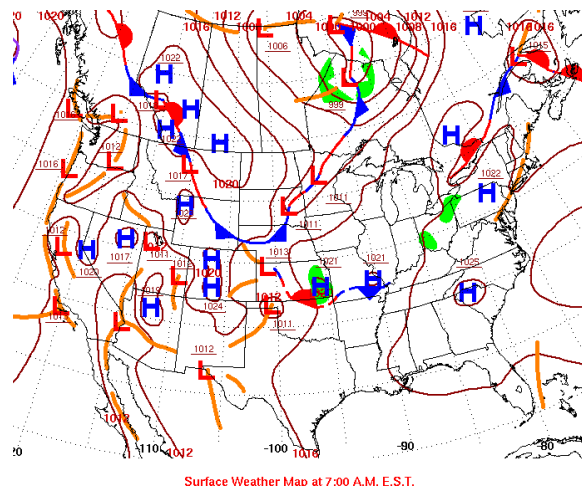
Surface Weather Map at 7:00 A.M. E.S.T.

Air Quality Reflection: Friday Aug 7, 2026

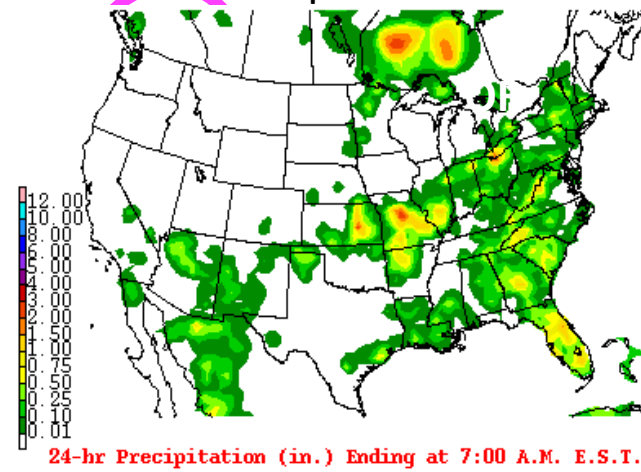
500 mb Contours



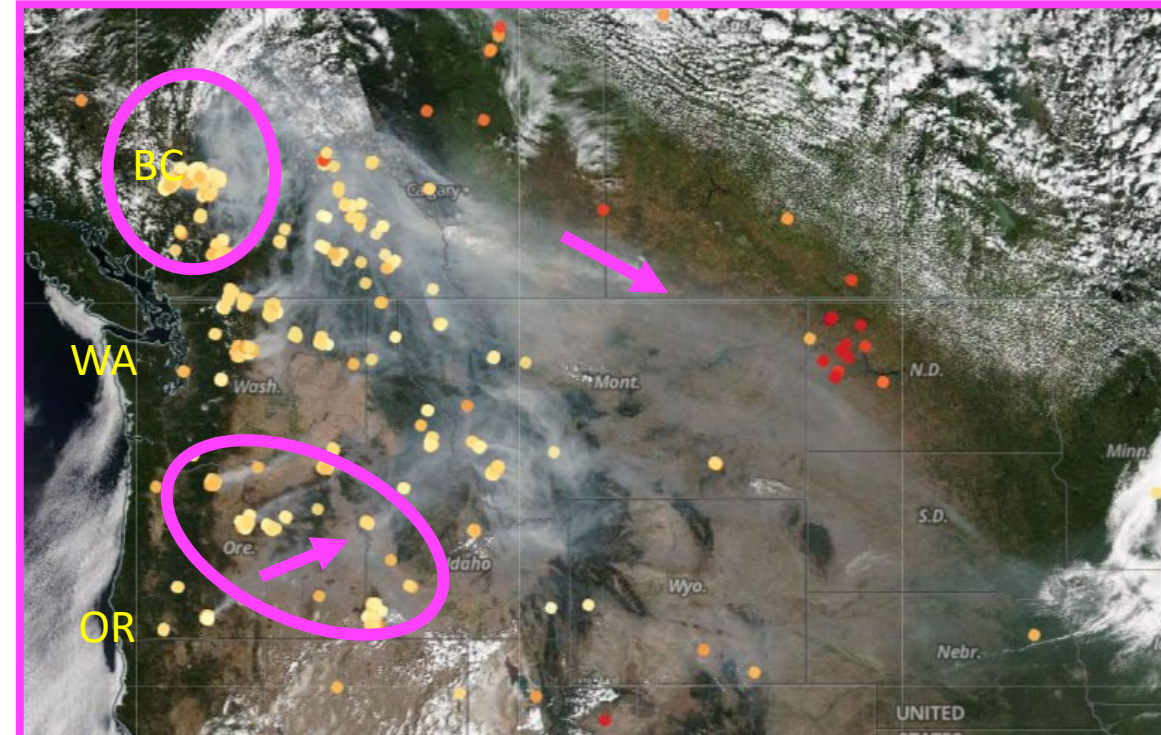
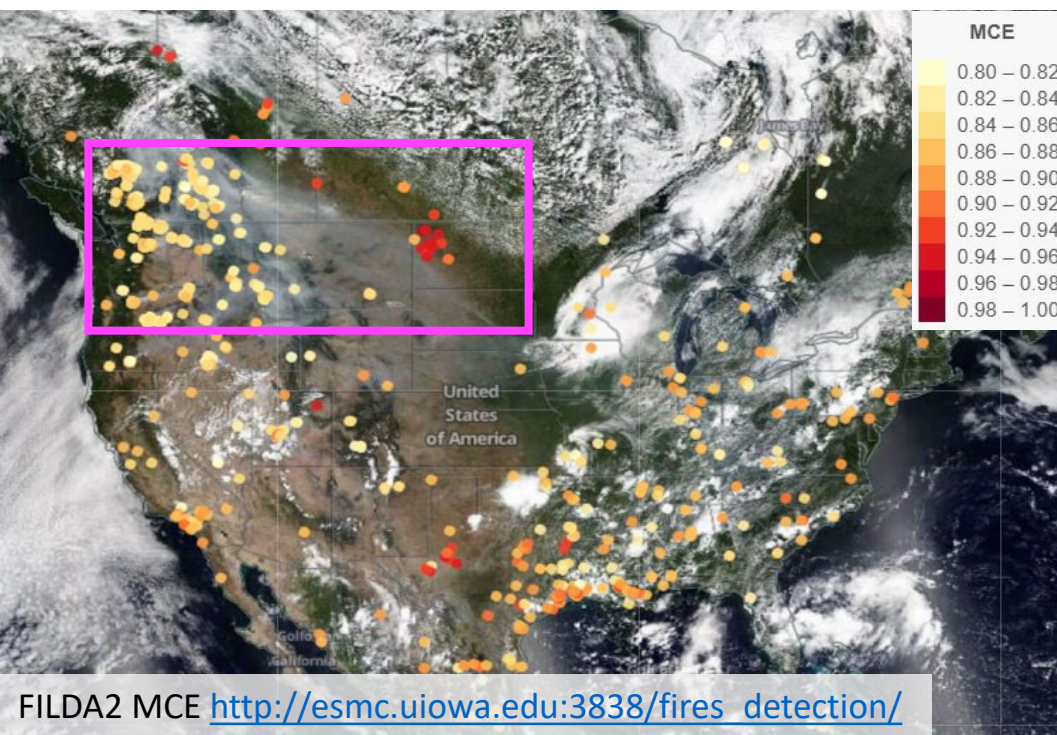
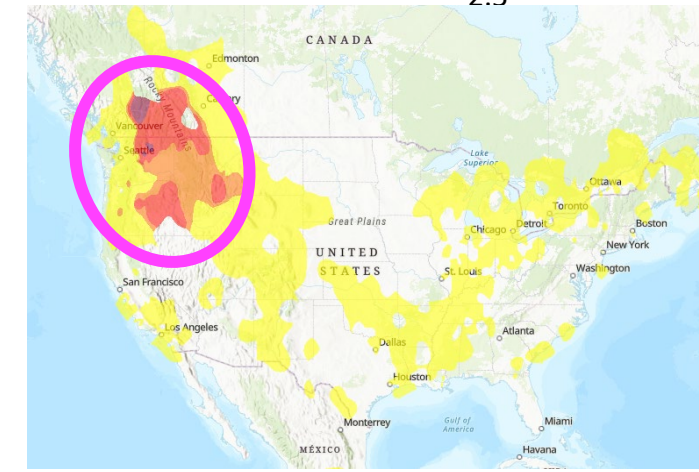
Surface Weather



Precipitation

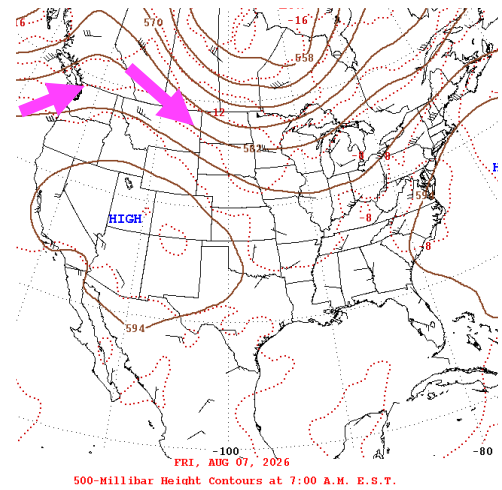


AirNow PM_{2.5} AQI

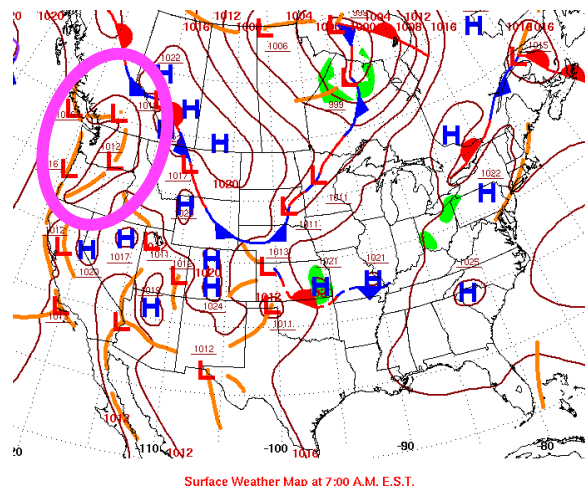


Air Quality Reflection: Friday Aug 7, 2026

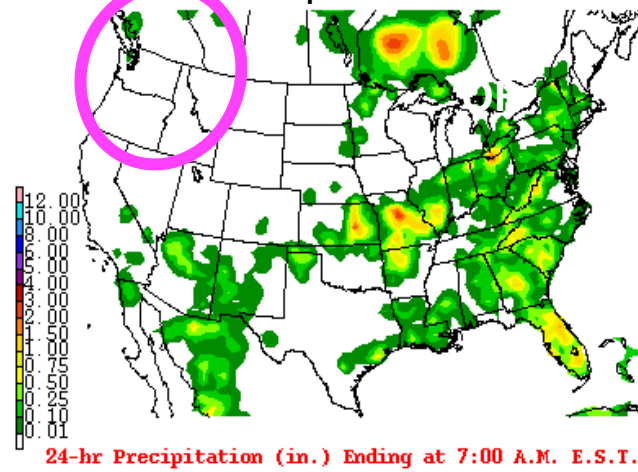
500 mb Contours



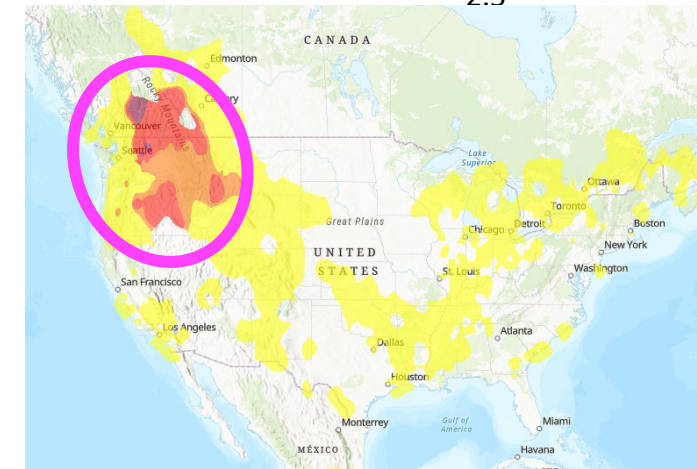
Surface Weather



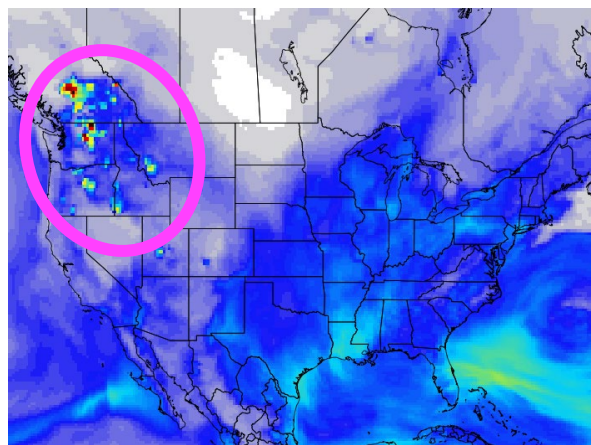
Precipitation



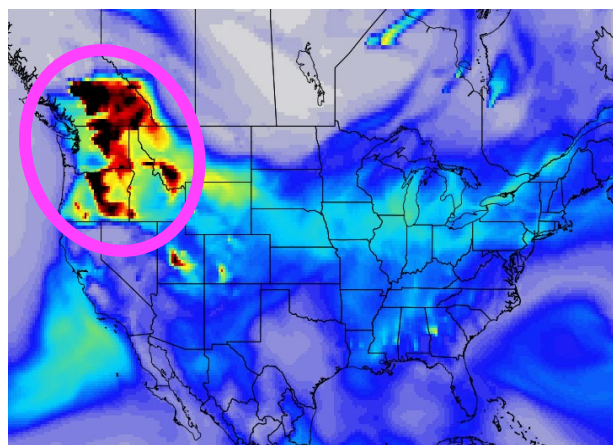
AirNow PM_{2.5} AQI



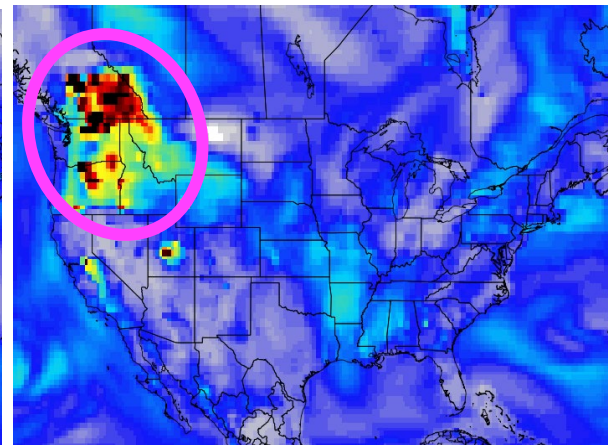
GEOS-FP



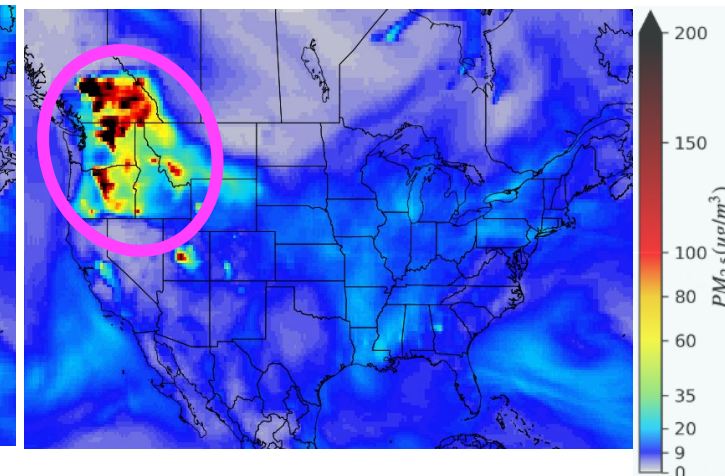
GEOS-CF



CAMS

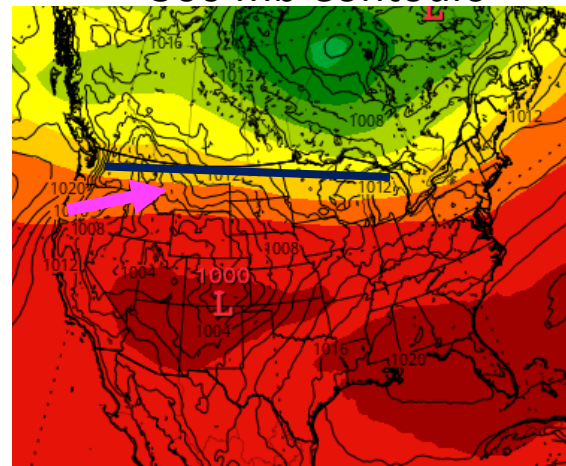


Ensemble

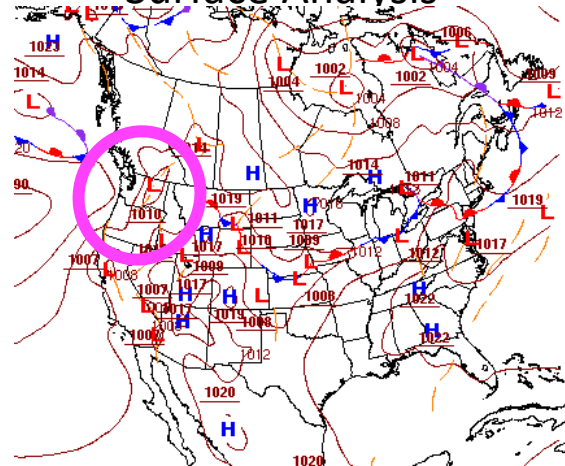


Current Status: August 10, 2026

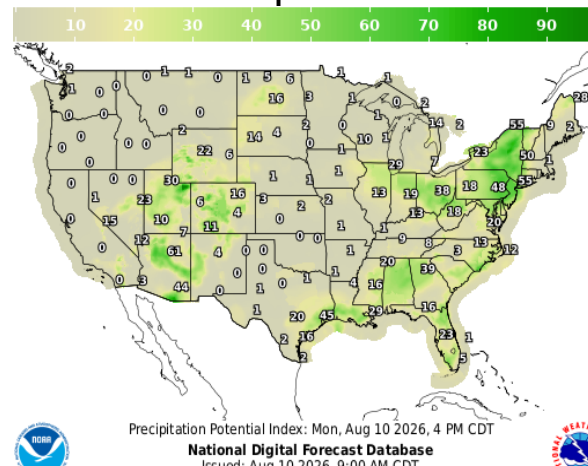
500 mb Contours



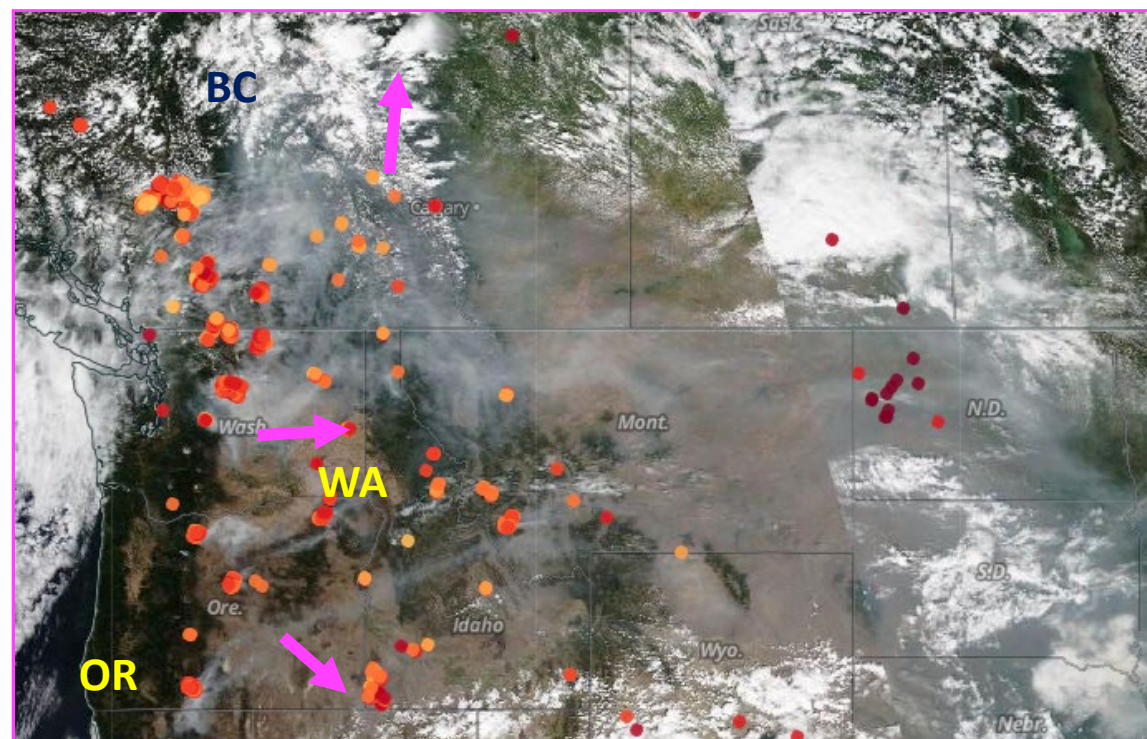
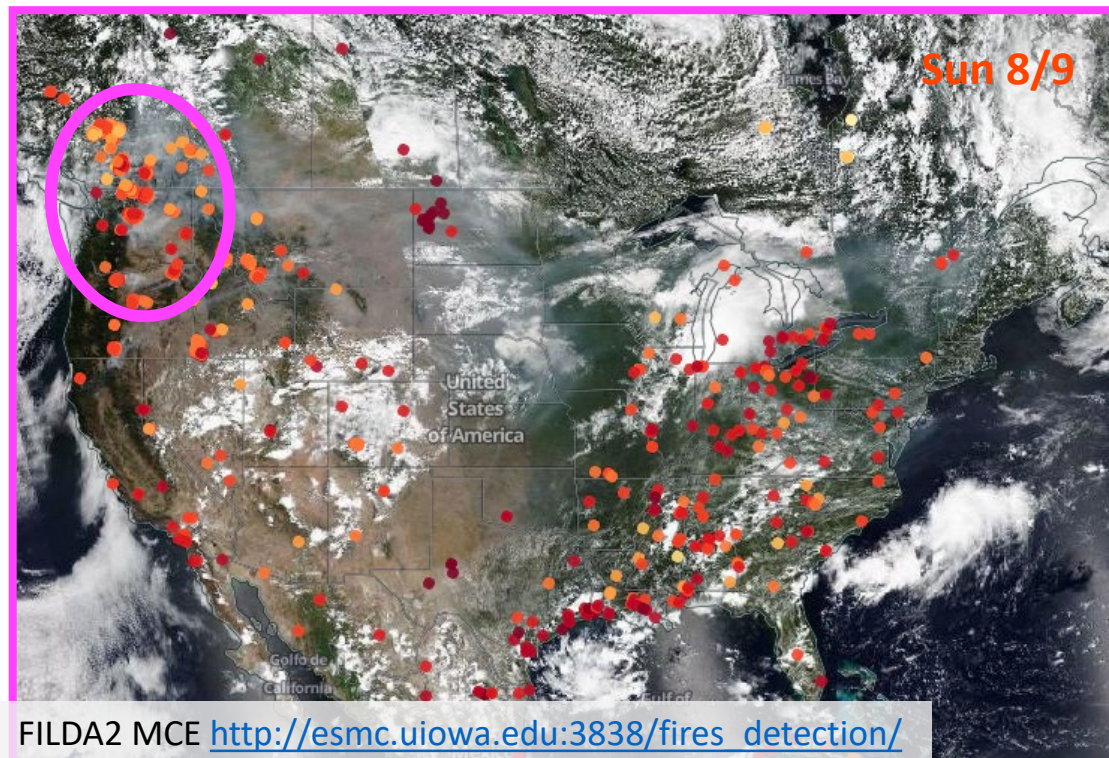
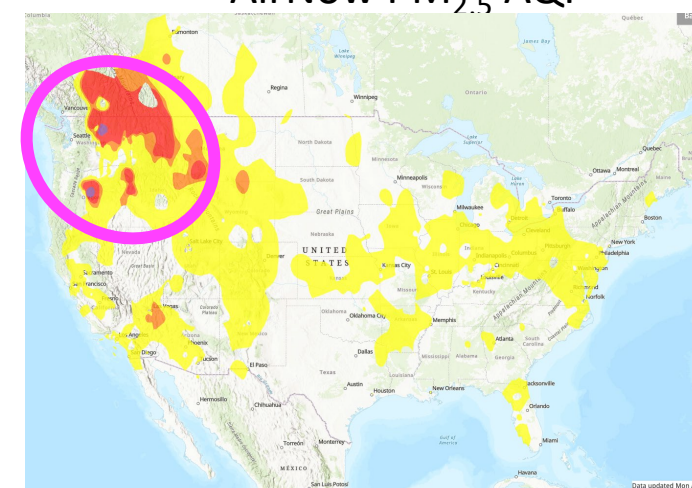
Surface Analysis



Precip. Prob.



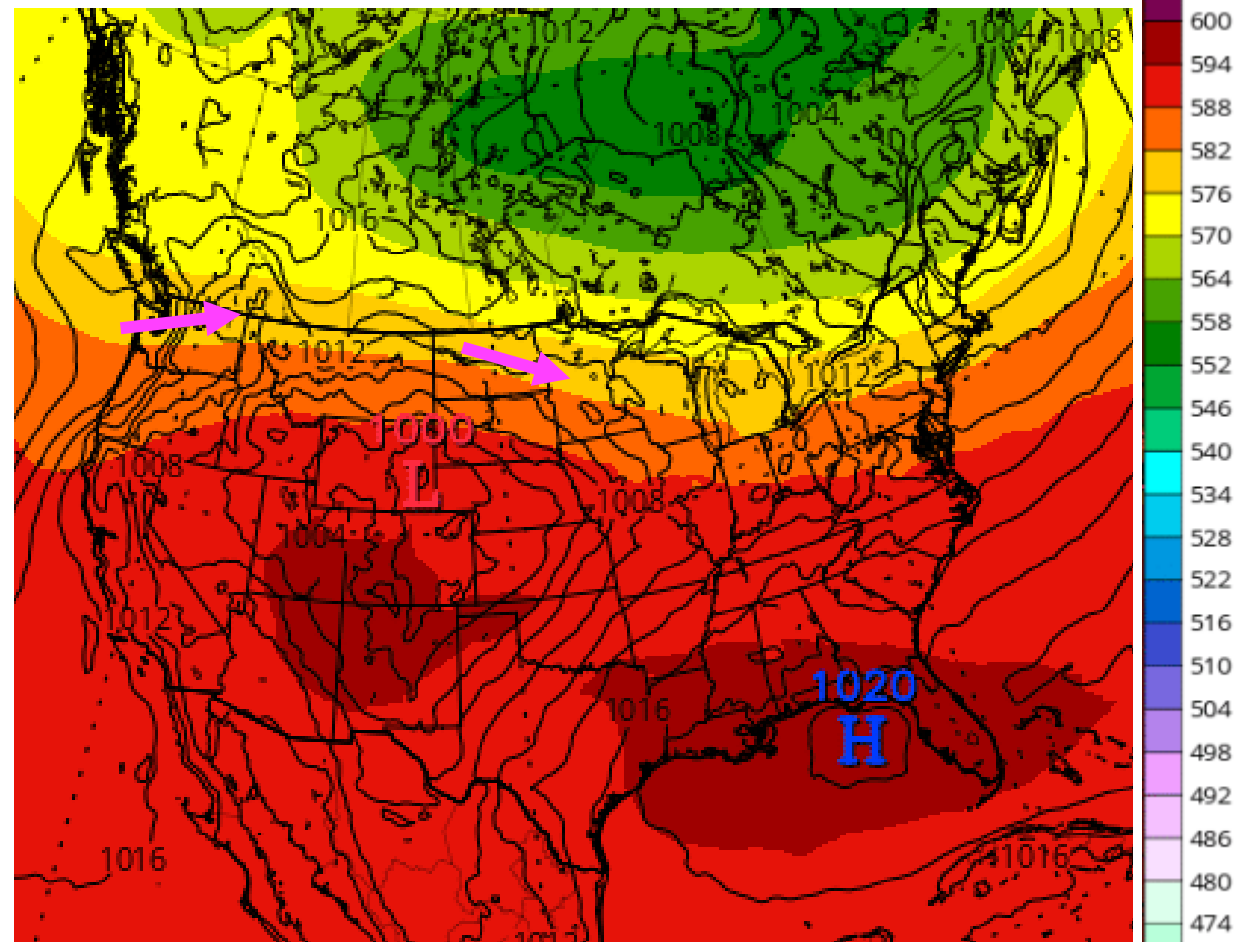
AirNow PM_{2.5} AQI



Outlook: Short Range (1–3 days)

(Forecast **Tuesday 8/11**)

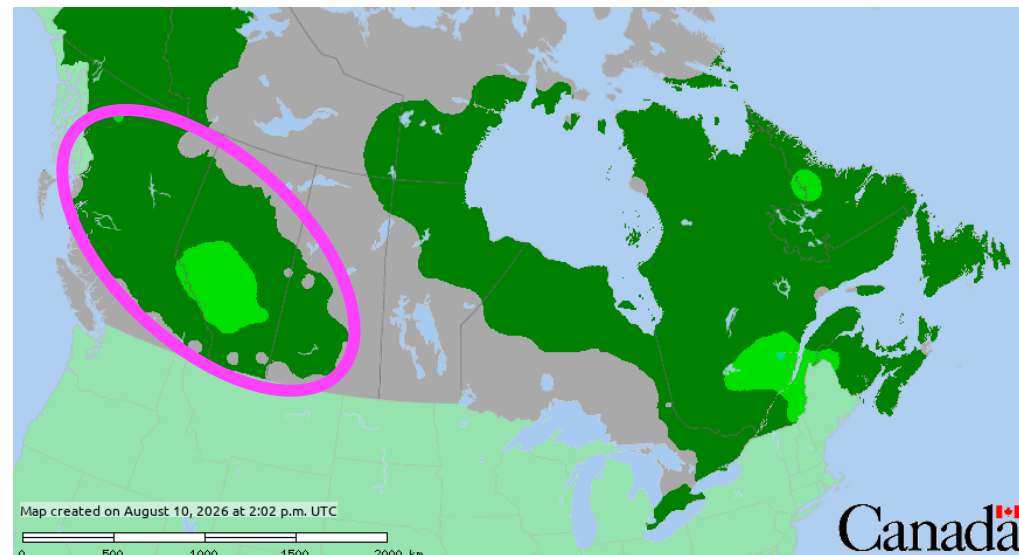
GFS 500 mb



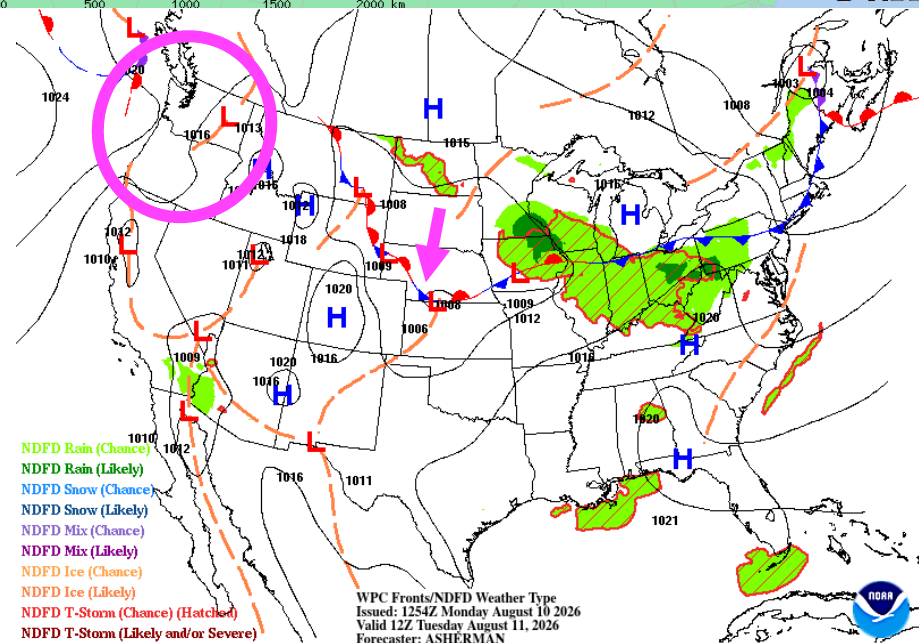
GFS 500mb Geopotential Height (dam) & MSLP (mb)

Init: 06z Aug 10 2026 Forecast Hour: [36] valid at 18z Tue, Aug 11 2026

Environ.
Canada
Forecast

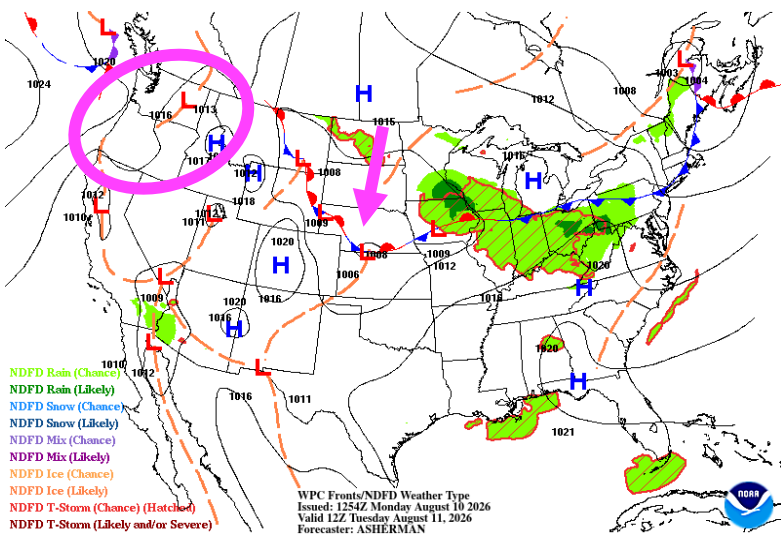


US NWS
Forecast

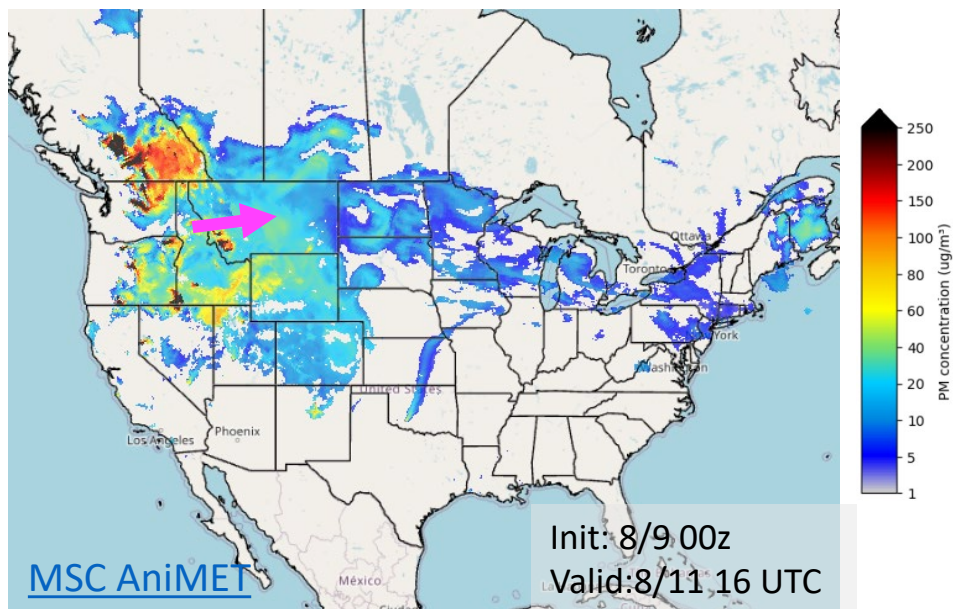


Outlook: Short Range (1–3 days)

Surface Forecast



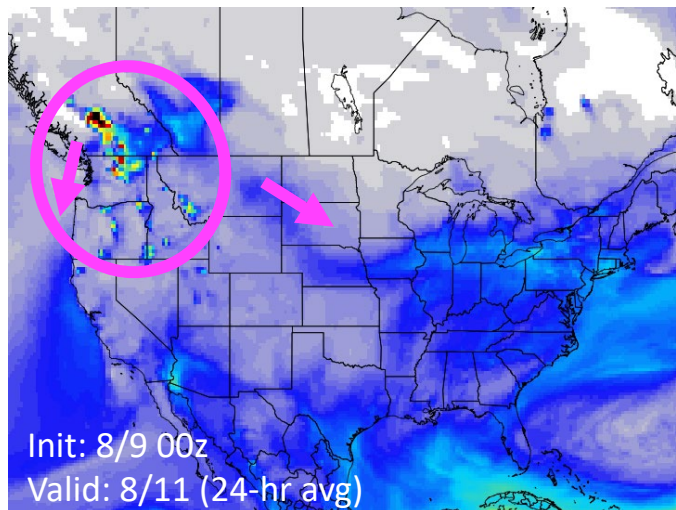
Canada MSC AniMET



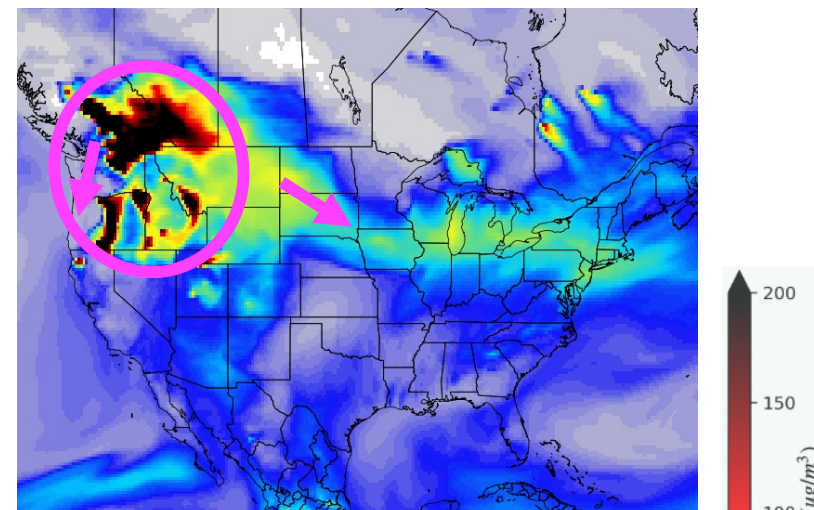
(Tuesday 8/11)

Model Means PM_{2.5}

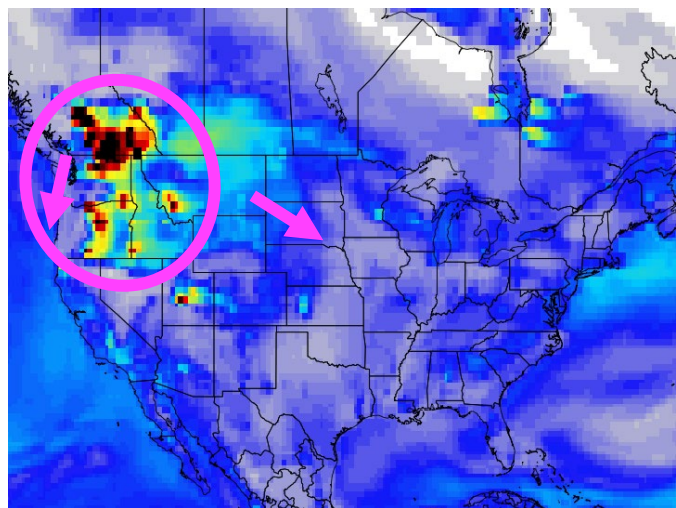
GEOS-FP



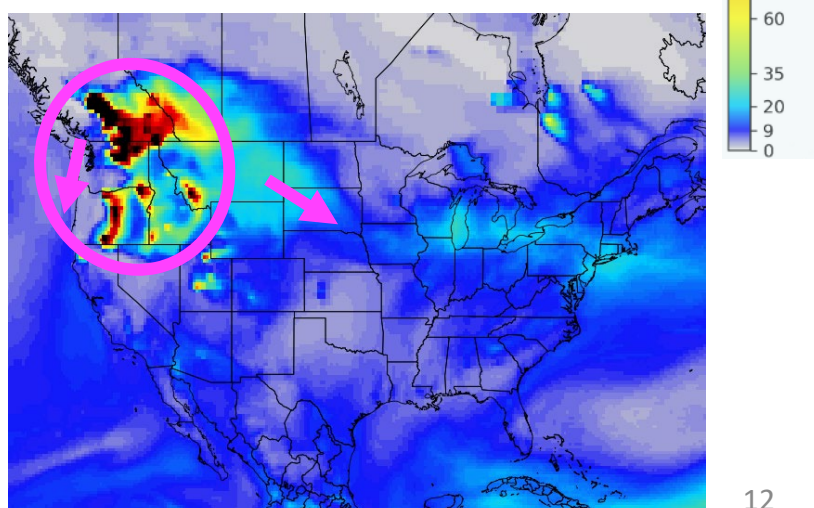
GEOS-CF



CAMS



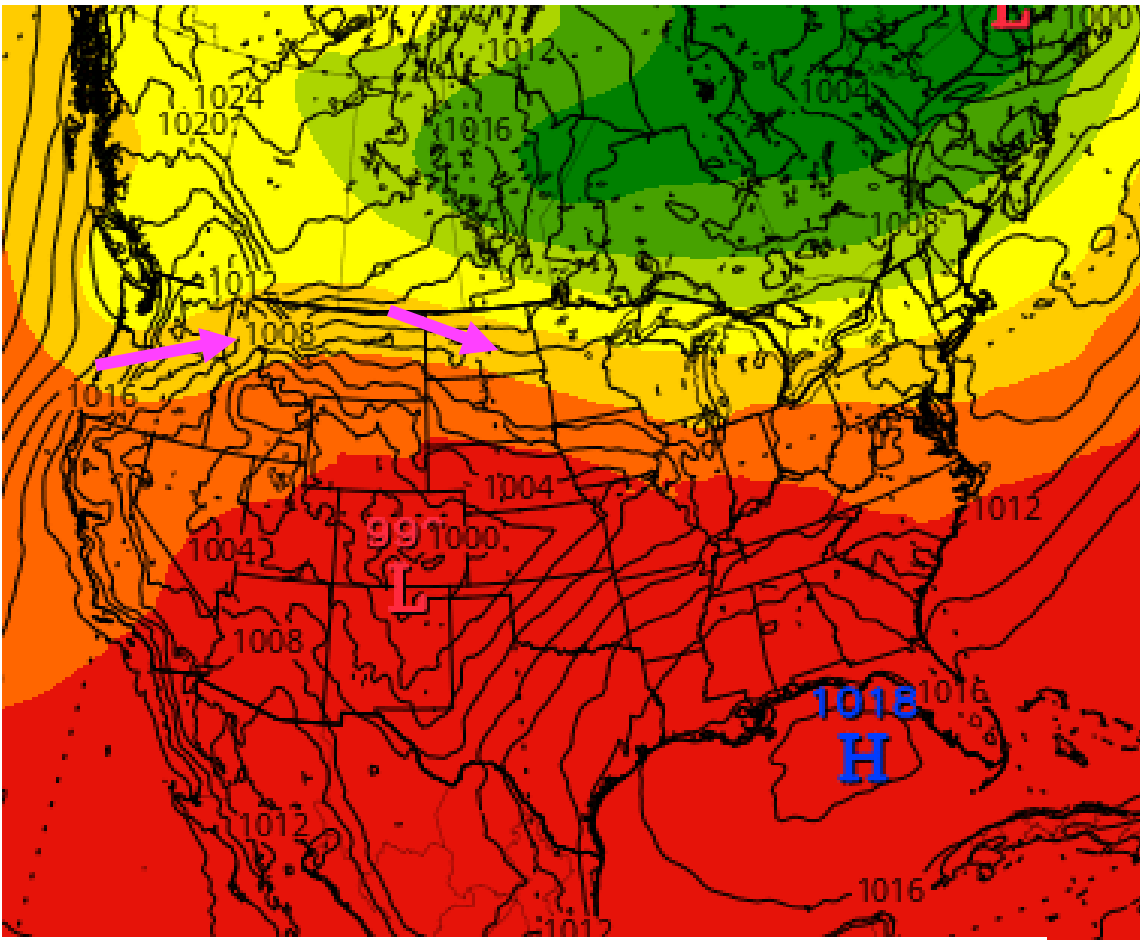
Ensemble



Outlook: Short Range (1–3 days)

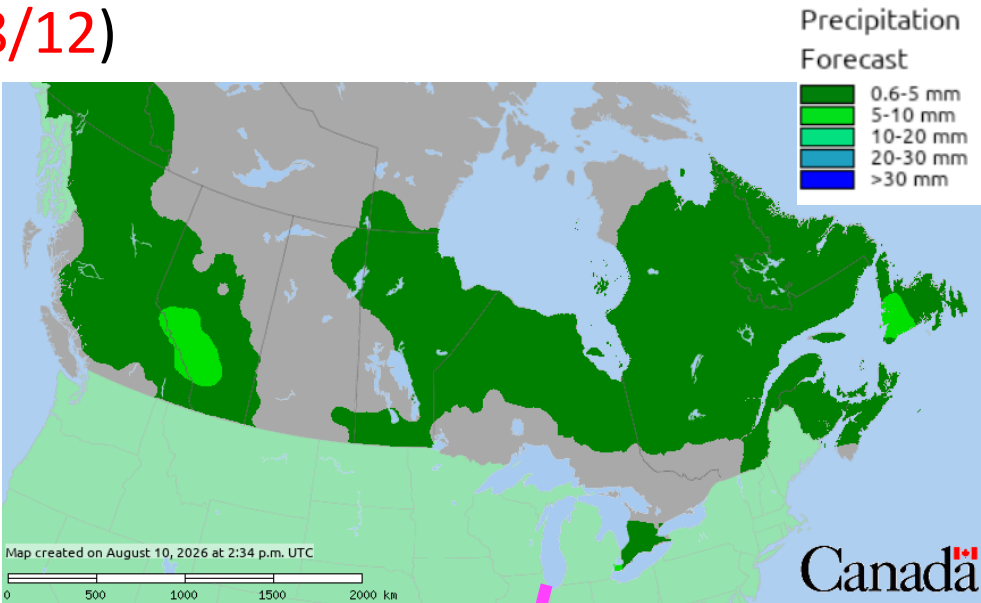
(Forecast **Wednesday 8/12**)

GFS 500 mb

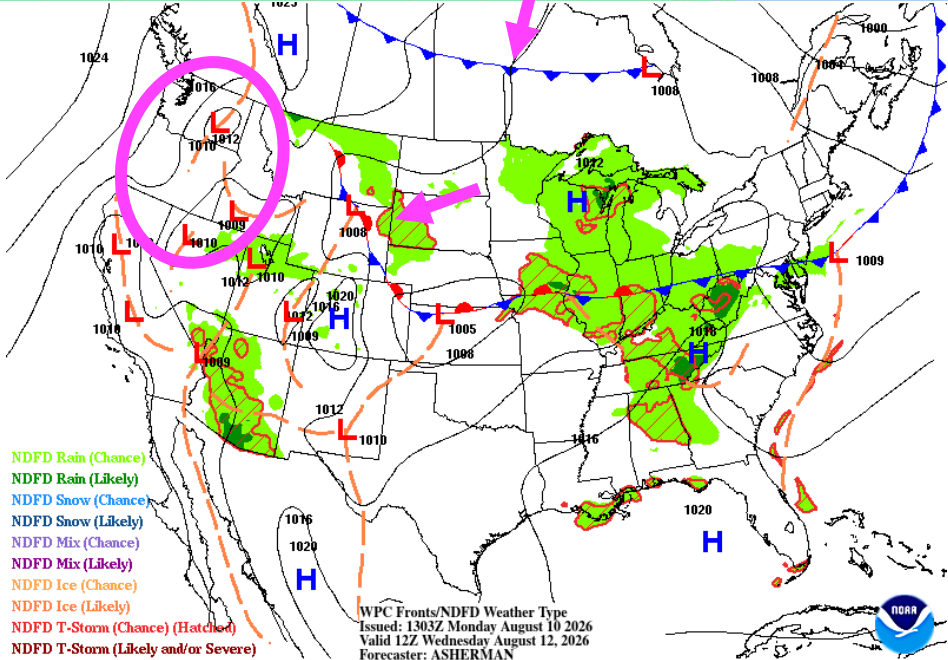


GFS 500mb Geopotential Height (dam) & MSLP (mb)
Init: 06z Aug 10 2026 Forecast Hour: [60] valid at 18z Wed, Aug 12 2026

Environ.
Canada
Forecast

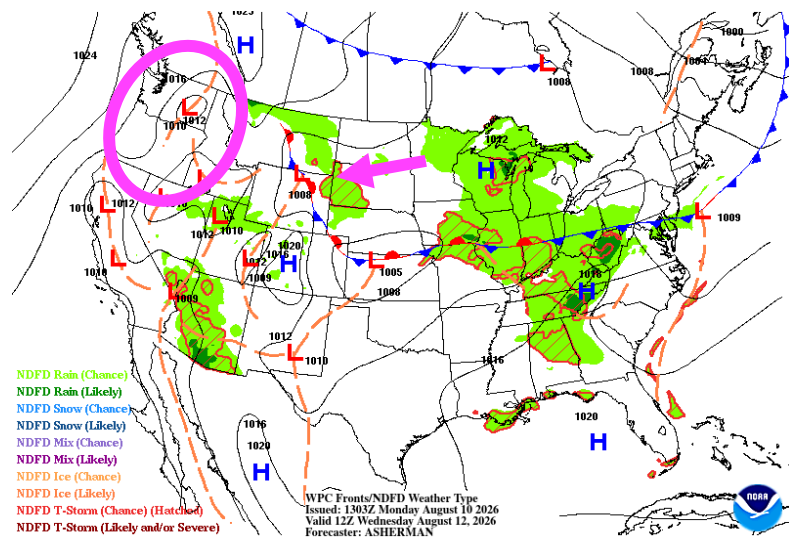


US NWS
Forecast

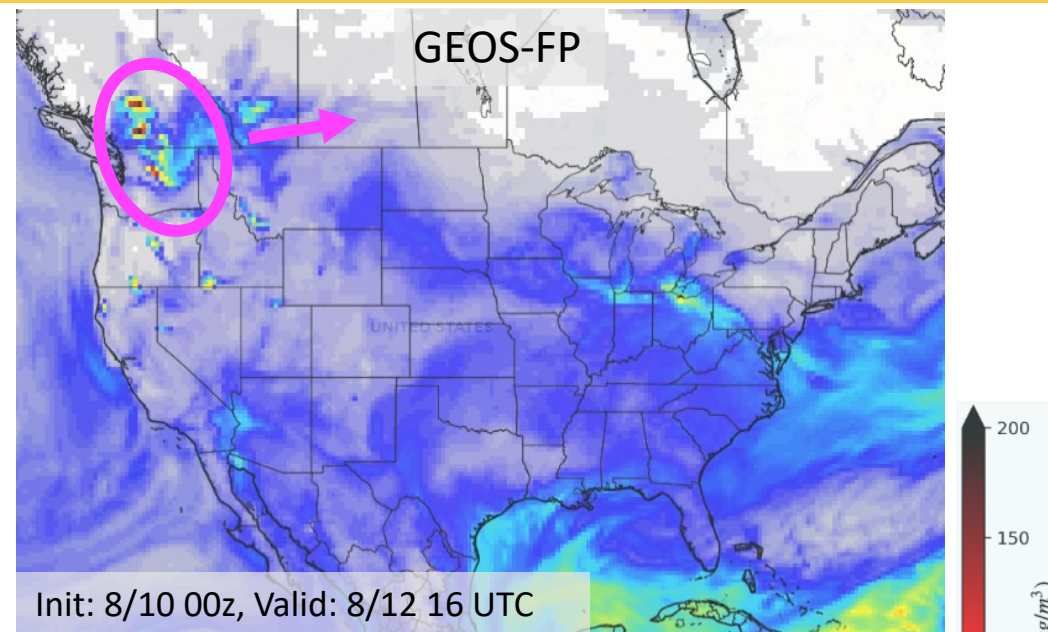


Outlook: Short Range (1–3 days)

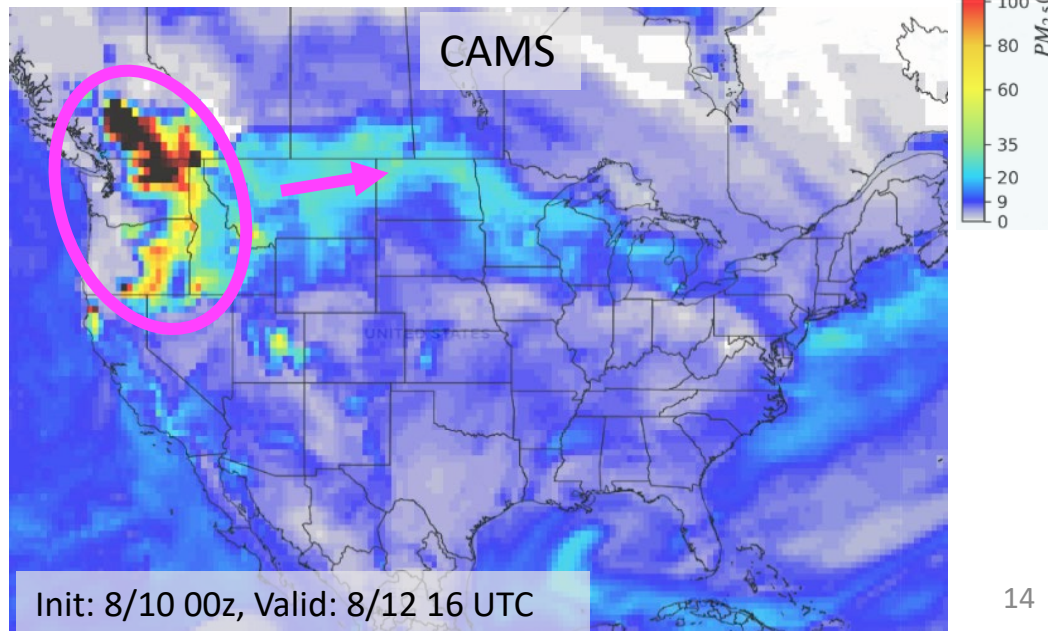
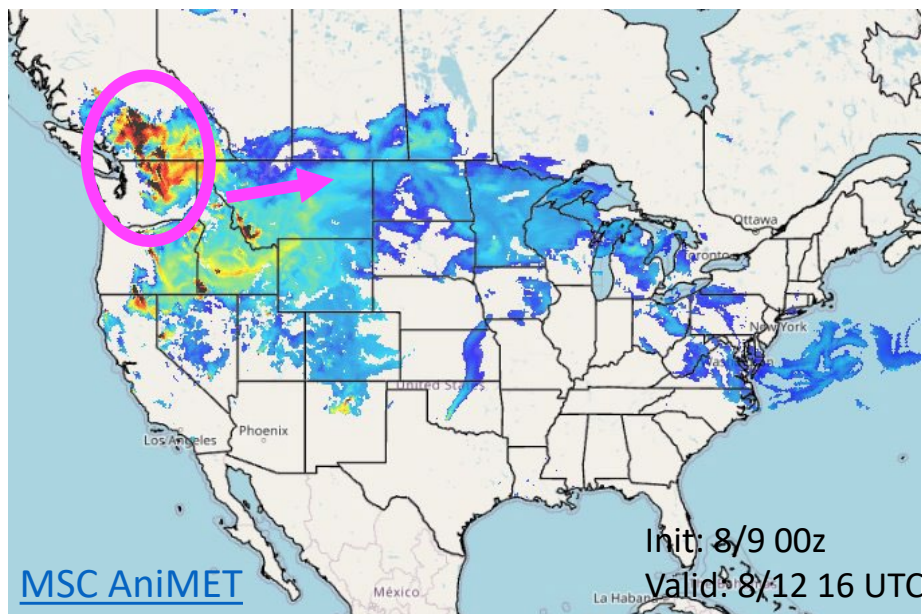
Surface Forecast



(Wednesday 8/12)

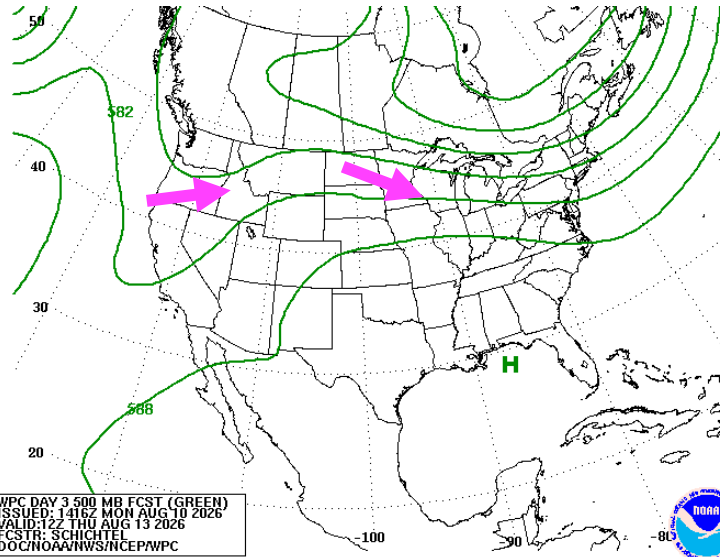


Canada MSC AniMET

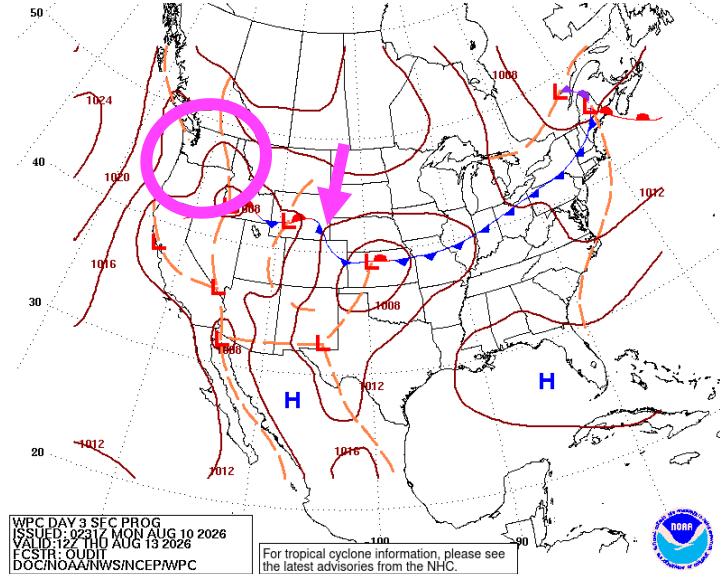


Outlook: Medium Range

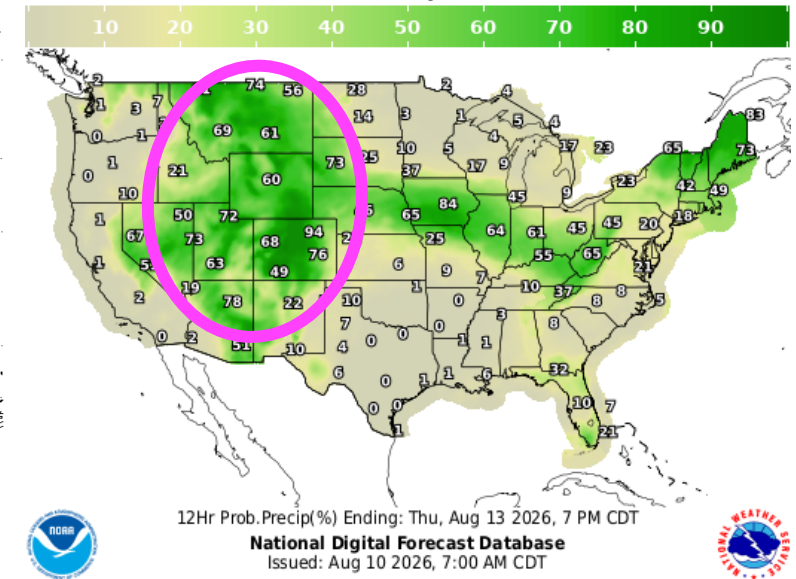
500 mb Contours



Sea Level

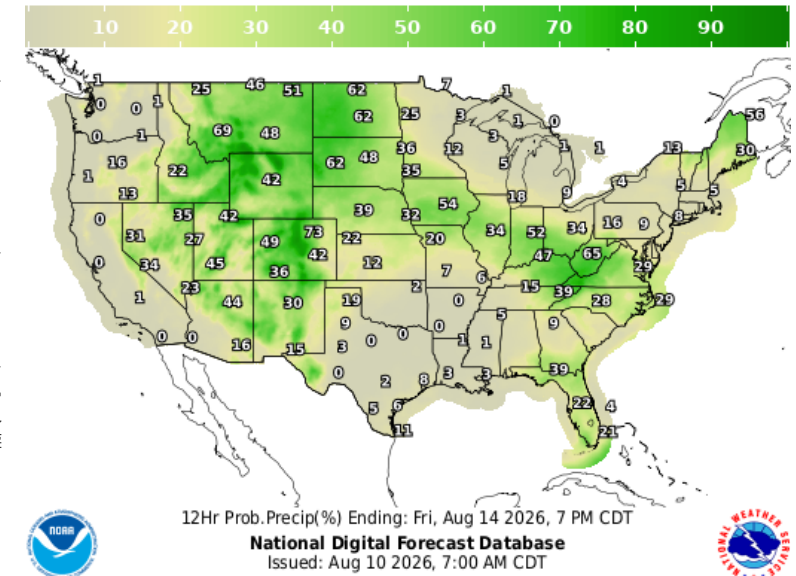
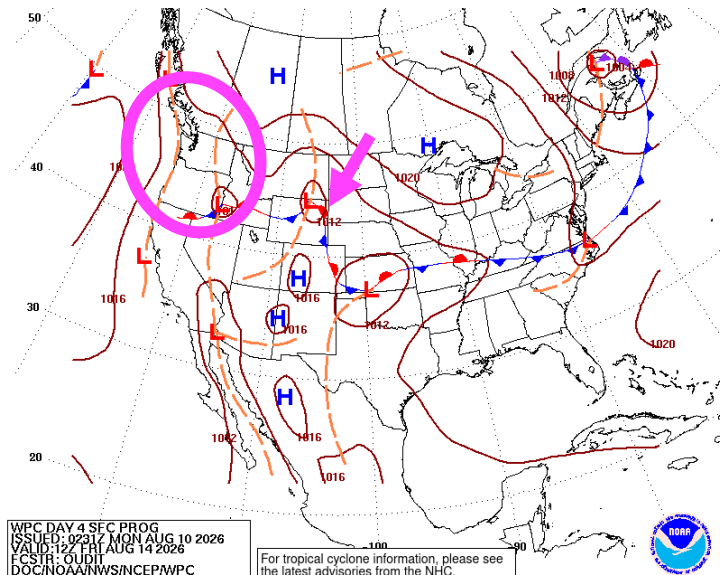
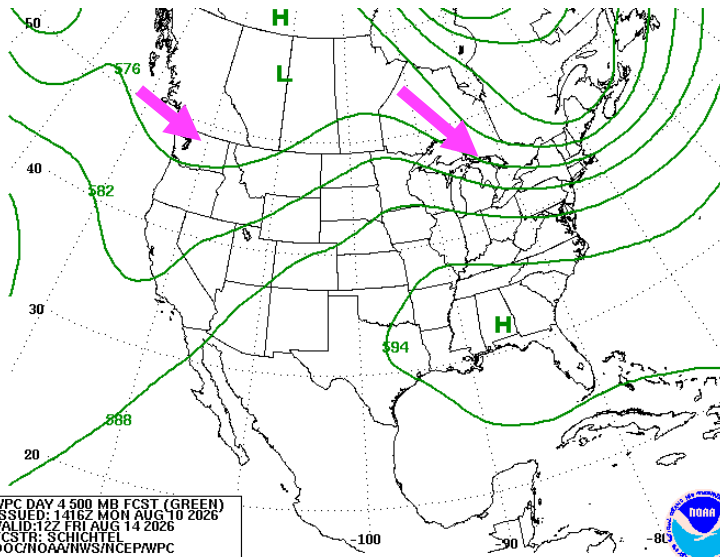


Precip Prob.



Thurs
8/13

Friday
8/14



Summary

Monday: Fires in the PNW and B.C. remain active and continue to contribute to unhealthy and hazardous AQI in the region. Aged smoke in the upper atmosphere has easterly transport.

T → W: The PNW and B.C. remain dry with little to no forecasted precip. Easterly smoke transport continues as a stationary front sets up in MT and WY.

Th → F: Upper atmosphere promotes continued E/NE transport of aged smoke from PNW and B.C. fires. Mid to high probabilities of precip in MT, WY, UT, and CO.

