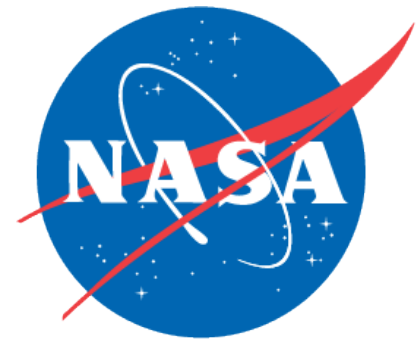


Weather and Air Quality: Reflection and Outlook During Smoke Conditions

Presenter: Megan Christiansen
Date: August 17, 2026

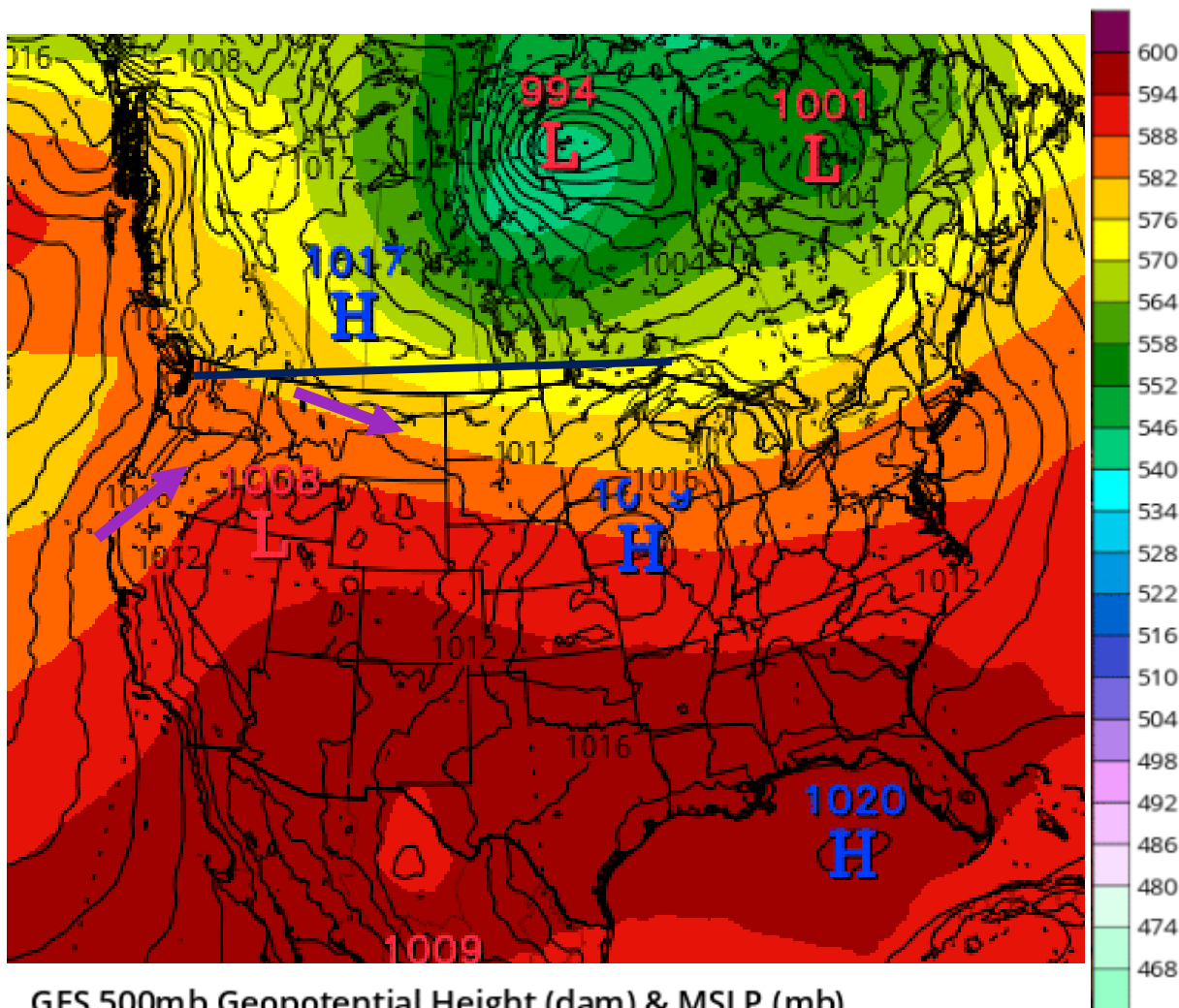
FireAQ is funded by NASA HAQ. We thank NASA GMAO and ECMWF for the model data products.



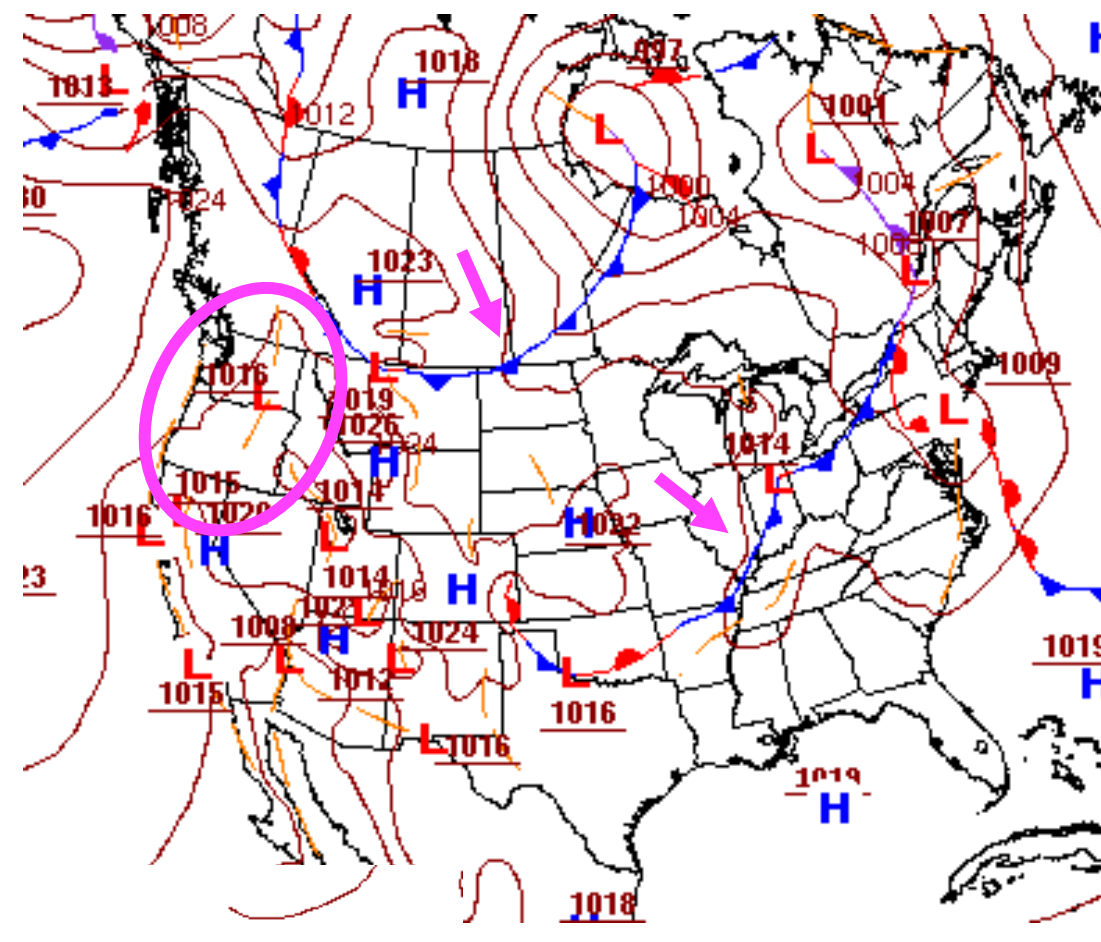
EARTH SCIENCE
APPLIED SCIENCES

Current Status: August 17, 2026

500 mb Contours



Surface Analysis



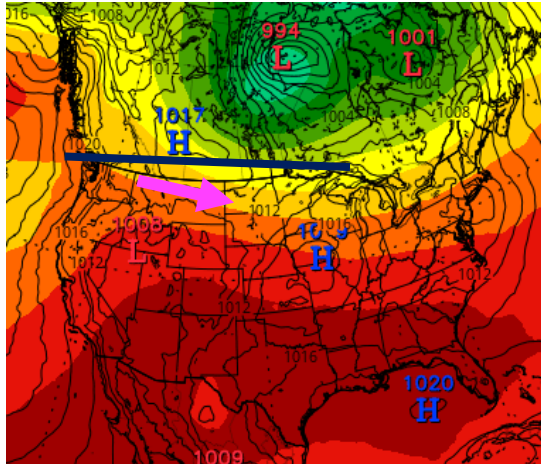
1200Z SURFACE ANALYSIS
DATE: MON AUG 17 2026
ISSUED: 1335Z MON AUG 17 2026
BY WPC ANALYST MULLINAX
COLLABORATING CENTERS: WPC, NHC, OPC

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

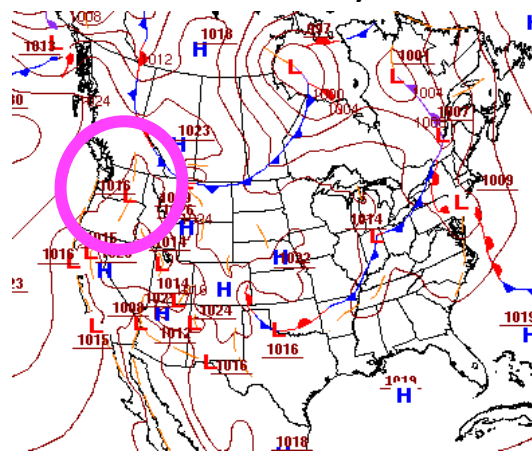
Init: 06z Aug 17 2026 Forecast Hour: [12] valid at 18z Mon, Aug 17 2026

Current Status: August 17, 2026

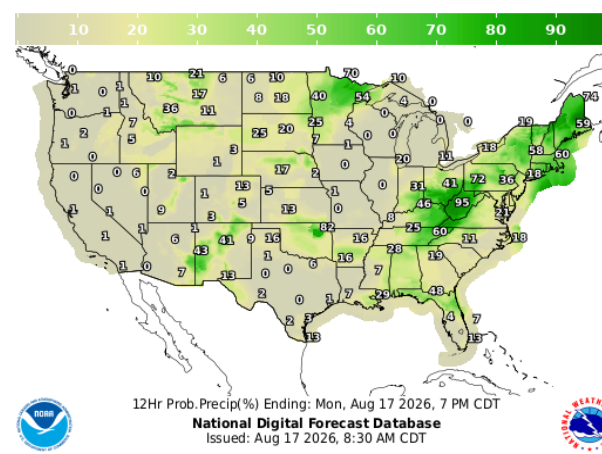
500 mb Contours



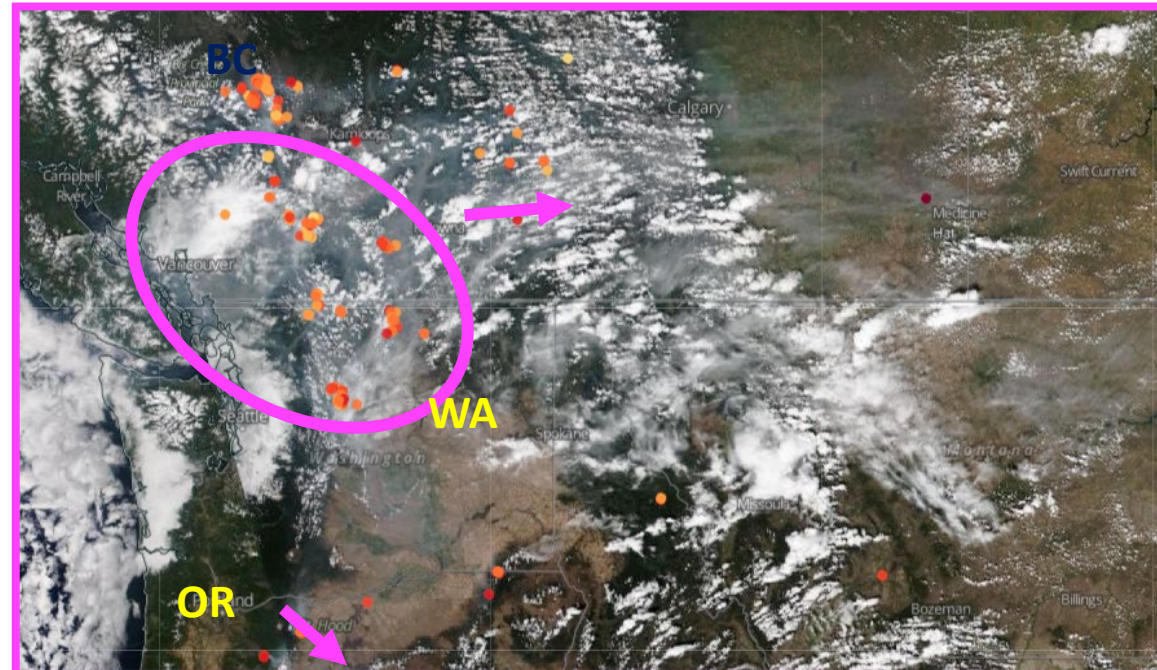
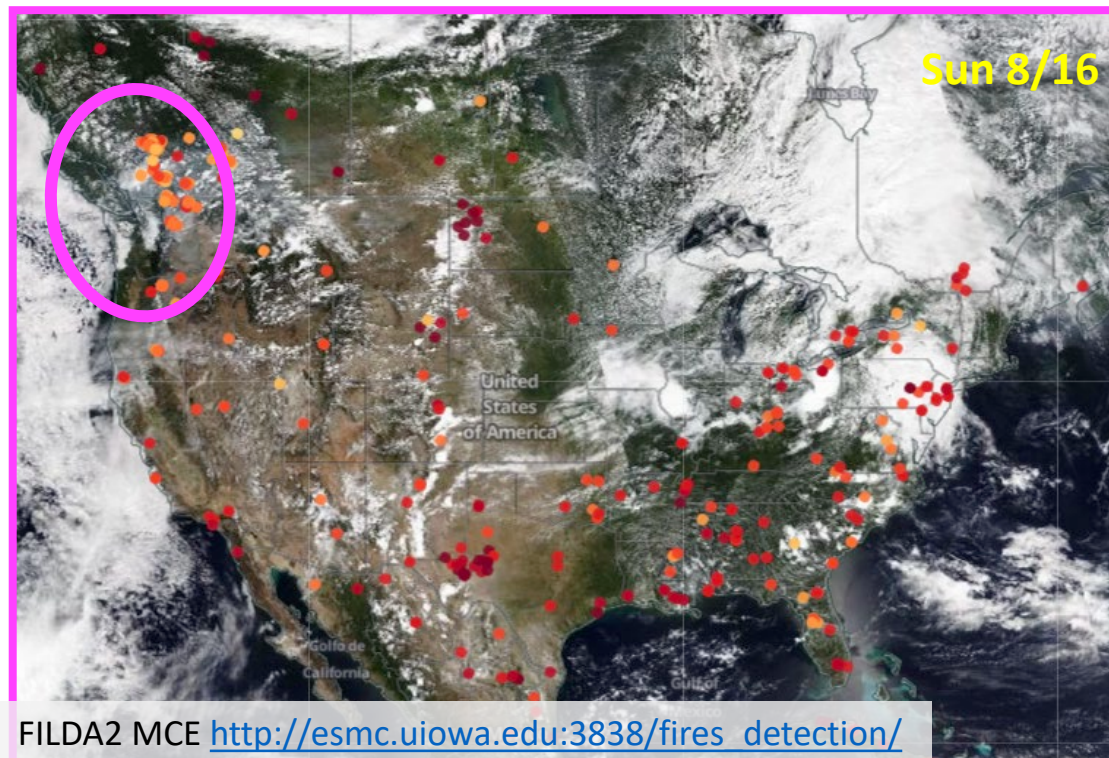
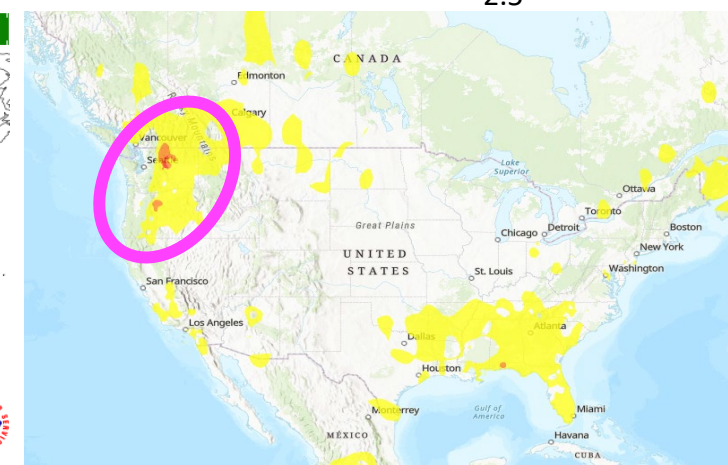
Surface Analysis



Precip. Prob.

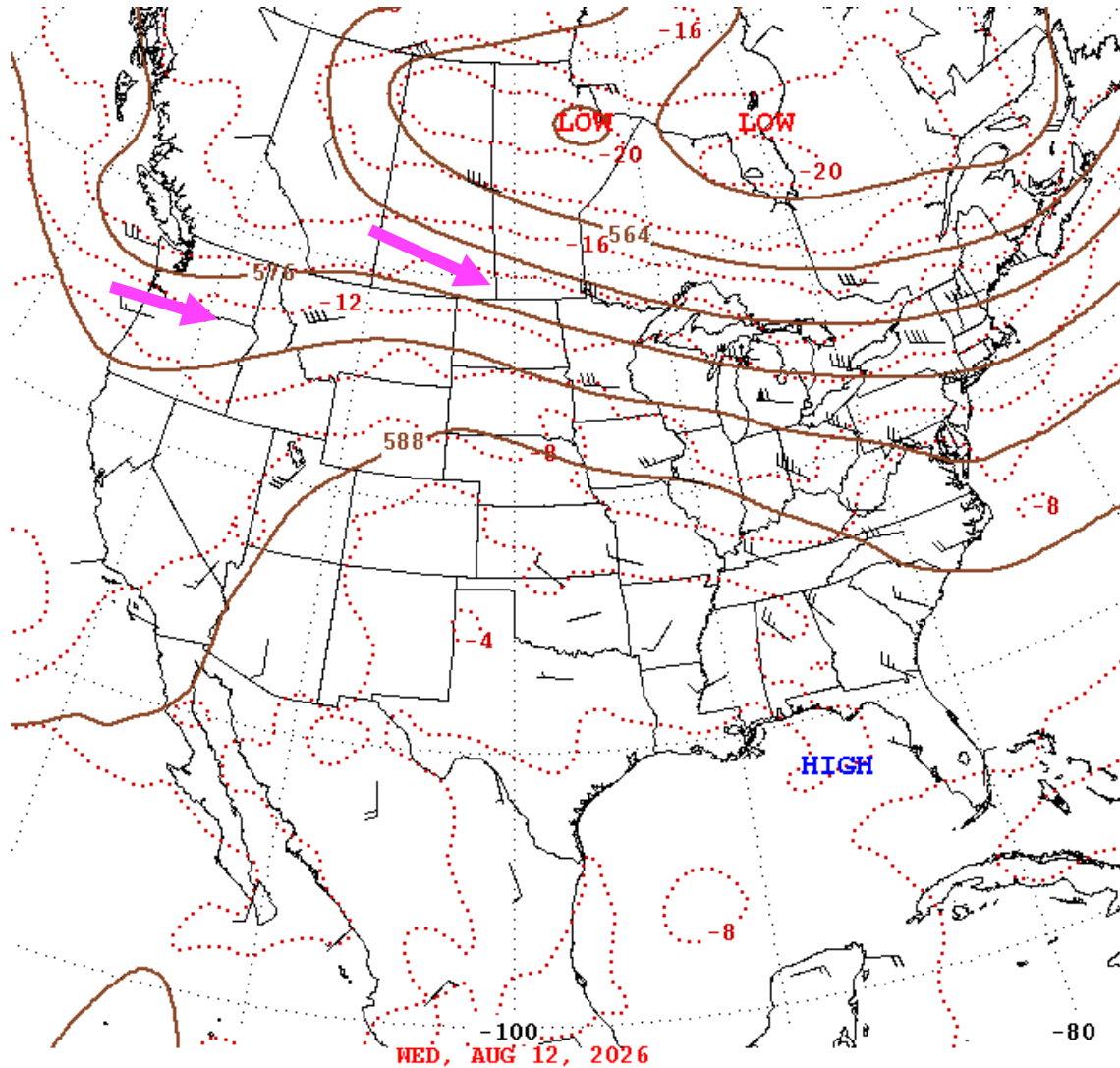


AirNow PM_{2.5} AQI

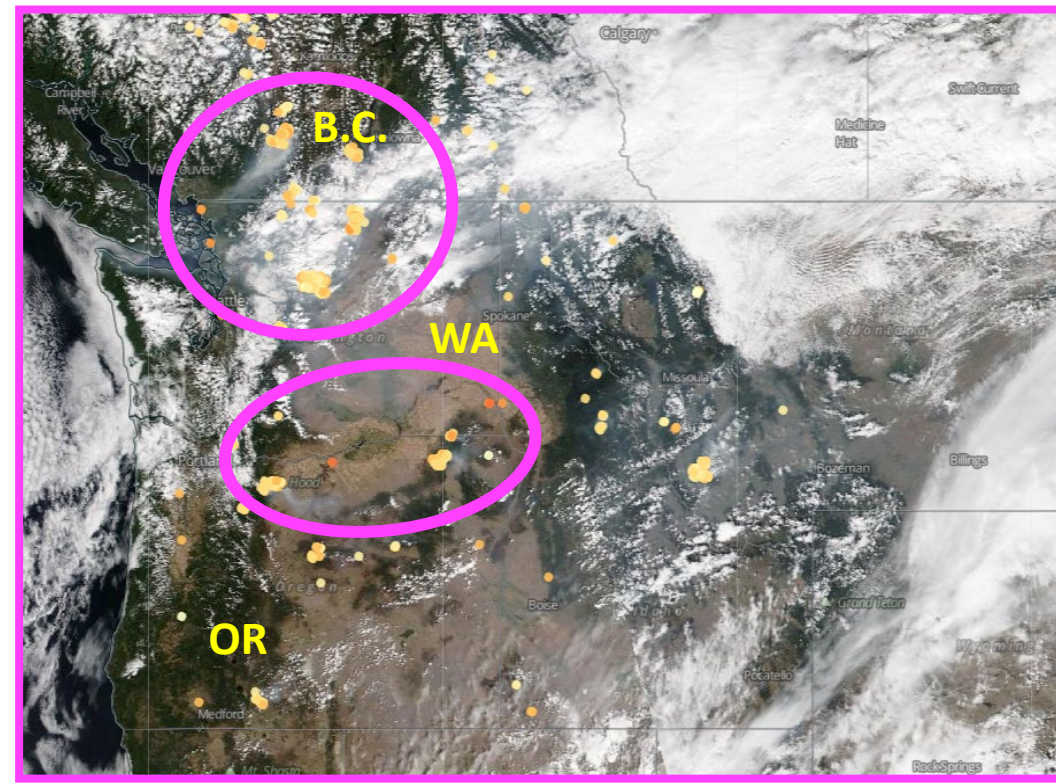
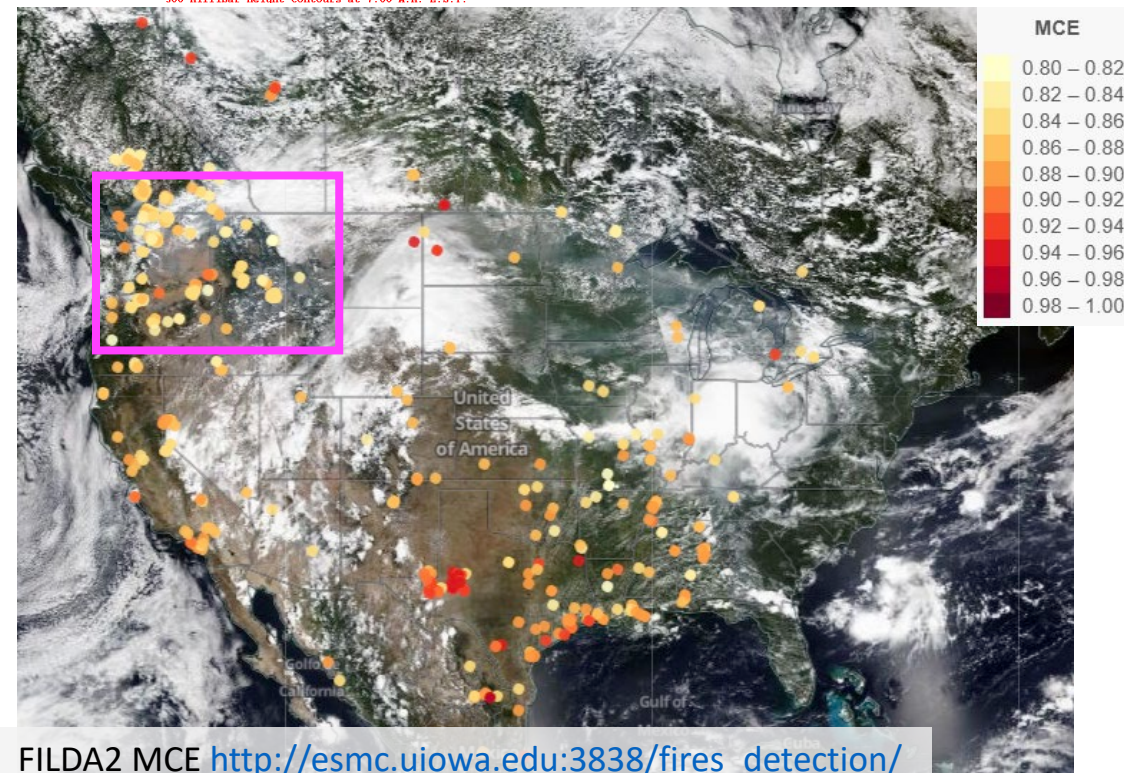
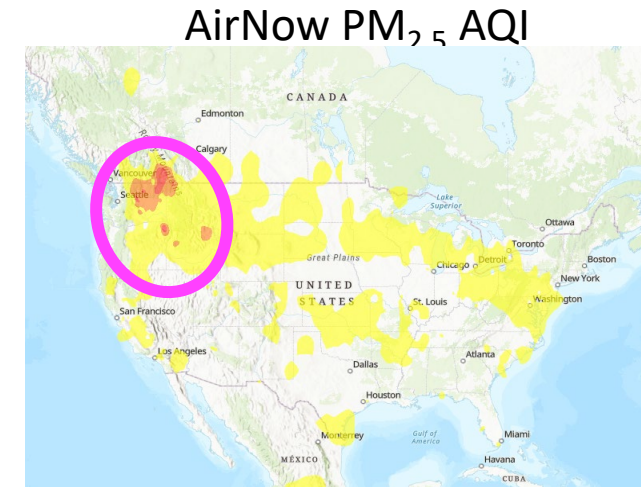
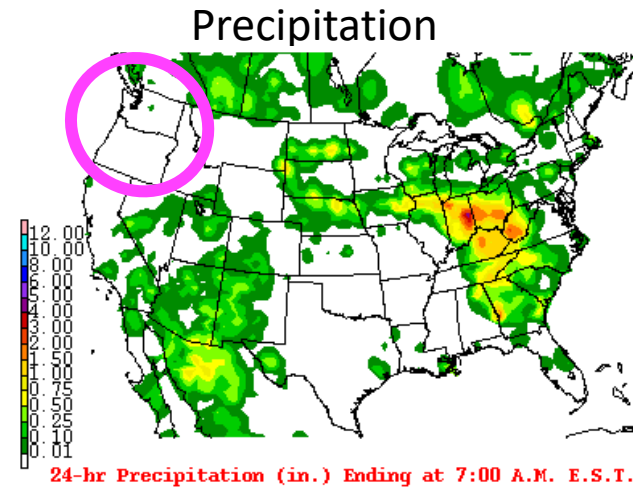
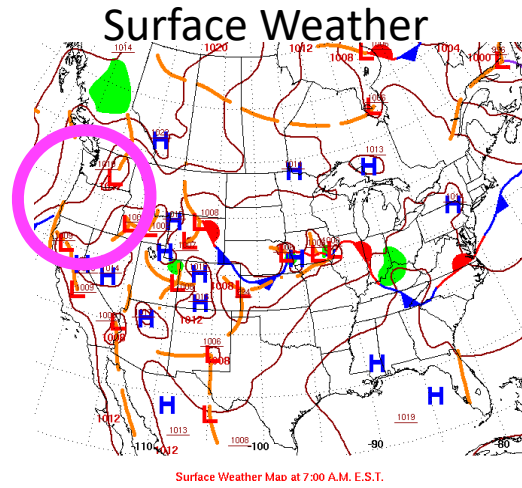
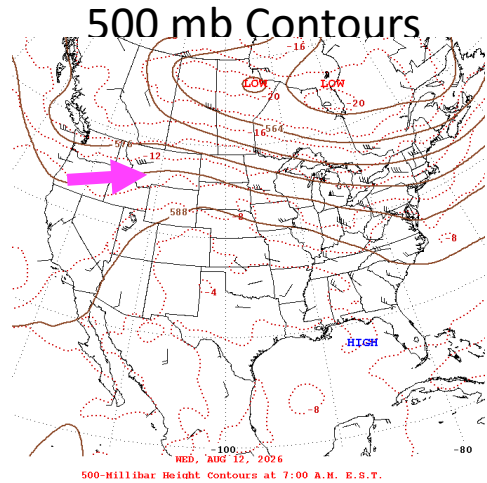


Air Quality Reflection: Wed Aug 12, 2026

500 mb Contours

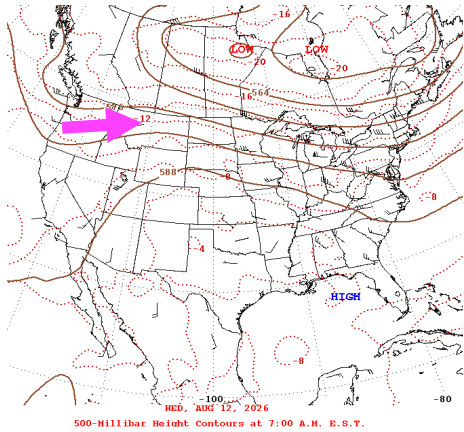


Air Quality Reflection: Wed Aug 12, 2026

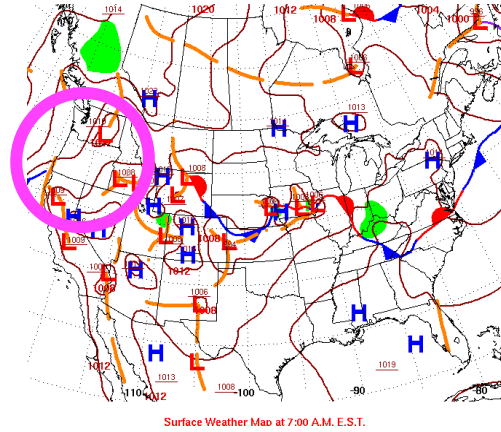


Air Quality Reflection: Wed Aug 12, 2026

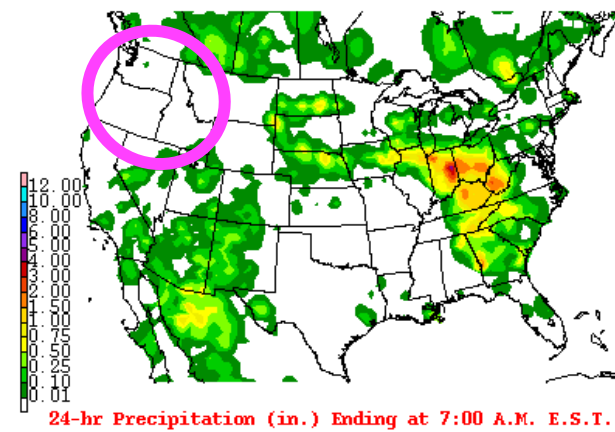
500 mb Contours



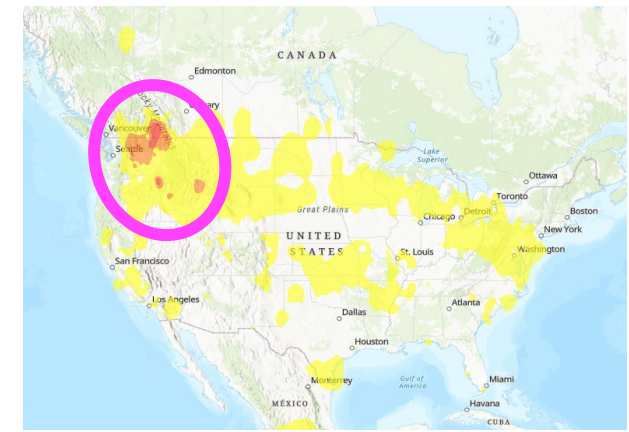
Surface Weather



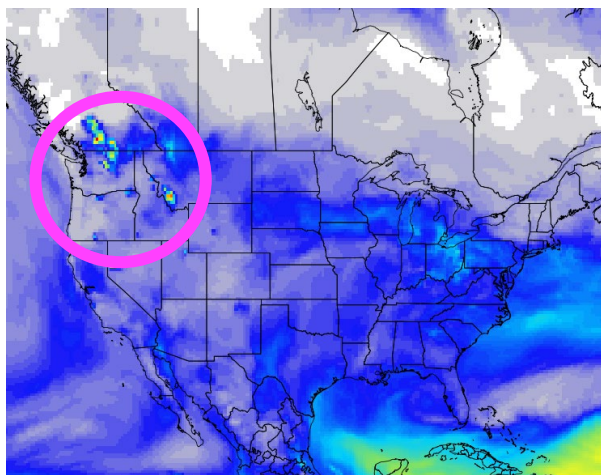
Precipitation



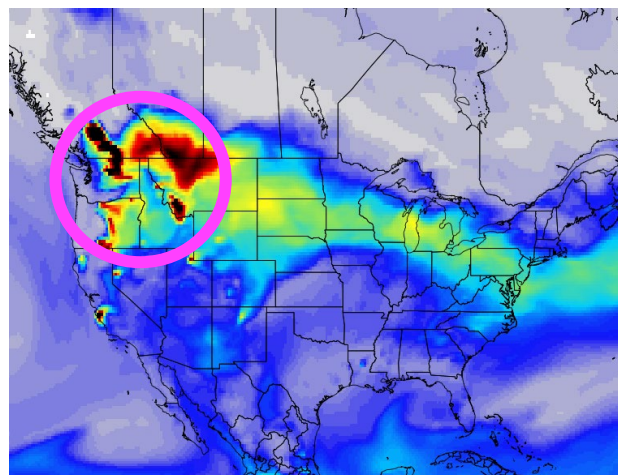
AirNow PM_{2.5} AQI



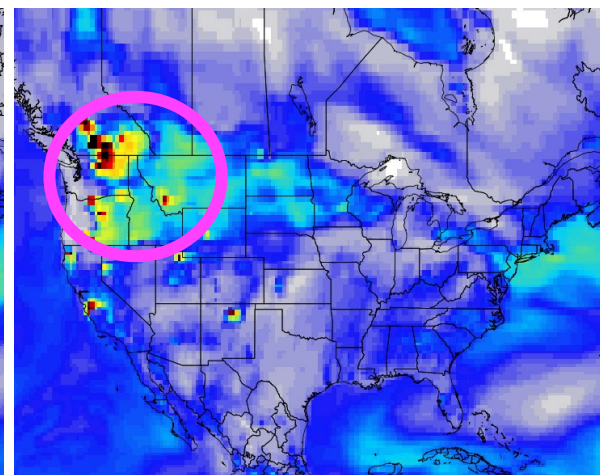
GEOS-FP



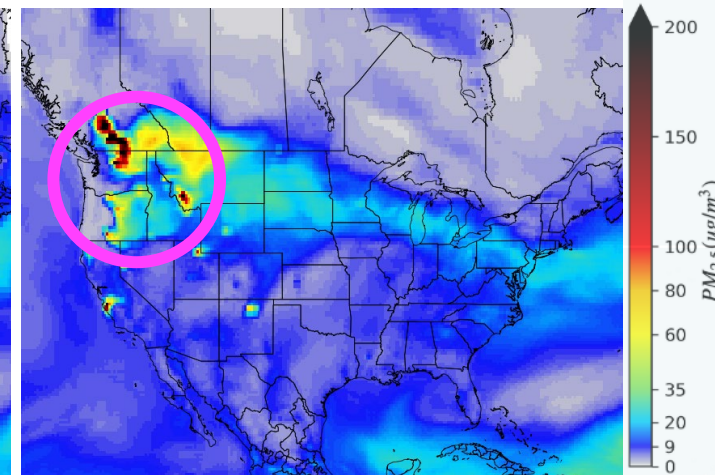
GEOS-CF



CAMS

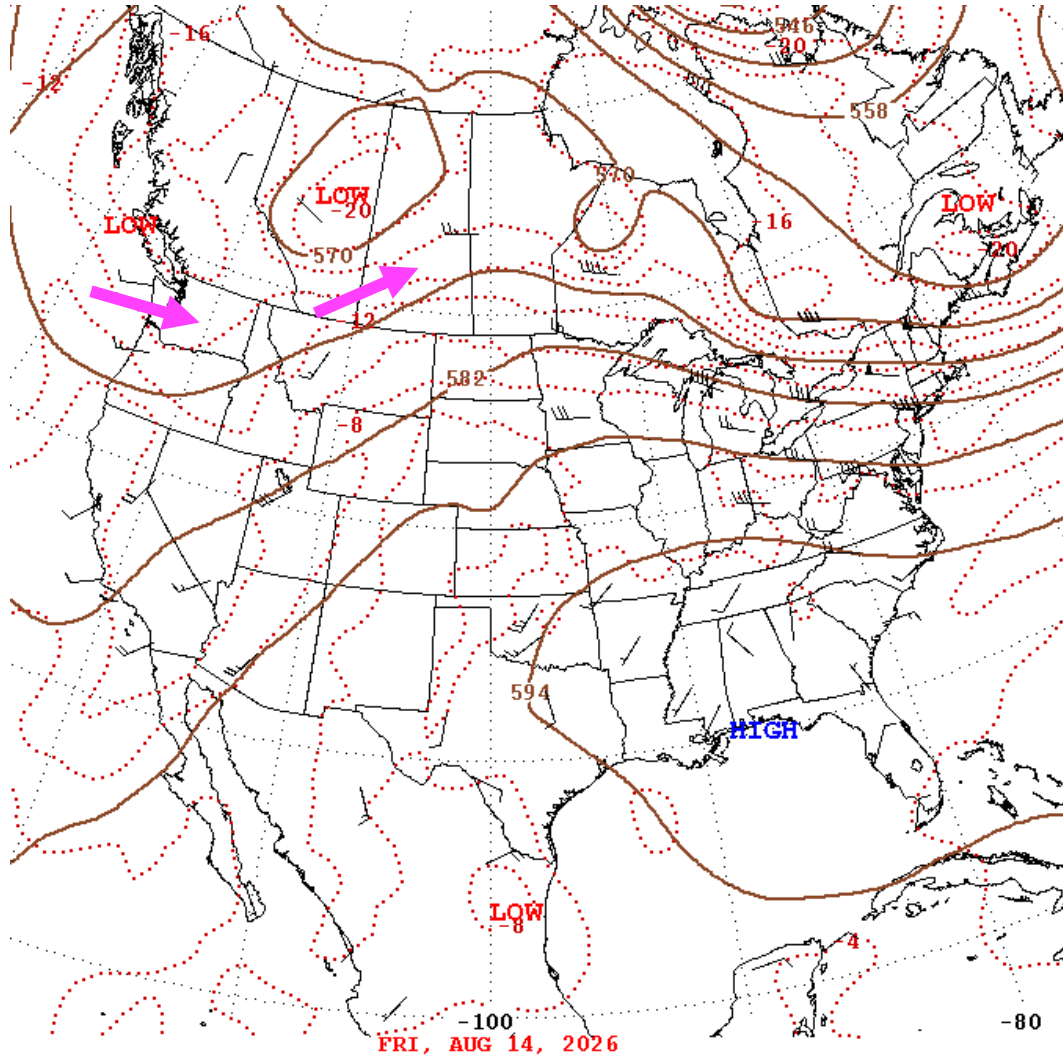


Ensemble



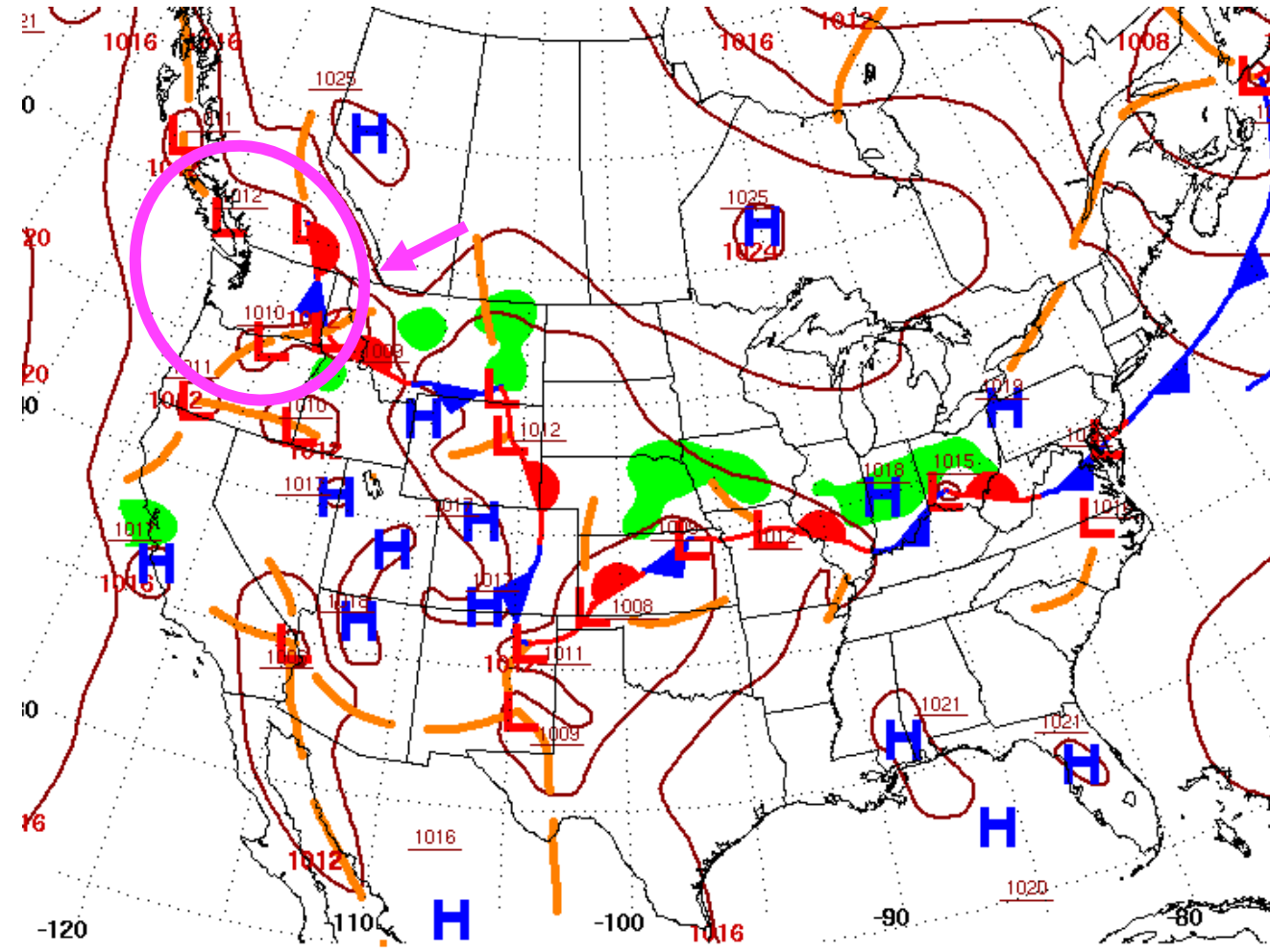
Air Quality Reflection: Friday Aug 14, 2026

500 mb Contours



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

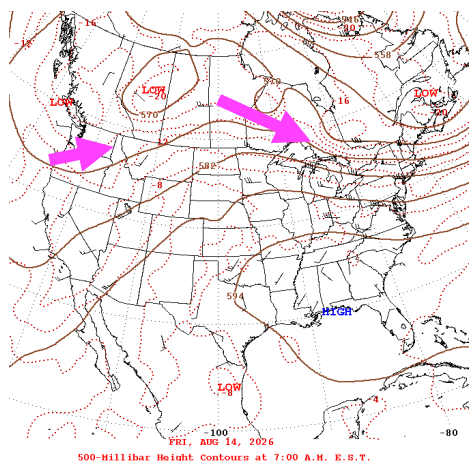
Surface Weather



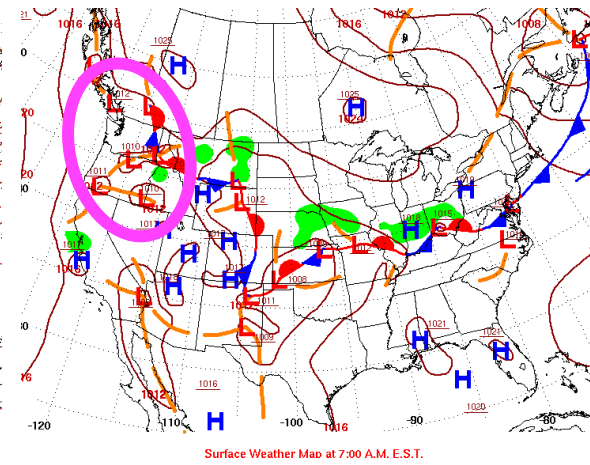
Surface Weather Map at 7:00 A.M. E.S.T.

Air Quality Reflection: Friday Aug 14, 2026

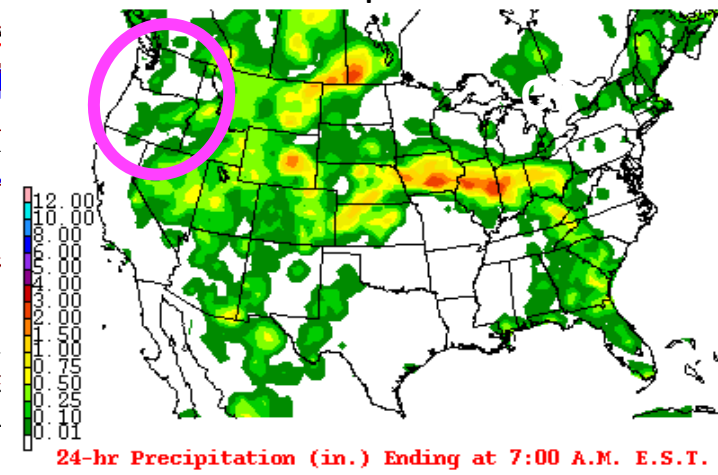
500 mb Contours



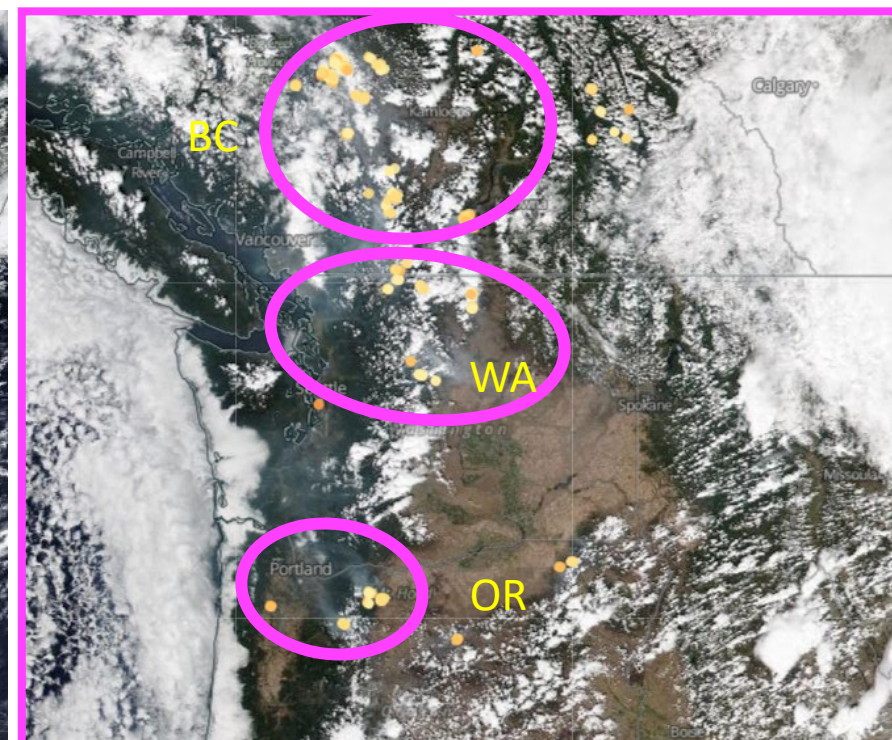
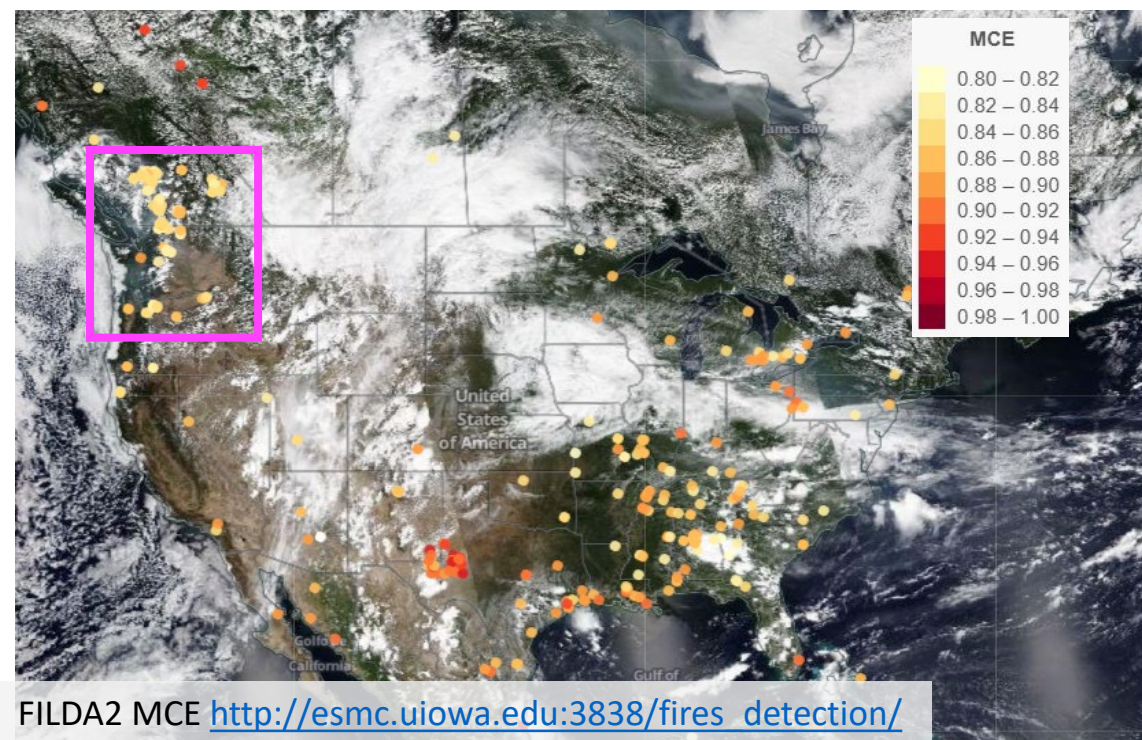
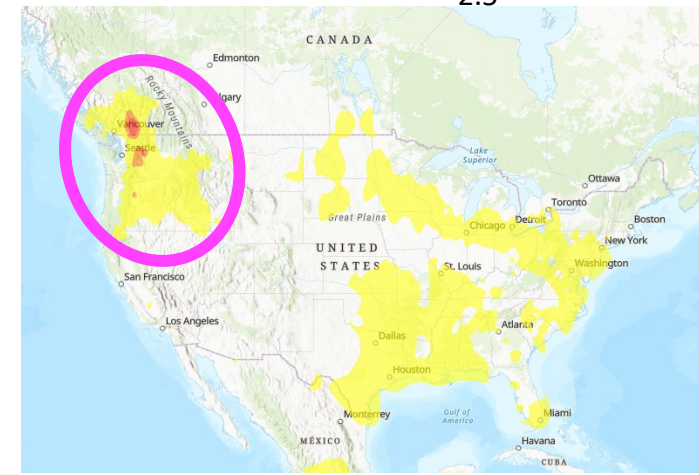
Surface Weather



Precipitation

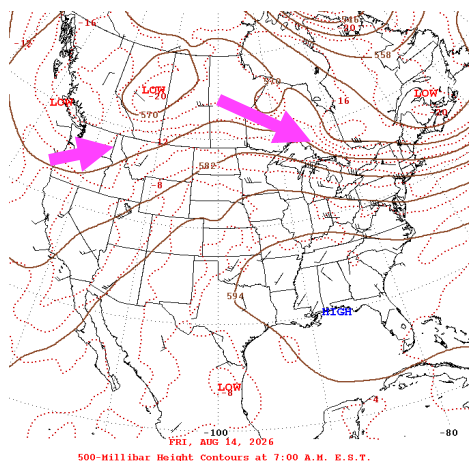


AirNow PM_{2.5} AQI

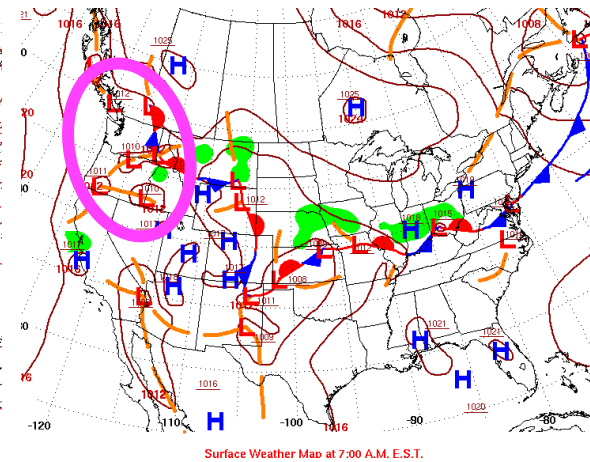


Air Quality Reflection: Friday Aug 14, 2026

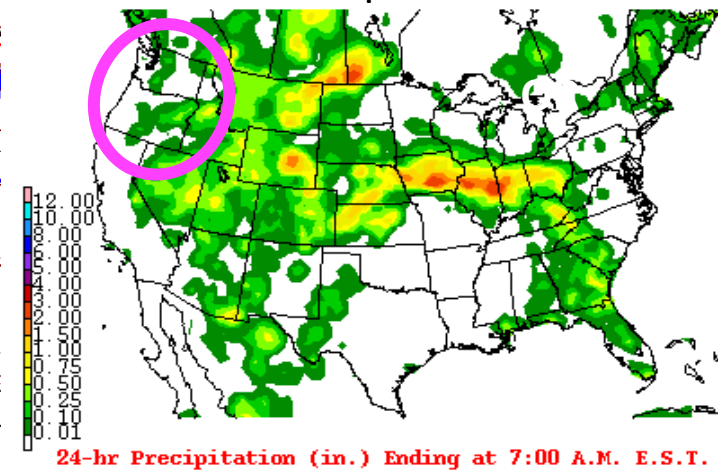
500 mb Contours



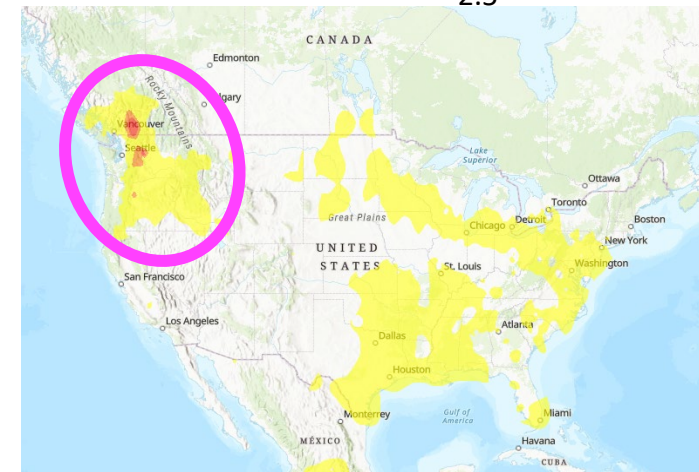
Surface Weather



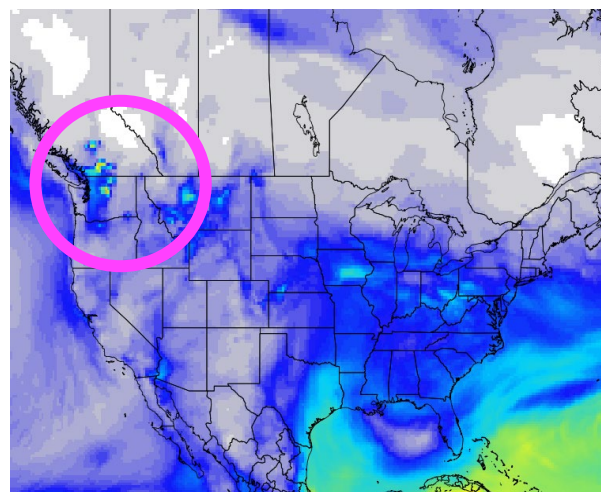
Precipitation



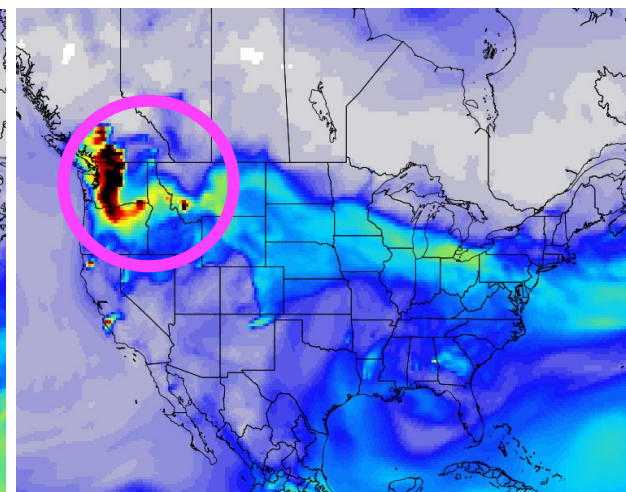
AirNow PM_{2.5} AQI



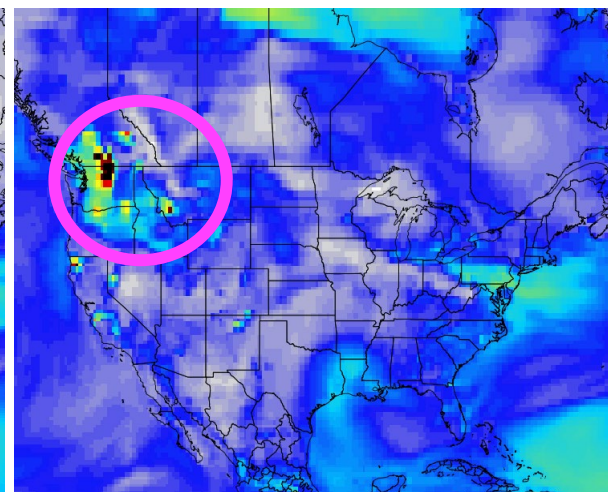
GEOS-FP



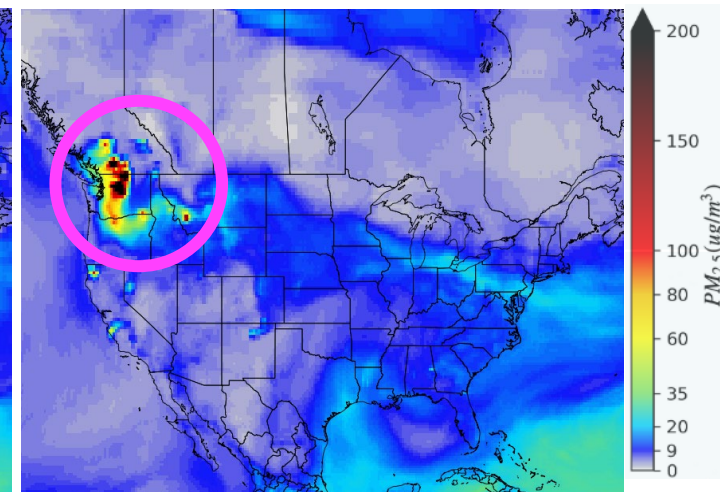
GEOS-CF



CAMS

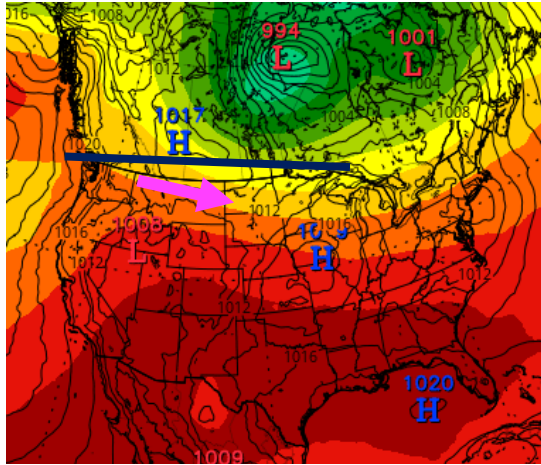


Ensemble

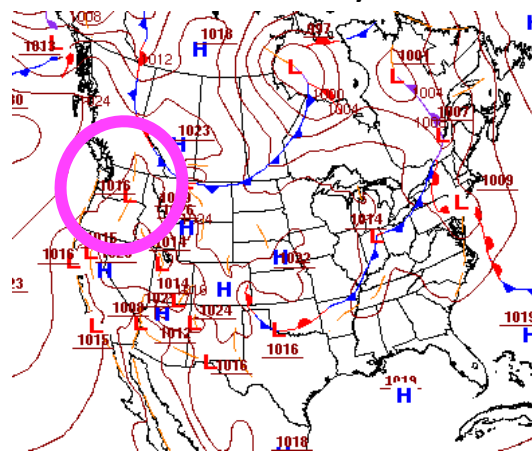


Current Status: August 17, 2026

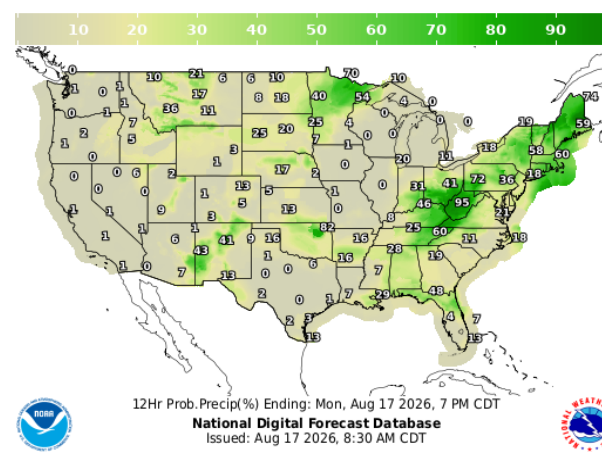
500 mb Contours



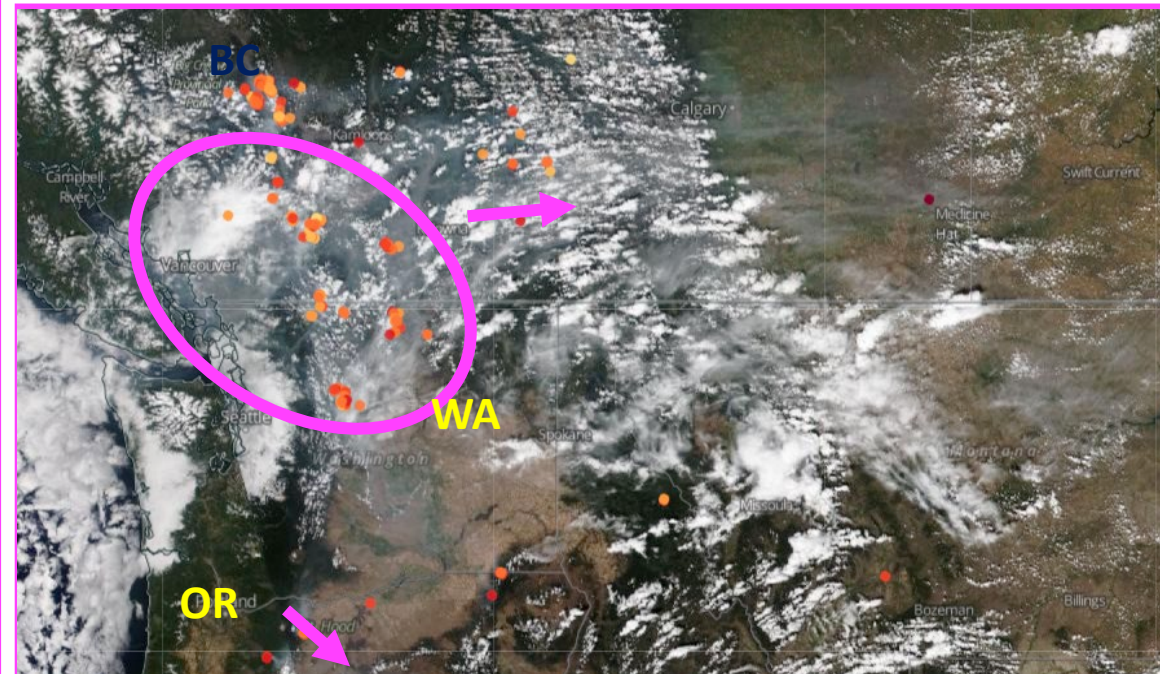
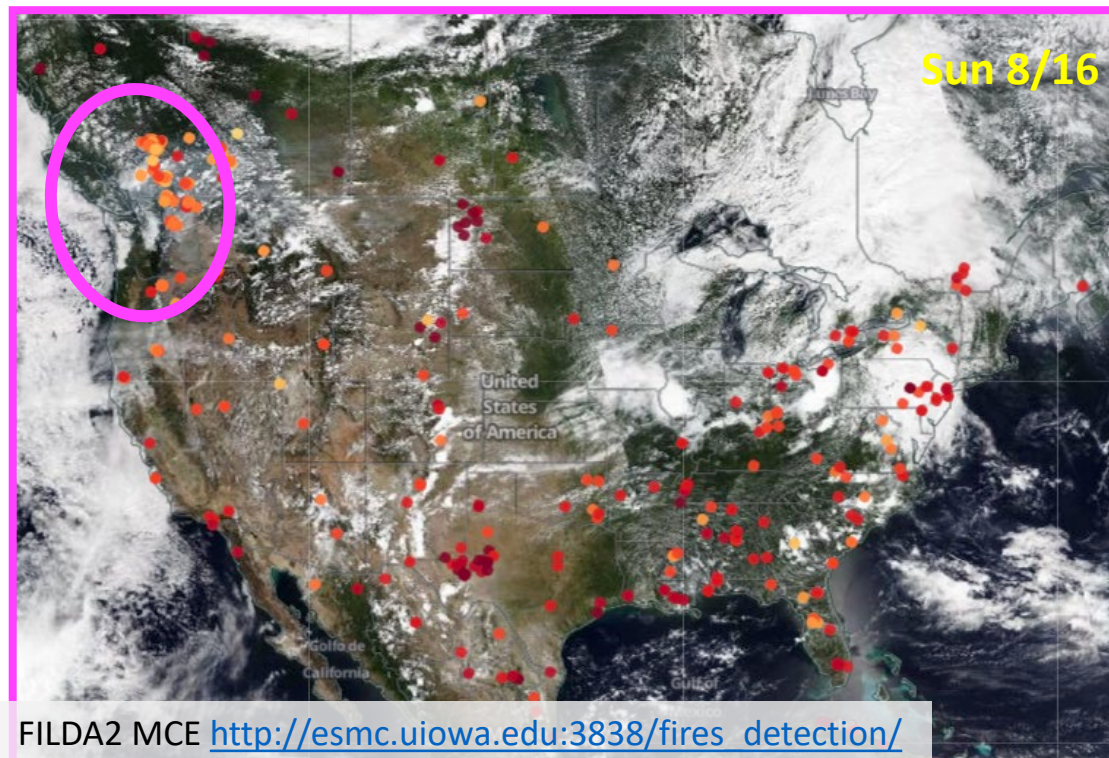
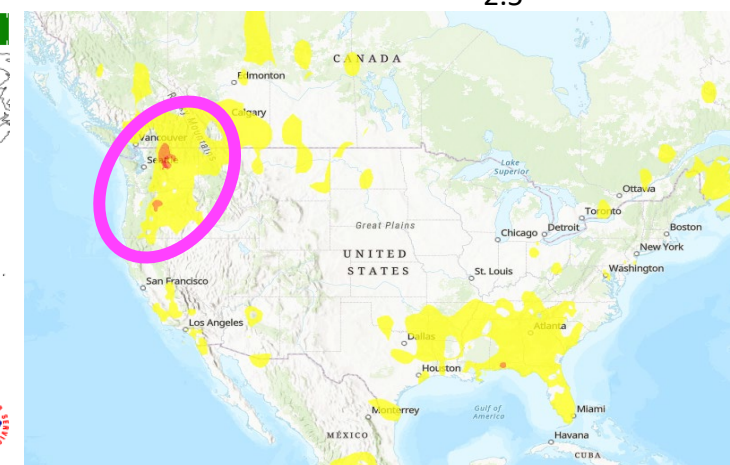
Surface Analysis



Precip. Prob.



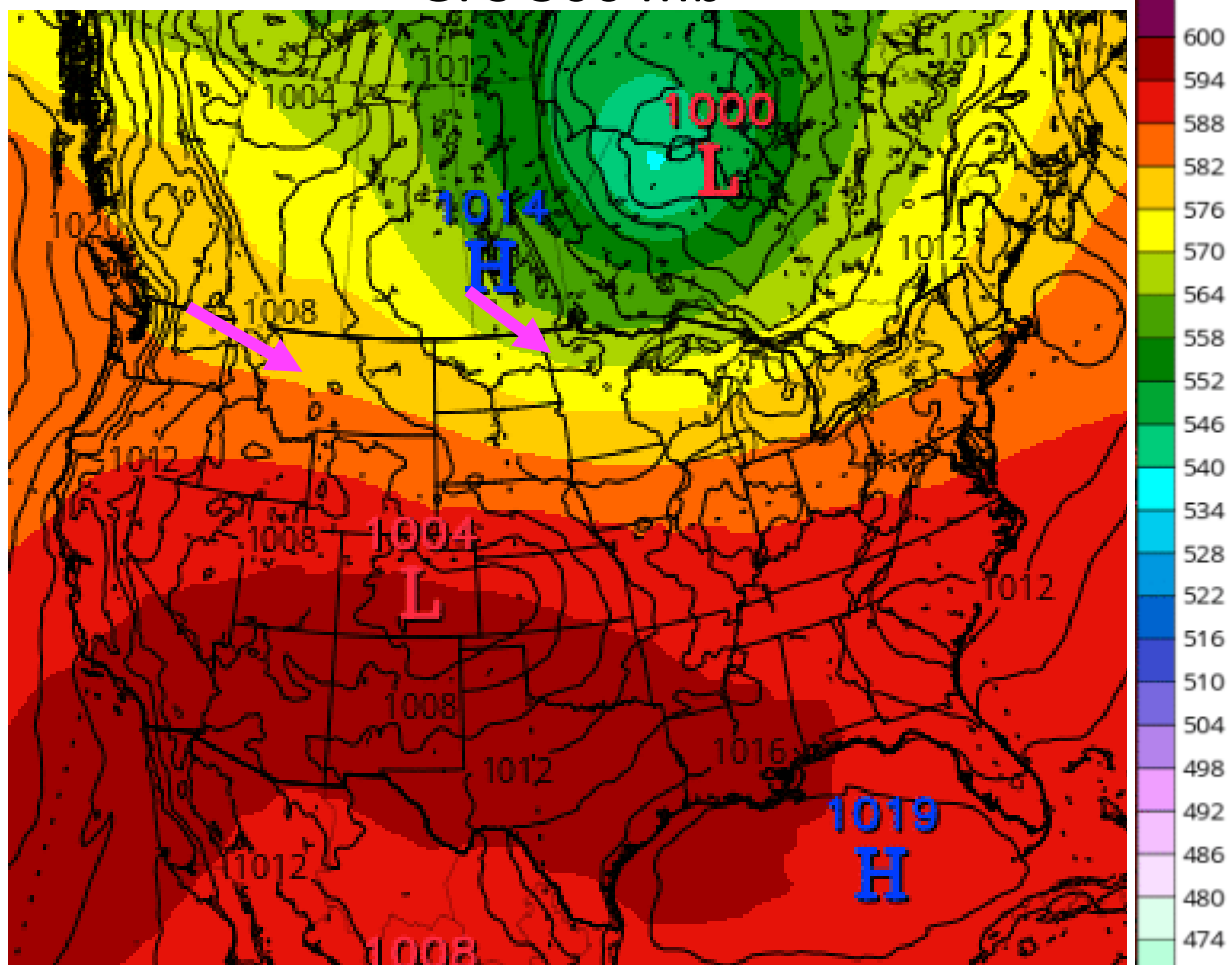
AirNow PM_{2.5} AQI



Outlook: Short Range (1-3 days)

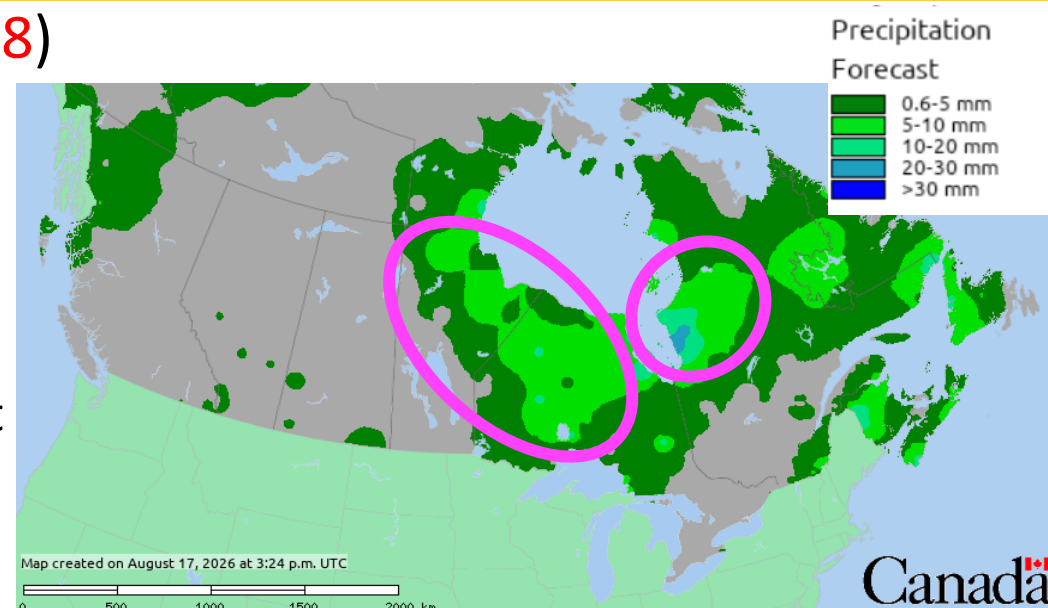
(Forecast **Tuesday 8/18**)

GFS 500 mb

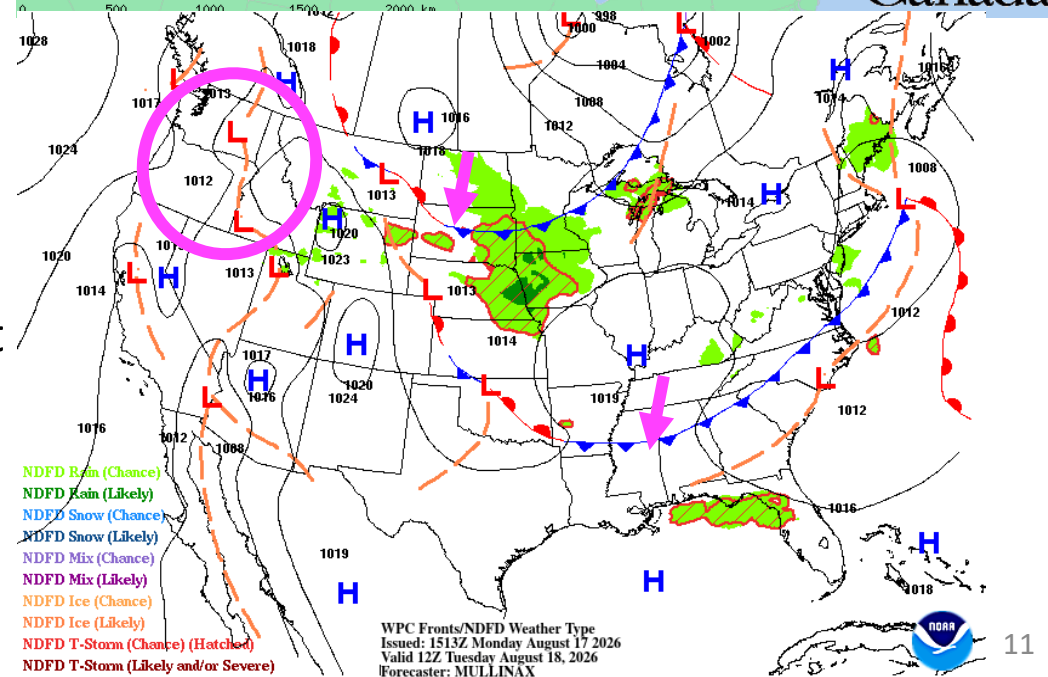


GFS 500mb Geopotential Height (dam) & MSLP (mb)
Init: 06z Aug 17 2026 Forecast Hour: [36] valid at 18z Tue, Aug 18 2026

Environ.
Canada
Forecast

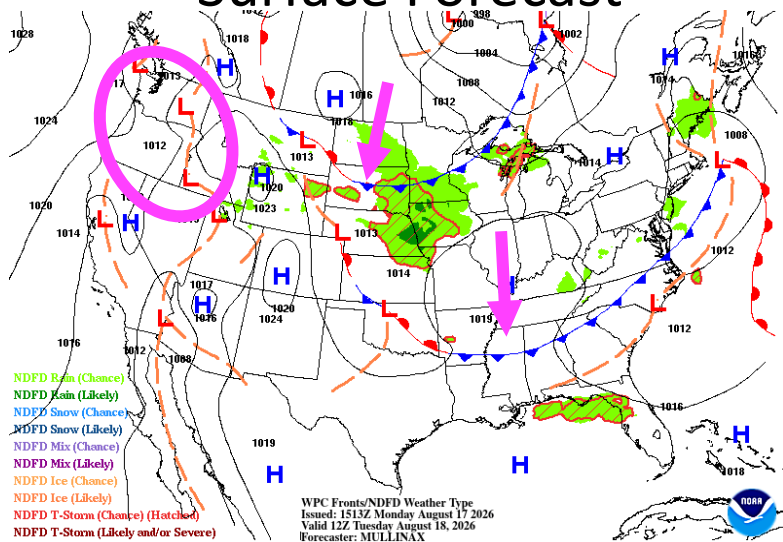


US NWS
Forecast

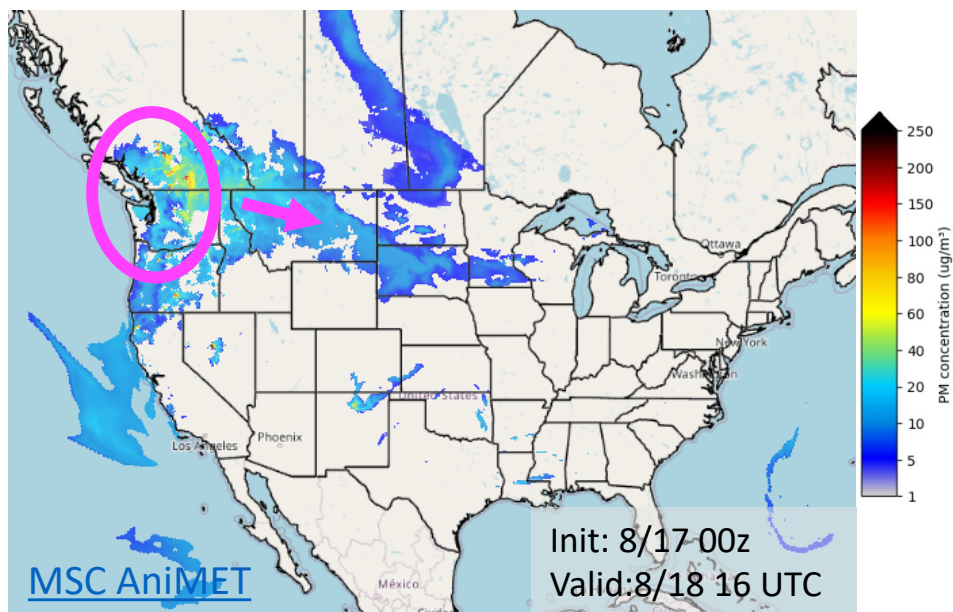


Outlook: Short Range (1–3 days)

Surface Forecast



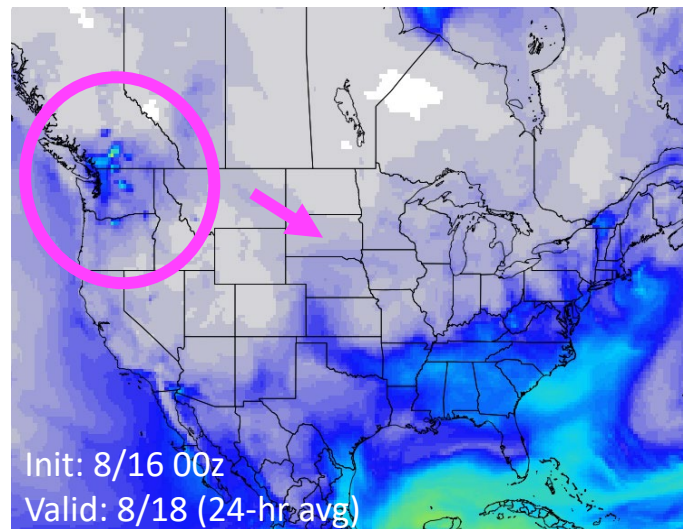
Canada MSC AniMET



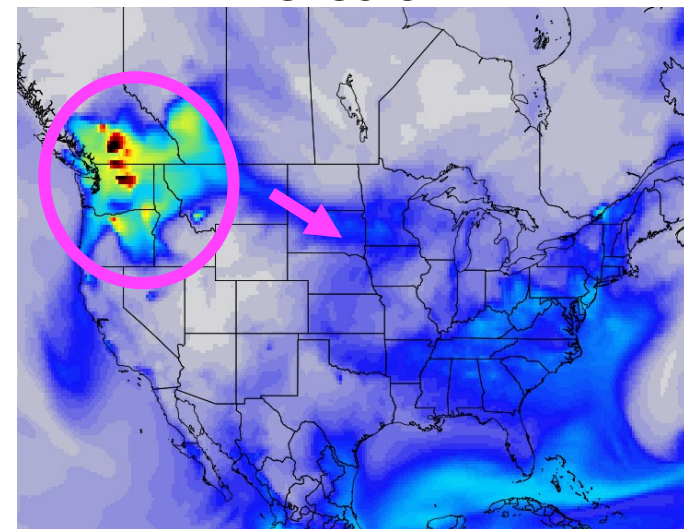
(Tuesday 8/18)

Model Means PM_{2.5}

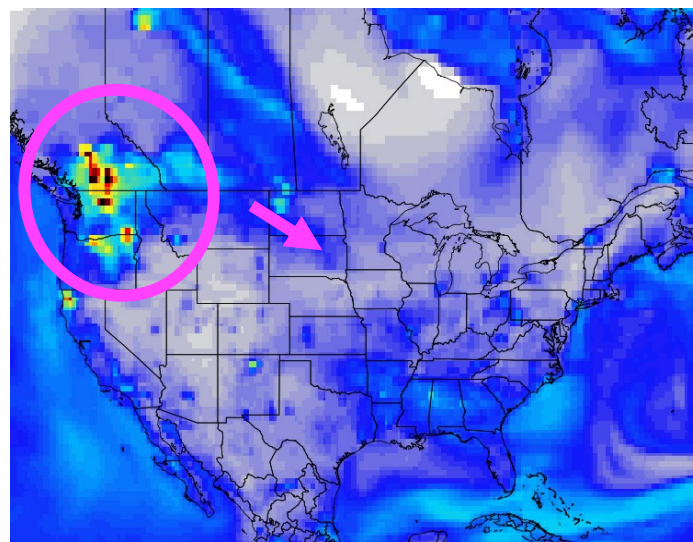
GEOS-FP



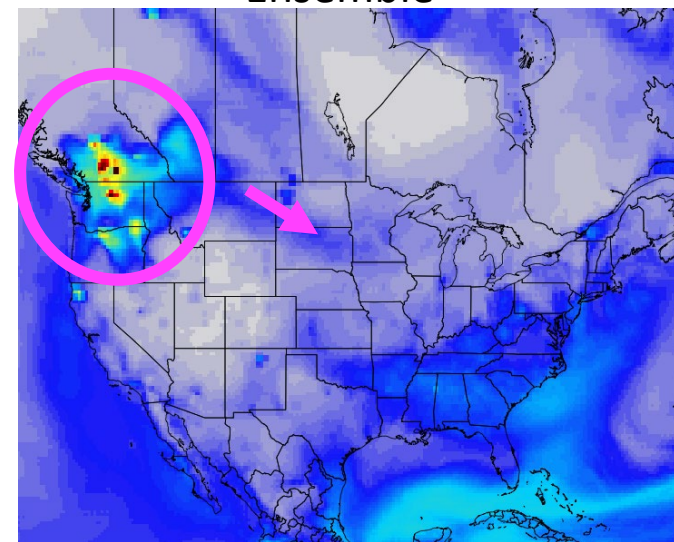
GEOS-CF



CAMS



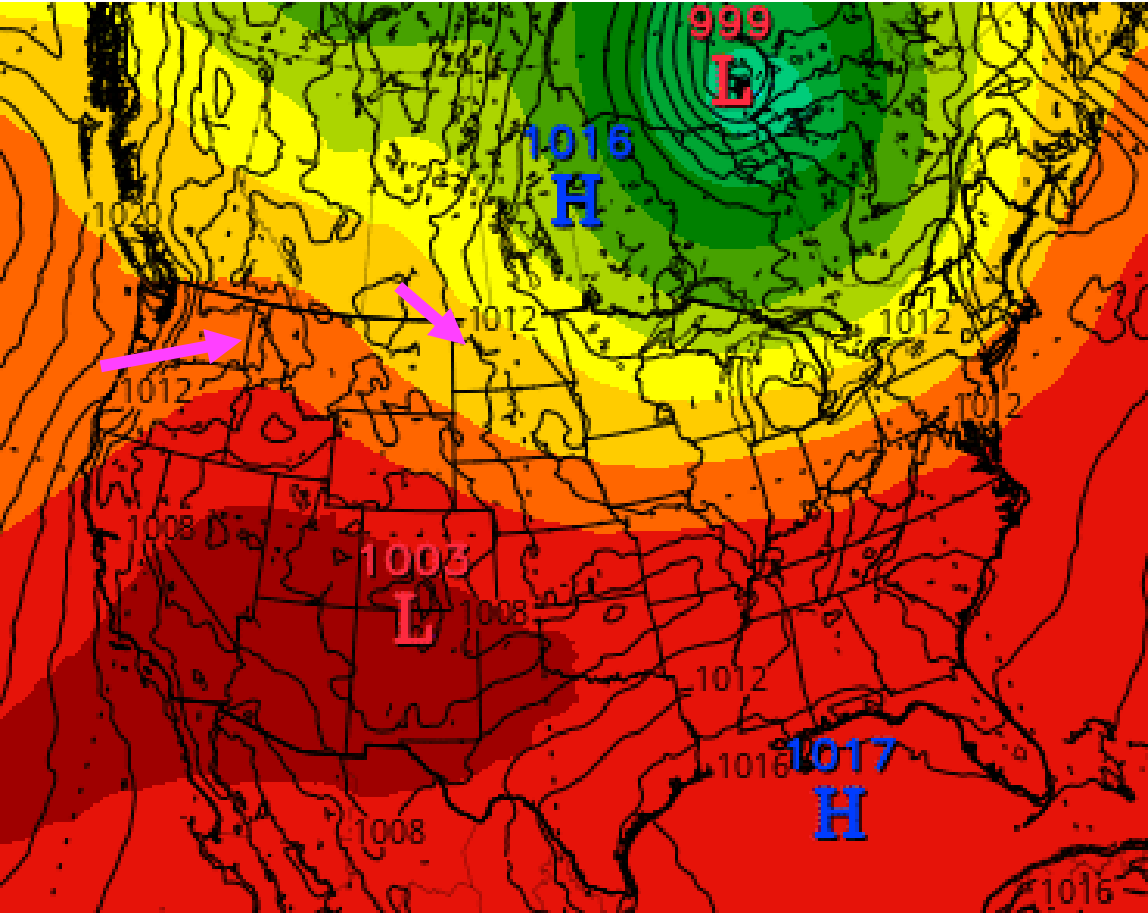
Ensemble



Outlook: Short Range (1–3 days)

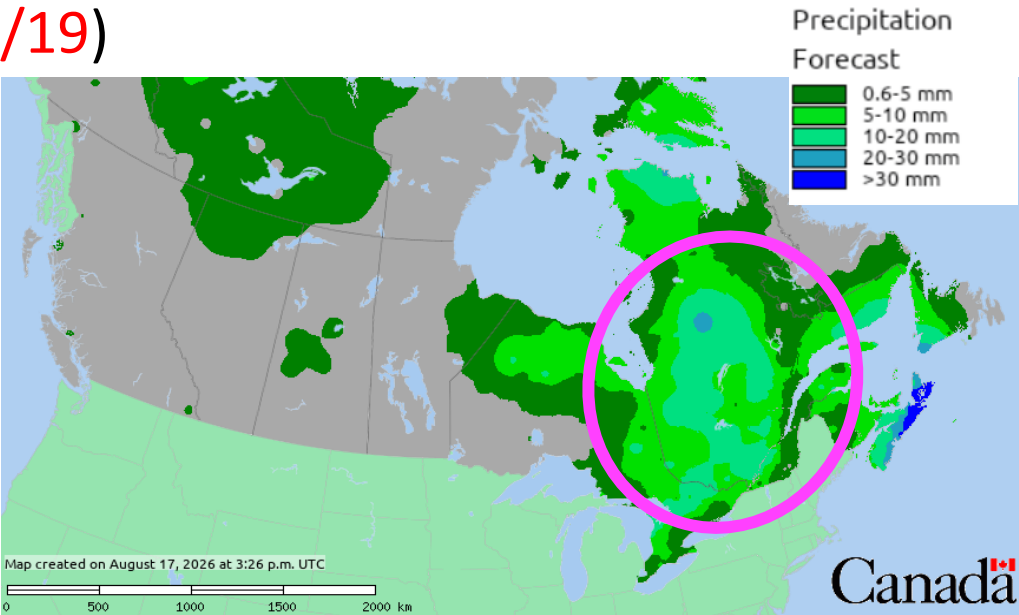
(Forecast **Wednesday 8/19**)

GFS 500 mb

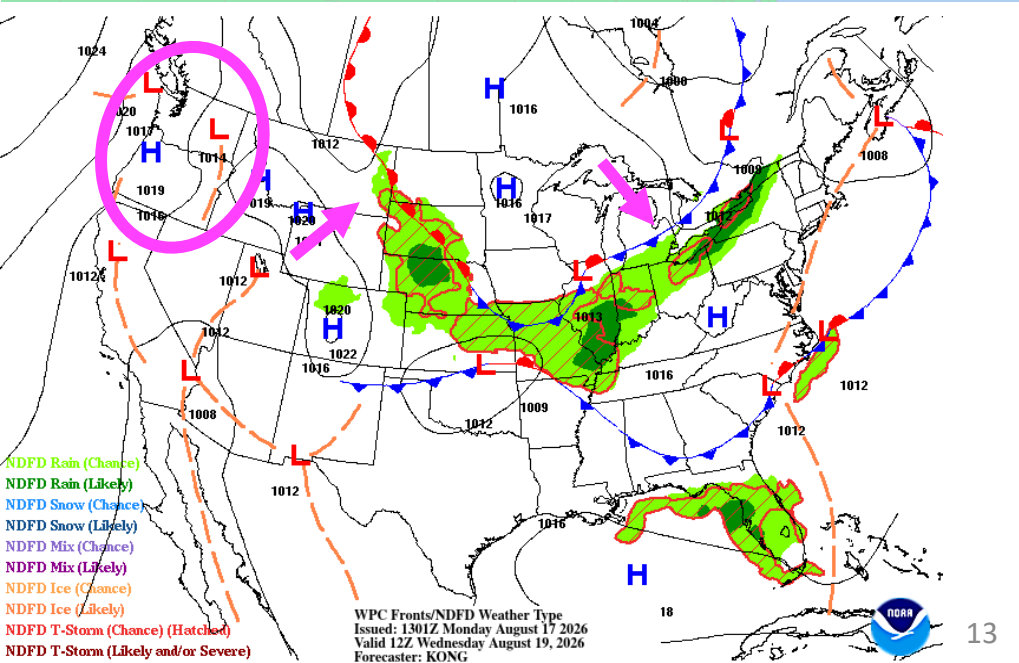


GFS 500mb Geopotential Height (dam) & MSLP (mb)
Init: 06z Aug 17 2026 Forecast Hour: [60] valid at 18z Wed, Aug 19 2026

Environ.
Canada
Forecast



US NWS
Forecast

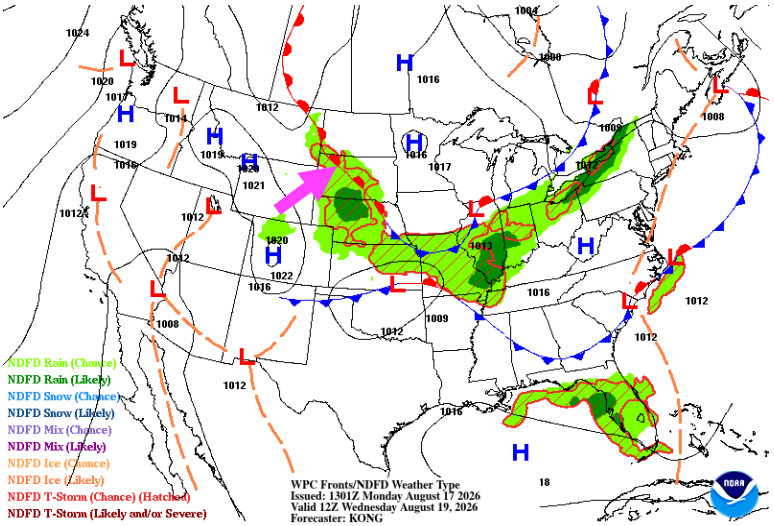


Outlook: Short Range (1–3 days)

Surface Forecast

(Wednesday 8/19)

GEOS-FP

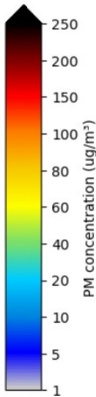
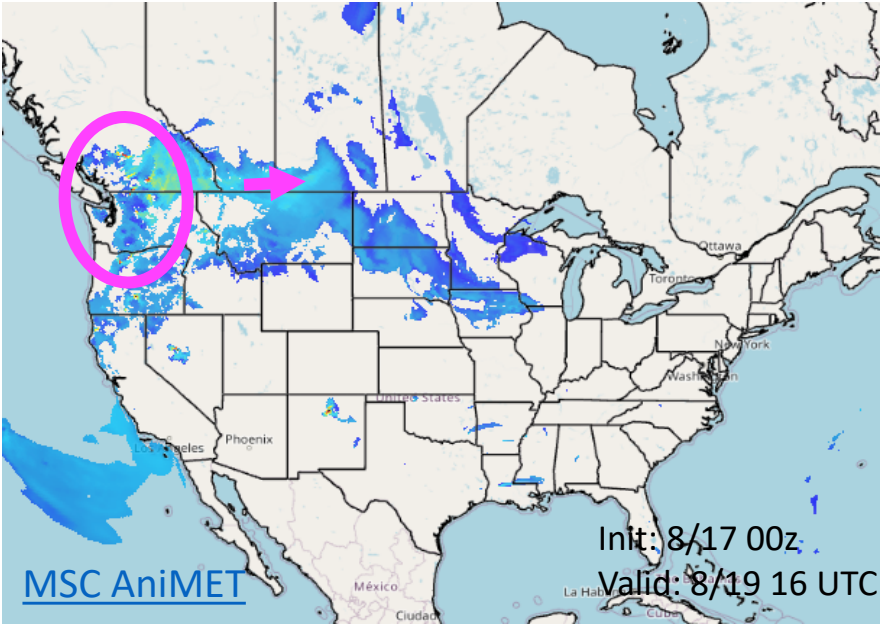


NA

Canada MSC AniMET

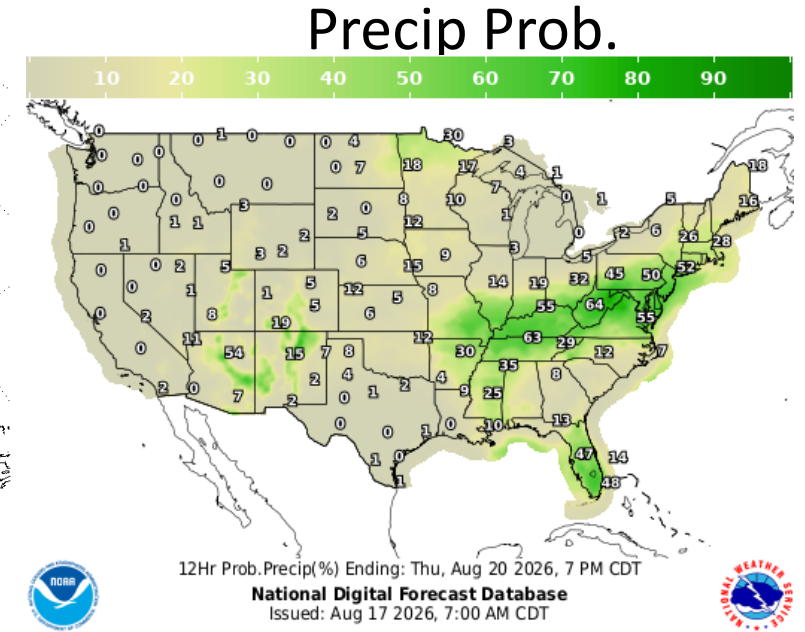
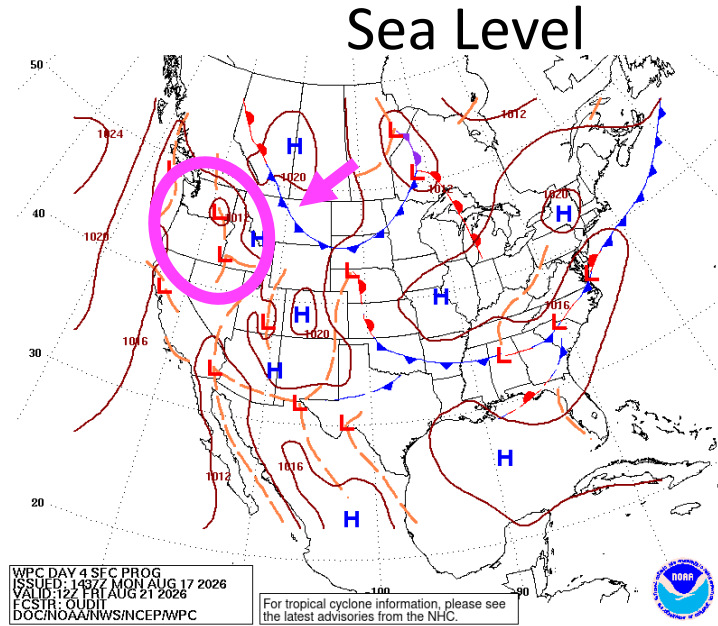
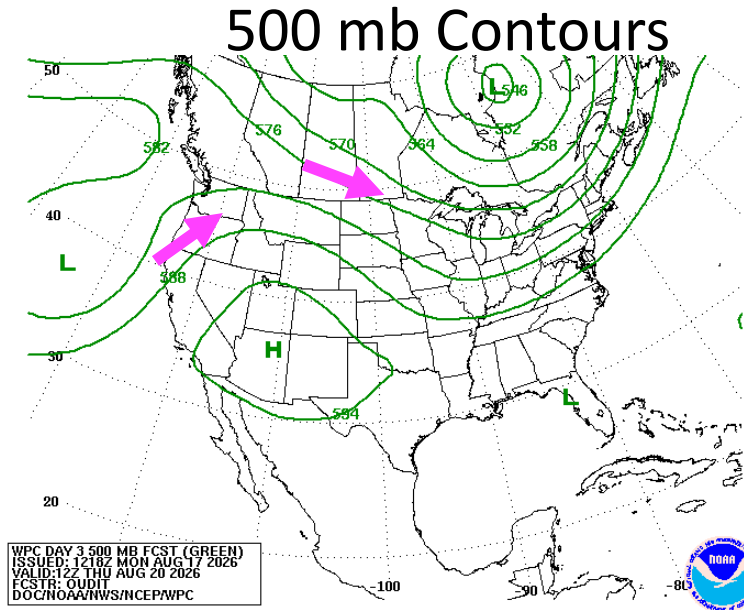
CAMS

NA

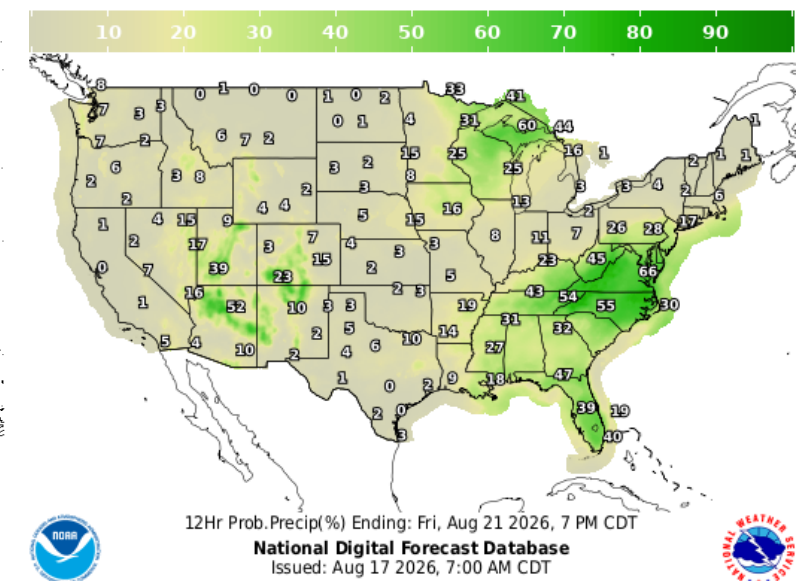
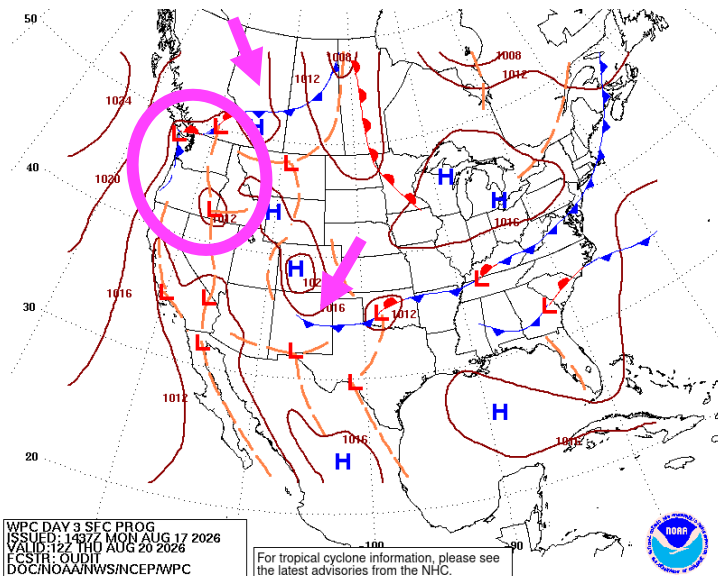
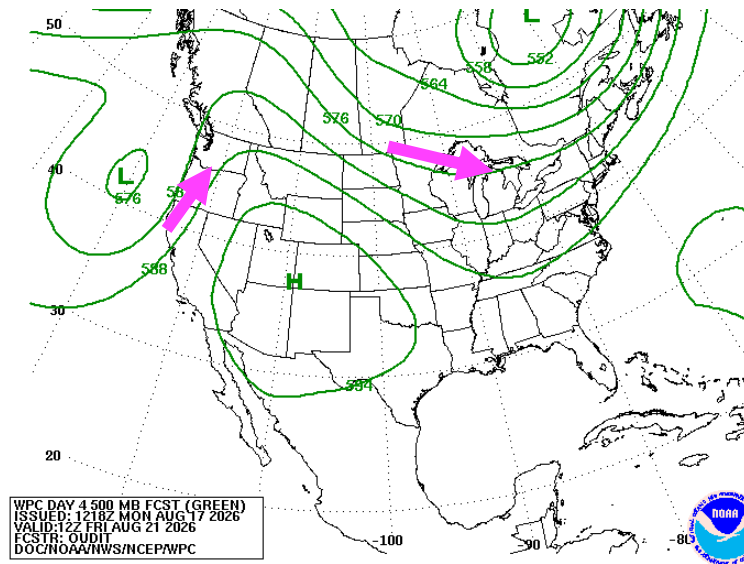


Outlook: Medium Range

Thurs
8/20



Friday
8/21



Summary

Monday: Fires in the PNW and B.C. remain active and continue to contribute to USG to moderate 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 warm front moves towards the Midwest.

Th → F: Upper atmosphere promotes continued N to E transport of aged smoke from PNW and B.C. fires. Surface cold front in the region would inhibit easterly transport.

