

Weather and Air Quality: Reflection and Outlook During Smoke Conditions

Presenter: Megan Christiansen
Date: August 11, 2025

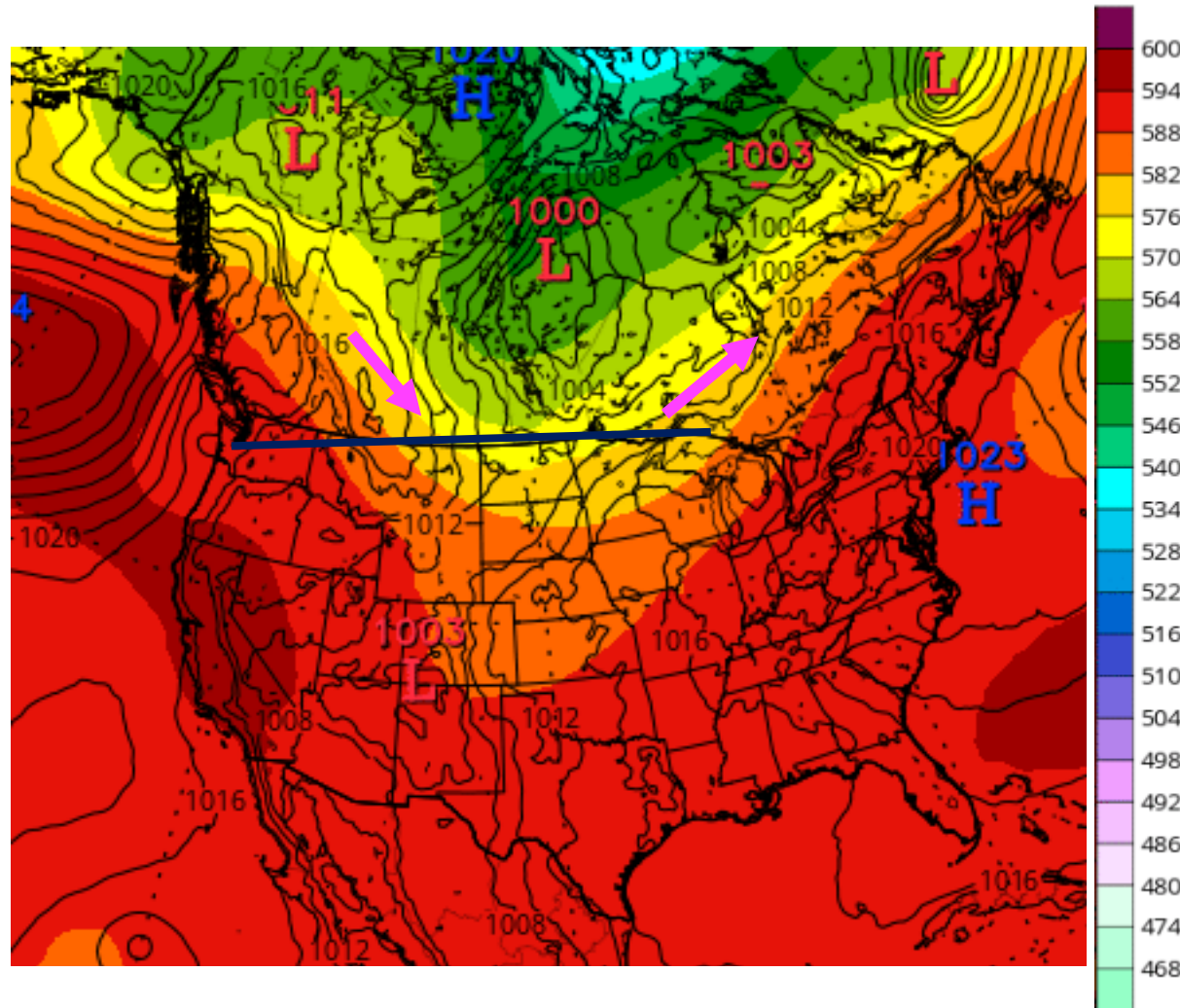


FireAQ is funded by NASA HAQ. We thank NASA GMAO and ECMWF for the model data products.

**EARTH SCIENCE
APPLIED SCIENCES**

Current Status: August 11 , 2025

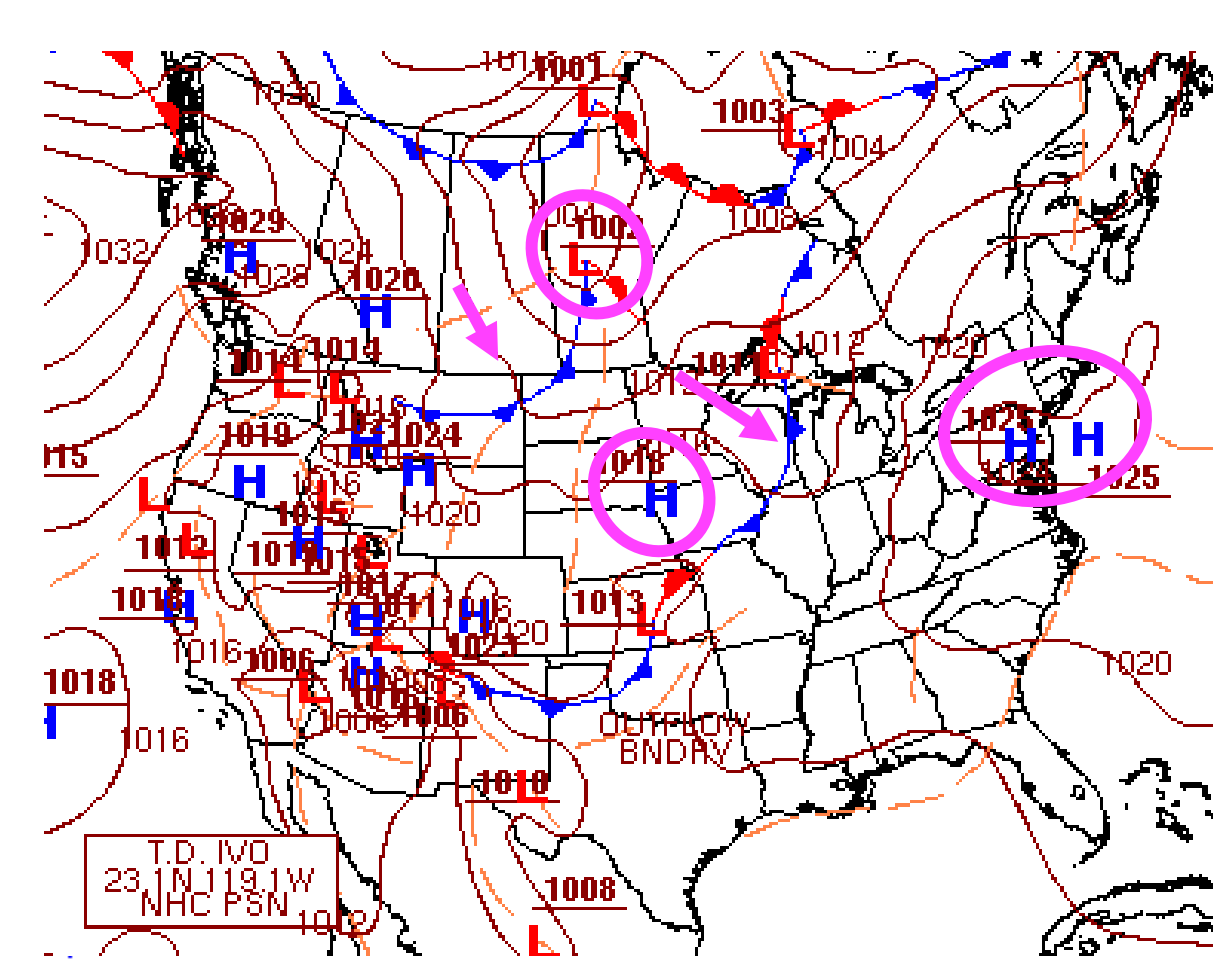
500 mb Contours



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

Init: 06z Aug 11 2025 Forecast Hour: [12] valid at 18z Mon, Aug 11 2025

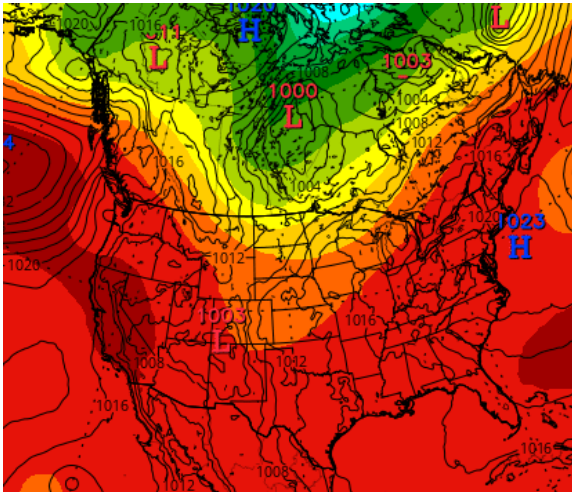
Surface Analysis



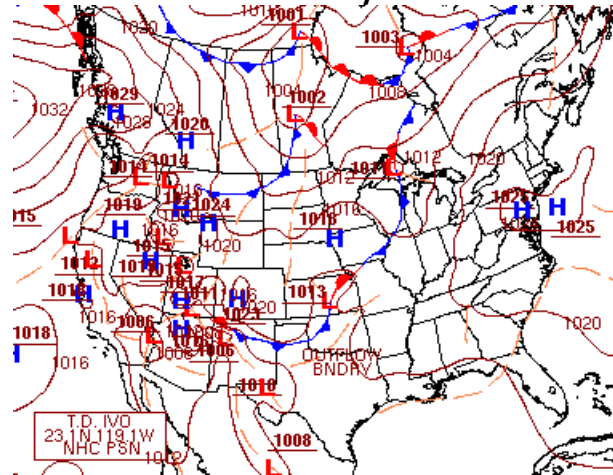
1200Z SURFACE ANALYSIS
DATE: MON AUG 11 2025
ISSUED: 1329Z MON AUG 11 2025
BY WPC ANALYST ORRISON
COLLABORATING CENTERS: WPC, NHC, OPC

Current Status: August 11 , 2025

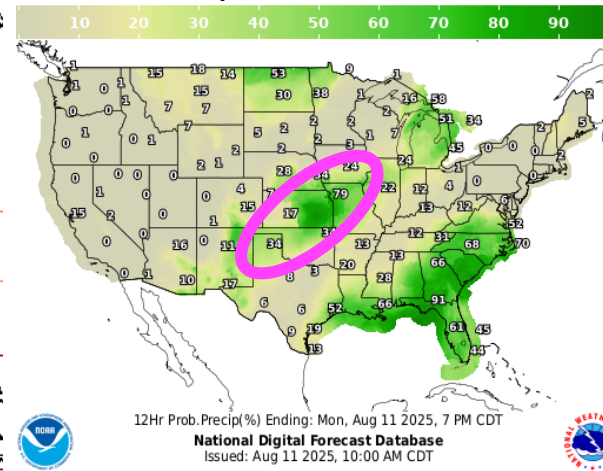
500 mb Contours



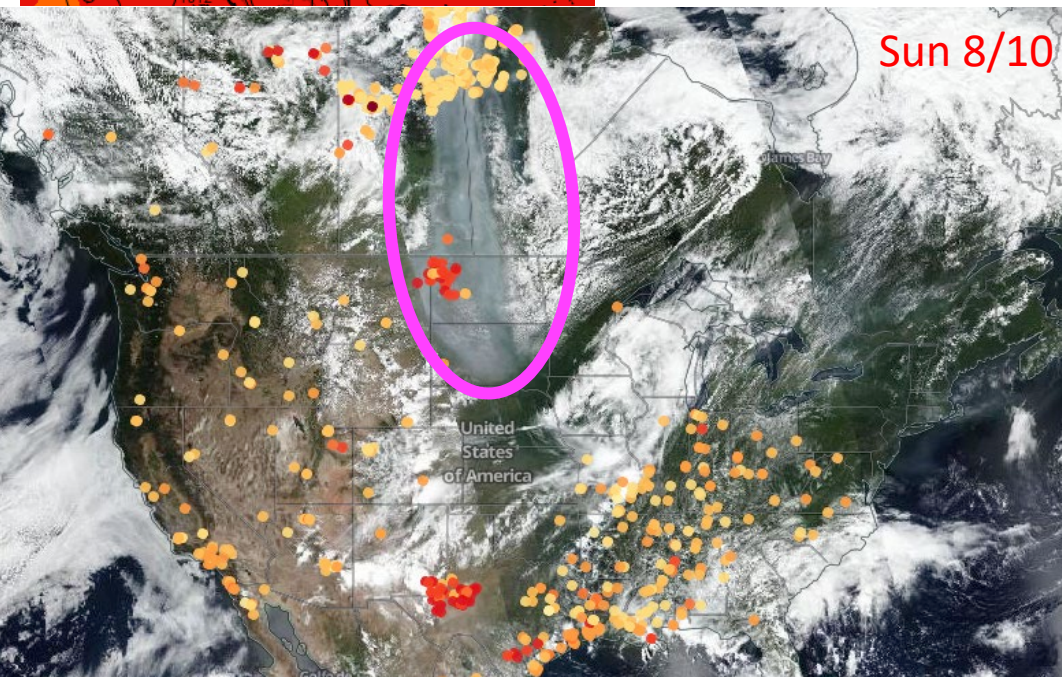
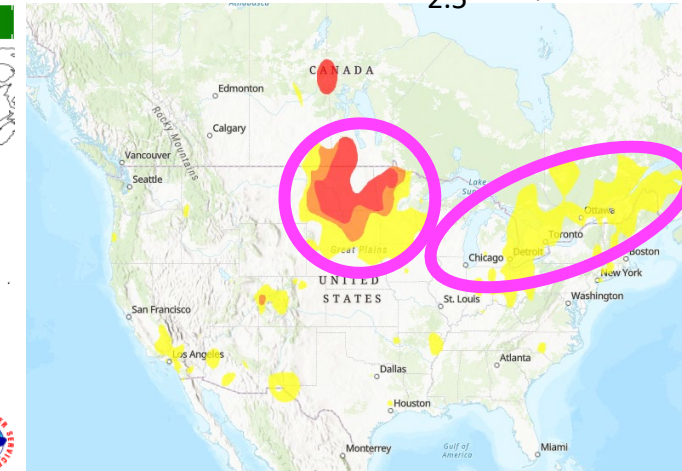
Surface Analysis



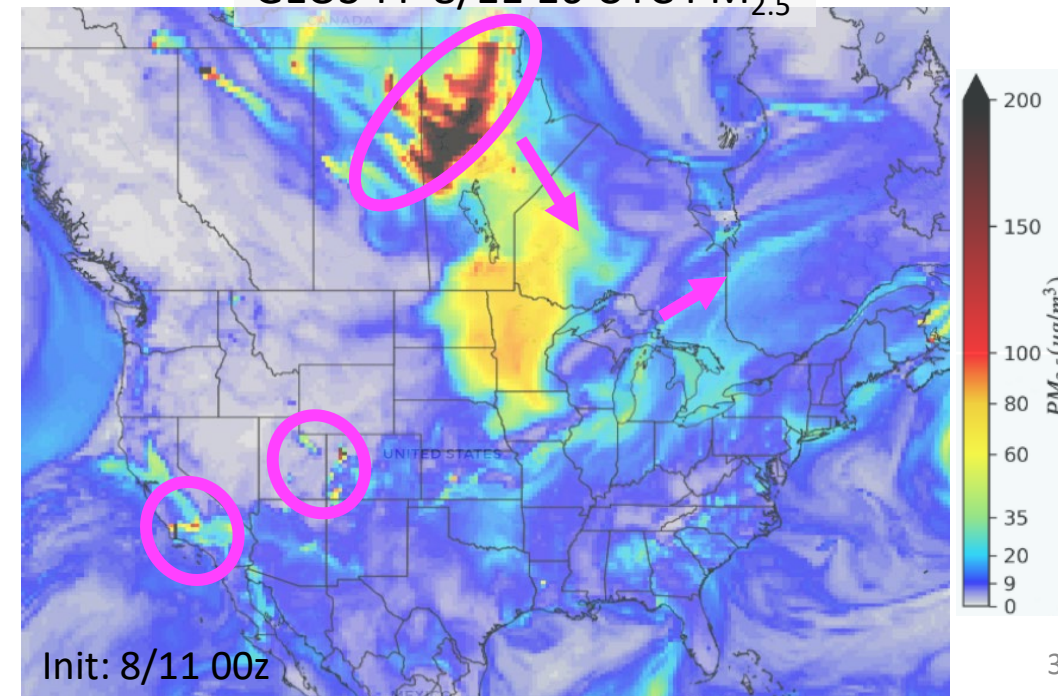
Precip. Prob.



AirNow PM_{2.5} AQI

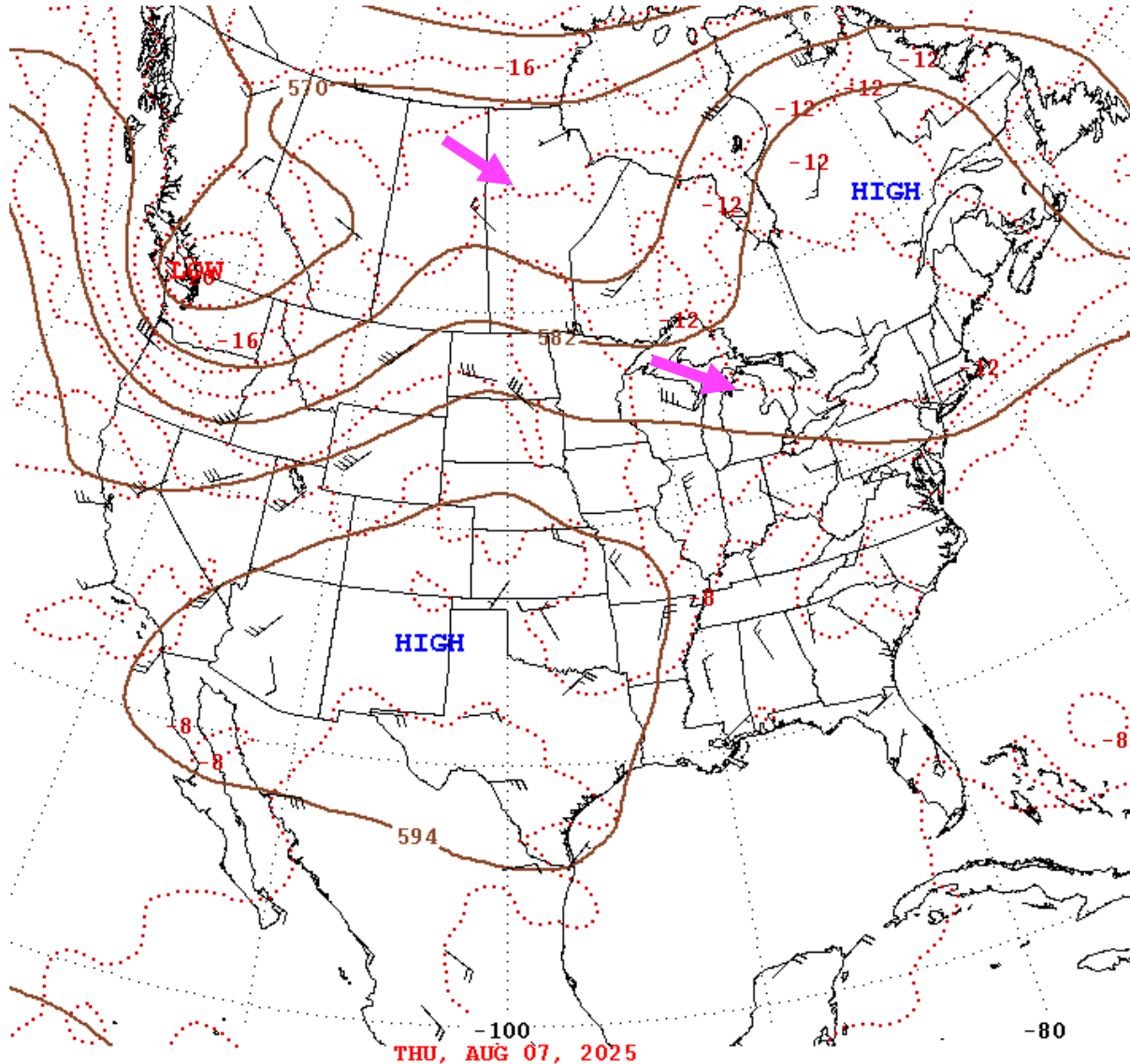


GEOS-FP 8/11 16 UTC PM_{2.5}



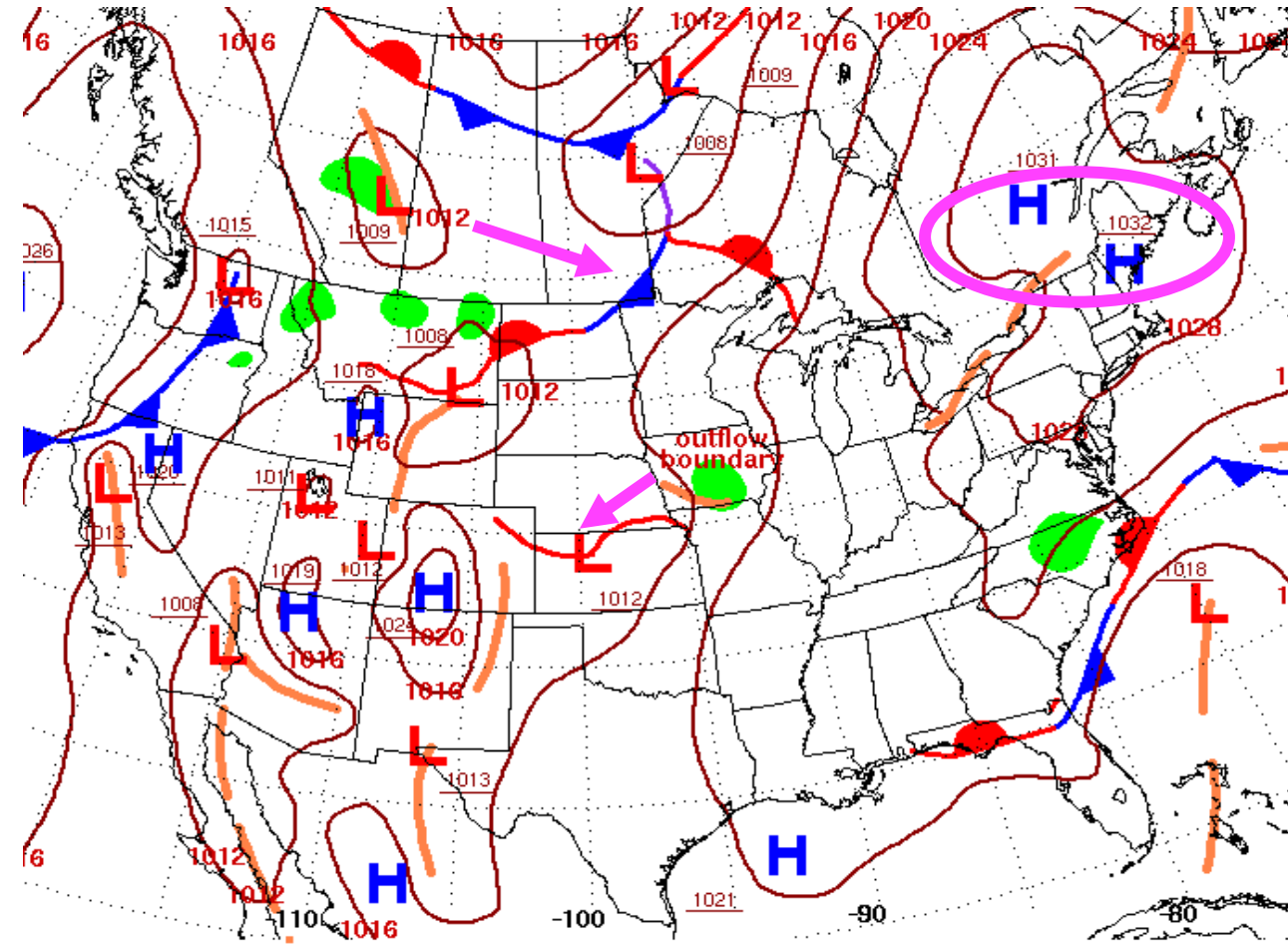
Air Quality Reflection: Thursday August 7, 2025

500 mb Contours



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

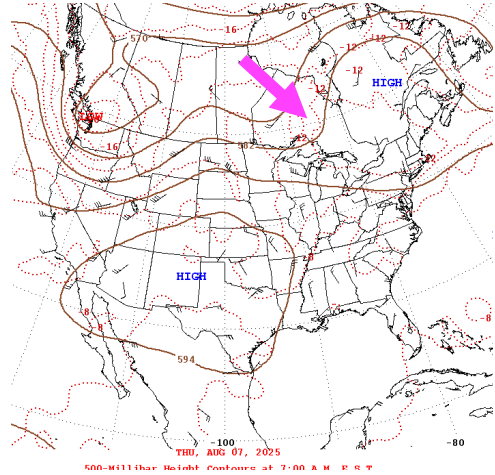
Surface Weather



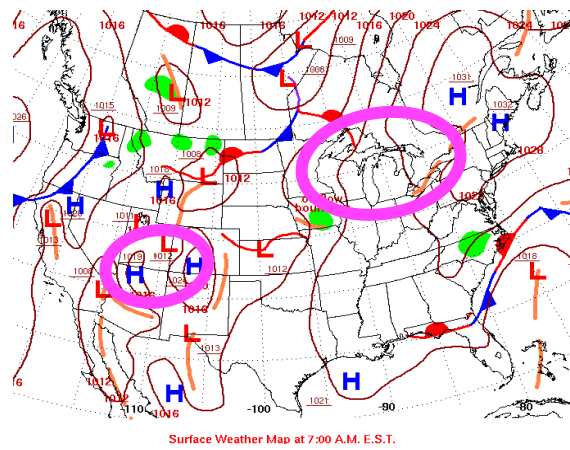
Surface Weather Map at 7:00 A.M. E.S.T.

Air Quality Reflection: August 7, 2025

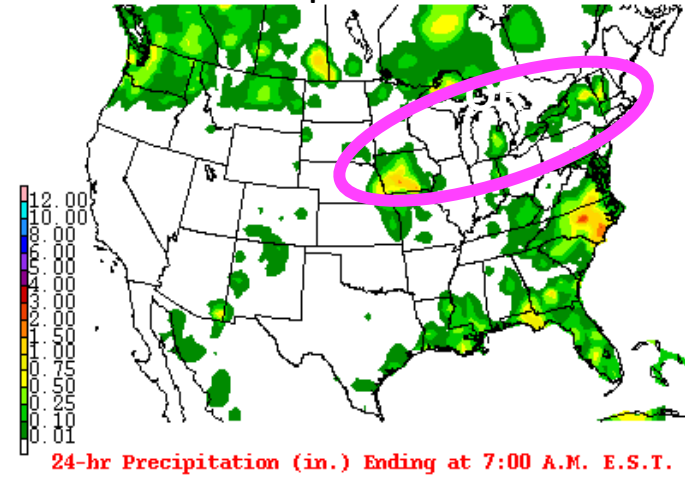
500 mb Contours



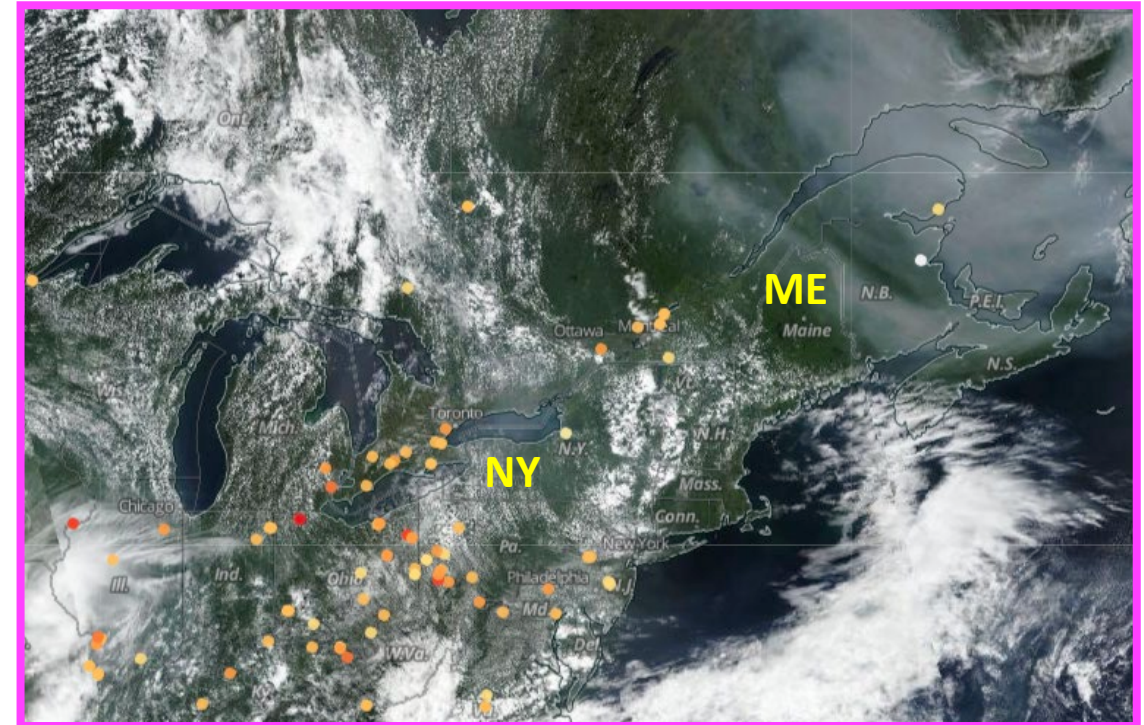
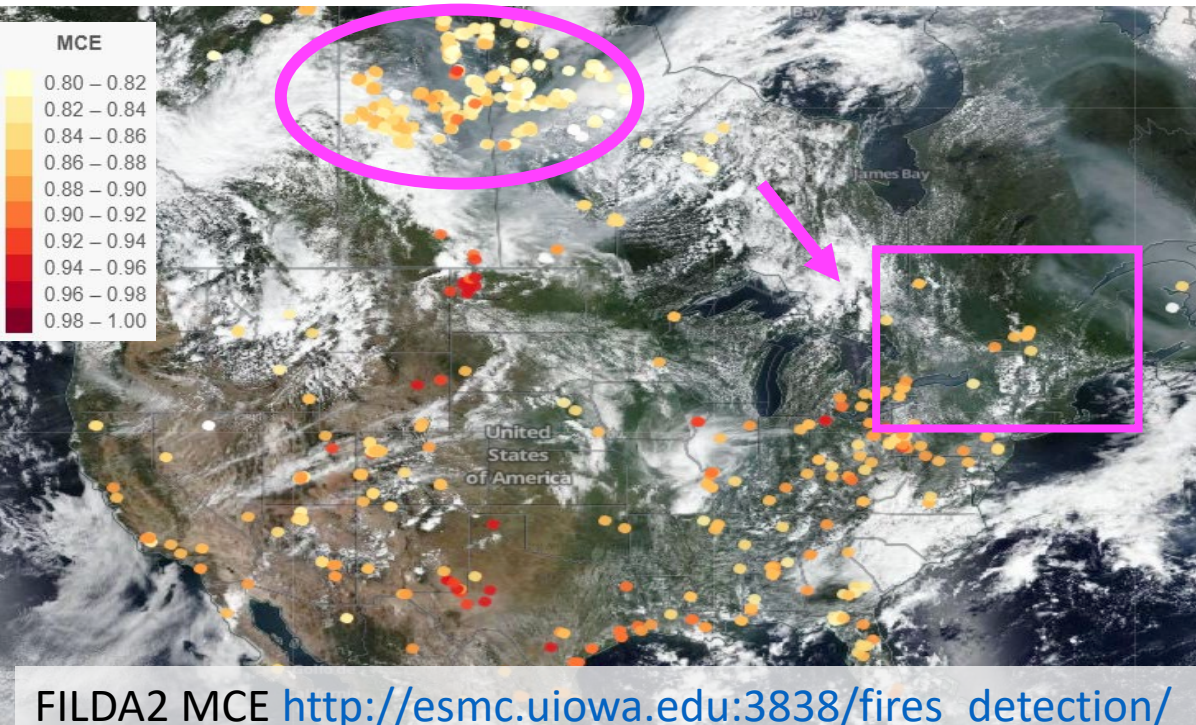
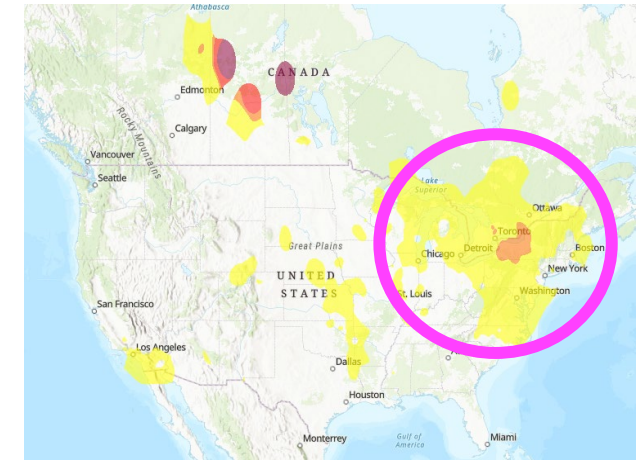
Surface Weather



Precipitation

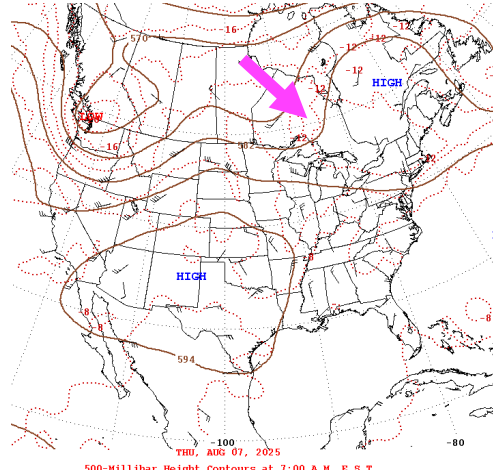


AirNow PM_{2.5} AQI

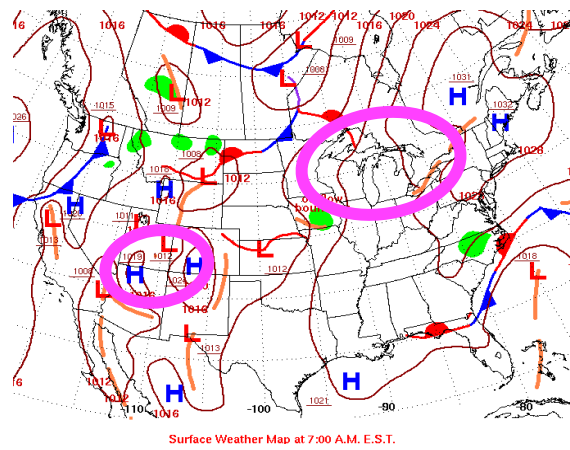


Air Quality Reflection: August 7, 2025

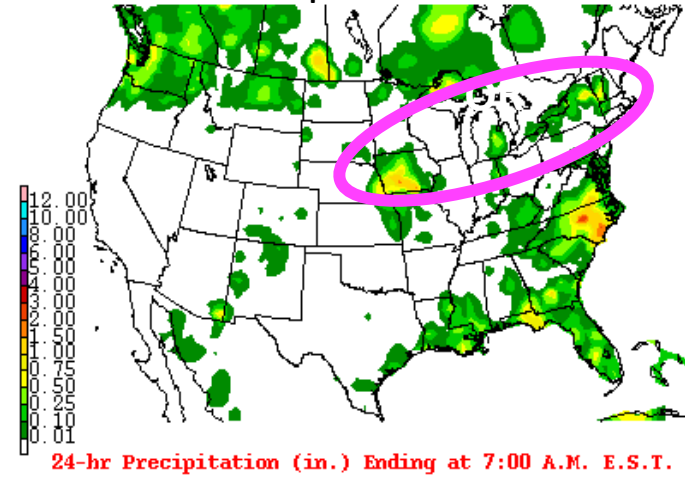
500 mb Contours



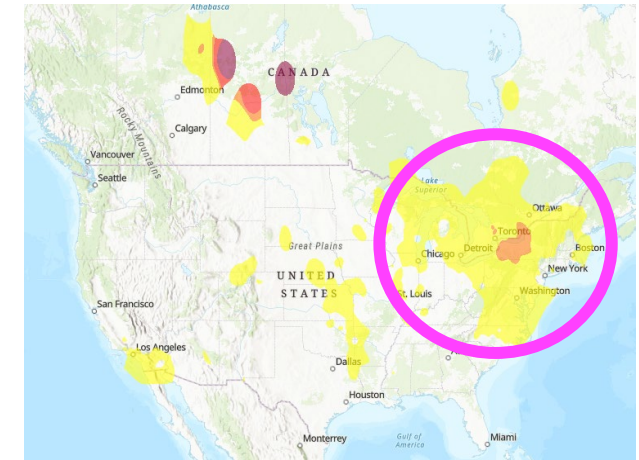
Surface Weather



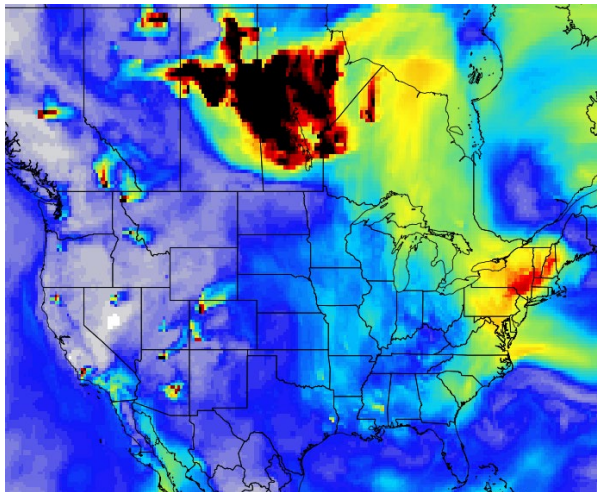
Precipitation



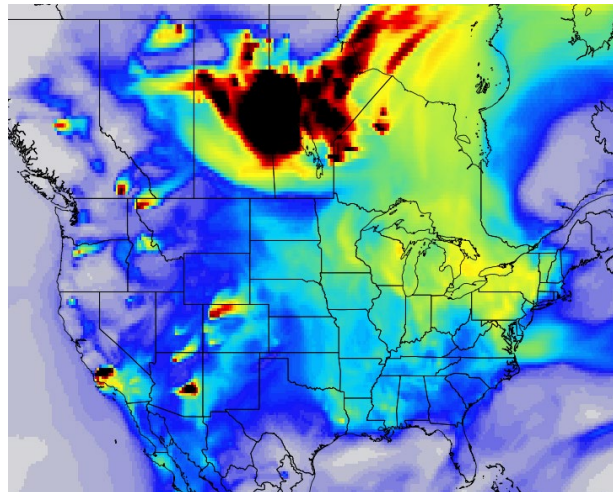
AirNow PM_{2.5} AQI



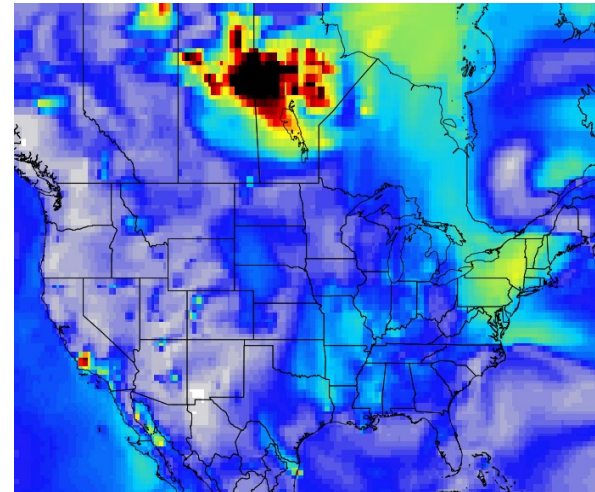
GEOS-FP



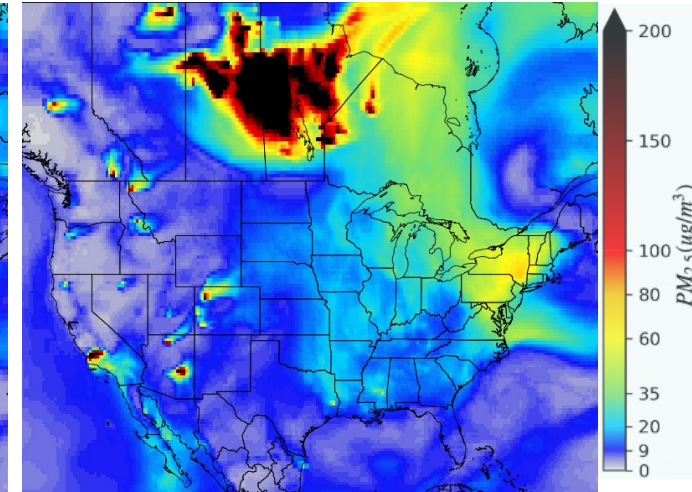
GEOS-CF



CAMS



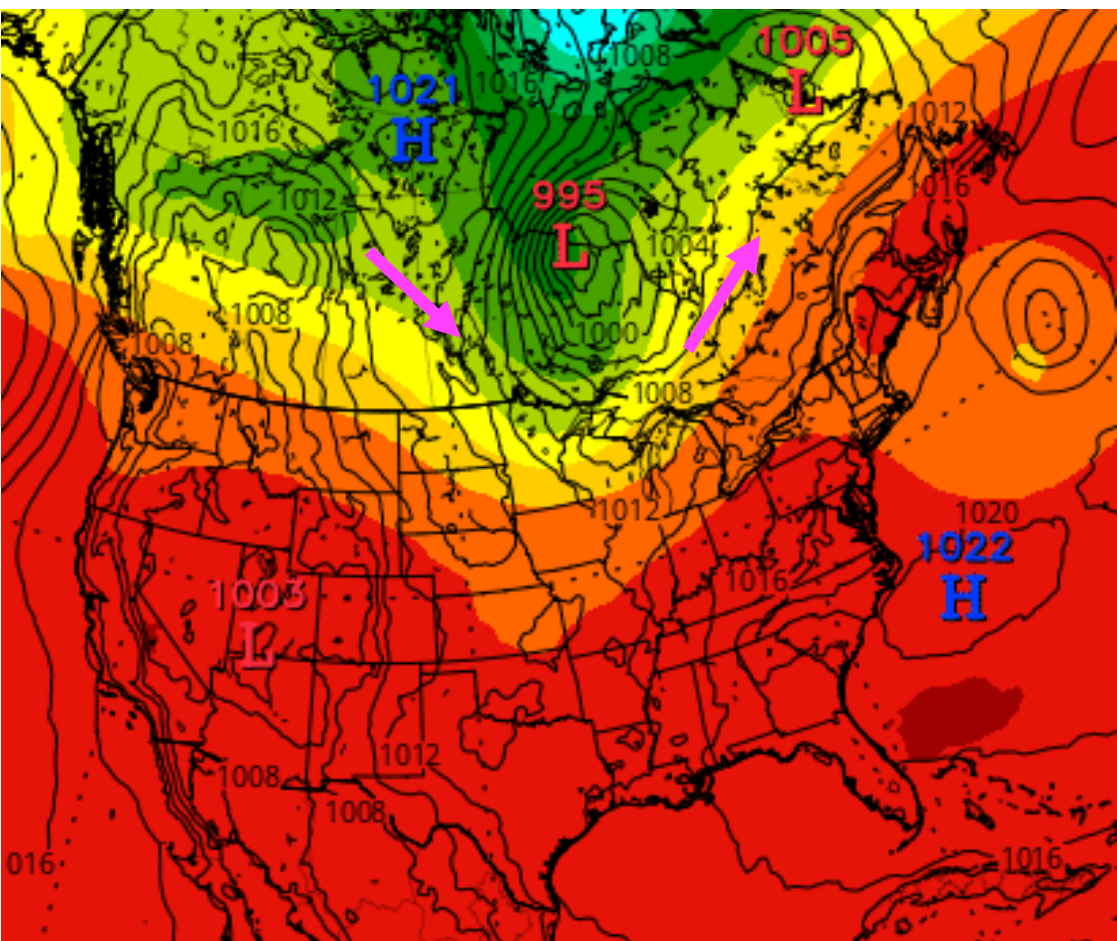
Ensemble



Outlook: Short Range (1-3 days)

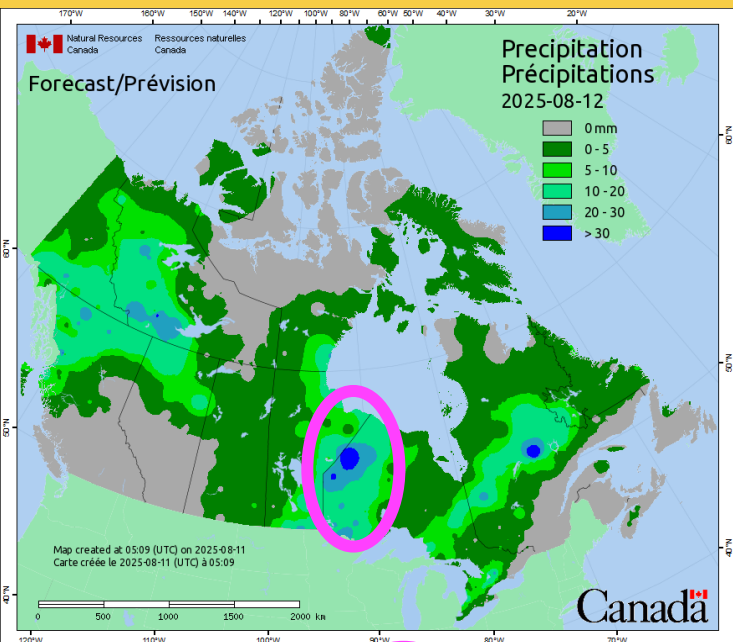
(Forecast **Tuesday 8/12**)

GFS 500 mb

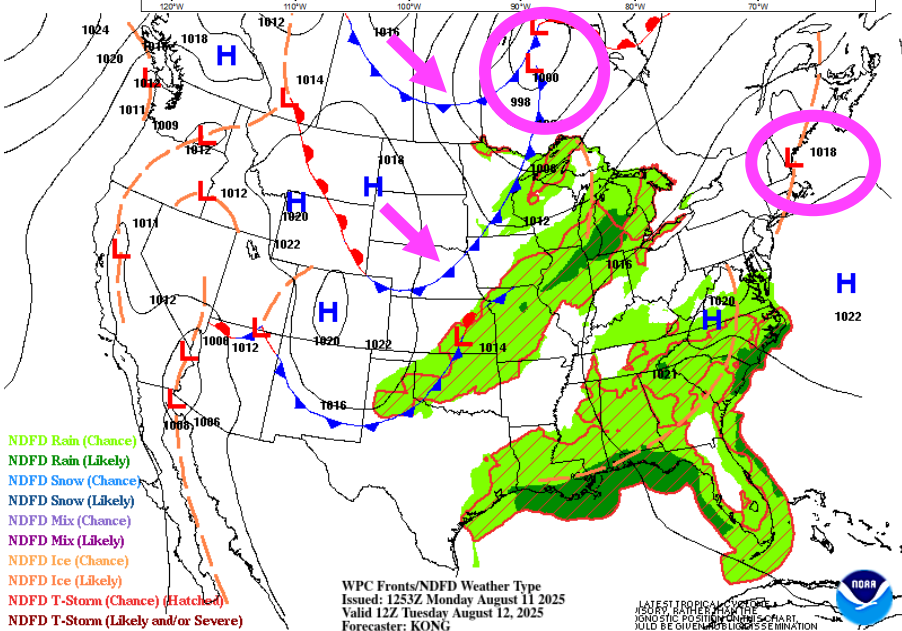


GFS 500mb Geopotential Height (dam) & MSLP (mb)
Init: 06z Aug 11 2025 Forecast Hour: [36] valid at 18z Tue, Aug 12 2025

Environment
Canada
Forecast

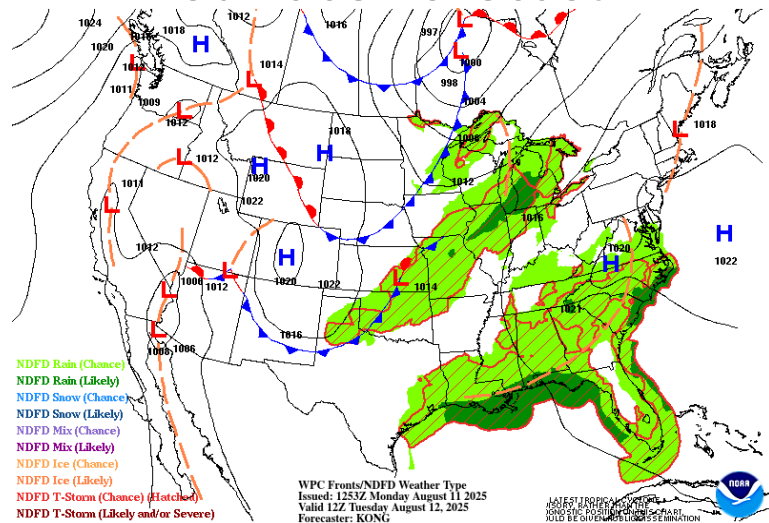


US NWS
Forecast

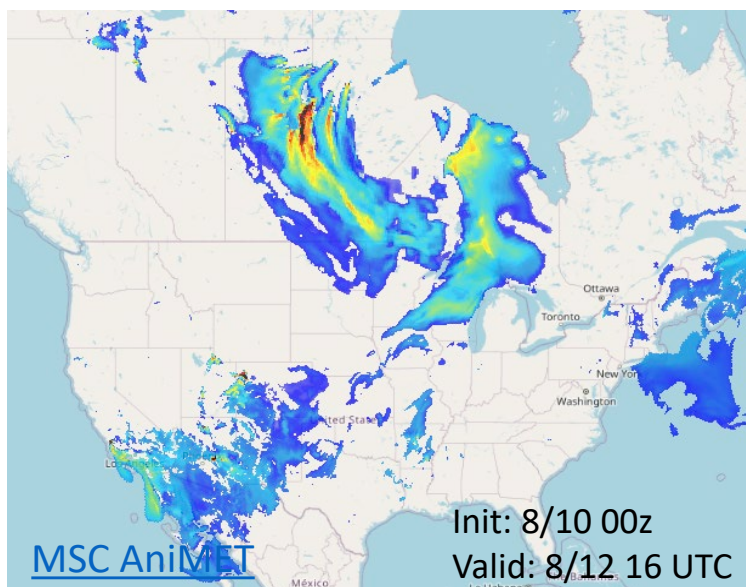


Outlook: Short Range (1–3 days)

Surface Forecast



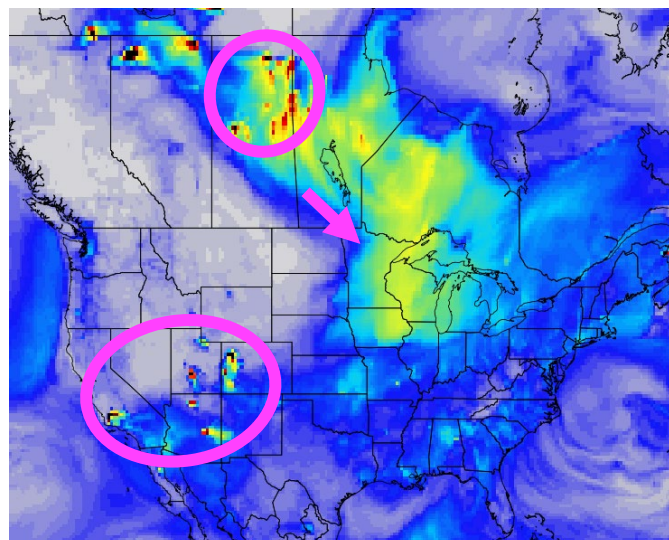
Canada MSC AniMET



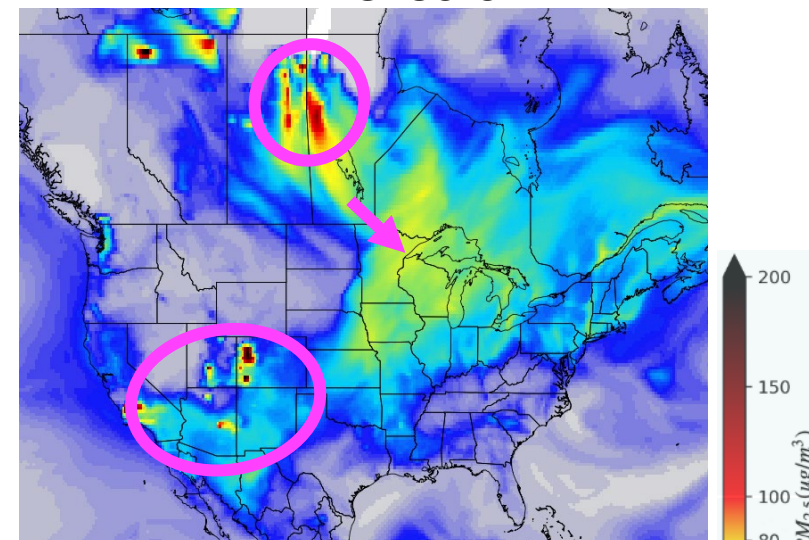
(Tuesday 8/12)

Model Means PM_{2.5}

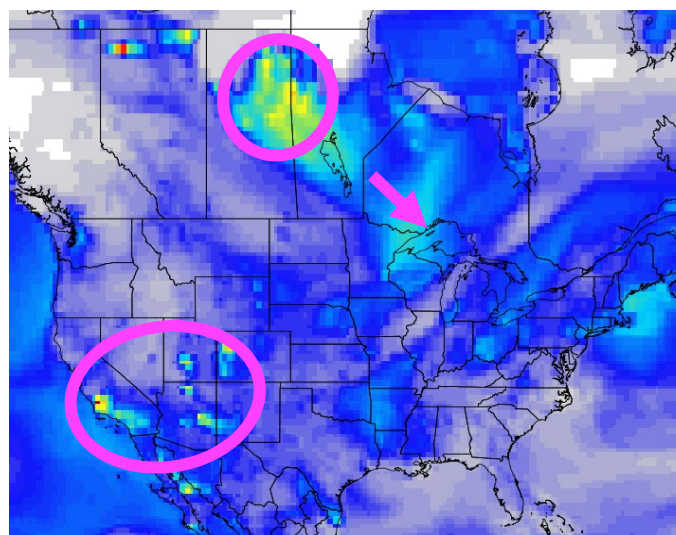
GEOS-FP



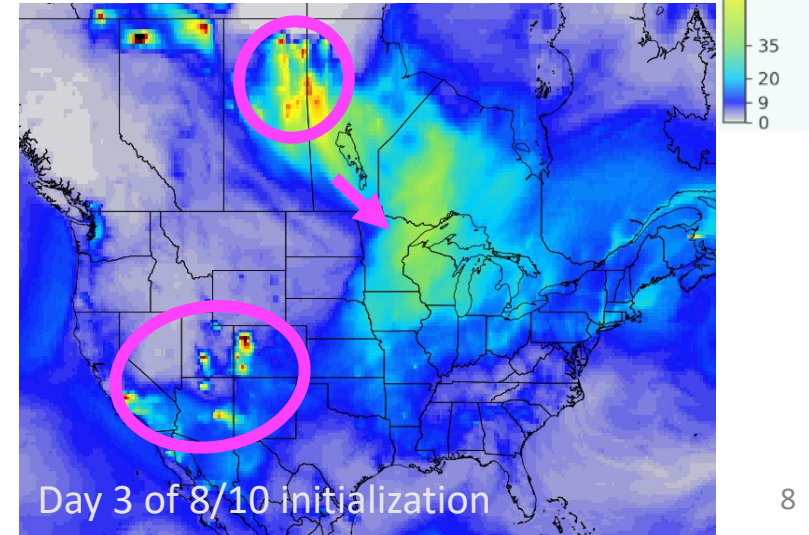
GEOS-CF



CAMS



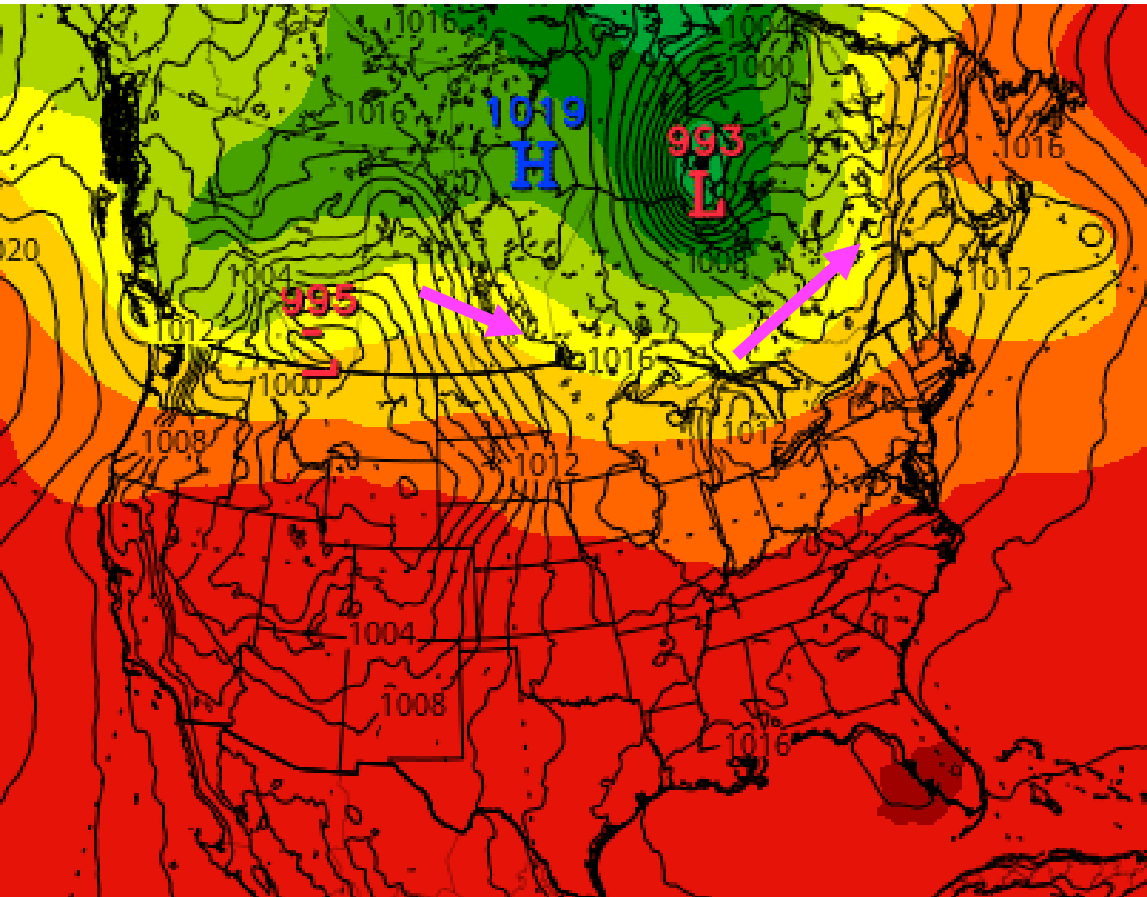
Ensemble



Outlook: Short Range (1–3 days)

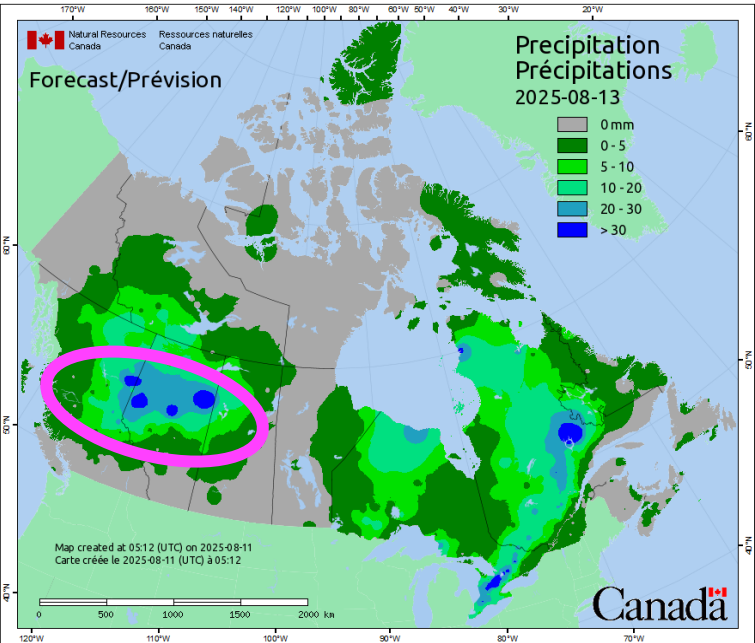
(Forecast **Wednesday 8/13**)

GFS 500 mb

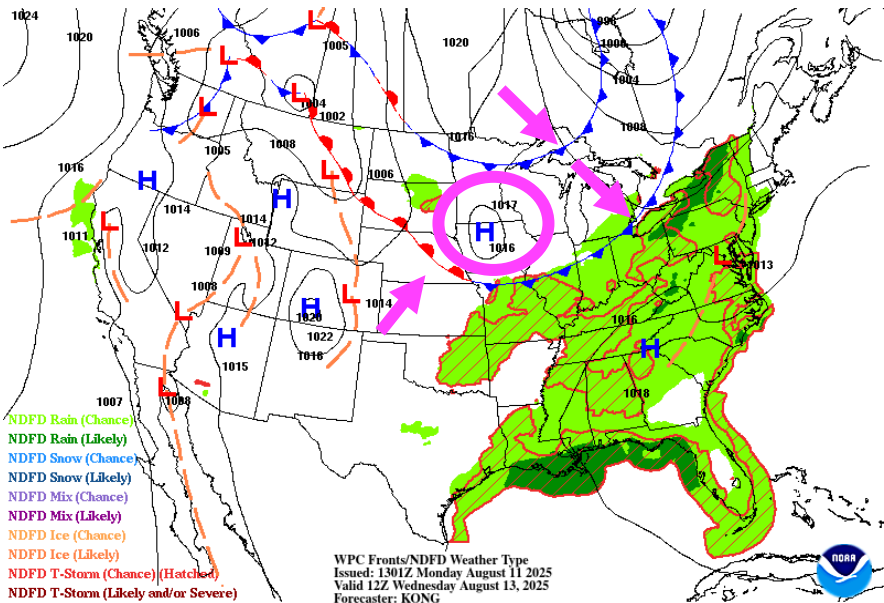


GFS 500mb Geopotential Height (dam) & MSLP (mb)
Init: 06z Aug 11 2025 Forecast Hour: [60] valid at 18z Wed, Aug 13 2025

Environment
Canada
Forecast



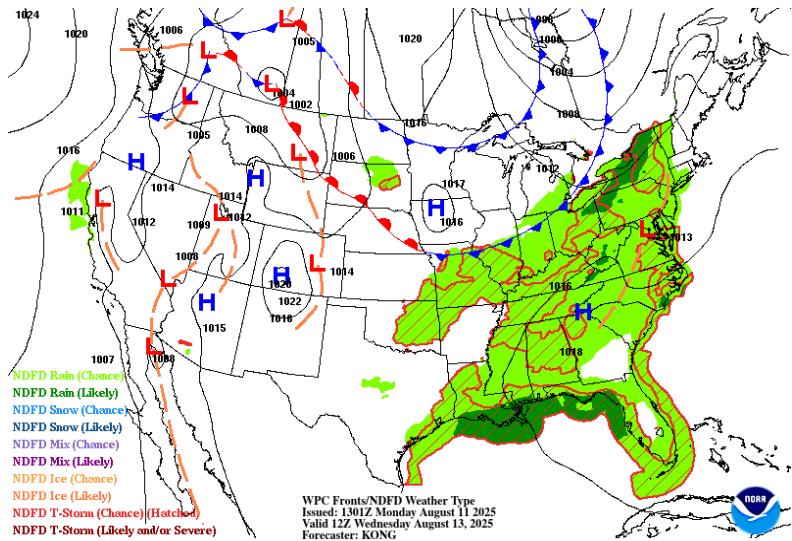
US NWS
Forecast



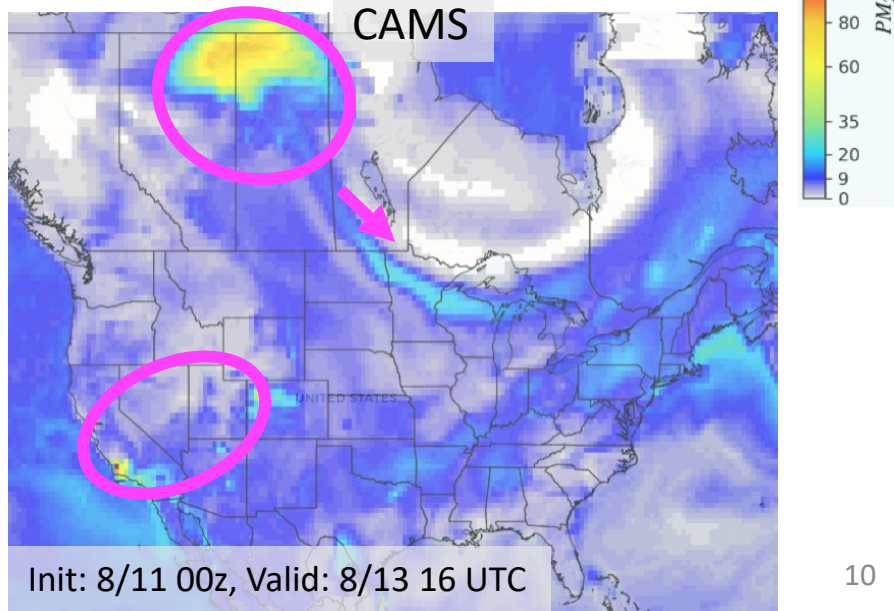
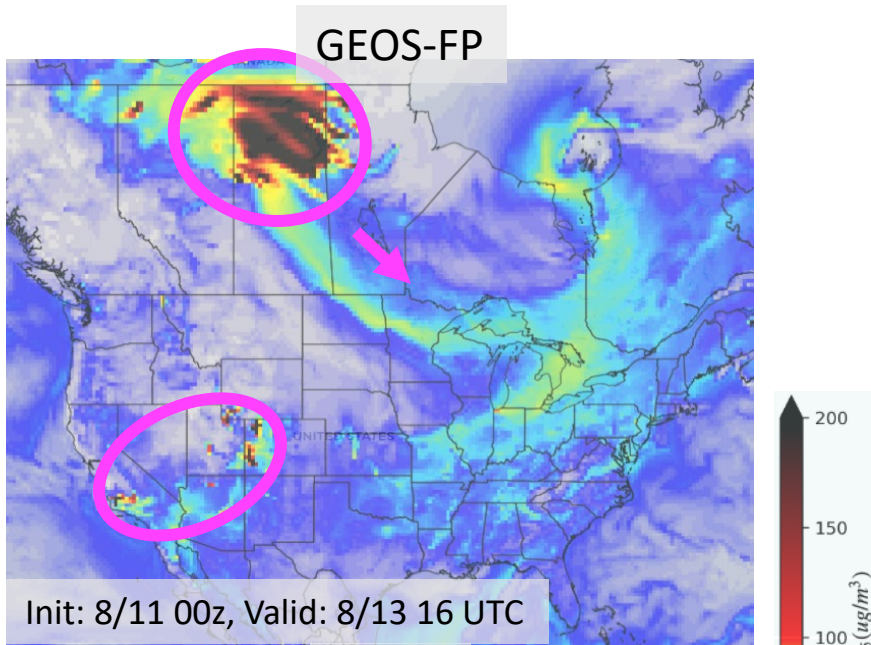
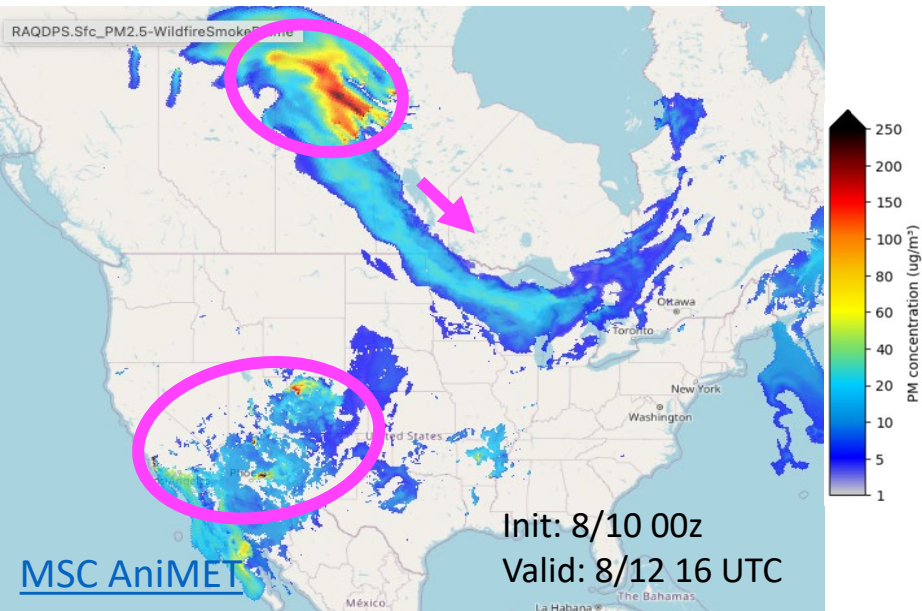
Outlook: Short Range (1–3 days)

(Wednesday 8/13)

Surface Forecast

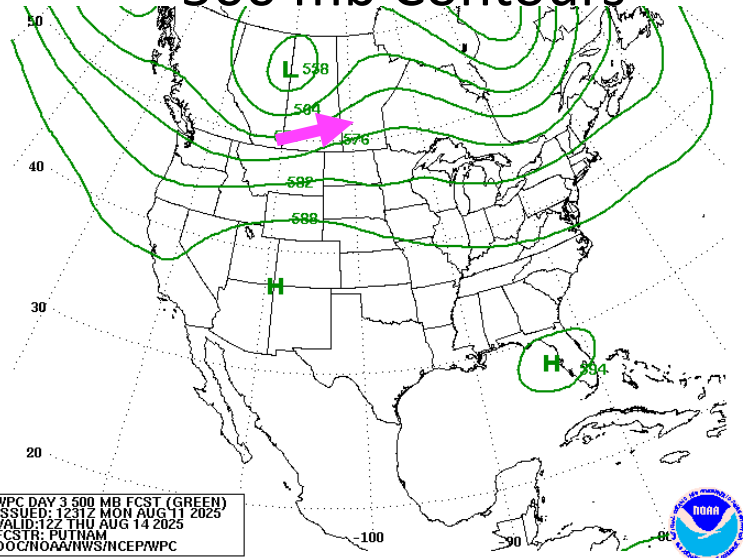


Canada MSC AniMET

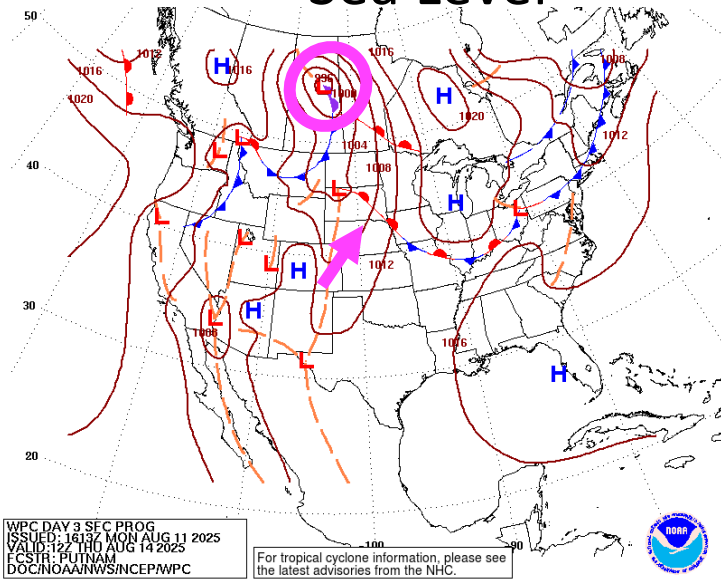


Outlook: Medium Range

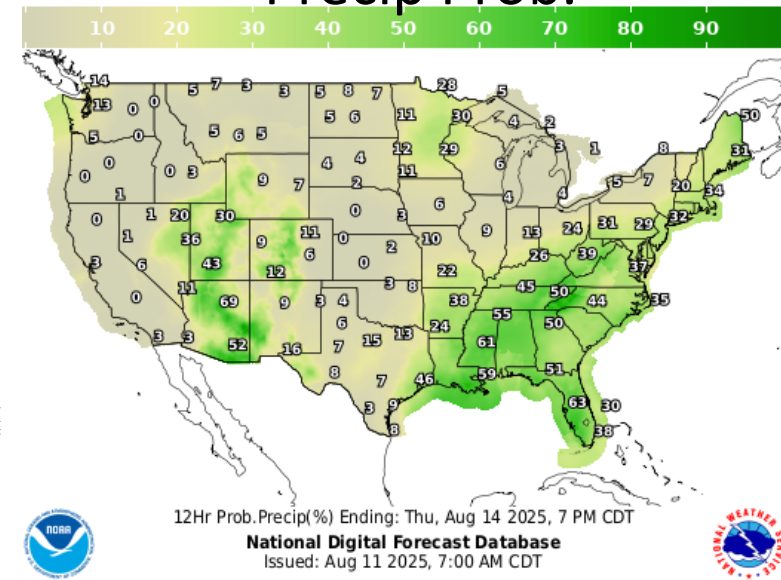
500 mb Contours



Sea Level



Precip Prob.



Thurs
8/14

Friday
8/15

