

# Weather and Air Quality: Reflection and Outlook During Smoke Conditions

Presenter: Megan Christiansen  
Date: August 4, 2025

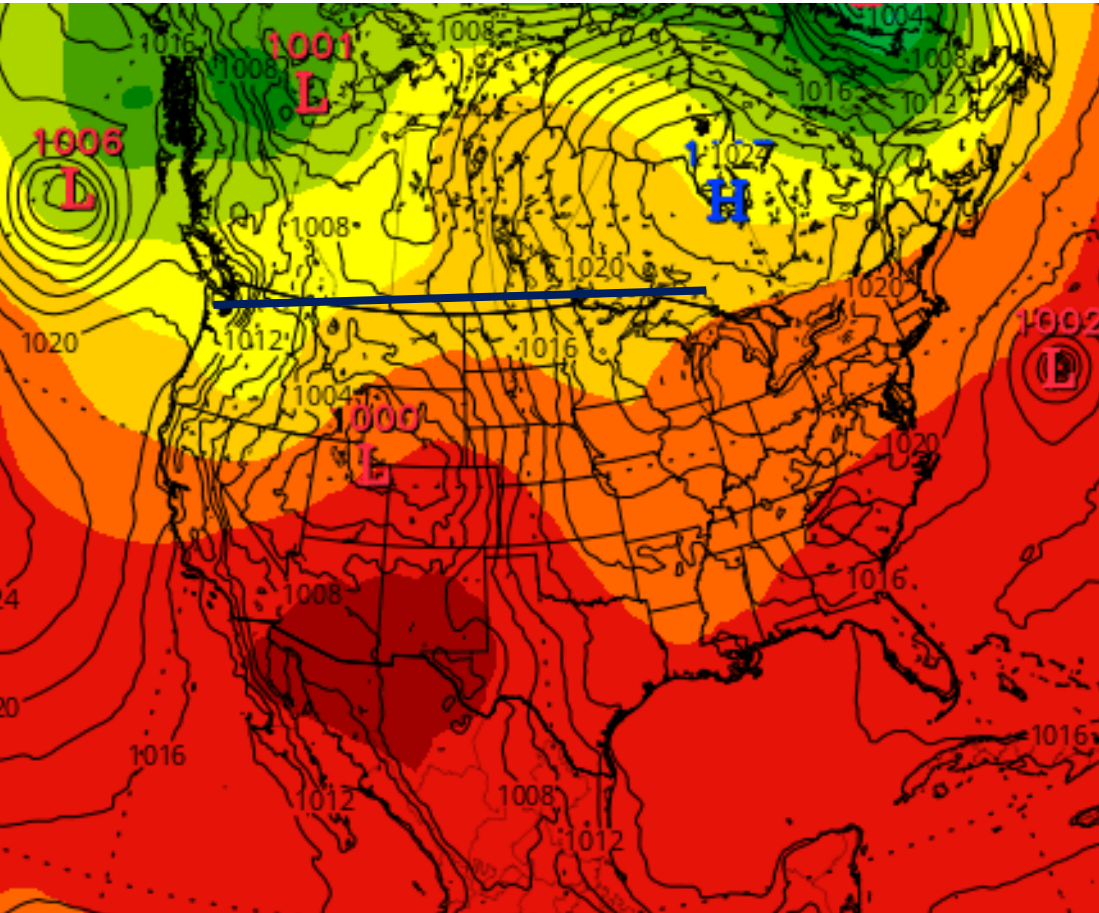


FireAQ is funded by NASA HAQ. We thank NASA GMAO and  
NRL for the model data products.

EARTH SCIENCE  
APPLIED SCIENCES

# Current Status: August 4 , 2025

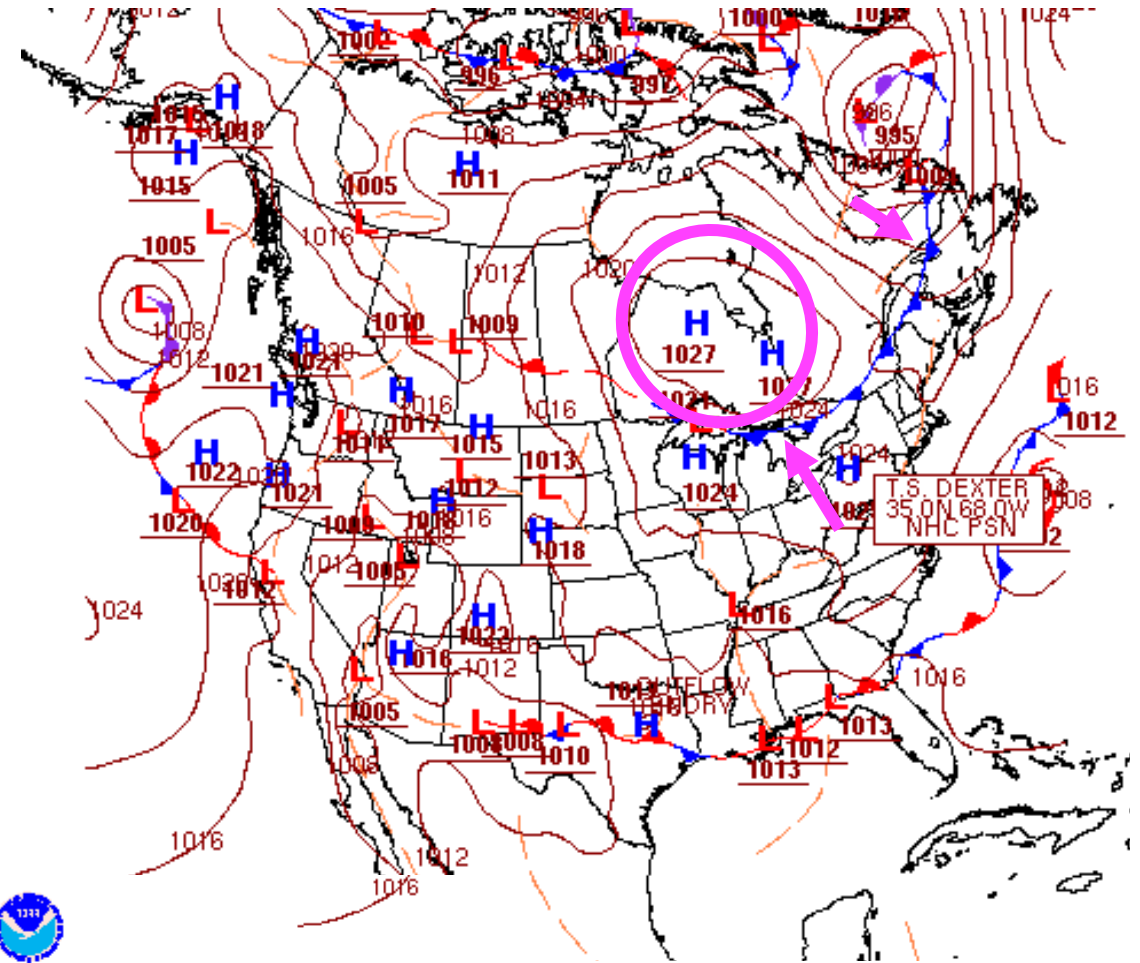
## 500 mb Contours



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

Init: 06z Aug 04 2025 Forecast Hour: [12] valid at 18z Mon, Aug 04 2025

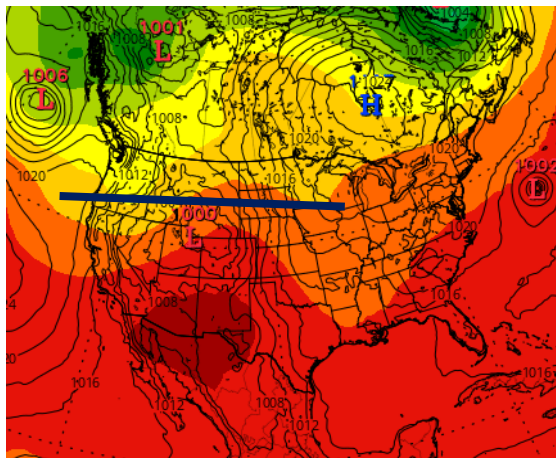
## Surface Analysis



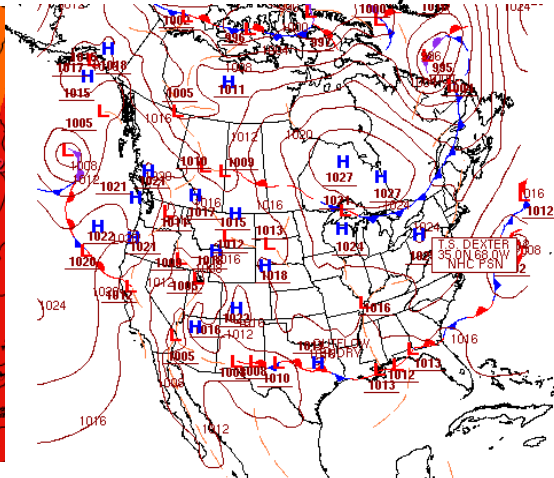
1200Z SURFACE ANALYSIS  
DATE: MON AUG 04 2025  
ISSUED: 1339Z MON AUG 04 2025  
BY WPC ANALYST KONG  
COLLABORATING CENTERS: WPC, NHC, OPC

# Current Status: August 4 , 2025

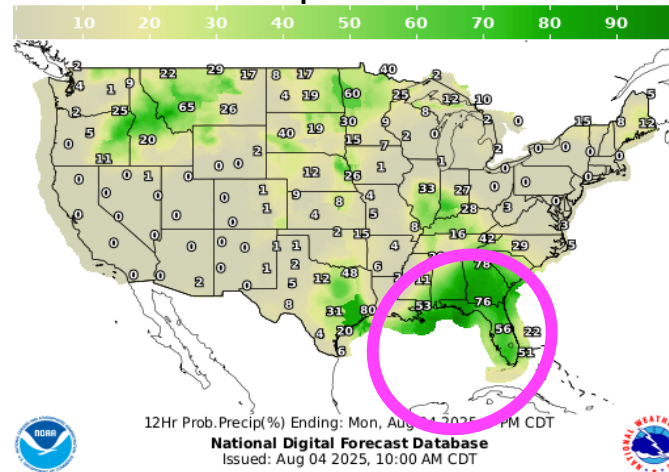
## 500 mb Contours



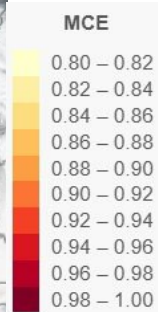
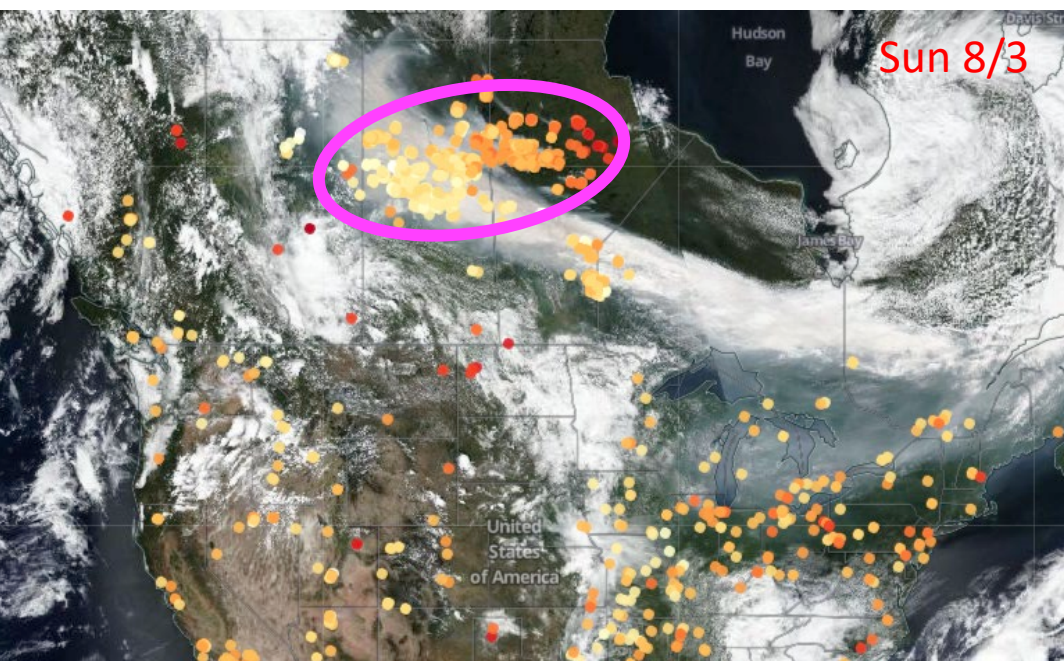
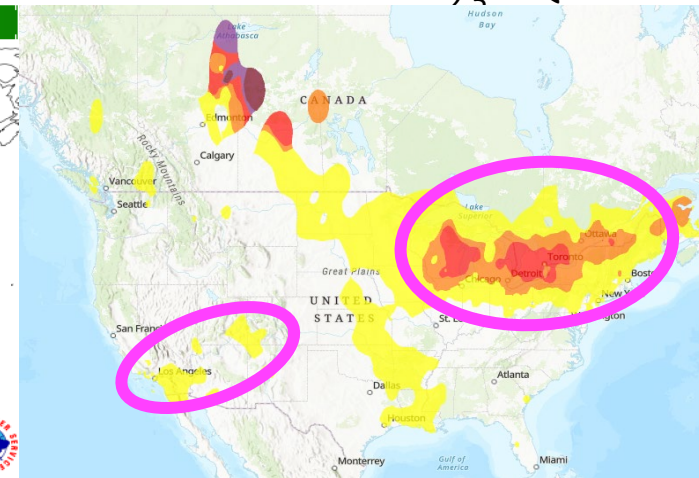
## Surface Analysis



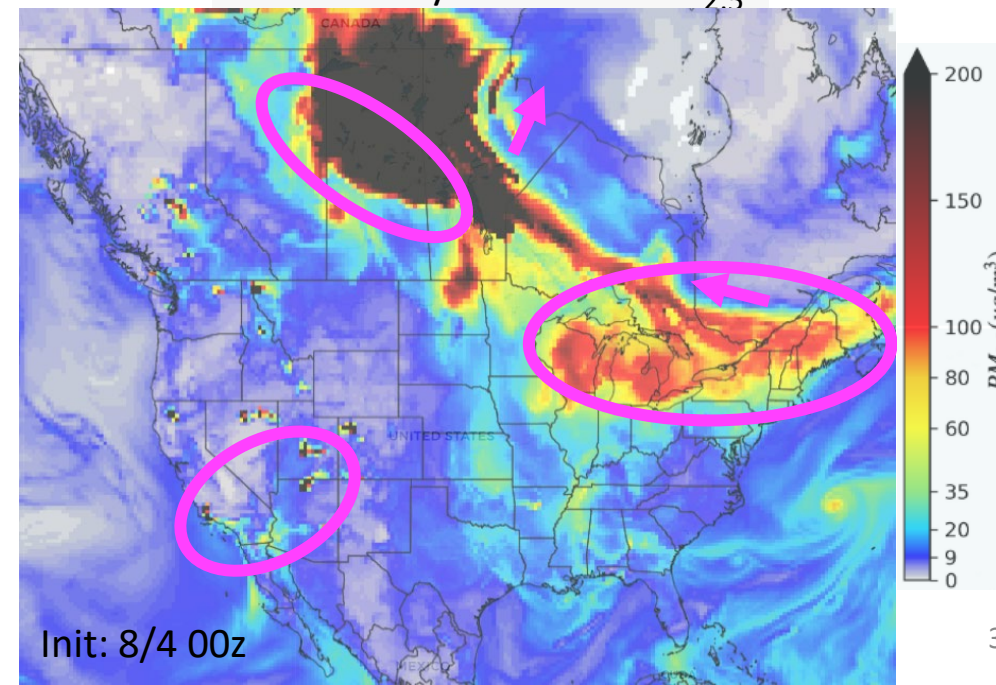
## Precip. Prob.



## AirNow PM<sub>2.5</sub> AQI

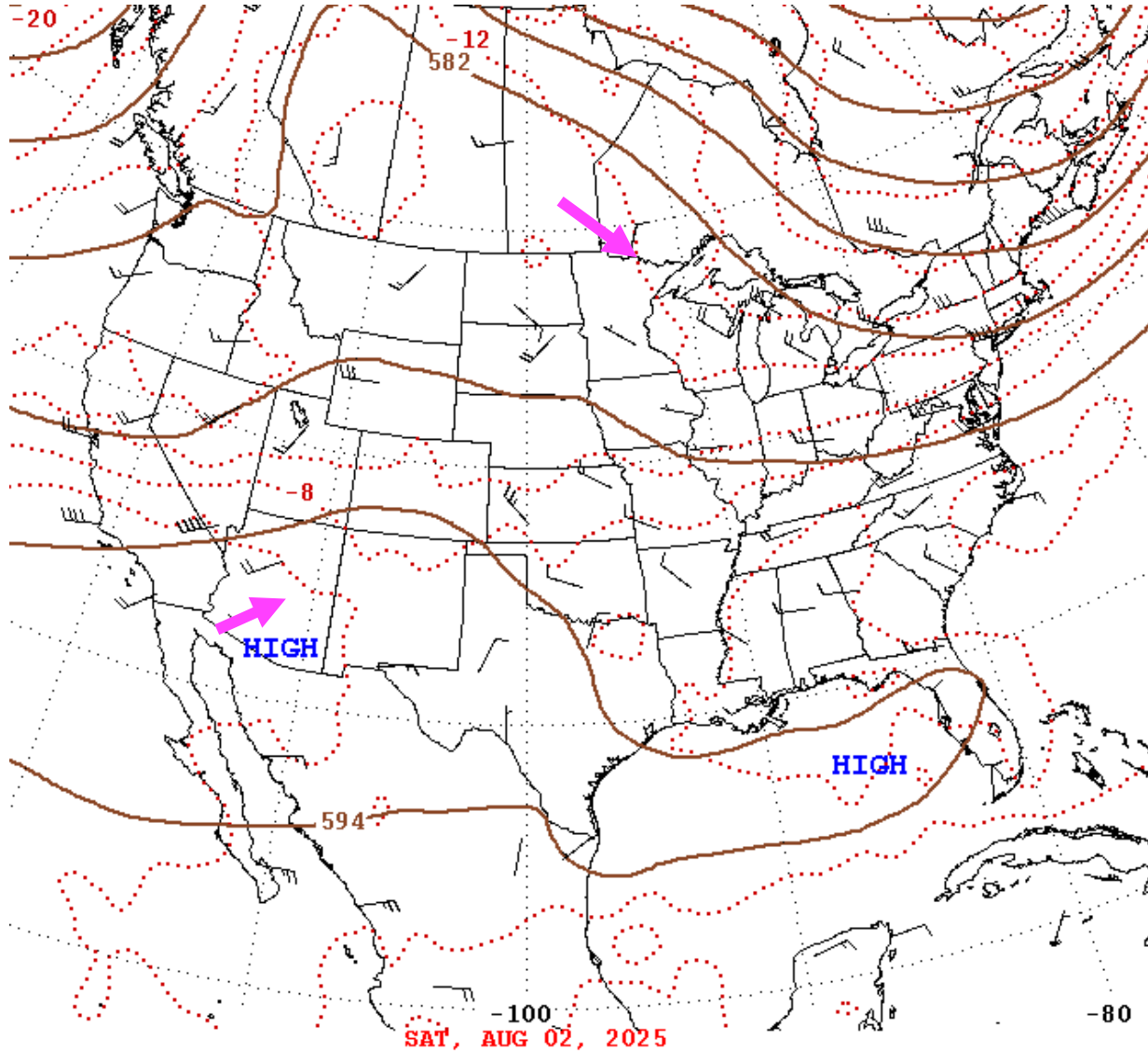


## GEOS-FP 8/4 16 UTC PM<sub>2.5</sub>



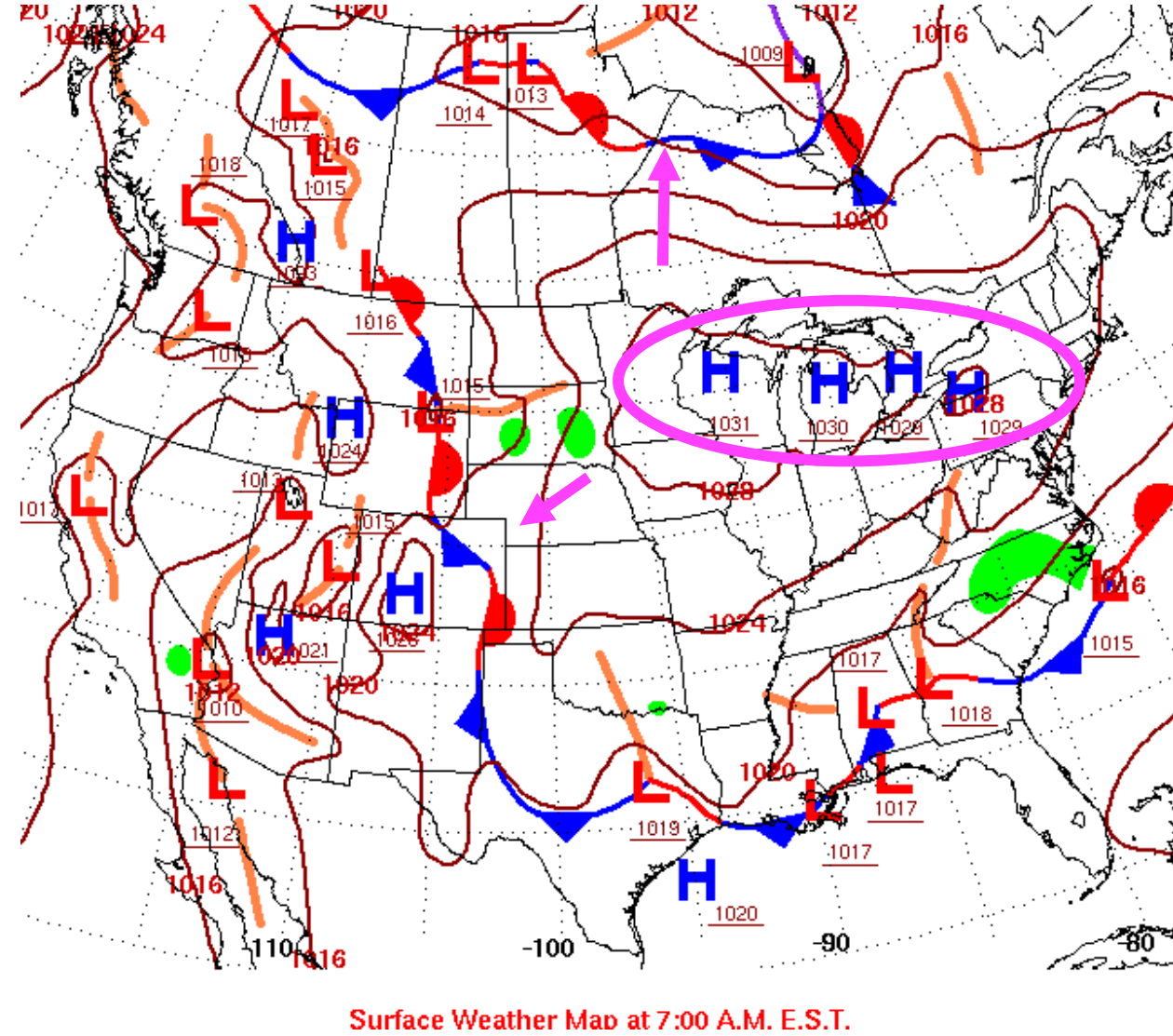
# Air Quality Reflection: Saturday August 2, 2025

# 500 mb Contours



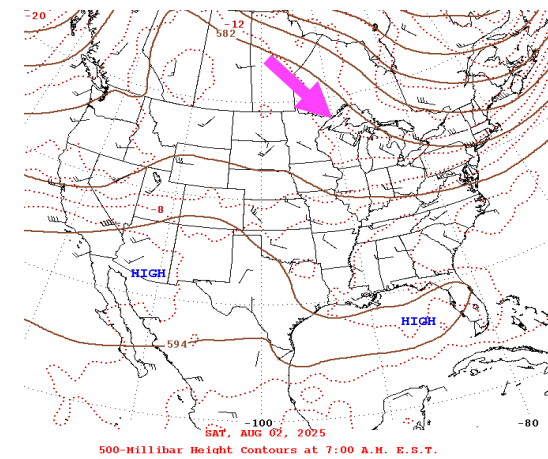
500-Millibar Height Contours at 7:00 A.M. E.S.T.

# Surface Weather

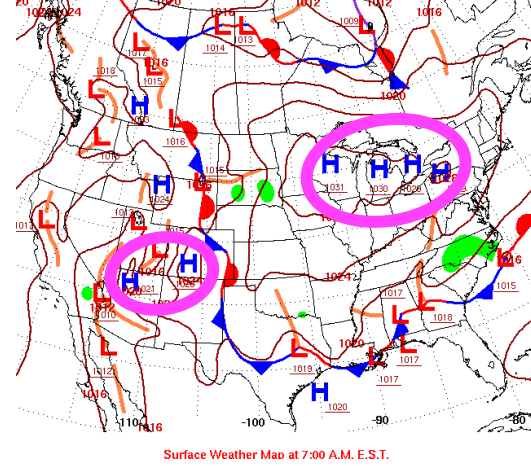


# Air Quality Reflection: August 2, 2025

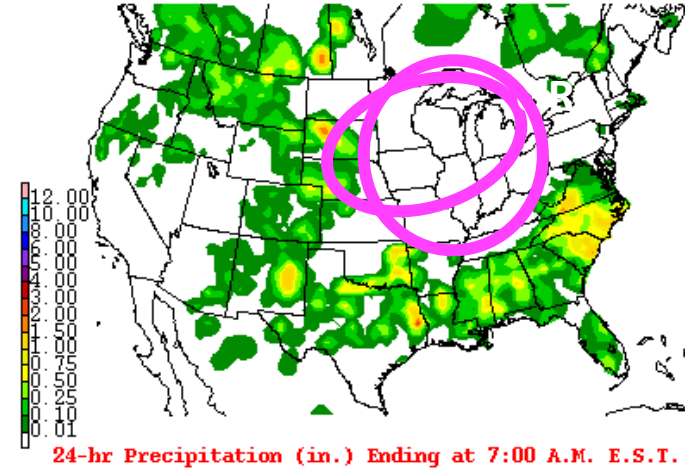
500 mb Contours



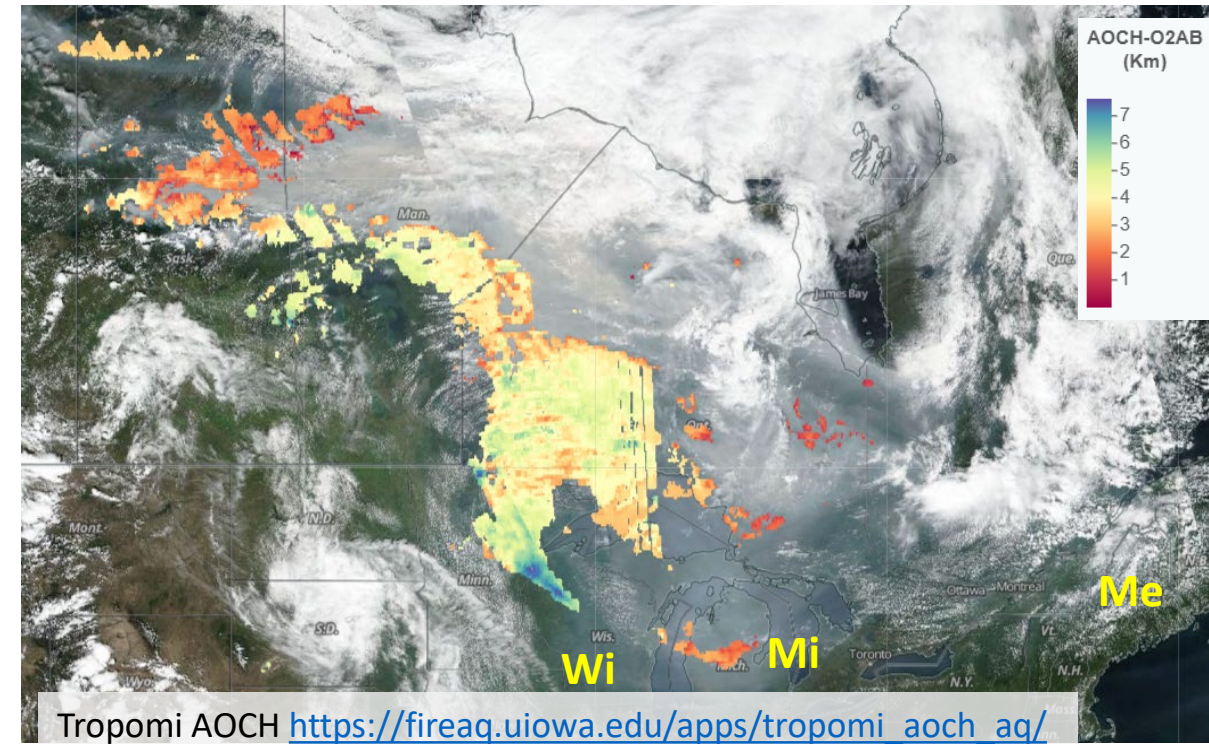
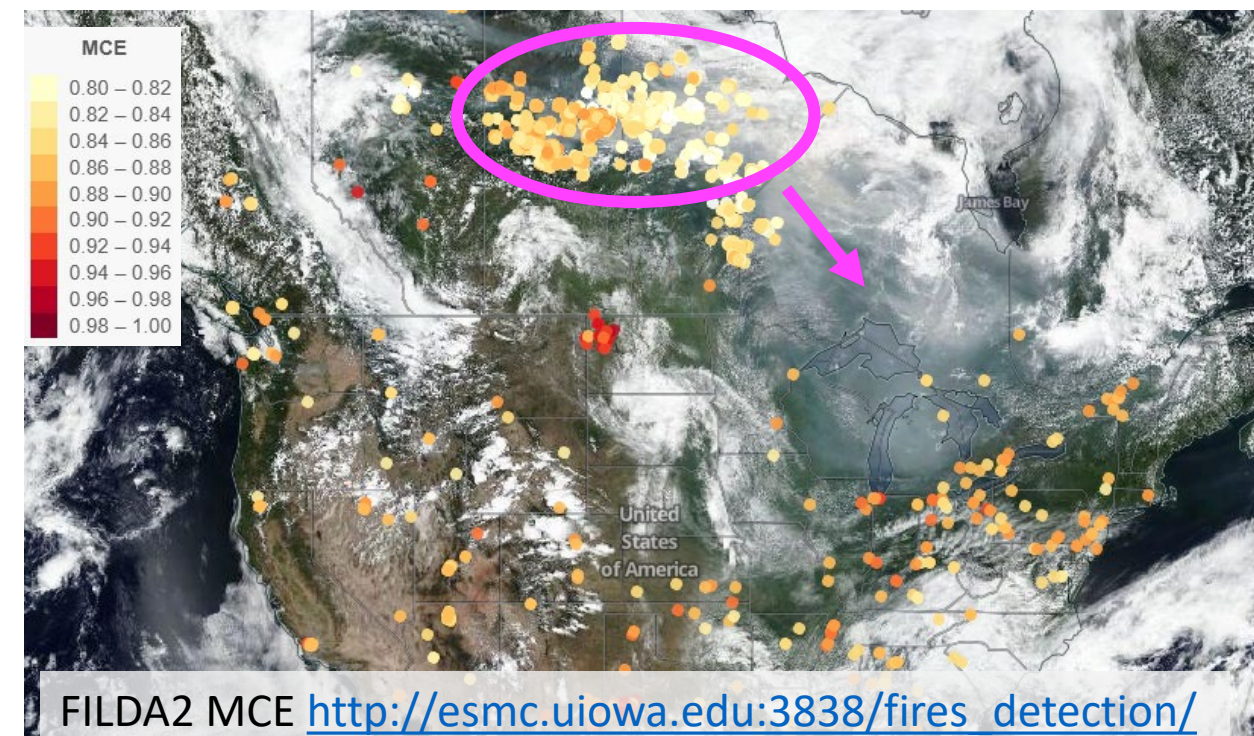
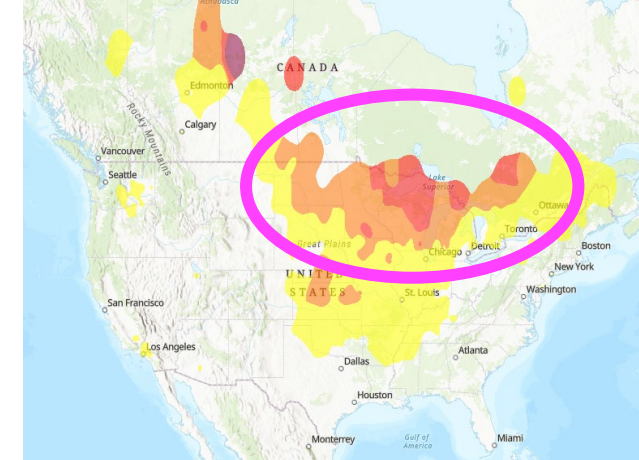
Surface Weather



Precipitation

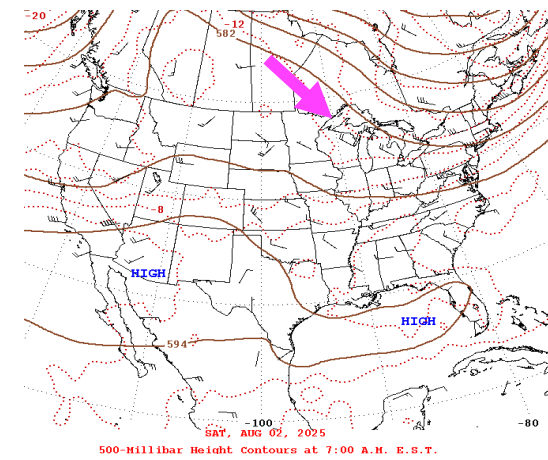


AirNow PM<sub>2.5</sub> AQI

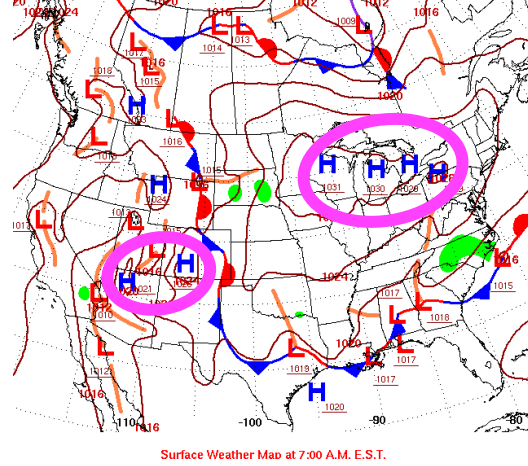


# Air Quality Reflection: August 2, 2025

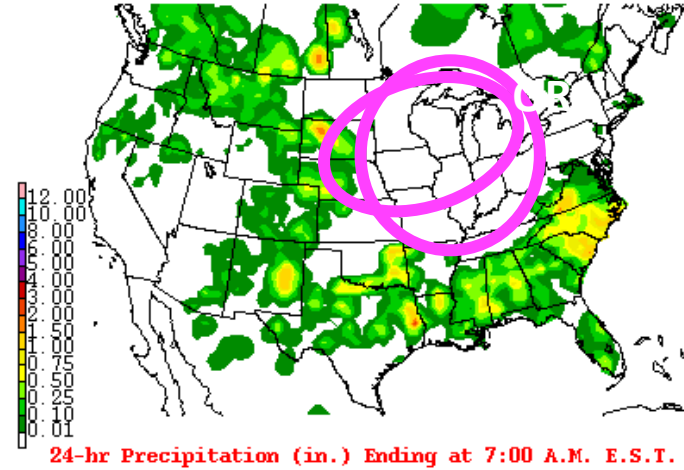
500 mb Contours



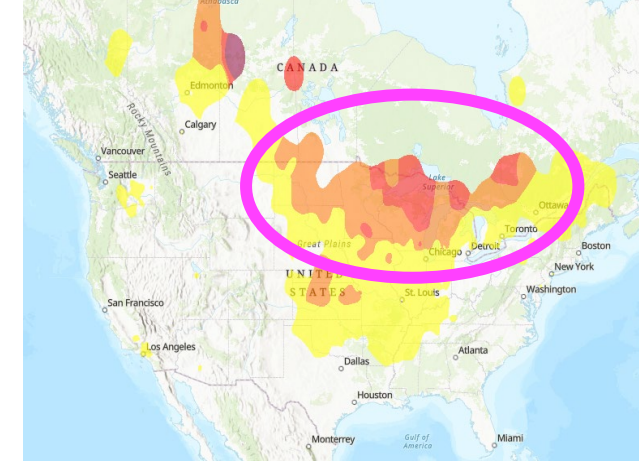
Surface Weather



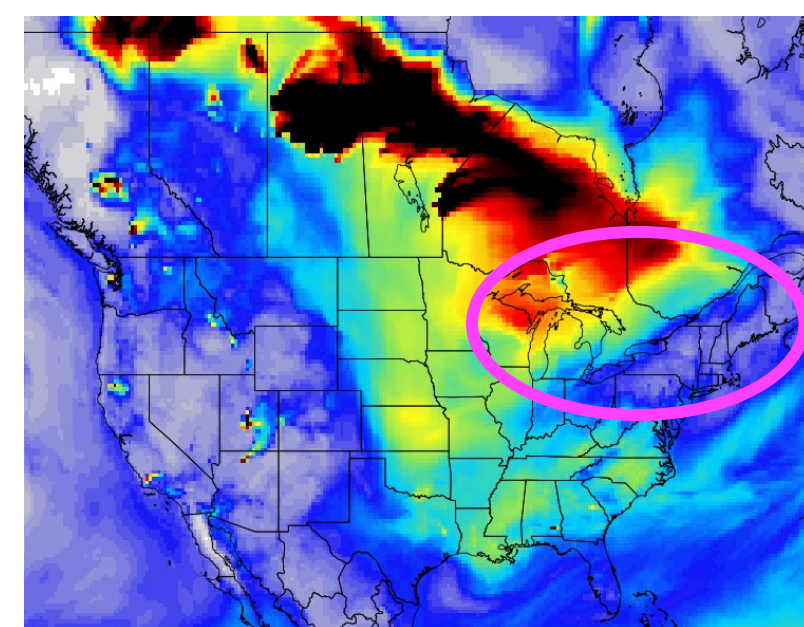
Precipitation



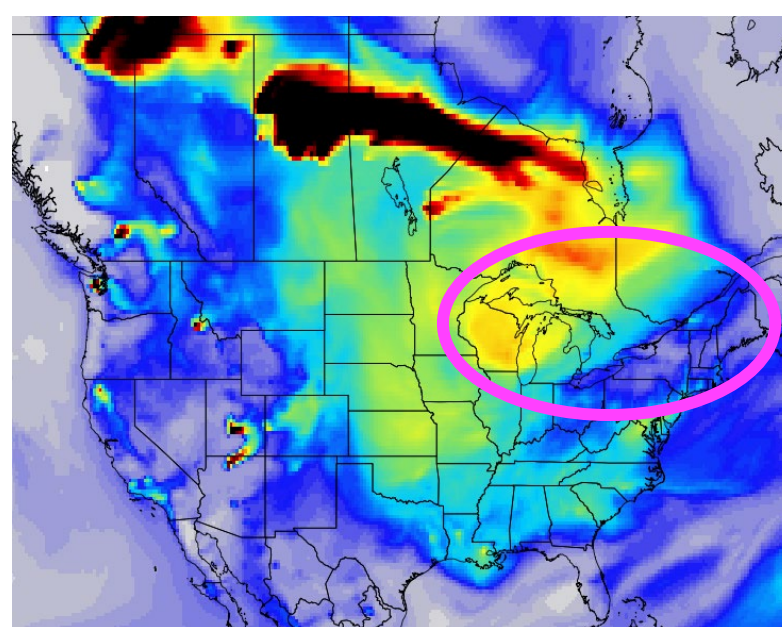
AirNow PM<sub>2.5</sub> AQI



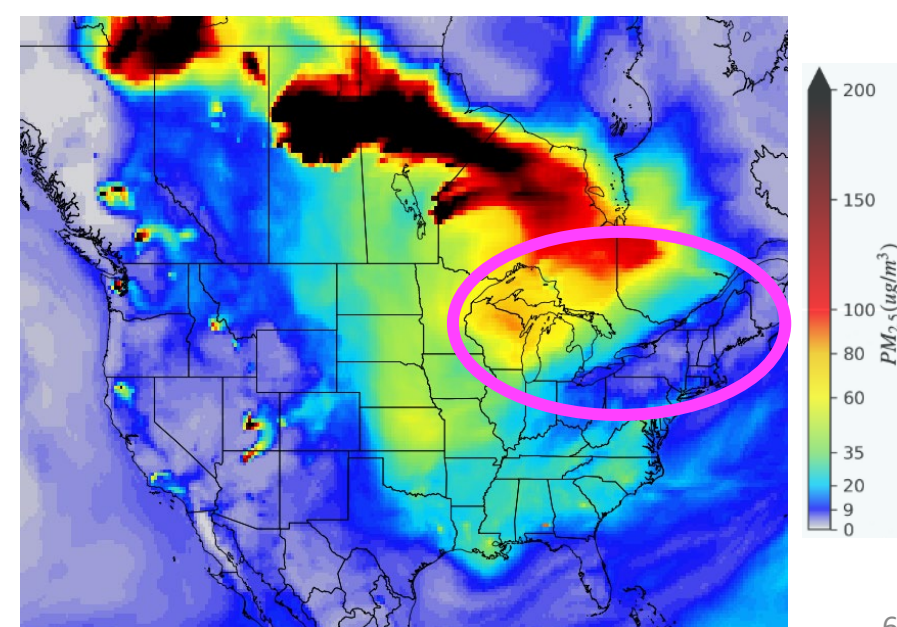
GEOS-FP



GEOS-CF



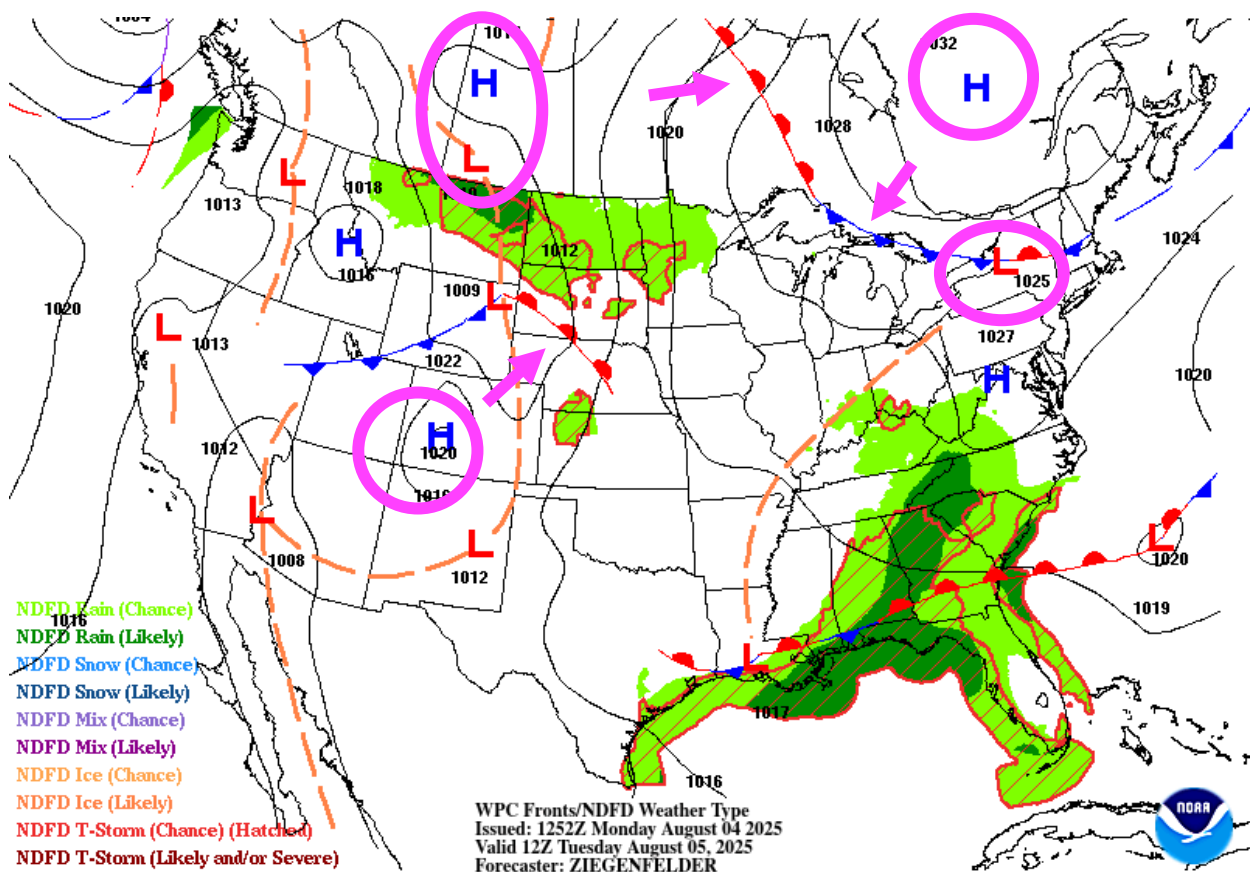
Ensemble



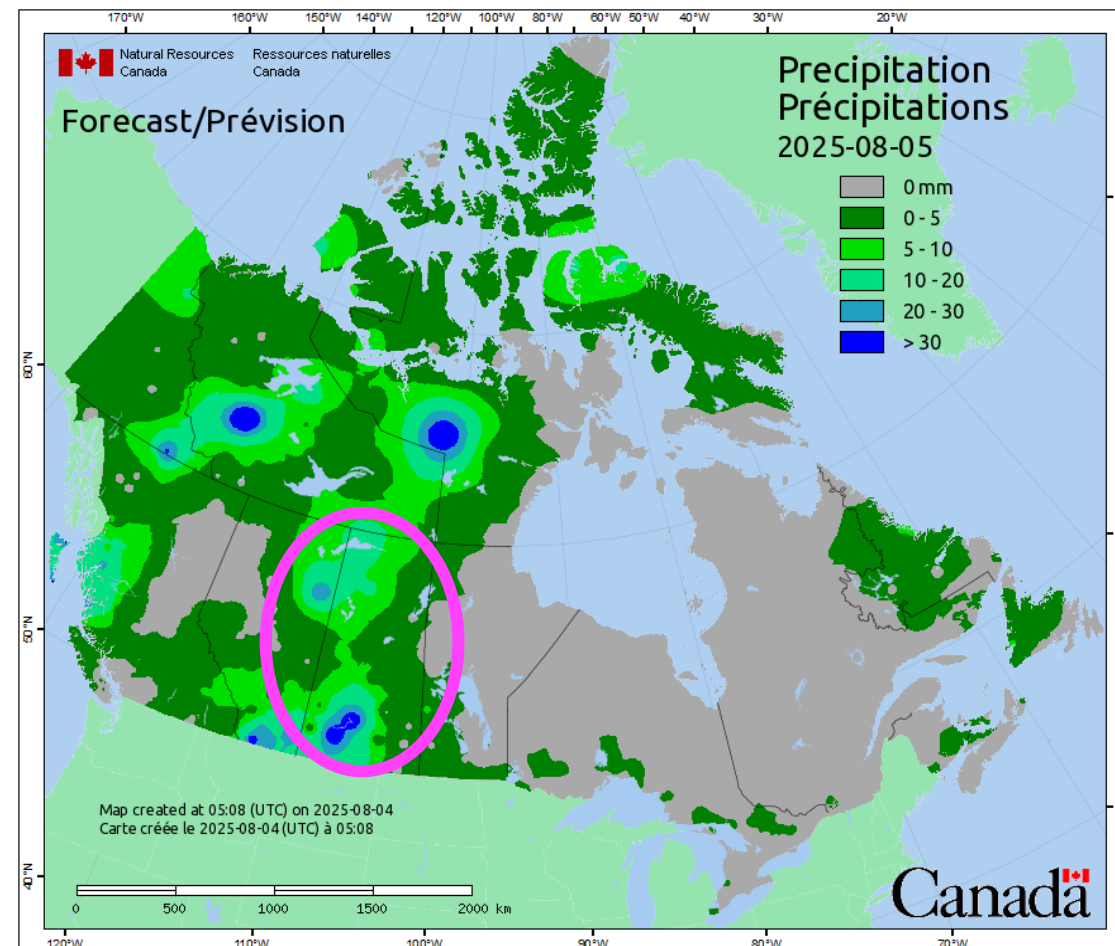
# Outlook: Short Range (1–3 days)

Surface Forecast (**Tuesday 8/5**)

US NWS Forecast

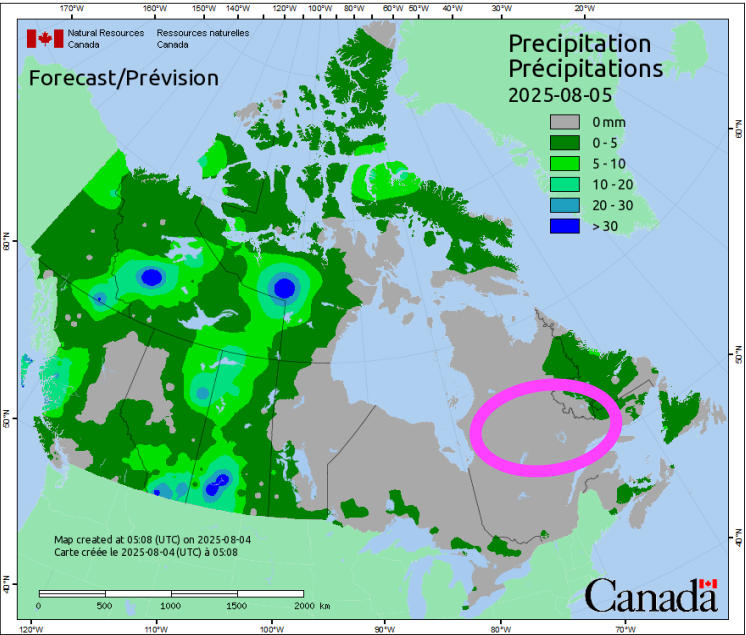


Environment Canada Forecast



# Outlook: Short Range (1–3 days)

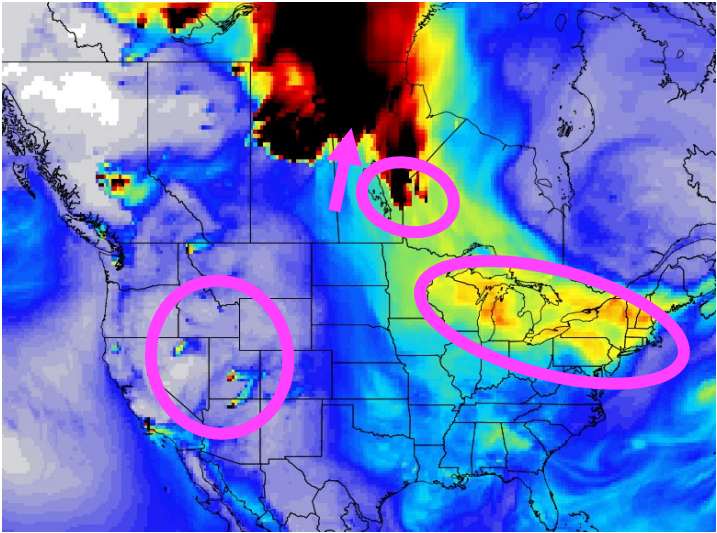
## Surface Forecast



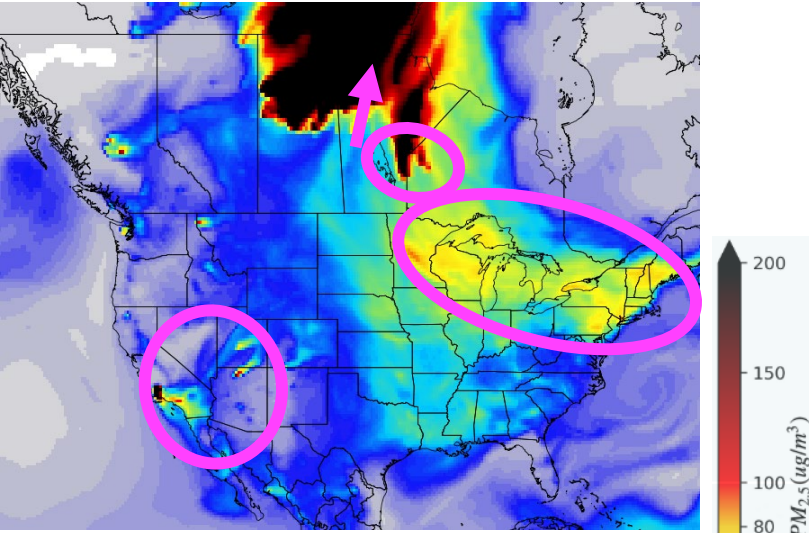
(Tuesday 8/5)

Model Means  $PM_{2.5}$

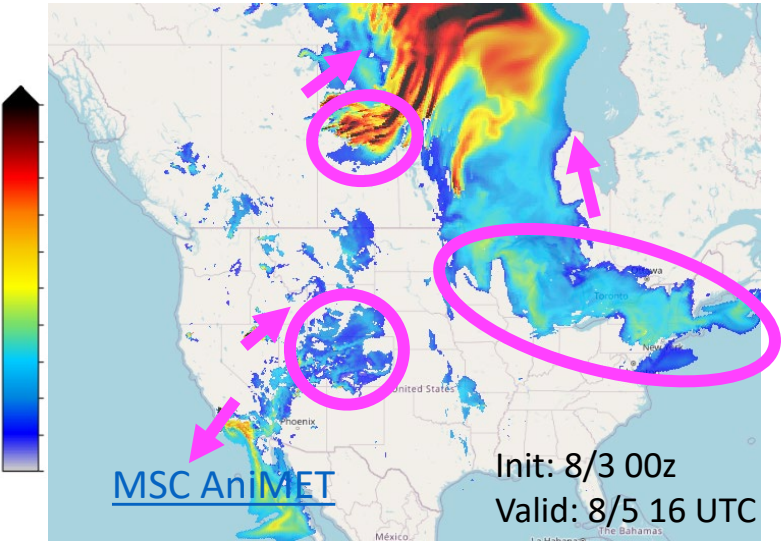
GEOS-FP



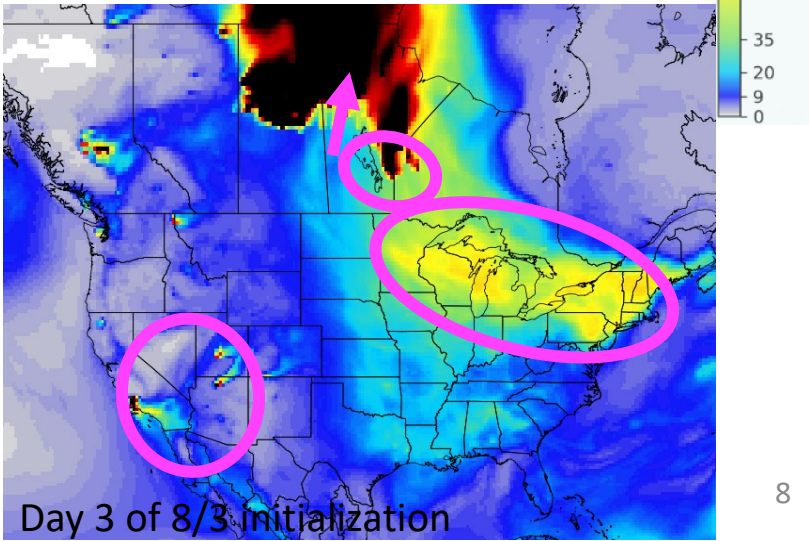
GEOS-CF



Canada MSC AniMET



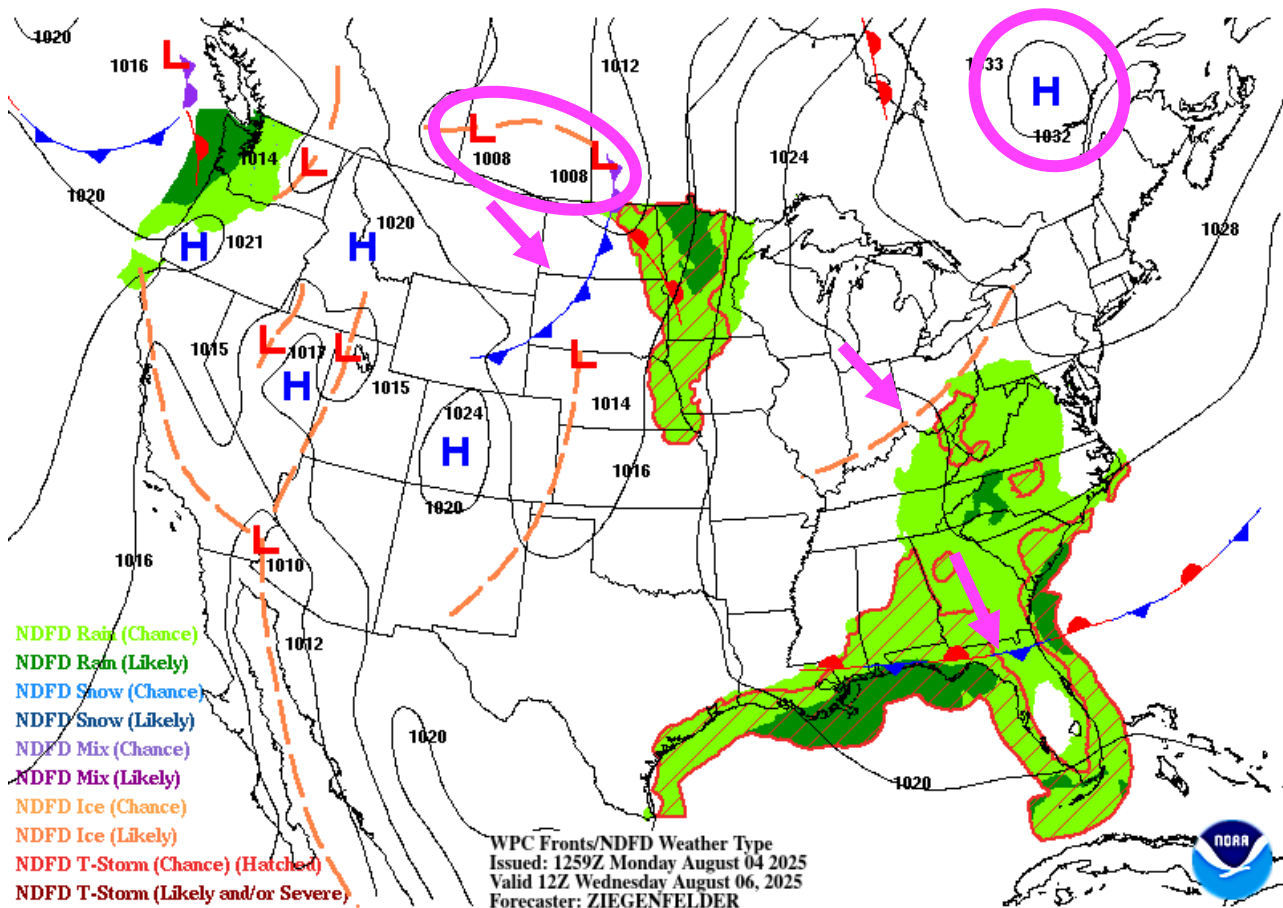
Ensemble



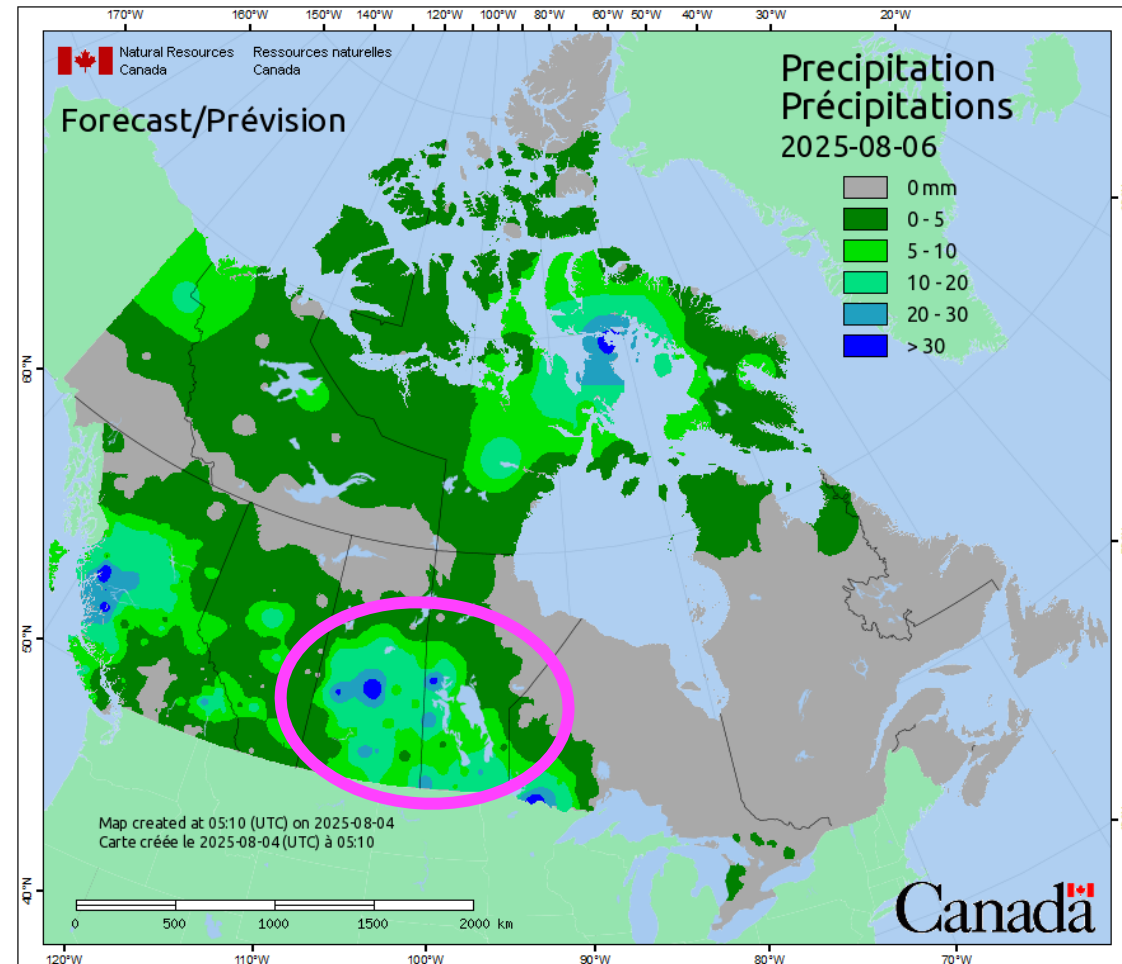
# Outlook: Short Range (1–3 days)

Surface Forecast (**Wednesday 8/6**)

US NWS Forecast

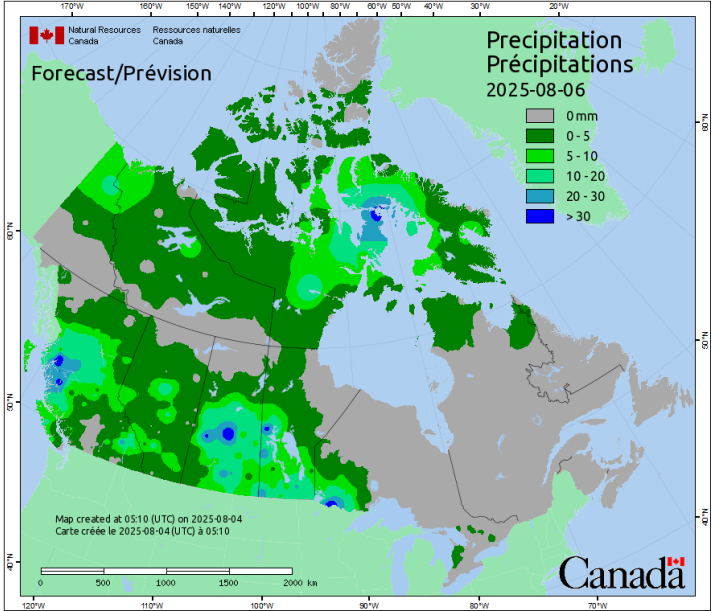


Environment Canada Forecast

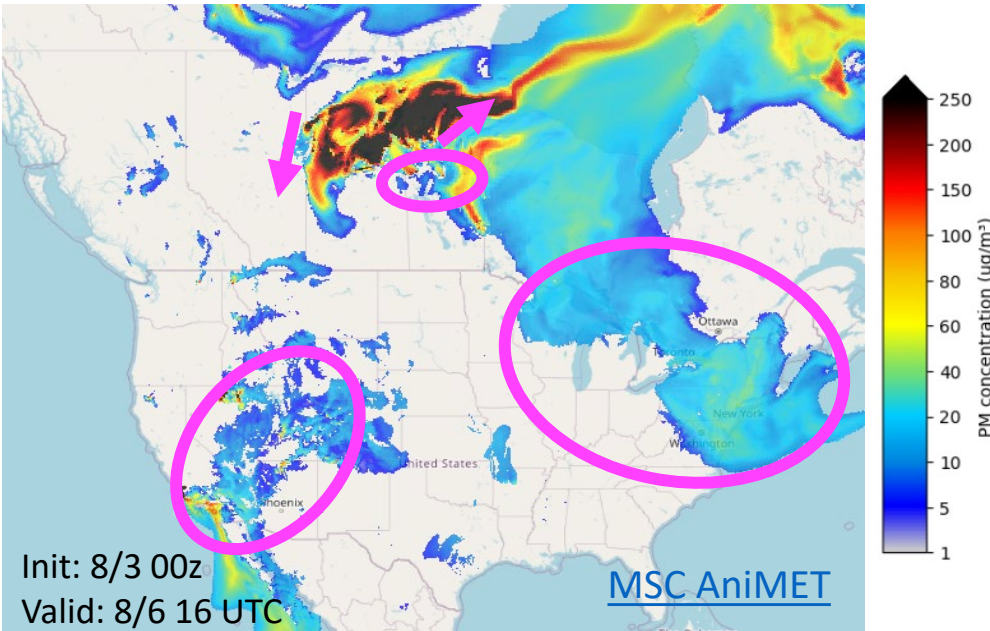
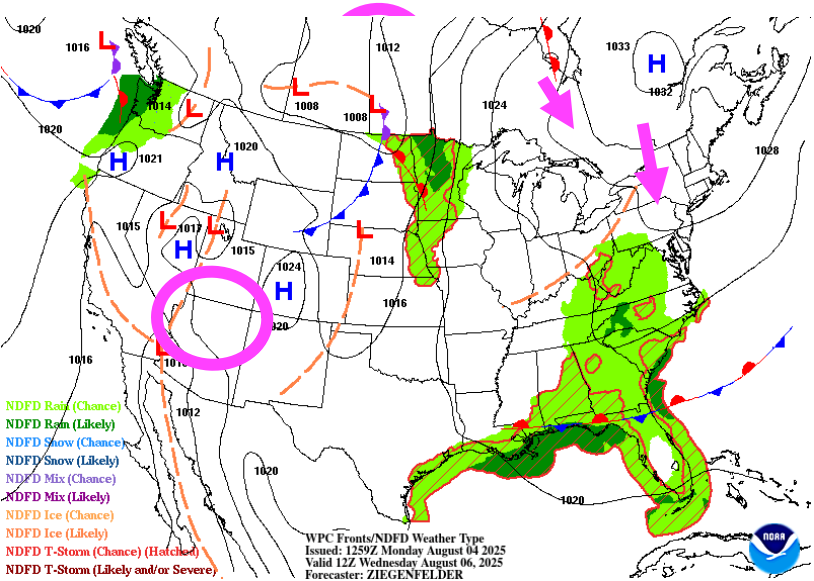
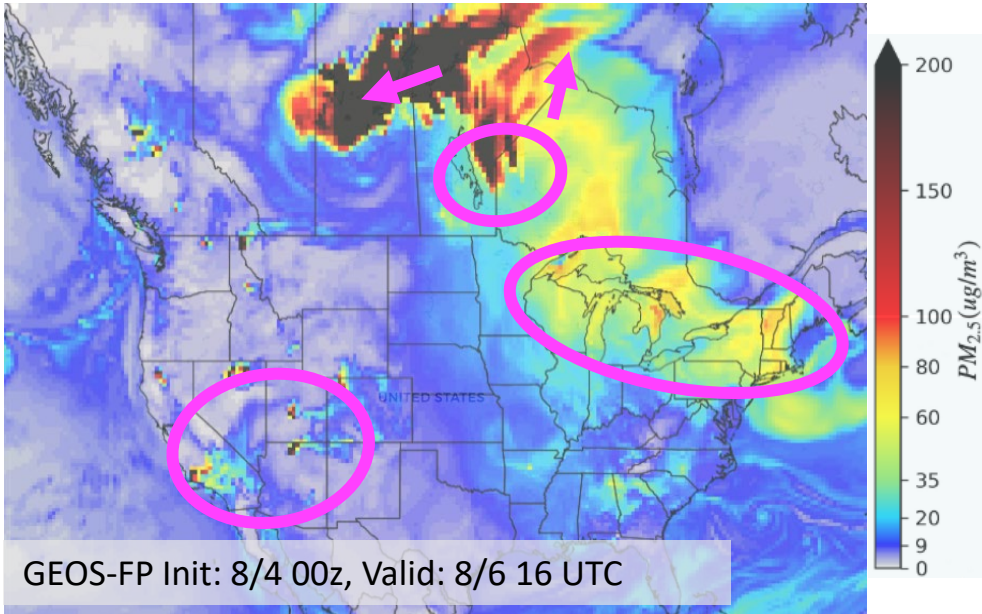


# Outlook: Short Range (1–3 days)

## Surface Forecast

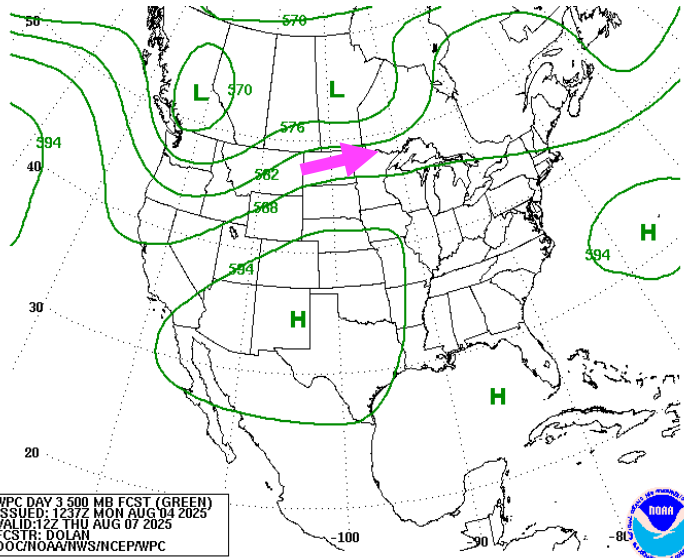


Wednesday 8/6

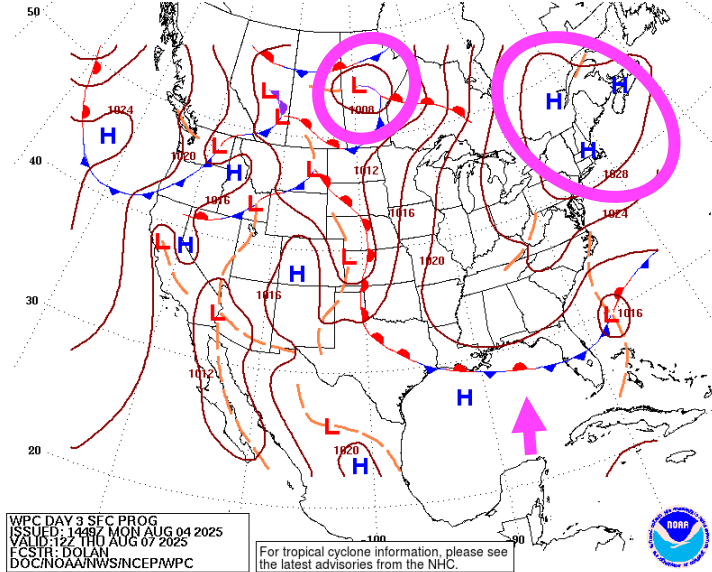


# Outlook: Medium Range

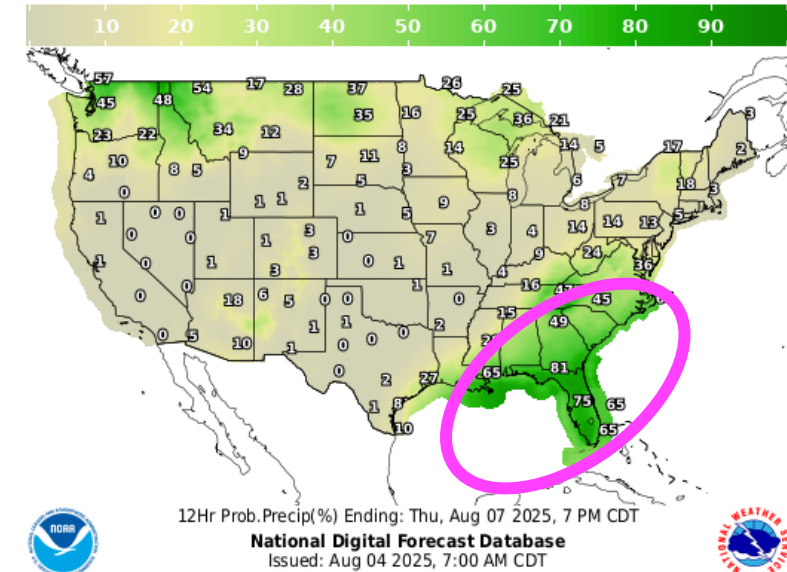
## 500 mb Contours



## Sea Level



## Precip Prob.



Thurs  
8/7

Friday  
8/8

