

Weather and Air Quality: Reflection and Outlook During Smoke Conditions

Presenter: Megan Christiansen
Date: September 29, 2025

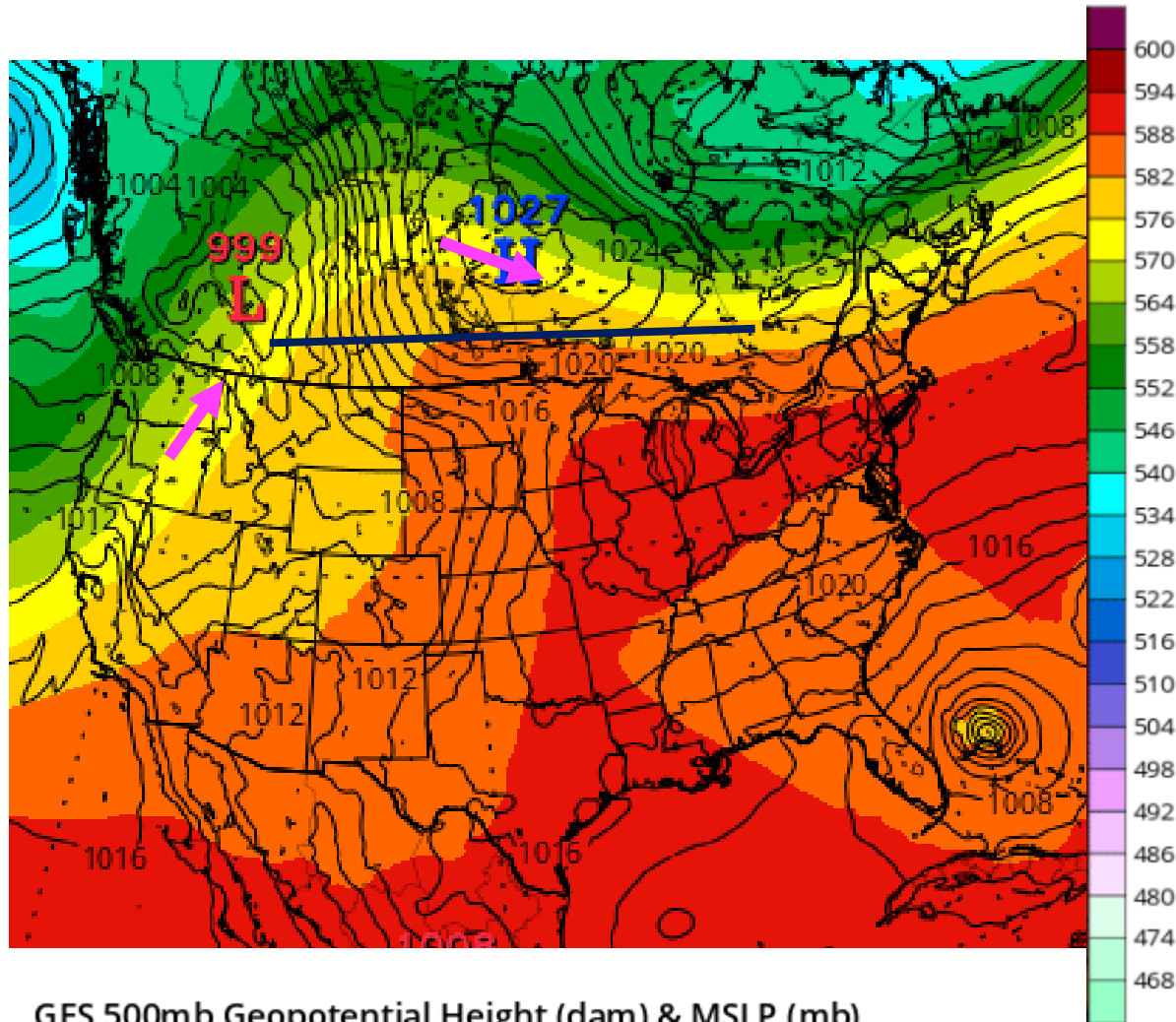


FireAQ is funded by NASA HAQ. We thank NASA GMAO and ECMWF for the model data products.

EARTH SCIENCE
APPLIED SCIENCES

Current Status: Sept 29, 2025

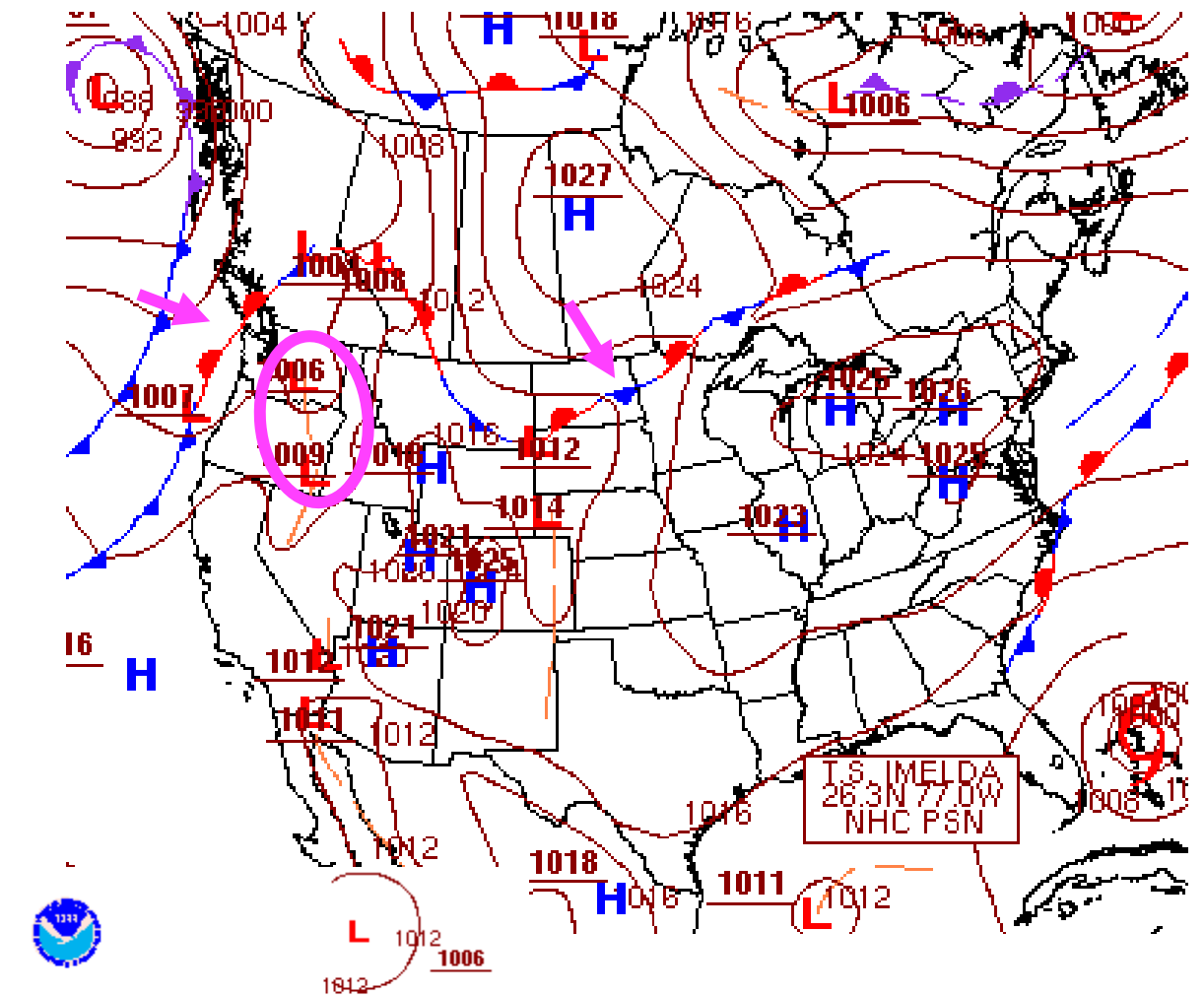
500 mb Contours



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

Init: 06z Sep 29 2025 Forecast Hour: [12] valid at 18z Mon, Sep 29 2025

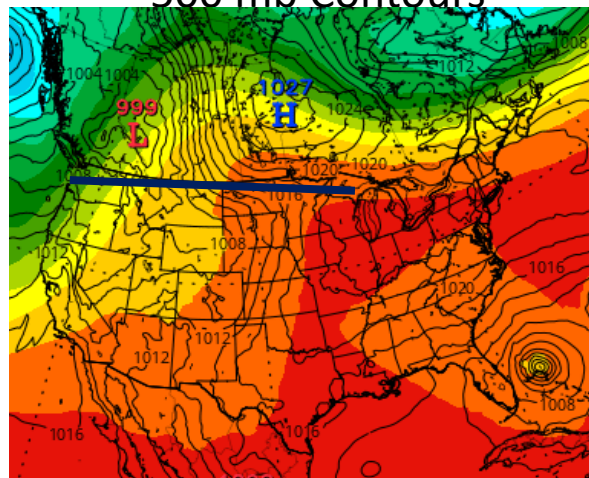
Surface Analysis



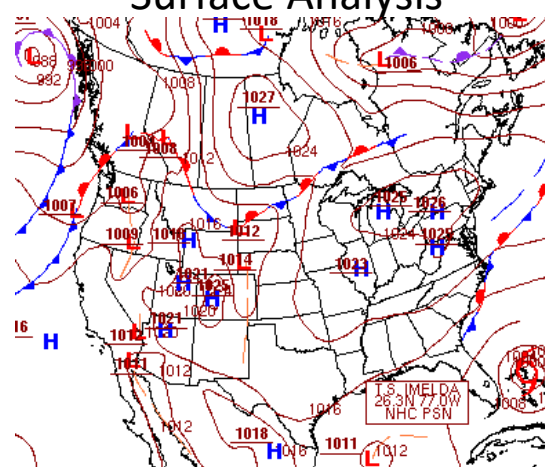
1200Z SURFACE ANALYSIS
DATE: MON SEP 29 2025
ISSUED: 1331Z MON SEP 29 2025
BY WPC ANALYST ZIEGENFELDER
COLLABORATING CENTERS: WPC, NHC, OP

Current Status: Sept 29, 2025

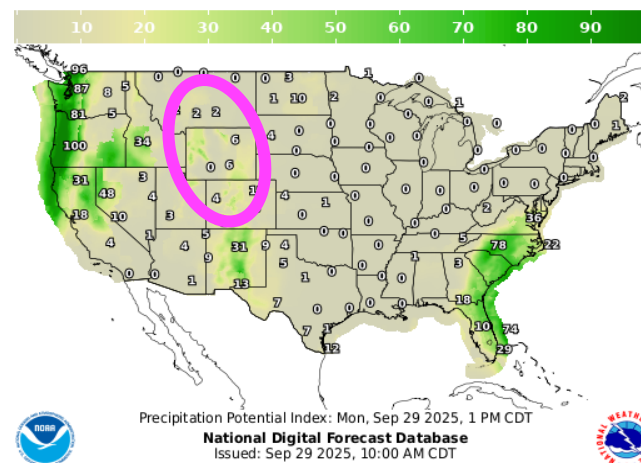
500 mb Contours



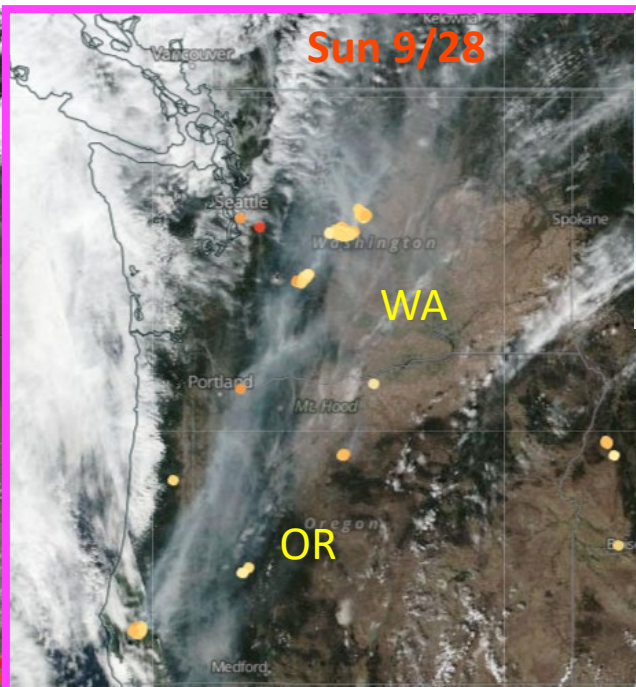
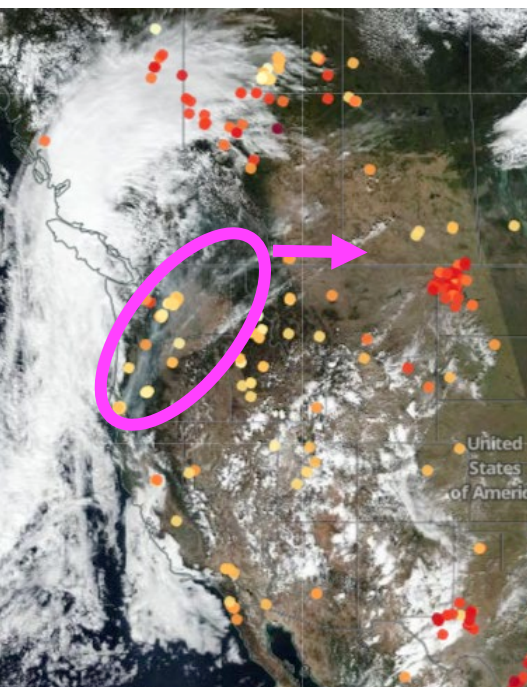
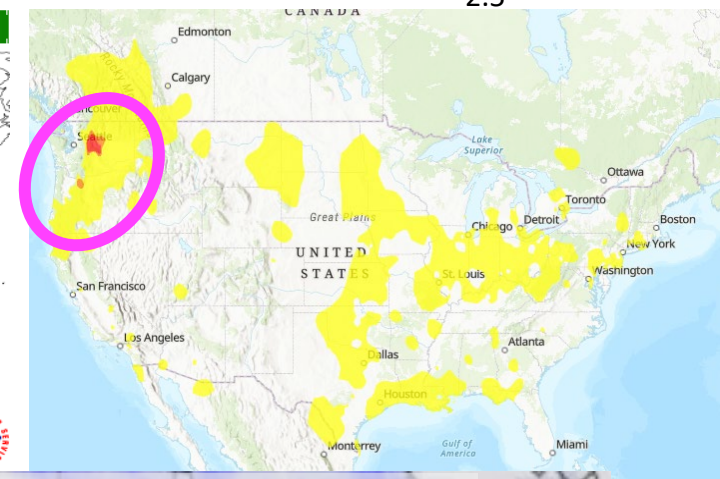
Surface Analysis



Precip. Prob.



AirNow PM_{2.5} AQI

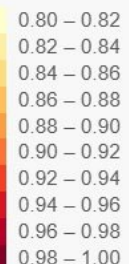


Sun 9/28

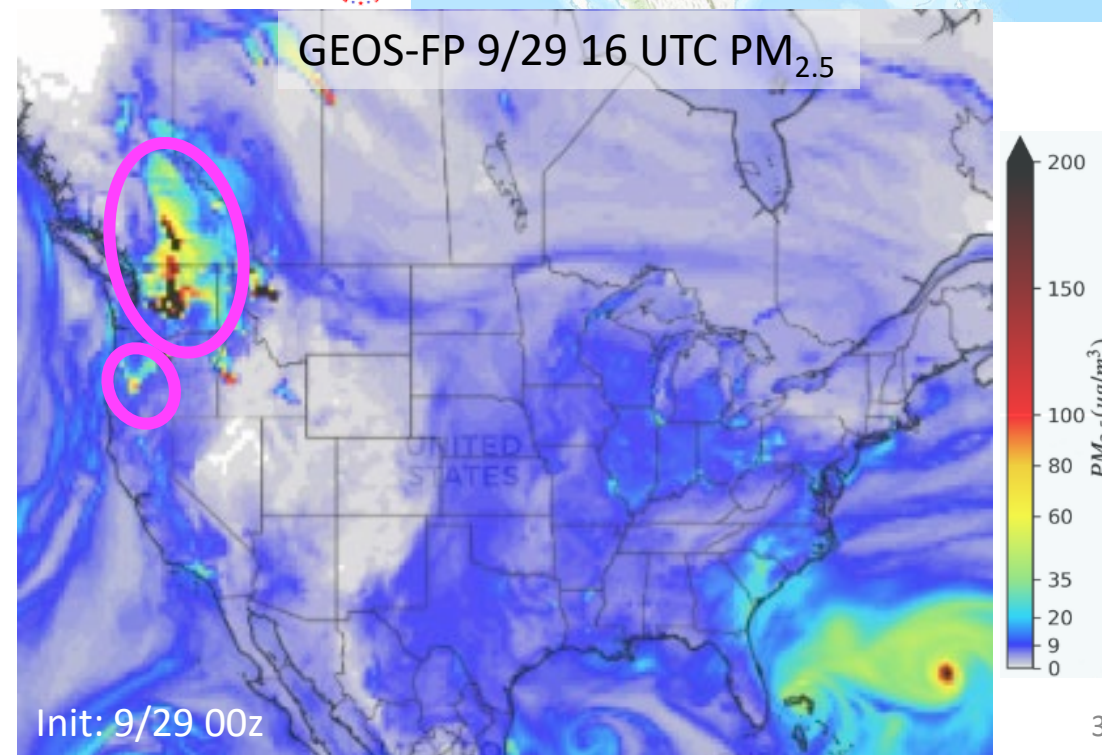
WA

OR

MCE



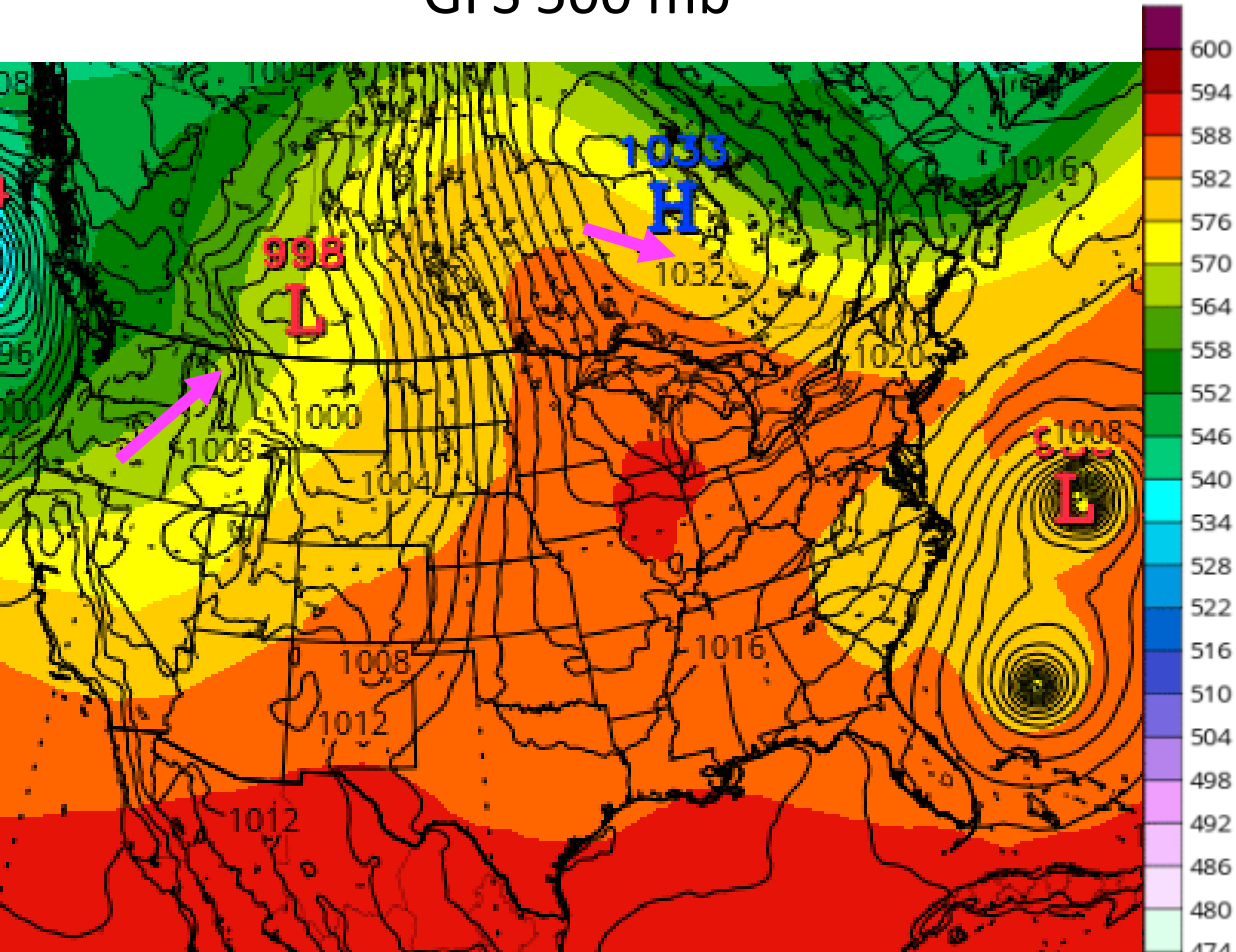
GEOS-FP 9/29 16 UTC PM_{2.5}



Outlook: Short Range (1–3 days)

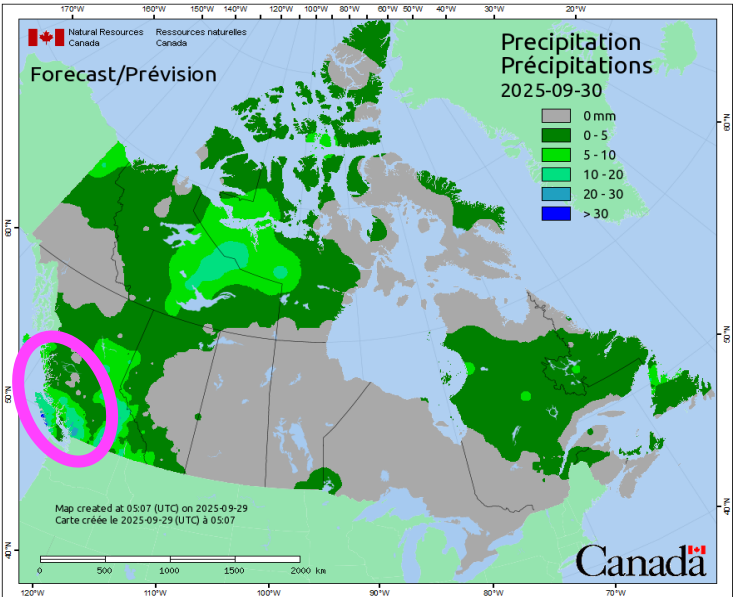
(Forecast **Tuesday 9/30**)

GFS 500 mb

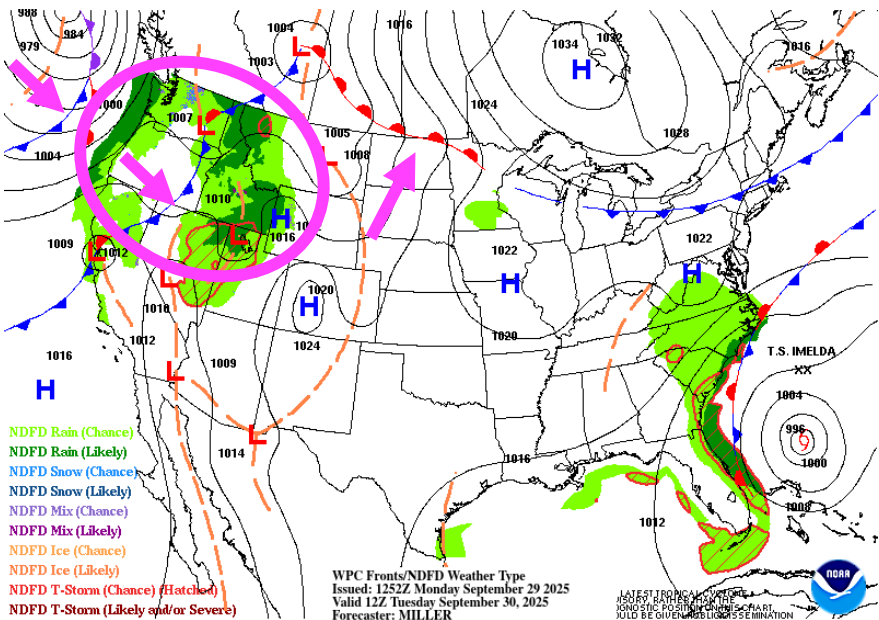


GFS 500mb Geopotential Height (dam) & MSLP (mb)
Init: 06z Sep 29 2025 Forecast Hour: [36] valid at 18z Tue, Sep 30 2025

Environment
Canada
Forecast

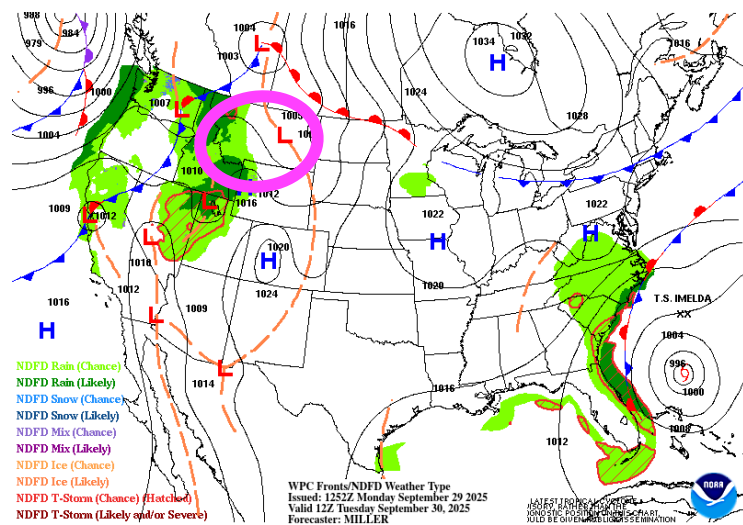


US NWS
Forecast

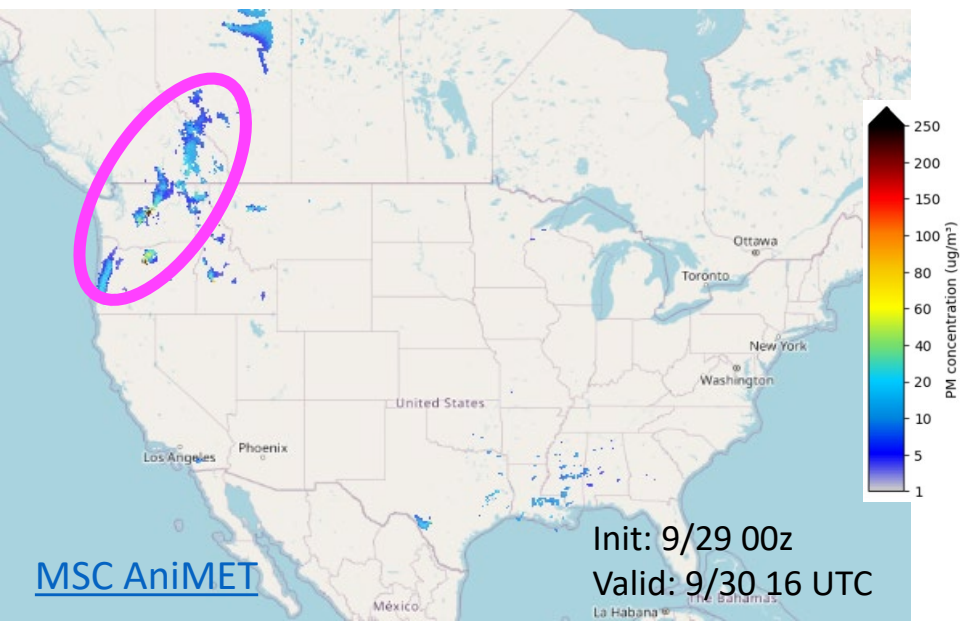


Outlook: Short Range (1–3 days)

Surface Forecast



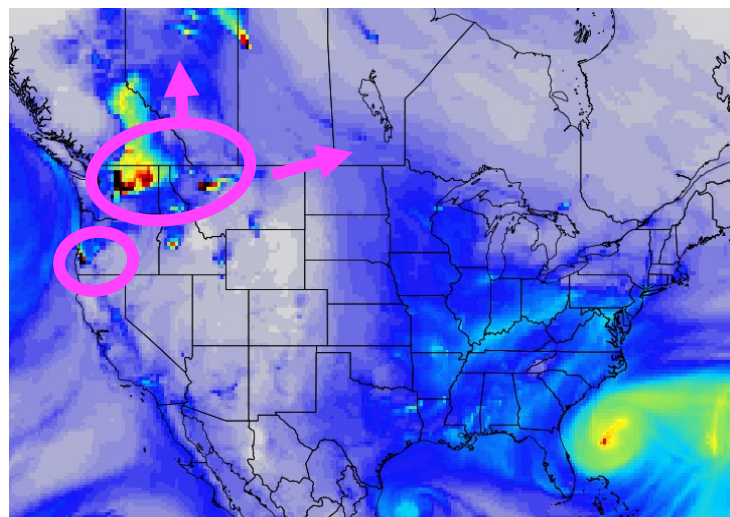
Canada MSC AniMET



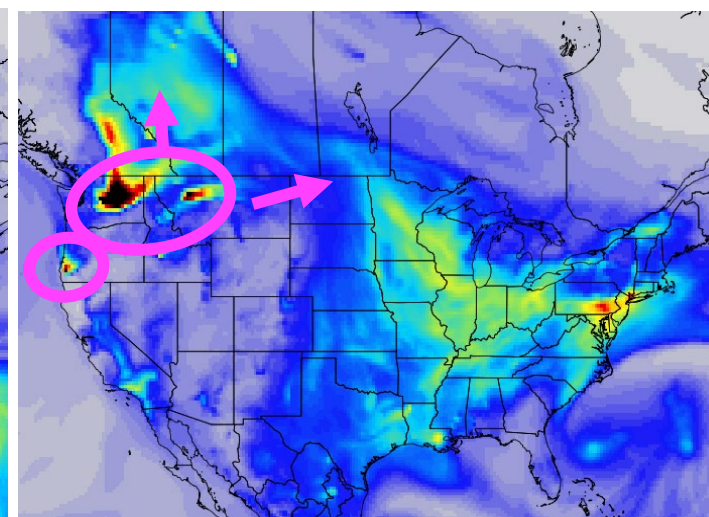
(Tuesday 9/30)

Model Means PM_{2.5}

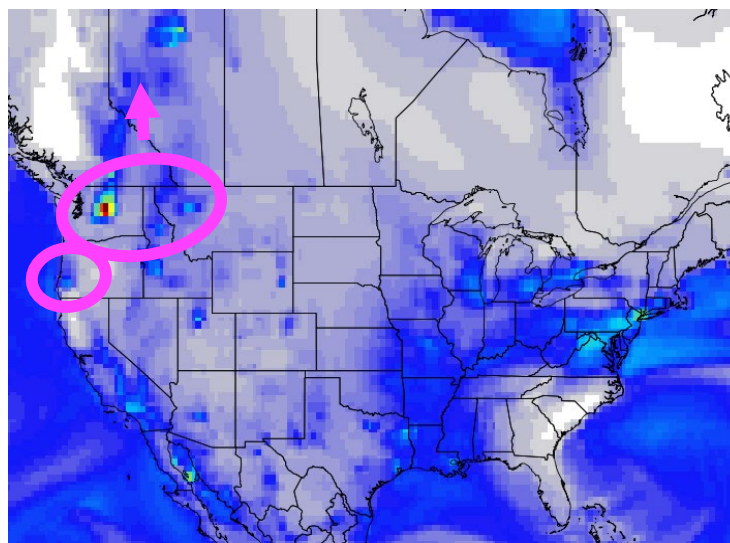
GEOS-FP



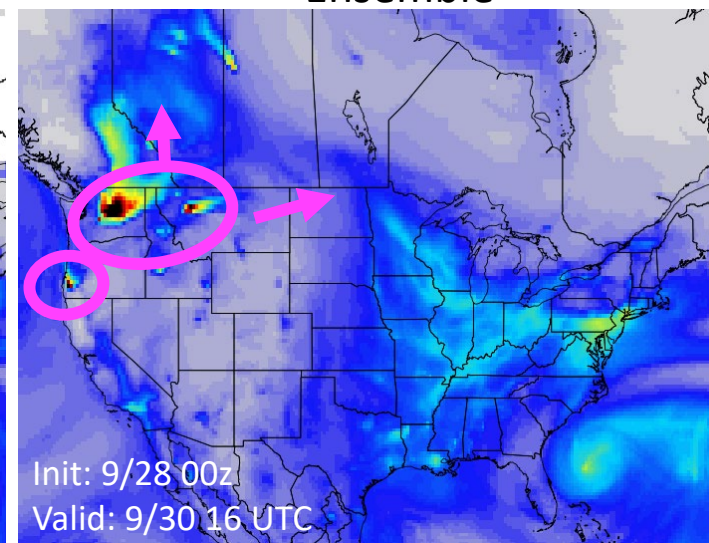
GEOS-CF



CAMS



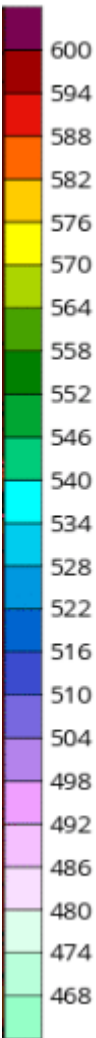
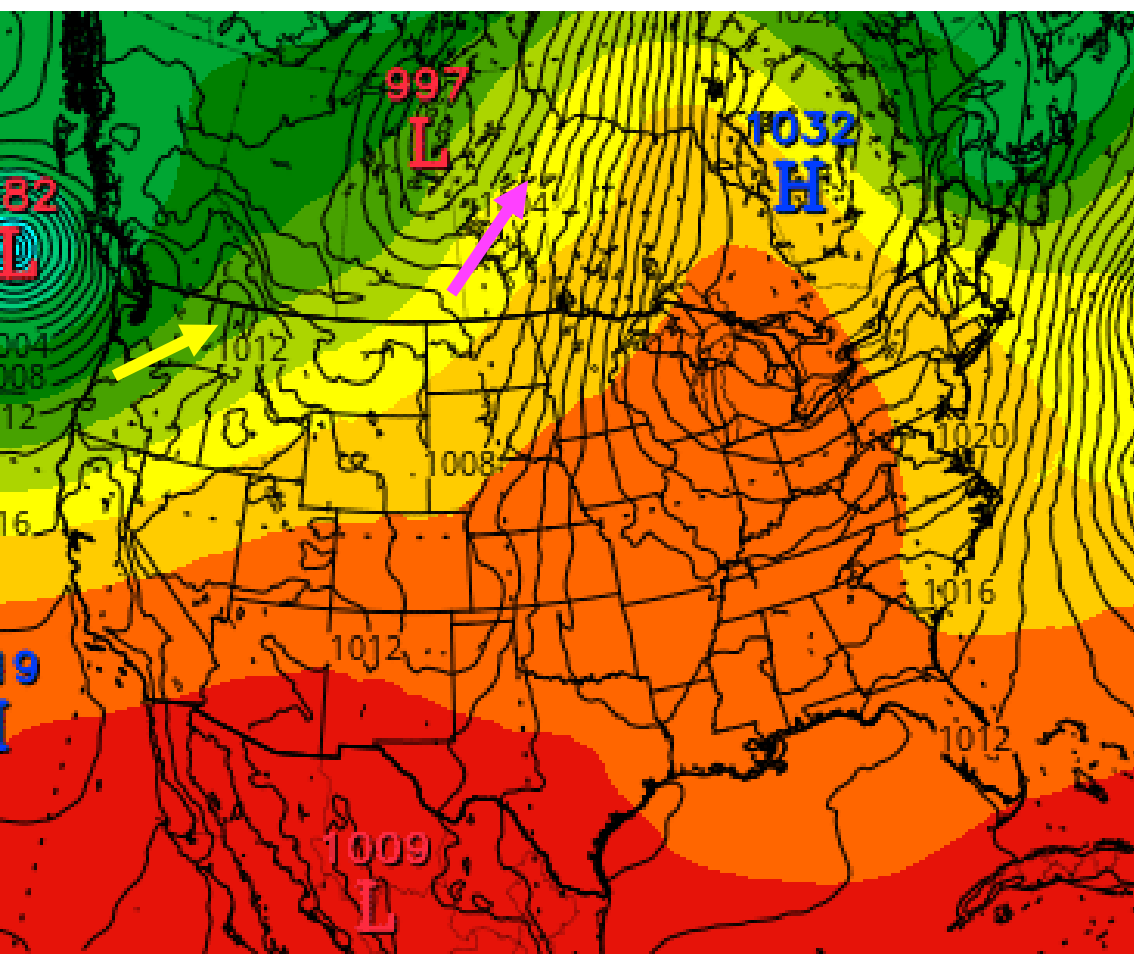
Ensemble



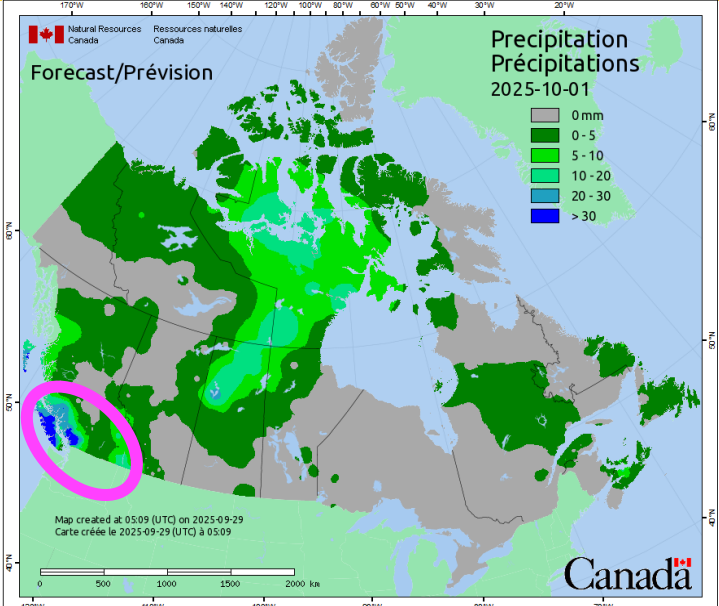
Outlook: Short Range (1–3 days)

(Forecast **Wednesday 10/1**)

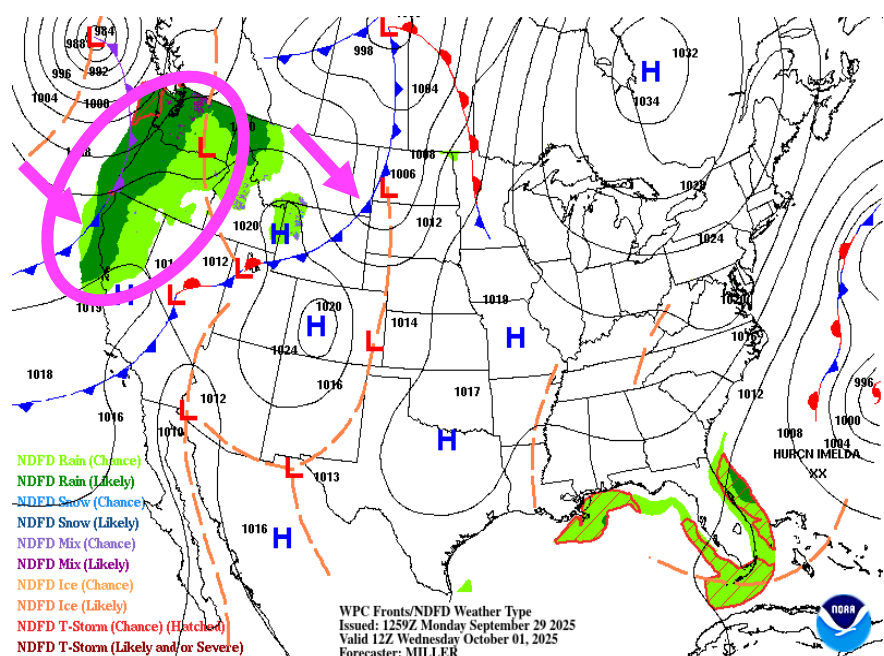
GFS 500 mb



Environment
Canada
Forecast



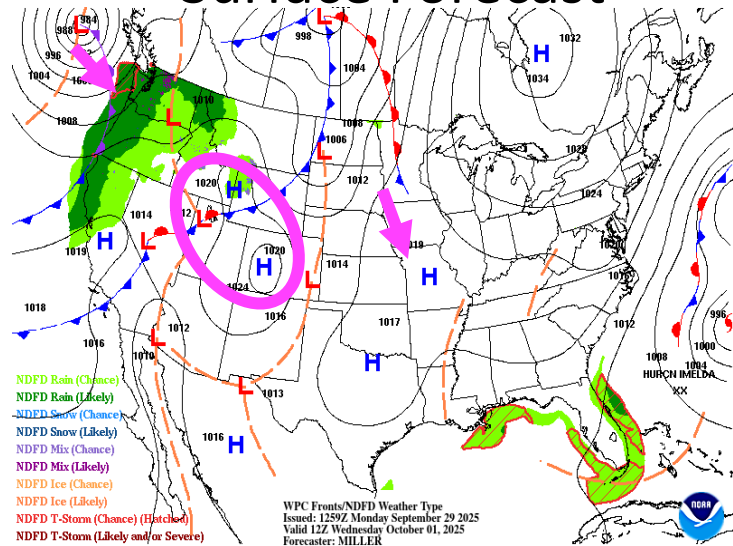
US NWS
Forecast



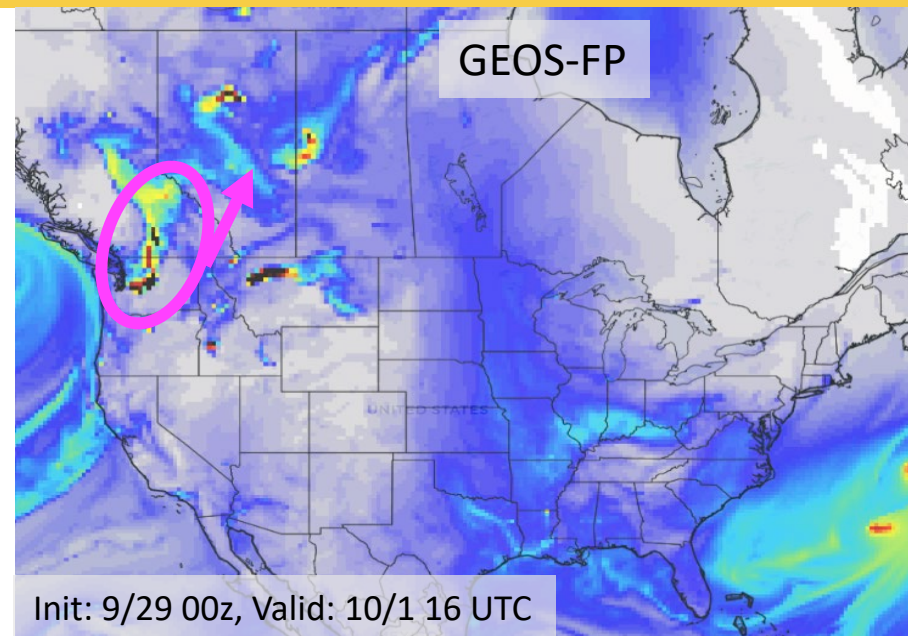
GFS 500mb Geopotential Height (dam) & MSLP (mb)
Init: 06z Sep 29 2025 Forecast Hour: [60] valid at 18z Wed, Oct 01 2025

Outlook: Short Range (1–3 days)

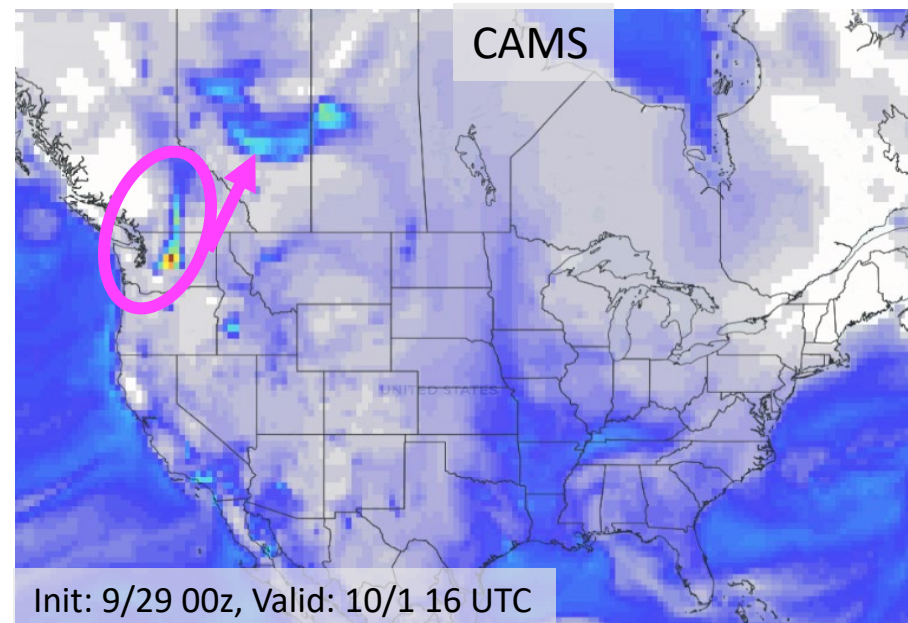
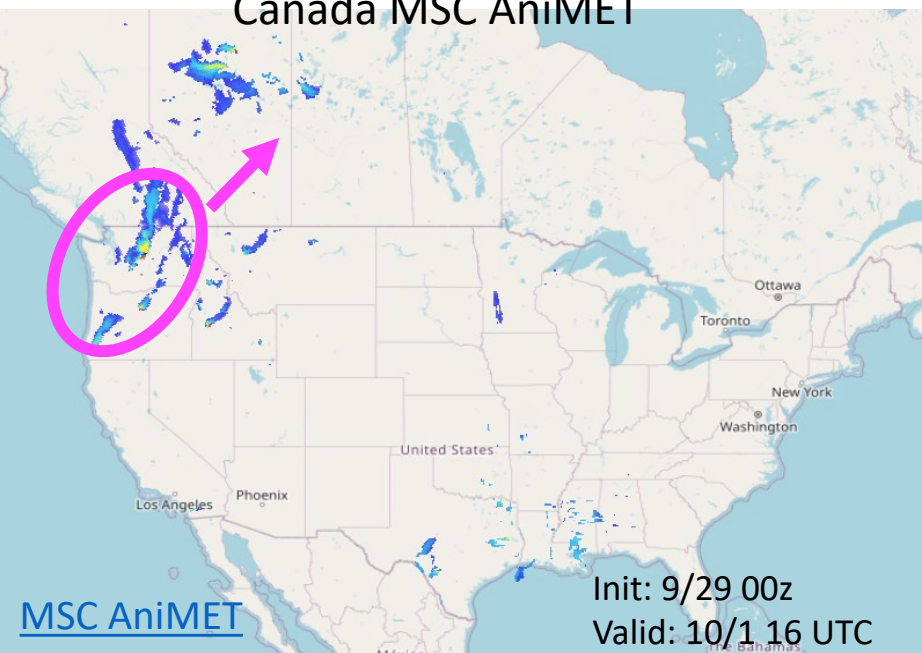
Surface Forecast



(Wednesday 10/1)

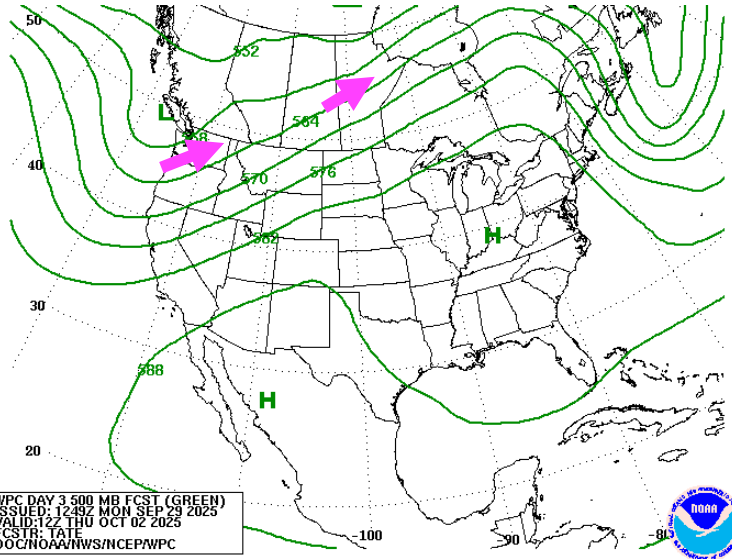


Canada MSC AniMET

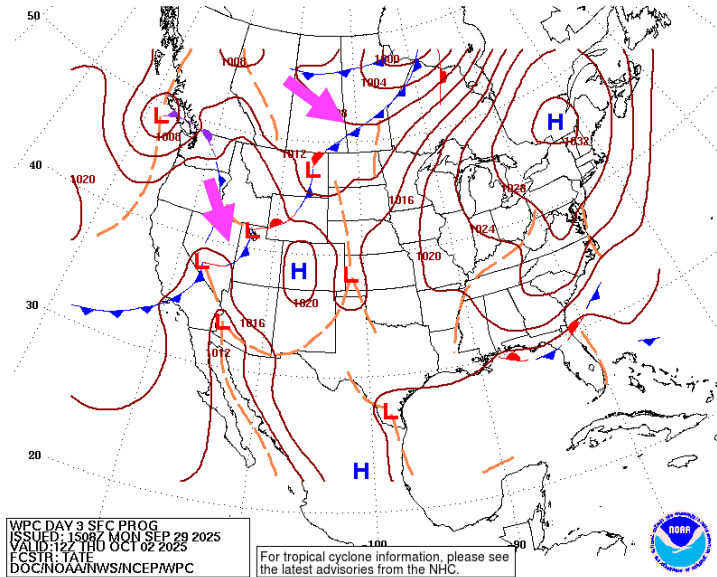


Outlook: Medium Range

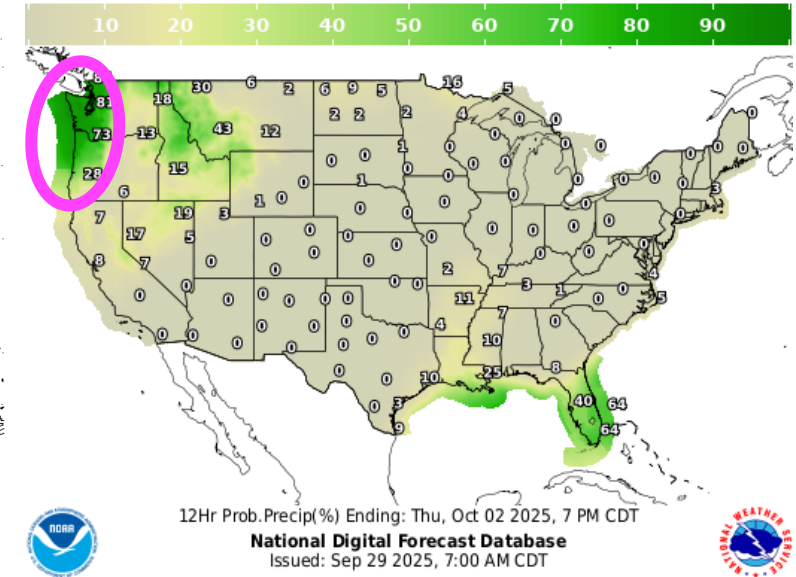
500 mb Contours



Sea Level



Precip Prob.



Thurs
10/2

Friday
10/3

