

ABOVE Regional Weather Briefing

Based on the GMAO GEOS meteorology and aerosol forecast fields
Model Initialized 00z 12 August 2017

*Note: Saskatchewan (SK), Alberta (AB), Manitoba (MB), Northwest Territory (NWT),
Yukon Territory (YKT), British Columbia (BC)*

PAFA = Fairbanks Airport, Alaska

PASC = Deadhorse Airport, Prudhoe Bay Alaska

PABR = Barrow

Day-1 Outlook**Valid 1500z 13 August through 2359z 13 August**

A 989mb low pressure system will be located over west-central Alaska on Sunday. The circulation around this low will be broad encompassing most of the state. The large-scale cloud and precipitation shield associated with this weather system will be focused on the interior of the state Sunday, but the broad easterly upslope flow over the Brooks Range will generate multi-layer clouds and precipitation there as well most of Sunday. Fairbanks will be situated on the southern edge of the heaviest cloud and precipitation shield, but still mainly overcast and showery weather is likely on Sunday at PAFA.

The story is quite different over NWT and SK. Here, weak high pressure will be in control with clear skies or limited cloud-cover for nearly all of these two provinces all the way from Inuvik south to the US border.

Yellowknife-Fort McMurray-Saskatoon: Good weather, but non-pristine conditions due to smoke haze over central NWT, including the immediate Yellowknife area. More pristine skies for the Fort-McMurray, Saskatoon and East Trout Lake runs.

Day-2 Outlook**Valid 1500z 14 August through 2359z 14 August**

On Monday, poor Alaska weather is found in the PAFA vicinity and the northeast part of the state. The 989mb low over west-central Alaska from Sunday dissipates, but widespread clouds and showers remain over west-central and southwest Alaska on Monday.

An elongated trough of low pressure will be draped from central Alaska and then down through the NWT and into northeast AB. The heaviest precipitation associated with this trough will be located over the border territory between YKT/NWT.

Yellowknife: Good weather, light/modest smoke haze here with enhanced smoke haze on the south side of Gr. Slave Lk.

Fort McMurray: Tough call here. There is expected to be a fairly thin line of showers move in, as well as smoke haze...but there may be a flight opportunity early in the day as the poorer visibilities encroach from southwest to northeast.

Saskatoon: Same forecast as Fort McMurray.

East Trout Lake: Mainly clear and smoke-free most of Monday.

Day-3 Outlook

Valid 1500z 15 August through 2359z 15 August

Conditions begin to improve for PAFA with partly cloudy skies expected on Tuesday and smaller rain chances. The Yellowknife area is expected to also remain generally fair. Broken to overcast skies expected for Fort McMurray and the northern part of SK, a break in the skies may be found over the Saskatoon vicinity.

Highest smoke concentrations focused on Inuvik/Bear Lake and into the eastern part of Great Slave Lake (Yellowknife should be west of the heaviest smoke haze). Light to moderate smoke for much of AB and SK. Alaska is generally aerosol-free on Tuesday.

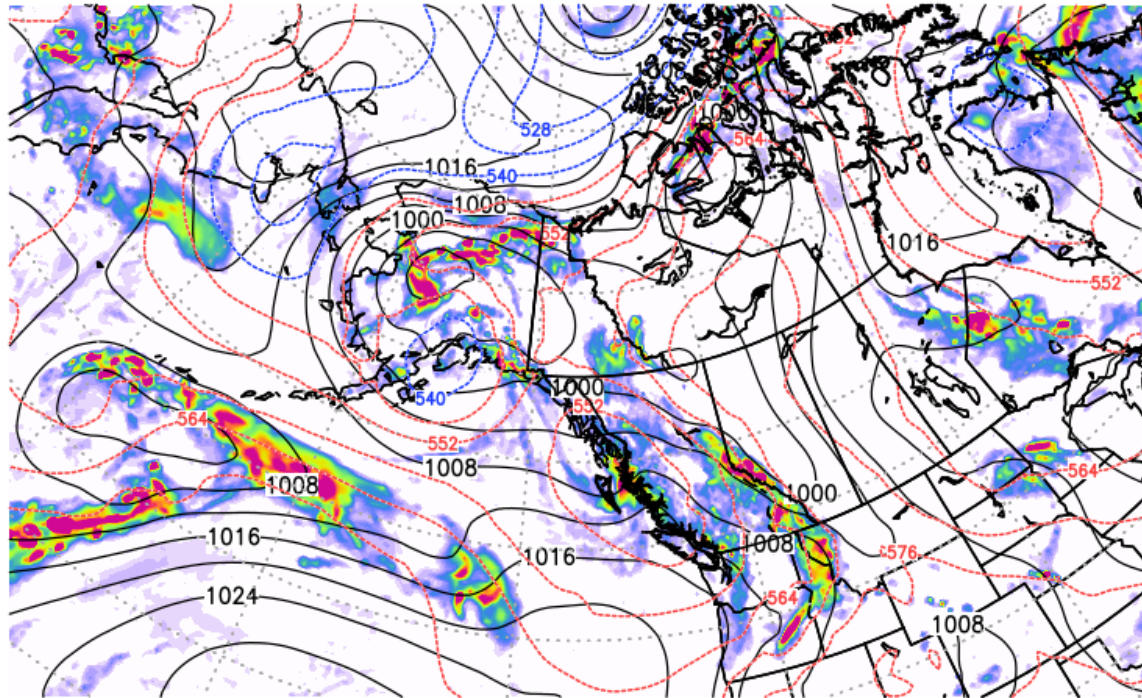
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Gary Partyka
GMAO at NASA's Goddard Space Flight Center
Greenbelt, MD

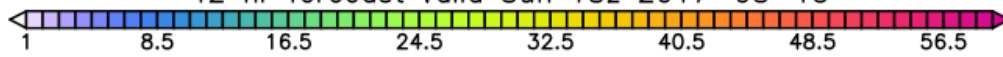
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NASA/GMAO – GEOS-5 Forecast Initialized on 00z 2017-08-12

Precip [mm/day], SLP [mb] and 1000–500mb Thickness [dam]

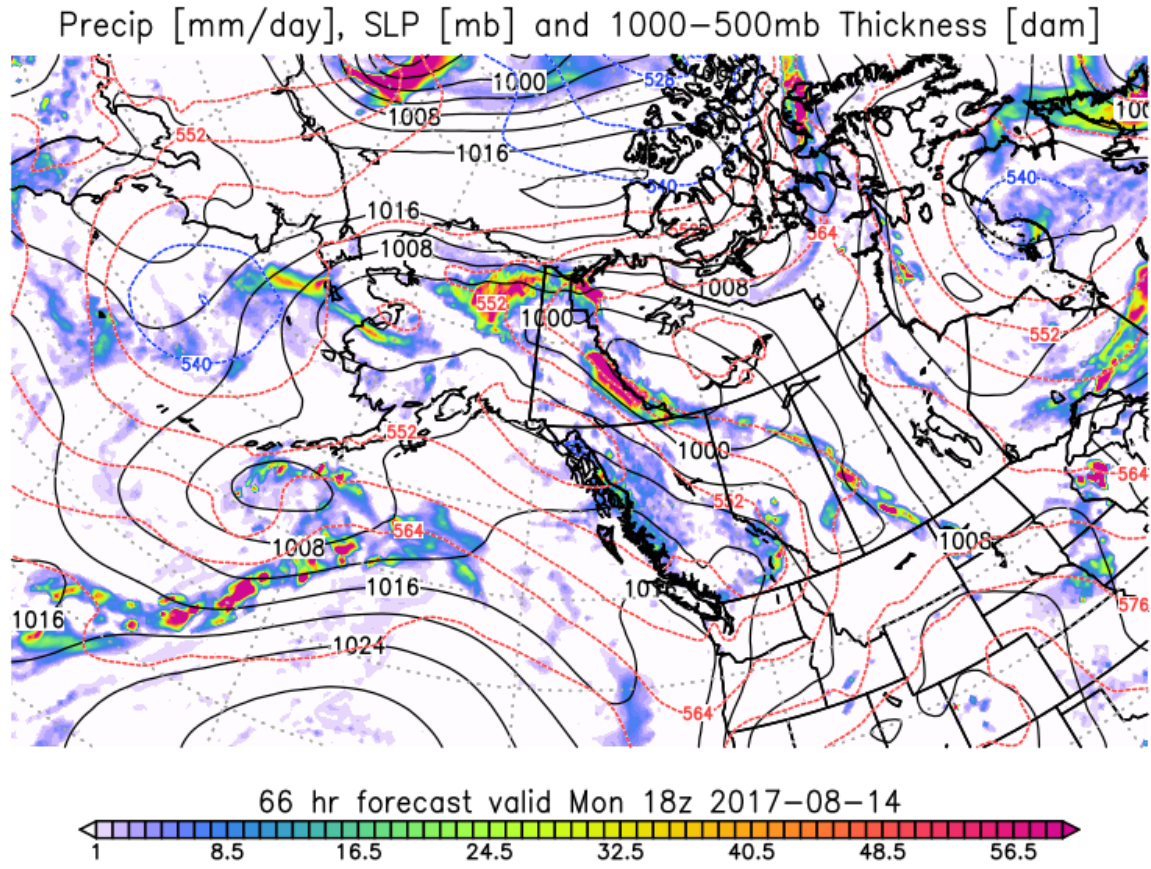


42 hr forecast valid Sun 18z 2017-08-13



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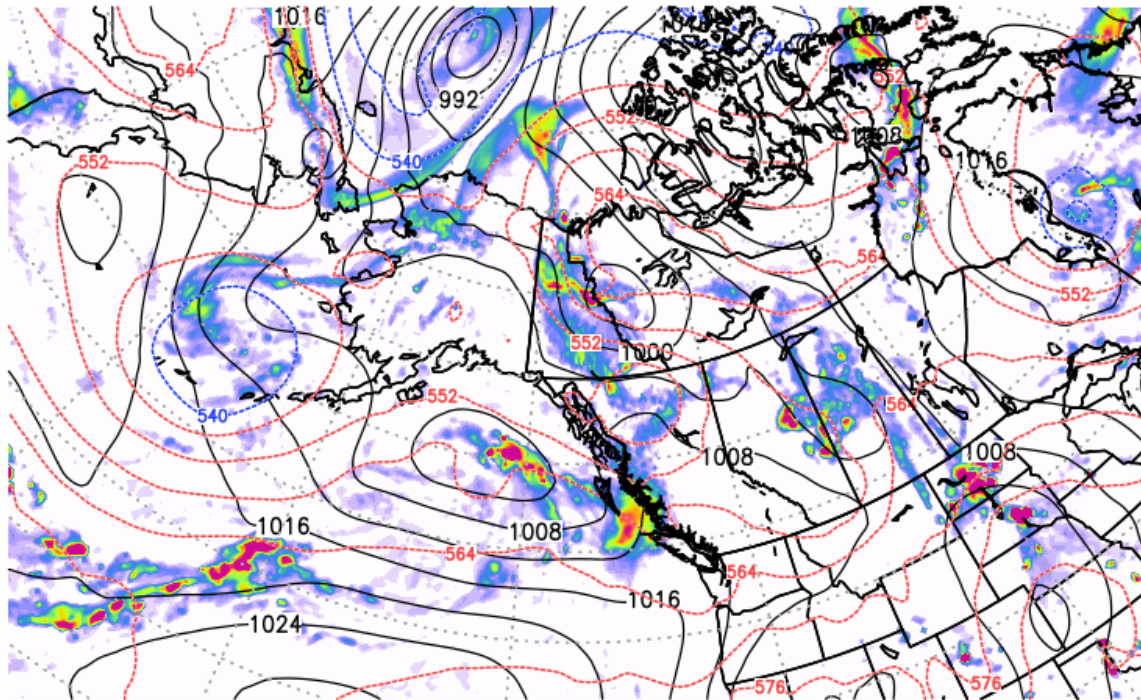
NASA/GMAO – GEOS-5 Forecast Initialized on 00z 2017-08-12



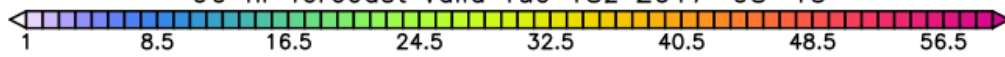
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NASA/GMAO – GEOS-5 Forecast Initialized on 00z 2017-08-12

Precip [mm/day], SLP [mb] and 1000–500mb Thickness [dam]



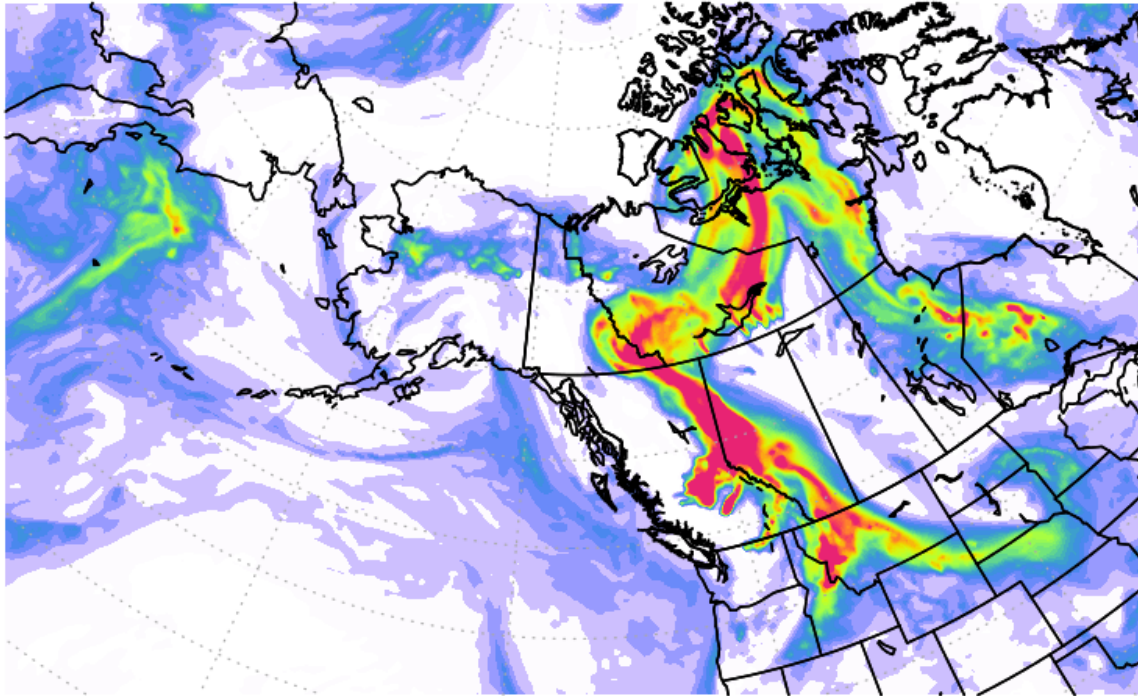
90 hr forecast valid Tue 18z 2017-08-15



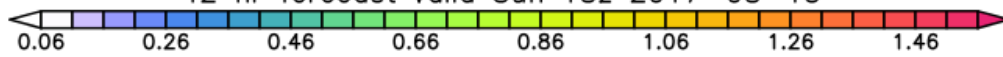
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NASA/GMAO – GEOS-5 Forecast Initialized on 00z 2017-08-12

Total Aerosol Optical Thickness

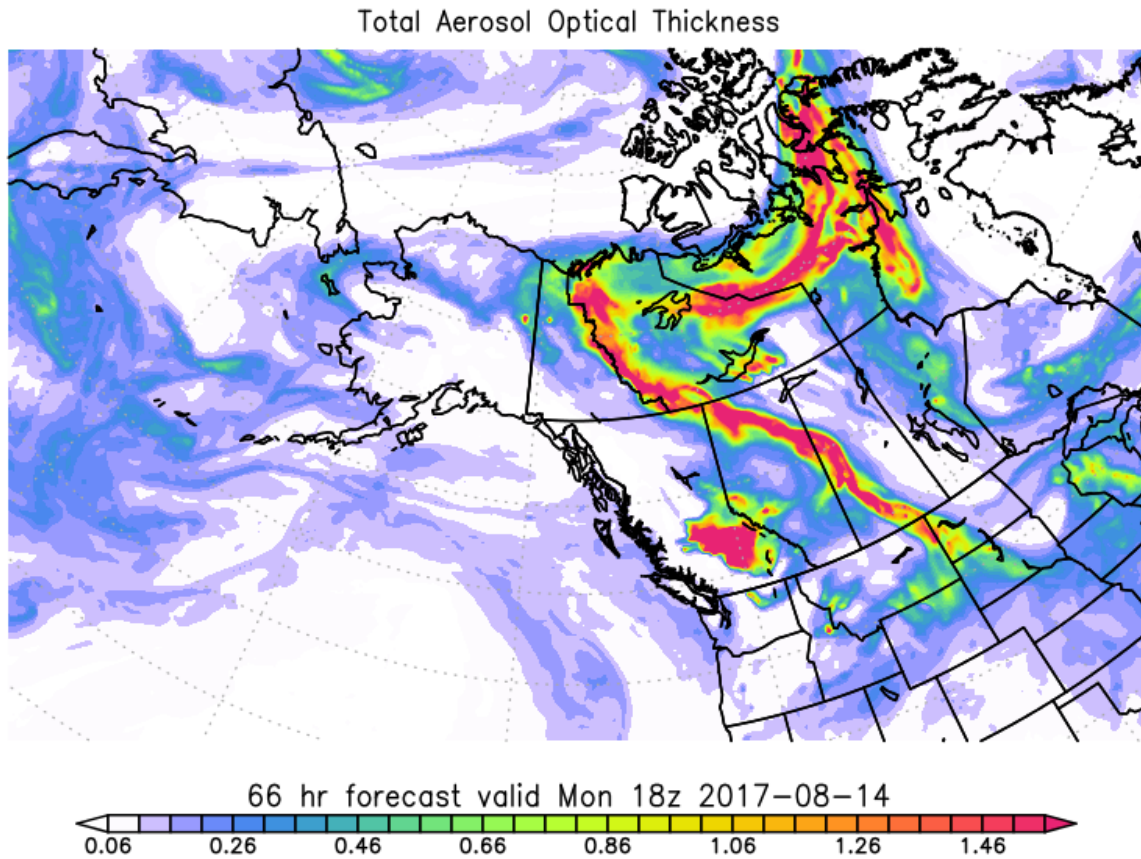


42 hr forecast valid Sun 18z 2017-08-13



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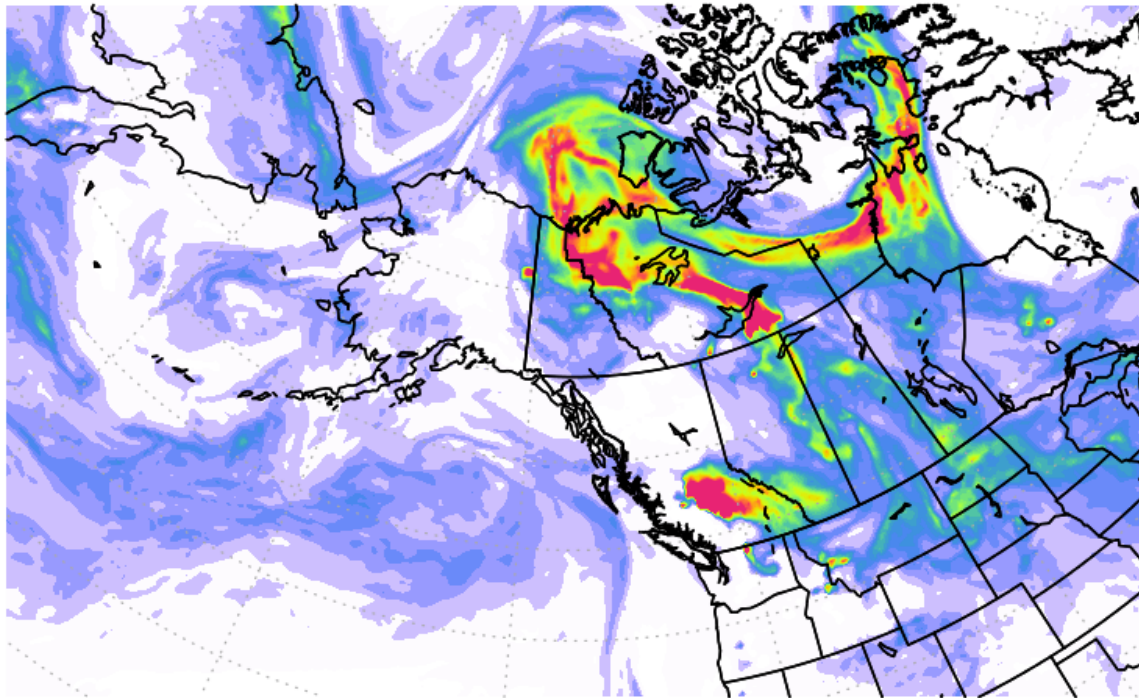
NASA/GMAO – GEOS-5 Forecast Initialized on 00z 2017-08-12



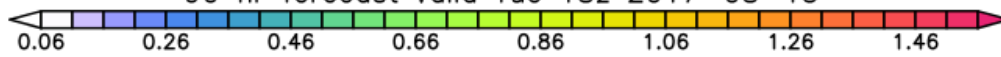
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NASA/GMAO – GEOS-5 Forecast Initialized on 00z 2017-08-12

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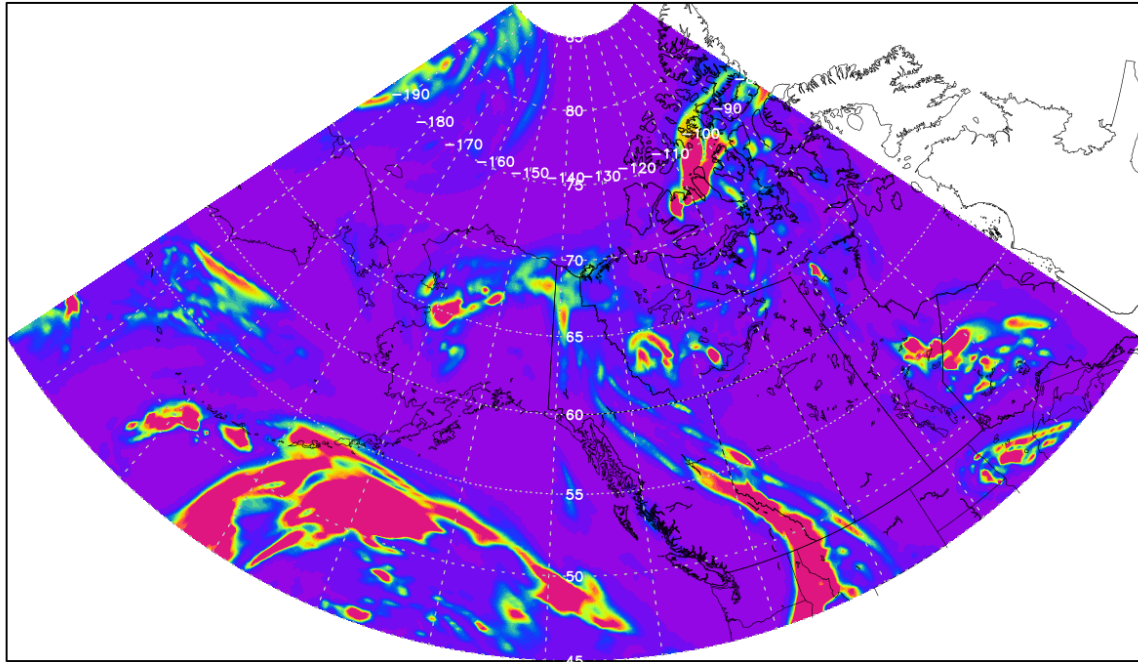


90 hr forecast valid Tue 18z 2017-08-15



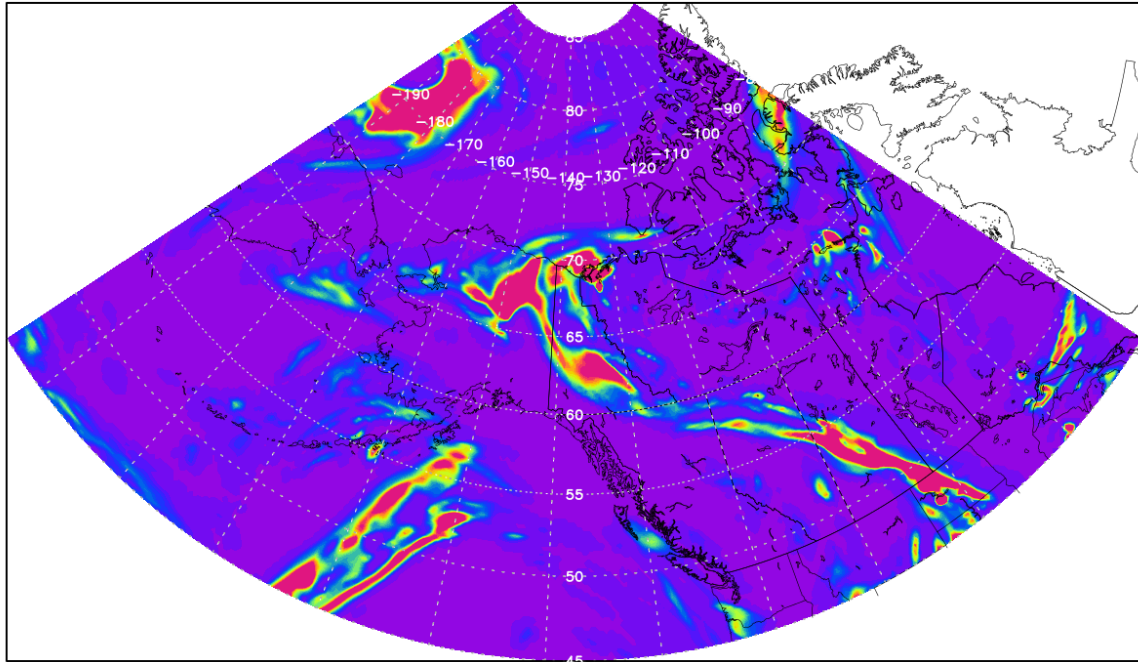
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GEOS High Cloud Optical Depth
Initial time 12 AUG. 00z
Valid time 13 AUG. 18z



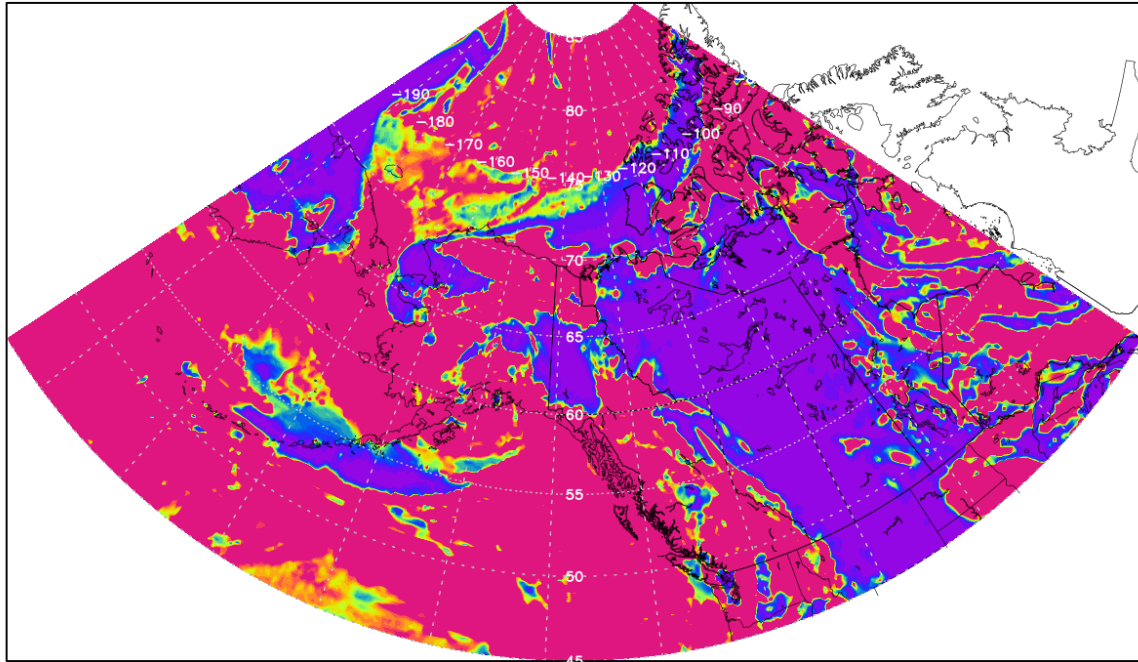
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GEOS High Cloud Optical Depth
Initial time 12 AUG. 00z
Valid time 14 AUG. 18z



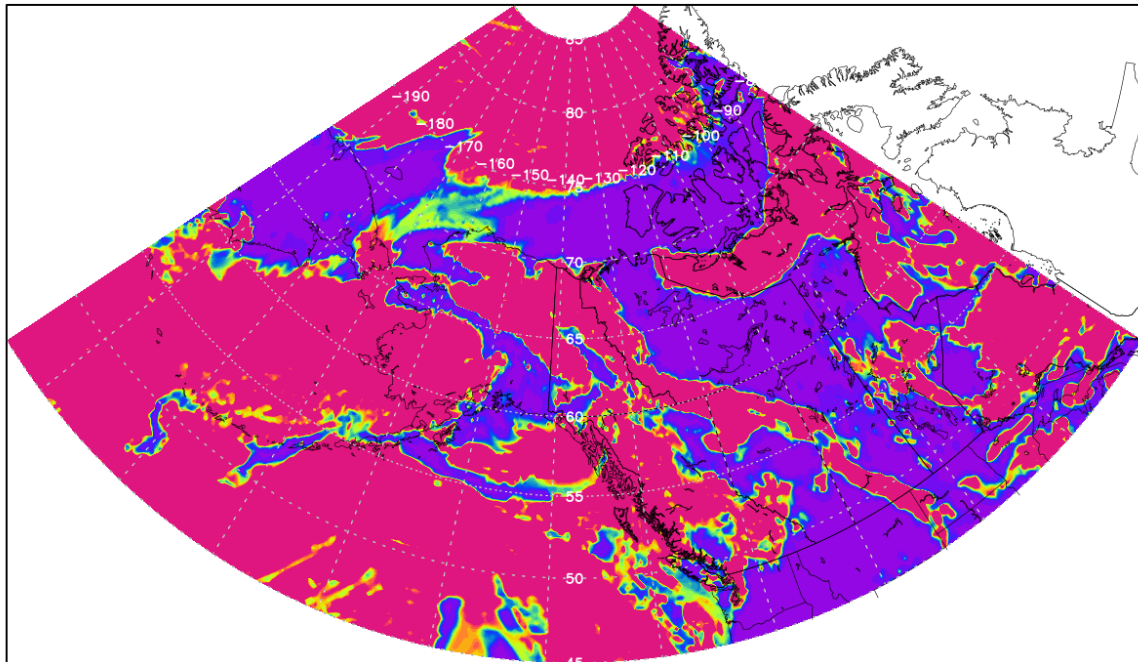
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GEOS Low Cloud Optical Depth
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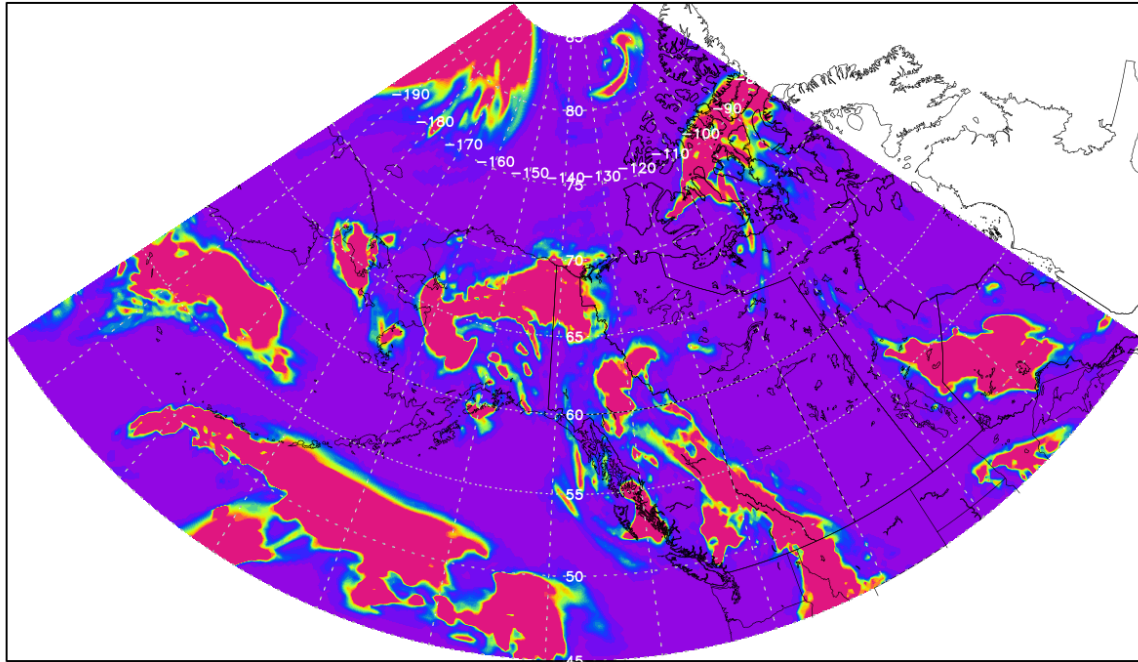
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GEOS Low Cloud Optical Depth
Initial time 12 AUG. 00z
Valid time 14 AUG. 18z



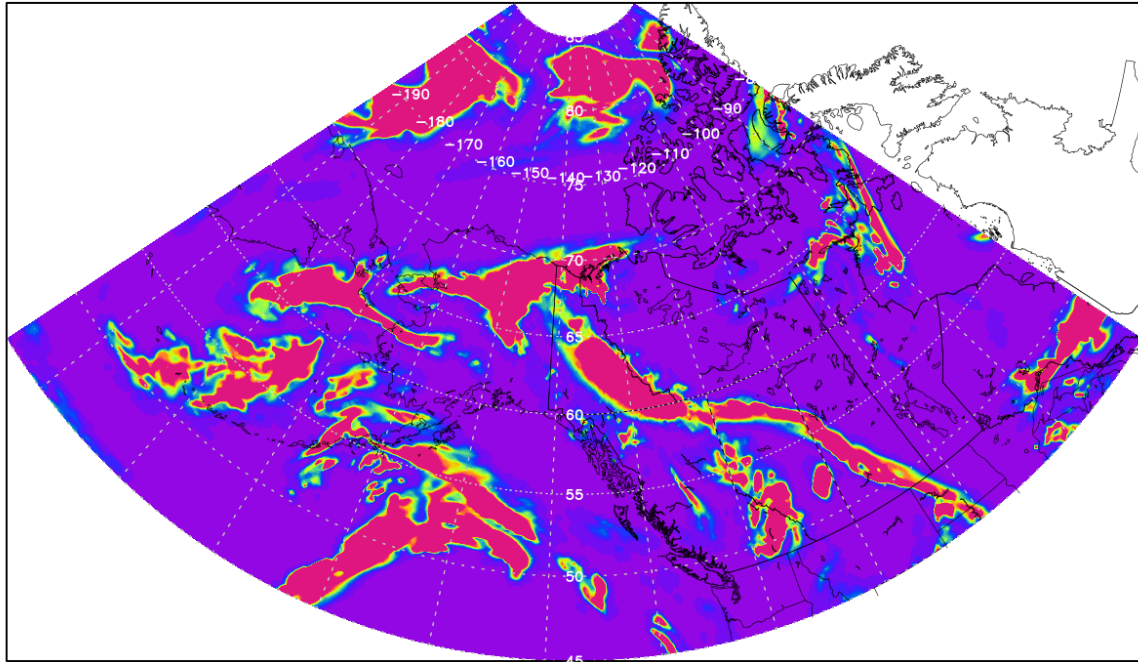
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GEOS Mid Cloud Optical Depth
Initial time 12 AUG. 00z
Valid time 13 AUG. 18z



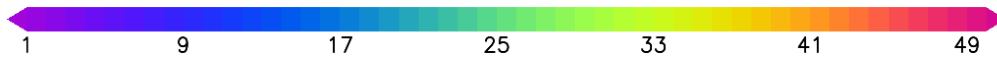
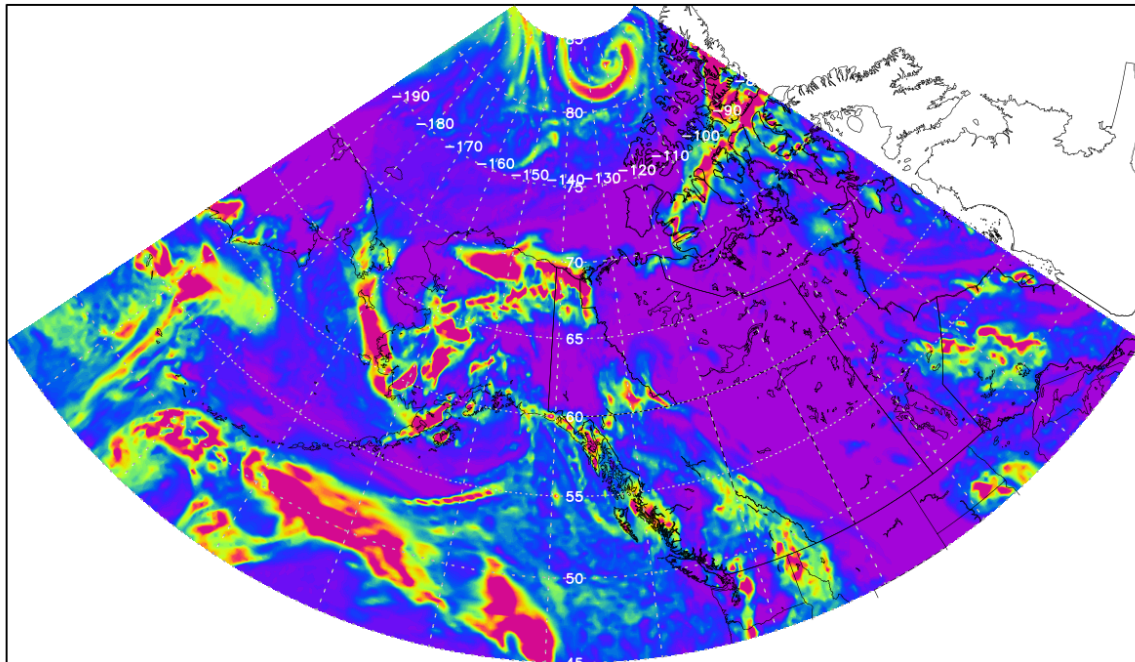
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GEOS Mid Cloud Optical Depth
Initial time 12 AUG. 00z
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ABOVE_Total_Cloud_IT_00z12AUG_VT_18z13AUG.png

GEOS Total Cloud Optical Depth
Initial time 12 AUG. 00z
Valid time 13 AUG. 18z



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