

ABOVE Regional Weather Briefing

Based on the GMAO GEOS meteorology and aerosol forecast fields
Model Initialized 00z 14 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 15 August through 2359z 15 August**

A broad system of low pressure will be located on Tuesday over northern Alaska with an accompanying trough line directed southeast, basically aligned with the large lakes of the NWT/AB/SK. The poorest weather conditions on Tuesday will be seen over much of the state of Alaska with widespread showers. In fact, locales in the immediate Fairbanks vicinity are under a flood watch for the possibility of an inch of rain or perhaps a bit more.

Over the Yellowknife vicinity, skies will remain broken or overcast with a good deal of smoke haze. Scattered showers are likely and isolated thunderstorms are possible as well. These can occur pretty much any time during the day Tuesday. Conditions will be mostly sunny across the southern parts of AB and SK including greater Saskatoon.

Grand Prairie, AB should remain north of the thickest smoke from BC fires. Expect light to at times moderate smoke haze here with generally good weather conditions.

Day-2 Outlook**Valid 1500z 16 August through 2359z 16 August**

On Wednesday, an axis of low pressure shifts to the western half of Alaska. This should leave PAFA/Delta Junction in a opening for improved weather conditions. The GEOS model is predicting limited cloud cover 18z-21z Wednesday from 63-68N and 140-150W...including most of east-central Alaska, although a pop-up shower or storm can not be ruled out. The model is also indicating clear breaks in the Yellowknife immediate vicinity Wednesday, however clouds and showers will not be too far away to the north and east of Yellowknife during this time period (see the 60hr forecast weather chart).

Aerosol haze should be absent over the Alaska segments with mainly clean skies over Yellowknife as well. We note moderate to at times heavy smoke haze over eastern Great Slave Lake. Further south over East Trout Lake and into Saskatoon, expect partly cloudy skies with

moderate to periods of heavier smoke haze. The BC fires will spread light to moderate smoke into Grand Prairie, AB.

Day-3 Outlook**Valid 1500z 17 August through 2359z 17 August**

Thursday looks to be a very good weather day for Yellowknife as the trough line moves well away from there. Skies should also be mainly clean of any smoke haze on Thursday around Yellowknife. Grand Prairie AB should remain north of the heavier smoke haze with mostly sunny conditions.

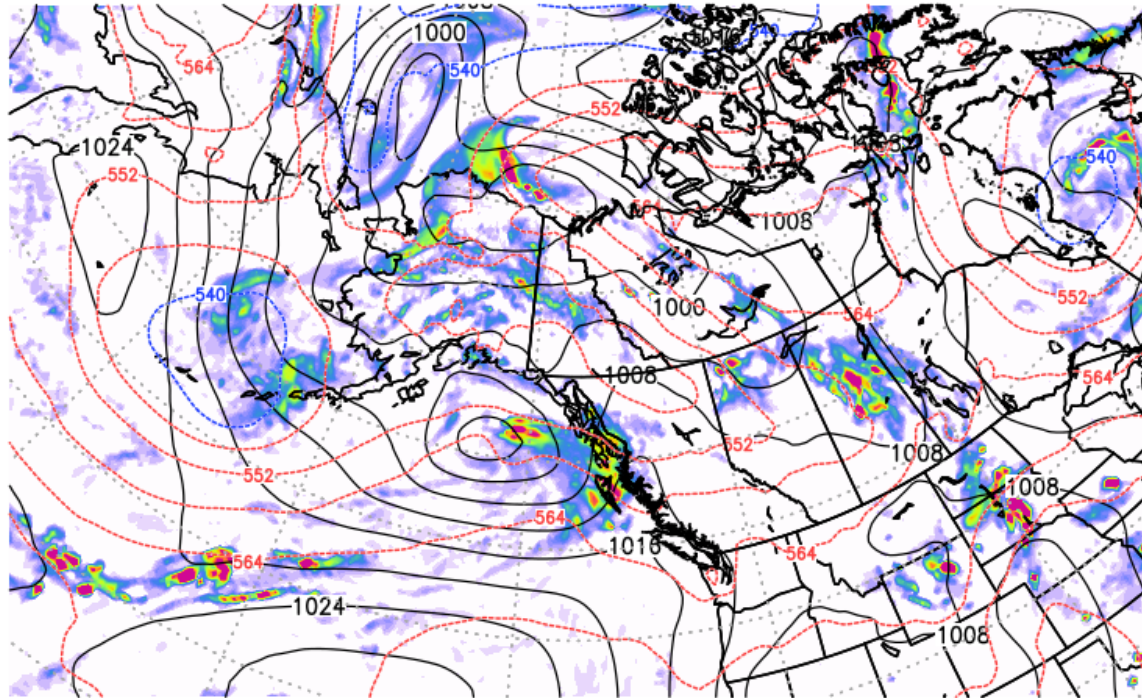
Over Alaska, areas of low pressure should remain well away from the PAFA vicinity. At this time Thursday is looking to be partly cloudy over east-central Alaska, including Fairbanks. You will pick up more clouds and a chance of showers further west crossing the 150W parallel. No aerosol issues here.

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

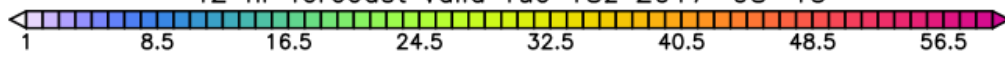
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NASA/GMAO – GEOS-5 Forecast Initialized on 00z 2017-08-14

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



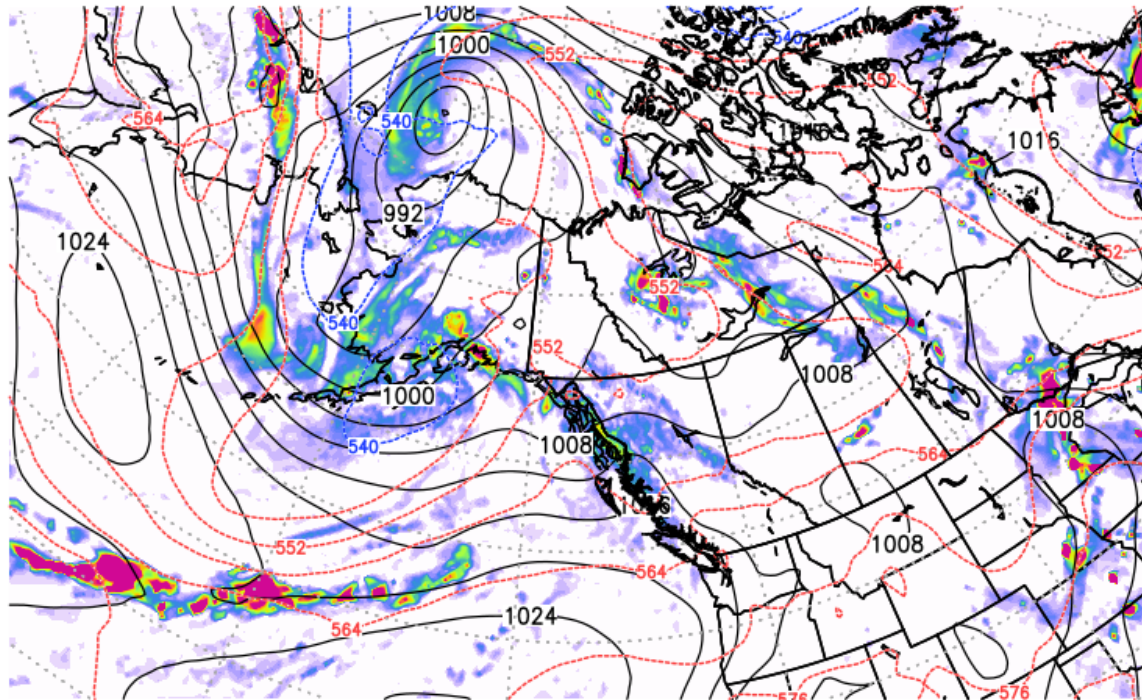
42 hr forecast valid Tue 18z 2017-08-15



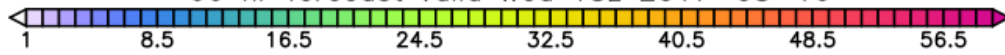
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NASA/GMAO – GEOS-5 Forecast Initialized on 00z 2017-08-14

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

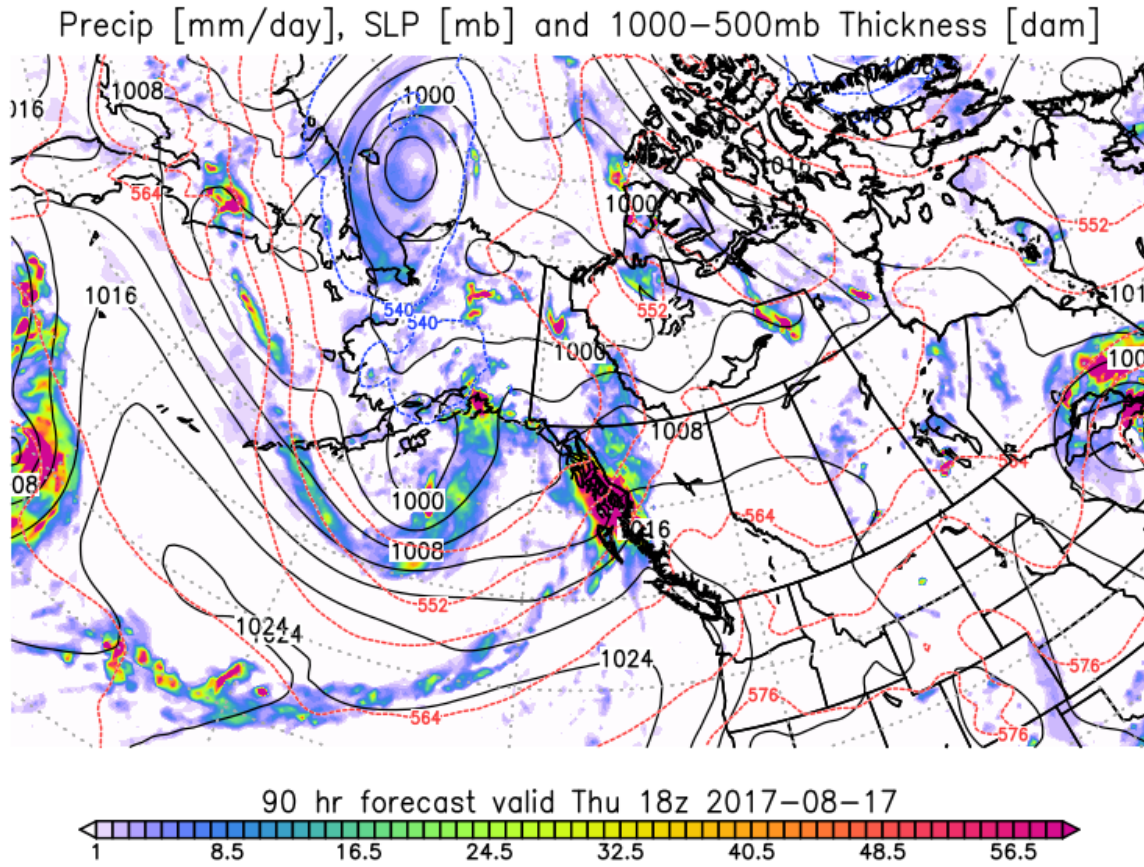


66 hr forecast valid Wed 18z 2017-08-16



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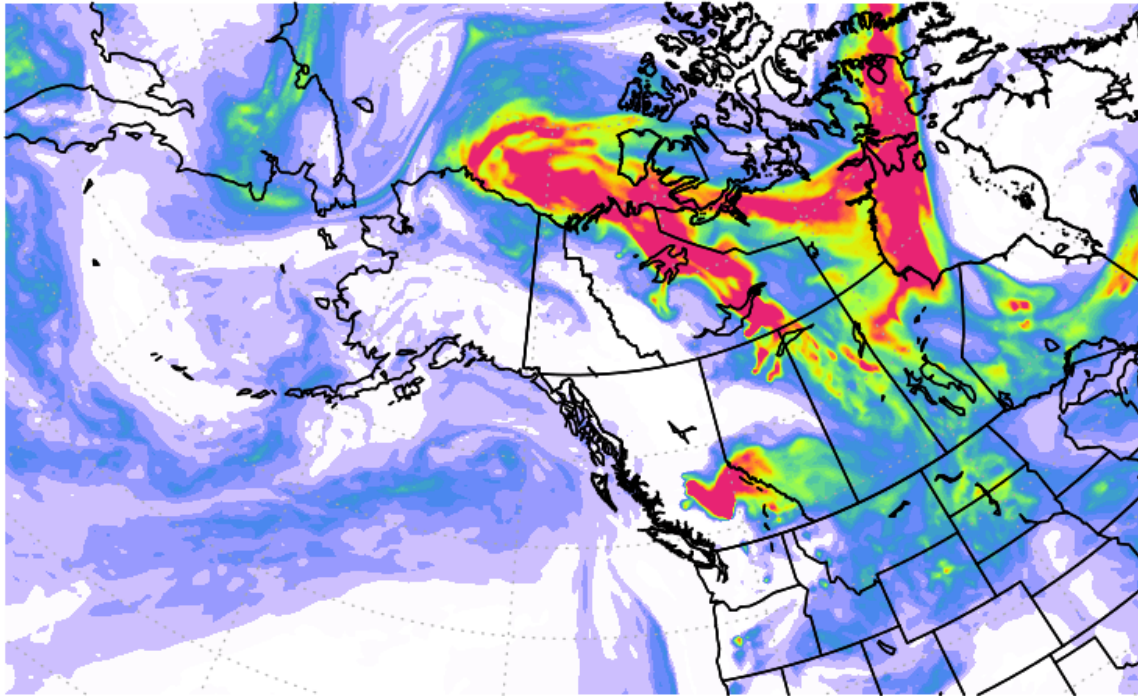
NASA/GMAO – GEOS-5 Forecast Initialized on 00z 2017-08-14



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NASA/GMAO - GEOS-5 Forecast Initialized on 00z 2017-08-14

Total Aerosol Optical Thickness

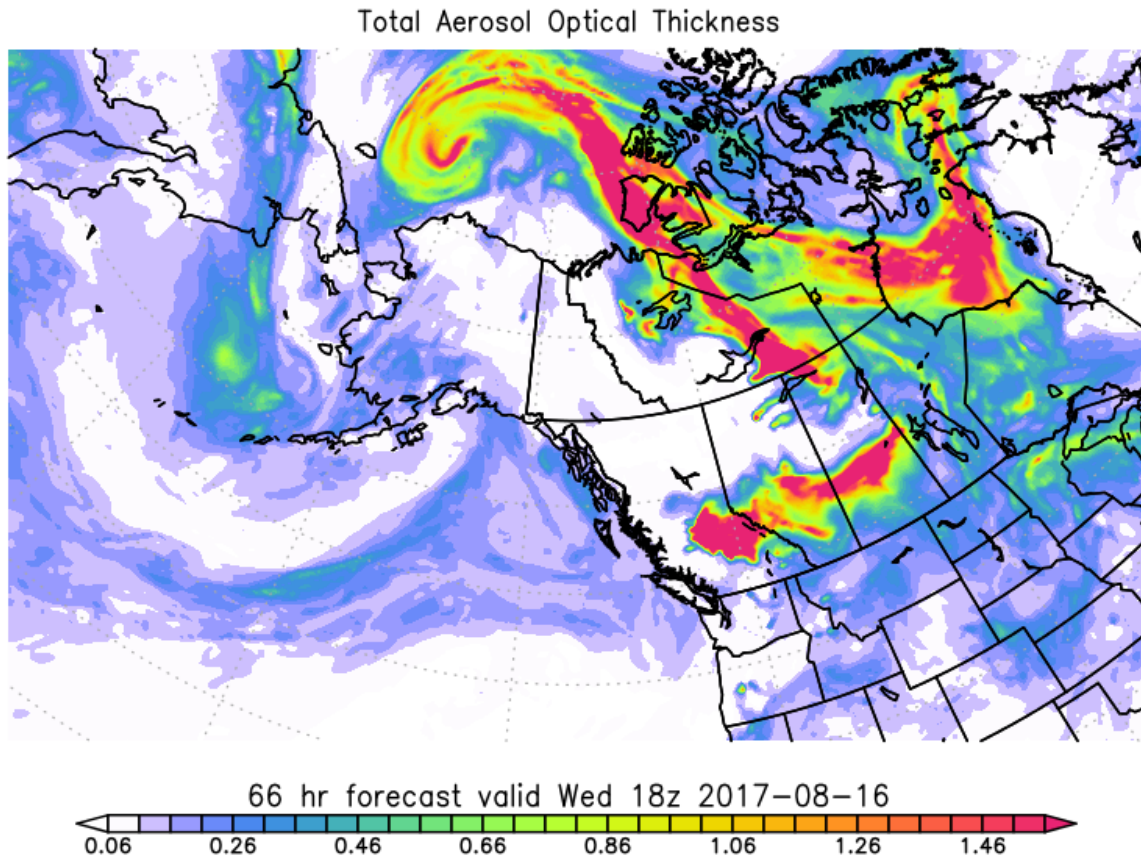


42 hr forecast valid Tue 18z 2017-08-15



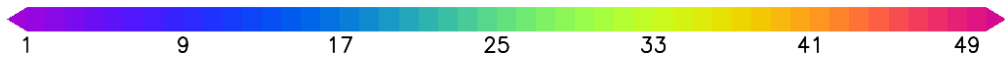
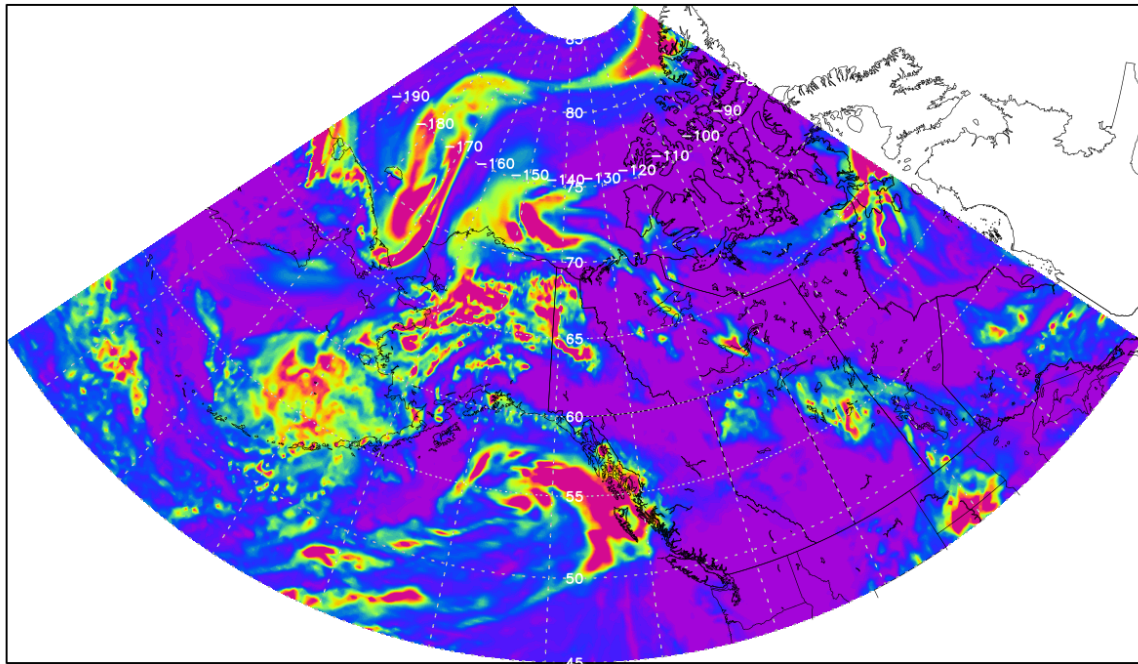
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NASA/GMAO – GEOS-5 Forecast Initialized on 00z 2017-08-14



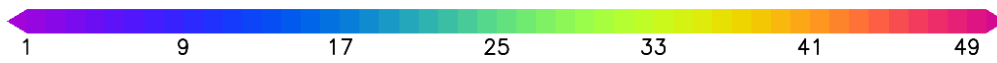
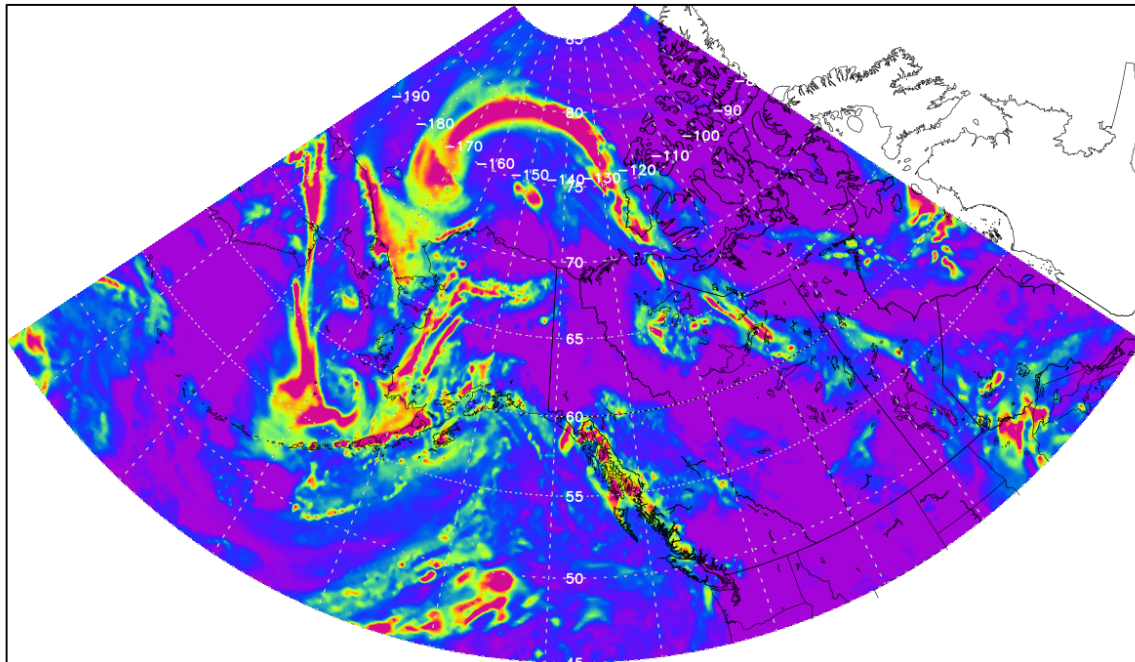
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GEOS Total Cloud Optical Depth
Initial time 14 AUG. 00z
Valid time 15 AUG. 18z



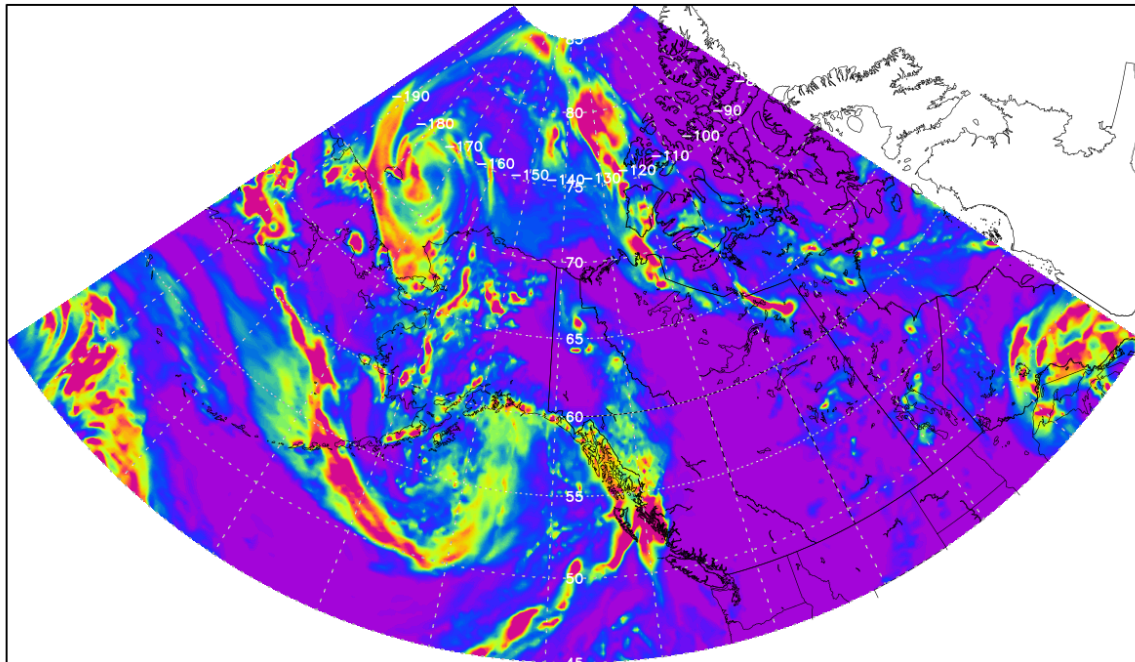
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GEOS Total Cloud Optical Depth
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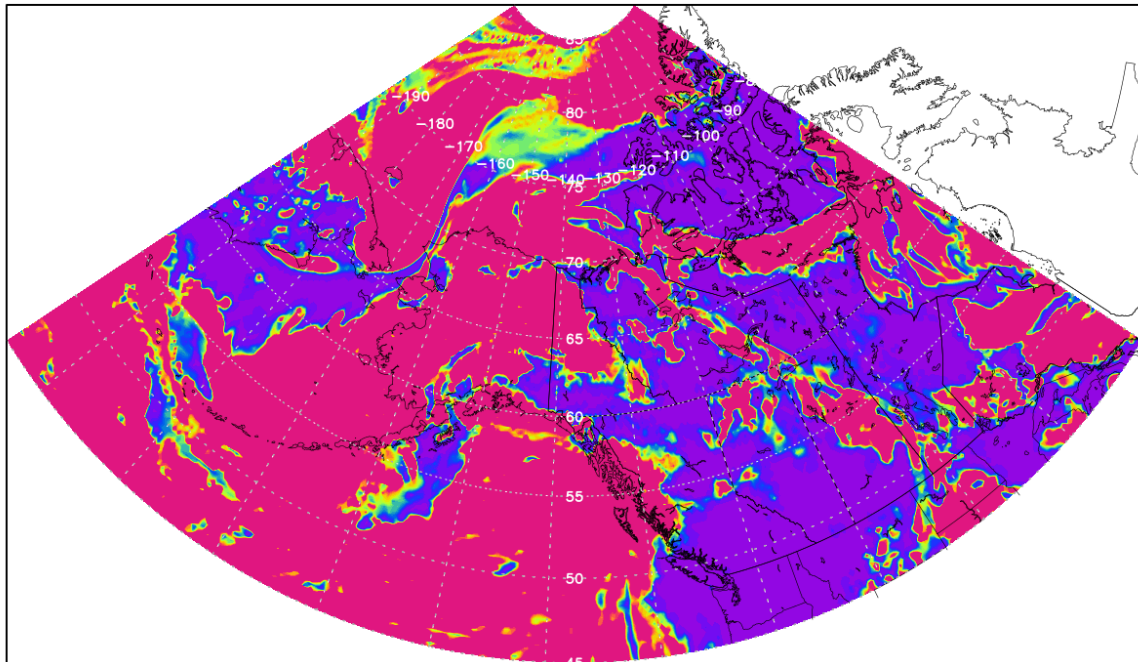
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GEOS Total Cloud Optical Depth
Initial time 14 AUG. 00z
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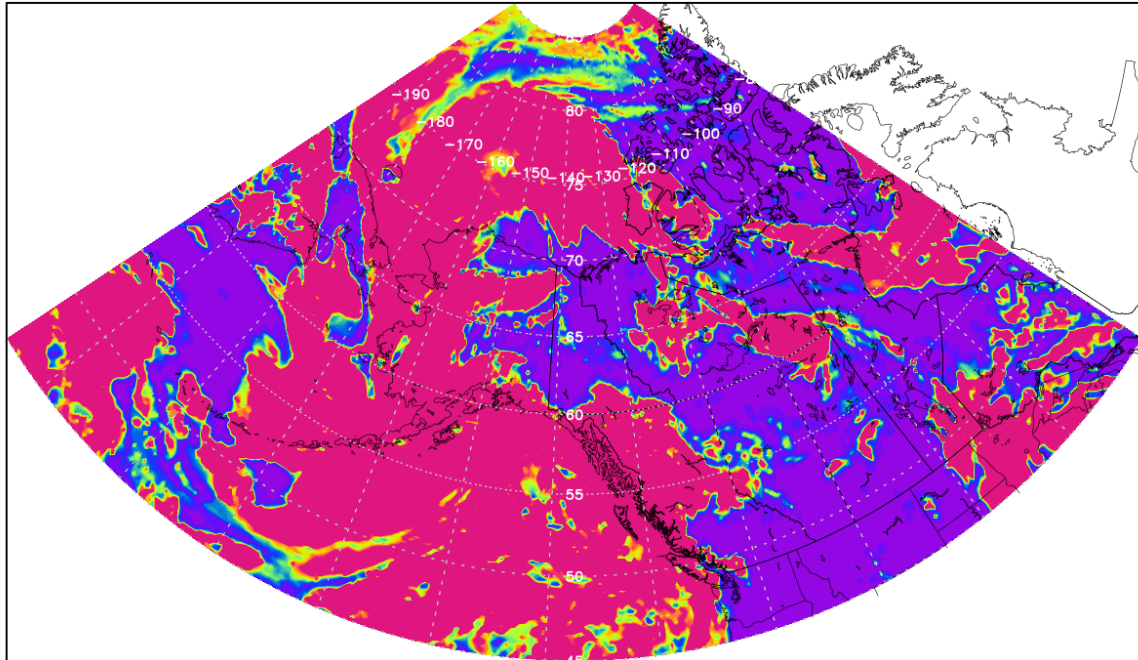
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GEOS Low Cloud Optical Depth
Initial time 14 AUG. 00z
Valid time 15 AUG. 18z



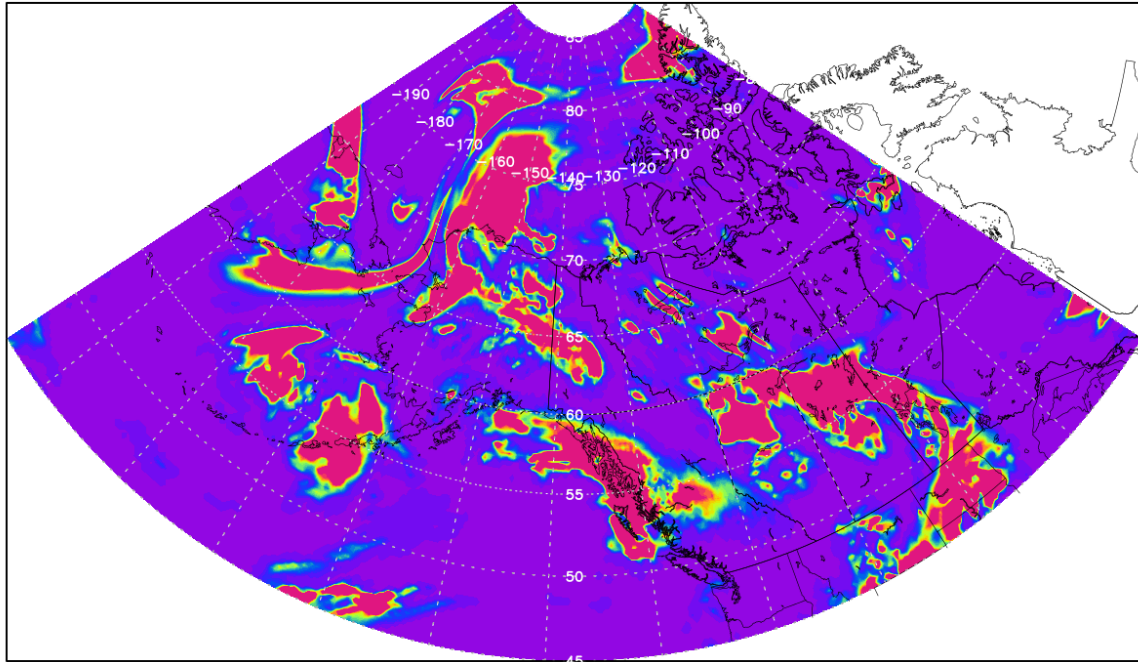
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GEOS Low Cloud Optical Depth
Initial time 14 AUG. 00z
Valid time 16 AUG. 18z



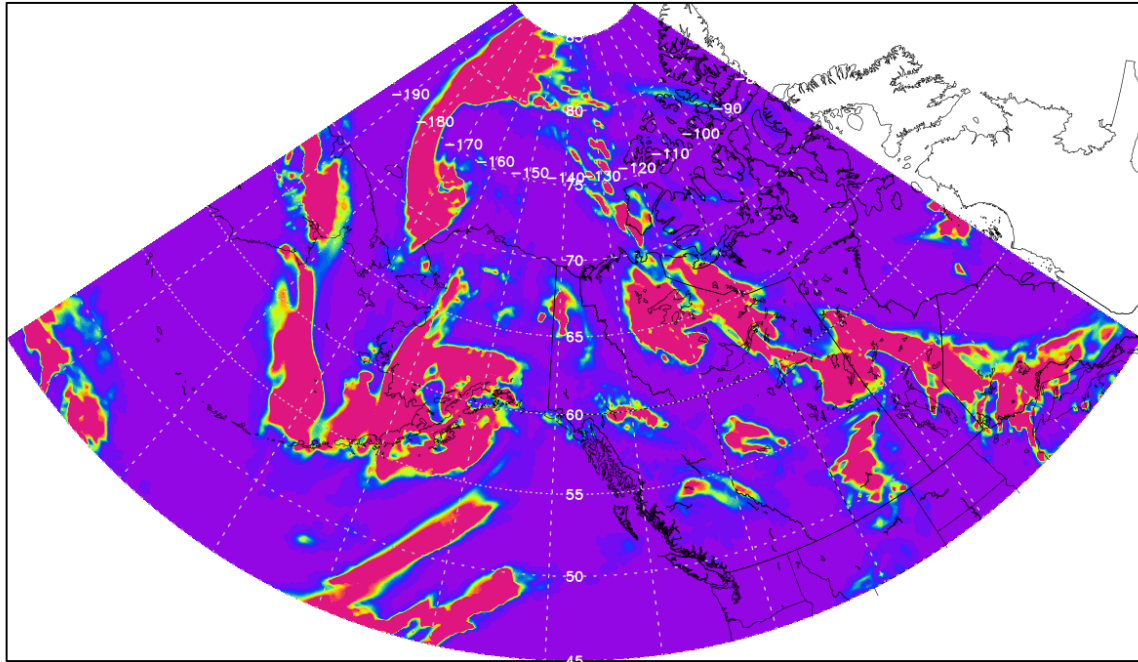
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GEOS Mid Cloud Optical Depth
Initial time 14 AUG. 00z
Valid time 15 AUG. 18z



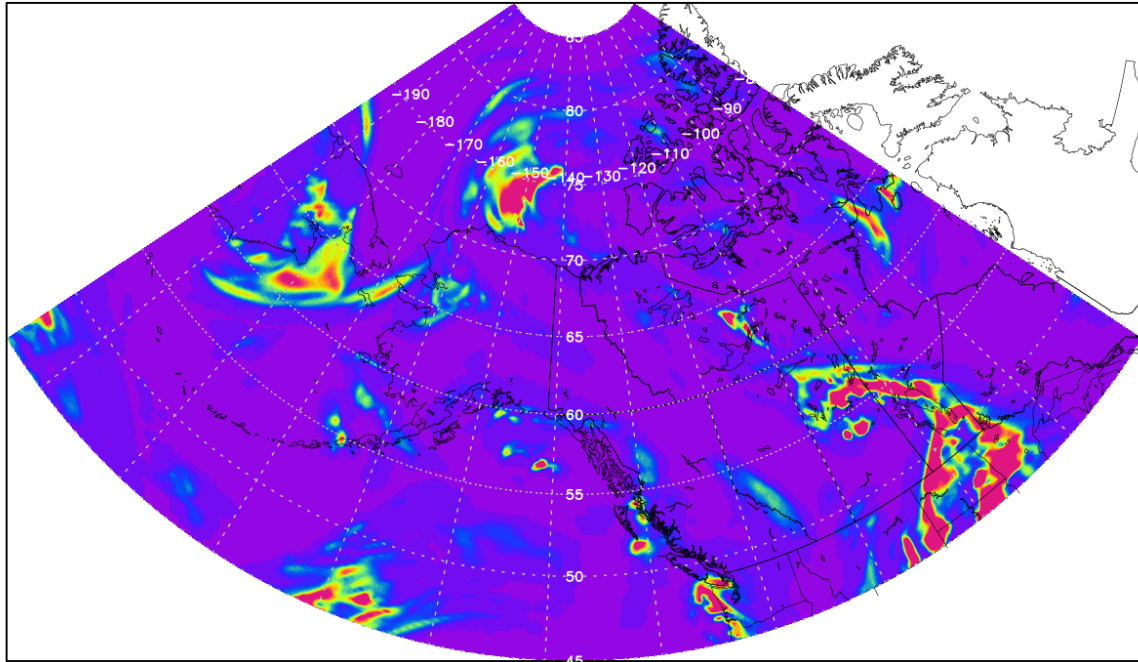
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GEOS Mid Cloud Optical Depth
Initial time 14 AUG. 00z
Valid time 16 AUG. 18z



ABOVE_High_Cloud_Optical_Depth_IT_00z14AUG_VT_18z15AUG.png

GEOS High Cloud Optical Depth
Initial time 14 AUG. 00z
Valid time 15 AUG. 18z



ABOVE_High_Cloud_Optical_Depth_IT_00z14AUG_VT_18z16AUG.png

GEOS High Cloud Optical Depth
Initial time 14 AUG. 00z
Valid time 16 AUG. 18z

