

ABOVE Regional Weather Briefing

Based on the GMAO GEOS meteorology and aerosol forecast fields
Model Initialized 00z 06 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 07 August through 2359z 07 August**

Early in the period, a line of showers and thunderstorms stretch from near PAFA westward to near Kokrines and Galena and through to the Yukon Delta region. Seward Peninsula is cloudy early becoming partly cloudy later in the period. As the day progresses, low clouds and precipitation increase throughout the state. Inuvik, and Great Bear Lake look good throughout the period. Yellow knife begins the period partly cloudy but becomes clear later in the period. Mackenzie River area looks good for most of the period. Northern half of AB looks good. The areas with large values of aerosol optical thickness are out ahead of a frontal system stretching from the Hudson Bay south through Ontario and westward through the lower half of MM, SK, AB and especially the southern half of BC. In addition there are a few smaller areas like north of Lake Athabasca and the northern shores facing the Beaufort Sea where moderate values of aerosol optical thickness will be seen.

Day-2 Outlook**Valid 1500z 08 August through 2359z 08 August**

A low pressure system just south of the Alaska Peninsula and the clouds and rain associated with it keep the southwest portion of the state fairly cloudy and rainy. The center section of the state sees clouds and rain approaching from the north with one frontal system, and clouds approaching from the southwest from another frontal system. A frontal system moves quickly across the southern Arctic Ocean and southern Beaufort Sea bringing with it clouds and rain across much of the northern third of Alaska. This same frontal system brings cloudy and rainy conditions to northern YKT and NWT. Although the Mackenzie River area looks clear early in the period, by the end of the period there will be clouds and scattered showers in the region. The frontal system stretching across the southern Canada and the northern US border drifts slowly to the south with showers and clouds covering southern AB and SK (including near Saskatoon). Large values of aerosol optical thickness continue to be present in the southern half of BC, southern portions of AB and SK. Some isolated patches of larger smoky hazy regions are seen near Great Slave Lake and Lake Athabasca.

Day-3 Outlook

Valid 1500z 09 August through 2359z 09 August

A ridge of high pressure extends northward through eastern Alaska keeping PAFA and Yukon Flats region looking favorable for flying. While Seward Peninsula should remain rain free, there will be low and middle clouds present during this period. Bethel and Yukon Delta region do not look favorable. A small but intense low pressure system in the Arctic Ocean will keep conditions poor near PABR and PASC for this period. Depending on the timing, Mackenzie River flights might work. Great Bear Lake is partly cloudy with showers early becoming clear as the period goes on. That area of clouds and rain moves south to Yellow Knife where conditions start out clear but deteriorate through the period. Whitehorse, Inuvik, and Old Crow all look good through this period. Moderate smoke haze will be seen in the Barrow region as smoke from Russian fires is advected into this region. Changing wind directions have spread large values of aerosol optical thickness through more of northern parts BC which had previously not seen much smoke. The southern two thirds of BC continues to show high values of aerosol optical thickness. An area stretching from northern Lake Winnipeg up to western Hudson Bay just south of Great Slave Lake and through northern SK and southern AB shows moderate values of aerosol optical thickness.

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Austin Conaty, SSAI Global Modeling and Assimilation Office
301-614-6149 (ph) NASA Goddard Space Flight Center
301-614-6297 (fax) Code 610.1 Greenbelt, MD 20771

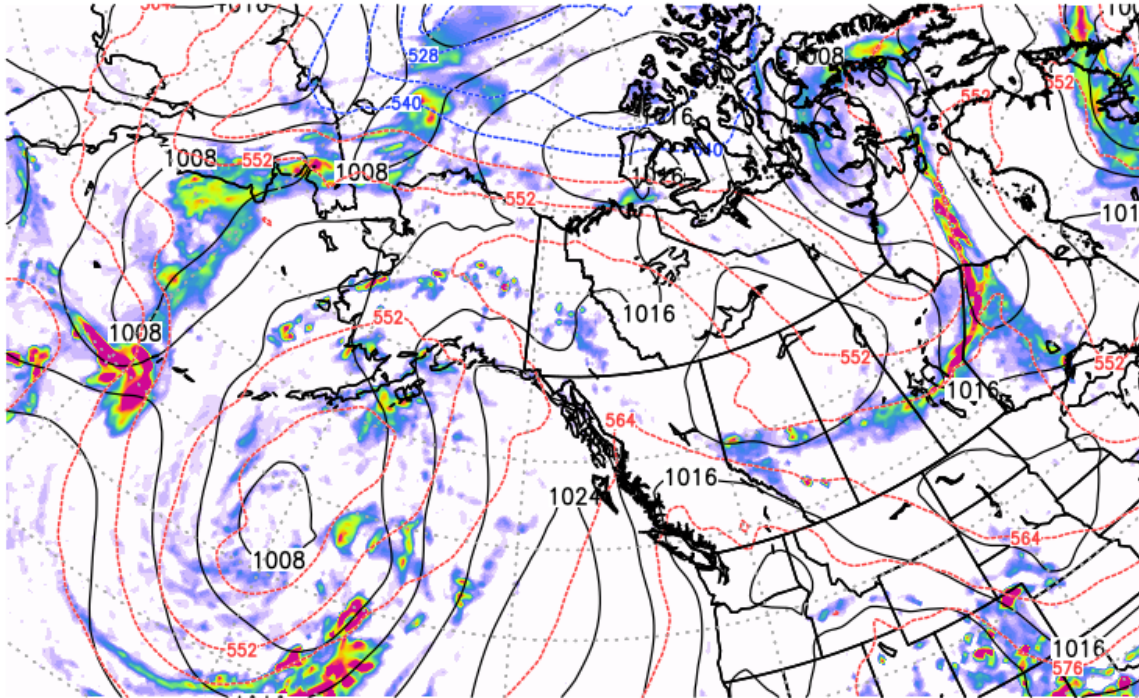
Austin.L.Conaty@nasa.gov

<https://gmao.gsfc.nasa.gov>

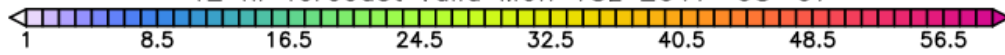
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NASA/GMAO – GEOS-5 Forecast Initialized on 00z 2017-08-06

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



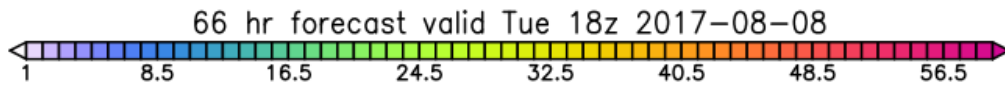
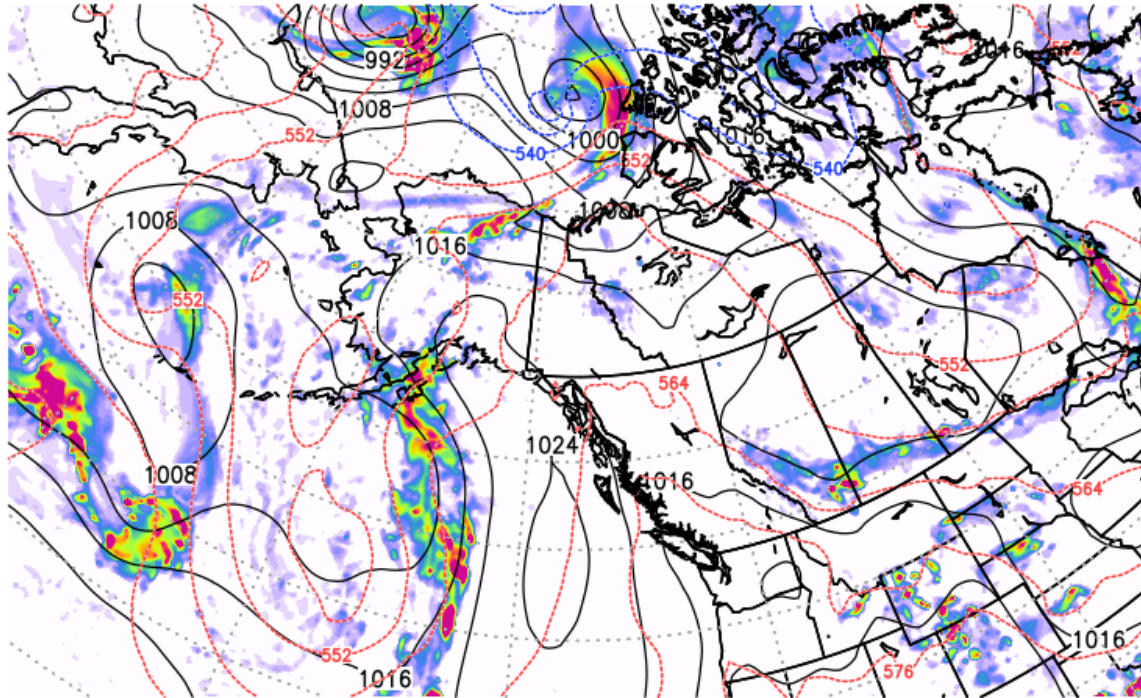
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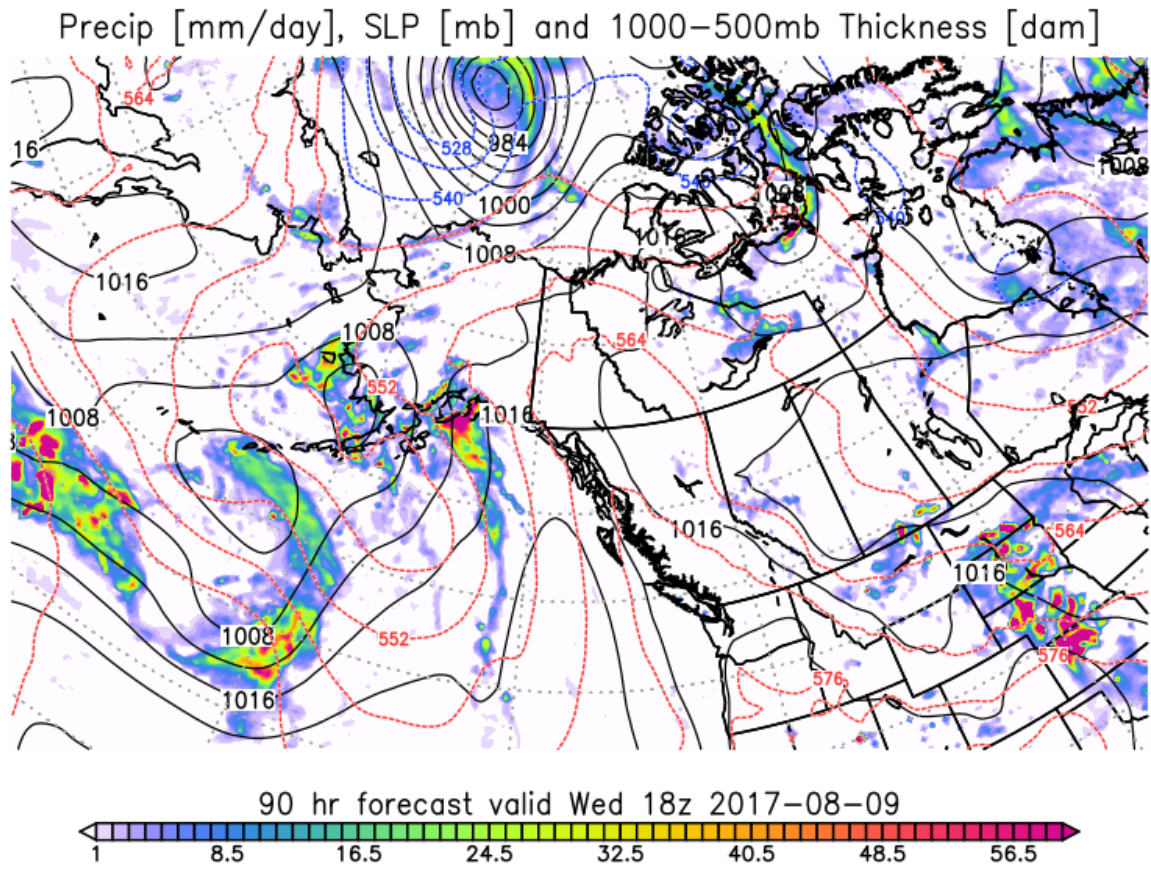
NASA/GMAO – GEOS-5 Forecast Initialized on 00z 2017-08-06

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



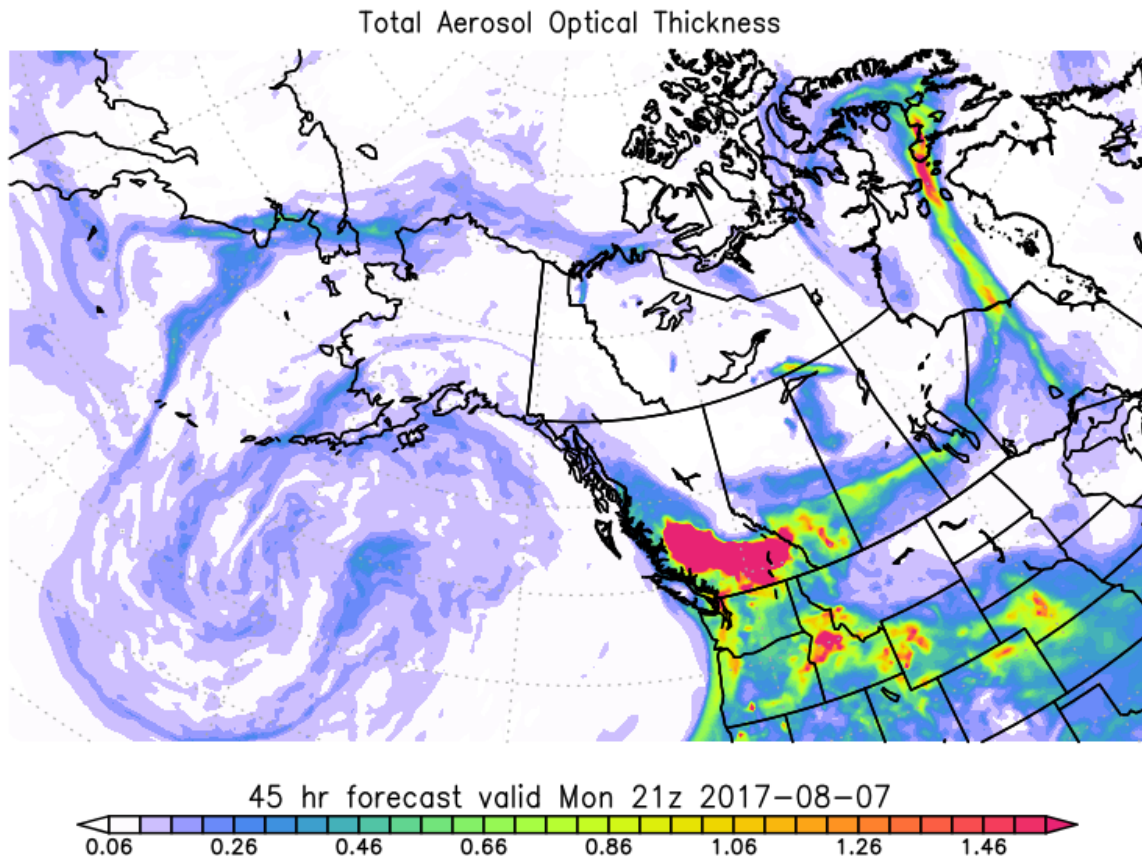
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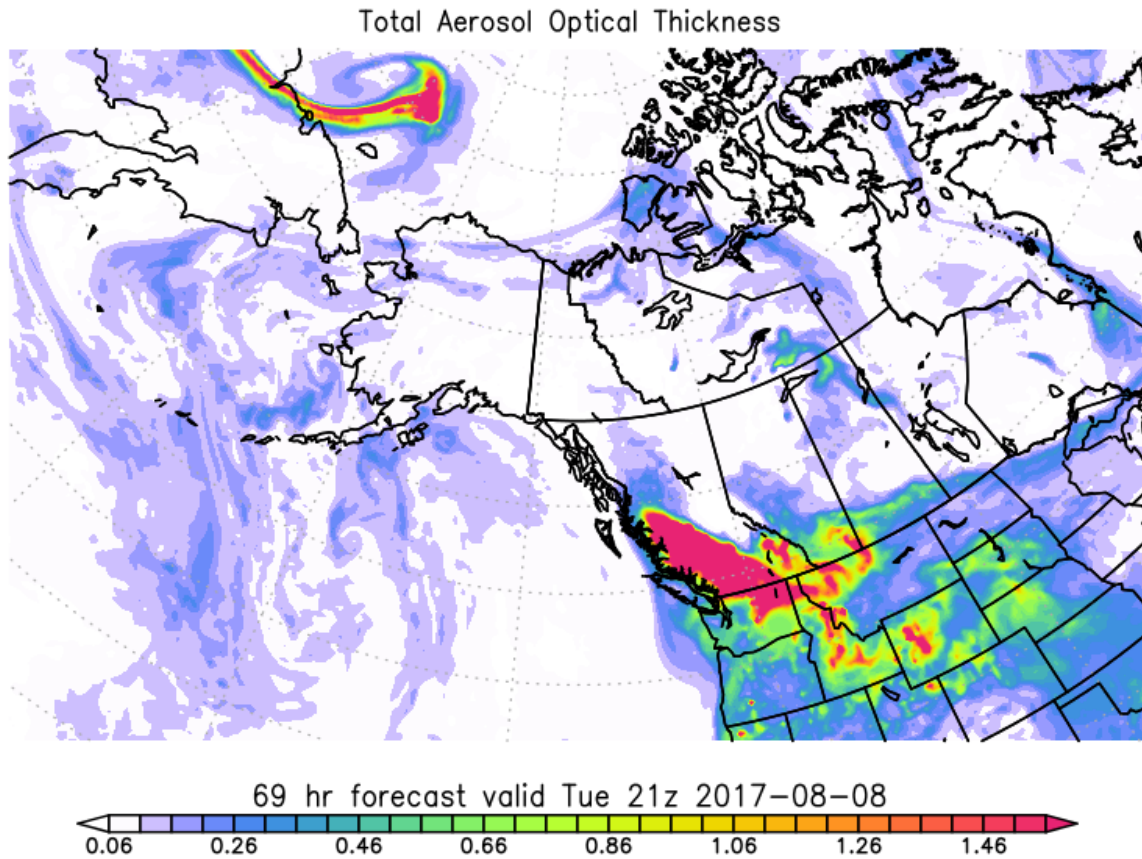
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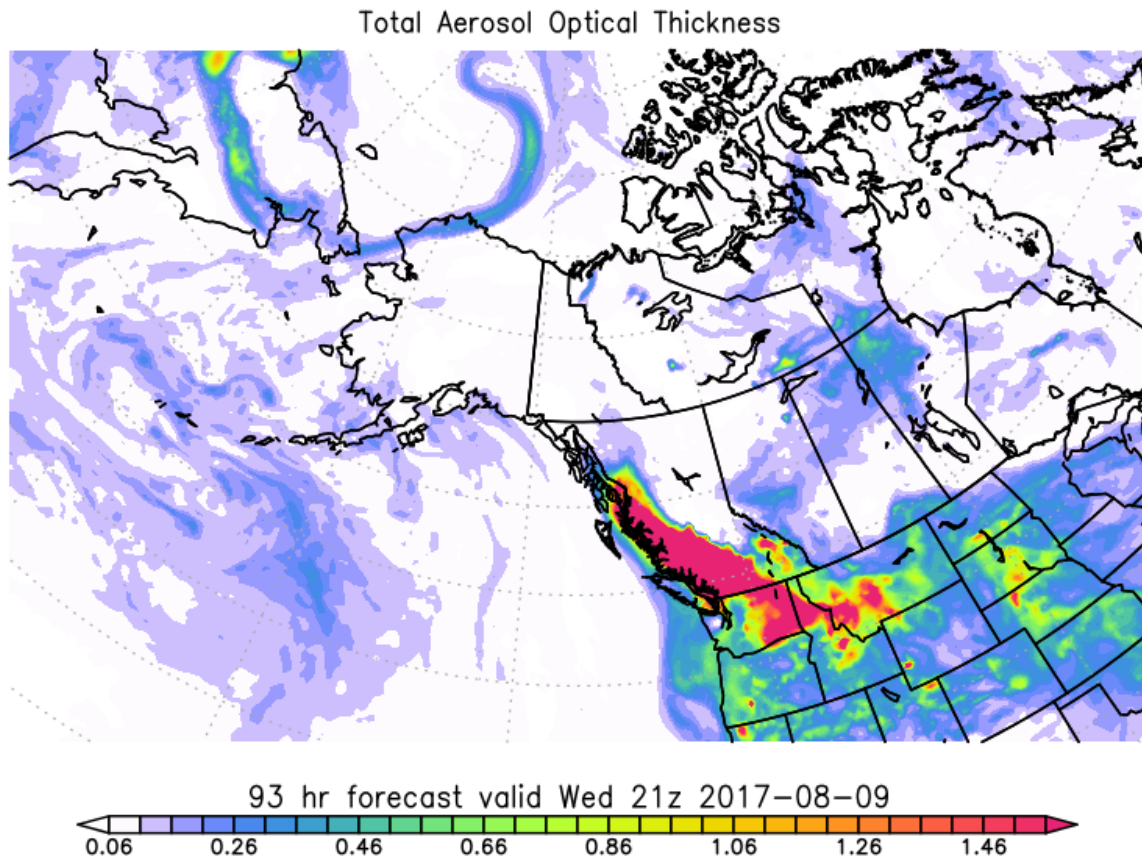
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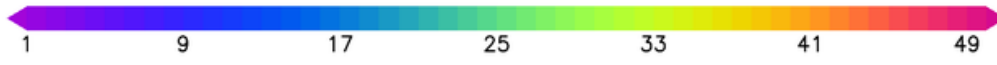
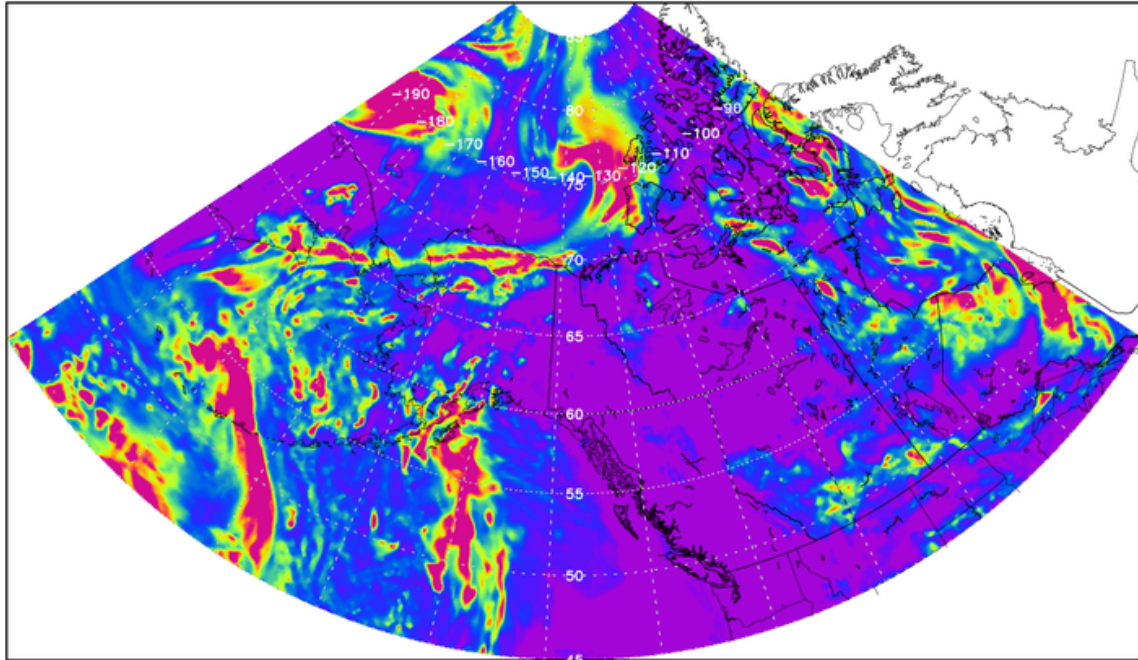
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NASA/GMAO - GEOS-5 Forecast Initialized on 00z 2017-08-06



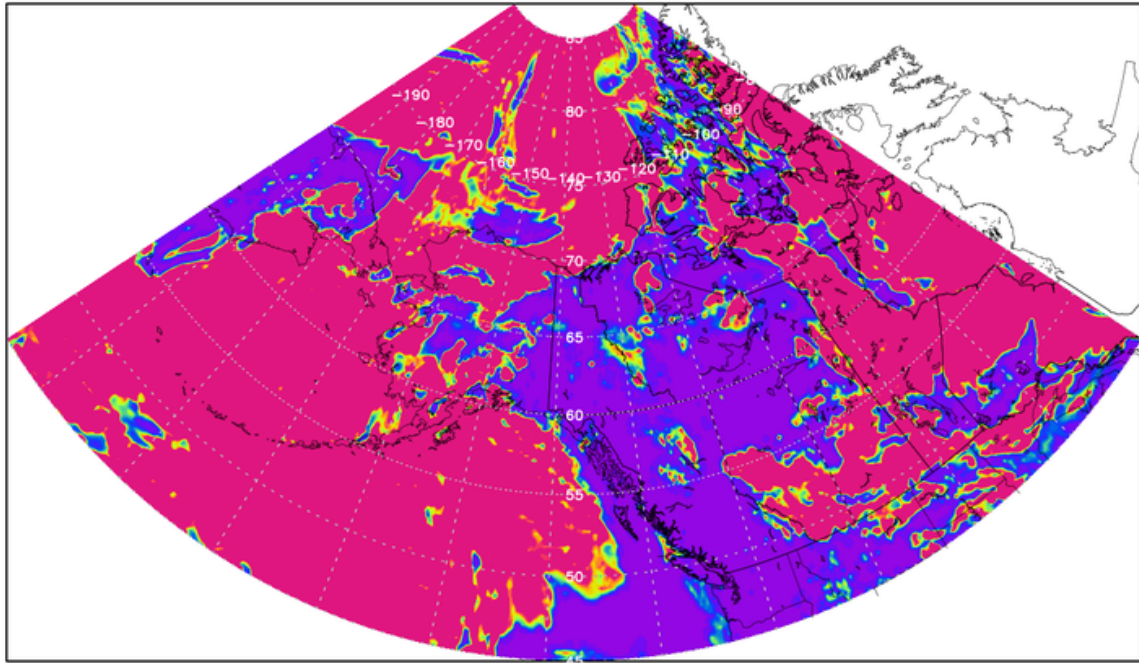
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GEOS Total Cloud Optical Depth
Initial time 06 AUG. 00z
Valid time 08 AUG. 18z



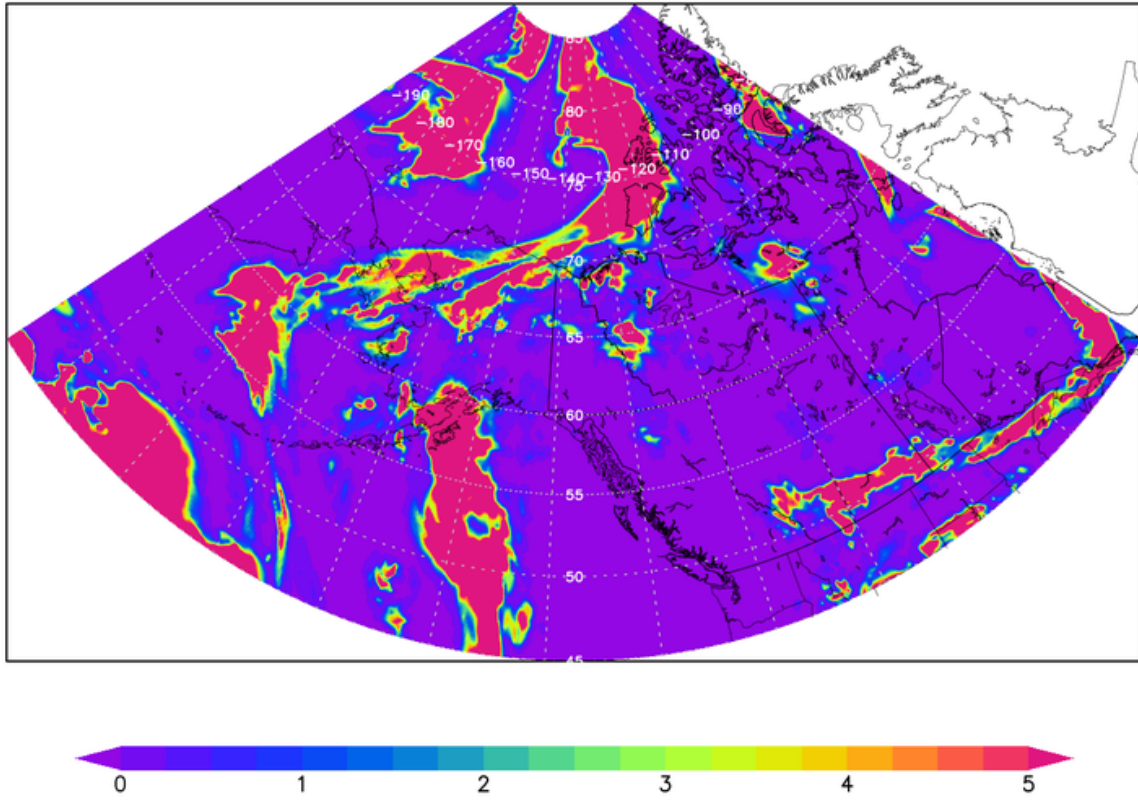
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GEOS Low Cloud Optical Depth
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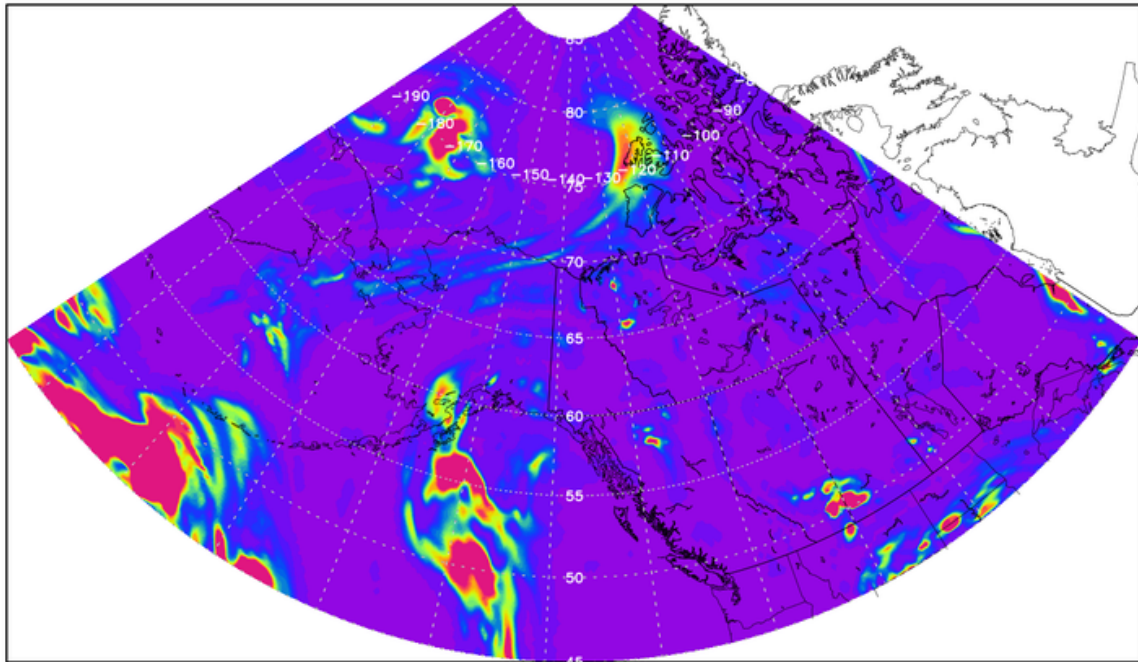
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GEOS Mid Cloud Optical Depth
Initial time 06 AUG. 00z
Valid time 08 AUG. 18z



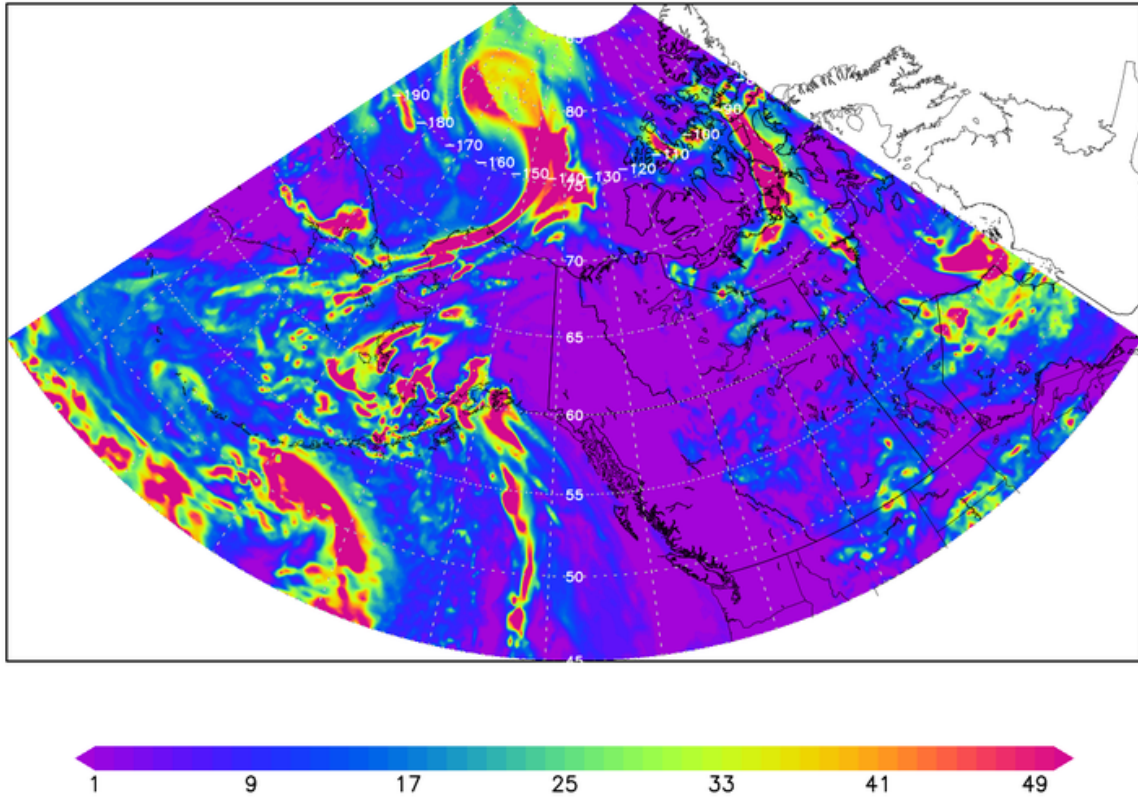
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GEOS High Cloud Optical Depth
Initial time 06 AUG. 00z
Valid time 08 AUG. 18z



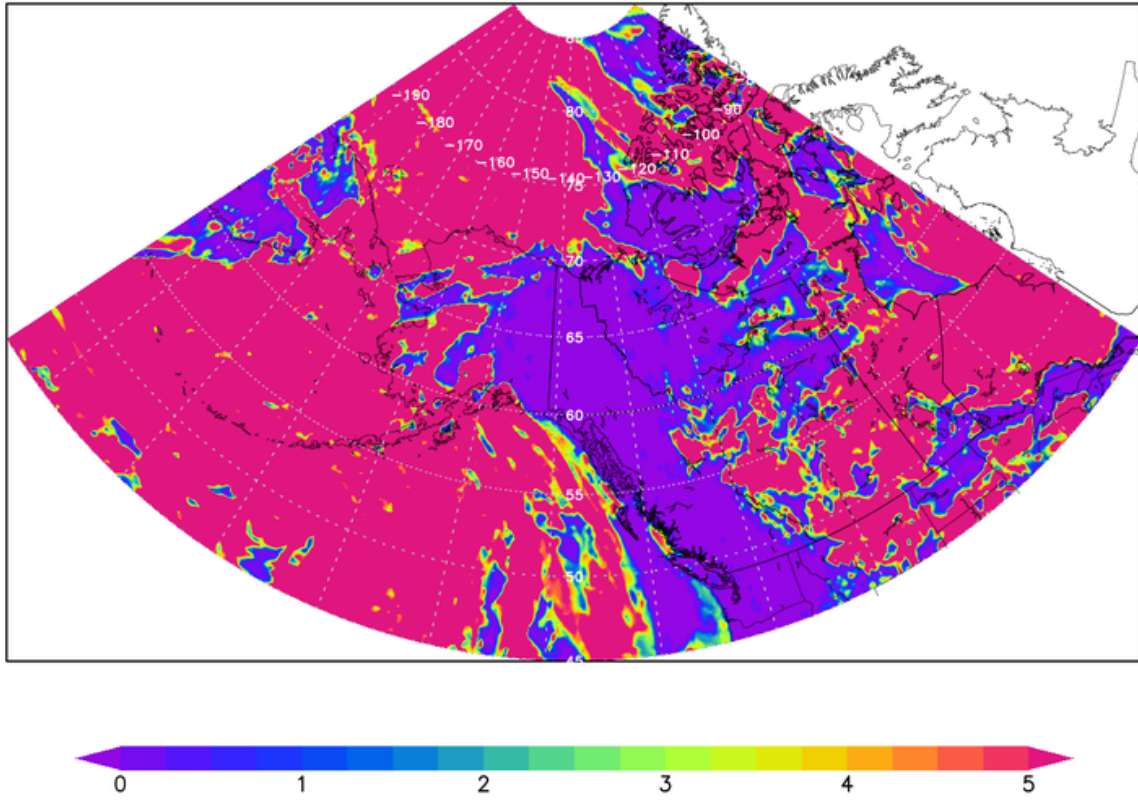
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Valid time 09 AUG. 18z



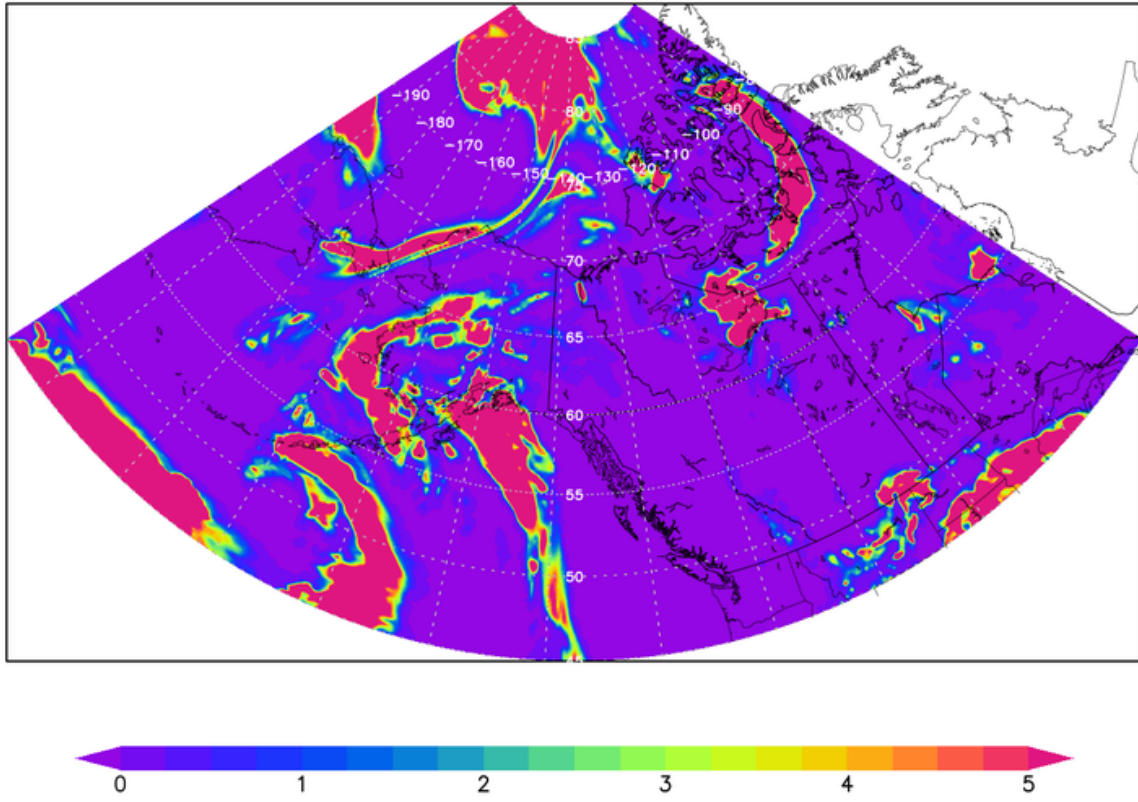
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ABOVE_Mid_Cloud_Optical_Depth_IT_00z06AUG_VT_18z09AUG.png

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