

ABOVE Regional Weather Briefing

Based on the GMAO GEOS meteorology and aerosol forecast fields
Model Initialized 00z 28 July 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 29 July through 2359z 29 July

Large values of aerosol optical thickness will be found over central BC, central AB, and west of Saskatoon. Southern SK will see small values of aerosol optical thickness through the day. Near Fort Smith, a small fire continues to burn, affecting its vicinity and the most northern portions of SK. A fire begins to affect a small region north of PAFA. Precipitation over western and interior AK develops through the day, deteriorating weather conditions in the region. Heavy precipitation begins to affect western BC and southern YKT early on, as a low pressure system over the Pacific Ocean moves eastward. Additional precipitation could be possible over the northern most portions of SK and western NWT, associated with a low pressure system moving over Nunavut. Unfortunately, most of AK will be under cloudy conditions through this forecast. The areas between PASC and PABR could be possible targets to fly, with the low cloud boundary approaching this region during mid/late afternoon. Areas in the northern most points of the YKT (mainly north of 67N) will see some clear skies. Clear sky conditions could be also found between Inuvik to Norman Wells to the Great Bear Lake. Areas over southern AB and SK will have mostly clear conditions through this day. The southern most portions of BC will also be cloud free.

Day-2 Outlook

Valid 1500z 30 July through 2359z 30 July

The mission areas over AK will continue to be mostly free of smoke/haze through this period, with the exception of a small region north of PAFA where a small fire continues to produce smoke and haziness. Large values of aerosol optical thickness are predicted to affect a small area over southern BC, extending through the northern half of AB and SK, and up to the Great Slave Lake. A frontal system begins to move over western AK. Simultaneously, a low pressure system begins to make its way through northern BC. These two weather systems contribute to the increase in precipitation and clouds over most of AK, YKT, northern BC, western NWT, and some areas in northern AB and SK. Conditions over AK do not improve in this forecast period. Possible targets to fly will be found over a small area in the Yukon Flats, depending on the

vicinity of the low cloud boundary. The north-western NWT will see sporadic cloud clearing through the day. The SK region will mostly see clear cloud conditions through the afternoon, when a mixture of clouds begin to affect this area. In AB, a mixture of low and middle clouds could be found through the day, with most of the southern portions cloud free. Southern BC could also have cloud free conditions through this period.

Day-3 Outlook**Valid 1500z 31 July through 2359z 31 July**

The largest values of aerosol optical thickness continue to affect an area in southern BC, expanding to southern AB and SK. The AK mission area will be smoke/haze free. Areas between the Great Slave Lake and the northern most portions of SK will see large aerosol optical thickness values due to a fire near Fort Smith. A frontal system continues its way through AK, bringing heavy precipitation through most of the mission targets. Precipitation also develops along the YKT, southern NWT, northern BC, and the northern most portions of AB and SK. The mission targets over AK and YKT will continue to be under cloudy conditions through this forecast. Cloud free targets can be found between Inuvik to Norman Wells to the Great Bear Lake until early afternoon. Southern BC, AB, and SK will also be mostly cloud clear, with some sporadic low clouds present over southern AB.

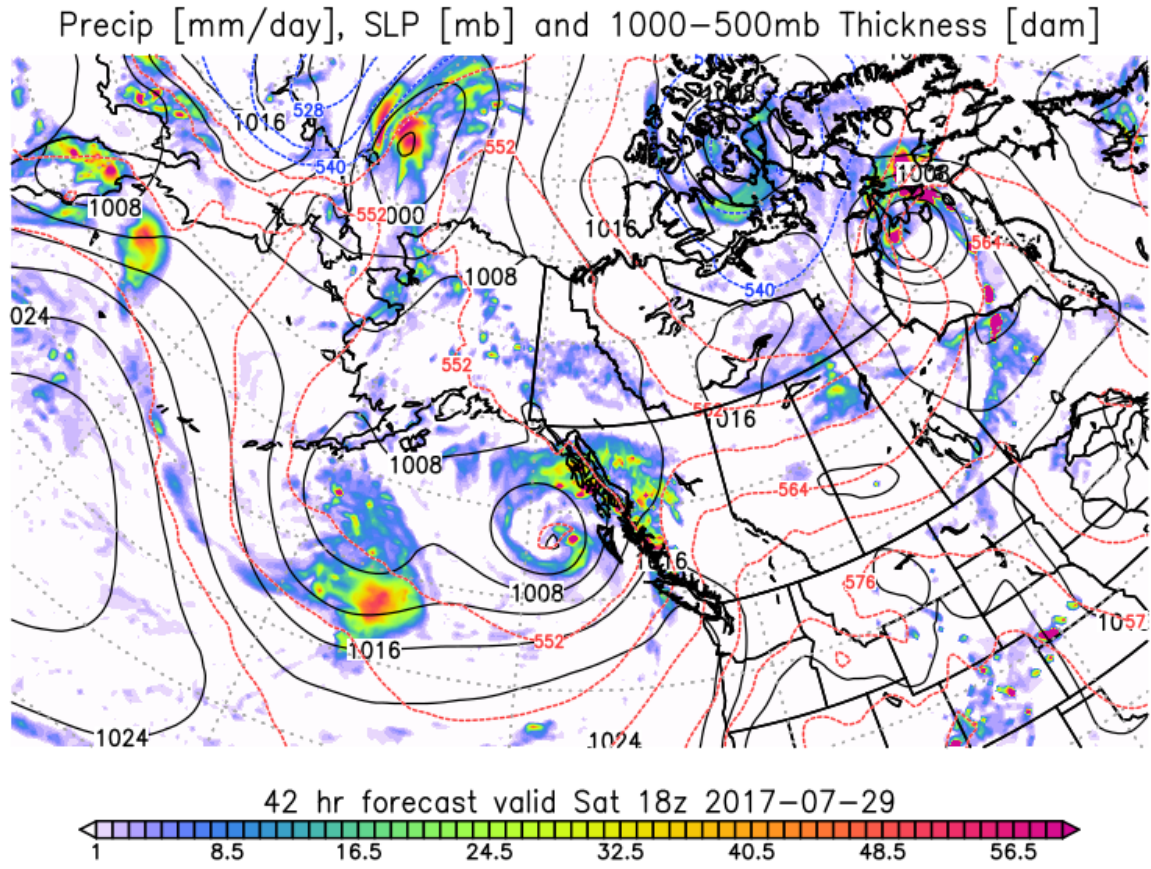
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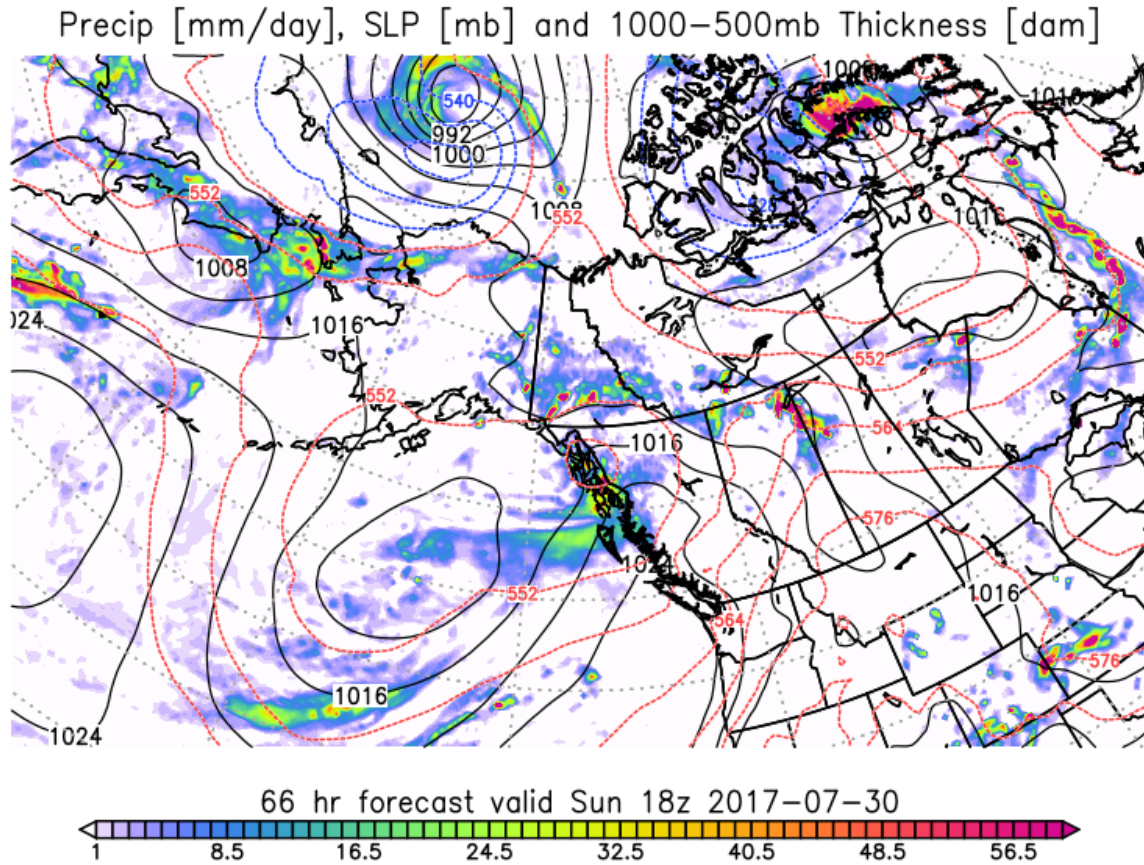
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NASA/GMAO – GEOS-5 Forecast Initialized on 00z 2017-07-28



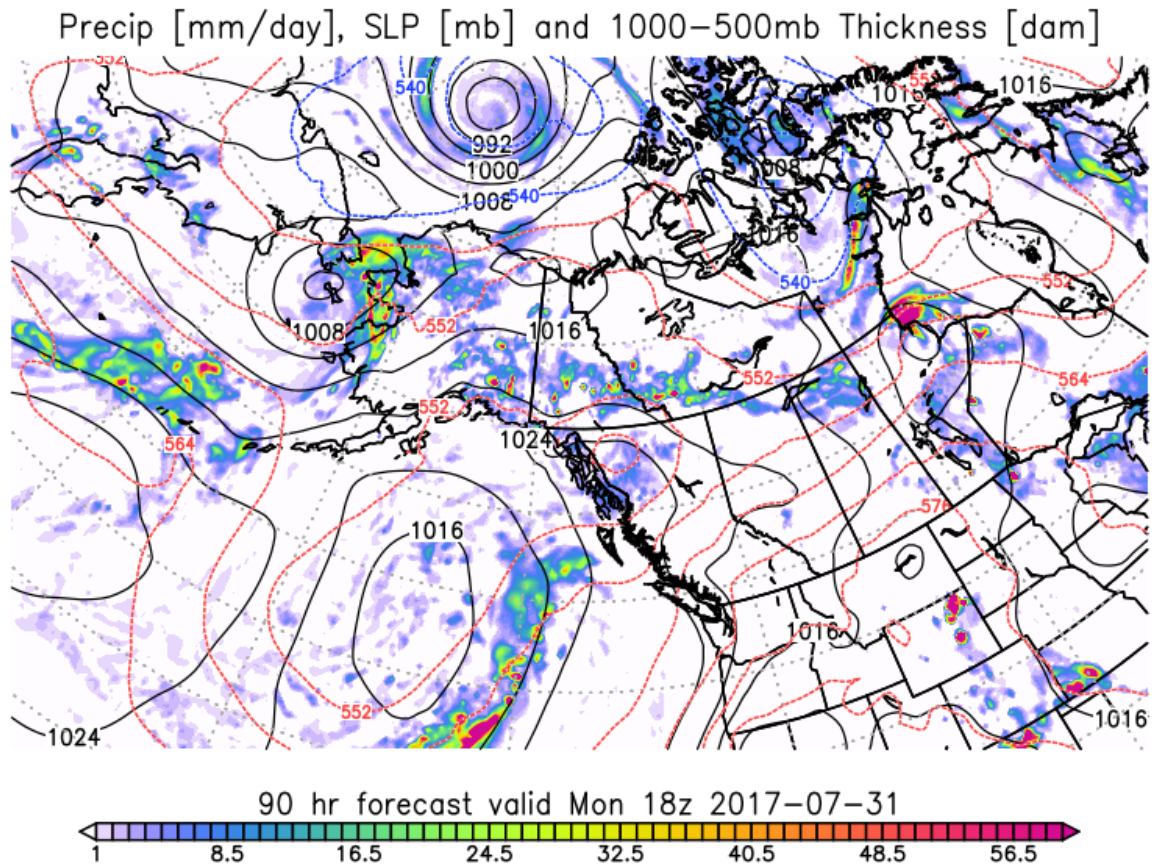
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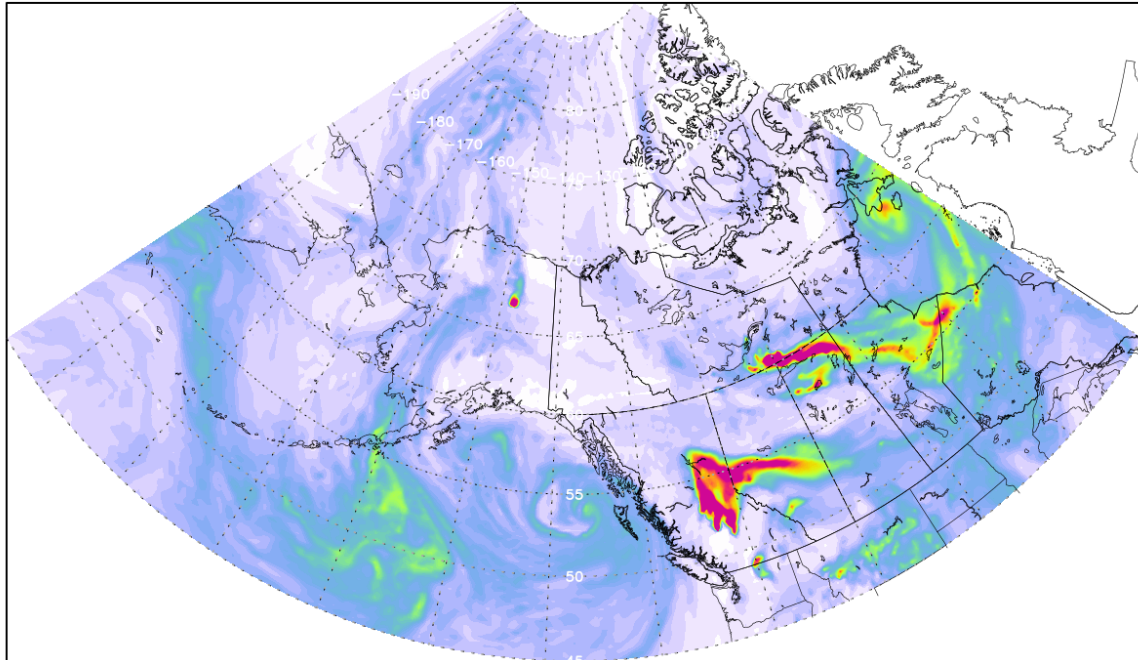
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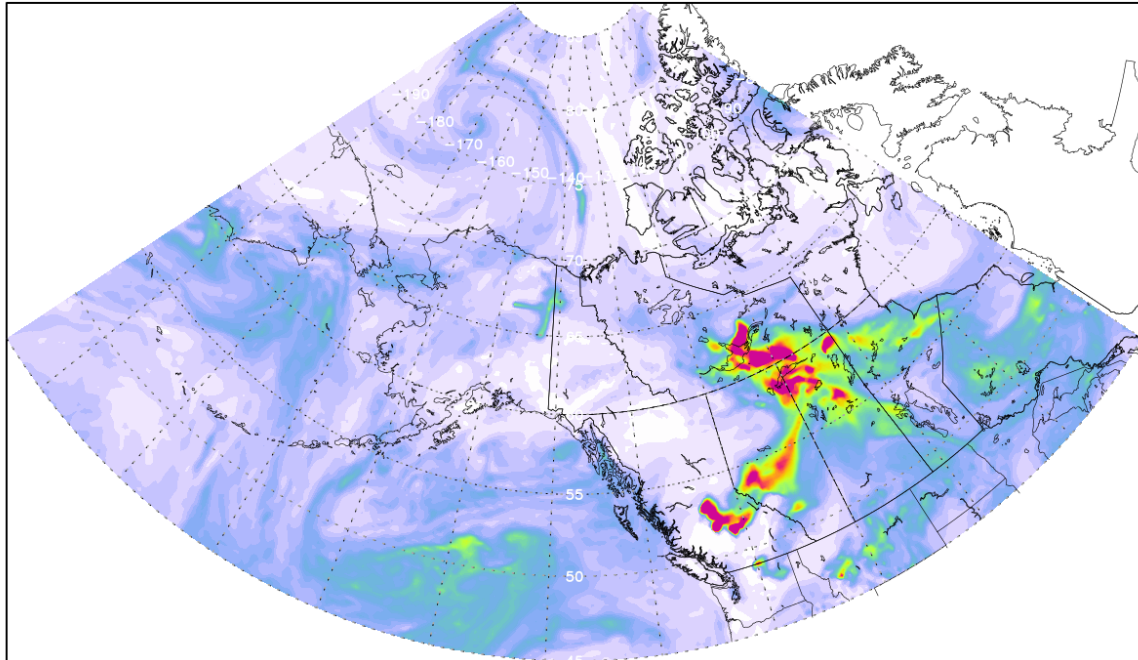
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Initial time 28 JUL. 00z
Valid time 29 JUL. 21z



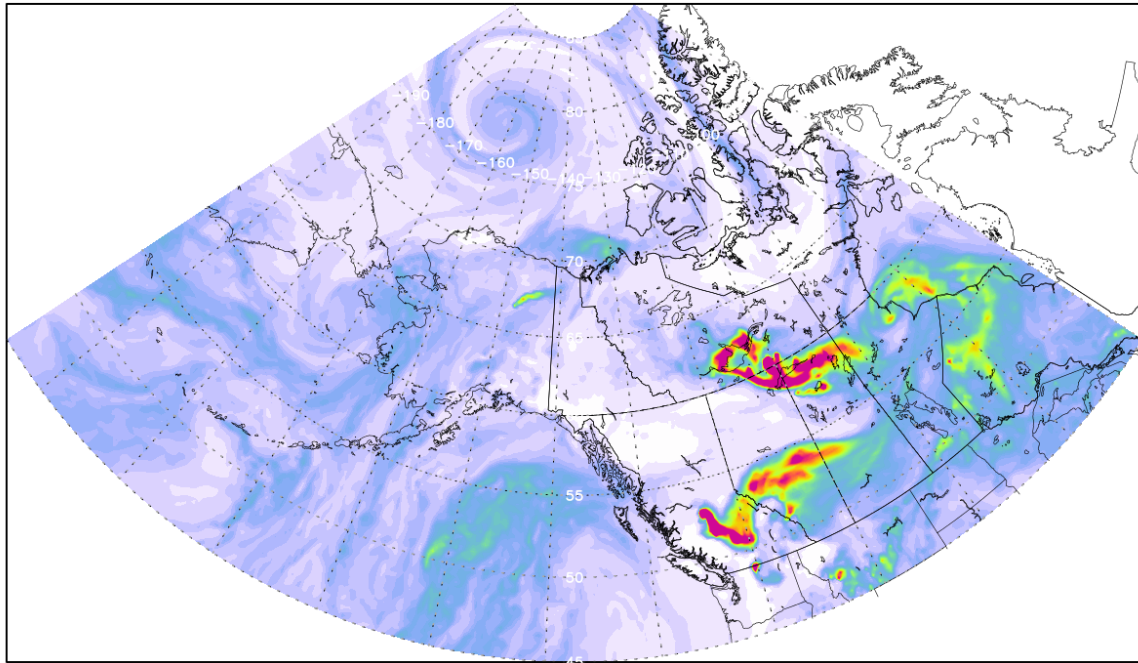
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GEOS Aerosol Optical Depth
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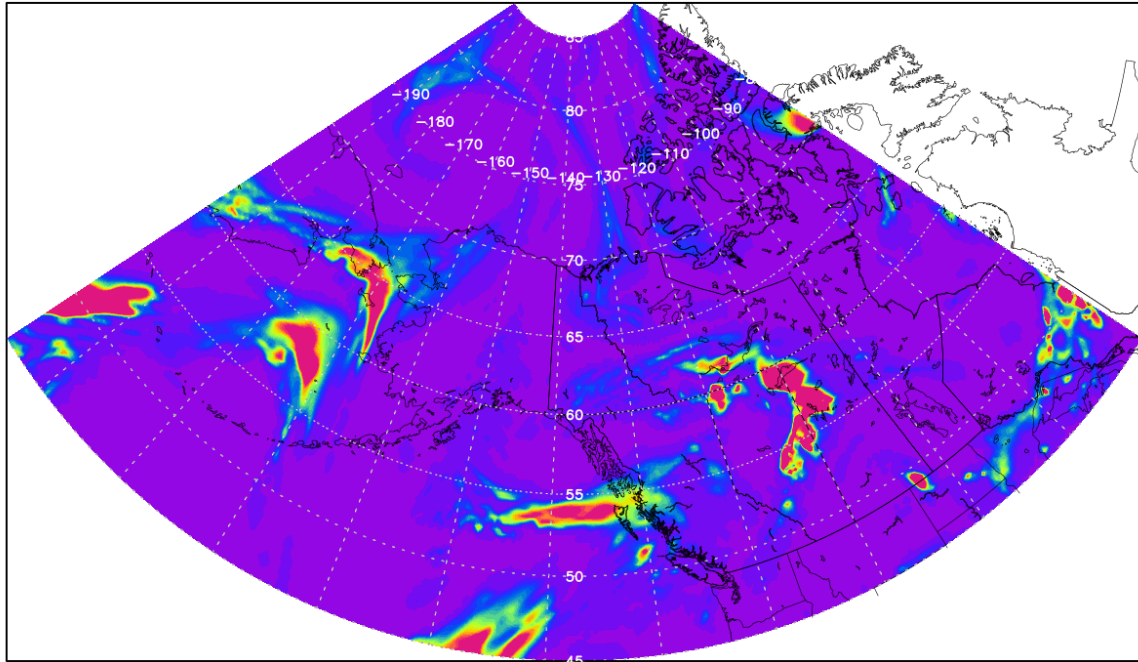
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GEOS Aerosol Optical Depth
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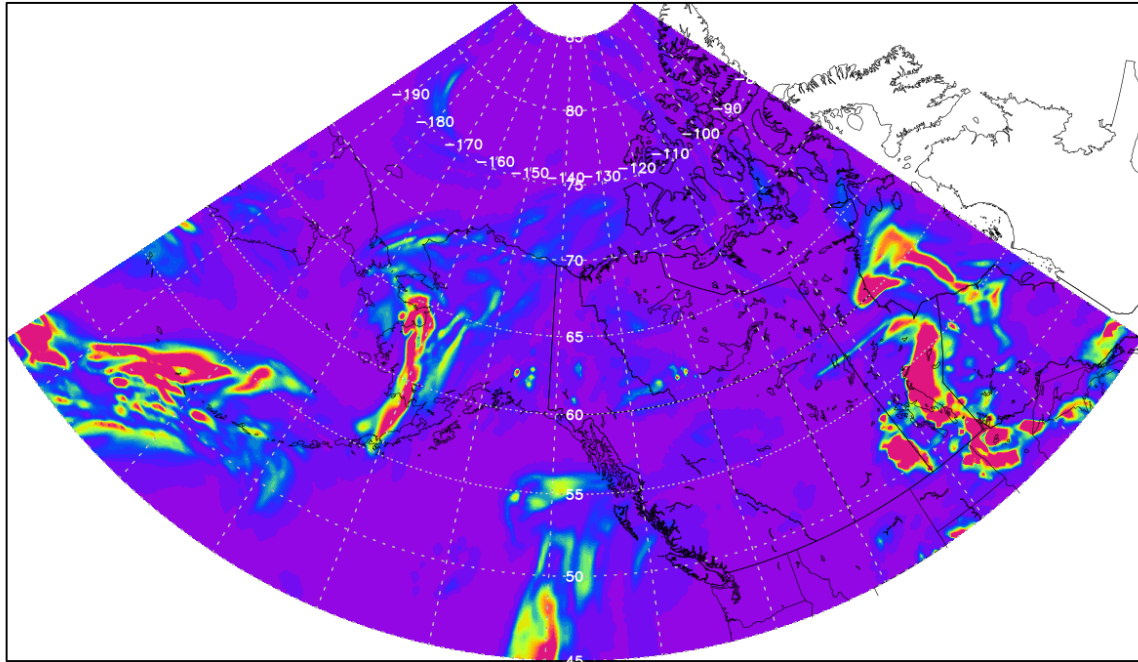
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GEOS High Cloud Optical Depth
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Valid time 30 JUL. 18z



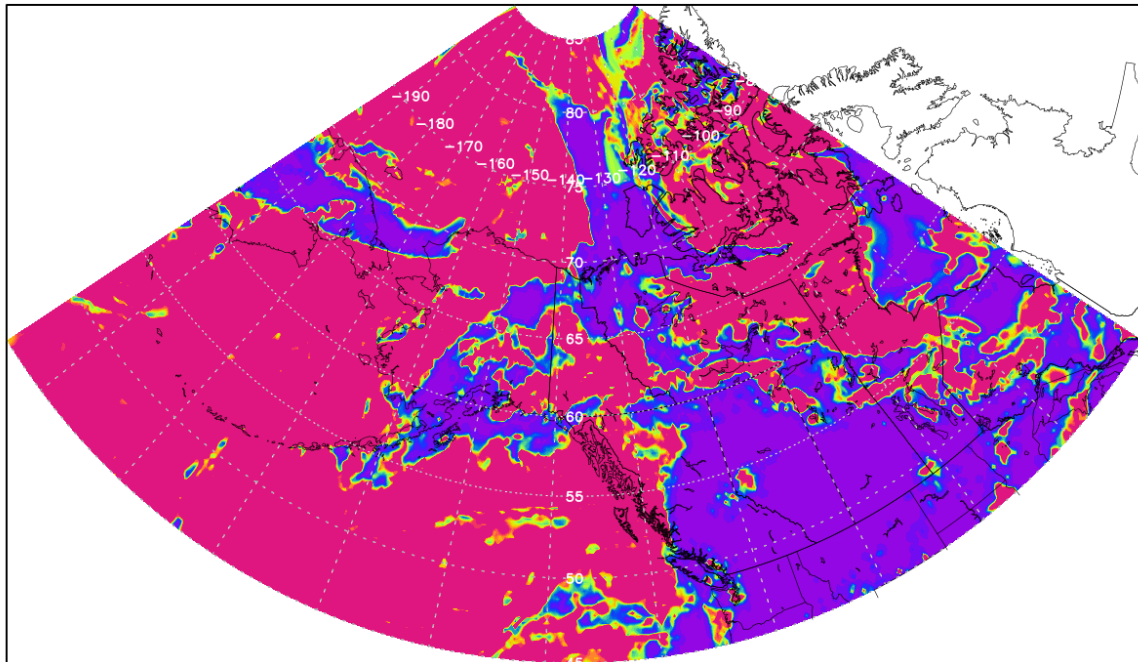
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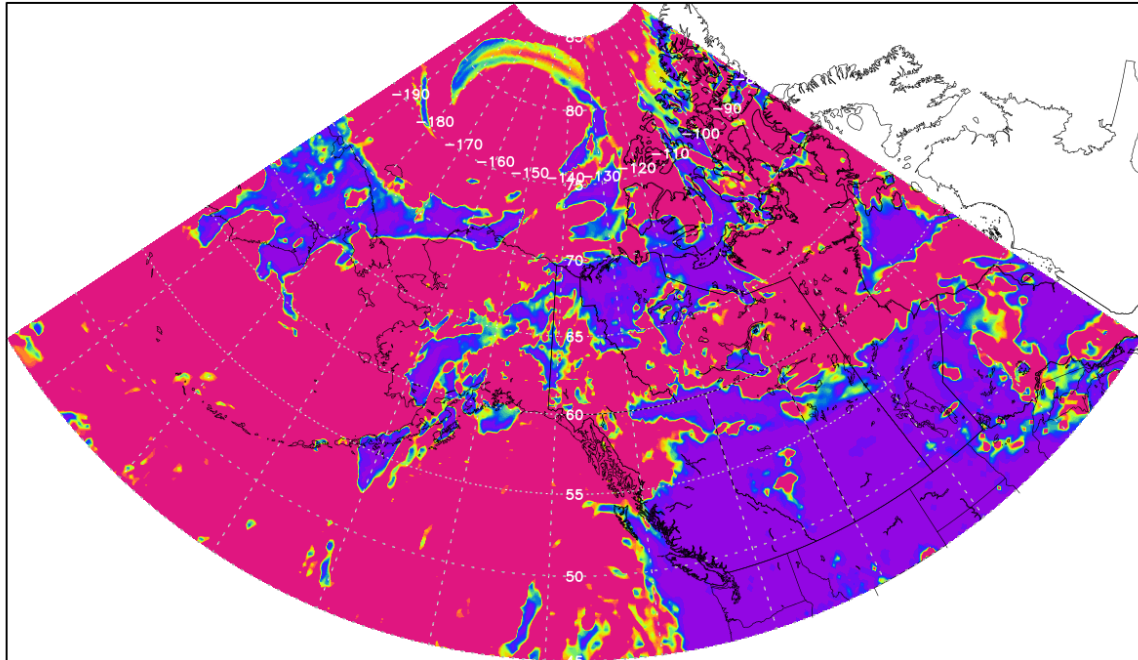
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GEOS Low Cloud Optical Depth
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Valid time 30 JUL. 18z



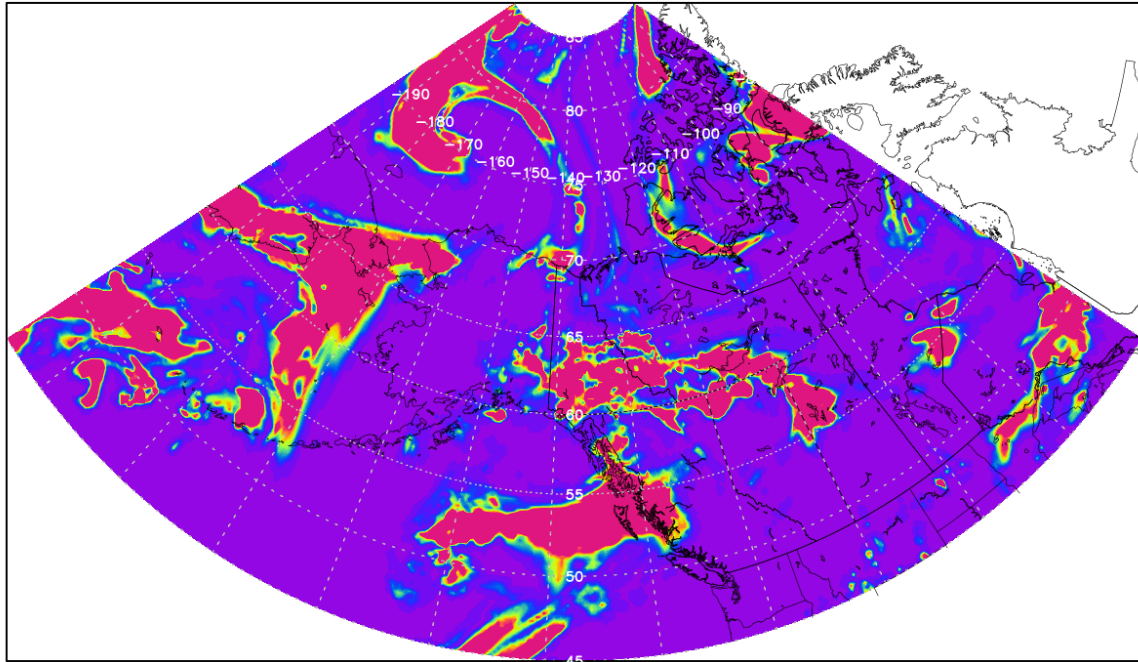
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GEOS Low Cloud Optical Depth
Initial time 28 JUL. 00z
Valid time 31 JUL. 18z



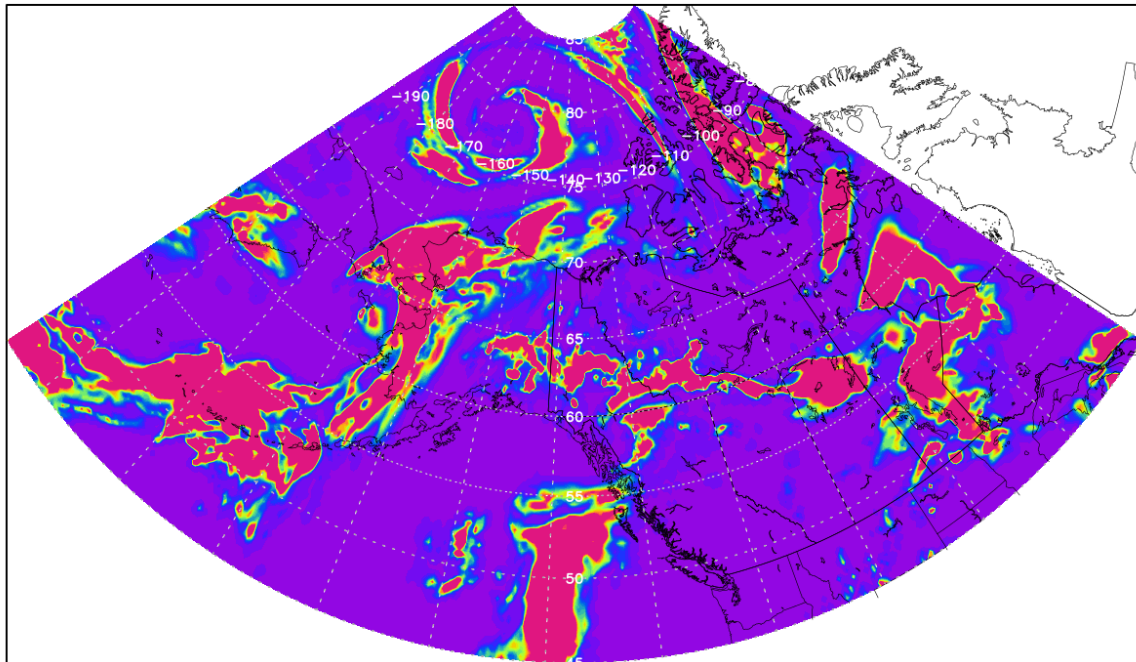
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GEOS Mid Cloud Optical Depth
Initial time 28 JUL. 00z
Valid time 30 JUL. 18z



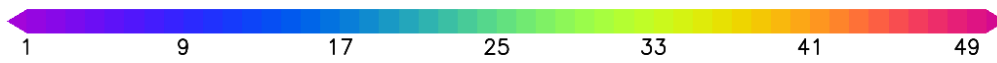
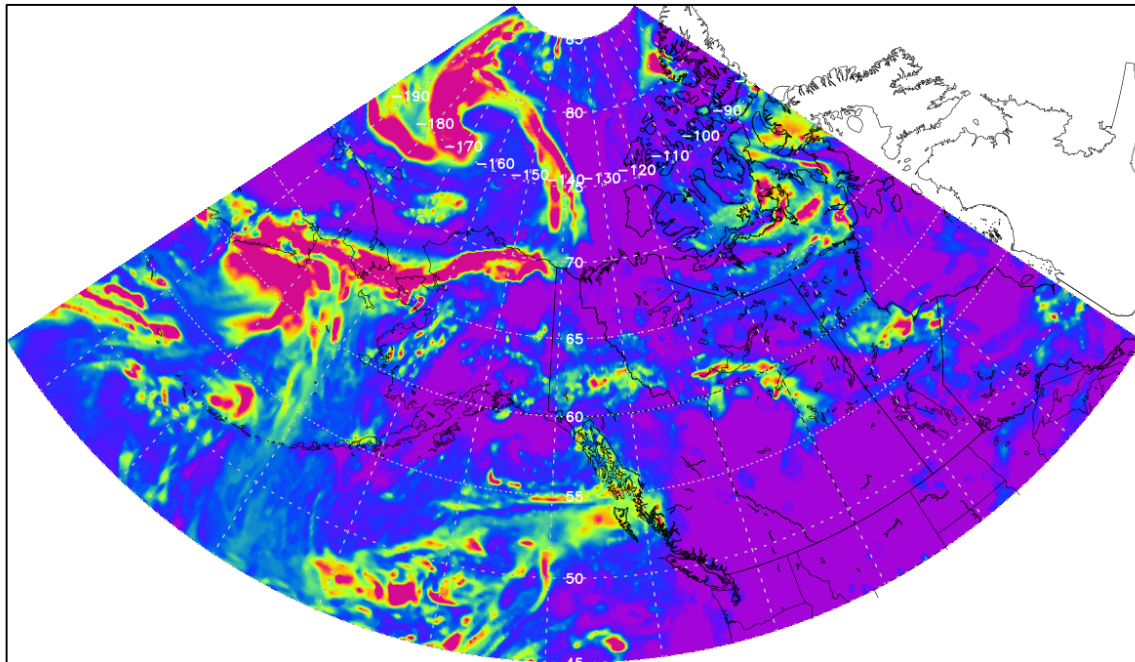
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GEOS Mid Cloud Optical Depth
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ABOVE_Total_Cloud_IT_00z28JUL_VT_18z30JUL.png

GEOS Total Cloud Optical Depth
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