

ABOVE Regional Weather Briefing

Based on the GMAO GEOS meteorology and aerosol forecast fields
Model Initialized 00z 03 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 04 August through 2359z 04 August

Large values of aerosol optical thickness will be found over southern BC, eastern AB, and most of SK. Areas along the Great Slave Lake and points south will also be affected by large values of aerosol optical thickness, due to a fire near Fort Smith. Another fire in the vicinity of Fort McPherson will bring smoke/haze to points east of it and over the Great Bear Lake. Precipitation continues over western and interior AK through this day, associated with a low pressure system moving along the coast and an occluded front over Nunavut. Additional precipitation moves over northern YKT and NWT. Additional precipitation will develop over AB through this period. Sporadic clearing might be possible over south-eastern AK on this day, with areas east of Anchorage mostly cloud-free. Clearing could also be possible over a small area in the northern most points of AK in the afternoon. The vicinity of Whitehorse could also see clear conditions in the morning, with the low cloud boundary approaching the area in the afternoon. Areas between the Great Bear Lake, Fort Simpson, and Fort Liard could have some clear spots in the morning, becoming cloudier as the frontal system moves south-east. Cloud-free conditions continue over most of the BC area, with sporadic clouds increasing over north-eastern BC in the afternoon.

Day-2 Outlook

Valid 1500z 05 August through 2359z 05 August

The mission areas over AK will continue to be mostly free of smoke/haze through this period. Large values of aerosol optical thickness are predicted to affect the vicinity of Fort McPherson and points north, and areas between the Great Bear Lake and the Great Slave Lake. Southern BC continues to be covered in smoke and haze. A fire in the vicinity of Fort Smith will continue to bring smoke/haze to areas south of the Great Slave Lake and northern AB. The SK region could see high values of aerosol optical thickness as well. An improvement in the weather conditions over interior and eastern AK is seen through this forecast, while heavy precipitation continues over the western and northern coast. Conditions over southern NWT deteriorate as a

frontal system continues to move south-east over this area. Heavy precipitation, associated with this same frontal system, will move to northern AB and north-eastern BC in the afternoon. The SK region could see some precipitation developing through this forecast. The mission targets over south-eastern and interior AK will mostly be clear through this period. The PAFA vicinity and points south, and some points along the Yukon Flats could be possible areas to fly. A very small window for flying with some sporadic clouds over northern Bethel and the Seward Peninsula could be possible early in the morning. Conditions over southern YKT will be mostly clear in the morning. Areas between Inuvik, Norman Wells, and the Great Bear Lake will become clear through this period. The BC region continues to be mostly cloud-free, with an increase in clouds over northern BC in the afternoon. Mission targets over AB and SK will be overcast.

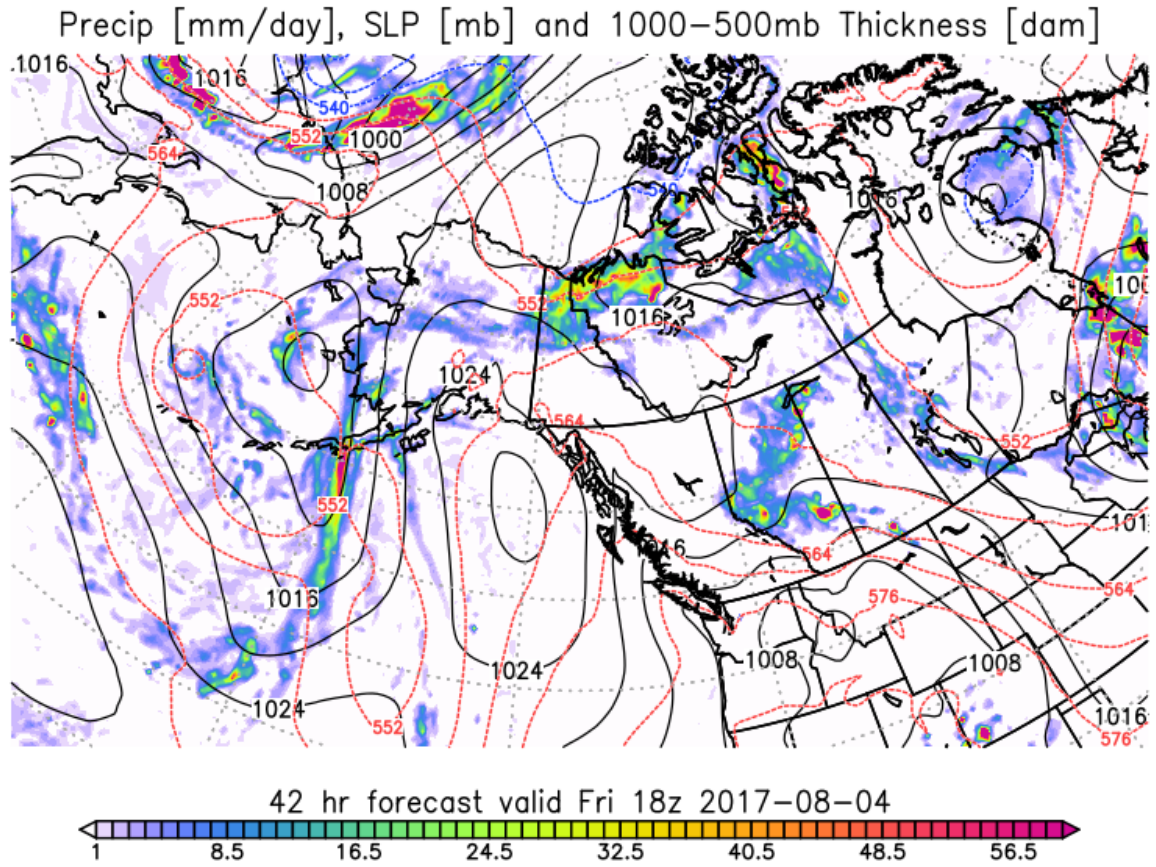
Day-3 Outlook

Valid 1500z 06 August through 2359z 06 August

The largest values of aerosol optical thickness could be found over southern BC, central AB, and northern SK. The vicinity of Fort Smith would also be affected by smoke/haze through this period. A fire near Fort McPherson will affect areas north of the Great Bear Lake. Precipitation over western and northern AK is reduced in this forecast period. Areas over south-western NWT, central AB, and most of SK will be affected by heavy precipitation associated with a frontal system moving south-east. Cloud-free targets over most of AK could be possible through most of this day, with an abundance of clouds along the western and northern coast. Other possible targets could be found over most of the YKT and western NWT, while most of AB and SK continues to be overcast.

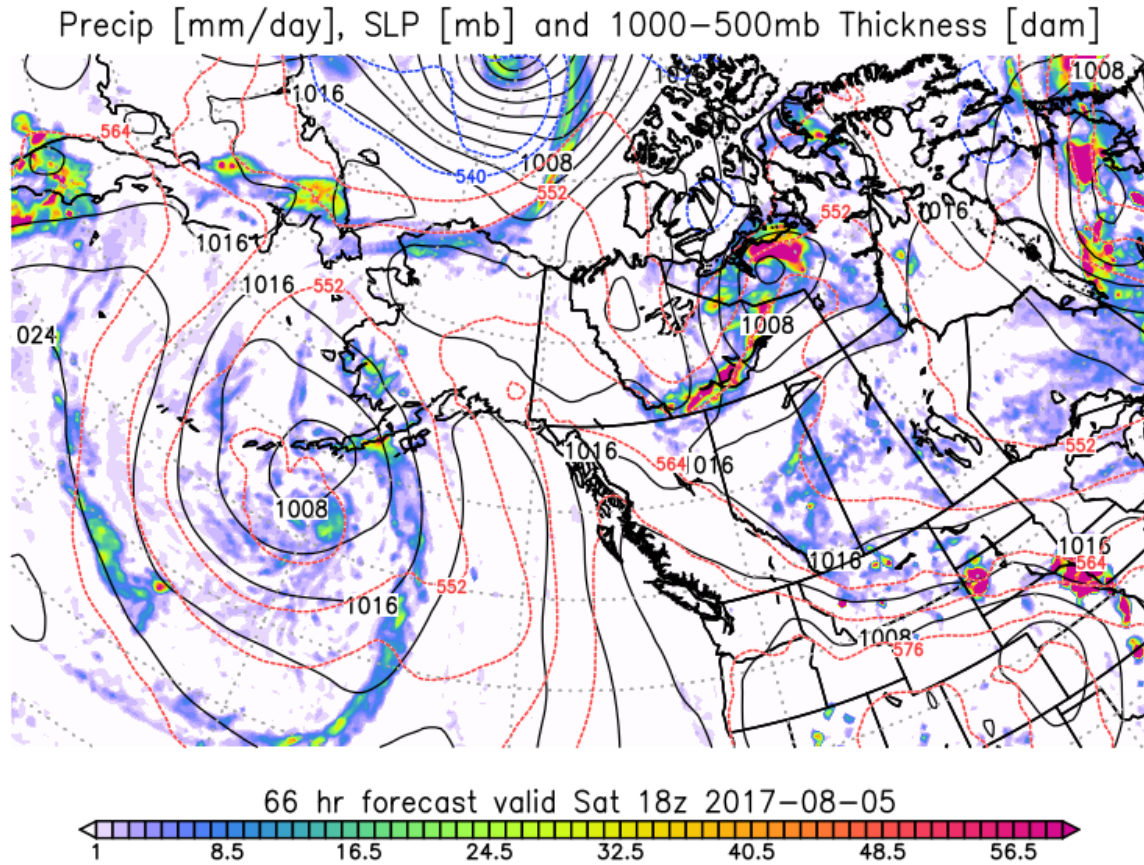
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NASA/GMAO – GEOS-5 Forecast Initialized on 00z 2017-08-03



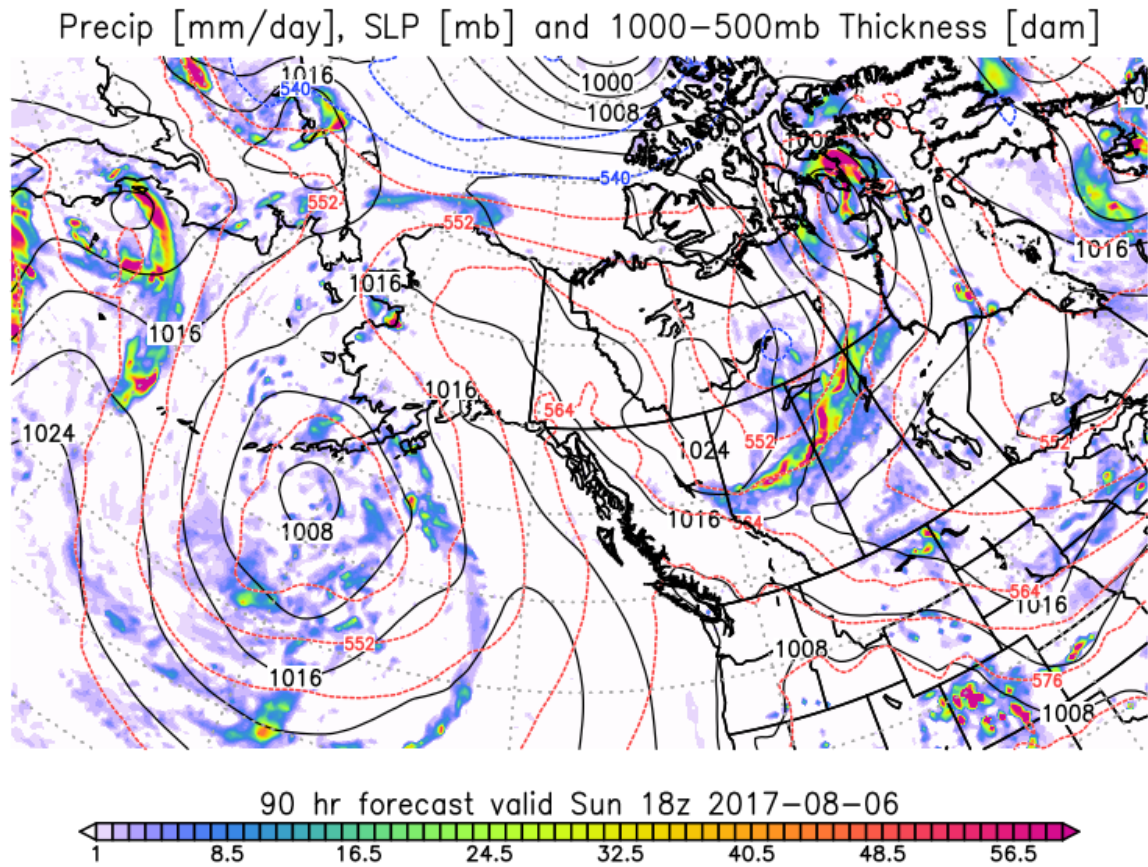
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NASA/GMAO – GEOS-5 Forecast Initialized on 00z 2017-08-03



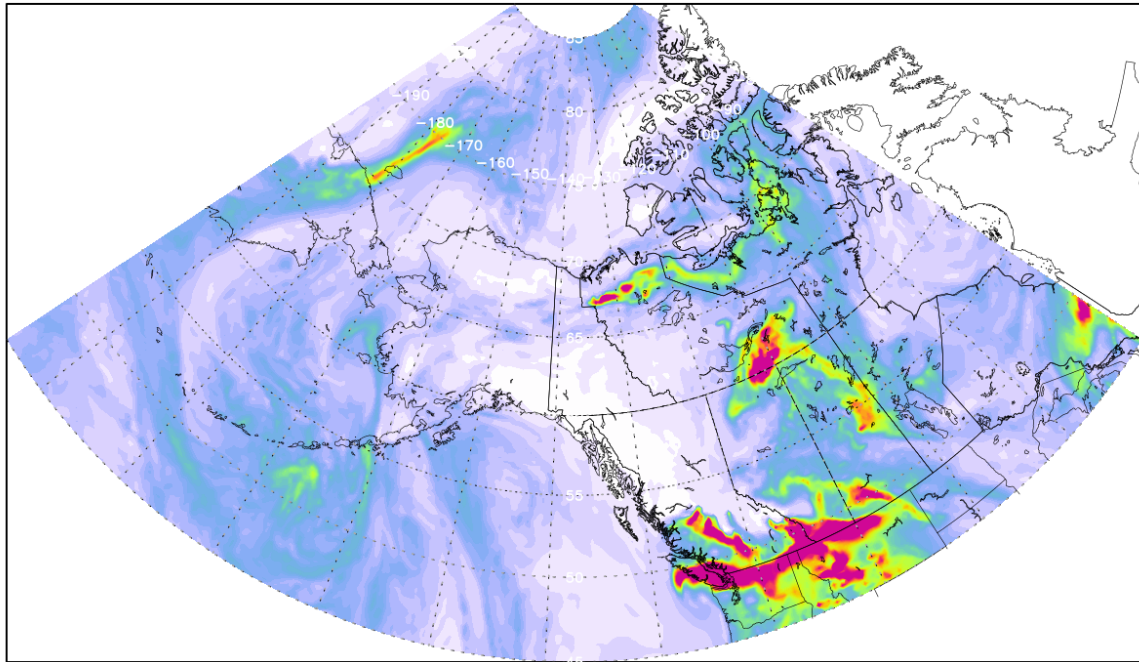
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NASA/GMAO - GEOS-5 Forecast Initialized on 00z 2017-08-03



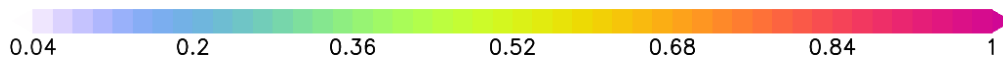
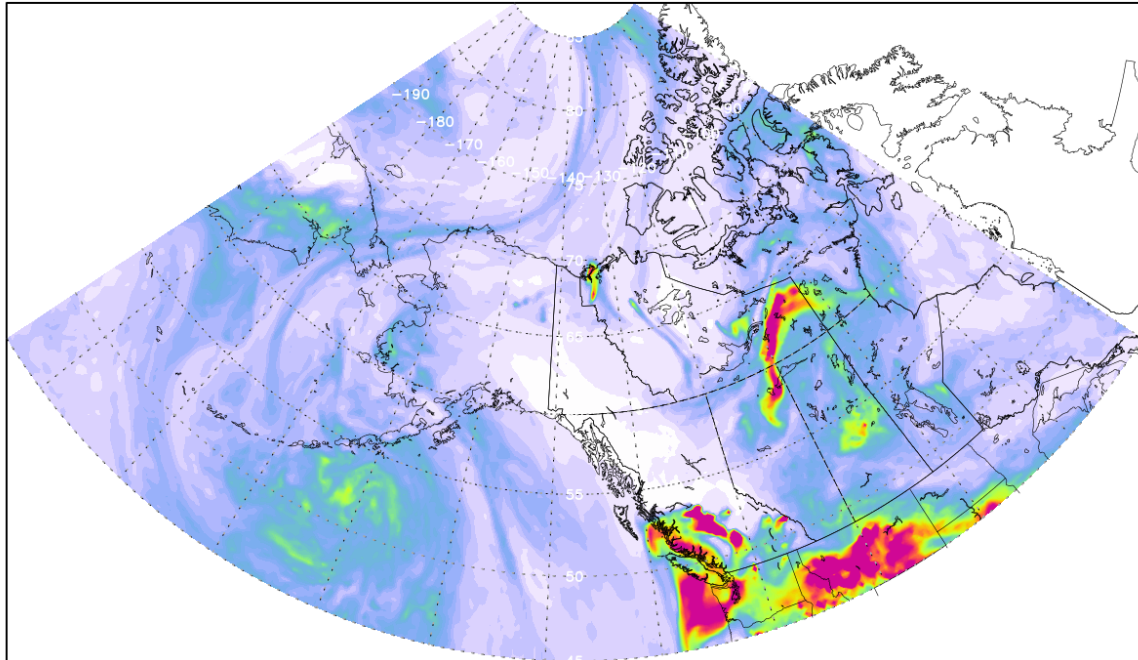
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GEOS Aerosol Optical Depth
Initial time 03 AUG. 00z
Valid time 04 AUG. 21z



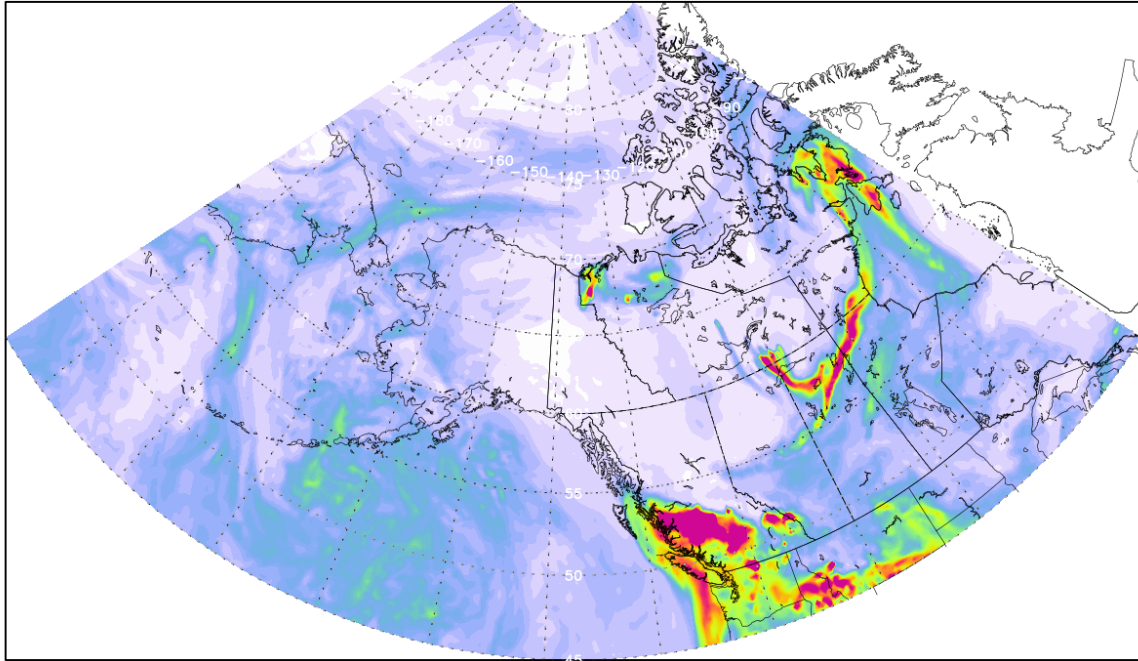
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GEOS Aerosol Optical Depth
Initial time 03 AUG. 00z
Valid time 05 AUG. 21z



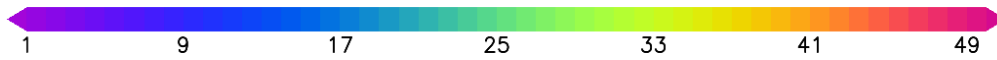
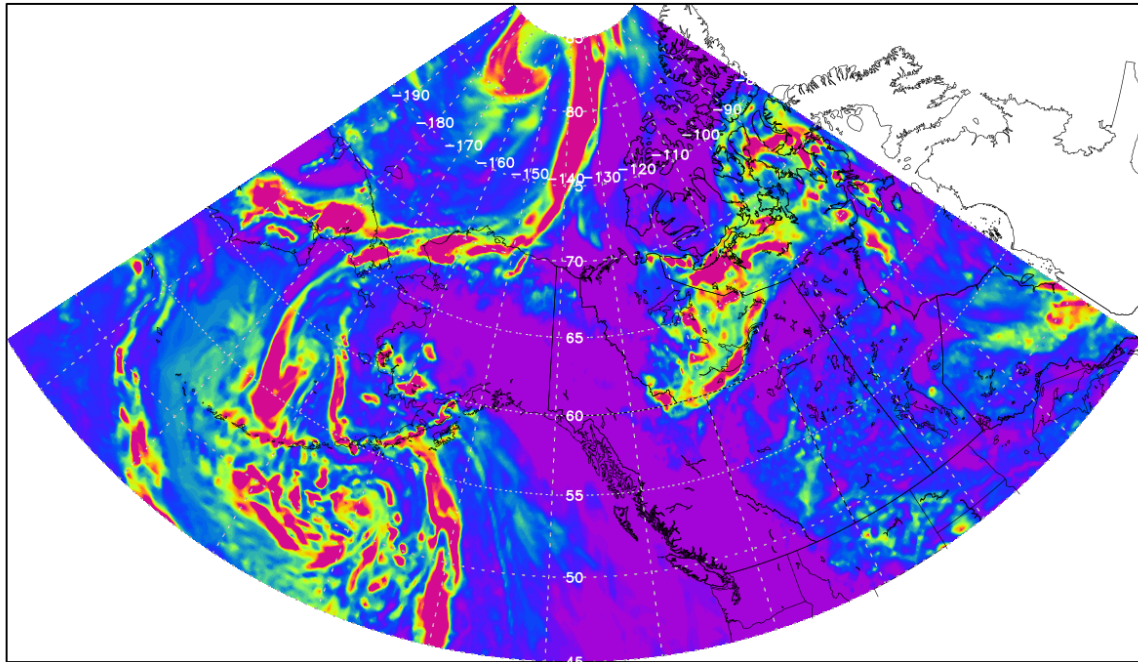
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GEOS Aerosol Optical Depth
Initial time 03 AUG. 00z
Valid time 06 AUG. 21z



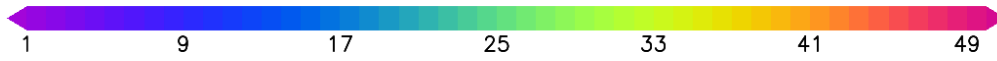
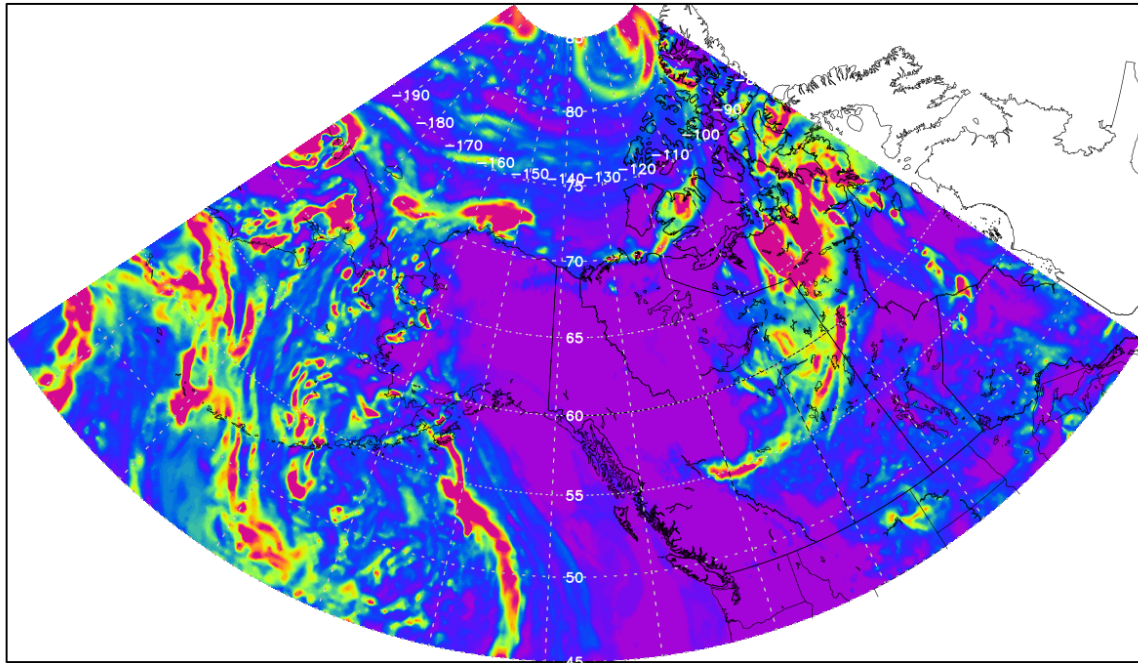
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GEOS Total Cloud Optical Depth
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Valid time 05 AUG. 18z



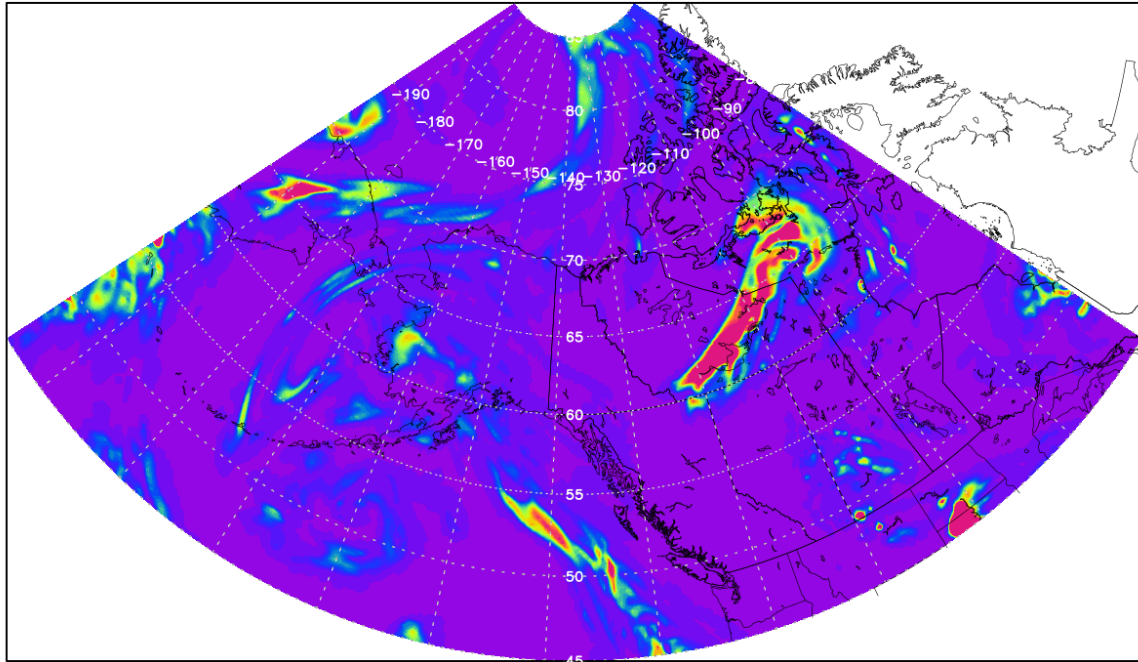
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GEOS Total Cloud Optical Depth
Initial time 03 AUG. 00z
Valid time 06 AUG. 18z



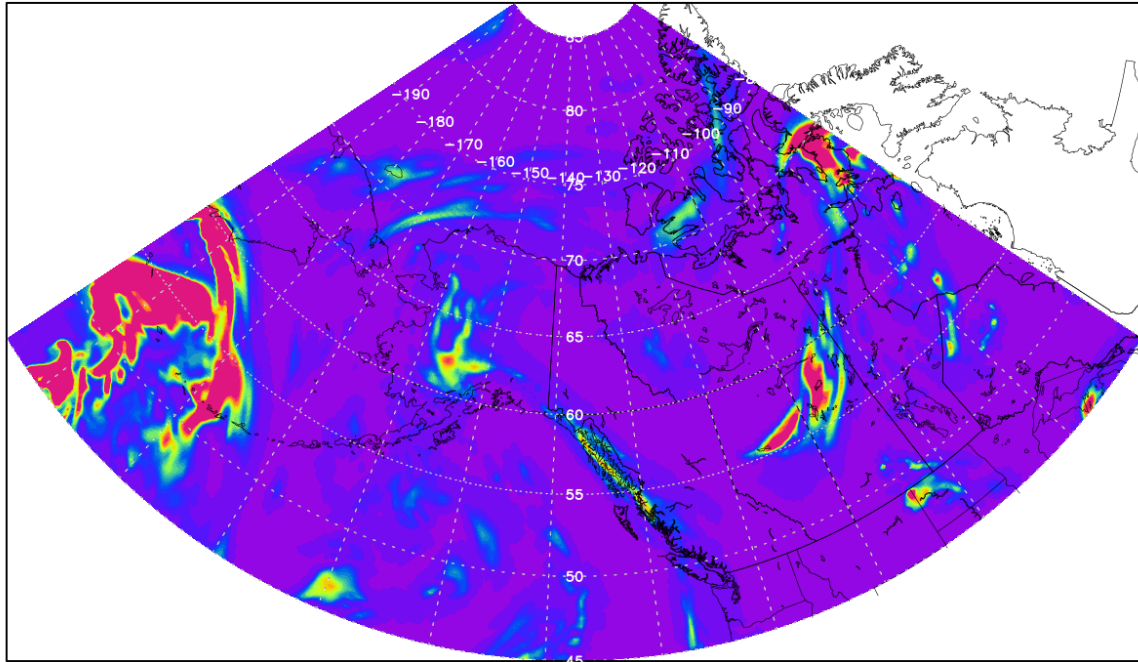
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GEOS High Cloud Optical Depth
Initial time 03 AUG. 00z
Valid time 05 AUG. 18z



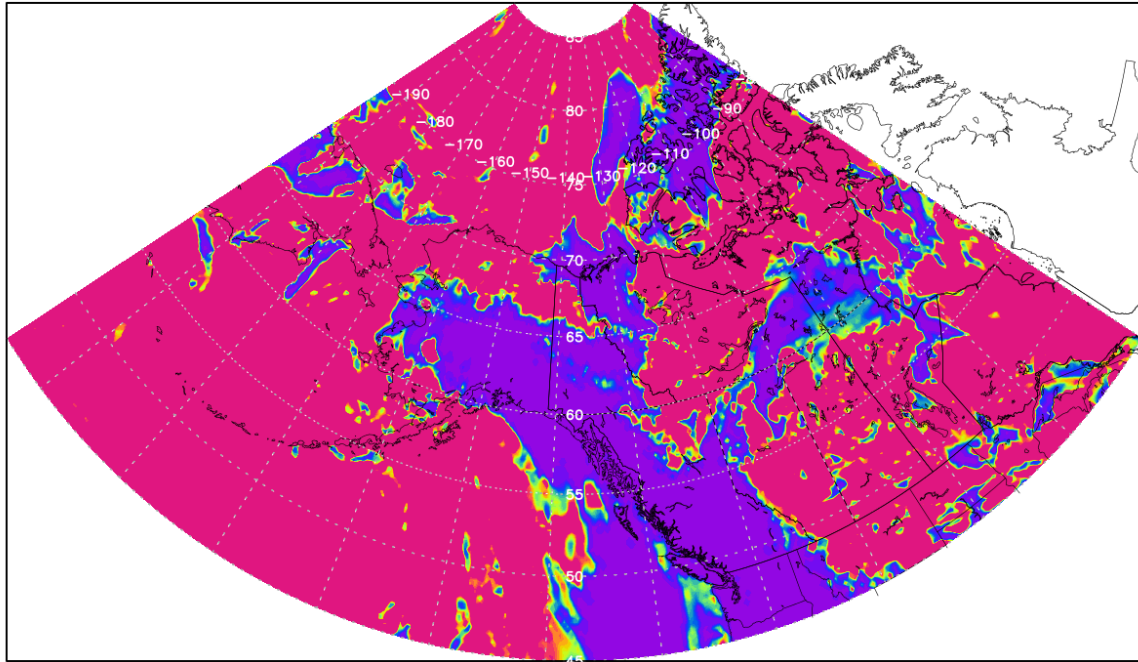
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GEOS High Cloud Optical Depth
Initial time 03 AUG. 00z
Valid time 06 AUG. 18z



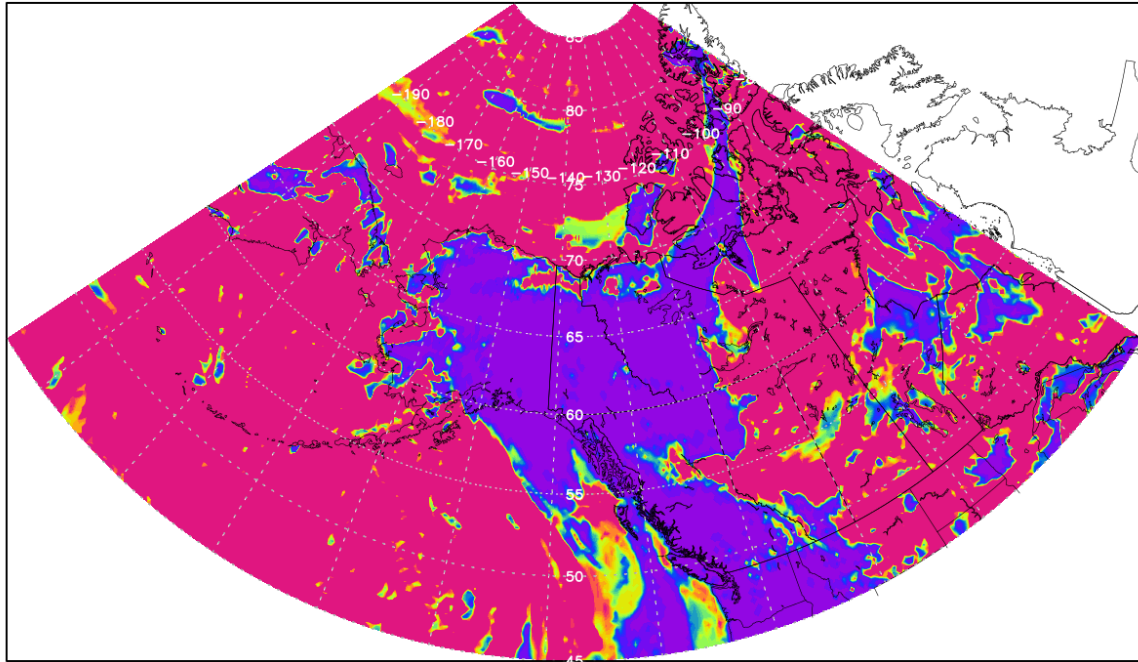
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GEOS Low Cloud Optical Depth
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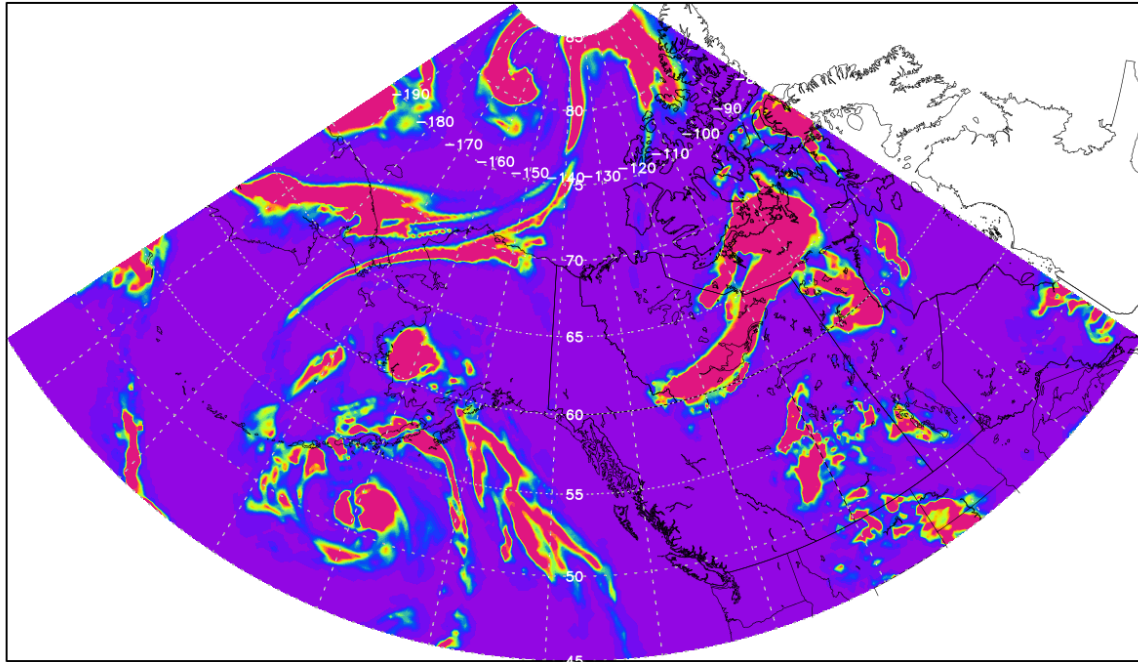
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GEOS Low Cloud Optical Depth
Initial time 03 AUG. 00z
Valid time 06 AUG. 18z



ABOVE_Mid_Cloud_Optical_Depth_IT_00z03AUG_VT_18z05AUG.png

GEOS Mid Cloud Optical Depth
Initial time 03 AUG. 00z
Valid time 05 AUG. 18z



ABOVE_Mid_Cloud_Optical_Depth_IT_00z03AUG_VT_18z06AUG.png

GEOS Mid Cloud Optical Depth
Initial time 03 AUG. 00z
Valid time 06 AUG. 18z

