

ABOVE Regional Weather Briefing

Based on the GMAO GEOS meteorology and aerosol forecast fields
Model Initialized 00z 26 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 27 July through 2359z 27 July

The mission areas over AK will continue to be mostly free of smoke/haze through this period, with the exception of near Kokrines where a small fire will produce smoke and haziness. Large values of aerosol optical thickness are seen in a small area over southern BC, extending through central and north-eastern AB. A fire near Fort Smith will bring smoke northward affecting most of the western NWT, including areas between the Great Bear Lake and the Great Slave Lake. A low pressure system, moving through southern NWT will bring heavy precipitation from southern YKT through southern NWT through this day. Some precipitation associated with this low pressure system will affect the northern most portions of BC, AB, and SK after noon. Clear targets over AK could be found from PASC to the Seward Peninsula through most of this forecast, with the low cloud boundary approaching the Seward Peninsula by late afternoon. The northern Bethel/Norton Sound coast regions will see some clear conditions in the morning. The Yukon Delta could have some sporadic clouds in the morning, becoming cloudy in the afternoon; the best opportunity to flight this area is around 18z. The PAFA region will be affected by clouds through most of the day. However, clear cloud condition will be possible along some areas of the Yukon Flats. Over the northern YKT and NWT, cloud clear weather conditions could be seen through the day. Additional targets can be possible along most of AB and SK.

Day-2 Outlook

Valid 1500z 28 July through 2359z 28 July

The largest values of aerosol optical thickness continue to affect a small area in southern BC, expanding to southern AB. The vicinity of Kokrines, AK will also continue to be affected by a small fire. Areas between the Great Bear Lake and the Great Slave Lake with large aerosol optical thickness will begin to become clear through the day. Smaller values of aerosol optical thickness are forecasted to contaminate most of SK. A frontal system, making its way south-east, brings heavy precipitation along western AK through the day. The low pressure system over NWT begins to move east, improving weather conditions over central NWT by the

afternoon. Flights over the Yukon Flats, and between PASC and PABR could be possible through most of the day. Another opportunity for clear sky conditions is over northern YKT and NWT. The southern portions of AB and SK will see clear cloud conditions through the day, with some sporadic clearing over the northern portions in the morning.

Day-3 Outlook**Valid 1500z 29 July through 2359z 29 July**

Large values of aerosol optical thickness will be found over south-central BC, central AB, and west of Saskatoon. Near Fort Smith, a small fire continues to burn, affecting its vicinity and the most northern portions of SK. Smoke/hazy conditions continue in the vicinity of Kokrines, AK. Precipitation associated with a frontal system deteriorates conditions over western and interior AK through this period. Heavy precipitation begins to affect western BC during late afternoon, as a low pressure system over the Pacific Ocean moves eastward. Unfortunately, most of AK will be under cloudy conditions through this forecast. Areas in northern YKT will see some clear sky conditions in the morning. A mixture of low, middle, and high clouds will affect the NWT. A narrow area, west of the Great Slave Lake, shows clear conditions until mid afternoon, while the Great Slave Lake vicinity will have clear-cloud conditions also in the afternoon. Areas over AB will have sporadic clear conditions through this day. Similar conditions can be seen over southern SK through this forecast.

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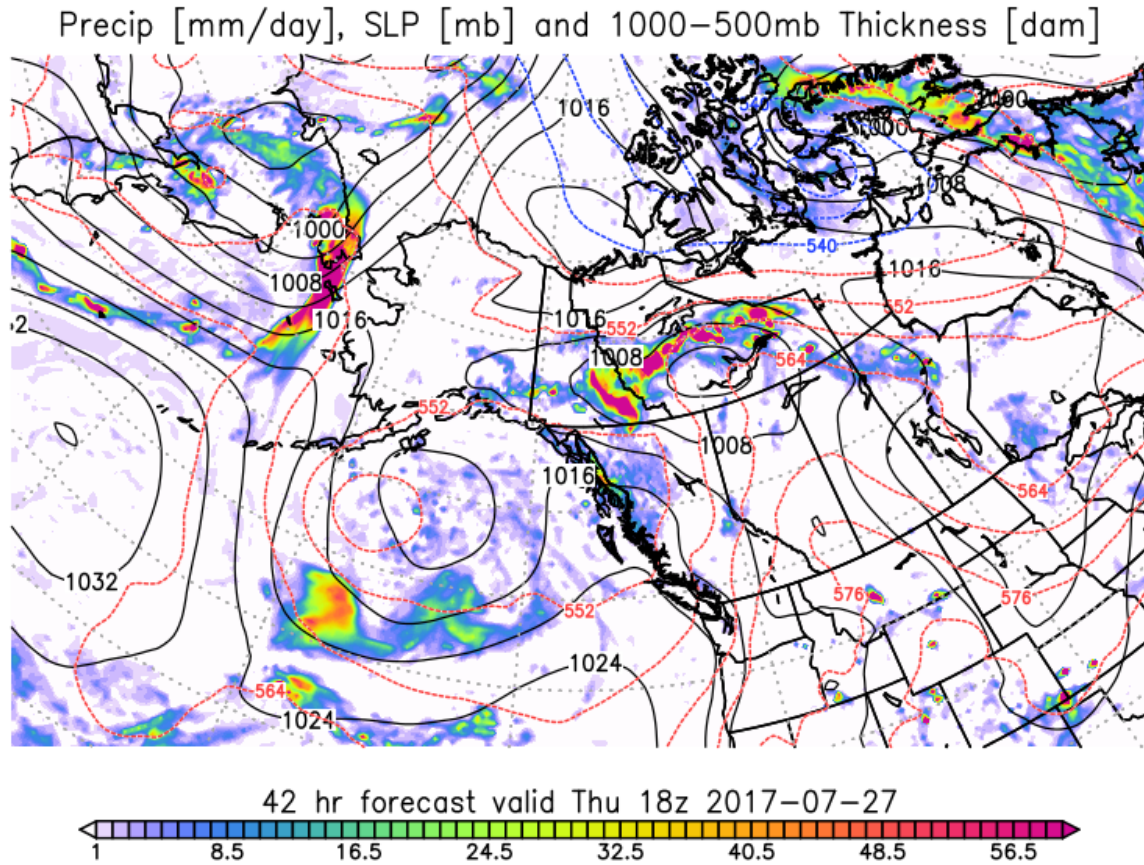
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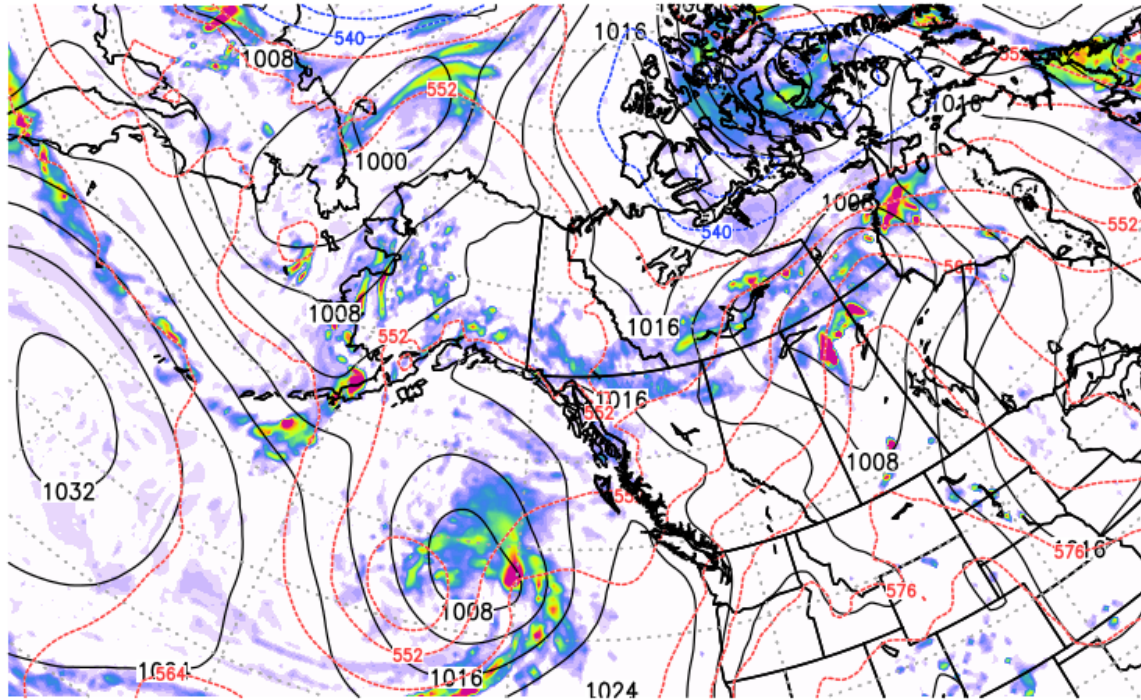
NASA/GMAO – GEOS-5 Forecast Initialized on 00z 2017-07-26



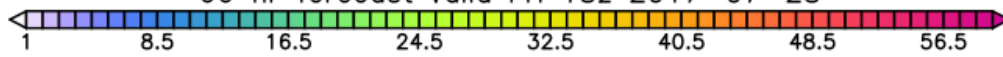
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NASA/GMAO – GEOS-5 Forecast Initialized on 00z 2017-07-26

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

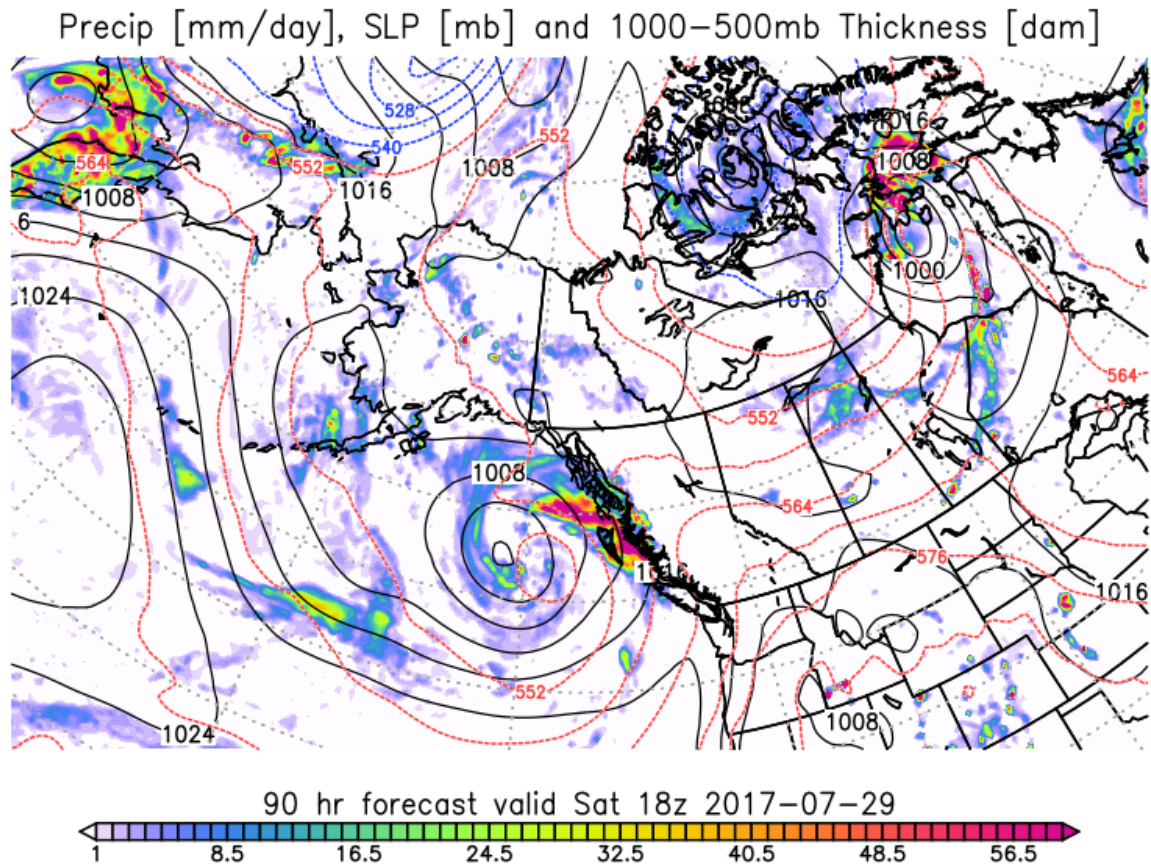


66 hr forecast valid Fri 18z 2017-07-28



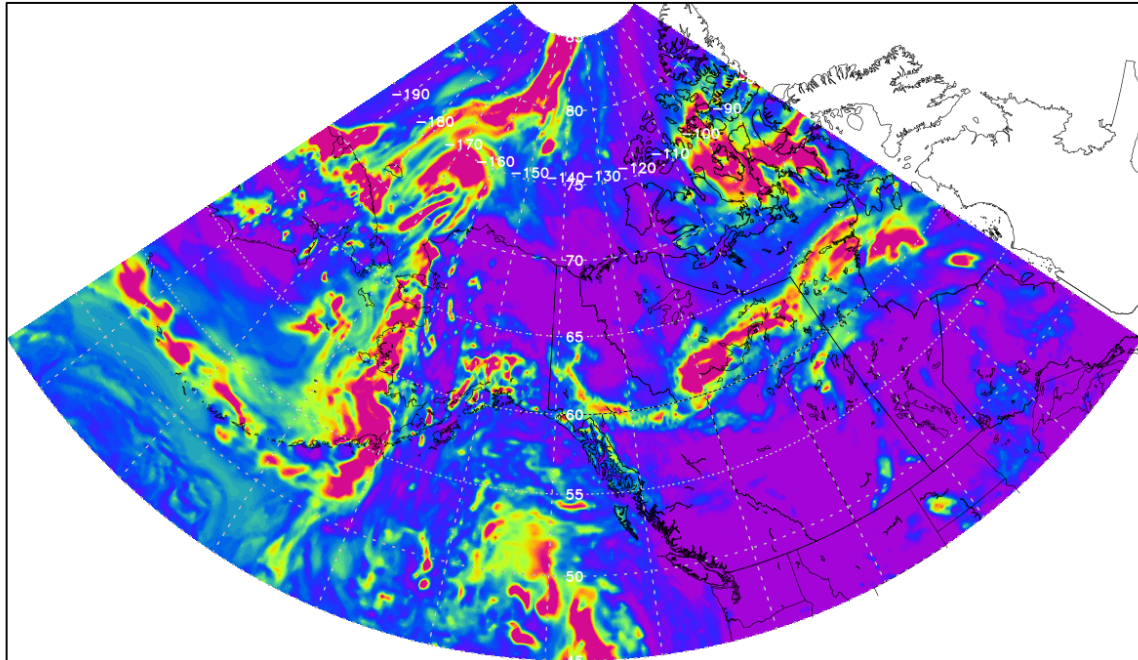
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NASA/GMAO - GEOS-5 Forecast Initialized on 00z 2017-07-26



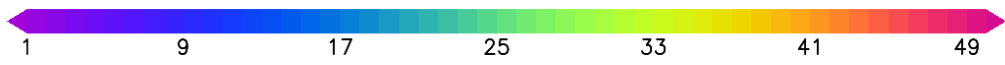
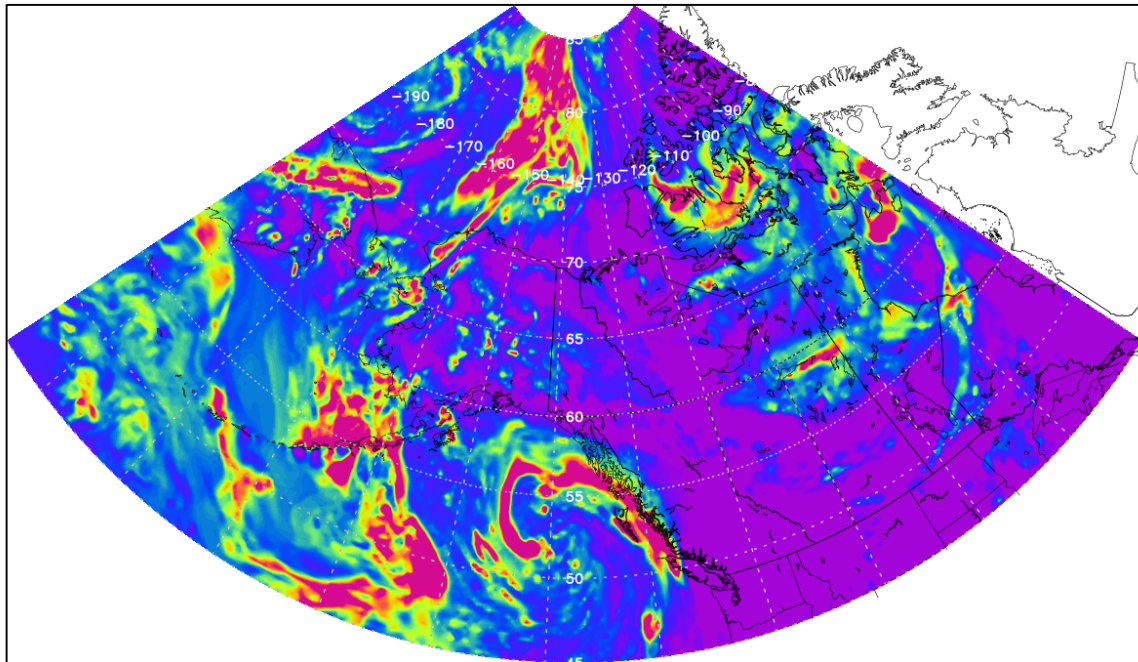
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GEOS Total Cloud Optical Depth
Initial time 26 JUL. 00z
Valid time 28 JUL. 18z



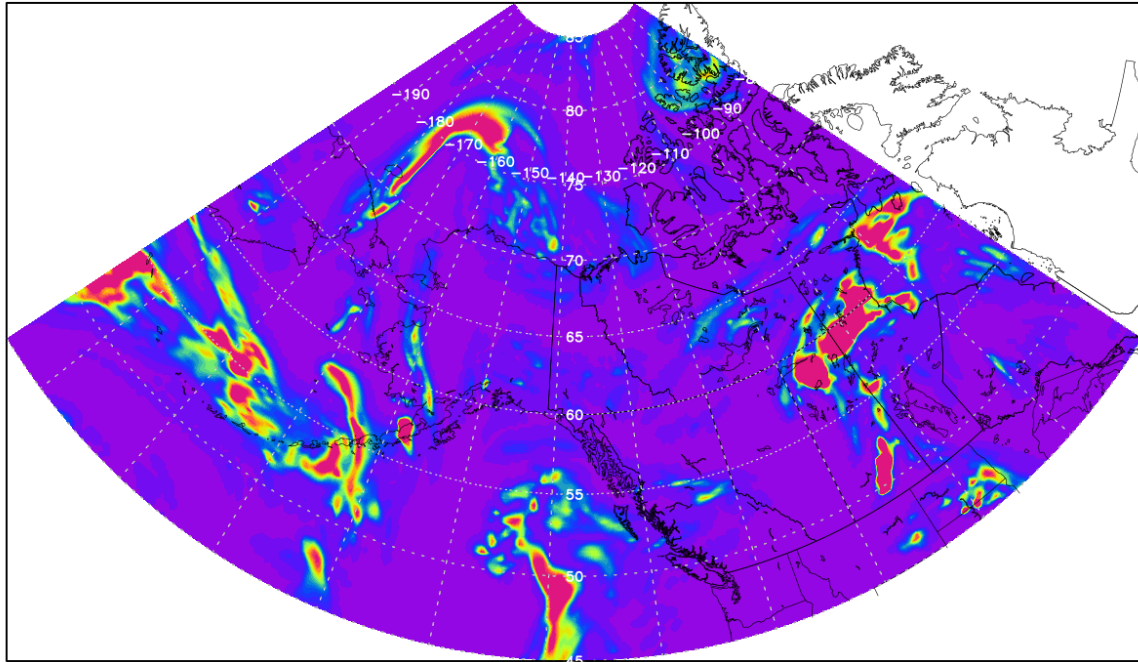
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GEOS Total Cloud Optical Depth
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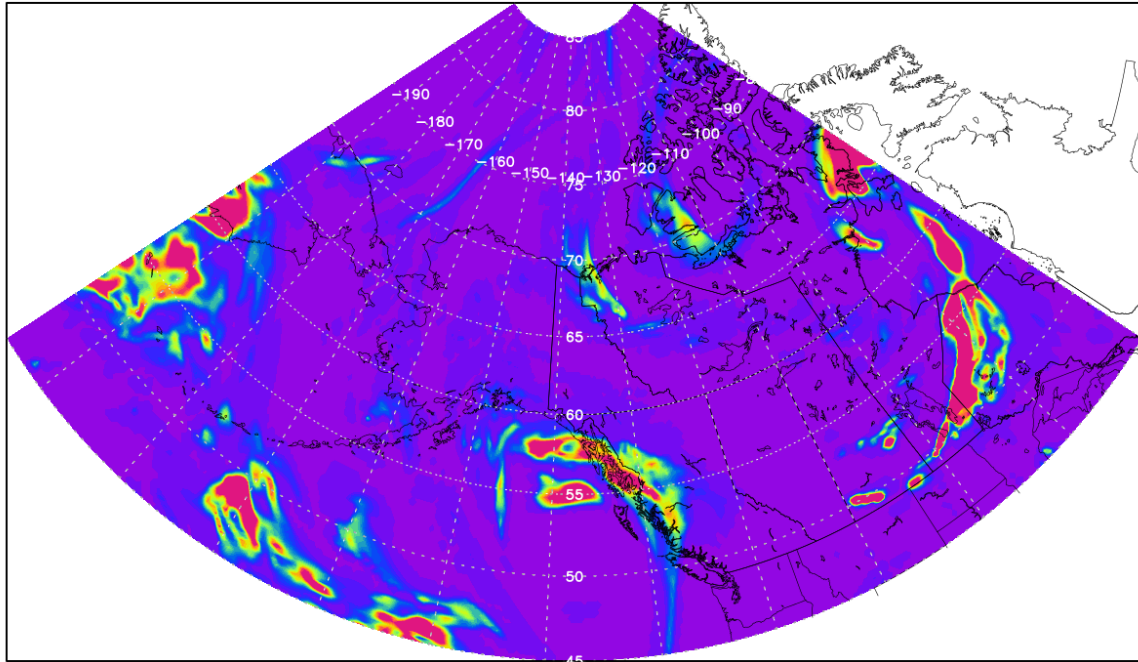
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GEOS High Cloud Optical Depth
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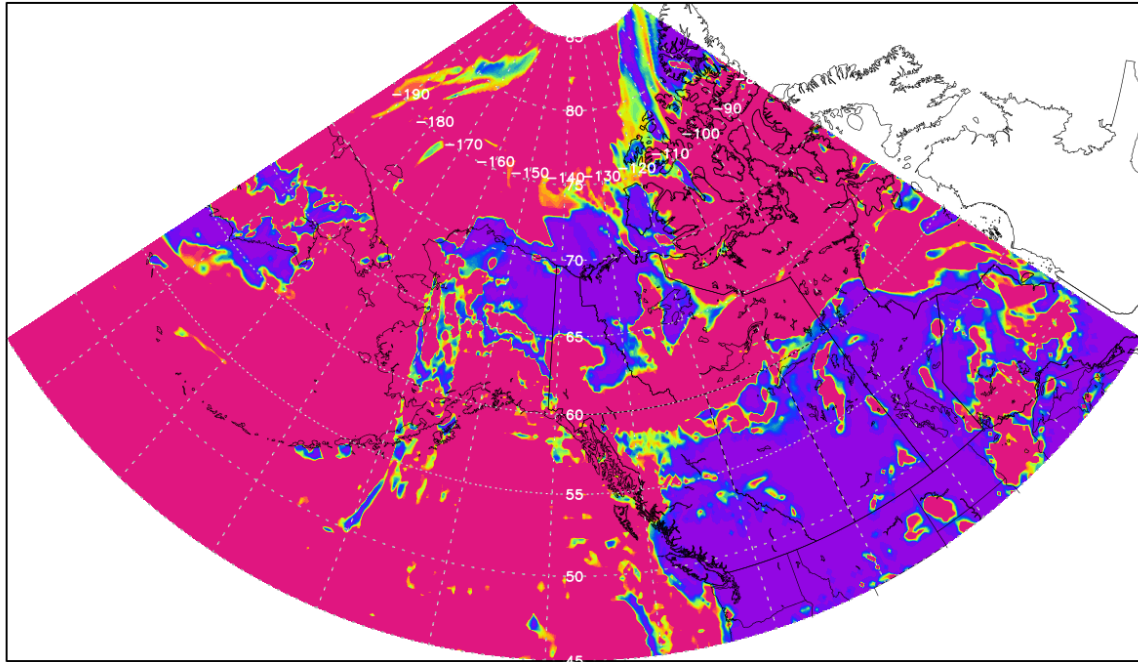
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GEOS High Cloud Optical Depth
Initial time 26 JUL. 00z
Valid time 29 JUL. 18z



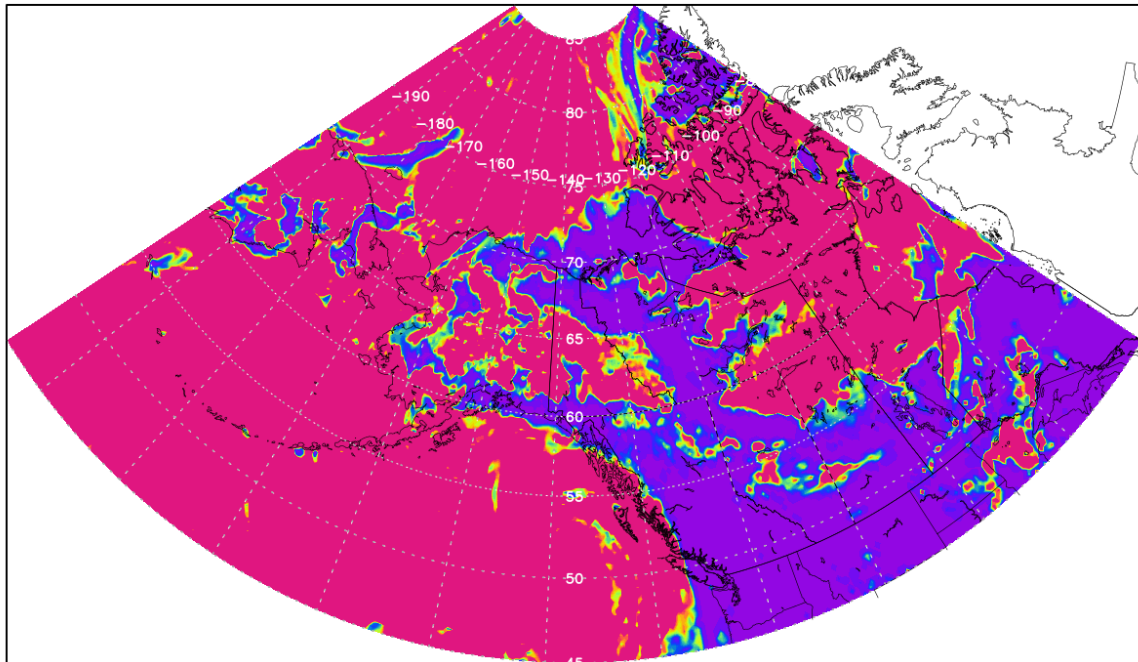
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GEOS Low Cloud Optical Depth
Initial time 26 JUL. 00z
Valid time 28 JUL. 18z



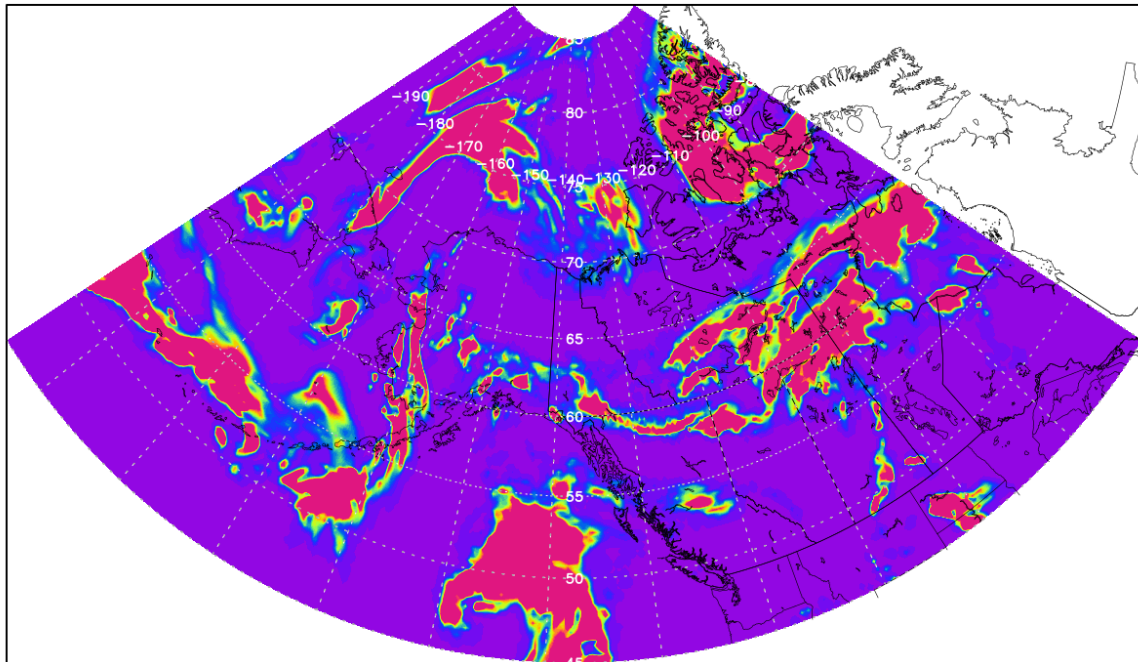
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GEOS Low Cloud Optical Depth
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Valid time 29 JUL. 18z



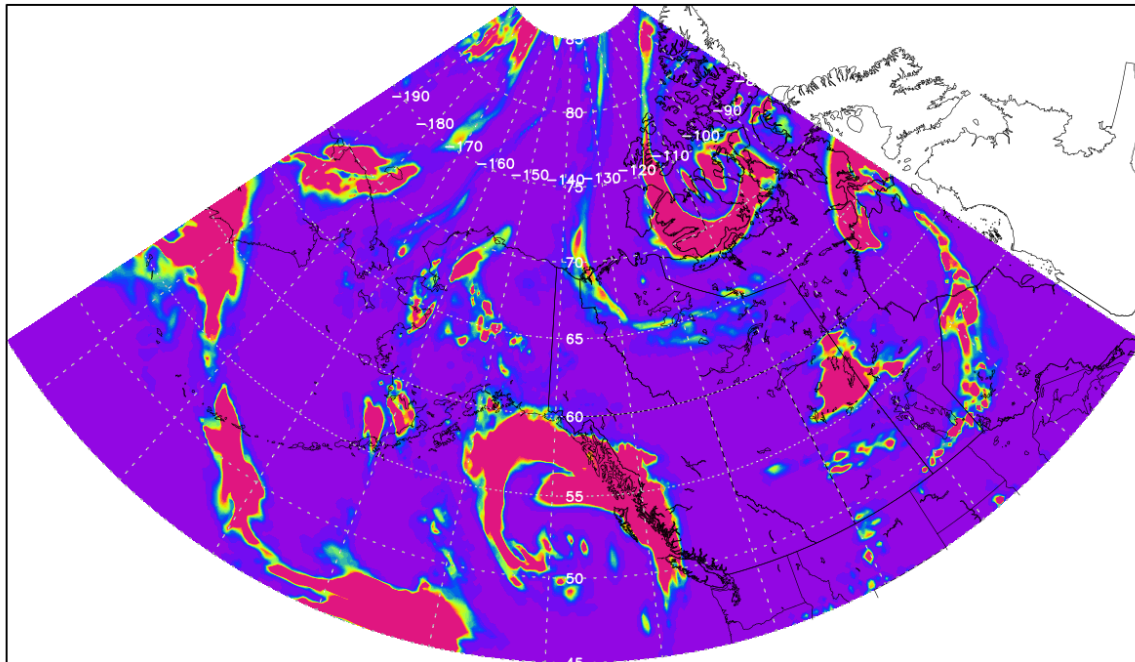
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GEOS Mid Cloud Optical Depth
Initial time 26 JUL. 00z
Valid time 28 JUL. 18z



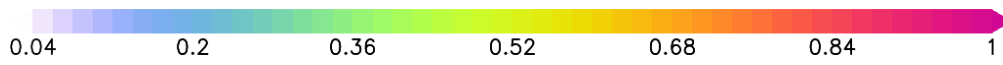
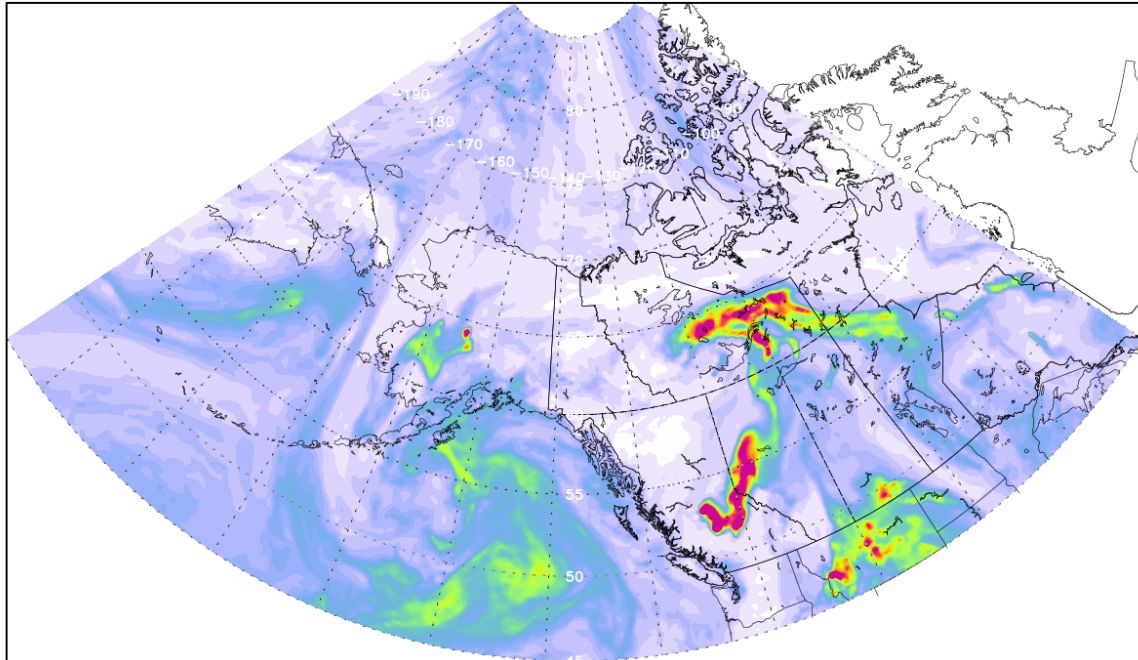
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GEOS Mid Cloud Optical Depth
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Valid time 29 JUL. 18z



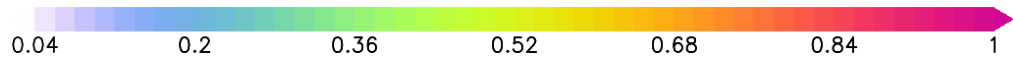
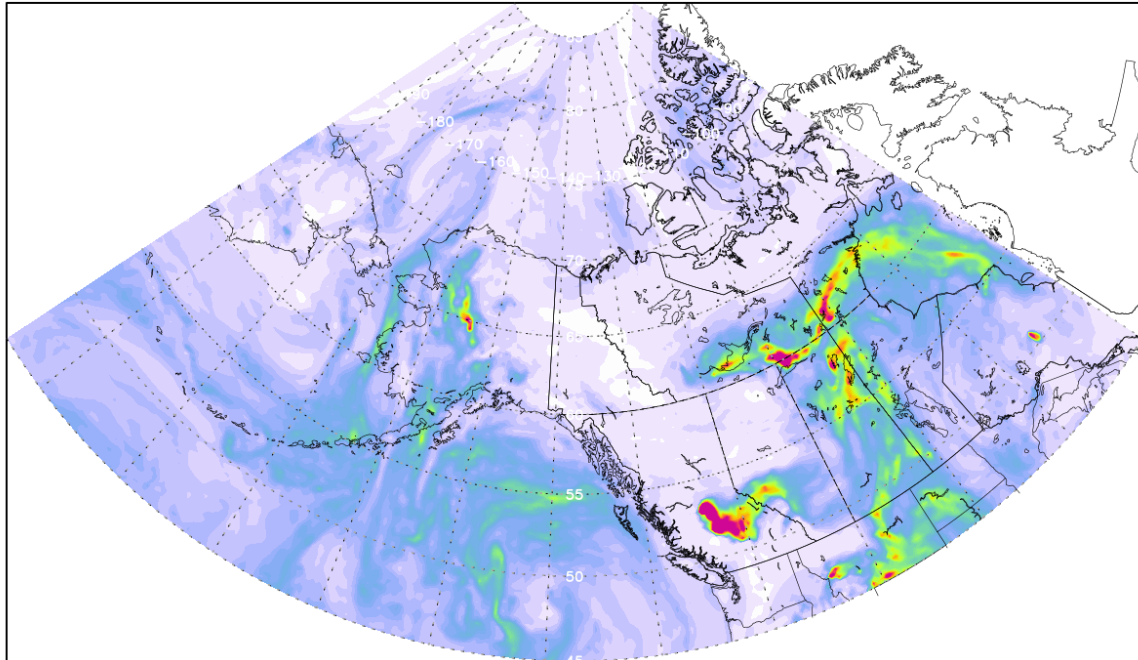
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GEOS Aerosol Optical Depth
Initial time 26 JUL. 00z
Valid time 27 JUL. 21z



ABOVE_Total_AOD_IT_00z26JUL_VT_21z28JUL.png

GEOS Aerosol Optical Depth
Initial time 26 JUL. 00z
Valid time 28 JUL. 21z



ABOVE_Total_AOD_IT_00z26JUL_VT_21z29JUL.png

GEOS Aerosol Optical Depth
Initial time 26 JUL. 00z
Valid time 29 JUL. 21z

