

ABOVE Regional Weather Briefing
Based on the GMAO GEOS meteorology and aerosol forecast fields
Model Initialized 00z 30 June 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*

Day-1 Forecast
Valid 1500z 01 July through 2359z 01 July

A Gulf of Alaska low pressure system will make its way onshore the coast into Alaska and BC overspreading multi-layer clouds and rainfall. The remainder of the Yukon will be under a fairly weak pressure pattern. A stretched out trough/thermal trough continues to be seen draped west to east roughly from northwest Alaska through interior east Alaska...through the central YKT...and then to near the large lakes of the NWT. This feature will be the focal point of diurnally driven convection on Saturday and further enhanced near terrain. The cloud build-ups and convection will be least earlier in the day and more concentrated later in the afternoon. Along the Arctic, high pressure remains with generally fair weather for the North Slope expect for widespread fog along the coast.

On Saturday expect mainly clear skies along the Mackenzie River Valley. The clearest skies will be over the northern part of the river valley picking up more clouds going south towards Norman Wells. Inuvik, Old Crow and west to PASC should be mainly clear...but low clouds and fog continue to blanket the coast of the North Slope. We do not believe that the area surrounding Barrow will have good clear sky opportunities on Saturday with widespread low cloud cover there.

A small area of moderate haze from smoke aerosol will be located at 65N/145W. Generally thin or very thin aerosol optical depths forecast over BC/AB/SK. A small region of interior northeast Alaska (67-68N, 142W-148W) will also see some light smoke haze (in the vicinity of Fort Yukon).

Day-2 Forecast
Valid 1500z 02 July through 2359z 02 July

On Sunday, the trough/thermal trough and associated clouds and thunderstorm will reform a bit farther south than on Saturday. Otherwise, the large scale weather features do not change significantly from the previous day. Expect heating of the day showers and thunderstorms to pop up in the late afternoon between 63-65N and 120-150W. A low pressure system will be found on the Arctic Ocean coast between 120-130W with additional cloud cover for much of the North Slope of Alaska.

An oblong region of mainly clear skies is being shown by the model on Sunday afternoon to be a

couple of degrees north and south along 67N between Yellowknife to the east and Fort Yukon, Alaska to the west. Elsewhere, there will be clear skies in the south of Canada from the US border up to about 52N from MB west to the Pacific Ocean.

Moderate haze from forest fires forecast to be centered 67N and 141-144W. Light haze from smoke for the North Slope (except close to the Canadian border where it's aerosol-free). Very light haze from smoke near the large lakes of the NWT.

Day-3 Outlook

Valid 1500z 03 July through 2359z 03 July

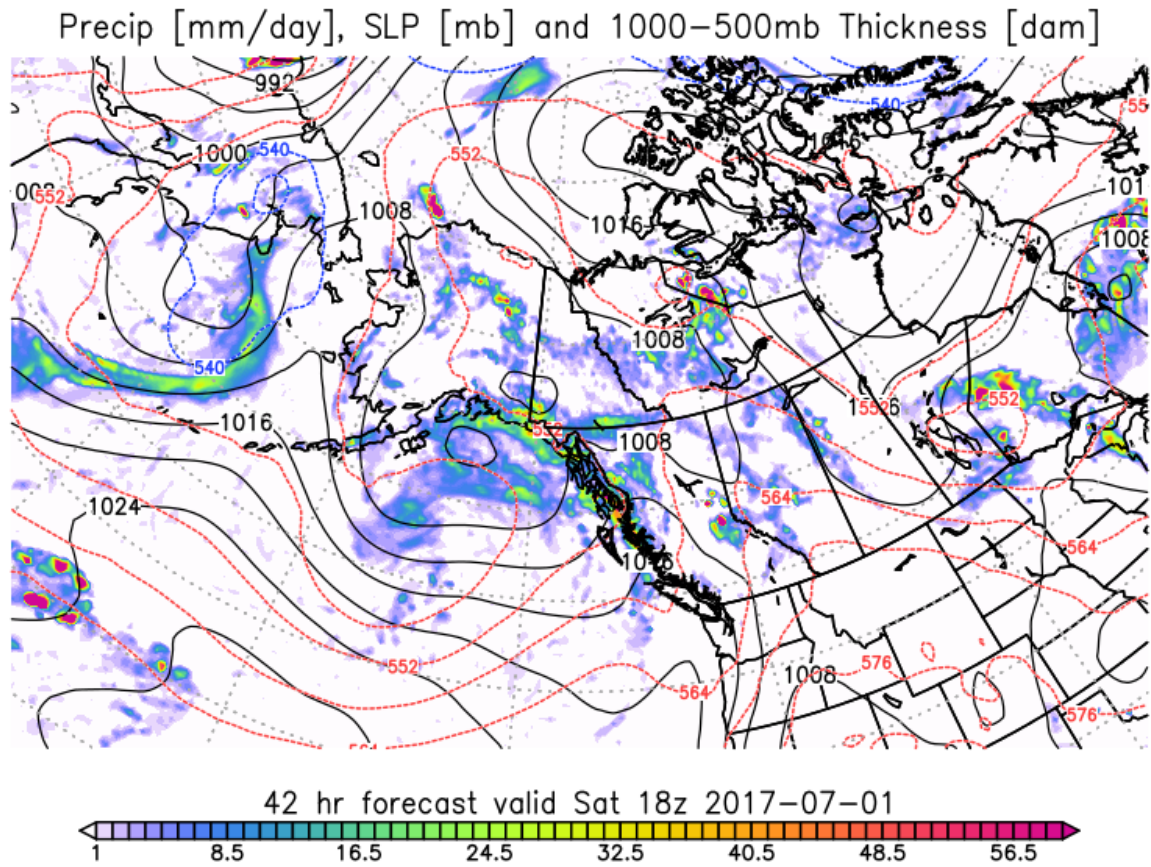
On Monday low pressure is located over the southwest NWT. Broken to overcast cloud layers will be found from southeast Alaska through the southern YKT, and into central NWT. Cloud banks over the Beaufort Sea will encroach upon the northern coast of Alaska adjacent to the Arctic Ocean.

There may be some clear sky opportunities for the northern Mackenzie River Valley on Monday. These clear scenes will likely continue farther to the north (north of about 65N) into the YKT and into interior eastern Alaska. The southern parts of the Prairie Provinces and BC remain mainly clear, as well.

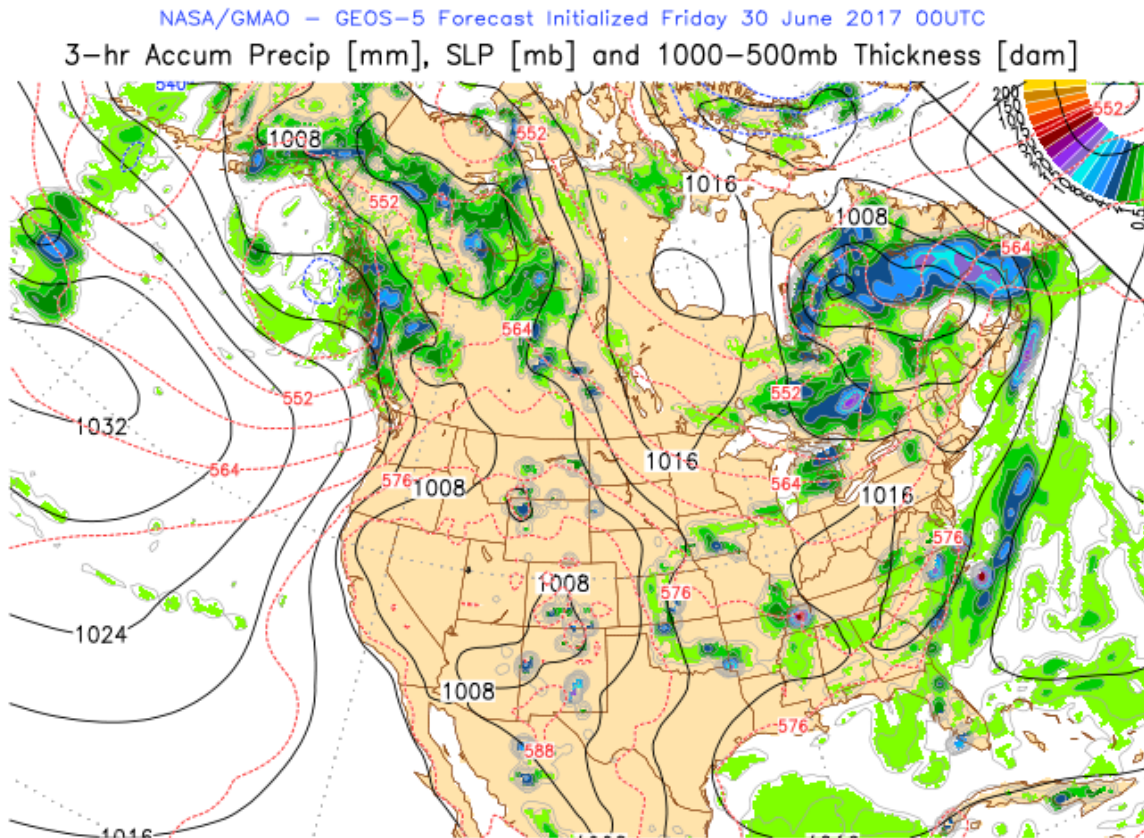
Gary Partyka
Global Modeling and Assimilation Office - GSFC

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NASA/GMAO – GEOS-5 Forecast Initialized on 00z 2017-06-30

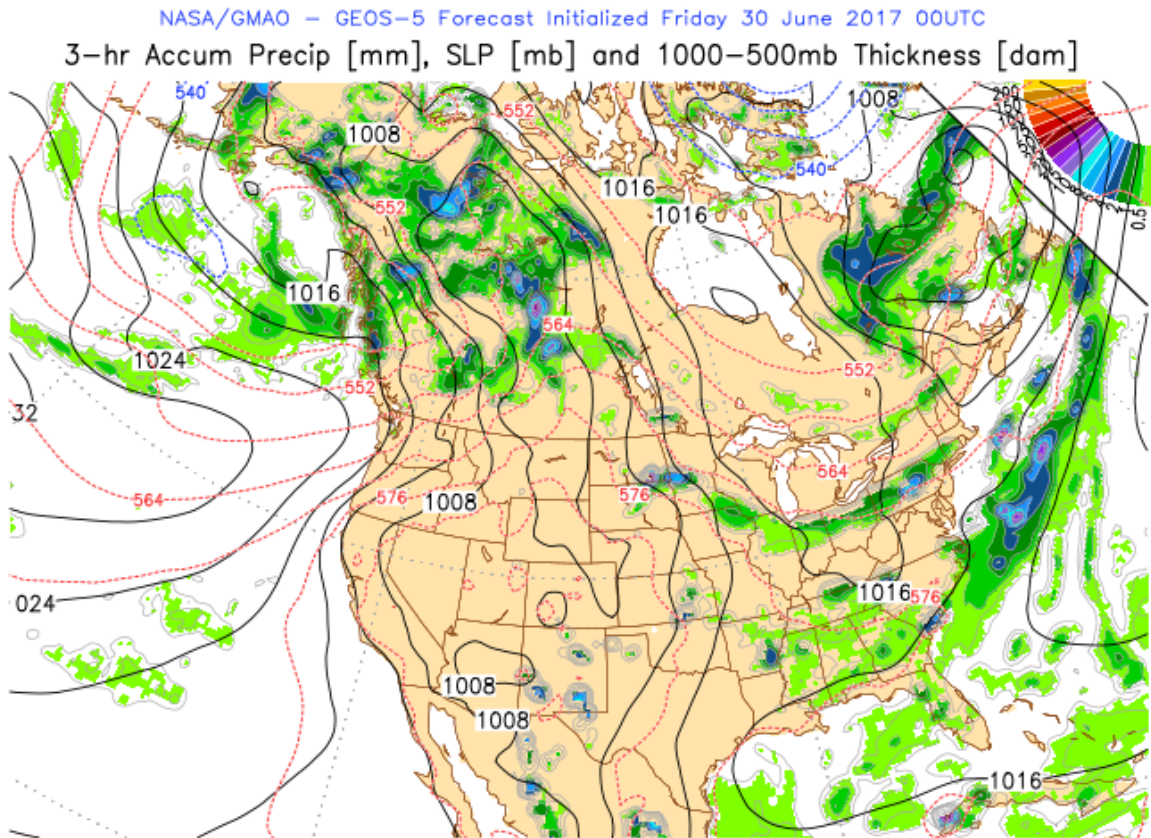


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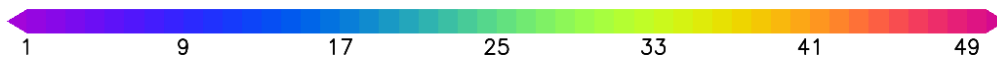
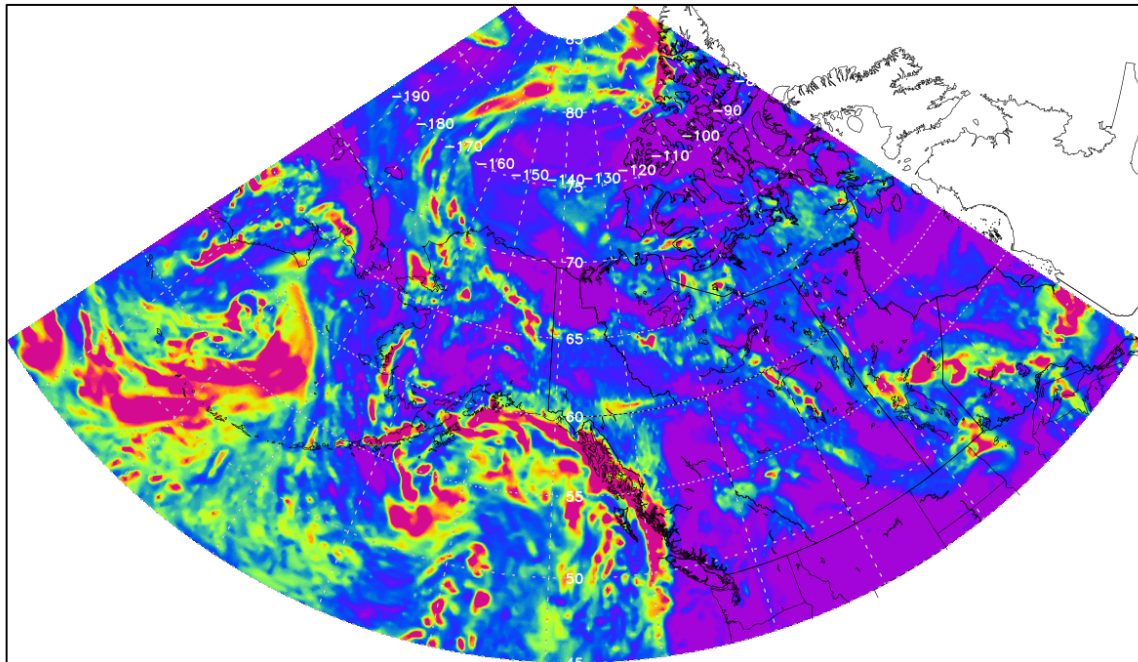
69-hr Forecast Valid Sunday 02 July 2017 21UTC

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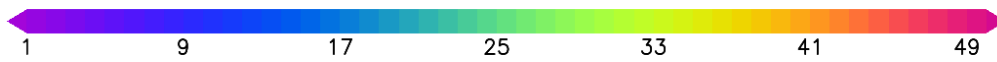
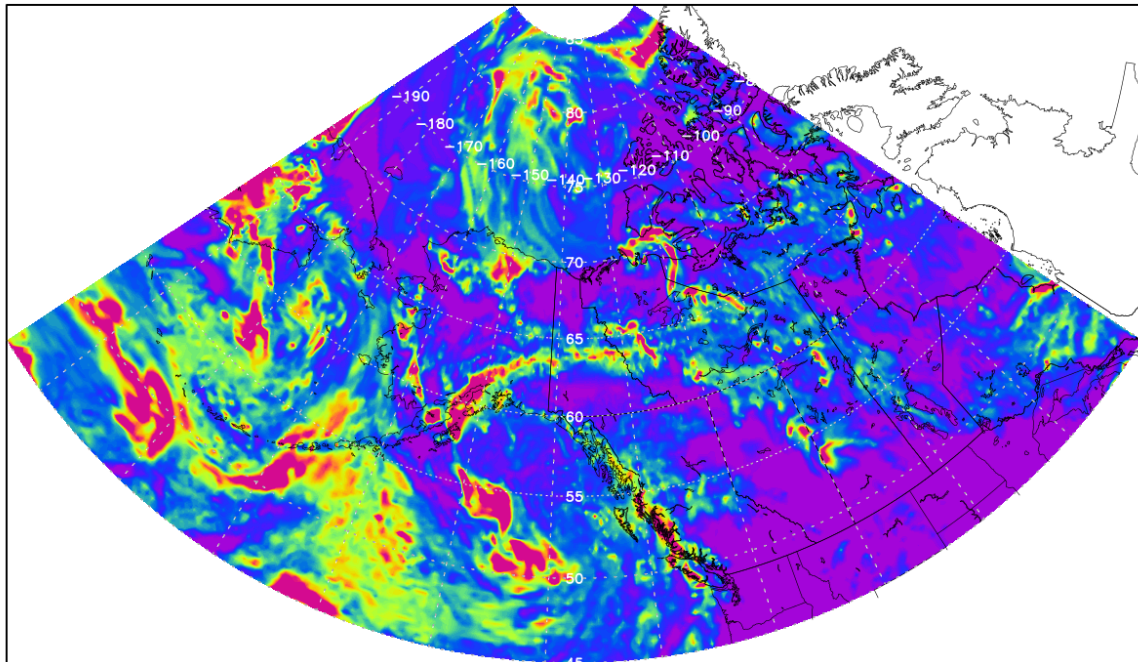
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GEOS Total Cloud Optical Depth
Initial time 30 JUN. 00z
Valid time 01 JUL. 18z



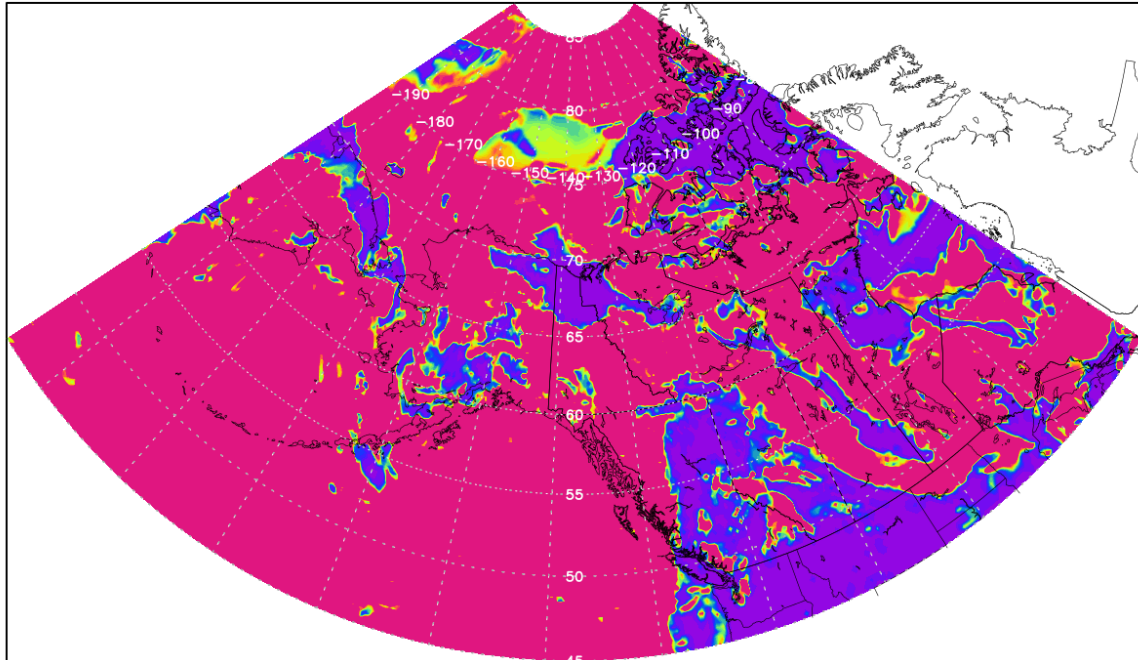
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GEOS Total Cloud Optical Depth
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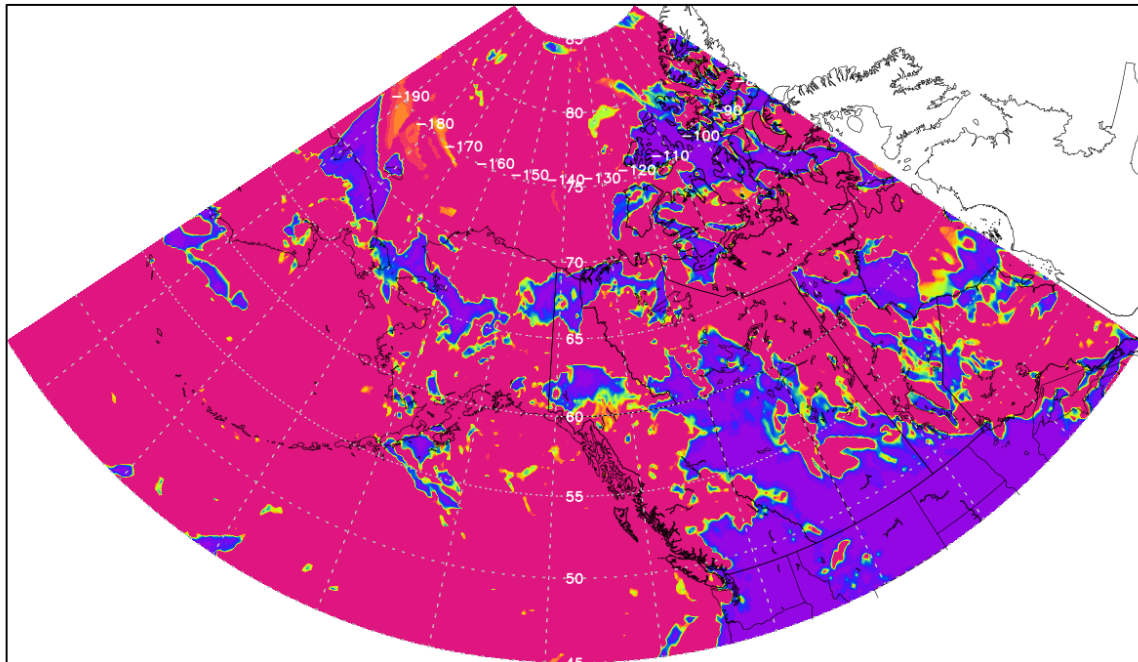
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GEOS Low Cloud Optical Depth
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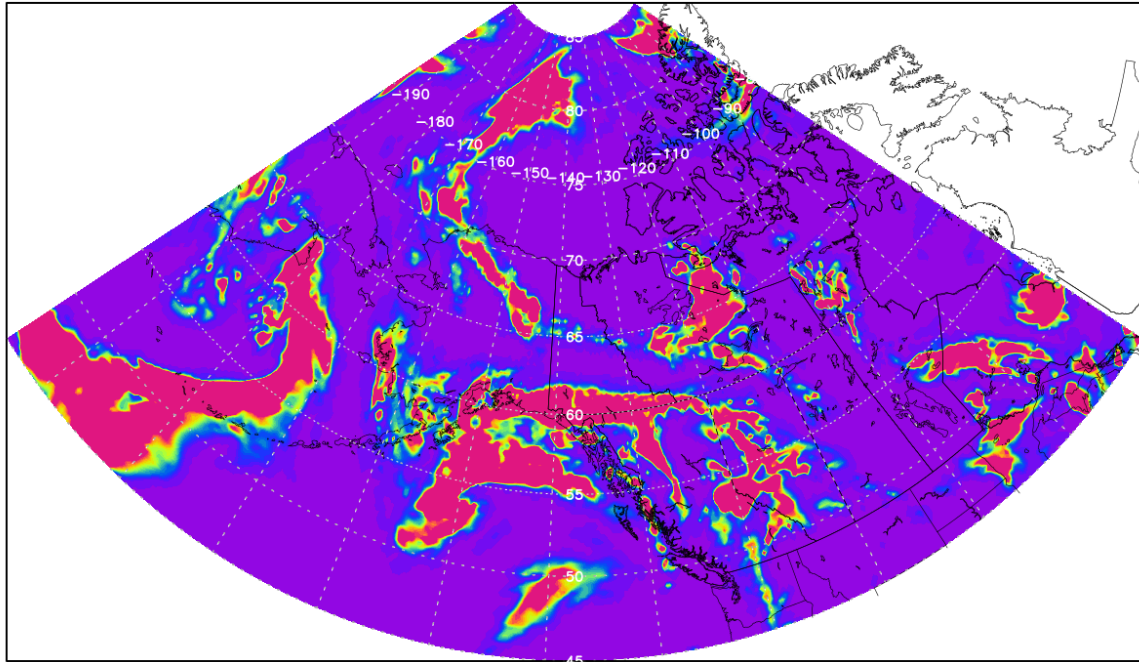
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GEOS Low Cloud Optical Depth
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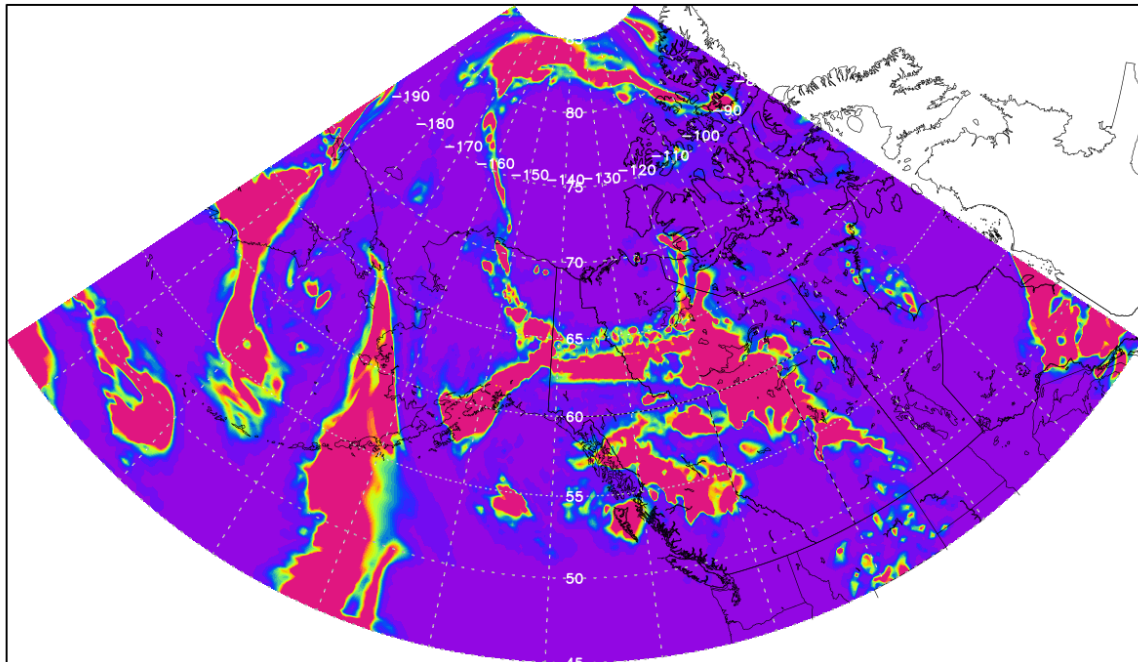
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GEOS Mid Cloud Optical Depth
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Valid time 01 JUL. 18z



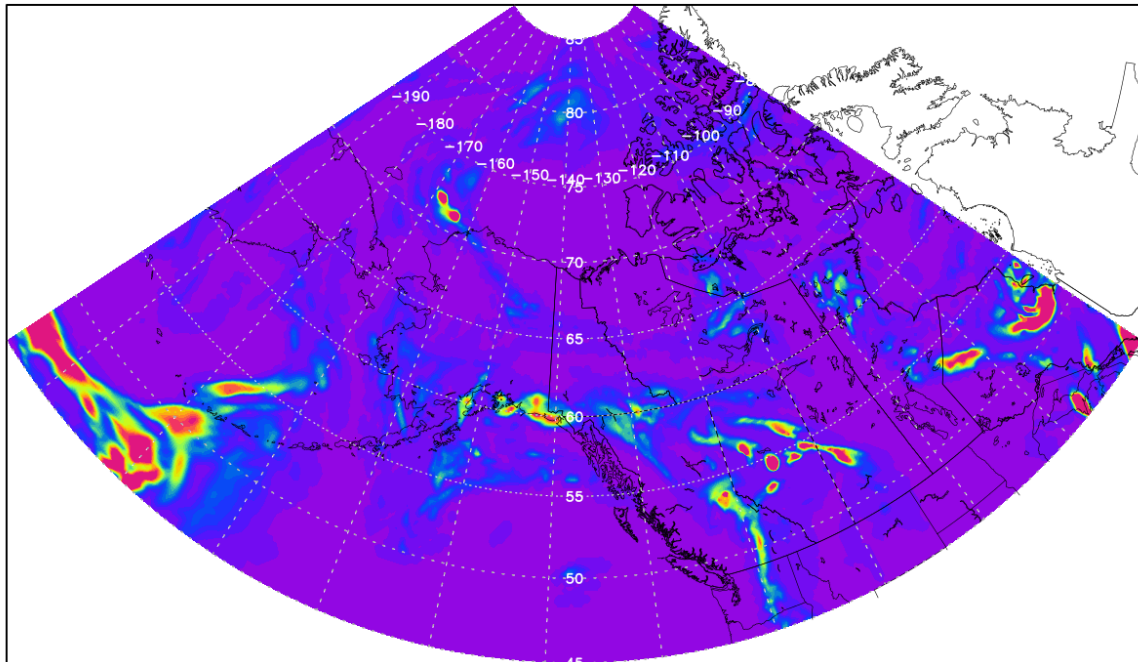
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GEOS Mid Cloud Optical Depth
Initial time 30 JUN. 00z
Valid time 02 JUL. 18z



ABOVE_High_Cloud_Optical_Depth_IT_00z30JUN_VT_18z01JUL.png

GEOS High Cloud Optical Depth
Initial time 30 JUN. 00z
Valid time 01 JUL. 18z



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GEOS High Cloud Optical Depth
Initial time 30 JUN. 00z
Valid time 02 JUL. 18z

