

ABOVE Regional Weather Briefing
Based on the GMAO GEOS meteorology and aerosol forecast fields
Model Initialized 00z 24 June 2017

Note: Saskatchewan Province (SP), Alberta Province (AP), Manitoba Province (MP), Northwest Territory (NWT), Yukon Territory (YKT), Alaska (AK)

Day-1 Forecast

Valid 1500z 25 June through 2359z 25

High pressure will be anchored over SP and ridging up towards the south-central NWT. Low pressure will begin to take shape over the border region between the YKT and the NWT as energy arrives from the Pacific Ocean into western Canada. Clouds and precipitation will make its way onshore northwest British Columbia and on into the YKT. Outside of here, Sunday should be a very good flying day for the optical mission.

Besides some scattered low clouds and thin high clouds over central SP, the region from longitude 112W west to 125W will be generally sky clear...this includes all latitudes from the US border to the south up to 65N to the north. There will be multi-layer clouds and scattered showers between 60-70N west of 125W over the NWT and YKT. The radius around Yellowknife station for a couple hundred kms looks mainly clear. Inuvik station will be in cloudy conditions along with some light precipitation

Smoke/aerosol: GEOS still indicating smoke from YKT fires advecting eastward from the north-central YKT into the far north NWT. It is possible that recent rains have extinguished those fires. Elsewhere, optically thin aerosol located over central AP. The Canadian Fire Weather Services indicates a modest forest fire along the Mackenzie River 60km north of Norman Wells.

Day-2 Forecast

Valid 1500z 26 June through 2359z 26 June

High pressure over the Prairie Provinces slips down into the United States, meanwhile a general area of lower pressure stakes shape at the meeting point of AP/NWT/British Columbia.

Clouds and precipitation will encroach on Yellowknife from the west in association with this low pressure system. It will be mostly cloudy from 55N-70N and 120-130W early in the daytime with additional cloud cover moving east throughout the day towards Yellowknife and Gr. Slave Lake. Further south and east into SP and western MP conditions should be mainly clear.

Smoke/aerosol: Some smoke from Oregon fires predicted to curl up towards the Saskatoon area, but this should not be very optically opaque. Very thin aerosol optical depths the remainder of the mission region.

Day-3 Outlook**Valid 1500z 27 June through 2359z 27 June**

On Tuesday, the GEOS model is indicating a window of clear or mainly clear skies from Yellowknife to Inuvik in association with high pressure building over the northern tiers of the NWT/YKT. This is still a 72 hour forecast and forecast conditions may change, so we will refine this forecast over the next 1-2 days.

Elsewhere, the low pressure system from Monday moves further southeast into AP and SP. Here, we are expecting multi-layer clouds, and scattered to broken elements of showers and thunderstorms during the day.

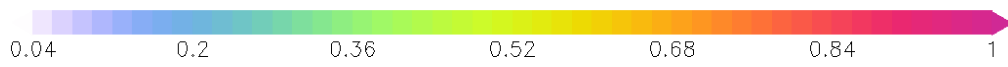
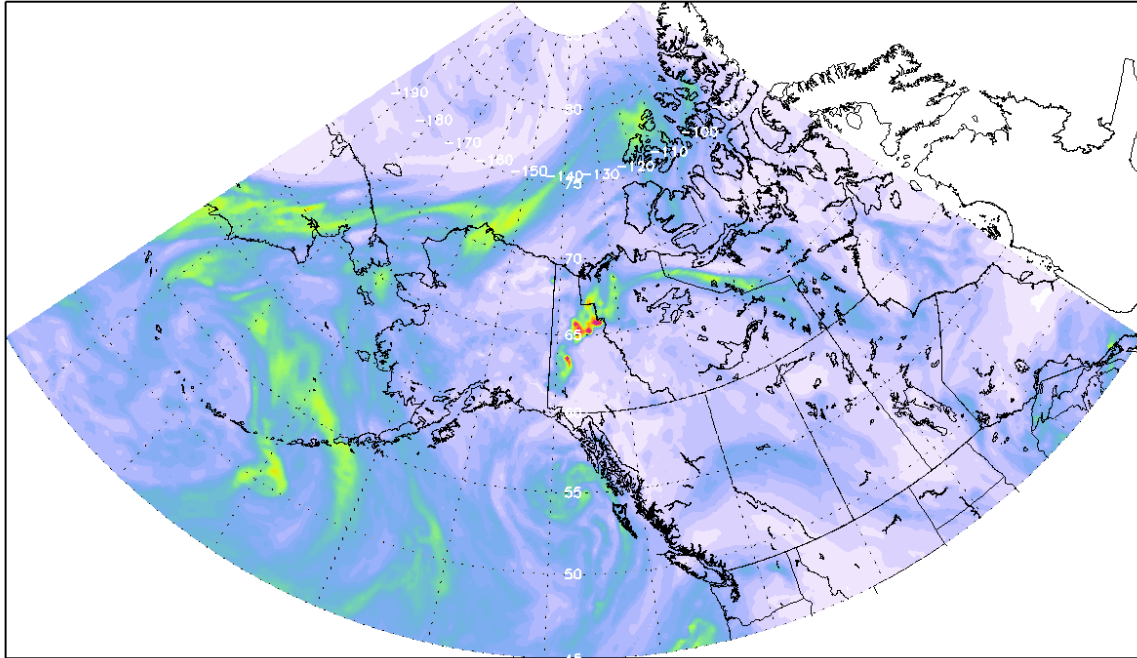
Moderate haze from smoke may be located over southwestern SP early Tuesday and moving into central SP later in the day Tuesday. Remainder of mission region clear to nearly clear.

Gary Partyka

Global Modeling and Assimilation Office - GSFC

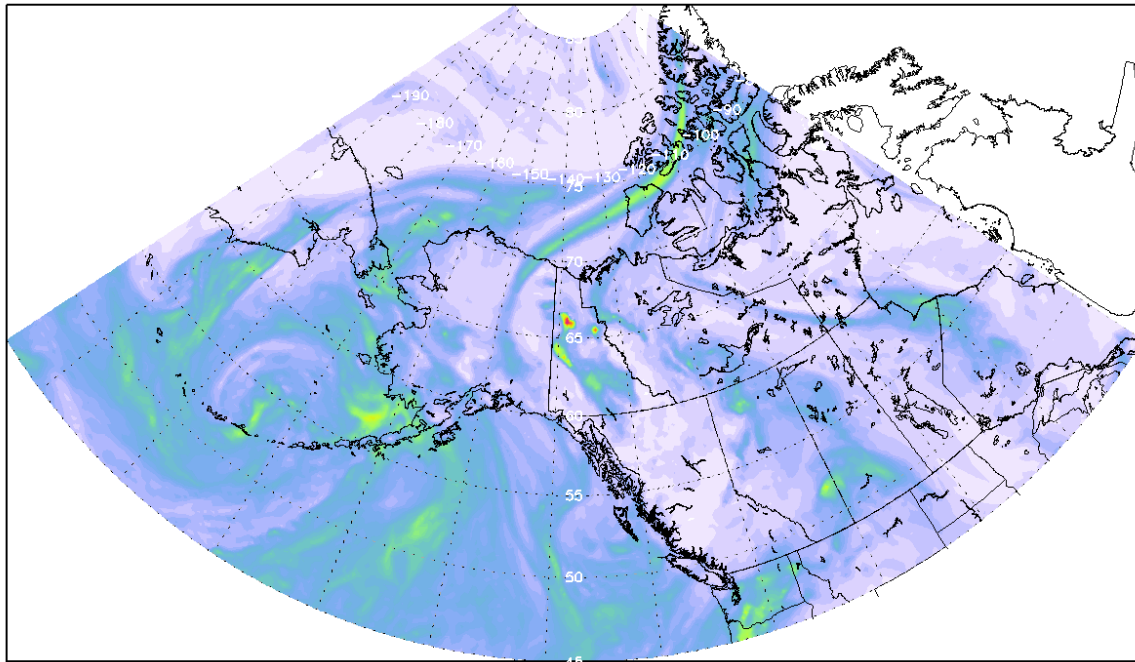
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GEOS Aerosol Optical Depth
Initial time 24 JUN. 00z
Valid time 25 JUN. 18z



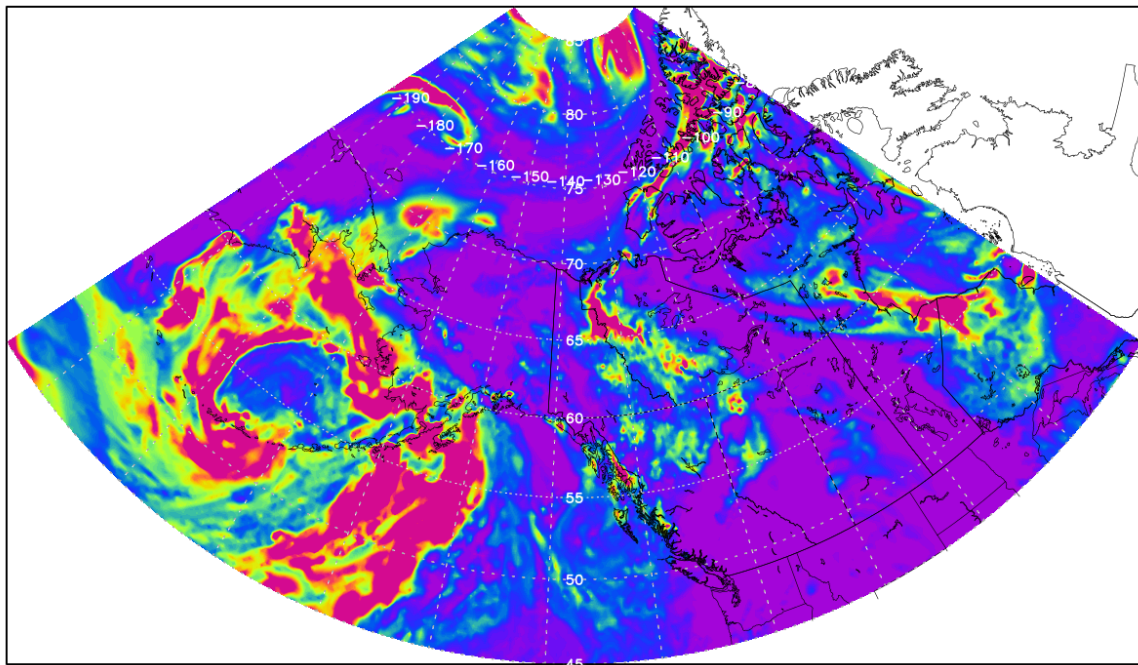
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GEOS Aerosol Optical Depth
Initial time 24 JUN. 00z
Valid time 26 JUN. 18z



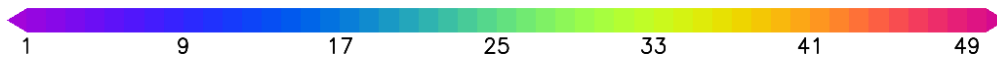
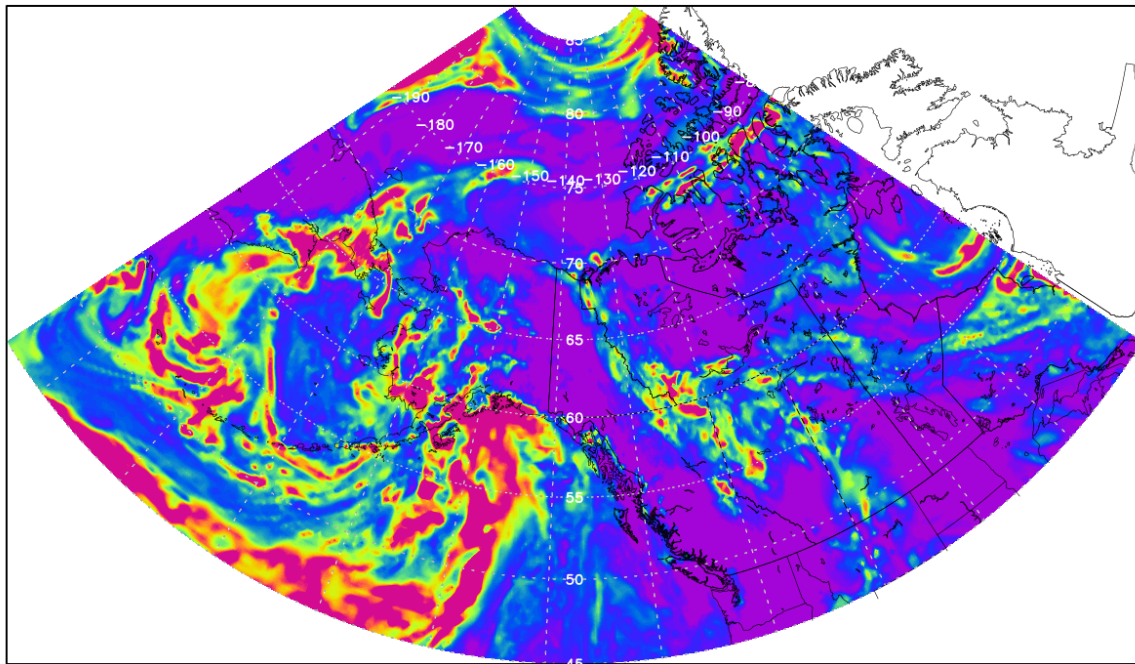
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GEOS Total Cloud Optical Depth
Initial time 24 JUN. 00z
Valid time 26 JUN. 18z



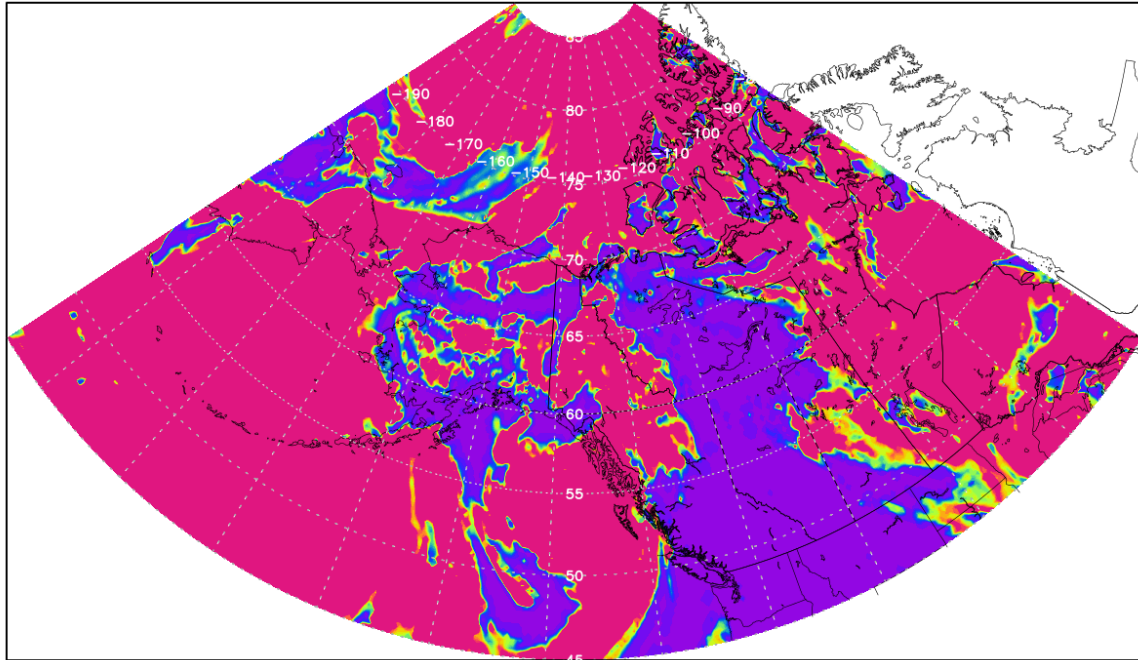
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GEOS Total Cloud Optical Depth
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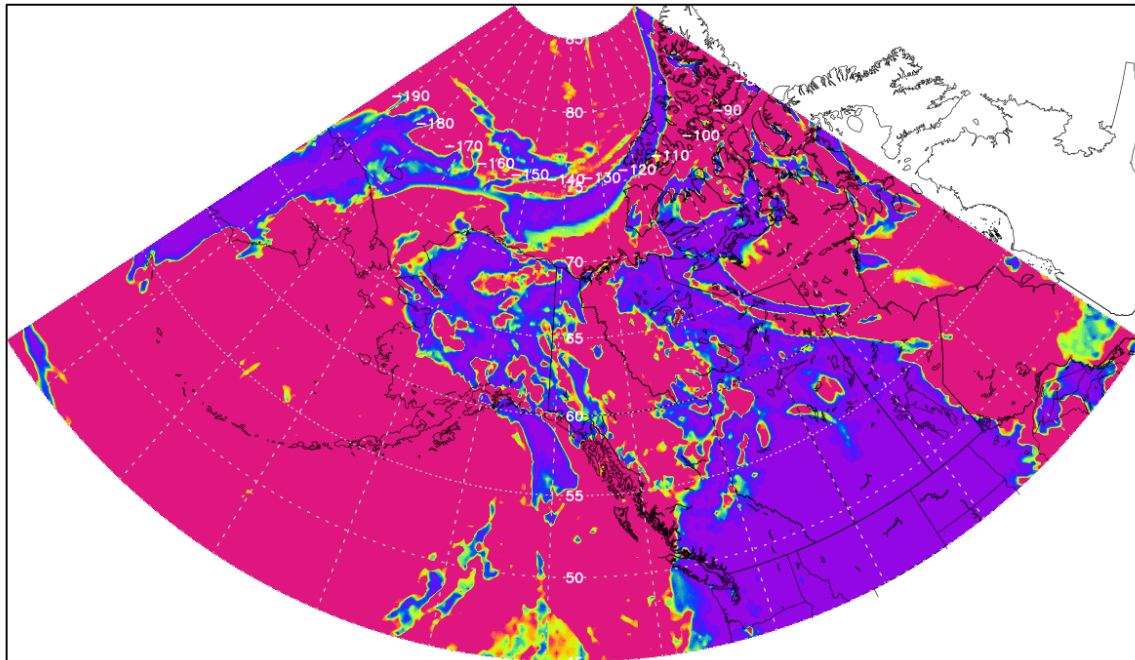
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GEOS Low Cloud Optical Depth
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Valid time 25 JUN. 18z



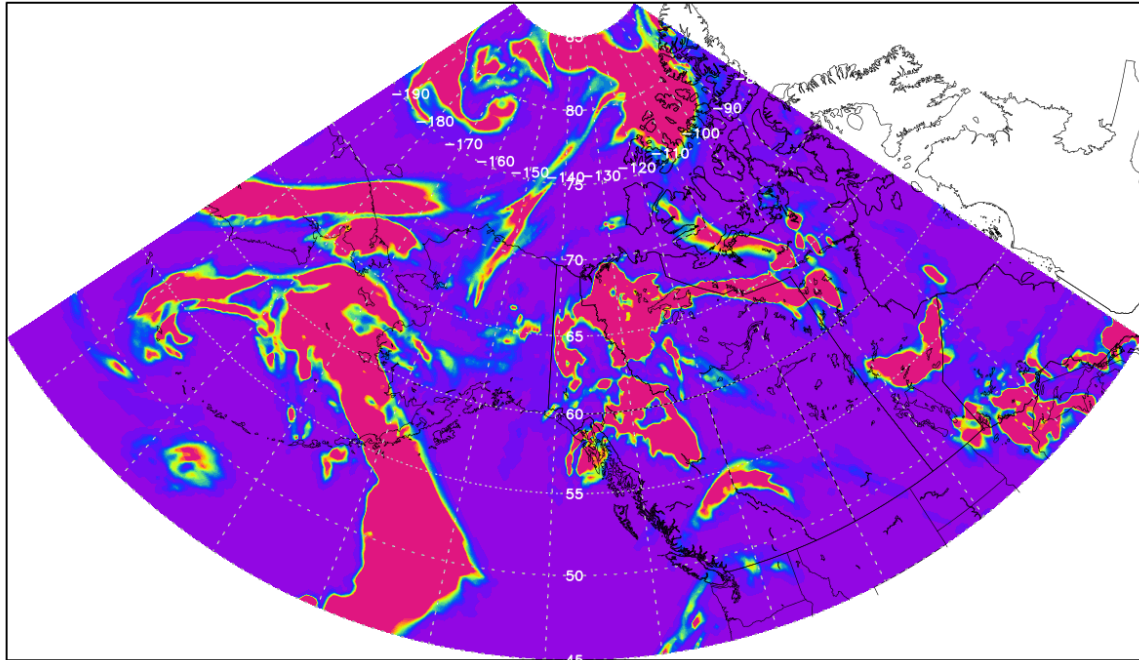
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GEOS Low Cloud Optical Depth
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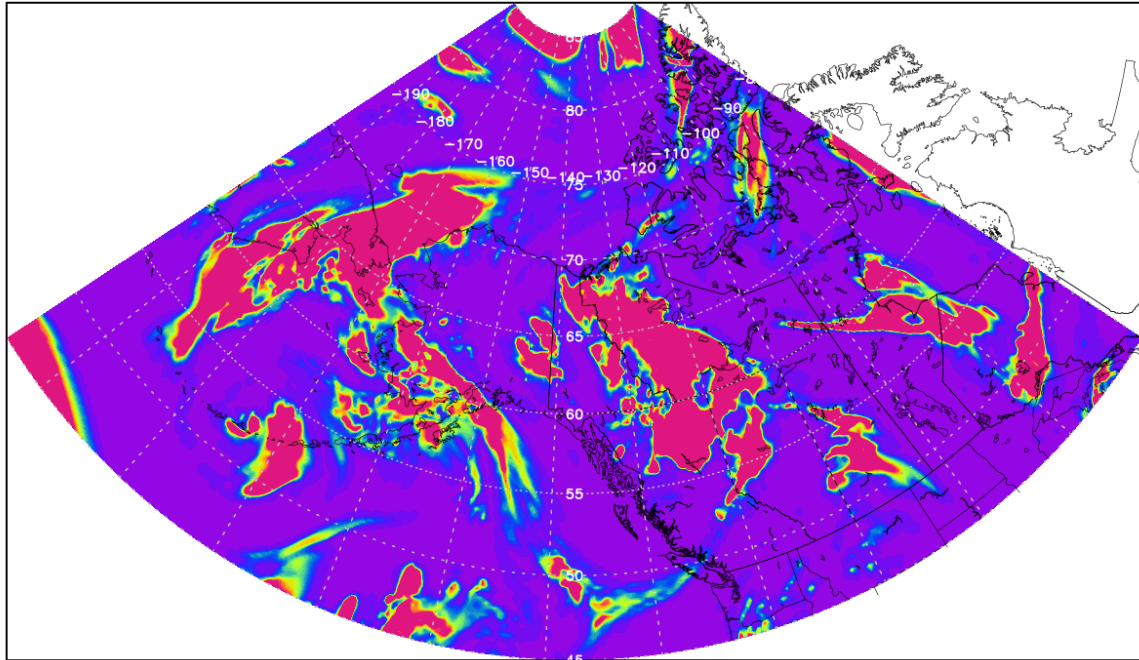
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GEOS Mid Cloud Optical Depth
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Valid time 25 JUN. 18z



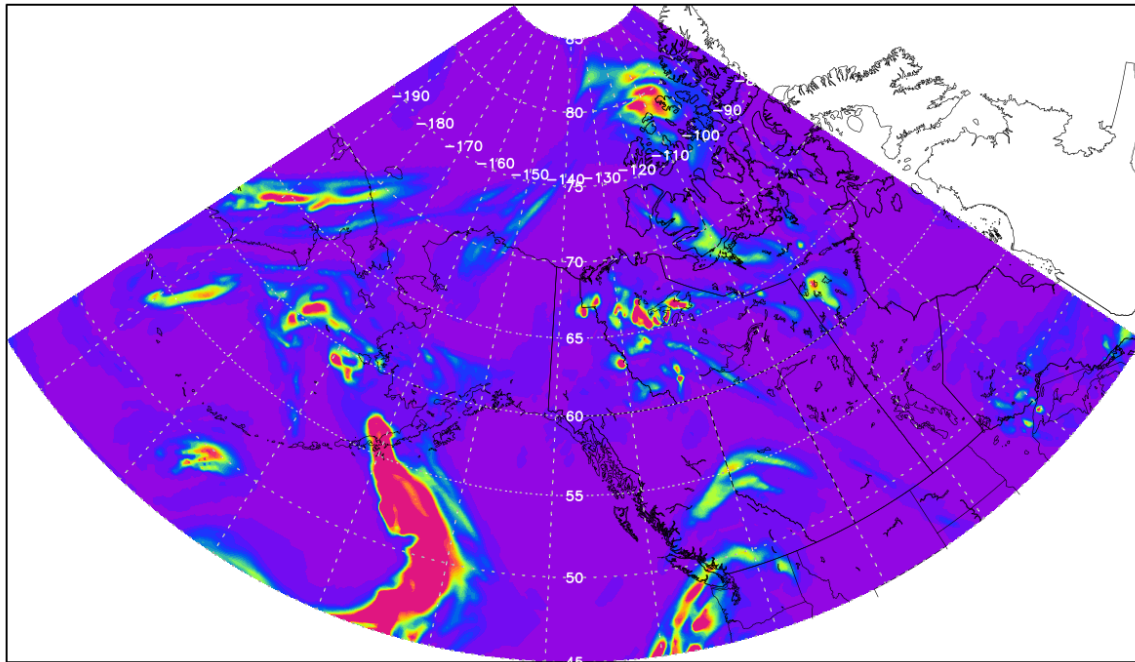
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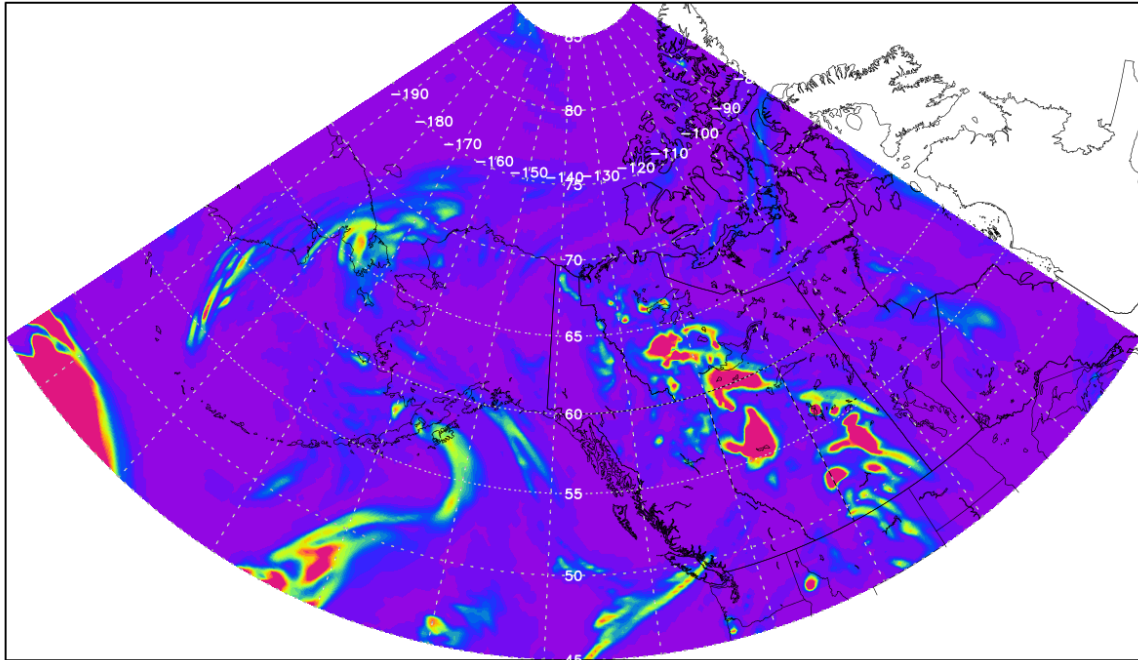
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GEOS High Cloud Optical Depth
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GEOS High Cloud Optical Depth
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