

ABOVE Regional Weather Briefing

Based on the GMAO GEOS meteorology and aerosol forecast fields
Model Initialized 00z 01 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 02 August through 2359z 02 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 southern BC and AB. A fire in the vicinity of Fort Smith will continue to bring smoke/haze to areas south of the Great Slave Lake and northern SK. Some smaller values of aerosol optical thickness will be present over central AB and over a small portion of the BERMS/BOREAL region. No improvement in the weather conditions over most of AK is seen through this forecast, as heavy precipitation associated with a frontal system continues. Conditions over southern YKT deteriorate in the afternoon. Some precipitation will also develop over central NWT. The mission targets over AK will be overcast through this forecast. Possible options for flying can be found over the northern YKT and the vicinity of Whitehorse during the morning. Areas between Inuvik, Norman Wells, and the Great Bear Lake will see sporadic low clouds in the morning, with middle and high clouds over the Great Bear Lake. The areas between Great Bear Lake to Fort Simpson, Fort Liard, and the Great Slave Lake will also see a mixture of sporadic clouds, becoming cloudier in the afternoon. The Daring Lake vicinity appears to become overcast in the afternoon. Most of BC will be free of clouds through this period, with conditions over northern BC deteriorating in the afternoon. Over AB and SK, weather continues to be mostly cloudy.

Day-2 Outlook

Valid 1500z 03 August through 2359z 03 August

The largest values of aerosol optical thickness could be found over a small area north of PAFA, southern BC and AB, north-eastern AB, south of the Great Slave Lake, and northern SK. A low pressure system that developed at the edge of the front begins to deteriorate weather conditions over south-west AK, bringing heavy precipitation to areas between the Yukon Delta and the Seward Peninsula. Precipitation begins to develop over most of the YKT, western NWT, and the northern half of AB by mid-morning. Weather over AK continues to be overcast. Possible targets could be found in the vicinity of Whitehorse until early afternoon when the low

cloud boundary approaches the area. The vicinity of Inuvik will be cloudy through this period. The areas between the Great Bear Lake, Forth Simpson, and Fort Liard could be possible targets in the morning. The BC area continues to be cloud-free, while the SK region becomes overcast by mid-morning.

Day-3 Outlook**Valid 1500z 04 August through 2359z 04 August**

Large values of aerosol optical thickness will be found over southern BC and most of SK. Areas over southern AB will become smoke/haze clear through the day. The vicinity of Fort Smith will also be affected by large values of aerosol optical thickness. Precipitation continues over western and northern AK through this day, associated with a low pressure system moving along the coast. Additional precipitation develops over most of the NWT, AB, SK, and north-eastern BC by mid-morning. Sporadic clearing might be possible over the most eastern points of AK and western points of YKT until the afternoon. The vicinity of Whitehorse could also see clear conditions through this day. Cloud-free conditions continue over most of the BC area, with clouds increasing over north-eastern BC by mid-morning.

--

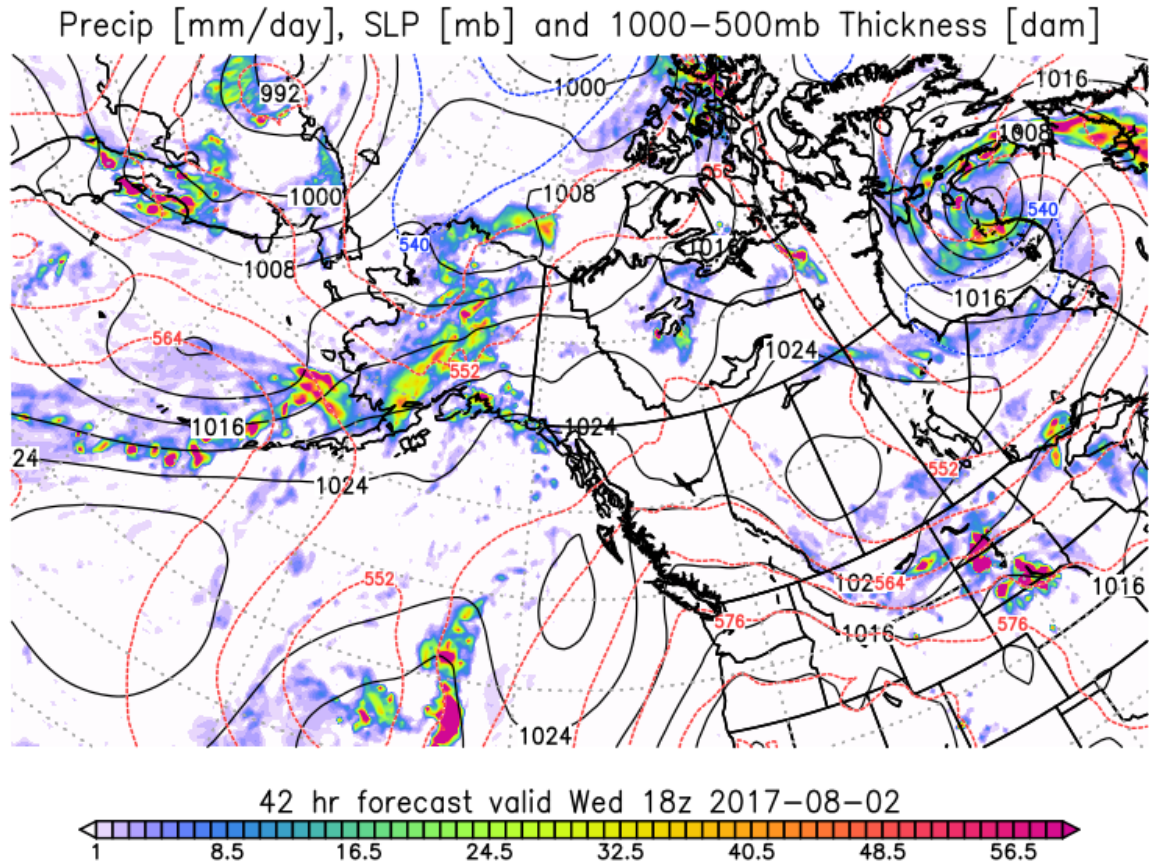
Marangelly Cordero-Fuentes, Ph. D.
Senior Research Scientist/Task Lead
Science Systems and Applications, Inc.
NASA Global Modeling and Assimilation Office
Code 610.1, Goddard Space Flight Center, Greenbelt, MD 20771
Bldg. 33, Rm. B-227A

Phone: 301-614-6162 | Fax: 301-614-6246

E-Mail: Marangelly.Fuentes-1@nasa.gov

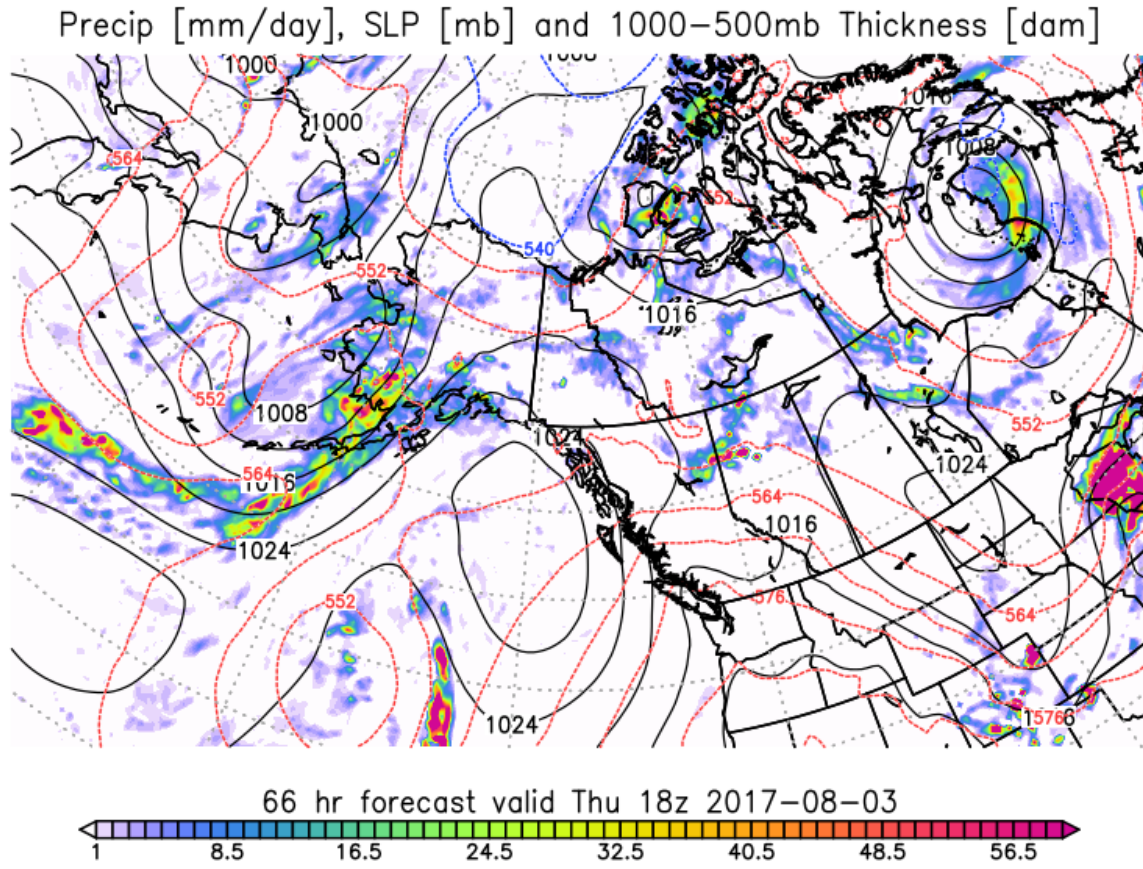
fp.8prec.sfc.042.above_lg.png

NASA/GMAO – GEOS-5 Forecast Initialized on 00z 2017-08-01



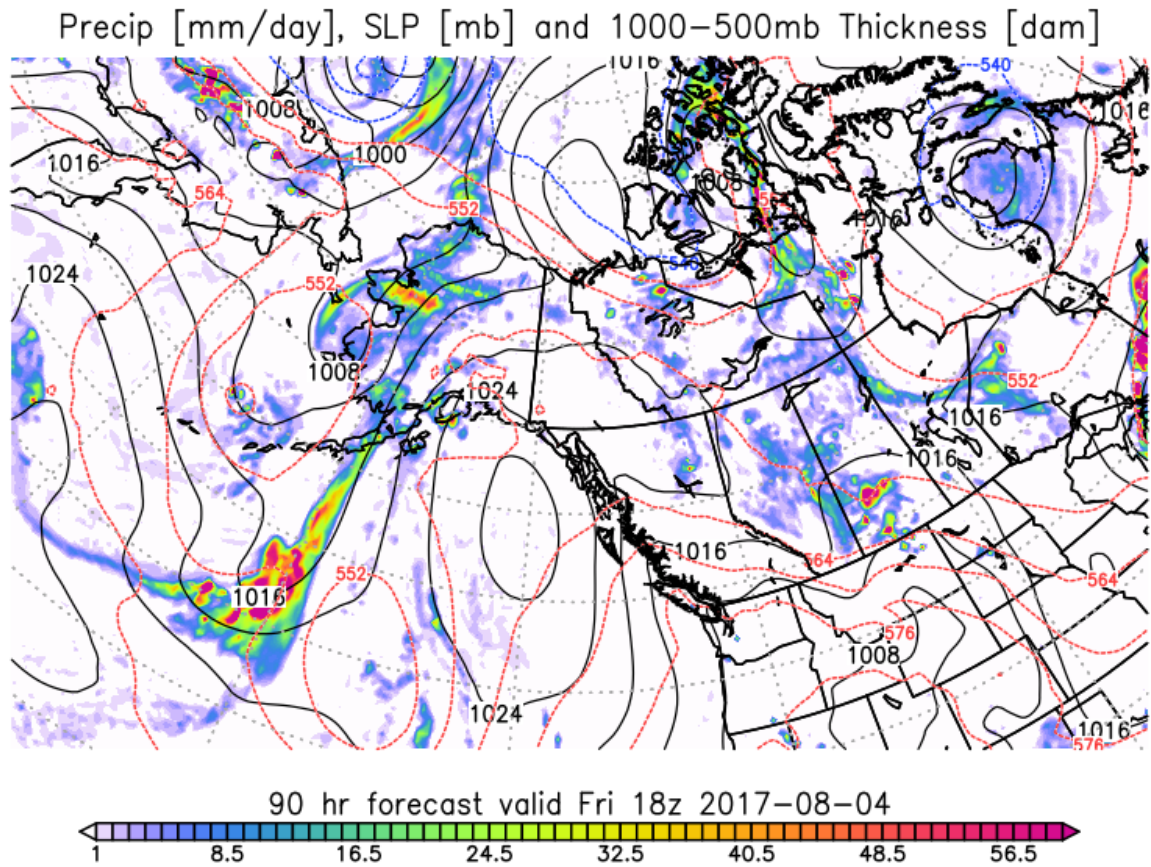
fp.8prec.sfc.066.above_lg.png

NASA/GMAO – GEOS-5 Forecast Initialized on 00z 2017-08-01



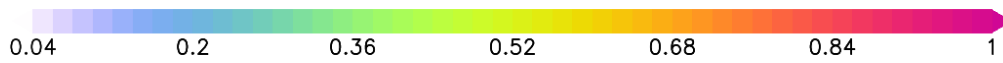
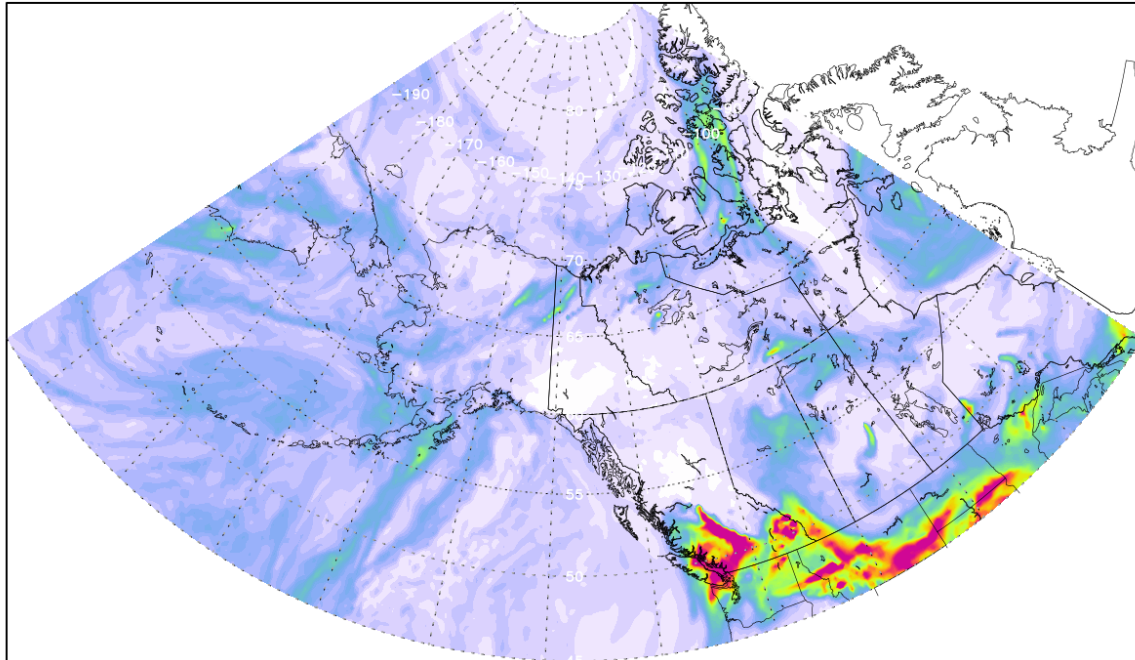
fp.8prec.sfc.090.above_lg.png

NASA/GMAO - GEOS-5 Forecast Initialized on 00z 2017-08-01



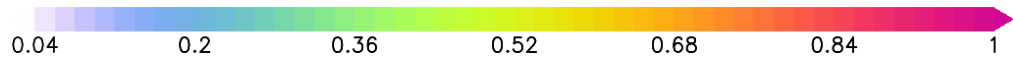
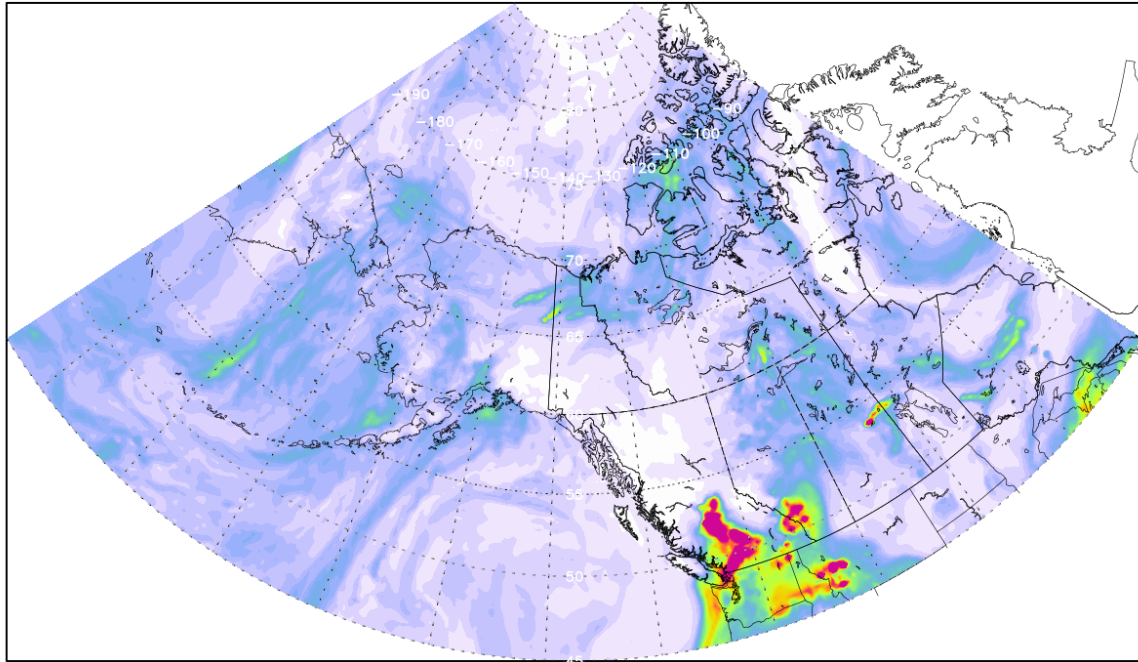
ABOVE_Total_AOD_IT_00z01AUG_VT_21z02AUG.png

GEOS Aerosol Optical Depth
Initial time 01 AUG. 00z
Valid time 02 AUG. 21z



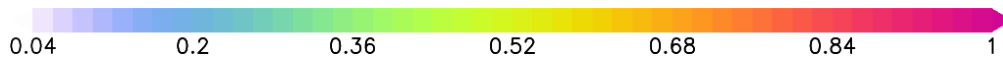
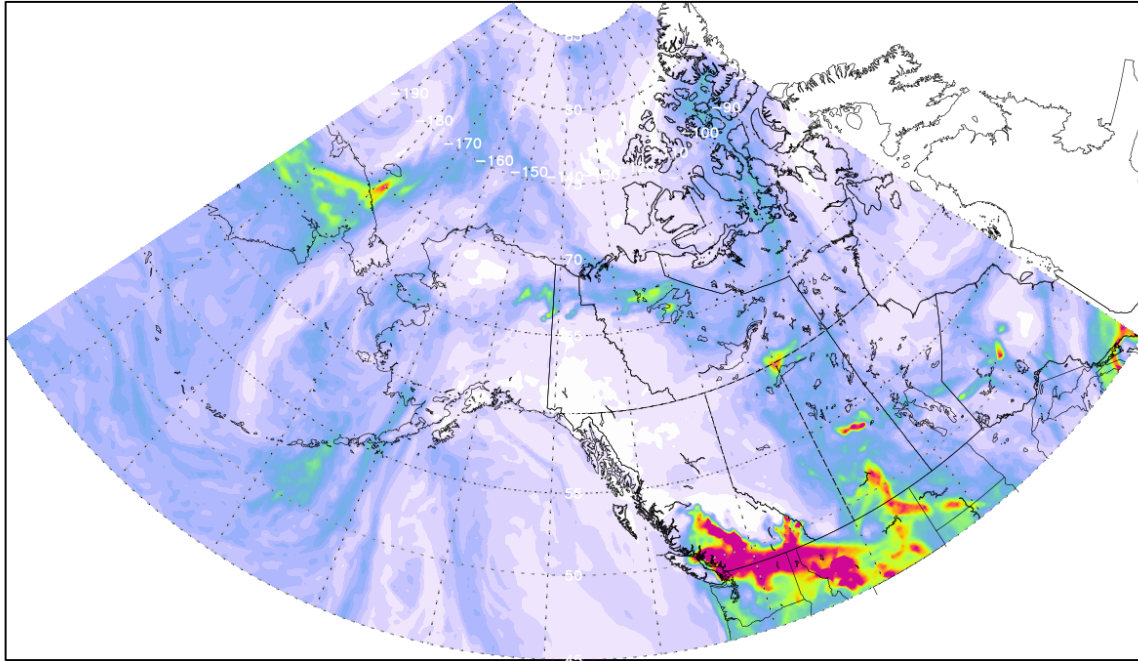
ABOVE_Total_AOD_IT_00z01AUG_VT_21z03AUG.png

GEOS Aerosol Optical Depth
Initial time 01 AUG. 00z
Valid time 03 AUG. 21z



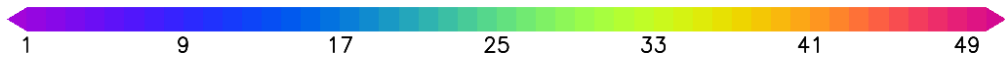
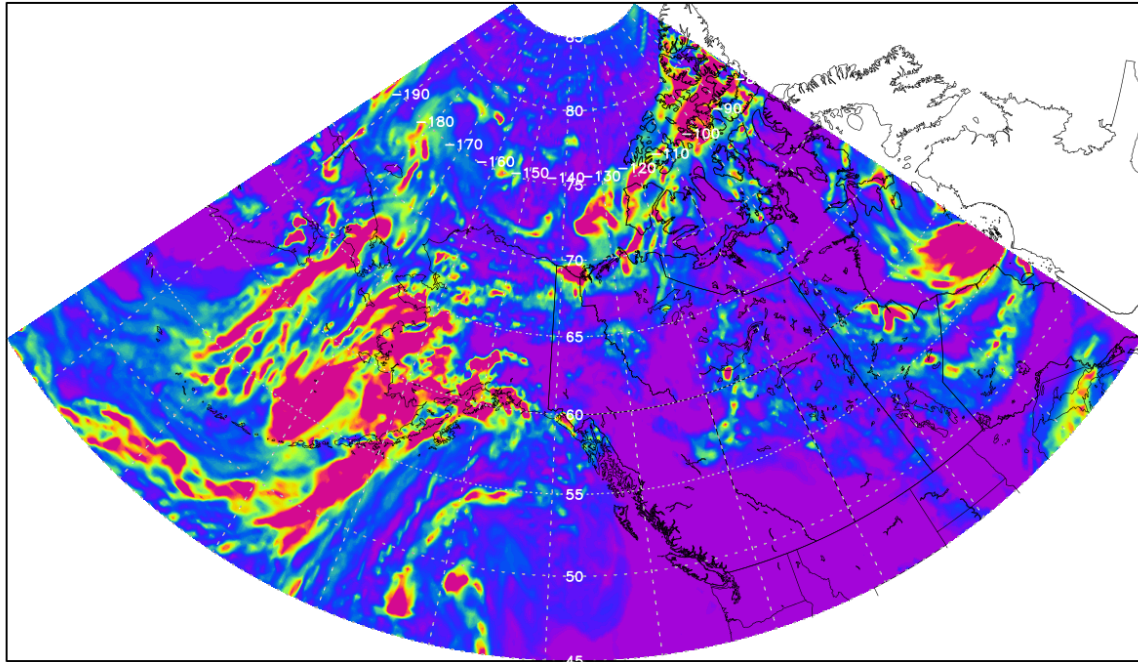
ABOVE_Total_AOD_IT_00z01AUG_VT_21z04AUG.png

GEOS Aerosol Optical Depth
Initial time 01 AUG. 00z
Valid time 04 AUG. 21z



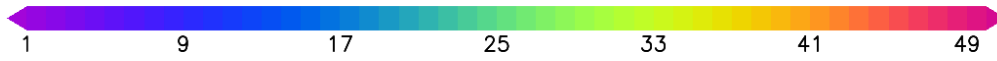
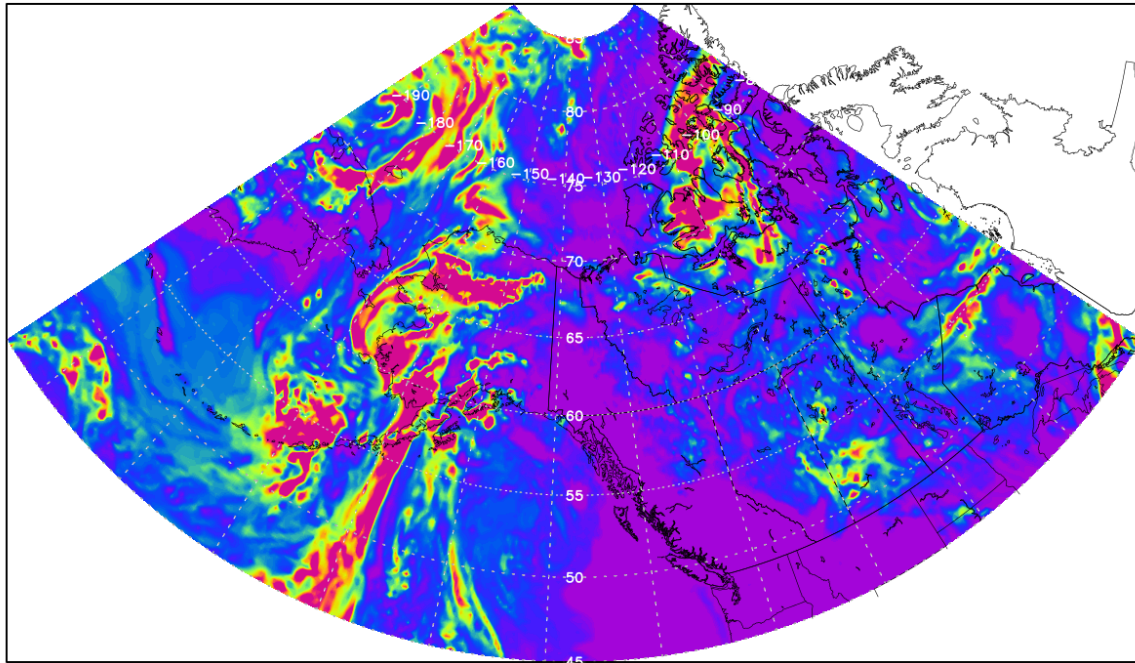
ABOVE_Total_Cloud_IT_00z01AUG_VT_18z03AUG.png

GEOS Total Cloud Optical Depth
Initial time 01 AUG. 00z
Valid time 03 AUG. 18z



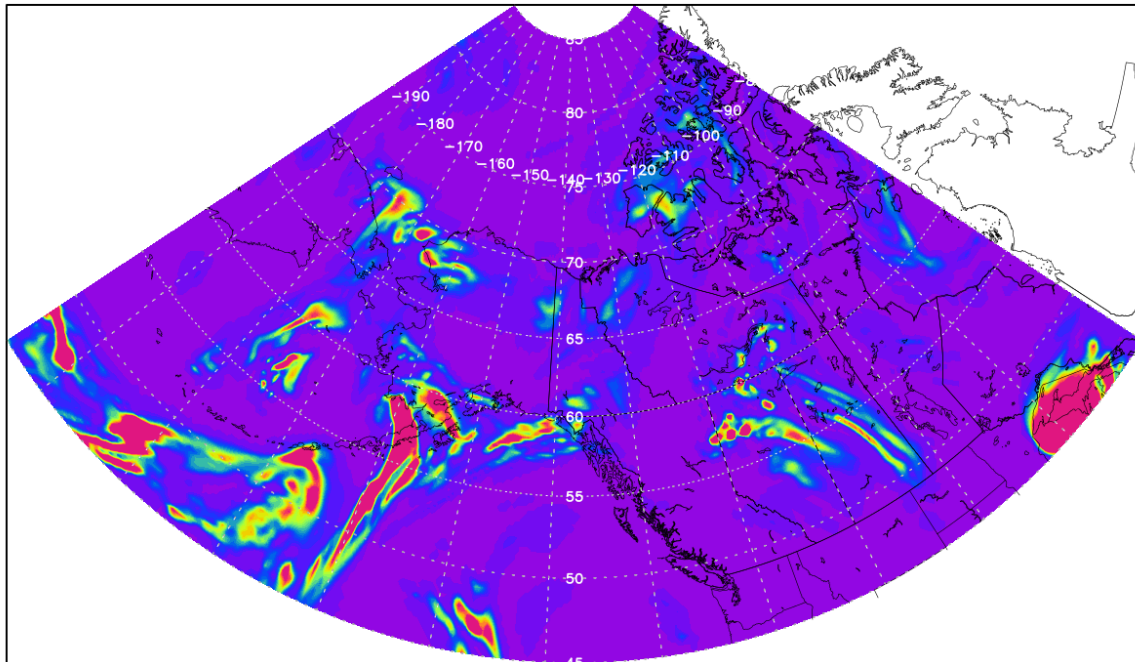
ABOVE_Total_Cloud_IT_00z01AUG_VT_18z04AUG.png

GEOS Total Cloud Optical Depth
Initial time 01 AUG. 00z
Valid time 04 AUG. 18z



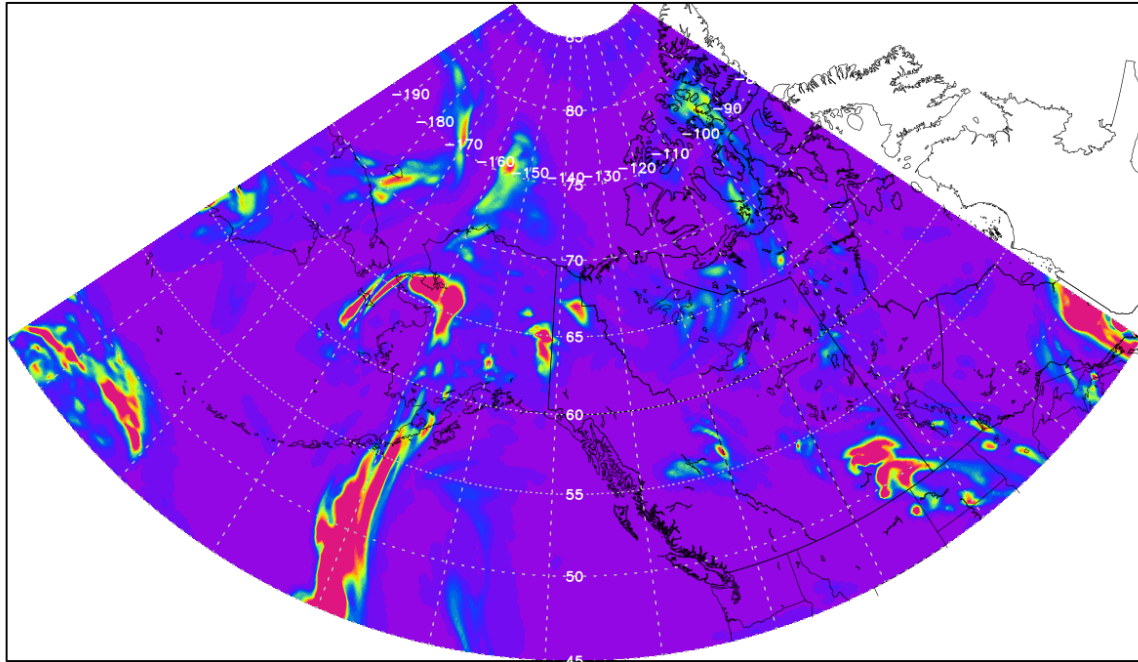
ABOVE_High_Cloud_Optical_Depth_IT_00z01AUG_VT_18z03AUG.png

GEOS High Cloud Optical Depth
Initial time 01 AUG. 00z
Valid time 03 AUG. 18z



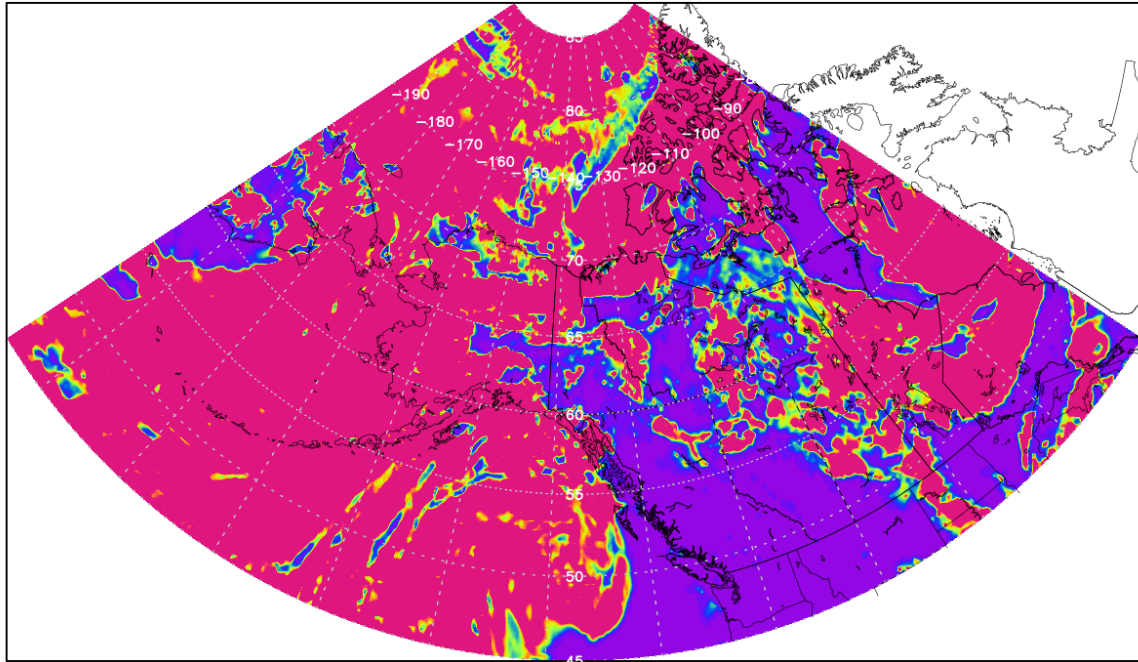
ABOVE_High_Cloud_Optical_Depth_IT_00z01AUG_VT_18z04AUG.png

GEOS High Cloud Optical Depth
Initial time 01 AUG. 00z
Valid time 04 AUG. 18z



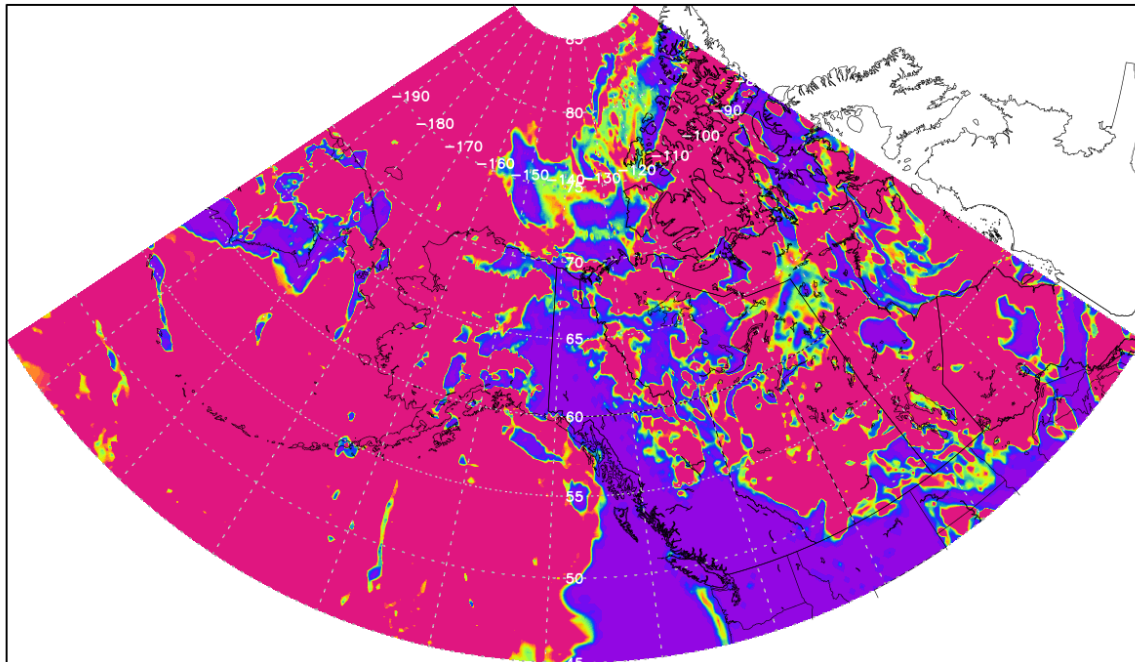
ABOVE_Low_Cloud_Optical_Depth_IT_00z01AUG_VT_18z03AUG.png

GEOS Low Cloud Optical Depth
Initial time 01 AUG. 00z
Valid time 03 AUG. 18z



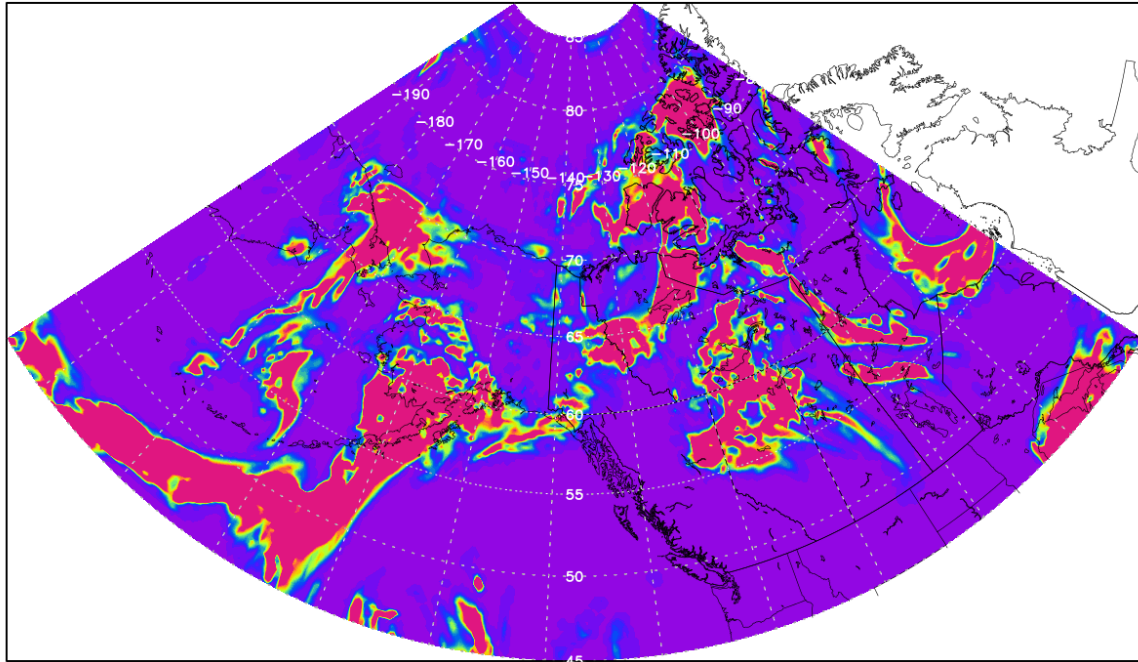
ABOVE_Low_Cloud_Optical_Depth_IT_00z01AUG_VT_18z04AUG.png

GEOS Low Cloud Optical Depth
Initial time 01 AUG. 00z
Valid time 04 AUG. 18z



ABOVE_Mid_Cloud_Optical_Depth_IT_00z01AUG_VT_18z03AUG.png

GEOS Mid Cloud Optical Depth
Initial time 01 AUG. 00z
Valid time 03 AUG. 18z



ABOVE_Mid_Cloud_Optical_Depth_IT_00z01AUG_VT_18z04AUG.png

GEOS Mid Cloud Optical Depth
Initial time 01 AUG. 00z
Valid time 04 AUG. 18z

