

ABOVE Regional Weather Briefing

Based on the GMAO GEOS meteorology and aerosol forecast fields
Model Initialized 00z 13 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 Forecast**Valid 1500z 14 July through 2359z 14 July**

Friday may be the best weather day of the next three days. High values of aerosol optical thickness can be seen in the western half of the state as well as in central BC and northern AB. A weakening front approaches from the southwest bringing clouds and rain to the Bethel area through Nome and the Seward Peninsula. Much of the eastern two thirds of interior Alaska begins the period mostly clear but clouds and rain are widely scattered by the end of the period. Southwest Alaska, the northern slopes of the Brooks Range are experiencing increasing cloudiness and rain. The southern half of BC, AB, and SK are mostly free of rain and clouds however there is a cluster of fires in south central BC that is providing high values of aerosol optical thickness. Inuvik, Great Bear Lake, and Yellowknife are clear early in the period, but conditions at Yellowknife quickly deteriorate as low clouds are present late in the period.

Day-2 Forecast**Valid 1500z 15 July through 2359z 15 July**

Largest values of aerosol optical thickness in the state are seen in the western part of the state. Large values of aerosol optical thickness are seen in central BC in a plume of smoke haze that becomes less thick as it stretches from BC through western MB. NWT including Great Bear and Great Slave Lakes look mostly cloud and rain free. The majority of the state and northern Canada will experience some low cloudiness and/or rain due in part to low pressure systems in the Gulf of Alaska, approaching from the Bering Sea, and a weak low near the AK panhandle. The forecast indicates narrow patches of partly clear conditions. One of these clear patches may allow an excursion to Yukon Flats depending on where the northern edge of the cloud shield sits.

Day-3 Outlook**Valid 1500z 16 July through 2359z 16 July**

There are several scattered areas with moderate aerosol optical thickness in the vicinity of these fires. Areas of the most intense smoke and haze are 1) on the north edge of the Yukon Flats and across the border to the Old Crow region, and 2) in southeastern BC. A low pressure

system develops and strengthens along a trough near the southeastern corner of NWT moving to the west shores of Hudson Bay by end of period. This system brings clouds and rain that stretch from northeast BC, north AB, north SK. Yellowknife does not look good although Inuvik and Great Bear Lake look good after brief cloudiness early in the period. Yukon Flats looks too cloudy and rainy for any shot at a clear flight.

--

Austin Conaty, SSAI Global Modeling and Assimilation Office
301-614-6149 (ph) NASA Goddard Space Flight Center
301-614-6297 (fax) Code 610.1 Greenbelt, MD 20771

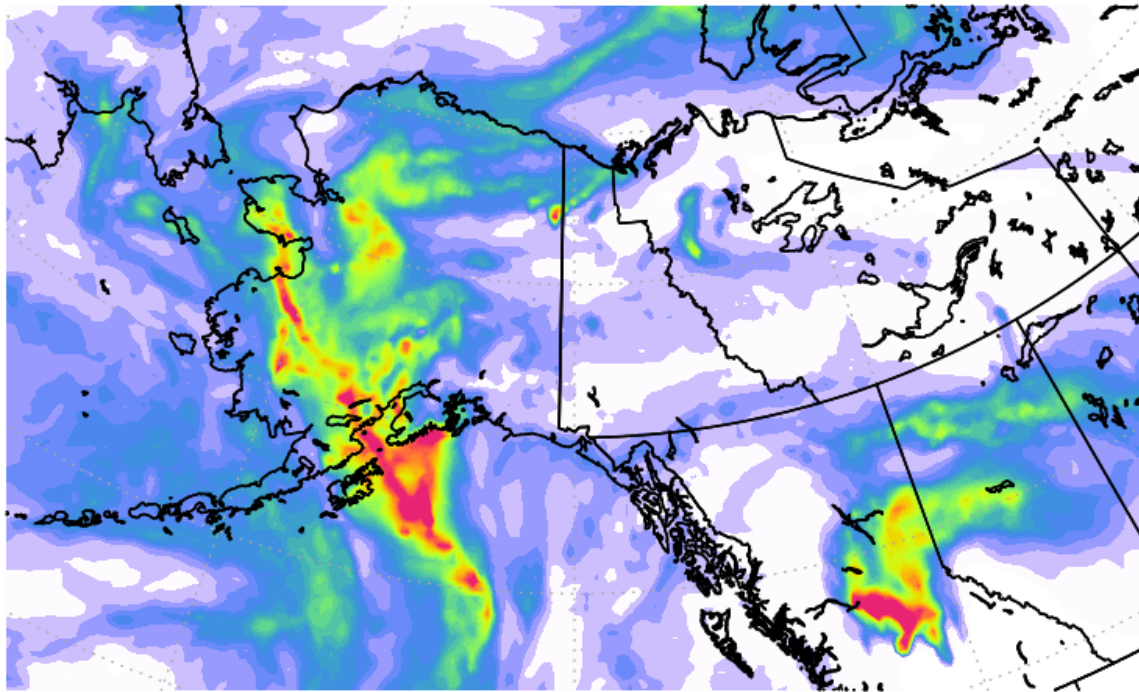
Austin.L.Conaty@nasa.gov

<http://gmao.gsfc.nasa.gov>

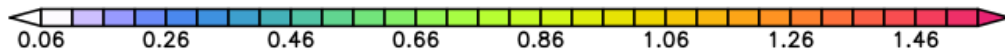
f516_fp.7totaot.045.above_sm.png

NASA/GMAO - GEOS-5 Forecast Initialized on 00z 2017-07-13

Total Aerosol Optical Thickness

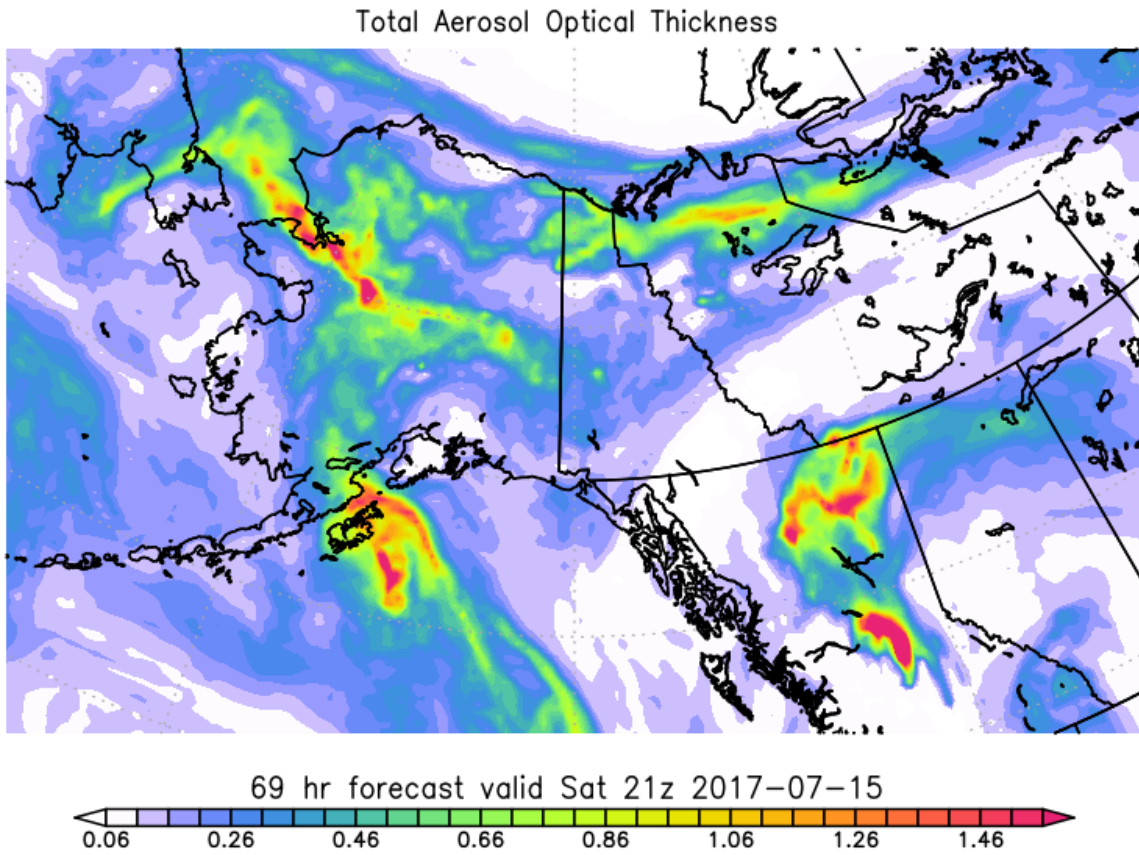


45 hr forecast valid Fri 21z 2017-07-14



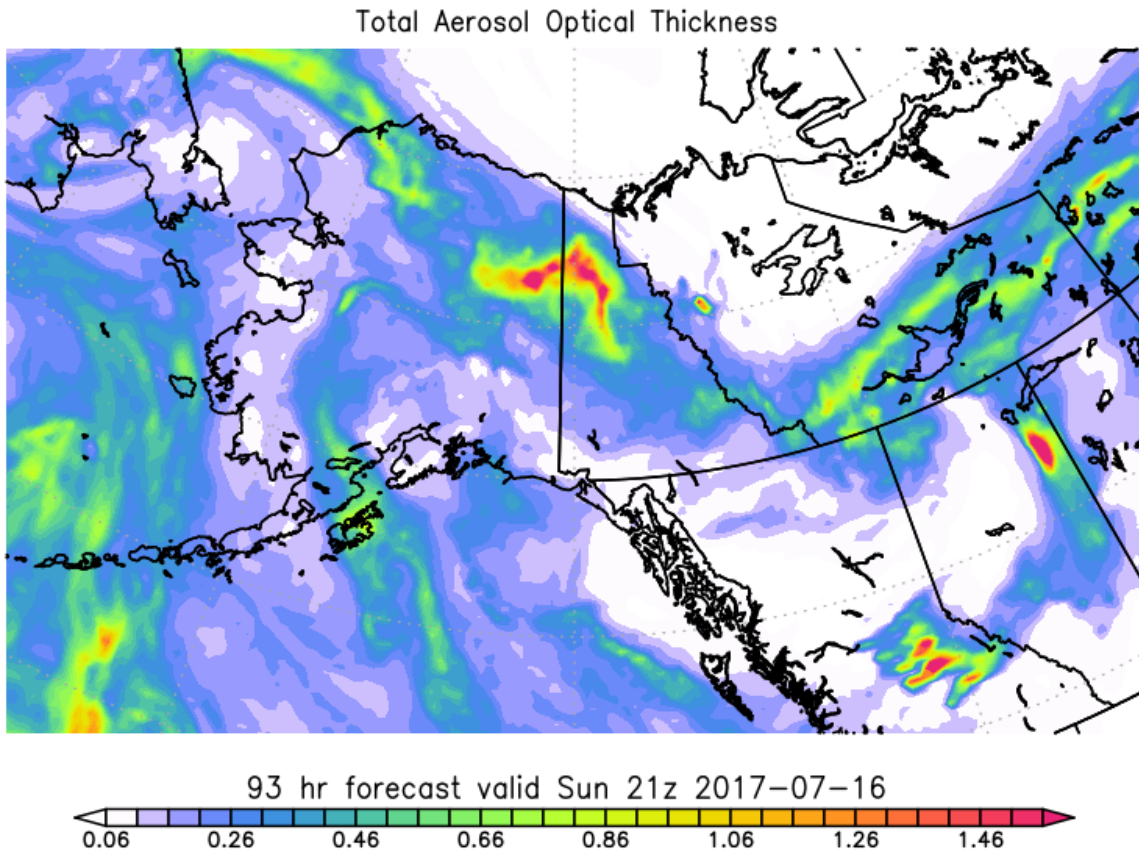
f516_fp.7totaot.069.above_sm.png

NASA/GMAO - GEOS-5 Forecast Initialized on 00z 2017-07-13



f516_fp.7totaot.093.above_sm.png

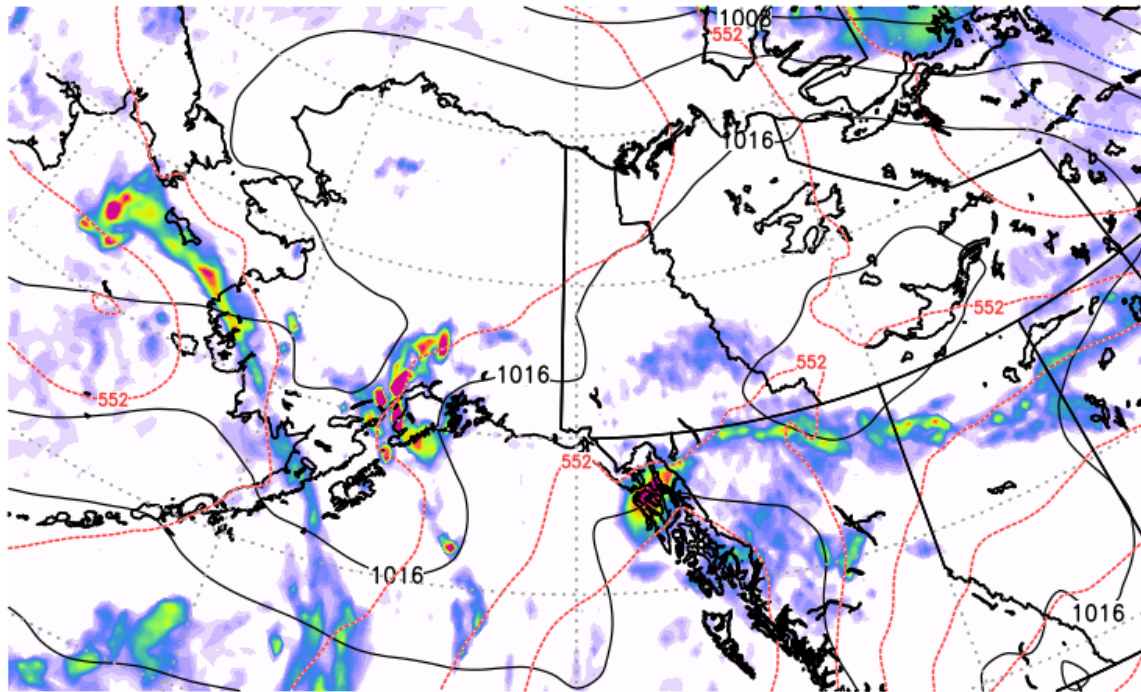
NASA/GMAO - GEOS-5 Forecast Initialized on 00z 2017-07-13



fp.8prec.sfc.042.above_sm.png

NASA/GMAO – GEOS-5 Forecast Initialized on 00z 2017-07-13

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

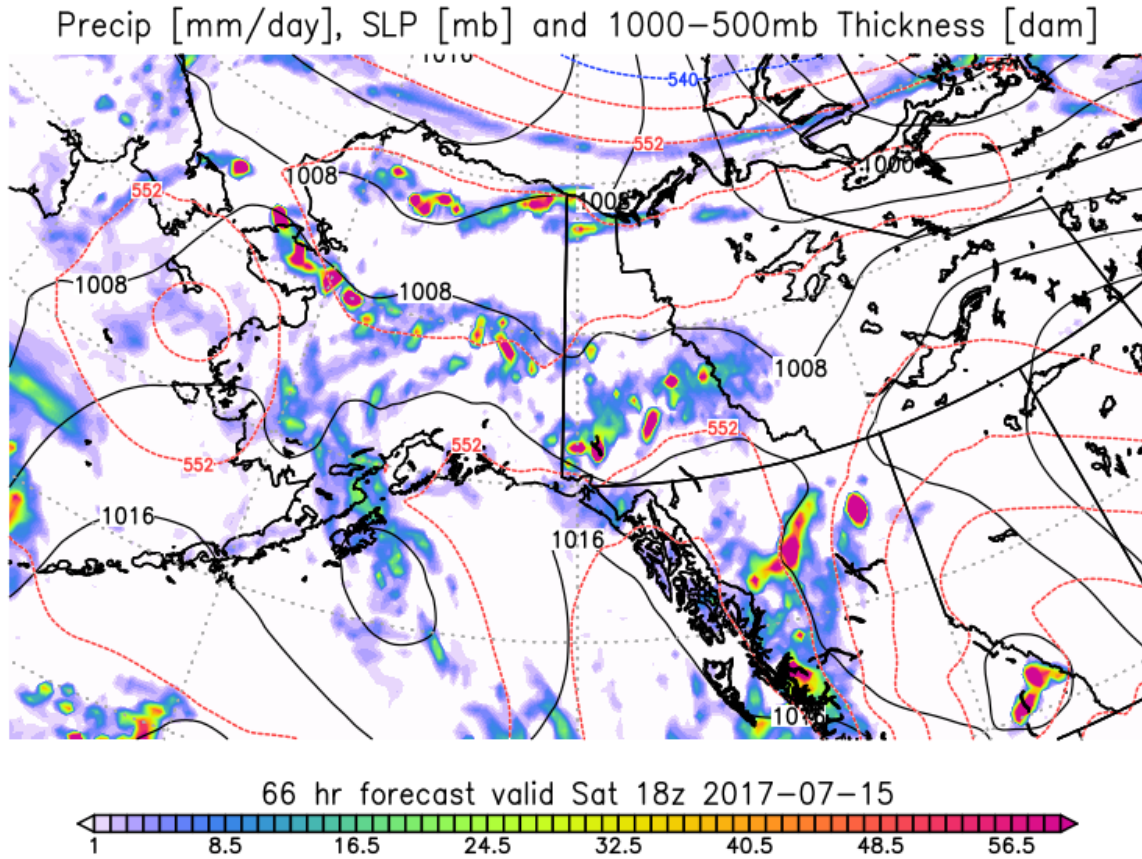


42 hr forecast valid Fri 18z 2017-07-14



fp.8precis.sfc.066.above_sm.png

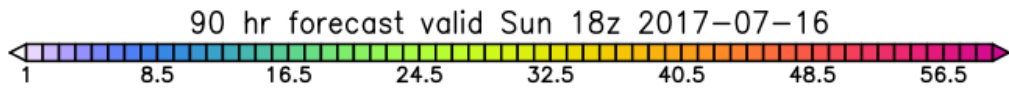
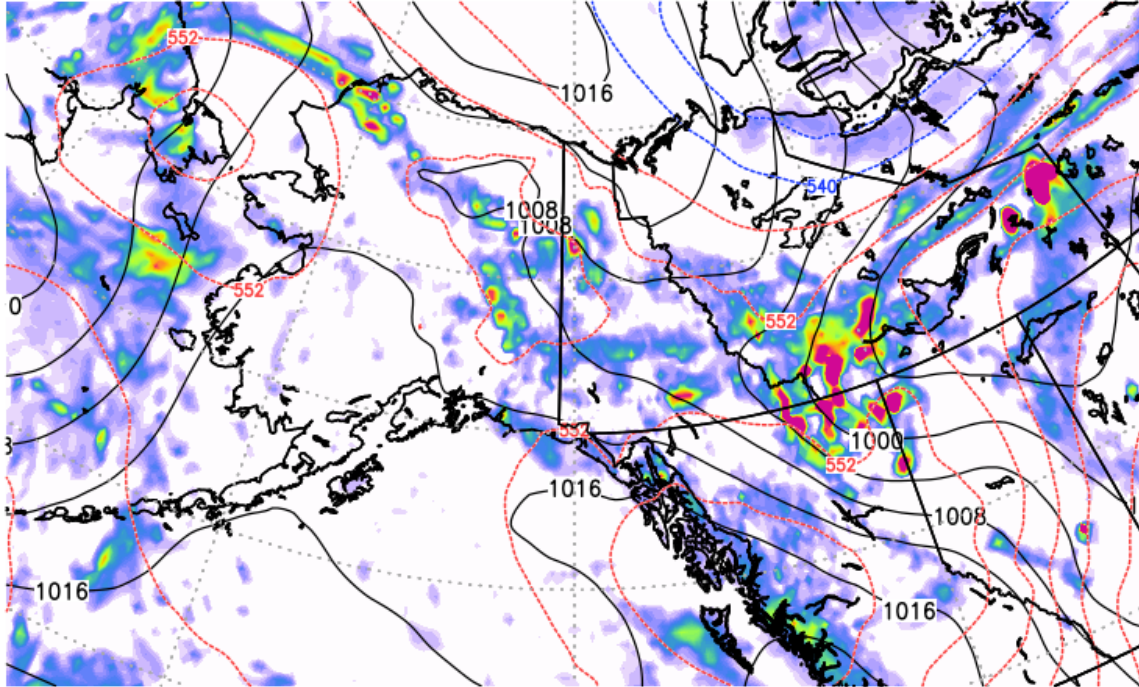
NASA/GMAO – GEOS-5 Forecast Initialized on 00z 2017-07-13



fp.8precis.sfc.090.above_sm.png

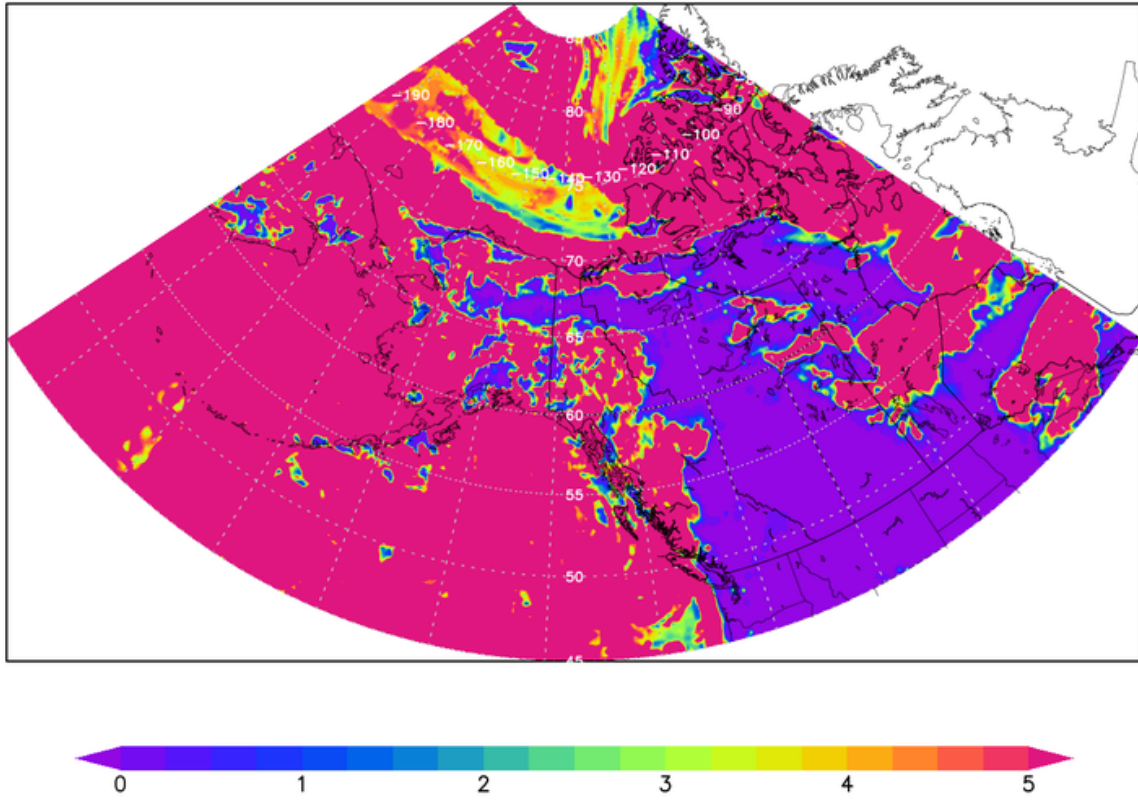
NASA/GMAO – GEOS-5 Forecast Initialized on 00z 2017-07-13

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



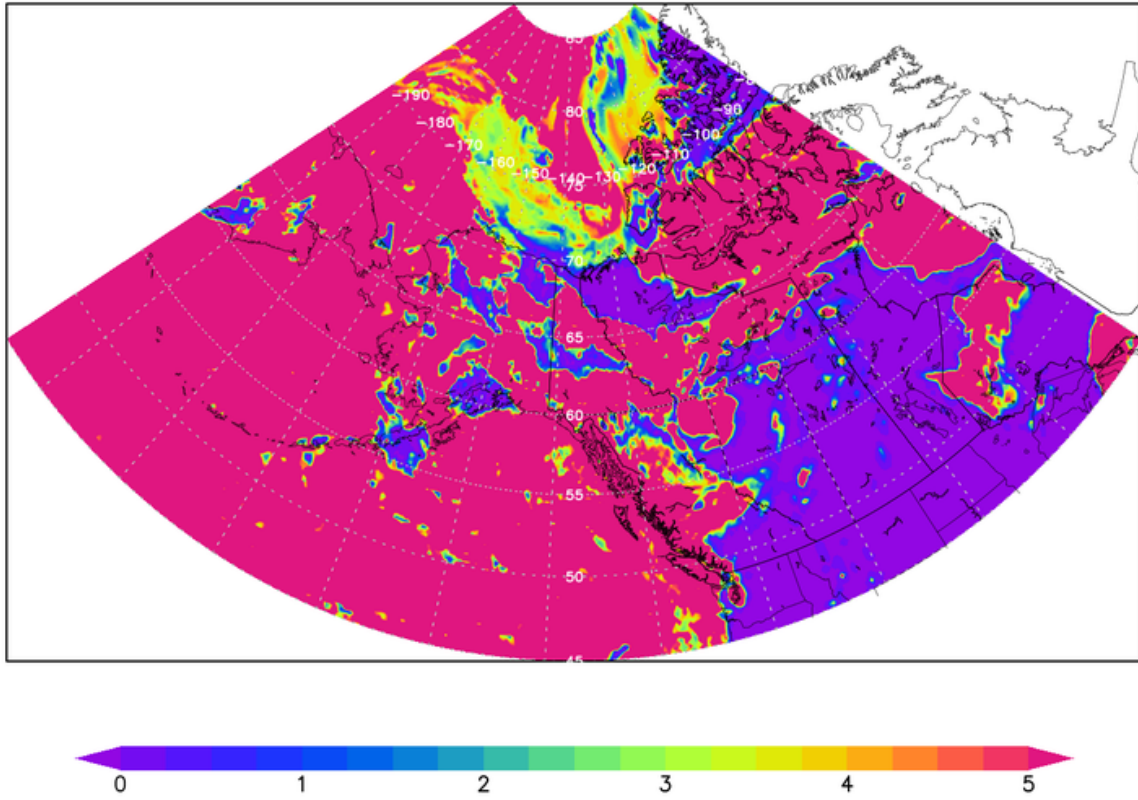
ABOVE_Low_Cloud_Optical_Depth_IT_00z13JUL_VT_18z15JUL.png

GEOS Low Cloud Optical Depth
Initial time 13 JUL. 00z
Valid time 15 JUL. 18z



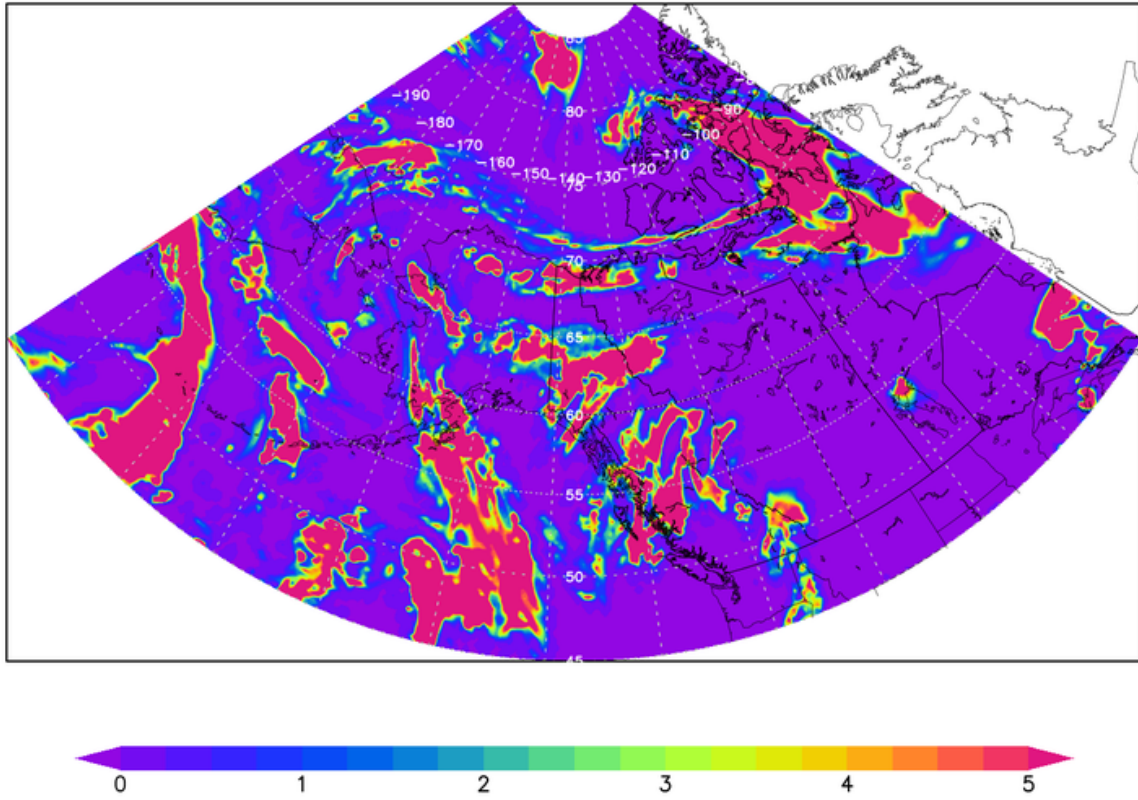
ABOVE_Low_Cloud_Optical_Depth_IT_00z13JUL_VT_18z16JUL.png

GEOS Low Cloud Optical Depth
Initial time 13 JUL. 00z
Valid time 16 JUL. 18z



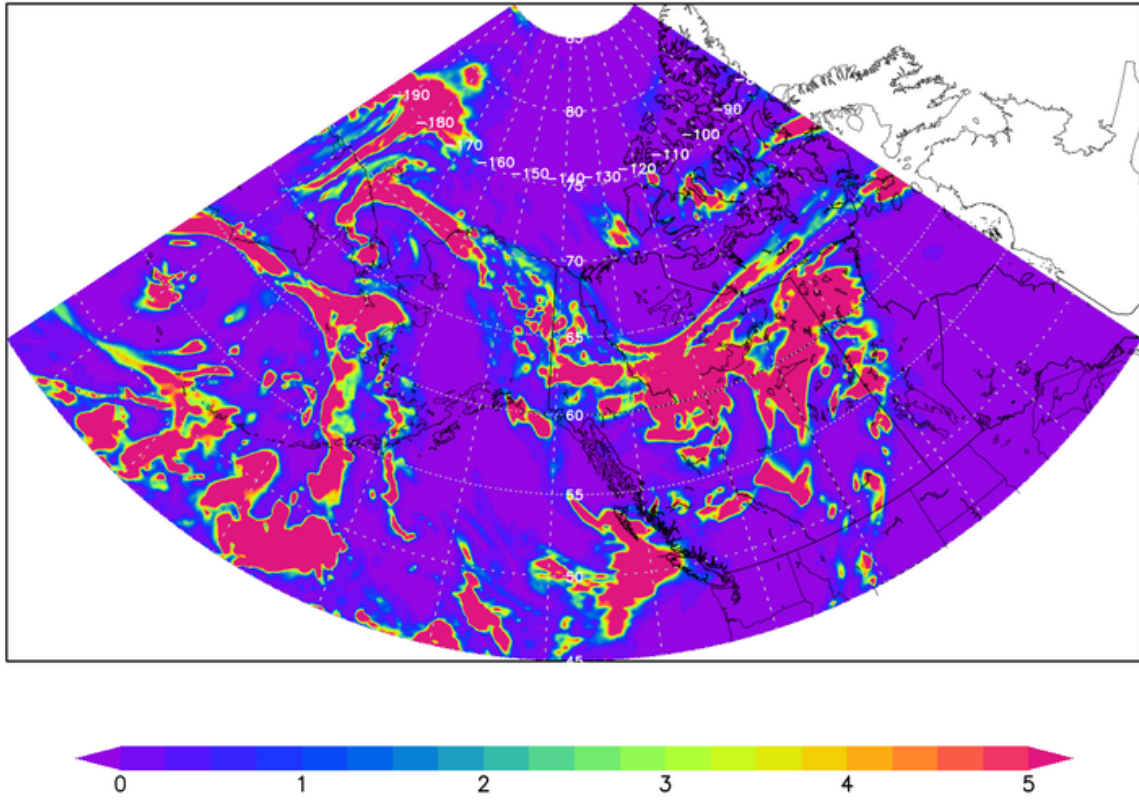
ABOVE_Mid_Cloud_Optical_Depth_IT_00z13JUL_VT_18z15JUL.png

GEOS Mid Cloud Optical Depth
Initial time 13 JUL. 00z
Valid time 15 JUL. 18z



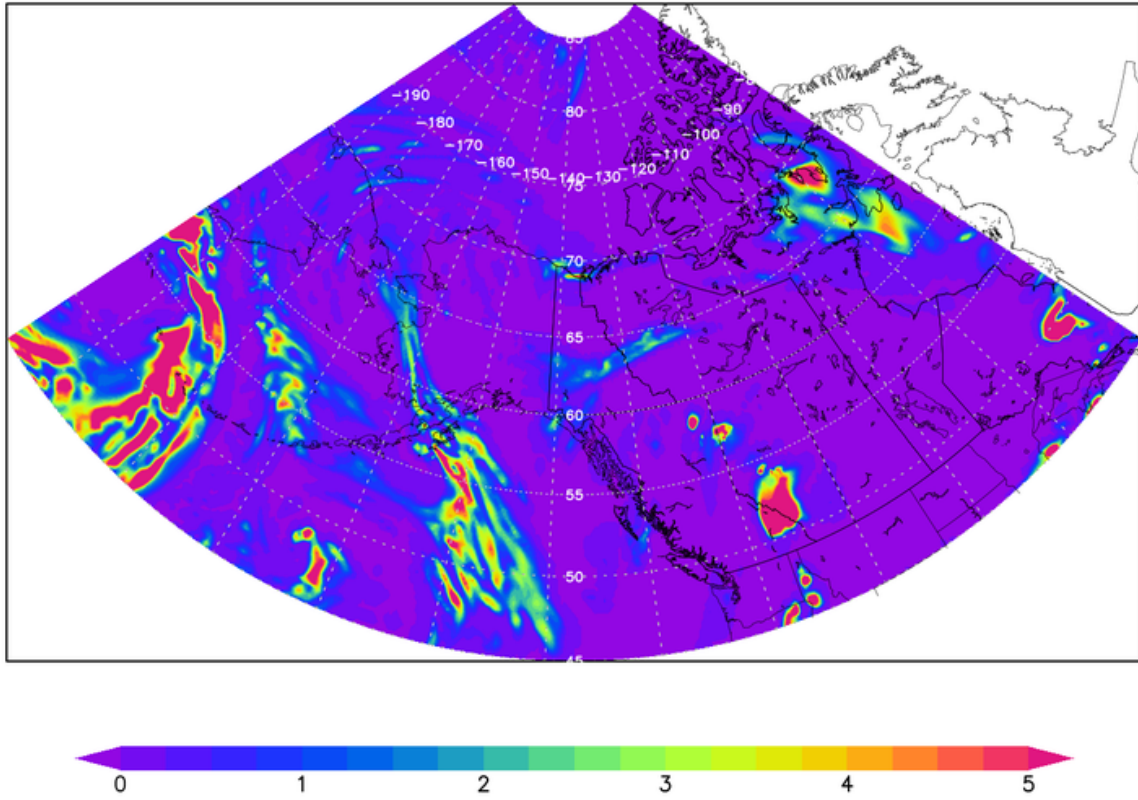
ABOVE_Mid_Cloud_Optical_Depth_IT_00z13JUL_VT_18z16JUL.png

GEOS Mid Cloud Optical Depth
Initial time 13 JUL. 00z
Valid time 16 JUL. 18z



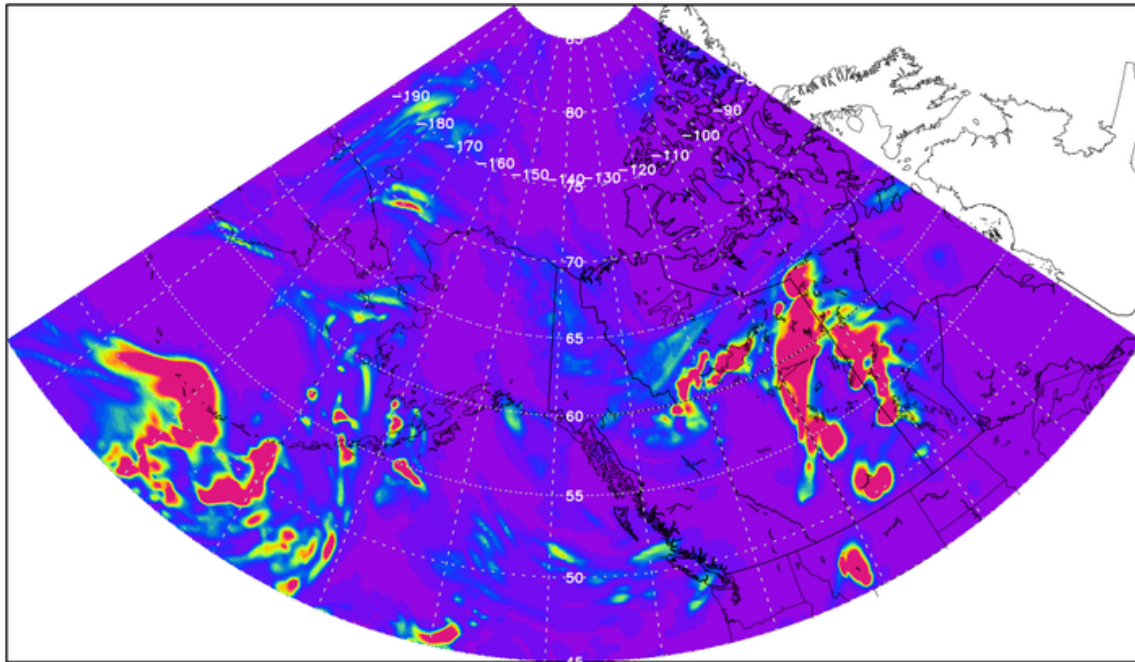
ABOVE_High_Cloud_Optical_Depth_IT_00z13JUL_VT_18z15JUL.png

GEOS High Cloud Optical Depth
Initial time 13 JUL. 00z
Valid time 15 JUL. 18z



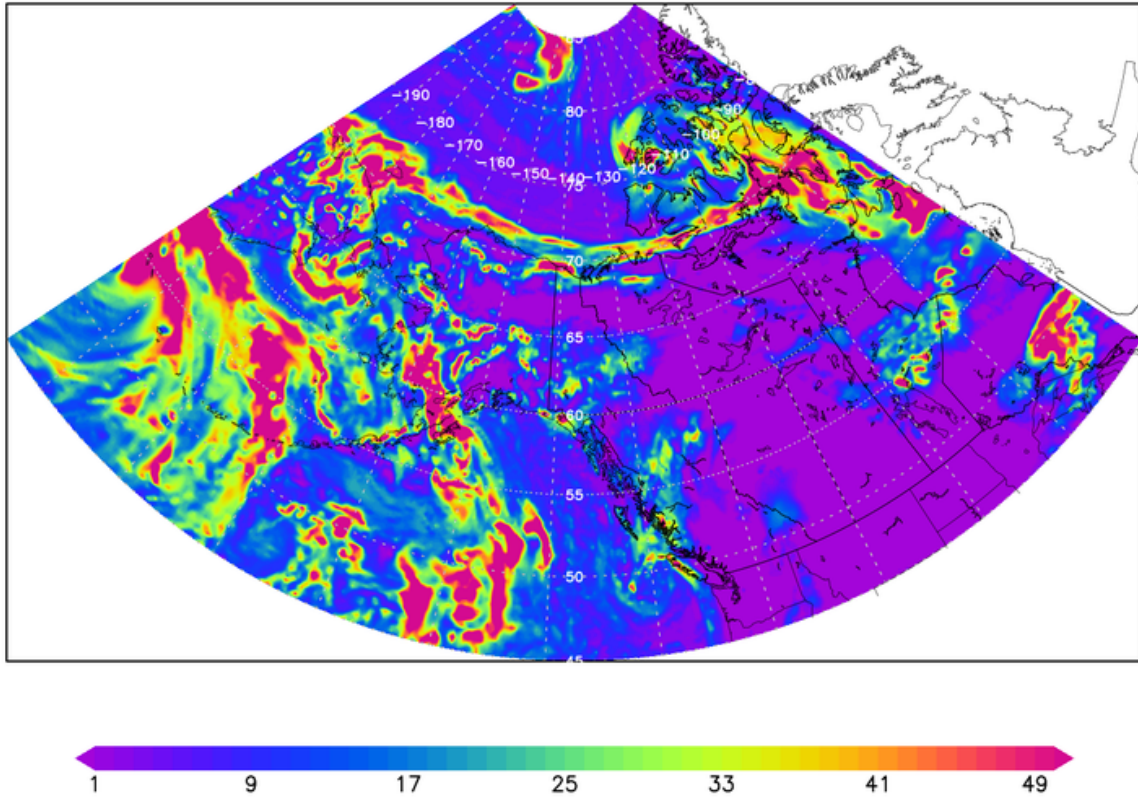
ABOVE_High_Cloud_Optical_Depth_IT_00z13JUL_VT_18z16JUL.png

GEOS High Cloud Optical Depth
Initial time 13 JUL. 00z
Valid time 16 JUL. 18z



ABOVE_Total_Cloud_IT_00z13JUL_VT_18z15JUL.png

GEOS Total Cloud Optical Depth
Initial time 13 JUL. 00z
Valid time 15 JUL. 18z



ABOVE_Total_Cloud_IT_00z13JUL_VT_18z16JUL.png

GEOS Total Cloud Optical Depth
Initial time 13 JUL. 00z
Valid time 16 JUL. 18z

