

**ABOVE Regional Weather Briefing**

Based on the GMAO GEOS meteorology and aerosol forecast fields  
Model Initialized 00z 17 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 18 July through 2359z 18 July**

The mission areas over AK appear to be free of smoke/haze through this period. The largest values of aerosol optical thickness are seen over the northern half of YKT and southern half of BC. Smaller fires continue near Fort Smith and Warburton Bay in the NWT. Precipitation continues over the western half of AK due to a low pressure system moving south east. This precipitation will be affecting the area for the next 2-days. Additional precipitation associated with an occluded front over Nunavut, deteriorates conditions along the Daring Lake. Precipitation also develops along central YKT by the end of this period. Sporadic areas with some clear conditions will be possible near PAFA, the Yukon Flats, and PASC early, becoming cloudy in the afternoon. Clear condition areas can be found along the NWT, from Inuvik to Norman Wells, through this forecast. Flights to Fort Simpson can be possible early in the period. Possible flights along southern AB and SK could be also possible. Unfortunately, areas between Yellowknife, Great Bear Lake, and Daring Lake continue to be cloudy.

**Day-2 Outlook**

**Valid 1500z 19 July through 2359z 19 July**

The largest values of aerosol optical thickness are seen along the northern YKT, near Old Crow. Additional fires continue to affect central BC, expanding to central AB. Smaller values of aerosol optical thickness are seen near Fort Smith and Warburton Bay in this forecast. Most of the ABoVE area over AK shows minimal aerosol contamination through this period. A low pressure system continues to move along south-west AK, bringing precipitation along the Bethel/Alaska Peninsula/Anchorage areas. The occluded front over Nunavut begins to move east rapidly, improving the conditions along Yellowknife and the Daring Lake. Additional precipitation develops in central YKT in the afternoon. Clear conditions will be found in the NWT, mainly along the Mackenzie River, Inuvik, Norman Wells, Yellowknife, Daring Lake, and the Great Bear Lake. Meanwhile, areas nearing Fort Simpson and Fort Liard will be mostly cloudy through the day. Over AK, conditions along PAFA, PASC, and the Yukon Flats will see sporadic clearing in the morning. Flights could also be possible over the Saskatoon vicinity, but some low values of aerosol optical thickness could be present in this area.

**Day-3 Outlook****Valid 1500z 20 July through 2359z 20 July**

Several fires continue to affect the northern portion of the YKT, south-central BC, central AB, and southern SK. Interior AK continues to have little to no aerosol optical thickness values through this forecast. A low pressure system near the Anchorage area continues to produce precipitation over southern AK, while a frontal system, moving through the Arctic Ocean, deteriorates conditions over northern AK. Possible targets to fly through this period are along most of the NWT, with conditions becoming cloudy over Fort Simpson and Fort Liard in the afternoon. Interior AK, the Yukon Flats, and southern YKT might see some sporadic clearing in the morning. Another area mostly free of clouds is SK, with some large values of aerosol optical thickness affecting the Saskatoon vicinity though the day. Southern AB could also have clear conditions early on.

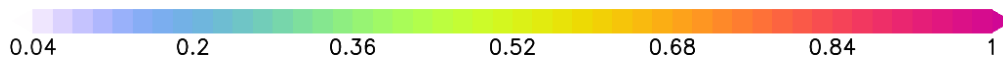
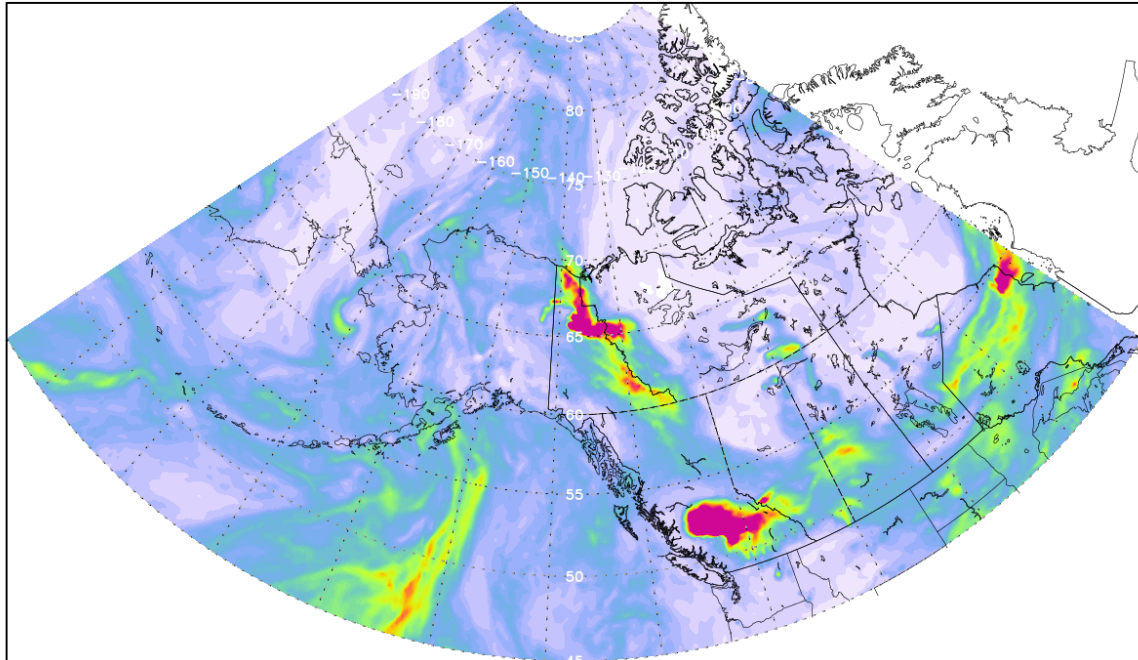
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Marangelly Cordero-Fuentes, Ph. D.  
Senior Research Scientist/Task Lead  
Science Systems and Applications, Inc.  
NASA Global Modeling and Assimilation Office  
Code 610.1, Goddard Space Flight Center, Greenbelt, MD 20771  
Bldg. 33, Rm. B-227A

Phone: 301-614-6162 | Fax: 301-614-6246  
E-Mail: [Marangelly.Fuentes-1@nasa.gov](mailto:Marangelly.Fuentes-1@nasa.gov)

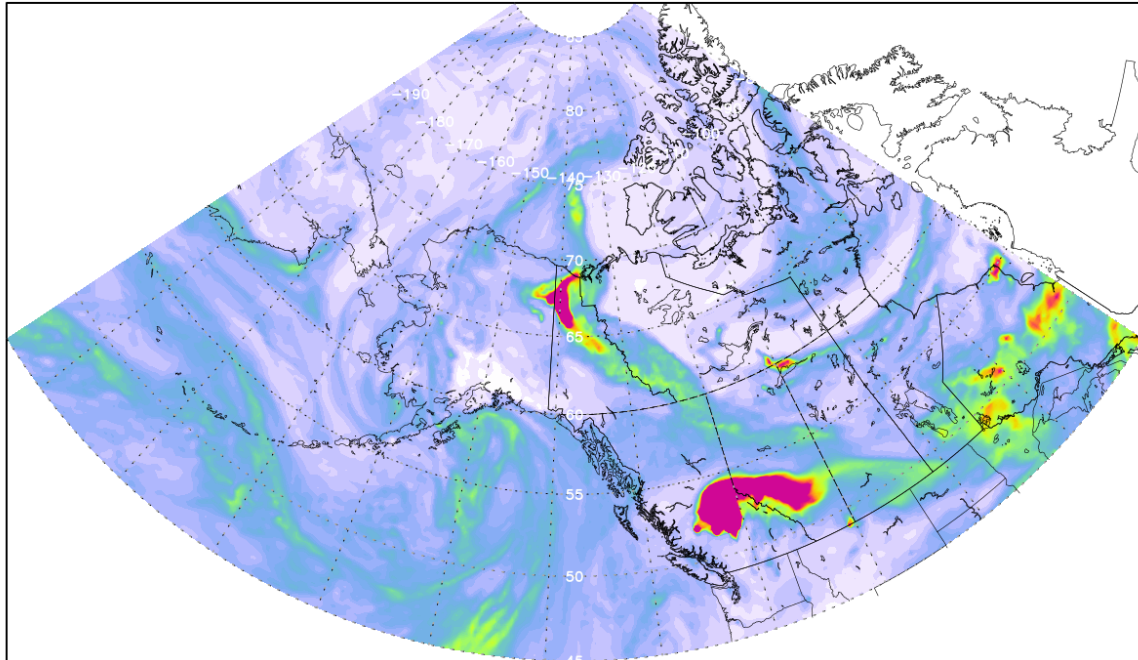
ABOVE\_Total\_AOD\_IT\_00z17JUL\_VT\_21z18JUL.png

GEOS Aerosol Optical Depth  
Initial time 17 JUL. 00z  
Valid time 18 JUL. 21z



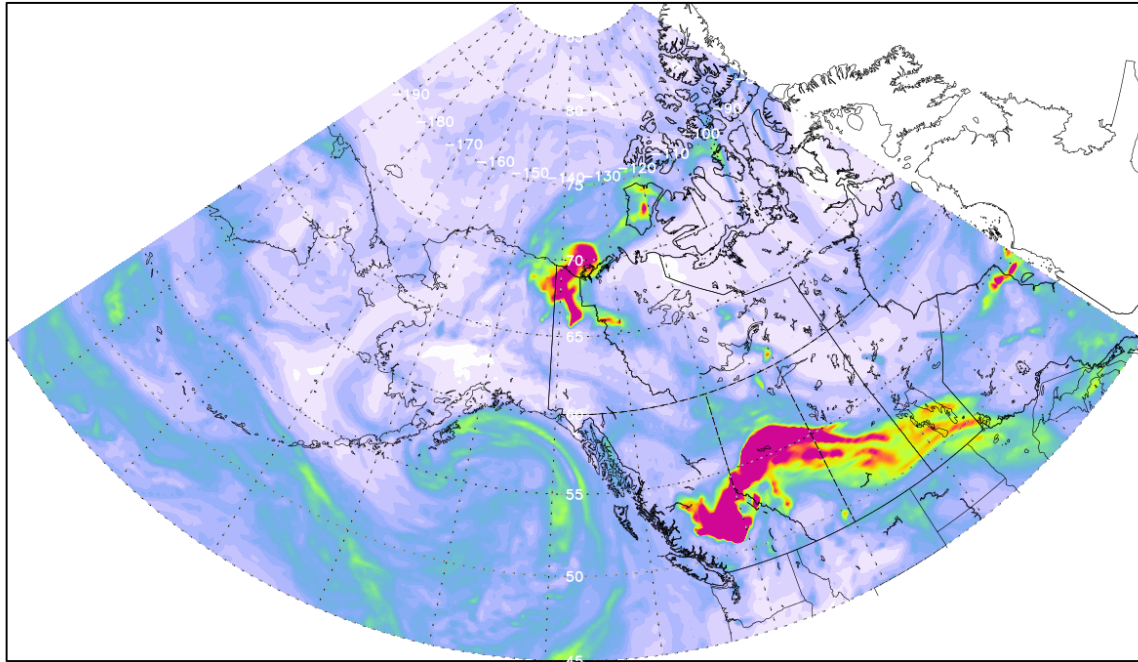
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GEOS Aerosol Optical Depth  
Initial time 17 JUL. 00z  
Valid time 19 JUL. 21z



ABOVE\_Total\_AOD\_IT\_00z17JUL\_VT\_21z20JUL.png

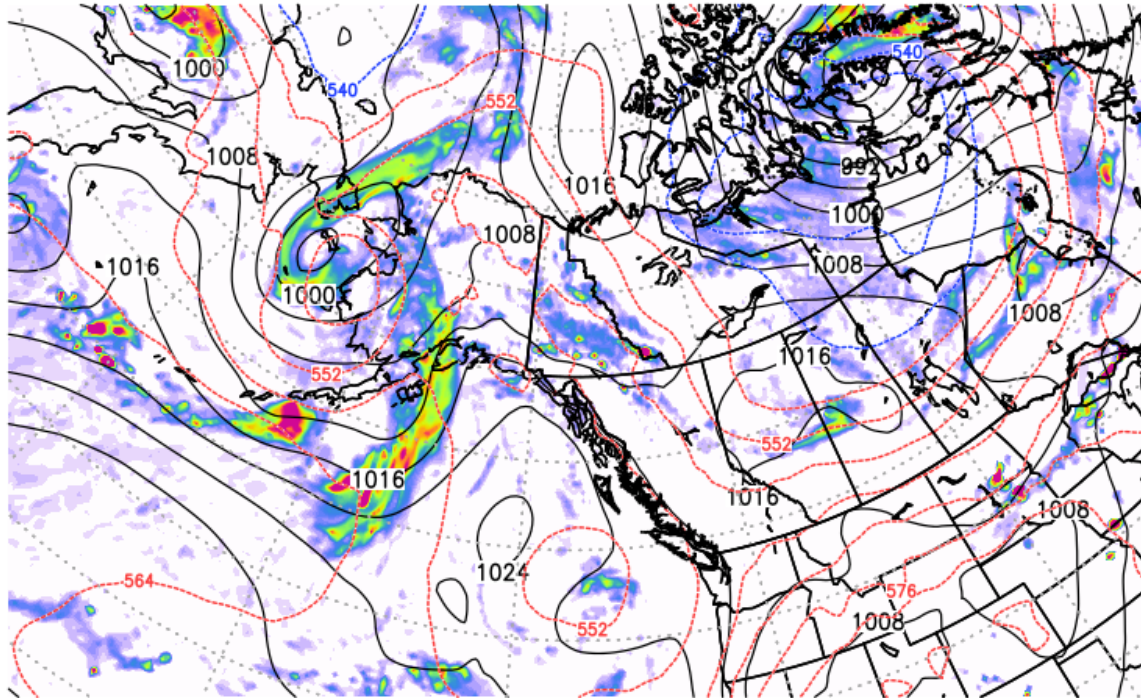
GEOS Aerosol Optical Depth  
Initial time 17 JUL. 00z  
Valid time 20 JUL. 21z



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NASA/GMAO – GEOS-5 Forecast Initialized on 00z 2017-07-17

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



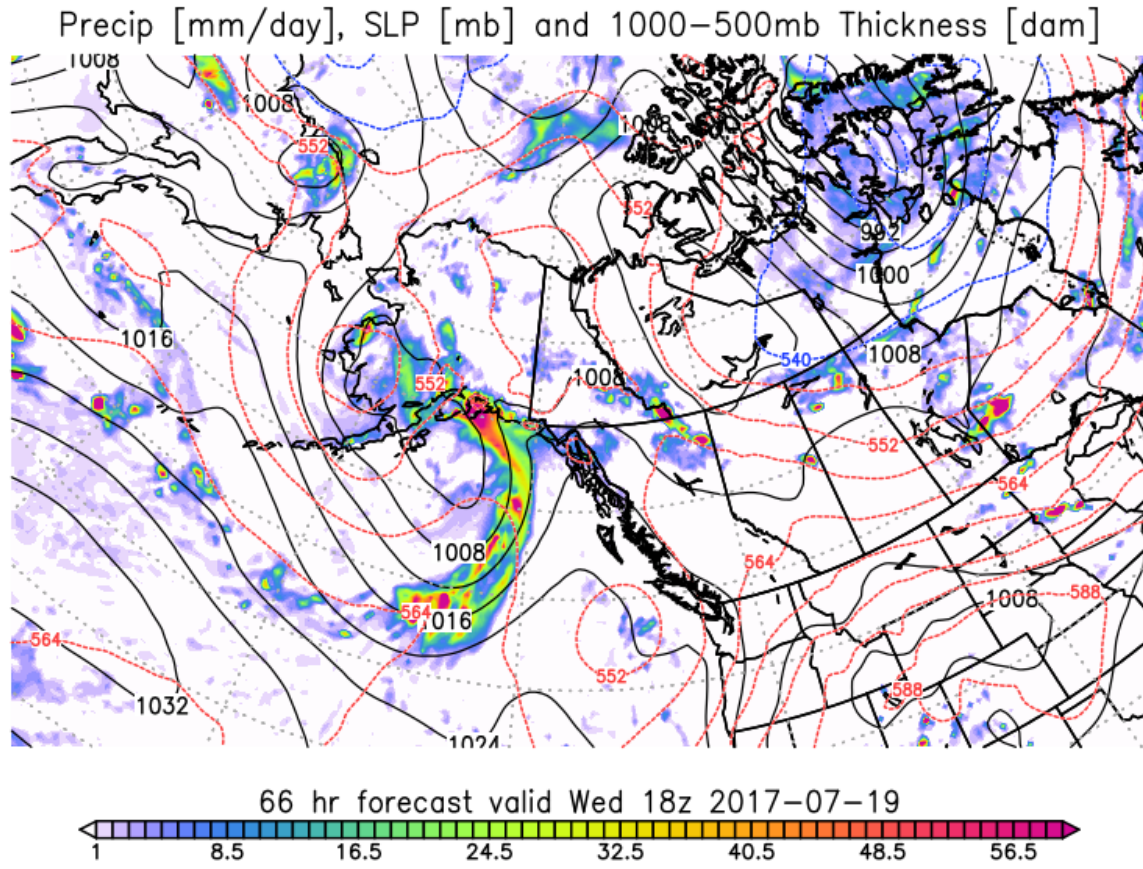
42 hr forecast valid Tue 18z 2017-07-18





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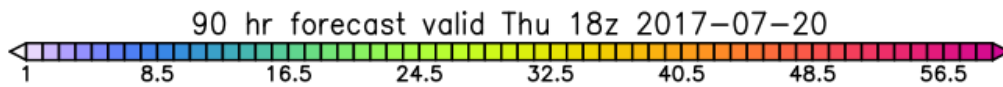
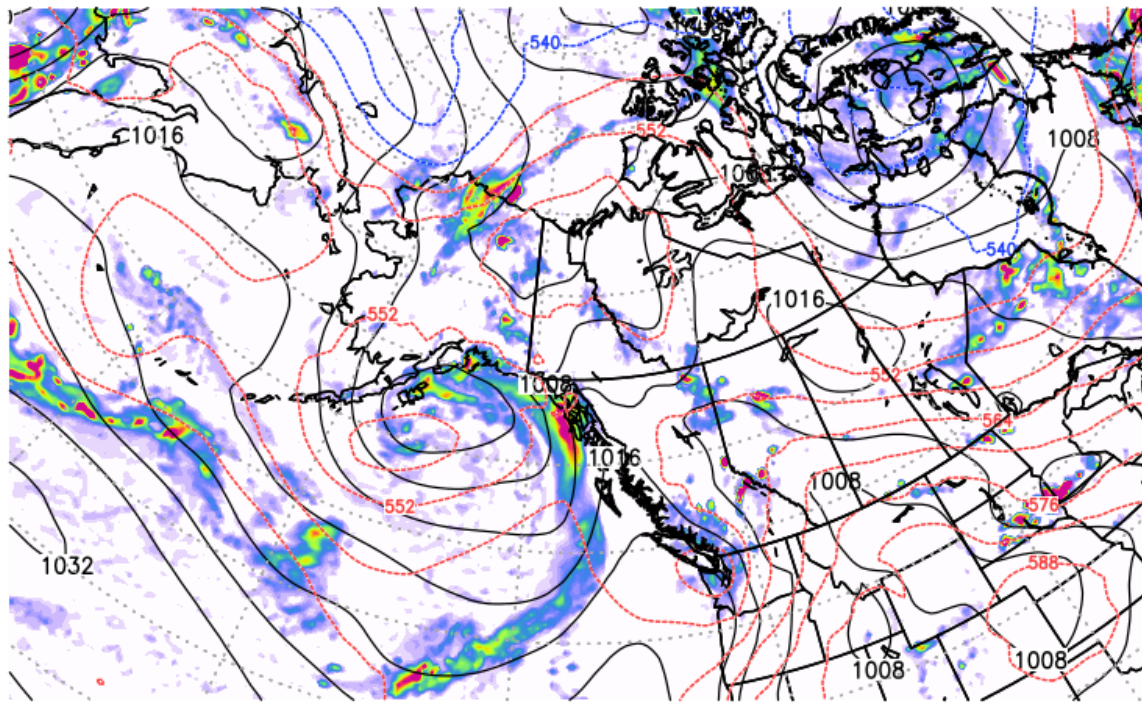
NASA/GMAO – GEOS-5 Forecast Initialized on 00z 2017-07-17



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NASA/GMAO - GEOS-5 Forecast Initialized on 00z 2017-07-17

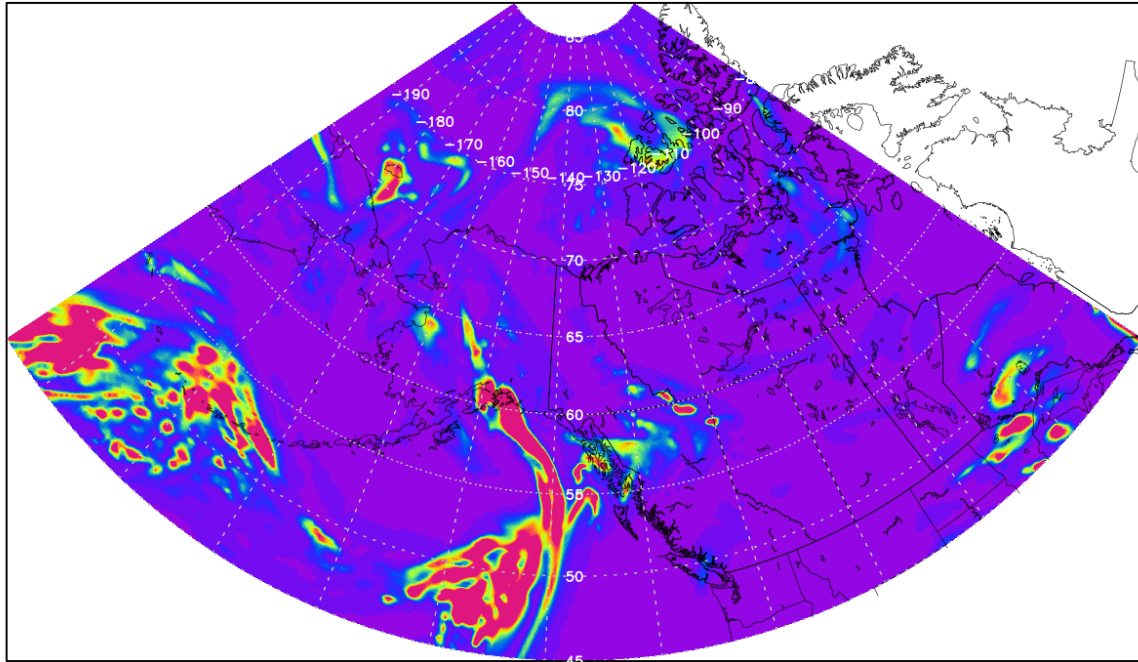
Precip [mm/day], SLP [mb] and 1000-500mb Thickness [dam]





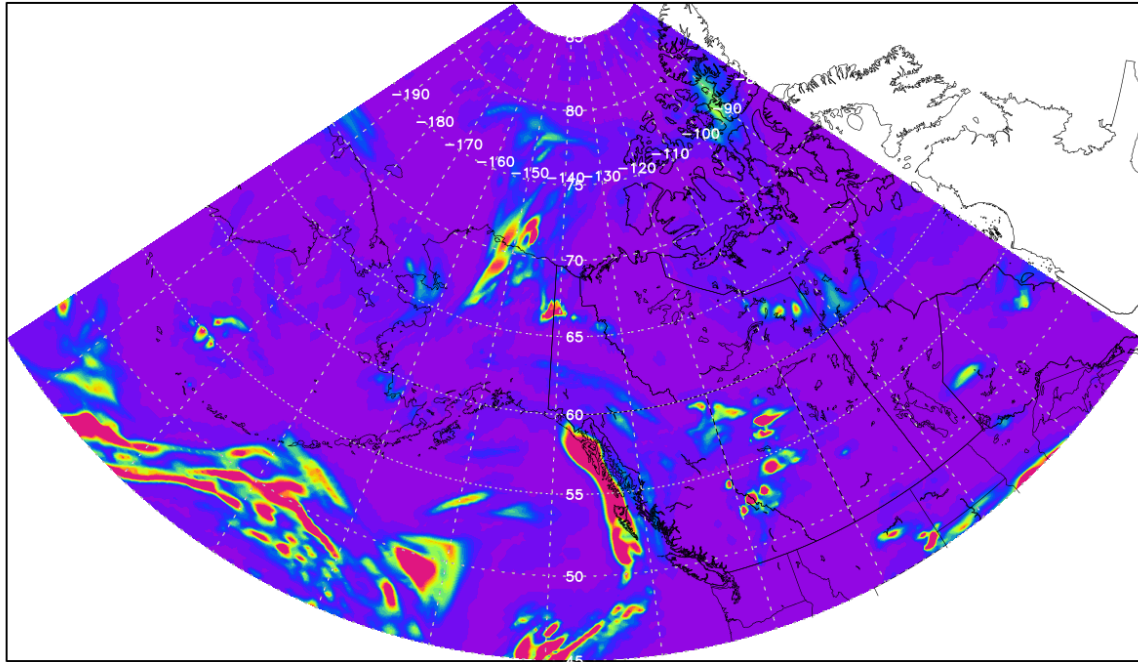
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GEOS High Cloud Optical Depth  
Initial time 17 JUL. 00z  
Valid time 19 JUL. 18z



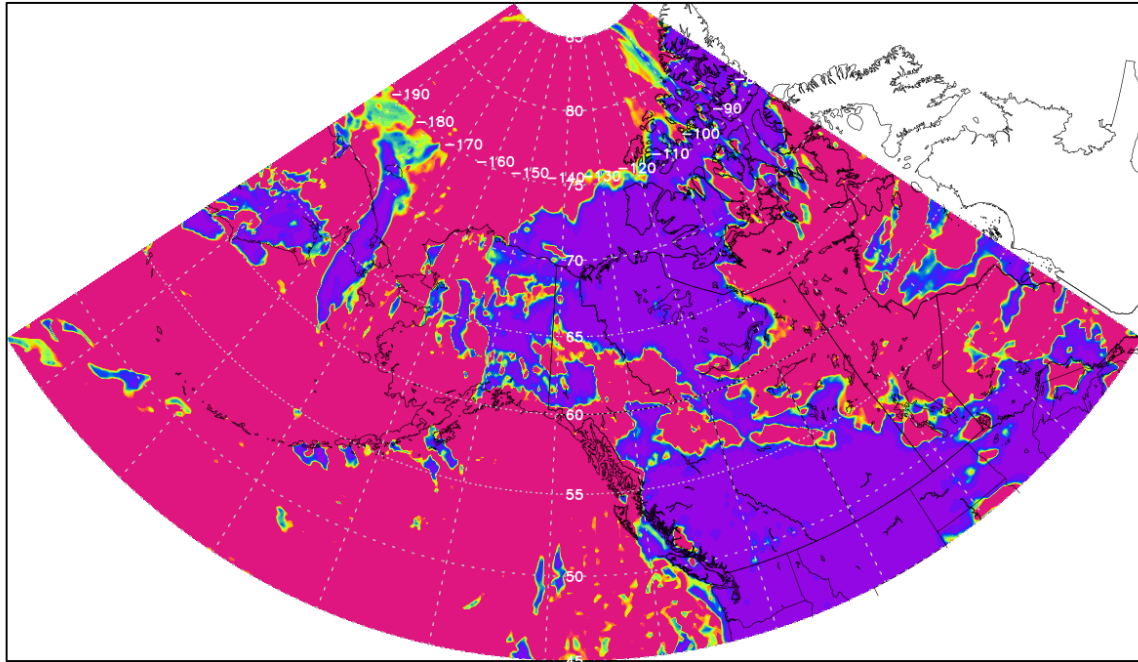
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GEOS High Cloud Optical Depth  
Initial time 17 JUL. 00z  
Valid time 20 JUL. 18z



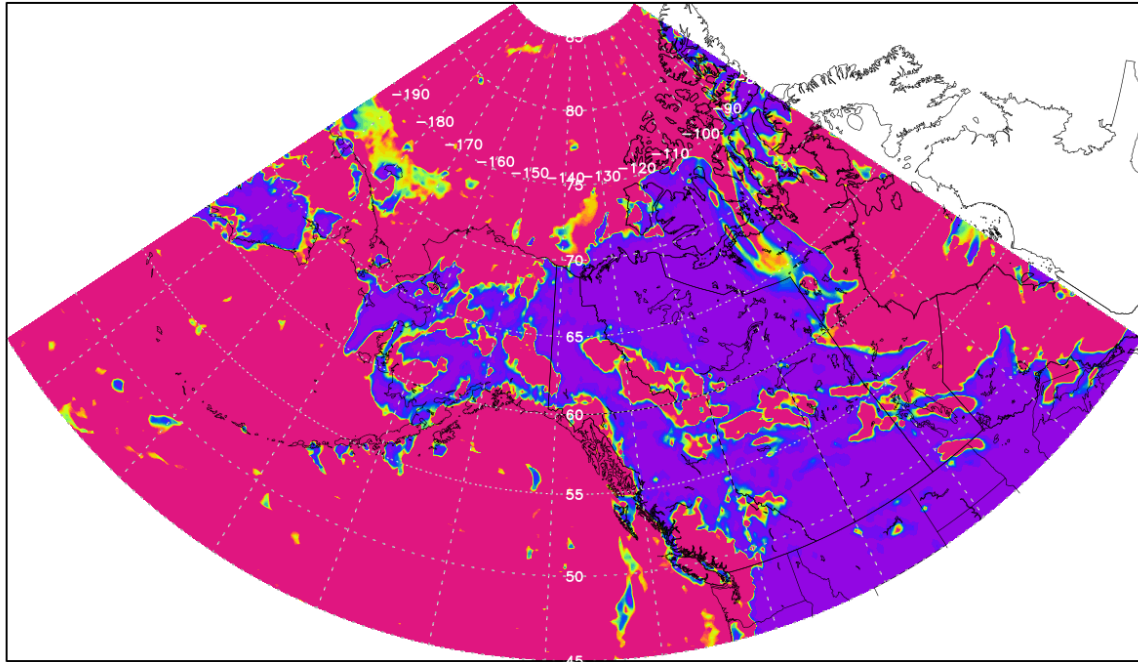
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GEOS Low Cloud Optical Depth  
Initial time 17 JUL. 00z  
Valid time 19 JUL. 18z



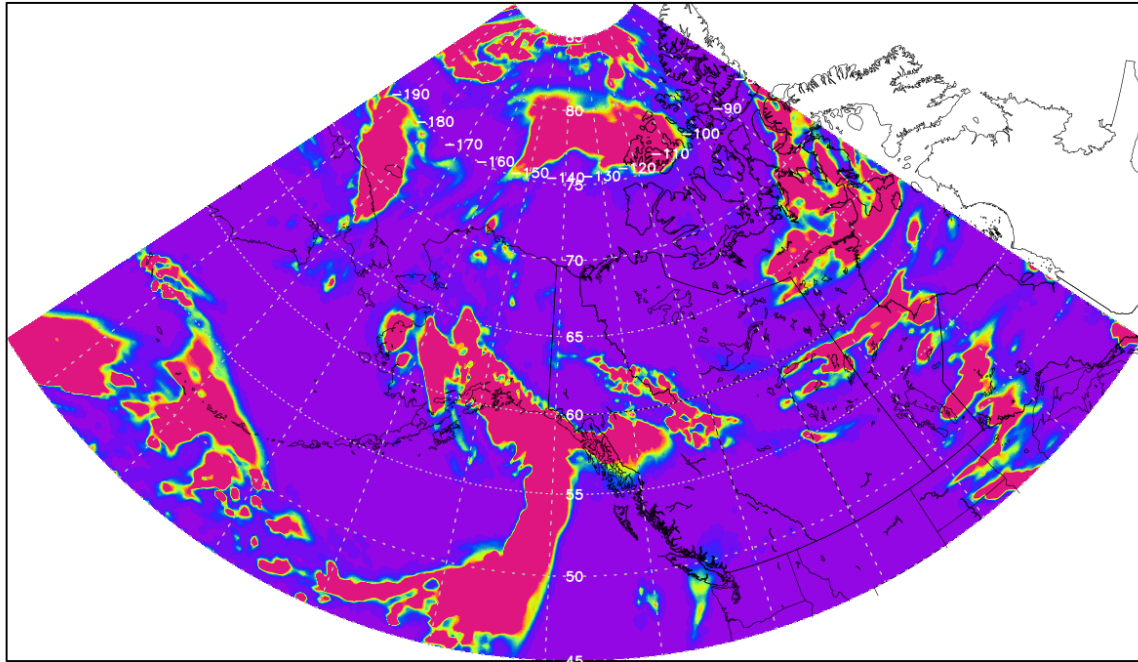
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GEOS Low Cloud Optical Depth  
Initial time 17 JUL. 00z  
Valid time 20 JUL. 18z



ABOVE\_Mid\_Cloud\_Optical\_Depth\_IT\_00z17JUL\_VT\_18z19JUL.png

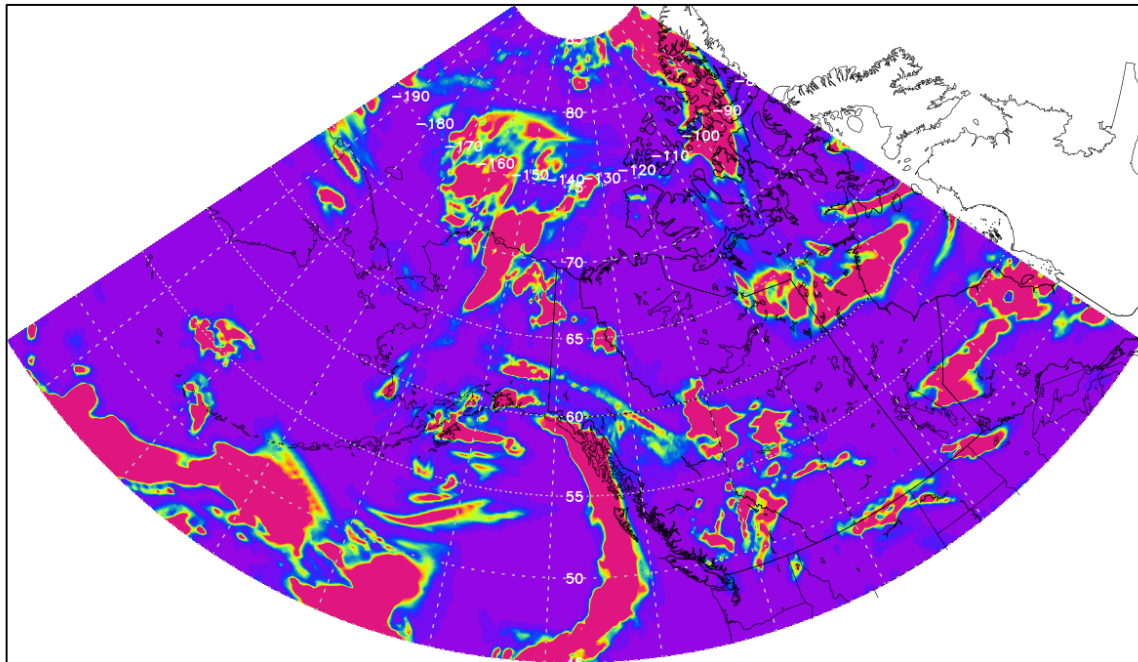
GEOS Mid Cloud Optical Depth  
Initial time 17 JUL. 00z  
Valid time 19 JUL. 18z





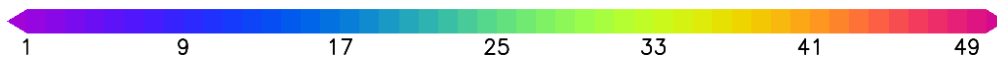
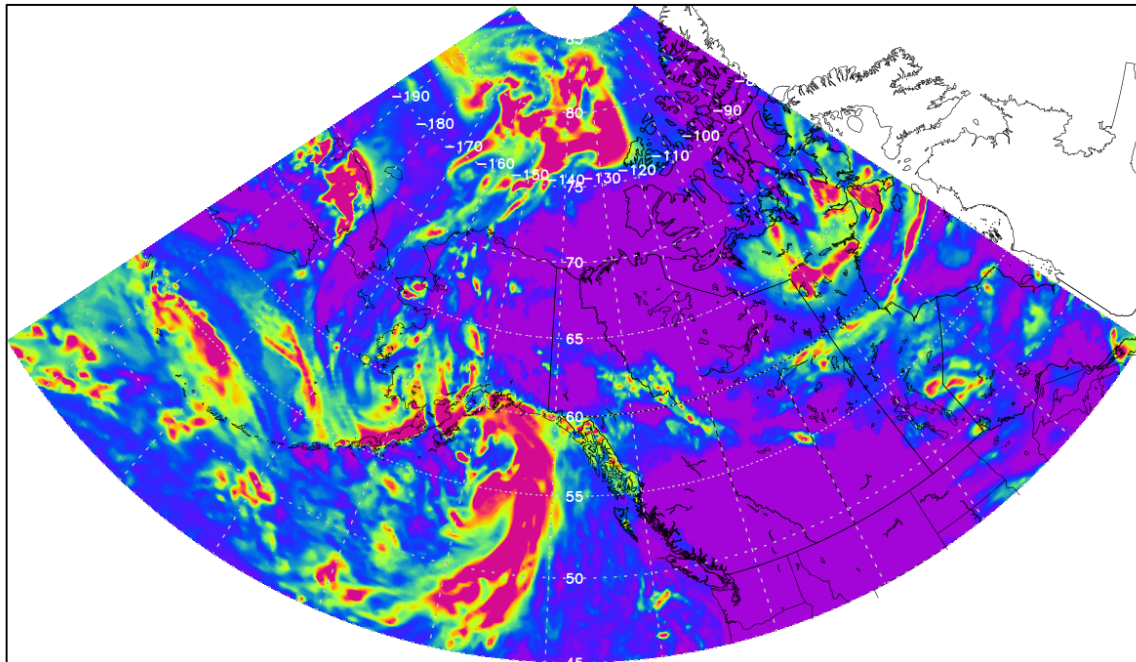
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GEOS Mid Cloud Optical Depth  
Initial time 17 JUL. 00z  
Valid time 20 JUL. 18z



ABOVE\_Total\_Cloud\_IT\_00z17JUL\_VT\_18z19JUL.png

GEOS Total Cloud Optical Depth  
Initial time 17 JUL. 00z  
Valid time 19 JUL. 18z



ABOVE\_Total\_Cloud\_IT\_00z17JUL\_VT\_18z20JUL.png

GEOS Total Cloud Optical Depth  
Initial time 17 JUL. 00z  
Valid time 20 JUL. 18z

