

ABOVE Regional Weather Briefing

Based on the GMAO GEOS meteorology and aerosol forecast fields

Model Initialized 00z 20 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 21 June through 2359z 21 June**

An upper level low pressure system will transit across the central portion of SP during this period.

There will be multi-layered clouds and precipitation attendant with this area of low pressure. Some of this precipitation will be convective in nature with heavy rainfall rates.

Elsewhere, a diffuse frontal boundary will be located roughly along the northern border of SP and AP with the NWT. Showers/T-showers will be found along this stretch. The southern portion of SP is most likely to experience clear sky or mainly clear sky conditions. The GEOS model forecasts this favorable target area to be bound by 52N to the north, the US border to the south, the border with MP to the east and the border with AP to the west. The remainder of the mission area will experience broken to overcast conditions. Yellowknife will be on the northern shield of clouds with this low pressure system, there could be clear to mostly clear conditions at that station.

Smoke: Optically thin areas possible for east-central SP, and the far NE corner of AP.

Day-2 Forecast**Valid 1500z 22 June through 2359z 22 June**

On Thursday, the low pressure system will move east into MP, but leave behind a trailing frontal zone roughly along latitude 52-53N into SP and AP. There will be multi-layer clouds and precipitation in association with this frontal zone. Another weak frontal band with clouds and light showers will stretch from the western shore of Hudson Bay to roughly Fort McMurray. Most of SP will see at least partial cloudiness with the most overcast located over the south-central portion of the province.

The model indicates a clear slot from the US border north to the frontal zone along 52-53N. A partly cloudy region is forecast to be bound by 56N-63N and 124W-113W. Clear to mainly clear conditions should exist near and around station Yellowknife.

Smoke: Optically thin areas possible near Reindeer Lake.

Day-3 Outlook**Valid 1500z 23 June through 2359z 23 June**

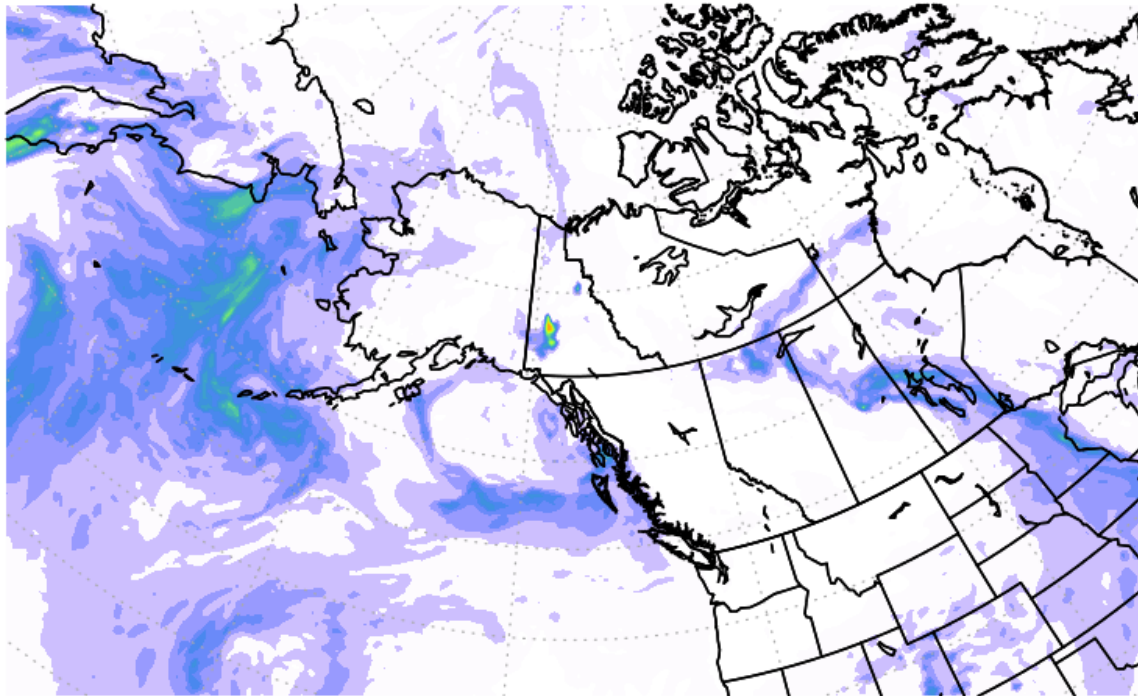
The mission region will be located in northwesterly flow surface and aloft Friday. While little to no precipitation is forecast for the entire region, most of the mission region will experience partly cloudy conditions. The exception will be near the US border with the Prairie Provinces...here

expect thicker overcast conditions. Large totally clear slots may be at a premium.
Smoke: None expected entire region.

Gary Partyka
Global Modeling and Assimilation Office - GSFC

NASA/GMAO - GEOS-5 Forecast Initialized on 00z 2017-06-20

Total Aerosol Optical Thickness

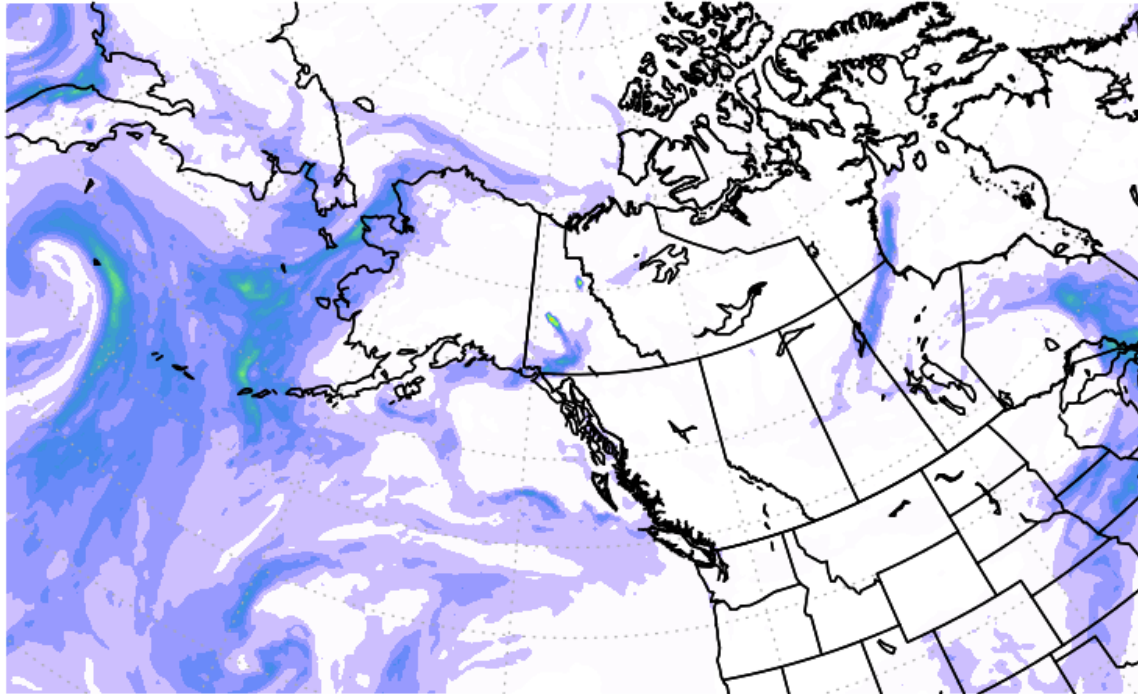


44 hr forecast valid Wed 20z 2017-06-21



NASA/GMAO - GEOS-5 Forecast Initialized on 00z 2017-06-20

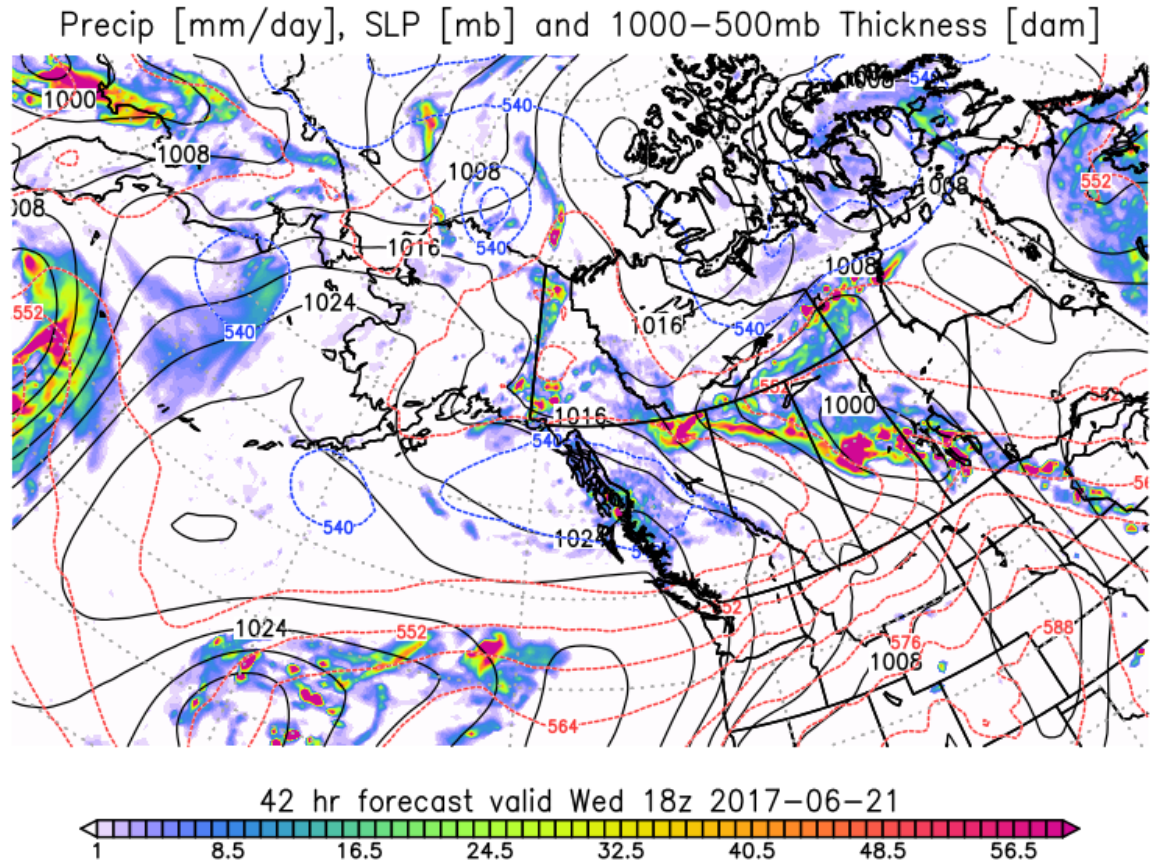
Total Aerosol Optical Thickness



66 hr forecast valid Thu 18z 2017-06-22

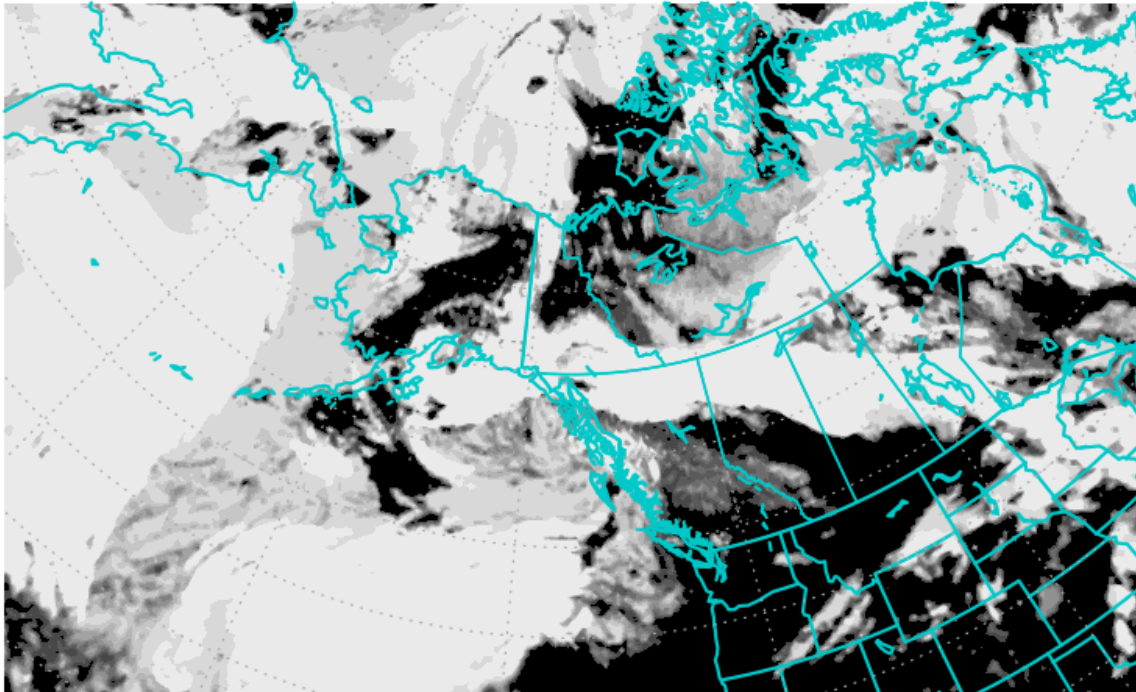


NASA/GMAO - GEOS-5 Forecast Initialized on 00z 2017-06-20

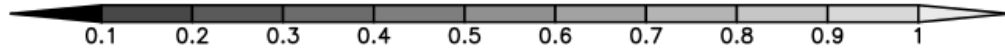


NASA/GMAO - GEOS-5 Forecast Initialized on 00z 2017-06-20

Total Cloud Fraction

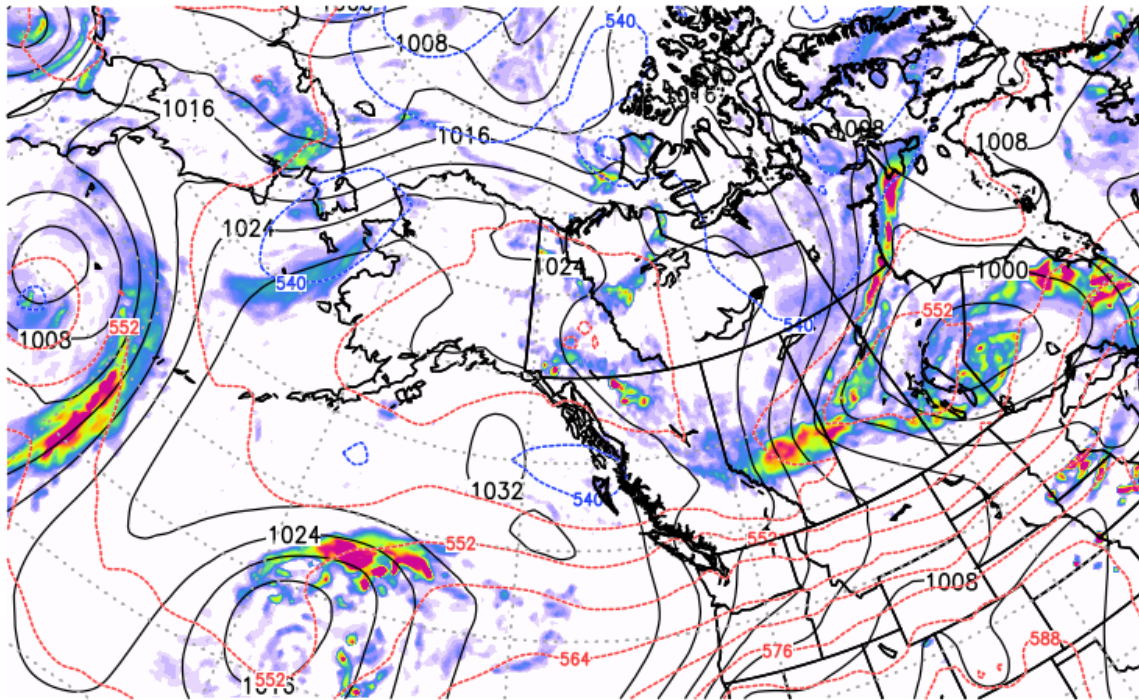


42 hr forecast valid Wed 18z 2017-06-21



NASA/GMAO - GEOS-5 Forecast Initialized on 00z 2017-06-20

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

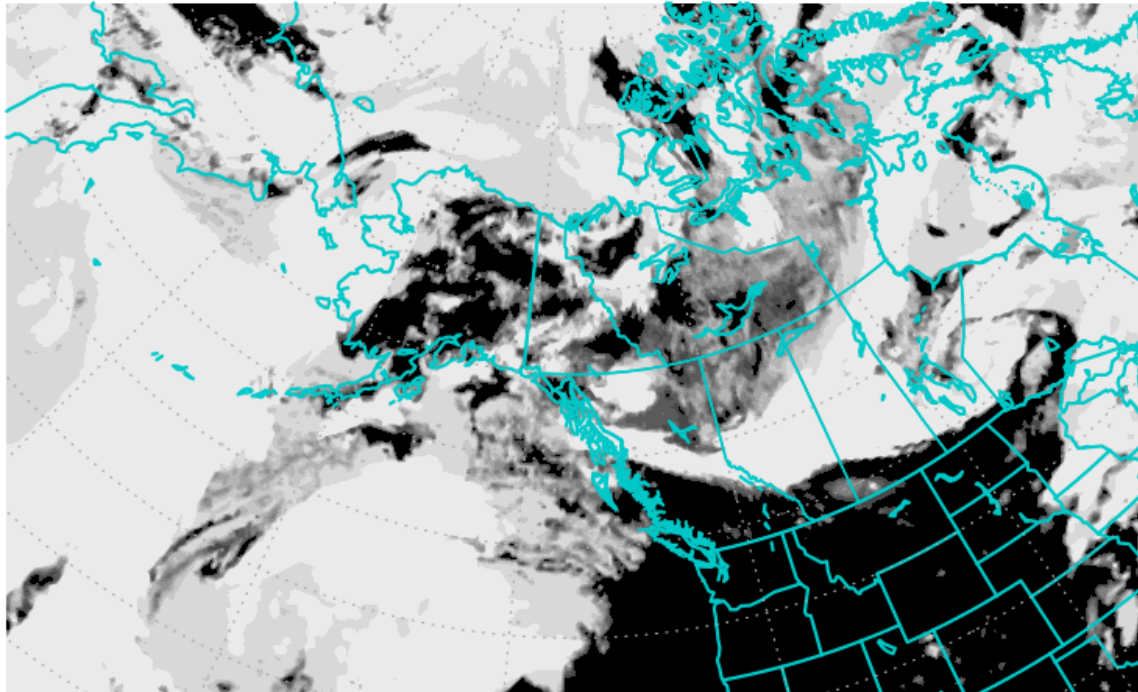


66 hr forecast valid Thu 18z 2017-06-22



NASA/GMAO - GEOS-5 Forecast Initialized on 00z 2017-06-20

Total Cloud Fraction



66 hr forecast valid Thu 18z 2017-06-22

