

ABOVE Regional Weather Briefing

Based on the GMAO GEOS meteorology and aerosol forecast fields

Model Initialized 00z 23 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 24 June through 2359z 24 June**

High pressure will be centered over the majority of the mission region. A low pressure center over the Gulf of Alaska will have a weak trough extending from it through the central YKT and then up towards northwestern NWT.

In those locations, there will be scattered showers and isolated thunderstorms. A few pop-up showers may also be possible over northern AP and SP, but these will be limited.

The best clear views or mainly clear (**mainly clear = limited low clouds and/or thin high overcast**) views on Saturday will be the southern halves of SP/AP, and most of the NWT west of Great Slave Lake...except for that line of showers listed above. We believe that in and around Yellowknife skies will be clear.

Smoke/aerosol: A modest-sized fire is ongoing along the Mackenzie River North of Norman Wells in the NWT.

Older fires, which may be out now due to rain, will still have some smoke in the YKT near Eagle Plains and east towards Colville Lake, NWT.

Day-2 Forecast**Valid 1500z 25 June through 2359z 25 June**

On Sunday the Gulf of Alaska low pressure system will move up/re-develop over the YKT and western NWT bringing multi-layered cloud decks and precipitation with it. The border between the YKT and the NWT will be particularly vulnerable to thunderstorm development along with the area around Inuvik. High pressure will hold firm over the Prairie Provinces. These regions should remain precipitation-free Sunday (except eastern MP).

GEOS indicates that clear skies are likely for Sunday morning around Yellowknife and all points south and east of there. Additional cloud decks will become more prominent here later on Sunday afternoon with the heating of the day in these regions. A deck of low clouds may also be found over central SP throughout the daylight hours.

Smoke/aerosol: Rain may well extinguish all NWT and YKT fires. Thin smoke aerosol remains from the northern YKT (except moderate right in the vicinity of the fires) to Inuvik and along the border of the NWT with Nunavut.

Very thin smoke/aerosol may be noticed over central AP.

Day-3 Outlook**Valid 1500z 26 June through 2359z 26 June**

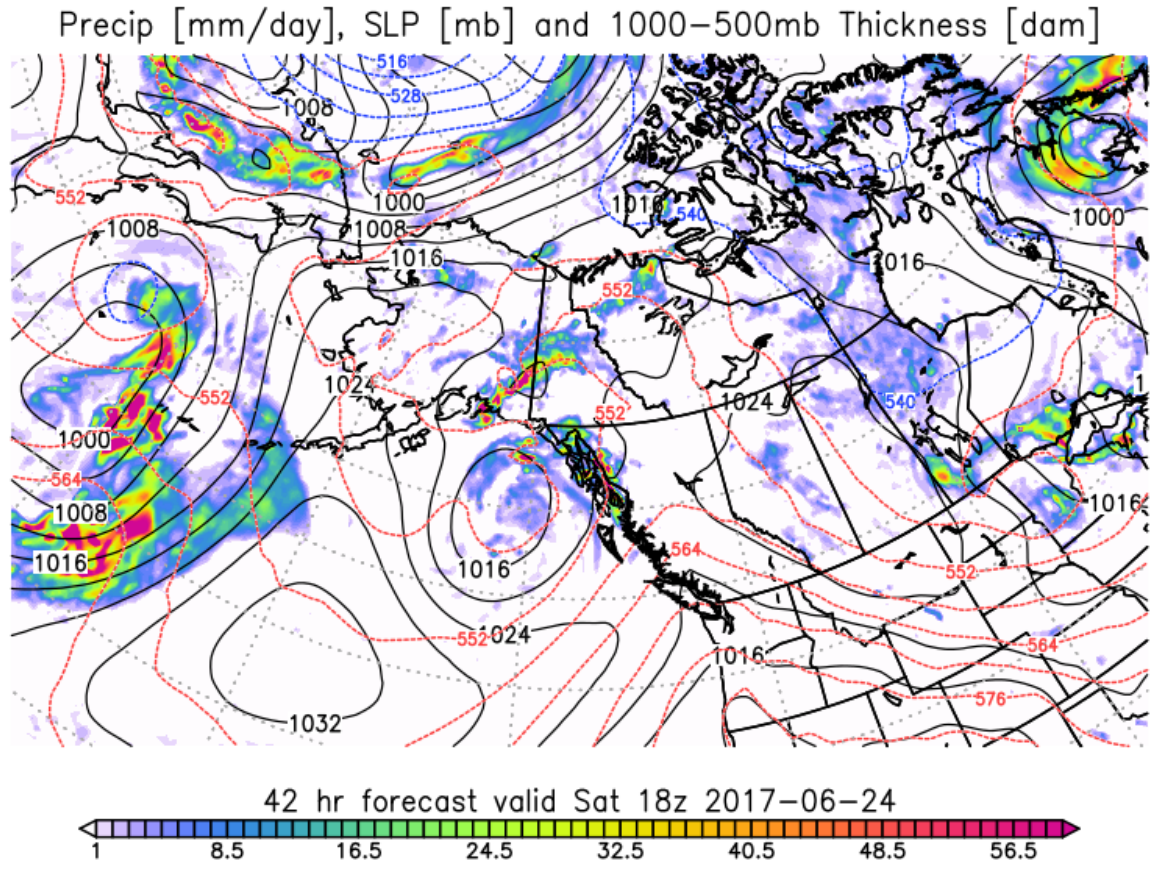
Low pressure will slide from the YKT southeastward into Alberta, this low will leave behind a trough of low pressure over a sizeable portion of western Canada and be the focus for widespread clouds and precipitation, especially during the afternoon hours Monday. A southerly flow ahead of the low pressure system will bring partly cloudy and breezy conditions to the southern parts of the Prairie Provinces. No major fires should be active on Monday with only widespread areas of thin smoke advected from previous fires.

Gary Partyka

Global Modeling and Assimilation Office - GSFC

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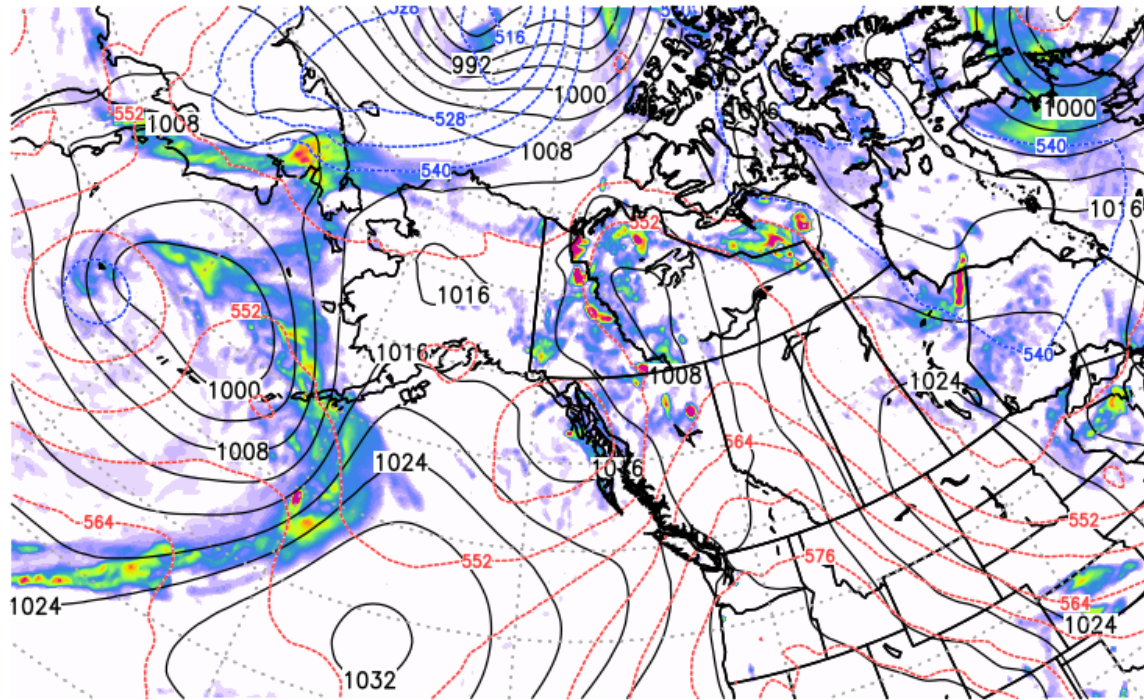
NASA/GMAO - GEOS-5 Forecast Initialized on 00z 2017-06-23



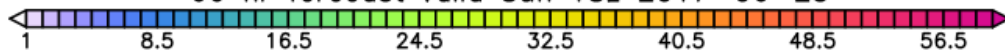
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NASA/GMAO - GEOS-5 Forecast Initialized on 00z 2017-06-23

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



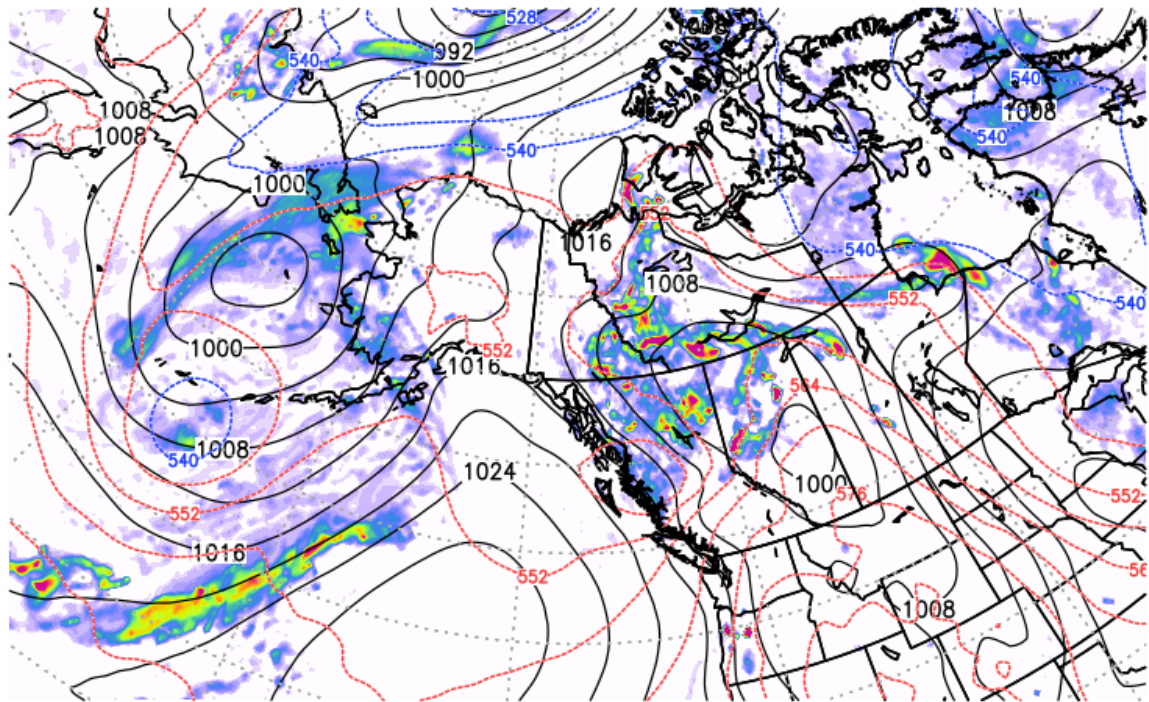
66 hr forecast valid Sun 18z 2017-06-25



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NASA/GMAO - GEOS-5 Forecast Initialized on 00z 2017-06-23

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



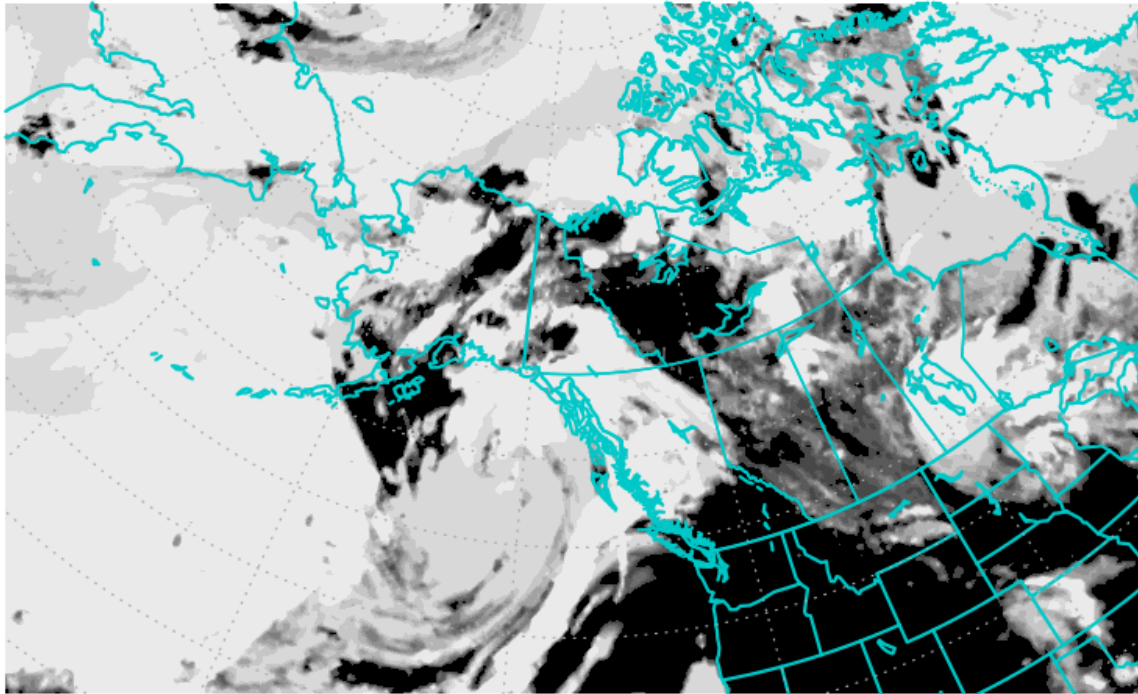
90 hr forecast valid Mon 18z 2017-06-26



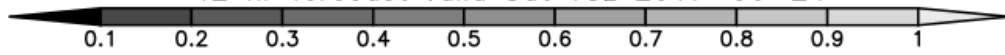
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NASA/GMAO - GEOS-5 Forecast Initialized on 00z 2017-06-23

Total Cloud Fraction



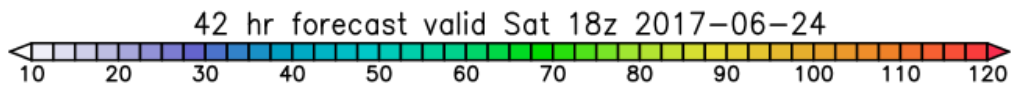
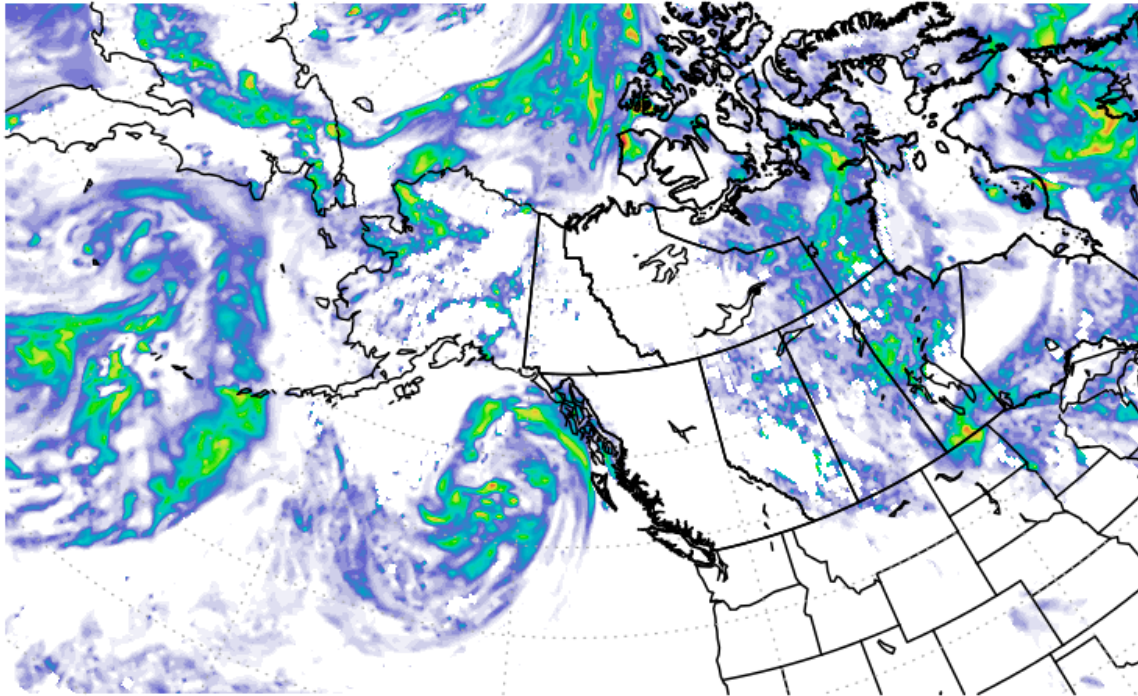
42 hr forecast valid Sat 18z 2017-06-24



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NASA/GMAO - GEOS-5 Forecast Initialized on 00z 2017-06-23

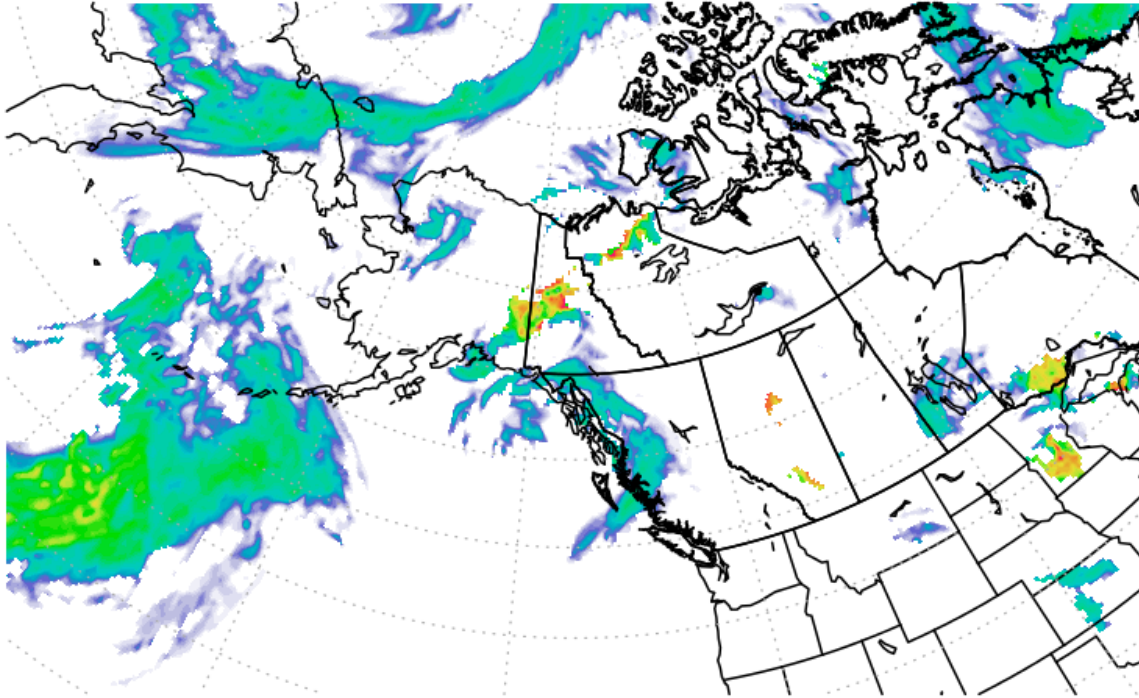
In-Cloud Optical Thickness of Low Cloud where coverage grtr 10%



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NASA/GMAO – GEOS-5 Forecast Initialized on 00z 2017-06-23

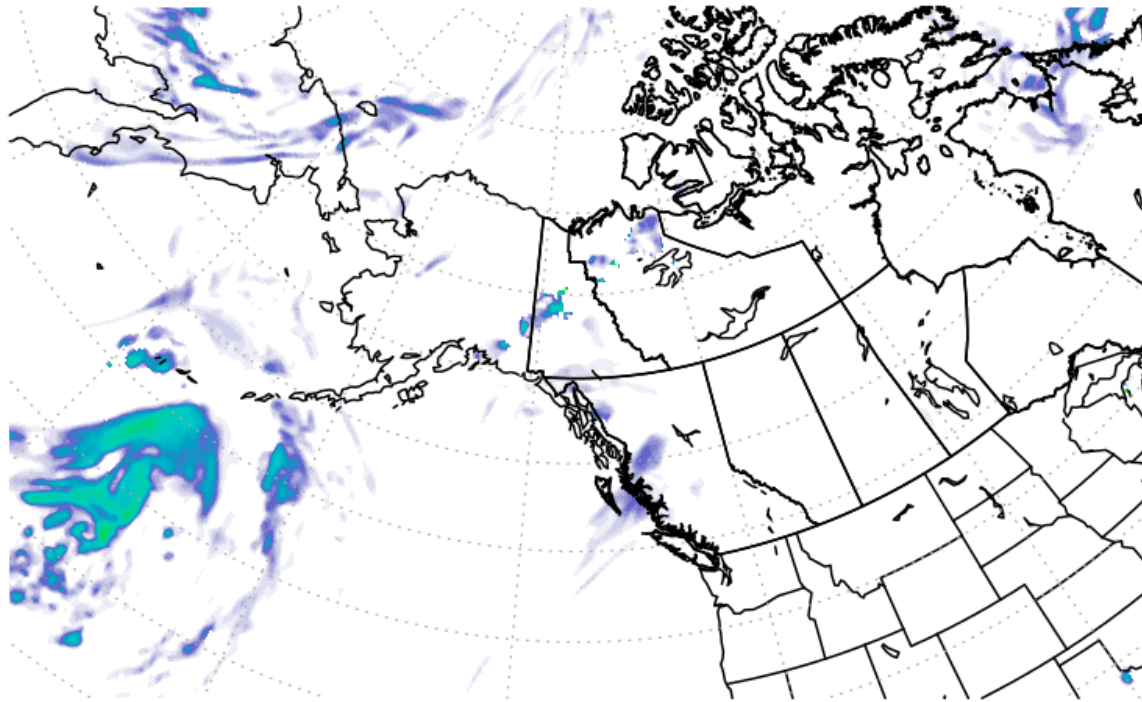
In-Cloud Optical Thickness of Middle Cloud where coverage grtr 10%



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NASA/GMAO - GEOS-5 Forecast Initialized on 00z 2017-06-23

In-Cloud Optical Thickness of High Cloud where coverage grtr 10%



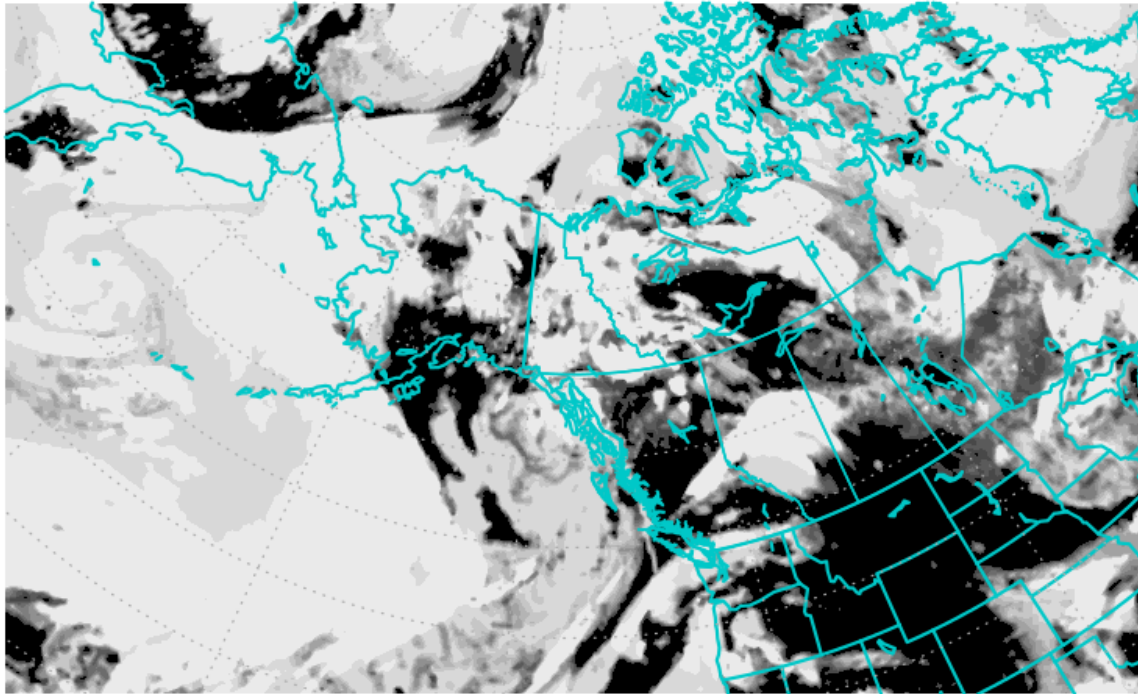
42 hr forecast valid Sat 18z 2017-06-24



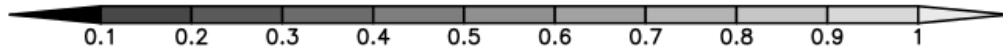
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NASA/GMAO - GEOS-5 Forecast Initialized on 00z 2017-06-23

Total Cloud Fraction



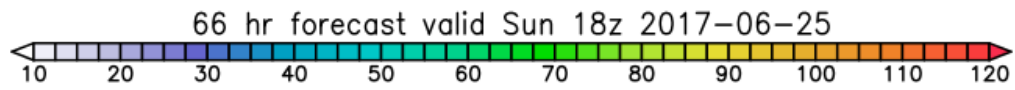
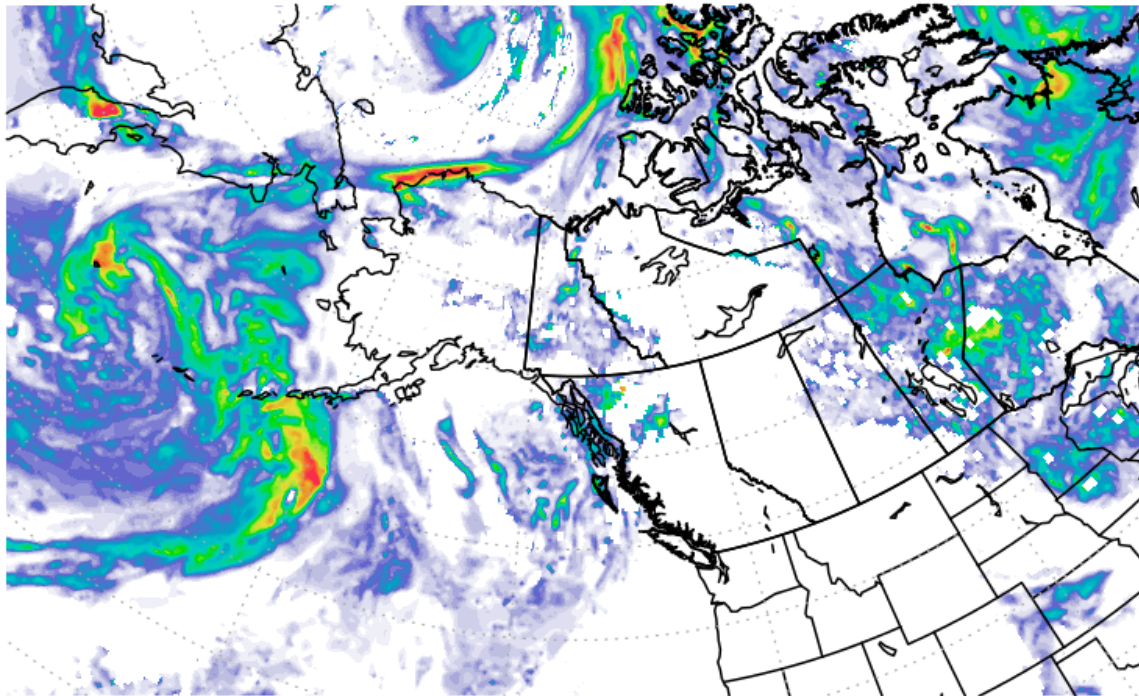
66 hr forecast valid Sun 18z 2017-06-25



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NASA/GMAO – GEOS-5 Forecast Initialized on 00z 2017-06-23

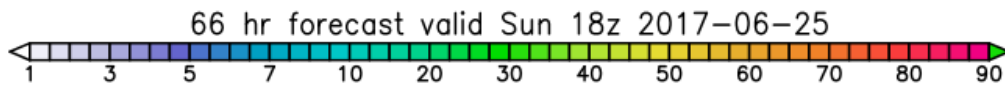
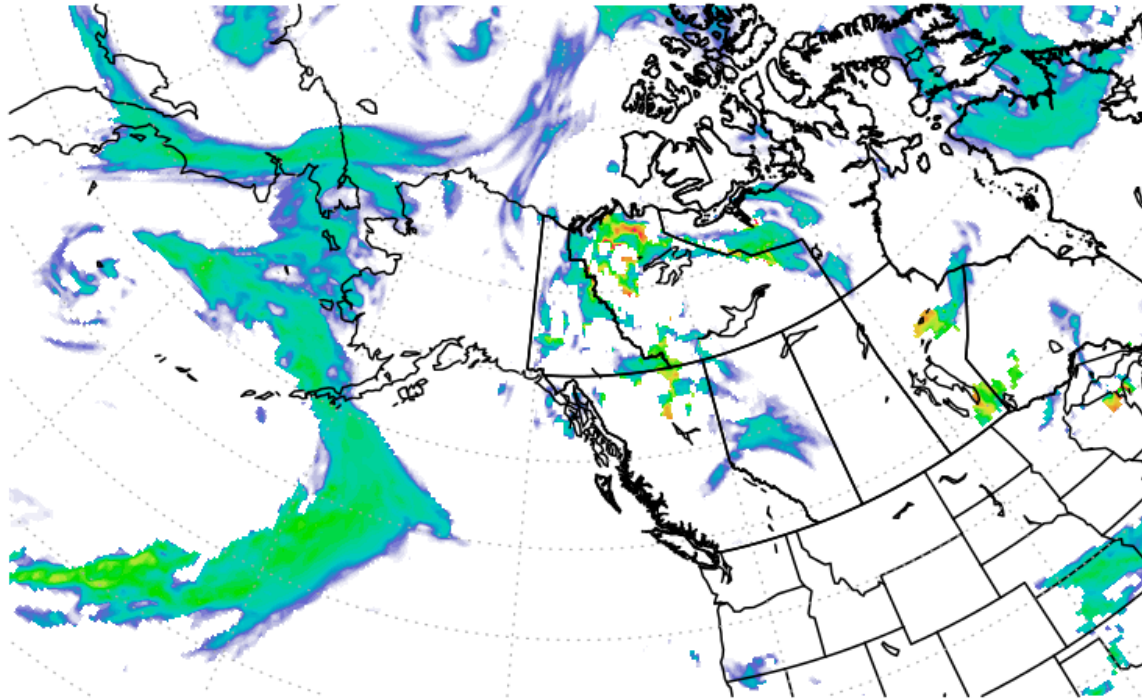
In-Cloud Optical Thickness of Low Cloud where coverage grtr 10%



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NASA/GMAO - GEOS-5 Forecast Initialized on 00z 2017-06-23

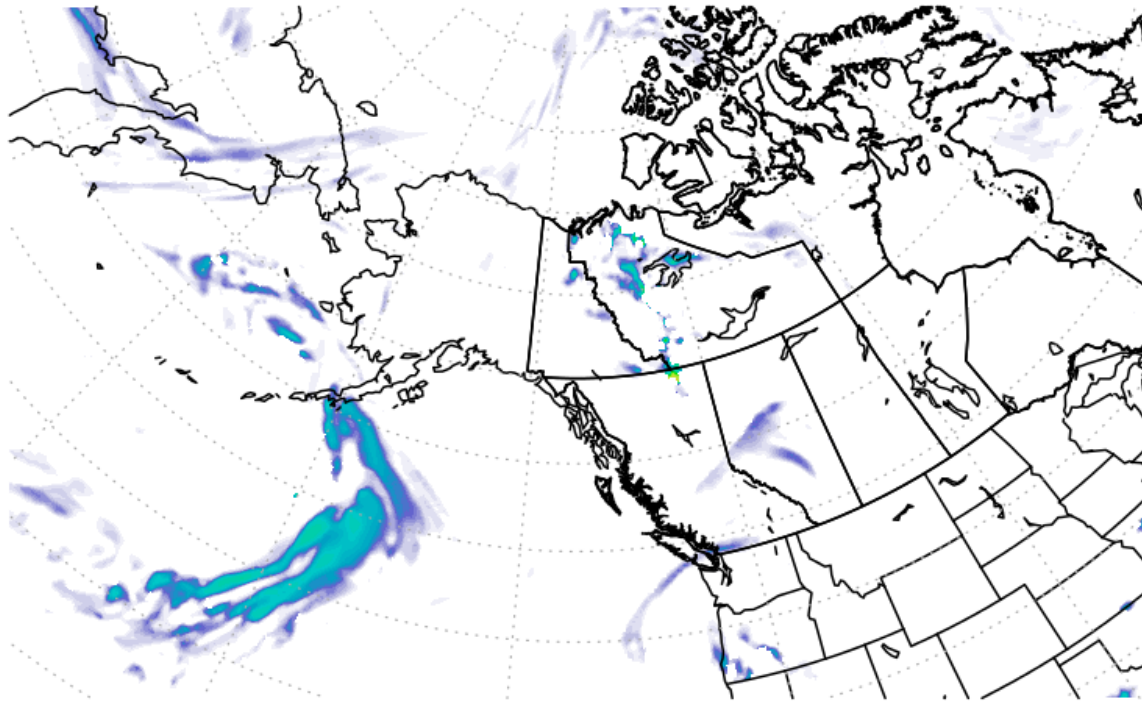
In-Cloud Optical Thickness of Middle Cloud where coverage grtr 10%



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NASA/GMAO - GEOS-5 Forecast Initialized on 00z 2017-06-23

In-Cloud Optical Thickness of High Cloud where coverage grtr 10%



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NASA/GMAO – GEOS-5 Forecast Initialized on 00z 2017-06-23

Fine Aerosol Optical Thickness

