

High-Latitude Proving Ground

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“Areal Extent” VIIRS Flood Product

- Originally developed in wake of disastrous “breakup” flooding on Yukon River at Galena, Alaska in May, 2013
- Product available in AWIPS2 at WFO Fairbanks and Alaska-Pacific RFC in time for breakup 2014; product still being generated and delivered

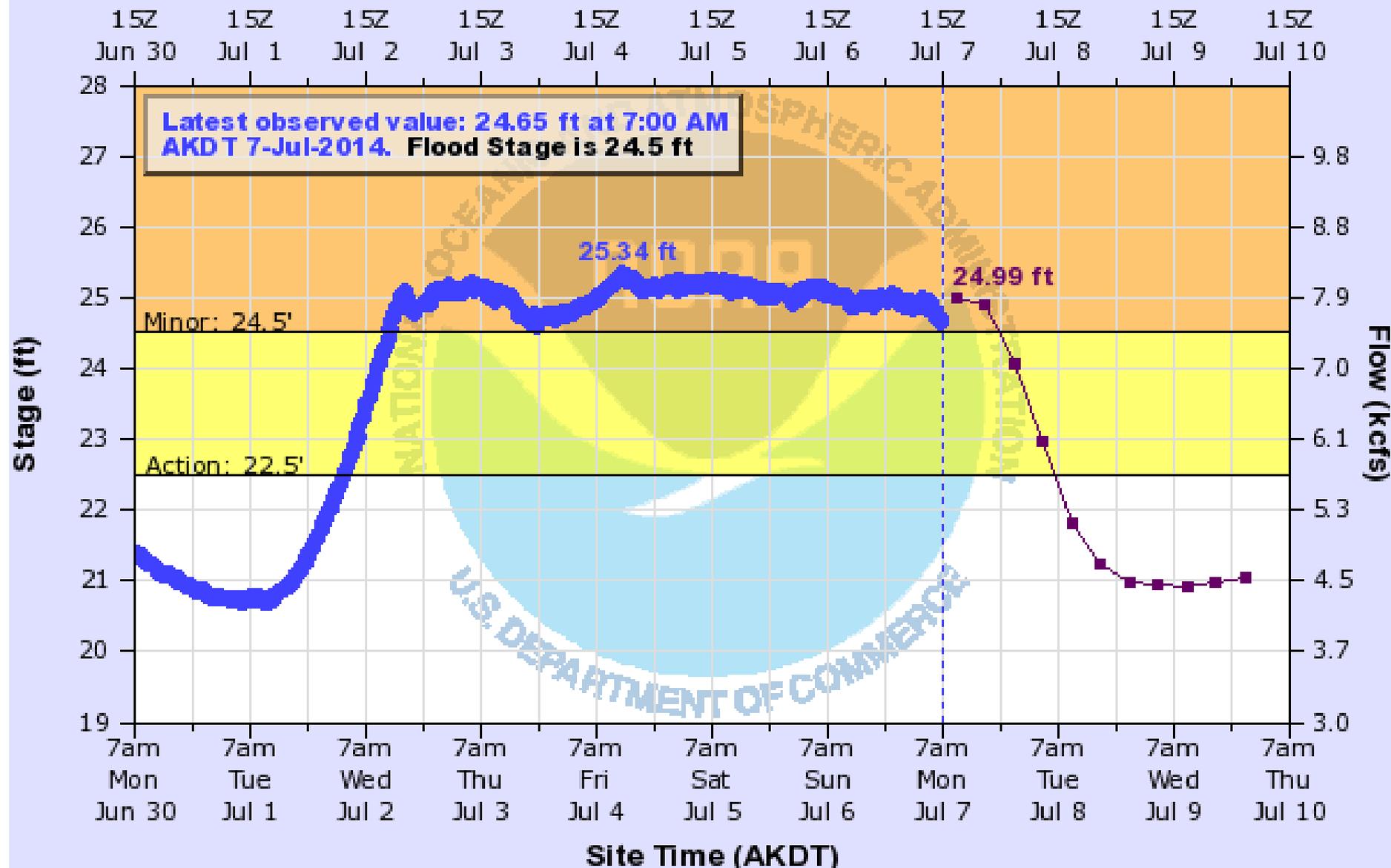


“Areal Extent” VIIRS Flood Product

- Widespread heavy rains over Interior Alaska near Fairbanks during second half of June and into early July
- Today’s question: is this product useful during non-breakup flooding during the summer?

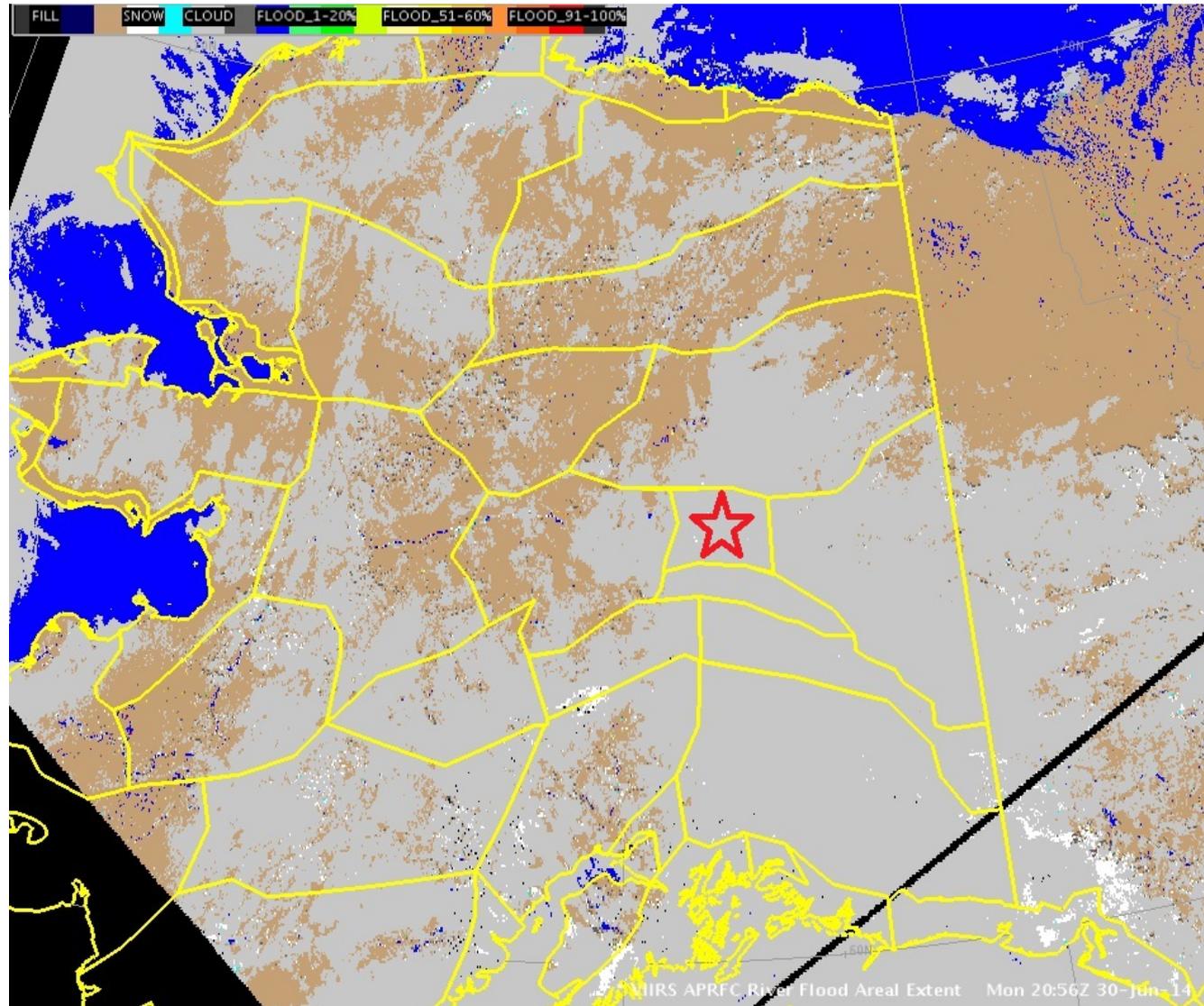
CHENA RIVER NEAR CHENA LAKES

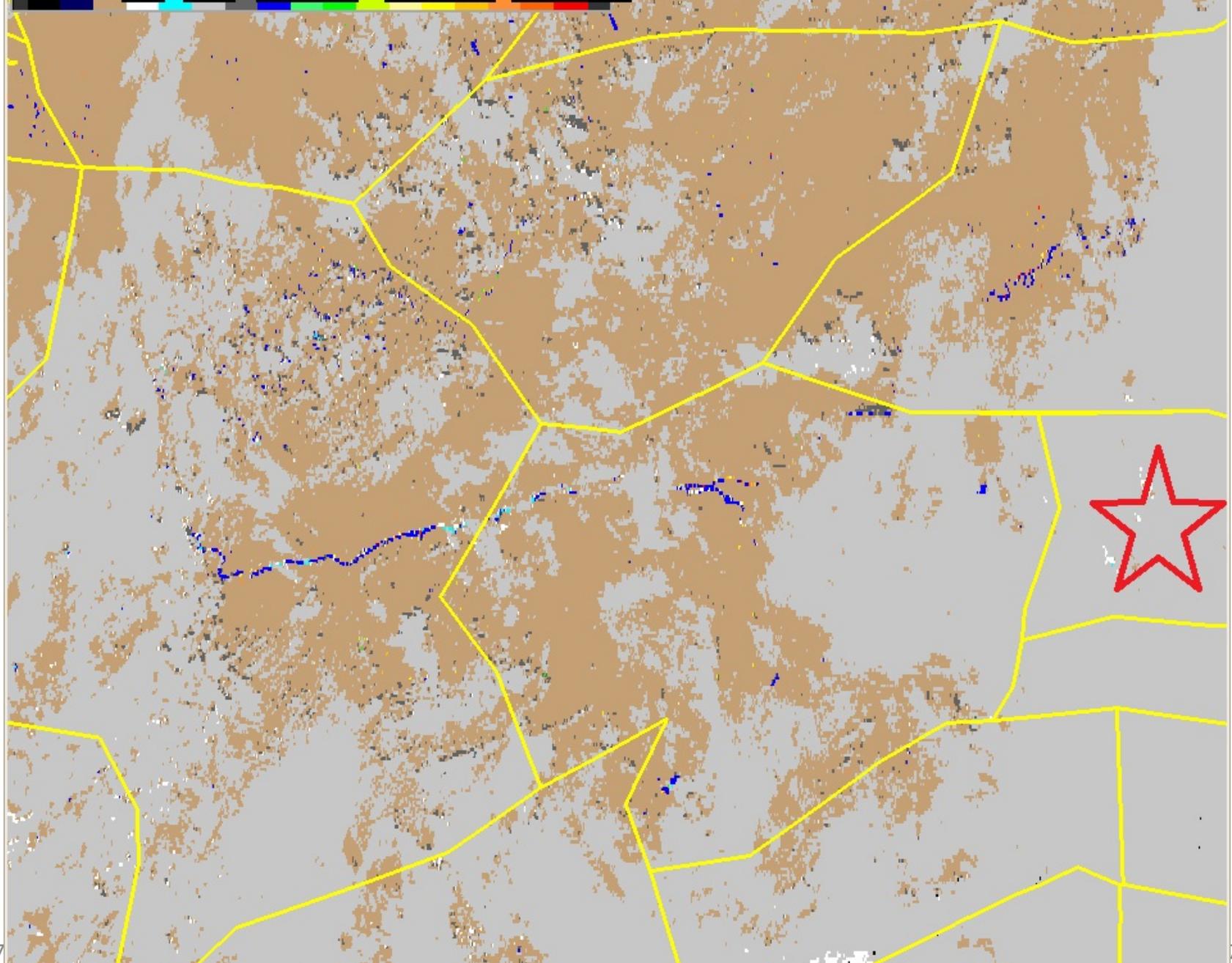
Universal Time (UTC)



----- Graph Created (7:16AM Jul 7, 2014) ● Observed ■ Forecast (issued 1:00PM Jul 6)

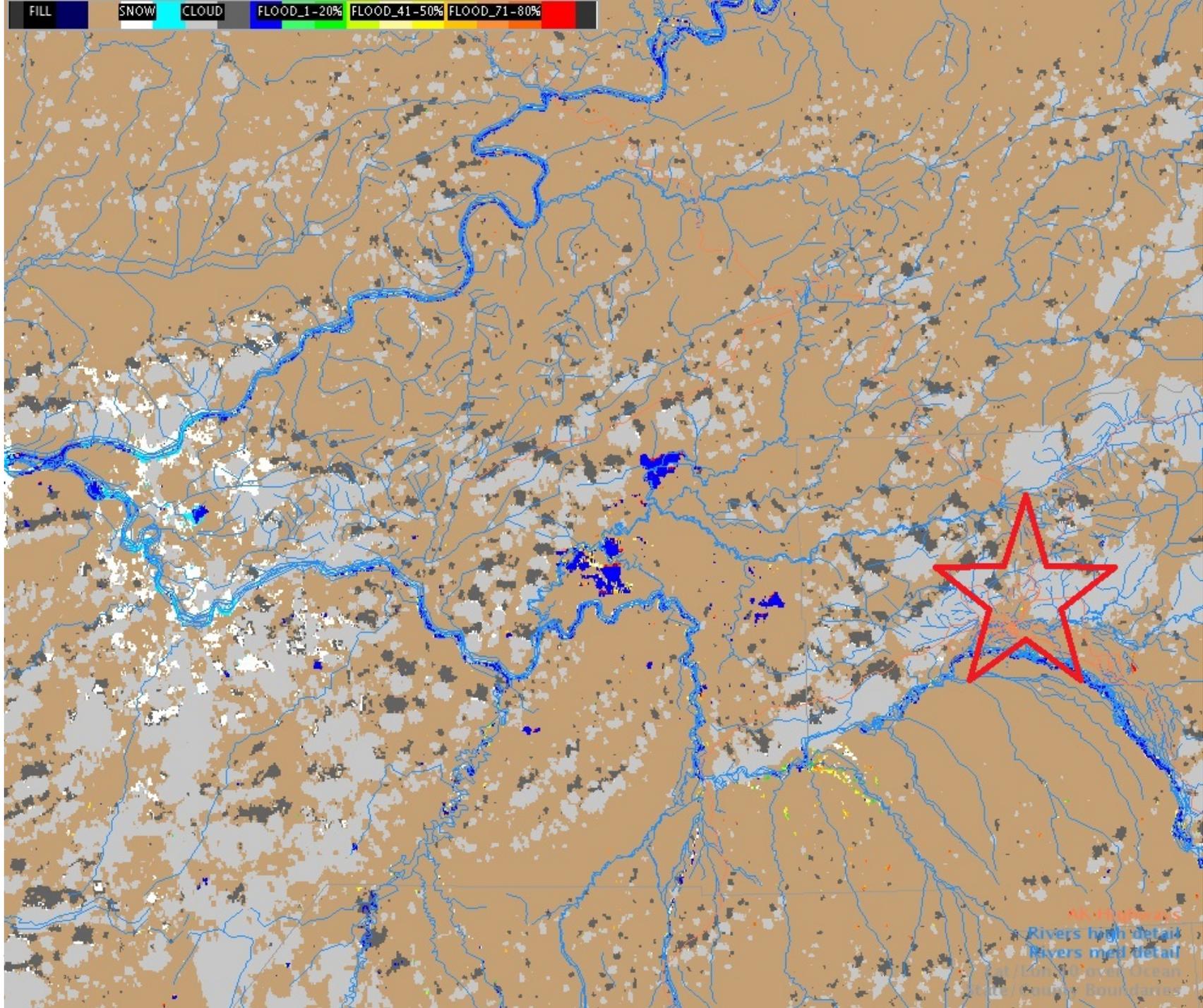
Challenge Number 1: Clouds





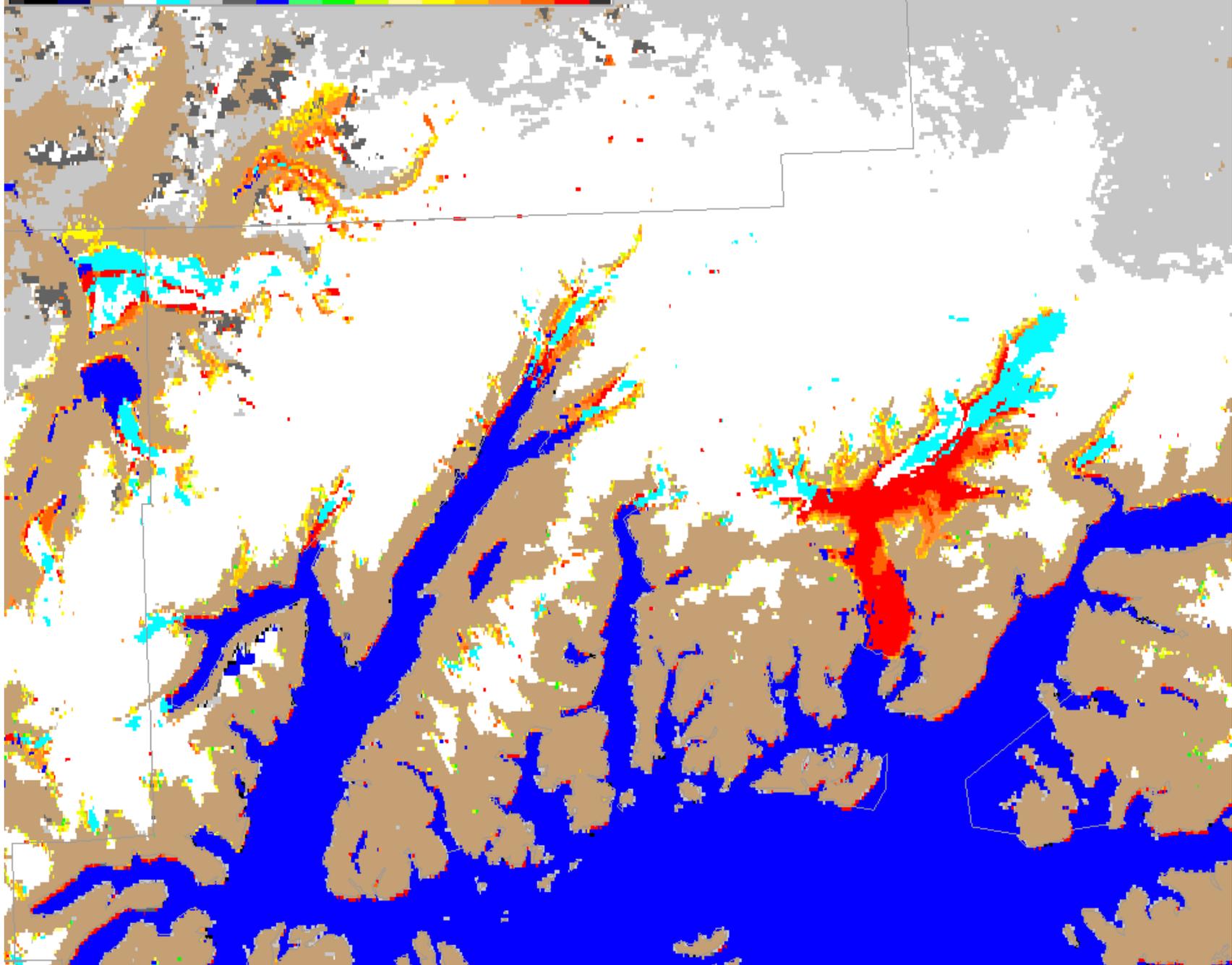


FILL SNOW CLOUD FLOOD_1-20% FLOOD_41-50% FLOOD_71-80%



Map of the US
Rivers high detail
Rivers med detail
City outline Boundaries

FILL SNOW CLOUD FLOOD_1-20% FLOOD_41-50% FLOOD_71-80%



What Have We Learned?

- While Spring Breakup is often accompanied by clear skies, summer floods are unsurprisingly accompanied by extensive cloud-cover
- In rougher terrain, the horizontal extent of flooding can be quite restricted, even though impact to the public is still significant
- Glaciers: any utility in forecasting jokaloups?