

CW3E Atmospheric River Outlook

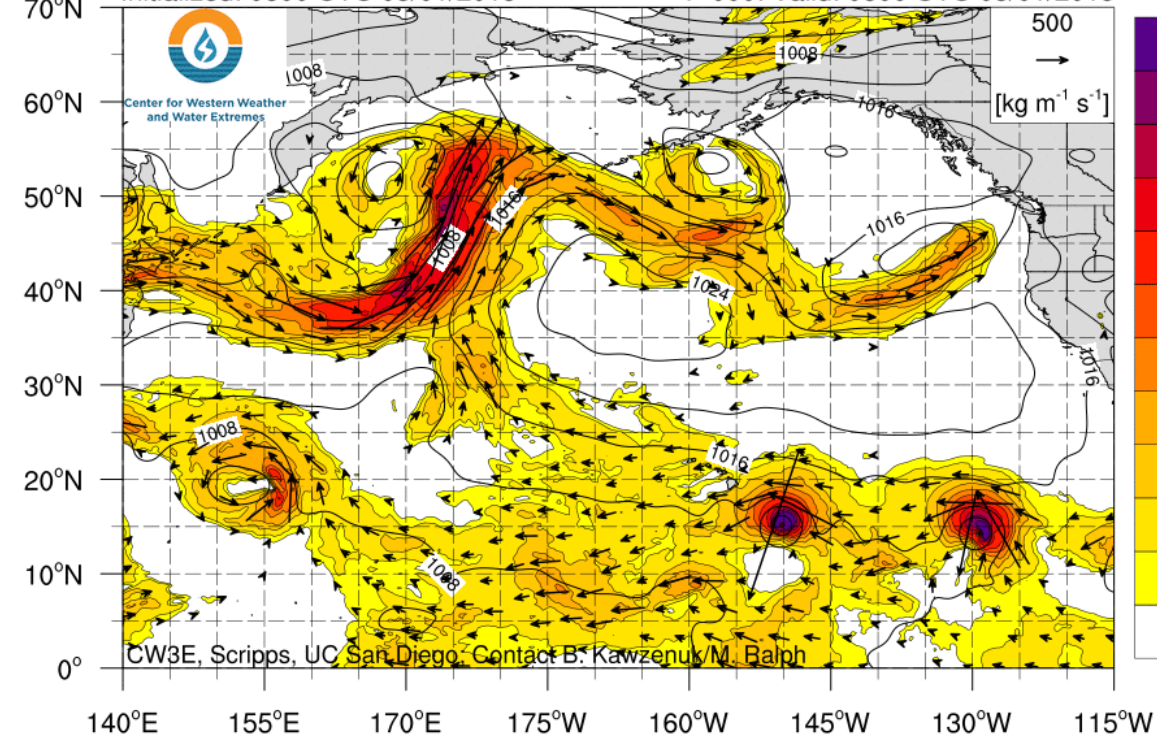


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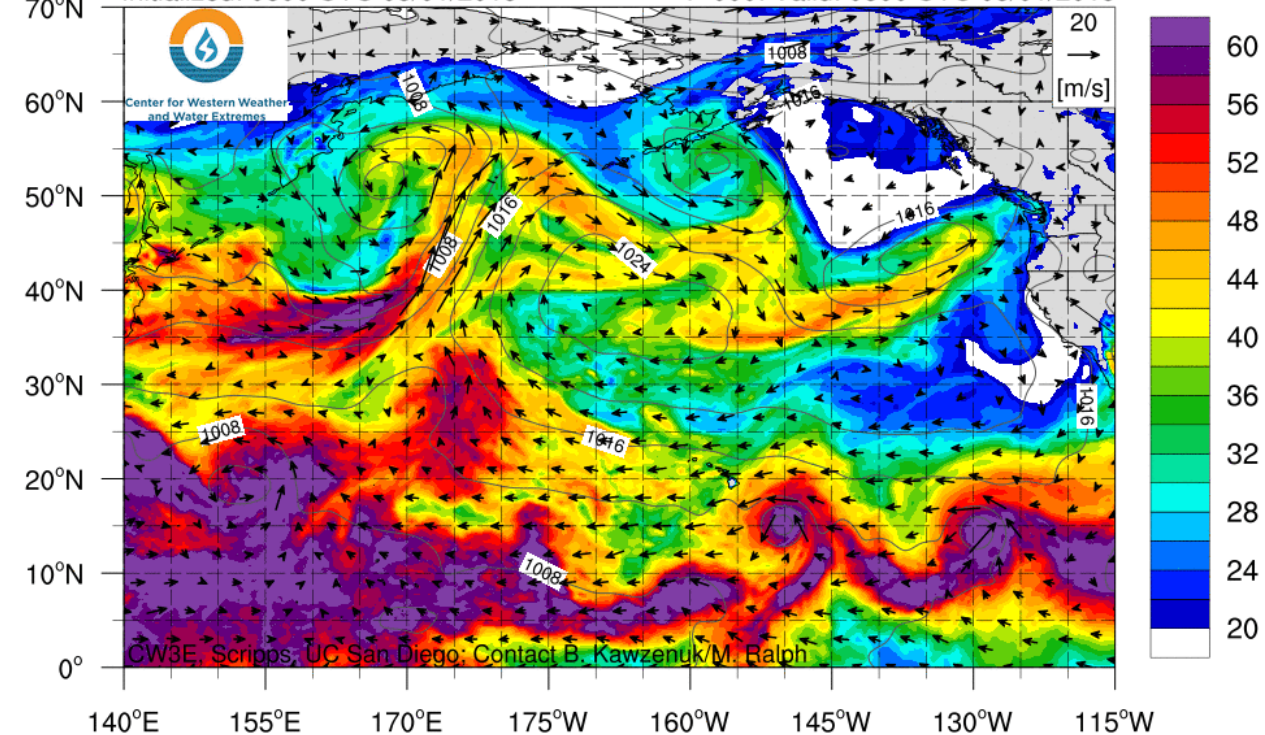
Strong and long-duration atmospheric river forecast to impact Alaska over the next several days

- An AR is forecast to make landfall over western Alaska beginning tomorrow, 02 August 2019, and ending on 06 August 2019
- IVT magnitudes $>1000 \text{ kg m}^{-1} \text{ s}^{-1}$ are currently forecast for numerous coastal locations over western Alaska
- AR conditions could last between 40 and 96 hours for certain coastal locations
- Some locations in north-central Alaska could receive >4 inches of precipitation over the next 72-hours
- The Bering Sea at Golovin is currently forecast to rise ~ 1 ft above minor flood stage

NCEP GFS IVT ($\text{kg m}^{-1} \text{ s}^{-1}$; shaded), IVT Vector, and SLP (hPa; contours)
Initialized: 0600 UTC 08/01/2019 F-000: Valid: 0600 UTC 08/01/2019



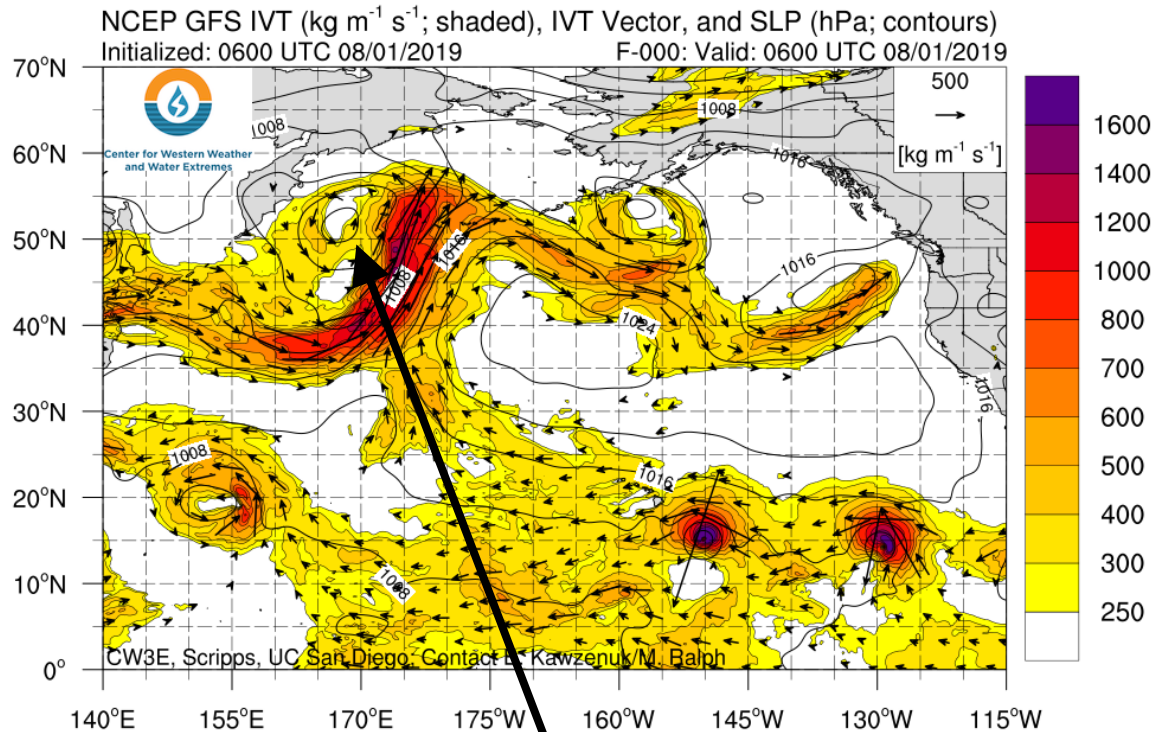
NCEP GFS IWV (mm; shaded), 850-hPa Wind (vectors), and SLP (hPa; contours)
Initialized: 0600 UTC 08/01/2019 F-000: Valid: 0600 UTC 08/01/2019



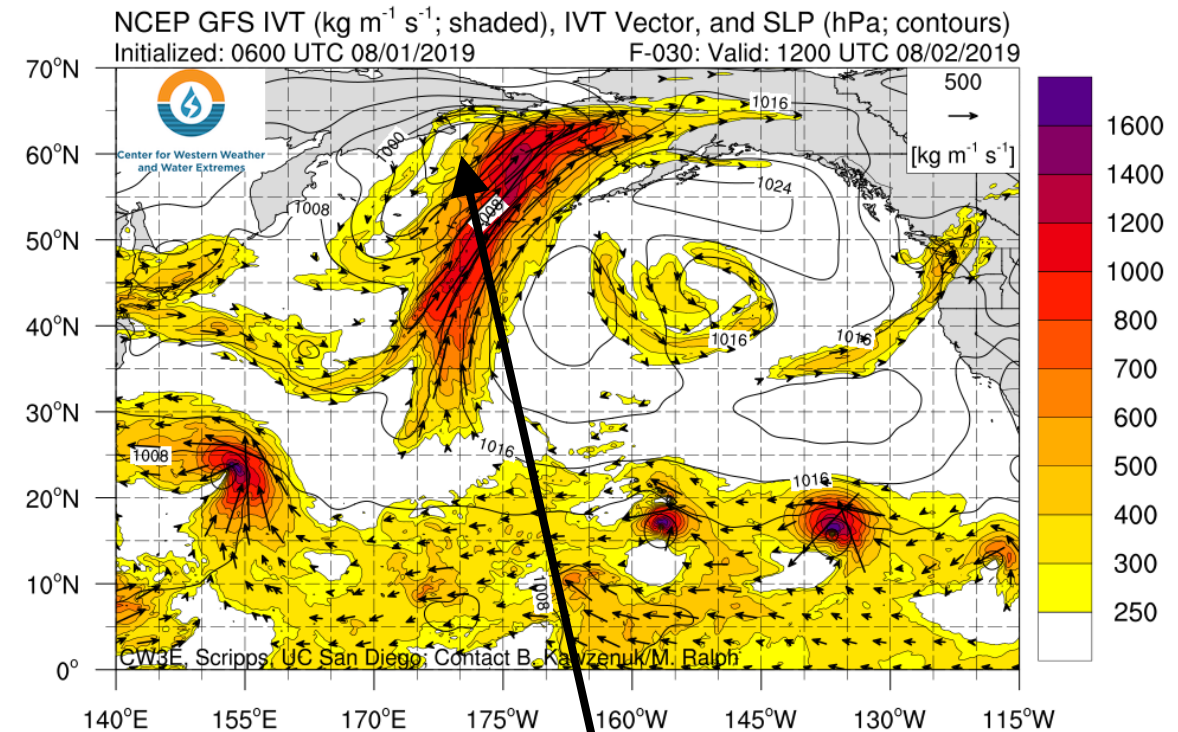
AR Outlook: 01 August 2019



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The formation of the AR is driven by a low-pressure system that undergoes cyclogenesis off the coast of the Russian Kamchatka Peninsula



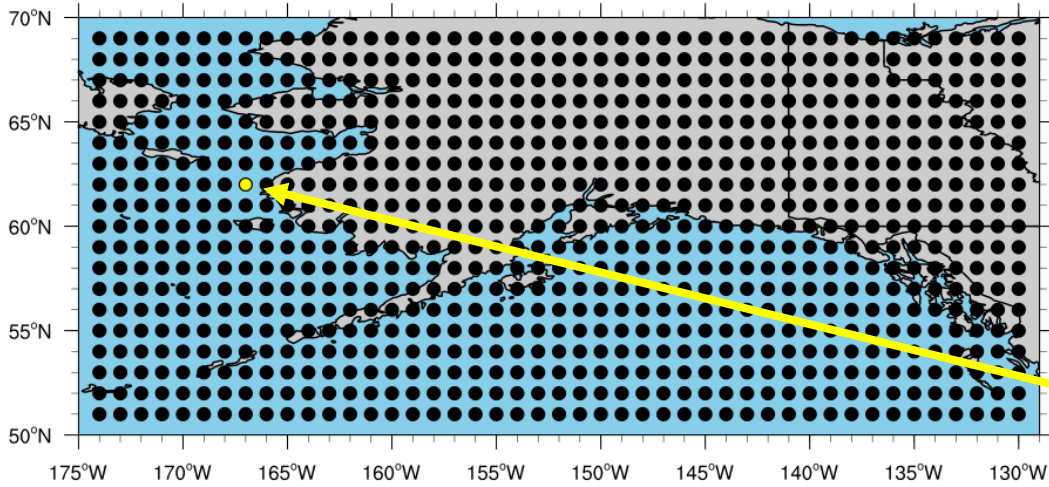
The low is then forecast to propagate northeastward and the attendant AR is forecast to strengthen and turn towards the West Coast of Alaska, north of the Aleutian Islands

As the AR initially makes landfall the presence of two high pressure centers in the North Pacific directs the IVT over Western Alaska to be more westerly than southwesterly

AR Outlook: 01 August 2019



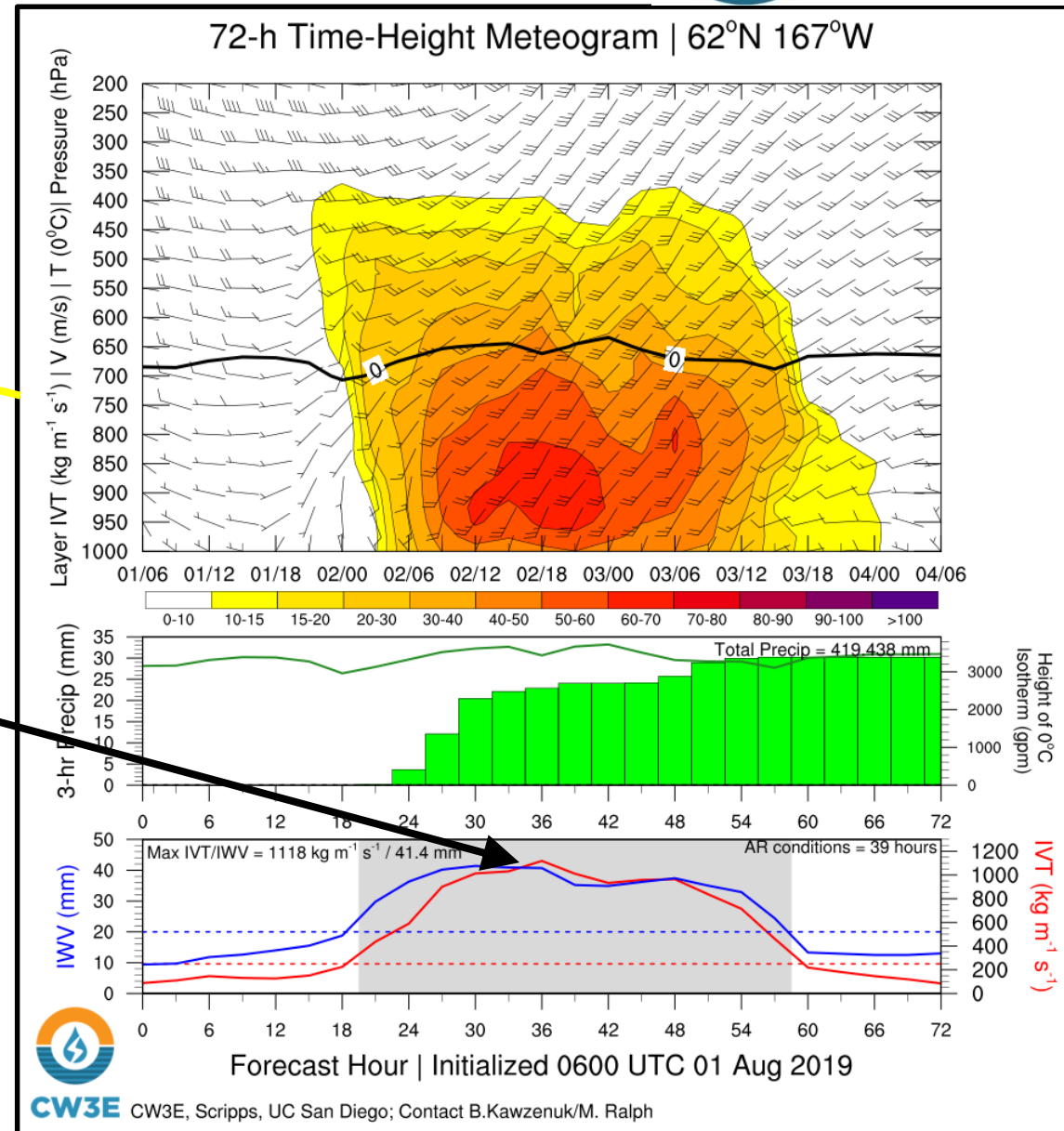
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AR conditions off the western coast of Alaska over the Bering Sea are forecast by the GFS to last ~40 hours

The highest IVT ($\sim 1118 \text{ kg m}^{-1} \text{ s}^{-1}$) is forecast to occur at ~ 1800 UTC on August 2nd

The GFS is currently forecasting ~ 419 mm (~ 16.5 in.) of precipitation during the next 72 hours over this location in the Bering Sea



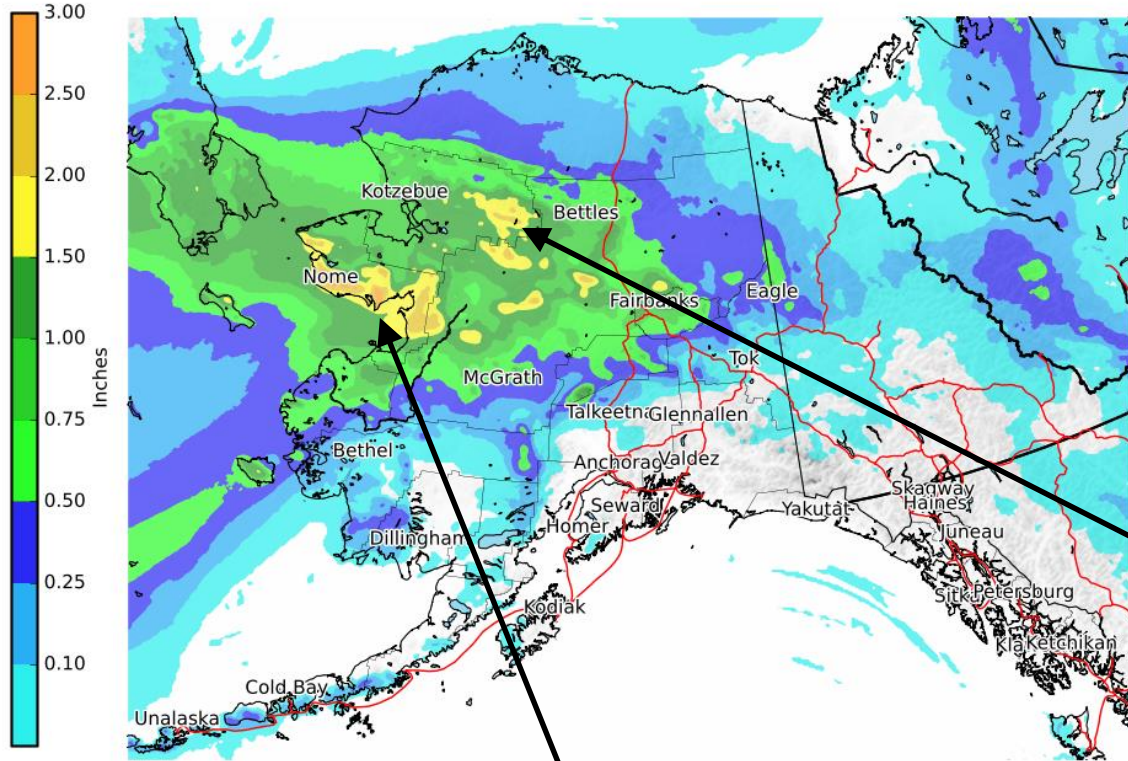
AR Outlook: 01 August 2019



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Friday Day 2 QPF

Valid: 08/02/2019 04:00 AM - 08/03/2019 04:00 AM AKDT

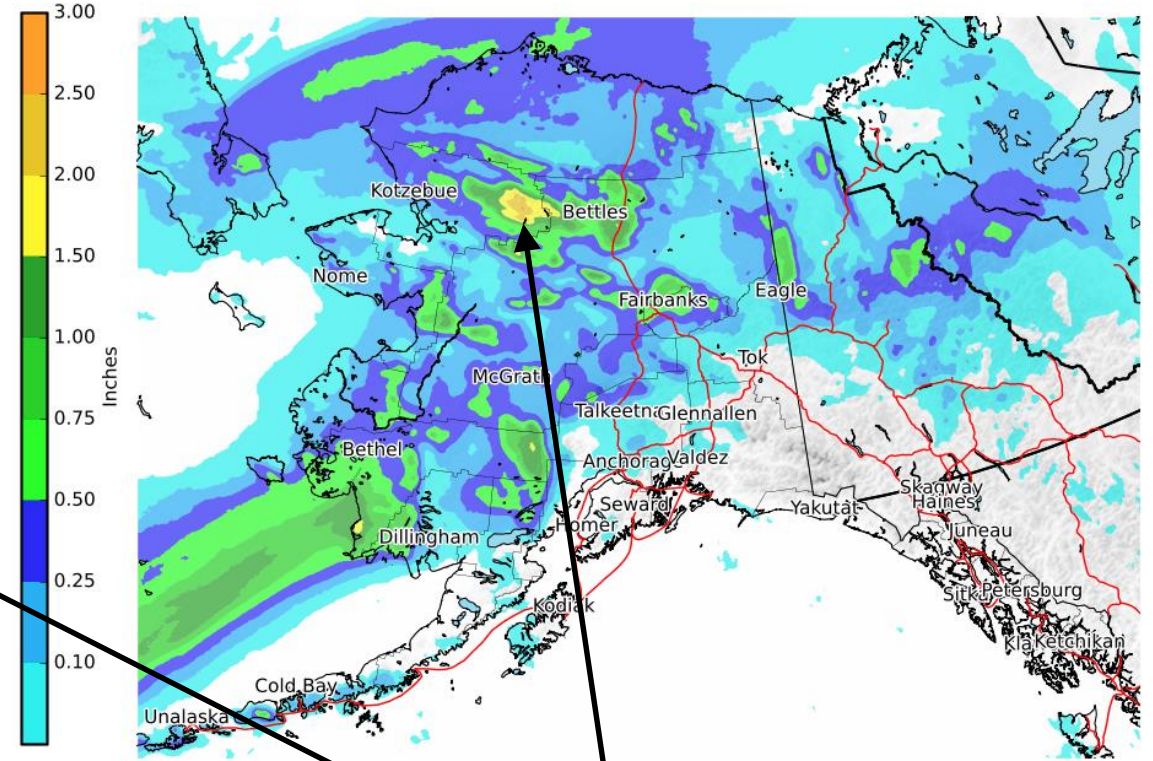


National Weather Service
Alaska Pacific River Forecast Center
08/01/2019 09:30 AM AKDT

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Saturday Day 3 QPF

Valid: 08/03/2019 04:00 AM - 08/04/2019 04:00 AM AKDT



National Weather Service
Alaska Pacific River Forecast Center
08/01/2019 09:31 AM AKDT

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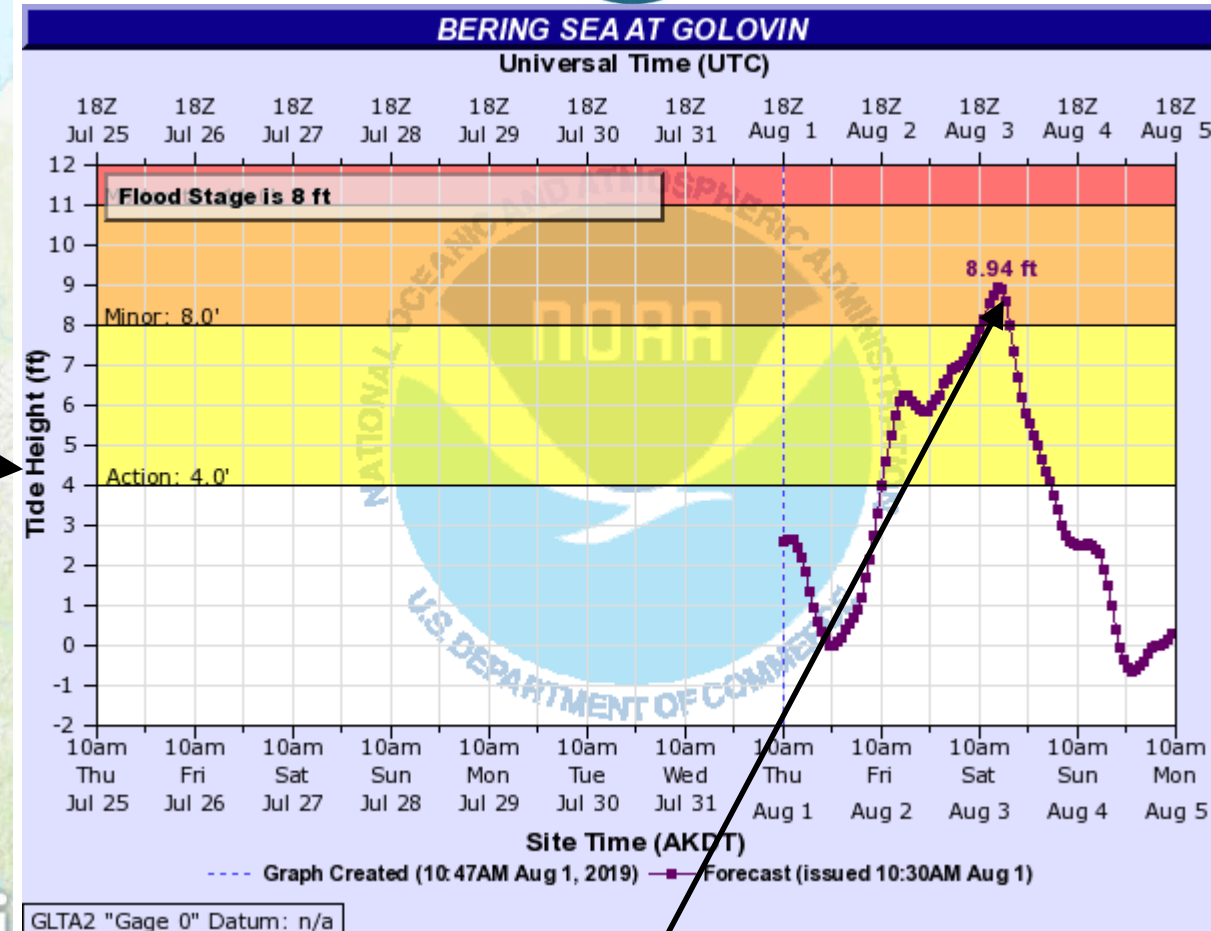
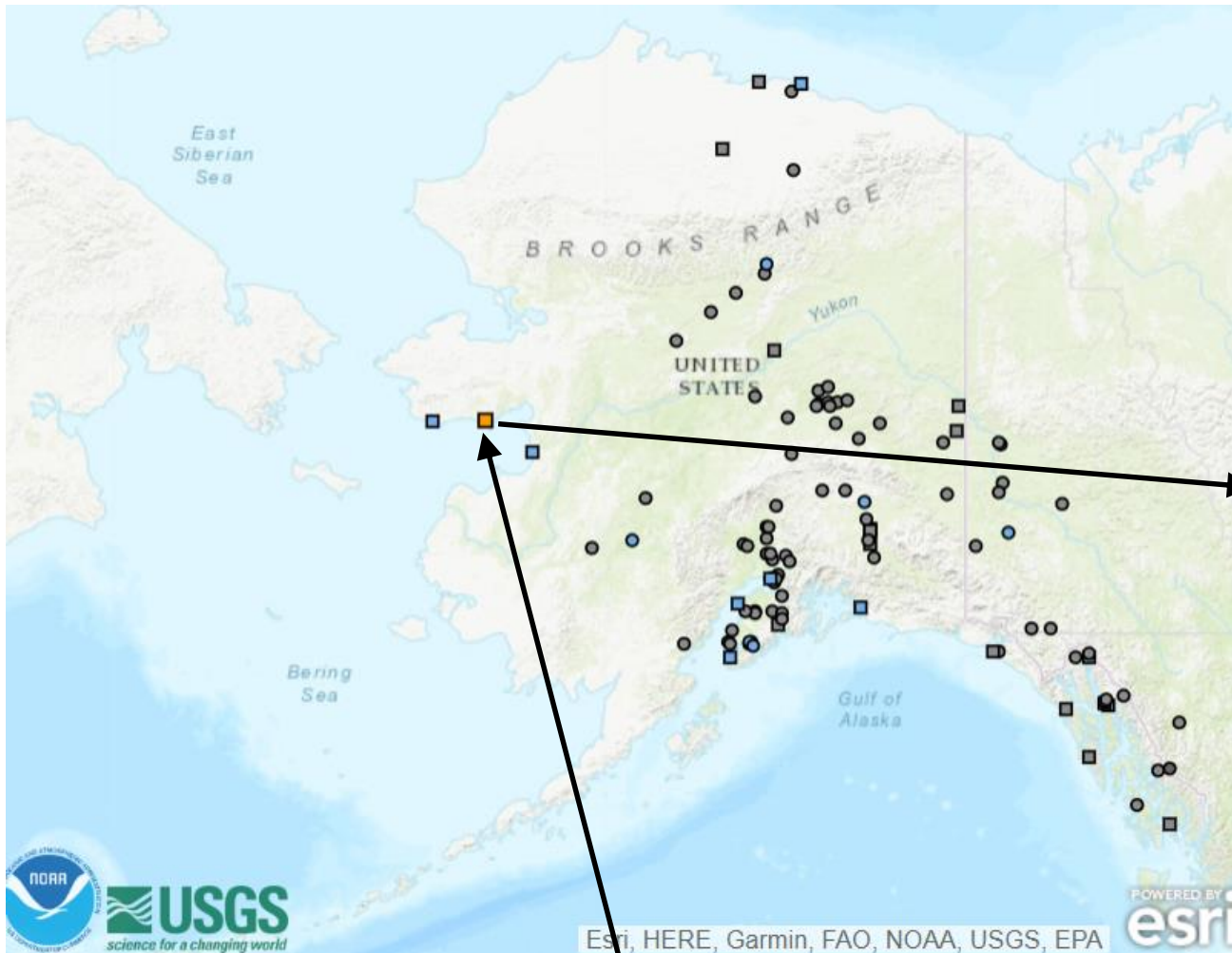
The Alaska Pacific River Forecast Center is currently forecasting >3 inches of precipitation over portions Western Alaska near Nome between 4AM AKDT 02 August and 4 AM AKDT 03 August

The higher elevations of the Brooks Range in North-Central Alaska are forecast to receive >2 in. of precipitation on both 02 and 03 August, bringing the 48-hour precipitation forecast to >4 in

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The one gauge in Western Alaska that has an available forecast and a defined flood category is forecast to rise to minor flood stage on August 3rd

The Bering Sea at Golovin is forecast to rise to 8.94 feet, .94 feet above flood stage and 4.94 feet above action stage