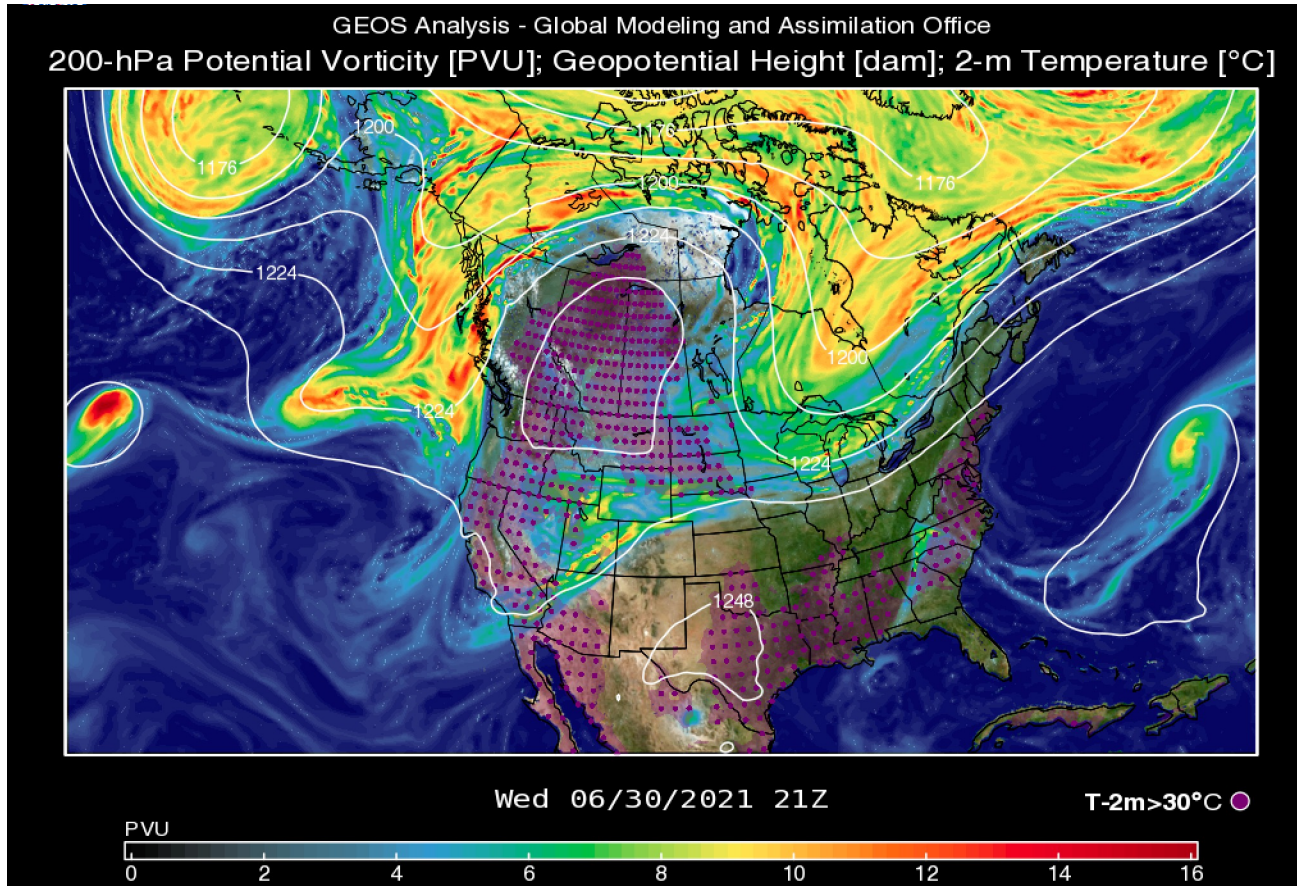
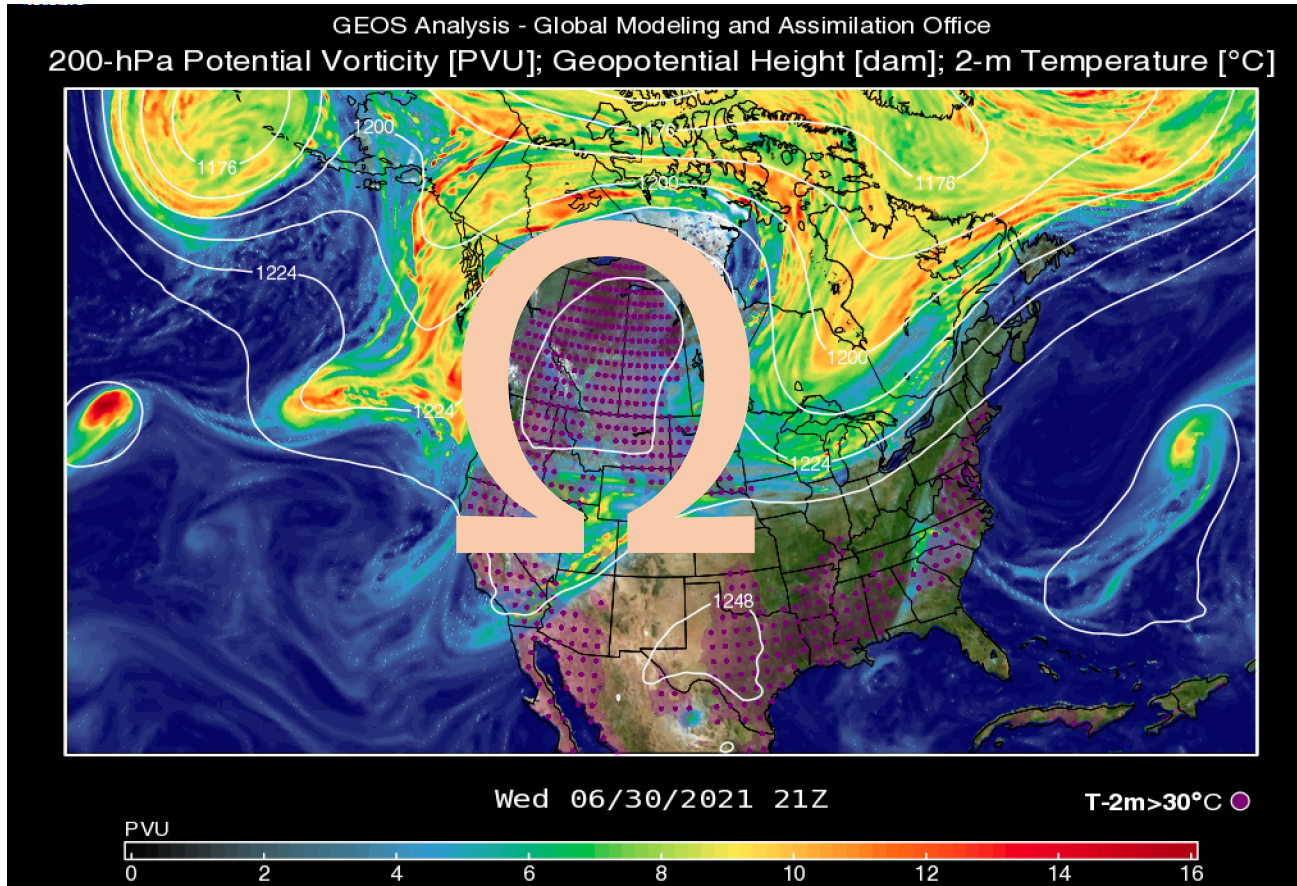


A Dynamical View of the Record Heatwave of June 2021 in Western North America



Daytime surface temperatures on June 30, 2021, exceeded 30°C over large regions of the Northwestern US and Western Canada (purple dots). The high, often record-breaking temperatures aligned with an “omega block” circulation pattern, emphasized by the Ω structure in the (white) 200-hPa Geopotential Height contours. Potential vorticity (PV) fields (shaded) highlight the distorted nature of the flow, with low-PV air from the lower latitudes protruding far northwards in the region of anticyclonic circulation that dominates much of western North America.

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