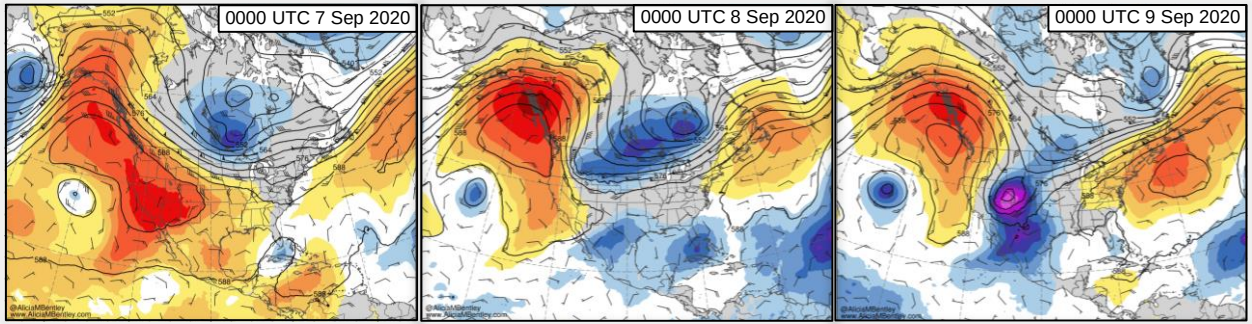
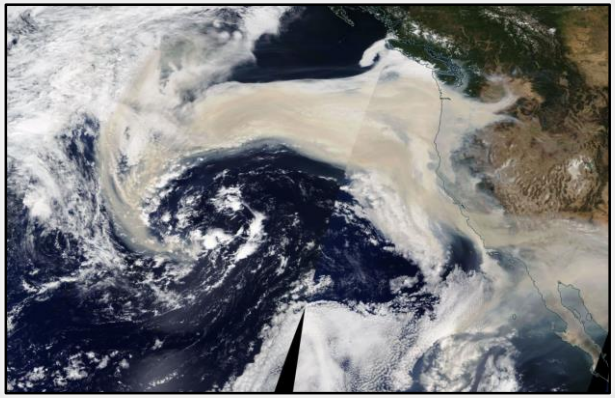
Western CONUS Extreme Weather and Wildfire Events during September 2020

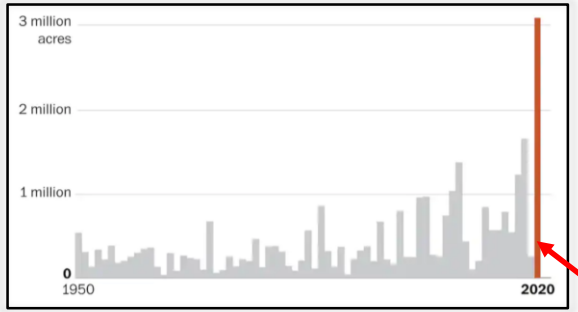
Major Weather Events and Impacts of 2020, Paper 14.1
Lance F. Bosart and Minghao Zhou, University at Albany, SUNY
Friday, 15 January 2021, 1:10pm–1:15pm



500 hPa heights (dam, solid black contour), winds (kt, barbs), standardized height anomaly (sigma, shading) from GFS



View: Smoke plume being absorbed into a developing mid-latitude cyclone. (Terra / MODIS True Color Imagery on September 11th, 2020)
Source: https://worldview.earthdata.nasa.gov



Acreage burned: a record for California since 1950
Source: CalFire / The Washington Post

- **Weak Arizona summer monsoon led to widespread hot and dry weather over western CONUS**
- **Mid-level moisture from East Pacific hurricanes fueled "dry lightning" storms, sparking wildfires since mid-August**
- **West Pacific typhoons underwent extra-tropical transition, re-configured downstream North Pacific upper-level flow**
- **Re-configured NPAC flow favored a series of extreme weather events over western CONUS, exacerbating wildfire situations**

AMS101
101st Annual Meeting
VIRTUAL | 10-15 January 2021