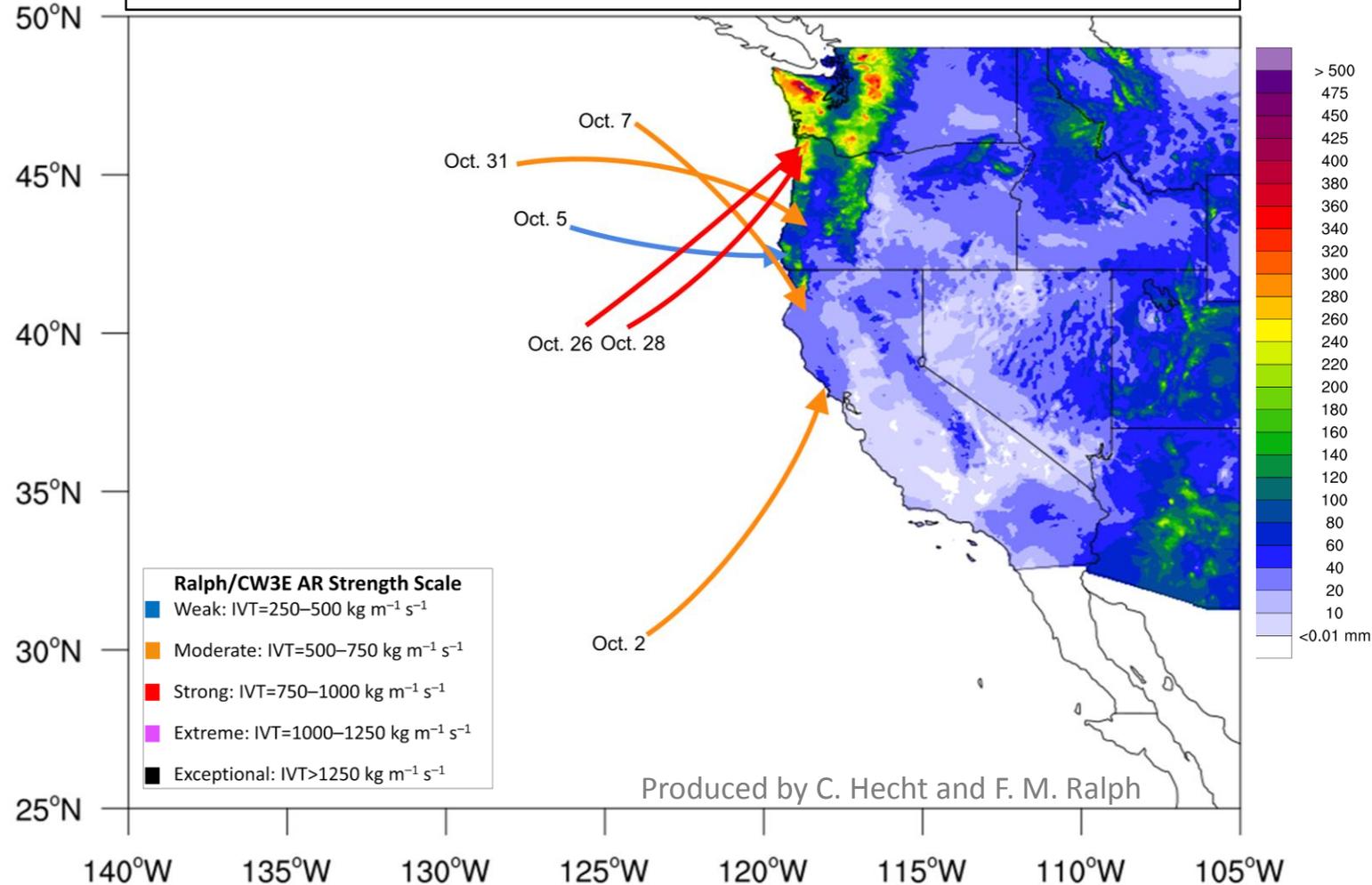


Water Year 2019: October Atmospheric Rivers

AR Strength	AR Count
Weak	1
Moderate	3
Strong	2
Extreme	0
Exceptional	0

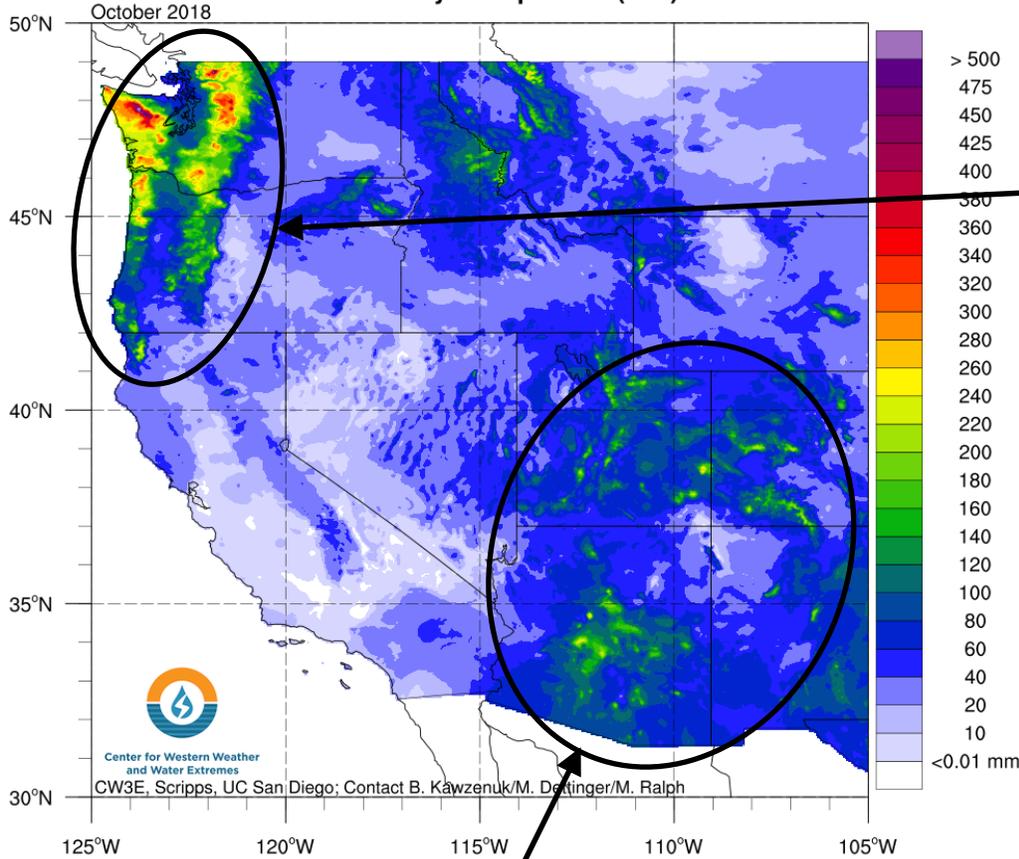
Regions Impacted by Each AR	
State/Region	AR Conditions
Washington	5
Oregon	6
Northern CA	6
Central CA	3
Southern CA	2

- Six atmospheric rivers made landfall over the U.S. West Coast during October 2018 (The beginning of WY 2019)



October 2018 Precipitation

Total Monthly Precipitation (mm)

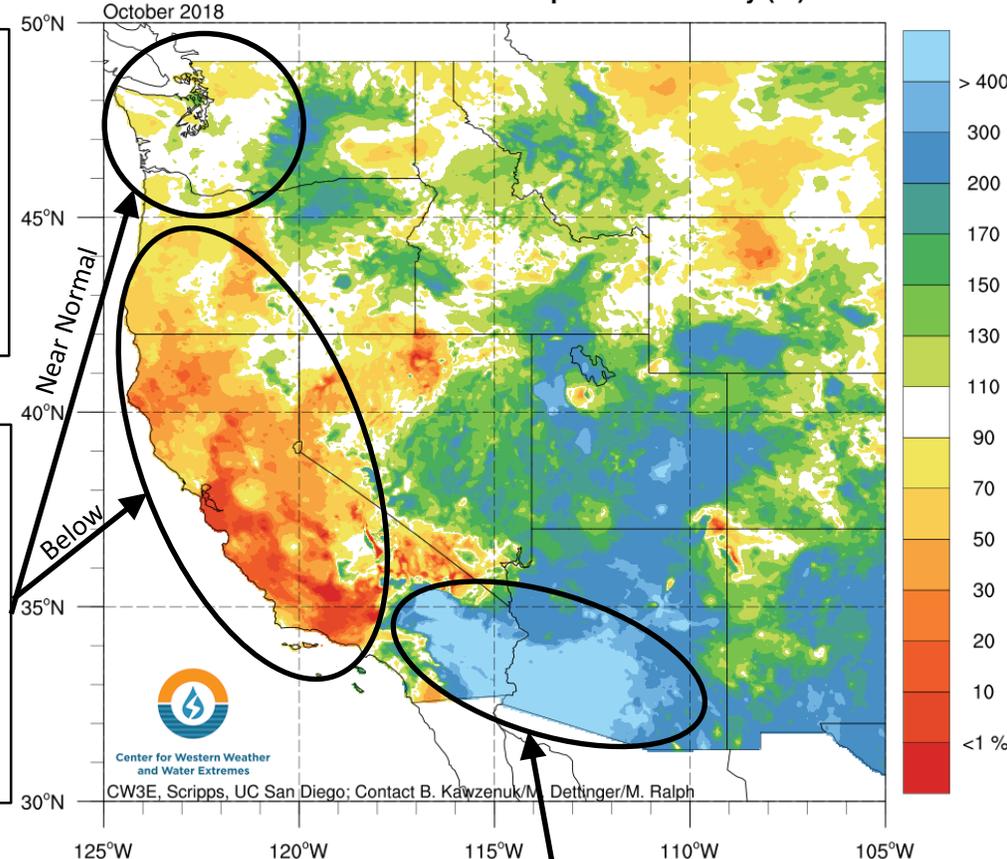


- The 6 total landfalling ARs resulted in approximately average monthly precipitation accumulations (160–500 mm) over the PNW

- The precipitation that fell over western WA was near normal while a majority of western OR and CA was below normal for the month of October

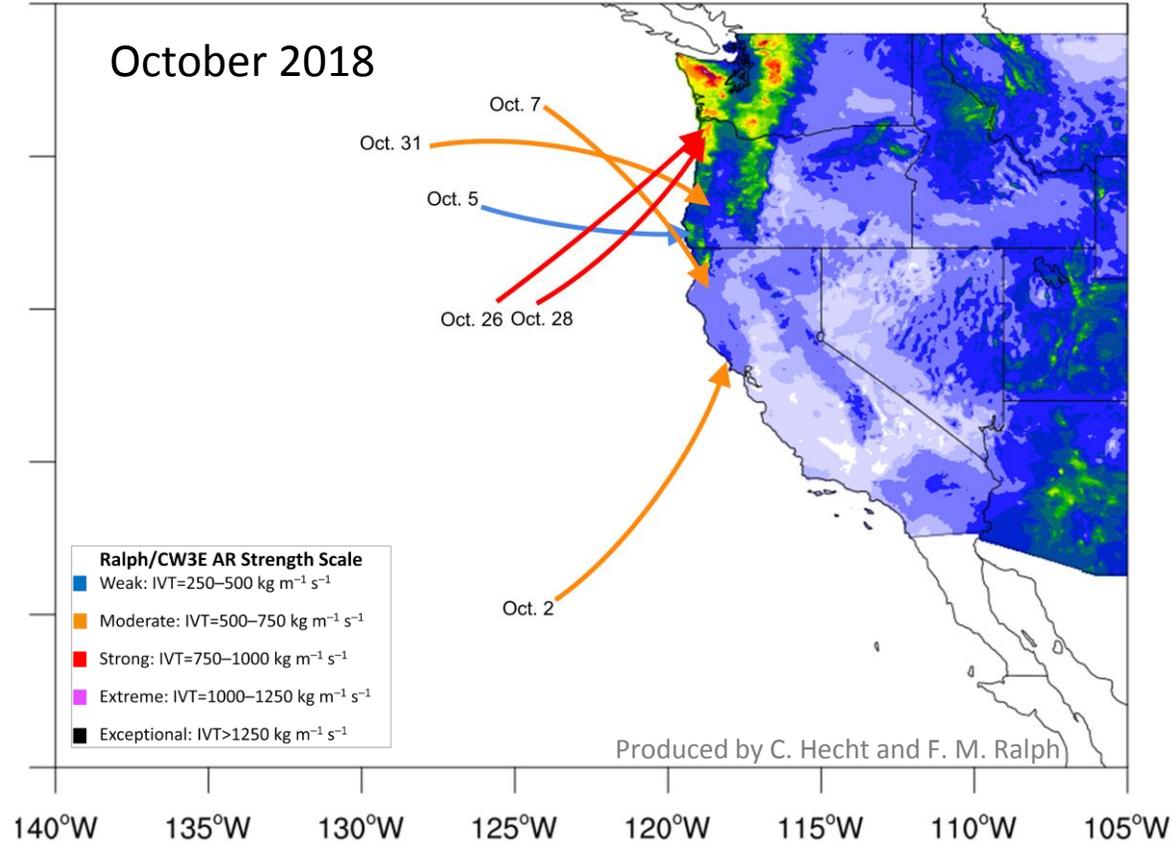
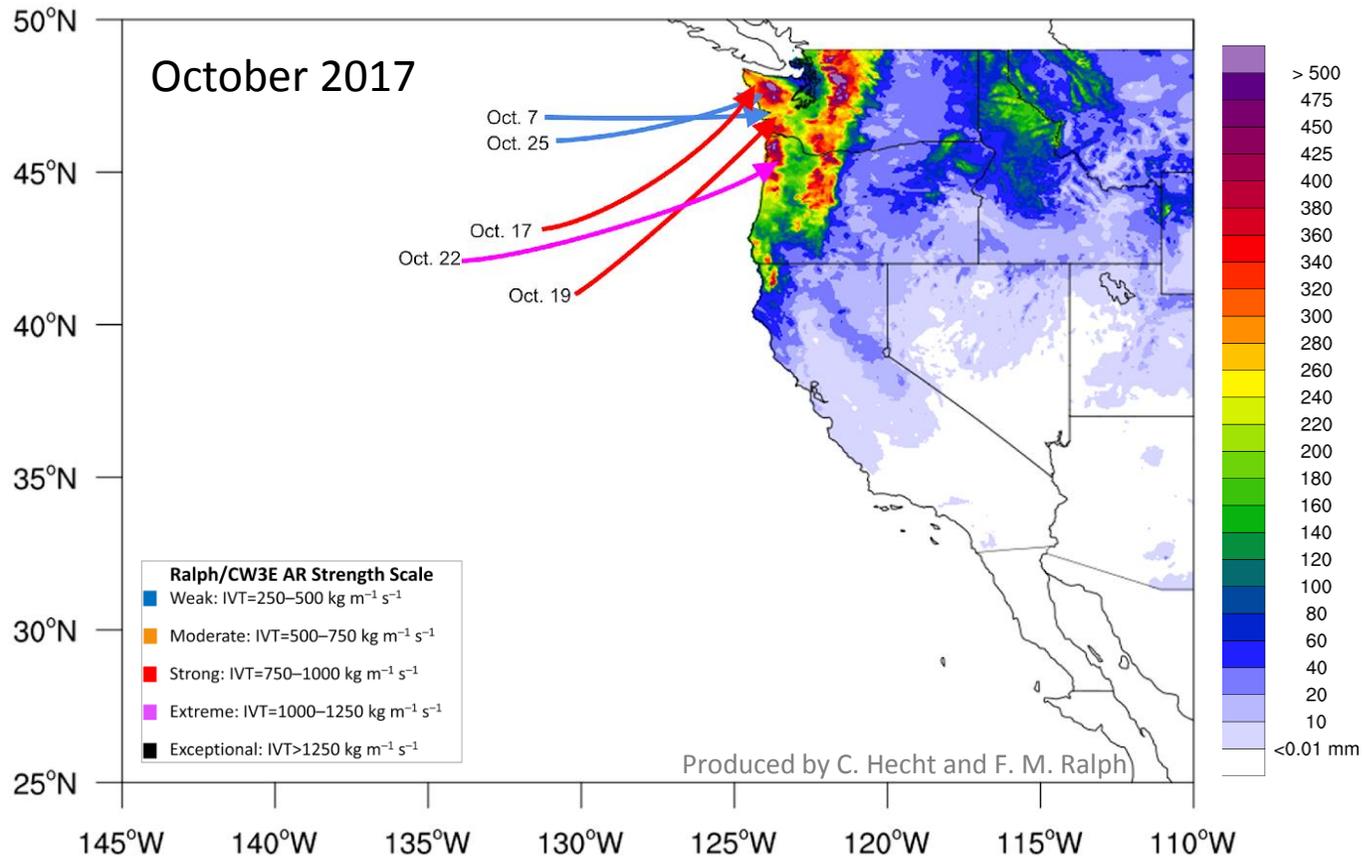
- In Early October, Tropical Storm Rosa made landfall over the Mexican Baja and brought precipitation to the desert southwest

Total Water Year to Date Precipitation Anomaly (%)



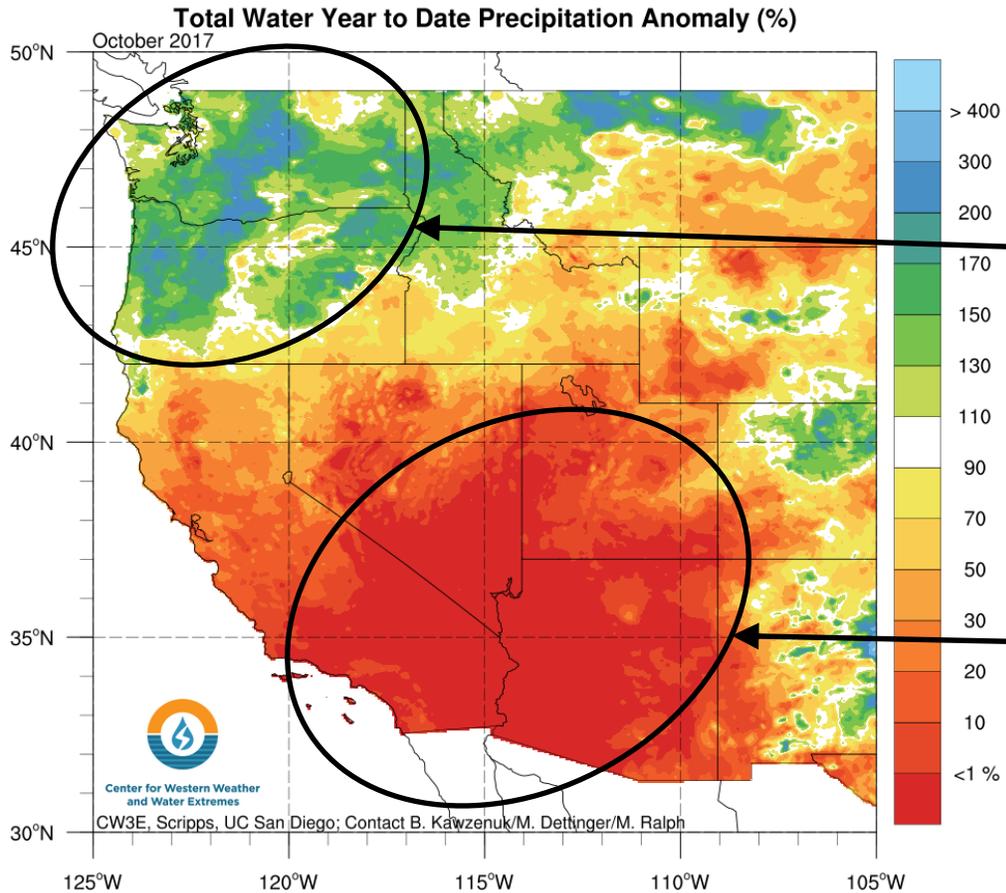
- The precipitation from Tropical Storm Rosa resulted in precipitation anomalies of >400% across portions of southeastern CA and southwestern AZ

October 2018 Compared to October 2017



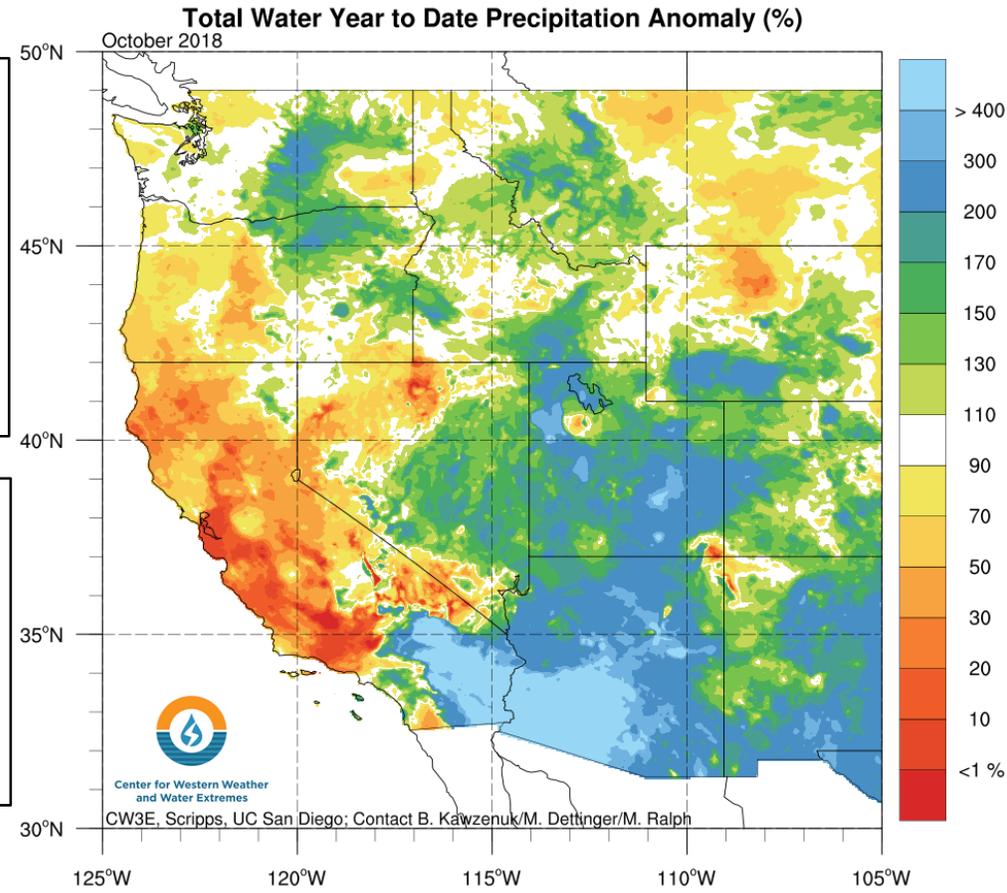
- October 2017 experienced one less landfalling AR compared to October 2018, but had an extreme AR where October 2018 did not
- The ARs during October 2017 were all strongest over the Pacific Northwest (PNW; Washington and Oregon)
- A larger majority of the ARs during Oct. 2018 were northwesterly orientated and encroached over a persistent high pressure system located over the eastern Pacific
- These factors resulted in higher precipitation accumulations over the Cascade, Coastal and Olympic Mountains of the PNW during Oct. '17

October 2018 Compared to October 2017



- Last October, a majority of WA and OR experienced above normal precipitation while states south experienced below normal precipitation

- Southern California, Southern Nevada, and Western Arizona experienced <1% of the normal October precipitation



- When comparing this October to last October, Southern California has gotten off to a better start (Thanks to tropical Storm Rosa), parts of Central California were similar, Northern California was slightly wetter, and the Pacific North West was drier than last October