

# El Niño Southern Oscillation

Description (El Nino vs La Nina)

Global Weather Impacts

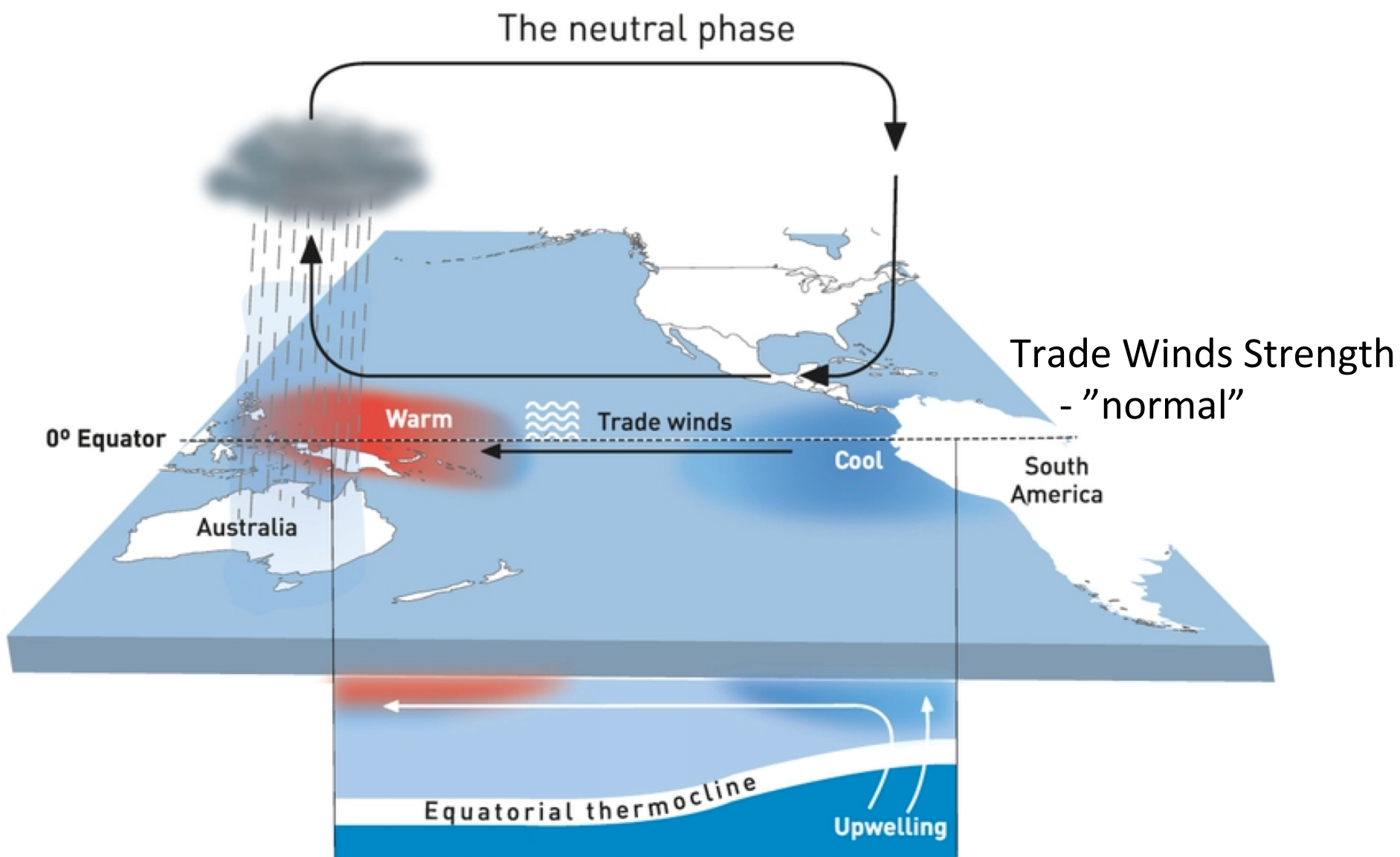
History/Frequency

North Atlantic Version

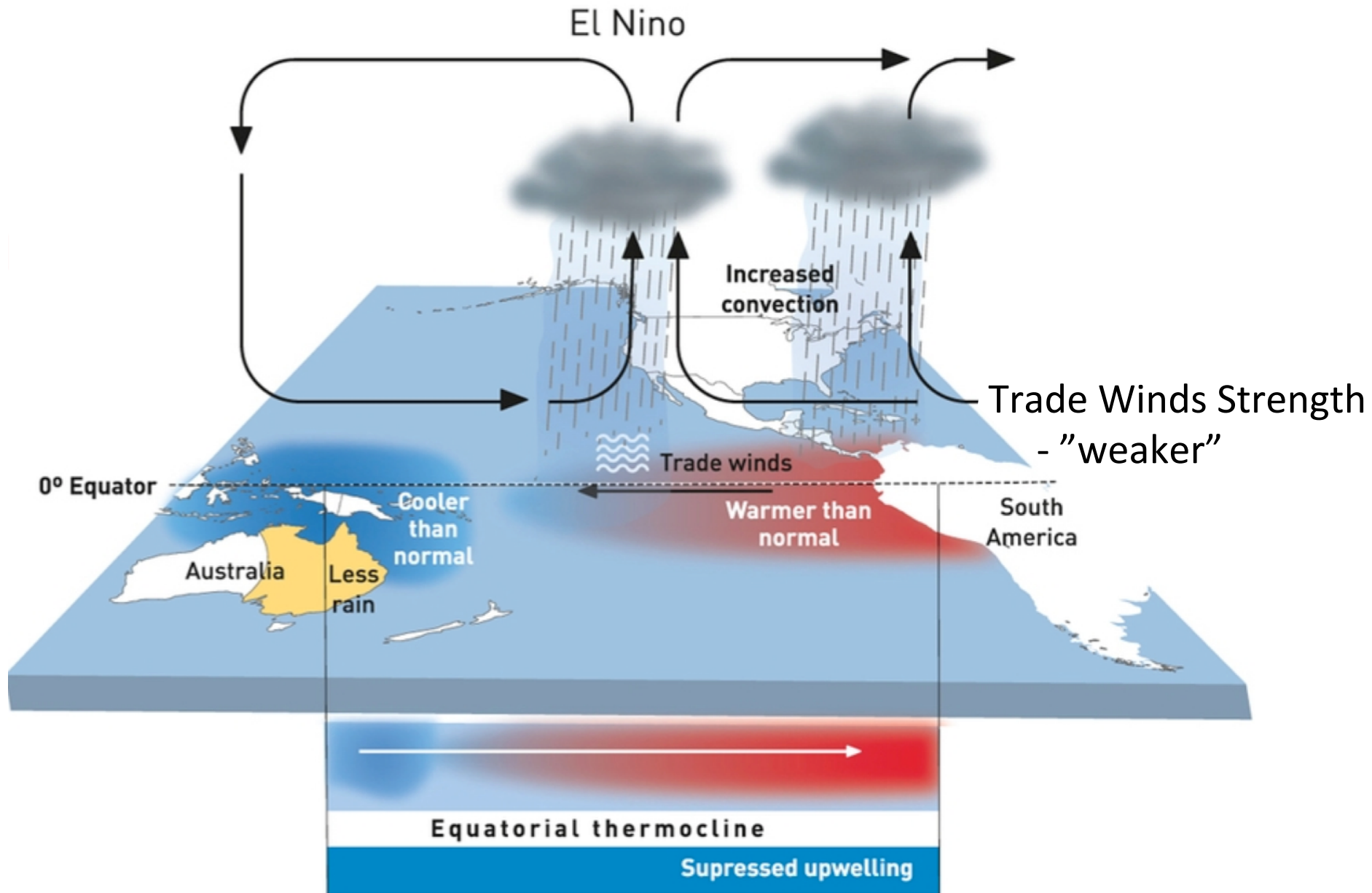


[http://cdebi.gso.uri.edu/GCH103/videos/El\\_Nino\\_1.mov](http://cdebi.gso.uri.edu/GCH103/videos/El_Nino_1.mov)

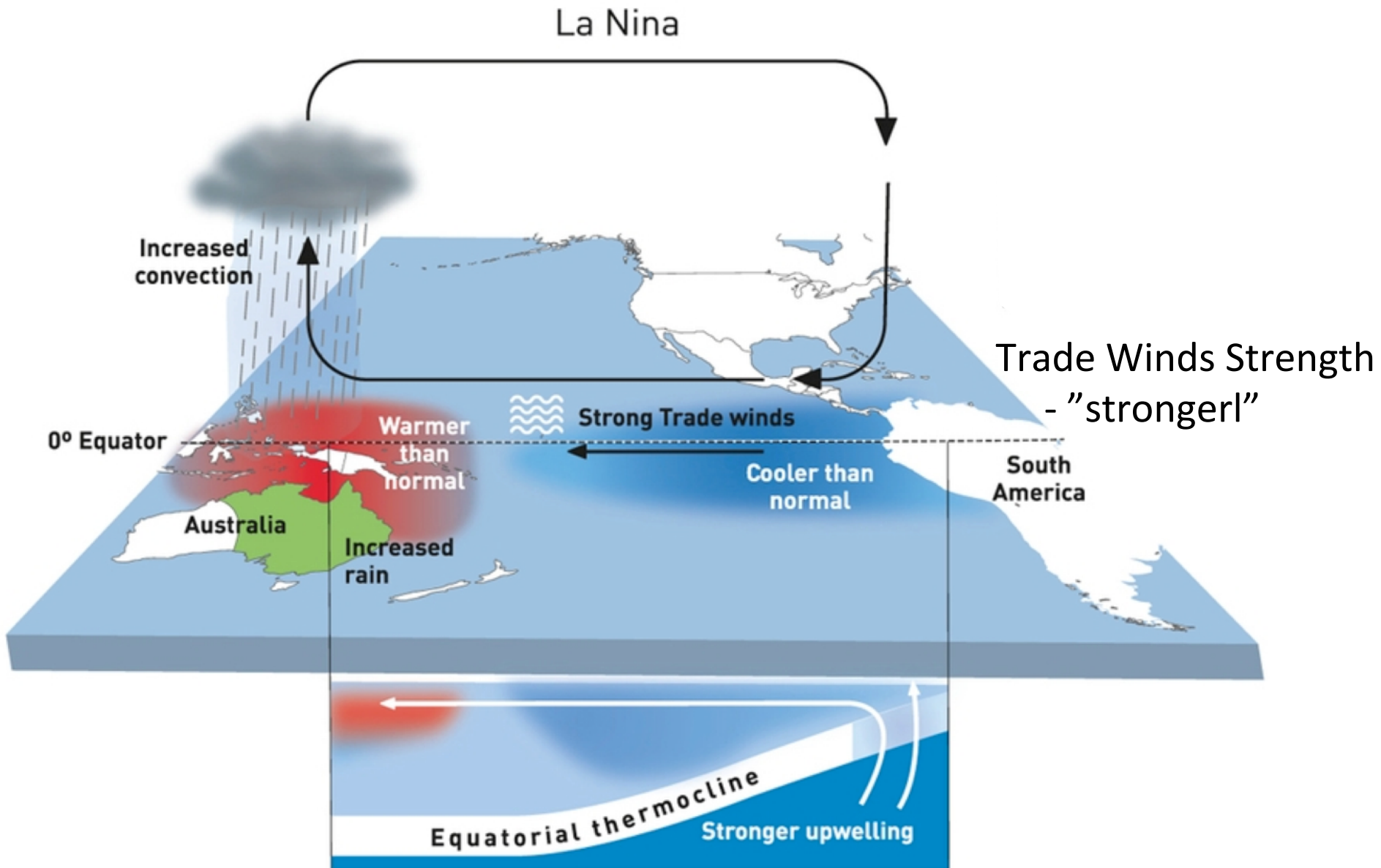
# El Nino Southern Oscillation (ENSO)



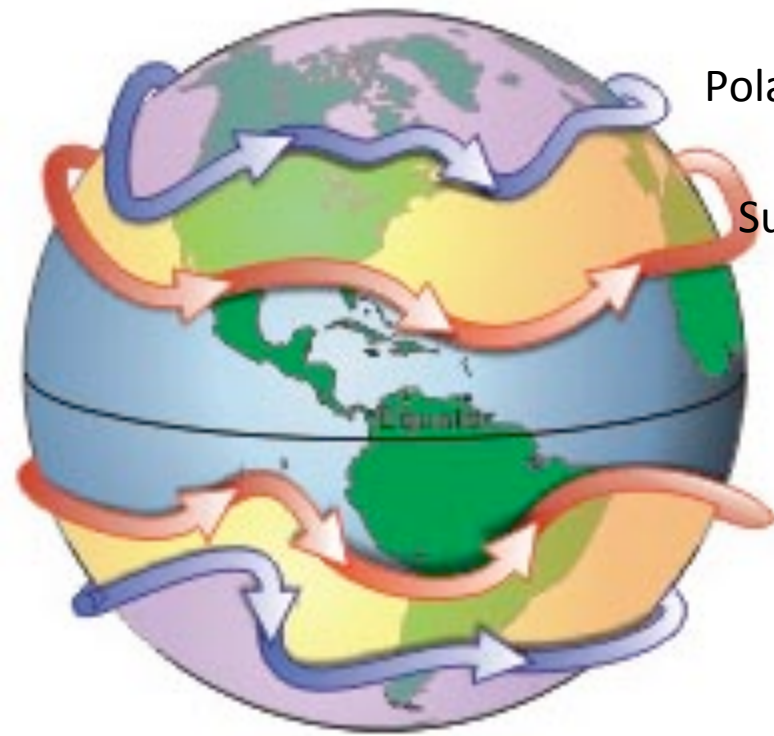
# El Nino Southern Oscillation (ENSO)



# El Nino Southern Oscillation (ENSO)

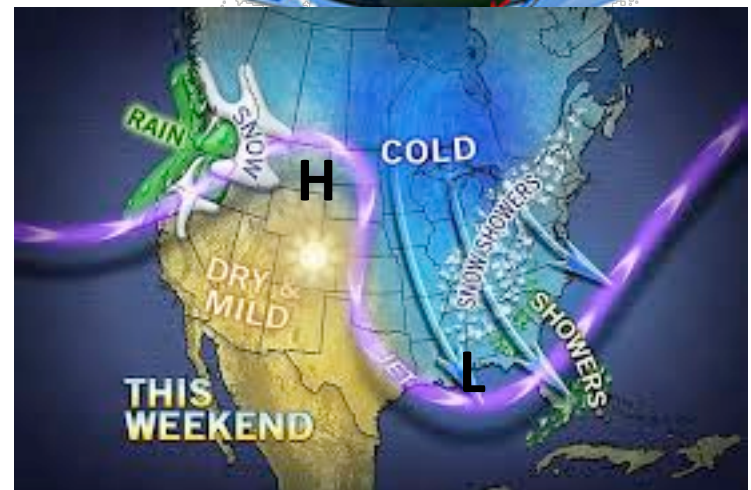
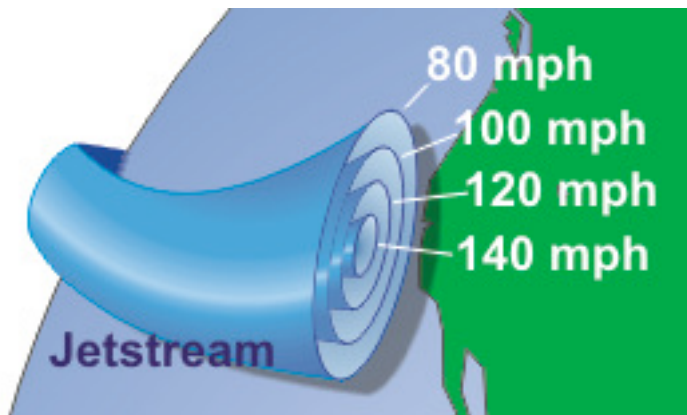
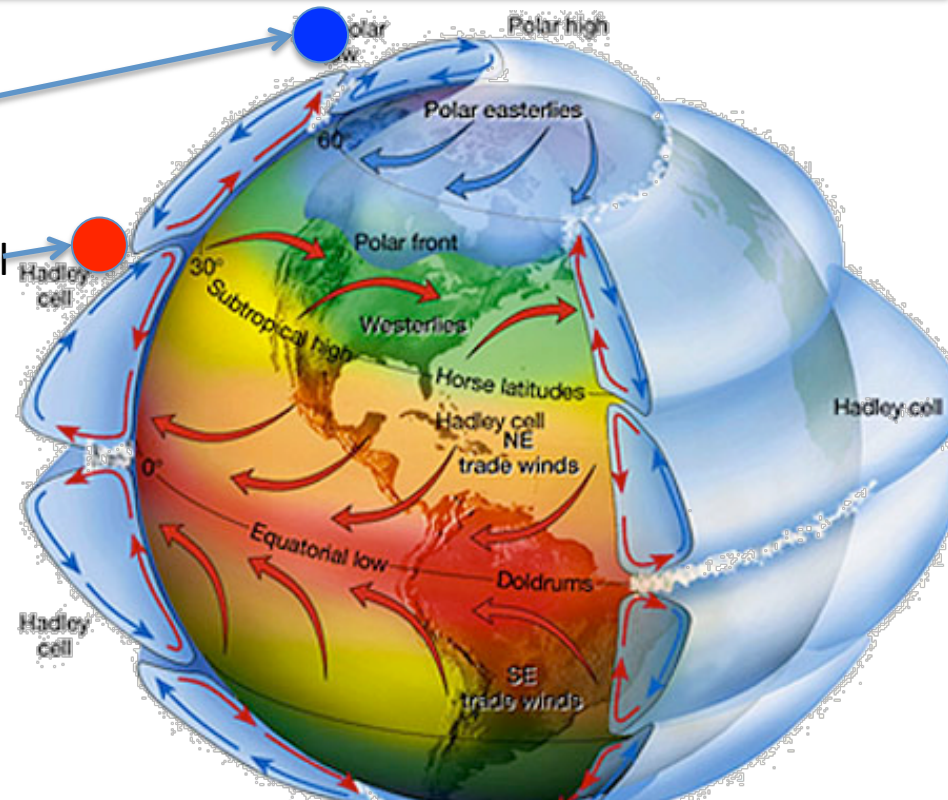


# Jet Streams



Polar

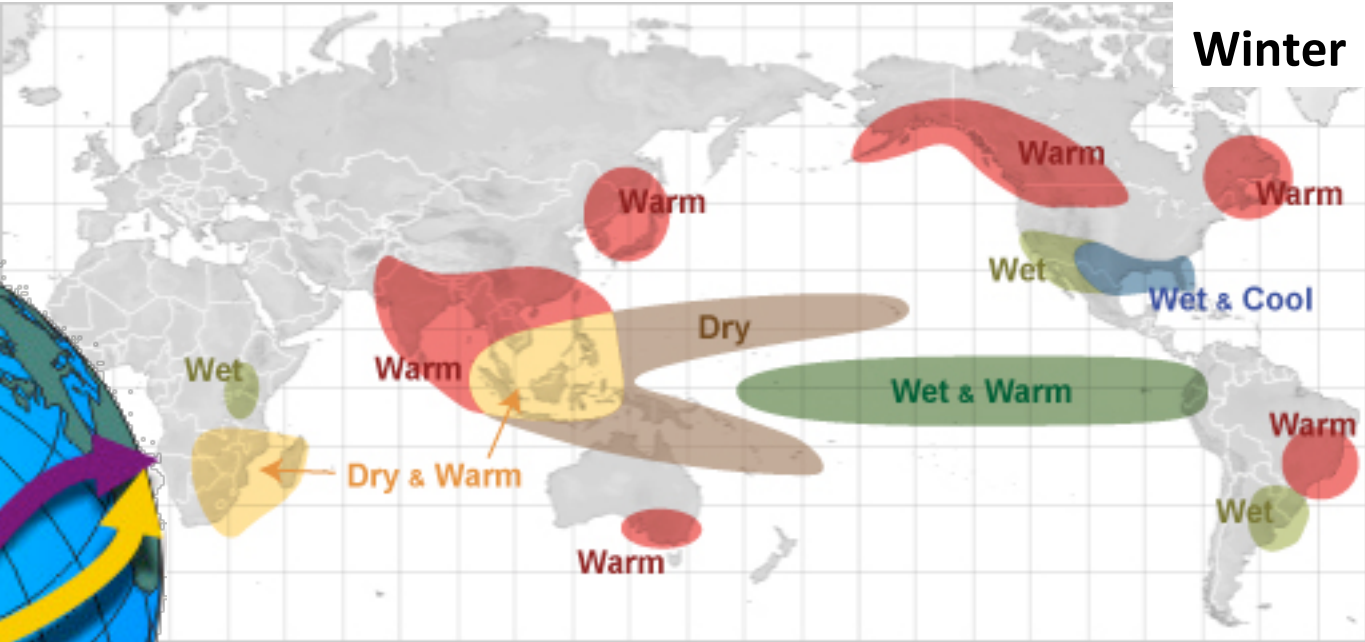
Sub-Tropical



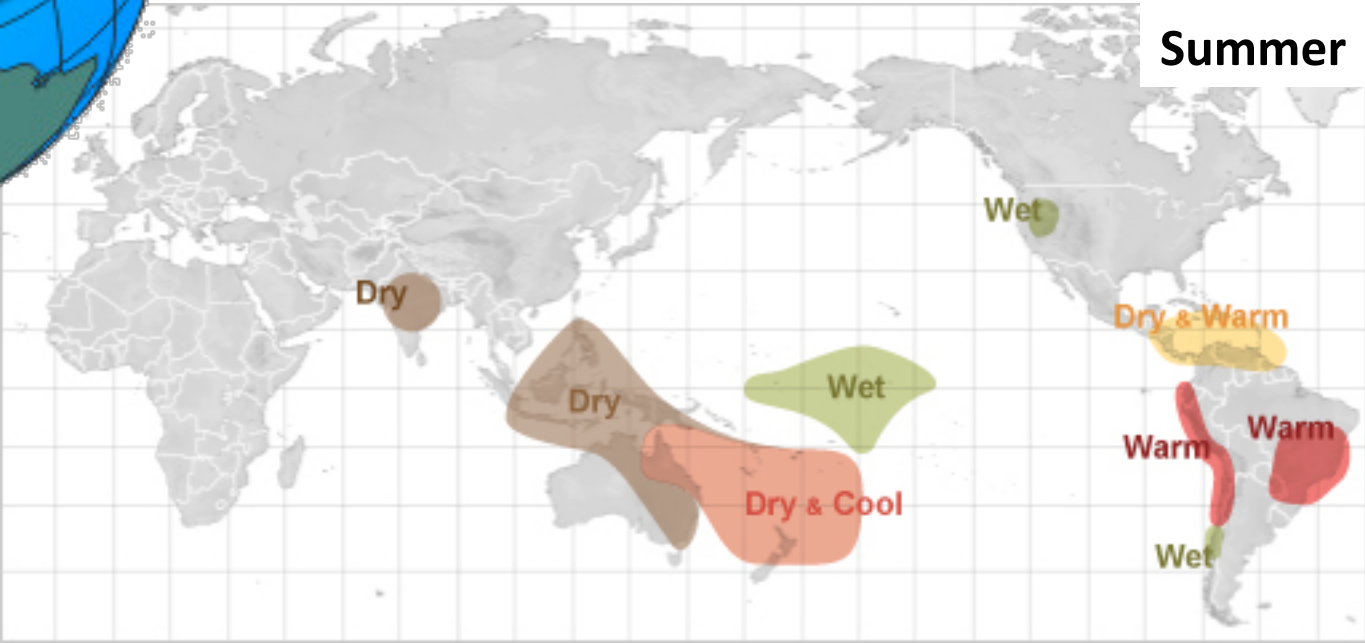
# ENSO Weather Impacts

## El Nino

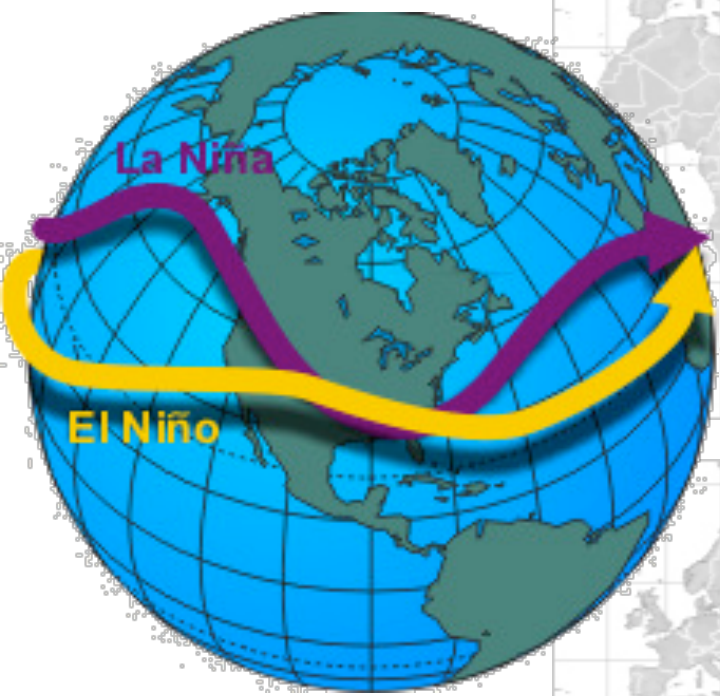
Winter



Summer



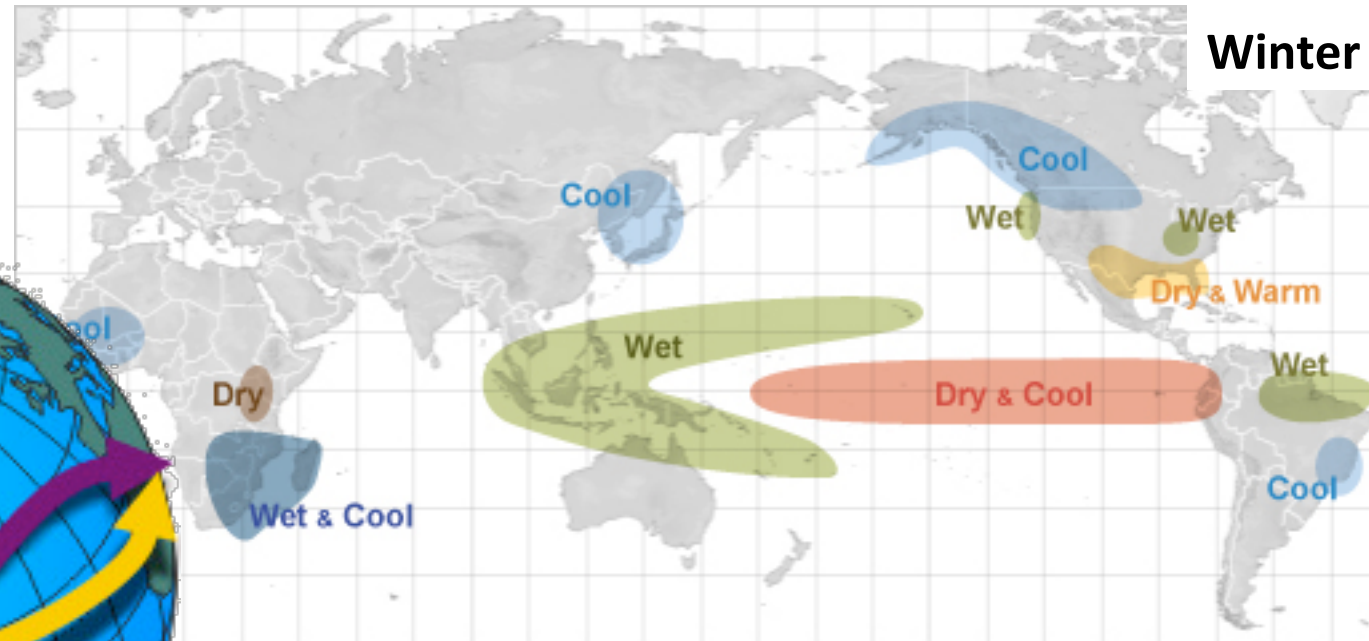
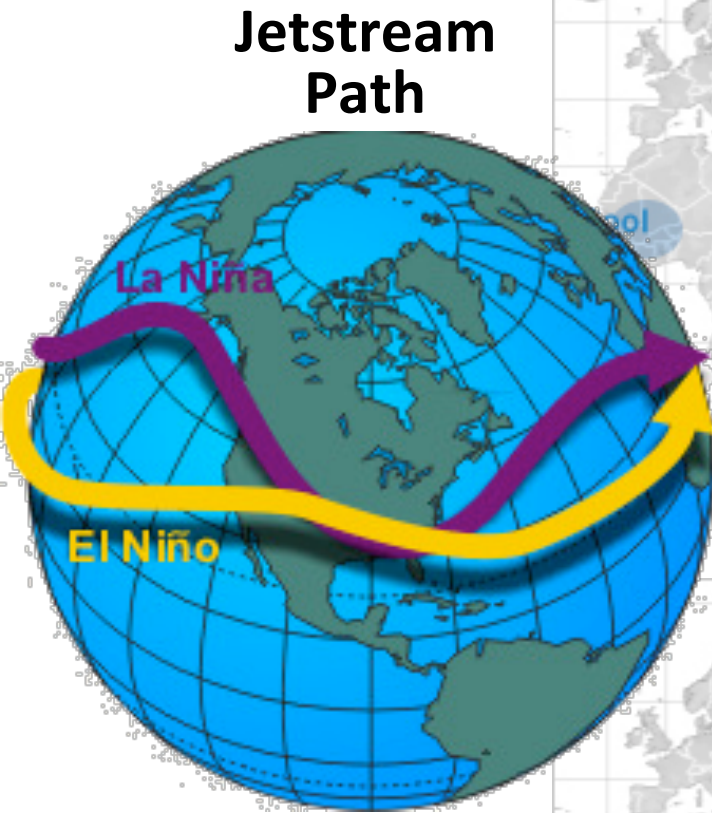
## Jetstream Path



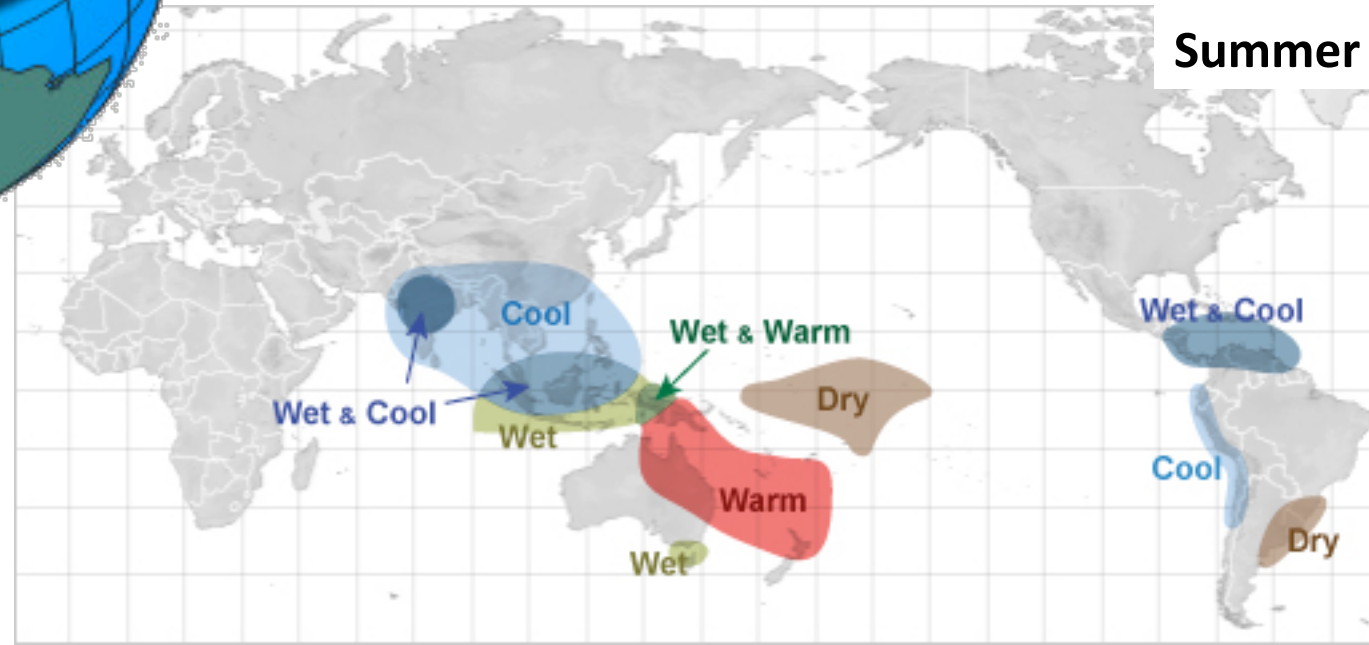
# ENSO Weather Impacts

## La Nina

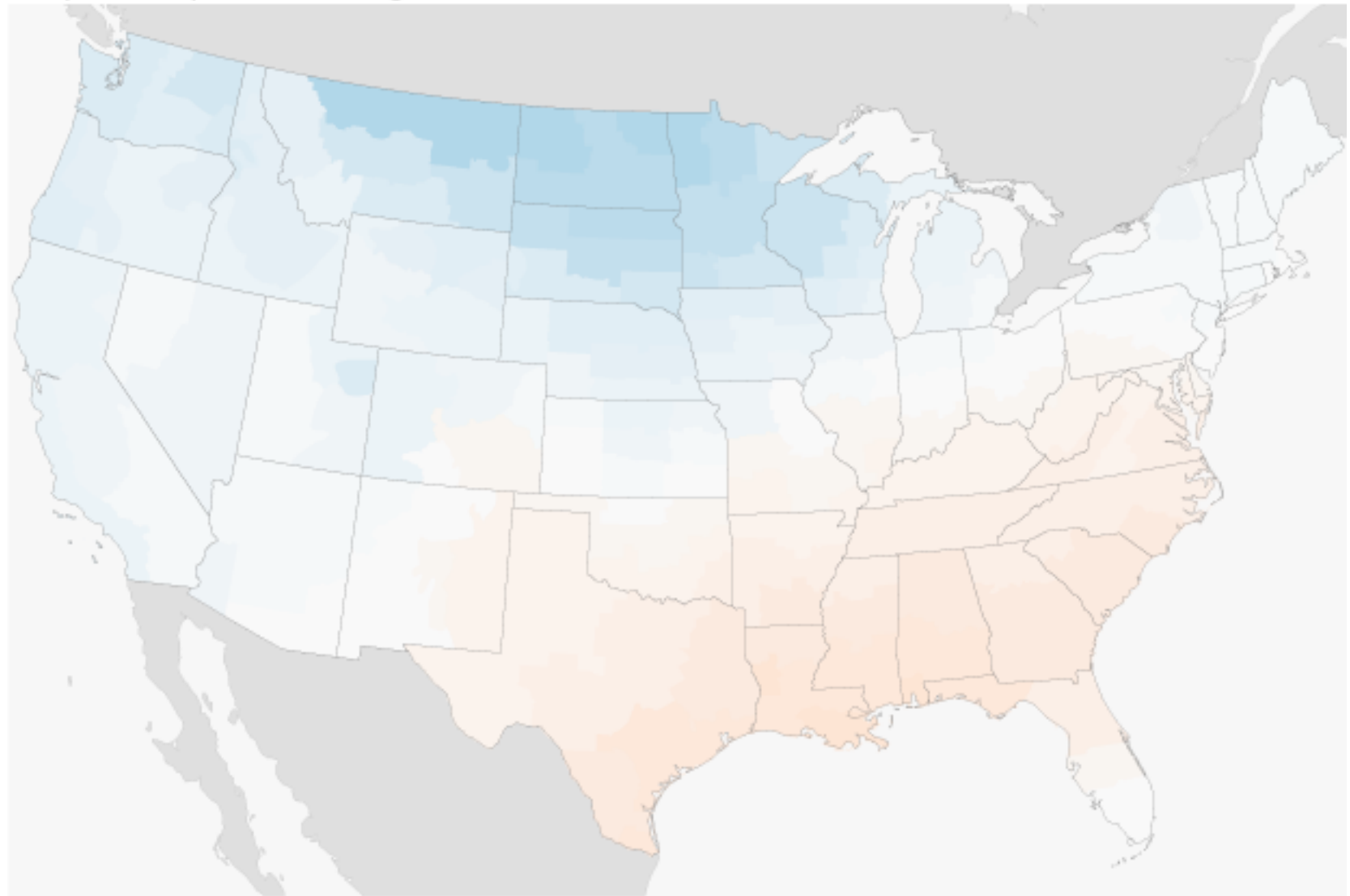
Winter



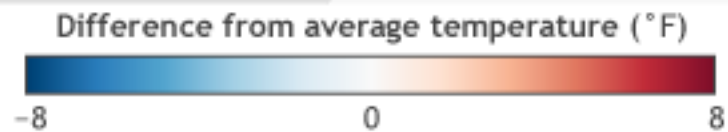
Summer



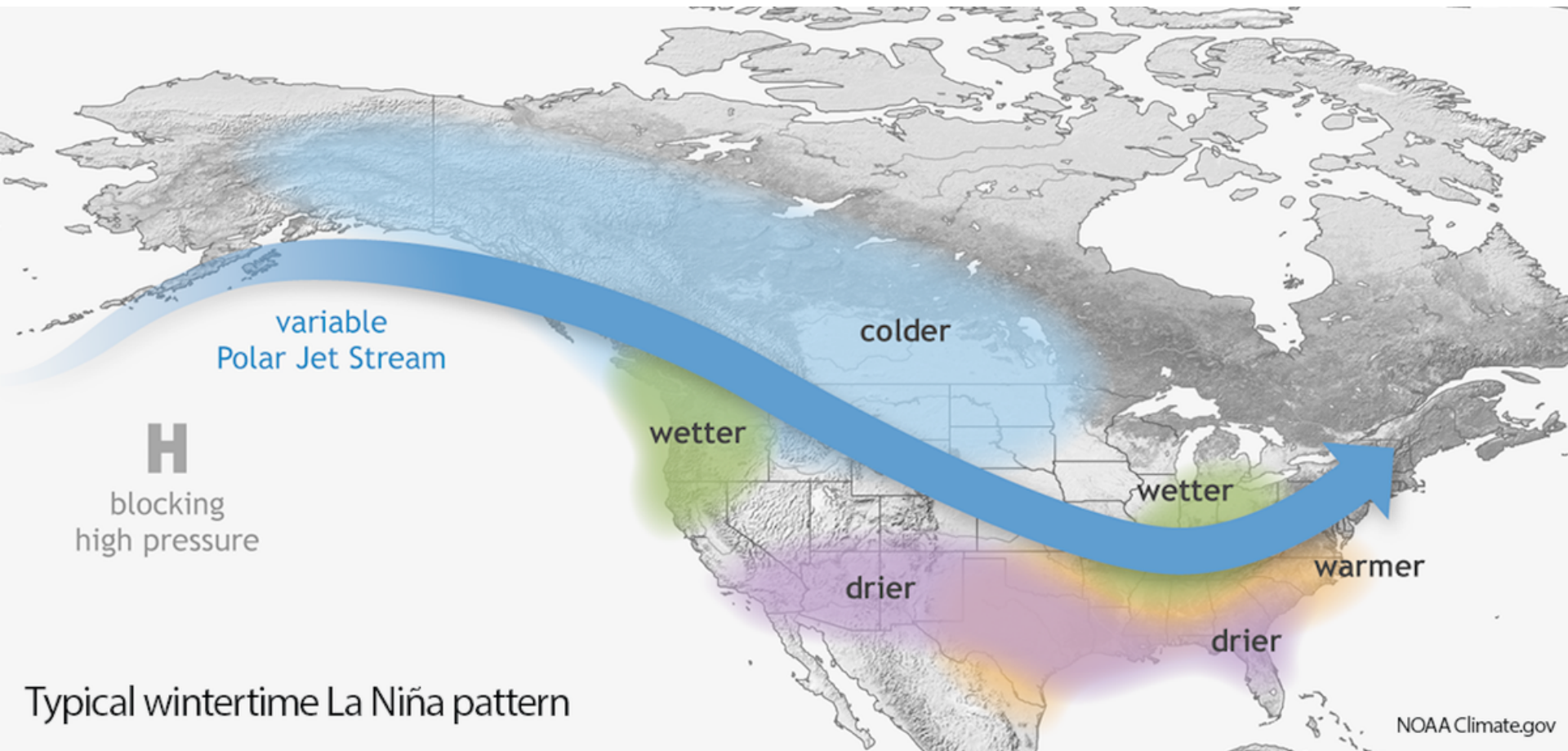
Temperature patterns averaged across all La Niña winters since 1950



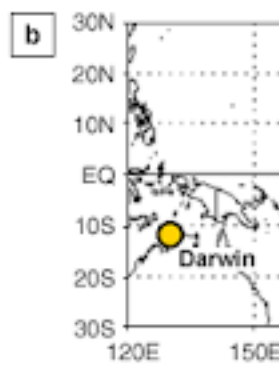
December–February  
compared to 1981–2010



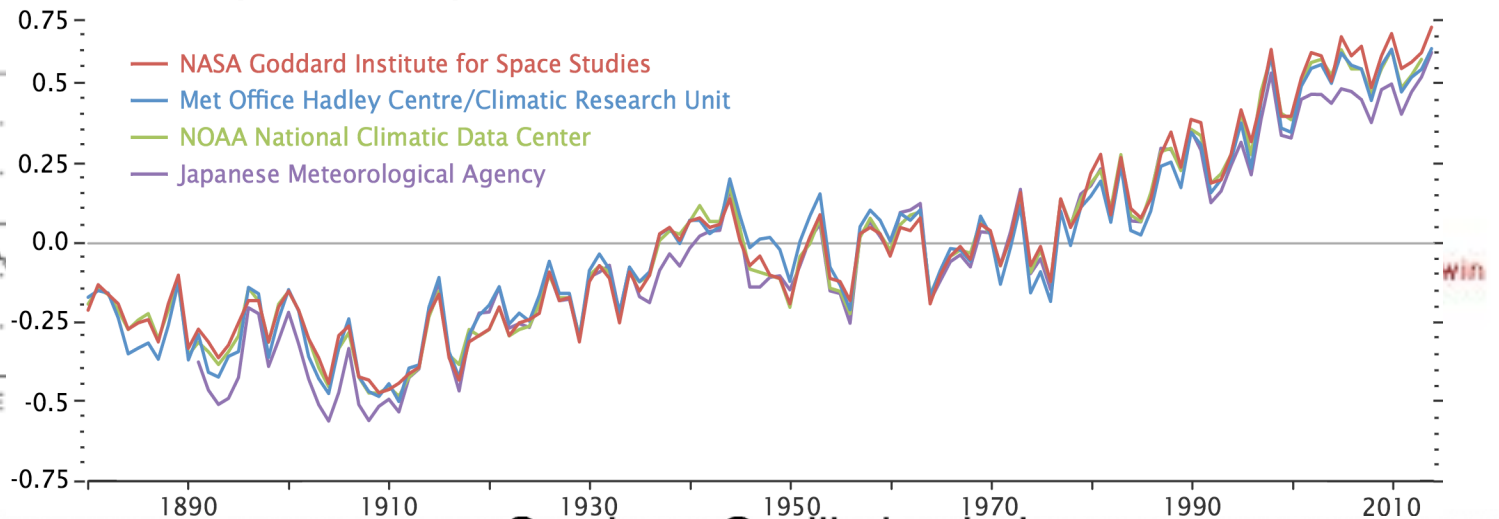
NOAA Climate.gov  
Data: NCDC/ESRL



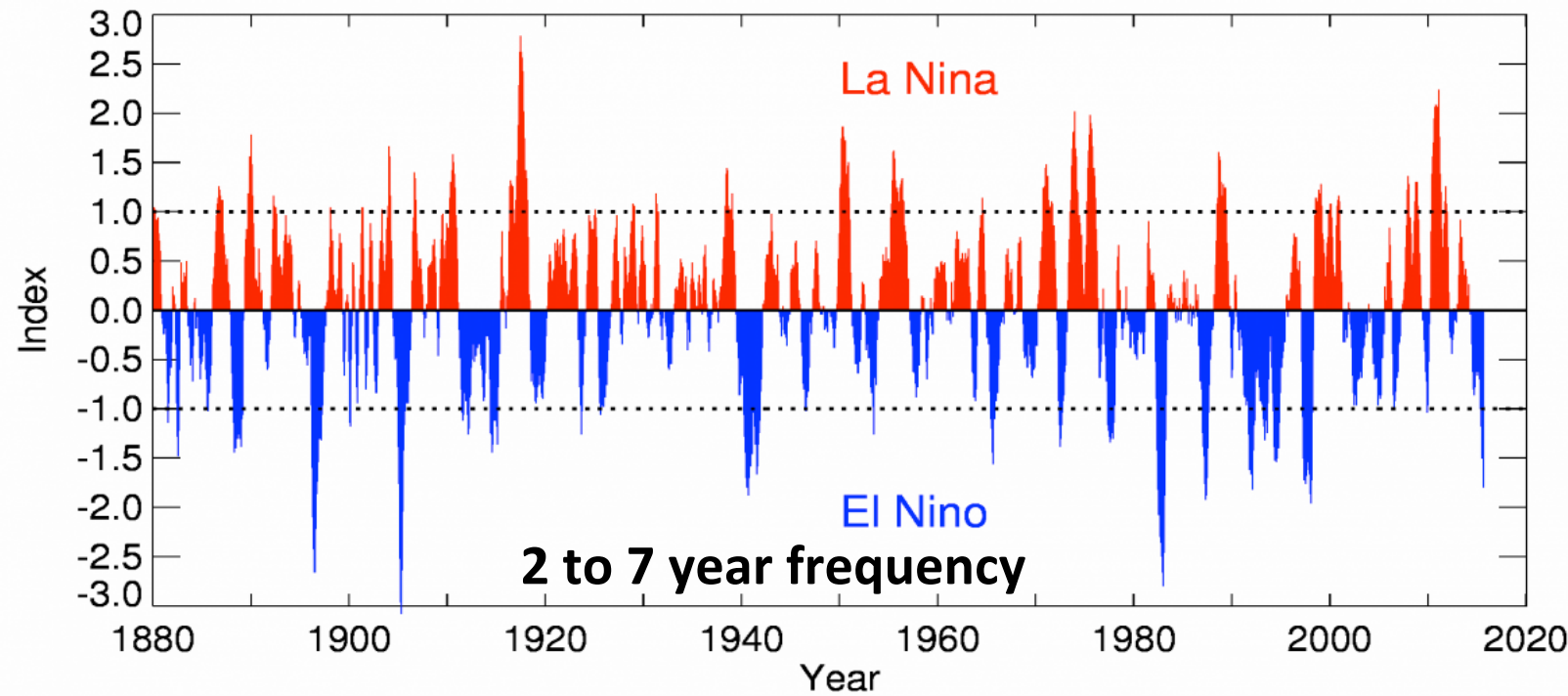
# ENSO Recent History



Annual Temperature Anomaly (°C)



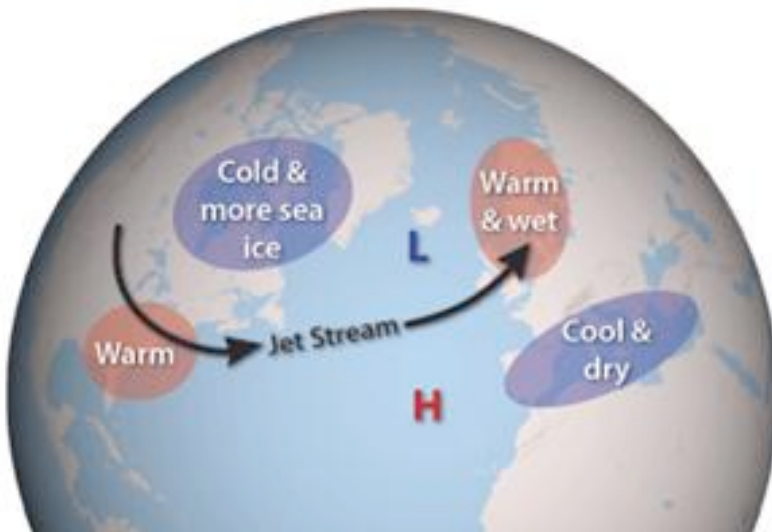
Southern Oscillation Index



# North Atlantic Oscillation (NAO)

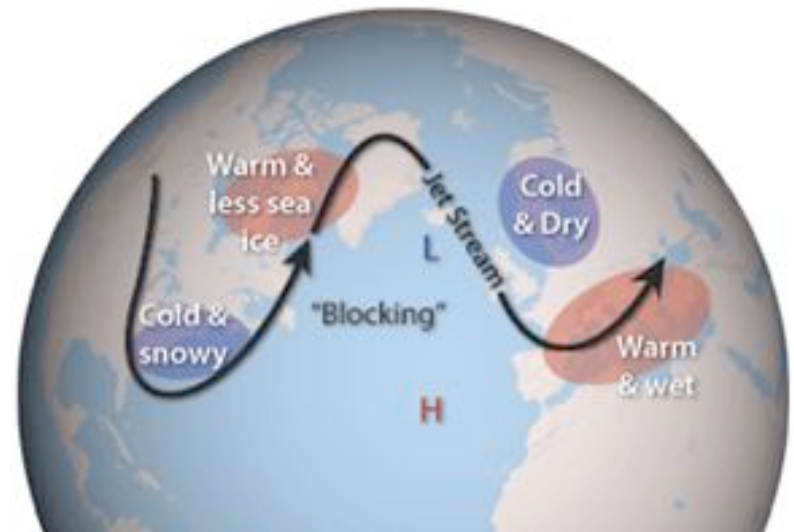
## Positive Mode

Strong pressure systems (H & L) over Atlantic  
- "Guide" Jetstream between systems

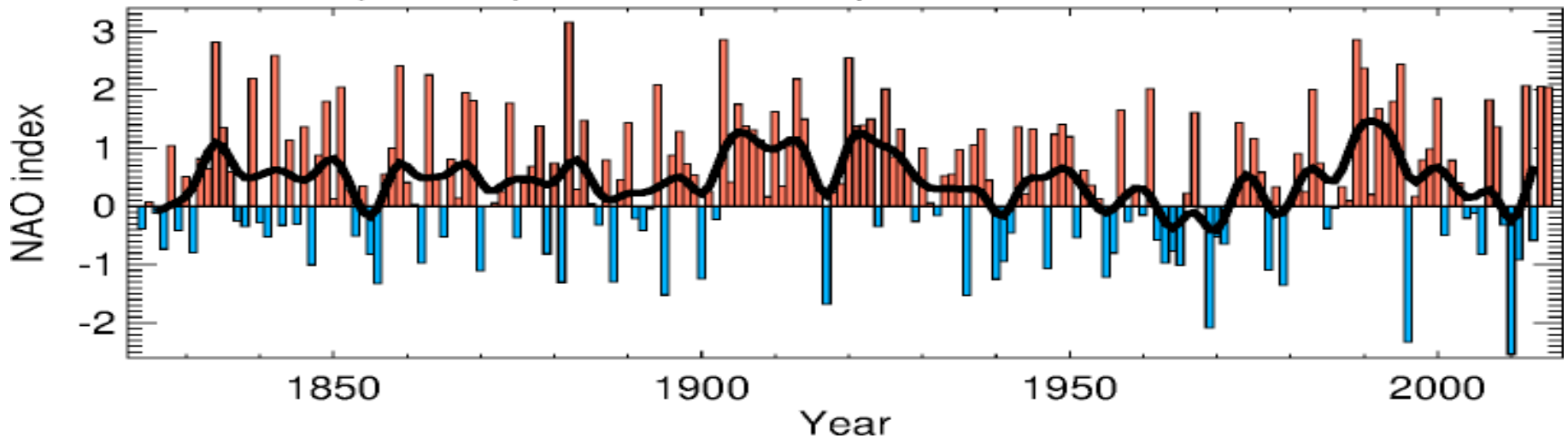


## Negative Mode

Weak pressure systems (H & L) over Atlantic  
- Allow Jetstream to meander



Winter (DJFM) NAO index updated to winter 2014/2015



# ENSO NAO Comparison

Winter (DJFM) NAO index updated to winter 2014/2015

