Monthly Regional Focus
Group Session

Wednesday 15 December 2021
Sea Surface Temperatures

Anomaly Evolution

Daily SST Nov 22

OISST, NOAA NNVL

https://www.nnvl.noaa.gov/view/globaldata.html#SSTA

https://psl.noaa.gov/map/clim/sst.shtml
Are the anomalies deep?

Deep anomalies tend to last longer, becoming useful for subseasonal forecasting.

Top 300m Layer Anomaly


Source: https://psl.noaa.gov/map/clim/sst.shtml
La Niña is present.*

- Equatorial sea surface temperatures (SSTs) are below average across the central and east-central Pacific Ocean.
- The tropical Pacific atmosphere is consistent with La Niña conditions.
ENSO: Oceanic Kelvin Waves

Heat Content Hovmöller

Equatorial Pacific Temp. Anomaly

Source: CPC
La Niña is favored to continue through the Northern Hemisphere winter 2021-22 (~95% chance) and transition to ENSO-neutral during the spring 2022 (~60% chance during April-June).*
Madden-Julian Oscillation (MJO)

- Wave 2 velocity pattern is observed
- Suppressed convection over the Americas
- Propagation slightly better organized, but not too much.

Source: CPC
MJO Forecasts

- Weak MJO signature
- Slightly wetter (more upper divergent) on the first week of December
- Dec 1-10 signal might be more pronounced in the Southern Hemisphere
Tropospheric Equatorial Waves

- Weak convergence through Dec 20
- Kelvin Wave Dec 20-26, South America
  - Monitor for impacts in Eastern and Central Brasil
Tropical Americas: Last 7 Days

- **CPC Unified Gauge 7-Day Total Rainfall Anomaly (mm)**
  - Period: 07Dec2021 - 13Dec2021

- **CMORPH 7-Day Total Rainfall Anomaly (mm)**
  - Period: 07Dec2021 - 13Dec2021

- **CDAS 200mb 7-Day Mean Vector Wind Total (m/s)**
  - Period: 06Dec2021 - 12Dec2021

- **CDAS 850mb 7-Day Mean Vector Wind Anomaly (m/s)**
  - Period: 06Dec2021 - 12Dec2021

- **Anomalies**

- **Gauge Rainfall Anomalies**

- **CMORPH Rainfall Anomalies**

- **200 hPa Flow**

- **850 hPa Flow**
South America: Last 7 Days

CMORPH: CPC Morphing Technique
https://www.cpc.ncep.noaa.gov/products/janowiak/cmorphp DESCRIPTION.html

Gauge Rainfall Anomalies

CMORPH Rainfall Anomalies
NMME Precipitation Forecasts

- **NMME =** North American Multi-model Ensemble.

- Output of 7 Global Models, analyzed statistically.

- Ensemble mean shows generally a La Niña Signal on Rainfall Forecasts.

- **NMME References:**
  

¡Gracias!

Thank you!