Monthly Regional Focus Group Session

Wednesday 20 July 2022 at 15 UTC

https://rammb2.cira.colostate.edu/training/rmtc/focusgroup/
Sea Surface Temperatures (SST)

Daily SST July 18

Anomaly Evolution

NOAA Coral Reef Watch
https://coralreefwatch.noaa.gov/

NOAA OSPO
https://www.ospo.noaa.gov/data/sst/contour/global_small.c.gif
Are sea temperature anomalies deep?

Deep anomalies last longer, becoming useful for subseasonal forecasting.

SST Anomaly – 18 July

NOAA Coral Reef Watch
Source: https://coralreefwatch.noaa.gov/product/5km/index_5km_ssta.php

Top 300m-Layer Anomaly – 12 July

NOAA CPC
**ENSO: La Niña**  
(no changes since April)

- La Niña is present.*
- Equatorial SSTs are below average across most of the Pacific Ocean.
- The tropical Pacific atmosphere is consistent with La Niña.

Oceanic Niño Index (ONI)

<table>
<thead>
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<th>Year</th>
<th>DJF</th>
<th>JFM</th>
<th>FMA</th>
<th>MAM</th>
<th>AMJ</th>
<th>MJJ</th>
<th>JJA</th>
<th>JAS</th>
<th>ASO</th>
<th>SON</th>
<th>OND</th>
<th>NDJ</th>
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<tbody>
<tr>
<td>2020</td>
<td>0.5</td>
<td>0.5</td>
<td>0.4</td>
<td>0.2</td>
<td>-0.1</td>
<td>-0.3</td>
<td>-0.4</td>
<td>-0.6</td>
<td>-0.9</td>
<td>-1.2</td>
<td>-1.3</td>
<td>-1.2</td>
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<tr>
<td>2021</td>
<td>-1.0</td>
<td>-0.9</td>
<td>-0.8</td>
<td>-0.7</td>
<td>-0.5</td>
<td>-0.4</td>
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<td>-0.7</td>
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<td>-1.0</td>
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</table>

< -0.5
ENSO: Oceanic Kelvin Waves

Equatorial Pacific Temperature Anomaly Cross Section

Heat Content Hovmöller

Source: CPC

**Equatorial Temperature Anomaly (°C)**

- **Equatorial Pacific Temperature Anomaly Cross Section**
  - **Depth (meter)**: 0 to 500
  - **Temperature Anomaly**: -5 to 5

**Heat Content Hovmöller**

- **EQ. Upper-Ocean Heat Anoms. (deg C)**
  - **Time Period**: August 2021 to August 2022
  - **SST Anoms**: -2.5 to 2.5

- **Thermocline** indicated
- **Weak warm Kelvin Wave arriving now**
- **Negative SST Anoms developing. Approaching South America in late September?**
La Niña is favored to continue through 2022 with the odds for La Niña decreasing into the Northern Hemisphere late summer (60% chance in July-September 2022) before increasing through the Northern Hemisphere fall and early winter 2022 (62-66% chance).*
Madden-Julian Oscillation (MJO)

- Wave #1 Mode, slowing down due to interference with systems in the Maritime Continent.
- Currently: over the Pacific.
- Low frequency mode present (dry over the Americas)
Tropospheric Equatorial Waves

- Wet Kelvin: July 23-27
- Weak wet MJO: Jul 24 – Aug 1 ?
- Upper convergent (dry) after Aug 1.
MJO Forecasts for the Americas

➢ Weak Upper divergent pulse: July 24 – Aug 1
➢ Potentially quiet in August
➢ Next wet MJO: Not clear yet, end of August?
Flow and Rainfall Anomalies, Last 7 Days
Flow and Rainfall Anomalies, Last 7 Days

200 hPa Flow Anomalies

850 hPa Flow Anomalies

CMORPH

Gauges
¡Gracias! Thank you!

Next session: Wed 17 August at 15 UTC

Recorded sessions and more information available at:
https://rammb2.cira.colostate.edu/training/rmtc/focusgroup/