Monthly Regional Focus
Group Session

Wednesday 17 January 2022
Too many topics to address during this session:

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dec 30</td>
<td>Fires in Colorado</td>
</tr>
<tr>
<td>Dec 23 - Jan 11</td>
<td>Extreme Rainfall in Brasil, persistent SACZ events</td>
</tr>
<tr>
<td>Jan 10-17</td>
<td>Heat wave amid drought in the Parana/La Plata Basin</td>
</tr>
<tr>
<td>Jan 11-12</td>
<td>Subtropical Cyclone off the coast of Chile</td>
</tr>
<tr>
<td>Jan 15</td>
<td>Tonga Volcano Explosion</td>
</tr>
</tbody>
</table>
Are the anomalies deep?

Deep anomalies last longer, becoming useful for subseasonal forecasting.


NOAA Coral Reef Watch
Source: https://coralreefwatch.noaa.gov/product/5km/index_5km_ssta.php
La Niña is present.
Equatorial sea surface temperatures (SSTs) are below average across the east-central and eastern Pacific Ocean.
The tropical Pacific atmosphere is consistent with La Niña.
ENSO: Oceanic Kelvin Waves

Equatorial Pacific Temperature Anomalies

Equatorial Temperature Anomaly (°C)
Period centered on 14 NOV 2021

Heat Content Hovmöller

Source: CPC

Warming in South America in Mid March?
La Niña is likely to continue into the Northern Hemisphere spring (67% chance during March-May 2022) and then transition to ENSO-neutral (51% chance during April-June 2022).
Madden-Julian Oscillation (MJO)

- Disorganized
- Ill-defined propagation
- Low frequency anomalies are dissipating
MJO Forecasts for the Americas

- Discrepancies in models (consistent with observations) = lower confidence forecast
- Upper convergent (dry) through the weekend
- Upper divergent (wetter) the first half of February
Tropospheric Equatorial Waves

- **Kelvin (wet) on Jan 23-26**
  - Impacts mostly in the NW Caribbean
  - To monitor:
    - Mid-latitude cyclones and fronts in the Gulf of Mexico
    - Rainfall in the Gulf of Mexico basin, Caribbean basin of northern Central America, W Cuba, NW Bahamas.
Flow and Rainfall Anomalies, Last 7 Days

CPC Unified Gauge 7-Day Total Rainfall Anomaly (mm)
Period: 11Jan2022 – 17Jan2022

CMORPH 7-Day Total Rainfall Anomaly (mm)
Period: 11Jan2022 – 17Jan2022

CDAS 200mb 7-Day Mean Vector Wind Total (m/s)
Period: 1Jan2022 – 15Jan2022

CDAS 850mb 7-Day Mean Vector Wind Total (m/s)
Period: 1Jan2022 – 15Jan2022

200 hPa Flow

850 hPa Flow

Gauge Rainfall Anomalies

CMORPH Rainfall Anomalies

Anomalies
South America: Last 7 Days

CMORPH: CPC Morphing Technique
https://www.cpc.ncep.noaa.gov/products/janowiak/cmorph_description.html
¡Gracias! Thank you!

Next session:
Wednesday Feb 17 at 16 UTC