Weeks 2-3 Global Tropics Hazards Outlook
9/27/2022

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ENSO: (Sep 8, 2022 Update)  

next update on Thursday, Oct 13th

- ENSO Alert System Status: La Niña Advisory

- La Niña is favored to continue through Northern Hemisphere winter 2022-23, with a 91% chance in Sep-Nov, decreasing to a 54% chance in Jan-Mar 2023.

MJO and other subseasonal tropical variability:

- The MJO weakened during early September as it destructively interfered with the La Niña.

- A remnant MJO is forecast to propagate eastward over the Western Hemisphere during the next two weeks.

- This large-scale environment is expected to be favorable for tropical cyclone development across the Atlantic basin through the beginning of October.
Global Tropics Hazards Outlook
Climate Prediction Center

Week 2 - Valid: Oct 05, 2022 - Oct 11, 2022

Week 3 - Valid: Oct 12, 2022 - Oct 18, 2022

This product is updated once per week and targets broad scale conditions integrated over a 7-day period for US interests only. Consult your local responsible forecast agency.

Issued: 09/27/2022
Forecaster: Baradiarlaan
200-hPa Velocity Potential Anomaly Maps:

- A secondary envelope of enhanced conditions is favored during week-1 over the Americas, while the main convective envelope remains anchored over the eastern Hemisphere.

- By week-3, the a wave-1 pattern is favored to redevelop, suggestive of the renewal of a more coherent MJO.
Unlike the GEFS and CFS, the ECMWF favors a continual circumnavigation of the intraseasonal signal that returns to the Western Hemisphere and Indian Ocean during the next 3 weeks, albeit at a low amplitude. This evolution is also favored by the latest BOMM RMM forecast (not pictured).

However, ensemble spread remains quite high among the dynamical models, contributing to much uncertainty in the outlook.
Outgoing Longwave Radiation (OLR) Anomaly Time/Lon Plots:

OLR w/ ECMWF Forecasts

OLR w/ GEFSv12 Forecasts
Consolidated Probabilistic Precipitation: Week-2

CONS 00z: Week2 Probability for Total Rainfall Above Upper Tercile (%)
Valid: 05Oct2022–11Oct2022

CONS 00z: Week2 Probability for Total Rainfall Below Lower Tercile (%)
Valid: 05Oct2022–11Oct2022
Consolidated Probabilistic Precipitation: Week-3

CONS 00z: Week3 Probability for Total Rainfall Above Upper Tercile (%)  
Valid: 120ct2022–180ct2022

CONS 00z: Week3 Probability for Total Rainfall Below Lower Tercile (%)  
Valid: 120ct2022–180ct2022
Historical Precipitation Anomalies By MJO Phase:

ASO MJO Composite: GPCP1DD (mm/day)
Historical TC Genesis Origins By MJO Phase:
Multi-Model TC Track Probabilities:

Storm Track Probabilities, IC=20220926
Week 2: 1005 – 1011

Storm Track Probabilities, IC=20220926
Week 3: 1012 – 1018
Multi-Model TC Densities (Unfiltered/Filtered):

Storm Track Density Distribution, IC=20220926
Week 2 Forecast: 1005–1011

Storm Track Density Distribution, IC=20220926
Week 3 Forecast: 1012–1018
TC Climatological Genesis:

Observed TC Genesis, 1979–2021
7-day Period 1005 to 1011

Observed TC Genesis, 1979–2021
7-day Period 1012 to 1018
Teleconnection Indices: PNA / AO:

**PNA Index: Observed & GEFS Forecasts**

500mb Z (Obs: 31May2022 - 27Sep2022)  
mean = 0.3139

500mb Z (7 day Forecast)  
mean = 0.2386; cor(w/obs) = 0.845

500mb Z (10 day Forecast)  
mean = 0.0954; cor(w/obs) = 0.6295

500mb Z (14 day Forecast)  
mean = 0.0278; cor(w/obs) = 0.4083

**AO Index: Observed & GEFS Forecasts**

1000mb Z (Obs: 31May2022 - 27Sep2022)  
mean = 0.272

1000mb Z (7 day Forecast)  
mean = -0.2122; cor(w/obs) = 0.8908

1000mb Z (10 day Forecast)  
mean = -0.1596; cor(w/obs) = 0.7585

1000mb Z (14 day Forecast)  
mean = -0.0273; cor(w/obs) = 0.3833
Historical 500-hPa Height & U.S. Temperatures By MJO Phase:
Mean 500-hPa Height Anomaly Forecasts:
Official Temperature & Precipitation Forecasts: