

Global Tropics Hazards And Benefits Outlook

2/8/2022

Brad Pugh

Outline

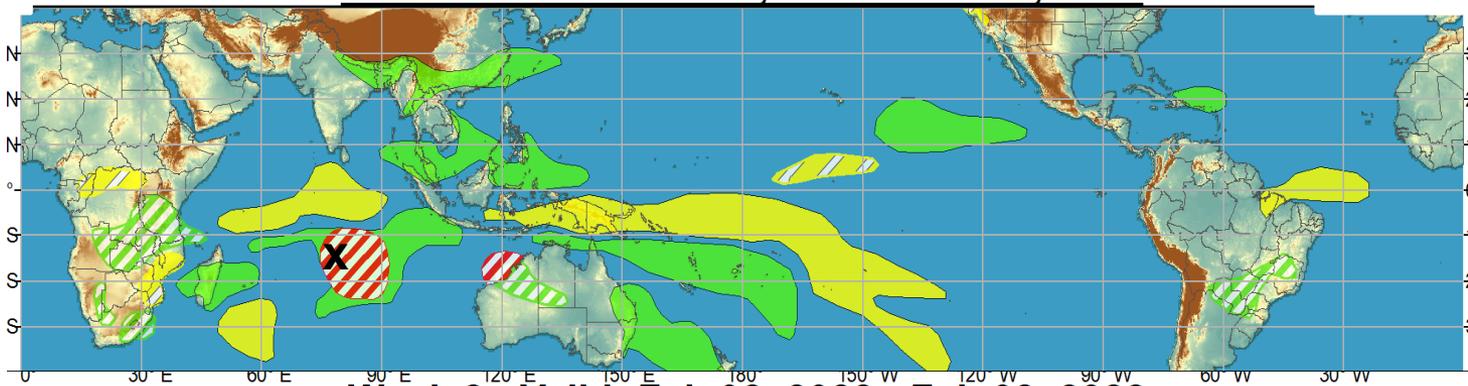
1. Review of Recent Conditions
2. Synopsis of Climate Modes
3. GTH Outlook and Forecast Discussion
4. Connections to U.S. Impacts

Outlook Review

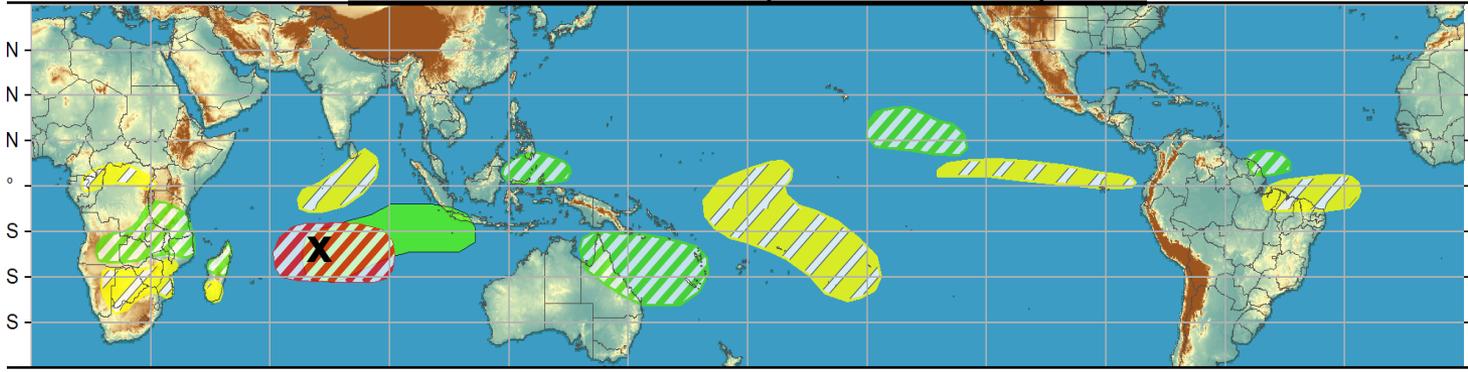
X= Tropical
Cyclone
Jawad
(Bay of Bengal)

X= TC 2S
(Southern Indian Ocean)

Week 1 - Valid: Feb 02, 2022 - Feb 08, 2022

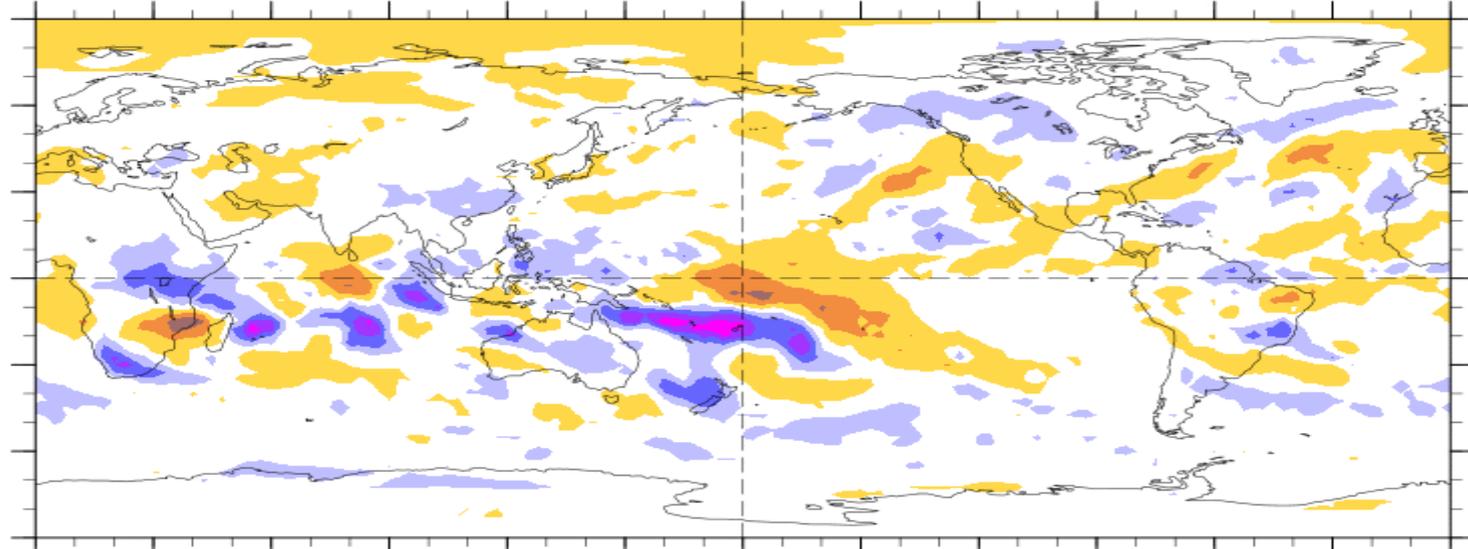


Week 2 - Valid: Feb 02, 2022 - Feb 08, 2022



7-Day Average OLR Anomaly

2022/01/31 - 2022/02/06



Cool shading
More clouds/rain

Warm shading
Less clouds/rain

Tropical Cyclone Batsirai



Tropical Cyclone Batsirai

- Maximum sustained winds of 125 knots and 932mb (east of Madagascar)
- Made landfall in eastern Madagascar with max winds of near 100 knots
- Strongest TC to make landfall there in 5 years
- Second TC to affect the country in less than two weeks

Synopsis of Climate Modes

ENSO: (January 13, 2022 Update)

next update on 10th of Feb.!

- ENSO Alert System Status: [La Niña Advisory](#)
- 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).

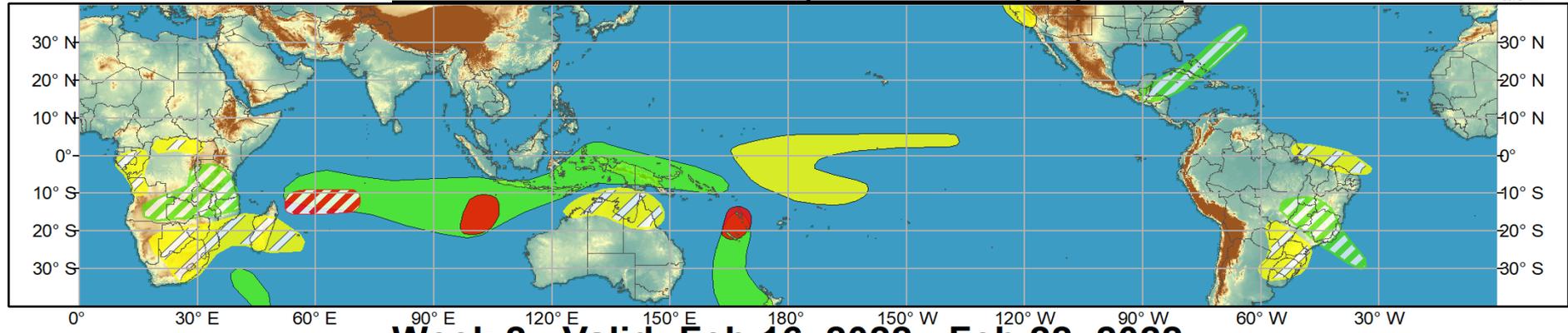
MJO and other subseasonal tropical variability:

- The MJO is becoming more organized with its enhanced phase over the Indian Ocean.
- La Niña continues to be a major contributor to anomalous rainfall throughout the global tropics.
- During the latter half of February, the MJO and La Niña are forecast to constructively interfere.

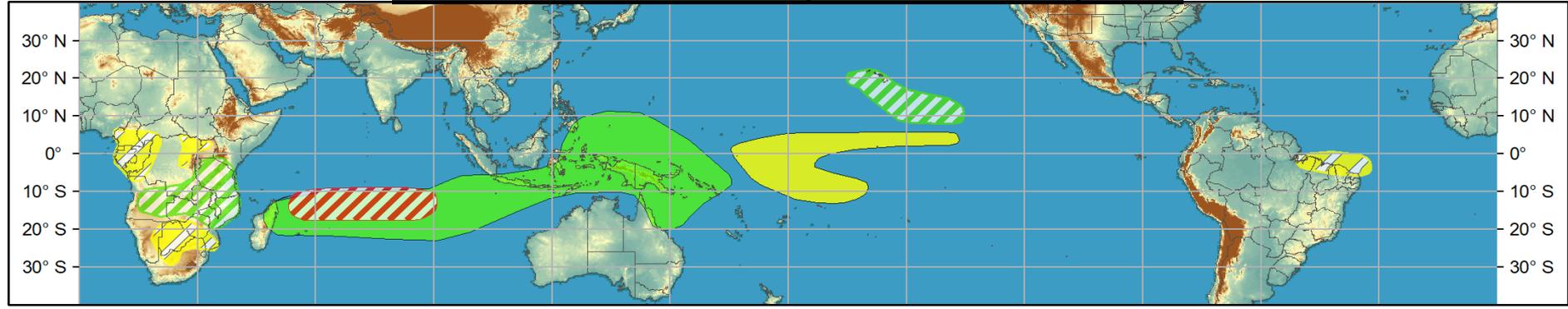


Global Tropics Hazards and Benefits Outlook - Climate Prediction Center

Week 1 - Valid: Feb 09, 2022 - Feb 15, 2022



Week 2 - Valid: Feb 16, 2022 - Feb 22, 2022



Produced: 02/08/2022

Forecaster: Pugh

Confidence		
High	Moderate	
		Tropical Cyclone Formation Development of a tropical cyclone (tropical depression - TD, or greater strength).
		Above-average rainfall Weekly total rainfall in the upper third of the historical range.
		Below-average rainfall Weekly total rainfall in the lower third of the historical range.
		Above-normal temperatures 7-day mean temperatures in the upper third of the historical range.
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IR Satellite & 200-hpa Velocity Potential Anomalies

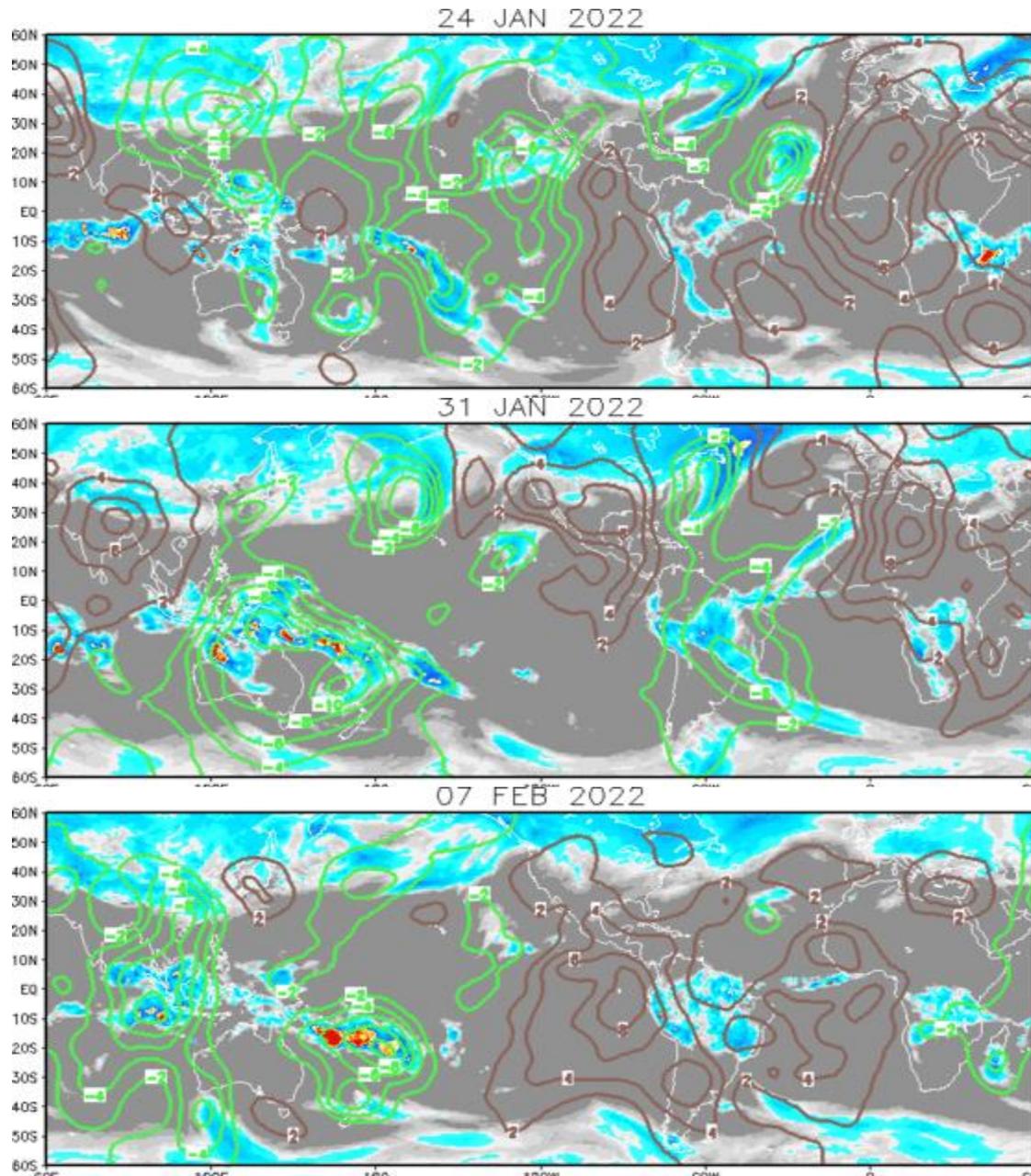
Green: Enhanced Divergence

Brown: Enhanced Convergence

The La Niña atmospheric response was somewhat disrupted by late January, but the overall pattern was chaotic.

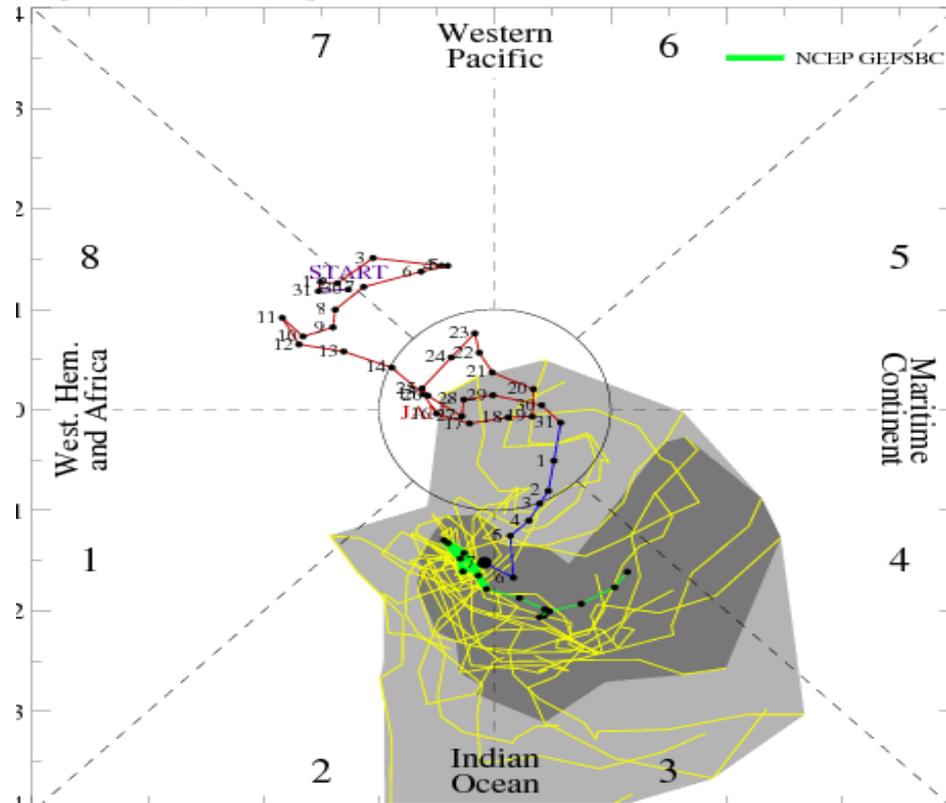
Strong convection over the southern Maritime Continent. I.O. Rossby wave more apparent in wind fields than OLR.

A wave-1 spatial pattern recently developed with signs of a more coherent MJO.



MJO Observation/Forecast

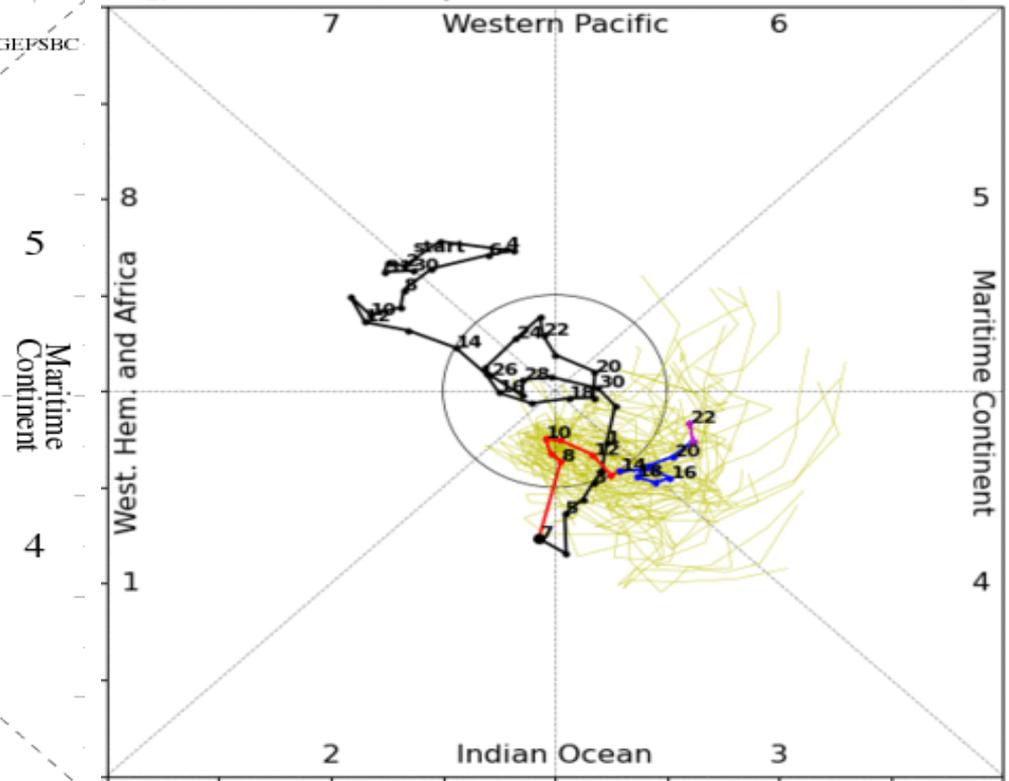
[RMM1, RMM2] forecast for Feb-08-2022 to Feb-22-2022



GEFS



ECMWF (bc) | 2022-02-08 to 2022-02-22

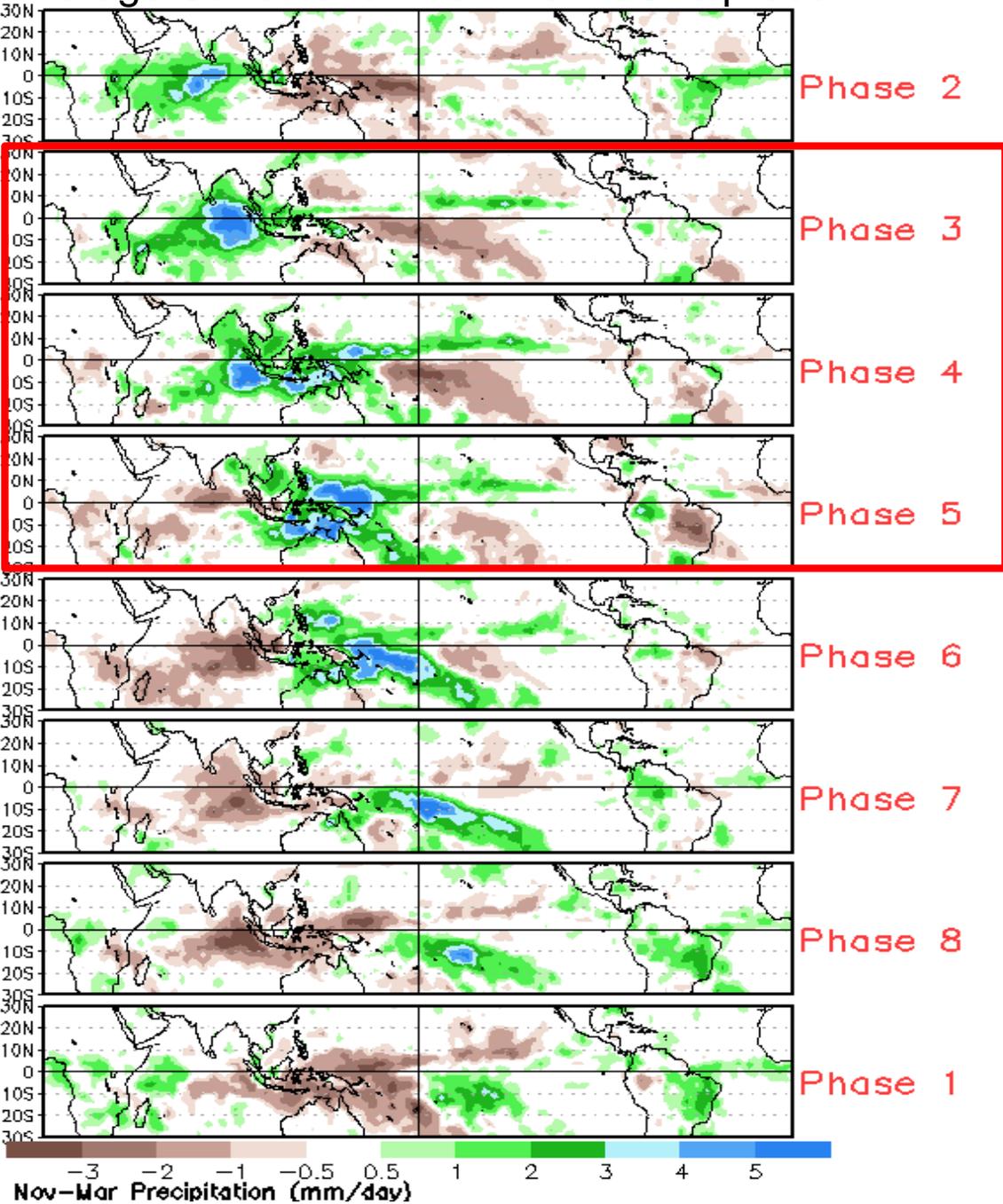


ECMWF

GEFS and ECWMMF in good agreement supporting renewed eastward propagation.

Tendency for RMM index to remain over phases 2 and 3 may be due to tropical cyclones over the South Indian Ocean.

Average Conditions when the MJO is present



CAVEAT: These panels are representative of robust MJO events.



JOINT TYPHOON WARNING CENTER

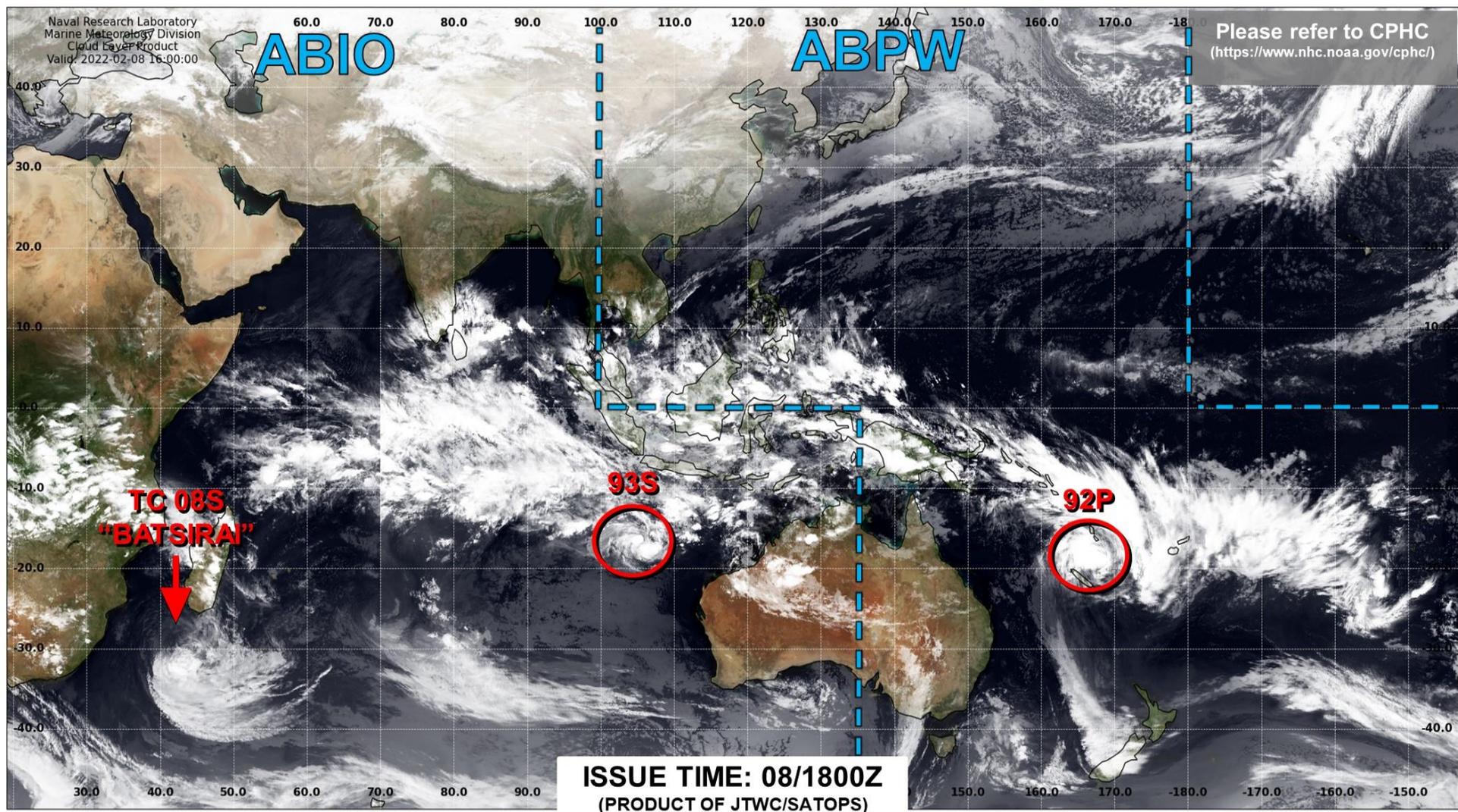


Naval Research Laboratory
Marine Meteorology Division
Cloud Layer Product
Valid: 2022-02-08 16:00:00

ABIO

ABPW

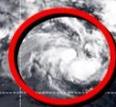
Please refer to CPHC
(<https://www.nhc.noaa.gov/cphc/>)



**TC 08S
"BATSIRAI"**



93S



92P



ISSUE TIME: 08/1800Z
(PRODUCT OF JTWC/SATOPS)

LOW

TC development unlikely within 24 hours

MEDIUM

TC development likely, but expected to occur beyond 24 hours

HIGH

TC development likely within 24 hours (Reference TCFA)

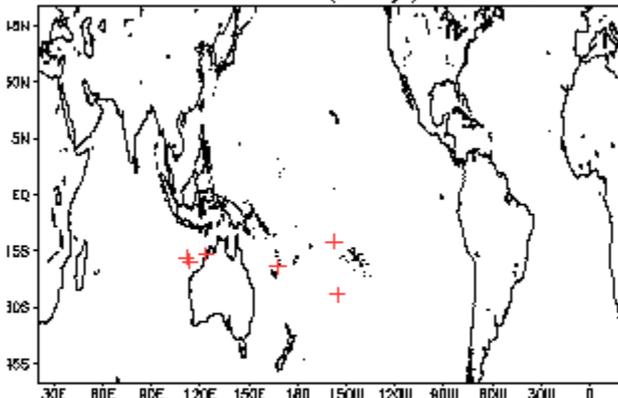
SUB TROPICAL

Monitoring for potential transition to TC. Invest label color denotes tropical transition probability

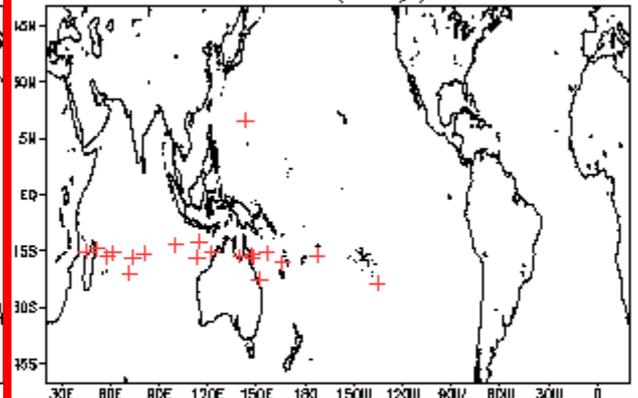
Tropical Cyclone (Reference Warning)

February Tropical Storm Formation by MJO phase

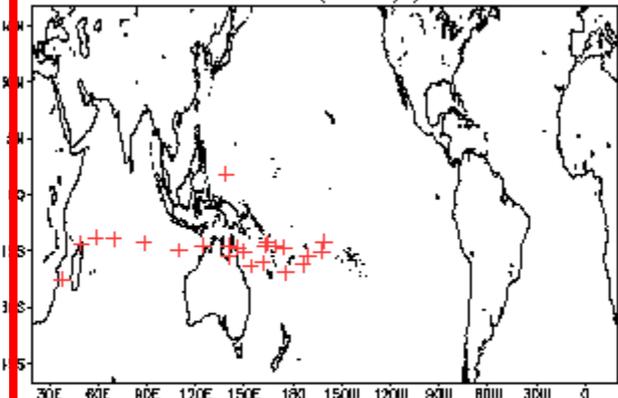
Phase 1 (41 days) 7 storms



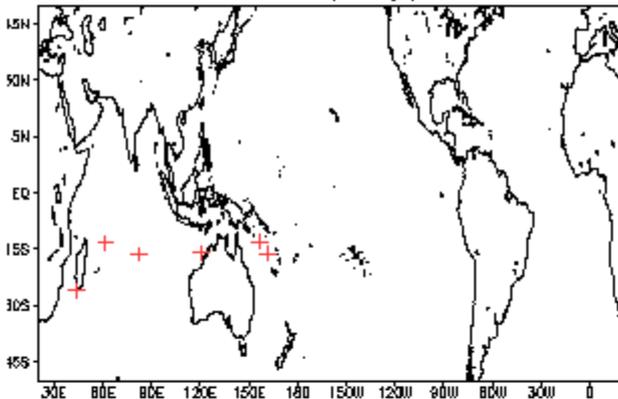
Phase 4 (92 days) 21 storms



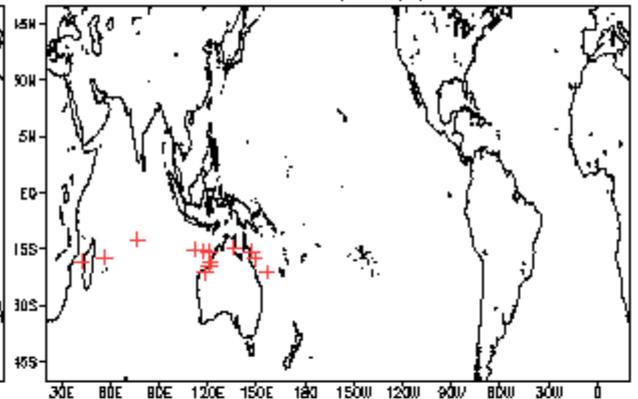
Phase 7 (125 days) 24 storms



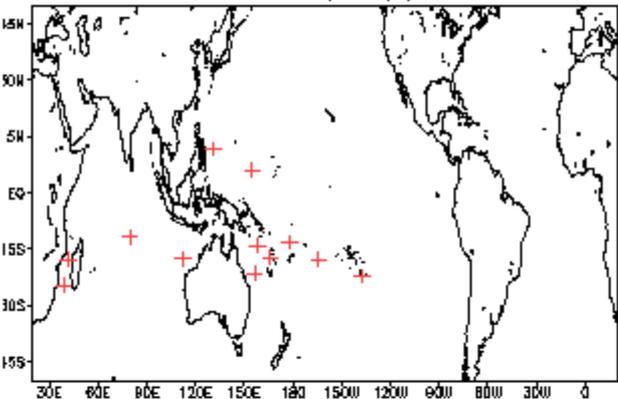
Phase 2 (51 days) 7 storms



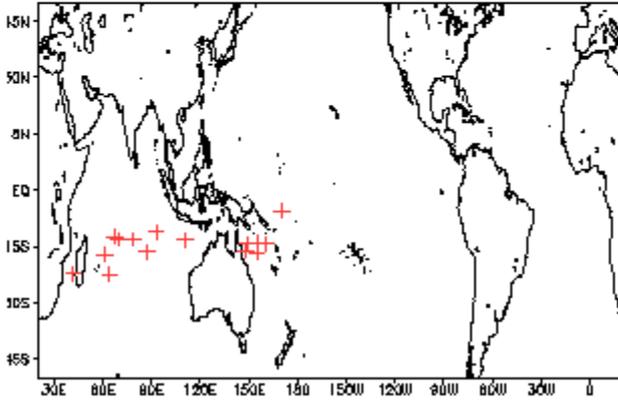
Phase 5 (70 days) 14 storms



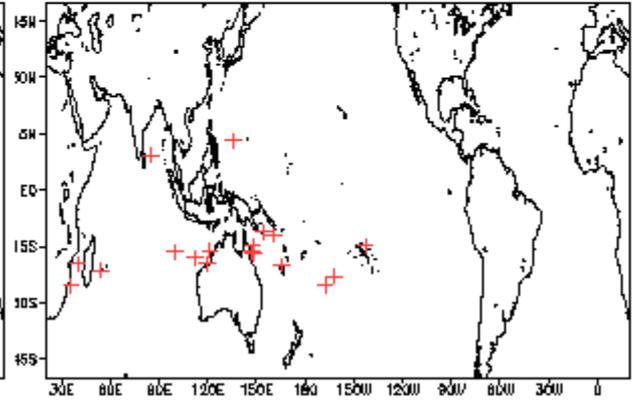
Phase 8 (84 days) 13 storms



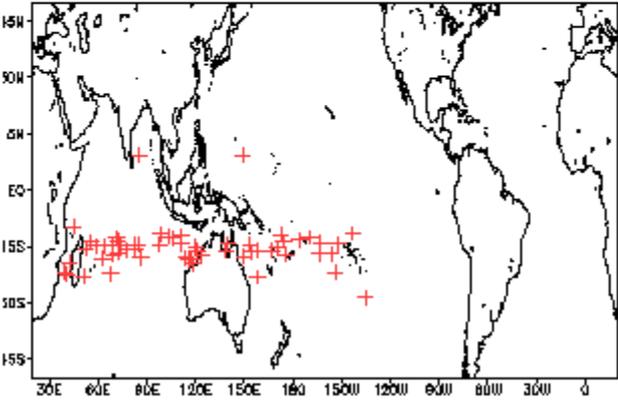
Phase 3 (89 days) 16 storms



Phase 6 (92 days) 19 storms

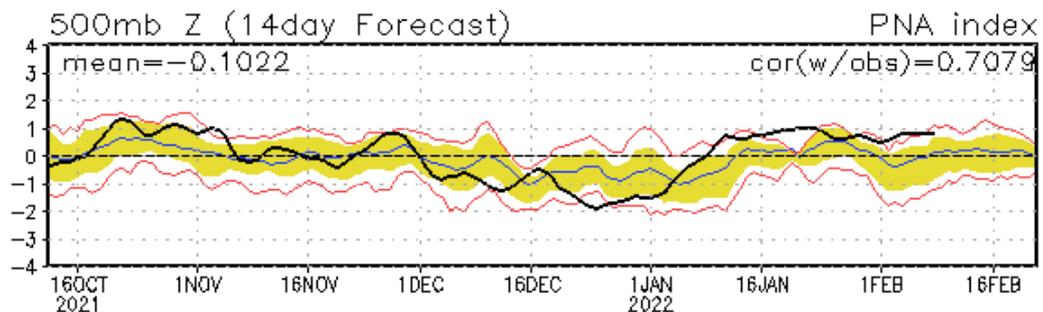
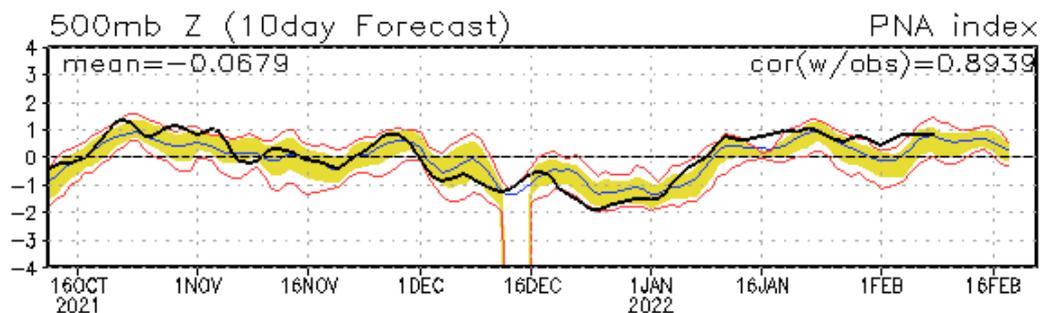
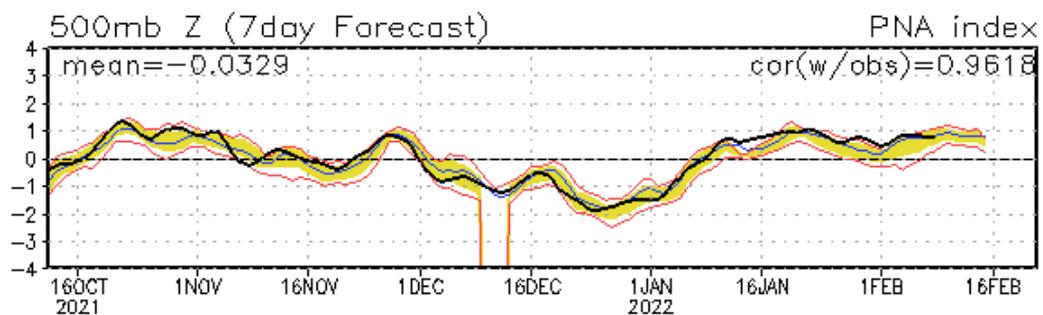
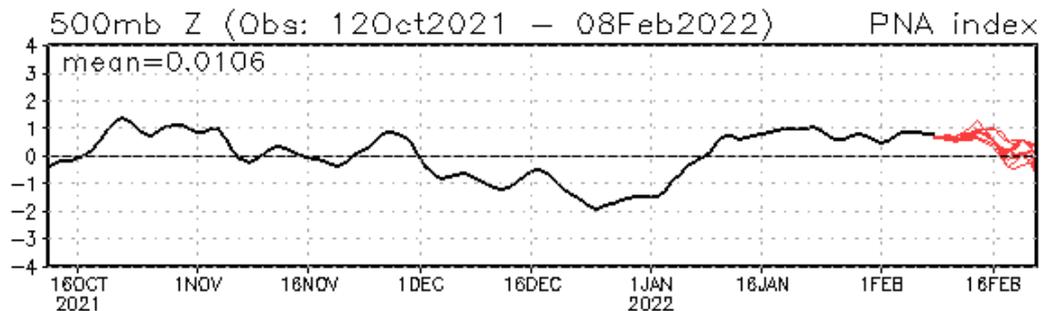


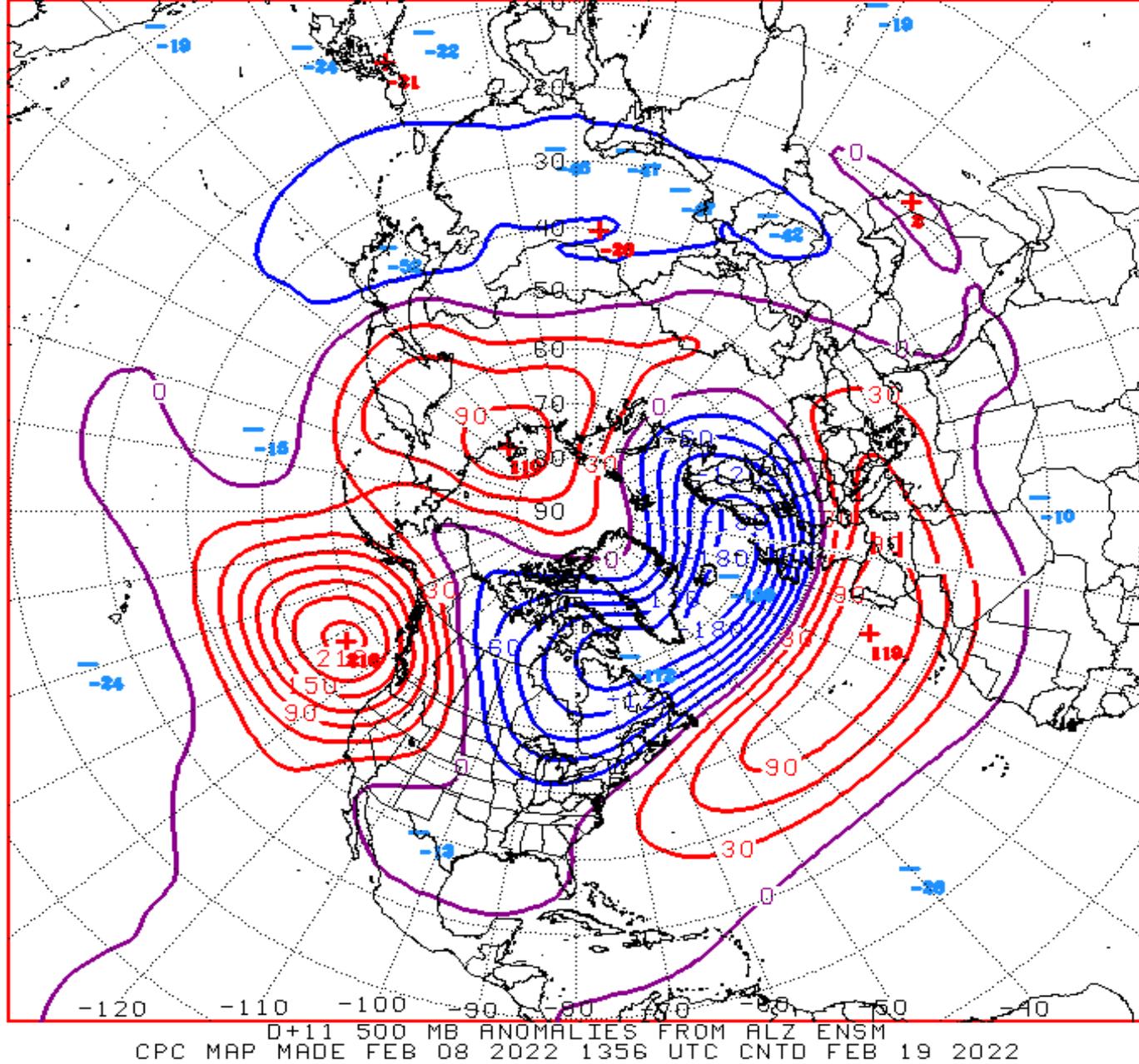
Null (308 days) 60 storms



Connections to U.S. Impacts

PNA: Observed & ENSM forecasts





ECMWF and Canadian models more bullish on SE Ridge development

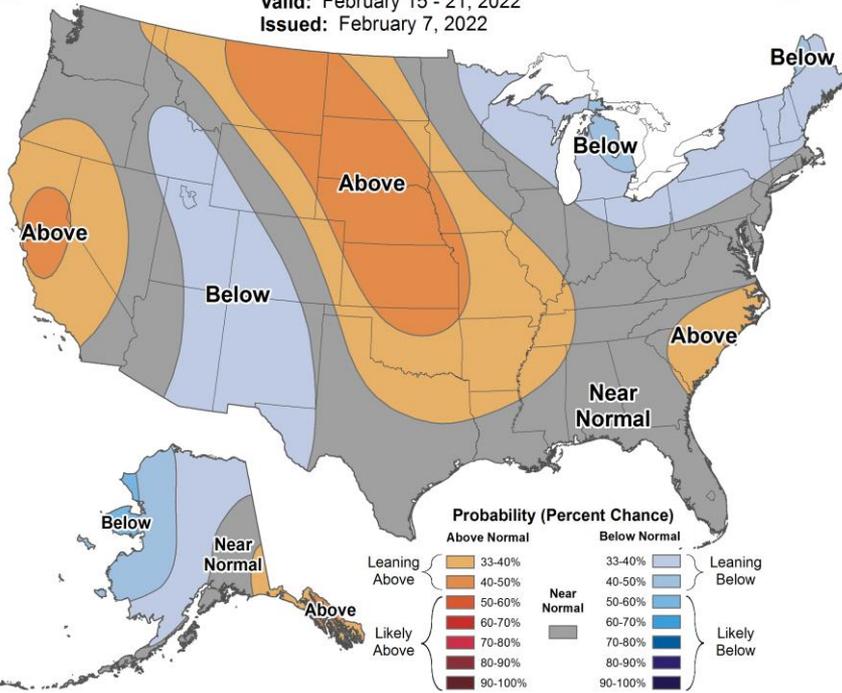
Week 2 – Temperature and Precipitation



8-14 Day Temperature Outlook



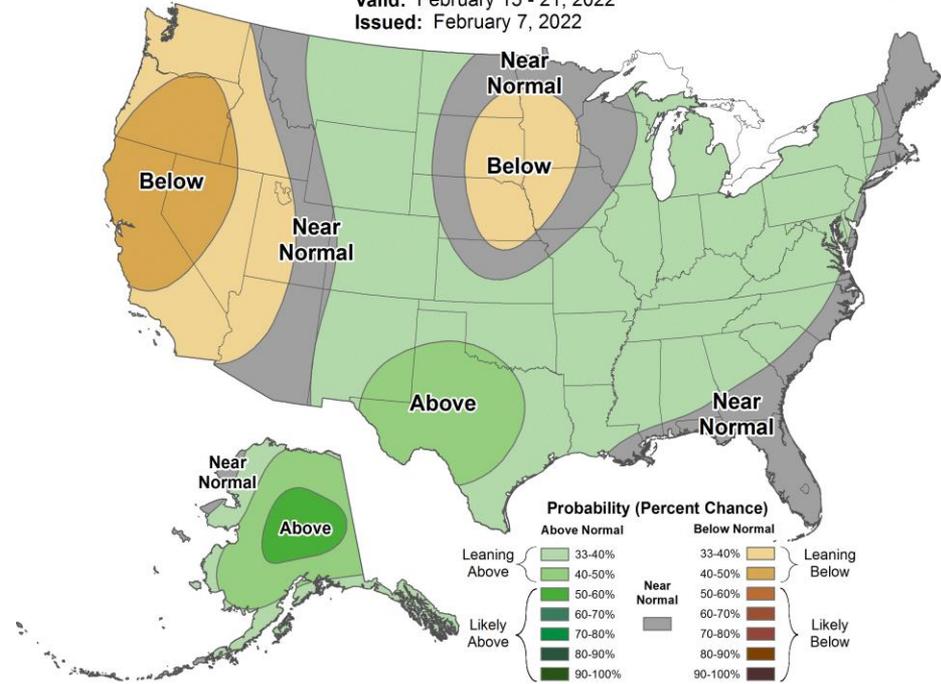
Valid: February 15 - 21, 2022
 Issued: February 7, 2022



8-14 Day Precipitation Outlook



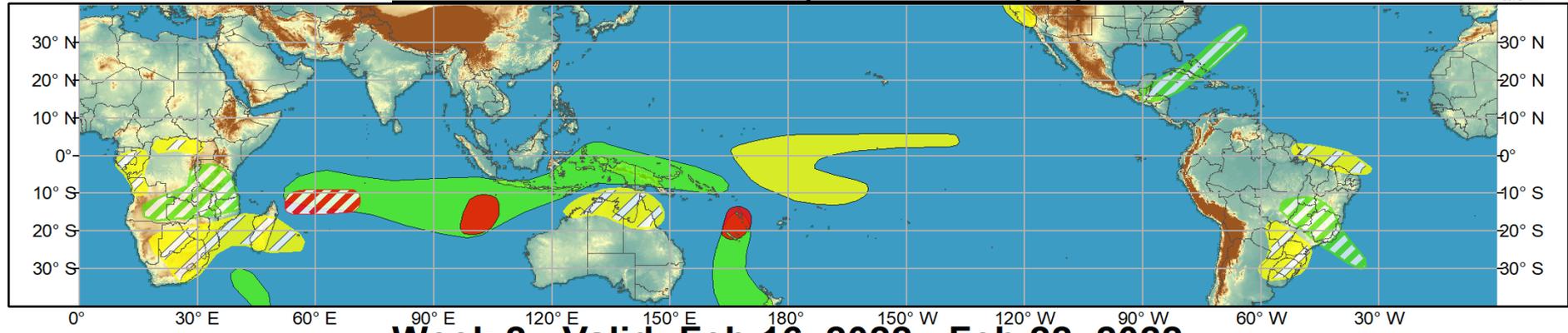
Valid: February 15 - 21, 2022
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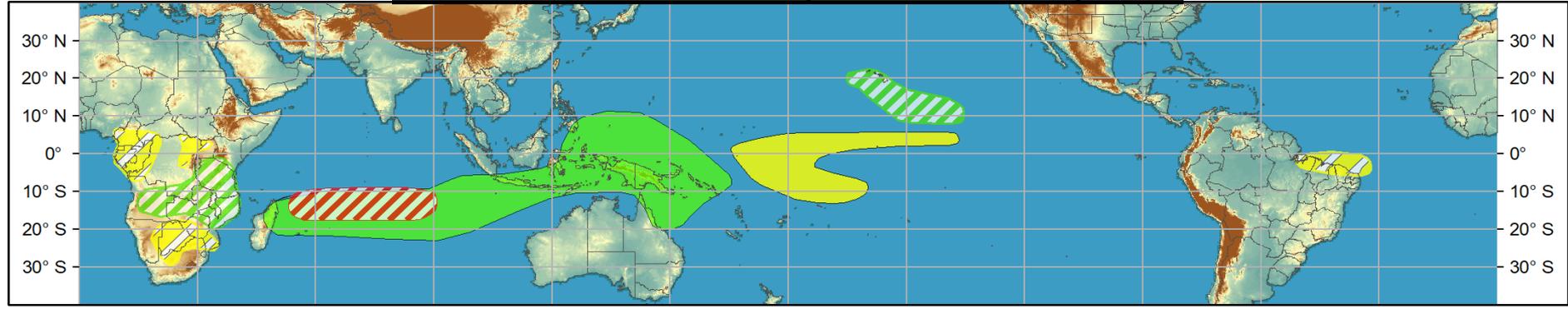


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