Global Tropics Hazards And Benefits Outlook

3/29/2022

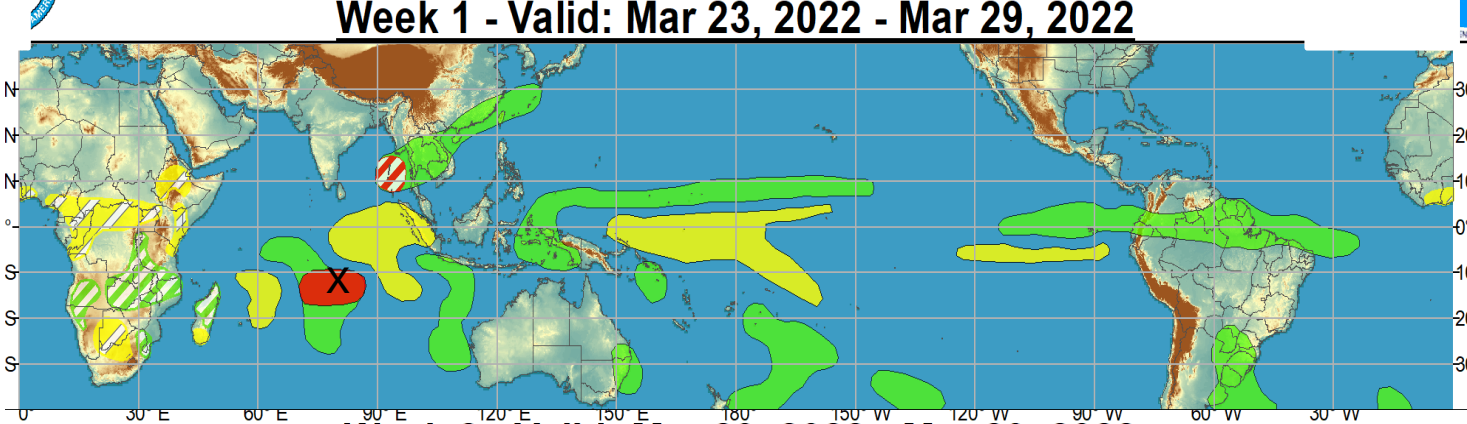
Brad Pugh and Tom Collow

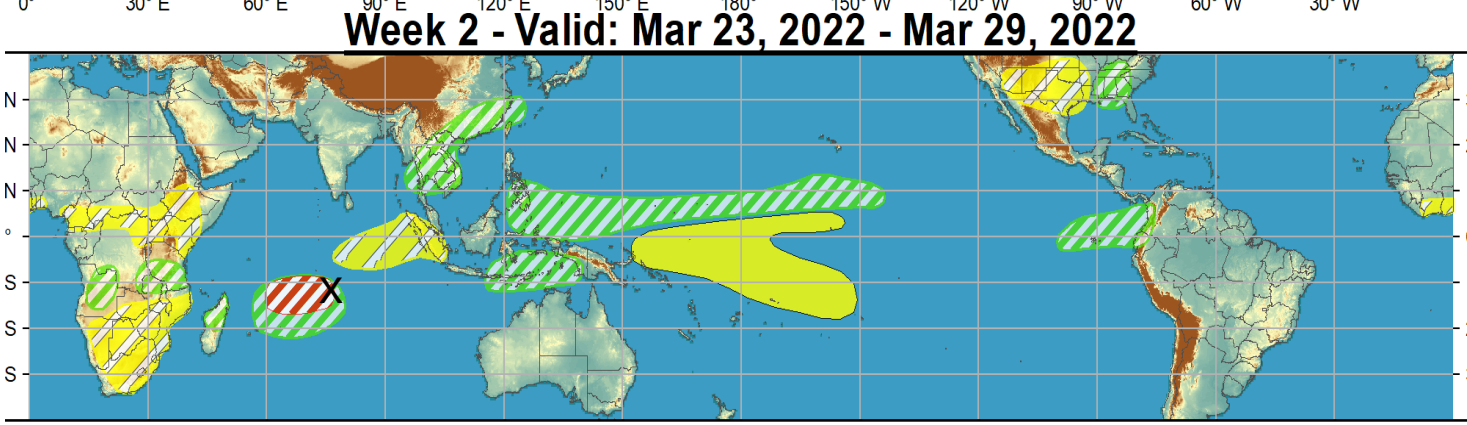
Outline

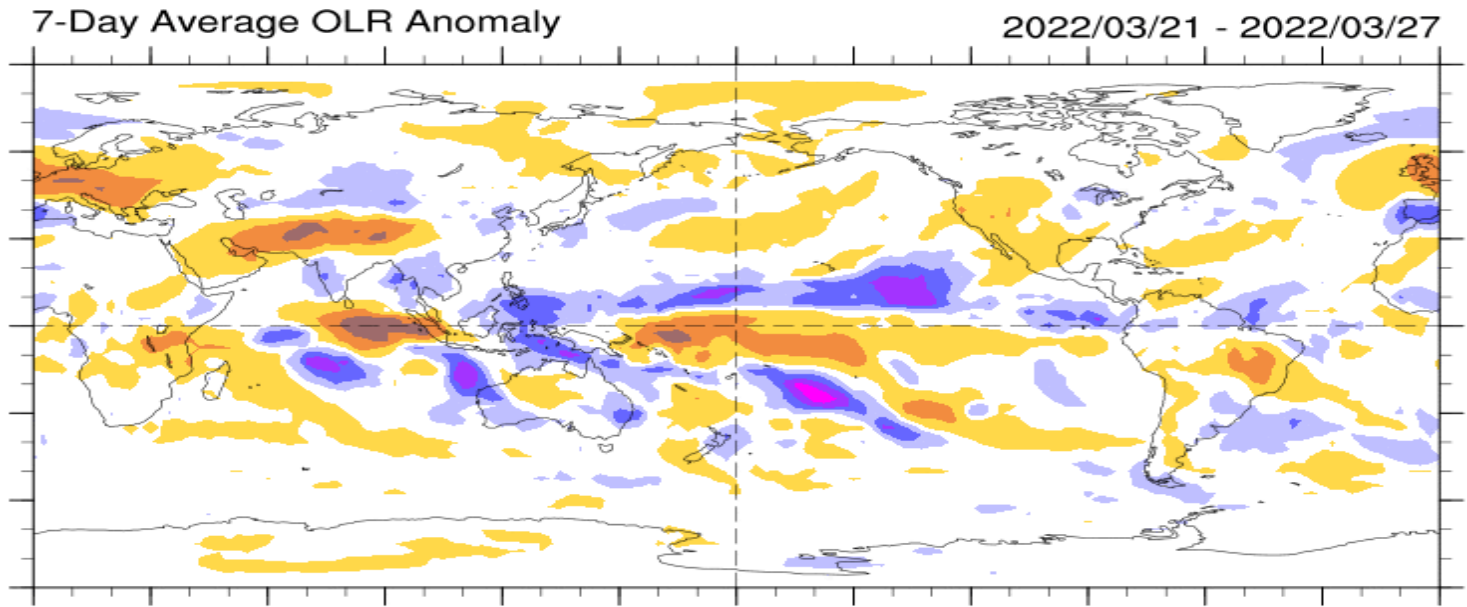
1. Review of Recent Conditions
2. Synopsis of Climate Modes
3. GTH Outlook and Forecast Discussion
4. Connections to U.S. Impacts

Outlook Review

X= Tropical Cyclone Halima (3/23)







Cool shading
More clouds/rain

Warm shading
Less clouds/rain

Synopsis of Climate Modes

ENSO: (March 10, 2022 Update) ***next update on Thursday, April 14th***

- ENSO Alert System Status: La Niña Advisory

- La Niña is favored to continue into the Northern Hemisphere Summer (53% chance during June-August 2022), with a 40-50% chance of La Niña or ENSO-neutral thereafter

MJO and other subseasonal tropical variability:

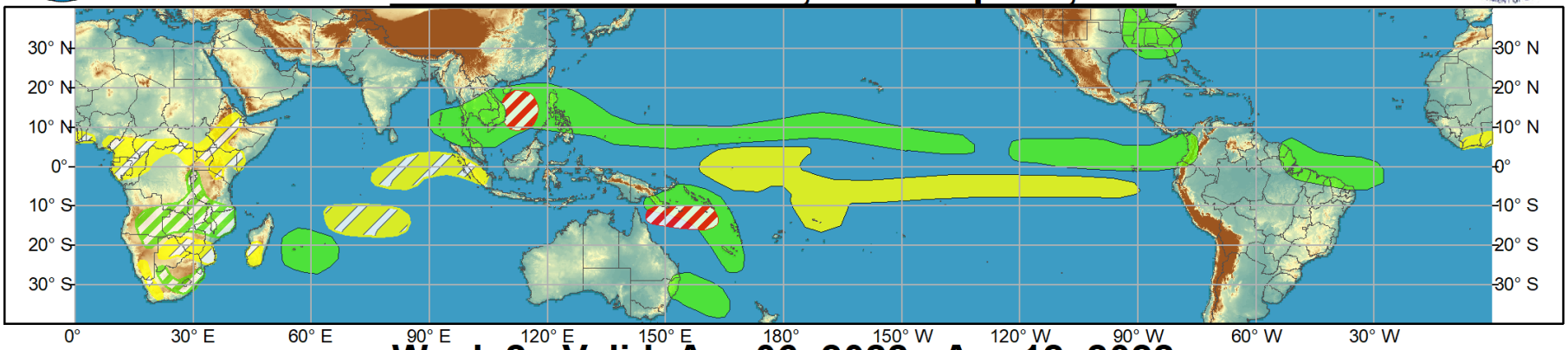
- A robust MJO was apparent in the low and upper-level wind fields and also the 200-hPa velocity potential anomalies during mid to late March. However, the MJO was unable to have a major influence on anomalous tropical rainfall with La Nina remaining dominant.

- During the past several days, the amplitude of the RMM index decreased within the unit circle.

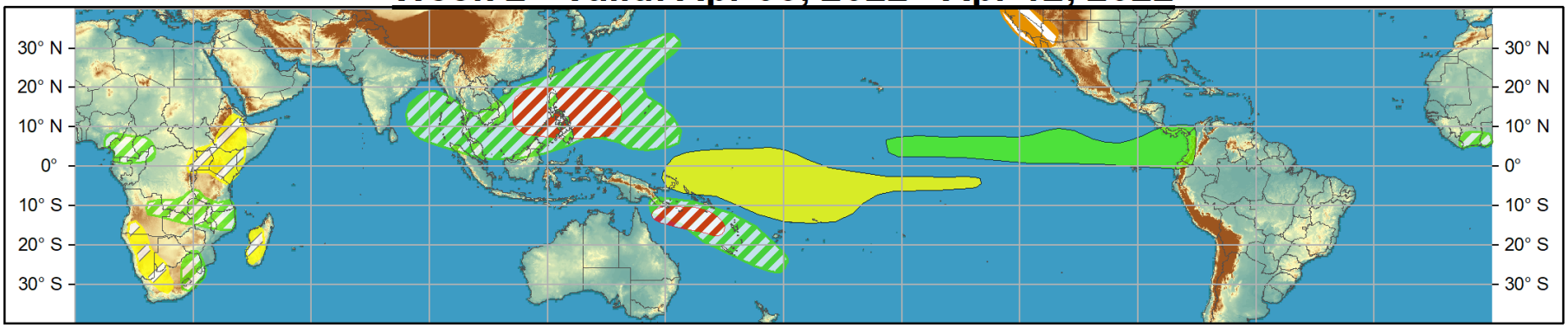
- Dynamical models are in good agreement that the MJO remains weak during the next two weeks.

Global Tropics Hazards and Benefits Outlook - Climate Prediction Center

Week 1 - Valid: Mar 30, 2022 - Apr 05, 2022



Week 2 - Valid: Apr 06, 2022 - Apr 12, 2022



Produced: 03/29/2022

Forecaster: Pugh

	Confidence: High	Confidence: 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.
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NPS PRAESTANTIA PER SCIENTIAM

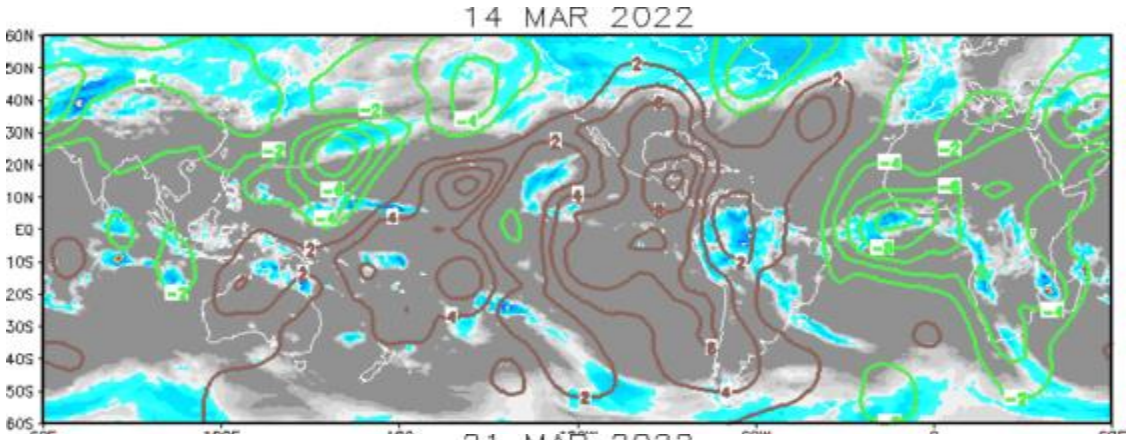
IR Satellite & 200-hpa Velocity Potential Anomalies

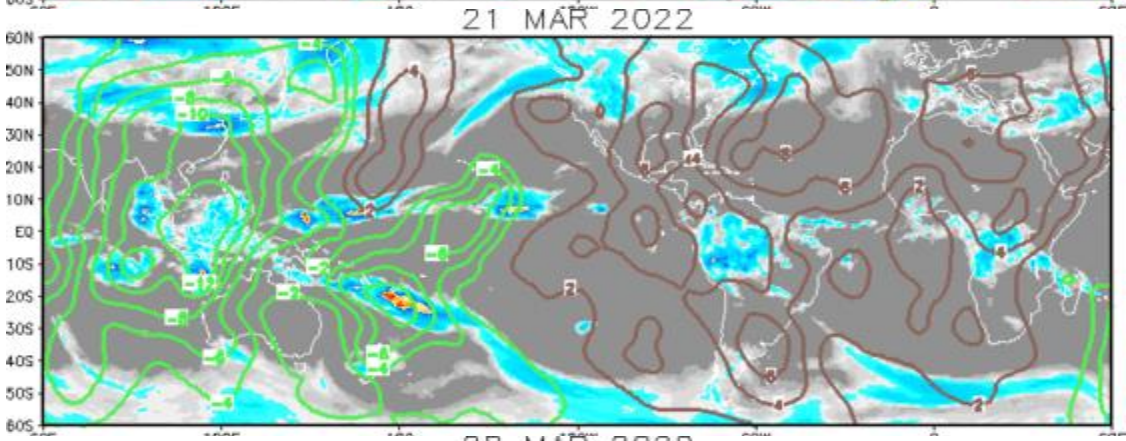
Green: Enhanced Divergence Brown: Enhanced Convergence

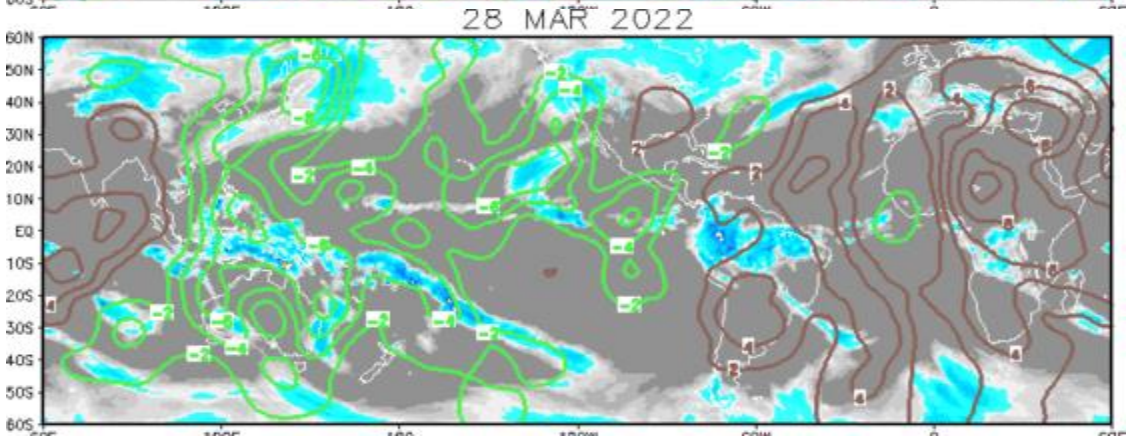
By the middle of March MJO became much more well-defined and began propagating eastward.

Center of enhanced convection now centered over Maritime Continent.

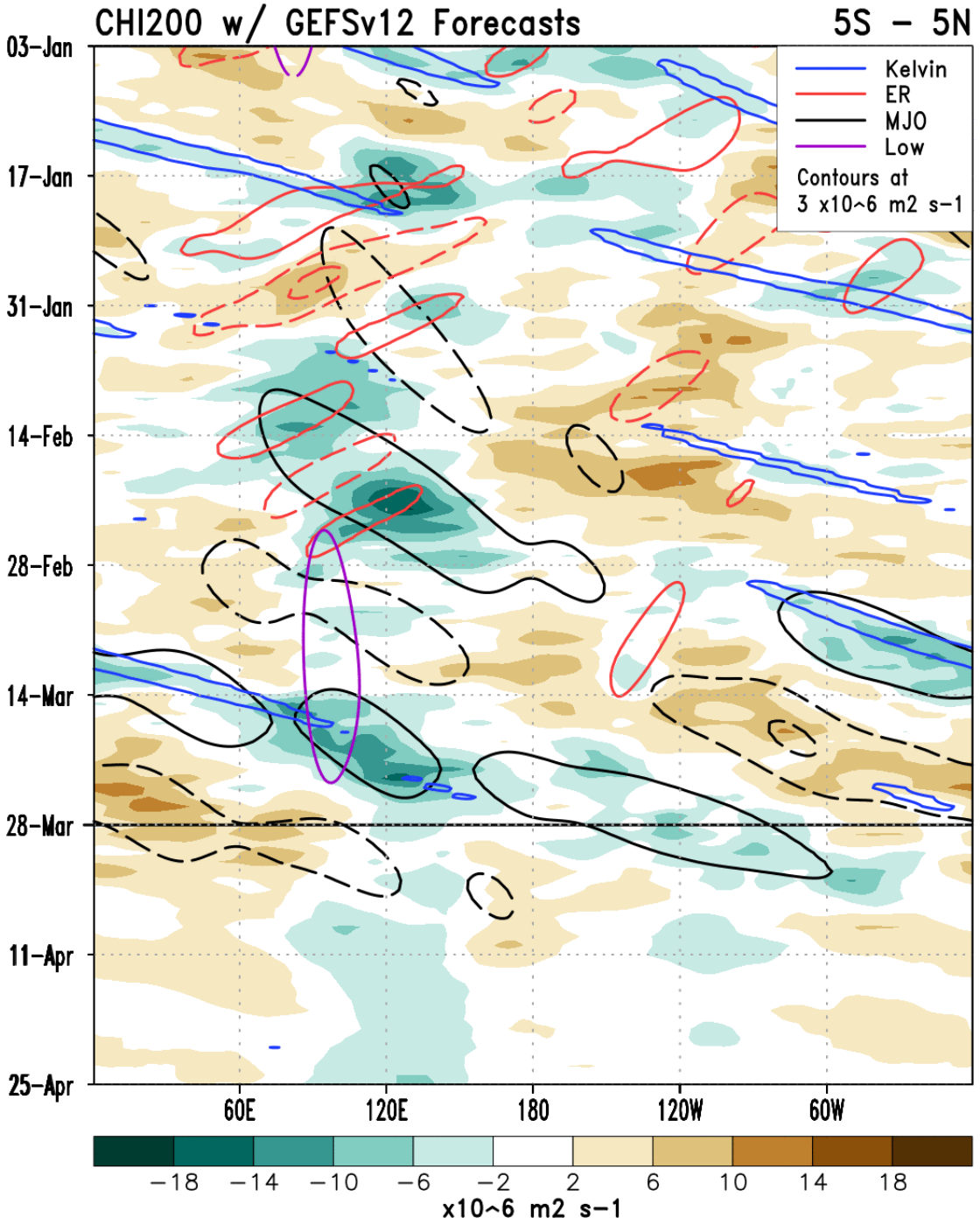
As of March 28th, a well-defined MJO continued with its enhanced phase expanding east of the Date Line.



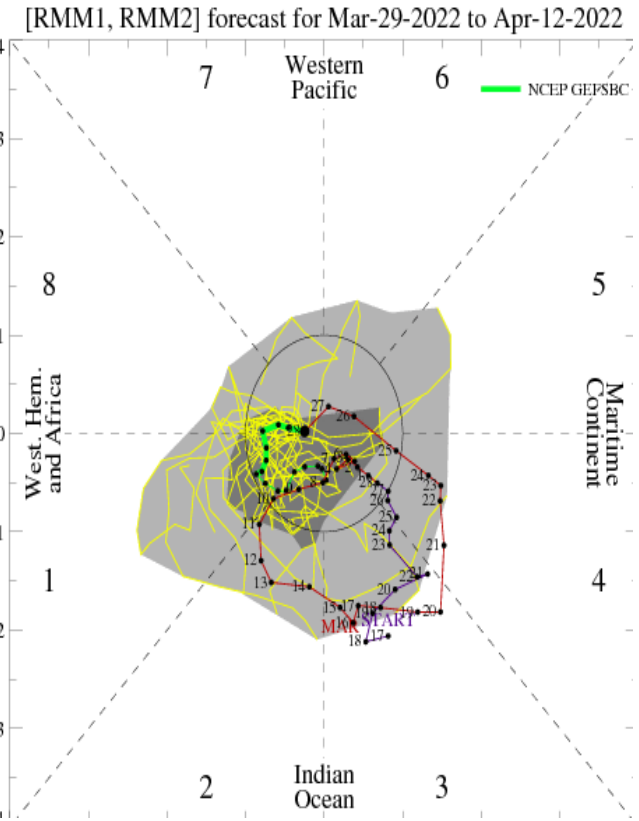




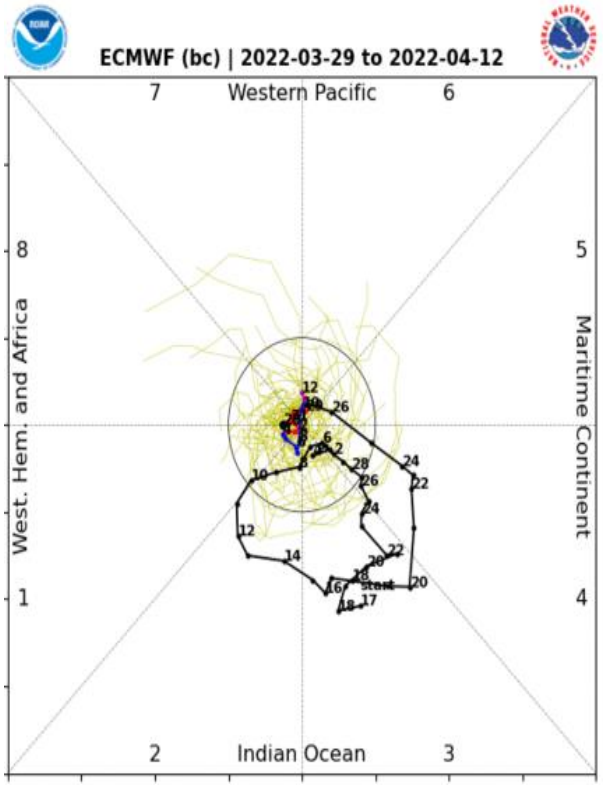
The GEFS depicts a less coherent MJO by early April.



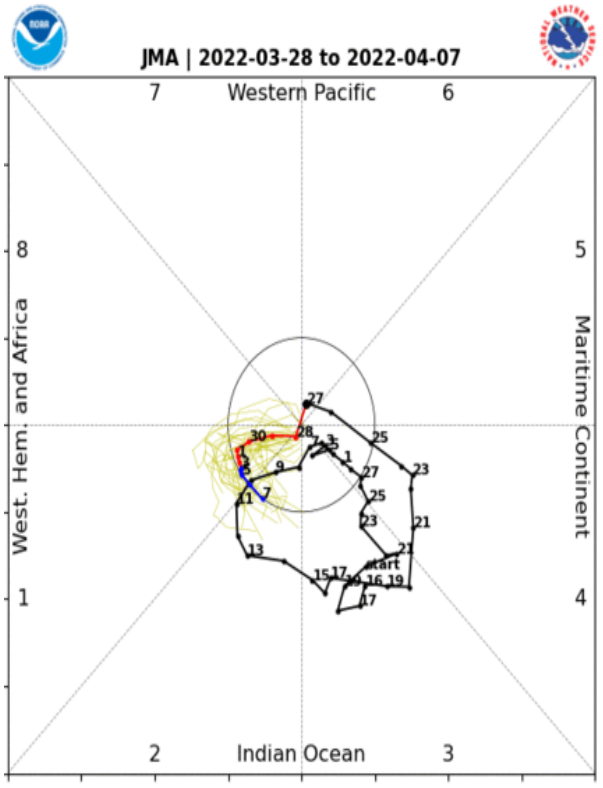
MJO Observation/Forecast



GEFS



ECMWF

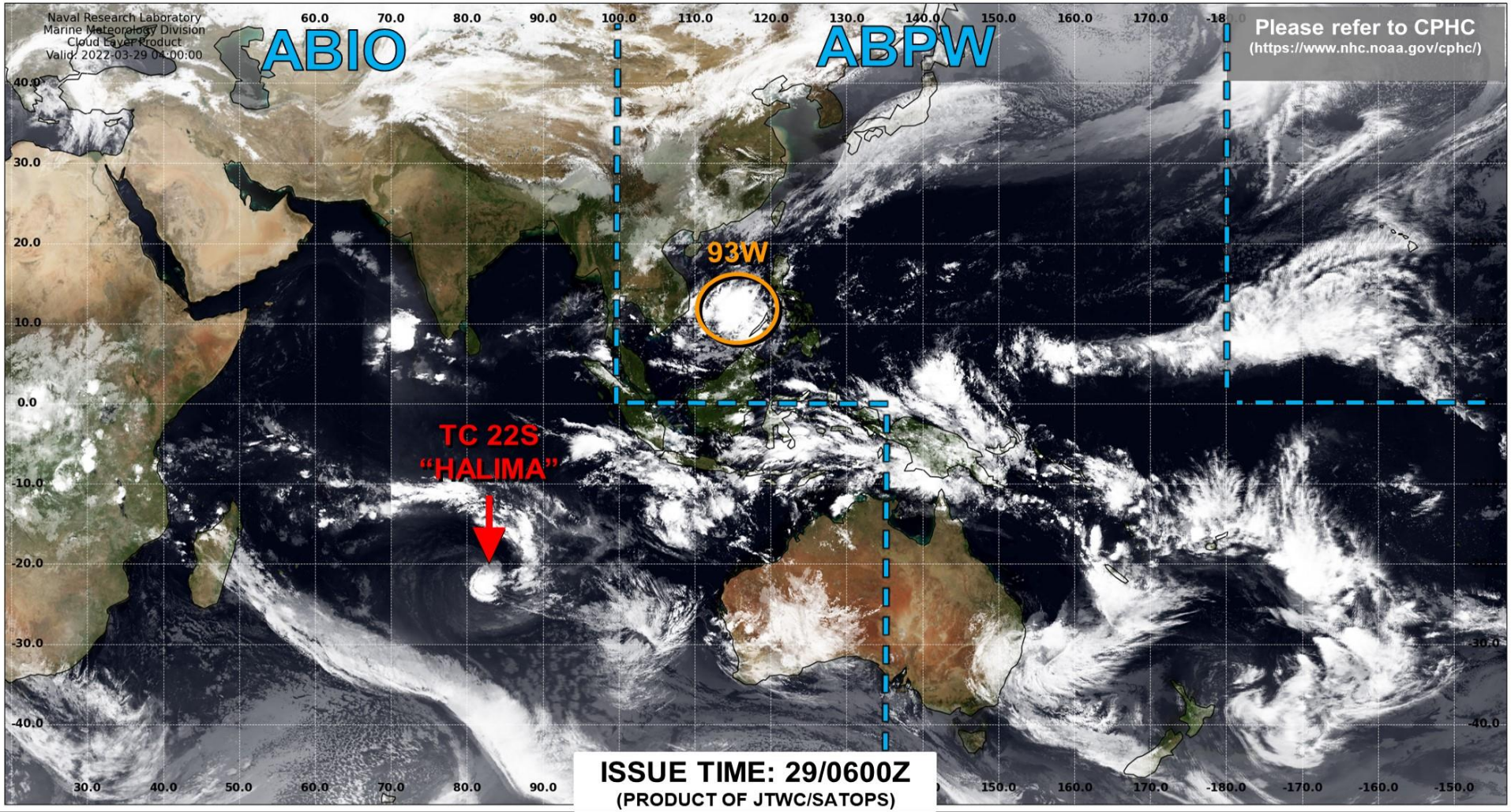


JMA

Following the eastward propagation (phases 2, 3, and 4) of the MJO during mid to late March, the RMM index decreased to within the unit circle in recent days.

The GEFS and ECMWF means are in good agreement that the MJO remains weak during the next two weeks.

JOINT TYPHOON WARNING CENTER



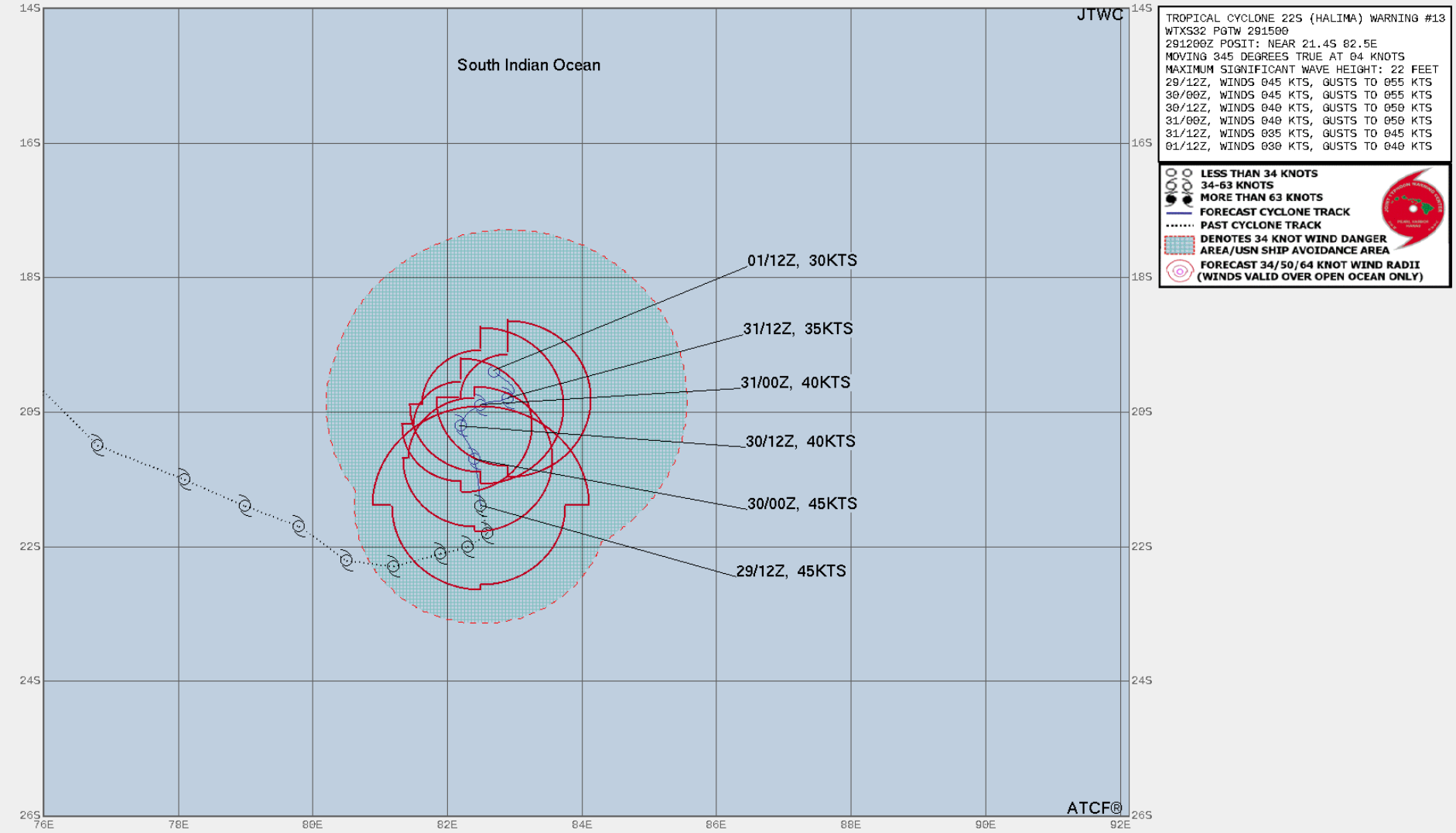
LOW — TC development unlikely within 24 hours

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)

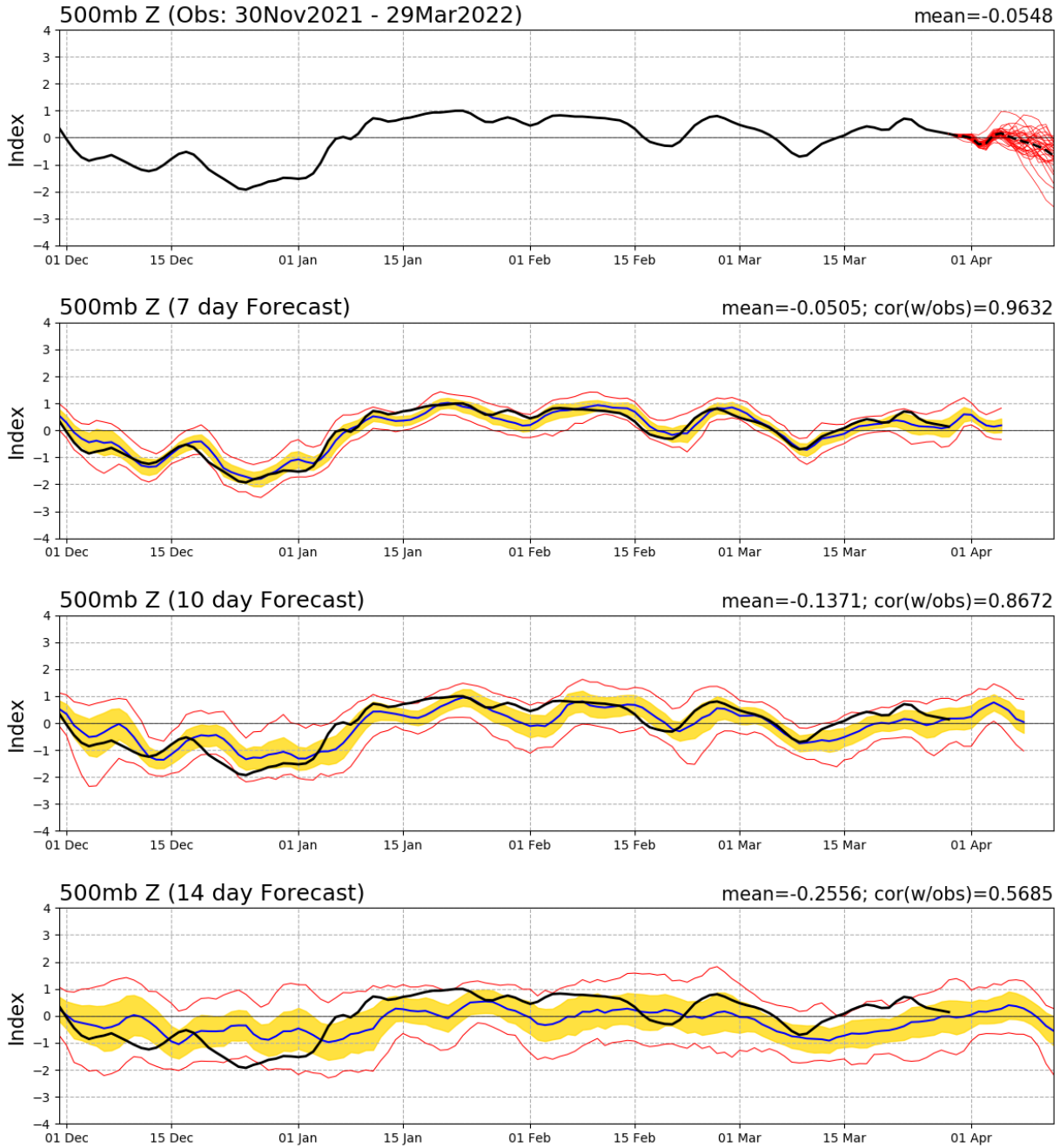


TROPICAL CYCLONE 22S (HALIMA) WARNING #13
WTXS32 PGTW 291500
291200Z POSIT: NEAR 21.4S 82.5E
MOVING 345 DEGREES TRUE AT 04 KNOTS
MAXIMUM SIGNIFICANT WAVE HEIGHT: 22 FEET
29/12Z, WINDS 045 KTS, GUSTS TO 055 KTS
30/00Z, WINDS 045 KTS, GUSTS TO 055 KTS
30/12Z, WINDS 040 KTS, GUSTS TO 050 KTS
31/00Z, WINDS 040 KTS, GUSTS TO 050 KTS
31/12Z, WINDS 035 KTS, GUSTS TO 045 KTS
01/12Z, WINDS 030 KTS, GUSTS TO 040 KTS

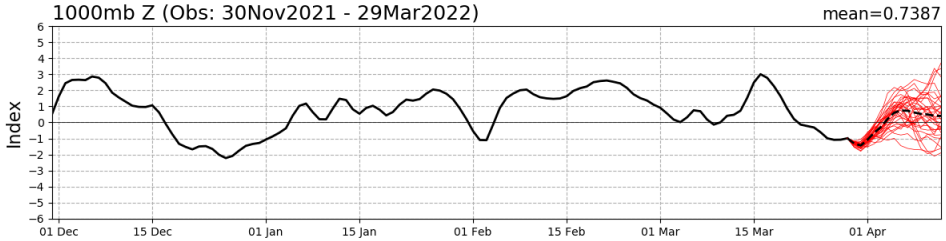
LESS THAN 34 KNOTS
34-63 KNOTS
MORE THAN 63 KNOTS
FORECAST CYCLONE TRACK
PAST CYCLONE TRACK
DENOTES 34 KNOT WIND DANGER AREA/USN SHIP AVOIDANCE AREA
FORECAST 34/50/64 KNOT WIND RADII (WINDS VALID OVER OPEN OCEAN ONLY)

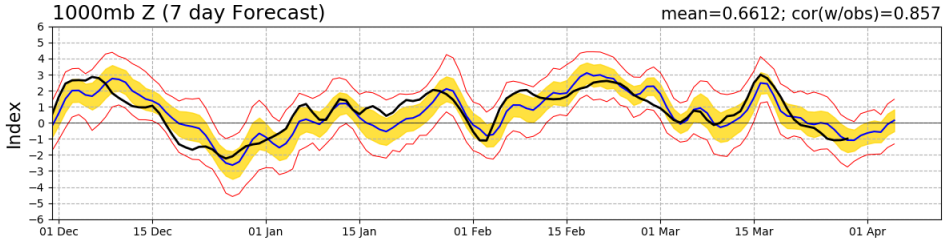
Connections to U.S. Impacts

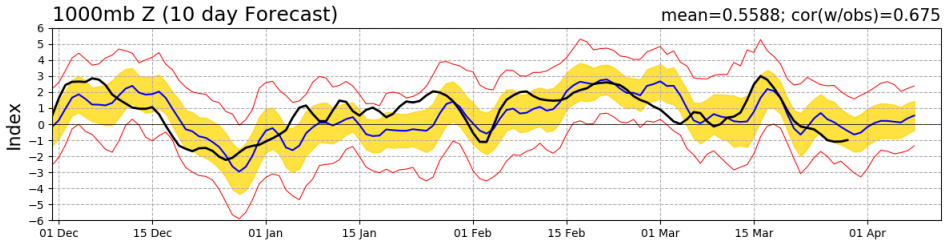
PNA Index: Observed & GEFS Forecasts

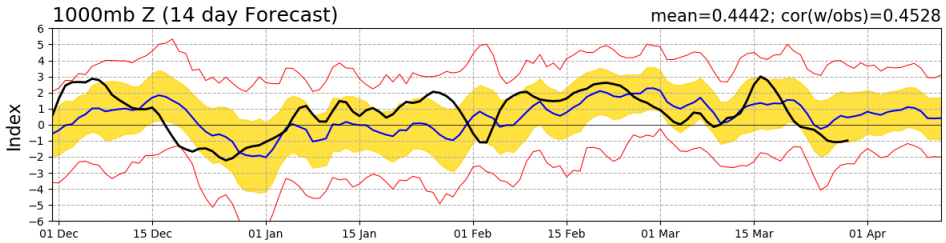


AO Index: Observed & GEFS Forecasts

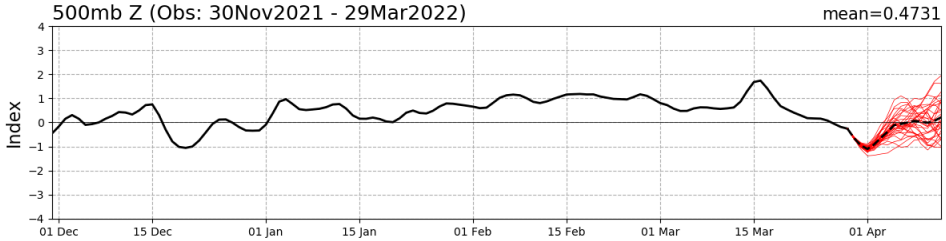


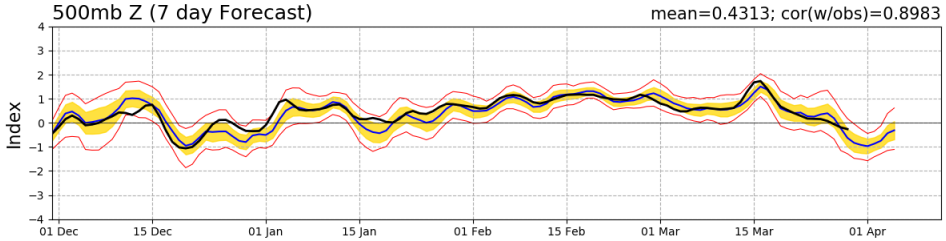


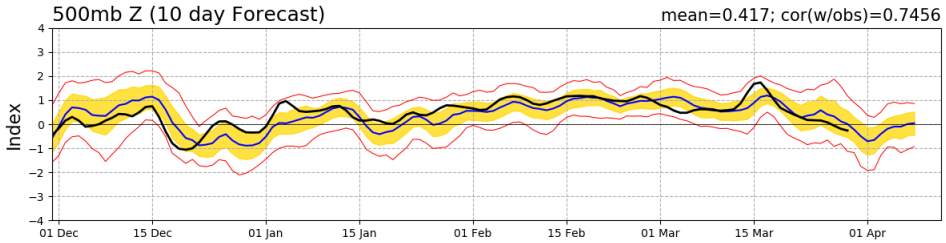


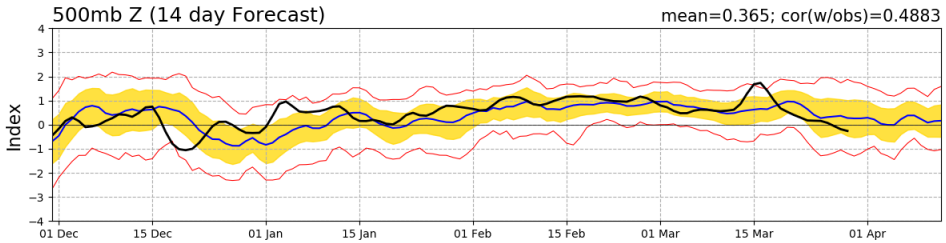


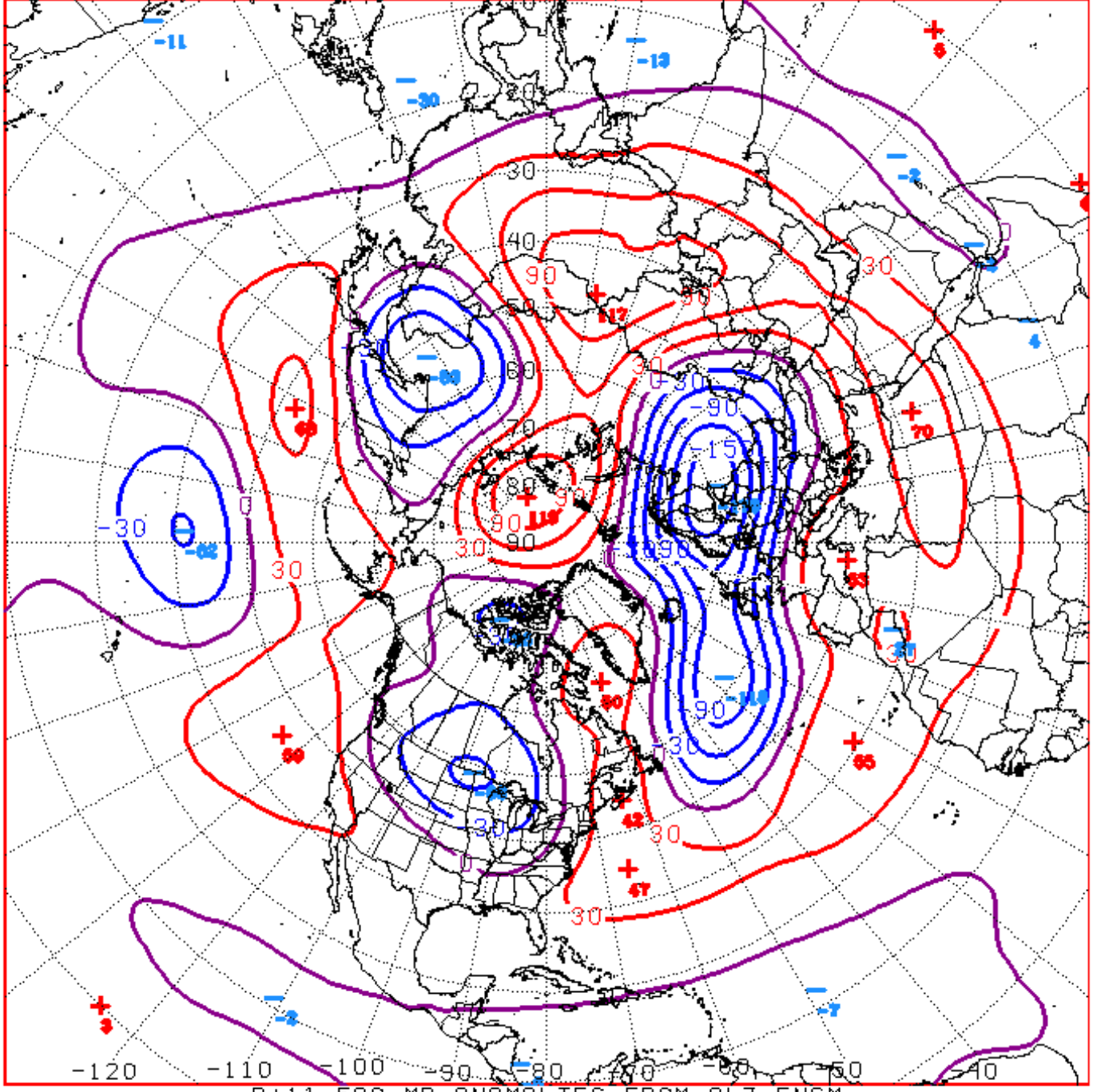
NAO Index: Observed & GEFS Forecasts





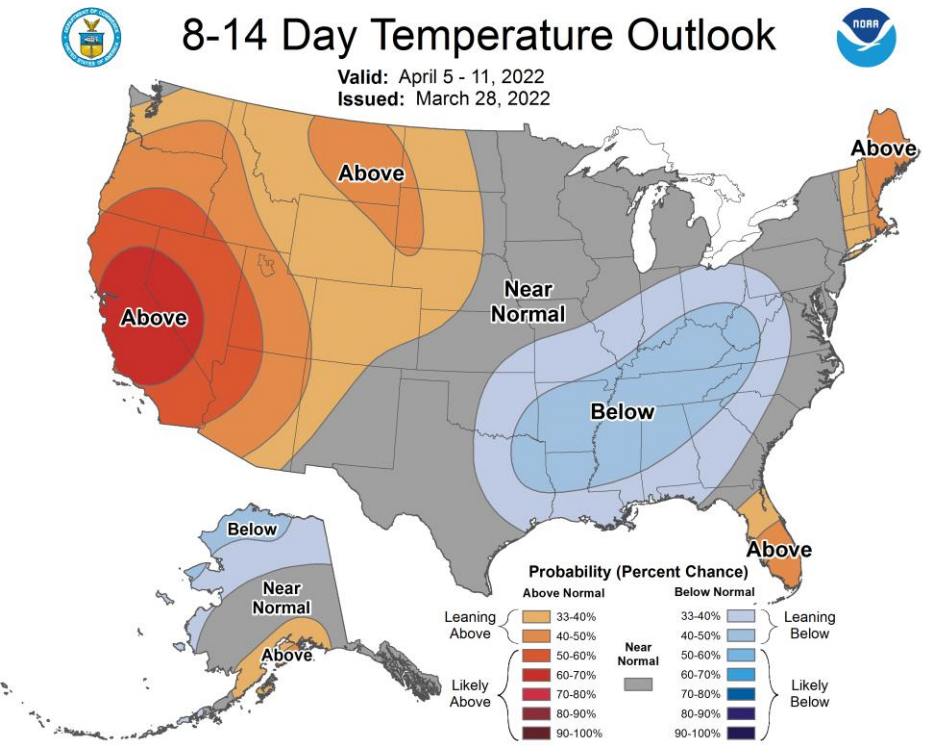


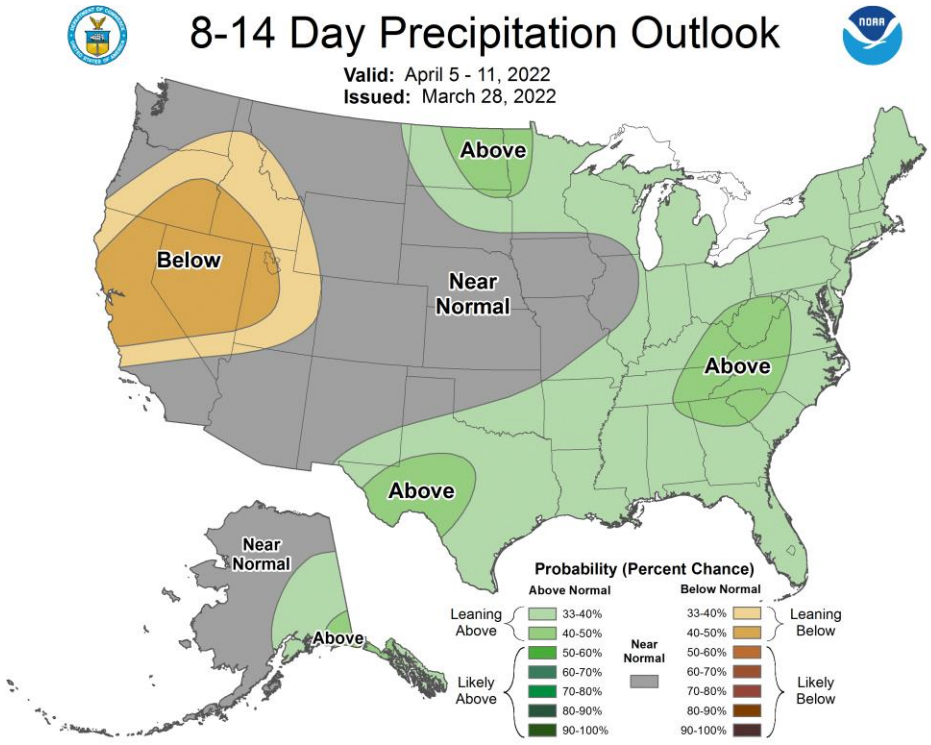




D+11 500 MB ANOMALIES FROM ALZ ENSM
CPC MAP MADE MAR 29 2022 1355 UTC CNTD APR 09 2022

Week 2 – Temperature and Precipitation





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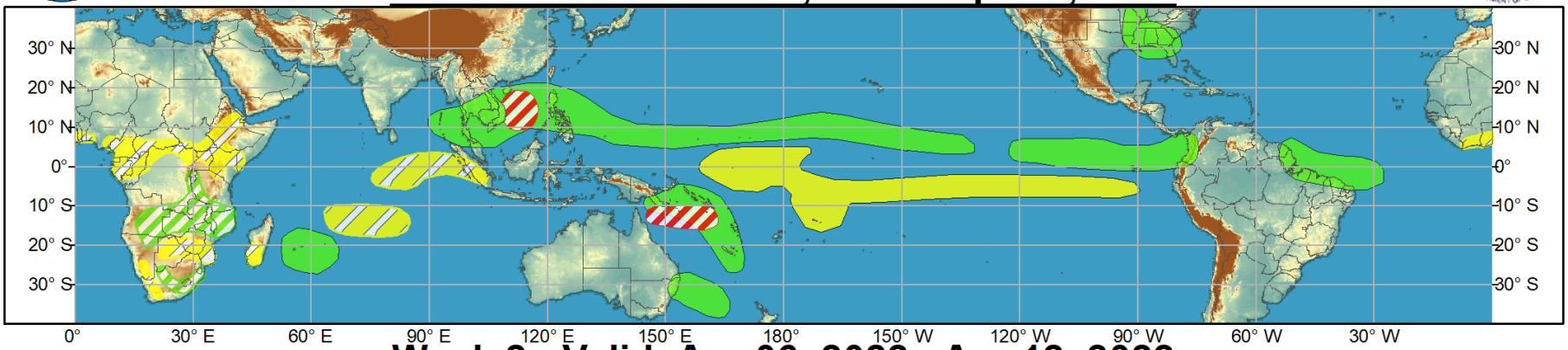

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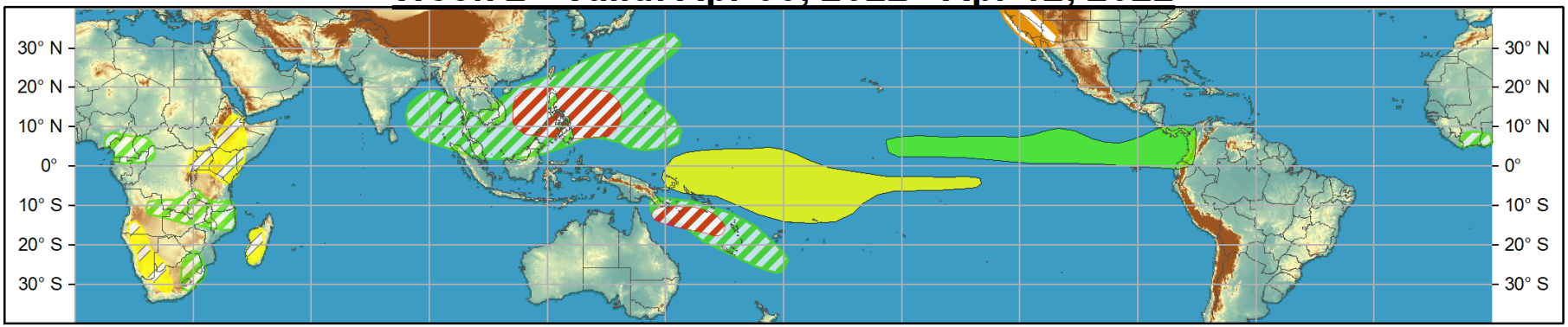

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