Global Tropics Hazards And Benefits Outlook

3/8/2022

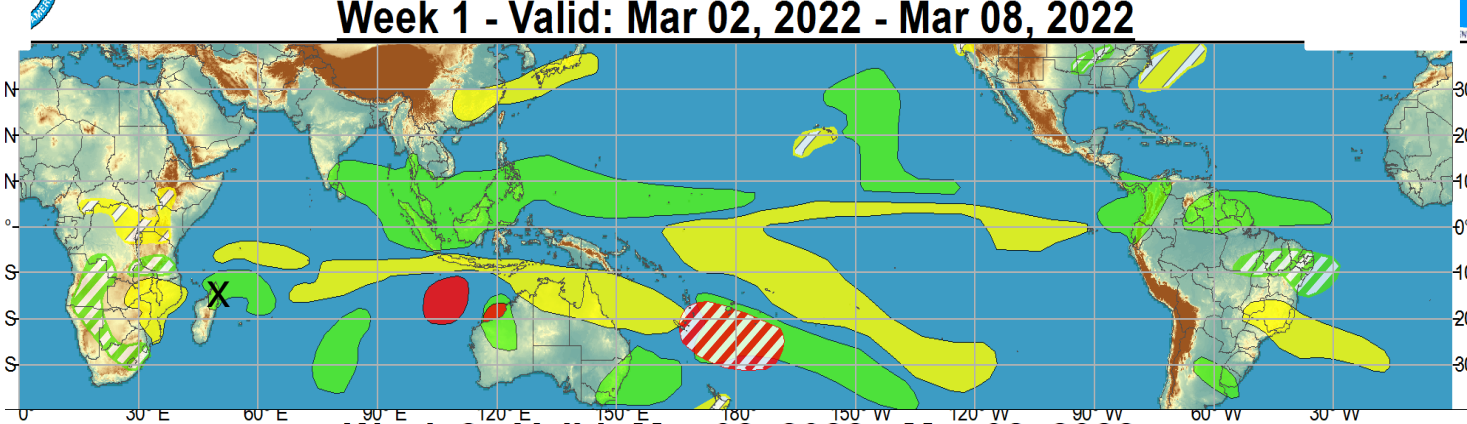
Brad Pugh

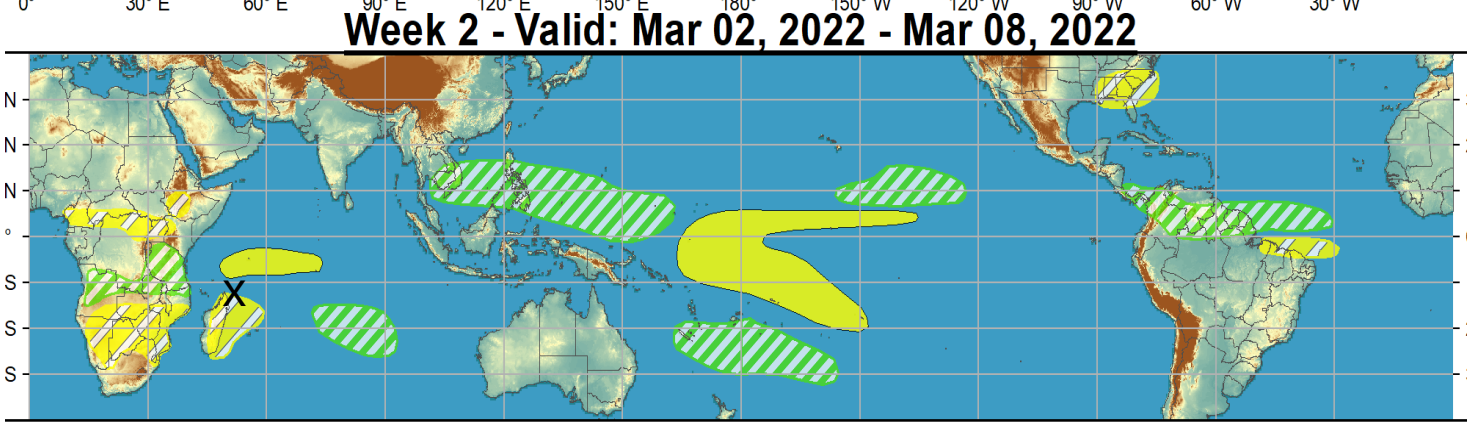
Outline

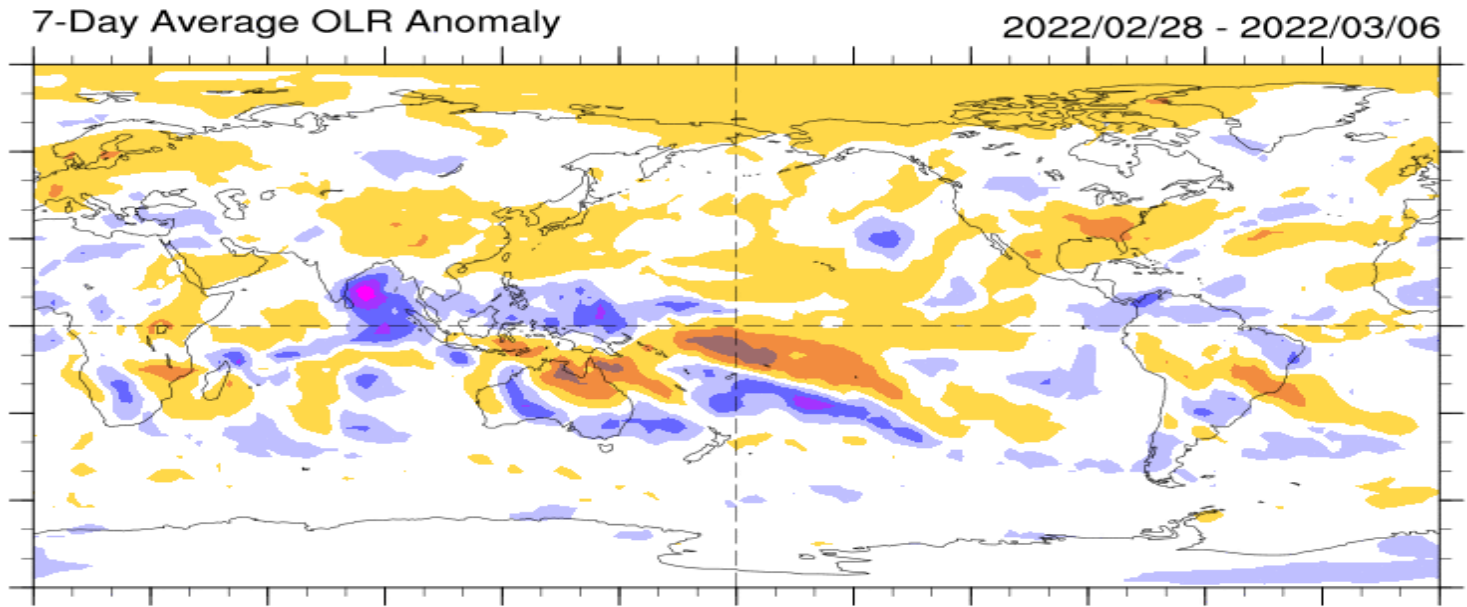
1. Review of Recent Conditions
2. Synopsis of Climate Modes
3. GTH Outlook and Forecast Discussion
4. Connections to U.S. Impacts

Outlook Review

X= Tropical Cyclone Gombe

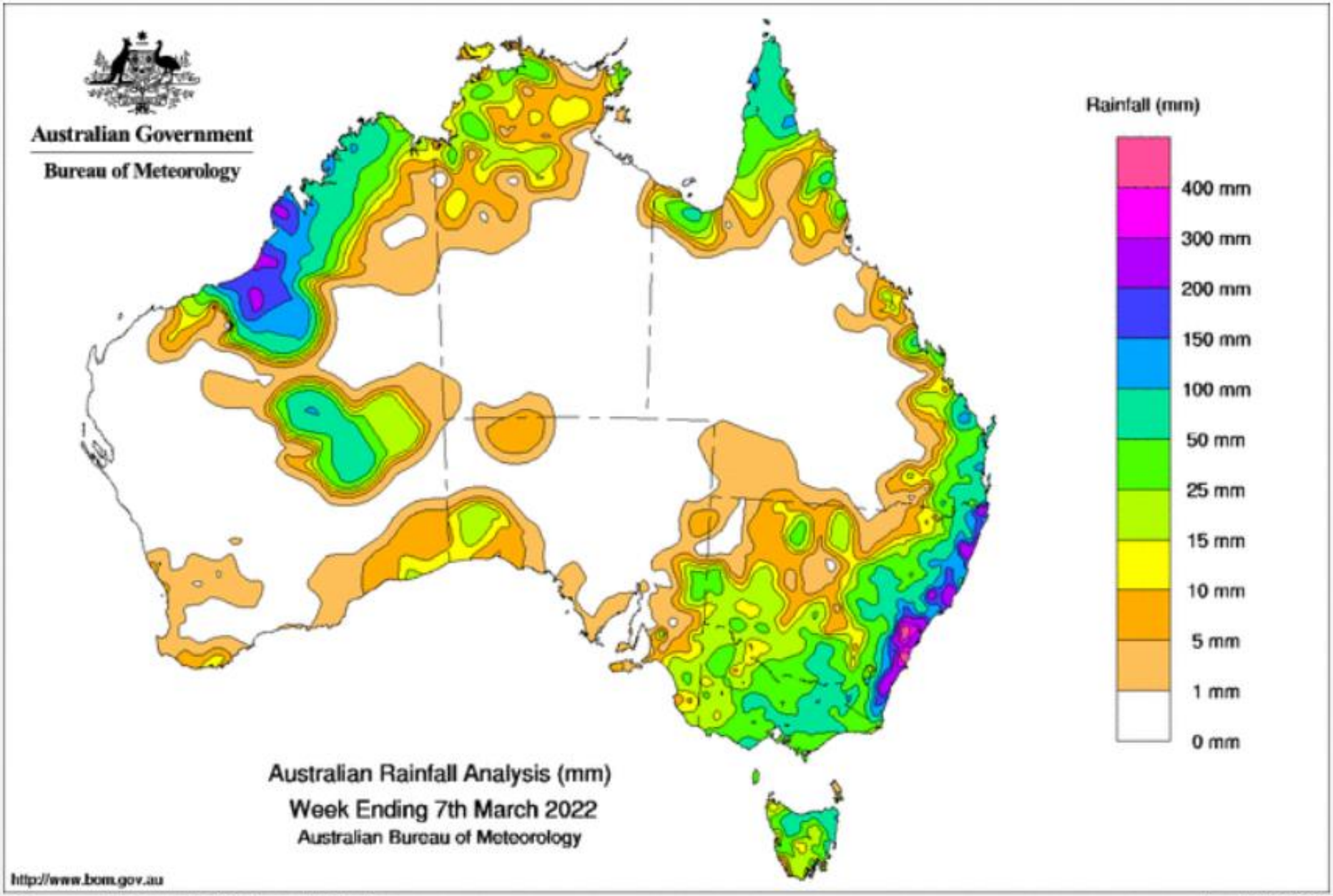






Cool shading
More clouds/rain

Warm shading
Less clouds/rain



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Issued: 08/03/2022

Synopsis of Climate Modes

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

- ENSO Alert System Status: La Niña Advisory

- La Niña is likely to continue into the Northern Hemisphere spring (77% chance during March-May 2022) and then transition to ENSO-neutral (56% chance during May-July 2022)

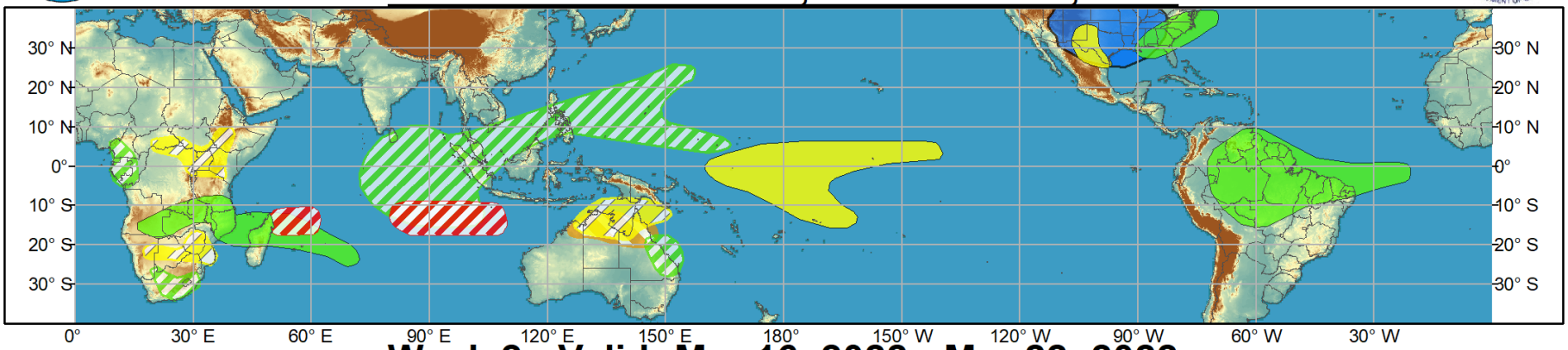
MJO and other subseasonal tropical variability:

- The MJO recently weakened as its enhanced phase crossed the central Pacific where the well-established La Niña continues to suppress rainfall.

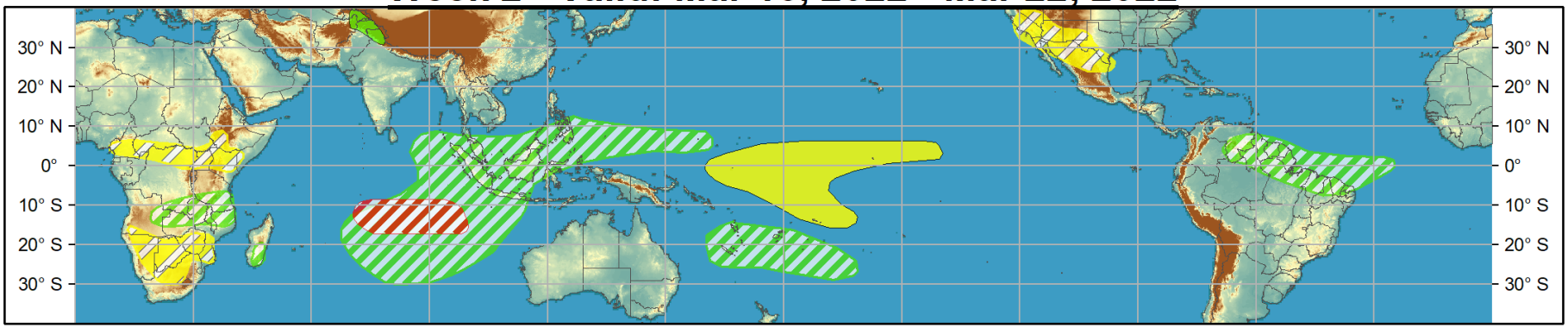
- La Niña is likely to remain the major contributor to anomalous rainfall throughout the global tropics into late March.

Global Tropics Hazards and Benefits Outlook - Climate Prediction Center

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



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



Produced: 03/08/2022

Forecaster: Pugh

	Confidence: High	Confidence: Moderate	
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NPS PRAESTANTIA PER SCIENTIAM

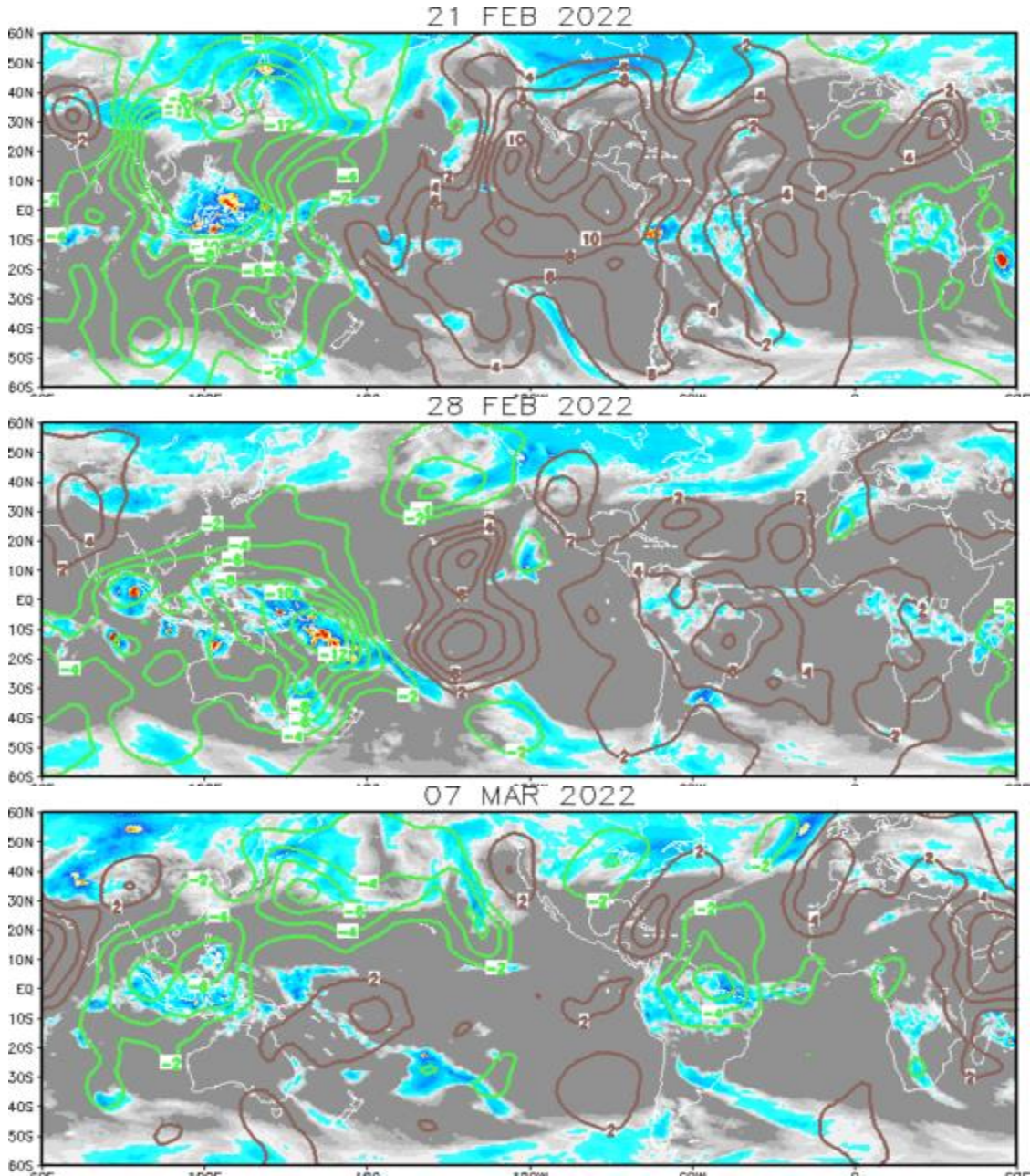
IR Satellite & 200-hpa Velocity Potential Anomalies

Green: Enhanced Divergence Brown: Enhanced Convergence

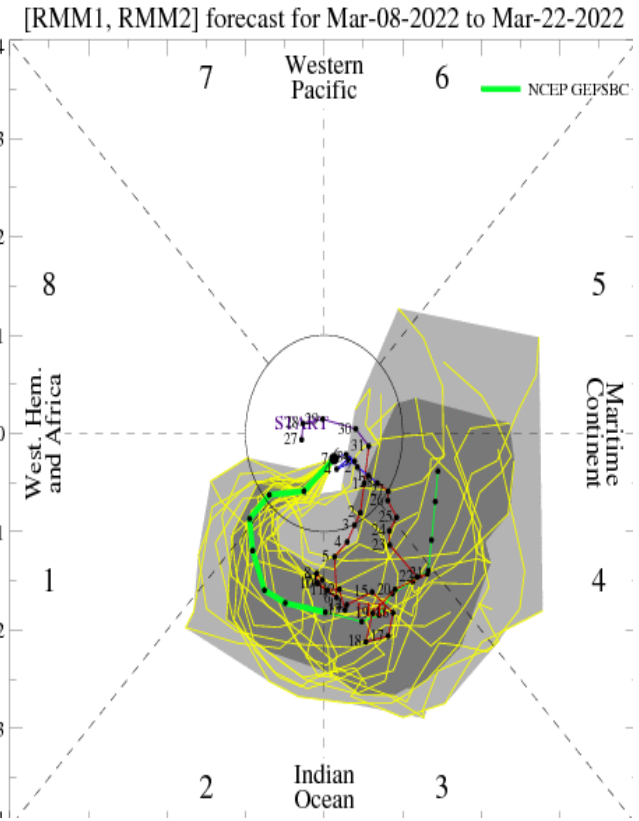
The anomaly pattern strengthened, but little eastward propagation was evident through much of Feb.

Eastward propagation became more apparent by the end of February.

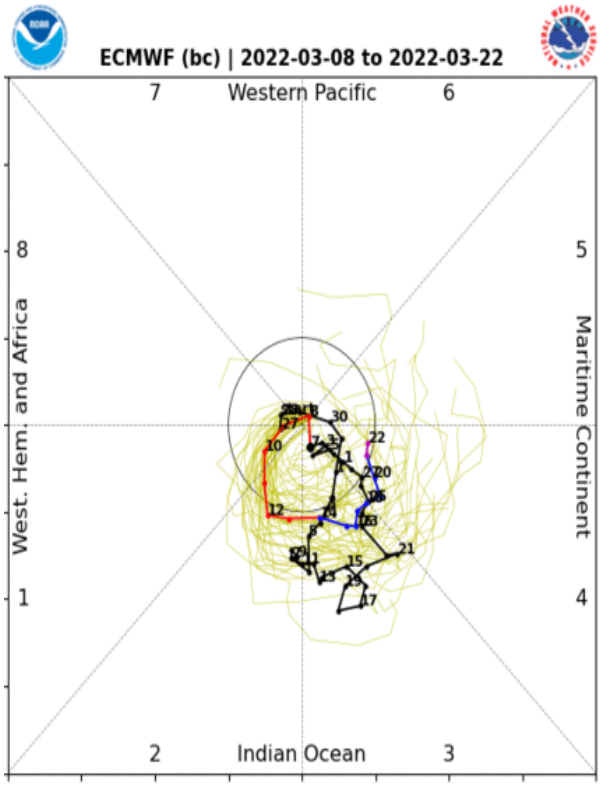
Less coherent MJO recently due to destructive interference with La Nina. Kelvin wave apparent over northern South America.



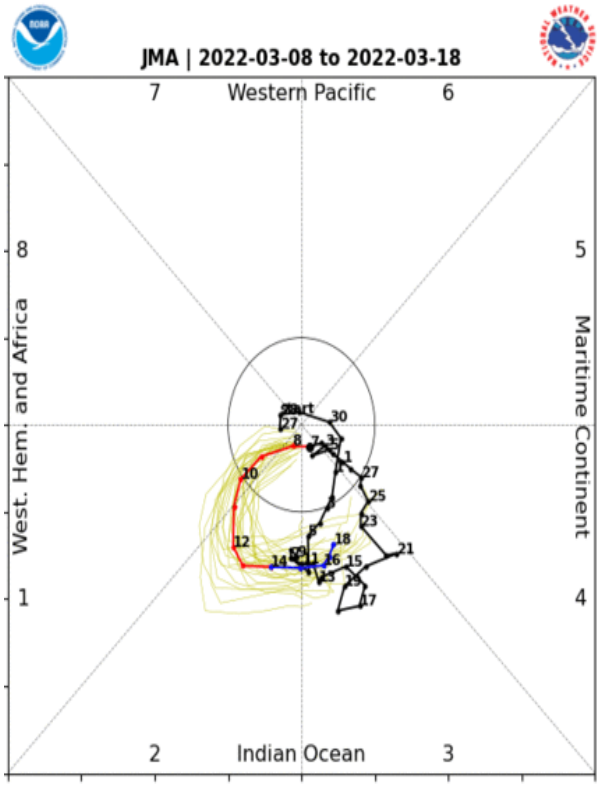
MJO Observation/Forecast



GEFS



ECMWF

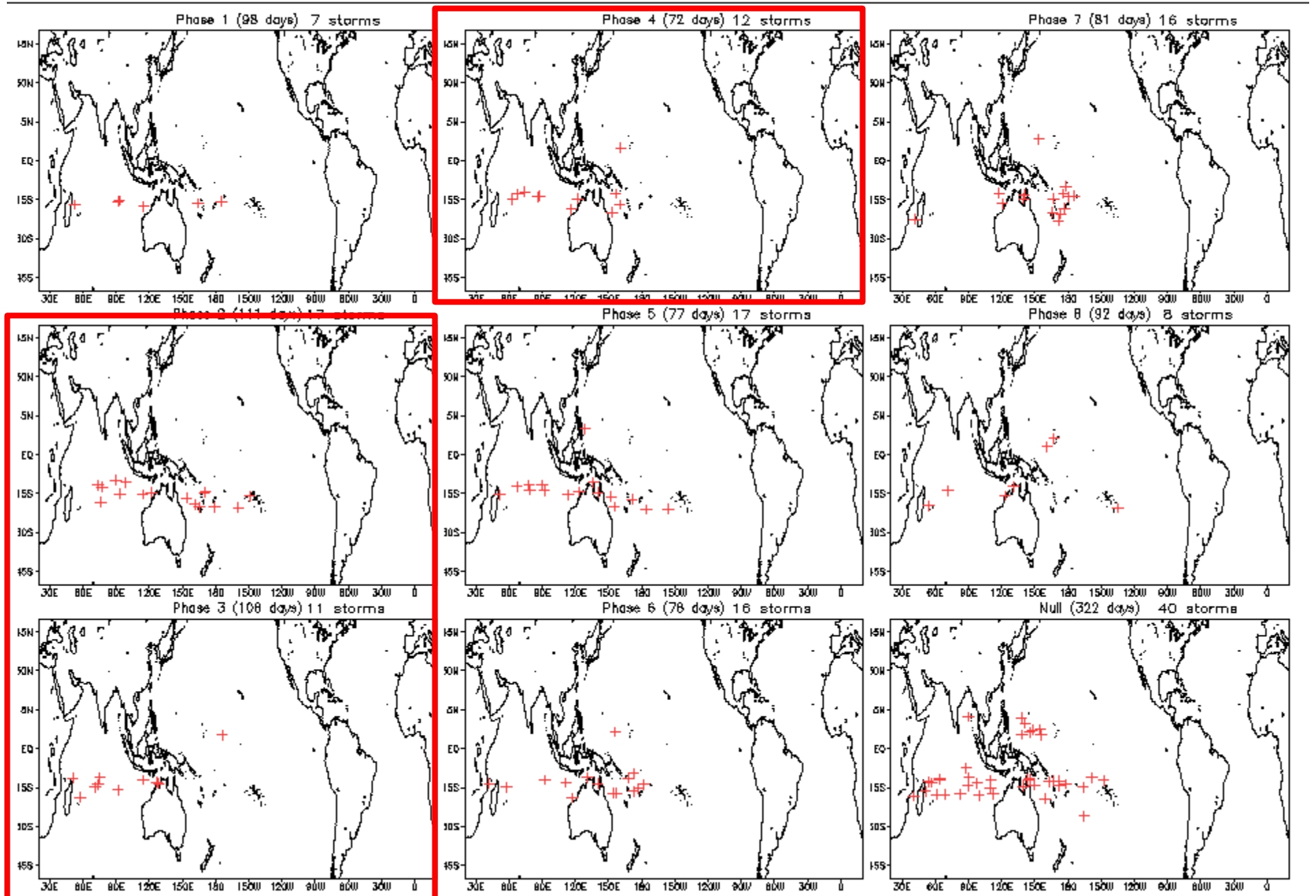


JMA

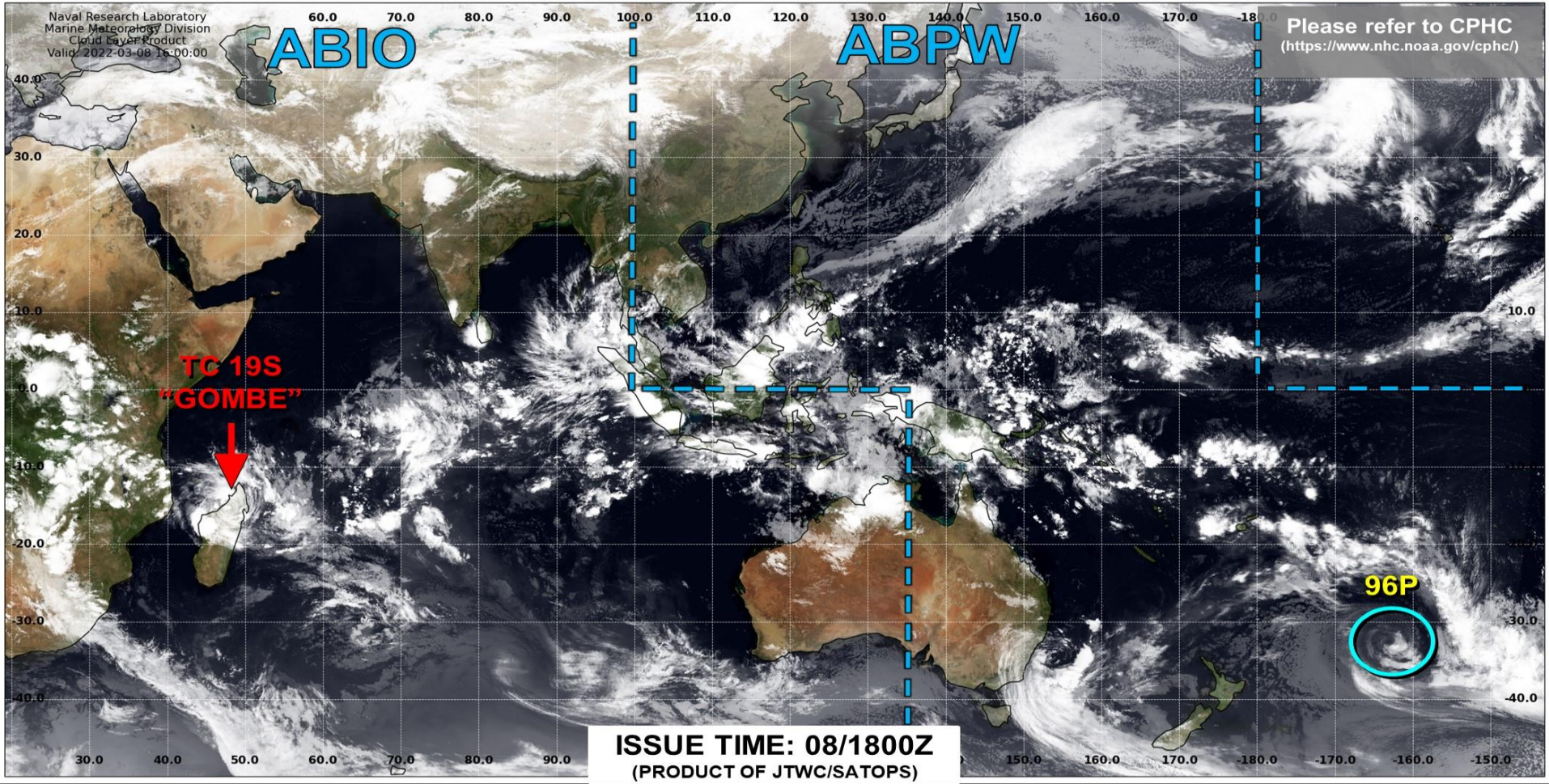
Dynamical models depict an increase in the amplitude of the RMM index.

Fast eastward propagation is more consistent with a Kelvin wave.

March Tropical Storm Formation by MJO phase



JOINT TYPHOON WARNING CENTER



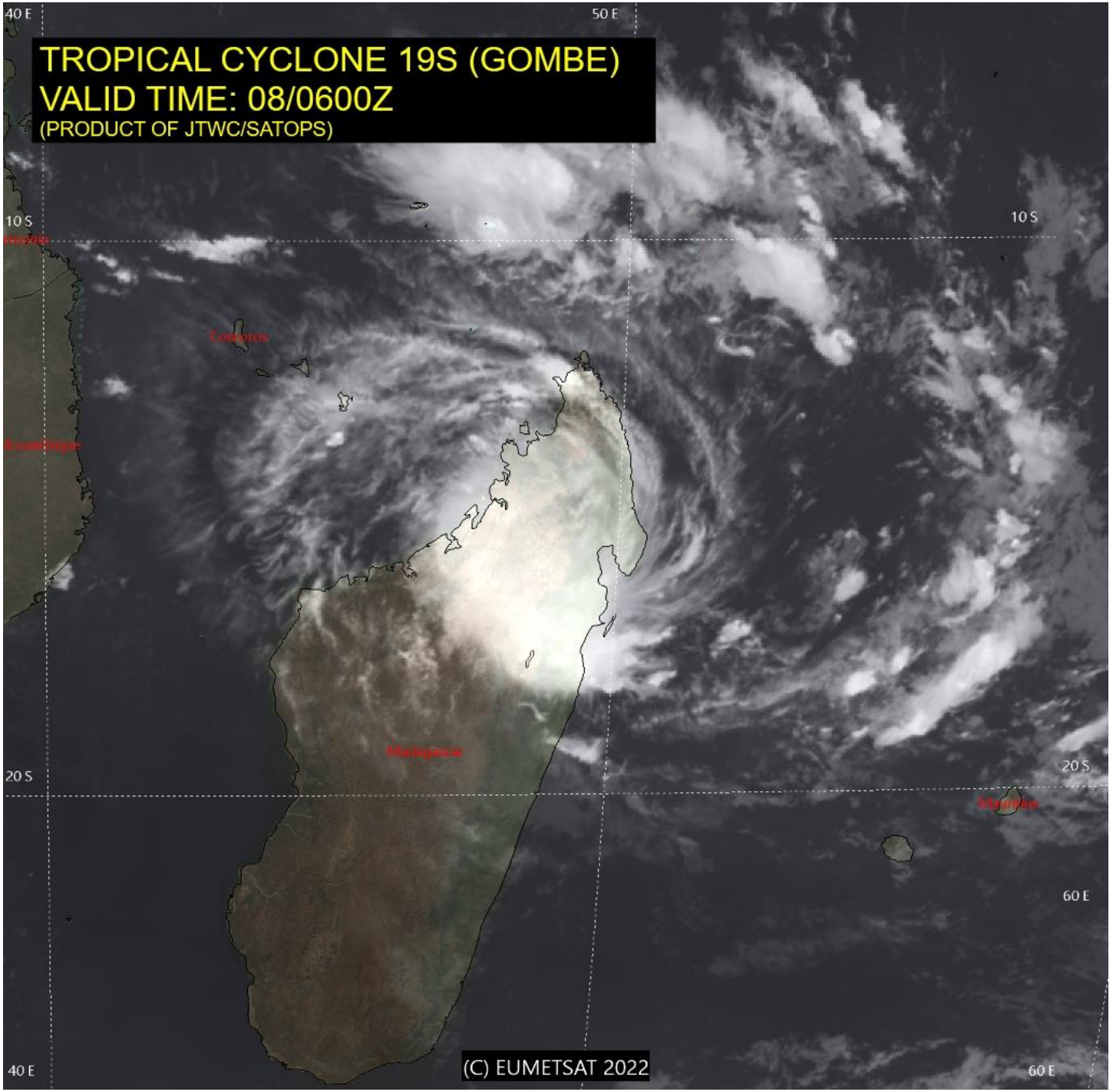
LOW — TC development unlikely within 24 hours

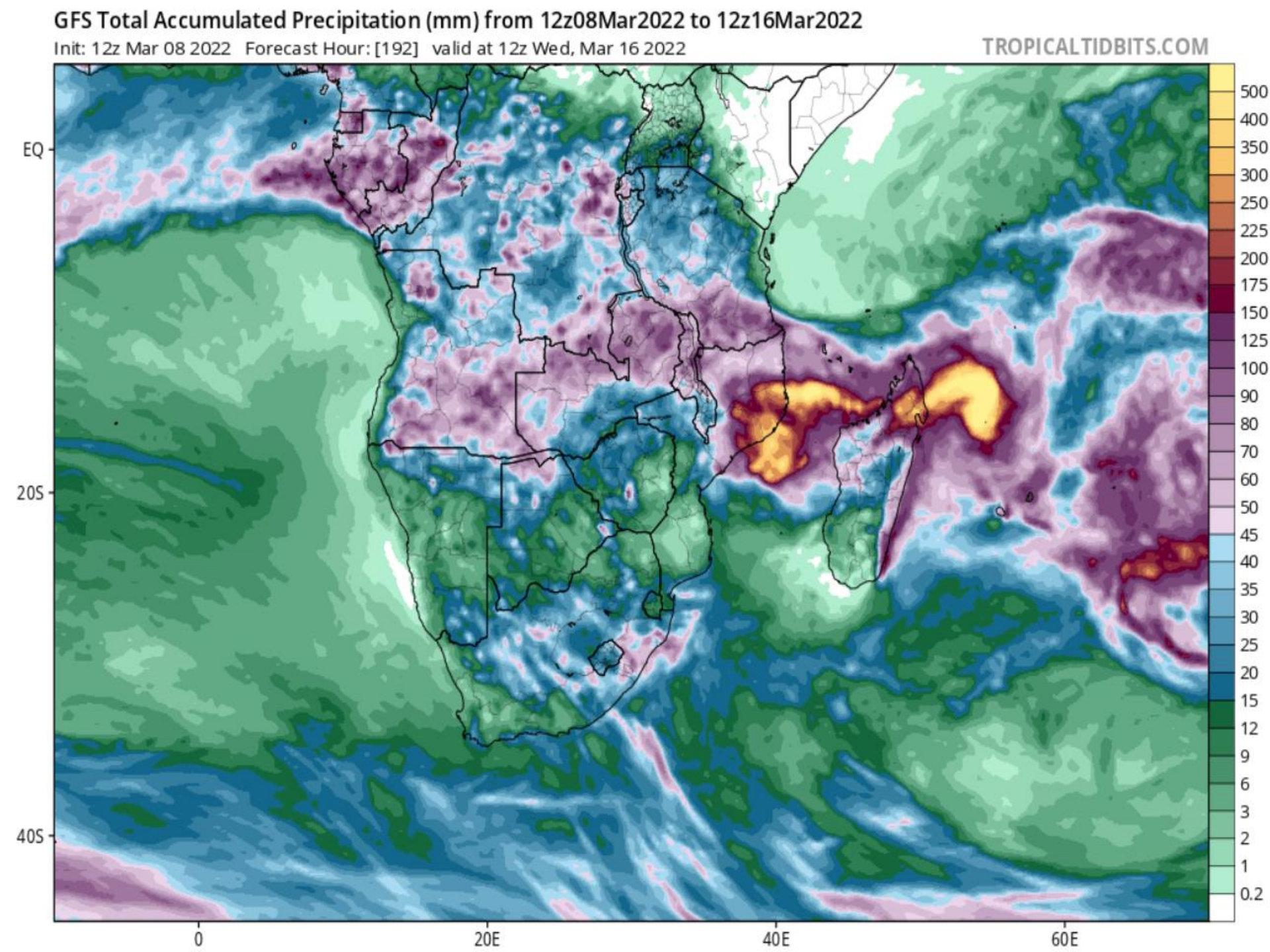
MEDIUM — TC development likely, but expected to occur beyond 24 hours

HIGH — TC development likely within 24 hours (Reference TCFA)

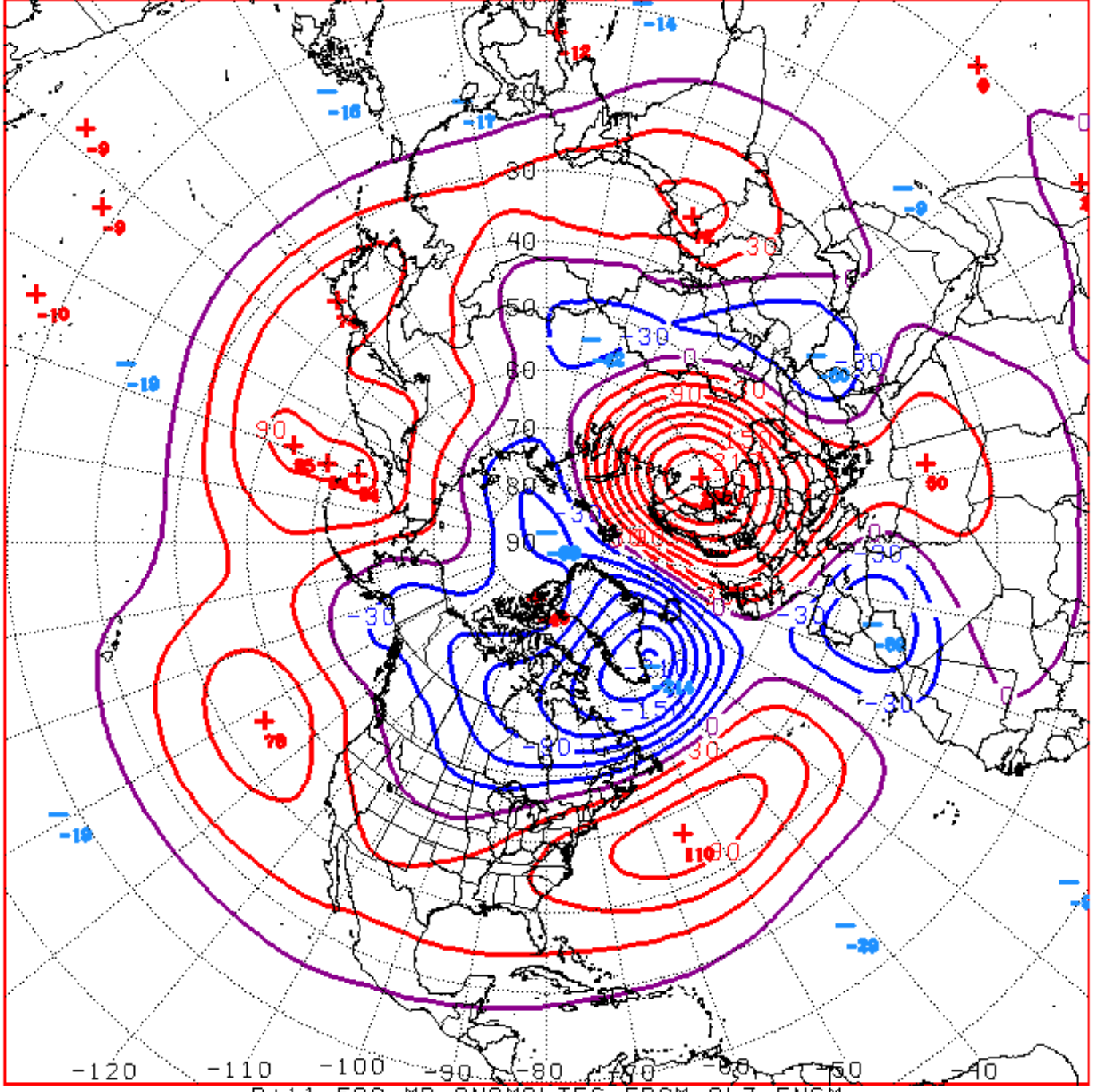
SUB TROPICAL — Monitoring for potential transition to TC. Invest label color denotes tropical transition probability

Tropical Cyclone (Reference Warning)


TROPICAL CYCLONE 19S (GOMBE)
VALID TIME: 08/0600Z
(PRODUCT OF JTWC/SATOPS)
40 E
50 E
10 S
10 S
Comoros
Madagascar
20 S
20 S
Mayotte
60 E
40 E
60 E
(C) EUMETSAT 2022

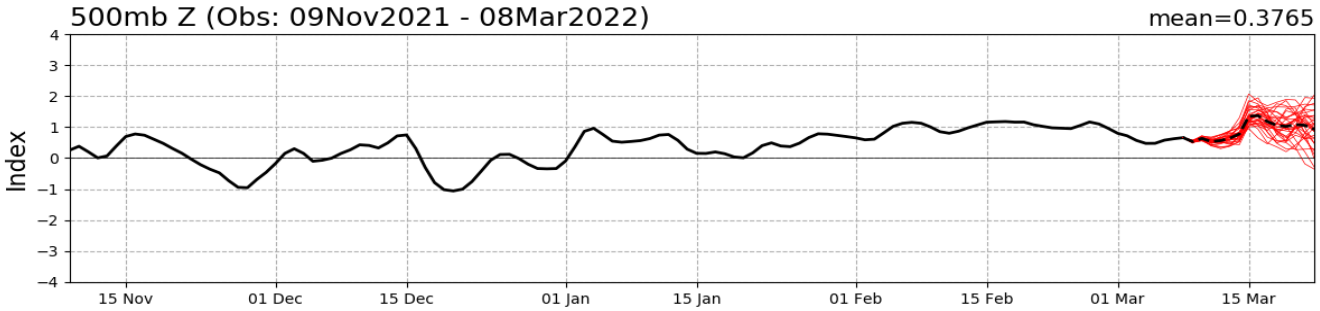

GFS Total Accumulated Precipitation (mm) from 12z08Mar2022 to 12z16Mar2022
Init: 12z Mar 08 2022 Forecast Hour: [192] valid at 12z Wed, Mar 16 2022
TROPICALTIDBITS.COM
EQ
20S
40S
0
20E
40E
60E
500
400
350
300
250
225
200
175
150
125
100
90
80
70
60
50
45
40
35
30
25
20
15
12
9
6
3
2
1
0.2

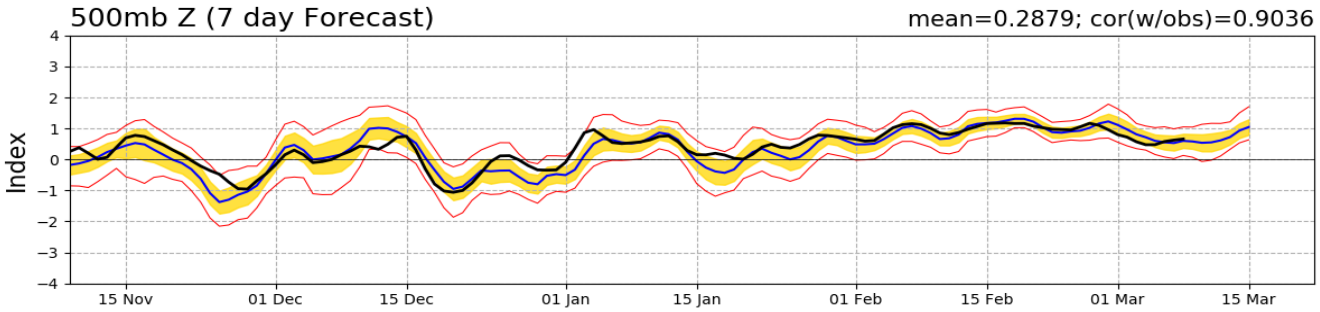
Connections to U.S. Impacts

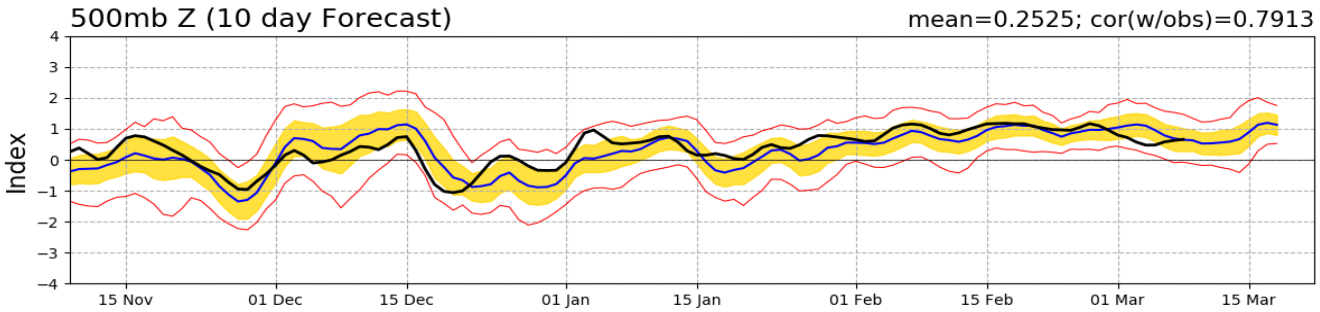


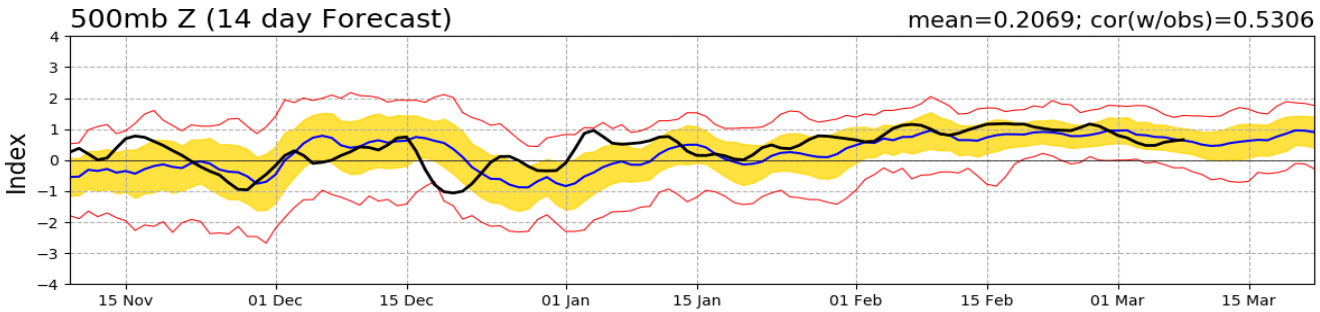
D+11 500 MB ANOMALIES FROM ALZ ENSM
CPC MAP MADE MAR 08 2022 1358 UTC CNTD MAR 19 2022

NAO Index: Observed & GEFS Forecasts

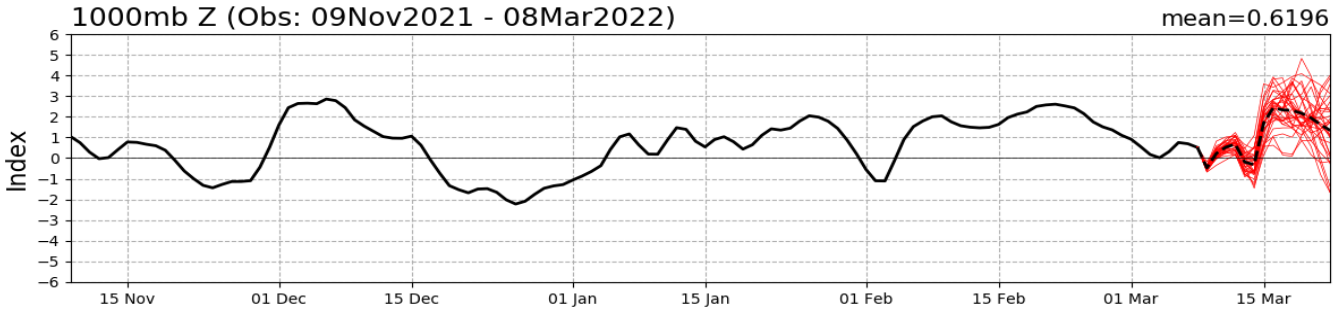


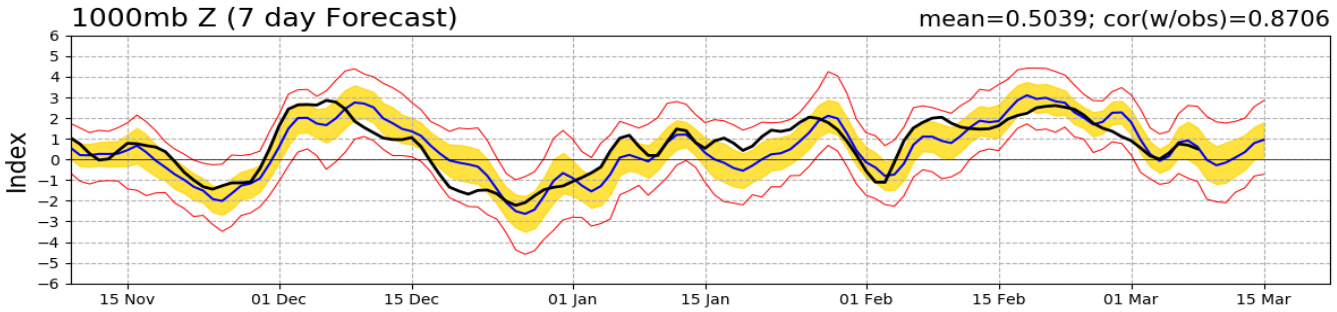


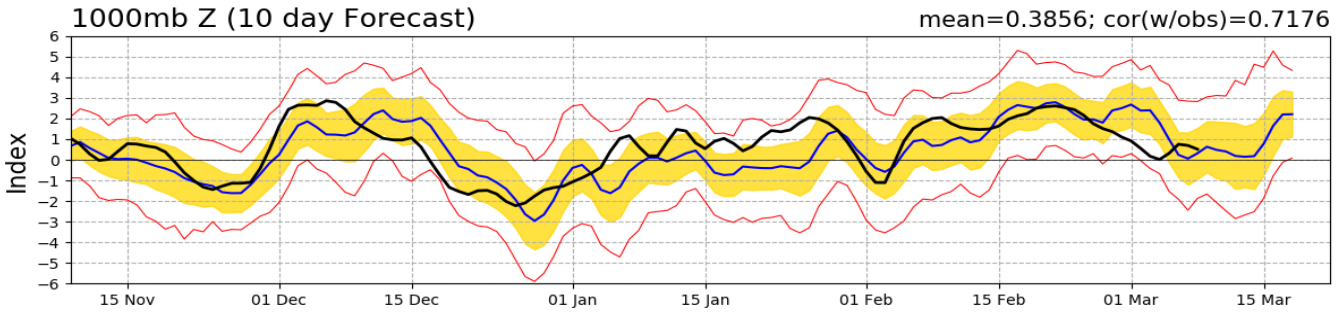


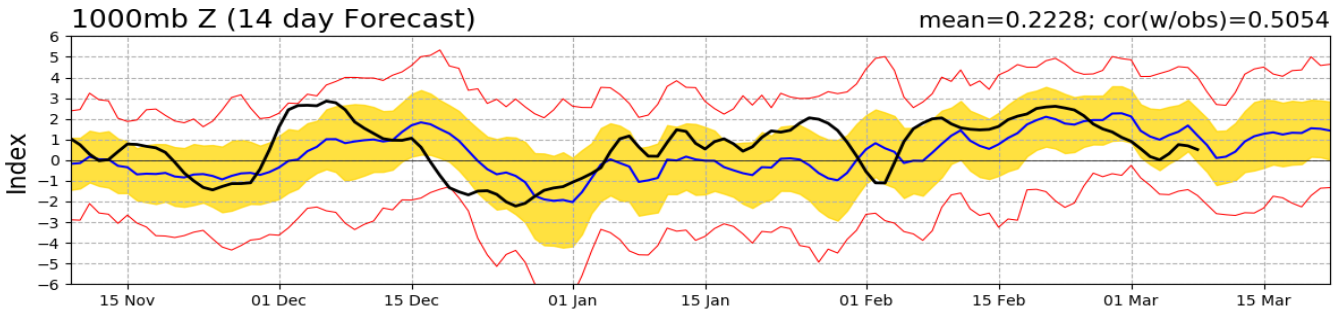


AO Index: Observed & GEFS Forecasts

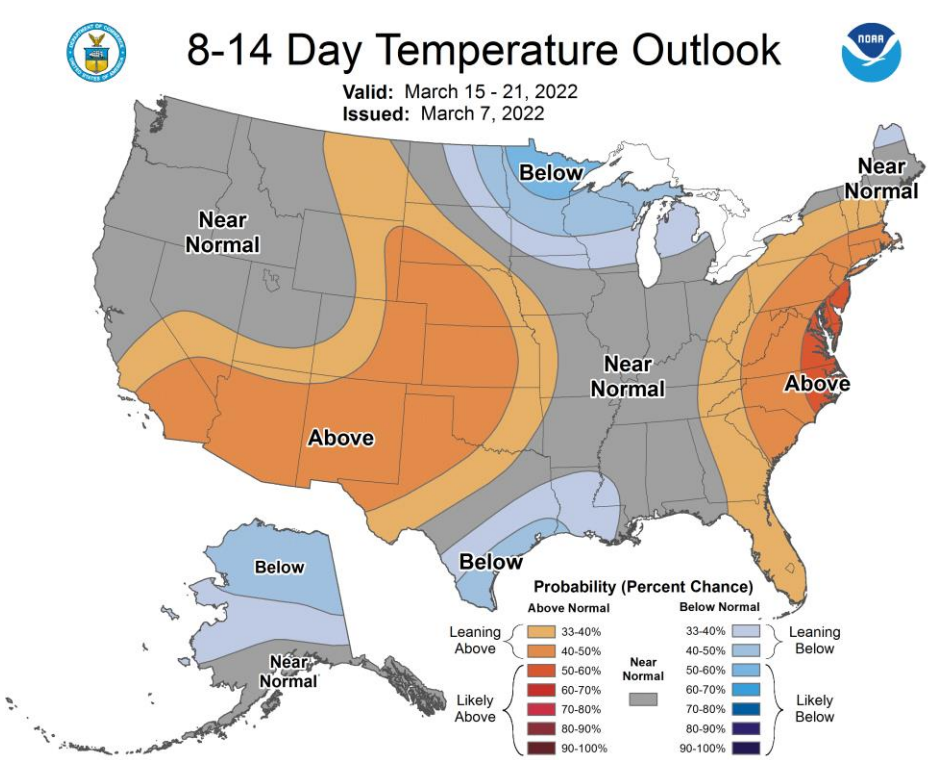


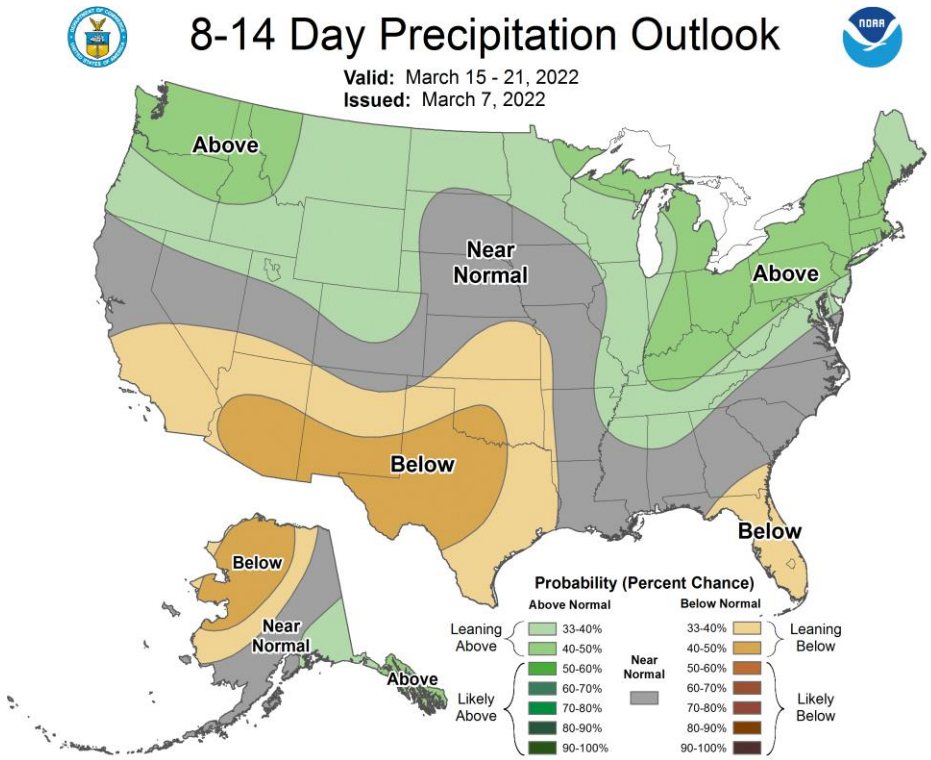






Week 2 – Temperature and Precipitation





Today's week-2 outlook is warmer and continues with the La Nina precipitation pattern.

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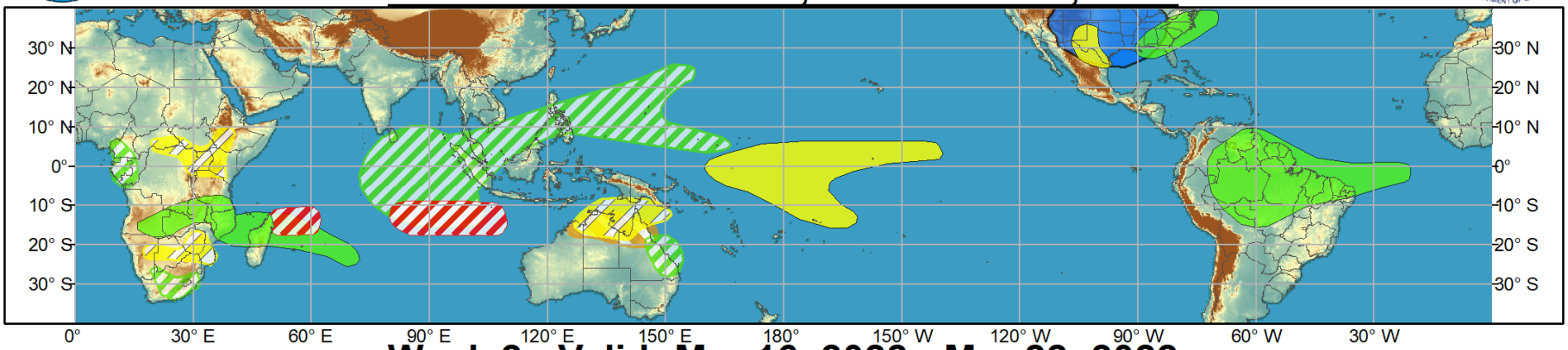

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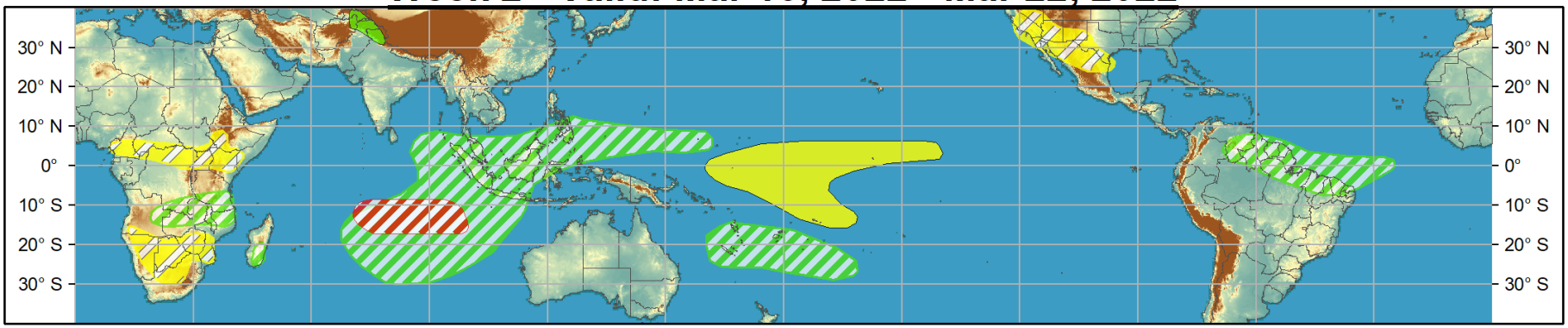

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