

Global Tropics Hazards And Benefits Outlook

11/14/2017

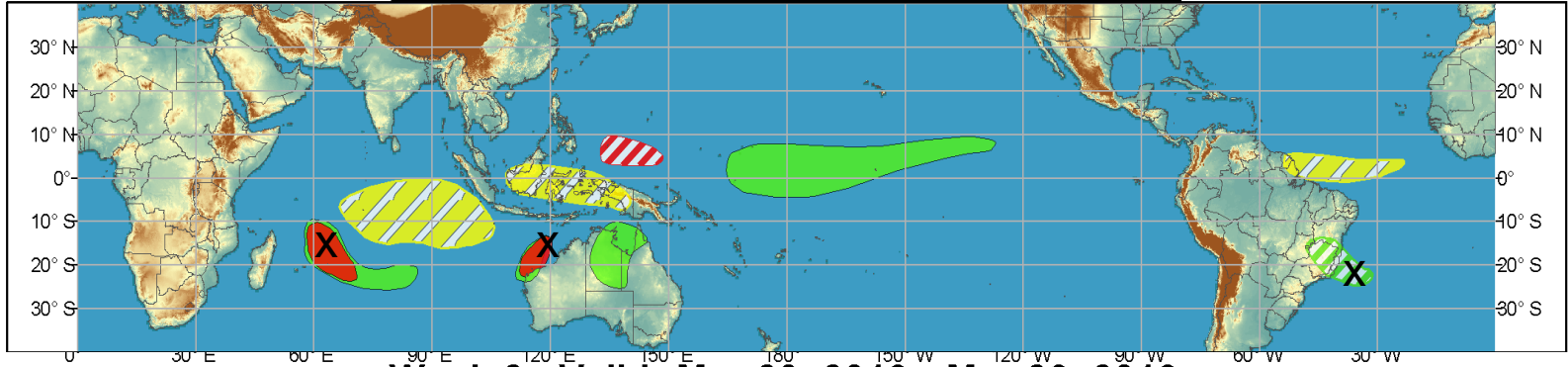
Adam Allgood

Outline

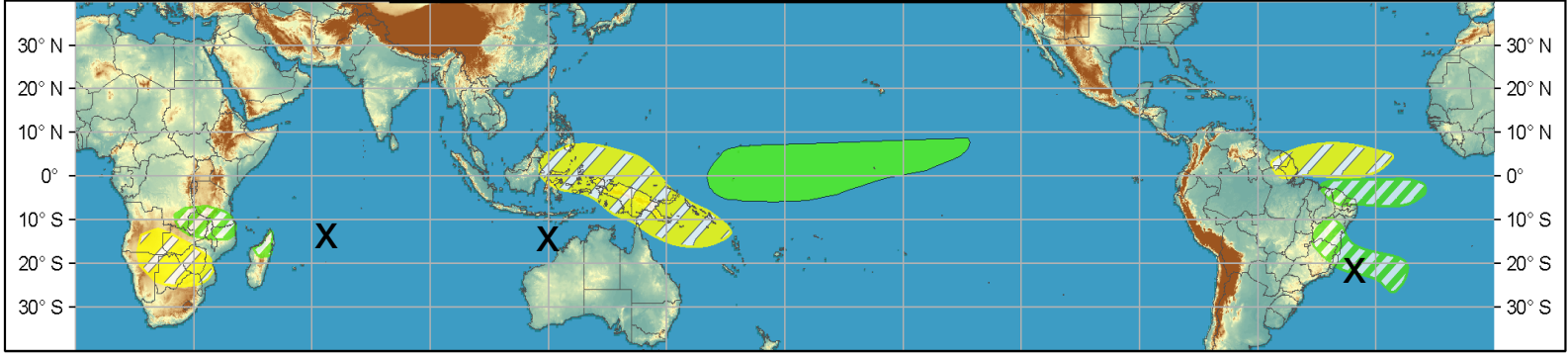
1. Review of Recent Conditions
2. Synopsis of Climate Modes
3. GTH Outlook and Forecast Discussion
4. Connections to U.S. Impacts

Outlook Review

Week 1 - Valid: Mar 20, 2019 - Mar 26, 2019



Week 2 - Valid: Mar 20, 2019 - Mar 26, 2019

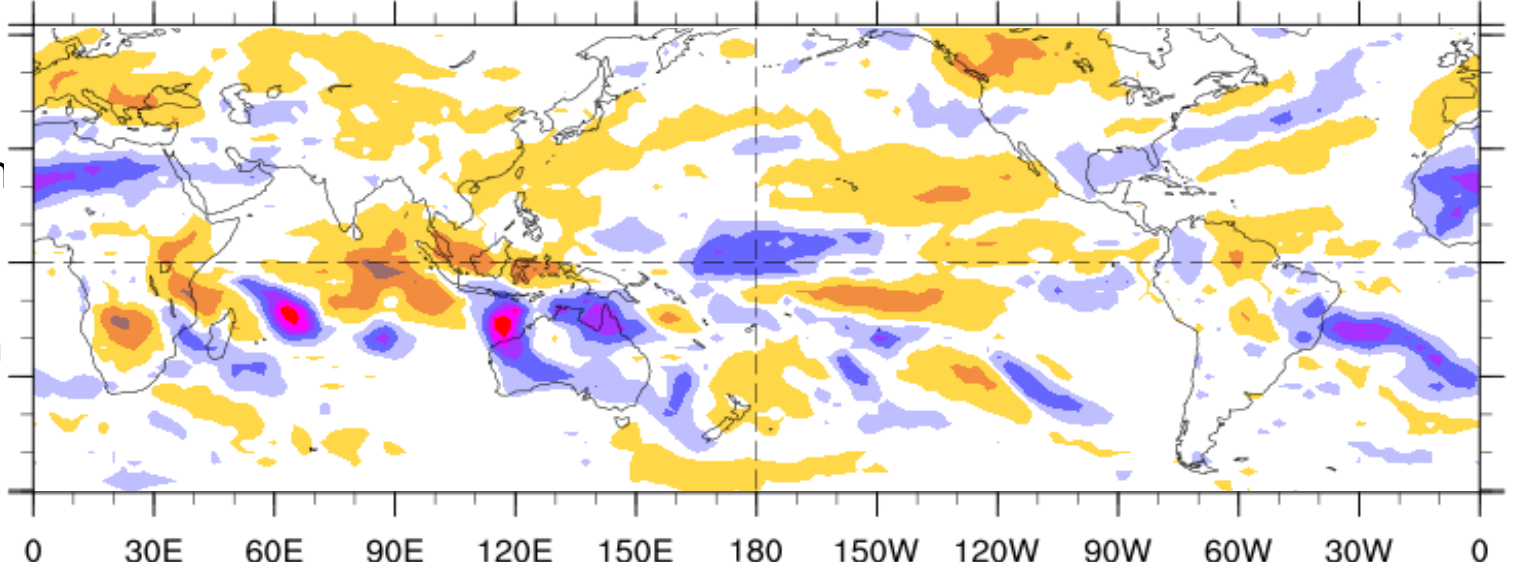


7-Day Average OLR Anomaly

2019/03/18 - 2019/03/24

Cool shading
More clouds/rain

Warm shading
Less clouds/rain



Synopsis of Climate Modes

ENSO: (July 12, 2018 Update)

- ENSO Alert System Status: [El Niño Advisory](#)
- Weak El Niño conditions are likely to continue through the Northern Hemisphere spring 2019 (~80% chance) and summer (~60% chance).

MJO and other subseasonal tropical variability:

- The MJO was weak during the past week. Any remaining activity is moving over the West Pacific.
- Other modes, including multiple TCs, a robust Kelvin wave over Africa, extratropical interactions, and ENSO (via 120-day mean removal on the RMM-index) are interfering with the signal.
- Dynamical models indicate a continued weak signal during the next two weeks, with high uncertainty.

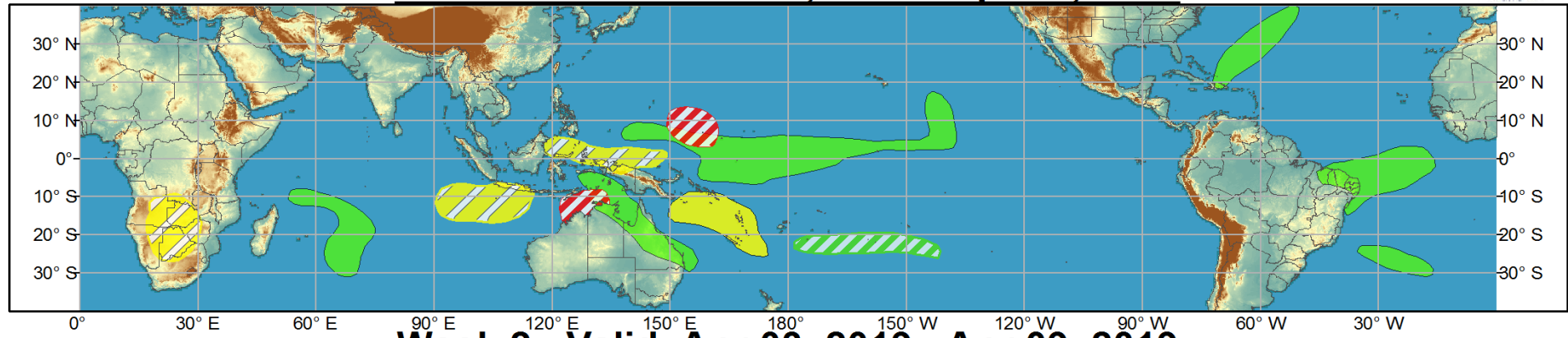
Extratropics:

- The MJO is not likely to play an observable role in any tropical-extratropical interactions. The ENSO signal is likely to be the most reliable mode producing long lasting convective anomalies.

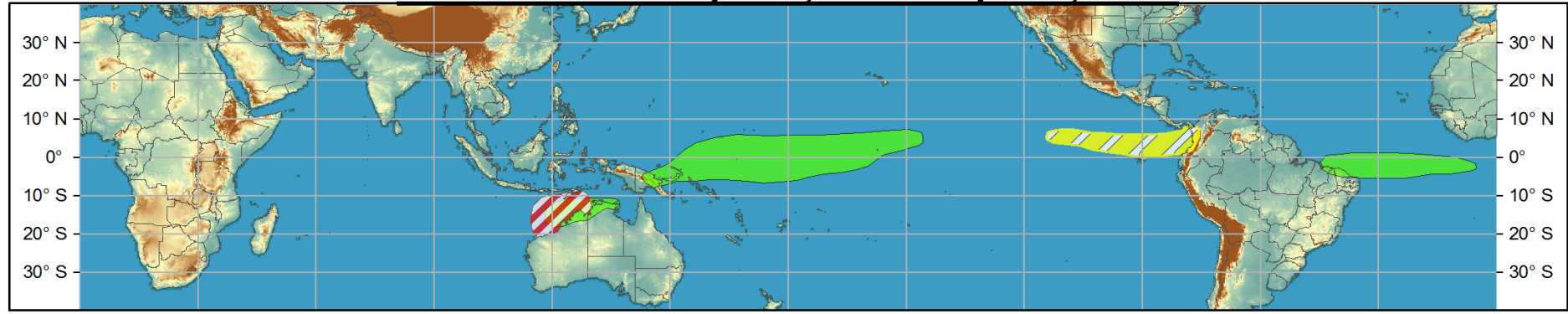


Global Tropics Hazards and Benefits Outlook - Climate Prediction Center

Week 1 - Valid: Mar 27, 2019 - Apr 02, 2019



Week 2 - Valid: Apr 03, 2019 - Apr 09, 2019



Produced: 03/26/2019
Forecaster: Allgood

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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Product is updated once per week, except from 6/1 - 11/30 for the region from 120E to 0, 0 to 40N. The product targets broad scale conditions integrated over a 7-day period for US interests only. Consult your local responsible forecast agency.



IR Satellite & 200-hpa Velocity Potential Anomalies

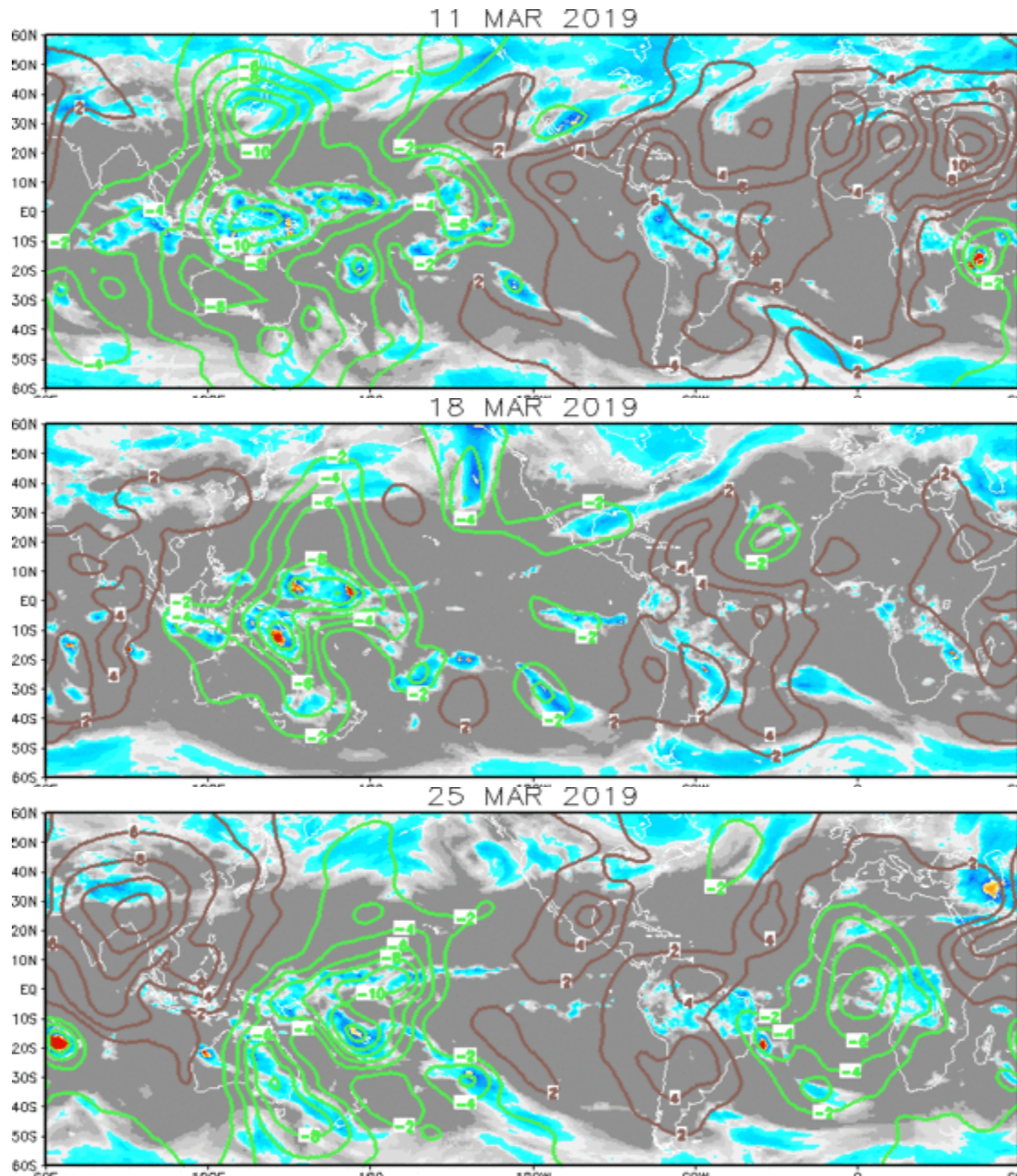
Green: Enhanced Divergence

Brown: Enhanced Convergence

Robust MJO signal with the enhanced phase over the Maritime Continent (interfering with ENSO).

Enhanced convection moves over the Pacific, but unlike previous passes, no massive convective blowup. Tropical cyclone activity is evident near Australia.

Wave-2 projection, with convectively coupled Kelvin wave over Africa and a zonally narrow Pacific signal. Powerful TC over the southwest I.O.

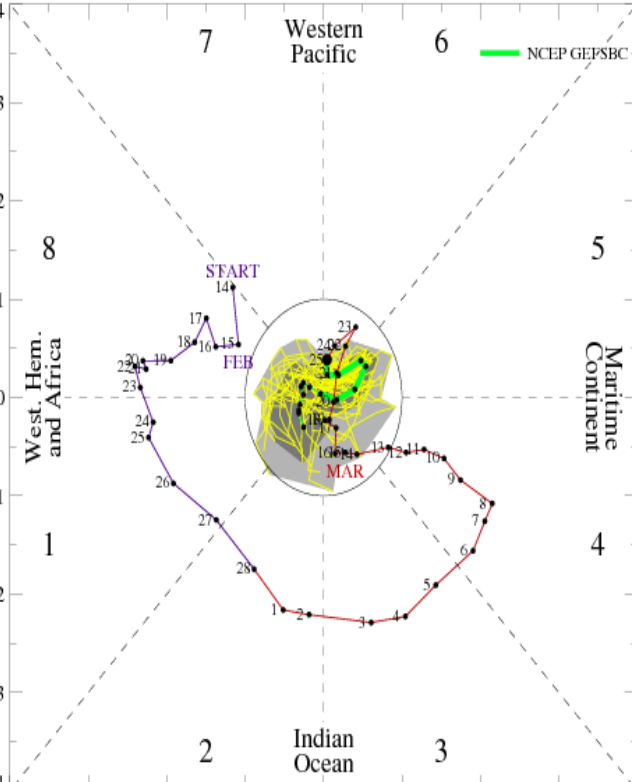


MJO Observation/Forecast

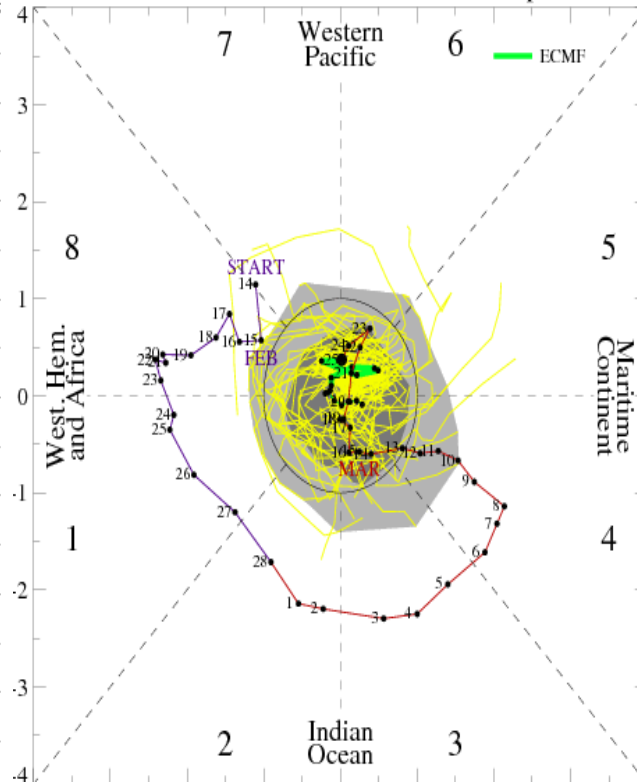
[RMM1, RMM2] forecast for Mar-26-2019 to Apr-09-2019

MJO Index Forecast for 26Mar2019-09Apr2019

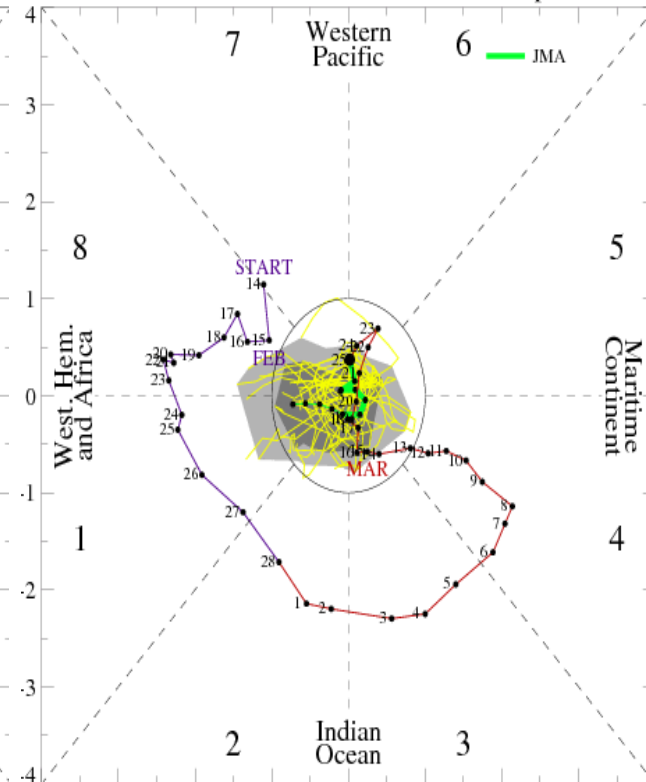
MJO Index Forecast for 26Mar2019-03Apr2019



GEFS



ECMWF

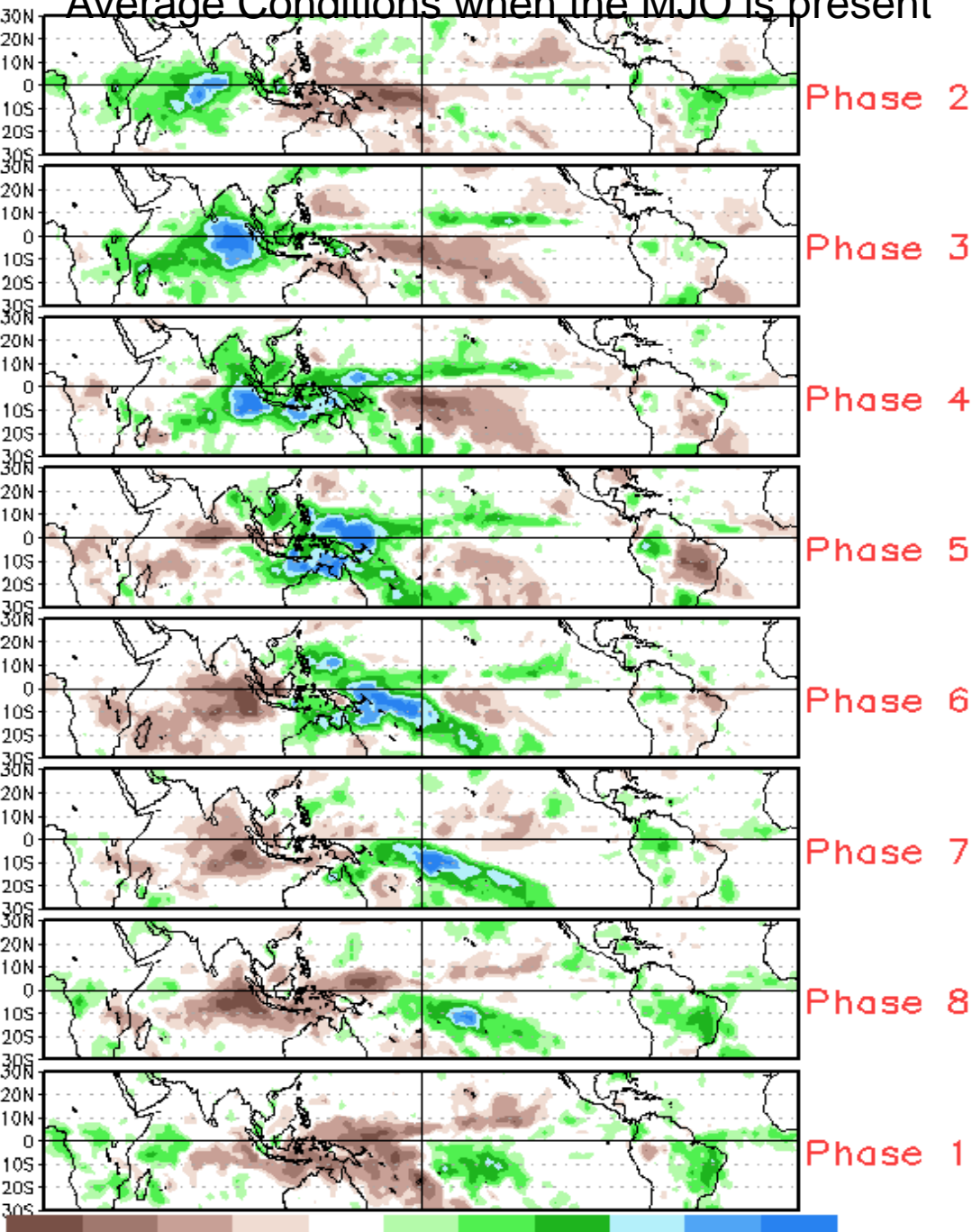


JMA

All models depict weak MJO activity over the next two weeks.

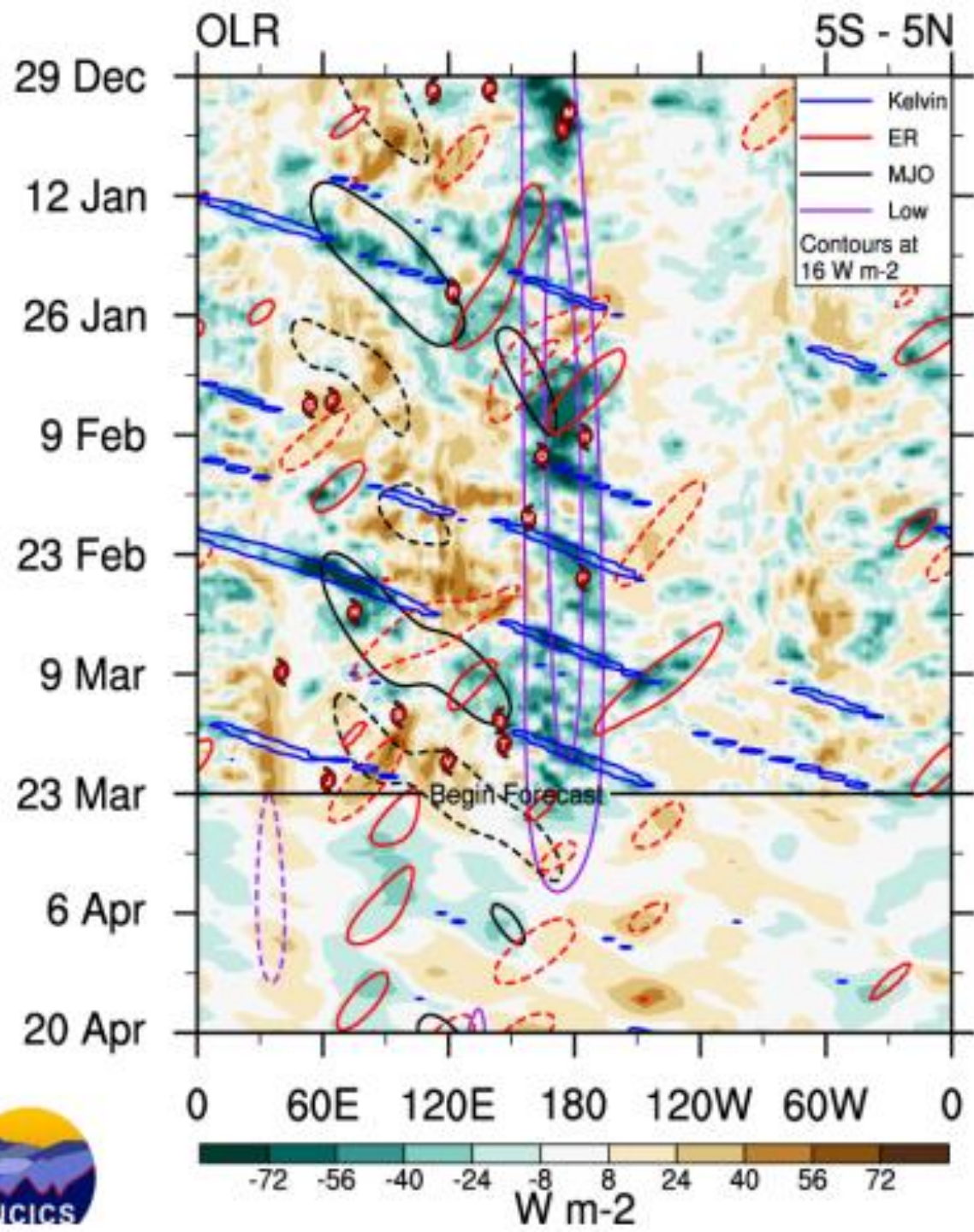
Note the outlying ensemble members coming out of the circle in opposing phases in the ECMWF.

Average Conditions when the MJO is present

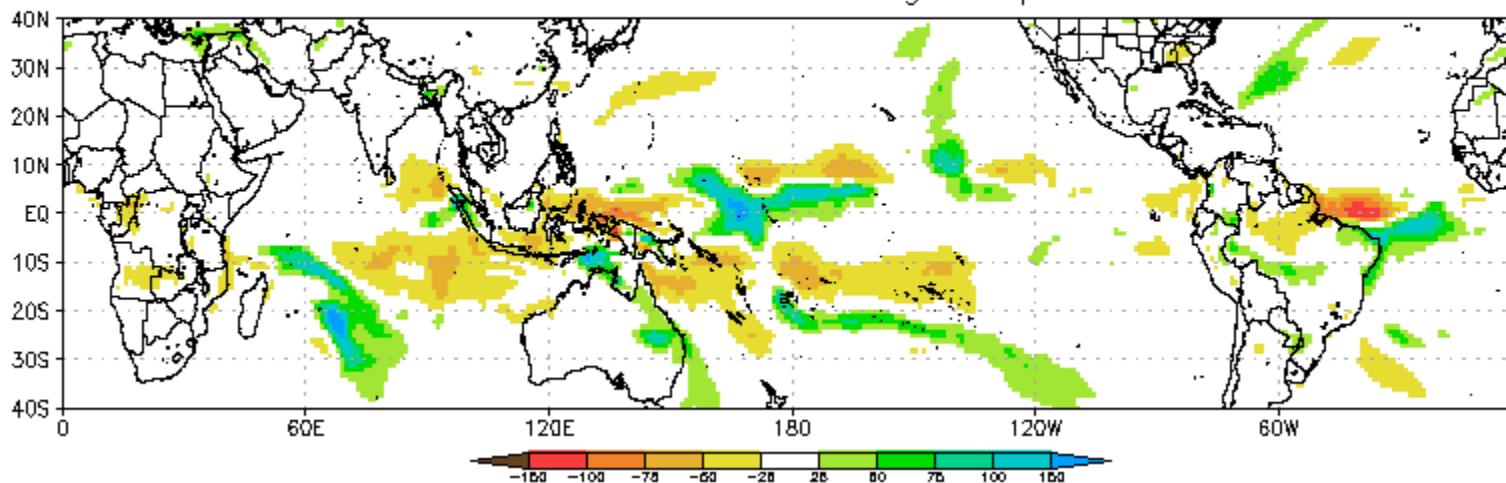


CAVEAT: These panels are representative of robust MJO events.

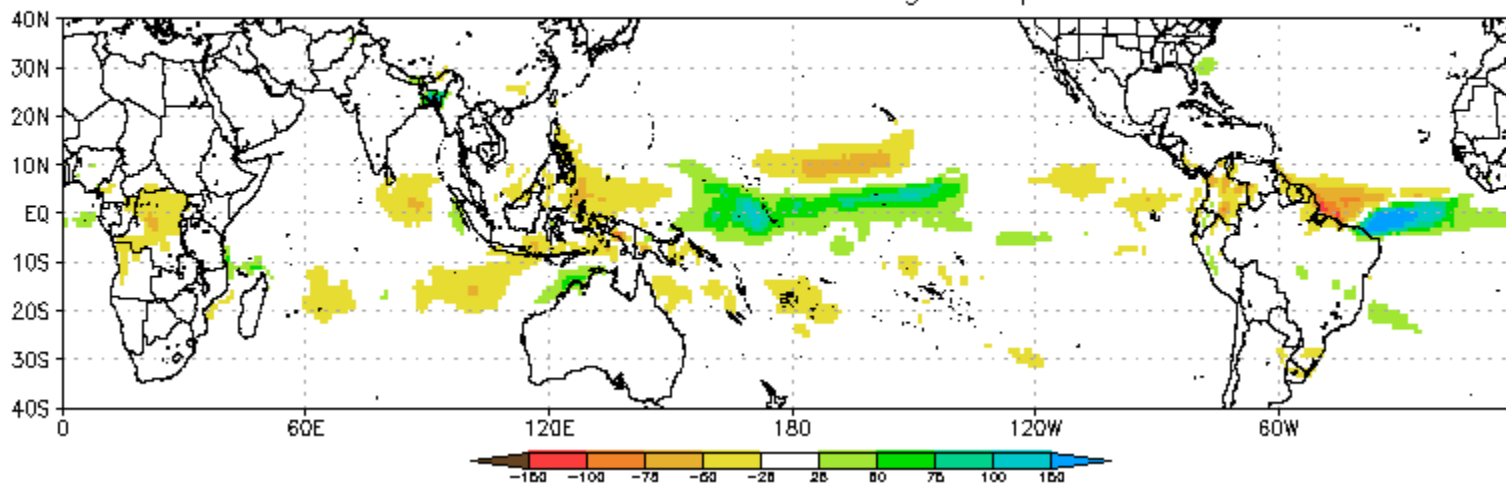
MJO and **Low-frequency pattern** are the dominant features in the OLR field.



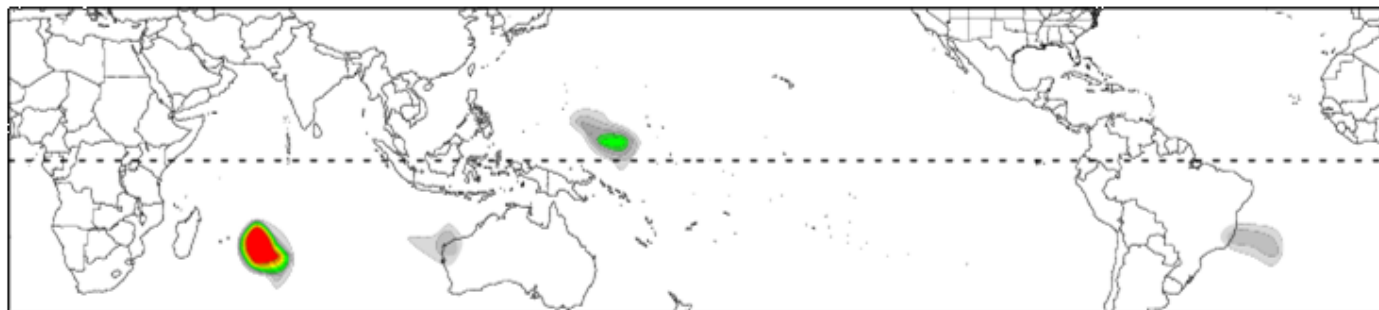
CFS Precipitation Anomalies (mm) Issued 25Mar2019
Week-1 Forecast Ending 02Apr2019



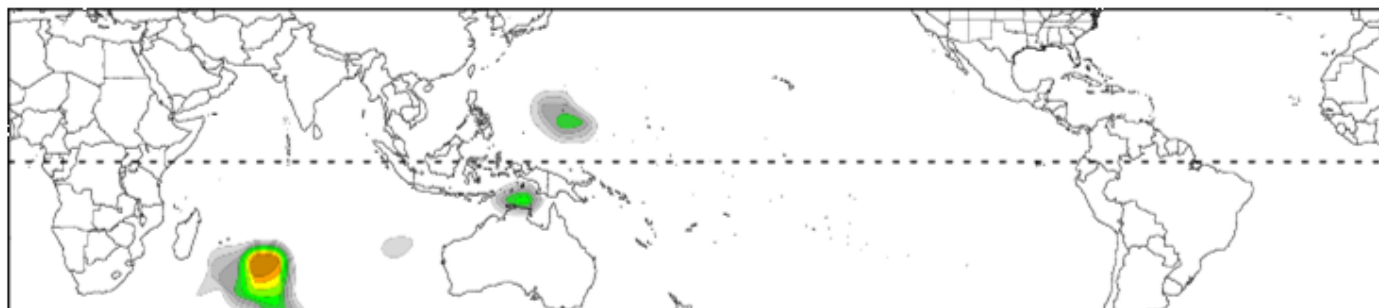
CFS Precipitation Anomalies (mm) Issued 25Mar2019
Week-2 Forecast Ending 09Apr2019



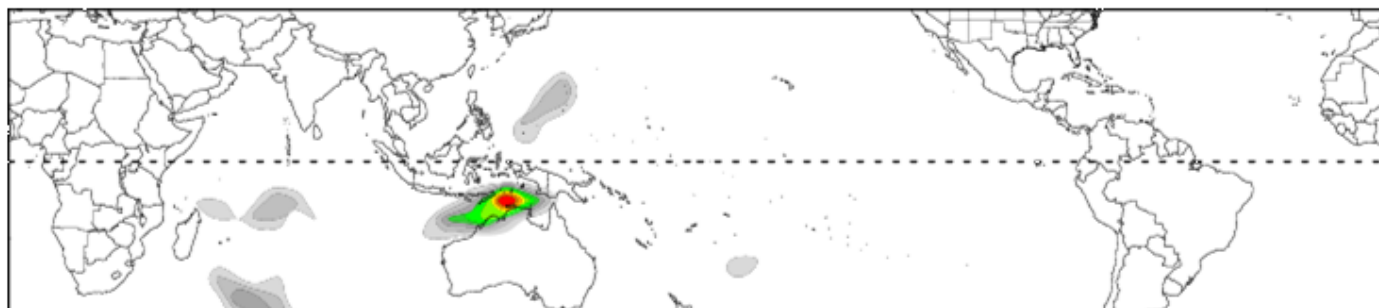
Days 1-4



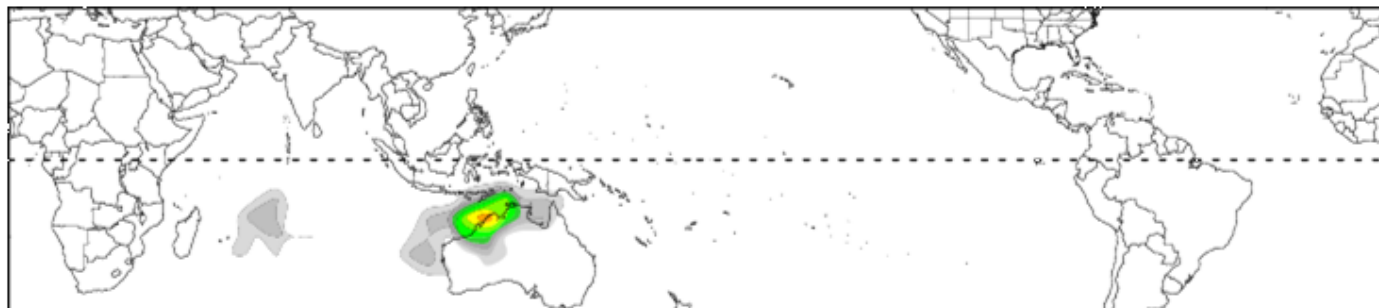
Day 5-8



Day 9-12



Day 13-15


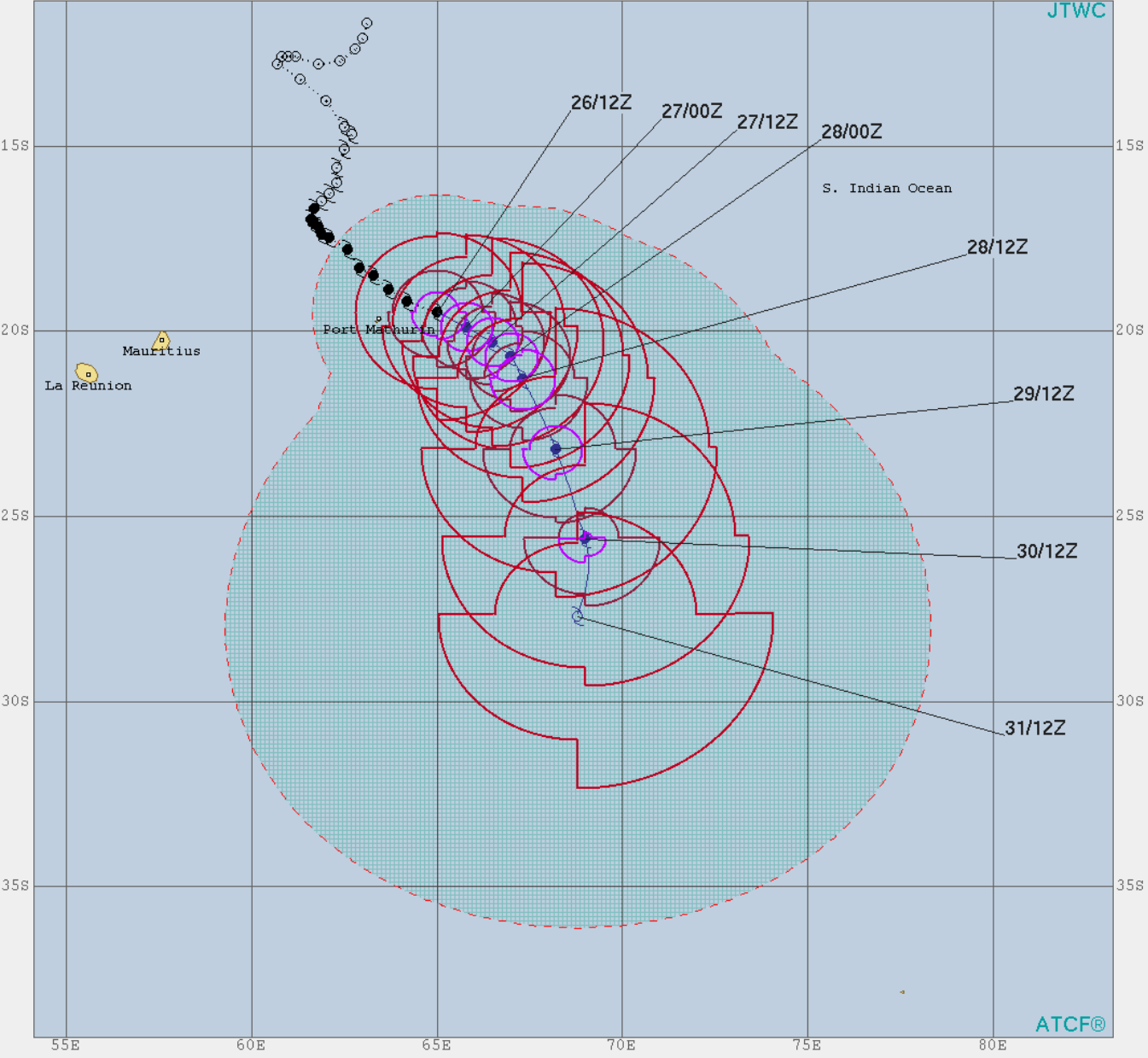


JTWC

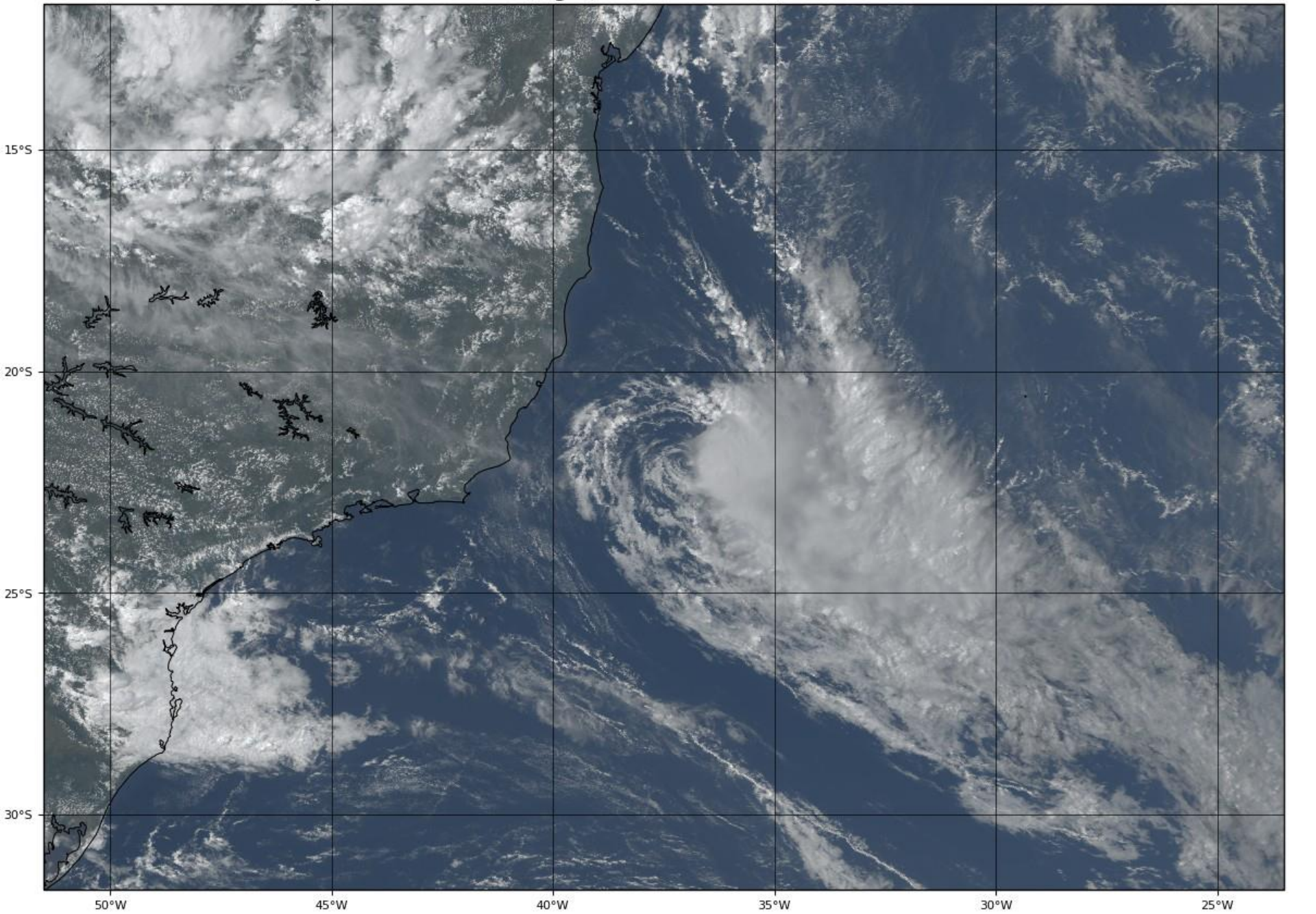
TROPICAL CYCLONE 22S (JOANINHA) WARNING #19
 WTXS31 PGTW 261500
 261200Z POSIT: NEAR 19.5S 65.0E
 MOVING 110 DEGREES TRUE AT 08 KNOTS
 MAXIMUM SIGNIFICANT WAVE HEIGHT: 38 FEET
 26/12Z, WINDS 115 KTS, GUSTS TO 140 KTS
 27/00Z, WINDS 115 KTS, GUSTS TO 140 KTS
 27/12Z, WINDS 110 KTS, GUSTS TO 135 KTS
 28/00Z, WINDS 105 KTS, GUSTS TO 130 KTS
 28/12Z, WINDS 100 KTS, GUSTS TO 125 KTS
 29/12Z, WINDS 085 KTS, GUSTS TO 105 KTS
 30/12Z, WINDS 065 KTS, GUSTS TO 080 KTS
 31/12Z, WINDS 045 KTS, GUSTS TO 055 KTS

BEARING AND DISTANCE	DIR	DIST (NM)	TAU (HRS)
PORT_MATHURIN	083	91	0

- 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

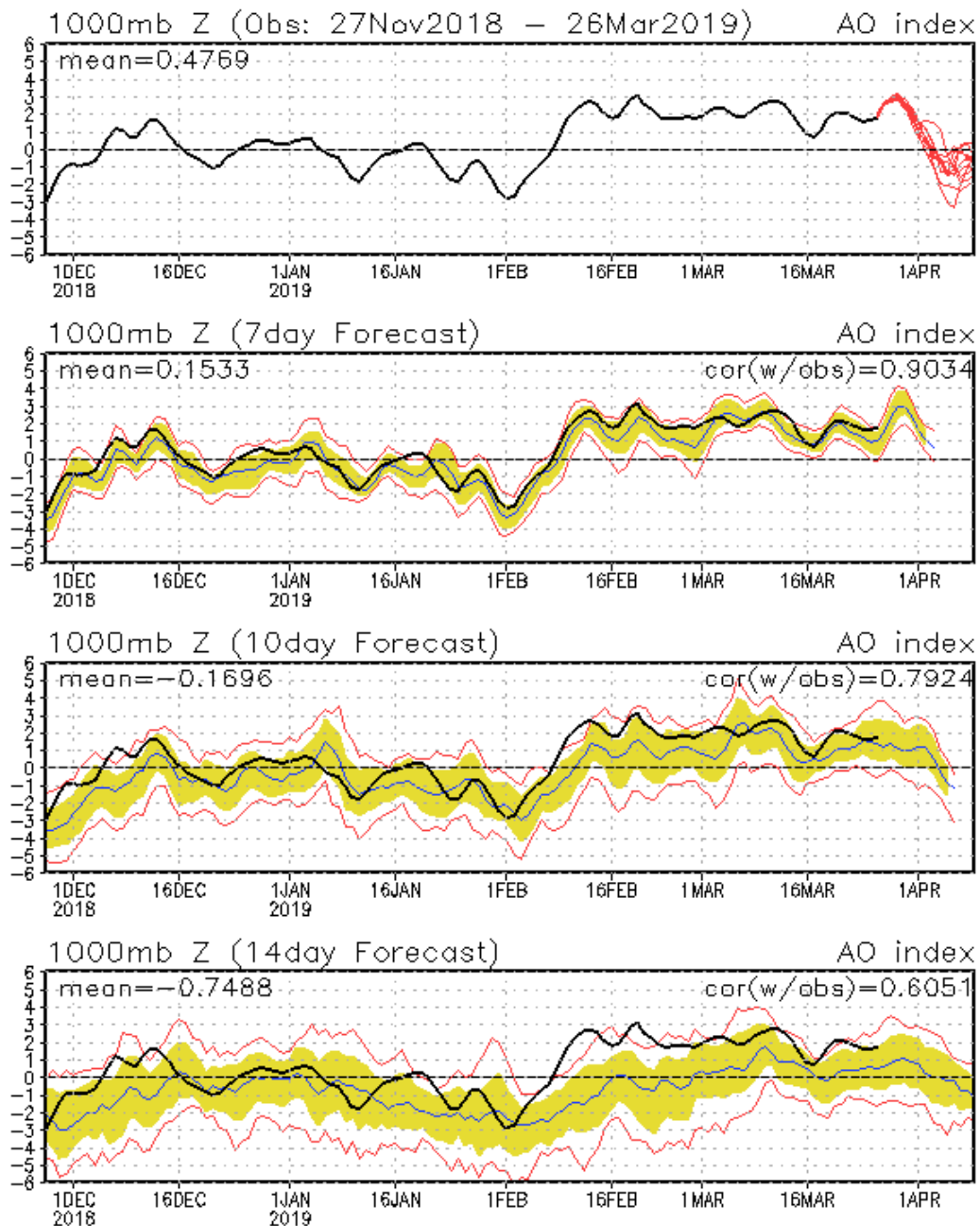
ATCF®

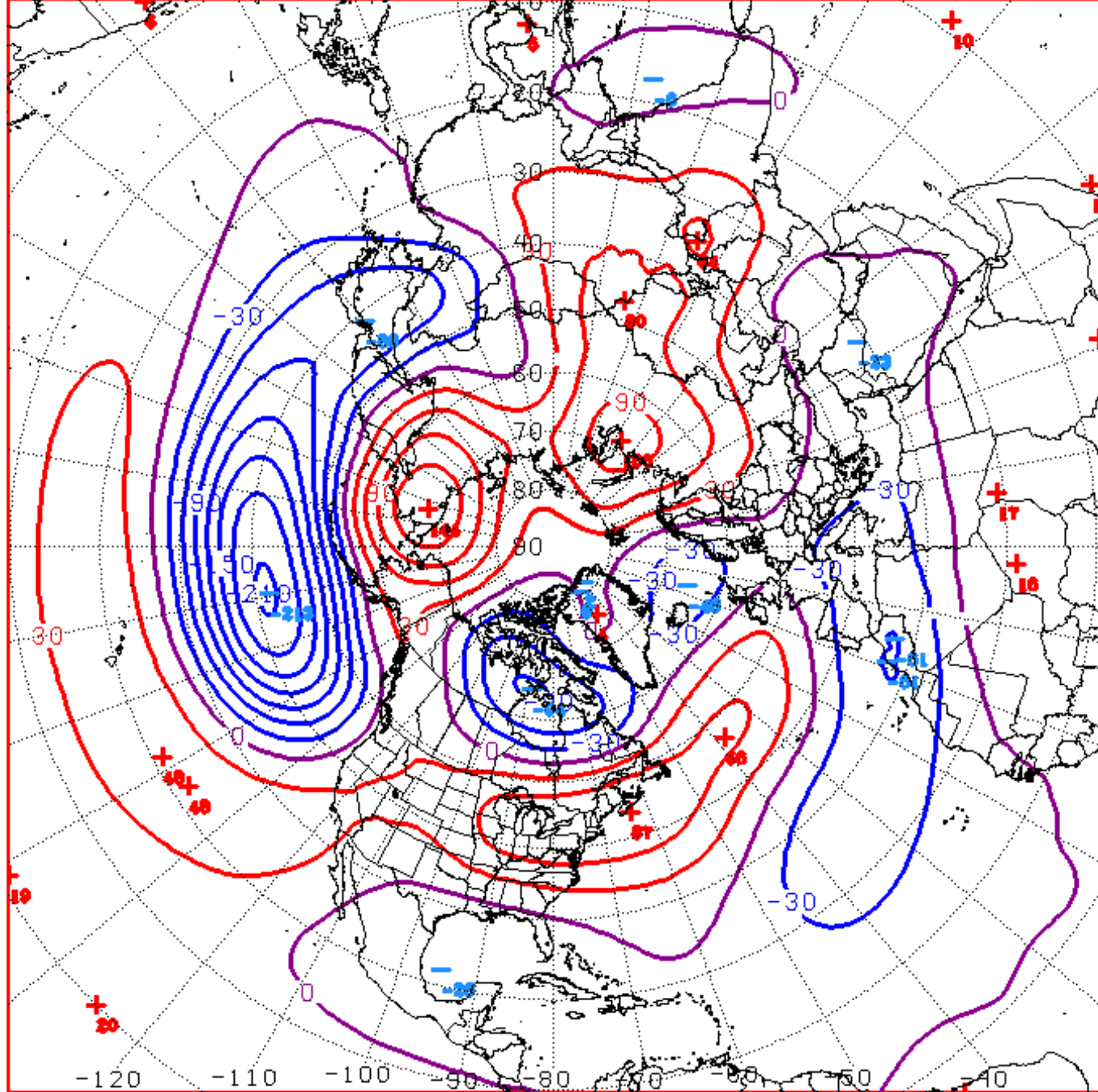


50°W 45°W 40°W 35°W 30°W 25°W

Connections to U.S. Impacts

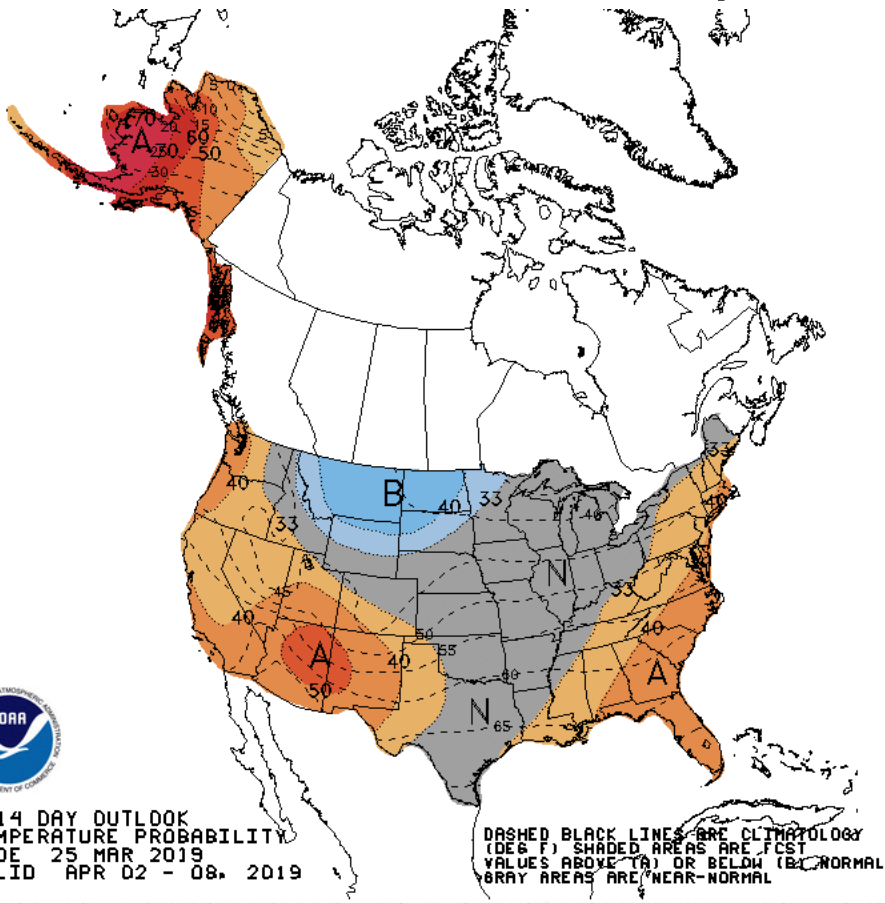
AO: Observed & ENSM forecasts





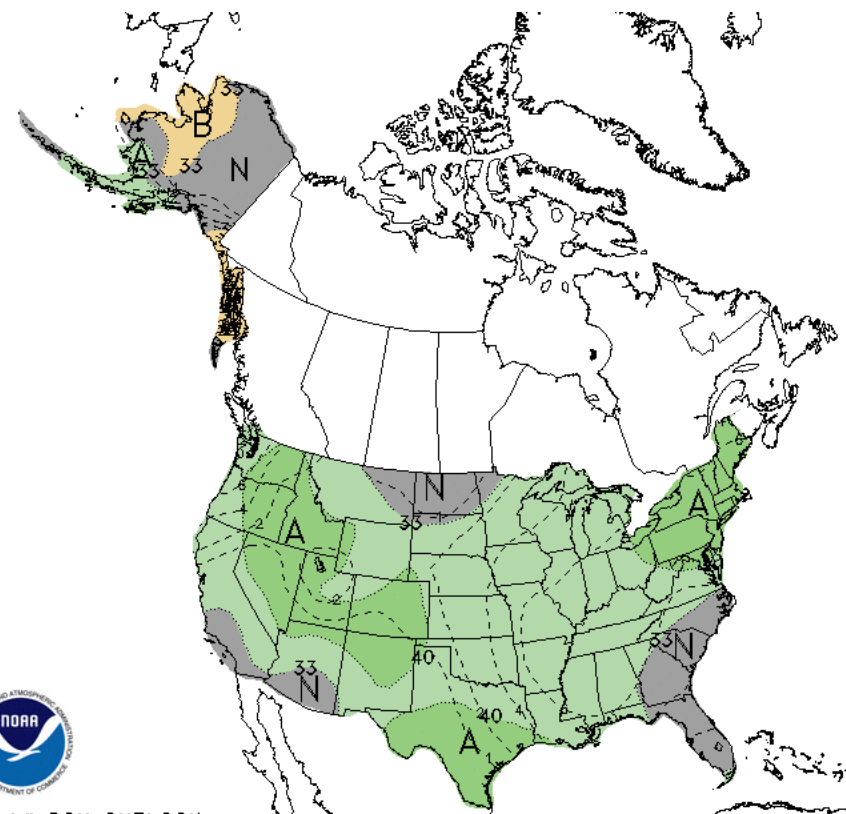
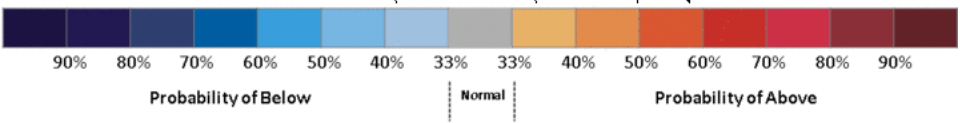
D+11 500 MB ANOMALIES FROM ALZ ENSM
CPC MAP MADE MAR 26 2019 1332 UTC CNTD APR 06 2019

Week 2 – Temperature and Precipitation



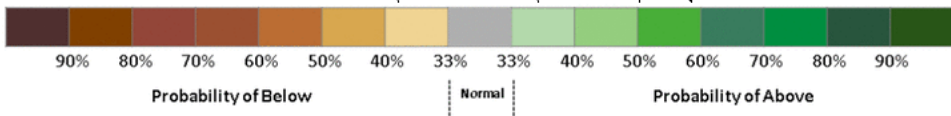
8-14 DAY OUTLOOK
TEMPERATURE PROBABILITY
MADE 25 MAR 2019
VALID APR 02 - 08, 2019

DASHED BLACK LINES ARE CLIMATOLOGY (DEG F). SHADED AREAS ARE FCST VALUES ABOVE (A) OR BELOW (B) NORMAL. GRAY AREAS ARE NEAR-NORMAL.



8-14 DAY OUTLOOK
PRECIPITATION PROBABILITY
MADE 25 MAR 2019
VALID APR 02 - 08, 2019

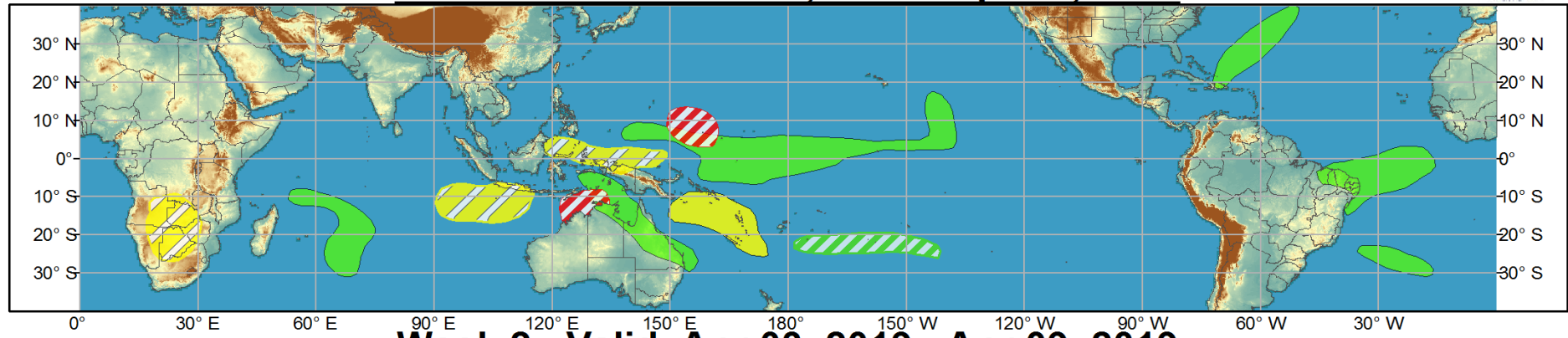
DASHED BLACK LINES ARE CLIMATOLOGY (10THS OF INCHES). SHADED AREAS ARE FCST VALUES ABOVE (A) OR BELOW (B) NORMAL. GRAY AREAS ARE NEAR-NORMAL.



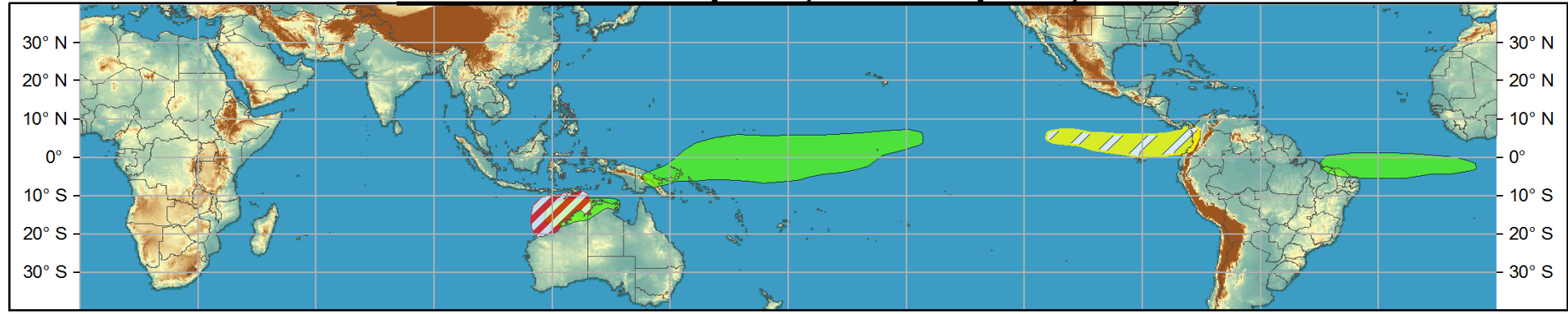


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