

Global Tropics Hazards And Benefits Outlook

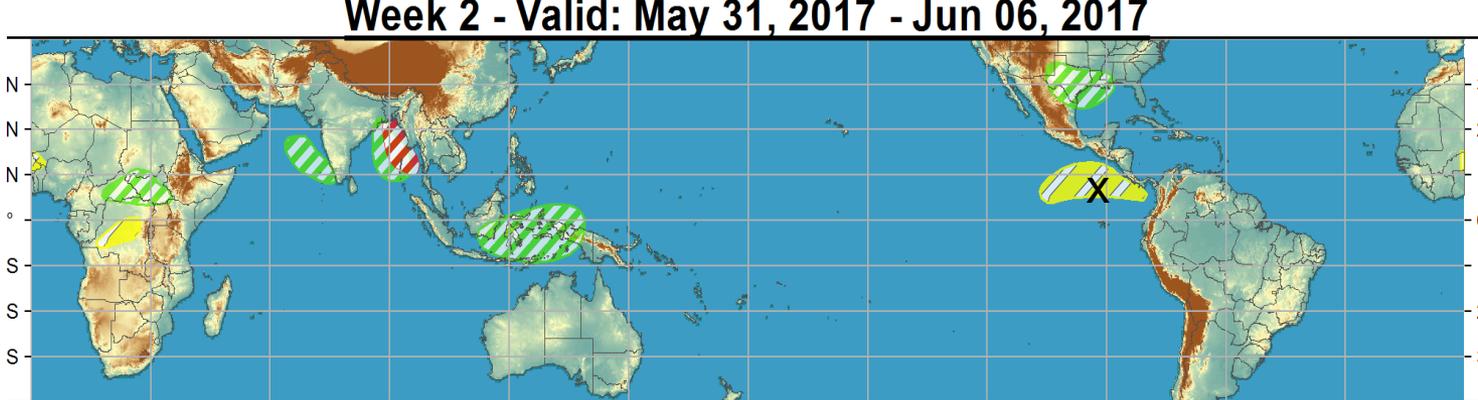
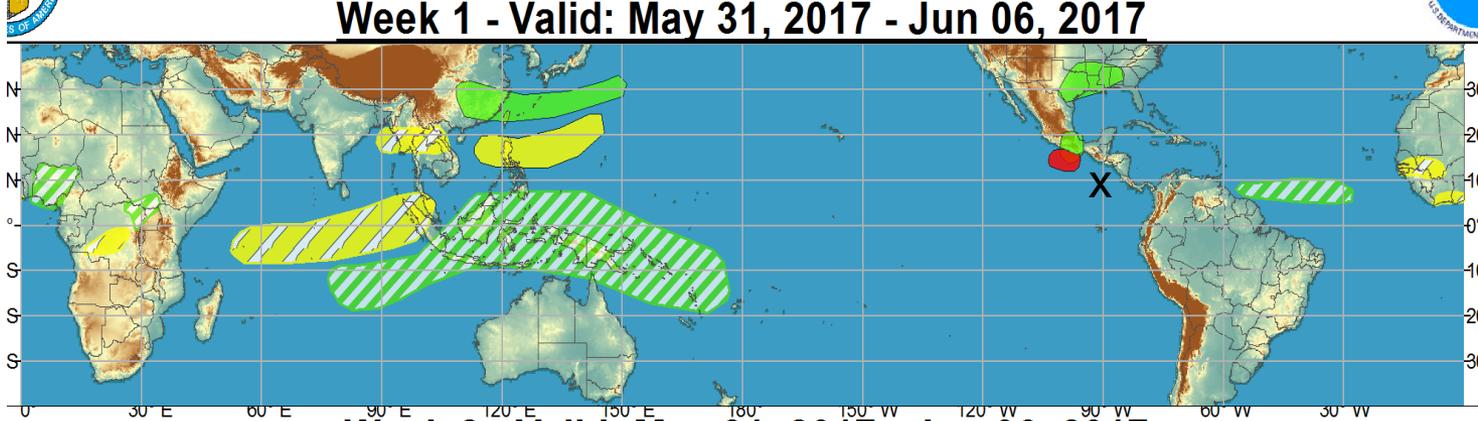
6/6/2017

Anthony Artusa

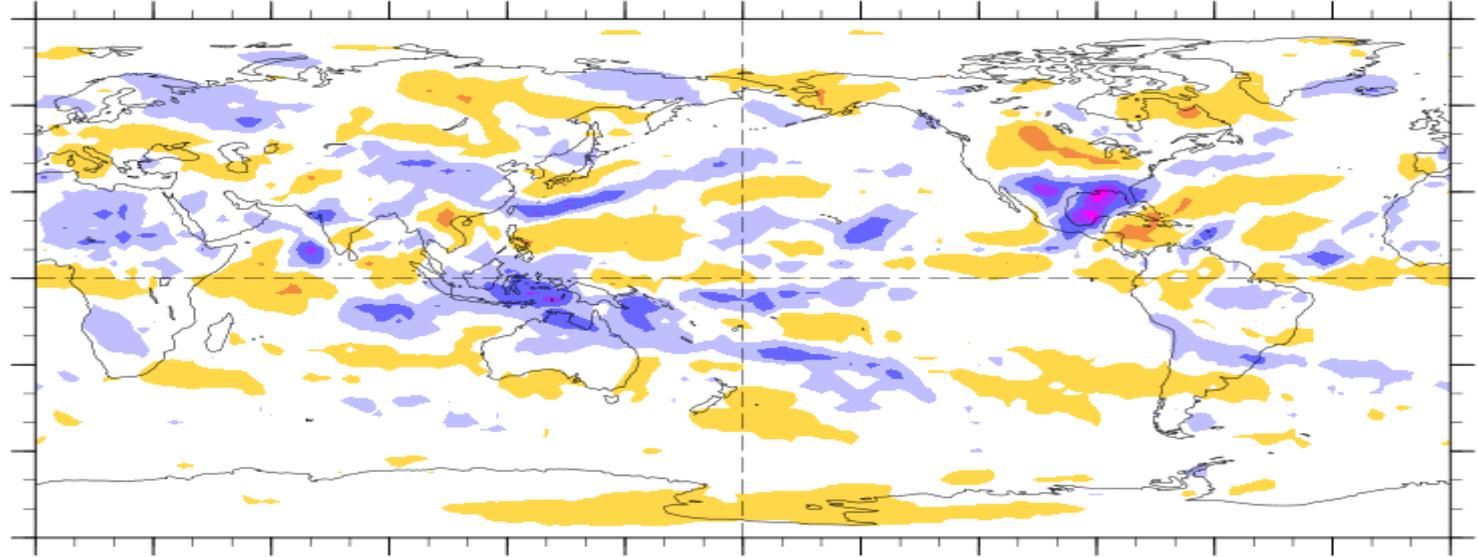
Outline

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

Outlook Review



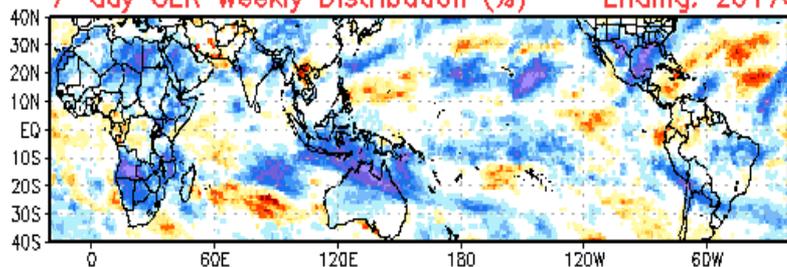
7-Day Average OLR Anomaly 2017/05/29 - 2017/06/04



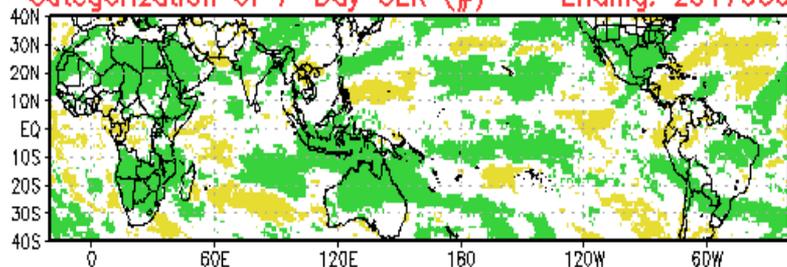
Cool shading
More clouds/rain

Warm shading
Less clouds/rain

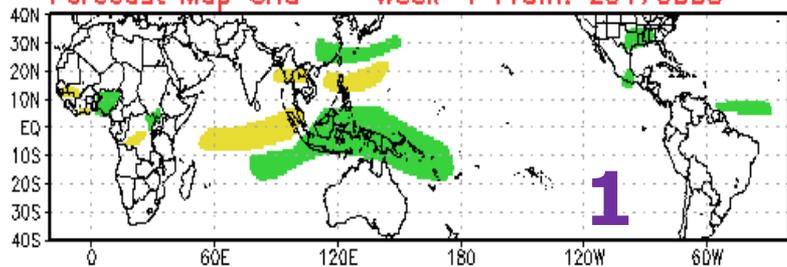
7-day OLR Weekly Distribution (%) -- Ending: 20170606



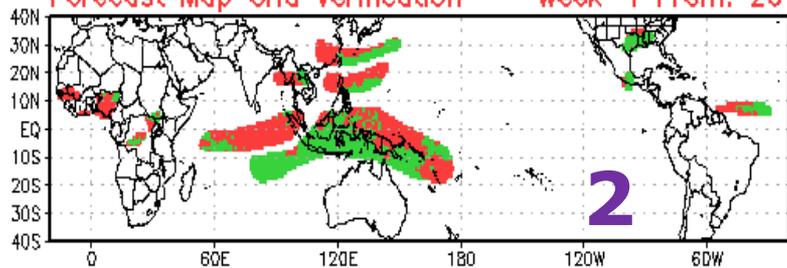
Categorization of 7-Day OLR (#) -- Ending: 20170606



Forecast Map Grid -- Week-1 From: 20170530

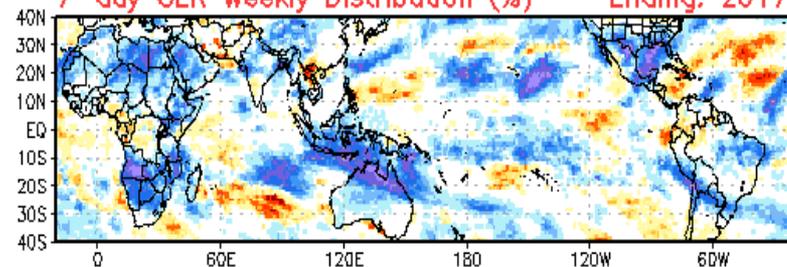


Forecast Map Grid Verification -- Week-1 From: 20170530

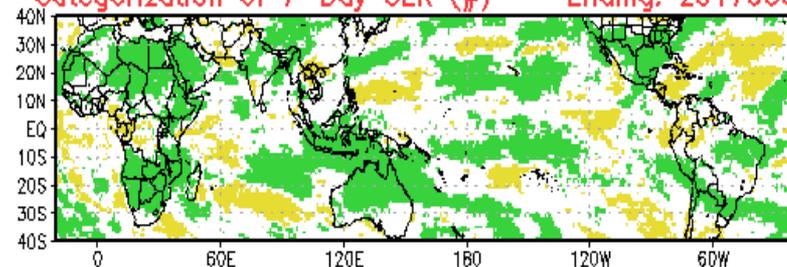


Hit: Green, Miss: Red
Heidke Skill Score: 23.4846

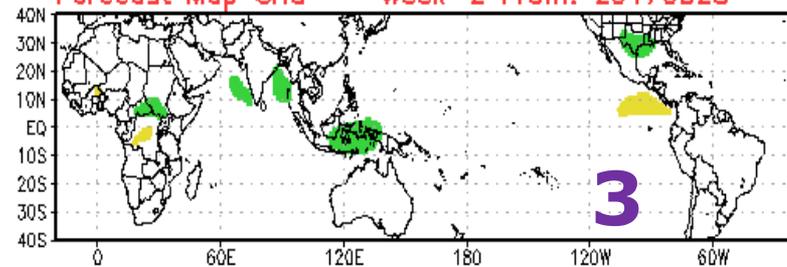
7-day OLR Weekly Distribution (%) -- Ending: 20170606



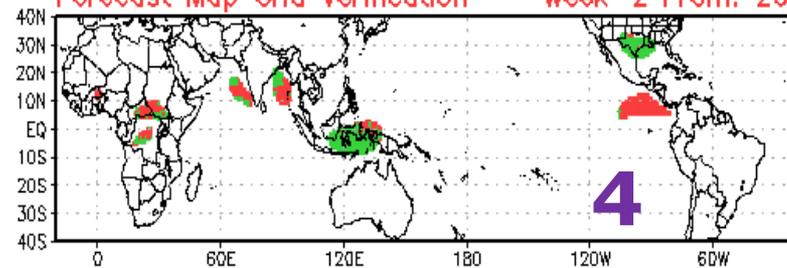
Categorization of 7-Day OLR (#) -- Ending: 20170606



Forecast Map Grid -- Week-2 From: 20170523



Forecast Map Grid Verification -- Week-2 From: 20170523



Hit: Green, Miss: Red
Heidke Skill Score: 30.1327

Synopsis of Climate Modes

ENSO:

- ENSO-neutral and El Niño are nearly equally favored during the Northern Hemisphere summer and fall 2017

MJO and other subseasonal tropical variability:

- A moderate amplitude MJO signal propagated eastward across the Indian Ocean and Maritime Continent region, then weakened, during the past week.
- Dynamical models indicate a weak, incoherent signal in Week-1, then the potential re-emergence of a more substantial sub-seasonal signal over the Indian Ocean (or Atlantic & Africa) during Week-2.

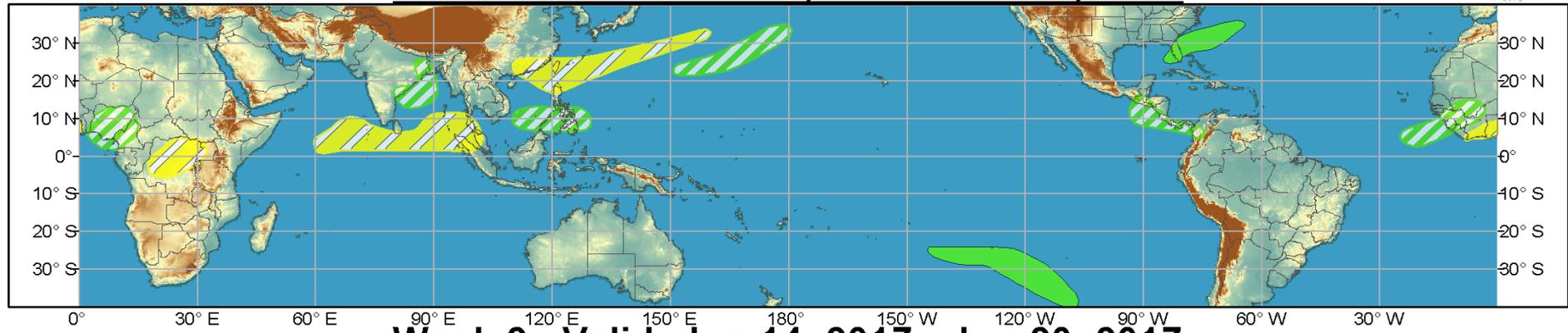
Extratropics:

- The extended range temperature and precipitation forecasts for the U.S. are not likely to be impacted by MJO activity (considerable uncertainty in where a more substantial intra-seasonal signal may re-emerge in Week-2)

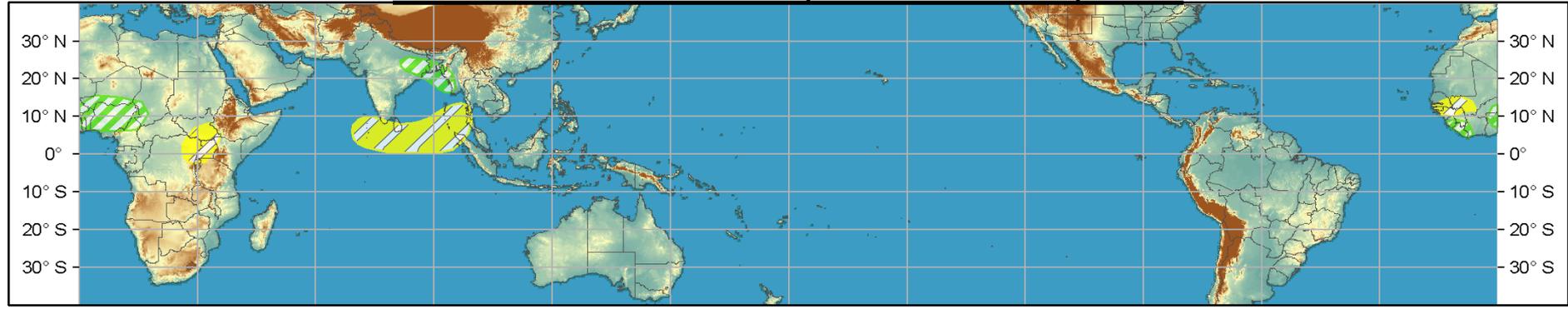


Global Tropics Hazards and Benefits Outlook - Climate Prediction Center

Week 1 - Valid: Jun 07, 2017 - Jun 13, 2017



Week 2 - Valid: Jun 14, 2017 - Jun 20, 2017



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.
- Below-normal temperatures** 7-day mean temperatures in the lower third of the historical range.

Produced: 06/06/2017
Forecaster: Artusa

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.

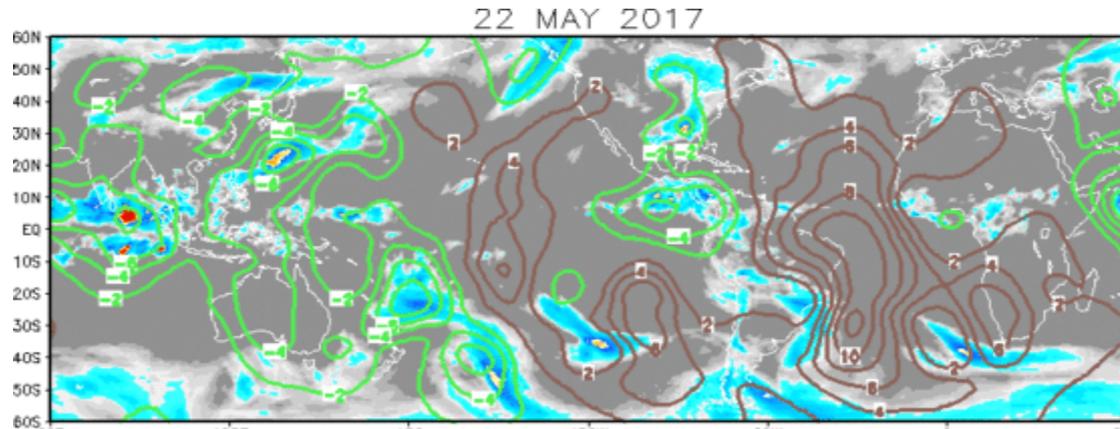


IR Satellite & 200-hpa Velocity Potential Anomalies

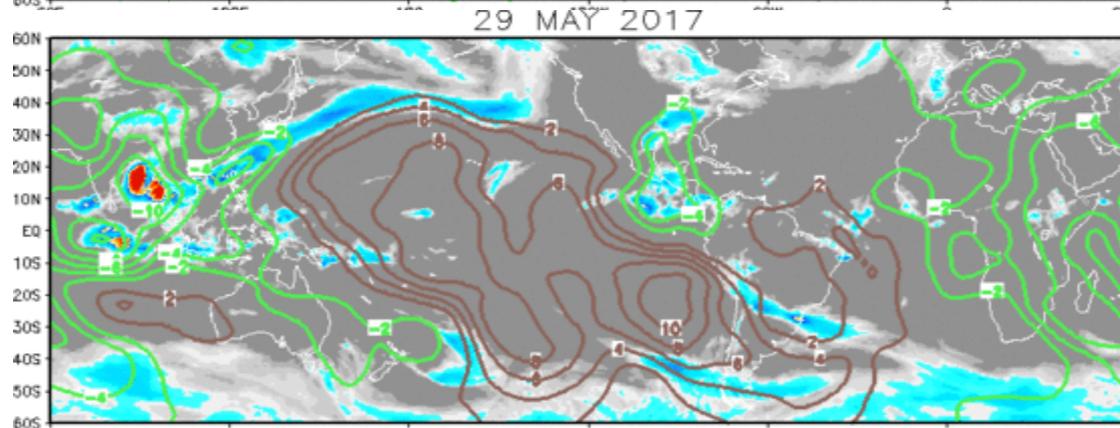
Green: Enhanced Divergence

Brown: Enhanced Convergence

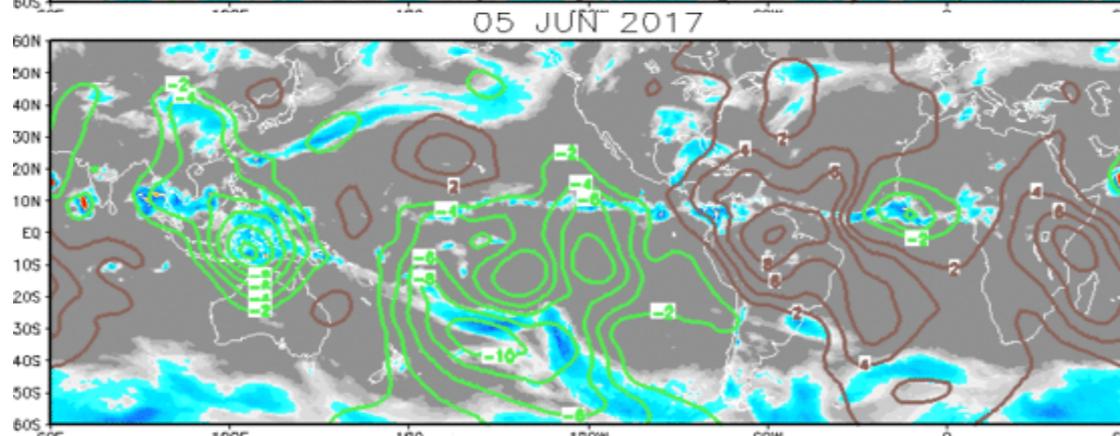
Wave-2 with an MJO projection.
Enhanced convection over southwest Pacific and Americas to Africa.



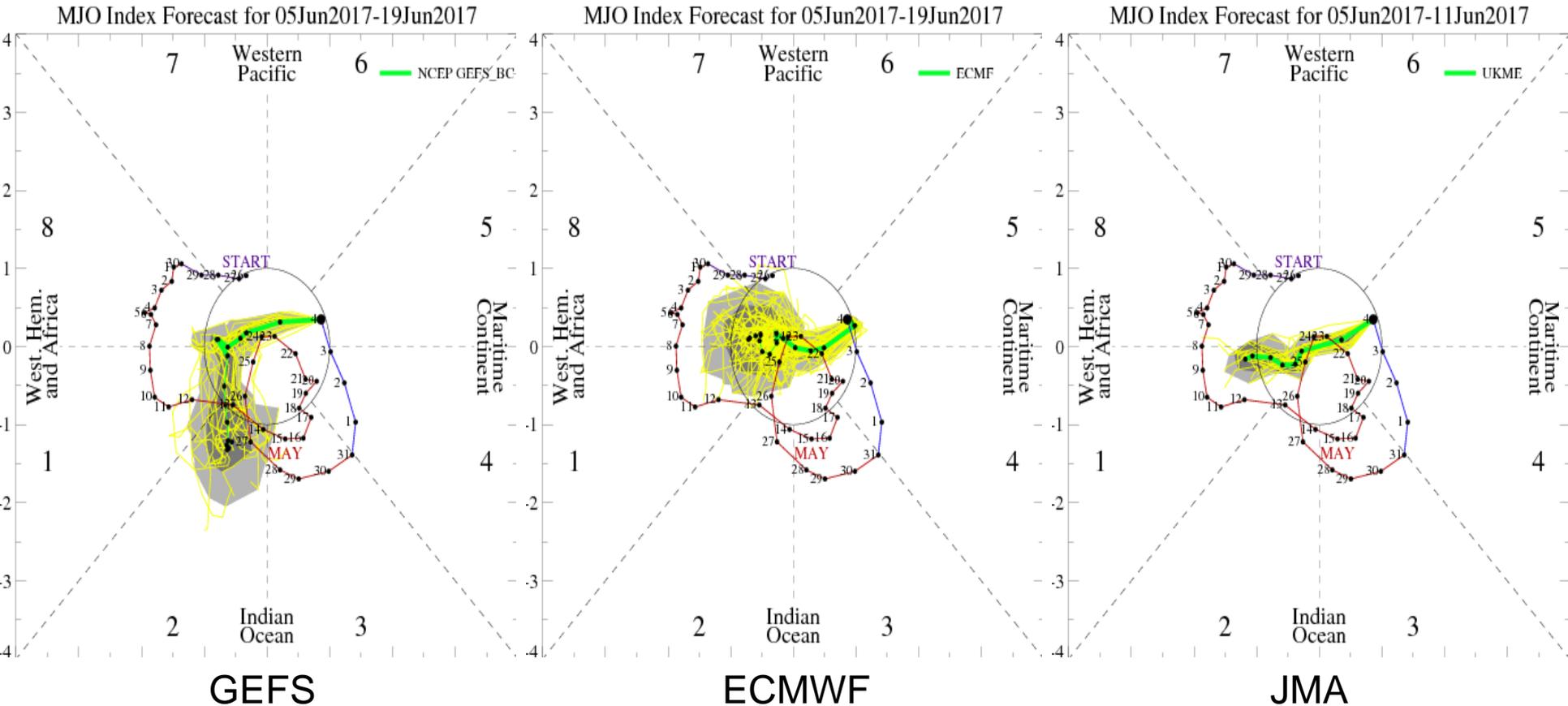
Wave-1 with a moderate MJO projection.



Enhanced divergence over the Maritime Continent region, and most of the South Pacific.



MJO Observation/Forecast



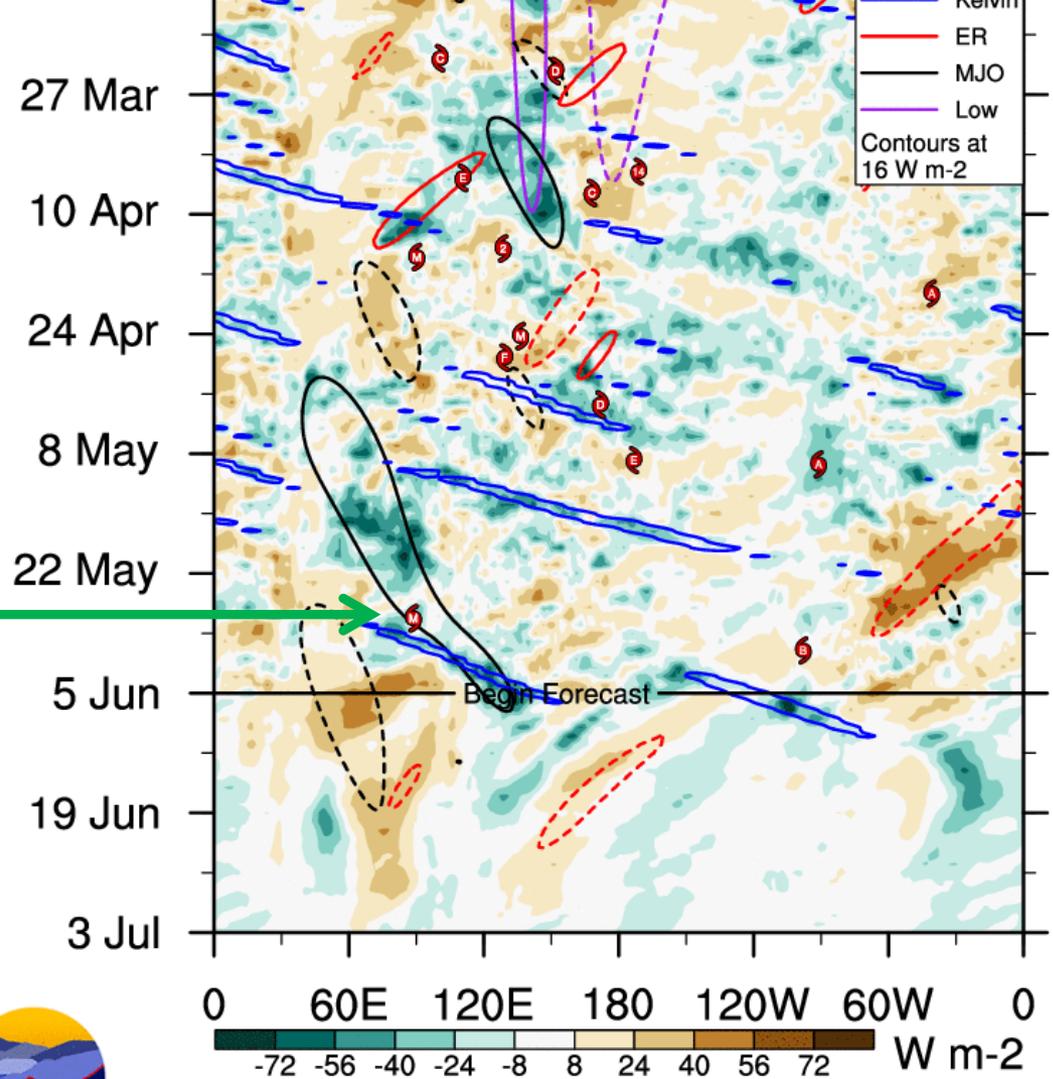
Wheeler-Hendon based analyses of model forecasts indicate a very weak MJO signal in Week-1. During Week-2, signal amplitude is expected to increase, with the GEFS showing re-emergence of signal in western Indian Ocean, ECMWF (phases 8 & 1), and JMA (phase 1).

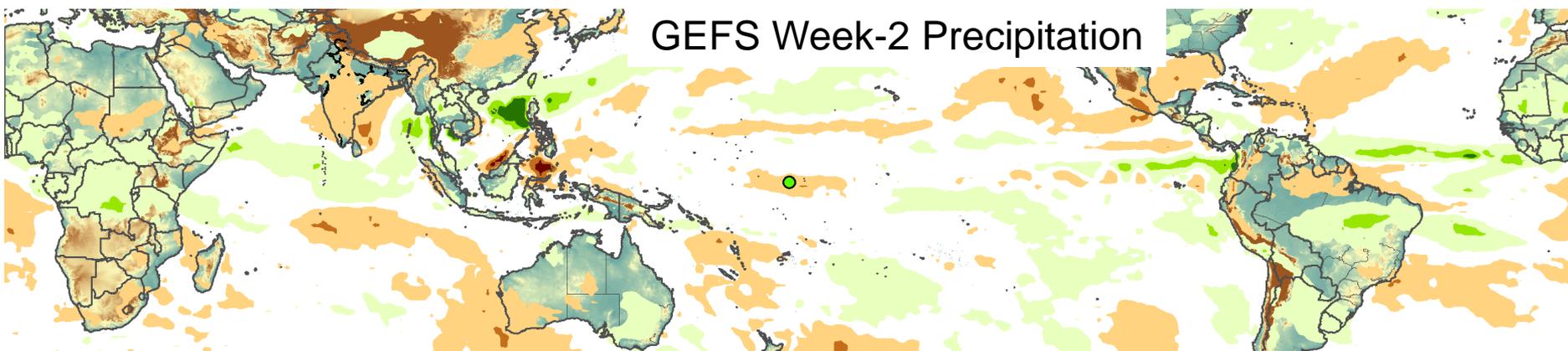
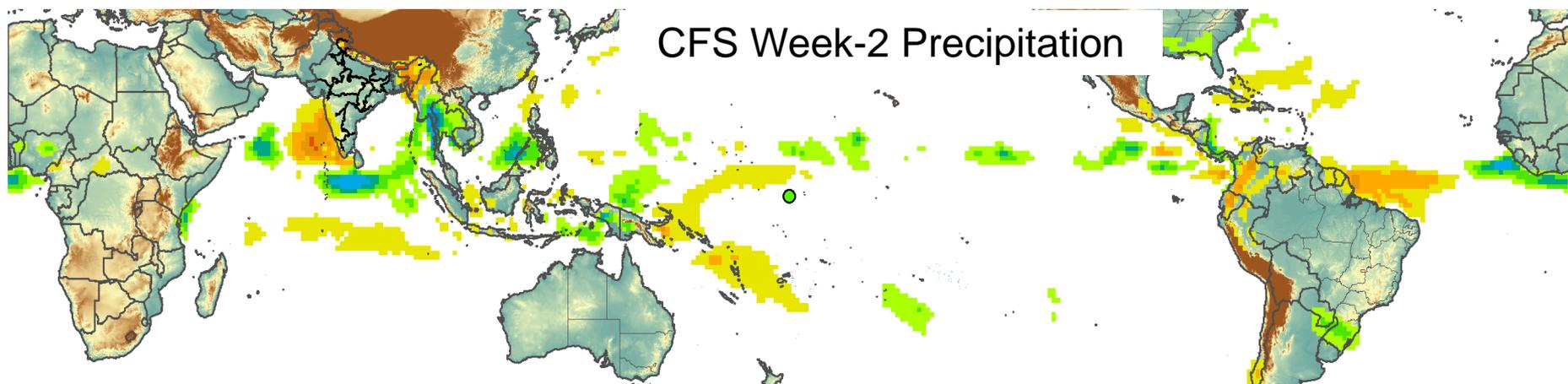
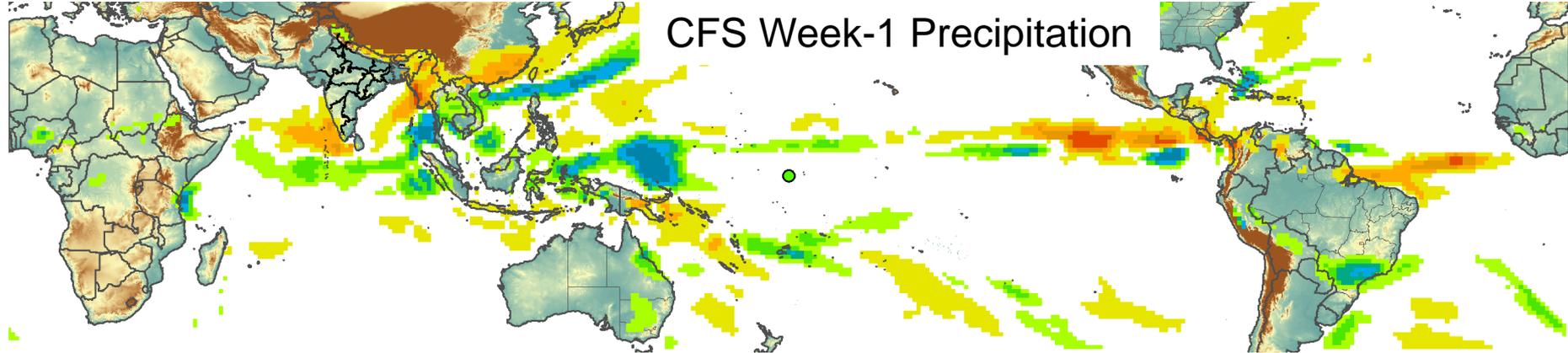
OLR with CFS forecasts 6/6/17

Cat-1 Mora & TS Beatriz

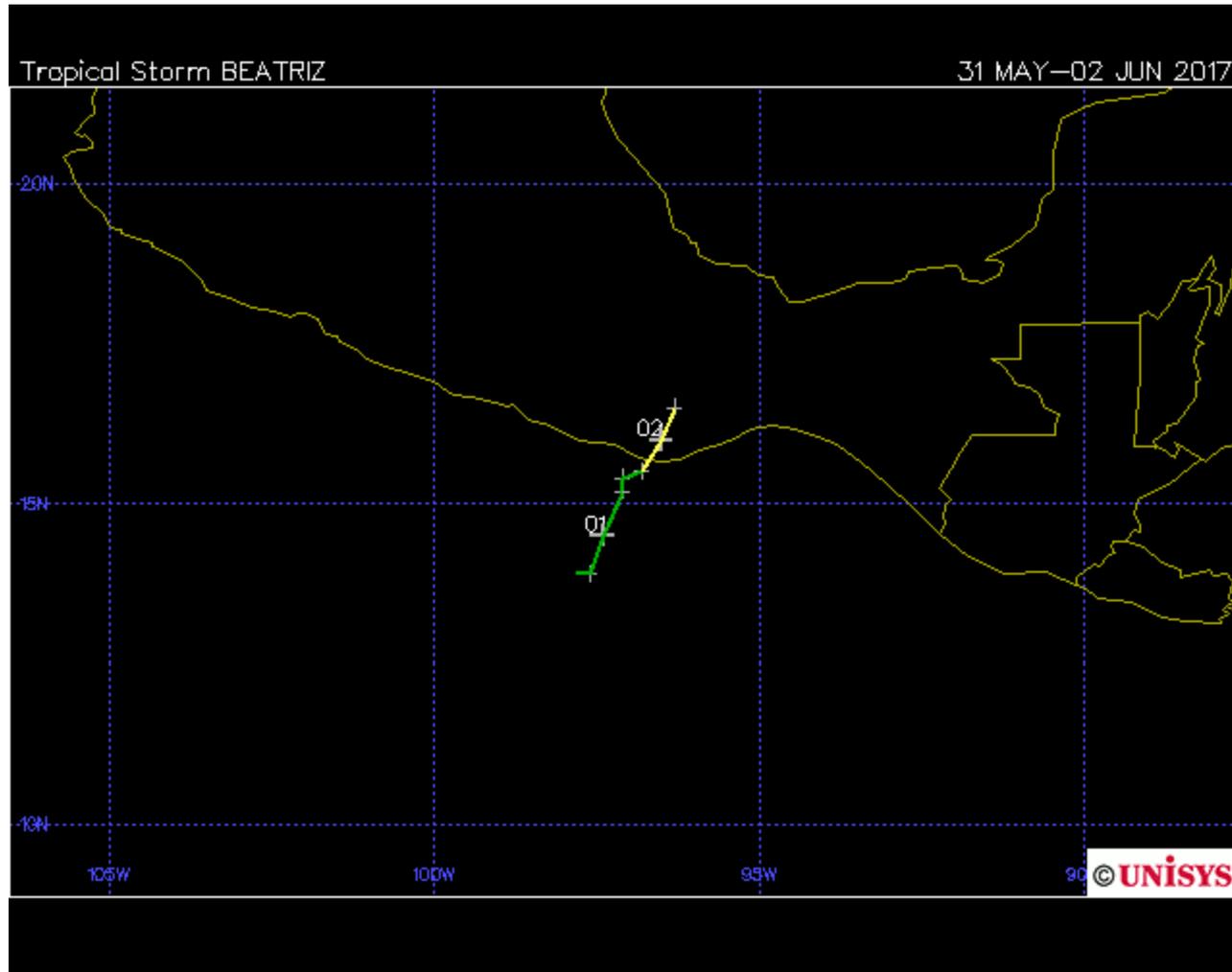
MJO, **Rossby wave** and **Kelvin wave** having an influence

Low-frequency pattern less of an influence





Tropical Storm Beatriz





Five-Day Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



Current Disturbances and Five-Day Cyclone Formation Chance: < 40% 40-60% > 60%

Tropical or Sub-Tropical Cyclone: Depression Storm Hurricane

Post-Tropical Cyclone Remnants

Graphical Tropical Weather Outlook

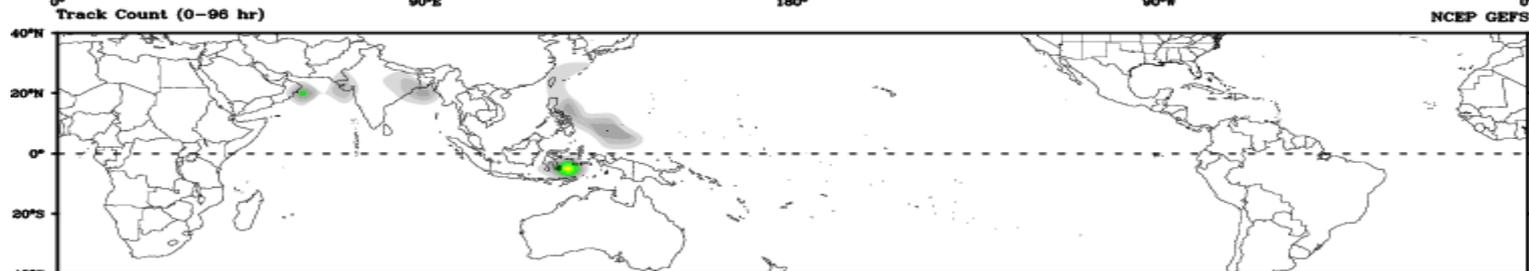
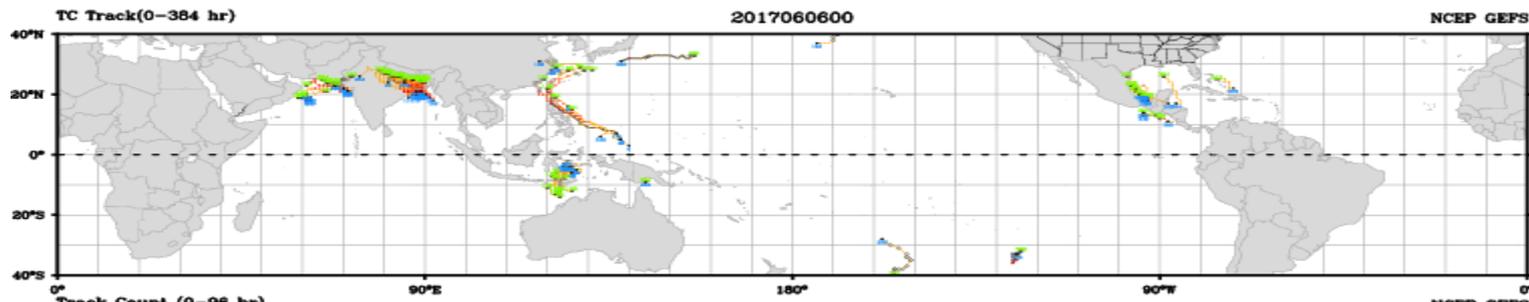
National Hurricane Center Miami, Florida



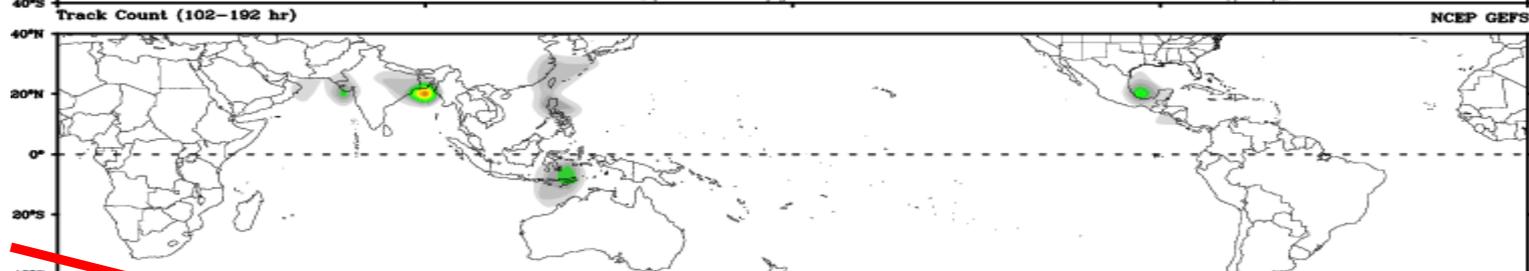
Current Disturbances and Five-Day Cyclone Formation Chance: < 40% 40-60% > 60%

Tropical or Sub-Tropical Cyclone: Depression Storm Hurricane

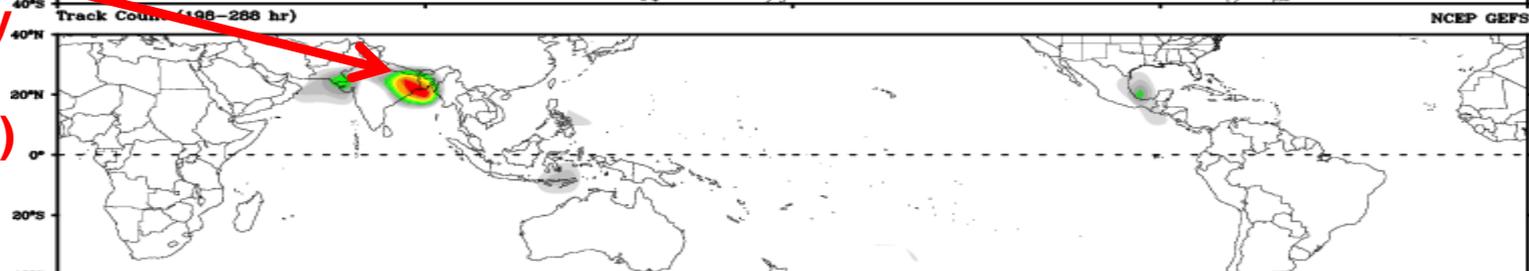
Post-Tropical Cyclone Remnants



Days 1-4

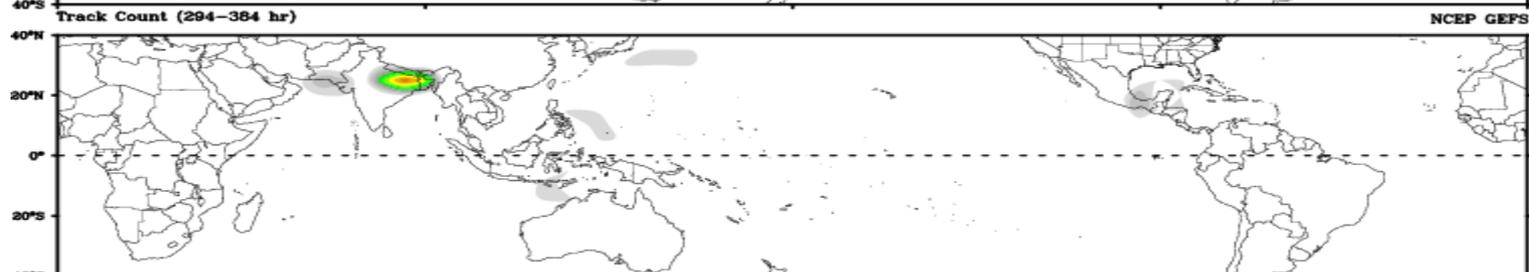


Day 5-8

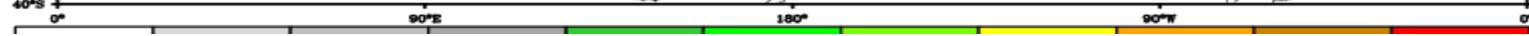


Bay of Bengal
TCs drop rapidly
with onset of
Monsoon (climo)

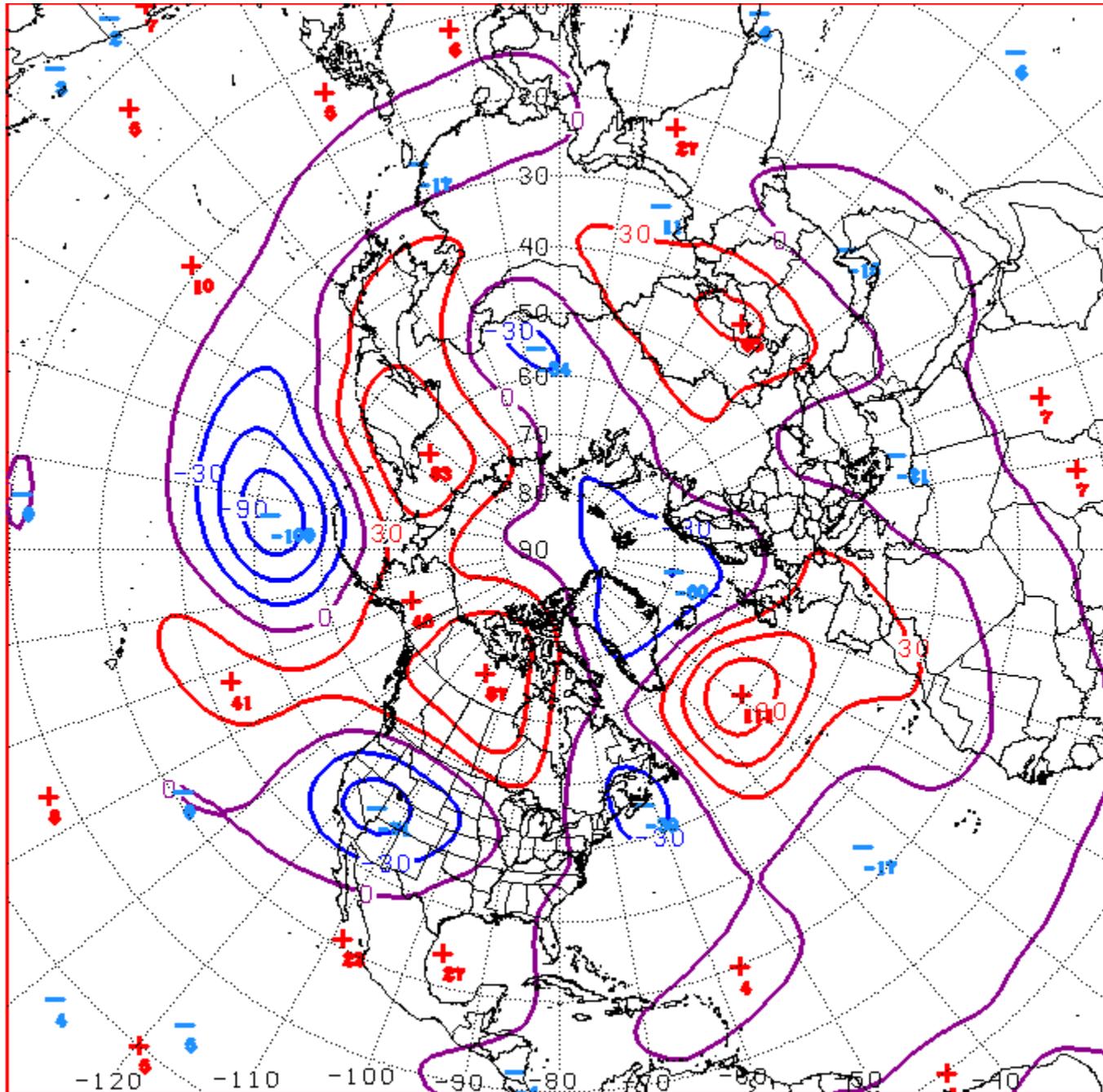
Day 9-12



Day 13-15

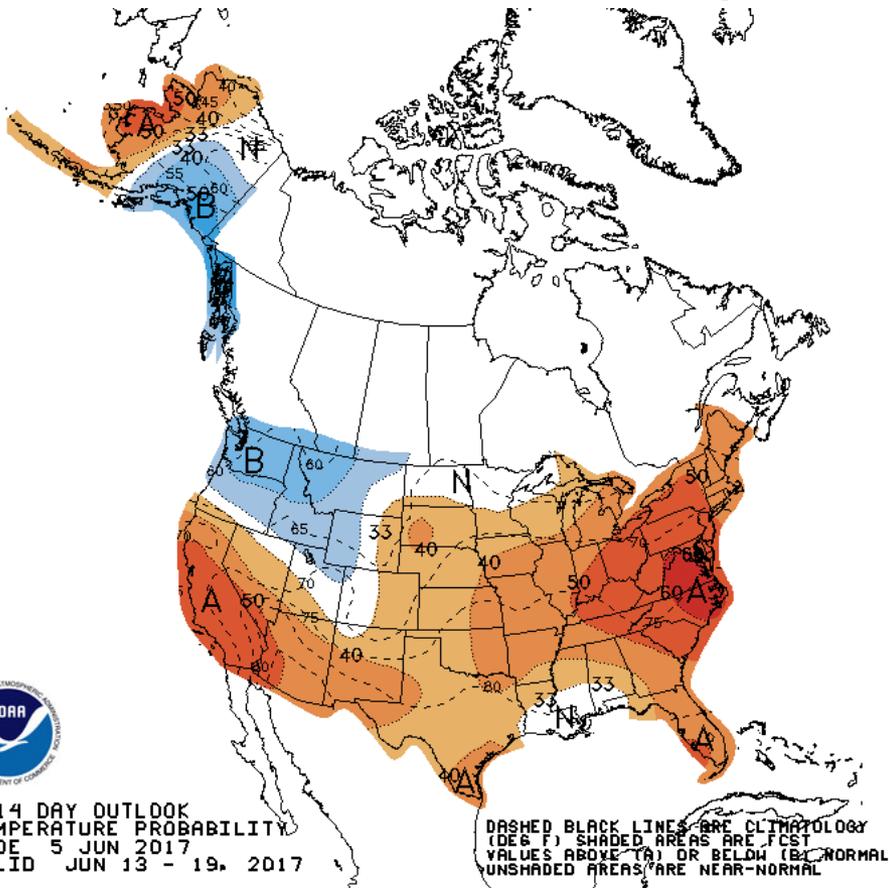


Connections to U.S. Impacts

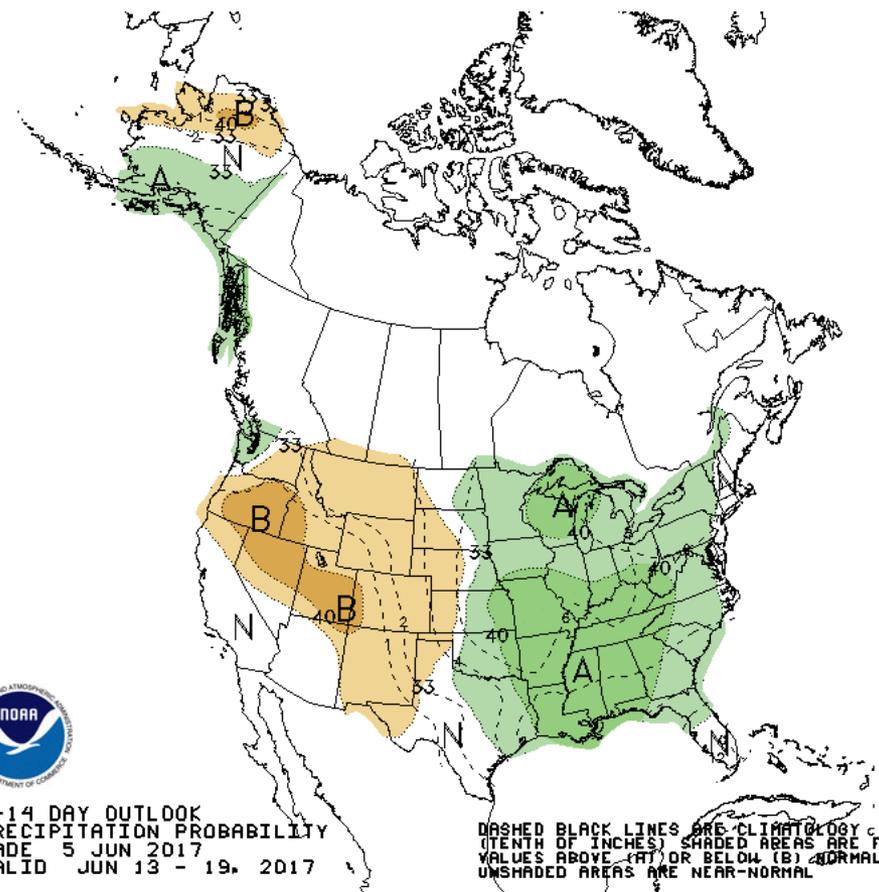
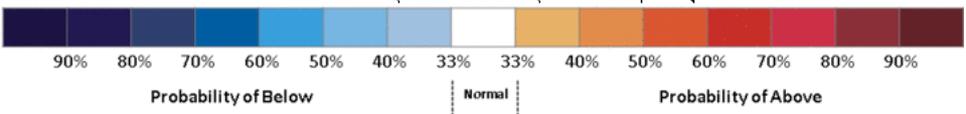


D+11 500 MB ANOMALIES FROM ALZ ENSM
CPC MAP MADE MAY 09 2017 1333 UTC CNTD MAY 20 2017

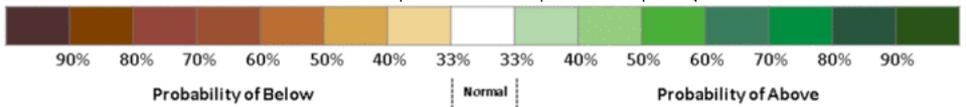
Week 2 – Temperature and Precipitation



8-14 DAY OUTLOOK
TEMPERATURE PROBABILITY
MADE 5 JUN 2017
VALID JUN 13 - 19, 2017



8-14 DAY OUTLOOK
PRECIPITATION PROBABILITY
MADE 5 JUN 2017
VALID JUN 13 - 19, 2017

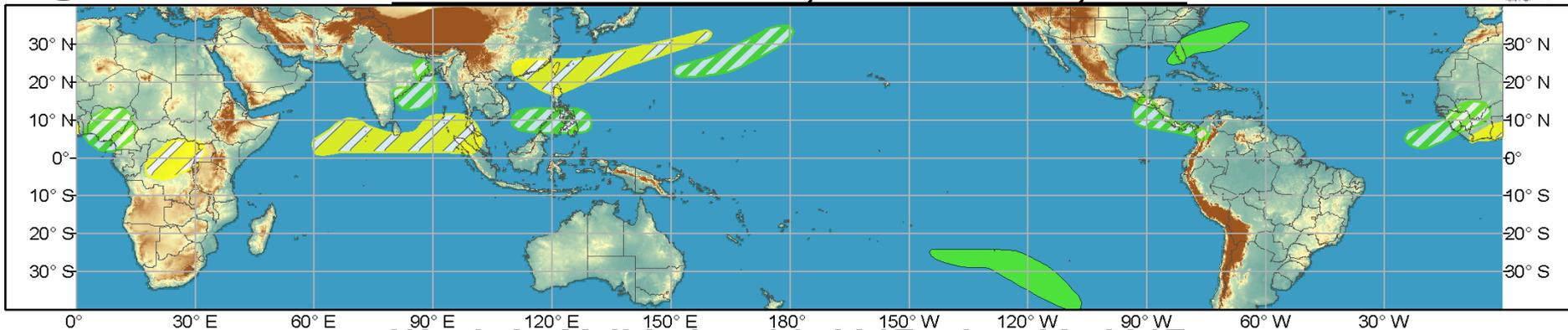




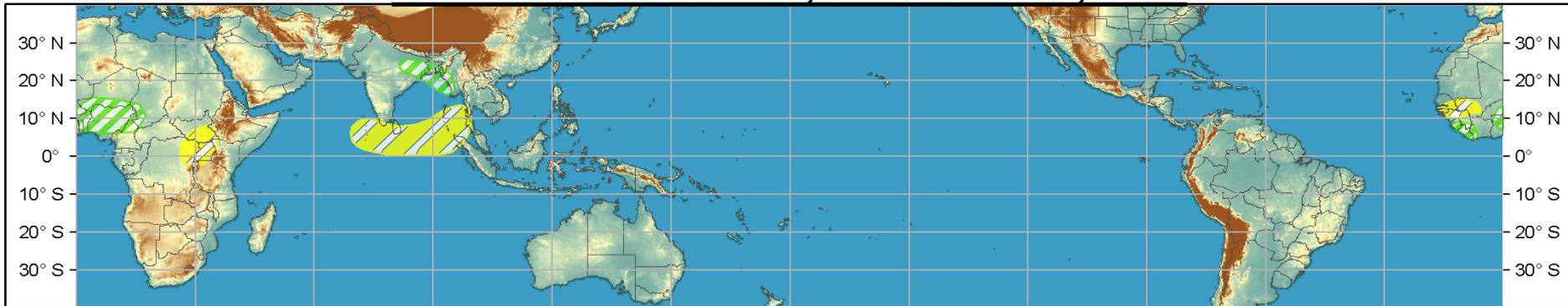
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