

Global Tropics Hazards And Benefits Outlook

10/23/2018

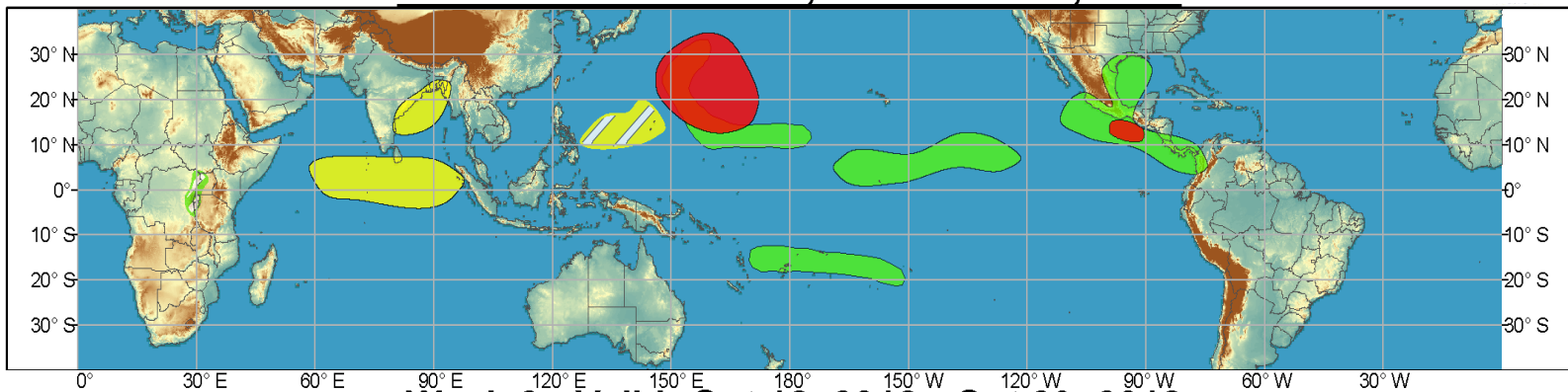
Adam Allgood

Outline

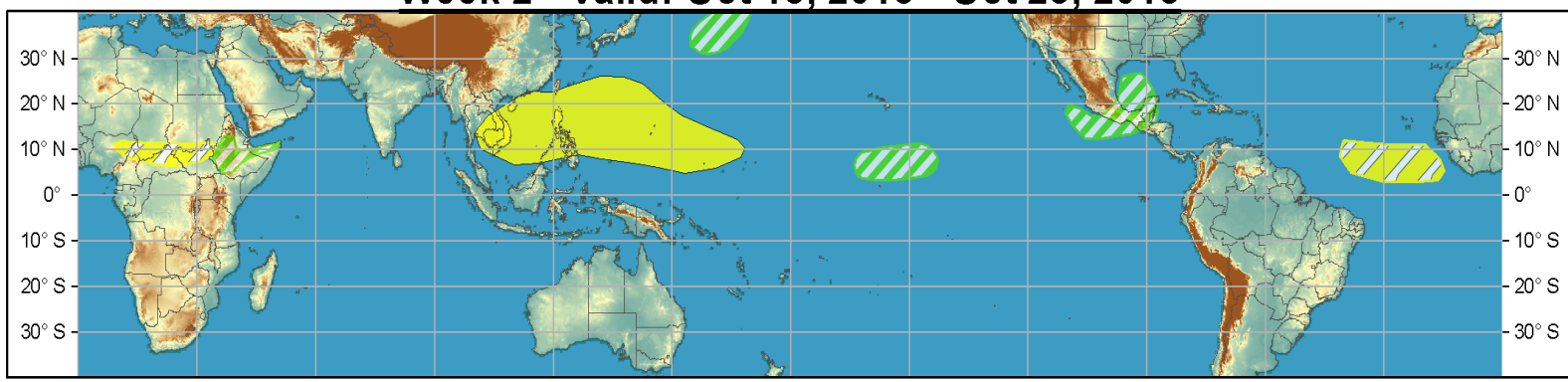
1. Review of Recent Conditions
2. Synopsis of Climate Modes
3. GTH Outlook and Forecast Discussion
4. Connections to U.S. Impacts

Outlook Review

Week 1 - Valid: Oct 17, 2018 - Oct 23, 2018



Week 2 - Valid: Oct 18, 2018 - Oct 23, 2018

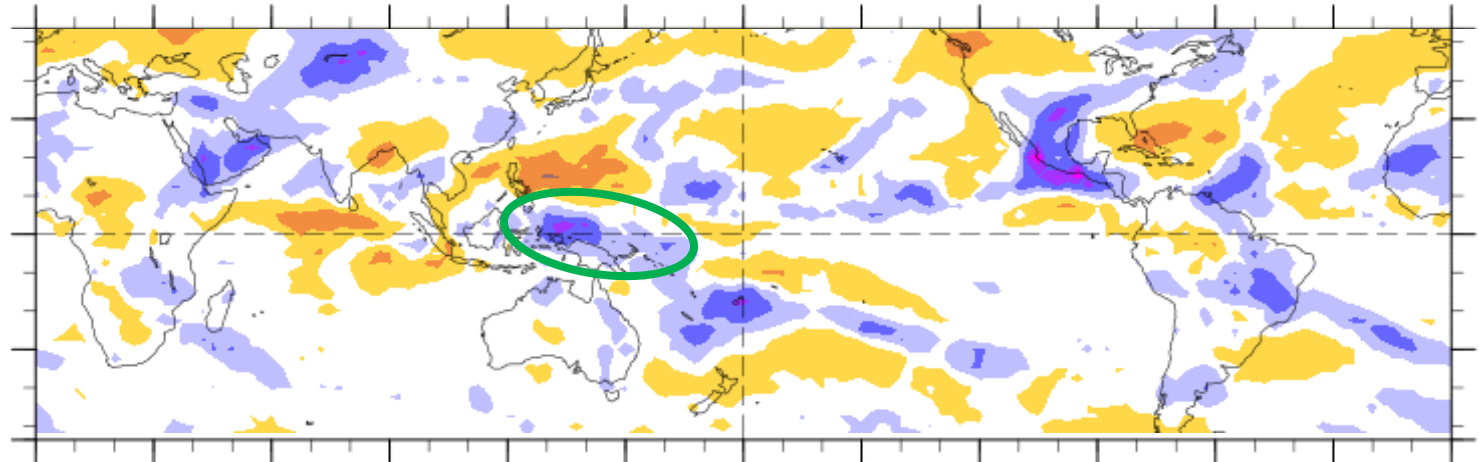


7-Day Average OLR Anomaly

2018/10/15 - 2018/10/21

Cool shading
More clouds/rain

Warm shading
Less clouds/rain



Synopsis of Climate Modes

ENSO: (October 11, 2018 Update)

- ENSO Alert System Status: [El Niño Watch](#)
- El Niño is favored to form in the next couple of months and continue through the Northern Hemisphere winter 2018-19 (70-75% chance).

MJO and other subseasonal tropical variability:

- The MJO weakened as the low-frequency state (developing El Niño – pulls RMM-index towards phases 7/8) interfered with the subseasonal signal (phases 4/5). The upper-level pattern also became increasingly disorganized.
- Dynamical models indicate an enhancement of Pacific convection, with some eastward propagation of the signal to the Western Hemisphere. This is out of phase with the previous MJO event, and low confidence.

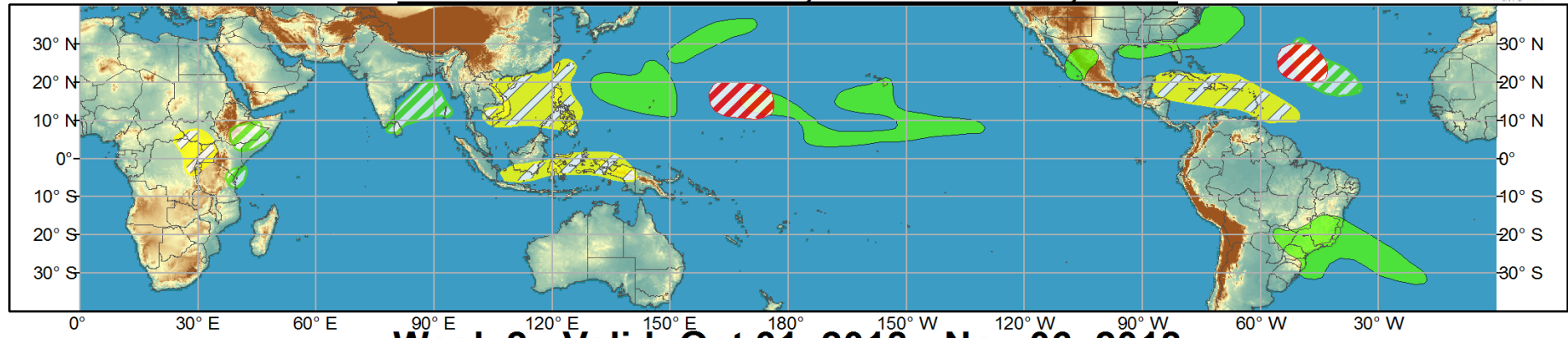
Extratropics:

- The upper-level pattern is disorganized, with the MJO signal competing with the re-emerging low frequency state. Therefore, it is difficult to attribute potential extratropical pattern changes to the MJO.

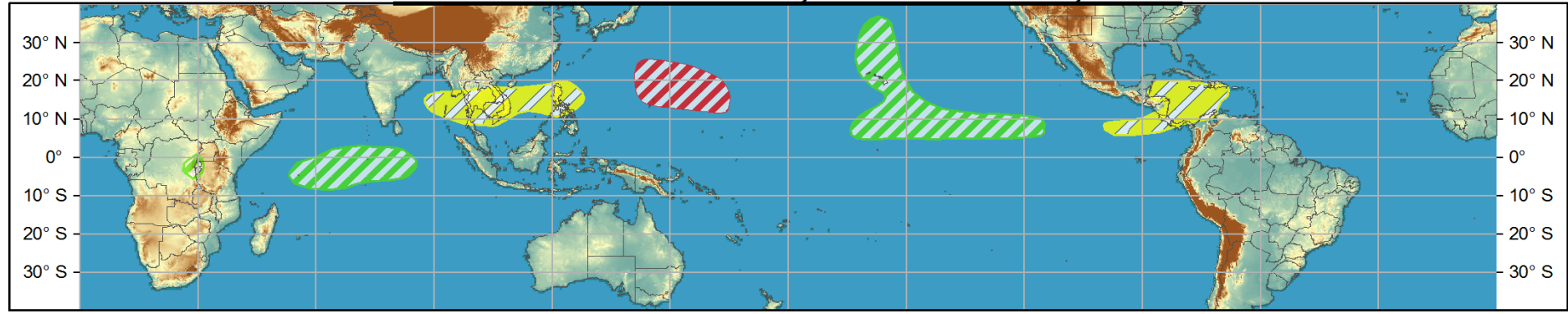


Global Tropics Hazards and Benefits Outlook - Climate Prediction Center

Week 1 - Valid: Oct 24, 2018 - Oct 30, 2018



Week 2 - Valid: Oct 31, 2018 - Nov 06, 2018



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: 10/23/2018
Forecaster: Allgood

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

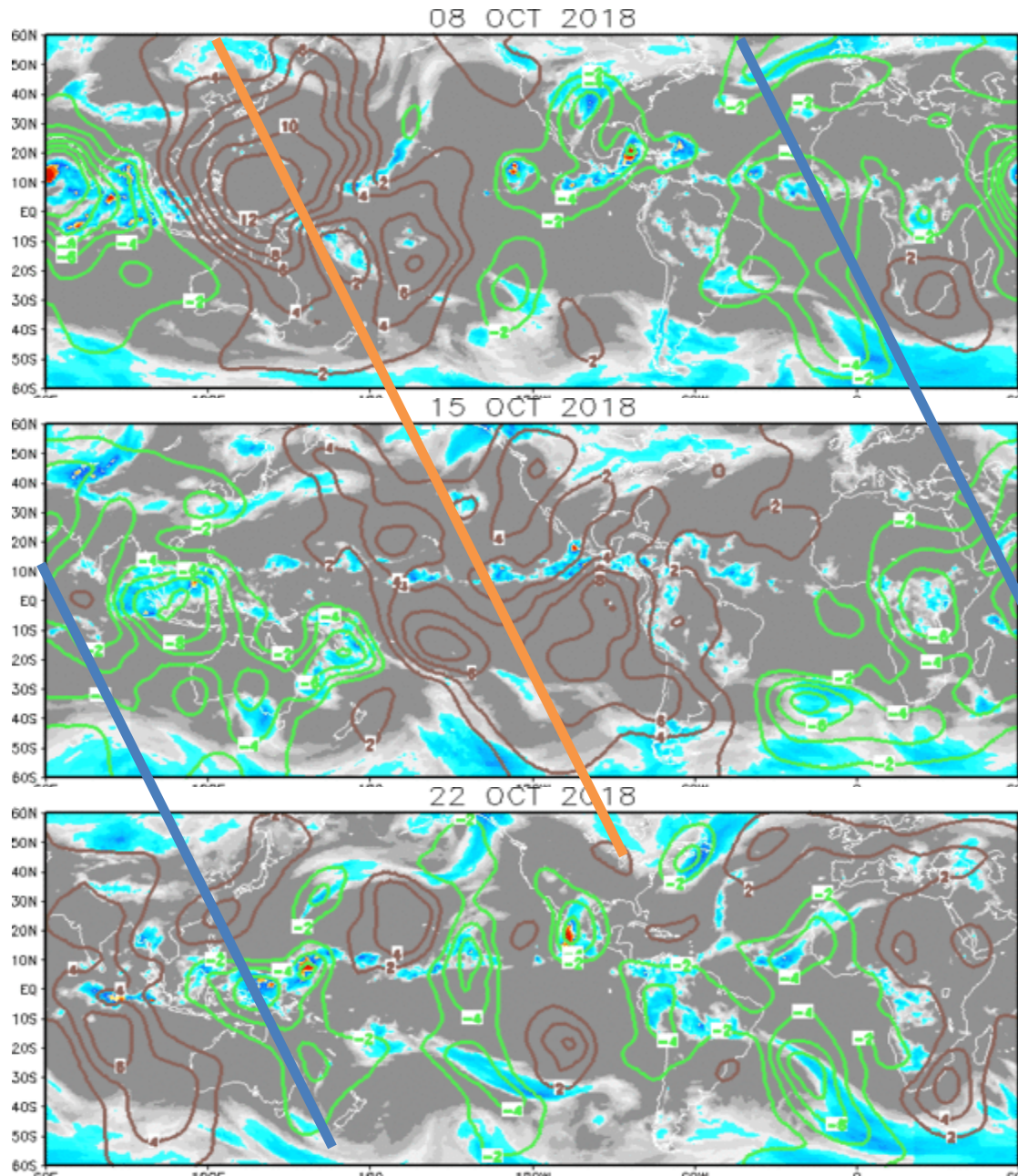
Green: Enhanced Divergence

Brown: Enhanced Convergence

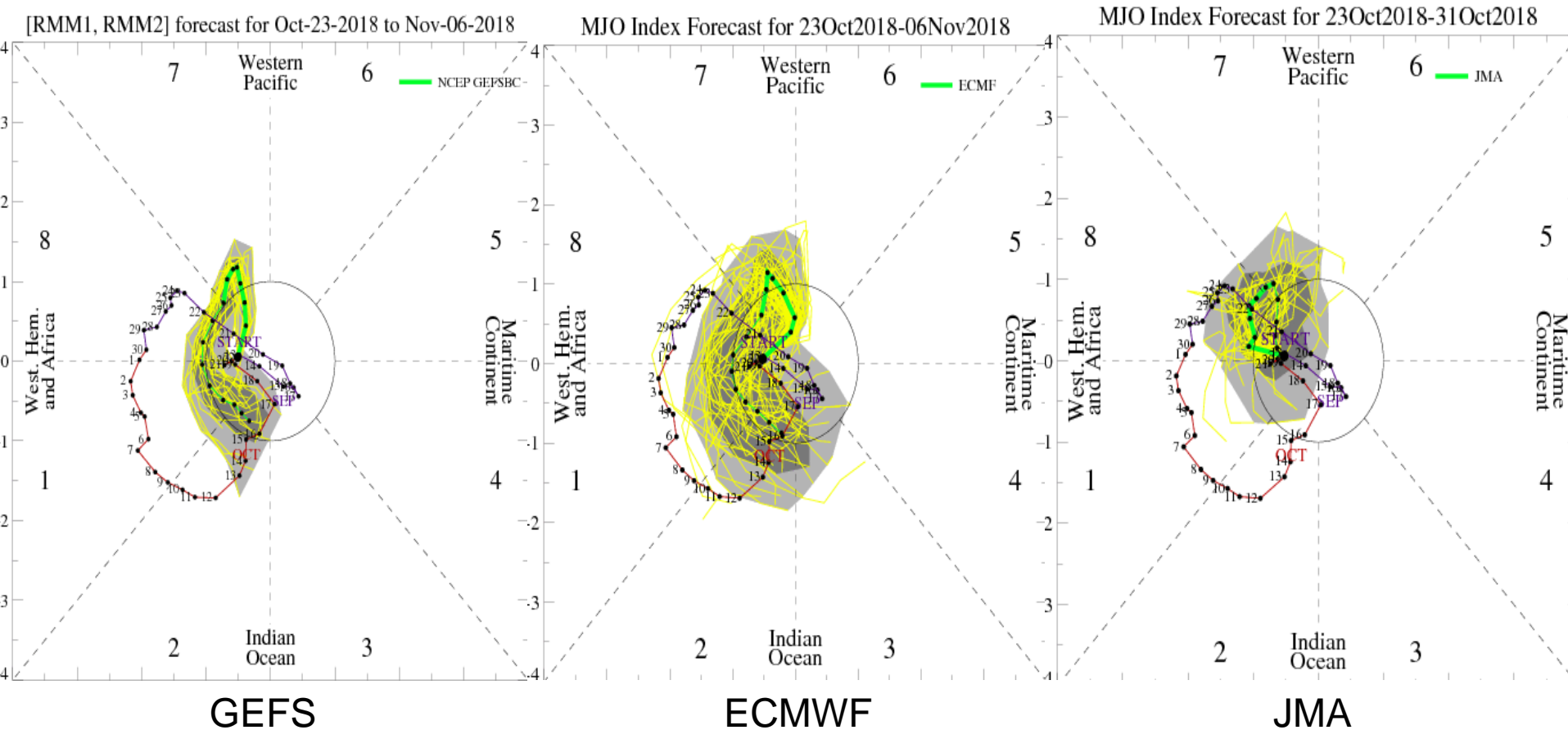
Wave-1 asymmetry, robust projections on MJO indices.

Continued organized MJO event apparent in upper-levels, destructively interfering with the low frequency state.

Pacific convection returning, enhanced phase interfering with low-frequency state. Midlatitude influences over Western Hemisphere all make for a disorganized pattern.



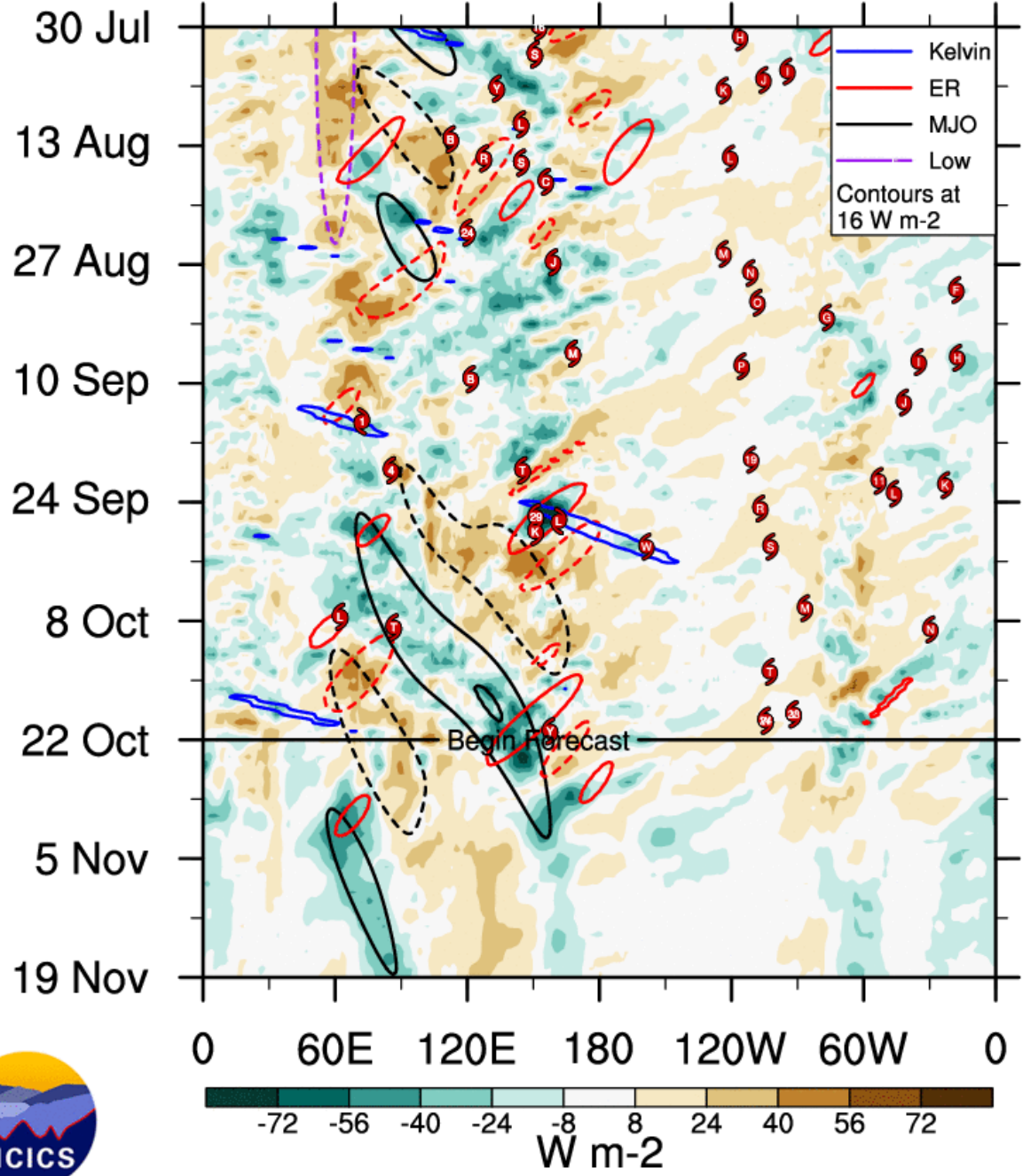
MJO Observation/Forecast



All models show increasing amplitude in Phase-7, likely due to the low frequency state re-emerging. GEFS and ECMWF show some weak eastward propagation of the index, though this is out of phase with the previous MJO event.

OLR with CFS forecasts

5S - 5N

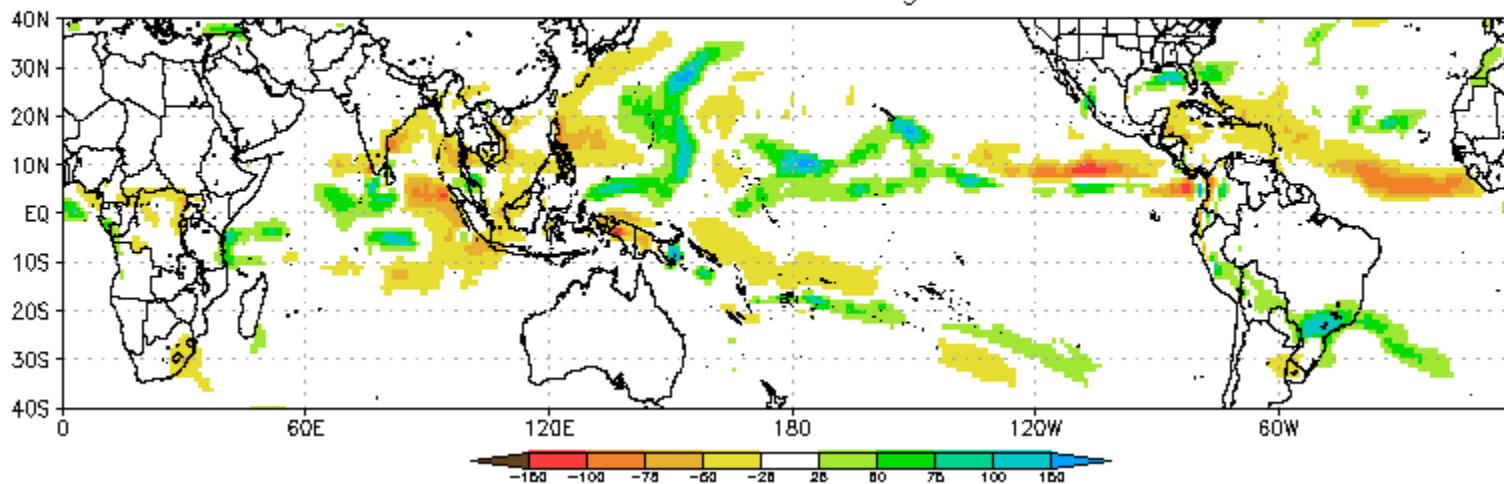


Remnant MJO and **Rossby wave** interacting to produce widespread convection over the West Pacific

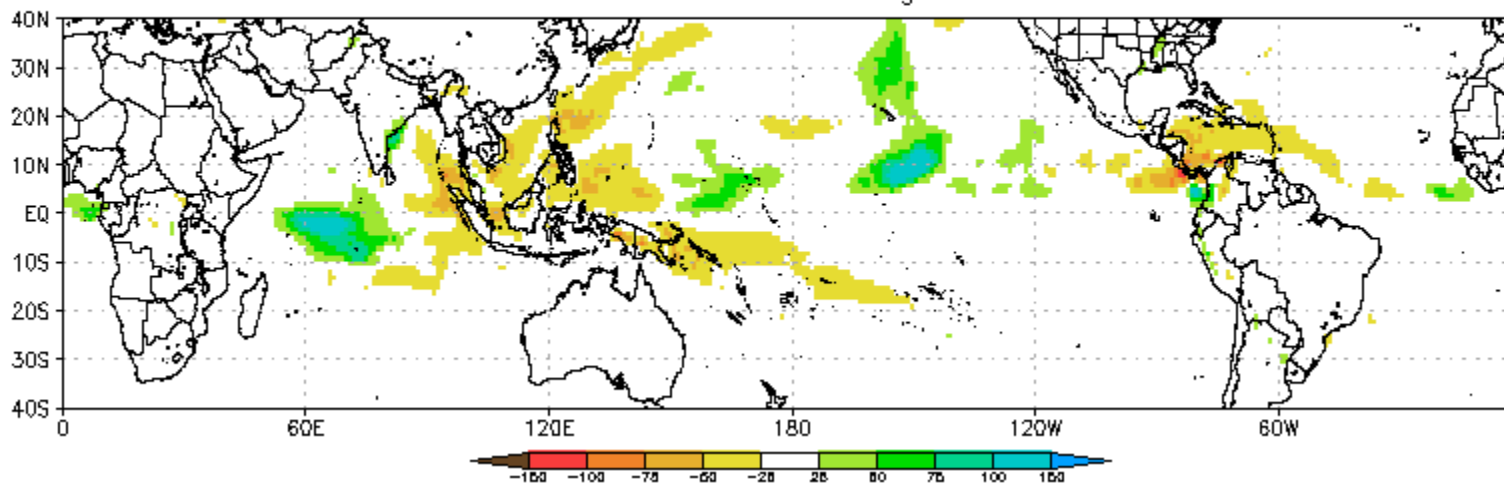
CFS favors a return to the **low-frequency pattern**



CFS Precipitation Anomalies (mm) Issued 22Oct2018
Week-1 Forecast Ending 30Oct2018

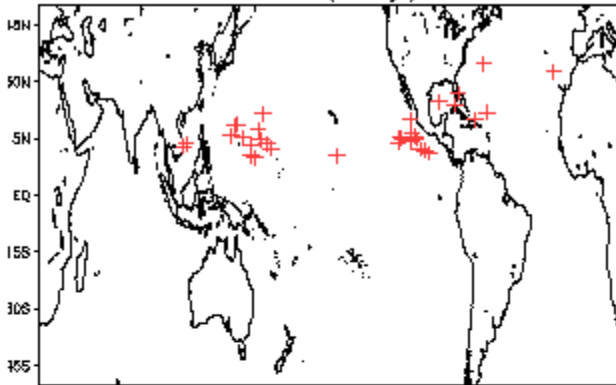


CFS Precipitation Anomalies (mm) Issued 22Oct2018
Week-2 Forecast Ending 06Nov2018

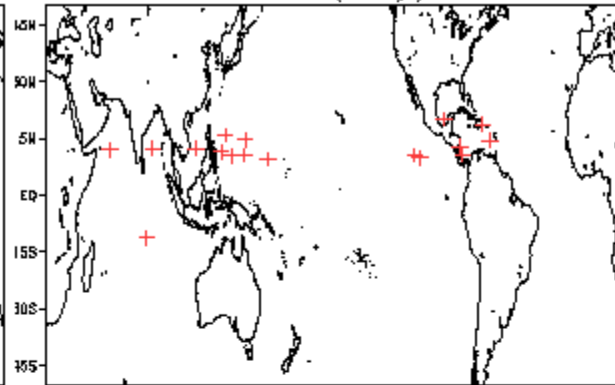


October Tropical Storm Formation by MJO phase

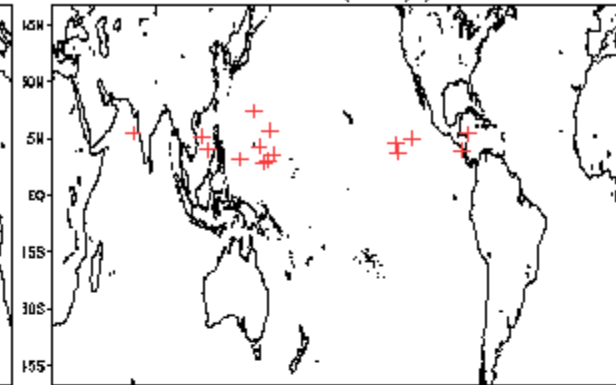
Phase 1 (94 days) 34 storms



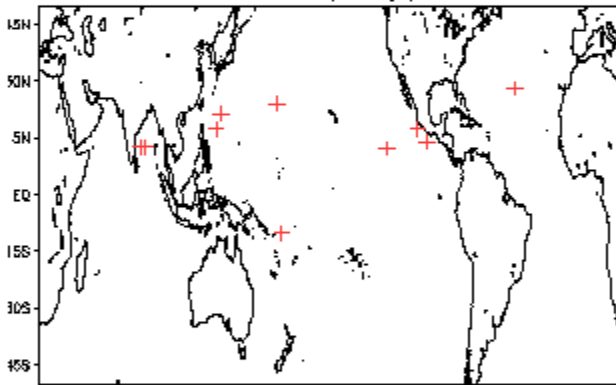
Phase 4 (85 days) 18 storms



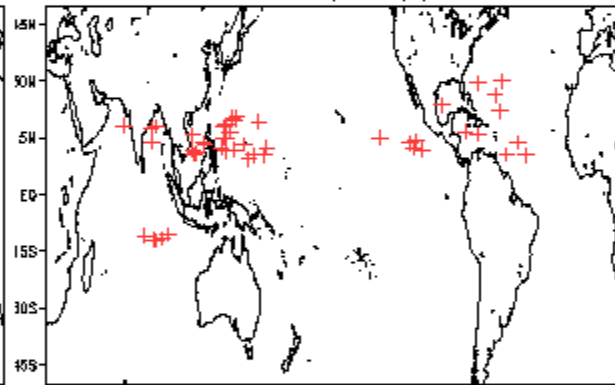
Phase 7 (48 days) 16 storms



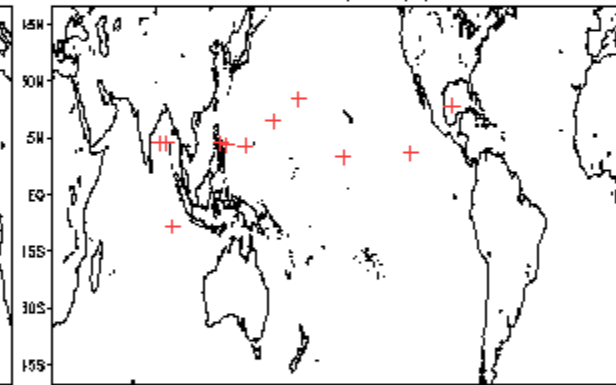
Phase 2 (75 days) 11 storms



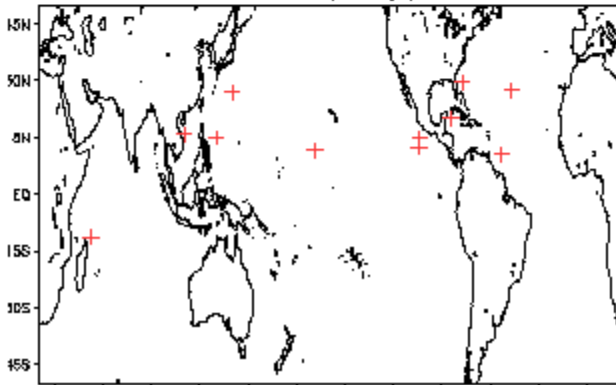
Phase 5 (133 days) 48 storms



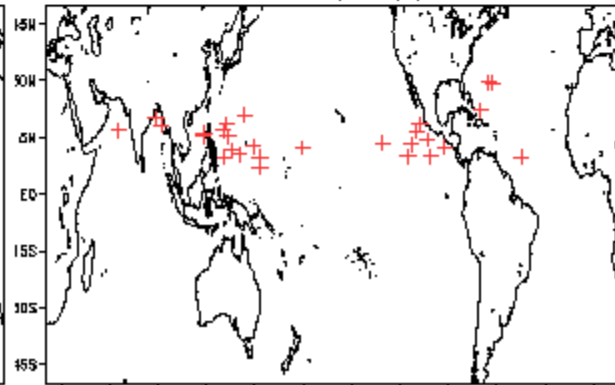
Phase 8 (66 days) 12 storms



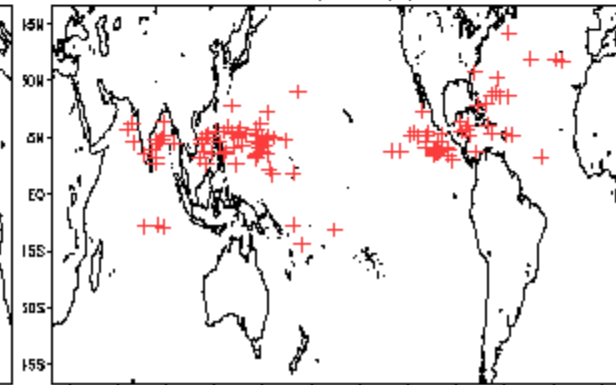
Phase 3 (41 days) 12 storms



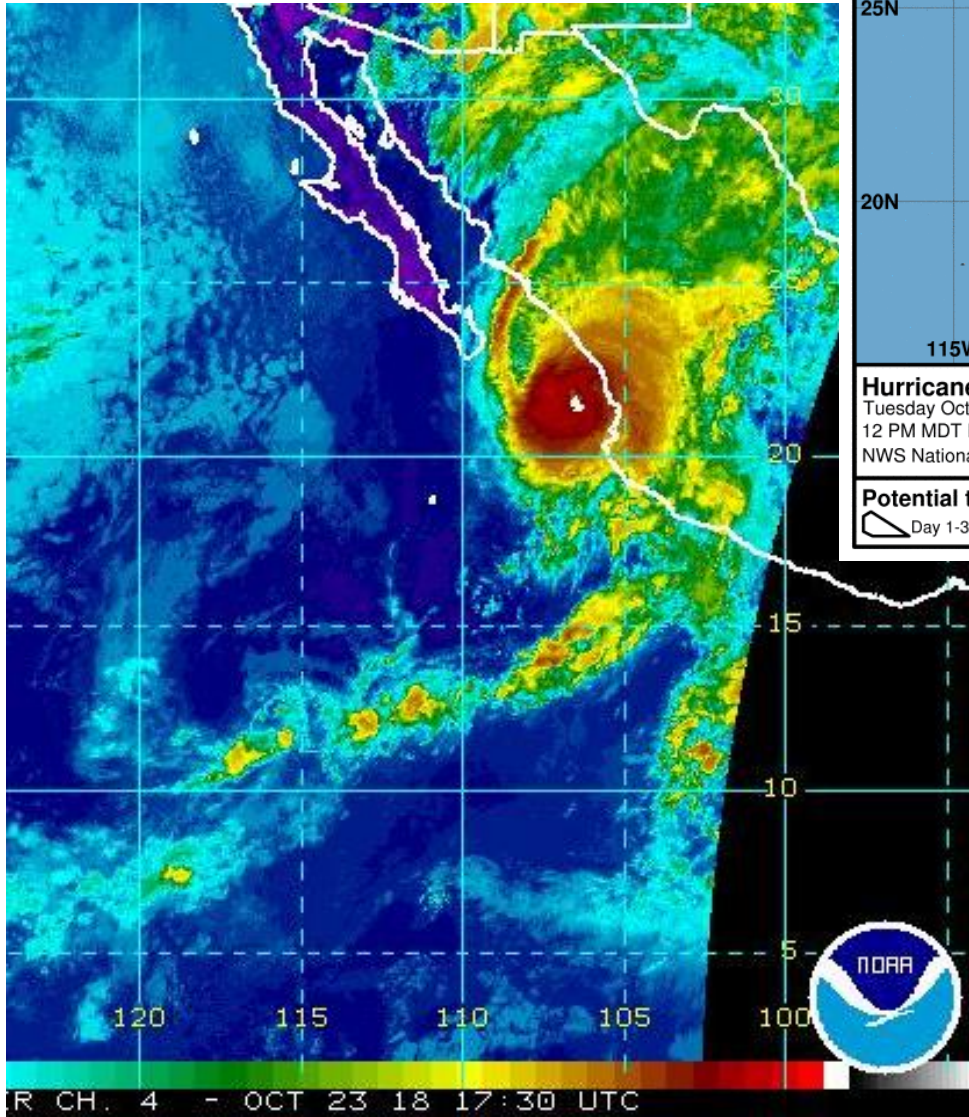
Phase 6 (78 days) 30 storms

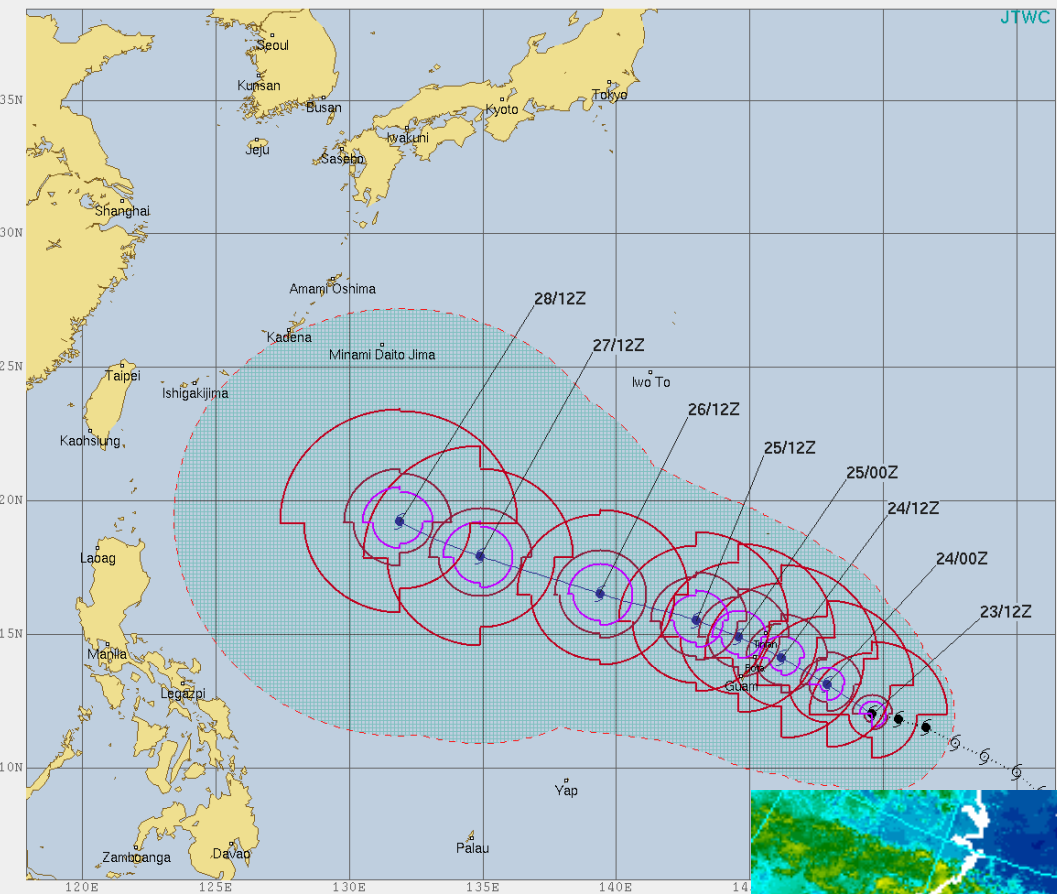


Null (422 days) 119 storms



Hurricane Willa





TYPHOON 31W (YUTU) WARNING #9
 WTPN31 PGTW 231500
 231200Z POSIT: NEAR 12.0N 149.6E
 MOVING 280 DEGREES TRUE AT 10 KNOTS
 MAXIMUM SIGNIFICANT WAVE HEIGHT: 26 FEET

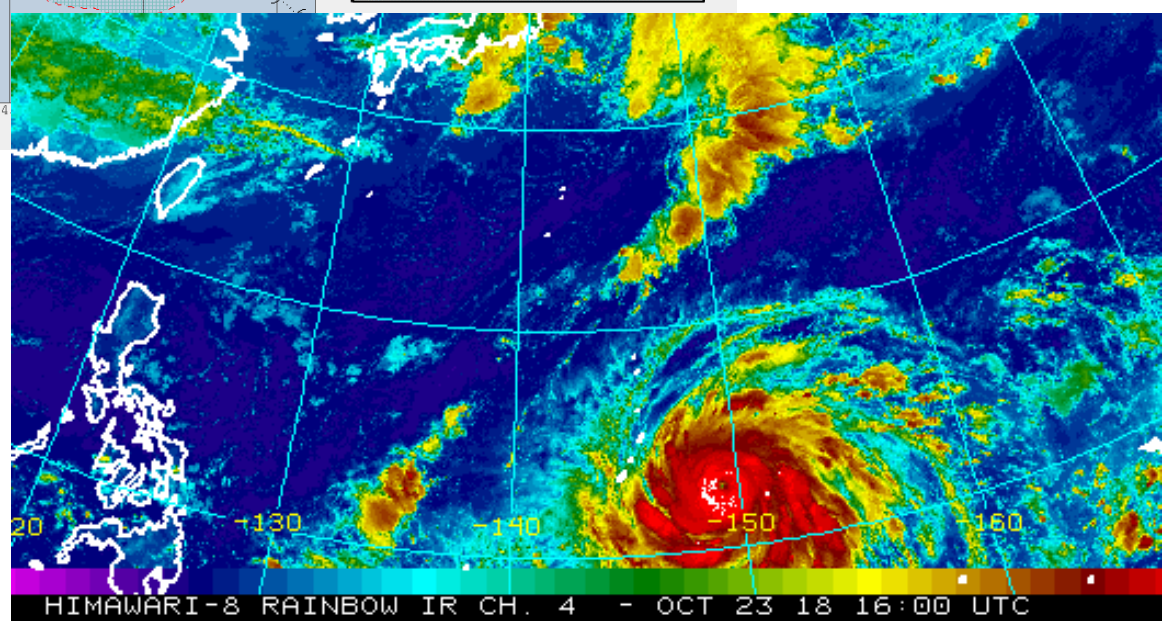
23/12Z, WINDS 090 KTS, GUSTS TO 110 KTS
 24/00Z, WINDS 105 KTS, GUSTS TO 130 KTS
 24/12Z, WINDS 115 KTS, GUSTS TO 140 KTS
 25/00Z, WINDS 125 KTS, GUSTS TO 150 KTS
 25/12Z, WINDS 130 KTS, GUSTS TO 160 KTS
 26/12Z, WINDS 145 KTS, GUSTS TO 175 KTS
 27/12Z, WINDS 140 KTS, GUSTS TO 170 KTS
 28/12Z, WINDS 130 KTS, GUSTS TO 160 KTS

CPA TO:	NM	DTG
PARAULEP	335	24/03Z
ANDERSEN_AFB	63	24/18Z
HAGATNA	81	24/18Z
ROTA	28	24/18Z
SAIPAN	47	24/18Z
TINIAN	31	24/18Z
WFO GUAM	71	24/18Z
NAVSTA GUAM	81	24/19Z
ANATAHAN	108	24/22Z
ALAMAGAN	176	25/00Z
SAGAN	203	25/02Z
AGRIHAN	240	25/04Z
FAIS	370	25/17Z
ULITHI	378	26/00Z
MINAMIDAITO JIMA	398	28/12Z
OKIDAITO JIMA	320	28/12Z

BEARING AND DISTANCE	DIR	DIST (NM)	TAU (HRS)
HAGATNA	105	292	0
ANATAHAN	139	348	0
ANDERSEN_AFB	109	291	0
CHUUK	333	302	0
PARAULEP	055	364	0
LAPWITEK	035	330	0
NAVSTA GUAM	105	304	0
PULUWAT	007	296	0
ROTA	116	286	0
SAIPAN	130	293	0
SAITANAL	028	313	0
TINIAN	127	295	0
WFO GUAM	107	295	0

○ ○ ○ LESS THAN 34 KNOTS
 ○ ○ ○ 34-63 KNOTS
 ○ ○ ○ MORE THAN 63 KNOTS
 — FORECAST CYCLONE TRACK
 - - - PAST CYCLONE TRACK
 [Red shaded area] DENOTES 34 KNOT WIND DANGER AREA/USN SHIP AVOIDANCE AREA
 [Purple circles] FORECAST 34/50/64 KNOT WIND RADII

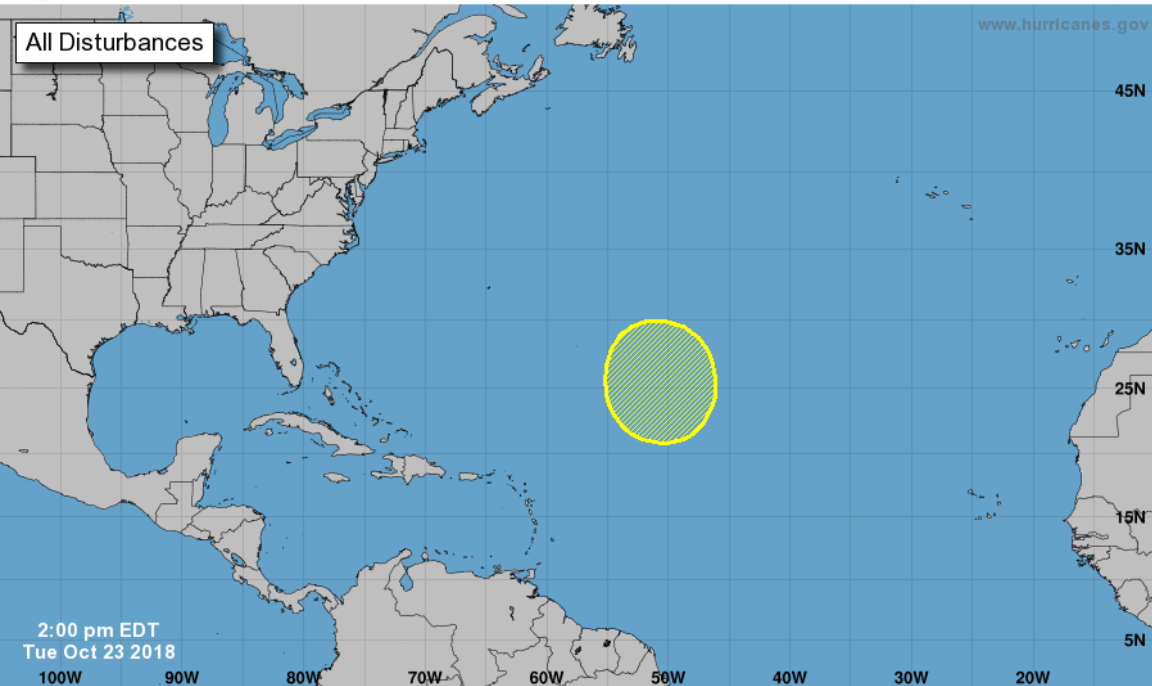
Typhoon Yutu





Five-Day Graphical Tropical Weather Outlook

National Hurricane Center Miami, Florida



2:00 pm EDT
Tue Oct 23 2018

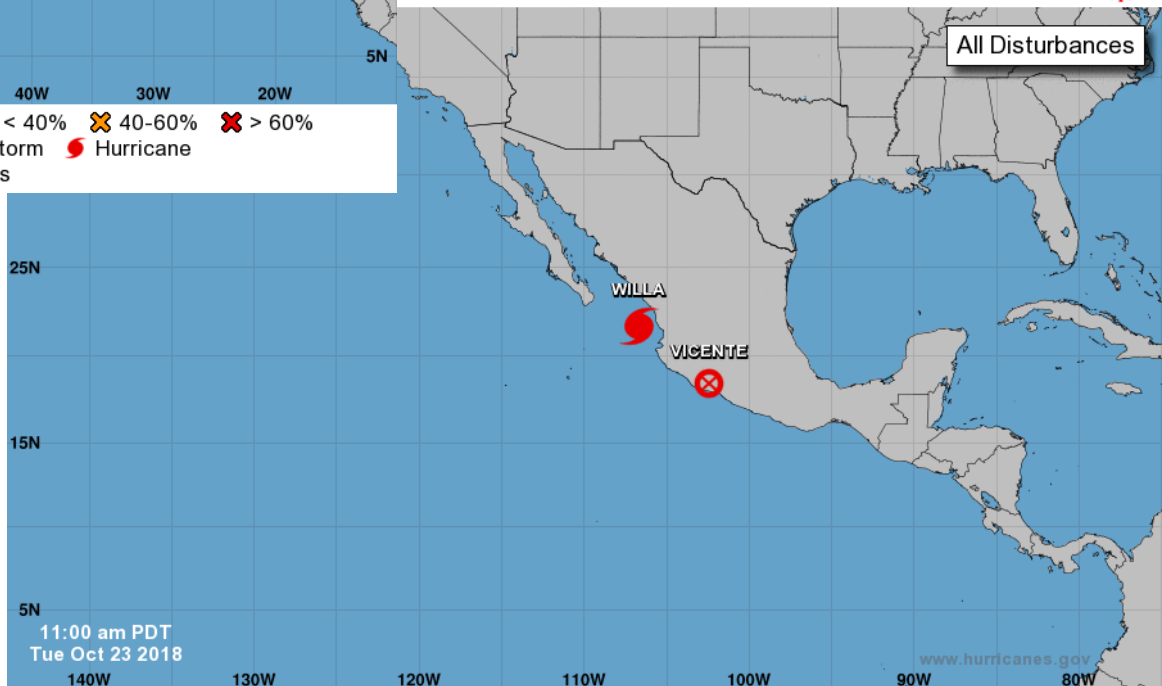
Current Disturbances and Five-Day Cyclone Formation Chance: < 40% 40-60% > 60%

Tropical or Sub-Tropical Cyclone: Depression Storm Hurricane

Post-Tropical Cyclone or Remnants

Graphical Tropical Weather Outlook

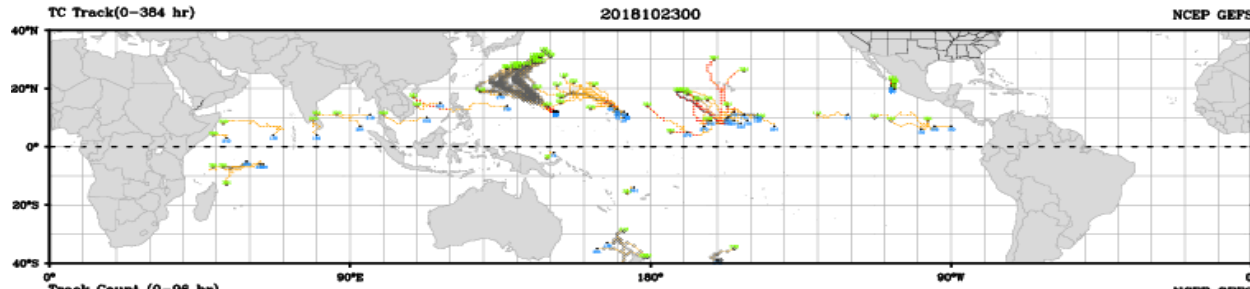
National Hurricane Center Miami, Florida



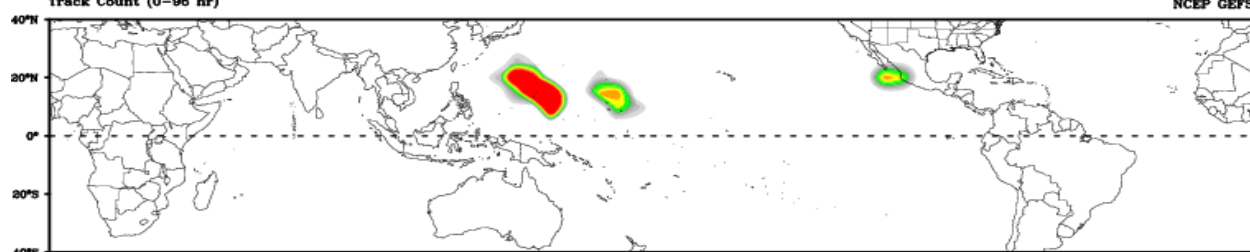
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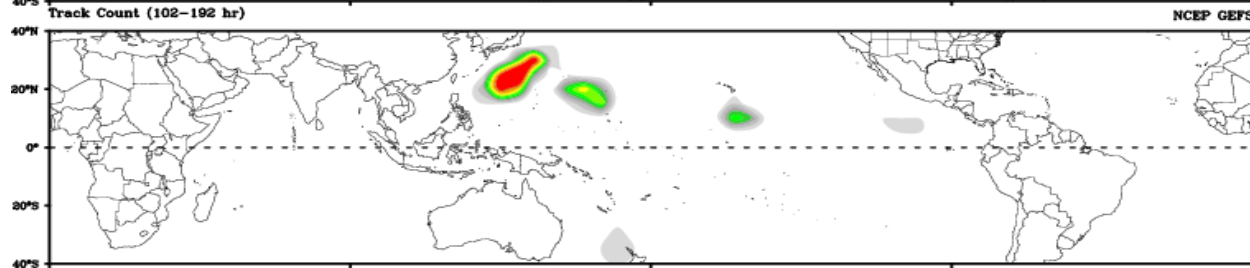
Post-Tropical Cyclone or Remnants



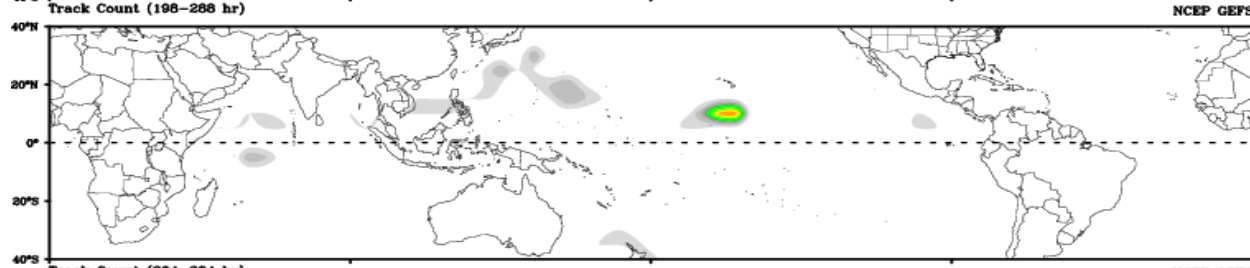
Days 1-4



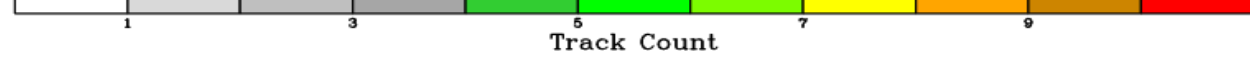
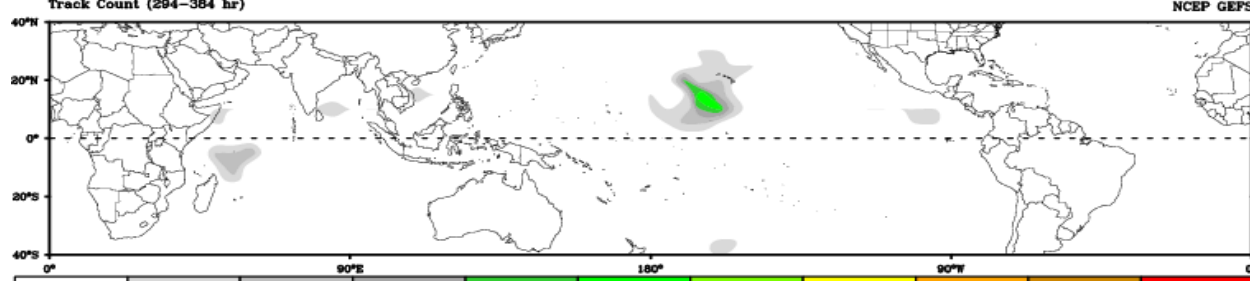
Days 5-8



Days 9-12

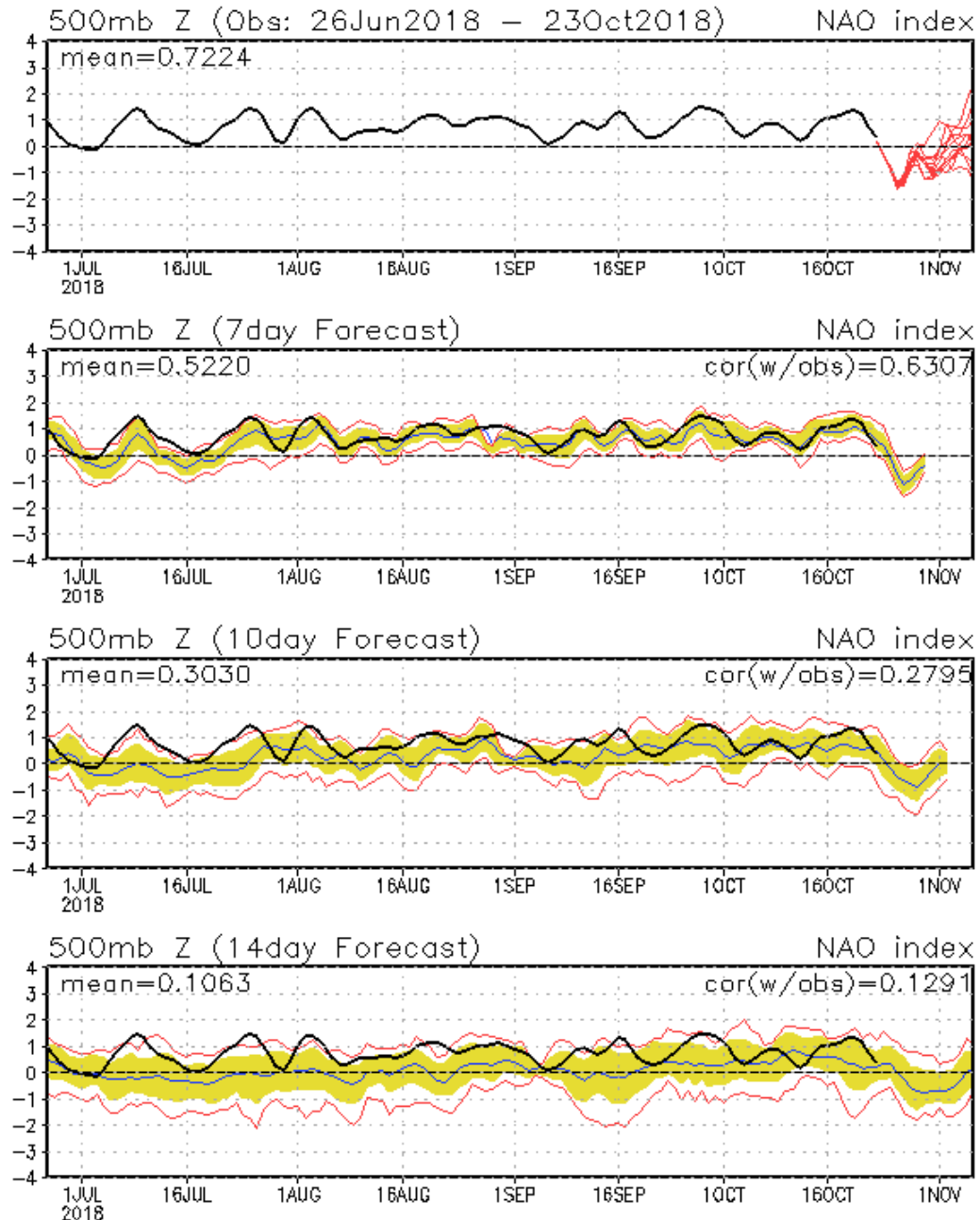


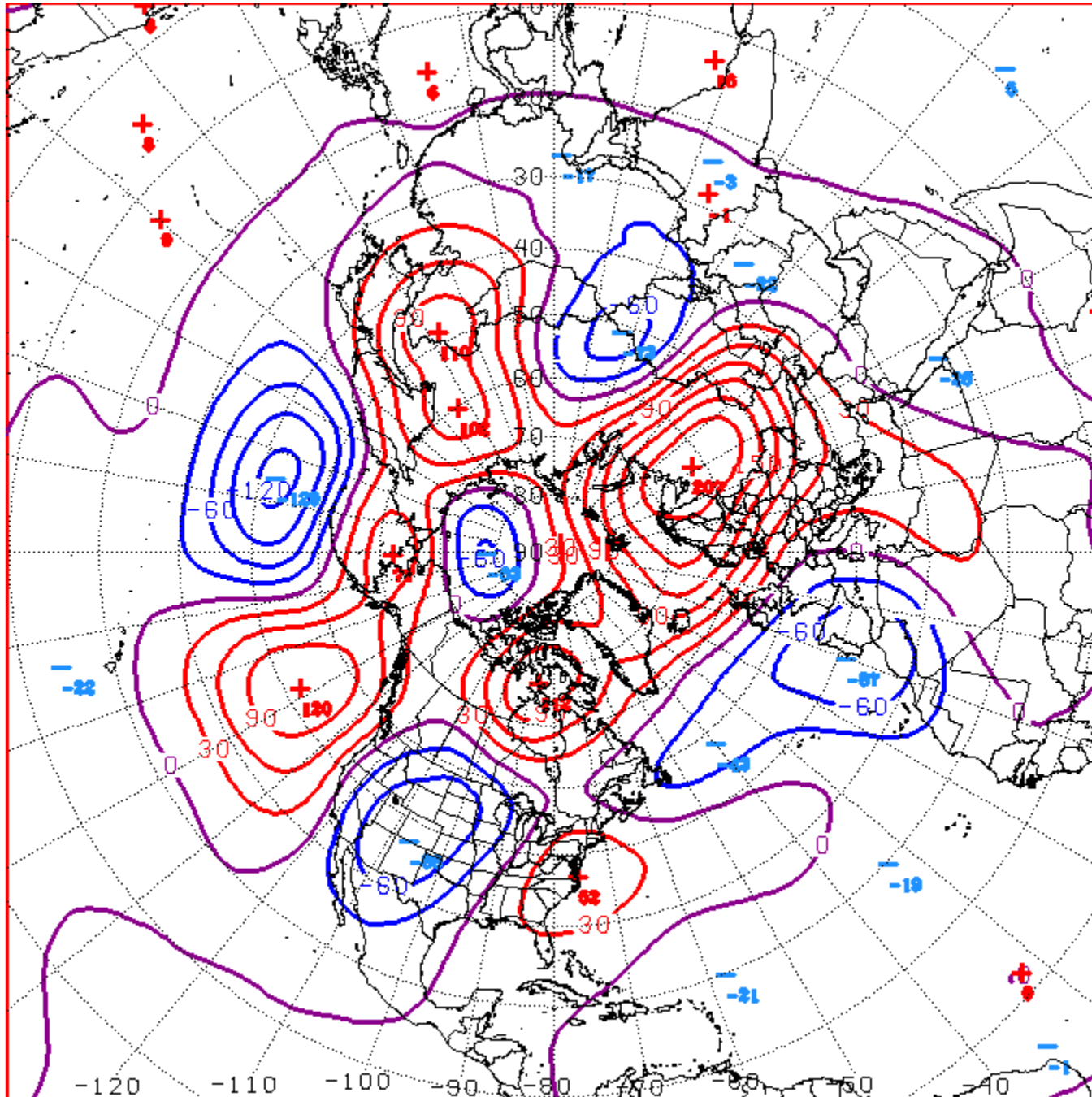
Days 13-15



Connections to U.S. Impacts

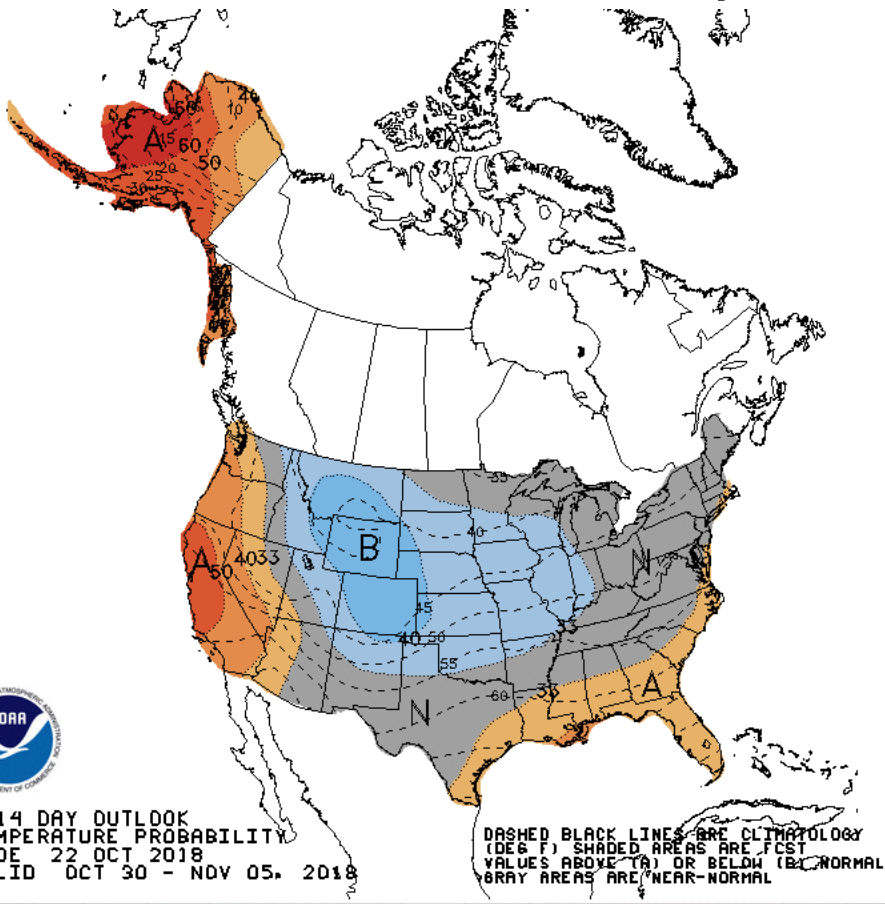
NAO: Observed & ENSM forecasts





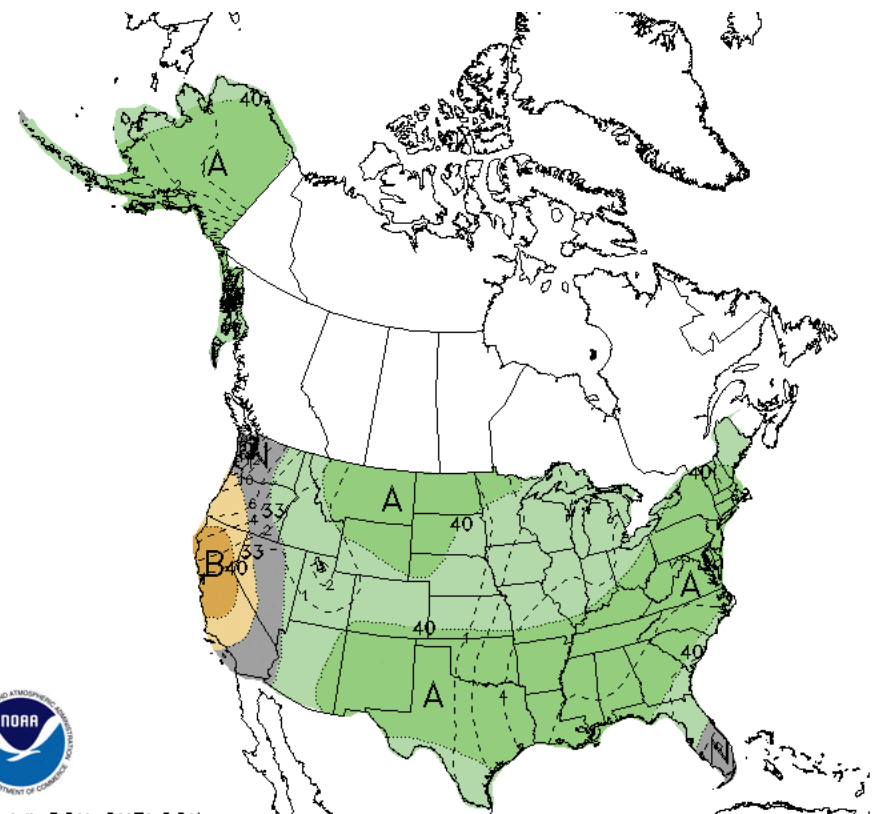
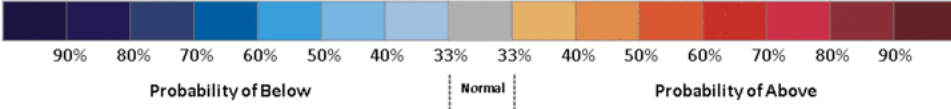
D+11 500 MB ANOMALIES FROM 06Z ENSM
 CPC MAP MADE OCT 23 2018 1205 UTC CNTD NOV 03 2018

Week 2 – Temperature and Precipitation



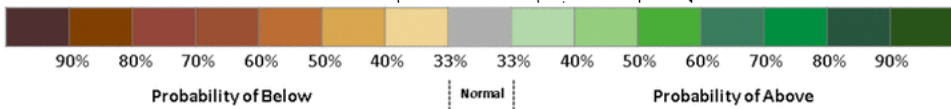
8-14 DAY OUTLOOK
TEMPERATURE PROBABILITY
MADE 22 OCT 2018
VALID OCT 30 - NOV 05, 2018

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 22 OCT 2018
VALID OCT 30 - NOV 05, 2018

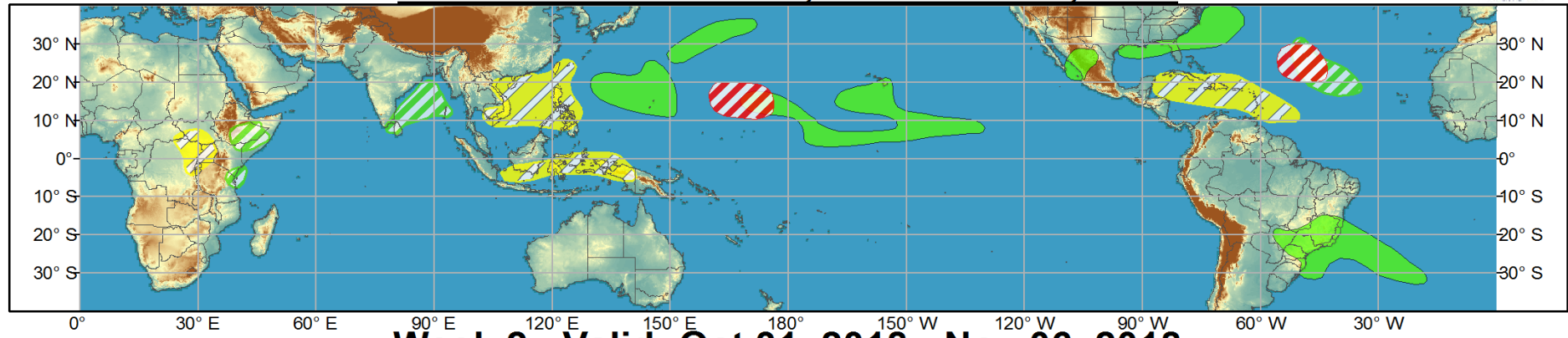
DASHED BLACK LINES ARE CLIMATOLOGY (10THS OF INCHES). SHADED AREAS ARE FCST VALUES ABOVE (A) OR BELOW (B) NORMAL. GRAY AREAS ARE NEAR-NORMAL.



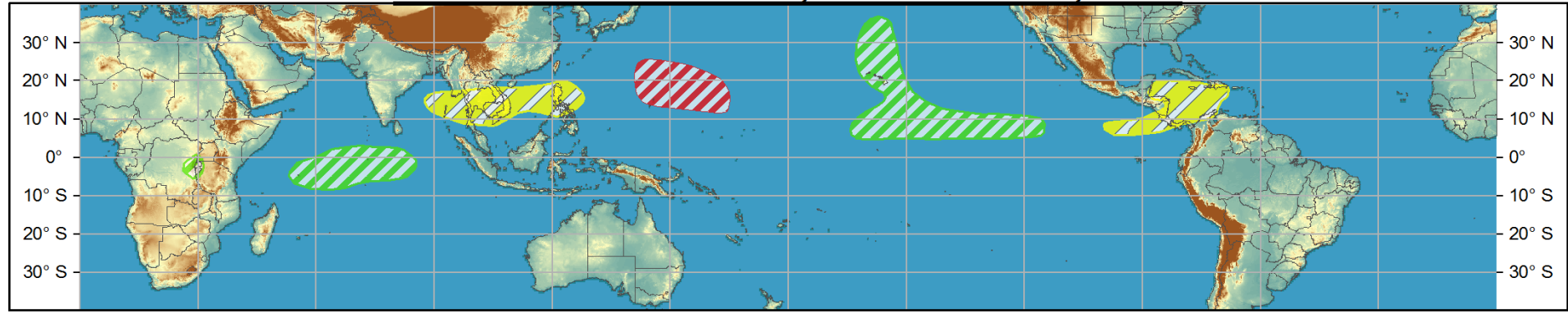


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