

Global Tropics Hazards And Benefits Outlook

9/7/2021

Matt Rosencrans

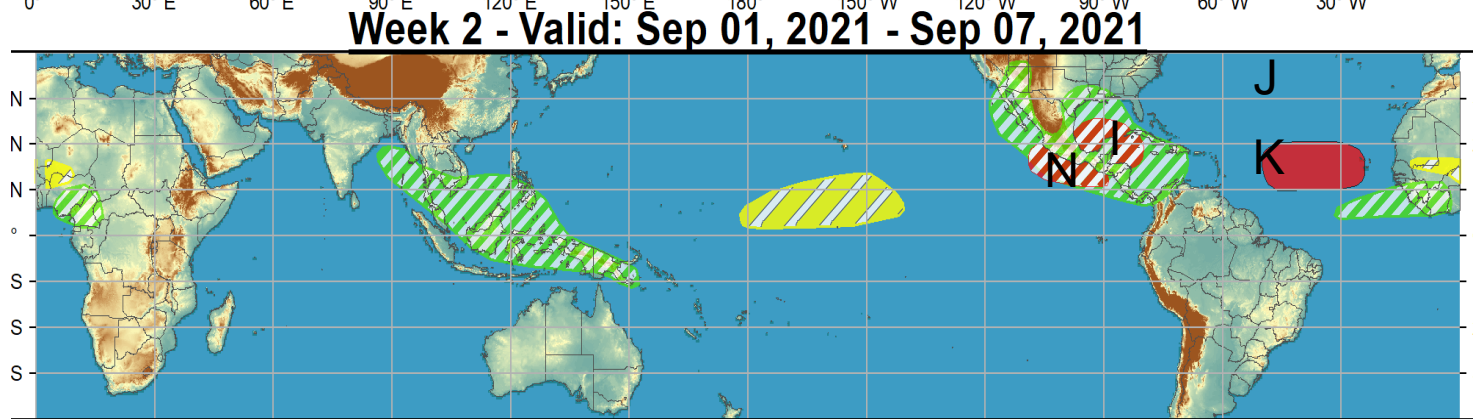
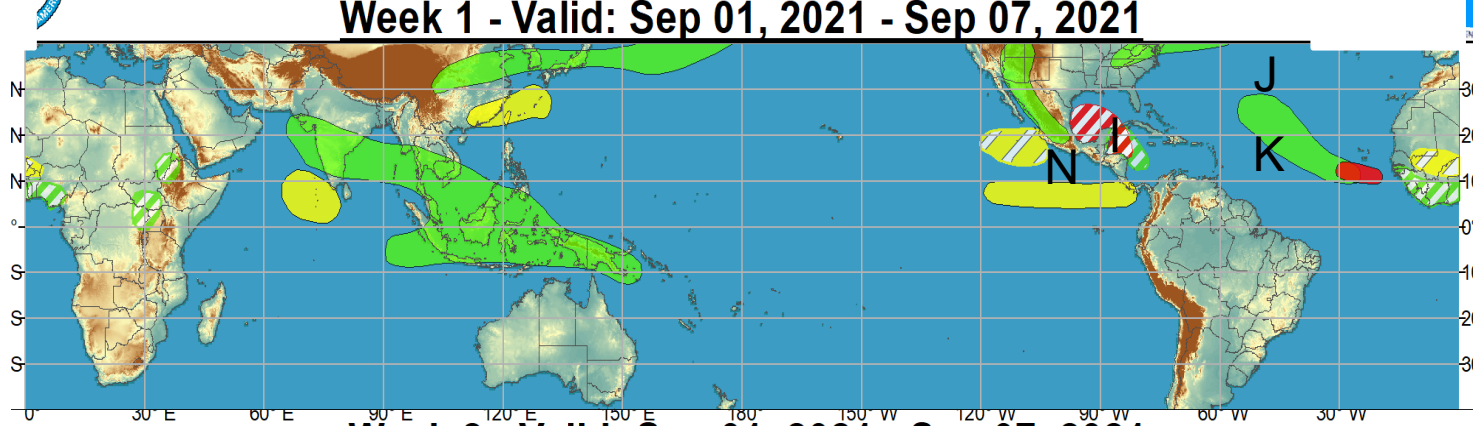
Outline

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

Outlook Review

TC formed since 8/25

- Ida (8/26)
- Nora (8/25)
- Kate (8/27)
- Julian (8/28)

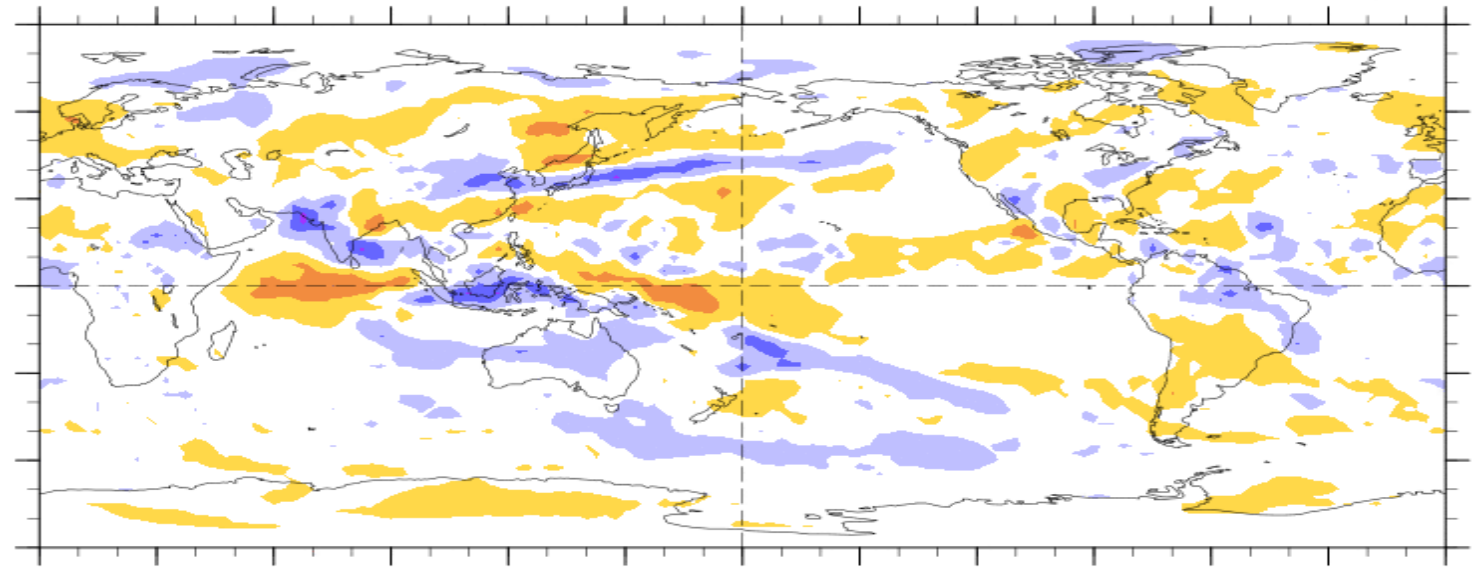


7-Day Average OLR Anomaly

2021/08/30 - 2021/09/05

Cool shading
More clouds/rain

Warm shading
Less clouds/rain



Synopsis of Climate Modes

ENSO: (August 12, 2021 – Next update – Sept 9)

- ENSO Alert System Status: [La Niña Watch](#)
- ENSO-neutral is favored for the remainder of the Northern Hemisphere summer and probabilities of La Niña increasing to 60 percent by September-October-November.

MJO and other subseasonal tropical variability:

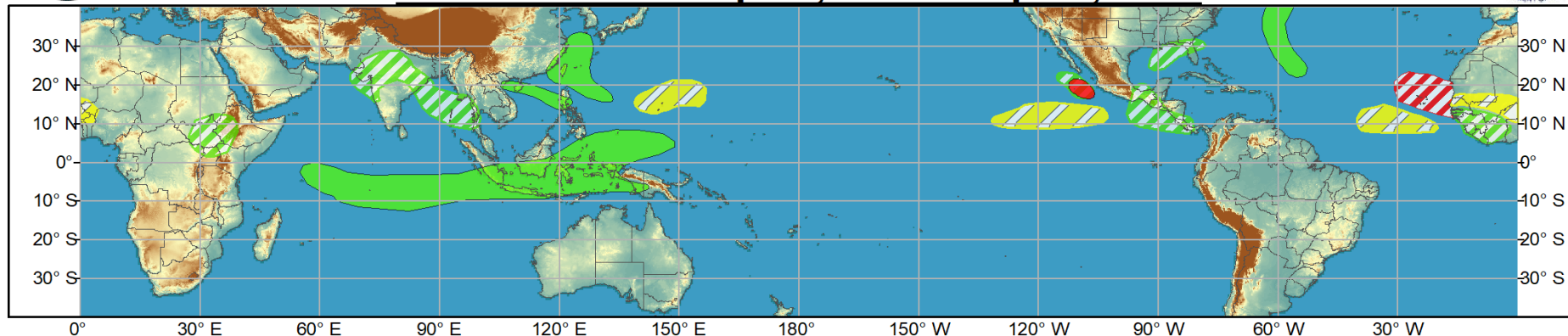
- The MJO continues to be disorganized following a period of interference with other modes of tropical variability. RMM index analysis shows the core MJO signal emerging over the Maritime Continent.
- There are indications in the RMM dynamical models forecasts for renewed eastward propagation of the MJO, but differ in regards to its evolution and strength.
- Model support tropical cyclone activity in the eastern Pacific and Atlantic is weak.
 - East Pacific - Early in Week-1 near the tip of Baja California.
 - Atlantic – later week-1 near Africa, weak signals over the Gulf of Mexico throughout.
 - West Pacific – 2 current systems, then over SCS in Week-2.



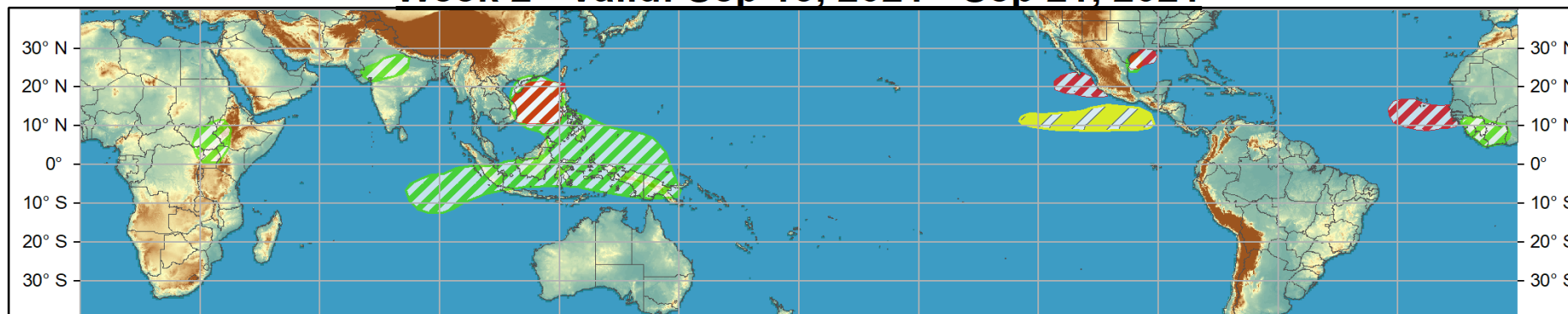
Global Tropics Hazards and Benefits Outlook - Climate Prediction Center



Week 1 - Valid: Sep 08, 2021 - Sep 14, 2021



Week 2 - Valid: Sep 15, 2021 - Sep 21, 2021



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: 09/07/2021

Forecaster: Rosencrans

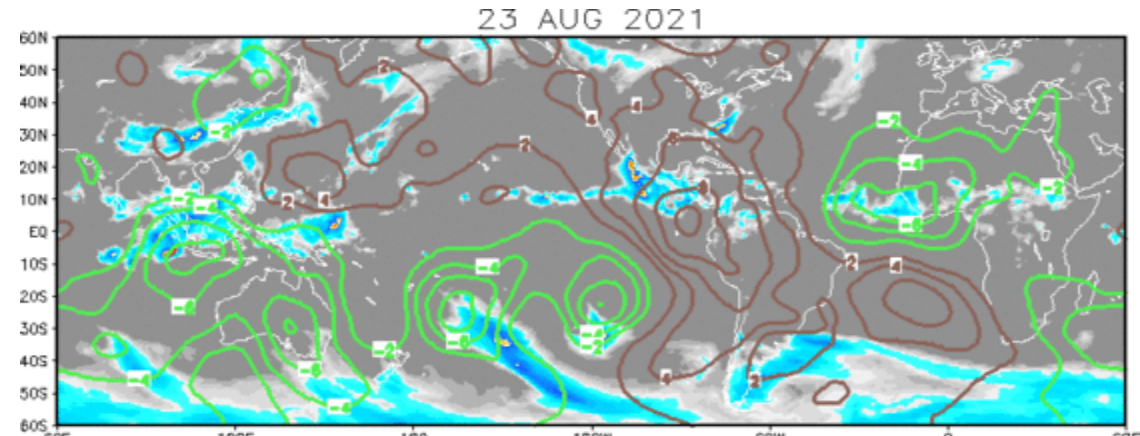
Product is updated once per week, except from 6/1 - 11/30 for the region from 120E to 0, 0 to 40N. The product targets broad scale conditions integrated over a 7-day period for US interests only. Consult your local responsible forecast agency.



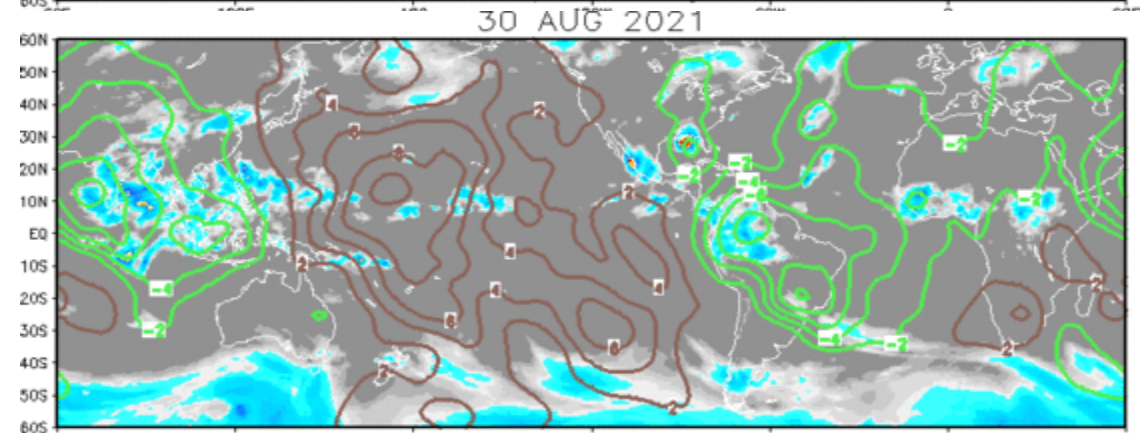
IR Satellite & 200-hpa Velocity Potential Anomalies

Green: Enhanced Divergence Brown: Enhanced Convergence

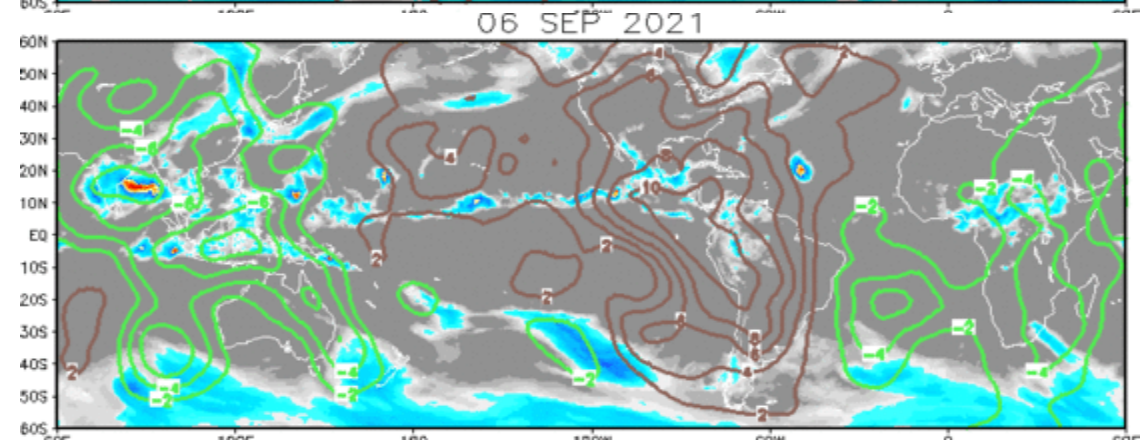
The pattern became much less coherent, wrt MJO during late Aug.



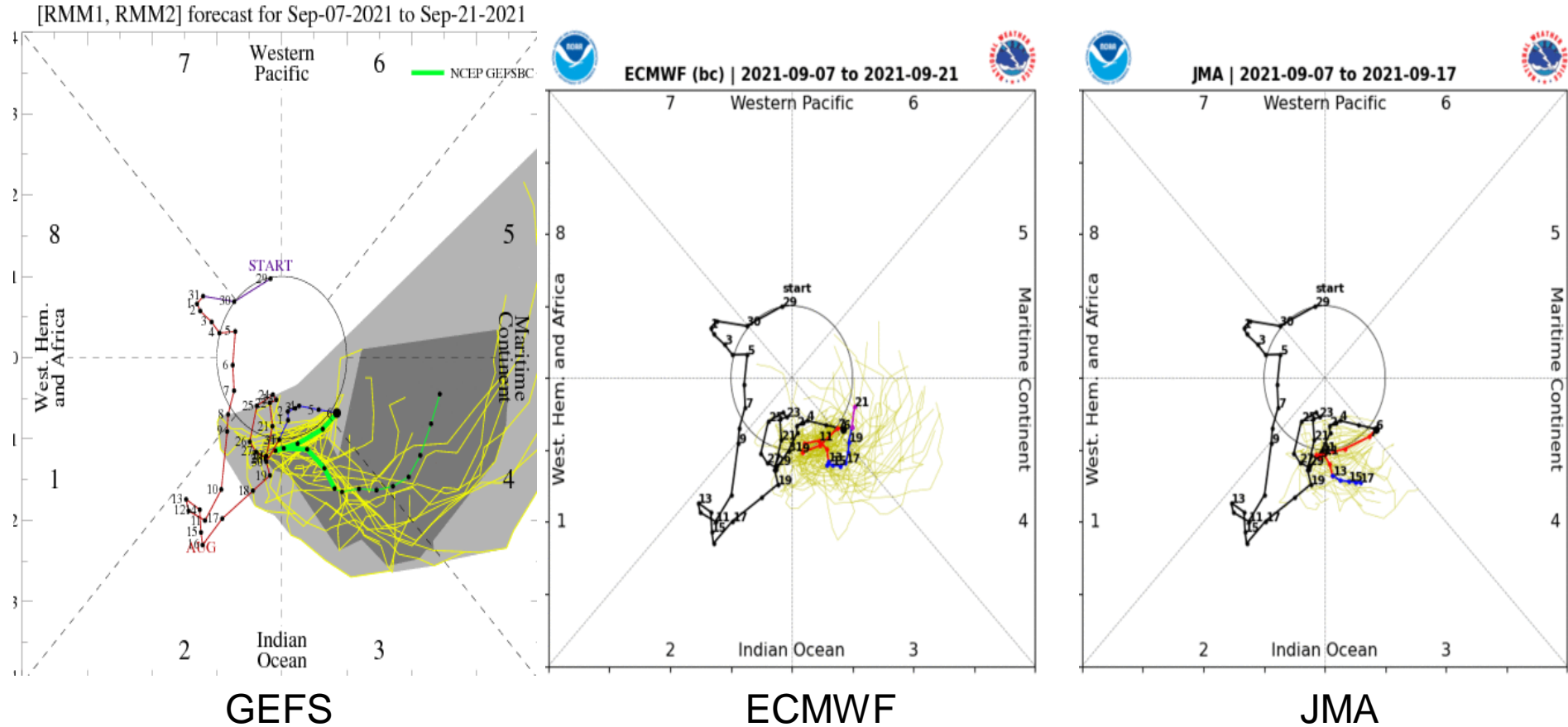
Near the end of August, the pattern became more coherent. Upper-level pattern showed two centers of action associated with the stalled MJO envelope over Indian Ocean and a Kelvin Wave over the Americas / Atlantic.



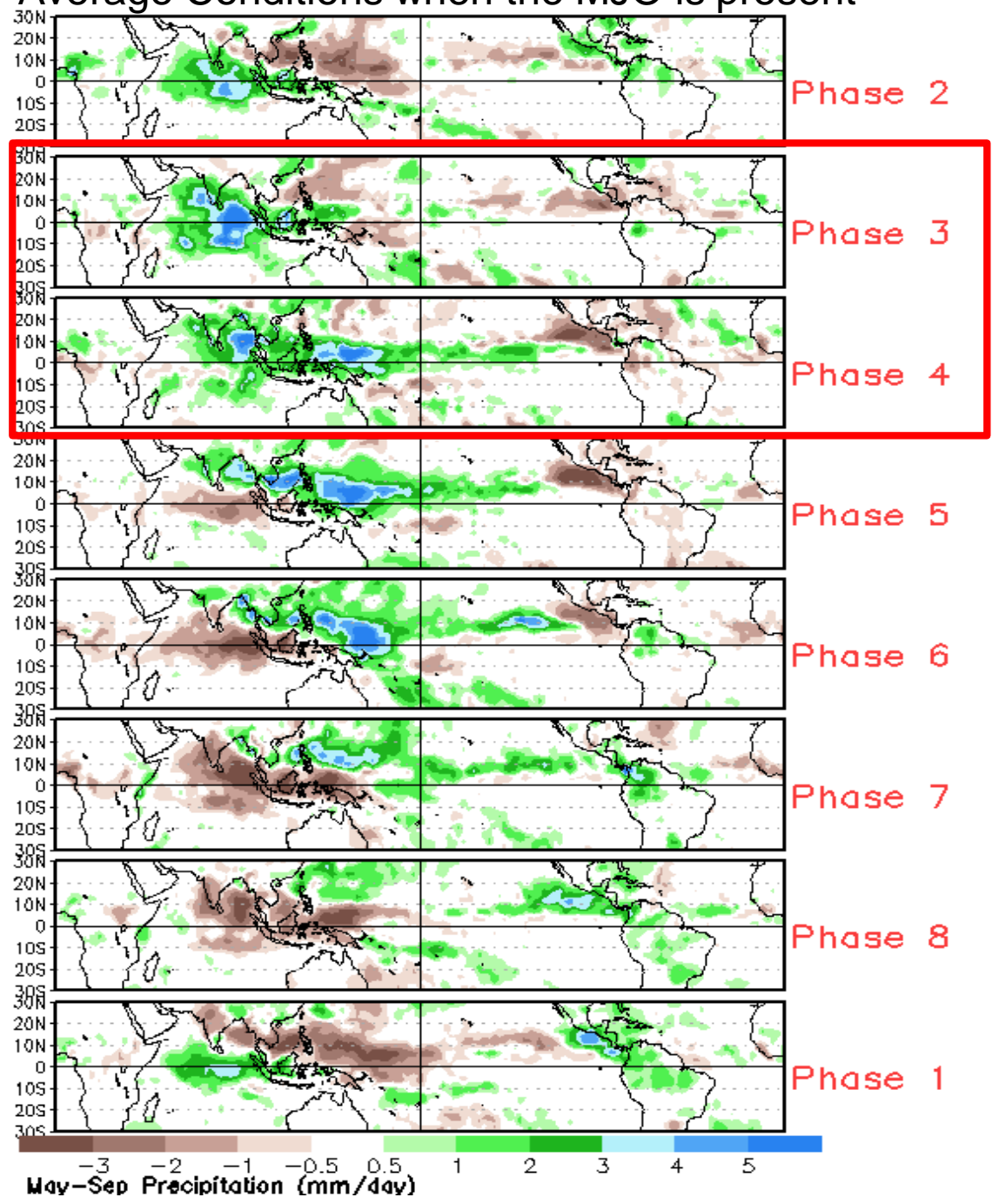
Recently, the Kelvin wave moved eastward and pattern is getting closer to Wave-1 with notable divergence over the IO and MC.



MJO Observation/Forecast



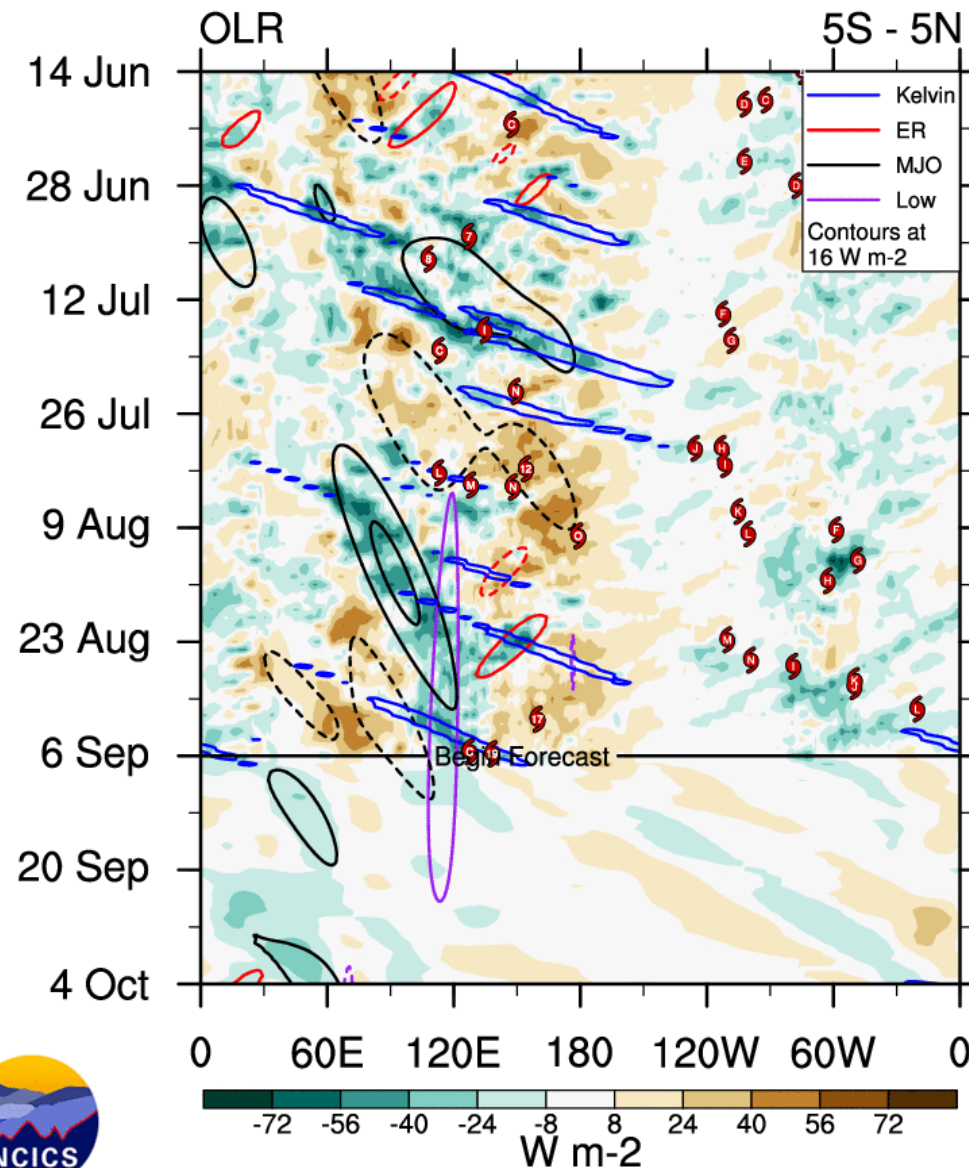
Average Conditions when the MJO is present



CAVEAT: These panels are representative of robust MJO events.

MJO activity is still evident, though the low frequency signal and **Kelvin wave** activity are interfering.

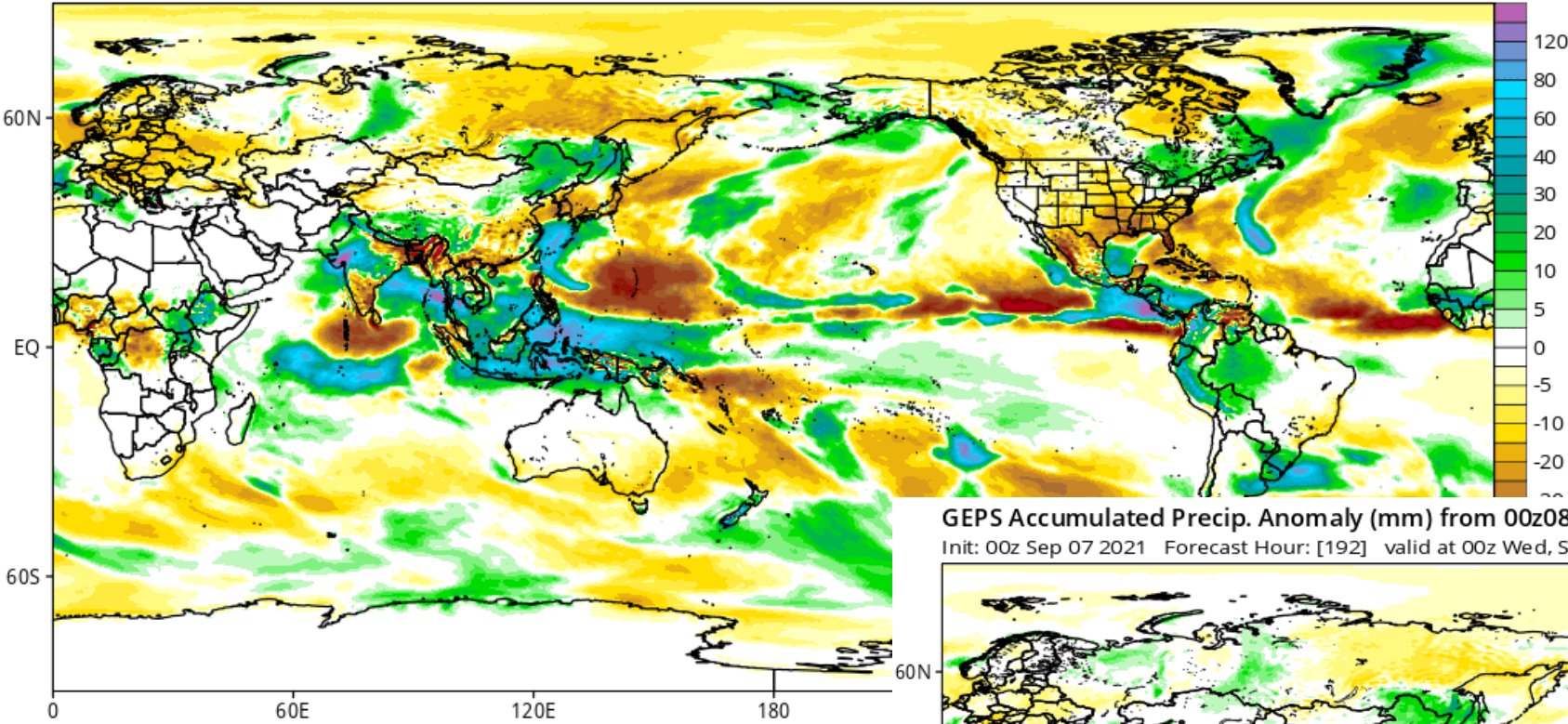
MJO and KW activity may have contributed to tropical cyclone formations over the West Pacific.



GEFS Accumulated Precip. Anomaly (mm) from 00z08Sep2021 to 00z15Sep2021 (Days 2-8)

Init: 00z Sep 07 2021 Forecast Hour: [192] valid at 00z Wed, Sep 15 2021

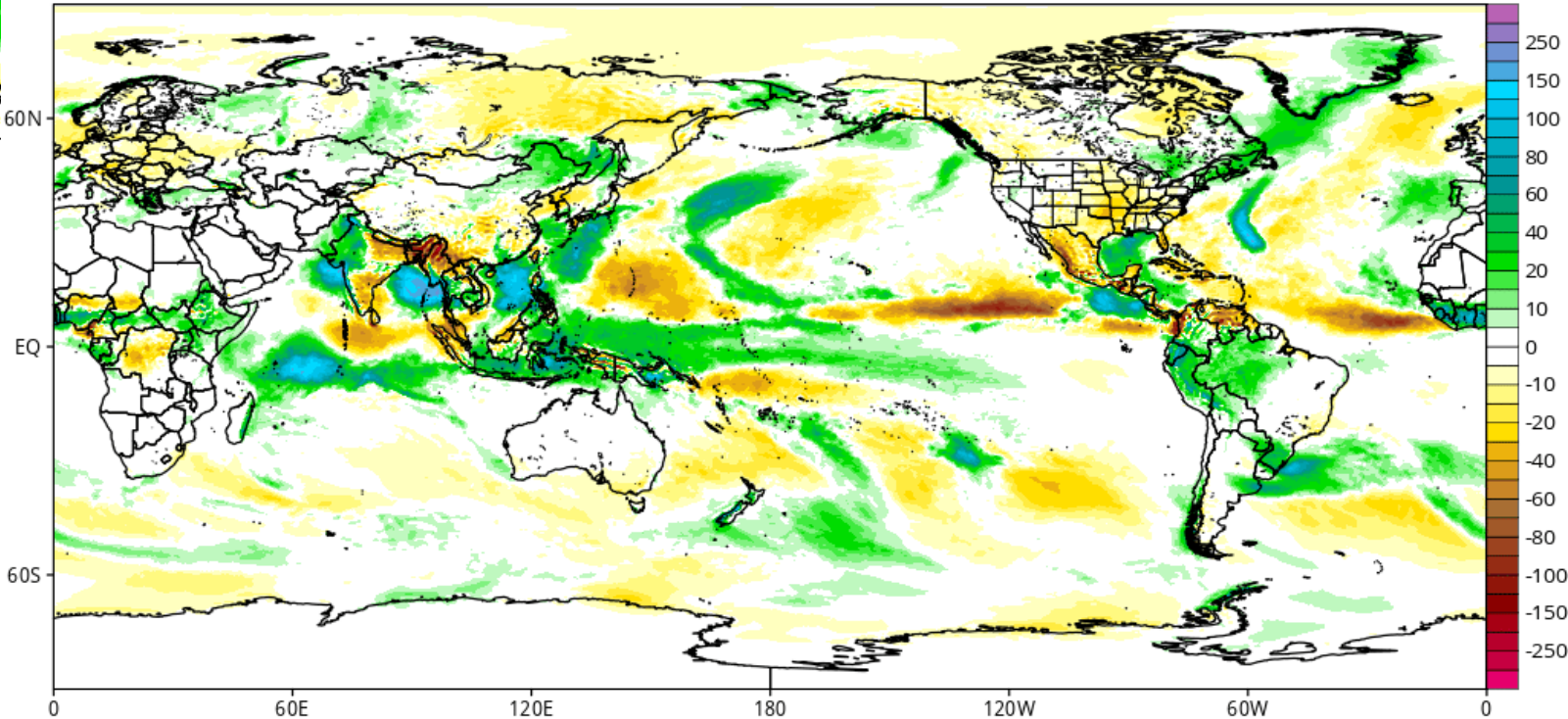
TROPICALTIDBITS.COM



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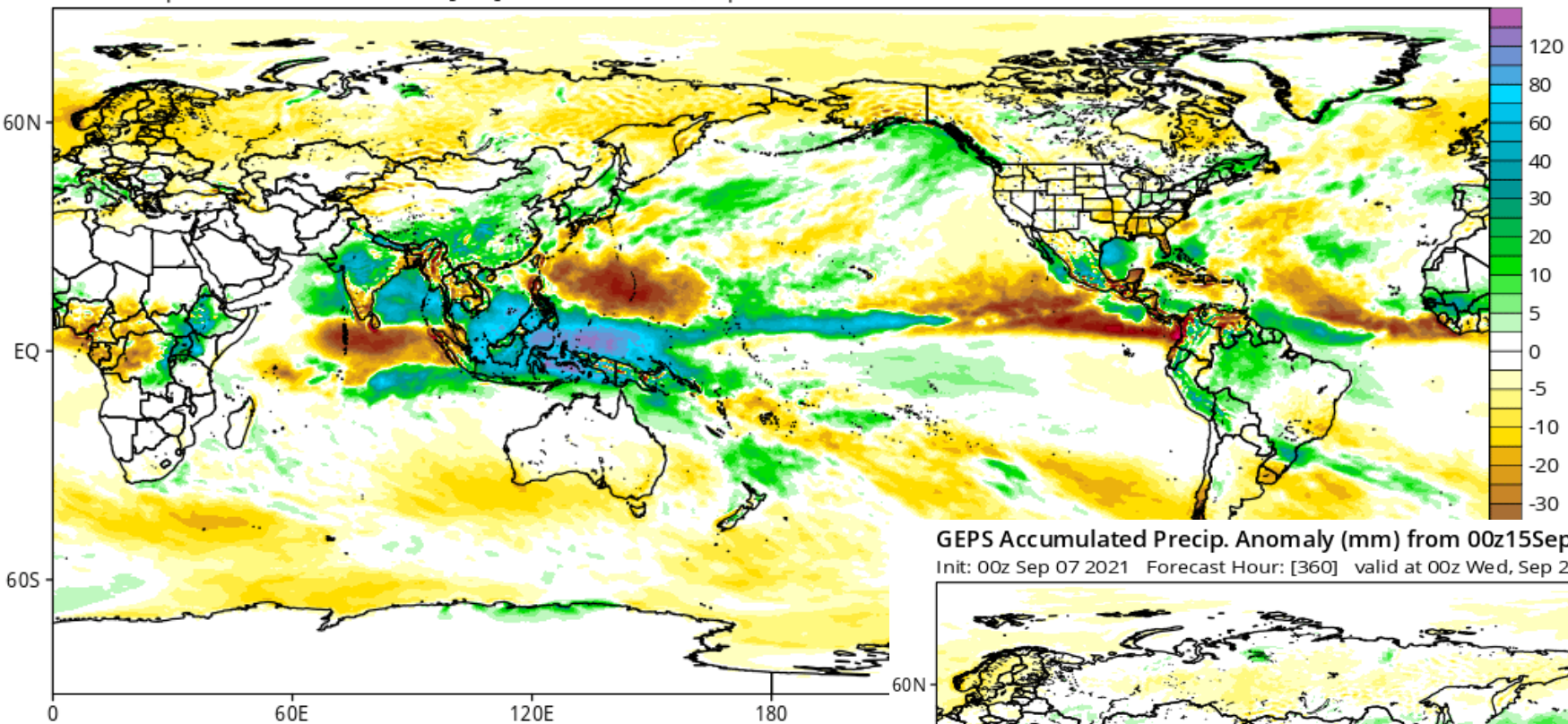
TROPICALTIDBITS.COM



GEFS Accumulated Precip. Anomaly (mm) from 00z15Sep2021 to 00z22Sep2021 (Days 9-15)

Init: 00z Sep 07 2021 Forecast Hour: [360] valid at 00z Wed, Sep 22 2021

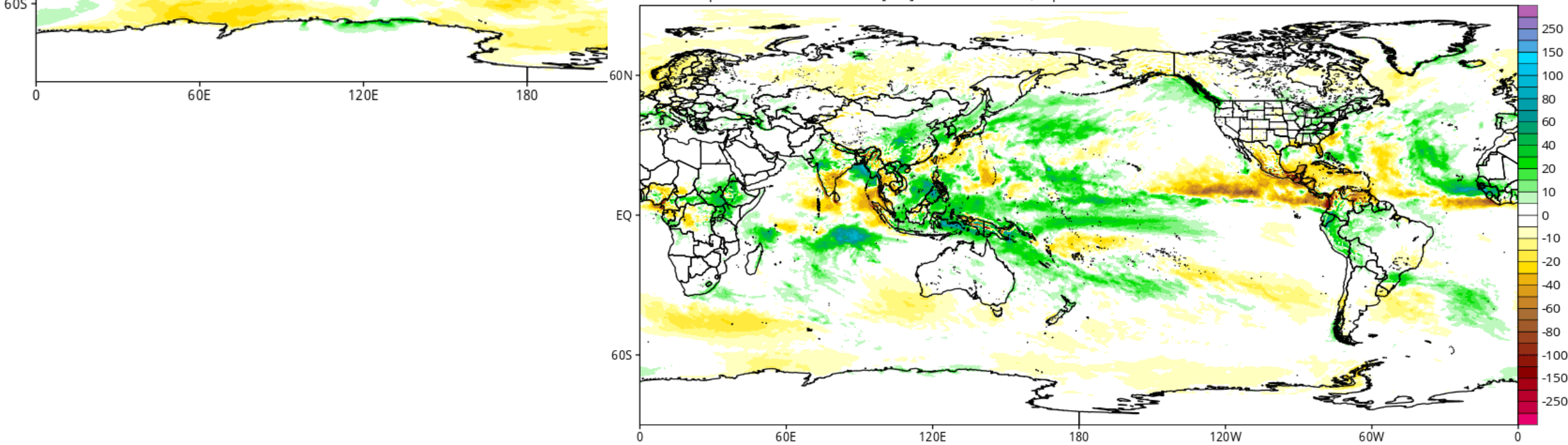
TROPICALTIDBITS.COM

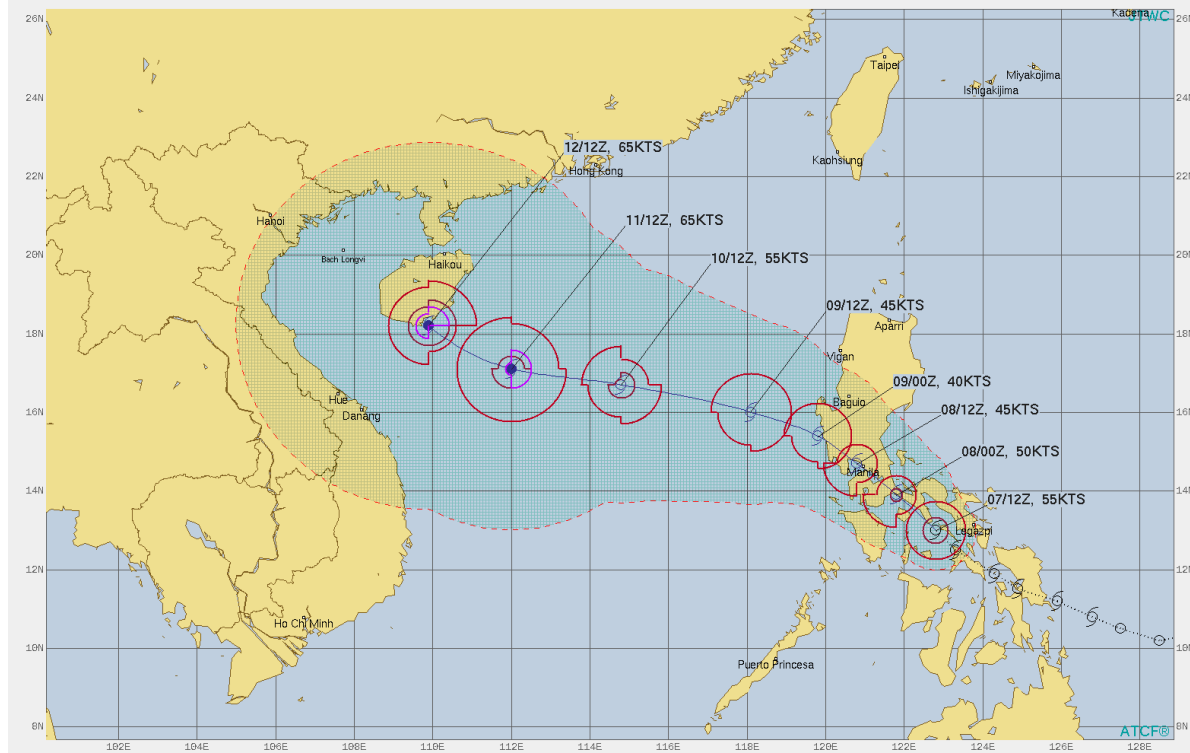


GEPS Accumulated Precip. Anomaly (mm) from 00z15Sep2021 to 00z22Sep2021 (Days 9-15)

Init: 00z Sep 07 2021 Forecast Hour: [360] valid at 00z Wed, Sep 22 2021

TROPICALTIDBITS.COM



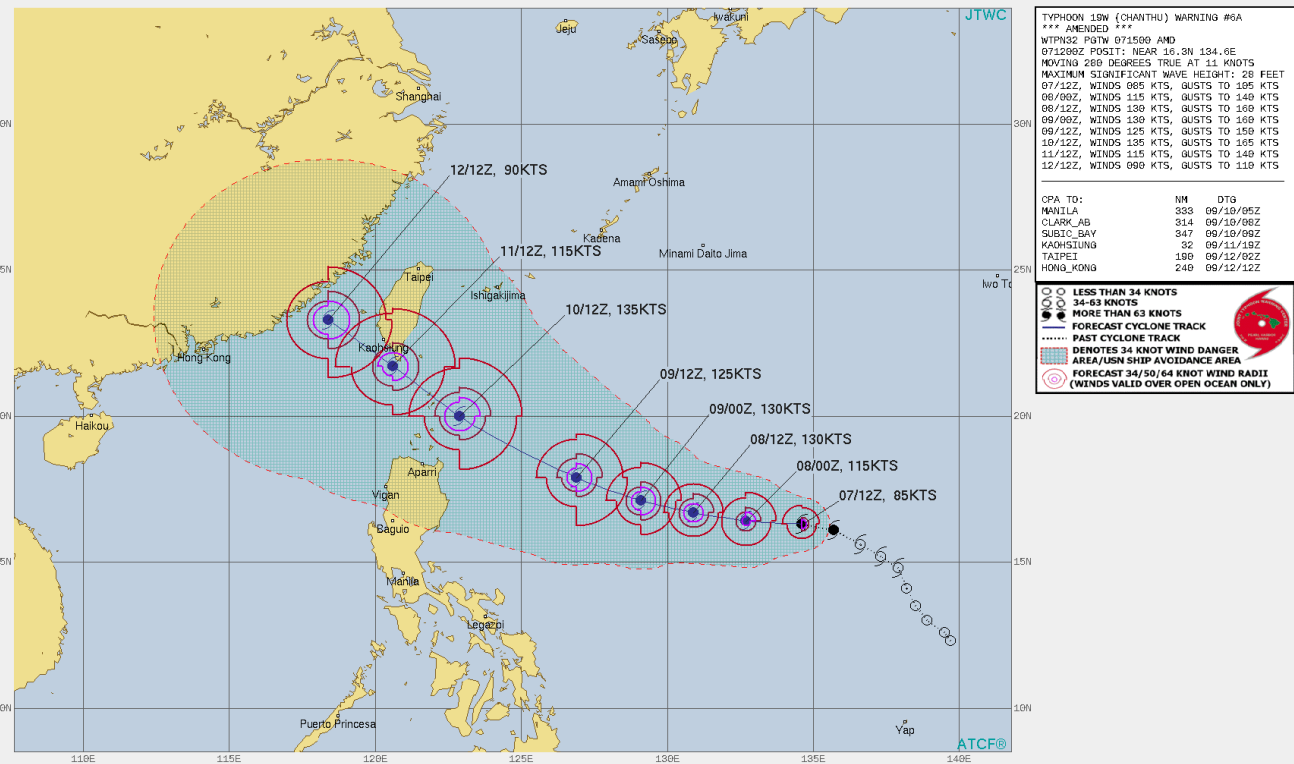


TROPICAL STORM 18W (CONSON) WARNING #7
 WTPN31 PGTW 071500
 071200Z POSIT: NEAR 13.0N 122.0E
 MOVING 015 DEGREES TRUE AT 07 KNOTS
 MAXIMUM SIGNIFICANT WAVE HEIGHT: 18 FEET
 07/12Z, WINDS 065 KTS, GUSTS TO 070 KTS
 08/00Z, WINDS 050 KTS, GUSTS TO 065 KTS
 08/12Z, WINDS 045 KTS, GUSTS TO 055 KTS
 09/00Z, WINDS 040 KTS, GUSTS TO 050 KTS
 09/12Z, WINDS 045 KTS, GUSTS TO 055 KTS
 10/12Z, WINDS 065 KTS, GUSTS TO 070 KTS
 11/12Z, WINDS 065 KTS, GUSTS TO 080 KTS
 12/12Z, WINDS 065 KTS, GUSTS TO 080 KTS

CPA TO:	NM	DTG
PUERTO_PRINCESA	306	09/07/17Z
MANILA	2	09/06/16Z
CLARK_AB	16	09/08/17Z
SUBIC_BAY	18	09/08/17Z
HONG_KONG	329	09/10/21Z
DA_NANG	160	09/12/18Z
HANOI	262	09/12/12Z

BEARING AND DISTANCE	DIR	DIST	TAU
		(NM)	(HRS)
CLARK_AB		126	0
MANILA		132	0
SUBIC_BAY		125	0
PUERTO_PRINCESA		050	0
ZANBAWKA		006	0
DAVAO		335	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 (WINDS VALID OVER OPEN OCEAN ONLY)

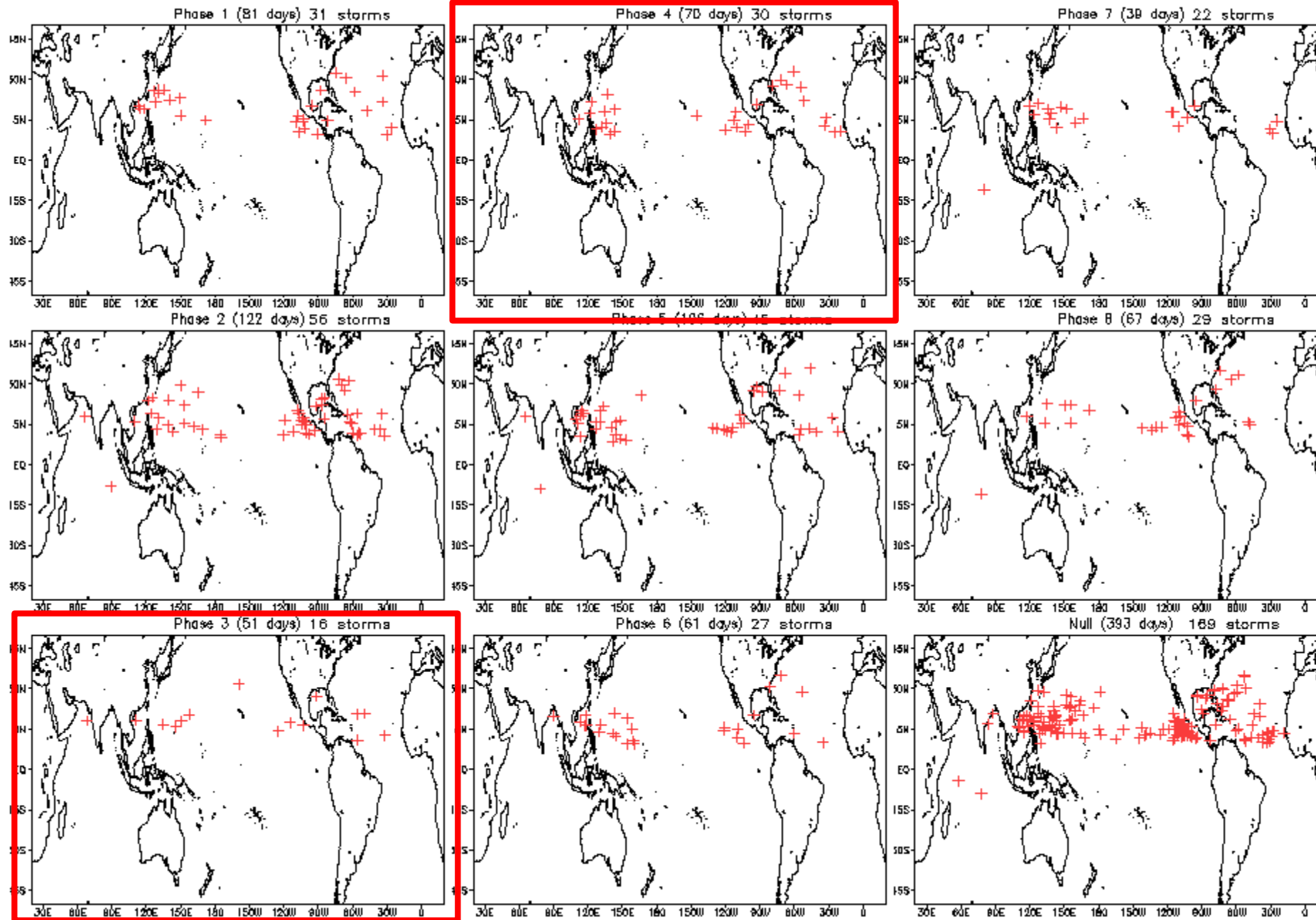


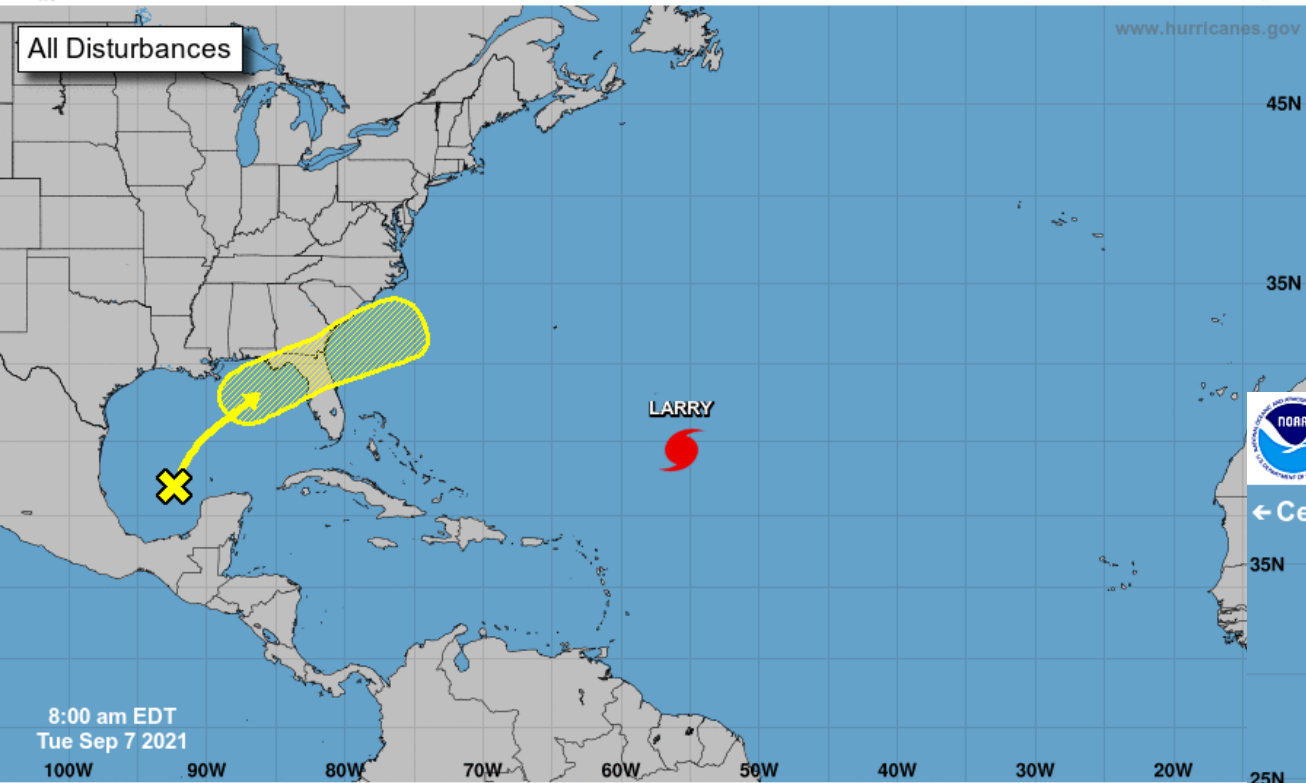
TYPHOON 18W (CHANTHU) WARNING #6A
 *** AMENDED ***
 WTPN32 PGTW 071500 AMD
 071200Z POSIT: NEAR 16.0N 134.0E
 MOVING 280 DEGREES TRUE AT 11 KNOTS
 MAXIMUM SIGNIFICANT WAVE HEIGHT: 28 FEET
 07/12Z, WINDS 085 KTS, GUSTS TO 105 KTS
 08/00Z, WINDS 115 KTS, GUSTS TO 140 KTS
 08/12Z, WINDS 130 KTS, GUSTS TO 160 KTS
 09/00Z, WINDS 130 KTS, GUSTS TO 160 KTS
 09/12Z, WINDS 125 KTS, GUSTS TO 150 KTS
 10/12Z, WINDS 135 KTS, GUSTS TO 165 KTS
 11/12Z, WINDS 115 KTS, GUSTS TO 140 KTS
 12/12Z, WINDS 090 KTS, GUSTS TO 110 KTS




CPA TO:	NM	DTG
MANILA	333	09/10/05Z
CLARK_AB	314	09/10/06Z
SUBIC_BAY	347	09/10/09Z
KAOHSIUNG	32	09/11/19Z
TAIPEI	100	09/12/02Z
HONG_KONG	240	09/12/12Z





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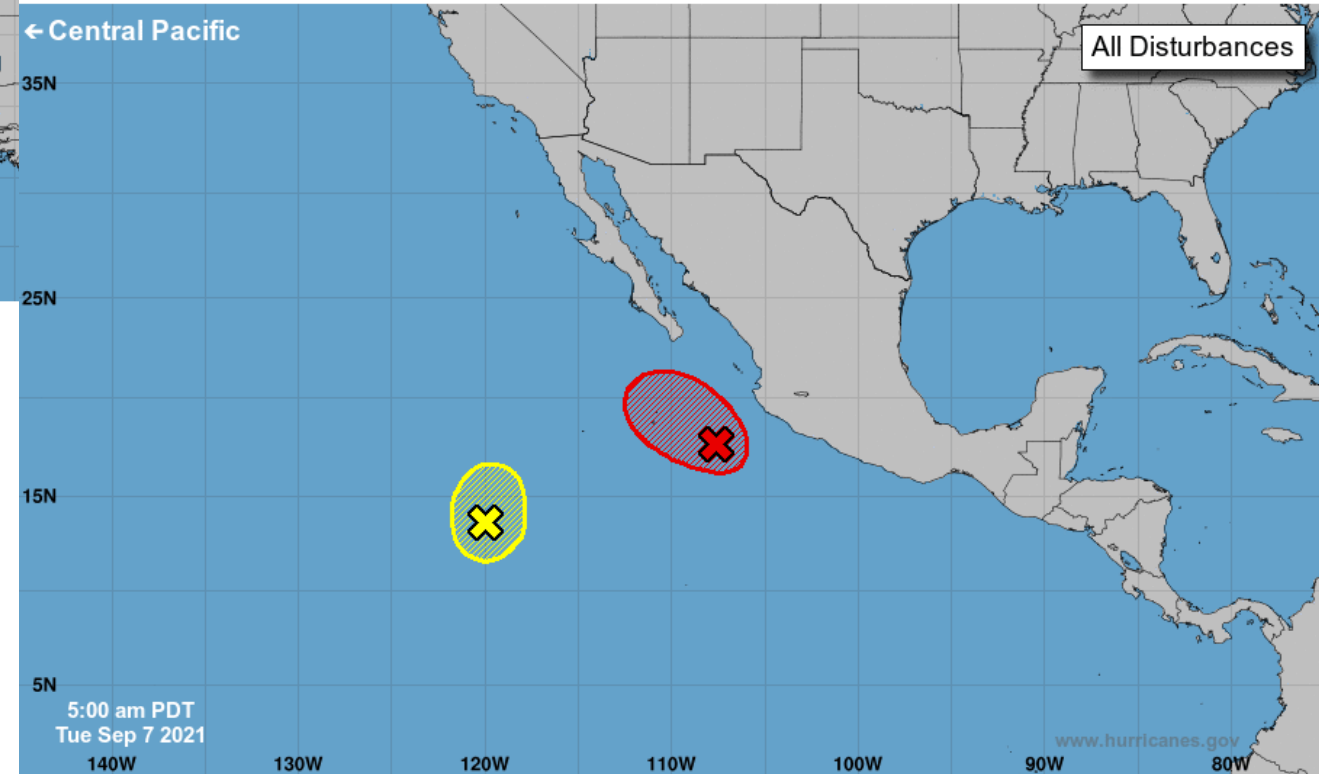
September Tropical Storm Formation by MJO phase












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

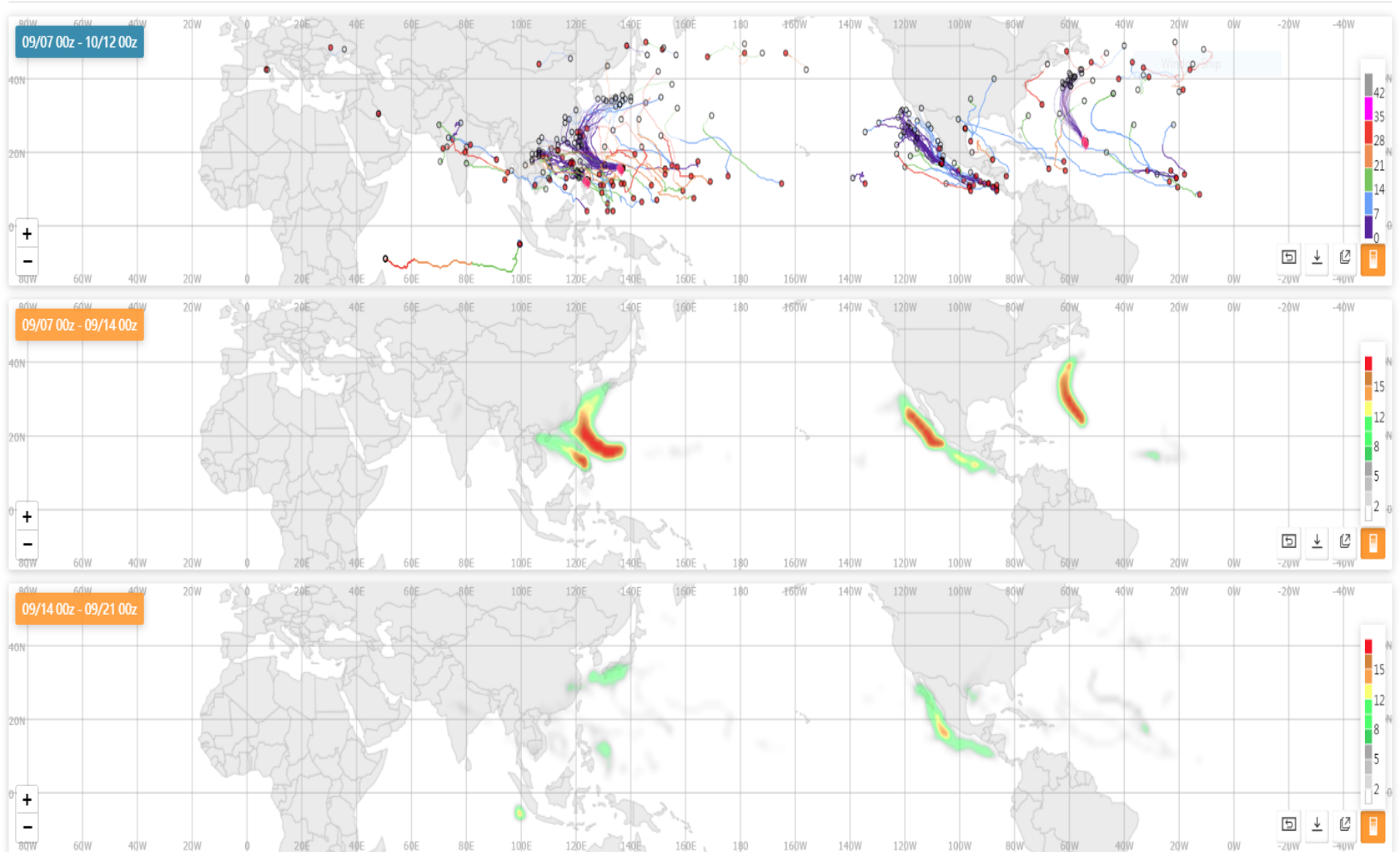


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www.hurricanes.gov

CWB TC Tracker for NCEP GEFSv12 -FOR GUIDANCE PURPOSES ONLY

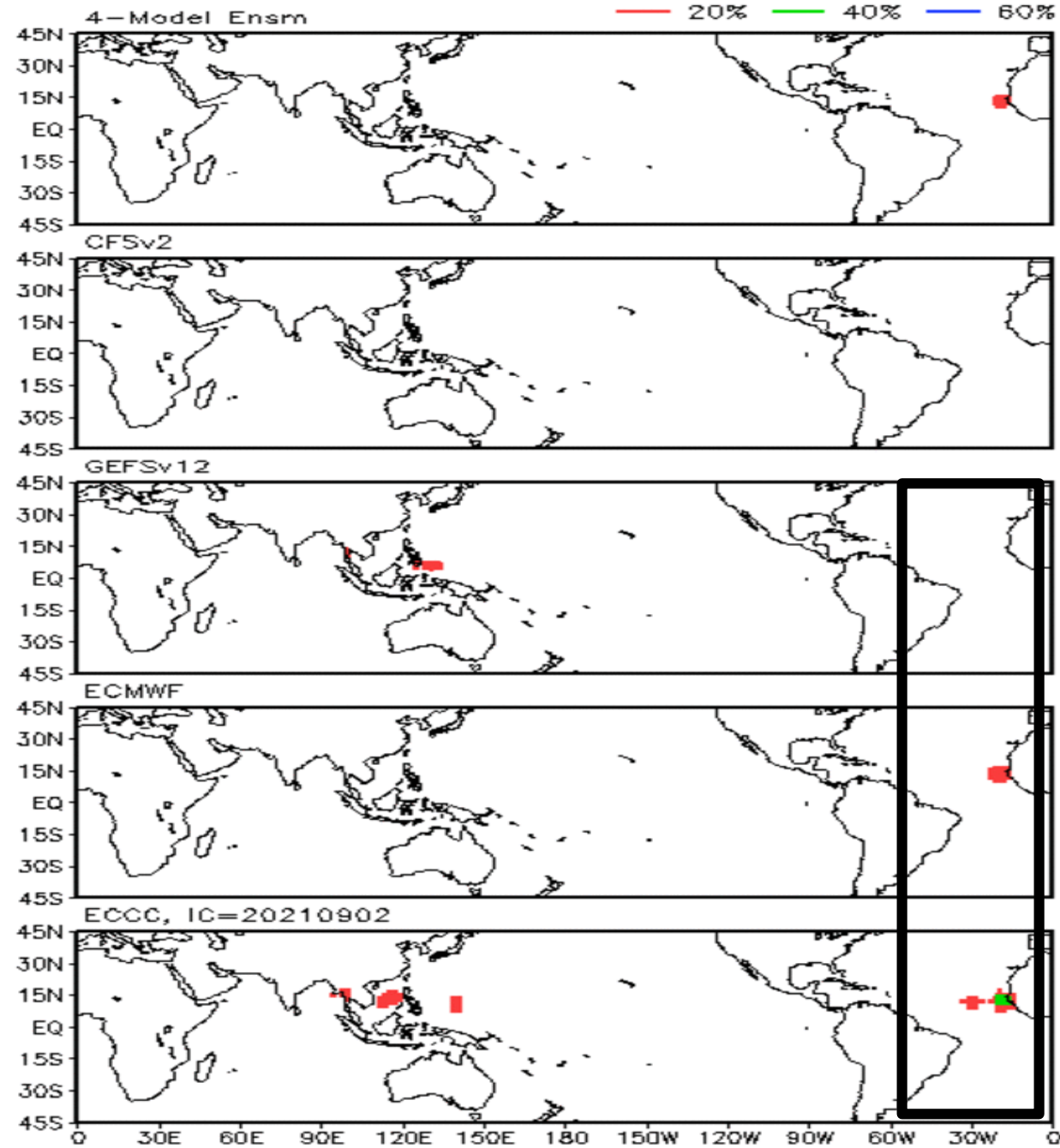
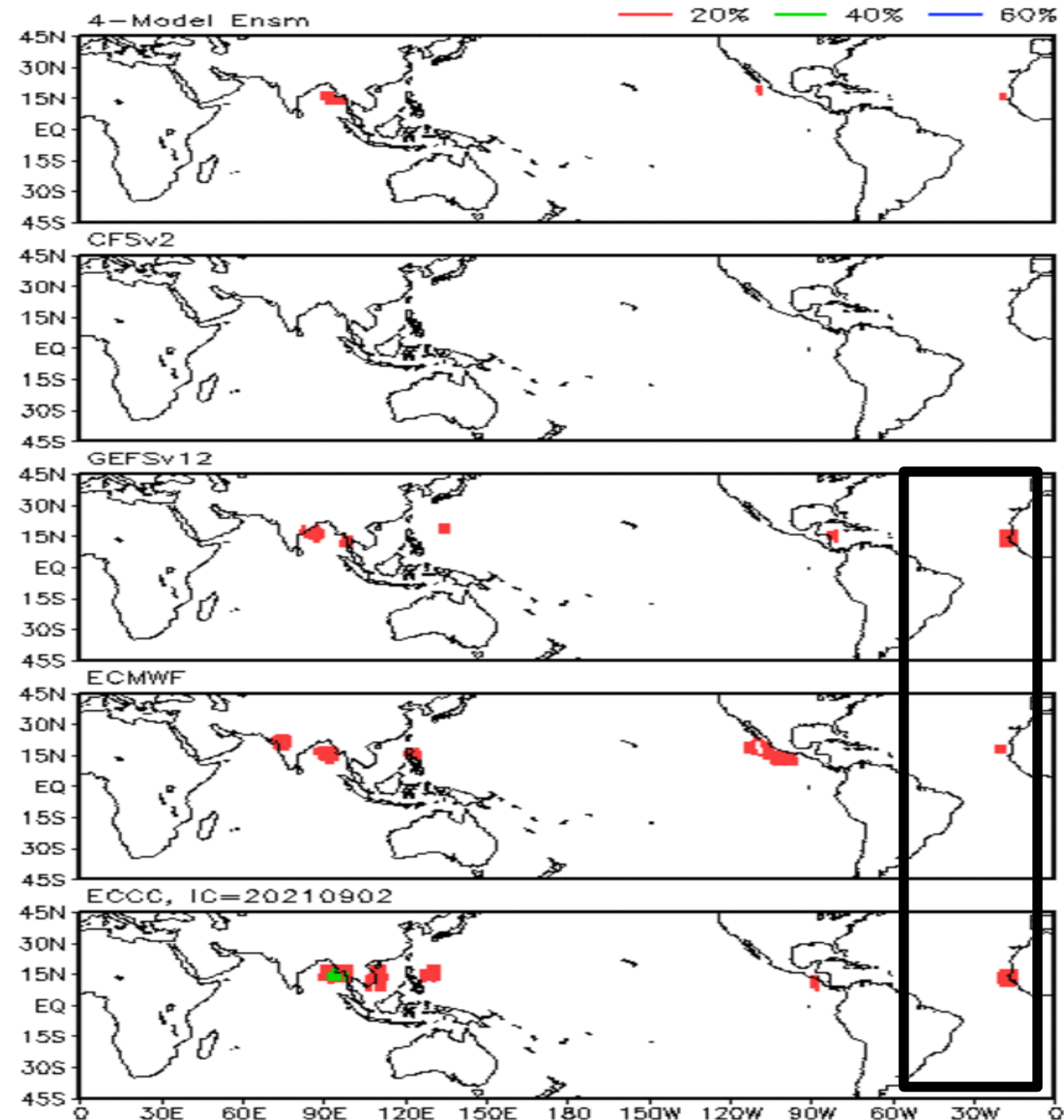


Storm Genesis Probabilities, IC=20210906

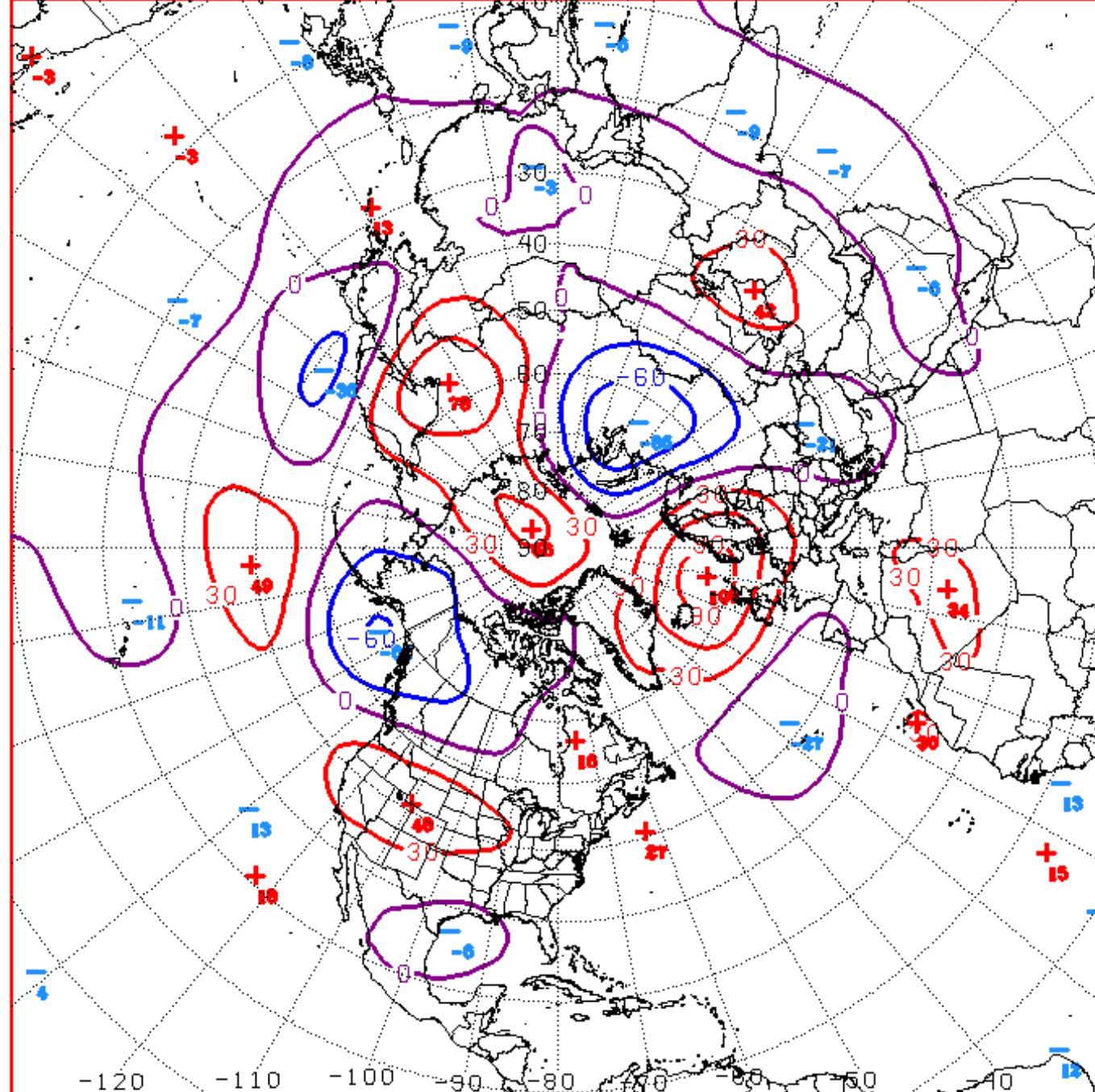
Week 1: 0908 - 0914

Storm Genesis Probabilities, IC=20210906

Week 2: 0915 - 0921

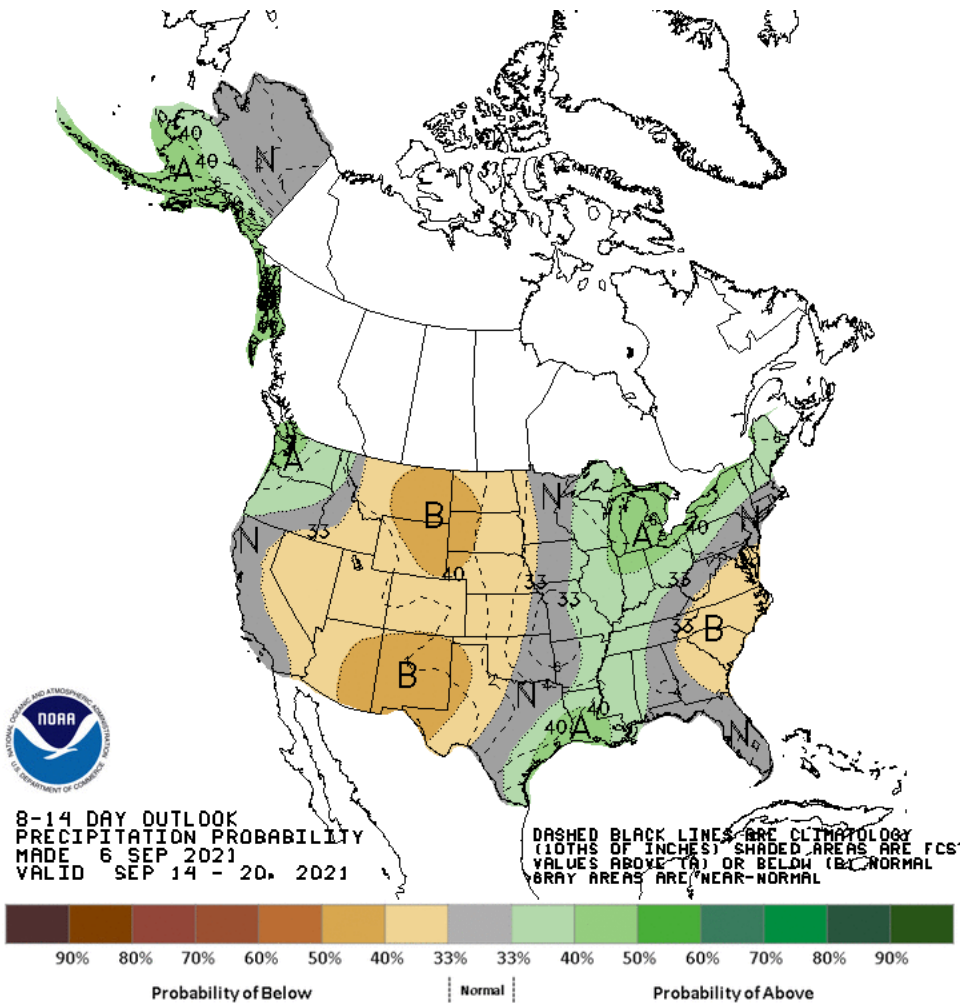
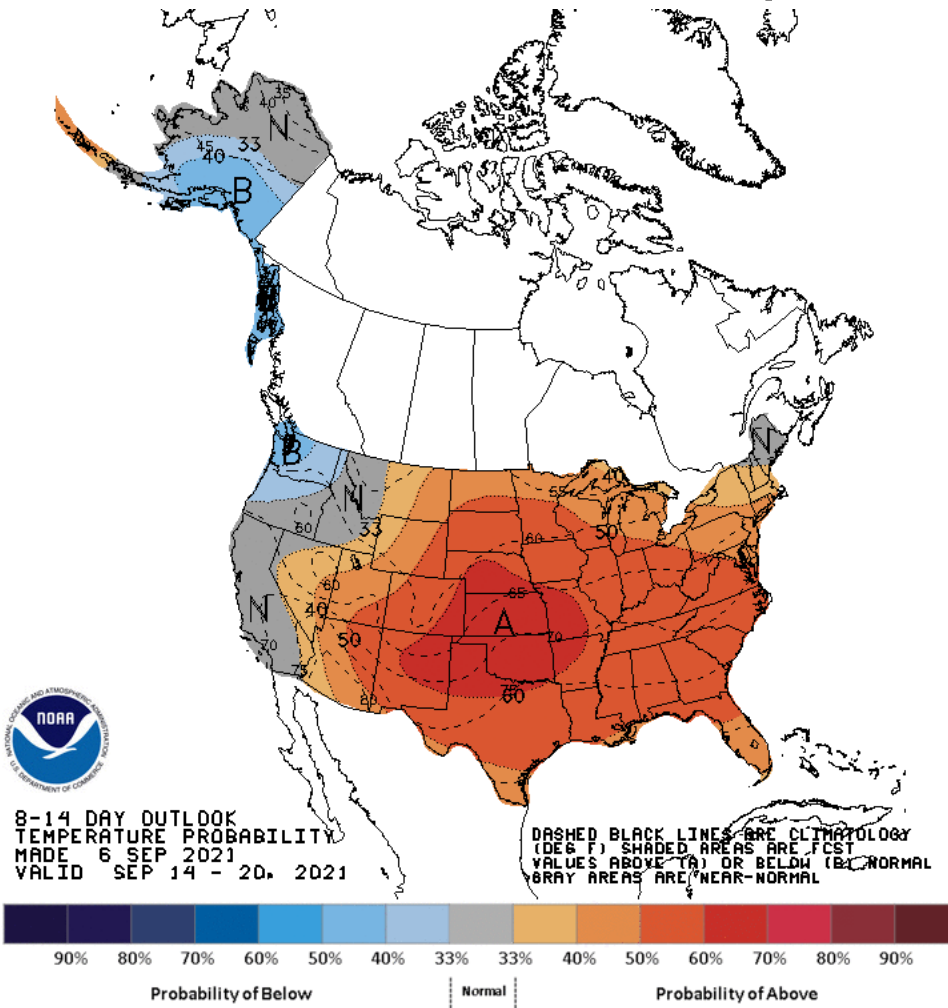


Connections to U.S. Impacts



D+11 500 MB ANOMALIES FROM ALZ ENSM
CPC MAP MADE SEP 07 2021 1357 UTC CNTD SEP 18 2021

Week 2 – Temperature and Precipitation

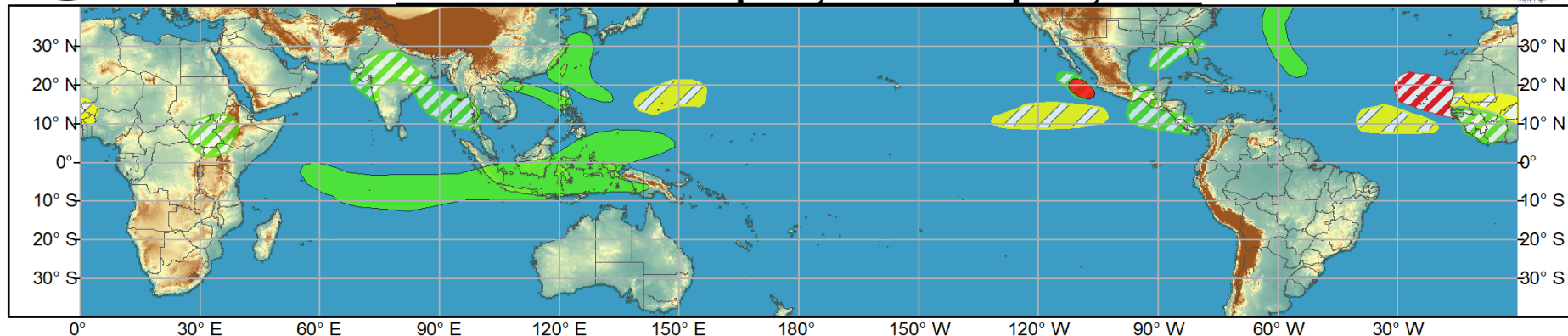




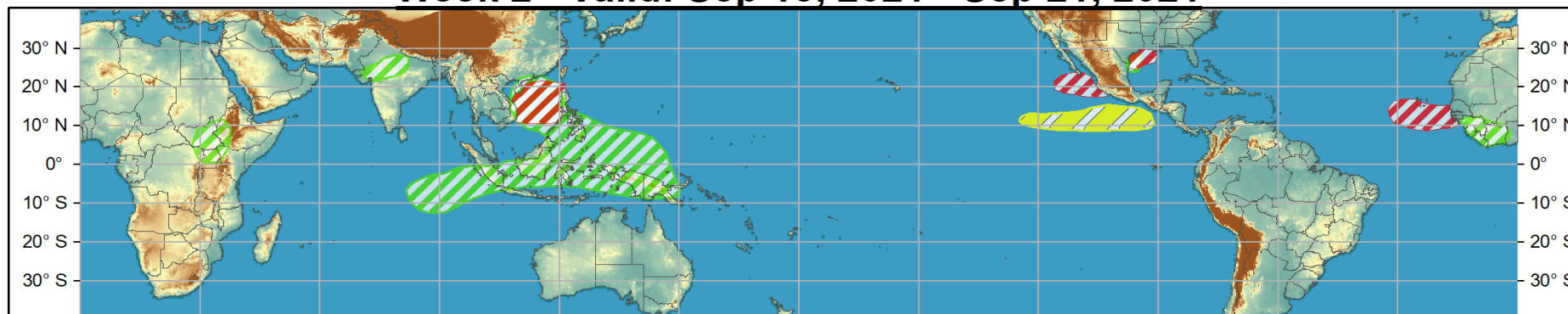
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