

2000 UTC 14 September 2019 Forecast Discussion

Current Ship Location: Near 18.3°N, 126.2°E

**Summary:** The monsoon depression is expected to remain approximately stationary over the next 24 h. JTWC still places a high probability of genesis for 95W in the next 24 h. Both the GFS and ECMWF deterministic runs show Invest 95W beginning a SW approach towards the area of operation in the 24-48 forecast, and potentially entering the area of operation towards the end of the 48-72 h forecast. Convective activity is expected to increase in association with the SW movement of 95W and there is a chance for organized convection near the area of operation beyond the 72-h forecast. Winds and significant wave heights are expected to increase throughout the 24-72 h forecast as 95W begins its SW approach towards the area of operation. The ECMWF ensemble shows the BSISO transitioning from phases 7 to 8 during the 0-4 day forecast.

**Day One (24 hr) Outlook:** Scattered convection is expected over the area of operation throughout the 24-h forecast. Winds from the WNW between 10 to 20 knots. Significant wave heights will remain between 5-7 ft. JTWC places a high probability of genesis for Invest 95W in the next 24 h.

**Day Two (48 hr) Outlook:** Convection will become more widespread towards the end of the 48-h forecast. Invest 95W is expected to begin moving SW towards the area of operation. Winds primarily from the W between 10 to 20 knots. Significant wave heights will remain between 5-7 ft.

**Extended Outlook:** Both the GFS and the ECMWF 1200 UTC deterministic runs bring Invest 95W towards the area of operation near the end of the 48-72 h forecast, and there is a chance for organized convective activity. Winds will increase to 15-25 knots towards the end of the 48-72 h forecast. There is potential for winds exceeding 25 knots and significant wave heights between 9-11 ft beyond the 72-h forecast time frame depending on the development and track of 95W.

## **Discussion**

**TCs:** Invest 97W intensified and is likely to develop into TC in the next 24hr according to JTWC despite strong shear environment, but according to GFS and ECMWF the circulation would weaken by the shear and continue moving NW as tropical storm. Invest 95W, currently centered around 22°N and 130°E, still has the chance of tropical cyclogenesis in the next 24 hours according to JTWC. The GFS and ECMWF agree that it will stall in the north of the area of operation for the next 24 hr, and begin to move SW in the next 24-48, entering the area of operation in the next 48-72 hr

**Convection:** The 12Z Sep 14 GFS shows low chance of scattered convection over the next 24 hours, due to 97W pulling the monsoon trough southward of the ship. As 97W moves NW in the next 24-72hr, there will be a higher chance of scattered convection.

**MJO/BSISO:** The current BSISO index is in phase 6-7, coming back from retrograde, and quickly moved past phase 6. It will stay in phase 7 for the next 2-3 days. There is also agreement that the amplitude will stay consistent until at least phase 7. MJO is moving into phase 8 in the next 24hr and stay for at least the next 24-72 hr.

**SSTs:** SSTs are still expected to remain warm around 29°C.

**Currents and Wave Heights:** 95W continues moving northward while 97W is moving NW. Wave heights should decrease to 5-7 feet over the next 48 hours according to the 12Z Sep 13 WW3. Currents are E 1-3 kts in NW corner of the area of operation through 36 hours. Variable 1-3 kts in other portions of the area of operation.

FORECASTER: MARTINEZ, PANASAWATWONG



# JOINT TYPHOON WARNING CENTER

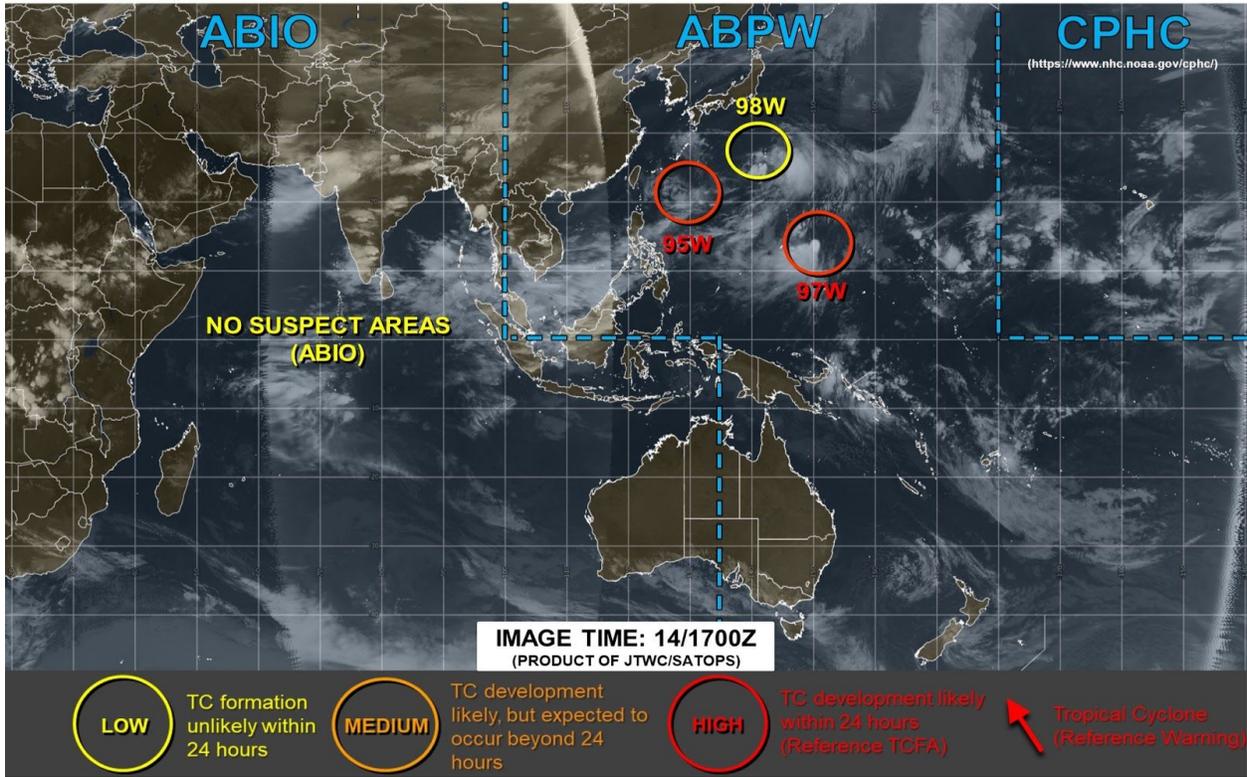
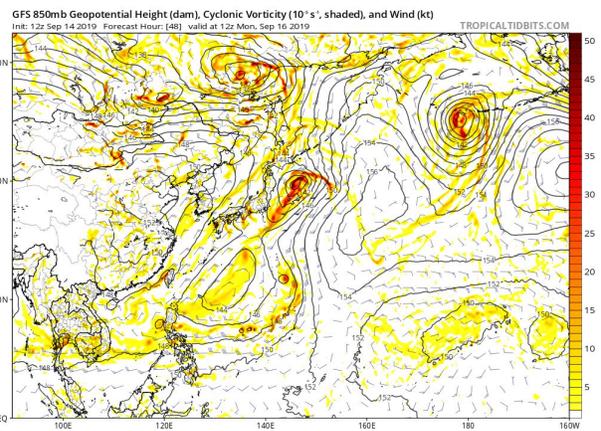
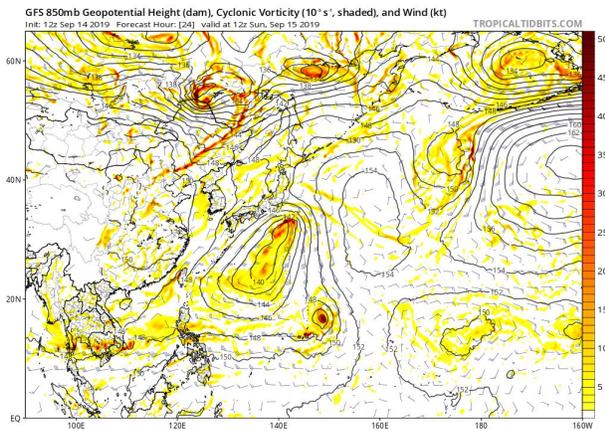
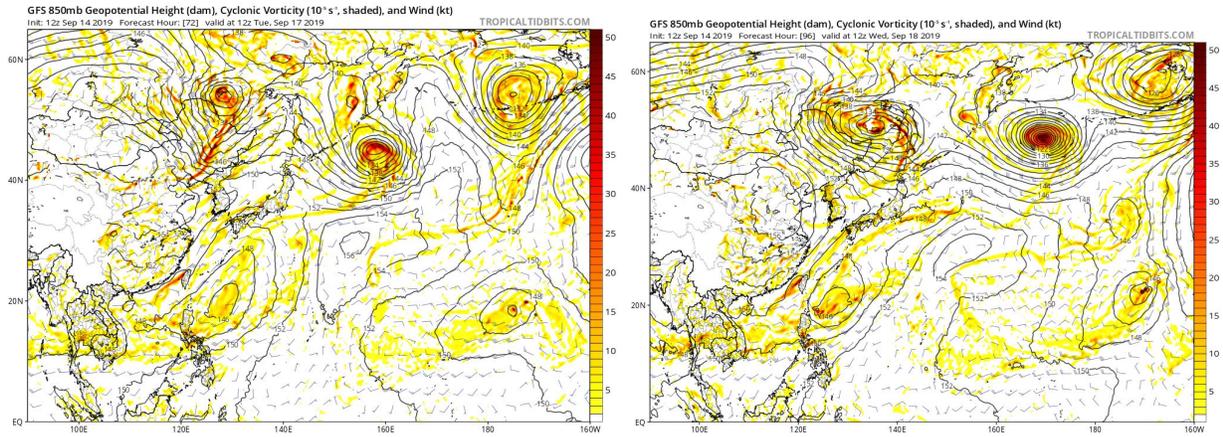
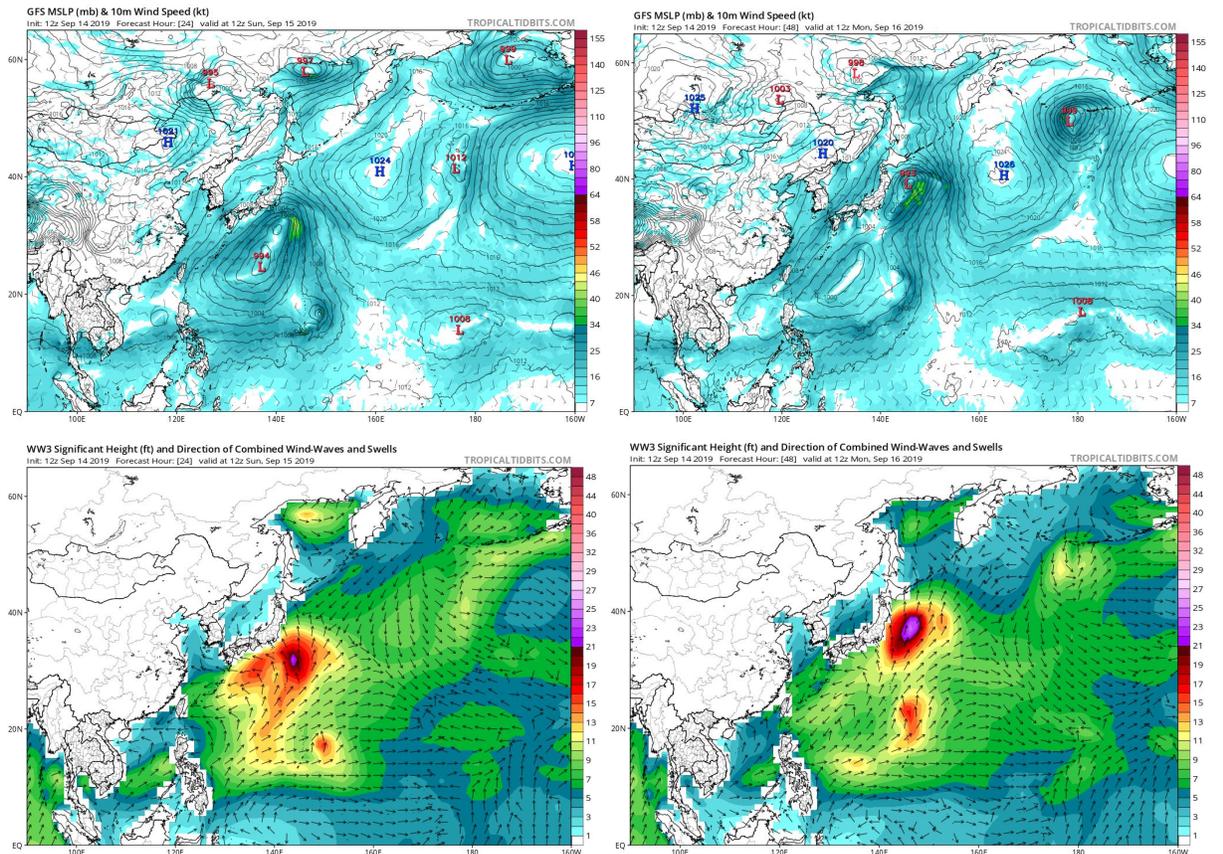


Fig. 1. JTWC TC outlook valid at 17Z Sep 14.





**Fig. 2.** GFS 850 mb vorticity and wind field and mean sea-level pressure initialized at 12Z on Sept. 14th, valid for 12Z Sept. 15th (top left), 12Z Sept. 16th (top right), 12Z Sept. 17th (bottom left), and 12Z Sept. 18th (bottom right).



**Fig. 3.** GFS mean sea level pressure and 10-m winds (top row), and WW3 significant wave heights (bottom row) initialized on 12Z Sep 14, valid for 12Z Sep 15 (left column) and 12Z Sep 16 (right column).