

2000 UTC 15 September 2019 Forecast Discussion

Current Ship Location: Near 18.16°N, 126.18°E

**Summary:** The monsoon depression is nearly stationary, with Invest 95W located in its SW quadrant and Invest 98W located in its NE quadrant. JTWC has a low-likelihood of tropical cyclone development for 95W in the next 24 h, primarily resulting from large deep-layer (850-200 hPa) vertical wind shear. 95W is expected to begin its SW track over the next 24 h. Both the GFS and ECMWF show a closed circulation near 20°N, 128°E at approximately 1200UTC 17 Sep. The timing and position for potential genesis with 95W are largely uncertain as it moves SW and interacts with the monsoon trough. We will continue to closely monitor this system in the coming days. Convective activity is expected to increase and there is a chance for organized convection developing during the 24-48 h forecast as 95W tracks near the area of operation. Winds and significant wave heights are expected to increase throughout the 48 h forecast. The ECMWF ensemble shows the BSISO transitioning from phase 7 to phase 8 with a weakening amplitude in the 0-4 day forecast.

**Day One (24 hr) Outlook:** Convective activity is expected to increase near the end of the 24-h forecast in association with the SW track of Invest 95W. Winds will remain from the WNW, increasing from 10-20 knots to 15-25 knots near the end of the 24-h forecast. Significant wave heights are expected to slowly increase but remain between 5-7 ft during the next 24 h. JTWC has an unlikely probability of genesis for 95W during the 24-h forecast time period.

**Day Two (48 hr) Outlook:** There is a chance for organized convective activity over the area of operation during the 24-48 h forecast in association with Invest 95W. Winds will remain primarily from the WNW and are expected to increase to 15-25 knots, potentially exceeding 25 knots towards the end of the 24-48 h forecast depending on the development and track of 95W. Significant wave heights are expected to increase to 7-9 ft during the 24-48 h forecast.

**Extended Outlook:** Both the GFS and ECMWF 1200UTC deterministic runs show 95W tracking SW throughout the 48-h forecast period and beginning a primarily slow, westward track during the 48-72 h forecast. Winds are expected to increase to during the 48-72 h forecast, shifting to the WSW, given that the GFS and ECMWF show a gradual intensification of 95W as it begins to approach Luzon. There is a chance for organized convective activity and significant wave heights are expected to remain between 7-9 ft during the 48-72 h forecast. The models diverge in their representation beyond 72 h, but generally show 95W stalling north of the Philippines during the 72-120 h forecast before taking a northward track. During this time, winds near the area of operation may exceed 25-30 knots and significant wave heights will increase to 9-11 ft.

## Discussion

**TCs:** 97W has developed into Tropical Storm Peipah. It will continue to move NNW and not affect the area of operation. It will likely get sheared apart in the next 48 h.

95W is unlikely to form in the next 24 h according to JTWC, given large deep-layer (850-200 hPa) vertical wind shear. The system will move SW in the next 24 h, potentially into a lower shear environment, and both the GFS and ECMWF show the development of a closed circulation near 20°N, 128°E around 1200UTC 17 Sep (+48 h). There is still uncertainty in when and where potential genesis may occur as 95W moves SW towards the area of operation and interacts with the monsoon trough. We will continue to closely monitor this system in the coming days.

**Convection:** The monsoon trough will become almost stationary over the area of operation, because 95W and 98W will be moving away from one another and maintain their relative diagonal location. Widespread convection is expected in the next 48 h with a chance for organized convective activity in association with Invest 95W.

**MJO/BSISO:** BSISO index is slowly moving into phase 8, but the signal is also weakening into low significance during the 0-4 day forecast. MJO index will remain in phase 8 during the 0-4 day forecast.

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

**Currents and Wave Heights:** The significant wave heights will increase from 5-7 ft to 7-9 ft in the next 48 h as 95W approaches the area of operation. The currents are E 1-3 kts in the NW corner of the area of operation throughout the next 36 hours. Variable currents between 1-3 kts in other portions of the area of operation as 95W makes its approach.

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# JOINT TYPHOON WARNING CENTER

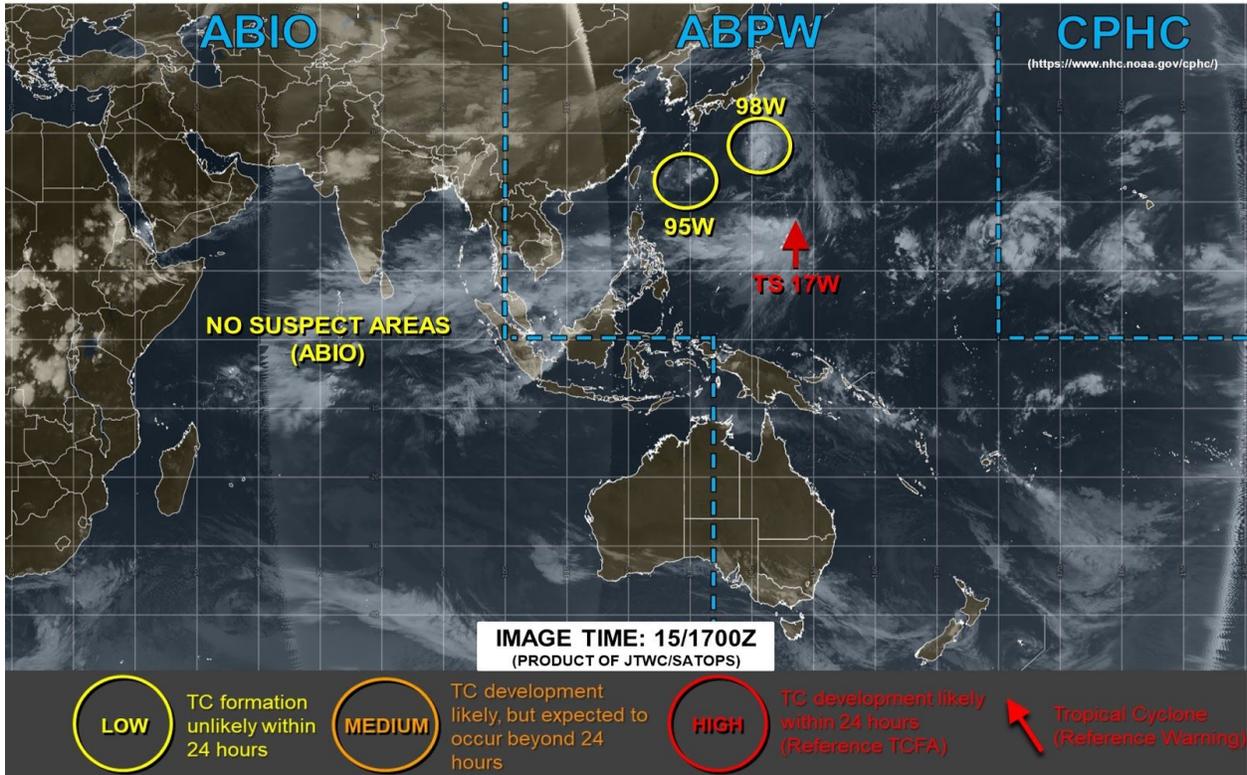
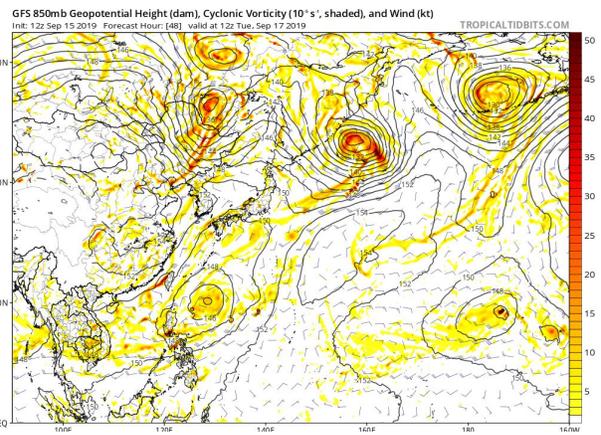
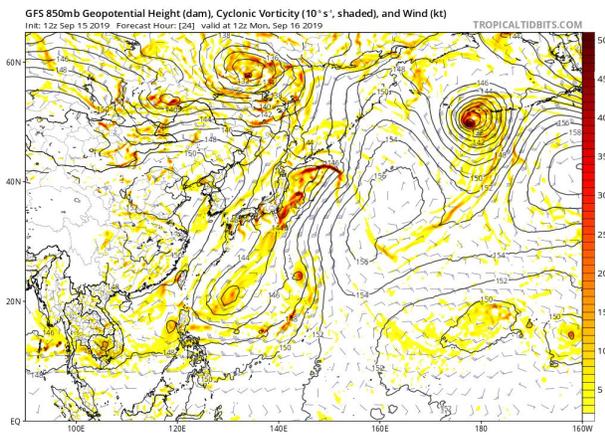
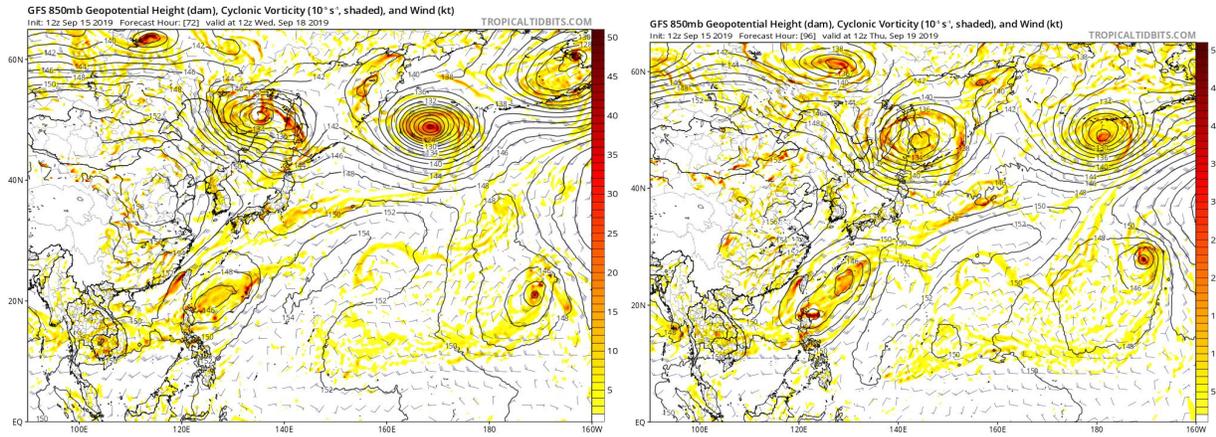
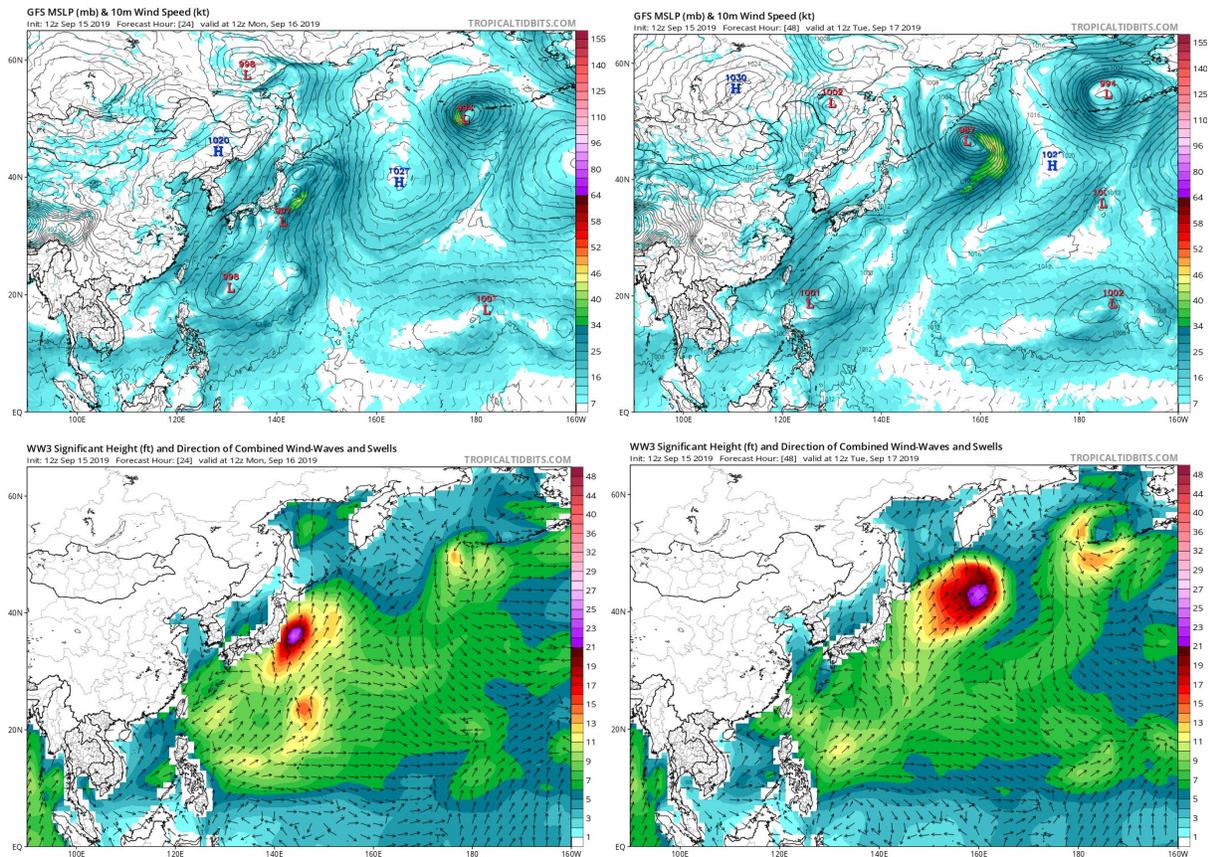


Fig. 1. JTWC TC outlook valid at 17Z Sep 15.





**Fig. 2.** GFS 850 mb vorticity and wind field and mean sea-level pressure initialized at 12Z on Sep 15. From top to bottom, left to right, the figures valid for 12Z Sep 16, 17, 18, and 19.



**Fig. 3.** GFS mean sea level pressure and 10-m winds (top row), and WW3 significant wave heights (bottom row) initialized on 12Z Sep 15, valid for 12Z Sep 16 (left column) and 12Z Sep 17 (right column).