

## Summary

Trami remains a supertyphoon near 20.0N 128.9E with an intensity of 130 knots, and is nearly stationary to the NW of the area of operation. Swells from Trami will continue affect the area of operation, with significant waves heights in the 7-12 ft range expected to persist during the next 48-h. Convection over the area of operation is largely suppressed and is expected to remain light and scattered throughout the 48-h forecast period. A TC is forming well to the northeast of the ship that is will not impact operations, but another disturbance near the equator at 160E recently designated by JTWC as 94W has potential for development and impacts near Guam in the 96-h range.

**Day One (24 hr) Outlook:** Scattered precipitation is expected throughout 24-h forecast period, and chances for organized convection are low. Winds will come from the SW between 10-20 knots. Both FNMOC WW3 and COAMPS shows significant wave heights near the area of operation increasing from 7-9 ft to potential 9-12 ft for the next 24-h forecast period.

**Day Two (48 hr) Outlook:** Scattered and isolated convection are expected and chances for organized convection remain low over the area of operation. Winds will mainly come from the S-SW between 10-20 knots. FNMOC WW3 shows significant wave heights between 7-12 ft persisting throughout the 24-48 h forecast period.

**Extended Outlook:** Convective activity is expected to be suppressed over the next 48-96 hours. Winds over the area of operation will come from the S-SW between 5-15 knots throughout the 48-72 h forecast period, and rotate counterclockwise from S-SW to NW throughout the 72-96 h forecast with an intensity of 5-10 knots as Invest 94 W tracks to the NW closeby Guam. FNMOC WW3 shows significant wave heights mostly remaining 7-9 ft between the 48-96 h forecast period near the area of operation, and decreasing from 9-12 ft to 7-9 ft near the first mooring location (16N, 134E) between the 48-96 h forecast period. However, as Invest 94 W continues to track to the NW, significant wave heights may potentially increase from 7-9 ft to 12-15 ft throughout the 96-144 h forecast period at 16N, 134E.

## Discussion

**TCs:** STY Trami was located near 20.0N 128.9E at 12 UTC 25 September with an intensity of 130 knots, and is forecasted to weaken slightly in the next 24 hours. Trami is nearly stationary to the northwest of the ship. The forecast track calls for slow northerly motion in the 24 - 72 hour time frame. Swells from Trami will continue to affect the area of operation.

JTWC has issued a tropical cyclone formation alert for invest 93W which is located at 25N 155E and is forecast to move northwest away from the area of operation.

JTWC has now identified 94W as an invest area with a low chance for development in the next 24 hours. The invest is now paired with 91P in the southern hemisphere, and global models are suggesting potential twin cyclone development associated with the large MCS straddling the equator around 160E in the 48 - 96 hour time frame. The vigorous N-S line of deep convection, which appears to be related to an equatorial Rossby wave, could produce one TC in each hemisphere in the next few days. The ECWMF is less bullish on 94W than the GFS, but both models are bringing a cyclonic circulation to the northwest near Guam by 96 hours. The potential development of 94W could impact the ship in several days if it moves farther north to redeploy the mooring around 16N. We will continue to closely monitor the potential development of 94W over the next few days.

**Convection:** The Himawari-8 IR satellite imagery currently shows no convective activity over the area of operation. Scattered convection is possible throughout the 48-h forecast period, and the convective activity is expected to be suppressed over the next 48-96 h forecast period.

**MJO/BSISO:** The MJO forecast provided by the ECMWF shows a similar pattern as yesterday's forecast with a phase 8 MJO signal currently and then rotating to phase 1 in the beginning of October. There is no updates for the BOM, showing a phase 7 MJO signal currently and then rotating to phase 8 near the end of September. The BSISO forecast from both the BOM and ECMWF show a BSISO1 growing in amplitude and moving into phase 2 near the end of September. The BOM show a phase 2 signal propagating to phase 6, while the ECMWF show a stationary phase 2 signal in the beginning of October.

**SSTs:** Sea surface temperatures are expected to be between 28-30 C throughout the 24-h forecast period.

**Currents and Wave Heights:** FNMOC WW3 shows significant wave heights near the area of operation increasing from 7-9 ft to potential 9-12 ft throughout the 24-h forecast period, persisting between 7-12 ft throughout the 24-48 h forecast period. Currents will remain from the W throughout the 24-h forecast period, and shift from the W to NW between the 24-96 h forecast period.

FORECASTERS: BELL and CHA

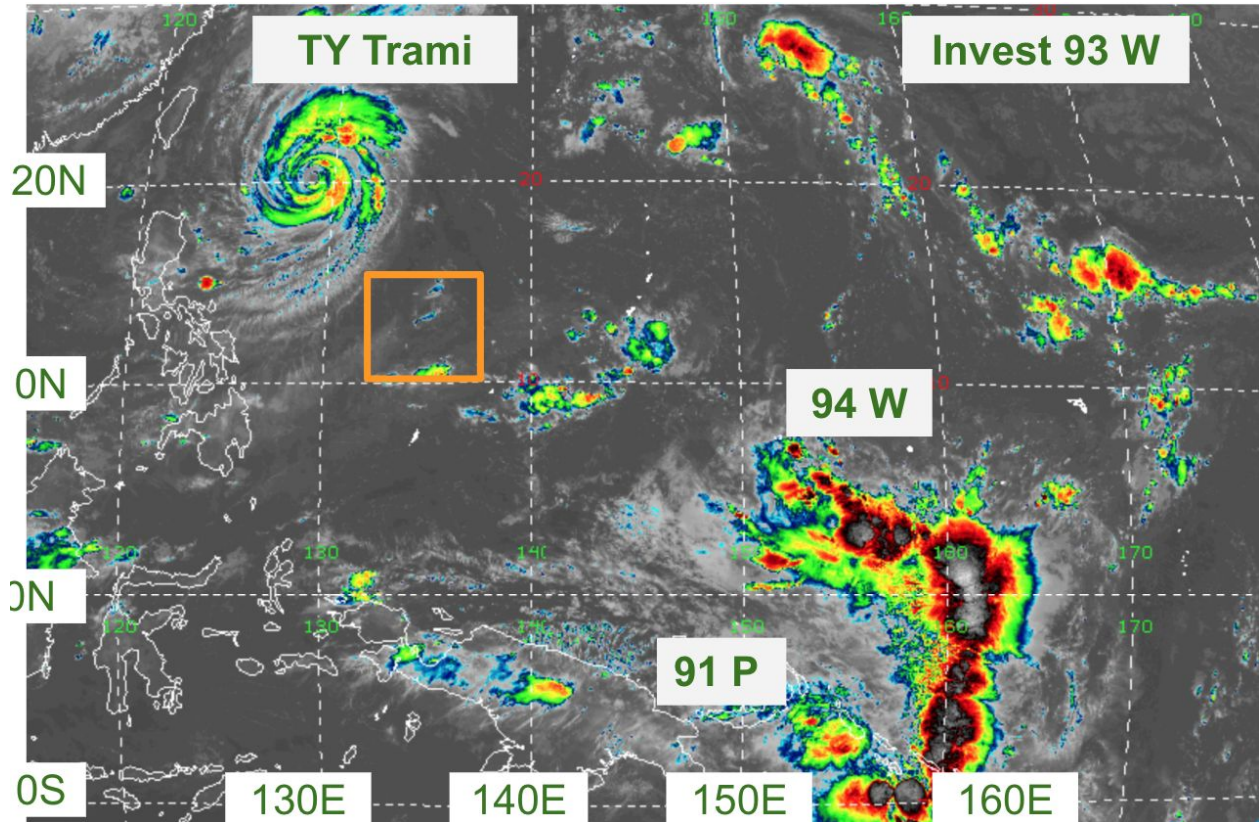


Fig. 1. Himawari IR imagery (10.4 microns) valid at 1540 UTC 25 September 2018. [1]

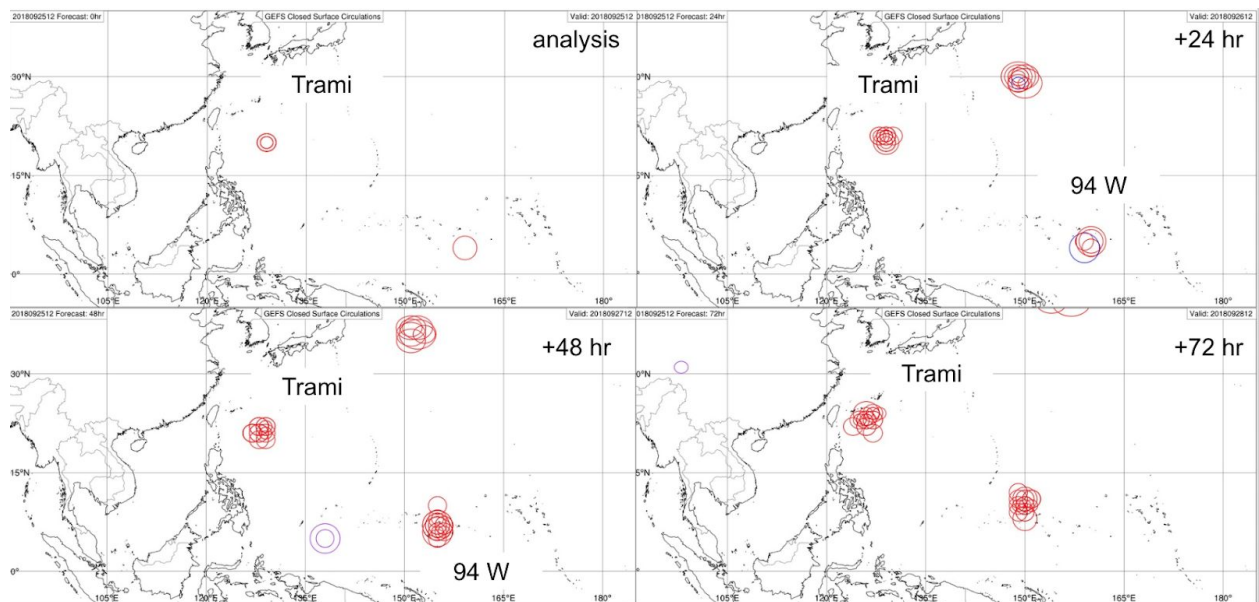


Fig. 2. GEFS ensemble 10-m circulation forecast initiated at 1200 UTC 25 September 2018 and valid from the analysis time through 1200 UTC 28 September. Circulation centers are colored with respect to maximum wind speed. Purple:  $\leq 20$  knots, Blue: 20-34 knots, Red:  $> 34$  knots.

[2]

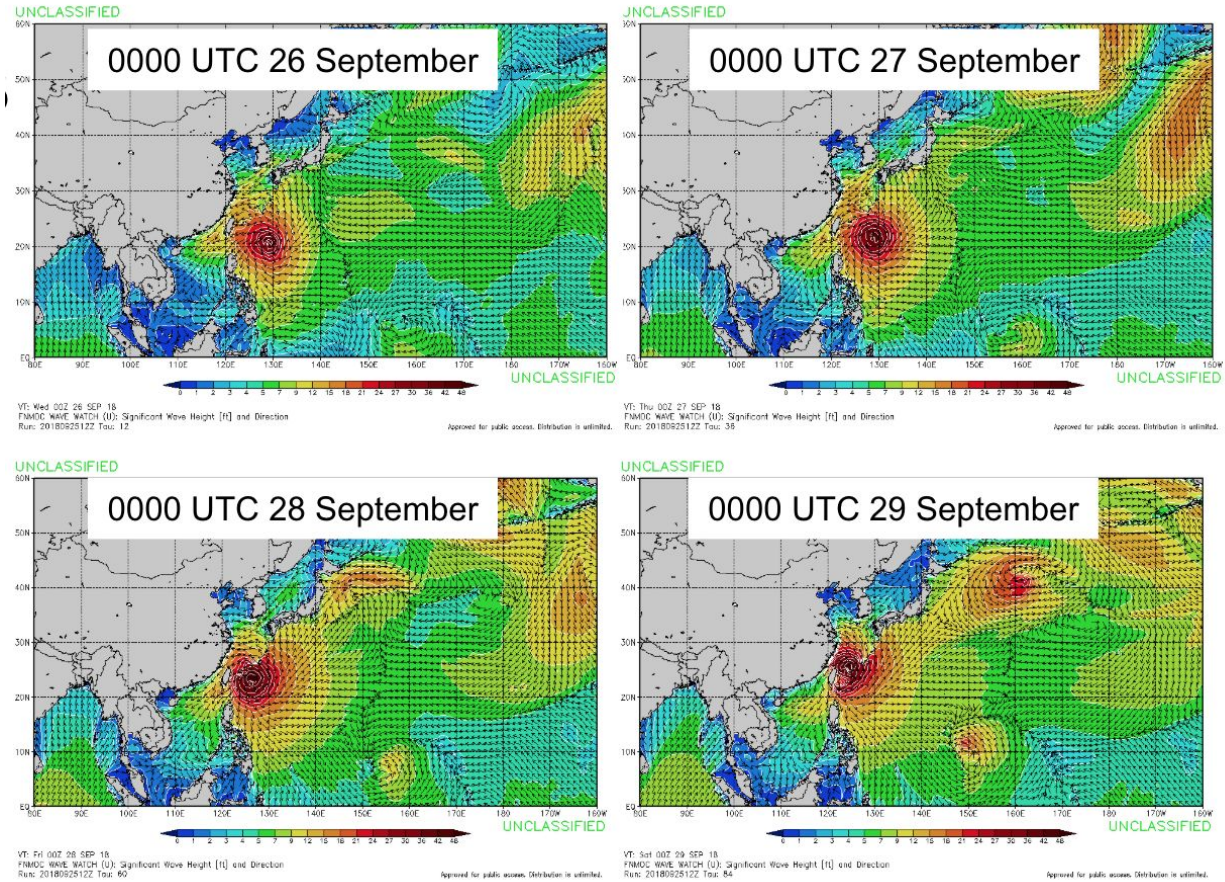


Fig. 3. FNMOC WW3 significant wave height forecast initiated at 1200 UTC 25 September and valid at (top left) 0000 UTC 26 September, (top right) 0000 UTC 27 September, (bottom left) 0000 UTC 28 September, and (bottom right) 0000 UTC 29 September. [3]