

Summary

JTWC has upgraded TD 28W to TS 28W Trami, with an intensity of 40 kt for the maximum sustained winds. TS Trami is now located near 15.6, 142.5 E, and is expected to continue tracking towards the W-NW. Trami will be most likely closest to the ship's current location for the next 24-48 h forecast, bringing 15-25 knots wind. As TS Trami makes its closest approach to the ship, the chance for organized convection will increase as trailing rainbands make their way over the area of operation. These trailing rainbands may continue to influence the area of operation throughout the 96-h forecast period. Both the GFS and ECMWF show a slowly northwestward track for Trami during the next 48-96 h forecast period. Significant wave heights are forecasted to reach 5-9 ft during the next 48 h, and then remaining between 9-12 ft throughout the 144-h forecast period.

Day One (24 hr) Outlook: Scattered precipitation is expected throughout the 24-h forecast period with an increasing chance for organized convection towards the end of the forecast period as TS Trami begins its closest approach to the area of operation. Winds will begin to shift counterclockwise, becoming W-SW between 10-20 knots near the end of the forecast period. FNMOC WW3 shows significant wave heights near the area of operation increasing to anywhere between 5-9 ft throughout the 24-h forecast period.

Day Two (48 hr) Outlook: JTWC currently forecasts TS Trami making its closest approach to the area of operation during the 24-48 h forecast period. Trami will be located approximately 5 degrees north of the area of operation during its closest approach. There will be an increasing chance for organized convection as Trami continues to intensify, producing trailing rainbands to its south and southeast that may move over the area of operation. Winds over the area of operation will remain from the W-SW between 15-25 knots Trami passes to the north. FNMOC WW3 shows significant wave heights between 7-9 ft persisting throughout the 24-48 h forecast period.

Extended Outlook: Scattered precipitation is expected throughout the 48-96 h forecast with a chance for organized convection moving through the area of operation in association with Trami's trailing rainbands. Winds over the area of operation will remain from the SW between 20-25 knots as Trami slowly continues its northwestward trajectory. FNMOC WW3 shows significant wave heights near the area of operation reaching 9-12 ft towards the end of the 48-72 h forecast period and remaining 9-12 ft (and potentially 12-15 ft) during the 72-120 h forecast period. A prolonged period of relatively higher significant wave heights (9-12 ft) is expected throughout the 60-144 h forecast period due to Trami's slow-moving track.

Discussion

TCs: TD 28W reached TS strength after passing Guam, and is named as TS Trami. Trami is now located near 15.6, 142.5 E. An ASCAT pass around 1100 UTC 21 September shows a closed low-level circulation with over 50 knots observed in the inner core, and the maximum sustained winds are expected to over 64 knots around 1200 UTC 22 September according to JTWC's forecast. The environment is favorable for Trami to intensify, with low-shear and high SST (29-30 Celcius). Trami is now tracking to the W-NW steered by the subtropical ridge located to the north. Both the GFS and ECMWF in a good agreement with the track forecast for the next 144 h forecast period, which is mainly steered by the W-E oriented subtropical ridge. Trami moves slowly, and gradually intensifies between the 72-144 h forecast period. The forecast track between the ECMWF and GFS has more consensus than yesterday. Trami is now forecasted to head to the NE, and pass by the northeastern part of Taiwan. JTWC and COAMPS forecasts that Trami (~17N) will be likely closest to the ship's current location (~12N) for the next 24-48 h forecast, bringing 15-25 knots wind.

Convection: The Himawari-8 IR satellite imagery currently shows suppressed convective activity over the area of operation. Chances for scattered precipitation are increased throughout the 24-h forecast, and organized convection associated with TS Trami's trailing rainbands are expected during the 24-48 h forecast period as TS Trami intensifies and moves over the area of operation. During the 48-96 h forecast, Trami will continue to intensify as it slowly tracks northwest, scattered precipitation is expected throughout the 48-96 h forecast with a chance for organized convection moving through the area of operation in association with Trami's trailing rainbands.

MJO/BSISO: The MJO forecast provided by the ECMWF has been updated to show the two week period beginning on 21 September, which shows a similar pattern as yesterday's forecast with a phase 8 MJO signal emerging and then rotating to phase 1 in the beginning of October. The BOM has no updates, and shows an extended forecast period throughout 28 October and continues to propagate the MJO signal from phase 1 to phases 2 and 3. The BSISO forecast from both the BOM and ECMWF have not been updated. Both models show a BSISO1 phases 3 and 4 signal over the next 5 days, and then remaining in phase 2 or 3 in the 5-9 day outlook. ECMWF favors a relatively strong amplitude BSISO1 signal in phase 2, while BOM favors a weak-amplitude BSISO1 signal in phase 2 or 3 for the 5-9 day forecast.

SSTs: Both FNMOC and the Reynolds sea-surface temperature products show sea surface temperatures between 29-31 C, however no SST forecast products are available at this time.

Currents and Wave Heights: FNMOC WW3 shows significant wave heights near the area of operation remaining between 5-9 ft throughout the 48-h forecast period, then increasing and remaining between 9-12 ft throughout the 144-h forecast period. There is a chance for significant wave heights to reach 12-15 ft during the 72-120 h forecast period. Currents will shift

from the NE to SW near the end of the 24-h forecast period, and then remain primarily from the W throughout the 144-h forecast period.

FORECASTERS: CHA, MARTINEZ

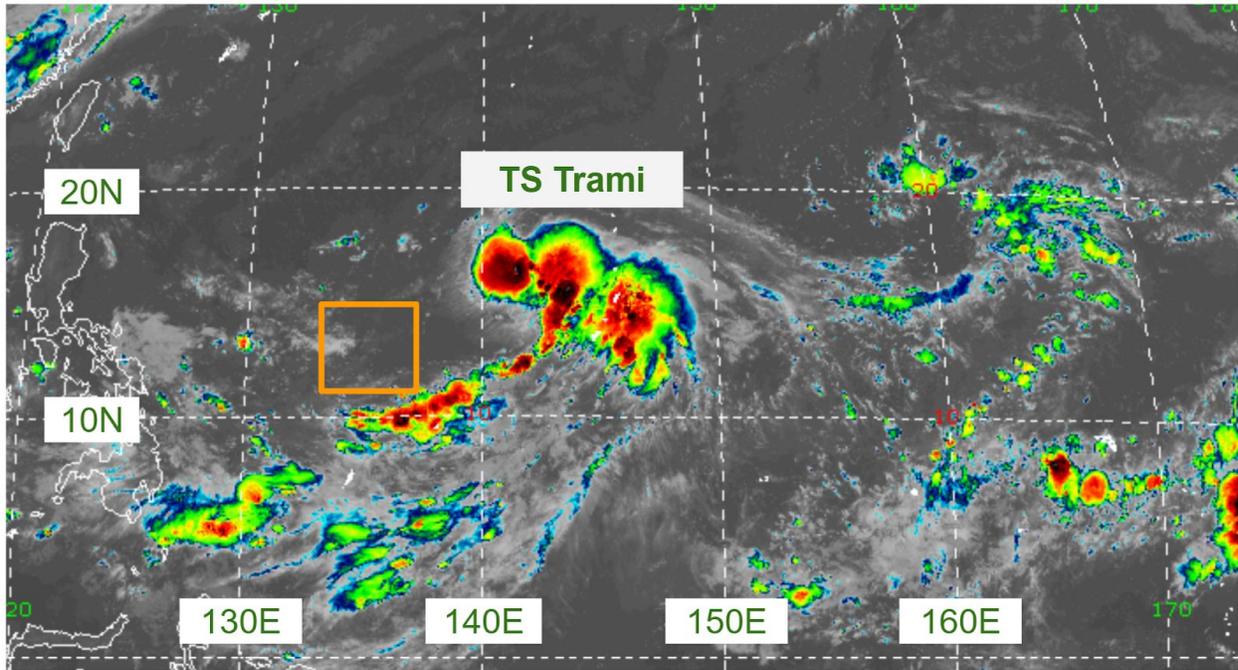


Fig. 1. Himawari IR imagery (10.4 microns) valid at 1800 UTC 21 September 2018. [1]

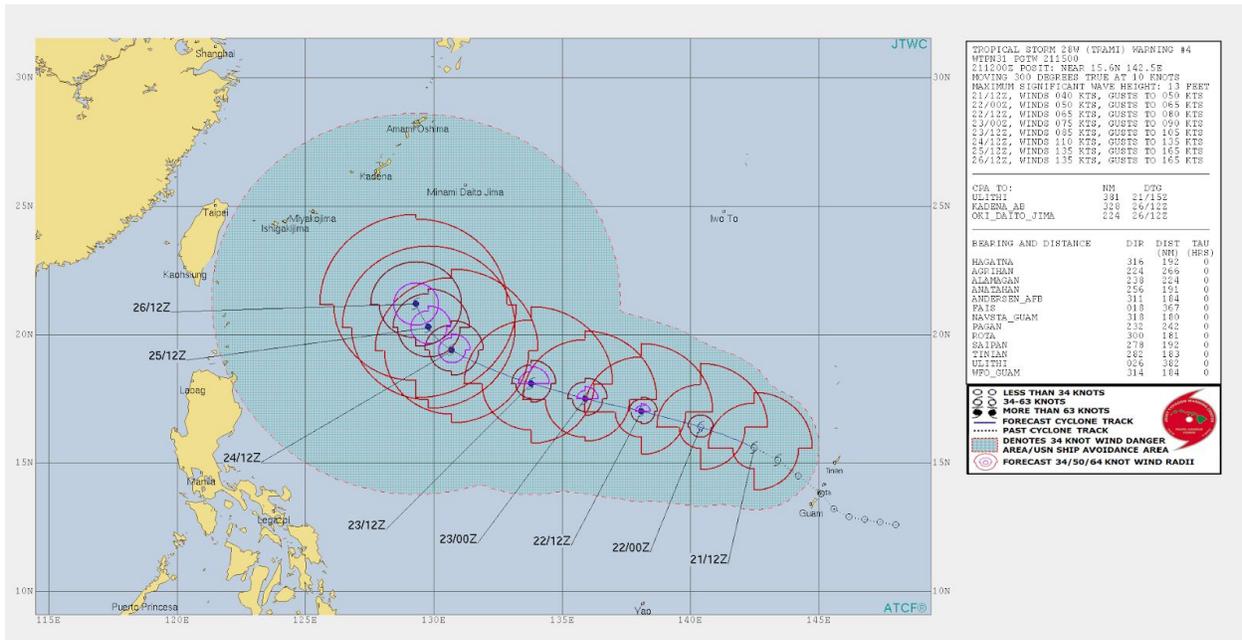


Fig. 2. JTWC forecasted track and intensity of TS Trami, issued at 1200 UTC 21 September 2018 and valid through 1200 UTC 26 September 2018. [2]

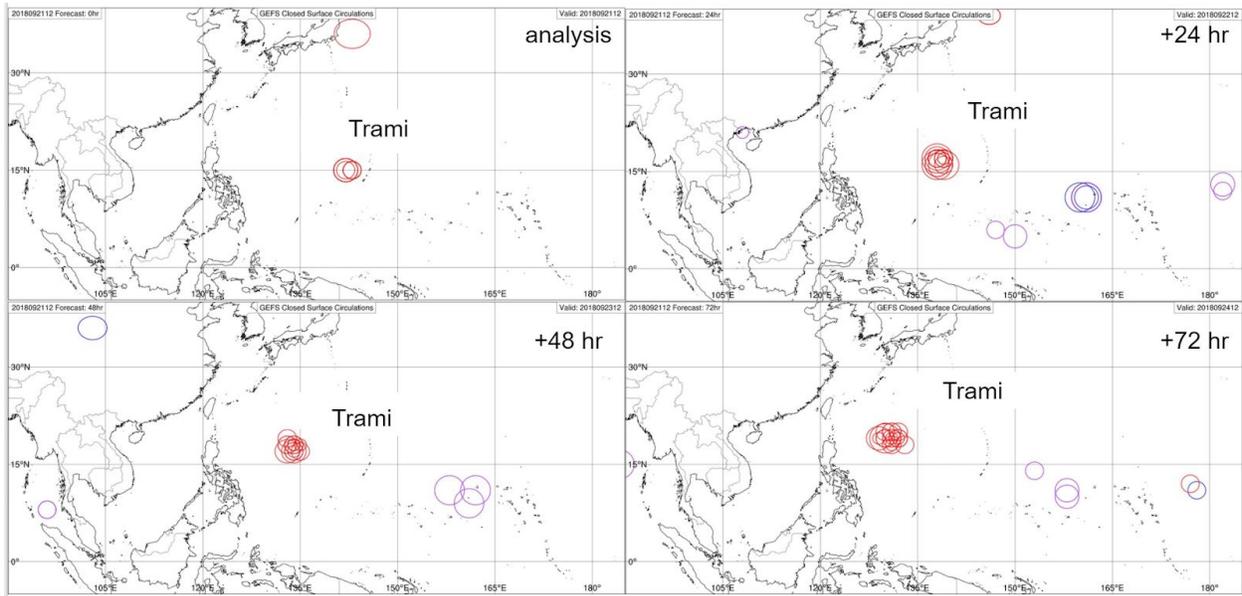


Fig. 3. GEFS ensemble 10-m circulation forecast initiated at 1200 UTC 21 September 2018 and valid from the analysis time through 1200 UTC 24 September. Circulation centers are colored with respect to maximum wind speed. Purple: ≤ 20 knots, Blue: 20-34 knots, Red: > 34 knots.

[3]

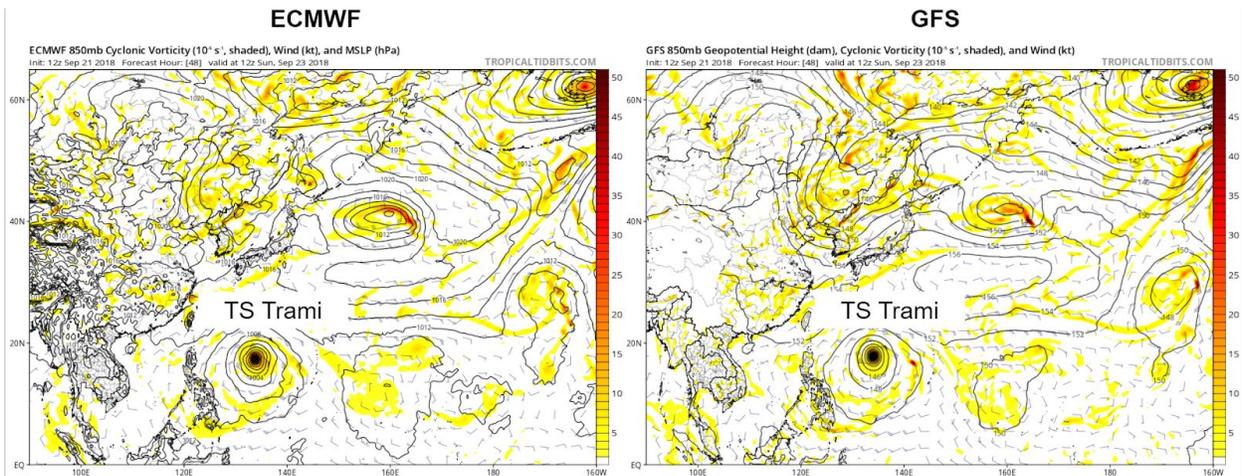


Fig 4. (left) ECMWF and (right) GFS 850-hPa vorticity (shaded), wind barbs, (left) MSLP (contoured), and (right) 850-hPa heights (contoured) initiated at 1200 UTC 21 September 2018 and valid at 1200 UTC 23 September 2018. [4]

+54h: Valid 1200 UTC 23 Sep 2018

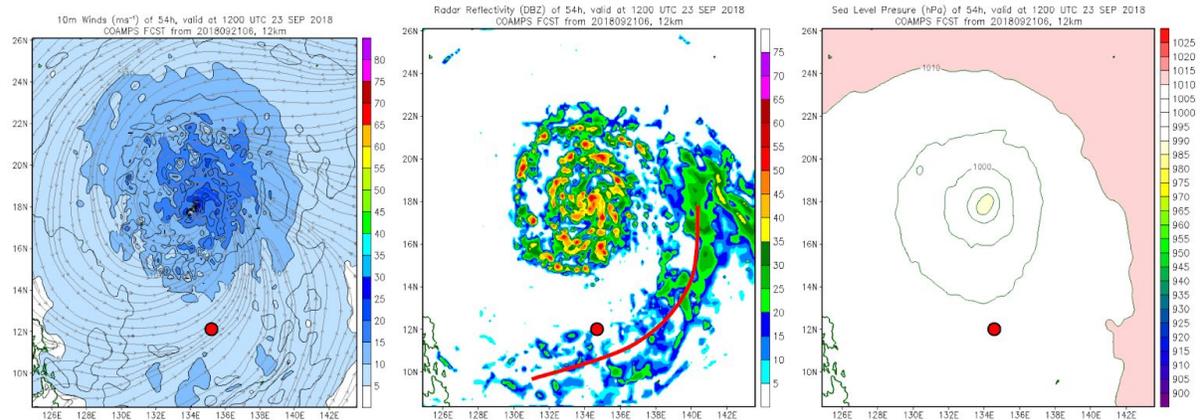


Fig. 5. COAMPS-TC 96-h forecast for TS Trami initialized at 0600 UTC 21 September and valid at 1200 UTC 23 September. The mesoscale domain shows (left) 10-m wind speed (knots; shaded) and streamlines, (middle) radar reflectivity (dBZ), and (right) sea level pressure (hPa; shaded and contoured).

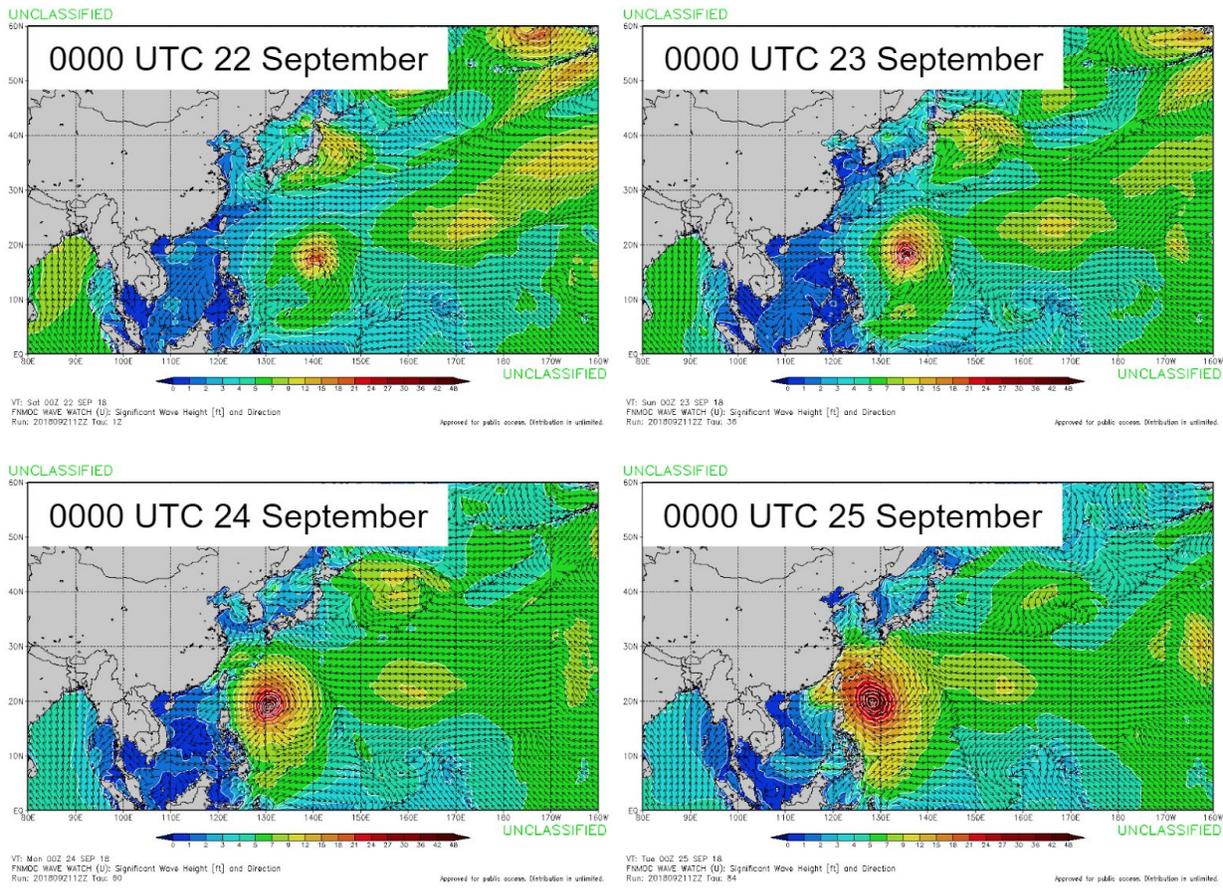


Fig. 6. FNMOC WW3 significant wave height forecast initiated at 1200 UTC 21 September and valid at (top left) 0000 UTC 22 September, (top right) 0000 UTC 23 September, (bottom left) 0000 UTC 24 September, and (bottom right) 0000 UTC 25 September. [6]