

Summary

TY Trami has continued to move to the north and is located near 23.8N 127E with an intensity of 90 knots, and is forecast to slowly pass over the Japanese islands over the next two days. Swells from Trami are on the decline, with significant waves heights in the area of operations forecast to decrease below 7 ft after 12-24 hours. JTWC is now issuing advisories on tropical depression 30W. Wind, precipitation, and wave impacts from 30W could be possible in the 48-h time frame, with chances for strong convection and gusty winds increasing over the next few days as 30W passes to the northeast of the area of operations. After a brief respite from waves from Trami, the significant wave height is forecast to increase with the passage of 30W, with potential for SWH over 12 feet in 72-hours. Based on the current forecast, sustained winds greater than 34 kts are not expected at the ship location but the situation should be monitored carefully in the next forecast cycles. Winds, convection, and swell will then start to decrease as 30W moves further northwest. No typhoon activity is expected after 30W, suggesting the earliest window to move northward for potential mooring deployment could be on or around 3 October.

Day One (24 hr) Outlook: Scattered convection is possible throughout 24-h forecast period, and convective activity is generally suppressed. Winds will come from the NW between 5-15 knots. FNMOC WW3 shows significant wave heights decreasing from 7-9 ft to 5-7 ft for the next 24-h forecast period, and COAMPS shows significant wave heights persisting 5-7 ft for the next 24-h forecast period.

Day Two (48 hr) Outlook: Chances for scattered and organized convection in association with TD 30 W increase as TD 30 W tracks to the NW throughout 24-48 h forecast period. Winds will transition from the NW to the W between 20-30 knots for the next 48-h. FNMOC WW3 shows significant wave heights between 5-7 ft throughout the 24-36 h forecast period, and possibly reaching 9-12 ft throughout the 36-48 h forecast period as TD 30 W continues moving to the NW.

Extended Outlook: Convection in association with trailing rainbands of TD 30 W is expected to increase over the next 48-96 h forecast period. The GFS model shows the 24-hr accumulated precipitation ranging from 15-45 mm between 48-72 h forecast period over the area of operation as TD 30 W tracks closest to the ship's current location. Winds over the area of operation will rotate counterclockwise from the NW to SW with an intensity of 20-30 knots throughout the 48-96 h forecast period. Both JTWC and global model forecasts show the ship's current location will not be in the 34 knots wind danger area. FNMOC WW3 shows significant wave heights increasing to 9-12 ft between the 48-72 h forecast period near the area of operation with a chance of reaching 12-15 ft, and persisting 9-12 ft between the 72-96 h forecast period.

Discussion

TCs: TY Trami was located near 23.8N 127E at 12 UTC 28 September with an intensity of 90 knots, and is forecasted to maintain or slightly increase its intensity in the next 24 hours. Trami has started to move faster to the north at 8 kts, and will impact the Ryukyu and Kyushu islands of Japan in the 24 - 48 hour time frame. Swells from Trami will continue to decrease as the TC moves away.

JTWC has upgraded the previous invest 94W to tropical depression 30W. Global and mesoscale models have good agreement that 30W will track to the northwest, with some differences in the intensification rate. The official forecast from JTWC brings 30W to typhoon strength in 48 hours but keeps the current Thompson location out of the 34 kt ship avoidance area. All reliable track guidance has been consistent in indicating a path to the northeast of the area of operations, but the size of the wind and wave field is uncertain. The probability of strong convection and gusty winds from the outer circulation will increase over the next few days, with strongest impacts expected around 12 UTC 1 October. Significant wave heights will increase as 30W passes to the northeast, with peak values approaching, or possibly exceeding 12 ft on 1 October. Convection and swells will then decline as 30W moves away. We will continue to closely monitor 30W.

Convection: The Himawari-8 IR satellite imagery currently shows no convective activity over the area of operation, while some convection in association with TD 30 W moves towards the area of operation. Scattered convection is possible throughout the 48-h forecast period, and chances for scattered and organized convection are expected to increase over the next 48-96 h forecast period.

MJO/BSISO: Both the MJO forecast provided by the ECMWF and the BOM show a phase 8 MJO signal currently and then rotating to phase 1 in the beginning of October. The BOM with an extended outlook to November 4 shows a stationary phase 1 signal with decreasing amplitude throughout October. No updates for the BSISO forecasts. The BSISO forecast from both the BOM and ECMWF show a BSISO1 phase 2 signal currently. The BOM show a phase 2 signal propagating to phase 6, while the ECMWF show a relatively 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 decreasing from 7-9 ft to 5-7 ft for the next 24-h forecast period, persisting 5-7 ft throughout the 24-36 h forecast period, and possibly reaching 9-12 ft throughout the 36-48 h forecast period as TD 30 W continues moving to the NW. Between the 48-72 h forecast period, significant wave heights will

increase to 9-12 ft over the area of operation with a chance of reaching 12-15 ft, and persist 9-12 ft between the 72-96 h forecast period. Currents will remain from the NW and NNW throughout the 48-h forecast period, and transition to the W between the 48-96 h forecast period.

FORECASTERS: BELL and CHA

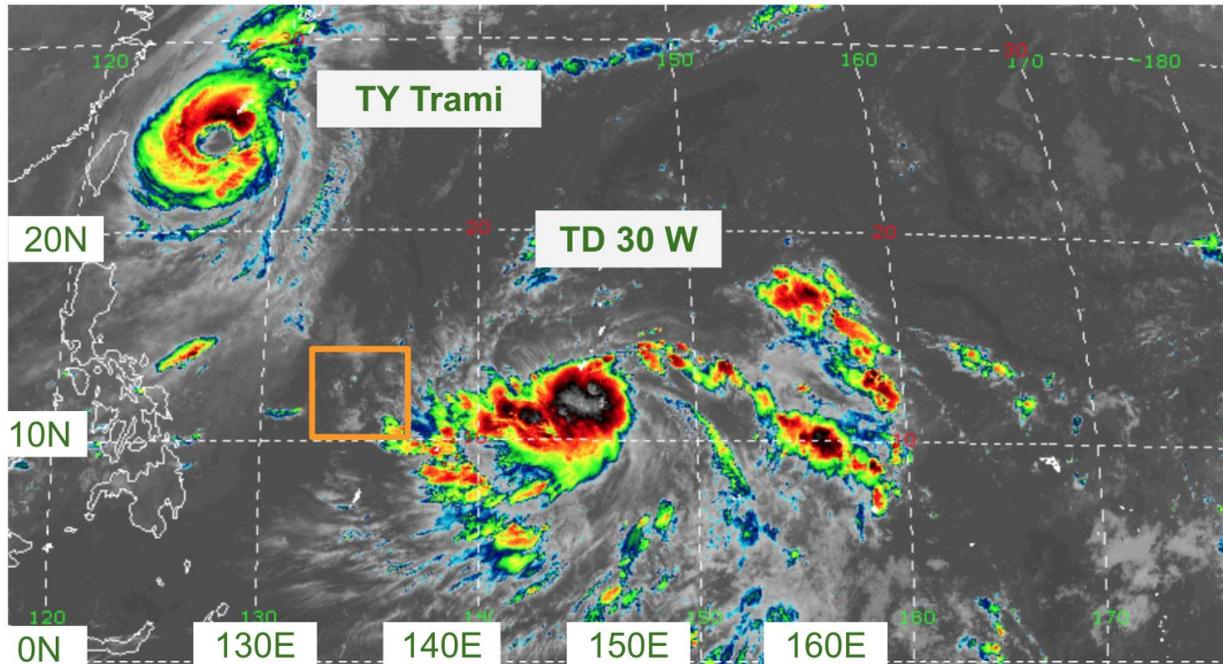


Fig. 1. Himawari IR imagery (10.4 microns) valid at 1800 UTC 28 September 2018. [1]

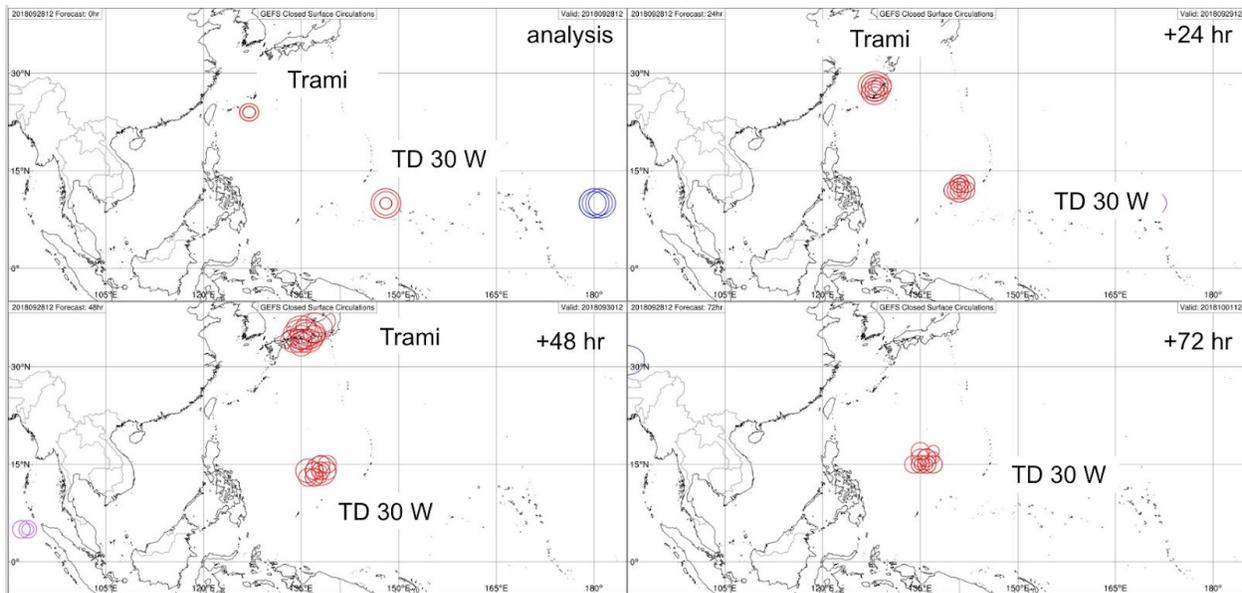


Fig. 2. GEFS ensemble 10-m circulation forecast initiated at 1200 UTC 28 September 2018 and valid from the analysis time through 1200 UTC 01 October. Circulation centers are colored with respect to maximum wind speed. Purple: ≤ 20 knots, Blue: 20-34 knots, Red: > 34 knots. [2]

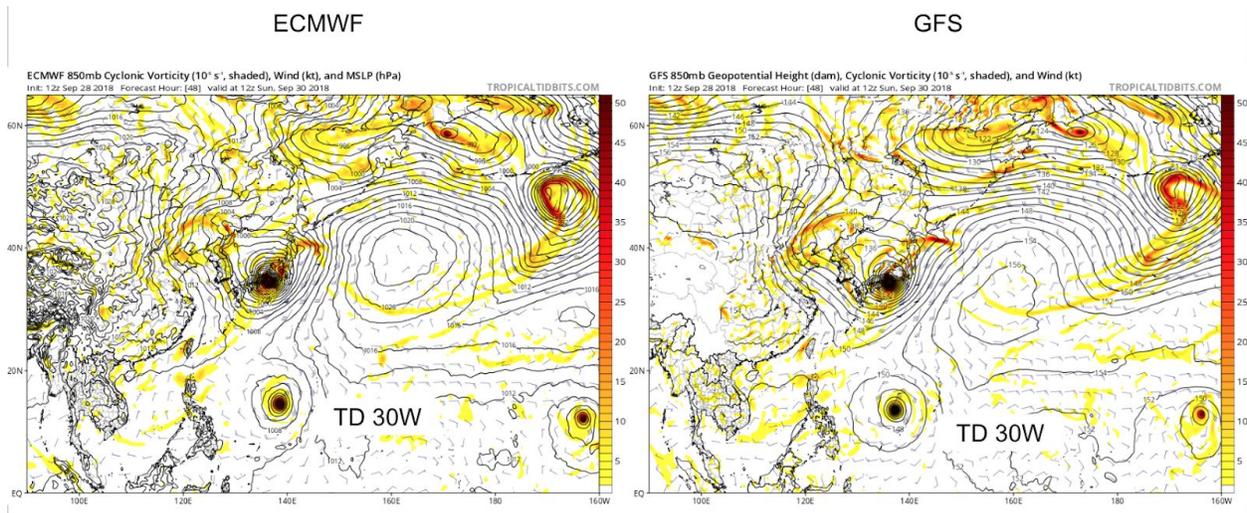


Fig 3. (left) ECMWF and (right) GFS 850-hPa vorticity (shaded) and wind barbs, and MSLP (contoured) initiated at 1200 UTC 28 September 2018 and valid at 1200 UTC 30 September 2018. [3]

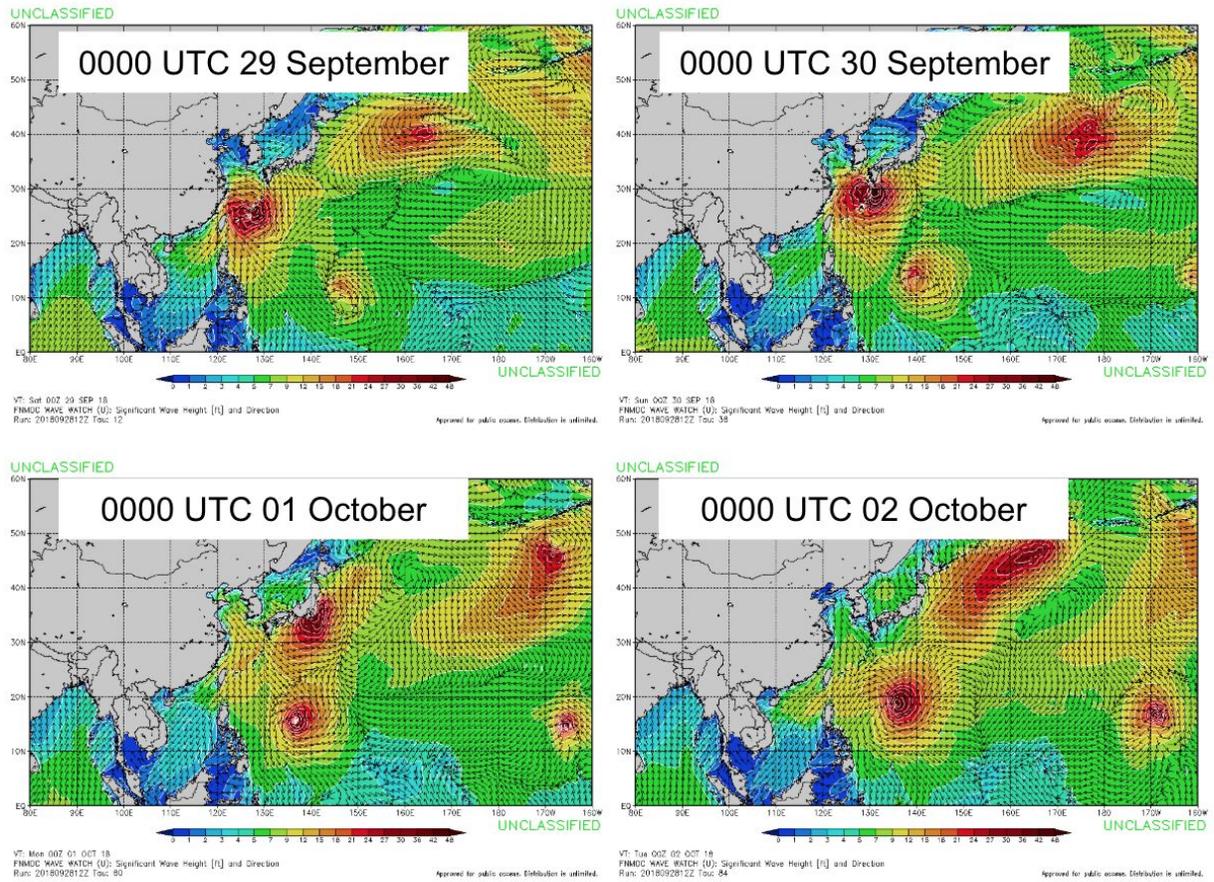


Fig. 4. FNMOC WW3 significant wave height forecast initiated at 1200 UTC 28 September and valid at (top left) 0000 UTC 29 September, (top right) 0000 UTC 30 September, (bottom left) 0000 UTC 01 October, and (bottom right) 0000 UTC 02 October. [4]

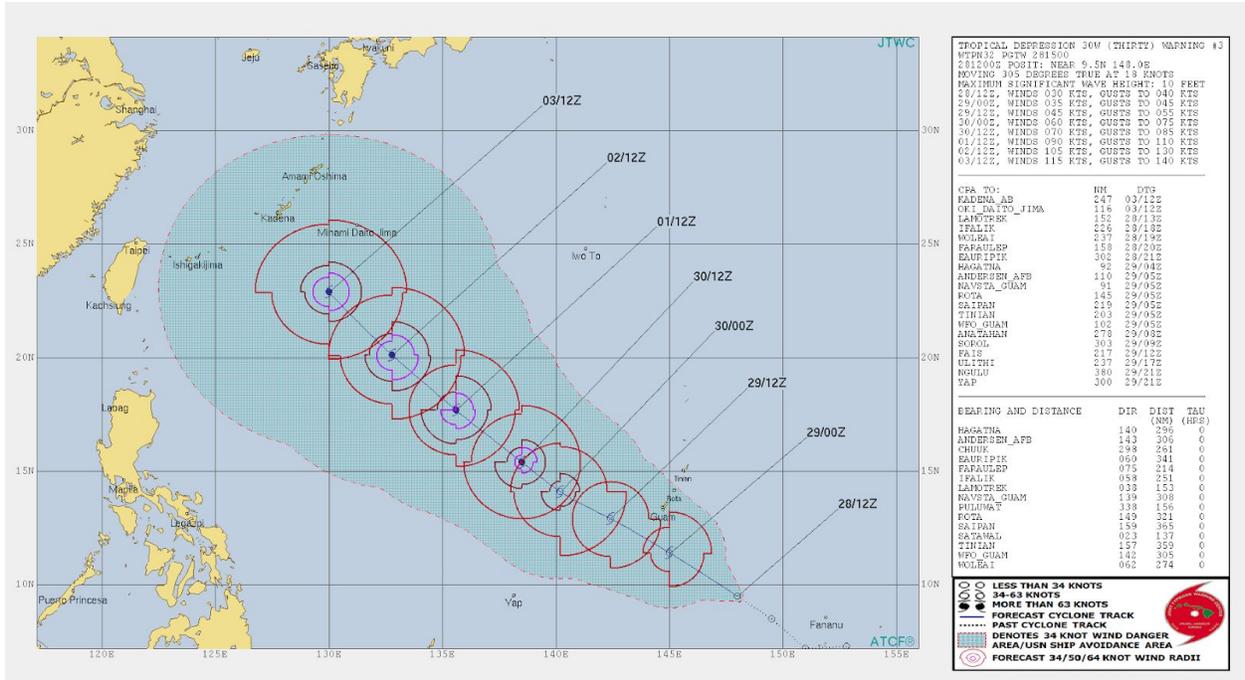


Fig. 5. JTWC forecast of TD 30 W intensity and track initiated at 1500 UTC 28 September and valid through 12 UTC 03 October. [5]