

Summary

TY Trami has continued to move to the northeast and is located near 29.2 N, 129.5 E with an intensity of 90 knots, and is not expected to impact the area of operation due to the decline swells from Trami. JTWC has upgraded the previous TD 30 W to tropical storm and designated as "Kong-Rey". Kong-Rey was located near 13.3N, 139.1 E at 18 UTC 29 September with an intensity of 55 knots. JTWC has shifted the forecast track southward compared to yesterday, so the ship will be on the border of the 34 kt ship avoidance area for the next 24-48 h. Wind, precipitation, and wave impacts from Kong-Rey will increase in the 48-h time frame, with chances for strong convection and gusty winds increasing over the next few days as Kong-Rey passes to the northeast of the area of operations. Winds and convection will then start to decrease as Kong-Rey moves further northwest, while swells from Kong-Rey could potentially continue to impact the area of operation with 9-12 ft wave heights until 3 October based on COAMPS forecast. No typhoon activity is expected after Kong-Rey.

Day One (24 hr) Outlook: Chances for convective activity in association with TS Kong-Rey are high throughout 24-h forecast period as Kong-Rey continues to have a northwestward trajectory. Winds will come from the W and are forecasted to reach between 15-25 knots throughout 24-h forecast period from the GFS, while COAMPS shows winds between 5-10 knots for the next 24 hours over the area of operation. FNMOC WW3 shows significant wave heights increasing from 5-7 ft to 9-12 ft with a chance of reaching 12-15 ft for the next 24-h forecast period, while COAMPS shows significant wave heights between 7-9 ft with a chance of reaching 9-12 ft for the next 24-h forecast period.

Day Two (48 hr) Outlook: Chances for convectivity activity in association with TS Kong-Rey are high throughout 48-h forecast period as Kong-Rey continues the NW trajectory to the closest approach of ship's current location. The GFS shows a portion of deepest convection locating on Kong-Rey's south quadrant, and forecasts the 24-hr accumulated precipitation ranging from 24-50 mm between 24-48 h forecast period over the area of operation. Winds will transition to the SW between 20-35 knots throughout the 24-48 h forecast period. JTWC forecasts Kong-Rey to reach typhoon intensity throughout the 24-48 h forecast period, and the ship's current location will be on the border of wind danger area. FNMOC WW3 shows significant wave heights between 9-12 ft with a chance of reaching 12-15 ft throughout the 24-48 h forecast period.

Extended Outlook: Convection in association with TS Kong-Rey is expected to continue to impact the area of operation over the next 48-96 h forecast period as Kong-Rey intensifies with growing size. Winds over the area of operation will remain from the SW between 25-35 knots for the next 48-72 h forecast period, and decrease to 10-20 knots between 72-96 h forecast period. FNMOC WW3 shows significant wave heights gradually decreasing from 9-12 ft to 5-7 ft between the 48-96 h forecast period over the area of operation as Kong-Rey moves away from

the area of operation. However, COAMPS shows significant wave heights persisting between 9-12 ft over the area of operation for the next 48-96 h forecast period due to intensification of Kong-Rey and increasing swell.

Discussion

TCs: TY Trami was located near 29.2 N, 129.5 E at 18 UTC 29 September with an intensity of 90 knots. Swells from Trami will continue to decrease and are not expected to threaten the area of operation.

JTWC has upgraded the previous TD 30 W to tropical storm and designated as “Kong-Rey”. Kong-Rey was located near 13.3N, 139.1 E at 18 UTC 29 September with an intensity of 55 knots. Global models and JTWC forecast Kong-Rey will be at the closest approach to the ship’s current location for the next 24-48 h forecast period. JTWC has shifted the forecast track southward compared to yesterday, so the ship will be on the border of the 34 kt ship avoidance area for the next 24-48 h. Global models and the official forecast from JTWC have good agreement with Kong-Rey’s northwest track, while the intensity forecasts and size of the wind is still uncertain. The GFS favors a rapid intensification rate for Kong-Rey over the next 72-h forecast period, while the ECMWF favors a slower intensification rate. The official forecast from JTWC brings Kong-Rey to typhoon strength in next 48 hours. The probability of strong convection and gusty winds from the outer circulation will increase over the next few days, with strongest impacts expected for the next 24-48 h. Significant wave heights will increase as Kong-Rey passes to the northeast, and possibly reach 12-15 ft for the next 48-h. Convection and winds will start to decrease as Kong-Rey moves away. We will continue to closely monitor Kong-Rey.

Convection: The Himawari-8 IR satellite imagery currently shows convection in association with Kong-Rey over the area of operation. The convective activity is expected to continue for the next few days, with the strongest convection expected around 12 UTC 1 October.

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. The BSISO forecast from both the BOM and ECMWF show a BSISO1 phase 2 signal currently. The BOM show a phase 2 signal with decreasing amplitude, while the ECMWF show a relatively stationary phase 2 signal for the next 5-9 days forecast.

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 increasing from 5-7 ft to 9-12 ft for the next 24-h, and persisting 9-12 ft with a chance of 12-15 ft throughout the 24-48 h forecast period. FNMOC WW3 shows significant wave heights gradually decreasing

from 9-12 ft to 5-7 ft between the 48-96 h forecast period over the area of operation as Kong-Rey moves away from the area of operation, which is different from COAMPS. COAMPS shows significant wave heights between 3-4 ft currently and increasing to 8-10 ft by 1 October. The wave heights are forecasted to continue to increase to 9-12 ft by 3 October due to intensification of Kong-Rey and increasing swell. Currents will remain from the NW and NNW throughout the 48-h forecast period, and transition to the WNW between the 48-96 h forecast period.

FORECASTERS: BELL and CHA

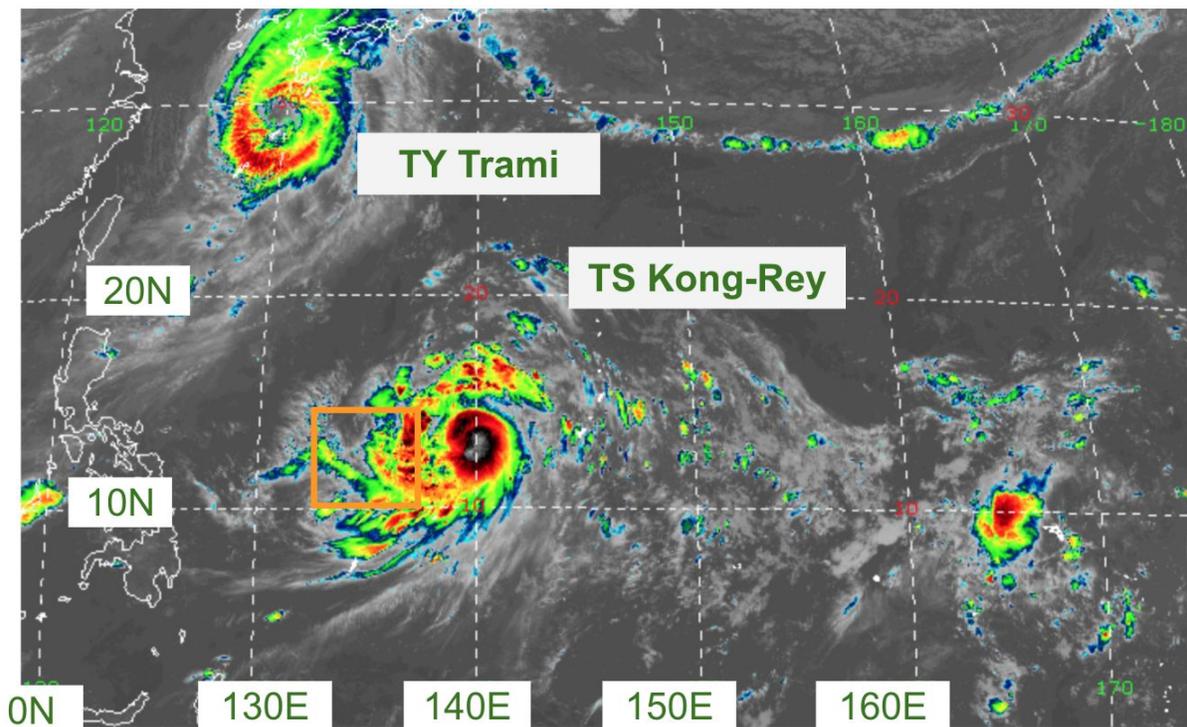


Fig. 1. Himawari IR imagery (10.4 microns) valid at 1800 UTC 29 September 2018. [1]

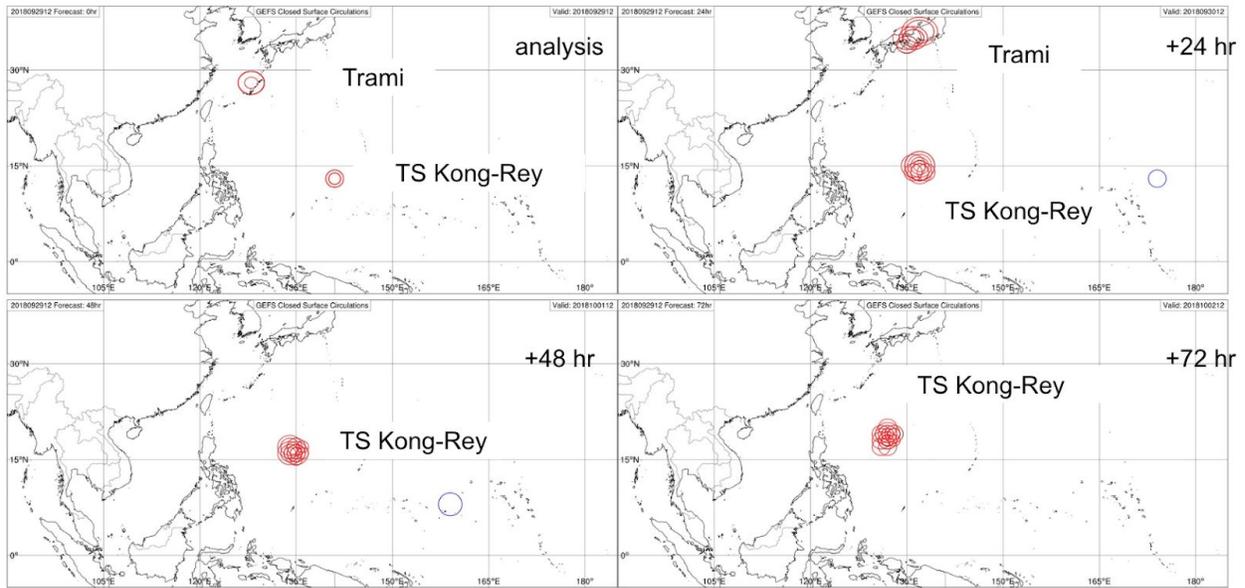


Fig. 2. GEFS ensemble 10-m circulation forecast initiated at 1200 UTC 29 September 2018 and valid from the analysis time through 1200 UTC 02 October. Circulation centers are colored with respect to maximum wind speed. Purple: ≤ 20 knots, Blue: 20-34 knots, Red: > 34 knots. [2]

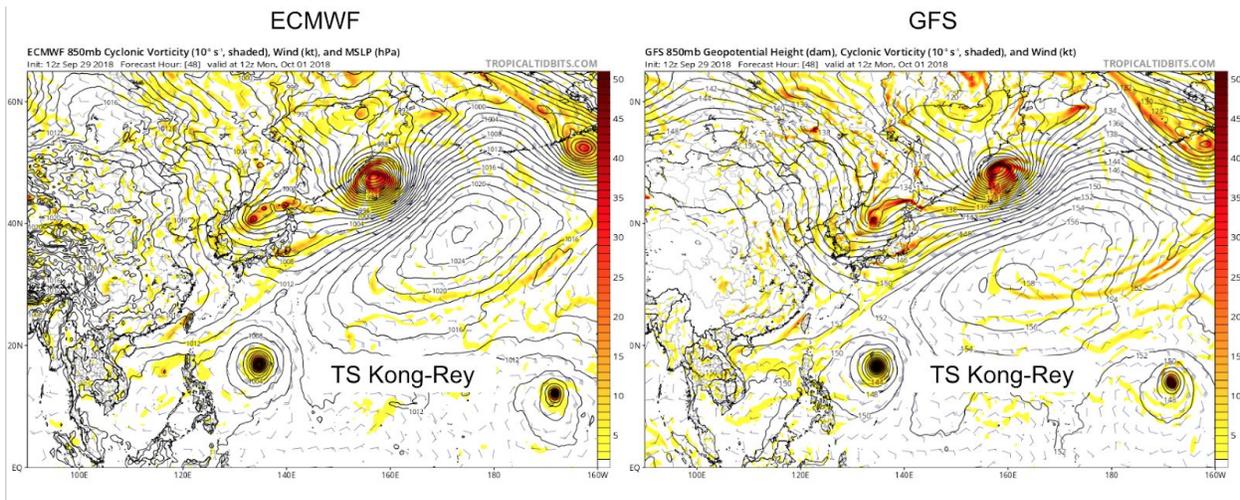


Fig 3. (left) ECMWF and (right) GFS 850-hPa vorticity (shaded) and wind barbs, and MSLP (contoured) initiated at 1200 UTC 29 September 2018 and valid at 1200 UTC 01 October 2018. [3]

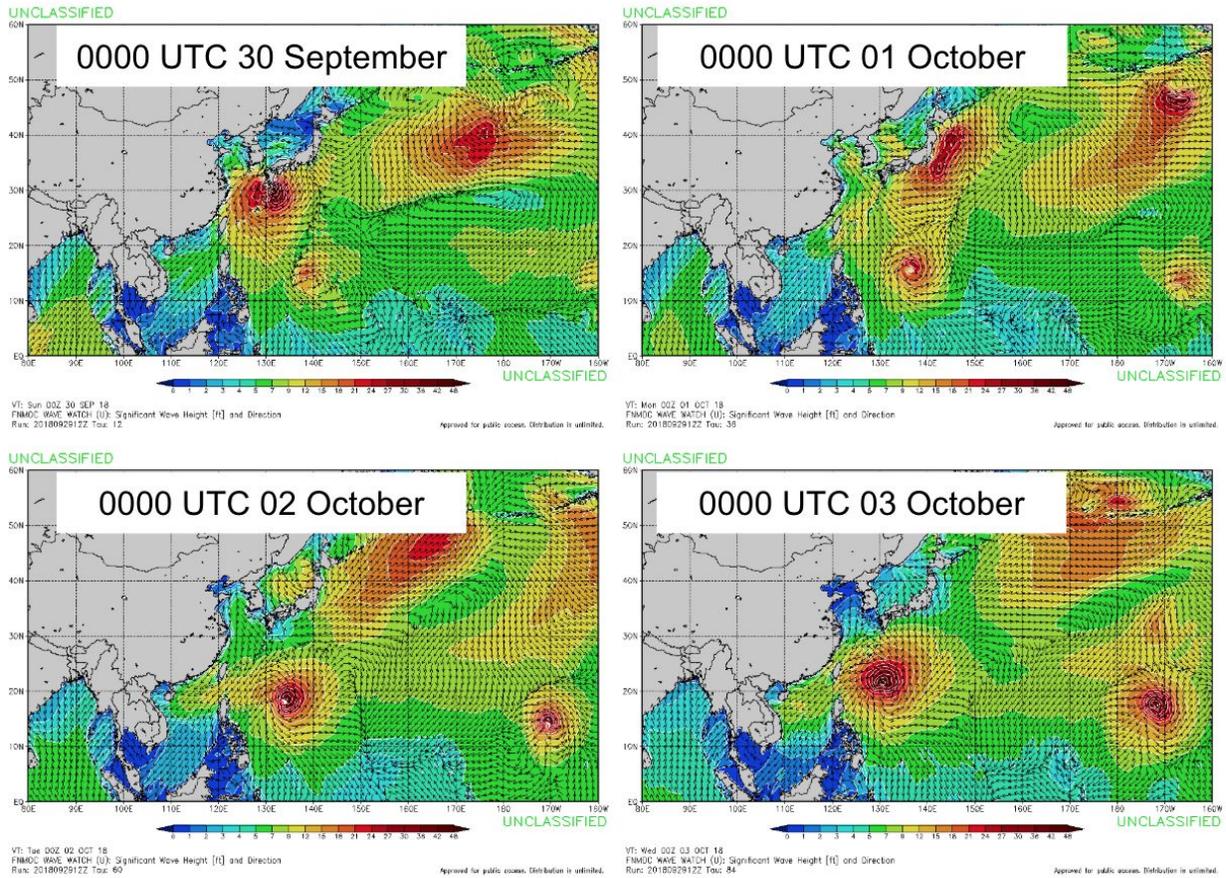


Fig. 4. FNMOC WW3 significant wave height forecast initiated at 1200 UTC 29 September and valid at (top left) 0000 UTC 30 September, (top right) 0000 UTC 01 October, (bottom left) 0000 UTC 02 October, and (bottom right) 0000 UTC 03 October. [4]

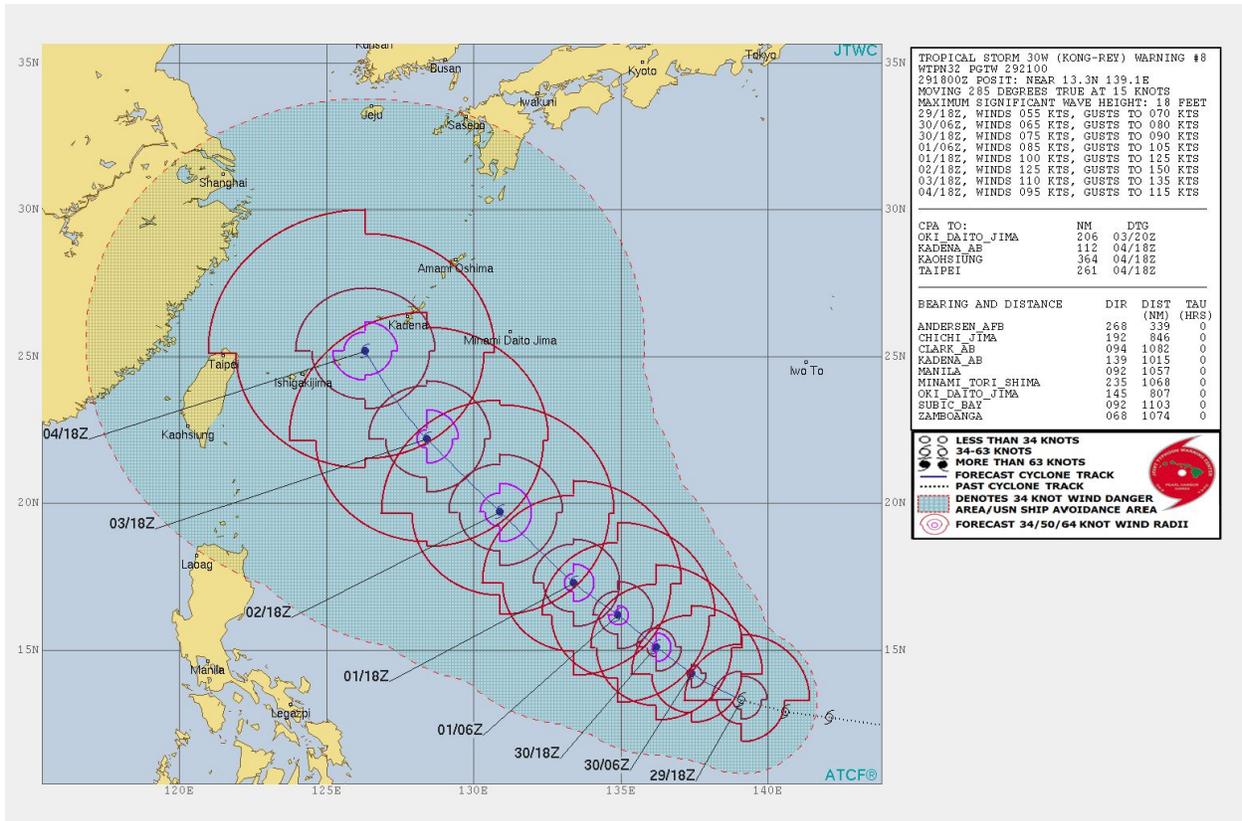


Fig. 5. JTWC forecast of TD 30 W intensity and track initiated at 1800 UTC 29 September and valid through 18 UTC 04 October. [5]

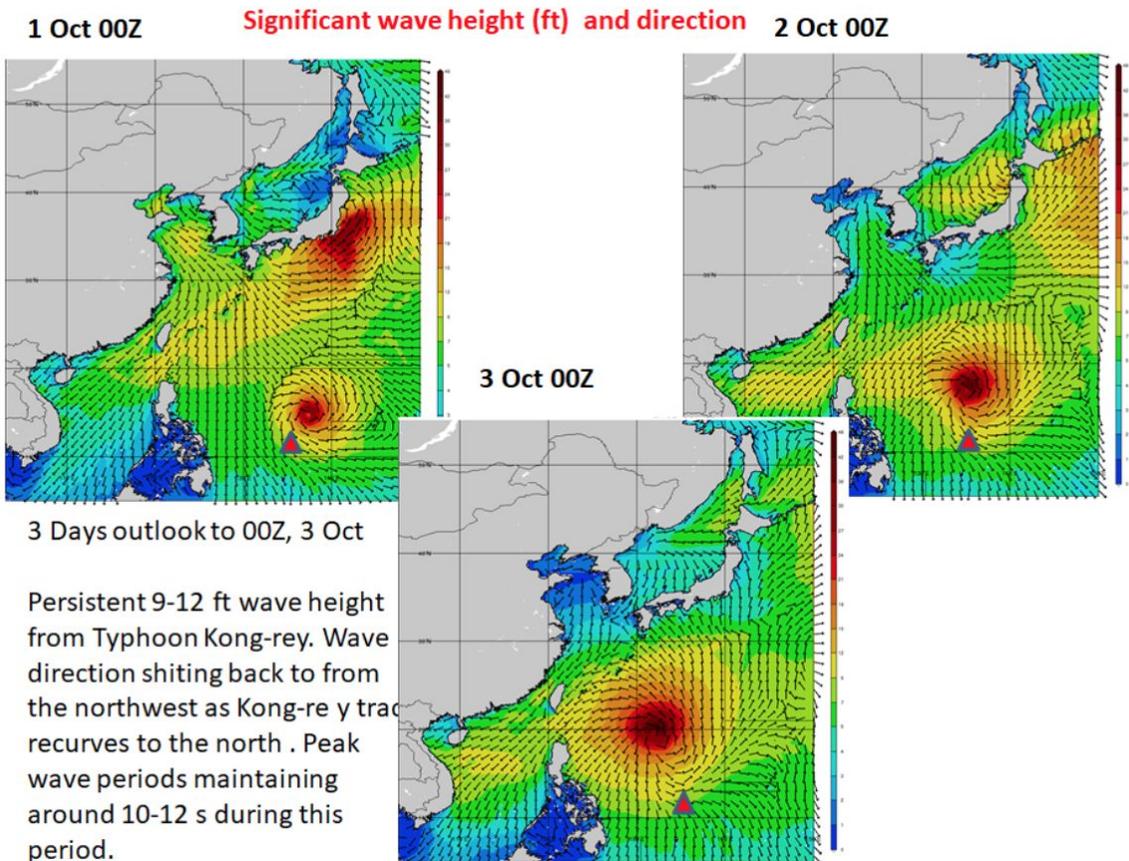


Fig. 6. COAMPS significant wave height and direction forecast initiated at 0000 UTC 29 September, and valid at 0000 UTC 1 October (top left), 0000 UTC 2 October (top right), and 0000 UTC 3 October (bottom).