

Summary

Strong convection and gusty winds from Kong-Rey are expected to impact the ship location for the next 24-h, with decreasing impacts after that through the 48-h period. JTWC has upgraded the 30W Kong-Rey to a typhoon near 15.5N, 134.6 E with an intensity of 90 kts at 21 UTC 30 September. The typhoon is nearly due north of the ship location and moving NW at 10 kts away from the ship. Numerical models and the official forecast from JTWC have good agreement with Kong-Rey's northwest track and intensification to supertyphoon status. Global and high-resolution models keep the sustained winds below 34 kts at the current ship location, and the location at 12N is outside the JTWC ship avoidance area. Wave heights are expected to increase and remain in the 9-12 ft range for the next 48-h, possibly exceeding 12 ft, even as Kong-Rey moves away due to its increasing size and intensity, then start to decrease. Swells are expected to remain high to the N of the ship location, and there is uncertainty about when those will decrease at 16N due to the forecast intensification of Kong-Rey. No typhoon activity is expected after Kong-Rey, and conditions will gradually improve over the next few days in the area of operations.

Day One (24 hr) Outlook: Convective activity in association with TY Kong-Rey is affecting the ship area (Fig. 1) and is expected to continue throughout the 24-h forecast period. GFS and HWRF both show winds staying below 34 kts from the SW throughout 24-h forecast period. FNMOC WW3 shows significant wave heights increasing to 9-12 ft with a chance of exceeding 12 ft for the next 24-h forecast period, while COAMPS PISTON forecast indicates the wave heights will stay below 12 ft.

Day Two (48 hr) Outlook: Chances for convectivity activity in association with TY Kong-Rey are high throughout 48-h forecast period as Kong-Rey continues a NW track away from the ship location. Outer rainbands from Kong-Rey should begin to diminish in frequency as the storm moves away from the area of operations. The threat of 34 kt winds will decrease, but wave products shows the area of larger significant wave heights increasing with time as Kong-Rey intensifies. Wave heights are expected to remain in the 9-12 ft range through 48-h even as Kong-Rey moves away due to the expanding are of primary swell, but then start to decrease.

Extended Outlook: Convection and winds associated with TY Kong-Rey are expected to decrease after 48-h. Winds over the area of operation will shift to the S and decrease below 20 kts. Wave products shows significant wave heights gradually decreasing sometime in the 48-72 h range over the area of operation as Kong-Rey continues to move away. Wave heights are expected to remain higher to the north of the ship location. There is high uncertainty in the extended outlook for wave heights around the mooring location at 16N given uncertainties in Kong-Rey intensity, size, and track at longer lead times.

Discussion

TCs: JTWC has issued their final warning on TY Trami as it undergoes extratropical transition north of Japan.

JTWC has upgraded the 30W Kong-Rey to a typhoon near 15.5N, 134.6 E with an intensity of 90 kts at 21 UTC 30 September (Fig. 2). The typhoon is nearly due north of the ship location and moving NW (310 degrees) at 10 kts away from the ship. Numerical models and the official forecast from JTWC have good agreement with Kong-Rey's northwest track and intensification, with the official forecast bringing to a supertyphoon with 130 kt intensity at 06 UTC 2 October further to the northwest (Fig. 3). The probability of strong convection and gusty winds from the outer circulation will remain high for the next 48-h, with strongest impacts expected for the next 12-24 h. Significant wave heights will increase as Kong-Rey passes to the northeast, and possibly reach 12-15 ft in the next 24-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. Convective activity will be dominated by Kong-Rey circulation over the next 24-48 h, with outer rainbands from the typhoon passing over the ship location.

MJO/BSISO: No changes to the BSISO or MJO forecast from the previous day. 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 from 9-12 ft for the next 24-h, with a chance of 12-15 ft throughout the 24-48 h forecast period (Fig. 4). FNMOC WW3 shows higher significant wave heights persisting through about 60-h as Kong-Rey moves away from the area of operation but its wind field intensifies expands in size. There is high uncertainty in the extended outlook for wave heights around the mooring location at 16N given uncertainties in Kong-Rey intensity, size, and track at longer lead times. 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

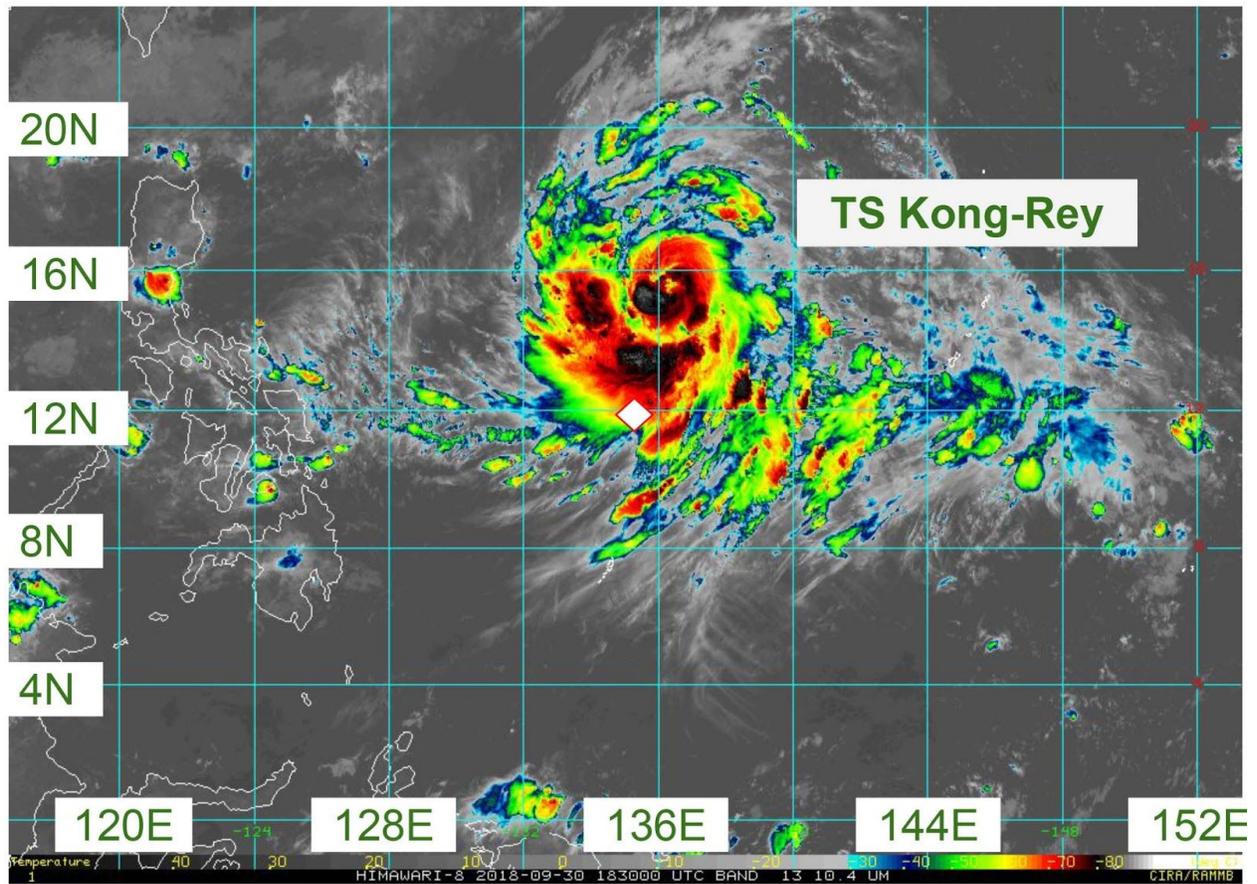


Fig. 1. Himawari IR imagery (10.4 microns) valid at 1830 UTC 30 September 2018. Ship location is marked with a diamond. [1]

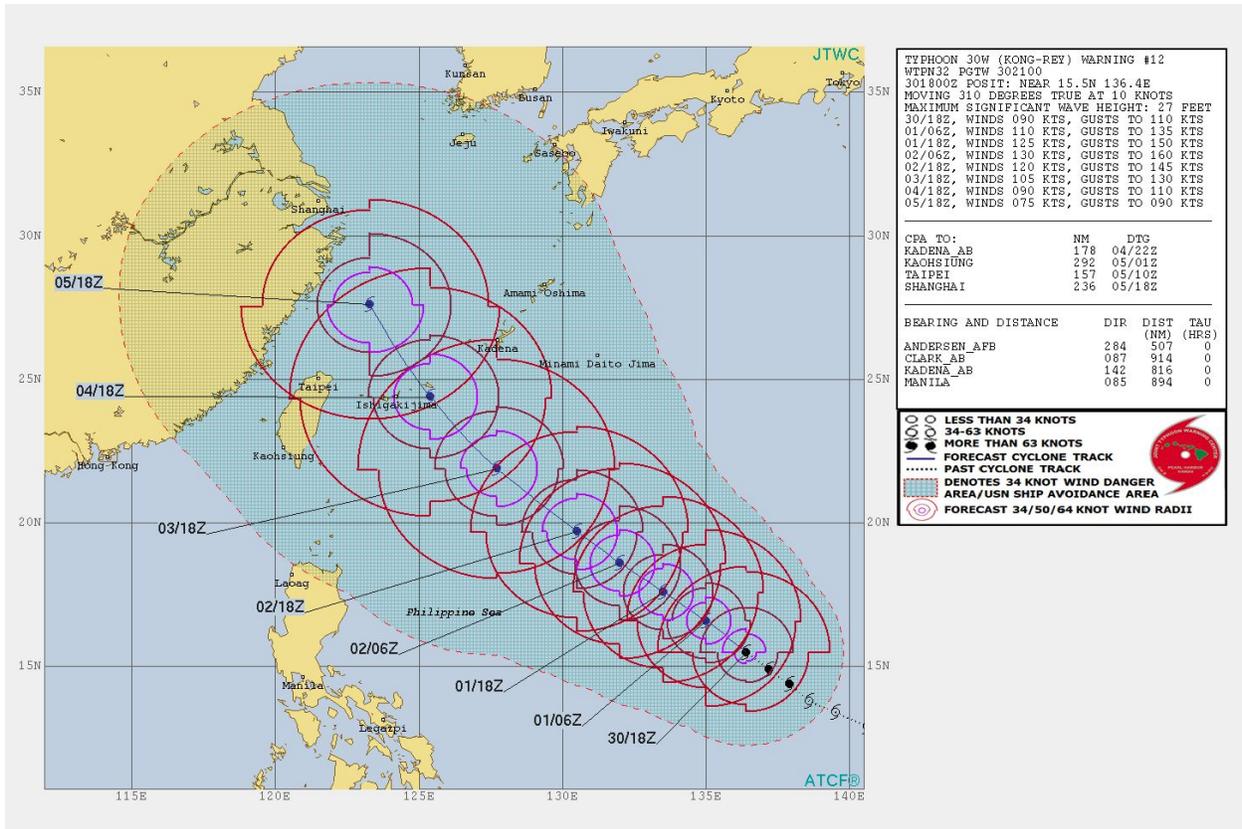


Fig. 2. JTWC forecast of TD 30 W intensity and track at 2100 UTC 30 September and valid through 18 UTC 05 October. [2]

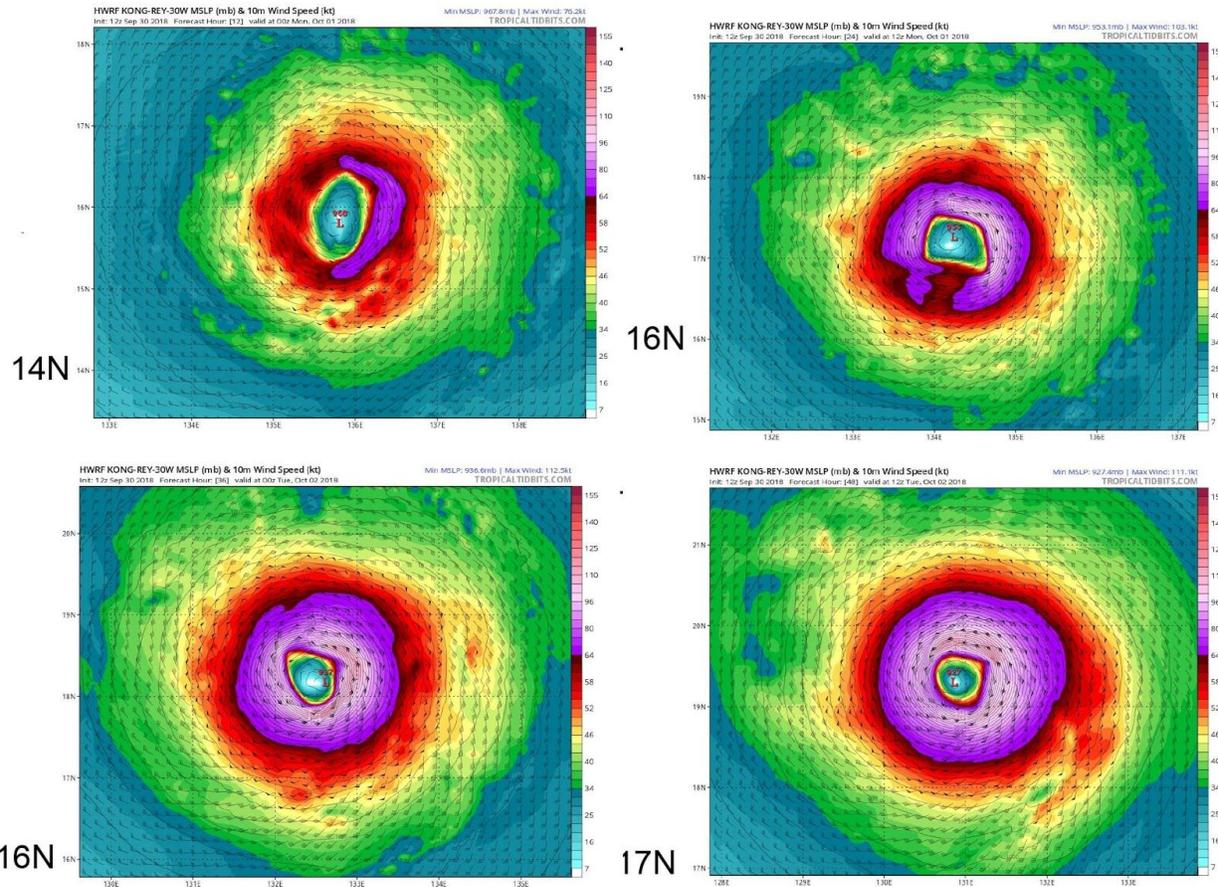
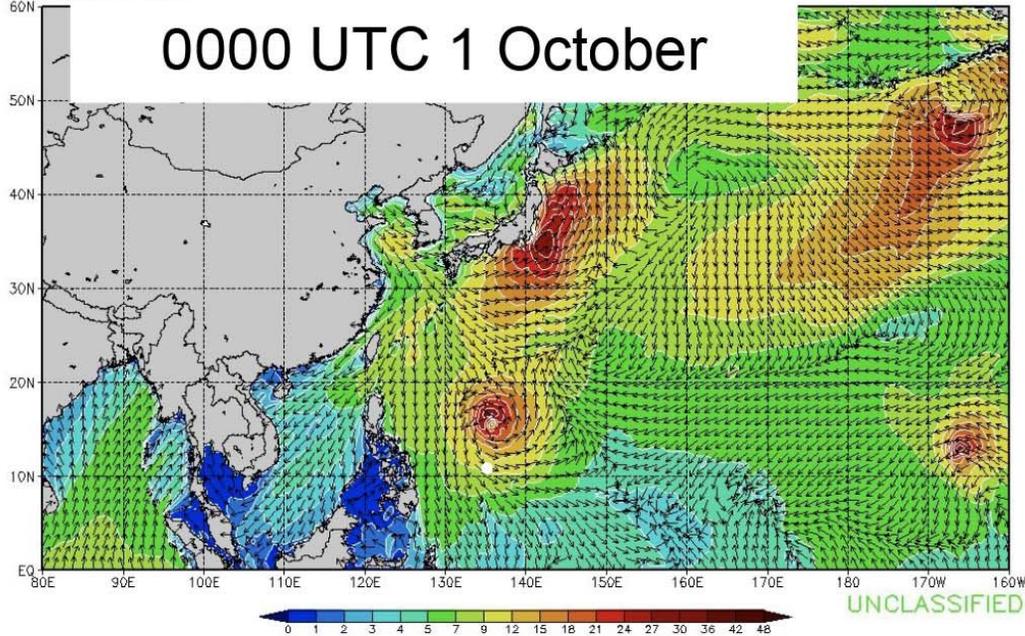


Fig. 3. HWRf forecast 10-m wind speed for (a) 00 UTC 1 Oct, (b) 12 UTC 1 Oct, (c) 00 UTC 2 Oct, and (d) 12 UTC 2 Oct. Blue colors are below 34 kts, and green colors are greater than 34 kts. Relevant latitudes for operations are highlighted. [3]

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0000 UTC 1 October

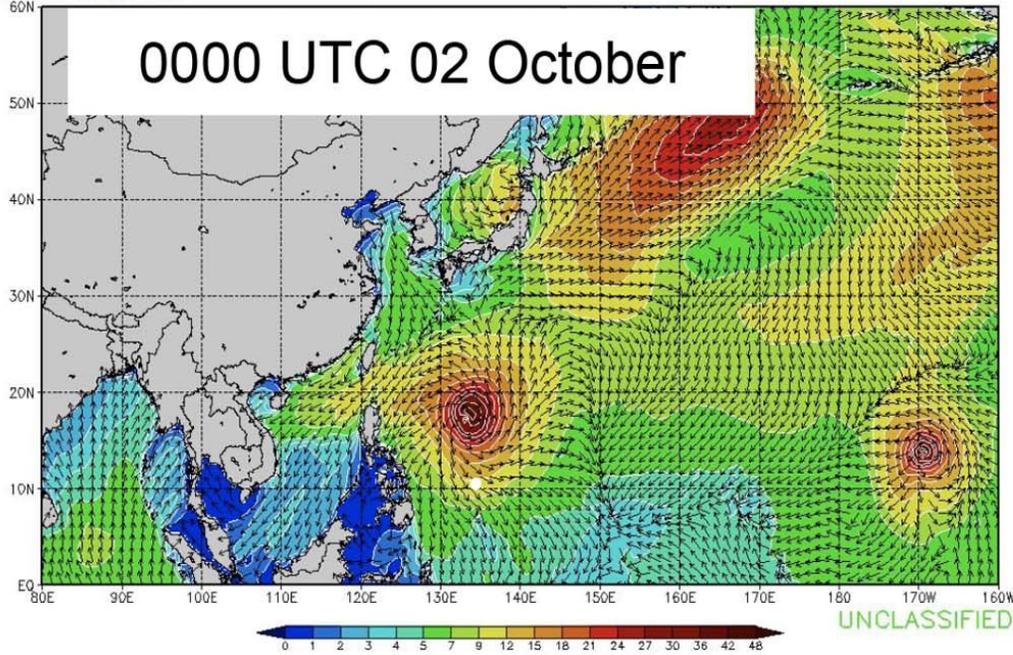


VT: Mon 00Z 01 OCT 18
FNMOG WAVE WATCH (U): Significant Wave Height [ft] and Direction
Run: 2018093012Z Tau: 12

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0000 UTC 02 October



VT: Tue 00Z 02 OCT 18
FNMOG WAVE WATCH (U): Significant Wave Height [ft] and Direction
Run: 2018093012Z Tau: 36

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Fig. 4. FNMOG WW3 significant wave height forecast initiated at 1200 UTC 30 September and valid at (top) 00 UTC 1 October and (bottom) 00 UTC 2 October. White dot indicates approximate ship location. [4]