

## Summary

Convection and higher winds from Kong-Rey will continue to impact the ship location for the next 24-h, with decreasing impacts after that through the 48-h period. 30W Kong-Rey was near 16.8N, 134.4 E with an intensity of 125 kts at 12 UTC 1 October. The typhoon is north of the ship location and moving NW at 10 kts away from the ship. Kong-Rey will continue to track northwest and is forecast to intensify to supertyphoon status in the next 48-h, then start to weaken. Winds are expected to remain around 20-30 kts near the ship, then decrease gradually. Wave heights are expected remain in the 9-12 ft range for the next 24-h 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 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. 00 UTC 3 October seems to be the earliest that SWH will drop below 9 ft at the current ship location, and will take longer farther north.

**Day One (24 hr) Outlook:** Convective activity in association with TY Kong-Rey is affecting the ship area and is expected to continue throughout the 24-h forecast period. Winds over the area of operation will be between 20-30 kts from the SW throughout 24-h forecast period. Wave products forecast significant wave heights near 9-12 ft for the next 24-h forecast period.

**Day Two (48 hr) Outlook:** Chances for convectivity activity in association with trailing rainbands from TY Kong-Rey are high throughout 48-h forecast period. Winds over the area of operation will transition to the S and decrease to 15-25 kts throughout 48-h forecast period. Wave products forecasts significant wave heights decreasing to 7-9 ft for the throughout the 24-48 h forecast period as Kong-Rey continues a NW track away from the ship location.

**Extended Outlook:** Convection and winds are expected to decrease after 48-h as TY Kong-Rey moves away. Winds over the area of operation will shift from the S to the NW with 5-15 kts throughout 48-72 h forecast period. Wave products forecasts shows significant wave heights remaining in the 7-9 ft range throughout 48-96 h forecast period.

## Discussion

**TCs:** 30W Kong-Rey has rapidly intensified into a powerful typhoon near 16.8N, 134.4 E with an intensity of 125 kts at 12 UTC 1 October. The typhoon is north of the ship location and moving NW (310 degrees) at 10 kts away from the ship. Kong-Rey is expected to continues its northwest track and intensification, with the official forecast bringing to a supertyphoon with 135 kt intensity in 12-h. The probability of strong convection and gusty winds from the outer circulation will remain high for the next 24-h, with continued convection but decreasing winds from 24-48 h. Significant wave heights will remain high in the 9-12 ft range as the circulation of

Kong-Rey expands as it moves northward through the next 48-h. After 48-h Kong-Rey will start to feel the effects of increased vertical wind shear and will begin to weaken as it moves northwestward toward Japan and Korea. We will continue to closely monitor Kong-Rey.

**Convection:** The Himawari-8 IR satellite imagery has shown numerous rainbands in association with Kong-Rey over the area of operation. Convective activity will continue to be dominated by Kong-Rey over the next 24-48 h, with outer rainbands from the typhoon passing over the ship location.

**MJO/BSISO:** An updated MJO forecast provided by the ECMWF shows a well-established phase 8 MJO signal currently rotating to phase 1 then 2 in October. The BSISO forecast from both the BOM and ECMWF has not been updated since 27 September, which show a BSISO1 phase 1 signal transitioning to phase 2 in mid-October.

**SSTs:** Sea surface temperatures are expected to be between 28-30 C throughout the 24-h forecast period. Some cooler water is to the north of the ship location due to the upwelling from Trami and Kong-Rey.

**Currents and Wave Heights:** Wave products forecast significant wave heights near 9-12 ft for the next 24-h forecast period, decreasing to 7-9 ft for the throughout the 24-48 h, and remaining in the 7-9 ft range throughout 48-96 h forecast period. Currents will remain from the NW and WNW throughout 96-h forecast period.

FORECASTERS: BELL and CHA

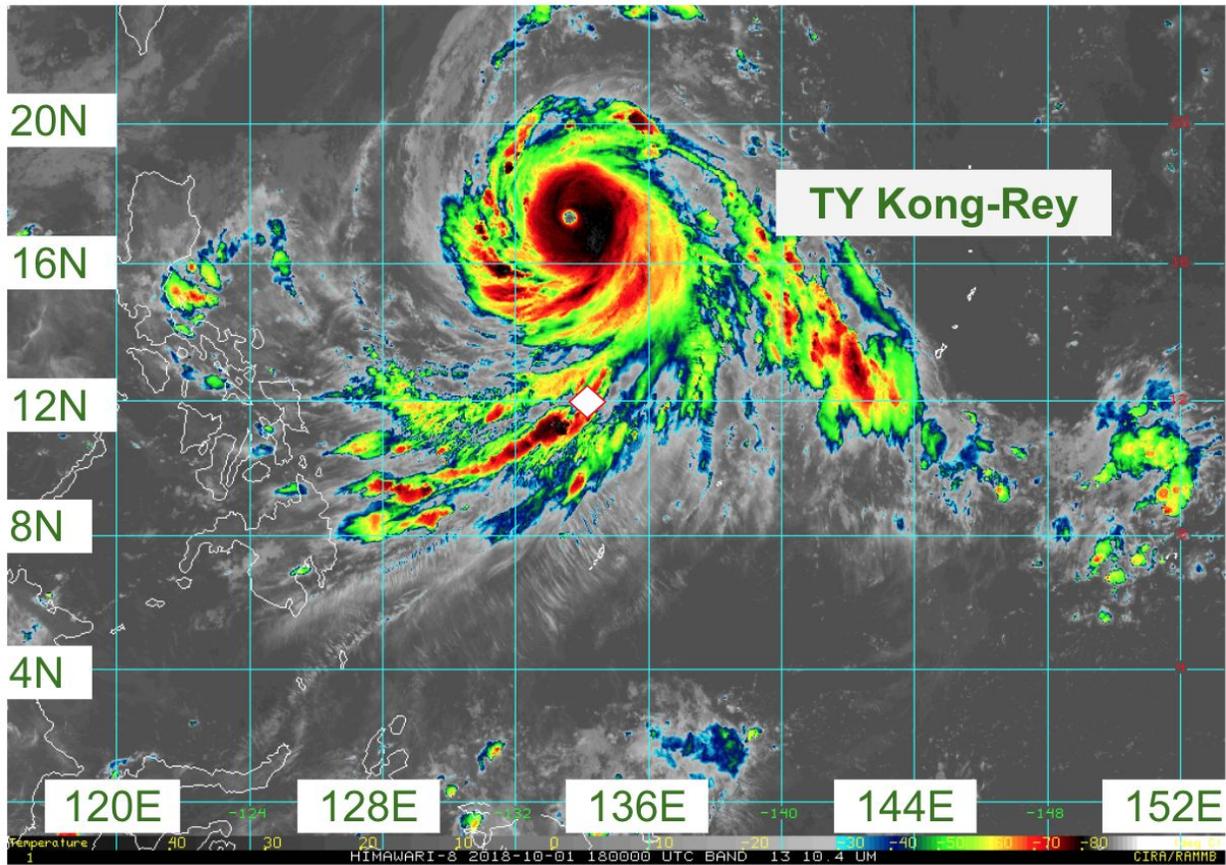


Fig. 1. Himawari IR imagery (10.4 microns) valid at 1800 UTC 01 October 2018. Ship location is marked with a diamond. [1]

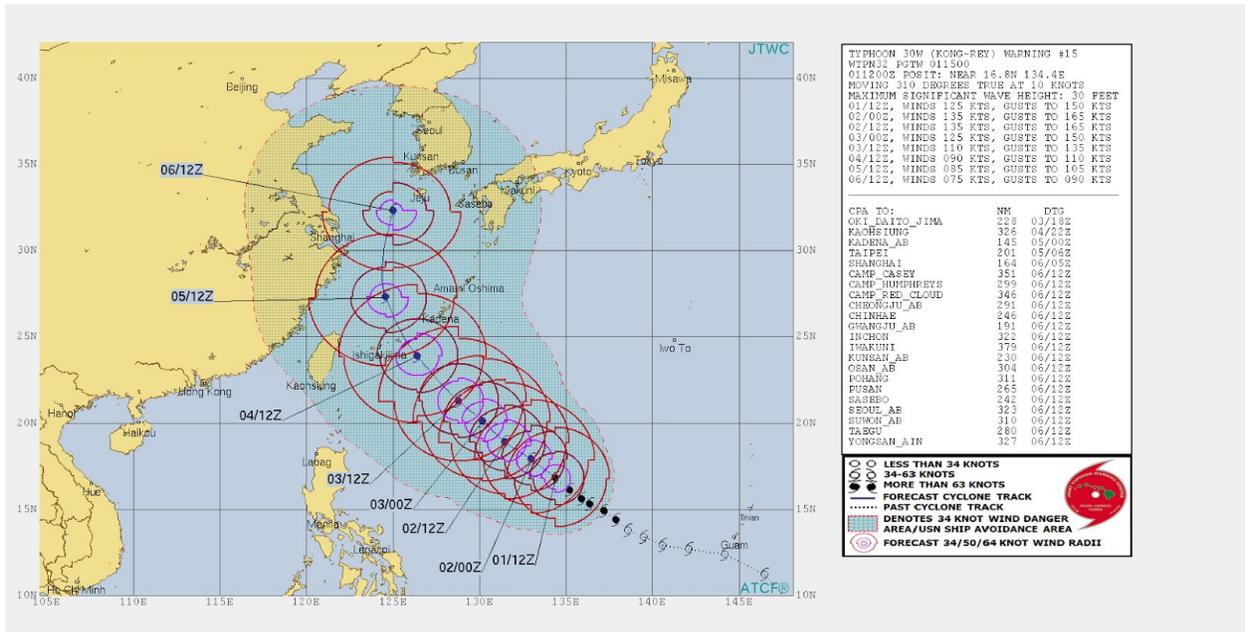


Fig. 2. JTWC forecast of Kong-Rey intensity and track at 1500 UTC 01 October and valid through 12 UTC 06 October. [2]

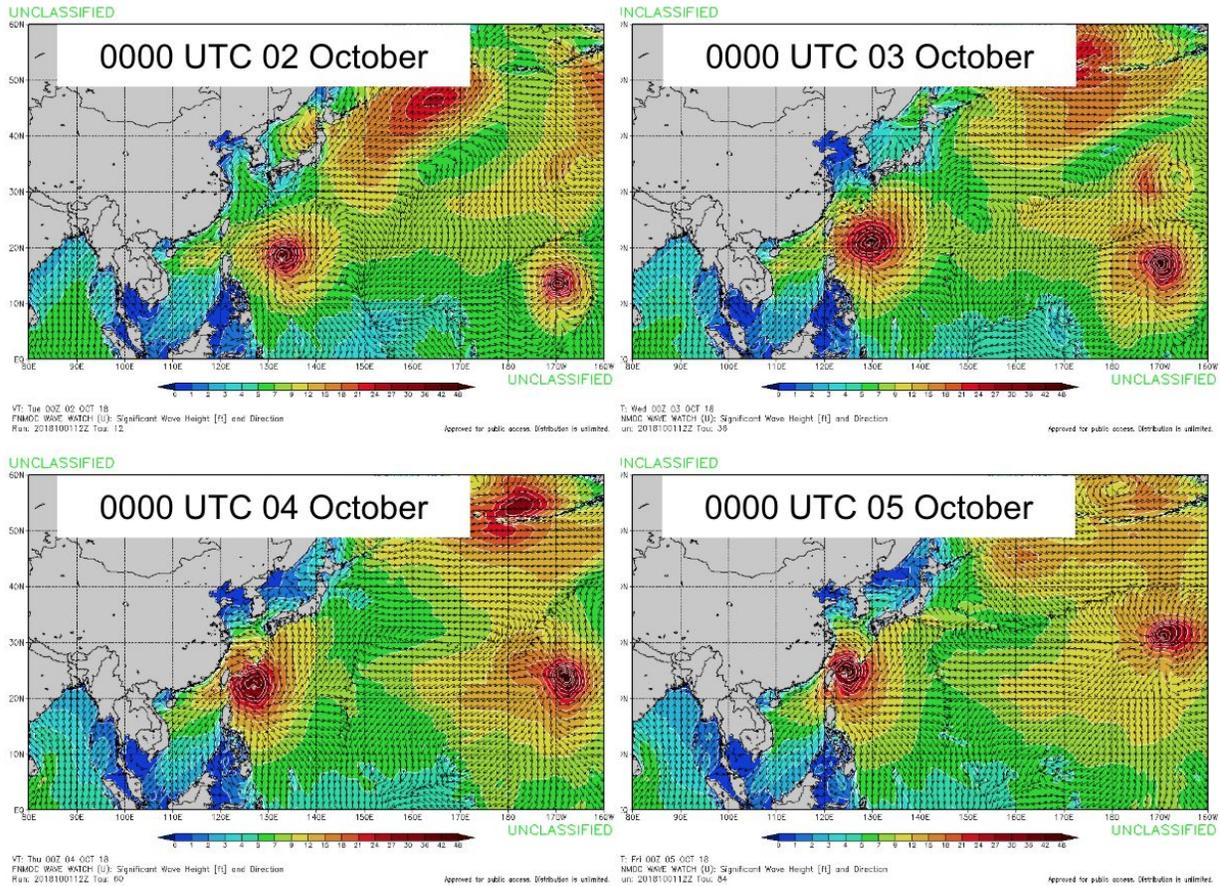


Fig. 3. FNMOC WW3 significant wave height forecast initiated at 1200 UTC 01 October and valid at (top left) 00 UTC 02 October (top right) 00 UTC 03 October (bottom left) 00 UTC 04 October and (bottom right) 00 UTC 05 October. [3]