

Summary:

Impacts from STY Kong-Rey continuously decrease, since the intensity of the storm decreases and its northward track. Kong-Ray's recent peaked intensity is at 100 kts. Kong-Rey will continue to track north-northwest away from the area of operation, but some convection from trailing rainbands is possible in the next 24-hr. Winds and waves will continue to decrease at the ship and mooring location over the next 24-48 h. No typhoon activity is expected in the next several days after Kong-Rey. Updated BSISO forecasts still indicate a possible propagation into an active convective phase, while MJO forecasts do not indicate any significant amplified signal towards the end of the project.

Day One (24 hr) Outlook:

Chances for convectivity activity in association with trailing rainbands from TY Kong-Rey over the area of operation are still high throughout the 24-h forecast period. Winds over the area of operation are expected to decrease to 5-15 knots and will transition from the S to the N for the next 24-h. Wave products forecast significant wave heights decreasing to 5-7 ft for the next 24-h.

Day Two (48 hr) Outlook: No large-scale convective activity is expected. Mild southwesterly winds below 10 kts are forecasted with continued decline over the study location as Kong-Rey moves further north-northeast. Wave products forecast significant wave heights of 5-7 ft and declining throughout the 24-48 h forecast period.

Extended Outlook: As Kong-Rey continues a NNW track away from the ship, chances for convection in association with Kong-Rey decrease and winds are expected to be between 5-15 kts throughout 48-96 h forecast period. There is no TC activity expected throughout the next 48-96 h. Wave products forecasts shows significant wave heights persisting 5-7 ft over the ship's current location and decreasing from 7-9 ft to 5-7 ft over the first mooring location (near 16N, 134 E) throughout 48-96 h forecast period.

Discussion

TCs:

TY Kong-Rey (30W) is now near 21.6N, 128.7 E with an intensity of 100 kts at 12 UTC 3 October. Kong-Rey has tracked NNW toward Korea, and weakened with peak intensity of 100 kts. The Himawari IR satellite image shows the convection has continuously weakened. The typhoon is experiencing weak vertical wind shear (5-19 kts) but it is located in the relative cool SST from the upwelling caused by the passage of TY Trami few days ago. Convection and winds from the outer circulation will decrease over the next 24-48 h, with some lingering trailing rainbands expected. Significant wave heights will decrease over the next 48-h. There are no other TC activity expected in the next few days.

Convection: The Himawari-8 IR satellite imagery has shown trailing rainbands from Kong-Rey impacting the area of operation. Convective activity in association with Kong-Rey has been decreasing in the past 24-h, and scattered precipitation is expected throughout the next 24-72 h forecast period.

MJO/BSISO: An updated ECM BSISO forecast favors some amplification of the BSISO signal in phases 2 and 3 over the next couple of weeks, in agreement with the previous forecasts and latest BOM forecast. There is evidence of continued northeastward propagation of the oscillation in both ECMWF OLR forecasts towards the end of Leg 3. Updated forecasts from both BOM and ECMWF indicate no particular change in the state of MJO. While BOM forecasts no significant amplitude change in the MJO, both BOM and ECMWF forecast a steady decline in amplitude over the next couple of weeks as the MJO shifts from phase 1 to phase 2. An active MJO occurring towards the end of the project seems unlikely.

SSTs: Sea surface temperatures are expected to remain in the range of 28-30C throughout the 24-hr forecast period.

Currents and Wave Heights: Wave products forecast significant wave heights decreasing from 7-9 ft to 5-7 ft over the next 24-h with waves originating from the northwest. A further decline to between 4-5 ft is expected in the next 2-3 days. Significant wave heights over the first mooring location (16N, 134E) are expected to continue decreasing from 5-7 ft to 4-5 ft in the next 2-3 days as Typhoon Kong-Rey heads further north and interacts with Southeast China and Japan.

FORECASTERS: FENG, JONES AND PANASAWATWONG

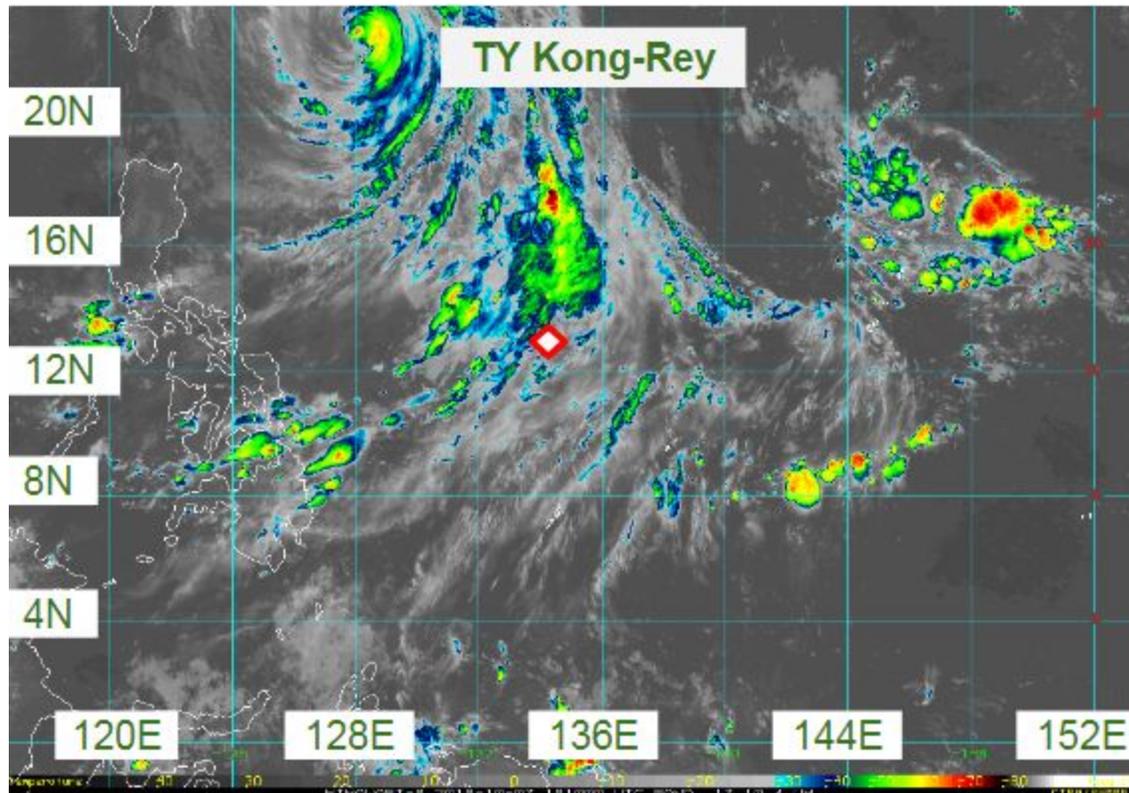


Fig. 1. Himawari IR imagery (10.4 microns) valid at 1800 UTC 03 October 2018. Ship location is marked with a diamond. [1]

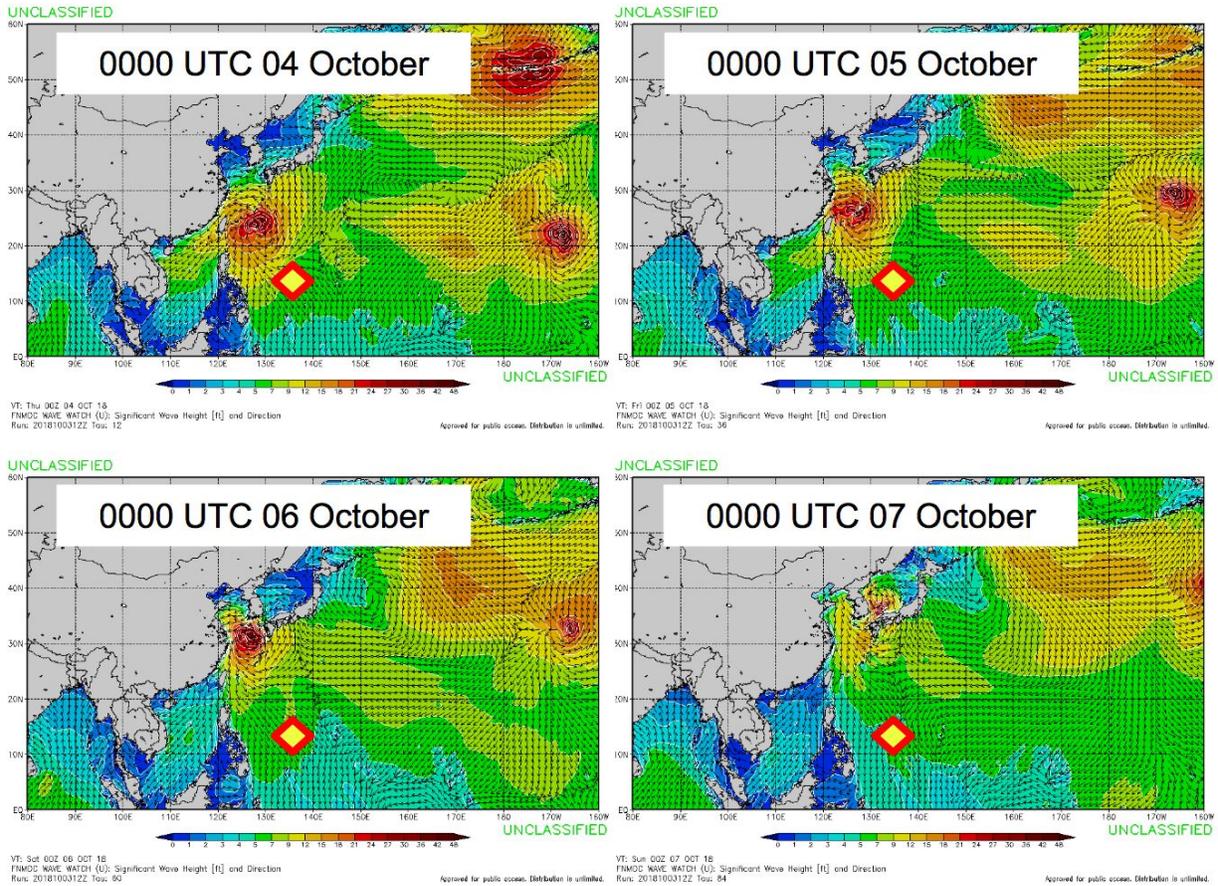


Fig. 2. FNMOC WW3 significant wave height forecast initiated at 1200 UTC 03 October and valid at (top left) 00 UTC 04 October (top right), 00 UTC 05 October (bottom left), 00 UTC 06 October, and (bottom right) 00 UTC 07 October. [2]

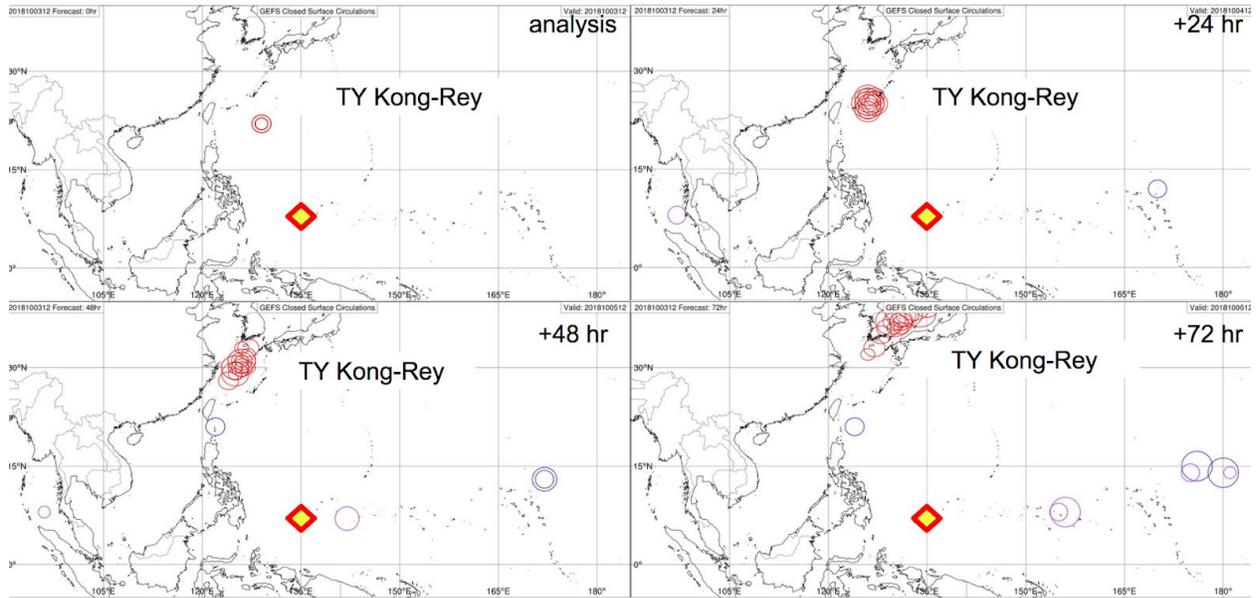


Fig. 3. GEFS ensemble 10-m circulation forecast initiated at 1200 UTC 02 October 2018 and valid from the analysis time through 1200 UTC 05 October. Circulation centers are colored with respect to maximum wind speed. Purple: ≤ 20 knots, Blue: 20-34 knots, Red: > 34 knots. [3]