

Summary

The Himawari-8 IR satellite imagery shows a region of organized convective activity near the area of operation. A chance for organized convection will persist throughout the 48-h forecast period as a low-level (850-hPa) cyclonic circulation (labeled circulation 1) tracks NE to SW through the area of operation. Circulation 1 is embedded within a persistent, larger scale cyclonic circulation situated to its SE at ~5N, 145E and will round the NW flank of this circulation over the next 48 h. Both the GFS and ECMWF show another low-level circulation (labeled circulation 2) forming near ~15N, 150E during the 48-72 h forecast period. Circulation 2 appears to form within a larger scale easterly wave. This system will slowly track to the W throughout the 48-96 h forecast period. 3-5 members from the GEFS favor the genesis of circulation 2 into a tropical depression east of Guam in the 72-96 h forecast period. We will continue to closely monitor the potential development of this system.

Day One (24 hr) Outlook: A region of low-level (850-hPa) cyclonic vorticity, labeled circulation 1, will move from the NE to SW throughout the area of operation within the next 24 h. Circulation 1 appears to be embedded within a persistent, larger scale low-level circulation (situated at ~ 5N, 145 E), forming on its NW flank. Circulation 1 will provide an increased chance of scattered and possibly organized convection over the area of operation throughout the 24-h forecast period. Winds from the E-NE between 10-20 knots will persist throughout the forecast period, and both COAMPS and FNMOC WW3 show significant wave heights anywhere between 5-9 ft near the beginning of the forecast period, gradually decreasing to 5-7 ft by the end.

Day Two (48 hr) Outlook: Scattered convection and a chance for organized convection will persist throughout the 24-48 h forecast period as circulation 1 continues to track to the W-SW away from the area of operation. Winds will remain from the E-NE between 10-20 knots throughout the 24-48 h forecast period. FNMOC WW3 shows significant wave heights between 5-7 ft near the beginning of the forecast period, gradually decreasing to 4-5 ft by the end.

Extended Outlook: Both the GFS and ECMWF show a region of low-level (850-hPa) cyclonic vorticity, labeled circulation 2, forming near ~15N, 150E during the 48-72 h forecast period. Circulation 2 appears to be embedded within a larger scale easterly wave. Circulation 2 tracks slowly westward throughout the 48-96 h forecast period, remaining to the east of Guam. Some ensemble members from the GEFS spin up this circulation in the 72-96 h forecast period; therefore, we will continue to closely monitor the potential development of circulation 2. Winds from the E between 5-15 knots will persist throughout the 48-72 h forecast period. FNMOC WW3 shows significant wave heights between 4-5 ft throughout the 48-72 h forecast period.

Discussion

TCs: As circulation 1 continues to round the NW flank of a larger scale low-level circulation to its SE, it is not expected to undergo genesis. There is one ensemble member from the GEFS which favors the potential genesis of circulation 1 into a tropical depression as it tracks from the NE to the SW throughout the 24-48 h forecast period. 3-5 members from the GEFS favor the genesis of circulation 2 into a tropical depression to the east of Guam in the 72-96 h forecast period. We will continue to closely monitor the potential development of this system.

Convection: The Himawari-8 IR satellite imagery shows a local region of organized convection currently located near the area of operation. Scattered convection and a chance for organized convection persists throughout the 48-h forecast period as circulation 1 slowly tracks southwest through and away from the area of operation.

MJO/BSISO: The MJO forecast provided by the ECMWF shows the two week period beginning on 15 September while the BOM has not been updated and continues to show the two week period beginning on 09 September. The two models show a low-amplitude MJO signal persisting throughout their respective two week forecast periods, with the ECMWF showing a potential phase 8 signal emerging near the end of its forecast period. The BSISO forecasts have been updated, with both the BOM and ECMWF showing the 13 September through 02 October forecast period. Both models show a low-amplitude BSISO1 signal and a phase 8 BSISO2 signal (enhanced convective activity over the Western Pacific) in the 0-4 day forecast period.

SSTs: Sea surface temperatures are expected to be between 28-29 C throughout the 24-h forecast period.

Currents and Wave Heights: Significant wave heights near the area of operation are expected to be around 5-9 ft over the next 24 h, then decreasing to 4-5 ft throughout the 72-h forecast period.

FORECASTERS: MARTINEZ

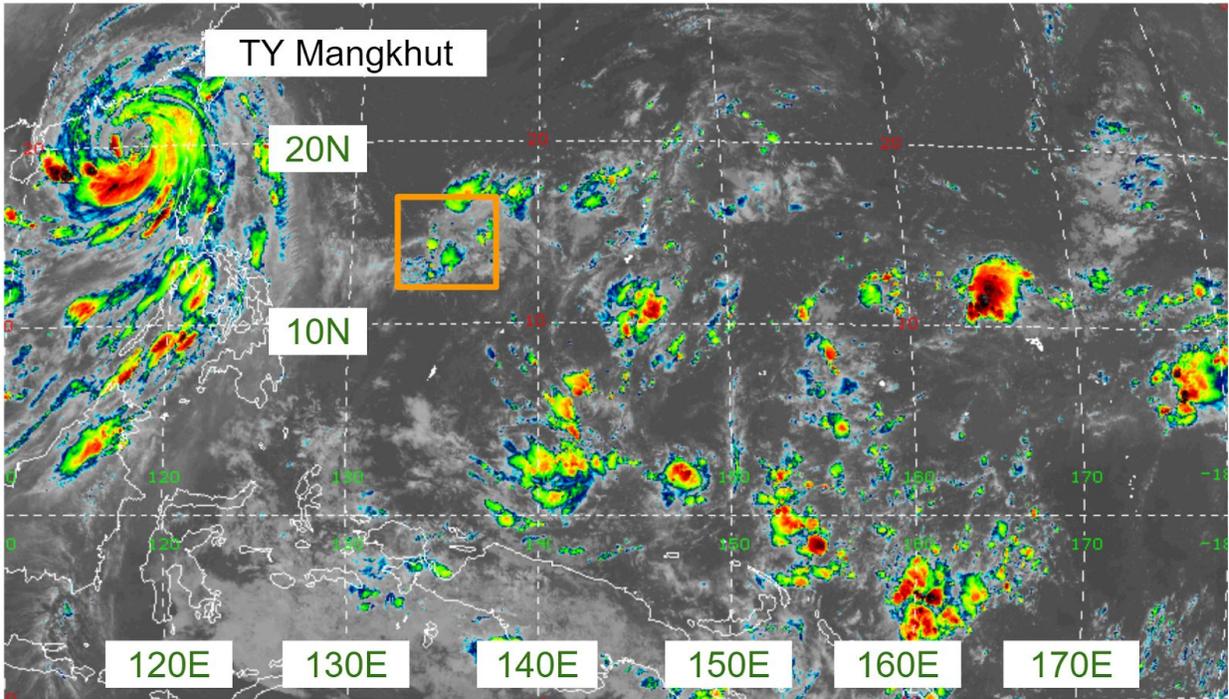


Fig. 1. Himawari IR imagery (10.4 microns) valid at 1830 UTC 15 September 2018. [1]

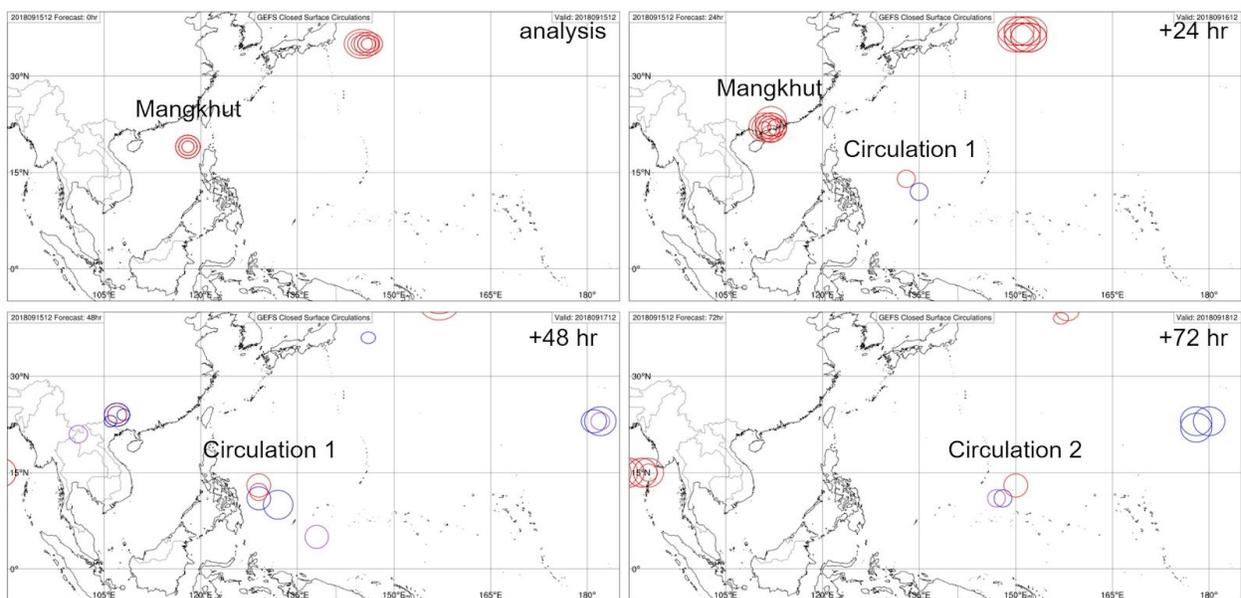


Fig. 2. GEFS ensemble 10-m circulation forecast initiated at 1200 UTC 15 September 2018 and valid through 12000 UTC 18 September. [2]

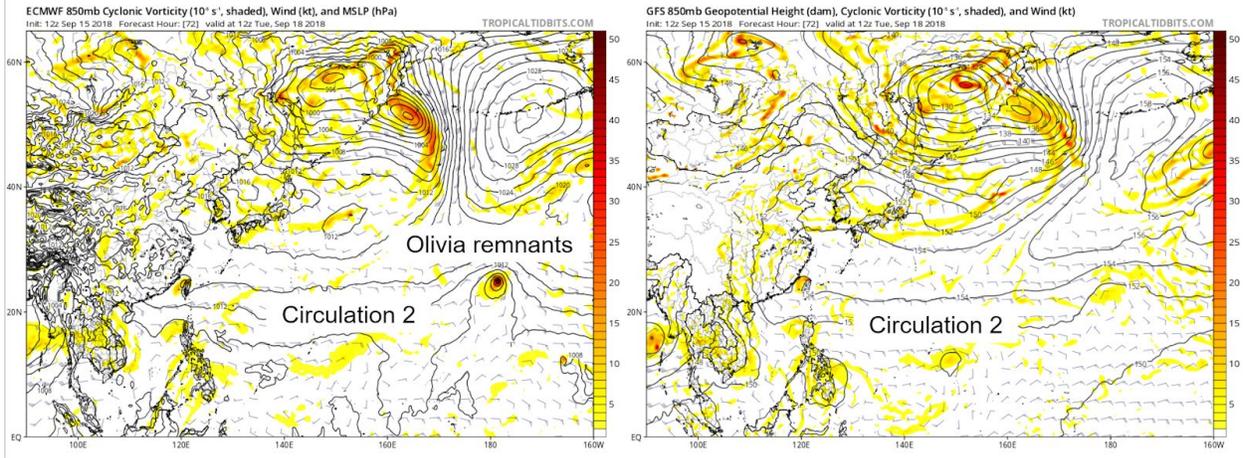


Fig 3. (left) ECMWF and (right) GFS 850-hPa vorticity (shaded) and wind barbs, and MSLP (contoured) initiated at 1200 UTC 15 September 2018 and valid at 1200 UTC 18 September 2018. [3]

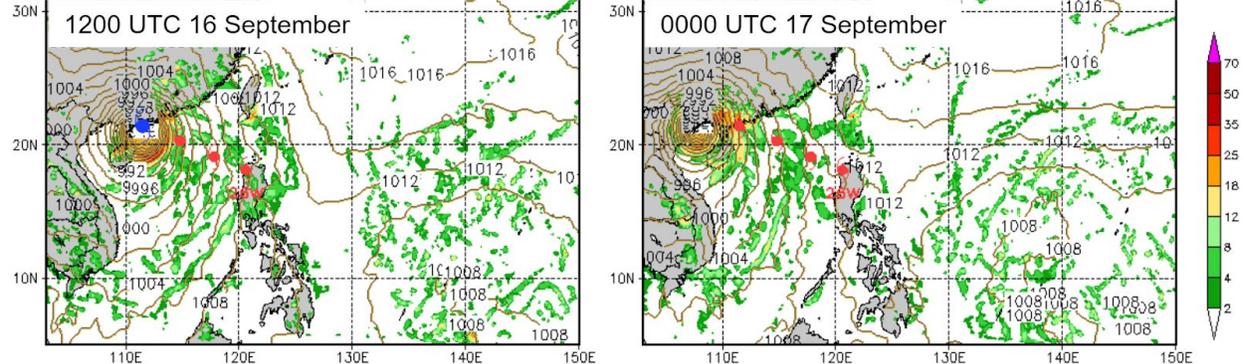


Fig 4. COAMPS 3-hourly precipitation (shading, mm) and MSLP (contours) initiated at 0000 UTC 15 September 2018 and valid at (left) 1200 UTC 16 September and (right) 1200 UTC 17 September.

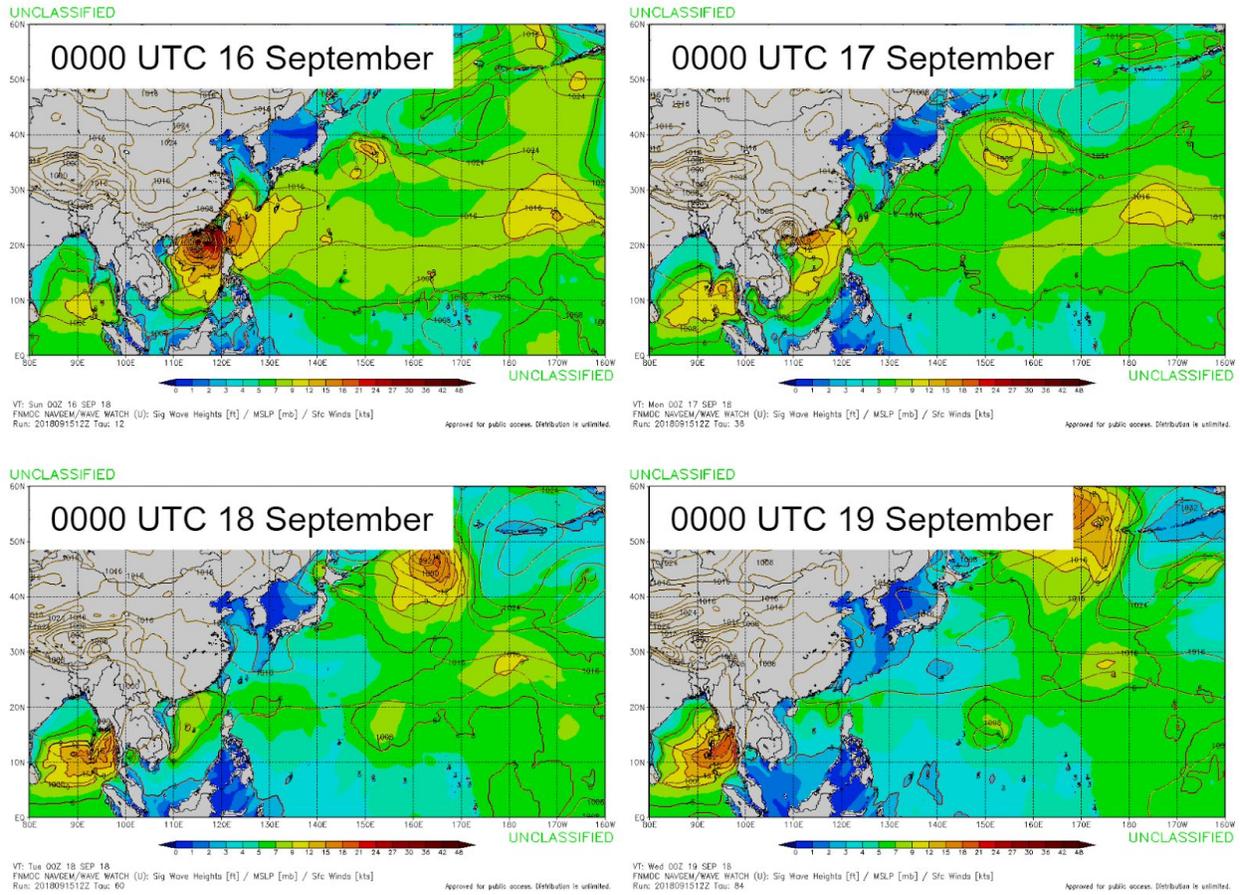


Fig. 5. FNMO WW3 significant wave height forecast initiated at 1200 UTC 15 September and valid at (top left) 0000 UTC 16 September, (top right) 0000 UTC 17 September, (bottom left) 0000 UTC 18 September, and (bottom right) 0000 UTC 19 September. [5]