

2200 UTC 19 August 2017 Forecast Discussion

Summary

A large amount of convective activity is continuing east of the Philippines with upper level winds shifting towards a northeasterly flow (Fig 1.). An upper level high is persisting east of Taiwan providing weak vertical wind shear and upper level divergence. This has created a favorable environment for the increasing low level vorticity associated with the convective cloud cluster northeast of Luzon. JTWC has issued a tropical cyclone formation alert as expected with remarks that a significant tropical cyclone is a possibility (Fig. 2). At this point large ocean heat content coupled with low shear and high precipitable water has created a favorable environment for tropical cyclogenesis and rapid intensification.

Day One (24 hr) Outlook: A low level circulation and upper level outflow is present in the system northeast of Luzon and tropical cyclogenesis is expected in the next 12-36 hours. The storm is currently moving west-northwest towards the southern tip of Taiwan.

Day Two (48 hr) Outlook: Favorable environmental conditions in addition to model guidance are suggesting intensification over the next 48 hours. This low pressure system will at the least cause an increase in precipitation along the Philippines due to strong southwest monsoonal flow. Impacts on the northern portion of the Philippines will be possible 12Z Aug 21.

Extended Outlook: The GFS is showing the potential for organization of the convection just west of the Mariana Islands into a potential tropical cyclone. This new system could be potentially impacting Taiwan and the northern Philippines around 00Z Aug 25. ECMWF is not as enthusiastic about this second system; however, environmental conditions remain favorable for development should it occur.

Discussion

TCs: Low level vorticity and upper level divergence has increased with widespread convection east of the Philippines. Genesis will likely occur in the next 12-36 hours with the system having the potential to be a significant tropical cyclone by the time it reaches Taiwan. Improved track and intensity guidance will be available as the system becomes more organized and the large area of low level vorticity contracts.

Convection: Since yesterday convection has persisted east of Manilla moving westward. Strong thunderstorms have moved into the South China Sea. We expect precipitation along the west coast of Luzon from 03Z through 12Z Aug 20 with the heaviest precipitation between 06-12Z

MJO/BSISO: The MJO signal remains weak and the BSISO index has moved into Phase 4 (Fig.3).

SSTs: SSTs are between 29.0-30.5 along immediate coast. They are forecast to continue being warm in the absence of strong convection-induced upwelling. Minor cooling could be expected west of Manilla with some convection in the area.

Surface Currents: Surface currents are still weak (<1 cm/s) along entire west (Fig. 4).

FORECASTERS: TRABING

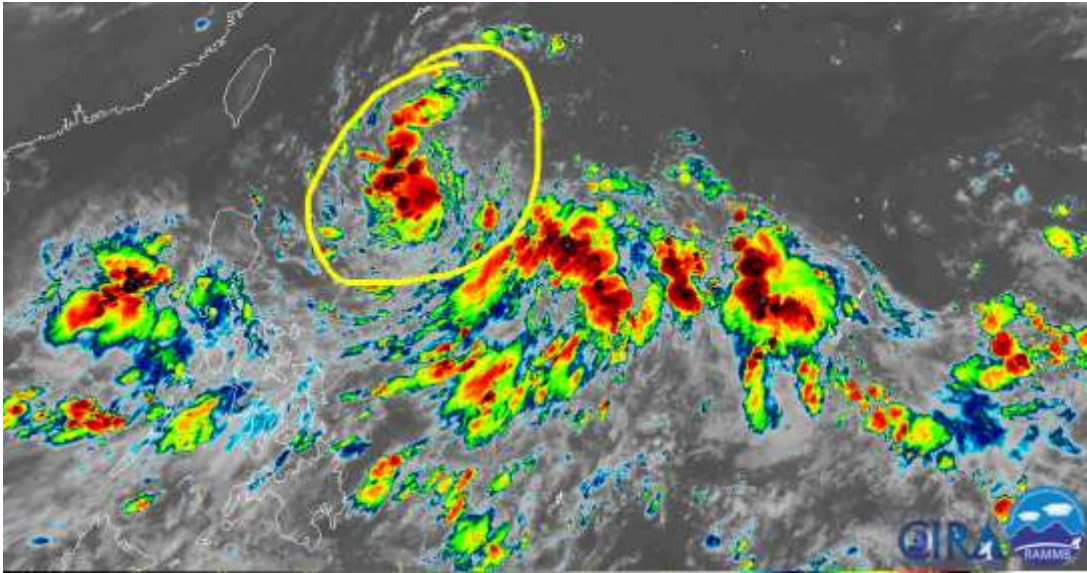


Figure 1: Himawari-8 infrared imagery showing areas of convection that a potential area of genesis. [1]

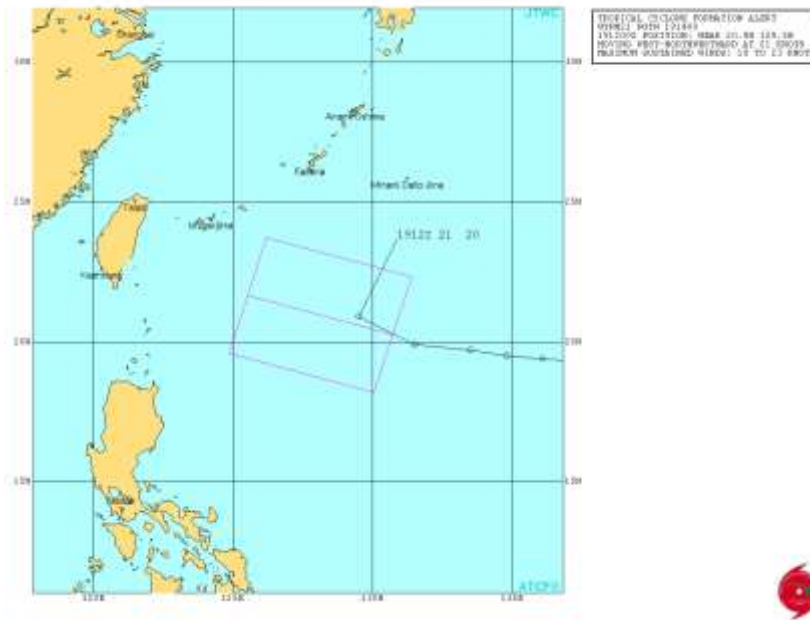


Figure 2: JTWC tropical cyclone formation alert for the area northeast of Luzon. [2]

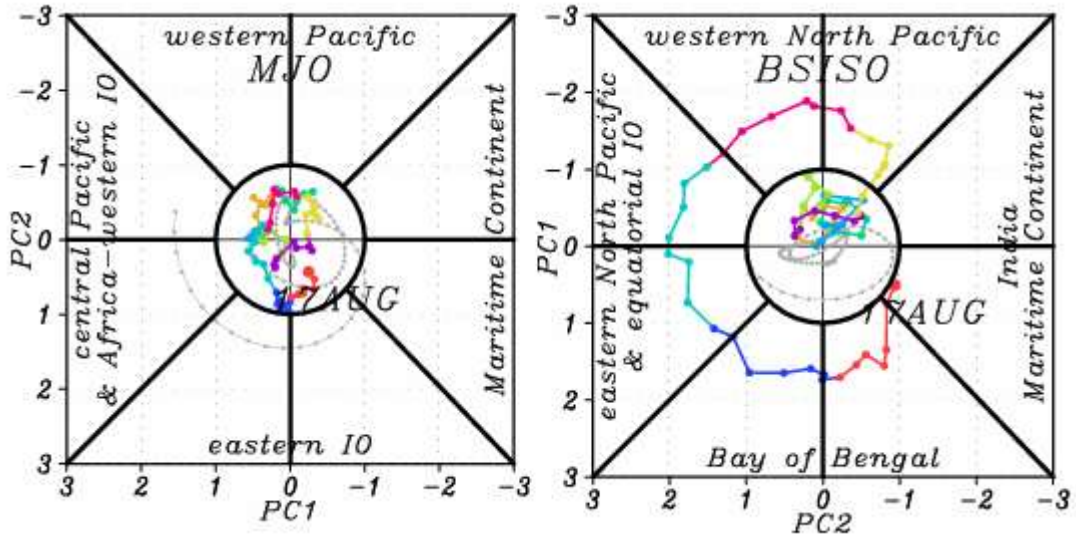


Figure 3: MJO (left) and BSISO (right) index valid for 17 Aug. [3]

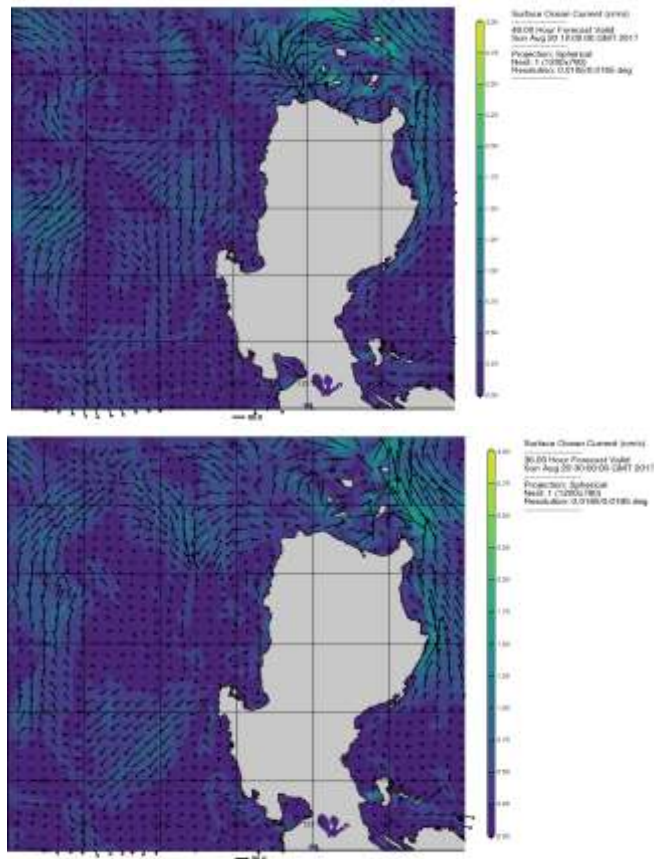


Figure 4: 12Z COAMPS surface currents for 46 hr (top) and 48 hr (bottom).