

Summary

No impacts are expected from TCs for the next week, as Typhoon Cimaron weakens moving northward and possible development of an Invest near Taiwan isn't expected to travel far. Near the ship, winds and significant wave heights are expected to decrease and remain below ~15 kts over the next week. In terms of Mirai-Thompson coordinated activities, convection southwest of Cimaron has remained further south than expected, with additional convective activity down to 11N. The convection is expected to move slowly west-northwest over the next couple of days and the chance for convection for joint operations will depend on that speed.

Day One (24 hr) Outlook: JTWC has given Invest 92W a likely to undergo genesis in the next 24 hours with a low-level circulation evident in the 3.9 micron imagery. Possible genesis would impact Taiwan with no impacts on the operation area as it moves towards the east-northeast. Typhoon Cimaron should start to transit from a northwest to northward motion as it approaches Japan and continue to weaken. The widespread deep convection southwest of Cimaron, extended and covering wide area (~10 deg) from 10-20N 130-140E, is expected to move north from the planned destinations of Thompson and Mirai (13N, 137E). Weaker precipitation and convection is expected to be around 13N, 137E area.

Day Two (48 hr) Outlook: Possible aggregation of vorticity hinted in GFS/EC (~22N, 131E), but should not impact operations even if something were to develop. The widespread deep convection in the east of the Luzon island continue to be around generating precipitation, moving slowly west, closer to Luzon.

Extended Outlook: The research domain should not see any impacts from TCs over the next week as the surrounding basin appears to be quiet. Significant wave heights should be low and wind speeds should be below 15 kts.

Discussion

TCs: Typhoon Cimaron (26.9N, 137.4E; 100 kts; Cat 3 SS) continues its northward trajectory towards southwest Japan. As it moves NW, it will begin to weaken; the wind field will shrink and the significant waves will decrease. The ship is currently south of the waves generated by Cimaron and Cimaron is expected to have little to no impact on operations going forward. A new area of interest, Invest 92W, is expected to undergo genesis near Taiwan within the next 24-48 hours, but it is not expected to impact operations as it is forecasted to remain close to Taiwan. GFS and EC are hinting at aggregation of vorticity south of Cimaron (5-10 degrees north of operations), but nothing substantial is forming in the simulations and it likely would move NW away from the research domain. We will monitor going forward. Otherwise, looks like things will be quiet in terms of TCs near the research domain over the next few days.

Convection: The widespread deep convection southwest of Cimaron is very vigorous from Himawari IR imagery, and it is supported by upper-level divergence and warm SST. The monsoonal flow convergence is also favorable for the system. It is moving northwest along with Cimaron, but the weaker convection is expected to linger around 13N. The deep convective system is forecast to be north from 13N 137E location when the boat plan to be at the location, but it is expected to be able to catch some precipitation around the area.

MJO/BSISO: MJO/BSISO indices ensembles are widespread, but both BOM and EC show BSISO in phase 3-4 and MJO in phase 4-5 over the next week. Amplitude is relatively low but BOM forecasts have slightly bigger amplitude compared to EC's.

SSTs: Temperatures should be between 28-29C.

Currents and Wave Heights: Significant wave heights should continue to diminish in intensity from 5-7 ft to 2-3 ft over the next 48 hours. Significant wave heights should be low (<2-3 ft) over the following 120 hours for both the Mirai and Thompson.

FORECASTERS: NAM, DEHART, and TRABING

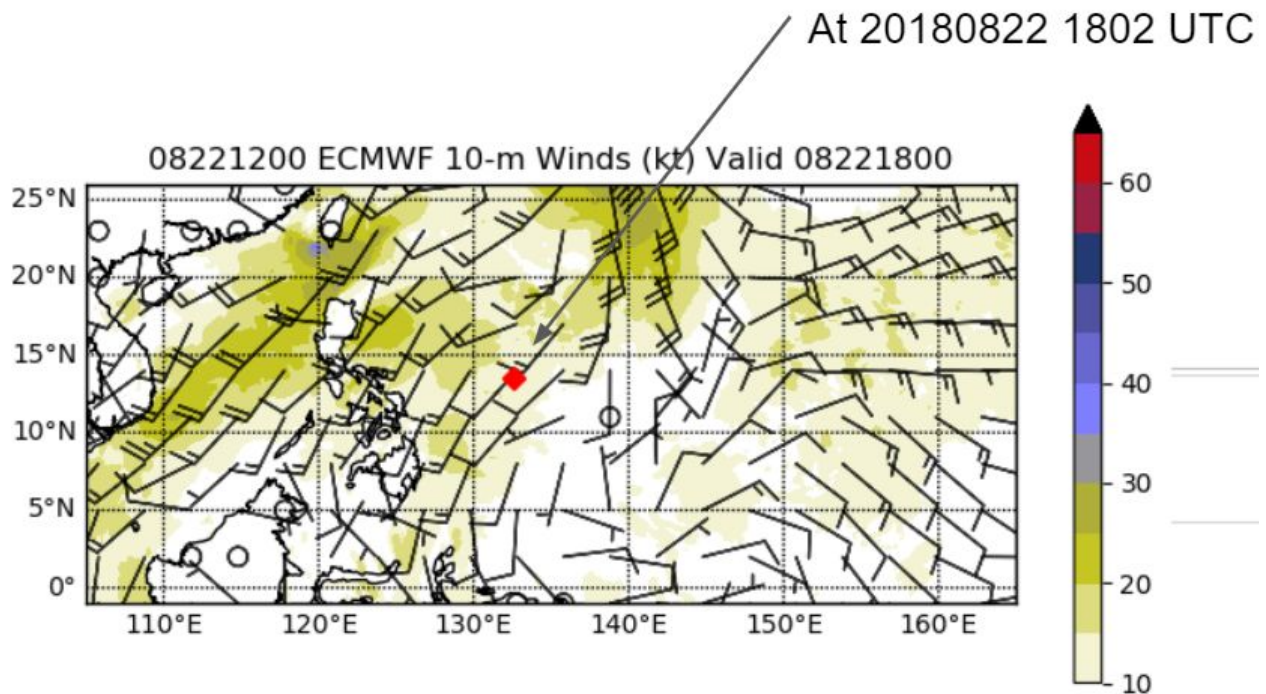


Fig. 1. Current Location and 10-m winds (kt) valid 18Z August 22 from the 12Z ECMWF.



JOINT TYPHOON WARNING CENTER

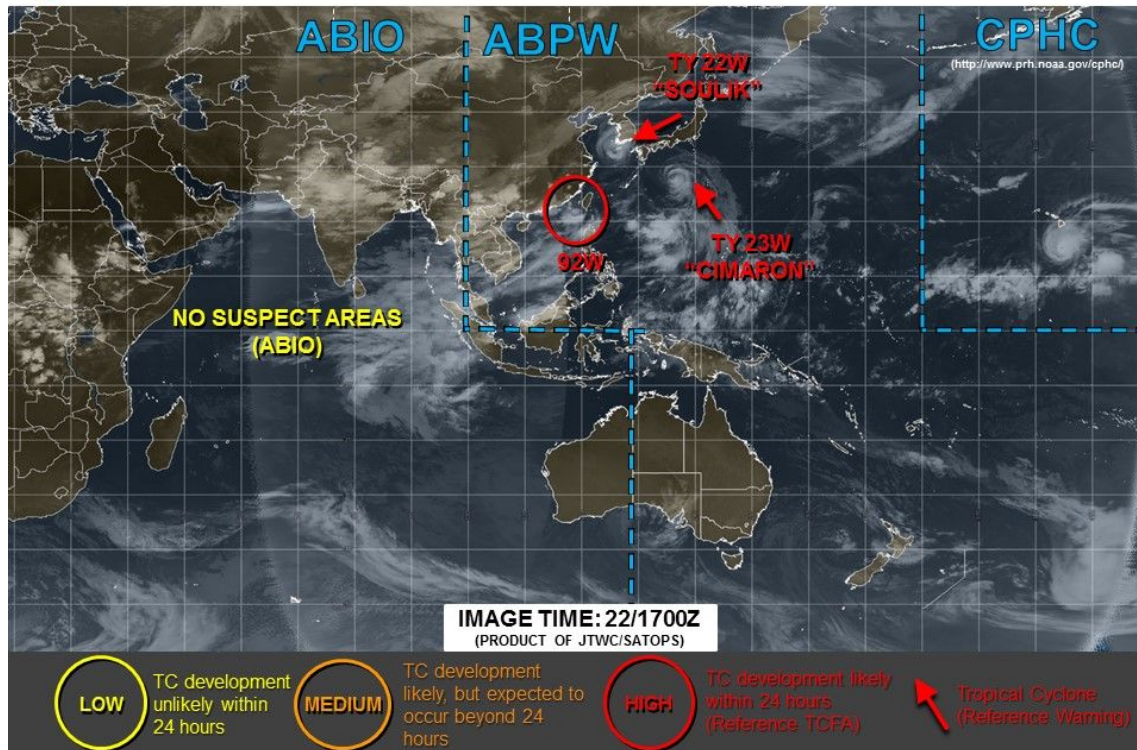


Fig. 2. Himawari IR Satellite [2]

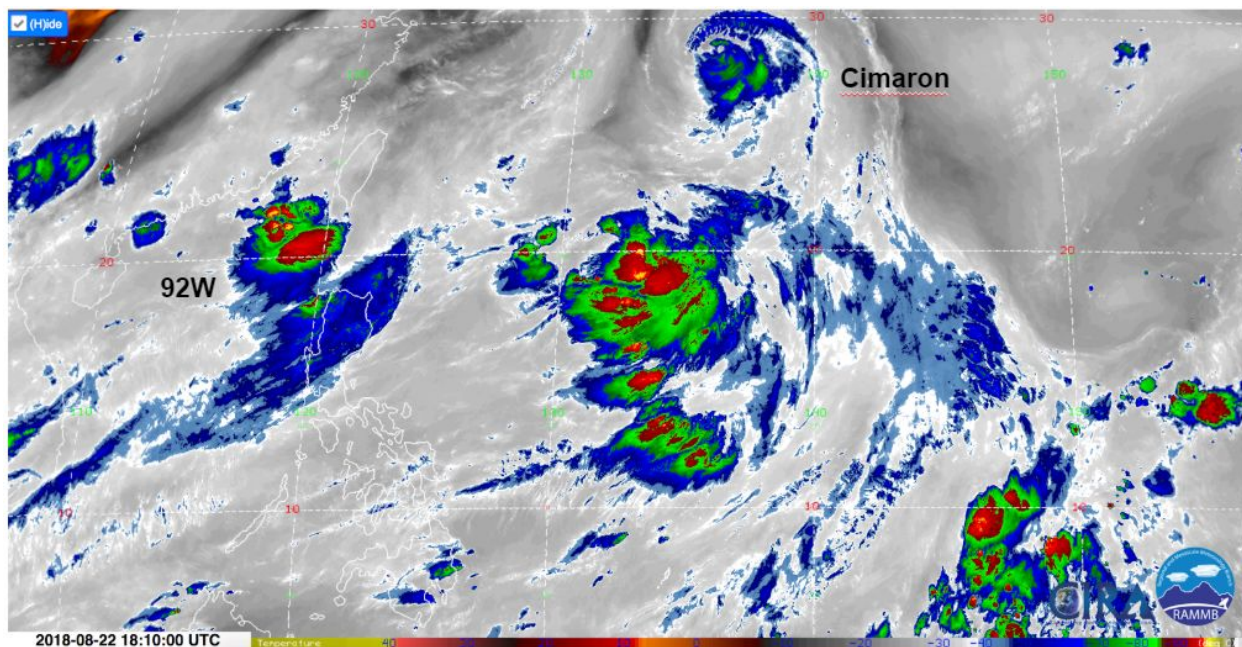


Fig 3.1810 UTC August 22 6.2 micron Himawari-8 imagery [3]

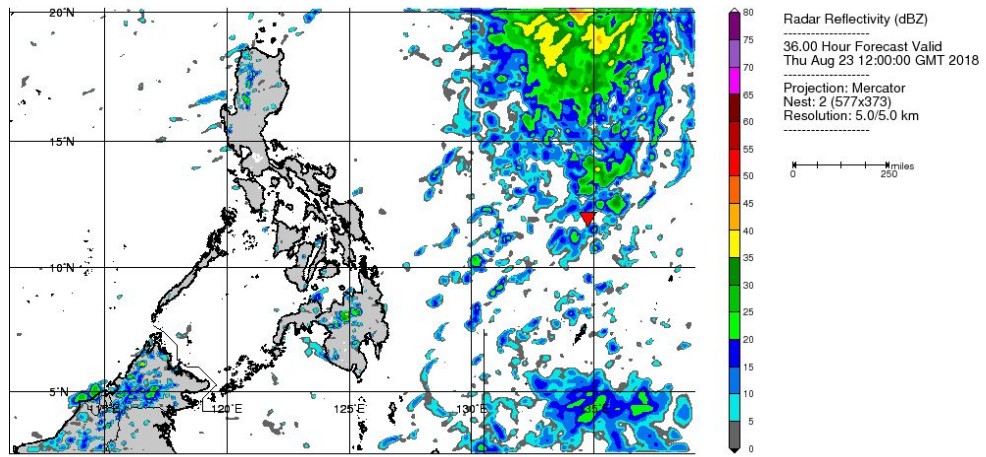


Fig. 4.36-h COAMPS simulated reflectivity forecast valid for 12Z august 23 [4]