2000 UTC 20 August 2018 Forecast Discussion

Summary

Typhoons Soulik and Cimaron are both moving towards the northwest with potential impacts on Japan and Korea. Increased significant wave heights are expected from Cimaron, although its recent forecast over bias means that peak wave heights should be between 12-15 ft instead of 15-18 ft. Convection with convergent low-level flow towards the southwest of Cimaron has been moving westward supported by an extensive area of upper-level divergence. This area of convection should begin to move towards the northwest. Strengthening southwesterly monsoonal flow east of the Philippines will support scattered convection over the next 120 hours.

Day One (24 hr) Outlook: Typhoon Soulik will maintain its intensity (~100 kt) moving slowly towards the northwest impacting Japanese islands before moving into the East China Sea. Now Typhoon Cimaron is forecast to intensify although the models have been overestimating the intensification over the last 24 hours.It will approach Iwo To moving towards the northwest.

Day Two (48 hr) Outlook: Typhoon Soulik should weaken slightly as it approaches Jeju Island and Korea as it moves through the East China Sea. Typhoon Cimaron is forecast to accelerate northwestward and increasing in intensity.

Extended Outlook: Byond 48 hours Typhoon Cimaron is expected to catch up with Soulik with possible interactions in the mid-latitudes. Both the GFS and ECMWF are now hinting at possible genesis east of Taiwan around 120 hours out, but no other TC genesis is currently forecasted in the global modes in the West Pacific as the subtropical ridge sets up further south over the main development region. The strengthening southwesterly monsoonal flow near the Philippines is slightly stronger in the ECMWF compared to the GFS and will cause increased significant wave heights (12-15 ft) east of Luzon. Convection southwest of Cimaron should be moving towards the northwest causing an increase in convection east of the Philippines.

Discussion

TCs: Typhoons Soulik (26.4N, 135.5E) and Cimaron (18.6N, 147.5E) continue tracking to the northwest several degrees away from the ship. Soulik has plateaued in intensity and Cimaron has intensified more slowly than either JTWC or most models predicted. Cimaron remains under high shear, which has likely slowed the intensification rate. Steady intensification is still possible (JTWC estimates 20 kts in the next 36 hours), but it seems likely that strong northerly shear will continue to hinder it somewhat. In terms of ship impacts, the slower rate of intensification has slowed the broadening of the wind field and the increase of significant wave height. If Cimaron’s intensity continues to be overestimated, we expect the surface winds and significant wave heights to be likewise overestimated. See the wave heights section for more details.

Convection: Little convection exists immediately east of the Philippines, with low coverage by clouds and almost no coverage by deep clouds. West of Cimaron, widespread deep convection continues to flourish under strong upper-level divergence. This convection has pushed farther west and south than expected (currently in a band extending from ~12N, 135E to 9N, 142E). Models still suggest the broad band of convection will push north and west alongside Cimaron, but that convection associated with low-level convergence south of Cimaron could persist near the intended ship location and Mirai location through ~22 August.

MJO/BSISO: MJO/BSISO indices continue to look low-amplitude over the next week. However, ensembles are all over the place.

SSTs: Remain warm between 28-30C.

Currents and Wave Heights: Significant wave heights over the next 24 hours should increase from 5-7 ft to 7-9 ft and further increase to 9-12 ft by 12Z August 22. Pockets of 12-15 ft waves will be possible between the Luzon Strait and east of Luzon. The wave forecast has been reduced in magnitude slightly since yesterday and features the strongest waves now occurring later in time and further towards the northwest. Since Typhoon Cimaron has maintained its intensity instead of intensifying, in addition to too strong bias in the GFS, the Thompson should be able to get further south of the strengthening monsoonal flow and avoid the 12-15 ft waves. The Mirai will be south of the 9-12 ft waves expected and should only see significant wave heights of 7-9 ft over the next 48 hours.

FORECASTERS: TRABING and DEHART

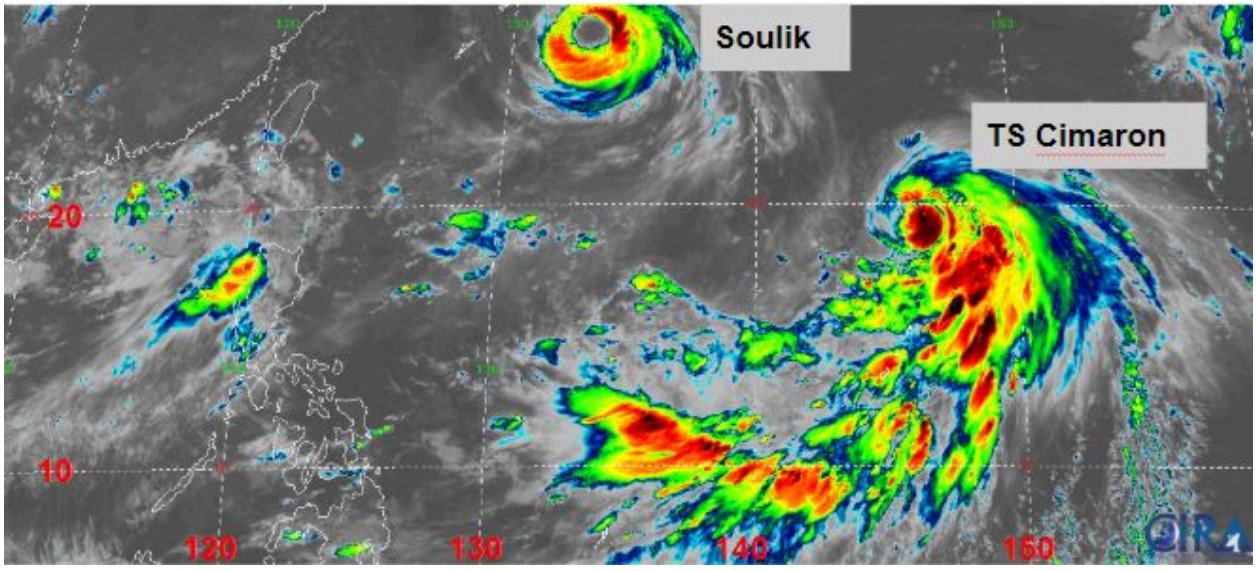

Fig. 1. 10.4 micron IR image at 1810 UTC August 20. [1]

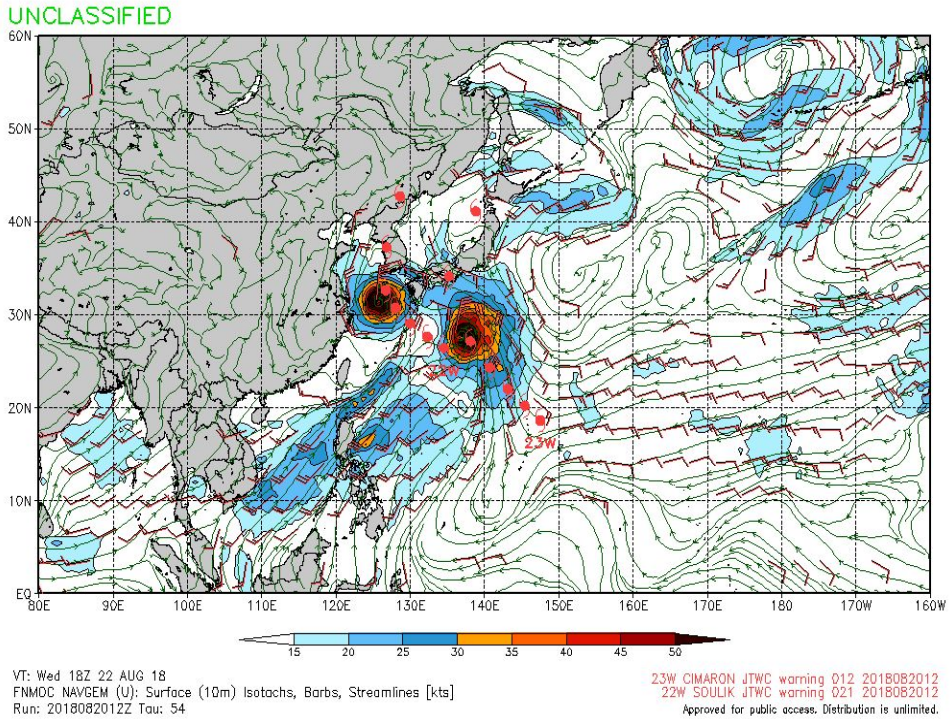

Fig. 2. 54 hour FNMOC NAVGEM forecast of 10-m winds valid 18Z August 22 [2]

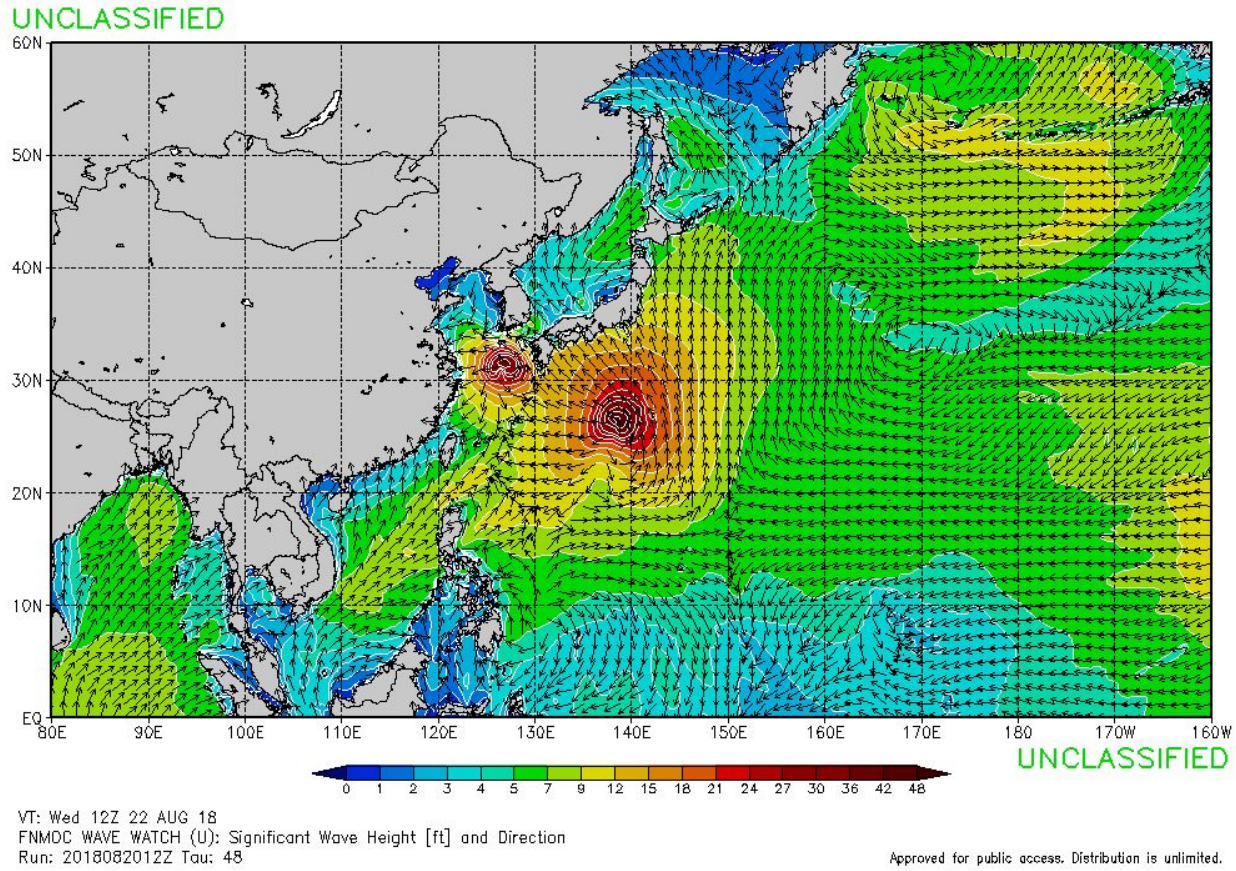

Fig 3. NAVGEM significant wave height forecast valid 12Z August 22. [3]