

2000 UTC 16 August 2018 Forecast Discussion

Summary: TS Soulik continues to move northwestward and will continue to do so as intensification continues in a favorable environment. Invest 91W remains disorganized as it tracks westward, but as it remains in a favorable environment for intensification, genesis is likely in the next few days. Global models suggest minimal impact to operations in Taiwan or during the transit. Convection persists east of the Philippines in the study region, but has weakened in intensity and coverage since yesterday. Low-level convergence has weakened and is expected to remain weaker through ~00Z 8/20. Combined with slightly weaker upper-level divergence, convective coverage and intensity should be on the weaker side through that time. Afterwards, the monsoonal flow picks back up and we expect a resurgence in convection during the potential transit.

Day One (24 hr) Outlook: TS Soulik will move northeastward just east of 140E, with intensification of 20 kts possible. Invest 91W will continue moving westward, with JTWC giving genesis a medium possibility.

Day Two (48 hr) Outlook: TS Soulik will continue northeastward movement with additional intensification of 20 kts expected. Invest 91W is expected to begin a slight turn to the northwest as genesis/intensification becomes more likely.

Extended Outlook: Beyond 48 hours TS Soulik is expected to continue intensifying to a strong Typhoon reaching a maximum of 115 kt at 12Z August 19. Soulik could exceed this intensity with a higher PI limit based on the thermodynamic environment, but the track will cause limited impacts on the transit. Soulik will cause increased wave heights around the storm which may impact the transit depending on the intensification rate. Invest 91W is expected to undergo genesis and intensify following a very similar track that Soulik is expected to take. The track will not come close to the transit route or the area of operations as the storm will move northwest around the Northern Mariana Islands. The only impacts from Invest 91W will be increased wave heights. Invest 91W is forecasted to intensify in both the GFS and ECMWF with differences in the timing.

Discussion

TCs: TD 22W has intensified to TS Soulik (18.5N, 141.8E) as it's pushed northwestward through continued favorable environment (low shear, sufficient low and upper-level dynamical support, warm SSTs). Northwestward track is expected to continue on the western periphery of the subtropical high; some spread in the ensemble tracks later in the period, but indications still solid for no impacts on southern Taiwan or transit region. Invest 91W remains disorganized with scattered convection and no low-level circulation, but it remains in a favorable environment to undergo genesis in the next few days. Global models still suggest intensification (although GFS is unsurprisingly more bullish), but tracks still suggested to bring minimal impacts to southern Taiwan or the transit region. No other disturbances under watch at this time.

Convection: We have continued convection located around the area of operation consistent with the forecast from yesterday. Favorable upper-level divergence has continued to support the convection; however, the low-level convergence has been reduced. Over the next couple of days the chance for storms will be reduced in the area of operations from the global models.

MJO/BSISO: Model guidance has not been updated so we will continue to expect a disorganized weak amplitude signal for BSISO and MJO. The signal will continue to be governed by lower frequency modes and TCs. The weak amplitude signal is expected to persist over this next week.

SSTs: Warm waters are continuing in the research domain with a range of 28-30C waters.

Currents and Wave Heights: Significant wave heights between 5-7 feet are expected around the departure time with waves decreasing over much of the transit region as Soulik moves northwest. The significant wave heights may begin to increase again depending on when invest 91W undergoes genesis.

FORECASTERS: DEHART and TRABING

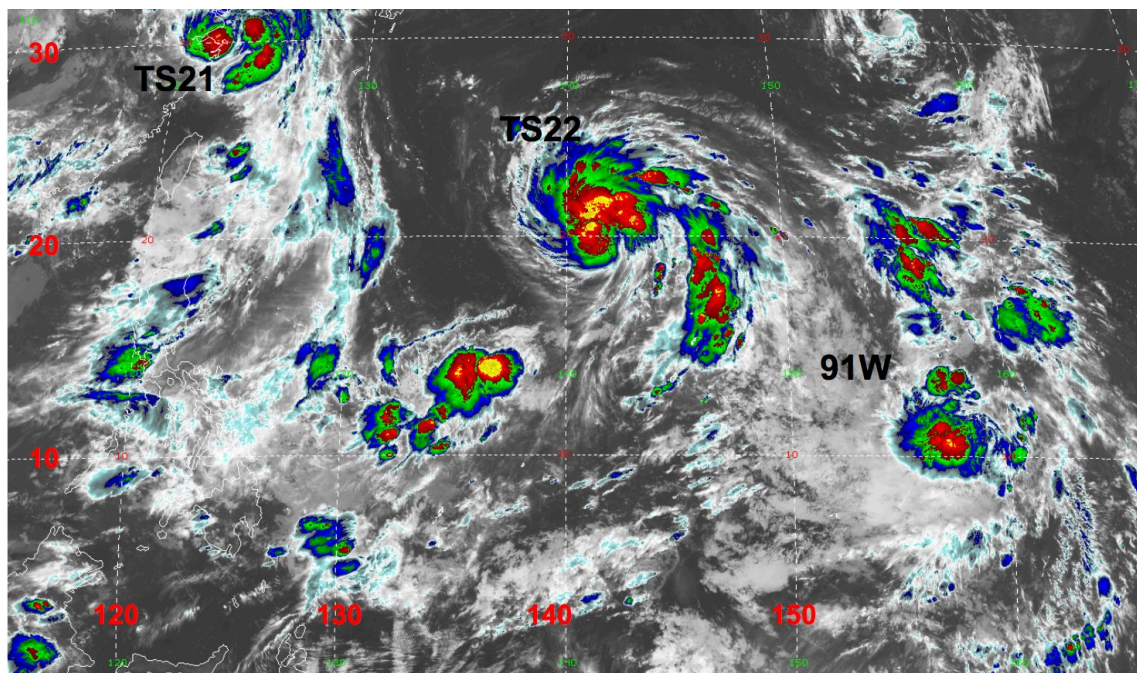


Fig. 1. 1830 UTC August 16 11.2 micron IR image from Himawari-8 [1]

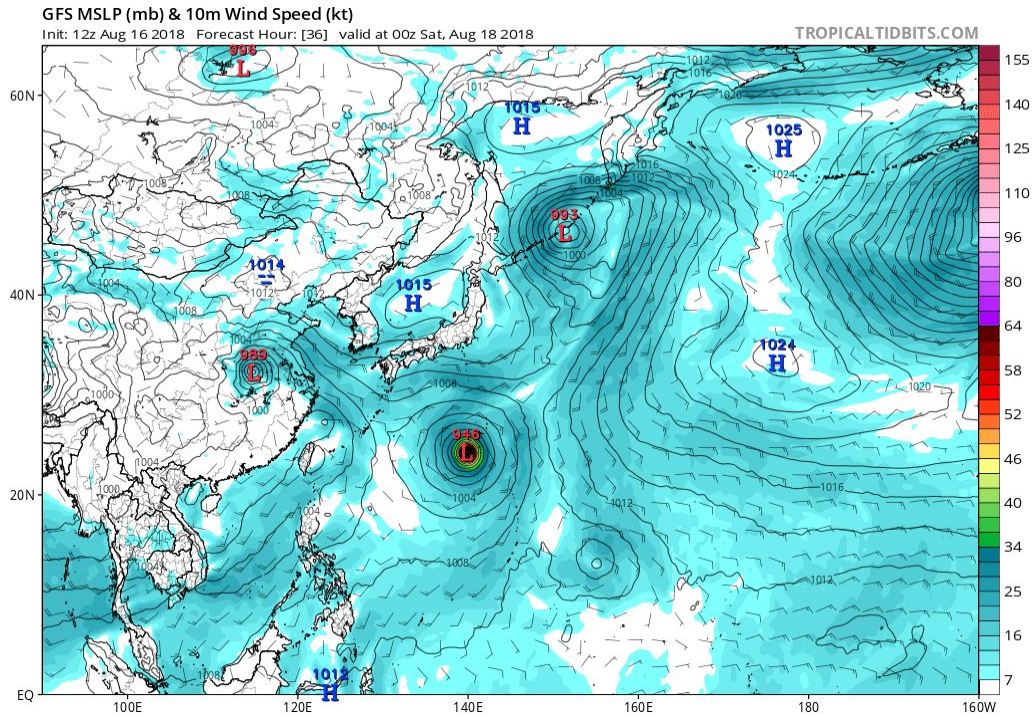
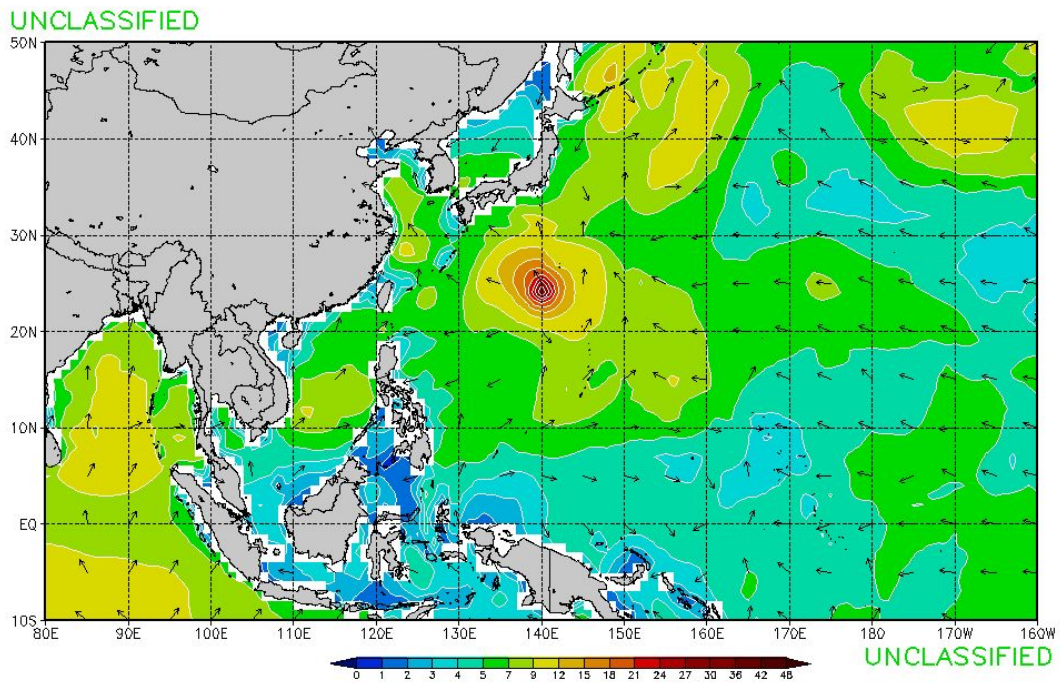


Fig. 2.10 m surface winds and MSLP from GFS for earliest ship departure time. [2]



VT: Sat 00Z 18 AUG 18
 NCEP_GFS (U): Significant Wave Height [ft] and Direction
 Run: 2018081612Z Tau: 36

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