

Summary

No TC impact on the operation area is expected in next 96 hours. The convection currently active around 15N, 135E is expected to push northwest. Convection over the operation area (13N 137E) is expected to be scarce given the high vertical wind shear and mid-level drier air advection, although the global models suggest isolated convection is possible in the area over the next 24 hours. Increased convective activity over the operation area associated with the easterly wave currently located at 8N east of 160E is expected beyond 72 hours. Surface wind will be weak and significant wave height will remain 2-4 ft over the next few days.

Please note that currently we have no data from COAMPS and FNMOC and this forecast relies heavily on the global models.

Day One (24 hr) Outlook: TD 24 is expected to make landfall within the next 24 hours in eastern China and quickly dissipate. Invest 93W will continue northwest inhibited by strong shear. No TC impacts on operations is expected. The global models suggest isolated convection is possible in the area around 13N 137E over the next 24 hours. Low level winds should be light and variable (again global models).

Day Two (48 hr) Outlook: Invest 93W could undergo genesis east-northeast of Taiwan in this time frame as it moves into a region of weaker shear, although no implications for operations is expected. Deep convection in the operation area will be sparse with mid-level dry air pushing into the area from the southeast. Low-level winds should remain light and variable.

Extended Outlook: Beyond 48 hours the global models are suggesting that there will be little to no deep convection around the area of operations (13N, 137E) through roughly 96 hours. The global deterministic models are suggesting that the broad area of vorticity associated with the tropical easterly wave mentioned yesterday will separate with a northwest and westward component. The northwestward moving vorticity eventually undergoes genesis further north (~20N) while the westward moving component provides enhanced convection in the operation area starting between 0-12Z August 28.

Discussion

TCs: Invest 92W developed into TD24W late yesterday after moving back over water. TD24W is expected to stay in TD intensity of 40 knots for next 24 hours, and diminish after it makes landfall at Southern China. Invest 93W is expected to develop to into a weak tropical storm but beyond 24 hours and it will move northwest to East China Sea, not affecting the research area. The easterly wave we mentioned yesterday is currently showing up as an area of elongated vorticity with a maximum near 10N, 169E. The global modes are suggesting a detachment of the vorticity with one area now being brought further north earlier than expected as it taps into

deeper steering flow which would not impact the area of operations as was suggested yesterday. The GFS seems to continue to track westward the broader area of low-level vorticity with unlikely genesis potential but the possibility for enhanced convection. No TC activity with implications on the Thompson or Mirai are expected over the next 96 hours.

Convection: The wide-spread convection that was east of 140E and south of 10N (in an ___ shaped pattern) yesterday is now around 15N 135E. This convection is not expected to continue given the high deep-layer shear and advecting drier air blurb from Southeast to 15N 137E. The convective blurb around 10N east of 160E currently shows an easterly wave propagating northwest. GEFS predicts the system would intensify and be located around 17N 160E at 0828 12UTC. CFSR mid-range precipitation forecast shows relatively weak convective activity over this week.

MJO/BSISO: The BSISO and MJO forecast is not updated from yesterday (EC 8/20 and BOM 8/19), so the signal remains weak amplitude over the next 4-5 days before the signal starts to increase in magnitude. The BOM and ECM disagree over the phase transitions over the next week with the BOM hinting at a transition from phase 4-5 and the ECM staying at phase 4-3. The BOM also is suggesting a weak-moderate amplitude signal next week while the ECM has the amplitude approaching zero.

SSTs: Temperatures should remain between 28-29C.

Currents and Wave Heights: Similar to yesterday, we expect significant wave heights around 2-4 ft over the next few days. COAMPS and FNMOC forecasts are currently unavailable.

FORECASTERS: NAM and TRABING

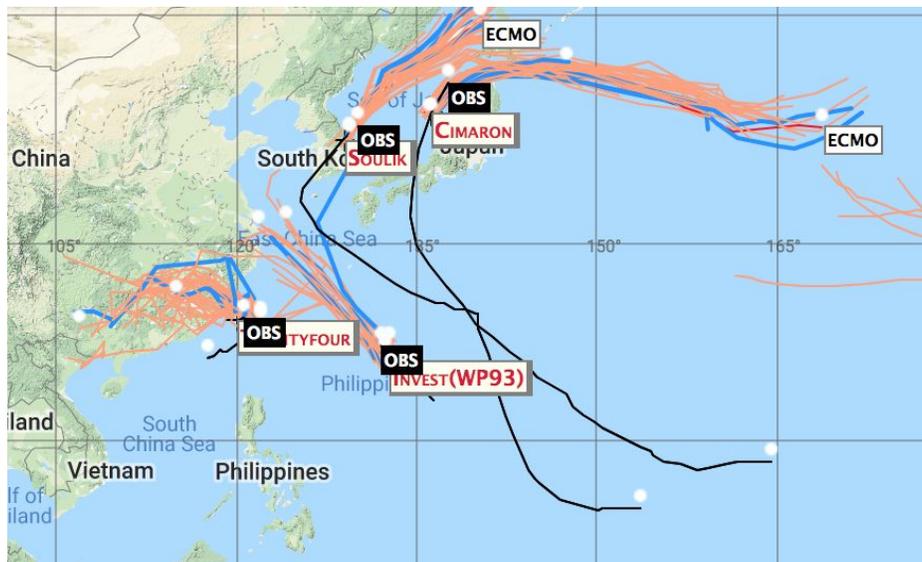


Fig. 1. ECMWF Ensemble TC track forecast valid 0Z August 24 [1]

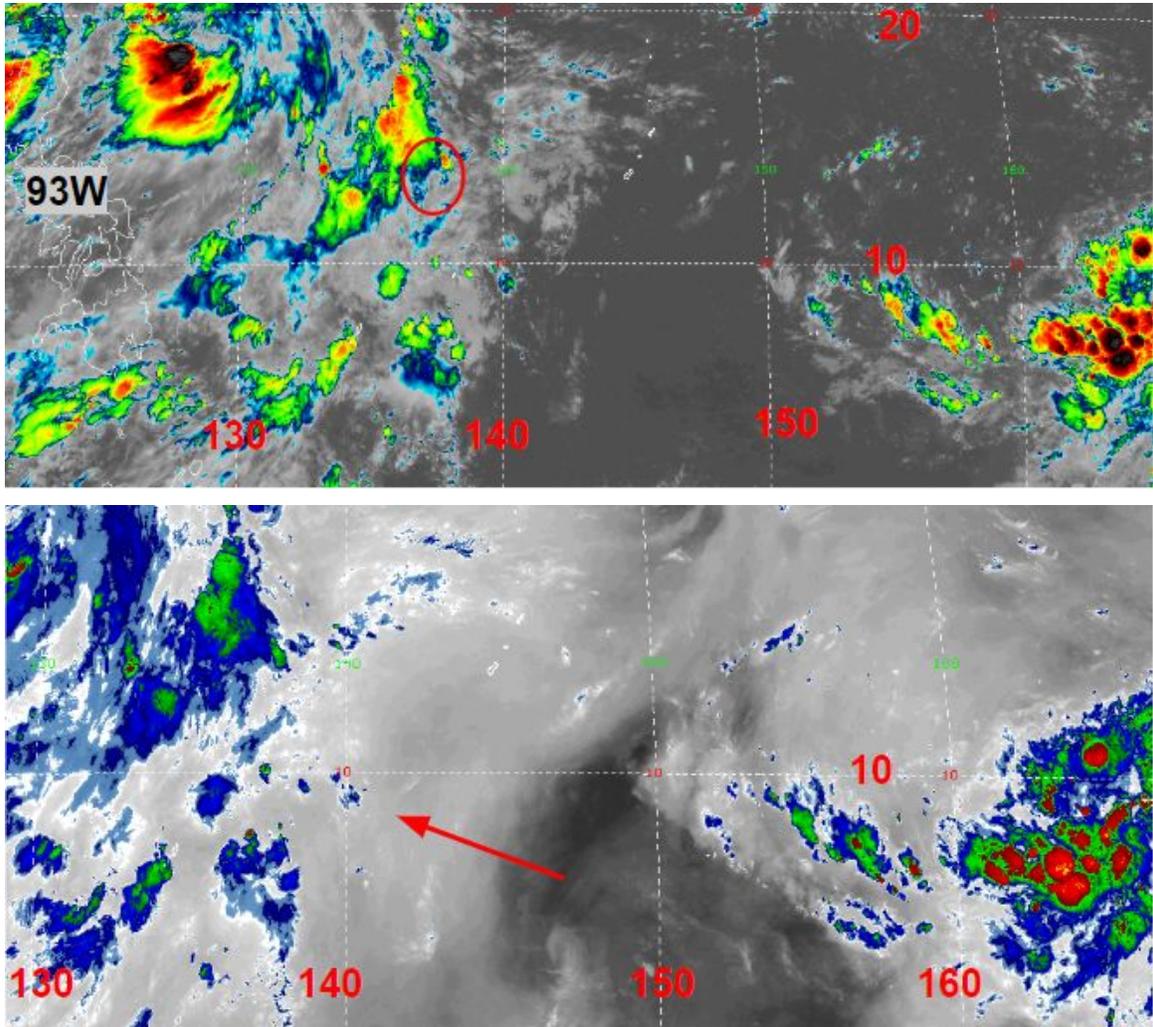


Fig. 2. Himawari satellite image; (upper) IR (band:10.4), (lower) WV (band: 6.2) Red circle indicates the ship location. Red arrow shows the advection of drier mid-level air. [2]

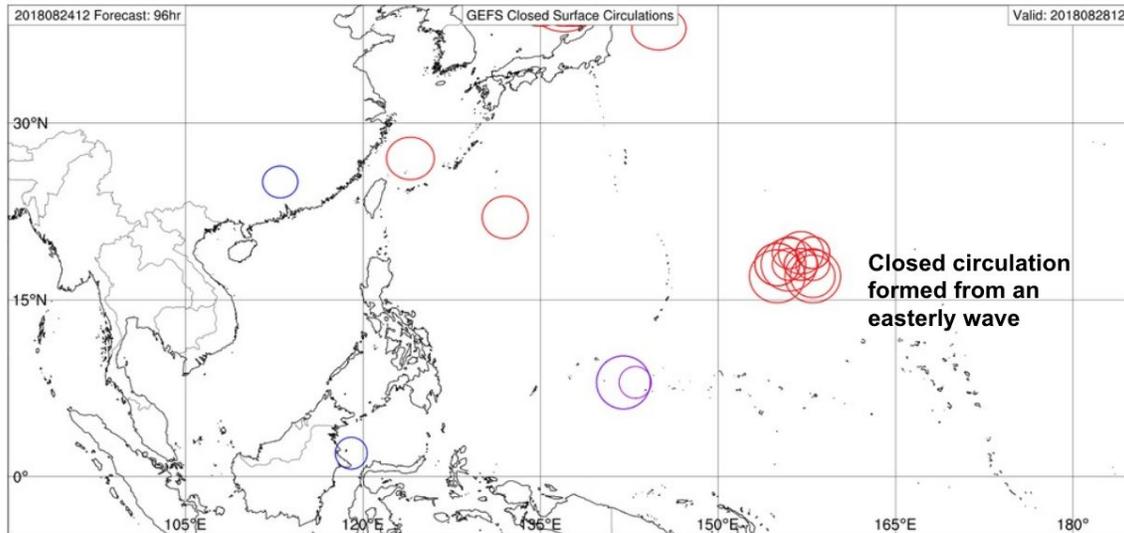


Fig 3. GEFS closed surface circulation valid at 20180828 12z (red >34 kt).[3]

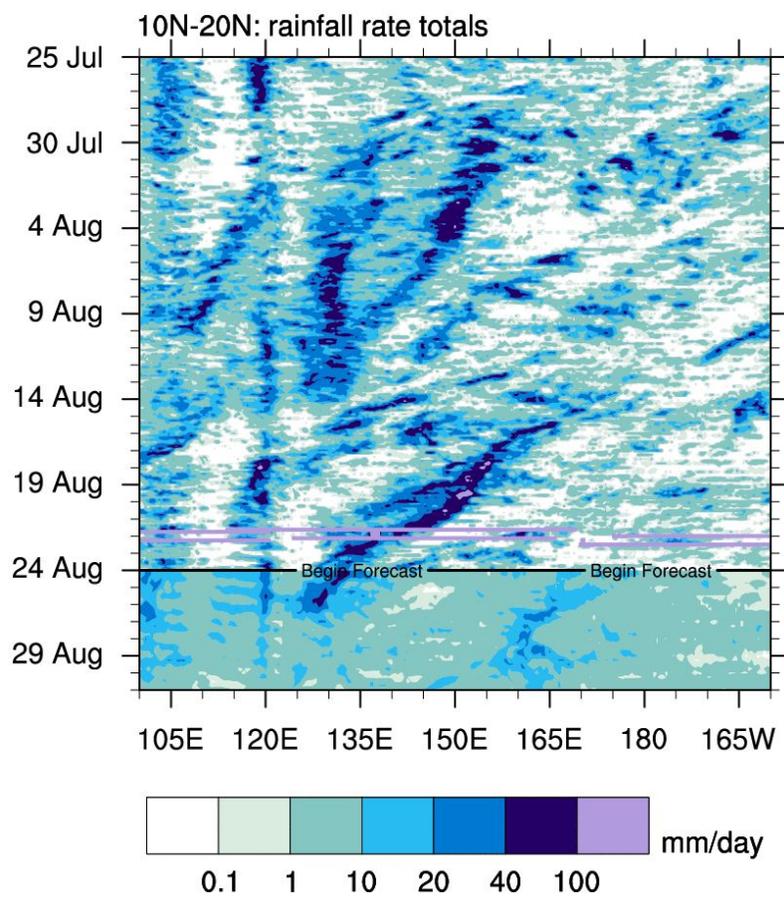


Fig. 4. Hovmoller of TRMM rainfall rate averaged between 10-20N valid 12Z August 24. [4]