

## Summary

No short-term TC impacts, but the area of convection located around 11N, 175W is being closely monitored for potential long-term TC impacts around Sep. 11th-13th. Scattered convection in the area of operation is expected over the next 48 h, mainly at the end of the forecast period. Further out, precipitation is expected to be minimal beyond Sep. 9th until the potential TC arrives. MJO is forecast to be Phase 1 over the next week (enhanced convection over Africa), and BSISO2 is Phase 6 over the next 48 h (enhanced convection over SE Asia), but extended BSISO forecasts diverge. BSISO1 has disagreement between Phase 3 or 4. Wave heights of 6-8 ft are expected to decrease over the forecast period.

**Day One (24 hr) Outlook:** Scattered precipitation is expected over the area of operation. WSW 10-15 kts through the end of the forecast period with possible 15-20 kts. Wave heights of 6-8 ft are forecast.

**Day Two (48 hr) Outlook:** Scattered precipitation is expected towards the end of the 48 h forecast period. SW winds between 5-15 knots will persist over the area of operation, drawing in moisture and converging with E-SE flow slightly N-NE of the area of operation. Wave heights of 4-6 ft are forecasted over the area of operation.

**Extended Outlook:** Chances of scattered precipitation expected to decrease gradually over the next few days. Beyond that, a disturbance may intensify and approach the area of operation close to the time when the ship is scheduled to depart Palau for Leg 3.

## Discussion

**TCs:** Invest 98W is well outside of the area of operation and dissipating, and will no longer be discussed. The next potential TC may impact travel plans of crew members with layovers in Guam starting around Sept. 11th, according to both the 12Z GFS and 12Z ECMWF. However, the current convection that may produce this TC has yet to be publicly classified as an official invest by JTWC, and there is currently large disagreement in forecast track and intensity between the GFS and ECMWF. This convection is currently located at approximately 11N, 175W, and will be closely monitored for potential impacts to the area of operation, boat travel, and crew travel.

**Convection:** Deep convection has been initiating northward of the area of operation, likely associated with Invest 98W. The SW flow over the area of operation will begin to converge with E-SE flow rounding the sub-tropical high, providing some forcing for convection. GFS indicates a possibility for scattered convection over the area of operation in the next 48 h, mainly at the end of the 48 h forecast period. Convective activity is anticipated to increase in the long-term

forecast (~12 September) as the (currently undeclared) disturbance located near 11N, 175W tracks towards the area of operation.

**MJO/BSISO:** The MJO forecast provided by the ECMWF and BOM are largely in agreement with yesterday's forecast, showing a transition into phases 1 and 8 over the next two weeks (enhanced convective activity over the Western Hemisphere and African continent). In the week 1 forecast, the ECMWF shows an increased amplitude in this signal which then decays through week 2. The BSISO indices from ECMWF and BOM were updated with forecasts initiated at 3 September and 2, respectively. Over the next 48 h, the ECMWF indicates an increased amplitude in the BSISO2 signal which is reflected in the 1-5 day outgoing longwave radiation (OLR) anomaly forecast, showing negative anomalies over this region. The BOM shows a slightly weaker signal, but is in general agreement over the next 48 h. In the extended outlook, beyond 5 days from initialization, the models diverge in their forecasts for both BSISO signals.

**SSTs:** Sea surface temperatures are expected to be between 29-31 C.

**Currents and Wave Heights:** Significant wave heights are forecast to be 6-8 ft by 0906 00z, decreasing to 4-6 ft by 0907 00z.

FORECASTERS: CASAS (DELAP) and MARTINEZ

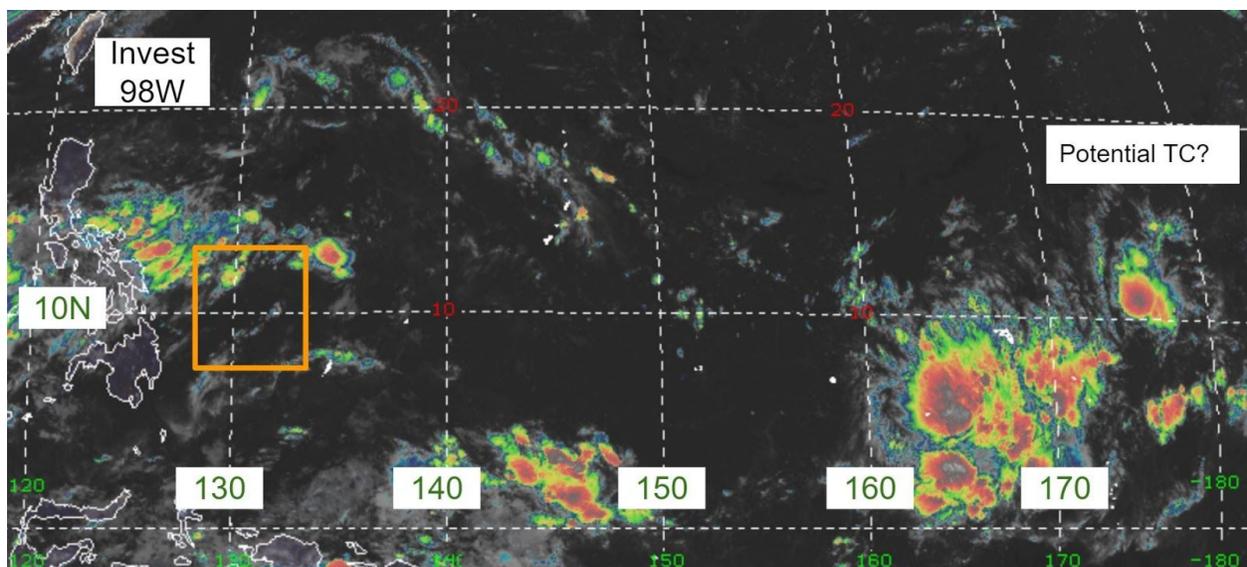


Fig. 1. Himawari IR (10.4 microns) imagery at 20180905 1620 UTC [1]

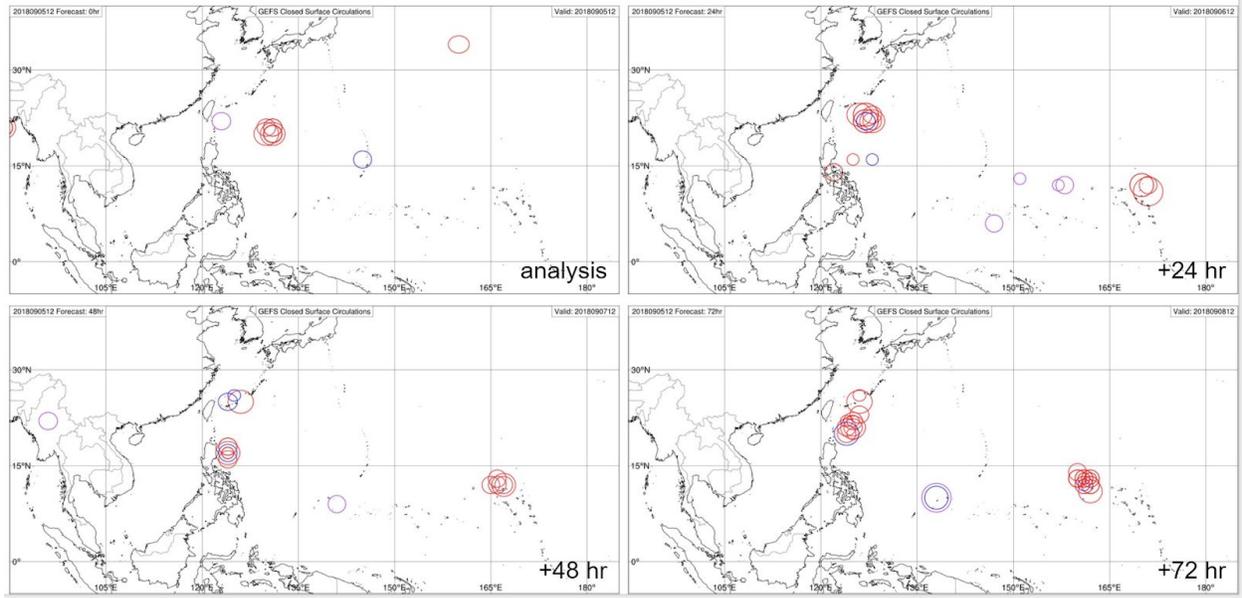


Fig. 2. GEFS ensemble 10m circulation forecast initiated at 1200 UTC 0905 [2]

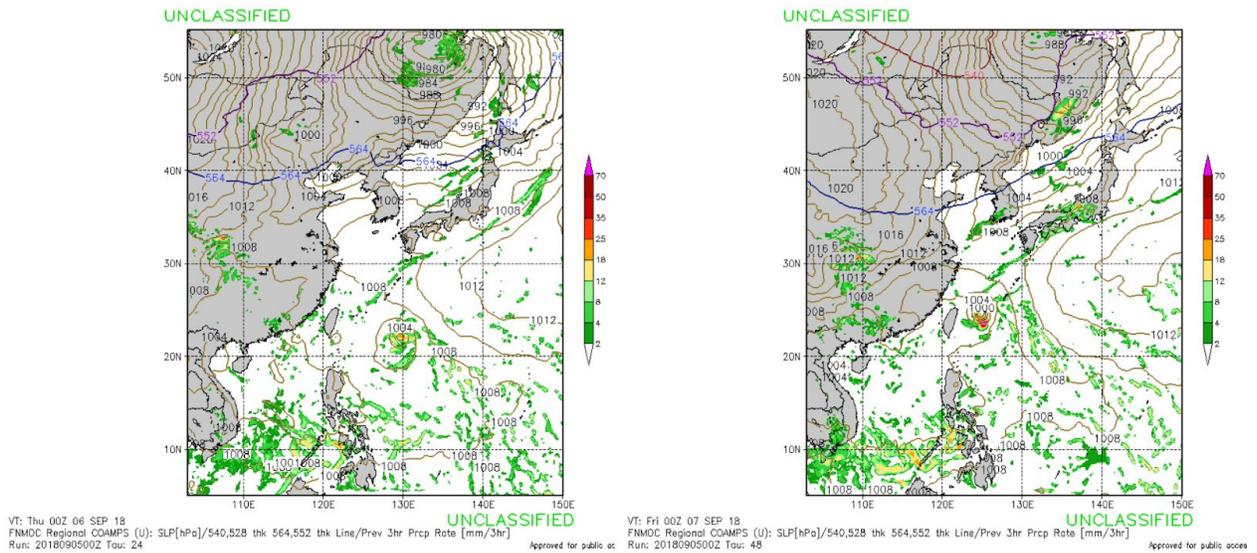


Fig 3. COAMPS precipitation (mm/3hr) forecast initiated at 0000 UTC 05 September 2018, valid at (left) 0000 UTC 06 September 2018 and (right) 0000 UTC 07 September 2018.

ECMWF 850mb Cyclonic Vorticity ( $10^{-6} \text{ s}^{-1}$ , shaded), Wind (kt), and MSLP (hPa)

Init: 12z Sep 05 2018 Forecast Hour: [168] valid at 12z Wed, Sep 12 2018

TROPICALTIDBITS.COM

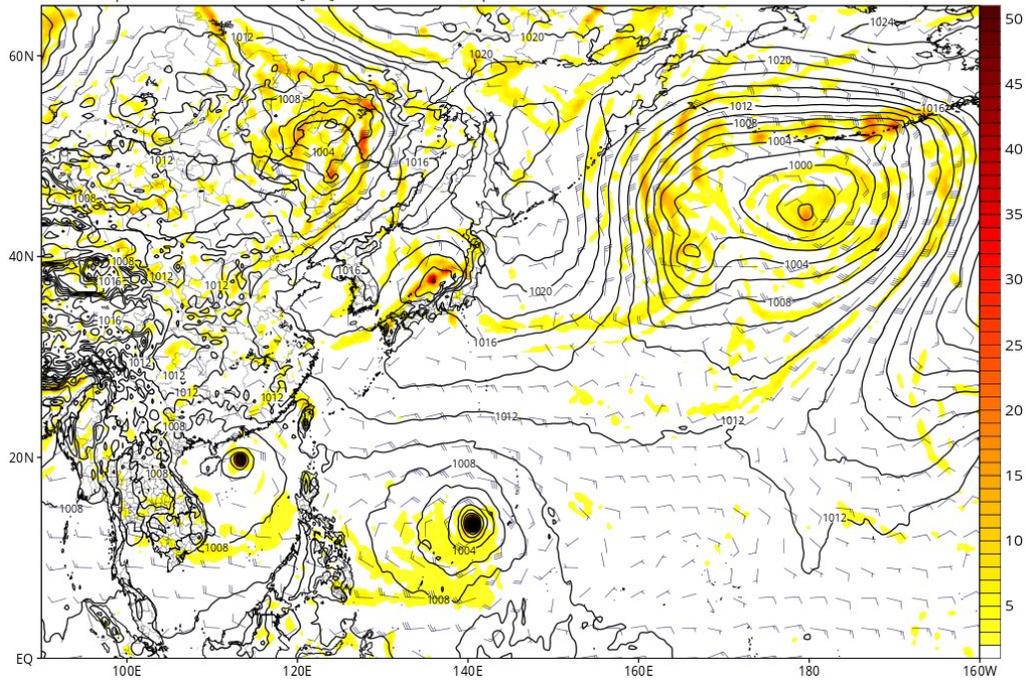


Fig. 4. ECMWF vorticity (shaded) and wind barbs at 850 mb, and MSLP (contoured) initiated at 1200 UTC 05 September 2018 and valid at 1200 UTC 12 September 2018.