

## Summary

High chances of precipitation is expected to remain through 12 UTC on 20180906. Winds from the SW of 17-23 kts are expected for the next 48 hours. No threat from TC is expected for the next 48 hours. Possible tropical cyclogenesis cases are discussed, but the chance of development in 48 hours seems to be very low as of now. High wave heights due to swells from Jebi will decrease to 5-7 feet in 48 hours, and it will further decrease to below 5 feet in 72 hours.

**Day One (24 hr) Outlook:** High chances of precipitation throughout this forecast period. GFS and ECMWF indicate a surface low may form on the northern edge of the area of operation. But the yet-to-form surface low is not expected to affect the are of operation at this moment. Significant wave heights of 7-9 feet expected to decrease to 6-8 feet. Winds from the SW at 17-23 knots is expected.

**Day Two (48 hr) Outlook:** High chances of precipitation expected to continue throughout this forecast period. Further decrease in significant wave heights is expected. Continued southwesterly winds of 17-23 knots is expected.

**Extended Outlook:** High chances of precipitation is expected to remain through 12 UTC on 20180906. Further decrease in significant wave heights is expected. Development of Invest 96W possible, but not expected to immediately impact the area of operation at this moment. Wave heights will decrease to below 5 feet after 72 hours.

## Discussion

**TCs:** GFS and ECMWF have been hinting at a possible development of a weak surface low associated with the area of widespread convection in the vicinity of the area of operation. In contrast to yesterday's model run, ECMWF is now more aggressive in developing this low compared to GFS, showing a closed circulation forming in the model analysis field by 12 UTC 20180903 at around 16N 137E. Once formed, this surface low is expected to move northward and away from the area of operation. The yet-to-develop surface low is not expected to threaten the area of operation at this moment, especially since the area of operation is already being affected by widespread deep convection and that the surface low, if/when it forms, will be at the northern edge of the area of operation and is expected to be weak. Invest 97W has also been declared, currently located at 10N 159.2E. According to Central Pacific Hurricane Center's surface analysis, Invest 97W seems to be associated with an easterly tropical disturbance wave. Both GFS and ECMWF do not seem to favor an intensification of this Invest. However, GFS analysis of 700-400 hPa RH and vertical wind shear indicates that Invest 96W will be located in a region of moderately favorable RH and wind shear. Stronger intensification may be

possible than what the global model surface analyses seem to indicate at this moment. Close attention will be paid to both systems in future forecast discussions.

**Convection:** The area of operation is currently being affected by widespread deep convection as seen from satellite IR imagery. CIMSS wind products show low-level convergence associated with this deep convection, which is from the winds from the SW over the operation area and easterly wind east of the operation area. COAMPS model output indicates that convection will remain active with scattered precipitation throughout the next 48 hours. In addition, GFS now indicates high chance of precipitation in the area of operation through 12 UTC on 20180906 as this area of convection is expected to stall over the area of operation.

**MJO/BSISO:** Models consistently show that MJO will have phase 1 & 8 in 3-4 days, the amplitude of MJO will remain low for the next week according to BOM, MJO and NCEP. Low amplitude of BSISO indices are forecasted for the next two weeks according to BOM and ECMWF outputs issued on Aug 30. Phase change of BSISO is uncertain, since it's inconsistent between BOM and ECMWF and the ensemble runs are widespread all over the phase domain.

**SSTs:** Sea surface temperatures should remain between 28-30 C.

**Currents and Wave Heights:** Surface currents from COAMPS analysis is expected to be northward at 0.1 to 0.5 cm/s. Significant wave heights of 7-9 feet is expected to decrease to 6-8 feet within the next 24 hours. Further decrease in significant wave heights is expected beyond 24 hours, reaching to below 5 feet after 72 hours.

FORECASTERS: NAM and RAZIN

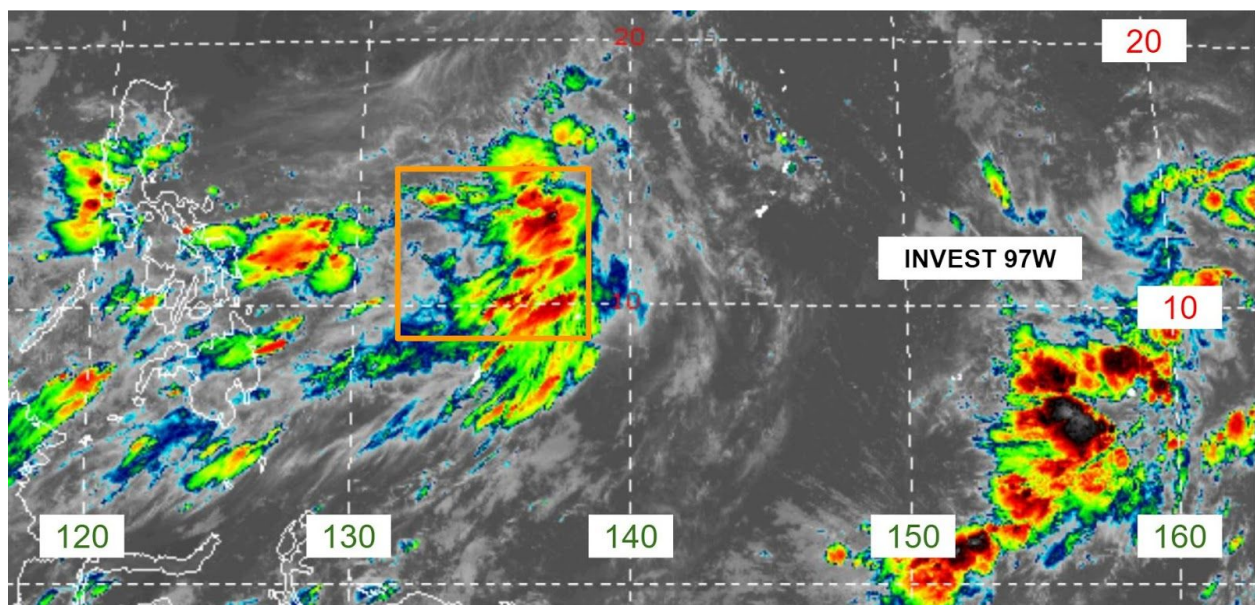


Fig. 1. Himawari 10.4 microns imagery at 20180902 1720 UTC. [1]

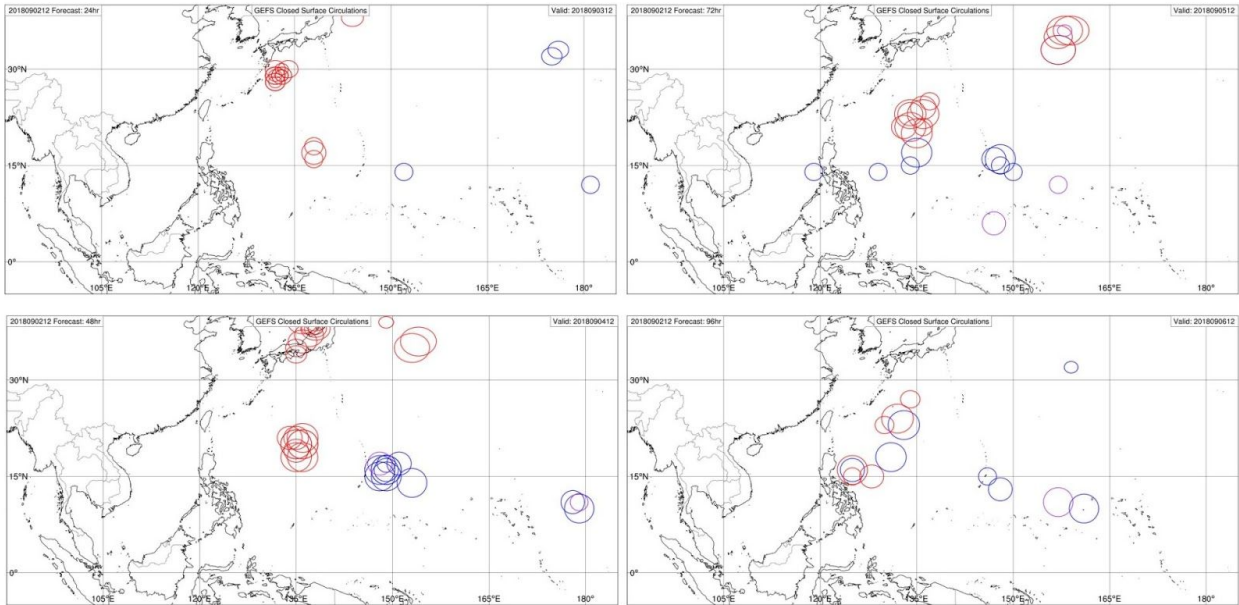


Fig. 2. Alan Brammer's ensemble forecast product showing the forecast of 10-m circulation. The colors denote the strength of the closed circulation. Purple  $\leq$  20kts max wind, Blue 20-34kt, Red  $>$  34kt. [2]

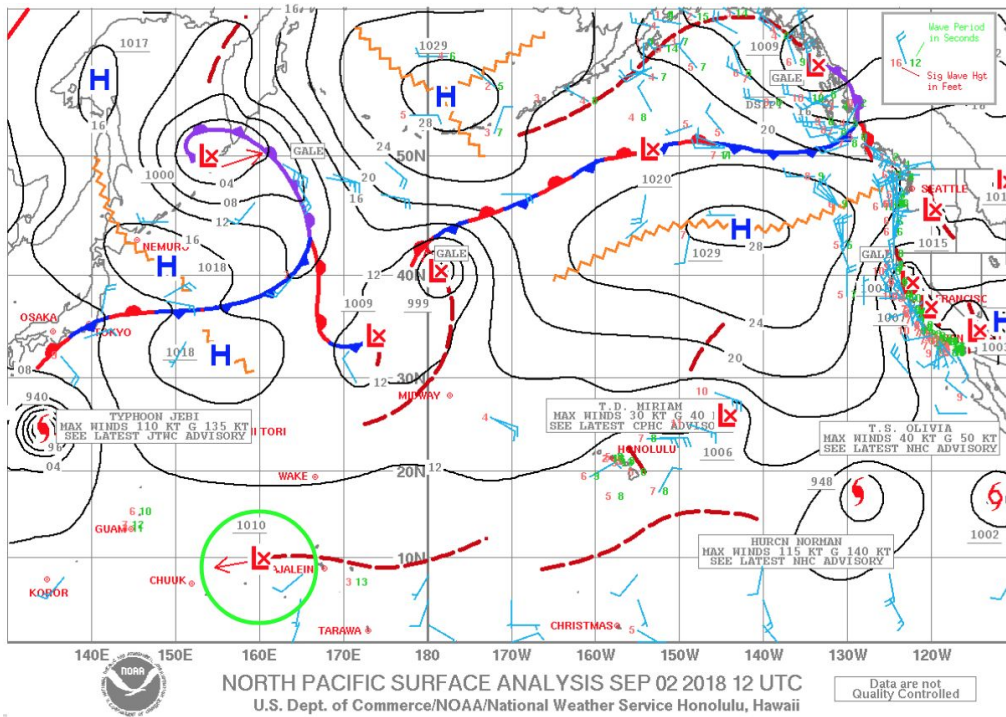


Fig 3. Surface analysis from Central Pacific Hurricane Center valid at 0902 12z. Green circle indicates Invest 97W [3]

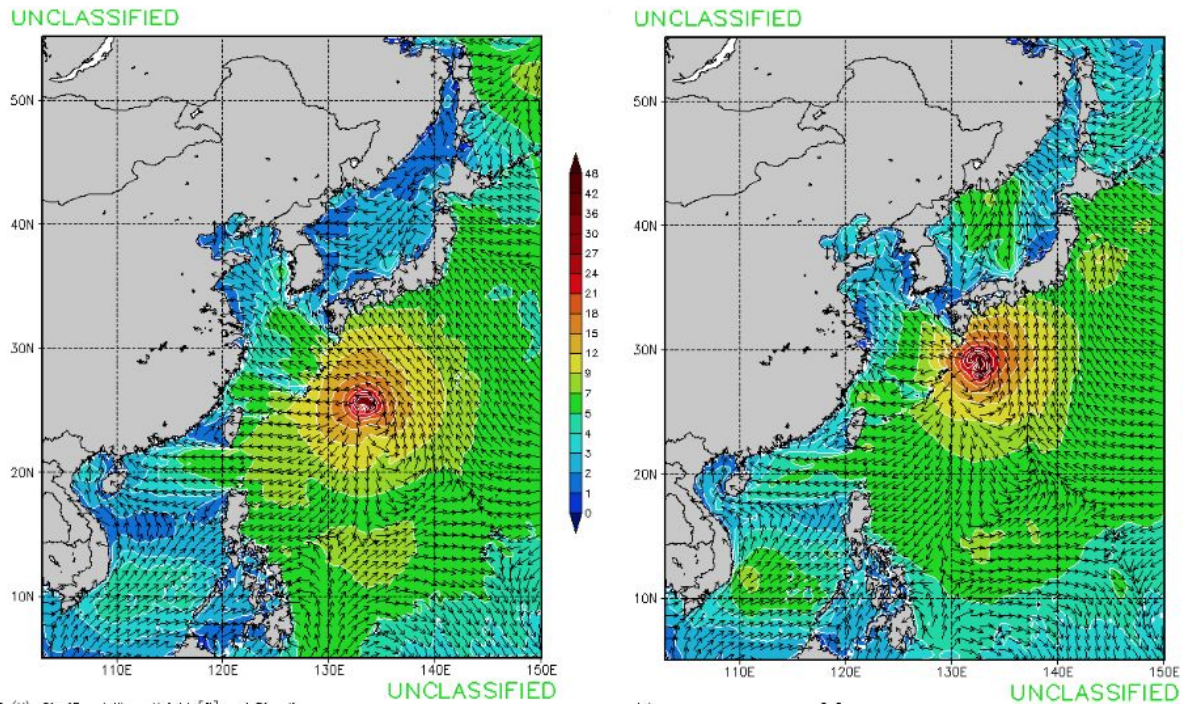


Fig. 4 COAMPS significant wave heights initiated 0902 00z (left) valid at 0903 00z (right) valid at 0904 00z.