

2000 UTC 04 September 2019 Forecast Discussion

Current Ship Location: Near 18.7N, 128.6E (Ferry to Ops Area)

### **Summary**

TY Lingling (15W) has continued its northward track away from the area of operation, and will no longer be discussed. Invest 93W is now nearly stationary around (12N, 135E), and is not likely to directly impact the ship. Instead, Invest 93W may merge with persistent convection to its east at around (10.5N, 150E) within approximately 96 hr. This persistent convection has just been internally designated as 95W, and it will be closely monitored for a potential genesis. No tropical cyclogenesis is expected in the short term although isolated convection is expected near the ship. BSISO remains in phase 5 with potential propagation to a weak amplitude phase 6 next week.

**Day One (24 hr) Outlook:** No tropical cyclogenesis is expected in the next 24 hours. Some isolated convection is possible but chances for rainfall should be decreasing as the southwest monsoonal flow enhanced precipitation moves to the northwest. Significant wave heights in the 4-6 ft range are expected.

**Day Two (48 hr) Outlook:** There is potential for a new invest to be declared based on the current model trends but no tropical cyclogenesis is expected in the next 48 hours. Isolated to somewhat scattered convection will be possible.

**Extended Outlook:** Tropical Storm Faxai could cause an increase in significant wave heights in the area of operation to 7-9 ft beyond 48 hours. The area of convection south of Tropical Storm Faxai is expected to persist and propagate westward over the next few days. The models are suggesting that this area of convection could grow upscale into a broad area of low pressure with potential impacts on the area of operation next week; however, there is low confidence at this point that this potential storm will verify.

### **Discussion**

**TCs:** TY Lingling has moved far enough north that its rainbands are mostly past the area of operation, and will no longer be discussed.

Invest 93W is now located at approximately (12N, 135E) as of 12Z Sep 05. While still not expected to undergo genesis, we will continue to monitor Invest 93W for potential ship impacts from convection, which is not a likely scenario at this point. Currently, Invest 93W is nearly stationary, and it may slowly merge with the persistent convection that is currently to its east at approximately (10.5N, 150E).

This persistent convection near (10.5N, 150E) at 12Z Sep 05 has just been identified as Invest 95W. Both the 12Z ECMWF and GFS favor genesis roughly around (10N, 140E) from Invest

95W at approximately the 96-hr forecast timeframe. While genesis is still highly uncertain at this point, we will continue to monitor the long-term potential for genesis from Invest 95W.

**Convection:** Precipitation from the outer rainbands of Lingling is expected to diminish near the area of operation as Lingling continues to move northward. The current trajectory of Lingling also suggests that the precipitation from the monsoonal enhancement will continue to diminish for the next 24-hr (Fig. 3). Isolated convection may occur for the next 24-48 hr.

**MJO/BSISO:** With the current BSISO index in phase 5, a diminishment of the amplitude is expected in all the forecast models. However, the GFS and ECM both indicate a propagation to a low-amplitude phase 6 next week with a stronger phase 7 BSISO event in two weeks. ECMWF suggests that MJO is now at phase 5 and will diminish the amplitude for the next two weeks.

**SSTs:** SSTs are still expected to remain warm around 29°C, but the ship may encounter the cold wake of Lingling when it moves westward towards the Ops Area in the next few days. This cold wake may be an oceanographic science opportunity. COAMPS is also showing a southward current of lower salinity water entering the northern portion of the area of operation. This may be another interesting feature to sample for validation purposes.

**Currents and Wave Heights:** Models are suggesting that SWH will be 4-6 ft for the next 48 hrs.

**CAMP-EX:** no coordination planned in the next 48 hours. Coordination is possible on or after Monday, Sep 09.

FORECASTER: CASAS, CHA, TRABING

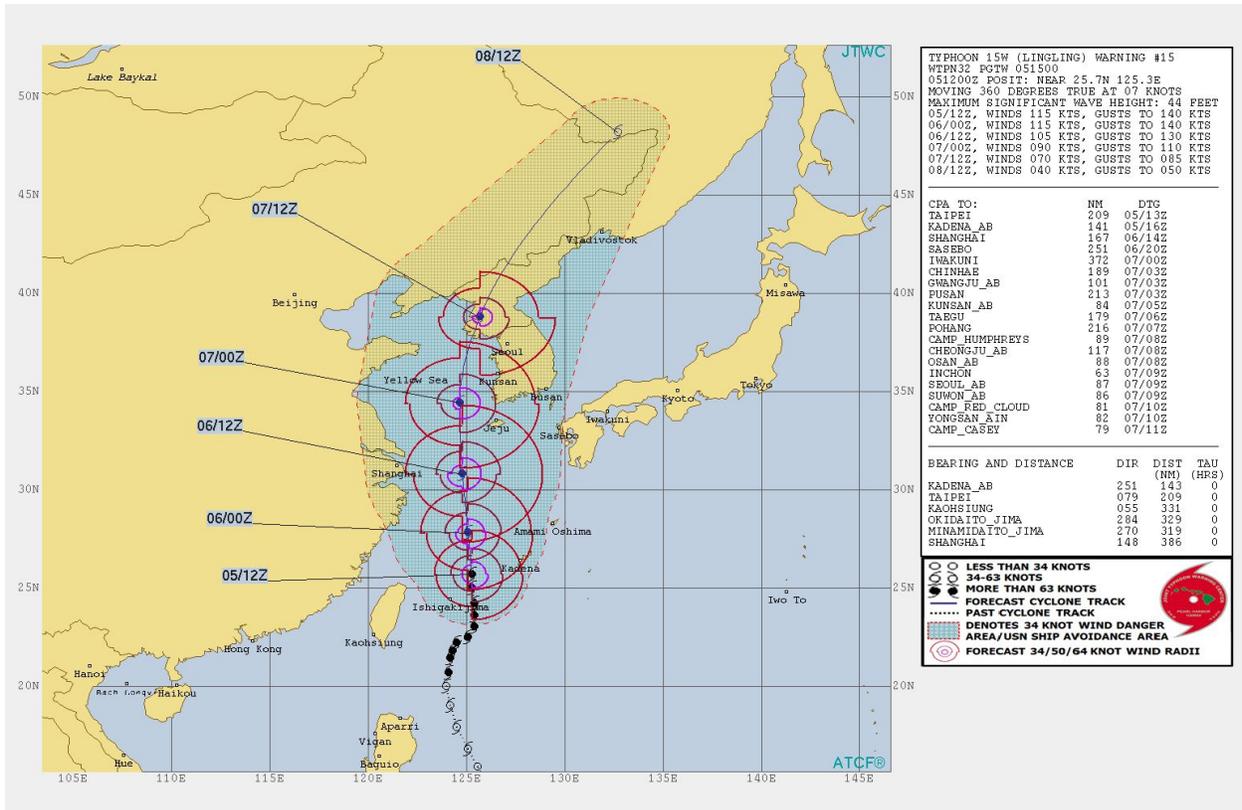


Fig. 1. [1] JTWC tropical cyclone forecast for 15W issued at 1500Z Sep. 05.

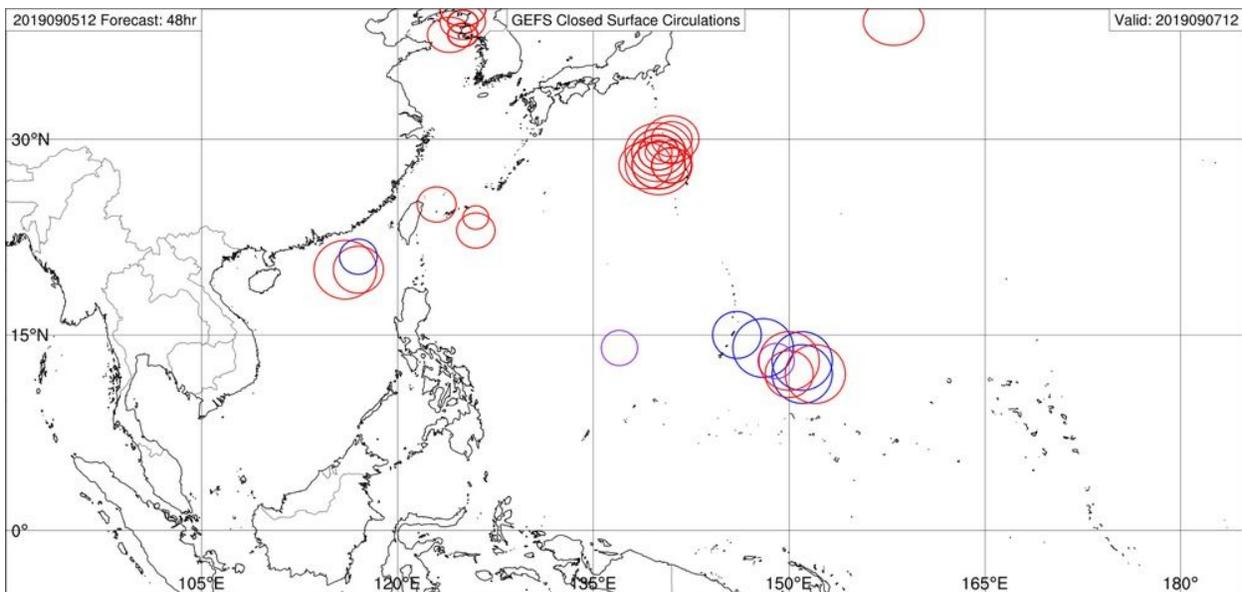


Fig. 2. [2] Alan Brammer's GEFS Closed Surface Circulation initialized at 12Z Sep. 05, valid at 12Z Sep 07.

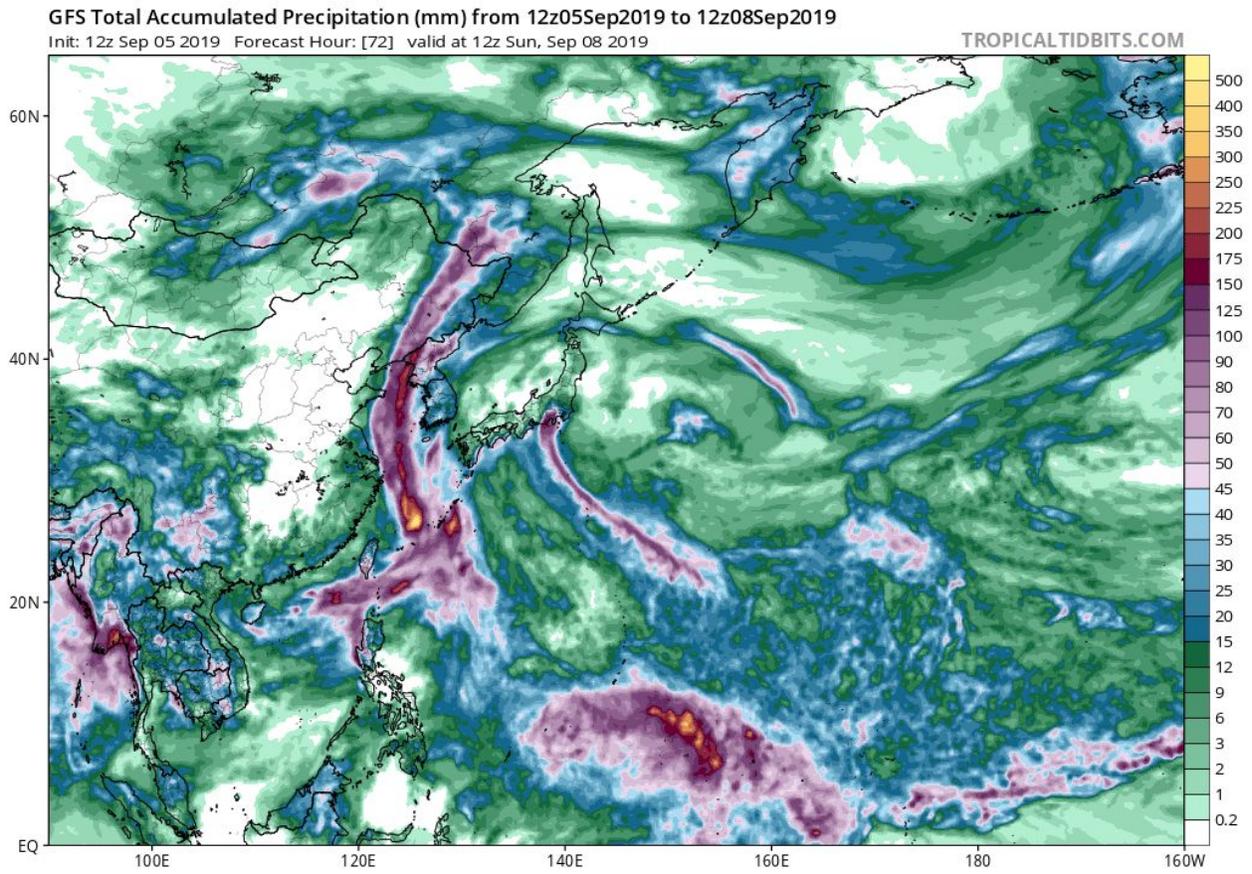


Fig. 3. [3] Accumulated rainfall from the GFS for the next 72 hours valid 12Z Sep 8 and initialized on 12Z Sep 5.