2000 UTC 04 September 2019 Forecast Discussion
Current Ship Location: Near 22.27N, 130E (Ferry to Ops Area)

Summary

Typhoon Lingling (15W) has continued to intensify as expected since yesterday's forecast and now has sustained peak winds of 80 kt. Associated with the intensification the ship avoidance zone based on the 34 kt wind threshold has expanded but will not impact the ship. The R/V Sally Ride is now south of Typhoon Lingling's center and will not be impacted by strong winds but could encounter some rainband convection associated with the monsoonal enhancement along the south-southeast side of Lingling. Wave heights near 6-8 ft are expected which should continue to diminish as the ship moves away from Lingling. Invest 93W, which is now located around (11N, 135E), is still not forecasted to intensify in any of the global models or by JTWC, but we will continue to monitor it in the next several days for potential ship impacts. The BSISO has propagated to phase 5 but models are still suggesting a decay of the BSISO amplitude in the next couple weeks.

Day One (24 hr) Outlook: Typhoon Lingling (15W) has moved north to 23N 125E and continued to intensify to 80 kt peak winds at 12 UTC 4 Sep. The northerly track of TY Lingling away from the ship and observation area means few impacts outside of some rainband convection and 6-8 ft SWHs. Further weakening of Invest 93W is expected due to moderate wind shear (Fig 2).

Day Two (48 hr) Outlook: Typhoon Lingling should accelerate northward and will be north of 30N in 48 hours. An enhancement of the southwest monsoonal flow from Lingling's circulation are expected to cause scattered thunderstorms east of Luzon which could be intense at times. Models are suggesting that wave heights should diminish to 4-6 ft at this time. Invest 93W will likely have dissipated but a few ensemble members keep the low around but do not intensify it.

Extended Outlook: Beyond 48 hours Typhoon Lingling will not impact operations. Areas of convection near the operational area could persist with the enhanced southwest monsoonal flow. Models disagree on whether the monsoonal enhanced precipitation will propagate to the northwest or maintain its general position east of Luzon. A broad area of low pressure that is Invest 93W around 11N 135E could still bring some convection to the area of operation in the longer term but no tropical cyclogenesis is expected.

Discussion

TCs: JTWC estimates TY Lingling at an intensity of 80kt with gusts to 100 kt at 15Z Sep 04. The intensity is forecast to increase to sustained winds of 105 kts on 12Z Sep 05, and then start weakening due to increasing vertical wind shear. JTWC's forecast track of TY Lingling is largely consistent with previous forecasts and is moving almost due northward. After 24 hr, TY Lingling is no longer expected to directly impact ship operations.

Invest 93W is now located at approximately (11N, 135E) as of 12Z Sep 04. Neither the ECMWF nor the GFS favor genesis in their 12Z Sep 04 runs because of the large vertical wind shear, and most agencies have dropped the “Invest” designation. We will continue to refer to it as Invest 93W for consistency with previous forecasts. While not expected to undergo genesis, we will continue to monitor it for potential ship impacts from convection, since its track approaches towards the area of operation.

Convection: Precipitation from the outer rainbands of Lingling is expected near the ship and could persist over the next couple of days due to subsequent enhancement of the southwesterly monsoon flow.

MJO/BSISO: Most models are suggesting that BSISO has propagated to phase 5 but agree on the diminishing of a significant amplitude BSISO in the next week. A possible reinvigoration of the BSISO signal in the 2-3 week span is noted in the ECM. Spatial OLR patterns in the models do agree on generally suppressed conditions for convection near the area of operations in the next 6-10 days.

SSTs: SSTs are still expected to be warm around 29℃, 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.

Currents and Wave Heights: Wave heights are expected to be as high as 6-8 ft and then decrease as Lingling moves northward and the ship continues a southward track (Fig 3). Both ECMWF and WW3 suggests the SWH will be 5-7 ft near the Ops for the next 24-hr.

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

FORECASTER: CASAS, CHA, TRABING

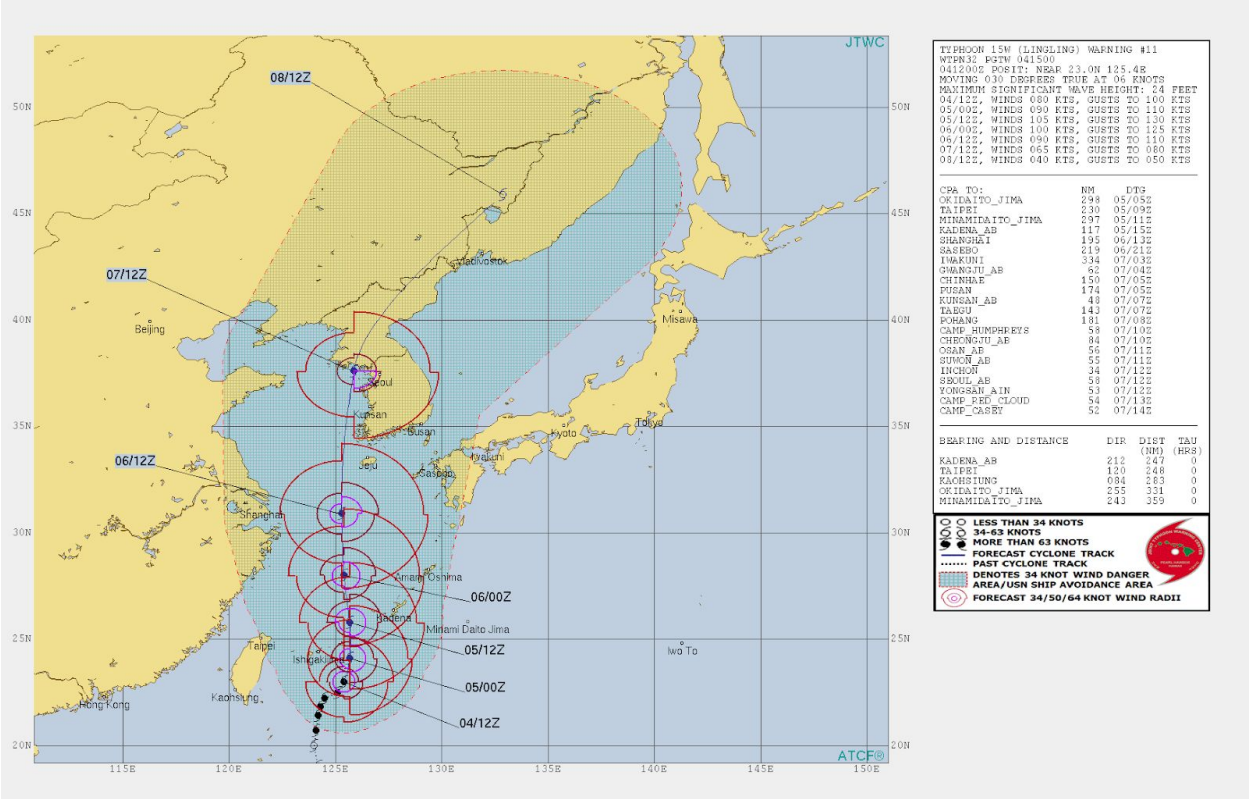

Fig. 1. [1] JTWC tropical cyclone forecast for 15W issued at 1500Z Sep. 04.

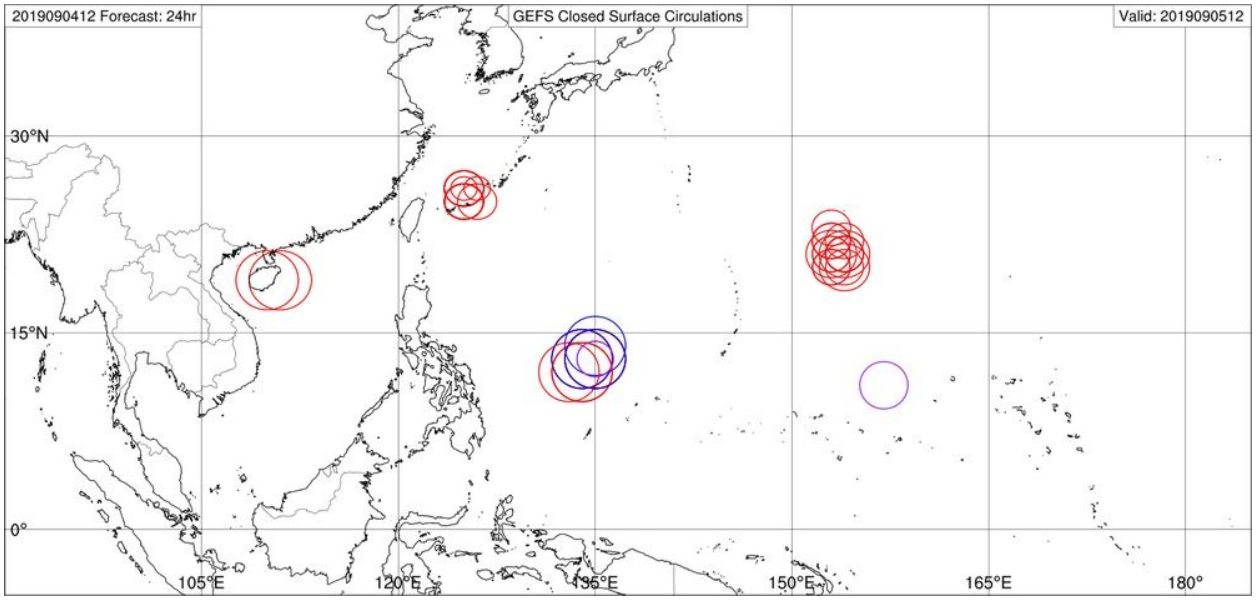

Fig. 2. [2] Alan Brammer's GEFS Closed Surface Circulation initialized at 12Z Sep. 04, valid at 12Z Sep 05.

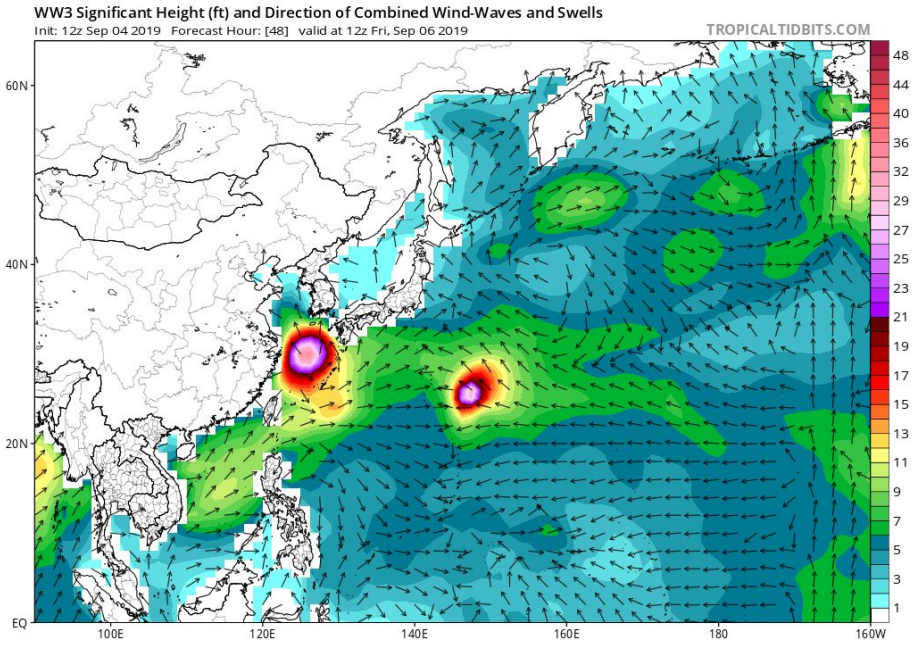

Fig. 3. [3] WW3 significant wave heights initialized at 12Z Sep. 04, valid at 12Z Sep 06.