

2000 UTC 20 September 2019 Forecast Discussion
Current Ship Location: Near 17.39°N, 126.60°E

Summary:

TS Tapah is located at approximately 24.1N 127.3E with a heading of 20 degrees at 11 knots as of 1200 UTC. Tapah is expected to intensify to 65 knots over the next 24 hours before it starts to slowly decrease in intensity. The scattered convection on the SE quadrant of Tapah will continue to impact the area of operation through the 24-h forecast period but will shift out of the area of operation as TS Tapah continues to move N/NE.

Winds will shift to be primarily from the S, decreasing from 15-20 knots during the 24-h forecast period to 5-10 knots during the 24-48h forecast period, reaching 0 knots in some places by the end of the 48-h forecast period. Significant wave heights will continue to decrease over the area of operation as Tapah continue its N/NE track, becoming 3-5 ft near the southern boundary of the area of operation (15N) and 5-7 ft near the northern boundary of the area of operation (18N) towards the end of the 48-h forecast period. The BSISO signal has mostly diminished, and will remain weak-amplitude throughout the 0-4 day forecast.

Day One (24 hr) Outlook:

Weather conditions anticipated to improve as TS Tapah moves further N/NE. Scattered convection is likely to persist. Surface winds will continue to decrease from 20-25 knots in the next 24-h forecast period. Significant wave heights will remain 11-13 ft, potentially exceeding 13 ft, near the northern boundary of the area of operation (18N), and will remain 7-9 ft near the southern boundary of the area of operation throughout the 24-h forecast.

Day Two (48 hr) Outlook:

Weather conditions continue to improve in the 48-h forecast period. Forecasts indicate moderate conditions with surface winds between 0-10 kts, declining significant wave heights between 7-9 ft and isolated scattered convection. Low-pressure system east of Guam will continue to move westward, but conditions associated with this system are still uncertain.

Extended Outlook:

Tapah's influence on operation will be minimized. The significant wave height over the op area is expected to decrease below 6 fts by 12z Sep 24th. Only isolated shower or not significant weather is expected for 48-72 hrs forecast window. The surface low located near Guam and approaching the opsl area, it will arrive near the ops area by 00Z Sep 25. The convective activity and wind condition beyond 72 hrs window is highly depending on the development of this system. This low is forecast to remain weak by the deterministic models (GFS and ECMWF) but several ensemble members of GEFS and EPS show intensification of this system to a TD. We will closely monitor this system for the following days.

Discussion

TCs:

TS Tapah is located near 24.1N 127.3E as of 12Z Sep 20 with 50 kts of maximum sustained wind intensity and 65 kts of gust. WW3 shows 9-11 ft wave height over the operational area due to Tapah. Tapah is moving northeast north (20 deg) at 11 kts. It has been slowly moving for the last couple of days, but it is forecast to move faster as it recurves and turn its direction to northwest around 12Z Sep 21. It is expected to intensify to 65 kts by 00Z Sep 22. Then it will weaken as it makes landfall in South Korea and Japan.

Convection:

Widespread convection associated with TS Tapah and the monsoon trough is expected to persist over the region throughout the 48-h forecast period, and will begin to decrease as TS Tapah moves north then northeast, away from the area of operation.

A low pressure system located near 15N 145E is expected to move west throughout the 48-h forecast period. The low system will be near the operational area by 00z Sep 25, but confidence in development is low. There is little agreement between ensemble members (Note that this system is called Invest 90W by HFIP in Fig. 4).

MJO/BSISO:

BSISO remains at a weak amplitude and is transitioning from Phase 8 to Phase 2 during the 0-4 day forecast. MJO is in Phase 8 with a transition to Phase 1 within 72hrs.

SSTs:

There remains a mass of cold water (28°C) to the north and south of the area of operation. In the northern half of the area of operation, SSTs have cooled and are expected to stay cool, around 28°C, but they will remain warm in the southern half, around 29-30°C.

Currents and Wave Heights:

Currents remain E 1-3 kts through 26 hours. Significant wave heights will continue to decrease over the area of operation as Tapah continues its N/NE track, becoming 3-5 ft near the southern boundary of the area of operation (15N) and 5-7 ft near the northern boundary of the area of operation (18N) towards the end of the 48-h forecast period.

CAMP2Ex:

No update received from CAMP2Ex side during today's brief. As of yesterday, CAMP2Ex had coordinated flight observations and communicated with Sally Ride and had planned to work with the Sally Ride 20Sept (today).

FORECASTERS: COLE, JONES and NAM



JOINT TYPHOON WARNING CENTER

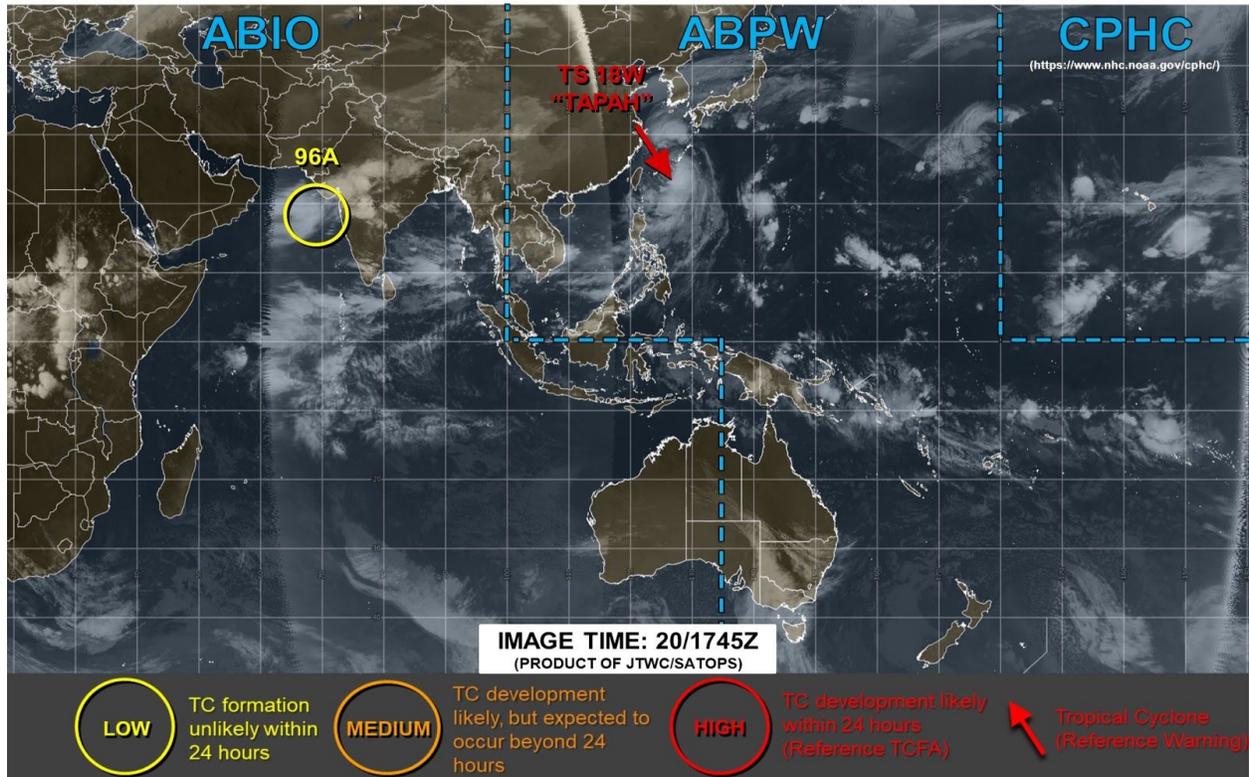


Fig. 1. JTWC TC outlook valid at 1745Z Sep 20.

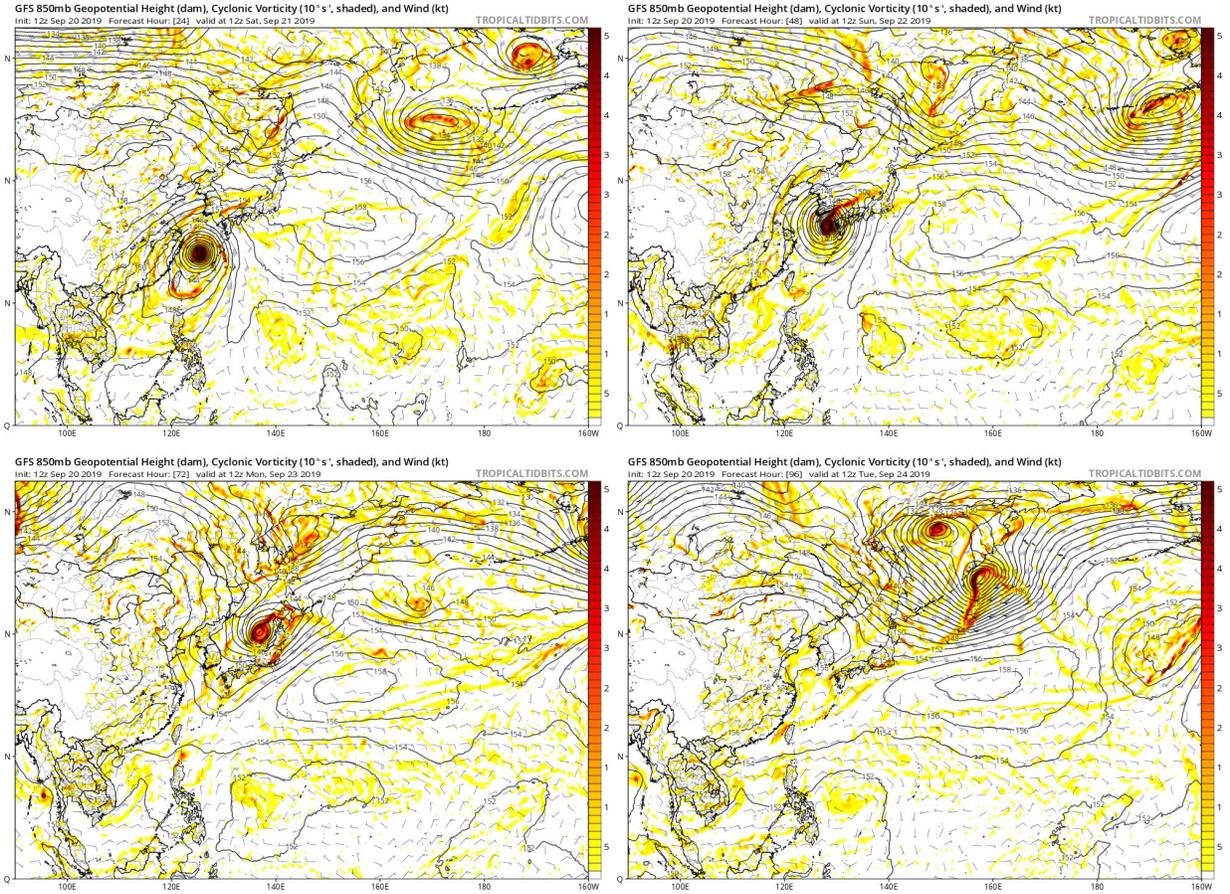


Fig. 2. GFS 850 mb vorticity and wind field and mean sea-level pressure initialized on 20Sep12Z. From top to bottom, left to right, the figures valid for 12Z Sep 21, 22,23, and 24.

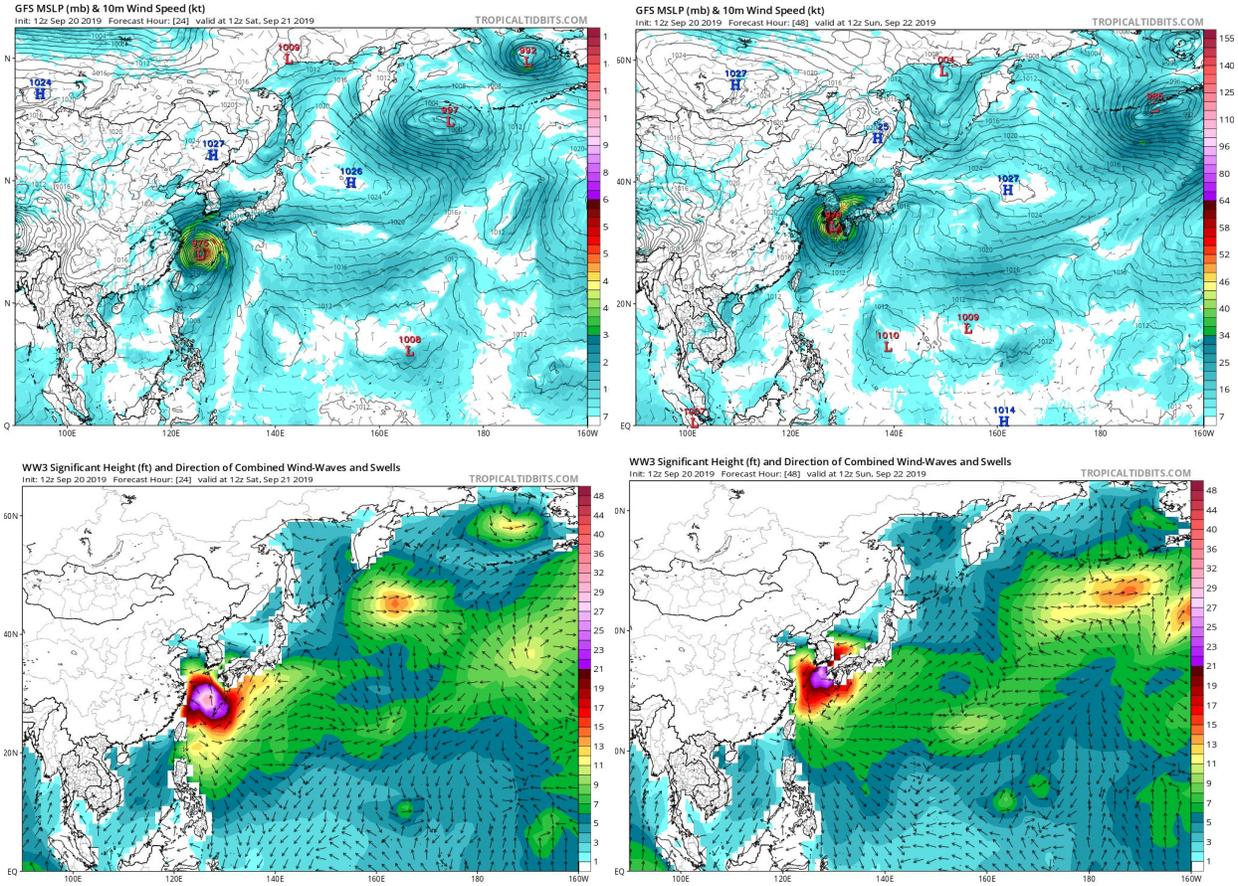


Fig. 3. GFS mean sea level pressure and 10-m winds (top row), and WW3 significant wave heights (bottom row) initialized on 20Sep12Z, valid for 21Sep12Z (left column) and 22Sep12Z (right column).

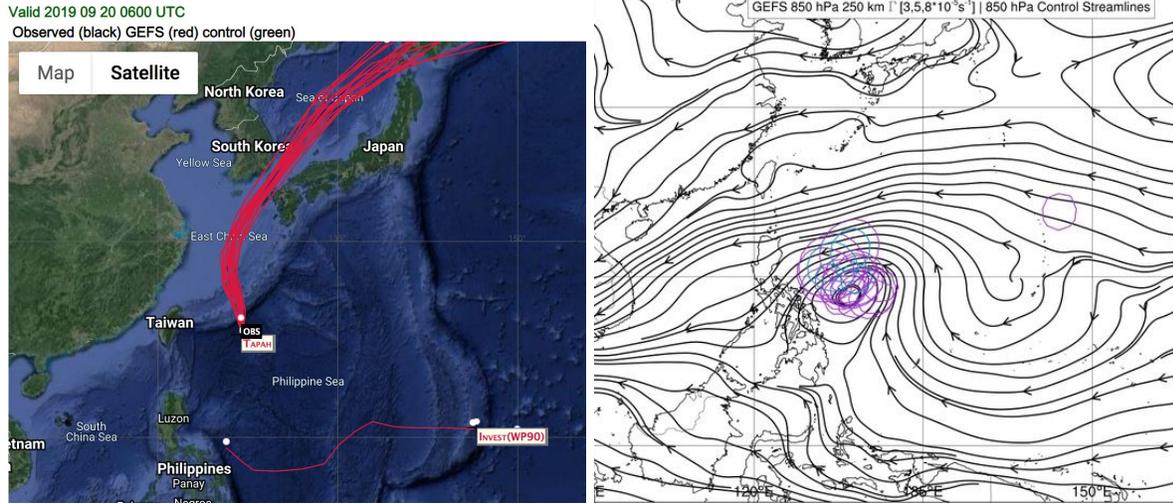


Fig. 4. GEFS track forecast initialized on 20Sep06Z (left), and GEFS 850hPa vorticity initialized on 20Sep12Z valid at 25Sep12Z (right). On the right panel, purple outlines weak circulation, light blue indicates likely area of interest or TD. 3 out of 21 members show possible development of the low.