

Summary

Current TCs Invest 96W, TS 18W (Yagi) and new invest 97W are not expected to influence Taiwan or the transit to the observational area (Fig. 1). Possible genesis from the monsoon convection in the GFS has shifted towards the north and at a later time while the ECMWF is suggesting a broad area of low pressure around 20N and 130E on 12Z 13 August. Should genesis occur, the system would have warm SSTs but moderate to strong shear inhibiting intensification. Southwester to westerly flow is expected over the observational area (12N, 134.5E) but has started to diminish in intensity and will continue to weaken over the next week. Southwesterly low-level flow with broad upper level divergence east of the Philippines is continuing to feature an enhanced band of precipitation slowly moving towards the north. Heavy precipitation is therefore forecasted for parts of the transit from Taiwan to Palau but the GFS is suggesting that the 10-m winds should remain below 34 kt along the transit region (Fig. 2).

Day One (24 hr) Outlook: A ragged-looking Yagi will continue its slow movement northwest. Only slight intensification is forecast to occur, as it emerges from the strong shear. The low-level circulation of 96W will continue to hug the south coast of China just north of the strong shear. Neither poses a threat to operations in southern Taiwan. Winds in the transit region continue to be strong, but below 35 kt. Banded precipitation in study domain should persist.

Day Two (48 hr) Outlook: Yagi continues tracking northwest with slight intensification possible. 96W's movement is still erratic and uncertain, but should continue hugging the coast of China. No threat to operations. Wind speeds in transit area remain the same. Broad precipitation coverage should continue in the study domain.

Extended Outlook:

Beyond 48 hours there remains the potential for cyclogenesis northeast of Luzon in the deterministic GFS and ECMWF. The GFS has the possible development now further north while the ECMWF has the development slightly further south around 20N 130E. However, models agree that if development occurs, moderate vertical wind shear will inhibit intensification causing minimal changes to winds expected on the transit from Taiwan to Palau (<35 kt). Invest 97W west of the Northern Mariana Islands which is likely over the next few days will not impact the transit or area of operation as it will track west- northwest around the subtropical ridge to the north.

Discussion

TCs: Invest 96W has continued to track north northeast towards the western edge of Hong Kong without intensification which has continually been forecast by the global models. Invest 96W is still forecast to intensify prior to a landfall and meander westward in both the GFS and

ECMWF but moderate northeasterly shear remains on the southern edge of the low level circulation which remains exposed. TS 18W has weakened slightly to 35 kt maximum sustained winds and shown reduced convection in the IR imagery. The track of TS 18W has shifted further west due to forecasted strengthening of the subtropical ridge to the east but minimal intensification is expected with no implications on southern Taiwan. The area of convection just west of the Northern Mariana Islands has been declared invest 97W and has become better organized since yesterday. The ECMWF has been more bullish on this system than the GFS strengthening it and tracking it towards the northwest. The likelihood of cyclogenesis from the monsoon convection has been reduced in the GFS which has moved the possibility further north East of Taiwan. The ECMWF has shifted this possibility further south with a broad 1000 mb surface low on 12Z 13 August around 20N, 130E (Fig. 3).

Convection: Convection south of Yagi persists and looks healthy under strong upper-level divergence. Both the GFS and EC show enhanced low-level westerly flow persisting through 14-15 August before weakening. COAMPS continues to simulate a broad band of precipitation east of Luzon. Combined with the favorable dynamics and plentiful moisture, it seems that convection should continue in the convergent flow through the next few days before dying down as the low-level monsoonal flow retreats westward.

MJO/BSISO: The BSISO magnitude remains small and is forecast to remain weak over the next week according to BOM and ECM ensembles. The ensemble mean shows movement towards low amplitude Phase 6 (South China Sea) near August 20 but the ensemble spread shows lower confidence. The influence of the monsoon may dominate the signal over the next week. Reduction in clouds in the study area in the longer term (~15-25 August) still seems likely.

SSTs: SSTs remain consistent between 29-30°C.

Currents and Wave Heights: Consistent currents to the SW at 0.25-0.5 cm/s. Wave heights expected to remain between 5 and 7 ft through 48 hours.

FORECASTERS: TRABING and DEHART

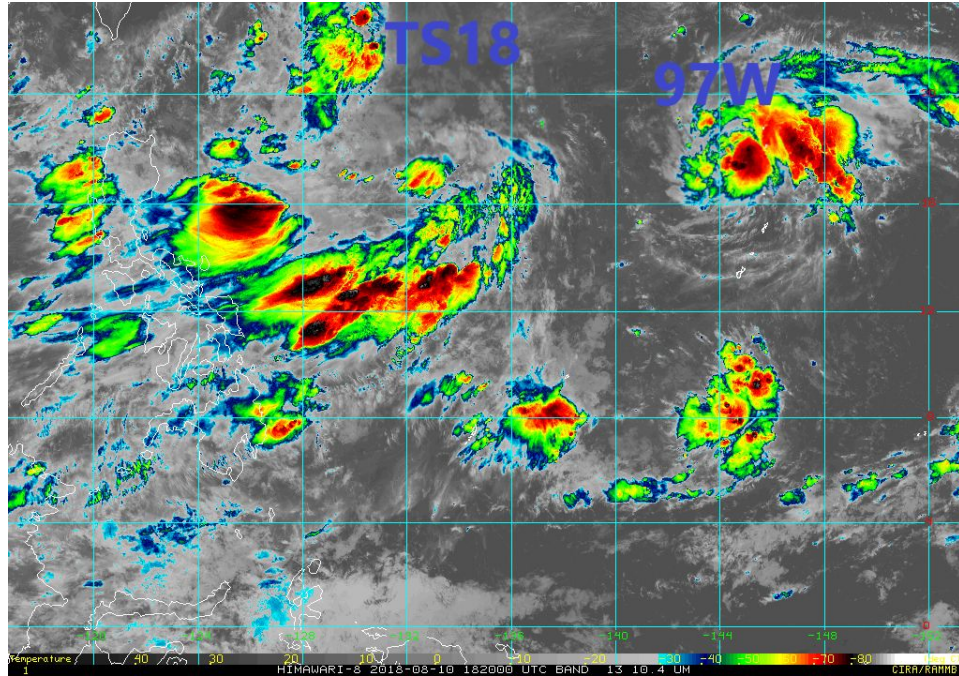


Fig. 1. 10.3 micron Himawari imagery at 1820Z 10 August. [1]

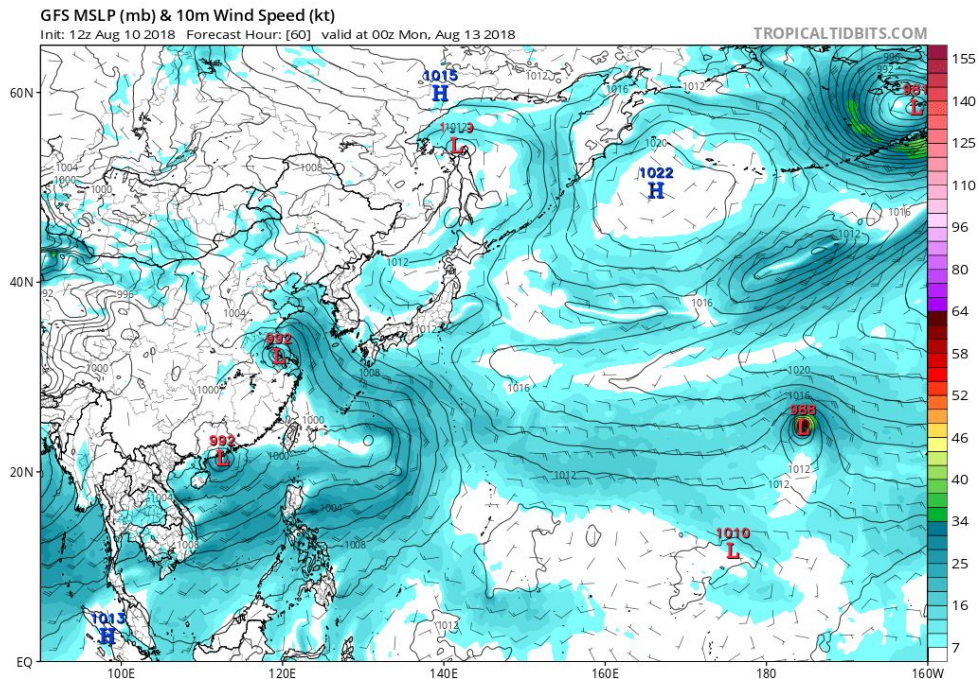


Fig. 2. MSLP and 10-m winds from 12Z 10 August GFS for 8AM local time on August 13 (earliest departure time). [2]

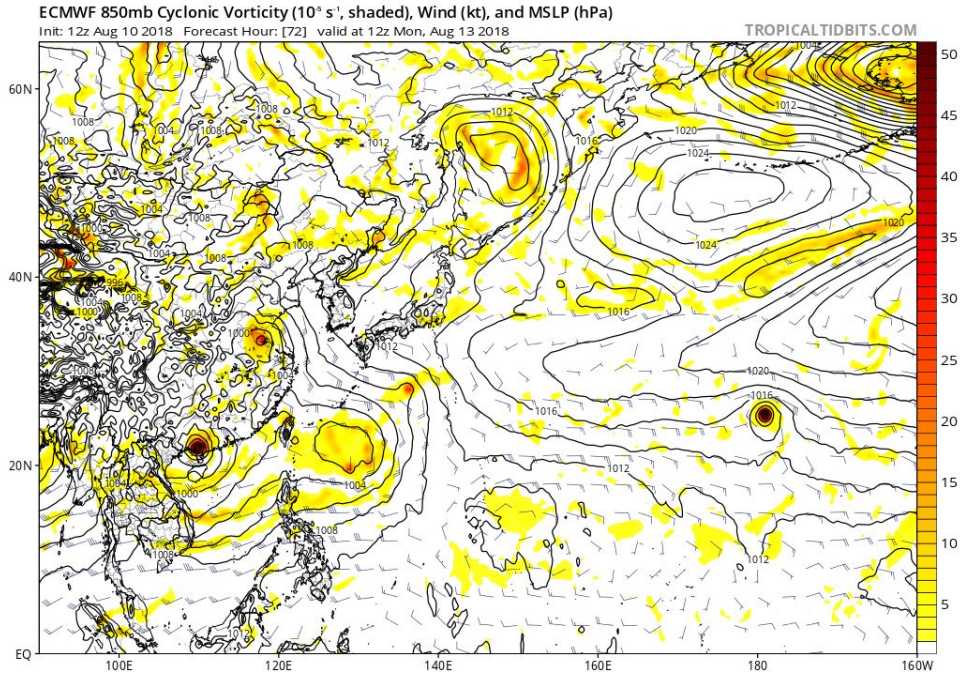


Fig 3. 850 mb vorticity from ECMWF valid on 12Z 13 August [3]