2200 UTC 17 August 2017 Forecast Discussion

Summary

The condition is similar as yesterday. The BSISO index is currently Phase 3, and the MJO has a weak signature. As a result, there is currently mostly suppressed convection, no active TCs, and weak surface currents. However, some convection located SW of Luzon is triggered by the convection on the 140 E, 15N, which is moving southwesterly towards low shear region. Also, some isolated showers in the forecast domain are enhanced by the topography, and the sea-breeze will provide diurnal convection as it moves offshore.

Day One (24 hr) Outlook: Generally weak surface currents and suppressed convection aside from sea breeze and topographically forced thunderstorms. NO TC DEVELOPMENT IS EXPECTED.

Day Two (48 hr) Outlook: Generally weak surface currents and suppressed convection aside from sea breeze and topographically forced thunderstorms. NO TC DEVELOPMENT IS EXPECTED.

Extended Outlook: Both the 12Z GFS and ECMWF show a potential TC near the northern edge of Luzon on 06Z Aug 23. The ECWMF more favors the intensification of the storm, but the GFS keeps it with relatively low vorticity. Environmental conditions are generally favorable for development should it occur, as there is still low vertical wind shear, generally high TPW, and warm SSTs.

Discussion

TCs: Currently, there are no active or developing TCs in the forecast area. There are no TCs forecast to develop in the next 48 hours. However, the 12Z GFS has reduced the intensity of the potential TC discussed yesterday. The vorticity is currently minimal with the present convection, but it intensifies a little bit near the eastern part of Luzon at 12 Z on Sat, Aug 19. However, rather than intensifying into a significant TC as discussed yesterday, the 12 Z GFS keeps it weak. It might be triggered by the present convection on the (140 E, 15 N) (yellow contour in Figure 4), which is moving southwesterly towards low shear region. After it passes, there is another vorticity spinning up near the eastern part of Luzon at 06Z on Wed, Aug 23. The potential TC heads southerly towards Taiwan, so it might not impact our forecast region. On the other hand, the 12Z ECMWF favors the potential TC (12Z on Tue, Aug 22) showing from yesterday. Confidence is still low in the TC forming within our forecast area, but the consistent TC representation from yesterday is promising for eventual TC genesis (Figure 2).

Convection: Organized convection (140E, 15N, yellow contour in Figure 4) is currently located east of Manilla, and is moving westward (Figure 1). There is also some small convection is triggered by the boundary in the area, but it is not expected to impact operations directly. Some isolated convection is enhanced by the topography over south of Luzon, 12Z through 17 Z. From 10Z to 12 Z, the convection located west coast of Luzon is triggered by the sea-breeze.

MJO/BSISO: The BSISO index is likely Phase 3 now (Figure 3). Similar to yesterday, the MJO signature is still weak. Both the BOM and the ECMWF show that the BSISO 1 might change to

Phase 3 within the 0-4 day time frame, but the CWB actually shows retrograding to Phase 1 instead.

SSTs: SSTs are between 28.5-30.5 along immediate coast. They are forecast to continue being warm in the absence of strong convection-induced upwelling.

Surface Currents: Surface currents are still weak (<1 cm/s) along entire west, similar as yesterday.

FORECASTERS: CHA AND DELAP

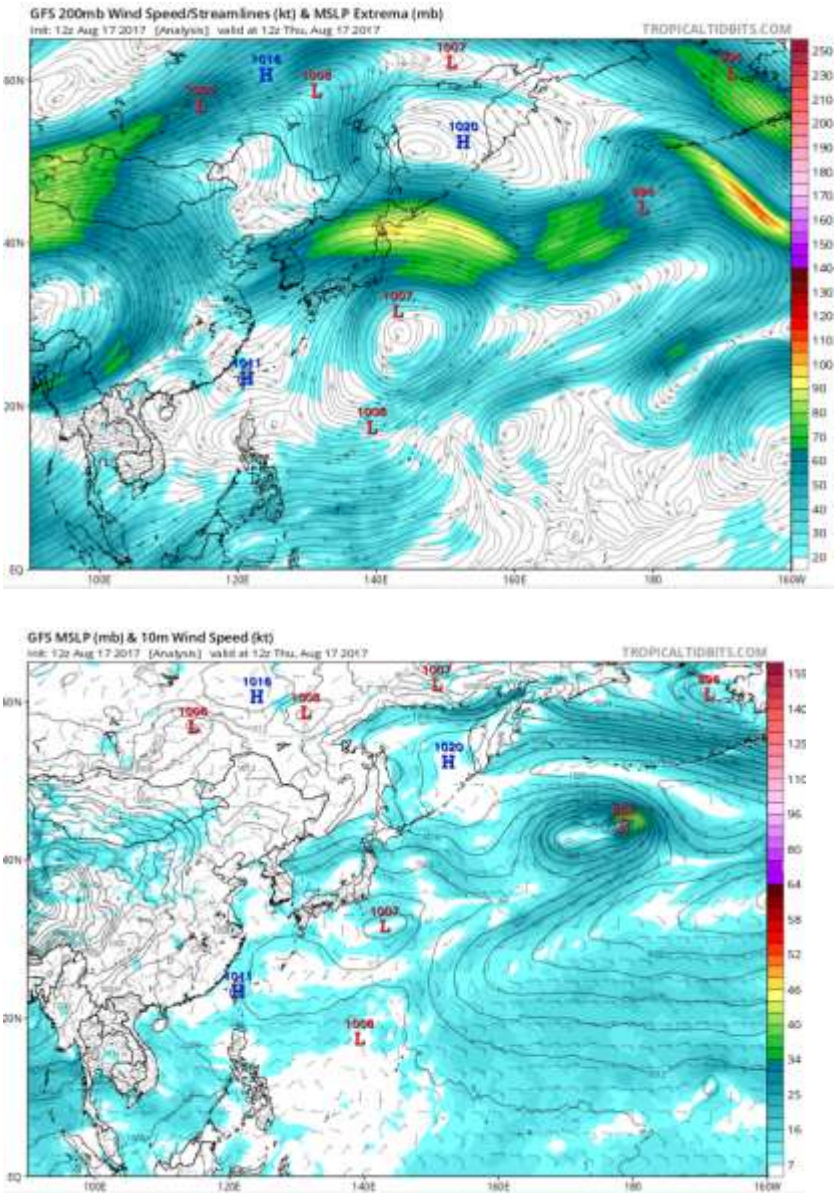


Figure 1. (a) Current 12Z Aug 17 upper-level (top) ; (b) lower-level (bottom) winds, as initialized by the 12 Z GFS. [1]

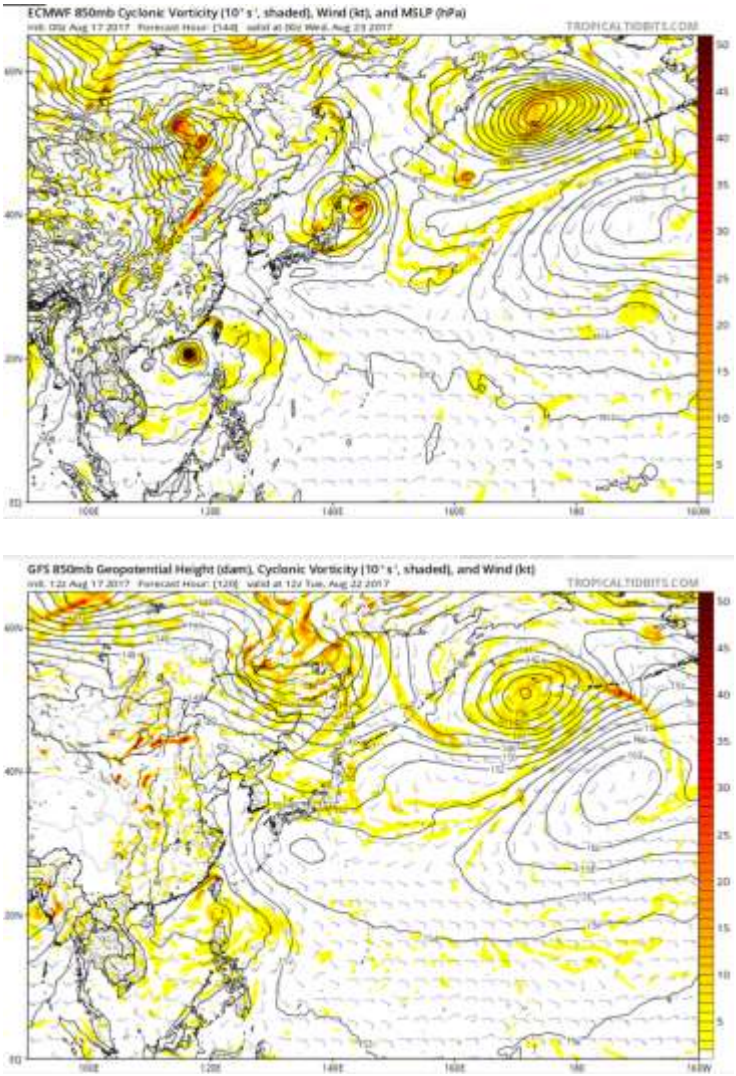


Figure 2. (a) 00Z Aug 17 ECMWF forecast valid at 00Z Aug 23 showing a potential TC near Luzon. (b) 12Z Aug 17 GFS forecast valid at 12Z Aug 22. [2]

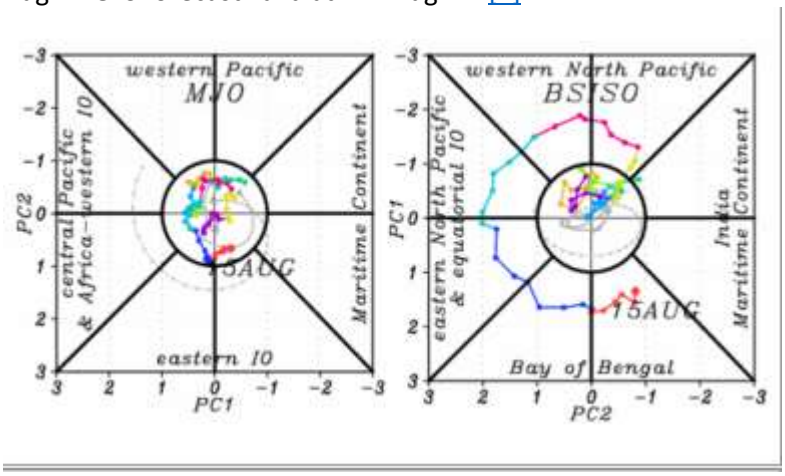


Figure 3. The Bimodal ISO index for the BSISO valid for 15 Aug. [3]

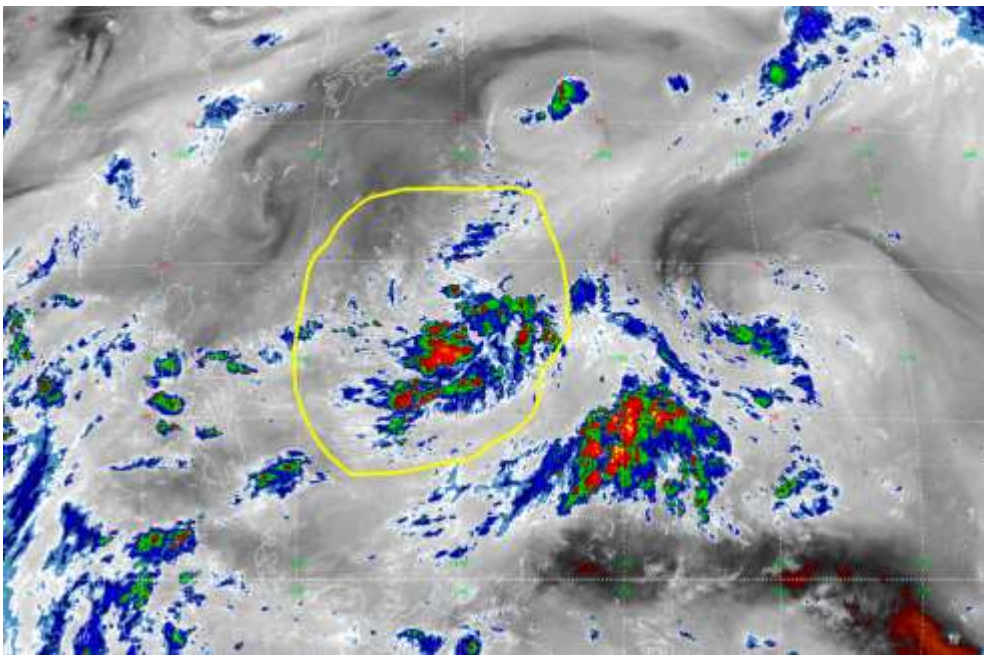
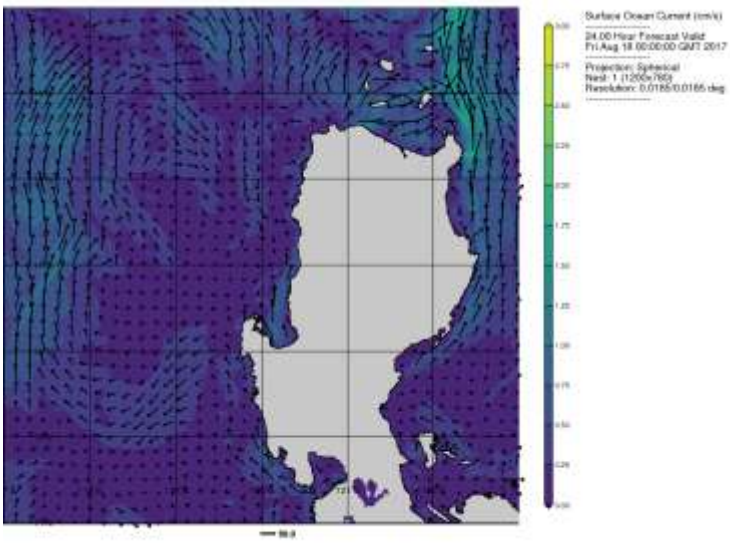
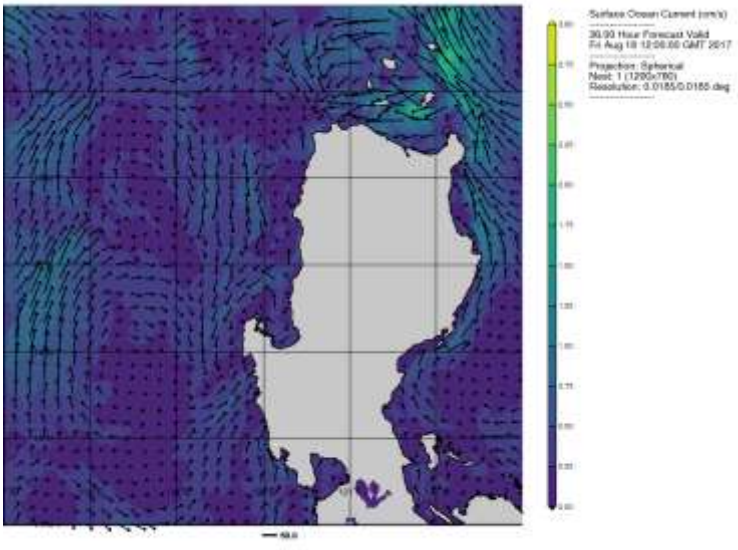


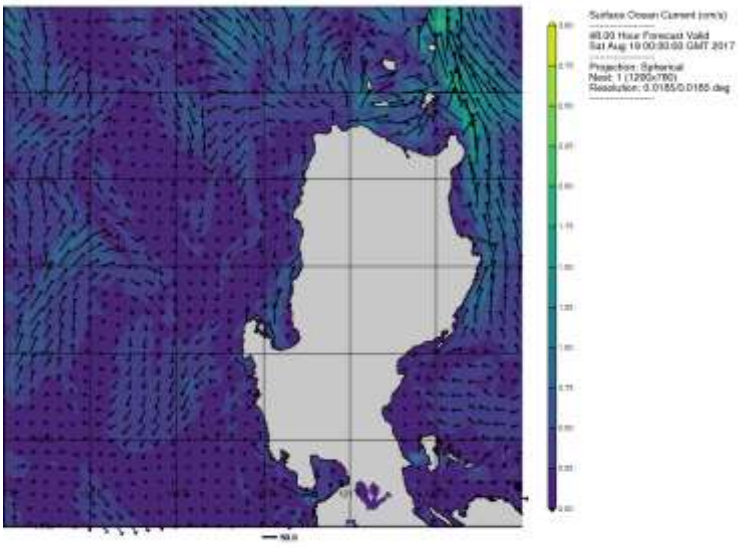
Figure 4. 6.2 µm imagery at 18:30:00 UTC showing the convection west of Manilla and south of Luzon.[4]



24 hr



36 hr



48 hr

Figure 5. 00Z COAMPS surface currents for 24 hr (top), 36 hr (middle), and 48 hr (bottom).