

## 2000 UTC 22 August 2017 Forecast Discussion

### Summary

TS Hato (Isang) is located Northern South China Sea (SCS) with maximum sustained winds of 65 kts. Increased South-westerly winds will result in increased precipitation on the west coast of Luzon. Significant wave height will increase to between 6 to 9 ft.

**Day One (24 hr) Outlook:** TS Hato will continue to move WNW through the Northern South China Sea (SCS), and make landfall over Southern China in next 24 hours. The elongated area of convection covering southern Luzon from southwest to northeast will result in heavy precipitation along west coast of Luzon including the cruise area.

**Day Two (48 hr) Outlook:** Winds will shift to slightly stronger southwesterlies and significant wave heights will increase. Wide spread heavy rainfall is expected and will begin to taper off later on 23rd.

**Extended Outlook:** Global models are in agreement that another cyclonic system will pass through the area of interest later in the week. Both GFS and ECMWF are indicating another tropical cyclogenesis near Luzon at the end of the week, but the timing of the cyclogenesis varies.

### Discussion

**TCs:** TS Hato (Isang) is located Northern South China Sea (SCS), intensified as Category 1 storm (Fig. 1). Hato is being affected by northeasterly wind shear around 10 knots, weaker than yesterday's value. Previous model runs forecast maximum intensity to be TS and did not forecast intensity up to Category 1 because of stronger shear forecast that did not verify. The large outer rain-band seems to have broken off from Hato to the west, and appears to have intensified. TS Hato is expected to intensify a little bit more before weakening as it makes landfall over Southern China (Fig. 2).

**Convection:** Expect strong SW to S wind flow and rain along west coast of Luzon including the cruise area (Fig. 3). The elongated area of convection covering southern Luzon from southwest to northeast is probably associated with Summer monsoon, which is enhanced by Hato. Large area of convection located 600 miles Southeast of Luzon requires further attention (Fig. 1)

**MJO/BSISO:** Both BSISO and MJO signal remains weak. MJO shows a trend towards propagation of the active phase into the South China Sea within the next week (Fig. 4).

**SSTs:** SSTs over the larger area of interest generally remain warm above 30 degrees Celsius.

**Currents and Wave Heights:** Surface currents remain weak, but significant wave heights are forecast to increase up to between 6 and 9 ft particularly in the Northern portion of Luzon in the next 24 hours frame, and remaining high until 09 UTC 24<sup>th</sup> Aug 2017 (Fig. 4).

FORECASTERS: RAZIN, NAM

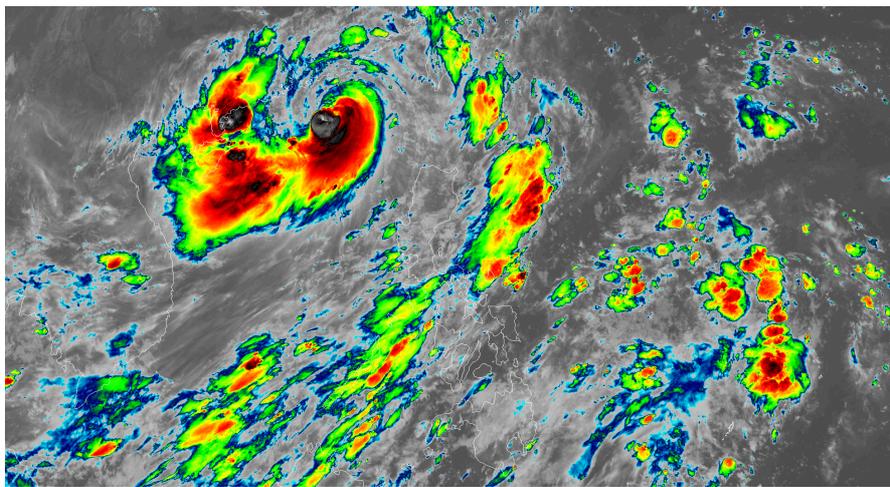


Fig. 1. IR imagery at 1710 UTC 22 Aug 2017 from Himawari-8 showing TS Hato north of Luzon [1]

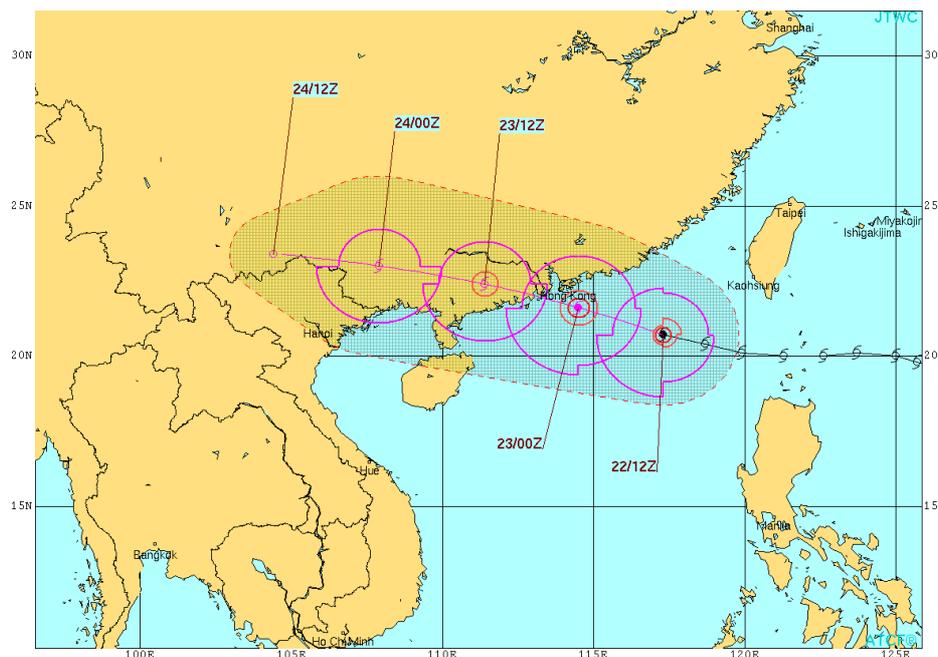


Fig. 2. TC warning graphics from JTWC [2]

forecast rain for 2017-08-22 12H+12H

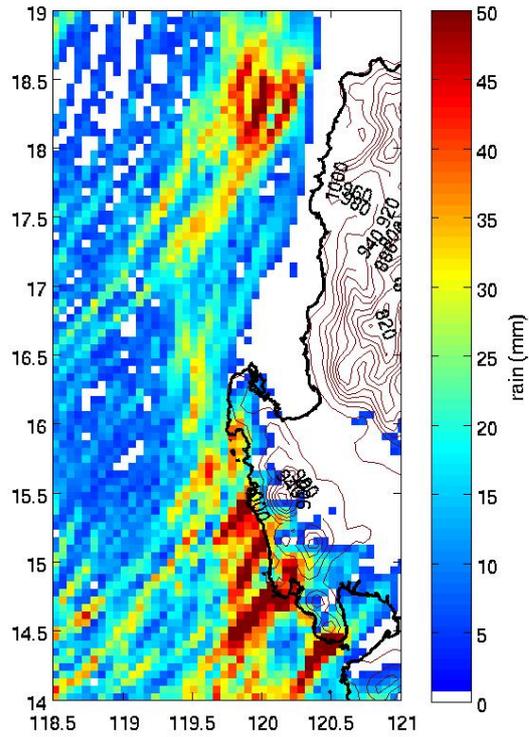


Fig. 3. WRF rain forecast, courtesy of Gerry Bagtasa

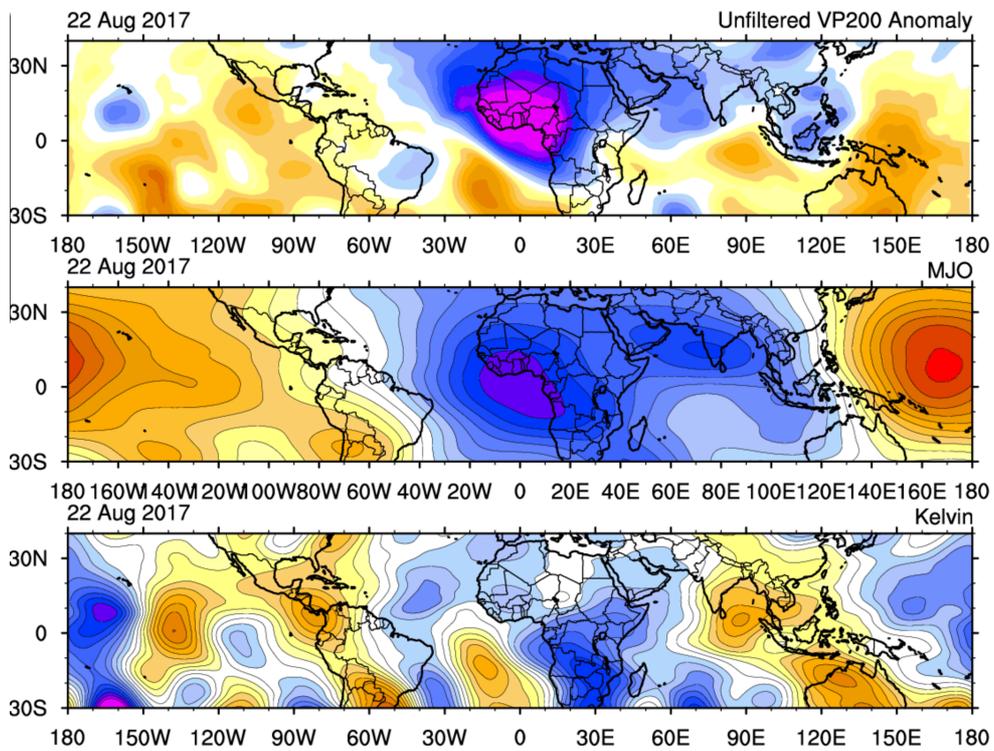


Fig. 4. MJO phase with velocity potential at 200 hPa at 22 Aug 2017 [3]

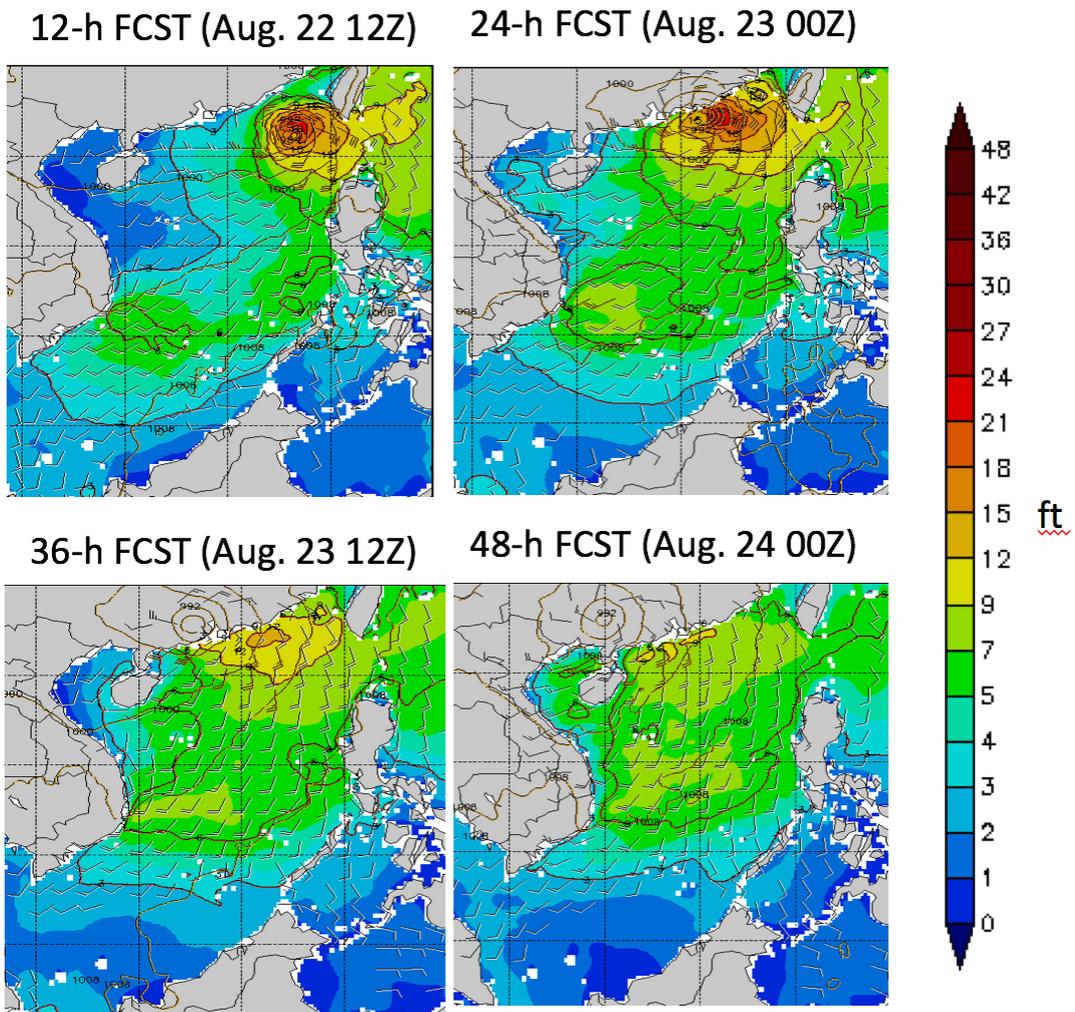


Fig. 5. Significant Wave Height and 10-m Wind from COAMPS