2000 UTC 12 October 2018 Forecast Discussion

**Summary:**
There are some convection system to the Southeast of the ship, and it propagates very slowly to the west. Some scattered convection might be expected in the next two days on their way back to Kaohsiung. The surface wind is expected to increase to 10-20 kts NE in the next 24-48 hrs. Wave heights will increase to 5-9 ft in the next 24 hrs, and decrease to 3-6 ft in the next 48 hrs as the ship gets closer to Kaohsiung. The wave direction is from NE. The BSISO I and MJO are active in phase 2 over the Indian Ocean.

**Day One (24 hr) Outlook:**
The weather is relatively clear. Winds remains 10-15 knots. The direction will change to NE. Wave products forecast significant wave heights will increase to 5-7, and as high as 7-9 ft NE depends on the ship speed, as the ship gets closer to Kaohsiung.

**Day Two (48 hr) Outlook:**
Winds over the area of operation will increase to 15-20 kts NE. Significant wave height will decrease to 4-7 ft NE near Taiwan.

**Extended Outlook:**
The wind should remains at 15-20 kts NE. Significant wave heights will decrease to 3-4 ft NE, and possibly as low as 3-4 ft near Taiwan in the next 72 hrs.

**Discussion**

**Convection:** Scattered convection over Taiwan and the Luzon Strait, and to SE (associated with easterly wave) of ship location. Easterly wave convection unlikely to impact ship as ship moves towards Taiwan. Rainy conditions over Taiwan shows some decay as convective system near Japan moves further NE. Rainy conditions are likely to persist until the end of the cruise.

**MJO/BSISO:** Updates in BSISO/MJO forecasts do not indicate any change from previous forecasts. The BSISO I remains active in phase 2 (in the Indian Ocean). MJO signal remains active in phase 1 (West hemisphere and Africa), but remains suppressed in the area of operation.

**SSTs:** Sea surface temperatures within the region are expected to remain within the range of 28-29 C throughout the 24-hr forecast period with SSTs around 27 C at ship location.

**Currents and Wave Heights:** Wave heights can be as high as 7-9 ft in the next 24 on the way to Kaohsiung, then decrease steadily to 4-7 ft in the next 48 hr, and 3-4 ft in the next 72 hr. The wave direction remains NE. The surface wind is expected to increase to 15-20 kts NE in the next 24 hr and remains there for the next 72 hr.
Fig. 1a. Himawari IR imagery (10.4 microns) valid at 1820 UTC 12 October 2018 showing ship location relative to scattered convection to the southeast. Ship location is marked with a diamond. [1]
Fig. 1b. Himawari IR imagery (10.4 microns) valid at 1820 UTC 12 October 2018 showing convective system to north of ship location. Ship location is marked with a diamond. [1]

Fig. 2. FNMOC WW3 significant wave height forecast initiated at 1200 UTC 12 October and valid at (top left) 00 UTC 13 October (top right), 00 UTC 14 October (bottom left), 00 UTC 15 October, and (bottom right) 00 UTC 16 October. [2]
Fig 3. COAMPS radar reflectivity (left panels) forecast at 24, 36, 48 hrs initiated at 0000 UTC 12 October.

Fig 4. COAMPS waveheight and wind forecast for 06z 12 October and 06z 13 October.