

Marine meteorological services for ships - GMDSS meteorological messages

Written by Wu Chung-wai December 2011

For the safety and efficient operation of marine industries, the Hong Kong Observatory (HKO) provides marine meteorological services for shipping on the high seas over the western North Pacific and the South China Sea. One of these services is the provision of meteorological forecast and warning bulletins for broadcast via the Global Maritime Distress and Safety System (GMDSS) of the International Maritime Organization (IMO).

The GMDSS is a worldwide network of automated communication for ships at sea. With the use of terrestrial and satellite technology and ship-board radio systems, meteorological forecasts and warnings are disseminated to ships via GMDSS. Ship officers can view the GMDSS meteorological messages through their on board GMDSS station (please see figure below).

Under the GMDSS, HKO prepares meteorological forecasts and warnings in routine messages and urgent messages covering the sea area within Equator to 30°N, and 100° to 125°E, which is Hong Kong's Area of Responsibility (AOR). Routine messages are issued four times daily, containing warnings of gale force winds or above, a synopsis of significant weather system and 24-hour forecasts of severe weather, reduced visibility and sea state. Urgent messages are issued in between the routine messages when a tropical cyclone comes within Hong Kong's AOR, giving detailed information on the location, intensity and forecast movement of the tropical cyclone, as well as its associated wind and wave conditions.

The marine community has shown their appreciation with the GMDSS meteorological messages prepared by HKO. The results of the "Opinion survey on marine meteorological services" in 2011 shows the high scores of HKO's GMDSS meteorological messages (Table 1) rated by the ship masters in the survey.

Table 1 GMDSS meteorological messages survey result in 2011

	Warning of gale force winds or above	Forecast for significant swell/high seas	Forecast for thunderstorms/severe weather	Forecast for sea fog/reduced visibility
Accuracy rating	100%	99%	94%	99%

Ship masters are welcome to contact our [Port Meteorological Officer](#) should there be any views on the HKO's marine meteorological services to shipping.



GMDSS station in a Hong Kong Voluntary Observing Ship