

Trial Use of Drifting Buoy as Automatic Meteorological Observing System on board Voluntary Observing Ships

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To meet the increasing need for timely and high quality meteorological observations over the oceans, national meteorological services commenced operating Automatic Meteorological Observing System (AMOS) on board Voluntary Observing Ships (VOS) since the early 2000's.

In Hong Kong, the first VOS equipped with AMOS (OOCL Long Beach) was implemented in collaboration with the United Kingdom Meteorological Office in January 2013 (please refer to the [article](#) in March 2013 issue). Using Iridium satellites and the Global Telecommunications System (GTS) of the World Meteorological Organization, hourly meteorological observations taken by AMOS on board OOCL Long Beach are disseminated to users around the world.

With experience gained in operating AMOS on board VOS, a drifting buoy normally deployed to drift over the ocean for continuous automatic collection of meteorological data was modified into a simple AMOS and installed by the Hong Kong Observatory (HKO) on board another Hong Kong VOS OOCL Savannah in December 2013 for trial operation (Figure 1). Hourly air pressure measurements recorded automatically by the buoy on board OOCL Savannah are transmitted back to HKO via the Iridium satellites and disseminated to users through GTS. In comparison with the first AMOS, the buoy is easier and less costly to install.

To gather more weather information for the benefits of the marine community, HKO will continue to set up more VOSs with AMOS operating on board.

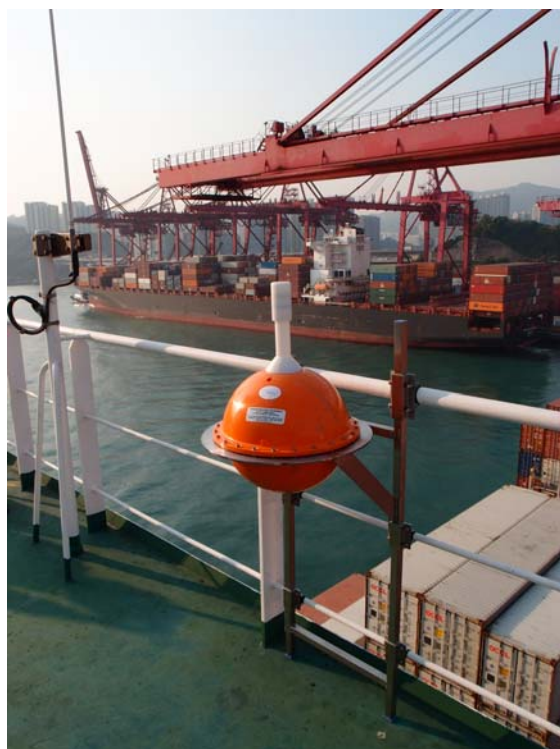


Figure 1. A modified drifting buoy installed on board OOCL Savannah for automatic meteorological observations