

# Met-ocean Monitoring for Belgian Port Operations

An oceanographic and meteorological data collection buoy is to assist in Belgian port operations. The AXYS Watchmate buoy has been purchased by Fabricom (GDF Suez, Belgium) replacing a damaged met-ocean buoy. The requirements were to provide an alternative buoy platform with capabilities to measure waves, currents, winds and temperature.

Fabricom approached AXYS in late autumn 2011 after an existing met-ocean buoy that it had been maintaining was destroyed in an accident with a vessel near the Flemish Banks. Data from the buoy was to be transmitted via UHF radio. After a review of the requirements and deployment environment, AXYS determined that a WatchMate 1.8-metre-diameter buoy platform, outfitted with applicable sensors and telemetry, could be suitable for the job. A contract award was made in December.

The WatchMate buoy is controlled by the WatchMan500 marine datalogger/controller, which also includes DMS control software and SmartWeb data display tools. Onboard sensors include a TRIAXYS Directional Wave sensor, a Nortek 2MHz ADP single point current meter, an AXYS modified air temperature sensor, and a Gill Windsonic anemometer. Data is sent to shore each hour via GPRS cellular telemetry. An L3 Automatic Identification System (AIS) type 3 transponder is installed to give mariners advance warning of the buoy's position, helping to prevent and avoid collisions. The AIS device can also send short met-hydro messages if needed.

The WatchMate buoy is currently under final testing at the AXYS facility. Deployment is expected to take place in spring 2012 after completion of AXYS field service specialist training and commissioning on site in Belgium.

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