

**The Commission for the Conservation and Management of
Highly Migratory Fish Stocks in the Western and Central Pacific Ocean**

DATA BUOY INFORMATION PACKAGE

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Prepared by the Secretariat

Reference: CMM 2009-05 and Paragraph 297 of the WCPFC6 Summary Report

This package provides information to assist in the recognition of data buoys and minimize the damage to these buoys in accordance with CMM 2009-05. The following links provide sample information on the type of data buoys that fishers may encounter as well as links to maps that show the location of several of these types of buoys that are reporting to the National Data Buoy Centre and can be accessed by fishers through the internet. This information is updated regularly, but Members are reminded that the information package is not complete as many buoys are not on the internet and do not report to the National Data Buoy Centre.

National Data Buoy Centre <http://www.ndbc.noaa.gov/>

Data Buoy Cooperation Panel <http://www.jcommops.org/dbcp/>

Ocean weather Inc. <http://www.oceanweather.com/forecast/index.html>

Environmental Instruments and Systems

<http://www.oceanscientific.com/Products/MarineInstruments/tabid/56/agentType/ViewType/PropertyTypeID/20/Default.aspx>

Weather Buoys http://en.wikipedia.org/wiki/Weather_buoy

Note: The citations provided with each example are copied directly from the website and are not reflective of opinions or views of the WCPFC.



Weather Buoy operated by NOAA National Data Buoy Center



Weather Buoy / Data Buoy / Oceanographic Buoy operated by the MDS



OSIL Data Buoys

OSIL's range of Data Buoys are designed to cater for a wide array of instrumentation and are completely adaptable to each applications' needs. Each buoy will support instrumentation such as multiparameter sondes, current meters and meteorological instruments and are easy to handle, as well as transport.

The OSIL Buoys are manufactured using rotationally moulded polyethylene hulls around a galvanised steel or welded polythylene central structure. The central structure has a large hole through the centre which allows the passage of instrumentation and cables from the tower down to the water. By positioning instrumentation in the centre of the buoy they are well protected from damage during transportation and deployment.

The buoys are available in four different sizes ranging from a diameter of 1.2 m with a buoyancy of 200 kg up to 3 m in diameter with a buoyancy of 9000kg. The buoyancy caters for the weight

of equipment such as solar panels and battery packs as well as monitoring instrumentation, proving how adaptable they are for any application.



OSIL Rapid Deployment Buoy

OSIL's Rapid Deployment Buoy is a cheap, quick and easy way to ensure constant and immediate data collection when other systems are out of action, or where an environmental situation requires monitoring. Its size and weight make it ideal for one person to handle in the field, and its single point mooring makes for easy deployment and recovery.

Manufactured from machined foam and finished with a durable rubberised coating, the Rapid Deployment Buoy is built with a central structure designed to safely accommodate the YSI 6600 while providing protection from collision damage.

Designed for four weeks of constant use, the Rapid Deployment Buoy carries a small solar panel with battery back-up. Weighing 25kg and having a total length of 1.2m, this buoy is easy to handle and deploy.



EMM68 Buoy

The EMM68 buoy provides a quickly deployable water quality monitoring platform with remote telemetry. The system can be lifted into place by two people, reducing deployment and maintenance costs while still maintaining a secure buoy that is difficult to steal or vandalize.

The entire system can be installed without divers, allowing for complete serviceability from a small boat or watercraft.



EMM350 PISCES Platform

The PISCES is a lightweight pontoon platform which supports water quality, water velocity and meteorological sensors as well as computer logging systems. The platform holds two topside aluminium chests that house the data acquisition system, cellular modem, and battery. The chests are easily serviceable from the water and accommodate multiple underwater cable connections.



EMM700 Water Quality Monitoring Buoy

YSI's EMM700 Water Quality Monitoring buoy is designed for applications which require a full array of sensors. The extra buoyancy supports a wide variety of instrumentation including radio, cellular or satellite telemetry hardware, data acquisition systems, meteorological sensors and YSI's 6-Series multi-parameter instrumentation. The EMM700 is designed for long-term monitoring in lakes, ponds, rivers, reservoirs and near coastal applications and it has a buoyancy weight of 700 lbs.

The EMM700 buoy is easy to handle and can be deployed from most small vessels. YSI's Floating platforms provide mounting for solar panels, battery packs, telemetry and data acquisition electronics, antenna, meteorological sensors, mooring assembly, and a collision lamp.



EMM2000 Coastal Monitoring Buoy

Endeco/YSI's EMM2000 Buoy is designed for harsh monitoring applications where wind and wave activity is significant. The buoy can support a wide variety of instrumentation including

radio, cellular or satellite telemetry hardware, data acquisition systems, meteorological sensors, and YSI's 6-Series multiparameter instrumentation.

The buoy provides 2000 lbs. of buoyancy for monitoring large lakes, reservoirs and coastal ocean area that require full ocean capability.



Data Buoy with Data Logger OMC-045-B-250

The OMC-045-B-250 is Observer's complete monitoring system including a data buoy and data logger. The very small buoy is designed for monitoring the water quality in low current situations and it can be used in lakes, ponds, reservoirs and rivers. During tests the OMC-045-B-250 has proved it's durability and because the system is rugged and light, deployment is very easy. It is possible to connect all YSI-6 series sondes to the buoy and the buoy is also suitable for use with other sondes or instruments. The OMC-045-B-250 comes complete with a 12A battery and a programmeable beacon light.

The OMC-045 Data Logger takes a reading using a user-selectable registration interval (default 15 minutes) and it is possible to configure limits (low, high and even high-high) on all measured parameters. If one of the readings is outside the pre-set limits the system will be switched to alarm-mode, in this mode the system can switch to an alarm registration interval (default 1 minute) and the system can send an alarm SMS if required. The system will stay in alarm mode until all parameters are within the limits again.

The OMC-045-B-250 comes complete with a Mooring Set (excluding anchor and chain) and a Maintenance Kit. An optional 24A battery is also available.