

# 3.0m MARINE OBSERVATION BUOY



## Early warning system for high-value assets

Designed to protect high-value assets including naval ports, critical national infrastructure, & military infrastructure, the Marine Observation Buoy can monitor for intrusions above and below water using cameras, hydrophones and sensors for a range of parameters, including gamma radiation and chemical detection.

OSIL's Data Buoy platforms are extremely versatile, and are ideally suited for collection and measurement of oceanographic, meteorological (metocean) and water quality data parameters. The buoys are completely adaptable to any applications' needs.

The system is supplied with a range of sensors that can be specified by the customer. All buoys are fitted with solar panels, navigation/warning lights and other markings as necessary. A range of telemetry options are available (including Starlink®), selected to suit both the location and application requirements. OSIL provide a complete and secure data telemetry solution, including either desktop or web-based software packages to access the data.

Instrumentation can be deployed anywhere from near surface to the seabed. The buoys can be moored in a fixed position with either single point, dual point or compliant mooring (where required).

### Applications

- Naval Ports
- Critical National Infrastructure
- Military Infrastructure
- Commercial Ports

All buoys are fitted with up to six 160W solar panels, battery back up, navigation/warning lights (IALA Standard Lamp) and other markings as necessary (St Andrews cross, Internal Radar Reflector etc.).

A range of telemetry options are available (UHF/VHF, GSM, GPRS, Satellite), selected to suit both the location and application requirements. OSIL provide a complete data telemetry solution, including either desk top or web-based software packages to access the data.



A 3D cutaway diagram of a yellow buoy. Dotted lines connect various components on the buoy to a list of options on the right. The components include a camera at the top, a sensor unit, a solar panel, a battery, a radar reflector, and a hull.

**Threat Detection Options**  
360° IR Camera, Acoustic recording (above & below water). Long-range Intruder Detection System (above & below water)

**Air-borne Measurements**  
Gamma radiation, Chemical detection, Wind speed / direction, Atmospheric pressure, Temperature & Humidity, Solar radiation, Precipitation

**Real-Time Data Delivery**  
OSIL data solutions, hosted services, direct to server & email

**Aids To Navigation**  
Radar reflector, IALA standard lanterns, AIS transponder, On-station GPS trackers with watch circle alarms

**Telemetry Options**  
GPRS/GSM, AIS, VHF/UHF radio, Iridium®, Starlink®

**Water Quality Sensors**  
Dissolved Oxygen, pH, Temperature, Conductivity, Salinity, Turbidity, Chlorophyll & Blue-Green Algae, Hydrocarbons

**Wave Measurements**  
Wave direction, height & period, external or internal compass, High resolution current speed, direction & turbulence data

**Hull Specifications**  
3.0m diameter, 4.3m focal plane, 2800kg weight, ~6000kg reserve buoyancy (after payload), ballast weight 800kg

Other sensors are available on request

FOR FURTHER INFORMATION PLEASE CONTACT:

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