

# Water & Environment



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# **Water & Environment Sectors**

Water plays a crucial role from agriculture and sanitation to energy, industry and transportation. This brings about a continuous effort of our society to ensure that safe and clean water is present where it is needed, while flooding of built-up areas due to an excess of water is to be avoided. Real-time monitoring of natural and man-made water systems is essential to stay in control.

Obscape provides an affordable, easy to use and convenient means to collect and access real-time water & environment data, whether you are monitoring stormwater runoff, hydropower generation or aquatic habitats. Our easy-to-deploy, rugged observation equipment is geared towards keeping remote site visits and operational costs to a minimum.

Our innovative equipment paired with the powerful, intuitive Obscape Data Portal creates the perfect tool to obtain observations of baseline behaviour and short-term or long-term changes of the environment, providing a solid base for sustainable management of water systems.

Real-time observations via the secure, free-to-use Data Portal will alert you in case of extreme events, such as floods, which can be reacted to immediately. Accurate and structured data is available where you need it, and when you need it. Reports notifications can be automated, which allows informed decisions to be made in real time.

Integral observation of any water system can be easily achieved by deploying the Obscape Core Products: Weather Station, Level Gauge, Time-Lapse Camera and Rain Gauge, combined with real-time reporting through to the Obscape Data Portal. Common applications of our monitoring equipment to on-land water systems include monitoring of catchment areas, wastewater treatment, hydropower generation, stormwater run-off, aquatic habitats and polder systems.



Click on the Icon to learn more about our Core Products

## **Power and Telemetry Module**

Obscape's Power and Telemetry Module (PTM) serves as a common mounting platform for easy sensor integration, to observe any area of interest. Affordable, solar powered, robust housing and completely wireless; Obscape's PTM can host a variety of sensors including 3rd party manufacturers to communicate in real time with a Satellite or GSM connection through to the secure and Free-to-Use Obscape Data Portal.

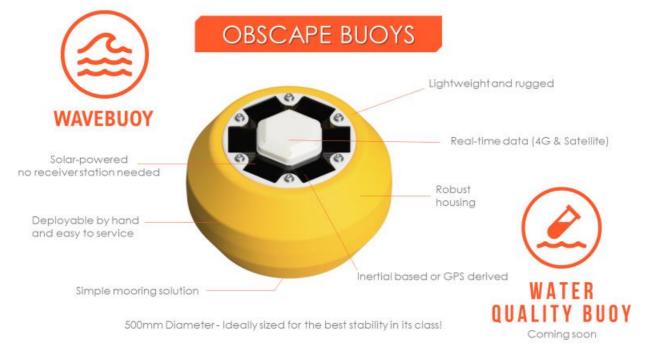
To observe the most common environments, Obscape have designed their own PTM Core Modules:



### **Obscape Buoys**

Our Obscape Buoys allow easy sensor integration, to observe any Metocean area or Liminology process of your interest.

Affordable, solar powered, robust housing and completely wireless; Obscape's Buoys can host a variety of sensors including 3rd party manufacturers to communicate in real time with a Satellite or GSM connection through to the secure and Free-to-Use Obscape Data Portal.





Water level monitoring plays an important role in monitoring natural or man-made water features. Obscape's Level Gauge delivers real-time water level measurements. It records the water level using a highly accurate radar sensor. Since the instrument is mounted above the water surface, deploying it in the field is easy.

#### **WATER LEVEL GAUGE - FEATURES & BENEFITS**



- Accurate water level data
- Radar technology
- No underwater components
- Completely wireless
- Real-time data
- Radar Based Sensor 60 GHz
- Range 20 meters
- High Accuracy 2mm
- Solar powered
- GSM telemetry (3G)
- Multiple mounting options
- Versatile data portal included

#### **WATER LEVEL GAUGE - APPLICATIONS & USES**

The incredible 20 metre range of the Level Gauge covers even the most extreme water level variations. Its robust design and positioning above the water surface make it suitable for application in any environment. The Obscape Level Gauge can measure and monitor water levels & the flow of: rivers, estuary tides, lakes, catchment areas, dams, culverts & hydro structures.

Click Here for more information!



Obscape's Rain Gauge delivers real-time rainfall measurements. Its industry-standard rain collector is connected to Obscape's Power and Telemetry Module to create a completely wireless real-time rain gauge. A network of Rain Gauges will yield valuable insights into the dynamics of your water system.

#### **RAIN GAUGE - FEATURES & BENEFITS**



- Accurate rainfall intensity measurements
- Industry-standard rain collector
- 0.2 mm resolution
- Robust design
- Completely wireless

- Real-time data
- Solar powered
- GSM telemetry (3G)
- Multiple mounting options
- Versatile data portal included

#### **RAIN GAUGE - APPLICATIONS & USES**

Rainfall is a vital process in catchment areas, but can also trigger flooding disasters. Rainfall intensity can vary strongly over time and at different locations in the water system. In order to determine the input of water into the water system and to stay informed in disaster situations, a network of rain gauges is a basic necessity for any catchment monitoring program. Obscape's Rain Gauge is the perfect instrument to provide you with the latest rainfall data from any location. The Obscape Rain Gauge is robust, wireless and unobtrusive, making it easy to deploy, both in urban and remote environments including: reservoirs, water works, dams, shorelines, landscapes, manufacturing facilities and processing plants.



Obscape's Time-Lapse Camera is a robust, fully wireless solution that delivers time-lapse images to your desktop in real-time. It allows you to have a look at your area of interest at any time of the day, wherever you are. Power is supplied through built-in solar panels, while images are transmitted in real-time using a 3G GSM connection. Its wireless nature & optional camouflage pack makes the Obscape Time Lapse Camera sustainable & very suitable for discrete monitoring of remote areas.

#### **TIME LAPSE CAMERA - KEY FEATURES & BENEFITS**



- Up to 5MP resolution
- Real-time data
- Completely wireless

- Solar powered
- GSM telemetry (3G)
- Multiple mounting options

#### **TIME LAPSE CAMERA - APPLICATIONS & USES**

Due to its wireless nature and compact housing, our Time-Lapse Camera is easy to deploy in any environment. Obscape Time-Lapse Cameras are ideal for dense coverage of spatial and temporal dynamics, allowing you to keep a close watch on everything that happens in your area of interest including construction works, urban smart Cities, water treatment plants, catchment management, storm water systems, the natural environment, industrial production facilities & processing plants.

**Click Here for more information!** 



Obscape's Weather Station supplies you with real-time weather data. This robust and user-friendly device combines Obscape's Power and Telemetry Module with an industry-standard weather sensor. Built-in solar panels and the GSM connection guarantee easy hassle-free installation & monitoring in any environment. The Obscape Weather Station can measure weather events in your location, compare with historical records, or set alarms. Take your environmental monitoring to the next level with the Obscape Weather Station.

#### **WEATHER STATION - KEY FEATURES & BENEFITS**



- Comprehensive weather data
- GSM telemetry (3G)
- Multiple mounting options
- Versatile data portal included
- Completely wireless
- Real-time data
- Solar powered

Measured parameters include:

- Wind speed, direction and gusts
- Rainfal
- Air temperature
- Atmospheric pressure
- Vapor pressure
- Relative humidity
- Lightning strikes & distance

#### **WEATHER STATION - APPLICATIONS & USES**

The Obscape Weather Station should be a standard asset of your environmental monitoring setup. It provides a wide range of weather parameters in: rural areas, bulitup urban landscapes, shorelines, hydro structures, dams, rivers, rivers, eustary tides, lakes, catchment areas, calverts and resevoirs.



Wave measurements are an indispensable part of any MetOcean or Limnology project. The Obscape WaveBuoy is based on recent advances in solar power, sensor and data technology, ensuring a rugged, light-weight, reliable and affordable wave buoy.

The Wave Buoy uses a combination of motion sensors and an electronic compass to measure the directional wave field with high accuracy. This yields the directional wave spectrum and all parameters that can be derived from it, such as the 1-dimensional energy-density spectrum and a range of bulk wave parameters (significant wave height, peak wave period, peak wave direction, etc.).



Purchase includes Free use of the Data Portal, for the lifetime of your WaveBuoy and 5,000 free satellite communication credits to get you started!

Designed to make your life easy: no receiver station needed. Solar powering Li-On batteries, a simple mooring solution, deployable by hand and transportable as check-in luggage.

#### **KEY FEATURES**

- Real-time data (4G & Satellite)
- Solar-powered
- Bulk wave parameters
- Directional wave spectrum
- GPS position & watch circle
- Low purchase & operational costs

- Compact & light weight
- Easy to deploy & service
- Suitable as check-in luggage
- Long battery life with standard alkaline batteries

#### MAIN APPLICATION AREAS

- Marine & Coastal engineering
- Floating Solar Farms
- Oceanographic research
- Environmental monitoring
- Work compliance monitoring
- Limnology research

#### ACCURATE, FULLY DIRECTIONAL WAVE DATA

WaveBuoy uses a combination of motion sensors and an electronic compass to measure the directional wave field with high accuracy. This yields the directional wave spectrum and all parameters that can be derived from it, such as the 1-dimensional energy-density spectrum and a range of bulk wave parameters (significant wave height, peak wave period, peak wave direction, etc.).



The Obscape Data Portal is one of our core products because of the great value it brings to easily view and analyse observations in real-time. The secure and powerful Obscape Data Portal is web-based and developed by Obscape to support integral monitoring and management of entire water systems.

The Obscape Data Portal provides a full turnkey solution that aims to report information about both the environment being observed and the instruments deployed in your catchment area. It supports configuration of your Obscape devices both on site and remotely. The observations can be accessed from anywhere through your desktop, laptop or mobile device. An unrestricted license for the data portal is included free of charge with the purchase of any Obscape product.

The Obscape Data Portal is your ultimate tool to unify the office and the field. Apart from offering data management functionality, the portal will also help you to monitor and maintain your devices operationally.

#### **DATA PORTAL - KEY FEATURES & BENEFITS**



- Real-time data
- Report generation
- Integral data management
- White labelling

- Data forwarding
- Maintenance log
- Monitoring alerts

#### **DATA PORTAL - INTEGRAL DATA MANAGEMENT**

The Obscape Data Portal does more than just visualising your real-time observation data. It includes tools for data management and analysis, such as a variety of data downloads, flagging invalid data points, comparing data across all your measurement stations, and viewing historic statistics of your dataset. Furthermore, you can register for periodic data reports in PDF format that are delivered to you by email.

While we strive to make the Obscape Data Portal into your ultimate data management tool, you might wish to include your real-time observations into your company's own data management systems. Therefore, the data portal offers two means of data forwarding:

- An API that returns data in the widely supported JSON format
- An HTTP posting service that posts data to a user-defined URL.

By specifying your custom reference ID for all your measurement stations, compatibility with your internal data management system is guaranteed.

#### **DATA PORTAL - OPERATIONAL MAINTENANCE**

Carrying out operational monitoring entails more than just sitting back and watching the data roll in. Field operations are an indispensable part of your job, as instruments need to be deployed, recovered and at times maintained. Your Obscape equipment has been designed to be resistant, robust and low-maintenance. Additionally, the Obscape Data Portal offers several tools to monitor the status of your devices, issue automated email alerts, retrieve your GPS-tracked devices and document your field operations.

#### DATA PORTAL WHITE LABELING

Obscape has the capability to rebrand the data portal with your own corporate identity. We provide the possibility to upload a custom logo, specify a custom colour scheme and create a custom URL for direct access to the data portal. Reports will bear the company name and logo of choice. The Data Portal supports full bespoke turnkey solutions to your monitoring needs.