

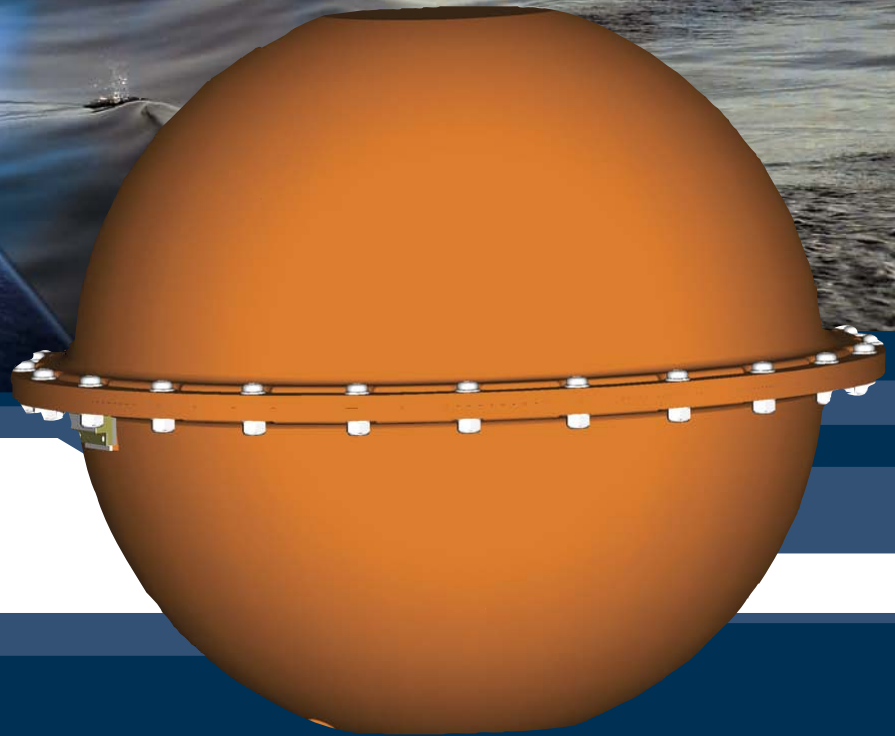
iSPHERE

OIL SPILL AND CURRENT TRACKING BUOY

Bi-directional Communication

Low Cost Telemetry Solution

Robust Design



The iSPHERE is an expendable, low cost, bi-directional spherical drifting buoy. The drifter was developed to meet the demanding needs of the offshore oil industry, ocean freight industry and the oceanographic scientific community. The buoy was designed specifically to track and monitor oil spill incidences. The iSPHERE drifter also provides the user with essential real-time sea surface temperature data and GPS positional data.

The robust design of the iSPHERE allows the buoy to be deployed effortlessly from a vessel or an oil platform. The standard operating life of the buoy is approximately 180-365* days.

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iSPHERE

OIL SPILL AND CURRENT TRACKING BUOY

Key Features

Data Collection

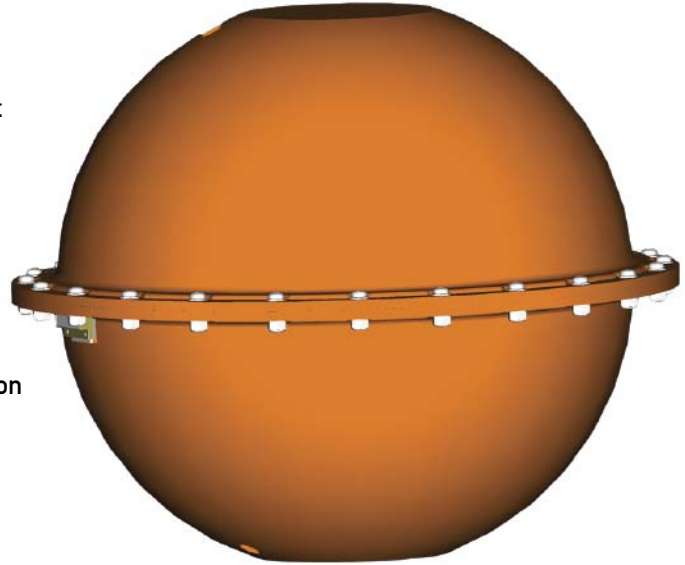
- Data acquisition: 6 samples each of SST and VBAT acquired at 20 seconds interval averaged
- Transmission interval: Once every 30 minutes
- GPS position acquired at XX:30:XX and XX:60:00
- Sea Surface Temperature and Battery Voltage acquisition starts at XX:03:00 and XX:33:00

Electronics

- MetOcean's Global Platform Transceiver Controller™
- Navman Jupiter 32 Global Positioning System module
- Iridium 9601 Short Burst Data transceiver

Data Transmission

- Bidirectional communication ability allows the end user to select on demand Iridium transmission interval according to operational requirements
- Transmissions can be set up at predetermined schedule intervals and / or poll the unit for immediate results
- Data latency is less than 60 seconds from start of transmission



Technical Specifications

Buoy Dimensions

Surface Unit Diameter	15.50 inches (39.5 cm)
Mass (in air)	24 lbs. (10.9 kg)

Buoy Construction

Surface Unit	Injection molded high impact ABS
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Storage

Storage temperature	-20C to +55C (-4F to 131F)
Storage life	Up to 24 months

Survival

Temperature	-40C to +70C (-40F to 158F)
Sea state	SS6
Deployment free fall height	33 ft (10m) into water

Operation

Air temperature	-20C to 50C (-4F to 122F)
Water temperature	-2C to +45C (28F to 113F)
Relative humidity	0 to 100% marine environment
Barometric pressure (optional)	800 to 1060 mbar
Sea state	SS5
Operating life	180-365* days
Storage life	Up to 24 months
Storage temperature	-20C to +55C (-4F to 131F)
Time reference	UTC and Julian hour
Transmission Interval	1 message every 30 minutes (standard)

* Operational life is dependent upon sensor suite, transmission interval and storage conditions.



Data collection and communication experts

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