



Planet  
Ocean Ltd

The surest measure of a changing world

## **BUOYTRACKER-III**

### **GPS – GLOBALSTAR LOCATION SYSTEM**



*BUOYTRACKER III* is a third generation system for remotely checking and monitoring the precise location of your buoy or other valuable surface asset, large or small almost anywhere on the planet.

*BUOYTRACKER III* builds on the successful *BUOYTRACKER* GSM system and uses GPS satellite positioning system, together with the GLOBALSTAR low earth orbit satellite data service and allows users to check the position of their asset anywhere in the world using a web browser on PC, laptop, tablet or smartphone; no special software is required. In addition, *BUOYTRACKER III* keeps watch over your buoy and alerts you by email should it wander by more than 500m standard, 1500m optional. *BUOYTRACKER III* sends a heartbeat message every 24 hours confirming correct operation.

*BUOYTRACKER III* is totally self-contained and can run for up to 3 years on its internal batteries. The tracker incorporates an audio indication of system status providing pre-deployment confidence checks along with reporting of internal battery volts, temperature and humidity as a check on enclosure integrity.

*BUOYTRACKER III* is small and installation is quick and simple. The device can be included at build time to be completely covert if required. The system can be fitted inside plastic or GRP buoys. The enclosure is sealed to IP-68 making it suitable for use in the open on deck in breaking waves.

*BUOYTRACKER III* is typically supplied packaged with internal batteries but can be offered with external DC power or other custom configurations upon request.

*BUOYTRACKER III* is available without watch circle mode, but with real-time tracking. In this mode, the device will wake up at regular intervals and simply report it's position; ideal for tracking lone ocean crossings, surface drifters, etc.

#### **FEATURES:**

- Compact design
- Easy to install and hide
- Simple to operate
- Ultra low power
- GLOBALSTAR data module
- 64 Channel GPS
- 24 hour heartbeat message
- Internal monitoring of battery volts, humidity and temperature
- Audio system information indicator

#### **APPLICATIONS:**

- Buoy position peace of mind monitoring
- Buoy network monitoring
- Covert monitoring
- Delivery monitoring
- Asset monitoring and tracking
- Vehicle/vessel tracking

## OPERATION:

In operation, the user simply connects the battery whereupon the tracker will make several measurements of its position to be used as the centre of the watch circle. At each stage a coded audio beep is provided to assure the user of correct operation prior to deployment. Each hour the system wakes up from low power mode, checks its position against the reference and if the position differs by more than 500m (standard), an alarm is sent via GLOBALSTAR communications satellite network as an email directly to named recipients. Messages include a hotlink to a google map showing the position of the tracker. A password protected web portal is provided for users to allow setting of tracker aliases, email routing addresses etc.

Once an alarm message has been sent, the current position is used as the centre for a new watch circle, and checked once again in one hour. If the beacon has moved again by more than 500m (standard), a new alarm is sent, if not, the beacon returns to sleep mode.

The system can accommodate inputs from external sensors such as hatch sensors, impact sensors, tilt sensors etc, please ask for additional information.

Globalstar coverage is almost worldwide, please check current coverage via the Globalstar web site in advance of order [www.globalstar.com](http://www.globalstar.com) Planet Ocean offer a low cost, fixed price annual contract covering one heartbeat message per day and 3 alarms a month.

## SPECIFICATIONS:

### ELECTRICAL

**Input Power Supply:** Alkaline battery 4.6v 54AH internal diode protection.  
**Power (Typical):** **Active:** 85mA (GPS Fix) 450mA (Tx)

**Quiescent Sleep:** 80µA

**Battery Life:** Typically three years from a fresh pack, one heart beat per day, three alarm message per month.  
**Use & Storage:** -40°C to +85°C

### MECHANICAL

**Length:** 410 mm  
**Diameter:** Main body 90mm dia.  
Maximum 100mm dia  
**Weight:** 3.033 kgs

**Sealing:** IP68. Immersion proof to 2m

### GLOBALSTAR MODULE

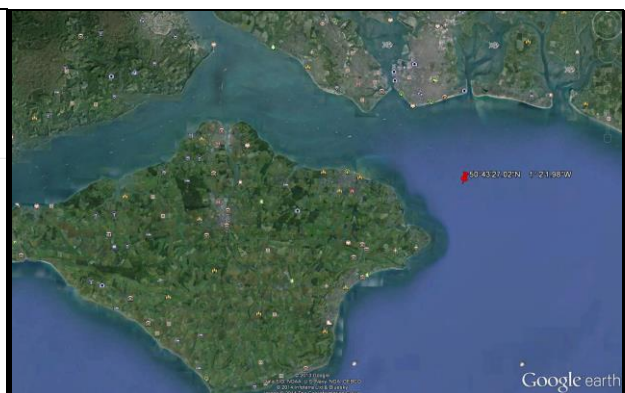
**Frequency Bands:** 1615MHz  
**Transmit power:** <2W

### GPS MODULE

**Type:** 64 Parallel Channel  
**Accuracy:** 10m (nominal)  
**Update Rate:** 1 second  
**Protocol:** NMEA-0183  
**Sensitivity:** -159dBm  
**Watch circle radius** 500m standard, 1500m optional



Typical Alarm Message



Position Shown on Google Maps

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