



## DBT-3 GPRS-IRIDIUM-UHF DATA BUOY TELEMETRY SYSTEMS

The DBT-3 telemetry systems are designed to facilitate simple implementation of remote, pseudo-real-time telemetry on data buoy platforms or other remote locations. Systems are available using UHF or VHF, GPRS cell phone system and the Iridium Satellite system.

A key feature of the system is the open nature of its architecture. Almost any instrument or instruments with a serial data output can be connected to the input of the telemetry system, and its data are presented in a reliable and transparent way. In particular Multi-parameter CTD's, turbidity probes, meteorological sensors, ADCP's acoustic wave profilers, acoustic modems, hydrophones etc have been accommodated. The electronics contained within the remote (transmitter) unit takes care of infrastructure management, power supply control and battery charging, and error checking. Systems are also available with analogue and digital inputs, and almost any combination can be catered for upon request. The systems are designed to be rugged and water tight for deployment in extreme environments such as ocean data buoys and are extremely low power. All systems are fitted with a GPS receiver and antenna used to provide system timing, and position monitor so that alarms can be raised should the system drift off station.



Typically the modules are provided in IP68 enclosures, with connectors for sensor(s), battery, solar panels, and antenna. The modules mount directly on our standard chassis for use with our DB range of data buoy hulls but can be adapted for a variety of platforms.

Depending upon the sensor(s) fitted the system will run happily with 2-4 10W solar panels, and a 38 AH battery, several configurations require only one 5W panel and a 5W solar panel.

In GPRS based system, data are sent directly to our own web portal, which hosts a page or pages all password protected specifically for the end user. Via this portal, users may view real-time and historic data, arrange for data to be sent to named email addresses each day, set alarm levels which can trigger email and SMS text alerts, download archived data, change sampling regimes, and show the position of the platform on Google maps. The same service is available for iridium users, but data can be sent directly to a nominated email address for processing by the end user



I.

**Planet Ocean Ltd**  
**Data Buoy Sensor Interface - PART**

This list currently shows logged entries for (24/11/2009). All times are in GMT. Use the drop down boxes below to view data from other dates. Click the 'Google maps' link next to the buoy name to view the last known location of the buoy. Click [here](#) to return to the main menu.

Select a day to view: 24 Nov 11 Nov 2009 Nov View data

| Buoy name: Met buoy 1 (8944122252166072802) (Google maps) |          |             |              |                        |                      |                      |               |                |                 |                       |                  |                     |                 |
|---|----------|-------------|--------------|------------------------|----------------------|----------------------|---------------|----------------|-----------------|-----------------------|------------------|---------------------|-----------------|
| Time (GMT)  | Date     | Latitude    | Longitude    | Wind Direction Av. (°) | Wind Speed Av. (m/s) | Max Wind Speed (m/s) | Air Temp (°C) | Humidity (%RH) | Air Pres. (hPa) | Rain Intensity (mm/h) | Buoy bearing (°) | Battery Voltage (V) | Case Temp. (°C) |
| 13.50.00  | 24.11.09 | 50°09.9030N | 005°13.4027W | 143                    | 3.1                  | 5.2                  | 11.9          | 91.4           | 981.8           | 0.0                   | 290              | 12.81               | 20.4            |
| 13.40.00  | 24.11.09 | 50°09.9008N | 005°13.3967W | 289                    | 0.0                  | 0.0                  | 11.9          | 91.1           | 982.0           | 0.0                   | 269              | 12.83               | 20.4            |
| 13.30.00  | 24.11.09 | 50°09.9077N | 005°13.3983W | 147                    | 3.2                  | 5.8                  | 12.0          | 91.1           | 982.1           | 0.0                   | 266              | 13.14               | 19.9            |
| 13.20.00  | 24.11.09 | 50°09.9038N | 005°13.4026W | 144                    | 3.4                  | 6.9                  | 12.0          | 91.0           | 982.4           | 0.0                   | 266              | 13.14               | 19.4            |
| 13.10.00  | 24.11.09 | 50°09.9041N | 005°13.4051W | 144                    | 3.4                  | 5.5                  | 11.8          | 91.4           | 982.4           | 0.0                   | 266              | 13.10               | 19.4            |
| 13.00.00  | 24.11.09 | 50°09.9060N | 005°13.4084W | 29                     | 3.4                  | 5.7                  | 11.7          | 92.6           | 982.7           | 0.0                   | 173              | 13.06               | 19.4            |
| 12.50.00  | 24.11.09 | 50°09.9001N | 005°13.3959W | 30                     | 3.4                  | 6.4                  | 11.6          | 92.6           | 982.9           | 0.0                   | 173              | 12.92               | 18.9            |
| 12.40.00  | 24.11.09 | 50°09.9010N | 005°13.3967W | 28                     | 3.5                  | 5.8                  | 11.7          | 91.2           | 983.2           | 0.0                   | 173              | 12.92               | 19.4            |
| 12.30.00  | 24.11.09 | 50°09.9009N | 005°13.4012W | 30                     | 3.3                  | 5.6                  | 11.9          | 89.4           | 983.3           | 0.0                   | 173              | 13.04               | 18.9            |
| 12.20.00  | 24.11.09 | 50°09.9014N | 005°13.4002W | 30                     | 3.3                  | 5.7                  | 11.9          | 89.2           | 983.3           | 0.0                   | 173              | 13.08               | 19.4            |
| 12.10.00  | 24.11.09 | 50°09.9032N | 005°13.4007W | 30                     | 3.4                  | 5.5                  | 11.7          | 91.1           | 983.6           | 0.0                   | 173              | 13.04               | 18.9            |
| 12.00.00  | 24.11.09 | 50°09.9173N | 005°13.3925W | 34                     | 3.2                  | 5.4                  | 11.7          | 90.6           | 983.8           | 0.0                   | 173              | 12.88               | 19.4            |
| 11.50.00  | 24.11.09 | 50°09.9156N | 005°13.3954W | 33                     | 2.2                  | 8.3                  | 11.7          | 88.3           | 983.9           | 0.0                   | 173              | 12.77               | 18.9            |
| 11.40.00  | 24.11.09 | 50°09.9098N | 005°13.3950W | 220                    | 2.4                  | 5.9                  | 11.9          | 88.5           | 983.9           | 0.0                   | 126              | 12.59               | 19.4            |
| 11.20.00  | 24.11.09 | 50°09.9028N | 005°13.4096W | 220                    | 3.5                  | 5.9                  | 11.8          | 87.5           | 984.3           | 0.0                   | 323              | 12.59               | 18.9            |
| 11.10.00  | 24.11.09 | 50°09.8974N | 005°13.4331W | 218                    | 3.5                  | 5.4                  | 11.9          | 88.3           | 984.4           | 0.0                   | 323              | 12.59               | 18.4            |
| 11.00.00  | 24.11.09 | 50°09.9315N | 005°13.3612W | 0                      | 00.0                 | 00.0                 | 00.0          | 00.0           | 000.0           | 000.0                 | 000              | 12.59               | 18.4            |
| 10.00.00  | 24.11.09 | 50°09.9010N | 005°13.4194W | 217                    | 3.1                  | 5.3                  | 11.5          | 91.0           | 985.3           | 0.0                   | 323              | 12.65               | 17.9            |
| 09.50.00  | 24.11.09 | 50°09.9002N | 005°13.4019W | 218                    | 3.0                  | 4.9                  | 11.5          | 90.2           | 985.4           | 0.0                   | 323              | 12.61               | 18.4            |
| 09.40.00  | 24.11.09 | 50°09.9017N | 005°13.3983W | 0                      | 00.0                 | 00.0                 | 00.0          | 00.0           | 000.0           | 000.0                 | 000              | 12.59               | 18.4            |

[Go back to the main menu](#)

Systems are fitted with data ports to allow monitoring of the system during set up and test and for stored data download via a cable connection. A small data transfer module is available to facilitate this, and this module is also fitted with a low power radio telemetry modem so that data can be downloaded, and system tests performed without a physical connection to the telemetry module, this is most useful for buoy mounted systems where it is difficult or expensive to recover the buoy.

### Typical Platforms:

The DBT-3 system can be deployed on any of our Data buoy platforms, user provided platforms or indeed land based applications.



Minibuoy



DB-125 (1.25M)



DB-175 to DB-240



DB-300

### Typical sensors:



Vaisala WXT Weather Sensor



WET Labs WQM



ANALITE Turbidity



DSPComm Aquamodem



NORTEK Aquadopp



YSI- Multi-parameter



Valeport MIDAS CTD



RBR XR Series Multi-Parameter



TRIAXYS Directional waves



AIRMAR Weather Sensor



ic-Listen Hydrophone



Satlantic SUNA Nitrates