

BOB

Data Acquisition, Visualization And Control Software.

Easy to Use

Intuitive Setup Assistant

BOB's intuitive set up assistant guides you through the simple process of connecting your computer, mag and GNSS through COM Port or USB network.

Mag Monitoring and Control

BOB monitors your connection and mag status, instantly alerting you to any potential problems such as: signal strength, sample rate, synch, depth, altitude (above seabed), and leakage. Detailed diagnostic panels and terminal access make it easy to troubleshoot & resolve issues.

Real Time Layback Correction

BOB automatically corrects for mag layback in real time to calculate the mag's position, even when making turns.

Fully Reviewable Plot In Time and Space

Dynamically rescales your magnetic field data based on your level of magnification. An interactive survey overview gives you instant access to any part of your survey.

Flexible Technology

Built from the ground up using robust, stable, secure and flexible MS SQL database technology.

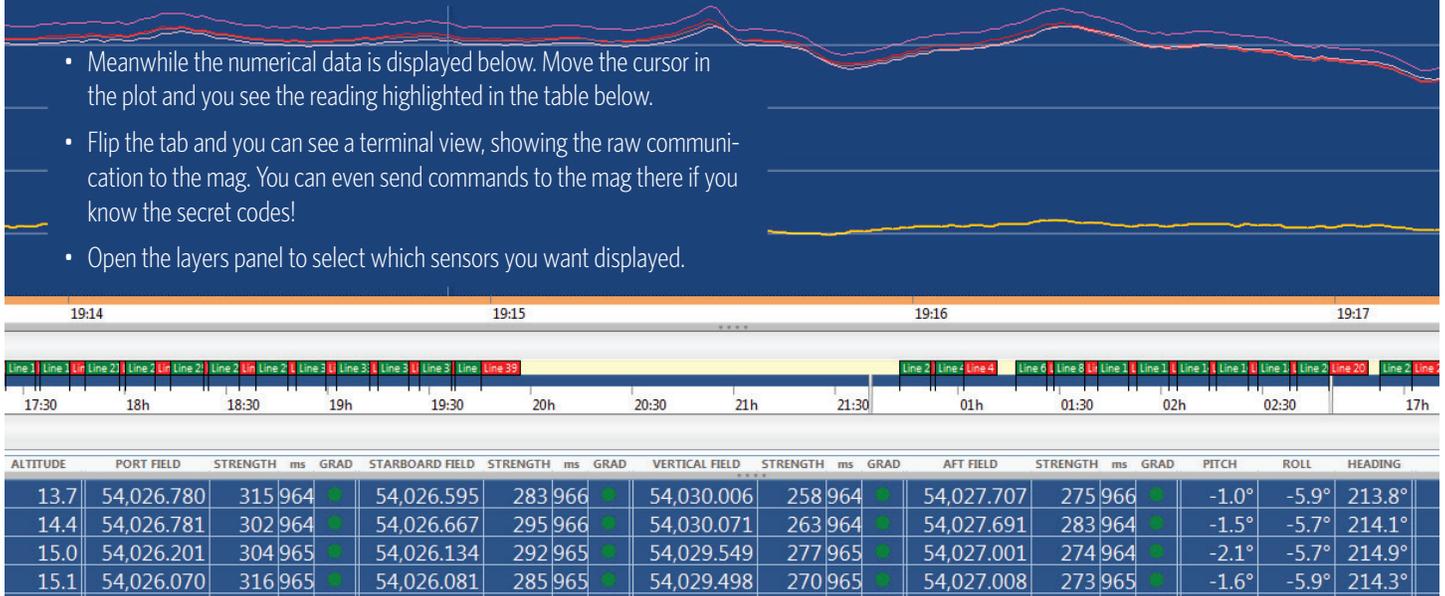
- Store multiple surveys in its database and quickly move between them.
- Surveys can be annotated, exported, archived and restored as required.
- Send the incoming magnetometer data to an additional data logging computer through a specified COM port.

Data Collection

Plot and view data as it's recorded

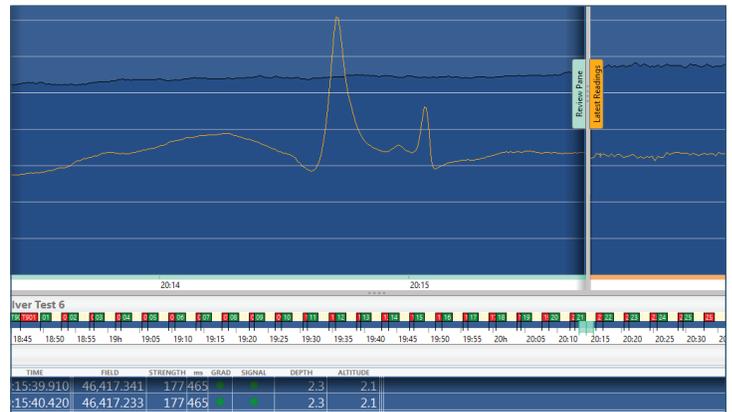
Readings from all sensors are plotted in real time as you are surveying.

- Both x and y axes can be scaled to look for the patterns you want to see. Individual traces can be shifted up and down for easy comparison.
- Meanwhile the numerical data is displayed below. Move the cursor in the plot and you see the reading highlighted in the table below.
- Flip the tab and you can see a terminal view, showing the raw communication to the mag. You can even send commands to the mag there if you know the secret codes!
- Open the layers panel to select which sensors you want displayed.



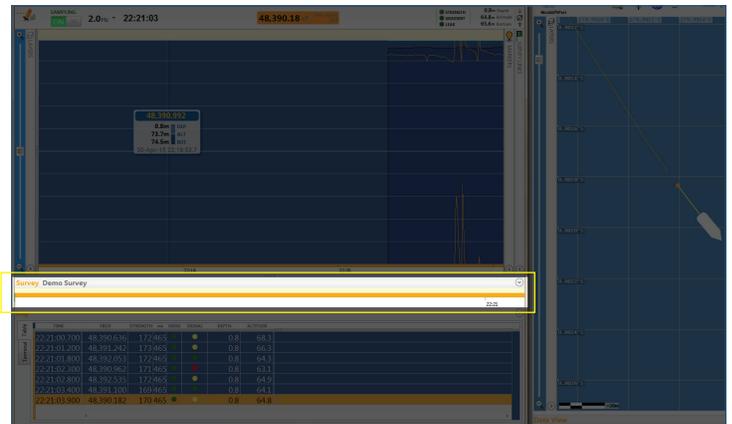
Review Previous Data While Monitoring

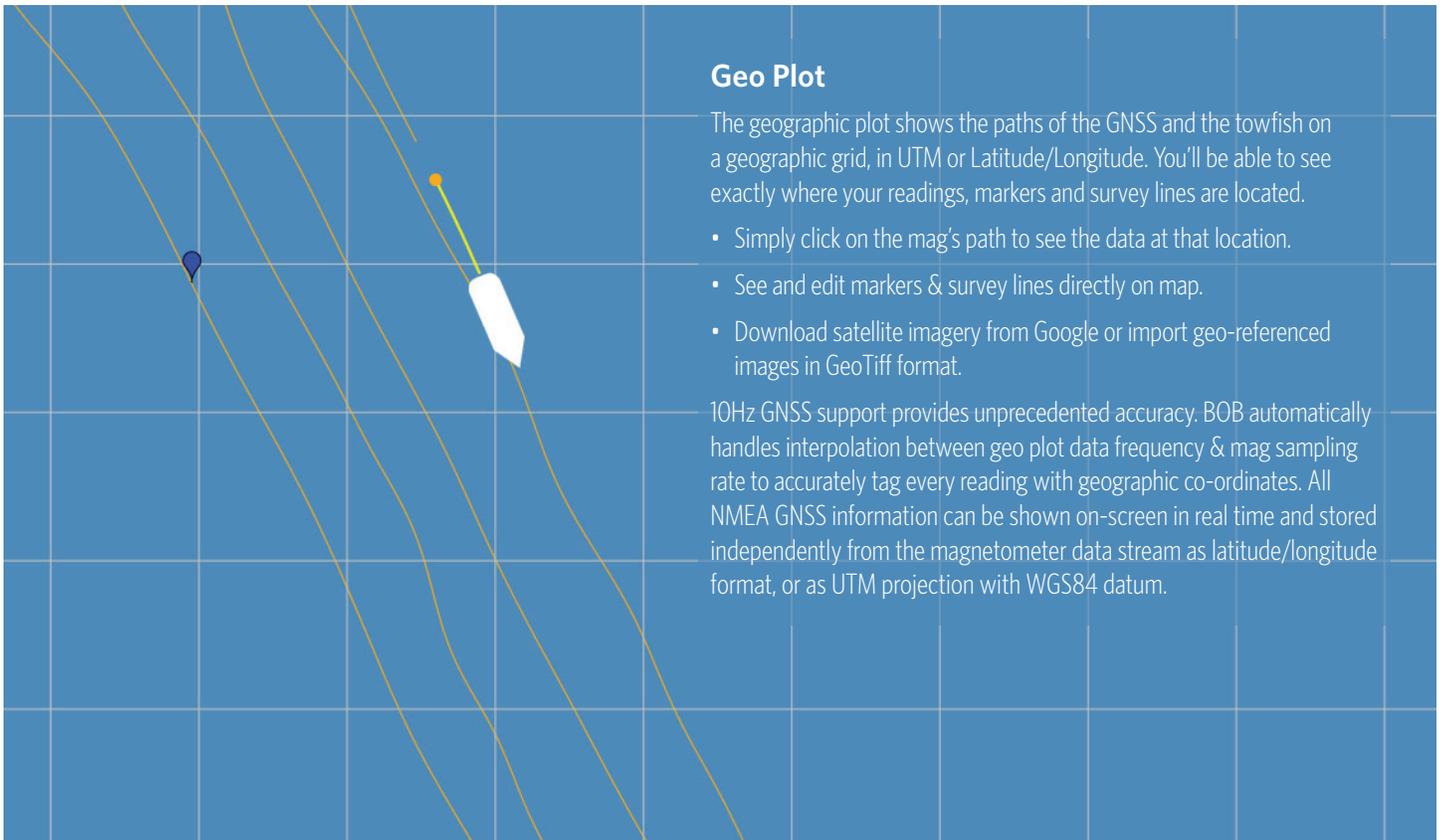
Drag the splitter bar to reveal the review pane. You can simultaneously see the data as it arrives in real time and compare it to the plot at any other part of the survey. The log table also splits into review, and real-time panes.



Zoom and Scroll Through the Timeline

The overview plot shows what part of the survey you are viewing, allowing easy navigation.





Geo Plot

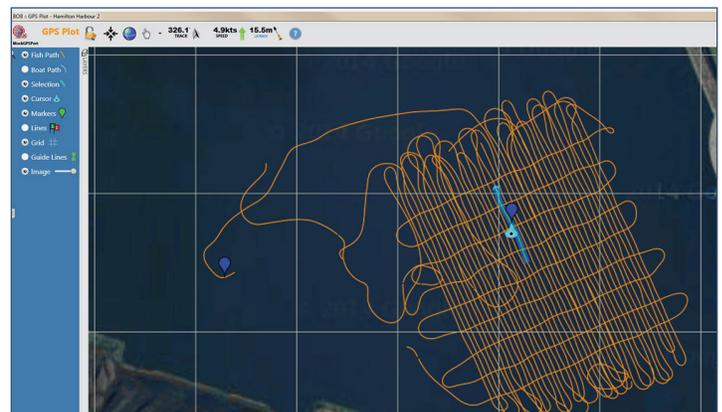
The geographic plot shows the paths of the GNSS and the towfish on a geographic grid, in UTM or Latitude/Longitude. You'll be able to see exactly where your readings, markers and survey lines are located.

- Simply click on the mag's path to see the data at that location.
- See and edit markers & survey lines directly on map.
- Download satellite imagery from Google or import geo-referenced images in GeoTiff format.

10Hz GNSS support provides unprecedented accuracy. BOB automatically handles interpolation between geo plot data frequency & mag sampling rate to accurately tag every reading with geographic co-ordinates. All NMEA GNSS information can be shown on-screen in real time and stored independently from the magnetometer data stream as latitude/longitude format, or as UTM projection with WGS84 datum.

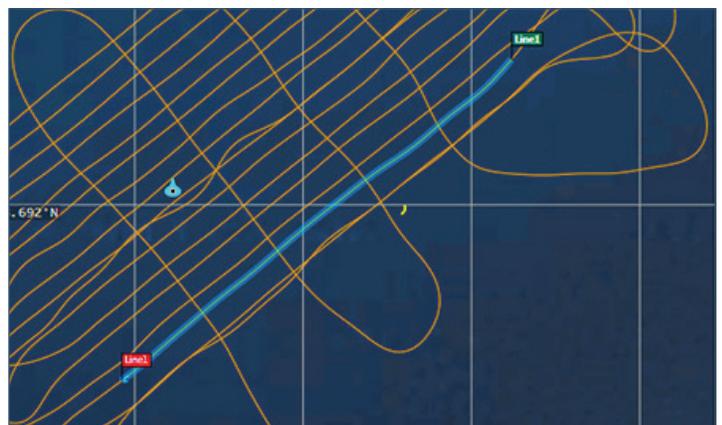
Create and Edit Markers At Any Time

Markers can be placed on the signal plot, or on the geo plot in real time. They can be color-coded and grouped to mark different features as you need. Markers can be placed and moved at any time. Automatic markers can be placed if your GNSS emits NMEA GPEVT sentences. From the geo plot you can click on a marker and jump to that part of the mag plot to see what's going on there.



Create and Edit Survey Lines

Using the mouse, drag to mark the survey lines directly on the geo plot as you go. The flags can be moved at any time for fine tuning. You can select a line to view the plot one line at a time. You can plan your survey lines in advance by placing individual guidelines, or a grid including ties spaced at regular intervals.



Post Data Collection

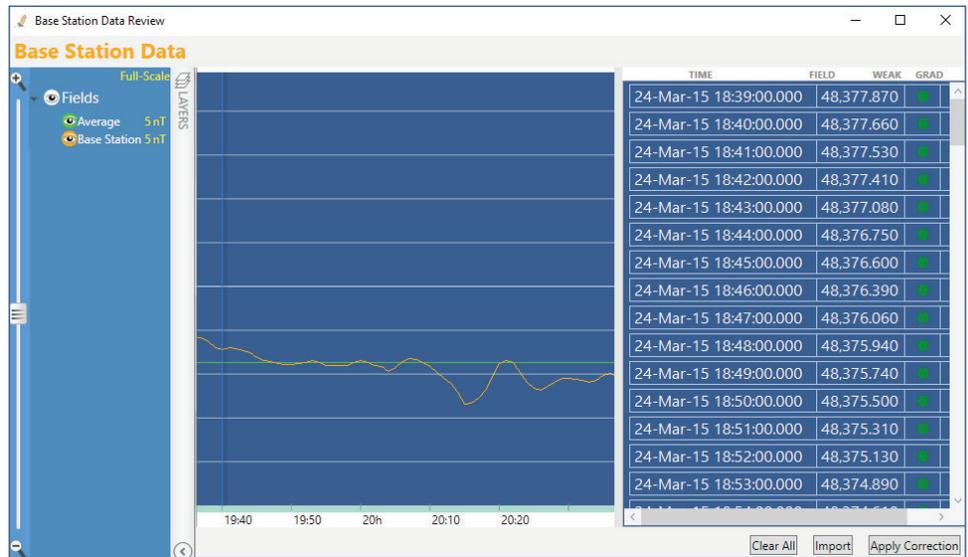
Base Station Data Correction

Import and review multiple files of collected or downloaded data from intermagnet.org. BOB will automatically calculate the corrected data set.

Review the numerical data or the plot. BOB calculates the average field for comparison.

Select and delete regions and data as necessary.

BOB saves your original data, so if you make a mistake, you can always start over without fear of losing or corrupting your original survey data.



The screenshot shows the 'Export Log' window with the 'Export Log to Text File' section. It includes a 'Presets' sidebar with 'Custom', 'SeeTrack', and 'Last Used' buttons. The main area has a list of 'Mag Data Columns' with checkboxes for: Reading Date, Reading Time, Depth, Altitude, Total Gradient, Port Field, Port Signal Strength, Port Measurement Time, Port Gradient Condition, and Starboard Field. There are also checkboxes for 'Latitude/Longitude', 'UTM (WGS-84)', 'Position Change', and 'Markers'. A 'Select readings from:' section has radio buttons for 'Whole survey', 'Within survey lines', and 'Within targets'. A 'Delimit with:' section has radio buttons for 'Space', 'Comma', and 'Open file when done'. At the bottom, there are buttons for 'Save as Preset', 'Export', and 'Import Now'.

Flexible .xyz or .csv Exports

Data can be exported to text files for use with other GIS systems. Export the whole data, or just the lines you select. You can save your favourite settings, or use the SeeByte predefined settings. Query data directly via SQL (Microsoft SQL Express - the free edition) to take advantage of sophisticated features like geodetic spatial.