

## Datasheet

# BARTT – Underwater Intruder Interception



### Description

The Bearing and Range to Target (BARTT) system is designed to work with the Sentinel Intruder Detection Sonar to enable a patrol boat to intercept an underwater intruder being tracked by the Sentinel system.

The patrol boat is provided guidance information via simple, clear graphical and textual displays on a large touch-screen smart phone. The phone receives data via a GPRS connection with the Sentinel Command Workstation. The Sentinel operator simply right-clicks on the intruder track and selects it to be intercepted. The track position data is then automatically transmitted to the BARTT mobile device, and updated every sonar ping. The mobile device uses its own position from its built-in GPS receiver, or an optional external GPS receiver, to calculate range and bearing to the

intruder. The range and bearing continuously updates as the patrol boat approaches the intruder's position.

The mobile device also sends its own position back to Sentinel, where it is displayed on the Command Workstation. The Sentinel operator can therefore monitor the movement of both the target and the intercepting vessel.

The BARTT mobile device displays the intercept data in 3 formats:

- Textual display: own position, target position, target range and bearing.
- Graphic display: own position, target bearing on compass, target range.
- Tactical display: own vessel and target track symbols overlaid on Sentinel's chart display.

Sentinel connects to the GPRS network in one of two ways.

- If an internet connection is available, a TCP/IP server in Sentinel provides a link via the internet to the GPRS network.
- Alternatively, a GPRS modem is connected to Sentinel, and the TCP/IP Server runs on a remote computer with an internet connection.

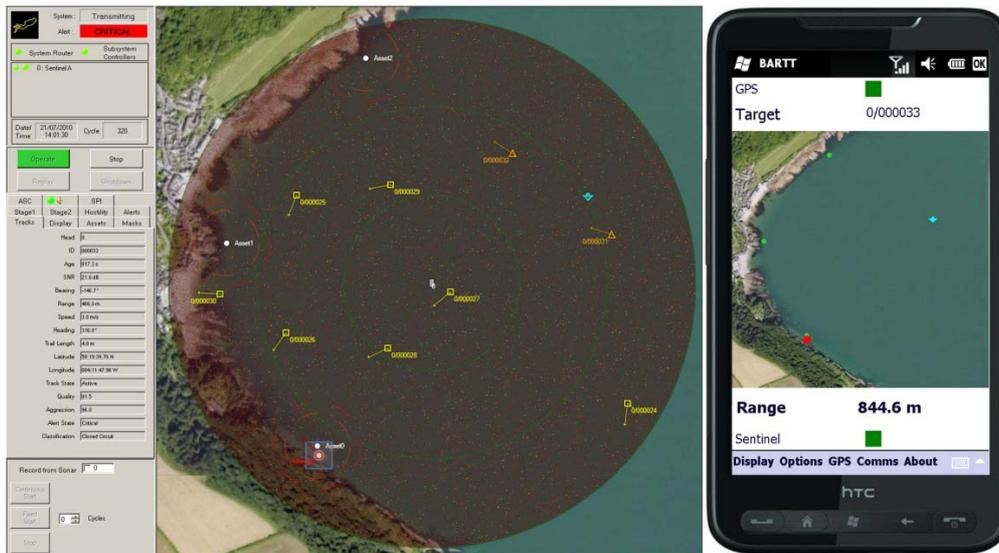
The mobile device requires a User-supplied GPRS-enabled SIM card, and when powered up automatically connects to Sentinel. Several mobile devices may be installed; one device can connect to Sentinel at a time.

### Key Features

- After target selection on Sentinel, operation is automatic
- BARTT Device displays own ship's position, range & bearing to target
- Sentinel displays BARTT position

# Specifications

## BARTT – Underwater Intruder Interception



| Feature                | BARTT – Underwater Intruder Interception                      |
|------------------------|---|
| Mobile Device          | HTC HD2, or similar   |
| Mobile Device Screen   | 4.3" diagonal, 480 x 800 pixels (WVGA)                        |
| Mobile Device Range    | Limited only by cellular GPRS coverage                        |
| Mobile Device Displays | Textual, Graphic or Tactical; day or night modes              |
| Update Rate            | Every sonar ping  |
| Sentinel Display       | Shows track selected for intercept and Mobile Device position |
| Sentinel connectivity  | Via internet if available, or via optional GPRS modem         |
| Optional GPRS Modem    | MultiModem Edge or similar                                    |