



## Remote buoy data collector

# Riverine Drifter

## Measures river current, depth and temperature

QinetiQ North America's Riverine Drifter is a remote, free-floating buoy that collects data from unknown river conditions such as river current, depth and temperature. This information provides situational awareness that is used to assist with mission planning and execution of tactical operations.

### How it works:

The Riverine Drifter is designed to be hand launched from the shore, dropped from a bridge and deployed from a boat or low flying aircraft or unmanned aerial vehicle (UAV). Once deployed, the buoy travels down-stream gathering mission critical river current, depth and temperature data. The data collected is transmitted through a modem for immediate distribution. Riverine Drifter's operational applications provide true "Launch and Leave" capabilities, requiring no additional support after deployment.

Its electronics package includes a standard GPS, Department of Defense (DoD) compatible Iridium modem, temperature sensor, single-beam depth sensor, micro-computer (for data collection/processing) and an alkaline battery pack.

### Features:

- Measures current, depth and temperature data
- Multiple deployment options - hand, low-flying aircraft or UAV
- Free floating
- GPS locator modem
- Launch and leave capabilities
- Remote data transmission
- Can be reused for science and research applications

### Benefits:

- Enhances situational awareness
- Assists with critical missions

Launch and leave data collector for mission success

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Riverine Drifter deployed in Pearl River, Mississippi



Conceptual design of Riverine Drifter dispenser pod for Tier 2 UAV



Riverine Drifter GPS location data on geo-spatial map



## Specifications

Measures water depth, surface currents, and surface temperature as a function of position

### Physical Dimensions:

- Size: 6 inches in diameter
- Weight: < 4 lb

### Measurements:

- Depth Range: 0.5 to 137 m  
Depth Accuracy: +/- 0.1 m
- Temperature Accuracy: +/- 0.5° C

### Communications:

- Iridium Modem (standard)  
RF (i.e., Bluetooth/ WiFi) (optional)

### Diagnostics:

- Automatic when powered on

### Operational Life:

- ~24 hours