

Bluefin[®]-12 with Integrated Survey Package

Unmanned Underwater Vehicle (UUV)



Advanced, Mission-Ready and Modular
Medium-Class UUV

Embedded On-Board Data Processing

Side Scan Sonar with Full Swath Bathymetry

Integrated Environmental Sensor Suite

HD Machine Vision Camera

Shared Bluefin UUV Infrastructure and Streamlined
Logistics

The General Dynamics Mission Systems Bluefin[®]-12 is a lightweight medium-class unmanned underwater vehicle (UUV) designed to deliver mission critical data and complete operators' high-consequence and changing missions. Built with robust core capabilities, increased modularity, embedded intelligence, data processing, and extended operational range, Bluefin-12 is READY FOR TODAY'S MISSION AND PREPARED FOR TOMORROW'S THREATS.

Core Capabilities – The Bluefin-12 UUV is equipped with a suite of core sensors and capabilities delivering a low-logistics, high performance UUV.

On-Board Data Processing – Equipped with robust data processing power and a 1TB Removable Data Storage Module (RDSM), Bluefin-12 delivers actionable data at the conclusion of each mission.

Unmatched Data Quality – Bluefin-12's available Sonardyne Solstice multi-aperture side scan sonar delivers a 200 meter swath range and ultra-high along-track resolution of 0.15°.

Precise and Reliable Navigation – The Bluefin-12 provides precise navigation (0.1% D.T. CEP 50) and accurate, geo-referenced data by incorporating a high-performance Doppler Velocity Log (DVL) and Inertial Navigation System (INS).

Mission-Based Modularity – The Bluefin-12 provides greater than 4,000 cubic centimeters (4,150 cm³) of available payload space open for the integration of user-selected and mission-specific sensors.

Bluefin[®]-12 with Integrated Survey Package

General Dynamics Mission Systems' Bluefin-12 UUV adapts and delivers mission critical capability and data over long-duration operations. The completely redesigned medium-class Bluefin-12 is the UUV to extend your mission capability.

Mission-Based Modularity

The Bluefin-12 features a modular construction enabling the integration of user-selected and mission specific payloads. Four discrete modular sections enable efficient on-deck mission preparation, maintenance and refitting for continuous extended missions, including rapid access and maintenance of internal components.

Integrated Intelligent Capabilities

Bluefin-12 delivers numerous capabilities that increase operational efficiency including collision avoidance, terrain following, and Automatic Target Recognition (ATR).

1TB Removable Data Storage Module (RDSM) with Camera

Bluefin-12's new RDSM acts as an independent data processor, generating and storing post-processed data with a simple interface to an operator's workstation. The RDSM contains a high-definition, machine vision-grade monochrome camera that captures still images and video. Imagery is geotagged for easy review during post-mission analysis.

Technical Specifications

- **Diameter**
 - ~12.8" (32 cm)
- **Length**
 - 15.8' (4.83 m)
- **Weight**
 - (Dry): 550 lb (250 kg) – with integrated survey package
- **Payload Capacity**
 - 4,150cm³
- **Buoyancy**
 - Buoyant in Fresh and Salt Water
 - Seamless Transition Between Water Bodies
- **Lift Points**
 - Nose, Mid-section, Aft Mounted Lift-Points
- **Depth Rating**
 - 656' (200 m)
- **Energy**
 - Four (4) 1.9 kWh Rechargeable Lithium Ion battery
 - Designed for Rapid Removal
 - Replaceable Individual Batteries Recharge in Six Hours
- **Endurance**
 - 24 hr @ 3kt / 36 hr @2kt
 - (4 hr Transit; 20 hr Survey)

- **Speed**
 - Up to 6.0 kt Sustained Transit
 - Survey at Up to 5.0 kt
- **Propulsion**
 - Gimbaled, Ducted Thruster for Propulsion and Control
- **Navigation**
 - Realtime Accuracy <- 0.1% D.T. CEP 50
 - Doppler Velocity Log
- **Available Integrated Payloads and Sensors**
 - Sonardyne Solstice 3000 Multi-Aperture Sonar
 - Removable Data Storage Module (RDSM) with Camera
 - Turbidity and Fluorometer Sensor
 - Sound Velocity Sensor + Temperature + Pressure
- **Antenna**
 - Integrated GPS, Wi-Fi, and Iridium with Visible Strobe
- **Communications**
 - Ethernet, Wi-Fi, Iridium, Acoustic
- **Safety Systems**
 - Ground Fault Detection, Leak Detection, Independently Powered Emergency Operations System
- **Software**
 - Bluefin Dashboard and Bluefin Planner
 - Optional SeeByte SeeTrack v4 Interoperability



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