# **Gavia AUV**

Autonomous Underwater Vehicle

# **Complete Survey Solution in a Low Logistics AUV**

THE GAVIA AUTONOMOUS UNDERWATER VEHICLE (AUV) is a self contained, low logistics, modular survey platform capable of delivering high quality data while operating from vessels of opportunity or from the shore.

The AUV's modularity makes it easily reconfigurable, even between dives. The vehicle's ease of use and versatility sets it apart from other systems on the market. The Gavia AUV system can serve a multitude of purposes without sacrificing performance or data quality.









# **PRODUCT FEATURES**

#### **Features**

- Multi mission low logistics, expeditionary AUV
- Industry leading 1000m depth rating
- Fully modular and field reconfigurable, including field swappable batteries
- Cost effective operations by a small teams from vessels of opportunity
- · Compact, optimized for overnight shipping
- · Highly accurate navigation with optional USBL aiding.
- A wide selection of modular survey grade sensors available, including SAS, SBP, MBES, SSS, camera, environmental sensors, and custom payloads

### **Applications**

TELEDYNE MARIN

#### Commercial:

- Pre/post Construction Support
- Pipeline Inspection

#### **Defense**

- Mine Countermeasures (MCM)
- Rapid Environmental Assessment (REA)
- Search and Recovery (SAR)
- Sonar Training

#### Scientific

- Oceanography
- Marine Archeology



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## TECHNICAL SPECIFICATIONS

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Length 2.2 - 4.5m (configuration dependent)
Weight in Air 59 - 130kg (configuration dependent)

Diameter 200mm

Depth Rating 500m or 1000m

1.65 kWh lithium ion rechargeable cells per module.

Up to 3 battery modules can be used on the vehicle for enhanced endurance.

Max Speed > 5.5 knots

**Endurance** 

Dependent on speed and exact configuration. Typical Defence or Scientific configuration 7-8 hours at 3 knots per rechargeable battery module. Typically 5-6 hours at 3 knots per rechargeable battery module with all sensors (including swath bathymetry). Vehicle can be operated with up to 3 batteries for increased endurance or batteries can be field swapped for continuous

operations.

#### COMMUNICATION

Wireless LAN
Satellite Communications
Acoustic Modem

IEEE 802.11g compliant

Full global coverage via Iridium link

Tracking and status updates

#### **NAVIGATION**

High accuracy DGPS ready receiver

High-precision DVL-aided Inertial Navigation Systems (INS) from iXBlue with Teledyne RDI Doppler Velocity Log (DVL) and direct sound velocity meter.

Positioning accuracy can be maintained over longer duration deployments by utilizing Ultra Short Baseline (USBL) (optional).

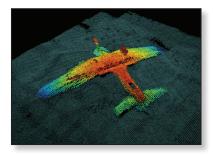
Northrop N-3PB.



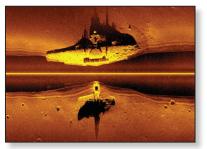
**Northrop N-3PB Data Sets** 

Crashed by Reykjavik Airport during WW2

BlueView MBES image of target.



1800 kHz Side Scan Sonar image of Northrop N-3PB.



Detail of bottom hatch from the Gavia camera system.



# **Gavia AUV Modularity**

The modular construction of the Gavia AUV allows the user to conduct a variety of missions with field-changeable modules. Additional Gavia AUV modules can be purchased at later dates to increase capability as mission requirements evolve.















