

# REMUS 6000



## Features

### LITTORAL TO DEEP OPERATIONS

The REMUS 6000 has been designed to enable operations to water depths as great as 6000 meters. The versatile design also allows long mission durations in shallow littoral areas.

### CUSTOM DESIGN

The REMUS 6000 can be configured to include a wide range of customer specified sensors. The sensor suite can be reconfigurable and enables the REMUS 6000 to be configured to meet specific, and varied, mission requirements.

### EASE OF OPERATION

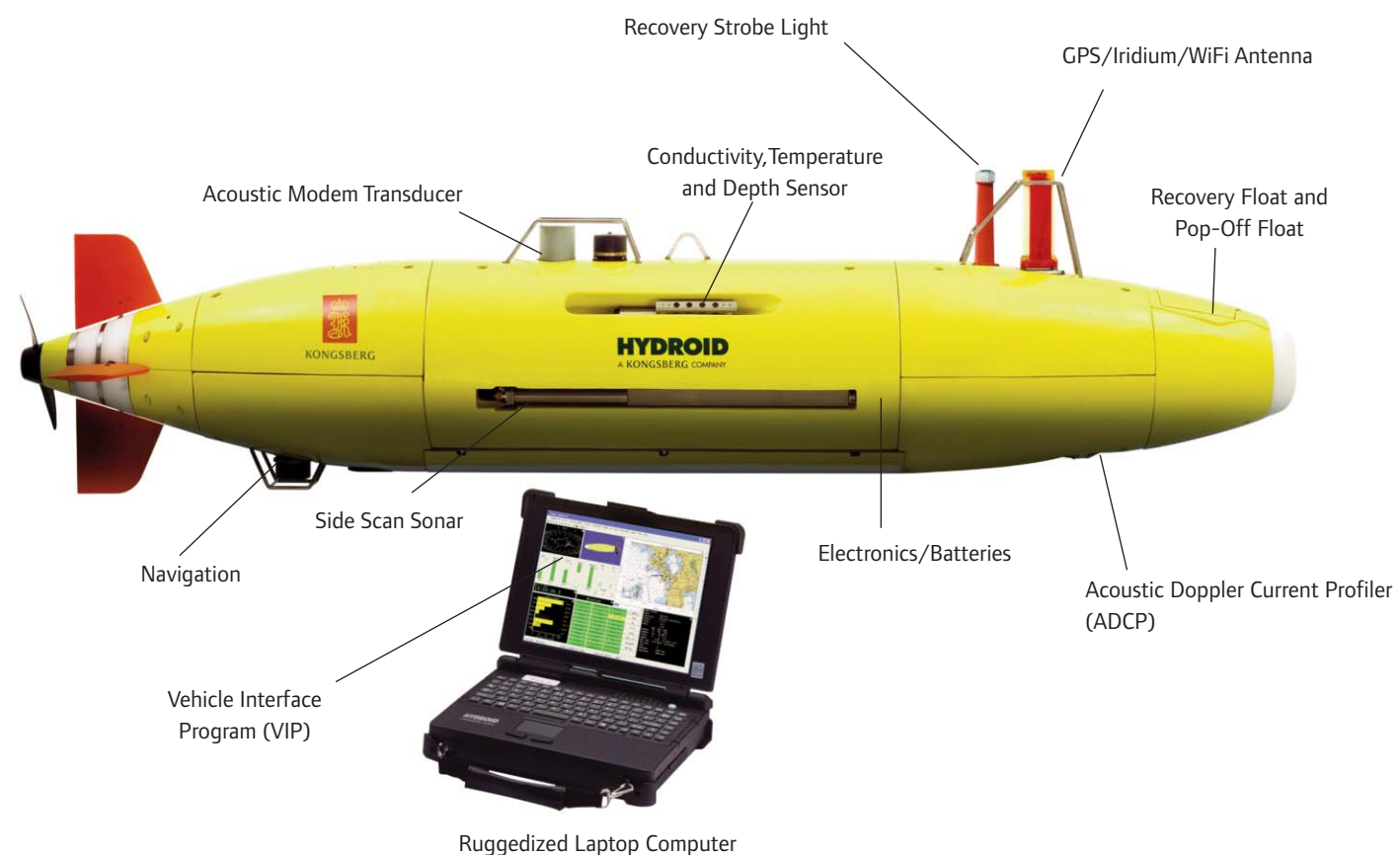
The REMUS 6000 incorporates the same proven Vehicle Interface Program (VIP) used in the complete family of REMUS vehicles. The highly refined VIP makes vehicle maintenance, checkout, mission planning, and data analysis fast and easy. Windows operation, quick look indicators, quality control checks, and a sophisticated data export capability all add to the user friendly nature of this software package.

### LAUNCH AND RECOVERY SYSTEM (LARS)

The REMUS 6000 Launch and Recovery System (LARS) is designed to function off the stern of a ship and can be set up for shipboard operations within a few hours. The LARS is a roll on/roll off system and can be installed easily on ships of opportunity. Launch and Recovery can also function off the stern and side of a ship.

### PROVEN REMUS TECHNOLOGY

The REMUS 6000 is based on the same leading edge technology that has brought the REMUS 100 to the forefront of autonomous operations.



## Applications

- Deep Ocean Search & Survey
- Deep Ocean Acoustic & Optical Surveys
- Debris Field Mapping

## Sensors & Payload

### STANDARD SENSORS

- Acoustic Doppler Current Profiling (ADCP)
- Acoustic Modem
- Inertial Navigation System (INS)
- Side Scan Sonar
- Pressure
- Altitude
- Conductivity & Temperature
- Iridium
- GPS
- WiFi

### OPTIONAL SENSORS

- Dual Frequency Side Scan Sonar
- ECO Sensors
- Acoustic Imaging
- Electronic Still Camera with 200 watt-sec Strobe Lighting
- Sub-Bottom Profiler
- WiFi

### DEPLOYMENT OPTIONS

- Launch and Recovery System
- Operations Van

### SHIPBOARD DEVICES

- Shipboard Communications Console
- Shipboard Communications Mast
- Power Box with Battery Charger
- Antenna Box (GPS, Iridium, WiFi, and Optional FreeWave)
- Acoustic Communications Bottle
- Ranger Deck Box
- Towfish
- Acoustic Transponders

## Specifications

<b>Vehicle Diameter</b>	66 cm (26 in)
<b>Vehicle Length</b>	3.99 m (157 in); length varies depending upon module configuration.
<b>Weight in Air</b>	240 kg (530 lbs)
<b>Maximum Operating Depth</b>	6000 m (4000 m configuration also available)
<b>Energy</b>	11 kWh rechargeable Li-ion battery pack in two pressure housings. A second 11 kWh set is provided with system permitting 2-hour turn around. Charge time is typically 8 hours and the batteries are rechargeable up to 300 cycles or for 5 years under recommended storage conditions.
<b>Endurance</b>	Typical mission duration of 16 hours. Subject to speed and sensor configuration.
<b>Propulsion</b>	Direct drive DC brushless motor to open two bladed propeller.
<b>Velocity Range</b>	Up to 2.3 m/s (4.5 knots) variable over range.
<b>Control</b>	2 coupled yaw and pitch fins. Altitude, depth, yo-yo, and track-line following provided.
<b>External Hook-Up</b>	Two connectors, one for shore power, and one for data. Alternatively, 802.11B wireless network provided via dorsal fin antenna.
<b>Casualty Circuits</b>	Ground fault, leak and low voltage detection, all sensors and systems have operational go/no-go fault indicators.
<b>Navigation</b>	Long Baseline Transducer 7-15 kHz upward looking transducer Dead Reckon with ADCP Inertial Navigation System (INS).
<b>Communication</b>	Acoustic modem, Iridium, 802.11B WiFi.
<b>Software</b>	VIP based laptop interface for programming, real time mission monitoring and redirection, training, documentation, maintenance & troubleshooting.
<b>Launch &amp; Recovery</b>	Over centered lifting frame; vehicle is in vertical orientation for launch and recovery.