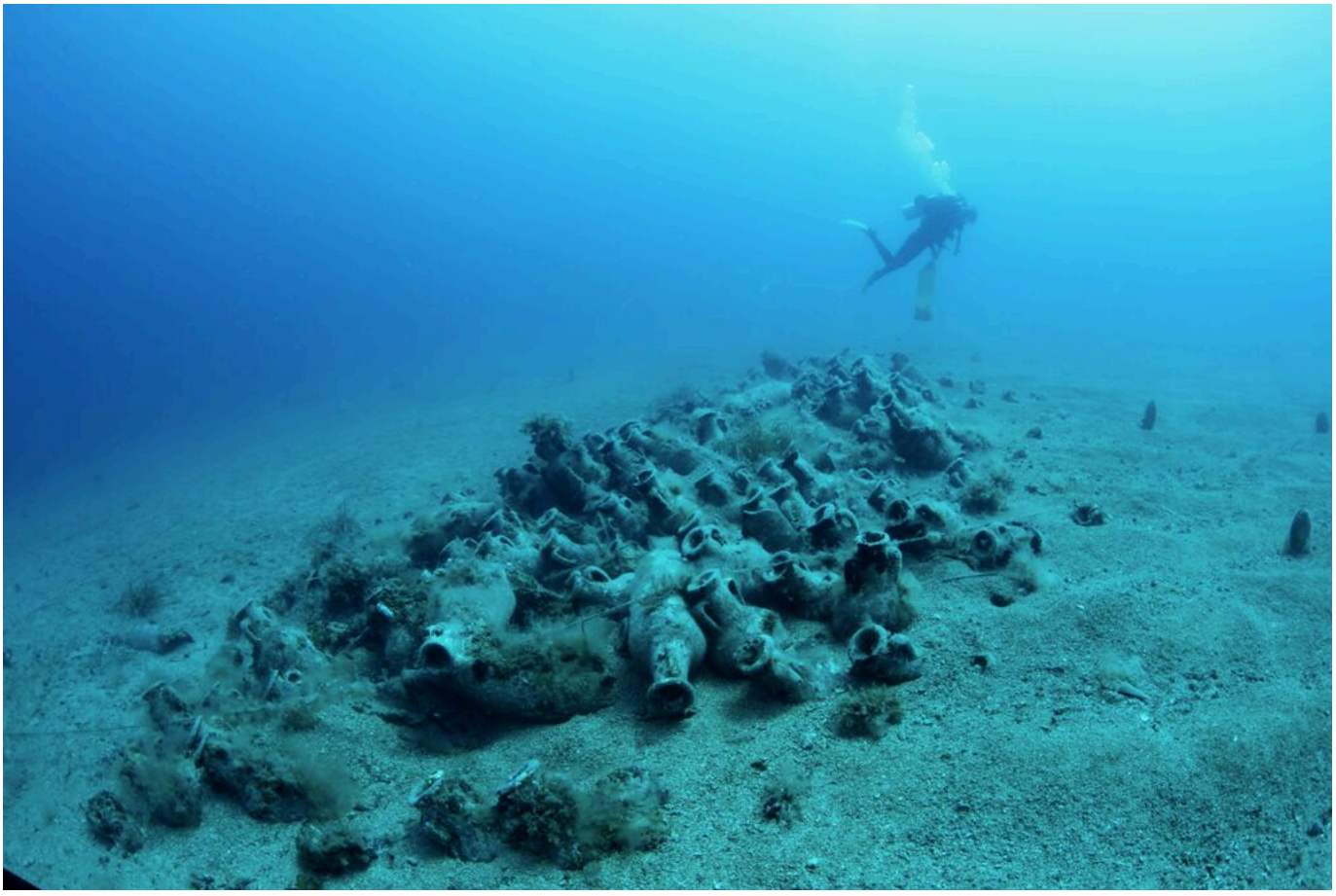
RPM NAUTICAL
FOUNDATION



R/V *Hercules*
Charter Information

OVERVIEW

RPM Nautical Foundation (RPMNF) is a non-profit (US 506 c 3) archaeological research and educational organization that performs maritime archaeological research in the Mediterranean in conjunction with the Institute of Nautical Archaeology and other universities and cultural authorities. RPMNF projects identify and assess submerged cultural material so that these irreplaceable cultural resources are protected for future generations. Projects are carried out in conjunction with host governments in the Mediterranean and serve as a crucial component in the effort to protect submerged archaeological sites and maritime heritage.

Over the past decade RPMNF has moved into the forefront of maritime archaeology through intensive and systematic use of advanced technologies in the littoral investigation of the Mediterranean. RPMNF's research vessel, the R/V *Hercules*, is a purpose-built versatile platform for survey, mapping, ROV and diving projects. For further details on the systems and methods used during projects, please see our website (www.rpmnautical.org).

Our cooperative projects have proved successful in the identification, mapping, and recording of shipwreck sites and harbor works from the ancient through modern eras. To date, project areas include Spain; Albania; Montenegro; Croatia; Malta; Morocco; Cyprus; Italy (Sicily, Amalfi and Calabria); and Turkey. All archaeological work is performed in conjunction with the host country's maritime and cultural authorities. All recovered artifacts remain under the jurisdiction of the host government for educational/research purposes and eventual museum display. Bathymetric data are also made available to host country hydrographic departments in order to supplement their oceanographic mapping programs. RPMNF research vessel *Hercules* is Panama-flagged and home ported at Valletta in Malta.

CHARTER PROJECTS

Typical charter projects include seabed mapping, pipeline and subsea installation inspections, subsea site survey and clearance, seismic investigations, and supply missions.

If you are interested in chartering R/V *Hercules* or would like information about pricing and availability, please contact RPMNF using the information listed on page 8.

OVERVIEW: R/V *HERCULES*

The R/V *Hercules* has been designed and built to perform full littoral marine survey, inspection, ROV, diving and seabed sampling tasks. Typical operations include remote sensing, ROV inspection and ROV work-class projects, deployment of other submersibles, and diving operations. Critically, *Hercules* is equipped with a Kongsberg dynamic positioning system and advanced data processing capabilities that are often available only on larger vessels at far higher operating costs. R/V *Hercules* is also equipped with back deck lifting systems for transport and deployment of submersibles and auxiliary vehicles. R/V *Hercules* is also equipped with an integrated Nitrox system for multi-diver operations.

Length: 37.3 m / 122 ft **Beam**: 6.7 m / 22 ft **Configuration**: Monohull
Draft: 1.5 m / 5 ft (thrusters deployed: 2.1 m / 7 ft)
Engines: Two Caterpillar 900-horsepower 3412 diesel engines
Power Supply: Two 65-kw and one 30-kw Northern Lights generators

Fuel Capacity: 26,500 liters /7,000 gallons **Cruising Speed**: 12 knots
Range: 1,000 nautical miles

Navigation Systems and Positioning Equipment:

- Two Simrad RA54 (12 kw) 72-mile range radars
- Furuno RC1815 GMDSS weather and distress communication system
- KVH Fleet 77 SATCOM
- Simrad CP44 GPS WAAS chart plotter
- Trimble DSM132 DGPS (Omnistar ready)
- Kongsberg/Simrad DPIO System Dynamic Positioning Computer – Fugro demodulator interfaced with Seatex 200 DGPS system
- Kongsberg/Simrad HIPAP System Acoustic Positioning
- Simrad EQ60 and EQ42 depth sounders
- Data room on board with full collection, processing, and analytical capabilities for multibeam and sidescan data
    - Two 52-inch display screens for multiple video manipulation
    - Video/display controller for customizing feeds for job-specific tasks
    - 16-channel video/display router for ship-wide display
- Kongsberg-Seapath 330 - dual frequency GNSS receiver with inertial technology and processing algorithms for attitude and timing - SN: 10105
- Kongsberg Seatex MRU - suitable for any maritime operations that require attitude determination and motion compensation - MRU-M-MB3
- HiPAP 350 - unique transducer technology and advanced digital signal for obtaining optimal posistion accuracy in any water depth; High Precision Acoustic Positioning -APC12 SN: 33142
- Kongsberg MST 319/N - three mini SSBL transponders 4332: medium frequency transponders for use with the HiPAP system - SN: 1182, 1834, 4332
- Kongsberg DP - COS 200, SOP 10/6729 -SN:835 Maintains vessel position and heading by use of thruster system and main engines
- GPS System - JRC GPS Compass - NWZ 4701 Transmitting Heading Device (THD) and Satellite Navigator (GPS) as SOLAS-V required primary heading sensor or primary GPS
- DGPS - Fugro Seastar 3510LR - full time differential GPS (DGPS) broadcast system delivering corrections from GPS reference stations

Berthing: 12 total berths, including Captain, Chief Engineer and VIP berths, plus double cabins each with a shower, sink, and toilet

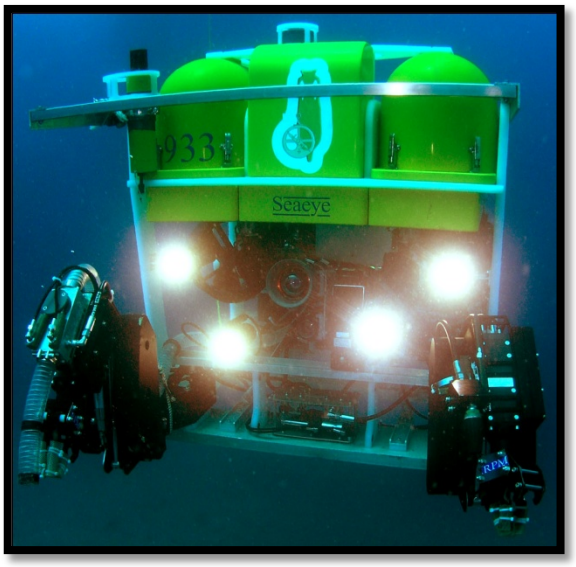
Deck and Fixed Equipment:

- Lifting Crane: 5-ton capacity with 6.7 m reach
- A-Frame: 5-ton capacity
- Nitrox Technologies scuba compressor system
- Four winches

Remote Sensing Equipment:

- Kongsberg – Simrad multibeam echo sounder systems:
  - EM1002S: maximum depth to 600 m, 95 kHz frequency
  - EM30020D maximum depth to 120 m, 300 kHz frequency
- Primary processing software: CARIS HIPS/SIPS and IVS Fledermaus
- 3 Geometrics G-881 Cesium Magnetometers: 300 m operating depth
- Permanent pole installed on the hull for attaching sonar equipment

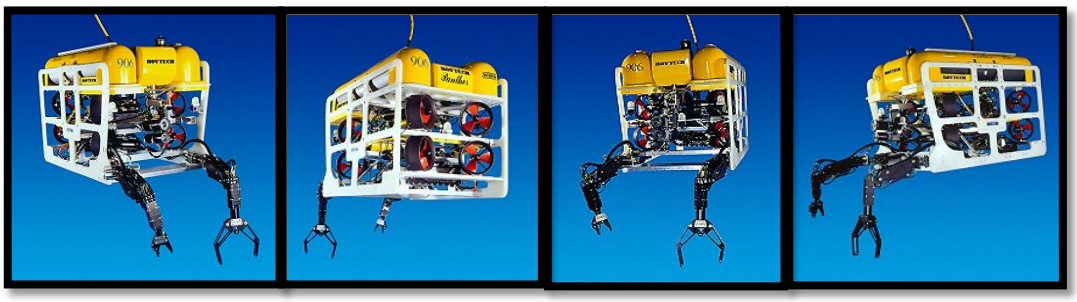
REMOTELY OPERATED VEHICLE (ROV)

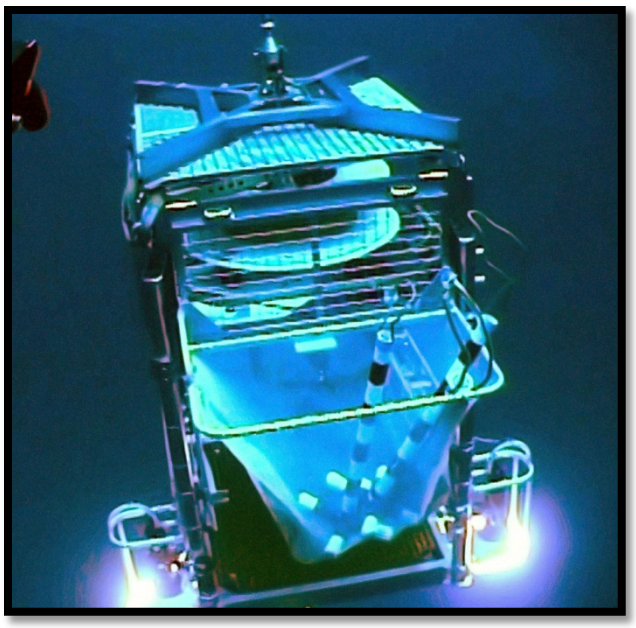


Seaeye Panther XT
Length: 1.750 m
Height: 1.217 m
Width: 1.060 m
Weight: 500 kg
Forward thrust: 220 kg
Lateral thrust: 170 kg
Vertical thrust: 75 kg
Payload: 105 kg
Maximum working depth: 1500 m

ROV Equipment:

- Four simultaneous video channel feeds via fiber-optic transmitters
- Kongsberg High-Definition color cameras
- Two additional color cameras mounted on the left manipulator arm and downward facing on top rack
- 360^{o} sonar navigation system
- Depth sensor with +/- 0.1% accuracy of full scale deflection
- Kongsberg HiPAP 350 tracking and positioning system; beacon for determining ROV position from support ship
- Two multi-function manipulator arms: 6-function manipulator and 5-function grabber
- Suction/blower system
- Laser measuring device for video and photographic scale





Tether Management System (TMS):

- Type 3 bale arm tether management system; 150-m excursion limit
- Two 400-watt lights affixed pointing downward
- Lookdown and reverse-look camera
- Collection nets

CONTACT INFORMATION

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