

ArtemisPRO-M (M-Code GPS) military
underwater navigation system

ACCURATE, PORTABLE AND SECURE

A comprehensive handheld solution
for mission success





DESIGNED BY DIVERS FOR DIVERS

EASY TO USE

Users can quickly interpret information that is presented on the simple menu interface and graphical display, easily switching between sonar, navigation and other displays with the touch of a button.

NEUTRALLY BUOYANT

The ArtemisPRO-M can be attached via lanyard to a D-ring or other securing point on the diver, enabling the unit to hang free during descent/ascent when the diver may need to operate gas valves or other life support apparatus.

SELF-CONTAINED SYSTEM

The ArtemisPRO-M console is fitted with a 7-inch color display and 10-button keypad. A battery pod is mounted below the unit allowing rechargeable battery packs to be swapped quickly between dives.

TRUSTED PRECISION AND ACCURACY



PORTABLE NAVIGATION FOR DEMANDING UNDERWATER ENVIRONMENTS

Military divers face dangerous and complex underwater navigation objectives that require precise positioning and secure anti-jamming and anti-spoofing capabilities for mission success.

Collins Aerospace, collaborating with Blueprint Subsea, has developed the world's first military underwater navigation system with M-Code GPS under contract with the U.S. Department of Defense. Collins' ArtemisPRO-M (M-Code GPS) is a handheld diver navigation system specifically designed to meet the needs of the military diver community and perform in demanding combat environments.

COMBINED TECHNOLOGIES FOR INCREASED SAFETY AND EFFECTIVENESS

Collins brings you closer to PNT Assurance through the combination of modernized GPS receiver and proven diver-based dead reckoning systems. Capable of receiving existing operational GPS signals, as well as the newer M-Code signals, our ArtemisPRO-M with dual modernized GPS engine receivers deliver geolocation and positioning capabilities while providing increased security and anti-jamming/anti-spoofing capabilities.

The modernized GPS receiver in ArtemisPRO-M includes the Selective Availability Anti-spoofing Module (SAASM) with Y-Code and C/A-Code functionality and increases mission effectiveness and safety through operation with the M-Code signal.

EXTENSIVE FEATURES FOR MILITARY APPLICATIONS

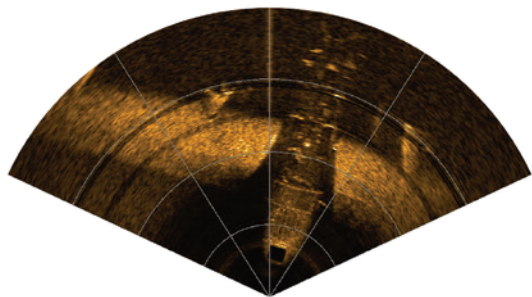
ArtemisPRO-M is designed to assist special forces operators, combat divers and explosive ordnance disposal divers with covert dead reckoning navigation tasks and the identification of submerged targets.



FEATURES INCLUDE

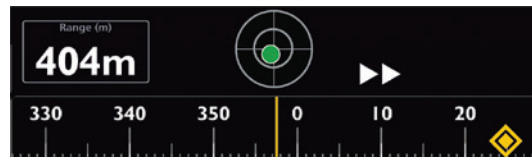
- Embedded modernized GPS receiver and separate modernized GPS floating receiver both with Y-Code, M-Code, and C/A-Code (YMCA) capability and L1/L2 antenna technology for absolute position fixes when either is surfaced
- Multibeam imaging sonar for real-time images in poor visibility conditions
- Attitude Heading Reference System (AHRS) sensors for magnetic heading information and orientation monitoring
- Doppler Velocity Log (DVL) to obtain navigation information from the divers swim heading, velocity and height above the seabed
- Integrated acoustic transponder and data modem to enable diver-to-diver and surface-to-diver text communication and positioning
- Video/still camera and dive light
- Water temperature sensor
- Pressure sensor for accurate diver depth
- Configurable autonomous data-log for post-mission analysis

ROBUST CAPABILITIES TO INCREASE SITUATIONAL AWARENESS



SONAR IMAGING

Especially useful in poor visibility or darkness as the diver approaches an unidentified target, multibeam sonar imaging technology provides real time updates of the entire 130° field of view.

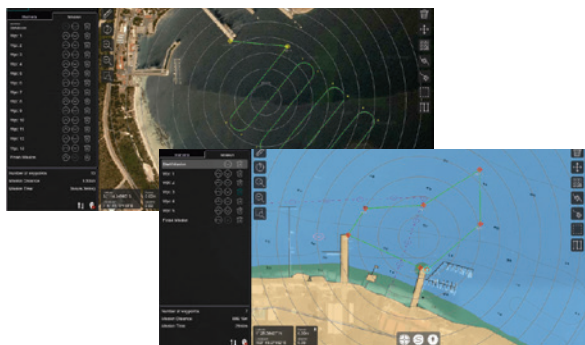


SWIM GUIDE

The swim guide status bar is always visible on the navigation display screen, regardless of the main display being shown. It provides the diver "heading to swim" directions for the selected navigation destination including pre-loaded waypoints.

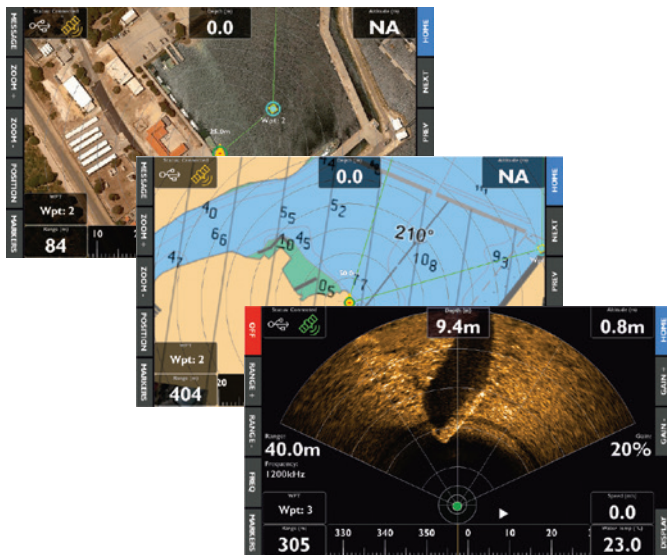
NAVIGATION & BOTTOM TRACKING

Several sensors for diver navigation and positioning are used, including the internal L1/L2 modernized GPS receiver for when the diver is at the surface. Once the diver is submerged, DVL and AHRS sensors provide a dead reckoning navigation solution. The L1/L2, modernized, GPS float receiver unit allows secure GPS position updates while the diver remains submerged.



MESSAGING AND POSITIONING

Diver-to-diver and surface-to-diver text communication is made available through SeaTrac technology. Divers can be tracked and communicated with in real-time from the surface and broadcast their location to other divers.



MISSION PLANNING AND DIVE-LOG REVIEW

Users can create and download pre-dive mission planning files to configure navigation marker locations, such as waypoints and targets of interest, and upload and review the post-dive data collected in dive log files and display information.

DISPLAYS

The diver has several displays to choose from. Quickly change between displays for searching the sea bed, navigating a course or surveying an area.

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