

AUV and ROV Play Important Role in Multinational EOD Exercise



Every autumn, Iceland hosts its annual Explosive Ordnance Disposal (EOD) exercise called Northern Challenge, welcoming NATO members and partners supporting NATO's Defence Against Terrorism Programme. Northern Challenge is a multinational exercise, helping to train members of NATO's Partnership for Peace programme. This year, participants included Austria,

Belgium, Canada, Denmark, Finland, France, Germany, Iceland, Italy, The Netherlands, Poland, Norway, Sweden, the United Kingdom, the United States (including Army, Air Force and Navy) and other NATO members and partners. An AUV and ROV were utilised during the exercise.

Thirty groups were assigned EOD focused tasks, based on realistic scenarios, using the equipment provided. In support of Icelandic Coast Guard (ICG) EOD teams, a [Gavia AUV](#) and a SeaBotix vLBV300 ROV were utilised during the two weeks of exercises, assisting the ICG in identifying potential threats in one of two harbors used for the exercises. The SeaBotix vLBV300 ROV was equipped with a Teledyne Bowtech camera and lights for visual inspection, an Imaging sonar for long-range target finding in low water visibility, a Teledyne RDI DVL and automated navigation package to reduce operator fatigue, and a grabber with two degrees of freedom for manipulation. Teledyne operators assisted the ICG and varying NATO groups by operating the vehicles based on the needs of the given task. The main task for the AUV was change detection, locating foreign objects with high-resolution side scan sonar. The ROV's role was to use high definition video to confirm contacts that could be possible Improvised Explosive Device (IED) threats. The goal of the exercise was to share knowledge and expertise among military departments.

Sub bottom profilers and ASW sonar

The Gavia AUV and SeaBotix ROV are currently in use by many NATO groups. A typical Mine Counter Measures (MCM) Gavia AUV is equipped with an Edgetech 2205 Side Scan Sonar, Teledyne Blueview MB-2250 for gapfill and target identification, a camera, and utilise an iXBlue DVL-aided INS. To maximise the vehicle's modular design advantages, many militaries have added extra battery modules for longer endurance missions or modules such as Teledyne Benthos Chirp III Sub Bottom Profilers or ASW Sonar Training modules. Both NATO participants and Teledyne participants in this exercise gained valuable knowledge from the group's varying experience and equipment. Approximately three-hundred attendees were able to share knowledge to better prepare NATO's Partnership for Peace participants for EOD-related threats.