



The Technical Cooperation Panel Hell Bay IV Trial



AT A GLANCE

WHAT IT IS:

Hell Bay IV is part of a series of trials held under the Mine Warfare (MIW) Panel within The Technical Cooperation Program (TTCP). These trials advance automation and autonomy across air, surface, and underwater systems.

HOW IT WORKS:

TTCP serves as a forum for defense science and technology (S&T) collaboration between Australia, Canada, New Zealand, the United Kingdom, and the United States. The goal of the groups within TTCP is to foster cooperation with S&T for conventional national defense programs. The Hell Bay Trials serve as a method for the MIW Community to accomplish the above goals.

WHY IT IS IMPORTANT:

Participating nations are able to share experiences & lessons-learned and jointly evaluate the effectiveness of maturing technologies. This knowledge is used to improve development and further support the naval warfighter.

**Unmanned Warrior is part of exercise Joint Warrior 2016, hosted by the United Kingdom off the North-West coast of Scotland.*



Hell Bay Trials have taken place over the past three years. The most recent trial took place with over 70 operators, developers, and military personnel. Trials have focused on the following categories:

- Automatic Target Recognition (ATR)
- Single and Multi-vehicle Autonomy
- Communication and Reacquire-Identify (RI) Behaviors
- Rapid Environmental Assessment (REA)

The 2016 trial will include the following Unmanned Air Vehicles (UAVs), Unmanned Surface Vehicles (USVs), and Unmanned Underwater Vehicles (UUVs):

- Hydroid REMUS 100 UUV
- OceanServer Iver 2/3 UUV
- SeaRobotics USV-2600 USV
- ASV Halcyon USV
- BlueBear UAV

Unmanned Warrior 2016 will be the final Hell Bay Trial of the current series. Participants will also be collaborating with the REA Geospatial Intelligence mission and the TACMEMO workshop elements of Unmanned Warrior 2016.

Research Objectives for Hell Bay Trial IV at Unmanned Warrior:

- Collaborative ATR evaluations
- Demonstration of multi-vehicle autonomy for MCM
- Interoperability between TTCP Nations' Assets and a common middleware
- REA Alignment with other GEOINT Unmanned Warrior Missions