

# A REMARKABLE SHOWCASE FOR UNMANNED SYSTEMS

The large-scale Unmanned Warrior event used LTPA capabilities to demonstrate the power of autonomous systems

Using MOD Test and Evaluation (T&E) Ranges operated by QinetiQ under the Long Term Partnering Agreement (LTPA), Unmanned Warrior was the largest ever event of its kind: more than 50 unmanned vehicles from 40 different organisations co-operated on missions in the air, on the water and below the surface.

With the Royal Navy and many International navies planning to deploy unmanned vehicles for a wide range of tasks, the potential is to distance or remove human operators from tedious, mundane and dangerous activities. Unmanned Warrior was an opportunity for tech providers, scientists, academics and military forces to showcase the latest systems in the world's first multi-squad multinational deployment of autonomous vehicles operating collaboratively.

Admiral Sir Philip Jones, First Sea Lord and Chief of Naval Staff, said Unmanned Warrior was driven by the Royal Navy's belief that "unmanned and autonomous systems have the power to revolutionise naval operations. We're eager to explore what we can do with this innovative technology in a realistic scenario."

## LTPA: A FRAMEWORK FOR MORE INNOVATIVE USE OF MOD FACILITIES

The Defence Equipment & Support (DE&S) Technology Office contracted QinetiQ on behalf of the Royal Navy to plan and deliver Unmanned Warrior, a task that involved multiple agencies, organisations and requirements, with complex demonstrations running alongside NATO's major Joint Warrior exercise. Unmanned Warrior was the largest ever event of its type, with more than 500 participants, observers and visitors over six weeks, with follow-on activity lasting five months. Activities and resources used to support and deliver Unmanned Warrior were costed at more than £20 million.

## BENEFITS

- Support from inception to delivery
- Execution of complex demonstrations
- Expertise in safety, security, governance, communications, logistics and range management
- Co-ordination of multiple agencies, organisations and requirements
- Scope for record-breaking projects

"I am very grateful for the extraordinary support provided by all the QinetiQ Ranges staff... who showcased the LTPA as a framework for more innovative use of MOD facilities."

CDR PETER PIPKIN,  
ROYAL NAVY



## NOTABLE FIRSTS

Among its many firsts, Unmanned Warrior delivered the first direct comparative mine hunting trials between manned and unmanned platforms, the largest co-ordinated glider fleet in the UK covering a huge area providing near real-time oceanographic data, more than 200 hours of unmanned intelligence surveillance flights, including multiple first flights in UK airspace of unmanned aerial vehicles, and managing an integrated airspace covering both manned and unmanned operations.

Commander Peter Pipkin, the Royal Navy's Maritime Capability, Surface Combatants – Combat Systems & Fleet Robotics Officer, called Unmanned Warrior a "resounding success", with overwhelmingly positive feedback for "the largest, most diverse demonstration of its kind." In support of wider LTPA and MOD objectives, QinetiQ's Bill Biggs says experimentation and demonstrations on this scale "are vitally important to unlock new operational concepts, to enable us to work in partnership with the end customer to fund and develop new systems."

"QinetiQ played a central role in Unmanned Warrior from inception to delivery," says Bill Biggs, QinetiQ's Autonomy Team Leader. "Through the LTPA, we provided logistics and Range management expertise to deliver safe and successful demonstrations. We raised the bar in multiple areas, from the systems deployed onwards; safety management, communications and collaborative working, to the approach taken with visitors, how we engaged with industry, and refined the event's marketing approach and channels." Indeed, Unmanned Warrior set records before it had even started, with the UK's biggest-ever mass deployment of ocean gliders to gathering geographical intelligence, surveying uncharted wrecks and underwater features.

## WORLD-CLASS CAPABILITIES

Most activity took place in northwest Scotland from QinetiQ-operated MOD T&E Ranges at Hebrides and at the British Underwater Test and Evaluation Centre (BUTEC) at Kyle of Lochalsh. Other LTPA facilities used included MOD Aberporth in Wales, plus QinetiQ sites in Portsmouth and Gosport, which come under other long-term MOD contracts. "It was clear the LTPA was a highly efficient commercial mechanism to deliver the enabling services for Unmanned Warrior," says James Anderson, QinetiQ. "As well as providing Range services and logistics, the LTPA was used to deliver underlying infrastructure for the command and control system, for mine laying and recovery, and to provide VIP hosting and media facilities."

Additional LTPA capabilities engaged for Unmanned Warrior included providing subject matter expertise for safety, security, governance and communications technology, and establishing the infrastructure to support a 'pop-up site' for anti-submarine activity at a remote commercial site without MOD facilities. The nature of the core LTPA contract and additional tasking also worked extremely well for Unmanned Warrior, allowing emerging requirements and late changes to be accommodated as the planning process matured.



**MOD BUTEC RANGE OPERATED BY QINETIQ**  
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