

Written evidence submitted by the Ministry of Defence

Memorandum on the Royal Navy's (RN) autonomous mine-hunting capability (Mine Hunting Capability (MHC)) programme, provided 2 June 2021.

The MHC programme is at the forefront of future maritime autonomous systems and is being developed in two blocks. MHC Block 1 consists of three operational demonstrator systems, including the UK and French collaborative Maritime Mine Countermeasures (MCM) programme, and is aligned with the Sandown class drawdown between 2021-2025.

MHC Block 1 will deliver a total of three Mission Systems. Two will operate in the UK at Her Majesty's Naval Bases Clyde and Portsmouth, and one in the Gulf. A Mission System consists of:

- a Portable Operation Centre;
- an Autonomous Surface Vessel;
- towed sonar;
- Mine Neutralisation System;
- Autonomous Underwater Vehicles, and;
- an autonomous mine sweeping system.

MHC Mission Systems can be operated from the shore and from any suitable RN, Royal Fleet Auxiliary or commercial platform. The systems are currently being developed, with deliveries due to commence by the end of 2022, and scheduled to enter service in 2023-24. Gulf assets will be operated from the in-theatre Landing Ship Dock (Auxiliary) but could be operated from shore with the agreement of the host nation. When in service, the system will be deployable worldwide.

MHC Block 2 is the mainstay of the full replacement MCM capability; the investment decision point is planned for 2024, subject to cost profiling. This agile and incremental approach allows the RN to adjust the procurement plan as it builds operational analysis and experience from allies and industry.

Initial MHC trials have outperformed existing mine counter measure vessels (MCMV) capabilities, assuring the programme pathway. However, it is acknowledged that, while modernising, there is a degree of operational risk, as conventional capabilities come to the end of their service lives and new technology comes into service. In mitigation, and to improve operational experience, Project Wilton will be conducting MCM survey operations on the Clyde in early 2022 and delivery of a Block 1 system has been accelerated, to be deployed into the Gulf region (Op KIPION) by the end of 2022. A phased approach will evaluate MHC performance in the Gulf against MCMV capabilities, to inform the transition timeframe.

2 June 2021