Statement of Requirement (SoR)

Reference Number	1000166122
Version Number	0.3
Date	07/09/2021

1.	Requirement
1.1	**Title**
	Defender ROV for MIE ROV Project
1.2	**Summary**
	The Dstl MIE ROV project (iCAS No. 711029) project requires a ROV and other ancillary equipment in order to deliver a proof of concept demonstration to the customer.
1.3	**Background**
	The Dstl MIE ROV project is developing a capability to reduce the danger to clearance divers undertaking MIE. The project is three-years in duration. Use of an ROV for underwater Explosive Ordnance Disposal and Search has already been proven and this project will integrate this with current MCM/MIE capabilities and autonomous surface vessels to provide the end-to-end remote capability required by the customer.
1.4	**Requirement**
	The Dstl MIE ROV Project Team require a ROV system to deliver a proof-of-concept demonstration to the customer in February 2024. To deliver the concept the ROV system must have the following capabilities: • Be man portable (maximum two-man lift for all system items). • Be able to be operated in a maritime environment in adverse weather conditions (system surface items to have adequate waterproofing). • Be able to operate at depths of up to 250m and 250m horizontally from its support craft or shore base.

- Be equipped with multiple manipulators with multiple jaw configurations able to lift a mass of at least 11kg, cut wire/rope and perform dextrous operations with ropes and connectors to connect items together.

- Be able to work in a current of at least one knot and ideally up to 4 knots.

- Have built in autonomy to provide ROV stabilisation (e.g. auto hover, direction lock) and assisted search capabilities (e.g. race-track search of a defined area).

- Be equipped with High Definition cameras (with LED lighting) and high-definition 2D sonar to enable items of interest to be located in zero visibility.

- Be equipped with navigation systems (GPS, Doppler and Inertial) to provide accurate ROV location on the surface and underwater.

- Be maintainable by the user (component replacement) with only basic training. To include a suitable spares package.

- Be easy to use (intuitive) with low skill fade. Include a training and support package

In addition the customer has stipulated that, in order to reduce the training and support burden, the ROV must be a Videoray Defender as they already have two of these systems in service.

The above requirements can be purchasing the following Commercial Off The Shelf (COTS) items:

- Basic Defender ROV package including 7 thruster vectored vehicle, x16 zoom HD tilting camera, Dual LED Lights.

- 400m PPT - Neutral Performance Tether

- 100m PPT - Neutral Performance Tether

- XTDS - Tether Deployment system with 400 volt slip ring.

- Tether Bag Backpack

- Autopilot System (DVL, GPS & Integration) Includes autopilot system comprising Doppler Velocity Log (DVL) depth rated to 300m, ROV GPS and Defender ROV integration kit.

- Greensea EOD Workspace software, UPGRADE (one off).

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- Workhorse splash proof controller package includes: Touch screen computer with L/R controller pod, us, cable/case and Splash proof 400v power supply

- BluePrint Oculus M750d Imaging Sonar and mission specialist Defender integration kit.

- MSS Rotating Manipulator with five interchangeable jaw heads.

	- Reach Alpha 5 function PRO manipulators x 2 - Defender Module Spares Kit including: 7 programmed thrusters, 2 LEDs, 1 comms module, 1 power module, 1 AHRS, 1 Camera module and 1 Defender Hardware/ Fastener kit. - MSS Defender Training Course for up to 5 candidates at Vobster Quay, Somerset - CSMP Support Package for three years - Delivery to DSTL and Import charges for all items
1.5	**Options or follow on work**
	Three-years of support for the ROV and Greensea software has been included in the requirement.

1.6	Deliverables & Intellectual Property Rights (IPR)						
Ref.	Title	Due by	Format	TRL*	Expected classification (subject to change)	What information is required in the deliverable	IPR DEFCON/ Condition
					N/A. All items are COTS		

***Technology Readiness Level required**

1.7	Standard Deliverable Acceptance Criteria
	N/A. All items are COTS
1.8	Specific Deliverable Acceptance Criteria
	N/A. All items are COTS

2.	Quality Control and Assurance
2.1	Quality Control and Quality Assurance processes and standards that must be met by the contractor
	☐ **ISO9001** (Quality Management Systems) ☐ **ISO14001** (Environment Management Systems) ☐ **ISO12207** (Systems and software engineering — software life cycle) ☐ **TickITPlus** (Integrated approach to software and IT development) ☒ **Other:** (Please specify below) N/A. All items are COTS and covered under warranty and the servicing package.
2.2	Safety, Environmental, Social, Ethical, Regulatory or Legislative aspects of the requirement
	N/A. All items are COTS

3.	Security	
3.1	**Highest security classification**	
	Of the work	OFFICIAL SENSITIVE
	Of the Deliverables/ Output	UNCLASSIFIED
3.2	**Security Aspects Letter (SAL)**	
	Not applicable If yes, please see SAL reference- *Enter iCAS requisition number once obtained*	
3.3	**Cyber Risk Level**	
	Not applicable	
3.4	**Cyber Risk Assessment (RA) Reference**	
	313155423 If stated, this must be completed by the contractor before a contract can be awarded. In accordance with the [Supplier Cyber Protection Risk Assessment (RA) Workflow](#) please complete the Cyber Risk Assessment available at https://suppliercyberprotection.service.xgov.uk/	

4.	Government Furnished Assets (GFA)				
GFA to be Issued - No					
GFA No.	**Unique Identifier/ Serial No**	**Description:**	**Available Date**	**Issued by**	**Return Date or Disposal Date (T0+)**

5.	Proposal Evaluation criteria
5.1	**Technical Evaluation Criteria**
5.2	**Commercial Evaluation Criteria**