

## Statement of Requirement (SoR)

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<b>Reference Number</b>	<b>1000166122</b>
<b>Version Number</b>	<b>0.3</b>
<b>Date</b>	<b>07/09/2021</b>

<b>1.</b>	<b>Requirement</b>
<b>1.1</b>	<b>Title</b>
	Defender ROV for MIE ROV Project
<b>1.2</b>	<b>Summary</b>
	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.
<b>1.3</b>	<b>Background</b>
	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.
<b>1.4</b>	<b>Requirement</b>
	<p>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:</p> <ul style="list-style-type: none"><li>• Be man portable (maximum two-man lift for all system items).</li><li>• Be able to be operated in a maritime environment in adverse weather conditions (system surface items to have adequate waterproofing).</li><li>• Be able to operate at depths of up to 250m and 250m horizontally from its support craft or shore base.</li></ul>

- 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).
- Greensea EOD Workspace software, annual support for three years
- 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.

	<ul style="list-style-type: none"> <li>• Reach Alpha 5 function PRO manipulators x 2</li> <li>• 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.</li> <li>• MSS Defender Training Course for up to 5 candidates at Vobster Quay, Somerset</li> <li>• CSMP Support Package for three years</li> <li>• Delivery to DSTL and Import charges for all items</li> </ul>
<b>1.5</b>	<b>Options or follow on work</b>
	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

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

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

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

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

<b>5.</b>	<b>Proposal Evaluation criteria</b>
<b>5.1</b>	<b>Technical Evaluation Criteria</b>
<b>5.2</b>	<b>Commercial Evaluation Criteria</b>