

## RCloud Tasking Form – Part B: Statement of Requirement (SoR)

<b>Title of Requirement</b>	Enduring Autonomy T&E Capability test bed concept demonstration
<b>Requisition No.</b>	RQ0000016251
<b>SoR Version</b>	1.0

<b>1.</b>	<b>Statement of Requirements</b>
<b>1.1</b>	<b>Summary and Background Information</b>
	<p>MOD capabilities are under development that use autonomous functions, including but not limited to robotics, with greater investment in artificial intelligence (AI) or machine learning (ML). Such capabilities must be tested and evaluated to assure they are compliant with user needs including performance, regulatory, legal and ethical requirements before they can be considered to be accepted into service.</p> <p>Currently this is achieved in isolation for each capability, which is perceived to create duplication of effort, inconsistencies and variations of approach and limits opportunities to learn lessons and exchange knowledge within MOD. It is anticipated efficiencies and promotion of a coherent and consistent approach would be achieved through the creation of a singular enduring 'test bed' capability for autonomy.</p> <p>In March 2022, the FMC WECA Autonomy T&amp;E Demonstrator displayed how synthetic environments can be used to augment and de-risk live T&amp;E, alongside generating sufficient data to support regulatory assurance and approval. Perceived benefits from the demonstration include generating more data for T&amp;E, whilst reducing the time, cost and dependency on environmental factors when undertaking live tests. The opportunities in performing T&amp;E earlier in the product development lifecycle and its impact on reducing risk were also displayed.</p> <p>Alongside this, the task demonstrated how Modelling &amp; Simulation (M&amp;S) can be used in the development of software, including Artificial Intelligence and highlighted the advantages of collaboration between small and medium enterprises to deliver benefit to MOD.</p> <p>A key output was the demonstration indicated that the technology had reached a sufficient maturity to justify the development of a capability demonstrator to identify the benefits and barriers to creating an enduring capability.</p>

1.2	Requirement
	<p data-bbox="576 264 1062 309">Redacted under FOIA exemption</p> <p data-bbox="193 331 1485 472">[Redacted]</p> <p data-bbox="193 501 1358 546">[Redacted]</p> <p data-bbox="193 575 1254 620">[Redacted]</p> <ul style="list-style-type: none"> <li data-bbox="256 647 1235 904"> <div data-bbox="256 647 272 904" style="display: inline-block; width: 10px; height: 115px; background-color: black; margin-right: 10px;"></div> <div data-bbox="304 647 1235 904" style="display: inline-block;">[Redacted]</div> </li> </ul> <p data-bbox="193 931 1469 1010">[Redacted]</p> <p data-bbox="193 1037 1469 1115">[Redacted]</p> <p data-bbox="193 1142 1461 1182">[Redacted]</p> <p data-bbox="193 1193 1062 1234">[Redacted]</p> <ul style="list-style-type: none"> <li data-bbox="248 1261 379 1301"> <div data-bbox="248 1261 264 1301" style="display: inline-block; width: 10px; height: 18px; background-color: black; margin-right: 10px;"></div> <div data-bbox="296 1261 379 1301" style="display: inline-block;">[Redacted]</div> </li> <li data-bbox="248 1312 1171 1352"> <div data-bbox="248 1312 264 1352" style="display: inline-block; width: 10px; height: 18px; background-color: black; margin-right: 10px;"></div> <div data-bbox="296 1312 1171 1352" style="display: inline-block;">[Redacted]</div> </li> <li data-bbox="248 1364 1054 1404"> <div data-bbox="248 1364 264 1404" style="display: inline-block; width: 10px; height: 18px; background-color: black; margin-right: 10px;"></div> <div data-bbox="296 1364 1054 1404" style="display: inline-block;">[Redacted]</div> </li> <li data-bbox="248 1415 895 1456"> <div data-bbox="248 1415 264 1456" style="display: inline-block; width: 10px; height: 18px; background-color: black; margin-right: 10px;"></div> <div data-bbox="296 1415 895 1456" style="display: inline-block;">[Redacted]</div> </li> <li data-bbox="248 1467 1075 1507"> <div data-bbox="248 1467 264 1507" style="display: inline-block; width: 10px; height: 18px; background-color: black; margin-right: 10px;"></div> <div data-bbox="296 1467 1075 1507" style="display: inline-block;">[Redacted]</div> </li> </ul> <p data-bbox="193 1534 1353 1574">[Redacted]</p> <p data-bbox="193 1585 735 1626">[Redacted]</p> <ul style="list-style-type: none"> <li data-bbox="240 1653 1219 1973"> <div data-bbox="240 1653 256 1973" style="display: inline-block; width: 10px; height: 143px; background-color: black; margin-right: 10px;"></div> <div data-bbox="288 1653 1219 1973" style="display: inline-block;">[Redacted]</div> </li> </ul>

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The following are the expected outputs:

- Report containing enduring autonomy test bed capability requirements
- Report containing test bed benefits assessment

	<ul style="list-style-type: none"> <li>• Detailed plan for the demonstration</li> <li>• Technical demonstration of the approach</li> <li>• Presentation and report of the findings from the demonstration</li> <li>• Roadmap and proposed Future Operating Model (FOM) to permit MOD to exploit the approach</li> </ul> <p>It is essential that the contractor takes an innovative approach that utilises new technology to enhance T&amp;E assurance of autonomous systems to improve the agility of T&amp;E.</p> <p>The following are the required deliverables:</p> <ul style="list-style-type: none"> <li>• Capability requirements</li> <li>• Demonstration plan</li> <li>• Demonstration</li> <li>• Presentation of findings</li> <li>• Report containing details of the cost, benefits, strengths and weakness of the approach and of an enduring capability</li> <li>• Roadmap and FOM for MOD exploitation</li> </ul>
<b>1.3</b>	<b>Options or follow on work</b> <i>(if none, write 'Not applicable')</i>
	<p>Deliverables for FY23/24 cannot yet be contracted. In accordance with Tasking Form (TF) (Part A), firm prices for all deliverables associated with activity to be performed in FY23/24 must be presented to the Authority in a form capable of acceptance by no later than 1 Mar 2023, with a validity period sufficient to enable the Authority to assess the proposals and apply the new milestone deliverables to the contract.</p> <p>Deliverables to be quoted as ROM-priced options in the initial proposal:</p> <ul style="list-style-type: none"> <li>• D1-C</li> <li>• D1-D</li> <li>• D1-E</li> <li>• D1-F</li> <li>• D4</li> <li>• D5</li> <li>• D6</li> <li>• D7</li> <li>• D8</li> </ul>
<b>1.4</b>	<b>Contract Management Activities</b>
	<p>Any supplier sub-contracted to Radnor Range Ltd must comply with the flow-down of the RCloud v4 Terms &amp; Conditions via the appendices contained in the Tasking Form (Part A).</p>

1.5	<b>Health &amp; Safety, Environmental, Social, Ethical, Regulatory or Legislative aspects of the requirement</b>
	<p>The prime contractor will be required to identify and gain the appropriate licenses and permissions to conduct the activities required for the live demonstration. This may include:</p> <ul style="list-style-type: none"><li>• Software licenses</li><li>• Transmission licenses</li><li>• UAV Flight permission and licenses</li><li>• Risk assessment for the live trial</li></ul>

1.6	Deliverables & Intellectual Property Rights (IPR)					
Ref.	Title	Due by	Format	Expected classification (subject to change)	What information is required in the deliverable	IPR Condition
D1	<b>MEETINGS and REVIEWS</b>  D1-A Kick-off meeting (face to face, if possible)  D1-B Monthly progress meetings  [Option] D1-C Capability requirement presentation  [Option] D1-D Presentation of the plan for the Demonstration  [Option] D1-E Pre demonstration meeting & presentation	D1-A T0 (contract start)  D1-B T0+ monthly  D1-C T0+6m  D1-D T0+6m  D1-E T0+ 15m  D1-F T0+16m	Presentations (.pptx)  MS Word or emails for minutes	O	Redacted under FOIA exemption 	RCloud v4 Terms & Conditions shall apply

	[Option] D1-F Presentation at demonstration  [Option] D1-E Wash-up lessons learnt presentation	Contract end.				
D - 2	Capability requirements report	T0+ 5m	MS Word	OS	Redacted under FOIA exemption  ■ [REDACTED] [REDACTED] ■ [REDACTED]	RCloud v4 Terms & Conditions shall apply
D - 3	Demonstration plan	T0+ 5m	MSP/ MS Word	O	Redacted under FOIA exemption ■ ■ [REDACTED] [REDACTED] ■ [REDACTED] [REDACTED] [REDACTED] [REDACTED]	RCloud v4 Terms & Conditions shall apply

D - 4	[Option] Progress report	1 Aug 2023	MS Word	OS	Redacted under FOIA exemption [REDACTED] [REDACTED]	RCloud v4 Terms & Conditions shall apply
D - 5	[Option] Demonstration	Within T0+16m		O	Redacted under FOIA exemption [REDACTED]	RCloud v4 Terms & Conditions shall apply
D - 6	[Option] Presentation of findings	T0+17m	MS Powerpoint	O	Redacted under FOIA exemption [REDACTED]	RCloud v4 Terms & Conditions shall apply
D - 7	[Option] Report containing details of the cost, benefits, strengths and weakness of the approach	T0+ 17m	MS Word	OS	A report containing: <ul style="list-style-type: none"> <li>• Executive summary,</li> <li>• demonstration approach,</li> <li>• findings from demonstration,</li> <li>• lessons learnt,</li> <li>• benefits and potential benefits identified (including cost &amp; time),</li> <li>• summary / conclusions and recommendations.</li> </ul>	RCloud v4 Terms & Conditions shall apply
D - 8	[Option] Roadmap for MOD exploitation	T0+ 17m	MS Excel	OS	Redacted under FOIA exemption [REDACTED]	RCloud v4 Terms & Conditions shall apply



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<b>1.7</b>	<b>Deliverable Acceptance Criteria</b>
	<p><b>General acceptance criteria:</b> RCloud v4 Terms &amp; Conditions shall apply.</p> <p><b>Specific deliverable acceptance criteria:</b></p> <p>Redacted under FOIA exemption</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p> <p>[Redacted]</p>

<b>2</b>	<b>Evaluation Criteria</b>
2.1	Method Explanation
	Based upon the criteria in 2.2, the T&E Futures project management and SME personnel will evaluate the proposal(s). As required, engagement with relevant SMEs within Dstl (e.g. from AI and Autonomy projects) will provide independent advice on any points of interest.
2.2	Technical Evaluation Criteria
	The technical questions shall be assessed and marked using the following scoring definitions

Serial	Question	Score
1	The proposal provides a clear and unambiguous statement of ability to conduct a live practical T&E demonstration at a UK active live T&E facility.	Pass / Fail
2	The proposal is based on, and demonstrates, the use of autonomous air systems	Pass / Fail
3	The proposal is based on and demonstrates an innovative synthetic approach	Pass / Fail
4	Access to suitable physical assets and resources (including active range area)	Pass / Fail
5	The proposal references and demonstrates the use of multi-levels of integration in the proposed solution	Pass / Fail
6	The proposed solution demonstrates the potential benefit across multiple domains (i.e. Land/Sea/Air)	Pass / Fail

2.3	Commercial Evaluation Criteria
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The commercial evaluation shall be assessed against the following Pass / Fail questions. Please note, a fail against any of the commercial questions will result in your proposal not being considered for Technical Evaluation.

Serial	Question	Score
1	The proposal is assessed by Dstl Commercial Services as offering value for money and is within the maximum threshold of £2m	Pass / Fail
2	The proposal has been submitted as a firm price for FY22/23 and ROM prices indicated for FY23/24.	Pass / Fail
3	Has the proposal included a completed RCloud Part C Task Response Form? (To include a firm price for FY22/23 and ROM prices for FY23/24)	Pass / Fail
4	Has the priced proposal been submitted in alignment with the RCloud pricing matrices?	Pass / Fail
5	Does the bidder accept the additional Terms & conditions as per the TF Part A section 3?	Pass / Fail