

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

Title of Requirement	TD4 – Autonomy T&E Technical Demonstrator
Requisition No.	1000167058
1.0	1.0

1.	Statement of Requirements
1.1	Summary and Background Information
	There is a requirement for MOD to perform Test and Evaluation (T&E) using a greater level of digitisation including synthetics. This is very relevant with respect to the T&E of autonomous platforms. The MOD is looking for innovative methods, which can be practically demonstrated, over T&E of autonomous systems within a synthetic environment of an existing range. In 2020/21, the T&E Futures programme within MOD FMC WECA, performed an investigation into T&E, to identify methods and techniques that can be used to achieve the future vision for T&E: <i>‘A Test and Evaluation Enterprise that harnesses the most capable and VfM elements of government, industry and international T&E that is dynamic, agile and primed to deliver Defence’s future technological, safety and operational challenges in order to maintain Operational Advantage.’</i> This investigation identified numerous opportunities to enhance T&E and one of the key opportunity areas was in the use of synthetics. The Dstl T&E Futures project plans to contract for Technical Demonstrators that identify and demonstrate the benefits that could be achieved through the greater use of synthetics within the evaluation of autonomous Unmanned Air Systems (UAS).
1.2	Requirement
	The requirement is to perform an innovative practical live technical demonstration of a synthetic approach for the evaluation of an autonomous air system. The demonstration is to be performed at a live active range with suitable terrain (representative of operational/land forces test environment) to permit the capture of the benefits, issues and costs of performing the approach and provide a roadmap for how MOD could exploit the approach. The intention is to start the task in Late August 2021 with a target end date of March 2022. It expected that there will be a need for the following meetings and presentations: • Kick-off meeting (face to face, if possible) • Monthly progress meetings • Pre demonstration meeting & presentation • Presentation at demonstration • Wash-up lessons learnt presentation

	The proposals can include elements of sub-contracting and a consortium approach may be applicable as the proposed solution may need a multi-disciplinary approach. The demonstration will need to take place on a live range within the UK with road access and with sufficient capacity for approximately 20 MOD staff at the demonstration. The following are the expected outputs: • Detailed plan for the demonstration • Technical demonstration of the approach • Presentation and report of the findings from the demonstration • Roadmap for MOD exploitation of the approach It is essential that the contractor takes an innovative approach that utilises new technology to enhance T&E assurance of autonomous systems to improve the agility of T&E. The following are the required deliverables: • Demonstration plan • Demonstration • Presentation of findings • Report containing details of the cost, benefits, strengths and weakness of the approach • Roadmap for MOD exploitation The following quality requires are specified for this requirement: • ISO9001 Quality Management Systems, and • TiCkITPlus Integrated approach to software and IT development
1.3	Options or follow on work <i>(if none, write 'Not applicable')</i>
	Dstl set out to confirm the potential requirement for a future demonstration event at a MOD wide demonstration day, such as Unmanned Warrior.
1.4	Contract Management Activities
	No specific activities identified, performance shall be assessed locally by the Dstl project Manager
1.5	Health & Safety, Environmental, Social, Ethical, Regulatory or Legislative aspects of the requirement
	No specific requirement identified

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	<u>Meetings and Reviews</u> - D1-A: Kick Off meeting - D1-B: Monthly Progress meetings - D1-C: Pre demonstration meeting & presentation - D1-D: Presentation at demonstration - D1-E: Wash-up lessons learnt presentation	T0 – Contract Start T0 + Monthly T0 + 5m T0+6m (NLT March 2022) T0+6m (NLT March 2022)	All deliverables are to be provided as a presentation (.pptx)	OFFICIAL	Presentation pack to include but not limited to: - Update on technical progress - Progress report against project schedule. - Review of risk management plan. - Commercial aspects. - Review of deliverables. - Risks/issues.	Default RCloud Agreement Terms and Conditions shall apply. All deliverables shall be provided as Full Rights Versions.
D2	Demonstration Plan	T0 +3m	MSP MS Word	OFFICIAL		Default RCloud Agreement Terms and Conditions shall apply. All deliverables shall be provided as Full Rights Versions.
D3	Demonstration Event	T0 +6m	N/A	OFFICIAL		

D4	Presentation of Findings	T0 +6m	MS PowerPoint	OFFICIAL		Default RCloud Agreement Terms and Conditions shall apply. All deliverables shall be provided as Full Rights Versions.
D5	Technical Report	T0 +6m	MS Word	OFFICIAL	The report shall contain, but not be limited to, details of the cost, benefits, strengths and weakness of the approach demonstrated under the task.	Default RCloud Agreement Terms and Conditions shall apply. All deliverables shall be provided as Full Rights Versions.
D6	Roadmap for MoD exploitation	T0 +6m	MS Excel	OFFICIAL		Default RCloud Agreement Terms and Conditions shall apply. All deliverables shall be provided as Full Rights Versions.

1.7	Deliverable Acceptance Criteria
	The following criteria shall apply to the specified deliverable(s): • <u>D2 Demonstration plan</u> ○ A detailed practical live demonstration plan that: contains a combination of synthetics and live elements within an autonomous air systems evaluation task. ○ Including Mobilisation, safety/environmental assessment, key resource requirements, resource contingency, critical path analysis. • <u>D3 Demonstration</u> ○ A live demonstration of the approach based on the D2 output. • <u>D4/5 Presentation & Report</u> ○ A delivered (in person) presentation of the findings from the demonstration. ○ A report containing: Executive summary, demonstration approach, findings from demonstration, lessons learnt, benefits and potential benefits identified (including cost & time), summary/conclusions and recommendations. • <u>D6 Roadmap</u> ○ A top-level roadmap of how MOD could adopt the approach in order to develop the benefits identified from the demonstration and assessment. The following requirement is applied to all deliverables: • All Reports included as Deliverables under the Contract e.g. Progress and/or Final Reports etc. must comply with the Defence Research Reports Specification (DRRS) @ https://www.gov.uk/guidance/submit-a-report-to-athena, which defines the requirements for the presentation, format and production of scientific and technical reports prepared for MOD. • Interim or Progress Reports: The report should detail, document, and summarise the results of work done during the period covered and shall be in sufficient detail to comprehensively explain the results achieved; substantive performance; a description of current substantive performance and any problems encountered and/or which may exist along with proposed corrective action. An explanation of any difference between planned progress and actual progress, why the differences have occurred, and if behind planned progress what corrective steps are planned. • Final Reports: shall describe the entire work performed under the Contract in sufficient detail to explain comprehensively the work undertaken and results achieved including all relevant technical details of any hardware, software, process or system developed there under. The technical detail shall be sufficient to permit independent reproduction of any such process or system.

2	Evaluation Criteria
2.1	Method Explanation
	The Tender evaluation utilises an absolute method, whereby a Value For Money (VfM) Index is applied to identify the preferred bidder. This approach divides the total score of the non-cost (Technical) criteria by the tender cost. It ranks tenders on the quality (represented by the non-cost score) for each £ (or £k or £m) of cost. An illustrative example is outlined below for reference purposes only:

	<table><tr><th>Tender</th><th>Non-Cost Score</th><th>Cost (£)[Thousand]</th><th>VfM Index Score</th><th>Rank</th></tr><tr><td>A</td><td>62</td><td>20</td><td>3.10</td><td>3</td></tr><tr><td>B</td><td>85</td><td>24</td><td>3.54</td><td>1</td></tr><tr><td>C</td><td>100</td><td>29</td><td>3.44</td><td>2</td></tr></table>	Tender	Non-Cost Score	Cost (£)[Thousand]	VfM Index Score	Rank	A	62	20	3.10	3	B	85	24	3.54	1	C	100	29	3.44	2																							
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2.2	Technical Evaluation Criteria																																											
	The technical evaluation shall be scored on the following questions, noting that any proposal that is marked as a Fail against Serial 1 or 2 shall not be considered for task award. <table><tr><th>Serial</th><th>Question</th><th>Weighting</th><th>Score</th></tr><tr><td>1</td><td>The proposal provided a clear and unambiguous statement of their ability to conduct a live practical T&E demonstration at a UK active live T&E facility.</td><td>N/A</td><td>Pass / Fail</td></tr><tr><td>2</td><td>The proposal is based on, and demonstrates, the use of autonomous air systems</td><td>N/A</td><td>Pass / Fail</td></tr><tr><td>3</td><td>The proposal is based on and demonstrates an innovative synthetic approach</td><td>30</td><td>0 to 10</td></tr><tr><td>4</td><td>The proposal demonstrates the use of novel analytic approaches in the proposed solution</td><td>30</td><td>0 to 10</td></tr><tr><td>5</td><td>The proposal references and demonstrates the use of multi-levels of integration in the proposed solution</td><td>20</td><td>0 to 10</td></tr><tr><td>6</td><td>The proposed solution demonstrates the potential benefit across multiple domains (i.e. Land/Sea/Air)</td><td>20</td><td>0 to 10</td></tr></table> The technical questions shall be assed and marked using the following scoring definitions <table><tr><th>Definition</th><th>Characteristics</th><th>Score</th></tr><tr><td>Excellent</td><td>The response addresses all elements of the requirement, and provides a comprehensive, unambiguous and thorough explanation of how the requirement will be fulfilled.</td><td>10</td></tr><tr><td>Good</td><td>The response addresses all of the elements of the requirement and provides sufficient detail and explanation of how the requirement will be fulfilled.</td><td>7</td></tr><tr><td>Adequate</td><td>The response addresses the majority of elements of the requirement but is weak in some areas and does not fully detail or explain how the requirement will be fulfilled.</td><td>3</td></tr><tr><td>Inadequate</td><td>The response does not address or explain how the requirement will be fulfilled and fails to demonstrate the ability to meet the requirement.</td><td>0</td></tr></table> Under the Technical Evaluation the maximum available weighted score is 1,000, under the VfM Index this score (Non-Cost) shall be divided by the cost of your proposal to generated the VfM Index Score.	Serial	Question	Weighting	Score	1	The proposal provided a clear and unambiguous statement of their ability to conduct a live practical T&E demonstration at a UK active live T&E facility.	N/A	Pass / Fail	2	The proposal is based on, and demonstrates, the use of autonomous air systems	N/A	Pass / Fail	3	The proposal is based on and demonstrates an innovative synthetic approach	30	0 to 10	4	The proposal demonstrates the use of novel analytic approaches in the proposed solution	30	0 to 10	5	The proposal references and demonstrates the use of multi-levels of integration in the proposed solution	20	0 to 10	6	The proposed solution demonstrates the potential benefit across multiple domains (i.e. Land/Sea/Air)	20	0 to 10	Definition	Characteristics	Score	Excellent	The response addresses all elements of the requirement, and provides a comprehensive, unambiguous and thorough explanation of how the requirement will be fulfilled.	10	Good	The response addresses all of the elements of the requirement and provides sufficient detail and explanation of how the requirement will be fulfilled.	7	Adequate	The response addresses the majority of elements of the requirement but is weak in some areas and does not fully detail or explain how the requirement will be fulfilled.	3	Inadequate	The response does not address or explain how the requirement will be fulfilled and fails to demonstrate the ability to meet the requirement.	0
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2.3	Commercial Evaluation Criteria																																											
	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. <table><tr><th>Serial</th><th>Question</th><th>Score</th></tr><tr><td></td><td>The proposal been submitted within the maximum available budget?</td><td>Pass / Fail</td></tr></table>	Serial	Question	Score		The proposal been submitted within the maximum available budget?	Pass / Fail																																					
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		[Dstl confirm the maximum available budget for this task is £480k Ex VAT]	
		The proposal has been submitted as a firm price	Pass / Fail
		Has the proposal included a completed RCloud Part C Task Response Form?	Pass / Fail
		Has the priced proposal been submitted in alignment with the RCloud pricing matrices?	Pass / Fail