

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

Title of Requirement	MAS Interoperability phase 2
Requisition No.	RQ0000007535
SoR Version	1.0

1.	Statement of Requirements
1.1	Summary and Background Information
	<ol style="list-style-type: none">1. Make the changes necessary to Neptune to implement new SCI-343 messages in readiness for a sea trial.2. Make the changes necessary to SeeTrack to implement SCI-343 messages in readiness for a sea trial.3. Provide continued technical support to the NATO Research Task Group SCI-343 where required.4. Provide technical support for interoperability approaches to support MAS MCM & ASW5. Option: provide support to a sea trial. <p>Research Task Group SCI-288 developed a message set and protocol that allowed squads of autonomous vehicles running different autonomy software to collaborate autonomously in an MCM mission. The work of SCI-288 culminated in a demonstration in a synthetic environment of vehicles running four different autonomy frameworks collaborating in an MCM mission. A follow-on activity, SCI-343, titled “Enabling Federated, Collaborative Autonomy” has been approved and commenced, formally, in March 2021. SCI-343 will mature the message set developed during SCI-288, define an architecture for encoding messages, take into consideration other applicable standards, and define a task library for a different mission profile (expected to be ASW in collaboration with SDI 1.1271). An aim is to demonstrate collaborative autonomy using SCI-343 at sea during REPMUS 2022.</p>
1.2	Requirement
	<ol style="list-style-type: none">1. The Contractor shall implement new messages agreed during SCI-343 in Neptune.2. The Contractor shall implement the SCI-343 message set in SeeTrack in order to allow use of SeeTrack as the central planner for sea trials.3. The implementation of the SCI-343 messages shall be sufficiently mature, robust, and well tested to allow the modified version of Neptune to be used on vehicles at sea with confidence and to allow SeeTrack to be used with confidence for mission planning.

	<ol style="list-style-type: none"> 4. The Contractor shall provide continued technical support to SCI-343 when required. This is likely to require participation in conference calls and remote simulation and testing of messages. It can be assumed that the level of participation will be similar to that required previously during SCI-343. 5. The Contractor shall implement any changes agreed by SCI-343 to the encoding of messages to a level suitable for input to a modem. 6. The Contractor shall provide documentation to cover how SCI-343 is implemented in Neptune and SeeTrack and a User Guide to cover use of Neptune and SeeTrack with SCI-343 messages. 7. The Contractor shall provide technical support to SDI 1.1271 when required. This is likely to require participation in conference calls and remote simulation and testing of messages. It can be assumed that the level of participation will be similar to that required previously during SCI-343.
1.3	Options or follow on work
	<p>Please provide a separate firm price for each of the three options.</p> <p>Option A</p> <ol style="list-style-type: none"> 1. The Contractor shall participate in an integration event with TTCP nations. It can be assumed that this will be a virtual event based from Dstl Portsmouth West and will last one week <p>Option B</p> <ol style="list-style-type: none"> 1. The Contractor shall participate in an integration event with other nations. It can be assumed that this will be in a European destination and will last one week. <p>Option C</p> <ol style="list-style-type: none"> 1. Support a sea trial demonstrating collaborative autonomy using SCI-343 messages. It can be assumed that the trial will take place as part of REPMUS 2022. The contractor can assume three days for integration in the trial location and one week for the trial. The Contractor shall provide an engineer and other staff, as necessary, to be present during the integration and trial periods. 2. The Contractor shall provide a trials report covering: a daily log; what was achieved; and any lessons learnt from the trial.
1.4	Contract Management Activities

	Monthly progress reports
1.5	Health & Safety, Environmental, Social, Ethical, Regulatory or Legislative aspects of the requirement
	N/A

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
D-1	Kick-off meeting	T0+10 days	Slide pack and minutes	[Redacted]	Meeting or conference call supported by presentation pack to include but not limited to: <ul style="list-style-type: none"> • Technical presentation • Commercial aspects. • Risks/issues. 	Default RCloud Agreement Terms and Conditions shall apply
D - 2	Monthly progress reports	Each month	Slide pack	[Redacted]	Conference call supported by presentation pack to include but not limited to: <ul style="list-style-type: none"> • Update on technical progress • Progress report against project schedule. • Commercial aspects. • Review of deliverables. • Risks/issues. 	Default RCloud Agreement Terms and Conditions shall apply
D - 3	Report	T0 + 10 months	MS Word or PDF	[Redacted]	Report to include: description of how SCI-343 messages have been implemented in Neptune and SeeTrack; evidence of testing carried out; and any caveats or assumptions made in the implementation.	Default RCloud Agreement Terms and Conditions shall apply

D – A1	Attend integration event	TBD	N/A	[Redacted]	Attend and support an integration event at Dstl with TTCP partners	Default RCloud Agreement Terms and Conditions shall apply
D – B1	Attend integration event	TBD	N/A	[Redacted]	Attend and support an integration event in Europe with NATO partners	Default RCloud Agreement Terms and Conditions shall apply
D – C1	Attend sea trial	TBD	N/A	[Redacted]	Attend and support a sea trial (likely to be REPMUS 22)	Default RCloud Agreement Terms and Conditions shall apply
D – A/B/C2	Trial report	End of trial + 1 month	MS Word or PDF	[Redacted]	Trial report to include: daily log; achievements; and lessons learnt	Default RCloud Agreement Terms and Conditions shall apply

1.7	Deliverable Acceptance Criteria
	<p>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) which defines the requirements for the presentation, format and production of scientific and technical reports prepared for MoD.</p> <ul style="list-style-type: none"> 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. <p>All Reports shall be free from spelling and grammatical errors and shall be set out in accordance with the Statement Of Requirement (1) herein.</p> <p>Failure to comply with the above may result in the Authority rejecting the deliverables and requesting re-work before final acceptance</p> <p>Specific Deliverable Acceptable Criteria</p> <p>Evidence that messages have been implemented and successfully tested.</p> <p>Participation in workups with NATO members.</p> <p>Participation in the trial and evidence that Neptune has successfully received messages, transmitted messages, and provided the correct responses.</p> <p>Outputs are in the form of presentations or brief technical memos.</p> <ul style="list-style-type: none"> They are not expected to be formally reviewed before release. <p>Deliverables are generally longer technical memos and reports that form a lasting record of the work and will be circulated amongst stakeholders to inform decision points and future direction.</p> <ul style="list-style-type: none"> They shall be subjected to rigorous technical and editorial review by The Contractor before formal issue to Dstl.

- Dstl may be able to provide feedback on interim drafts, if requested.
- Where a presentation is requested in conjunction with a document, the presentation component shall be a summary of the work, without the need to cover all details. Ordinarily, such presentations shall be delivered at the nearest subsequent QPR.
- Hardware, demonstrations and software are also classed as deliverables, due to their importance to the overall success of the project.
- All deliverables will be reviewed by Dstl within 30 days of receipt, after which an acceptance/rejection decision will be communicated. For a deliverable to be accepted it must address all of the specific requirements listed in the associated Work Package and deliverable description, together with the following general requirements:
 - The content shall cover the required scope.
 - The content shall be covered in sufficient depth to be convincing.
 - The content shall be technically consistent and accurate.
 - The content shall be clear and readable by non-specialists, with necessary supporting detail in Appendices.
 - The conclusions and recommendations shall be realistic and supported by the analysis.
 - Hardware and software deliverables shall have no licensing or usage restrictions of any kind unless agreed beforehand by Dstl, and all source code shall be provided.
 - Rejected deliverables shall have a new 30 day period for review by Dstl after receipt of the amended deliverable.

Requirements common to Outputs and Deliverables:

- Document outputs/deliverables shall be provided in native format (Microsoft Office 2010 or earlier) as well as PDF.
- Document outputs/deliverables shall comply with the Defence Research Reports Specification (DRRS) <http://www.dstl.gov.uk/athenareportsubmission>
- All source code, Excel spreadsheets and any other electronic calculation means used in any of the project's outputs/deliverables shall be delivered to Dstl with the output/deliverable and shall be commented with explanations and instructions.
- The Contractor shall use appropriate means to transmit electronic outputs/deliverables to Dstl with due consideration of classification, with e-mail as the preferred option.

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2	Evaluation Criteria
2.1	Method Explanation
	<p>The suppliers proposal shall be assessed on the following basis:</p> <ul style="list-style-type: none"> • Technical – assurance that the supplier has the technical capability to meet this single source requirement • Commercial – assurance that the supplier can meet the requested commercial requirements as detailed below <p>The placing of any contract will depend upon consideration of the proposal received and the Authority reserves the right, at its sole discretion, not to proceed to contract for any part or all of a contractors proposal. And if necessary, not to place any contract as a result.</p>
2.2	Technical Evaluation Criteria
	<p>The supplier shall provide evidence to demonstrate that they can meet the full requirement as outlined in section 1.2 of this SOR. This should be presented in a technical proposal redacting any commercially sensitive information.</p>
2.3	Commercial Evaluation Criteria
	<p>The supplier must provide their full FIRM price breakdown for all costs to be incurred to fulfil this requirement, including:</p> <ul style="list-style-type: none"> • What rates are being used for what Grade (using their respective R-Cloud Grades), • Quantity of manpower hours per Grade, • Materials costs • Facility costs • Any sub-contractor costs • Travel and subsistence costs • Any other costs applicable to this requirement. <p>The Authority will assess the proposal to ensure that all costs are fully detailed, in line with the R-Cloud rates and price shall be commensurate with the work to be undertaken.</p> <p>Please note the MOD operates a policy of No Acceptable Price No Contract (NAPNOC). The placing of any contract will depend upon consideration of the proposal received and the Authority</p>

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