Serapis Tasking Form

Tasking Form Part 1: *(to be completed by the Authority's Project Manager)*

To:	Lot 5 Newman & Spurr Consultancy Ltd	From:	The Authority - Dstl
Any Task placed as a result of your quotation will be subject to the Terms and Conditions of Framework Agreement Number: LOT 5 DSTL/AGR/SERAPIS/SSE/01			

VERSION CONTROL

V0.1

REQUIREMENT

Proposal Required by:	31/03/2023	Task ID Number:	SSE60
The Authority Project Manager:	Redacted - FOIA Exemption 40 - Personal Information	The Authority Technical Point of Contact:	Redacted - FOIA Exemption 40 - Personal Information
Task Title:	Lance Campaign Model Development		
Required Start Date:	01/04/2023	Required End Date:	31/03/2024
Requisition No:	RQ0000028148	Budget Range	Up to £1m (£666k with options)

TASK DESCRIPTION AND SPECIFICATION

Serapis Framework Lot	☐ Lot 1: Collect ☐ Lot 2: Space systems ☐ Lot 3: Decide ☐ Lot 4: Assured information infrastructure ☒ Lot 5: Synthetic environment and simulation ☐ Lot 6: Understand

Statement of Requirements (SOR)

Overview

This task is for an Agile software development team to continue working to create the new campaign level simulation model called Lance. This task is a continuation of previous tasks; SSE7, SSE27, SSE43 and SSE54. This contract will be on an ascertained costs basis, up to a Limit of Liability of £1m, with a rolling breakpoint of 2 sprints-length, until contract end at the end of FY 2023-2024. If all the funding is not received prior to contract placement, a core amount will be placed with options to activate as additional funds are received.

The software development team will continue to be a collaborative effort between QinetiQ Training & Simulation Ltd (QTSL) and Dstl staff. QTSL will continue to provide the Scrum Master, and Dstl will act in the Product Owner role. The definition of "Done" will remain as already agreed by the team, and quality standards equivalent to TickITplus are to be met. This contract will deliver Lance v3.0 and support for amendments as they are identified. Development work on Lance v3.0 will be managed using the Scrum agile method. Areas of

the Backlog prioritised for development will be the completion of Land and Maritime domains to make Lance ready to support PFT10 and fixing issues identified from the first use of Lance in PFT9.

The previous vision for this task remains: to develop a campaign-level joint warfighting model that will enable analysts to assess the effectiveness of force structures within scenarios. The model will simulate C2, ISTAR and kinetic effects through the multi-domain interactions between air, land, maritime, space and joint force elements. Redacted - FOIA Exemption 26 - Defence   The model will be quick to run, intuitive and engaging, with analytically accurate outputs. In order to help analysts assess the effectiveness of force structures within scenarios, the model will simulate warfare to discover "what it takes to win" (WITTW) in a particular situation of interest. WITTW might include: the ability of particular force to achieve the military objectives set; time taken to achieve the objectives; losses of different types of asset for both the red and blue forces; casualties; other costs such as fuel and munitions consumed. Modelling is expected to help the analyst to understand what factors drive these outcomes and also what risks are involved.

The product of this task remains: a campaign-level model, and therefore needs to represent large numbers of Force Elements (FEs) in a simplified or aggregated format. It will rely on input data such as look up tables generated by other more detailed models to determine the outcomes of combat interactions between FEs.

Requirements

This task is for the continued development of a new campaign level model Lance. The development uses the SCRUM implementation of the Agile methodology. There will be rolling a breakpoint of 2 sprints-length, which means that notice can be given at the end of one sprint that the contract will pause/cease after the following 2 sprints.

This contract is expected to continue on the same ascertained costs basis, up to a Limit of Liability of £1m, with a rolling breakpoint of 2 sprints-length, during FY2023-2024. Initial contract will be placed with options as follows;

Base contract: Current developers (x4) plus PM for whole year (estimated cost of £719k)

Option 1: New developer (plus PM), starting on 3rd Jul 2023 (estimated cost of £169k)

Option 2: New developer (plus PM), starting on 2nd Oct 2023 (estimated cost of £113k)

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The task is for collaborative working in a software development team with Dstl staff. Dstl will continue to provide the Product Owner and 2-3 software developers at approx. 70% utilisation. A similar level of effort is expected as a minimum from other members of the software development team.

The specific role of Scrum Master is to be provided as part of the contract, to define the sprint rhythm, and ensure it is maintained along with all the associated ceremonies and artefacts.

Tech standards

OVERVIEW

Quality standards equivalent to TickITplus for software are to be met.

The development is to be in a framework that allows open competition for future maintenance of the model.

Top level requirements will be captured using User Stories[1], and it is expected that these will be refined into tasks and issues through discussions between the Product Owner and the Development Team. Tasks and issues are expected to be managed through Azure DevOps or equivalent. Configuration management will be undertaken using Git, and using a Git branching strategy agreed by the team.

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[1] https://www.gov.uk/service-manual/agile-delivery/writing-user-stories

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Coding standards will be agreed for final delivery, along with user defined performance. To allow fast and flexible delivery the specific performance and coding standards to be met for a sprint will be agreed during sprint planning.

Delivery of software will include containerised versions of the software, including recipe / compose files. Due to the potential requirement to scale, a Linux base is expected.

SOFTWARE PLATFORM

The model will need to run in a range of environments, including Dstl's corporate networks, high performance computers (HPCs) and Dstl's cloud computing service, D-cloud, at multiple classifications. Some use cases will require the model to run from a stand-alone laptop or isolated LAN.

Dstl's IT infrastructure is likely to change substantially over the lifetime of the model, so the IT solution needs to be flexible rather than targeted specifically at existing corporate systems.

To enable this Lance uses containers.

SOFTWARE LANGUAGE/ENVIRONMENT

Lance makes maximum use of appropriate COTS and open source frameworks. The following criteria apply to the choice of technology:

- Open and widely used framework – i.e. no proprietary frameworks;

- Long likely longevity to enable backward compatibility and long-term maintenance;

- Minimal licence costs;

- Appropriate for use on secure defence systems – i.e. no requirement for internet connection or other security issues.

The software development standard is expected to follow industry norms, with full use of version control tools, appropriate coding standards, modular development and unit-tested modules.

COLLABORATION

For team collaboration, there should be connectivity over open networks, such as using a Azure DevOps repository for storage of code.

SECURITY

The tool itself is expected to be Redacted - FOIA Exemption 24 - National Security but the contractor may need to be able to work at Redacted - FOIA Exemption 24 - N to have access to the actual data sources that need to be integrated. The discussions about the purpose of the tool and a full understanding of what it needs to achieve are likely Redacted - FOIA Exemption 24 - National Security. The Dev Team may be required to help debug models running on classified networks, this is likely to be led by Dstl members of the team, but may require assistance from the industry members.

Deliverables

Progress reporting at the end of each sprint, in the format of updated issues log /artefacts. Also working executable code, and its source code, is to be delivered at the end of each sprint. The performance standard for code (loading time, running time, outputs) to be as defined by the development team.

Procurement Strategy

☐ Lot Lead to recommend　　　　☒ Single Source / Direct Award

Pricing:

☐ Firm Pricing　　　☒ Ascertained Costs*　　　☐ Other*

Firm Pricing shall be in accordance with DEFCON 127 and DEFCON 643

Ascertained Costs shall be in accordance with DEFCON 653 or DEFCON 802.

*only at Authority's discretion

Task IP Conditions

Task IP Conditions (Follow the NIPPY guide to identify your information and IP requirements for each deliverable)	Summary of the Authority's rights in foreground IP (IP generated by the supplier in performance of the contract)
DEFCON 703 ☒	Vests ownership with the Authority
DEFCON 705 Full Rights ☐	Enables MOD to share in confidence as GFI or IRC under certain types of agreements. Can be shared in confidence within UK Government.
OTHER IP DEFCONS: 14*☐, 15*☐, 16*☐, 90*☐, 91*☒, 126*☐	Generally only suitable for deliverables at TRL 6 and above.
BESPOKE IP Clause ☐ *	Details to be added and agreed by IP Group

* Do not use without IPG advice and approval

Please state in this text box if MOD or the customer has a requirement a) that one or more Other Government Departments is able to share confidentially with their own suppliers, b) to publish but you do not think there is a requirement to own or control the deliverable, or c) to share under a procurement* Memorandum of Understanding (MOU).   *If any of these three issues applies, please contact IPG for advice before completing this form. *Listing research MOUs is not required, but can be a helpful courtesy to the supplier.*

DELIVERABLES

Ref	Title	Due by	Format	TRL	Expected classification	Information required in deliverable	IPR DEFCON
	Product Backlog, Sprint Backlog, and Product Increment (as artefacts defined by Scrum). Also executable code.	At the end of each 3-week sprint	*Redacted - FOIA Exemption 24 - National Security*			These are to be updated / delivered at the end of each sprint. Performance criteria for the code will be specified and agreed by the software development team.	703
	Lance v3.0	June 2023 (depending on funding)	*Redacted - FOIA Exemption 24 - National Security*			Deadline based on full funding being available at the start of the contract.	703
	Lance v3.x	As required	*Redacted - FOIA Exemption 24 - National Security*			Further versions of the model delivered as amendments / bug fixes are completed. The precise nature of this work will be prioritised with the customer and development team using the Agile method.	703

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DELIVERABLE: ACCEPTANCE / REJECTION CRITERIA

Unless otherwise stated below, Standard Deliverable Acceptance / Rejection applies. This is 30 business days, in accordance with DEFCON 524 Rejection, and DEFCON 525 Acceptance.

Standard Deliverable Acceptance / Rejection:-

Yes ☐ (DEFCON 524 Rejection, and DEFCON 525 Acceptance)

No ☒ (if no, please state details of applicable criteria below)

Deliverable Acceptance / Rejection Criteria:-

Scrum defines the set of 3 primary artefacts to be delivered at the end of each Sprint, which must meet the software development team's agreed definition of Done.

Government Furnished Assets (GFA)

ISSUE OF EQUIPMENT/RESOURCES/INFORMATION/FACILITIES

Unique Identifier/ Serial No	Description	Classification	Type	Available Date	Issued by	Return or Disposal Date	Any restrictions?
1	Product Owner	N/A	Staff	01/04/2023	Dstl	31/03/2024	N/A
2	Software developers	N/A	Staff x2	01/04/2023	Dstl	31/03/2024	N/A
3	User Stories (as defined by Scrum)	Official	GFI	01/04/2023	Dstl	31/03/2024	N/A
4	Algorithms for combat or sensing interactions derived from previous combat models, as appropriate.	Official	GFI, provided in logic rather than in code.	01/04/2023	Dstl	31/03/2024	N/A

QUALITY STANDARDS

☐ **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 in free text below)

SECURITY CLASSIFICATION OF THE WORK

The highest classification of this SOR

Redacted - FOIA Exemption 24 - National Security

The highest expected classification of the work carried out by the contractor

Redacted - FOIA Exemption 24 - National Security

The highest expected classification of Deliverables/Output

Redacted - FOIA Exemption 24 - National Security

Is a Security Aspects Letter (SAL) required? *(A Security Aspects Letter (SAL) will be required for each Task above Official-Sensitive and above)*

Redacted - FOIA Exemption 24 - National Security

TASK CYBER RISK ASSESSMENT. *(In accordance with [DEF STAN 05-138](#) and the [Risk Assessment Workflow](#))*	
Cyber Risk Level	Redacted - FOIA Exemption 26 - Defence
Risk Assessment Reference	Redacted - FOIA Exemption 26 - Defence

ADDITIONAL TERMS AND CONDITIONS APPLICABLE TO THIS CONTRACT

Please ensure all completed forms are copied to DSTLSERAPIS@dstl.gov.uk when sending to the Lot Lead.

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Tasking Form Part 2: *(To be completed by the Lot Lead)*

To:	The Authority	From:	The Lot Lead

Proposal Reference   QTSL-820-2243   **(attached)**

Delivery of the requirement:

The proposal shall include, but not be limited to:

- A full technical proposal that meets the individual activities that are detailed in Statement of Requirements (Part 1 to Tasking Form).
- Breakdown of individual Deliverables, with corresponding Intellectual Property rights applied.
- Breakdown of Interim Milestone Payments, with corresponding due dates.
- A work breakdown structure/project plan with key dates and deliverables identified.
- A list of required Government Furnished Assets from the Authority, including required delivery dates.
- A clear identification of Dependencies, Assumptions, Risks and Exclusions which underpin your Technical Proposal.
- Sub-Contractors Personnel Particulars Research Worker Form and security clearances (if applicable)

PRICE BREAKDOWN

You are to use the costs detailed in Item 2 Table I in the Schedule of Requirement and at Annex E Table 2 of the Serapis Framework Agreement. Please also provide a price breakdown which should include, but is not limited to: Lot Lead Rates, Sub-contractors costs and rates, travel and subsistence. In support of your Proposal you are requested to provide clear details of all Dependencies, Assumptions, Risks and Exclusions that underpin your price.

Offer of Contract: *(to be completed and signed by the Contractor's Commercial or Contract Manager)*

Total Proposal Price in £	£ 499,998.88 (Core) £ 566,361.85 (Options)		(ex VAT)
Start Date:	01/04/23	**End Date:**	31/03/24
Lot Leads Representative	Name	Redacted - FOIA Exemption 40 - Personal Information	
	Tel	Redacted - FOIA Exemption 40 - Personal Information	
	Email	Redacted - FOIA Exemption 40 - Personal Information	
	Date	29/03/23	
Position in Company	Redacted - FOIA Exemption 40 - Personal Information		
Signature			

The rates and prices presented in this tasking form are based on our current agreed rates which are valid until July 2023 only. Any work beyond this date will therefore be subject to review and amended to include any agreed rates uplift as set out under Clause 8 (Variation in Price) in the Serapis Framework Agreement LOT 5 DSTL/AGR/SERAPIS/SSE/01.

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<u>Core Work & Option Breakdown – Ascertained Costs: Monthly Invoicing</u>

Proposed Payments

Invoices will be raised monthly in arrears based on the effort expended to date. The total value invoiced will not exceed the overall Limit of Liability for the task.

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Tasking Form Part 3:

To be completed by the Authority's Commercial Officer and copied to the Authority's Project Manager.

1. **Acceptance of Contract:**		
Authority's Commercial Officer	Name	Redacted - FOIA Exemption 40 - Personal Information
	Tel	Redacted - FOIA Exemption 40 - Personal Information
	Email	Redacted - FOIA Exemption 40 - Personal Information
	Date	05/04/2023
Requisition Number		RQ0000028148
Contractor's Proposal Number		QTSL-820-2243
Purchase Order Number		DSTL0000015690
Signature		Redacted - FOIA Exemption 40 - Personal Information
Please Note: Task authorisation to be issued by the Authority's Commercial Officer or Contract Manager. Any work carried out prior to authorisation is at the Contractor's own risk.		

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