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Opportunity

702596452 - Alternative Navigation - Data Merging

Ministry of Defence

F17: Contract notice for contracts in the field of defence and security

Notice reference: 2022/S 000-003325

Published 4 February 2022, 10:45pm

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Section I: Contracting authority/entity

I.1) Name, addresses and contact point(s)

Ministry of Defence
MOD Abbey Wood, Spruce 1c
Bristol
BS34 8JH

For the attention of

Shields Thomas

Email(s)

Thomas.Shields101@mod.gov.uk

Country

United Kingdom

Internet address(es)

General address of the contracting authority/entity

<https://des.mod.uk/> (<https://des.mod.uk/>)

Further information

Further information can be obtained from the above mentioned contact point(s)

Specifications and additional documents (including documents for competitive dialogue and a dynamic purchasing system) can be obtained from

The above-mentioned contact point(s)

Tenders or requests to participate must be sent to

The above-mentioned contact point(s)

I.2) Type of the contracting authority

Ministry or any other national or federal authority, including their regional or local subdivisions

I.3) Main activity

Defence

I.4) Contract award on behalf of other contracting authorities/entities

The contracting authority is purchasing on behalf of other contracting authorities:

No

Section II: Object of the contract

II.1) Description

II.1.1) Title attributed to the contract by the contracting authority

702596452 - Alternative Navigation - Data Merging

II.1.2) Type of contract and location of works, place of delivery or of performance

Services

Service category No 14: Research and development services and evaluation tests

Main site or location of works, place of delivery or of performance

MOD Abbey Wood, Bristol BS34 8JH

NUTS code

- UK - United Kingdom

II.1.5) Short description of the contract or purchase(s)

The aim of this procurement is to award two contracts within the budgetary envelope set out in the notice. The military relies heavily on the Global Navigation Satellite Systems (GNSS) for positioning, navigation, and timing (PNT), but GNSS signals are vulnerable to interference. In addition, many environments in which our military operates (inside buildings, in urban canyons, under dense foliage, underwater, and underground) have limited or no GNSS signal availability. To solve this challenge, the Alt Nav programme seeks to provide GNSS-quality PNT to military users regardless of the operational environment. This involves the merging of data within the navigation system design to prolong the availability of the PNT solution from traditional and emerging sources. The Data Merging task is the subject of this competition.

The proposed contractor(s) shall attend project management meetings to discuss information inclusive of but not limited to progress on technology development, exploitation studies, lessons learnt, details of architecture. The proposed contractor(s) shall provide a technology demonstration proving maturation of data

merging technology to a Technology Readiness Level (TRL) of 6 (TRL descriptions can be seen in VI.3 additional information within this contract notice), followed by a technical report for contract completion. The project meetings, final report and demonstration will address the following themes:

Theme 1 - Preparing for near-term exploitation of Alt Nav technologies on existing MoD applications; defining and solving the engineering orientated problems of real-life examples of Data Merging and Theme 2 - Reporting lessons learned from the first task into MoD's ongoing Data Fusion Research and Development activities. In the event that Data Source contractor(s) are not able to mature the Interface Control Documentation (ICD) on time – work with the Authority to select appropriate, industry standard ICDs and data fields e.g:

- Mil GPS - GPS ICD-153 (available from the UK GNSS PO)
- Open Signal GNSS - NMEA-0183
- Inertial Measurement Unit - STANAG 4572 Open System Architecture Interface to enable simulator laboratory testing of integrated INS/GPS equipment (e.g. using SPIRENT's Sim INERTIAL simulation capability (or equivalent)).
- Alt Nav Data Source - The ASPN interfaces from SET-309
- Illustrative Alt Nav Data source – based on STANAG 4278 Method of Expressing Navigation Accuracies and Draft STANAG 5645 GNSS Receiver Sensor Host ICD.
- The MoD's emerging Assured PNT characteristics

II.1.6) Common procurement vocabulary (CPV)

- 73410000 - Military research and technology

II.1.7) Information about subcontracting

The tenderer has to indicate in the tender any share of the contract it may intend to subcontract to third parties and any proposed subcontractor, as well as the subject-matter of the subcontracts for which they are proposed

The tenderer has to indicate any change occurring at the level of subcontractors during the execution of the contract

II.1.8) Lots

This contract is divided into lots: No

II.1.9) Information about variants

Variants will be accepted: No

II.2) Quantity or scope of the contract

II.2.1) Total quantity or scope

The aim of this procurement is to award two contracts within the budgetary envelope set out in the notice. The military relies heavily on the Global Navigation Satellite Systems (GNSS) for positioning, navigation, and timing (PNT), but GNSS signals are vulnerable to interference. In addition, many environments in which our military operates (inside buildings, in urban canyons, under dense foliage, underwater, and underground) have limited or no GNSS signal availability. To solve this challenge, the Alt Nav programme seeks to provide GNSS-quality PNT to military users regardless of the operational environment. This involves the merging of data within the navigation system design to prolong the availability of the PNT solution from traditional and emerging sources. The Data Merging task is the subject of this competition.

The proposed contractor(s) shall attend project management meetings to discuss information inclusive of but not limited to progress on technology development, exploitation studies, lessons learnt, details of architecture. The proposed contractor(s) shall provide a technology demonstration proving maturation of data merging technology to a Technology Readiness Level (TRL) of 6 (TRL descriptions can be seen in VI.3 additional information within this contract notice), followed by a technical report for contract completion. The project meetings, final report and demonstration will address the following themes:

Theme 1 - Preparing for near-term exploitation of Alt Nav technologies on existing MoD applications; defining and solving the engineering orientated problems of real-life examples of Data Merging and Theme 2 - Reporting lessons learned from the first task into MoD's ongoing Data Fusion Research and Development activities. In the event that Data Source contractor(s) are not able to mature the Interface Control Documentation (ICD) on time – work with the Authority to select appropriate, industry standard ICDs and data fields e.g:

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- The MoD's emerging Assured PNT characteristics

Estimated value excluding VAT:

£1,475,916

II.2.2) Information about options

Options: No

II.2.3) Information about renewals

This contract is subject to renewal: No

II.3) Duration of the contract or time limit for completion

Start date: 13 May 2022

End date: 2 January 2023

Section III. Legal, economic, financial and technical information

III.1) Conditions relating to the contract

III.1.4) Other particular conditions to which the performance of the contract is subject, in particular with regard to security of supply and security of information

The performance of the contract is subject to Contractor being able to hold information up to SECRET and obtaining Facility Security Clearance (previously known as List-X). Personnel performing the contract will also require Security Check (SC) at Contract Award.

III.1.5) Information about security clearance

Candidates which do not yet hold security clearance may obtain such clearance until: 13 May 2022

III.2) Conditions for participation

III.2.1) Personal situation

Criteria regarding the personal situation of economic operators (that may lead to their exclusion) including requirements relating to enrolment on professional or trade registers

Information and formalities necessary for evaluating if the requirements are met:
Suppliers Instructions How to Express Interest in this Tender:

1. Register your company on the eSourcing portal (this is only required once)

- Browse to the eSourcing Portal
- Click the "Click here to register" link
- Accept the terms and conditions and click "continue"
- Enter your correct business and user details

- Note the username you chose and click "Save" when complete
- You will shortly receive an email with your unique password (please keep this secure)

2. Express an Interest in the tender

- Login to the portal with the username/password
- Click the "PQQs Open to All Suppliers" link. (These are Pre-Qualification Questionnaires open to any registered supplier)
- Click on the relevant PQQ to access the content.
- Click the "Express Interest" button in the "Actions" box on the left-hand side of the page.
- This will move the PQQ into your "My PQQs" page. (This is a secure area reserved for your projects only)
- Click on the PQQ code, you can now access any attachments by clicking the "Settings and Buyer Attachments" in the "Actions" box

3. Responding to the tender

- You can now choose to "Reply" or "Reject" (please give a reason if rejecting)
- You can now use the 'Messages' function to communicate with the buyer and seek any clarification
- Note the deadline for completion, then follow the onscreen instructions to complete the PQQ
- There may be a mixture of online & offline actions for you to perform (there is detailed online help available)

If you require any further assistance please consult the online help, or contact the eTendering help desk.

Criteria regarding the personal situation of subcontractors (that may lead to their rejection) including requirements relating to enrolment on professional or trade registers

Information and formalities necessary for evaluating if the requirements are met:
Suppliers Instructions How to Express Interest in this Tender:

1. Register your company on the eSourcing portal (this is only required once)
 - Browse to the eSourcing Portal
 - Click the "Click here to register" link
 - Accept the terms and conditions and click "continue"

- Enter your correct business and user details
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If you require any further assistance please consult the online help, or contact the eTendering help desk.

III.2.2) Economic and financial ability

Criteria regarding the economic and financial standing of economic operators (that may lead to their exclusion)

Information and formalities necessary for evaluating if the requirements are met: Contained within the PQQ.

Minimum level(s) of standards possibly required: Contained within the PQQ.

Criteria regarding the economic and financial standing of subcontractors (that may lead to their exclusion)

Information and formalities necessary for evaluating if the requirements are met:
Contained within the PQQ.

Minimum level(s) of standards possibly required: Contained within the PQQ.

III.2.3) Technical and/or professional capacity

Criteria regarding the technical and/or professional ability of economic operators (that may lead to their exclusion)

Information and formalities necessary for evaluating if the requirements are met:
Contained within the PQQ.

Minimum level(s) of standards possibly required: Contained within the PQQ.

Criteria regarding the technical and/or professional ability of subcontractors (that may lead to their rejection)

Information and formalities necessary for evaluating if the requirements are met:
Contained within the PQQ.

Minimum level(s) of standards possibly required: Contained within the PQQ.

III.3) Conditions specific to services contracts

III.3.1) Information about a particular profession

Execution of the service is reserved to a particular profession: No

Section IV: Procedure

IV.1) Type of procedure

IV.1.1) Type of procedure

Restricted

IV.1.2) Limitations on the number of operators who will be invited to tender or to participate

Envisaged minimum number 3 and maximum number 10

Objective criteria for choosing the limited number of candidates: Contained within the PQQ.

IV.1.3) Reduction of the number of operators during the negotiation or dialogue

Recourse to staged procedure to gradually reduce the number of solutions to be discussed or tenders to be negotiated: no

IV.2) Award criteria

IV.2.1) Award criteria

the criteria stated in the specifications, in the invitation to tender or to negotiate or in the descriptive document

IV.2.2) Information about electronic auction

An electronic auction has been used: no

IV.3) Administrative information

IV.3.1) File reference number attributed by the contracting authority

702596452

IV.3.2) Previous publication(s) concerning the same contract

no

IV.3.3) Conditions for obtaining specifications and additional documents or descriptive document

Time limit for receipt of requests for documents or for accessing documents: 7 March 2022 - 12:00pm

Payable documents: no

IV.3.4) Time limit for receipt of tenders or requests to participate

7 March 2022 - 12:00pm

IV.3.6) Language(s) in which tenders or requests to participate may be drawn up

English

Section VI: Complementary information

VI.1) Information about recurrence

This is a recurrent procurement: No

VI.2) Information about European Union funds

The contract is related to a project and/or programme financed by European Union funds: No

VI.3) Additional information

The Contracting Authority intends to use an e-Tendering system in this procurement exercise, please visit www.contracts.mod.uk (<https://www.contracts.mod.uk>) for full details and to register your interest in this procurement.

Technology Readiness Level Descriptions:

TRL 1 Basic principles observed and reported.

TRL 2 Technology concept and/or application formulated.

TRL 3 Analytical and experimental critical function and/or characteristic proof-of-concept.

TRL 4 Technology basic validation in a laboratory environment.

TRL 5 Technology basic validation in a relevant environment.

TRL 6 Technology model or prototype demonstration in a relevant environment.

TRL 7 Technology prototype demonstration in an operational environment.

TRL 8 Actual Technology completed and qualified through test and demonstration.

TRL 9 Actual Technology qualified through successful mission operations.

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