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Tender

Project JUNO

Ministry of Defence

F02: Contract notice
Notice identifier: 2023/S 000-012051
Procurement identifier (OCID): ocds-h6vhtk-03c481
Published 26 April 2023, 5:00pm

The closing date and time has been changed to:

30 May 2023, 5:00pm

See the change notice.

Section I: Contracting authority

I.1) Name and addresses

Ministry of Defence

Space Delivery Team, Spruce 1C, MoD Abbey Wood

Bristol

BS34 8JH

Contact

Mr Douglas Kershaw

Email

douglas.kershaw102@mod.gov.uk

Country

United Kingdom

Region code

UK - United Kingdom

Internet address(es)

Main address

https://contracts.mod.uk/esop/guest/go/opportunity/detail?opportunityId=55334

Buyer's address

https://contracts.mod.uk/esop/guest/go/opportunity/detail?opportunityId=55334

I.3) Communication

Access to the procurement documents is restricted. Further information can be obtained at

https://contracts.mod.uk/esop/guest/go/opportunity/detail?opportunityId=55334

Additional information can be obtained from the above-mentioned address

Tenders or requests to participate must be submitted electronically via

https://contracts.mod.uk/esop/guest/go/opportunity/detail?opportunityId=55334

Tenders or requests to participate must be submitted to the above-mentioned address

I.4) Type of the contracting authority

Ministry or any other national or federal authority

I.5) Main activity

Defence

Section II: Object

II.1) Scope of the procurement

II.1.1) Title

Project JUNO

II.1.2) Main CPV code

- 34712000 - Spacecraft, satellites and launch vehicles

II.1.3) Type of contract

Supplies

II.1.4) Short description

The JUNO mission is one of the space missions of the MINERVA programme. The Authority expects the JUNO R&D satellite to enable MOD to advance UK MOD-owned space-based ISR (SBISR) capability, providing electro-optical imagery to UK and allied researchers, to enhance UK SBISR expertise, credibility and interoperability.

II.1.5) Estimated total value

Value excluding VAT: £40,000,000

II.1.6) Information about lots

This contract is divided into lots: No

II.2) Description

II.2.2) Additional CPV code(s)

- 34712200 - Satellites
- 35631200 - Observation satellites

II.2.3) Place of performance

NUTS codes

- UK - United Kingdom

II.2.4) Description of the procurement

Background: In support of the UK Defence Space Strategy, the Integrated Space Game Changer (ISGC) outlines the need for the UK to have “a secure, robust, resilient, integrated Space domain information architecture to operate within and utilise information from the Space domain to maximise the utility of the Space domain and protect it and our information from the adversary”.

The foundations of this ISGC architecture will be developed and delivered under the MINERVA Programme. The MINERVA Research and Development (R&D) programme will demonstrate Tasking, Collection, Processing and Dissemination of Intelligence, Surveillance and Reconnaissance (ISR) data from space through the development, delivery and operation of satellites.

The JUNO mission is one of the space missions of the MINERVA programme. The Authority expects the JUNO R&D satellite to enable MOD to advance UK MOD-owned space-based ISR (SBISR) capability, providing electro-optical imagery to UK and allied researchers, to enhance UK SBISR expertise, credibility and interoperability.

The JUNO satellite will include a high resolution electro-optical imager to deliver SBISR to support Defence activities. The JUNO satellite will be capable of demonstrating the ability to be integrated into MOD’s ISTARI ground architecture and to be capable of demonstrating interoperability with Allied ground assets. The JUNO satellite will investigate and demonstrate the ability to conduct multiple mission sets within the bounds of the satellite capabilities and without compromising the SBISR mission. The JUNO satellite could enable greater data delivery and processing through Inter-Satellite links and On-Board Processors. The JUNO satellite provides an opportunity to establish use cases in support of the Defence Space Strategy’s SDA direction towards detection, tracking, characterisation and attribution of Resident Space Objects (RSO’s) to provide an increased understanding of the domain and threats to UK critical systems. The JUNO high resolution electro-optical imaging satellite has the potential to be utilised for multiple space missions including a secondary Space Domain Awareness (SDA) mission to provide resolved space-to-space imagery to demonstrate characterization capabilities against other RSO’s in different orbital regimes. Hosted SDA payloads on-board the JUNO satellite could enable development of the UK’s SDA capability.

Aims: The JUNO System aims are expressed as four high level goals:

• Goal 1: Develop, launch and operate a UK-MOD owned electro-optical satellite within budget and schedule constraints.

• Goal 2: Demonstrate collaborative Space ISR development and operation with allies.

• Goal 3: Enable UK access and utilisation of Allied space systems ground architectures as a demonstrator for military operations.

• Goal 4: Investigate the ability to utilize hosted payloads that would expand the mission set that the satellite could be used for.

Within these goals a high priority for the JUNO system is the ability to collect panchromatic and multispectral data on an area of interest specified by Authority Users and to then process and deliver the data to the Authority to required standards with operational freedom of action. A second high priority for the system is its ability to perform R&D which will inform subsequent options analysis and future development.

Further options will include mission operations, training and support (per year) for a further 6 years; mission integration and implementation to the ground architecture; further details will be in the ITN.

For further information on the ISTARI Programme, see “Defence Space Strategy: Operationalising the Space Domain”,, UK Gov, Feb 22 , and “Press Release: UK cutting-edge space defence backed by £1.4 billion”, UK”, UK Gov, 1 Feb 22.

The JUNO procurement will be run at OFFICIAL SENSITIVE up to and including SECRET. The potential provider must have the ability to process, store and transmit classified information at OFFI

II.2.5) Award criteria

Price is not the only award criterion and all criteria are stated only in the procurement documents

II.2.7) Duration of the contract, framework agreement or dynamic purchasing system

Duration in months

44

This contract is subject to renewal

No

II.2.10) Information about variants

Variants will be accepted: Yes

II.2.11) Information about options

Options: Yes

Description of options

Up to 6 one-year options to include mission operations, training, and support. Additional options include, secondary payload options, mission integration and implementation to the ground architecture; further details will be in the ITN.

II.2.13) Information about European Union Funds

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

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Section IV. Procedure

IV.1) Description

IV.1.1) Type of procedure

Competitive procedure with negotiation

IV.1.3) Information about a framework agreement or a dynamic purchasing system

The procurement involves the establishment of a framework agreement

Framework agreement with several operators

Envisaged maximum number of participants to the framework agreement: 4

IV.1.8) Information about the Government Procurement Agreement (GPA)

The procurement is covered by the Government Procurement Agreement: No

IV.2) Administrative information

IV.2.2) Time limit for receipt of tenders or requests to participate

Originally published as:

Date

29 May 2023

Local time

5:00pm

Changed to:

Date

30 May 2023

Local time

5:00pm

See the change notice.

IV.2.4) Languages in which tenders or requests to participate may be submitted

English

Section VI. Complementary information

VI.1) Information about recurrence

This is a recurrent procurement: No

VI.3) Additional information

JUNO System:

• The Core Contract, constitutes a JUNO solution, envisioned as an Electro-Optical imaging satellite that the Supplier shall operate. To deliver the system, a full end-to-end solution, with adequate pan-Defence Lines of Development (DLOD) coverage, is required including inter alia; design, development, manufacture, assembly, integration, test, launch, commissioning, operations and, support to experimentation..

• Secondary Payload Options, constitutes the same JUNO solution with additional satellite payload opportunities that consider at least one of the following:

o Application of the Primary Electro-Optical Imaging Payload to Space Domain Awareness (SDA) collection taskings, such that the EO imager can be used for non-Earth pointing image collection tasks, whilst always maintaining primary payload integrity.

o Space Domain Awareness (SDA) hosted payloads, where additional sensors that provide SDA mission data could be incorporated onto the space-craft to enable the Juno satellite to conduct a multi-mission approach to data collection from space.

o RF Inter-satellite Links to GEO, where the Juno Core Contract solution is enhanced by the ability to link to the satellite via agreed Geostationary Orbit space based assets, to support Out Of Area satellite command and control, and payload data handling.

o On-Board Processing (OBP), providing enhanced high fidelity on-board image processing, with target oriented machine learning image exploitation, enabling in-situ processing of captured imagery, prior to image downlinking to the agreed ground station network.

• Maintained Operations Option, constitutes a time extension of the period where the Supplier operates the JUNO solution from the Core Contract and completes mission operations beyond the timeframe covered in the Core Contract.

• Concurrent Ground Segment Options, constitutes the same JUNO solution from the

Core Contract but with the system integrated with the elements of the ISTARI MOD ground architecture that are sufficiently mature to be utilised together. During this phase, operation of the JUNO system will be by the Supplier until the ISTARI MOD ground architecture is capable of operating the system. Integration between the JUNO system and elements of ISTARI will occur within these phases with gradual, progressive functional transitions. The Supplier shall also support the transition through provision of Training to MOD.

• Support to MOD Operation Option, constitutes the same JUNO solution from the Core Contract, but that is fully integrated with the MOD's ISTARI ground architecture and is operated by the MOD with support from the Supplier.

• Disposal Option, Disposal of the JUNO solution from the Core Contract at End of Life.

VI.4) Procedures for review

VI.4.1) Review body

Cabinet Office

70 Whitehall

London

Country

United Kingdom