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Planning

Inter-Agency Space Debris Co-ordination Committee (IADC) Studies 2025-26

UK Space Agency

UK3: Planned procurement notice - Procurement Act 2023 - <u>view information about notice</u> types

Notice identifier: 2025/S 000-031731

Procurement identifier (OCID): ocds-h6vhtk-052741

Published 12 June 2025, 9:04am

Changes to notice

This notice has been edited. The <u>previous version</u> is still available.

12th June: Updated to add award criteria, clarify maximum contract value and UKSA's intention to award multiple studies per lot where sufficient high quality bids are received

Scope

Reference

UKSAC25_0044

Description

The Office of the Chief Engineer within the UK Space Agency (UKSA) is intending to identify delivery partners to support a set of studies that will support ongoing research being performed as part of its role in the Inter-Agency Space Debris Coordination Committee (IADC).

The Inter Agency Debris Coordination Committee (IADC) has 13 member states that conduct technical research to inform their publications on how to measure, model, protect from and mitigate space debris. The primary purpose is to exchange information on space debris research activities between members, to facilitate opportunities for cooperation in space debris research, to review the progress of ongoing cooperative activities and to identify debris mitigation options. The UK has been a member for nearly 30 years and has been helping to guide the international policy over this time. The IADC consists of a steering group and four working groups - Measurements, Environment and Database, Protection and Mitigation. The studies that have been identified will seek to support on-going research being performed in each of these working groups.

UKSA is seeking suppliers to perform technical studies of relevance to the four IADC working groups. We will require the supplier to fulfil the specification, including defining framework/model where needed and putting theoretical metrics into practice.

The total value of this contract including all four lots shall not exceed £600,000 (inclusive of VAT). UKSA intends to award a minimum value of £25,000 (inclusive of VAT) per individual lot, with indicative minimum values per lot below (all values inclusive of VAT):

• Lot 1: £25,000

• Lot 2: £150,000

• Lot 3: £75,000

• Lot 4: £50,000

Subject to receiving sufficient high quality proposals, UKSA may choose to award multiple

contracts per lot (e.g. two contracts of £25,000 each within lot 1), and the maximum contract value reflects this. Bidders are able to apply for and receive contracts for multiple lots. Some lots include multiple related studies and bidders are able to bid for one or more of these studies.

Prospective suppliers to note the deadline to complete the work shall not exceed 31st March 2026. Beyond this point, activity will not be funded.

Full details will be available in the forthcoming specification.

Total value (estimated)

- £500,000 excluding VAT
- £600,000 including VAT

Above the relevant threshold

Contract dates (estimated)

- 1 September 2025 to 31 March 2026
- 7 months

Options

The right to additional purchases while the contract is valid.

UKSA has set out a number of different studies within lots 2, 3 and 4, which may not all be taken forward. UKSA will set out in its specification how it will decide which of the options will be awarded.

Main procurement category

Services

CPV classifications

 73000000 - Research and development services and related consultancy services

Contract locations

• UK - United Kingdom

Lot 1. Measurements

Description

This lot contains one study, though UKSA reserves the right to award multiple variants to multiple bidders in the event sufficient high quality bids are received:

Lot 1.1: Analysis of the data from EISCAT Beampark Campaign

Total Contract Value: Up to £25,000 (inclusive of VAT)

Total Contract Duration: 6 months

Characterisation of the Small Debris Space Environment remains an ongoing critical

challenge for addressing space sustainability. NSpOC has previously funded a 24 hour beampark campaign using the EISCAT UHF radar system with the raw data analysed through an ESA contract. At the recent IADC, it was discussed that shorter follow up beamparks targeting specific fragmentation events would also be very beneficial. As a result of this, NSpOC has arranged for a further 24 hours of time but split up over 6 x 4 hr sessions targeting the recent CZ-6A fragmentation. The campaigns target 200-2000 km with a 75E pointing direction. We require a supplier to analyse the raw data to pull out detections and use the circular orbit assumption to extract an orbital inclination and altitude and make an assessment of object size based on the signal strength.

Lot value (estimated)

- £41,668 excluding VAT
- £50,000 including VAT

Same for all lots

CPV classifications, contract locations, contract dates and options are shown in the Scope section, because they are the same for all lots.

Lot 2. Environment and Database

Description

Lot 2: Working Group 2: Environment and Database - The scope of Working Group is the characterisation and modelling of meteoroid and debris around the Earth and storage and access of the data by electronic means, including meteoroid and debris models, short and long-term evolution, collision prediction and risk assessment. This lot contains three separate studies, and bidders may bid for one or more of these studies within these lots, noting UKSA reserves the right to award multiple studies to multiple bidders where sufficient high quality proposals are received.

To support on-going research support is sought on the following:

1. Lot 2.1: Assess the utility of existing metrics and develop new metrics for space environment

Total Contract Value: Up to £50,000 (inclusive of VAT)

Total Contract Duration: 6 months

Review the formulation of existing proposals of metrics for the space environment to identify their strengths and weaknesses. Develop or continue the development of environment-level metrics that can be used to quantify the status of the orbital debris environment and define its sustainable use. Compare proposed metrics against other indicators and metrics of the space environment to understand their respective strengths and weaknesses and to establish their utility in understanding sustainable space activities.

2. Lot 2.2: Develop software and tools to assess the environment

Total Contract Value: Up to £50,000 (inclusive of VAT)

Total Contract Duration: 6 months

Develop key software components and tools to establish further UK capability to model the long-term evolution of the space environment. Apply software and tools to benchmark cases against other internationally developed models.

3. Lot 2.3: Timelines for End of Life (EOL) disposal

Total Contract Value: Up to £50,000 (inclusive of VAT)

Total Contract Duration: 6 months

Quantitative assessment of the impacts of reducing the lifetime of the spacecraft at End-of-Life considering residence time in congested areas e.g. constellation shells, space stations. An assessment of risk and approaches to orbit design which may minimise risk and improve sustainability of the missions.

Lot value (estimated)

• £250,000 excluding VAT

• £300,000 including VAT

Same for all lots

CPV classifications, contract locations, contract dates and options are shown in the Scope section, because they are the same for all lots.

Lot 3. Protection

Description

Lot 3: Working Group 3: Protection - The scope of Working Group comprises the design and technology of shielding against meteoroids and space debris and the associated test methods which include test facility and procedure, hypervelocity impact data, simulation software. This lot contains two studies and bidders are able to apply for one or more of these, noting UKSA reserves the right to award multiple contracts to multiple bidders where sufficient high quality proposals are received.

To support on-going research support is sought on the following:

1. Lot 3.1: Explore options for simple thresholds to quantify the vulnerability of spacecraft to impacts

Total Contract Value: Up to £25,000 (inclusive of VAT)

Total Contract Duration: 6 months

Within the national and international standards dealing with space debris mitigation the requirements are provided based on the size of space debris. The size of the associated space debris is linked to those which create a spacecraft failure in terms of probability of loss of functionality leading to the loss of collision avoidance manoeuvre capability and/or post mission disposal capability. Suppliers are sought to address this topic to support the development of impact vulnerability-based thresholds that can be used in the future as simplified metrics. The intention is to focus on design-dependent spacecraft vulnerability.

2. Lot 3.2: Define fragmentation event simulations for multiple simplified modern spacecraft designs (geometries, materials) and collision conditions (e.g. impactor properties, impact location, velocity, incidence angle) and characterise the fragments generated for different collision conditions

Total Contract Value: Up to £50,000 (inclusive of VAT)

Total Contract Duration: 6 months

Within the national and international standards dealing with space debris mitigation assumptions are made on the size or energy of space debris that is likely to create a catastrophic break-up and generate the related fragment distributions. In practice, the employed definition of "catastrophic" to justify the "critical" threshold of the space debris involved is often qualitative and limited by the availability of the state-of-the-art research. Suppliers are sought to characterise fragments released in hypervelocity impacts that can be used in future for deriving fragmentation severity.

Lot value (estimated)

- £125,000 excluding VAT
- £150,000 including VAT

Same for all lots

CPV classifications, contract locations, contract dates and options are shown in the Scope section, because they are the same for all lots.

Lot 4. Mitigation

Description

Lot 4: Working Group 4: Mitigation - The scope of Working Group comprises the study of all

measures to reduce or avoid the creation of space debris or reduce the hazards created by space debris. This includes identification of space debris sources, design and operation of space systems to avoid or reduce the creation of space debris, guidelines for debris mitigation. This lot contains two studies and bidders are able to apply for one or more of these, noting UKSA reserves the right to issue multiple contracts to multiple bidders in the event sufficient high quality proposals are received.

To support on-going research support is sought on the following:

1. Lot 4.1: Lunar Debris Mitigation Guidelines - further work on disposal options

Total Contract Value: Up to £25,000 (inclusive of VAT)

Total Contract Duration: 6 months

The UK Space Agency is keen to support efforts to develop recommendations for the sustainable use of Cislunar space. This study will seek to identify key research gaps and further develop the work carried out in the previous studies to feed directly into the IADC WG and other international forums. The outputs of this study may also be used by the UK Space Agency and wider UK Government to inform new regulatory policy for future UK-licensed lunar missions.

2. Lot 4.2: Assessment of technologies driving post-mission disposal reliability

Total Contract Value: Up to £25,000 (inclusive of VAT)

Total Contract Duration: 6 months

Investigate the merits of higher post-mission disposal success rates, looking at reliability based on mass, collision probability, orbital location, propulsion reliability and other relevant parameters. Include analysis of constellations specifically to support recommendations that constellations have higher success rates.

Lot value (estimated)

- £83,332 excluding VAT
- £100,000 including VAT

Same for all lots

CPV classifications, contract locations, contract dates and options are shown in the Scope section, because they are the same for all lots.

Participation

Particular suitability

Lot 1. Measurements

Lot 2. Environment and Database

Lot 3. Protection

Lot 4. Mitigation

Small and medium-sized enterprises (SME)

Submission

Publication date of tender notice (estimated)

17 July 2025

Enquiry deadline

24 July 2025, 2:00pm

Tender submission deadline

8 August 2025, 5:00pm

Submission address and any special instructions

This opportunity will be offered via the Jaggaer e-sourcing portal: To register on the Jaggaer eSourcing portal please use the link https://beisgroup.ukp.app.jaggaer.com/ and follow the instructions to register as a supplier.

When available, it will be possible to search for this requirement.

Tenders may be submitted electronically

Yes

Languages that may be used for submission

English

Award decision date (estimated)

22 August 2025

Award criteria

Name	Description	Туре	Weighting
Technical Solution	This criterion will ask bidders to provide detail of their proposed technical solution.	Quality	30%
Price	Pricing will be on a firm fixed price basis for each study.	Price	20%
Team Composition, Skills and Experience	This criterion will ask bidders to outline the knowledge and expertise of the proposed team (including proposed subcontractors where known) and for details of any previous similar projects undertaken.	Quality	20%
Proposed Project Plan	This criterion will ask bidders to outline their proposed project management approach with reference to the objectives and deliverables highlighted in the specification.	Quality	20%
Social Value	This criterion will focus on criterion from Procurement Policy Note 002: Social Value.	Quality	10%

Procedure

Procedure type

Open procedure

Reduced tendering period

Yes

Qualifying planned procurement notice - minimum 10 days

Contracting authority

UK Space Agency

• Public Procurement Organisation Number: PRTY-4245-MTJY

Quad Two Building 1st Floor, Rutherford Avenue, Harwell Science and Innovation Campus

Didcot

OX11 0DF

United Kingdom

Email: commercial@ukspaceagency.gov.uk

Region: UKJ14 - Oxfordshire

Organisation type: Public authority - central government

Other organisation

These organisations are carrying out the procurement, or part of it, on behalf of the contracting authorities.

UK Shared Business Services Ltd

Summary of their role in this procurement: Administrative delivery partner

• Public Procurement Organisation Number: PMPN-7535-GNTG

Polaris House, North Star Avenue

Swindon

SN21FF

United Kingdom

Email: policy@uksbs.co.uk

Region: UKK14 - Swindon

Contact organisation

Contact UK Space Agency for any enquiries.