Contract

Space Weather R2O2R - University of Birmingham

Met Office

UK7: Contract details notice - Procurement Act 2023 - view information about notice types

Notice identifier: 2025/S 000-068036
Procurement identifier (OCID): ocds-h6vhtk-05948f (view related notices)
Published 24 October 2025, 9:32am

Scope

Reference

DN787499

Description

Ongoing delivery of AENeAS model input datasets (processed GNSS data and other relevant data) generated at UoB, with a 95% availability SLA, covering the full duration of the contract.

Provide real-time scintillation dataset to Met Office and software to generate visualisation of this dataset over the UK region. (Oct '25)

Delivery of ray-tracing software and visualisation code to generate HF Comms contact maps, centred on Shanwick (UoB delivery Dec '25)

Delivery and implementation of AENeAS "health" routines in MO system (Dec '25) and covering the amount of data assimilated/rejected, the health of individual ensemble members and other relevant health metrics.

Initial validation of scintillation forecasting method (Feb '26) using GNSS scintillation measurements for a period covering different phases of the solar cycle and submission of research paper highlighting the findings of this study.

Integration of latest ODRAM version (ODRAM code and visualisations) into the AENeAS workflow (Mar '26), in collaboration with the University of Lancaster, using near real time riometer measurements provided on the HPC for integration with AENeAS.

Customer engagement activity requirements

MOSWOC training (Mar '26)

Provision of training to MOSWOC covering an overview of the ionosphere-thermosphere system, AENeAS model and its limitations and the products generated by AENeAS

Customer engagement focused on low-mid latitudes ionosphere (Mar '26)

This activity will require collaboration between UoB and Met Office Markets personnel, to plan and execute a series of discussions with key users of HF beyond line-of-sight communications, satellite communications (SATCOM) and Global Navigation Satellite System (GNSS).These will be targeted at three key groups:

• Aviation

• PNT

• Low Earth Orbit (LEO) satellite tracking and operations

A set of key questions and discussion points will be developed and agreed in advance through coordination between UoB and the Met Office Markets team. These will then collaborate to reach out and engage with key organisations, groups or users. Indicatively these are likely to include:

• National Air Traffic Services (NATS)

• Pilots (civil and military)

• Civil Aviation Authority (CAA)

• Department for Science, Innovation and Technology (DSIT) - Position, Navigation and Timing (PNT) Office

• Ordnance Survey

• Met Office Technical Services

• Space Command and No.1 Space Operations Squadron UK Space Agency

• LEO Satellite operators

The outcomes will be summarily documented in a report and used to build a baseline understanding of user needs. This will subsequently be used to guide model output being usefully codified, visualised and disseminated to ensure outputs are understandable and actionable across a range of user types and applications.

The report will specifically be used to guide further development through insight into:

• Requirements for model resolution

• Operationally exploitable product format/s

• Optimal timeliness and cadence of products

• Optimal data format/s

• Dissemination methods and user platforms

Software and operational support delivery requirements

This sets out the general requirements for the work required to accelerate the implementation of the SWIMMR R2O projects on Met Office systems. The scope is to assist the Met Office in the transition of the SWIMMR models towards operational status, as measured by Application Useability Levels (aiming for AUL9). To facilitate this process, the following general software engineering processes and practice should be adhered to:

Play a key and proactive role in the maintenance of existing software. In particular,

• Monitor the list of open pull requests (PRs) on the GitHub repository containing the model code daily. When new PRs appear (and within a working week),

o Respond to any questions raised by MO SSEs.

o Accept any requests to review code contributions authored by MO SSEs.

o Where appropriate, engage in the online discussions around these.

• When you discover issues, contribute (via PR) carefully tested code fixes

• Follow the PR process outlined above and documented on the portal.

• Participate in knowledge exchange to enable Met Office to become more self-sufficient in model maintenance

• Provide technical/scientific 4th line support in code bug resolution [working days support- response/resolution timeline to be agreed]

• Work with Met Office (MO) Scientific Software Engineers (SSEs) to measurably increase the robustness of the codes (e.g. through test coverage assessment and defining required tests) by improving testing and logging according to the principles documented on the Met Office R2O portal.

• Ensure logging sufficient to diagnose workflow issues

• Contribute expertise as part of user research discussions with end users (MOSWOC/industry) in determining the product strategy for utilising the AENeAS data to deliver the most value.

Contract 1

Supplier

- THE UNIVERSITY OF BIRMINGHAM

Contract value

- £157,872 excluding VAT
- £189,446 including VAT

Above the relevant threshold

Date signed

18 September 2025

Contract dates

- 19 September 2025 to 31 March 2026
- 6 months, 12 days

Main procurement category

Services

CPV classifications

- 73100000 - Research and experimental development services

Contract locations

- UKG - West Midlands (England)

Justification for not setting key performance indicators

Contract value not over £5m

Other information

Conflicts assessment prepared/revised

Yes

Procedure

Procedure type

Direct award

Direct award justification

- Single supplier - intellectual property or exclusive rights
- Single supplier - technical reasons

The deliverables within the contract are associated with a model and code already developed and owned by the partner (supplier) to a specific maturity under the SWIMMR Programme. The academics hold the model code IPR and provide model access to Met Office under Licence (pending renewal on signature of the contract) and therefore are uniquely placed to provide these services to the Met Office. Delivery will 'accelerate' the model's development towards transition to operations within the Met Office Space Weather service as mandated by DSIT.

The purpose of the contract is to continue development of the models (which requires the 'deep expertise' of the model developer) and to transfer model and model code knowledge and expertise. In short, there is no other supplier for the work associated with the model.

Supplier

THE UNIVERSITY OF BIRMINGHAM

- Companies House: RC000645
- Public Procurement Organisation Number: PHCQ-3464-LVTM

Edgbaston

Birmingham

B15 2TT

United Kingdom

Email: procurement@bham.ac.uk

Website: http://www.birmingham.ac.uk

Region: UKG31 - Birmingham

Small or medium-sized enterprise (SME): No

Voluntary, community or social enterprise (VCSE): No

Supported employment provider: No

Public service mutual: No

Contract 1

Contracting authority

Met Office

- Public Procurement Organisation Number: PVZW-3234-DTLY

Met Office

Exeter

EX1 3PB

United Kingdom

Email: procurement.enquiries@metoffice.gov.uk

Website: https://www.metoffice.gov.uk/

Region: UKK43 - Devon CC

Organisation type: Public authority - central government