



UNIVERSITY OF LEEDS

CANDIDATE BRIEF

**Systems Engineer, FAAM Airborne Laboratory,
National Centre for Atmospheric Science, Faculty of Environment**



Salary: Grade 7 (£35,333 - £42,155 p.a.)

Reference: ENVEE1608

Fixed term to 31 March 2026 (due to external funding)

This post is based at the FAAM Airborne Laboratory, Cranfield University

We will consider job share/flexible working arrangements

Systems Engineer, FAAM Airborne Laboratory (FAAM), National Centre for Atmospheric Science (NCAS), School of Earth and Environment, Faculty of Environment

Are you highly motivated with experience working on engineering or instrument systems projects? Do you have a background in physical sciences, computer science or engineering? Would you like to develop scientific systems as part of the transformative FAAM Airborne Laboratory Mid-Life Upgrade project?

The FAAM Airborne Laboratory is a world-class research facility dedicated to the advancement of atmospheric science. FAAM operates a specially adapted BAe-146 4-engine research aircraft managed by a unique team of scientists, engineers, flight technicians and project managers providing a complete package of support for the scientific community. The capabilities are extensively reliant on state-of-the-art scientific instrumentation, often uniquely customised for use on the aircraft, which is deployed throughout the world.

FAAM's measurement and operational capabilities are continually evolving, and management of this modification process has to be carried out effectively, against both time and budget constraints. The exciting Mid-Life Upgrade (MLU) project aims to deliver a range of upgrades and enhancements to the scientific capabilities of the aircraft, its measurement capabilities and its research impact, extending its useful life by at least 20 years.

The MLU is an ambitious 4-5 year £50m project to rebuild significant parts of the aircraft systems, and carry out a comprehensive upgrading of the aircraft's scientific and operational capabilities. Successful delivery will require working closely with major stakeholders, including BAe Systems as aircraft Design Authority, engineering suppliers and the aircraft's scientific user community. The entire project will comprise several hundreds of individual aircraft modifications, each of which will need to be properly developed and embodied on the aircraft.

Our FAAM Systems Engineers take a multi-disciplinary approach to the life-cycle management of scientific systems on the aircraft and will input into the design, realisation, technical management, operations, and retirement of systems.

You will assist with the integration of multiple scientific systems onto the aircraft, carrying out duties such as design, prototyping, systems integration, lifecycle management, engineering documentation, and supporting calculations.

Good innovative thinking is required along with the ability to work with scientists and engineers including the aircraft's Design Authority and other stakeholders. The aim is to produce high quality, reliable and innovative atmospheric science instruments and systems for the FAAM aircraft.

This is a new post and will be ideal for a motivated person who is able to work across disciplines and keen to make a valuable contribution to the development of an internationally significant project.

The post will be employed by the University of Leeds and will be based within the FAAM team on the campus at Cranfield University.

What does the role entail?

As a Systems Engineer, your main duties will include:

- Contributing to the design of innovative scientific instrument systems or components of systems for use on the FAAM aircraft;
- Providing supporting documentation, data and drawings to assist with the airworthiness assessment of systems (undertaken by the aircraft's Design Authority), contributing to manuals, guides etc., and producing design drawings and data packs for manufacture and assembly;
- Working with instrument designers and stakeholders to develop concept designs;
- Providing assistance with integrating multiple instrument packages onto the aircraft with a view to maximising efficiency in terms of mass and volume;
- Assisting with the analysis of new and existing systems, to look for design improvement or systems retirement;
- Working with instrument providers to ensure best design practice is maintained across systems and contributing to the lifecycle management of those systems;
- Assisting with the integration of components and systems, including testing, calibration and documentation;
- Actively contributing to the overall success of the Mid Life Upgrade project.

The post holder will report to the MLU Director and will be supervised on a day-to-day basis by the MLU Project Manager.

These duties provide a framework for the role and should not be regarded as a definitive list. Other reasonable duties may be required consistent with the grade of the post.

What will you bring to the role?

As a Systems Engineer you will have:

- Experience working on engineering or instrument systems projects;
- A bachelor's degree, equivalent qualification or experience in physical sciences, computer science or engineering;
- Good communication skills, with the demonstrable ability to communicate effectively across a range of stakeholders with good attention to detail;

- An ability to work within a multi-disciplinary team and contribute to the delivery of complex engineering tasks;
- An ability to deal with complex technical and process information and make informed decisions and recommendations;
- Experience in performing design tasks, prototyping solutions, working with engineering documentation, and undertaking supporting calculations;
- An innovative approach to problem solving and devising novel technical solutions;
- Good self-motivation and flexibility, with the ability to direct your work in consultation with colleagues;
- Willingness to work flexibly from a base at Cranfield, from home and occasionally from the locations of our stakeholders across the UK.

You may also have:

- Experience or understanding of Project management or working as part of a project team;
- Experience of working in aviation or another safety critical environment;
- Knowledge of atmospheric science, meteorology, and/or meteorological instrumentation;
- A working understanding of electronics and a track record in problem solving electronics faults.

How to apply

You can apply for this role online; more guidance can be found on our [How to Apply](#) information page. Applications should be submitted by **23.59** (UK time) on the advertised closing date.

Contact information

To explore the post further or for any queries you may have, please contact:

Stephen Devereau, Mid Life Upgrade Director, FAAM Airborne Laboratory

Email: steve.devereau@faam.ac.uk

Additional information

Please note: If you are not a British or Irish citizen, from 1 January 2021 you will require permission to work in the UK. This will normally be in the form of a visa but, if you are an EEA/Swiss citizen and resident in the UK before 31 December 2020, this may be your passport or status under the EU Settlement Scheme.

Find out more about the [National Centre for Atmospheric Science](#) and [its relationship with the School of Earth and Environment](#)

Find out more about the [FAAM Airborne Laboratory](#)

Find out more about the [School of Earth and Environment](#)

Find out more about the [Faculty of Environment](#)

Find out more about our [Research and associated facilities](#)

Find out more about [equality](#) in the Faculty.

Our University

At the University of Leeds, we are committed to providing a culture of inclusion, respect and equity of opportunity that attracts, supports, and retains the best students and staff from all backgrounds. Whatever role we recruit for we are always striving to increase the diversity of our community, which each individual helps enrich and cultivate. We particularly encourage applications from, but not limited to Black, Asian, people who belong to a minority ethnic community; people who identify as LGBT+; and disabled people. Candidates will always be selected based on merit and ability.

The Faculty of Environment has received a prestigious Athena SWAN silver award from [Advance HE](#), the national body that promotes equality in the higher education sector. This award represents the combined efforts of all schools in the Faculty and shows the positive actions we have taken to ensure that our policies, processes and ethos all promote an equal and inclusive environment for work and study.

Working at Leeds

We are a campus based community and regular interaction with campus is an expectation of all roles in line with academic and service needs and the requirements of the role. We are also open to discussing flexible working arrangements. To find out more about the benefits of working at the University and what it is like to live and work in the Leeds area visit our [Working at Leeds](#) information page.

Candidates with disabilities

Information for candidates with disabilities, impairments or health conditions, including requesting alternative formats, can be found on our [Accessibility](#) information page or by getting in touch with us at disclosure@leeds.ac.uk.

Criminal record information

Rehabilitation of Offenders Act 1974

A criminal record check is not required for this position, however, all applicants will be required to declare if they have any 'unspent' criminal offences, including those pending.

Any offer of appointment will be in accordance with our Criminal Records policy. You can find out more about required checks and declarations in our [Criminal Records](#) information page.