

# AIRBORNE RESEARCH & SURVEY FACILITY (ARSF)

<http://arsf.nerc.ac.uk>



## ANNOUNCEMENT OF OPPORTUNITY 2012 FLYING SEASON: UNITED KINGDOM & EUROPE (DIRECT ACCESS) CLOSING DATE FOR RECEIPT OF PROPOSALS: **FRIDAY 20<sup>th</sup> April 2012**

The Airborne Research & Survey Facility (ARSF) invites direct access applications for UK and European flying in the 2012 (February –November) flying season, for the following period between: **1<sup>st</sup> September to 31<sup>st</sup> October In Ethiopia**

The Natural Environment Research Council will provide flying time and data processing for approved projects; at no cost to the applicant (*applicants will need to provide their own resourcing for fieldwork and data analysis*).

Eligible persons wishing to use the Facility in the 2012 Season are invited to submit detailed proposals, including a supporting scientific case, by Friday 20th April 2012. Only the latest application form and guidance notes should be used and the science case must be included on the application form (section 20). The ARSF Steering Committee will review the applications using standard NERC criteria: successful applicants will be notified by Mid June 2012 of their inclusion in the flying campaign. Eligibility information is available via <http://arsf.nerc.ac.uk/howtoapply/eligibility.asp>.

Applicants **MUST** contact the Acting Head of ARSF (01452 859945) [cjios@nerc.ac.uk](mailto:cjos@nerc.ac.uk) or Science/Operations Coordinator (01452 859945) [gaew@nerc.ac.uk](mailto:gaew@nerc.ac.uk) to discuss requirements, scheduling and to obtain issue of an Application Form **BEFORE** submitting their application.

The ARSF Dornier 228-101 research aircraft and core instruments support environmental research, training, survey and monitoring in many areas:

- **Terrestrial, Freshwater, Earth and Marine sciences and science-based Archaeology**, through provision of hyperspectral high-resolution digital and analogue imagery and by the use of the aircraft for geophysical surveys; marine applications are possible over coastal and oceanic waters due to a ~5 hour endurance/~1000nm range; and
- **Atmospheric science**, through the provision of atmospheric measurements over urban and regional areas thus complementing the capabilities of larger atmospheric science platforms, and by means of support for development of new and novel instruments.

**Instrumentation** (further information at <http://arsf.nerc.ac.uk/instruments/>)

### Core Sensing Instrument Suite includes:

- **Specim AISA Eagle/Hawk Hyperspectral Imaging System** - full data cube with ~500 spectral bands over wavelengths 400-2400nm, and ~1000 spatial pixels VIS/NIR and ~300 spatial pixels NIR/SWIR; a dedicated processing line provides radiometrically and geometrically corrected digital multispectral data.
- **Leica ALS50-II Lidar System (1064nm; hit rate > 1/m<sup>2</sup>; and Full Wave form)** - available simultaneously with the hyperspectral system.
- **RCD105 39Mpx Medium Format Digital Frame Camera** - integrated with the lidar navigation system.

### Atmospheric Instrumentation:

- **CAPS probe**
- **Thermo-49i**
- **Sky-OPC Grimm Particle Counter**
- **Isokinetic Air/Aerosol Intake and an AIMMS-20 Probe** - measuring basic atmospheric parameters (temperature, humidity, wind speed) and turbulence data are available. PMS equipment can be made available by arrangement with the Facility for Airborne Atmospheric Measurements and deployed in the under wing pods. User-provided instruments can be accommodated internally in the cabin and potentially via the underwing pylons/ pods and external fuselage hard-points.

Potential users are encouraged to contact:		For additional planning information contact:
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