

**ANNOUNCEMENT OF OPPORTUNITY**

**2009 FLYING SEASON: UNITED KINGDOM & EUROPE (DIRECT ACCESS)  
CLOSING DATE FOR RECEIPT OF PROPOSALS: FRIDAY 10 OCTOBER 2008**

**The Airborne Research & Survey Facility (ARSF) invites direct access applications for UK and European flying in the 2009 (March - September) season. The Natural Environment Research Council will provide flying time and data processing for approved projects, at no cost to the applicant.**

Eligible persons wishing to use the Facility in the 2009 Season are invited to submit detailed proposals, including a supporting scientific case, by Friday 10 October 2008. Please note that only the latest application form and guidance notes should be used. The ARSF Steering Committee will review the applications using standard NERC criteria: successful applicants will be notified by January 2009 of their inclusion in the flying campaign. Eligibility information and application forms are available via <http://arsf.nerc.ac.uk/howtoapply/>.

Applicants **must** contact the ARSF Operations Manager (01865 374 391/ [cjios@nerc.ac.uk](mailto:cjos@nerc.ac.uk)) or Operations Coordinator (01865 374 391/[GAEW@nerc.ac.uk](mailto:GAEW@nerc.ac.uk)) to discuss requirements and scheduling before submitting their application.

The ARSF operates a Dornier 228 research aircraft in support of environmental research, training, survey and monitoring in many areas:

- **Terrestrial, Freshwater, Earth and Marine sciences and science-based Archaeology**, through provision of multispectral 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.

**Opportunistic Applications:** Although normal project applications for flying year 2009 must be submitted by 10 October 2008, the ARSF is able to consider opportunistic applications based on occurrences outside the applicant's control, e.g. floods, landslips etc. An absolute minimum of 48 hours notice is required for such opportunistic flights and such notice must be supported by a short scientific justification and provision of flight parameters and maps.

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

The core remote sensing instrument suite includes the following:

**Specim AISA Eagle/Hawk Hyperspectral Imaging System** providing a 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>; ~15cm in Z) potentially simultaneous with the hyperspectral system.

**RCD105 39Mpx medium format digital frame camera**, integrated with the lidar navigation system.

In addition, the following instruments can be made available for special applications:

*Large-format RC-10 aerial survey camera* with images being supplied in scanned digital form.

*Airborne Thematic Mapper (ATM).*

*Compact Airborne Spectrographic Imager (CASI-2).*

**Atmospheric instrumentation** can be accommodated via cabin air inlets and wing-mounted pods (designed to accommodate standard particle measurement systems). A standard Rosemount probe, an 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. At present the AIMMS probe and PMS deployment depend on loan of underwing pylons and pods from the Deutsches Zentrum für Luft- und- Raumfahrt (DLR).

<b>Potential users are encouraged to contact:</b>		<b>For additional information, contact:</b>
<p><b>Capt Carl Joseph</b> Chief Pilot/Operations Manager Oxford Airport (Hangar 2), Kidlington, Oxon OX5 1RA Tel: +44(0)1865 374391 Email: <a href="mailto:cjos@nerc.ac.uk">cjios@nerc.ac.uk</a></p>	<p><b>Mr Gary Llewellyn</b> Science/Operations Coordinator Oxford Airport (Hangar 2), Kidlington, Oxon OX5 1RA Tel: +44(0)1865 374391 Mob +44(0)7919 697851 Email: <a href="mailto:gaew@nerc.ac.uk">gaew@nerc.ac.uk</a></p>	<p><b>Mr Peter Purcell,</b> Head NERC Airborne Research Facilities Polaris House, North Star Avenue, Swindon SN2 1EU Tel: +44(0)1793 411649, Email: <a href="mailto:ppu@nerc.ac.uk">ppu@nerc.ac.uk</a></p>