

ANNOUNCEMENT OF OPPORTUNITY

ICELAND-GREENLAND DEPLOYMENT 2007

CLOSING DATE FOR RECEIPT OF APPLICATIONS: 22 JANUARY 2007

A deployment to Iceland and Greenland is planned as a component of the centrally-funded ARSF campaigns in 2007. The deployment will be undertaken as part of the NERC contribution to International Polar Year. It is anticipated that this will be for 14-21 days within the period July-August 2007, but the timing may vary due to the need to accommodate user demand, or to exploit favourable weather windows.

The ARSF supports 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/~1000km range; and
- **Atmospheric science**, through the provision of atmospheric measurements over urban and regional areas, thus complementing the capabilities of larger atmospheric science platforms.

Researchers wishing to make use of ARSF services are invited to submit detailed proposals, including a supporting scientific case, by Monday 22 January 2007. Please note that only the latest application form and guidance notes must be used. The ARSF Steering Committee will review the applications using standard NERC criteria: successful applicants will be notified in February 2007 of their inclusion in the flying campaign. Eligibility information and application forms are available via <http://arsf.nerc.ac.uk/howtoapply/>.

The ARSF will undertake data acquisition and processing free of charge. It will be the responsibility of the Applicant to ensure that they have sufficient resources available to support the ground-based work and data analysis; however it is possible (but not yet confirmed) that some contribution to this element may be available from the IPY Programme for proposals that address IPY Themes: Applicants seeking such support are advised to

- (i) contact Peter Purcell (see below for details) to ascertain availability of funds,
- (ii) consult the NERC Arctic IPY Science Plan at <http://www.nerc.ac.uk/funding/polarsci/documents/ipy-scienceplan.pdf> for guidance, and
- (iii) to highlight IPY relevance in their supporting case.

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

The core remote sensing instrument suite comprises an Airborne Thematic Mapper (ATM) and Compact Airborne Spectrographic Imager (CASI-2). In addition, the Specim AISA Eagle/Hawk Hyperspectral sensors will be deployed during the 2007 flying season, 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. A medium-format digital camera is normally deployed, although a large-format RC-10 aerial survey camera is available for specific applications, such as photogrammetry.

Lidar: in collaboration with Cambridge University's Unit for Landscape Modelling (ULM), a lidar can be deployed simultaneously with the core instrument suite; data processing is undertaken by ULM.

User-provided atmospheric instrumentation can be accommodated via cabin air inlets and wing-mounted pods (designed to accommodate standard particle measurement systems). The ARSF has a standard Rosemount probe and an ATMMS-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.

Potential users are encouraged to contact:

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For additional information, contact:

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