

Environmental Research Wins

DMCii has announced the selection of 5 science projects that will receive free satellite imagery from the DMC satellite constellation. In December 2008, scientists were invited to compete for the opportunity to use the DMC multi-spectral satellite image data in their research projects.

The successful projects are: Monitoring Dynamic Change in the Greenland Ice Sheet: A. Luckman (Swansea University); Testing Data Assimilation Schemes: JJ Settle (University of Reading), P. North (University of Swansea), T. Quaife (University College London); Assessing Seasonal Water and Restoration Status of Wetland Habitats: Dr G. Smith (Specto Natura Ltd), Dr F. Hughes & Dr P. Stroh (Anglia Ruskin University), Dr P Aplin (University of Nottingham); Validation of MODIS NPP (Net Primary Productivity) Product for Tropical Areas: Dr M. Cutler (University of Dundee), Prof A. Cracknell, Assoc Prof AL Ibrahim, Dr K. Haron and Monitoring of Vegetation Phenological Change and Health: Dr R Guisa (University of Surrey), Dr R. Pitman (Centre for Forestry & Climate Change (FR)).

Applications were judged on their contribution to international environmental research by a panel of scientists chaired by Professor Alan O'Neill from the UK's National Centre for Earth Observation (NCEO), Dr Arwyn Davies, Head of Earth Observation at the British National Space Centre (BNSC), Dr Paul Aplin (Chairman of RSPSoc and Associate Professor Nottingham University), Dr Steve Mackin, Chief Scientist DMCii and David Hodgson, Managing Director DMCii.

Satellite imaging is a tool for monitoring land use. It offers a valuable "eye in space" for monitoring and recording environmental change on a global basis. The winning projects cover a wide range of important topics: from monitoring changes in the Greenland Ice Sheet and the UK wetlands and forests, to pioneering new techniques for integrating satellite Earth observations with computer models to improve measurements of how the Earth's vegetation 'breathes' carbon dioxide.

The DMC constellation of five satellites provides a unique earth observation resource that enables daily revisit anywhere in the world. As the satellites and their respective owners (Algeria, China, Nigeria, Turkey, UK) cooperate together, the constellation can image a given geographical location frequently to identify changes or make the most of cloud-free periods. This unique combination makes the constellation highly effective for monitoring changes in land use.

The free satellite data will be provided by next generation DMC satellite UK-DMC2 which is scheduled for launch next month, July 2009. The new satellite will enhance the DMC constellation's ability to gather higher spatial resolution imaging (22m versus the previous 32m DMC standard) and also increase the amount of imagery that can be stored and downloaded in any given time using new satellite technology.

Spanish company, Deimos Imaging, that is also part of the DMC Consortium, is planning to offer a similar research opportunity for Spanish researchers. They intend to provide imagery for five Spanish science projects from their new Deimos-1 satellite which will be launched at the same time as UK-DMC2.