

## Operational Environmental Sensing Workshop 2006

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### BARSC Committee 2006-7

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### Key Aims for 2006/7

- Ensure strong inputs into the Comprehensive Spending Review and Space Strategy
- Increase membership
- Formalise links to EARSC
- Strengthen support for EO applications at BNSC

The workshop “Operational environmental sensing: Future UK policy drivers, technical requirements and capabilities” was held on 24th April 2006 at DTI Conference Centre in London. It was jointly organised by BARSC, DEFRA and BNSC.

The aim of the workshop was to focus on the requirements that DEFRA users and its supporting agencies have for remote sensing data, and the potential role of the value-adding service industry in the UK in addressing these requirements. The workshop also covered data services and infrastructure requirements for spaceborne and airborne remote sensing data.

The meeting was attended by 74 delegates, broken down into 36 from industry, 10 from DEFRA, 4 from BNSC, 17 from other UK government agencies, and 7 from universities.

The programme was organised into two main sessions addressing policy, technology, applications and data services, with sixteen presentations in total.

Copies of presentations are available on our website at [www.barsc.org.uk/news\\_&\\_events](http://www.barsc.org.uk/news_&_events).

Whilst not specifically directed at GMES, the workshop did provide a framework for discussion of GMES-related activities, and it is now intended to follow up the workshop with a dedicated GMES user workshop organised by DEFRA later in the year.

### Key points from discussions

- Challenge is to broaden the user base.
- Need to help different government users join-up their application of remote sensing.
- Need to push towards widely used operational systems where information is used by staff throughout organisations.
- Move to operational use will depend on demonstrated policy value.
- Problem in the UK of looking at everything on a case-by-case basis.
- Current government budget structures are not ideal for taking such an approach to cross-cutting benefits. A national debate is needed.
- No “one size fits all” solution. We need to see facilitation of communities to share information, and to filter their needs into a coordinated strategy.
- Lack of a national acquisition strategy holds us back.
- Defra should address services in a national programme, which may require a national acquisition strategy.
- There is great convergence now in environmental data use and modelling within GIS.



A forum for developers and practitioners to gather information on the latest thinking and technology



## Applications & Developments in Commercial Remote Sensing & Photogrammetry

Part of RSPSoc 2006 - The Annual Conference of the Remote Sensing and Photogrammetry Society  
Wednesday 6 September 2006 & Thursday 7th September 2006 | Fitzwilliam College Cambridge



### Key speakers include:

**J. Bryan Blair**, NASA Goddard Space Flight Centre  
**Andy Shaw**, Earth Observation Coordinator, defra  
**Chris Steenmans**, Head of Group Geospatial Information System, European Environment Agency  
**Dr Keith Porter**, Environmental Information Manager, English Nature  
**Dr Geoff Smith**, Head of the Integrated Applications Group, Centre for Ecology and Hydrology, Monks Wood  
**Robin Fuller**, Senior Research Associate with the Unit for Landscape Modelling, University of Cambridge  
**David Gislair**, Technical Assistance Program Director, Louisiana Oil Spill Coordinator's Office, Office of the Governor  
**Rob Cunningham**, RS/GIS Coordinator, School of Coast and Environment, Louisiana State University  
**Alexander P. Trishchenko Ph.D.**, Senior Research Scientist, Canada Centre for Remote Sensing, Natural Resources Canada  
**Chris Duffell**, Technical Advisor, Highways Agency  
**Mark Rudrum**, Director, Arup  
**Tony Ballard**, Chair, European Centre for Space Law and Partner, Field Fisher and Waterhouse

### Benefits of attending:

- Learn from case studies of recent deployments of remote sensing technology and photogrammetry
- Network with practitioners, users, suppliers, academics and scientists involved in application of remote sensing technology
- Hear about the latest uses for LiDAR
- Discuss the aspirations of the user community for remote sensing technology - what does the future hold?
- Learn about the latest licensing and regulation requirements
- Share ideas and network with other remote sensing users at our unique roundtable discussions

Register at

an **informa** business

[www.tandfevents.com/rpsoc](http://www.tandfevents.com/rpsoc) or call our bookings hotline: +44 207 017 5520

## Member News

### BAE Systems' new geo-exploitation software supports military intelligence missions



Users can view and move within an imagery scene in a three dimensional perspective.

A new version of BAE Systems' SOCET GXP™ software has added tools for image analysis, geospatial analysis, 3D simulation, and targeting – applications that will be particularly helpful for homeland defence or military intelligence missions.

SOCET GXP v2.2 establishes greater situational awareness for users engaged in disaster relief and recovery, humanitarian efforts, reconnaissance, battle-damage assessment, and surveillance missions.

Military analysts can use the new BAE Systems software to process, analyse, and

deliver high-resolution imagery derived from airborne and satellite sensors. That imagery can now be labelled with detailed notes to provide actionable intelligence to first responders, decision-makers and others across secure networks.

The software processes data from a variety of image sources and creates image products that can be compressed and saved in multiple formats. Data and reports can be immediately e-mailed and accessed from mobile laptop computers, relay stations, and ground control centres.

For more information, contact:  
[jw.allan@baesystems.com](mailto:jw.allan@baesystems.com)



## SAR Polarimetry Workstation release

PCI Geomatics® announces the release of the SAR Polarimetry Workstation (SPW) as part of the Canadian Space Agency (CSA) Earth Observation Application Development Program (EOADP). The SPW is available as an add-on module to Geomatica®, PCI's image-centric geospatial software.

Polarimetric synthetic aperture radar (POLARSAR) data can be exploited in a variety of important tasks, including sea-ice detection and classification, agricultural crop monitoring, and forest type and harvest mapping.

In addition, POLARSAR data can be collected day or night and under atmospheric conditions that prevent the collection of optical data, such as clouds.

The availability of POLARSAR data from satellites will soon increase significantly, and with it researchers expect truly operational applications of this data. The SPW is a tool that will help enable such applications.

For more information, visit:  
[www.pcigeomatics.com/products/radar\\_data](http://www.pcigeomatics.com/products/radar_data)

## Intergraph releases Z/I Mission

Intergraph Corporation have announced the availability of Z/I Mission, a comprehensive photo flight management system that provides an innovative solution for aerial survey procedures.

From creating initial flight plans to generating reports and indices for the final exposures, Z/I Mission provides a rich data environment that can access any geo-referenced raster backdrop, vector mapping data, and digital orthophotos for flight planning.

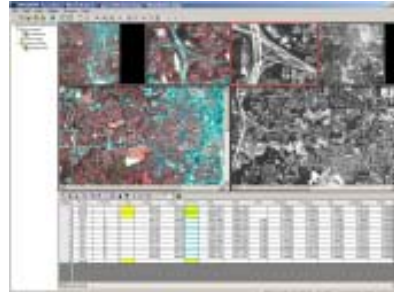
The Z/I Mission Core module facilitates basic functions such as viewing of projects, data import or export, definition of coordinate systems, display layout definition through legend manipulation, explorer functionality and catalogue handling.

For more information, contact:  
[richard.goodman@intergraph.com](mailto:richard.goodman@intergraph.com)

## Imaging solutions from Leica and ERDAS

For a number of years in the 1990s, ERDAS was a valued ESRI (UK) Business Partner integrating ArcView with its own range of specialist geospatial image processing software. Following ERDAS' acquisition by Leica in 2001, ESRI (UK) took on the role of distributor for Leica software products in the UK, and has been successful with installations in the defence and business market sectors.

The Leica product range offers a comprehensive suite of tools that facilitate the capturing, referencing, measuring, analysis and presentation of imagery-based data. The latest versions include significant enhancements and add-ins to the core products as well as new offerings for 3D visualisation, feature extraction and LIDAR data analysis:



**IMAGINE AutoSync**, an add-on module to ERDAS IMAGINE 9.0, provides users with the ability to take two or more images of potentially dissimilar type – different sensors, for instance, or images of different resolution – and automatically generate thousands of tie points between the images to produce a geometric model that accurately ties the two images together.

**Leica MosaicPro** improves the seam-editing portion of mosaicking as well as offering additional radiometric adjustment capabilities.

**Leica Virtual Explorer** seamlessly integrates terabytes of spatial data into an interactive “digital earth” that can be distributed to thousands of users worldwide. This intuitive tool suite enables

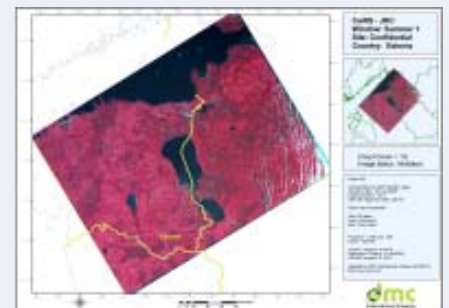
you to edit and share your GIS data with anyone in the world.

For more information, contact: [fdiehl@esriuk.com](mailto:fdiehl@esriuk.com)

## DMC delivers images to the European CwRS agricultural monitoring programme

DMC International Imaging Ltd started work in June 2006 for CwRS, delivering images of agricultural targets across Europe. The CwRS programme is Europe's premier operational remote sensing application, run by the EC Joint Research Centre at Ispra, and used to administer agricultural funding under the CAP scheme.

DMCii won funding for DMC data of €1.6m over the next 4 years under the JRC Framework budget.



The 600km wide 32m DMC images can capture multiple targets (Targets are confidential and not shown)

For more information, contact:  
[p.stephens@dmcii.com](mailto:p.stephens@dmcii.com)

## Why Microsoft has joined BARSC

In May of this year, Microsoft acquired the Vexcel Corporation, which includes Vexcel UK, a company which is well known for its work in polar and marine remote sensing applications. The wider Vexcel Company is renowned for its worldwide leadership in photogrammetry, imagery and remote sensing technologies.

This deal was done to help fulfil Microsoft's vision to create Virtual Earth, a digital world that will change the way that people navigate, explore and discover information on the internet. Vexcel's extensive experience in imagery, 2-D and 3-D, will enable rich sets of aerial, bird's-eye and street-side imagery to be delivered to the Virtual Earth system. So the team, that everyone knew formally as Vexcel UK, will now become a part of the 3D Imagery Team within Microsoft's Virtual Earth organisation.



A bird's eye view of the Brighton Pavilion as seen by Live Local, <http://local.live.com/>, powered by Virtual Earth.

In this role Microsoft will be contributing its remote sensing expertise to the Virtual Earth project and developing the system to be used for governmental and commercial applications. However they are also fully committed to all existing contracts, and intend to continue pursuing their heritage polar and marine interests in the future.

For more information, contact:  
[nick.walker@vexcel.co.uk](mailto:nick.walker@vexcel.co.uk)

## 3D Buildings available for Google Earth

The GeoInformation® Group announces the availability of Cities Revealed™ 3D buildings for central London in Google™ Earth 3D format. This new format provides the user with extruded 3D building polygons created using the highly accurate Cities Revealed Building Heights database. The resultant 3D buildings can be visualised within Google Earth, over the existing high-resolution aerial imagery.

The applications and uses of 3D buildings, within Google Earth, are extensive. Users will gain advantages in improved communications and information sharing by visualising and presenting the world in an easily understandable and clear way, also giving them a competitive edge. Many professionals will benefit from the ability to model and view the world in 3D, including architects, planners, civil engineers, emergency services and insurance analysts.

Over the next twelve months Cities Revealed Building Heights databases and 3D buildings will be made available for over 500 cities. A 3D rendering of an area around Buckingham Palace and Victoria Station has been added by The GeoInformation Group to the Google Earth 3D Warehouse and is available for download and viewing now.

For more information, view:  
[www.citiesrevealed.com](http://www.citiesrevealed.com)



© Cities Revealed aerial photography  
copyright The GeoInformation Group

## EADS Astrium strengthens Infoterra

EADS Astrium has reinforced its commitment to expand activities in Earth Observation services by significantly strengthening its Infoterra group. The formation of Infoterra France, which integrates ISTAR and some teams from EADS Astrium, as an addition to existing Infoterra companies in the United Kingdom and Germany, gathers complementary assets and competences to enhance the group's operational capabilities.

Customers will benefit directly from the pooling of a variety of resources under the Infoterra brand. With the launch of TerraSAR-X later this year – the new German radar satellite, developed in partnership with the German Aerospace Agency (DLR) and EADS Astrium GmbH, for which Infoterra holds the exclusive commercial exploitation rights – the Infoterra group will expand its range of assets.

For more information, contact:  
[tony.sephthon@astrium.eads.net](mailto:tony.sephthon@astrium.eads.net)

## New Project Manager kicks off GMES study



Simon Cantrell has recently joined LogicaCMG UK, and his first role as Project Manager was to kick-off a study looking at End to End Data Security Concepts for GMES. This work is aiming to help ESA understand what data security issues exist and how they can best be tackled considering the operational characteristics of GMES, its chain of data providers and its users.

For more information, contact:  
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