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### Chairman's Welcome

Welcome to this latest issue of the BARSC newsletter! The articles cover a wide range of Members' products and news items, clearly demonstrating that this is a very busy period for our industry.

The Association continues to be active on your behalf. BNSC and ESA were invited to brief Members on their latest initiatives to stimulate market interest in EO technologies. Further meetings are planned, but your Executive Committee always welcomes new ideas for briefings and will do its best to incorporate them into the diary as soon as possible.

Do remember that the purpose of our Association is both to promote networking and to share information and your active participation is always encouraged!

Best wishes,

Graham



## UK leads international effort to image natural disasters from Space

Representatives of the world's space agencies met in London in October 2007 to hold the board meeting of the International Charter "Space and Major Disasters" (the 'Charter'). At the meeting, the UK-built Disaster Monitoring Constellation (DMC) took over from the Japanese space agency (JAXA) to be lead agency within the Charter until April 2008.

The DMC is a consortium of members owning similar high resolution EO satellites and is represented by the British National Space Centre (BNSC) and BARSC member DMC International Imaging Ltd. (DMCii) on the Charter Board and Executive respectively.

The Charter provides satellite imagery from a wide variety of Earth observation (EO) satellites for use in natural disaster management. The Charter is run by the world's major space agencies and is a continually evolving system with access to major space assets (SPOT, RADARSAT, ENVISAT, IRS, IKONOS, DMC etc.). As well as imagery from the DMC satellites DMCii also provides emergency on call services to task the Charter satellites in emergencies 24/7.

Alongside the meeting, a training day organised by the Cabinet Office Civil Contingencies secretariat and BNSC was held for the UK civil contingencies community on the application of EO satellite imagery

and geospatial information for disaster response. An overview of the role of the Charter was also provided. Presentations were made by BARSC members Infoterra and DMCii.

At the October meeting BARSC member QinetiQ announced that imagery from the very high resolution UK-built satellite Topsat would be supplied to the Charter in conjunction with the Topsat Consortium and DMCii.

*For further information, contact:  
D.Hodgson@dmcii.com*

### BARSC Workshop 2008

#### New sensors and perspectives in data policy

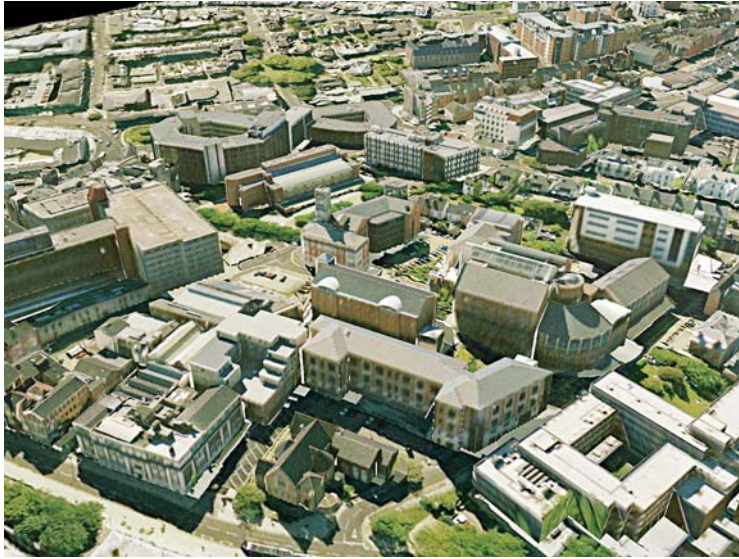
12 June 2008, 9.30am-4pm

DTI Conference Centre,  
London

To register, email:  
[workshop@barsc.org.uk](mailto:workshop@barsc.org.uk)

Correspondence and contributions:  
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2 Falcon Way, Shire Park  
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[gareth.davies@vega.co.uk](mailto:gareth.davies@vega.co.uk)

## 3D mapping of urban conurbations by Bluesky



3D image of Nottingham City Centre

Responding to an increasing market demand for digital 3D building models, Bluesky has launched an initiative to map all major UK urban conurbations in the 3<sup>rd</sup> dimension. High-resolution aerial photography (10 & 12.5 cm) of all UK cities with a population of over 100,000 is currently being captured. The photography is being fully triangulated and is ideal for producing photogrammetrically derived, detailed 3D building models.

Bluesky's workflow for 3D data extraction ensures consistency and accuracy across each 3D city. The

completed 3D cities will be available as off-the-shelf products, which can be supplied in formats suitable for a wide range of GIS, CAD and visualisation software. With planar and vertical accuracies of +/- 60cm, the 3D cities will provide powerful and cost effective information to a range of sectors. Applications include: Line of sight analysis, public consultation, security and emergency planning, games and simulations, planning applications, noise and pollution monitoring, and light studies.

For further information, contact:  
[james.eddy@bluesky-world.com](mailto:james.eddy@bluesky-world.com)

### EO User Service Next Generation Project (EO USNG)

NPA are coordinating User input into ESA's EO User Service Next Generation project (EO USNG). This project is being led by ACS and aims to improve access to ESA Earth Observation data and products through the next generation of User interface.

A web forum has been set up at <http://usng.acsys.it/display/USNG02/Home> to allow all Users the opportunity to join the discussion about User services. The web forum includes discussions on potential improvements to current ESA services across a range of topics such as

Order Service, Delivery and Data Options, whilst also challenging the introduction of new innovative ideas to redefine these services for the future. Whilst the initial draft of the User Requirements document has been recently completed, all BARSC members using ESA services (e.g. EOLI-SA, DESCW) are encouraged to contribute to the web discussions to ensure their thoughts have been taken into account before the next stage of the project, an internal Workshop.

For more information please contact:  
[charlotte.bishop@npagroup.com](mailto:charlotte.bishop@npagroup.com)



## Logica system to help validate Europe's environmental satellite data

The European Space Agency (ESA) has selected Logica to develop a third generation calibration and validation facility for data from its current and future Earth Observation satellites.

The Generic Environment for Calibration/Validation Analysis (GECA), as it is called, will be an important element in ESA's role in monitoring how the world is changing - from ice-cap degradation and desert expansion, to demographic and weather information.

Calibration and validation ensures that the data coming from the sensors on ESA's satellites match those from other ground-, air- and space-based instruments. This process of calibrating satellite instruments and verifying their accuracy is critical to the delivery of reliable data to the end-user scientific community, and to the accuracy of subsequent research they conduct based on that information.

For further information, contact:  
[chetan.pradhan@logica.com](mailto:chetan.pradhan@logica.com)

## GeomaticaX – customised workflow creation toolkit

GeomaticaX from PCI Geomatics is a toolkit for creating customised workflows and automated processing chains, using Python scripting language and C++, as well as Java programming languages. The latest release consists of version 1.2 of the Professional Software Development Kit (ProSDK) and suite of ProPacks.

PCI Geomatics will be implementing support for TerraSAR-X and WorldView-1 as well as enhanced coverage for ALOS in the form of additional JAXA files support. PCI will support the satellites with data import, orthorectification models, image mosaics and advanced data fusion techniques (including pan sharpening) as well as stereo DEM generation.

For further information, see:  
[www.pcigeomatics.com](http://www.pcigeomatics.com)

## SciSys Delivers SensorWeb Flood Service Demonstrator for COPS (Cooperating EO Sensors)

SciSys has recently completed inputs to the final stages of the ESA Cooperating EO Sensors (COPS) project aimed at demonstrating intelligent satellite tasking raised from alerts raised by a sensor Web based on a prototype implementation of the OGC Sensor Web Enablement specifications.

The project implements a Flood Monitoring Service integrated into the ESA-ESRIN Service Support Environment (SSE) that will allow users to subscribe to receive flood alerts issued for a pre-defined geographical 'area of interest'. The flood alert is distributed using an implementation of the OASIS WS\_NotificationBroker to a Sensor Planning Service (SPS) that is used to determine the earliest opportunity to obtain satellite based SAR imagery.

SciSys is providing the demonstrator application through GIM, the project prime.

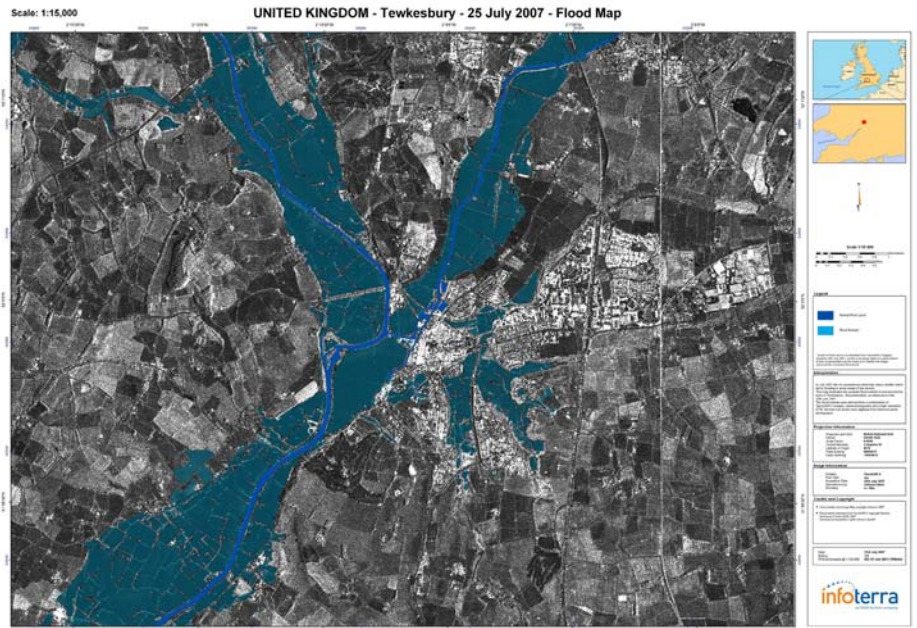
*For more information, contact :*  
[Chris.Lee@scisys.co.uk](mailto:Chris.Lee@scisys.co.uk)

## BKS appoints Intergraph to support expansion into European digital airborne data collection and processing market

BKS Surveys Ltd., a leading supplier of geographic information products and services, has purchased a complete Intergraph Z/I Imaging® DMC® Digital Mapping Camera airborne and ground processing system to support its continued growth and expansion in the acquisition of digital imagery and airborne LiDAR throughout Europe.

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

## Infoterra Ltd to provide flood event mapping service for UK Insurance firms using TerraSAR-X satellite



Using exclusive radar imagery from the recently-launched TerraSAR-X satellite that can see through clouds and storms, Infoterra will provide insurance firms with extremely high resolution radar images that offer accuracy down to just 1 metre to show the full extent of flooding. Infoterra's geospatial specialists will combine flood mapping from TerraSAR-X with existing aerial imagery and OS MasterMap™ data to create composite images that can clearly show the impact of floods on specific postcodes and properties.

TerraSAR-X's satellite radar technology is particularly applicable for flood event mapping, as it is weather-independent and offers fast revisit times to track the scale of a flood's rise and fall. For insurance firms it provides extremely accurate flood footprints to help in the estimation of the spatial height and extent of

flood damage. Infoterra's radar images will also support insurance companies in flood modelling and scenario generation, based on the analysis of estimated maximum losses from historic flood data.

"Infoterra Ltd holds the exclusive UK distribution rights for imagery from the TerraSAR-X satellite. Since its launch in June this year it has proved exceptional at capturing events – such as floods - on the earth's surface," commented Dr Andy Wells, Director of Sales for Infoterra Ltd. "We believe the combination of TerraSAR-X imagery and our geospatial expertise can provide extremely accurate data on flooding, which will prove invaluable given the estimated £3 billion plus of flood claims resulting from the recent flooding last summer."

*For more information, see:*  
[www.infoterra.co.uk](http://www.infoterra.co.uk)

## ARGANS Ltd becomes associate member of BARSC

ARGANS Ltd (Applied Research in Geomatics, Atmosphere, Nature and Space) is a customer-oriented industrial company with links to organisations such as ACRI-ST in France and the University of Plymouth in the UK. The company was established as a Private Limited SME Company in the United Kingdom in 2007 to bring state of the art research to solve industrial, operational and scientific requirements.

ARGANS aims are to be a supplier for all phases within Earth Observation missions (system requirements, analysis and ground segment design plus mission operation), undertake research activities related to ocean and atmosphere modelling, and develop/operate information services related to the monitoring and forecasting of the Earth's environment. Currently its main European Space



Agency (ESA) funded activities include the evaluation of new ocean colour products within the GlobColour project ([www.globcolour.info](http://www.globcolour.info)), satellite product quality control and MERIS calibration/validation activities. Competitive bids, in collaboration with European colleagues, have been submitted for similar activities and the placement of expert scientific staff/software engineers in European space and research centres.

*For more information, contact :  
rabiah.nasir-habeeb@argans.co.uk*

## SciSys acquires VCS AG for Euro 16.7million

SciSys has acquired VCS, a supplier of bespoke IT solutions to the Broadcast and Space sectors. Established in 1986, VCS employs 140 staff from its base in Bochum, Germany.

The Space sector supplies framework-based ICT system solutions and components/applications to European and German space agencies.

In particular, VCS is a leading provider of Earth Observation and Meteorological software, and so the SciSys company profile in such systems now extends across a full spectrum encompassing on-board software, mission control, data processing and user services.

*For more information, contact:  
Chris.Lee@scisys.co.uk*

## NPA becomes part of the Fugro Group

Fugro is the world's preeminent group of companies offering services in the geosciences. Fugro supply information about the earth's surface, soils and rocks to the oil, mining, survey and construction sectors, working on land, at sea and from the air, and as from now – by satellite. The Fugro Group is based in Holland and comprises more than 300 operating companies in 50 countries, employing 12,000 people.

NPA will continue to operate as a discrete company, with David Morten as Managing Director, and their focus will remain on building existing client relationships and services in the exploration and civil engineering fields. Nigel Press will remain as Chairman.

*For more information, contact:  
nigel@npagroup.com*

## eOsphere: Vexcel UK renamed after buyout

Vexcel UK completed a management buyout from Vexcel Corporation and Microsoft during the summer of 2007. This was followed by a name change, when Vexcel UK became eOsphere Limited. eOsphere directors Dominic Flach and Nick Walker are continuing to move the company forward in all of the areas for which Vexcel UK has built its reputation in Earth Observation and Ground Station technology.

Particularly successful last year was the VxEos Ground System, which is eOsphere's turnkey solution for EOS Terra and Aqua MODIS data reception. This is designed for users who want to receive and process data from EOS Terra and Aqua MODIS and the planned NPP and NPOESS satellites. During 2007, eOsphere ground stations were installed in China, Mongolia and Iraq.



*The eOsphere Ground Station installed in Shanghai, China.*

Other key eOsphere activities include the development and provision of near-real-time sea ice products and seasonal ice forecasts for national ice services.

eOsphere also leads research into low frequency radar techniques for exploration underneath the ice and snow in the Antarctic and interplanetary space missions. It is also investigating tomography and polarimetric interferometry for target detection under forest canopies.

*For further information, see:  
[www.eosphere.co.uk](http://www.eosphere.co.uk)*