

Remote Sensing in the Green Economy: Applications and Opportunities

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The drive to monitor and mitigate global climate change, improve energy efficiency, reduce waste, prevent environmental pollution, and protect the Earth's natural resources is set to create numerous new jobs and substantial wealth for the remote sensing community through a variety of new opportunities, in today's "green economy".

Recent years have seen an increasing role for remote sensing in the green agenda. It is already well established in climate science and policy making, particularly in respect of monitoring changes to Earth's climate and the planning of mitigation actions to counter such changes. It is already delivering valuable data to environmentalists, climate scientists and decision makers, and new opportunities are arising continuously as a result of developments in the underlying science and in remote sensing technologies.

This year's BARSC workshop, co-sponsored by BNSC and the NCEO, will examine the role of remote sensing in support of the green economy. The day will explore recent developments and achievements in this sector and discuss the opportunities they hold for the UK. Analysts from the remote sensing industry will describe how satellite remote

sensing data is already being used for such applications, and scientists will offer their perspective on what has currently been achieved and what areas need further development. The impact and influence of related activities of organisations such as ESA, the EC, GEO and CEOS will be discussed.

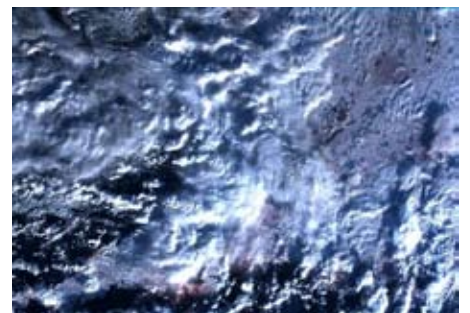
BARSC Workshop 2009

*Thurs 21 May 2009
9.30am-4.30pm*

*BERR Conference Centre
London*

*To register, email:
workshop@barsc.org.uk*

Snowbound Britain



DMC 32 metre gsd image of the unusual snow cover of Cornwall and the West Country, on 3rd February 2009. Image acquired by UK-DMC satellite
©SSTL 2009

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Logica and Phoenix Systems to develop new PALSAR processor for ESA

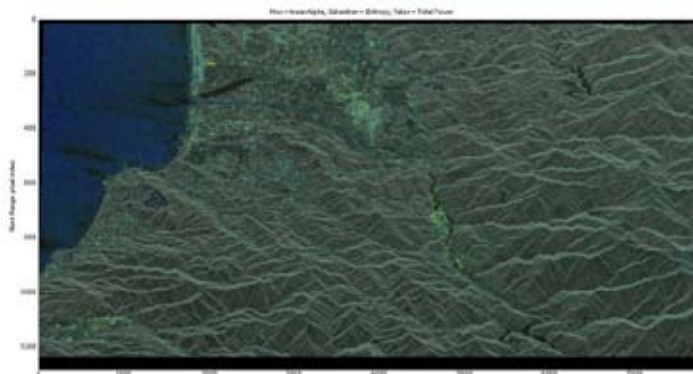
Logica is working with fellow BARSC member and SAR processing experts Phoenix Systems and with Edinburgh-based AEL Consultants to develop a new instrument processing facility for the European Space Agency (ESA), to process data from Japan's Advanced Land Observing Satellite (ALOS) mission.

ESA has set up the ALOS Data European Node (ADEN) to deliver near-real-time and offline data products from ALOS to users resident in Europe, Africa and the Middle East. The new instrument processing facility being developed by Logica and Phoenix Systems will be integrated into ADEN and will process data from the Phased

Array L-band Synthetic Aperture Radar (PALSAR) instrument that flies on board ALOS.

The software will contain functionality to process all types of PALSAR data with new algorithms for advanced features such as polarimetric calibration, Faraday rotation estimation, interference removal and radiometric correction. It must also integrate with the Multi-Mission Facility Infrastructure (MMFI) architecture at ESA and comply with ESA's ground segment interfaces, product formats and SAR image content and corrections.

For more information contact:
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PALSAR high level polarimetric SAR data over Japan

SatOC becomes associate member of BARSC

Satellite Oceanographic Consultants Limited (SatOC) was founded in 2008 by Dr David Cotton and Dr Ellis Ash, both with over 12 years experience of consultancy and applied research in satellite oceanography.

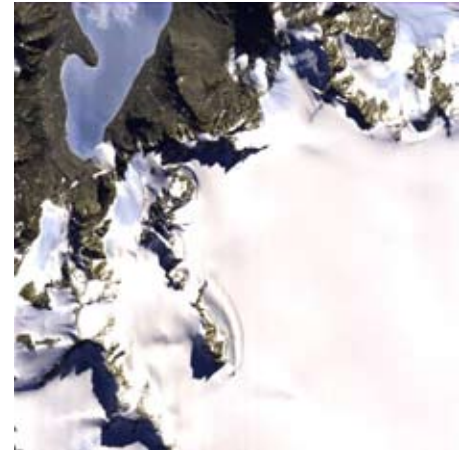
Their mission is to develop and promote practical applications of satellite oceanography by working with industry, the research community and commercial and institutional end users.

Their principal expertise is on the data and information available from satellite microwave sensors that give measurements of ocean winds, waves and currents. They also have close association with specialists on satellite optical, infrared and synthetic aperture radar (SAR) imagery from which information on sea surface temperature, water quality parameters and other oceanographic features can be obtained.

www.barsc.org.uk

RSAC mission planning for CHRIS

Since 2002, Remote Sensing Applications Consultants Ltd (RSAC) has been providing the daily mission planning for the CHRIS (Compact High Resolution Imaging Spectrometer) instrument onboard the ESA PROBA satellite.



Lake Untersee, Antarctica, 9 November 2008

This work is carried out under contract to ESA in co-operation with SSTL and the Redu ground station in Belgium. CHRIS has now supplied a significant number of image sets in support of research into multi-angular satellite data. Recent acquisitions include some excellent cloud-free images of Antarctica.

For more information, see the PROBA website:
<http://earth.esa.int/missions/thirdpartymission/proba.html>



Schirmacher-Oasis, Antarctica, 1 November 2008

Bluesky takes online mapping to a new level

Bluesky has launched a brand new online map shop that offers a unique range of mapping, aerial photography and other aerial survey data available online at the touch of a button. The new website provides access to the most up to date aerial photography, height data, detailed 3D models, LiDAR, thermal imagery and Ordnance Survey mapping.

<http://www.bluesky-world.com> is the only UK website offering online access to this wide selection of data for areas across England, Wales and Scotland.



Intergraph Solution Days

Intergraph UK Ltd will host three Solution Days in Swindon, Wiltshire.

- Earth Imaging Update – the UK launch of the RMK D medium format digital camera, as well as updates on the Intergraph photogrammetry solutions.
- Video Update – the UK launch of GeoMedia MVA, giving real-time tracking, viewing, enhancement and analysis of video feeds, such as from UAV's.
- 3D Update – the UK launch of GeoMedia 3D, bringing 3D visualisation to the GIS desktop, as well as an update on the Skyline TerraSuite software.

For further details, see www.intergraph.co.uk or contact sgi-uk@intergraph.com

BAE Systems introduces new eXtremeAnalysis™ functionality in SOCET GXP® v3.0

Several years ago, BAE Systems observed a transformation in the geospatial-intelligence and GIS disciplines. Users were becoming overwhelmed by the multiple software packages required to complete their workflows; SOCET GXP® was built to address this issue. The SOCET GXP application is the next-generation of true geospatial-intelligence production technology that enables interoperability, collaboration, and data sharing among multiple user groups. It represents the convergence of image analysis and geospatial analysis in one software package for diverse uses. The company calls this integration of functionality eXtreme Analysis™, or XA™.

XA empowers individuals to satisfy analysis and mapping tasks quickly and efficiently, reducing the dependency on multiple tools. SOCET GXP makes it possible for a broad range of personnel, trained and untrained, military and civilian, to use the same product to build, view, and

analyze geospatial-intelligence information. It consolidates image exploitation, geospatial production, and mapping tasks, and establishes the basis for future feature extraction and analysis.

Most workflows are initiated with a few mouse-clicks. A customizable interface and an extensive network of user-defined preferences allow individuals and system administrators to organize the desktop environment according to specific workflows for maximum ease of use.

More information on SOCET GXP v3.0: www.socetgxp.com/content_products/socetgxp/index.htm



PCI acquires two companies

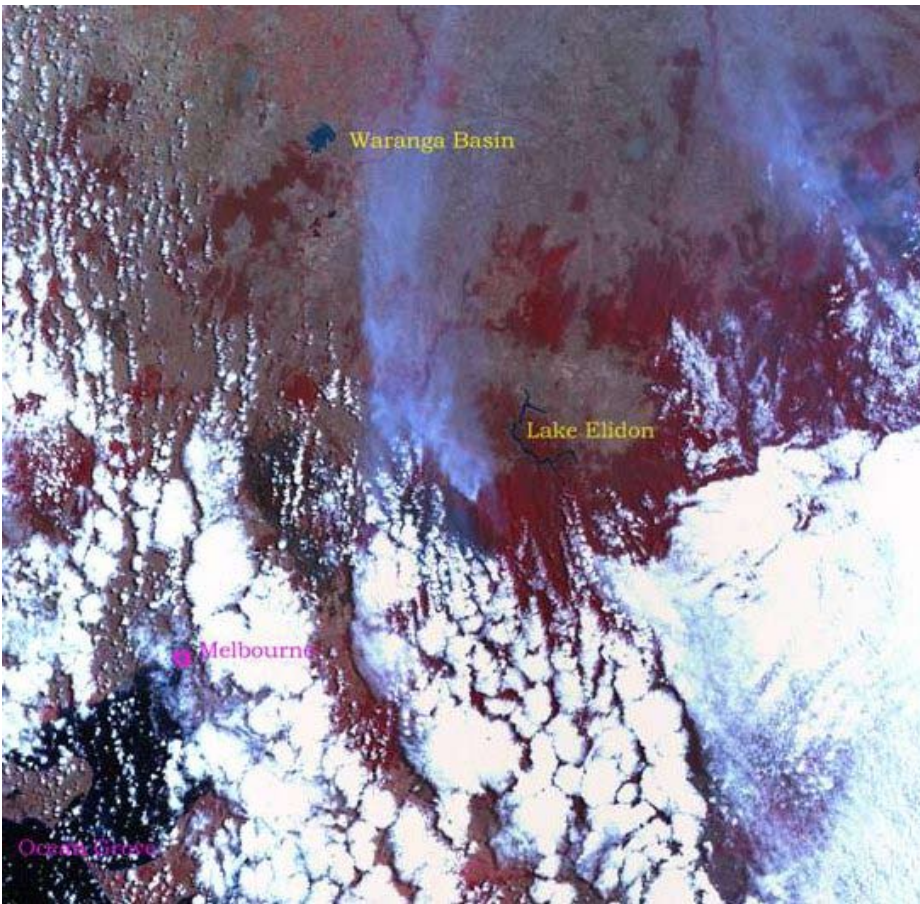
PCI Geomatics is pleased to announce the acquisition of two companies:

TGIS Technologies Inc. is a company specializing in geospatial collaboration software. It is the developer of GeoConference® Software - a unique enterprise solution that allows groups to share and view maps and imagery interactively over the web, in real-time.

Geospace Inc. is a provider of geospatial information and solutions. It is the developer of FeatureObjex, a user friendly, stand alone software package combining interactive editing tools for sophisticated image analysis and feature extraction.

For more information, visit: www.pcigeomatics.com

DMCii Emergency On Call for disaster response



DMC 32metre gsd image of forest fires in Victoria, Australia acquired by Nigériasat-1 9/02/09 ©NASRDA 2009. The plume of smoke shown is to the west of Lake Elidon which is roughly 17km north of Marysville, one of the places reported as suffering in the fires.

DMCii has been active as the Emergency On Call Officer for the International Charter; Space & Major Disasters to coordinate the DMC constellation and the many other Charter satellites in response to a range of disaster activations in the New Year as shown in the table (right).

DMCii started acquiring images of Victoria, Australia as soon as they received news of the devastating fires there. The International Charter has since been activated.

See www.disasterscharter.org for details of activations and situation maps

12 Feb 2009

Fires in Australia

10 Feb 2009

Floods and landslides in Argentina

9 Feb 2009

Flood in Morocco

24 Jan 2009

Hurricane in South West France

9 Jan 2009

Flood in Western Washington, USA

9 Jan 2009

Earthquake and landslide in Costa Rica

Logica leads project to make satellite wave data products more accessible

GlobWave is a three year project, funded by the European Space Agency, to service the needs of satellite wave product users across the globe. The project is led by Logica with fellow BARSC member SatOC, the National Oceanographic Centre Southampton, and two French companies CLS and IFREMER as subcontractors. The project will produce satellite wave data products drawing upon various European and American satellites, and make them available in near real time, in a common format and free of charge.



Building on the successes of similar projects for sea surface temperature and ocean colour, the project aims to stimulate both the use and analysis of satellite wave products. In addition to these satellite products the GlobWave portal (www.globwave.info) will provide common format, near real time in-situ archives and interactive analysis tools. GlobWave will also develop a pilot scheme to enable meteorological centres around the world to verify their model predictions against satellite wave products.

The project kicked off on January 16th, 2009 and will begin operations in early 2010, being directed by regular, structured user consultation.