

Conference Report

RSPSOC ANNUAL CONFERENCE 2007: CHALLENGES FOR EARTH OBSERVATION— SCIENTIFIC, TECHNICAL AND COMMERCIAL

THE RSPSOC ANNUAL CONFERENCE 2007 was hosted by the Geomatics Group at Newcastle University, UK, from 11th to 14th September 2007 and headed by Jon Mills (Newcastle University, UK) and Meredith Williams (Newcastle University, UK). The event attracted more than 264 participants from over 30 countries and proved to be a valuable international meeting. RSPSoc 2007 collaborated successfully with ISPRS in hosting a number of ISPRS Working Group sessions. Councillor Peter John Arnold (Lord Mayor of Newcastle upon Tyne), John Goddard (Deputy Vice-Chancellor of Newcastle University), Ian Dowman (President of ISPRS) and Stuart Marsh (outgoing Chairman of RSPSoc) opened the conference at the Lord Mayor's Reception, held in Newcastle's Civic Centre. The speakers acknowledged the joint effort to accommodate the RSPSoc 2007 in Newcastle upon Tyne, which has become a regular venue for conferences and symposia.

A number of interesting and eye-opening keynote presentations were distributed over the three-day event. William Krabill (NASA, USA) presented a long-term study on change exhibited by glaciers around the globe. Using a combination of ice-penetrating radar and airborne lidar, he demonstrated accelerating ice decay in Greenland from virtually 0 metres per year in 1997 to 15 metres per year in 2007. Ice-core samples reveal a positive correlation of CO₂ content in the atmosphere and temperature throughout earth history and suggest that mankind is currently gambling by emitting increasing amounts of greenhouse gas since the industrial revolution. Krabill identified the oceans as the 'smoking gun' and surmised that a further increase of their temperature will result in complete disappearance of the glaciers, with unknown irreversible consequences.

On a technical keynote, Christian Heipke (Leibniz University of Hanover, Germany) focused on the technical challenges and opportunities that researchers in remote sensing and photogrammetry are confronted with: the automatic organisation of large data-sets that is available due to further technological advances; the speed of post-processing with the potential to deliver a product on the day of the survey; and the automated update of mapping. Heipke also encouraged the audience to continue to employ computer vision algorithms in order to add even more value to research and concluded that remote sensing and photogrammetry do indeed belong together.

Neil Ackroyd (Ordnance Survey, UK) described the historical development and the current role of the Ordnance Survey of Great Britain—initially, to provide basic spatial information for defence against an expected invasion by Napoleon, developing through to a modern customer-oriented government body responsible for mapping. Ordnance Survey has the difficult task of supplying and updating accurate maps for UK organisations, whilst also responding to natural disasters such as the recent floods in England in summer 2007. Ackroyd

also encouraged public and industrial partner involvement in delivering accurate and contemporary mapping, including for Web 2.0 customers.

Ed Parsons (Google, UK) and Michael Gruber (Microsoft Photogrammetry, Austria) represented two very successful and high profile organisations in the field of generating 3D city models and were invited to present their approaches to “Mapping the world”. Both speakers pointed out that with faster internet connections and the recent emergence of Web 2.0, public awareness of remote sensing and photogrammetry has never been higher. It was particularly gratifying to see the prominence of photogrammetric techniques used during the proposed workflows. The related sciences are much more popular and universities and other educational institutions should take even more advantage to encourage interested students to study these disciplines.

The conference was characterised by a strong technical programme. As listed in Table I, a total of 14 technical sessions were held, consisting of forestry, vegetation, classification, geomorphology, polar, ocean, close range photogrammetry and digital cameras, radar, heritage, unpiloted aerial vehicles (UAVs) and high resolution mapping, comprising 70 oral presentations over the course of the three-day event. The conference also hosted two workshops, three NERC sessions and three vendor sessions. The exhibition was a prominent feature, strongly supported by 15 exhibitors mounting an impressive and diverse array of equipment, facilities and services.

The proceedings and additional information were provided innovatively on a USB memory stick, one of many little details to which the organisers had paid attention, while an almost complete set of abstracts was supplied, together with the full programme, in a smartly produced 146-page booklet. A wise decision was also made to allocate dedicated time for the two poster sessions supporting the technical sessions. The simultaneous supply of delicious snacks attracted even more participants to join the poster sessions, such that the poster presenters caught more attention than at many conferences. Overall, 48 posters were presented on the topics of close range photogrammetry, forestry, geomorphology, polar, radar, classification, ISPRS high resolution, ocean, UAVs and vegetation. Best Poster prizes were awarded to Pauline Miller (Newcastle University, UK) on ‘Integrated remote monitoring of

TABLE I. Technical programme at RSPSoc Annual Conference 2007.

<i>Session type</i>	<i>Session title</i>	<i>Number</i>
Keynotes	Individually titled	5
Technical Sessions	Polar, Forestry, Geomorphology, Close Range Photogrammetry, Radar, Heritage, ISPRS VIII/6 Ocean, ISPRS I/4 Digital Cameras, Classification, ISPRS I/4 UAVs, Vegetation, ISPRS IV/9 High Resolution Mapping	12
Poster Sessions	Close Range Photogrammetry, Forestry, Geomorphology, Polar, Radar, Miscellaneous, Classification, ISPRS High Resolution, Ocean, UAVs, Vegetation	2
Workshops	NERC Airborne Research & Survey Facility, Leica Geosystems: ‘Teaching of 3D Laser Scanning’	2
NERC Sessions	GEO and GEOSS, DMCii, CEOI	3
Vendors’ Sessions	BAE Systems, Leica Geosystems, Intergraph, Topcon, English Heritage	3
Exhibition	TopCon, Intergraph, Leica Geosystems, BAE Systems, Ordnance Survey, 3D Laser Mapping, NERC, Taylor & Francis, Bluesky, PCI Geomatics, Environment Agency, Blackwell Publishing, Skye Instruments, English Heritage, Maney Publishing	4
Socials and Drinks Receptions	Lord Mayor’s Reception, Guided River Tyne Cruise, Blackwells Reception, Taylor & Francis Reception, RSPSoc Awards Ceremony and Conference Dinner at St James’s Park Football Ground	5

coastal geohazards' and to Amer Alroichdi (University of Manchester, UK) on 'Laboratory spectro-radiometric prediction of peat decomposition: comparison of transmission, lignin-cellulose and other biochemical indices'.

The superb social events provided ample time to discuss technical issues and future challenges arising from keynotes, technical sessions and poster presentations. The guided river cruise on the Tyne with a savoury dinner showed the best of Newcastle, which deserves the title of an attractive redeveloped industrial site with outstanding landmarks including the Gateshead Millennium Bridge which tilts to allow shipping to pass, the strikingly modern Sage Gateshead music venue and the Baltic Centre for Contemporary Art. The conference dinner was arranged in a very special venue—the impressive VIP lounge of the Newcastle United Football Stadium at St James's Park—emphasising the spirit of a great football nation. It ought to be mentioned that despite continental legends, the food provided throughout the conference proved the existence of an excellent British cuisine—note that this report has been drafted by two of your continental cousins!

In this comfortable and welcoming atmosphere, valuable contributions to photogrammetry and remote sensing were acknowledged by the presentation of the RSPSoc Awards and Prizes (Source: Jane Drummond, University of Glasgow, UK, in *RSPSoc Annual Review April 2006–March 2007*, pp. 4–6, 2007 and repeated here as a measure of the wide and increasingly convergent range of interests of the merged Society, with the two Student awards in particular recognising striking contributions from the photogrammetric discipline to themes that might once have been considered the preserve of remote sensing). Jon Finch received the Founders' Award for his commitment during the merger of the two former Societies which bore fruit some seven years ago. The Len Curtis Award for the best paper in the *International Journal of Remote Sensing* (IJRS) went to S. D. Miller, S. H. D. Haddock, C. D. Elvidge and T. F. Lee (2006), 'Twenty thousand leagues over the seas: the first satellite perspective on bioluminescent "milky seas"', *IJRS*, 27(23): 5129–5143. The E. H. Thompson Award for best paper in *The Photogrammetric Record* was awarded to M. J. Grenness, J. E. Osborn and M. J. Tyas (2005), 'Stereo-photogrammetric mapping of tooth replicas incorporating texture', *The Photogrammetric Record*, 20(110): 147–161. The Taylor and Francis Best Letter award went to G. A. Sánchez-Azofeifa and K. Castro-Esau 2006, 'Canopy observations on the hyper-spectral properties of a community of tropical dry forest lianas and their host trees', *IJRS*, 27(10): 2101–2109. The Student Award for best PhD thesis was presented to Jan Walstra (Loughborough University, UK) on *Historical Aerial Photography and Digital Photogrammetry for Landslide Assessment*. The best MSc thesis award was received by Vasileios Kaligirou (University College London, UK) for his work on *Simulation of Discrete Return Lidar Signals from Conifer Stands*.

To conclude the main social event of RSPSoc 2007, David Williams (Director General of BNSC, UK) pointed out in an after-dinner speech that our political class is well aware of Britain's long-term responsibility towards our environment and climate change and promised to continue to lobby for these important goals.

During the Friday session Karen Anderson (University of Exeter, UK) demonstrated her desire to match this quality event through her welcoming invitation to the RSPSoc Annual Conference 2008, hosted by the University of Exeter on the Cornwall campus from 15th to 17th September 2008. She presented the tentative technical programme and urged interested researchers to put forward proposals for sessions. The RSPSoc Annual Student Meeting 2008 is to be held from 10th to 11th March 2008 in Lyndhurst, New Forest, as also kindly announced by Tina Thomson (RSPSoc Student Representative, University College London, UK), who will follow on from this year's successful student conference organised by Rachel Gaulton (University of Edinburgh, UK).

In summary, the RSPSoc Annual Conference 2007 was a resounding success and met the requirements of an internationally recognised event. During the meeting it became evident that the two former societies—the Remote Sensing Society and the Photogrammetric Society—have merged successfully to form the UK's leading society covering these disciplines. The background of the delegates was diverse and so was the technical programme. At RSPSoc 2007 every part of a functioning Society was represented: academia, industrial partners, vendors, publishers, data providers and government bodies and agencies. The cooperation of RSPSoc with ISPRS for mutual transfer of knowledge and expertise was beneficial to both Societies and it is planned to continue the symbiotic effect for future events. Special thanks have to be conveyed to Jon Mills and Meredith Williams, as well as the other members of the dedicated team at Newcastle University, who clearly spent a large amount of their time in the organisation of this meeting.

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