

# Group Updates

## Cumberland Group News



The annual Cumberland Group Land Development Seminar is on again this year and will be held on Friday 20th July 2012 at the Liverpool Catholic Club, corner Joadja & Hoxton Park Roads, Liverpool West. The seminar is the premier event on the Cumberland Group calendar and has regularly attracted over 300 participants.

The first Cumberland Group seminar was held in 1991. With the exception of a short hiatus to allow the FIG2010 Congress to take centre stage, the Cumberland Group Land Development Seminar has been held annually with speakers coming from private practice and government agencies presenting a wide variety of topics affecting the land development industry.

The Cumberland Group committee is working tirelessly to bring you an informative program for this year's seminar. There will be four sessions throughout the day with the session topics being Planning, Emergency Management, Infrastructure and Land & Property Information. As usual, there will be technical stands displaying the latest in surveying technology. More information on individual presentations and confirmed speakers will be contained in the next edition of Azimuth.

A very reasonable price for the seminar will include lunch, morning and afternoon teas and a happy hour to

finish off proceedings and allow time for that last burning question.

The Liverpool Catholic Club is located just off the M7 and only a few minutes from the M5. The Club is located in the centre of South Western Sydney making it central and easy to get to. There is ground floor access with no stairs and ample on-site parking. Public transport is available by train to Liverpool Station then a short bus trip along the Liverpool-Parramatta T-Way to Stop 15, the closest to the club.

For those preferring to stay overnight, the Mercure Sydney Liverpool Hotel is located adjacent to the club. More information can be found on the Liverpool Catholic Club website at [www.liverpoolcatholic.com.au](http://www.liverpoolcatholic.com.au)

Once the agenda is finalised and CPD points have been assigned, a registration form for the Cumberland Group Development Seminar will be available shortly – see [www.cumberlandgroup.com.au](http://www.cumberlandgroup.com.au). In the meantime, please enter Friday 20 July 2012 in your diary as the day to attend the Cumberland Group Land Development Seminar. ■

*Warren Thomas  
Publicity Officer  
Cumberland Group of Surveyors*

## APAS



### From Ports to Portals: APAS2012 Conference by Dr Volker Janssen

The Association of Public Authority Surveyors NSW (APAS) was formed in 1994 to cater for the needs of professionals in the surveying and spatial information industries working within state and local government and the education sector. APAS has a primary focus on the professional development of its members by circulating matters of interest to members, providing forums for discussion, and offering educational opportunities in the form of an annual conference and seminars (<http://www.surveyors.org.au/groups/apas>).

As a cooperating association of the Institution of Surveyors NSW (ISNSW) and through its involvement with the Board of Surveyors and Spatial Information (BOSSI), APAS

has a significant voice in the wider surveying and spatial information community. APAS also supports universities and TAFEs by providing annual prizes for students and sponsoring student presentations at the annual conference. The advancement and encouragement of students both to join and participate in the profession is considered fundamental to the Association.

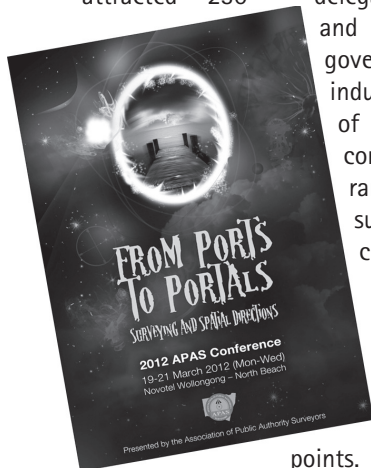
The 1st annual APAS conference took place in Port Macquarie in 1995, following the inaugural conference held a year earlier in Goulburn. From then on it incorporated the annual Staff Surveyors Association (SSA) conference which started way back in 1921. To support the International Federation of Surveyors (FIG) 24th International Congress in Sydney in 2010, APAS did not hold a conference that year.

#### APAS2012

The 17th annual APAS conference (incorporating the 87th annual SSA conference) took place in Wollongong on 19–21 March 2012. This year's conference theme was "From

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ports to portals: Surveying and spatial directions" and contained 8 sessions with 21 paper presentations. APAS2012 attracted 230 delegates from New South Wales and interstate, representing both government agencies and private industry. It continued the tradition of being a practically oriented conference, covering a wide range of topics relevant to the surveying and spatial information community.



APAS2012 was a highlight on the CPD calendar, satisfying the year's requirements in regards to both "cadastral" and "surveying practice" CPD points. The conference kicked off on

Monday afternoon with the traditional team-building exercise (the annual APAS golf tournament).

### 20th March – Morning

The conference proper started on 20th March with Mark Butler (Parsons Brinckerhoff) outlining various coordinate systems used in railways in NSW and discussing their effects on cadastral surveying, engineering and mapping. These coordinate systems included the Map Grid of Australia (MGA), Integrated Survey Grid (ISG), Railway Integrated Grid (RIG), local plane systems, as well as a Cassini-Soldner grid used in Sydney.

Greg Dickson (LPI) explained why things are the way they are and not the way you think they should be in regards to control surveys. He referred to the new Surveyor General's Direction No. 12 "Control Surveys and SCIMS" and the paradigm of absolute position observation versus relative measurement. It was shown that new GNSS technologies, such as RTK and NRTK, now test our defined processes in determining Class and Order.

This was followed by Joel Haasdyk (LPI) with a discussion of site transformations (also known as site calibrations or localisations), which are necessary to relate CORSnet-NSW derived positions to local survey control. He demonstrated that a simple block shift is sufficient to transform RTK or NRTK observations onto local SCIMS control for surveys requiring centimetre-level accuracy, provided AUSGeoid09 is applied. For this contribution, Joel later received the Keith Haddon Memorial Prize for the best paper/presentation.

The second session of the day began with the Opening Ceremony, which included a Welcome to Country by Richard Davis of Illawarra Land Council followed by addresses from Neil Bennett, President of APAS, Councillor Gordon Bradbery OAM, Lord Mayor of Wollongong, Grahame Wallis, President of ISNSW, Warwick Hehir, NSW Chair of SSSI, and Des Mooney, Surveyor General of NSW and General Manager of LPI.

After the official opening, Bob Lander (Tattersall Lander) presented aspects of being an expert witness on civil litigation, boundary, planning and development issues in the Land and Environment Court. He concluded that the expectations of the services that a surveyor generally

provides have not changed. However, this new area of activity slowly develops the surveying profession into a more complex entity which ultimately displays the professional training and skills that are well recognised within related professions.

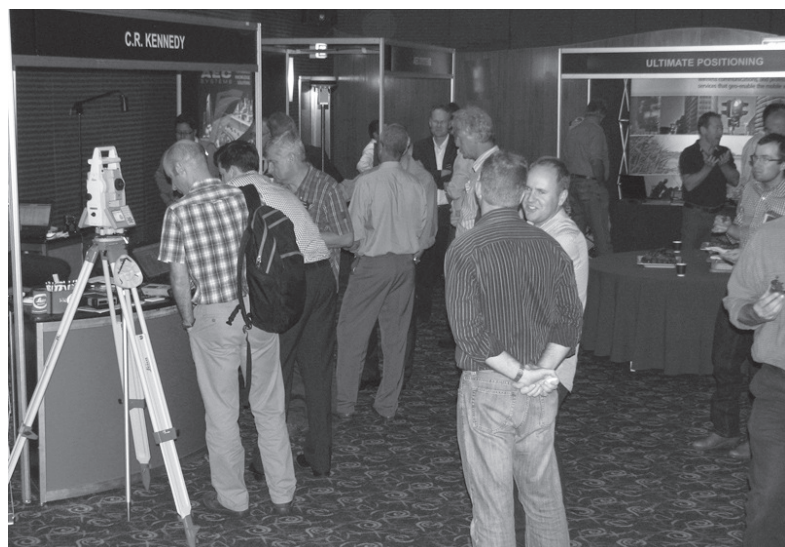
### 20th March – Afternoon

The first afternoon session began with Dr Volker Janssen (LPI) discussing the likely impact of the approaching solar maximum on GNSS surveys. He urged GNSS users to be alert but not alarmed. While the solar maximum (expected to occur early 2013) will be the smallest in about 100 years, an intermittent reduction in positioning performance as well as communication problems for mobile phone connections and radio links should be expected from now on.

Thomas Grinter (LPI) showed that post-processed Precise Point Positioning (PPP) using a standalone GNSS receiver can provide a viable alternative to differential techniques for survey-accuracy, static applications using observation spans of at least 4 hours. This can be potentially useful in regional areas that are currently not covered by a sufficiently dense CORS infrastructure. However, the use of Geoscience Australia's AUSPOS service would generally be preferred because it provides GDA94 coordinates.

This was followed by Leigh Finlay (Sinclair Knight Merz) presenting a unique solution to measure the deformation of a 140-metre long and 1.46-metre diameter stormwater pipe. 3D laser scanning under tight space conditions was combined with innovative calculation and presentation methods to deliver a comprehensive deformation analysis that clearly showed the effects of land subsidence.

In the second session of the afternoon, Mark Deal (LPI) outlined the Digital Plan Processing System (DPPS) which incorporates the development of ePlan systems to process digital cadastral plans in Land XML format. The system will develop the capability for professionals to source and lodge digital survey and spatial data through the existing Spatial Information Exchange (SIX) portal. It is expected to have significant impact and benefit both within LPI and externally on land development stakeholders, particularly the surveying profession.



*The technical exhibits generated a lot of interest throughout the conference.*

Stephen Saunders (NSW Public Works) discussed some of the various surveys undertaken for the re-development of the WIN Stadium western grandstand, Wollongong. These included control and detail surveys, utility service location, borehole set-out, earthwork surveys and the resolution of several cadastral matters. Terrestrial laser scanning proved to be a valuable tool for many aspects of the project.

In a very entertaining video presentation, Stephen Bennett and Jim Ollis (RMS) described the cadastral survey for the iconic Sea Cliff Bridge, located north of Wollongong. The project required a combination of traditional survey techniques and modern technology under difficult conditions in inhospitable terrain. It produced a very comprehensive and rigorous cadastral survey that was full of challenges and included marks placed 130 years ago.

The session was followed by short presentations of the technical exhibitors. In addition, during both days, there were plenty of opportunities for networking and to explore the newest developments by visiting the exhibitor's booths. All the big names in the business were present. The Annual Dinner concluded the day with dinner speaker Greg Goodman (Land Team) recollecting his experiences on the Kokoda Track, which even featured a NSW survey mark in the jungle.

### 21st March – Morning

The first session on Wednesday started with Fred de Belin (City of Ryde) reporting on the use of PM cover boxes for the preservation of survey reference marks during construction works. Since these boxes are visible at the surface, they also show adjacent property owners and the general public the existence of valuable survey marks.

Mark Gordon (RMS) presented an update on the development of an Australian standard in subsurface utility engineering (SUE). This engineering process provides much more accurate information on the location and condition of subsurface utilities than has been traditionally available. Provided that consensus is reached among the stakeholders, the new standard is expected to be published in 2013.

Dominic Puiu (Dial Before You Dig NSW/ACT) explained that the NSW Government has criminalised reckless and deliberate damage to gas, electricity and telecommunication networks after a series of embarrassing power cuts to the Sydney CBD in 2009. As a result, NSW is the only Australian jurisdiction to specifically require notification of excavations to Dial Before You Dig. This is expected to better protect existing underground utilities.

At the beginning of the second session, Ray Gilmour (RMS) gave a surveyor's perspective on working near traffic and related OH&S issues. All RMS projects, including contractors and local government, are required to comply with the Traffic Control at Worksites Manual for surveying activities. This manual is used as a method of identifying and managing risk of the workforce in the vicinity of road users and their vehicles. The importance of being aware of one's situation and having an escape route was emphasised.

Warwick Hehir (NSW Rural Fire Service) discussed the emergency management framework supporting spatial data collaboration between national to local jurisdictions and the

tools and technologies utilised. This included the mapping of fire fronts, making data available to all emergency services as quickly as possible, and sharing emergency information with the public through Iphone applications and web maps.

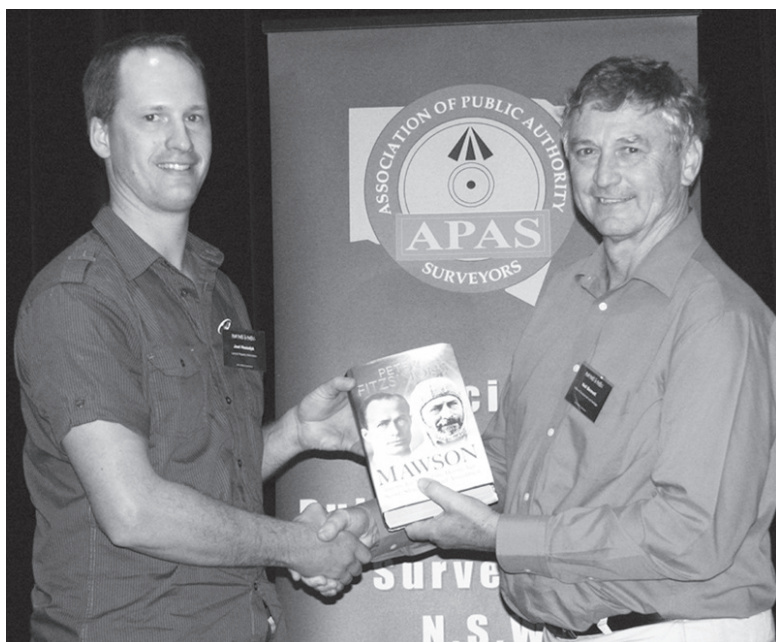
This was followed by Geoff Songberg (Crown Lands, DPI) presenting a mathematical method to locate the cadastral bank of a non-tidal stream based on readily available flow information. He suggested that the current definition of the bank may be too complex and could be simplified without causing significant change to the boundaries. It was proposed to define the bank as the limit of the bed adequate to contain the average or mean flow of the stream.

### 21st March – Afternoon

The first session of the afternoon commenced with Allan Gordon (RMS) providing a surveyor's guide to navigating the cadastral plan endorsement process undertaken by the Maritime Services Division of RMS. This process is required when a cadastral survey is carried out on land adjoining wetlands owned by RMS for endorsement of the common foreshore boundary (unless it is a right line boundary) prior to plan registration by LPI.

Venessa O'Connell (Sydney Ports Corporation) reported on single beam and high-resolution multibeam hydrographic surveys. Using a multibeam echo sounder system, full seafloor coverage of Sydney Ports' waterways was achieved for the first time. The process involved in validating the reliability and accuracy of these hydrographic surveys was also described.

Lindsay Dyce (Pittwater Council) provided a case study of the evolution of Pittwater Council's land and planning information systems and services. These developed from a set of unreliable hardcopy maps and databases to an integrated electronic platform available via the internet. He emphasised the importance of surveyors being involved, pointing out that these systems would quickly become unreliable without a comprehensive understanding of what constitutes the cadastre and how it needs to be maintained.



Joel Haasdyk receives the best paper/presentation award from APAS Past President Neil Bennett.



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The second session began with Alex Cowdery (AAM Group) presenting some of the technologies used to provide timely, accurate and comprehensive spatial data to assess the damage caused by recent natural disasters, such as flooding and tropical storms, in Queensland. Particularly the rapid capture and distribution of high-resolution, post-disaster aerial imagery was invaluable in order to prioritise resources and help rebuild the infrastructure, communities and homes affected.

Geoff Lenton (RMS) outlined the surveys necessary for the establishment of average speed safety cameras. These cameras enable the detection and subsequent penalising of drivers of heavy vehicles speeding over a distance (point-to-point) as opposed to instantaneous (fixed point) detection. The different surveys undertaken and their documentation ensured that the requirements of this new legislation were met.

APAS2012 concluded with a conference review, followed by the Annual General Meetings of APAS and SSA. The elected APAS office bearers for 2012/13 are Grant Kilpatrick (President), David Webb (Vice President), Geoff Lenton (Secretary & Public Officer), Les Gardner (Treasurer), Neil Bennett (Past President), Dr Volker Janssen

(Publications Officer), Gavin Evans (Conference Manager), Graeme Stewart (ISNSW Representative), and Committee Members Jarad Cannings, Fred de Belin and Warren Thomas.

The APAS2012 conference proceedings are available on CD for purchase from LPI.

### APAS2013

APAS2013 will be held in Canberra on 12-14 March 2013, coinciding with the national capital's centenary celebrations. To continue the success story of the APAS conference, we rely on the presentation of quality papers addressing a multitude of issues that are of interest to the profession. Please consider contributing to next year's conference. There is a lot of fantastic work being done out there – why not tell the profession about it? For more information and to register interest in presenting at APAS2013, please contact the APAS Publications Officer, Dr Volker Janssen at LPI. <Volker.Janssen@lpi.nsw.gov.au> ■

## Surveying & Spatial Sciences Institute News



### Strategic Plan released

Incoming President, Gary Maguire has announced the release of the Surveying & Spatial Sciences Institute (SSSI) latest strategic plan: Strategy 2015.

"Over the past 14 months, board members have been working very hard to produce a strategy that has relevance to our members, stakeholders and staff while also articulating a pathway of sustainability and a vision of leadership," said Gary.

The strategy is divided into six priority areas and 21 broad strategies with deliverable targets.

"The strategy will become part of the overall operating framework for SSSI, where there is a line-of-sight between high level strategic direction and the member," he added.

"This was one of the most important elements identified when developing Strategy 2015 and was considered to be one of the most fundamental requirements that the strategy should include.

"This is an exciting time for SSSI and, as you read through the strategy, you will see that we have set the bar very high on deliverables to our members and stakeholders in the coming years. I hope you all read Strategy 2015, be inspired a little, and become active members in SSSI and make it a great professional organisation in the Asia Pacific."

For more information, and to download a copy of the strategy, visit <http://www.sssi.org.au/newsdetails/356.html>

### The Lawrence Report

#### Investigation into the Spatial Capability of Australia

In 2010, Mr. Drew Clarke, Secretary of the Department of Resources, Energy and Tourism invited Dr. Vanessa Lawrence CB, Director General and Chief Executive, Ordnance Survey, Great Britain, to investigate Australia's current spatial capability in order to inform future spatial policy and capability developments.

The Office of Spatial Policy is pleased to announce that the final report by Dr. Vanessa Lawrence on the Investigation into the Spatial Capability of Australia, and the Australian Government's response to the report are now available on the Department of Resources, Energy and Tourism website.

The reports can be accessed online at <http://www.ret.gov.au/Department/osp/lawrence-review/Pages/isca.aspx> ■

*Ross Johnson*

*NSW Committee Member- SSSI*