Cadastre NSW Report

LPI Privatisation

Invitation to FIG 2017, Helsinki

Using Drone Technology for Land Titling
The Institution of Surveyors NSW the Association of Consulting Surveyors NSW and Spatial Industries Business Association invite you to attend the 2016 EISSI AWARDS at the Four Points by Sheraton Darling Harbour on Saturday 17 September 2016.

Join industry colleagues for the biggest night on the Surveying calendar. Take the opportunity to celebrate the achievements of those within the profession, network with colleagues, and support the Surveying and Spatial industry.

Presentation Dinner:
Four Points by Sheraton Darling Harbour,
Saturday 17th September 2016

Four Points by Sheraton Sydney, Darling Harbour, is located in the bustling Central Business District and overlooks the breathtaking Darling Harbour. Direct access into Darling Harbour via our internal link way connects you to this vibrant precinct. Our central location means you are only a 15-minute walk away from Sydney’s top attractions including the Sydney Harbour Bridge, Pitt Street Mall, The Rocks and the Sydney Opera House.

Entertainment
The Velvet Set Swing Band
Be entertained by The Velvet Set Swing Band featuring some of Sydney’s finest talented jazz musicians. Regarded as one of the best swing bands in the country, The Velvet Set will wow you with a combination of male and female vocals to faithfully recreate the classic tunes of the 1930s, ’40s and ’50s.

Master of Ceremonies
Tom Gleeson
Well known and much loved comedian, author and media personality Tom Gleeson is always a favourite amongst the crowd. His quick wit, humour and performance style is enjoyed by all.

He is the comedian comedians watch.

Besides his many TV appearances, he’s been nominated for a Helpmann Award three times and won the Piece of Wood Comedian’s Choice Award in the Melbourne International Comedy Festival.

Tom has performed at the Sydney Opera House, every capital city in Australia, London, Dublin, New York, Los Angeles, Singapore, Hong Kong, Jakarta as well as entertaining the troops in Iraq and Afghanistan.

Lucky Door Prize
The lucky door prize for the evening is for one night’s accommodation in a Harbour View room incl buffet breakfast for two (valid until 30th November).

Each ticket purchased before 29 August 2016 will be entered into the lucky door prize draw to be announced on the night.

Discounted Accommodation @ $270 for a City Side Room is still available via the following link:

The NSW EISSI Awards would like to welcome the 2016 sponsors

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C.R. Kennedy Survey Solutions
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Regular Features
4 President’s Report
6 Executive Officer’s Report
8 Secretary’s Report
28 Classifieds
28 Conferences & Seminars
28 Membership Connect
29 Calendar of Events
29 Job Seekers July 2016

The Profession
9 Cadastre NSW – Stakeholder Analysis Report
17 Cadastral Systems from around the World – Philippines

LPI Privatisation
12 Letter to the NSW Treasurer
14 Letter to the Editor – Stop Privatisation of the NSW Land Titles System

FIG
15 FIG Working Week 2017

News
16 Using Drone Technology to Improve Land Titling in the Philippines
25 Yamaha’s Autonomous Boat makes surveying a breeze
26 ANZ MapS Annual Conference

Work Health and Safety
27 Dial Before You Dig

Quote Corner
“The beginning is the most important part of the work.”
– Plato

All material, opinions and reports published in this magazine are for the interest of members. No endorsement by the Institution of Surveyors, New South Wales, Incorporated, is given or implied by their publication.

Cover: Trig at Mt Kosciuszko. Photo by Nicholas Gowans. This photo has been provided courtesy of LPI, and appears in the LPI 2016 Survey Calendar.
The breakup of the LPI has happened and we have received a letter from the Treasurer Berejiklian announcing our June letter. On 26 July we have had a second meeting with Treasury officials and the Hon Greg Pearce MLC. The details of the meeting are included in this edition of Azimuth.

As part of the breakup of the LPI, Surveyor General Des Mooney is now CEO of the Titling and Registry Services of LPI and advertisements have been placed to find a new Surveyor General. In the mean time, David Job is Acting Surveyor General.

Coinciding with this, Deputy Surveyor General Paul Harcombe retired and was given a pleasant and somewhat amusing send-off on Friday 22 July. We are hoping that once Paul catches his breath he will be active in the Institution.

The Board meeting held on 1 July was in conjunction with the Murray Group meeting in Albury. Following the board meeting the directors joined the Murray Group for the rest of their function and some directors gave presentations to the group. One of the interesting points discussed was the proposed change to the Surveying legislation which will establish a time scale on the life of the signature of the Surveyor on a deposited plan. The change will more or less require that the plan be re-signed if it is not registered within 2 years. Of course re-signing implies more than just that.

The judging of the EISSI Awards night scheduled for 17 September is now complete. It is encouraging to see not only the variety of work completed by Surveyors but to also see the high standard of their achievements.

On 15 July I attended the Institution of Surveyors Victoria Surveying Industry Awards function at St Kilda. It was quite a social event with only a few awards distributed but it was pleasing to witness the acknowledgement of two surveyors who had completed Institution membership of 60 and 70 years respectively. It will be interesting to compare this event with our EISSI Awards night.

The Azimuth committee had its monthly teleconference where proposed articles and timetables were discussed. We are still on the lookout for an editor and our thanks go to Paul Davis-Raiss for holding the fort while the search is ongoing.

An interesting matter surfaced at the Surveying Practice Committee on (02) 9264 2075 or email: manager@surveyors.org.au

A reminder for your diary is the Institution Golf Day which will be held on Friday 14 October at the Pennant Hills Golf Club in Beecroft.

Until next month.

Michael Green
President ISNSW

 positional VACANT

Azimuth Editor

The ISNSW Azimuth Magazine is currently without an official Editor. The magazine is being edited by an acting editor for the time being until we find a suitable replacement.

Below is a list of the responsibilities required for this position. There is an annual remuneration of $5,000.00 + GST.

If you consider this as something that would suit you please contact Terina Sawyer on behalf of the Azimuth Committee on (02) 9264 2075 or email: manager@surveyors.org.au

The following list gives a general indication of the editor’s duties:

- Attend monthly teleconferences with the Azimuth Committee (about 1 hour)
- Contribute ideas for future articles
- Determine future direction of magazine in conjunction with Committee (eg electronic Azimuth)
- Source material from industry experts and outside sources
- Receive articles and photos by email each month
- Send articles to art director
- Liaise with art director on magazine presentation
- Prepare proof read and final checking before printing

The following are not part of the Editor’s duties:

- Publishing software to put the magazine together (this is done by the art director)
- Don’t need to have any knowledge or expertise in publishing or software
- Don’t need to be involved with the advertising in Azimuth (ISNSW office does this)
- Don’t have to write articles (but you are free to if so inclined)

The position of Editor of the Azimuth magazine for the Institution of Surveyors NSW is held in high regard by the profession. We hope you will give this serious consideration and look forward to your response.

On behalf of the AZIMUTH COMMITTEE

Michael Green

Azimuth Editor

Azimuth (ISNSW office does this)

The following list gives a general indication of the editor’s duties:

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We were delighted to see Alan Shephard FIS at the ISNSW Head Office recently. Alan and his wife Kaye are in the process of downsizing and Alan had a box of treasured surveying and history books to donate to the Institution. This is a very big year for Alan as he celebrates his 60th year as a Registered Surveyor (and still working) as well as celebrating his 83rd birthday this August. We wish Alan and Kaye the happiest of moves to their new abode and sincerely thank Alan for thinking of us and getting that box up to Sydney from Moruya.

CPD for 2015-2016 has now ended
A 'late processing fee' of $55.00 (incl GST) may be charged for any CPD return lodged after the 31st August 2016.
Please note: anyone submitting self-assessments for points must complete an ISNSW CPD Personal Assessment Submission Form. The CPD Calendar, CPD Personal Assessment Submission Form and CPD Personal Record Sheet can be downloaded from the ISNSW website: http://www.surveyors.org.au/auth/auto/group/members/cpd-forms-and-assessments1.html

2016-2017 ISNSW Membership Fees
Due were by the 30th June:
To avoid a late (reinstatement) fee of $110.00 (incl GST) or removal from the membership register please make your payment by 31st July 2016.
Payments can be made online at http://www.surveyors.org.au/auth/renew (where you will need your password to access the “Members Only” section of the Institution website). If you experience difficulties please contact the Institution Office on (02) 9264 2076 or email membership@surveyors.org.au.
If you have recently made a payment we thank you for your continuing support.

Upcoming Events
SATURDAY 17 SEPTEMBER:
The EISSI Awards being held at the Four Points by Sheraton Sydney, Darling Harbour
FRIDAY 7 OCTOBER:
Annual General Meeting at the ISNSW Head Office 5.30 for 6.00pm
FRIDAY 11 NOVEMBER:
51st Annual Institution Golf Day - being held again this year at the Pennant Hills Golf Club on Friday 14 October 2016. This is a great day out so start planning your teams soon. Great prizes to be won—!!!
TUESDAY 24 AND WEDNESDAY 25 JANUARY 2017
Australia Day Seminar at the Four Seasons Hotel Sydney

Terina Sawyer, Executive Officer, Institution of Surveyors NSW Inc.
Summary of the Minutes of the ISNSW Board Meeting, July 2016

I am honoured to be invited to assume the role of Secretary following the resignation of Vicki Tester. In my opinion she has been the most active Secretary I have ever witnessed, and she leaves big shoes to be filled. My shoes are not as glamorous as hers, but I will try and follow her lead.

Our July Board meeting was transferred to Albury to allow us to interact with the Murray Group members at their Seminar. The venue, their hospitality, and the discussion were well worth the effort.

President Michael Green began the Board meeting a few minutes late, but to his credit finished a few minutes before the 12:30pm deadline, and he still to his credit finished a few minutes before the 12:30pm deadline, and he still

FINANCE REPORT: It was great to have Matthew back on deck and his Good-news Report helped. The 125th Anniversary was a success in that a tiny loss of only $489 was overshadowed by the terrific History Seminar and celebratory dinner at the Sheraton on the Park. Terina and the office team can take a bow.

An expected End of Year Profit, in the order of $90,000 will no doubt be twinned by the Auditor and Tax Man, but this cannot detract from a great effort from Matthew and the Head Office team. It does not include any of the Group operations.

An increase in Membership, a decrease in expenses and improved accounting were the main reasons for the result.

MECHANRY: Welcome to the following Student Members:

- Michael Oatien, Sam Lewton, Michael Tilden, Wayne Holmes, Stephen Goodsell, Alexer Quarmby, John Snell, Natalie Eisenhauer

- Members who advanced their level to Graduate:

  - Gregory Doherty, Achilles Zervas, Trent Teila, Daniel Vicentie, Jason Terry, Elliot Griffiths

- And one Associate: Levi Wadd.

- And more admissions to full Corporate Membership:

  - Domenico Panetta, Scott Ware, Sam Byrnes, Phillip Nixon, John Herdegen, Dean Henry.

These were offsets by Resignations of those who have contributed so much in the past:


The list of people who have contributed so much in the past could go on indefinitely.

APOLOGIES: were received from Tom McDonald, Andrew Uscher and Vittorio Sussanah. Their input was sorely missed on several occasions. Each is a young voice with much to say.

ONT-GOING MATTERS IN BUSINESS:

- We remind Members that the Constitution will be open for a bit of tweaking at the October AGM, so the Constitution will be open for a bit of tweaking at the October AGM, so

- The AGM report will be referred back to their August Meeting for final tweaking.

- We think we have established a need for a marketing person to replace Anthony Wallace. It may be a part-time position and will need a job description but could handle media issues for news releases, contact with universities and the Taskforce. Speaking of which, we also resolved to support the Taskforce financially again this year. Their measure of performance seems to reflect an increase in the up-take in tertiary enrolments.

- The accreditation of surveyors to undertake Engineering Surveys will be further explored and a list of competencies and a methodology will be developed. This will eventually require an Accreditation Panel.

- There is no new Azimuth Editor stepping forward, but the current Committee will continue to function and produce a magazine. We need to keep on the lookout for THE Editor. (I note also that he/she has big shoes to step into).

- For more detail on the outcomes of the Board Meeting, contact the Office.

- In the afternoon the Board attended the Murray Group and several members gave dissertations on their area of expertise to the attendees. Murray Group had a really good roll-up of members. We followed this up with a Dinner and found many more solutions for the problems of the world. We really should have had the Politicians present instead of them running around pre-election like chooks without heads.

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**Cadastre NSW Stakeholder Analysis Report**

Prepared for Land and Property Information by JACOBS

6 April 2016

**Executive Summary**

**BACKGROUND**

The way land is managed is crucial to the economic, social and environmental prosperity of New South Wales. Informing any land related policy, regulatory process or decision requires knowledge of who owns land and/or has any documented interest in it. The digital cadastre, spatially representing the division of land ownership across the state, is the primary link necessary to identify these interests and better manage the $1.34 trillion of land in NSW.

In NSW however there is no common digital representation of the cadastre used across governments and industry. Instead, it is estimated that there are over 100 cadastral datasets being maintained on a day to day basis, resulting in significant duplication of resources, a higher regulatory burden on industry, constraining decision making and unnecessary barriers to digital government services.

In 2015 the NSW Location Leadership Group (LLG) updated the NSW Location Intelligence Strategy, Locate+ and committed to improving NSW’s cadastre. As part of this commitment, the Cadastre NSW Working Group (CNWG) was subsequently formed, and consists of government and private sector representatives. CNWG is seeking ways to improve the way cadastral information is sourced, managed and delivered across NSW.

To assist in analysing stakeholder issues in regards to the digital cadastre, Jacobs Group (Australia) were engaged in November 2015, to facilitate four one-day workshops (local councils, state government, utilities, industry). These workshops were designed to establish a consensus regarding problems and opportunities relating to cadastral and associated datasets and the potential benefits of cadastral reforms. The findings will be used by the CNWG to develop a business case for NSW Treasury by late 2016.

**OVERVIEW OF CURRENT ARRANGEMENTS**

Forty-six representatives from NSW local councils, NSW government agencies, utility providers and industry responded to tailored surveys designed to capture details about current arrangements regarding cadastral and associated datasets. Collectively the respondents identified that they:

- Spend over $19 million per annum on creating, maintaining, updating the cadastre and associated datasets.
- Employ over 275 people to create, maintain and update their cadastres and associated datasets.

Stakeholders were also concerned about a lack of coordination between the custodians/users of the cadastre and associated datasets. They noted that NSW legislation does not prescribe any roles and responsibilities for the maintenance of a digital cadastre, however legislative reform was considered by some to be too difficult and even unnecessary if coordination can be achieved through other means.

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**APologies:** were received from Tom McDonald, Andrew Uscher and Vittorio Sussanah. Their input was sorely missed on several occasions. Each is a young voice with much to say.

**ON-GOING MATTERS IN BUSINESS:**

We remind Members that the Constitution will be open for a bit of tweaking at the October AGM, so if you have anything you see with room for improvement or change, it must be notified immediately to give us time to get it on the AGM notice.

We are still looking at an overhaul of the Ethics Committee and the Members’ awareness of what ethics mean. This is a complex matter in this modern world and there is a lot more to be done.

CPD changes such as a CPD policy allowing remote members to view a video and gain points without attending a face-to-face seminar, and a review of the limits which various activities attract are under way.

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### Problems and Opportunities

Stakeholders identified three priority problems and opportunities associated with the current management of the NSW digital cadastre (Figure 1).

**Proposed plan data is not consistently distributed**
- A lack of mandated requirements or mechanisms by which local councils can capture and disseminate proposed plans during the early stages of land and property development.
- The reliance on ad-hoc enquiry/email transmission of proposed plans and address details due to the lack of a single source of information and a uniform process for accessing information.
- Reported impacts included:
  - Costly regulatory processes for the final approval of new homes due to the need to manually validate, manipulate and update data sets about location information on site.
  - Delays in processing the sale of crown land.
  - Delays in connecting utilities to new homes.
  - Delays in emergency services (ambulance, fire and police) responding to calls to new subdivisions or those under development.
  - Constrained utility network capacity planning.

**Lack of a co-ordinated minimum NSW cadastre**
- The lack of coordination regarding the cadastre and associated datasets means that:
  - There is no agreed set of features and attributes that, at a minimum, meet the business requirements of all (or the majority of) stakeholders.
  - The number of associated layers maintained by NSW organisations (one Council reported that they maintain over 300) results in a significant cost barrier to the future adoption of a single land cadastre.
  - Significant time is needed for users to add to or modify the digital cadastre to make it fit for purpose for their organisation.
  - Users of the cadastre maintain their own versions to simplify the timing of update processes, and mitigate delays in receiving updates from other agencies.
  - Links between the digital cadastre, registered title and other property information, are not complete. Reported impacts included:
    - Significant duplication of resources, seen in the maintenance of different versions of the cadastre. One local council reported spending approximately 2 years undertaking a project to improve the accuracy of their cadastre, which included comparing NSW Land and Property Information’s state-wide cadastre with their own.
    - Barriers to increased delivery of digital government services, such as automating planning certificates.
    - Delays in processing the sale of crown land.
    - Reduced accuracy of land valuations.

**Users are uncertain about the cadastre’s accuracy**
- Several factors cause the variable accuracy of the cadastre:
  - The accuracy of historical cadastral records has often not been verified since digitisation in the 1960s-1990s.
  - The position of utility infrastructure recorded in plans often highlights inaccuracies in the cadastre. Some organisations update the position of the cadastre to match their infrastructure.
  - Many local councils and utility providers maintain their own cadastre. Updates to individually maintained cadastres are not uniformly coordinated. Local councils (especially rural and regional councils) don’t have sufficient resources to regularly review the accuracy of their cadastre.
  - User's uncertainty of the cadastre’s accuracy results in:
    - Delays and increased cost of infrastructure and property development.
    - Uncertainty of the location of underground utility assets.
    - Reduced ability to enforce regulation and perform statutory obligations (e.g. illegal clearing, illegal dwellings).
    - Delayed sale of public assets.

### Strategic Alignment with NSW Government Priorities

The potential benefits are aligned with NSW Premier and State Priorities and are discussed in Figure 3 below.

**NSW Premier and State Priority**

<table>
<thead>
<tr>
<th>NSWSR and State Priority</th>
<th>Alignment of potential NSW cadastre reform benefits with NSW Premier and State Priorities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Building Infrastructure</strong></td>
<td>Accuracy of infrastructure planning will increase and thereby reduce time and cost associated with selecting, delivering and commissioning the right infrastructure with the right capacity in areas of meet need. Increase the usability and value of field based asset management apps (e.g. checking asset condition, managing vegetation, bushfire preparedness and risk assessments).</td>
</tr>
<tr>
<td><strong>Faster Housing Approvals</strong></td>
<td>Increase housing supply and place downward pressure on housing costs by reducing timelines for development certification and registration. Facilitates greater planning awareness of compliance with environmental and other regulatory requirements.</td>
</tr>
<tr>
<td><strong>Better Government Digital Services</strong></td>
<td>Support the development of digital land transactions across Government and industry enabling more services to be conducted online such as e-planning portal and environmental data portal. NSW Data Analytics will use whole of government data for strategic decisions making for which cadastral and associated spatial datasets will be crucial.</td>
</tr>
</tbody>
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**Benefits**

- Stakeholders believed addressing the problems outlined above will potentially generate benefits in five areas (Figure 2 above).

### Potential Benefits of Addressing Identified Problems

![Diagram showing potential benefits](image)

**Figure 2 – Potential benefits of addressing identified problems**

**Figure 3 – Alignment of potential NSW cadastre reform benefits with NSW Premier and State Priorities**

**Figure 1 – Problems and Opportunities identified by stakeholders**

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**Further Information**

The full report is available on the DFSI Spatial Services website below. For further information, or to provide feedback, please contact CadastreNSW@lpi.nsw.gov.au.

Concession to private sector of LPI
Titling & Registry Services

On 14 June this year a letter was sent to the NSW Treasurer, Gladys Berejiklian, setting out the concerns of the Institution of Surveyors NSW (ISNSW) with the proposed concession of the LPI – Titling & Registry Services.

Following this letter, a meeting was held at the Treasury offices on 26 July between Treasury Officials and representatives from the Institution Michael Green, President ISNSW, Bob Harrison, Secretary ISNSW, and Greg Frith, a member of the LPI Liaison Committee. The original instigator of the concession proposal, Hon Greg Pearce MLC and Chair of the State Development Concession proposal, Hon Greg Pearce MLC and Chair of the State Development

This proposal heralds a dramatic change to the management of the Land Title System of New South Wales. The NSW Land Title System not only forms part of the basis of our culture and economy but is acknowledged worldwide as one of the world’s best title systems. The security of our land titles supports growth within our society and to do this it relies on good government.

The Institution is concerned that the separation of the operational and regulatory arms of the NSW system will prove to be an inefficient relationship particularly with respect to the funding of the regulatory arm. We applaud your intention to maintain the integrity of the title system and the continuation of the State’s guarantee of the system backed by the Torrens Assurance Fund. However, we question how the Fund will be financed once the income from the operational section of LPI is privatised and the net proceeds from funds received through the concession to be used for infrastructure.

Question
Can it be implied, therefore, that fees for other government services will increase?

Response
Funding of the Assurance Fund will not be altered which is at the moment $4 from every transaction.

Again, the intention to permit the price of monopoly services to increase by CPI over the term of the concession is desirable but is it enforceable in all economic circumstances?

Question
What if the Operator wants to introduce new services and charge exorbitantly for them?

Response
Any new services can only be introduced with the agreement of the RG (as Regulator) and the prices will be agreed between the parties.

Question
How is it intended that price control will ensure transparency as stated in the media release on this issue?

Response
This will rely on the contract between the Regulator and the Operator. The contract will be binding on both parties. Any new services introduced by the Operator will be subject to scrutiny by the Regulator.

We feel there will always be a problem with any guarantees given by governments taken that those guarantees are given by governments that are subject to limited life spans simply by the nature of state elections.

Question
What is being done to guarantee that future governments will abide by the decisions of past governments?

Response
Again this will be spelt out in the contracts at the very start of proceedings. The Minister will be able to step in if and when there is a breach of contract.

We note that your media release states that “the government will retain ownership of all data and will require that the data be housed in Australia”. We are concerned that this may not prevent the private operator from moving jobs offshore at the expense of jobs in New South Wales.

Response
There will be no forced redundancies for up to 2 years after the concession. There may be voluntary redundancies within that period and that can be expected given the age profile of the current workforce.

We acknowledge that our title system is a public system but another concern is that exposure of all data to a private operator will possibly allow manipulation of the data and limit the control by the Regulator.

Question
Given the current turmoil with TAFE courses and the aging/workforce from LPI, which will create a huge “loss of the knowledge-bank”, what will be done to ensure the new operator creates enough training opportunities to ensure efficient future service?

Response
Any lack of service by the new operator, which causes them to fail to meet their KPIs will incur penalties.

We further note that a Circular recently released by LPI outlining the Changes at LPI states that the regulator, the Office of the Registrar General, “will be integrated into Better Regulation in DFSI providing for a consistent approach to regulation across government”. It is assumed that a consistent approach does not mean that there will be a reduction in the existing high standard of regulation required for land titles.

Question
What will be done to address the need for conversion of all the remaining Old System parcels to Torrens once the experienced staff has been dismissed?

Response
We were unaware of the extent of this problem and will look into it.

Question
What if the Operator will not abide by the Regulator’s directions?

Response
The Minister will have Emergency step-in rights.

Question
The concession is for a period of 35 years. What do you expect will happen after on the completion of the concession period?

Response
Planning is not looking that far ahead but it will depend on the success of the operations over the preceding 35 years.

Question
Will there be an attempt to modernise the system to incorporate the State Local Government Planning systems into the Database, as occurs in Victoria with the SPEAR system?

Response
We will give that some thought.

An exciting opportunity awaits you...

Geosurv is a land and construction surveying firm with offices in Sydney, Canberra, Newcastle, Wollongong, Albury, Adelaide and the Gold Coast.

We provide a wide range of services to a variety of industries including Construction, Commercial and Industrial Property, Government, Roads and Civil, and the Private Sector.

We are committed to providing the highest level of service to our Clients and we are able to achieve this by employing the best in the industry and encouraging their personal and professional development.

We are currently seeking a Registered Surveyor with experience in Strata and Stratum Surveys, as well as other areas of Registered work, to join our team. An excellent remuneration package is available and will reflect the successful candidate’s experience and knowledge. An opportunity for future partnership is also available to the right person, should this be a career goal for you.

If you are looking for an opportunity with a firm that strives for excellence and encourages a challenge, then please email your resume to:

Beth Symes
Marketing & Business Development Manager
Geosurv Pty Ltd
beth@geosurv.com.au

All applications will be treated with the utmost confidentiality.
developing:

Wales Titles Office has taken advantage of the digital age of cheap efficient land registration services, the New South homes and businesses.

security banks require to lend money for the purchase of land, plan; who owns the land and what affects it, provides the document detailing what land is owned by reference to a survey Certificate of Title issued by the Titles Office.  This single contributed to the growth in the cadastre as the platform for experts who on behalf of the people of NSW have had the co-operation with the Titles Office's small band of land boundary 1863 is at the heart of sound economic development in New dealing with land since the Torrens Title system's inception in 1863.

It's not too late! Act now!
The Government's proposal to privatise the New South Wales land title system represents the most significant change to the Torrens system since its introduction in 1863.

Firstly, let us be perfectly clear about the Government's intentions. While documentation on privatisation invariably refers to LPI, it is the NSW land title system that is firmly in the Government's privatisation sights. Clearly, this is because it is the Title Service alone which is profitable.

The first ever automated title and land dealing registration service.

Additional, the staffing structure of the Office has been streamlined and numbers reduced to the bare minimum required to deliver an acceptable level of service.

The Government’s plan to privatise the Titles Office is being done for purely commercial purposes and will bring no long term benefit to the public. It makes no sense at all when you consider that the service is self-financing, has an excellent record of reducing costs and keeping fees to a minimum. Indeed in 2014-15, the titling and associated services produced a $47 million profit, sufficient to fund 400 teachers or nurses in the State’s schools and hospitals.

If the title system is privatised, what happens to the Government Guarantee currently protecting ownership? Indeed with privatisation there is no doubt conveyancing costs will rise to cover insurance against potential error. This is to say nothing of the potential for conflict of interest should a commercial organisation, such as a major bank or land title data provider, be the successful bidder. The privatised model would eliminate independent Government operation of the title system, reduce community trust and open up opportunity for corruption in land transactions.

It is not too late to stop this proposal. If you share our concerns of the risk to our stable economic environment presented by the proposed privatisation, please contact your local member and ask the Treasurer to reverse the decision to privatise the NSW land titles system.

Additionally please join us in a petition to the Treasurer: “To the NSW Government Don’t Privatise our Land Titles”.


Please share this link with your colleagues and friends.

Many thanks in anticipation of your support. Together, we can influence the Treasurer’s decision and achieve a positive outcome for future generations by maintaining our world class, efficient, independent Government guaranteed title system.

Noel Bertram
Former Manager Title Creation,
NSW Land Titles Office

Barry O’Malley
Former Principal Surveyor,
NSW Land Titles Office

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The colours blue, green, orange, and white symbolise the Finnish nature, its lakes, forests, midnight sun, and snow. The different elements are drawn with brush strokes which together with the colours and shapes create an association with the Finnish landscape paintings dating back to early 1900’s. The sun and the forest form a binary one and zero, symbols of digitalisation. This digitalisation is however so advanced that it is no more rectangular and mathematical but describes our analogue world in a way that is more subtle, adaptive, and precise and, thus, offers the people better services.

Call for papers

The call for papers will be sent out shortly, and the abstract submission will open soon. It will be possible to submit abstracts for both peer review papers and normal papers.

Deadlines:

Full paper submission for peer review papers: 1 October 2016.

Abstract submission for normal papers: 15 November 2016.

Stay updated at: www.fig.net/fig2017

The theme of the Working Week

“Surveying the world of tomorrow - From digitalisation to augmented reality”

reflects the continuous development around us. Tomorrow is only a short step away or maybe here already today. It is not so much a question of making things digital any more but rather using technology as a tool to add new dimensions to what we see around us. We hope and believe that the Working Week is an excellent place to get a glimpse of the future developments but also to study the ideas and solutions of today.
Using Drone Technology to Improve Land Titling in the Philippines

Of the 24 million land parcels that exist in the Philippines, it is estimated that only half have formal land titles.

In this environment, it is common for an individual to live on a plot of land and even run a business there without possessing a formal contract that grants them secure, legal ownership of the property. Such practices are in fact not illegal and are common across the Philippines. Yet many economists argue that this lack of secure property rights, which exists in many developing countries around the world, presents a barrier to economic growth and poverty reduction. For example, without a formal land title, a property owner is less likely to be able to use their property as collateral to secure a loan and may be less incentivized to make long-term investments in their home or business, which could in turn spur economic growth and increase employment.

One of the main reasons why land parcels in the Philippines remain occupied but untitled is the high cost of surveying. Before a lot owner can apply for a title, a subdivision survey must be completed in which the plot of land is properly measured and mapped. Traditional subdivision survey methods are expensive and time-consuming, requiring a team of trained professionals and many hours to measure a single plot of land. However, Unmanned Aerial Vehicles (UAVs), commonly known as drones, can potentially reduce these costs significantly.

In order to accelerate land titling in the Philippines, the Asia Foundation is partnering with the Foundation for Economic Freedom and Osaydar Network on a new initiative – the Technology for Property Rights Project – to introduce innovative tools like drones to make it easier and faster to conduct subdivision surveys.

In April 2016, a pilot study was conducted in Cordova, Cebu, to test drone effectiveness in subdivision surveying. In order to conduct a drone survey, a UAV is flown over an area of land in a crisscross pattern. As it does so, it records images of the land below to create an aerial map. Special control points which have been marked on the ground before conducting the UAV flight and which are visible in the aerial images enable the drone survey team to link the aerial map to the Department of Environment and Natural Resources (DENR) grid system. Once this process is complete, high-resolution maps can be printed out and reviewed by members of the community. A traditional survey results in a simple black and white drawing of land boundaries that can be hard to interpret. With UAV images, however, community members can recognize buildings and other landmarks in order to help identify plots of land and resolve any disputes. Most importantly, the UAV-based mapping process is much faster than traditional methods, enabling a survey team to map 40 hectares in one day.

"To be accepted as a survey tool in the Philippines, aerial maps from a drone survey must pass the government's accuracy standards. The high-resolution maps produced through the pilot study in Cordova were 95 percent as accurate as the results from traditional field measurements, with an average horizontal difference of just 5.2 centimetres. Currently, in collaboration with DENR and local government units, Asia Foundation is working on a policy to allow the use of drones to gather land information. Soon this cost-effective and accurate survey method can help to improve land surveying and increase the pace of land titling in the Philippines."

Mari Chrys Pablo & Olivia Piatoud
population in the entire country every six years. The members of the House of Representatives are elected by Districts every three years.

There are 80 provinces, 138 Cities, 1,496 municipalities, and 42,539 barangays (barrios). The provinces are headed by governors, the municipalities and cities by mayors, and barangays (barrios) by chairmen, elected by popular votes, every three years.

At present, the Archipelagic Republic of the Philippines is divided into 16 regions. Most of its government offices are established by regions, usually in a city designated as the Regional Centre.

HISTORICAL OUTLINE OF CADASTRAL SYSTEM

The Cadastral survey program in the Philippines may be said to have its beginning as early as 1903 when the American Civil Government in the Philippines purchased in 1902, some 410,000 hectares of friar lands and had them surveyed and allocated to the Philippines purchased in 1902, some 410,000 hectares of friar lands and manages land surveys. From thereon, DENR became more aggressive in its desire to complete the cadastral survey of the country by requesting congress to allot more funds in this particular activity, hence, the cadastral survey program gained momentum.

GOVERNMENT ORGANIZATIONS

The Department of Environment and Natural Resources (DENR) thru the Lands Management Bureau / DENR regional offices, is mandated to administer and manage public lands, government owned lands and all other lands not placed under other government agencies.

The professional body that sets the standards and regulations for aspiring geodetic engineers is the GEP. Hence, the tremendous decrease in the number of duly registered geodetic engineers. They are grouped into Regional Chapters. A representative of the GEP National Board sits as one of the members of the Bidding and Award Committee during the conduct of the Cadastral Survey project bidding. This is to ensure that there will be impartiality among members of the Committee in the conduct of the bidding process that the technical requirements are of the highest standard possible and that the price of the project is reasonable.

The GEP was admitted and registered as a member of FIG in 1993 as National President of DENR Lands Management Bureau Director Concoridio D. Zafra as National President of FIG in 1993-1994 but was delisted for non-payment of dues when he was no longer the National Director. FIG was only in 2008 when GEP was readmitted to FIG after payment of the required membership dues.

PRIVATE SECTOR INVOLVEMENT

The Cadastal Survey Projects in its earlier years were executed by the Bureau of Lands of surveyors. However, with the passage of Act 2899, which allowed private surveyors to undertake cadastral surveying, the Bureau of Lands, cadastral survey program was accelerated. The law was amended by Act 3237 which authorized private cadastral surveyors to undertake cadastral survey works with the local government units concerned but with the technical supervision being provided by the then Bureau of Lands.

PROFESSIONAL ORGANIZATION OR ACADEMIC ACHIEVEMENTS

Surveys, now known as Geodetic Engineers, are organized into a professional organization called “Geodetic Engineers of the Philippines, Inc.” (GEP) comprising of more than 5,000 geodetic engineers. In 2003, there were more than 5,000 Geodetic Engineers and a little above 7,000 Junior Geodetic Engineers. However, the new geodetic engineering law (Republic Act No.8560) and its implementing rules and regulations require philippine geodetic engineers to upgrade their degree to Bachelor of Science in Geodetic Engineering.

EDUCATION

Bachelor of Science in Geodetic Engineering (BSGE) as a five year course, is offered by only eight universities. Annually, less than 100 students are graduating in the course and around half are able to pass the Board Exam. The course, basically includes the following subject: plain surveying, geodetic surveying, laws on natural resources, land laws, mathematics, astronomy, cartography, photogrammetry, cadastral surveying, cartography, least squares, hydrography, route surveying, mining surveying, law land use planning, photogrammetry, gravity measurement, image processing, remote sensing, satellite surveying and computer science. Mathematics subjects are scattered from first year to fifth year, from algebra to calculus and matrices.

PURPOSE OF CADASTRAL SYSTEM

The Cadastal Survey in the Philippines is a survey made of extensive areas covering an entire municipality or city consisting of many parcels of land undertaken for the purpose of title clearance and land registration. Cadastral Act No. 2259 which governs Cadastral Survey, is intended primarily for the purpose of quieting title to any land within a particular area by way of compulsory registration proceedings and thus minimize land conflicts.

The Association is entirely dependent upon voluntary financial contributions to cover the cost of operating. These contributions have to date come primarily from the Institution, together with several small grants, donations and legacies from members and the estates of members. Any donation would be gratefully received.

The objects of the Association include:

- To offer advice, guide and, in circumstances considered by the Directors to be special, financial assistance by way of grants, loans or payments.

The Institution of Surveyors NSW Benevolent Association Ltd

(A Company Limited by Guarantee Formed for Charitable Purposes)

(i) to the family, surviving spouse and/or dependants of any member of the Institution of Surveyors, New South Wales who dies;
(ii) to the family, spouse and/or dependants of any member of the Institution of Surveyors, New South Wales, who is incapacitated and who, as a result, is incapable in the opinion of the Directors, or managing the affairs and welfare of himself or herself or his or her family, surviving spouse or dependants.

In order for the Benevolent Association to help members in need of assistance, the Benevolent Association would ask members to provide information on any member who has passed, is sick or in need of help. Please contact the ISNS Benevolent Association Secretary on (02) 9264 2076 or isnsw@surveyors.org.au.
The owners of lots surveyed must lay claim to their land holdings and must prove their ownership during the subsequent court proceedings because failure on their part to do so may give the court no choice but to declare these lands as public lands. Some of the benefits that may result upon the completion of the Cadastral Survey in the area include: agricultural development; comprehensive and accurate data on land resources of the country; facilitate land disposition to qualified public land applicants; delineation of the boundaries of all political units/subdivisions of the country as basis of a more accurate Internal Revenue Allotment (IRA) for local government units; provide economic data for land-based development studies; and provide map-based data for zoning, land use programming, and a more reliable tax mapping.

TYPES OF CADASTRAL SYSTEM
There are two types of Cadastral System in the Philippines, one is Graphical Cadastre (Fig. 1) and the other is Numerical or Regular Cadastre (Fig. 2).

These two systems can be executed either by ground method or by aerial photogrammetry. Basically, numerical cadastre is associated with surveying while graphical cadastre, with mapping.

While the Numerical Cadastre produces bearings and distances of boundary lines of lots with the area up to the hundredths of a meter (derived from computations), the graphical cadastre simply gives the shapes of the lots with the distances of the boundary lines derived from scaling the lines on the maps and the area determined by scaling or planimeter or by templates.

The Graphical Cadastre was discontinued in favour of the more accurate Numerical Cadastre, in the later part of 1970s.

CADASTRAL CONCEPT
The primary objective of the cadastral survey is land titling. Any land use information that is obtained in the process is gathered not for economic development purposes but for additional information in support of tenure or legal hold. However, data contained in the cadastral maps after its approval, can be used by other government agencies for whatever purposes it may serve them.

Every parcel of lot in the coverage area of a cadastral survey project is assigned a lot number which shall be done consecutively from number one and without duplication. An assigned lot number in one barangay (barrio) cannot be assigned to a certain lot in another barangay (barrio) of the coverage municipality.

The project is divided into cases. The procedure is: one case for every barangay regardless of whether one barangay is less than 1,000 lots or more than 1,000 lots. However, the then Bureau of Lands, realizing the urgency of the need to finish as soon as possible the cadastral survey in the entire country,
The numbers of concrete monument and the description of lot corners are indicated on the Cadastral maps and also the nature of claimants except when space limitation does not permit it. The respective lot numbers are indicated normally, in consecutive and regular order. Forest Lands, Reservations and other unalienable areas are also treated as one lot but with remarks as Forest Land, Military Reservation, etc.

The Cadastral maps also show the names of all claimants adjoining the projects boundaries as well as the lines between the adjoining claims which are drawn in dash lines. Adjoining approved surveys are indicated by the lot and the corresponding survey number and name of claimant.

Local names of natural features such as mountains and all bodies of water such as rivers, esteros, arroyos, etc. are indicated on the Cadastral Maps. The names of barangays (barrios) are also indicated within their respective boundaries. Easements are indicated either three, twenty, or forty meters depending on the classification of land.

Grid lines and plane coordinates, graticule lines and geographic coordinates, survey control stations and traverse lines, political boundaries and monuments and Reference/Location Monuments are also indicated.

All lands within a Cadastral Survey Project, in the absence of titles are presumed public lands. For this reason, all claims therein are contestable by the government. During the Cadastral hearing, the Director of Lands, as representative of the Government sees to it that land rights are properly settled and adjudicated, should a claimant fail to prove his claim, the land will be declared public by the court in accordance with the claim of the government. It is for this reason that during the conduct of survey, all owners of properties, titled or not, cannot refuse to have their lands surveyed.

**CADASTRAL MAP**

Cadastral lots and other details of the cadastral surveys are plotted on reproducible materials such as drafting film with polyester or mylar encompassing areas within spheroidal quadrangle of one minute of arc in latitude and one minute of arc in longitude (approximately 1.8 km by 1.8 km) and drawn in the Philippine Plane Coordinate System. Cadastral Map sheets are approximately 54 by 54 centimeters in size and carry a standard scale of 1:4,000.

Sectional Cadastral Maps are drawn on larger scale such as 1:2,000; 1:1,000; 1:500; on the same size as the standard cadastral maps to show tracts of land which appears too small on the standard scale of 1:4,000. These lots are usually residential lots town proper.

Continuous Cadastral Maps (CCM) on a smaller scale of 1:8,000 or 1:16,000, show parcels of lands which are too big to be contained on the standard scale of 1:4,000. These lots are forestlands, reservations and big undivided land holdings consisting of hundreds or thousands of hectares within a municipality.

**EXAMPLE OF A CADAstral MAP**

Attached herewith are examples of two types of Cadastral Maps. Figure 1, shows the graphical Cadastral Map, and Figure 2, shows the numerical (regular) Cadastral Survey Map.

In Cadastral Mapping, the survey control is executed on the ground but the lot corners are determined by plane table and alidade or...
transit and stadia. The area is graphically estimated. The Regular Cadastre calls for accurate survey and therefore, the survey control points and all lot corners are directly observed. Lot area is determined by computation.

**ROLE OF CADASTRAL LAYER IN SDI**

The completion of Cadastral program will provide the Philippines a springboard for land-based development. The program envisions to achieve the following goals:

A. NATIONAL GOALS SUCH AS:
1. Promotion of social development and social justice.
2. Improvement of habitat through development of human settlements and proper management of environment.
3. Accelerated regional development especially the rural areas.
5. Maintenance of internal security and harmonious international relations.

B. THE EXECUTIVE BRANCH GOALS SUCH AS:
1. To provide comprehensive and accurate data on land resources of the country.
2. To accelerate settlement and adjudication of land titles.
3. To facilitate and accelerate public land management and disposition.
4. To provide a basis for an integrated tax mapping system and land evaluation.
5. To provide an effective base to accelerate the land use and classification for socialized housing programs.
6. To delineate the boundaries of all political subdivisions in the country.
7. To provide economic data for land based developmental studies and projects.
8. To provide mapping basis for land zoning and land use programming.

**CADASTRAL ISSUES**

In spite of the introduction of computers in the operation of several government activities, the retrieving, updating and tracking of Cadastral Maps and other data are being done manually. The land sector through the years has experienced remarkable increase in clientele and in number of records to manage. However, it cannot cope with this situation due to several reasons such as funding constraints, existing auditing rules and regulations, lack of manpower, etc. This was aggravated by inadequate space, poor storage facilities and frequent transfer of offices. Fire and natural calamities such as floods also contributed to the lost and damage of valuable records and documents.

Proliferation of fake survey plans and land titles, are becoming a problem of the government. The absence of reference data from Cadastre on file with the Lands Management Bureau (LMB)/Regional Lands Management Services (LMS) make it harder to detect such spurious documents.

**CURRENT INITIATIVES**

Several projects are being eyed by the government to address the above-noted problems such as Land Records Management and Information System (LRMIS) and Land Administration and Management Project (LAMP). Their aim, among others, is to automate land records.

With fully computerized Cadastral Information System, the government hopes to achieve the following:
1. The Land/Cadastral data/information can be shared with other government offices as well as the requesting public as quickly as possible.
2. The system can be used in expediting processing of documents and verification and approval of public land application and subsequent subdivision/consolidation surveys.
3. The documents/maps can be reproduced as many as required copies instantly wherein the files will be free from incidence of tampering, mishandling or even losses.
4. The documents, data and spatial images can be sorted, retrieved and tracked easily as the need arises.
5. Digital Spatial and textual data can reduce the storage space requirement of voluminous documents such as maps and other survey returns to just 30%.
6. This is an edited version of the full document, which was last modified in October 2015.
7. For the full article on the Philippines’ cadastral system, and other participating countries, go to: http://www.cadastraltemplate.org/countries.php

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**Yamaha’s autonomous boat makes surveying a breeze**

When it comes to maintaining a dam, there’s more to worry about than stopping the walls from falling down. Silt buildup can damage a dam’s ability to effectively collect water, which means they need to be scanned and dredged periodically. Yamaha has developed an autonomous boat designed to make the mundane task of dam and lake bed sediment surveying a little bit easier.

Yamaha’s Breeze10 uses a satellite positioning system in combination with azimuth angle data for autonomous navigation, with routes able to be saved for use again when resurveying. Measuring 3.2 m long with a beam of 1.2 m, the craft is compact enough to fit in a large minivan and can carry sonar, such as R2Sonic’s “Sonic2024” narrow multibeam sonar system, for scanning, lake and dam beds.

Sonar sensors can be fitted quickly and easily thanks to a dedicated mounting point in the centre of the underside of the craft, and an 0.5 kW electric motor allows for operation in shallow water. Range anxiety shouldn’t be a problem, with the 20 AH lithium-ion battery and 1.6-kW on-board generator promising six hours of continuous running.

Although it can operate in fully autonomous mode, Yamaha has also included two other drive modes, allowing remote control or giving full control to an on-board driver. That driver isn’t going to be winning any drag races with the Breeze10’s four-knot top speed, but that’s not really the point.

Yamaha is hoping its design will be able to transfer into surveillance and defence roles in the future, but for now it’s expected to find a home with commercial surveyors when it launches in August.

Scott Collins

Australian and New Zealand Map Society
Incorporated

Encircled by sea, Australia and New Zealand share a common history of exploration and settlement along the coastal fringes. The 2016 conference will explore the European discovery and gradual mapping and settlement of Australia and New Zealand and the significant role explorers, surveyors and cartographers have played in shaping and documenting the changing coastal landscape over more than 200 years. The conference program also acknowledges the 400th anniversary of the landing of Dirk Hartog in his vessel the Zeedraht off the coast of Shark Bay, on 25 October 1616.

The conference will be held at Wollongong, the administrative centre for the Illawarra region, an area which reflects the common history of many coastal cities and towns in Australia and New Zealand. The first documented European sighting of the Illawarra coastline was in 1770 with an attempted landing by Cook's crew at Woonona on the 28th of April as the Endeavour sailed north along the Eastern coast of Australia. Emerging from a proud history of steel making and coal mining industries, Wollongong is today also an important knowledge services centre, international trade hub and a leading university city.

https://www.anzmaps.org/tag/conference/

Dial Before You Dig
This article is not intended for specific site advice and is provided only to encourage members to search for further information. The information contained in this article is the result of a member’s own search and is based on their interpretation of the documents found in that search.

Regulations
Regulations have been introduced to support legislation. The current Regulations are titled the Gas Supply (Safety and Network Management) Regulation 2013 and the Electricity Supply (Safety and Network Management) Regulation 2014. The Regulations provide a definition for what constitutes a "notifiable excavation work".

Notifiable Excavation Works include:
- Almost all excavation work on private property, including works approved by Council via a Development Application;
- Excavation of any land conducted by or on behalf of a public authority;
- Work on underground utility services for location, laying or repair of same.

Exemptions
- There are some exemptions to the requirement to notify DBYD of the intention to excavate and they include:
  - Excavation to a depth of less than 150 mm with power tools or machinery;
  - Ploughing to a depth of less than 250 mm on rural zoned land;
  - Excavation to a depth of less than 300 mm without the use of power tools or machinery.

Work Health and Safety Act 2011
A person who undertakes excavation work is subject to duties and responsibilities under the Work Health and Safety Act 2011. The WorkCover Authority has prepared the "Work Near Underground Assets Guideline" which contains practical advice for working near underground utility services and guidance as to how to meet the requirements of the Work Health and Safety Act 2011 when carrying out excavation work.

Tips for Surveyors
A surveyor can be commissioned to excavate near utilities for a variety of purposes such as "pot holing" to locate the utility in order to record its position, or simply searching for a buried survey reference mark. The likelihood of striking a service utility in the course of these activities is very real. The likelihood of receiving a hefty repair bill from the service provider is also very real. Even worse, physical injuries could occur.

The following suggestions may help alleviate the big pocket pain and/or prevent injuries that a services strike can engender:
- It’s the law…notify DBYD of all intended excavation works;
- Include emergency numbers of service providers in your Work Safety Method Statements;
- Study and implement the recommendations of the Work Near Underground Assets Guideline;
- Read and understand the Act and Regulations;
- Attend DBYD seminars. They are free, keep you up to date with the Regulations and give you the opportunity to remind the service provider presenters of the fragility and value of utility services;
- Put hole with care…do not use a spade whilst digging for reference marks;
- In the event of an incident notify the provider. It is also the law to do this;
- Exchange contact details with the utility repair technician;
- If the service "should not have been there" issue a counter claim immediately for your extra costs incurred;
- Remind the service provider of your rights as a surveyor to be searching for reference marks with due care and diligence;
- In addition threaten action under Section 24 of the SURVEYING AND SPATIAL INFORMATION ACT 2002 that details the penalties for the removal and destruction of survey marks.

BULLET-PROOF GNSS
The GCX2 is the latest addition to SOKKIA’s line of GNSS integrated receivers. nicknamed "the bullet", the GCX2 exemplifies a dedicated approach to receiver design that offers an ultra-lightweight and ergonomic solution at a low cost. This multi-constellation and dual frequency receiver provides affordable high-quality RTK results as a network rover, base and rover with radio-free RTK operation via interference-free data communication technology, or simply as a static base station. The GCX2; your bulletproof GNSS RTK solution.

GCX2 GNSS Receiver

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Proud sponsor of
the Sir Thomas Mitchell Award 2016

Dial Before You Dig...It’s the LAW in NSW
On July 1 2010 New South Wales became the first Australia Jurisdiction to enshrine Dial Before You Dig (DBYD) in law. The formal name for the enabling legislation was the Energy Legislation Amendment (Infrastructure Protection) Act 2009. This Act (enacted) and supporting Regulations changed the legal requirements for anyone excavating near gas or electricity networks in New South Wales.

What are some of the “new” obligations for people excavating in New South Wales?
It is compulsory to notify DBYD of the time and place of work no more than 30 days before the work starts. You can start work as soon as you have received the plans and satisfied any other requirements set by the network operator. If the network operator believes that excavation works could damage or interfere with its network, they can issue a notice requiring changes to the excavation work. The work can also be prohibited.

Damage to gas and electricity networks must be notified to the operator of the network, as soon as possible. Gas and Electricity network operators can also recover the cost of damage to their mains and cables.

The penalty for interference with electricity or gas works now stands at $22,000 for individuals and $440,000 for corporations. The maximum jail sentence is now 5 years.

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### Classifieds

#### POSITIONS VACANT

**Registered Surveyor**
- We have a position for a Registered Surveyor.
- The work is interesting and varied.
- Attractive salary and conditions are offered to the right candidates.
- There is also the potential for partnership and to own a part of the business.
- For details about our firm please visit our web site at www.bmasurvey.com.au
- For all enquiries please contact by email: mrc@bmasurvey.com.au

**REGISTERED SURVEYOR**
- We have a vacancy in our Albany placed MATERNITY RELIEF POSITION.
- SOUTHWELL SURVEYORS
- Registered Surveyor required from mid November 2016 until April 2017
- Office located in Cardift, Newcastle
- Current surveyor working approx. 20 hours per week.
- Supervision of 1 very experienced field crew.
- Work includes project housing, idents and small subdivisions
- Wage and conditions negotiable with owner / manager
- Please contact our office on: (02) 4956 5288 or by email: admin@southwellsurveyors.com.au

**FOR SALE**
- Brand New Trimble SS (3") Robotic Total Station
- For sale with TSC3 Controller, pole and kit.
- Instrument never used.
- Brand new $40k, Seller happy to accept $35k.
- Contact (0438) 697 107

### Conferences & Seminars

**4TH ANNUAL CONFERENCE OF THE AUSTRALIAN AND NEW ZEALAND MAP SOCIETY**
- Encouraged by sea: mapping the coastal communities of Australia and New Zealand
- 7 – 9, September 2016
- Wolongong, NSW
- Registrations are now open.
- Email: maggie.patton@isl.nsw.gov.au

**ISV REGIONAL CONFERENCE 2016**
- Horsham Horizons – Surveying in the Future
- Horsham Town Hall, Horsham, Vic
- 9 – 11 September 2016
- isv@isv.org.au

**INTERNATIONAL CONGRESS ON MINE SURVEYING (ICMS),**
- 12-16 November 2016
- Brisbane Convention and Exhibition Centre
- South Brisbane QLD
- www.ism2016.com

**AUSTRALIA DAY SEMINAR 2017**
- Four Seasons Hotel Sydney
- Tuesday 24 Wednesday 25 January 2017
- SAVE THE DATE!!

### Calendar of Events 2016

#### August

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 AUG</td>
<td>The Institution of Surveyors NSW Board Meeting L4, 162 Goulburn St Sunny Hills</td>
</tr>
<tr>
<td>12 AUG</td>
<td>ACS/366 Cumberland Group 2016 Land Development Seminar Liverpool Catholic Club</td>
</tr>
<tr>
<td>26 AUG</td>
<td>IS16.04A LPI ePlan Technical Workshop for AutoCAD, Civil 3D, MAP 3D &amp; BricsCAD Users (Afternoon Session) L4, 162 Goulburn St Sunny Hills</td>
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#### September

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<thead>
<tr>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td>2 SEP</td>
<td>The Institution of Surveyors NSW Board Meeting L4, 162 Goulburn St Sunny Hills</td>
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#### October

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<tr>
<th>Date</th>
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<tr>
<td>7 OCT</td>
<td>The Institution of Surveyors NSW Board Meeting &amp; Annual General Meeting L4, 162 Goulburn St Sunny Hills</td>
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<tr>
<td>21 OCT</td>
<td>IS16.04B LPI ePlan Technical Workshop for AutoCAD, Civil 3D, MAP 3D &amp; BricsCAD Users (Morning Session) L4, 162 Goulburn St Sunny Hills</td>
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#### November

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<th>Date</th>
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<tr>
<td>4 NOV</td>
<td>The Institution of Surveyors NSW Board Meeting L4, 162 Goulburn St Sunny Hills</td>
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</table>

### Classifieds / Membership Connect / Conferences & Seminars

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**Student Membership**
- Welcome and Congratulations
  - Michael Outten
  - Sam Lewton
  - Michael Tilden
  - Wayne Holmes
  - Stephen Goodsell
  - Alister Quarmby
  - John Snel
  - Natalie Eisenhauer

**Corporate Membership**
- Dean Henry
- Congratulations to
  - Scott Ware, Samuel Byrnes, Philip Nixon, John Henreden for advancing to Corporate Membership.
- Congratulations and welcome back
  - Domenico Panetta to Corporate Membership.
- We farewell with best wishes
  - Marijana Kokanovic-Gaovic, John Reid, Geoffrey Wormald, Desmond Rowley, Frederick Banham, Geoffrey Pearson and Stephen Waugh
- We hope you have enjoyed your time as a Member of ISNSW Inc.

**Graduate Membership**
- Elliott Griffiths
- Congratulations to
  - Gregory Doherty, Achilles Zervos, Trent Vella, Daniel Vicente and Jason Terry for advancing to Graduate Membership.

**Associate Membership**
- Jayden Waddi
GROUP REPRESENTATIVES
Cumberland
Rod Jamison
Phone: (02) 9634 2866
rod.jamison@landdata.com.au

Southern
Robert Van der Zypen
(02) 4296 7055
bobvz@landteam.com.au

North Coast
Neil Kennedy
Phone: (02) 6687 4700
office@kennedysurveying.com.au

Sydney North
Vittorio Sussanna
Phone: 0402 169 444
vsussanna@gmail.com

Murray
Charles Fransen
Phone: (02) 6021 1322
cf@eslers.com.au

Hunter Manning
John Minehan
Phone: (02) 4948 8963
jmrin@lnet.net.au

Central Western
Andrew Usher
Phone: 02 6361 1422
usher@usherandcompany.com.au

St George Sutherland
Rob Cornish
Phone: (02) 9335 9700
rc@jbwsurveyors.com.au

Senior Surveyors
Michael Rutlidge
Phone: 0410 770 259
mrutlidge@optusnet.com.au

Young Surveyors
Tom McDonald
Phone: 0435 711 479
tom.mcdonald@rygate.com.au

CO-OPERATING ASSOCIATIONS
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Association of Public Authority Surveyors and Staff Surveyors Association
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– Gaby van Wyk

FIG International Institution for the History of Surveying and Measurement
John Brock
Phone: 0414 910 898
brocksurveys@bigpond.com

University Representative
Prof Chris Rizos
Phone: (02) 9385 4205
crizos@unsw.edu.au

TAFE Representative
Paul Swan
Phone: (02) 9217 5161
Paul.Swan3@det.nsw.edu.au

Nominees to the Board of Surveying & Spatial Information
Mark Gordon
Chris Abbott
Bob Harrison

AZIMUTH COMMITTEE
Editor
azimuth@surveyors.org.au

Advertising
Terina Sawyer
(02) 9264 2076
manager@surveyors.org.au

Art Director
Eli Kitchen
Eclair Marketing
Phone: 0419 489 612
el@eclair.com.au

Printer
Jon Gallimore
BEE Printmail
Phone: (02) 9437 6917
beeprint@printd.com.au

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Editor
azimuth@surveyors.org.au

Advertising
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