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November Cadastral Workshop dinner



The SSSI Land Services Commission Cadastral Workshop held on Monday 13 November 2017, featured presentations from

Bradley Slape discussing **Existing occupation on Community Plans**, **Brenton Christie** discussed **Boundary definition – Data verses Monument**, and **Dave Weston** presented a case study of a **Willunga Identification Survey**.

A record number of attendees were at the Dinner held at the Adelaide Pavilion with a total of 131 Licenced Surveyors and students.

In addition 10 UniSA Masters Students attended and were presented with certificates for their volunteer efforts in the SAMSA Pinery Fire Project

GeoSmart Asia'18 and Locate'18 Conference

THE ASIA-PACIFIC'S PREMIER GEOSPATIAL CONFERENCES, GEOSMART ASIA AND LOCATE ARE COMING TOGETHER IN ADELAIDE, AUSTRALIA, FROM 9-11 APRIL, 2018.



This new, collaborative event will deliver a far-reaching, dynamic, and powerful experience for its attendees. There will be three days of insightful workshops, plenaries and thematic sessions, participatory experiences, social events, and an exhibition displaying state-of-the-art technologies. GeoSmart Asia'18 and Locate'18 aims to deliver a dynamic and powerful experience in the Asia-Pacific region by bringing geospatial leaders and experts together with industry innovators and technology providers from across the region and globally.

With the theme "The Art, Science, and Business of Geospatial," the conference will present an informative, contemporary agenda that will highlight technology advancements, solution-centric applications, and the opportunities presented by business models.

TOP REASONS TO ATTEND GEOSMART ASIA 18 AND LOCATE 18

- ▶ Meet various stakeholders from Asia-Pacific region's geospatial industry
- ▶ Find creative geospatial solutions to address your challenges
- ▶ Understand how geospatial technology can increase business productivity
- ▶ Get access to the latest cutting-edge technologies
- ▶ See the future of geospatial technology, services and data
- ▶ Gain from actionable information
- ▶ Discover new and innovative applications of geospatial technology
- ▶ Get your queries answered by domain experts
- ▶ Learn from best practices and success stories
- ▶ Network with your peers and forge collaborations

PLAN YOUR PARTICIPATION

ATTEND

Join the conference for a unique learning experience, hands-on technology exposure, collaboration and networking, social events, future technology directions, and more.

Registration Fees

All fees in AUD and excludes 10% GST

Early bird discounts deadline extended till February 28, 2018!

Full Conference (Delegate)	990 (till Feb 28)	1315 (after Feb 28)
Full Conference (Member)		
(ISDE Member, SSSI Member, ISNSW Member, SIBA Member, ISVIC Member, QSSA Member, Retired Professionals)	990 (till Feb 28)	1200 (after Feb 28)
Full Conference (Speaker)	\$845	
Full Conference (Full Time Student)	\$315**	
Single Day Conference (10th or 11th April)	\$630	
APSEA Dinner		
Optional add-on for non-conference attendees/ single day conference attendees / students	\$190	
Welcome Reception	\$100	
Optional add-on for non-conference attendees/ single day conference attendees / students		
Market Day open 8.30 am to 5 pm The Market Day is free to attend and will take place on Monday 9th April.	FREE	

** Student registration excludes APSEA Dinner and Welcome Reception

Payment by credit card (Visa and MasterCard only) attracts a 1.75% merchant fee

'Full Conference' package includes 1 x ticket to the Dinner, 1 x ticket to the welcome reception, morning tea, lunch and afternoon tea each day, and a copy of the conference proceedings.

'Single Day Conference' package includes morning tea, lunch and afternoon tea, and a copy of the conference proceedings.

PROGRAMME AGENDA

9 APRIL 2018

10:00 hrs	Market Day	Exhibition Hall Open						
13:45 hrs	Field Trips	Penfolds Winery (Agriculture)	SAHMRI (Health & Communities)	Tonsley Innovation (Energy & Innovation)				Workshops
17:00 hrs	Welcome Function							
18:00 hrs	Day Closes							

10 APRIL 2018

08:45 - 11:00 hrs	Opening Plenary							
11:00 - 11:45 hrs	Morning Tea Break							
11:45-13:15 hrs	Keynotes							
13:15-14:15 hrs	Lunch							Seminar
14:15-15:30 hrs	Breakout Sessions	Smart Cities	Disaster Management	Geo-science for Energy Sector	Location Intelligence I	Artificial Intelligence	Surveying I	Interactive Zone Theatre
15:30-16:00 hrs	Afternoon Tea Break							Seminar
16:00-17:15 hrs	Breakout Sessions	Smart Cities	The Right Location	Integrating GDA2020 into Business as Usual	The Science of Geospatial	The Art of Communication		Interactive Zone Theatre
	Pre Dinner Drinks							
18:15-23:00 hrs	APSEA Gala Dinner							

11 APRIL 2018

09:00-10:40 hrs	Breakout Sessions	Remote Sensing	Big Data	Health & Community	UAV for Business	Surveying II	Workshop	Interactive Zone Theatre
10:40 - 11:10 hrs	Morning Tea Break							Seminar
11:10-12:25 hrs	Breakout Sessions	Location Intelligence II	Agri-Business	Science of Smart Cities	GIS in Government & Policy	Surveying II	Workshop	Interactive Zone Theatre
12:25-13:25 hrs	Lunch							Seminar
13:25-14:40 hrs	Breakout Sessions	Geo-Solutions for Utilities	Future Thinkers	Location Intelligence III	Innovation in Geospatial	Surveying II		Interactive Zone Theatre
14:40-15:10 hrs	Afternoon Tea Break							Interactive Zone Closed
15:10-17:10 hrs	Closing Plenary							
17:10 hrs	Formal Closing							
17:30 hrs	Closed							

To find out more about the conference or to register, go to <http://geosmartasia.org/>

Annual Calendar of Events for 2018

SURVEYORS BOARD SA MEETING DATES

Monthly Board Meetings held every 3rd Thursday of the Month –
except December and January.

Thursday 15 February 2018
Thursday 15 March 2018
Thursday 19 April 2018
Thursday 17 May 2018
Thursday 21 June 2018
Thursday 19 July 2018
Thursday 16 August 2018
Thursday 20 September 2018
Thursday 18 October 2018
Thursday 15 November 2018
Thursday 6 December 2018

SSSI-SA REGIONAL OFFICE MEETING DATES

Tuesday 20 February 2018
Tuesday 20 March 2018
Tuesday 1 May 2018
Tuesday 19 June 2018
Tuesday 31 July 2018
Tuesday 11 September 2018
Tuesday 23 October 2018
Tuesday 27 November 2018

OTHER IMPORTANT DATES

LOCATE 18 GEOSPATIAL CONFERENCE ADELAIDE

Monday 9 April - Wednesday 11 April 2018

LAND SERVICES COMMISSION CADASTRAL WORKSHOPS

Saturday Breakfast 16 June 2018
Monday Dinner 12 November 2018

INSTITUTE OF SURVEYORS AUSTRALIA, SOUTH AUSTRALIA DIVISION INC AGM

Wednesday 19 September 2018

2018-2019 SURVEYORS LICENCE RENEWALS

Tuesday 1 May 2018 - Friday 29 June 2018

For more information on events and
registrations (if required) <http://www.sssi.org.au/index/region/5.html>

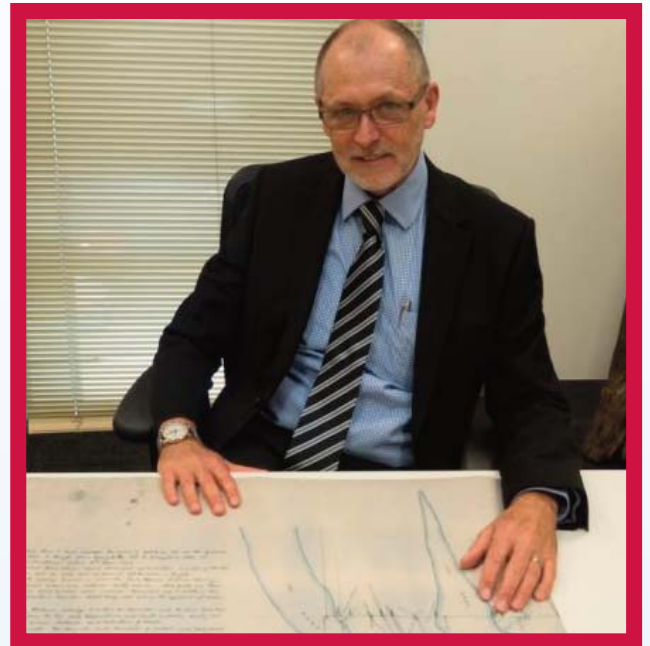
Why SA's borders are anything but straight

There are dog-legs, curves and even boundaries that do not line up in the borders of South Australia.

South Australia's Surveyor-General Michael Burdett said although a little wonky by today's standards, the accuracy of the borders was pretty impressive given the tools used to create them.

"Back in the mid-1800s, the technology was a long way from where we are today," he said. "They were using sextants, circumferentors and low-level theodolites to try and do their work." And the conditions the surveyors had to work in were brutal.

This is how each border came to be.



Michael Burdett with Poepel's map

The south-eastern border

The eastern border is much noted for the 70-odd year battle over the border south of the River Murray. It was meant to run along the 141st meridian line of longitude. But longitude is measured with time references to Greenwich Mean Time — and watches were not that great in the 1800s. The result was a 3.6-kilometre gap where the borders were meant to have met.

"Fundamentally the difference came down to a discrepancy that the nation had at the time," Mr Burdett said. "The longitude that had been determined for Fort Macquarie [Australia's reference point] was out by two minutes. "Hence ours was out by two minutes and the discrepancy ended up in that border."

The 1,295 square kilometre allotment became the focus of a legal dispute from 1849 to 1911, when the High Court ruled the surveyor's pegs were the legal line.



The north-eastern border

Although the disputed territory of the south-eastern border took most of the attention, the northern edge was not exactly accurate either. A bushfire passed through the area of the SA/NSW border a year after it was marked, destroying many of the survey markers. When fences were laid to mark the border, teams erred of the side of caution and the line moved 200–600 metres inside the NSW side.

"South Australia managed to grab back a bit, and that is a piece [of land] that we still have unresolved today," Mr Burdett said.

ABC News article posted by Brett Williamson on November 1st 2017 continued

Poeppel Corner

On the edge of the NT/Queensland/SA border, Augustus Poeppel marked what is now known as his corner in 1880. "When they returned to Adelaide with their equipment, they standardised their [measuring] chain and found it was too long," Mr Burdett said. As a result, the corner had been placed 316 metres too far to the west. But when Mr Poeppel returned the following year to mark the NT/Queensland border, he shifted the marking post to the correct spot.

The northern edge

Although straight on a flat map, the northern edge is actually periodically angled to take into account the curvature of the Earth. "You actually have to lay it out as chords of an arc," Mr Burdett said. The chords are in 16km lengths, with slight adjustments made at each end.

The north-western corner

The Western Australian border was initially mapped in the 1920s. A longitude of 129E was agreed on for the separation line. A beacon was placed on the SA/WA border at Deakin in 1926. A second was placed on a cattle station in the Kimberley to mark the WA/NT border.

A decision was then reached that the border would exist between the northern and southern lines of those markers. When they met at the NT/SA border in 1968, the borders were found to be 127.4 metres out. Markers were placed on both edges, and they remain that way to this day.



William Hatton (R) and a group of Surveyors on site in 1912. Photo courtesy of State Library of South Australia

Surveying was a life and death occupation

Although in today's terms the errors and variances are comical, Mr Burdett said the work for its time was incredible. "I have great respect for the work that was done in the early days," he said.

"We go out [now] and concentrate on doing a survey; these people went out and had to concentrate on staying alive."

"[Surveyor Edward R] White surveyed for 250 kilometres, in conditions that almost killed him and his team, and was within 30 metres due north of his starting point.

"Fair credit to the man and the fact that none of them died."

Audit Summary Survey

STANDARD AUDIT PROGRAM

Since the report in the July 2017 e-news the Surveyor-General has finalised 11 audits (9 urban & 2 rural) under the standard (targeted) audit program. 5 of these audits were high compliance, 3 low compliance and 3 very low compliance.

Errors included:

- + failure to connect to all relevant occupation and reference marks
- + significant occupations that supported redefinition not connected
- + previous road alignments erroneously overthrown
- + subject land rear boundary redefined at data from an existing erroneous road alignment despite a trend in rear boundary occupation

RANDOM AUDIT PROGRAM

32 surveys have been finalised under the random audit program since the last e-news:

- + 24 plans of divisions
- + 4 outer boundary plans
- + 4 primary community divisions

These audits resulted in the following:

- + 59% high compliance; 25% of these error free
- + 25% low compliance
- + 16% very low compliance

A large proportion of the high compliance audits contained medium compliance errors for not showing an alternative mark when a peg could not be placed and many of the low compliance errors resulted from corners not being pegged when pegs could have been placed.

The very low compliance errors were a consequence of PSM joins and positional accuracies of marks being out of tolerances due to erroneous reference mark fixings; errors that could have been detected by coordinate join comparisons and pin to pin checks prior to lodging the plan.

The Surveyor-General's random audit program initiated in April 2016 has drawn to a close; only inactive surveyors remain unaudited.

The new random audit program targeting surveyors in the medium to very high risk categories and surveyors who do not have a risk rating will commence this month. The use of these audit survey assessments for a surveyor's risk rating will be at the discretion of the Board. Factors will include, but not limited to, the types of errors, audit history, complexity of the survey and risk to the cadastre. This program may provide an opportunity for those surveyors in the higher risk categories to improve their rating.

Bradley Slape
Cadastral Specialist
DPTI, Land Boundaries

Pinery photo shoot and ABC coverage

In our last e-news Edition 20, we featured an article about South Australia's Licenced Surveyors and Master Surveying Students helping farmers who suffered devastating losses in the Pinery bushfires of 2015 to get their properties back into shape.

Eight Surveying firms in South Australia and twelve UniSA students volunteered their time to perform the surveys and prepare draft plans for those affected, and we had a photographic crew visually document some of the work they performed on that day.

With 6 months preparation for the project, co-ordinating all the volunteers and programing the field work, it was a wonderful opportunity to record the great camaraderie and collaboration between the Licenced Land Surveyors and the Master of Surveying students.



“the project was the first of its kind, which was not only a great opportunity to help affected farmers but also provided valuable experience to the next generation of surveyors”

Beau Thorley, ABC Rural News interview





ABC Rural News covered the project, interviewing both Beau Thorley and Tom Jeffery, posting an article online which you can read at <http://thesetup.net.au/volunteersurveyingproject>. The article also shows more of the photos taken at various locations in the area on the day.



It was invaluable experience for the students, and in this edition of the e-news, we would like to thank the students who participated:

Yemi Kehinde
 Matthew Pitt
 Matti Pruul
 Jack Stuart
 Ashby Schilling
 Jason Heritage
 Alyse de Souza
 Joe (Xin Feng)
 Jordan Earl
 Mark Williams
 Sean O'Sullivan
 Dale Robinson



We would also like to thank Gary and Cheryl Matthews of the Stockport Caravan Park who kindly assisted with our wind up barbeque at the end of the day.

ISASA Annual General Meeting

The Institution of Surveyors Australia South Australia Division Inc, Annual General Meeting held Wednesday 20 September 2017, was well supported with 85 Licenced Surveyors in attendance.

A tribute to Mr John Bested (pictured right with his award) was made in recognition of 50 Years as a Licenced Surveyor in South Australia. Mr Bested gave an interesting account of his "life as a Surveyor" when accepting his award.



The Surveyors Board SA membership is as follows:

Mr Joe D'Aloia	Chairman	Regional Chair SSSI LSC (ex officio)
Mr Mark Williams	Treasurer	Member
Mr Scott Allen	Academic Member	Member
Mr Michael Burdett	Surveyor-General	Member Ex-officio
Mr Michael Nietschke	Immediate past President	Member
Mr Michael Liebelt	Audit Survey Committee	Member
Mr Ruhi Afnan	Audit Survey Committee	Member
Mrs Sharon Medlow Smith	Registrar	

Brenton J Burford UniSA Scholarship

The Brenton J Burford Scholarship has been established by Surveying and Mapping SA to recognise the long-standing and invaluable contribution of Mr Brenton J Burford to the profession of surveying in South Australia and Australia.

Mr Burford lectured in the application of mathematics to surveying and geodasy at the South Australian Institute of Technology (now UniSA) and as a result trained many of the professional surveyors currently working within South Australia. He is remembered by these surveyors as a brilliant lecturer who challenged his students but always remained approachable. He continued his development and promotion of the profession in subsequent roles as a professional surveyor, office bearer in the Institution of Surveyors, Australia (SA Divisional President 1982-83, Federal President 1991-92) and chairman of the Surveyors Board of South Australia (1987-89). As a result of this service he was awarded the 1992 Institution of Surveyors, Australia, JB & JW Calder Award for his outstanding contributions to the surveying profession. He was also instrumental in the instigation of the current partnership between UniSA, the Surveyors Board of SA and the State Government that re-established the undergraduate and graduate programs in Surveying in South Australia. His legacy is one of service and commitment to the profession.

The Brenton J Burford Scholarship will be awarded annually to a student who has completed the Bachelor of Geospatial Science and is undertaking the Master of Surveying at the University of South Australia. The scholarship will be awarded to a student who has been deemed by the Selection Panel to be the most deserving recipient based upon them showing the qualities of: demonstrated aptitude for surveying, diligence to their studies with a demonstrated strong work ethic, positive attitude and willingness to contribute to the learning environment in the classroom and field.

Students can apply online via [myScholarships](#) in the UniSA student portal.

For more information go to the Surveyors Board SA website (education pathways page) or the SAMSA website (careers and events page), or contact: UniSA School of Natural and Built Environments email: NBEenquiries@unisa.edu.au

Christmas BBQ Breakfast

Thanks to all who attended the BBQ on Friday 15 December 2017 and to our sponsors SSSI-SA and SIBA for their continuing support of the event. This year the BBQ Breakfast is scheduled for Friday 14 December.

Retired Surveyors Luncheon Dates 2018

The luncheon dates for 2018 are	TUESDAY 27TH MARCH	12.00 noon for 12.30pm
	TUESDAY 26TH JUNE	12.00 noon for 12.30pm
	TUESDAY 18TH SEPTEMBER	12.00 noon for 12.30pm
	TUESDAY 13TH NOVEMBER	12.00 noon for 12.30pm

Location: Hackney Hotel - 95 Hackney Road, Hackney, South Australia 5069.

All retired surveyors and their partners are welcome. If possible please bring a name tag, and don't forget to call any colleagues who you would normally contact or invite any other retired surveyors who may wish to join our luncheons. If you know of any recently retired surveyors please let me know their contact details. Anyone wishing to attend a luncheon should contact Barry Thorne no later than one week before the event.

Contact Details: Barry Thorne
Telephone: (08) 8278 1346

Email address: bpthorne@optusnet.com.au
Postal Address: PO Box 668, Blackwood 5051

SB e-news Edition 22

The next edition will be Edition 22 and distributed later in 2018. We welcome your contributions and feedback in advance of that date.

Please send to isasa@isasa.org.au



Level 7 West 50 Grenfell St Adelaide SA 5000
Telephone (08) 8212 0343 Fax (08) 8212 0445
Postal GPO Box 1349 Adelaide SA 5001
Email board@isasa.org.au
Website www.surveyorsboardsa.org.au