



Australia's Representative
International Cartographic Association

MSI- *Connected!*

Newsletter of the Mapping Sciences Institute, Australia

APRIL 2014 EDITION

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PRESIDENT'S REPORT



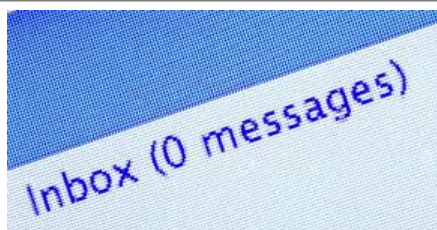
DON PEARCE, PRESIDENT

All good things come to an end and as our beautiful summer has officially drawn to a close, so has the wonderful "Mapping Our World" Exhibition at the National Library. It is exciting and impressive to know that the Exhibition broke all attendance records for an Exhibition at the Library with well over 100 000 visitors. Although I had hoped to get across from Perth, I was unable to and had to content myself with a copy of the Exhibition Catalogue, a superb publication. Perhaps someone who attended could write a review for the next edition of MSI-Connected. As an Institute, we did not take advantage of the publicity that we might have but at least 100 000 people now know more about the wonder of Cartography and the skill of Cartographers than they did before.

It confirms that the name Cartography can still attract attention and claims that it is old fashioned and dead are simply not valid. Again I would appeal to our Members to always use the term Cartography as a professional name rather than the modern derivatives and particularly "spatial science".

More and more mapping related programs are appearing on television and all of them refer to the skill of the cartographers. One today was based on Greenwich and the development of latitude and longitude and time and the clocks used by the famous sailors. I feel that we have lost a lot over the last few years, particularly in our education field where the courses in "Cartography" have disappeared. They say everything goes in circles so maybe one day we will see the return of our "Golden Years"

Don Pearce
President, MSIA
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Help me to achieve the status of "Inbox Full". If you have an article, news clipping, photos or other contribution email the Editor on adam.ladhams@hotmail.com

VALENTINES DAY EXCITEMENT 2014
by Rosemarie Unkles (wife of Alan Unkles, MSIA Membership Manager)

My husband Alan thought I would enjoy a little treat for Valentine's Day- a trip to Canberra to visit my brother and family.

The reality of the trip was a visit to the National Library of Australia to view the 'Mapping our World: Terra Incognita'! When I told friends AI was taking me to see far and exotic places for Valentine's Day - it really sounded quite romantic but then coming clean in actual fact it was - a visit to the library to see some very old maps of the world! Most comments were to the effect " Well maybe it won't be that bad, it will be nice and cool anyway, that means a shopping trip and you might even enjoy it!"

So after after 16 hours of driving, over two long days in the heat (40 degrees at 6 pm in Dubbo) we arrived on Canberra. Valentine's Day -we arrived at the Library, (which is beautiful, spacious, modern and inviting) and there were actually lots of people waiting to see the maps too! Whilst waiting I popped into Library's bookshop -definitely need to spend more time here -beautiful children's books, Australian authors and pressies for the Grandkids now this was more like it! There was something to look forward to after the maps.

At the appointed time we all gathered in the foyer to meet our Tour Guide. It was a small group from all over Australia. Our well informed guide indicated that over the four months the display had been packed on most days and many visitors who just popped in without checking times were disappointed and unable to view the exhibit .Who would have thought there was such a great interest in old maps- I was thinking this might actually be good!

The exhibit was very organised and set out as an historic timeline, showing Australia (with her other various names) in over 200 maps. The rooms were small, dimly lit, the temperature was surprisingly cold and the scene was set!

Immediately visible on entering the exhibit was the Frau Mauro 'Map of the World' a huge map mounted in a highly ornate and beautiful gold frame. On closer inspection the detail and intricacy of the map was revealed and no wonder it took seven years to complete. But someone had made a mistake – the map was upside down! No, actually this was the manner in which maps were drawn at that time -with the south at the top of the map. Thankfully the library had a smaller copy the right way and all the countries were suddenly became very clear. I have trouble reading maps let alone when they are upside down (Alan quietly agrees!)

A map that I found historically interesting was the 'Planisphere' 1529. It shows the world divided into Spanish and Portuguese halves as authorized by the Pope of the time. It really demonstrated the Pope's powerful and political force. A very simplistic view of the world 'yours and mine', Portugal and Spain and that was it!

I found reading about all the Matthew Flinders and his charts highly interesting and quite emotive. They were so accurate for such a long time ago, evolved with such crude measuring instruments and the amount of 'blood, sweat and tears' the time and the politics that went into these masterpieces was a real eye opener. Flinders most probably died before realizing his life long ambition –that his maps were published and acknowledged as accurate. His maps were all original (200 hundred years old) and just in case this may have been missed on one of

his maps a very well meaning person had written 'Original' across the top left corner in red ink!

An hour or so after we started our trip into the realm of ancient mapping our guided tour was complete, but I must admit I was eager to revisit and spend more time marveling at the great minds, explorations and bravery of these ancient cartographers! So back in we went!

We must congratulate the National Library for this fantastic exhibit -the maps, the organisation and our wonderful guide who was very well informed, enthusiastic and only too happy to answer questions. As to be expected Alan was totally fascinated by the exhibit and at dinner time my brother and sister in law were bombarded with all our enthusiastic stories. Yes, I said our stories as I thoroughly enjoyed the display and seeing the work of ancient cartographers and somehow feeling part of history, being immersed in such great mapping antiquities! And I did get back to the Library bookstore for some shopping!

Thanks AI, after all these years I do have a greater appreciation of cartographers! Happy Valentine's Day!



DIRECTIONS 2014 ESRI AUSTRALIA'S TOUR DE FORCE

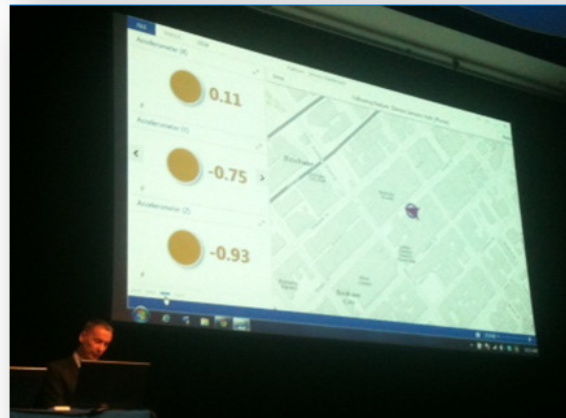
by Adam Ladhams

ESRI Australia recently went on a roadshow around Australia during March and April to promote their training options, consultancy services and updates to applications. The one-day free event was hosted in Darwin, Townsville, Perth, Adelaide, Canberra, Brisbane, Sydney, Melbourne and Hobart.

In Brisbane over 340 people registered for Directions (although a number of registrants were no-shows). There were two breakout discussion groups – one for local government, the other for resources. In addition to the main auditorium was the presence of ArcBar, to enable attendees to speak with ESRI staff about solutions and applications.

The presentations centred on the following elements:

- Using GIS in business analytics to create a new look at spatially enabled data from a range of formats and applications (including MS Office and SAP).
- Developing powerful, informative and interactive webmaps from the ESRI online map server and from a wide range of available templates.
- Our insatiable appetite for real time and 3D capabilities, monitoring and editing requirements, widgets (functionality) and ability to control access and security settings.
- Current reliance on hosted feature servers rather than local servers (until version 10.2.2).
- ArcGIS Next (version 11?) to be released Q3 2014.



Source for top images: <https://esriaustralia.com.au/events-directions-2014-story-map>

TIME FOR A PICTURE



Source: <http://www.fastcoexist.com/3026174/stunning-photos-of-earth-from-above-will-change-your-outlook-of-the-planet>

ELEVEN YEARS ON

by Keith Smith

Remember that old Monty Python movie where the hero persisted with his search for the Holy Grail despite regularly fighting battles which resulted in the loss of his arms and legs? Well, that's how I felt as I waited with then Treasurer, **Alan Armitage**, to consult with our Solicitor on how to deal with the latest, rather amateurish, attempt by the Institution of Surveyors to put us out of business. The year was 2003 and the land surveyors had dreamed up this idea to brand themselves spatial scientists, form a new institute and try to inveigle our own Mapping Sciences Institute into joining-up with them. They proposed that our members be transferred holus bolus (hmmm?) and our money handed over. Whoa! No can do. Hence our visit to the lawyers.

The solicitor tried to bamboozle us with legalese in regard to the proposal, using terms like: "preposterous", "nitwits" and "they're not even incorporated", but we got the message that he wasn't all that favourably impressed. The upshot was that he recommended that we keep MSIA going until we were convinced that our members were satisfied with what the new Spatial Sciences Institute offered. The Council agreed and we thought it's all over Red Rover!

The space scientists within our own ranks, however, had other ideas and their determination to wreck us was demonstrated at the next Council meeting when decorum, along with our Constitution, was thrown out the window. Fuelled by an uncontrolled fury, they managed to intimidate us into agreeing to raise our members' subscription rate to the same level as that of SSI – an increase of about 300 per cent. They also proposed that we sign a memorandum of understanding with SSI, but this

was postponed because most of us had no understanding of the memorandum.

Naturally, many of our members failed to see the funny side of the increase in the subscription rate and promptly resigned, although not to join SSI. Wonder why? We countered in the following year by cancelling payment of fees for the year and reducing future fees down to pre- spatial levels. The debate about the MoU raged for the next couple of years, but interest was never high, and eventually it went into orbit.

In 2006, we earth-bound mapping scientists headed to Darwin to participate in our National Conference, "400 Years of Mapping Australia", hosted by the Northern Territory Division. Convenor of the conference was **Trevor Menzies** who had picked up on the fact that 400 years earlier the Dutch vessel Duyfken had sailed into the Gulf of Carpentaria and charted a short stretch of the now Queensland coast. This was the first known bit of mapping in Australia, and we were in Darwin to celebrate our many mapping exploits since then.

For a long time I had been a compulsive conference attendee – town planning, surveying and mapping – and had become rather blasé. However, the Darwin conference grabbed and held my attention and turned out to be most enjoyable I had ever experienced. For me it was the turning point in our struggle for survival. I thought, "You know what? We're going to be all right". From that point on it was not survival, it was revival.

Back home from Darwin it was business as usual; in fact it was business better than usual.

One of the high points of our renaissance was our national newsletter, revamped by **Greg Heron**, who displayed a professional approach to presenting news. Also, our prestigious Journal, now available online, continued to find international favour thanks to the efforts of Editor-in-Chief, **Graeme Wright**. **David Fraser** launched an online periodical (now "Cartography") providing links to developments in cartography from around the world, and **Les Isdale**, and later **Adam Ladhams**, replaced our print newsletter with a digital version. We have continued to conduct national conferences every couple of years, most recently in partnership with kindred organisations, and the NSW Division unfailingly presents an annual seminar. The MSIA website was completely redesigned a few years back, thanks to **John McCormack** and **Les Isdale**.

Internationally, we have done exceedingly well, with **Bill Cartwright** serving as President of the International Cartographic Association for the term 2007 to 2011, and **David Fraser** chairing the Commission on Education and Training.

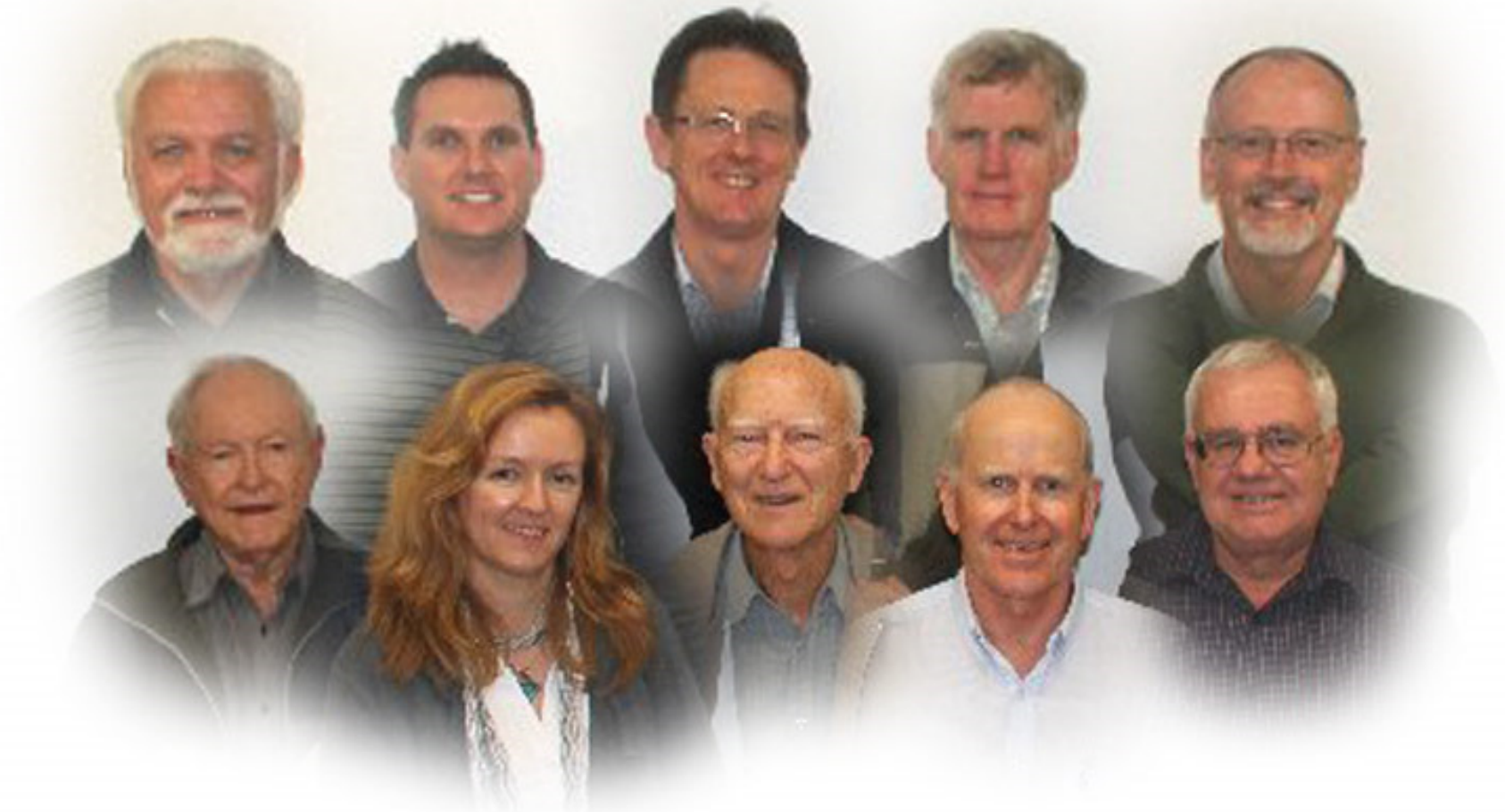
Throughout the period under review, council membership has remained fairly static, recording five resignations and the recruitment of four new members.

All good.

INVITATION

If you would like to try your hand at participating in our continuing development you could consider joining the Council. Please express your interest to Secretary Keith msiau@gil.com.au

Councillors Meet



Photographed at the Council Meeting in Brisbane in July were Councillors
(top, L to R) John McCormack, Adam Ladhams, Prof. Graeme Wright, Pat Killoran, Alan Unkles;
(front) Alan Armitage, Trisha Moriarty, Les Isdale, Dr David Fraser, Trevor Menzies.

Photographs and montage by Les Isdale

First combined COMPASS/BeiDou-2 and GPS positioning results in Australia. Part I: single-receiver and relative code-only positioning

R. Odolinski, P.J.G. Teunissen & D. Odijk

First combined COMPASS/BeiDou-2 and GPS positioning results in Australia. Part II: Single- and multiple-frequency single-baseline RTK positioning

R. Odolinski, P.J.G. Teunissen & D. Odijk

Description and representation model of spatial object incremental update

H. Zhu & H. Wu

A survey of a personalised location-based service architecture for property hunting

Z. Chen, J. Xia & C. Caulfield

Predicting water stress induced by Thaumastocoris peregrinus infestations in plantation forests using field spectroscopy and neural networks

Z. Oumar & O. Mutanga

Mapping soil organic matter with limited sample data using geographically weighted regression

K. Wang, C.R. Zhang, W.D. Li, J. Lin & D.X. Zhang

The importance of land use control and documenting property rights in Disaster Risk Reduction in Pacific Island countries

D.P. Mitchell

Inter-agency land administration in Australia: what scope for integrating policies, processes and data infrastructures for housing production?

M.E. Agunbiade, A. Rajabifard & R. Bennett

Leveraging Twitter to detect event names associated with a place

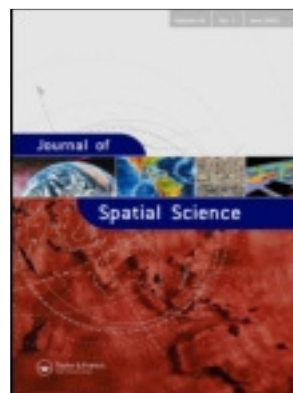
C.K. Chan, M. Vasardani & S. Winter

Spatiotemporal patterns of land surface temperature of Antarctica from MODIS monthly LST (MYD11C3) data

G.Ch. Miliareis

Techniques for developing resources to understand geographic and projected coordinate systems

S.K. Srivastava



ICSM ANNOUNCES NEW STANDARD

Submitted by Alan Reid

The surveying and spatial communities working in Australia will be able to ensure greater integrity in their work following the release of a new standard.

The Intergovernmental Committee on Surveying and Mapping (ICSM) recently released a new version of the Standard for the Australian Survey Control Network - Special Publication 1 and associated guidelines.

The documents are designed to provide guidance to help achieve the highest level of rigour and integrity when connecting to, delivering and maintaining the Australian survey control mark network.

As well as the standard, the publications include guidelines for adjustment and evaluation of survey control, continuously operating reference stations, surveys by global navigation satellite system networks, surveys controlled by differential levelling, conventional traverse surveys and for installation and documentation of survey control marks.

The most significant change in the documentation is the transition from describing uncertainty by the traditional surveying measures of class and order, to the international standard of measuring uncertainty as the basis for evaluating and expressing the quality of measurements and positions.

A copy of the standard and guidelines can be downloaded from the ICSM website at <http://www.icsm.gov.au/geodesy/sp1.html>.