



www.mappingsciences.org.au

Australia's Representative
International Cartographic Association

December 2012

My name is Trisha and I'm a mapping scientist working with the Geological Survey of NSW. The Geological Survey head office is currently based in Maitland, with a small number of staff at Orange and Armidale. It was relocated from Sydney in 2005 and is now part of the larger department of NSW Trade & Investment.

I obtained my qualification, a Bachelor of Science in Cartography, from Curtin University of Technology in 2001 after completing a Diploma in Cartography at Leederville TAFE.

Trisha at Bolwarra Heights lookout, approximately 4km north of Maitland examining the statewide surface geology layer on a tablet. Photograph looks south over Hunter River flood plains towards Maitland with Mount Sugar Loaf in background

MSI- Connected!

Newsletter of the Mapping Sciences Institute, Australia

... Celebrating our 60th Anniversary



The interdisciplinary nature of the degree has served me well in my career as a mapping professional as I moved from the tradition role of creating maps consumed primarily as hardcopy products to managing online systems where the information is consumed in an interactive and customisable environment.

At the time, Professor Graeme Wright currently a National Councillor, was the head of the Spatial Science school and my lecturer for the Computer Assisted Mapping and Environmental Science units.

My first full-time position, on completion of my degree, was with the Geological Survey as a cartographer (the position was officially called a Land Information Officer, quite an apt description really). I started on a short-term contract digitizing the stratigraphy of Broken Hill region (1:250,000 scale mapping supplied as hand drawn overlays to the existing Broken Hill geological map sheet), which led onto full-time work creating geological maps.

As a Western Australian, just moved to the east coast, the experience of creating maps for the Lightning Ridge opal fields area (i.e. Angledool 1:250,000 map sheet), the Brigalow Bioregion (part of a larger mapping exercise across government departments mapping the areas across Nyngan to Tenterfield), and the north-east coastal regions (the NSW Coastal Quaternary Geology maps series) provided me with an armchair tour of NSW geology. I have since visited these areas, and knowing about the geology has helped me better appreciate the unique environments of these regions. Making geology

more accessible to the general public has become one of my main aims in my work at the Geological Survey.



The geology map showing the of the Hunter River flood plains in yellow which are Quaternary alluvial deposits (Qa) and the Bolwarra Heights lookout hill in blue which is Permian Sedimentary rock (Ps). To the north-east at Melville, depicted in grey, are Carboniferous volcanics.

After five years working in the cartographic section producing geological maps I moved on to managing the Geoscience Knowledge Management sub-unit which is responsible for the online delivery and management of much of the Geological Survey's geoscientific data. My degree, which includes units on spatial database modelling, geographical information systems as well as digital cartography and multimedia, certainly has assisted me in being able to meet the various challenges of this role.

Having to learn a new piece of software every six months at university, does also prepare you for the ongoing requirement in this type of career to keep your knowledge and skills up-to-date. And it's not just learning new software and hardware, but understanding the changing standards and methods by which your audience interact with spatial data. It's a job that will never stagnate.

My unit manages key databases that hold both company and departmental exploration data (that is, data from drilling, surface and downhole assays and geophysical surveys as well as geological interpretation mapping data). Currently access to much of this data is via the DIGS report database and the online mapping tool MinView which allows users to visualise and query the geology and mineral tenement information for NSW. A major ongoing project has been to take the data currently held in reports, spreadsheets, scanned plans etc and to restructure it into spatially enabled databases to make it

easier to discover and analyse. Constructing the tools to allow visual investigation of the data requires drawing on all my cartographic experience in data modelling and visualisation. Presenting the data spatially in a map interface is the primary form of delivery. Hardcopy maps have remained popular but new technologies (and a greater spatial awareness among the audience) demands for more ubiquitous provision of this information.

For example we are currently providing geological data in Google Earth and Google maps. More recently we have been working on providing the statewide geology and geophysical maps, such as the total magnetics and radiometrics as layers for use in mobile device mapping applications (for both phones and tablets).

You will shortly be able to download the statewide surface geology map for use in mobile mapping applications such as Galileo or RMaps. The layers are designed to be downloaded once and to be stored offline on your phone, so you are not reliant on having a connection to the internet to use the maps. This means you can access the maps anywhere (including places without mobile reception). So as you travel the NSW highways you can identify the different rock formations and their ages and even learn of their origins, be it sedimentary rock laid down at the bottom of an ocean floor or the remains of an ancient volcano. ◇

Trisha Moriarty, MMSIA and National Councillor

Report on the Annual MSIA NSW 1 day Seminar held on the Thursday 25 October 2012

The Seminar this year had the Theme “*Utilising Contemporary Mapping*”.

We were fortunate again to have a good variety of interesting topics by presenters from both Private and Government sectors at this year’s MSIA NSW Seminar.

Examples of the line-up of this year’s Seminar Presenters included:

- Kellie Lacey from ESRI Australia, whose presentation was titled “Your maps anywhere, anytime”. She spoke of the growing demand for accessible geographic information and the challenges to GIS departments to provide it. She also spoke about the tools available to GIS professionals to take their maps from paper to a wider public audience.
- Gary Taunton from Land and Property Information – Spatial Data Services. Gary discussed the LPI’s Imagery programs including the current 2012 Sydney Conurbation Imagery contract and LPI’s ADS40 Imagery and LIDAR forward programs. Gary is currently in the Business Development section of LPI and specialises in Imagery

programs development.

- John Weaver from office of Spatial Policy (formerly OSDM) within the Department of Resources Energy and Tourism speaking on the “current spatial policy”.

Presentation by Kelly Lacey from ESRI Australia.



- Michael Ann (Mike) Lane of Intergraph spoke on “From the sensors to the Internet” using examples of various natural disasters around the world such as hurricanes and tsunamis and the importance of getting the imagery of the aftermath flown and then processed through to make the imagery available to organisations that need it and to have it also available on the internet. She spoke about the business opportunities for both capturing, processing and delivering the information to customers directly over the internet.

- Nicole Mahoney from the Attorney Generals Department speaking on “Understanding the role of Spatial Analysis in Crime Prevention”. Nicole is a spatial analyst working for the Bureau of Crime Statistics. Nicole showed examples of the hotspot and rate mapping for various crimes across NSW and responding to requests for information on the spatial attributes of crime. The presentation addressed the type of crime mapping undertaken by BOCSAR and the process undertaken to provide their clients with useful information which will address their requirements.

- Michael Tanner – Manager Spatial Analysis, from Bureau of Transport Statistics (BTS) speaking on “Spatial data and its use in the 2021 State Plan. NSW 2021: A plan to make NSW Number One” sets the Government's

agenda for change in NSW. It is a 10 year plan to rebuild the economy, return quality services, renovate infrastructure, restore accountability to government and strengthen the local environment and communities.

- Graham Butt from NSW Department of Trade and Investment speaking on “A changing landscape:

Michael Ann (Mike) Lane from Intergraph using the example of Cyclone Yasi



accessing spatial data from the Geological Survey of NSW". Graham spoke on how the Geological survey is currently facing the need to institute extensive changes to the way it provides access to its spatial information and the way it presents the data to an increasingly diverse audience it is required to serve. Graham's talk covered some of these issues and potential solutions.

The lunch break was held in the Hotel's restaurant which is always a great opportunity to network, both with the presenters and other seminar attendees, from both government and private industry whilst enjoying a great buffet lunch.



To sum it up, it was another great 1 day Seminar of a broad range of interesting topics which attracted questions to the speakers at the conclusion of many of the presentations. CPD points for attendance at the Seminar were arranged for MSIA, SSSI and ISNSW members who attended.

Michael Turner MMSIA (NSW MSIA Secretary) ♦

History News from Northern Territory

There are two main points of focus at the moment for the Institute's Heritage Program. Trevor Menzies manages the program, and mentions the interesting initiatives now in the pipeline.

MSIA History

The 25 year history written by Keith Smith as a supplement to John McCarthy's 'Mapmakers of Australia' is being prepared for publication. It won't happen overnight – a major effort will be made to identify suitable photographs illustrating Institute people and events in that time. If you have material which you think might be of interest, please let us know about it.



Darwin Attack

The Northern Territory Division is working with NT Library to mount an exhibition on WWII military mapping. It will be held in Parliament House, at the time of the annual Bombing of Darwin commemoration on 19 February.

The exhibition will run for about 6 weeks. The NT Region of SSSI has accepted our invitation to jointly sponsor the exhibition.

Anyone who has visited the Fanny Bay Museum will appreciate the importance of this commemorative exhibition, seventy years after the event. A short account has been posted on the internet by the ANZAC Day Commemoration Committee (Qld) Incorporated, at <http://www.anzacday.org.au/history/ww2/bfa/attack.html>

Meanwhile, Trevor is on an extended touring holiday in Western Australia. We wish him a safe and interesting journey.

... Les Isdale FMSIA, past President, Editor



CONFERENCE DETAILS & DATES ... Adam Ladhams MMSIA

GeoNext 2013: the State of Cartography map exhibition

27 February 2013, Australian Technology Park Sydney

<http://www.geonext.com.au/the-state-of-cartography/>

Full registration cost: \$350



IMIA EAME Conference

12-16 March 2013, Luxor to Aswan Nile Cruise

<http://www.imtamaps.org/docs/events/NileCruiseConferenceRegistrationFormversion310812.pdf>

Full registration cost: €720 – 950 for non-members

The Australian and New Zealand Map Society (ANZMaps)

40th annual conference

The Metropolis and Beyond: mapping the built and natural environments

9-13 April 2013, The State Library of Victoria, Melbourne

www.anzmaps.org

Call for Papers ...



The Australian and New Zealand Map Society is celebrating 40 years of successful map and mapping information dissemination for professional bodies and individuals. "The Metropolis and Beyond: mapping the built and natural environments" will be held 9-12 April 2013 at The State Library of Victoria in Melbourne.

The organising committee invites proposals for presentations on any aspect concerning maps or mapping – both historical and current— particularly relating to the theme of the conference. Your paper will be seen by a wide cross-section of the mapping community and could be published in the internationally-distributed journal "The Globe". If this appeals to you we strongly encourage you to submit.

Abstracts should be a maximum of 300 words in length, including the proposed title of the paper, your name with a brief biography and contact information. Presentations are generally 25 minutes in duration with an additional 5 minutes for questions. Applications to present papers should be submitted to Greg Eccleston at eccleston37@bigpond.com before 28th February 2013. For more information visit <http://www.anzmaps.org/>

Surveying and Spatial Sciences Conference 2013

Collect, Connect, Capitalise

15-19 April 2013, National Convention Centre, Canberra

www.sssc2013.org

Full registration cost: \$1,540 for non-members paid by end January 2013



The 25th International Conference on the History of Cartography

Organized by The Cartographic Society of Finland

30 June – 5 July 2013, Helsinki, Finland

<http://ichc2013.fi/conference>

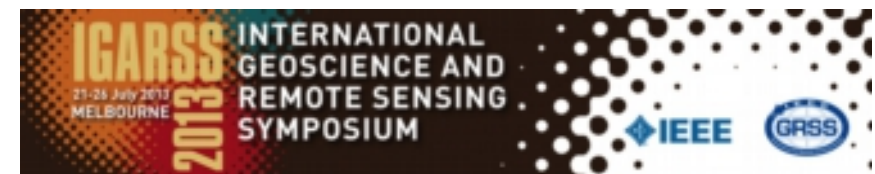


IEEE International Geoscience and Remote Sensing Symposium

Building a sustainable earth through remote sensing

21-26 July 2013, Melbourne Convention and Exhibition Centre

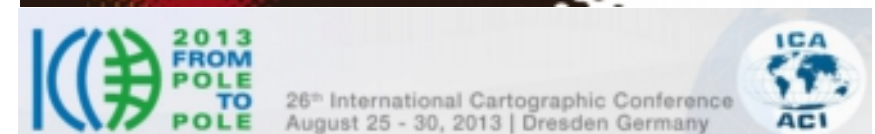
www.igarss2013.org



26th International Cartographic Conference,

2012 from Pole to Pole

25-30 August 2013, Dresden, Germany



www.icc2013.org

Full registration cost: €300 – 500 (before 15 March 2013)

International Map Industry Association conference

[2-3 August 2013](#), Mecure Hotel, George Street, Sydney.

www.imtamaps.org

Note the name change from IMTA to IMIA.



Know about an upcoming conference or event? Contact Adam Ladhams by email on adam.ladhams@hotmail.com ◇

Alan Unkles retires

Alan started work with the Department of Forestry in 1971 as a Cartographer. In 1977 Alan joined the Institute, and the following year he became part of the Queensland's divisional committee.

Even though Alan remained with Forestry for his long career his roles were quite varied. Alan's cartographic career started with pen and ink and went through to the initial use of computers. The computers at that stage were essentially dumb terminals connected to the state government centre, where at great cost upto 150Mb of data was stored.

In the mid eighties Alan used his 'design' skills to move into desktop publishing. Once the initial obstacle of approval was achieved, the new fangled Apple computers showed their worth. Forestry won many accolades for their superb publishing work, and the Institute benefited with the production of Annual Reports, Reports to ICA, Newsletters, Conference papers etc.

In the mid nineties commercialization for Forestry was on the horizon. Many changes took place, including Alan's move to Human Resources. Again this was about using his computer skills to set up a computerized HR system. Once the system was established the management of all HR administrative processes became his role. During this period Alan achieved a lot of personal satisfaction from assisting staff and management by simplifying processes to ensure positive outcomes in the HR arena.

Alan and his wife Rosemarie

In the mid naughties the plantation side of the forestry business was sold off by the Queensland government as a 99 year lease. The native forest and quarry material part of the business remained with government as Forest Products. Alan's new role was the management of business support, this included HR, finance, administration and IT. This role became rather complex, particularly when Forest Products was moved between Departments - three times over the period. Forest Products was unusual in government circles as it is fully self funded by the sale of products, and has achieved a multi-million \$ surplus for government every year since it's inception.



Over his whole career Alan has continued his involvement with the Institute. At times he has been President, Secretary and Treasurer on the Divisional committee, while on the national scene a Councillor and National Manager Membership. He was also very proudly elected to Honorary Fellow in 1995.

So it was after 41 years and 7 months Alan retired from government, but not from the Institute. He simple wish through his career was to be able to support forestry staff by providing them with the tools to do their jobs, whether it was a map, a motor vehicle or the right pay.

Alan will now use his planning skills to fit the life of a grey nomad into the lives of his grandchildren..... ◇

Australia's 2012 Eclipse

... Alan Unkles FMSIA

Wednesday 14 November 2012 - the date written in many calendars around the world. This was when a total solar eclipse could be observed in northern Australia, and particularly in the Cairns area. The combination of an International airport and lots of accommodation options was too much for many eager eclipse chasers.

I am not an eclipse chaser only a recent retiree, who had the time and an interest in viewing this amazing natural phenomenon.

So I set off for Cairns, without really knowing what to expect. Sixty thousand extra people also had the same idea.

Tuesday's weather did not look favourable - remember that November is the start of the wet season in northern Australia. I was starting to think that I had driven a long way and I wasn't going to see anything.

The eclipse in Cairns was going to last from 5:45 - 7:40 am, the total eclipse at 6:38 and lasting for 2 minutes.

At 5:30 am, an extreme time for me to be up and about, clouds were scattered across the sky - but there were patches of blue.

As the time approached, and the bar-b-que was sizzling, our luck was holding out - more blue sky.

At the prescribed time, the strange black glasses showed their value. The moon started to obscure the morning sun. I suspect I became a little animated with the excitement.

As the total eclipse approached, rays of sun's light became more visible, the scattered clouds adding to the effect.

When the time came for the moon to fully obscure the sun, the glasses came off, the sky darkened to the point where the street lights came on and bewildered birds scattered. This was the highlight of the event, a surreal view of a bright circle surrounded by the normally invisible corona of the sun. It only lasted for a short time, but I won't forget the spectacle - the photos will help me to remember as I get older.

The good weather held while the moon moved away from the sun. A truly worthwhile experience. The photos show the sun before, during and after the total eclipse.

It was pointed out by medical experts before the eclipse that it was critical that correct eye protection should be used. On the radio the following day, a Townsville announcer indicated that he had snuck a peek at the eclipse, he now had spots in his vision. He jokingly indicated that at least the image of the eclipse would last with him for a long time.....



LETTER TO THE EDITOR

I felt impelled to write this Letter (actually an email) to our editor of the *MSI-Connected !*, being the one and only Les Isdale.

Being, myself, an honorary editor of a newsletter in another field, I feel I am eminently qualified to express my appreciation of what Les accomplishes in his “ MSI – Connected ! “ productions. *MSI – Connected !* deals with a somewhat technical atmosphere, while my own efforts are centred around mainly topical and humorous subjects.

For instance an article in my November issue emanated from research that unearthed and threw some light on the impact that doors have on our memory capacity. You see, as we age, the simple act of walking purposefully into a room, only to find that our purpose is momentarily forgotten, can be readily explained. Apparently, the door itself is to blame.

Psychologists at the University of Notre Dame have discovered that passing through a doorway triggers what’s known as an event boundary in the mind, separating one set of thoughts and memories from the next. Your brain files away the thoughts you had in the previous room and prepares a blank slate for the new locale. And you all thought it was an early state of dementia.... I hope I cheered you all up.

I recently had the opportunity to preview an article that had been forwarded to Les under the banner of “ *Members at Work* “. It had been written by Trisha Moriarty, a newish and younger member of our Institute. I can truthfully say that I thoroughly enjoyed the article and it made me realise how lucky we are to have in our midst such a talented and deserving member. You can read it yourself as it forms part of this issue.

Keep up the good work, Les. I know it takes up a lot of time and some late hours, but the end result is worth it.



H.F. M.S.I.A. and Chairman Of Executive

[Ed. : Thank you AlanEmails from other members welcome]



2012 – the year that wasn't

... Adam Ladhams MMSIA

I would like to share with members the year that was. 2012 has been a tumultuous and busy year. The highlight of the year for me was the hugely successful Brisbane International Geospatial Forum held at the State Library of Queensland. It was great to see a few familiar faces but I would like to see even more members at future events. To promote future events to members, I am taking on the role of promoting events and conferences organised by MSIA and other organisations in the interests of members.

The year has also been one of uncertainty and change. Allow me explain.

The Queensland State elections in March brought unprecedented support for a conservative government for Queensland. The elected government sought to rationalise the public service, abolishing a number of surplus jobs and government included a program managed by yours truly. The government also removed the 'Beattie burger and fries' and replaced it with the brolga and red deer coat of arms, as was previously used in Queensland. In recent times, many in the public sector have remarked that the more that things change, the more they stay the same.

Technology is a-changing

So 2012 has brought unwelcome challenges on the jobs front for many ex-public servants, many of whom performed roles in GIS and mapping. The industry has also experienced remarkable changes in technology and business practices. Recent Westpac advertorials indicate that if you do business like it is the 1980's, then you will be left behind. Last year, there was a concerted focus on transferring spatial data from repositories to web based applications. This year, a number

of new initiatives have looked to cloud computing and smart phone apps to offer mapping interfaces to the community. Allow me to travel back in time to the last decade, when the spatial industry was attempting to predict advancements over the following decade. In 2000, I helped organise the Spatial Information in the New Economy seminar. The topics and aspects that were impacting on the industry back then were mobile phone technology, data warehousing (anyone remember datamall.com?) and increasing affordability in spatial datasets (ERSIS promoted their road centreline and streets directory value added data). Similarly, the 2000 MSIA National conference in Sydney which had Hon. Tim Fischer as the keynote (in case you were wondering which conference that one was), the topics discussed by presenters included WAP, multimedia and mapping, spatial data infrastructure and 3d models of buildings.

Virtual reality a virtual dream

In my final year at QUT (IN 1999) I explored and researched the application of synthetic environments/ virtual reality/3D visualisation. Unfortunately, augmented reality has never become a mainstream tool mainly, I suspect, due to the cost of implementing the technology, the lack of innovative thought, and perception about the technology being purely experimental which to an extent is a valid statement. The International Cartographic Association has a Commission on Visualization and Virtual Environments. The last Commission workshop conducted in September 2011 (Ohio, US) focussed on the 'temporal characteristics of geographic information' – using the dimension of time. The advanced level of discussion during the Commission workshop underpins that

virtual reality has well and truly matured over the last few years. Possibly the greatest use for 3d visualisation is not just in mapping, but for use in tactic connectivity or teledonics (avoid Google searching that word at work) and the billion dollar video gaming industry. Anyone for Call of Duty: Black Ops 2?

Lost in the crowd(sourcing)

In their predictions, Vector1Media published the Ten Predictions for 2009 (refer to <http://www.vector1media.com/article/feature/ten-predictions-for-2009/>). One of those predictions was the advent of 'crowd sourcing data', due to the 'explosion of handheld mapping devices'. An application for crowd sourcing, as stated in the article, was for emergencies. In a recent new article published in the Australian Financial Review (AFR, Wednesday 14 November 2012, www.afr.com

'Help in a heartbeat') crowdsourcing is defined as 'a technique in which the public conducts tasks traditionally done by a company, individual, individual or a group with special skills'. The article discussed a spatial problem: 1,400 defibrillator machines were publicly available in Philadelphia but there was no central database to locate their location. Using a mobile app(lication), people both young and old used the app to photograph and map the site of the defibrillator, providing information to others in the event of a medical emergency. There are a number of other uses for crowdsourcing – favourite dining experiences, location of specific consumable products, alternative routes due to traffic accidents, location of speed cameras...etc. Governments should look to crowdsourcing as a form of developing social

and community data and infrastructure location. For example, the toilet mapping of Australia (www.toiletmap.gov.au) was commissioned by the Federal Government in the early 2000s. The toilet mapping could be maintained and updated by 'users', providing information for what could be for some, emergency situations. There are some 14,000 public and private toilets in Australia for public convenience. With an increasing aging population and the associated incontinence issues, any attempt to improve access to toilet facilities would be welcome relief (sorry for the pun, very much toilet humour!).

Wrap-up

Mapping outputs are extending far beyond the paper products we are all accustomed to. Technology is becoming increasingly difficult to shy away from. The use of Google Earth to overlay layers, web based interactions, cloud computing and digital maps should form part of what we do, rather than tasks that are being performed by others, including novice mappers. To accomplish this, we, as cartographers and spatial professionals, need to acquire new skills and embrace technologies such as crowdsourcing and mobile phone apps. Since 2000, technology has skipped along at cracking speed and greater things are in store for us over this decade. Now where did I misplace my Motorola pager?

Adam Ladhams is National councilor and Queensland Division President of MSIA. He has recently completed a Master in Business and looks forward to relaxing with the family over the festive season.