



Dear Fungis family and friends,

Welcome to the Summer edition of the Fungis Newsletter, jam packed with updates on local geospatial initiatives. I continue to be amazed at the sophistication of spatial industry activity up here in the far north and some of the projects featured in this newsletter are excellent examples of just how far we have come in the 25 years that Fungis has been operating.

2013 has certainly been a great year for Fungis, with a most memorable 25 year celebration back in June (see previous edition for the newsletter article on this) bringing together so many of the people who have nourished Fungis and the far north industry over the last 25 years. This celebration was followed up a couple of months later with the 3rd LiDAR Technologies workshop and you can read all about that workshop later in this newsletter.

The Fungis Executive Management Committee, our irrepressible administrator Anne and all our wonderful volunteers (you know who you are) have been working hard throughout the last 18 months to continue to return Fungis to a sound and sustainable footing and make the 2013 events the success they were. So both at a personal level as Chair and on behalf of the membership, please accept my sincere thanks to you and also to your partners and families (and pets), for choosing to spend some of your valuable time helping to keep Fungis members informed and able to access the latest understanding in spatial technologies.

Financially, Fungis has had an exceptional year. The year began with a push to revitalise our membership roll and as a consequence we have a growing membership base. If you have been meaning to renew your membership, or join Fungis, now is a good time to make it a New Year's resolution! During the year, both major events were modestly profitable, resulting in a secure financial position for Fungis. I think that the fact that we had only modest financial reserves of ~\$10,000 as we approached our 25 year celebration, demonstrates our commitment to keep membership and events affordable and priced to reflect the cost of organising them. The revenue generated during this year, combined with thoughtful expenditure, have resulted in our financial reserves roughly doubling. This will allow Fungis to make some strategic decisions about improving our service delivery in the future. Congratulations to all the Qld Spatial Excellence Award (QSEA) winners for 2013. It was good to see some of the awards coming up this way and notably 75% of the awards

The editorial team needs your help in developing upcoming issues of this newsletter which we hope to deliver to you every quarter. Please send us any fun pictures and articles relating to your work in GIS. After all it is not all just in front of the computer! We need funny stories about what people think GIS is, hair loss incidents from dealing with software and inspirational and innovative projects that you are working on, have seen online or at conferences.

The Newsletter Team:

George Corea, Sera Lambe, Anne Stapledon and Louise Alsford

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conferred on the northern Queensland spatial community went to organisations represented on the Fungis Management Committee. The subtext here is that there is a statistical correlation between serving your spatial community through Fungis, and gaining industry recognition at QSEA! So what are you waiting for, seek your employers support to join the Fungis management committee!

I look forward to once again working with you all over 2014, which is shaping up to be an exciting year for the far northern spatial community, with the ASPRS and SSSI Members Conference (QCON14) both scheduled for Cairns in October.

Meanwhile, remember to get in touch with the editorial team if you have something to share and enjoy all that the summer holiday season has to offer!

Alistair Hart
Chairperson, Fungis.

Meet the Exec

Chair & Private Enterprise Representative: Alistair Hart

Treasurer: Les Searle

Secretary: Anne Stapledon

SSSI Liaison Representative: Adella Edwards

State Government Representative: Melanie Smith

NRM Representatives: Trevor Parker & Kama Miller

Cultural Heritage Representative: Sera Lambe

Web Representatives: George Corea & Shashidhar Sunkari

Newsletter Representatives: George Corea, Sera Lambe and Anne Stapledon



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Fungis and SSSI Qld delivered another successful LiDAR Technologies Workshop last August, with 17 supporting organisations creating the biggest LiDAR trade exhibition yet. Nearly 100 delegates gathered from around Australia and were welcomed to LiDAR Technologies 2013 from across the globe, including the US, Canada, India and Germany. Special thanks are extended to CR Kennedy for their high level of support for this event (financial and moral!). All supporting organisations are acknowledged below.

For the first time, the program included concurrent sessions and all were well populated. After the conference was opened by Sen. Jan MacLucas, Keynote speaker Lewis Graham (Director, LiDAR Division, American Society for Photogrammetry and Remote Sensing) opened our eyes to the global state of play with LiDAR and where some of the technology was headed. Lewis also hosted a full day technical session on day 2.



After another amazing morning tea (ham and cheese croissants anyone?), delegates could choose from a workshop on handheld laser scanning for building and facility management or a series of updates from CR Kennedy, Ergon (ROAMES project), and the Qld Remote Sensing Centre.

The weather was amazing once again for the LiDAR Technologies Workshops renowned poolside BBQ lunch. This was followed with more engaging content covering ESRI software as well as low cost free and open source LiDAR software and various aspects of mobile LiDAR scanning.

After yummy ice creams for afternoon tea (yes, it is hot enough for that in Cairns in August!) delegates chose from a session on 3D Laser Mapping's StreetMapper mobile LiDAR solution or reviewing projects from Geoscience Australia, Victoria's Dept of Env. & Primary Industry and CRC-SI.

3D Laser Mapping's networking drinks at the Hilton Cocktail lounge proved popular and was gratefully followed by a top notch dinner sponsored by Fugro, out on the waterfront terrace. After dinner the cocktail bar came back into it's own for many of the delegates, especially those who make & map highways, not mentioning any names here!).

The cobwebs at the opening of Day 2 were blown away by Jorg Hacker's keynote presentation on the work of Airborne Research Australia, and was followed by another morning tea where the espresso machines seemed to be particularly popular for the night owls...

Continued on back page...

True 3D, Townsville City Council and ATGIS bring 4 awards to FNQ

Three FUNGIS member organisations brought 4 awards to FNQ during this years Queensland Spatial Excellence Awards hosted by SSSI in Brisbane.

SSSI Director, Chris McAlister presented the SSSI Char's Award to the current FUNGIS Treasurer and Manager Data Visualization at True 3D Les Searle. She said "This year I have the privilege of presenting this award to a long serving member of the SSSI Qld community. A patient [man who] has contributed more than I could recount in the short time that I have tonight. As the current treasurer of the QLD region, I have had the pleasure of working with him for the last 3 years, and he has endorsed my never ending barrage of financial questions. HE is also the owner of the finest beard I've ever seen!"

Atherton Tablelands Geographic Information Services first international contract, mapping the Tree Kangaroo conservation zones in the YUS landscape on the Huon Peninsula in Papua New Guinea has earned them first place in the Queensland Spatial Excellence Awards for both the Export and Environment and Sustainability categories.

Named for its three main rivers – the Yopno, Uruwa and Som of the Huon Peninsula – the YUS Conservation Area covers 76,000 hectares of tropical forest in a continuous stretch from northern coastal reefs to the 4,000-meter (13,000-foot) peaks of the western Saruwaged Mountains. PNG established YUS as its first national conservation area in 2009, after more than a decade of work on the ground.

Woodland Park's Tree Kangaroo Conservation Program (TKCP), worked with local landowners and the PNG government to establish the conservation area, which was the first to be declared under the PNG Conservation Areas Act of 1978. ATGIS's contract involved collating map data and associated information from project participants and designing and producing a hardcopy zoning map product in PNG's local pigin dialect.

The entire project was a collaborative effort, with ATGIS contracted by the project manager Seattle Woodland Park Zoo (USA), who also heavily involved James Cook University researchers, Conservation International and the Tree Kangaroo Conservation Program. The project was funded by the German development bank, KFW Entwicklungsbank.

The outcome of the broader YUS Project include ongoing conservation efforts between the Tree Kangaroo Conservation Program, the PNG National Government and inhabitants of the 35 local indigenous villages within the YUS Conservation Area.

Atherton Tablelands GIS will now be representing the Queensland Spatial Industry in the above categories at the 2013 Asia-Pacific Spatial Excellence Awards, to be announced next April in Canberra. Atherton Tablelands GIS provides geographic information services, including maps and aerial imagery, to industry, community and government, to stimulate local economies and improve community outcomes.



True 3D, Townsville City Council and ATGIS bring 4 awards to FNQ

On Friday 18th October the annual Queensland Spatial Excellence Awards (QSEA) were held in Brisbane and Geospatial Solutions, Townsville City Council were acknowledged as the winner of the Award for People and Community!!

The Queensland Spatial Excellence Awards recognise excellence within the spatial information industry and are strongly contested each year. The QSEA People and Community Award recognises products, projects or services that make a difference to national, regional or local issues affecting communities, through the innovative use of spatial information and technologies. Council's submission "Virtual Townsville" was based on Council's Spatial 3D Modelling and Visualisation Strategy and its implementation for the New Townsville Planning Scheme Public Notification, a collaboration with our Strategic Planning Department.

The creation of "Virtual Townsville" provides a virtual 3D map of the State's unofficial northern capital and is a first for regional Queensland.

"Virtual Townsville" demonstrated the necessary qualities to successfully win the Award for People and Community, demonstrating our on-going leadership at the forefront of the spatial information industry and also our commitment to utilising spatial technologies to serve our community.



The Northern Gulf Resource Management Group (NGRMG) is delivering a program for farming enterprises in the Mareeba-Dimbulah Water Supply Area to reduce energy consumption and improve water and nutrient efficiency. The program has been running for almost 5 years with outcomes such as improved crop yields and reduced operational costs. The innovative program brings together a team of irrigation, crop nutrition and property mapping specialists to work one-on-one with growers. Previous participants found by making cost effective changes to their irrigation system and nutrient program, they gained benefits such as improved yields and reduced energy consumption.

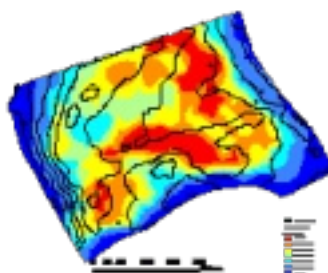
The program focuses on 3 key areas:

- *Irrigation planning and management
- *Nutrient planning and management
- *Property mapping

This program is valuable for checking your irrigation system and nutrient program, upgrading or expanding your irrigation system or to improve your irrigation efficiencies.

In 2014, NGRMG will be delivering this program to 10 growers, and will be running 2 workshops and local training for growers, extension officers and local industry. This will assist in improving knowledge of best management practices in irrigation design and management. Through this program, NGRMG will also provide grower matched funding to upgrade inefficient irrigation systems or to build a more technological advanced irrigation system or nutrient delivery system. For more information contact Trevor Parker ph: 4092 1088 email: tmc@northerngulf.com.au. This program is funded by Queensland government regional NRM investment program.

Images below : 1. Soil and topographic mapping provide essential information for planning and farm management; 2. EC mapping discloses paddock scale soil variability; 3. Soil cores and analysis indicate soil constraints affecting yield. 4. Water application should match the soil type; 5. Irrigation system is tested; & 6. One on one extension and mentoring deliver improvements to land management;



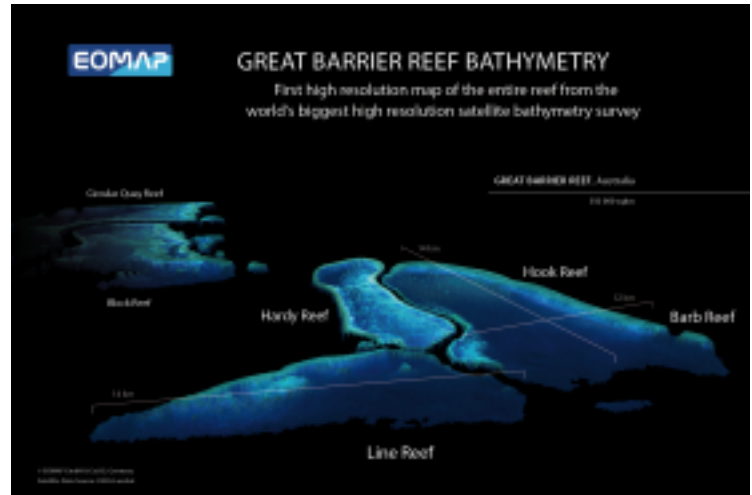
'Un-mappable' Great Barrier Reef finally mapped

German and Australian scientists recently launched a set of groundbreaking, high resolution, shallow water topography maps for the entire Great Barrier Reef.

These world-first digital maps of the coral reefs, using satellite derived depth (bathymetry) techniques, are a critical step towards identifying, managing and essentially preserving and protecting what lies within the waters of this global icon.

Project partner, Dr Robin Beaman of James Cook University, says the product is different to anything else available, as until now, nearly half of the shallow water reef areas on the Great Barrier Reef were not mapped using modern digital surveys.

While these coral reefs are the most ecologically significant, they are also the most difficult to map due to being either too remote or because of their shallow nature, which makes them navigationally dangerous.

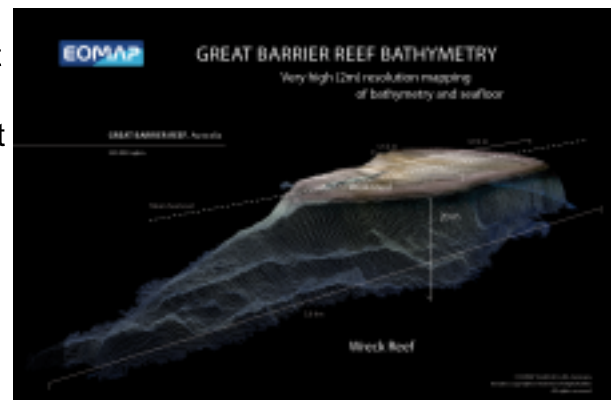


Instead of relying on traditional surveying vessels or aircraft to map the many 'un-mappable' areas of the reef, Germany-based aquatic remote-sensing company EOMAP used space-borne satellites to overcome these hurdles.

The result is the largest project of its kind ever conducted in Australia, and possibly the entire world.

The 3D water depth maps have a 30m horizontal resolution over approximately 350,000 km² of the Great Barrier Reef World Heritage Area and Torres Strait, providing not only more detailed individual reef data, but also a complete picture of Earth's largest coral reef ecosystem.

EOMAP recently received an award from Copernicus (the European Commission remote sensing peak body) for its work on making affordable aquatic remote sensing products for industry and the public sector.



Product and images: <http://www.eomap.de/great-barrier-reef>

*What is the tidiest element on a map? The neatline.

*Why are maps like fish? They both have scales.

*Why did the dot go to college? Because it wanted to be a graduated symbol.

*What kind of maps do spiders make? Web-based maps.



2-3 May: SSSI QLD Northern Group Conference,
Townsville

5th, 6th June: What's Hot! Spatial Innovation in FNQ &
Beyond, FUNGIS 2014 AGM and Conference



"O.K., there's the sun, so that direction is 'up.'"



After morning tea, Lewis Graham launched into his full day workshop on QA'ing LiDAR data to make sure delegates had the tools to accept/reject LiDAR data deliverables, however his workshop had some stiff competition from the Navy (LADS program brief), a thought provoking discussion on the data to intelligence pipeline with the Sunshine Coast Regional Council and an alternative QA tool from CRC-SI.

More poolside BBQ action followed and once everyone had their fill of fresh, wild-caught barra, reef fish and chicken fillet burgers Dr Isenburg from rapidlasso in Germany updated us with his ground-breaking work on PulseWaves, a data exchange format for full waveform LiDAR. Innovation continued in this session with Setch Design blowing our minds with their application of terrestrial scanners for industrial design. A technological mismatch prevented RPS from presenting (our bad, sorry RPS), so the technical program concluded with an update on NDEF from Geoscience Australia.

As a national hospitality capital, this event in Cairns closed in style with networking drinks sponsored by ATGIS and Mappt, during which the Mappt Android app was launched and a prize draw was held to reward those who completed feedback forms during the event. Over \$2000 of prizes were awarded. The major prize of a Samsung Android 10" tablet, loaded with the Mappt app was won by Adella Edwards (JCU). After collating the feedback forms, Lewis Graham was voted the most popular speaker with Jorg Hacker a close second.

The organisers would like to acknowledge all the speakers, sponsors and helpers that helped to make LiDAR Technologies 2013 the best LiDAR workshop yet!

Please consider supporting all of our amazing workshop sponsors:

CR Kennedy, ESRI Australia, Atherton Tablelands GIS, Fugro, 3D Laser Mapping, GeoCue, Dielmo, Mappt, Quality Survey Pegs, Land & Water Management, rapidlasso, Virtual Geomatics, Position Partners, Value Labs, James Cook University, LiDAR News and Telstra.

Stay tuned for announcements regarding future LiDAR Conferences.

Alistair Hart
Fungis Chair.