

# Message

# News and events for the geospatial community January 2024

# Call for Case Studies: Economic Impact Study

GCA, in collaboration with key government and industry partners, has engaged ACIL Allen to conduct an economic study assessing the impact of geospatial information and technology on the Australian economy.

This study is the first of its kind since 2008 and takes on added importance as we navigate the complexities of the post-pandemic landscape. The study aims to highlight the critical role of geospatial information in enhancing national productivity, showcasing its significant direct economic impact on our national economy. Additionally, it seeks to explore opportunities for expanding its usage further. However, to undertake this important work, we are requesting that organisations that operate within the geospatial ecosystem submit case studies to us for use in the modelling to determine the value of geospatial information. Case studies that also describe their impact, either economic, or societal, are being sought as a priority.

To ensure inclusion in the study, all case studies need to be submitted by 9 February 2024.



We are seeking up to 60 usable case studies where geospatial has been applied across most sectors of the Australian economy, including but not limited to:

#### INDUSTRY

- Agriculture Fisheries & Forestry
- Mining (rare earth minerals)
- Design, construction & asset management Surveying & mapping
- Transport (road, rail and sea)
- Electricity/gas/water
- Communications
- Space
- Financial services & insurance
- Manufacturing
- Retail (inventory management, online shopping, home delivery)

#### GOVERNMENT

- Biosecurity, livestock tracking, irrigation
  & fisheries management
- Environmental monitoring & climate change response
- Water resources & aquifer mapping
- Emergency services
- Defence & national security
- Planning & property administration
- Local government services e-planning
- Bathymetry
- Regulation
- Health & human services
- Positioning services
- Digital transformation
- Local Government services

#### SOCIETY, CONSUMERS & THE ENVIRONMENT

- Value of map data in devices & GPS
- Location services (digital maps time saved)
- Recreation (safety & confidence)
- Environmental & wildlife preservation
- Purchasing efficiency -on-line
- shopping
- Transport information
- Ride share services
- Personal safety
- Traffic congestion management
- Potential applications from machine learning
- Sourcing of food and fibre

To read the case study submission guidelines, or to submit a case study, please click **HERE.** 

# ANZSCO Review: Preliminary proposed changes .

In August, we made a submission to the Australian Government's review of the Australian and New Zealand Standard Classification of Occupations (ANZSCO), advocating for increased recognition of geospatial professions. We are pleased to announce the Australian Bureau of Statistics (ABS) is making important adjustments to ANZSCO, and has published preliminary proposed changes. GCA views these proposed changes positively, as they are expected to provide a more accurate assessment of the geospatial workforce across Australia.

To view the full list of preliminary proposed changes, click **HERE.** 





# ESP-AP Certification update.

A reminder that the intake dates for ESP-AP applications this year are: 15 March, 12 July & 15 November.

We will accept receipt of early submissions; however they will not be reviewed before the intake

dates. Applications received after the intake date will be retained until the next intake window. To apply, click **HERE.** 

The ESP-AP Certification Committee are currently working on enhancing the Certification with a deep dive of the competency framework. We are also still seeking more ESP-AP Assessors. Training will be provided to all qualified Assessors. If you have an existing ESP-AP Certification and would like to join the panel of Assessors, please contact us: **certification@geospatialcouncil.org.au** 

# Skills assessment opportunity

#### Just a reminder that the opportunity for free and fast skills assessment for migrants closes on 29 February 2024.

If you have a partner, friend or family member in Australia who is looking to improve their chance of getting a job, they may be eligible to gain a free and fast-tracked skills assessment if they are on a permanent family, partner, humanitarian, or refugee visa, and have experience in a priority occupation.

Skilled migrants play a vital role in Australia's workforce. A successful skills assessment outcome letter can be used by skilled migrants to support job applications, giving employers confidence that the applicant has the skills needed for working in Australia.

For more information, click HERE.





# Digital Membership Badges .\_\_\_\_\_

# By now you should have received your digital membership badge.

We have created these to enable you to showcase your affiliation with our organisation. We encourage you to proudly display your GCA membership badge in your professional communications, thereby promoting awareness of the geospatial industry and the valuable network of professionals within our organisation.

# Surveyor Advisory Group: Call for Nominations

#### We are pleased to provide you with an update on on Land Use Victoria's (LUV) Digital Transformation Program.

LUV wrote to the cadastral surveying profession in January 2023 advising of the commencement of engagement activities designed to incorporate the views of industry in their digital transformation program. LUV is now looking to establish a 'Surveyor Advisory Group' through which LUV can engage, update, and seek feedback from industry about the Digital Transformation Program.

They are seeking representation from a diverse range of industry participants, including both surveying professionals with little Single CAD Format File (SCFF) and ePlan exposure, as well as those with extensive experience. In addition, the peak industry bodies have been contacted to seek a representative to participate. LUV anticipates that members of the Surveyor Advisory Group will be required to commit approximately two hours a month to the group.

If you wish to submit a nomination to be a member of the Surveyor Advisory Group, please click **HERE.** Please submit your nomination by Friday, 2 February 2024. LUV will contact nominees in February/March 2024.

# Airborne gravity survey progress in Victoria

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#### The 2024 airborne gravity survey across southern and eastern Victoria is recommencing operations over the Gippsland and Hume regions including offshore.

It previously completed survey areas in the Colac-Otway, Gippsland and Hume regions. The airborne survey is being collaboratively organised through the Surveyor-General

144°F

142°E

Survey progress

(Free Air Gravity results)

Legend

High

Victoria within the Department of Transport and Planning (DTP), Geological Survey of Victoria within the Department of Energy, Environment and Climate Action (DEECA) and Geoscience Australia (Commonwealth Government). The objective of the project is to collect consistent and evenly distributed gravity measurements. The new gravity data will significantly improve Victoria's gravity model which is used to provide accurate and reliable heights from GPS positioning. The data will also be used by geoscientists to further their understanding of southeast Australia's geological 'architecture' and how it has evolved over time. This helps manage earth resources, infrastructure and natural hazards.



# Hydrography Update

### Update on Hydrographic Competency Information

Please take note the Hydrographic Competency page on GCA's website has been updated. You can view it **HERE.** 

The Hydrographic Area of Practice has put together new information relating to "allied discipline". A link to the listing of degrees have been added to the page.

#### Australasian Hydrographic Surveyors Certification

Completed applications for the Australasian Hydrographic Surveyors Certification are to be submitted to the AHSCP Secretariat by Wednesday 14 February 2024. The certification panel will be meeting on Monday 18 March 2024. Details relating to Hydrographic Surveying certification can be found **HERE.** 



#### Hydrographer of Australia announcement

We are pleased to announce Commodore Robyn Phillips, RAN has been appointed to the position of Hydrographer

of Australia. CDRE Phillips joined the Royal Australian Navy in 1990 as a Maritime Warfare Officer and subsequently specialised in meteorology and oceanography. She has enjoyed a varied Defence career including postings to the Department of Prime Minister and Cabinet, as well as the Commanding Officer of two establishments, HMAS Waterhen and HMAS Albatross, where she was awarded a Royal Australian Navy Gold Commendation for her exemplary performance during the 2019/2020 bushfires. As Hydrographer of Australia CDRE Phillips leads Australia's national hydrographic authority, the Australian Hydrographic Office, headquartered in Wollongong New South Wales. CDRE Phillips is also the ex-officio Chair of the GCA's Australasian Hydrographic Surveyors Certification Panel.

### Australia S-100 Working Group

IHO S-100 data model is the baseline for the Common Maritime Data Structure (CMDS), which defines what data should be exchanged in e-Navigation.

(MSC 90/28, paragraph 10.10). The IHO and several other international organisations such as IALA, WMO and IEC are developing data exchange standards for various types of navigational information, and some of these product specifications are now ready for testing. Multiple agencies in Australia are impacted by several of these standards.

The Australia's S-100 Working Group (S-100WG) was stood up to take the leadership role in creation, implementation, and oversight of the introduction of S-100 based services in Australia by developing documentation, creating national standards and policies, defining roles, responsibilities and control that will harmonise the Australian e-Navigation data chain. The S-100WG is a working group under Intergovernmental Committee on Surveying and Mapping (ICSM), and is responsible for coordinating and managing the timely and effective implementation of a broad range of S-100 products and services in Australia and New Zealand.

The inaugural meeting of Australia's S-100 Working Group was hosted by Australian Hydrographic Office (AHO) on Wednesday the 2nd of November 2022. The meeting was conducted virtually, and it was attended by almost 50 representatives from a diverse number of state, federal and private organisations. Representatives from Land Information New Zealand (LINZ) was invited by AHO and attended as observers. The S-100WG members meet three times a year; two virtual and one face-to-face meetings.

A S-100 Testbed Focus Group (S-100TBFG) project team was established in October 2023 under S-100WG. The project team's main objective is creating a national testbed to enable the development and testing of a different S-100 product prototypes to support IHO S-100 Implementation Priorities, Phase 1 – Route Monitoring.

Table A – IHO list of S–100 products with special focus	
Phase 1 / Route monitoring	
S-101	Electronic Navigational Chart (ENC)
S-102	Bathymetric Surface
S-104	Water Level Information for Surface Navigation
S-111	Surface Currents
S-124	Navigational Warnings
S-129	Under Keel Clearance Management
Critical Framework	
	IHO Geospatial Information Registry
S-98	Interoperability Specification
S-100	Universal Hydrographic Data Model
S-128	Catalogue of Nautical Products
S-164	Test Data Set for S-100 and ECDIS Type Approval

**Figure 1** - Phase 1 is product specifications for Route Monitoring which must be supported by the Critical S-100 Framework (source IHO Roadmap for the S-100 Implementation Decade (2020-2030), Annex2, V3.0 19 October 2023).



The S-100TBFG project team is actively collaborating and engaging with other Hydrographic Offices and industry partners on S-100 dataset products available. The project team also supports and participates in various IHO S-100WG meetings.

Point of contact for S-100WG: Alvaro Sanchez, Director National Charting at the Australian Hydrographic Office (AHO), **alvaro.sanchez@defence.gov.au**  Point of contact for S-100TBFG: Gabriela Balla, S-100 Coordinator at the Australian Hydrographic Office (AHO), gabriela.balla@defence.gov.au

# **Upcoming Hydrography Events**

### Hydro Spatial 2024

(hosted by the Australian Hydrographic Society)

Date: 9-12 April 2024 Location: Hotel Grand Chancellor, Hobart Click <u>HERE</u> for more information.



#### World Hydrographic Day Seminar 2024

Date: Friday 21 June Location: Novotel Wollongong Northbeach





# Geospatial Council of Australia Upcoming Events

# Webinar: An introduction to AI in smart infrastructure and the geospatial world

The advent of AI has ushered in an era of disruption, captivating the geospatial community. We've observed its impact across various applications, ranging from text generation to image segmentation, with tools like GeoChatGPT, GeoAI, and advanced cartography techniques emerging. Join us for this webinar where our guest speakers Dr Bin Liang, Senior Lecturer in Data Science at the University of Technology Sydney, and Miles Lee, Senior Geospatial Engineer from Transport for NSW, will provide an introduction to the use of AI in smart infrastructure and the and the geospatial profession. Register **HERE.** 

Date: 1 February 2024 Time: 4:00pm - 5:00pm (AEDT) Venue: Online via Zoom





#### Summer Surveying Seminar

GCA is pleased to advise that the Summer Surveying Seminar returns to Melbourne on Friday 2 February 2024 – proudly supported by C.R. Kennedy in Port Melbourne. Register **HERE.** 

Date: 2 February 2024 Location: Melbourne

### SA Social Night

Join us at the Cathedral Hotel for an evening of casual networking for the SA Geospatial community. This event is free for Members and Non-Members. Register **HERE.** 

Date: 15 February 2024 Location: North Adelaide







#### International Women's Day Breakfast

Join us for a 'Women in Geospatial Breakfast' on International Women's Day, where we will hear from inspiring female industry leaders. We will then open the floor for discussion around crucial change needed to attract and retain women in the geospatial sector. Save the date for this not to be missed annual event! Find out more **HERE.** 

Date: 8 March 2024 Location: NSW, QLD, VIC Time: 7:30am – 9:30am



#### WA Digital Twin Symposium

We are pleased to announce we will be holding our special symposium to discuss spatial digital twins in Perth. This will be a fantastic opportunity to explore this important and relevant topic for all geospatial professionals. Our local team is putting together a great program for the event. Register **HERE.** 

Date: 14 March 2024 Venue: Novotel Perth Langley Time: 9:00am – 6:00pm (AWST)





A reminder that abstract, workshop and grant submissions for the Locate24 Conference are closing soon. You are encouraged to put forward your best ideas for the enjoyment of our diverse range of delegates including geospatial professionals, industry and government representatives, our research community, and those within education and training. We encourage you to join us in celebrating and showcasing the talent, advancements, and achievements from across our industry. Abstract and workshop submissions close on **Monday the 5th of February.** Grant submissions close on **Monday the 4th of March** with notifications being released in April of 2024. Find out more <u>HERE.</u>





# **Industry Events**



#### **Online Digital Twin Conference**

This conference is dedicated to Dr. Peter Woodgate who championed this conference from inception.

Date: 7 – 9 February Location: Online via Zoom Register: <u>HERE</u>



#### **IGNSS 2024**

THe IGNSS Association runs the bi-annual IGNSS conference, which is the premier conference on Global Navigation Satellite Systems (GNSS) and related Position, Navigation and Timing (PNT) technologies in the Australasian region.

Date: 7-9 February 2024 Venue: Colombo Theatres, UNSW Sydney Register: <u>HERE</u>





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#### ISNSW Annual Conference 2024

The highly anticipated ISNSW Annual Conference 2024 has been confirmed! Presented as a hybrid event, attendees will have the choice to join online or in person. Open to ISNSW members and non-members, the ISNSW Annual Conference offers an unrivalled experience for all.

Date: 22 February and 23 February 2024 Location: Fairmont Resort Blue Mountains Time: 9:00am – 5:00pm Register: <u>HERE</u>

#### FIG Climate Compass Task Force Meeting

Date: 20 - 22 February



# Message

### Katherine Butcher

MEET THE MEMBERS

Independent Hydrographic Survey Specialist and contact for QPS Hydrographic Survey Software in Australia and New Zealand

## How and why did you join the GCA?

My introduction to the GCA (formerly SSSI) dates back to 2002 when I engaged with the organisation during the skills

migration assessment process for my relocation from the UK to Australia. At that time, I opted not to join SSSI, as I was already a longstanding member of RICS. This affiliation persisted for several years following my move down under. However, my commitment to being a part of a professional body led me to reassess my membership, considering factors such as geographic relevance and alignment with my survey specialisation. In 2020, recognising the increased relevance of the GCA to my specific circumstances, I officially became a member and successfully attained the Certified Professional Hydrographic Surveyor Level 1 (CPHS1) certification. Currently, I serve on the Australasian Hydrographic Surveyors' Certification Panel (AHSCP), contributing to the evaluation of hydrographic surveyors' competence in accordance with the FIG/IHO/ICA Publication S-5 Standards of Competence for Hydrographic Surveyors. It's a fulfilling journey for me, coming full circle as our team not only assesses competency, but also conducts skills migration assessments for hydrographic surveyors.

## Where did your interest in geospatial technologies come from?

As a child I could never take a walk without picking up rocks and pebbles. As I got older, my interest evolved into wanting to understand why the landscape looked like it did. This led to a dual honours' degree in Geology and Physical Geography which was followed by further studies in Hydrographic Surveying. What I love most about mapping the seabed, its infrastructure, and its shallow subsurface geology, is being able to bring it all to life by visualising it in 4D geospatially correct software such as Fledermaus.

### What role do geospatial technologies play in your working life?

As a hydrographic surveyor, my entire working life has revolved around geospatial technologies. Before relocating to Australia, I was based in Aberdeen and primarily worked in the Oil and Gas Industry of the North Sea. During this time, I conducted ROV-deployed pipeline construction and inspection surveys. Prior to that, I spent a few years working as a dredging surveyor in the Baltic Sea. Moving to beautiful Western Australia brought about not only an improvement in the weather but also a greater variety of survey assignments for me. This included geophysical and geotechnical site surveys, route surveys, and the exciting opportunity to deploy sensors using AUVs. Despite transitioning into managerial positions before leaving the UK, I have remained hands-on with survey data and continued to partake in offshore trips until recently. I firmly believe in the importance of staying up to date with technology, much of which one can only truly experience on a vessel.

## How does the GCA help its members to innovate and succeed?

I find that the GCA is very proactive in keeping up to date with ascertaining and serving its members' needs and those of the geospatial community as a whole. An example of this is the current coaching program for the Hydrographic Area of Practice, which aims to foster the professional growth of aspiring hydrographic surveyors.

#### What does the future of geospatial hold?

I think it is generally agreed that the adoption of automation, robotics, AI, and machine learning is set to increase, bringing about a dramatic impact on the geospatial and hydrospatial worlds. However, a particularly interesting aspect for me is the role of humans in this increasingly technologydriven hydrospatial environment. As you may be aware, in 2022, the Canadian Hydrographic Office convened an international workshop on the hydrographer of the future, focusing on this very topic. The discussions increasingly identified ideal candidates as those who had attended certified education courses and training, such as Category A or B in hydrographic surveying. However, such courses appear to be relatively scarce, especially in Australia. It was also noted that hydrographic organisations are augmenting their survey workforce with individuals possessing educational backgrounds in physical sciences, data science, IT, programming, and GIS. These individuals then undergo supplementary education and training in core hydrographic subjects. Regardless of how survey data is acquired, processed, interpreted, managed, and communicated, organisations are held accountable for the quality of the collected data. Hydrographers and all surveyors not only need the skills and expertise to ensure that the collected data is of high quality, but they also need to understand what makes it 'good' and why.

### What do you do outside of your work in the industry (family, hobbies, interests, sports, pets etc)

Trevor and I have an offroad camper and old 4WD which allow us to travel to remote places around our wide, brown land, and enjoy the sights and sounds. This also allows us to indulge in our other hobbies - I collect rocks, he collects wood. Collecting things that are not quite so heavy may have been a better idea...







The Geospatial Council of Australia is very keen to gather feedback on GeoMessage and the value it delivers to our Members. Please let us know what you would like to see in our next edition by emailing any feedback or comments to **comms@geospatialcouncil.org.au**