



AusSeabed Newsletter No.27 December 2021

Dear AusSeabed community,

Happy Holidays from AusSeabed!

We are winding down and getting ready to recharge over the holiday period. I hope that you are planning to take some time for yourself, whether you are spending it with family at home or planning an exciting trip away.

The past two months were focused on hosting end of year governance meetings and delivering multiple of our work plan activities. These included the second workshop (15 Dec) of the NESP-AusSeabed National Area of Interest project, the processing and delivery (week of 20th Dec) of multiple high-resolution survey grids across Marine Parks, and some rapid progress on the GMRT-AusSeabed platform. This project received highly positive feedback by the Australia Research Data Commons as co-investor, the AusSeabed Steering Committees and Executive Board. We also presented a poster at the Forum for Operational Oceanography seeking end-users keen to participate around March 2022 in the testing of the GMRT-AusSeabed platform. Finally, Geoscience Australia, the CSIRO, the Australian Hydrographic Office and the U.S. National Oceanic and Atmospheric Administration hosted a workshop on ocean exploration on 7 and 8th Dec. This workshop was the first of a series aimed to share information and develop activities of mutual benefit under an Australia-U.S. Memorandum of Understanding (MOU) on seafloor mapping and ocean exploration. Workshop report and next steps will come out in January so stay tuned.

Now is a great time to celebrate our achievements in 2020/21. I look forward to seeing you fresh in January 2022!

Kim Picard,

AusSeabed Steering Committee Chair

AusSeabed Annual Highlights Report 2020/21

The Annual Highlights Report presents the key achievements of the AusSeabed program over the 2020/21 financial year. The report is structured in five sections, the first four are aligned to the 2020/21 work plan objectives and the fifth highlights engagement activities over the past year.

See [link - Annual Highlights Report](#)

AusSeabed 2021/22 Work Plan

This document presents an overview of the AusSeabed 2021/22 Work Plan created by the AusSeabed Steering Committee and endorsed by the AusSeabed Executive Board. The work plan builds on the great work delivered in 2020/21 (see the Annual Highlights Report & Annual Progress Report). For more information on the direction and vision of the program, please refer to the AusSeabed 2030 Strategic Plan.

See [link – Work Plan 21/22](#)

National Areas of Interest for Seabed Mapping, Characterisation and Biodiversity Assessment

AusSeabed has been working with NESP to create a National Areas of Interest ingestion service as part of the AusSeabed Survey Coordination Tool. This collaborative project will see the new version of the ASC Tool launch just before Christmas. Come January, we ask that all users of seabed data (across all sectors) submit Areas of Interest through the tool to help build a clear picture of where the greatest demands are for seabed mapping, characterisation, and biodiversity data in the Australian marine estate. We will be running a focused engagement campaign to boost uptake of the tool and harvest your areas of interests until early February. If there was ever a time to get your colleagues together to consider where you most need seabed data, this is it!

By submitting areas of interest users stand to increase awareness of their data needs to the broader marine science community and as a result create greater numbers of collaboration opportunities, and the potential for third-party collection!

The screenshot displays the 'Survey Coordination Tool' interface. At the top, it features the 'AUS SEABED' logo and the title 'Survey Coordination Tool' with the subtitle 'PRIORITIES, REQUESTS AND PLANNING'. Below the title, there are navigation icons for help, settings, and user profile. The main content area is titled 'Record state' and shows a dropdown menu set to 'Drafted , v3', along with 'PUBLISH' and 'ARCHIVE' buttons. A blue navigation bar contains four tabs: 'ORGANISATION DETAILS', 'AREAS OF INTEREST', 'AREA(S) OF INTEREST PROFILE' (which is active), and 'SUBMISSION CONFIRMATION'. The active tab shows a map of the Gulf of Carpentaria on the left and a list of profile sections on the right, each with a dropdown arrow: Purpose, Ecosystem description, Data and Methods, Existing Data Assessment, Resolution and Standard, Data collection timeline and cadence, Perceived Impact and Organisational Priority, and Pressures. Below this, there is a 'Registration details' section with fields for 'Identified area name: Gulf of Carpentaria', 'Seacountry name:', and 'Ecological area:'. At the bottom of the interface, there are three buttons: 'SAVE', 'EXIT', and 'SAVE AND NEXT'.

Update on AusSeabed

Outreach, Education and Engagement

- WA DoT has made significant progress in establishing an Azure environment. For AusSeabed this will enable us to redirect our Hydro surveys through AusSeabed and make all of our survey data available as open data. Unfortunately, it is a complex system (for the whole of DoT) that will require some significant strategic planning and may be ready within the next 12 months.
- Indigenous First Nations engagement - Ralph Talbot-Smith is developing spatial tools to assist in the deciphering of this complex engagement process for the common person in WA.
- The World of Drones and Robotics Congress was held over the 15-16th of November in Brisbane. The event provided an opportunity for discourse on

the application of drones and robotics to industry, business and in delivery of government services. Geoscience Australia's Aero Leplastrier presented on the use of marine data through the AusSeabed portal for drone validation, and incredible potential that drones, unmanned vessels and autonomous underwater vehicles stand to offer both domestic and international seabed mapping efforts.

- Following the session, Aero was interviewed for Mirragin RAS Consulting's Drone for Good Podcast. Press [▶](#) to listen as he explores AusSeabed, the work we do with the ocean, how important seabed mapping is, and what unmanned systems and technologies can offer marine science.



Inaugural Aus-US workshop on Ocean Exploration

On December 7-8th the US National Oceanic and Atmospheric Administration, Geoscience Australia, and the Commonwealth Scientific and Industrial Research Organisation (CSIRO) hosted the Inaugural AUS-US Ocean Exploration Workshop.

The workshop identified Australian and US priorities and capabilities to establish a joint approach between the countries to ocean exploration and mapping in the Pacific region. The first day of the workshop brought together 78 attendees and allowed national programs to present their individual priorities and capability to identify synergies and potential collaborations. This information was carried into the second day of the workshop, where participating organisations brainstormed and prioritised specific activities to be achieved over the next 5 years. Moving forward working groups will be established to further develop activities with the broader community, the visibility of current efforts across Pacific nations will be raised and new collaborations with global and Pacific initiatives will be explored.

An Australian-US collaboration will be formalized with an MOU between NOAA, Geoscience Australia, and CSIRO.



Figure 1: A small sample (third) of the participants who attended the Inaugural Aus-US workshop on Ocean Exploration.

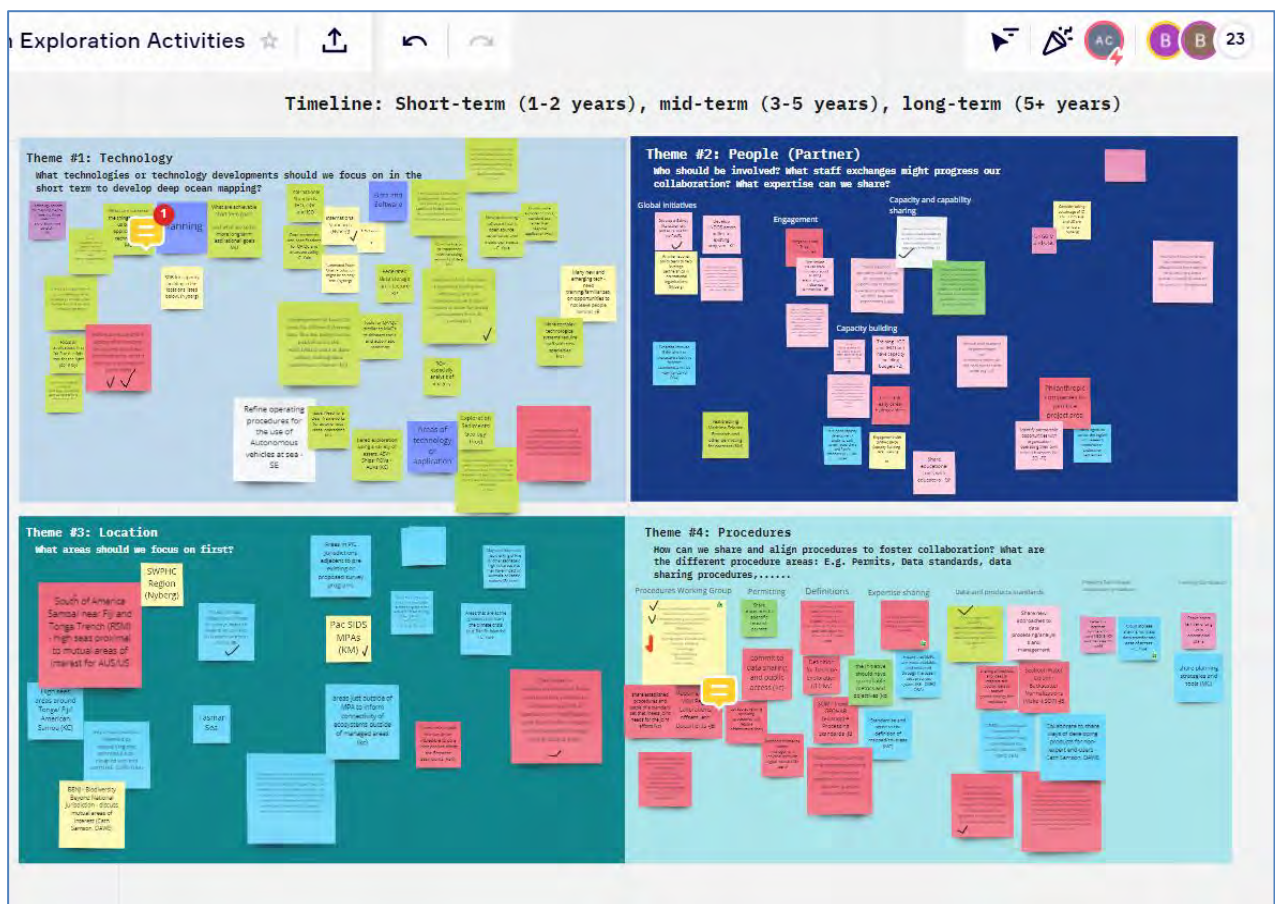


Figure 2: Result of Day 2 brainstorm showing the many potential collaborative activities the group identified that could take place under the Aus-US arrangement.

Quarterly Showcase 2021 – 18th January 12-1pm (AEST)

Title: AusSeabed June 2021 Quarterly Showcase

[YouTube Video](#)

Description:

June 2021 AusSeabed Quarterly updates and program progress

Speakers: Kim Picard (Chair, AusSeabed), Brendan Brooke (Director, National Seabed Mapping), Joshua Sixsmith (Geoscience Australia), Maggie Arnold (Geoscience Australia), Neal Evans (Geoscience Australia)

Our quarterly showcases provide a chance for us to show the AusSeabed community what we have been working on in the last quarter and reflect on what was. Based on our progress we offer the community our goals for the next quarter against our project objectives. This showcase highlighted: the Deloitte Economic Business Analysis, the ARDC funded GMRT-AusSeabed project, the release of the new QA Tool (QAX), an update on data delivery and the data portal and a look at AusSeabed data policies and management.

Title: AusSeabed October 2021 Quarterly Showcase

[YouTube Video](#)

Description:

October 2021 AusSeabed Quarterly updates and program progress

Speakers: Kim Picard (Chair, AusSeabed), Brendan Brooke (Director, National Seabed Mapping), Aero Leplastrier (Geoscience Australia), Lachlan Hurst (FrontierSI), Neal Evans (Geoscience Australia)

Our quarterly showcases provide a chance for us to show the AusSeabed community what we have been working on in the last quarter and reflect on what was. Based on our progress we offer the community our goals for the next quarter against our project objectives. This showcase highlighted: the Deloitte Economic Business Analysis, the NESP funded National Areas of Interest project, an update on the new QA Tool (QAX), an update on the development of the AusSeabed processing pipeline and a look at AusSeabed data policies and management.

GMRT-AusSeabed

Completing the puzzle for seabed maps

The GMRT-AusSeabed project will enable users to create their own seamless seabed maps using AusSeabed datasets. Through a cloud-based platform, users will be able to select, prioritise and merge available datasets together to then grid them at their preferred resolution (data allowing).

The project will deliver a prototype platform in June 2022 that will focus on bathymetry data, but will seed future AusSeabed activities.

[GMRT-AusSeabed PL-019 User Needs Survey Summary](#)

[New GMRT-AusSeabed promotional video](#) and [NEW webpage](#) -

AUS SEABED

GMRT-AusSeabed

Create your own seamless seabed maps

A platform for users to create their own seamless seabed maps using AusSeabed datasets.

- Access data
- Standardise CRS/datums
- Customise resolution
- Assess data quality

The project will deliver a prototype platform in June 2022 that will focus on bathymetry data.

Do you use gridded seabed data?

Contact ausseabed@qa.gov.au to get involved in the testing phase and training workshops

What can you expect from the prototype?

A user story resulting from key end-user engagements ([Survey](#), [Workshop 1](#) and [Workshop 2](#))

1. Select an area
2. View available data
3. Customise your compilation
4. GMRT-AusSeabed merges and grids data

API

- User designed scenario(s)
- Selection for compilation
- Data ready to input into model
- Connect data selected to jupyter notebook
- Add to the repository
- Save my scenario
- Output data/Package data

To find out more visit ausseabed.gov.au/gmrt and watch our short video

Australian Research Data Commons, NCRIS, Australian Government, CSIRO, JAMES COOK UNIVERSITY AUSTRALIA, Lamont-Doherty Earth Observatory, Australian Government Bureau of Meteorology

The GMRT-AusSeabed project [DOI: 10.47556/PL019] is a collaborative, co-investment by Genoscience Australia, Bureau of Meteorology, Deakin University, James Cook University, Lamont-Doherty Earth Observatory, CSIRO, the Australian Antarctic Division and the NCRIS-funded Australian Research Data Commons (ARDC)

Figure 3: Poster presented by Josh Sixsmith and Natalie Lennard and at [Forum for Operational Oceanography \(FOO\) - Waves and Currents](#) on Monday, 22 November 2021.

National Marine Science Committee (NMSC) - Midway Report



The National Marine Science Committee (NMSC) launched the *National Marine Science Plan 2015–2025: The Midway Point* yesterday.

The online event drew 164 attendees and was supported by the Hon Sussan Ley, Minister for Environment, and the Hon Melissa Price, Minister for Defence Industry, Minister for Science and Technology.

The report was also distributed to federal parliamentarians and highlighted by an article in *The Conversation*: “Australia’s marine industries deliver \$80b a year. But without more scientists, the ‘blue economy’ is at risk.”

NMSC Chair Toni Moate said she was proud to launch the report, which showcased the important work by Australia’s marine science and research community in protecting the country’s oceans and coasts.

“While our community is already doing incredible work, it has become increasingly clear that there are growing pressures on our marine environment,” Ms Moate said.

“These new emerging priorities drove the need for us to produce The Midway Point report, and I’m proud that in doing this, we have developed a roadmap for how marine science can contribute to a prosperous and healthy blue economy.”

The Midway Point is a review and progress update of the *National Marine Science Plan 2015–2025*. The NMSC launched this decadal plan for developing Australia’s blue economy in 2015.

The Midway Point celebrates the Plan’s achievements so far, highlights increasing threats and new opportunities, and identifies next steps for driving the Plan’s success. It also aligns with the global efforts — such as the [UN Ocean Decade](#) — to sustainably manage our oceans and harness the economic, environmental and social benefits of a strong blue economy.

[YouTube Video](#)

[New NMSC website](#)

Upcoming Events

[Australian Marine Sciences Association \(AMSA\): 7-11 August 2022](#)

The [58th annual AMSA Conference](#) will be held in Cairns from **7 - 11 August, 2022**.

This conference is shaping to be the first face-to-face AMSA national meeting since Fremantle in 2019. The local organising and scientific committees are working hard to put together a great conference program



The theme for the conference is “Change and Connections”, emphasising important linkages among environmental, ecological and social systems at a time characterised by rapid change across all these areas.

These themes are highlighted in our exciting logo produced by local Mamu artist Melanie Hava that captures the biodiversity of tropical seascapes.

August is a fantastic time of year to visit Far North Queensland, and we hope AMSA 2022 will provide the perfect opportunity to catch up with friends and colleagues for a week of exciting science after years of lockdowns and border closures.

The conference is being held at the Pullman International Hotel, in the heart of Cairns CBD and just a short walk to the vibrant Esplanade, Reef Fleet terminal and a multitude of accommodation options.

We look forward to seeing you in Cairns in August, 2022!

GeoHab 2022: 16th – 20th May, Venice Italy

GEOHAB is an international association of marine scientists studying and mapping geophysical, biophysical, and geomorphic indicators of benthic communities, species diversity, and distribution.

GeoHab is presently in its 21st year, the annual conference brings together over 150 biologists, geologists, environmental scientists, spatial analysts, technologists, geophysicists, and environmental advisors from around the world and provides a unique multidisciplinary forum for the exchange of knowledge and ideas that underpin sustainable ocean management. Students are encouraged to attend and grants are available.

The [GeoHab 2022 annual conference](#) will be held for the first time in **Venice**, Italy at **Venice International University**, San Servolo Island from 16th to 20th May.

The historical city of Venice in the north-eastern part of Italy is built on a group of 118 small islands that are separated by canals and linked by over 400 bridges within the Venice Lagoon and together are a UNESCO World Cultural and Natural Heritage site. It is one of the major touristic destinations in the world. Few cities can claim such a priceless art and history heritage as Venice. This unique city with its magical, spectacular scenery is not just beautiful, it is a real miracle of creative genius: a city built on mud, sand, and the slime of a difficult, inhospitable landscape.

Important Dates

- January: Second circular
- January 20th: Submission of abstract opens
- March 20th: Submission of abstract closes
- April 20th: Early bird registration closes
- May 16th: Workshop and icebreaker party
- May 17th: Conference oral and poster session
- May 18th: Conference oral and poster session and conference dinner
- May 19th: Conference oral and poster session
- May 20th: Field trip

Australian Meteorological Oceanographic Society 2022: (AMOS) - Feb 8th – 12th

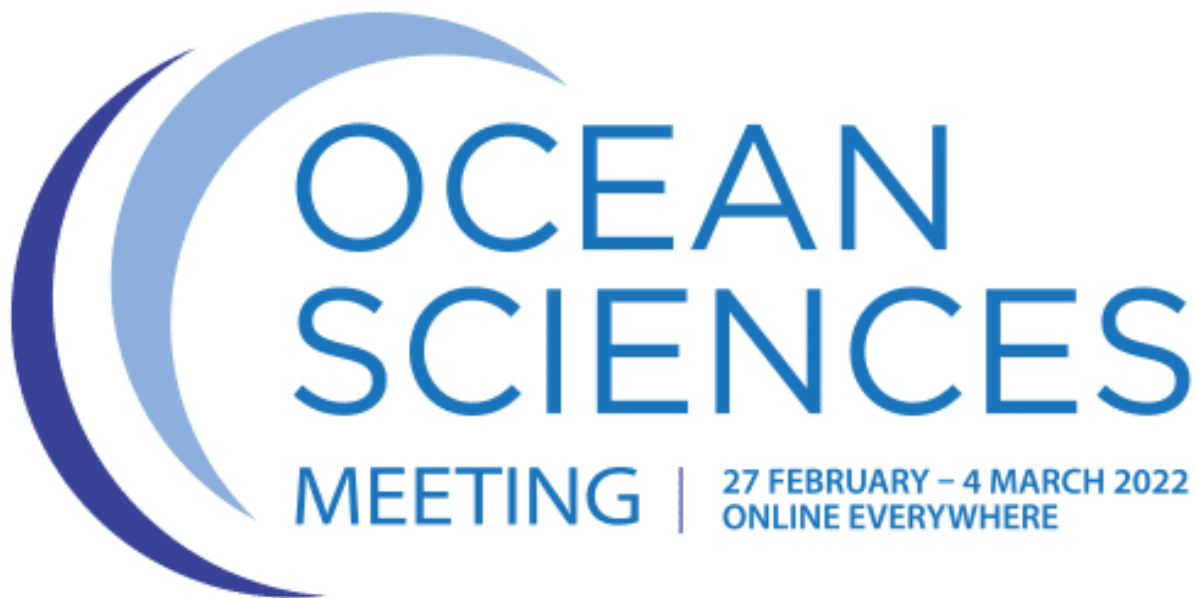
The 13th International Conference on Southern Hemisphere Meteorology and Oceanography takes place in Christchurch New Zealand (Feb 8-12, 2022)

The International Conference on Southern Hemisphere Meteorology and Oceanography series began in the early 1980s and for 40 years has provided a unique venue for discussion of the science of the Southern Hemisphere. All things south of the Equator are topics for discussion at ICSHMO meetings: oceans, ice, weather, climate, advances in science and technology, human interactions with the environment, and reflections on the history of our science. The ICSHMO conferences bring together a special family of researchers from across the Southern Hemisphere and beyond.

Due to the international nature of the [13th ICSHMO conference](#), it is being offered as a Hybrid week (face-to-face and virtual) 8th -12th February and a Virtual week 15-17 February to suit both those attending the event in New Zealand as well those joining virtually.

The committee welcomes all contributions on Southern Hemisphere weather, ocean, and climate science.

Ocean Sciences Meeting (OSM) 2022: Online, 27 Feb – 4 Mar



‘Pilina’ - means connection, relationship, and association and is an important value in Hawaiian culture that encourages inclusivity and collaborations to achieve results that cannot be accomplished with one person alone. The [2022 OSM](#) focuses on the importance of strong pilina for the ocean science community. By coming together, we can forge a path toward a sustainable future.

At a time when many aspects of life can feel uncertain, finding balance is important.

More than 5,300 ocean specialists from over 75 different countries submitted abstracts for OSM22, a conference that will show balance through:

An enriching virtual conference experience with a robust scientific program and numerous networking and professional development events

A program working toward the goals of the [United Nations Decade of Ocean Science for Sustainable Development](#)

An emphasis on diversity and inclusion, and [support for student and early career scientists](#)

“Come Together and Connect” focuses on strengthening the ocean sciences community through discussing both basic and applied research while making scientific and social connections.

Co-sponsored by the American Geophysical Union (AGU), the Association for the Sciences of Limnology and Oceanography (ASLO), and The Oceanography Society (TOS), Ocean Sciences Meeting (OSM) is the global leader in ocean sciences conferences. Balance is key to OSM 22 – enabling as many people to meet as possible across media, disseminating scientific knowledge, and creating personal connections all while considering the ocean and planet we want for the future.

[For more information on OSM22, please see the FAQ, which includes information on registration, program and more.](#)

For the main conference website please visit [link](#):

APPEA 2022: 16-19 May 2022

The APPEA Conference and Exhibition remains the only conference that is run by the industry, for the industry and is why so many trust the event as their ‘go to’ investment each year.

The [APPEA 2022 Conference and Exhibition](#) will be held from 16 – 19 May 2022 at the Brisbane Convention & Exhibition Centre, Queensland. Both onsite/in person and virtual registrations will be available.

For further information on all aspects of the conference including the program, sponsorship and exhibition opportunities visit [link](#).

Ocean Decade Australia

Change for a new blue deal between humans and the ocean

Taking action to change the status quo can seem overwhelming, exciting and pioneering. We invite ocean leaders and sea-changers to tell us their stories – pitch-style – and explore the science of behaviour change and what it takes to make it stick

[Stakeholder Briefing 3; Behaviour and Action for Change](#)

[YouTube Video](#)

GEBCO SYMPOSIUM – MAP THE GAPS



The most recent GEBCO Symposium, convened by Map the Gaps, was held virtually from Nairobi, Kenya Nov. 30 - Dec. 3, 2021.

The symposium included presentations on topics such as mapping and data processing technology, deep water exploration, mapping missions, policy, diversity, equity & inclusion, Seabed 2030 and alumni activities.

Technology Innovations II (MtG Symposium 2021-Redux)

Lead-lines, fathometers, and single-beams have provided the foundation for our description of the seafloor, but these labor-intensive methods are extremely limited in their spatial coverage. Years ago, technologies such as multibeam and LIDAR revolutionized hydrographic data collection.

YouTube Video

***please be advised that our YouTube channel is getting lots of views*

Some quick stats:

Total Registered: **447**

Average # of attendees: **110** per session

Average Rate of Attendance to Registration: **24.6%** (this is excellent)

Highest: **160** (Seabed 2030)

Lowest: **38** (Public Perception and Policy)

Some learning lessons for us:

Earlier planning - as a 2 person show, this is always challenging, but several have volunteered to help for next year. (Thank you!)

Accommodating time zones (always a challenge, but this does impact who can attend the live sessions)

Better and more targeted advertising (Many people attend specific sessions based on the speakers/panelists - we need to target them)

Next steps:

Please **take the survey**- this seriously helps us plan for next year.

Please **subscribe to our YouTube Channel**. Once we get 100 subscribers, magical YouTube things start to happen.

AHS Australasian Hydrographic Society



The Australasian Hydrographic Society (AHS) is pleased to announce that its internationally recognised hydrographic conference program will return to Australia in 2022. The three-day '[Hydrospatial 2021 Conference](#)' is planned for the period 16-18 February 2022 and will be held in Cairns QLD at the Pullman Cairns International Hotel. A Conference Committee has been established and planning is well developed.

The theme of the AHS 2021 Conference is: '**Hydrography of the Future**'. *This* theme will focus on how the hydrography will develop further into the future noting the development of 'Digital Twinning', and the emerging name variants for 'hydrography' such as 'hydrospatial' or 'hydrogeomatics'. The theme has been chosen as it morphs two modern yet wide-ranging aspects of the hydrographic surveying profession that should draw conference papers from relevant scientific, technological, operational, and environmental communities. The aim of this theme is to provide conference delegates valuable insights, creative ideas and inspiration on how to harness current and future technologies, systems and processes available to hydrographic survey specialists so that they can cope with present challenges and prepare for a more sustainable future.

The Australasian Hydrographic Society welcomes hydrographic and related professionals plus anyone interested in our changing world to the 'Hydrospatial 2021 Conference'. Further details of the event will be posted on the website and also on the Society's website (www.ahs.asn.au) during the next few months.

EGU2022

Dear colleagues,

We would like to draw your attention to a session on "Advances in seabed mapping and classification" at the European Geosciences Union's General Assembly 2022. The EGU meeting is scheduled to take place in Vienna, Austria from 3rd to 8th April 2022. The EGU aims to provide an on-site experience for those attending in-person, while at the same time introducing new concepts to include virtual attendees as much as possible. The EGU General Assembly 2022 (EGU22) will be a conference with a virtual component where everybody is welcome, in person or online!

Advances in seabed mapping and classification

Conveners: Markus Diesing, Rachel Nanson, Benjamin Misiuk, Myriam Lacharité

Abstract submission deadline: 12 January 2022, 13:00 CET

Travel Support application deadline: 1 December 2021

@EuroGeosciences | @EGU_GM | @EGU_OCEAN | @EGU_ESSI

About the EGU General Assembly

The EGU General Assembly 2022 will bring together geoscientists from all over the world for one meeting covering all disciplines of the Earth, planetary, and space sciences. The EGU aims to provide a forum where scientists, especially early career scientists, can present their work and discuss their ideas with experts in all fields of geoscience. [Link](#)

About our session

The session aims at providing insights into new developments, methods, and results in the field of seabed mapping and classification; showcasing a range of applications.

More details can be found at [link here](#).

Abstract submission deadline Jan 12 2022.

Important deadlines

- [Abstract submission](#) deadline: 12 January 2022, 13:00 CET
- [Travel Support application](#) deadline: 1 December 2021
- [Conference 3-8 April 2022](#)

Locate 2022 Program



On behalf of the Locate Australia Conferences it is our pleasure to invite you to join us at [Locate22, 24 – 26 May in Canberra](#), Australian Capital Territory.

Locate22 returns to the Nation's Capital in the traditional format of a live event at the National Convention Centre Canberra (NCCC). With the ability to be COVID safe, within a socially distanced environment, the NCCC is the perfect venue for Australia's premier spatial and surveying conference. Canberra brings an incomparable setting with iconic national attractions surrounding Lake Burley Griffin and the Parliamentary Triangle.

This year Locate22 will incorporate dedicated streams into the format of the conference. This will enable focused discussion from across industry sectors on how location technologies and practices are being used, highlighting the fundamental role they play in shaping Australia's future.

ICCE 2022: 4-9 Dec

37th International Conference on Coastal Engineering

WHEN 4-9 December 2022

WHERE International Convention Centre, Sydney
New South Wales, Australia

The goal of the [ICCE](#) is to promote academic and technical exchange on coastal related studies covering a wide range of topics including coastal waves, nearshore currents, coastal structures, sediment transport, coastal morphology, beach nourishment, natural hazards and coastal management.

Share your work with the AusSeabed community

Finally, a reminder as always that anyone with an interest in AusSeabed can sign up to the newsletter mailing list on our website, where you can also check out past issues. And please send any items for the next newsletter to AusSeabedNews@ga.gov.au