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Please note - we are currently transitioning the AusSeabed Newsletter system and mailing list. If you notice any issues please email ausseabed@ga.gov.au (<mailto:ausseabed@ga.gov.au>).

Dear AusSeabed community,

What a treat it is to be welcomed into the heart of this vibrant community. I want to thank everyone who has made my arrival so smooth, particularly those who stepped up to keep the wheels turning during the transition. It is a testament to the strength of AusSeabed and the professionalism of the secretariate team. I want to especially thank the chair, Nigel Townsend, the theme leads, and acting director Natalie Lennard.

I am particularly impressed by the community-driven campaign to update the Areas of Interest and generate HIPP survey requests in our Survey Coordination Tool – we've had a 21% jump in the number of registered users, which is an amazing result from a few weeks of campaigning. Anecdotally, I've been told that people are much more enthusiastic about sharing their priorities and plans when personally invited by a colleague than by a mass mailout from the AusSeabed office. Thank you everyone who has used their professional networks to make this campaign so successful.



Our data portal, and the publication pipeline behind it, is the quiet achiever of AusSeabed. If you haven't been in for a browse recently, please do so. So far this year, we've seen new publications from AHO and CSIRO, ranging from the van Diemen Gulf in the north, right down to the Southern Ocean and from Cocos Keeling in the west to the East Australian Current. We have now published data from all the surveys in Hydroscheme 2020 and 2021 and are well underway with publishing Hydroscheme 2022.

Personally, I am settling into Canberra and will be splitting time between the Capital and my home town of Hobart. I hope to see locals from this community in both places often! Work-wise, I am buried in preparations for the Steering Committee in early April, where we will be holding a hybrid meeting alongside the Hydrospatial 2024 conference. Prominent on the agenda will be a review of all the wins and efforts this community has made over the first six years, with a focus on how we can sustain that growth in coming years.

It has been such a pleasure to meet so many of you in recent weeks and I look forward to getting to know the rest of this wonderful community as I get out and about.

Pip

Case study - Usage of Australian Topography and Bathymetry dataset

The Western Australian Department of Transport (DoT) has engaged in a number of projects to determine sediment transport systems across WA state waters (<https://www.transport.wa.gov.au/marine/coastal-studies.asp>).

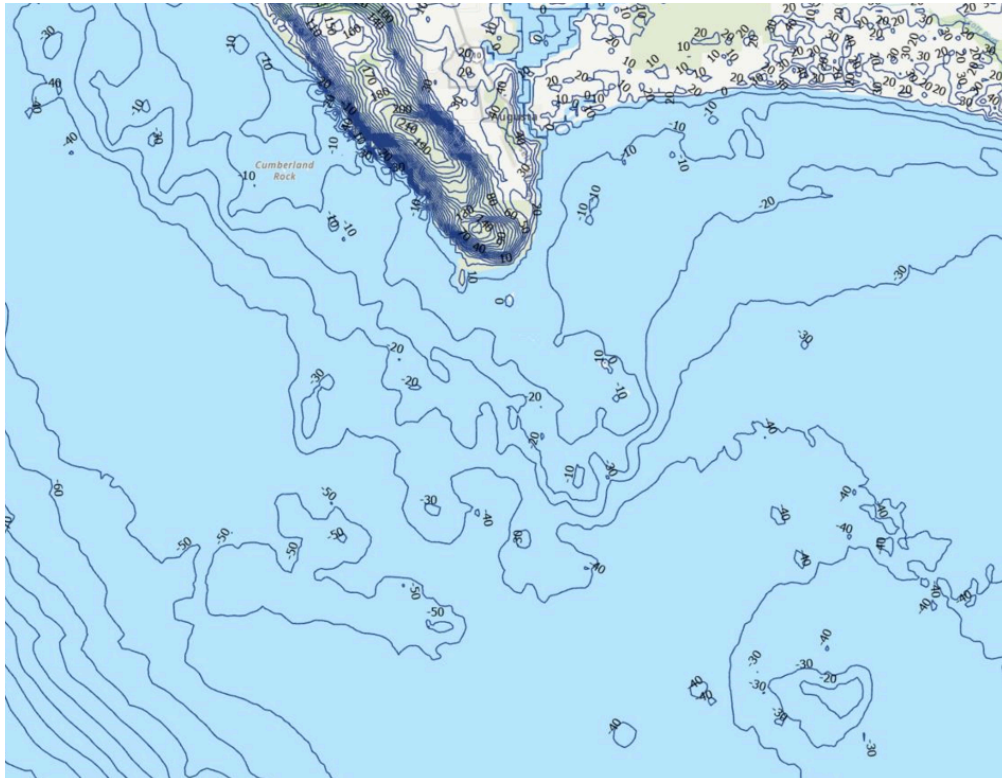
Sufficient high resolution bathymetric data for the study area was the prime driver for these studies.

One of the criteria for identification of the Offshore Primary, Secondary and Tertiary sediment cells is the mapping offshore boundaries in the region (Page 18, table 2 of Coastal Sediment Cells for the Vlamingh Coast (https://www.transport.wa.gov.au/mediaFiles/marine/MAC_R_CoastalSedimentCellsReport.pdf)).

More recently, we have been determining the project scope for sediment cells determination for the South Coast WA. We are looking at the areas that have been captured with Bathymetric LiDAR as part of Coastal Capture WA.

In many cases we do not have extensive bathymetric data for areas adjacent to the Bathymetric LiDAR capture area so we investigated acquiring the various contour data from the new 2023 Australian Bathymetry and Topography data set (<https://portal.ga.gov.au/restore/e611558e-6bd0-44b8-987a-c747e587f04c>) (250m Grid).

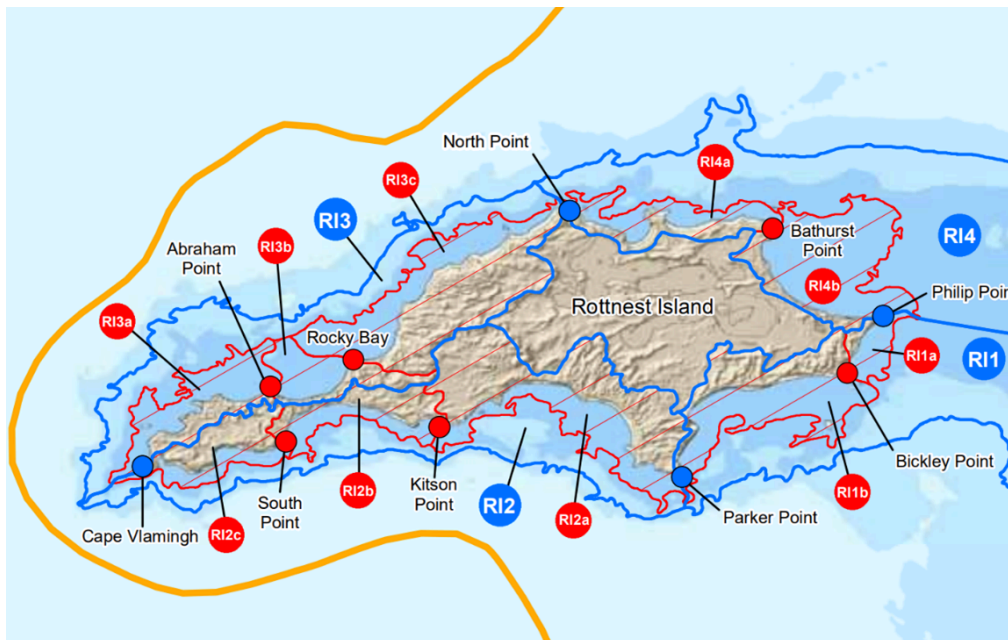
Downloading the data and then contouring a small test portion was remarkably easy and provided some very detailed data that we quality assessed against existing DoT Bathymetry surveys.



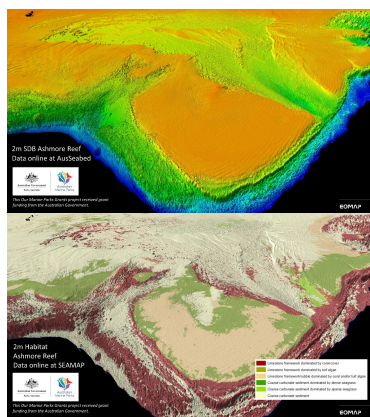
Example - Augusta 25m Bathymetric Grid extract and contour generation.

Impressed with the data quality, we soundly recommended that the 250m grid be utilised for the -30m, -15m, 5m and 7m contours for the upcoming sediment project.

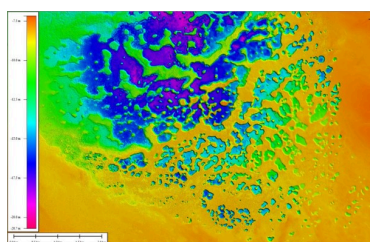
A bonus of utilising this data is that it can be downloaded at any time to produce products, discarded to save network space and easily redownloaded when required again. The ease of download and contour generation makes this process time and resource efficient.



Example: Sediment cell determination – Rottnest Island 2015. Note Orange – previous -30m cell boundary as compared to Augusta -30m contour from 250m Grid.



2m SDB and seafloor classification at Ashmore Reef Marine Park. Director of National Parks (Parks Australia), Ashmore Reef and Cartier Island SDB/Habitat ©EOMAP 2023, CC-BY 4.0



2m SDB highlighting more than 150 blue holes individually named by Cocos (Keeling) Islands. Director of National Parks (Parks Australia), Cocos (Keeling) and Christmas Island SDB/Habitat ©EOMAP 2024, CC-BY 4.0.

Mapping Australia's Remote Marine Parks from Space

The EOMAP Australia team received funding through Parks Australia, to map Satellite Derived Bathymetry (SDB) and seafloor habitats at Ashmore Reef and Cartier Island Parks. We used very-high resolution 2m satellite imagery (Maxar Technology's WorldView-3) and our proprietary physics-based sunlight inversion method to derive informed shallow-water bathymetry down to ~30m water depth. Reflectance (seafloor colour) and bathymetry were then used to run an object-based classification, where objects of similar spectral characteristics, shape and texture are grouped into different classes of seafloor coverage. Seafloor habitats were classified using the SEAMAP Australia classification scheme with training and validation field data provided by Dr. John Keesing at the CSIRO. This project provides the essential environmental baselines that are crucial for understanding marine park values, and the ongoing protection and conservation of marine biodiversity in these internationally significant reefs. The data can be downloaded at [AusSeabed](https://portal.ga.gov.au/persona/marine) (<https://portal.ga.gov.au/persona/marine>), [IMAS](https://portal.imas.gov.au) (<https://portal.imas.gov.au>), [SEAMAP Australia](https://metadata.imas.utas.edu.au/geonetwork/srv/eng/catalog.search#/metadata/b7e43-4152-9a2c-6b1aa6ae9296) (<https://metadata.imas.utas.edu.au/geonetwork/srv/eng/catalog.search#/metadata/b7e43-4152-9a2c-6b1aa6ae9296>) and [SEAMAP Australia](https://seamapaustralia.org/map/#9b5bbd81-d874-41f4-ba35-a2c88fa7d33c) (<https://seamapaustralia.org/map/#9b5bbd81-d874-41f4-ba35-a2c88fa7d33c>).

We also received funding to map bathymetry and habitats at Australia's newest Marine Park of Cocos (Keeling) and Christmas Islands, in the Indian Ocean Territories (IOT). The project highlights important cultural sites at Cocos, including the more than 150 blue holes named individually by local Elders. The seafloor classification is being supported by fieldwork and the wealth of local knowledge from Dr. JP Hobbs (University of Queensland), Jo Buckee (Murdoch University), Associate Professor Zoe Richards (Curtin University), Associate Professor Tom Bridge (JCU) and the Sea Country Solutions team. This project is due for completion in 2024.

The 'Our Marine Parks - Round Three' and 'Indian Ocean Territories Marine Park' projects have received grant funding from the Australian Government.

Emily Twiggs
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Publications

27 November 2023

Approaches to Newcastle, NSW (HIPP SI 1001) Bathymetry

30m: <https://ecat.ga.gov.au/geonetwork/srv/eng/catalog.search#/metadata/149069>

(<https://ecat.ga.gov.au/geonetwork/srv/eng/catalog.search#/metadata/149069>).

PROD PORTAL: <https://portal.ga.gov.au/restore/37241b86-df21-457e-9fba-607d0824892f>

(<https://portal.ga.gov.au/restore/37241b86-df21-457e-9fba-607d0824892f>)

Abbot Point to Hydrographers Passage (HIPP SI 1007) Bathymetry

30m: <http://pid.geoscience.gov.au/dataset/ga/149072>

PROD PORTAL: <https://portal.ga.gov.au/restore/f6f437af-e773-4813-a20d-c6ebd2921c4b>

AHO Reference Surfaces Adelaide

1m: <https://pid.geoscience.gov.au/dataset/ga/149070>

(<http://pid.geoscience.gov.au/dataset/ga/149072>).

PROD PORTAL: <https://portal.ga.gov.au/restore/db8d7ff4-281b-41bb-8b58-53be42402fe6>

(<https://portal.ga.gov.au/restore/f6f437af-e773-4813-a20d-c6ebd2921c4b>).

AHO Reference Surfaces Banks Strait

0.5m: <https://pid.geoscience.gov.au/dataset/ga/149071>

(<https://pid.geoscience.gov.au/dataset/ga/149071>).

PROD PORTAL: <https://portal.ga.gov.au/restore/ebdc097a-db89-4f2b-a9d3-07327a6524f7>

(<https://portal.ga.gov.au/restore/ebdc097a-db89-4f2b-a9d3-07327a6524f7>).

AHO Reference Surfaces Broome

0.5m: <https://pid.geoscience.gov.au/dataset/ga/149071>

(<https://pid.geoscience.gov.au/dataset/ga/149071>).

PROD PORTAL: <https://portal.ga.gov.au/restore/9729d03d-3364-44e0-8bda-d6475c10e543>

(<https://portal.ga.gov.au/restore/9729d03d-3364-44e0-8bda-d6475c10e543>).

AHO Reference Surfaces Cairns

0.5m: <https://pid.geoscience.gov.au/dataset/ga/149078>

(<https://pid.geoscience.gov.au/dataset/ga/149078>).

PROD PORTAL: <https://portal.ga.gov.au/restore/4f1f34ef-8e27-447f-b3fc-c42e2a11983e>

(<https://portal.ga.gov.au/restore/4f1f34ef-8e27-447f-b3fc-c42e2a11983e>).

AHO Reference Surfaces Darwin

0.5m: <https://pid.geoscience.gov.au/dataset/ga/149075>

(<https://pid.geoscience.gov.au/dataset/ga/149075>).

PROD PORTAL: <https://portal.ga.gov.au/restore/d5de2879-1087-4609-8399-fe75080aa84e>

(<https://portal.ga.gov.au/restore/d5de2879-1087-4609-8399-fe75080aa84e>).

AHO Reference Surfaces Torres Strait

0.5m: <https://pid.geoscience.gov.au/dataset/ga/149077>

(<https://pid.geoscience.gov.au/dataset/ga/149077>).

PROD PORTAL: <https://portal.ga.gov.au/restore/dae67493-9d09-42b5-bfa1-c8fce3d609b9>

(<https://portal.ga.gov.au/restore/dae67493-9d09-42b5-bfa1-c8fce3d609b9>).

28 November 2023

Solitary Islands Gumbayngirr Yaegl MP Bathymetry

5m: <https://pid.geoscience.gov.au/dataset/ga/149091>

(<https://pid.geoscience.gov.au/dataset/ga/149091>).

PROD PORTAL: <https://portal.ga.gov.au/restore/be91e7dd-03f9-4153-a884-5632ac248b21>

(<https://portal.ga.gov.au/restore/be91e7dd-03f9-4153-a884-5632ac248b21>).

7 December 2023

Ashmore Reef and Cartier Island Marine Parks

2m: <http://pid.geoscience.gov.au/dataset/ga/149098>

(<http://pid.geoscience.gov.au/dataset/ga/149098>).

PROD PORTAL: <https://portal.ga.gov.au/restore/87ba9607-db72-4a12-bc5d-b9636ff4d6fd>

(<https://portal.ga.gov.au/restore/87ba9607-db72-4a12-bc5d-b9636ff4d6fd>).

13 December 2023

Southern Ocean SOTS Bathymetry 10m - 210m (CSIRO) in2016_v02 - multi-resolution
10m: <https://doi.org/10.25919/ad60-1152> (<https://doi.org/10.25919/ad60-1152>)
PROD PORTAL: <https://portal.ga.gov.au/restore/6d0a18d6-cef0-49b9-b410-bbfd4b21b1ab>
(<https://portal.ga.gov.au/restore/6d0a18d6-cef0-49b9-b410-bbfd4b21b1ab>).

West Tasmanian Bathymetry 10m - 210m (CSIRO) in2023_v02 - multi-resolution
10m: <https://doi.org/10.25919/yfwa-8m42> (<https://doi.org/10.25919/yfwa-8m42>)
PROD PORTAL: <https://portal.ga.gov.au/restore/dd8114d5-cac4-430c-8d64-6a365c537793>
(<https://portal.ga.gov.au/restore/dd8114d5-cac4-430c-8d64-6a365c537793>).

15 December 2023

AHO Reference Surfaces Hobart
0.5m: <http://pid.geoscience.gov.au/dataset/ga/149126>
(<http://pid.geoscience.gov.au/dataset/ga/149126>)
PROD PORTAL: <https://portal.ga.gov.au/restore/772123be-5915-4c29-bb55-4b528cebb5b6>
(<https://portal.ga.gov.au/restore/772123be-5915-4c29-bb55-4b528cebb5b6>)

18 December 2023

Zeehan and Franklin Marine Parks, West Coast Tasmania BF2022_v01 Bathymetry
2m: <https://pid.geoscience.gov.au/dataset/ga/149125>
(<https://pid.geoscience.gov.au/dataset/ga/149125>)
PROD PORTAL: <https://portal.ga.gov.au/restore/ed1f2bfa-b5f9-4b1b-938a-82875679578a>
(<https://portal.ga.gov.au/restore/ed1f2bfa-b5f9-4b1b-938a-82875679578a>)

Wallaby-Zenith Fracture Zone 2021 05 WZFZ Bathymetry
64m: <http://pid.geoscience.gov.au/dataset/ga/148851>
(<http://pid.geoscience.gov.au/dataset/ga/148851>)
PROD PORTAL: <https://portal.ga.gov.au/restore/bb4dfd2c-36ad-4943-b60a-b86bd2ff405c>
(<https://portal.ga.gov.au/restore/bb4dfd2c-36ad-4943-b60a-b86bd2ff405c>)

Hay Point to Hydrographers Passage, QLD (HIPP SI 1029) Bathymetry
30m: <http://pid.geoscience.gov.au/dataset/ga/149129>
(<http://pid.geoscience.gov.au/dataset/ga/149129>)
PROD PORTAL: <https://portal.ga.gov.au/restore/8129cd7d-ebf0-4182-b4f3-bc0eb328bf11>
(<https://portal.ga.gov.au/restore/8129cd7d-ebf0-4182-b4f3-bc0eb328bf11>)

19 December 2023

Pacific Ocean Bathymetry 5m - 210m (CSIRO) in2016_v03
5m: <https://doi.org/10.25919/ad60-1152> (<https://doi.org/10.25919/ad60-1152>)
PROD PORTAL: <https://portal.ga.gov.au/restore/5c39573f-7b0d-454a-9785-205346f86172>
(<https://portal.ga.gov.au/restore/5c39573f-7b0d-454a-9785-205346f86172>).

22 January 2024

Van Diemen Gulf (North-West Inshore Route), NT (HIPP SI 1003) Bathymetry
30m: <http://pid.geoscience.gov.au/dataset/ga/149145>
(<http://pid.geoscience.gov.au/dataset/ga/149145>)
PROD PORTAL: <https://portal.ga.gov.au/restore/91f7d038-b9b7-46d5-b283-fe3fcc7b6e83>
(<https://portal.ga.gov.au/restore/91f7d038-b9b7-46d5-b283-fe3fcc7b6e83>)

Cape Leeuwin, WA (HIPP SI 1031) Bathymetry
30m: <http://pid.geoscience.gov.au/dataset/ga/149146>
(<http://pid.geoscience.gov.au/dataset/ga/149146>)
PROD PORTAL: <https://portal.ga.gov.au/restore/1a9cd290-3e24-4c5a-bca4-c4a5dac21aba>
(<https://portal.ga.gov.au/restore/1a9cd290-3e24-4c5a-bca4-c4a5dac21aba>)

Furneaux Group, Bass Strait (HIPP SI 1032) Bathymetry

30m: <http://pid.geoscience.gov.au/dataset/ga/149147>
(<http://pid.geoscience.gov.au/dataset/ga/149147>)
PROD PORTAL: <https://portal.ga.gov.au/restore/efbc8981-498a-445a-9d7e-987968ae1440>
(<https://portal.ga.gov.au/restore/efbc8981-498a-445a-9d7e-987968ae1440>)

23 February 2024

Darwin to Henderson Transit Bathymetry 10m - 210m (CSIRO) in2019_t03
10m: <https://doi.org/10.25919/vfb4-4k77> (<https://doi.org/10.25919/vfb4-4k77>)
PROD PORTAL: <https://portal.ga.gov.au/restore/2e3e1e51-7040-4bad-9bda-5dcabc42e32c>
(<https://portal.ga.gov.au/restore/2e3e1e51-7040-4bad-9bda-5dcabc42e32c>)

Southeast Tasmania Coast Bathymetry 10m - 210m (CSIRO) in2018_e02
10m: <https://doi.org/10.25919/4xja-4h69> (<https://doi.org/10.25919/4xja-4h69>)
PROD PORTAL: <https://portal.ga.gov.au/restore/fde5e92b-8fae-4e56-a7a3-1435d146d64a>
(<https://portal.ga.gov.au/restore/fde5e92b-8fae-4e56-a7a3-1435d146d64a>)

Southern Ocean Bathymetry 10m - 210m (CSIRO) in2020_v08
10m: <https://doi.org/10.25919/cz99-ks39> (<https://doi.org/10.25919/cz99-ks39>)
PROD PORTAL: <https://portal.ga.gov.au/restore/6daade0e-94c0-4001-930c-f74f10ad22e7>
(<https://portal.ga.gov.au/restore/6daade0e-94c0-4001-930c-f74f10ad22e7>)

Tasmanian Coast Bathymetry 10m - 210m (CSIRO) in2020_e01
10m: <https://doi.org/10.25919/17wm-dk49> (<https://doi.org/10.25919/17wm-dk49>)
PROD PORTAL: <https://portal.ga.gov.au/restore/08606b85-6540-4bb2-9620-81f63b16b82e>
(<https://portal.ga.gov.au/restore/08606b85-6540-4bb2-9620-81f63b16b82e>)

East Australia Current Bathymetry 10m - 210m (CSIRO) in2023_v06
10m: <https://doi.org/10.25919/b51x-fe59> (<https://doi.org/10.25919/b51x-fe59>)
PROD PORTAL: <https://portal.ga.gov.au/restore/1003730a-0027-4f16-987a-92f34afe17be>
(<https://portal.ga.gov.au/restore/1003730a-0027-4f16-987a-92f34afe17be>)

4 March 2024

Indian Ocean Territories Bathymetry 10m - 210m (CSIRO) in2021_v04
10m: <https://doi.org/10.25919/ttfs-pv76> (<https://doi.org/10.25919/ttfs-pv76>)
PROD PORTAL: <https://portal.ga.gov.au/restore/2d91f3f9-c825-4e98-8458-d970858bd280>
(<https://portal.ga.gov.au/restore/2d91f3f9-c825-4e98-8458-d970858bd280>)

7 March 2024

Sydney to Hobart Transit Bathymetry 10m - 210m (CSIRO) in2023_t01
10m: <https://doi.org/10.25919/fn83-hz68> (<https://doi.org/10.25919/fn83-hz68>)
PROD PORTAL: <https://portal.ga.gov.au/restore/ec0f8e42-1a7e-40e4-8d67-de215ed002ff>
(<https://portal.ga.gov.au/restore/ec0f8e42-1a7e-40e4-8d67-de215ed002ff>)

8 March 2024

Brisbane to Darwin Transit Bathymetry 10m - 210m (CSIRO) in2019_t02 - multi-resolution
10m: <https://doi.org/10.25919/z39g-xq24> (<https://doi.org/10.25919/z39g-xq24>)
PROD PORTAL: <https://portal.ga.gov.au/restore/1a59f1e7-5814-4bd5-8f28-3883b81ce9d6>
(<https://portal.ga.gov.au/restore/1a59f1e7-5814-4bd5-8f28-3883b81ce9d6>)

12 March 2024

East Australian Current Bathymetry 10m - 210m (CSIRO) in2017_v04 - multi-resolution
10m: <https://doi.org/10.25919/4gmz-7n07> (<https://doi.org/10.25919/4gmz-7n07>)
PROD PORTAL: <https://portal.ga.gov.au/restore/4b6a52b5-3f07-4060-8afe-5744fb73ef6c>
(<https://portal.ga.gov.au/restore/4b6a52b5-3f07-4060-8afe-5744fb73ef6c>)

East Australian Current Bathymetry 10m - 210m (CSIRO) in2018_v03 - multi-resolution
10m: <https://doi.org/10.25919/hfyd-va23> (<https://doi.org/10.25919/hfyd-va23>)
PROD PORTAL: <https://portal.ga.gov.au/restore/7d22b088-9f6d-4602-9c0a-98386e1b3ef3>

(<https://portal.ga.gov.au/restore/7d22b088-9f6d-4602-9c0a-98386e1b3ef3>).

Southern Ocean Time Series Bathymetry 10m - 210m (CSIRO) in2018_v07 - multi-resolution 10m: <https://doi.org/10.25919/gcyr-3v57> (<https://doi.org/10.25919/gcyr-3v57>)
PROD PORTAL: <https://portal.ga.gov.au/restore/b14cf2d2-86fa-4d06-8203-abfa20774454>
(<https://portal.ga.gov.au/restore/b14cf2d2-86fa-4d06-8203-abfa20774454>)

Southern Ocean Time Series Bathymetry 10m - 210m (CSIRO) in2021_v02 - multi-resolution 10m: <https://doi.org/10.25919/xqpt-9j87> (<https://doi.org/10.25919/xqpt-9j87>)
PROD PORTAL: <https://portal.ga.gov.au/restore/7b7e48ca-d4af-43f0-84a4-5c0013a7f6c8>
(<https://portal.ga.gov.au/restore/7b7e48ca-d4af-43f0-84a4-5c0013a7f6c8>)

15 March 2024

Solitary Islands Gumbaynggirr Yaegl MP Backscatter
5m: <https://pid.geoscience.gov.au/dataset/ga/149091>
(<https://pid.geoscience.gov.au/dataset/ga/149091>)
PROD PORTAL: <https://portal.ga.gov.au/restore/7cff9263-b536-48e2-af9d-76516026412c>
(<https://portal.ga.gov.au/restore/7cff9263-b536-48e2-af9d-76516026412c>)

IIC Academy registrations open

This could be the opportunity you have been looking for! Does an exciting career as a hydrographic surveyor or cartographer interest you? Registrations for training are now open!

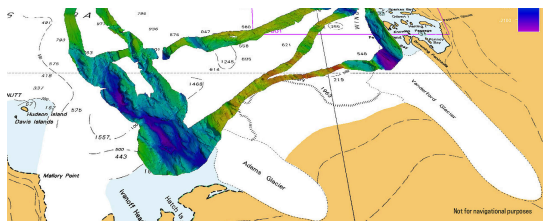
The [IIC Academy](https://www.linkedin.com/in/ACoAAAf0moABFTjGhx-3KvI9eeQjeAQ_C0-AT7A?lipi=urn%3Ali%3Apage%3Ad_flagship3_detail_base%3B%2BLKe%2FRQCCQogHDsdWtkEsLA%3D%3D) (https://www.linkedin.com/in/ACoAAAf0moABFTjGhx-3KvI9eeQjeAQ_C0-AT7A?lipi=urn%3Ali%3Apage%3Ad_flagship3_detail_base%3B%2BLKe%2FRQCCQogHDsdWtkEsLA%3D%3D) has opened the registration process for their S-5B Hydrographic Surveyor Program, set to start on 02 Sept 2024, or the S-8B Marine Geospatial Information Program starting 09 Sept 2024.

Recognized by the FIG/IHO/ICA International Board on Standards of Competence for Hydrographic Surveyors and Nautical Cartographers (IBSC) the [IIC Technologies](https://www.linkedin.com/company/iic-technologies/?lipi=urn%3Ali%3Apage%3Ad_flagship3_detail_base%3B%2BLKe%2FRQCCQogHDsdWtkEsLA%3D%3D) (https://www.linkedin.com/company/iic-technologies/?lipi=urn%3Ali%3Apage%3Ad_flagship3_detail_base%3B%2BLKe%2FRQCCQogHDsdWtkEsLA%3D%3D) Academy S-5B and S-8B Programs are designed for those who wish to start or build a career in hydrography or cartography.

The Programs will be delivered as a combination of remote learning and onsite fully re-vamped practical's, giving you the experience and knowledge you need to pursue your exciting career in hydrography and cartography.

Interested? [Learn more here!](http://www.iicacademy.com/) (<http://www.iicacademy.com/>)

Reading Corner



Antarctic canyon discovered during wild weather **US-Australia Collaboration To**
(<https://www.antarctica.gov.au/news/2024/antarctic-canyon-discovered-during-wild-weather/>) (<http://oceanexplorer.noaa.gov/news/oer-updates/2024/us-australia-collab.html>)

