

22nd Meeting of the South West Pacific Hydrographic Commission

AU S-100 WG Update

Gabriela Balla



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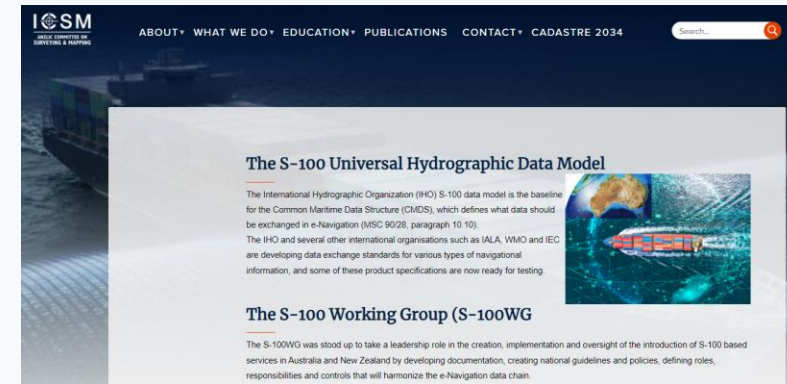
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South West Pacific Hydrographic Commission



Australia S-100 Working Group

- The S-100 Working Group was established under the Intergovernmental Committee on Surveying and Mapping (ICSM)
- AU S-100WG is responsible for coordinating and managing the timely and effective implementation of a broad range of S-100 products and services in the region
- Inaugural meeting was hosted by the Australian Hydrographic Office on 2nd of November 2022 (VTC)



[S-100 Working Group webpage link](#)



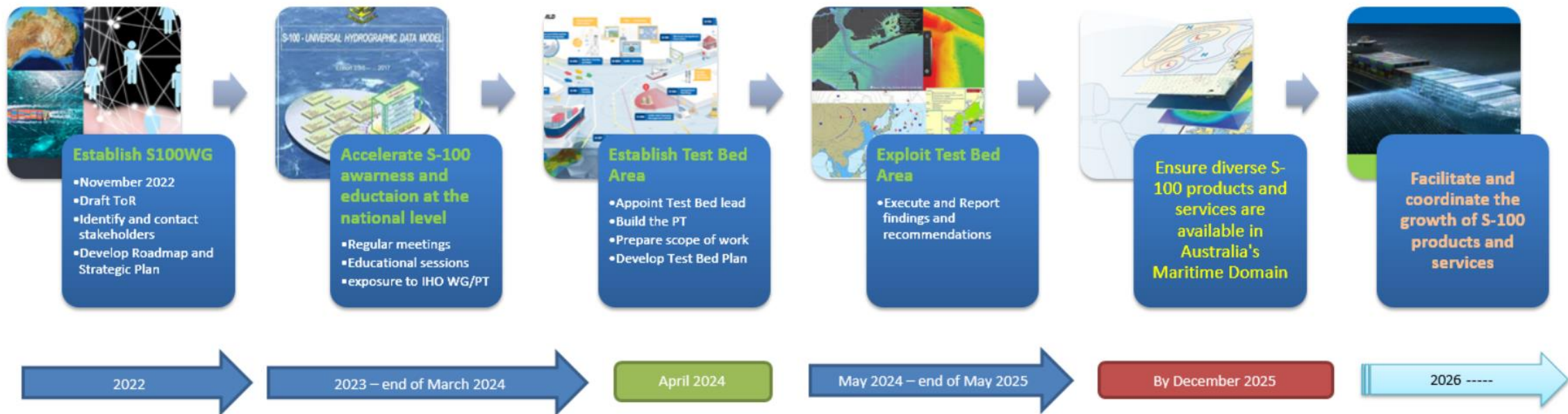
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AU S-100WG Roadmap

Planning our route for efficient navigation



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S-100 Test Bed Focus Group (TBFG)

- The S-100 Test Bed Focus Group (TBFG) was established in October 2023
- TBFG's objective is creating a national test bed to enable the development and testing of different S-100 product prototypes
- Develop project scope, test plan, test scenarios
- Share and perform testing of various S-100 dataset prototypes

S-1XX Test Datasets

S-1XX	Organisation
S-101	Australian Hydrographic Office (AHO)
S-102	Australian Hydrographic Office (AHO)
S-104	Australian Hydrographic Office (AHO)
S-111	Australian Hydrographic Office (AHO)
S-124	Australian Maritime Safety Authority (AMSA)
S-129	OMC International
S-128	Australian Hydrographic Office (AHO)



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Main achievements

- S-101, S-102, S-104, S-111, S-124 & S-129 test datasets
- Visualise and test S-1XX test datasets: Shore ECDIS, KHOA S-100 Viewer, SealQ Pilot, Qastor, OSI ECPINS
- S-100 Test Cases Workshops
- Supported IHO Singapore Lab Project – Amerigo Vespucci
- ICSM funding for S-XXX Phase 2 test dataset prototyping over three financial years

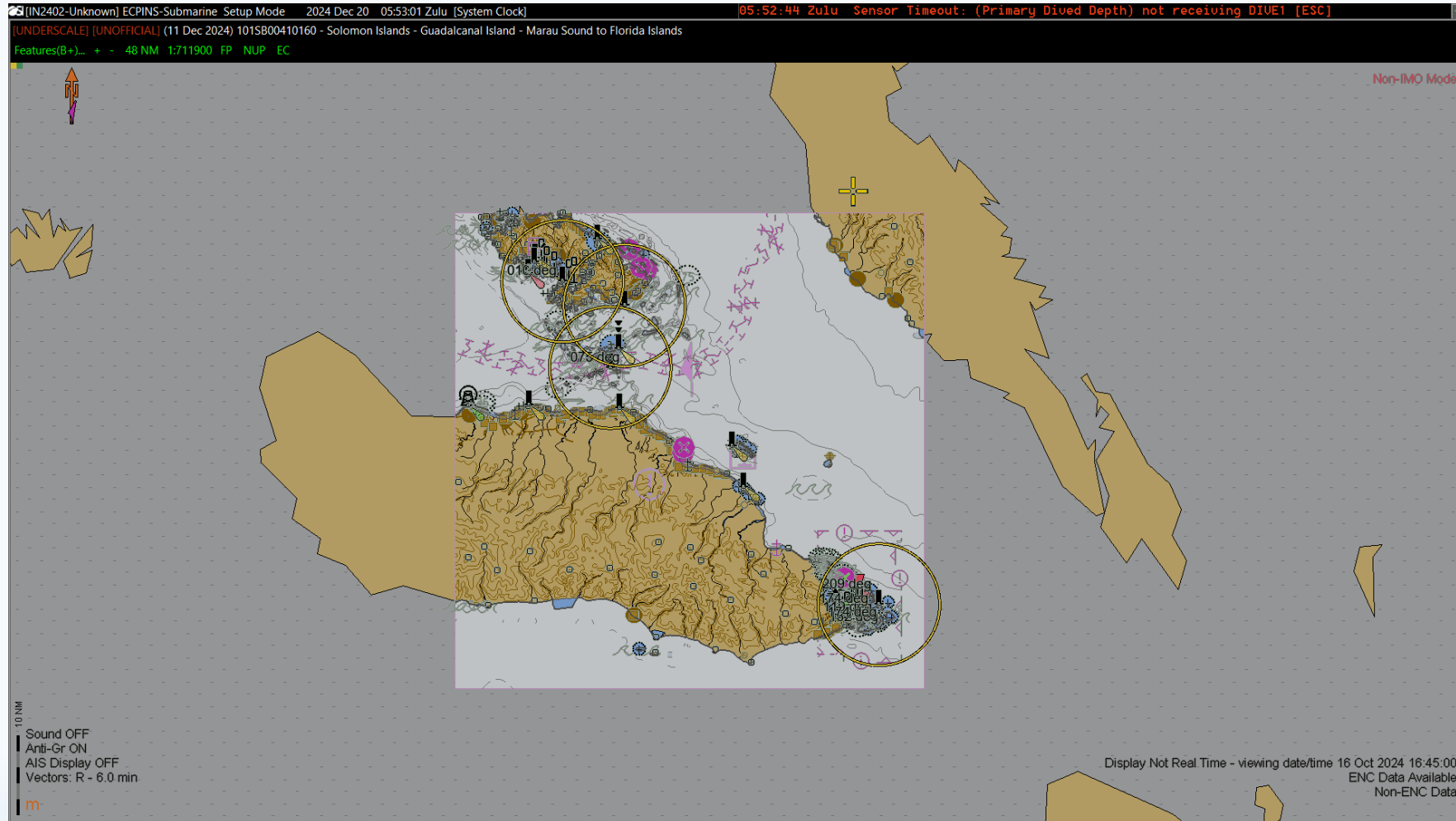


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S-101 test datasets



S-101 ENC in ECPINS (OSI Maritime)

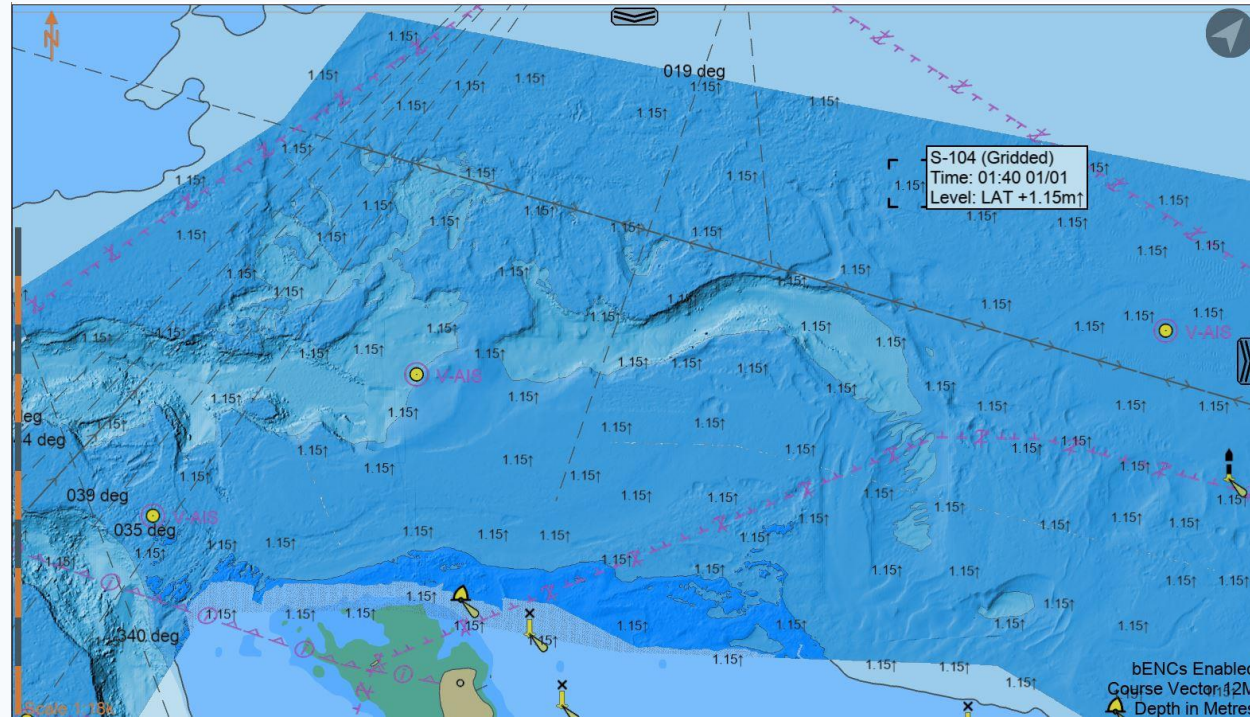


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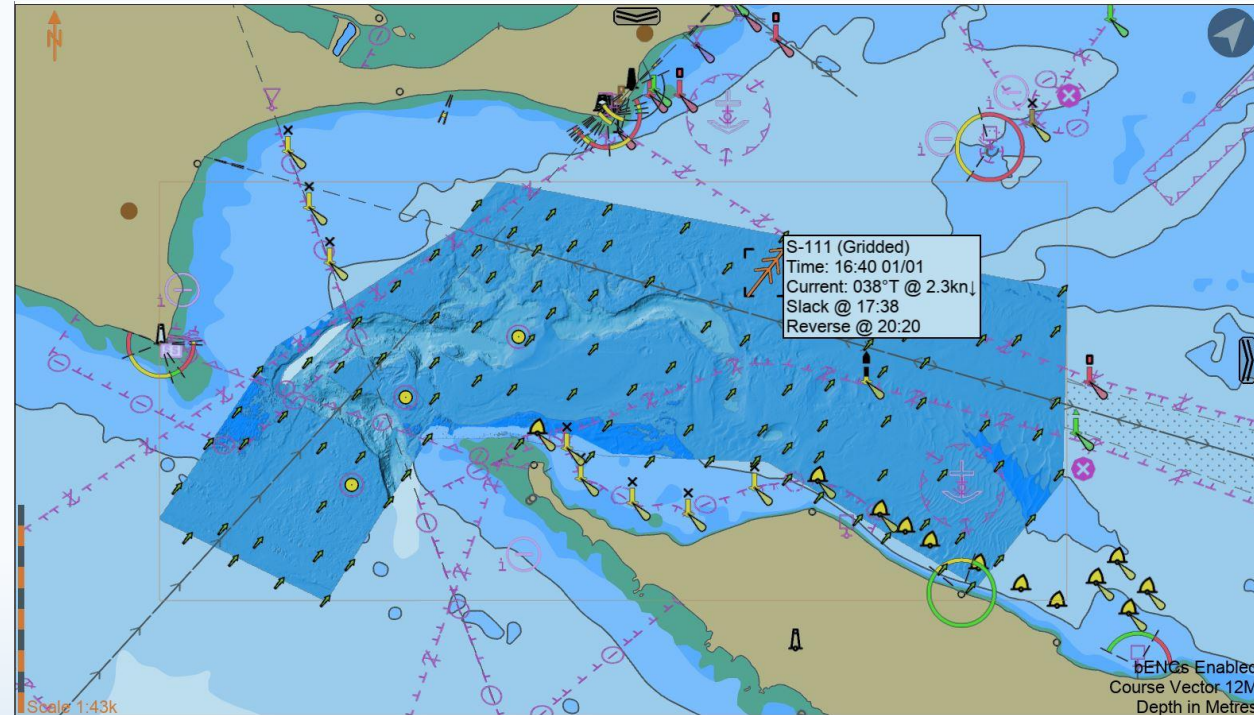
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S-102, S-104 and S-111 test datasets



Port of Melbourne – S-102 and S-104 in SEAiQ Pilot



Port of Melbourne – S-102 and S-111 in SEAiQ Pilot

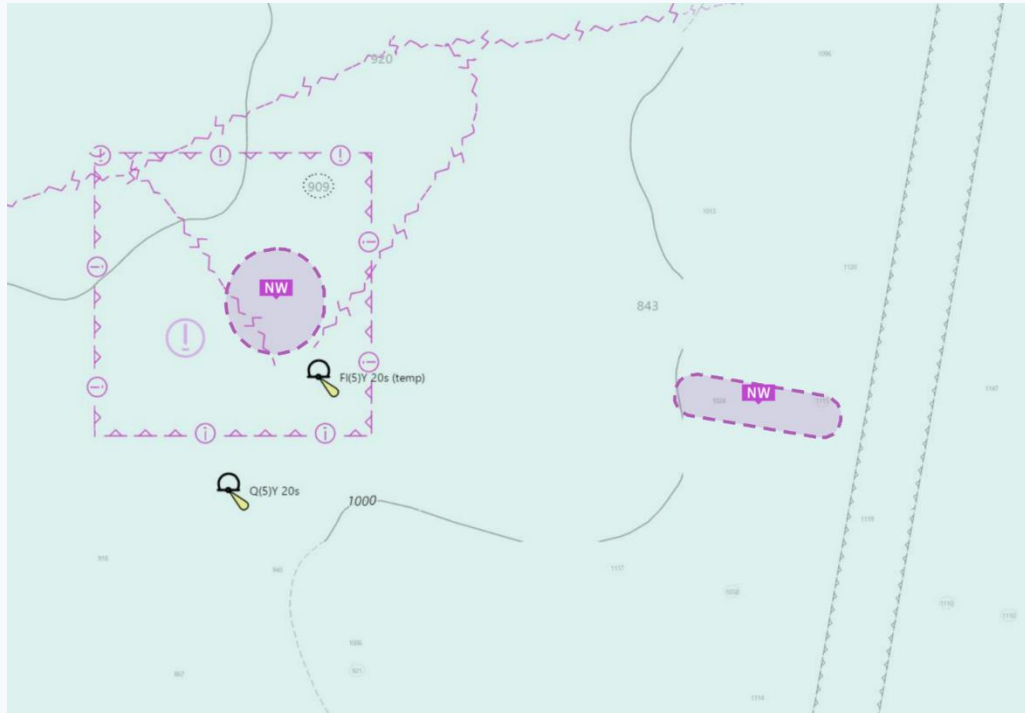


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S-124 test datasets



S-124 Navigational Warnings – Pipe Laying Operations

NAVAREM SERVICES

Dataset Summary

Data model	S-124
Version	1.0.0
S-100 profile	5.0.0
Dataset title	AMSA JRCC Navigational Warning TRIAL Dataset - DO NOT USE FOR NAVIGATION
Area identifier	urn:mm:amsa:navarea-x
Responsible agency	Australian Maritime Safety Authority
Warning series	AUSCOAST WARNING
# of warning	279
Warning type	Coastal Navigational Warning
Type of warning	19 - Works
Detailed Type	202 - Pipe Laying Operation
Valid from	2024-09-13
Valid to	N/A
Language	en
Warning text	SECURITE FM JRCC AUSTRALIA 131952Z SEP 24 AUSCOAST WARNING 279/24 SPECIAL PURPOSE VESSEL CASTORNE/C6X17 CONDUCTING PIPE LAYING OPERATIONS FROM 19-55.60S 113-40.50E TO 19-54.60S 113-34.10E 1NM CLEARANCE REQUESTED. NNNN

✓ This dataset was signed by AMSA

[Download GML](#)

DO NOT USE FOR NAVIGATION - DATA MIGHT BE INCORRECT/INCOMPLETE

NAVAREM X 60

SECURITE
FM JRCC AUSTRALIA 201448Z AUG 24
NAVAREM X 060/24
CHART 4074 - CAPE DARNLEY TO TASMANIA
SPACE DEBRIS DANGER AREA IN AN AREA BOUNDARY
48-02S 159-55E,
47-11S 159-59E,
51-17S 115-27E,
39-52S 082-05E,
41-36S 089-09E,
53-37S 114-28E,
49-27S 159-48E
HAZARDOUS SPACE DEBRIS DAILY FROM 240000 UTC
NNNN

NAVAREM X 68

SECURITE
FM JRCC AUSTRALIA 120000Z SEP 24
NAVAREM X 068/24
1. NAVAREM X WARNINGS IN FORCE AT 120000 UTC
060/24, 067/24, 068/24
2. AUSCOAST WARNINGS IN FORCE AT 120000 UTC
AREA A 212/24, 266/24
AREA B NIL
AREA C NIL
AREA D NIL
AREA E 274/24, 276/24
AREA F NIL
AREA G 216/24, 237/24, 241/24, 242/24, 249/24, 25
275/24
AREA H 222/24, 233/24, 254/24, 266/24
3. COMPLETE TEXTS OF ALL WARNINGS IN FORCE AT
WWW.AMSA.GOV.AU.
4. CANCEL THIS MESSAGE 190000 UTC SEP 24
NNNN

NAVAREM X 69

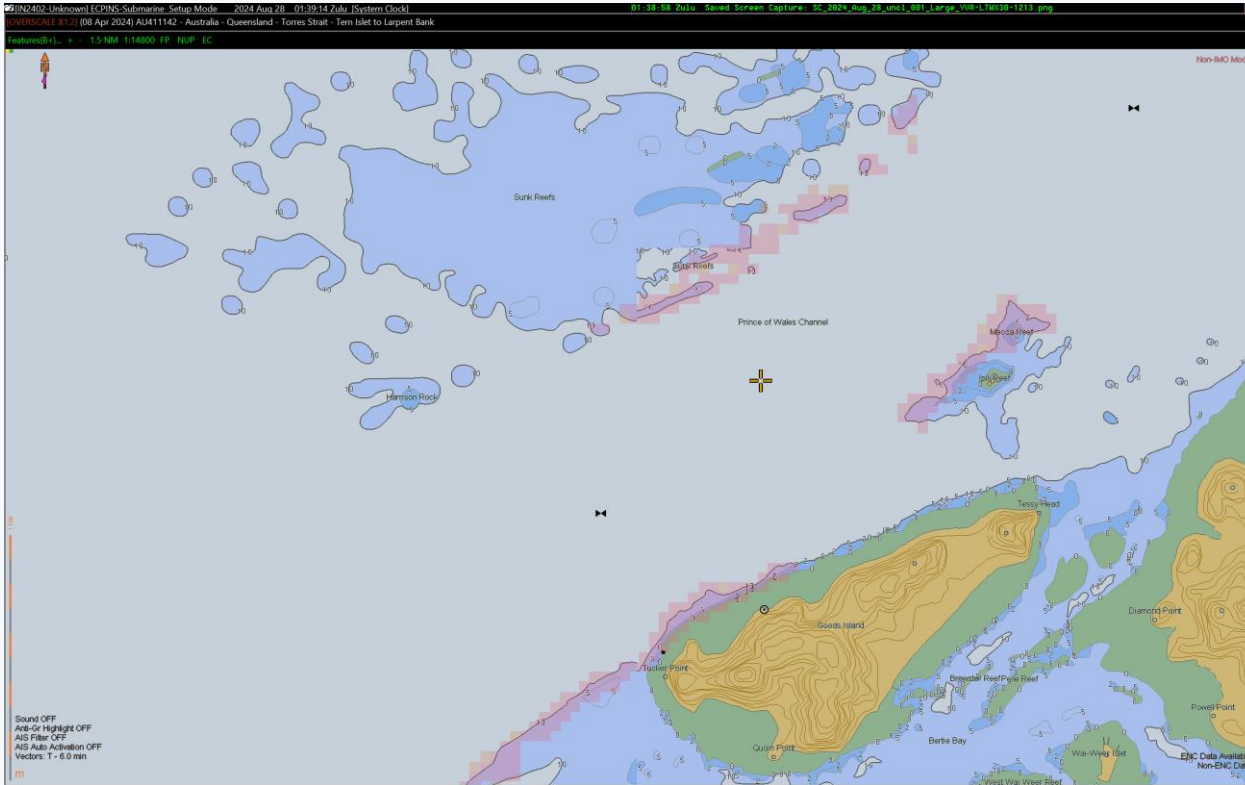


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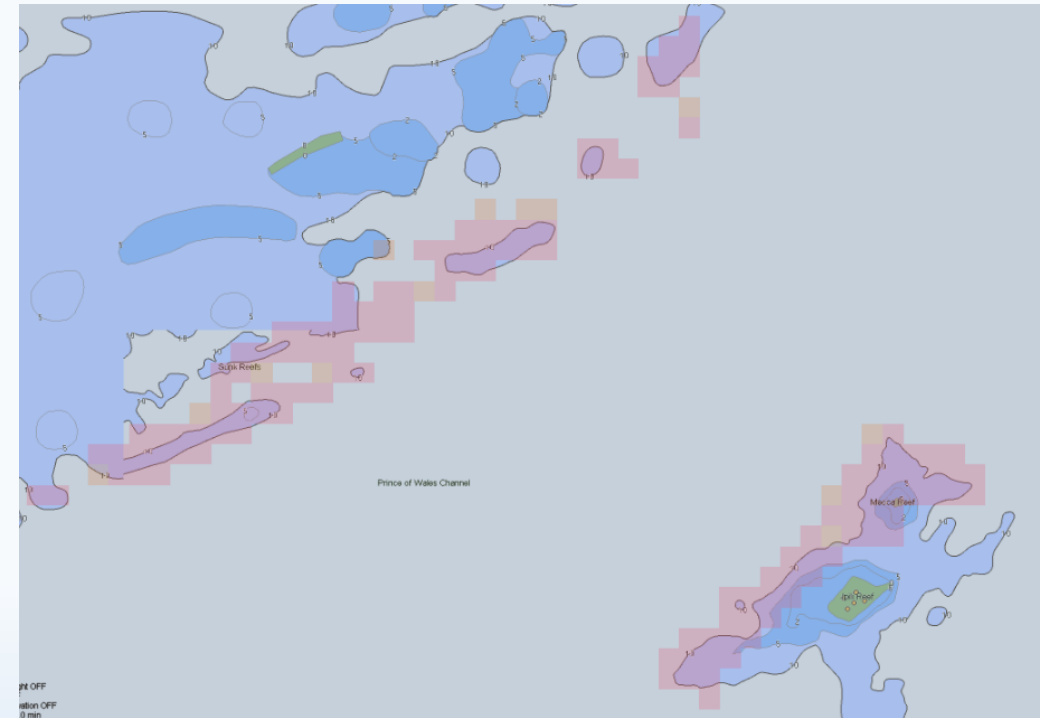
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S-129 test datasets



S-129 Under Keel Clearance in Torres Strait in ECPINS (OSI Maritime)



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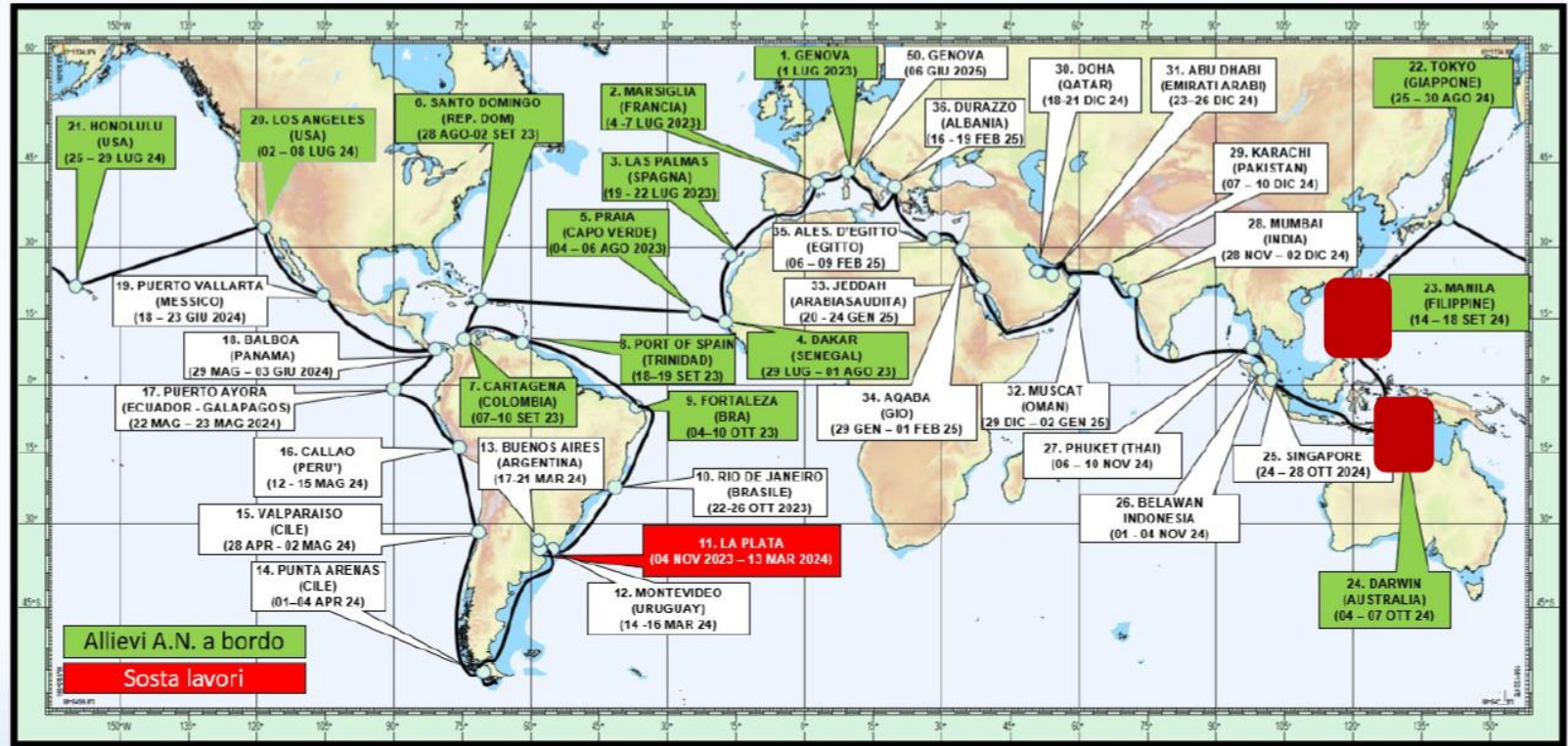
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IHO Singapore Lab project – Amerigo Vespucci



SEA TRIALS AND TESTING: MANILA - DARWIN



S-101 ENC's on S-100 ECDIS during Amerigo Vespucci's world tour

Darwin (AU) 4-7th October 2024



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AU S-101 ENC's in S-100 ECDIS

List of all installed S-101 charts

The screenshot displays the ECDIS interface with a 'Chart Install' window. The window is divided into three sections: S-63, S-101, and S-10X. The S-101 section is highlighted with a red box and contains a table of installed charts. The table has columns for Chart Name, Edition.Update Num., and Issue Date. The S-101 section also shows a 'Total Count' of 14. The S-10X section shows a 'Total Count' of 0. The map on the right shows the South West Pacific region with several chart areas highlighted in red and labeled with their respective chart names and edition numbers. The right sidebar shows various navigation and status information, including ship info, alert, and chart setup options.

S-101 Charts Installed Status	Total Count	14
Chart Name	Edition.Update Num.	Issue Date
101AU00210120	1.0	2024-07-30
101AU00220110	1.0	2024-07-26
101AU00220120	1.0	2024-07-30
101AU00309128	1.0	2024-07-26
101AU00310128	1.0	2024-07-26
101AU00311128	1.0	2024-07-26
101AU00312125	1.0	2024-07-29
101AU00312126	1.0	2024-07-29
101AU00312128	1.0	2024-07-26
101AU00412129	1.0	2024-07-26
101AU00413129	1.0	2024-07-26
101AU00413130	1.0	2024-07-31
101AU005DRW01	1.0	2024-07-31
101AU00312127	1.0	2024-07-30



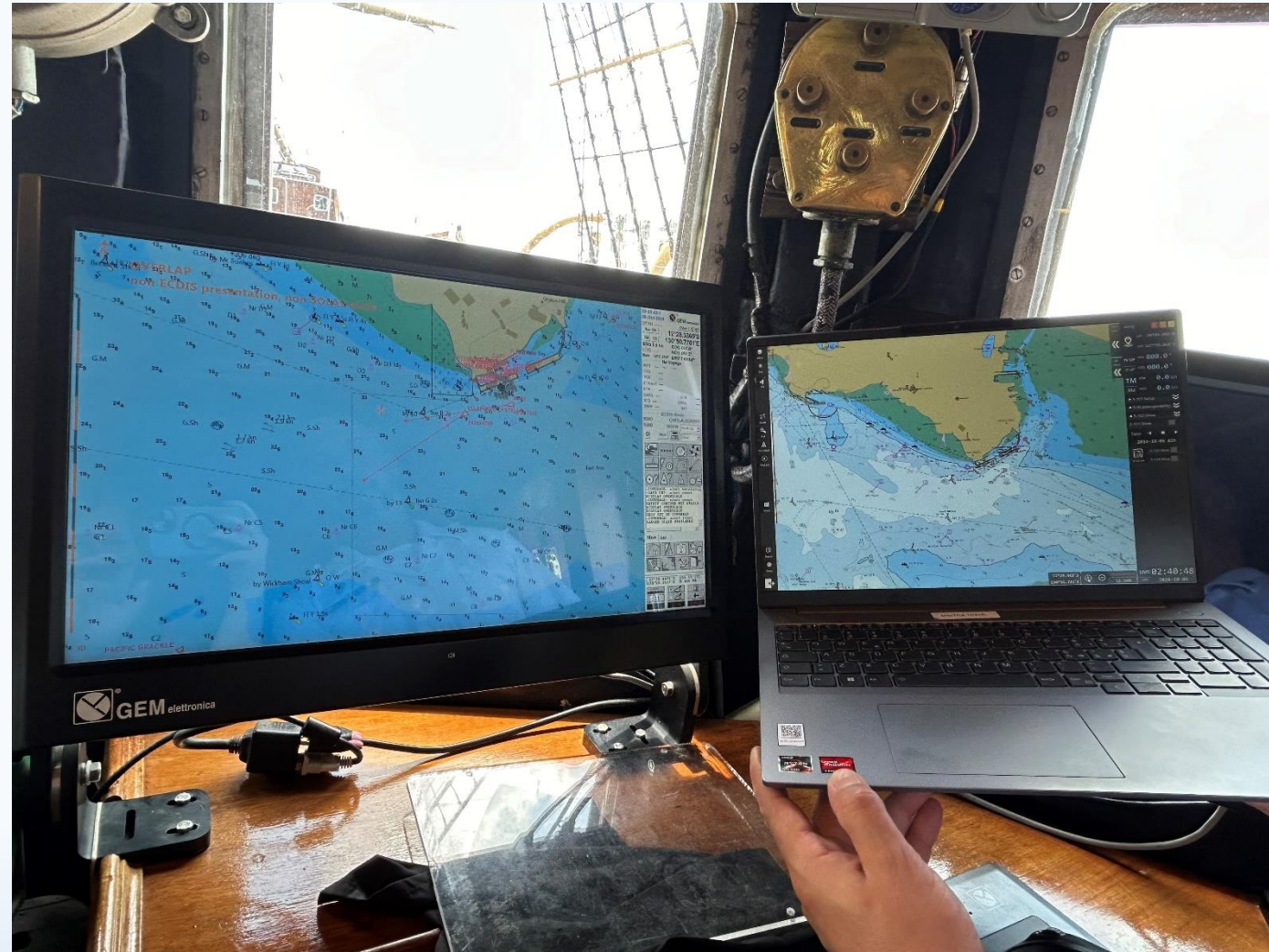
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Amerigo Vespucci – S-100 ECDIS testing

- 14 AU S-101 ENC updates were loaded in S-100 ECDIS;
- Demonstration test performed on three charts (101AU00413129 – 101AU00413130 – 101AU005DRW01);
- Checked the loaded updates against chart;
- Checked the S-57 and S-101 overlapping areas;
- All tests were carried out with positive result.

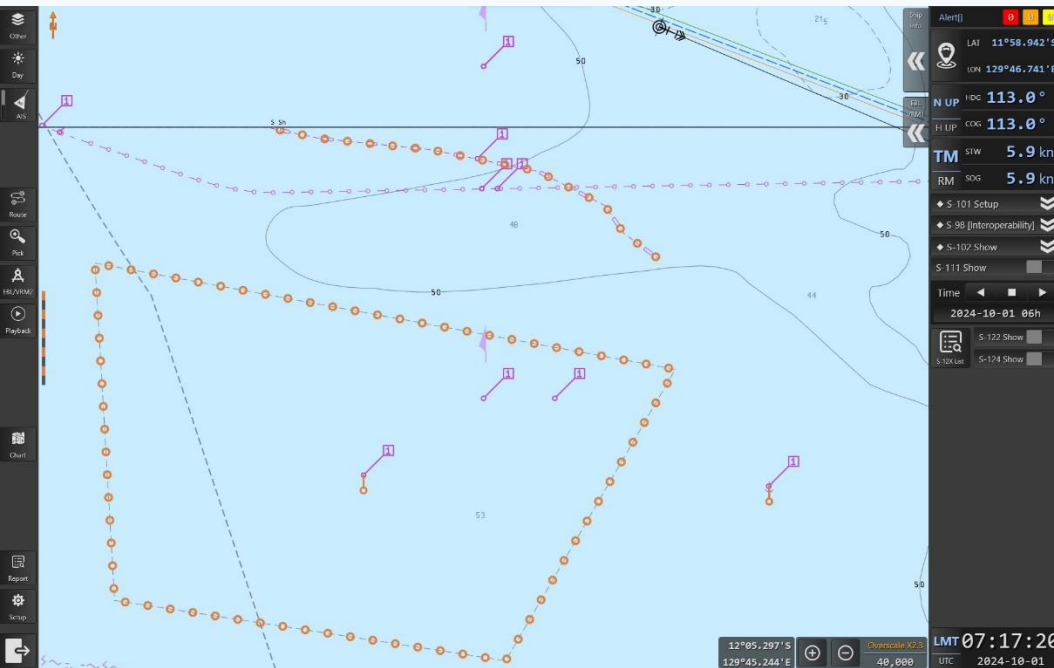


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Demonstration test 1.2 – 101AU00413129



Option

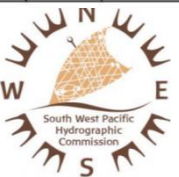
2 Depth Shade	4 Depth Shade	Paper Symbol	Simple Symbol
Plain Line	Symbolized Line	Shallow Pattern	
National Language		Full Light Lines	
Shallow Water Danger		Scale Min	
Accuracy		Highlight Document	
Highlight Info		Update Review	
Highlight Date Dependent		Chart Boundary	
Unknown Object		Text Placement	
Overscale Pattern			

File Name	Ed.	Feature Object and Name	Lat Long	Instructions (take a screenshot or a 3-5 seconds screen record)	Time of verification	Vessel location (Lat, Long degree minute) at point of verification	Results 1	Results 2	Comments by user
101AU00413129	.001	CustomZone	12-03.629 S 129-43.206 E	Update, Add					
101AU00413129	.001	UpdateInformation	12-03.629 S 129-43.206 E	Please provide a photo of the UpdateInformation Object			OK	OK	N.N.
101AU00413129	.001	FerryRoute	12-00.341 S 129-44.820 E	Update, Add					
101AU00413129	.001	UpdateInformation	12-00.341 S 129-44.820 E	Please provide a photo of the UpdateInformation Object			OK	OK	N.N.



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Next Steps

- S-100 Communication Strategy
- Finalise S-100 test cases and scenarios for test bed areas
- OEMs engagement and test bed partners
- Develop test datasets – Phase 1 and Phase 2
- Collaborate with IC-ENC to establish a unified test environment for all IC-ENC members
- Update production tools, processes and staff training to support roll out S-1XX products

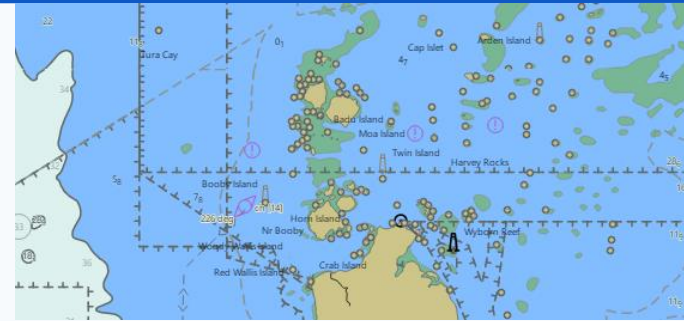
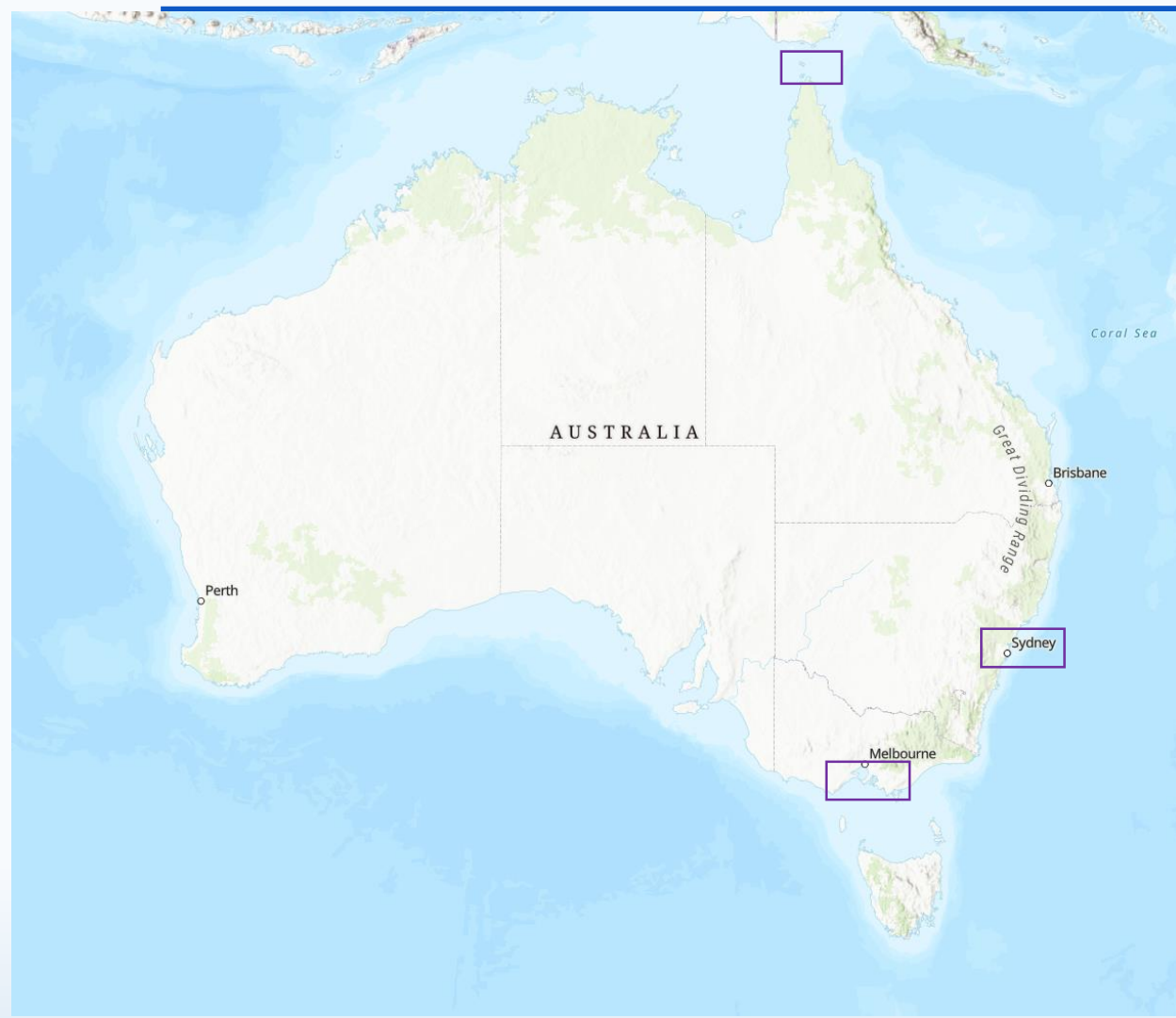


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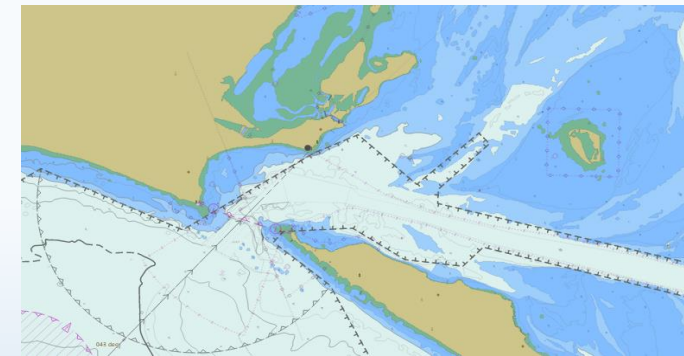
Test Bed Areas



Torres Strait



Sydney (Port Botany)



Melbourne (The Rip)

AHO S-1XX Roll Out

- S-101 and S-102
 - 20 focus areas
 - 29 transit cells
 - 24 port cells
 - 16 S-102 bathymetric surfaces
 - 69 products
- S-104 in areas covered by S-102 bathymetric surfaces (5 locations)
- S-111 in 8 different locations

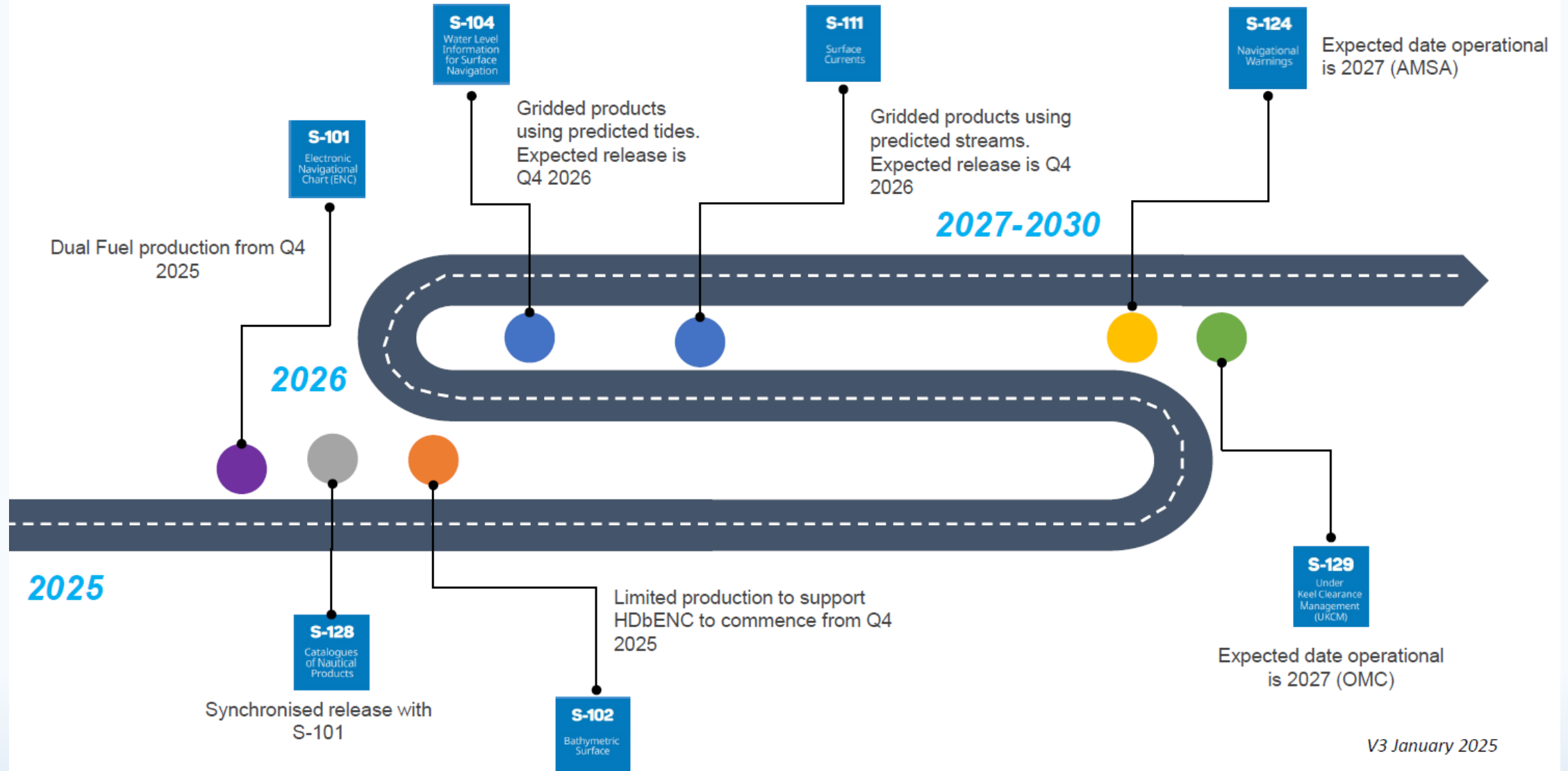


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AU S-100 Timeline



V3 January 2025



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Thank You



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