

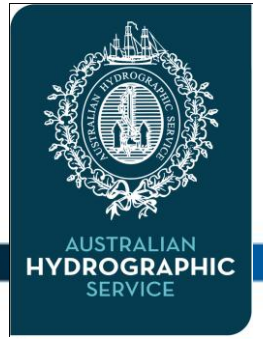
Maritime Claims, Electronic Charting and S-121 Marine Limits and Boundaries

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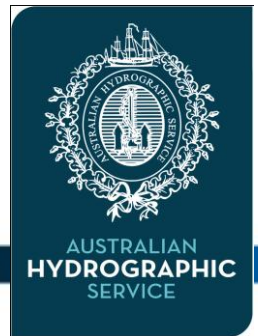
Australian Government
Department of Defence

Topics

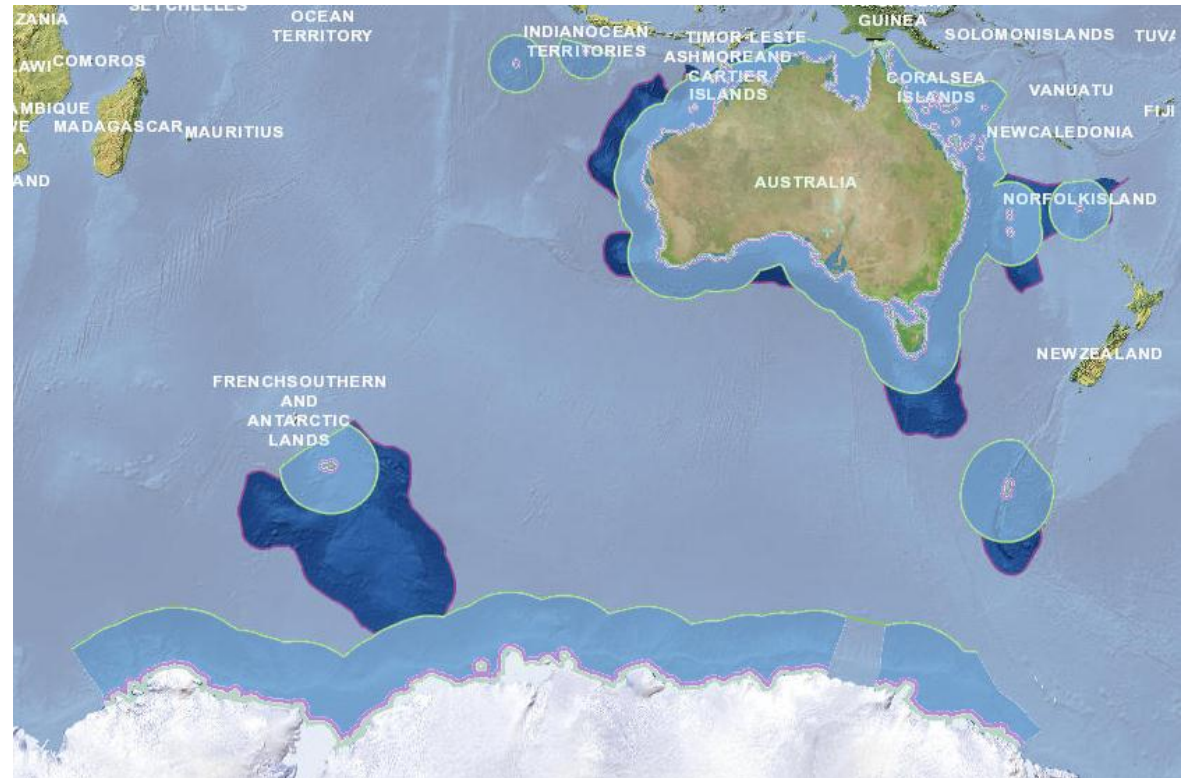


- Background and AHS role in maritime boundaries
- AHS Maritime Boundaries Database development
- S-121 Marine Limits and Boundaries specification

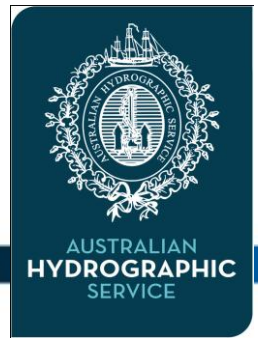
AHS Maritime Boundaries



- AHS does not calculate Australian maritime jurisdictional claims
- These are calculated by Geoscience Australia
- AHS ensures Australian maritime boundaries are published correctly on Australian navigation products

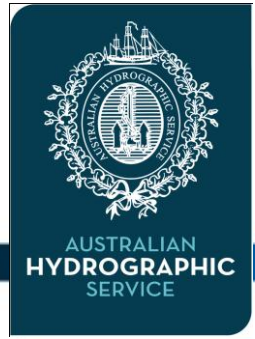


AHS Maritime Boundaries



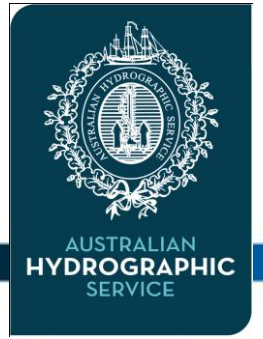
- Australian vessels and aircraft tasked outside Australian waters need to know details of jurisdictional claims in the area
- Traditional sources eg. Published Electronic Navigation Charts (ENCs) are inconsistent. May or may not have accurate claim information included, for a variety of reasons
- Few States publish digital spatial claim information
- Published claims (DOALOS or other) are often not in a format compatible with electronic charting
- Difficulties accurately recreating claims from published information

AHS Maritime Claims Database



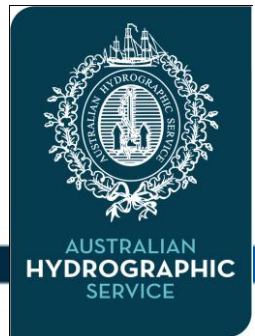
- Based on hybrid S-57, AML, S-101 and draft S-121.
- Esri SDE based. Data stored a broad, generic data schema with a focus on capturing information relevant to all products
- Can export data for Paper charts, ENC's, AMLs and general GIS use
- Export scripts convert data to required file format and schema structure for product compilation

AHS Participation in S-121



- AHS is a stakeholder in the design and implementation of a standard that facilitates the sharing and distribution of official digital representations of maritime claims

S-121 Maritime Limits and Boundaries Overview



Content developed by S-121 working group inc. Canada and Australia

- S121 - product specification for Marine Limits and Boundaries for the administration of the marine domain
- It allows for the representation of marine areas and their associated rights restrictions and responsibilities in alignment with the UN Convention of the Law of the Sea (UNCLOS)
- Also allowing freedom for States to represent their claims and views
- S-121 is based on S-100 and parts of the ISO standard 19152 Land Administrative Domain Model

Purpose of S-121

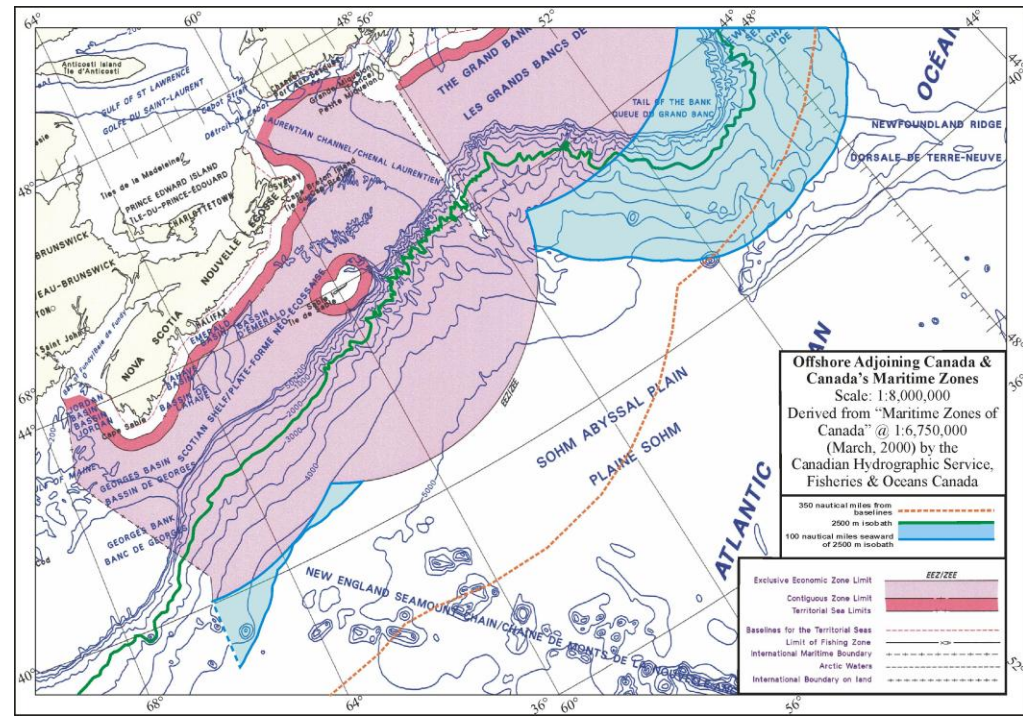
- To allow States to communicate official digital representations of their maritime limits and boundaries
- Designed to be acceptable as a method for States to fulfil their deposit obligations under the Convention



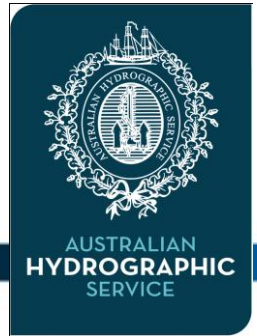
Library and Archives Canada, 1941

S-121 Considerations

- Rigorously apply the provisions of UNCLOS
- Allow flexibility to accommodate diverse implementations of UNCLOS
- Does not seek to resolve disputes
- Be a flexible and extensible model to support other maritime delimitation requirements such as overlapping jurisdiction, joint development and other management areas

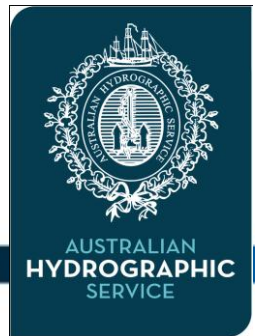


Leverage ISO 19152



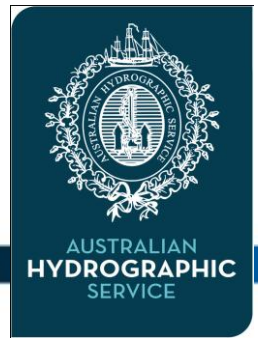
- ISO 19152 Land Administration Domain Model
 - Legal description of Rights, Restrictions and Responsibilities
 - Source referencing and versioning
 - Consistency in the littoral zone

Accessibility



- Compatible with S-101 (Electronic Nautical Charts)
- (Proposed) Simple exchange models that may be used are:
 - GML (structured for easy display and interpretation)
 - KML (easy display and an overlay on an existing map)
 - XML (can be read into a simple tool such as a spread sheet)
 - TDF (Tab delimited file – very very simple)
- Expandable from simple geometry and attribution to complex/abstract data structures – Low cost of entry

Thank you!



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Australian Hydrographic Service



Australian Government
Department of Defence