IHO-S121 Maritime Limits and Boundaries

A standard for the electronic deposit and exchange of maritime limits and boundaries defined under UNCLOS compatible with the ISO-19152 Land Administration Domain Model that together will allow the Seamless Administration of Land and the Oceans.

Mark Alcock
Background

The United Nations General Assembly requested the Secretary General to

“improve the existing Geographic Information System for the deposit by States of charts and geographical coordinates concerning maritime zones, including lines of delimitation, submitted in compliance with the Convention, and to give due publicity thereto, in particular by implementing, in cooperation with the International Hydrographic Organization, the technical standards for the collection, storage and dissemination of the information deposited, in order to ensure compatibility among the Geographic Information System, electronic nautical charts and other systems developed by these organizations.”

A/RES/59/24
The S-121 Standard
The data model as a foundation serving generic use cases

DATA MODEL

USE CASES

Navigation and Enforcement
Legal Declaration
Authoritative Public Data

Marine Spatial Data Infrastructure (MSDI)
One to One relationship

Legal Registry

Spatial Registry
Extended uses for S-121

MSDI

Petroleum Leases

Fisheries Zones

Marine Conservation Areas
Implementation / Operationalisation

- Must be hand in hand with legal institutions and infrastructure
- Ongoing value of IHO S-4
- Datum harmonisation
- Precision and densification
- Data persistence
- Non-Specialist access – due publicity
- OGC Pilot
- Work with developing States to achieve practical implementation
Land Administration

ISO-19152 LADM

ISO-19152 Part 3 (Marine Georeg)

+ MPA
  Fisheries
  Petroleum
  Crimes

Navigation

IHO S-100

IHO S-121
  MLB (Leg/Nav)

IHO S-122
Conclusion