

A large aerial photograph of a city, showing a dense grid of buildings and streets. A river flows through the city, and a large body of water is visible in the lower-left corner.A smaller, inset aerial photograph of a city, showing a dense grid of buildings and streets. A river flows through the city, and a large body of water is visible in the lower-left corner.

ISO/TC 211

Geographic information/Geomatics

Liaison presentation to
IHO HSSC
May 2022

ISO/TC 211

Scope

- Standardization in the field of digital geographic information.
- This work aims to establish a structured set of standards for information concerning objects or phenomena that are directly or indirectly associated with a location relative to the Earth.
- These standards may specify, for geographic information, methods, tools and services for data management (including definition and description), acquiring, processing, analyzing, accessing, presenting and transferring such data in digital/electronic form between different users, systems and locations.
- The work shall link to appropriate standards for information technology and data where possible, and provide a framework for the development of sector-specific applications using geographic data.

Status update: Project activities

WG6 addresses standardization in the field of Geographic Information with respect to Imagery, Gridded and Coverage data and related metadata. The working group standardized aspects of remote sensing and earth observation related to remote sensing sensors including geopositioning of the sensors, calibration and validation of the sensors and validation of the remote sensing data production stream from information capture to data encoding. Standardization includes the structure of grids and the definition of coverage geometry and functions including the encoding of Imagery, Gridded and Coverage data and metadata in various encoding formats.

Working Group 6 Imagery Details

- We have 17 active, preliminary, or published standards or technical specifications in the imagery working group
- 13 published standards or technical specifications (TS'), up from 11 from our last meeting.
- 4 standards or TS' under development
- We will examine updates on the 4 under development

Current ISO/TC 211 / IHO collaboration: standards development(1)



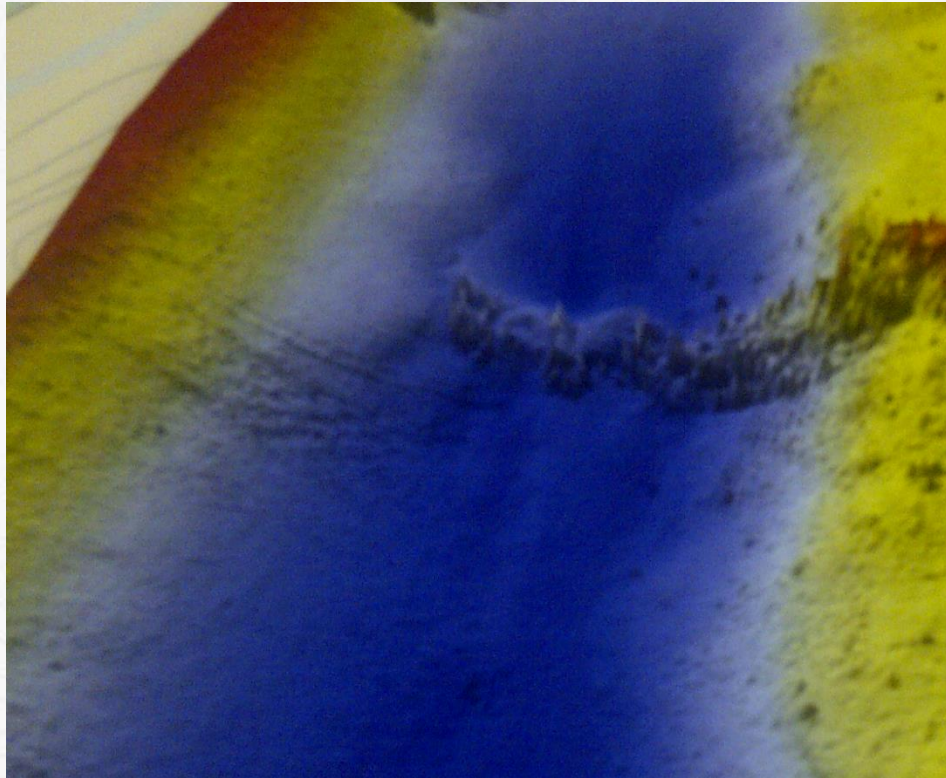
ISO 19135-1 *Procedures for item registration*

- Revision
- Used by S-100 Geospatial Information Registry
- Yong Baek, Doug O'Brien

ISO 19152-3 *LADM Marine space georegulation*

- New project
- largely based on / adopting IHO S-121
- Chris Body, Doug O'Brien
- Expecting: Fiona Bloor & Adam Ashton (UKHO), Jonathan Pritchard (via OGC)

Current ISO/TC 211 / IHO collaboration: standards development (2)



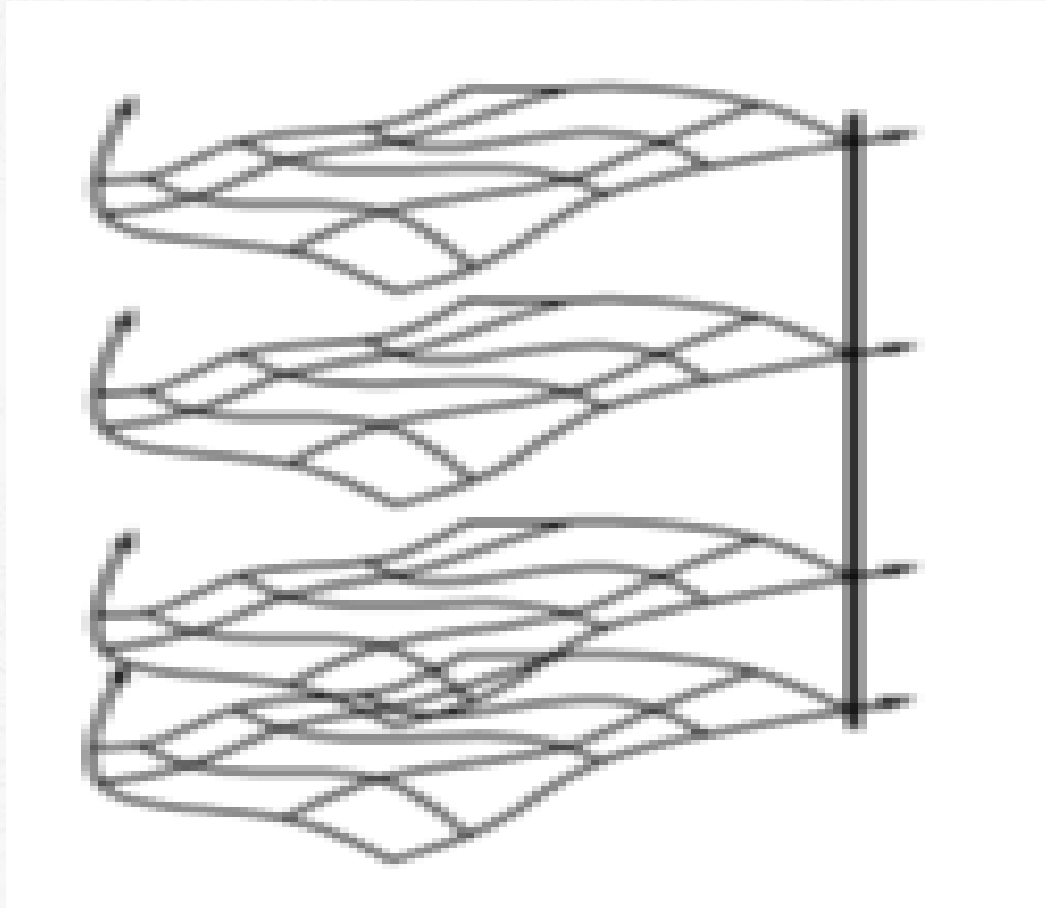
ISO 19130-2 *Imagery sensor models for geopositioning — Part 2: SAR, InSAR, lidar and sonar*

- Due for Revision (next Systemic revision 2024)
- Sonar part contributed by IHO
- Yong Baek, Graham Wilkes

ISO 19159-5 *Calibration and validation of remote sensing imagery sensors and data — Part 5: Sonar*

- Planned project to be led by IHO
- Delayed due to resource constraints
- Graham Wilkes as convener of imagery working group would support guiding IHO leader PL through ISO process

Current ISO/TC 211 / IHO collaboration: standards development (3)



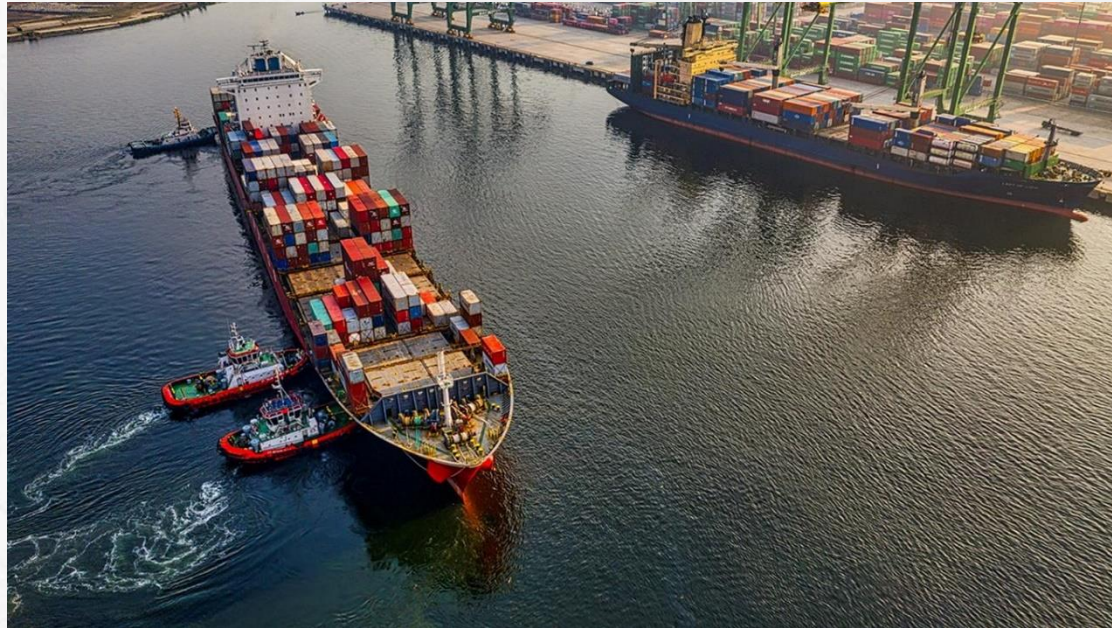
ISO 19123 *Coverage Geometry and Functions*

- Split into a series 19123-1, 19123-2, 19123-3
- Backward compatible but much broader
- S-100 Part 9 based on original ISO 19123
- Affects S-102 and S-111
- Yong Baek, Graham Wilkes

ISO 19129 *Imagery, gridded and coverage data framework*

- S-100 Part 9 based in part on original ISO 19129
- Planned revision in ISO
- Delayed due to resource constraints
- Yong Baek, Graham Wilkes

Current ISO/TC 211 / IHO collaboration: outreach / liaison



UN GGIM for August

- 3-SDO (IHO, OGC, TC 211)
- “Side event” on collaboration to support UN goals e.g.
 - Marine SDI maturity
 - Marine protected areas
- 9 February 2022, Revised Guide to the Role of Standards in Geospatial Information Management unveiled as an online resource for all
 - The OGC, ISO/TC211, and IHO collectively form the Standards Development Organization (SDO) team as recognized by UN-GGIM.

Other current TC 211 projects of interest



ISO 19103 *Conceptual schema language*

ISO 19109 *Rules for application schema*

ISO 19123 *Coverage*

ISO 19144 *Land cover / land use*

Other ISO/TC 211 activities

of interest



ISO SMART project(s)

<https://www.youtube.com/watch?v=r1NcDyB-Qwg>

ISO Online editor pilot

Model driven documentation

<https://github.com/ISO-TC211/AutomatedDocumentation>

Semantic web publication of code lists

Action requested of HSSC

- Note this report
- Invite consideration of IHO's collaboration to the ISO 19159-5 (*Calibration and validation of remote sensing imagery sensors and data – Part 5: Sonar*) revision as a project leader.
- Request IHO MSs to be participated in the upcoming of the ISO Coverage standards and potential development of ISO standards on Sonar Calibration and Validation

Thank you

Questions or Comments Contact us

Standards are developed by the people who need them – that could mean you.

Technical committees include experts from both standards and industry and these experts are put forward by ISO's national members.

Feel free to ask questions on that presented today via Graham Wilkes, Convenor of working group 6 imagery: Graham.Wilkes@nrcan-rncan.gc.ca



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