

Canada S-100 Sea Trials St Lawrence River Mid-Trials Report



Canadian Hydrographic Service (CHS)
GC Data Conference, February 2026

Credits: Léandre Morin

Outline



Overview & Objectives



Our S-100 data offer



Achievements



Ongoing Activities



Feedback & Outcomes



Conclusion



Credits: Léandre Morin

S-100 Sea Trials - Overview

- **Offer:** S-100 Route Monitoring Layers
- **Duration:** June – November 2025
- **Approved by:** International Hydrographic Organization (IHO)
- **Who is involved?**
 - Canadian Hydrographic Service
 - Canadian Coast Guard
 - Teledyne Geospatial
 - PRIMAR
 - SEAiQ, OSI
 - Others



CIOOS
CANADIAN INTEGRATED
OCEAN OBSERVING SYSTEM



Available S-100 Products & Services



Available S-100 Products & Services



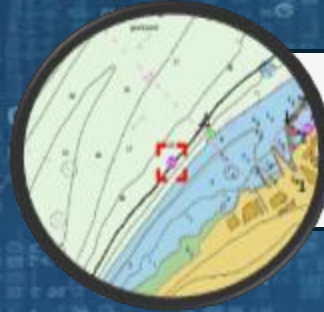
S-101 – Electronic
Navigational Charts



S-111 - Surface Currents



S-102 - Bathymetric
Surfaces



S-124 Navigational Warnings



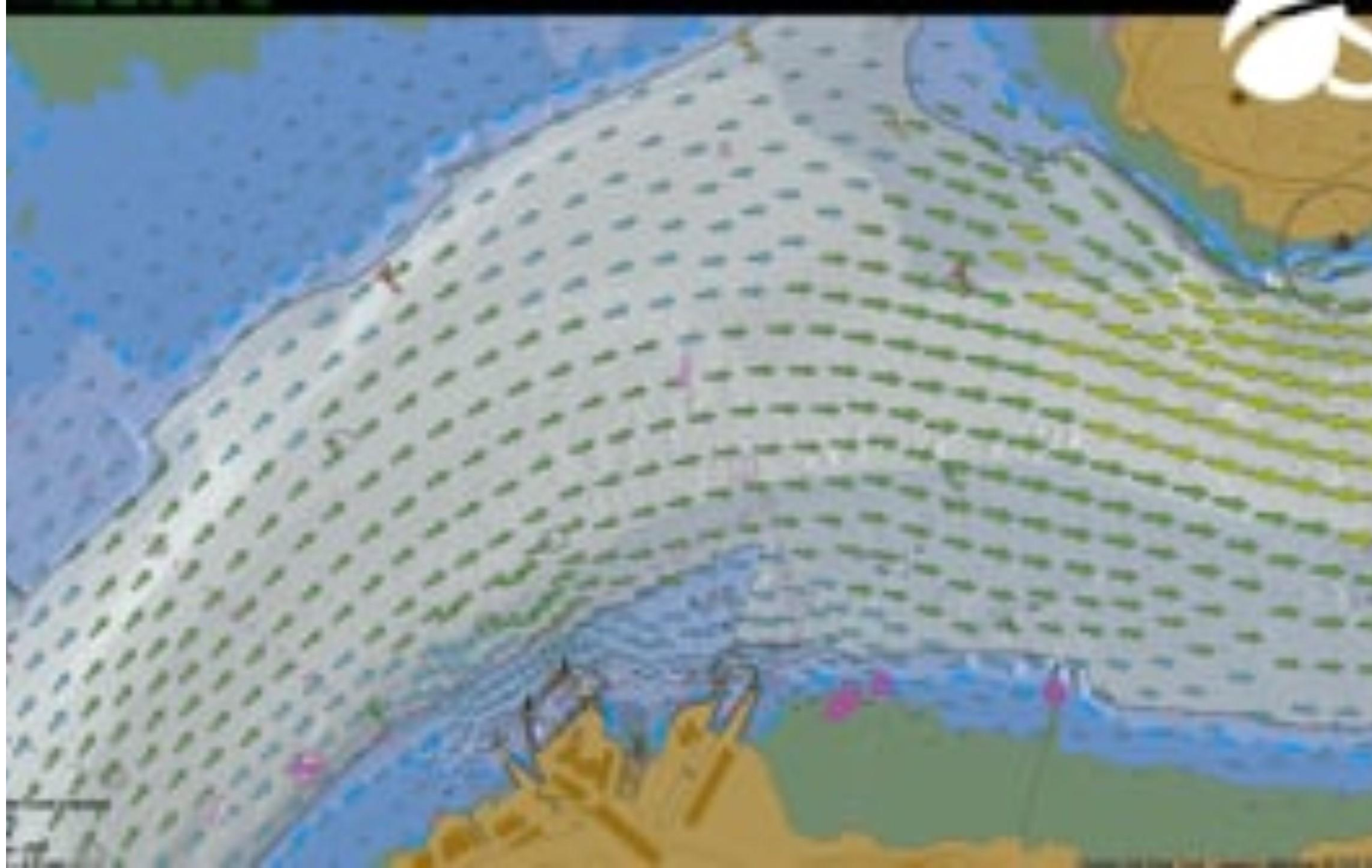
S-104 - Water Level
Information



S-128 Catalogue of
Navigational Products



S-129 Under Keel Clearance
Management (UKCM) Information



S-100 Sea Trials Objectives – Part I

What This Means for End-Users

- Discovery of S-100 products
- Testing equipment and software
- Obtaining the data from a live subscription
- Exploration of New Possibilities
 - Assess how new S-100 products assist navigation/operations
 - Acknowledge overall improvements to navigation safety
- Integration with Existing Systems
 - Identify potential issues or areas for enhancement
 - Evaluation of System Performance
 - Ease of use



Are we ready for January 2026?

S-100 Sea Trials Objectives – Part II

What This Means for Software Manufacturers and Data Producers

- Adoption of the latest product specifications
- Trying out S-100 tools and procedures
- Integration with Existing Systems
 - Identify potential issues or areas for enhancement
 - Evaluation of System Performance
- Making adjustments from feedback
 - Specifications + Metadata
 - Tools and Procedures
 - Training / Acquiring expertise for the Production Teams

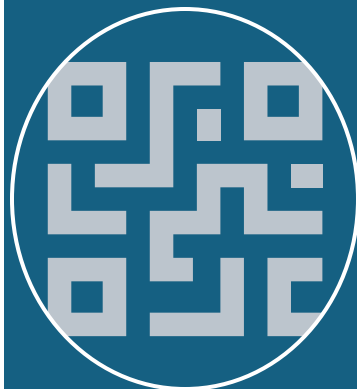


Are we ready for January 2026?

Key Milestones & Achievements



IHO
Approval



Sample
Dataset
+
Feedback



Dedicated
Website
+
LinkedIn
Channel



Pre-Trials
Registration
opens



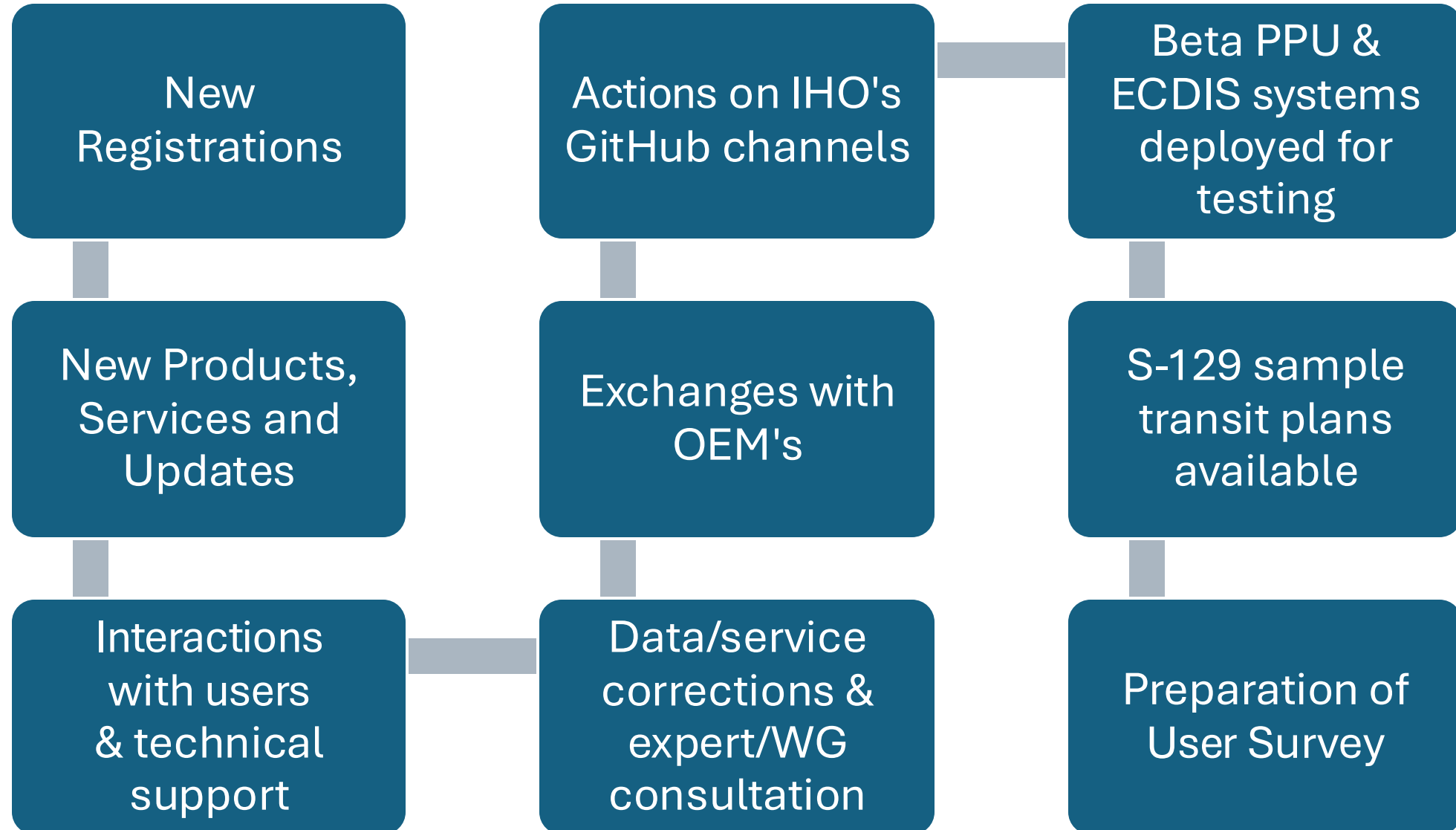
Online
Data
Service
goes live
as
planned



OEM
partners
joined the
Trials'
Team



Ongoing activities





Some Statistics (August 2025)

**51 registered
users**

**764 LinkedIn
subscribers**

**1300 new visits on
the website**

25 issues flagged

2152 datasets

**7 systems under
evaluation**

Issues flagged so far...

Data & Catalog Coding Issues

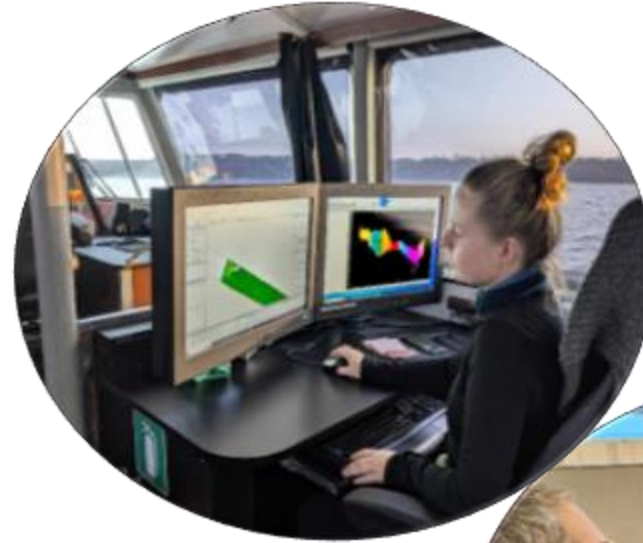
S-101 / S-102 Specifics

S-104 to S-111 File Management

S-111 Specific Concerns

Other Standards

Data Provider & User Practices



Credits: CHS Staff



Credits: CHS Staff



Credits: Maritime Simulation and Resource Centre

Outcomes & Actions



Issues
compiled &
Final report



Potential
technical
sessions



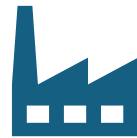
Promoting
registration &
contributions



Refining
tools &
procedures



Building
S-100
expertise



OEMs
involvement



Credits: Pink Candy

Reality Checks So Far : The good points



- ✓ Trials launched on time
- ✓ Immediate onboarding by local users & OEMs
- ✓ Early feedback from static dataset enabled quick adjustments
- ✓ Stable tools/procedures for production teams; only minor tweaks needed
- ✓ Technical exchanges with OEMs led to beta builds with fixes
- ✓ Real-life setup adopted to ensure January 2026 readiness
- ✓ Agile feedback loop with fast response from leads/experts
- ✓ Growing interest: more users & OEMs joining

Reality Checks So Far : The flip side

- X Many were unprepared for the scope of the Trials
- X Few OEMs actively participating
- X Most systems don't yet support full Phase 1 S-100 suite
- X Some product specs released after Trials began
- X Validation/portrayal rules still in development
- X S-100 not yet integrated in navigation education
- X Limited S-100-ready open-source tools; GIS apps used as workaround





Conclusion

- Testing the S-100 platform for modern & safe navigation
- St. Lawrence River ideal for Trials
- Real S-100 data service & equipment tested in live conditions
- Team excited and grateful for participation

Resources

PRIMAR

- Register by contacting:
support@primar.org

Sea Trial Website

- [Information & Updates about the Trials](#)
- Links about related S-100 topics
[S-100 Products and services](#)

LinkedIn: **Canada S-100 Sea trial HUB**
<https://www.linkedin.com/groups/10012018/>

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