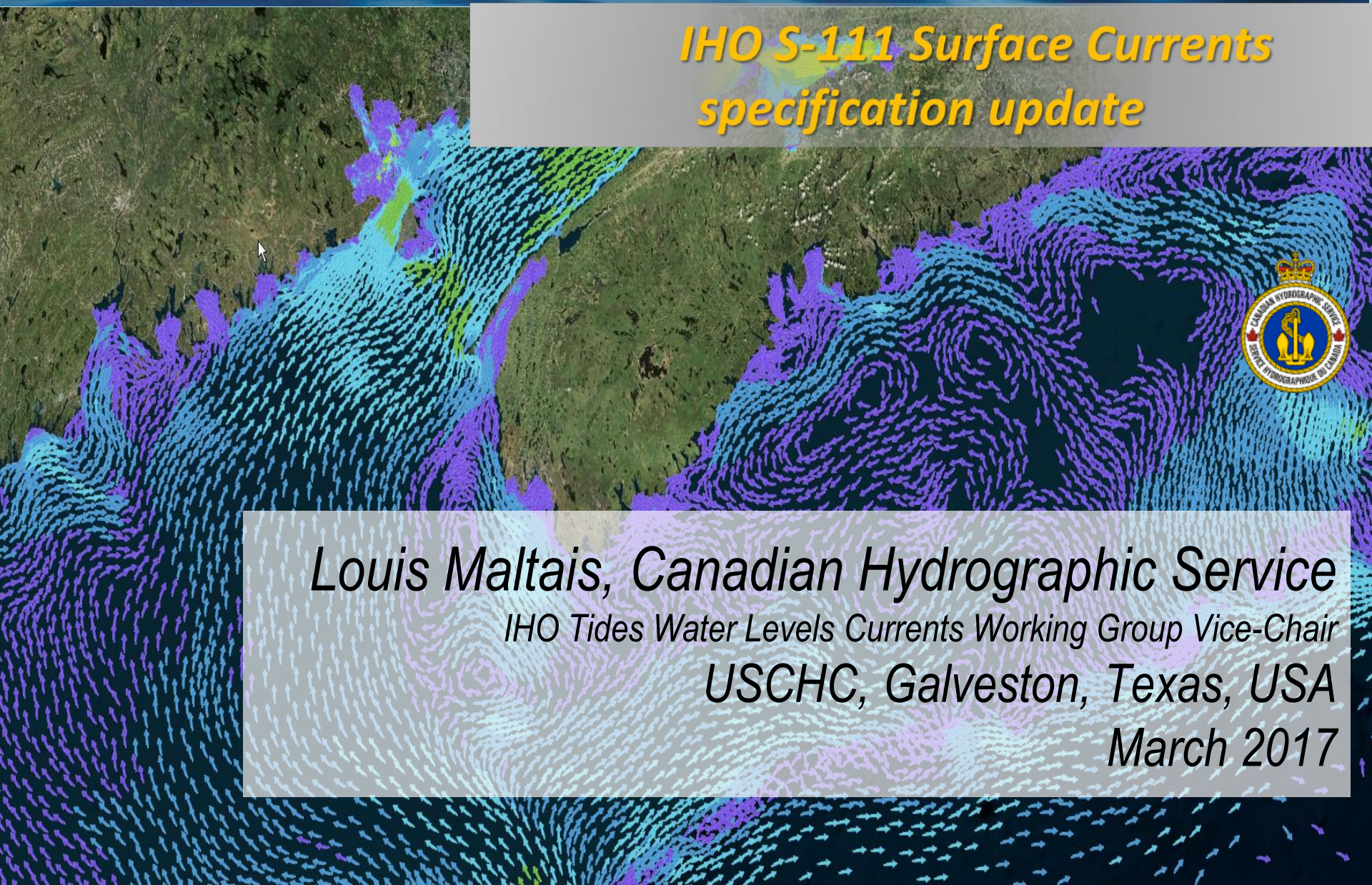
Pêches et Océans Canada | Fisheries and Oceans Canada

IHO S-111 Surface Currents specification update



Louis Maltais, Canadian Hydrographic Service

IHO Tides Water Levels Currents Working Group Vice-Chair

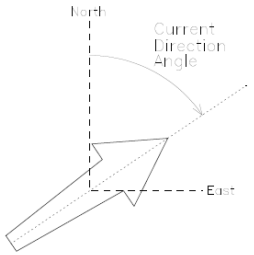
USCHC, Galveston, Texas, USA

March 2017

Plan

- S-111 Surface currents specification status
- Tests Datasets
- Use of Korea S-100 viewer and SLGO validator
- Portrayal examples
- Next steps

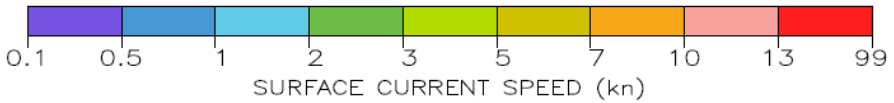
S-111 Surface currents specification status



-36 metadata entries
-Supports point, point set, trajectory, grids, unstructured grids
-Supports predictions, forecasts, observations
-S-111 to be submitted to IHO members states in 2017

Table 9.1 – Speed ranges (knots) and RGB colour values for the 9-step display.

Step	Minimum Speed (kn)	Maximum Speed (kn)	Appx. Interval (kn)	Colour Scale Intensity			Displayed Colour
				Red	Green	Blue	
1	0.10	0.49	0.4	118	82	226	
2	0.50	0.99	0.5	72	152	211	
3	1.00	1.99	1	97	203	229	
4	2.00	2.99	1	109	188	69	
5	3.00	4.99	2	180	220	0	
6	5.00	6.99	2	205	193	0	
7	7.00	9.99	3	248	167	24	
8	10.00	12.99	3	247	162	157	
9	13.00	99.99	87	255	30	30	



Canada

S-111 Tests Datasets on IHO website now

US

Time series at a few fixed locations
Fictive Data
4 stations
6 minutes interval

Regularly gridded data
Lake Ontario
25 x 61 grid
6 hours of data

Irregularly gridded data
Chesapeake Bay
1560 data points
6 hours of data

Argo surface drifter data
Pacific
384 data points

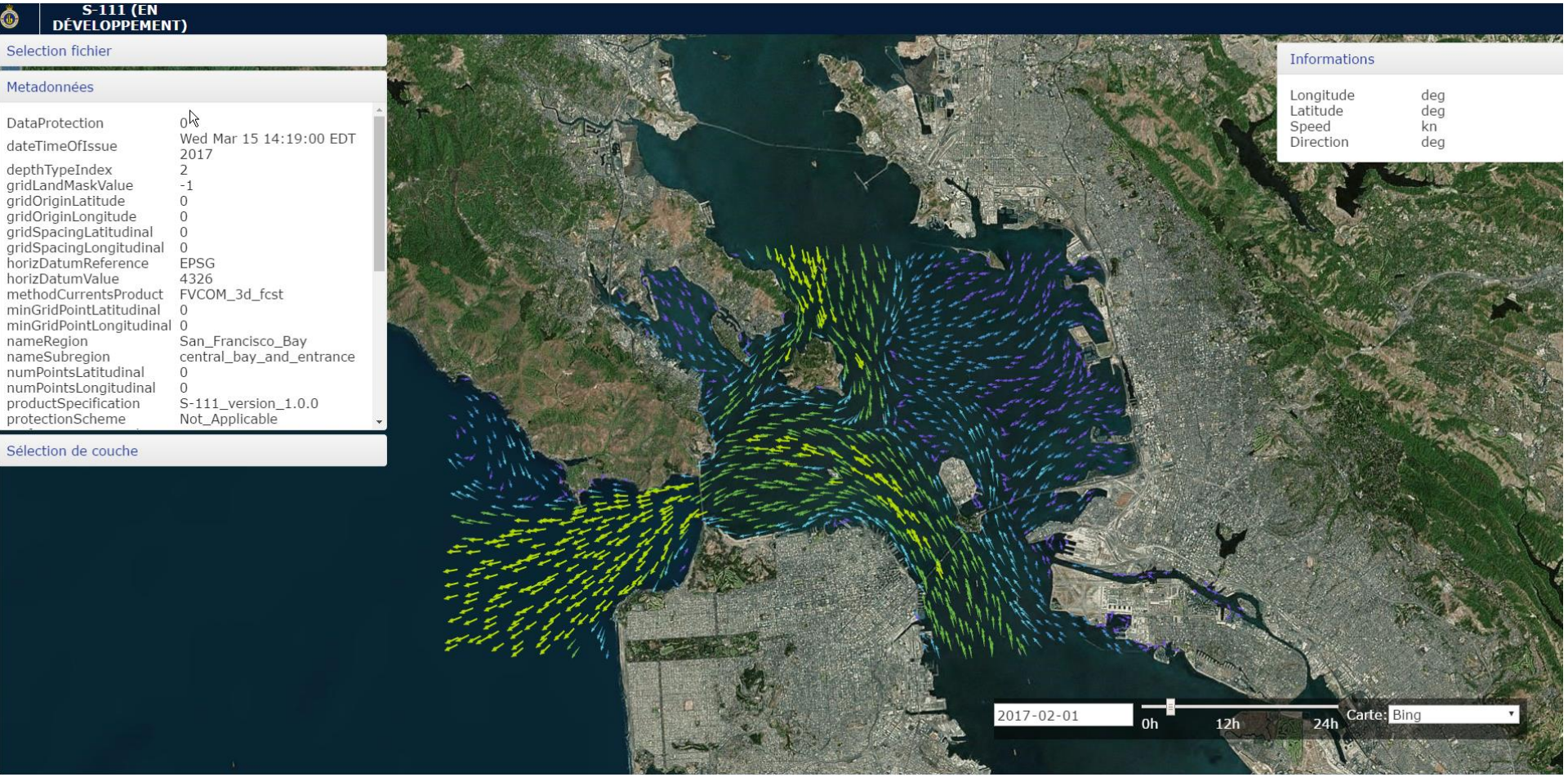
Canada

Hindcast of West Coast
72963 data points
24 hours of data
30 Mo

Hincast of East Coast
27016 data points
24 hours of data
10 Mo

2017 Currents predictions of all stations in Canada
23 stations
15 minutes interval
12 Mo, comp. 1.5 Mo

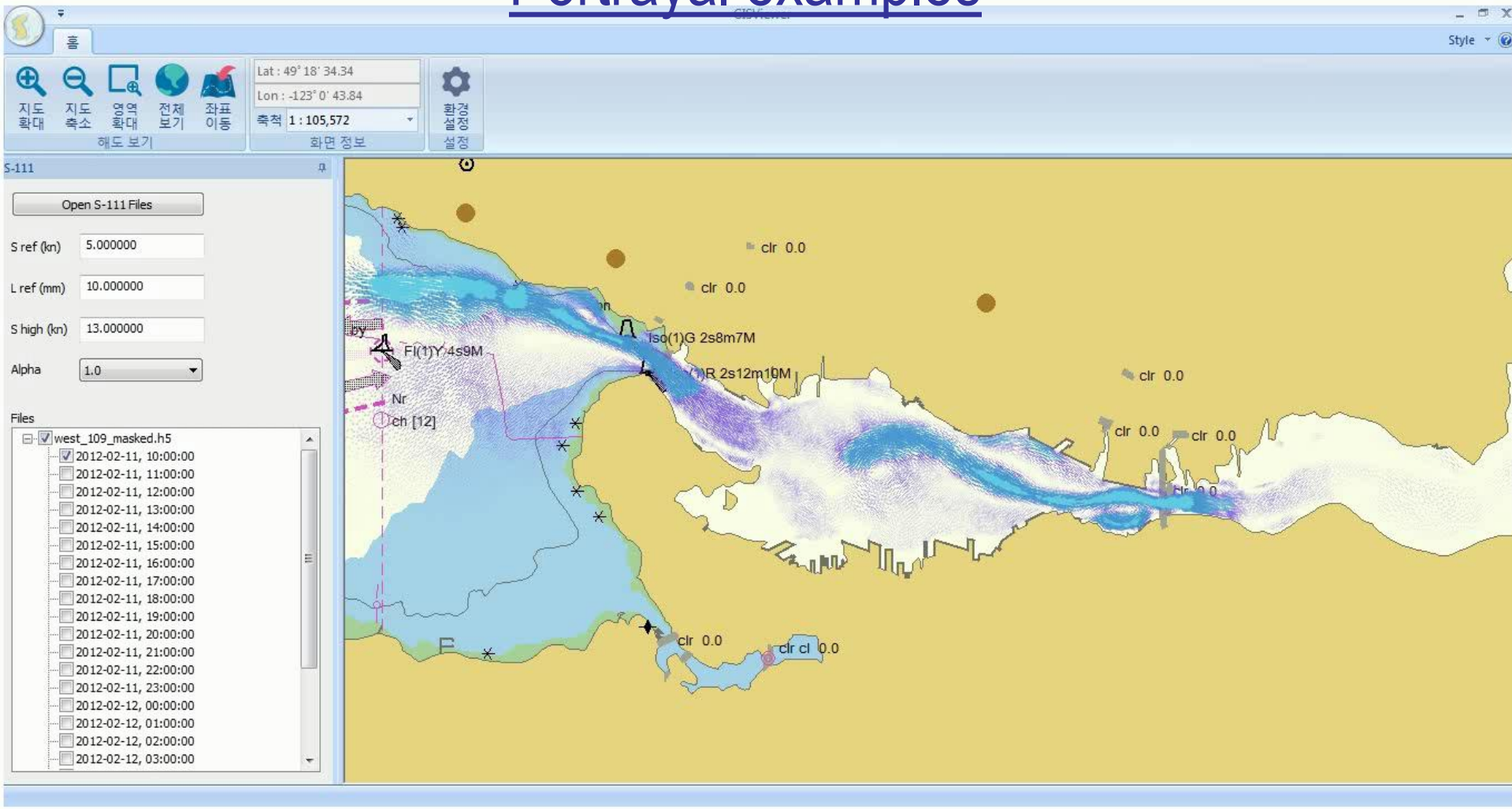
Use of Korea S-100 viewer and SLGO validator



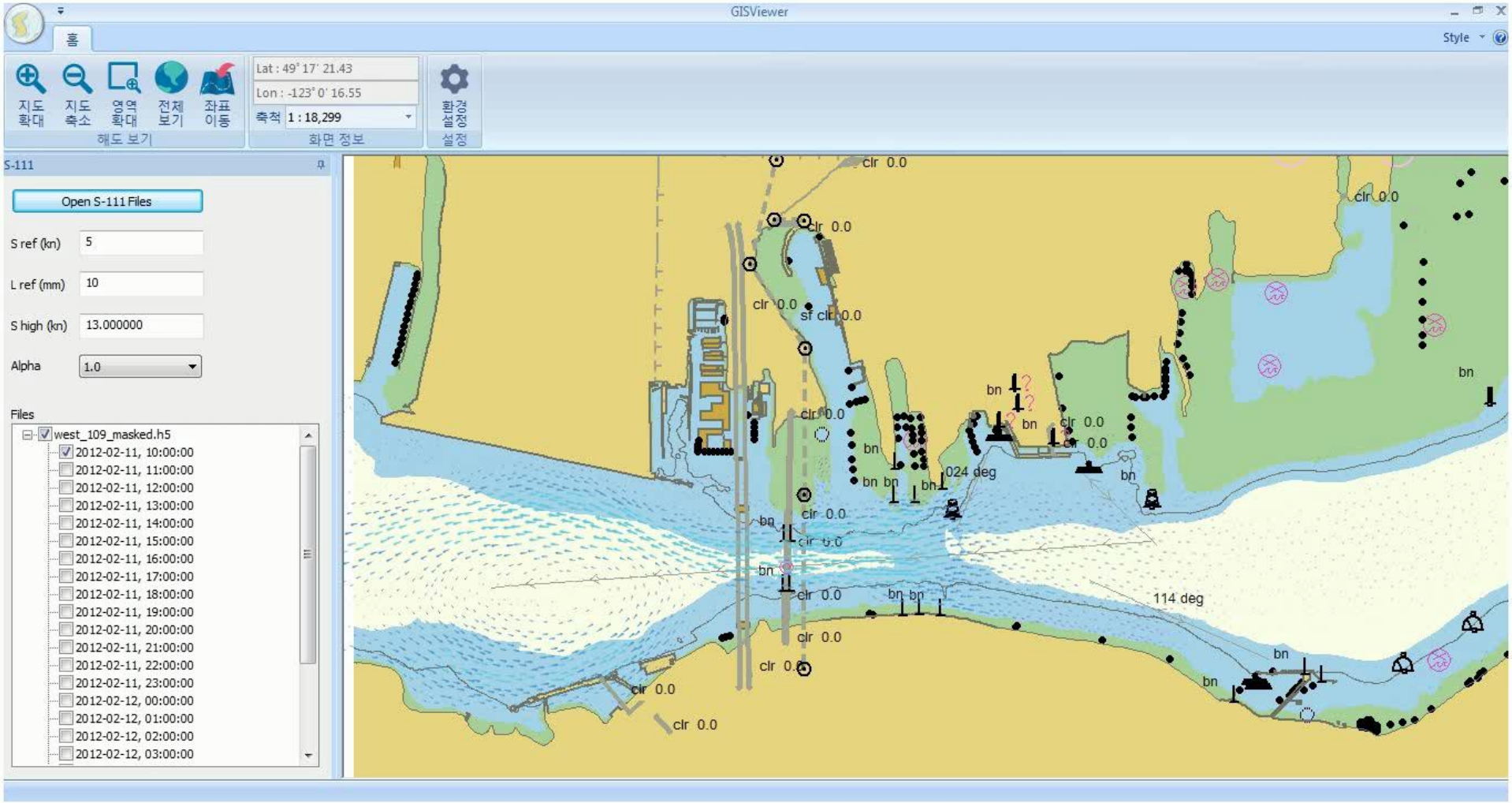
Canada

Use of Korea S-100 viewer and SLGO validator

Portrayal examples



Portrayal examples



Portrayal examples

Canada

Next steps

TWCWG2 in Canada in May
Propose S-111 version 1.0 to members states
CHS to support manufacturer work on S-111/S-102/S-104 via simulation center (pilotage training facility)
Re-use same file structure for Water Levels
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