



NATIONAL CENTRE OF EXPERTISE ON MARITIME PILOTAGE

Bringing together and sharing the expertise
of maritime pilots, to ensure that Canada benefits
from the most professional pilotage service possible

An aerial, high-angle photograph of the deck of an oil tanker ship. The deck is painted a bright orange-red color and is filled with a complex network of orange-painted pipes, valves, and machinery. A central white staircase leads down from the upper deck. The ship is moving through a large body of water under a cloudy sky. The text is overlaid in white on the central part of the image.

The National Centre of Expertise on Maritime Pilotage is the technical body of the Canadian Marine Pilots, bringing together the extensive technical expertise and professional know-how of Canada's 450 licensed pilots, from Newfoundland to Vancouver Island.

Our work

Pilotage Procedures and Techniques, Technology, Research and Innovation

- Responsible for setting guidelines on key technical aspects of the piloting profession
- Improves operational safety and efficiency in Canada's ports and waterways
- Develops best practices on pilotage procedures such as pilot transfers to and from vessels
- Position statements on emerging questions such as the conditions in which Marine Autonomous Surface Ships should operate


Aims to improve operational safety and efficiency in Canada's ports and waterways, and to ensure that Canada's pilots and their local organizations continue to be world-leaders in pilotage innovation

Government and industry

The Centre provides government with advice on key matters related to the technical dimension of piloting, and on matters affecting the exercise of the profession.

The Centre also works with industry to optimize operational parameters, for example in respect of pilotage practices and procedures, and the development and operation of essential marine infrastructure.



An aerial photograph of a port area, heavily overlaid with a semi-transparent blue filter. The image shows numerous stacks of colorful shipping containers in shades of blue, red, green, and purple. A multi-lane bridge with several cars is visible, crossing over a body of water. In the water, a tugboat is pulling a barge. The overall scene represents maritime logistics and infrastructure.

The Centre's ability to bring together and reflect the extraordinary diversity of local skills, experience and professional expertise from all of Canada's pilotage districts is its greatest asset.

To achieve this, it relies on its key partners.

Our Partners





**NATIONAL CENTRE OF EXPERTISE
ON MARITIME PILOTAGE**

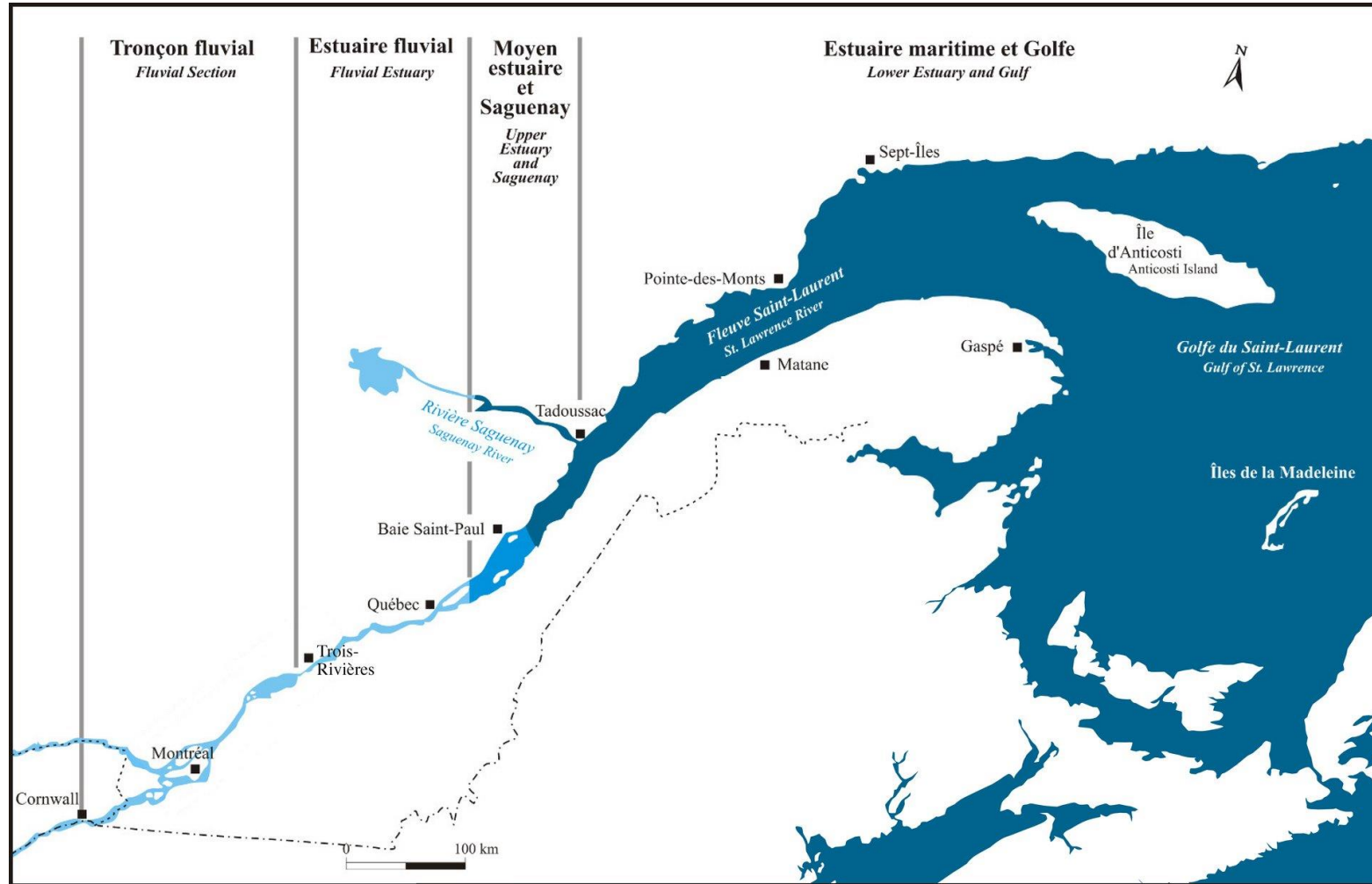
PILOT PORTABLE UNITS

**VN-301 DIRECTIVES
INTEGRATION PROJECT**

ANPRA 2023

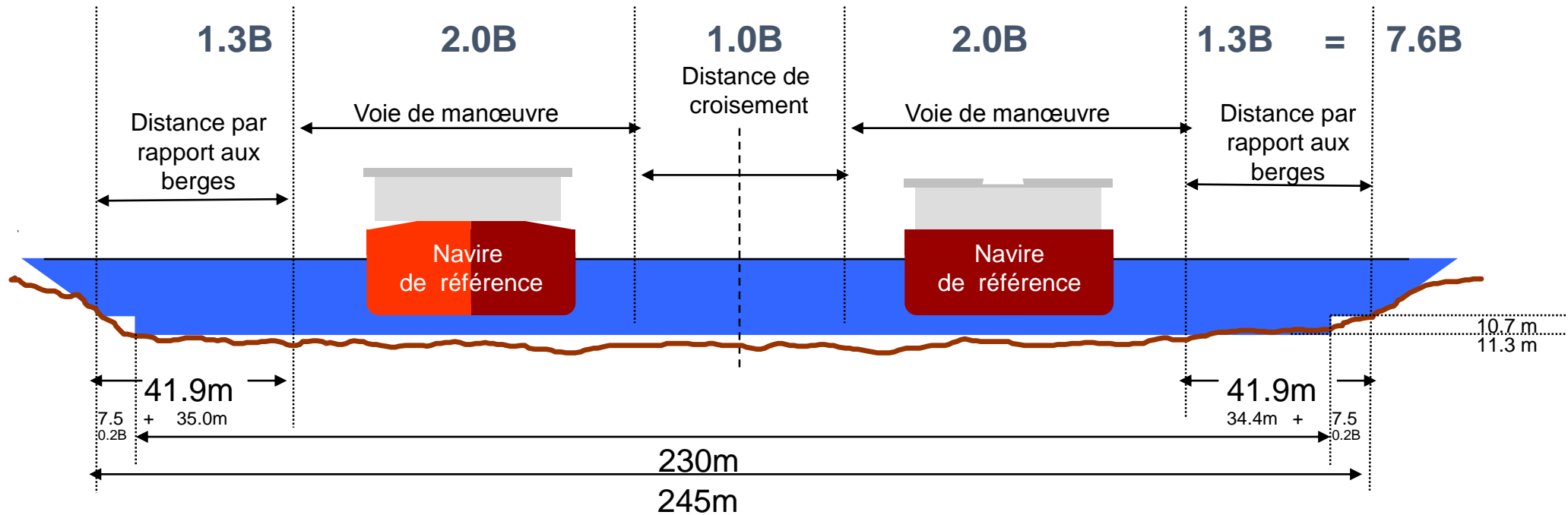


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Post Panamax Vessel in the St-Lawrence River

Coast Guard Waterway Design Guidelines



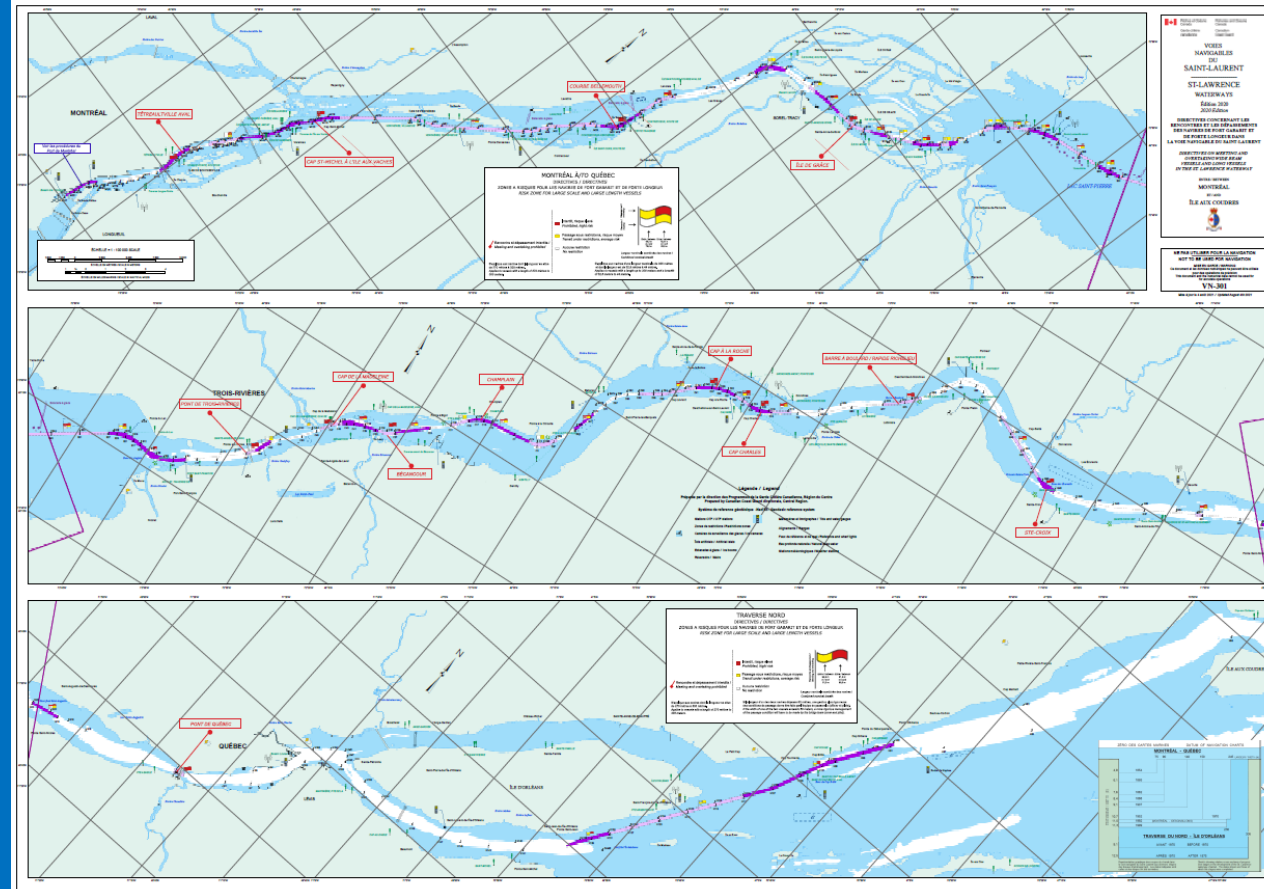
Reference vessel
 $B_{max} = 32.2m$

Risk Study

- A risk study was conducted and a Working Group was formed between Canadian Coast Guard, Transport Canada, Laurentian Pilotage Authority and the pilots corporations, resulting in guidelines for the passage of Post-Panamax vessels, imposing certain restrictions where vessels cannot meet or pass each other.

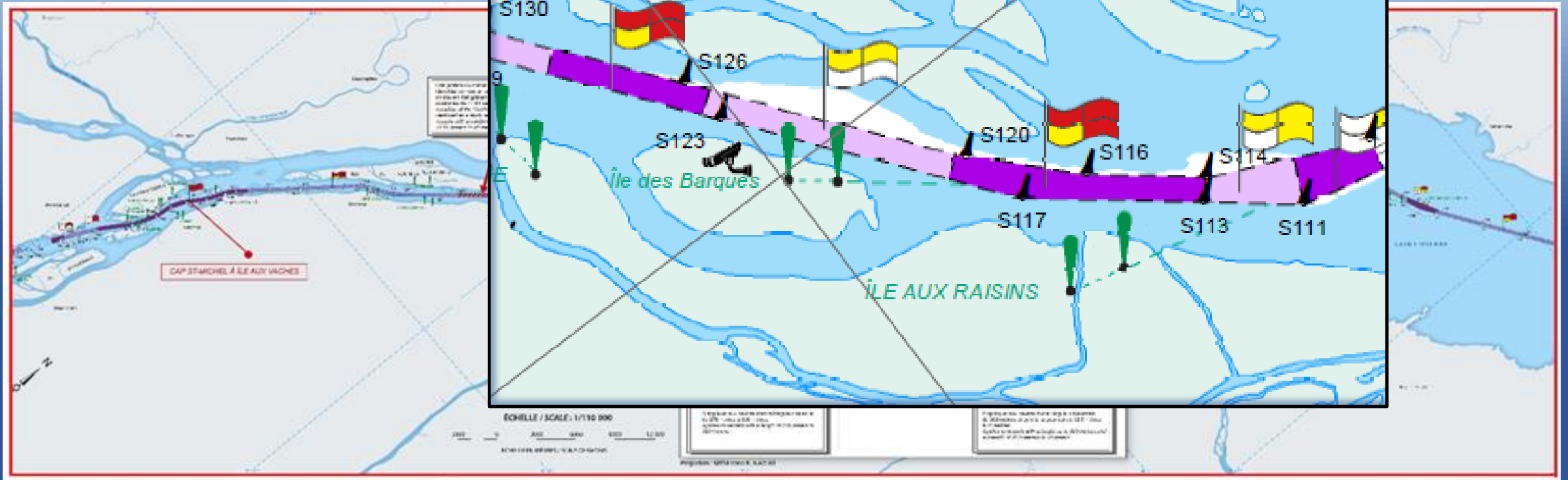


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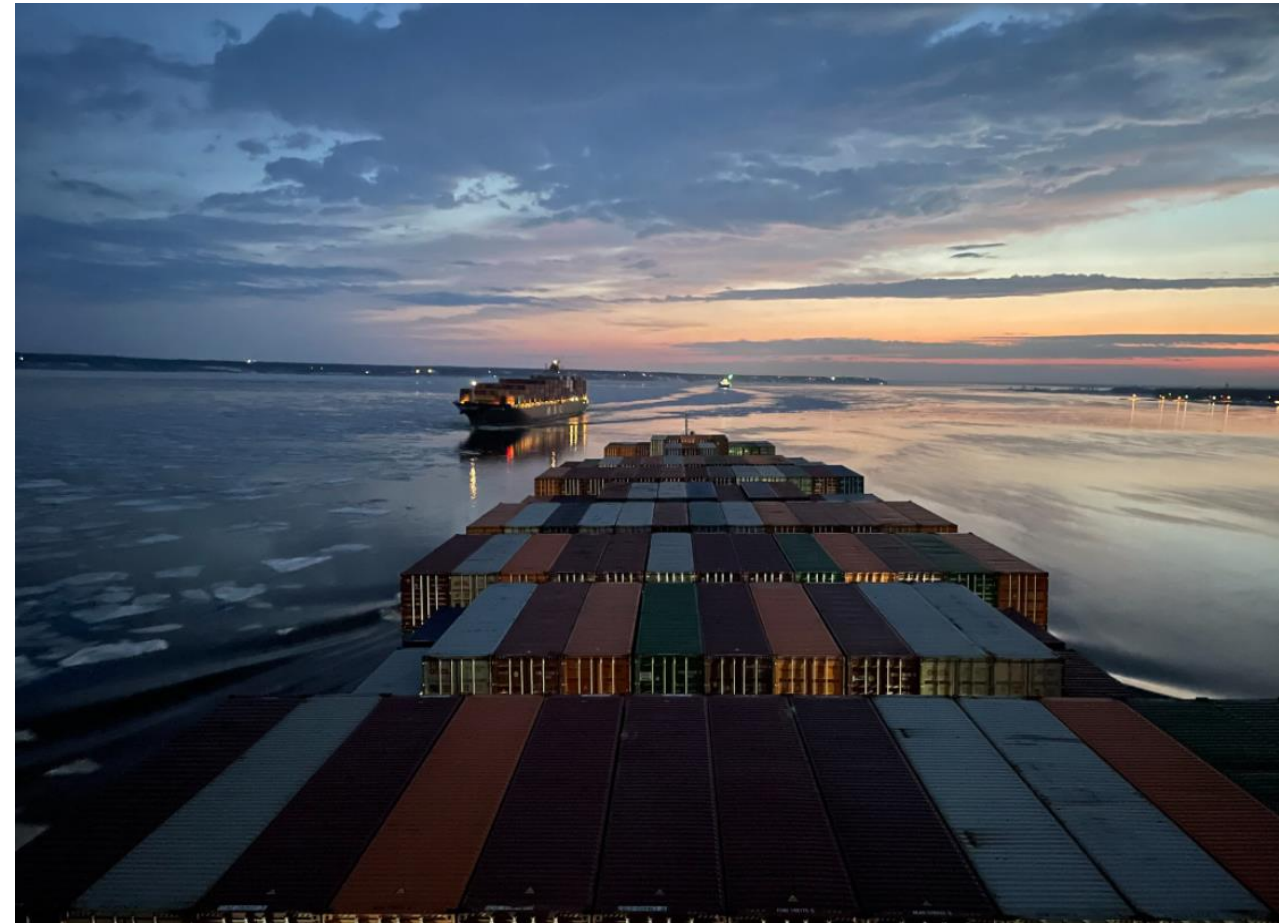
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PILOTES
SAINT-LAURENT CENTRAL

NAVIGATION GUIDELINES - VN301



New tools to face a more complex environment

- Graphical Integration of VN-301 in the PPU
- Improved «Meeting Point» function
- VN-301 meeting checks



Technical Committee

CPSLC



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PILOTES
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The project and its partners

- The Laurentian Pilotage Authority
- Navsim Technology is the developer of the Argus software
- Mid St-Lawrence Pilots technical committee



Administration
de pilotage
des Laurentides

Laurentian
Pilotage
Authority

NavSim
TECHNOLOGY



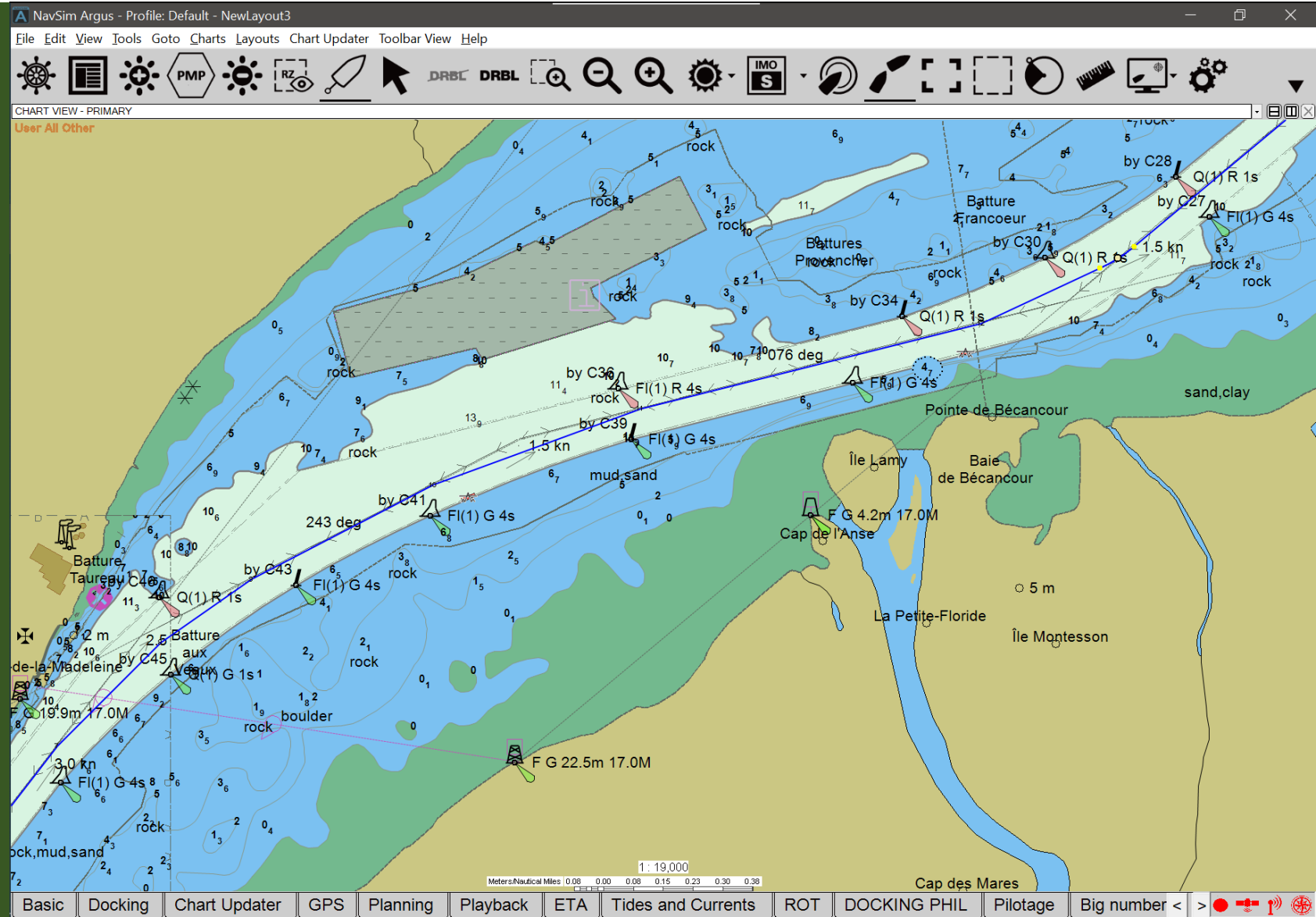
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Essential Characteristics



Usability

Reliability

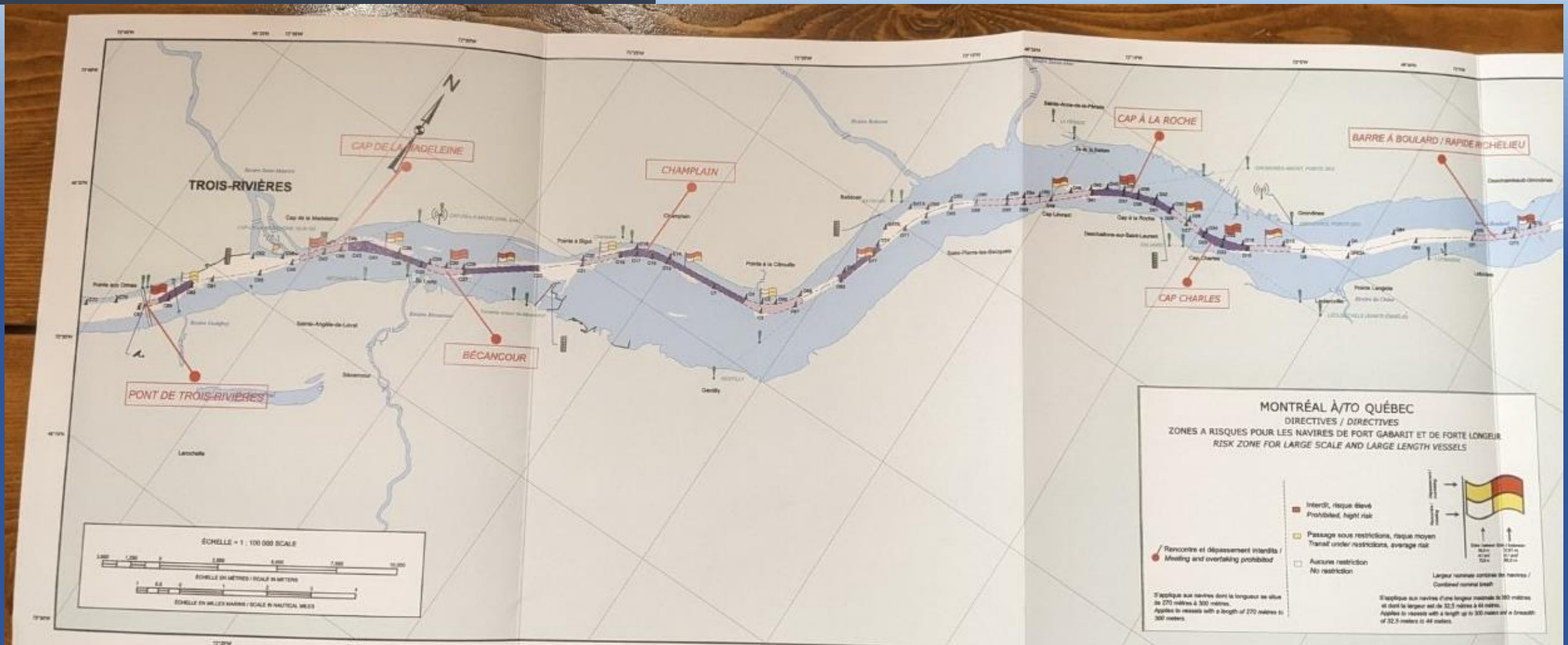


**NATIONAL CENTRE OF EXPERTISE
ON MARITIME PILOTAGE**

VN-301

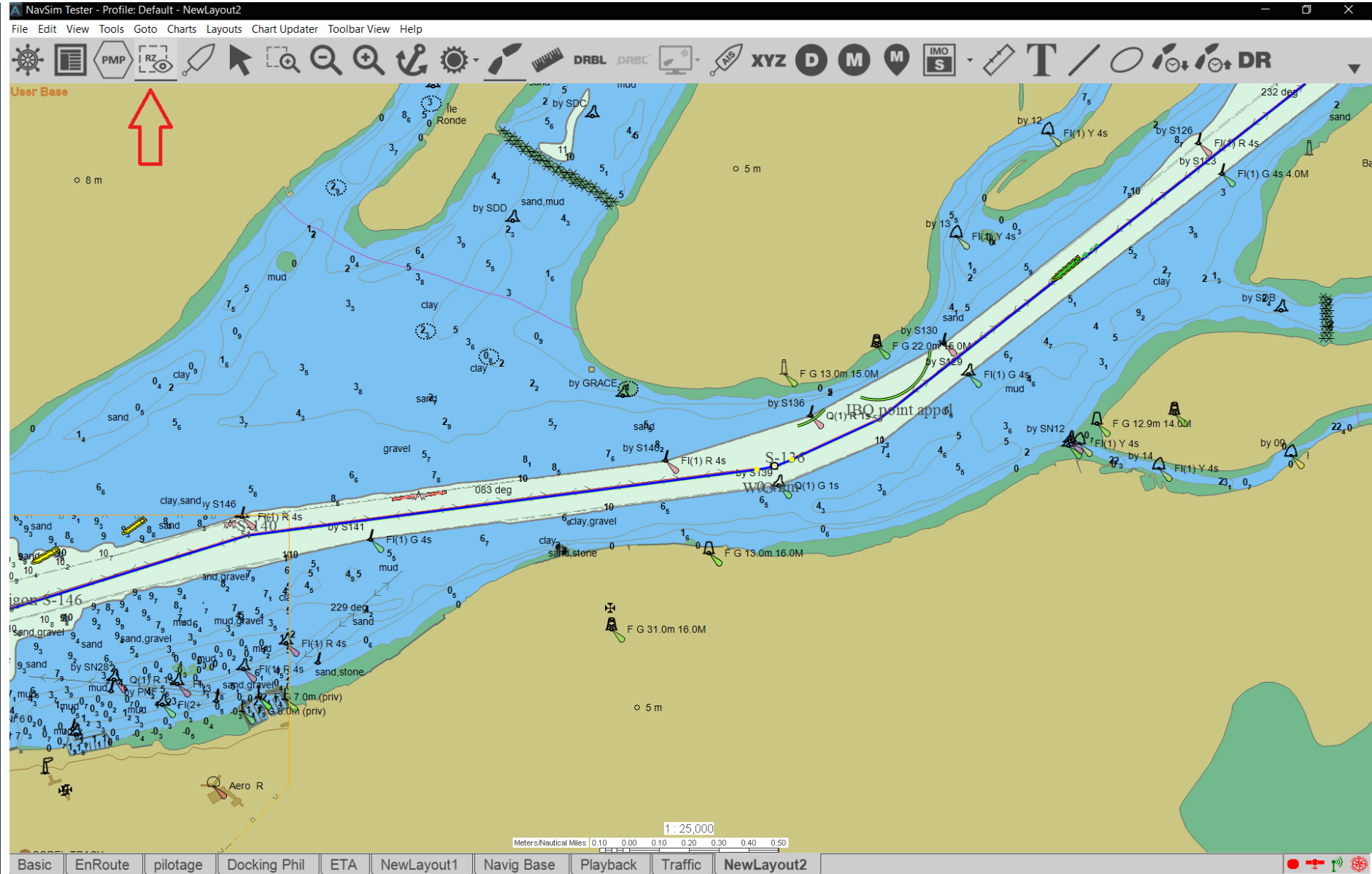
Graphical Integration

BEFORE



VN-301 Integration

NOW



VN-301 Integration

Before

MONTRÉAL À/TO QUÉBEC
DIRECTIVES / DIRECTIVES
ZONES A RISQUES POUR LES NAVIRES DE FORT GABARIT ET DE FORTE LONGUEUR
RISK ZONE FOR LARGE SCALE AND LARGE LENGTH VESSELS

- Interdit, risque élevé
Prohibited, high risk
- Passage sous restrictions, risque moyen
Transit under restrictions, average risk
- Aucune restriction
No restriction

**Rencontre et dépassement interdits /
Meeting and overtaking prohibited**

S'applique aux navires dont la longueur se situe de 270 mètres à 300 mètres.
Applies to vessels with a length of 270 meters to 300 meters.

Entre / between 65.0 m 72.8 m
Entre / between 72.8 m 88.0 m

**Largeur nominale combinée des navires /
Combined nominal breadth**

S'applique aux navires d'une longueur maximale de 300 mètres et dont la largeur est de 32,5 mètres à 44 mètres,
Applies to vessels with a length up to 300 meters and a breadth of 32,5 meters to 44 meters.

Risk Zone Properties

Risk Zone Manager

Name:

Sector:

Description:

Color:

Transparency:

Locked Source: Admin

Risk Matrix Rules

Meeting & Overtaking Restrictions

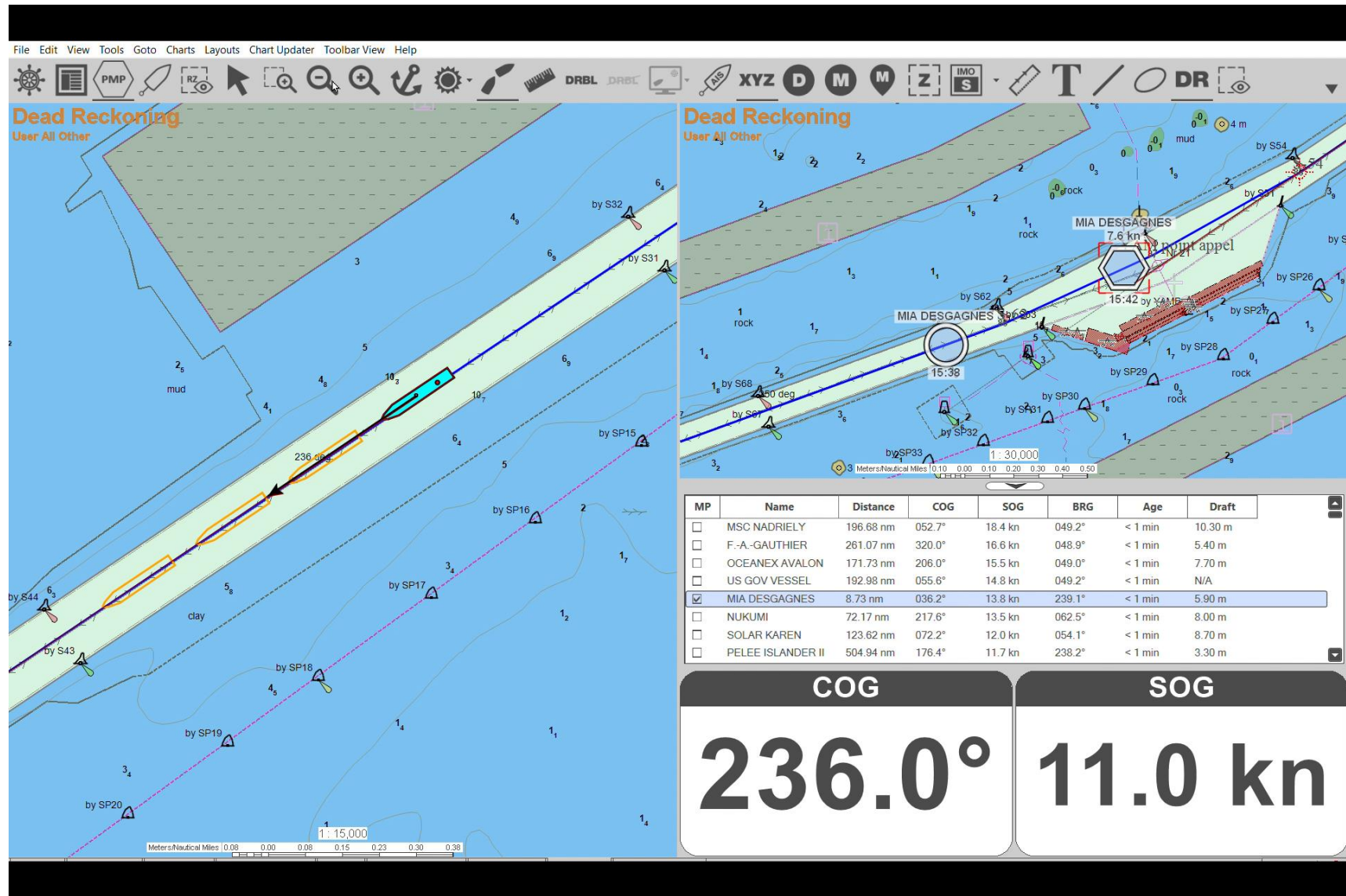
Overtaking	<input type="button" value="Prohibited High Risk"/>	<input type="button" value="Prohibited High Risk"/>	
Meeting	<input type="button" value="No Restrictions"/>	<input type="button" value="Proceed Under Caution Average Risk"/>	
Combined Beam	Between <input type="text" value="65"/> m <input type="button" value="▲"/> <input type="button" value="▼"/>	And <input type="text" value="72.6"/> m <input type="button" value="▲"/> <input type="button" value="▼"/>	Between <input type="text" value="72.61"/> m <input type="button" value="▲"/> <input type="button" value="▼"/> And <input type="text" value="88"/> m <input type="button" value="▲"/> <input type="button" value="▼"/>

Long Vessel Restrictions: Yes No
 ** Meeting and Overtaking prohibited for vessels with LOA of 270 m to 300 m

Coordinate Info

#	Name	Coordinate
1		46° 22.755' N, 072° ...
2		46° 22.729' N, 072° ...
3		46° 22.721' N, 072° ...
4		46° 22.630' N, 072° ...
5		46° 22.541' N, 072° ...
6		46° 22.511' N, 072° ...
7		46° 22.300' N, 072° ...

« Improved » Meeting Point function



« Improved » Meeting Point function

File Edit View Tools Goto Charts Layouts Chart Updater Toolbar View Help

DRBL DRBC XYZ D M M Z IMO S T DR

Dead Reckoning
User All Other

MP	Name	Distance	COG	St
<input type="checkbox"/>	MSC NADRIELY	196.34 nm	052.6°	18.2
<input type="checkbox"/>	F.-A.-GAUTHIER	260.93 nm	323.0°	16.7
<input type="checkbox"/>	OCEANEX AVALON	171.76 nm	204.9°	15.6
<input type="checkbox"/>	US GOV VESSEL	192.67 nm	053.7°	15.0
<input checked="" type="checkbox"/>	MIA DESGAGNES	9.02 nm	034.7°	13.7
<input type="checkbox"/>	NUKUMI	72.18 nm	217.2°	13.3
<input type="checkbox"/>	SOLAR KAREN	123.36 nm	072.4°	11.9
<input type="checkbox"/>	PELEE ISLANDER II	505.00 nm	176.8°	11.7
<input type="checkbox"/>	GRUE DES ILES	103.13 nm	201.8°	11.0
<input type="checkbox"/>	SUSANA S	22.92 nm	015.7°	11.0
<input type="checkbox"/>	NACC QUEBEC	158.43 nm	221.7°	10.8
<input type="checkbox"/>	SPRUCEGLEN	51.97 nm	071.9°	10.7
<input type="checkbox"/>	ADRIATICBORG	172.34 nm	217.4°	10.3
<input type="checkbox"/>	WOIFF ISLANDER III	197.46 nm	100.7°	10.1

SOG

11.0 kn

COG

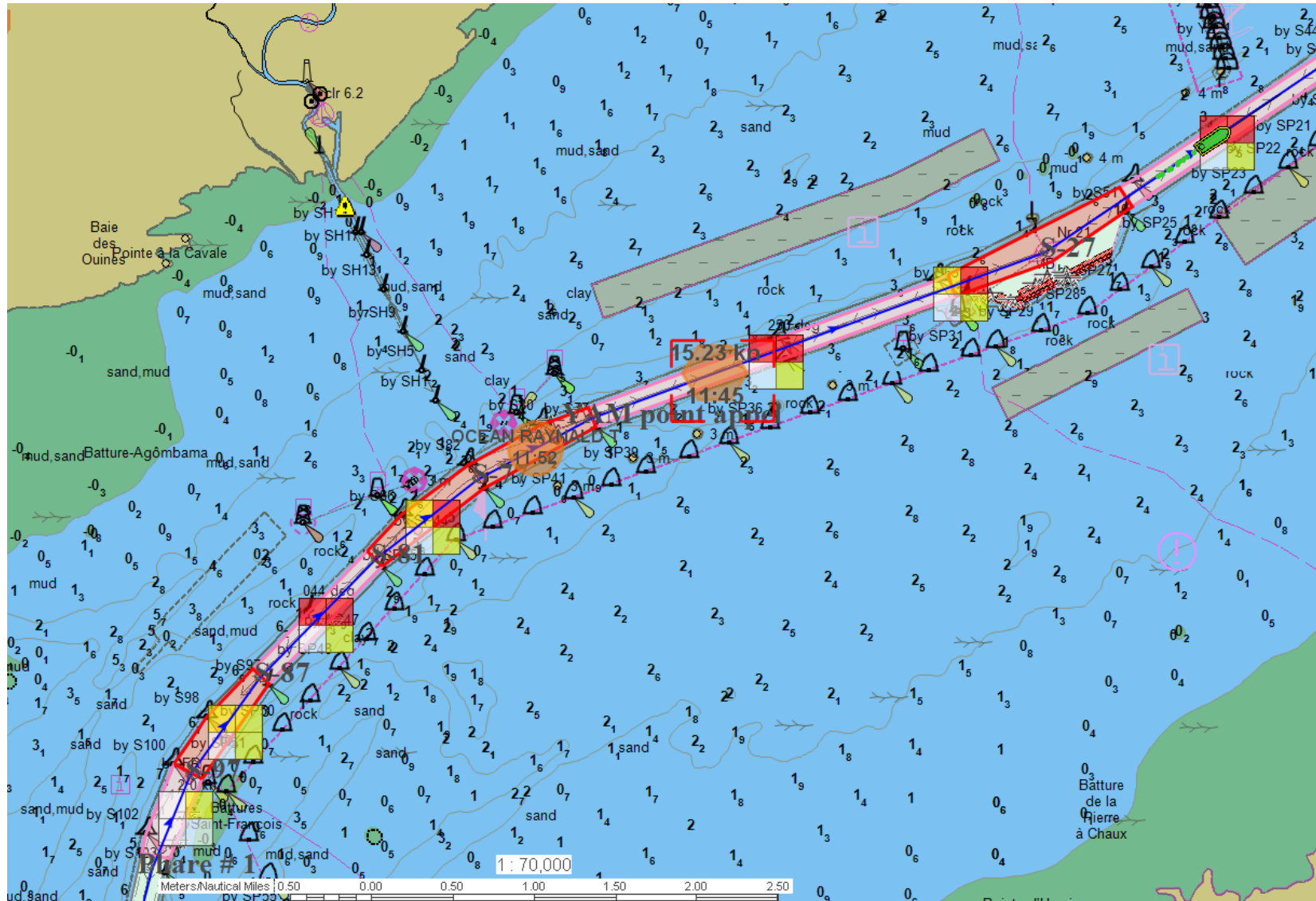
236.0°

Level	Age	ID	Dire...
52.15...	3h 55...	Air Gap: PONT DE ...	N/A
50.63...	3h 55...	Air Gap: PONT LAV...	N/A
1.26 m	6h 8...	BATISCAN	DO...
0.38 m	1h 3...	BECANCOUR	DO...
0.92 m	53 min	DESCHAILLONS	DO...
0.88 m	1h 18...	NEUVILLE	DO...
2.01 m	4h 28...	PORTNEUF	DO...
1.79 m	1h 53...	QUEBEC	UP
0.44 m	3h 53...	TROIS-RIVIERES	SLA...

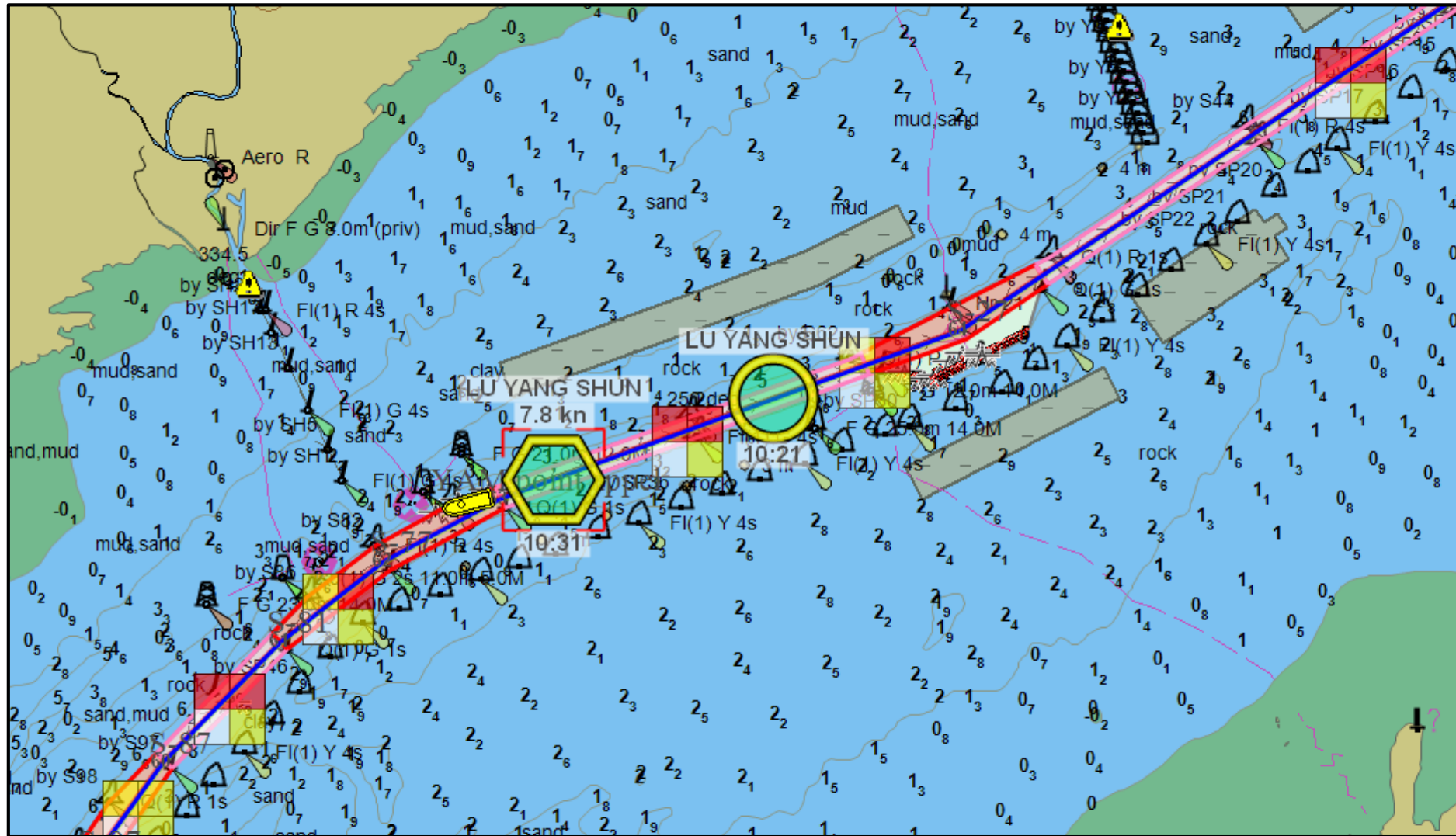
1:15,000

Meters/Nautical Miles | 0.10 0.00 0.10 0.20 0.30 0.40 0.50

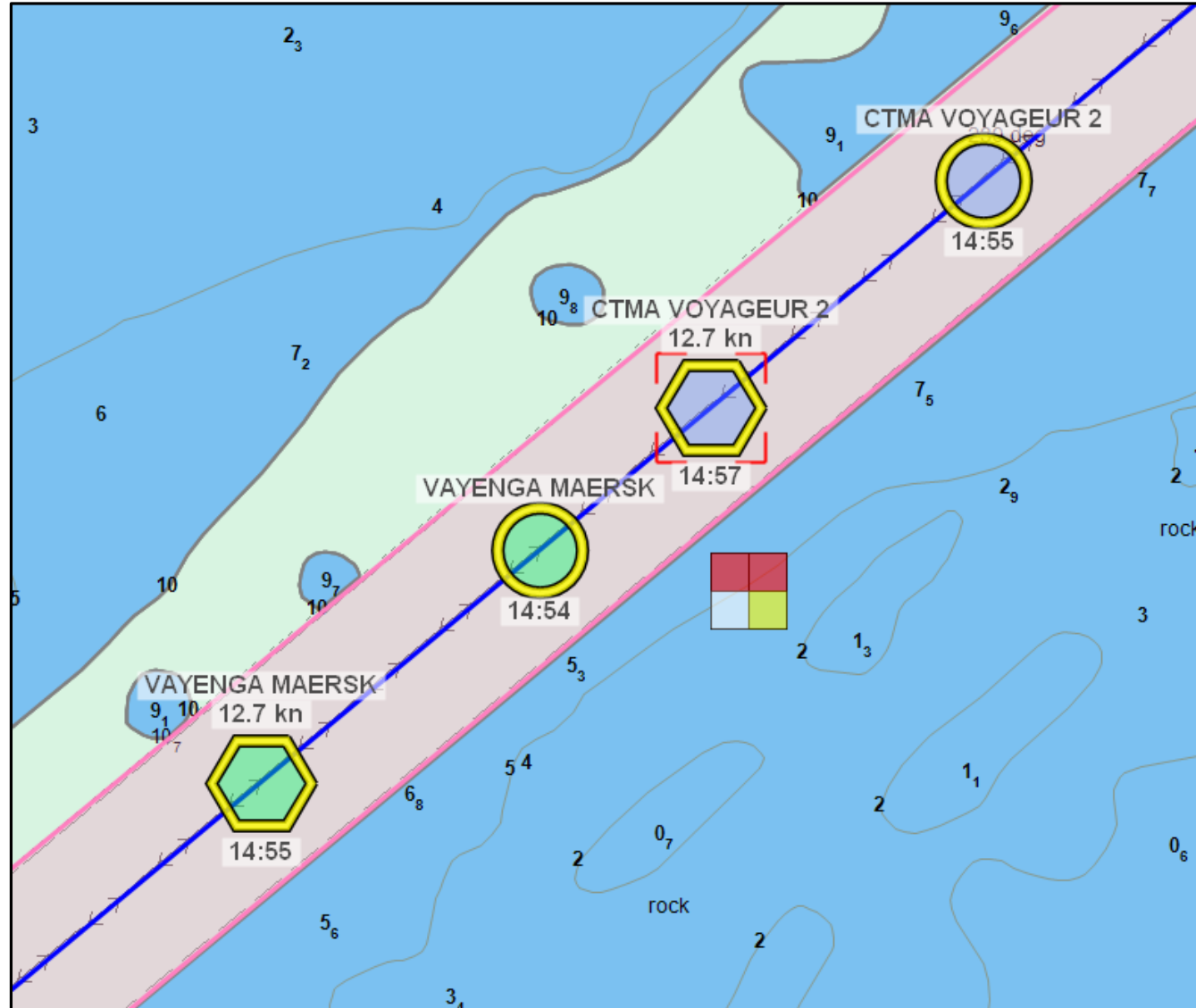
« Improved » Meeting Point function



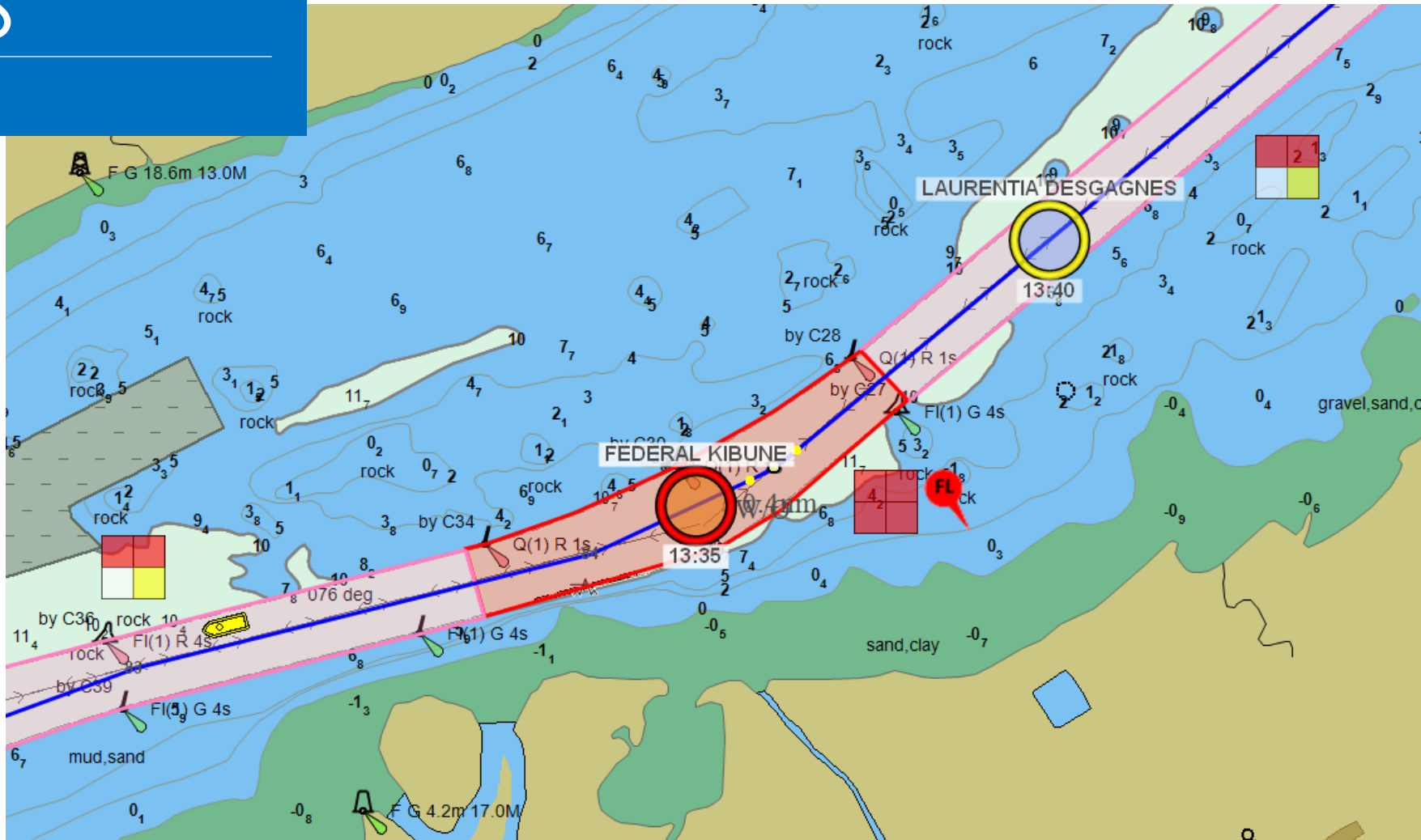
« Improved » Meeting Point function



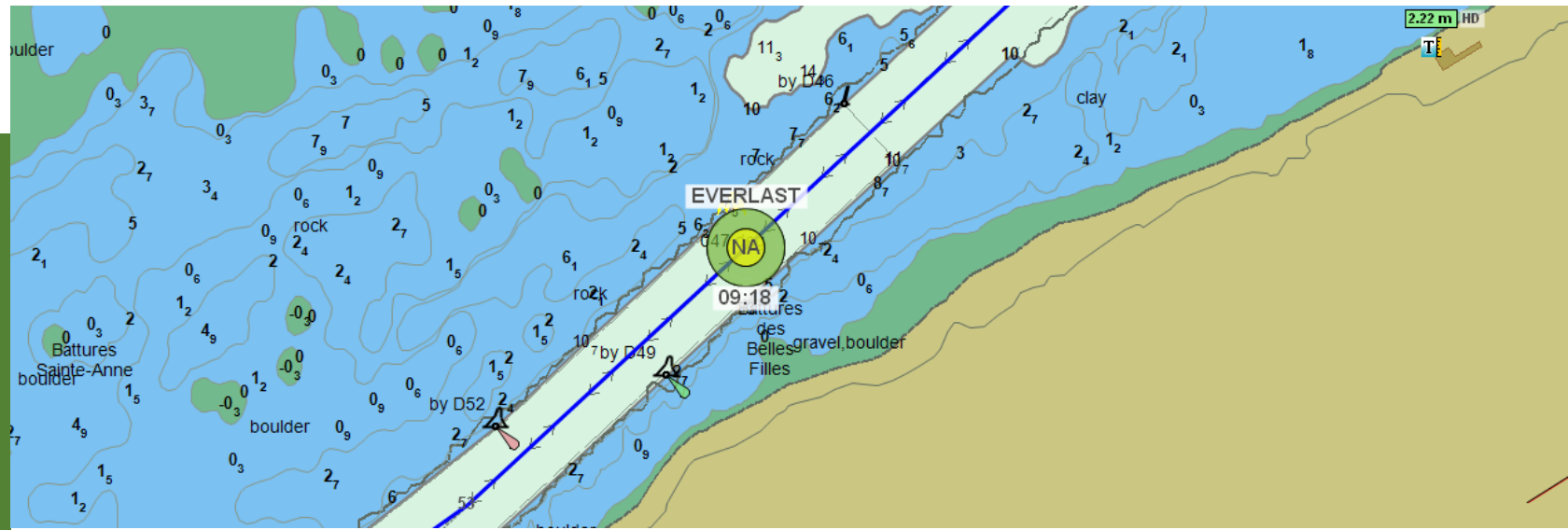
« Improved » Meeting Point function



MEETING CHECKS



RELIABILITY



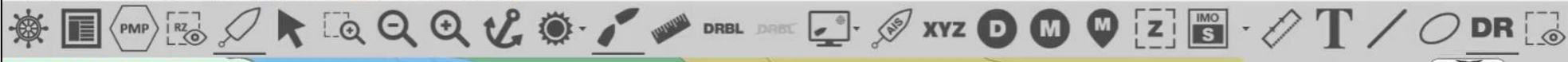
Vessel Name	MMSI	Go To Vessel	Beam	Comb. Beam	LOA	Ownship SOG	Planned Speed	Type	Go To	DTG	TTG	Risk Zone Name	Risk Matrix	Long Vessel Restriction	M/O Permitted
MSC SORAYA	370271000	Go To Vessel	40 m	70.48 m	277 m	19.63 km/h	35.48 km/h	MP	Go To MP	4.82 km	14min 42s	Risk Zone 6		YES	NO
								PMP	Go To PMP	6.17 km	10min 25s	Risk Zone 6		YES	NO
FRANK JAHN	367505030	Go To Vessel	10 m	40.48 m	26 m	19.63 km/h	35.48 km/h	MP	Go To MP	4.96 km	15min 8s	Risk Zone 6		YES	YES
								PMP	Go To PMP	5.62 km	9min 29s	Risk Zone 6		YES	YES
BOW PALLADIUM	257246000	Go To Vessel	27 m	57.48 m	165 m	19.63 km/h	35.48 km/h	MP	Go To MP	N/A	N/A	N/A	N/A	N/A	N/A
								PMP	Go To PMP	N/A	N/A	N/A	N/A	N/A	N/A

VERIFICATION FUNCTION

VESSEL'S CHARACTERISTICS



LLOYD'S DATA BASE



MP	Name	Distance	COG	St...
<input type="checkbox"/>	GENEVAN TRADER	26.46 nm	191.0°	0.0 kr
<input type="checkbox"/>	SUNSET	29.01 nm	335.0°	0.0 kr
<input checked="" type="checkbox"/>	THUNDER BAY	32.02 nm	076.1°	11.8
<input checked="" type="checkbox"/>	OCEANEX CONNAIGF	32.80 nm	075.6°	17.0
<input type="checkbox"/>	POINT VIM	36.32 nm	151.6°	0.0 kr
<input type="checkbox"/>	JAMNO	36.56 nm	165.6°	0.0 kr
<input type="checkbox"/>	MEGA II	36.67 nm	342.0°	0.0 kr
<input type="checkbox"/>	ALGOMA NIAGARA	36.82 nm	311.7°	0.0 kr
<input type="checkbox"/>	STAR GWYNETH	36.96 nm	281.5°	0.0 kr
<input type="checkbox"/>	DUGA	36.97 nm	323.3°	0.0 kr
<input type="checkbox"/>	OCEAN BRAVO	36.99 nm	189.5°	0.0 kr
<input type="checkbox"/>	OCEAN CHARLIE	37.02 nm	340.7°	0.0 kr
<input type="checkbox"/>	UMIAK 1	37.22 nm	046.0°	0.0 kr
<input type="checkbox"/>	OCEAN LAVIOLETTE	39.09 nm	086.2°	0.0 kr

SOG
12.0 kn

COG
297.0°

Level	Age	ID	Dir...
2.21 m	22 min	PORTNEUF	N/A
4.65 m	17 min	QUEBEC	N/A
0.70 m	7 min	TROIS-RIVIERES	N/A

QUESTIONS /COMMENTS ?

Capt. Pascal Desrochers

National Center of Expertise on Maritime Pilotage

president@cpslc.ca



NATIONAL CENTRE OF EXPERTISE
ON MARITIME PILOTAGE

Contact

Capt. Alain Arseneault

Executive Director

418.809.3680

aarseneault@pilotage-expertise.ca



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