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**Mariners' Workshop Report  
Virtual Conference  
January 27-28, 2021**

**Government Agency Perspectives & Initiatives**

**Canadian Coast Guard (CCG)**

The Canadian Coast Guard provided an update on the Modernization of Canada's Marine Navigation and Safety Systems which focused on key areas such as aids to navigation, waterways management, MCTS, icebreaking and e-Navigation. This branch aims to develop strong partnerships and meaningful collaborations to improve coordination with federal partners and deliver services. A key focus is to provide a legislative and regulatory framework to facilitate the shift to digitalization of services.

Presentation - [Modernization of Canada's Marine Navigation and Safety Systems](#)

**Transport Canada (TC)**

Transport Canada provided a Marine Safety Update presenting IMO updates from various sessions, key changes and repeals of Navigation Safety Regulations and modernization of the Vessel Traffic Services Zones Regulations.

Presentation - [Marine Safety Update](#)

**Canadian Hydrographic Service (CHS)**

The Canadian Hydrographic Service presented an update on essential field work under COVID-19, remote surveying, an Integrated Water Level System (IWLS) and their future delivery of new technologies and survey on CHS Transformation engagement.

Presentation - [CHS Update](#)

**Environment and Climate Change Canada (ECCC)**

Environment and Climate Change Canada presented their Marine and Ice Weather Program offering 24/7 weather services by Meteorological Services Canada. They will continue to invest in improving weather and ice safety, support maritime economies and environments, expand access to information, and adapt to the changing needs of clients and stakeholders.

Presentation - [Marine & Ice Weather Program](#)

## **National Research Council Canada (NRCC)**

An update from the National Research Council provided an overview of Canada's Digital Seaway and enabling Maritime Autonomous Surface Ships (MASS) in Canadian waters.

Presentation - [NRCC Update](#)

## **St. Lawrence Seaway Management Corporation (SLSMC)**

The St. Lawrence Seaway Management Corporation provided a navigation season review and an update on high water levels and high flows. The upper Great Lakes currently contain high quantities of water and due to less ice coverage, the opportunity exists to flush out water from the Lakes. In spring 2020, mariners identified five high-risk areas for navigating in high flows which are available on the Seaway [website](#) for mariner access. The Seaway continues to refine models and assess the needs for onsite instrumentation current meters.

Presentation - [SLSMC Update](#)

## **United States Coast Guard (USCG)**

The United States Coast Guard shared their aids to navigation update and outlined their 2021 initiatives for planned work in waterway performance, charting and data exchange, and aids to navigation.

Presentation - [Aids to Navigation Update](#)

## **International Perspectives**

Special guest speakers from the [International Association of Marine Aids to Navigation and Lighthouse Authorities \(IALA\)](#) and the [International Hydrographic Organization \(IHO\)](#) also attended this year's event to present on their strategic visions and goals concerning the digitization of global e-Navigation.

- IALA has committed to developing marine aids to navigation that are harmonized through international cooperation and standards provisions while encouraging all coastal states to contribute to capacity building and sharing of expertise.
- IHO's mission is to facilitate hydrographic information for world-wide marine navigation through outreach, awareness, strengthening partnerships and e-Navigation development and implementation.

## **Focussed Topic**

A focussed topic of this year's workshop was the [S-100 Next Generation of Dynamic Geospatial Navigation Services](#). The full value chain was examined to include several key contributors and their roles:

- The **Canadian Hydrographic Service** is the producer of the S-100 from product to dynamic subscription service, focussed on data management and analytics.

- **Teledyne Caris** will be responsible for the S-100 cloud platform system to automate and streamline workflow facilitating e-Navigation and the future of autonomous shipping.
- An automatic upload from Caris Cloud Service will be available via **PRIMAR** Online Services.
- The S-100 distributor, **OneOcean**, is the largest global supplier of navigational solutions for the maritime industry.
- The final S-100 application, **SEAIq Pilot**, has been adopted by over one third of marine pilots worldwide.
- The S-100 series products have been developed in cooperation with CHS and CPBSL pilots.

Please contact the undersigned if you have any questions or comments.

Sincerely,

Meghan Clark  
Operations Coordinator