

# Working Lunch S-100

USCHC43

February 2020

# Users participating in S-102 trials

## Currently in trials

- Corporation of Lower St.-Lawrence Pilots
- SEAiq
- Norwegian Coastal Administration
- Port of Montreal
- Coast Guard Waterways Management
- OMC International Inc.
- Imagine 4d
- Innovation Maritime

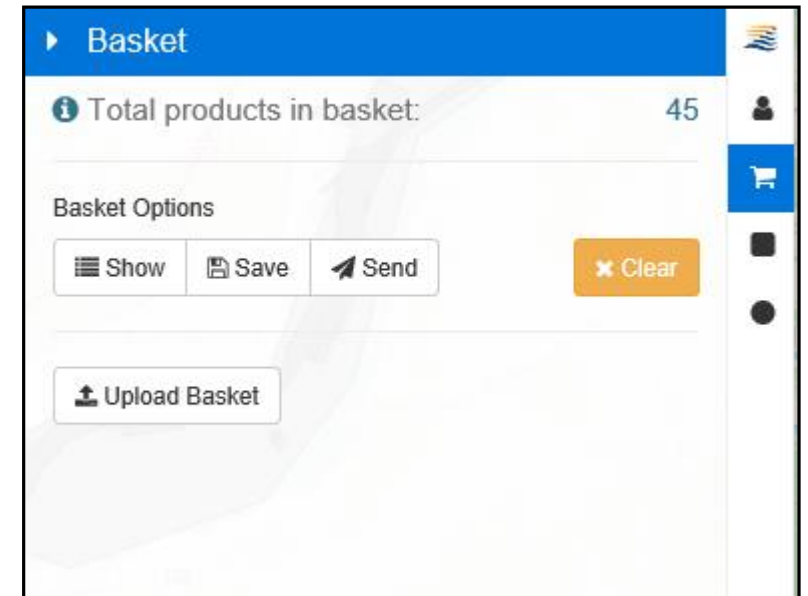
## Planning to join trials

- NAVSIM
- Wärtsilä
- 7C's
- Department of National Defence

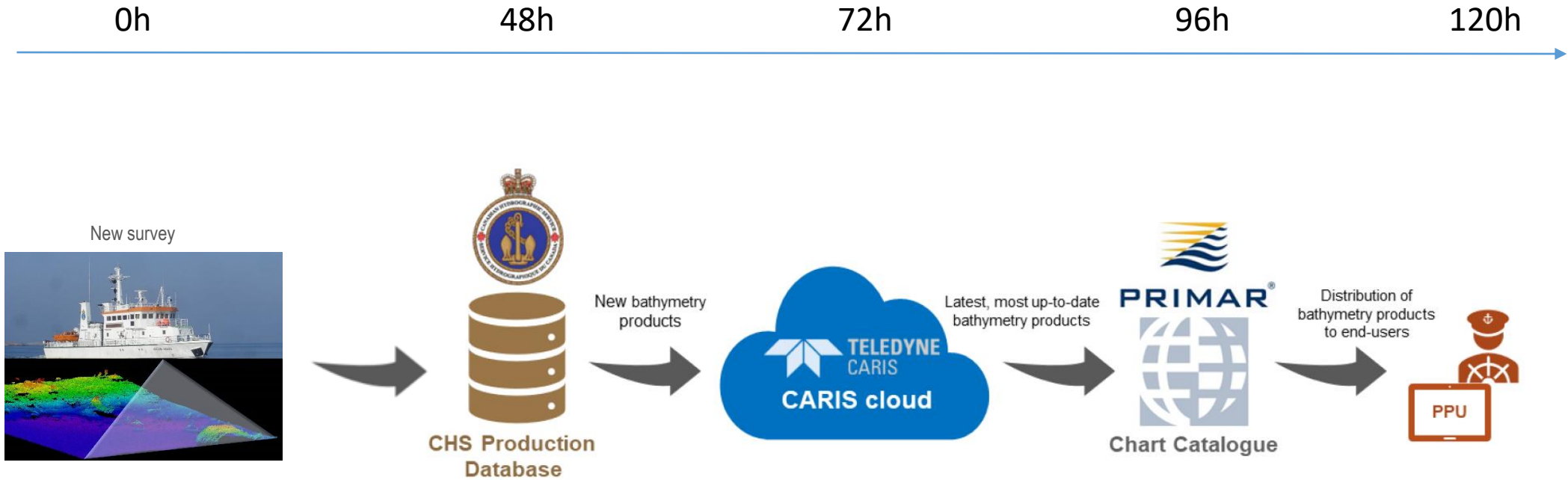
# S-102 Subscription

Requirement: Need PRIMAR account and navigation system able to read S-102 data with update capacity.

1. User goes on PRIMAR web page, selects S-102 tiles of interest and send basket file;
2. Upon reception of basket file, PRIMAR sends a link to user to download S-102 files selected;
3. User saves S-102 files to his navigation system;
4. User is ready to use S-102 products and updates are sent automatically to navigation system as CHS made them available pushes them to Teledyne CARIS cloud.



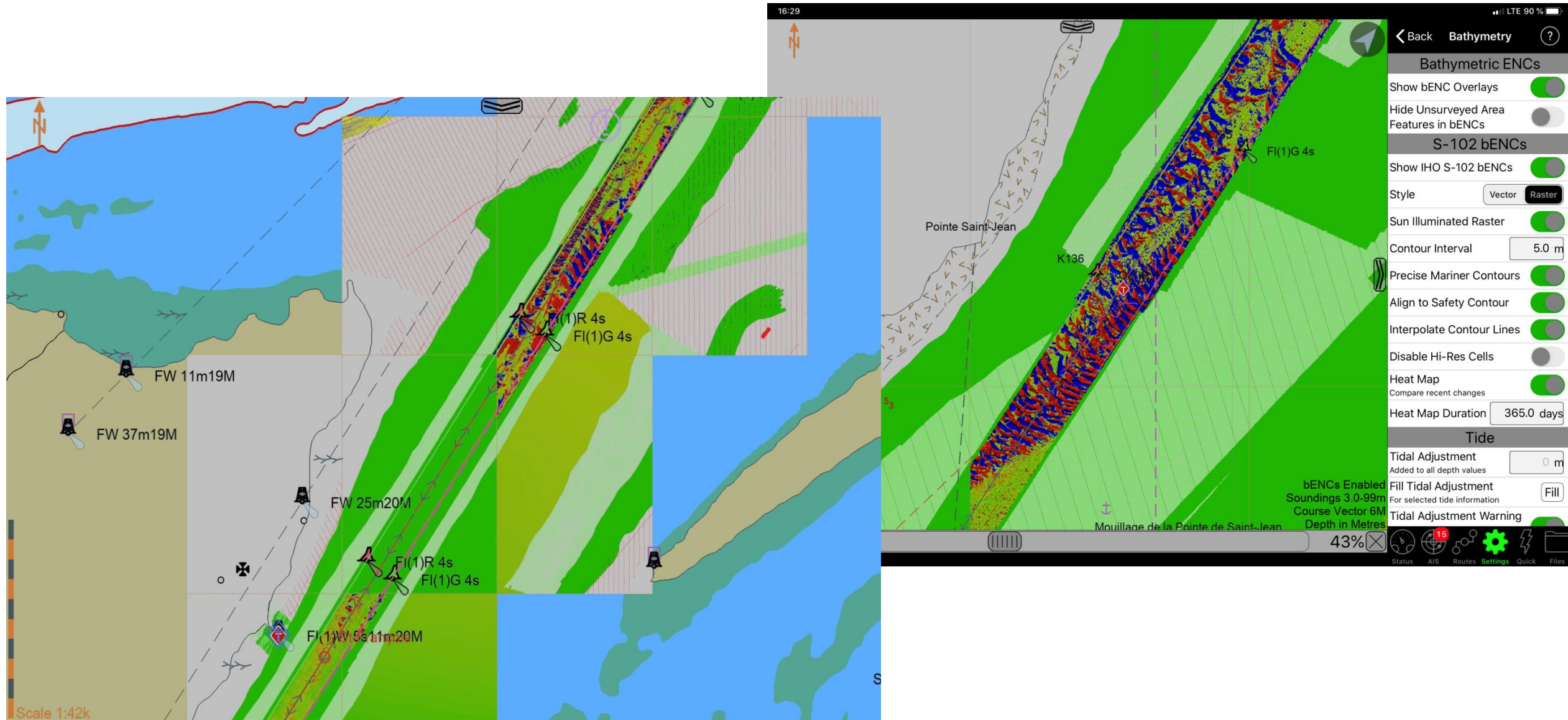
# S-102 data flow



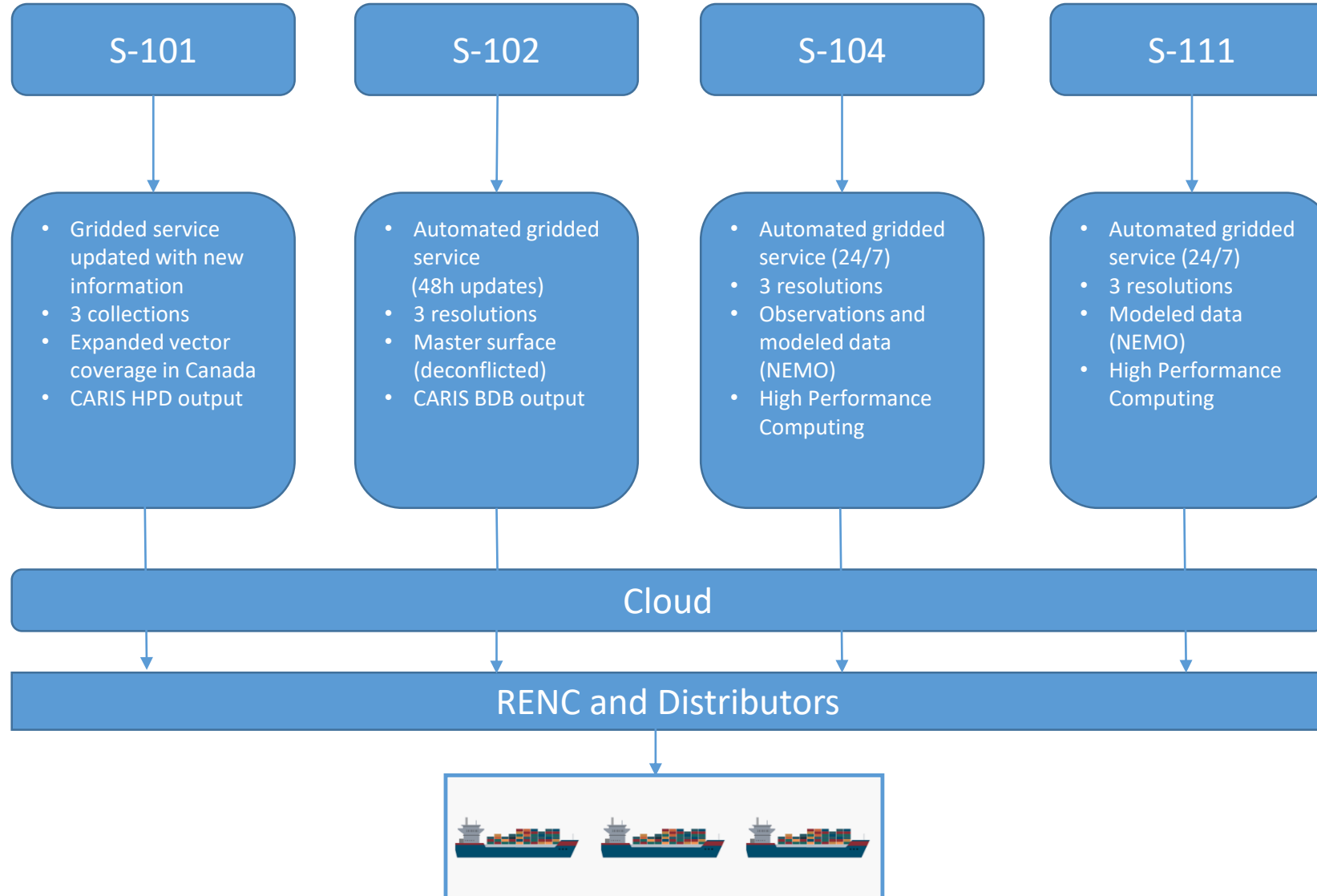
# S-102 trials outcome

1. Semi-automated production of S-102 products by the **Canadian Hydrographic serviced (CHS)**;
2. Automated dissemination service developed by **Teledyne CARIS** and **Electronic Chart Centre (ECC)** to feed in existing Regional ENC Co-ordinating Centre (**PRIMAR**);
3. Development of **SEAiq's** Portable Pilot Unit to meet clients' needs with capacity to read new type of navigational products (S-102);
4. Tools engineered by **SEAiq** with **Pilot's** feedback to leverage high definition of S-102 data and new dissemination service;
5. Feedback from **Users** serves development of international standard.

# SEAiq Heat Map Function



# S-100 Data as a Service



# Government of Canada S-100 committee

## **Members**

- **Canadian Coast Guard**
- **Canadian Hydrographic Services**
- **Transport Canada**
- **ECCC / Canadian Ice Service / Meteorological Service of Canada**
- **DND Hydrographic Service Office**

- Participate in meaningful discussions and consultations to drive the harmonized implementation and maintenance of S-100-based services across the Canadian Government;
- Support data strategies affected Department, monitoring and reporting activities for the data strategy, making recommendations and suggestions on these matters;
- Promote an government-wide approach to data acquisition, management, quality, and usage, ensuring the alignment of data to outcome monitoring and reporting activities;
- Work collaboratively to ensure that data management activities are in alignment with the established priorities of the affected Departments to enable sound decision making.
- Facilitate cooperation in international engagement in S-100 relevant international bodies and provide a venue for evaluation of international work and it's impact on Canada.



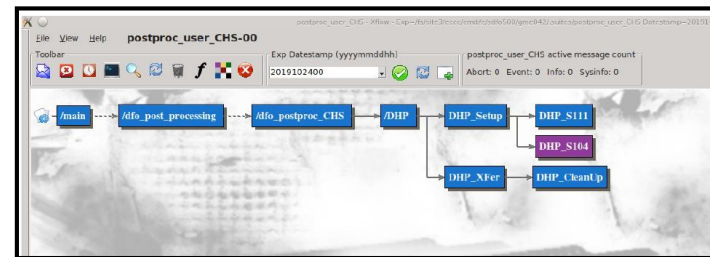
# Canadian S-100 Catalog

S-100 based product specification	Responsible department
S-101 Electronic Navigational Chart	CHS
S-102 High definition bathymetric chart	CHS
S-103 sub-surface navigation	TBD
S-104 Tidal information	CHS
S-111 Surface Currents	CHS
S-121 Maritime Limits and Boundaries	CHS
S-122 Marine Protected Areas	ECCC / DFO
S-123 Marine Radio Services	CCG
S-124 Navigational Warnings	CCG
S-125 Navigational Services	CCG
S-126 Marine Physical Environment	Multi-agency responsibility
S-127 Marine Traffic Management	Multi-agency responsibility
S-128 Catalogues of Nautical Products	Multi-agency responsibility
S-129 Under Keel Clearance Management	CCG
S-1xx Harbour Infrastructure	CHS
S-201 Aids to Navigation Information	CCG
S-210 Inter VTS Exchange Format	CCG
S-211 Port Call Message Format	CCG
S-212 VTS Information Service	CCG
S-240 DGNSS Station Almanac	CCG
S-401 Inland ENC	Not currently relevant to Canada
S-402 Bathymetric Contour Overlay for Inland ENC	Not currently relevant to Canada
S-411 JCOMM Ice information	ECCC / Ice Service
S-412 Weather Warnings	ECCC
S-413 Weather and Waves Conditions	ECCC
S-414 Weather and Waves Observations	ECCC
S-421 Route Exchange format	CCG

# Impact on traditional publications

The production of the following publications will need to be revisited and modernized to feed off S-100 services.

- Notices
- Tide tables
- Currents tables, atlas
- Sailing Directions



The following points are to be taken seriously in consideration:

- Can't afford parallel production and duplicate effort
- Favor automation
- May mean changes in format and content
- Consultation with clients will be essential

