Canadian Coast Guard | Garde côtière canadienne

Canadian Coast Guard S-124 implementation

TSM10, Monaco, 2024-03-13

Eivind Mong

Canada

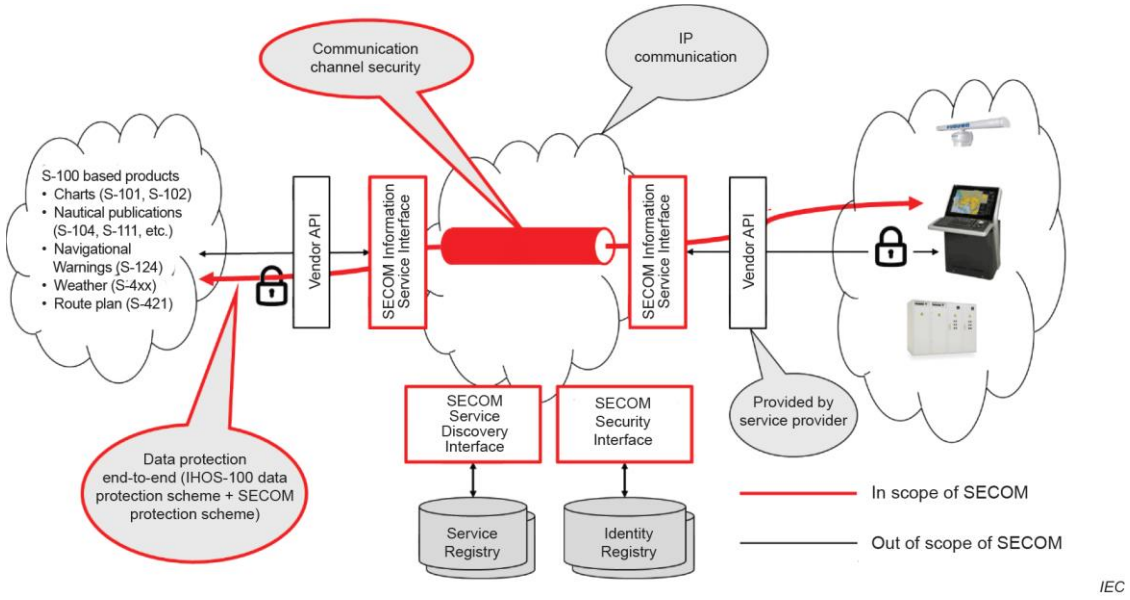
Canadian Coast Guard

- AtoN service
- VTS
- Ice Breaking
- SAR
- 66/124 ships






Implementation is where it's at!

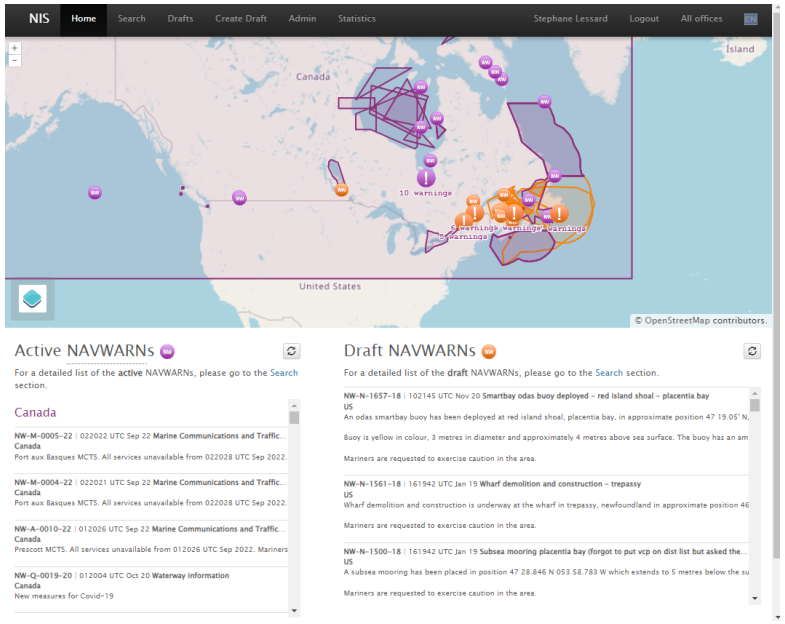


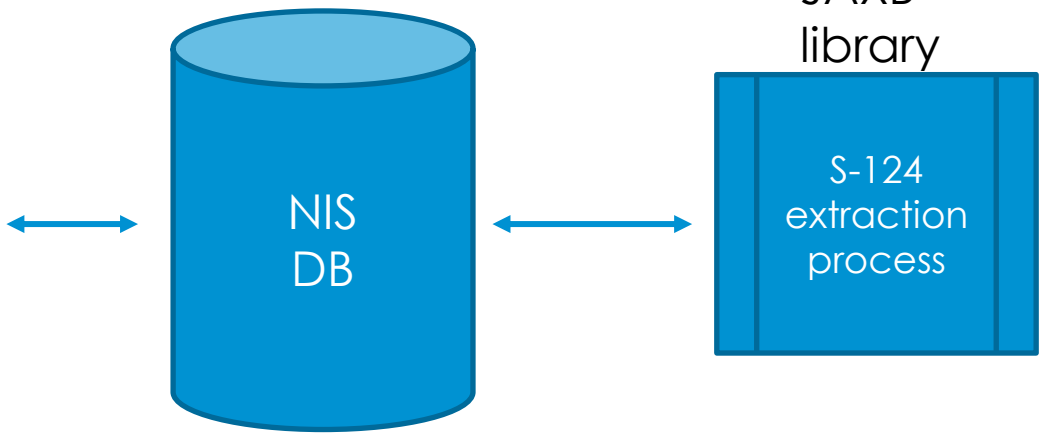
CCG S-124 implementation driven

Implementing a technical service compatible with SECOM to validate distribution of NAVWARNs ++

NAVWARN Issuing System (NIS) description

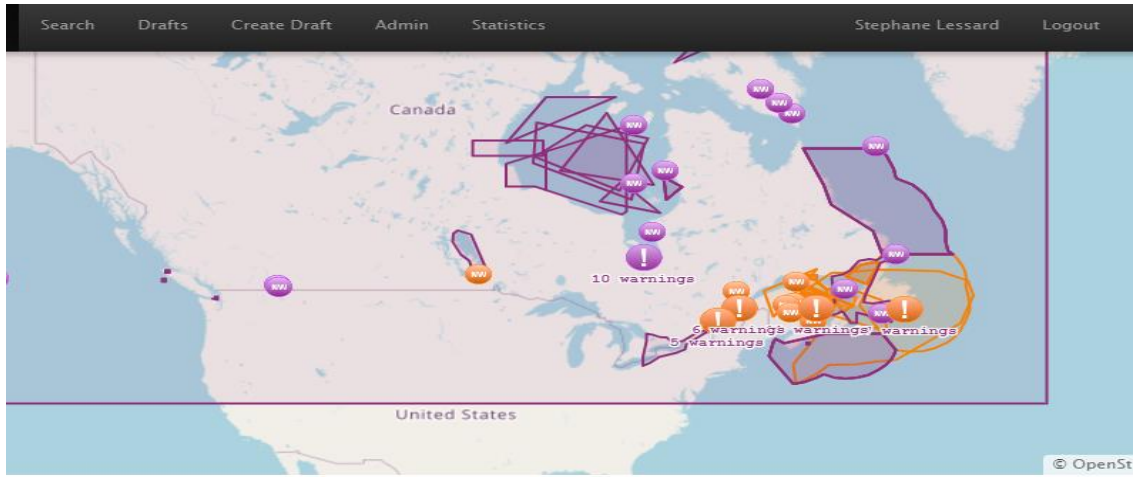
- NIS with the S-124 process highlighted

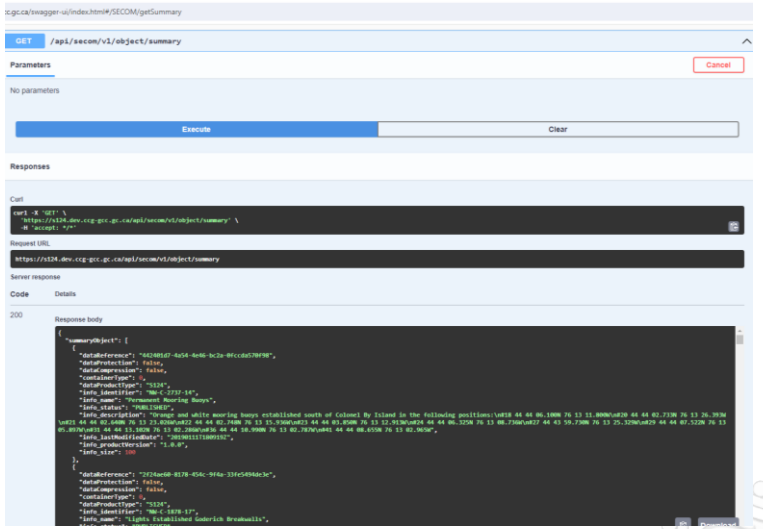




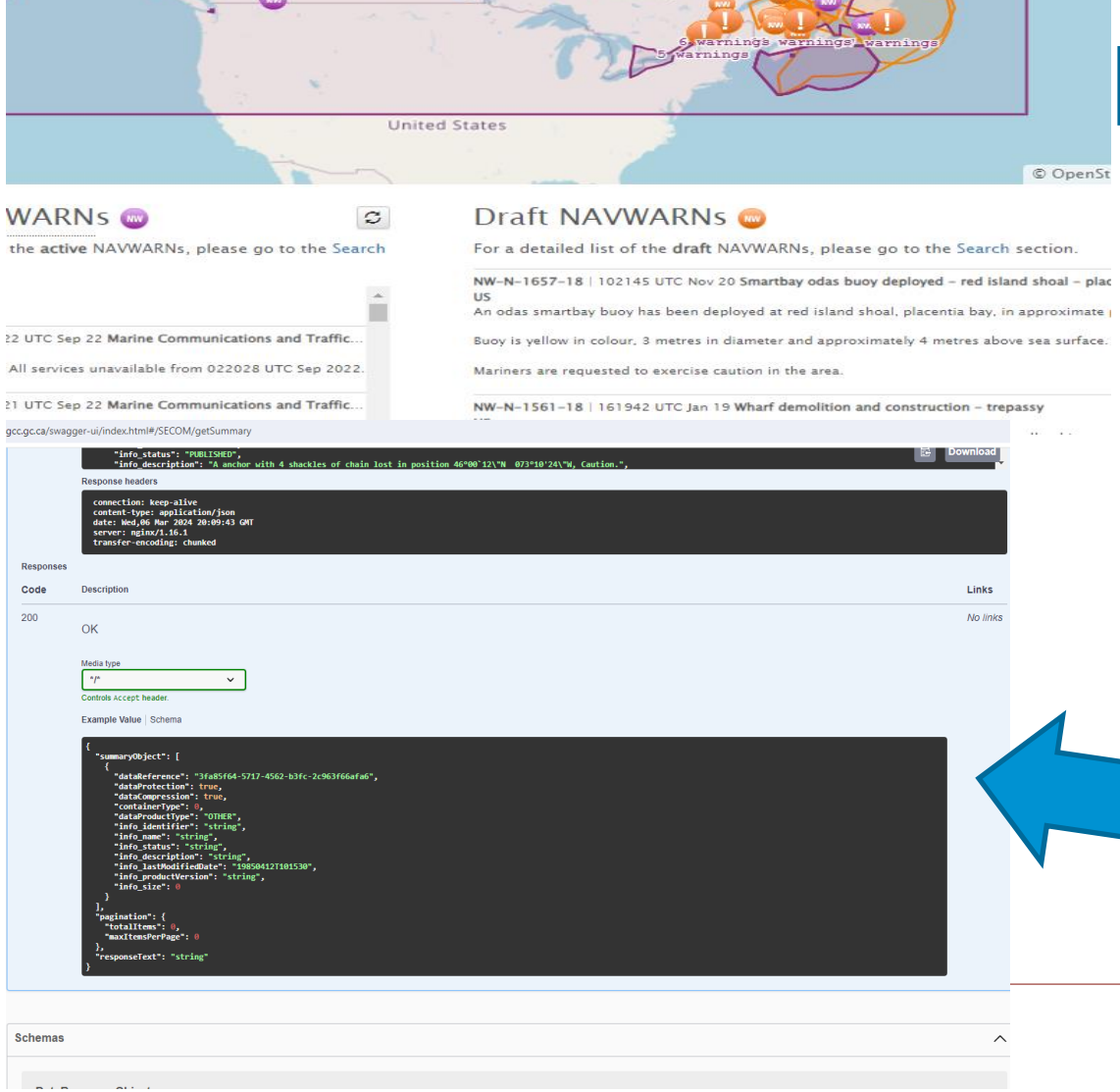
S-124 extraction process

- java JAXB library (configured using .XSD) to create the .xml content with java class objects.
- S-124 distribution and technical service compatible with SECOM being developed.
- Adopting libraries from GLA within the Digital Incubator Initiative (informal group grown out of IALA).
- Two service calls implemented (summary and get requests).

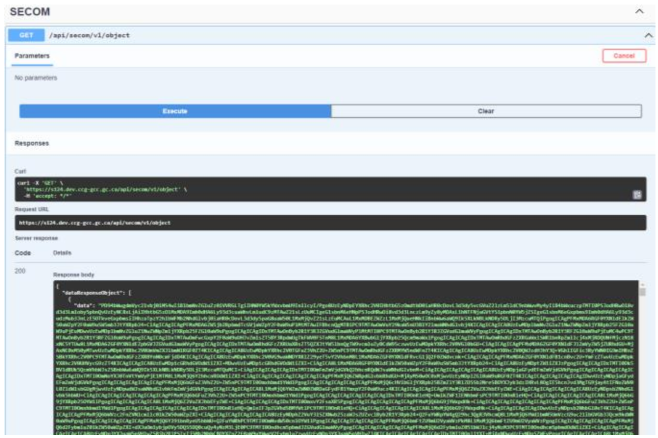




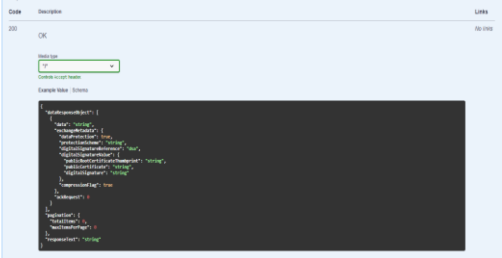
Summary request

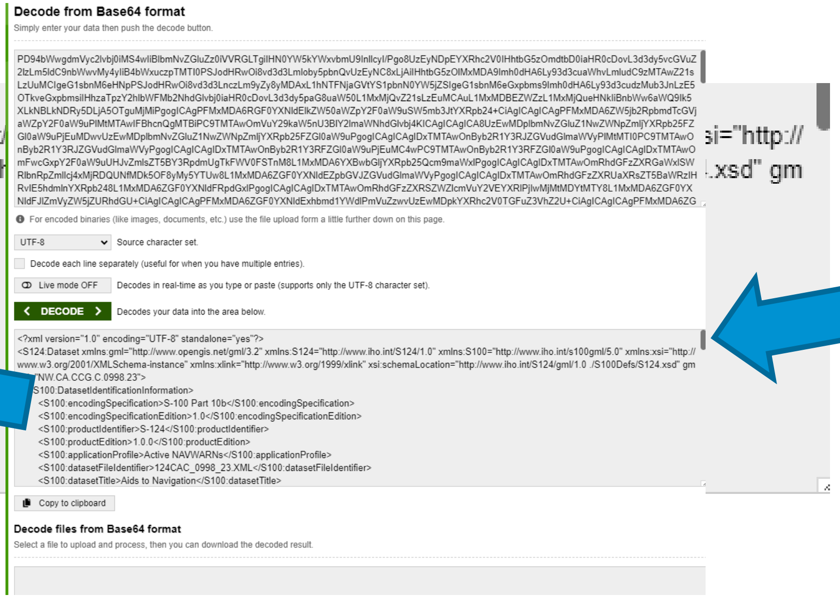


Get request

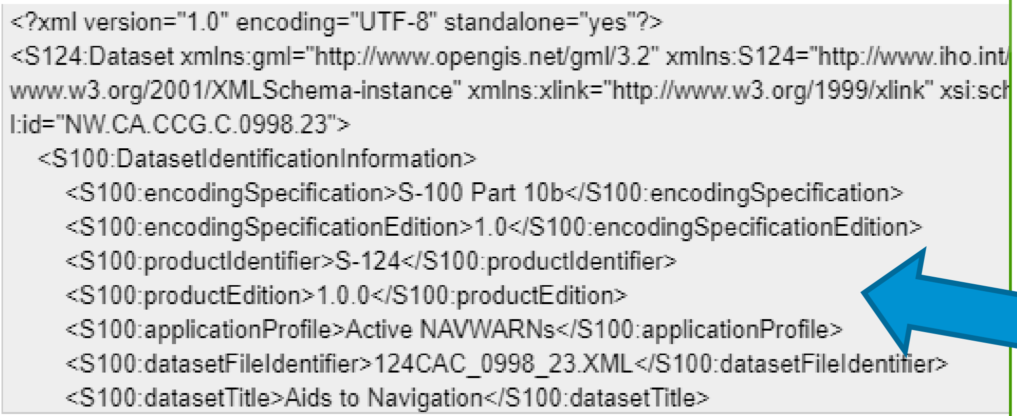


SECOM
GET /api/secom/v1/object
Parameters
Cancel
No parameters
Execute
Clear
Responses





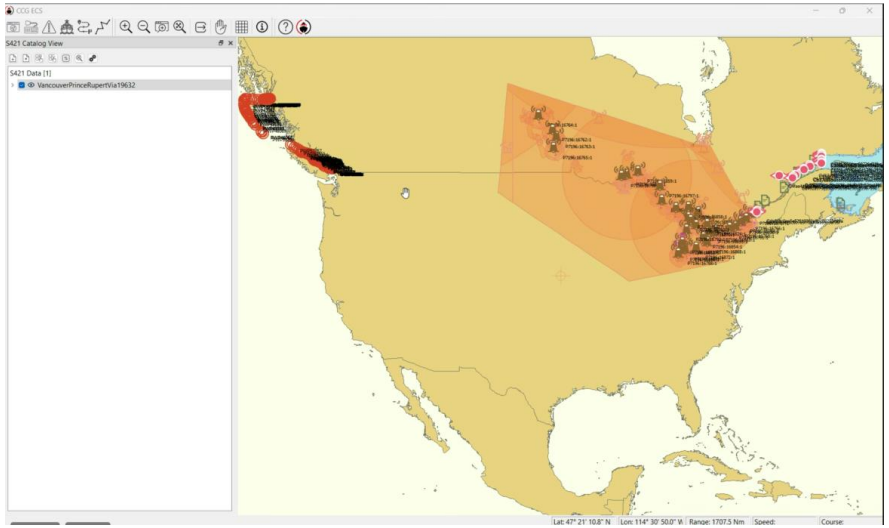
Decode from Base64 format
Simply enter your data then push the decode button.
For encoded binaries (like images, documents, etc.) use the file upload form a little further down on this page.
UTF-8
Source character set.
Decode each line separately (useful for when you have multiple entries).
Live mode OFF
Decodes in real-time as you type or paste (supports only the UTF-8 character set).
DECODE
Decodes your data into the area below.
Copy to clipboard
Decode files from Base64 format
Select a file to upload and process, then you can download the decoded result.



<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<S124:Dataset xmlns:gml="http://www.opengis.net/gml/3.2" xmlns:S124="http://www.iho.int/
www.w3.org/2001/XMLSchema-instance" xmlns:xlink="http://www.w3.org/1999/xlink" xsi:sch
l:id="NW.CA.CCG.C.0998.23">
<S100:DatasetIdentificationInformation>
<S100:encodingSpecification>S-100 Part 10b</S100:encodingSpecification>
<S100:encodingSpecificationEdition>1.0</S100:encodingSpecificationEdition>
<S100:productIdentifier>S-124</S100:productIdentifier>
<S100:productEdition>1.0.0</S100:productEdition>
<S100:applicationProfile>Active NAVWARNs</S100:applicationProfile>
<S100:datasetFileIdentifier>124CAC_0998_23.XML</S100:datasetFileIdentifier>
<S100:datasetTitle>Aids to Navigation</S100:datasetTitle>

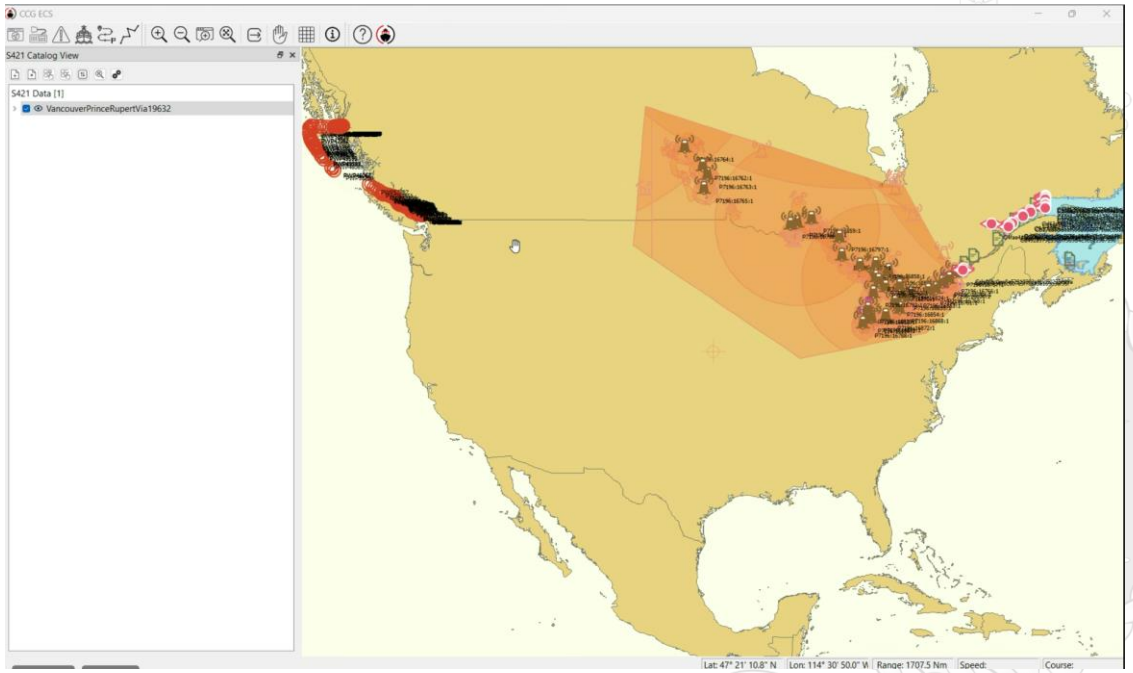
Innovation project (2023 – 2024)

- Screen + software + motorized stand

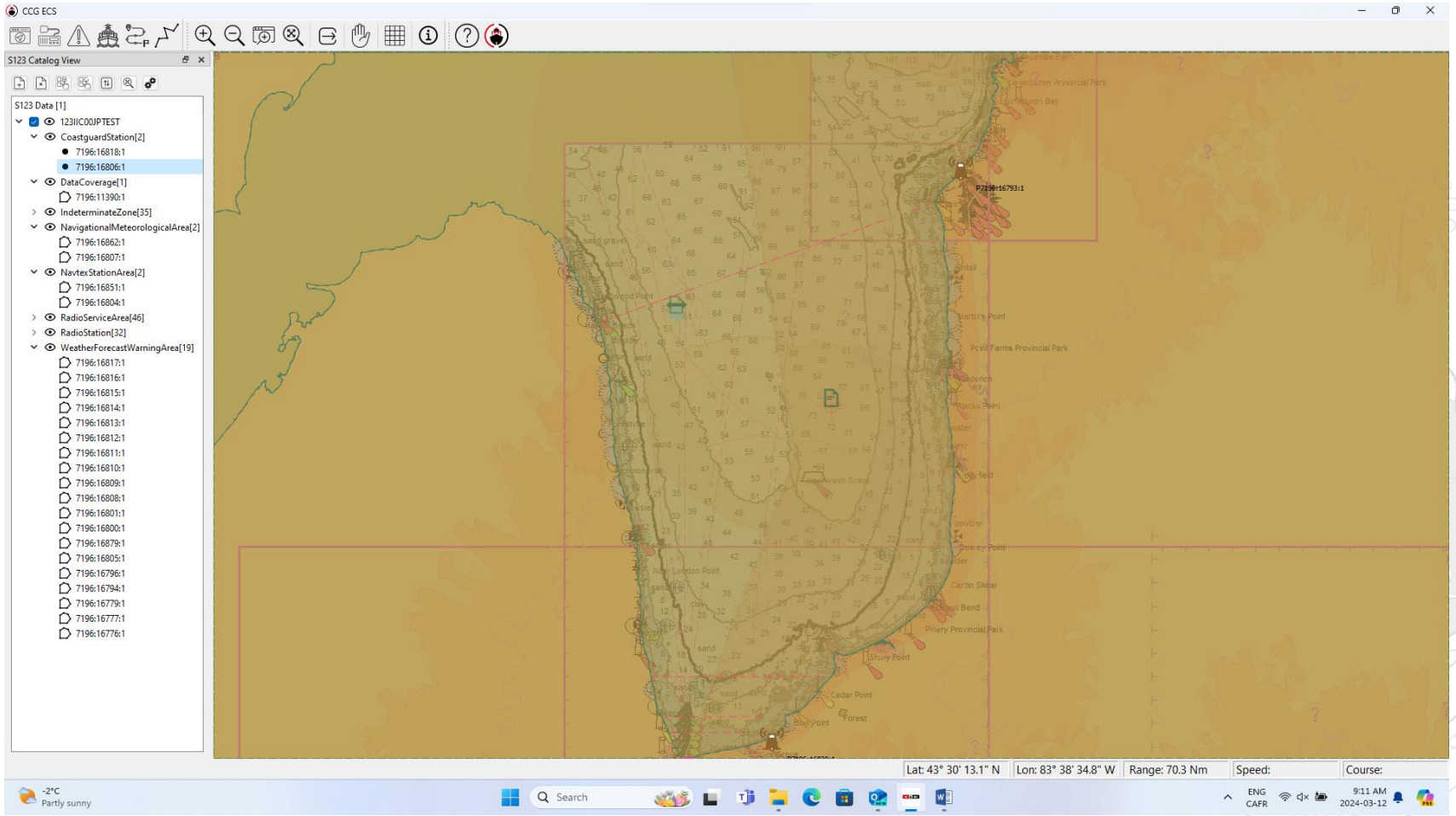


IIC developed tool

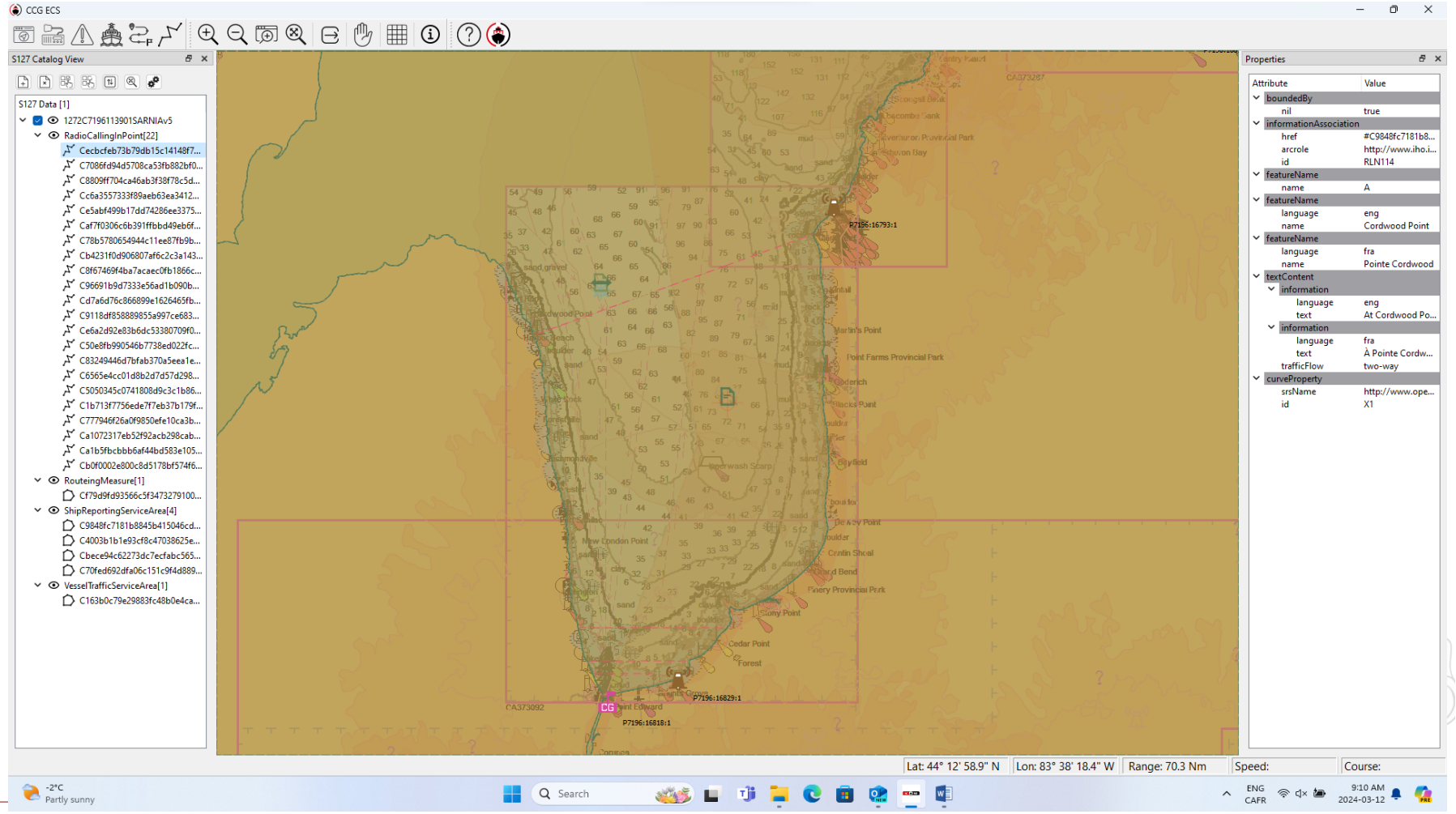
- S-57 base
- S-123, S-124 and S-127
- S-421 + RTZ
- Connects to S-124 service
- Testing layer interaction and user interface requirements



ENC, S-123 & S-127 over South Lake Huron on MNPS



ENC, S-123 & S-127 over South Lake Huron on MNPS



Lessons learned (and being learned) to date

- GML = complicated, but not very different from the early days of S-57 8211
- Detailed theoretical transmission coverage is probably not very useful and just gives complicated geometries and portrayal
- Need more GUI enhancements to give user more control
- S-98 needs to be implemented
- WMS to be added to give a quick access of HDF5 products, and later true support.
- Still undecided about how close to ECDIS the GUI needs to be.

Next steps - Planning station layout project

- 3 year project, $2.5m CAD budget
- S-100 readiness investigation and preparedness
  - Using MNPS to define the requirements based on user trials
  - Update MNPS as needed
  - Provide lessons learned to international community
- Planning station to replace chart tables
  - 6 ships to be equipped for trial period

Questions?