

# Status of IALA S-201 AtoN Development

ARM5 / 24 OCT 2016

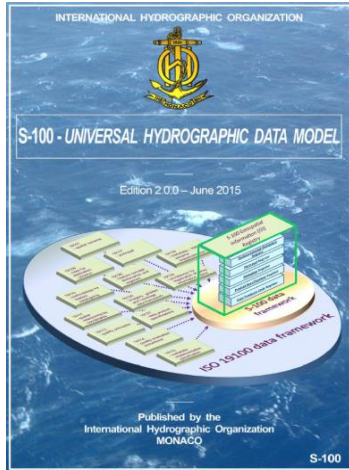
KRISO  
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# Contents

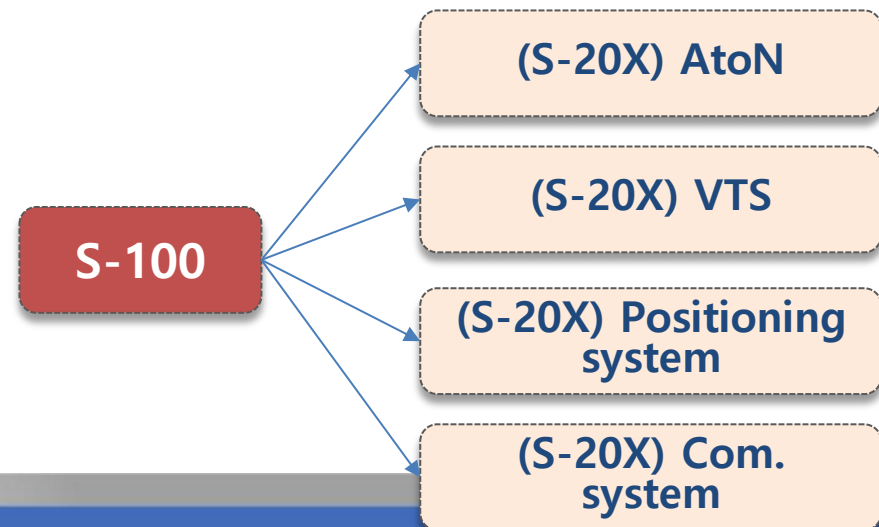
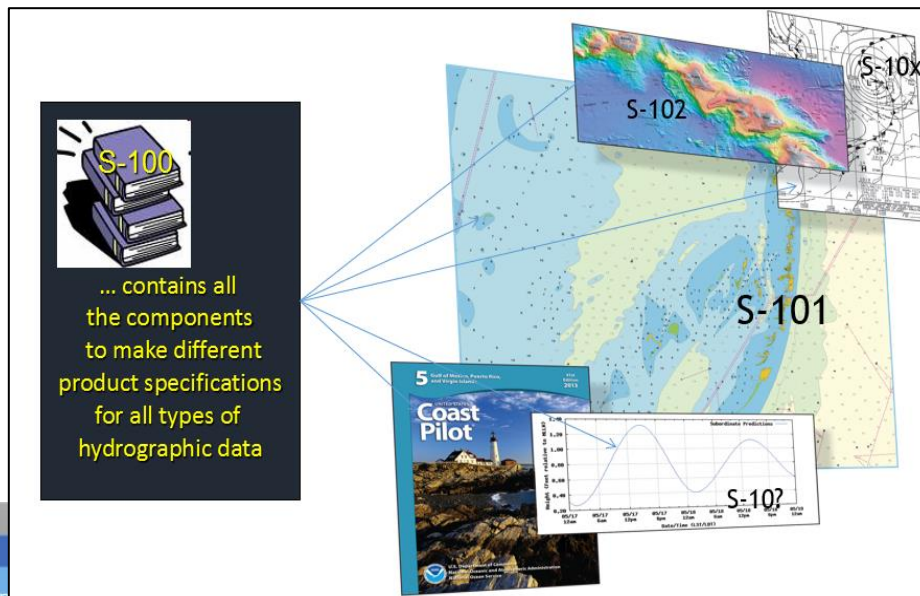
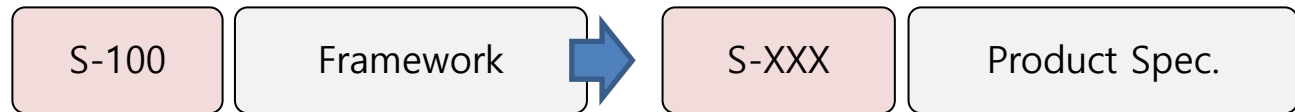
- S-200 activities of IALA
- Status of S-200
- Status of developing IALA S-201 AtoN PS
- Use case of S-201 AtoN data

# S-200 activities of IALA

## ● IHO S-100 (Universal Hydrographic Data Model)

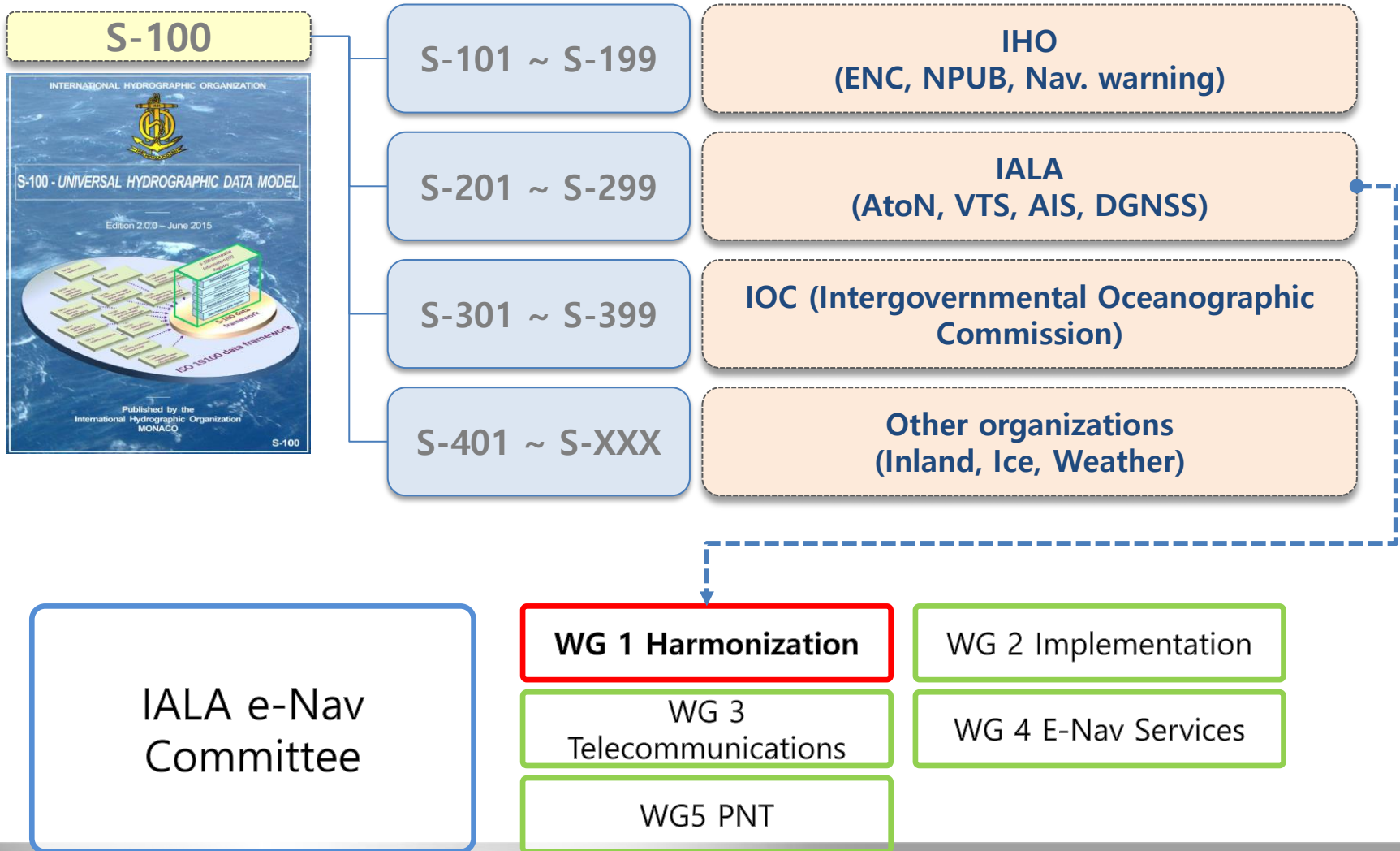


*Provides the data framework for the development of the next generation Electronic Navigational Charting products, as well as other digital products required by the hydrographic, maritime and GIS communities*



# S-200 activities of IALA

## ● S-200 domain



# S-200 activities of IALA

## ● Components of an S-100 Product Specification

### Main

- Specifies what is need to build a complete product / Feature Types
- Geometry / Data formats and file size / Metadata

### Feature Catalogue

- Features / Attributes / Enumerants
- Bindings / Point, Curve or Surface

### Portrayal Catalogue

- Symbols, Line Styles and Area Fills
- Rule for how the feature attribute combination must be portrayed

### Data Classification and Encoding Guide

- Contains the guidance for how the data should be encoded by the data producer
- Useful as a template for building the feature catalogue

### Exchange Format

- Data format that is used for data exchange
- ISO 8211 – normally used for ECDIS
- GML – good for exchanging information outside of the ECDIS arena
- XML – text based data exchange for both ECDIS and non - ECDIS

# S-200 activities of IALA

## ● Guideline relating to S-100 and S-200

**IALA Guideline 1088**  
(Ed. 1, Dec. 2012)

### **[Introduction to Preparing S-100 Product Specifications]**

This Guideline introduces the process of developing S-100 Product Specifications

**IALA Guideline 1087**  
(Ed. 2, Dec. 2013)

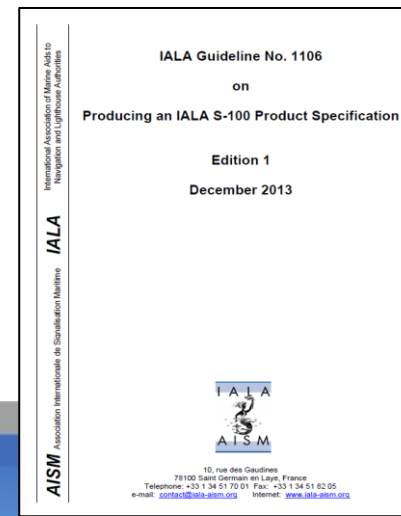
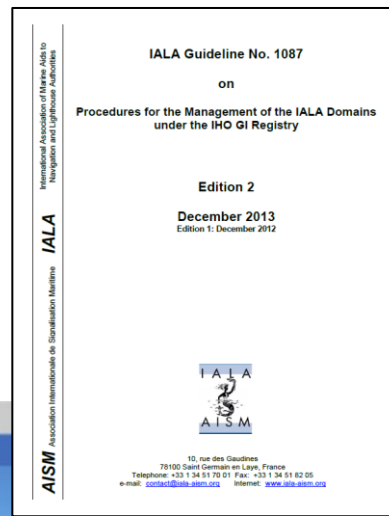
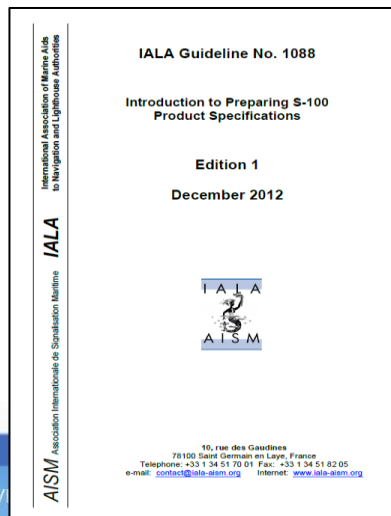
### **[Procedures for the Management on the IALA Domains under the IHO GI Registry]**

This document describes the roles, responsibilities and procedures for IALA as a Submitting Organization under the IHO Registry

**IALA Guideline 1106**  
(Ed. 1, Dec. 2013)

### **[Producing an IALA S-100 Product Specification]**

This guideline is intended to provide an overview of the process and a step-by-step guideline through the data modelling and submission process.



# Status of S-200

## ● S-200 Product specifications

PS No.	Title	Developer	Field Manager	Status
S-201	Aids to Navigation Information	KRISO/Jeppesen/USCG for e-NAV WG1	N Ward <a href="mailto:nick.ward@gla-rnav.org">nick.ward@gla-rnav.org</a>	Draft 0.0.4 completed for review
S-210	Inter VTS Exchange Format	VTS WG2	R Hoogendoorn <a href="mailto:rene.hogendoorn@hitt.nl">rene.hogendoorn@hitt.nl</a>	Under development
S-230	Application Specific Messages	e-NAV WG1	-	No current work
S-240	DGNSS Station Almanac	KRISO for e-NAV WG5	Y Cho <a href="mailto:cho@iala-aism.org">cho@iala-aism.org</a>	Draft completed for review
S-245	eLoran ASF Data	KRISO	P Williams <a href="mailto:paul.williams@gla-rnav.org">paul.williams@gla-rnav.org</a>	No further development
S-246	eLoran Station Almanac	-	P Williams <a href="mailto:paul.williams@gla-rnav.org">paul.williams@gla-rnav.org</a>	Planned
S-247	Differential eLoran reference station almanac	-	P Williams <a href="mailto:paul.williams@gla-rnav.org">paul.williams@gla-rnav.org</a>	Planned

# Status of S-200

- Two Product Specifications (S-201 and S-240) are reaching maturity, have been raised to draft status, and posted on the IALA website for further comment prior to approval.
- Several other specifications are under development or planned.
- Comments received on S-240 have been incorporated in the current version (0.0.2).
- A further revision (0.0.4) of S-201 has been carried out by Working Group 1 of ENAV and this version has been submitted to ENAV 19 for consideration and further development.



# Status of developing IALA S-201 AtoN PS

## ● What is the IALA S-201 AtoN Product Specification?



Draft 0.0.4 – July 2016

IALA AtoN Product Specification

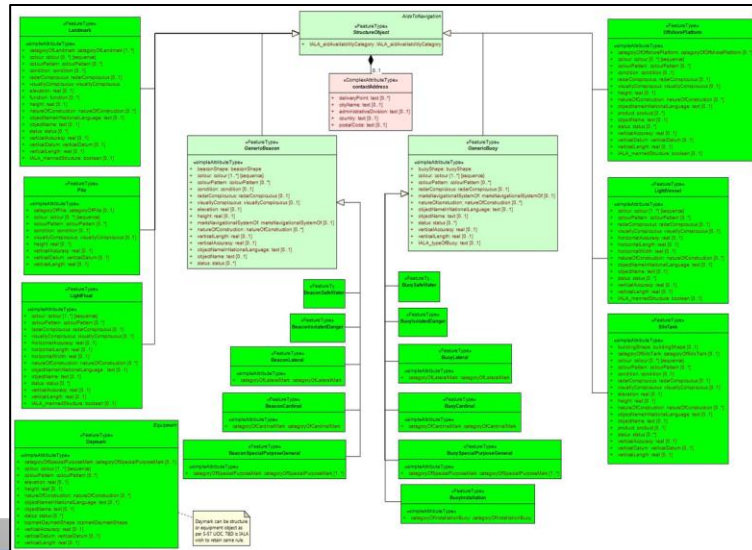
The Aids to Navigation (AtoN) Information Product Specification provides a common structure for the exchange of information about AtoNs.

This includes buoys, beacons, racons, lights, sound signals.

The product contains the positions, properties, operational status and general comments related to an AtoN.

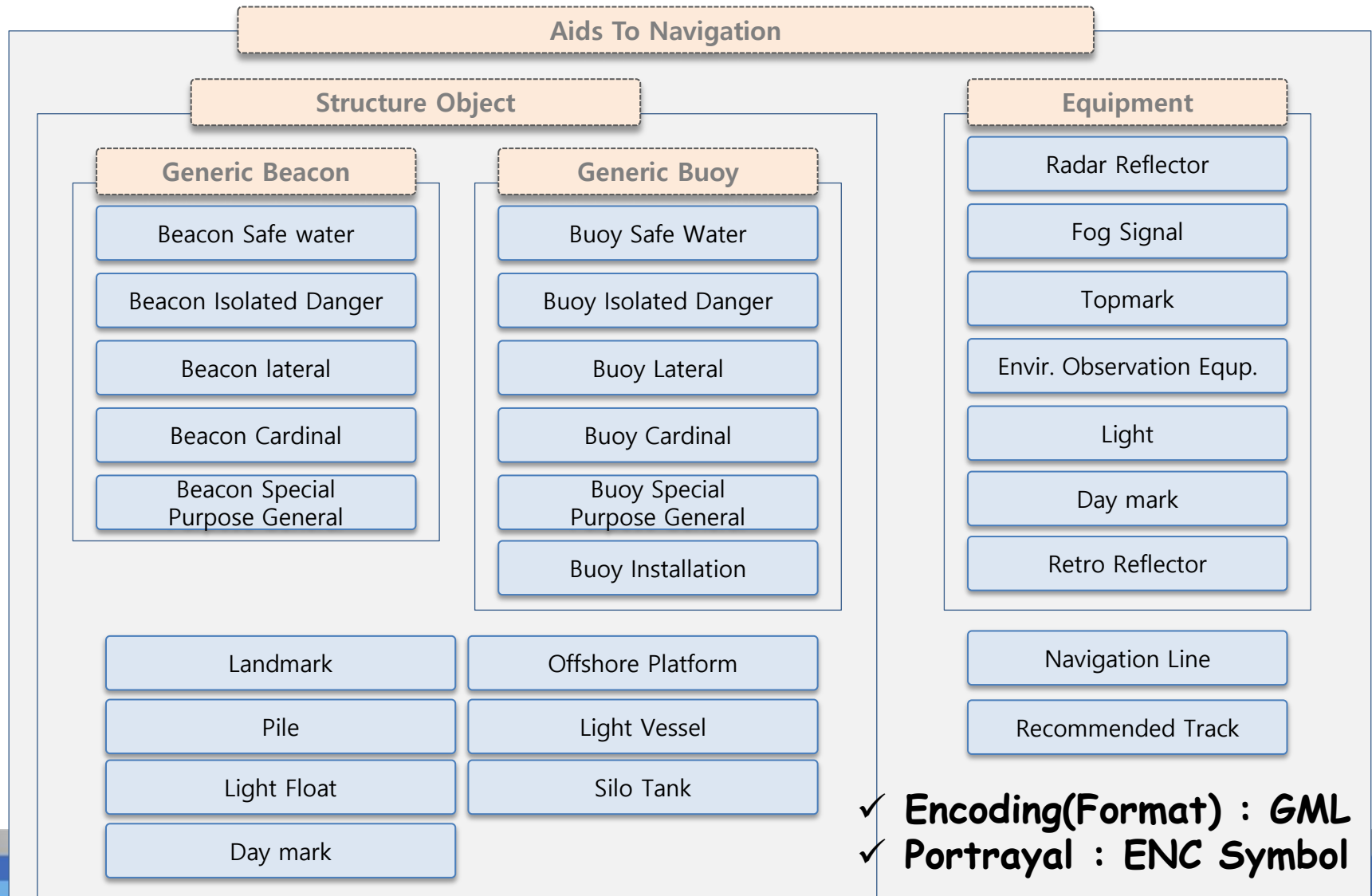
The Product Specification can be used to exchange AtoN information in a consistent form between Lighthouse Authorities, Hydrographic Offices and other organizations (to include commercial and professional agencies).

- What does the S-201 data consist of?



# Status of developing IALA S-201 AtoN PS

## ● What does the S-201 data consist of?



# Status of developing IALA S-201 AtoN PS

## ● Progress of S-201 development

- The first draft (0.0.1) of the S-201 Product Specification on AtoN Information was produced in October 2015.
- Comments have been collated since that time and incorporated in the resulting version 0.0.4.
- Versions 0.0.2 and 0.0.3 were interim revisions which were not formally submitted for approval.
- Version 0.0.4 was introduced in the E-Nav 19

# Status of developing IALA S-201 AtoN PS

## ● Liaison note between ARM and ENAV

### ■ ARM4 considered

- the S-201 contains a large range of data fields like maintenance regimes
- needs to clearly state which if any fields in the entire product specification are to be mandatory
- will provide further comments as necessary following further review at ARM5
- Provide the most up to date version of the document as an input to ARM5

### ■ Response to the Liaison note of ARM4

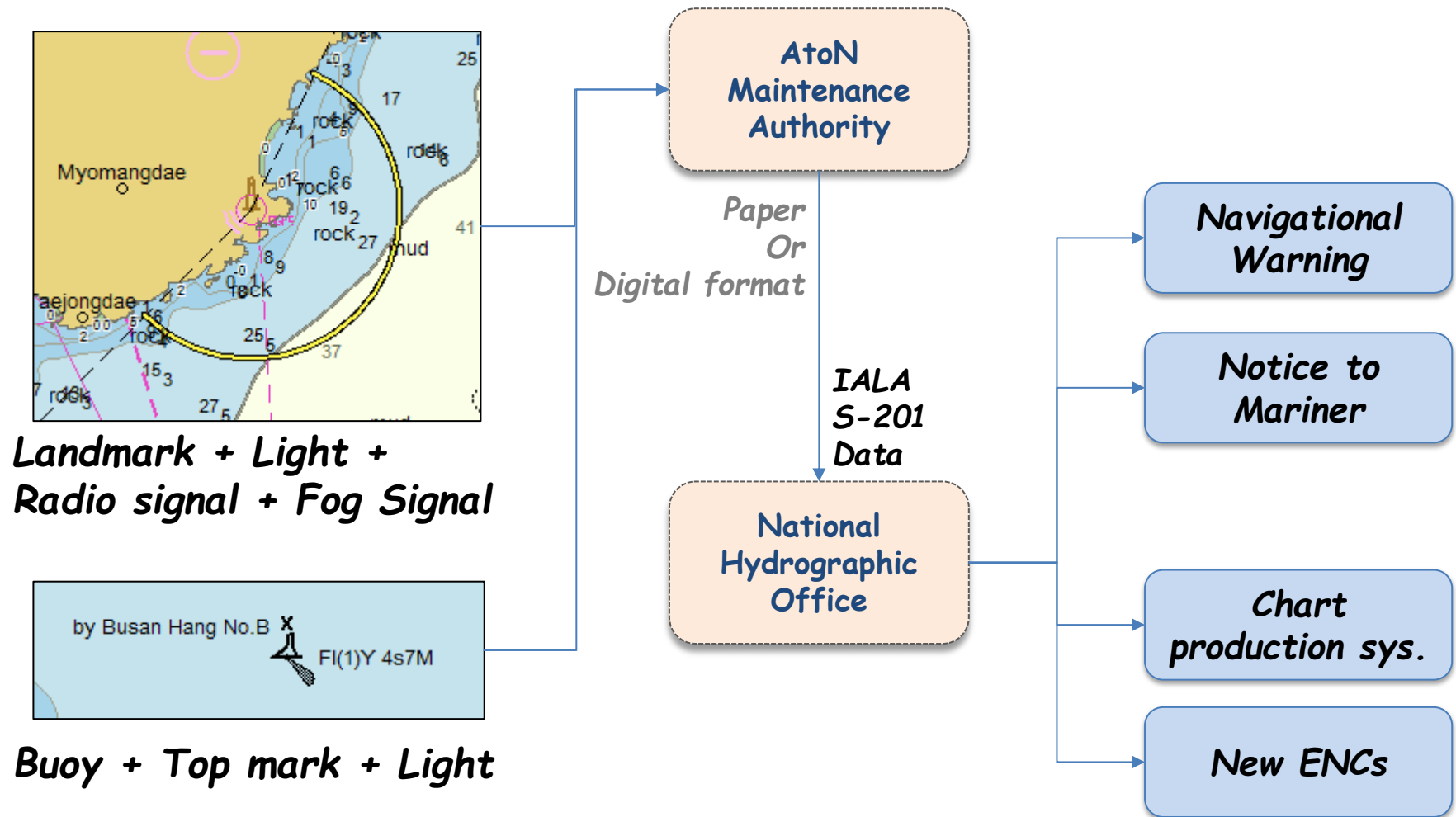
- forward the latest revision of S-201 (0.0.4) to ARM 5 for comment
- consider the suggestion of breaking the specification down into manageable parts

# Status of developing IALA S-201 AtoN PS

## ● Demonstration project

- As part of the EU Horizon 2020 Project EfficienSea 2
- demonstration is planned to test the S-201 for data exchange between a Lighthouse Authority (Trinity House on behalf of IALA) and a Hydrographic Office (UKHO).
- This demonstration is now expected to be carried out by the end of 2016.

# Use case of S-201 AtoN data





# Use case of S-201 AtoN data

## Weekly Light Lists of USCG



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The Navigation Center of Excellence

U.S. Department of Homeland Security  
UNITED STATES COAST GUARD



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#### Light Lists

- Light List Volumes
- Weekly Light Lists (XML and PDF)
- Light List Summary of Corrections

#### Mission Areas

- Global Positioning System
- Nationwide DGPS
- Nationwide AIS (NAIS)
- AIS (Overview, Messages, etc.)
- Long Range Identification and Tracking
- Local Notice to Mariners
- Light Lists Publications (2016)
- Light Lists (Weekly Updates)
- Civil GPS Service Interface Committee
- LORAN C (archive)

#### Subscribe / Report (free)

- Local Notice to Mariners (Weekly)
- GPS Operational Summary (Daily)
- NANUs (upon occurrence)
- Join CGSIC
- Report an ATON Discrepancy
- Report a GPS Problem
- Report an NDGPS Problem
- Report an LRIT Problem
- Report an NAIS Problem
- Contact Us

#### Maritime Information

- Electronic Charts Approval
- Maritime Safety Information Downloads
- Maritime Telecommunications
- CG Natl Distress System
- Global Maritime Distress and Safety System
- Marine Safety Information Broadcasts
- MF & HF Channels
- Nav Pubs and Documents
- Radio Watch Requirements
- Vessel Traffic Services
- VHF Channels & Freqs
- USCG 'Homeport' Website

#### WEEKLY LIGHT LISTS

The USCG Light List is provided annually and is intended to furnish more complete information concerning aids to navigation than can be conveniently shown on charts. The Light List is not intended to be used in place of charts or Coast Pilots. Charts should be consulted for the location of all aids to navigation. It may be dangerous to use aids to navigation without reference to charts.

Mariners are cautioned to keep their Light Lists, charts and other nautical publications corrected and should consult all notices issued after the date of publication of the annual Light List. A summary of corrections for the annual publication, which includes corrections from the dates shown on the title page to the date of availability, is available at the [Light List Corrections page](#). These corrections must be applied in order to bring the Light List up-to-date. Additionally, this publication should be corrected weekly from the Local Notices to Mariners or the Notices to Mariners, as appropriate.

The links below are weekly updates to the Light List corrected through the LNM week displayed on the header of each page. The weekly Light Lists are provided in two formats: PDF and XML. The XML Light List file contains aid information only: Light List Number, aid name, position, light characteristic, height, range, structure information and remarks. The weekly PDF file displays the Light List in traditional format. Front matter and indices are updated annually and are accessible at the link provided as well as in the full light list book.

These data sets are provided for the convenience of the user and are provided "as is" and without warranties of any kind either expressed or implied.

- Volume 1 - District 1:**
  - V1 2016 Front Matter and Index
  - Corrected through LNM Week 42 (XML) (PDF)
- Volume 2 - District 5:**
  - V2 2016 Front Matter and Index
  - Corrected through LNM Week 42 (XML) (PDF)
- Volume 3 - District 7:**
  - V3 2016 Front Matter and Index
  - Corrected through LNM Week 42 (XML) (PDF)
- Volume 4 - District 8 Gulf:**
  - V4 2016 Front Matter and Index
  - Corrected through LNM Week 42 (XML) (PDF)
- Volume 5 - District 8 Western:**
  - V5 2016 Front Matter and Index
  - Corrected through LNM Week 42 (XML) (PDF)
- Volume 6 - District 11:**
  - V6 2016 Front Matter and Index
  - Corrected through LNM Week 42 (XML) (PDF)
- Volume 6 - District 13:**
  - V6 2016 Front Matter and Index
  - Corrected through LNM Week 42 (XML) (PDF)
- Volume 6 - District 14:**
  - V6 2016 Front Matter and Index
  - Corrected through LNM Week 42 (XML) (PDF)

#### Light List corrected through LNM week: 42/16

(1) No.	(2) Name and Location	(3) Position	(4) Characteristic	(5) Height	(6) Range	(7) Structure	(8) Remarks
<b>SEACOAST (Maine) - First District</b>							
<b>BAY OF FUNDY TO CAPE COD (Chart 13260)</b>							
4	NOAA Data Lighted Buoy 44027	44-16-21.00N 067-18-52.00W	Fl (4)Y 20s		4	Yellow.	Marked NOAA 44027 Aid maintained by National Oceanic and Atmospheric Administration.
5	Mount Desert Light	43-58-07.01N 068-07-42.012W	Fl W 15s	75	20	Granite conical tower. 75	Emergency light of reduced intensity when main light is extinguished. HORN: 2 blasts ev 30s (2s bl-2s sl-2s bl-2s sl). Operates continuously.
6	University of Maine Jordan Basin Lighted Buoy M	43-29-26.40N 067-52-47.40W	Fl Y 4s			Yellow.	Private aid.
10	Matinicus Rock Light	43-47-00.502N 068-51-18.119W	Fl W 10s	90	20	Cylindrical gray granite tower. 90	Emergency light of reduced intensity when main light is extinguished. HORN: 1 blast ev 15s (2s bl). Operates continuously.
20	Monhegan Island Light	43-45-53.282N 069-18-56.981W	Fl W 15s	178	20	White tower. 47	Within 3 miles of island the light is obscured between west and southwest. Emergency light of reduced intensity when main light is extinguished.

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17        <xsd:sequence>
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45    </xsd:element>
46  </root>
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