



# S-130PT5

2023-03-13 & 2023-03-14

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# Opening and Welcome

S130PT5-1



# Meeting Protocol

Meeting participants are kindly requested to note the following meeting protocols:

- Please keep your camera and microphone turned **off** if you are not talking or presenting.
- If you want to make an intervention, **please turn your camera and microphone on and raise (and wave) your hand** to indicate that you wish to speak. (Please turn your camera and microphone off when finished)
- Don't forget to turn your microphone **on** before speaking, and **off** when finished.
- Please use the **Chat** function to communicate any text information to the meeting.
- It is intended to record the meeting for internal purpose only – please inform the secretary if you have an objection to this.
- If you have problems connecting using Firefox or other browser – please try using Chrome.

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# Approval of Agenda

S130PT5-2

[https://iho.int/uploads/user/Services%20and%20Standards/HSSC/Project%20Team%20S-130/S130PT05/S130PT05-02\\_2023\\_EN\\_Agenda.pdf](https://iho.int/uploads/user/Services%20and%20Standards/HSSC/Project%20Team%20S-130/S130PT05/S130PT05-02_2023_EN_Agenda.pdf)



## Annex A S130PT5 Draft Agenda

13-14 March 2023, (13:00 – 15:00, UTC+1, CET) / VTC Event

DRAFT AGENDA v1

Agenda item	Title	Lead	Remarks
<b>1. Opening and Administrative Arrangements</b>			
S130PT5-1	Opening and Welcome	Chair	
<b>2. Approval of Agenda</b>			
S130PT5-2	Agenda	Chair	
S130PT5-2.1	Status of List of Actions and Decisions from S-130PT4	IHO Sec.	
<b>3. Work Items</b>			
S130PT5-3.1	Application Schema <ul style="list-style-type: none"> <li>- Presentation updated Application Schema</li> <li>- Presentation proposed GI registry definitions for new terms</li> <li>- Presentation updated sample dataset for discussion and decision on MRN concept</li> </ul>	SSG Leader SSG Leader  JP (IIC)	
S130PT5-3.2	Product Specification <ul style="list-style-type: none"> <li>- Discussion on current draft version</li> <li>- Discussion on data quality elements</li> <li>- Discussion on relevant metadata elements</li> </ul>	Chair Vice-Chair JP (IIC)	
S130PT5-3.3	Feature Catalogue <ul style="list-style-type: none"> <li>- Discussion on current draft version</li> </ul>	JP (IIC)/All	
S130PT5-3.4	Data Classification and Encoding Guide <ul style="list-style-type: none"> <li>- Discussion on current draft version</li> </ul>	Chair/All	
S130PT5-3.5	Discussion on sample and final dataset, including: <ul style="list-style-type: none"> <li>- Recommendations about producer of final dataset</li> <li>- Number of versions to be produced</li> </ul>	All	
S130PT5-3.6	Discuss proposed timeline and work plan for S-130PT for submission to HSSC-15	All	
S130PT5-3.7	Discussion on assignment of tasks to Project Team, Sub-Groups or others		
S130PT5-3.8	Discussion on navigational purpose of S-130 Product Specification	All	
S130PT5-3.9	Discussion on need for Portrayal Catalogue for S-130 Product Specification	All	
S130PT5-3.10	Discussion on shift towards SharePoint as an editing tool	All	
<b>4. Any Other Business (AOB)</b>			
S130PT5-4.1	AOB	IHO Sec.	
S130PT5-4.2	Group Photo	Chair	
<b>5. Date and Venue of Next Meeting</b>			
<b>6. Review Action Items</b>			
S130PT5-6	Review Action Items	IHO Sec.	
<b>Close</b>			

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# Status of List of Actions and Decisions from S-130PT4

S130PT5-2.1



## List of Actions and Decisions from S-130PT4

Action	Status
[Action 4/01] S-130PT are invited to update the list of members of the S-130PT and contact details.	Ongoing
[Action 4/02] S-130PT Chair to provide more information on the MRN concept to the S-130PT members before the follow up session in November 2022.	Completed
[Action 4/03] J. Pritchard (IIC) to create the updated sample test datasets taking into consideration the MRN and the NI and report it at the next S-130PT meeting.	Completed
[Action 4/04] SSG to develop definition of each term for the Application Schema to propose them in the GI registry and submit them to the next S-130PT meeting for discussion.	Completed
[Action 4/05] SSG Leader to update the Application Schema and report at the next S-130PT meeting.	Completed
[Action 4/06] J. Pritchard (IIC) to prepare a draft Metadata part of S-130PS and report to the next S-130PT meeting.	



## List of Actions and Decisions from S-130PT4

- [Decision 4/01] S-130PT agreed that Y. BAEK (IHO Sec) takes the role of S-130 PT secretary.
- [Decision 4/02] S-130PT approved the draft agenda as presented at the meeting and agreed to hold the second session of S-130PT4 meeting in November 2022 to discuss the rest of the agenda if it is not completed.
- [Decision 4/03] S-130PT agreed that the MRN concept serves a Unit Numbering System in S-130 product in general. However, the final decision will be made later in consideration of the sample test dataset and issues related to the S-130 data producer.
- [Decision 4/04] S-130PT approved Feature Type name – Global Sea Area to the S-130 Product Specification taking into consideration of representing technical aspects only.
- [Decision 4/05] S-130 PT agreed to remove news media and industry publication and reports from the list of source types, but keep the remotely sensed images considering a use case of for instance the coastline.
- [Decision 4/06] S-130PT approved the amended draft Application Schema as a baseline version for the Edition 1.0.0 of S-130PS.
- [Decision 4/07] S-130PT agreed that J. Pritchard (IIC) lead the Metadata part of the S-130PS.
- [Decision 4/08] S-130PT established an Editing Group (EG) for the first version of the S-130PS and invited S-130PT members to join in.
- [Decision 4/09] S-130PT agreed to hold the next S-130 Project Team meeting as a VTC event early 2023. The meeting could be multiple days subject to the discussion items



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# Application Schema

# Presentation updated Application Schema

S130PT5-3.1a



## **5<sup>th</sup> Meeting of S-130 Project Team**

# **Application Schema**

**Presentation updated Application Schema**

13 ~ 14 March 2023 / VTC (13:00 - 15:00/ UTC+1,CET)



IHO

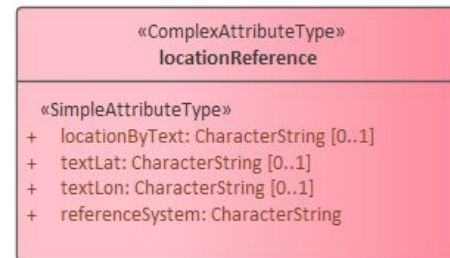
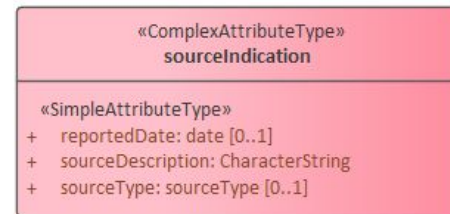
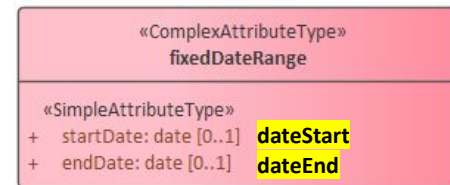
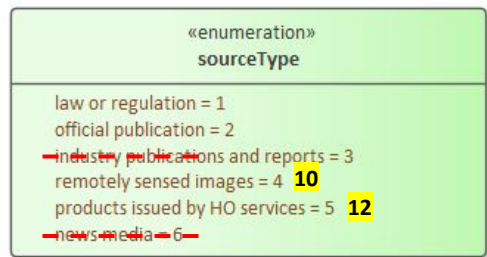
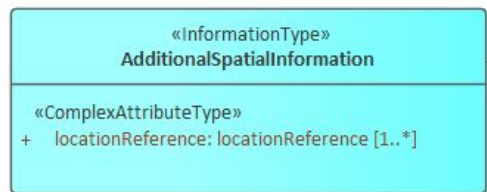
# S-130 APPLICATION SCHEMA

## • Former version

Code number	Enumerated value Name	Code number	Enumerated value Name
1	Law or Regulation	2	Official Publication
7	Mariner Report, Confirmed	8	Mariner Report, Not Confirmed
9	Industry Publications and Reports	10	Remotely Sensed Images
11	Photographs	12	Products Issued by HO Services
13	News Media	14	Traffic Data

International Hydrographic Organization

class Domain overview



[Decision 4/05] S-130 PT agreed to remove *news media* and *industry publication and reports* from the list of source types, but keep the *remotely sensed images* considering a use case of for instance the coastline.



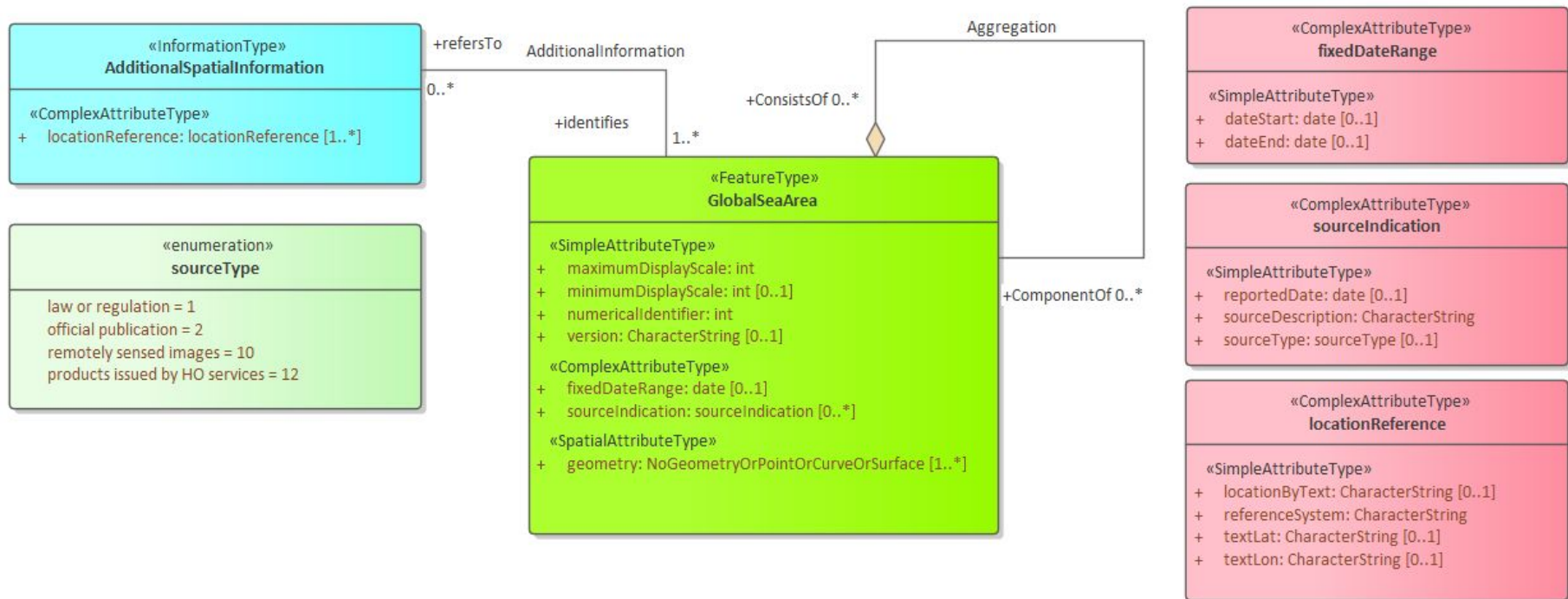
IHO

# S-130 APPLICATION SCHEMA

## • Updated version

International Hydrographic Organization

### class Domain overview



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# Application Schema

Presentation proposed GI registry definitions for new terms

S130PT5-3.1b



## **5<sup>th</sup> Meeting of S-130 Project Team**

# **Application Schema**

**Presentation proposed GI registry definitions for new terms**

13 ~ 14 March 2023 / VTC (13:00 - 15:00/ UTC+1,CET)

**IHO**

# S-130 APPLICATION SCHEMA

International  
Hydrographic  
Organization

## • Proposed definitions

Num	New concept	Feature Data Types	Proposed definition	Note
1	GlobalSeaArea	Feature type	The area to exchange the extent of global sea areas using a system of unique numerical identifiers only. It aims to support the provision of digital coordinates for limits of oceans and seas to meet the requirements of contemporary geographic information systems	New proposal
2	locationReference	Complex Attribute type	Textual information to render a geographic location	New proposal
3	sourceIndication	Complex Attribute type	Information about the source document, publication, or reference from which object data or textual material included or referenced in a dataset are derived.	Reuse the registered definition (Simple attribute in the Inland domain)
4	sourceDescription	Simple Attribute type	Propose to change to "source" (The publication, document, or reference work from which information comes or is acquired.)	Reuse the registered definition (IHO Hydro Domain)
5	textLat	Simple Attribute type	Textual description of latitude information	New proposal
6	textLon	Simple Attribute type	Textual description of longitude information	New proposal
7	numericalIdentifier	Simple Attribute type	featureIdentifier (An identifier referencing an object or feature that is external to the dataset, expressed in Uniform Resource Name (URN) format.)	Reuse the registered definition (WMO Weather Domain)
8	version	Simple Attribute type	Identification of feature instance	New proposal



# GlobalSeaArea

- Proposal
  - The area to exchange the extent of global sea areas using a system of unique numerical identifiers only. It aims to support the provision of digital coordinates for limits of oceans and seas to meet the requirements of contemporary geographic information systems
- Alternative(s)
  - Extent of global sea areas using a system of unique numerical identifiers only. It aims to support the provision of digital coordinates for limits of oceans and seas to meet the requirements of contemporary geographic information systems
  - An area feature whose extent is identified, for the purposes of data exchange, using a system of unique numerical identifiers only. It aims to support the provision of digital coordinates for limits of oceans and seas to meet the requirements of contemporary geographic information systems
- Note Chair
  - All definitions refer to surface feature (see discussion on Agenda 5-3.1c)





## locationReference

- Proposal
  - textual information to render a geographic location
- Alternative(s)
  - textual information to describe a geographic location
- Note Chair
  - original proposal very similar to *locationByText* ('A textual rendering of a geographic location', <https://registry.iho.int/fdd/view3.do?idx=545&type=3>)



# numericalIdentifier

- Proposal
  - reuse definition featureIdentifier (An identifier referencing an object or feature that is external to the dataset, expressed in Uniform Resource Name (URN) format.)
- Note Chair
  - URN format will not be used in v1.0.0 (namespace?)

## Examples [\[ edit \]](#)

URN	corresponds to
<code>urn:isbn:0451450523</code>	The 1968 book <i>The Last Unicorn</i> , identified by its <a href="#">International Standard Book Number</a> .
<code>urn:isan:0000-0000-2CEA-0000-1-0000-0000-Y</code>	The 2002 film <i>Spider-Man</i> , identified by its <a href="#">International Standard Audiovisual Number</a> .
<code>urn:ISSN:0167-6423</code>	The scientific journal <i>Science of Computer Programming</i> , identified by its <a href="#">International Standard Serial Number</a> .
<code>urn:ietf:rfc:2648</code>	The IETF's RFC 2648.
<code>urn:mpeg:mpeg7:schema:2001</code>	The default namespace rules for <a href="#">MPEG-7</a> video metadata.
<code>urn:oid:2.16.840</code>	The <a href="#">OID</a> for the <a href="#">United States</a> .



## version

- Proposal
  - identification of feature instance
- Alternative(s)/Note Chair
  - construct that enables a system to distinguish between one state of an object and another where the contents of the object have changed.  
[\(<http://publications.europa.eu/resource/authority/sdmxglossary2018/VERSION>\)](http://publications.europa.eu/resource/authority/sdmxglossary2018/VERSION)
  - An identification that refers to a specific form or variation of a system or device model.  
[\(<http://vocab.nerc.ac.uk/collection/W07/current/IDEN0013/>\)](http://vocab.nerc.ac.uk/collection/W07/current/IDEN0013/)
  - identification of a specific form or variation of a feature instance

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# Application Schema

**Presentation updated sample dataset  
for discussion and decision on MRN  
concept**

S130PT5-3.1c

# Agenda 5-3.1c

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<Dataset xmlns="http://www.who.int/S131/1.0"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://www.who.int/S131/1.0 S130v3.xsd"
  xmlns:s100="http://www.who.int/S100/profiles/100_gmlProfile"
  xmlns:gml="http://www.opengis.net/gml/3.2" xmlns:s100="http://www.who.int/S100gml/5.0"
  xmlns:xlink="http://www.w3.org/1999/xlink" gml:id="DS1">
  <S100-DataetIdentificationInformation>
    <S100-encodingSpecification>S-100_Part 10b</S100-encodingSpecification>
    <S100-encodingSpecificationEdition>1.0</S100-encodingSpecificationEdition>
    <S100-productIdentifier>S-130</S100-productIdentifier>
    <S100-productEdition>1.0.0</S100-productEdition>
    <S100-applicationProfile>S1</S100-applicationProfile>
    <S100-datasetFieldIdentifier>130IC000000.GML</S100-datasetFieldIdentifier>
    <S100-datasetTitle>Sample GML Encoding</S100-datasetTitle>
    <S100-datasetReferenceDate>2001-04-22</S100-datasetReferenceDate>
    <S100-datasetLanguage>eng</S100-datasetLanguage>
    <S100-datasetTopicCategory>ceans</S100-datasetTopicCategory>
    <S100-datasetPurpose>base</S100-datasetPurpose>
    <S100-updateNumber>0</S100-updateNumber>
  </S100-DataetIdentificationInformation>
  <members>
    <GlobalSeaArea gml:id="BC">
      <numericalIdentifier>53859</numericalIdentifier>
      <maximumDisplayScale>22000</maximumDisplayScale>
      <sourceIndication>
        <sourceDescription>IHO S-23</sourceDescription>
        <sourceType code="2">official_publication</sourceType>
      </sourceIndication>
      <sourceIndication>
        <sourceDescription>OpenStreetmap</sourceDescription>
        <sourceType code="9">news_media</sourceType>
      </sourceIndication>
      <refersTo xlink:href="http://www.who.int/S-130/gml/1.0.0/roles/ComponentOfReferencesTo" xlink:href="#Ref"/>
      <geometry>
        <S100-surfaceProperty>
          <S100-surface gml:id="SB_C">
            <gml:patches>
              <gml:PolygonPatch>
                <gml:exterior>
                  <gml:LinearRing>
                    <gml:posList>-3.605839732909388 51.45801557864566 -3.7020178745527543 51.51205769399725 -3.70875700923955
51.58226191075433 -3.828389618983536 51.63458254963201 -3.9699259727460117 51.646084998970814 -4.1856004165745455 51.7119064669369-
4.268163289602656 51.81098021724807 -4.438343905436108 51.804729338674166 -4.672552871781157 51.75364822844128 -4.739937971754196
51.681946055171224 -4.82366191030005 .....-3.605839732909388 51.45801557864566</gml:posList>
                </gml:exterior>
              </gml:PolygonPatch>
            </gml:patches>
          </S100-surfaceProperty>
        </S100-surfaceProperty>
      </geometry>
    </GlobalSeaArea>
    <AdditionalSpatialInformation gml:id="Ref">
      <locationReference>
        <locationByText>A line joining Hartland Point [51 01N, 4 32' W] to St. Govan's Head [51 36'N, 4 55'W].</locationByText>
        <referenceSystem>None Specified</referenceSystem>
      </locationReference>
    </AdditionalSpatialInformation>
  </members>
</Dataset>
```

The screenshot shows the 'FeatureBuilder v6.2.1' application window. The main area displays a table of features for the 'GlobalSeaArea' dataset. The table has columns for Features, Value, Type, Gid, and Comment. The 'GlobalSeaArea' feature is expanded to show its sub-features:

Features	Value	Type	Gid	Comment
GlobalSeaArea	BC	F [S]	S130Brist...	
numericalIdentifier	53859	INTEGER [1-1]		
maximumDisplayScale	22000	INTEGER [1-1]		
sourceIndication		Complex [0-1]		
sourceType	official_publication	ENUMERATION ...		
sourceDescription	IHO S-23	TEXT [1-1]		
sourceIndication		Complex [0-1]		
sourceDescription	OpenStreetmap	TEXT [1-1]		
sourceType	news media	ENUMERATION ...		
AdditionalSpatialInforma Ref		I [N]		
locationReference		Complex [1-1]		
referenceSystem	None Specified	TEXT [0-1]		
locationByText	A line joining Hartland Poin...	TEXT [0-1]		

At the bottom of the window, there is a 'Relations' button and a status bar that reads 'Product=S-130 Schema=s100e5 Dataset=s130sample1'.

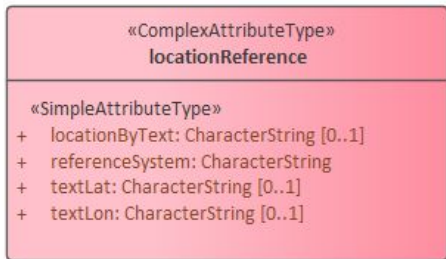


## Discussion items Application Schema

- Should the product specification enable **textual description of the location of the component points and curves** which make up the polygon (yes/no?). If yes:
  - Have **separate features** for contributing point and construction line (like S-121), with locationReference (and sourceIndication?), but without identifiers.
  - **Add point, curve, NoGeometry to existing feature catalogue** (like current application schema). But, this means they also have numerical identifiers.
- Should **locationReference** be **inline** in the GlobalSeaArea feature as well as by reference to the Information type AdditionalSpatialInformation (yes/no?)
- What is the **format of the numerical identifiers**? Numbers or MRNs?

## Discussion items Application Schema

- Should the product specification enable **textual description of the location of the component points and curves** which make up the polygon (yes/no?)



*On the West.*

A line running from Lyser Ort (57°34' N), in Latvia, to the S extreme of Ģešl Island, through this island to Pammerort (22°34' E), thence to Enmast Point, the S extreme of Dagö, through Dagö to Takhkona Point, the N extreme thereof, and on to Spithamn Point in Estonia.

## Discussion items Application Schema

- Should the product specification enable **textual description of the location of the component points and curves** which make up the polygon (yes/no?). If yes:
  - Have **separate features** for contributing point and construction line (like S-121), with locationReference (and sourceIndication?), but without identifiers.

Concept Details	
Name	Construction Line
Alias	
CamelCase	constructionLine
Definition	An arc used for constructing Limit or Boundary features typically linking to a Contributing Point.
Reference	2019
Reference Source	IHO S-121 Project Team ( <a href="#">Detail view</a> )
Similarity to Source	Identical
Remarks	

Management Details			
Proposal Type	Addition	Submitting Org	IHO Secretariat
Successor	--	Date Proposed	2020-06-03
Predecessor	--	Date Accepted	2020-06-03
Proposed Change	New item transferred from Feature Concept Dictionary Register.		
Justification	Initial population of Concept Register.		

DDR Binding Contents	
Feature type	<a href="#">Go to detail page</a>

Concept Details	
Name	Contributing Point
Alias	
CamelCase	contributingPoint
Definition	A point, typically on a Baseline, used for the computation of a maritime Limit or Boundary feature.
Reference	2019
Reference Source	IHO S-121 Project Team ( <a href="#">Detail view</a> )
Similarity to Source	Identical
Remarks	

Management Details			
Proposal Type	Addition	Submitting Org	IHO Secretariat
Successor	--	Date Proposed	2020-06-04
Predecessor	--	Date Accepted	2020-06-04
Proposed Change	New item transferred from Feature Concept Dictionary Register.		
Justification	Initial population of Concept Register.		

DDR Binding Contents	
Feature type	<a href="#">Go to detail page</a>

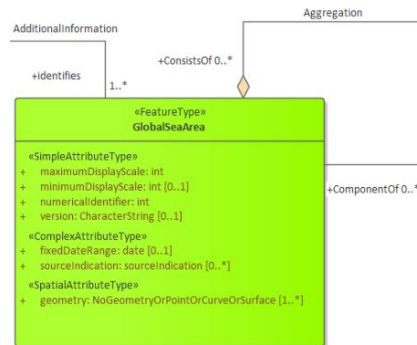
<https://registry.iho.int/fdd/view1.do?idx=414&type=1>

<https://registry.iho.int/fdd/view1.do?idx=416&type=1>

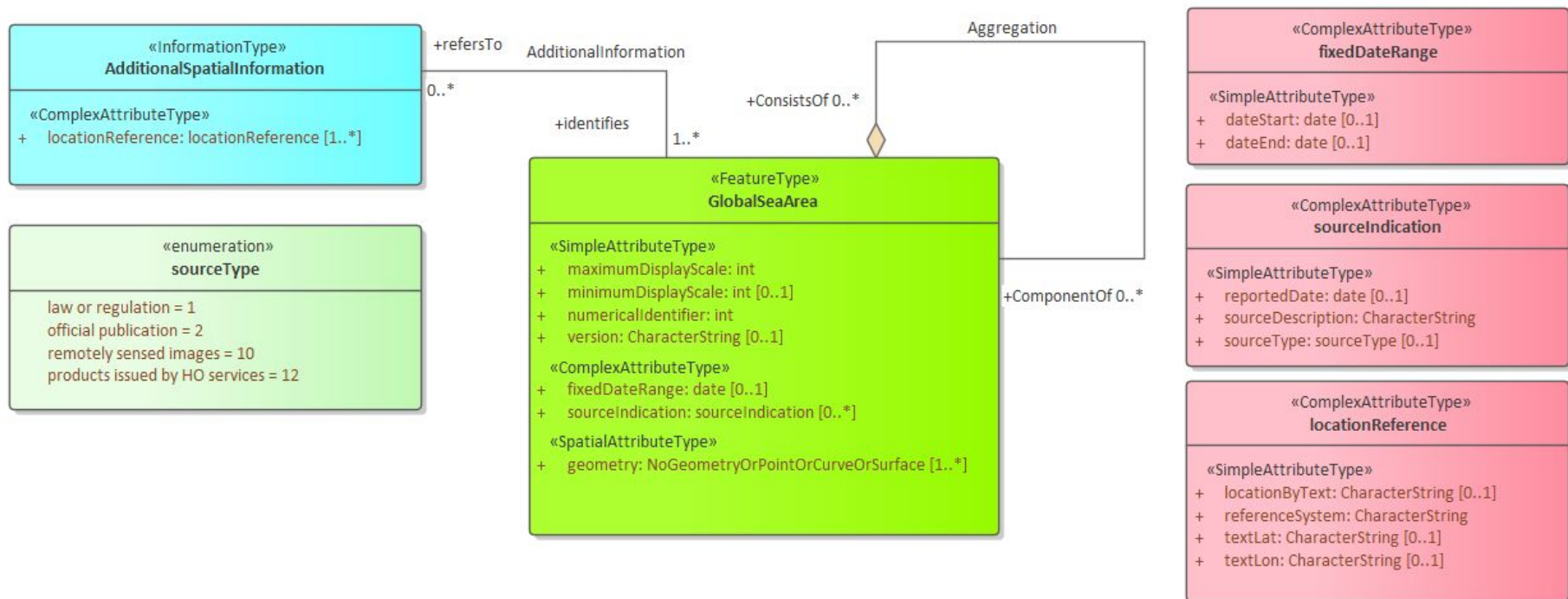


## Discussion items Application Schema

- Should the product specification enable **textual description of the location of the component points and curves** which make up the polygon (yes/no?). If yes:
  - Have **separate features** for contributing point and construction line (like S-121), with locationReference (and sourceIndication?), but without identifiers.
  - **Add point, curve, NoGeometry to existing feature catalogue** (like current application schema). But, this means they also have numerical identifiers (maybe structured in a separate way).



## class Domain overview



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# Product Specification

## Discussion on current draft version

S130PT5-3.2a

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# Product Specification

## Discussion on data quality elements

S130PT5-3.2b

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# Product Specification

## Discussion on relevant metadata elements

S130PT5-3.2c

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# Feature Catalogue

## Discussion on current draft version

S130PT5-3.3

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# Data Classification and Encoding Guide

## Discussion on current draft version

S130PT5-3.4

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# Discussion on sample and final dataset, including:

- Recommendations about producer of final dataset
- Number of versions to be produced (*e.g. at different scales*)

S130PT5-3.5





## Terms of Reference

### 1. Objective

To develop the S-130 Polygonal Demarcations of Global Sea Areas Product Specification and Dataset.

1.1 The definition of S-130 should take into account the following:

- i) Define a proposed dataset model using a system of unique numerical identifiers only;
- ii) Create an S-100 conformant product specification for Polygonal Demarcations of Global Sea Areas, through the profiling or adaptation of existing IHO S-100-based product specifications (such as S-121, S-122 for instance).

1.2 Once the dataset model is approved, to propose recommendations for the subsequent production and distribution of this S-130 dataset including quality control, maintenance procedure and a basic user/information manual.

The scope of this Project Team under HSSC is strictly limited to technical issues only (items 1.9.1 to 1.9.3) in support of the implementation of Proposal 1.9 made at A-2.



## Proposal 1.9 made at A-2

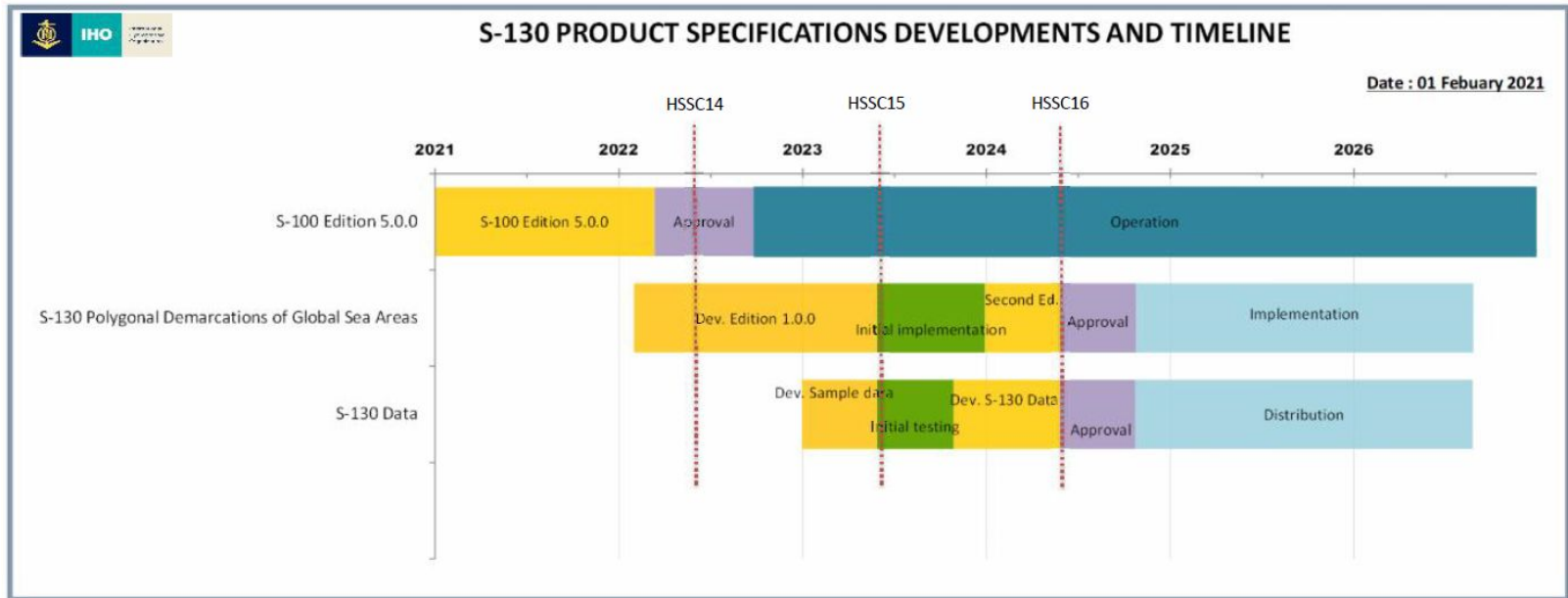
- **PRO 1.9.1-** to agree on the provision of digital coordinates for limits of oceans and seas to meet requirements of contemporary geographic information systems.
- **PRO 1.9.2** – to task the appropriate IHO subordinate technical body
  - to develop a dataset named “Polygonal demarcations of global sea areas” to designate geographic sea areas by a system of unique numerical identifiers only, and
  - to profile or adapt appropriate IHO S-100-based standards through a new S-130 dataset, to facilitate the digital provision of the “Polygonal demarcations of global sea areas”.
- **PRO 1.9.3** – to consider, if and when necessary, the development of basic guidelines for the allocation and display of attributes of sea areas to be applied to Geographic Information Systems.

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# Discuss proposed timeline and work plan for S-130PT for submission to HSSC-15

S130PT5-3.6

## Proposed timeline and work plan





## Proposed timeline and work plan

### S-130PT Tasks

- A. Develop and maintain S-130 "Polygonal Demarcations of Global Sea Areas Product Specification" (IHO Task 2.3.4)
- B. Produce and distribute S-130 dataset (IHO Task 2.3)
- C. Maintain maintenance procedure and user/information manual (IHO Task 2.3)
- D. Conduct the 2022-2024 meetings of S-130PT (IHO Task 2.1)

Task	Work Item	Priority H-high M-medium L-low	Milestones	Start Date	End Date	Status P-planned O-ongoing C-Completed	Contact Person	Affected Pubs/Standard	Remarks
A1	Develop S-130 Product Specification Edition 1.0.0	H	HSSC 15	2022	2023	C	Britt Lonneville (VLIZ)		
A2	Initial implementation S-130 Edition 1.0.0	M		2023	2023/2024	P	Britt Lonneville (VLIZ)		
A3	Develop S-130 Product Specification Edition 2.0.0	H	HSSC 16	2023	2024	P	Britt Lonneville (VLIZ)		
B1	Develop S-130 sample dataset	H	HSSC 15	2023	2023	C	Britt Lonneville (VLIZ)		
B2	Initial test of S-130 sample dataset	M		2023	2023/2024	P	Britt Lonneville (VLIZ)		
B3	Develop S-130 dataset	M	HSSC 16	2023	2024	P	Britt Lonneville (VLIZ)		
D1	Meetings S-130PT	M		2022	Ongoing	O	Britt Lonneville (VLIZ)		

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# Discussion on assignment of tasks to Project Team, Sub-Groups or others

S130PT5-3.7

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# Discussion on navigational purpose of S-130 Product Specification

S130PT5-3.8



## S-98 Applicability

Yes.

...

*Description: Applicable to S-98 (Yes or No)*

*Comments: S-98 Interoperability Specification in S-100 Navigation Systems*

\*Comments (Sewoong) : If the S-130 does not consider the navigational purpose, the S-98 applicability will be No.



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# Discussion on need for Portrayal Catalogue for S-130 Product Specification

S130PT5-3.9



## Portrayal Catalogue

- S-97: “Portrayal is an optional part of a Product Specification. However, if consistent portrayal across all user platforms is important to an S-100-based data product, then specifying how portrayal is done becomes mandatory. Within S-100 Product Specifications, this is done by including a Portrayal Catalogue. The Portrayal Catalogue is a collection of defined portrayal instructions for a Feature Catalogue; and includes portrayal functions, symbols and portrayal context.”

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# Discussion on shift towards SharePoint as an editing tool

S130PT5-3.10

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# AOB

S130PT5-4.1

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# Group Photo

S130PT5-4.2

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# Date and Venue of Next Meeting

S130PT5-5

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# Review Action Items

S130PT5-6