

8th S-129 UKCM Project Team Meeting Record of Meeting

1130 – 1350 UTC, 27 July 2023
VTC (GoToMeeting)

1.1 Welcome and Introductions / Review of Meeting Agenda

The Chair opened the meeting at 1130 UTC and welcomed S-129 Project Team (PT) members as well as other delegates from the S-100 Working Group (WG). Refer to Annex A for the list of participants.

During the opening session, the Chair provided an overview of the draft meeting agenda (Annex B), which included a session to review the last meeting's action items.

The next session included the Chair's status update on the S-129 Ed 1.1.0 Product Specification redlines. The same session included an agenda item to review the previous meeting's action items (detailed in Annex C).

The following session was allocated to presentation by Hannu Peiponen (IEC/Furuno), as well as to the review of the S-129 PT work plan and other businesses.

2.1 Review of Previous Meeting Action Items

The Chair provided an update on the progress of action items from the 7th S-129 PT, which was held on 25 May 2023.

The progress of the action items, as of the date of the 7th PT meeting, are reflected in Annex C, as well as outlined below:

PT7-1: Chair to review IHO website and ensure S-129 information is up to date

The Chair closed this action item, given S-129 information on the IHO website and the IHO GI Registry appeared to up to date, as per S-129 Edition 1.0.0, and given Edition 1.1.0 not yet being published.

PT7-2: Continue draft S-129 Product Specification Edition 1.1.0

The Chair indicated the draft S-129 Product Specification Edition 1.1.0 is ready for producing corresponding Feature Catalogue, Portrayal Catalogue and test datasets. However, the Chair also noted that further corrections and updates are possible, in which case further changes to the Product Specification may become necessary under Edition 1.1.0.

PT7-3: Propose feature names and camel case renaming to IHO GI Registry

The Chair closed this action item, as the feature name change proposals for "*Under Keel Clearance Purpose Type*" and "*Under Keel Clearance Calculation Type*" were submitted to the IHO GI Registry.

PT7-4: Research pattern fill portrayal of UKC non-navigable and UKC almost non-navigable areas, and provide S-129 PT with findings

This action item was closed. KMOU had conducted examination of pattern fill portrayals of UKC “non-navigable” and “almost non-navigable” areas. Findings with regards to the pros and cons of hatch fill and symbol-based pattern fill were provided.

PT7-5: Coordinate proposal for portrayals of “UKC Service area” boundary, “UKC non-navigable area” and “UKC almost non-navigable area”

This action item is still open. The Chair had attempted to contact Mikko Hovi (NCWG) and Izzy Kim (KHOA) to seek feedback regarding the S-129 PT’s proposed portrayals. Currently awaiting response.

PT7-6: Work on or assign compiling of test dataset screenplay

This action item was indicated as being open, as the Chair was seeking existing screenplays, or templates thereof, that could be used as reference.

PT7-7: Query Mikko (NCWG Chair) about obtaining details for INT3 access

This action item was closed, following Mikko’s advice to the Chair that INT3, as a paper chart, was not necessarily the optimal choice for your test dataset preparation needs. Mikko recommended contacting Jonathan Pritchard (IIC Technologies) with regards to S-164 test areas.

ACTION PT8-1 – Obtain feedback from Jonathan (IIC Technologies) regarding suitable S-164 test areas for S-129
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PT7-8: Further review and amend the S-129 workplan, for review by meeting participants

This action item was closed. The Chair amended the S-129 PT workplan, to be reviewed by PT members during this meeting.

PT7-9: Propose date for next S-129 PT meeting (VTC; mid/late July 2023)

This action item was closed. Proposed date of July 27th, 2023, on which the 8th S-129 PT meeting was conducted.

2.1 Update on S-129 Edition 1.1.0 Product Specification

The Chair noted that draft of the S-129 Edition 1.1.0 Product Specification now reflects changes and corrections identified to date, including those in accordance with S-100 Edition 5.0.0.

The Chair had requested Seojeong Lee and Kevin Kim (KMOU) to update the Feature Catalogue, Portrayal Catalogue, and XML schema based on S-129 Edition 1.1.0.

However, it was also noted that there will be further changes, in consideration of the feature name change proposals pending approval in the IHOGI Registry (action item PT7-3), S-100 Edition 5.1.0, as well as other changes or corrections that may be identified. Whether or not such changes are to be incorporated into Edition 1.1.0, or into later revisions, are to be determined.

2.2 Portrayal proposals

The Chair provided the PT with an overview and timeline of the PT's past discussions and decisions pertaining to the portrayal of "Under Keel Clearance Non Navigable Area" and "Under Keel Clearance Almost Non Navigable Area" features. It was highlighted that these features were originally intended to be portrayed using hatch fill. Issues encountered in testbed software prevented the use of hatch fill, prompting the PT to use solid fill as workaround for testbed purposes. Noting concerns over solid fill feature portrayals, as well as the possibility of hatch fill issues now being resolved in testbed software, it may now be appropriate to revert to hatch fill portrayal.

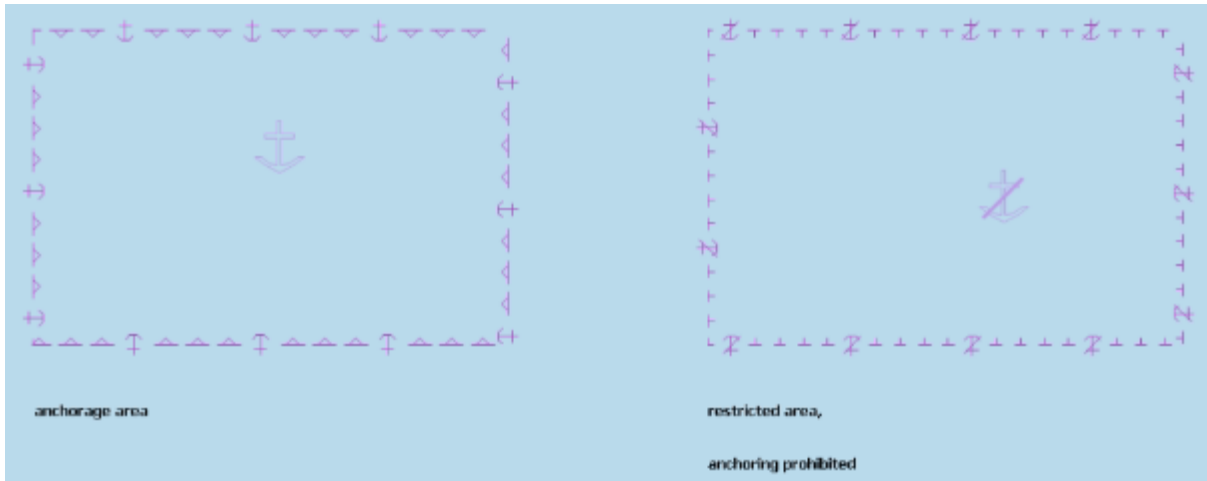
The Chair outlined KMOU's findings around different area fill portrayal methods, the pros and cons of which can be summarised as follows:

Hatch fill	Symbol-based pattern fill
<ul style="list-style-type: none">• Pros: Less computational time compared to symbol-based fill• Cons: Possibly less discernible from other layers than symbol-based fill	<ul style="list-style-type: none">• Pros: Possibly more discernible from other layers than hatch fill (i.e. better for interoperability)• Cons: More computational time compared to hatch fill

The Chair added that hatch fill portrayal, being the original design, was available in the early version of the S-129 Portrayal Catalogue, while symbol-based pattern fill would require more time and effort to design, propose, and implement.

David Grant (NIWC) commented that computational time difference between the two methods would be negligible. David also questioned if the portrayal of S-129 features should be designed in consideration of RADAR sweep/ARPA or AIS. Hannu commented that if RADAR overlays are portrayed in shades of green, then the red/yellow portrayal of S-129 features would work well. In current ECDIS, in which RADAR overlays can be displayed alongside the safety contours highlighted in red, and navigational hazards highlighted in yellow.

The Chair updated the PT that clarification was being sought with Mikko Hovi (NCWG) around advice provided in the previous S-129 PT meeting pertaining to the UKCM area boundary portrayal. During the previous PT meeting, Mikko advised against simple line portrayal, and recommended a symbol/label to accompany the boundary lines. The Chair sought to clarify with Mikko, via email, if the PT should be pursuing symbolised line styles such as the following examples illustrated.



Hannu suggested that the S-129 UKCM area boundary line can follow such symbolised line style, with the symbol being a simple text: “UKC”. The Chair proposed to propose this option and obtain feedback from Mikko/NCWG.

ACTION PT8-2 – Design and propose UKCM area boundary portrayal (i.e. symbolised magenta line with “UKC” text label)

ACTION PT8-3 – Obtain feedback from Mikko (NCWG) and Izzy (KHOA) regarding portrayal of:

- UKC non-navigable area
- UKC almost non-navigable area
- UKCM area boundary

David then asked if alerts and indications were being considered in S-129. The Chair informed David of the S-129 PT’s plans to start considering alerts and indications beyond Edition 2.0.0, due to time constraints in implementing them under Edition 2.0.0. David acknowledged this and commented that notional prototypes may be possible in the meantime.

2.3 Test dataset “screenplay”

The Chair updated the PT that existing and/or template screenplays were still being sought for reference.

The Chair also sought clarity to the process of developing and providing test dataset screenplays. Mikus Ranka (PRIMAR) outlined the process as follows:

- The S-1xx project team develops test datasets and screenplay
 - Test datasets are to be maintained under the Project Team’s Subgroup GitHub
- S-164 Subgroup reviews and improves or fixes the screenplay, and includes the test datasets in the Exchange Set for the ECDIS performance standard checks

ACTION PT8-4 – Work on or assign compiling of test dataset screenplay

The PT also agreed that the Exchange Set now needs to be considered in earnest, and that Jonathan (IIC Technologies) be contacted to discuss the best way to approach the Exchange Set preparation.

ACTION PT8-5 – Discuss Exchange Set preparation with Jonathan Pritchard (IIC Technologies)

2.4 *DataCoverage* feature

During discussions around test dataset development, David raised that an S-1xx product would need to include the *DataCoverage* feature to enable streamlined testing across multiple products. Without the feature, testbed software would need be tailored to the loading and display of each product. The S-129 PT agreed and discussed the following considerations around the inclusion of *DataCoverage* in the S-129 Product specification:

- *DataCoverage* is not necessarily portrayed. E.g. *DataCoverage* in S-101 has no portrayal (i.e. no boundary at edge of dataset). In S-129, the UKCM area boundary would therefore be portrayed based on a separate feature
- It would be okay to include both the *UnderKeelClearancePlan* and *DataCoverage* in the S-129 dataset. These two features may share the same geometry
- *UnderKeelClearancePlan* provides the UKCM area boundaries. Meanwhile *DataCoverage* metadatum is used for data loading and unloading on end user systems, and therefore may be different from the UKCM area boundaries
- Could have multiple *UnderKeelClearancePlan* features within an overall *DataCoverage*
 - E.g. a minimal bounding box including all applicable UKCM areas

ACTION PT8-6 – Update S-129 Product Specification to include *DataCoverage* feature

Once *DataCoverage* is incorporated into the S-129 Product Specification, the Feature Catalogue, Portrayal Catalogue, XML schema, and test datasets will need to be produced accordingly.

ACTION PT8-7 – Update S-129 Feature Catalogue, Portrayal Catalogue, and XML schema to include *DataCoverage* feature

ACTION PT8-8 – Produce test datasets based on S-129 Edition 1.1.0

ACTION PT8-9 – Submit draft and proposal for S-129 Product Specification Edition 1.1.0

ACTION PT8-10 – Provide 1.1.0 FC, PC, TDS to KRISO & NIWC for testing on viewer software

3.1 Presentation – Use case of IHO S-129

Hannu provided presentation on “Use case of IHO S-129”. In consideration of the inclusion of S-421 (IEC 63173-1) as the standardised route plan exchange format in the draft IMO ECDIS Performance Standard MSC.530(106), the presentation sought to clarify the use case of S-129 and its relationship to S-421. The presentation suggested that initial and refined route plans would be exchanged by S-421. Subsequent voyage monitoring would then ideally be exchanged through repeated transmission of S-129 from shore to vessels.

The presentation also included images that could be incorporated into the S-129 Product Specification. The Chair proposed to discuss with Hannu on any updates to the Product Specification that may be necessary to further clarify S-129's relationship to S-421.

ACTION PT8-11 – Identify and incorporate any necessary updates in S-129 Production Specification, pertaining to S-421

3.2 Other business

The Chair asked the meeting participants to let the Chair know if interested in joining the S-129 Project Team Sharepoint page, which had been set up in the past for the PT's information and data sharing.

Additionally, Mikus asked via meeting chat if the PT considered the use of IHO's GitHub space for the PT's works, especially for improved traceability of the test datasets. While this was not actively discussed during the meeting, the Chair will look to coordinate the S-129 PT's (more active) use of GitHub going forward.

ACTION PT8-12 – Provide S-129 Sharepoint page access to PT members requesting access

ACTION PT8-13 – Coordinate the use of IHO GitHub page for S-129

3.3 Review of Work Plan for 2023

The S-129 PT examined the proposed work plan (Annex D). A suggestion was made to indicate timings of future S-100 WG and S-129 PT meetings on the work plan. The Chair agreed to update the work plan accordingly.

ACTION PT8-14 – Chair to further amend the workplan to include future meeting information

3.4 Next Meeting

The S-129 PT agreed to tentatively scheduling a PT meeting (VTC) in early September 2023, as a means of progress update. The Chair will propose specific dates.

ACTION PT8-15 – Chair to propose date for next S-129 PT meeting (VTC; early September 2023)

List of Participants:

Name	Organisation
David Grant	NIWC
Edward Weaver	WR Systems
Hannu Peiponen	IEC / Furuno
Hugh Astle	Teledyne CARIS
Jason Rhee – Chair	OMC International
Julius Moeller	AMSA
Kevin Kim	KMOU
Mikus Ranka	PRIMAR
Seojeong Lee	KMOU

DRAFT

Draft Agenda for the S-129 Project Team Meeting No. 8 (27th July 2023)

Venue:

VTC (GoToMeeting)

Time:July 27th: 1130 – 1400 UTC(GoToMeeting link: <https://meet.goto.com/538241325>)**Chair:** Jason Rhee (OMC International)**Vice-Chair:** Lindsay Perryman (AMSA)

Time (UTC)		Thursday July 27 th (1130 – 1400 UTC)	
1130 – 1200	Session 1	Welcome and introductions Review of meeting agenda	(All) (Chair)
1200 – 1300	Session 2	Review of action items from May 2023 meeting Update on S-129 Ed 1.1.0 Product Specification Portrayal proposals <ul style="list-style-type: none"> • “UKC non-navigable” & “UKC almost non-navigable” areas • UKCM area boundary 	(Chair) (All)
1300 – 1315		S-129 test dataset screenplay	
1315 – 1325		Suitable Micklefirth areas for S-129 test datasets	
1325 – 1330	Break		
1330 – 1400	Session 3	Other business Review of work plan for 2023	(All) (All)

Project team members are requested to provide comments or change proposals for any of the agenda items to the PT Chair by no later than 26th July 2023.

PT Chair: Jason Rhee - j.rhee@omcinternational.com

Annex C

Previous action items from 7th S-129 UKCM Project Team Meeting

Action	Description	Assignee	Status
PT7-1	Chair to review IHO website and ensure S-129 information is up to date	Jason R	Done
PT7-2	Continue draft S-129 Product Specification Edition 1.1.0	S-129 PT	Done – draft ready
PT7-3	Propose feature names and camel case renaming to IHO GI Registry	Jason R	Done
PT7-4	Research pattern fill portrayal of UKC non-navigable and UKC almost non-navigable areas, and provide S-129 PT with findings	Seojeong L, Kevin K	Done
PT7-5	Coordinate proposal for portrayals of “UKC Service area” boundary, “UKC non-navigable area” and “UKC almost non-navigable area” (Dependency on PT7-4)	Jason R	In progress
PT7-6	Work on or assign compiling of test dataset screenplay	Jason R, Hannu P	In progress
PT7-7	Query Mikko (NCWG Chair) about obtaining details for INT3 access	Jason R	Done
PT7-8	Further review and amend the S-129 workplan, for review by meeting participants	Jason R	Done
PT7-9	Propose date for next S-129 PT meeting (VTC; mid/late July 2023)	Jason R	Done

Annex E

8th S-129 UKCM Project Team Meeting - List of Action Items:

Action	Description	Assignee
PT8-1	Obtain feedback from Jonathan (IIC Technologies) regarding suitable S-164 test areas for S-129	Jason R
PT8-2	Design and propose UKCM area boundary portrayal (i.e. symbolised magenta line with "UKC" text label)	Jason R
PT8-3	Obtain feedback from Mikko (NCWG) and Izzy (KHOA) regarding portrayal of: <ul style="list-style-type: none"> • UKC non-navigable area • UKC almost non-navigable area UKCM area boundary	Jason R
PT8-4	Work on or assign compiling of test dataset screenplay	Jason R, Hannu P
PT8-5	Discuss Exchange Set preparation with Jonathan Pritchard (IIC Technologies)	Jason R
PT8-6	Update S-129 Product Specification to include <i>DataCoverage</i> feature	S-129 PT
PT8-7	Update S-129 Feature Catalogue, Portrayal Catalogue, and XML schema to include <i>DataCoverage</i> feature	S-129 PT
PT8-8	Produce test datasets based on S-129 Edition 1.1.0	Jason R, Chris H
PT8-9	Submit draft and proposal for S-129 Product Specification Edition 1.1.0	S-129 PT / Jason R
PT8-10	Provide 1.1.0 FC, PC, TDS to KRISO & NIWC for testing on viewer software	S-129 PT / Jason R
PT8-11	Identify and incorporate any necessary updates in S-129 Production Specification, pertaining to S-421	Jason R, Hannu P
PT8-12	Provide S-129 Sharepoint page access to PT members requesting access	Jason R, Lindsay P
PT8-13	Coordinate the use of IHO GitHub page for S-129	Jason R
PT8-14	Chair to further amend the workplan to include future meeting information	Jason R
PT8-15	Chair to propose date for next S-129 PT meeting (VTC)	Jason R