

## 7<sup>th</sup> S-129 UKCM Project Team Meeting Record of Meeting

1130 – 1500 UTC, 25 March 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 agenda item was to review the S-129 Ed. 1.1.0 Product Specification (PS) changes to date. Part of this item was to review changes to the PS that have been proposed since the draft Ed. 1.1.0 was last promulgated to the PT. The Chair proposed to leave other detailed review of the PS until the end of the meeting, to be conducted if/as time permits, so that enough time is allocated to the other action items.

The next session of the meeting consisted of discussions regarding the portrayal of "UKC service area", as well as the review of the need for an accompanying "UKC non-assessed area". The same session also included a review of the S-129 PT work plan for 2023.

### 1.2 Review of Previous Meeting Action Items

The Chair provided an update on the progress of action items from the 6<sup>th</sup> S-129 PT, which was held on 08 December 2022.

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

#### PT6-1: Draft name and definition of "UKCM service area" for proposal to add in GI Registry

The Chair indicated this action item as being on hold, due to an existing spatial attribute under the S-129 "Under Keel Clearance Plan" meta feature. Based on the PS, the spatial attribute was included with the intention to portray the "Boundaries of the Under Keel Clearance Management area", and thus could remove the need for adding a new feature.

#### PT6-2: Coordinate subgroup to discuss portrayal of "UKCM service area"

The Chair provided an update that, while he was referred to several portrayal experts within the S-100WG, and had contacted them, no subgroup was formally formed.

#### PT6-3: Submit proposals for amendments to definitions of "*underKeelClearanceNonNavigableArea*" and "*underKeelClearanceAlmostNonNavigableArea*"

The Chair closed this action item, as the approval of the amendments could be confirmed via the IHO GI Registry.

PT6-4: Contact Jonathan Pritchard and ask about schema generation from Feature Catalogue

This action item was closed. The Chair confirmed having contacted Jonathan, who clarified that the XML schema should be generated based on the Feature Catalogue. Jonathan had also confirmed the development of a tool, which was worked on by Jonathan, Hugh Astle (Teledyne CARIS), and Raphael Malyankar (Portolan Sciences).

PT6-5: Chair to add proposed sub-sections to Chapter 18 for S-129 Edition 1.1.0 Product Specification

This action item was closed. The Chapter 18 sub-sections are currently included in the draft PS Ed. 1.1.0, which is currently in the process of being updated.

PT6-6: Review S-129 PS Section 19.5, and identify differences to with S-100 Part 17

This action item was closed. Benjamin Hell (Swedish Maritime Administration) had performed this review, following the previous PT meeting (08 Dec 2022). Subsequent changes have been applied to the S-129 PS Ed. 1.1.0.

PT6-7: Review the updated abstract under Dataset Identification section with Yong Baek

The Chair noted only recently having contacted Yong Baek (IHO Secretariat) for review. Yong had indicated he will review the updated abstract and provide feedback.

PT6-8: Review IHO website and ensure S-129 information is up to date

The Chair had not yet reviewed the different IHO website pages. The Chair committed to completing this at the earliest opportunity.

PT6-9: Review structure of Annex E (Data validation checks) of the S-129 PS to identify S-129 specific checks

This action item was closed. Svein Skjaeveland (PRIMAR) had performed a review, and provided the S-100 Validation sub working group with the S-129 specific checks from Annex E.

PT6-10: Draft S-129 PS Edition 1.1.0 (based on changes resulting from PT6-1, PT6-2, PT6-4, PT6-5, PT6-6, PT6-7 and PT6-9)

The draft S-129 PS Edition 1.1.0 is still in progress, as more changes/corrections had been identified since the previous meeting (08 Dec 2023).

**ACTION PT7-1** – Chair to review IHO website and ensure S-129 information is up to date (outstanding action)

**Action PT7-2** – Continue draft S-129 Product Specification Edition 1.1.0

### 2.1 Further proposed changes since last draft provided

The PT discussed a recent suggestion by Kevin Kim (Korean Maritime & Ocean University) that the features “*underKeelClearancePurposeType*” and “*underKeelClearanceCalculationType*” be renamed by removing the word “Type” at the end of the names. The rationale behind this suggestion was the potential confusion that could arise by the extra “Type” in the associated data types of “*underKeelClearancePurposeTypeType*” and “*underKeelClearanceCalculationTypeType*”.

The Chair proposed the features to be renamed as follows:

Current Name	Current Camel Case	Proposed Name	Proposed Camel Case
Under Keel Clearance Calculation Type	underKeelClearanceCalculationType	Under Keel Clearance Calculation Requested	underKeelClearanceCalculationRequested
Under Keel Clearance Purpose Type	underKeelClearancePurposeType	Under Keel Clearance Purpose	underKeelClearancePurpose

No other suggestions or comments were provided by the PT. The Chair volunteered to submit proposals for renaming the feature names and camel cases through the IHO GI Registry, and once approved, work with Kevin to reflect the changes in the PS accordingly. The Chair noted that this change may become part of S-129 Ed. 1.2.0, due to uncertainty around the duration of the submission and approval process in the IHO GI Registry, and the desire for Ed. 1.1.0 to not be delayed by this process.

**ACTION PT7-3** – Propose feature names and camel case renaming to IHO GI Registry

### 3.1 “UKC Service Area” portrayal

The Chair provided context to how the idea of the need for “UKC service area” was first conceived:

- First raised during the previous S-129 PT meeting / S-100WG meeting (Monaco, Dec 2022)
- Initially, a “UKC non-assessed area” was proposed as an outcome from the S-129 Operational Test (Tjeldsundet, Dec 2021)
- However, it was noted in the previous S-129 PT meeting that there is still a need for improved distinction between UKC “go” areas and areas outside a UKCM area. It was raised that the “UKC non-assessed area” does not resolve this problem

- S-129 needs to have the capacity for the “UKC service area” to be dynamically updated with transit progress (through the “actualUpdate” datasets), so that the datasets can exclude areas no longer in scope (e.g. areas behind the vessel)

The Chair noted that there seemingly was no clear conclusion arrived in the previous S-129 PT meeting pertaining to the need for the “UKC non-assessed area”, and whether the “UKC service area” should enclose the “UKC non-assessed area” or not, as illustrated in the following mock-up images:

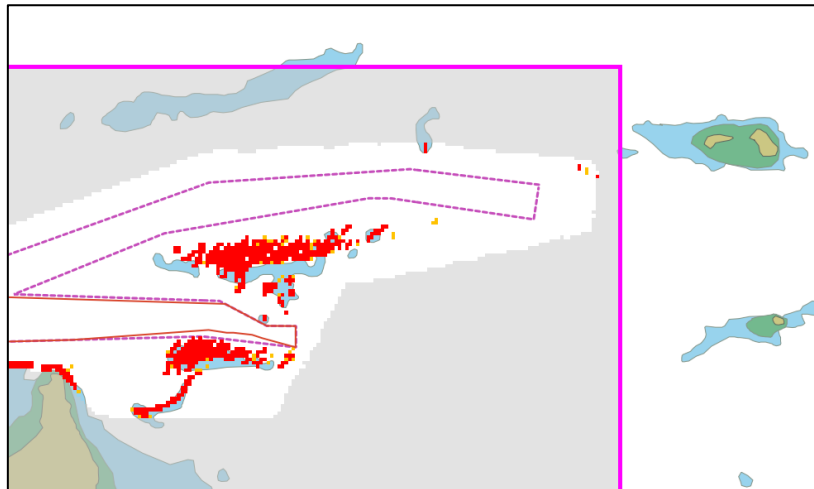


Figure 1 Mock-up of “UKC service area” (magenta line), enclosing “UKC non-assessed areas” (grey)

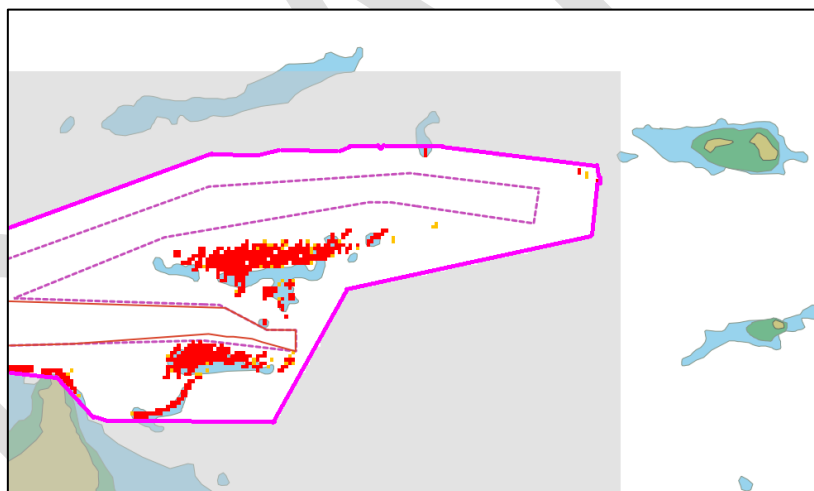


Figure 2 Mock-up of “UKC service area” (magenta line), not enclosing “UKC non-assessed areas” (grey)

Hannu Peiponen questioned whether the “UKC non-assessed area” is necessary in the second scenario (Figure 2 above). The Chair recalled conversations from the previous S-129 PT meeting around scenarios where islands (or similar patches of unassessed UKC) exist inside a UKCM area, and if “UKC non-assessed area” is required to distinguish these to the end user. Hannu responded that such features as islands should be easily identifiable to end users even without the display of “UKC non-assessed areas”. Hannu also pointed out that if “UKC non-assessed area” were portrayed, users may expect all areas outside the overall UKCM area boundary to be portrayed as “UKC non-assessed areas” across the globe.

Ben also commented that S-129 seeks to convey to the end users (1) which areas the users can expect to be covered by the UKCM service, and (2) where the users can transit. As such features as islands

should be clearly displayed on the underlying ENC and therefore obvious to advanced users onboard, “UKC non-assessed areas” are unnecessary, and the “UKC service area” boundary should be sufficient to indicate the areas that are expected to be covered by the UKCM service.

### 3.1.1 General portrayal discussions

Hannu expressed preference that the UKC non-navigable and UKC almost non-navigable areas are portrayed with some transparency, rather than being completely opaque. Svein added that during the S-129 Operational Test (Dec 2021), the S-100 Demonstrator’s adjustable transparency was found to be useful by the end user. Hannu then mentioned the S-57 radar echo image overlay, for which user-selectable transparency/opacity is facilitated. Hannu further commented that, unlike the radar echo image overlay, S-129 probably does not need an option for full opacity, and that user-selectable transparency appears to be a good option too.

Mikko Hovi (Traficom; NCWG Chair) noted tendency across product specifications to adopt solid colour fills (either opaque or transparent). Mikko foresaw this tendency to possibly cause issues in the future, thus expressing preference for the use of coloured pattern fill over solid colour fill. For example, if bad lighting impairs the users’ ability to understand the actual colours being displayed (esp. if without other “benchmark” colours to compare to), pattern fills would aid users with understanding the layers being displayed, thereby supporting their decision-making.

Additionally, Mikko noted that there will likely be numerous “simple lines” corresponding to multiple products being displayed on onboard systems. Therefore, it was important to distinguish the “UKC service area” boundary line from other lines being displayed, by including a symbol or short label to accompany the line.

Seojeong Lee (KMOU) recalled previous attempts (3-4 years ago) by the S-129 PT to portray the UKC non-navigable area as hatch fill. However, this was not tested successfully at the time. Seojeong also raised the potential for extra computational time and datatype changes required to process and display pattern fill. Seojeong offered to experiment with pattern fill portrayals to obtain clearer idea on the computational time, as well as other impact of applying pattern fill to UKC non-navigable and UKC almost non-navigable areas.

**ACTION PT7-4** – Seojeong / KMOU to research pattern fill portrayal of UKC non-navigable and UKC almost non-navigable areas, and provide S-129 PT with findings

### 3.1.2 Process for Submitting Portrayal Proposals

The Chair asked Mikko about how portrayal proposals should be submitted and processed. Mikko advised that the NCWG should first be consulted for initial feedback. Then formal proposals need to be submitted via the IHO GI Registry for review, recommendation, deconflicting and/or approval.

**ACTION PT7-5** – Chair to coordinate proposal for portrayals of “UKC Service area” boundary, “UKC non-navigable area” and “UKC almost non-navigable area”

## 3.2 Other Discussions

### 3.2.1 Interoperability

The PT shared thoughts on S-129's interoperability with other products. Ben commented that, as S-98 supports S-129, there could be possibility of interleaving (Interoperability Level 1) S-129 features with ENC feature layers.

Eivind Mong (CCG) added that S-98 also caters for predefined combinations (in Interoperability Level 2 and higher). Eivind therefore suggested the PT consider the most likely scenarios of S-129 usage as part of a combination of products, so that predefined combinations inclusive of S-129 can be recommended to the S-100WG members, who manage S-98.

Hannu commented that S-129 should be displayed as overlays (Interoperability Level 0), and not required to be interleaved with other layers, nor become part of predefined combinations.

No further discussions were made with regards to S-129's interoperability.

### 3.2.2 Alerts & Indications

Hugh questioned whether alerts and indications would need to be facilitated for S-129. Hannu replied that, while it is a good idea, there is most likely insufficient time to implement S-129 alerts and indications under Edition 2.0.0. Thus, alerts and indications would have to be implemented as part of future S-129 editions, post-2.0.0.

### 3.2.3 S-129 Test Datasets

Hannu asked if the updates to the S-129 Feature Catalogue (FC), Portrayal Catalogue (PC) and XML schema were planned to be performed as an immediate action item. The Chair confirmed that the Chair had started working with KMOU to update the FC based on the draft PS Ed. 1.1.0, with updates to PC and XML schema to follow. Hannu further recommended that, once the FC, PC and XML schema are updated, test datasets will then need to be prepared for the S-164 test area (Micklefirth). Specifically, a minimum of three test datasets would be required, covering each of the S-129 "UKC purpose", i.e. "prePlan", "actualPlan", and "actualUpdate". Eivind concurred and pointed out that more than three test datasets would likely be required to correspond to multiple updates to datasets of the same "purpose". Eivind recommended compiling a screenplay to detail the scenarios represented by the different test datasets, and that Hannu would be well suited to review the screenplay.

**ACTION PT7-6** – Chair to work on/assign compiling of test dataset screenplay, and seek review by Hannu

Eivind further commented that access to INT3 (for which Mikko is the administrator) will be required for the S-129 PT to determine the specific target areas for S-129 test datasets, based on where in INT3 the other products are being tested.

**ACTION PT7-7** – Chair to query Mikko about INT3 access

### **3.3 Review of Work Plan for 2023**

The Chair presented the amended S-129 work plan (Annex D). After discussions around the deadline for Edition 2.0.0, the Chair proposed to further review and amend the workplan, before seeking feedback from the meeting participants.

**ACTION PT7-8** – Chair to further review and amend the workplan, for review by meeting participants

### **3.4 Next Meeting**

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

**ACTION PT7-9** – Chair to propose date for next S-129 PT meeting (VTC; mid/late July 2023)

## List of Participants:

<b>Name</b>	<b>Organisation</b>
Benjamin Hell	Swedish Maritime Administration
Eivind Mong	Canadian Coast Guard
Hannu Peiponen	IEC / Furuno
Hugh Astle	Teledyne CARIS
Jason Rhee – Chair	OMC International
Kevin Kim	KMOU
Mikko Hovi	Traficom / NCWG Chair
Seojeong Lee	KMOU
Svein Skjaeveland	PRIMAR

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## Draft Agenda for the S-129 Project Team Meeting No. 7 (25<sup>th</sup> May 2023)

**Venue:**

VTC (GoToMeeting)

**Time:**May 25<sup>th</sup>: 1130 – 1500 UTC(GoToMeeting link: <https://meet.goto.com/948630349>)**Chair:** Jason Rhee (OMC International)**Vice-Chair:** Lindsay Perryman (AMSA)

Time (UTC)	Thursday May 25 <sup>th</sup> (1130 – 1500 UTC)	
1130 – 1200	<b>Session 1</b> Welcome and introductions Review of meeting agenda	(All) (Chair)
<b>1200 – 1300</b> 1200 – 1215 1215 – 1300	<b>Session 2</b> Review action items from March 2022 meeting Review of S-129 Ed 1.1.0 PS <ul style="list-style-type: none"> <li>• Further proposed changes since latest draft provided</li> </ul>	(Chair) (All)
<b>1300 – 1315</b>	<b>Break</b>	
<b>1315 – 1500</b> 1315 – 1430  1430 – 1500	<b>Session 3</b> “UKC Service Area” portrayal <ul style="list-style-type: none"> <li>• Feature/attribute to utilise</li> <li>• Proposal of “UKC non-assessed area”</li> <li>• Portrayal</li> </ul> Review of work plan for 2023	(All)   (All)

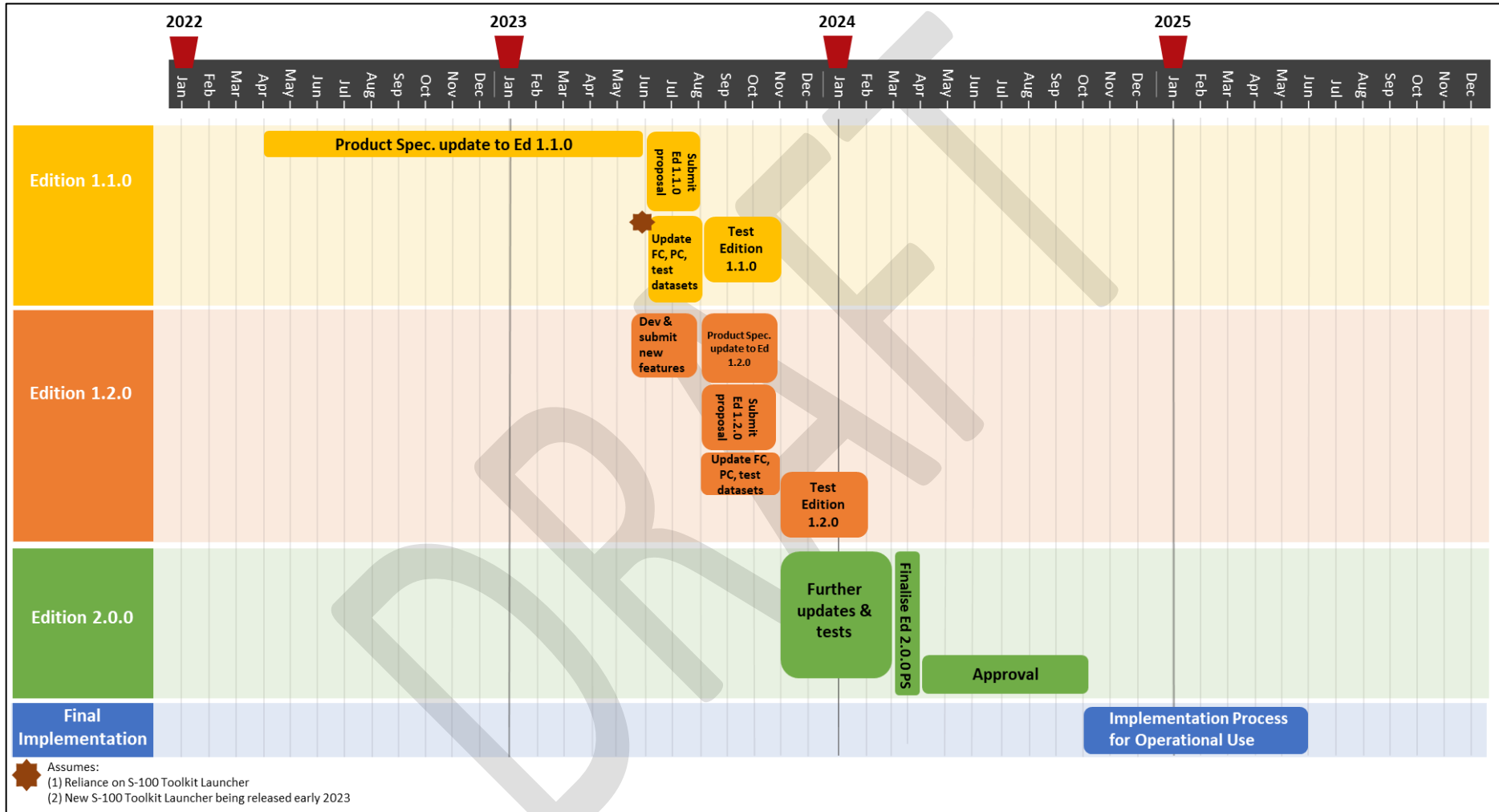
**Project team members are requested to provide comments or change proposals for any of the agenda items to the PT Chair by no later than 19 May 2023.**

PT Chair: Jason Rhee - [j.rhee@omcinternational.com](mailto:j.rhee@omcinternational.com)

## Annex C

### Previous action items from 6<sup>th</sup> S-129 UKCM Project Team Meeting

Action	Description	Assignee	Status
PT6-1	Draft name and definition of “UKCM service area” for proposal to add in GI Registry	Jason R, Lindsay P	On hold
PT6-2	Coordinate subgroup to discuss portrayal of “UKCM service area”	Jason R	In progress
PT6-3	Submit proposals for amendments to definitions of “underKeelClearanceNonNavigableArea” and “underKeelClearanceAlmostNonNavigableArea”	Jason R with assistance from Lindsay P	Done
PT6-4	Contact Jonathan Pritchard and ask about schema generation from Feature Catalogue	Jason R	Done
PT6-5	Chair to add proposed sub-sections to Chapter 18 for S-129 Edition 1.1.0 Product Specification	Jason R	Done
PT6-6	Review S-129 PS Section 19.5, and identify differences to with S-100 Part 17	Benjamin H	Done
PT6-7	Review the updated abstract under Dataset Identification section with Yong Baek	Jason R & Lindsay P, with assistance from Yong B	In progress
PT6-8	Review IHO website and ensure S-129 information is up to date	Jason R	Incomplete
PT6-9	Review structure of Annex E (Data validation checks) of the S-129 PS to identify S-129 specific checks	Svein S	Done
PT6-10	Draft S-129 PS Edition 1.1.0 (based on changes resulting from PT6-1, PT6-2, PT6-4, PT6-5, PT6-6, PT6-7 and PT6-9)	Jason R, with assistance from various S-129 PT members	In progress



## Annex E

### 7<sup>th</sup> S-129 UKCM Project Team Meeting - List of Action Items:

Action	Description	Assignee	Due Date
PT7-1	Chair to review IHO website and ensure S-129 information is up to date	Jason R	23 June 2023
PT7-2	Continue draft S-129 Product Specification Edition 1.1.0	S-129 PT	07 July 2023
PT7-3	Propose feature names and camel case renaming to IHO GI Registry	Jason R	09 June 2023
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	30 June 2023
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	14 July 2023
PT7-6	Work on or assign compiling of test dataset screenplay	Jason R, Hannu P	04 August 2023
PT7-7	Query Mikko (NCWG Chair) about obtaining details for INT3 access	Jason R	23 June 2023
PT7-8	Further review and amend the S-129 workplan, for review by meeting participants	Jason R	16 June 2023
PT7-9	Propose date for next S-129 PT meeting (VTC; mid/late July 2023)	Jason R	16 June 2023