

## Paper for Consideration by S100WG8

## S-128 Proposals

<b>Submitted by:</b>	UKHO
<b>Executive Summary:</b>	This paper seeks to clarify assumptions for the creation and distribution of S-128 catalogues
<b>Related Documents:</b>	S-100
<b>Related Projects:</b>	S-128 test bed – UKHO SHOM S-100 ECDIS trials, S-100 TSM WG

**Introduction / Background**

UKHO and SHOM are running a series of sea trials across the Channel with OEMs to test and develop new S-100 ECDIS. To conduct the trials, it's necessary to send S-100 data to the vessel. As part of the data delivery, it was agreed testing of the S-128 would simultaneously be carried out.

**Analysis/Discussion**

During planning of the trials, it has been necessary to look in detail at how a VAR would create and digitally sign the S-128 catalogue in an environment where there could be a higher frequency of product updates, all with different update regimes. UKHO has identified several key assumptions that need to be agreed before an operationally viable S-128 service can be delivered.

**Recommendation**

1. The current S-128 must be focused on delivering phase 1 of the IHO S-100 roadmap. This will narrow the scope of the S-128 delivery and ensure we focus on delivering the highest priority objective. It must be recognised that the primary objective of S-128 is to support the S-100 ECDIS and all other purposes are secondary.
2. When creating an S-128 catalogue all the metadata necessary to create S-128 must be derived from the original S-100 product catalogues. Mandatory S-128 data coming from other external sources should not be allowed as it would slow down its automated creation.
3. There needs to be an option for providing a single S-128 catalogue per S-100 product type, i.e., S-128 for S-101 and an S-128 for S-102. This is because there will be consumers of the S-128 catalogues that will only require the status of certain maritime products and not every product a data server can currently provide. This should exist as an additional option in conjunction with providing a concatenated S-128 catalogue for all nautical products.
4. It should not be mandatory for an S-100 exchange set to contain an S-128. New S-100 products may be updated with very different temporal update regimes, possibly as frequently as every 6 hours. Every update

does not require the transmission and loading of a new S-128. Making this a requirement would lead to larger files being sent in every update and would slow down the mariner's efficiency when updating their ECDIS. Any S-100 data received by an ECIDS that is newer than what's shown in the ECDIS's current S-128 catalogue will be loaded and considered up to date.

5. An ability to issue partial/"delta" S-128s should be allowable within the standard. A partial/delta S-128 catalogue could be created either based on a request from an end user ('send me everything in S-128 since a date/time') or could be created for a particular day as part of a service offering.
6. If an S-128 file has not been updated within 4 weeks, the ECDIS update status of all products must be set to 'Not Up to date'.

**Justification and Impacts:**

We need to agree these assumptions to progress the S-128 trials and support VARs / RENCs to build viable services.

Due to extremely tight timescales and little time to sufficiently test we need to decide upon the recommendations made by this paper so we can expedite the testing of the S-128 standard utilising the S-100 testbeds.

**Action Required of S-100 WG**

1. Note and discuss the recommendations of this paper.
2. Endorse the recommendations and passed to NIPWG for inclusion within S-128.