

**Paper for Consideration by NIPWG
Sample Production of S-128 dataset by BSH (As per NIPWG 9 Minutes 6.6.)**

Submitted by:	Germany, Federal Maritime and Hydrographic Agency (BSH)
Executive Summary:	Update by creating a test dataset S-128
Related Documents:	S-12x product specifications
Related Projects:	Creation of S-100 based products

Introduction / Background

Considering the possibility to create S-128 datasets, the BSH is trying to use already existing software of the daily use. Therefore, a close link to gds (the manufacturer of *docuglobe*) is established.

Analysis/Discussion

The metadata of all nautical relevant publications are held and maintained in the content management system *docuglobe*¹. The BSH also uses this system to produce the NtM and the nautical publications. There are two customer-specific extensions in the system (ENC workflow and catalogue data tool) [see Fig. 1-3].

Software extension development made it possible to extend the insertion form with further input fields to be able to prepare all mandatory information as per latest S-128 requirements.

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¹ <https://www.gds.eu/en/content-management-solutions/docuglobe>

Note: FOR REASONS OF ECONOMY, DELEGATES ARE KINDLY REQUESTED TO BRING THEIR OWN COPIES OF THE DOCUMENTS TO THE MEETING

Katalogbearbeitung

ENCs | Papierseekarten | Seebücher | Sonstige Druckschriften | Katalogdaten | Historie

Karte laden oder neu | Speichern | Löschen

Titel
Borkum bis Wangerooge

Kartennr. 1100 | **INT-Nr.** | **Region** 25 - Nordsee, Deutsche Bucht, A1

Maßstab 150000 | **DIN-Format** A1

Ausgabe 2021, V. | **Ausgabedatum** 2021-05-07 | **Innenrandmaß** 769.4 x 507.2

ISBN 978-3-96490-116-3 | **Preis** 20,00 | **Informationen**

Copyright | **Auflage/Edition** | **Berichtigungsdatum**

Update-Nummer | **MRN** | **Sprache** de

Horizontal Datum Reference WGS84 | **Produkttyp** paper nautical chart | **Produktformat**

Pfad zum Thumbnail 1100.png

Pläne

Neu

Files: Deckblätter: 0, Gezeitenstromtafeln: ja, Schleusen- und Brückenöffnungszeiten: nein, Mindertiefen: nein

Koordinaten

53	33,90	N	6	9,92	E
53	33,90	N	7	55,52	E
54	15,00	N	7	55,52	E
54	15,00	N	6	9,92	E
53	33,90	N	6	9,92	E

Bearbeitungsstatus KR - Kartographischer Redakteur hat fertig bearbeitet | **Publizieren** für docuglobe und für Produktkatalog verfügbar

Figure 1 GUI catalogue data (sample for a paper sea chart)

ENC Workflow

Update Workflow

ENC:

Update			Validierung/Prüfung		QA		OK	IC-ENC Send to	IC-ENC received from			Datenabgabe		Check
Quelle	Zelle	Edition / Update-Nr.	Geprüft Datum	Geprüft MA	Issue Date	dKart insp.	Exchange Set	via FTP to IC-ENC	Notice per mail from	P007 log	HPD-ENC release status	GDI	WSV	
NFS05/23	DE5NOCUX	10 / 001			01.02.2023	✓	✓	01.02.2023	02.02.2023	✓				✗
NFS05/23	DE4OS09D	3 / 002			01.02.2023	✓	✓	01.02.2023	02.02.2023	✓				✗
BFS EMS	DE4NO15L	6 / 001			01.02.2023	✓	✓	01.02.2023	02.02.2023	✓				✗
BFS EMS	DE4NO15K	8 / 001			01.02.2023	✓	✓	01.02.2023	02.02.2023	✓				✗
NFS05/23	DE4NO14S	10 / 006			01.02.2023	✓	✓	01.02.2023	02.02.2023	✓				✗

Figure 2 GUI ENC-Workflow (overview)

ENC Workflow

Update-Datenblatt für DE4OS09D Edition 3

Neues Update | Neue Edition | Archiv | <aktuell>

Update							QA	OK	IC-ENC Send to	IC-ENC received from			Datenabgabe				
Quelle	Nr.	Ausgeführt Datum	Ausgeführt MA	Bemerkungen	Geprüft Datum	Geprüft MA	Quelldetails	Projektnr.	Issue Date	dKart Insp.	Excha... Set	via FTP to IC-ENC	Notice per mail from	P007 log	HP... status	GDI	WSV
NFS05/23	002	30.01.2023		2 x DMPGRD neu			BFS 18/23 OST	22.727	01.02.2023	✓	✓	01.02.2023	02.02.2023	✓			
Beisidaten	001	31.05.2022		2. Compare					01.06.2022	✓	✓	01.06.2022	01.06.2022	✓	✓	✓	✓
Beisidaten	000	09.05.2022		New Edition	10.05.2022	his Manthey			11.05.2022	✓	✓	10.05.2022	17.05.2022	✓	✓	✓	✓

Figure 3 GUI ENC-Workflow (data sheet of ENC)

Weekly, the updated catalogue data inventory is exported as XML (originally intended as an internal exchange format), transformed into HTML and PDF (using XSLT(-FO)) and published online.

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A python script is used to transform the XML into the S-128 GML, which is published online, too.

The current S-128 catalogue of nautical products is updated on a weekly basis, which is the same cycle like e.g. for German NtM. Now, the catalogue contains data of paper sea charts, ENC's and nautical publications (paper version) and is available free of charge on www.bsh.de.

The following figure shows an overview page of the German Nautical Product Catalogue. By selecting the download button (shown in the red box), the user will be directed to the download page, where the S-128 test dataset could be downloaded.

The screenshot shows the BSH website's nautical product catalogue. The 'Download' button is highlighted with a red box. Below it is a table of products:

Zelle/Cell	Titel	Usage Band	Compilation Scale 1:	Edition Number	Edition Date	Update Number	Issue Date
DE110000	Baltic Sea	Overview	1500000	8		003	2023-01-04
DE160000	Northern Weddell Sea	Overview	1500000	1		000	
DE1N0000	North Sea, German Part	Overview	1500000	1	2021-03-02	002	2021-12-15
DE216000	Baltic Sea, German Part	General	180000	3		009	2023-01-25
DE260001	Atka Iceport to Trolltunga	General	350000				
DE2N0000	German Bight	General	180000	1	2021-03-19	031	2022-10-25
DE316001	Waters north of Kiel	Coastal	90000	10		004	2023-02-01

Figure 4 Overview page of BSH Nautical Product Catalogue (https://www.bsh.de/EN/PUBLICATIONS/Product_catalogue/product_catalogue_node.html;jsessionid=97A005FAA771083666B8703BB5EA527B.live11293)

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Datei / File	Inhalt / Content	Größe / Size	Typ / Type
Katalog Seekarten und Bücher	Sämtliche Veröffentlichungen, die das Bundesamt für Seeschifffahrt und Hydrographie (BSH) in gedruckter oder digitaler Form herausgibt, sind in diesem Katalog zusammengestellt. <i>All publications issued by the Federal Maritime and Hydrographic Agency (BSH) in printed or digital form are offered in this catalogue.</i>	4 MB	pdf Download
S-128 Test Data BSH	Der IHO-Standard S-128 "Catalogue of Nautical Products (CNP)" beschreibt die Verfügbarkeit von Papierseekarten, ENCs und anderen nautischen Produkten, Online-Services und e-Navigation-Services. Der wochenaktuelle Testdatensatz unterliegt noch einer ständiger Weiterentwicklung. <i>The IHO standard S-128 "Catalogue of Nautical Products (CNP)" describe the availability of paper charts, ENCs and other nautical products, online services and e-Navigation services. The weekly updated test data set is still being continuously developed.</i>	1 MB	xml Download
S-128 Test Data IC-ENC	Der IHO-Standard S-128 "Catalogue of Nautical Products (CNP)" beschreibt die Verfügbarkeit von ENCs und S-1xx-Produkten. Der wochenaktuelle Testdatensatz unterliegt noch einer ständiger Weiterentwicklung. <i>The IHO standard S-128 "Catalogue of Nautical Products (CNP)" describe the availability of ENCs and S-1xx products. The weekly updated test data set is still being continuously developed.</i>	500 KB	xml Download

Figure 5 Download page

https://www.bsh.de/EN/PUBLICATIONS/Product_catalogue/product_catalogue_node.html;jsessionid=97A005FAA771083666B8703BB5EA527B.live11293

Latest developments enable the BSH to produce a complete S-128 dataset containing all German data of paper sea charts, ENCs and nautical publication.

Conclusions

Further ongoing considerations and tests try to find an answer to „How to distribute the latest S-128“ ? Therefore, the initiative of IC-ENC TL 01/2023 was supporting BSH brainstorming. In other words the S-128 IC-ENC test dataset is a part of the complete German S-128 dataset, but only based on needs described by the TL 01/2023.

Still, challenges on how to extend and integrate catalogue data for S-100 based products, e.g. S-102 or S-123, are either unsolved or not yet considered. There might be different update cycles, other data producer / service provider or a certain section of the BSH.

Recommendations

NIPWG should be aware of these challenges and should maintain requesting continuous updates for developments on a certain interval to keep HO's about latest practical developments up-to-date.

Justification and Impacts

Requirements by further parties might influence production, e.g. IC-ENC TL 01/2023, but propels the development since a real need was created.

Action Required of NIPWG

The NIPWG is invited to:

- a. note this paper
- b. is encouraged to download the test data for comparison or feedback

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