

Test plans and discussion items of S-128



15 Sep. 2022

KHOA

01 Introduction

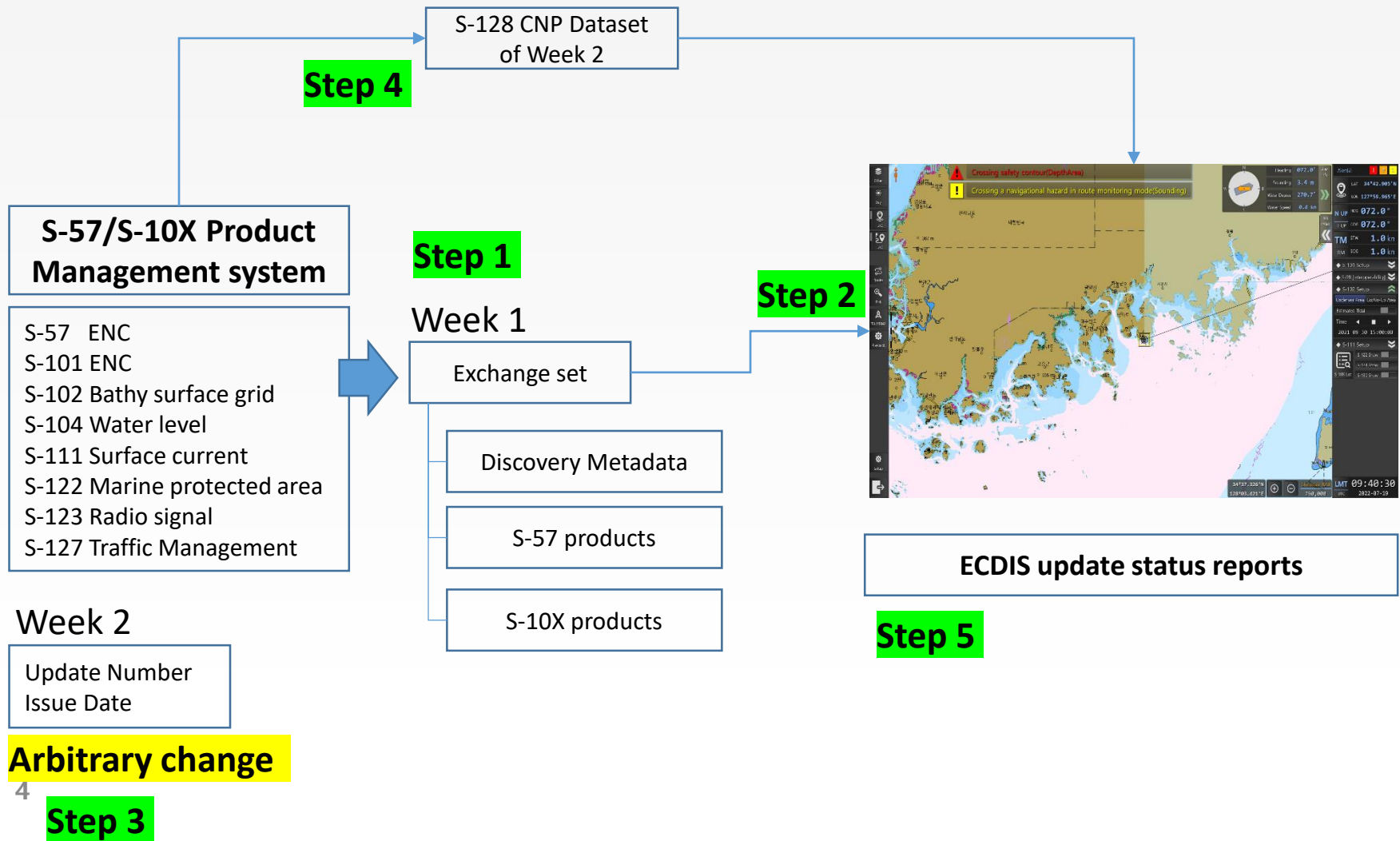
- **S-128 PT VTC meeting**
 - Date : 23 August, 2022, 2100 (KST)
 - Agenda
 - Actions and Decisions Review (HSSC14, WENDWG12)
 - TEST PLANS (KHOA, Primar, IC-ENC)
 - S-128 as an obligatory product
 - Classification/Categorization
 - Production/Distribution
- **S-128 CNP (Catalogue of Nautical Products)**
 - Scope started with exchanging the list of nautical products
 - providing up-to-date information on nautical products
 - extensive development of the S-128 has been required
 - items such as the S-128 test plan, discussion topics

02 | Test plan of S-128

- **Goals of the S-128 test by KHOA**
 - Creation of S-128 TDS and review of the application schema of S-128 Ed. 1.0
 - Development of ECDIS update status report by the S-128 TDS according to the S-98 Annex C
 - Find considerable items from S-128 e 1.0 to improve its up-to-dateness by testing S-128 TDS in S-100 ECDIS
- **Test Process**
 - Prepare exchange set including S-10X TDS (S-101, S-102, S-104, S-111, S-122, S-123, S-127), S-57 datasets
 - Creation of S-128 TDS with arbitrary change of update information (issue date, update number)
 - Check the ECDIS update status reports by S-100 ECDIS considering the S-98 Annex C

02 Test plan of S-128

Structure of S-128 Testing Environment



02 Test plan of S-128

- **ECDIS update status reports**
 - S-98 Annex C, Appendix C-3 ECDIS Update Status Reports
 - S-128 dataset replaces the PRODUCTS.TXT of S-63
 - Aims to implement the ECDIS update status reports using S-128 dataset

[Revised Form]

Report Name: Electronic Navigational Charts (ENC) Update Status Report

Vessel Name:

Identifier:

Update Reference Date: (from S-128)

Date of Report:

Content: Filtered for Route Plan "Goteborg – Kiel"

Start WP:

End WP:

Dataset Status Summary

Chart Status:	Count
Total:	50
Up to Date	38/50
Not Up to Date	10/50
Withdrawn	2/50
Unknown	0/50

Data Server: XXXX

Product	Dataset Name	Edition	Update	Issue Date	Status
S-101	101US23495820	10	4	2020-01-02	Up to Date
S-102	102US29348021				

02 Test plan of S-128

▪ ECDIS update status reports

Report(S-128) X

Report Name : Electronic Navigational Charts(ENC) Update Status Report

Vessel Name :

Identifier :

Update Reference Date : (from S-128)

Date of Report : 2022-09-13

Content :

Chart Status	Count
Total	462
Up to Date	446/462
Not Up to Date	16/462
Withdrawn	0/462
Unknown	0/462

Dataset Status Summary

Products	Num	Dataset Name	Edition	Update	Issue Date	Status
ALL	1	[S-57] KR1F0000	18	20	20220107	Up to Date
S-57	2	[S-57] KR2F4000	17	6	20220107	Up to Date
S-101	3	[S-57] KR3F4D00	9	0	20220107	Up to Date
S-102	4	[S-57] KR3F4H00	25	2	20220107	Up to Date
S-104	5	[S-57] KR4F4H10	20	5	20220107	Up to Date
S-111	6	[S-57] KR4F4H20	36	2	20220107	Up to Date
S-122	7	[S-57] KR4F4H30	22	21	20220107	Up to Date
S-123	8	[S-57] KR4F4H40	22	13	20220107	Up to Date
S-124	9	[S-57] KR5F4H21	24	2	20220107	Up to Date
S-127	10	[S-57] KR5F4H22	29	4	20220107	Up to Date
	11	[S-57] KR5F4H23	24	4	20220107	Up to Date
	12	[S-57] KR5F4H24	21	2	20220107	Up to Date

02 Test plan of S-128

▪ ECDIS update status reports

Report(S-128)  Positioning system failure(GPS) X

Report Name : Electronic Navigational Charts(ENC) Update Status Report

Vessel Name :

Identifier :

Update Reference Date : (from S-128)

Date of Report : 2022-09-13

Content :


Chart Status	Count
Total	462
Up to Date	446/462
Not Up to Date	16/462
Withdrawn	0/462
Unknown	0/462

Dataset Status Summary

Products	Num	Dataset Name	Edition	Update	Issue Date	Status
ALL	1	KR1F0000	18	20	20220107	Up to Date
S-57	2	KR2F4000	17	6	20220107	Up to Date
S-101	3	KR3F4D00	9	0	20220107	Up to Date
S-102	4	KR3F4H00	25	2	20220107	Up to Date
S-104	5	KR4F4H10	20	5	20220107	Up to Date
S-111	6	KR4F4H20	36	2	20220107	Up to Date
S-122	7	KR4F4H30	22	21	20220107	Up to Date
S-123	8	KR4F4H40	22	13	20220107	Up to Date
S-124	9	KR5F4H21	24	2	20220107	Up to Date
S-127	10	KR5F4H22	29	4	20220107	Up to Date
	11	KR5F4H23	24	4	20220107	Up to Date
	12	KR5F4H24	21	2	20220107	Up to Date

02 Test plan of S-128

▪ ECDIS update status reports

Report(S-128)  Positioning system failure(GPS) X

Report Name : Electronic Navigational Charts(ENC) Update Status Report

Vessel Name :

Identifier :

Update Reference Date : (from S-128)

Date of Report : 2022-09-13

Content :

Chart Status	Count
Total	462
Up to Date	446/462
Not Up to Date	16/462
Withdrawn	0/462
Unknown	0/462

Dataset Status Summary

Products	Num	Dataset Name	Edition	Update	Issue Date	Status
ALL	1	101KR00648A24_1	1	1	20220408	Not Up to Date
S-57	2	101KR00648A26_1	1	0	20210129	Up to Date
S-101	3	101KR00648A28_1	1	0	20210129	Up to Date
S-102	4	101KR00648A29_1	1	1	20210629	Up to Date
S-104	5	101KR00648A30_1	1	4	20220408	Up to Date
S-111	6	101KR00648A32_1	1	2	20220408	Up to Date
S-122	7	101KR00648A34_1	1	0	20210129	Not Up to Date
S-123	8	101KR00648A35_1	1	4	20220408	Not Up to Date
S-124	9	101KR00648A36_1	1	0	20210129	Up to Date
S-127	10	101KR00648A38_1	2	3	20220111	Not Up to Date
	11	101KR00648A25_1	1	0	20210129	Up to Date
	12	101KR00648A39_1	2	3	20220408	Not Up to Date

02 Test plan of S-128

■ ECDIS update status reports

Report(S-128) ! Positioning system failure(GPS)

Report Name : Electronic Navigational Charts(ENC) Update Status Report

Vessel Name : Chart Status

Identifier : Count

Update Reference Date : (from S-128)

Date of Report : 2022-09-13

Content :

Total	462
Up to Date	446/462
Not Up to Date	16/462
Withdrawn	0/462
Unknown	0/462

Dataset Status Summary

Products	Num	Dataset Name	Edition	Update	Issue Date	Status
ALL	1	102KRO0N4F3P1000020	1	0	20201113	Up to Date
S-57	2	102KRO0N4F3P2000020	1	0	20201113	Up to Date
S-101	3	102KRO0N4F3P4000020	1	0	20201113	Up to Date
S-102	4	102KRO0N4F1P2000020	1	0	20201113	Up to Date
S-104	5	102KRO0N4F1P3000020	1	0	20201113	Up to Date
S-111	6	102KRO0N4F1P4000020	1	0	20201113	Up to Date
S-122	7	102KRO0N4F2K3000020	1	0	20201113	Up to Date
S-123	8	102KRO0N4F2K4000020	1	0	20201113	Up to Date
S-124	9	102KRO0N4F2M1000020	1	0	20201113	Up to Date
S-127	10	102KRO0N4F2M2000020	1	0	20201113	Up to Date
	11	102KRO0N4F2M3000020	1	0	20201113	Up to Date
	12	102KRO0N4F2M4000020	1	0	20201113	Up to Date

Report(S-128) ! Positioning system failure(GPS)

Report Name : Electronic Navigational Charts(ENC) Update Status Report

Vessel Name : Chart Status

Identifier : Count

Update Reference Date : (from S-128)

Date of Report : 2022-09-13

Content :

Total	462
Up to Date	446/462
Not Up to Date	16/462
Withdrawn	0/462
Unknown	0/462

Dataset Status Summary

Products	Num	Dataset Name	Edition	Update	Issue Date	Status
ALL	1	104KRO0KR4_F2E30_20220810_F24	1	0	20220407	Up to Date
S-57	2	104KRO0KR4_F2E40_20220810_F24	1	0	20220407	Up to Date
S-101	3	104KRO0KR4_F2I20_20220810_F24	1	0	20220407	Up to Date
S-102	4	104KRO0KR4_F2J10_20220810_F24	1	0	20220407	Up to Date
S-104	5	104KRO0KR4_F2J20_20220810_F24	1	0	20220407	Up to Date
S-111	6	104KRO0KR4_F2J30_20220810_F24	1	0	20220407	Up to Date
S-122	7	104KRO0KR4_F2J40_20220810_F24	1	0	20220407	Up to Date
S-123	8	104KRO0KR4_F2K10_20220810_F24	1	0	20220407	Up to Date
S-124	9	104KRO0KR4_F2K20_20220810_F24	1	0	20220407	Up to Date
S-127	10	104KRO0KR4_F2K30_20220810_F24	1	0	20220407	Up to Date
	11	104KRO0KR4_F2K40_20220810_F24	1	0	20220407	Up to Date
	12	104KRO0KR4_F2M10_20220810_F24	1	0	20220407	Up to Date

Report(S-128) ! Positioning system failure(GPS)

Report Name : Electronic Navigational Charts(ENC) Update Status Report

Vessel Name : Chart Status

Identifier : Count

Update Reference Date : (from S-128)

Date of Report : 2022-09-13

Content :

Total	462
Up to Date	446/462
Not Up to Date	16/462
Withdrawn	0/462
Unknown	0/462

Dataset Status Summary

Products	Num	Dataset Name	Edition	Update	Issue Date	Status
ALL	1	111KRO0KR4_YES3K_F2E30_20220810	1	0	2022-08-10	Up to Date
S-57	2	111KRO0KR4_YES3K_F2E40_20220810	1	0	2022-08-10	Up to Date
S-101	3	111KRO0KR4_YES3K_F2I20_20220810	1	0	2022-08-10	Up to Date
S-102	4	111KRO0KR4_YES3K_F2J10_20220810	1	0	2022-08-10	Up to Date
S-104	5	111KRO0KR4_YES3K_F2J20_20220810	1	0	2022-08-10	Up to Date
S-111	6	111KRO0KR4_YES3K_F2J40_20220810	1	0	2022-08-10	Up to Date
S-122	7	111KRO0KR4_YES3K_F2K10_20220810	1	0	2022-08-10	Up to Date
S-123	8	111KRO0KR4_YES3K_F2K20_20220810	1	0	2022-08-10	Up to Date
S-124	9	111KRO0KR4_YES3K_F2K30_20220810	1	0	2022-08-10	Up to Date
S-127	10	111KRO0KR4_YES3K_F2K40_20220810	1	0	2022-08-10	Up to Date
	11	111KRO0KR4_YES3K_F2N20_20220810	1	0	2022-08-10	Up to Date
	12	111KRO0KR4_YES3K_F2N40_20220810	1	0	2022-08-10	Up to Date

Report(S-128) ! Positioning system failure(GPS)

Report Name : Electronic Navigational Charts(ENC) Update Status Report

Vessel Name : Chart Status

Identifier : Count

Update Reference Date : (from S-128)

Date of Report : 2022-09-13

Content :

Total	462
Up to Date	446/462
Not Up to Date	16/462
Withdrawn	0/462
Unknown	0/462

Dataset Status Summary

Products	Num	Dataset Name	Edition	Update	Issue Date	Status
ALL	1	122KRO000FULI_SET	1	0	2021-12-31	Up to Date
S-57						
S-101						
S-102						
S-104						
S-111						
S-122						
S-123						
S-124						
S-127						

02 | Test plan of S-128

- **S-128 Testing results**
 - S-57/S-10X datasets - File directory of exchange set
 - No seen for limitations and problems on the S-128 data model
 - Need to specify the detailed scenario on quick update products like S-104 and S-111
 - ECDIS update status reports of S-98 should be refined
 - Need to define how S-128 dataset works in S-100 ECDIS
 - Need to define how to provide the S-128 dataset to end-user

03 Discussion topics

- **Topic 1. Requirement of S-128 product**
 - various S-10X nautical products are produced
 - the types and up-to-dateness of nautical products have become more important than in the past
 - S-128 CNP data along with S-10X data,
 - to promote nautical product utilization and support up-to-dateness
 - S-128 dataset should be mandatory requirement
 - (S-128 PT VTC) agreed that S-128 dataset production is mandatory by producer or distributor

03 Discussion topics

- **Topic 2. Re-model of feature types for nautical products (Categorization)**
 - current S-128 CNP model consists of a chart feature type for paper chart and ENC and a nautical product feature type for S-10X data, other digital products and maritime services
 - While the current data model emphasizes charts, various nautical products are designed as one feature type
 - WG needs to consider categorization of products within the S-128 data model to take into account the future S-10X data and various maritime services

03 Discussion topics

- **Topic 3. S-128 product service**
 - S-128 will be used also to check the up-to-datedness of nautical products
 - discussions on the S-128 production and services from the development of the WEND-100 Guideline
 - INTToGIS3 will provide coverage information of various S-10X products by utilizing S-128
 - utilized by RHC, RENC, HO and other potential users if necessary
 - discussion of various applicability such as a new data service method MCP(Maritime Connectivity Platform) and a cloud-based approach

03 Discussion topics

- **Topic 4. Validation rules of S-128**
 - S-100WG is developing validation rules that can be commonly applied to S-10X product specifications.
 - It is necessary to discuss validation of the S-128 products and when it should be carried out.
- **Topic 5. Encryption of S-128 data**
 - Since the S-128 product will provide fundamental information for the up-to-dateness control of the products,
 - encryption is required to prevent forgery and piracy.
 - consider the necessity and method of encryption of S-128 data
- **Topic 6. Consideration for MASS**
 - Canada analyzed the impact of S-128 for MASS
 - MASS PT under HSSC is conducting the gap analysis
 - Propose to discuss consideration and impact

04 Recommendations

- We request NIPWG to review the test plans and proposed discussion items.
- It might be necessary to share S-128 development work with S-100WG for its way forward.

05 Action required of NIPWG

- note the S-128 test plans
- consider the discussion topics and provide comments on them
- approve the work items suggested as Annex 1

06 Proposed tasks and work items

Work item	Title	Priority H-high M-medium L-low	Next Milestone	Start Date	End Date	Status P-Planned O-Ongoing C-Completed S-superseded	Contact Person(s)	Related Pubs / Standard	Remarks
A.1	Monitor the S-128 1.0 tests of KHOA	M		2022	2023	O	Iji Kim (KHOA)		
A.2	Monitor the S-128 1.0 tests of Primar	M		2022	2023	O	Svein Skjæveland (Primar)		
A.3	Monitor the S-128 1.0 tests of IC-ENC	M		2022	2023	O	Su Marks (IC-ENC)		
B.1	Identify considerable items from S-128 e 1.0 to improve its up-to-dateness by testing S-128 TDS in S-100 ECDIS	H		2022	2023	P	S-128 PT		
B.2	Improve the application schema by reflecting the S-128 testbed results and requirements raised	M		2023	2024	P	S-128 PT		
B.3	Revised S-128 package to comply with S-100 Ed 5.0.	M		2023	2024	P	S-128 PT		
B.4	Identifies the required considerations for DF-mode support and refines the S-128	M		2023	2024	P	S-128 PT		