Report of the S-101 Project Team

Submitted by:	Chair, S-101PT
Related Documents:	HSSC12-05.1F
	HSSC12-05.5B
	HSSC12-05.5C
Related Projects:	S-100, S-101

Chair:	**Tom Richardson, UK**
Vice-Chair:	**Mr Alvaro, Sanchez, AU**
Secretary:	**IHO Secretariat**
Member States:	**Australia, Belgium, Brazil, Canada, China, Denmark, Egypt, Estonia, Finland, France, Germany, Italy, Japan, Korea (Rep of), Netherlands, Norway, Poland, Portugal, Russia, South Africa, Spain, Sweden, UK, USA**
Expert Contributor Organisations:	**As this list is very long readers are referred to the following link:** https://iho.int/uploads/user/Services%20and%20Standards/S-100WG/MISC/S-101PT_MEMBERS.pdf

Meetings Held During Reporting Period
The Project Team has met twice during the reporting period.

S-101 PT4 June 2019, Monaco

S-101 PT5 Sept 2020, Remote Meeting (Meeting planned in June 2020 was postponed due to COVID-19)
https://iho.int/en/s-101pt5-2020

A further remote meeting is planned in December 2020. Due to current remote working regular meetings by VTC will be held including meetings on specific areas.

Work Program
Although no further edition of S-101 has been prepared during the period the Project Team is pleased to report the good progress in implementing and testing S-101 1.0.0 which has occurred. A significant number of minor changes to ensure harmonisation with the IHO GI Registry have also been progressed and will be incorporated in S-101 1.1.0.

Testbed reports to S-101PT 5 demonstrated the significant work that has been undertaken and the availability of Shore Based ECDIS Testbeds represent a real step forwards and will provide the basis for robust testing of S-101 1.1.0.
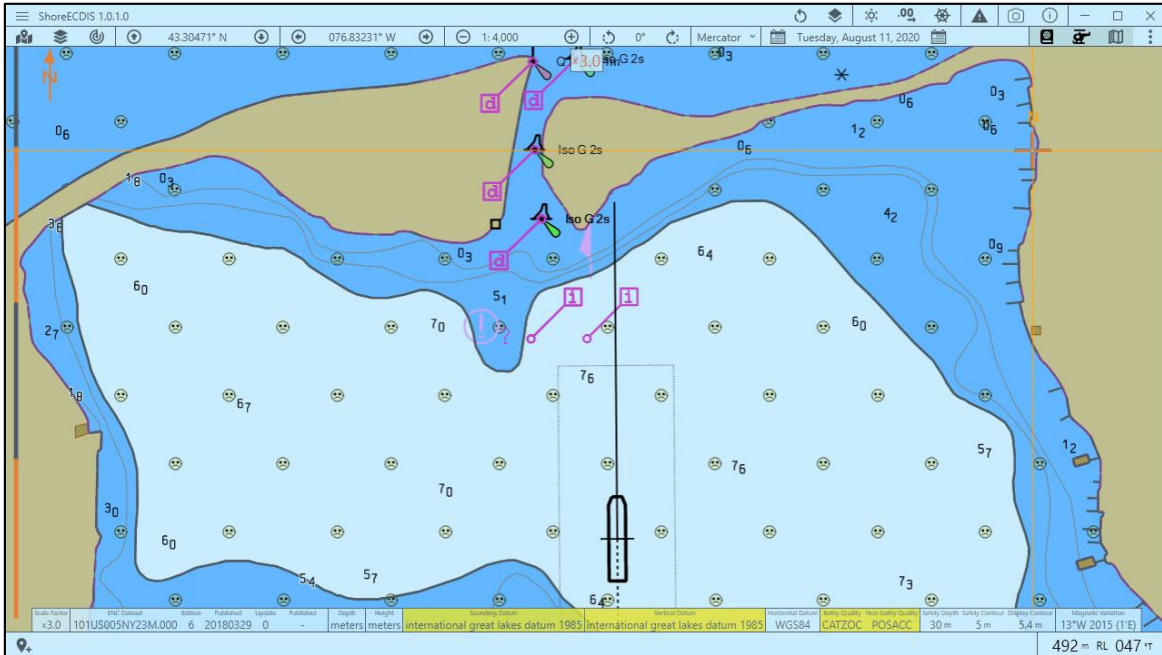
Figure 1 – Screenshot of the recently released NIWC Shore-based ECDIS. Link below to Testbed report.

https://iho.int/uploads/user/Services%20and%20Standards/S-100WG/S-101PT5/S-101PT5_2020_21_EN_NIWC%20Test%20Bed%20Report_S101PT5_V1.pdf

Following its recent meeting a clear understanding of the status of S-101 components has been achieved and a work plan agreed to deliver S-101 1.1.0. Although there is much work to do this will deliver a more complete edition of S-101 leveraging improvements that S-100 5.0.0 will provide. It will then provide a solid bases for further testing to inform further editions as we move towards edition 2.0.0.

To support timely development interim Feature Catalogue and DCEG releases may be prepared to support development and testing within defined scopes. This approach will de-risk the delivery of S-101 1.1.0 components and support the development of test datasets which are not wholly reliant on components such as Portrayal being completed.

Progress on HSSC Action Items
According to HSSC11 action 25 delivery of S-101 1.1.0 was expected by December 2020. The chair understands this decision to be predicated on the contemporaneous endorsement of S-100 5.0.0 by HSSC12. The Project Team has therefore not delivered S-101 1.1.0 as expected because S-100 5.0.0 was delayed.

However, as detailed in this report the Project Team has formed a new work plan and evolved its structure with new sub-groups to progress key areas such as Portrayal.

Problems Encountered
There are a number of aspects of S-101 which require further development work to ensure that the specification can achieve S-100 Readiness Level 4. S-100 5.0.0 will address some of these issues but there is a large body of work that remains, and this can only be progressed with an iterative cycle of testbed work followed by project team review and action.

As covered in paper HSSC 12-05.1F the Project Team considers that Dual Fuel ECDIS may place (necessary) constraints on S-101 during the transition period. Although this may be required to support the transition the Project

Team seeks clarification on how closely S-101 must reflect the presentation and functional requirements of S-52. Noting that this may limit the user benefits that S-101 is able to deliver during the transition period.

The Project Team is reliant on a limited number of core contributors, active contributions from the group will be necessary to deliver the work plan set out and to achieve the IHOs proposed timeframe for an operational version of S-101. Careful management of resources and focus on priority tasks will be required to deliver the Work Plan agreed.

Any Other Items of Note
HSSC is requested to note the intent to deliver S-101 1.1.0 based on S-100 5.0.0 shortly after the publication of S-100 5.0.0.

HSSC is requested to provide direction on how the Project Team should engage with End Users to validate that S-101 meets (or exceeds) user needs. Although this is a future activity planning and preparation will be required.

HSSC is requested to clarify any constraints which the Dual Fuel concept places on S-101.

Noting HSSC paper HSSC12-05.5C it is observed that should this development be supported by HSSC careful management of resources will be required and there is potential that the S-101 Work Plan could be impacted.

A revised Work Plan is submitted as Annex A of this report.

Action Required of HSSC
The HSSC is invited to:

      a.   endorse the work plan presented at annex A

      b.   provide direction and guidance to the Project Team on how it should engage with End Users to validate S-101

      c.   clarify any constraints which the Dual Fuel concept places on S-101

Annex A – Proposed S-101 PT Work Plan 2020-2022

A1	Develop and Finalize Edition 2.0.0 of S-101 ENC Product Specification					
	Intent is to deliver an updated and more complete S-101 1.1.0 aligned to S-100 5.0.0 so that meaningful testing can support development towards 2.0.0.					
Ref	Task	Dependencies	Who	Start	End	Status
A.1.1	Review draft changes to DCEG as prepared by IHO Sec.	None	DCEG SG	01/10/2020	30/11/2020	PLANNED
A.1.2	Conduct a review cycle of the S-101 Data Product Specification and DCEG. Includes comment review.	None	ALL	01/10/2020	31/01/2021	PLANNED
A.1.3	Process registry changes resulting from review of the DPS and DCEG.	A.1.2	IHO Sec	31/01/2021	28/02/2021	PLANNED
A.1.4	Prepare an updated Feature Catalogue for S-101 1.1.0.	A.1.2/A.1.3	KHOA	TBD	TBD	PLANNED
A.1.5	Prepare new and updated Portrayal content.	A.1.2	Port SG	01/10/2020	31/03/2021	IN PROGRESS
A.1.6	Process registry changes resulting from Portrayal work.	A.1.5	IHO Sec	01/04/2021	TBD	PLANNED
A.1.7	Prepare a complete PC for S-101 1.1.0.	A.1.4, A.1.6	Port SG	TBD	TBD	PLANNED
A.1.8	Prepare an initial draft set of S-101 Validation Checks. (Critical checks as a minimum)	A.1.2/A.1.7	VC SG	01/04/2020	TBD	IN PROGRESS
A.1.9	DQWG to conduct review of S-101 draft components.	Various	DQWG	TBD	TBD	PLANNED
A.1.10	Prepare content for publication.	Various	IHO Sec	TBD	TBD	PLANNED
A.1.11	Conduct pre-publication quality checks.	A.1.10	ALL	TBD	TBD	PLANNED

Ref	Task	Dependencies	Who	Start	End	Status
A2	Monitor the implementation of S-101 to S-100 Readiness Level 4					
Ref	Task	Dependencies	Who	Start	End	Status
Detailed plan to be developed by early 2021 - Chair to lead S-101PT 5 Action refers						
A3	Review the S-101 Value Added Roadmap annually					
Ref	Task	Dependencies	Who	Start	End	Status
A.3.1	Chair to prepare updated draft.	None	Chair	01/10/2020	S-101PT6	PLANNED
A.3.2	Conduct a review cycle.	A.3.1	All	S-101PT6		PLANNED