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Executive Summary:	The IMO e-Navigation Strategy Implementation Plan (SIP) contains the basics of how e-Navigation will be implemented. Sub solution S4.1.6. should be noted in particular by DQWG.
Related Documents:	S-100
Related Projects:	None

Introduction / Background

Task F.1 in the DQWG work plan calls for investigating areas of quality concern (other than survey / bathymetry). In lieu of this task, it seemed prudent to bring to the attention of DQWG developments in e-Navigation that particularly calls for quality assurance.

Discussion

The IMO Correspondence Group on e-navigation has completed their task of "DEVELOPMENT OF AN E-NAVIGATION STRATEGY IMPLEMENTATION PLAN". This SIP was reviewed and approved at MSC 94 in November 2014.

The SIP contains a list of tasks required to be conducted in order to address 5 prioritized e-navigation solutions, namely:

S1: improved, harmonized and user-friendly bridge design;

S2: means for standardized and automated reporting;

S3: improved reliability, resilience and integrity of bridge equipment and navigation information;

S4: integration and presentation of available information in graphical displays received via communication equipment; and

S5: improved Communication of VTS Service Portfolio (not limited to VTS stations).

It is expected that these tasks, when completed during the period 2015–2019, should provide the industry with harmonized information in order to start designing products and services to meet the e-navigation solutions.

Sub solution S4.1.6 (see table 1) calls for a quality assurance process to ensure all data is reliable and based on a common CCRS. This sub solution is part of Task 11 (see table 2) which calls for software quality assurance.

Sub Solution	Description	Task Action	Task Identifier (Table 7)
S4.1.6	Provide quality assurance process to ensure that all data is reliable and is based on a consistent common reference system	Ensure data quality and CRS are met with new Quality Assurance.	T11

Task No	Task	Expected Deliverable	Transition Arrangements	Prioritised Implementation Schedule
	(CCRS) or converted to such before integration and display			

Table 1

Task No	Task	Expected Deliverable	Transition Arrangements	Prioritised Implementation Schedule
T11	Development of Draft Guidelines for Software Quality Assurance (SQA) in e-navigation. This task should include an investigation into the type approval process to ensure that software lifetime assurance (software updates) can be carried out without major re-approval and consequential additional costs. Refer to SN/Circ/266/Rev.1 and MSC.1/Circ.1389.	Guidelines for Software Quality Assurance (SQA) in e-navigation.	None	2014/2015

Table 2

A natural part of the quality assurance process of data is metadata that capture the results of this process for the recipient of the data in a manner that gives the recipient confidence that the received data is quality assured. In that respect the initiative "Data Supply Chain Certification", as discussed by CHRIS 20, WEND 11 and HSSC1, and worked on by the DSCC Correspondence Group is of great relevance. Moreover it should be taken into consideration that the DQWG participated in the DSCC CG.

Action Required of DQWG

DQWG is invited to:

- Note this paper;
- Discuss the impact of the IMO e-Navigation SIP;
- Take any necessary actions.