Paper for Consideration by TSM5

Report on S-124 Test activity

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Executive Summary:	This paper describes the plan of S-124 Test activity
Related Documents:	WWNWS9-3-4-2-S-124 progress report
Related Projects:	SMART Navigation, KHOA NW Project, STM Project

Introduction / Background

WWNWS under the IRCC has organized the S-124 Correspondence Group, which has been developing the S-124 Navigational Warning product specification. Experts involved in e-Navigation projects has discussed how to support the S-124 CG and drafted the S-124 Test Cases. This paper describes the S-124 test activities by SMART Navigation project and KHOA NW project.

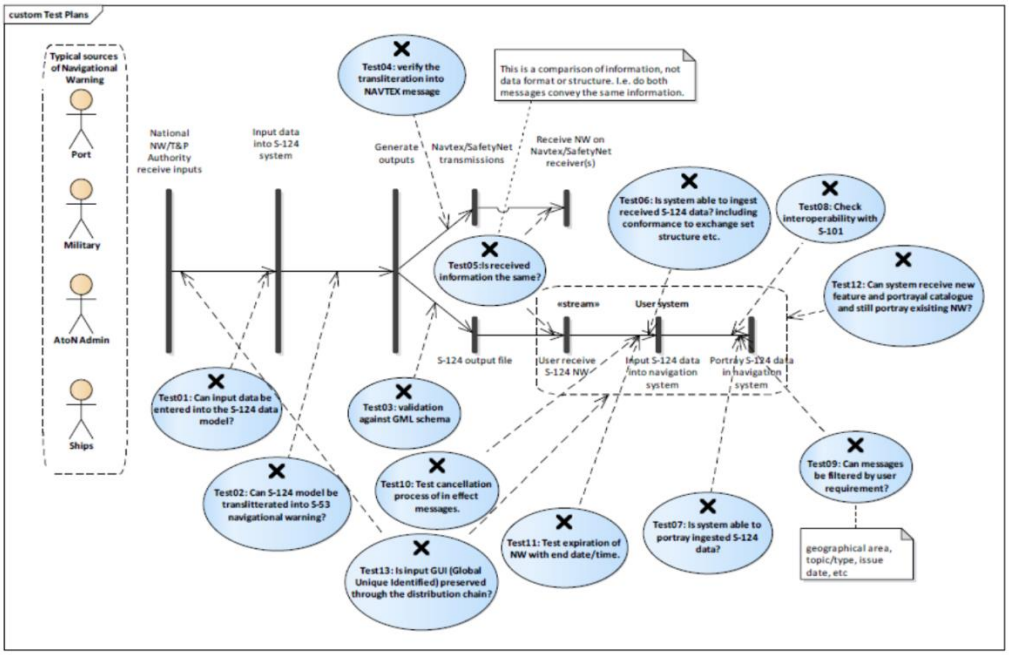
Analysis/Discussion

Status of S-124 NW PS development

The activity of the S-124 CG was still focused on the modelling of the navigational warnings (NWs). Following the encoding exercise last year and the comments received, the model (dated 3 Dec 2015) has been explained in a better manner and the chair worked out proposals to amend the draft S-124 model. These proposals were submitted to S-124 CG members. The replies provided various inputs, including backgrounds from the authors (Eivind Mong) and Danish Maritime Administration's (DMA) contribution focused on the NIORD system implementation experience. Moreover tests (see below) were proposed to validate assumptions of the data model. Inputs are of great value for clarifying some aspects and for progressing in the choice of modelling options.

Test cases of Navigational warning service based on S-124 data model

Experts involved in the Korean e-Navigation project (SMART Navigation), MSI service project of DMA(NIORD) and STM project lead by Swedish Maritime Administration agreed to organize a cooperation group to support S-124 CG. The group discussed how to apply the S-124 NW data model to their own e-Navigation project and drafted S-124 test cases to support S-124 development. The purpose of test cases is to verify the S-124 NW data model and test the feasibility of implanting MSI service based on the data model.



Test #	Test description
01	Test input examples from various sources and ensure these can be entered into the S- 124 data model.
	Test objective: This shall test the data model versatility
02	Test that S-124 data can be transliterated into S-53 navigational warnings to ensure backward compatibility and that system can support legacy outputs.
	Test objective: This shall test that significant S-53 (legacy) items are supported in the data model so that S-124 data can be converted and broadcast in legacy issues.
03	Validate test data against the GML schema to ensure data corresponds to the GML structure and load data in COTS GML viewer.
	Test objective: This shall test how well the data matches the GML standard.
04	Test that S-124 data can be transliterated into NAVTEX to ensure backward compatibility and that system can support legacy outputs.
	Test objective: This shall test that NAVTEX output is supported by the data model so that S-124 data can be converted and broadcast in legacy issues.
05	Check that the information that follow the new S-124 path is the same as the information that goes the established S-53 (SafetyNet and NAVTEX) path.
	Test objective: This is to validate the conversion to see that no significant information is lost between the various paths. This ensures that formatting of the NW/TP does not impact the information contained in the message.
06	Test that systems can ingest received S-124 data (including exchange set structure).
	Test objective: This shall verify that the data is formatted as system expect
07	Test that S-124 data can be portrayed.
	Test objective: This is to verify that the data can be viewed and portrays as expected in a system, including pick report.
08	Test that S-124 data is interoperable with S-101 data
	Test objective: This is to verify that the data can compliment S-101 ENC and cause no conflict
09	Test that data can be filtered by use criteria like geographical area, topic/type, issue, date, etc.
	Test objective: This is to verify that the data can be filtered to allow users to reduce information clutter.
10	Test cancellation process for in effect messages
	Test objective: This is to verify that the cancellation process in S-124 works and that only the data that is to be cancelled is affected, leaving all other information un-affected.
11	Test expiration of NW/T/P with end date/time.
	Test objective: This is to verify that S-124 data, that has an expiration date/time, will be terminated at the specified date
12	Test that system can receive new feature and/or portrayal catalogue and still portray existing NW/T/P.
	Test objective: This is to verify that the S-124 product specification can evolve and not negatively impact existing data.
13	Test that input GUI (Global Unique Identifier) is preserved through the distribution chain.
	Test objective: This is to verify that the GUI can be preserved throughout the distribution chain for traceability

Plan of test cases by ROK projects

The S-124 test cases consist mainly of four parts;

- The first part is to create database according to the S-124 NW data model;
- second part is to convert the NW DB to NW message;
- third part is to convert the NW DB to S-124 GML dataset and;
- fourth part is to ingest the S-124 GML to S-100 viewer.

It was agreed that KHOA NW project and SMART Navigation project would be involved with the S-124 test activities. The creation of the NW DB and conversion to NW messages will be carried out by the KHOA NW project. The conversion of S-124 NW GML and ingesting the dataset into S-100 Viewer will be done by the SMART Navigation project. The project team will continue to conduct the S-124 test cases and report the results to S-124 CG and S-100WG TSM.

Action Required of TSM5

The TSM5 is invited to:

a. note the progress reported in this paper.