Paper for Consideration by NIPWG

[Marine Environment MIO (Marine Information Overlay) Project of EAHC]

Submitted by:	Republic Of Korea (KHOA)
Executive Summary:	This paper introduces the progress and plan of Marine Environment MIO project under EAHC.
Related Documents:	HSSC6-08INF6
Related Projects:	Marine Environment MIO Project of EAHC

Introduction / Background

The EAHC recognized the importance of the blue economy as well as the need to protect marine environment and organized e-MIO WG led by the ROK to promote the test bed project on Marine Environment MIO (Marine Information Overlay). The e-MIO WG presented the progress of the test bed project in the 17th SNPWG and 6th HSSC meeting. This paper would introduce the progress and plan of test bed project by EAHC e-MIO WG.

Analysis/Discussion

The goal of test bed project is to develop MIO standard and test DB, which can be used on Maritime ENCs for the ESI (Environmental Sensitivity Index) Map used in the work of oil spill response. The e-MIO WG organized in January 2013 established a plan that the research group develops S-57 based MIO test bed during 2 years and starts to develop S-100 based MIO test bed from 2015.

- e-MIO Test Bed Establishment Stage (2013 - 2014): S-57 based ME MIO
- e-MIO Dataset Establishment Stage (2015 -)
- S-10X Transfer Study Stage (2015 -): S-100 based ME MIO

Currently in the stage of e-MIO Test Bed Establishment, major activities of the e-MIO WG include preparation of a draft of Marine Environment Product Specification, production of test dataset, and development of e-MIO Viewer. To finalize the e-MIO Test Bed Establishment Stage (2013-2014), the e-MIO WG is planning to report outcomes of the following researches at the 4th EAHC CHC meeting in Japan in 2015:

- Preparation of e-MIO Product Specification (draft)
- Sample dataset produced in accordance with the e-MIO Product Specification
- Outcomes of the development of e-MIO Viewer
- Guidelines for e-MIO establishment as a reference for Member States

The next research process to S-57 based ME MIO test bed will be a research of S-100 based ME MIO. The learned knowledge from the S-57 based MIO will be utilized to the S-100 based MIO study. In terms of data model, the changes listed below are expected:

- Modelling in connection with the S-122 MPA (Marine Protected Area)
- Introduction of Information Type
- Introduction of Complex attribute type in addition to Simple Attribute type
- Draft of Application schema based on GFM (General Feature Model) of S-100 Ver. 2.0

The e-MIO WG identified research activities listed as below for the S-100 based ME MIO test bed.

- Detailed review of S-122 MPA data model
- Drafting S-100 based ME MIO data model
- Drafting Feature catalogue and portrayal catalogue
- DCEG works
- Development of sample datasets

- Verification of sample datasets using S-100 simple viewer

As it is assumed that S-100 based ME MIO will be closely connected with S-122 MPA, the e-MIO WG of EAHC would cooperate with NIPWG on the test bed project.

Action Required of NIPWG
The NIPWG is invited to:

a. note the information in this paper.
b. provide recommendations for the testbed project of Marine Environment MIO.