**Input paper: [[1]](#footnote-1)** ENG14-3.1.3.4

**Input paper for the following Committee(s):** **Purpose of paper:**

(Select as appropriate)

ARM  ENG  PAP  Input

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**Agenda item** [[2]](#footnote-2) n.n

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eLoran product specification devleopment

# Summary

Korea Research Institute of Ships and Ocean Engineering (KRISO) is in charge of the development of products specification for DGNSS MF beacon and eLoran, which are the S-200 series relevant to PNT. The specification development for S-240 DGNSS station almanac has been completed in the last ENG meeting. KRISO drafted the S-246(eLoran transmitting station almanac) and S-247(Differential loran reference stations almanac) and developed accompanying documents of each product specification after the ENG13. This paper describes the major progress of the eLoran specifications.

## Purpose of the document

The S-246 and S-247 product specifications were completed and requested to review by the ENG committee.

## Related documents

- IALA Guideline 1106 – Producing an IALA S-200 series product specification

- IALA Guideline 1106-1 – IALA Product specification number template

# Background

IALA decided to use the S-100 (Universal hydrographic data model) for marine information exchange and made a plan of developing S-200 series for AtoN, PNT and VTS domains. Regarding the PNT specification, S-240 was first developed and S-246/S-247 were followed for the exchange of eLoran stations almanac. The specifications were drafted at the ENG8, after which the main document and accompanying documents were updated.

# Discussion

## Main document of S-246 and S-247

S-246(eLoran transmitting station almanac) and S-247(Differential loran reference stations almanac) have similar contents and are sharing same document template according to the guideline of producing an IALA S-200 series product specification (G1106). The specifications aim to exchange the eLoran stations almanac in digital and standardized way. The main document is structured as shown in the table below

1. The structure of S-246/S-247 product specification

|  |  |  |
| --- | --- | --- |
| Num | Chapter | Description |
| 1 | Overview | Introduction, References, Terms and abbreviations, Product specification metadata |
| 2 | Data content and structure | Application schema and feature catalogue of eLoran stations almanac |
| 3 | Co-ordinate reference system (CRS) | Co-ordinate reference system of eLoran stations almanac |
| 4 | Data quality | Data quality of eLoran stations almanac |
| 5 | Data capture and classification | Data encoding and product delivery |
| 6 | Data maintenance | Production process of eLoran stations almanac datasets |
| 7 | Portrayal (Symbol) | Rules to display symbols of eLoran stations almanac data |
| 8 | Data product format (Encoding) | Physical encoding of eLoran stations almanac data |
| 9 | Data product delivery | Data packaging and delivery method |
| 10 | Metadata | Data for data to describe the eLoran stations almanac |

## Accompanying documents (Annexes) of S-246, S-247

The S-200 series contain accompanying documents in addition to the main document. KRISO drafted the document packages for S-246 and S-247 considering the S-97 (IHO) and G1106 (IALA). Below table is the detailed description of the eLoran product specification packages.

1. Description of S-246/S-247 product specification packages

|  |  |  |  |
| --- | --- | --- | --- |
| Num | Title | Type | Description |
| 1 | Main document | Doc | Main document to include contents required for data production and maintenance |
| 2 | GML Schema | File | Data structure for eLoran stations almanac dataset, which is used for checking validation |
| 3 | DCEG | Doc | Data classification and encoding guideline |
| 4 | Feature Catalogue | File | Implementation of application schema(data model) of eLoran stations almanac |
| 5 | Human readable version of FC | Doc | Documents to describe the contents and structure of feature catalgoue |
| 6 | Sample dataset | File | Sample dataset of eLoran stations almanac |
| 7 | Portrayal | Package | Packages inclduing Rules and symbols to display eLoran stations almanac |

Those who wish to exchange eLoran stations almanac could produce S-246/S-247 datasets using the above product specification packages and it will be possible to transfer the dataset in digital and standardised way. The project team in charge of developing the PNT product specification completed the development of S-246/S-247 packages which were provided in separate papers.

# Action requested of the Committee

The Committee is requested to:

1. Review and endorse the main document and accompanying documents of S-246
2. Review and endorse the main document and accompanying documents of S-247

1. Input document number, to be assigned by the Committee Secretary [↑](#footnote-ref-1)
2. Leave open if uncertain [↑](#footnote-ref-2)