

**IALA COUNCIL**  
**4th Session****8-11 June 2026**  
**HQ, France****10 – TECHNICAL ACTIVITIES*****10.1.1 – Committee work programme*****10.1.1.2 IALA's role in the development of eLoran**

Note by the Secretariat

**INTRODUCTION**

This paper informs the Council of emerging international work on eLoran and IALA's possible role in supporting the development of a baseline eLoran System Specification and a framework for its controlled evolution.

**BACKGROUND**What is eLoran?

eLoran is an internationally recognised terrestrial positioning, navigation and timing (PNT) system that operates as an independent, dissimilar complement to the Global Navigation Satellite System (GNSS). It uses the 90–110 kHz frequency band, allocated to radionavigation by the ITU, and can meet the accuracy, availability, integrity and continuity requirements for maritime harbour entrance and approach, coastal navigation, aviation enroute, terminal and non-precision approach navigation and precision timing applications.

Renewed global interest in eLoran has been driven by the increasing prevalence of GNSS jamming and spoofing, which has demonstrated the vulnerability of GNSS-dependent infrastructure across transport modes and critical national infrastructure.

The Republic of Korea has operated an eLoran service since 2023. The United Kingdom has committed to a six-transmitter fixed eLoran network with initial operational capability planned from 2028. France, Saudi Arabia, the UAE and other nations are pursuing or considering national eLoran programmes. Multiple other nations are engaged in discussions on eLoran partnerships and interoperability.

The need for harmonization

Despite this growing momentum, the international documentation landscape for eLoran is fragmented, outdated and lacks a single internationally recognized custodian.

The United Kingdom, the Republic of Korea and France formed a group to address this matter and organized a conference titled "The International eLoran Standardization and Implementation Conference", held at the European Space Agency's R&D Centre (ESTEC) in March 2026.

The Deputy Secretary-General attended the conference and offered IALA's support for facilitating the development of the necessary documentation, such as a new baseline eLoran System Specification.



The group responded with a joint input paper to the ENG committee (ENG22-3.1.2.9), aimed at identifying the possible role of IALA in the upcoming standardization work.

### **IALA'S ROLE IN THE DEVELOPMENT OF ELORAN**

IALA is already involved in the development of eLoran, since the current committee work programme includes task such as the development of an eLoran S-200 data product specification on the so-called Additional Secondary Factors (ASF's) and the international coordination of the so-called Group Repetition Intervals (GRI's) of eLoran chains.

The input paper does not propose that IALA assumes sole ownership of all eLoran standards. Rather, it identifies additional discrete aspects of the eLoran system that require international harmonisation to enable interoperable services, maps these aspects to existing documentation, identifies the principal gaps, and suggests appropriate responsible bodies.

It argues that IALA is well placed to develop an initial, maritime-focused System Specification that could subsequently be adopted, extended and maintained by a broader international standardization framework.

The paper highlights the following areas where IALA could provide leadership or coordination:

- maritime service definition;
- transmitted signal specifications for maritime use;
- data product specifications; and
- transmission network parameter coordination,

while working in close liaison with IMO, IEC, ITU-R, RTCM, SAE, and other relevant bodies.

The ENG committee was in agreement with the proposed work outlined in the paper and agreed that IALA could play a key coordinating role, subject to Council approval.

The Committee added this work as a new work item and requested that the secretariat inform the Council about the role IALA could have in the further development of eLoran.

A Committee task group was formed, led by the United Kingdom (GRAD), and joined by representatives from the Republic of Korea, France, Germany, and the Netherlands.

### **THE COUNCIL IS REQUESTED TO**

**NOTE** the information provided, be informed about the emerging international work on eLoran, and IALA's role in supporting this work.