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Navigation radar used on inland waterways; Operational, functional and technical requirements

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Foreword

This European Standard (EN) has been produced by ETSI Technical Committee Electromagnetic compatibility and Radio spectrum Matters (ERM).

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1 Scope

The present document defines the functional and operational requirements for navigational radar installations used in inland waterways as required by CESNI ES-TRIN standard [i.1].

The present document is applicable to radar equipment and its associated primary navigational display intended for the navigation of vessels on inland waterways with the following characteristics:

- Transmitter Peak Envelope Power up to 10 kW.
- The antenna is rotating and passive.
- Unmodulated single carrier frequency only may be utilized.

The applicable frequencies of operation of this type of radio equipment are given in table 1. These frequencies are allocated to the radio navigation service, as defined in article 5 of the ITU Radio Regulations [i.4].

Table 1: Radio navigation service frequencies

	Radio navigation service frequencies
Transmit	9 300 MHz to 9 500 MHz
Receive	9 300 MHz to 9 500 MHz

2 References

2.1 Normative references

References are either specific (identified by date of publication and/or edition number or version number) or non-specific. For specific references, only the cited version applies. For non-specific references, the latest version of the referenced document (including any amendments) applies.

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The following referenced documents are necessary for the application of the present document.

- [1] IMCO Resolution A.278 (VIII) (1973): "Symbols for controls on marine navigational radar equipment".
- [2] ISO 25862:2019: "Ships and marine technology -- Marine magnetic compasses, binnacles and azimuth reading devices".
- [3] IEC EN 60945 (2002): "Maritime navigation and radiocommunication equipment and systems - General requirements - Methods of testing and required test results".

2.2 Informative references

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The following referenced documents are not necessary for the application of the present document but they assist the user with regard to a particular subject area.

- [i.1] CESNI: "European Standard laying down Technical Requirements for Inland Navigation vessels, ES-TRIN".
- [i.2] Recommendation ITU-R M.824-4 (02/2013): "Technical parameters of radar beacons".
- [i.3] Recommendation ITU-R M.628-5 (03/2012): "Technical characteristics for search and rescue radar transponders".
- [i.4] ITU Radio Regulations (2020).
- [i.5] IEC 62388 (2013): "Maritime navigation and radiocommunication equipment and systems - Shipborne radar - Performance requirements, methods of testing and required test results".
- [i.6] IEC 62288 (2014): "Maritime navigation and radiocommunication equipment and systems - Presentation of navigation-related information on shipborne navigational displays - General requirements, methods of testing and required test results".

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