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## **Digital Radio Mondiale (DRM); DRM-TMC (Traffic Message Channel)**

**EBU**

OPERATING EUROVISION

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Reference

RTS/JTC-DRM-29

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## Foreword

This Technical Specification (TS) has been produced by Joint Technical Committee (JTC) Broadcast of the European Broadcasting Union (EBU), Comité Européen de Normalisation ELECTrotechnique (CENELEC) and the European Telecommunications Standards Institute (ETSI).

NOTE: The EBU/ETSI JTC Broadcast was established in 1990 to co-ordinate the drafting of standards in the specific field of broadcasting and related fields. Since 1995 the JTC Broadcast became a tripartite body by including in the Memorandum of Understanding also CENELEC, which is responsible for the standardization of radio and television receivers. The EBU is a professional association of broadcasting organizations whose work includes the co-ordination of its members' activities in the technical, legal, programme-making and programme-exchange domains. The EBU has active members in about 60 countries in the European broadcasting area; its headquarters is in Geneva.

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## Modal verbs terminology

In the present document "**shall**", "**shall not**", "**should**", "**should not**", "**may**", "**may not**", "**need**", "**need not**", "**will**", "**will not**", "**can**" and "**cannot**" are to be interpreted as described in clause 3.2 of the [ETSI Drafting Rules](#) (Verbal forms for the expression of provisions).

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## Introduction

The need for traffic and traveller information is rising in our society. The Traffic Message Channel (TMC) is a specific application which delivers road driver information in an efficient way. TMC messages are intended for dedicated decoders, which perform a selection of the relevant messages and transform them to human-intelligible output, e.g. by display or a speech synthesiser. TMC messages can be filtered so that only those relevant to the current journey are displayed, while a TMC-enabled navigation system can offer dynamic route guidance - alerting the driver of a problem on the planned route and calculating an alternative route to avoid the incident.

TMC is already available in Digital Audio Broadcasting (DAB) [2] and in FM-RDS [4]. To increase the availability of TMC, the DRM system [1] provides a suitable broadcast system. The huge coverage areas of DRM enable the distribution of nationwide and trans-national traffic messages. Therefore the present document allows the use of several TMC services originating from different sources to cover huge traffic areas combined within one DRM data application service.

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# 1 Scope

The present document gives information how to transport the Traffic Message Channel (TMC) in the Digital Radio Mondiale (DRM) system and provides the references to the associated specifications.

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## 2 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 reference document (including any amendments) applies.

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### 2.1 Normative references

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

- [1] ETSI ES 201 980: "Digital Radio Mondiale (DRM); System specification".
- [2] ETSI EN 300 401: "Radio Broadcasting Systems; Digital Audio Broadcasting (DAB) to mobile, portable and fixed receivers".
- [3] ETSI TS 101 968: "Digital Radio Mondiale (DRM); Data applications directory".
- [4] IEC 62106: "Specification of the radio data system (RDS) for VHF/FM sound broadcasting in the frequency range from 87,5 to 108,0 MHz".
- [5] ISO 14819-1: "Intelligent transport systems--Traffic and travel information messages via traffic message coding -- Part 1: Coding protocol for Radio Data System -- Traffic Message Channel (RDS-TMC) using ALERT-C".
- [6] ISO 14819-6: "Traffic and Traveller Information (TTI) -- TTI Messages via traffic message coding -- Part 6: Encryption and conditional access for the Radio Data System -- Traffic Message Channel ALERT C coding".
- [7] ISO 14819-3: "Intelligent transport systems--Traffic and travel information messages via traffic message coding -- Part 3: Location referencing for Radio Data System -- Traffic Message Channel (RDS-TMC) using ALERT-C".

### 2.2 Informative references

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.

Not applicable.