
**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**

*Systèmes intelligents de transport — Informations sur le trafic et le
tourisme via le codage de messages sur le trafic —*

*Partie 3: Références de localisants pour le système de radiodiffusion de
données (RDS) — Canal de messages d'informations sur le trafic
(RDS-TMC) avec ALERT-C*



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Published in Switzerland

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2. www.iso.org/directives

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received. www.iso.org/patents

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#)

The committee responsible for this document is ISO/TC 204, *Intelligent transport systems*.

This second edition cancels and replaces the first edition (ISO 14819-3:2004), which has been technically revised.

ISO 14819 consists of the following parts, under the general title *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*
- *Part 2: Event and information codes for Radio Data System — Traffic Message Channel (RDS-TMC) using ALERT-C*
- *Part 3: Location referencing for Radio Data System — Traffic message Channel (RDS-TMC) using ALERT-C*
- *Part 6: Encryption and conditional access for the Radio Data System — Traffic Message Channel ALERT C coding*

Compared to previous releases, this version includes the following additions:

- Precise location referencing
- Tendencies of Traffic Queue Lengths (TTQL)
- Coding of parking POIs
- Coding of interrupted roads

- Coding of other isolated POIs (except parking POIs)
- Coding of parallel roads
- Version identification of TMC location tables
- Location Table Exchange Format
- North American Safety Events in TMC
- Explicit Location Table Country Code transmission in TMC
- Guidelines for Service Providers and Terminal Manufacturers for Implementation of explicit Location Table Country Code transmission
- Coding of link roads
- GB-English - List of Quantifiers
- Additional Event Codes identified by Germany
- Additional TMC Events from Danish proposal
- Additional TMC Supplementary Information: Unconfirmed Report
- RDS-TMC delivery of IVR Telephone Number
- Coding of link roads

Introduction

This part of ISO 14819 sets out ways of specifying places and positions in traffic and travel information messages, including RDS-TMC messages (the Radio Data System - Traffic Message Channel).

It defines the structure and semantics of location tables for Traffic Information Centres (TICs) and receivers.

a) Traffic and travel messages;

- 1) Traffic and travel information is created and updated in an originating database, by human operators or automated systems. Information is transferred to one or more remote systems by means of messages.
- 2) In this context, a message is a collection of data which is exchanged to convey information for an agreed purpose between two or more parties. Traffic and travel messages are digitally coded sets of data exchanged by interested parties, which convey information about traffic, travel and/or transport networks. Digital coding can be alphanumeric, as in EDIFACT, or binary, as in RDS-TMC.
- 3) The traffic and travel messages developed in programmes of the European Union are open, non-proprietary proposals for standards intended to serve the public interest by facilitating interconnection and interoperability of the relevant information systems.

b) Location referencing.

The location referencing component of a traffic and travel message enables a service provider to indicate the physical location of the event being described. The management of TMC location databases requires on-going maintenance. It is necessary to both manage location database ID allocation for countries implementing TMC services and to validate new and updated location databases when ground features change. These activities are led by service providers who also need to ensure that their end-users are kept up-to-date. The Traveller Information Services Association (www.tisa.org) manages the ID allocation on a worldwide basis. TISA provides location database validation for service providers who generally arrange location database updates on a bi-annual cycle.

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

1 Scope

This part of ISO 14819 sets out ways of specifying places and positions in traffic and travel information messages, including RDS-TMC messages (the Radio Data System - Traffic Message Channel). It primarily addresses the needs of RDS-TMC ALERT-C messages which are already being implemented. However, the modular approach used here is intended to facilitate future extension of the location referencing rules to other traffic and travel messaging systems.

The location referencing rules defined in this part of ISO 14819 address the specific requirements of Traffic Message Channel (TMC) systems, which use abbreviated coding formats to provide TTI messages. In particular, the rules address the Radio Data System - Traffic Message Channel (RDS-TMC), a means of providing digitally-coded traffic and travel information to travellers using a silent data channel (RDS) on FM radio stations, based on the ALERT-C protocol.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/IEC 8859-15:1999, *Information technology — 8-bit single-byte coded graphic character sets — Part 15: Latin alphabet No. 9*

ISO/IEC 10646:2012, *Information technology — Universal Coded Character Set (UCS)*

ISO 14819-1:2013, *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*

ISO 14825:2011, *Intelligent transport systems — Geographic Data Files (GDF) — GDF5.0*

IEC 62106:2009, *Specification of the radio data system (RDS) for VHF/FM sound broadcasting in the frequency range from 87,5 to 108,0 MHz*

NIMA Technical Report TR8350.2, US Department of Defense

3 Abbreviated terms

For the purposes of this document, the following abbreviated terms apply: