TECHNICAL SPECIFICATION

ISO/TS 24530-3

First edition
2006-04-15

Traffic and Travel Information (TTI) — TTI via Transport Protocol Experts Group (TPEG) Extensible Markup Language (XML) —

Part 3: tpeg-rtmML

Informations sur le trafic et le tourisme (TTI) — Messages TTI via le langage de balisage extensible (XML) du groupe d'experts du protocole de transport (TPEG) —

Partie 3: tpeg-rtmML

Reference number
ISO/TS 24530-3:2006(E)

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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

In other circumstances, particularly when there is an urgent market requirement for such documents, a technical committee may decide to publish other types of normative document:

— an ISO Publicly Available Specification (ISO/PAS) represents an agreement between technical experts in an ISO working group and is accepted for publication if it is approved by more than 50 % of the members of the parent committee casting a vote;

— an ISO Technical Specification (ISO/TS) represents an agreement between the members of a technical committee and is accepted for publication if it is approved by 2/3 of the members of the committee casting a vote.

An ISO/PAS or ISO/TS is reviewed after three years with a view to deciding whether it should be confirmed for a further three years, revised to become an International Standard, or withdrawn. In the case of a confirmed ISO/PAS or ISO/TS, it is reviewed again after six years at which time it has to be either transposed into an International Standard or withdrawn.

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.

ISO/TS 24530-3 was prepared by the European Committee for Standardization (CEN) in collaboration with Technical Committee ISO/TC 204, *Intelligent transport systems,* in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

Throughout the text of this document, read "...this European pre-Standard..." to mean "...this Technical Specification...".

ISO/TS 24530 consists of the following parts, under the general title *Traffic and Travel Information (TTI) — TTI via Transport Protocol Experts Group (TPEG) Extensible Markup Language (XML)*:

— *Part 1: Introduction, common data types and tpegML*

— *Part 2: tpeg-locML*

— *Part 3: tpeg-rtmML*

— *Part 4: tpeg-ptiML*

Introduction

TPEG in XML (tpegML) provides the solution to diverse requirements for the ultimate delivery of TPEG applications (potentially simultaneously) via for example ARIB, ATSC, DAB, DVB and the Internet. This will solve the minimal adaptation layers requirement and without doubling up on message carousels, which are handled at different layers of the protocol stacks.

The original TPEG technology uses a byte-oriented stream format, which may be carried on almost any digital bearer with an appropriate adaptation layer. TPEG messages are delivered from service providers to end-users, and are used to transfer application data from the database of a service provider to an end-user's equipment.

TPEG binary was initially designed to meet a particular brief, from the EBU's Broadcast Management Committee; to develop a new protocol for Traffic and Travel Information, for use in the multimedia broadcasting environment. TPEG applications were developed with service and transport features, which enable travel-related messages to be coded, decoded, filtered and understood both by humans (visually and/or audibly) and by agent systems. This brief was also endorsed by the EBU TTI Broadcast Strategy Team, who recognized the vital importance of a bearer independent TTI protocol.

The development of TPEG binary technology is excellently matched both technically and economically to DAB and possibly to internet bearers, where of the order of up to 10 kbits/s is considered acceptable. However other bearers such as ARIB, ATSC and DVB may be able to offer much higher data rates with economic and technical utility. Nevertheless these bearers are highly structured (layered) in their ability to handle transparent data services and they include mechanisms suitable for carousel delivery, which would require a considerably different TPEG data structure before real transparency could be achieved.

Another potential use of tpegML is provided to Service Providers who would have a standardised message generation interface, yet be able to develop systems suited to their own requirements. This will enable Service Providers to exchange pre-edited information regardless of their message generation systems and be substantially language independent.

tpegML has been developed using the DTD approach, which allows the use of different language entity files to easily provide a truly language independent service. This approach has the advantage that tpegML files can be rendered in any language, provided the language entity file is available to the internet browser. This document provides English language entity files only. For other languages the entity files in this document only require direct translation.

The development of this ISO/TS 24530 series was undertaken jointly with European Broadcasting Union B/TPEG Group, which has evolved into the TPEG Forum Standards Task Force. Attention is drawn to the EBU sponsored TPEG Forum development principles, which require all inputs containing IPR to be declared during drafting work. No such declarations have been made.

Traffic and Travel Information (TTI) — TTI via Transport Protocol Experts Group (TPEG) Extensible Markup Language (XML) —

Part 3:
tpeg-rtmML

1 Scope

This document establishes the XML encoding of the method of the Road Traffic Message application.

The TPEG-RTM Application is intended to convey information to road users. The information provided relates to event and some status information on the road network and on associated infrastructure affecting a road journey. For example, limited information about abnormal operation of links in the network may be included, such as ferries, lifting-bridges, etc.

The TPEG-RTM Application has the broad objective to allow the generation of Traffic and Travel Information (TTI) messages, for delivery to the end-user by one or more bearers. A hierarchical methodology has been developed to allow the creation of messages from a set of TPEG-RTM tables, which are essentially word-oriented and cover most needs.

These TPEG-RTM tables (essentially word-oriented data object dictionaries) comprise a wide ranging ability to describe a TTI event and some status information, introducing new precision in a number of areas such as “Vehicle types”, “Positional information on the carriageway” and “Diversion routing advice”.

It is vital, for further understanding of this document, to have more than a passing understanding of the TPEG-RTM binary specification which describes, among other things, in a step-by step approach: Message Management, Level One Classes and how they are structured, hierarchically to provide a full Road Traffic Message together with the TPEG Location Referencing system.

2 Normative references

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

ISO/TS 24530-1, *Traffic and Travel Information (TTI) — TTI via Transport Protocol Experts Group (TPEG) Extensible Markup Language (XML) — Part 1: Introduction, common data types and tpegML*

ISO/TS 18234-1, *Traffic and Travel Information (TTI) — TTI via Transport Protocol Expert Group (TPEG) data-streams — Part 1: Introduction, Numbering and Versions*

ISO/TS 18234-2, *Traffic and Travel Information (TTI) — TTI via Transport Protocol Expert Group (TPEG) data-streams — Part 2: Syntax, Semantics and Framing Structure (SSF)*

ISO/TS 18234-4, *Traffic and Travel Information (TTI) — TTI via Transport Protocol Expert Group (TPEG) data-streams — Part 4: Road Traffic Message (RTM) application*

ISO/TS 18234-6, *Traffic and Travel Information (TTI) — TTI via Transport Protocol Expert Group (TPEG) data-streams — Part 6: Location Referencing for applications*

ISO 3166-1, *Codes for the representation of names of countries and their subdivisions — Part 1: Country codes*

ISO 8601, *Data elements and interchange formats — Information interchange — Representation of dates and times*

3 Abbreviated terms

For the purposes of this document, the following abbreviations apply.

3.1
ARIB
Association of Radio Industries and Business (Japan)

3.2
ATSC
American Television Standards Committee (USA)

3.3
DAB
Digital Audio Broadcasting

3.4
DTD/dtd
Document Type Definition - lower case used for file naming

3.5
DVB
Digital Video Broadcasting

3.6
EBU
European Broadcasting Union

3.7
IPR
Intellectual Property Right(s)

3.8
RTM
Road Traffic Message

3.9
TPEG
Transport Protocol Experts Group

3.10
tpegML
tpeg XML applications - use lower case to distinguish them from the TPEG binary applications which use upper case

3.11
tpeg-loc
location referencing for applications

3.12
TTI
Traffic and Travel Information

3.13
WGS84
World Geodetic System 1984

3.14
XML
Extensible Markup Language

4 Format of this document

This document is divided into Sections, each describes an XML element used in tpegML. Each element has an introduction explaining what it is for, the DTD definition relevant to it, guidelines "extending" the DTD and an example. The complete .dtd and .ent files are contained in Annexes A and B.

4.1 Tables

A large number of attributes used in elements in tpegML are based on tables in the TPEG specifications. To encode this in XML there are defined general entity references for all the table entries. In this Technical Specification series these entities are taken from the TPEG tables defined in the equivalent part of ISO/TS 18234.

For display in other languages these entity files only need to be replaced by directly translated equivalents.

These are named, for example `rtmX_Y`, where X is the table number and Y is the row number (e.g. "`rtm01_01`" is the entry in the RTM `vehicle_type` table for `car`). The DTD does not restrict the entity references that can be used in an attribute so the 'guidelines' sections indicate which entities/tables should be used for which attributes.

Table numbers use a leading zero below 10, whereas the row number within a table does not use a leading zero. Table numbers are random and entries within a table are random – no priority order is implied.

4.2 Example XML

This example shows the following message: *"An accident closes A12 at Brentwood, Essex"* expressed as a single tpegML message using elements from tpeg-locML and tpeg-rtmML.

```
<tpeg_message>
    <originator country="UK" originator_name="BBC Travel"/>
    <summary xml:lang="en">Accident closes A12 at Brentwood, Essex</summary>
    <road_traffic_message message_id="123"
                          version_number="1"
                          message_generation_time="2002-04-03T13:03:00Z"
                          severity_factor="&rtm31_4;">

        <!-- Location is on A12 in Brentford, Essex -->
        <location_container language="&loc41_30;">
            <location_coordinates location_type="&loc01_5;">
                <location_point>
                    <WGS84 longitude="-0.1337" latitude="51.52641"/>
                    <location_descriptor descriptor_type="&loc03_7;" descriptor="A12"/>
                    <location_descriptor descriptor_type="&loc03_8;" descriptor="A128"/>
                    <location_descriptor descriptor_type="&loc03_24;" descriptor="Brentwood"/>
                    <location_descriptor descriptor_type="&loc03_25;" descriptor="Essex"/>
                </location_point>
                <direction direction_type="&loc02_2;"/>
            </location_coordinates>
        </location_container>
```

```
        <!-- Accident in thick fog involving 50 vehicles -->
        <accidents number_of="1">
            <position position="&rtm10_37;"/>
            <vehicles number_of="50">
                <vehicle_problem vehicle_problem="&rtm03_22;"/>
            </vehicles>
        </accidents>
        <visibility>
            <obscurity obscurity_problem="&rtm17_2;" visibility_distance="20"/>
        </visibility>
        <network_conditions>
            <position position="&rtm10_37;"/>
            <restriction restriction="&rtm49_1;"/>
        </network_conditions>

    </road_traffic_message>
</tpeg_message>
```

This example shows the following message: *"Temporary traffic lights on A811 at Drymen".*

```
<tpeg_message>
    <originator country="UK" originator_name="BBC Travel"/>
    <summary xml:lang="en">Temporary traffic lights on A811 at Drymen</summary>
    <road_traffic_message message_id="124"
                          version_number="1"
                          message_generation_time="2002-04-03T13:40:00Z"
                          severity_factor="&rtm31_2;">

        <!-- Location is A811 at Drymen -->
        <location_container language="&loc41_30;">
            <location_coordinates location_type="&loc01_6;">
                <location_point>
                <WGS84 longitude="-4.45451" latitude="56.05573"/>
                < location_descriptor descriptor_type="&loc03_7;" descriptor="A811"/>
                < location_descriptor descriptor_type="&loc03_8;" descriptor="A809"/>
                < location_descriptor descriptor_type="&loc03_24;" descriptor="Dumbarton"/>
                < location_descriptor descriptor_type="&loc03_24;" descriptor="Stirling"/>
                </location_point>
            </location_coordinates>
        </location_container>

        <!-- Temporary traffic lights -->
        <facilities_performance>
            <traffic_control traffic_control_type="&rtm42_11;" traffic_control_status="&rtm43_12;">
                <position position="&rtm10_37;"/>
            </traffic_control>
        </facilities_performance>

    </road_traffic_message>
</tpeg_message>
```

This example shows the following message: *"Collision of a motor bike and a large car in Munich right in front of the IBIS hotel on Ungerer Straße between the junctions with Fröttmaninger Straße (E11.60028°/N48.17583°) and Schenkendorfstraße/Isar- ring (E11.59722°/N48.17306°) on wet road (all lanes)."*


```
<tpeg_message>
    <originator country="DE"/>
    <summary xml:lang="en">Collision of a motor bike and a large car in Munich right in front of the IBIS hotel on Ungerer Straße between the junctions with Fröttmaninger Straße (E11.60028°/N48.17583°) and Schenkendorfstraße/Isar- ring (E11.59722°/N48.17306°) on wet road (all lanes).</summary>
    <summary xml:lang="de">Unfall zwischen Motorrad und grossem Auto in München in Höhe des IBIS Hotel in der Ungerer Straße zwischen den Kreuzungen mit Fröttmaniger Straße (E11.60028°/N48.17583°) und Schenkendorfstraße/Isar- ring (E11.59722°/N48.17306°) auf nasser Straße (alle Spuren).</summary>

    <road_traffic_message message_id="7"
                          version_number="25"
                          message_expiry_time="2000-09-30T12:05:00Z"
                          severity_factor="&rtm31_5;">

        <location_container language="&loc41_40;">
            <location_coordinates location_type="&loc01_3;">
                <location_point>
                    <WGS84 longitude="1160028" latitude="4817583"/>
                    <location_descriptor descriptor_type="&loc03_7;" descriptor="B11;Ungerer Straße"/>
                    <location_descriptor descriptor_type="&loc03_8;" descriptor="Fröttmaninger Straße"/>
                </location_point>

                <location_point>
                    <WGS84 longitude="1159722" latitude="4817306"/>
                    <location_descriptor descriptor_type="&loc03_7;" descriptor="B11;Ungerer Straße"/>
                    <location_descriptor descriptor_type="&loc03_8;" descriptor="B2R;Schenkendorfstraße"/>
                    <location_descriptor descriptor_type="&loc03_9;" descriptor="B2R;Isarring"/>
                </location_point>
            </location_coordinates>
        </location_container>

        <accidents number_of="1">
            <position position="&rtm10_9;"/>
            <vehicles number_of="2">
                <position position="&rtm10_9;"/>
                <vehicle_info vehicle_type="&rtm01_19;" vehicle_subtype="&rtm48_3;"/>
                <vehicle_info vehicle_type="&rtm01_1;" vehicle_subtype="&rtm07_3;"/>
            </vehicles>
        </accidents>
        <road_conditions>
            <position position="&rtm10_37;"/>
            <surface general_magnitude="&rtm31_4;" surface_condition="&rtm18_9;"/>
            <adhesion general_magnitude="&rtm31_4;" adhesion_condition="&rtm39_18;"/>
        </road_conditions>

    </road_traffic_message>
</tpeg_message>
```

5 tpeg-rtmML

These are defined fully in the tpeg-rtmML.dtd and tpeg-rtmML.ent files (see Annexes A and B).

5.1 road_traffic_message

```
<!-- rtm_table 31: general magnitude -->
<!ENTITY rtm31_0 "unknown">
<!ENTITY rtm31_1 "very slight">
<!ENTITY rtm31_2 "slight">
<!ENTITY rtm31_3 "medium">
<!ENTITY rtm31_4 "severe">
<!ENTITY rtm31_5 "very severe">
<!ENTITY rtm31_255 "unspecified">

<!-- rtm_table 46: unverified information -->
<!ENTITY rtm46_0 "unknown">
<!ENTITY rtm46_1 "unverified">
<!ENTITY rtm46_255 "verified">

<!ELEMENT road_traffic_message ((repetitive_time | non_repetitive_time | location_container | accidents | obstructions |
activities | road_conditions | network_performance | network_conditions | facilities_performance | moving_hazard |
security_alert | public_transport_info | visibility | weather | diversion_advice)*)>
<!ATTLIST road_traffic_message
    message_id CDATA #REQUIRED
    version_number CDATA #REQUIRED
    message_generation_time %time; #IMPLIED
    start_time %time; #IMPLIED
    stop_time %time; #IMPLIED
    message_expiry_time %time; #IMPLIED
    severity_factor CDATA #IMPLIED
    unverified_information CDATA #IMPLIED
>
```

road_traffic_message: This represents a road traffic message (RTM) from TPEG-RTM. An RTM is intended to convey information to road users. The information provided relates to event and some status information on the road network and on the associated infrastructure affecting a road journey. RTMs have a hierarchical structure that allows the creation of messages from a set of RTM tables, which are essentially word-oriented and cover most needs.

The severity_factor attribute shall use entity references of the form `rtm31_x`. The unverified_information attribute shall use entity references of the form `rtm46_x`.

Example:

```
<road_traffic_message message_id="234" version_number="4"
     message_generation_time="2001-02-12T12:01:13Z"
     start_time="2001-02-12T15:00:00Z"
     stop_time="2001-02-12T15:30:00Z"
     message_expiry_time="2001-02-12T15:45:00Z"
     severity_factor="&rtm31_2;"
     unverified_information="&rtm46_1;">

     <location_container>…</location_container>
     <accidents>…</accidents>

</road_traffic_message>
```

5.2 repetitive_time

```
<!ELEMENT repetitive_time EMPTY>
<!ATTLIST repetitive_time
    hour %intunti; #REQUIRED
    minute %intunti; #REQUIRED
    duration %intunli; #REQUIRED
          day_mask %day_mask; #REQUIRED
>
```

repetitive_time: This describes a repetitive time that applies to the current message. The repetitive time information is bounded by the message start and stop time. The duration attribute shall describe the duration in minutes from 0 to 10079 (one week).

Example:

```
<repetitive_time hour="0" minute="0" duration="15" day_mask="0x05"/>
```

5.3 non_repetitive_time

```
<!ELEMENT non_repetitive_time (non_rep_time*)>
```

non_repetitive_time: This describes a set of operating times that are non-repetitive.

5.3.1 non_rep_time

```
<!ELEMENT non_rep_time EMPTY>
<!ATTLIST non_rep_time
    start_time %time; #REQUIRED
    duration %intunlo; #REQUIRED
>
```

non_rep_time: This describes one of the operating times in a `non_repetitive_time` element. The duration attribute shall be in seconds, 0 represents a start time without a duration.

Example:

```
<non_repetitive_time>
    <non_rep_time start_time="2002-02-18 T14:00:00Z" duration="3600"/>
    <non_rep_time start_time="2002-02-19 T14:00:00Z" duration="3600"/>
</non_repetitive_time>
```

5.4 accident

```
<!ELEMENT accidents ((position | animals | vehicles | people)*)>
<!ATTLIST accidents
    number_of %intunti; #REQUIRED
>
```

accident: This describes situations in which road users (vehicles, animals and people) do not behave in a predictable or safe manner and either impact with each other or the roadside infrastructure and in some cases may leave the road.

It contains `position`, `animals`, `vehicles` and `people` sub-elements that give information on the position of the accident, what was involved and what happened.

Example:

```
<accidents number_of="1">
    <position/>
    <animals>…</animals>
    <vehicles>…</vehicles>
    <people>…</people>
</accidents>
```

5.4.1 position

```
<!-- rtm_table 10: position -->
<!ENTITY rtm10_0 "unknown">
<!ENTITY rtm10_1 "driving lane 1">
<!ENTITY rtm10_2 "driving lane 2">
<!ENTITY rtm10_3 "driving lane 3">
<!ENTITY rtm10_4 "driving lane 4">
<!ENTITY rtm10_5 "driving lane 5">
<!ENTITY rtm10_6 "driving lane 6">
<!ENTITY rtm10_7 "driving lane 7">
<!ENTITY rtm10_8 "driving lane 8">
<!ENTITY rtm10_9 "driving lanes 1 and 2">
<!ENTITY rtm10_10 "driving lanes 2 and 3">
<!ENTITY rtm10_11 "driving lanes 3 and 4">
<!ENTITY rtm10_12 "driving lanes 4 and 5">
<!ENTITY rtm10_13 "driving lanes 5 and 6">
<!ENTITY rtm10_14 "driving lanes 6 and 7">
<!ENTITY rtm10_15 "driving lanes 7 and 8">
<!ENTITY rtm10_16 "driving lanes 1, 2 and 3">
<!ENTITY rtm10_17 "driving lanes 2, 3 and 4">
<!ENTITY rtm10_18 "driving lanes 3, 4 and 5">
<!ENTITY rtm10_19 "driving lanes 4, 5 and 6">
<!ENTITY rtm10_20 "driving lanes 5, 6 and 7">
<!ENTITY rtm10_21 "driving lanes 6, 7 and 8">
<!ENTITY rtm10_22 "driving lanes 1, 2, 3 and 4">
<!ENTITY rtm10_23 "driving lanes 2, 3, 4 and 5">
<!ENTITY rtm10_24 "driving lanes 3, 4, 5 and 6">
<!ENTITY rtm10_25 "driving lanes 4, 5, 6 and 7">
<!ENTITY rtm10_26 "driving lanes 5, 6, 7 and 8">
<!ENTITY rtm10_27 "driving lanes 1, 2, 3, 4 and 5">
<!ENTITY rtm10_28 "driving lanes 2, 3, 4, 5 and 6">
<!ENTITY rtm10_29 "driving lanes 3, 4, 5, 6 and 7">
<!ENTITY rtm10_30 "driving lanes 4, 5, 6, 7 and 8">
<!ENTITY rtm10_31 "driving lanes 1, 2, 3, 4, 5 and 6">
<!ENTITY rtm10_32 "driving lanes 2, 3, 4, 5, 6 and 7">
<!ENTITY rtm10_33 "driving lanes 3, 4, 5, 6, 7 and 8">
<!ENTITY rtm10_34 "driving lanes 1, 2, 3, 4, 5, 6 and 7">
<!ENTITY rtm10_35 "driving lanes 2, 3, 4, 5, 6, 7 and 8">
<!ENTITY rtm10_36 "off-road">
<!ENTITY rtm10_37 "all driving lanes">
<!ENTITY rtm10_38 "central reservation">
<!ENTITY rtm10_39 "hard shoulder">
<!ENTITY rtm10_40 "service road">
<!ENTITY rtm10_41 "local lane">
<!ENTITY rtm10_42 "underpass">
<!ENTITY rtm10_43 "fly over">
<!ENTITY rtm10_44 "emergency lane">
<!ENTITY rtm10_45 "bridge">
<!ENTITY rtm10_46 "tunnel">
<!ENTITY rtm10_47 "overtaking lane">
<!ENTITY rtm10_48 "turning lane">
<!ENTITY rtm10_49 "slip road">
<!ENTITY rtm10_50 "toll plaza">
<!ENTITY rtm10_51 "cycle lane">
<!ENTITY rtm10_52 "through traffic lane">
<!ENTITY rtm10_53 "filter lane">
<!ENTITY rtm10_54 "bend">
<!ENTITY rtm10_55 "hilltop">
<!ENTITY rtm10_56 "car pool lane">
<!ENTITY rtm10_57 "bus lane">
<!ENTITY rtm10_58 "slow vehicle lane">
<!ENTITY rtm10_59 "verges">
<!ENTITY rtm10_60 "roadside bank">
<!ENTITY rtm10_61 "adjacent to road">
<!ENTITY rtm10_62 "opposite carriageway">
<!ENTITY rtm10_63 "exit slip road">
<!ENTITY rtm10_64 "entry slip road">
<!ENTITY rtm10_65 "express lane">
<!ENTITY rtm10_66 "lay-by">
<!ENTITY rtm10_67 "rest area">
<!ENTITY rtm10_68 "service area">
<!ENTITY rtm10_69 "around corner">
<!ENTITY rtm10_70 "escape lane">
<!ENTITY rtm10_71 "feeder road">
```

```
<!ENTITY rtm10_72 "left-hand feeder road">
<!ENTITY rtm10_73 "right-hand feeder road">
<!ENTITY rtm10_74 "dyke">
<!ENTITY rtm10_75 "shaded area">
<!ENTITY rtm10_76 "sunny area">
<!ENTITY rtm10_77 "left-hand turn lane">
<!ENTITY rtm10_78 "right-hand turn lane">
<!ENTITY rtm10_79 "bus stop">
<!ENTITY rtm10_80 "set down area">
<!ENTITY rtm10_81 "low lying area">
<!ENTITY rtm10_82 "low altitude route">
<!ENTITY rtm10_83 "high altitude route">
<!ENTITY rtm10_84 "ascending route">
<!ENTITY rtm10_85 "descending route">
<!ENTITY rtm10_86 "around the bend">
<!ENTITY rtm10_87 "weigh station">
<!ENTITY rtm10_88 "north bound carriageway">
<!ENTITY rtm10_89 "north-east bound carriageway">
<!ENTITY rtm10_90 "east bound carriageway">
<!ENTITY rtm10_91 "south-east bound carriageway">
<!ENTITY rtm10_92 "south bound carriageway">
<!ENTITY rtm10_93 "south-west bound carriageway">
<!ENTITY rtm10_94 "west-bound carriageway">
<!ENTITY rtm10_95 "north-west bound carriageway">
<!ENTITY rtm10_96 "clockwise carriageway">
<!ENTITY rtm10_97 "anti-clockwise carriageway">
<!ENTITY rtm10_98 "junction">
<!ENTITY rtm10_99 "left lane">
<!ENTITY rtm10_100 "left lane">
<!ENTITY rtm10_101 "right lane">
<!ENTITY rtm10_102 "right lane">
<!ENTITY rtm10_103 "middle lane">
<!ENTITY rtm10_104 "one lane">
<!ENTITY rtm10_105 "two lanes">
<!ENTITY rtm10_106 "three lanes">
<!ENTITY rtm10_255 "on route">

<!ELEMENT position EMPTY>
<!ATTLIST position
    position CDATA #REQUIRED
>
```

position: This represents the position on the carriageway where the hazard occurs. The position attribute shall use entity references of the form `rtm10_x`.

Example:

```
<position position="&rtm10_10;"/>
```

5.4.2 animals

```
<!ELEMENT animals ((position | animal_problem | animal_info)*)>
<!ATTLIST animals
    number_of %numag; #REQUIRED
>
```

animals: This represents information about animals. It contains `position`, `animal_problem`, and `animal_info` sub-elements that give information on the position of the animals, the type of gathering and the type of animals.

Example:

```
<animals number_of="10000">
    <position/>
    <animal_problem>…</animal_problem>
    <animal_info>…</animal_info>
</animal>
```

5.4.2.1 animal_problem

```
<!-- rtm_table 23: animal problem -->
<!ENTITY rtm23_0 "unknown">
<!ENTITY rtm23_1 "loose">
<!ENTITY rtm23_2 "trapped">
<!ENTITY rtm23_3 "herded">
<!ENTITY rtm23_4 "injured">
<!ENTITY rtm23_5 "dead">
<!ENTITY rtm23_6 "grazing">
<!ENTITY rtm23_7 "crossing road">
<!ENTITY rtm23_8 "dangerous">
<!ENTITY rtm23_9 "flocking">
<!ENTITY rtm23_255 "animals">

<!ELEMENT animal_problem EMPTY>
<!ATTLIST animal_problem
    animal_problem CDATA #REQUIRED
>
```

animal_problem: This describes the type of gathering of animals that may be near or on the carriageway. The animal_problem attribute shall use entity references of the form `rtm23_x`.

Example:

```
<animal_problem animal_problem=”&rtm23_5;”/>
```

5.4.2.2 animal_info

```
<!-- rtm_table 21: animal type -->
<!ENTITY rtm21_0 "unknown">
<!ENTITY rtm21_1 "horses">
<!ENTITY rtm21_2 "cattle">
<!ENTITY rtm21_3 "sheep">
<!ENTITY rtm21_4 "deer">
<!ENTITY rtm21_5 "frogs">
<!ENTITY rtm21_6 "chickens">
<!ENTITY rtm21_7 "ducks">
<!ENTITY rtm21_8 "geese">
<!ENTITY rtm21_9 "dogs">
<!ENTITY rtm21_10 "elks">
<!ENTITY rtm21_11 "reindeer">
<!ENTITY rtm21_12 "wild birds">
<!ENTITY rtm21_13 "goats">
<!ENTITY rtm21_14 "swarming insects">
<!ENTITY rtm21_255 "animals">

<!-- rtm_table 22: animal size -->
<!ENTITY rtm22_0 "unknown">
<!ENTITY rtm22_1 "small">
<!ENTITY rtm22_2 "medium">
<!ENTITY rtm22_3 "large">
<!ENTITY rtm22_4 "very large">
<!ENTITY rtm22_255 "unspecified">

<!ELEMENT animal_info EMPTY>
<!ATTLIST animal_info
    animal_type CDATA #REQUIRED
    animal_size CDATA #REQUIRED
>
```

animal_info: This describes the type and size of animals involved that may be near or on the carriageway. The animal_type attribute should only use entity references of the form `rtm21_x`. The animal_size attribute shall use entity references of the form `rtm22_x`.

Example:

```
<animal_info animal_type=”&rtm21_11;” animal_size=”&rtm22_2;”/>
```

5.4.3 vehicles

```
<!ELEMENT vehicles ((position | vehicle_problem | vehicle_info)*)>
<!ATTLIST vehicles
      number_of %numag; #REQUIRED
>
```

vehicles: This represents information about vehicles. It contains `position`, `vehicle_problem`, and `vehicle_info` sub-elements that give information on the position of the vehicles, the type of problem and the type of vehicles.

Example:

```
<vehicles number_of=”1”>
    <position/>
    <vehicle_problem>…</vehicle_problem>
    <vehicle_info>…</vehicle_info>
</vehicles>
```

5.4.3.1 vehicle_problem

```
<!-- rtm_table 03: vehicle problem type -->
<!ENTITY rtm03_0 "unknown">
<!ENTITY rtm03_1 "rescue work">
<!ENTITY rtm03_2 "jack-knifed">
<!ENTITY rtm03_3 "overturned">
<!ENTITY rtm03_4 "on fire">
<!ENTITY rtm03_5 "spun round">
<!ENTITY rtm03_6 "spillage">
<!ENTITY rtm03_7 "driver on wrong carriageway">
<!ENTITY rtm03_8 "broken down">
<!ENTITY rtm03_9 "shed load">
<!ENTITY rtm03_10 "unlit">
<!ENTITY rtm03_11 "brake failure">
<!ENTITY rtm03_12 "stuck">
<!ENTITY rtm03_13 "abandoned">
<!ENTITY rtm03_14 "in convoy">
<!ENTITY rtm03_15 "slow moving">
<!ENTITY rtm03_16 "dangerously driven">
<!ENTITY rtm03_17 "dangerous load">
<!ENTITY rtm03_18 "prohibited">
<!ENTITY rtm03_19 "slowing">
<!ENTITY rtm03_20 "chasing">
<!ENTITY rtm03_21 "excessive speed">
<!ENTITY rtm03_22 "accident">
<!ENTITY rtm03_255 "vehicle problem">

<!ELEMENT vehicle_problem EMPTY>
<!ATTLIST vehicle_problem
    vehicle_problem CDATA #REQUIRED
>
```

vehicle_problem: This describes the type of problem or circumstance happening to vehicles on or near the carriageway. The vehicle_problem attribute shall use entity references of the form `rtm03_x`.

Example:

```
<vehicle_problem vehicle_problem=”&rtm03_2;”/>
```

5.4.3.2 vehicle_info

```
<!-- rtm_table 01: vehicle type -->
<!ENTITY rtm01_0 "unknown">
<!ENTITY rtm01_1 "car">
<!ENTITY rtm01_2 "light goods vehicle">
<!ENTITY rtm01_3 "heavy goods vehicle">
<!ENTITY rtm01_4 "public transport vehicle">
```

```
<!ENTITY rtm01_5 "pedal cycle">
<!ENTITY rtm01_6 "emergency vehicle">
<!ENTITY rtm01_7 "works vehicle">
<!ENTITY rtm01_8 "exceptional size vehicle">
<!ENTITY rtm01_9 "vehicle with trailer">
<!ENTITY rtm01_10 "high-sided vehicle">
<!ENTITY rtm01_11 "minibus">
<!ENTITY rtm01_12 "taxi">
<!ENTITY rtm01_13 "tram">
<!ENTITY rtm01_14 "trolley-bus">
<!ENTITY rtm01_15 "train">
<!ENTITY rtm01_16 "post bus">
<!ENTITY rtm01_17 "school bus">
<!ENTITY rtm01_18 "military vehicle">
<!ENTITY rtm01_19 "motorcycle">
<!ENTITY rtm01_20 "sledge">
<!ENTITY rtm01_255 "vehicle">

<!-- rtm_table 07: car type -->
<!ENTITY rtm07_0 "unknown">
<!ENTITY rtm07_1 "small car">
<!ENTITY rtm07_2 "family car">
<!ENTITY rtm07_3 "large car">
<!ENTITY rtm07_4 "multi-purpose-vehicle">
<!ENTITY rtm07_5 "limousine">
<!ENTITY rtm07_6 "camper car">
<!ENTITY rtm07_7 "large 4-wheel drive vehicle">
<!ENTITY rtm07_255 "car">

<!-- rtm_table 09: light goods vehicle type -->
<!ENTITY rtm09_0 "unknown">
<!ENTITY rtm09_1 "small van">
<!ENTITY rtm09_2 "small pick-up truck">
<!ENTITY rtm09_3 "medium size van">
<!ENTITY rtm09_4 "medium size pick-up truck">
<!ENTITY rtm09_5 "small motorcaravan">
<!ENTITY rtm09_6 "vehicle carrying hazardous load">
<!ENTITY rtm09_255 "light goods vehicle">

<!-- rtm_table 11: heavy goods vehicle type -->
<!ENTITY rtm11_0 "unknown">
<!ENTITY rtm11_1 "medium size lorry">
<!ENTITY rtm11_2 "large lorry">
<!ENTITY rtm11_3 "medium lorry with close-coupled trailer">
<!ENTITY rtm11_4 "large lorry with close-coupled trailer">
<!ENTITY rtm11_5 "articulated lorry">
<!ENTITY rtm11_6 "lorry cabin without articulated trailer">
<!ENTITY rtm11_7 "car transporter">
<!ENTITY rtm11_8 "low loader">
<!ENTITY rtm11_9 "tanker">
<!ENTITY rtm11_10 "vehicle carrying hazardous load">
<!ENTITY rtm11_11 "large motorcaravan">
<!ENTITY rtm11_255 "heavy goods vehicle">

<!-- rtm_table 40: public transport type -->
<!ENTITY rtm40_0 "unknown">
<!ENTITY rtm40_1 "bus">
<!ENTITY rtm40_2 "articulated bus">
<!ENTITY rtm40_3 "school bus">
<!ENTITY rtm40_4 "minibus">
<!ENTITY rtm40_5 "tram">
<!ENTITY rtm40_6 "train">
<!ENTITY rtm40_7 "underground">
<!ENTITY rtm40_8 "rapid transit">
<!ENTITY rtm40_9 "ferry">
<!ENTITY rtm40_10 "shuttle bus">
<!ENTITY rtm40_11 "park and ride">
<!ENTITY rtm40_12 "post bus">
<!ENTITY rtm40_13 "passenger ferry">
<!ENTITY rtm40_14 "vehicle ferry">
<!ENTITY rtm40_15 "floating bridge ferry">
<!ENTITY rtm40_16 "shuttle train">
<!ENTITY rtm40_17 "cable car">
<!ENTITY rtm40_18 "funicular">
<!ENTITY rtm40_19 "trolley bus">
```

```
<!ENTITY rtm40_20 "taxi">
<!ENTITY rtm40_255 "public transport service">

<!-- rtm_table 05: pedal cycle type -->
<!ENTITY rtm05_0 "unknown">
<!ENTITY rtm05_1 "motor-assisted pedal cycle">
<!ENTITY rtm05_2 "tricycle">
<!ENTITY rtm05_3 "tandem cycle">
<!ENTITY rtm05_4 "pedal cycle and trailer">
<!ENTITY rtm05_5 "pedal cycle and side-car">
<!ENTITY rtm05_6 "unicycle">
<!ENTITY rtm05_7 "kick sledge">
<!ENTITY rtm05_255 "pedal cycle">

<!-- rtm_table 06: emergency vehicle type -->
<!ENTITY rtm06_0 "unknown">
<!ENTITY rtm06_1 "ambulance">
<!ENTITY rtm06_2 "fire engine">
<!ENTITY rtm06_3 "police car">
<!ENTITY rtm06_4 "breakdown recovery vehicle">
<!ENTITY rtm06_5 "fire engine with escape ladder">
<!ENTITY rtm06_6 "fire engine with hydraulic platform">
<!ENTITY rtm06_7 "fire engine with water tank">
<!ENTITY rtm06_8 "vehicle removal crane">
<!ENTITY rtm06_9 "incident control vehicle">
<!ENTITY rtm06_10 "salvage vehicle">
<!ENTITY rtm06_255 "emergency vehicle">

<!-- rtm_table 02: works vehicle type -->
<!ENTITY rtm02_0 "unknown">
<!ENTITY rtm02_1 "gritting vehicle">
<!ENTITY rtm02_2 "snowplough">
<!ENTITY rtm02_3 "salting vehicle">
<!ENTITY rtm02_4 "white-lining vehicle">
<!ENTITY rtm02_5 "resurfacing vehicle">
<!ENTITY rtm02_6 "road roller">
<!ENTITY rtm02_7 "mobile crane">
<!ENTITY rtm02_8 "construction vehicle">
<!ENTITY rtm02_9 "farm tractor">
<!ENTITY rtm02_10 "farm tractor and plough">
<!ENTITY rtm02_11 "farm tractor and trailer">
<!ENTITY rtm02_12 "combine harvester">
<!ENTITY rtm02_13 "combine harvester and trailer">
<!ENTITY rtm02_14 "track-laying vehicle">
<!ENTITY rtm02_15 "road surface testing vehicle">
<!ENTITY rtm02_16 "water tanker">
<!ENTITY rtm02_17 "drain-cleaning vehicle">
<!ENTITY rtm02_18 "road sweeping vehicle">
<!ENTITY rtm02_19 "waste collection vehicle">
<!ENTITY rtm02_20 "grass cutting machine">
<!ENTITY rtm02_21 "tree cutting machine">
<!ENTITY rtm02_22 "hedge cutting machine">
<!ENTITY rtm02_23 "snow-blower">
<!ENTITY rtm02_255 "works vehicle">

<!-- rtm_table 16: abnormal vehicle type -->
<!ENTITY rtm16_0 "unknown">
<!ENTITY rtm16_1 "high-sided">
<!ENTITY rtm16_2 "high load">
<!ENTITY rtm16_3 "heavy load">
<!ENTITY rtm16_4 "wide load">
<!ENTITY rtm16_5 "long load">
<!ENTITY rtm16_6 "slow moving">
<!ENTITY rtm16_7 "very slow moving">
<!ENTITY rtm16_255 "abnormal vehicle">

<!-- rtm_table 08: vehicle and trailer type -->
<!ENTITY rtm08_0 "unknown">
<!ENTITY rtm08_1 "car and caravan">
<!ENTITY rtm08_2 "light goods vehicle and caravan">
<!ENTITY rtm08_3 "heavy goods vehicle and caravan">
<!ENTITY rtm08_4 "car and trailer">
<!ENTITY rtm08_5 "light goods vehicle and trailer">
<!ENTITY rtm08_6 "heavy goods vehicle and trailer">
<!ENTITY rtm08_7 "bus and trailer">
```

```
<!ENTITY rtm08_255 "vehicle and trailer">

<!-- rtm_table 48: motor cycle type -->
<!ENTITY rtm48_0 "unknown">
<!ENTITY rtm48_1 "moped">
<!ENTITY rtm48_2 "motor scooter">
<!ENTITY rtm48_3 "motor cycle">
<!ENTITY rtm48_4 "motor tricycle">
<!ENTITY rtm48_5 "motor cycle and side-car">
<!ENTITY rtm48_6 "motor bicycle ">
<!ENTITY rtm48_7 "delivery motor cycle">
<!ENTITY rtm48_8 "taxi motor cycle">
<!ENTITY rtm48_9 "snowmobile">
<!ENTITY rtm48_255 "motor cycle">

<!ELEMENT vehicle_info EMPTY>
<!ATTLIST vehicle_info
    vehicle_type CDATA #REQUIRED
    vehicle_subtype CDATA #IMPLIED
>
```

vehicle_info: This describes a category of vehicle. Many of the categories have a sub-type that describes the type of vehicle in greater detail. The vehicle_type attribute should only use entity references of the form `rtm01_x`. The vehicle_subtype attribute should use entity references of the form shown in Table 1 (if there is no subtype then this attribute should not be present).

Table 1

vehicle_type	vehicle_subtype
rtm01_0 “unknown”	<none>
rtm01_1 “car”	rtm07_x
rtm01_2 “light goods vehicle”	rtm09_x
rtm01_3 “heavy goods vehicle”	rtm11_x
rtm01_4 “public transport vehicle”	rtm40_x
rtm01_5 “pedal cycle”	rtm05_x
rtm01_6 “emergency vehicle”	rtm06_x
rtm01_7 “works vehicle”	rtm02_x
rtm01_8 “exceptional size vehicle”	rtm16_x
rtm01_9 “vehicle with trailer”	rtm08_x
rtm01_10 “high-sided vehicle”	<none>
rtm1_11 “minibus”	<none>
rtm1_12 “taxi”	<none>
rtm1_13 “tram”	<none>
rtm1_14 “trolley-bus”	<none>
rtm1_15 “train”	<none>
rtm1_16 “post bus”	<none>
rtm1_17 “school bus”	<none>
rtm1_18 “military vehicle”	<none>
rtm1_19 “motorcycle”	rtm48_x
rtm1_20 “sledge”	<none>

Example:

```
<vehicle_info vehicle_type=”&rtm01_1;” vehicle_subtype=”&rtm07_3;”/>

<vehicle_info vehicle_type=”&rtm01_18;”/>
```

5.4.4 people

```
<!ELEMENT people ((position | people_problem | people_info)*)>
<!ATTLIST people
    number_of %numag; #REQUIRED
>
```

people: This represents information about people. It contains `position`, `people_problem`, and `people_info` sub-elements that give information on the position of the people, the type of gathering and the type of people involved.

Example:

```
<people number_of=”500”>
    <position/>
    <people_problem>…</people_problem>
    <people_info>…</people_info>
</people>
```

5.4.4.1 people_problem

```
<!-- rtm_table 20: people problem -->
<!ENTITY rtm20_0 "unknown">
<!ENTITY rtm20_1 "disorientated">
<!ENTITY rtm20_2 "assembling">
<!ENTITY rtm20_3 "rioting">
<!ENTITY rtm20_4 "arriving">
<!ENTITY rtm20_5 "leaving">
<!ENTITY rtm20_6 "arriving and leaving">
<!ENTITY rtm20_7 "observing">
<!ENTITY rtm20_8 "marching">
<!ENTITY rtm20_9 "directing traffic">
<!ENTITY rtm20_10 "obstructing">
<!ENTITY rtm20_11 "queuing">
<!ENTITY rtm20_12 "playing">
<!ENTITY rtm20_13 "injured">
<!ENTITY rtm20_14 "trapped">
<!ENTITY rtm20_255 "people">

<!ELEMENT people_problem EMPTY>
<!ATTLIST people_problem
    people_problem CDATA #REQUIRED
>
```

people_problem: This describes the type of gathering of people that may be near or on the carriageway. The people_problem attribute shall use entity references of the form `rtm20_x`.

Example:

```
<people_problem people_problem=”&rtm20_4;”/>
```

5.4.4.2 people_info

```
<!-- rtm_table 19: people type -->
<!ENTITY rtm19_0 "unknown">
<!ENTITY rtm19_1 "children">
<!ENTITY rtm19_2 "elderly">
<!ENTITY rtm19_3 "handicapped">
```

```
<!ENTITY rtm19_4 "traffic warden">
<!ENTITY rtm19_5 "police officer">
<!ENTITY rtm19_6 "fire fighter">
<!ENTITY rtm19_7 "paramedic">
<!ENTITY rtm19_8 "school children">
<!ENTITY rtm19_9 "student">
<!ENTITY rtm19_255 "people">

<!ELEMENT people_info EMPTY>
<!ATTLIST people_info
    people_type CDATA #REQUIRED
>
```

A `people_info` element describes the type and size of people involved that may be near or on the carriageway. The people_type attribute shall use entity references of the form `rtm19_x`.

Example:

```
<people_info people_type="&rtm19_7;"/>
```

5.5 obstructions

```
<!ELEMENT obstructions ((position | animals | vehicles | people | object)*)>
<!ATTLIST obstructions
    number_of %intunti; #REQUIRED
>
```

obstructions: This describes situations in which road users (vehicles, animals and people) or other causes (man-made or environmental) make it difficult or impossible for other road users to progress along that part of the roadway. It contains `position`, `animals`, `vehicles`, `people` and `object` sub-elements that give information on the position of the obstruction and what is involved.

Example:

```
<obstructions number_of="2">
    <position/>
    <animals>…</animals>
    <vehicles>…</vehicles>
    <people>…</people>
    <object/>
</obstructions>
```

5.5.1 object

```
<!ELEMENT object ((position | object_problem)*)>
<!ATTLIST object
    number_of %numag; #REQUIRED
>
```

object: This describes problem objects that may be near or on the carriageway

Example:

```
<object number_of="2">
    <position/>
    <object_problem>…</object_problem>
</object>
```

5.5.1.1 object_problem

```
<!-- rtm_table 12: object -->
<!ENTITY rtm12_0 "unknown">
<!ENTITY rtm12_1 "various">
<!ENTITY rtm12_2 "fallen tree">
```

```
<!ENTITY rtm12_3 "fallen power line">
<!ENTITY rtm12_4 "fallen telephone pole">
<!ENTITY rtm12_5 "shed tyre tread">
<!ENTITY rtm12_6 "shed wood">
<!ENTITY rtm12_7 "shed opaque sheet">
<!ENTITY rtm12_8 "shed ballast or sand">
<!ENTITY rtm12_9 "loose road cones">
<!ENTITY rtm12_10 "avalanche">
<!ENTITY rtm12_11 "mud slide">
<!ENTITY rtm12_12 "rock fall">
<!ENTITY rtm12_13 "land slide">
<!ENTITY rtm12_14 "flood">
<!ENTITY rtm12_15 "sewer overflow">
<!ENTITY rtm12_16 "debris">
<!ENTITY rtm12_17 "shed load">
<!ENTITY rtm12_18 "spillage">
<!ENTITY rtm12_255 "object">

<!ELEMENT object_problem EMPTY>
<!ATTLIST object_problem
    object_problem CDATA #REQUIRED
>
```

object_problem: This describes the type of problem object that may be near or on the carriageway. The object_problem attribute shall use entity references of the form `rtm12_x`.

Example:

```
<object_problem object_problem="&rtm12_4;"/>
```

5.6 activities

```
<!ELEMENT activities ((position | activity | people)*)>
<!ATTLIST activities
    number_of %numag; #REQUIRED
>
```

activities: This describes events (particularly involving people) that can have an impact on the road traffic. It contains `position`, `activity` and `people` sub-elements that give information on the position of the event, who is involved and what is happening.

Example:

```
<activities number_of="1">
    <position/>
    <activity/>
    <people>…</people>
</activities>
```

5.6.1 activity

```
<!-- rtm_table 24: activity type -->
<!ENTITY rtm24_0 "unknown">
<!ENTITY rtm24_1 "various">
<!ENTITY rtm24_2 "fair">
<!ENTITY rtm24_3 "public gathering">
<!ENTITY rtm24_4 "sports event">
<!ENTITY rtm24_5 "national event">
<!ENTITY rtm24_6 "concert or cultural event">
<!ENTITY rtm24_255 "activity">

<!-- rtm_table 04: various activities -->
<!ENTITY rtm04_0 "unknown">
<!ENTITY rtm04_1 "demolition">
```

```
<!ENTITY rtm04_2 "space launch">
<!ENTITY rtm04_3 "eclipse">
<!ENTITY rtm04_4 "blasting work">
<!ENTITY rtm04_5 "maintenance work">
<!ENTITY rtm04_255 "activity">

<!-- rtm_table 25: fair type -->
<!ENTITY rtm25_0 "unknown">
<!ENTITY rtm25_1 "funfair">
<!ENTITY rtm25_2 "fete">
<!ENTITY rtm25_3 "festival">
<!ENTITY rtm25_4 "market">
<!ENTITY rtm25_5 "trade fair">
<!ENTITY rtm25_6 "exhibition">
<!ENTITY rtm25_7 "convention">
<!ENTITY rtm25_8 "conference">
<!ENTITY rtm25_255 "fair">

<!-- rtm_table 26: public gathering type -->
<!ENTITY rtm26_0 "unknown">
<!ENTITY rtm26_1 "march">
<!ENTITY rtm26_2 "procession">
<!ENTITY rtm26_3 "strike">
<!ENTITY rtm26_4 "demonstration">
<!ENTITY rtm26_5 "parade">
<!ENTITY rtm26_6 "celebration">
<!ENTITY rtm26_7 "street party">
<!ENTITY rtm26_255 "public gathering">

<!-- rtm_table 44: sports event type -->
<!ENTITY rtm44_0 "unknown">
<!ENTITY rtm44_1 "football match">
<!ENTITY rtm44_2 "rugby match">
<!ENTITY rtm44_3 "cricket match">
<!ENTITY rtm44_4 "athletics meeting">
<!ENTITY rtm44_5 "hunt meeting">
<!ENTITY rtm44_6 "golf match">
<!ENTITY rtm44_7 "motor racing meeting">
<!ENTITY rtm44_8 "tennis tournament">
<!ENTITY rtm44_9 "road race">
<!ENTITY rtm44_10 "field sports meeting">
<!ENTITY rtm44_11 "cycle racing meeting">
<!ENTITY rtm44_12 "motor cross meeting">
<!ENTITY rtm44_13 "airshow">
<!ENTITY rtm44_14 "hot-air balloon meeting">
<!ENTITY rtm44_15 "country-side sports">
<!ENTITY rtm44_16 "winter sports event">
<!ENTITY rtm44_255 "sports event">

<!-- rtm_table 27: national events type -->
<!ENTITY rtm27_0 "unknown">
<!ENTITY rtm27_1 "parliamentary opening">
<!ENTITY rtm27_2 "military parade">
<!ENTITY rtm27_3 "community parade">
<!ENTITY rtm27_255 "national event">

<!-- rtm_table 28: concert and cultural event type -->
<!ENTITY rtm28_0 "unknown">
<!ENTITY rtm28_1 "open-air concert">
<!ENTITY rtm28_2 "concert">
<!ENTITY rtm28_3 "sound and light show">
<!ENTITY rtm28_4 "art event">
<!ENTITY rtm28_5 "flower event">
<!ENTITY rtm28_6 "beer festival">
<!ENTITY rtm28_7 "food festival">
<!ENTITY rtm28_8 "wine festival">
<!ENTITY rtm28_9 "theatrical event">
<!ENTITY rtm28_10 "firework display">
<!ENTITY rtm28_255 "event">

<!ELEMENT activity EMPTY>
<!ATTLIST activity
    activity_type CDATA #REQUIRED
    activity_subtype CDATA #IMPLIED
>
```

activity: This describes a category of activity events that may have an impact on road traffic. Each of the categories has a lookup table that describes the type of activity in greater detail. The activity_type attribute should only use entity references of the form `rtm24_x`. The activity_subtype attribute should use entity references of the form shown in Table 2 (if there is no subtype then this attribute should not be present).

Table 2

activity_type	activity_subtype
rtm24_0 “unknown”	<none>
rtm24_1 “various”	rtm04_x
rtm24_2 “fair”	rtm25_x
rtm24_3 “public gathering”	rtm26_x
rtm24_4 “sports event”	rtm44_x
rtm24_5 “national event”	rtm27_x
rtm24_6 “concerts & cultural”	rtm28_x
rtm24_255 “activity”	<none>

Example:

```
<activity activity_type=”&rtm24_2;” activity_subtype=”&rtm25_2;”/>

<activity activity_type=”&rtm24_0;”/>
```

5.7 road_conditions

```
<!ELEMENT road_conditions ((position | surface | adhesion | marking)*)>
```

road_conditions: This describes changes to the properties of the surface of the road (disruption to the surface, adhesion reduction or changes to the road markings) that may affect the progress of the road user. It contains `position`, `surface`, `adhesion` and `marking` sub-elements that give information on the position of the problem and the properties of the road surface.

Example:

```
<road_conditions>
    <position/>
    <surface/>
    <adhesion/>
    <marking/>
</road_conditions>
```

5.7.1 surface

```
<!-- rtm_table 18: surface condition -->
<!ENTITY rtm18_0 "unknown">
<!ENTITY rtm18_1 "debris">
<!ENTITY rtm18_2 "melting tar">
<!ENTITY rtm18_3 "subsidence">
<!ENTITY rtm18_4 "earthquake">
<!ENTITY rtm18_5 "rock fall">
<!ENTITY rtm18_6 "uneven surface">
<!ENTITY rtm18_7 "pot hole">
```

```
<!ENTITY rtm18_8 "collapsed sewer">
<!ENTITY rtm18_9 "burst water main">
<!ENTITY rtm18_10 "frost damaged surface">
<!ENTITY rtm18_11 "loose surface">
<!ENTITY rtm18_255 "road surface problem">

<!ELEMENT surface EMPTY>
<!ATTLIST surface
    general_magnitude CDATA #REQUIRED
    surface_condition CDATA #REQUIRED
>
```

surface: This describes the condition (in terms of obstruction) of the plane on which the user will navigate. The general_magnitude attribute shall use entity references of the form `rtm31_x`. The surface_condition attribute shall use entity references of the form `rtm18_x`.

Example:

```
<surface general_magnitude="&rtm31_2;" surface_condition="&rtm18_3;"/>
```

5.7.2 adhesion

```
<!-- rtm_table 39: adhesion condition -->
<!ENTITY rtm39_0 "unknown">
<!ENTITY rtm39_1 "petrol spillage">
<!ENTITY rtm39_2 "oil spillage">
<!ENTITY rtm39_3 "diesel spillage">
<!ENTITY rtm39_4 "mud">
<!ENTITY rtm39_5 "loose chippings">
<!ENTITY rtm39_6 "leaves">
<!ENTITY rtm39_7 "snow">
<!ENTITY rtm39_8 "deep snow">
<!ENTITY rtm39_9 "packed snow">
<!ENTITY rtm39_10 "fresh snow">
<!ENTITY rtm39_11 "melting snow">
<!ENTITY rtm39_12 "snow drifting">
<!ENTITY rtm39_13 "sleet">
<!ENTITY rtm39_14 "ice">
<!ENTITY rtm39_15 "icy patches">
<!ENTITY rtm39_16 "black ice">
<!ENTITY rtm39_17 "flood water">
<!ENTITY rtm39_18 "burst water main">
<!ENTITY rtm39_19 "sewer overflow">
<!ENTITY rtm39_20 "worn-out surface">
<!ENTITY rtm39_21 "flash flood">
<!ENTITY rtm39_22 "polished surface">
<!ENTITY rtm39_23 "surface water">
<!ENTITY rtm39_255 "hazardous surface conditions">

<!ELEMENT adhesion EMPTY>
<!ATTLIST adhesion
    general_magnitude CDATA #REQUIRED
    adhesion_condition CDATA #REQUIRED
>
```

adhesion: This describes the friction qualities of the plane on which the user will navigate. The general_magnitude attribute shall use entity references of the form `rtm31_x`. The adhesion_condition attribute shall use entity references of the form `rtm39_x`.

Example:

```
<adhesion general_magnitude="&rtm31_2;" adhesion_condition="&rtm39_2;"/>
```

5.7.3 marking

```
<!-- rtm_table 15: marking condition -->
<!ENTITY rtm15_0 "unknown">
<!ENTITY rtm15_1 "no lane marking">
<!ENTITY rtm15_2 "changed lane marking">
<!ENTITY rtm15_3 "temporary lane marking">
<!ENTITY rtm15_4 "no reflective marking">
<!ENTITY rtm15_5 "traffic-calming indication">
<!ENTITY rtm15_6 "crash barrier missing">
<!ENTITY rtm15_7 "new road marking">
<!ENTITY rtm15_255 "road marking advice">

<!ELEMENT marking EMPTY>
<!ATTLIST marking
   marking_condition CDATA #REQUIRED
>
```

marking: This element describes the road markings (lines, signs, barriers and other driver) on the route which the user will navigate. The marking_condition attribute shall use entity references of the form `rtm15_x`.

Example:

```
< marking marking_condition="&rtm15_4;"/>
```

5.8 network_performance

```
<!ELEMENT network_performance ((performance | speed | delay | travel_time)*)>
```

network_performance: This describes the effects on the flow of traffic that arise out of events that are either imposed or planned by the network operator (i.e. roadworks leading to lane closures) or events that occur outside the control of the network operator (i.e. accidents). It contains `performance`, `speed`, `delay` and `travel_time` sub-elements that give further information on the traffic flow.

Example:

```
<network_performance>
    <performance>…</performance>
    <speed/>
    <delay/>
    <travel_time/>
</network_performance >
```

5.8.1 performance

```
<!-- rtm_table 34: network performance status -->
<!ENTITY rtm34_0 "unknown">
<!ENTITY rtm34_1 "stationary traffic">
<!ENTITY rtm34_2 "queuing traffic">
<!ENTITY rtm34_3 "slow traffic">
<!ENTITY rtm34_4 "heavy traffic">
<!ENTITY rtm34_5 "freely flowing traffic">
<!ENTITY rtm34_6 "sheer weight of traffic">
<!ENTITY rtm34_255 "advice">

<!ELEMENT performance (length_affected*)>
<!ATTLIST performance
   network_performance CDATA #REQUIRED
>
```

performance: This describes, in general terms, traffic conditions that will be experienced by the road user. It contains `length_affected` sub-elements specify the length of road affected. The network_performance attribute shall use entity references of the form `rtm34_x`.

Example:

```
<performance network_performance="&rtm34_3;">
    <length_affected/>
</performance>
```

5.8.1.1 length_affected

```
<!ELEMENT length_affected EMPTY>
<!ATTLIST length_affected
    metres CDATA #REQUIRED
>
```

length_affected: This element describes the length of carriageway affected. The metres attribute should be in metres using an uncompressed integer form with a range from 0 to 65535.

Example:

```
<length_affected metres ="500"/>
```

5.8.2 speed

```
<!ELEMENT speed EMPTY>
<!ATTLIST speed
    metres_per_second CDATA #REQUIRED
>
```

speed: This describes the modal speed of the traffic. The metres_per_second attribute should be in ms^{-1} using an uncompressed floating point form with a range from 0 to 127.5

Example:

```
<speed metres_per_second ="10"/>
```

5.8.3 delay

```
<!ELEMENT delay EMPTY>
<!ATTLIST delay
    minutes %intunli; #REQUIRED
>
```

delay: This describes the increase in journey time over and above the normal link transit time to be expected by the user.

Example:

```
<delay minutes ="30"/>
```

5.8.4 travel_time

```
<!ELEMENT travel_time EMPTY>
<!ATTLIST travel_time
    minutes %intunli; #REQUIRED
>
```

travel_time: This describes the total journey time (including delay and normal link transit time) to be expected by the user.

Example:

```
<travel_time minutes =”120”/>
```

5.9 network_conditions

```
<!ELEMENT network_conditions ((position | regulation | restriction | roadworks)*)>
```

network_conditions: This describes the types of changes to the network, these may be changes to the access to elements of the network, advice on behaviour of the network or roadworks on the network. The resultant effects of these changes may be described in the road traffic message by the inclusion of elements from other event categories. It contains `position`, `regulation`, `restriction` and `roadworks` sub-elements that give information on the position and effect of the changes.

Example:

```
<network_conditions>
    <position/>
    <regulation>…</regulation>
    <restriction>…</restriction>
    <roadworks>…</roadworks>
</network_conditions>
```

5.9.1 regulation

```
<!-- rtm_table 45: regulation type -->
<!ENTITY rtm45_0 "unknown">
<!ENTITY rtm45_1 "maximum speed limit">
<!ENTITY rtm45_2 "minimum speed limit">
<!ENTITY rtm45_3 "weight limit">
<!ENTITY rtm45_4 "height limit">
<!ENTITY rtm45_5 "width limit">
<!ENTITY rtm45_6 "length limit">
<!ENTITY rtm45_7 "axle limit">
<!ENTITY rtm45_8 "minimum">
<!ENTITY rtm45_9 "catalytic converter">
<!ENTITY rtm45_10 "odd-numbered licence plates">
<!ENTITY rtm45_11 "even-numbered licence plates">
<!ENTITY rtm45_12 "learner drivers">
<!ENTITY rtm45_13 "inexperienced drivers">
<!ENTITY rtm45_14 "four-wheel drive vehicles">
<!ENTITY rtm45_15 "left-hand drive vehicles">
<!ENTITY rtm45_16 "right-hand drive vehicles">
<!ENTITY rtm45_17 "motor cycles">
<!ENTITY rtm45_18 "all motor vehicles">
<!ENTITY rtm45_19 "pedal cycles">
<!ENTITY rtm45_20 "sidelights">
<!ENTITY rtm45_21 "dipped headlights">
<!ENTITY rtm45_22 "dimmed/dipped headlights">
<!ENTITY rtm45_23 "main-beam headlights">
<!ENTITY rtm45_24 "front fog lights">
<!ENTITY rtm45_25 "rear fog lights">
<!ENTITY rtm45_26 "fog lights">
<!ENTITY rtm45_27 "hazard flashers">
<!ENTITY rtm45_28 "winter equipment">
<!ENTITY rtm45_29 "snow chains">
<!ENTITY rtm45_30 "studded (snow) tyres">
<!ENTITY rtm45_31 "right turn">
<!ENTITY rtm45_32 "left turn">
<!ENTITY rtm45_33 "u-turn">
<!ENTITY rtm45_34 "stopping">
<!ENTITY rtm45_35 "filling fuel tanks">
<!ENTITY rtm45_36 "smoking">
<!ENTITY rtm45_37 "windows open">
```

```
<!ENTITY rtm45_38 "windows closed">
<!ENTITY rtm45_39 "convoy driving">
<!ENTITY rtm45_40 "block driving">
<!ENTITY rtm45_255 "regulation">

<!ELEMENT regulation ((length_affected | condition_status)*)>
<!ATTLIST regulation
    regulation CDATA #REQUIRED
    regulation_quantifier %numag; #REQUIRED
>
```

regulation: This describes the users that may access the element of the road network and/or the expected behaviour of the user on the network. The regulation attribute shall use entity references of the form `rtm45_x`.

Example:

```
< regulation regulation =”&rtm45_4;” regulation_quantifier=”1.3”>
    <length_affected/>
    <condition_status/>
</regulation>
```

5.9.2 condition_status

```
<!-- rtm_table 47: condition status -->
<!ENTITY rtm47_0 "unknown">
<!ENTITY rtm47_1 "mandatory">
<!ENTITY rtm47_2 "advisory">
<!ENTITY rtm47_3 "required">
<!ENTITY rtm47_4 "prohibited">
<!ENTITY rtm47_5 "only">
<!ENTITY rtm47_6 "excluded">
<!ENTITY rtm47_7 "restriction advice">
<!ENTITY rtm47_8 "enforced">
<!ENTITY rtm47_9 "recommended">
<!ENTITY rtm47_10 "reduced">
<!ENTITY rtm47_11 "restored">
<!ENTITY rtm47_12 "in operation">
<!ENTITY rtm47_13 "not in operation">
<!ENTITY rtm47_14 "changed">
<!ENTITY rtm47_15 "lifted">
<!ENTITY rtm47_16 "intermittent">
<!ENTITY rtm47_17 "temporary">
<!ENTITY rtm47_18 "controlled">
<!ENTITY rtm47_255 "restriction advice">

<!ELEMENT condition_status EMPTY>
<!ATTLIST condition_status
    condition_status CDATA #REQUIRED
>
```

condition_status: This describes the status of the regulation/restriction/roadworks imposed on the network. The condition_status attribute shall use entity references of the form `rtm47_x`.

Example:

```
<condition_status condition_status=”&rtm47_18;”/>
```

5.9.3 restriction

```
<!-- rtm_table 49: restriction type -->
<!ENTITY rtm49_0 "unknown">
<!ENTITY rtm49_1 "closed">
<!ENTITY rtm49_2 "blocked">
<!ENTITY rtm49_3 "contraflow">
<!ENTITY rtm49_4 "single alternate line traffic">
<!ENTITY rtm49_5 "narrow lane">
<!ENTITY rtm49_6 "access">
<!ENTITY rtm49_7 "through traffic">
<!ENTITY rtm49_8 "local traffic">
<!ENTITY rtm49_9 "entry">
<!ENTITY rtm49_10 "exit">
<!ENTITY rtm49_11 "open">
<!ENTITY rtm49_12 "fire">
<!ENTITY rtm49_255 "restriction">

<!ELEMENT restriction ((length_affected | condition_status)*)>
<!ATTLIST restriction
    restriction CDATA #REQUIRED
>
```

restriction: This describes the users that may access the element of the road network and/or the expected behaviour of the user on the network. The restriction attribute shall use entity references of the form `rtm49_x`.

Example:

```
<restriction restriction =”&rtm49_7”>
    <length_affected/>
    <condition_status/>
</restriction>
```

5.9.4 roadworks

```
<!-- rtm_table 50: roadworks type -->
<!ENTITY rtm50_0 "unknown">
<!ENTITY rtm50_1 "resurfacing">
<!ENTITY rtm50_2 "underground services work">
<!ENTITY rtm50_3 "overhead services work">
<!ENTITY rtm50_4 "sewerage and drainage work">
<!ENTITY rtm50_5 "road layout changes">
<!ENTITY rtm50_6 "maintenance work">
<!ENTITY rtm50_7 "road marking work">
<!ENTITY rtm50_8 "tree felling">
<!ENTITY rtm50_9 "demolition work">
<!ENTITY rtm50_10 "blasting work">
<!ENTITY rtm50_11 "construction work">
<!ENTITY rtm50_12 "verge cutting">
<!ENTITY rtm50_13 "verge maintenance">
<!ENTITY rtm50_14 "culvert cleaning">
<!ENTITY rtm50_15 "barrier maintenance">
<!ENTITY rtm50_16 "cone placement work">
<!ENTITY rtm50_17 "loop cutting work">
<!ENTITY rtm50_18 "lighting work">
<!ENTITY rtm50_19 "road signs work">
<!ENTITY rtm50_255 "roadworks">

<!ELEMENT roadworks ((length_affected | condition_status)*)>
<!ATTLIST roadworks
    roadworks CDATA #REQUIRED
>
```

roadworks: This describes the purpose of the roadworks on the network. The roadworks attribute shall use entity references of the form `rtm50_x`.

Example:

```
<roadworks roadworks =”&rtm50_16”>
    <length_affected/>
    <condition_status/>
</roadworks>
```

5.10 facilities_performance

```
<!ELEMENT facilities_performance ((traffic_control | roadside_assistance | roadside_services)*)>
```

facilities_performance: This describes the degree of assistance and resources that may be available to aid the road user. This can include fuel, food, breakdown cover, traffic information and traffic control. It contains `traffic_control`, `roadside_assistance` and `roadside_services` sub-elements that give information on the resource type, position and status.

Example:

```
<facilities_performance>
     <traffic_control/>
     <roadside_assistance/>
     <roadside_services/>
</facilities_performance>
```

5.10.1 traffic_control

```
<!-- rtm_table 42: traffic control equipment type -->
<!ENTITY rtm42_0 "unknown">
<!ENTITY rtm42_1 "traffic lights">
<!ENTITY rtm42_2 "variable message signs">
<!ENTITY rtm42_3 "lane control signs">
<!ENTITY rtm42_4 "variable speed signs">
<!ENTITY rtm42_5 "direction signs">
<!ENTITY rtm42_6 "toll gate">
<!ENTITY rtm42_7 "automatic toll gate">
<!ENTITY rtm42_8 "road-rail crossing">
<!ENTITY rtm42_9 "express toll lane">
<!ENTITY rtm42_10 "lifting bridge">
<!ENTITY rtm42_11 "temporary traffic lights">
<!ENTITY rtm42_12 "speed control">
<!ENTITY rtm42_13 "observation cameras">
<!ENTITY rtm42_14 "swing bridge">
<!ENTITY rtm42_255 "traffic control equipment">

<!-- rtm_table 43: traffic control equipment status -->
<!ENTITY rtm43_0 "unknown">
<!ENTITY rtm43_1 "working normally">
<!ENTITY rtm43_2 "working incorrectly">
<!ENTITY rtm43_3 "not working">
<!ENTITY rtm43_4 "wrong">
<!ENTITY rtm43_5 "intermittent">
<!ENTITY rtm43_6 "changed">
<!ENTITY rtm43_7 "timing changed">
<!ENTITY rtm43_8 "stuck">
<!ENTITY rtm43_9 "damaged">
<!ENTITY rtm43_10 "on local control">
<!ENTITY rtm43_11 "unreliable">
<!ENTITY rtm43_12 "new equipment">
<!ENTITY rtm43_255 "changed">

<!ELEMENT traffic_control (position*)>
<!ATTLIST traffic_control
    traffic_control_type CDATA #REQUIRED
    traffic_control_status CDATA #REQUIRED
>
```

traffic_control: This describes changes to the infrastructure that aids the passage of traffic through the network. The traffic_control_type attribute shall use entity references of the form `rtm42_x`. The traffic_control_status attribute shall use entity references of the form `rtm43_x`.

Example:

```
<traffic_control traffic_control_type="&rtm42_1;" traffic_control_status="&rtm43_3;">
    <position>…</position>
</traffic_control>
```

5.10.2 roadside_assistance

```
<!-- rtm_table 32: roadside assistance type -->
<!ENTITY rtm32_0 "unknown">
<!ENTITY rtm32_1 "emergency telephone">
<!ENTITY rtm32_2 "escape lane">
<!ENTITY rtm32_3 "emergency patrol">
<!ENTITY rtm32_4 "emergency lay-by">
<!ENTITY rtm32_5 "video surveillance">
<!ENTITY rtm32_255 "emergency facilities">

<!-- rtm_table 33: roadside assistance status -->
<!ENTITY rtm33_0 "unknown">
<!ENTITY rtm33_1 "not working">
<!ENTITY rtm33_2 "closed">
<!ENTITY rtm33_3 "not available">
<!ENTITY rtm33_4 "re-opened">
<!ENTITY rtm33_5 "open">
<!ENTITY rtm33_6 "working">
<!ENTITY rtm33_255 "advice">

<!ELEMENT roadside_assistance EMPTY>
<!ATTLIST roadside_assistance
    roadside_assistance_type CDATA #REQUIRED
    roadside_assistance_status CDATA #REQUIRED
>
```

roadside_assistance: This describes changes to the services or safety facilities that aid the road user. The roadside_assistance_type attribute shall use entity references of the form `rtm32_x`. The roadside_assistance_status attribute shall use entity references of the form `rtm33_x`.

Example:

```
<roadside_assistance roadside_assistance_type="&rtm32_1;" roadside_assistance_status="&rtm33_3;"/>
```

5.10.3 roadside_services

```
<!-- rtm_table 37: roadside services type -->
<!ENTITY rtm37_0 "unknown">
<!ENTITY rtm37_1 "picnic area">
<!ENTITY rtm37_2 "fuel station">
<!ENTITY rtm37_3 "restaurant">
<!ENTITY rtm37_4 "overnight accommodation">
<!ENTITY rtm37_5 "toilets">
<!ENTITY rtm37_6 "rest area">
<!ENTITY rtm37_7 "short-term parking">
<!ENTITY rtm37_8 "long-term parking">
<!ENTITY rtm37_9 "overnight parking">
<!ENTITY rtm37_10 "parking">
<!ENTITY rtm37_11 "information point">
<!ENTITY rtm37_12 "unleaded fuel">
<!ENTITY rtm37_13 "diesel fuel">
```

```
<!ENTITY rtm37_14 "leaded fuel">
<!ENTITY rtm37_15 "LPG">
<!ENTITY rtm37_16 "electrical charging facility">
<!ENTITY rtm37_17 "vehicle maintenance facility">
<!ENTITY rtm37_18 "shower facility">
<!ENTITY rtm37_19 "toll point">
<!ENTITY rtm37_20 "customs point">
<!ENTITY rtm37_21 "weigh station">
<!ENTITY rtm37_22 "vehicle testing centre">
<!ENTITY rtm37_255 "roadside services">

<!-- rtm_table 38: roadside services status -->
<!ENTITY rtm38_0 "unknown">
<!ENTITY rtm38_1 "open">
<!ENTITY rtm38_2 "closed">
<!ENTITY rtm38_3 "overcrowded">
<!ENTITY rtm38_4 "busy">
<!ENTITY rtm38_5 "unstaffed">
<!ENTITY rtm38_6 "re-opened">
<!ENTITY rtm38_7 "available">
<!ENTITY rtm38_8 "unavailable">
<!ENTITY rtm38_9 "only">
<!ENTITY rtm38_10 "staffed">
<!ENTITY rtm38_11 "reduced">
<!ENTITY rtm38_12 "restricted">
<!ENTITY rtm38_255 "advice">

<!ELEMENT roadside_services EMPTY>
<!ATTLIST roadside_services
    roadside_services_type CDATA #REQUIRED
    roadside_services_status CDATA #REQUIRED
>
```

roadside_services: This describes changes to the service and supply facilities that are available to the road user. The roadside_services_type shall use entity references of the form `rtm37_x`. The roadside_services_status shall use entity references of the form `rtm38_x`.

Example:

```
<roadside_services roadside_services_type="&rtm37_3;" roadside_services_status="&rtm38_5;"/>
```

5.11 moving_hazards

```
<!ELEMENT moving_hazards ((position | animals | vehicles | people)*)>
<!ATTLIST moving_hazards
    number_of %intunti; #REQUIRED
>
```

A `moving_hazards` element describes situations in which non-stationary road users (vehicles, animals and people) make it hazardous for others to use the road. It contains `position`, `animals`, `vehicles` and `people` sub-elements that give information on the position of the hazard and what is involved.

Example:

```
< moving_hazards number_of="3">
    <position/>
    <animals>…</animals>
    <vehicles>…</vehicles>
    <people>…</people>
</ moving_hazards>
```

5.12 security_alert

```
<!-- rtm_table 36: security alert type -->
<!ENTITY rtm36_0 "unknown">
<!ENTITY rtm36_1 "test message only">
<!ENTITY rtm36_2 "bomb threat">
<!ENTITY rtm36_3 "security alert">
<!ENTITY rtm36_4 "civil emergency">
<!ENTITY rtm36_5 "terrorist activity">
<!ENTITY rtm36_6 "riot">
<!ENTITY rtm36_7 "air raid">
<!ENTITY rtm36_8 "evacuation">
<!ENTITY rtm36_9 "gas leak">
<!ENTITY rtm36_10 "severe exhaust pollution">
<!ENTITY rtm36_11 "gunfire on roadway">
<!ENTITY rtm36_12 "smog alert">
<!ENTITY rtm36_13 "reckless driver">
<!ENTITY rtm36_14 "driver on wrong carriageway">
<!ENTITY rtm36_15 "hurricane or tornado">
<!ENTITY rtm36_16 "risk of explosion">
<!ENTITY rtm36_17 "dangerous water level">
<!ENTITY rtm36_18 "nuclear leak">
<!ENTITY rtm36_255 "safety alert">

<!ELEMENT security_alert EMPTY>
<!ATTLIST security_alert
    security_alert CDATA #REQUIRED
>
```

security_alert: This describes a variety of situations that the road user should be aware of in order to improve the safety of their journey. The security_alert attribute shall use entity references of the form `rtm36_x`.

Example:

```
<security_alert security_alert="&rtm36_13"/>
```

5.13 public_transport_info

```
<!-- rtm_table 41: public transport status -->
<!ENTITY rtm41_0 "unknown">
<!ENTITY rtm41_1 "cancelled">
<!ENTITY rtm41_2 "delayed">
<!ENTITY rtm41_3 "intermittent">
<!ENTITY rtm41_4 "full">
<!ENTITY rtm41_5 "closed">
<!ENTITY rtm41_6 "open">
<!ENTITY rtm41_7 "operating normally">
<!ENTITY rtm41_8 "not operating">
<!ENTITY rtm41_9 "restricted">
<!ENTITY rtm41_10 "on strike">
<!ENTITY rtm41_11 "revised timetable">
<!ENTITY rtm41_12 "operating a saturday schedule">
<!ENTITY rtm41_13 "operating a sunday schedule">
<!ENTITY rtm41_14 "operating a weekday schedule">
<!ENTITY rtm41_15 "operating a public holiday schedule">
<!ENTITY rtm41_16 "unscheduled">
<!ENTITY rtm41_17 "seriously delayed">
<!ENTITY rtm41_18 "suspended">
<!ENTITY rtm41_255 "with general problem">

<!ELEMENT public_transport_info EMPTY>
<!ATTLIST public_transport_info
    public_transport_type CDATA #REQUIRED
    public_transport_status CDATA #REQUIRED
>
```

public_transport_info: This describes the type of transportation and the nature of the disruption to service. It is intended to provide information about problems and not to give information of normal services

(timetables, etc.). The public_transport_type attribute shall use entity references of the form `rtm40_x`. The public_transport_status shall use entity references of the form `rtm41_x`.

Example:

```
<public_transport_info public_transport_type="&rtm40_3" public_transport_status="&rtm41_12"/>
```

5.14 visibility

```
<!ELEMENT visibility ((obscurity | visual_acuity | lighting | length_affected)*)>
```

visibility: this describes changes to the normal obscurity or lighting conditions that may affect the road user's ability to see the road or other road users ahead. It contains `obscurity`, `visual_acuity`, `lighting` and `length_affected` sub-elements that give information on the road visibility.

Example:

```
<visibility>
    <obscurity/>
    <visual_acuity/>
    <lighting/>
    <length_affected/>
</visibility>
```

5.14.1 obscurity

```
<!-- rtm_table 17: obscurity problem -->
<!ENTITY rtm17_0 "unknown">
<!ENTITY rtm17_1 "rain">
<!ENTITY rtm17_2 "fog">
<!ENTITY rtm17_3 "smoke">
<!ENTITY rtm17_4 "sleet">
<!ENTITY rtm17_5 "insects">
<!ENTITY rtm17_6 "dust cloud">
<!ENTITY rtm17_7 "insect swarm">
<!ENTITY rtm17_8 "sand storm">
<!ENTITY rtm17_9 "spray">
<!ENTITY rtm17_10 "snow spray">
<!ENTITY rtm17_11 "blizzard">
<!ENTITY rtm17_255 "a visibility problem">

<!ELEMENT obscurity EMPTY>
<!ATTLIST obscurity
    obscurity_problem CDATA #REQUIRED
    visibility_distance CDATA #REQUIRED
>
```

obscurity: This describes the type of event that would lead to visibility problems. The obscurity_problem attribute shall use entity references of the form `rtm17_x`. The visibility_distance attribute is in metres and is an integer with a range from 0 to 2550.

Example:

```
<obscurity obscurity_problem="&rtm17_11;" visibility_distance="50"/>
```

5.14.2 visual_acuity

```
<!-- rtm_table 13: acuity problem -->
<!ENTITY rtm13_0 "unknown">
<!ENTITY rtm13_1 "sun glare">
<!ENTITY rtm13_2 "snow glare">
<!ENTITY rtm13_255 "visibility problem">
```

```
<!ELEMENT visual_acuity EMPTY>
<!ATTLIST visual_acuity
    acuity_problem CDATA #REQUIRED
>
```

visual_acuity: This describes the type of event that will lead to difficulties in viewing the road ahead. The acuity_problem attribute shall use entity references of the form `rtm13_x`.

Example:

```
<visual_acuity acuity_problem="&rtm13_1;"/>
```

5.14.3 lighting

```
<!-- rtm_table 14: lighting problem -->
<!ENTITY rtm14_0 "unknown">
<!ENTITY rtm14_1 "failed lighting">
<!ENTITY rtm14_2 "faulty lighting">
<!ENTITY rtm14_3 "temporary lighting">
<!ENTITY rtm14_4 "unlit">
<!ENTITY rtm14_255 "lighting problem">

<!ELEMENT lighting EMPTY>
<!ATTLIST lighting
    lighting_problem CDATA #REQUIRED
>
```

lighting: This describes changes to the lighting facilities that aid the road user. The lighting_problem attribute shall use entity references of the form `rtm14_x`.

Example:

```
<lighting lighting_problem="&rtm14_2;"/>
```

5.15 weather

```
<!ELEMENT weather ((precipitation | wind | temperature)*)>
```

A `weather` element describes meteorological situations that have not been described in other sections and that may influence the road user's ability to make a safe journey. It is not the intention to provide a weather service containing the status of the weather at any time. It contains `precipitation`, `wind` and `temperature` sub-elements that give information on the weather conditions.

Example:

```
<weather>
    <precipitation/>
    <wind/>
    <temperature/>
</weather>
```

5.15.1 precipitation

```
<!-- rtm_table 29: precipitation problem -->
<!ENTITY rtm29_0 "unknown">
<!ENTITY rtm29_1 "rain">
<!ENTITY rtm29_2 "sleet">
<!ENTITY rtm29_3 "snow">
<!ENTITY rtm29_4 "hail">
<!ENTITY rtm29_5 "blizzard">
<!ENTITY rtm29_255 "precipitation">

<!ELEMENT precipitation EMPTY>
```

```
<!ATTLIST precipitation
    general_magnitude CDATA #REQUIRED
    precip_problem CDATA #REQUIRED
>
```

This describes describes all water-based elements that are airborne. The general_magnitude attribute shall use entity references of the form `rtm31_x`. The precip_problem attribute shall use entity references of the form `rtm29_x`.

Example:

```
<precipitation general_magnitude="&rtm31_2;" precip_problem="&rtm29_4;"/>
```

5.15.2 wind

```
<!-- rtm_table 30: wind problem -->
<!ENTITY rtm30_0 "unknown">
<!ENTITY rtm30_1 "gusting">
<!ENTITY rtm30_2 "squalling">
<!ENTITY rtm30_3 "crossing">
<!ENTITY rtm30_4 "swirling">
<!ENTITY rtm30_255 "wind problem">

<!ELEMENT wind EMPTY>
<!ATTLIST wind
    wind_speed %intunti; #REQUIRED
    wind_problem CDATA #REQUIRED
>
```

wind: This describes airflow that may influence the road user's ability to make a safe journey. It is not the intention to provide a weather service containing the status of the wind at any time. The wind_speed attribute should be in m/s. The wind_problem attribute shall use entity references of the form `rtm30_x`.

Example:

```
<wind wind_problem="&rtm30_3;" wind_speed="10"/>
```

5.15.3 temperature

```
<!ELEMENT temperature EMPTY>
<!ATTLIST temperature
    degrees_celsius %intsiti; #REQUIRED
>
```

temperature: This describes the modal temperature which may influence the road user's ability to make a safe journey. The degrees_celsius attribute should be in degrees Celsius.

Example:

```
<temperature degrees_celsius="-10"/>
```

5.16 diversion_advice

```
<!ELEMENT diversion_advice ( (vehicle_info | diversion_regulation | position | advice)* )>
```

diversion: This describes alternative routing according to different classes of vehicles, also giving the status of the diversion and advice on following the diversion.

Example:

```
<diversion_advice>
    <vehicle_info>…</vehicle_info>
    <diversion_regulation>…</ diversion_regulation >
    <position>…</position>
    <advice>…</advice>
</diversion_advice>
```

5.16.1 diversion_regulation

```
<!ELEMENT diversion_regulation EMPTY>
<!ATTLIST diversion_regulation
    regulation CDATA #REQUIRED
    regulation_quantifier %numag; #REQUIRED
>
```

diversion_regulation: This describes the users that may access the element of the road network and/or the expected behaviour of the user on the network. The `regulation` attribute shall use entity references of the form `rtm45_x`.

Example:

```
<diversion_regulation regulation =”&rtm45_4;” regulation_quantifier=”1.3”/>
```

5.16.2 advice

```
<!-- rtm_table 35: diversion advice type -->
<!ENTITY rtm35_0 "unknown">
<!ENTITY rtm35_1 "do not divert">
<!ENTITY rtm35_2 "no suggested diversion">
<!ENTITY rtm35_3 "find own diversion">
<!ENTITY rtm35_4 "follow signed diversion">
<!ENTITY rtm35_5 "follow police directions">
<!ENTITY rtm35_6 "follow directions from emergency services">
<!ENTITY rtm35_7 "follow directions from marshals">
<!ENTITY rtm35_8 "follow directions from traffic wardens ">
<!ENTITY rtm35_255 "avoid area">

<!ELEMENT advice (routeing*)>
<!ATTLIST advice
    condition_status CDATA #REQUIRED
    advice_type CDATA #REQUIRED
>
```

advice: This describes the diversion that in in place. The `condition_status` attribute shall use entity references of the form `rtm47_x`. The `advice_type` attribute shall use entity references of the form `rtm35_x`.

Example:

```
<advice condition_status =”&rtm47_2;” advice_type=”&rtm35_1;”/>
```

5.16.2.1 routeing

```
<!ELEMENT routeing ( location_container*, for*)>
```

routeing: This describes the route for the current diversion.

Example:

```
<routeing>
    <location_container>…</location_container>
    <for>…</for>
</routeing>
```

5.16.2.1.1 for

```
<!ELEMENT for EMPTY>
<!ATTLIST for
    metres CDATA #REQUIRED
>
```

for: This describes the length of road in metres for this part of the diversion. The metres attribute should be in metres using an uncompressed integer form with a range from 0 to 65535.

Example:

```
<for metres="1000"/>
```

Annex A
(normative)

DTD for tpeg-rtmML — TPEG Road Traffic Message application (tpeg-rtmML.dtd)

```
<?xml version="1.0" encoding="UTF-8"?>
<!--=========================================-->
<!--tpeg-rtmML TPEG Road Traffic Message application DTD v1.0-->
<!—2005-04-18-->
<!--PUBLIC"-//EBU//DTD tpeg-rtmML//EN"-->
<!--=========================================-->
<!ENTITY % rtmML_ent PUBLIC "-//EBU//ENTITIES tpeg-rtmML//EN" "rtmML.ent">
%rtmML_ent;
<!-- road_traffic_message: Message from TPEG-RTM application
     severity_factor uses rtm31_x
     unverified_information uses rtm46_x
-->
<!ELEMENT road_traffic_message ((repetitive_time | non_repetitive_time | location_container | accidents | obstructions | activities
| road_conditions | network_performance | network_conditions | facilities_performance | moving_hazards | security_alert |
public_transport_info | visibility | weather | diversion_advice)*)>
<!ATTLIST road_traffic_message
     message_id %intunli; #REQUIRED
     version_number %intunti; #REQUIRED
     message_generation_time %time; #IMPLIED
     start_time %time; #IMPLIED
     stop_time %time; #IMPLIED
     message_expiry_time %time; #IMPLIED
     severity_factor CDATA #IMPLIED
     unverified_information CDATA #IMPLIED
>
<!-- repetitive time element
     duration is in minutes (max. one week)
-->
<!ELEMENT repetitive_time EMPTY>
<!ATTLIST repetitive_time
     hour %intunti; #REQUIRED
     minute %intunti; #REQUIRED
     duration %intunli; #REQUIRED
     day_mask %day_mask; #REQUIRED
>
<!-- non-repetitive time element -->
<!ELEMENT non_repetitive_time (non_rep_time*)>
<!-- non-repetitive time type
     duration is in seconds (0 = start time without duration)
-->
<!ELEMENT non_rep_time EMPTY>
<!ATTLIST non_rep_time
     start_time %time; #REQUIRED
     duration %intunlo; #REQUIRED
>
<!-- accidents element
     number_of is an integer
-->
<!ELEMENT accidents ((position | animals | vehicles | people)*)>
<!ATTLIST accidents
     number_of %intunti; #REQUIRED
>
<!-- position element
     position uses rtm10_x
-->
<!ELEMENT position EMPTY>
<!ATTLIST position
     position CDATA #REQUIRED
>
```

```
<!-- animals element -->
<!ELEMENT animals ((position | animal_problem | animal_info)*)>
<!ATTLIST animals
    number_of %numag; #REQUIRED
>
<!-- animal_problem
    animal_problem uses rtm23_x
-->
<!ELEMENT animal_problem EMPTY>
<!ATTLIST animal_problem
    animal_problem CDATA #REQUIRED
>
<!-- animal_info
    animal_type uses rtm21_x
    animal_size uses rtm22_x
-->
<!ELEMENT animal_info EMPTY>
<!ATTLIST animal_info
    animal_type CDATA #REQUIRED
    animal_size CDATA #REQUIRED
>
<!-- vehicles element -->
<!ELEMENT vehicles ((position | vehicle_problem | vehicle_info)*)>
<!ATTLIST vehicles
    number_of %numag; #REQUIRED
>
<!-- vehicle_problem element
    vehicle_problem uses rtm03_x
-->
<!ELEMENT vehicle_problem EMPTY>
<!ATTLIST vehicle_problem
    vehicle_problem CDATA #REQUIRED
>
<!-- vehicle_info element
    vehicle_type uses rtm01_x
    vehicle_subtype uses rtm07_x,rtm09_x,rtm11_x,rtm40_x,rtm05_x,rtm06_x,rtm02_x,rtm16_x,rtm08_x and rtm48_x
-->
<!ELEMENT vehicle_info EMPTY>
<!ATTLIST vehicle_info
    vehicle_type CDATA #REQUIRED
    vehicle_subtype CDATA #IMPLIED
>
<!-- people element -->
<!ELEMENT people ((position | people_problem | people_info)*)>
<!ATTLIST people
    number_of %numag; #REQUIRED
>
<!-- people_problem element
    people_problem uses rtm20_x
-->
<!ELEMENT people_problem EMPTY>
<!ATTLIST people_problem
    people_problem CDATA #REQUIRED
>
<!-- people_info element
    people_type uses rtm19_x
-->
<!ELEMENT people_info EMPTY>
<!ATTLIST people_info
    people_type CDATA #REQUIRED
>
<!-- obstructions element -->
<!ELEMENT obstructions ((position | animals | vehicles | people | object)*)>
<!ATTLIST obstructions
    number_of %intunti; #REQUIRED
>
<!-- object element -->
<!ELEMENT object ((position | object_problem)*)>
<!ATTLIST object
    number_of %numag; #REQUIRED
>
```

```
<!-- object_problem
     object_problem uses rtm12_x
-->
<!ELEMENT object_problem EMPTY>
<!ATTLIST object_problem
     object_problem CDATA #REQUIRED
>
<!-- activities element -->
<!ELEMENT activities ((position | activity | people)*)>
<!ATTLIST activities
     number_of %numag; #REQUIRED
>
<!-- activity element
     activity_type uses rtm24_x
     activity_subtype uses rtm04_x,rtm25_x,rtm26_x,rtm44_x,rtm27_x,rtm28_x
-->
<!ELEMENT activity EMPTY>
<!ATTLIST activity
     activity_type CDATA #REQUIRED
     activity_subtype CDATA #IMPLIED
>
<!-- road_conditions element -->
<!ELEMENT road_conditions ((position | surface | adhesion | marking)*)>
<!-- surface element
     general_magnitude uses rtm31_x
     surface_condition uses rtm18_x
-->
<!ELEMENT surface EMPTY>
<!ATTLIST surface
     general_magnitude CDATA #REQUIRED
     surface_condition CDATA #REQUIRED
>
<!-- adhesion element
     general_magnitude uses rtm31_x
     adhesion_condition uses rtm39_x
-->
<!ELEMENT adhesion EMPTY>
<!ATTLIST adhesion
     general_magnitude CDATA #REQUIRED
     adhesion_condition CDATA #REQUIRED
>
<!-- marking element
     marking_condition uses rtm15_x
-->
<!ELEMENT marking EMPTY>
<!ATTLIST marking
     marking_condition CDATA #REQUIRED
>
<!-- network_performance element -->
<!ELEMENT network_performance ((performance | speed | delay | travel_time)*)>
<!-- performance element
     network_performance uses rtm34_x
-->
<!ELEMENT performance (length_affected*)>
<!ATTLIST performance
     network_performance CDATA #REQUIRED
>
<!-- length_affected
     metres is an integer from 0 to 655350
-->
<!ELEMENT length_affected EMPTY>
<!ATTLIST length_affected
     metres CDATA #REQUIRED
>
<!-- speed
     metres_per_second is a floating point number from 0 to 127.5
-->
<!ELEMENT speed EMPTY>
<!ATTLIST speed
     metres_per_second CDATA #REQUIRED
>
```

```
<!-- delay -->
<!ELEMENT delay EMPTY>
<!ATTLIST delay
    minutes %intunli; #REQUIRED
>
<!-- travel_time -->
<!ELEMENT travel_time EMPTY>
<!ATTLIST travel_time
    minutes %intunli; #REQUIRED
>
<!-- network_conditions element -->
<!ELEMENT network_conditions ((position | regulation | restriction | roadworks)*)>
<!-- regulation element
    regulation uses rtm45_x
    regulation_quantifier units depends on the regulation type
-->
<!ELEMENT regulation ((length_affected | condition_status)*)>
<!ATTLIST regulation
    regulation CDATA #REQUIRED
    regulation_quantifier %numag; #REQUIRED
>
<!-- condition_status element
    condition_status uses rtm47_x
-->
<!ELEMENT condition_status EMPTY>
<!ATTLIST condition_status
    condition_status CDATA #REQUIRED
>
<!-- restriction element
    restriction uses rtm49_x
-->
<!ELEMENT restriction ((length_affected | condition_status)*)>
<!ATTLIST restriction
    restriction CDATA #REQUIRED
>
<!-- roadworks element
    roadworks uses rtm50_x
-->
<!ELEMENT roadworks ((length_affected | condition_status)*)>
<!ATTLIST roadworks
    roadworks CDATA #REQUIRED
>
<!-- facilities_performance element
-->
<!ELEMENT facilities_performance ((traffic_control | roadside_assistance | roadside_services)*)>
<!-- traffic_control element
    traffic_control_type uses rtm42_x
    traffic_control_status uses rtm43_x
-->
<!ELEMENT traffic_control (position*)>
<!ATTLIST traffic_control
    traffic_control_type CDATA #REQUIRED
    traffic_control_status CDATA #REQUIRED
>
<!-- roadside_assistance element
    roadside_assistance_type uses rtm32_x
    roadside_assistance_status uses rtm33_x
-->
<!ELEMENT roadside_assistance EMPTY>
<!ATTLIST roadside_assistance
    roadside_assistance_type CDATA #REQUIRED
    roadside_assistance_status CDATA #REQUIRED
>
<!-- roadside_services element
    roadside_services_type uses rtm37_x
    roadside_services_status uses rtm38_x
-->
<!ELEMENT roadside_services EMPTY>
<!ATTLIST roadside_services
    roadside_services_type CDATA #REQUIRED
    roadside_services_status CDATA #REQUIRED
```

```
>
<!-- moving_hazards element -->
<!ELEMENT moving_hazards ((position | animals | vehicles | people)*)>
<!ATTLIST moving_hazards
    number_of %intunti; #REQUIRED
>
<!-- security_alert element
    security_alert  uses rtm36_x
-->
<!ELEMENT security_alert EMPTY>
<!ATTLIST security_alert
    security_alert CDATA #REQUIRED
>
<!-- security_alert element
    public_transport_type uses rtm40_x
    public_transport_status uses rtm41_x
-->
<!ELEMENT public_transport_info EMPTY>
<!ATTLIST public_transport_info
    public_transport_type CDATA #REQUIRED
    public_transport_status CDATA #REQUIRED
>
<!-- visibility element
-->
<!ELEMENT visibility ((obscurity | visual_acuity | lighting | length_affected)*)>
<!-- obscurity element
    obscurity_problem uses rtm17_x
    visibility_distance is an integer distance in metres from 0 to 2550
-->
<!ELEMENT obscurity EMPTY>
<!ATTLIST obscurity
    obscurity_problem CDATA #REQUIRED
    visibility_distance CDATA #REQUIRED
>
<!-- visual_acuity element
    acuity_problem uses rtm13_x
-->
<!ELEMENT visual_acuity EMPTY>
<!ATTLIST visual_acuity
    acuity_problem CDATA #REQUIRED
>
<!-- lighting element
    lighting_problem uses rtm14_x
-->
<!ELEMENT lighting EMPTY>
<!ATTLIST lighting
    lighting_problem CDATA #REQUIRED
>
<!-- weather element
-->
<!ELEMENT weather ((precipitation | wind | temperature)*)>
<!-- precipitation element
    general_magnitude uses rtm31_x
    precip_problem uses rtm29_x
-->
<!ELEMENT precipitation EMPTY>
<!ATTLIST precipitation
    general_magnitude CDATA #REQUIRED
    precip_problem CDATA #REQUIRED
>
<!-- wind element
    wind_speed is in m/s
    wind_problem uses rtm30_x
-->
<!ELEMENT wind EMPTY>
<!ATTLIST wind
    wind_speed %intunti; #REQUIRED
    wind_problem CDATA #REQUIRED
>
<!-- temperature element
    degrees_celsius is in degrees Celsius
```

```
-->
<!ELEMENT temperature EMPTY>
<!ATTLIST temperature
    degrees_celsius %intsiti; #REQUIRED
>
<!-- diversion_advice element -->
<!ELEMENT diversion_advice ((vehicle_info | diversion_regulation | position | advice)*)>
<!-- regulation element
    regulation uses rtm45_x
    regulation_quantifier units depends on the regulation type
-->
<!ELEMENT diversion_regulation EMPTY>
<!ATTLIST diversion_regulation
    regulation CDATA #REQUIRED
    regulation_quantifier %numag; #REQUIRED
>
<!-- advice component
    condition_status uses rtm47_x
    advice_type uses rtm35_x
-->
<!ELEMENT advice (routeing*)>
<!ATTLIST advice
    condition_status CDATA #REQUIRED
    advice_type CDATA #REQUIRED
>
<!-- routeing component -->
<!ELEMENT routeing (location_container*, for*)>
<!-- for component
    metres is length of road in metres
-->
<!ELEMENT for EMPTY>
<!ATTLIST for
    metres CDATA #REQUIRED
>
```

Annex B
(normative)

External entity references for tpeg-rtmML — TPEG Road Traffic Message application (tpeg-rtmML.ent)

```
<?xml version="1.0" encoding="UTF-8"?>
<!--=======================================-->
<!--tpeg-rtmML TPEG Road Traffic Message application ENT v1.0-->
<!--translator, company: (used when translated into other languages)-->
<!—2005-04-18 -->
<!--===================================== -->
<!-- rtm_table 00: top level classes -->
<!ENTITY rtm00_1 "accident">
<!ENTITY rtm00_2 "obstructions">
<!ENTITY rtm00_3 "activity">
<!ENTITY rtm00_4 "road conditions">
<!ENTITY rtm00_5 "network performance">
<!ENTITY rtm00_6 "network conditions">
<!ENTITY rtm00_7 "facilities performance">
<!ENTITY rtm00_8 "moving hazard">
<!ENTITY rtm00_9 "security alert">
<!ENTITY rtm00_10 "public transport information">
<!ENTITY rtm00_11 "visibility">
<!ENTITY rtm00_12 "weather">
<!ENTITY rtm00_13 "diversion advice">
<!-- rtm_table 01: vehicle type -->
<!ENTITY rtm01_0 "unknown">
<!ENTITY rtm01_1 "car">
<!ENTITY rtm01_2 "light goods vehicle">
<!ENTITY rtm01_3 "lorry">
<!ENTITY rtm01_4 "public transport vehicle">
<!ENTITY rtm01_5 "bicycle">
<!ENTITY rtm01_6 "emergency vehicle">
<!ENTITY rtm01_7 "works vehicle">
<!ENTITY rtm01_8 "abnormal load">
<!ENTITY rtm01_9 "vehicle with trailer">
<!ENTITY rtm01_10 "high-sided vehicle">
<!ENTITY rtm01_11 "minibus">
<!ENTITY rtm01_12 "taxi">
<!ENTITY rtm01_13 "tram">
<!ENTITY rtm01_14 "trolley-bus">
<!ENTITY rtm01_15 "train">
<!ENTITY rtm01_16 "post bus">
<!ENTITY rtm01_17 "school bus">
<!ENTITY rtm01_18 "military vehicle">
<!ENTITY rtm01_19 "motorbike">
<!ENTITY rtm01_20 "sledge">
<!ENTITY rtm01_255 "vehicle">
<!-- rtm_table 02: works vehicle type -->
<!ENTITY rtm02_0 "unknown">
<!ENTITY rtm02_1 "gritting vehicle">
<!ENTITY rtm02_2 "snowplough">
<!ENTITY rtm02_3 "salting vehicle">
<!ENTITY rtm02_4 "white-lining vehicle">
<!ENTITY rtm02_5 "resurfacing vehicle">
<!ENTITY rtm02_6 "steam roller">
<!ENTITY rtm02_7 "mobile crane">
<!ENTITY rtm02_8 "construction vehicle">
<!ENTITY rtm02_9 "farm tractor">
<!ENTITY rtm02_10 "farm tractor and plough">
<!ENTITY rtm02_11 "farm tractor and trailer">
<!ENTITY rtm02_12 "combine harvester">
<!ENTITY rtm02_13 "combine harvester with trailer">
<!ENTITY rtm02_14 "bulldozer">
```

<!ENTITY rtm02_15 "road surface testing vehicle">
<!ENTITY rtm02_16 "water tanker">
<!ENTITY rtm02_17 "drain-cleaning vehicle">
<!ENTITY rtm02_18 "road sweeping vehicle">
<!ENTITY rtm02_19 "refuse truck">
<!ENTITY rtm02_20 "grass cutting machine">
<!ENTITY rtm02_21 "tree cutting machine">
<!ENTITY rtm02_22 "hedge cutting machine">
<!ENTITY rtm02_23 "snow-blower">
<!ENTITY rtm02_255 "works vehicle ">
<!-- rtm_table 03: vehicle problem type -->
<!ENTITY rtm03_0 "unknown">
<!ENTITY rtm03_1 "rescue work">
<!ENTITY rtm03_2 "jack-knifed">
<!ENTITY rtm03_3 "overturned">
<!ENTITY rtm03_4 "on fire">
<!ENTITY rtm03_5 "spun round">
<!ENTITY rtm03_6 "spillage">
<!ENTITY rtm03_7 "driver on wrong carriageway">
<!ENTITY rtm03_8 "broken down">
<!ENTITY rtm03_9 "shed load">
<!ENTITY rtm03_10 "unlit">
<!ENTITY rtm03_11 "brake failure">
<!ENTITY rtm03_12 "stuck">
<!ENTITY rtm03_13 "abandoned">
<!ENTITY rtm03_14 "in convoy">
<!ENTITY rtm03_15 "slow moving">
<!ENTITY rtm03_16 "dangerously driven">
<!ENTITY rtm03_17 "dangerous load">
<!ENTITY rtm03_18 "prohibited">
<!ENTITY rtm03_19 "slowing">
<!ENTITY rtm03_20 "chasing">
<!ENTITY rtm03_21 "excessive speed">
<!ENTITY rtm03_22 "accident">
<!ENTITY rtm03_255 "vehicle problem">
<!-- rtm_table 04: various activities -->
<!ENTITY rtm04_0 "unknown">
<!ENTITY rtm04_1 "demolition">
<!ENTITY rtm04_2 "space launch">
<!ENTITY rtm04_3 "eclipse">
<!ENTITY rtm04_4 "blasting work">
<!ENTITY rtm04_5 "maintenance work">
<!ENTITY rtm04_255 "activity">
<!-- rtm_table 05: pedal cycle type -->
<!ENTITY rtm05_0 "unknown">
<!ENTITY rtm05_1 "motor-assisted pedal cycle">
<!ENTITY rtm05_2 "tricycle">
<!ENTITY rtm05_3 "tandem bike">
<!ENTITY rtm05_4 "bicycle and trailer">
<!ENTITY rtm05_5 "bicycle and side car">
<!ENTITY rtm05_6 "unicycle">
<!ENTITY rtm05_7 "sledge">
<!ENTITY rtm05_255 "bicycle">
<!-- rtm_table 06: emergency vehicle type -->
<!ENTITY rtm06_0 "unknown">
<!ENTITY rtm06_1 "ambulance">
<!ENTITY rtm06_2 "fire engine">
<!ENTITY rtm06_3 "police car">
<!ENTITY rtm06_4 "breakdown recovery vehicle">
<!ENTITY rtm06_5 "fire engine with escape ladder">
<!ENTITY rtm06_6 "fire engine with hydraulic platform">
<!ENTITY rtm06_7 "fire engine with water tank">
<!ENTITY rtm06_8 "vehicle removal crane">
<!ENTITY rtm06_9 "incident control vehicle">
<!ENTITY rtm06_10 "salvage vehicle">
<!ENTITY rtm06_255 "emergency vehicle">
<!-- rtm_table 07: car type -->
<!ENTITY rtm07_0 "unknown">
<!ENTITY rtm07_1 "small car">
<!ENTITY rtm07_2 "family car">
<!ENTITY rtm07_3 "large car">

```
<!ENTITY rtm07_4 "multi-purpose-vehicle">
<!ENTITY rtm07_5 "limousine">
<!ENTITY rtm07_6 "camper car">
<!ENTITY rtm07_7 "large off-road vehicle">
<!ENTITY rtm07_255 "car">
<!-- rtm_table 08: vehicle and trailer type -->
<!ENTITY rtm08_0 "unknown">
<!ENTITY rtm08_1 "car and caravan">
<!ENTITY rtm08_2 "light goods vehicle and caravan">
<!ENTITY rtm08_3 "heavy goods vehicle and caravan">
<!ENTITY rtm08_4 "car and trailer">
<!ENTITY rtm08_5 "light goods vehicle and trailer">
<!ENTITY rtm08_6 "heavy goods vehicle and trailer">
<!ENTITY rtm08_7 "bus and trailer">
<!ENTITY rtm08_255 "vehicle and trailer">
<!-- rtm_table 09: light goods vehicle type -->
<!ENTITY rtm09_0 "unknown">
<!ENTITY rtm09_1 "small van">
<!ENTITY rtm09_2 "small pick-up truck">
<!ENTITY rtm09_3 "medium size van">
<!ENTITY rtm09_4 "medium size pick-up truck">
<!ENTITY rtm09_5 "small motorcaravan">
<!ENTITY rtm09_6 "vehicle carrying hazardous load">
<!ENTITY rtm09_255 "light goods vehicle">
<!-- rtm_table 10: position -->
<!ENTITY rtm10_0 "unknown">
<!ENTITY rtm10_1 "driving lane 1">
<!ENTITY rtm10_2 "driving lane 2">
<!ENTITY rtm10_3 "driving lane 3">
<!ENTITY rtm10_4 "driving lane 4">
<!ENTITY rtm10_5 "driving lane 5">
<!ENTITY rtm10_6 "driving lane 6">
<!ENTITY rtm10_7 "driving lane 7">
<!ENTITY rtm10_8 "driving lane 8">
<!ENTITY rtm10_9 "driving lanes 1 and 2">
<!ENTITY rtm10_10 "driving lanes 2 and 3">
<!ENTITY rtm10_11 "driving lanes 3 and 4">
<!ENTITY rtm10_12 "driving lanes 4 and 5">
<!ENTITY rtm10_13 "driving lanes 5 and 6">
<!ENTITY rtm10_14 "driving lanes 6 and 7">
<!ENTITY rtm10_15 "driving lanes 7 and 8">
<!ENTITY rtm10_16 "driving lanes 1, 2 and 3">
<!ENTITY rtm10_17 "driving lanes 2, 3 and 4">
<!ENTITY rtm10_18 "driving lanes 3, 4 and 5">
<!ENTITY rtm10_19 "driving lanes 4, 5 and 6">
<!ENTITY rtm10_20 "driving lanes 5, 6 and 7">
<!ENTITY rtm10_21 "driving lanes 6, 7 and 8">
<!ENTITY rtm10_22 "driving lanes 1, 2, 3 and 4">
<!ENTITY rtm10_23 "driving lanes 2, 3, 4 and 5">
<!ENTITY rtm10_24 "driving lanes 3, 4, 5 and 6">
<!ENTITY rtm10_25 "driving lanes 4, 5, 6 and 7">
<!ENTITY rtm10_26 "driving lanes 5, 6, 7 and 8">
<!ENTITY rtm10_27 "driving lanes 1, 2, 3, 4 and 5">
<!ENTITY rtm10_28 "driving lanes 2, 3, 4, 5 and 6">
<!ENTITY rtm10_29 "driving lanes 3, 4, 5, 6 and 7">
<!ENTITY rtm10_30 "driving lanes 4, 5, 6, 7 and 8">
<!ENTITY rtm10_31 "driving lanes 1, 2, 3, 4, 5 and 6">
<!ENTITY rtm10_32 "driving lanes 2, 3, 4, 5, 6 and 7">
<!ENTITY rtm10_33 "driving lanes 3, 4, 5, 6, 7 and 8">
<!ENTITY rtm10_34 "driving lanes 1, 2, 3, 4, 5, 6 and 7">
<!ENTITY rtm10_35 "driving lanes 2, 3, 4, 5, 6, 7 and 8">
<!ENTITY rtm10_36 "off-road">
<!ENTITY rtm10_37 "all driving lanes">
<!ENTITY rtm10_38 "central reservation">
<!ENTITY rtm10_39 "hard shoulder">
<!ENTITY rtm10_40 "service road">
<!ENTITY rtm10_41 "local lane">
<!ENTITY rtm10_42 "underpass">
<!ENTITY rtm10_43 "fly over">
<!ENTITY rtm10_44 "emergency lane">
<!ENTITY rtm10_45 "bridge">
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<!ENTITY rtm10_46 "tunnel">
<!ENTITY rtm10_47 "overtaking lane">
<!ENTITY rtm10_48 "turning lane">
<!ENTITY rtm10_49 "slip road">
<!ENTITY rtm10_50 "toll plaza">
<!ENTITY rtm10_51 "cycle lane">
<!ENTITY rtm10_52 "through traffic lane">
<!ENTITY rtm10_53 "filter lane">
<!ENTITY rtm10_54 "bend">
<!ENTITY rtm10_55 "hilltop">
<!ENTITY rtm10_56 "car pool lane">
<!ENTITY rtm10_57 "bus lane">
<!ENTITY rtm10_58 "slow vehicle lane">
<!ENTITY rtm10_59 "verges">
<!ENTITY rtm10_60 "roadside bank">
<!ENTITY rtm10_61 "adjacent to road">
<!ENTITY rtm10_62 "opposite carriageway">
<!ENTITY rtm10_63 "exit slip road">
<!ENTITY rtm10_64 "entry slip road">
<!ENTITY rtm10_65 "express lane">
<!ENTITY rtm10_66 "lay-by">
<!ENTITY rtm10_67 "rest area">
<!ENTITY rtm10_68 "service area">
<!ENTITY rtm10_69 "around corner">
<!ENTITY rtm10_70 "escape lane">
<!ENTITY rtm10_71 "feeder road">
<!ENTITY rtm10_72 "left-hand feeder road">
<!ENTITY rtm10_73 "right-hand feeder road">
<!ENTITY rtm10_74 "dyke">
<!ENTITY rtm10_75 "shaded area">
<!ENTITY rtm10_76 "sunny area">
<!ENTITY rtm10_77 "left-hand turn lane">
<!ENTITY rtm10_78 "right-hand turn lane">
<!ENTITY rtm10_79 "bus stop">
<!ENTITY rtm10_80 "set down area">
<!ENTITY rtm10_81 "low lying area">
<!ENTITY rtm10_82 "low altitude route">
<!ENTITY rtm10_83 "high altitude route">
<!ENTITY rtm10_84 "ascending route">
<!ENTITY rtm10_85 "descending route">
<!ENTITY rtm10_86 "around the bend">
<!ENTITY rtm10_87 "weigh station">
<!ENTITY rtm10_88 "north bound carriageway">
<!ENTITY rtm10_89 "north-east bound carriageway">
<!ENTITY rtm10_90 "east bound carriageway">
<!ENTITY rtm10_91 "south-east bound carriageway">
<!ENTITY rtm10_92 "south bound carriageway">
<!ENTITY rtm10_93 "south-west bound carriageway">
<!ENTITY rtm10_94 "west-bound carriageway">
<!ENTITY rtm10_95 "north-west bound carriageway">
<!ENTITY rtm10_96 "clockwise carriageway">
<!ENTITY rtm10_97 "anti-clockwise carriageway">
<!ENTITY rtm10_98 "junction">
<!ENTITY rtm10_99 "left lane">
<!ENTITY rtm10_100 "left lane">
<!ENTITY rtm10_101 "right lane">
<!ENTITY rtm10_102 "right lane">
<!ENTITY rtm10_103 "middle lane">
<!ENTITY rtm10_104 "one lane">
<!ENTITY rtm10_105 "two lanes">
<!ENTITY rtm10_106 "three lanes">
<!ENTITY rtm10_255 "on route">
<!-- rtm_table 11: heavy goods vehicle type -->
<!ENTITY rtm11_0 "unknown">
<!ENTITY rtm11_1 "medium size lorry">
<!ENTITY rtm11_2 "large lorry">
<!ENTITY rtm11_3 "medium lorry with close-coupled trailer">
<!ENTITY rtm11_4 "large lorry with close-coupled trailer">
<!ENTITY rtm11_5 "articulated lorry">
<!ENTITY rtm11_6 "lorry cab without articulated trailer">
<!ENTITY rtm11_7 "car transporter">

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<!ENTITY rtm11_8 "low loader">
<!ENTITY rtm11_9 "tanker">
<!ENTITY rtm11_10 "vehicle carrying hazardous load">
<!ENTITY rtm11_11 "large motorcaravan">
<!ENTITY rtm11_255 "heavy goods vehicle">
<!-- rtm_table 12: object -->
<!ENTITY rtm12_0 "unknown">
<!ENTITY rtm12_1 "various">
<!ENTITY rtm12_2 "fallen tree">
<!ENTITY rtm12_3 "fallen power line">
<!ENTITY rtm12_4 "fallen telephone pole">
<!ENTITY rtm12_5 "shed tyre tread">
<!ENTITY rtm12_6 "shed wood">
<!ENTITY rtm12_7 "shed opaque sheet">
<!ENTITY rtm12_8 "shed ballast or sand">
<!ENTITY rtm12_9 "loose road cones">
<!ENTITY rtm12_10 "avalanche">
<!ENTITY rtm12_11 "mud slide">
<!ENTITY rtm12_12 "rock fall">
<!ENTITY rtm12_13 "land slide">
<!ENTITY rtm12_14 "flood">
<!ENTITY rtm12_15 "sewer overflow">
<!ENTITY rtm12_16 "debris">
<!ENTITY rtm12_17 "shed load">
<!ENTITY rtm12_18 "spillage">
<!ENTITY rtm12_255 "object">
<!-- rtm_table 13: acuity problem -->
<!ENTITY rtm13_0 "unknown">
<!ENTITY rtm13_1 "sun glare">
<!ENTITY rtm13_2 "snow glare">
<!ENTITY rtm13_255 "visibility problem">
<!-- rtm_table 14: lighting problem -->
<!ENTITY rtm14_0 "unknown">
<!ENTITY rtm14_1 "failed lighting">
<!ENTITY rtm14_2 "faulty lighting">
<!ENTITY rtm14_3 "temporary lighting">
<!ENTITY rtm14_4 "unlit">
<!ENTITY rtm14_255 "lighting problem">
<!-- rtm_table 15: marking condition -->
<!ENTITY rtm15_0 "unknown">
<!ENTITY rtm15_1 "no lane marking">
<!ENTITY rtm15_2 "changed lane marking">
<!ENTITY rtm15_3 "temporary lane marking">
<!ENTITY rtm15_4 "no reflective marking">
<!ENTITY rtm15_5 "traffic-calming indication">
<!ENTITY rtm15_6 "crash barrier missing">
<!ENTITY rtm15_7 "new road marking">
<!ENTITY rtm15_255 "road marking advice">
<!-- rtm_table 16: abnormal vehicle type -->
<!ENTITY rtm16_0 "unknown">
<!ENTITY rtm16_1 "high-sided">
<!ENTITY rtm16_2 "high load">
<!ENTITY rtm16_3 "heavy load">
<!ENTITY rtm16_4 "wide load">
<!ENTITY rtm16_5 "long load">
<!ENTITY rtm16_6 "slow moving">
<!ENTITY rtm16_7 "very slow moving">
<!ENTITY rtm16_255 "abnormal vehicle">
<!-- rtm_table 17: obscurity problem -->
<!ENTITY rtm17_0 "unknown">
<!ENTITY rtm17_1 "rain">
<!ENTITY rtm17_2 "fog">
<!ENTITY rtm17_3 "smoke">
<!ENTITY rtm17_4 "sleet">
<!ENTITY rtm17_5 "insects">
<!ENTITY rtm17_6 "dust cloud">
<!ENTITY rtm17_7 "insect swarm">
<!ENTITY rtm17_8 "sand storm">
<!ENTITY rtm17_9 "spray">
<!ENTITY rtm17_10 "snow spray">
<!ENTITY rtm17_11 "blizzard">
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<!ENTITY rtm17_255 "visibility problem">
<!-- rtm_table 18: surface condition -->
<!ENTITY rtm18_0 "unknown">
<!ENTITY rtm18_1 "debris">
<!ENTITY rtm18_2 "melting tar">
<!ENTITY rtm18_3 "subsidence">
<!ENTITY rtm18_4 "earthquake">
<!ENTITY rtm18_5 "rock fall">
<!ENTITY rtm18_6 "uneven surface">
<!ENTITY rtm18_7 "pot hole">
<!ENTITY rtm18_8 "collapsed sewer">
<!ENTITY rtm18_9 "burst water main">
<!ENTITY rtm18_10 "frost damaged surface">
<!ENTITY rtm18_11 "loose surface">
<!ENTITY rtm18_255 "road surface problem">
<!-- rtm_table 19: people type -->
<!ENTITY rtm19_0 "unknown">
<!ENTITY rtm19_1 "children">
<!ENTITY rtm19_2 "elderly">
<!ENTITY rtm19_3 "handicapped">
<!ENTITY rtm19_4 "traffic wardens">
<!ENTITY rtm19_5 "police officers">
<!ENTITY rtm19_6 "fire fighters">
<!ENTITY rtm19_7 "paramedics">
<!ENTITY rtm19_8 "school children">
<!ENTITY rtm19_9 "students">
<!ENTITY rtm19_255 "people">
<!-- rtm_table 20: people problem -->
<!ENTITY rtm20_0 "unknown">
<!ENTITY rtm20_1 "disorientated">
<!ENTITY rtm20_2 "assembling">
<!ENTITY rtm20_3 "rioting">
<!ENTITY rtm20_4 "arriving">
<!ENTITY rtm20_5 "leaving">
<!ENTITY rtm20_6 "arriving and leaving">
<!ENTITY rtm20_7 "observing">
<!ENTITY rtm20_8 "marching">
<!ENTITY rtm20_9 "directing traffic">
<!ENTITY rtm20_10 "obstructing">
<!ENTITY rtm20_11 "queuing">
<!ENTITY rtm20_12 "playing">
<!ENTITY rtm20_13 "injured">
<!ENTITY rtm20_14 "trapped">
<!ENTITY rtm20_255 "people">
<!-- rtm_table 21: animal type -->
<!ENTITY rtm21_0 "unknown">
<!ENTITY rtm21_1 "horses">
<!ENTITY rtm21_2 "cattle">
<!ENTITY rtm21_3 "sheep">
<!ENTITY rtm21_4 "deer">
<!ENTITY rtm21_5 "frogs">
<!ENTITY rtm21_6 "chickens">
<!ENTITY rtm21_7 "ducks">
<!ENTITY rtm21_8 "geese">
<!ENTITY rtm21_9 "dogs">
<!ENTITY rtm21_10 "elks">
<!ENTITY rtm21_11 "reindeer">
<!ENTITY rtm21_12 "wild birds">
<!ENTITY rtm21_13 "goats">
<!ENTITY rtm21_14 "swarming insects">
<!ENTITY rtm21_255 "animals">
<!-- rtm_table 22: animal size -->
<!ENTITY rtm22_0 "unknown">
<!ENTITY rtm22_1 "small">
<!ENTITY rtm22_2 "medium">
<!ENTITY rtm22_3 "large">
<!ENTITY rtm22_4 "very large">
<!ENTITY rtm22_255 "unspecified">
<!-- rtm_table 23: animal problem -->
<!ENTITY rtm23_0 "unknown">
<!ENTITY rtm23_1 "loose">

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<!ENTITY rtm23_2 "trapped">
<!ENTITY rtm23_3 "herded">
<!ENTITY rtm23_4 "injured">
<!ENTITY rtm23_5 "dead">
<!ENTITY rtm23_6 "grazing">
<!ENTITY rtm23_7 "crossing road">
<!ENTITY rtm23_8 "dangerous">
<!ENTITY rtm23_9 "flocking">
<!ENTITY rtm23_255 "animals">
<!-- rtm_table 24: activity type -->
<!ENTITY rtm24_0 "unknown">
<!ENTITY rtm24_1 "various">
<!ENTITY rtm24_2 "fair">
<!ENTITY rtm24_3 "public gathering">
<!ENTITY rtm24_4 "sports event">
<!ENTITY rtm24_5 "national event">
<!ENTITY rtm24_6 "concert or cultural event">
<!ENTITY rtm24_255 "activity">
<!-- rtm_table 25: fair type -->
<!ENTITY rtm25_0 "unknown">
<!ENTITY rtm25_1 "funfair">
<!ENTITY rtm25_2 "fete">
<!ENTITY rtm25_3 "festival">
<!ENTITY rtm25_4 "market">
<!ENTITY rtm25_5 "trade fair">
<!ENTITY rtm25_6 "exhibition">
<!ENTITY rtm25_7 "convention">
<!ENTITY rtm25_8 "conference">
<!ENTITY rtm25_255 "fair">
<!-- rtm_table 26: public gathering type -->
<!ENTITY rtm26_0 "unknown">
<!ENTITY rtm26_1 "march">
<!ENTITY rtm26_2 "procession">
<!ENTITY rtm26_3 "strike">
<!ENTITY rtm26_4 "demonstration">
<!ENTITY rtm26_5 "parade">
<!ENTITY rtm26_6 "celebration">
<!ENTITY rtm26_7 "street party">
<!ENTITY rtm26_255 "public gathering">
<!-- rtm_table 27: national events type -->
<!ENTITY rtm27_0 "unknown">
<!ENTITY rtm27_1 "opening of parliament">
<!ENTITY rtm27_2 "military parade">
<!ENTITY rtm27_3 "community parade">
<!ENTITY rtm27_255 "national event">
<!-- rtm_table 28: concert and cultural event type -->
<!ENTITY rtm28_0 "unknown">
<!ENTITY rtm28_1 "open-air concert">
<!ENTITY rtm28_2 "concert">
<!ENTITY rtm28_3 "sound and light show">
<!ENTITY rtm28_4 "art event">
<!ENTITY rtm28_5 "flower event">
<!ENTITY rtm28_6 "beer festival">
<!ENTITY rtm28_7 "food festival">
<!ENTITY rtm28_8 "wine festival">
<!ENTITY rtm28_9 "theatrical event">
<!ENTITY rtm28_10 "firework display">
<!ENTITY rtm28_255 "event">
<!-- rtm_table 29: precipitation problem -->
<!ENTITY rtm29_0 "unknown">
<!ENTITY rtm29_1 "rain">
<!ENTITY rtm29_2 "sleet">
<!ENTITY rtm29_3 "snow">
<!ENTITY rtm29_4 "hail">
<!ENTITY rtm29_5 "blizzard">
<!ENTITY rtm29_255 "precipitation">
<!-- rtm_table 30: wind problem -->
<!ENTITY rtm30_0 "unknown">
<!ENTITY rtm30_1 "gusting">
<!ENTITY rtm30_2 "squalling">
<!ENTITY rtm30_3 "crossing">
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<!ENTITY rtm30_4 "swirling">
<!ENTITY rtm30_255 "wind problem">
<!-- rtm_table 31: general magnitude -->
<!ENTITY rtm31_0 "unknown">
<!ENTITY rtm31_1 "very slight">
<!ENTITY rtm31_2 "slight">
<!ENTITY rtm31_3 "medium">
<!ENTITY rtm31_4 "severe">
<!ENTITY rtm31_5 "very severe">
<!ENTITY rtm31_255 "unspecified">
<!-- rtm_table 32: roadside assistance type -->
<!ENTITY rtm32_0 "unknown">
<!ENTITY rtm32_1 "emergency telephones">
<!ENTITY rtm32_2 "escape lanes">
<!ENTITY rtm32_3 "emergency patrols">
<!ENTITY rtm32_4 "emergency lay-by">
<!ENTITY rtm32_5 "video surveillance ">
<!ENTITY rtm32_255 "emergency facilities">
<!-- rtm_table 33: roadside assistance status -->
<!ENTITY rtm33_0 "unknown">
<!ENTITY rtm33_1 "not working">
<!ENTITY rtm33_2 "closed">
<!ENTITY rtm33_3 "not available">
<!ENTITY rtm33_4 "re-opened">
<!ENTITY rtm33_5 "open">
<!ENTITY rtm33_6 "working">
<!ENTITY rtm33_255 "advice">
<!-- rtm_table 34: network performance status -->
<!ENTITY rtm34_0 "unknown">
<!ENTITY rtm34_1 "stationary traffic">
<!ENTITY rtm34_2 "queuing traffic">
<!ENTITY rtm34_3 "slow traffic">
<!ENTITY rtm34_4 "heavy traffic">
<!ENTITY rtm34_5 "freely flowing traffic">
<!ENTITY rtm34_6 "sheer weight of traffic">
<!ENTITY rtm34_255 "advice">
<!-- rtm_table 35: diversion advice type -->
<!ENTITY rtm35_0 "unknown">
<!ENTITY rtm35_1 "do not divert">
<!ENTITY rtm35_2 "no suggested diversion">
<!ENTITY rtm35_3 "find own diversion">
<!ENTITY rtm35_4 "follow signed diversion">
<!ENTITY rtm35_5 "follow police directions">
<!ENTITY rtm35_6 "follow emergency services directions">
<!ENTITY rtm35_7 "follow directions from marshal">
<!ENTITY rtm35_8 "follow directions from traffic warden">
<!ENTITY rtm35_255 "avoid area">
<!-- rtm_table 36: security alert type -->
<!ENTITY rtm36_0 "unknown">
<!ENTITY rtm36_1 "test message only">
<!ENTITY rtm36_2 "bomb threat">
<!ENTITY rtm36_3 "security alert">
<!ENTITY rtm36_4 "civil emergency">
<!ENTITY rtm36_5 "terrorist activity">
<!ENTITY rtm36_6 "riot">
<!ENTITY rtm36_7 "air raid">
<!ENTITY rtm36_8 "evacuation">
<!ENTITY rtm36_9 "gas leak">
<!ENTITY rtm36_10 "severe exhaust pollution">
<!ENTITY rtm36_11 "gunfire on roadway">
<!ENTITY rtm36_12 "smog alert">
<!ENTITY rtm36_13 "reckless driver">
<!ENTITY rtm36_14 "driver on wrong carriageway">
<!ENTITY rtm36_15 "hurricane or tornado">
<!ENTITY rtm36_16 "risk of explosion">
<!ENTITY rtm36_17 "dangerous water level">
<!ENTITY rtm36_18 "nuclear leak">
<!ENTITY rtm36_255 "safety alert">
<!-- rtm_table 37: roadside services type -->
<!ENTITY rtm37_0 "unknown">
<!ENTITY rtm37_1 "picnic area">

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<!ENTITY rtm37_2 "petrol station">
<!ENTITY rtm37_3 "restaurant">
<!ENTITY rtm37_4 "overnight accommodation">
<!ENTITY rtm37_5 "toilets">
<!ENTITY rtm37_6 "rest area">
<!ENTITY rtm37_7 "short-term parking">
<!ENTITY rtm37_8 "long-term parking">
<!ENTITY rtm37_9 "overnight parking">
<!ENTITY rtm37_10 "parking">
<!ENTITY rtm37_11 "information point">
<!ENTITY rtm37_12 "unleaded fuel">
<!ENTITY rtm37_13 "diesel fuel">
<!ENTITY rtm37_14 "leaded fuel">
<!ENTITY rtm37_15 "LPG">
<!ENTITY rtm37_16 "electrical charging facility">
<!ENTITY rtm37_17 "garage">
<!ENTITY rtm37_18 "shower facility">
<!ENTITY rtm37_19 "toll point">
<!ENTITY rtm37_20 "customs point">
<!ENTITY rtm37_21 "weigh station">
<!ENTITY rtm37_22 "vehicle testing centre">
<!ENTITY rtm37_255 "roadside services">
<!-- rtm_table 38: roadside services status -->
<!ENTITY rtm38_0 "unknown">
<!ENTITY rtm38_1 "open">
<!ENTITY rtm38_2 "closed">
<!ENTITY rtm38_3 "overcrowded">
<!ENTITY rtm38_4 "busy">
<!ENTITY rtm38_5 "unstaffed">
<!ENTITY rtm38_6 "re-opened">
<!ENTITY rtm38_7 "available">
<!ENTITY rtm38_8 "unavailable">
<!ENTITY rtm38_9 "only">
<!ENTITY rtm38_10 " staffed">
<!ENTITY rtm38_11 "reduced">
<!ENTITY rtm38_12 "restricted">
<!ENTITY rtm38_255 "advice">
<!-- rtm_table 39: adhesion condition -->
<!ENTITY rtm39_0 "unknown">
<!ENTITY rtm39_1 "petrol spillage">
<!ENTITY rtm39_2 "oil spillage">
<!ENTITY rtm39_3 "diesel spillage">
<!ENTITY rtm39_4 "mud">
<!ENTITY rtm39_5 "loose chippings">
<!ENTITY rtm39_6 "leaves">
<!ENTITY rtm39_7 "snow">
<!ENTITY rtm39_8 "deep snow">
<!ENTITY rtm39_9 "packed snow">
<!ENTITY rtm39_10 "fresh snow">
<!ENTITY rtm39_11 "melting snow">
<!ENTITY rtm39_12 "snow drifting">
<!ENTITY rtm39_13 "sleet">
<!ENTITY rtm39_14 "ice">
<!ENTITY rtm39_15 "icy patches">
<!ENTITY rtm39_16 "black ice">
<!ENTITY rtm39_17 "flood water">
<!ENTITY rtm39_18 "burst water main">
<!ENTITY rtm39_19 "sewer overflow">
<!ENTITY rtm39_20 "worn-out surface">
<!ENTITY rtm39_21 "flash flood">
<!ENTITY rtm39_22 "polished surface">
<!ENTITY rtm39_23 "surface water">
<!ENTITY rtm39_255 "hazardous surface conditions">
<!-- rtm_table 40: public transport type -->
<!ENTITY rtm40_0 "unknown">
<!ENTITY rtm40_1 "bus">
<!ENTITY rtm40_2 "articulated bus">
<!ENTITY rtm40_3 "school bus">
<!ENTITY rtm40_4 "minibus">
<!ENTITY rtm40_5 "tram">
<!ENTITY rtm40_6 "train">
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<!ENTITY rtm40_7 "underground">
<!ENTITY rtm40_8 "rapid transit">
<!ENTITY rtm40_9 "ferry">
<!ENTITY rtm40_10 "shuttle bus">
<!ENTITY rtm40_11 "park and ride">
<!ENTITY rtm40_12 "post bus">
<!ENTITY rtm40_13 "passenger ferry">
<!ENTITY rtm40_14 "vehicle ferry">
<!ENTITY rtm40_15 "floating bridge ferry">
<!ENTITY rtm40_16 "shuttle train">
<!ENTITY rtm40_17 "cable car">
<!ENTITY rtm40_18 "funicular">
<!ENTITY rtm40_19 "trolley bus">
<!ENTITY rtm40_20 "taxi">
<!ENTITY rtm40_255 "public transport service">
<!-- rtm_table 41: public transport status -->
<!ENTITY rtm41_0 "unknown">
<!ENTITY rtm41_1 "cancelled">
<!ENTITY rtm41_2 "delayed">
<!ENTITY rtm41_3 "intermittent">
<!ENTITY rtm41_4 "full">
<!ENTITY rtm41_5 "closed">
<!ENTITY rtm41_6 "open">
<!ENTITY rtm41_7 "operating normally">
<!ENTITY rtm41_8 "not operating">
<!ENTITY rtm41_9 "restricted">
<!ENTITY rtm41_10 "on strike">
<!ENTITY rtm41_11 "revised timetable">
<!ENTITY rtm41_12 "operating a saturday schedule">
<!ENTITY rtm41_13 "operating a sunday schedule">
<!ENTITY rtm41_14 "operating a weekday schedule">
<!ENTITY rtm41_15 "operating a public holiday schedule">
<!ENTITY rtm41_16 "unscheduled">
<!ENTITY rtm41_17 "seriously delayed">
<!ENTITY rtm41_18 "suspended">
<!ENTITY rtm41_255 "with general problem">
<!-- rtm_table 42: traffic control equipment type -->
<!ENTITY rtm42_0 "unknown">
<!ENTITY rtm42_1 "traffic lights">
<!ENTITY rtm42_2 "variable message signs">
<!ENTITY rtm42_3 "lane control signs">
<!ENTITY rtm42_4 "variable speed signs">
<!ENTITY rtm42_5 "direction signs">
<!ENTITY rtm42_6 "toll gate">
<!ENTITY rtm42_7 "automatic toll gate">
<!ENTITY rtm42_8 "level crossing">
<!ENTITY rtm42_9 "express toll lane">
<!ENTITY rtm42_10 "lifting bridge">
<!ENTITY rtm42_11 "temporary traffic lights">
<!ENTITY rtm42_12 "speed control">
<!ENTITY rtm42_13 "observation cameras">
<!ENTITY rtm42_14 "swing bridge">
<!ENTITY rtm42_255 "traffic control equipment">
<!-- rtm_table 43: traffic control equipment status -->
<!ENTITY rtm43_0 "unknown">
<!ENTITY rtm43_1 "working normally">
<!ENTITY rtm43_2 "working incorrectly">
<!ENTITY rtm43_3 "not working">
<!ENTITY rtm43_4 "wrong">
<!ENTITY rtm43_5 "intermittent">
<!ENTITY rtm43_6 "changed">
<!ENTITY rtm43_7 "timing changed">
<!ENTITY rtm43_8 "stuck">
<!ENTITY rtm43_9 "damaged">
<!ENTITY rtm43_10 "on local control">
<!ENTITY rtm43_11 "unreliable">
<!ENTITY rtm43_12 "new equipment">
<!ENTITY rtm43_255 "changed">
<!-- rtm_table 44: sports event type -->
<!ENTITY rtm44_0 "unknown">
<!ENTITY rtm44_1 "football match">

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<!ENTITY rtm44_2 "rugby match">
<!ENTITY rtm44_3 "cricket match">
<!ENTITY rtm44_4 "athletics meeting">
<!ENTITY rtm44_5 "hunt meeting">
<!ENTITY rtm44_6 "golf match">
<!ENTITY rtm44_7 "motor racing meeting">
<!ENTITY rtm44_8 "tennis tournament">
<!ENTITY rtm44_9 "road racing">
<!ENTITY rtm44_10 "field sports meeting">
<!ENTITY rtm44_11 "cycle racing meeting">
<!ENTITY rtm44_12 "motor cross meeting">
<!ENTITY rtm44_13 "airshow">
<!ENTITY rtm44_14 "hot-air balloon meeting">
<!ENTITY rtm44_15 "country-side sports">
<!ENTITY rtm44_16 "winter sports event">
<!ENTITY rtm44_255 "sports event">
<!-- rtm_table 45: regulation type -->
<!ENTITY rtm45_0 "unknown">
<!ENTITY rtm45_1 "maximum speed limit">
<!ENTITY rtm45_2 "minimum speed limit">
<!ENTITY rtm45_3 "weight limit">
<!ENTITY rtm45_4 "height limit">
<!ENTITY rtm45_5 "width limit">
<!ENTITY rtm45_6 "length limit">
<!ENTITY rtm45_7 "axle limit">
<!ENTITY rtm45_8 "minimum">
<!ENTITY rtm45_9 "catalytic converters">
<!ENTITY rtm45_10 "odd-numbered licence plates">
<!ENTITY rtm45_11 "even-numbered licence plates">
<!ENTITY rtm45_12 "learner drivers">
<!ENTITY rtm45_13 "inexperienced drivers">
<!ENTITY rtm45_14 "four-wheel drive vehicles">
<!ENTITY rtm45_15 "left-hand drive vehicles">
<!ENTITY rtm45_16 "right-hand drive vehicles">
<!ENTITY rtm45_17 "motor cycles">
<!ENTITY rtm45_18 "all motor vehicles">
<!ENTITY rtm45_19 "pedal cycles">
<!ENTITY rtm45_20 "sidelights">
<!ENTITY rtm45_21 "dipped headlights">
<!ENTITY rtm45_22 "dimmed/dipped headlights">
<!ENTITY rtm45_23 "main-beam headlights">
<!ENTITY rtm45_24 "front fog lights">
<!ENTITY rtm45_25 "rear fog lights">
<!ENTITY rtm45_26 "fog lights">
<!ENTITY rtm45_27 "hazard lights">
<!ENTITY rtm45_28 "winter equipment">
<!ENTITY rtm45_29 "snow chains">
<!ENTITY rtm45_30 "studded (snow) tyres">
<!ENTITY rtm45_31 "right turn">
<!ENTITY rtm45_32 "left turn">
<!ENTITY rtm45_33 "u-turn">
<!ENTITY rtm45_34 "stopping">
<!ENTITY rtm45_35 "filling fuel tanks">
<!ENTITY rtm45_36 "smoking">
<!ENTITY rtm45_37 "windows open">
<!ENTITY rtm45_38 "windows closed">
<!ENTITY rtm45_39 "convoy driving">
<!ENTITY rtm45_40 "block driving">
<!ENTITY rtm45_255 "regulation">
<!--rtm_table 46: unverified information-->
<!ENTITY rtm46_0 "unknown">
<!ENTITY rtm46_1 "unverified">
<!ENTITY rtm46_255 "verified">
<!-- rtm_table 47: condition status -->
<!ENTITY rtm47_0 "unknown">
<!ENTITY rtm47_1 "mandatory">
<!ENTITY rtm47_2 "advisory">
<!ENTITY rtm47_3 "required">
<!ENTITY rtm47_4 "prohibited">
<!ENTITY rtm47_5 "only">
<!ENTITY rtm47_6 "excluded">
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<!ENTITY rtm47_7 "restriction advice">
<!ENTITY rtm47_8 "enforced">
<!ENTITY rtm47_9 "recommended">
<!ENTITY rtm47_10 "reduced">
<!ENTITY rtm47_11 "restored">
<!ENTITY rtm47_12 "in operation">
<!ENTITY rtm47_13 "not in operation">
<!ENTITY rtm47_14 "changed">
<!ENTITY rtm47_15 "lifted">
<!ENTITY rtm47_16 "intermittent">
<!ENTITY rtm47_17 "temporary">
<!ENTITY rtm47_18 "controlled">
<!ENTITY rtm47_255 "restriction advice">
<!-- rtm_table 48: motor cycle type -->
<!ENTITY rtm48_0 "unknown">
<!ENTITY rtm48_1 "moped">
<!ENTITY rtm48_2 "motor scooter">
<!ENTITY rtm48_3 "motor cycle">
<!ENTITY rtm48_4 "motor tricycle">
<!ENTITY rtm48_5 "motor cycle and side-car">
<!ENTITY rtm48_6 "motor bicycle ">
<!ENTITY rtm48_7 "delivery motor cycle">
<!ENTITY rtm48_8 "taxi motor cycle">
<!ENTITY rtm48_9 "snowmobile">
<!ENTITY rtm48_255 "motorbike">
<!-- rtm_table 49: restriction type -->
<!ENTITY rtm49_0 "unknown">
<!ENTITY rtm49_1 "closed">
<!ENTITY rtm49_2 "blocked">
<!ENTITY rtm49_3 "contraflow">
<!ENTITY rtm49_4 "single alternate line traffic">
<!ENTITY rtm49_5 "narrow lane">
<!ENTITY rtm49_6 "access">
<!ENTITY rtm49_7 "through traffic">
<!ENTITY rtm49_8 "local traffic">
<!ENTITY rtm49_9 "entry">
<!ENTITY rtm49_10 "exit">
<!ENTITY rtm49_11 "open">
<!ENTITY rtm49_12 "fire">
<!ENTITY rtm49_255 "restriction">
<!-- rtm_table 50: roadworks type -->
<!ENTITY rtm50_0 "unknown">
<!ENTITY rtm50_1 "resurfacing">
<!ENTITY rtm50_2 "underground services work">
<!ENTITY rtm50_3 "overhead services work">
<!ENTITY rtm50_4 "sewerage and drainage work">
<!ENTITY rtm50_5 "road layout changes">
<!ENTITY rtm50_6 "maintenance work">
<!ENTITY rtm50_7 "road marking work">
<!ENTITY rtm50_8 "tree felling">
<!ENTITY rtm50_9 "demolition work">
<!ENTITY rtm50_10 "blasting work">
<!ENTITY rtm50_11 "construction work">
<!ENTITY rtm50_12 "verge cutting">
<!ENTITY rtm50_13 "verge maintenance">
<!ENTITY rtm50_14 "culvert cleaning">
<!ENTITY rtm50_15 "barrier maintenance">
<!ENTITY rtm50_16 "cone placement work">
<!ENTITY rtm50_17 "loop cutting work">
<!ENTITY rtm50_18 "lighting work">
<!ENTITY rtm50_19 "road signs work">
<!ENTITY rtm50_255 "roadworks">

ICS 03.220.20; 35.240.60

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