



# SURFACE VEHICLE STANDARD

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## ITIS Phrase Lists (International Traveler Information Systems)

### RATIONALE

This revision of the standard provides additional elements related to emergency evacuation information, corrects typographical errors introduced in the previous edition, and removes 6.31 DE\_RegulatorySigns which included redundantly defined values with integer mappings in use by other values. ASN types were changed from enum to integer throughout to better support future revisions.

### FOREWORD

Prepared for use by the V2X Core committee of the SAE by Southwest Research Institute (SwRI).

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## 1. SCOPE

This standard provides a table of textual messages meeting the requirements for expressing International Traveler Information Systems (ITIS) phrases commonly used in the ITS industry. The tables provided herein follow the rules of SAE J2540 and therefore allow a local representation in various different languages, media expressions, etc., to allow true international use of these phrases. The phrases are predominantly intended for use in the description of traffic-related events of interest to travelers and other traffic practitioners. Other phrases exist for other specific specialty areas of ITS, and all such phrases follow a set of encoding and decoding rules outlined in SAE J2540 to ensure that the use of these phrases in messages remain interoperable between disparate types of user equipment.

Implementers are cautioned to obtain the most recent set of tables by means of the ITS data registry, a process which involves SAE and other standards-setting organizations, and which is intended to maintain and enhance the level of harmonization among ITS standards set by each of the organizations.

This standard defines the normative index values to be used to provide phrases needed by ITS practitioners. This standard provides non-normative textual phrases which MAY be used by implementers to ensure intelligible results. This standard follows the formats and rules established in SAE J2540 in the expressions, manipulations, and use of such tables.

It should be pointed out that within the rules established by this standard, a variety of final tables are all considered “conformant” with the standard, and may vary as fits the needs of implementers.

## 2. REFERENCES

### 2.1 Applicable Documents

The following publications form a part of this specification to the extent specified herein. Unless otherwise indicated, the latest issue of SAE publications shall apply.

#### 2.1.1 SAE Publications

Available from SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001, Tel: 877-606-7323 (inside USA and Canada) or +1 724-776-4970 (outside USA), [www.sae.org](http://www.sae.org).

SAE J2540 Messages for Handling Strings and Look-Up Tables in ATIS Standards

SAE J2540-1 RDS Phrase Lists

SAE J2540-3 National Names Phrase List

SAE J2735 Dedicated Short Range Communications (DSRC) Message Set Dictionary

Of historical interest only:

SAE J2313 On-Board Land Vehicle Mayday Reporting Interface

SAE J2369 Standards for ATIS Message Sets Delivered over Reduced Bandwidth Media

#### 2.1.2 ITE Publications

Available from ITE, 525 School Street SW, Suite 410, Washington, DC 20024.

Message Sets for External Traffic Management Center Communication (MS/ETMC2), TM 2.01, Rev. 2.0, February 2001.

#### 2.1.3 FHWA Publications

Available from <http://mutcd.fhwa.dot.gov>.

Manual of Uniform Traffic Control Devices (MUTCD), 2003 edition with amendments, adopted November 2003 and its successors.

### 3. DEFINITIONS

The definitions found in SAE J2540 are incorporated herein.

### 4. OVERVIEW

This standard provides a set of phrases intended to describe traffic incident situations of interest to travelers. It is intended to be used in all ATIS message set standards and is expected to be also used in a number of other ITS industry standards, as well where sufficient bandwidth is available. Exceptions to this may include limited bandwidth media devices (an example would be the RDS SubCarrier media) when only a single phrase code can be allowed.

This document defines individual ITIS codes and phases, as well as guidelines and examples of use, that may be used in messages defined by other standards. The rules defining how those messages are constructed are found in their respective standards. These other standards may impose additional or alternate restrictions on using the codes and phrases defined herein. For example, SAE J2369 allows only a subset of the phrase table rules because this standard was established before the more general rules of SAE J2540. In addition, in the “ERM Message” of the TMDD message set, some similar restrictions are used since the insertion of free text is not allowed in TMDD work.

As a general rule, other standards’ efforts are encouraged to use all of the defined ITIS phrase categories so that they can make use of the ever-increasing range of expression supported, and so that exchanges between the various standards are facilitated.

The phrases outlined in this document often also serve as a “prompting” text phrase in many traffic system operator console designs, which, when sent, may involve further translations. Although this is beyond the scope of this standard, using the various phrases to assist operators in correctly assembling a suitable descriptive phrase is highly encouraged.

### 5. OPERATING CONCEPTS

This section outlines the use of the contents of the table messages and data element structures and provides an overview of the operational exchange used in message transactions.

#### 5.1 Use in General ITS Messages

The basic concept of the ITIS phrases is that a collection of short textual phrases can be used the vast majority of the time to express common traffic situations and can be easily coded and therefore standardized as a sequence of numbers. While phrases may be constructed in a standardized way from transmitters, receivers may interpret the sequences/phrases as they see fit. For the purposes of a preliminary operating concept, we will consider that they are simply reconstituted into the same textual phrases at the receiver.

The purpose of this document is to establish the best possible set of such phrases. Ultimately, this is an unobtainable goal; as local practices vary, the need for new phrases is always present, and other maintenance issues arise. SAE J2540 addresses these issues and they will not be considered here further.

When used in general messages, there are a number of patterns which are allowed in order to meet user and data issuer needs. Consult SAE J2540 for a complete discussion of this, including the rules for using tokens to separate indexes from text. Conceptually, two major types of use are found:

1. Strings which are mostly free text with occasional index-phrases inserted as needed.
2. Strings which are mostly sequences of index-phrases with occasional free text inserted as needed.

The latter is most common and SHOULD be preferred when data creation implementers have a choice.

The ITIS list provides a rich set of useful phrases and as a result is intended to largely reduce the need to use “free text” in creating the composite phrase. Such text is typically limited to “unusual noun” terms or unique explanatory phrases, such as that shown in within the brackets of the following: “Rail Service Not Operating Due to: Herds of [pink] Animals, [watch out slippery spot on road surface] Hazardous materials spill.” When such text is used, it is recommended that the resulting phrase set remains useful if the additional free text information is removed, which may occur in some delivery environments.

Observe also that this document provides no recommendation regarding the ordering of such phrases; syntactically valid messages which produce poorly constructed human language can result from this. Some standards users address this in varying degrees of detail, but, in general, it is a function of the message creation system and not covered by the various message sets.

Regardless of which format of string content ordering is used, implementers SHALL follow the rules and process of SAE J2540 to ensure that successful encoding and decoding of the data shall occur by any party using this standard.

In anticipation of making SAE ATIS messages more like those found in the rest of ITS (notably TMDD, in this case), it is recommended that implementers group message content into three distinct areas of “description of the event,” “cause of the event,” and “advice regarding what to do,” and append all three areas into a single textual stream when the bearer message does not provide separate areas for each of these. Further, between the first and second items the phrase “Due to:” should be inserted and between the last two, the phrase “Advice:” should be inserted. It is anticipated that future revisions of the ATIS standard will provide three distinct places to insert SAE strings [to be labeled *description*, *cause*, and *advice*], and that the last two will be optional in nature. When mapping message content from another ITS message which supports this three-part construction to one which does not, the above recommendation SHOULD be followed.

## 5.2 Use in RDS Systems

In general, the ITIS phrases cannot be used in the existing RDS media; however, the vast majority of so-called RDS systems are not using a SubCarrier transmission media (the point of actual restriction), but are in fact using the RDS phrases as a convenient interim standard from which to construct textual descriptions. It is recommended that these users SHOULD revise their systems to use the ITIS phrases (as well as other ITS message set standards) as conditions allow.

This requires some degree of mapping to take place and ultimately must be decided by the implementers as best fits local needs. In mapping from the use of RDS phrases to that of ITIS phrases, two general cases occur.

In the first case, a single RDS message can be mapped to one or more ITIS messages. At times, this mapping is subjective, but as ITIS offers a wider set of expressions, this is not overly problematic. An example would be RDS phrase #324, which is rendered as “Disabled vehicle, Right lane blocked.” An equivalent message made up of three ITIS components would be [0534,8196,0775] which is rendered as “disabled vehicle right lane blocked.” Observe that capitalization and punctuation marks can vary slightly in this.

The second case involves the limited use of numerical values in messages. Historically, RDS allowed only a few “common” numbers to occur in the messages.<sup>1</sup> In ITIS phrases, as a function of the methods of SAE J2540, numerical values can be inserted in between phrases as needed to express values.<sup>2</sup> An example would be RDS message #421, which is rendered as “Closed ahead, Stop and go traffic for 5 miles.” An equivalent message made up of ITIS components would be [0771,0258,7721,0005,8712], which is rendered as “Closed ahead Stop and Go traffic for 5 miles.” Depending upon the way in which the numeric value is encoded, ordinal post fix characters can also be automatically added at expansion. In addition, a list of common unit values (seconds, minutes, dollars, mph, miles, etc.) is also present in the ITIS list.

A number of the “message canceled” type of phrases have been preserved in ITIS list for backward compatibility. As an operational concept, the use of these phrases is not encouraged. Specific messages of this type which may be removed or replaced in the future are denoted with the comment “Not Recommended” in the tables.

In addition, it should be pointed out that the data contents found in the ATIS messages (and the rest of ITS) contain a broad spectrum of other elements which are intended to hold concepts like the time period over which a message is valid. These data elements SHOULD be used as intended and the phrase sections of the message SHOULD NOT be used to circumvent them.

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<sup>1</sup> The latter “multi-block” RDS messages of Alert+ does allow a value to be delimited in an element of the message which is then inserted into the phrases based on a predetermined use and location. This was considered and rejected in favor of having a more generalized approach in SAE J2540.

<sup>2</sup> Not all uses of ITS can support this; for example, ERM (a message which is part of the TMDD standards) prohibits numeric and free text insertions. In the ERM case, other elements in the message can contain such values.

### 5.3 Use in the TMDD ERM Message

When used in constructing an Event Reporting Messages (ERM) message from the TMDD MS/ETMC2 message set, some additional considerations and restrictions apply in order to maintain a dual perspective on the encodings found in the ERM message. This allows an “ERM-centric” practitioner to exchange data with an “ATIS-centric” one without involving translations which would detract from interoperability.

The key to this dual view is to appreciate that: ATIS tends to view a collection of phrases as representing one atomic element which can be uniformly handled upon receipt, the ERM perspective describes an event element as the structured combination of phrases, causes, advice, quantifiers, and free text each in its own ASN1 element. Both perspectives are valid. ERM receiving implementations can use this to good effect in various sorting and automatic classification functions (which the SAE perspective also supports). The following is an excerpt from the key portion of the ERM message.

```
Event-description ::= CHOICE{
    event-phrase           [1]    SEQUENCE OF Event-type,
    event-cause            [2]    SEQUENCE OF Event-type,
    event-advice           [3]    SEQUENCE OF Event-advice,
    event-quantities       [4]    SEQUENCE OF Event-quantities,
    event-additional-text  [5]    SEQUENCE OF Event-additional-text
}
```

The heart of the dual view is that first three elements above fragment of code is considered the same as the one below, expressed in a more “ATIS-centric” way.

```
Event-description ::= CHOICE{
    event-phrase    [1]    TheString,
    event-cause     [2]    TheString,
    event-advice    [3]    TheString
}
```

In both cases, a common code list is used. The ERM elements of *EventType* and *EventAdvice* map directly to the 16-bit values used in ITIS. From an ERM perspective the first octet represents which data element (i.e., *EventTypeXXX*) is used, while the second octet represents the specific phrase code of the phrase within the data element. Implementers are urged to review both the ERM message specification in the TMDD standard and the SAE J2540 standard to fully understand the low level ASN1 tagging issues involved.

Harmonization of these lists will be maintained by the ITE and SAE as a part of the data registry process. Observe that the ASN1 terms provided in TMDD are in fact the ASN1 value enumerations for each code. The recommended text for the code is defined by this document. In most cases, it is readily derived from the ASN1 definition used in ITE.<sup>3</sup>

There are several additional restrictions in using the ITIS list in ERM in addition to adherence to the requirements of SAE J2540 as follows.

**Precedence:** The ERM ASN1 found in the adopted ITE TMDD standard is the definitive authority for ERM message.

**Quantities:** The ERM requires that quantities used in situation descriptions adopt the standard (usually metric) quantity definitions and units specified by TMDD, NTCIP, SAE, and other ITS standards bodies. These values can be converted to other units such as miles, pounds, etc., in the end-user application, if desired. SAE J2540 allows users to send an undefined numerical value followed by a unit phrase, such as “1000” “pounds.” This practice is not recommended when a data element (such as the quantities category) exists in the message set. Specifically, implementers SHALL NOT use this ability to add values and units in strings to circumvent the quantities found in a message set.

---

<sup>3</sup> Again, local variants in such definitions can be readily established when needed as per SAE J2540 rules.

Sub Set: The ERM message definition provides most, but not all of the phrases found in ITIS. Typically, these are data elements which in ERM can be expressed somewhere else in the message itself. The TMDD data element *Event-indicators* (TMDD #xxx) is an example of this. Such phrases are a part of ITIS in order to allow the subject concept to be expressed in those messages which do not have an allocated place for it. The use of ITIS phrases in such an ITE message SHALL be restricted to those elements which the defining ITE standard allows.

Textual Use: The ERM message definition allows free text to be used at any point in the description, along with standards-defined phrases, causes, advice, and quantities. However, this text is placed in the data element assigned to hold it and not inserted into other locations.

Language: The language of free text occurring in the ERM message is typically defined in an Interchange Agreement: a working agreement drawn up between message exchange partners. Partners can agree to use English, French, Spanish, or any other language of their choice for routine exchanges. If desired, the language of the free text can also be indicated for a specific message exchange using optional TMDD Data Element #3816 within ERM. Typically, this is used if the normally agreed upon language must be changed in a specific message. Text occurring in the rest of the ERM message is presumed to be of table type #0. This is a reserved type which implies that the text will be formatted in Latin\_1 characters and employ no indexing (e.g., simple free text).

Table Types: The ERM message definition presumes that the table entries are static in nature and that entries are never reused. This is reflected in the table header values outlined further in this document.

Local Use: ERM allows the standard ITIS phrases to be varied or translated for local applications; e.g., “traffic stopped” can be expressed as “stationary traffic” or “bouchon” if desired in Nova Scotia or Quebec. Like all users of these phrases, makers of ERM message receiving equipment are free to express these tables in whatever rendering, language, or media formats suit their specific needs. Within this, local additions to the table MAY still be added as required and SHALL occupy ranges between 129 and 250 in the various tables. This will be in accordance with the rules of SAE J2540<sup>4</sup> for local list additions, as well as not violating the specifications of TMDD.

Supporting Messages: Implementers SHOULD also implement the messages of SAE J2540 which support the automatically downloading, updating, and translations of table and table entries to users.

Like all users of these phrases, makers of ERM message receiving equipment are free to express these tables in whatever rendering, language, or media formats suit their specific needs.

#### 5.4 Use in the IEEE Incident Management Message Set

The IEEE has developed an ITS message set for use between the dispatch centers of agencies responding to various incidents. This standard makes a very heavy reuse of data elements found in the rest of ITS (including TMDD and SAE lists which were effected by the harmonization of the ITIS lists). The standard has been forced to adopt since being issued (as 1512-2000) to reflect further changes in ITS harmonization. Implementers must refer to the (as yet not balloted) changes document for the definitive information regarding the use of ITIS and other code list changes made to this standard. Some implementation insights are provided below.

In general, the adoption of ITIS phrases in 1512-2000 can be classed into two types of use. The first, where formerly free text was used for various descriptions is very much like the changes found in SAE ATIS and other standards. The full feature set of SAE J2540 is employed, and a mixture of both free text and index values can be found in the resulting ASN1 element. In the second case, various subsets of the event types were used to clarify and sort the type of event being used. In this instance, a subset of ITIS phrases is in general used (while free text is prohibited).

Precedence: The ASN1 found in the adopted IEEE 1512-2000 and its anticipated updated recommendation standard is the definitive authority for the structure of 1512 messages.

Quantities: Within the message set, some specific data elements are provided to hold quantities of information (for example, a data element to be used for the number of injured persons). Implementers SHALL NOT use the ability of SAE J2540 to add values and units in strings to circumvent the quantities found in a message set.

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<sup>4</sup> SAE J2540 provides ways to do this with varying degrees of formality. One can simply pick a new table number and add whatever is wanted in the least “registered” case, while other ranges of use provide for national and regional registry control to occur.

Language: Text occurring in the 1512-2000 message is presumed to be of table type #0 if no table type is denoted. This is a reserved type, which implies that the text will be formatted in Latin\_1 characters and employ no indexing (e.g., simple free text).

Local Use: The 1512-2000 allows the standard ITIS phrases to be varied or translated for local applications, e.g., “traffic stopped” can be expressed as “stationary traffic” if desired. Local additions to the table MAY still be added as required and SHALL occupy ranges between 129 and 250 in the various tables. This will be in accordance with the rules of SAE J2540<sup>5</sup> for local list additions, as well as not violating the specifications of IEEE 1512-2000.

Supporting Messages: Implementers SHOULD also implement the messages of SAE J2540 which support the automatically downloading, updating, and translations of table and table entries to users.

Like all users of these phrases, makers of 1512-2000 message receiving equipment are free to express these tables in whatever rendering, language, or media formats suit their specific needs.

## 5.5 Use in the V2X Message Set

The SAE has developed a set of safety application messages for use over the V2X wireless communication system for exchange between the roadside and between vehicles. These message definitions can be found in SAE J2735 and its successors, as well as the SAE J2945/x standards. A key aspect of this standard is the use of ITIS phrase encoding in their 2-byte encoded forms (preferred in this application over XML encoding or phrases incorporating the use of free text due to bandwidth considerations and other restrictions). These are typically encoded as octet sequences using the BER-DER or UPER encoding method of ASN. One of the requirements of this effort is to encode roadside signage (as defined by the MUTCD documents). The following are based on available versions of SAE J2735 and SAE J2945/x at the time of this writing and may need to be revisited in the future.

Precedence: As discussed in Section 4, the ASN1 found in various V2X standards, including SAE J2735 and SAE J2945/x, is the definitive authority for their respective V2X messages.

Quantities: The use of qualities and value is allowed in the ITIS expressions.

Textual Use: The V2X message definitions do not in general allow free text to be used in the messages, refer to those standards for details. Limited character counts are allowed in selected places to provide a means to convey street and place names.

Table Types: The V2X message definitions presume that the table entries are static in nature and that entries are never reused. This is reflected in the table header values outlined further in this document.

Local Use: The V2X message definitions do not allow the standard ITIS phrases to be varied or translated for local application contexts, e.g., “traffic stopped” can not be expressed as “stationary traffic” as an alternative.

## 5.6 Use in Operator Consoles

The ITIS phrases (and their predecessor, the RDS phrases) have a history of use in expression building aids and operator prompts in many operator console designs. This document does not specifically address this type of use with any requirements. Some general observations can be given.

If the intended output of the operator data entry is text carried in any sort of ITS message, then consideration should be given to the eventual encoding into tables of the type described here and in SAE J2540. Specifically, if free text is added “inside” such a phrase, then the phrase is no longer identical to that used in the tables. This is fine for some uses, and problematic for others.

<sup>5</sup> SAE J2540 provides ways to do this with varying degrees of formality. One can simply pick a new table number and add whatever is wanted in the least “registered” case, while other ranges of use provide for national and regional registry control to occur.

In general, implementers should be aware that free text, while offering the widest possible range of expression, is also at times hard to sort and classify by automated means. Some users (this is more the case with ITIS phrases used in ERM systems) will want to parse the codes seen and ignore or take action based on them. Implementers should try to facilitate this, even if their own user base will not be sorting on this.

It is beyond the scope of this document to provide guidance regarding how the various phrases should be best grouped and presented to an operator. Further, this is an area where private vendors are expected to differentiate themselves and their understanding of client needs. There is no “ideal” way to *order* or to *present* the contents of the table. Various automatically adjusting options which change based on the situation (often organized in selectable visual menus) are most commonly found. Other restrictions such as limited display space in a mobile environment, or local operational procedures<sup>6</sup> may effect this as well.

The table below is a recommendation for an ordering which implementers MAY wish to follow. These group titles and sub-titles attempt to represent the “big picture” categories covered by that portion of the list. The labels are repeated (with commentary as needed) in the actual tables which follow. The labels are NOT code entries themselves, but are simply a visual point of reference for the reader. This was the ordering used during the committee process to consolidate the phrases in the final list.

**Table 1 - (Revised) suggested table organization and ordering**

| Group: Network Conditions      |                                                   | Group: Qualifiers               |                                     |
|--------------------------------|---------------------------------------------------|---------------------------------|-------------------------------------|
| 1                              | Traffic conditions *                              | 30                              | Qualifiers                          |
| 2                              | Accidents and incidents *                         | 31                              | Generic locations                   |
| 3                              | Closures (road and lane) *                        | 32                              | Lane/roadway descriptions           |
| 4                              | Roadwork *                                        | 33                              | Alternate route *                   |
| 5                              | Obstructions *                                    | 34                              | Unit values                         |
| 6                              | Delays, status, and cancellations *               | Group: Groups Affected/Involved |                                     |
| 7                              | Unusual driving *                                 | 35                              | Transit mode *                      |
| 8                              | Mobile situation *                                | 36                              | Vehicle groups affected *           |
| 9                              | Device and equipment status                       | 37                              | Traveler group affected *           |
| 10                             | Restrictions *                                    | 38                              | Responder group affected *          |
| 11                             | Incident reponse status *                         | 39                              | Incident response equipment         |
| Group: Events Affecting Travel |                                                   | Group: No Name Given            |                                     |
| 12                             | Disasters *                                       | 40                              | Asset status                        |
| 13                             | Disturbances *                                    | 41                              | Roadside assets                     |
| 14                             | Sporting events *                                 | 42                              | Transit operations *                |
| 15                             | Special events *                                  | 43                              | Objects                             |
| 16                             | Parking information *                             | Group: MUTCD Support            |                                     |
| 17                             | Information system *                              | 44                              | Allowed maneuvers                   |
| Group: Travel Environment      |                                                   | 45                              | Large numbers                       |
| 18                             | Weather conditions *                              | 46                              | Named objects                       |
| 19                             | Precipitation *                                   | 47                              | Recreational objects and activities |
| 20                             | Winds *                                           | 48                              | Regulatory and warning signs *      |
| 21                             | Visibility and air quality *                      | 49                              | Small numbers                       |
| 22                             | Temperature                                       | 50                              | States and territories              |
| 23                             | Pavement conditions *                             | 51                              | Structures                          |
| 24                             | Winter driving restrictions and recommendations * | 52                              | Street suffixes                     |
| 25                             | Winter driving index *                            | 53                              | MUTCD locations                     |
| Group: Advice                  |                                                   |                                 |                                     |
| 26                             | Suggestion advice *                               |                                 |                                     |
| 27                             | Warning advice *                                  |                                 |                                     |
| 28                             | Instructions, recommendations *                   |                                 |                                     |
| 29                             | Instructions, mandatory *                         |                                 |                                     |

\* Allowed to be an event type.

<sup>6</sup> Some agencies, as a matter of policy, will not issue ITIS phrases with terms containing words like “danger” in them.



## 5.7 Formats of Tables

The tables are presented as a non-nested set of tables. Common American English textual expressions are used throughout. All strings are made up of “simple text” formatting.

Observe that the type of table entries has been preserved in a grouping which matches that used by portions of TMDD and other ITS message sets. For example, those message phrases dealing with types of disasters are all arranged to be within the range [0x0C01 to 0x0CFF]. These range encodings will be preserved and implementers MAY use them for sorting purposes. If local phrases are to be added, they SHOULD preserve these ranges insofar as possible.

Table nesting has not been used for simplicity. Some saving in memory space can be obtained at the expense of more complex table expansion processing which can be obtained by this method. If implementers wish to create such a nested table for textual reasons, they MAY wish to build it in two stages to preserve the ability to perform range sorting.

## 5.8 Supported Vocabularies and Alphabets

The tables are expressed in the ASCII character set. As no diacritical marks are used, there was no need to use the Latin\_1 character sets or unicode.

Example software algorithms to convert into and out of the modified ASCII character set can be found in SAE J2369 Sections 10 and 11.

## 5.9 Registering a Table Within ITS

The presented tables are registered as per SAE J2540 as tables for national use, when required.

Implementers wishing to further modify these entries (for example, adding a new entry they feel is needed) SHALL follow the procedures outlined in SAE J2540 5.8 and 5.9 and create such a table in the registration range appropriate for their use. It is recommended that such tables nest to the tables presented here rather than duplicate the information in a flat table of their own creation.

Most deployments will have no need to register unique tables of their own creation and can use the method of local codes to add any additional table entries needed.

# 6. DATA ELEMENT DEFINITIONS

Messages and data frames specified in Clause 7 and in other standards that use ITIS phrases are composed of message elements. In some cases, these message elements shall be DFs (found in the here or in the other standards). In other cases, these message elements shall be DEs. Any message or data frame specified in Clause 7 shall have all of its DEs and DFs specified in this clause, except those DEs that are primitive ASN.1 data types or those that are adopted from other functional areas, or defined in other volumes of the family of standards. In the later cases, the referenced standards shall be consulted.

The productions of ASN.1 which follows shall be considered normative in nature. While the majority of the normative content is reflected in the actual syntax of the ASN.1 some entries also have additional statements in the ASN.1 comments which shall be considered to be normative as well. In addition, the commentary provided with each entry may also provide additional normative restrictions on the proper use of the entry which shall be followed. The XML productions follow directly from the ASN.1 specifications and the same rules shall be applied.

## 6.1 Data Element: DE\_Accidents and Incidents

**Use:** The ITIS list commonly referred to as “Accidents and Incidents,” is assigned the upper byte value of [02] (which provides for value ranges from 512 to 767, inclusive). This list is formally called “AccidentsAndIncidents” in the ASN.1. Items from this list can be used as an event category classification. This list contains a total of 52 different phrases, divided into six further sub-categories (the division into these sub-categories is informational only and other groupings may also be used). The remaining 75 values up to the lower byte value of [127] are reserved for additional “national” phrases in this byte range. Local phrases may be added to the list starting with the lower byte value of 128 and proceeding upward from there (in other words, the first value assigned for any local additions to this list would be given the value 640).

**ASN.1 Representation:**

```

AccidentsAndIncidents ::= INTEGER {
  -- Accidents
  accident (513), -- Use when no further data is
                  -- available regarding involved vehicle
                  -- type
  serious-accident (514),
  injury-accident (515),
  minor-accident (516),
  multi-vehicle-accident (517), -- To be used when events are NOT
                  -- distributed along a road segment
                  -- (i.e., one location)
  numerous-accidents (518), -- To be used when events are
                  -- distributed along a road segment
  accident-involving-a-bicycle (519),
  accident-involving-a-bus (520),
  accident-involving-a-motorcycle (521),
  accident-involving-a-pedestrian (522),
  accident-involving-a-train (523),
  accident-involving-a-truck (524),
  accident-involving-a-semi-trailer (525),
  accident-involving-hazardous-materials (525),
  earlier-accident (526), -- Hint: Typically used as a cause, as
                  -- with "Due to"
  medical-emergency (527),
  secondary-accident (528),
  rescue-and-recovery-work-REMOVED (529), -- Removed, use Rescue and recovery
                  -- work in progress in the Incident
                  -- Response Status group when needed
  accident-investigation-work (530),
  incident (531), -- Hint: For non-accident incidents
                  -- (disabled, police pull over, etc.)
                  -- where no further information is
                  -- available

  -- Disabled, etc.
  stalled-vehicle (532),
  abandoned-vehicle (533),
  disabled-vehicle (534),
  disabled-truck (535),
  disabled-semi-trailer (536), -- Alternative Rendering: disabled
                  -- tractor-trailer
  disabled-bus (537),
  disabled-train (538),
  vehicle-spun-out (539),
  vehicle-on-fire (540),
  vehicle-in-water (541),
  vehicles-slown-to-look-at-accident (542), -- Alternative Rendering: On-looker
                  -- slowdown, Rubbernecking

  -- Jackknifed
  jackknifed-semi-trailer (543), -- Alternatives can use: jackknifed
                  -- tractor-trailer, jackknifed truck,
                  -- jackknifed big-rig
  jackknifed-trailer-home (544),
  jackknifed-trailer (545), -- Hint: Used for smaller trailers
                  -- (i.e., not type "jackknifed semi
                  -- trailer" above)

  -- Spills
  spillage-occurring-from-moving-vehicle (546),
  acid-spill (547),
  chemical-spill (548),
  fuel-spill (549),
  hazardous-materials-spill (550), -- Also use the Disaster lists for
                  -- large HAZMAT events
  oil-spill (551),
  spilled-load (552),
  toxic-spill (553),

  -- Overtuned. Stuck
  overturned-vehicle (554), -- Use when no further data is
                  -- available regarding involved vehicle
                  -- types
  overturned-truck (555),
  overturned-semi-trailer (556),
  overturned-bus (557),
  derailed-train (558),

```



```

stuck-vehicle          (559), -- It is preferred to provide data
                        -- which denotes WHY the vehicle is
                        -- stuck (i.e., mud/snow, under bridge,
                        -- too wide, etc.)
truck-stuck-under-bridge (560), -- Alternative Rendering: high load
                        -- hit involving truck
bus-stuck-under-bridge  (561), -- Alternative Rendering: high load
                        -- hit involving bus
-- Cancel Types
accident-cleared        (638),
incident-cleared        (639)
} (0..65535)

```

**Used By:** This entry is used directly by one other data structure in this standard, a DF called [DF ITIS EventType <ASN>](#). In addition, this item may be used by data structures in other ITS standards.

## 6.2 Data Element: DE\_Alternate Route

**Use:** The ITIS list commonly referred to as “Alternate Route,” is assigned the upper byte value of [33] (which provides for value ranges from 8448 to 8703, inclusive). This list is formally called “AlternateRoute” in the ASN.1. Items from this list can be used as an event category classification. This list contains a total of 23 different phrases, divided into two further sub-categories (the division into these sub-categories is informational only and other groupings may also be used). The remaining 104 values up to the lower byte value of [127] are reserved for additional “national” phrases in this byte range. Local phrases may be added to the list starting with the lower byte value of 128 and proceeding upward from there (in other words, the first value assigned for any local additions to this list would be given the value 8576).

### ASN.1 Representation:

```

AlternateRoute ::= INTEGER {
    detour-where-possible          (8449),
    no-detour-available           (8450),
    follow-signs                  (8451),
    follow-detour-signs           (8452),
    follow-special-detour-markers (8453),
    do-not-follow-detour-signs    (8454),
    detour-in-operation           (8455),
    follow-local-detour           (8456),
    compulsory-detour-in-operation (8457),
    no-suitable-detour-available  (8458),
    detour-is-no-longer-recommended (8459),
    local-drivers-are-recommended-to-avoid-the-area (8460),
    trucks-are-recommended-to-avoid-the-area (8461),
    consider-alternate-route      (8462),
    consider-alternate-parking    (8463),
    consider-alternate-destination (8464),
    consider-alternate-area       (8465),
    -- Specific Route Types
    snow-route                    (8466),
    emergency-snow-route          (8467),
    evacuation-route              (8468), -- May be preceded by a
                                     -- specific type, Used also
                                     -- for general emergency
                                     -- routes.

    truck-route                   (8469),
    hazardous-materials-route     (8470), -- May be used with 'any
                                     -- time' for allowed, or 'no'
                                     -- for prohibited, or
                                     -- 'detour'

    detour                        (8471)
} (0..65535)

```

**Used By:** This entry is used directly by one other data structure in this standard, a DF called [DF ITIS EventType <ASN>](#). In addition, this item may be used by data structures in other ITS standards.

### 6.3 Data Element: DE\_Asset Status

**Use:** The ITIS list commonly referred to as “Asset Status,” is assigned the upper byte value of [40] (which provides for value ranges from 10240 to 10495, inclusive). This list is formally called “AssetStatus” in the ASN.1. The items in this list are not allowed to be used as an event category classification. This list contains a total of 19 different phrases. The remaining 108 values up to the lower byte value of [127] are reserved for additional “national” phrases in this byte range. Local phrases may be added to the list starting with the lower byte value of 128 and proceeding upward from there (in other words, the first value assigned for any local additions to this list would be given the value 10368).

#### ASN.1 Representation:

```
AssetStatus ::= INTEGER {
    unknown-status      (10240),  -- Used when status is not known
    ready-for-use       (10241),
    working-normally     (10242),
    working-autonomously (10243),
    working-incorrectly  (10244),
    not-working          (10245),
    normal-maintenance  (10246),
    in-route-to-use      (10247),
    returning-from-use   (10248),
    out-of-service       (10249),
    off-duty             (10250),
    on-patrol            (10251),
    on-call              (10252),
    on-break             (10253),
    mandatory-time-off   (10254),
    low-on-fuel          (10255),
    low-on-water         (10256),
    low-charge           (10257),
    missing              (10258)  -- Use "sign down" in device status if an object is
                                -- damaged (or use "damaged") and could be returned to
                                -- service, use "missing" only if an object is in fact
                                -- missing
} (0..65535)
```

In addition, this item may be used by data structures in other ITS standards.

### 6.4 Data Element: DE\_Closures (Road and Lane)

**Use:** The ITIS list commonly referred to as “Closures (Road and Lane),” is assigned the upper byte value of [03] (which provides for value ranges from 768 to 1023, inclusive). This list is formally called “Closures” in the ASN.1. Items from this list can be used as an event category classification. This list contains a total of 18 different phrases, divided into two further sub-categories (the division into these sub-categories is informational only and other groupings may also be used). The remaining 109 values up to the lower byte value of [127] are reserved for additional “national” phrases in this byte range. Local phrases may be added to the list starting with the lower byte value of 128 and proceeding upward from there (in other words, the first value assigned for any local additions to this list would be given the value 896).

**ASN.1 Representation:**

```

Closures ::= INTEGER {
    closed-to-traffic      (769), -- Used for road-closed and variations
    closed                (770), -- Hint: use this only for NON road-lane items (such as
                                -- a rest stop)

    closed-ahead          (771),
    closed-intermittently (772),
    closed-for-repairs    (773),
    closed-for-the-season (774),
    blocked               (775),
    blocked-ahead         (776),
    reduced-to-one-lane    (777),
    reduced-to-two-lanes  (778),
    reduced-to-three-lanes (779),
    collapse              (780), -- Used with bridges and tunnels
    out                   (781), -- Used with bridges and roads
    -- Cancel Types
    open-to-traffic       (891),
    open                  (892), -- Hint: use this only for NON road-lane items (such as
                                -- a rest stop)

    reopened-to-traffic   (893),
    clearing              (894),
    cleared-from-road     (895)
} (0..65535)
-- Combine with lane-roadway (or generic locations) as needed to form things like
-- "toll lane closed ahead"

```

**Used By:** This entry is used directly by one other data structure in this standard, a DF called [DF ITIS EventType <ASN>](#). In addition, this item may be used by data structures in other ITS standards.

## 6.5 Data Element: DE\_Delays, Status, and Cancellations

**Use:** The ITIS list commonly referred to as “Delays, Status, and Cancellations,” is assigned the upper byte value of [06] (which provides for value ranges from 1536 to 1791, inclusive). This list is formally called “DelayStatusCancellation” in the ASN.1. Items from this list can be used as an event category classification. This list contains a total of 36 different phrases, divided into five further sub-categories (the division into these sub-categories is informational only and other groupings may also be used). The remaining 91 values up to the lower byte value of [127] are reserved for additional “national” phrases in this byte range. Local phrases may be added to the list starting with the lower byte value of 128 and proceeding upward from there (in other words, the first value assigned for any local additions to this list would be given the value 1664).

**ASN.1 Representation:**

```

DelayStatusCancellation ::= INTEGER {
  -- Delays
  delays (1537),
  short-delays (1538),
  long-delays (1539),
  very-long-delays (1540),
  delays-of-uncertain-duration (1541),
  delayed-until-further-notice (1542),
  busy (1543), -- Hint: Combine with generic locations
  -- (station busy, etc.)
  very-busy (1544),
  crowded (1545),
  overcrowded (1546),
  -- Cancellations
  cancellations (1547),
  route-canceled-and-no-replacement (1548),
  service-canceled (1549),
  service-suspended (1550),
  service-withdrawn (1551),
  service-fully-booked (1552),
  all-services-fully-booked (1553),
  -- Service Levels
  next-departure (1554), -- Typically followed by a time value
  next-arrival (1555), -- Typically followed by a # value of time
  very-frequent-service (1556),
  frequent-service (1557),
  fairly-frequent-service (1558),
  regular-service (1559),
  irregular-service (1560),
  not-operating (1561),
  -- Other
  system-busy (1562), -- In this context "system" means the
  -- entire network of services over a wide
  -- area such as an airline system
  system-very-busy (1563),
  system-crowded (1564),
  system-overcrowded (1565),
  deleted-travel-time (1566), -- A duplicate entry, now removed in favor
  -- of item 269
  headway (1567), -- Typically followed by a # value of time
  extra-services-in-operation (1568),
  -- Cancel Types
  delays-clearing (1660),
  delays-cleared (1661),
  normal-services-resumed (1662),
  operating (1663) -- Use operating for "services" such as
  -- bus service
} (0..65535)

```

**Used By:** This entry is used directly by one other data structure in this standard, a DF called [DF ITIS EventType <ASN>](#). In addition, this item may be used by data structures in other ITS standards.

**6.6 Data Element: DE\_Device and Equipment Status**

**Use:** The ITIS list commonly referred to as "Device and Equipment Status," is assigned the upper byte value of [09] (which provides for value ranges from 2304 to 2559, inclusive). This list is formally called "DeviceStatus" in the ASN.1. The items in this list are not allowed to be used as an event category classification. This list contains a total of 41 different phrases, divided into two further sub-categories (the division into these sub-categories is informational only and other groupings may also be used). The remaining 86 values up to the lower byte value of [127] are reserved for additional "national" phrases in this byte range. Local phrases may be added to the list starting with the lower byte value of 128 and proceeding upward from there (in other words, the first value assigned for any local additions to this list would be given the value 2432).

**ASN.1 Representation:**

```

DeviceStatus ::= INTEGER {
    lane-control-signs-not-working                (2305),
    lane-control-signs-working-incorrectly         (2306),
    lane-control-signs-operating                  (2307),
    variable-message-signs-not-working             (2308),
    variable-message-signs-working-incorrectly     (2309),
    variable-message-signs-operating               (2310),
    emergency-telephones-not-working              (2311),
    emergency-telephone-number-not-working         (2312),
    traffic-lights-not-working                     (2313),
    traffic-lights-working-incorrectly             (2314),
    ramp-control-signals-not-working              (2315),
    ramp-control-signals-working-incorrectly       (2316),
    temporary-traffic-lights-not-working          (2317),
    temporary-traffic-lights-working-incorrectly  (2318),
    traffic-signal-control-computer-not-working   (2319),
    traffic-signal-timings-changed                (2320),
    overheight-warning-system-triggered           (2321),
    equipment-failure                            (2322),
    railroad-crossing-equipment-failure           (2323),
    tunnel-ventilation-not-working                (2324),
    power-failure                                (2325), -- Hint: Use for localized
                                                -- cases of power loss
    widespread-power-outages                      (2326), -- Alternative rendering:
                                                -- widespread power cuts
    technical-problems                           (2327),
    sign-down                                    (2328),
    lines-in-road-faded                          (2329),
    damaged-light-standard                       (2330), -- Used for all forms of
                                                -- pole/support damage
    traffic-signal-stuck-on-flash                 (2331),
    guide-rail                                   (2332), -- Used for barriers as well
    fencing                                       (2333),
    light-standard-hanging-by-wires              (2334),
    call-box                                     (2335),
    signal-cabinet                              (2336), -- Use for all types of
                                                -- equipment cabinets
    detector                                     (2337), -- All forms of vehicle
                                                -- detectors
    improper-use-of-State-vehicle-or-equipment    (2338),
    bulb-out                                    (2339),
    not-yet-operational                          (2340), -- When installed but not
                                                -- yet brought on-line for
                                                -- use by the system
    not-yet-installed                           (2341), -- When planned
    -- Cancel Types
    electronic-signs-repaired                    (2428),
    emergency-call-facilities-restored            (2429),
    traffic-signals-repaired                     (2430),
    railroad-crossing-equipment-now-working-normally (2431)
} (0..65535)

```

**Used By:** This entry is used directly by one other data structure in this standard, a DF called [DF ITIS EventType <ASN>](#). In addition, this item may be used by data structures in other ITS standards.

**6.7 Data Element: DE\_Disasters**

**Use:** The ITIS list commonly referred to as “Disasters,” is assigned the upper byte value of [12] (which provides for value ranges from 3072 to 3327, inclusive). This list is formally called “Disasters” in the ASN.1. Items from this list can be used as an event category classification. This list contains a total of 32 different phrases, divided into four further sub-categories (the division into these sub-categories is informational only and other groupings may also be used). The remaining 95 values up to the lower byte value of [127] are reserved for additional “national” phrases in this byte range. Local phrases may be added to the list starting with the lower byte value of 128 and proceeding upward from there (in other words, the first value assigned for any local additions to this list would be given the value 3200).

**ASN.1 Representation:**

```

Disasters ::= INTEGER {
  -- Water Related
  flash-flood                (3073),
  major-flood                (3074),
  reservoir-failure          (3075),
  levee-failure              (3076),
  tsunami                    (3077),
  tidal-wave                 (3078),
  -- Fire Related
  volcanic-eruption          (3079),
  ash-fall                   (3080),
  lava-flow                  (3081),
  serious-fire               (3082),
  forest-fire                (3083),
  wildfire                   (3084),
  building-fire              (3085),
  brush-fire                 (3086),
  grass-fire                 (3087),
  fire-danger-extreme        (3088),
  fire-danger-very-high      (3089),
  fire-danger-high           (3090),
  fire-danger-medium         (3091),
  fire-danger-low            (3092),
  -- Other
  earthquake-damage          (3093),
  air-crash                  (3094),
  rail-crash                 (3095),
  toxic-release              (3096),
  toxic-leak                 (3097),
  radioactive-release         (3098),
  radiation-hazard           (3099),
  reactor-leakage            (3100),
  explosion                  (3101),
  major-hazardous-materials-fire (3102), -- Alternative Rendering: Major HAZMAT
                                     -- fire
  major-hazardous-materials-release (3103), -- Alternative Rendering: Major HAZMAT
                                     -- release
  -- Cancel Types
  disaster-cleared           (3199)
} (0..65535)

```

**Used By:** This entry is used directly by one other data structure in this standard, a DF called [DF ITIS EventType <ASN>](#). In addition, this item may be used by data structures in other ITS standards.

**6.8 Data Element: DE\_Disturbances**

**Use:** The ITIS list commonly referred to as “Disturbances,” is assigned the upper byte value of [13] (which provides for value ranges from 3328 to 3583, inclusive). This list is formally called “Disturbances” in the ASN.1. Items from this list can be used as an event category classification. This list contains a total of 37 different phrases, divided into two further sub-categories (the division into these sub-categories is informational only and other groupings may also be used). The remaining 90 values up to the lower byte value of [127] are reserved for additional “national” phrases in this byte range. Local phrases may be added to the list starting with the lower byte value of 128 and proceeding upward from there (in other words, the first value assigned for any local additions to this list would be given the value 3456).

**ASN.1 Representation:**

```

Disturbances ::= INTEGER {
    assault (3329), -- This index is not to be used as a
                    -- default value for this category
    crime (3330),
    robbery (3331),
    fare-dispute (3332),
    shooting (3333),
    gunfire-on-roadway (3334),
    suicide (3335),
    fight (3336), -- Involves a few persons and is
                  -- localized (alt: brawl)
    gang-fight (3337), -- Multi-party event occurring which may
                      -- involve weapons
    person-harassment (3338), -- "person" may be rendered as "passenger"
                              -- if used in a controlled environment
                              -- such as transit
    person-injured (3339),
    sick-customer (3363),
    unruly-passenger (3340),
    person-intoxicated (3341),
    crowd-control-problem (3342),
    demonstration (3343),
    march (3344),
    public-disturbance (3345),
    riot (3346),
    civil-unrest (3347),
    civil-emergency (3348),
    strike (3349),
    public-transit-strike (3350), -- Hint: Strike affecting services
    stampede (3351),
    teargas-used (3352),
    security-alert (3353), -- Heightened security procedures in
                          -- effect
    security-incident (3354),
    checkpoint (3355),
    bomb-alert (3356),
    terrorist-incident (3357),
    high-velocity-shell-fire (3358), -- Hint: Used as a part of avalanche
                                    -- control
    explosives-in-use (3359),
    air-raid (3360),
    weapons-of-mass-destruction-threat (3361),
    military-operations (3362), -- (war)
    -- Cancel Types
    security-problem-cleared (3454),
    traffic-disturbance-cleared (3455)
} (0..65535)
-- Disturbances occurring on or affecting the actual roadway or surrounding areas

```

**Used By:** This entry is used directly by one other data structure in this standard, a DF called [DF ITIS EventType <ASN>](#). In addition, this item may be used by data structures in other ITS standards.

## 6.9 Data Element: DE\_Generic Locations

**Use:** The ITIS list commonly referred to as “Generic Locations,” is assigned the upper byte value of [31] (which provides for value ranges from 7936 to 8191, inclusive). This list is formally called “GenericLocations” in the ASN.1. The items in this list are not allowed to be used as an event category classification. This list contains a total of 97 different phrases, divided into five further sub-categories (the division into these sub-categories is informational only and other groupings may also be used). The remaining 30 values up to the lower byte value of [127] are reserved for additional “national” phrases in this byte range. Local phrases may be added to the list starting with the lower byte value of 128 and proceeding upward from there (in other words, the first value assigned for any local additions to this list would be given the value 8064).

**ASN.1 Representation:**

```

GenericLocations ::= INTEGER {
  -- Road Related
  on-bridges (7937), -- Not to be used as the default for this
                  -- category
  in-tunnels (7938),
  entering-or-leaving-tunnels (7939),
  on-ramps (7940),
  in-road-construction-area (7941),
  around-a-curve (7942),
  on-curve (8026),
  on-tracks (8009),
  in-street (8025), -- As in in-street pad crossing
  shoulder (8027),
  on-minor-roads (7943),
  in-the-opposing-lanes (7944),
  adjacent-to-roadway (7945),
  across-tracks (8024),
  on-bend (7946),
  intersection (8032),
  entire-intersection (7947),
  in-the-median (7948),
  moved-to-side-of-road (7949),
  moved-to-shoulder (7950),
  on-the-roadway (7951), -- Use generic locations and groups affected to
                  -- make other such phrases

  dip (8010),
  traffic-circle (8011), -- Used for W2-6 graphic as well. Alt term:
                  -- roundabout

  crossover (8028),
  cross-road (8029), -- Also used for W2-1 Note that in some uses
                  -- this is one word

  side-road (8030), -- Do not used for W2-2R and W2-2L
  to (8014),
  by (8015),
  through (8016),
  area-of (8017), -- Also area
  under (8018),
  over (8019),
  from (8020),
  approaching (8021),
  entering-at (8022), -- Alt form: Entrance
  exiting-at (8023),

  -- Terrain & Geography
  in-shaded-areas (7952),
  in-low-lying-areas (7953),
  in-the-downtown-area (7954),
  in-the-inner-city-area (7955),
  in-parts (7956),
  in-some-places (7957),
  in-the-ditch (7958),
  in-the-valley (7959),
  on-hill-top (7960),
  near-the-foothills (7961),
  at-high-altitudes (7962),
  near-the-lake (7963),
  near-the-shore (7964),
  nearby-basin (8008),
  over-the-crest-of-a-hill (7965),
  other-than-on-the-roadway (7966),
  near-the-beach (7967),
  near-beach-access-point (7968),
  mountain-pass (8006),
  lower-level (7969),
  upper-level (7970),
  coast (8034),

  -- Transit Travel, Air Travel and Places
  airport (7971),
  concourse (7972),
  gate (7973),
  baggage-claim (7974),
  customs-point (7975),
  reservation-center (8007),
  station (7976),

```

```

platform          (7977),  -- Alternative Rendering: track
dock              (7978),
depot             (7979),
ev-charging-point (7980),
information-welcome-point (7981),  -- Use for Tourist Information as well (D9-10)
at-rest-area      (7982),
at-service-area   (7983),
at-weigh-station  (7984),
roadside-park     (8033),
picnic-areas      (7985),
rest-area         (7986),
service-stations  (7987),
toilets           (7988),  -- Note also rest rooms in structures
bus-stop          (8031),
park-and-ride-lot (8012),  -- Not to be used as a mode of travel
-- Direction of Travel
on-the-right      (7989),
on-the-left       (7990),
in-the-center     (7991),
in-the-opposite-direction (7992),
cross-traffic     (7993),
northbound-traffic (7994),
eastbound-traffic (7995),
southbound-traffic (7996),
westbound-traffic (7997),
-- Compass Points
north             (7998),
south             (7999),
east              (8000),
west              (8001),
northeast         (8002),
northwest         (8003),
southeast         (8004),
southwest         (8005)
} (0..65535)

```

In addition, this item may be used by data structures in other ITS standards.

## 6.10 Data Element: DE\_Incident Response Equipment

**Use:** The ITIS list commonly referred to as “Incident Response Equipment,” is assigned the upper byte value of [39] (which provides for value ranges from 9984 to 10239, inclusive). This list is formally called “IncidentResponseEquipment” in the ASN.1. The items in this list are not allowed to be used as an event category classification. This list contains a total of 73 different phrases. The remaining 54 values up to the lower byte value of [127] are reserved for additional “national” phrases in this byte range. Local phrases may be added to the list starting with the lower byte value of 128 and proceeding upward from there (in other words, the first value assigned for any local additions to this list would be given the value 10112).

### ASN.1 Representation:

```

IncidentResponseEquipment ::= INTEGER {
    ground-fire-suppression      (9985),
    heavy-ground-equipment       (9986),
    aircraft                     (9988),
    marine-equipment             (9989),
    support-equipment            (9990),
    medical-rescue-unit          (9991),
    other                         (9993),  -- Depreciated by fire standards, do not
                                         -- use
    ground-fire-suppression-other (9994),
    engine                       (9995),
    truck-or-aerial              (9996),
    quint                        (9997),  -- A five-function type of fire apparatus.
                                         -- The units in the movie Backdraft were
                                         -- quints

    tanker-pumper-combination     (9998),
    brush-truck                   (10000),
    aircraft-rescue-firefighting  (10001),
    heavy-ground-equipment-other  (10004),
    dozer-or-plow                 (10005),
    tractor                       (10006),
    tanker-or-tender              (10008),
    aircraft-other                (10024),

```

|                                  |          |                                                                                                                                                                                                  |
|----------------------------------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| aircraft-fixed-wing-tanker       | (10025), |                                                                                                                                                                                                  |
| helitanker                       | (10026), |                                                                                                                                                                                                  |
| helicopter                       | (10027), |                                                                                                                                                                                                  |
| marine-equipment-other           | (10034), |                                                                                                                                                                                                  |
| fire-boat-with-pump              | (10035), |                                                                                                                                                                                                  |
| boat-no-pump                     | (10036), |                                                                                                                                                                                                  |
| support-apparatus-other          | (10044), |                                                                                                                                                                                                  |
| breathing-apparatus-support      | (10045), |                                                                                                                                                                                                  |
| light-and-air-unit               | (10046), |                                                                                                                                                                                                  |
| medical-rescue-unit-other        | (10054), |                                                                                                                                                                                                  |
| rescue-unit                      | (10055), |                                                                                                                                                                                                  |
| urban-search-rescue-unit         | (10056), |                                                                                                                                                                                                  |
| high-angle-rescue                | (10057), |                                                                                                                                                                                                  |
| crash-fire-rescue                | (10058), |                                                                                                                                                                                                  |
| bLS-unit                         | (10059), |                                                                                                                                                                                                  |
| aLS-unit                         | (10060), |                                                                                                                                                                                                  |
| mobile-command-post              | (10075), | -- Deprecated, do not use                                                                                                                                                                        |
| chief-officer-car                | (10076), |                                                                                                                                                                                                  |
| hAZMAT-unit                      | (10077), |                                                                                                                                                                                                  |
| type-i-hand-crew                 | (10078), |                                                                                                                                                                                                  |
| type-ii-hand-crew                | (10079), |                                                                                                                                                                                                  |
| privately-owned-vehicle          | (10083), | -- (Often found in volunteer fire teams)                                                                                                                                                         |
| other-apparatus-resource         | (10084), | -- (Remapped from fire code zero)                                                                                                                                                                |
| ambulance                        | (10085), |                                                                                                                                                                                                  |
| bomb-squad-van                   | (10086), |                                                                                                                                                                                                  |
| combine-harvester                | (10087), |                                                                                                                                                                                                  |
| construction-vehicle             | (10088), |                                                                                                                                                                                                  |
| farm-tractor                     | (10089), |                                                                                                                                                                                                  |
| grass-cutting-machines           | (10090), |                                                                                                                                                                                                  |
| hAZMAT-containment-tow           | (10091), |                                                                                                                                                                                                  |
| heavy-tow                        | (10092), |                                                                                                                                                                                                  |
| light-tow                        | (10094), |                                                                                                                                                                                                  |
| flatbed-tow                      | (10114), |                                                                                                                                                                                                  |
| hedge-cutting-machines           | (10093), |                                                                                                                                                                                                  |
| mobile-crane                     | (10095), |                                                                                                                                                                                                  |
| refuse-collection-vehicle        | (10096), |                                                                                                                                                                                                  |
| resurfacing-vehicle              | (10097), |                                                                                                                                                                                                  |
| road-sweeper                     | (10098), |                                                                                                                                                                                                  |
| survey-crews                     | (10115), |                                                                                                                                                                                                  |
| roadside-litter-collection-crews | (10099), |                                                                                                                                                                                                  |
| salvage-vehicle                  | (10100), |                                                                                                                                                                                                  |
| sand-truck                       | (10101), |                                                                                                                                                                                                  |
| snowplow                         | (10102), |                                                                                                                                                                                                  |
| steam-roller                     | (10103), |                                                                                                                                                                                                  |
| swat-team-van                    | (10104), |                                                                                                                                                                                                  |
| track-laying-vehicle             | (10105), |                                                                                                                                                                                                  |
| unknown-vehicle                  | (10106), |                                                                                                                                                                                                  |
| white-lining-vehicle             | (10107), | -- Consider using Roadwork "road marking<br>-- operations" unless the objective is to<br>-- refer to the specific vehicle of this<br>-- type. Alternative Rendering: line<br>-- painting vehicle |
| dump-truck                       | (10108), |                                                                                                                                                                                                  |
| supervisor-vehicle               | (10109), |                                                                                                                                                                                                  |
| snow-blower                      | (10110), |                                                                                                                                                                                                  |
| rotary-snow-blower               | (10111), |                                                                                                                                                                                                  |
| road-grader                      | (10112), | -- Alternative term: motor grader                                                                                                                                                                |
| steam-truck                      | (10113), | -- A special truck that thaws culverts and<br>-- storm drains                                                                                                                                    |

} (0..65535)

**Used By:** This entry is used directly by one other data structure in this standard, a DF called [DF ITIS EventType <ASN>](#). In addition, this item may be used by data structures in other ITS standards.

## 6.11 Data Element: DE\_Incident Response Status

**Use:** The ITIS list commonly referred to as "Incident Response Status," is assigned the upper byte value of [11] (which provides for value ranges from 2816 to 3071, inclusive). This list is formally called "IncidentResponseStatus" in the ASN.1. Items from this list can be used as an event category classification. This list contains a total of 17 different phrases. The remaining 110 values up to the lower byte value of [127] are reserved for additional "national" phrases in this byte range. Local phrases may be added to the list starting with the lower byte value of 128 and proceeding upward from there (in other words, the first value assigned for any local additions to this list would be given the value 2944).

**ASN.1 Representation:**

```

IncidentResponseStatus ::= INTEGER {
    unconfirmed-report                (2817),
    initial-response-en-route         (2818),
    follow-up-response-en-route       (2819),
    initial-response-on-scene         (2820),
    follow-up-response-on-scene       (2821),
    confirmed-report                  (2822),
    scene-is-unsecured-at-this-time   (2823), -- Caution: This has different meanings
                                         -- in Public Safety use
    response-scene-secured             (2824), -- Caution: This has different meanings
                                         -- in Public Safety use
    rescue-and-recovery-work-in-progress (2825),
    extraction-in-progress            (2826),
    clearance-work-in-progress        (2827),
    body-removal-operations           (2828),
    fire-containment-contained        (2829),
    fire-containment-not-contained    (2830),
    event-cleared                     (2831), -- Meaning that responder has left
                                         -- scene, not that surrounding traffic
                                         -- has cleared to a normal level
    traffic-clearing                   (2832),
    incident-closed                   (2833) -- A "case closed" meaning which can
                                         -- differ considerably by local agency
                                         -- policies
} (0..65535)
-- Primarily this list is used for exchanging response status with other agencies.
-- Some of these phrases should be avoided in ITIS targeted for consumer use

```

**Used By:** This entry is used directly by one other data structure in this standard, a DF called [DF ITIS EventType <ASN>](#). In addition, this item may be used by data structures in other ITS standards.

**6.12 Data Element: DE\_Information System**

**Use:** The ITIS list commonly referred to as "Information System," is assigned the upper byte value of [17] (which provides for value ranges from 4352 to 4607, inclusive). This list is formally called "SystemInformation" in the ASN.1. Items from this list can be used as an event category classification. This list contains a total of 16 different phrases, divided into two further sub-categories (the division into these sub-categories is informational only and other groupings may also be used). The remaining 111 values up to the lower byte value of [127] are reserved for additional "national" phrases in this byte range. Local phrases may be added to the list starting with the lower byte value of 128 and proceeding upward from there (in other words, the first value assigned for any local additions to this list would be given the value 4480).

**ASN.1 Representation:**

```

SystemInformation ::= INTEGER {
    information-available-on-radio      (4353), -- Not to be used as a default for
                                         -- this category D12-1
    information-available-on-TV         (4354),
    call-to-get-information             (4355),
    information-available-via-Internet  (4356),
    test-message                       (4357), -- Not to be displayed on consumer
                                         -- devices if possible
    no-information-available            (4358), -- Typically combined with "on xxx
                                         -- service" where xxx is a type of
                                         -- service (bus, rail, etc.)
    null-description                   (4359), -- (but with event location or other
                                         -- information provided in the
                                         -- message)
    police-assistance                  (4361),
    police-monitor-CB                  (4362), -- D12-3
    emergency-notification              (4363),
    in-emergency-dial-911              (4364), -- D12-14
    travel-Info-call-511               (4365), -- D`12-5
    car-pool-information               (4366), -- D12-2
    information-service-resumed         (4478),
    -- Cancel Types
    information-service-is-being-suspended (4360),
    message-canceled                   (4479) -- Not Recommended for use
} (0..65535)

```

**Used By:** This entry is used directly by one other data structure in this standard, a DF called [DF\\_ITIS\\_EventType <ASN>](#). In addition, this item may be used by data structures in other ITS standards.

### 6.13 Data Element: DE\_Instructions (Mandatory)

**Use:** The ITIS list commonly referred to as “Instructions (Mandatory),” is assigned the upper byte value of [29] (which provides for value ranges from 7424 to 7679, inclusive). This list is formally called “AdviceInstructionsMandatory” in the ASN.1. Items from this list can be used as an event category classification. This list contains a total of 31 different phrases, divided into two further sub-categories (the division into these sub-categories is informational only and other groupings may also be used). The remaining 96 values up to the lower byte value of [127] are reserved for additional “national” phrases in this byte range. Local phrases may be added to the list starting with the lower byte value of 128 and proceeding upward from there (in other words, the first value assigned for any local additions to this list would be given the value 7552).

#### ASN.1 Representation:

```
AdviceInstructionsMandatory ::= INTEGER {
    keep-to-the-right          (7425),
    keep-to-the-left          (7426),
    use-right-lane             (7427),
    use-left-lane              (7428),
    stay-in-lane               (7450),
    merge                      (7451), -- Typically followed by direction
                                   -- left/right Used for W4-1R and W4-1L

    heavy-vehicles-use-right-lane (7429),
    heavy-vehicles-use-left-lane  (7430),
    observe-signals              (7431),
    observe-signs               (7432),
    no-passing                   (7433), -- Used for MUTCD signs
    no-smoking                   (7434),
    no-open-flames              (7435),
    use-shoulder-as-lane         (7436),
    do-not-drive-on-the-shoulder (7437),
    allow-emergency-vehicles-to-pass (7438),
    clear-a-lane-for-emergency-vehicles (7439),
    pull-over-to-the-edge-of-the-roadway (7440),
    wait-for-escort-vehicle      (7441),
    in-emergency-wait-for-police-patrol (7442),
    reduce-your-speed            (7443),
    observe-speed-limits         (7444),
    check-point                  (7445),
    entry-requirements           (7446),
    insurance-requirements       (7447),
    firearms-requirements        (7448),
    pet-requirements             (7449),
    slower-traffic-keep-right    (7452),
    keep-off                     (7453), -- Typically followed by object
    evacuate-area-immediately    (7454),
    -- Cancel Types
    shoulder-travel-no-longer-allowed (7547)
} (0..65535)
```

**Used By:** This entry is used directly by one other data structure in this standard, a DF called [DF\\_ITIS\\_EventType <ASN>](#). In addition, this item may be used by data structures in other ITS standards.

### 6.14 Data Element: DE\_Instructions (Recommendations)

**Use:** The ITIS list commonly referred to as “Instructions (Recommendations),” is assigned the upper byte value of [28] (which provides for value ranges from 7168 to 7423, inclusive). This list is formally called “AdviceInstructionsRecommendations” in the ASN.1. Items from this list can be used as an event category classification. This list contains a total of 37 different phrases. The remaining 90 values up to the lower byte value of [127] are reserved for additional “national” phrases in this byte range. Local phrases may be added to the list starting with the lower byte value of 128 and proceeding upward from there (in other words, the first value assigned for any local additions to this list would be given the value 7296).

**ASN.1 Representation:**

```

AdviceInstructionsRecommendations ::= INTEGER {
    drive-carefully                      (7169),
    drive-with-extreme-caution          (7170),
    approach-with-care                   (7171),
    keep-your-distance                   (7172),
    increase-normal-following-distance   (7173),
    test-your-brakes                     (7174),
    cross-intersection-with-care          (7175),
    pass-with-care                       (7176), -- Use as MUTCD
                                           -- sign
    pass                                 (7200), -- Used for
                                           -- passing
                                           -- action, as in
                                           -- do not pass

    use-low-beam-headlights              (7177),
    use-fog-lights                       (7178),
    use-hazard-warning-lights            (7179), -- Alternative
                                           -- Rendering:
                                           -- use blinkers

    do-not-leave-your-vehicle            (7180),
    leave-your-vehicle-and-proceed-to-next-safe-place (7181),
    turn-off-engine                      (7182), -- Alternative
                                           -- Rendering:
                                           -- switch off
                                           -- engine

    close-all-windows-turn-off-heater-air-conditioner-and-vents (7183),
    turn-off-air-conditioner-to-prevent-engine-overheating (7184),
    turn-off-mobile-phones-and-two-way-radios (7185), -- Alternative
                                           -- Rendering:
                                           -- switch off
                                           -- mobile phones
                                           -- and two way
                                           -- radios

    prepare-to-stop                      (7186),
    be-prepared-to-stop                  (7201),
    stop-at-next-rest-area                (7187),
    stop-at-next-safe-place               (7188),
    only-travel-if-absolutely-necessary   (7189),
    drive-to-another-service-area          (7190),
    use-through-traffic-lanes             (7191),
    use-local-traffic-lanes               (7192),
    use-left-hand-parallel-roadway         (7193),
    use-right-hand-parallel-roadway        (7194),
    use-heavy-vehicle-lane                (7195), -- Alternative
                                           -- Rendering:
                                           -- use truck
                                           -- lanes

    observe-recommended-speed             (7196),
    signals-sequenced-for-speed           (7202), -- Typically
                                           -- followed by
                                           -- speed

    maintain-top-safe-speed               (7203),
    facing-traffic                       (7197),
    push-button                          (7198),
    to-cross-street                       (7199),
    evacuate-area-voluntarily             (7204),
    shelter-in-place                     (7205)
} (0..65535)

```

**Used By:** This entry is used directly by one other data structure in this standard, a DF called [DF ITIS EventType <ASN>](#). In addition, this item may be used by data structures in other ITS standards.

**6.15 Data Element: DE\_ITIS\_Text**

**Use:** Simple text used with ITIS codes.

**ASN.1 Representation:**

```
ITISText ::= IA5String (SIZE(1..500))
```

**Used By:** This entry is used directly by one other data structure in this standard, a DF called [DF ITIS-Codes And Text <ASN>](#). In addition, this item may be used by data structures in other ITS standards.

## 6.16 Data Element: DE\_ITISgroups

**Use:** The range of ITIS codes dealing with the division of ITIS groups defined in the entire ITIS collection. This data element can be used to clarify what group a phrase or event belongs to. The value represents the upper byte of the 2-byte value assigned to each group (category) of phrases.

### ASN.1 Representation:

```
ITISgroups ::= INTEGER {
    trafficConditions           (1),
    accidentsAndIncidents      (2),
    closures                   (3),
    roadwork                   (4),
    obstruction                (5),
    delayStatusCancellation    (6),
    unusualDriving             (7),
    mobileSituation            (8),
    deviceStatus               (9),
    restrictionClass           (10),
    incidentResponseStatus     (11),
    disasters                  (12),
    disturbances               (13),
    sportingEvents            (14),
    specialEvents              (15),
    parkingInformation         (16),
    systemInformation          (17),
    weatherConditions          (18),
    precipitation              (19),
    winds                     (20),
    visibilityAndAirQuality    (21),
    temperature                (22),
    pavementConditions         (23),
    winterDrivingRestrictions  (24),
    winterDrivingIndex         (25),
    suggestionAdvice           (26),
    warningAdvice              (27),
    adviceInstructionsRecommendations (28),
    adviceInstructionsMandatory (29),
    qualifiers                 (30),
    genericLocations           (31),
    laneRoadway                (32),
    alternateRoute             (33),
    units                     (34),
    transitMode                (35),
    vehicleGroupAffected       (36),
    travelerGroupAffected      (37),
    responderGroupAffected     (38),
    incidentResponseEquipment  (39),
    assetStatus                (40),
    roadsideAssets             (41),
    transitOperations          (42),
    objects                    (43),
    validManeuvers             (44),
    largeNumbers               (45),
    namedObjects               (46),
    recreationalObjectsAndActivities (47),
    regulatoryAndWarningSigns  (48),
    smallNumbers               (49),
    states                     (50),
    structures                  (51),
    streetSuffixes             (52),
    mUTCDLocations             (53)
} (0..65535)
```

In addition, this item may be used by data structures in other ITS standards.

## 6.17 Data Element: DE\_ITIS

**Use:** The complete ITIS list commonly referred to as “ITIS,” which contains the entire list of codes. This list is formally called “ITIScodes” in the ASN.1. This list contains a total of 2455 different phrases, divided into 145 further sub-categories (the division into these sub-categories is informational only and other groupings may also be used). Additional local phrases may be added to this list in each upper byte value starting with the lower byte value of 128 and proceeding upward from there. In other words, the first value assigned for any local additions to this list would be given the value 128 plus 256 times its upper byte value.

**ASN.1 Representation:**

```

ITIScodes ::= INTEGER {
  -- Traffic Conditions
  stopped-traffic                (257),
  stop-and-go-traffic            (258),
  slow-traffic                   (259),
  heavy-traffic                  (260),
  traffic-building                (261),
  long-queues                    (262),
  traffic-congestion             (263),
  traffic-lighter-than-normal    (264),
  traffic-heavier-than-normal    (265),
  traffic-much-heavier-than-normal (266),
  current-speed                  (267),
  speed-limit                    (268),
  travel-time                    (269),
  merging-traffic                (272),
  contraflow                     (273),
  -- Cancel Types
  contraflow-canceled            (378),
  traffic-flowing-freely         (379),
  traffic-easing                 (380),
  traffic-returned-to-normal     (381),
  no-problems-to-report          (382),
  traffic-congestion-cleared     (383),
  -- Accidents and Incidents
  -- Accidents
  accident                      (513),
  serious-accident               (514),
  injury-accident                (515),
  minor-accident                 (516),
  multi-vehicle-accident         (517),
  numerous-accidents             (518),
  accident-involving-a-bicycle   (519),
  accident-involving-a-bus       (520),
  accident-involving-a-motorcycle (521),
  accident-involving-a-pedestrian (522),
  accident-involving-a-train     (523),
  accident-involving-a-truck     (524),
  accident-involving-a-semi-trailer (562),
  accident-involving-hazardous-materials (525),
  earlier-accident               (526),
  medical-emergency              (527),
  secondary-accident             (528),
  rescue-and-recovery-work-REMOVED (529),
  -- Typically followed by a value
  -- entry and a units entry
  -- (MPH/KPH)
  -- Typically followed by a value
  -- entry and a units entry
  -- (MPH/KPH)
  -- Typically followed by a value
  -- entry and a units entry
  -- (seconds)
  -- Typically followed by
  -- direction left/right. Can be
  -- used for W4-1R and W4-1L signs
  -- also referred to as counter-flow
  -- Alternative rendering: traffic
  -- clearing
  -- Use when no further data is
  -- available regarding involved
  -- vehicle type
  -- To be used when events are NOT
  -- distributed along a road
  -- segment (i.e., one location)
  -- To be used when events are
  -- distributed along a road
  -- segment
  -- Hint: Typically used as a
  -- cause, as with "Due to"
  -- Removed, use Rescue and
  -- recovery work in progress in
  -- the Incident Response Status

```



|                                         |                  |                                                                                                                                                                      |
|-----------------------------------------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| accident-investigation-work<br>incident | (530),<br>(531), | -- group when needed<br><br>-- Hint: For non-accident<br>-- incidents (disabled, police<br>-- pull over, etc.) where no<br>-- further information is<br>-- available |
| <b>-- Disabled, etc.</b>                |                  |                                                                                                                                                                      |
| stalled-vehicle                         | (532),           |                                                                                                                                                                      |
| abandoned-vehicle                       | (533),           |                                                                                                                                                                      |
| disabled-vehicle                        | (534),           |                                                                                                                                                                      |
| disabled-truck                          | (535),           |                                                                                                                                                                      |
| disabled-semi-trailer                   | (536),           | -- Alternative Rendering:<br>-- disabled tractor-trailer                                                                                                             |
| disabled-bus                            | (537),           |                                                                                                                                                                      |
| disabled-train                          | (538),           |                                                                                                                                                                      |
| vehicle-spun-out                        | (539),           |                                                                                                                                                                      |
| vehicle-on-fire                         | (540),           |                                                                                                                                                                      |
| vehicle-in-water                        | (541),           |                                                                                                                                                                      |
| vehicles-slowng-to-look-at-accident     | (542),           | -- Alternative Rendering:<br>-- On-looker slowdown,<br>-- Rubbernecking                                                                                              |
| <b>-- Jackknifed</b>                    |                  |                                                                                                                                                                      |
| jackknifed-semi-trailer                 | (543),           | -- Alternatives can use:<br>-- jackknifed tractor-trailer,<br>-- jackknifed truck, jackknifed<br>-- big-rig                                                          |
| jackknifed-trailer-home                 | (544),           |                                                                                                                                                                      |
| jackknifed-trailer                      | (545),           | -- Hint: Used for smaller<br>-- trailers (i.e., not type<br>-- "jackknifed semi trailer"<br>-- above)                                                                |
| <b>-- Spills</b>                        |                  |                                                                                                                                                                      |
| spillage-occurring-from-moving-vehicle  | (546),           |                                                                                                                                                                      |
| acid-spill                              | (547),           |                                                                                                                                                                      |
| chemical-spill                          | (548),           |                                                                                                                                                                      |
| fuel-spill                              | (549),           |                                                                                                                                                                      |
| hazardous-materials-spill               | (550),           | -- Also use the Disaster lists<br>-- for large HAZMAT events                                                                                                         |
| oil-spill                               | (551),           |                                                                                                                                                                      |
| spilled-load                            | (552),           |                                                                                                                                                                      |
| toxic-spill                             | (553),           |                                                                                                                                                                      |
| <b>-- Overturned. Stuck</b>             |                  |                                                                                                                                                                      |
| overturned-vehicle                      | (554),           | -- Use when no further data is<br>-- available regarding involved<br>-- vehicle types                                                                                |
| overturned-truck                        | (555),           |                                                                                                                                                                      |
| overturned-semi-trailer                 | (556),           |                                                                                                                                                                      |
| overturned-bus                          | (557),           |                                                                                                                                                                      |
| derailed-train                          | (558),           |                                                                                                                                                                      |
| stuck-vehicle                           | (559),           | -- It is preferred to provide<br>-- data which denotes WHY the<br>-- vehicle is stuck (i.e.,<br>-- mud/snow, under bridge, too<br>-- wide, etc.)                     |
| truck-stuck-under-bridge                | (560),           | -- Alternative Rendering: high<br>-- load hit involving truck                                                                                                        |
| bus-stuck-under-bridge                  | (561),           | -- Alternative Rendering: high<br>-- load hit involving bus                                                                                                          |
| <b>-- Cancel Types</b>                  |                  |                                                                                                                                                                      |
| accident-cleared                        | (638),           |                                                                                                                                                                      |
| incident-cleared                        | (639),           |                                                                                                                                                                      |
| <b>-- Closures (Road and Lane)</b>      |                  |                                                                                                                                                                      |
| closed-to-traffic                       | (769),           | -- Used for road-closed and<br>-- variations                                                                                                                         |
| closed                                  | (770),           | -- Hint: use this only for NON<br>-- road-lane items (such as a<br>-- rest stop)                                                                                     |
| closed-ahead                            | (771),           |                                                                                                                                                                      |
| closed-intermittently                   | (772),           |                                                                                                                                                                      |
| closed-for-repairs                      | (773),           |                                                                                                                                                                      |
| closed-for-the-season                   | (774),           |                                                                                                                                                                      |
| blocked                                 | (775),           |                                                                                                                                                                      |
| blocked-ahead                           | (776),           |                                                                                                                                                                      |
| reduced-to-one-lane                     | (777),           |                                                                                                                                                                      |
| reduced-to-two-lanes                    | (778),           |                                                                                                                                                                      |

|                                            |         |                                  |
|--------------------------------------------|---------|----------------------------------|
| reduced-to-three-lanes                     | (779),  |                                  |
| collapse                                   | (780),  | -- Used with bridges and tunnels |
| out                                        | (781),  | -- Used with bridges and roads   |
| <b>-- Cancel Types</b>                     |         |                                  |
| open-to-traffic                            | (891),  |                                  |
| open                                       | (892),  | -- Hint: use this only for NON   |
|                                            |         | -- road-lane items (such as a    |
|                                            |         | -- rest stop)                    |
| reopened-to-traffic                        | (893),  |                                  |
| clearing                                   | (894),  |                                  |
| cleared-from-road                          | (895),  |                                  |
| <b>-- Roadwork</b>                         |         |                                  |
| <b>-- Roads</b>                            |         |                                  |
| road-construction                          | (1025), | -- Alt text: Road Work           |
| major-road-construction                    | (1026), |                                  |
| long-term-road-construction                | (1027), |                                  |
| construction-work                          | (1028), |                                  |
| paving-operations                          | (1029), |                                  |
| work-in-the-median                         | (1030), |                                  |
| road-reconstruction                        | (1031), |                                  |
| opposing-traffic                           | (1032), |                                  |
| narrow-lanes                               | (1033), |                                  |
| construction-traffic-merging               | (1034), |                                  |
| single-line-traffic-alternating-directions | (1035), |                                  |
| road-maintenance-operations                | (1036), |                                  |
| road-marking-operations                    | (1037), |                                  |
| road-widening                              | (1061), | -- Used for roadwork, not as an  |
|                                            |         | -- MUTCD sign                    |
| cracks                                     | (1052), | -- Used for disjoint roadway     |
|                                            |         | -- surface                       |
| crack-REMOVE                               | (1058), | -- No Longer Used. Used for      |
|                                            |         | -- disjoint roadway surface      |
| bumps                                      | (1053), | -- Used for swelling             |
| drop-off                                   | (1059), |                                  |
| storm-drain                                | (1054), |                                  |
| <b>-- Bridges</b>                          |         |                                  |
| bridge-maintenance-operations              | (1038), |                                  |
| bridge-construction                        | (1039), |                                  |
| bridge-demolition-work                     | (1040), |                                  |
| seismic-retrofit                           | (1060), | -- All types of earthquake       |
|                                            |         | -- construction                  |
| <b>-- Other</b>                            |         |                                  |
| overgrown-grass                            | (1055), |                                  |
| overgrown-brushshrubs                      | (1056), |                                  |
| overgrown-trees                            | (1057), |                                  |
| blasting                                   | (1041), | -- See also: avalanche           |
| avalanche-control-activities               | (1042), |                                  |
| water-main-work                            | (1043), |                                  |
| gas-main-work                              | (1044), |                                  |
| work-on-underground-cables                 | (1045), |                                  |
| work-on-underground-services               | (1046), |                                  |
| new-road-construction-layout               | (1047), |                                  |
| new-road-layout                            | (1048), |                                  |
| temporary-lane-markings                    | (1049), |                                  |
| temporary-traffic-lights                   | (1050), |                                  |
| emergency-maintenance                      | (1051), |                                  |
| utility-work                               | (1062), |                                  |
| <b>-- Cancel Types</b>                     |         |                                  |
| road-maintenance-cleared                   | (1146), |                                  |
| normal-road-layout-restored                | (1147), |                                  |
| road-work-clearance-in-progress            | (1148), |                                  |
| road-construction-cleared                  | (1149), |                                  |
| normal-traffic-lanes-restored              | (1150), |                                  |
| road-work-cleared                          | (1151), |                                  |
| <b>-- Obstructions</b>                     |         |                                  |
| <b>-- General</b>                          |         |                                  |
| obstruction-on-roadway                     | (1281), |                                  |
| object-on-roadway                          | (1282), |                                  |
| objects-falling-from-moving-vehicle        | (1283), |                                  |
| debris-on-roadway                          | (1284), |                                  |
| storm-damage                               | (1285), |                                  |
| <b>-- People</b>                           |         |                                  |
| people-on-roadway                          | (1286), |                                  |
| bicyclists-on-roadway                      | (1287), |                                  |
| sightseers-obstructing-access              | (1288), |                                  |
| large-numbers-of-visitors                  | (1289), |                                  |

**-- Animals**

animal-on-roadway (1290),  
 large-animal-on-roadway (1291),  
 herd-of-animals-on-roadway (1292),  
 animal-struck (1293),

**-- Specific Items**

advertising-signs (1315), -- Used for illegal signage as  
 -- well  
 fallen-trees (1294),  
 over-turned-trees (1311),  
 tree-limbs (1312),  
 utility-pole-down (1314),  
 downed-power-lines (1295), -- Alternative Rendering: fallen  
 -- power lines  
 downed-cables (1296), -- Alternative Rendering: fallen  
 -- cables  
 subsidence (1297), -- Alternative Rendering: road  
 -- collapse  
 road-surface-collapse (1298),  
 frost-jacking (1317), -- A unique Alaska problem caused  
 -- by culverts or other features  
 -- jacking out of ground due to  
 -- freezing  
 frost-heave (1316), -- A large standing wave of soil  
 -- under pavement due to frost  
 -- action  
 pavement-buckled (1299),  
 pothole (1300),  
 flooding (1301),  
 broken-water-main (1302),  
 collapsed-sewer (1303),  
 wash-out (1319), -- What can happen to roads  
 washboard (1318), -- A term for rough road or  
 -- unpaved roads  
 sewer-overflow (1304),  
 gas-leak (1305),  
 snowmelt (1306), -- Hint: Typically used as a  
 -- cause  
 mudslide (1307),  
 avalanche (1308), -- Possibly a disaster as well  
 rockfall (1309),  
 landslide (1310),

**-- Cancel Types**

clearance-work (1406),  
 obstruction-cleared (1407),

**-- Delays, Status, and Cancellations****-- Delays**

delays (1537),  
 short-delays (1538),  
 long-delays (1539),  
 very-long-delays (1540),  
 delays-of-uncertain-duration (1541),  
 delayed-until-further-notice (1542),  
 busy (1543), -- Hint: Combine with generic  
 -- locations (station busy, etc.)  
 very-busy (1544),  
 crowded (1545),  
 overcrowded (1546),

**-- Cancellations**

cancellations (1547),  
 route-canceled-and-no-replacement (1548),  
 service-canceled (1549),  
 service-suspended (1550),  
 service-withdrawn (1551),  
 service-fully-booked (1552),  
 all-services-fully-booked (1553),

**-- Service Levels**

next-departure (1554), -- Typically followed by a time  
 -- value  
 next-arrival (1555), -- Typically followed by a #  
 -- value of time  
 very-frequent-service (1556),  
 frequent-service (1557),  
 fairly-frequent-service (1558),  
 regular-service (1559),  
 irregular-service (1560),



|                                                 |         |                                                                                                                               |
|-------------------------------------------------|---------|-------------------------------------------------------------------------------------------------------------------------------|
| not-operating                                   | (1561), |                                                                                                                               |
| <b>-- Other</b>                                 |         |                                                                                                                               |
| system-busy                                     | (1562), | -- In this context "system" means<br>-- the entire network of services<br>-- over a wide area such as an<br>-- airline system |
| system-very-busy                                | (1563), |                                                                                                                               |
| system-crowded                                  | (1564), |                                                                                                                               |
| system-overcrowded                              | (1565), |                                                                                                                               |
| deleted-travel-time                             | (1566), | -- A duplicate entry, now removed<br>-- in favor of item 269                                                                  |
| headway                                         | (1567), | -- Typically followed by a #<br>-- value of time                                                                              |
| extra-services-in-operation                     | (1568), |                                                                                                                               |
| <b>-- Cancel Types</b>                          |         |                                                                                                                               |
| delays-clearing                                 | (1660), |                                                                                                                               |
| delays-cleared                                  | (1661), |                                                                                                                               |
| normal-services-resumed                         | (1662), |                                                                                                                               |
| operating                                       | (1663), | -- Use operating for "services"<br>-- such as bus service                                                                     |
| <b>-- Unusual Driving</b>                       |         |                                                                                                                               |
| vehicle-traveling-wrong-way                     | (1793), |                                                                                                                               |
| reckless-driver                                 | (1794), | -- Alternative Rendering:<br>-- erratic driver                                                                                |
| prohibited-vehicle-on-roadway                   | (1795), |                                                                                                                               |
| emergency-vehicles-on-roadway                   | (1796), |                                                                                                                               |
| high-speed-emergency-vehicles                   | (1797), |                                                                                                                               |
| high-speed-chase                                | (1798), |                                                                                                                               |
| <b>-- Cancel Types</b>                          |         |                                                                                                                               |
| dangerous-vehicle-warning-cleared               | (1918), |                                                                                                                               |
| emergency-vehicle-warning-cleared               | (1919), |                                                                                                                               |
| <b>-- Mobile Situation</b>                      |         |                                                                                                                               |
| abnormal-load                                   | (2049), |                                                                                                                               |
| wide-load                                       | (2050), |                                                                                                                               |
| long-load                                       | (2051), |                                                                                                                               |
| slow-vehicle                                    | (2052), |                                                                                                                               |
| farm-equipment                                  | (2053), |                                                                                                                               |
| horse-drawn-vehicles                            | (2054), |                                                                                                                               |
| overheight-load                                 | (2055), |                                                                                                                               |
| overweight-load                                 | (2056), |                                                                                                                               |
| tracked-vehicle                                 | (2057), |                                                                                                                               |
| vehicle-carrying-hazardous-materials            | (2058), |                                                                                                                               |
| slow-moving-maintenance-vehicle                 | (2059), | -- Hint: mowing, line stripping,<br>-- sweepers, etc.                                                                         |
| convoy                                          | (2060), |                                                                                                                               |
| military-convoy                                 | (2061), |                                                                                                                               |
| refugee-convoy                                  | (2062), |                                                                                                                               |
| motorcade                                       | (2063), |                                                                                                                               |
| mobile-situation-repositioning                  | (2064), |                                                                                                                               |
| winter-maintenance-vehicles                     | (2065), |                                                                                                                               |
| snowplows                                       | (2066), |                                                                                                                               |
| <b>-- Cancel Types</b>                          |         |                                                                                                                               |
| slow-moving-maintenance-vehicle-warning-cleared | (2172), |                                                                                                                               |
| exceptional-load-warning-cleared                | (2173), |                                                                                                                               |
| hazardous-load-warning-cleared                  | (2174), |                                                                                                                               |
| convoy-cleared                                  | (2175), |                                                                                                                               |
| <b>-- Device and Equipment Status</b>           |         |                                                                                                                               |
| lane-control-signs-not-working                  | (2305), |                                                                                                                               |
| lane-control-signs-working-incorrectly          | (2306), |                                                                                                                               |
| lane-control-signs-operating                    | (2307), |                                                                                                                               |
| variable-message-signs-not-working              | (2308), |                                                                                                                               |
| variable-message-signs-working-incorrectly      | (2309), |                                                                                                                               |
| variable-message-signs-operating                | (2310), |                                                                                                                               |
| emergency-telephones-not-working                | (2311), |                                                                                                                               |
| emergency-telephone-number-not-working          | (2312), |                                                                                                                               |
| traffic-lights-not-working                      | (2313), |                                                                                                                               |
| traffic-lights-working-incorrectly              | (2314), |                                                                                                                               |
| ramp-control-signals-not-working                | (2315), |                                                                                                                               |
| ramp-control-signals-working-incorrectly        | (2316), |                                                                                                                               |
| temporary-traffic-lights-not-working            | (2317), |                                                                                                                               |
| temporary-traffic-lights-working-incorrectly    | (2318), |                                                                                                                               |
| traffic-signal-control-computer-not-working     | (2319), |                                                                                                                               |
| traffic-signal-timings-changed                  | (2320), |                                                                                                                               |
| overheight-warning-system-triggered             | (2321), |                                                                                                                               |
| equipment-failure                               | (2322), |                                                                                                                               |
| railroad-crossing-equipment-failure             | (2323), |                                                                                                                               |



|                                                  |         |                                   |
|--------------------------------------------------|---------|-----------------------------------|
| tunnel-ventilation-not-working                   | (2324), |                                   |
| power-failure                                    | (2325), | -- Hint: Use for localized cases  |
|                                                  |         | -- of power loss                  |
| widespread-power-outages                         | (2326), | -- Alternative rendering:         |
|                                                  |         | -- widespread power cuts          |
| technical-problems                               | (2327), |                                   |
| sign-down                                        | (2328), |                                   |
| lines-in-road-faded                              | (2329), |                                   |
| damaged-light-standard                           | (2330), | -- Used for all forms of pole/    |
|                                                  |         | -- support damage                 |
| traffic-signal-stuck-on-flash                    | (2331), |                                   |
| guide-rail                                       | (2332), | -- Used for barriers as well      |
| fencing                                          | (2333), |                                   |
| light-standard-hanging-by-wires                  | (2334), |                                   |
| call-box                                         | (2335), |                                   |
| signal-cabinet                                   | (2336), | -- Use for all types of equipment |
|                                                  |         | -- cabinets                       |
| detector                                         | (2337), | -- All forms of vehicle detectors |
| improper-use-of-State-vehicle-or-equipment       | (2338), |                                   |
| bulb-out                                         | (2339), |                                   |
| not-yet-operational                              | (2340), | -- When installed but not yet     |
|                                                  |         | -- brought on-line for use by the |
|                                                  |         | -- system                         |
| not-yet-installed                                | (2341), | -- When planned                   |
| <b>-- Cancel Types</b>                           |         |                                   |
| electronic-signs-repaired                        | (2428), |                                   |
| emergency-call-facilities-restored               | (2429), |                                   |
| traffic-signals-repaired                         | (2430), |                                   |
| railroad-crossing-equipment-now-working-normally | (2431), |                                   |
| <b>-- Restrictions</b>                           |         |                                   |
| restrictions                                     | (2561), |                                   |
| ramp-restrictions                                | (2562), |                                   |
| truck-restriction                                | (2563), |                                   |
| speed-restriction                                | (2564), | -- Used for required speeds, not  |
|                                                  |         | -- advised speeds                 |
| noise-restriction                                | (2565), |                                   |
| traffic-regulations-have-been-changed            | (2566), |                                   |
| local-access-only                                | (2567), |                                   |
| no-trailers                                      | (2568), |                                   |
| no-high-profile-vehicles                         | (2569), |                                   |
| hazardous-materials-truck-restriction            | (2570), |                                   |
| no-through-traffic                               | (2571), |                                   |
| no-motor-vehicles                                | (2572), |                                   |
| width-limit                                      | (2573), | -- Typically followed by a number |
|                                                  |         | -- and unit value                 |
| height-limit                                     | (2574), | -- Typically followed by a number |
|                                                  |         | -- and unit value                 |
| length-limit                                     | (2575), | -- Typically followed by a number |
|                                                  |         | -- and unit value                 |
| axle-load-limit                                  | (2576), | -- Typically followed by a number |
|                                                  |         | -- and unit value                 |
| gross-weight-limit                               | (2577), | -- Typically followed by a number |
|                                                  |         | -- and unit value                 |
| axle-count-limit                                 | (2578), | -- Typically followed by a number |
|                                                  |         | -- and unit value                 |
| carpool-lane-available                           | (2579), |                                   |
| carpool-restrictions-changed                     | (2580), |                                   |
| HOV-2-no-single-occupant-vehicles                | (2581), |                                   |
| HOV-3-no-vehicles-with-less-than-three-occupants | (2582), |                                   |
| bus-lane-available-for-all-vehicles              | (2583), |                                   |
| truck-lane-available-for-all-vehicles            | (2584), |                                   |
| permits-call-in-basis                            | (2585), |                                   |
| permits-temporarily-closed                       | (2586), |                                   |
| permits-closed                                   | (2587), |                                   |
| road-use-permits-required                        | (2588), |                                   |
| <b>-- Cancel Types</b>                           |         |                                   |
| permits-open                                     | (2675), |                                   |
| restrictions-for-high-profile-vehicles-lifted    | (2676), |                                   |
| width-limit-lifted                               | (2677), |                                   |
| height-limit-lifted                              | (2678), |                                   |
| length-limit-lifted                              | (2679), |                                   |
| axle-load-limit-lifted                           | (2680), |                                   |
| weight-limit-lifted                              | (2681), |                                   |
| axle-count-limit-lifted                          | (2682), |                                   |
| carpool-restrictions-lifted                      | (2683), |                                   |
| lane-restrictions-lifted                         | (2684), |                                   |



|                                      |         |                                                                                                                        |
|--------------------------------------|---------|------------------------------------------------------------------------------------------------------------------------|
| ramp-restrictions-lifted             | (2685), |                                                                                                                        |
| motor-vehicle-restrictions-lifted    | (2686), |                                                                                                                        |
| restrictions-lifted                  | (2687), |                                                                                                                        |
| <b>-- Incident Response Status</b>   |         |                                                                                                                        |
| unconfirmed-report                   | (2817), |                                                                                                                        |
| initial-response-en-route            | (2818), |                                                                                                                        |
| follow-up-response-en-route          | (2819), |                                                                                                                        |
| initial-response-on-scene            | (2820), |                                                                                                                        |
| follow-up-response-on-scene          | (2821), |                                                                                                                        |
| confirmed-report                     | (2822), |                                                                                                                        |
| scene-is-unsecured-at-this-time      | (2823), | -- Caution: This has different<br>-- meanings in Public Safety use                                                     |
| response-scene-secured               | (2824), | -- Caution: This has different<br>-- meanings in Public Safety use                                                     |
| rescue-and-recovery-work-in-progress | (2825), |                                                                                                                        |
| extraction-in-progress               | (2826), |                                                                                                                        |
| clearance-work-in-progress           | (2827), |                                                                                                                        |
| body-removal-operations              | (2828), |                                                                                                                        |
| fire-containment-contained           | (2829), |                                                                                                                        |
| fire-containment-not-contained       | (2830), |                                                                                                                        |
| event-cleared                        | (2831), | -- Meaning that responder has<br>-- left scene, not that<br>-- surrounding traffic has<br>-- cleared to a normal level |
| traffic-clearing                     | (2832), |                                                                                                                        |
| incident-closed                      | (2833), | -- A "case closed" meaning which<br>-- can differ considerably by<br>-- local agency policies                          |
| <b>-- Disasters</b>                  |         |                                                                                                                        |
| <b>-- Water Related</b>              |         |                                                                                                                        |
| flash-flood                          | (3073), |                                                                                                                        |
| major-flood                          | (3074), |                                                                                                                        |
| reservoir-failure                    | (3075), |                                                                                                                        |
| levee-failure                        | (3076), |                                                                                                                        |
| tsunami                              | (3077), |                                                                                                                        |
| tidal-wave                           | (3078), |                                                                                                                        |
| <b>-- Fire Related</b>               |         |                                                                                                                        |
| volcanic-eruption                    | (3079), |                                                                                                                        |
| ash-fall                             | (3080), |                                                                                                                        |
| lava-flow                            | (3081), |                                                                                                                        |
| serious-fire                         | (3082), |                                                                                                                        |
| forest-fire                          | (3083), |                                                                                                                        |
| wildfire                             | (3084), |                                                                                                                        |
| building-fire                        | (3085), |                                                                                                                        |
| brush-fire                           | (3086), |                                                                                                                        |
| grass-fire                           | (3087), |                                                                                                                        |
| fire-danger-extreme                  | (3088), |                                                                                                                        |
| fire-danger-very-high                | (3089), |                                                                                                                        |
| fire-danger-high                     | (3090), |                                                                                                                        |
| fire-danger-medium                   | (3091), |                                                                                                                        |
| fire-danger-low                      | (3092), |                                                                                                                        |
| <b>-- Other</b>                      |         |                                                                                                                        |
| earthquake-damage                    | (3093), |                                                                                                                        |
| air-crash                            | (3094), |                                                                                                                        |
| rail-crash                           | (3095), |                                                                                                                        |
| toxic-release                        | (3096), |                                                                                                                        |
| toxic-leak                           | (3097), |                                                                                                                        |
| radioactive-release                  | (3098), |                                                                                                                        |
| radiation-hazard                     | (3099), |                                                                                                                        |
| reactor-leakage                      | (3100), |                                                                                                                        |
| explosion                            | (3101), |                                                                                                                        |
| major-hazardous-materials-fire       | (3102), | -- Alternative Rendering: Major<br>-- HAZMAT fire                                                                      |
| major-hazardous-materials-release    | (3103), | -- Alternative Rendering: Major<br>-- HAZMAT release                                                                   |
| <b>-- Cancel Types</b>               |         |                                                                                                                        |
| disaster-cleared                     | (3199), |                                                                                                                        |
| <b>-- Disturbances</b>               |         |                                                                                                                        |
| assault                              | (3329), | -- This index is not to be used<br>-- as a default value for this<br>-- category                                       |
| crime                                | (3330), |                                                                                                                        |
| robbery                              | (3331), |                                                                                                                        |
| fare-dispute                         | (3332), |                                                                                                                        |
| shooting                             | (3333), |                                                                                                                        |
| gunfire-on-roadway                   | (3334), |                                                                                                                        |



|                                    |         |                                   |
|------------------------------------|---------|-----------------------------------|
| suicide                            | (3335), |                                   |
| fight                              | (3336), | -- Involves a few persons and is  |
|                                    |         | -- localized (alt: brawl)         |
| gang-fight                         | (3337), | -- Multi-party event occurring    |
|                                    |         | -- which may involve weapons      |
| person-harassment                  | (3338), | -- "person" may be rendered as    |
|                                    |         | -- "passenger" if used in a       |
|                                    |         | -- controlled environment such as |
|                                    |         | -- transit                        |
| person-injured                     | (3339), |                                   |
| sick-customer                      | (3363), |                                   |
| unruly-passenger                   | (3340), |                                   |
| person-intoxicated                 | (3341), |                                   |
| crowd-control-problem              | (3342), |                                   |
| demonstration                      | (3343), |                                   |
| march                              | (3344), |                                   |
| public-disturbance                 | (3345), |                                   |
| riot                               | (3346), |                                   |
| civil-unrest                       | (3347), |                                   |
| civil-emergency                    | (3348), |                                   |
| strike                             | (3349), |                                   |
| public-transit-strike              | (3350), | -- Hint: Strike affecting         |
|                                    |         | -- services                       |
| stampede                           | (3351), |                                   |
| teargas-used                       | (3352), |                                   |
| security-alert                     | (3353), | -- Heightened security procedures |
|                                    |         | -- in effect                      |
| security-incident                  | (3354), |                                   |
| checkpoint                         | (3355), |                                   |
| bomb-alert                         | (3356), |                                   |
| terrorist-incident                 | (3357), |                                   |
| high-velocity-shell-fire           | (3358), | -- Hint: Used as a part of        |
|                                    |         | -- avalanche control              |
| explosives-in-use                  | (3359), |                                   |
| air-raid                           | (3360), |                                   |
| weapons-of-mass-destruction-threat | (3361), |                                   |
| military-operations                | (3362), | -- (war)                          |
| <b>-- Cancel Types</b>             |         |                                   |
| security-problem-cleared           | (3454), |                                   |
| traffic-disturbance-cleared        | (3455), |                                   |
| <b>-- Sporting Events</b>          |         |                                   |
| sports-event                       | (3585), |                                   |
| game                               | (3586), |                                   |
| tournament                         | (3587), |                                   |
| track-and-field-event              | (3588), |                                   |
| baseball-game                      | (3589), |                                   |
| basketball-game                    | (3590), |                                   |
| boxing-match                       | (3591), |                                   |
| football-game                      | (3592), |                                   |
| soccer-game                        | (3593), |                                   |
| golf-tournament                    | (3594), |                                   |
| hockey-game                        | (3595), |                                   |
| tennis-tournament                  | (3596), |                                   |
| wrestling-match                    | (3597), |                                   |
| road-race                          | (3598), | -- Hint: used for motorcycle      |
|                                    |         | -- races as well                  |
| automobile-race                    | (3599), |                                   |
| bicycle-race                       | (3600), |                                   |
| race-event                         | (3601), |                                   |
| marathon                           | (3602), |                                   |
| horse-show                         | (3603), |                                   |
| rodeo                              | (3604), |                                   |
| water-sports-event                 | (3605), |                                   |
| winter-sports-event                | (3606), |                                   |
| skating-event                      | (3607), |                                   |
| dog-sled-race                      | (3608), |                                   |
| <b>-- Cancel Types</b>             |         |                                   |
| sporting-event-ended               | (3711), |                                   |
| <b>-- Special Events</b>           |         |                                   |
| major-event                        | (3841), |                                   |
| airshow                            | (3842), |                                   |
| hot-air-ballooning                 | (3843), |                                   |
| concert                            | (3844), |                                   |
| state-occasion                     | (3845), |                                   |
| vIP-visit                          | (3846), |                                   |
| show                               | (3847), |                                   |



|                                       |         |                                                                                                                                                                   |
|---------------------------------------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| festival                              | (3848), | -- Used for farmers' markets as<br>-- well                                                                                                                        |
| exhibition                            | (3849), |                                                                                                                                                                   |
| performing-arts                       | (3850), |                                                                                                                                                                   |
| outdoor-market                        | (3851), | -- Used for farmers' markets as<br>-- well                                                                                                                        |
| fair                                  | (3852), |                                                                                                                                                                   |
| carnival                              | (3853), |                                                                                                                                                                   |
| fireworks-display                     | (3854), |                                                                                                                                                                   |
| trade-expo                            | (3855), |                                                                                                                                                                   |
| movie-filming                         | (3856), |                                                                                                                                                                   |
| presidential-visit                    | (3857), |                                                                                                                                                                   |
| parade                                | (3858), |                                                                                                                                                                   |
| procession                            | (3859), |                                                                                                                                                                   |
| funeral-procession                    | (3860), |                                                                                                                                                                   |
| crowd                                 | (3861), |                                                                                                                                                                   |
| holiday-traffic-crowds                | (3862), |                                                                                                                                                                   |
| <b>-- Cancel Types</b>                |         |                                                                                                                                                                   |
| event-ended                           | (3967), |                                                                                                                                                                   |
| <b>-- Parking Information</b>         |         |                                                                                                                                                                   |
| normal-parking-restrictions-lifted    | (4097), | -- Hint: used when a PARKING<br>-- restriction is lifted<br>-- (overnight parking allowed<br>-- during event) Not to be used<br>-- as a default for this category |
| parking-meter-restrictions-lifted     | (4098), | -- Hint: used when a METER<br>-- restriction is lifted (metered<br>-- parking free during event)                                                                  |
| special-parking-restrictions-in-force | (4099), |                                                                                                                                                                   |
| full-parking-lot                      | (4100), |                                                                                                                                                                   |
| full-parking-garage                   | (4101), |                                                                                                                                                                   |
| all-parking-lots-full                 | (4102), |                                                                                                                                                                   |
| no-parking-spaces-available           | (4103), |                                                                                                                                                                   |
| only-a-few-spaces-available           | (4104), |                                                                                                                                                                   |
| spaces-available                      | (4105), | -- Typically preceded by a #<br>-- value                                                                                                                          |
| no-parking                            | (4106), | -- Typically followed by<br>-- restriction data                                                                                                                   |
| parking-on-one-side-of-street-only    | (4107), |                                                                                                                                                                   |
| parking-on-both-sides-of-street       | (4108), |                                                                                                                                                                   |
| parallel-parking-only                 | (4109), |                                                                                                                                                                   |
| parking-meters-not-available          | (4110), |                                                                                                                                                                   |
| use-of-parking-meters-restricted      | (4111), |                                                                                                                                                                   |
| event-parking                         | (4112), |                                                                                                                                                                   |
| handicapped-parking                   | (4113), |                                                                                                                                                                   |
| long-term-parking                     | (4114), |                                                                                                                                                                   |
| overnight-parking                     | (4115), |                                                                                                                                                                   |
| short-term-parking                    | (4116), |                                                                                                                                                                   |
| parking-by-permit-only                | (4117), |                                                                                                                                                                   |
| emergency-parking-only                | (4118), |                                                                                                                                                                   |
| emergency-stopping-only               | (4119), |                                                                                                                                                                   |
| parking                               | (4120), | -- Typically followed by<br>-- restriction data                                                                                                                   |
| stopping                              | (4121), | -- Typically followed by<br>-- restriction data                                                                                                                   |
| standing                              | (4122), | -- Typically followed by<br>-- restriction data                                                                                                                   |
| tow-away-zone                         | (4123), |                                                                                                                                                                   |
| school-zone                           | (4124), | -- Treat as Speed Limit,<br>-- with details to follow                                                                                                             |
| speed-zone                            | (4125), | -- Treat as Speed Limit,<br>-- with details to follow                                                                                                             |
| loading-zone                          | (4126), | -- Typically followed by<br>-- restriction data                                                                                                                   |
| state-law                             | (4127), |                                                                                                                                                                   |
| van-accessible                        | (4128), |                                                                                                                                                                   |
| <b>-- Cancel Types</b>                |         |                                                                                                                                                                   |
| special-parking-restrictions-lifted   | (4222), |                                                                                                                                                                   |
| no-parking-information-available      | (4223), |                                                                                                                                                                   |
| <b>-- Information System</b>          |         |                                                                                                                                                                   |
| information-available-on-radio        | (4353), | -- Not to be used as a default<br>-- for this category D12-1                                                                                                      |
| information-available-on-TV           | (4354), |                                                                                                                                                                   |
| call-to-get-information               | (4355), |                                                                                                                                                                   |
| information-available-via-Internet    | (4356), |                                                                                                                                                                   |
| test-message                          | (4357), | -- Not to be displayed on                                                                                                                                         |



|                                        |         |                                                                                                                                                   |
|----------------------------------------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| no-information-available               | (4358), | -- consumer devices if possible<br>-- Typically combined with "on<br>-- xxx service" where xxx is a<br>-- type of service (bus, rail,<br>-- etc.) |
| null-description                       | (4359), | -- (but with event location or<br>-- other information provided in<br>-- the message)                                                             |
| police-assistance                      | (4361), |                                                                                                                                                   |
| police-monitor-CB                      | (4362), | -- D12-3                                                                                                                                          |
| emergency-notification                 | (4363), |                                                                                                                                                   |
| in-emergency-dial-911                  | (4364), | -- D12-14                                                                                                                                         |
| travel-Info-call-511                   | (4365), | -- D12-5                                                                                                                                          |
| car-pool-information                   | (4366), | -- D12-2                                                                                                                                          |
| information-service-resumed            | (4478), |                                                                                                                                                   |
| <b>-- Cancel Types</b>                 |         |                                                                                                                                                   |
| information-service-is-being-suspended | (4360), |                                                                                                                                                   |
| message-canceled                       | (4479), | -- Not Recommended for use                                                                                                                        |
| <b>-- Weather Conditions</b>           |         |                                                                                                                                                   |
| <b>-- General Weather</b>              |         |                                                                                                                                                   |
| overcast                               | (4609), | -- This index is not to be used<br>-- as a default value for this<br>-- category                                                                  |
| cloudy                                 | (4610), |                                                                                                                                                   |
| mostly-cloudy                          | (4611), |                                                                                                                                                   |
| partly-cloudy                          | (4612), |                                                                                                                                                   |
| partly-sunny                           | (4613), |                                                                                                                                                   |
| mostly-sunny                           | (4614), |                                                                                                                                                   |
| sunny                                  | (4615), |                                                                                                                                                   |
| fair-skies                             | (4616), |                                                                                                                                                   |
| clear-skies                            | (4617), |                                                                                                                                                   |
| mostly-clear                           | (4618), |                                                                                                                                                   |
| mostly-dry                             | (4619), |                                                                                                                                                   |
| dry                                    | (4620), |                                                                                                                                                   |
| uV-index-very-high                     | (4621), |                                                                                                                                                   |
| uV-index-high                          | (4622), |                                                                                                                                                   |
| uV-index-moderate                      | (4623), |                                                                                                                                                   |
| uV-index-low                           | (4624), |                                                                                                                                                   |
| uV-index-very-low                      | (4625), |                                                                                                                                                   |
| barometric-pressure                    | (4626), | -- Typically followed by a number<br>-- and value                                                                                                 |
| ozone-alert                            | (4627), |                                                                                                                                                   |
| <b>-- Lighting Types</b>               |         |                                                                                                                                                   |
| lighting-unknown                       | (4628), |                                                                                                                                                   |
| artificial-exterior-light              | (4629), |                                                                                                                                                   |
| artificial-interior-light              | (4630), |                                                                                                                                                   |
| darkness                               | (4631), | -- Also used when not lighted                                                                                                                     |
| dusk                                   | (4632), |                                                                                                                                                   |
| dawn                                   | (4633), |                                                                                                                                                   |
| moonlight                              | (4634), |                                                                                                                                                   |
| daylight                               | (4635), |                                                                                                                                                   |
| <b>-- Cancel Types</b>                 |         |                                                                                                                                                   |
| weather-forecast-withdrawn             | (4735), |                                                                                                                                                   |
| <b>-- Precipitation</b>                |         |                                                                                                                                                   |
| severe-weather                         | (4865), |                                                                                                                                                   |
| blizzard                               | (4866), |                                                                                                                                                   |
| heavy-snow                             | (4867), |                                                                                                                                                   |
| snow                                   | (4868), |                                                                                                                                                   |
| light-snow                             | (4869), |                                                                                                                                                   |
| snow-showers                           | (4870), |                                                                                                                                                   |
| winter-storm                           | (4871), |                                                                                                                                                   |
| ice-glaze                              | (4872), |                                                                                                                                                   |
| heavy-frost                            | (4873), |                                                                                                                                                   |
| frost                                  | (4874), |                                                                                                                                                   |
| ice-storm                              | (4875), |                                                                                                                                                   |
| sleet                                  | (4876), |                                                                                                                                                   |
| rain-and-snow-mixed                    | (4877), |                                                                                                                                                   |
| rain-changing-to-snow                  | (4878), |                                                                                                                                                   |
| damaging-hail                          | (4879), |                                                                                                                                                   |
| hail                                   | (4880), |                                                                                                                                                   |
| thunderstorms                          | (4881), |                                                                                                                                                   |
| thundershowers                         | (4882), |                                                                                                                                                   |
| extremely-heavy-downpour               | (4883), |                                                                                                                                                   |
| heavy-rain                             | (4884), |                                                                                                                                                   |
| rain                                   | (4885), |                                                                                                                                                   |
| light-rain                             | (4886), |                                                                                                                                                   |

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drizzle (4887),
showers (4888),
dew (4889),
-- Cancel Types
precipitation-cleared (4991),
-- Winds
tornado (5121), -- Note that this can be combined
-- with "alert" "warning" etc.
-- This index is not to be used
-- as a default value for this
-- category

hurricane (5122),
hurricane-force-winds (5123),
tropical-storm (5124),
gale-force-winds (5125),
storm-force-winds (5126),
strong-winds (5127),
moderate-winds (5128),
light-winds (5129),
calm (5130),
gusty-winds (5131),
crosswinds (5132),
windy (5133),
-- Cancel Types
strong-winds-have-eased (5246),
strong-wind-forecast-withdrawn (5247),
-- Visibility & Air Quality
-- Visibility
dense-fog (5377), -- This index is not to be used
-- as a default value for this
-- category

fog (5378),
patchy-fog (5379),
freezing-fog (5380),
ice-fog (5405), -- Different than freezing fog,
-- ice fog occurs well below
-- freezing temps and is quite
-- common in the Fairbanks area.

mist (5381),
haze (5382),
visibility-reduced (5383),
visibility-blocked (5404), -- Used when signs, trees, etc.,
-- block the view
white-out (5384), -- Alternative Rendering: Snow
-- glare

blowing-snow (5385),
smoke-hazard (5386),
spray-hazard (5387),
low-sun-glare (5388), -- Do not use for snow glare
snow-glare (5389),
blowing-dust (5390),
blowing-sand (5391), -- Hint: dune accumulations
dust-storms (5392),
sandstorms (5393),
-- Air Quality
air-quality-good (5394),
air-quality-fair (5395),
air-quality-poor (5396),
air-quality-very-poor (5397),
severe-exhaust-pollution (5398),
smog-alert (5399),
pollen-count-high (5400),
pollen-count-medium (5401),
pollen-count-low (5402),
swarms-of-insects (5403),
-- Cancel Types
fog-clearing (5499),
visibility-improved (5500),
fog-forecast-withdrawn (5501),
pollution-alert-ended (5502),
air-quality-improved (5503),
-- Temperature
maximum-temperature (5633), -- This index is not to be used
-- as a default value for this
-- category
temperature (5634), -- Typically followed by a number

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|                                         |         |                                                       |
|-----------------------------------------|---------|-------------------------------------------------------|
|                                         |         | -- value and a unit value                             |
| minimum-temperature                     | (5635), |                                                       |
| current-temperature                     | (5636), |                                                       |
| heat-index                              | (5637), |                                                       |
| extreme-heat                            | (5638), |                                                       |
| hot                                     | (5639), |                                                       |
| hotter                                  | (5640), |                                                       |
| heat                                    | (5641), |                                                       |
| warmer                                  | (5642), |                                                       |
| warm                                    | (5643), |                                                       |
| mild                                    | (5644), |                                                       |
| cool                                    | (5645), |                                                       |
| cooler                                  | (5646), |                                                       |
| cold                                    | (5647), |                                                       |
| colder                                  | (5648), |                                                       |
| very-cold                               | (5649), |                                                       |
| extreme-cold                            | (5650), |                                                       |
| wind-chill                              | (5651), |                                                       |
| dewpoint                                | (5652), |                                                       |
| relative-humidity                       | (5653), |                                                       |
| <b>-- Cancel Types</b>                  |         |                                                       |
| temperatures-close-to-the-seasonal-norm | (5758), |                                                       |
| less-extreme-temperatures               | (5759), |                                                       |
| <b>-- Pavement Conditions</b>           |         |                                                       |
| <b>-- General</b>                       |         |                                                       |
| impassable                              | (5889), |                                                       |
| almost-impassable                       | (5890), |                                                       |
| passable-with-care                      | (5891), |                                                       |
| passable                                | (5892), |                                                       |
| surface-water-hazard                    | (5893), |                                                       |
| danger-of-hydroplaning                  | (5894), |                                                       |
| wet-pavement                            | (5895), |                                                       |
| treated-pavement                        | (5896), | -- Alternative Rendering:<br>-- chemical wet          |
| slippery                                | (5897), |                                                       |
| low-ground-clearance                    | (5938), | -- Use for W12-2 types                                |
| at-grade-level-crossing                 | (5937), |                                                       |
| <b>-- On Roadway items</b>              |         |                                                       |
| mud-on-roadway                          | (5898), |                                                       |
| leaves-on-roadway                       | (5899), |                                                       |
| loose-sand-on-roadway                   | (5900), |                                                       |
| loose-gravel                            | (5901), |                                                       |
| fuel-on-roadway                         | (5902), |                                                       |
| oil-on-roadway                          | (5903), |                                                       |
| road-surface-in-poor-condition          | (5904), |                                                       |
| melting-tar                             | (5905), |                                                       |
| uneven-lanes                            | (5935), |                                                       |
| rough-road                              | (5931), |                                                       |
| rough-crossing                          | (5936), | -- Typically used with grade<br>-- crossings at rails |
| <b>-- Ice &amp; Snow</b>                |         |                                                       |
| ice                                     | (5906), |                                                       |
| icy-patches                             | (5907), |                                                       |
| black-ice                               | (5908), |                                                       |
| ice-pellets-on-roadway                  | (5909), |                                                       |
| ice-build-up                            | (5910), |                                                       |
| freezing-rain                           | (5911), |                                                       |
| wet-and-icy-roads                       | (5912), |                                                       |
| slush                                   | (5914), |                                                       |
| melting-snow                            | (5913), |                                                       |
| frozen-slush                            | (5915), |                                                       |
| snow-on-roadway                         | (5916), |                                                       |
| packed-snow                             | (5917), |                                                       |
| packed-snow-patches                     | (5918), |                                                       |
| plowed-snow                             | (5919), |                                                       |
| wet-snow                                | (5920), |                                                       |
| fresh-snow                              | (5921), |                                                       |
| powder-snow                             | (5922), |                                                       |
| granular-snow                           | (5923), |                                                       |
| frozen-snow                             | (5924), |                                                       |
| crusted-snow                            | (5925), |                                                       |
| deep-snow                               | (5926), |                                                       |
| snow-drifts                             | (5927), |                                                       |
| drifting-snow                           | (5928), |                                                       |
| expected-snow-accumulation              | (5929), |                                                       |
| current-snow-accumulation               | (5930), |                                                       |

**-- Road Surface**

|        |         |                      |
|--------|---------|----------------------|
| sand   | (5932), | -- Can use for W7-4d |
| gravel | (5933), | -- Can use for W7-4e |
| paved  | (5934), | -- Can use for W7-4f |

**-- Cancel Types**

|                              |         |
|------------------------------|---------|
| dry-pavement                 | (6011), |
| snow-cleared                 | (6012), |
| pavement-conditions-improved | (6013), |
| skid-hazard-reduced          | (6014), |
| pavement-conditions-cleared  | (6015), |

**-- Winter Driving Restrictions and Recommendations**

|                                  |         |
|----------------------------------|---------|
| winter-equipment-recommended     | (6145), |
| winter-equipment-required        | (6146), |
| snow-chains-recommended          | (6147), |
| snow-chains-required             | (6148), |
| snow-chains-prohibited           | (6149), |
| studded-tires-prohibited         | (6150), |
| snow-tires-recommended           | (6151), |
| snow-tires-required              | (6152), |
| four-wheel-drive-recommended     | (6153), |
| four-wheel-drive-required        | (6154), |
| snow-tires-or-chains-recommended | (6155), |
| snow-tires-or-chains-required    | (6156), |

**-- Cancel Types**

|                                    |         |                               |
|------------------------------------|---------|-------------------------------|
| winter-driving-requirements-lifted | (6271), | -- In early editions this was |
|                                    |         | -- incorrectly listed as code |
|                                    |         | -- 6157                       |

**-- Winter Driving Index**

|                                        |         |
|----------------------------------------|---------|
| driving-conditions-good                | (6401), |
| driving-conditions-fair                | (6402), |
| difficult-driving-conditions           | (6403), |
| very-difficult-driving-conditions      | (6404), |
| hazardous-driving-conditions           | (6405), |
| extremely-hazardous-driving-conditions | (6406), |

**-- Suggestion Advice**

|                                            |         |
|--------------------------------------------|---------|
| why-not-ride-share                         | (6657), |
| is-this-your-no-ride-day                   | (6658), |
| why-not-use-transit                        | (6659), |
| why-not-park-and-ride                      | (6660), |
| why-not-try-paratransit                    | (6661), |
| why-not-travel-by-rail                     | (6662), |
| why-not-use-the-subway                     | (6663), |
| why-not-try-rapid-transit                  | (6664), |
| why-not-travel-by-bus                      | (6665), |
| your-parking-ticket-covers-the-return-ride | (6666), |
| avoid-the-rush-hour                        | (6667), |
| do-not-allow-unnecessary-gaps              | (6668), |
| follow-the-vehicle-in-front-smoothly       | (6669), |
| do-not-slow-down-unnecessarily             | (6670), |
| watch-for-muggers                          | (6671), |
| watch-for-pickpockets                      | (6672), |
| watch-for-thieves                          | (6673), |
| sorry-for-any-delay                        | (6674), |
| thank-you-for-your-understanding           | (6675), |
| we-appreciate-your-patience                | (6676), |
| we-are-grateful-for-your-cooperation       | (6677), |
| share-the-road                             | (6678), |

**-- Warning Advice**

|                                               |                 |                                 |
|-----------------------------------------------|-----------------|---------------------------------|
| risk                                          | (6913),         | -- Conditions are more likely   |
|                                               |                 | -- than "normal"                |
| watch                                         | (6914),         | -- Conditions are favorable for |
|                                               |                 | -- an event to occur            |
| warning                                       | (6915),         | -- An event has occurred but is |
|                                               |                 | -- not (yet) near               |
| alert                                         | (6916),         | -- An event has occurred and it |
|                                               |                 | -- is near                      |
| danger                                        | (6917),         |                                 |
| danger-of-explosion                           | (6918),         |                                 |
| danger-of-fire                                | (6919),         |                                 |
| extra-police-patrols-in-operation             | (6920),         |                                 |
| look-out-for-vehicles-stopped-under-bridges   | (6921),         |                                 |
| increased-risk-of-accident                    | (6922),         |                                 |
| rescue-and-recovery-work-in-progress-at-scene | REMOVED (6923), | -- No long used, see item 2825  |
| police-at-scene                               | (6924),         |                                 |
| emergency-vehicles-at-scene                   | (6925),         |                                 |
| traffic-being-directed-around-accident-area   | (6926),         |                                 |



|                                                             |         |                                  |
|-------------------------------------------------------------|---------|----------------------------------|
| police-directing-traffic                                    | (6927), |                                  |
| rescue-workers-directing-traffic                            | (6928), |                                  |
| repairs-in-progress                                         | (6929), |                                  |
| pilot-car-in-operation                                      | (6930), |                                  |
| look-out-for-flagger                                        | (6931), | -- Alternative Rendering: look   |
|                                                             |         | -- out for flagman               |
| look-out-for-workers                                        | (6952), | -- Alternative Rendering:        |
|                                                             |         | -- workers                       |
|                                                             |         | -- Hint: all types of checks     |
| police-checks-in-operation                                  | (6932), |                                  |
| truck-check-point                                           | (6937), |                                  |
| lockdown                                                    | (6935), |                                  |
| security-check-point                                        | (6936), |                                  |
| single-occupancy-vehicle-check-point                        | (6938), |                                  |
| mandatory-speed-limit-in-force                              | (6933), |                                  |
| speed-limit-in-force-for-heavy-vehicles                     | (6934), |                                  |
| behind-you                                                  | (6950), |                                  |
| ride-with-traffic                                           | (6953), |                                  |
| prepare-to-evacuate-area                                    | (6954), |                                  |
| avoid                                                       | (6955), |                                  |
| <b>-- MUTCD Signs</b>                                       |         |                                  |
| look                                                        | (6939), |                                  |
| photo-enforced                                              | (6940), |                                  |
| traffic-signs                                               | (6951), |                                  |
| traffic-laws                                                | (6941), |                                  |
| use-low-gear                                                | (6942), |                                  |
| bridge-ices-before-road                                     | (6943), |                                  |
| speed-checked-by-radar                                      | (6944), |                                  |
| speed-checked-by-aircraft                                   | (6945), |                                  |
| finest                                                      | (6946), |                                  |
| finest-higher                                               | (6947), |                                  |
| finest-doubled                                              | (6948), |                                  |
| finest-tripled                                              | (6949), |                                  |
| <b>-- Cancel Types</b>                                      |         |                                  |
| evacuation-canceled                                         | (7033), |                                  |
| warning-canceled                                            | (7034), | -- Canceling a warning may       |
|                                                             |         | -- "revert" to a watch           |
| watch-canceled                                              | (7035), |                                  |
| alert-canceled                                              | (7036), | -- Canceling an alert may        |
|                                                             |         | -- "revert" to a warning         |
| ended                                                       | (7037), | -- Hint: used for many sporting/ |
|                                                             |         | -- special events                |
| cleared                                                     | (7038), |                                  |
| canceled                                                    | (7039), |                                  |
| <b>-- Instructions (Recommendations)</b>                    |         |                                  |
| drive-carefully                                             | (7169), |                                  |
| drive-with-extreme-caution                                  | (7170), |                                  |
| approach-with-care                                          | (7171), |                                  |
| keep-your-distance                                          | (7172), |                                  |
| increase-normal-following-distance                          | (7173), |                                  |
| test-your-brakes                                            | (7174), |                                  |
| cross-intersection-with-care                                | (7175), |                                  |
| pass-with-care                                              | (7176), | -- Use as MUTCD sign             |
| pass                                                        | (7200), | -- Used for passing action,      |
|                                                             |         | -- as in do not pass             |
| use-low-beam-headlights                                     | (7177), |                                  |
| use-fog-lights                                              | (7178), |                                  |
| use-hazard-warning-lights                                   | (7179), | -- Alternative Rendering: use    |
|                                                             |         | -- blinkers                      |
| do-not-leave-your-vehicle                                   | (7180), |                                  |
| leave-your-vehicle-and-proceed-to-next-safe-place           | (7181), |                                  |
| turn-off-engine                                             | (7182), | -- Alternative Rendering: switch |
|                                                             |         | -- off engine                    |
| close-all-windows-turn-off-heater-air-conditioner-and-vents | (7183), |                                  |
| turn-off-air-conditioner-to-prevent-engine-overheating      | (7184), |                                  |
| turn-off-mobile-phones-and-two-way-radios                   | (7185), | -- Alternative Rendering: switch |
|                                                             |         | -- off mobile phones and two way |
|                                                             |         | -- radios                        |
| prepare-to-stop                                             | (7186), |                                  |
| be-prepared-to-stop                                         | (7201), |                                  |
| stop-at-next-rest-area                                      | (7187), |                                  |
| stop-at-next-safe-place                                     | (7188), |                                  |
| only-travel-if-absolutely-necessary                         | (7189), |                                  |
| drive-to-another-service-area                               | (7190), |                                  |
| use-through-traffic-lanes                                   | (7191), |                                  |
| use-local-traffic-lanes                                     | (7192), |                                  |
| use-left-hand-parallel-roadway                              | (7193), |                                  |



|                                      |         |                                                                                                                                  |
|--------------------------------------|---------|----------------------------------------------------------------------------------------------------------------------------------|
| use-right-hand-parallel-roadway      | (7194), |                                                                                                                                  |
| use-heavy-vehicle-lane               | (7195), | -- Alternative Rendering: use<br>-- truck lanes                                                                                  |
| observe-recommended-speed            | (7196), |                                                                                                                                  |
| signals-sequenced-for-speed          | (7202), | -- Typically followed by speed                                                                                                   |
| maintain-top-safe-speed              | (7203), |                                                                                                                                  |
| facing-traffic                       | (7197), |                                                                                                                                  |
| push-button                          | (7198), |                                                                                                                                  |
| to-cross-street                      | (7199), |                                                                                                                                  |
| evacuate-area-voluntarily            | (7204), |                                                                                                                                  |
| shelter-in-place                     | (7205), |                                                                                                                                  |
| <b>-- Instructions (Mandatory)</b>   |         |                                                                                                                                  |
| keep-to-the-right                    | (7425), |                                                                                                                                  |
| keep-to-the-left                     | (7426), |                                                                                                                                  |
| use-right-lane                       | (7427), |                                                                                                                                  |
| use-left-lane                        | (7428), |                                                                                                                                  |
| stay-in-lane                         | (7450), |                                                                                                                                  |
| merge                                | (7451), | -- Typically followed by<br>-- direction left/right Used for<br>-- W4-1R and W4-1L                                               |
| heavy-vehicles-use-right-lane        | (7429), |                                                                                                                                  |
| heavy-vehicles-use-left-lane         | (7430), |                                                                                                                                  |
| observe-signals                      | (7431), |                                                                                                                                  |
| observe-signs                        | (7432), |                                                                                                                                  |
| no-passing                           | (7433), | -- Used for MUTCD signs                                                                                                          |
| no-smoking                           | (7434), |                                                                                                                                  |
| no-open-flames                       | (7435), |                                                                                                                                  |
| use-shoulder-as-lane                 | (7436), |                                                                                                                                  |
| do-not-drive-on-the-shoulder         | (7437), |                                                                                                                                  |
| allow-emergency-vehicles-to-pass     | (7438), |                                                                                                                                  |
| clear-a-lane-for-emergency-vehicles  | (7439), |                                                                                                                                  |
| pull-over-to-the-edge-of-the-roadway | (7440), |                                                                                                                                  |
| wait-for-escort-vehicle              | (7441), |                                                                                                                                  |
| in-emergency-wait-for-police-patrol  | (7442), |                                                                                                                                  |
| reduce-your-speed                    | (7443), |                                                                                                                                  |
| observe-speed-limits                 | (7444), |                                                                                                                                  |
| check-point                          | (7445), |                                                                                                                                  |
| entry-requirements                   | (7446), |                                                                                                                                  |
| insurance-requirements               | (7447), |                                                                                                                                  |
| firearms-requirements                | (7448), |                                                                                                                                  |
| pet-requirements                     | (7449), |                                                                                                                                  |
| slower-traffic-keep-right            | (7452), |                                                                                                                                  |
| keep-off                             | (7453), | -- Typically followed by<br>-- object                                                                                            |
| evacuate-area-immediately            | (7454), |                                                                                                                                  |
| <b>-- Cancel Types</b>               |         |                                                                                                                                  |
| shoulder-travel-no-longer-allowed    | (7547), |                                                                                                                                  |
| <b>-- Qualifiers</b>                 |         |                                                                                                                                  |
| <b>-- Locations</b>                  |         |                                                                                                                                  |
| above                                | (7681), | -- Not to be used as the default<br>-- for this category                                                                         |
| below                                | (7682), |                                                                                                                                  |
| in                                   | (7683), |                                                                                                                                  |
| around                               | (7684), |                                                                                                                                  |
| after                                | (7685), |                                                                                                                                  |
| before                               | (7686), |                                                                                                                                  |
| at                                   | (7687), | -- Hint: used in conjunction with<br>-- generic locations                                                                        |
| on                                   | (7688), | -- Hint: used in conjunction with<br>-- "roadway" or other terms for<br>-- both places (on-shoulder) and<br>-- events (on-green) |
| near                                 | (7689), | -- Hint: used with generic<br>-- locations and lanes                                                                             |
| from-the                             | (7690), |                                                                                                                                  |
| terminal                             | (7691), |                                                                                                                                  |
| <b>-- Weather Related</b>            |         |                                                                                                                                  |
| falling-slowly                       | (7692), |                                                                                                                                  |
| falling                              | (7693), |                                                                                                                                  |
| falling-quickly                      | (7694), |                                                                                                                                  |
| rising-slowly                        | (7695), |                                                                                                                                  |
| rising                               | (7696), |                                                                                                                                  |
| rising-quickly                       | (7697), |                                                                                                                                  |
| steady                               | (7698), |                                                                                                                                  |
| likely                               | (7699), |                                                                                                                                  |
| changing-to                          | (7700), |                                                                                                                                  |

|                             |         |                                                                                                   |
|-----------------------------|---------|---------------------------------------------------------------------------------------------------|
| mostly                      | (7701), |                                                                                                   |
| partly                      | (7702), |                                                                                                   |
| minus                       | (7703), |                                                                                                   |
| weather-ended               | (7704), |                                                                                                   |
| expected                    | (7705), |                                                                                                   |
| low                         | (7706), | -- Typically used in<br>-- temperatures. See also "upper"                                         |
| mid                         | (7707), |                                                                                                   |
| high                        | (7708), |                                                                                                   |
| upper                       | (7709), | -- Typically used in temperatures or broad regions.<br>-- See also "low," "mid," "high," "middle" |
| middle                      | (7765), | -- Typically used for broad regions<br>-- See also "upper," "lower"                               |
| lower                       | (7764), | -- Typically used for broad regions<br>-- See also "upper," "middle"                              |
| unseasonably                | (7710), |                                                                                                   |
| reported                    | (7711), |                                                                                                   |
| <b>-- Instructions</b>      |         |                                                                                                   |
| advice                      | (7712), |                                                                                                   |
| due-to                      | (7713), |                                                                                                   |
| proceed-to                  | (7714), |                                                                                                   |
| transferred-to              | (7715), |                                                                                                   |
| use                         | (7716), |                                                                                                   |
| <b>-- Prepositional Use</b> |         |                                                                                                   |
| affecting                   | (7717), |                                                                                                   |
| blocking                    | (7718), |                                                                                                   |
| connecting                  | (7719), |                                                                                                   |
| finished                    | (7720), | -- Alt term: finish                                                                               |
| for                         | (7721), |                                                                                                   |
| or                          | (7722), |                                                                                                   |
| <b>-- Other</b>             |         |                                                                                                   |
| and                         | (7723), |                                                                                                   |
| later                       | (7724), |                                                                                                   |
| level                       | (7725), |                                                                                                   |
| shortly                     | (7726), |                                                                                                   |
| soon                        | (7727), |                                                                                                   |
| service                     | (7728), |                                                                                                   |
| graffiti                    | (7733), |                                                                                                   |
| damaged                     | (7729), |                                                                                                   |
| out-of-order                | (7730), | -- See Asset Status items as well                                                                 |
| on-State-right-of-way       | (7732), |                                                                                                   |
| found-property              | (7734), |                                                                                                   |
| vandalism                   | (7731), |                                                                                                   |
| major                       | (7766), |                                                                                                   |
| minor                       | (7767), |                                                                                                   |
| <b>-- MUTCD Sign Usage</b>  |         |                                                                                                   |
| begin-time                  | (7735), | -- Typically followed by a<br>-- value entry and a time entry<br>-- (AM/PM)                       |
| added                       | (7736), | -- Typically preceded by an<br>-- object entry                                                    |
| end-time                    | (7737), | -- Typically followed by a<br>-- value entry and a time entry<br>-- (AM/PM)                       |
| no                          | (7738), | -- Typically followed by a<br>-- value entry and any day/time<br>-- limits                        |
| do-not                      | (7739), | -- Also used for "does not"                                                                       |
| block                       | (7740), | -- Also used for blocks                                                                           |
| except                      | (7741), | -- Typically followed by a<br>-- value entry and a day/time<br>-- entry                           |
| day                         | (7742), | -- Alt: daytime, daylight<br>-- hours                                                             |
| night                       | (7743), | -- Alt: night time, night<br>-- time hours                                                        |
| any-time                    | (7744), | -- Used also for "allowed"                                                                        |
| has                         | (7745), | -- As in: has green (alt<br>-- form: with)                                                        |
| must                        | (7757), | -- As in: <lane> must <turn>                                                                      |
| may-have                    | (7746), | -- As in: may have green                                                                          |
| may-exceed                  | (7759), | -- As in: may exceed 80 mph                                                                       |
| only                        | (7747), |                                                                                                   |
| lifted                      | (7748), | -- As in gate lifted                                                                              |
| empty                       | (7749), |                                                                                                   |
| turning                     | (7750), | -- Used also for turns or                                                                         |



|                                   |         |                                  |
|-----------------------------------|---------|----------------------------------|
| u-turn                            | (7751), | -- turn                          |
| wait-for                          | (7752), | -- As in no u-turn allowed       |
| when-flashing                     | (7753), |                                  |
| duration                          | (7754), | -- Typically followed by a       |
|                                   |         | -- value entry and a time entry  |
|                                   |         | -- (Days/Hours/Min)              |
| cross                             | (7755), |                                  |
| when-wet                          | (7756), |                                  |
| oncoming                          | (7758), | -- Typically followed by         |
|                                   |         | -- object or vehicle types       |
| to-request                        | (7760), | -- As in to request X do Y       |
| exempt                            | (7761), |                                  |
| skewed                            | (7762), |                                  |
| when-children-are-present         | (7763), | -- Use for S4-2                  |
| <b>-- Generic Locations</b>       |         |                                  |
| <b>-- Road Related</b>            |         |                                  |
| on-bridges                        | (7937), | -- Not to be used as the default |
|                                   |         | -- for this category             |
| in-tunnels                        | (7938), |                                  |
| entering-or-leaving-tunnels       | (7939), |                                  |
| on-ramps                          | (7940), |                                  |
| in-road-construction-area         | (7941), |                                  |
| around-a-curve                    | (7942), |                                  |
| on-curve                          | (8026), |                                  |
| on-tracks                         | (8009), |                                  |
| in-street                         | (8025), | -- As in in-street pad           |
|                                   |         | -- crossing                      |
| shoulder                          | (8027), |                                  |
| on-minor-roads                    | (7943), |                                  |
| in-the-opposing-lanes             | (7944), |                                  |
| adjacent-to-roadway               | (7945), |                                  |
| across-tracks                     | (8024), |                                  |
| on-bend                           | (7946), |                                  |
| intersection                      | (8032), |                                  |
| entire-intersection               | (7947), |                                  |
| in-the-median                     | (7948), |                                  |
| moved-to-side-of-road             | (7949), |                                  |
| moved-to-shoulder                 | (7950), |                                  |
| on-the-roadway                    | (7951), | -- Use generic locations and     |
|                                   |         | -- groups affected to make other |
|                                   |         | -- such phrases                  |
| dip                               | (8010), | --                               |
| traffic-circle                    | (8011), | -- Used for W2-6 graphic as      |
|                                   |         | -- well. Alt term: roundabout    |
| crossover                         | (8028), |                                  |
| cross-road                        | (8029), | -- Also used for W2-1 Note       |
|                                   |         | -- that in some uses this is one |
|                                   |         | -- word                          |
| side-road                         | (8030), | -- Do not used for W2-2R and     |
|                                   |         | -- W2-2L                         |
| to                                | (8014), |                                  |
| by                                | (8015), |                                  |
| through                           | (8016), |                                  |
| area-of                           | (8017), | -- Also area                     |
| under                             | (8018), |                                  |
| over                              | (8019), |                                  |
| from                              | (8020), |                                  |
| approaching                       | (8021), |                                  |
| entering-at                       | (8022), | -- Alt form: Entrance            |
| exiting-at                        | (8023), |                                  |
| <b>-- Terrain &amp; Geography</b> |         |                                  |
| in-shaded-areas                   | (7952), |                                  |
| in-low-lying-areas                | (7953), |                                  |
| in-the-downtown-area              | (7954), |                                  |
| in-the-inner-city-area            | (7955), |                                  |
| in-parts                          | (7956), |                                  |
| in-some-places                    | (7957), |                                  |
| in-the-ditch                      | (7958), |                                  |
| in-the-valley                     | (7959), |                                  |
| on-hill-top                       | (7960), |                                  |
| near-the-foothills                | (7961), |                                  |
| at-high-altitudes                 | (7962), |                                  |
| near-the-lake                     | (7963), |                                  |
| near-the-shore                    | (7964), |                                  |
| nearby-basin                      | (8008), |                                  |



|                                                 |         |                                                      |
|-------------------------------------------------|---------|------------------------------------------------------|
| over-the-crest-of-a-hill                        | (7965), |                                                      |
| other-than-on-the-roadway                       | (7966), |                                                      |
| near-the-beach                                  | (7967), |                                                      |
| near-beach-access-point                         | (7968), |                                                      |
| mountain-pass                                   | (8006), |                                                      |
| lower-level                                     | (7969), |                                                      |
| upper-level                                     | (7970), |                                                      |
| coast                                           | (8034), |                                                      |
| <b>-- Transit Travel, Air Travel and Places</b> |         |                                                      |
| airport                                         | (7971), |                                                      |
| concourse                                       | (7972), |                                                      |
| gate                                            | (7973), |                                                      |
| baggage-claim                                   | (7974), |                                                      |
| customs-point                                   | (7975), |                                                      |
| reservation-center                              | (8007), |                                                      |
| station                                         | (7976), |                                                      |
| platform                                        | (7977), | -- Alternative Rendering: track                      |
| dock                                            | (7978), |                                                      |
| depot                                           | (7979), |                                                      |
| ev-charging-point                               | (7980), |                                                      |
| information-welcome-point                       | (7981), | -- Use for Tourist Information as<br>-- well (D9-10) |
| at-rest-area                                    | (7982), |                                                      |
| at-service-area                                 | (7983), |                                                      |
| at-weigh-station                                | (7984), |                                                      |
| roadside-park                                   | (8033), |                                                      |
| picnic-areas                                    | (7985), |                                                      |
| rest-area                                       | (7986), |                                                      |
| service-stations                                | (7987), |                                                      |
| toilets                                         | (7988), | -- Note also rest rooms in<br>-- structures          |
| bus-stop                                        | (8031), |                                                      |
| park-and-ride-lot                               | (8012), | -- Not to be used as a mode<br>-- of travel          |
| <b>-- Direction of Travel</b>                   |         |                                                      |
| on-the-right                                    | (7989), |                                                      |
| on-the-left                                     | (7990), |                                                      |
| in-the-center                                   | (7991), |                                                      |
| in-the-opposite-direction                       | (7992), |                                                      |
| cross-traffic                                   | (7993), |                                                      |
| northbound-traffic                              | (7994), |                                                      |
| eastbound-traffic                               | (7995), |                                                      |
| southbound-traffic                              | (7996), |                                                      |
| westbound-traffic                               | (7997), |                                                      |
| <b>-- Compass Points</b>                        |         |                                                      |
| north                                           | (7998), |                                                      |
| south                                           | (7999), |                                                      |
| east                                            | (8000), |                                                      |
| west                                            | (8001), |                                                      |
| northeast                                       | (8002), |                                                      |
| northwest                                       | (8003), |                                                      |
| southeast                                       | (8004), |                                                      |
| southwest                                       | (8005), |                                                      |
| <b>-- Lane/Roadway Descriptions</b>             |         |                                                      |
| <b>-- Lanes</b>                                 |         |                                                      |
| all-roadways                                    | (8193), | -- Used as the default value                         |
| through-lanes                                   | (8194), |                                                      |
| left-lane                                       | (8195), |                                                      |
| right-lane                                      | (8196), |                                                      |
| center-lane                                     | (8197), |                                                      |
| middle-lanes                                    | (8198), |                                                      |
| middle-two-lanes                                | (8199), |                                                      |
| right-turning-lanes                             | (8200), |                                                      |
| left-turning-lanes                              | (8201), |                                                      |
| upper-deck-lanes                                | (8236), |                                                      |
| lower-deck-lanes                                | (8237), |                                                      |
| reversible-lanes                                | (8238), |                                                      |
| right-exit-lanes                                | (8239), |                                                      |
| left-exit-lanes                                 | (8240), |                                                      |
| right-merging-lanes                             | (8241), |                                                      |
| left-merging-lanes                              | (8242), |                                                      |
| <b>-- Ramps</b>                                 |         |                                                      |
| right-exit-ramp                                 | (8202), |                                                      |
| right-second-exit-ramp                          | (8243), |                                                      |
| right-entrance-ramp                             | (8203), |                                                      |
| right-second-entrance-ramp                      | (8245), |                                                      |

|                                                 |         |                                                                                         |
|-------------------------------------------------|---------|-----------------------------------------------------------------------------------------|
| left-exit-ramp                                  | (8204), |                                                                                         |
| left-second-exit-ramp                           | (8244), |                                                                                         |
| left-entrance-ramp                              | (8205), |                                                                                         |
| left-second-entrance-ramp                       | (8246), |                                                                                         |
| escape-ramp                                     | (8234), | -- A truck feature on steep<br>-- downgrades common in both<br>-- Alaska and elsewhere. |
| <b>-- Shoulders</b>                             |         |                                                                                         |
| hard-shoulder                                   | (8206), |                                                                                         |
| soft-shoulder                                   | (8207), |                                                                                         |
| right-shoulder                                  | (8208), |                                                                                         |
| left-shoulder                                   | (8209), |                                                                                         |
| median                                          | (8252), |                                                                                         |
| sidewalk                                        | (8251), |                                                                                         |
| <b>-- Other</b>                                 |         |                                                                                         |
| highways                                        | (8235), |                                                                                         |
| right-hand-parallel-lanes                       | (8210), | -- Alternative Rendering:<br>-- right-hand frontage road                                |
| left-hand-parallel-lanes                        | (8211), | -- Alternative Rendering:<br>-- left-hand frontage road                                 |
| connecting-lanes                                | (8212), |                                                                                         |
| express-lanes                                   | (8213), |                                                                                         |
| local-lanes                                     | (8214), |                                                                                         |
| toll-lanes                                      | (8215), |                                                                                         |
| electronic-toll-lanes                           | (8216), |                                                                                         |
| toll-plaza                                      | (8217), |                                                                                         |
| inspection-lane                                 | (8218), | -- Alternative Rendering: Border<br>-- patrol inspection lane                           |
| hOV-lanes                                       | (8219), | -- Use when 2+ or 3+ is unknown<br>-- and for HOV in general                            |
| bus-lanes                                       | (8220), |                                                                                         |
| carpool-lanes                                   | (8221), |                                                                                         |
| truck-lanes                                     | (8222), |                                                                                         |
| emergency-lanes                                 | (8223), |                                                                                         |
| passing-lanes                                   | (8224), |                                                                                         |
| climbing-lanes                                  | (8225), |                                                                                         |
| slow-lane                                       | (8226), | -- Alternative Rendering:<br>-- Crawler lane                                            |
| service-road                                    | (8227), | -- Alternative Rendering:<br>-- Frontage Road                                           |
| cycle-lane                                      | (8228), | -- Use for bicycle lanes of all<br>-- types                                             |
| tracks                                          | (8250), | -- Use for light rail and<br>-- transit uses, may have count<br>-- of tracks            |
| <b>-- Bridges, Tunnels</b>                      |         |                                                                                         |
| bridge                                          | (8229), |                                                                                         |
| overpass                                        | (8230), |                                                                                         |
| elevated-lanes                                  | (8231), |                                                                                         |
| underpass                                       | (8232), |                                                                                         |
| tunnel                                          | (8233), | -- Use for RG-200                                                                       |
| <b>-- Lanes Groups</b>                          |         |                                                                                         |
| all-exit-lanes                                  | (8247), |                                                                                         |
| all-entry-lanes                                 | (8248), |                                                                                         |
| either-shoulder                                 | (8249), |                                                                                         |
| shoulder-work                                   | (8253), | -- Use for W21-5 as well                                                                |
| <b>-- Alternate Route</b>                       |         |                                                                                         |
| detour-where-possible                           | (8449), |                                                                                         |
| no-detour-available                             | (8450), |                                                                                         |
| follow-signs                                    | (8451), |                                                                                         |
| follow-detour-signs                             | (8452), |                                                                                         |
| follow-special-detour-markers                   | (8453), |                                                                                         |
| do-not-follow-detour-signs                      | (8454), |                                                                                         |
| detour-in-operation                             | (8455), |                                                                                         |
| follow-local-detour                             | (8456), |                                                                                         |
| compulsory-detour-in-operation                  | (8457), |                                                                                         |
| no-suitable-detour-available                    | (8458), |                                                                                         |
| detour-is-no-longer-recommended                 | (8459), |                                                                                         |
| local-drivers-are-recommended-to-avoid-the-area | (8460), |                                                                                         |
| trucks-are-recommended-to-avoid-the-area        | (8461), |                                                                                         |
| consider-alternate-route                        | (8462), |                                                                                         |
| consider-alternate-parking                      | (8463), |                                                                                         |
| consider-alternate-destination                  | (8464), |                                                                                         |
| consider-alternate-area                         | (8465), |                                                                                         |
| <b>-- Specific Route Types</b>                  |         |                                                                                         |
| snow-route                                      | (8466), |                                                                                         |

|                                                   |         |                                                                                                                                                                      |
|---------------------------------------------------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| emergency-snow-route                              | (8467), |                                                                                                                                                                      |
| evacuation-route                                  | (8468), | -- May be preceded by a<br>-- specific type, Used also for<br>-- general emergency routes.                                                                           |
| truck-route                                       | (8469), |                                                                                                                                                                      |
| hazardous-materials-route                         | (8470), | -- May be used with 'any<br>-- time' for allowed, or 'no' for<br>-- prohibited, or 'detour'                                                                          |
| detour                                            | (8471), |                                                                                                                                                                      |
| <b>-- Unit Values</b>                             |         |                                                                                                                                                                      |
| <b>-- Areas, Distances &amp; Speeds</b>           |         |                                                                                                                                                                      |
| square-feet                                       | (8705), |                                                                                                                                                                      |
| square-meters                                     | (8706), |                                                                                                                                                                      |
| acres                                             | (8707), |                                                                                                                                                                      |
| hectares                                          | (8708), |                                                                                                                                                                      |
| inches                                            | (8709), |                                                                                                                                                                      |
| feet                                              | (8710), |                                                                                                                                                                      |
| mile                                              | (8711), | -- Hint: used for offset as in<br>-- "at mile 123" Alternative<br>-- Rendering: milepost marker                                                                      |
| miles                                             | (8712), | -- Hint: Used for distance, as in<br>-- "ending 5 miles"                                                                                                             |
| nautical-miles                                    | (8713), |                                                                                                                                                                      |
| millimeters                                       | (8714), |                                                                                                                                                                      |
| meters                                            | (8715), |                                                                                                                                                                      |
| kilometer                                         | (8716), | -- Hint: used for offset as in<br>-- "at kilometer 123"                                                                                                              |
| kilometers                                        | (8717), |                                                                                                                                                                      |
| feet-per-second                                   | (8718), |                                                                                                                                                                      |
| meters-per-second                                 | (8719), |                                                                                                                                                                      |
| mPH                                               | (8720), |                                                                                                                                                                      |
| kPH                                               | (8721), |                                                                                                                                                                      |
| knots                                             | (8722), |                                                                                                                                                                      |
| elevation                                         | (8766), | -- Typically followed by<br>-- value and units                                                                                                                       |
| <b>-- Times, Days &amp; Dates</b>                 |         |                                                                                                                                                                      |
| aM                                                | (8723), | -- Both a time value and a radio<br>-- band value. A number value<br>-- may PRECEDE the unit value<br>-- used in representing the<br>-- frequency of a radio station |
| pM                                                | (8724), |                                                                                                                                                                      |
| holiday                                           | (8726), |                                                                                                                                                                      |
| seconds                                           | (8727), |                                                                                                                                                                      |
| minutes                                           | (8728), |                                                                                                                                                                      |
| hours                                             | (8729), |                                                                                                                                                                      |
| days                                              | (8730), | -- Hint: useful for events<br>-- occurring for at least 24<br>-- hours                                                                                               |
| weeks                                             | (8731), |                                                                                                                                                                      |
| months                                            | (8732), |                                                                                                                                                                      |
| other-times                                       | (8767), | -- Typically used to<br>-- represent a "default" allowed<br>-- condition                                                                                             |
| <b>-- Days of the Week</b>                        |         |                                                                                                                                                                      |
| nSunday                                           | (8758), |                                                                                                                                                                      |
| nMonday                                           | (8759), |                                                                                                                                                                      |
| nTuesday                                          | (8760), |                                                                                                                                                                      |
| nWednesday                                        | (8761), |                                                                                                                                                                      |
| nThursday                                         | (8762), |                                                                                                                                                                      |
| nFriday                                           | (8763), |                                                                                                                                                                      |
| nSaturday                                         | (8764), |                                                                                                                                                                      |
| weekdays                                          | (8765), | -- Alt text: Mon-Fri                                                                                                                                                 |
| weekends                                          | (8725), | -- In general date/time values<br>-- can be better coded in other<br>-- ways in most message sets                                                                    |
| <b>-- Temps, Weights, Masses and Measurements</b> |         |                                                                                                                                                                      |
| degrees-Angle                                     | (8733), | -- Used for latitude, longitude<br>-- and bearing measured clockwise<br>-- from North                                                                                |
| degrees-Celsius                                   | (8734), | -- Alternate renderings possible                                                                                                                                     |
| degrees-Fahrenheit                                | (8735), | -- Alternate renderings possible                                                                                                                                     |
| grams                                             | (8736), |                                                                                                                                                                      |
| kilograms                                         | (8737), | -- Also called a metric ton<br>-- (1000kg or ~2204 lbs)                                                                                                              |
| ounces                                            | (8738), |                                                                                                                                                                      |



|                                   |         |                                                                                                     |
|-----------------------------------|---------|-----------------------------------------------------------------------------------------------------|
| pounds                            | (8739), |                                                                                                     |
| tons                              | (8740), | -- English Units (2000 lbs = 1 ton)                                                                 |
| fluid-ounces                      | (8741), |                                                                                                     |
| gallons                           | (8742), |                                                                                                     |
| milliliters                       | (8743), |                                                                                                     |
| liters                            | (8744), |                                                                                                     |
| kilograms-per-lane-mile           | (8745), |                                                                                                     |
| tons-per-lane-mile                | (8746), |                                                                                                     |
| <b>-- Misc.</b>                   |         |                                                                                                     |
| dollar                            | (8747), | -- Alternative rendering: dollar<br>-- symbol Not to be used as the default value for this category |
| percent                           | (8748), | -- Alternative rendering: percent<br>-- symbol                                                      |
| grade                             | (8757), | -- Typically preceded by a percent value entry                                                      |
| time-delimiter                    | (8749), | -- Alternative rendering: "--"                                                                      |
| dollars                           | (8750), | -- Alternative rendering can use local currency sign                                                |
| flight-number                     | (8751), | -- A number value may PRECEDE the unit value in use                                                 |
| person-people                     | (8752), |                                                                                                     |
| response-plan                     | (8753), | -- A value may PRECEDE the unit value in use (involving a combination of numbers and/or letters)    |
| placard-type                      | (8754), | -- For hazmat class and division type designations, a value may PRECEDE the unit value in use       |
| placard-number                    | (8755), | -- For chemical designations, a value may PRECEDE the unit value in use                             |
| fM                                | (8756), | -- A number value may PRECEDE the unit value in use representing the frequency of a radio station   |
| <b>-- Transit Mode</b>            |         |                                                                                                     |
| travel                            | (8961), | -- Hint: may include all modes                                                                      |
| transit                           | (8962), | -- Hint: may include all public transit modes                                                       |
| bus                               | (8963), |                                                                                                     |
| trolleybus                        | (8964), |                                                                                                     |
| rail                              | (8965), |                                                                                                     |
| commuter-rail                     | (8966), |                                                                                                     |
| subway                            | (8967), |                                                                                                     |
| rapid-transit                     | (8968), |                                                                                                     |
| light-rail                        | (8969), |                                                                                                     |
| streetcar                         | (8970), | -- Alternative Rendering: tram                                                                      |
| dial-a-ride                       | (8971), | -- Alternative Rendering: demand responsive transit                                                 |
| park-and-ride                     | (8972), | -- Not to be used as a place                                                                        |
| shuttle                           | (8973), |                                                                                                     |
| free-shuttle                      | (8974), | -- Alternative Rendering: tram                                                                      |
| airport-shuttle                   | (8975), |                                                                                                     |
| taxies                            | (8976), |                                                                                                     |
| ferry                             | (8977), |                                                                                                     |
| passenger-ferry                   | (8978), |                                                                                                     |
| vehicle-ferry                     | (8979), |                                                                                                     |
| aerial-tramway                    | (8980), |                                                                                                     |
| automated-guideway                | (8981), | -- Include all types of guideways                                                                   |
| cable-cars                        | (8982), |                                                                                                     |
| monorail                          | (8983), |                                                                                                     |
| air-travel                        | (8984), | -- All modes of air travel                                                                          |
| hitch-hitching                    | (8985), |                                                                                                     |
| walk                              | (8986), | -- Alt form: Walking                                                                                |
| <b>-- Vehicle Groups Affected</b> |         |                                                                                                     |
| all-vehicles                      | (9217), |                                                                                                     |
| bicycles                          | (9218), |                                                                                                     |
| motorcycles                       | (9219), | -- to include mopeds as well                                                                        |
| cars                              | (9220), | -- (remapped from ERM value of zero)                                                                |
| light-vehicles                    | (9221), |                                                                                                     |
| cars-and-light-vehicles           | (9222), |                                                                                                     |
| cars-with-trailers                | (9223), |                                                                                                     |



|                                            |         |                                                                                                                                                                |
|--------------------------------------------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| cars-with-recreational-trailers            | (9224), |                                                                                                                                                                |
| vehicles-with-trailers                     | (9225), |                                                                                                                                                                |
| heavy-vehicles                             | (9226), |                                                                                                                                                                |
| trucks                                     | (9227), | -- Use for RG-190                                                                                                                                              |
| buses                                      | (9228), |                                                                                                                                                                |
| articulated-buses                          | (9229), |                                                                                                                                                                |
| school-buses                               | (9230), |                                                                                                                                                                |
| vehicles-with-semi-trailers                | (9231), |                                                                                                                                                                |
| vehicles-with-double-trailers              | (9232), | -- Alternative Rendering:<br>-- western doubles                                                                                                                |
| high-profile-vehicles                      | (9233), |                                                                                                                                                                |
| wide-vehicles                              | (9234), |                                                                                                                                                                |
| long-vehicles                              | (9235), |                                                                                                                                                                |
| hazardous-loads                            | (9236), |                                                                                                                                                                |
| exceptional-loads                          | (9237), |                                                                                                                                                                |
| abnormal-loads                             | (9238), |                                                                                                                                                                |
| convoys                                    | (9239), |                                                                                                                                                                |
| maintenance-vehicles                       | (9240), |                                                                                                                                                                |
| delivery-vehicles                          | (9241), |                                                                                                                                                                |
| vehicles-with-even-numbered-license-plates | (9242), |                                                                                                                                                                |
| vehicles-with-odd-numbered-license-plates  | (9243), |                                                                                                                                                                |
| vehicles-with-parking-permits              | (9244), |                                                                                                                                                                |
| vehicles-with-catalytic-converters         | (9245), |                                                                                                                                                                |
| vehicles-without-catalytic-converters      | (9246), |                                                                                                                                                                |
| gas-powered-vehicles                       | (9247), |                                                                                                                                                                |
| diesel-powered-vehicles                    | (9248), |                                                                                                                                                                |
| LPG-vehicles                               | (9249), |                                                                                                                                                                |
| military-convoys                           | (9250), |                                                                                                                                                                |
| military-vehicles                          | (9251), |                                                                                                                                                                |
| electric-powered-vehicles                  | (9252), |                                                                                                                                                                |
| hybrid-powered-vehicles                    | (9253), |                                                                                                                                                                |
| inherently-low-emission-vehicles           | (9254), |                                                                                                                                                                |
| commercial-vehicles                        | (9255), |                                                                                                                                                                |
| runaway-vehicles                           | (9256), |                                                                                                                                                                |
| vehicles-with-lugs                         | (9257), |                                                                                                                                                                |
| motor-driven-cycles                        | (9258), |                                                                                                                                                                |
| recreational-vehicles                      | (9259), | -- Use for RVs                                                                                                                                                 |
| non-motorized-vehicles                     | (9260), |                                                                                                                                                                |
| traffic                                    | (9261), | -- Refers to all types of<br>-- motor traffic, all groups                                                                                                      |
| <b>-- Traveler Group Affected</b>          |         |                                                                                                                                                                |
| through-traffic                            | (9473), |                                                                                                                                                                |
| holiday-traffic                            | (9474), |                                                                                                                                                                |
| residents                                  | (9475), |                                                                                                                                                                |
| visitors                                   | (9476), |                                                                                                                                                                |
| long-distance-traffic                      | (9477), |                                                                                                                                                                |
| local-traffic                              | (9478), |                                                                                                                                                                |
| regional-traffic                           | (9479), |                                                                                                                                                                |
| arrivals                                   | (9480), |                                                                                                                                                                |
| departures                                 | (9481), |                                                                                                                                                                |
| airline-travelers                          | (9482), |                                                                                                                                                                |
| commuter-airline-travelers                 | (9483), |                                                                                                                                                                |
| domestic-airline-travelers                 | (9484), |                                                                                                                                                                |
| international-airline-travelers            | (9485), |                                                                                                                                                                |
| pedestrians                                | (9486), |                                                                                                                                                                |
| bicyclists                                 | (9487), | -- Hint: may be used as a<br>-- traveler restriction, as in<br>-- "bicycles prohibited on<br>-- subways during rush hour" or<br>-- "road closed to bicyclists" |
| <b>-- Responder Group Affected</b>         |         |                                                                                                                                                                |
| emergency-vehicle-units                    | (9729), | -- Default phrase, to be used<br>-- when one of the below does not<br>-- fit better                                                                            |
| federal-law-enforcement-units              | (9730), |                                                                                                                                                                |
| state-police-units                         | (9731), |                                                                                                                                                                |
| county-police-units                        | (9732), | -- Hint: also sheriff response<br>-- units                                                                                                                     |
| local-police-units                         | (9733), |                                                                                                                                                                |
| ambulance-units                            | (9734), |                                                                                                                                                                |
| rescue-units                               | (9735), |                                                                                                                                                                |
| fire-units                                 | (9736), |                                                                                                                                                                |
| HAZMAT-units                               | (9737), | -- Any vehicle assigned to HAZMAT<br>-- duties                                                                                                                 |
| light-tow-unit                             | (9738), |                                                                                                                                                                |
| heavy-tow-unit                             | (9739), |                                                                                                                                                                |



|                                       |          |                                                                                                     |
|---------------------------------------|----------|-----------------------------------------------------------------------------------------------------|
| private-tow-units                     | (9743),  | -- For 3rd Party tow trucks                                                                         |
| freeway-service-patrols               | (9740),  |                                                                                                     |
| transportation-response-units         | (9741),  |                                                                                                     |
| private-contractor-response-units     | (9742),  |                                                                                                     |
| <b>-- Incident Response Equipment</b> |          |                                                                                                     |
| ground-fire-suppression               | (9985),  |                                                                                                     |
| heavy-ground-equipment                | (9986),  |                                                                                                     |
| aircraft                              | (9988),  |                                                                                                     |
| marine-equipment                      | (9989),  |                                                                                                     |
| support-equipment                     | (9990),  |                                                                                                     |
| medical-rescue-unit                   | (9991),  |                                                                                                     |
| other                                 | (9993),  | -- Depreciated by fire standards,<br>-- do not use                                                  |
| ground-fire-suppression-other         | (9994),  |                                                                                                     |
| engine                                | (9995),  |                                                                                                     |
| truck-or-aerial                       | (9996),  |                                                                                                     |
| quint                                 | (9997),  | -- A five-function type of fire<br>-- apparatus. The units in the<br>-- movie Backdraft were quints |
| tanker-pumper-combination             | (9998),  |                                                                                                     |
| brush-truck                           | (10000), |                                                                                                     |
| aircraft-rescue-firefighting          | (10001), |                                                                                                     |
| heavy-ground-equipment-other          | (10004), |                                                                                                     |
| dozer-or-plow                         | (10005), |                                                                                                     |
| tractor                               | (10006), |                                                                                                     |
| tanker-or-tender                      | (10008), |                                                                                                     |
| aircraft-other                        | (10024), |                                                                                                     |
| aircraft-fixed-wing-tanker            | (10025), |                                                                                                     |
| helitanker                            | (10026), |                                                                                                     |
| helicopter                            | (10027), |                                                                                                     |
| marine-equipment-other                | (10034), |                                                                                                     |
| fire-boat-with-pump                   | (10035), |                                                                                                     |
| boat-no-pump                          | (10036), |                                                                                                     |
| support-apparatus-other               | (10044), |                                                                                                     |
| breathing-apparatus-support           | (10045), |                                                                                                     |
| light-and-air-unit                    | (10046), |                                                                                                     |
| medical-rescue-unit-other             | (10054), |                                                                                                     |
| rescue-unit                           | (10055), |                                                                                                     |
| urban-search-rescue-unit              | (10056), |                                                                                                     |
| high-angle-rescue                     | (10057), |                                                                                                     |
| crash-fire-rescue                     | (10058), |                                                                                                     |
| bLS-unit                              | (10059), |                                                                                                     |
| aLS-unit                              | (10060), |                                                                                                     |
| mobile-command-post                   | (10075), | -- Deprecated, do not use                                                                           |
| chief-officer-car                     | (10076), |                                                                                                     |
| hAZMAT-unit                           | (10077), |                                                                                                     |
| type-i-hand-crew                      | (10078), |                                                                                                     |
| type-ii-hand-crew                     | (10079), |                                                                                                     |
| privately-owned-vehicle               | (10083), | -- (Often found in volunteer fire<br>-- teams)                                                      |
| other-apparatus-resource              | (10084), | -- (Remapped from fire code zero)                                                                   |
| ambulance                             | (10085), |                                                                                                     |
| bomb-squad-van                        | (10086), |                                                                                                     |
| combine-harvester                     | (10087), |                                                                                                     |
| construction-vehicle                  | (10088), |                                                                                                     |
| farm-tractor                          | (10089), |                                                                                                     |
| grass-cutting-machines                | (10090), |                                                                                                     |
| hAZMAT-containment-tow                | (10091), |                                                                                                     |
| heavy-tow                             | (10092), |                                                                                                     |
| light-tow                             | (10094), |                                                                                                     |
| flatbed-tow                           | (10114), |                                                                                                     |
| hedge-cutting-machines                | (10093), |                                                                                                     |
| mobile-crane                          | (10095), |                                                                                                     |
| refuse-collection-vehicle             | (10096), |                                                                                                     |
| resurfacing-vehicle                   | (10097), |                                                                                                     |
| road-sweeper                          | (10098), |                                                                                                     |
| roadside-litter-collection-crews      | (10099), |                                                                                                     |
| survey-crews                          | (10115), |                                                                                                     |
| salvage-vehicle                       | (10100), |                                                                                                     |
| sand-truck                            | (10101), |                                                                                                     |
| snowplow                              | (10102), |                                                                                                     |
| steam-roller                          | (10103), |                                                                                                     |
| swat-team-van                         | (10104), |                                                                                                     |
| track-laying-vehicle                  | (10105), |                                                                                                     |
| unknown-vehicle                       | (10106), |                                                                                                     |
| white-lining-vehicle                  | (10107), | -- Consider using Roadwork "Roadwork"                                                               |

