

Variable Message Signs in the 1968 Convention:

a proposal from Ad hoc Expert Group
(VMS - Unit) to WP.1

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WHO

Background

Issue 1

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Conclusion

- Alberto Arbaiza / Carmen Girón, DGT –Dirección General de Tráfico, Spain: Chair
- Antonio Lucas, DGT, University of Zaragoza, Spain: Secretariat
- Birgit Hartz, BASt -Bundesanstalt für Straßenwesen, Germany
- Christophe Desnouailles, SETRA-Service d'Études Techniques des Routes et Autoroutes, France
- Darren Evans, Highways Agency, United Kingdom
- Gunilla Thyni, Trafikverket, Sweden
- Hans Remeijn, Rijkswaterstaat, The Netherlands
- Roberto Serino, Ministero delle Infrastrutture e dei Trasporti, Italy

HOW

Background

Issue 1

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Conclusion

- Need to include VMS fully in the 1968 Convention
- Try to do that with minimal changes to the 1968 Convention
- Being aware of broad effects of changes required and proposed
- Based on what is already in current RE.2 on VMS
 - Although some improvements may be suggested later

1. Proposed differentiation between fixed and variable road signs

Background

1.1. Need for a definition of VMS

Issue 1

1.2. Need for a clear status, coordinated implementation and use of fixed vs. variable road signs

Issue 2

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Conclusion

1. Proposed differentiation between fixed and variable road signs

Background

Issue 1

1.1. Definition of VMS:

“A Variable Message Sign (VMS) is a sign for the purpose of displaying one of a number of messages that may be changed or switched on or off as required”. (current definition in RE.2)

Issue 2

or:

Issue 3

...inscriptions and symbols...

(fully aligned with current VMS text of Article 8)

Issue 4

to be placed in Chapter I. General provisions
Article 1 Definition..... taking the letter (w).

Conclusion

1. Proposed differentiation between fixed and variable road signs

Background

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Conclusion

1.2. Need for a clear status, coordinated implementation and use of fixed vs. variable road signs

“Variable Message Signs should only be used for managing temporary events. Issues which require long-term use in a static location should always be shown on permanent (fixed) road signs”.

be placed in Chapter II. Road signs Article 8. 1. ter...

2. Proposal to “move” some functions from traffic light signals to road signs

Background

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Conclusion

The issue:

“crosses and arrows” are used in combination with other road signs, but are still considered as “traffic light signals” within the 1968 Convention (Article 23, point 11 a and b)

Proposal:

Give crosses and arrows (also) the status of full road sign in the Convention
(and include this in Annex 1 and 3).

2. Proposal to “move” some functions from traffic light signals to road signs

Pictograms for Annex 3:

Background

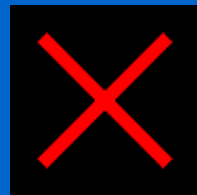
Issue 1

Issue 2

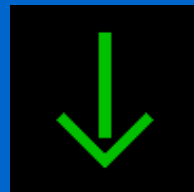
Issue 3

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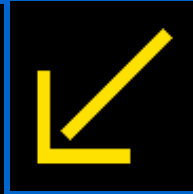
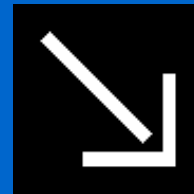
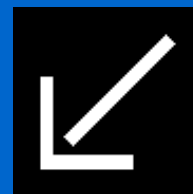
Conclusion



E,
22^a



E,
22^b



E, 22^c

2. Proposal to “move” some functions from traffic light signals to road signs

Background

Issue 1

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Conclusion

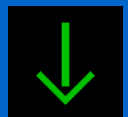
Text for Annex 1:

(E, 22) Sign notifying lane availability;
Three different signs may be used in case of variable assignment of lanes:

E, 22a: Traffic may not proceed along the lane over which it is placed;



E, 22b: Traffic may proceed along the lane over which it is placed;



E, 22c: The lane is about to be closed to traffic and the road users on that lane must move over to the lane indicated by the arrow.



3. Proposal on colour inversion on VMS

Background

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Conclusion

Most “economic” and less obtrusive approach:

- Display all signs in the original “natural” fixed sign format in Annex 3. Article 8, 1.bis suffices to indicate other possibilities.
- Suggestion: upload an informal catalogue with colour inverted signs to the WP.1 website.

4. Considerations on R.E.2, 5.3.2. “Rules for VMS”

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Conclusion

This section should move to a specific location within the 1968 Convention.

The VMS Unit proposes to include this information in a new article in Chapter II Road signs.

Some rules *could be* slightly reworded to make them clearer.

4. Considerations on R.E.2, 5.3.2. “Rules for VMS”

Background

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Conclusion

1.

Original

When using VMS with pictograms the main information is given by the pictogram.

The use of specific pictograms instead of generic ones (e.g., the pictogram A, 24 representing “congestion” instead of general danger A, 32) is preferred, when they exist.

1.

New

When used, pictograms should always provide the main unit of information in any VMS message.

4. Considerations on R.E.2, 5.3.2. “Rules for VMS”

Background

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2.

Original

Make use of graphical elements as much as possible when using text (e.g., pictograms, symbols).

2.

New

When a VMS has such a capability, graphical elements (pictograms, symbols) should always be used as much as possible to replace the need for text.

4. Considerations on R.E.2, 5.3.2. “Rules for VMS”

Background

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3.

Original

Use regulatory messages without any text, if possible.

3.

New

If used, a regulatory pictogram/symbol should not require any supporting text to be clearly understood by road users.

4. Considerations on R.E.2, 5.3.2. “Rules for VMS”

Background

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4.

Original

Danger warning messages (using the red triangle) should only be used when the dangerous spot or stretch of road is nearby the VMS (for instance, no more than 2 km). When using words in danger warning messages, place the information about the nature of the danger first and then brief complementary advice can be given under.

4.

New

Danger warning messages (using the red triangle) should generally not be used when the dangerous spot or stretch of road is far from the VMS (for instance, more than 5 km). When using words in danger warning messages, place the information about the nature of the danger first and then brief complementary advice can be added.

4. Considerations on R.E.2, 5.3.2. “Rules for VMS”

5.

Original

When a VMS is used to inform about a situation at some distance (for instance, 2 km or more) or in the future (e.g. expected road works), additional information (e.g. distance, or respectively an indication of date and time) is necessary. The recommended structure of the message is the following: first give the information concerning the nature of the event on the first line, then distance and/or time indication on the second line. A third line can be used for additional information (e.g. advice, cause)

5.

New

When a VMS is used to inform about a situation at some distance (for instance, 5 km or more) or in the future (e.g. expected road works), additional information (e.g. distance, or respectively an indication of date and time) is necessary.

The recommended order of the message is the following:

1. Information about the nature of the event.
2. Distance and/or time indication.
3. Additional information (e.g. advice, cause).

4. Considerations on R.E.2, 5.3.2. “Rules for VMS”

Background

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Conclusion

6.

Original

Avoid alternating messages.

6.

New

VMS should not display scrolling, alternating or sequential messages.

4. Considerations on R.E.2, 5.3.2. “Rules for VMS”

Background

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7.

Original

Avoid redundancy, except for the purpose of making drivers familiar with new pictograms.

7.

New

The meaning of a pictogram should not also be shown in text in a VMS message, unless required to educate drivers as to the meaning of a new pictogram.

4. Considerations on R.E.2, 5.3.2. “Rules for VMS”

Background

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8.

Original

Use only well-known and international abbreviations (e.g., ‘Km’ for kilometer, ‘Min’ for minutes, etc.).

8.

New

Use only well-known and international abbreviations (e.g., ‘km’ for kilometer, ‘min’ for minutes, etc.).

4. Considerations on R.E.2, 5.3.2. “Rules for VMS”

Background

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9.

Original

Minimize the number of words and symbols (e.g. maximum seven).

9.

New

To ensure they are safe for drivers to read, VMS messages should contain no more than 4 units of information.

Conclusion

Background

Issue 1

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Conclusion

- Changes proposed are minimal, in line with the equilibrium of the 1968 Convention.
- VMS can communicate complex messages referring to different road/traffic situations
- VMS need to be furnished with the right informative elements accordingly

FUTURE

Background

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Conclusion

- Within the EasyWay program, co-funded by the European Commission, ESG4 is performing one comprehension test yearly. The last one sampled more than 10,000 drivers from 12 UE countries in 2011.
- We propose to present an adapted set of pictograms (amendment to proposals now in R.E.2) for VMS to the WP.1 floor in the 64th session in September.

THANK YOU FOR YOUR
ATTENTION!