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VMS

Contents



- Issues concerning the possible enlargement of the 1968 Convention due to the advent of electronic road signage
- Position 1: worrying about it is unnecessary
- Position 2: anticipating solutions for some likely problems is necessary
- Conclusion
- Hybrid-VMS

Departure point



Wind...

Bad visibility...

...

Dangerous bend...

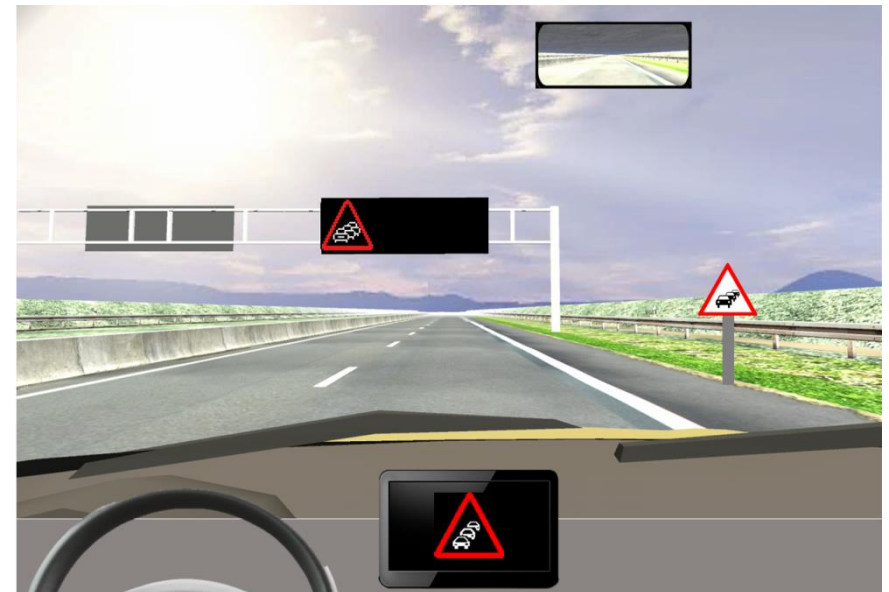


Departure point



Envisage the 1968 Convention as a book of road signs with core, basic meanings...

... that are **nuanced** by the specific context and the infrastructures displaying signs



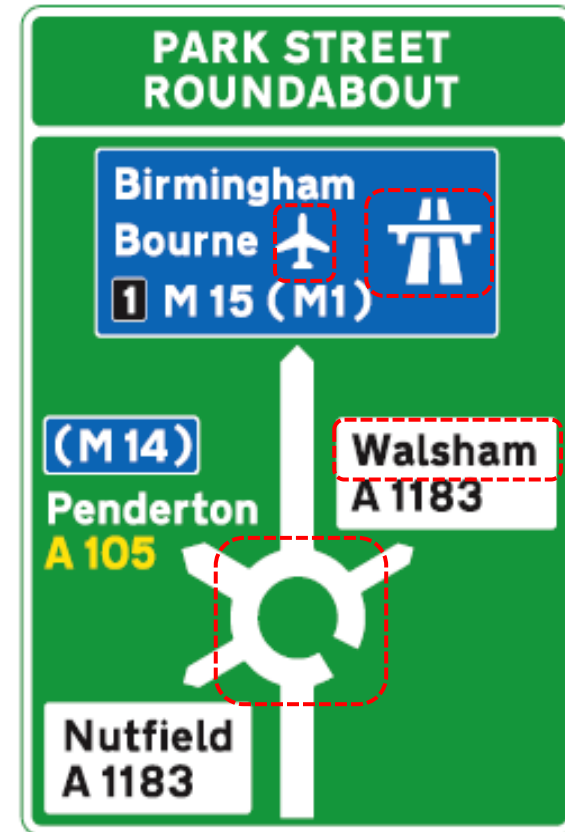
Position 1: there's no need to worry about specificities brought by electronic signage to the 1968 Convention



1. Because human (drivers) are able of inference



2. Because the paint coat outperforms any electronic matrix



Position 1: there's no need to worry about specificities brought by electronic signage to the 1968 Convention



- Thought for the very good graphical nuances that paint makes possible, the collection of shapes, borders, rims, silhouettes, inscriptions, figures, panels, currently present in the 1968 Convention catalogue **will** surely **satisfy** the visual and **representational needs** of any coming **electronic sign**
- The 1968 Convention counts with a sufficient graphical richness to be sure

Position 2: anticipating solutions for some likely problems is necessary



New display technologies introduce three basic needs:

1. The need for new contents (signs and symbols) demanded by electronic signage in particular
2. The need to know specifically how to turn complex signs on the 1968 Convention into signs that make sense for electronic signage
3. The need to determine the way different and differing reading schemes should be displayed simultaneously

First need: new contents demanded by electronic signage



Annex IX: recommended signs of the Vienna Convention for use on VMS

Annex X: new signs for use on VMS



ANNEXE IX
RECOMMENDED SIGNS OF THE VIENNA CONVENTION FOR USE ON VMS
(Chapter VI)

Prohibitory, restrictive or mandatory signs	Danger warning signs	Direction, position or indication signs and additional panels
<p>Prohibitory or restrictive</p> <p>Mandatory</p>		<p>Direction, position or indication</p> <p>Special regulation signs</p> <p>Additional Panels</p>

ANNEX X
NEW SIGNS FOR USE ON VMS
(Chapter VI)

Special regulation signs	Danger warning signs	Direction, position or indication signs and additional panels

Direction, position or indication signs and additional panels

- G-27 (reported congestion)
- G-28 (reported road works)
- G-29 (reported snow/ice)
- G-30 (reported strong wind)
- G-31 (reported slippery road)

Second need: the need to know how to turn current complex signs into e-signs



Advance Direction Signs

Lömal 17
Duln 22
Kronland 4

G, 1°

NAPOLI
AVEZZANO

G, 1°

Northchurch 1
Wiggington 4
Chesham 5
Potten End 2
Gaddesden 3
Ashridge 4

G, 1°

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ANNEX X
NEW SIGNS FOR USE ON VMS
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Special regulation signs	Danger warning signs	Direction, position or indication signs and additional panels

Second need: the need to know how to turn current complex signs into e-signs



Consider the 1995 amendment of the 1968 Convention (p. 51):

- *“NOTE: Advance direction signs G, 1 may bear the symbols used on other signs informing road users of the characteristics of the route or of traffic conditions (for example: signs A, 2; A, 5; C, 3e; C, 6; E, 5a; F, 2).”*

				
A, 2a	A, 5	C, 6	E, 5a	F, 2

G, 1^c as model for e-signs: stack signs



G, 1 ^c	G, 1 ^c plus variable elements	G, 1 ^c (no numbers) plus variable elements
<p>Stack signs: top-down or bottom up?</p>		
<p>Example in the 1968 Convention (p. 101)</p>	<p>Hypothetical example for before, between and after</p>	<p>Hypothetical example for before, between and after</p>

G, 1^c as model for e-signs: stack signs





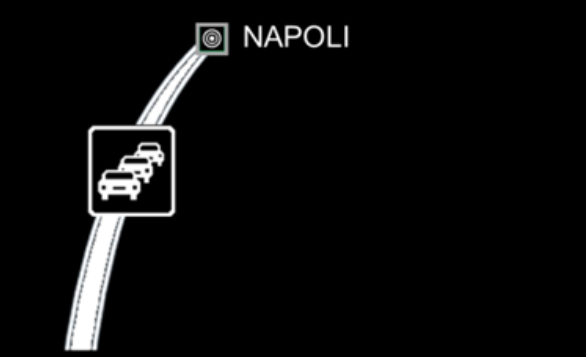
Poor e-signs: Hybrid-VMS. What to do?

G, 1 ^c	G, 1 ^c to variable event (full matrix)	G, 1c to variable event (hybrid)

	Event before/towards city	Event between cities	Event after city
Verbal reading pattern			
Map-like reading pattern			

G, 1^a; G, 1^b as model for e-signs: diagrammatic signs



G, 1 ^b	G, 1 ^b plus variable elements	G, 1 ^b other diagrams
		
<p>Example in the 1968 Convention (p. 101)</p>	<p>Hypothetical example for before, between and after</p>	<p>Hypothetical example for <i>towards Napoli</i></p>

*“NOTE: Advance direction signs G, 1 may bear the symbols used on other signs informing road users of the characteristics of the route or of **traffic conditions** (for example: signs A, 2; A, 5; C, 3e; C, 6; E, 5a; F, 2).”*

Third need: how should different and differing reading schemes be simultaneously displayed?



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This way?



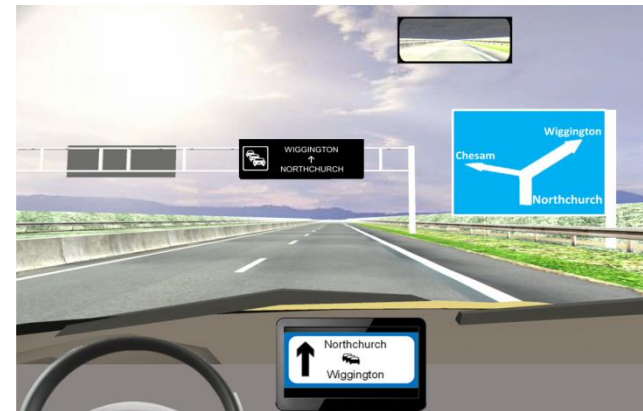
Third need: how should different and differing reading schemes be simultaneously displayed?



Conclusion



1. Making explicit differences between signs within the 1968 Convention considering to their final use (as fixed, as electronic) is not actually necessary
2. However, are there better and worse ways to make new e-signs grow within the 1968 Convention?
3. Clearly, not the elementary or simple signs, but the better way to build up new complex road signs is the current challenge for the 1968 Convention



Conclusion



There are at least three types of complex situations when using electronic signs:

1. Qualitative location (analyzed in this document): events going on towards, between, after certain locations (*Advance Location Signs*). This is pretty clear now
2. Rerouting and detour (there are different types of it)
3. Strategic management: telling drivers in one road what goes on in a adjacent or near road

Analytical and empirical efforts should so be pursued