

EXCERPTS FROM

Analysis of the

**Convention on Road Signs and Signals of 1968**

and the

**European Agreement Supplementing the Convention**

**Part I**



Presentation to

Group of Experts on Road Signs and Signals, WP.1, UNECE

M. Pronin, Consultant

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# Analysis of the VC and EA

## Part IA

### *The purpose:*

Search the VC and EA for inconsistencies in numbering and placement of related signs and identify if renumbering is needed.

### *Abbreviations used:*

VC = Convention on Road Signs and Signals of 1968 (2006 version)

EA = European Agreement Supplementing the Convention

VC-RT = Convention on Road Traffic of 1968 (2006 version)

# Analysis of the VC and EA

## Part IA

### *The methodology:*

- ✧ Approach the task as an academic exercise that may lead to practical ideas.
- ✧ Imagine the signs in the document are being seen for the first time.
- ✧ Take nothing for granted.

# Analysis of the VC and EA

## Part IA

Signs examined for numbering and placement:

- ✧ Start and end signs
- ✧ Permission and prohibition signs
- ✧ Reversal signs
- ✧ “Center” and “Side” signs
- ✧ Relationship of a/b signs
- ✧ Other signs

# Analysis of the VC and EA

## Part IA

Do the signs in any of the 6 categories listed on the previous page have consistent numbers and placement? No.

Related signs may or may not be adjacent.

Related signs may be numbered numerically or alphanumerically.

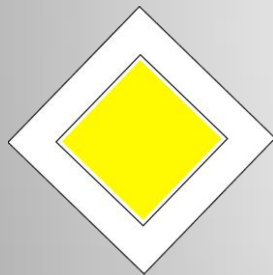
# Analysis of the VC and EA

## Part IA

### Numbering of START and END signs

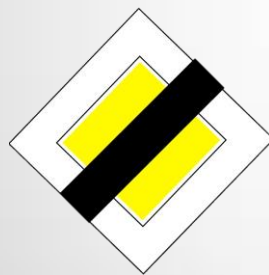
Examples out of 26 pairs:

START



B, 3

END



B, 4



E, 5a



E, 5b

START



D, 7

END



D, 8



E, 17a



E, 17b

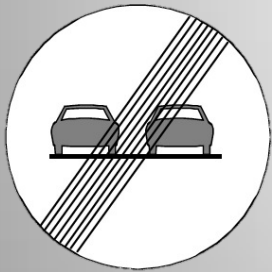
# Analysis of the VC and EA

## Part IA

Numbering of PERMISSION and PROHIBITION signs

Examples out of 10 pairs:

PERMISSION



C, 17c

PROHIBITION



C, 13aa

PERMISSION



E, 9c

PROHIBITION



E, 10c

# Analysis of the VC and EA

## Part IA

### Numbering and inclusion of REVERSAL signs

Found 58 pairs:

- ✧ 13 pairs with images, 1 omission
- ✧ 15 times mentioned in text only
- ✧ 12 times no image or mention in text, relevant for all countries
- ✧ 17 times no image or mention in text, relevant for countries with left-hand driving



# Analysis of the VC and EA

## Part IA

### Numbering and inclusion of REVERSAL signs

Examples:

LEFT



A, 1a

RIGHT



A, 1b

LEFT



A, 18c

RIGHT



A, 18c

“may be  
reversed”

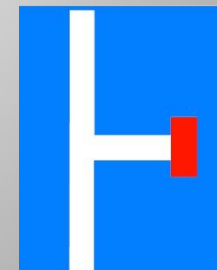
no image



E, 12a

not  
stated

no image



G, 12a

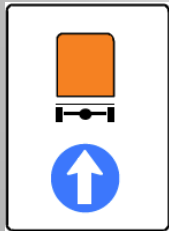
# Analysis of the VC and EA

## Part IA

### Numbering of "CENTER" and "SIDE" signs

Examples out of 13 groups of 3 signs each:

CENTER



D, 10b

SIDE



D, 10c

CENTER



E, 3a

SIDE



E, 3b



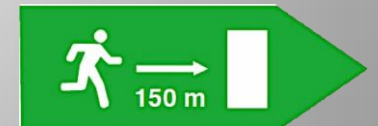
D, 1a



D, 1a



G, 26c



G, 26b

# Analysis of the VC and EA

## Part IA

### Relationship of a/b signs

Found 57 pairs:

- ✧ left/right signs
- ✧ alternative warning signs for model Aa or Ab
- ✧ center/side signs
- ✧ start/end signs
- ✧ different symbols or signs
- ✧ general/specific signs
- ✧ part of a set

# Analysis of the VC and EA

## Part IA

### Relationship of a/b signs

Examples:

LEFT



A, 1a

RIGHT



A, 1b

MODEL Aa



A, 18a

MODEL Ab



A, 18b

START



E, 6a

END



E, 6b

ALTERNATIVE DESIGNS



E, 18a



E, 18b

# Analysis of the VC and EA

## Part IA

### Placement of other RELATED signs

Examples out of 10 pairs:

#### STOPPING



A, 21a



A, 17a

#### HAZARDOUS GOODS

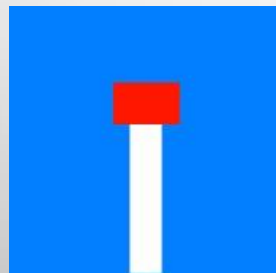


C, 3h



C, 3m

#### NO THROUGH ROAD



G, 13



G, 2b

# Analysis of the VC and EA

## Part IA

Part IA also documented numerical overlap, both intentional in the VC and unintentional in RE2. Because renumbering is needed to correct unintentional overlap, a simple log was created to track renumbered signs.

This will make it quick and easy to look up a sign's history.

# Analysis of the VC and EA

## Part IB

*The purpose:*

- ✧ Identify those signs that do and do not have counterparts in other sign sections.
- ✧ Provide information for considering creation of more signs related to existing VC signs.

# Analysis of the VC and EA

## Part IB

### *The methodology:*

- ✧ Approach the task as an academic exercise that may lead to practical ideas.
- ✧ Provide examples of signage from both Contracting and non-Contracting Parties.



# Analysis of the VC and EA

## Part IB

### Example of gaps in VC signage



















ROAD USER	A WARNING	C PROHIBITION	D MANDATORY	E CROSSING
Pedestrian	YES	YES	YES	YES
Horserider	NO	NO	YES	NO
Cycle	YES	YES	YES	NO
Motorcycle	NO	YES	NO	N/A

The “missing” signs may be in wide use, such as warning of horseriders crossing, or in rare use, such mandatory for motorcycles.

# Analysis of the VC and EA

## Part IB

### Example of gaps in VC signage

A	A/B	C	D	E	E	F	G	H
WARNING	PRIORITY	PROHIBIT	MANDATORY	SP REG	ZONE	INF/FAC/SERV	DIR/POS/INDIC	PANELS
 ped crossing <b>A, 12a</b>	 pedestrian	 no ped cross		 ped crossing <b>E, 12a</b>			 over/underpass <b>G, 20</b>	
 ped crossing				 ped crossing <b>E, 12c</b>			 over/und ramp <b>G, 21</b>	
 ped on road <b>A, 33 VMS</b>		 pedestrian <b>C, 3i</b>	 pedestrian <b>D, 5</b>		 pedestrian <b>ZONE</b>	 walks <b>F, 9</b>	 emergency exit <b>G, 23-24</b>	 pedestrian
 ped on road				 advised route			 rerouting	

EXCERPTS FROM

Analysis of  
**The Convention (1968) and The EA (1971)**  
**Part II**



# Analysis of the VC and EA

## Part IIA

### *The purpose:*

- ✧ With the focus on vertical signage, search the VC and EA for all types of flaws, including inconsistencies, ambiguities, and omissions.
- ✧ Document and illustrate how these flaws adversely affect the international community.
- ✧ Recommend practical and innovative ways to improve the VC.

# Analysis of the VC and EA

## Part IIA

### *The methodology:*

- ✧ Approach the VC and EA from the point of view of an editor and a graphic designer.
- ✧ Consider the signage from the perspective of a pedestrian and a car driver on a road with poor visibility.
- ✧ View the signage within the context of actual application throughout the world.

# Analysis of the VC and EA

## Part IIA

### *The discoveries:*

- ✧ Definitions of VC terminology and sign meanings need updating and more precision.
- ✧ Definitions are needed for more terms.
- ✧ More rules should be considered to reflect new trends in signage.
- ✧ Some “do not” rules are not followed by “how to” rules to convey a needed message.

# Analysis of the VC and EA

## Part IIA

### *The discoveries:*

- ✧ Some sign names are inaccurate.
- ✧ The VC signs are not as specific as new signs that many countries have introduced. This has changed how some signs are defined.
- ✧ Inclusion of rarely used signs has created a complicated VC sign system.
- ✧ Some types of signage have rules for design or are discussed, but no images are shown.

# Analysis of the VC and EA

## Part IIA

### *The discoveries:*

- ✧ The categorization of some signs should be questioned.
- ✧ Many traffic managers in non-Contracting Parties cannot extrapolate from the VC signs designs. They need more examples of signs.
- ✧ Guidance is needed for sign assemblies.



# Analysis of the VC and EA

## Part IIA

*Definitions of VC terminology and sign meanings need updating and more precision.*

Should the definition of “pedestrians” be updated to include persons traveling on skis, skates, skateboards, or non-motorized scooters?

Where do snowmobiles fit into the various definitions of motor vehicles?

# Analysis of the VC and EA

## Part IIA

*Definitions are needed for more terms.*

Road sign

Road marking

Traffic light signal

VMS

Bicycle path?

# Analysis of the VC and EA

## Part IIA

*More rules should be considered to reflect new trends in signage.*

Should signs be enclosed in boards? If yes, should colors be contrasting?



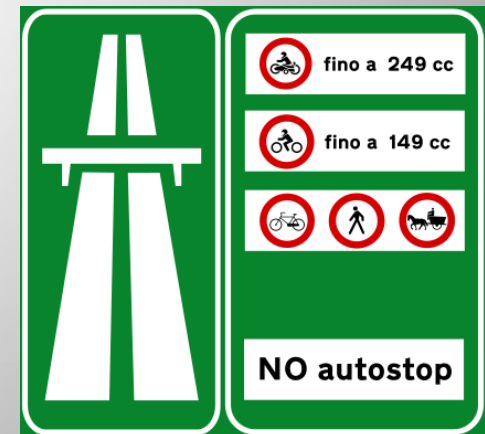
# Analysis of the VC and EA

## Part IIA

*Some “do not” rules are not followed by “how to” rules to convey a needed message.*

No more than 2 languages on a sign.

No more than 2 symbols in non-urban areas and 3 symbols in urban areas on C, 4 signs.



# Analysis of the VC and EA

## Part IIA

*Some sign names are inaccurate.*

Example of too narrow term:

**Swing bridge**  
(parts horizontally)

**Drawbridge**  
(parts vertically)

**Opening bridge or Moveable bridge**  
(better terms; include both horizontal and vertical)

# Analysis of the VC and EA

## Part IIA

*VC signs are not as specific as newer signs that many countries have introduced. This has changed how some signs are defined.*

VC definition: cyclists enter or cross the road



# Analysis of the VC and EA

## Part IIA

*Inclusion of rarely used signs has created a complicated VC sign system.*

Countries may use Reservations and Declarations to retain specific signs and symbols.



# Analysis of the VC and EA

## Part IIA

*Some types of signage have rules for design, but no images are shown.*

Temporary hazard markers

Level crossing gates

Place identification signs



# Analysis of the VC and EA

## Part IIA

*Some types of signage are discussed, but no images or design guidelines are provided. \**



\* The EA of VC-RT, Article 27 ter, page 100

# Analysis of the VC and EA

## Part IIA

*The categorization of some signs should be questioned.*

Permanent hazard markers are vertical signs. Do they belong in Road Markings?



# Analysis of the VC and EA

## Part IIA

*Many traffic managers in non-Contracting Parties cannot extrapolate from the VC sign designs.*

For U turn permitted, at least 19 countries use a blue roundel...



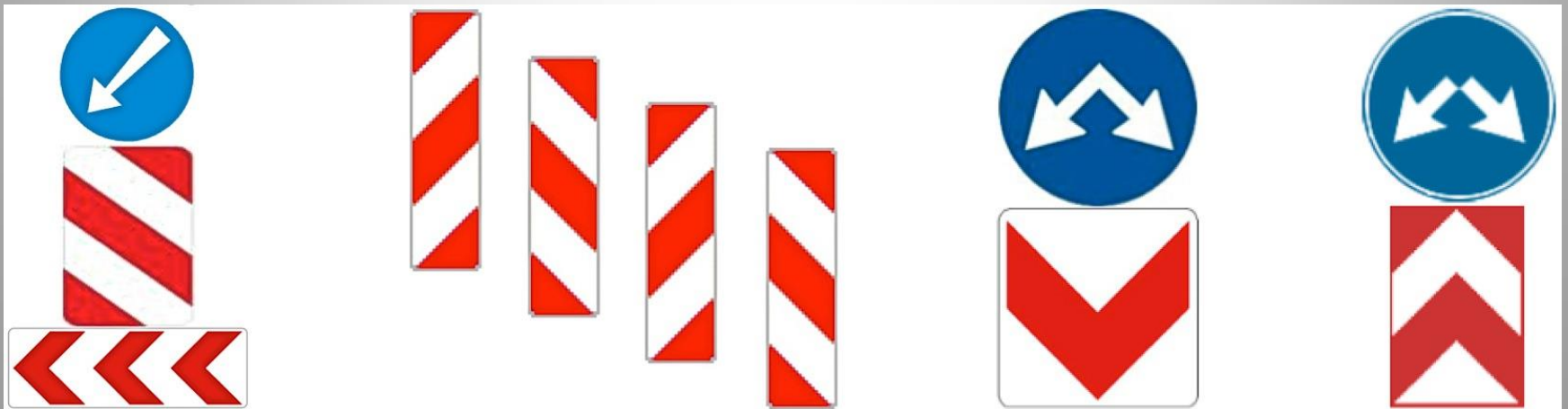
...because they base the sign on D, 1a.

# Analysis of the VC and EA

## Part IIA

*Many traffic managers in non-Contracting Parties cannot extrapolate from the VC sign designs.*

Direction is defined for countdown markers, but not for hazard markers.

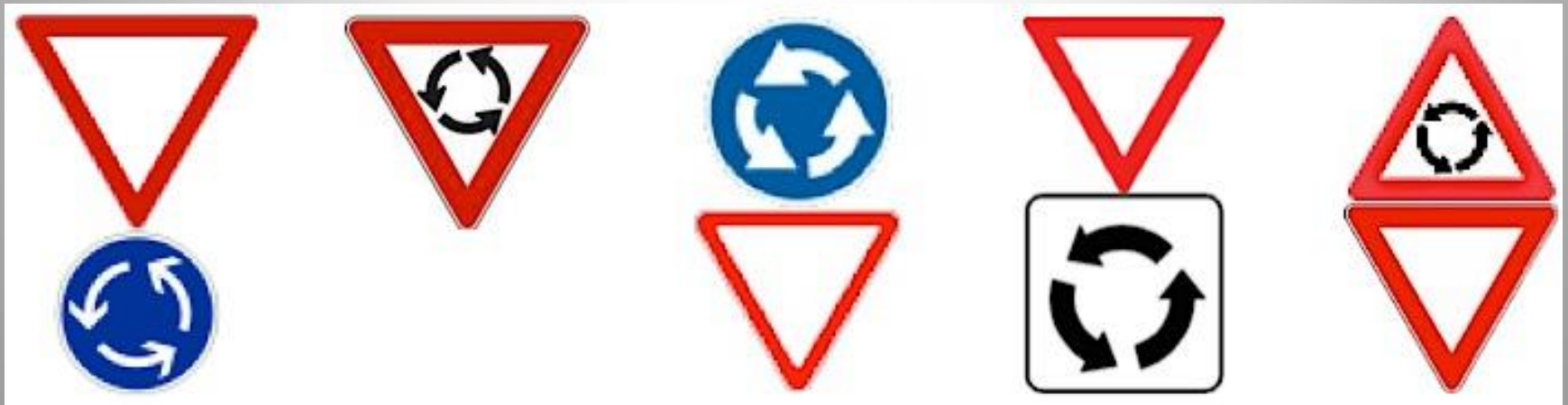


# Analysis of the VC and EA

## Part IIA

*Guidance is needed for sign assemblies.*

The VC often offers a choice: place panels on the top or bottom of the sign.



# Analysis of the VC and EA

## Part IIA

*Guidance is needed for sign assemblies.*



# Analysis of the VC and EA

## Part IIA

*Guidance is needed for sign assemblies.*



# Analysis of the VC and EA

## Part IIB

*The purpose:*

- ✧ Provide an example of one rearranged VC sign section.
- ✧ Provide several examples of a new numbering system for VC signs.
- ✧ Present an alternative writing style for the VC document.
- ✧ Consolidate recommendations from Part IIA and suggest steps for achieving their goals.



# Analysis of the VC and EA

## Part IIB

### *Actions needed:*

- ✧ Review application of VC signage by Contracting Parties **PARTIALLY DONE**
- ✧ Identify unclear points in the VC document **DONE**
- ✧ Make decisions to clarify these points
- ✧ Correct errors
- ✧ Add definitions for undefined terms used throughout the VC

# Analysis of the VC and EA

## Part IIB

### *Definition example:*

Warning sign – a road sign or marking notifying drivers in advance of a hazard or an unexpected condition that may lead to a collision

With no definition, signs not in VC section A may be treated as warnings.



### **THE WARNING**

Speed cameras are on the road.

### **THE HAZARD**

Speeding drivers may be fined.

# Analysis of the VC and EA

## Part IIB

### *Actions needed:*

- ✧ Identify which signs may be deleted
- ✧ Identify gaps in sign coverage **DONE**
- ✧ Determine which of these “missing signs” are in wide use **“DONE”**
- ✧ Choose whether to add any of these signs
- ✧ Do the same for new sign concepts
- ✧ Identify which signs fit for VMS and add them
- ✧ Rearrange and renumber signs
- ✧ Create procedure for future review of signs