

# Status report of “Reversing Motion” in VRU-Proxi Informal Working Group.

**JAPAN,**  
on behalf of  
VRU-Proxi Informal Working Group.

# VRU-Proxi Informal Working Group

## Working contents

### 1. Forward motion

**Vehicle turning - Blind Spot Information System (Oct.2018, 115<sup>th</sup> GRSG)**

Vehicle driving straight or taking off from standstill (Apr.2020, 118<sup>th</sup> GRSG)

### 2. Reversing motion

**New field of view for behind vehicle (Apr.2019, 116<sup>th</sup> GRSG)**

**\* Introduction Today**

### 3. Direct Vision

Evaluation of direct vision around vehicle from driver (Apr. 2021, 120<sup>th</sup> GRSG)

# Purpose

To provide driver vision for safety of vehicle rear direction when the vehicle moving rearward.

In order to achieve the purpose, " Close-proximity rear" view devices (Class VIII) was added to current R-46.

**“ 6.1.2.1.7. Close-proximity rear" view devices (Class VIII)**

**The contours of the reflecting surface shall be of simple geometric form and its dimensions such that the mirror provides the field of vision specified in paragraph 15.2.4.8. of this Regulation."**

**“15.2.1.1.1.**

**Regarding Class VIII devices can be accepted Camera monitor systems (or other devices)."**

# Scope

All categories of M and N.

# Definitions of Class VIII Field of View

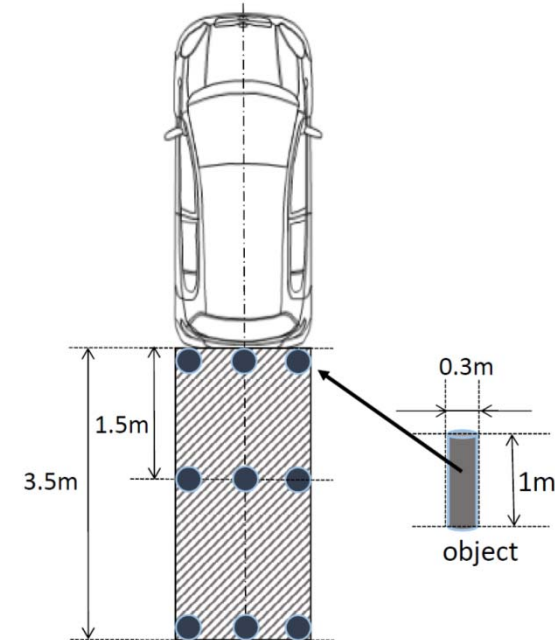
## 15.2.4.8.1.

The field of vision shall be bounded by the following planes and shall be such that the driver can see at least part of each cylindrical objects with a height of 1,000 mm and a diameter of 300 mm which is located at 6 positions within the boundaries of the field of vision as defined in Figure:

(a) A transverse vertical plane of the outermost point of the rear of the vehicle;

(b) A transverse vertical plane [3,500] mm behind the outermost point of the rear of the vehicle;

(c) Two longitudinal vertical planes parallel to the longitudinal vertical median plane of the outermost point of the side of the vehicle.



# Multimodal approach for Class VIII Field of View

Driver can be perceived Class VIII Field of View by;

- Direct vision from newly defined driver's looking back ocular points
- Indirect vision
  - Combination of mirrors of Class VIII or other Class(es)
- Camera monitor system
- Obstacle detection systems (e.g. Sonar system)

## **"15.2.4.8.2.**

**If the field of vision defined in paragraph 15.2.4.8.1. can be perceived via a combination of devices for indirect vision of other Classes or directly from the driver's looking back ocular points described in 15.2.4.8.3., it is not mandatory to equip the vehicle with a Class VIII close-proximity rear-view device. In addition, the requirement may be met using a combination of mirrors of Class VIII and other Class(es) or using an obstacle detection system."**

## **"15.2.4.8.3.**

**The driver's looking back ocular points" means two points located at 96mm longitudinally rearward, 158mm horizontally inside vehicle center and 6mm vertically above from "The driver's ocular points" described in 12.1.**

# Further discussions

- Style of regulation

- Option 1 R46 Amendment

- Option 2 New regulation

- Option 3 Some parts in R46 Amendment and the other parts in new regulation

- Details

- 1) For sensor detection, if necessary or not to distinguish VRU and other obstacles

- 2) Rear headrest position setting

- 3) Suitable rear-end distance, 3.5m or other distance

- 4) Scope for application or exception

- 5) Transitional provisions

# Schedule

2018

November

E-mail and/or Web discussions

December

Making draft of Working Document

2019

January 11

Submit Working Document to 116<sup>th</sup> GRSG

February 5-7

VRU-Proxi 8<sup>th</sup> meeting at Yokohama

April 2-4

VRU-Proxi 9<sup>th</sup> meeting at Brussels

April 9-12

116<sup>th</sup> GRSG

Thank you for your attentions.