

Comment on TRANS/WP.29/GRSG/2002/10

Transmitted by the expert from Japan

In General:

- We highly appreciate GRSG/2002/10 proposed to improve driver's visibility in the proximity of the vehicle. We'd like to make some comments on it, however, from the viewpoint of ensuring safety and harmonizing international regulations. As for respective clauses, we'd like to discuss them in detail in future sessions.
- * Effects on direct visibility
 - GRSG/2002/10 defines required visibility by class.
 - Driver's visibility shall be ensured directly as much as possible. If this is not possible, it shall be ensured by an optimum combination of indirect visibility and direct visibility.
 - The way we define required visibility by each class of mirrors may adversely affect required direct visibility, as mirrors get larger and more numerous to compensate their limited curvature radius and visibility range.
 - The combination of mirrors as well as the curvature radius, the visibility range, and the number of installation of each class of mirrors shall be determined taking into consideration their effects on direct visibility.
- * Objects to be checked for in visibility range
 - As objects to be checked for in visibility range, we have in particular, in the proximity of the vehicle, pedestrians, cyclists and moped drivers and, in the rear and far range of the vehicle, other vehicles, cyclists and moped drivers.
 - We should take into account such difference when determining visibility range. Further, we should determine visibility range taking into account the height of objects to be checked for.
 - If we don't take these factors into account, we may affect direct visibility by enlarging mirror surface.
- * Devices other than mirrors
 - GRSG/2002/10 defines camera monitor system and other devices as substitutes for mirrors.
 - We agree with the introduction of camera monitor systems, because, in some cases, they give us an image more accurate than a mirror of small curvature radius.
 - As for devices other than camera monitor systems, we'd like to know what kind of devices you have in mind specifically.
 - Whatever these devices will be, a careful examination will be necessary to determine the requirements for each of them.

To each provisions

2.1.2.6. and Footnote 1/

- As critical object to determine the recognition capacity of devices other than mirrors, the proposal defines a pole of 0.8 m in diameter.
- An explanation of this definition is given in the footnote, but we'd appreciate it if we have a detailed explanation.

6.2.1.2 and 6.2.2.2

- The proposal defines the upper limit of time necessary for scanning, etc. for devices other than mirrors to be two seconds. This provision is made on the understanding that it is not required for the device to show all sights simultaneously.
- A mirror gives you all necessary sight at the same time. In this respect, we can't say that devices such as camera monitor system ensure us the same visibility as mirrors.
- In any case, a sufficient discussion will be necessary to determine what to do with camera monitor systems.

6.2.3.2

- For devices other than mirrors and cameras, the proposal requires the same capacity as camera monitor systems.
- We'd like to know what kind of devices you have in mind as devices other than mirrors and cameras.

15.2.1.1.2

- The proposal approves camera monitor systems only for visibility range of Class VI. Further, it requires for such camera monitor systems to show the visibility range of both of Class V and Class VI.
- We'd like to know the reason why you approve camera monitor systems for Class VI and not for other classes.

15.2.2.7 and 15.2.1.2

- The proposal prohibits Class V and Class VI mirrors and surveillance mirrors to be installed at a height less than 2 m. We think, however, that there's no problem for them as long as they satisfy impact absorption requirements.
- Therefore, we think these requirements on the height of the mirror should be deleted.

15.2.3.2

- The proposal says that mirror position shall be adjustable from driver's seat.
- If the mirror is installed someplace backward so you can adjust it from inside, the visibility of mirror may be affected by splashes of mud and raindrops that'll be stuck there because airflow will be inhibited around the mirror.
- Particularly in Japan, with its heavy rainfall and bad road conditions, it is critical for drivers to ensure good visibility under bad weather conditions.
- To prevent dirt on and ensure good visibility on the surface of mirror, it is preferable to position the mirror rather forward of the vehicle, but the structure of some vehicles dictate us to install it where it can't be adjusted from inside.
- Once we've adjusted the mirror before running, we don't need to adjust them while running. So we think the phrase: "from inside the vehicle while the door is closed, although the window may be open" should be deleted.

15.2.4.2 and 15.2.4.3

- For Class II and Class III mirrors, the proposal requires that you see ground surface sideward and rearward as far as 4 m.
- Enlarging an indirect visibility range leads to enlarging the surface of mirror, and consequently it may reduce direct visibility and safety.
- To check for sideward traffic, it's enough if you can see vehicles, pedestrians, and bicycles passing by the vehicle. So it's enough if you can recognize a certain height (about 600 mm) of objects, which means if you can see ground surface as far as 6 m rearward.

15.2.4.4 and 6.1.2.2.4.2

- In Japan, where roads are often narrow, it is essential for drivers to ensure close visibility and direct visibility when turning to right or left at intersections.
- In particular, a Class IV mirror installed at driver's side may significantly affect their direct visibility and disturb their driving. In addition, the driver may check his sideward visibility range simply by looking back. Therefore, we think Class IV mirrors should be defined optional at least for driver's side.
- Further, to ensure close indirect visibility as necessary without significantly affecting direct visibility, we should alleviate the restriction on the curvature radius of Class II and III mirrors.

15.2.4.6.1

- For visibility range of Class VI, the proposal approves devices other than mirrors and camera monitor systems. It requires at the same time that, through such device, you can find an object of 30 cm in diameter and 50 cm in height.
- We'd like to know what made you choose these sizes of 30 cm in diameter and 50 cm in height as criteria of judgment.

15.3.5.2

- We'd like to know what made you choose these sizes of 30 cm in diameter and 50 cm in height as criteria of judgment.