

Informal document No. **GRSG-99-10**
(99th GRSG, 19-22 October 2010
Agenda item 11)

Regulation No. 125 (Forward field of vision)

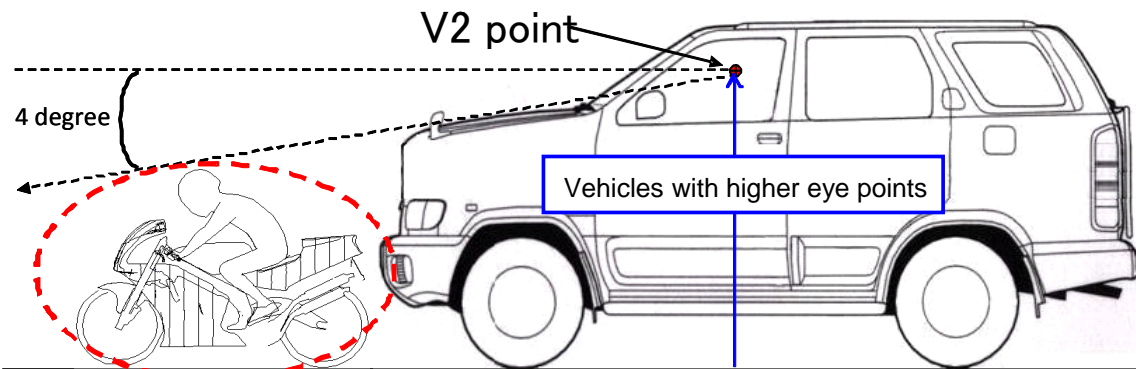
Japan proposal overview

1. Background

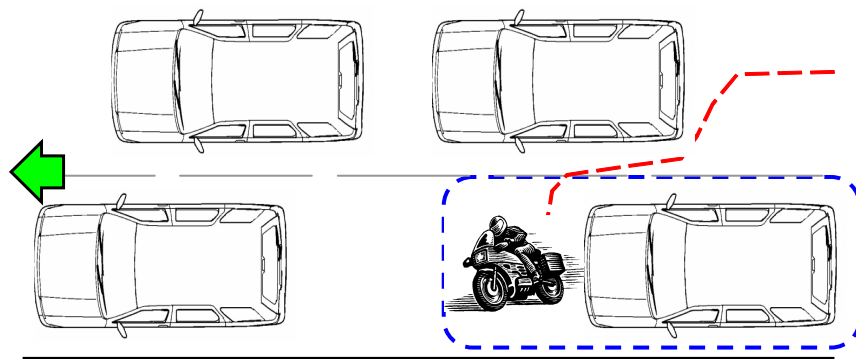
- (1) While you are running or waiting at stoplights on a crowded road, motorcycles often run past you and come immediately in front of you.
- (2) If you don't see the motorcycle, you are unaware of it, keep driving and may cause an accident.
- (3) In Japan, such accidents have actually occurred: Modified tall cars (with higher eye points) did not notice motorcycles running just in front of them and caused **fatal collisions**.
- (4) At the time of the accidents, such structures with higher eye points were not banned, even among new cars.

Necessary

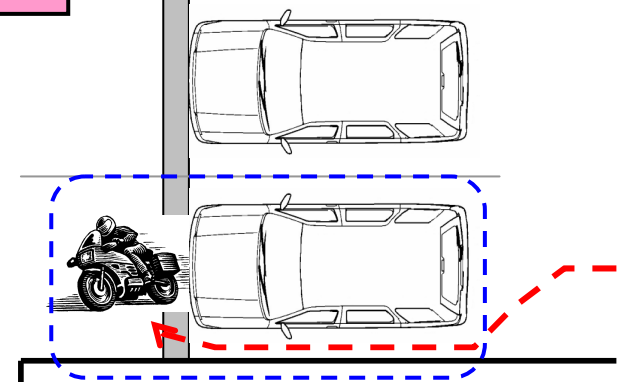
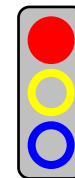
To ensure a direct field of vision in the lower area in front of the vehicle



While running

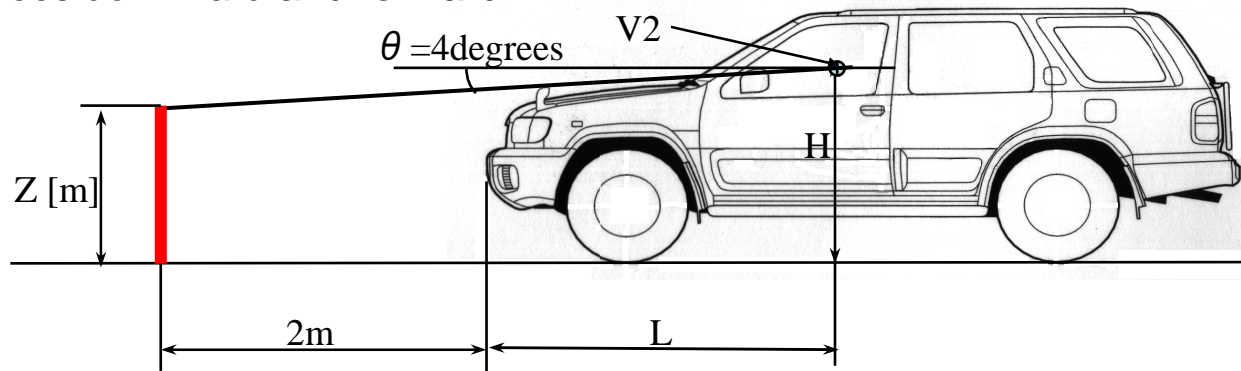


While waiting at stoplights



2. Eye Points (V2) and Visible Heights

- The current R125 imposes no restriction on the height of objects ahead that must be visible from the driver (or the height of the driver's eye point from the ground). If the height is set to 4 degrees downward and forward for vehicles with higher eye points such as SUVs, the vehicles will not notice the motorcycle and still can be manufactured (aren't legally banned).
- Note: Actually, none of the vehicles with higher eye points currently manufactured set the height to 4 degrees downward and forward.



If $L=2.5\text{m}$

Height of eye point H	Height of objects Z ; visible running 4 degrees downward from the eye point and 2 m ahead of the vehicle	Visibility of the motorcycle running 4 degrees downward?
1.1m	0.8m	Yes
1.3m	1.0m	Yes
1.5m	1.2m	Yes
1.8m	1.5m	No

Purpose of this proposal: To enable drivers of large vehicles (SUVs) with an extremely high eye point to directly view motorcycles in front.

3. Summary

- (1) In Japan, fatal accidents occurred between large vehicles (SUVs) with an extremely high eye point and motorcycles that came in front of those SUVs.
- (2) Under the current R125, if, in such large vehicles (SUVs), the regulatory limit of the forward/downward angle of 4 deg. is observed, motorcycles in front will be invisible. These vehicles can be manufactured under the current R125, even if they are not modified vehicles.
- (3) The purpose of this proposal is to enable drivers of large vehicles (SUVs) with an extremely high eye point to directly view motorcycles in front.
- (4) To make those motorcycles visible, a 1.2 m-tall pole (simulating a motorcycle) located 2 m in front of the vehicle needs to be partially visible.
- (5) This Japanese proposal is necessary in order to prevent similar accidents.
- (6) This proposal concerns large vehicles (SUVs) with an extremely high eye point. Since passenger cars and normal large vehicles (SUVs) are not in its scope, no vehicle design change or cost increase would be caused to vehicle manufacturers.