agenda item 6 (a))

# Interpretation of 06 series of amendments to Regulation No. 48

MLIT, Japan (Ministry of Land, Infrastructure, Transport and Tourism)

# Background

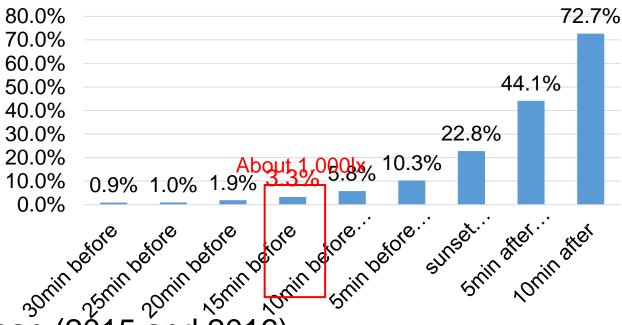
- In the 06 series of amendment to Regulation No. 48,
  - The dipped-beam headlamps shall be switched ON and OFF automatically relative to the ambient light conditions (e.g. switch ON during night-time driving conditions, tunnels, etc.) according to the requirements of Annex 13.
  - The daytime running lamps (DRLs) shall be switched ON automatically except when at least one of the situations specified in paragraph 6.19.7.1.1. to 6.19.7.1.3., 6.19.7.2. and 6.19.7.3. exists.
- On the other hand, there seems to be differences in interpretations of these provisions as to following two points.
  - Whether dipped-beam headlamps are allowed to be switched off manually by the drivers at night condition (below 1,000lx).
  - Whether the DRLs are allowed to be switched OFF when only the front position lamps are switched ON.

#### 1. Manual switching off of headlamps at night conditions

- Japan's view about the manual switching off of headlamps at night conditions
  - As long as there is the provision of 06 series of amendment to Regulation No.48 which specifies "shall be switched ON and OFF automatically" without any exception, there is no room that manual switching off of headlamps is allowed.
  - This means that headlamps shall not be switched OFF manually at night conditions (below 1,000lx) in the 06 series of amendment to Regulation No.48.
- Improvement of traffic safety by the automatic activation of headlamps
  - Japan thinks that the automatic activation of headlamps contributes to an appropriate use of headlamps at night condition, because this function prevents drivers from forgetting to switch ON the headlamps, which secures both visibility from the drivers and conspicuity from the other surrounding traffic.

- Actual situations of headlamp use in Japan
  - Only 3.3% of vehicles switch ON their headlamps when the sky illuminance is about 1,000lx (15 minutes before sunset).
  - Only 22.8% of vehicles switch ON their headlamps even at the sunset.

Rate of vehicles with their headlamps ON



- Actual situations of traffic accidents in Japan (2015 and 2016)
- \* Investigated by Japan Automobile Federation
- There are 115 fatal accidents pedestrians and cyclist involved, which happened in the twilight before sunset.
- Among the above, 89 accidents are caused by vehicles with their headlamps off.

\* Investigated by National Police Agency

Promotion of appropriate use of headlamps is crucial safety issue in Japan.

- Possibility of making exception to automatic switching of headlamps
  - In order to secure the traffic safety, the manual switching OFF of headlamps should not be allowed in principle at night condition.
  - On the other hands, there are some situations where drivers need to switch OFF headlamps for the other safety reasons (e.g. fog condition) or where they can switch them OFF without causing any safety problem (e.g. stationary state).



### Japan's view to automatic switching of headlamps is that

- Manual switching OFF of headlamps at night conditions should be prohibited in principle.
- Then, if there are some situations where drivers need to switch OFF headlamps for any rational reasons, these situations should be limitedly specified as "exception" to the automatic activation of headlamps.

#### 2. Relationship between DRLs and front position lamps

- In the 06 series of amendment to Regulation No. 48, DRLs shall not be switched off except when;
  - Vehicle speed does not exceed 10km/h. (paragraph 6.19.7.2.)
  - Engine (propulsion system) is impossible to operate (paragraph 6.19.7.3.)
  - Front fog lamps or headlamps are switched ON (paragraph 6.19.7.3.)
  - Direction indicators operate, provided that front indicators are reciprocally incorporated with DRLs or the distance between both lamps is less than 40mm.

(paragraph 6.19.7.5. and 6.19.7.6.)



In case that vehicle speed exceeds 10km/h, there is no legal basis that the DRLs can be switched OFF when only the front position lamps are switched ON.