



Department
for Transport

UK Response to questions raised in ACPE 09

UK Department for Transport

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Context of Paragraph 5.15 (d)

5. Specifications

- (d) The situation is unambiguous, i.e.:
 - (i) The obstacle is stationary, unobstructed, clearly separated from other objects in the driving direction;
 - (ii) In the case of a vehicle or wall obstacle, the lateral offset between the centreline of the obstacle and the centreline of the vehicle is not more than 0.2 m. The centre line of the obstacle is located between two vertical longitudinal planes defining the extreme outer edge of the vehicle.**
 - (iii) In the case of a pedestrian obstacle, the entire pedestrian obstacle is located between two vertical longitudinal planes which are 0.1m within the extreme outer edge of the vehicle.**

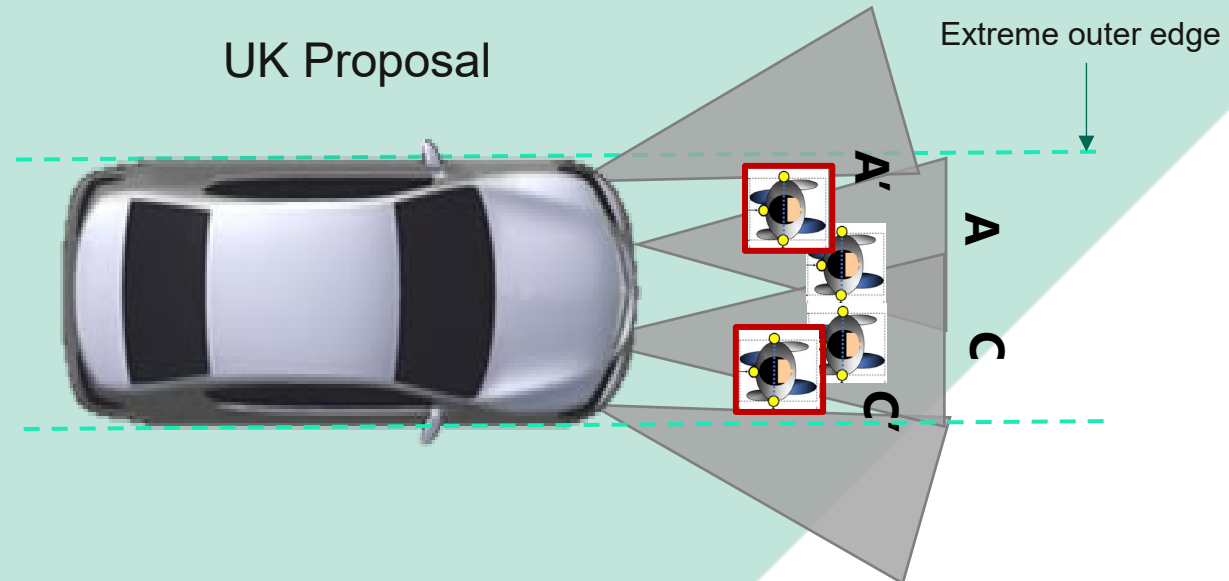
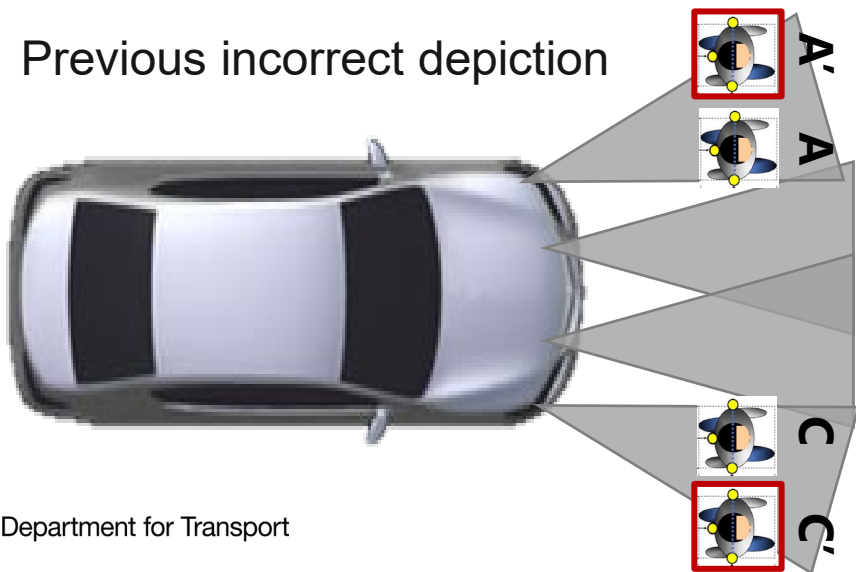
Questions & Concerns

This presentation is to answer the questions posed to the UK detailed in document ACPE 09-07

- Concern of extreme outer edge position:

“It is hard to detect pedestrian robustly by Sonar Sensor”. Sonar Sensors require obstacles to be detected by two sensors to avoid false positives. We can't distinguish between A and A' by one sonar operation data.

It is important to note “**devices for indirect vision**” are disregarded in the definition of “extreme outer edge”. This means the extreme outer edge can be in line with the surface of the body of the vehicle. Placing it closer to the vehicle than depicted in previously.



Questions & Concerns continued

This presentation is to answer the questions posed to the UK detailed in document ACPE 09-07

- Previous UK proposal:

(ii) In the case of a vehicle or wall obstacle, the lateral offset between the centreline of the obstacle and the centreline of the vehicle is not more than 0.2 m. The centre line of the obstacle is located between two vertical longitudinal planes defining the extreme outer edge of the vehicle.

- How to treat “Wall” ?

Obstacle overlap with the ego (subject) vehicle should have similar requirements so that requirements for an obstacle aren't drastically different relative to other obstacles.

As the wall obstacle centerline is not a definitive dimension (as wall can be of any length), it is difficult to ensure a similar requirement of overlap of the wall in the lateral direction, relative to other obstacle types.

Proposed amendments to definitions

Definitions of operation zone are required to simplify and reference the obstacle(s) location, and where the obstacle is expected to be detected by the vehicle system(s).

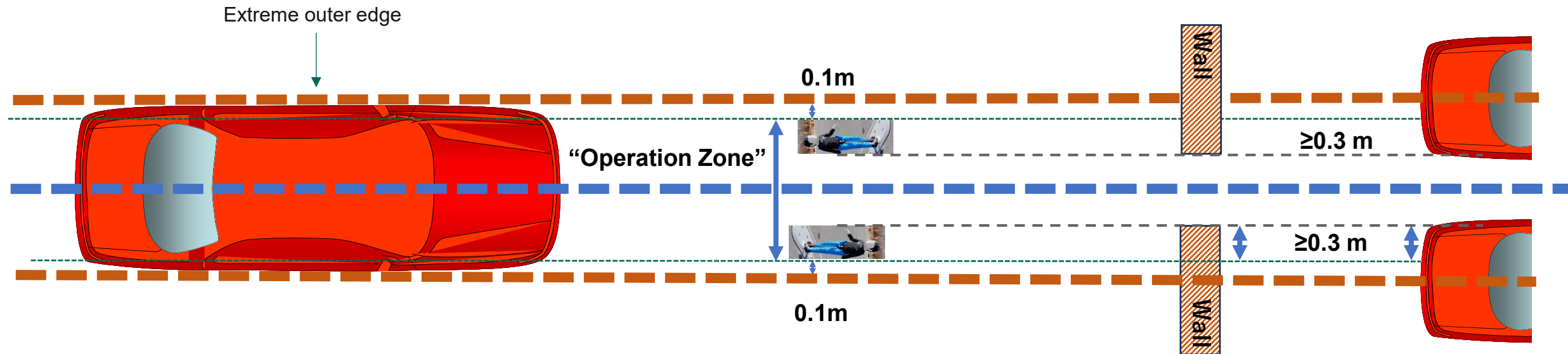
2. Definitions

[2.12] “Operation Zone” means the area located between two longitudinal vertical planes located 0.1m inside the extreme outer edges of the vehicle.

Proposed amendment to paragraph 5.15 (d)

(ii) In the case of a vehicle or wall obstacle, the lateral offset between the centreline of the obstacle and the centreline of the vehicle is not more than 0.2 m. The centre line of the obstacle is located between two vertical longitudinal planes defining the extreme outer edge of the vehicle, at least a width of [0.3]m of obstacle is located within the operation zone.

(iii) In the case of a pedestrian obstacle, the entire pedestrian obstacle is located between two vertical longitudinal planes which are 0.1m within the operation zone extreme outer edge of the vehicle.



Rationale for amendments

- There is a need to define the boundary conditions so that they can be easily translated for use in the test procedure for obstacles.
- Obstacle overlap with the ego (subject) vehicle should have similar requirements so that requirements for an obstacle aren't drastically different relative to other obstacles.
- To have common reference point for the distance from obstacle.