

GRRF informal group on AEBS for light vehicles

MOTOR VEHICLES WITH REGARD TO THE ADVANCED EMERGENCY BRAKING SYSTEMS (AEBS)

List of action items after AEBS-04 (May 2018)

Item	Sub-item	Background	Action out of AEBS-04	AEBS-05
AEBS activation	Regulated lower speed	Defining the lower speed limit for regulating AEBS. (This does not prohibit manufacturers to implement AEBS below this speed.)	Industry to construct a proposal for C2B	
	Deactivation	Defining the manual deactivation requirements	Industry / D to hold bilateral discussions in view of a compromise	
	Activation calculation	Defining the calculation methodology for determining activation of the AEBS (Dynamic calculation during real world driving conditions or static calculation used as a tool for certification)	Speed reduction: participants to review D proposal: to calculate the earliest time for brake based on an average deceleration of 3,8 m/s ² (J TTC of 1,8 s) with a peak above 6,4 m/s ² , to accommodate the NL request for performance and flexibility for the OEMs. Lateral acceleration: D to review lateral acceleration: <ul style="list-style-type: none"> ○ For the debate, need to know whether it is a single lane change, or a double/triple one. Single lane change vs. avoidance. 	

			○ HW for D: to provide data		
	Collision Warning activation	Defining when the collision warning should be activated in relation to [TTC/EBP]	Industry to review the need for a collision warning phase at high speeds (30<s<50 km/h) J homework to confirm their position		
	Self-check, in particular for sensor alignment	The system should be able to complete a self-check and detect e.g. mis-alignment of the sensor (+ ESC and ABS status etc.)	Industry HW: warning to the driver? What happens below 10 km/h?		
Test Scenarii	Target requirements:	Referring to existing targets per ISO as examples, or copy/paste the target specifications into the relevant annex.	All participants to prepare for a decision at AEBS-05		
	Pedestrians daylight scenario at 50% impact should only be considered.	Adult or child?	All participants to prepare for a decision at AEBS-05		
	Test condition requirements	Subject vehicle pre conditioning based on existing standards e.g. brake and tyre conditioning: OEM should provide the Technical Service an already pre-conditioned vehicle with bedded in brakes (and the manufacturer defines the method for pre-heating the braking system). Calibration run should be permitted according to the necessity of the system	Industry HW		
	False Reaction test	Copy/paste R131 provisions, yet only applicable to the C2C. Similar test would be implemented for C2P and C2B (with 1 target only)	ASPECSS: CLEPA to provide info on false reaction test Industry and J HW: copy/pasting R131 as relevant		
	C2C	LPS: selecting the key criteria (accident statistics, max lateral acceleration, lateral offset, vehicle category, other?) permitting to define the LPS value		All participants	
		LPB: selecting the key criteria (accident statistics, state of the art, regulatory consistency, vehicle category, other?) permitting to define the LPB value		All participants	
		Lateral offset: defining the offset value		All participants	
Lateral acceleration: See LPS			All participants		

		Longitudinal deceleration: selecting the key criteria (state of the art, vehicle category, regulatory consistency, other?) permitting to define the relevant value	All participants Industry to provide info on state of the art	
		Speed reduction (full avoidance up to): selecting the key criteria (vehicle category, static vs. moving target, other?) permitting to define the relevant value	All participants	
	C2P	LPB: selecting the key criteria (accident statistics, state of the art, regulatory consistency, vehicle category, other?) permitting to define the LPB value	All participants	
		Vehicle width / vehicle front shape: defining a width and a front shape representative of M1/N1 vehicles	All participants	
		Safety margin / tolerance: defining a relevant value according to the vehicle category, the scenario, etc.	All participants	
		Longitudinal deceleration: selecting the key criteria (state of the art, regulatory consistency, vehicle category, other?) permitting to define the deceleration value	All participants	
		Speed reduction (full avoidance up to): selecting the key criteria (vehicle category, static vs. moving target, other?) permitting to define the relevant value	All participants	
	C2B	LPB: selecting the key criteria (accident statistics, state of the art, regulatory consistency, vehicle category, other?) permitting to define the LPB value	All participants	
		Vehicle width / vehicle front shape: defining a width and a front shape representative of M1/N1 vehicles	All participants	
		Safety margin / tolerance: defining a relevant value according to the vehicle category, the scenario, etc.	All participants	
		Longitudinal deceleration: selecting the key criteria (state of the art, regulatory consistency, vehicle category, other?) permitting to define the deceleration value	All participants	
		Speed reduction (full avoidance up to): selecting the key criteria (vehicle category, static vs. moving target, other?) permitting to define the relevant value	All participants	

		TNO study on Cyclist scenario and data	NL to provide references	
HMI	Warning phase	Deciding whether the warning phase should be mandatory, with the risk to decrease the margin available for the braking	J to justify their position	
CEL	Call to the CEL annex	Deciding whether the word “complex” should remain	Secretariat to cross check the state of play on the alignment of the regulations having a CEL annex	
Implementation strategy		<p>Defining the implementation strategy for the vehicle, pedestrian and cyclist detection requirements.</p> <p>The group should focus its work on vehicle detection first and develop the principle behind the calculations for minimum performance requirements etc. Once this is agreed for vehicle detection it can be carried over to pedestrian and then to cyclist, with the appropriate changes. Whether pedestrian detection is included is RXXX-00 should be dependent upon the time taken to discussion vehicle detection requirements. If it takes too long then pedestrian requirements can be included in RXXX-01.</p>	All participants to prepare a position with regard to implementation strategy taking into account the anticipated performance requirements.	
Report 3rd session		Providing comments to the report as necessary	All participants	
Skeleton text		Implementing the outcomes of AEBS-04 into the skeleton text	Co-chairs and secretary , by 15 June	