OICA position for AECS-10

	issue	OICA	Reasoning
1.	**AECD sled test scope**		
	including GNSS receiver and antenna	not acceptable	- We can understand the PSAP requesting to resend the MSD but we don't understand the use case of a PSAP requesting new position data after an accident. - Considering the required accuracy of +/- 150m we see no reasonable or relevant case where the vehicle would have moved over a distance of more than 150m. - If the PSAP asks for a new MSD the last stored position at the accident timing is sufficient. - High g test should only ensure the minimum performance related to MSD sending. (MSD generation is not to be considered under the sled test) - OICA is of the opinion that this requirement will compromise future designs of emergency call systems where the positioning function is combined with the on board navigation system. On board navigation systems including screen are not necessarily designed to withstand the proposed decelleration.
	including AECD power supply (whichever is used: back-up battery, 12V battery, 48V battery, traction battery,…)	not acceptable	- OICA can not accept a high decelleration test on a main AECD power supply. These can be 6:6verified sufficiently through the regular R94/R95 test. - OEM's need to keep the freedom to design the integration of the AECS and its power supply in the entire concept of future vehicles in the most effective way not just considering AECS requirements. - It is not realistic to apply a component sled test on a vehicle main power supply system considering the weight and the complexity of the power supply architecture (EV, HEV, PHEV, FCHV). It must be checked only during R94/95 crashes. - Since there is no practical experience in exposing main power supply system to this test pulse we have doubts on how our testing dept. and Technical Services plans to manage the risk to execute a sled test with vehicle power supply systems : - for lead battery (risk of acid exposure) - for lithium battery (in particular, for electric vehicle), - In case of a high voltage system to manage the complexity of a vehicle electrical power management. What is the application scope for the sled test ? for thermic vehicle (battery + complete harness + fixation, alternator, ...), for electric vehicle (traction battery, DCDC convertor, harness + fixation, cooling system for battery, ...) -> In that sense the sled test should be limited to AECD power supplies that are dedicated to AECD only. (such as AECD back-up battery)
	including connectors	acceptable	- Only connectors related to parts in the scope of this sled test (listed in par. 7.6.1)
	including part of wire harness	acceptable	The length of the harness and its eventual fixation can be decided by the OEM / Supplier so that it is representative: - for the different installation configurations of the AECD (same AECD components can be used in various vehicles with different wiring harness. We need a flexibility to avoid double testing) - for the worse case
2.	**AECD test pulse**		
	EU / TRL corridor with a max. accumulated speed	acceptable	The sled with AECD components shall be decelerated or, at the choice of the applicant, accelerated such that the curve remains within the area of the graph in Annex 7, and the total velocity change ΔV is 70 +0/-2km/h. However if, with the agreement of the applicant , the test was performed at a higher acceleration or decelleration level, a higher ΔV and/or longer duration the test shall be considered satisfactory. See additional slides Attachement 1-1
3.	**Power supply after crash**		
	AECS should not regulate the electricity consumption of other systems than AECS	see table	
4.	**Malfunction warning**		
	OEM malfunction information/strategy should be provided. This shall at least monitor: - eCall control unit - network access device - GNSS receiver - connection failure to crash control unit: Testing agency can select some malfunction for verification	acceptable with proposed min. monitoring list and verification procedures	The AECS malfunction concept, as laid down by the manufacturer, shall be explained to the technical service and / or to the type approval authority This shall at least monitor: - eCall control unit - network access device - GNSS receiver - connection failure to crash control unit: Verification of the performance of the AECS malfunction shall be conducted against the manufacturer's specification. This can be either by actual test, simulation or documentation **Justification:** The functions that are monitored and how they are monitored are very individual from one OEM to another OEM or supplier and depending on the AECS architecture. - It is not possible to establish a list as proposed by EU without being design restrictive - In our view AECS is not a primary safety system and there for the malfunction requirements should not be restrictive and can be left up to the Manufacturer's policy.
5.	**Voice communication**		
	Pre-crash objective voice communication requirement in line with ITU-P	To be confirmed	OICA is open to the Russian suggestion of a pre-crash objective voice communication requirement in line with ITU-P on condition that: - critical ITU-P requirements will be taken out or relaxed (OICA is now investigating the final ITU-P standard and will propose the relaxation item by next AECS-11) - Russia can commit it will adopt ECE AECS to replace the ERA Glonass HF Voice communication requirements
6.	**post crash manual trigger check**		
	pre-crash manual trigger check	Accepted	- We do not accept a mandatory post crash assessemnt of the manual triggering system because in any case OEM's in the post crash condition of this regulation has to guarantee an automatic trigger. There is no use case for a manual trigger - OEM can use a manual trigger as back-up if the MNO fails or if the post crash AECS verification is done in 2 stages (automatic trigger check, move vehicle to shielded room, than manual trigger) - We don't want overload the post-crash assessment with unnecessary requirements Burden of post crash c hecking requirements - R94/R95 post crash test site safety - R94/R95 post crash verifications (door opening, pictures, fuel leakage, unfastening seat belt, removing the dummy, ...) - AECS trigger - AECS functionality - Voice intelligibility check - AECS 5-60-5 - (Manual AECS) OICA believes this needs to be kept simple What is the cost-benefit OICA doesn't see a use case OEM's in the post crash condition of this regulation has to guarantee an automatic trigger in any case. There is no use case for a manual trigger OEM can use a manual trigger as back-up if - MNO fails - post crash AESC verification is done in 2 stages (automatic trigger check, move vehicle to shielded room, than manual trigger)
7.	**Status indication**		
	Russian AECS-9 proposal Status indication - call triggered and connection is being set up - data transmission in progress - data transmission successfully completed - voice call in progress - call not possible	Partly (exclude call not possible)	Status indication shall cover: - call triggered and connection is being set up - data transmission in progress - data transmission successfully completed - voice call in progress The method to indicate should not be regulated. - Some OEM's may have distinct signals, other OEM's have one indicator to cover the sequence of the 4 modes. - The duration of the modes is very short (e;g. data transmission in progress -> succesfully completed) The user can not/hardly distinguish such modes. Indication has no actual meaning. - Signal can be visual, audible, haptic, ... Call not possible: it depends on the OEM strategy. Some cover this by the status indication, some by the malfunction. In case it relates to MNO failures while AECS is correctly operating such indication should not be mandated to the AECS