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GRSG informal group on Accident Emergency Call System (AECS)
List of disagreements of AECS members on the issues of the draft Regulation

6. Requirements

6.1	The effectiveness of AECD shall not be adversely affected by magnetic or electrical fields. This requirement shall be met by ensuring compliance with Regulation No. 10:	The effectiveness of AECD shall not be adversely affected by magnetic or electrical fields. This requirement shall be met by ensuring compliance with Regulation No. 10:	The effectiveness of AECD shall not be adversely affected by magnetic or electrical fields. This requirement shall be met by ensuring compliance with Regulation No. 10:				
	(a) 03 series of amendments for vehicles that do not have a rechargeable energy storage system (traction battery) that can be charged from an external source;	[6.1.1. AECD shall be designed, constructed and installed in such a way that the vehicle when equipped shall continue to comply with the relevant technical requirements, especially with regard to electromagnetic compatibility (EMC).]	[6.1.1. AECD shall be designed, constructed and installed in such a way that the vehicle when equipped shall continue to comply with the relevant technical requirements, especially with regard to electromagnetic compatibility (EMC).]				
	(b) 04 series of amendments for vehicles fitted with a rechargeable energy storage system (traction battery) that can be charged from an external source.	[6.1.2. Vehicles which are equipped with AECD shall comply with the relevant technical requirements, especially with regard to electromagnetic	[6.1.2. Vehicles which are equipped with AECD shall comply with the relevant technical requirements, especially with regard to electromagnetic compatibility (EMC).]				

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		compatibility (EMC).]					
		6.1.3. The effectiveness of AECD shall not be adversely affected by magnetic or electrical fields REFERENCE TO ISO-7637 SECTION XXX	AECD shall be tested for radiated and conducted emissions, for immunity to radiated and conducted disturbances. [*inspired by Reg.10 clause 6.1.1.2*].	EMC compatibility should follow the existing standards			
6.1.3.1			AECD shall be tested for immunity to electromagnetic radiation. AECD immunity type approval limits and conformance test methods in accordance with Regulation No. 10 (clause 6.7 and Annex 9).	-			
6.1.3.2			Narrowband type approval limits concerning narrowband electromagnetic interference generated by AECD and conformance test methods in accordance with Regulation No. 10 (clause 6.6 and Annex 9).	-			
6.1.3.3			Immunity of AECD against disturbances conducted along supply lines Apply test pulses 1, 2a/2b,	-			

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			3a, 3b, 4 and 5a/5b according to the International Standard ISO 7637-2:2004 to the supply lines as well as to other connections of AECD which may be operationally connected to supply lines. Concerning pulse 5, pulse 5b shall be applied on vehicles which include an alternator with internal limitation diode and pulse 5a shall be applied for others cases. Concerning the pulse 2, pulse 2a shall always be applied and pulse 2b could be performed with the agreement between the vehicle manufacturer and the technical approval services. AECD in unset state and set state The test pulses 1 through 5 shall be applied. The required functional status for all applied test pulses are given in table 1. T a b l e 1 – Severity/functional				

<table>
<tr><th></th><th>RUS
AECS-02-02</th><th>OICA proposal
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AECS 03-12</th><th>EU proposal</th><th>Japan proposal</th><th>Other proposal</th></tr>
<tr><td></td><td></td><td></td><td>status (for supply lines)

<table><tr><th>Test pulse number</th><th>Test level</th><th>Functional status</th></tr><tr><td>1</td><td>III</td><td>C</td></tr><tr><td>2a</td><td>III</td><td>B</td></tr><tr><td>2b</td><td>III</td><td>C</td></tr><tr><td>3a</td><td>III</td><td>A</td></tr><tr><td>3b</td><td>III</td><td>A</td></tr><tr><td>4</td><td>III</td><td>B</td></tr><tr><td>5a/5b</td><td>III</td><td>A</td></tr></table></td><td></td><td></td><td></td><td></td></tr>
<tr><td>6.1.3.4</td><td></td><td></td><td>Specifications concerning the emission of transient conducted disturbances generated by AECD on supply lines and conformance test methods in accordance with Regulation No. 10 (clause 6.9).</td><td>-</td><td></td><td></td><td></td></tr>
</table>

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<tr><th></th><th>RUS
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AECS-02-02</th><th>RUS proposal
AECS-03-04</th><th>CLEPA proposal
AECS 03-12</th><th>EU proposal</th><th>Japan proposal</th><th>Other proposal</th></tr>
<tr><td>6.1.3.5</td><td></td><td></td><td>Immunity of AECD against disturbance coupled on signal lines.

Leads which are not connected to supply lines (e.g. special signal lines) shall be tested in accordance with the International Standard ISO7637-2:2004. The required functional status for all applied test pulses are given in table 2.

T a b l e 2 – Test level / functional status (for signal lines)
<table><tr><th>Test pulse number</th><th>Test level</th><th>Functional status</th></tr><tr><td>3a</td><td>III</td><td>C</td></tr><tr><td>3b</td><td>III</td><td>A</td></tr></table></td><td>-</td><td></td><td></td><td></td></tr>
<tr><td>6.1.3.6</td><td></td><td></td><td>Tests concerning the immunity of AECD to electric interference created by electrostatic discharge are set up according to test methods described in ISO/TR 10605-1993 or EN 61000-4-2.</td><td>-</td><td></td><td></td><td></td></tr>
<tr><td>6.1.3.7</td><td></td><td></td><td>AECD shall comply with requirements EN 301 489-</td><td>-</td><td></td><td></td><td></td></tr>
</table>

	RUS AECS-02-02	**OICA proposal** AECS-02-02	**RUS proposal** AECS-03-04	**CLEPA proposal** AECS 03-12	**EU proposal**	**Japan proposal**	**Other proposal**
			1 V1.8.1 (2008-04), EN 301 489-7 V1.3.1 (2005-11) and EN 301 489-24 V1.4.1 (2007-09) concerning communication on mobile telephone communication networks.				
6.2	The AECD shall be climate resistant. This requirement shall be deemed to be met if the AECD has withstood all tests prescribed in annex 6.	The AECD shall be climate resistant. This requirement shall be demonstrated by compliance with the performance requirements of Annex 6 / REFERENCE / copy/paste of paragraph 6.4. of R116	The AECD shall be climate resistant. All components of the AECD shall operate without any failure under the following conditions. [*Inspired by Reg. 116 clause 6.4.*	-40 degC could create issues for battery usage and charging. We recommends to limit the call back period for temperatures below -20 degC			
6.2.1			Climatic conditions Two classes of environmental temperature are defined as follows: (a) -40°C to +85°C for parts to be fitted in the passenger or luggage compartment, (b) -40°C to +125°C for parts to be fitted in the engine compartment unless otherwise specified.	-			
6.2.2			Degree of protection for	-			

	RUS AECS-02-02	**OICA proposal** AECS-02-02	**RUS proposal** AECS-03-04	**CLEPA proposal** AECS 03-12	**EU proposal**	**Japan proposal**	**Other proposal**
			installation: The following degrees of protection in accordance with IEC Publication 529-1989 shall be provided: (a) IP 40 for parts to be fitted in the passenger compartment, (b) IP 42 for parts to be fitted in the passenger compartment of roadsters/convertibles and cars with moveable roof-panels if the installation location requires a higher degree of protection than IP 40, (c) IP 54 for all other parts. The AECD manufacturer shall specify in the installation instructions any restrictions on the positioning of any part of the installation with respect to dust, water and temperature.				
6.2.3.			Weatherability: 7 days according to IEC 68-2-30-1980.	-			

	RUS AECS-02-02	**OICA proposal** AECS-02-02	**RUS proposal** AECS-03-04	**CLEPA proposal** AECS 03-12	**EU proposal**	**Japan proposal**	**Other proposal**
6.2.4			Requirement 6.2.1 – 6.2.3 shall be demonstrated with test methods described in Annex 6.	-			
6.3.	The AECD shall be resistant to mechanical impact. This requirement shall be deemed to be met if the AECD has withstood all tests prescribed in annex 7.	The AECD shall be resistant to mechanical impact. This requirement shall be demonstrated by compliance with the performance requirements of Annex 7 / REFERENCE / copy/paste of paragraph XX of Standard YYY	The AECD shall be resistant to mechanical impact. All components of the AECD shall operate without any failure under the following conditions.	The requirements should be equivalent to international or Russian standards			
6.3.1			Vibration conditions: The AECD components are subdivided into two types: Type 1: components normally mounted on the vehicle, Type 2: components intended for attachment to the engine. The components/AECD shall remain operational under a sinusoidal vibration mode characterised as follows:	--			

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			For type 1 The frequency shall be variable from 10 Hz to 500 Hz with a maximum amplitude of " 5 mm and maximum acceleration of 3 g (0-peak). For type 2 The frequency shall be variable from 20 Hz to 300 Hz with a maximum amplitude of " 12 mm and maximum acceleration of 15 g (0-peak). For both type 1 and type 2 The frequency variation is 1 octave/min. The number of cycle is 10, the test shall be performed along each of the 3 axes. The vibrations are applied at low frequencies at a maximum constant amplitude and at a maximum constant acceleration at high frequencies.				
6.3.2			Shock conditions: AECD should remain operational during and after repeated shocks in	-			

	RUS AECS-02-02	**OICA proposal** AECS-02-02	**RUS proposal** AECS-03-04	**CLEPA proposal** AECS 03-12	**EU proposal**	**Japan proposal**	**Other proposal**
			each of three mutually perpendicular positions with the following values of influencing factors: - peak shock acceleration – 98 m/s2 (10 g); - shock repetition frequency – no more than 80 shocks/min; - shock duration – from 5 to 15 ms (preferably – 10 ms); - the number of shocks in each direction – 3333 (overall number of shocks – 10000).				
6.3.3			Requirements 6.3.1 - 6.3.2 shall be demonstrated with test methods described in Annex 7.	-			
6.4.	The AECD shall remain operational after the dynamic testing in accordance with the appendix to annex 9 of Regulation No. 17. Details of the test procedure are given in annex 8.	The AECD shall remain operational after frontal impact. This shall be demonstrated by compliance with the performance requirements of Annex 8 REFERENCE / copy/paste of Annex 9 to R17	The AECD shall remain operational after frontal impact. This shall be demonstrated by withstanding the test pulse described in annex 9 - appendix of Regulation No. 17.	To have a meaningfull system, AECS must be able to sustain certain level of shock. E94 E95 tests conditions is a possible reference.			

	RUS AECS-02-02	**OICA proposal** AECS-02-02	**RUS proposal** AECS-03-04	**CLEPA proposal** AECS 03-12	**EU proposal**	**Japan proposal**	**Other proposal**
6.5	The AECD shall ensure reception and processing of standard precision navigation signals. This requirement is deemed to be met if the AECD has withstood all tests prescribed in annex 9.	The AECD shall be capable of proper reception and processing of standard precision global positioning signals. This shall be deemed to be fulfilled if the Global Navigation Signal System Receiver is compliant with CEP95.	The AECD shall be capable of proper reception and processing of standard precision GNSS signals. The AECD GNSS receiver shall comply with requirements 6.5.1 – 6.5.7	CEP 95 defines the precision of positionning. GPS and GLONASS and Galileo standards and chipsets (soon for Galileo) are available and sufficient. Moreover the positionning can be made more accurate with map matching and additional devices in the vehicle.			
6.5.1			The GNSS receiver shall receive and process the signals from at least two global satellite navigation systems.	-			
6.5.2			The GNSS receiver shall operate and provide navigation solution with accuracy of 15 m at confidence factor 0,95 in horizontal plane at speed up to 250 km/h.	-			
6.5.3			The observation interval shall not exceed 1 sec. GNSS data output rate shall be configurable.	-			
6.5.4			Re-acquisition time after block out of 60 sec shall not exceed 5 sec.	-			

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AECS-02-02</th><th>RUS proposal
AECS-03-04</th><th>CLEPA proposal
AECS 03-12</th><th>EU proposal</th><th>Japan proposal</th><th>Other proposal</th></tr>
<tr><td>6.5.5</td><td></td><td></td><td>Time to first fix after ignition start shall not exceed 60 sec.</td><td>-</td><td></td><td></td><td></td></tr>
<tr><td>6.5.6</td><td></td><td></td><td>Sensitivity at receiver input shall be acquisition: at least minus 163 Dbw
tracking: at least minus 188 Dbw</td><td>-</td><td></td><td></td><td></td></tr>
<tr><td>6.5.7</td><td></td><td></td><td>The navigation receiver shall comply with requirements 6.5.1-6.5.6 while operating at signal level of minus 161 Dbw at the receiver input under influence of harmonic and pulse interference signals described in Tables 1, 2, and 3.
T a b l e 1 – Threshold values of harmonic interference for stability test (GLONASS signals)
<table>
<tr><th>Frequency, MHz</th><th>Threshold values of interference signals, Dbw</th></tr>
<tr><td>F < 1540</td><td>Minus 15</td></tr>
<tr><td>1540 < F ≤ 1562</td><td>From minus 15 to minus 50</td></tr>
<tr><td>1562 < F ≤ 1583</td><td>From minus 50 to minus 90</td></tr>
</table></td><td>-</td><td></td><td></td><td></td></tr>
</table>

	RUS AECS-02-02	**OICA proposal** AECS-02-02	**RUS proposal** AECS-03-04	**CLEPA proposal** AECS 03-12	**EU proposal**	**Japan proposal**	**Other proposal**

			1583 < F ≤ 1593 | From minus 90 to minus 140 1593 < F ≤ 1609 | Minus 140 1609 < F ≤ 1613 | From minus 140 to minus 80 1613 < F ≤ 1626 | From minus 80 to minus 60 1626 < F ≤ 1670 | From minus 60 to minus 15 F> 1670 | Minus 15 T a b l e 2 – Threshold values of harmonic interference for stability test (GPS signals) Frequency, MHz | Threshold values of interference signals, Dbw F < 1525 | Minus 15 1525 < F ≤ 1565 | From minus 50 to minus 140 1565 < F ≤ 1585 | Minus 140				

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AECS 03-12</th><th>EU proposal</th><th>Japan proposal</th><th>Other proposal</th></tr>
<tr><td></td><td></td><td></td><td>
<table>
<tr><td>1585 < F ≤ 1610</td><td>From minus 140 to minus 60</td></tr>
<tr><td>1610 < F ≤ 1626</td><td>From minus 60 to minus 50</td></tr>
<tr><td>1626 < F ≤ 1670</td><td>From minus 50 to minus 15</td></tr>
<tr><td>F> 1670</td><td>Minus 15</td></tr>
</table>
T a b l e 3 – Inteference pulse parameters for stability test
<table>
<tr><th>Parameter</th><th>Value</th></tr>
<tr><td>Peak power, Dbw</td><td>Minus 10</td></tr>
<tr><td>Pulse duration, ms</td><td>≤1</td></tr>
<tr><td>Pulse duty cycle</td><td>≥10</td></tr>
</table>
</td><td></td><td></td><td></td></tr>
<tr><td>6.5.8</td><td></td><td></td><td>Requirements 6.5.1 - 6.5.7 shall be demonstrated with test methods described in Annex 9</td><td>-</td><td></td><td></td><td></td></tr>
<tr><td>6.6.</td><td>[The AECD shall allow communications</td><td>[The AECD shall be capable of</td><td>The AECD shall be capable of communication</td><td>The requirements should be regional or national</td><td></td><td></td><td></td></tr>
</table>

	RUS AECS-02-02	**OICA proposal** AECS-02-02	**RUS proposal** AECS-03-04	**CLEPA proposal** AECS 03-12	**EU proposal**	**Japan proposal**	**Other proposal**
	on mobile telephone communications networks using GSM-900, GSM-1800, UMTS-900 and UMTS-2000 standards. The implementation of requirements for the communication module is confirmed by compliance with 3GPP TS 51.010-1 standard and following ETSI standards: ETSI TS 126 267, ETSI TS 126 268, ETSI TS 126 269. In addition, the AECD shall comply with the following requirements:	communication on mobile telephone communication networks.] [The AECD shall be capable of communication on mobile telephone communication network(s) of the market where the AECD is intended to be put on the market.] [The AECD shall at least be indicated in the national regulation of the Contracting Party where the AECD is submitted for approval] [The Applicant shall provide evidence of compliance of capacity of communication on mobile telephone communication network(s) of the markets where the AECD is intended to be marketed by documentation.] ~~identified in Annex XXX. This shall be demonstrated by compliance with 3GPP TS 51.010-1 standard and following ETSI standards:~~	on mobile telephone communication networks using the following standards: - for vehicles intended to be marketed in EU: TBD - for vehicles intended to be marketed in Russia: GSM-900, GSM-1800, UMTS-900 and UMTS-2000 - for vehicles intended to be marketed in Japan: TBD The implementation of requirements for the communication module is confirmed by compliance with the following specifications: - for EU: TBD - for Russia: 3GPP TS 51.010-1, ETSI TS 126 267, ETSI TS 126 268, ETSI TS 126 269, ETSI TS 124 008, 3GPP TS 34.121-1, 3GPP TS 34.122 - for Japan: TBD				

	RUS AECS-02-02	**OICA proposal** AECS-02-02	**RUS proposal** AECS-03-04	**CLEPA proposal** AECS 03-12	**EU proposal**	**Japan proposal**	**Other proposal**
		~~– ETSI TS 126 267 DATE (eCall Data Transfer – General Description),~~ ~~– ETSI TS 126 268 DATE (eCall Data Transfer – Conformance testing),~~ ~~– ETSI TS 126 269 DATE (eCall Data Transfer – Characterisation Report)~~ ~~In addition, the AECD shall comply with the following requirements:~~					
6.6.1			The AECD shall comply with the following rules of registration in the network serving emergency calls.	The new 6.6.1 article need to be explained and discussed.			
6.6.1.1			If the AECD is used only for emergency call service, then it shall comply with the requirements for the "eCall only mobile station" as defined in section 10.7 of ETSI TS 122 101. The AECD shall stay in the				

	RUS AECS-02-02	**OICA proposal** AECS-02-02	**RUS proposal** AECS-03-04	**CLEPA proposal** AECS 03-12	**EU proposal**	**Japan proposal**	**Other proposal**
			"eCall only mobile station" mode whenever ignition is turned on.				
6.6.1.2			If the AECD is used only for emergency call service and additional commercial services, and the requirements of additional commercial services do not prescribe that AECD is registered in the network, than AECD shall follow the requirements of section 6.6.0.1.				
6.6.1.3			Regardless the network registration status before emergency call request, upon reception of an emergency call request the AECD shall immediately register in the network serving emergency calls.				
6.6.1.4			Total time elapsed from the emergency call request until emergency call setup shall not exceed 20 sec.				
6.6.1.5			Upon completion of emergency call the AECD shall stay registered in the network serving emergency calls for 2 hours or until reception of				

	RUS AECS-02-02	**OICA proposal** AECS-02-02	**RUS proposal** AECS-03-04	**CLEPA proposal** AECS 03-12	**EU proposal**	**Japan proposal**	**Other proposal**
			deregistration commands, whatever happens earlier.				
6.6.2	The AECD shall be fitted with a non-removable personal multiprofile universal SIM card that functions on mobile telephone networks using the above-mentioned standards. ~~It shall have the capacity to update information that is stored on the non-removable personal multiprofile universal SIM card on mobile telephone networks using the above-mentioned standards;~~ **[Other requirements to be regulated nationally]**	The AECD shall be fitted with a non-removable ~~personal~~ SIM that functions on mobile telephone networks using the standards mentioned in Annex XXX1. ~~It shall have the capacity to upload **update** information that is stored on the non-removable personal SIM on mobile telephone networks, using the standards mentioned in Annex XXX1.~~ **[Other requirements to be regulated nationally]**	The AECD shall be fitted with a non-removable SIM that functions on mobile telephone networks using the standards mentioned in section 6.6. Additional requirements to be regulated nationally.	Approved RUS proposal			

	RUS AECS-02-02	**OICA proposal** AECS-02-02	**RUS proposal** AECS-03-04	**CLEPA proposal** AECS 03-12	**EU proposal**	**Japan proposal**	**Other proposal**
6.6.3	The communications module shall provide batch transmission of data on the accident. The data exchange protocol shall establish mandatory priority flagging for emergency calls. The specifications for data exchange protocols are given in annex 10.	[The communications module shall provide batch transmission of data on the accident. The data exchange protocol shall establish mandatory priority flagging for emergency calls. The specifications for data exchange protocols are given in annex 10.]	When setting up an emergency call, the AECD shall set bits 6 and 7 of the service category element in accordance with ETSI TS 124 008. The AECD shall enable the following mechanisms of data transmission: - for EU: in-band data transmission in accordance with ETSI TS 126 267; - for Russia: in-band data transmission in accordance with ETSI TS 126 267; SMS in accordance with mobile communication standards listed in section 6.6; - for Japan: TBD. The AECD shall be able to generate / respond to the following messages (Table 4):	(Comment) Overall this is one approach to integrate in the main regulation key regional or national requirements. But it has the danger of becoming somewhat too specific			

	RUS AECS-02-02	**OICA proposal** AECS-02-02	**RUS proposal** AECS-03-04	**CLEPA proposal** AECS 03-12	**EU proposal**	**Japan proposal**	**Other proposal**

Table 4. Requirements for data exchange

Data and commands	Transmitting side	Receiving side	Data transmission mechanism	Notes
MSD	AECD	PSAP	In-band modem	Applicable for EU and Russia [Japan?]. MSD format is described in Annex 14
MSD	AECD	PSAP	SMS	Applicable for Russia [Japan?]. The AECD shall send MSD via SMS in case in-band MSD transmission failed. The AECD shall also send MSD via SMS upon reception of the corresponding command.
Command to re-send MSD via SMS	PSAP	AECD	SMS	Applicable for Russia [Japan?]. The specifications for data exchange protocols are given in Annex 10.
Command to place an emergency call	PSAP	AECD	SMS	
Command to deregister from the network serving emergency calls	PSAP	AECD	SMS	
MSD containing AECD testing results	AECD	PSAP	In-band modem	Applicable for Russia [Japan?]. MSD format is described in Annex 14

6.6.4	The communications module shall provide a full duplex voice connection in speakerphone mode, with an emergency services operator, the transmission of message about the vehicle by means of in-band modem, functioning in mobile wireless communication standards GSM 900 and GSM 1800, UMTS 900 and UMTS 2000.	When fitted, the communications module shall provide full duplex voice connection in speakerphone mode compatible with the PSAP identified in Annex XXX2.	The AECD shall provide full duplex hands-free voice connection with the PSAP using the mobile communication standards listed in section 6.6.	Approved OICA proposal			

	RUS AECS-02-02	**OICA proposal** AECS-02-02	**RUS proposal** AECS-03-04	**CLEPA proposal** AECS 03-12	**EU proposal**	**Japan proposal**	**Other proposal**
6.6.5	If it is not possible to transmit information using the voice modem for 20 seconds after the start of data transmission, the AECD stops using the voice modem and transmits the information by means of text messages (SMS). There shall be provision for the information to be transmitted a second time using the voice modem, working through the established voice connection, and by means of SMS. If it is not possible to transmit information using mobile telephone networks, the information not transmitted shall be stored in an energy-independent memory and transmitted when possible.	When fitted with full duplex voice connection capability, the AECD shall stop data transmission via in-band modem not later than [20] seconds after having started the demand, if no duplex voice communication can be established.	The AECD shall stop data transmission via in-band modem not later than [20] seconds after having started the demand, if in-band MSD transmission failed, and enable voice connection with PSAP. For Russia, in addition, the AECD shall immediately send MSD via SMS if in-band MSD transmission failed. If the connection was interrupted before the AECD has successfully completed MSD transmission, while 20 sec since the demand have not elapsed, the AECD shall re-establish the call and initiate MSD retransmission by in-band modem. If the connection was interrupted after the AECD has successfully completed MSD transmission, or after the 20 sec since the demand have elapsed, the AECD shall re-establish the telephone connection but shall not initiate the retransmission of MSD by in-band modem.	Approved RUS proposal			

	RUS AECS-02-02	**OICA proposal** AECS-02-02	**RUS proposal** AECS-03-04	**CLEPA proposal** AECS 03-12	**EU proposal**	**Japan proposal**	**Other proposal**
			In case it was not possible to establish voice connection and/or send MSD using mobile communication networks listed in section 6.6, he AECD shall store the MSD in non-volatile memory and attempt re-transmission when network service is available.				

6.6.6 After the emergency call is completed, the following shall be ensured:

6.6.6.1	Reception of command in SMS format concerning the repeat emergency call, and the issue of the repeat emergency call within a configurable period of time;		Processing of commands described in Table 4 (if applicable).				

6.6.6.2 Automatic reception of incoming phone calls for a period of not less than 20 minutes after the emergency call.]

6.7	The AECD shall offer the possibility of checking its functionality in automatic and manual modes, and show information on any faults on an optical device status indicator	The AECD shall provide the driver with a failure warning when there is a failure in the AECD that prevents the requirements of this Regulation of being met. The warning shall be as specified in	The AECD shall provide the driver with a failure warning when there is a failure in the AECD that prevents the requirements of this Regulation of being met. The warning shall be as specified in paragraph XXX below.				

	RUS AECS-02-02	**OICA proposal** AECS-02-02	**RUS proposal** AECS-03-04	**CLEPA proposal** AECS 03-12	**EU proposal**	**Japan proposal**	**Other proposal**
	or a message on the instrument panel. It shall also be possible for device test results to be transmitted using mobile telephone communications networks as described in paragraph 6.5.	paragraph XXX below.	For Russia: The AECD shall transition into test mode upon demand. Upon transition into test mode the AECD shall make a test call and transmit the tests results via in-band modem using MSD format specified in Annex 14. The AECD shall exit test mode upon successful transmission of the test results. The AECD shall also exit test mode if the AECD has been moved with ignition on a distance greater than 300 m from the location where test mode was entered.				
6.8	The AECD shall undergo functional testing in accordance with annex 11.	The AECD shall undergo functional testing in accordance with annex 11.	The AECD shall demonstrate compliance with functional requirements by undergoing functional testing in accordance with Annex 11.				
6.9	The AECD shall be able to operate autonomously for a	The AECD shall be able to operate autonomously for a	If fitted with backup battery, the AECD shall be able to operate				

	RUS AECS-02-02	**OICA proposal** AECS-02-02	**RUS proposal** AECS-03-04	**CLEPA proposal** AECS 03-12	**EU proposal**	**Japan proposal**	**Other proposal**
	period of not less than 60 minutes in call-back mode and subsequently not less than 10 minutes in voice communication mode through the use of a backup battery when power is not available from the on-board electrical system. The lifetime of a backup battery shall be not less than three years.	period of not less than 20 minutes in call-back mode and subsequently not less than 5 minutes in voice communication mode.	autonomously for a period of not less than 60 minutes in call-back waiting mode and subsequently not less than 10 minutes in voice communication mode. The lifetime of a backup battery shall be not less than three years.				
6.10	The AECD shall have the capacity to function with additional external devices (including devices that detect the type of accident), connected by means of a standardized connector and a standardized data transfer protocol. The physical interface for data transfer shall offer a data transfer speed of not less than 62.5 kbps.						