

DRAFT REPORT

11th meeting of the GRSG informal group on Accident Emergency Call System (AECS)

Venue: Pacific Hotel, 2 20-gil Toigye-ro Jung-gu
Seoul (Namsan-dong 2(Ee)-ga)

Chairman: Mr. Denis Zagarin (RUS) (zagarin@autorc.ru)
Secretariat: Mr. Olivier Fontaine (OICA) (ofontaine@oica.net)

Dates: Tuesday 24 November 2015 - Thursday 26 November 2015

1. Welcome and Introduction

Mr. Lee Yong-chan, Executive Director of Korea Transportation Safety Authority Korea Automobile Testing & Research Institute, welcomed experts from the informal group of accident emergency call system

The Chair also welcomed experts and opened the meeting

2. Approval of the agenda

Document: AECS-11-03 (Chair - Secretariat)

The agenda was approved with the addition of working documents from OICA, Qualcomm, NL.

3. Revision and approval of the draft minutes of the 10th meeting

Document: AECS-10-09 (Chair - Secretariat) draft report

The report was adopted with no change

4. Outcomes of GRSG-109 (29 September – 02 October, 2015) and 167 session of WP.29 (10-13 November, 2015)

Documents: ECE/TRANS/WP29/1118
ECE/TRANS/WP.29/GRSG/88 (UN Secretariat)
GRSG-109-24 (AECS-IG)

The chair informed about the outcomes of the GRSG session of October where he requested the advice of GRSG on the possibility to switch-off AECS and to mandate or permit a switch-off button in the installation requirements.

With respect to the possibility to switch-off AECS, GRSG was of the opinion to permit the installation of a switch-off button only in very limited cases, e.g. for maintenance purposes, and not directly accessible from the passenger compartment. The expert from EC informed GRSG on the still ongoing discussions in his organization on the same question but related to the European Union "eCall" system. He offered to keep GRSG and AECS informed once an agreement is found in Brussels.

As the mandate of the our IWG on AECS was limited to October 2015 and due to the delay in the development of the new Regulation, the Chair requested an extension of the mandate by one year, until October 2016. GRSG endorsed that request.

GRSG recalled its discussion under agenda item 14 (paras. 42-43) on a new symbol for the emergency call control and tell-tale. Finally, GRSG agreed to resume consideration of this subject at its next session, awaiting a first proposal of the draft UN Regulation on AECS.

The Chair then informed about the outcomes of the 167th session of WP.29. GRSG requested extension of AECS mandate and WP.29 endorsed it. The representative from OICA underlined the urgent need to finalize the draft Regulation and to conclude consideration of the remaining open issues.

The progress of IWG-AECS was highlighted and specially appointed that the IWG is working on new fields. The Chair did not exclude that new issues will arise and pointed out that such questions should be discussed at the stage of IWG's work to avoid their consideration in the later stages of GRSG or WP.29 levels.

5. National legislation on AECS (brief summary):

4.1 Current status of implementation of AECS requirements in RUS

The representative of the Russian Federation informed about the successful experience of the application of national legislation in the field of accident emergency call system and current status of the development of the accident emergency call requirements in case of roll-over accident.

4.2 Current status of development of EU requirements on AECS

The representative of the European Commission highlighted a progress and provided information concerning the development of EU requirements on AECS.

6. Revision of the main pending items

6.1. AECD homologation (Part I)

6.1.1. Position determination

Document: AECS-11-05 (Qualcomm)

The group reviewed the input from Qualcomm per document AECS-11-05:

- **Annex 8: Section 3.2.7 to 3.2.10**

Discussions:

RUS questioned the practical benefit of the change, and accepted the text unchanged.

GSA, D, OICA and CLEPA requested study time until next session but accepted the text as in AECS-02-02-Rev.6

Conclusion:

- Need for study delay, decision postponed to next meeting (Moscow).
- Current version of the text is acceptable for all but Qualcomm.
- Qualcomm to be pilot

- Addition of new paras 7.2.11. and 17.2.11., to read:

Conclusion:

- Need for study delay, decision postponed to next meeting (Moscow).
- GSA, D, OICA and CLEPA requested study time until next session but accepted the text as in AECS-02-02-Rev.6
- Qualcomm to be pilot

- Annex 8 Section 3.1.3, Table 5 and Section 3.3.1, Table 6

Discussions:

Debate on whether the interval was adopted previously.

CLEPA questioned whether the proposal is easily feasible.

The chair and the Secretary pointed out that these values were already adopted at the last meeting (see item 4.1.3. of AECS-10 report).

Conclusion: agreed at last meeting as above

- Annex 8 Section 3.4.1, Table 7

Conclusion: agreed at last meeting as above.

- Addition of 2 new paragraphs on installation and performances of the Antenna system

The group had a debate on the necessity of such additional sentences, as most OEMs already comply with the relevant national requirements, and the text depends on the way to test. In addition, this item is not really part of the GNSS testing. On the other hand, there is no need for an accurate positioning if the generation of the MSD is not properly synchronized with the determination of the position. The experts also convened that Annex 11 already prescribe relevant requirements for this item.

Conclusion: proposal rejected, text unchanged.

6.1.2. AECD information and warning signal

Document: AECS-11-04 (NL)

The group reviewed the proposal from the NL per document AECS-11-04

Paragraph 7.4.1. 'AECD information and warning signal': basically OK but how about the situation when the data transmission failed and establishing voice communication is still in progress. Is that a situation which can occur and if so, how could/should that be signalled to the driver?'

Discussion:

J proposed to delete "or voice call is in progress".

Conclusion: deletion accepted. Item out of the agenda.

Paragraph 7.4.2.1.

Document: AECS-11-10 (OICA)

OICA proposed to complete their restricted list, and agreed with option 1 + option 2 with HMI, subject to clarification of some items in the table.

RUS supported Option 2 as the items are more precise.

J supported Option 1 as clearer than Option 2 (at least the items in the list). In addition, J proposed to delete “connection to” and at the last sentence “or documentation”. The table 1 below shows a summary of the positions of the interested parties at AECS-11.

	OICA	J	RUS	EU	D
Option 1	With “documentation”	Without documentation.			Without “documentation”
Option 2	Option 2 is not complete as it lacks performance requirements	Option 2 is not complete as it lacks performance requirements. Concern about interpretation “reasonable documentation provided by the manufacturer”.	Yes with the relevant test method (Document AECS-09-05)	Yes, with the addition of the relevant requirements. Option 2 is not complete as it lacks performance requirements	Option 2 is not complete as it lacks performance requirements
Options 1+2	With documentation and clarification of some entries in the EU table				

Table 1: Summary of parties positions at AECS-11 with regard to the malfunction indication strategy

J suggested to make mandatory all the items of the table, and delete the last column.

OICA proposed to compromise by merging the 2 lists, keeping the items of Option 1 mandatory and the others optional. OICA committed to produce such proposal.

Temporary conclusion: OICA to be pilot in constructing a compromise proposal. Optional items would have to comply when fitted. Proposal to be presented by OICA in the course of AECS-11 (see item 6.2.1.).

6.1.3. Power supply

Document: AECS-11-04 (NL)

OICA commented that the back-up power supply could also supply non AECS equipment; the wording proposed by NL would prohibit that. The intention is to guarantee that the back-up power supply is capable of fulfilling the 5-60-5 sequence. OICA clarified that the additional expense of a back-up power supply should serve also for other components than solely the AECD/AECS.

The group improved the table and amended the text such to add the 5-60-5 test for the case

of an AECD with back-up power supply.

Conclusion: paragraph 7.5.3. to include possibility of a back-up power supply.

The group held a debate on the possibility for the Technical Services to perform sled tests with the main battery (acid liquid leakage, etc.). The Technical Services committed to provide the necessary facilities for such tests. J informed having checked the feasibility of the sled test, and confirmed it is feasible. They committed to provide information about repeatability of the tests at the next session. About the attachment of the battery, OICA questioned the contradiction of a rigid fixation on the sled vs. the OEM strategy of platform deformation in case of crash. The group confirmed that this could be addressed at a later stage when defining the conditions of the test.

Conclusion:

- Include the NL proposed text into paragraph 15.1.
- Conclusions to be confirmed at next session, with the help additional input

6.1.4. Resistance to impact

Document AECS-11-04 (NL)

The group reviewed Annex 7

It was proposed to delete the second part of the paragraph 2.1. because the meaning is unclear. The European Commission wondered whether the sentence address the possibility of separately testing the different components in different tests. D was of the opinion that the arrangement must represent the “worst case”. The group agreed that “can reasonably represent the performance” means the worst case.

The group temporarily adopted the following wording: “If the manufacturer chooses to test with related subsystem(s) **listed under paragraph 7.6.2.**, the manufacturer shall demonstrate that the test result can reasonably represent the performance of the complete representative AECD installation with respect to its safety performance under the same conditions” means that the installation on the sled test represent the worst case.”

Orientation of the test pulse: need that the AECD is installed in the direction of impact test. There was a debate on the possible orientations 6 vs. 1. The European Commission considered logical that, if 6 directions can be considered excessive, then at least 2 directions of impact (frontal and lateral) should be foreseen. However, the complete spirit of the sled test and its high deceleration pulse was based on a study performed by TRL based on the evaluation of frontal impact. The group agreed that one test pulse orientation is sufficient. The wording was then improved such that the installation of the AECD correspond to its approval (sled test configuration).

Conclusion: Annex 7 amended as in the working document.

6.1.5. EMC

Document: AECS-11-04 (NL)

Item not discussed.

6.2. Vehicle homologation with regard to AECD installation (Part II)

6.2.1. Information and warning signal

Document: AECS-11-10 and Rev.1 (OICA)

OICA presented their proposal for the AECS failure diagnostics. The European Commission found the proposal going in the right direction. A debate took place on the list and the level of details of the items to be checked. Contracting parties suggested to get more details about the nature of the failure types. OICA stated that the proposed list reflect what the OEMs can offer today; the representative had no view on any further details of e.g. failure types.

OICA finally agreed with Option 2 of the working document.

The group re-visited each of the items listed in the table provided by OICA, establishing a “wish list” from the contracting parties’ point of view on this subject.

Yes/no issue: if the feature is not provided by the manufacturer, then it is a good reason not to monitor it, e.g. if the battery monitoring feature is not provided by the manufacturer, then the “no” is acceptable because the feature is not provided. The group subsequently agreed to delete all the lines indicated with a “yes/no”, except the SIM line (to be re-discussed at next meeting).

Conclusion:

- Table amended as AECS-11-10-Rev.1
- Deletion of all the lines indicated with a “yes/no”
- SIM line to be reviewed at the next meeting.
- Table to be reviewed at next meeting.
- Industry to provide their position with regard to the amended table at next meeting

6.2.2. Functionality (emission of emergency call, HMI functionality and MSD)

Documents: AECS-11-04 (NL)
AECS-11-07 (OICA)
AECS-11-09 (OICA/JAMA)

OICA presented their revision of the new Annex 9 (AECS-11-07 - compilation of the current Annex 9 and the remaining of the former Annex 10), together with AECS-11-09 showing the proposal for 2 options for assessing MSD emission.

RUS challenged the 5th method (HMI) as it does not really check and it does not cover all the possibilities. OICA explained that the reason for this 5th method is for simplifying the check when the collision occurred. The European Commission found over-ambitious to propose 5 methods. The delegate found this method not appropriate and somewhat apart of the other methods. D said that using the HMI would imply to firstly assess compliance with ISO 17020.

D, RUS and J did not support the HMI method (1.3.). J could not understand the HMI method. The chair suggested to accept the 4 first methods and to keep on hold the HMI method, until Industry provides more justifications.

Paragraph 2.2. was deleted because it is redundant to other paragraphs.

The group could not finalize the complete revision of the Annex 9 and decided to resume

debate on this Annex at the next meeting. It was agreed that Annex 10 will be included into Annex 9.

Conclusion:

- General agreement on the approach
- OICA to provide further justifications for 5th method
- Revision of Annex 9 to be resumed at next meeting.

6.2.3. Hands-free audio performance

OICA presented the context of the relationship with ITU. It is still unclear whether the ITU standard is relevant. OICA informed that JAMA produced an in-depth study of the ITU-TP Emergency standard.

ITU provided their position with regard to the OICA/RUS concerns.

RUS was optimistic that some agreement be reached on each item.

OICA proposed to discuss the way to introduce the provisions into the AECS text:

- copy/paste or reference with limitations
- application of the requirements: recognition of the ITU standard at UN level, optional application (only RUS mandates audio performance at national level).

RUS recalled having the relevant provisions at national level, hence would apply them anyway, but could favour the introduction of the ITU requirements into the AECS regulation.

ITU supported limiting the multiplication of the standards.

After some debate, the group agreed to introduce a reference to the relevant standard: "ITU-T P.1140 - Speech communication requirements for emergency call originating from vehicles V0.9".

OICA stressed the need to refer to a certain version (date) of the standard. It was agreed that some limitation would be added, and that the draft text contain temporary place holder for that purpose.

Concerning the subjective testing, OICA agreed that, if the regulation follows the relevant parts of ITU, then the subjective testing may be unnecessary. ITU committed to propose an improved wording for the subjective testing of voice intelligibility. The chair proposed to let full flexibility to the applicant to nationally approve pre/post-crash audio capabilities, hence making it optional to do the other at UN level. This was agreed by all parties.

This item was subsequently further re-discussed. RUS stressed the need to perform post-crash voice communication verification (subjective testing) at UN level to eliminate the need to repeat crash test at national level. RUS proposed to leave post-crash a mandatory part of the regulation.

Conclusion:

- Item to be re-visited at next meeting
- OICA, ITU and interested parties to check which section of P1140 to take or to leave
- Post-crash testing needed at UN level. ITU to propose improved wording for post-crash assessment. Decision on test procedure (as currently described in the working document, new procedure proposed by ITU or new "simple" procedure) to be

elaborated during next meeting (Moscow).

- Agreement on the principle of the reference to ITU standard.

6.2.4. Power supply

See item 6.1.3. above.

6.2.5. Switch-off / disablement function

Document: AECS-11-04 (NL)

Item not discussed.

6.3. Vehicle homologation with regard to AECS (Part III)

Document: AECS-11-05 (Qualcomm)

Item not discussed.

7. **Periodical Technical Inspection (PTI)**

Document: AECS-09-09 (D)

D presented their proposal about PTI (AECS-09-09), as an alignment on the EU legislation. D does not intend to include a dedicated test for PTI, rather a simple check whether the system does work.

The chair pointed out that the EU legislation is still a draft. The European Commission delegate in addition stressed that OICA requested at WP29 to freeze the discussion on AECS, and in RUS, PTI is part of another regulation.

Qualcomm stressed that without a well configured SIM card, there is no way to check whether the ecall functions. Hence the expert recommended not to rely on a self-test for PTI. The expert said that there are some talks for using PTI for knowing whether the SIM is valid.

OICA had the following reaction:

1. This is a new item, which was not yet discussed within the informal group
2. This is a regional issue (addressing mainly the EU). About EU, there is currently no discussions or draft in the PTI regulation for AECS.
3. OICA repeated that the Ecall is not a primary safety system, hence there is no need for a PTI, as Ecall does not directly affect the safety of the driver.
4. At the time of PTI, who to call, which number would have to be dialled when testing the functionality? In addition, there would be no additional information to read out compared to the self-check already in discussion.

RUS found necessary that the ecall be tested periodically since there is a multiple source of dysfunction. RUS, supported by Qualcomm, found the subject important but doubted about the possibility to solve it at UNECE level. Hence the expert proposed to keep the text open such that the issue is covered nationally, at least temporarily.

The group wondered whether it is sufficient to refer to a framework with no regulation, just

recommendation, for PTI testing.

J supported D that testing at PTI is important, and J found this item not new as it was proposed at the 9th session of the informal group.

CLEPA supported not to lose time on this item.

The chair proposed to simply recognize the importance, and to acknowledge that the AECS UNECE informal group is not the proper place to treat this item, hence the group could report back that this item could be dealt with at a further step.

Conclusion:

- Agreed to exclude PTI from the regulation
- GRSG to clarify whether the group must address PTI.
- Addition of a new item 1.2.(d) for PTI.

8. Other items

9. Schedule for further IG meetings

12 th meeting	09-11 February 2016	RUS (Moscow)
13 th meeting	12-14 April 2016	Paris (OICA)
