Progress report of GRSG informal group on Accident Emergency Call System (AECS)

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Background and AECS IWG’ meeting schedule

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WP.29 approved the request of the Russian Federation to establish a new GRSG informal group on Automatic Emergency Call Systems (AECS) (WP.29 report ECE/TRANS/WP.29/1104)

Terms of Reference (IWG AECS):

6. The target completion date for the work of the informal group shall be the 109th session of GRSG in October 2015. Vehicles of categories N2, N3, M2, and M3 may be covered in a later stage.
Draft UN Regulation on accident emergency call systems

**Main idea** – the best possible description of all aspects on emergency call system functionality to achieve overall harmonization of the requirements under the 1958 Geneva Agreement

*The main issues under discussion in AECS group:*

- The structure of the UN Regulation;
- The scope of the UN Regulation;
- Triggering conditions;
- Data transmission mechanism;
- Functional requirements;
- Mechanical resistance;
- Global navigation satellite system (GNSS);
- Navigation module requirements.
Scheme presented in Document WP.29-163-12 (OICA)

Can this be included in a UN Regulation?

Vehicle

Can be covered by AECS reg

Auxiliary systems

AECS unit

Accident data

Auxiliary systems

Can this be included in a UN Regulation?

GPS

Glonass

Galileo

Satellite antenna

Position logic

DCM SIM/3G

DCM SIM/2G

DCM Multi-SIM

DCM Bluetooth

3G antenna

2G antenna

2G/3G antenna

Mobile Phone

SMS

In band

Packet data

Voice

...
Possible solutions:

- Restricted scope (option (i))
- Fragmentation on Classes I, II, III... (option (iii))

107th session of GRSG, September 2014

GRSG agreed to go forward with option (iii) but to keep option (i) as a backup solution. (document - ECE/TRANS/WP.29/GRSG/86, paragraph 40).

7th meeting of AECS, November 2014

Conclusion: Informal group adopted Option 1 as defined in document WP.29-164-31 in regards of communication components of the AECD (document – AECS-06-07)

<table>
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<tr>
<th>Radical Option 1 (i)</th>
<th>Option 3 (iii)</th>
<th>Comments</th>
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| NL, J, ROK, D, I, CLEPA, OICA, | RUS, European Commission | - European Commission favours Option 3 as a long term goal but accepts Option 1 at the first phase.  
- RUS can accept Option 1 but still in favour of Option 3 |
Scope of the UN Regulation draft

1.1. **This Regulation applies to:**

(a) Part I: the AECDs which are intended to be fitted to vehicles of categories M1 and N1;

(b) Part II: the installation on vehicles of categories M1 and N1 of AECDs which have been approved to Part I of this Regulation.

(c) Part III: vehicles of categories M1 and N1 with regard to their AECS or equipped with an AECD which has not been separately approved according to Part I of this Regulation.

1.2. **It does not apply to:**

(a) Communication module and communication antenna functionality, unless otherwise prescribed in this Regulation;

(b) The mechanism and logic of data transmission, data exchange protocol, operation modes and conditions of transitions between such modes, performance of the test call and test data transfer, response to protocol commands received from infrastructure and network registration logics are excluded from the scope of this Regulation and shall be identified in the Contracting Parties’ national regulations. AECD shall comply with aforementioned national regulations in regard of its functionality;

(c) Privacy, data protection and personal data processing.
Scope of the UN Regulation draft (continuation)

1.3. Vehicles in the scope of neither Regulation No. 94 nor Regulation No. 95 and not fitted with an automatic triggering system shall be excluded from the scope of this Regulation.

1.4. GNSS positioning may be approved at the request of the applicant. However, if the applicant opts to request approval of AECD/AECS without the GNSS positioning as described in this regulation, national requirements of the Contracting Parties apply.

1.5. Vehicles of the following categories shall be excluded from the scope of this regulation:
- Armoured vehicles,
- M1 vehicles with a total permissible mass > 3.5 t
The general requirements of the UN Regulation draft (under discussions)

**Part I: Emergency call devices (AECD)**
- Sending data, and establish voice connection
- Electromagnetic compatibility
- Positioning determination
- Information and warning signal
- Power supply
- Resistance to impact (function and operation after impact)

**Part II: Vehicles with regard to the installation of an AECD of an approved type**
- Visual inspection of HMI installation (manual control, tell-tale; microphone, loudspeaker);
- GNSS functionality;
- AECS functional check (MSD transmission, voice connection; battery function, wires, tell-tale...);
- Verification AECS functionality after the vehicle impact (emission of eCall, HMI functionality and MSD);
- Hands-free audio performance

**Part III: Vehicles with regard to their AECS or equipped with an AECD which has not been separately approved according to Part I (will be prepared and submitted at the later stage)**
Key issue which should be put into GRSG consideration:

**Reference to UN Regulation No. 10:**

Part I: Emergency call devices (AECD)

General 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. 10.05]

**Possible solutions:**

1. **The requirements shall comply with UN Regulation No. 10 without any reference to series of amendments**

It will be possible to grant approval according to previous series of amendments to UN Regulation with Revision 3 of the 1958 Agreement*. (Contracting Parties will have to verify the AECD’ compliance to the relevant series of amendments in force in the country)

2. **To specify the certain series of amendments (UN Regulation No. 10-XX)**

Mentioning the certain series of amendments could become overregulation for Contracting Parties not mandating it (for example: the latest - UN Regulation No. 10-05).

* Document ECE/TRANS/WP.29/2015/40: Article 12, Par. 4. Notwithstanding that transitional provisions in any version of UN Regulations may have stipulated otherwise, Contracting Parties to this Agreement which are applying UN Regulations may, subject to compliance with the provisions of Article 2, nevertheless issue type approvals pursuant to earlier versions of UN Regulations. However, subject to paragraph 3 of this Article, Contracting Parties applying a UN Regulation shall not be obliged to accept type approvals issued pursuant to these earlier versions).
Thank you for your attention!