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

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Foundation of the informal working group

1st stage: 159th WP.29 - March 2013 Geneva

The presentation of Russian Federation (WP.29-159-22)
The announcement to propose a draft UN Regulation on accident emergency call systems (ECE/TRANS/WP.29/2013/67)

2nd stage: 160th WP.29 – June 2013 Geneva

The presentation of the 1st Draft UN Regulation for the requirements of accident emergency call systems (ECE-TRANS-WP29-2013-067)

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)

AECS informal group meetings

Period	Meeting title	Place	Key points
October 2013	1st meeting	Geneva	• Russian Federation presented the revised draft UN Regulation on the ECE-TRANS-WP29-2013-067/rev.1 basis (Document: AECS 01-05e) • The following items were addressed: - Limited to M1/N1 - 3-parts structure: (a) type approval of AECS devices for vehicles of categories M1 and N1 (b) type approval of vehicles with regard to the installation of approved AECS devices (c) the type approval of vehicles with regard to AECS function
December 2013	2nd meeting	Paris	• OICA provided the updated proposal for the draft UN Regulation based on AECS 01-05e (Document: AECS 02-02e) • Presentations: - Effective dates for the mandatory requirements on installed ERA-GLONASS systems/devices (Russian Federation) - Current situation of Accident Emergency Call System in Japan (Japan)

AECS informal group meetings

Period	Meeting title	Place	Key points

February 2014	3rd meeting	Moscow	• Russian Federation provided the updated proposal for further development of the draft UN Regulation on AECS 02-02e base (Document: AECS 03-04)
			
			• Presentations:
			- ERA-GLONASS (Russian Federation)
			- HELPNET System (Japan)
			- OICA proposal for AECD and AECS requirements
			- Antenna requirements (CETECOM)
			• The following items were addressed:
			   - Scope of the draft UN Regulation
			   - Communication with mobile phone networks
			   - Data transmission mechanism
			   - Minimum set of data
			   - AECS triggering conditions (UN R94/R95 environment)
			   - EMC, climate resistance and mechanical resistance
			   - Navigation module requirements

AECS informal group meetings

Period	Meeting title	Place	Key points
April 2014	4th meeting	Paris	• Presentations: - European Commission's position on the GNSS (EC) - Automatic triggering of emergency call (TRL) - OICA position on homologation procedure (OICA) - Justification Climatic, Mechanical resistance and EMC requirements (Russian Federation) • The following items were addressed: - Climatic, Mechanical resistance and EMC requirements - Scope of the draft UN Regulation - AECS triggering conditions - GNSS aspects - Possible solutions for general approach

Next meetings will be held on:
- Turin 2-4 September 2014

Key issues which should be put into GRSG consideration:

1. Mobile communication standards are regulated nationally and are not compatible in different regions

Background:
- AECD/AECS need mobile phone communication for sending MSD and establishing voice communication.
- Mobile phone networks are currently not compatible worldwide.
- Mobile phone technology evolves quickly.
- Existing technology (Quad band) may provide basic performances almost anywhere, with maximum performance in one particularly aimed area.

Possible solutions:
- Frequency requirements to be out of the AECS regulation, i.e. AECD/AECS shall fulfil the national requirements for what concerns the communication standards.
- Quad band technology.
- Introducing different classes for AECD/AECS per each set of applicable regional communication standards (favoured by the AECS informal group)
- Another solution from GRSG.

Key issues which should be put into GRSG consideration:

2.   Data transmission mechanism – there is no technology which can support all Contracting Parties

Background:
MSD,VIN, transmission process and protocols are not harmonized worldwide and depend on deployed infrastructure.

Possible solutions:
- limiting the regulation to a list of data, and letting the transmission process and protocols to the national legislation.

- Introducing different classes for AECD/AECS per each set of regional protocol and data transmission mechanism (favoured by the AECS informal group)

- Another solution from GRSG.

Introducing different classes of Type Approvals for AECD/AECS per each set of applicable regional communication standards in one Regulation

R XXX (AECS)
90% of harmonized requirements

10% of non-harmonized requirements can be defined through different classes:

Class I
a. Mobile communication standards: GSM-900/1800, UMTS-900/2100
b. Regional protocol and data transmission mechanism: 2G/3G and in-band modem + SMS
    as a backup mechanism   (Technology in application in Russia)

Class II
a. Mobile communication standards: GSM-900/1800, UMTS-900/2100
b. Regional protocol and data transmission mechanism: 2G/3G and in-band modem
                                                          (Technology in application in EU)

Class III
a. Mobile communication standards: UMTS 1700/2100
b. Regional protocol and data transmission mechanism: CDMA for voice communication
    and package data transmission via LTE   (Technology in application in Japan)

Key issues which should be put into GRSG consideration:

3. Global Navigation Satellite Systems.

Background:
- Principle of 1958 Agreement supposes technology neutral approach
- The only one global positioning technology available at the moment is satellite related (Global Navigation Satellite Systems)
- Existing test methods for positioning are GNSS constellation dependant

Request for guidance:
- Can we mandate the use of GNSS in a UN Regulation?

Terms of Reference and Rules of Procedure of the informal Group of GRSG on Accident Emergency Call System (AECS).

AECS request to GRSG to postpone the target completion date for the work:

Document GRSG 106-18, item 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."

Thank you for your attention!