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

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Background and AECS IWG’ meeting schedule

- **June 2013 Geneva. 160th WP.29**
  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)

- **October 2013 Geneva. 1st AECS meeting**
- **December 2013 Paris. 2nd AECS meeting**
- **February 2014 Moscow. 3rd AECS meeting**
- **April 2014 Paris. 4th AECS meeting**

- **May 2014 Geneva. 106th GRSG**
  1st AECS Progress report (Document GRSG-106-31):
  - Key issues were submitted to the GRSG consideration.
  - AECS has requested to GRSG to postpone the target completion date of the work

- **September 2014 Tourino. 5th AECS meeting**
The main issues under discussion

- The structure and scope of the Draft UN Regulation
- Conformity to Geneva Agreement 1958
- Triggering and testing conditions
- Homologation procedure
- GNSS aspects
- Exchanging of experience with stakeholders
Vehicle systems

Can this be included in a UN Regulation?

Satellite systems

GPS

Glonass

Galileo

Position logic

Auxiliary systems

AECS unit

Donor SIM/3G

2G antenna

3G antenna

DCM Multi-SIM

2G/3G antenna

DCM Blue tooth

Mobile Phone

In band

Packet data

Voice

SMS

Can this be included in a UN Regulation?
Possible solutions (1)*:

**Restricted scope**

“+” The Draft of UN Regulation will be under the provisions of Geneva Agreement 1958.

“-” Stakeholders are interested in additional requirements, e.g. mobile communication standards or data transmission mechanism. Can they apply it nationally?

**Preamble to Geneva Agreement 1958**

... 

DESIRING to define uniform technical prescriptions that it will suffice for certain wheeled vehicles, equipment and parts to fulfill in order to be used in their countries

...

*AECS has established task force to find a solution*
Possible solutions (2):

Several different UN Regulations
“+” Each Class will exactly satisfy certain group of CPs.
“-” Is it possible for Contracting Party to apply several UN Regulation at the same time?
“-” Is it possible for CP to issue Type approval under all UN Regulations and admit the only UN Regulation for conformity with the internal legislation?

Article 2 of Geneva Agreement 1958
Each Contracting Party applying Regulations largely through type approval shall grant the type approvals and approval markings described in any Regulation for the types of wheeled vehicles, equipment or parts covered by the Regulation…

Article 3 of Geneva Agreement 1958
Wheeled vehicles, equipment or parts for which type approvals have been issued by a Contracting Party in accordance with Article 2 of this Agreement and manufactured either in the territory of a Contracting Party applying the Regulation…be held to be in conformity with the legislation of all the Contracting Parties applying the said Regulation through type approval
Possible solutions (3):

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
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
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)
Possible solutions (3):

Fragmentation on Classes (I, II, III...)

“+” Each Class will exactly satisfy certain group of CPs.
“+” The similar example with the first version R107 (Approval A&B)

Scope
1.1 Two alternative approvals are allowed, A and B. Contracting Parties may choose to apply only one of these alternatives to vehicles to be registered in their territories.*

“-” Is it possible for CP to issue Type approval under all Class of UN Regulation, and accept the only Class for conformity with the internal legislation?
“-” Current classes are focusing on existent sets of mobile solutions. Other CPs might need additional classes.

* Not used in the current version of R107
Using of particular technologies

Global Navigation Satellite System

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?
Thank you for your attention!