

Informal document **WP.29-160-35**
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agenda item 4.15)

**Draft United Nations Regulation
for the requirements of the devices to
emergency-call services in case of accident**

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The amendments to the Customs Union Technical Regulation on Safety of Wheeled Vehicles were adopted in January 2013

The requirements:

- M & N category vehicles: generation of an emergency call **during or after accident.**
- M1 & N1 category vehicles: **automatic** generation of an emergency call.
- M2, M3, N2, N3 category vehicles: generation of an emergency call **manually**
- **Voice communication** with emergency services

ERA-GLONASS Implementation Schedule



from 01.01.2017 – all vehicles released for circulation

from 01.01.2016 – all vehicles of categories M1, N1 (GWV > 2.5 tons), M2, M3, N2, N3 for transportation of passengers and dangerous goods, released for circulation

from 01.01.2015 – new vehicle types of categories M1 and N1

from 01.10.2014 – new vehicle types of categories M1, N1 (GWV > 2.5 tons), M2, M3, N2, N3 for transportation of passengers and dangerous goods



2014

2015

2016

2017

Technical Regulation Requirements in Regards to ERA-GLONASS In-Vehicle Device/System

A device of emergency calls

- Provides for:
 - Transfer of the message on road accident by a manual mode
 - Bilateral voice communication with emergency services
- Supplied as a separate component for fitment on vehicles
- Complies with the provisions of the Annex 10 to the Technical Regulation
- At vehicle type approval a presence of a certificate for a device and the fulfillment of vehicle installation requirements are verified

A system of emergency calls

- Provides for:
 - Performance of functions of the device of emergency calls and fulfillment of the requirements to it
 - Transfer of the message on road accident automatically when air bag(s) deploy(s) (or at operation of other gauges)
 - Preservation of working capability after performing of crush tests in accordance with the UN Regulations №94 & 95
- Integrated into vehicle construction
- Vehicles shall be equipped at least with a driver's air bag
- At vehicle type approval the fulfillment of vehicle installation requirements is verified

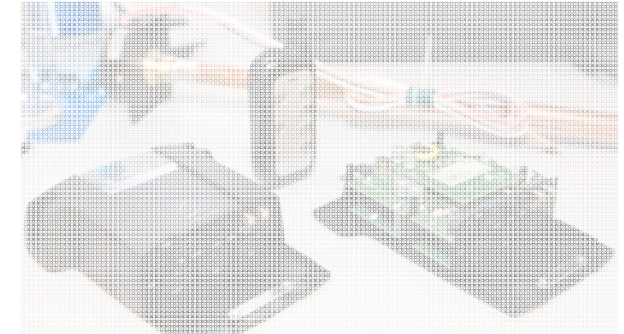
Proposal for a draft UN Regulation on emergency call devices

- The presentation at the 159th WP.29 (WP.29-159-22) and the announcement to propose a draft UN Regulation on e-Call systems (ECE/TRANS/WP.29/1101, para. 82) ECE/TRANS/WP.29/2013/67.



Draft UN Regulation Basic Features

- The draft of UN Regulation consists of two parts:
 - Part I: e-Call devices;
 - Part II: e-Call system (installation on vehicles)
- Scope: M & N category vehicles



Draft UN Regulation Basic Definitions

- **“e-Call device”** means a device providing for:
 - determination of co-ordinates, speed and direction of motion of a vehicle by means of signals of not less than two operating global navigation satellite systems;
 - transfer of the message about a vehicle at accidents;
 - bilateral voice communication with emergency service through mobile radio telephone networks.
- **“e-Call system”** means an e-Call device integrated with vehicle passive safety system which transfers the message about a vehicle at road accident automatically.

Draft UN Regulation Structure

Chapters		Content	Annexes
I. e-Call device	II. e-Call system		
1.		Scope	
2.	12.	Definitions	
3.	13.	Application for approval	1 & 2 – Sample information document
4.	-	Markings	
5.	14.	Approval	3 & 4 – Communication on type approval 5 – Type approval marking
6.	15.	Requirements	6-13 – Technical provisions
7.	16.	Modification of type and extension of approval	
8.	17.	Conformity of production	
9.	18.	Penalties for non-conformity of production	
10.	19.	Production definitely discontinued	
11.	20.	Names and addresses of Technical Services and Type Approval Authorities	

Draft Requirements to e-Call Device (Part I)

Para.	Description	Annexes
6.1.	EMC (UN R10)	
6.2.	Durability to climatic influence	6 – Tests
6.3.	Durability to mechanic influence	7 – Tests
6.3.	Functionality after overload (Appendix to Annex 9 of UN R17)	8 – Test method
6.4.	Navigation signal detection	9 – Tests
6.5.	Capability for operation within the networks of radio telephone communication (GSM 900 & 1800, UMTS 900 & 2000)	10 – Tests 11 – Requirements to data communication protocol
6.6.	Capability to self checking	
6.7.	Passing the tests of functional diagnostics	12 – Tests
6.8.	Ability to operate without power supply from vehicle	
6.9.	Capability to operate with external devices	

Draft Requirements to eCall Device Installation (Part II) (1)

Para.	Description	Annexes
15.1.	General	
15.1.1.	Be type-approved pursuant to this UN Regulation (Part I)	
15.1.2.	Provision of power supply from vehicle	
15.1.3.	Installation of aerials	
15.1.4.1.	Data transmission to emergency service manually by pressing a button	
15.1.4.2.	Bilateral voice communication with emergency service	
15.1.4.3.	Switching-off sound devices at the time of voice communication	12 – Test procedure
15.1.5.	Emergency communication button	
15.1.6.	Optical operation indicator	
15.1.7.	Possibility of absence of optical operation indicator	

Draft Requirements to eCall Device Installation (Part II) (2)

Para.	Description	Annexes
15.2.	Additional requirements to eCall systems	
15.2.1.	Scope: M1 & N1 vehicles falling into scope of UN R 94 and/or R95	
15.2.2.	Vehicle type – same as in UN R 94 and/or R95	
15.2.3.1.	Data transmission to emergency service automatically in response to activation of airbag(s), other sensor(s) of vehicle restraint system(s) or other system(s) detecting vehicle deceleration. Checking at frontal crash test (UN R 94 or R12) and lateral crash test (UN R 95)	
15.2.3.2.	Functionality after crash tests as above	



Thank you for your attention!