



Economic Commission for Europe
Inland Transport Committee
World Forum for Harmonization of Vehicle Regulations
Working Party on Automated/Autonomous and Connected Vehicles
Sixth session

Geneva, 3-4 March 2020

**Report of the Working Party on Automated/Autonomous and
 Connected Vehicles on its sixth session**
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I. Attendance

1. The Working Party on Automated/Autonomous and Connected Vehicles (GRVA) held its sixth session from 3 to 4 March 2020 in Geneva, chaired by Mr. R. Damm (Germany). Accredited experts from the following countries participated in the work, following Rule 1 of the Rules of Procedure of the World Forum for Harmonization of Vehicle Regulations (WP.29) (TRANS/WP.29/690/Rev.2): Austria, Czech Republic, Finland, France, Germany, Italy, Japan, Luxembourg, the Netherlands, Norway, Romania, Russian Federation, Republic of Korea, Spain, Sweden, Switzerland, United Kingdom of Great Britain and Northern Ireland (UK) and United States of America. An expert from the European Commission (EC) also participated. Experts from the following non-governmental organizations (NGOs) and international organizations participated: the American Automotive Policy Council (AAPC), European Association for Electric Mobility (AVERE), International Motor Vehicle Inspection Committee (CITA), European Association of Automotive Suppliers (CLEPA/MEMA/JAPIA), Fédération Internationale de l'Automobile (FIA), Federation Internationale des Grossistes, Importateurs et Exportateurs en Fournitures Automobiles (FIGIEFA), Institute for Security and Safety (ISS), International Motorcycle Manufacturers Association (IMMA), International Telecommunication Union (ITU) and International Organization of Motor Vehicle Manufacturers (OICA) and Securing America's Future Energy (SAFE).
2. The Chair opened the sixth session of GRVA mentioning the new Coronavirus 2019 context explaining the absence of the expert from China, Vice-Chair of GRVA and other usual participants.
3. The Secretary provided information for meeting participants related to the Covid-19 outbreak, prevention and general precautions as well as on measures taken for this meeting.
4. The Chair explained that this extraordinary session, authorised by the Inland Transport Committee at its eighty-second session, was dedicated to make progress on Automated Lane Keeping Systems (ALKS) and on Cyber Security and Cyber Security Management Systems.

II. Adoption of the agenda (agenda item 1)

Documentation: ECE/TRANS/WP.29/GRVA/2020/18
Informal document GRVA-06-01

5. GRVA considered the provisional agenda prepared for this session and adopted it (ECE/TRANS/WP.29/GRVA/2020/18). GRVA noted the running order document (GRVA-06-01) prepared by the Chair for this session. This report provides the list of all informal documents distributed during the session, in Annex I of this report.

III. Automated Lane Keeping Systems (agenda item 2)

Documentation: Informal documents GRVA-06-02 and its revisions, (GRVA-06-06), GRVA-06-09, GRVA-06-10, GRVA-06-11, GRVA-06-13, GRVA-06-14 and GRVA-06-16

6. The expert from Germany, Secretary of the Informal Working Group (IWG) on Automatically Commanded Steering Function (ACSF) presented GRVA-06-14 informing on the progress made since the fifth session of GRVA on the draft UN Regulation on Automated Lane Keeping Systems (ALKS).
7. GRVA reviewed in detail GRVA-06-02 prepared by the group for consideration at this session.
8. GRVA reviewed the scope of the proposed Regulation, discussed a number of items such as the alignment of definitions with existing standards, whether or not the Software Identification Number (RxSWIN) mechanism in the draft UN Regulation on Software

Updates and Software Update Management Systems should be implemented on a mandatory basis.

9. The expert from the United States of America introduced the outcome of the recent meeting of the IWG on DSSAD regarding DSSAD for ALKS (see GRVA-06-06 under agenda item 3).

10. GRVA discussed about the best way to incorporate the Appendix prepared by the IWG on Validation Methods for Automated Driving (GRVA-06-09). GRVA noted the work on this Appendix was based on data collected in Japan and Northern America but that no data from Europe could be used. The expert from the Russian Federation expressed concerns about the implementation of the provisions in this Appendix. Some delegations expressed doubts about the values proposed in square bracket, whether they would be representative for their market.

11. The expert from the European Commission introduced GRVA-06-10 proposing the text for a generic Annex (possibly applicable to all Automated Driving Systems, including ALKS) on special requirements to be applied to the safety aspects of electronic control systems and their audit. GRVA reviewed the submission by the expert from Canada, Co-Chair of the IWG on VMAD, of an alternative proposal with a few editorial corrections and modifying the scope of the annex, substituting *Automated Driving Systems* by *ALKS* throughout the text of the annex.

12. The expert from the United Kingdom of Great Britain and Northern Ireland recalled their position on the need to allow ALKS to perform a lane change if necessary, during an emergency manoeuvre. GRVA did not have the time to review in detail his proposal (GRVA-06-11) and agreed to resume this discussion at the GRVA session in September 2020.

13. The Secretary produced upon request of GRVA a consolidated version of the draft UN Regulation on ALKS based on the input received during the session (GRVA-06-02-Rev.1). The expert from OICA introduced GRVA-06-16 with amendment proposal to the revision 1. After each half day session, the Secretary produced revised consolidation reflecting the current state of the discussions. GRVA adopted GRVA-06-02-Rev.4 and requested the secretariat to submit it (without square brackets) as a draft new UN Regulation on ALKS to WP.29 and the Administrative Committee of the 1958 Agreement (AC.1) for consideration and vote at their June 2020 sessions. GRVA decided that the collection of data, to determine the competent and careful driver model as per Appendix 3 to Annex 4, shall be performed in order to gather information and allow Type Approval Authorities to provide feedback to the IWG on VMAD.

IV. Data Storage System for Automated Driving (agenda item 3)

Documentation: Informal document GRVA-06-06

14. GRVA reviewed the contribution (GRVA-06-06) of the IWG on DSSAD for the activities on ALKS under agenda item 3.

V. Cyber security and (over-the-air) software updates (agenda item 4)

Documentation: Informal documents GRVA-05-05-Rev.1, GRVA-06-03, GRVA-06-04, GRVA-06-05, GRVA-06-07, GRVA-06-08-Rev.1, GRVA-06-15 and GRVA-06-17

15. The Secretary presented, in the absence of leadership of the group, GRVA-06-05 informing GRVA on the activities performed by the Task Force on Cyber Security and OTA issues since the fifth session of GRVA.

16. GRVA worked on the basis of GRVA-05-05-Rev.1 prepared by the Secretary at the end of the fifth session of GRVA.

17. The expert from CEMA introduced GRVA-06-03 proposing to remove the vehicle categories S, R and T from the scope of the draft Regulation on Cyber Security and Cyber Security Management Systems. GRVA noted the concern expressed by the expert from Austria about the fact that modern vehicles of these categories were highly connected and automated and were also involved in road traffic. GRVA agreed with the position expressed by CEMA at this stage, as these vehicle categories were not specifically considered when drafting the regulation. GRVA invited the experts from CEMA to review the draft regulation.

18. The expert from FIGIEFA introduced corrections to the wording that they proposed at the fifth session of GRVA. GRVA agreed with the corrections proposed for paragraph 1.4. GRVA referred the part of the proposal addressing the Interpretation Document to the Task Force on CS/OTA for detailed review.

19. The expert from OICA presented GRVA-06-08-Rev.1 introducing GRVA-06-07 proposing amendments to the scope, clarifications in para. 5.1.3., paras. 7.2.2.2-7.2.2.4. and para. 7.3.7., a proposed way forward for the resolution of the discussion on paras. 5.3.1-5.3.4, transitional provisions in para. 7.3.1. and the deletion to the reference to Part. C in Annex 5.

20. The expert from Germany introduced an alternative amendment proposal to the transitional provision para. 7.3.1..

21. The expert from the European Commission introduced GRVA-06-17 and GRVA-06-17-Rev.1, aimed at resolving the Contracting Parties discussion on paras. 5.3.1.-5.3.4. GRVA could not reach consensus on the proposal. GRVA agreed to make further progress until the June 2020 session of WP.29 along the following agreed principles:

- (a) Introduction of prescriptions regarding the competencies of the Technical Services involved;
- (b) Introduction of provisions on the upload of the type approvals in DETA;
- (c) Introduction of a peer review concept that prevents sovereignty issues regarding the issuance of Type Approvals;
- (d) Introduction of a reference to Schedule 6 of the 1958 Agreement.

22. The expert from Spain introduced GRVA-06-18 aimed at specifying security definition requirements for the vehicle type. GRVA agreed to consider a revised proposal at its September 2020 session.

23. GRVA adopted GRVA-06-19-Rev.1 and requested the secretariat to submit it (without paras 5.3.1.-5.3.4.) as draft UN Regulation on Cyber Security and Cyber Security Management Systems to WP.29 and AC.1 for consideration and vote at their June 2020 session.

VI. Any other business (agenda item 5)

Documentation: Informal documents GRVA-06-11 and GRVA-06-12

24. The Chair regretted that GRVA did not have enough time for reviewing the proposal submitted by the expert from AVERE and also for the proposal submitted by the expert from the United Kingdom of Great Britain and Northern Ireland. GRVA agreed to consider these two items at its September 2020 session.

Annex I

List of informal documents (GRVA-06-...) considered during the session

| <i>No.</i> | <i>(Author) Title</i> | <i>Follow-up</i> |
|------------|--|------------------|
| 1 | (Chair) Running order | D |
| 2 | (ACSF) Updated proposal for a new UN Regulation on Automated Lane Keeping Function (ALKS) | D |
| 2r4 | (Secretariat) Proposal for a new UN Regulation on ALKS | A |
| 3 | Proposal for amendments to ECE/TRANS/WP29/GRVA/2020/3 and /4 (Scope) | D |
| 4 | (FIGIEFA) Proposal for amendments to GRVA-05-05-Rev.1 | D |
| 5 | (CS/OTA) Note on GRVA-05-05-Rev.1 | D |
| 6 | (EDR/DSSAD) Proposal for DSSAD provisions to be inserted in GRVA-06-02 | D |
| 7 | (OICA) Suggestion for amendments to GRVA-05-05-Rev.1 | D |
| 8r1 | (OICA) Explanations for the suggested amendments to GRVA-05-05-Rev.1 | D |
| 9 | (VMAD) Proposal for an Appendix 1 to Annex 4 to the draft UN Regulation on ALKS | D |
| 10 | (VMAD) Proposal for an Annex 4 to the draft UN Regulation on ALKS | D |
| 11 | (UK) Proposal for additional requirements to the ALKS Regulation (GRVA-06-02) | C |
| 12 | (AVERE) Proposal for amendments to ECE/TRANS/WP.29/GRVA/2020/7 | C |
| 13 | (Canada) Proposal for amendments to GRVA-06-10 | D |
| 14 | (ACSF) Report and summary of activities of the IWG on ACSF following the 5th session of GRVA | D |
| 15 | (Germany) Proposal for amendments to GRVA-05-05-Rev.1 | D |
| 16 | (OICA/CLEPA) Proposal for amendments to GRVA-06-02 | D |
| 17r1 | (EC) Proposal for amendments to GRVA-05-05-Rev.1 | D |
| 18 | (Spain) Proposal for amendments to GRVA-05-05-Rev.1 | D |
| 19r1 | (GRVA) Proposal for a new UN Regulation on Cyber security | A |

Notes:

- A Adopted and to be forwarded to WP.29 and AC.1 at their June 2020 sessions.
- B Resume consideration on the basis of a document with an official symbol.
- C Revised proposal for the next session.
- D Consideration completed.

Annex II

List of GRVA Informal Working Groups

| <i>Informal Working Group</i> | <i>Chair/Co-Chairs</i> | <i>Country</i> | <i>Mandate until</i> |
|---|---|--------------------------------|----------------------|
| Functional Requirements for Automated and Autonomous Vehicles (FRAV) | Mr. E. Wondimneh. ¹ Ms. C. Chen ¹ Mr. R. Damm ¹ | USA China Germany | March 2020 |
| Validation Method for Automated Driving (VMAD) | Mr. T. Onoda ¹ Mr. P. Striekwold ¹ Mr. I. Sow ¹ | Japan Netherlands Canada | December 2020 |
| Cyber Security and Over-The-Air software updates (CS/OTA) | Mr. T. Niiikuni ¹ Dr. D. Handley ¹ Ms. M. Versailles ¹ | Japan UK USA | November 2019 |
| Event Data Recorder / Data Storage System for Automated Driving (EDR/DSSAD) | Mr. T. Guiting ¹ Mr. T. Niiikuni ¹ Mrs. J. Doherty ¹ | Netherlands Japan USA | November 2020 |
| Automatically Commended Steering Functions (ACSF) | Mr. C. Theis ¹ Mr. H. Morimoto ¹ | Germany Japan | March 2020 |
| Advanced Emergency Braking Systems (AEBS) | Mr. A. Lagrange ¹ Mr. T. Hirose ¹ | EC Japan | March 2020 |
| Modular Vehicle Combinations (MVC) | Mr. A. Gunneriusson | Sweden | March 2020 |

¹ IWG Co-Chairs