

## **DRAFT REPORT**

### **14<sup>th</sup> meeting of the GRRF informal group on**

### **Advanced Emergency Braking and Lane Departure Warning Systems**

Venue: Palais des Nations, Geneva  
Chairman: Mr. Johan Renders (EC) (johan.renders@ec.europa.eu)  
Secretariat: Mr. Olivier Fontaine (OICA) (ofontaine@oica.net)  
Dates of the session: Monday, 09 May 2011 until 11 May 2011

#### **1. Welcome and Introduction**

The Chair recalled the outcome of GRRF69 and WP.29-153, and in the absence of clear guidance on the regulatory approach presented the context for the 14<sup>th</sup> meeting, inviting the group to continue its work in parallel on the two regulatory approaches, bearing in mind that the result has to be presented to GRRF-70 later in the week and that this 14<sup>th</sup> meeting may be the last one of the informal group.

#### **2. Approval of the agenda**

Document: AEBS/LDWS-14-01 (Chair)

The agenda was approved with the addition of documents AEBS/LDWS-14-06 to 14.

#### **3. Outcome of the 13<sup>th</sup> meeting of the AEBS/LDWS IG**

Oral report by the Chair and approval of the draft minutes

Document: AEBS/LDWS-13-12 (draft minutes)

The minutes were approved with no change.

#### **4. Consideration of new documents submitted:**

- 4.1.** AEBS/LDWS-14-02: (Japan) proposal to organize the performance requirements in accordance with the vehicle categories + proposal for § 5.1.1 relating to EVSC
- 4.2.** AEBS/LDWS-14-03: (CLEPA) proposal for improvement of the text of the preamble to the regulations
- 4.3.** AEBS/LDWS-14-04: (Chair) proposal for amending draft AEBS collision mitigation Regulation (recognition clause for AEBS-A approved vehicles)
- 4.4.** AEBS/LDWS-14-05: (European Commission) proposed amendments to warning and activation test requirements and pass-fail values for AEBS
- 4.5.** AEBS/LDWS-14-06: CLEPA\_N2 and GCW
- 4.6.** AEBS/LDWS-14-07: CLEPA\_GVW-braking system\_Europe

- 4.7. AEBS/LDWS-14-08: Clepa\_AEBS single regulation\_opinion
- 4.8. AEBS/LDWS-14-09: Clepa AEBS-M\_Annex 3 pass-fail
- 4.9. AEBS/LDWS-14-10: Clepa AEBS-A\_Annex 3 pass-fail
- 4.10. AEBS/LDWS-14-11: 11 OICA clarification about kinetic energy reduction
- 4.11. AEBS/LDWS-14-12: (D) AEBS applicability
- 4.12. AEBS/LDWS-14-13: RUS Recognition clause in AEBS-M reg.
- 4.13. AEBS/LDWS-14-14: J market penetration

Some further new documents were produced during the meeting:

- 4.14. AEBS/LDWS-14-15: (J/OICA) Proposal for amendments to the draft transitional provisions.
- 4.15. AEBS/LDWS-14-16: (CLEPA) CLEPA understanding of the proposal AEBS/LDWS-14-17 from Japan, superimposed on the diagrams contained in documents AEBS-LDWS-14-07 and LDWS-AEBS-14-14
- 4.16. AEBS/LDWS-14-17: (J) Proposal for an improved presentation of the performance requirements set out in Annex 3 of the draft regulations.

## 5. Outcome of IG 13 on outstanding issues from the 11<sup>th</sup> and 12<sup>th</sup> IG meetings

### 5.1. Introductory text of the draft AEBS Regulation

Documents: AEBS/LDWS-10-05 (Germany)  
 AEBS/LDWS-11-09 (Japan)  
 AEBS/LDWS-14-03 (CLEPA)

*Conclusion IG13: Preamble to be discussed at 14<sup>th</sup> meeting, when decisions are made. To be introduced in [ ] in the draft proposals.*

#### Discussions of IG-14:

The Chair recalled that the preamble was not addressed at the previous meeting of the informal group due to time constraints.

J found this CLEPA proposal AEBS/LDWS-14-03 a step backward compared to the results of the last time the item was discussed.

The Chair did not share this point of view but recognized that the text currently in the draft regulatory texts would be a better base for consideration.

CLEPA's recollection was that the group never had any in-depth discussion on the preamble which ended-up with a full agreement on the text.

The chair therefore proposed to review the draft introduction based on the text as reflected in the working documents submitted to GRRF-70, and invited CLEPA to raise any of their suggestions for changes when arriving at the relevant paragraphs.

The first paragraph was adopted with the word "primarily" agreed at unanimity.

The second paragraph gave rise to some debate: CLEPA proposal per document AEBS/LDWS-14-03 vs. the current proposed text. J and RUS were keen that the opinion of WP1 be considered. J had the concern that WP29 only addresses the vehicle regulations, while driver's responsibility should be discussed at WP1, and the J expert was keen to get UNECE Secretary's opinion on this issue and requested it to be discussed at GRRF-70. RUS proposed to improve the wording rather than waiting for some opinion from the UNECE Secretariat. D raised the concern that WP1 and WP29 have not the same Contracting Parties and suggested that the driver's responsibility be not addressed at all in the Introduction. The Chair also was keen that an agreement be reached within the informal group and suggested to delete the 2<sup>nd</sup> paragraph, which was agreed by the informal group.

The group amended the introduction and reached an agreement on its final wording to be presented at GRRF-70.

#### GRRF-70 outcomes:

After discussing the joint OICA/CLEPA proposal in document ECE/TRANS/WP.29/GRRF/2011/27 and the European Commission's comments on this proposal (document GRRF-70-01), GRRF decided that no exemption of special vehicles shall be included in the scope of the draft regulation.

Initially, a majority of the parties present (i.e. PL, I, HUN, D, F, S, E, CH, RUS and OICA/CLEPA) supported the proposal by OICA/CLEPA, but agreed to accept the compromise proposal to address this issue in the preamble to the draft proposal. OICA volunteered to draft some text to amend the preamble with the aim of drawing the attention of the Contracting Parties intending to apply the AEBS regulation on a mandatory basis in their national territory, that the technology may not be suitable for all vehicles (i.e. lack of safety benefits, technology too expensive or technology not available). Industry in particular was keen that all vehicles proposed to be exempted per document GRRF/2011/27 be listed in the preamble (vehicles of Classes I, II and A (categories M2 and M3), vehicles of category G and special purpose vehicles). GRRF agreed to introduce such wording in the draft text of the preamble, after having the wording proposed by OICA re-arranged to distinguish between vehicles of Classes I, II and A (categories M2 and M3) on the one hand and vehicles of category G and special purpose vehicles on the other. During the discussions DK, supported by the European Commission, expressed concern that vehicles of category M3 Class II may travel over long distances between cities at relatively high speeds and therefore may experience safety benefits of being equipped with AEBS.

Conclusion: The text of preamble has been adopted by GRRF70, after changing its title into "Introduction (for information)" and adding the specific reminder to the Contracting Parties as referred to above.

#### **5.2. Prerequisite for equipment with ABS and EVSC (paragraph 5.1.1.)**

Document: AEBS/LDWS-13-03 (OICA)  
AEBS/LDWS-14-02 (Japan)

*Outcome IG 12: "5.1.1. Any vehicle fitted with an AEBS complying with the definition of paragraph 2.1. shall meet the performance requirements contained in paragraphs 5.1. to 5.6.2. of this Regulation and shall be equipped with an anti-lock braking function in accordance with the performance requirements of Annex 13 of Regulation No.13 [and a Vehicle Stability Function in accordance with the performance requirements of Annex 21 of Regulation No.13]."*

*Conclusion IG13: the informal group could not make any progress on this issue. If no consensus can be found between experts at the next IG meeting, the issue would need to be submitted to GRRF 70 for decision.*

#### Discussions at IG-14

J informed that their experience with AEBS in Japan is such that the system, in the J context, can work without EVSC and with rigid rear axle suspension.

NL, supported by S, UK, DK and AUS, were still not convinced that EVSC should be a prerequisite for AEBS.

D confirmed its support for specifying a close link between EVSC and AEBS.

RUS had no strong opinion

CLEPA supported the best level of safety and supported the fitment of EVSC.

Conclusion: the informal group could not reach agreement on this item.

Outcome of GRRF-70:

After some debate, GRRF-70 agreed that EVSC should not be a pre-requisite for AEBS equipment. The concerns and objection of Germany to this agreement will be formally recorded in the minutes of GRRF70.

**5.3. latest time for the activation of the first collision warning for the case of AEBS-A in the moving target test (paragraphs 6.5.1., 6.5.2.1. and new Annex 3)**

*Conclusion IG13: For this later case, CLEPA recalled that the value of 2.0 s could be acceptable subject to the adoption of the value of 12 km/h for the target speed*

*Note of the informal group Secretariat: The document GRRF/2011/23 (AEBS-A) erroneously indicates a value of 1.4 s for the latest time for the activation of the first collision warning in the case of the moving target test, while the informal group did not make any decision on this point. The cell E1 of the table in the new Annex 3 should then read “Not later than [1.4 s /2.0 s] before start of emergency braking phase”.*

CLEPA pointed out that the value of 1.4s should address M3/N3 vehicles only. The group firstly considered document GRRF/2011/23 (AEBS-A): cells E1 (M3 and N3 vehicles with a pneumatic braking system [pneumatic rear axle suspension]), E3 (M2 and N2 vehicles with a pneumatic braking system [pneumatic rear axle suspension] and E4 (M2 and N2 [M3 and N3]vehicles with an pneumatic-hydraulic braking system (AoH) [pneumatic rear axle suspension]): the values of [1.4 s /2.0s] were still to be decided because OICA in previous meetings was still keen for the value of 2.0s. OICA subsequently stated a neutral position as a result of lack of internal consensus. D did not want to change their position in favour of specifying 2.0 seconds without in-depth consideration.

J was keen to get a conclusion and requested OICA to provide proper justifications.

RUS, ROK and UK had no opinion. AUS was keen to get expertise from Industry.

CLEPA pointed out that in the interest of compromise for the group, they had already dropped their preference for 2.0 seconds and could agree with 1.4s.

Conclusion:

- GRRF/2011/24 (AEBS-M): E1: 1.4 s
- GRRF/2011/23 (AEBS-A) and GRRF/2011/26 (AEBS-M+A, 2<sup>nd</sup> step): E1 and E3: [1.4s / 2.0s]

Outcome of GRRF-70:

The GGRF chair tried to find consensus on this warning timing, but in view of D insisting on the 2.0 seconds value, this appeared not to be possible, and as a result the square brackets in cells E1 and E3 in documents GRRF/2011/23 (AEBS-A) and GRRF/2011/26 (AEBS-M+A, 2<sup>nd</sup> step) were retained.

**5.4. Performance requirements – speed reduction (paragraphs 6.6.4., 6.5.3. and new Annex 3)**

*Conclusion IG13:*

- *total speed reduction in the case of AEBS-A for the stationary target test (Column D of Annex 3 of the draft text GRRF/2011/23): Not less than [10/20/50 km/h]*
- *total speed reduction in the case of AEBS-A for the moving target test (paragraph 6.5.3. of the draft text GRRF/2011/23): vehicle not impacting the target*

- *total speed reduction in the case of AEBS-M for the stationary target test (Column D of Annex 3 of the draft text GRRF/2011/24): Not less than [10/20 km/h]*
- *total speed reduction in the case of AEBS-M for the moving target test (paragraph 6.5.3. of the draft text GRRF/2011/24): vehicle not impacting the target*

The informal group started with the discussion on the total speed reduction in the case of AEBS-A for the stationary target test.

J recalled that they were the sole Contracting Party at the beginning of the work of the informal group wishing to have such test, afterward joined by the European Commission, while OICA agreed to add such test as a matter of compromise with lower level of severity. J announced hence their readiness to compromise on a 10 km/h speed reduction value for AEBS-M and 20 km/h speed reduction for AEBS-A.

OICA confirmed their support for this latter J proposal.

CLEPA also supported the 20 km/h speed reduction for AEBS-A, but stated that this value was possible also for AEBS-M.

NL, S, AUS and ROK could agree with 10/20 km/h as proposed by J.

UK preferred 10 km/h speed reduction for AEBS-A, but could accept the value of 20 km/h if OICA could accept it.

D stressed the German internal legal concern to accept avoidance systems which nevertheless impact with the target, yet announced that they withdrew their proposal for 50km/h speed reduction.

F stated they could follow the majority.

**Conclusion:** the informal group reached agreement per the J proposal for all draft regulatory texts, i.e. 10 km/h speed reduction for AEBS-M and the 00 series of amendments and 20 km/h speed reduction for AEBS-A and the 01 series of amendments.

### **5.5. Limitation of speed reduction during warning phase (paragraph 6.4.2.3. and 6.5.2.3)**

*Conclusion IG13: “Any speed reduction during the warning phase shall not exceed either 15 km/h or 30% of the total subject vehicle speed reduction, whichever is higher”*

The informal group confirmed the agreement reached by IG13.

### **5.6. False reaction test (paragraph 6.8)**

*Conclusion GRRF69: GRRF agreed that the alleyway test was an appropriate false reaction test. Outcome IG 13:*

*"6.8. False reaction test*

*6.8.1. Two stationary vehicles, of category M1 AA saloon, shall be positioned:*

- (a) so as to face in the same direction of travel as the subject vehicle,*
- (b) with a distance of [4.5 m] between them ,*
- (c) with the rear of each vehicle aligned with the other.*

*6.8.2. The subject vehicle shall travel for a distance of at least 60 m, at a constant speed of  $50 \pm 2$  km/h to pass centrally between the two stationary vehicles.*

*During the test there shall be no adjustment of any subject vehicle control other than slight steering adjustments to counteract any drifting.*

6.8.3. *The AEBS-A shall not provide a collision warning and shall not initiate the emergency braking phase.”*

OICA recalled that 5.0m distance between the two obstacles would ensure better test driver safety, but could accept a 4.5m value as a compromise.

NL was of the opinion that this test being the only one for false reaction, the test should be quite severe. Concerning the safety of the test driver, in practice the test is performed with incremental higher speeds up to the test speed, allowing the driver to get confidence. The expert from NL stated in addition that conditions in the real world could be as severe as considered in this test scenario.

UK supported NL

J could follow the majority, and so indicated D as well

F had no position

S relied on the Technical Services and could support 4.5 m

AUS would follow the majority with 4.5m, and so indicated ROK as well

**Conclusion:** IG agreement on 4.5 m.

### 5.7. Table with pass/fail criteria (New Annex 3)

*Outcome IG13: The Chair stated that the table was a good tool to show to GRRF the results of the informal group, and found necessary to fill in the blank spaces.*

*The informal group agreed to include the table into the draft official documents to be presented at the 70th GRRF (AEBS-M, AEBS-A and AEBS-M+A)*

Documents: AEBS/LDWS-14-02 (Japan)  
AEBS/LDWS-14-05 (European Commission)

J introduced document AEBS/LDWS-14-02. The expert firstly explained that the word “vacuum” was deleted on purpose. He added that performance requirement for Class 2 as proposed in the J document could be discussed at a later stage perhaps within this informal group.

CLEPA presented document AEBS/LDWS-14-07 showing the relationship of braking system with the vehicle category, focusing on N2. As a conclusion, the expert found the weight not the proper criterion for distinguishing the performance requirements.

CLEPA presented document AEBS/LDWS-14-06. CLEPA could support the J alternative approach for the table with pass/criteria using vehicle categories and GVW as categorisation parameters and with footnotes for making distinction between braking systems used, but stressed, while referring to document AEBS/LDWS-14-10, that this approach could end up with a long list of footnotes. CLEPA was keen to ease the job of the regulatory texts users, namely the TA authorities, the Technical Services, the vehicle manufacturers and even the general press. The expert recalled that UNECE R13 already have a table with braking system categorization.

OICA was happy about the general consensus that the braking system is considered as the main categorisation criterion for specifying the pass/fail values. OICA could also support a presentation along the line of J (document AEBS/LDWS-14-02).

NL recalled that legally the vehicle category and weight should be the criterion; hence footnotes for further distinction to take account of braking technology used would have some merit. But the expert could agree with other presentations as well.

UK favoured categorisation based on vehicle categories, but could understand the complexity of the matter leading to other presentation.

S had no strong opinion

F favoured the CLEPA approach as more understandable for the Technical Services.

AUS preferred vehicle categories as the categorisation criterion, supporting UK and NL ROK could follow the majority.

The Chair suggested first starting with filling in the alternative table, and then re-arranging the requirements accordingly in the best understandable way, to assess the merits of each of the alternative layouts for the tables.

GRRF/2011/24 (AEBS-M): Annex 3 – table with pass/fail criteria (original format):

Restriction of AEBS-M requirements to the vehicles of Category 3 equipped with pneumatic rear axle suspension only(Cell A1):

AEBS/LDWS-14 discussions:

CLEPA found no technical reason for such restriction in a UNECE draft regulation on AEBS OICA was keen to differentiate the equipment requirements according to the presence of a pneumatic rear suspension.

J, supported by NL, found no technical need for such restriction for vehicles of category 3, but was keen to hold a debate concerning the issue with regard to vehicles of Category 2.

UK had no strong position.

S had no strong position but could support NL and J

D was keen to limit AEBS-M requirements to the vehicles equipped with pneumatic rear suspension only.

F, AUS and ROK had no position

The Chair, as European Commission representative, recalled that the EU could not see any valid reasons for exempting vehicles without EVSC or without rear axle air suspension from the AEBS requirements. The EU would have to specify its own regional requirements if these vehicles were to be exempted from the AEBS requirements at UNECE level, because the vehicles falling outside the scope of the UNECE regulations can be regulated nationally by the Contracting Parties.

Mr. Jennison (CLEPA spokesman) pointed out that delaying the decisions would not solve issues. And in addition, should the EU make their own decision, then there would be no harmonization, and Industry would suffer from this situation. The Chair, from a personal point of view as well as representative of the European Commission, fully supported this concern. However, as Chair of the informal group, he could not and did not want to force the group to make a decision on this issue, if no consensus seemed to be achievable.

AUS as signatory to the 58 Agreement stated that their officials have the instruction to harmonize with international regulations, however the delegate raised the question of evidence of vehicle categories for which rear axle air suspension is necessary. The Chair replied that within the discussions of the informal group very few evidence had been shown, and that the arguments rather focused on the principle as to whether or not requirements in a draft UNECE Regulation should be limited to the state of the art and experience in using the systems in real world conditions.

NL found the question very technical and was keen to understand why the J manufacturers are able to make AEBS with rigid rear suspension, and not the EU manufacturers.

The group held a debate about the scope of the draft regulations and the possible consequences for vehicles not covered by the scope.

The Chair raised the concern that a vehicle for which approval is requested but which is not included in the scope of the regulation, could not benefit from the mutual recognition of type-approval certificates, as Contracting Parties applying a Regulation are not bound to accept type-approval certificates issued for vehicles not covered by the scope of the Regulation.

OICA pointed out that the UNECE system permits easy adaptation of the regulations according to the evolution of technology. Concerning the necessity to have rear axle pneumatic suspension as a prerequisite to enable compliance with the AEBS requirements, the expert stated that the vehicles equipped with rigid suspensions could be the subject of further amendments to the AEBS

Regulation if they were not included in the scope right from the beginning, as it is the case for other technologies for decades. The expert recalled that such vehicles with AEBS are even not in development for the time being.

The Chair repeated the question of NL about the difference between J/EU vehicles.

CLEPA recalled that some vehicles demonstrated to the IG in Japan had rigid suspension. J reminded that the rigid suspension N3 in Japan have a load variation of 1°, making proper functioning of AEBS on vehicles with rigid rear suspension possible.

D reminded the document AEBS/LDWS-14-11.

Conclusion: the informal group could not reach agreement on as to whether or not restrict the pass/fail criteria to vehicles with pneumatic rear suspension only.

#### GRRF-70 outcome:

CLEPA subsequently tabled document AEBS/LDWS-14-XX presenting what is currently feasible concerning the fitment of auto levelling systems on AEBS radars. The expert made clear that development won't start unless the vehicle manufacturers demand for a certain technology to be fitted on their vehicles.

GRRF acknowledged the lack of broad experience in using this technology on vehicles equipped with rigid rear suspension.

The European Commission representative suggested, by way of compromise, to start with collision-warning only systems on vehicles with rigid rear axle suspension, in order to build such experience and to enable for further technological development to cater for any problems related to the possible misalignment of the radar sensor due to large vehicle pitch variations stemming from load conditions.

#### **Conclusion:**

- GRRF-70 could not reach consensus on this item.
- OICA was requested to provide information on the possibility to have CWS for rigid suspension vehicles, and whether it would fit in the 2-step approach as a starting point.
- GRRF70 provided the mandate to the IG to hold another meeting to further consider and to try resolving the rear axle suspension issue.

#### GRRF/2011/23 (AEBS-A), Annex 3: table with pass/fail criteria (original format):

1) Restriction of AEBS-A requirements to the vehicles of Category 3 equipped with pneumatic rear suspension only (Cell A1): the informal group and GRRF-70 could not reach agreement on this point. (see discussion above on the same issue for AEBS-M)

Speed reduction in the case of the stationary target test (Cells D1, D3 and D4):

- agreement on 20km/h speed reduction
- no consensus for the other categories of vehicle (Cells D2, D5 and D6)

2) Target speed (Column H):

Cells H1, H3 and H4: CLEPA could support  $12 \pm 2$  km/h

NL, F, AUS, ROK and UK supported  $12 \pm 2$  km/h for H1/H3, but had no position for H4.

S had no strong position

D supported one unique value for all cells and found necessary to adapt the value in E4 (latest time for the 1<sup>st</sup> warning mode in the case of the moving target test) after the group changed the value in H4

After further debate, the IG agreed that Cell H4 could also be filled in with  $12 \pm 2$  km/h

OICA challenged this value for the vehicles equipped with AoH braking system and requested the value of  $32 \pm 2$  km/h.

Conclusion: target speed agreed at a value of  $12 \pm 2$  km/h for all cells in Column H

3) Criteria for discriminating sub-categories within vehicles with a pneumatic-hydraulic braking system (AoH – Cell A4)

CLEPA could support inclusion of all categories.

J pointed out that this would apply to pneumatic suspensions as well. J expressed concerns with regard suspension type of vehicles of categories M2/N2 in cell A4.

NL, S, D, F, AUS, UK and ROK (as well as OICA) could support deletion of the [ ] but however with the understanding that the discussion about pneumatic rear suspension was not resolved and be further considered at the next occasion.

Japan repeated their concerns about vehicles of categories M2, N2.

CLEPA saw no need to make a difference between vehicle categories for this braking technology.

4) Latest time for the 1<sup>st</sup> warning mode in the case of the moving target test with vehicles with a pneumatic-hydraulic braking system (Cell E4):

NL, UK and J found 1.4s in E4 relevant.

S had no position

F favoured the same value in both cells E1 (pneumatic braking system) and E4

AUS and ROK supported the majority

D confirmed they could not change their position (2.0 s).

Conclusion: Chair to report to GRRF70 that informal group did not reach consensus as D could not accept the value of 1.4s.

5) M2 and N2 vehicles with a pneumatic braking system (Line 3)

CLEPA referred to document AEBS/LDWS-14-10 with their proposal for these vehicle categories.

OICA questioned the technical relevancy of the CLEPA position

The informal group held a further technical debate on the reasons why pneumatic rear axle suspension would or would not be necessary for complying with the performance requirements.

CLEPA was of the opinion that the regulation should not make the difference between the vehicle suspension types, while OICA found necessary that the regulation takes into account the state of the art. This latter position was not shared by the Chair, in his capacity as European Commission representative.

NL found no need for restriction

J found necessary to have special consideration for N2/M2

UK, ROK, RUS and F had no strong opinion

S was keen to have first a discussion on paragraph 5.1.1., and in the meantime, provided support to J

AUS supported the view that there should be no restriction to pneumatic rear suspension only

Conclusion: IG chair to report to GRRF70 that due to diverging positions the IG could not reach consensus on the pass/fail criteria for Category M2 and N2 vehicles, and to reflect this in the table with pass/fail criteria by two pairs of square brackets: the upper one with the proposals by CLEPA as per document AEBS/LDWS-14-10, and the lower one with blank spaces between the square brackets to reflect the view of IG members that no criteria should/could be specified for these vehicle categories.

6) Proposal for a Collision Warning System in step 1 (Document GRRF/2011/24 + AEBS/LDWS-14-05 and AEBS/LDWS-14-09)

The European Commission representative presented document AEBS/LDWS-14-05, explaining that this proposal was based upon the bottom line approach beyond which the Commission could accept any compromise, as this would render it impossible for the European Commission to meet its obligation under the General safety Regulation to adopt implementing measures on AEBS for all vehicle categories for which the GSR mandates the fitment of AEBS (i.e. including M2 and N2). He referred to this bottom line approach as was already explained at the 11<sup>th</sup> and 12<sup>th</sup> IG meetings and that it is based on warning-only requirements for category 2 vehicles in the first implementation step (AEBS-M or 00 series of amendments) and which would be extended with

emergency braking requirements in the 2<sup>nd</sup> implementation step (AEBS-A or 01 series of amendments, depending on the regulatory approach that will be finally be withheld by WP.29). The values for the pass/fail criteria in this Commission services' proposal are placed between square brackets to indicate that the Commission services are flexible in defining the stringency of these requirements.

CLEPA presented document AEBS/LDWS-14-09

J found not urgent to regulate category 2 vehicles because they are technically not easy to address.

J found the European Commission proposal of 50km/h speed reduction unrealistic.

7) M3 vehicles with a Vacuum-hydraulic braking system (line 2 of GRRF/2011/24)

J found CWS technically feasible for these vehicles.

NL recognized the difficulty for the Contracting Parties to provide values as the systems do not yet exist on the market. The expert envisaged 2 possibilities: no requirement in 00 series and performance in 01 series OR leave the performance levels to the discretion of the manufacturer.

D supported this position. D could not support the proposal for CWS.

OICA had no position with regard to the documents AEBS/LDWS-14-09 and 14-05 as they appeared very late. The expert pointed out the change of philosophy from a braking system to a warning system. He requested a clear position from the Contracting Parties on whether accepting the CWS before entering the technical discussions.

The Chair, as representative of the European Commission, recalled the obligation for the European Commission to implement the AEBS carriage requirements of the GSR, for which the technical criteria preferably should be based on an international harmonised standard such as a UNECE regulation. The delegate from the European Commission clarified that in the absence of such a standard for the vehicle categories concerned this could not dispense the European Commission from its obligation to implement the AEBS regulation for these vehicle categories and that in the absence of technical requirements in the draft UNECE regulations, these would need to be specified on a regional basis.

D recalled that the European Commission needs the support from the Member States for implementing the AEBS regulation. The Chair, on behalf of the European Commission, acknowledged this but also cautioned that if no such support could be secured, this would entail the risk of a legal vacuum in EU law, and wondered how the Luxemburg Court of Justice would rule in such a case.

UK recommended leaving the cells blank up to when the experience brings better understanding of the consequence of such CWS.

The Chair summarized the two possible options as being either to put in [ ] the proposals of European Commission and CLEPA OR leave the cells blank.

J supported the CLEPA proposal because it left flexibility to the manufacturers as a 1<sup>st</sup> step and favoured filling the cells with the CLEPA position in [ ].

F proposed to introduce the vehicles with a vacuum hydraulic braking system at a later stage, e.g. with a new series of amendments. S supported F with this position until the technology exists.

Conclusion:

- The two options (blank cells & provisions limited to the latest warning in the moving target test per the CLEPA proposal) to remain in [ ].
- Restriction to “vacuum” hydraulic braking vehicles deleted.

8) M2 and N2 vehicles with a pneumatic braking system (Line 3 of GRRF/2011/24)

OICA could support the European Commission proposal (as per document AEBS/LDWS-14-05) for line 3 subject to the 10km/h value for the required speed reduction (Cell D3)

NL supported this as well

J repeated their concern about the lighter vehicles of category 2.

Conclusion:

- Line 3 accepted per European Commission proposal document AEBS/LDWS-14-05
- Value of 10 km/h adopted for speed reduction in the stationary target test

- Value of  $32 \pm 2$  km/h adopted for target speed

9) M2 and N2 vehicles with a pneumatic-hydraulic braking system (AoH - Line 4 of GRRF/2011/24)

Japan and F supported blank cells. J could accept CWS for line 4

D could support the CLEPA proposal per document AEBS/LDWS-14-09

UK supported the CLEPA position, but with concerns for the lighter vehicles in category 2

NL proposed to differentiate the performance requirements according to the vehicle weight

S proposed some defined performance requirements for vehicles  $> 7.5$  and blank cells for vehicles  $< 7.5$  tons

OICA proposed blank cells for the whole line.

RUS and AUS had no position

ROK supported NL

Conclusion:

- Agreement to split N2 vehicles with a pneumatic-hydraulic braking system at 8 tons, i.e. heading of line 4 to read: “M2 and N2  $> 8.0$  tons, M3 and N3 vehicles with an pneumatic-hydraulic braking system (AoH)”
- Agreement to keep the option for these vehicles between alignment on M2 and N2 vehicles with a pneumatic braking system (Line 3) and blank cells
- Agreement to add a new line addressing M2 and N2  $< 8.0$  tons vehicles with an pneumatic-hydraulic braking system (AoH)
- Agreement to keep the option for these vehicles between alignment on M3 vehicles with a hydraulic braking system (line 2) and blank cells.

10) M2 and N2 vehicles with a hydraulic braking system (Line 6 - former line 5)

CLEPA, supported by NL and UK, pointed out that there is currently no experience with those vehicles and suggested to copy/paste the requirements of vehicles of category 3 with hydraulic braking (row 2)

D also pointed out the lack of experience and hence suggested blank cells. The expert in addition found the system expensive for no benefits.

J supported CLEPA for line 5 and suggested deleting the word “vacuum” in the description of the braking system.

S also supported CLEPA but requested to discuss the reaction time as the situation of CWS is different compared to the systems providing braking.

**Conclusion:** The two options (blank cells & proposal of CLEPA per document AEBS/LDWS-14-09 safe the target speed, reduced to 12 km/h) to remain in [ ].

Outcome of GRRF70:

As no progress could be achieved on this issue in GRRF-70 either, GRRF-70 provided the mandate to the informal group to meet once more to discuss this issue further and to try to find a solution for it.

## 5.8. Mutual recognition clause in AEBS-M

Outcome GRRF-69: *The Russian Federation proposed to include a recognition clause in the draft collision mitigation Regulation clarifying that vehicles approved according to the collision avoidance Regulation would be deemed to comply with the requirements of collision mitigation regulation.*

Document: AEBS/LDWS-14-04 (Chair)

RUS presented document AEBS/LDWS-14-13

NL recalled they are not supportive of the 2 regulation approach, but could support the RUS proposal in case the 2 regulation approach would be adopted by WP.29.

OICA found the proposal not conform to the 58 Agreement as it would force the Contracting Parties to accept approval marking of 1 regulation for another one.

CLEPA questioned the necessity to re-approve a vehicle already approved to the AEBS-A regulation.

The informal group took note of the concerns expressed by OICA and CLEPA and decided to request guidance to the UNECE Secretariat.

Conclusion: RUS proposal per document AEBS/LDWS-14-13 to be added in [ ] for preparing the request for guidance to the UNECE Secretariat during GRRF-70.

Outcome of GRRF70:

In view of the GRRF70 decision to go forward with the 1 unique Regulation approach, no guidance was issued with regard to this point as it concerns only the 2-Regulations approach.

## 6. Review and update of draft regulatory text proposals

### 6.1. AEBS-M and AEBS-A draft Regulations

Documents: ECE/TRANS/WP.29/GRRF/2011/24 (AEBS-M)  
 ECE/TRANS/WP.29/GRRF/2011/23 (AEBS-A)  
 AEBS/LDWS-14-12 (D)  
 AEBS/LDWS-14-08 (CLEPA)

CLEPA presented document AEBS/LDWS-14-08 and stressed that the one-regulation approach would function only in case there is no confusion in the application, yet saw complication in having transitional provisions like proposed where two levels of the same regulation would run in parallel. CLEPA would prefer a unique regulation with no transitional provisions and no 01 series of amendments.

OICA raised the problem of the error in calculation per document AEBS/LDWS-14-11. This did not challenge the agreement already achieved per the revision of the relevant document.

CLEPA acknowledged the mistake in their document AEBS/LDWS-14-08.

D introduced document AEBS/LDWS-14-12. The expert informed that the proposal for a new paragraph 5.1.1.1. was subject of long experience in the European framework.

The Chair requested clarity about the relevancy of the document in view of the agreements already achieved for vehicles not covered by the D proposal (vehicles not equipped with full air braking and suspension systems) and about the last sentence of the proposed paragraph 5.1.1.1.

D clarified that the condition for the manufacturer to obtain an approval for a vehicle not included in the scope of the regulation would be to submit a proposal for amendment to the regulation. (meaning of “approximation” of the regulation).

S drew the attention of the informal group on document WP29/1059, which in page 6 addresses the situation of the development of new technologies.

The informal group started the revision of the document GRRF/2011/24 (AEBS-M) with regard to the new paragraph 5.1.1.1. as proposed by D:

S supported the proposal

F, J, UK, NL and CLEPA did not support the proposal

RUS could support the proposal subject to some improvement in the wording and proposed: “at the request of the manufacturer other vehicles with systems not included in the scope of this regulation may be granted an approval if they meet the requirements of this regulation.”

AUS and ROK had no strong position on this item.

OICA had no opposition to request guidance from GRRF on this item if the Contracting Parties are keen to do so.

D cautioned that the same proposal was to be submitted to GRRF as well and recalled the proposals for amendments to paragraph 5.1.1.

In view of this later information, the Chair considered not necessary to discuss the proposal any longer within the informal group.

Outcome of GRRF70 discussions on document GRRF-70-02:

After considerable debate, also on revision 1 of this document, GRRF-70 decided to refer this document back to the IG as part of its limited mandate to meet one more time to try to resolve the outstanding issues with regard to the pass/fail criteria (rear axle suspension system and category M2 and N2 vehicles).

Paragraph 5.1.2.

The informal group decided not to amend the reference to UNECE Regulation N°10 and agreed to flag to GRRF the necessity to align the LDWS regulation accordingly and if necessary.

Paragraph 5.2.2.

The Chair raised the possible impact of specifying CWS in the pass/fail criteria may have on the wording of paragraph 5.2.2. The informal group held a debate on the best way to make clear that in case CWS were to be specified, how to reflect clearly that in such case the requirement of mandatory emergency braking phase to follow the warning phase would not be applicable. CLEPA found not necessary to amend the paragraphs 5. and 6. to accommodate the eventuality of CWS being specified in the Annex 3 table. OICA on the contrary was of the opinion that it was necessary to amend the general requirements of paragraphs 5. and 6. in order to avoid any conflict in the regulation.

D, supported by S, proposed to introduce the concept of “deceleration phase” instead of “emergency braking phase”

Conclusion: option between “emergency braking phase” and “deceleration phase” to be left to GRRF for guidance or decision.

The outstanding issues in the rest of the document were considered solved, up to the table of Annex 3.

Annex 3

J presented document AEBS/LDWS-14-02-Rev.1 representing the outcomes of the discussion being held up to date, but presenting them under another layout, using vehicle categories as the criterion for categorisation of the pass/fail requirements

OICA could support the new layout as proposed by J per the documents 14-14 and 14-02-Rev.1 if it does not change the requirements as agreed by the IG when it discussed the previous format of the table..

The Chair summarized the results of the discussions and requested the informal group to study document AEBS/LDWS-14-17 (former AEBS/LDWS-14-02-Rev.1) overnight.

The informal group drew the same conclusions for document 2011/25 and 23.

The Chair was anxious that the J proposal AEBS/LDWS-14-02-Rev.1 would correctly and completely translate the state of the discussions within the IG without betraying any detail and urged J to revise their proposal in order to make it clear in the distinctions between vehicle categories, then subsequent subdivisions according to the parameters considered relevant by the informal group.

The document AEBS/LDWS-14-02-Rev.1 was re-referenced as AEBS/LDWS-14-17. J subsequently presented a revised table per document AEBS/LDWS-14-17-Rev.1, which was then corrected and completed by the informal group as document AEBS/LDWS-14-17-Rev.2.

UK, AUS and ROK supported the J format.

NL preferred the J presentation in principle.

OICA supported the J format as well, subject to the integration of the pneumatic rear axle suspension.

S had no strong opinion.

F could follow the majority.

RUS had no strong position, yet had some sympathy with the format as in Annexes 3 of the draft regulations.

The footnotes and tables were updated to properly reflect the outcomes of the meeting.

D could not support the table as presented by J but subsequently changed their position into support.

The informal group held a short debate on the correct vehicle weight threshold in category N2 vehicles to break between CWS for lighter N2 vehicles and AEBS for heavier N2 vehicles. Japan proposed to change the earlier suggested value of 7.5 tons GVW to 8 tons, as some Japanese traffic safety legislation is using this threshold value of 8 tons.

CLEPA and OICA found no reason not to use 8 tons as threshold value.

Conclusion: the informal group agreed with the 8 tons threshold value for category N2 vehicles

Conclusion:

- document AEBS/LDWS-14-17-Rev.2 adopted for presentation to GRRF-70.
- the informal group agreed with the 8 tons threshold value for category N2 vehicles

## 6.2. AEBS M+A (Unique Regulation + 1<sup>st</sup> series of amendments)

Documents: ECE/TRANS/WP.29/GRRF/2011/25 (AEBS-M+A)  
ECE/TRANS/WP.29/GRRF/2011/26 (AEBS-M+A 01 Series of Amendments)

Document GRRF/2011/26

The informal group started the consideration of the proposed transitional provisions paragraph by paragraph. J presented document AEBS/LDWS-14-15 and clarified their position toward the regulatory approach: J could support the one-regulation approach subject to taking the period up to 2016 as a trial period, and then decide upon the experience gained whether or not they could apply the 01 series of amendments. The delegate from J clarified that the document AEBS/LDWS-14-15 presents 2 options for the wording of paragraph 12.1. J made clear that J could only accept the 1-regulation approach only if the proposed changes to the transitional provisions are accepted.

D found the paragraph 12.1 unnecessary and that it should be deleted as even contradictory to the 58 Agreement.

The Chair tended to support D in the assessment that the regular paragraph 12.1 may be construed as a deviation from Article 2 to the 58 Agreement.

OICA suggested requesting guidance from the UNECE Secretariat as the proposed paragraph 12.1 is aligned on the guidelines to the transitional provisions (document WP29/2011/48).

RUS also suggested requesting advice from the UNECE Secretariat on document AEBS/LDWS-14-15.

NL pointed out that the Article 2 of the 58 Agreement says “provided that it has the technical competence” i.e. J has no need to amend the paragraph 12.1. because, should J wish to avoid granting UNECE approvals but nevertheless accept UNECE approvals granted by other Contracting Parties, J could simply state lacking the technical competence for granting UNECE approvals, and then the principles of Article 12.1 of the 58 Agreement would apply.

OICA requested confirmation by J that, should paragraph 12.1 be deleted, would J would still accept the 1-regulation approach. J could accept this deletion subject to confirmation of this interpretation by the Secretariat of the UNECE Secretariat

The European Commission also supported the deletion of the paragraph 12.1 as a potential source of confusion.

D even suggested that J does not need to sign the 01 series of amendments to the draft regulation, as the 58 Agreement clearly requires that all Contracting Parties applying the Regulation must accept the approvals to the 01 Series of amendments.

In view of the outcome of the debate, the Chair suggested deleting the original proposed paragraph 12.1.

All Contracting Parties agreed with the deletion of the paragraph.

Conclusion: paragraph 12.1 deleted

#### Paragraph 12.2

RUS suggested using the regular wording as proposed in the guidelines.

D suggested deleting paragraph 12.2.

NL found the proposed wording clear enough and suggested to keep the wording unchanged.

The European Commission found the paragraph 12.2 going beyond the limits of the 58 Agreement as it forces the Contracting Parties to grant approvals to the previous version of the regulation, even if they would have signed up to apply the latest version of that Regulation. Approval for “exports” (i.e. according to the previous version of the Regulation for vehicles not intended for the market of the Contracting Party applying the latest version of the Regulation) is an issue that is not covered by the articles of the 58 Agreement and then any Contracting Party would be free to grant such approval.

RUS found important to keep the paragraph as being the door to run the two levels of the regulation in parallel.

OICA found necessary for the manufacturers to keep the possibility to grant extensions to existing approvals and suggested to let the wording proposed by the European Commission (specifying that this obligation is limited to Contracting Parties applying only the 00 series of amendments) in the draft text of the regulation.

J could accept the deletion of paragraph.12.2.

UK and RUS were ready to delete paragraph 12.2.

F preferred keeping the paragraph and referring the issue to GRRF

S had no opinion

AUS had no view as not providing approvals

ROK had no opinion.

Conclusion: paragraph 12.2 to be presented in [ ], with the additional wording suggested by the Chair

#### Paragraph 12.3

D found this paragraph unnecessary and proposed to delete it, as Article 12.1 of the 58 Agreement covers this.

OICA pointed out that the proposal was based on the guidelines.

J confirmed that the paragraph is in line with their wish to avoid granting ECE approvals to 01 Series of amendments.

NL supported D.

F preferred to maintain the paragraph 12.3.

Conclusion: paragraph 12.3. in [ ]

#### Paragraph 12.4

D and the European Commission were of the opinion that the paragraph is not acceptable since it addresses the issue of registration which is a prerogative of CPs under their national or regional law and should therefore be deleted.

RUS favoured deletion as long as paragraphs 12.1 and 12.3 are deleted.

F was keen to keep the paragraph as aligned on the guidelines.

OICA supported this point of view.

The informal group took note that F subsequently requested to re-open the debate about this paragraph at GRRF level.

Conclusion: paragraph 12.4. to appear in strike-through characters, between [ ] for consideration by GRRF-70.

#### Paragraph 12.5

D requested to delete the paragraph.

RUS proposed to rephrase the paragraph.

NL found necessary to set a certain date if the informal group wants to introduce a phase-in system.

J found necessary to clarify as from when the 00 Series would collapse.

The Chair as representative of the European Commission recalled that the 2-regulation approach would avoid this problem of transitional provisions, and that the European Commission could consider accepting the 1-regulation approach subject to the condition that there are clear performance requirements for all vehicle categories as from the 00 series of amendments, and that there are more severe requirements introduced with the 01 series of amendments. The informal group was informed that the European Commission assessed the current proposals on the table as lacking regulatory incentive for ensuring that vehicles of category 2 would be required to have full AEBS in step 2 (01 series of amendments). If the requirements in the 01 series of amendments would be more ambitious than simply reflecting the state of the art the European Commission could accept the staggered implementation in two steps subject to the following conditions:

1. All vehicles of the categories M2, N2, M3 and N3 shall be included in the regulation (no exemptions at all).
2. For some vehicles (e.g. M2 and N2 with hydraulic braking, it is acceptable to have in the first step Collision Warning System (CWS) Requirements only, if in the second step there is also some Braking Performance.
3. The performance of step 2 shall be required no later than 1 November 2016 for new vehicle types (according the European Framework Directive) and no later than 1 November 2018 for new vehicle registrations

Should the above conditions not be accepted by the informal group, the European Commission would consider that the 01 series of amendments can be applied on a mandatory basis as from 2012 onwards for new types of vehicles, and 2014 for old types of vehicles.

J recalled that there were keen that the introduction date for the 01 series of amendments be not sooner than 2016 in order to permit some trial period.

Conclusion: the document proposing the transitional provisions was modified accordingly to reflect the European Commission position about the AEBS regulation as a regulatory incentive for ensuring vehicles of category 2 having full AEBS requirements in step 2, and in the absence of that incentive to advance the implementation date for step 2 from 2016 to 2012.

#### Paragraph 12.6

D, UK and J were keen to delete this paragraph.

OICA stressed that such paragraph being in the guidelines it is logical to keep it.

F wanted to maintain the paragraph.

The European Commission representative did not support this transitional provision (for the same reasons as § 12.4), but in case it were to be maintained, the Commission services do not see the need to wait up to 2020 for applying requirements considered being representative for the state of the art, and hence would therefore consider 1 November 2014 for paragraph 12.6 more appropriate, also in view of the considerations for advancing the date in 12.5 from 2016 to 2012.

The European Commission clarified that if the 2 regulations approach were to be maintained, the European Commission would have the intention to propose to the EU to sign up to the 2 Regulations, start by mandating the AEBS-M Regulation first, and after some time discontinue

applying it (as provided for in article 1.6 of the 58 Agreement, and to mandate the AEBS-A Regulation instead.

Conclusion: the document proposing the transitional provisions was modified accordingly to reflect the European Commission services' position about the AEBS regulation as a regulatory incentive for ensuring vehicles of category 2 being subject to full AEBS requirements in the second implementation step (01 series of amendments).

### 6.3. Outcomes of GRRF-70

Documents: GRRF-70-03 to 06  
AEBS/LDWS-14-17-Rev.2 (J)

As mentioned above, the informal group decided at the last moment to improve the presentation of the performance requirements following the proposal from J per document AEBS/LDWS-14-17-Rev.2.

GRRF could not reach agreement concerning the provisions for vehicles not equipped with pneumatic rear axle suspension. In view of the difficulty for the experts to reach agreement on some important issues, the Chair proposed that an additional meeting of the GRRF informal group on AEBS/LDWS should take place with a limited mandate to focus on following issues:

- the performance requirements for vehicles of category N2  $\leq$  8 tons and M2 equipped with hydraulic braking system requirements, (row 3 in the Annexes 3 of the 00 series and 01 series of amendments documents) and
- the performance requirements for vehicles not equipped with pneumatic rear axle suspension (footnotes [3] respectively [4] in the tables with pass/fail criteria in the respective documents with proposals for the 00 and 01 series of amendments.

#### Document GRRF-70-04 (AEBS-M)

- Performance requirements for vehicles of
  - Category M3 and N3 equipped with pneumatic braking system
  - category N2 > 8 tons equipped with pneumatic braking system
  - category N2  $\leq$  8t and M2 equipped with pneumatic braking system [equipped with pneumatic rear axle suspension] (row 1 in the table of Annex 3)

The European Commission had reservation for footnotes 1 and 2, as they referred to rows in the table where no certainty exists about what may be finally specified as values for the pass/fail criteria, and subject to the outstanding issue of rear axle suspension being satisfactorily addressed. J rejected footnote 4 and had concerns about such requirements for light vehicles (N2  $\leq$  8t and M2 equipped with pneumatic braking system)

Conclusion: the proposed values were adopted and the concerns of the European Commission and J were noted.

- Performance requirements for vehicles of
  - category M3 and N3 equipped with pneumatic-hydraulic braking system (AoH)
  - category N2 > 8 tons [equipped with pneumatic rear axle suspension] (row 2 in the table of Annex 3)

The group agreed with a break at 8t

The group agreed with the figures proposed in row 2

Considering the choice proposed by the informal group between the proposed values and leaving the cells blank, the UNECE Secretariat said that instead of blank cells, it would be more opportune to extract those vehicles from the scope of the regulation.

The European Commission supported this point of view and stressed that the EU could not sign a regulation in conflict with the EU laws (if blank cells are present in the AEBS regulation, then EU would be obliged accept vehicles approved to blank cells i.e. with undefined performance requirements)

The European Commission proposed to replace the blanks by the values presented in GRRF-70-03 row 2

Conclusion: the proposed values were adopted with strong reservation from D for the value of 1.4 s.

- Performance requirements for vehicles of category N2  $\leq$  8 tons and M2 equipped with hydraulic braking system [and equipped with pneumatic rear axle suspension] (row 3 in the table of Annex 3)

OICA questioned the validity of the proposals for row 3 as the technology does not exist yet. The European Commission recalled that, subject to further clarification of its impact, the proposal by CLEPA could be a fair starting point for finding a compromise and declared ready to continue chairing the informal group meeting if necessary to provide such clarification and to find a solution for these category 2 vehicles.

NL proposed to write “no restriction”, and then the general provisions would apply. The expert said that the competition and cost incentives would ensure the Contracting Parties that the AEBS would be of some efficiency.

UK recalled the wording of paragraph 5.2.2. “significant decreasing speed”. The expert found necessary to have further discussions on this.

J favoured to define some values in the row 3.

D preferred to make the cells blank and add a footnote covering these types of vehicles at a later stage.

OICA could not provide input for the vehicles in stake.

CLEPA found necessary to add the CLEPA proposal (per document AEBS/LDWS-14-09).

RUS proposed to discuss the 3rd row at the September session of GRRF.

S recalled that CLEPA said there is no guarantee of benefits for safety. Should GRRF decide to add some figures in row 3, there is no guarantee of safety benefits.

CLEPA clarified that the AEBS for those vehicles do not exist; some experience from the heavy vehicles could be transferred down to the upper part of these vehicles, but nothing does exist for the lower end. The CLEPA proposal had to be considered as a starting point.

The Chair summarized that there are 2 options: CLEPA proposal vs. these vehicles being out of scope.

The European Commission services cautioned they have still some room for flexibility for the time being, but once the proposal for the implementation measures under the GSR is tabled, there would be no more possibility for the Commission services to be flexible.

Conclusion: row and content remains in [ ].

#### Document GRRF-70-03 (AEBS-A)

The discussions focused on the cell E1, i.e. the latest time for the first warning in the case of the moving target scenario.

Most Contracting Parties supported the value of 1.4s. Only Germany supported the value of 2.0s.

Conclusion: GRRF adopted the value of 1.4s, and noted the concern of Germany.

#### Regulatory approach

The European Commission could support the 1-regulation approach under the condition that the package of 00 and 01 series are adopted together.

CLEPA supported that idea but questioned its applicability. CLEPA feared that the 2 series would run in parallel for a long period of time and suggested the 2-regulatory approach.

The European Commission preferred the 2-regulation approach for the sake of flexibility for the Contracting Parties and reminded this approach has been explored to meet the concerns expressed by Japan. Concerning a 2 step approach, the European Commission services stated that they may have the same concerns about the level of performance in the AEBS-A as they have with the 01 series of amendments.

J could follow the majority with the 1-regulation approach, with the date of 2016 for the 2<sup>nd</sup> step, and in the meantime evaluating the relevancy of the step 2. If the experience shows some safety concerns with the 2nd step, then J could refrain from applying the 01 series of amendments.

The European Commission found not necessary that the date of 2016 should be specified to provide that possibility for Japan, because the 58 Agreement provides explicitly that a Contracting Party may decide to sign an 01 series of amendment even after it enters into force.

D could accept the 1-regulation approach.

Conclusion:

- GRRF adopted the 1-regulation approach,
- Documents GRRF/2011/25 & GRRF/2011/26 to be in agenda of WP29 at its November 2011 session, as amended by the September session of GRRF.

### Transitional provisions

Document: GRRF-70-06

F recalled the existence of the document WP29/1044 which provides the usual transitional provisions as guidelines (e.g. ESC in R13H). The expert asked to the UNECE Secretary whether the necessity of transitional provisions collapses in the special case of two series running in parallel, and also requested to the Contracting Parties their opinion about the transitional provisions.

The UN Secretariat indeed found the case special and stated that in this case the transitional provisions might be released as relevant.

The European Commission recalled the necessity to check the consistency of the transitional provisions with the 58 Agreement.

D found the transitional provisions the prerogative of the Contracting Parties rather than for being specified in the UNECE regulations.

The UNECE Secretariat confirmed that a 2-step approach implies transitional provisions.

J was of the opinion that, if there is no transitional provisions, J would not be obliged to accept the 01 series. In addition, J could run the 00 Series for e.g. 20 years.

OICA stressed the need to distinguish the dates for granting ECE Type Approvals and for accepting Type Approvals. In addition the expert from OICA found very important that the draft paragraph 12.5. be included in the transitional provisions as the minimum acceptance of the 00 Series of amendments.

Conclusion: GRRF did not reach agreement about the transitional provisions, and the Chair indicated that he would report to WP.29 accordingly eventually with a view to obtaining further guidance.

## **7. Other business**

### **7.1. Joint OICA/CLEPA submission to GRRF 70**

Document: ECE/TRANS/WP.29/GRRF/2011/27 (Exclusion of certain special vehicles from the scope based on technico-economic reasons)

OICA/CLEPA introduced the document GRRF/2011/27

RUS found the proposal reasonable, suggested to add the footnote in the scope paragraph rather than in the table of performance requirements, and requested better definition of special purpose vehicle.

See also items 5.1. and 5.7. above.

## **7.2. Live demonstration of a Coach and of three variants of Heavy-Duty Vehicles fitted with an Advanced Emergency Braking System, AEBS**

Document: AEBS Demo--GRRF-70-xxe (CLEPA - received by email of 26 April 2011)

The informal group was made aware of some details concerning the live demonstration organized by CLEPA on 12 May 2011;

## **8. List of action items:**

### **8.1. Issues to be carried over to the 70th GRRF session for decision**

- Prerequisite for EVSC
- Pass/fail criteria
- Transitional provisions for the 1-regulation approach.

### **8.2. Issues to be addresses by the informal group**

Additional meeting of the GRRF informal group on AEBS/LDWS to take place in Paris (CCFA offices) on 26-27 May 2011) and focusing on:

- 1) establishment of pass/fail criteria for category M2 vehicles and N2 vehicles with a GVW equal to or less than 8 tons (Row 3 in the table1 of annex 3 to working documents GRRF/2011/25 and GRRF/2011/26 as updated by informal documents GRRF-70-05 and GRRF-70-06 respectively)
- 2) resolve the issue of the restriction to vehicles with pneumatic rear axle suspension (footnote [4] to table1 of annex 3 to working document GRRF/2011/25 updated by informal document GRRF-70-05 and footnote [3] to table1 of annex 3 to working document GRRF/2011/26 updated by informal document GRRF-70-06, as well as document GRRF-70-02)

### **8.3. State of play for mandating AEBS under EU law**

The experts were informed about the next steps in Brussels (EU legal platform):

- European Commission to present draft regulatory text for an implementing act for AEBS at TCMV meeting of 7 July 2011;
- Final draft regulatory text to be submitted at TCMV meeting of 13 October 2011 (or if possible earlier in September) for an opinion of the Committee.