

Minutes of 9th meeting of
the Informal Group on Frontal Impact

Held at CCFA, Paris

27th April 2010

1. Welcome

The chairman Pierre Castaing opened the meeting and welcomed the delegates.

2. Roll call

3. Adoption of the agenda

Doc. INF GR / FI-09-01

The Agenda was adopted with minor amendments.

Top 5.1 and 5.5 are postponed for some later Meeting. A draft version of Top 5.1 will be presented by the chairman.

4. Adoption of the Minutes of last Meeting

Doc. INF GR / FI-08-04

The minutes were discussed, amended and adopted.

5. Actions from the 8th meeting

Doc. INF GR / FI-09-07

5.1. Japanese benefit analysis for a Full Width Test - Presentation given by IWG R94 chairman

Mr Castaing presented a draft presentation of the Japanese Benefit Analysis.

Comments & Discussion:

Comments have been made about the dataset definition in terms of groups that have been compared (adjustment for age of car?). Details on the study shall be given by the Japanese experts during one of the next IWG R94 meetings.

5.2. Draft status report to GRSP May 2010 session

Doc. INF GR / FI-09-02

Mr. Castaing presented the draft status report, he had prepared for GRSP May 2010 session. Slides on parallel activities with regard to EU Projects FIMCAR and THORAX are about to be added.

Comments & Discussion:

Concerns have been raised, that some declarations and goals are too specific with regard to the scope of IWG R94. In particular changes to slide 6 have been agreed. The headline was changed to be less engaging. The importance of abdominal injuries to rear seat passengers was added as a further issue. It was pointed out that the issues raised on slide 6 do not read as a priority list.

A modified version of the document was produced during the meeting.

Also the point was made, that the presentation shall be considered in the context of all other presentations of IWG R94.

5.3. European Accident Analysis on behalf of the European Commission

Doc. INF GR / FI-09-03

Mr. Richards (TRL) presented some accident analysis work that TRL has done by order of the European Commission.

Comments & Discussion:

Some technical questions have been raised. Mr. O'Brien felt that the research work presented is a good starting point to set priorities.

Mr. Frost pointed out that the demographic trend shall be considered. There is a drift towards more female drivers and in particular more elderly (aged 66+) female drivers. Also the group shall be careful in concluding on priorities.

With regard to the contents of the study presented, Mr. Castaing suggested to have a look at differences in the mass distribution in German and French fleet. Mr. Castaing was wondering about the low number (25%) of accidents where compartment integrity has been a problem. Mr. Edwards replied that compartment integrity is often considered to be a secondary factor, contributing to the accident consequences. The low share of compartment integrity problems might also reflect the fact that only R94 compliant cars have been considered for the study, presented.

Concerns have been raised about the accuracy of EES calculations.

Mr. Edwards pointed out, that he does not expect the European Commission to present the results of the study to 47th GRSP session. He expected the study to be finalized end of June 2010 and the results will be publically available.

5.4. Input from Accident Analysis done for EU Projects

Doc. INF GR / FI-09-04

Mr. RCarroll (TRL) presented some accident analysis work that was done for the EU projects THORAX and COVER. Some main conclusions of the work have been that

- Thorax injuries are a low impact severity issue

- Females show a significantly higher risk of thorax injuries (AIS 1)

Mr Carroll made the point that AIS 1 rib injuries can be serious especially for elderly people and that the problem shall not be underrated.

Deviant from the official classification, in the context of the study shoulder and upper abdominal injuries have been defined to be thorax injuries.

Comments & Discussion:

Some comments have been made about the difficulties of providing evidence for the presented load limiter effectiveness.

Mr. Castaing asked if gender issues can be explained by seating position or if biomechanical reasons are obvious. Mr Carroll replied that there exist not enough data to have this differentiation. With regard to questions on exposure Mr Carroll explained that within a secondary stage of the THORAX project a cost benefit analysis is planned and that work on exposure issues can be done in that context. More results can be available within the next few months.

Doc. INF GR / FI-09-05

Mr. Johannsen presented the planning of work in the FIMCAR project. He pointed out that the European Commission agreed to share all results of FIMCAR with the IWG R94 group. This can contribute to the work of IWG R94 as kind of “political guidance”.

6. Other presentations

Doc. INF GR / FI-09-06

6.1. UK accident analysis headlines

Mr. Edwards showed a document on “UK accident analysis headlines”. The objectives have been to find out if compatibility issues remain a problem in the current fleet and to determine the nature of frontal impact injuries and their mechanism.

With regard to compatibility issues Mr. Edwards concluded that problems still exist focusing on MAIS 2+ accidents.

Comments & Discussion:

Mr. Castaing wanted to know whether the results presented support the thesis that the current test does not check for structural interaction. Mr. Ammerlaan replied that bad structural interaction depends on both cars of a collision (e.g. there cannot be an underrun with a barrier). The fact that type approval tests are more oriented towards self protection – and less oriented towards “save

collisions” – is historically (ECE R12 -> ECE R94).

Mr. O'Brien pointed out that structural interaction is a basic for all compatibility and self protection progress. Mr. Pott agreed and suggested to have “geometric requirements” as a first priority.

Mr. Ammerlaan said that in this context the development of an appropriate Full Width Test is of outstanding importance.

7. AOB

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8. Next Meetings

14th of October 2010, Berlin TUB (Technical university of Berlin), (9:30 – 17:30 full day)

Action Number	Action	Target Date	Action By	Comp Date
3.				
3.1.	Amend the minute of the first meeting	09/03/10	Secretary	09/03/10
3.2.	Amend the minute of the second meeting	09/03/10	Secretary	09/03/10
3.3.	Document on German accident analysis: for March meeting	09/03/10	Germany	postponed
3.4.	Document on French accident analysis: more detailed	09/03/10	France	09/03/10
3.5.	Injury mechanism (thorax injury)	09/03/10	Sweden	09/03/10
3.6.	Thorax Injury frequency	09/03/10	All	postponed
3.7.	Update of EU project SARAC I&II	09/03/10	Germany	postponed
3.8.	Input from VC-Compat	09/03/10	Sweden	postponed
3.9.	EES Calculation method =>Put the software on the PDB web site.	09/03/10	France	09/03/10
3.10.	PDB test result on heavy weight cars	09/03/10	Japan	09/03/10
3.11.	Update the Swedish document	09/03/10	Secretary	09/03/10
3.12.	VDA to present Document FI_03-09	09/03/10	VDA	09/03/10
3.13.	Input open questions, what is missing, next steps	09/03/10	All	open
4.				
4.1.	Document on German accident analysis: for May meeting	25/05/09	BASSt	25/05/09
4.2.	Document on French accident analysis: more detailed for May meeting	25/05/09	France	25/05/09
4.2.1.	Eliminate the older cars	25/05/09	France	25/05/09
4.2.2.	Check if there are 30 people also outside the car for the partner protection.	25/05/09	France	25/05/09
4.2.3.	Compare the fatality rate with the current two categories (single car and car-car)	25/05/09	France	25/05/09
4.3.	Thorax injury frequency :report similar data than Doc FI_03-06	25/05/09	All	
4.4.	Thorax injury frequency: update data from EU Project SARAC I&II	25/05/09	Germany	closed
4.5.	Results on car-car tests and explain the higher passenger loadings and the barrier calculation.	25/05/09	Japan	
4.6.	UK, NI, Japan are asked to prepare a position on the VDA presentation	25/05/09	All	open

Action Number	Action	Target Date	Action By	Comp Date
4.7.	Amend Document FI_03-09 to focus on frontal impact	25/05/09	VDA	
4.8.	Present the methodology for PDB introduction in the regulation.	25/05/09	France	25/05/09
5.				
5.1.	Propose solutions to solve the problem of car to car accident	15/09/09	All	
5.2.	Do similar exercise than Doc. INF GR / FI-05-04 proposed by Sweden	15/09/09	All	
6.				
6.1.	Extension of German Accident Analysis	7/12/09	BASSt	7/12/09
6.2.	Extension of French Accident Analysis	7/12/09	LAB	postponed
6.3.	European Accident Analysis (PART 1)	7/12/09	TRL	7/12/09
6.4.	Input from Accident Analysis done for EU-Project Thorax	7/12/09	TRL/BASSt	postponed
6.5.	Reference Collision Data based on Real World Accidents	7/12/09	BASSt	open
6.6.	Review Doc. INF GR / FI-05-07 presented by France	7/12/09	ALL	7/12/09
7.				
7.1.	Japanese benefit analysis for a Full Width Test for March 2010 meeting	04/03/10	Japan	postponed
7.2.	Extension of French Accident Analysis	04/03/10	France	04/03/10
7.3.	European Accident Analysis on behalf of the European Commission (PART 2)	04/03/10	TRL	postponed
7.4.	Input from Accident Analysis done for EU-Project THORAX	04/03/10	TRL / BASSt	postponed
7.5.	Reference Collision Data based on Real World Accidents	04/03/10	BASSt	open
7.6.	Time schedule	04/03/10	ALL	04/03/10
8.				
8.1.	Japanese benefit analysis for a Full Width Test	27/04/10	Japan	
8.2.	Paper on the groups conclusions to present in May 2010 to GRSP	27/04/10	Chairman	
8.3.	European Accident Analysis on behalf of the European Commission (PART 2)	27/04/10	TRL	
8.4.	Input from Accident Analysis done for EU-Project THORAX	27/04/10	TRL	
8.5.	Input from Accident Analysis done for EU-Project FIMCAR	27/04/10	TUB	

Action Number	Action	Target Date	Action By	Comp Date
8.6.	Input from Accident Analysis done for former EU-Project APROSYS	27/04/10	Mr. Schramm	

Document Number	Title	Origin
9.8	Draft Minutes of the 9 th Meeting of the informal group on frontal impact	Secretary
9.7	Japanese benefit analysis for Full Widt Test – provisional	Japan
9.6	FIMCAR UK accident analysis headlines	TRL
9.5	FIMCAR presentation for GRSP IWG R94	TUB
9.4	COVER and THORAX work related to frontal impacts	TRL
9.3	EC Accident Analysis (provisional)	TRL
9.2	GRSP IWG R94 Draft Status Report May 2010	Chairman
9.1	Agenda of the 9 th Meeting of the informal group on frontal impact	Chairman
8.5	Minutes of the 8 th Meeting of the informal group on frontal impact	Secretary
8.4	Extension of French accident analysis to European Scope	France
8.3	Future steps – important points for R94 change	Secretary
8.2	IWG R94's GRSP position after December 2009 session	Chairman
8.1	Agenda of the 8 th Meeting of the informal group on frontal impact	Chairman
7.7	Minutes of the 7 th Meeting of the informal group on frontal impact	Secretary
7.6	Presentation on ideas to amend R94	Germany
7.5	Presentation on possibilities to avoid misuse of the PDB	France
7.4	Presentation to review open questions	Sweden
7.3	Presentation on the first results of a frontal impact study by order of the EU Commission	UK
7.2	Presentation on updated German accident analysis	Germany
7.1	Agenda of the 7 th Meeting of the informal group on frontal impact	Chairman

Annex 3 –Documents list

INF GR /FI-09-08_draft

6.6	Draft Minutes of the 6 th Meeting of the informal group on frontal impact	Secretary
6.5	Update work on reference collision	Sweden
6.4	Presentation on MPDB problems	France
6.3	Presentation on frontal impact issues	UK
6.2	Report on frontal impact issues	EU-Commission
6.1	Agenda of the 6 th Meeting of the informal group on frontal impact	Chairman
5.10	Minutes of the 5 th Meeting of the informal group on frontal impact	Chairman
5.9	dummies-position in Japanese tests	Japan
5.8	joint-researches-USA-France-presentation	France/USA
5.7	French-answer-to-R94amendement-issues	France
5.6	R94-METHODOLOGIE-BENEFITS-May-2009	France
5.5	PDB Research in JPN Mini-Cars & Minivan & PC	Japan
5.4	Swedish-Accident Data Review	VTI
5.3	French-accident-data-analysis	LAB
5.2	German-accident-data-analysis	BASt
5.1	Agenda of the 5 th Meeting of the informal group on frontal impact	Chairman
4.6	Final minutes of the 4 th Meeting of the informal group on frontal impact	Secretary
4.5	Contract with EC: Provision of information for the development of frontal impact legislation	TRL
4.4	Performance as Test Procedures of the PDB and ODB Tests for the Light and Heavy Cars	Japan
4.3	Injuries Reported in Frontal Impacts in Swedish Accident Data	VTI

4.2	Work progress regarding Self-Protection and Partner-Protection	LAB
4.1	Agenda of the 4 th Meeting of the informal group on frontal impact	Chairman
3.12	Draft minutes of the 3 rd Meeting of the informal group on frontal impact	Secretary
3.11	PDB research in Japan	Japan
3.10	Mobile Progressive Deformable Barrier and Mobile Rigid Barrier Tests	BASt
3.09	Detailed discussion of the VDA position on the proposal for draft amendments to UN-ECE R94	VDA
3.08	Influence of the PDB on the pulse	France
3.07	Additional research on PDB and MPDB	Netherlands
3.06	Evolution of mortality rate and fatal injury frequencies in Frontal impact since 1990.	France
3.05	APROSYS - Development of a Full Width Frontal Impact Test for Europe	UK
3.04	Single Vehicle Collisions - Extracts from the RISER project.	Sweden
3.03	Accident analysis - Work progress regarding Self-Protection V2	LAB
3.02	Evaluation of the Effect of the Implemented Full-Width Frontal Impact Standard on Reduction of Fatalities in Japan	Japan
3.01	Agenda of the 3 rd Meeting of the informal group on frontal impact	Chairman
2.09	Minutes of the 2 nd Meeting of the informal group on frontal impact	Chairman
2.08	VDA position on the proposal for the draft amendments to Regulation N°94	VDA
2.07	Japan research on Regulation N°94 amendments	Japan
2.06	Outstanding issues with PDB test	UK
2.05	Accident analysis - Work progress regarding Self-Protection V1	LAB
2.04	First finding of additional research	Netherlands

Annex 3 –Documents list**INF GR /FI-09-08_draft**

2.03	UNECE Reg. 94 – Past, Present & Future	Netherlands
2.02	Issue to be resolved in evaluation of Regulation N°94 amendments	Secretary/Sweden
2.01	Agenda of the 2 nd Meeting of the informal group on frontal impact	Chairman
1.04	Draft Minutes of the 1 st Meeting of the informal group on frontal impact	Secretary
1.03	Agenda of the 1 st Meeting of the informal group on frontal impact	Chairman
1.02	Proposal of rules of procedure and terms of reference	Chairman
1.01	ECE/TRANS/WP.29/GRSP/2007/17 – Proposal for draft amendments	France