

Transmitted by the representative from  
Australia

Informal document No. WP.29-153-33  
(153rd WP.29, 8-11 March 2011,  
agenda item 17.11)

~~Transmitted by the expert from Australia~~

~~Informal document No. GRSP-48-20~~  
(48th GRSP, 7–10 December 2010,  
~~agenda item 5(a)~~)

## **DRAFT**

### **First progress report of the informal group on a pole side impact (psi) gtr**

#### **Submitted by the Chairman of the Informal Group**

### **BACKGROUND**

At the 150<sup>th</sup> session of the World Forum for Harmonization of Vehicle Regulations (WP.29) in March 2010, Australia submitted an informal paper proposing a Pole Side Impact gtr (WP.29-150-11).

AC.3 requested the secretariat to distribute WP.29-150-11 with an official symbol for consideration and vote at the June 2010 session. It was agreed to transmit WP.29-150-11 to GRSP to consider at its May 2010 session and to assess the need for an informal group.

The May 2010 session of GRSP considered Australia's formal proposal (ECE/TRANS/WP.29/2010/81) together with a further informal paper (GRSP-47-28), which included a proposed task list, and endorsed the proposed harmonization activity on a pole side impact test and the establishment of an informal group on this subject under the chairmanship of Australia, subject to the consent of WP.29 and AC.3.

At the 151<sup>st</sup> session of WP.29 in June 2010, AC.3 considered Australia's formal proposal and agreed to develop the gtr and to establish the Informal Group. AC.3 also agreed that the initial tasks of the Informal Group should be to (i) confirm the safety need for a gtr in light of the increasing prevalence of electronic stability control in the vehicle fleet and (ii) simultaneously assess potential candidate crash test standards to be addressed by the proposed gtr. AC.3 agreed that the development of the gtr and the study on the benefits of such a gtr would be made in parallel. The secretariat was requested to prepare a corresponding AC.3 document and to transmit it to GRSP for consideration.

The contracting parties represented on the Informal Group are Australia, Canada, France, Germany, Italy, Japan, the Netherlands, New Zealand, China, the Republic of Korea, the United Kingdom, the United States of America and the European Commission. Representatives from the International Organization of Motor Vehicle Manufacturers (OICA) are also participants.

## **MEETING IN BONN, 16-18 NOVEMBER 2010**

The Informal Group met for the first time in Bonn on 16-18 November 2010. The main focus of this initial meeting was to develop a common knowledge base covering the significant body of research already conducted on pole side impact and recent crash tests and establish broad parameters for future work.

### Presentations

The following presentations were made at the meeting:

- Department of Infrastructure and Transport, Australia (DIT) - Pole Side Impact gtr: Assessment of Safety Need: Initial Data Collection
- BASt – Influence of Vehicle Stability Control on Accidents on Rural Roads
- DIT – Evaluating Vehicle Technologies – Electronic Stability Control: Using Australian Used Car Safety Ratings Data
- NHTSA – US Pole Side Impact Test
- BASt on behalf of EEVC WG13 and WG21 - Accident Data: Side Impacts with Poles
- DIT – Summary of Available Test Data
- WorldSID Positioning Sub-Committee Update
- DIT – Summary of Current Pole Tests
- Transport Canada – Pole Test Comparison of the WorldSID IRTRACC, WorldSID Rib-Eye and ES2-re
- DIT - Australian Pole Side Impact Research 2010: A summary of recent oblique, perpendicular and offset perpendicular pole side impact research with WorldSID50th
- NHTSA - Calculating Benefits for Oblique Pole Side Impact Rulemaking
- BASt on behalf of EEVC WG13 and WG21 - Cost / Benefit of Side Impact Test Procedures

NHTSA also submitted a number of documents, which were referenced in its presentations.

### Discussion

The meeting agreed Rules of Procedure. These are provided at Attachment A.

The meeting also agreed Terms of Reference. These are provided at Attachment B for endorsement by GRSP prior to endorsement being sought by WP.29. While commencement timing for the proposed gtr is not included in the Draft Terms of Reference it was agreed that this would be a standing item on the agenda at future meetings of the Informal Group.

Other issues on which the meeting made decisions or on which views were expressed with a degree of commonality include:

- While the preliminary results on safety need were noted, it was agreed that a more comprehensive presentation would be required for the next meeting.
- Presentations by BAST, DIT and NHTSA indicated that ESC would have a significant impact in reducing single vehicle crashes, particularly for SUVs, but would not resolve the problem being addressed by the gtr.
- The strong view of the meeting was that the gtr should be a high quality document, which presented one test procedure. While it was recognised that decisions on implementation timing ultimately rested with contracting parties, several participants also suggested that the gtr should consider the issue of an appropriate lead time and implementation date, for example in Part A.
- Views expressed indicated that the coverage of the gtr should include light passenger and light commercial vehicles (under 10,000lbs).
- It was noted that US data supported an oblique angle test and EEVC data suggested the largest percentage of crashes occurs at 90 degrees plus or minus 15 degrees, so that there was not necessarily a conflict in data. It was agreed that further detailed work was required on impact angle. However it was also noted that distinguishing impact angle was difficult and that the choice of angle in a test procedure could be determined by the outcome being sought rather than the most common impact point.
- It was noted that there needs to be close cooperation with the WorldSID Informal Group but that a clear division in work needs to be maintained. For instance, the WorldSID Informal Group would be responsible for producing risk curves (with work currently being undertaken by an ISO group), but the PSI Informal Group would be responsible for setting injury criteria and limits.
- It was agreed that future PSI and WorldSID Informal Group meetings would be held together where practicable.
- It was noted that the WorldSID 50<sup>th</sup> male would be completed in 2011, with risk curves and seating position potentially taking longer; the WorldSID 5<sup>th</sup> female would be completed in 2013.
- It was generally agreed that the test procedure in a gtr would utilise WorldSID dummies.
- It was agreed that it was premature to identify an agreed test procedure and that consideration of test procedures based on FMVSS214, EuroNCAP and the perpendicular offset test identified by APROSYS should be carried forward.
- It was agreed that benefit:cost analysis would be a major element in comparing the three candidate procedures.
- DIT presented a suggested project timetable, which culminated in submission of a draft gtr to WP.29 for approval in November 2012. Comments suggested that this was ambitious particularly as GRSP would need to endorse the gtr. It was agreed to keep

the matter under review and that the most important objective was to produce a high quality gr.

## FUTURE MEETINGS

The next meeting of the PSI Informal Group will be held in Brussels in the week of 28 February to 4 March 2011 in conjunction with meetings of the WorldSID and gtr7 Head Restraints Informal Groups.

Subsequent meetings of the PSI and WorldSID Informal Groups will be held together where practicable. Further meetings are scheduled for the week of 6-10 June 2011 in Washington DC and for September/October 2011 and December 2011.

## ACTION ITEMS

Action items identified for completion prior to the Brussels meeting include:

Action	Responsibility
Provide safety need data	Contracting parties participating in the Informal Group to respond to Australia's request (originally made by email on 17 September 2010) where they have not already done so <b>by end December 2010</b> . Australia to liaise bilaterally with Governments where issues with data have been identified.  [NB: Australia may also approach contracting parties for more detailed data (eg gender and body region analysis)]
Provide comprehensive analysis of safety need data	Australia
Identify target vehicle categories to be covered by the regulation	Germany
Recalculate US benefit numbers to take account of most recent data	US
Arrange briefing on APROSYS work on side impact	Australia to organise
Arrange briefing on relevant EuroNCAP work	Australia/France to organise
Review data on angle of impact	Germany, US and other contracting parties where able
Provide summary data on relevant crash tests including notice of future crash tests	Contracting parties
Make presentation at Brussels meeting on relevant crash tests	Contracting parties
Gather information on cost of	Australia will explore further bilaterally with

countermeasures	manufacturers
Consider the benefit of pole side impact counter-measures in rollovers, having regard to impact of ESC	Australia will explore further with manufacturers
Identify body regions to be assessed as a first step in setting injury criteria (values to be considered at subsequent meeting)	Informal Group
Consider whether gtr should address post-crash electrical safety	Australia to explore further; Informal Group

Advice on all action items is to be provided to the Secretariat as soon as possible and, where appropriate, items will be included in the agenda for the Brussels meeting.

Additional action items may be identified for the Brussels meeting and Informal Group members will be contacted as appropriate.

## ATTACHMENT A

# Rules of Procedure

1. The informal group is open to all participants of GRSP and WP29. A need to limit the number of participants from any country or organisation is not expected, although this will be kept under review.
2. A Chairman (Mr Hogan) and a Secretary (Mr Belcher) will govern the informal group.
3. The official language of the informal group will be English.
4. All documents and/or proposals must be submitted to the Secretary of the group in a suitable electronic format in advance of the meeting. Items or proposals requiring decision by the informal group should be circulated two weeks in advance of a meeting.
5. An agenda and related documents will be circulated to all members of the informal group at least two weeks in advance of all scheduled meetings.
6. The process will pursue consensus. When consensus cannot be reached, the Chairman of the group or his representative shall present the different points of view to GRSP.
7. The progress of the informal group generally will be reported to GRSP as an informal document and presented by the Chairman or his representative.
8. All working documents should be distributed in digital form, and be accessible on the UNECE website in the GRSP folder.

[http://www.unece.org/trans/main/wp29/meeting\\_docs\\_grsp.html?expandable=0&subexpandable=99](http://www.unece.org/trans/main/wp29/meeting_docs_grsp.html?expandable=0&subexpandable=99)

[NB: The revision noted in track changes above was agreed at the Bonn meeting]

## ATTACHMENT B

# Terms of Reference

The major tasks that will be performed by an Informal Group include:

1. Review of existing research, including crash tests, and literature;
2. Liaison with, and consideration of the results of, the GRSP WorldSID Informal Group;
3. Assessment of safety need, including analysis of current fatalities and injuries from pole side impact, other side impacts and rollovers, taking account of positive safety developments already occurring or likely such as ESC; and target vehicle categories to be taken into consideration;
4. Examination of possible test procedures;
5. Consideration of variations to candidate test procedures;
6. Establishment of likely countermeasures driven by shortlisted test procedures;
7. Calculation of likely injury mitigation coverage of the crash and injury population from these countermeasures;
8. Assessment of benefits and costs for shortlisted test procedures (including data from a significant range of countries, as there may be wide variations in benefits);
9. Assessment of likely incremental benefits and costs from, eg, testing for smaller (5<sup>th</sup> percentile female) and non-struck side and rear seat occupants;
10. Selection of a preferred test procedure; and
11. Production of a draft regulation for consideration by GRSP and subsequently WP29.