REPORT of the **4th PVGTR INFORMAL WORKING GROUP** meeting.
Held at Scheveningen in the Netherlands on 27th/28th January 2005.

Attendance see the associated list. (PVGTR 2003/7-4)

After thanking RDW for the organisation of this meeting and their hospitality, new members were welcomed and introductions were made.

The Chair began by emphasising that this would be a key meeting since the progress toward solving the problems had been much slower than the time scale would demand. It was seen as likely that a further meeting of this Group would be needed before September if the early 2006 completion was to stand any chance of being achieved.

The items upon which agreement had been achieved were largely concerning details and many important issues still needed agreement.

Germany observed that in the GTR, attempting to combine Reg.13-H and FMVSS 135, the tendency appeared to be reducing the overall requirements whereas the aim should be for the GTR to embody the best requirements of both Standards. France was not quite so demanding but believed that the GTR should be concerned primarily with vehicle safety. They were not however, against simplification provided that all the key prescriptions were maintained.

The Chair acknowledged the points made but pointed to the size of the task for the meeting to critically examine all the clauses of Reg.13-H and 135 for relative quality and importance.

Japan reminded the Group that the differences were linked to the Certification process and to the rulemaking philosophies which were quite different between Europe/Japan and North America.
Additionally, Reg.13-H had been regularly updated since the earlier harmonisation work had produced FMVSS 135, whereas this US Standard had not changed in a similar way.

Selection of the most severe requirements would mean that USA would have to accept the text (albeit with some detail revisions) of R.13-H with all the updates which have taken place since the original publication. Governments claimed that a GTR which was less severe than existing Regulations would mean that manufacturers would probably opt to use the new document but Industry thought that this was the underlying reason for GTRs.

USA however, made it clear that any requirements not within 135 but present in R.13-H and put into the GTR would require justification evidence as a proof of necessity.
The Chair recognised that this conflict would prevent the attainment of a single Standard which would be able to replace Reg.13-H and FMVSS135.

Progress might be secured if the PVGTR was written so as to incorporate an agreed text covering all the requirements of both existing Standards but this would have to be offered as a '**Premium Braking Standard**' which would be used by manufacturers who produce 'world vehicles'. Different areas would decide whether to continue with Reg.13-H and North

America could continue with FMVSS135 for local use. Some manufacturers would be likely to decide to design all vehicles to meet the Global Standard and it was clear that the "Premium Braking" GTR would then be very close in requirements to Reg.13-H but with test procedures formulated to the 135 Standard.

The Group concluded that such a strategy is a fall-back position and the work ahead would be mainly editorial although several detail differences still need resolving. USA wondered what Standard new markets would require but evidence shows that Reg.13-H appears to be widely acceptable and some regions currently accept multiple standards as parallel requirements.

Germany proposed making ABS mandatory but USA had firmly ruled against this even if it meant that braking distribution requirements could be deleted. Mandatory ABS might be suitable for Europe and Japan but for North America and some other regions, the additional cost could not be justified.

Subsequent discussions reverted gradually back to the original stance of the GTR with the main justification being the reduction in testing which a single Standard calls for and which would be lost with the new proposal unless manufacturers opted for a single Standard with the highest specification.

USA suggested a GTR with optional requirements which could be selected by manufacturers depending on the certification process and where the vehicles were to be sold. If basic and advanced requirements were incorporated, manufacturers could understand the implication of installing new systems. However, some manufacturers would probably prefer a new single Regulation and it was suggested that this problem should be put to AC3 for a guiding opinion.

Recognising that the reduction of Reg.13-H requirements must be limited in scope to be acceptable to current R.13-H countries, discussion continued to attempt to resolve the outstanding conflicts even though some Governments clearly preferred the 'Premium Standard' approach.

Sub-working Group proposals were discussed as follows:

EMC.
This was thought to have been accepted by deleting paragraph 5.1.1.4. which requires conformance with ECE reg.10. A paragraph calling for some EMC testing was to be inserted in the introduction specifically mentioning ECE Reg.10 or other local Standards where more appropriate.
If Reg.10 is not adequate, then this document should be amended as it is not possible for the GTR to detail EMC test procedures to which electronic controls should be subject.

PARKING WITH UNBRAKED TRAILERS.
There was a general consensus that this safety requirement be retained even though it may cause some difficulty in North America where acceptance is doubtful since no serious accident history resulting from runaway has been recorded. It was offered that use of Automatic

Transmission in Park or in-gear parking, could be used to achieve or assist in achieving this requirement could be added into the text. No agreement was obtained.

SERVICE BRAKING PERFORMANCE WITH AN UNBRAKED TRAILER.

Reg.13-H calls for a combination performance to be at least 5.4m/s^2 (checked by calculation given a max trailer load). Many contracting parties were adamant that this should be retained but NHTSA cannot accept this ruling as trailer requirements were devolved to individual states who set local limits on maximum mass.

DYNAMIC PARKING BRAKE PERFORMANCE.
This was again discussed and it was decided to keep the 'actuation with the vehicle in-motion' requirement of Reg.13-H paragraph 5.2.2.4.(in the GTR under 4.3.1.4.) but the performance level requirement and test was to be removed.

FOOT CONTROL OF THE SERVICE BRAKE.
This requirement is to be retained but the text of Reg.13-H (with both the driver's hands on the steering control) is to be used to convey the same meaning as FMVSS135.

EPB
The proposal was to delete paragraph 5.1.19.2. (4.3.17.2.) so that a 'half system performance' under fault conditions would not be required. Industry insisted that no single fault could result in the loss of the brake command signal and automatic application mode could be entered if the input signal conditions were not logically correct. USA could not accept the 8% gradient 'secondary performance' and Japan proposed putting this issue to the GRRF for approval of the deletion. This was agreed but with reservations from France and Germany.

ABS TESTS.
The Sub-working Group proposal on the assessment of ABS performance covers adhesion (mu) transitions and split-mu control of stability with stopping performance assessment on high mu. USA is prepared to accept this as it is seen to be workable, but some Governments were concerned that, despite an adequate equipment specification, low mu stopping distance could be too long.
Germany suggested that the high adhesion level should be >0.5 on the low-high mu transition and the split-mu tests due to surface wetting being unavoidable and this will be adopted. However, the meeting discussion did not bring the low mu stopping performance any nearer resolution. Germany criticised the high mu stopping distance test doubting whether ABS cycling could be reliably achieved on the test surface with all vehicles. The proposal without this test was said to be preferable.
Industry said that the alternative would be the full Reg.13-H test procedure which was, of course, not acceptable to USA. In general the experts agreed that ABS is really a stability improvement system and that k-measurement is unreliable. Industry pointed to there being no low mu stopping performance for vehicle which are not equipped with ABS, so the Chair asked why Governments are so set on an ABS low mu test. There was no adequate justification of this insistence given.

STOPPING DISTANCE vs MFDD.
The case for MFDD was made again without convincing the US. The work-in-progress test procedures provide both MFDD and SD requirements so the decision is; to take either or both?
PTI Provisions.
It was agreed that this issue would be left to await the outcome of GRRF discussions.
(The means implemented to protect against simple unauthorized modification to the operation of the verification means chosen by the manufacturer (eg. warning signal) shall be confidentially outlined. This is a Reg.13 clause which was never transferred into Reg.13-H but should now be inserted and a decision taken as to whether this paragraph should be included in the GTR.) This may cause a problem since it is applicable only in Type Approval regimes but, by choice of wording, it could be made a Type Approval option.

STOP LAMP SIGNALLING.
The Reg.13-H text was proposed and was acceptable except for the clause covering Selective Braking where USA wanted some latitude in creating the signal under some circumstances. It was proposed to delete the clause but UK wanted GRRF to discuss this clause even though it was never proposed to be tested, being only declared at Type Approval. Testing would prove to be difficult as the Selective Braking would have to be invoked in such a way that Automatically Commanded Braking was not produced. No agreement was reached.

TYPE 0 TEST.
There was some confusion about the pedal effort being used for this test as the Regulation says, for the engine disconnected test, that the required performance ($6.43 m/s^2$) need be obtained. 135 requires pedal efforts greater than this but not sufficient to cause skidding. There is some practice in Europe to allow skidding if controlled by ABS and it was agreed that this is wrong.
The 135 requirement will be taken and careful setting of the pedal effort has to be made.

COMPENSATION for DETERIORATION or DEFECT.
The limits of this compensation, above which the driver warning has to be generated, was copied from Reg.13 even though the concept is more applicable to truck EBS.
Contracting parties were somewhat reluctant to remove this section in the GTR even though the system is not feasible in passenger vehicles. Ratification has not yet been agreed.

EBS.
The performance of EBS with the IGN switched OFF currently calls for full Service braking level to be achievable but the SWG asked for this to be reduced to Secondary performance. The case of downhill operation with either a switch failure or IGN deliberately turned to OFF was considered and caused Governments to doubt whether the proposal could be accepted.

Paragraph 5.2.20.2. was proposed for deletion as applying to the Towing vehicle – Trailer link and would not occur in passenger car systems. This is a **single** transmission failure and is very difficult to test so agreement here is possible though not specifically declared yet.

The energy supply for the electrical transmission when shared with other vehicle loads was discussed and USA asked what tests were proposed for looking at battery voltage fall beyond a declared level producing a driver warning.
Also the test of 'current supply-current drawn' balance required in paragraph 5.2.20.6. was raised with a similar question.
An extract from the ISO standard being finalised will be circulated so that this can be understood.
Section 5.2.20.7 was proposed for deletion but time did not permit discussion.

Because the SWG discussion was totally repeated in the Informal Group meeting, it was decided, at this point, to end the SWG meetings and install another one or two Informal Group meetings in order to attempt to make decisions which clearly the SWG alone, cannot usefully achieve.

The date for the next meeting was decided at the 57th GRRF and will take place in London on 11th, 12th and 13th April starting at 09.30 on Monday and finishing at 15.00 on the Wednesday.

MB 5.2.05