

Minutes of the Meeting of the Blue Ribbon Panel (BRP)
for Evaluation of Advanced Airbags

February 21, 2006

Chairperson, Dr. Susan Ferguson, called the meeting to order at 9:00 A.M. on February 21, 2006. All panel members and observers were present with the exception of members, Mr. Timothy Hoyt, Dr. Kristen Poland and Dr. Maria Segui-Gomez and observer Mr. Robert Strassburger. Also in attendance were: Mr. Robert Woodill, NASS Region I Manager, Mr. Steve Mavros, NASS Region II Manager and Mr. Niko Alexandrou, Operations Director for NASS at the DOT Volpe Center. Note: the BRP was joined for lunch by the members of the Miami/Dade NASS team in the hope of energizing the team members by letting them interface with the people that use the data that they are gathering.

Chairperson Ferguson asked if there were any comments on the draft minutes for the August 10-11, 2005 meeting of the BRP. The August meeting included discussions with and questioning of the three parties who submitted proposals in response to an RFP issued by the BRP calling for analyses of crash/injury databases. The minutes as currently drafted include a summary of the discussions with each of the three parties. The Panel members debated whether some or all of these discussions were proprietary in nature. A preliminary decision was made that only discussions with the winning party, The University of Maryland, should be included in the minutes. Dr. Ferguson said that she would re-circulate the minutes and asked everyone to get back to her with specific suggestions for what needs to be expurgated from the minutes. Dr. Ferguson said that once the minutes were expurgated they would be posted to the BRP web site as per usual practice.

Dr. Ferguson turned the floor over to Mr. Alexandrou, for a presentation on the status of ongoing NASS related activities at the Volpe Center in Cambridge, Mass. Mr. Alexandrou noted that there have been some significant personnel changes at the Center. Most notably, Ms. Rose Marota has replaced Dr. Jerry Scally as the Project Manager. As a result of this and other personnel changes the release of NASSMAIN, which was scheduled for January 06, has been delayed. Accomplishments for 2005 included rollout of Easy Street Draw, which should make it easier for NASS Investigators to produce professional crash scene diagrams. Enhancements were also made to other NASS forms and the NASS infrastructure and servers were upgraded. New printers and desktops were supplied to NASS teams. Of particular interest to the BRP was the status of the XML data sets and viewer. The BRP had asked that the NASS files be made more user friendly by adding a viewer, which would facilitate "smart" searches of the files. It is now anticipated that user testing of the viewer will begin in April with release scheduled for May 2006. Dr. Alexandrou supplied the BRP members with a CD containing extracts of data gathered on truck crashes and asked for comments in the next 2 to 3 weeks. The file contains a viewer similar to what is being developed for the full NASS file. Mr. Chidester asked that comments be addressed to him with a copy to Mr. Alexandrou. Mr. Dalmotas asked if NHTSA plans to have an open forum for feedback from users of

NHTSA crash data. Dr. Carra and Mr. Chidester both noted that such forums were held in the mid 1990's but that there are no current plans for another forum. Dr. Carra noted that feedback from the BRP, which contains many "frequent users" of NASS data, has been very useful and has resulted in a number of significant changes to the way NASS data is collected and disseminated.

Dr. Ferguson invited Mr. Dalmotas to make a presentation of his most recent analyses of NASS data for evaluation of the effectiveness of the newer air bag and restraint systems. Mr. Dalmotas noted that overall highway crash related deaths in Canada have been going down. As overall deaths have dropped older people have become a bigger proportion of the residual highway safety problem. Mr. Dalmotas showed a number of detailed charts with AIS \geq 3 injury risk for front outboard-seated occupants using 1988-2004 NASS data. The analyses included raw vs. weighted data and all collisions vs. those with a reported delta V. The overall injury rate (AIS \geq 3) and chest injury rate for belted occupants have been going down for occupants of post-1998 model year vehicles as compared to pre-1998 model year vehicles. Unbelted occupant injury rates have showed little change by model year. Mr. Dalmotas noted that he has found little correlation between chest acceleration as measured in controlled vehicle crashes and real world crash injury risk. He believes that chest deflection as measured in controlled crashes has a much better correlation with real world crash chest injury risk. Dr. Ferguson asked Mr. Dalotas if the presentation was public information. Danius said it was and Dr. Ferguson said she would have the full presentation posted to the BRP web site.

Dr. Ferguson asked Mr. Carr for an update on Alliance funding of NASS data collection. Mr. Carr said that the Alliance has committed funding one additional NASS investigator at each of the 3 new NASS PSUs through 2007. Mr. Carr said that the Alliance safety committee would like to shift emphasis away from air bag performance in frontal collisions to rollover collisions, as that was currently a hotter topic. He said that he has had preliminary discussions with the NASS teams and Zone Centers regarding how to implement this shift in emphasis in case selection. He further suggested that the BRP might also want to shift emphasis from air bag performance alone to a more generic approach to occupant protection. Dr. Ferguson said that she thought the BRP should remain true to its initial charter at least until the University of Maryland presents its conclusions from the ongoing BRP sponsored analyses of crash data.

Dr. Ferguson updated the BRP on the ongoing data analyses being conducted at the University of Maryland (UM) under contract to the BRP. UM has experienced delays in getting data from the vehicle manufacturers regarding the changes to occupant restraint systems over time. This has resulted in slippage of several months in the schedule for delivery of the draft final report. IIHS has been helping UM with missing data. PIRE, which has a sub-contract with UM, has been investigating algorithms to support missing delta Vs using other measures of crash severity. PIRE has also been working on analysis of the costs of crashes as another means of assessing the efficacy of changes to occupant protection systems over time. Dr. Ferguson noted that monthly status reports from the UM have been routinely distributed to BRP members.

Dr. Ferguson asked Mr. Chidester to give an update of related activities at NHTSA. For calendar year 2005 NASS CDS has collected 4045 cases and the Alliance sites an additional 438 for a total of 4483 cases. This is a drop from the number of cases collected in 2002 through 2004. Mr. Chidester explained that staff turnover was the cause of the slippage but that the NASS CDS system was currently back up to full strength. Mr. Chidester also displayed the number of cases that meet the Alliance criteria, those where the case vehicle was manufacturer certified to meet the new FMVSS 208 criteria (CAC) and vehicle counts by highest delta V and MAIS. Mr. Chidester said that ongoing Special Crash Investigations (SCI) have yet to conform a single fatality or life threatening injury related to the deployment of a CAC air bag. Dr. Ferguson asked if the FARS file was still being crosschecked to make sure that all potential air bag related fatalities were being investigated. Mr. Chidester said that they were continuing to crosscheck FARS and other sources of information and that he was reasonably confident that if there was an air bag related fatality NHTSA would be made aware. Mr. Chidester presented a series of bar graphs showing normalized fatalities of children and adults by model year for each calendar year 1992 through 2005. These charts show a dramatic reduction in fatalities related to the air bag over time. This is likely due both to public information campaigns alerting the public of the dangers of getting too close to the air bag as well as changes made by the manufacturers to their occupant protection systems. Mr. Chidester also showed that the fatality rate is much lower for both children and adults in vehicles with air bags certified using the sled test procedure as compared to those certified using the barrier test.

Mr. Chidester also showed a chart that depicted the number of cases with estimated delta V from WINSMASH and the EDR. Mr. Chidester noted that the number of cases with an EDR readout was small because the NASS teams were only able to read out EDRs on GM vehicles and some Ford models with their current equipment. EDRs from other manufacturers must be returned to manufacturer for read out. Mr. Bischoff asked about the agency's progress in getting help from additional manufacturers in reading out their EDRs; noting that the BRP had previously stressed the critical need for EDR readouts to help in assessing the performance of advanced restraint systems. Mr. Chidester said that the effort had largely stalled because the agency was now in rulemaking on EDRs and was forbidden from discussing the issue further with the manufacturers.

Mr. Chidester concluded that the NASS CDS system is producing additional crash cases of interest for evaluating the efficacy of changes to occupant protection and that NHTSA analyses document that these changes are resulting in significant reductions in fatalities related to air bag deployment. Mr. Chidester also noted that NCSA has an ongoing analysis of the efficacy of changes to FMVSS 208, which is being conducted by Dr. Charles Kahane. It is anticipated that this analysis will be completed in the winter of 06/07. The analysis has been delayed due to the staff person previously conducting the analysis leaving NCSA for another part of the agency. Dr. Carra noted that NHTSA management is questioning the need for SCI to continue to investigate cases where air bag induced injury is suspected since the incidence of these cases has diminished to nil. The BRP was unanimous in seeing a need to continue to monitor air bag related injuries and fatalities since it is crucial to the continued refinement of occupant protection

systems. Dr. Carra said he might need to call upon the BRP for support if resistance mounts within NHTSA management. Dr. Ferguson said she stands ready if the need for support arises.

Dr. Ferguson noted that she had talked to several vehicle owners who believe that the right front occupant sensing systems in CAC vehicles are not functioning as designed. She noted that the air bag readiness indicator is showing the air bag is off when the right front seat is occupied by small statured females. The indicator also sometimes can vacillate between off and on with subtle changes in posture and seat track position. She asked Mr. Chidester if the NHTSA SCI investigations have noted instances where the passenger air bag did not deploy in crashes where parameters would have indicated that deployment should have taken place. Mr. Chidester said that they have seen cases throughout the history of SCI investigations where the air bag did not deploy when reconstruction of the crash indicated that the air bag should have deployed. However, he indicated that he did not believe that the incidence of these cases had increased with the introduction of CAC vehicles.

Dr. Ferguson asked about the timing for a third public meeting to discuss analyses related to air bag effectiveness. She noted that delays in the UM contract now make it likely that the final report will not be available till the end of 2006. She also noted that the Kahane/NHTSA analysis would not be available until the winter of 2006. Dr. Ferguson asked Dr. Durbin when CHOP would be able to present updated results on the impact of air bag and other restraint system design changes on injuries to children. Dr. Durbin said that data collection is ongoing but he did not think that they were in a position to conduct new analyses this year. Dr. Ferguson also queried Dr. Digges and Dr. Schneider about updated analyses from Ryder Trauma and University of Michigan respectively. Dr. Digges said that he is doing analyses on older people and that results would be available in 6 to 9 months. Dr. Schneider said that he had just updated his analyses with approximately 100 additional cases and that he would be prepared to present within the timeframes being discussed. Dr. Schneider also noted that the new analyses are continuing to show lower injury risk in later model year vehicles, but there continues to be some evidence of a problem with lower extremity injuries in the newer vehicles.

Dr. Ferguson concluded that the April/May 2007 timeframe might be appropriate for the next public meeting considering when the next round of analyses would be available. Everyone agreed and Mr. Carr said he would check on the availability of the Reagan Center in Washington D.C. during that period and get back to the BRP with specific proposed dates.

Dr. Ferguson asked about the appropriate timeframe for the next meeting of the BRP. She said that she expected the first draft of the final report from the UM analysis in November. All agreed that would be the appropriate time for the next meeting which would be held in Washington D.C. She also suggested a meeting in February or March of 2007 to plan for the upcoming public meeting. All BRP members were asked to get back to Dr. Ferguson ASAP on dates in November 06 and February/March 07 that would be convenient for the members.

Dr. Ferguson noted that BRP member Mr. Hoyt of Nationwide Insurance had retired and would no longer be able to serve on the panel. She noted that in addition to having Mr. Hoyt's extensive experience in highway safety that Nationwide was a member of the Board of Directors of Advocates for Highway and Auto Safety and thus provided a valuable link between the BRP and other stakeholders. All agreed that this connection was valuable and Dr. Ferguson said she would contact Mr. Hoyt's replacement, Mr. Bill Windsor to ascertain whether he would be taking Mr. Hoyt's position on the Board of Advocates. Dr. Ferguson would report back to the BRP.

A motion was made and approved and the meeting was adjourned at 2:30 P.M.