

**Final Minutes of the Eighth Meeting of the Blue Ribbon Panel for Evaluation of
Depowered and Advanced Airbags**

November 17, 2003

Chairperson, Dr. Susan Ferguson called the meeting to order at 8:30 A.M. in the Nile A Meeting Room of the Luxor Hotel in Las Vegas, Nevada. (Note: This venue was chosen for the meeting so as to coincide with the annual training meeting of the NASS teams). All panel members and observers were present with the exception of members Dr. Maria Segui-Gomez, Mr. Vernon Roberts, Dr. Bella Dinh-Zarr, Dr. Kennerly Digges and Dr. Jeffrey Augenstein and observer Mr. Robert Strassburger. Dr. George Bahouth of George Washington University sat in for Dr. 's Digges and Augenstein.

Dr. Ferguson asked if there were any additions or corrections to the Draft Minutes of the Seventh Meeting of the BRP. Dr. Schneider stated that he would supply minor corrections to Dr. Ferguson directly. Hearing no further objections it was moved to adopt the minutes as written, subject to the addition of minor corrections. Dr. Ferguson noted that she would post the final version of the minutes on the BRP web site.

There was a brief teleconference with Dr. Segui-Gomez to confirm that she will be able to attend the upcoming second public meeting of the BRP and to present an update of her NASS based statistical analysis, which analyzes the injury reduction effectiveness of second-generation and advanced restraint systems compared to earlier restraint systems. Dr. Sequi-Gomez said she plans on attending. Dr. Ferguson suggested that she send a draft of the updated presentation to the BRP members prior to the next meeting of BRP, scheduled for January, 2004.


Tom Carr noted that he and Rob Strassburger had prepared a draft presentation to brief Congress on the progress to date of the BRP. He noted that the presentation was based primarily on the papers and discussions that took place at the first public meeting of the BRP. The Power Point presentation was loaded and Dr. Ferguson conducted a run through. There was agreement that the presentation needed more upfront documentation of the genesis and composition of the BRP as well as the initial decision making process that led to the funding of three additional NASS PSU's. There was a brief discussion of the appropriate timing for the presentation. Don Bischoff opined that it should be sooner rather than later due to the seriousness of the problem being addressed, significant progress made to date, and the level of commitment that was made to Congress by the Alliance. Consensus seemed to be for the meeting to take place as soon as practicable. Dr. Ferguson asked Dr. Durbin to assist her with the presentation believing that the child safety issues being addressed by Dr. Durbin in the CHOPS study are of significant interest to the Congress. Dr. Ferguson asked Dr. Durbin to send her slides suitable for inclusion in the presentation. Dr. Ferguson also asked Dr. Bahouth to send any slides on the CIREN program that may be appropriate for inclusion. Dr. Ferguson asked Tom Carr

to get back to her on who to brief and when. She asked that the date be as soon after the first of the year as possible.

Dr. Ferguson asked Chip Chidester for a status briefing on case collection at the Alliance funded PSU's. Chip ran through a presentation detailing the case collection status and the rates for vehicle inspection and occupant interviews. The total number of cases investigated by the Alliance funded PSU's, as of October 1, 2003, is as follows:

Total Number of Alliance Cases

PSU	2002	2003	Total
P42:	129	109	= 238
P47:	121	70	= 191
P50:	100	79	= 179
Total	350	258	= 608



 NCSA National Center for Statistics and Analysis National Highway Traffic Safety Administration U.S. Department of Transportation

All three PSU's are currently fully staffed, although there was some turnover during the past year. The 2002 NASS CDS file contains 350 Alliance funded cases and 4239 NHTSA funded cases for a total file of 4589 cases. Chip noted that sufficient NASS funding is now available and that he expects that the number of NASS cases will increase in the coming years.

Chip detailed the data acquisition rates for vehicle inspections and occupant interviews at each of the Alliance funded PSU's. The acquisition rates are as follows:

CY2002 Acquisition rates whole system and Alliance teams by PSU


ACQ RATES	VEHICLES	INTERVIEWS
System	77%	74%
P42	51%	46%
P47	69%	70%
P50	67%	59%

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The data showed that the acquisition rates at P42 were substantially lower than at the other two sites and substantially lower than overall NASS averages. The Panel continues to be concerned over the low rates at P42. The problem is that notification time is excessive. Chip said that the NASS Zone Center is continuing to meet personally with the responsible law enforcement agencies to see if the acquisition rates can be improved. Chip noted that the acquisition rates are actually slightly better than the prior PSU's (P42 was previously a NASS PSU when NASS had a larger number of PSU's).

Chip noted that the serious case acquisition rate is substantially higher at the Alliance funded PSUs compared to the NASS PSUs, as seen in the following table:

Selection Rates by Strata				
Alliance vs NASS CDS				
Stratum	(4239)	(350)	(3268)	Alliance (258)
A	94 (2%)	12 (3%)	72 (2%)	13 (5%)
J	298 (7%)	24 (15%)	258 (8%)	17 (7%)
C	340 (8%)	110 (31%)	292 (9%)	86 (33%)
TOTAL	732 (17%)	146 (42%)	622 (19%)	116 (45%)



There was some discussion that even with this higher rate of serious cases that the number of truly serious crashes is still relatively small and it would be nice to increase the number of serious crashes investigated. However, Chip pointed out that we are essentially sampling 100% of the serious crashes at the Alliance funded PSUs.

Dr. Schneider presented: “Overview of Preliminary Alliance-Funded NASS Cases.” Dr. Schneider expressed concern that only 52% of the vehicles are being fully inspected, while 21% receive partial inspections and 27% are not inspected at all. He also noted that only 46% of the case vehicles experience air bag deployment. The numbers presented initiated a discussion as to the accuracy of the reporting; whether these were preliminary numbers prior to Zone Center review. This called to question the status of monthly reporting from the NASS Zone Centers. Tom Carr said that the Zone Centers had reformatted the monthly reports. Tom will put out a yearly update since monthly reports have not been circulated after November, 2002. The monthly reports will then be resumed with the new format. Dr. Ferguson asked Tom Carr to continue to check into the validity of the monthly data.

Dr. Durbin raised the issue of whether the technology in later model vehicles has introduced bias into data collection. This has to do with data collection, not sampling. Has the technology itself caused a change in the data collected as opposed to the effect of technology on injury mitigation? An example might be load limiting belts which might tend to suppress evidence of belt usage. The general consensus seemed to be that such

biases were possible but that it was hoped that the magnitude would not be large. It was agreed that we should continue to be vigilant to the prospect of such biases confounding our results.

Dr. Bahouth said that the University of Miami has a program to access the ORACLE data base of NASS cases. A login and password has been established for BRP members to use the tool. He will get with Chip Chidester to see if this program can be more universally shared with the BRP to supply members with more useful monthly summaries. Dr. Bahouth gave out copies of a print out of what the case summaries look like. The panel seemed to prefer the format to the prior summaries from the Zone Centers. Dr. Bahouth also gave out CD's that contain summaries of all 2002 NASS cases.

Dr. Bahouth reiterated previous individual NASS and CIREN case review that suggests that second generation restraint systems may provide better protection for the driver than right front passengers. There is some limited evidence that the passenger air bags may have been overpowered. Complete and partial ejections, intrusion and multiple impacts appear to have played a role where passenger injury severity exceeds drivers.

Dr. Bahouth reviewed five tables of MAIS3+ injury distributions by seat position for NASS/CDS data from 1999-2002. The tables indicate an increase in risk for passengers versus drivers overall. This relationship holds for both belted and unbelted occupants, although the difference is much greater for unbelted occupants. The ratio is lower however in cases where the air bag deployed.

There was a lengthy discussion of what might be presented at the next public meeting. Chip Chidester suggested that the auto manufacturers may want to discuss the advanced restraint systems that they are using in their new vehicles. Dr. Ferguson asked Tom Carr to check with the manufacturers to see if they would be willing to make such a presentation. Everyone agreed that it would be desirable to have Dr. Sequi-Gomez update her statistical analysis of NASS. Dr. Ferguson asked all panel members to get suggestions for updates and changes that they would like to see in the analysis to Dr. Segui-Gomez. Dr. Ferguson asked Dr. Schneider if he would present an updated summary and analysis of the UMTRI SCI cases. Dr. Ferguson asked Dr. Bahouth to think about a presentation derived from the CIREN program. Dr. Bahouth will check with Dr.'s Augenstein and Digges for suggestions on what might be presented from the CIREN program and UM SCI cases. Dr. Ferguson asked NHTSA to think about what it might contribute with regard to any updated analyses of NASS, FARS and SCI data. Dr. Carra and Chip Chidester said they would check to see what additional analyses ongoing at NHTSA were suitable for presentation at the public meeting.

Don Bischoff asked about a presentation on the status of making EDR readout available to crash investigators since the BRP has repeatedly recognized the importance of EDR readout to assessing the performance of many of the advanced restraint systems. Chip said that the NHTSA hosted Task Force on EDR had been disbanded and that he thought that there was little publicly available data on the subject. Dr. Ferguson asked Tom Carr

to see if the auto industry would be willing to do a presentation on the status of EDR readout for crash research.

Dr. Ferguson ran through a presentation of preliminary IIHS analysis entitled: "Driver Deaths in Frontal Crashes: Comparison of Older and Newer Air Bag Designs." The analysis compares the expected deaths in model year 1998 and 1999 vehicles to model year 1997 vehicles. The rate ratio overall is less than one, indicating a more protective effect for the later model year air bag systems.

There was a discussion of how vehicle occupancy has been changing over time. Of particular concern is whether care givers are continuing to recognize the need to put children in the rear seat of air bag equipped vehicles. Dr. Durbin believes that there is some preliminary evidence that the air bag is beneficial to older children and the recommendations with regard to the upper limit on age may need to be revised at some point. Dr. Ferguson asked Chip to look at the characteristics of vehicle occupancy and how it is changing over time and report back to the BRP.

Chip Chidester noted that NHTSA has been involved in a jointly sponsored research program with Ford Motor Company to study the protective effects of the advanced air bag systems in 2000 and later model year Taurus/Sable vehicles. Chip said that he will investigate the possibility of presenting some of the results from this research program at the public meeting.

There was a discussion of the appropriate time and venue for the next meeting of the BRP. It was agreed that the Panel will need one more meeting to prepare for the public meeting in April, 2004 as per the experience prior to the 2003 public meeting. This meeting is set for January 20th in Miami, Florida. Tom said that panel members need to make their reservations at the hotel by December 19, 2003. Tom Carr asked if the members would like to meet with the Dade County PSU during the meeting. He suggested that the direct interface with the PSU staff has a positive effect in helping them to understand the data needs of the BRP. Tom will check with both the PSU and the University of Miami to see what, if any, visits may prove worthwhile.

Dr. Ferguson entertained a motion to adjourn and it was so moved and unanimously approved by voice vote.