

# INSURANCE INSTITUTE FOR HIGHWAY SAFETY

February 25, 2000

Rosalyn G. Millman, Acting Administrator  
National Highway Traffic Safety Administration  
400 7th Street S.W.  
Washington, D.C. 20590

**Re: Docket No. NHTSA 99-6407; Notice 1**

Dear Ms. Millman:

I am writing in response to the February 20 letter that Clarence Ditlow sent to you. I will answer Ditlow's accusations point by point:

**Ditlow:** "The first indicator that IIHS comments were misleading and inaccurate came when IIHS refused to provide copies of the NASS cases on which it relied."

**Response:** When the Center for Auto Safety (CAS) contacted us for copies of the NASS cases used in the Society of Automotive Engineers (SAE) paper in question, we explained that these cases were available from the NHTSA contractor. We had no obligation to go to the trouble and expense of getting multiple slides duplicated for CAS. However, we did offer to brief CAS and share our conclusions on these cases. We were in the process of setting up a time for such a briefing when CAS canceled, saying they were no longer interested.

**Ditlow:** "The second indicator that IIHS comments were misleading and inaccurate came when IIHS failed to identify the models and years of the nine vehicles."

**Response:** It is true that a list of vehicle make/models was not included in our SAE paper. This was not an attempt to hide anything; we merely thought it was not pertinent to the analysis. There is little to be learned about specific airbag designs in an analysis involving relatively small numbers of vehicles. There simply are too few cases to indicate meaningful differences among vehicle models.

**Ditlow:** "The third indicator that IIHS comments were misleading and inaccurate came when IIHS failed to include 1997 and 1998 NASS data which has been available since June 1998 and June 1999 respectively, well before this paper is to be published by the SAE sometime in 2000 and before IIHS submitted its inaccurate and misleading comments to NHTSA."

**Response:** This statement is wrong. NASS data from 1997 and 1998 still are not available from the contractor that handles the dissemination of the detailed information from NASS cases. More recently NHTSA has begun to make cases available in electronic format, through an experimental website, and at the end of September the Institute was able to access this site after the agency asked if we would help debug this new system. The SAE research paper that CAS claims should have included 1997 and 1998 NASS data was submitted for peer review to SAE on September 2, 1999. This was before the Institute had access to either 1997 or 1998 NASS cases.

**Ditlow:** "In one of the cases, the investigators could not even determine if the driver airbag deployed and concluded the steering wheel caused the death."

Response: In this particular case there was a post-crash fire, and as a result the NASS investigators could not confirm deployment of the airbag. They concluded that the driver's fatal injuries were caused by the steering wheel. The Institute disagrees with this interpretation of the data. The vehicle, a 1993 Chrysler minivan, ran off the road and sideswiped two trees with the right side of the vehicle before striking a large tree just left of the vehicle's front center line, undergoing an estimated delta V of 29 mph. It is highly unlikely that the airbag did not deploy in a direct frontal impact of this severity. Data in the NASS case describe a 12-inch forward displacement of the driver's seatback, which would have moved the driver close to the airbag and made it likely that the deploying airbag contributed to this driver's fatal chest injuries.

This is precisely what the Institute researchers have been doing in this ongoing analysis: very carefully reviewing the detailed reports from each crash, examining the circumstances of the crash, the likely occupant kinematics during the crash, and the resultant injuries. Then we draw what we consider to be the most likely conclusions. In crash investigations it is sometimes not possible to draw definitive conclusions; however, in this particular crash our researchers concluded that the airbag almost certainly did deploy.

**Ditlow:** "Four of the cases did not involve high speed crashes above 23 mph delta V."

**Response:** IIHS does not disagree with this statement. The SAE paper that analyzed these cases presents delta V information for all of the crashes in the study. In five of the nine cases, delta V was estimated to be in excess of 23 mph. Among the other four cases, delta V was 23 mph in one, 16 mph in another, and unknown in the remaining two. We never stated otherwise.

**Ditlow:** "Contrary to IIHS' allegation the 1989-96 NASS database contains only four, not nine, cases where the driver may have been killed by an airbag in a high speed crash."

**Response:** This statement is addressed in our response to the two previous statements. We never stated that all nine airbag-related cases occurred in high-speed crashes. However, as noted above, CAS ignores the vehicle that hit a tree with a 29 mph delta V and subsequently caught fire. This would bring to five the total number of airbag-related fatalities in crashes with delta Vs greater than 23 mph.

**Ditlow:** "All four of these cases involved pre-1993 models which did not have the airbag improvements noted in NHTSA's report on airbag improvements from 1990 to 1998, *Air Bag Technology in Light Passenger Vehicles* (Dec. 16, 1999)."

**Response:** This ignores the fifth case discussed above involving the 1993 Chrysler minivan.

**Ditlow:** "The inescapable conclusion is that IIHS did not include the later data because they include cases of bottomed out airbags that disproved IIHS's representation that NHTSA 'has not provided a single documented case of a real-world frontal crash in which an occupant died because of insufficient protection offered by an airbag.' In particular, the 1998 NASS files contain two such cases of bottomed out airbags that NHTSA researchers have identified - i.e. Case #1998-002-154 involving a 1995 Toyota Avalon and Case #1998-006-147 involving a 1997 Honda Civic."

**Response:** The 1998 NASS file was not made available by NHTSA on the experimental website until late last week. We had been told NHTSA was reviewing a handful of cases from 1998 and 1999 -- purportedly examples of "bottoming out" -- but despite several requests we have not had access to these cases. As recently as last week, we were told we could not review these cases because they were not yet ready for release. Surprisingly these alleged cases of bottoming out were suddenly (and mysteriously) made available to CAS. Before it can be definitively concluded that these are cases of airbags bottoming out, however, it is worth noting that this is not the first time NHTSA has claimed to have identified cases of airbags being bottomed out with resulting fatalities. In 1998 NHTSA claimed to have identified six possible cases. At that time we obtained the cases and conducted our own review, submitting a paper to NHTSA with our conclusions that none of the cases provided evidence of bottoming out. We also suggested in that paper a methodology that could help identify such cases. Multiple copies of the paper were sent to NHTSA staff almost two years ago. We have yet to get any response to our analysis. What is important, however, is that NHTSA no longer claims these cases are examples of airbags being bottomed out. Thus claims of airbags bottoming out cannot be accepted at face value without the opportunity for researchers

outside NHTSA to review the cases. For example, a quick review of the two cases cited by Ditlow raise questions about the alleged conclusions. The Honda Civic case involved a driver with a very high blood alcohol concentration, who also tested positive for other drugs. He veered into the center of the roadway, striking the support post of a bridge at high speed and may have been passed out or slumped over the wheel at the time of impact. More details on this case are necessary before definitive conclusions can be reached. In the other case -- the Toyota Avalon crash -- the driver was belted, which makes the case less relevant to the debate about unbelted protection. Plus the injuries sustained by this driver included amputation of both legs caused by the instrument panel, indicating that intrusion played a major role in the crash. The information on these two crashes released by NHTSA late last week is insufficient to draw definitive conclusions; additional medical details on the fatal injuries are needed. At this time we do not know if NHTSA has such information.

**Ditlow:** "Both IIHS and NHTSA should take note of the comment of IIHS on GM's proposal to change the barrier test speed from 30 mph to 25 mph in 1984."

**Response:** CAS has taken the Institute's 1984 comments completely out of context. I was involved in the preparation of those comments, which responded to a GM proposal to provide unbelted protection with "friendly interiors" -- more padding, etc. -- instead of airbags. Our comments were valid in 1984, but since then the on-the-road experience with millions of airbags has enabled the science-based community to better understand the relationships between crash test speeds, dummy injury criteria, and the performance of airbags in real-world crashes. This is the essence of science-based approaches -- improving conclusions as more data are collected. We can reach different conclusions today in 2000, compared with 1984, because in the intervening 16 years we have gained knowledge: this is something CAS and other advocacy groups apparently have failed to do.

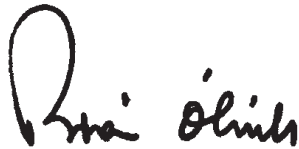
**Ditlow:** "IIHS must have intentionally omitted these data to serve a political agenda of supporting the auto industry in its efforts to weaken FMVSS 208..."

**Response:** I have saved the most preposterous statement until last. This claim libels individual Institute researchers, and Ditlow must be desperate to make such a ridiculous accusation. What on earth would be the motivation for Institute researchers to serve "a political agenda" of the auto industry? The entire history of the Institute speaks otherwise.

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In conclusion, the statements and charges in the Ditlow letter have no merit and should be disregarded.

Sincerely,

A handwritten signature in black ink, appearing to read "Brian O'Neill". The signature is written in a cursive style with a large initial "B" and "O".

Brian O'Neill  
President

cc: NHTSA Docket 99-6407; Notice 1  
Jim Hall, NTSB  
Congressman Frank Wolf