



U.S. Department
of Transportation

National Highway
Traffic Safety
Administration

400 Seventh Street, S.W.
Washington, D.C. 20590

JAN 30 1990

Mr. Raymond R. McHenry
McHenry Consultants, Inc.
103 Brady Court, Suite 200
Cary, NC 27511

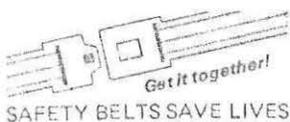
Dear Mr. McHenry:

This letter will confirm our recent telephone discussion concerning the National Highway Traffic Safety Administration (NHTSA) use of CRASH and SMAC. Incidentally, I find these occasional discussions with you and Brian useful and I appreciate drawing on your experience with CRASH.

NHTSA is currently using a PC version of CRASH3 to estimate crash severities for cases on our National Accident Sampling System (NASS) files. NASS is a program to collect data on a large sample of highway crashes and we do this through contractors who employ technician level people. The PC version of CRASH that we use was programmed for the IBM XT under contract. We did this when we moved NASS data entry off a main frame computer in 1984. We know it has limitations (see Carl Nash's SAE Paper 870040, CRASH 3: Current Status, 1987 and our August 1989 response to GM Docket 86-06) but it is simple, inexpensive and well suited to the experience and education level of people we can afford to have collecting NASS data. Although there may be improved versions such as CRASH4 available we plan to continue using our PC version for the indefinite future because we just do not have the resources to make the computer and personnel training changes. We do make copies of this PC version available to the public at cost and we recently decided to also make source code available.

We have always recognized that the SMAC computer program, which was developed for NHTSA in 1972, is more sophisticated and more accurate than the CRASH3 we are using but the relative expense and application complexity make it unsuitable for our purposes. We previously used SMAC on the MCAUTO computer network and it is my understanding that MCAUTO distributed the source code for a number of years.

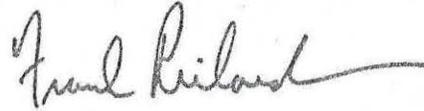
We are frequently contacted by reconstructionists about CRASH and occasionally about SMAC. We may discuss the limitations of our CRASH3 version but, to my knowledge, we never discuss SMAC or take a position on the suitability and accuracy of the SMAC program. The fact that we do not use SMAC is in no way related to a concern with its accuracy for general applications. There has been no change by NHTSA on this matter in the last seven or eight years that I have been involved with crash reconstruction in NASS.



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I hope this factual summary of NHTSA use of CRASH and SMAC will clarify the issue and serve to clear up any possible misunderstandings which you or others may have formed.

Sincerely,

A handwritten signature in cursive script that reads "Frank Richardson". The signature is written in dark ink and has a long, sweeping horizontal line at the end.

Frank Richardson, Chief
Field Operations Branch
Accident Investigation Division
National Center for Statistics
and Analysis