INSURANCE INSTITUTE
FOR HIGHWAY SAFETY

August 18, 2004

The Honorable Jeffrey W. Runge, M.D.
Administrator
National Highway Traffic Safety Administration
400 Seventh Street, S.W
Washington, D.C. 20590

Notice of Proposed Rulemaking; Event Data Recorders
Docket No. NHTSA-2004-18029

Dear Dr. Runge:

The National Highway Traffic Safety Administration (NHTSA) has asked for comments on the Notice of Proposed Rulemaking regarding event data recorders (EDRs). The Insurance Institute for Highway Safety is pleased to see the agency has taken the first steps toward establishing minimum data requirements for EDRs in passenger vehicles.

EDRs have enormous potential to aid researchers and others in, for example, understanding the circumstances of crashes, obtaining more reliable and complete measures of crash severity, and understanding the performance of advanced safety systems. As NHTSA points out, many vehicle manufacturers already incorporate some precrash and crash recording capabilities into their vehicles. However, many of these EDRs are of limited usefulness. Very few of them record the full complement of variables, and few manufacturers provide the information necessary to download the recorded information. Thus, it is important not only for all vehicles to be equipped with EDRs but also for the information they record to be uniform, high quality, and accessible.

In addressing these issues, NHTSA is proposing to require all vehicles with electronic data recording capability to collect a standard, specified set of data elements in a specified format and for a specified period of time (8 seconds before a crash and up to 6 seconds after). However, NHTSA proposes to leave up to manufacturers the choice of *whether* EDRs are installed in vehicles. The agency's rationale is that manufacturers are moving voluntarily toward installing EDRs. An estimated 65-90 percent of all 2004 model vehicles already have recording capabilities.

We strongly agree that NHTSA should require a minimum set of data elements, in a standard form and for sufficient time so that key data are available after crashes. Unless data are standardized across all vehicle makes and models, the data will be of limited usefulness in understanding what happened before and during crashes. However, if

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the goal is for every vehicle in the fleet to be equipped with an EDR the only sensible way to achieve this is to mandate them. It makes sense to do so. Crash recorders mandated in other transportation modes such as aviation, marine, and rail have proved invaluable. NHTSA needs to ensure that investigators trying to understand motor vehicle crashes have similar tools.

The Institute is concerned that standardizing the form of data that are voluntarily recorded, without requiring EDRs, could have the perverse effect of discouraging automakers from installing *any* EDRs in their vehicles. If NHTSA were to require the recording of an extensive number of data elements over a long period of time, but not actually require vehicles to be equipped with EDRs, automakers might view compliance as a burden. This would be especially likely among automakers who currently have EDRs in their vehicles that collect only a limited set of data elements. Then the requirements could stall or even set back progress on EDRs.

In a previous response (Docket No. NHTSA-2002-13546-28) to NHTSA's request for comments on EDRs, the Institute recommended a minimum number of data elements that should be recorded prior to and during a crash. The Institute is pleased to see these elements included in the agency's proposed requirements. Parameters including belt use, throttle and brake positions, vehicle speed, and vehicle accelerations (longitudinal and lateral) are important for investigators to gain a better understanding of the events surrounding a crash. Specifically, the data will promote greater accuracy in determining crash severity, direction of force, and belt use, which are common sources of error in traditional crash reconstruction. At the same time, NHTSA should take care to avoid making data recording overly onerous by including too many additional variables. The Institute is concerned that the added data collection and storage burden in the current proposal could delay or eliminate new safety technologies from newer vehicle models.

For example, the proposal requires vehicles with roll angle measurement capability, antilock brakes, and/or stability control systems to record data for up to 8 seconds before a crash and up to 6 seconds afterward. These safety systems, which currently are being installed by some auto manufacturers as either standard or optional features, can work together to prevent vehicles from rolling over or to prevent occupant ejection in vehicles where rollover sensors are coupled with side curtain airbags. If manufacturers are required to record extensive information on rollover angle, antilock activity, and stability control status, the additional development and installation time and cost may be enough of a burden to cause manufacturers to delay these features in certain vehicle models or, worse, to choose not to make the features available at all.

The agency needs to consider where its proposal may be overreaching. For example, the Institute questions the value of recording roll angle every 100 milliseconds for 1 second before a crash. It should be enough to know the maximum roll angle in a crash event and the roll angle at which antiroll technology was triggered or side airbags deployed.

In summary, the Institute supports NHTSA's efforts to try to ensure that fully functioning EDRs are standard features in passenger vehicles. Our understanding of motor vehicle crashes and the mechanisms of occupant injury could be greatly enhanced by the widespread availability of better information about crash severity and precrash vehicle activity. Current EDRs show it is possible to obtain such information. However, NHTSA must be careful not to make this task so onerous that manufacturers will be reluctant to fit vehicles with crash recorders (if they remain voluntary) or discouraged from fitting vehicles with advanced safety equipment. The Institute strongly believes the only realistic way to achieve the goal of adequate information to better understand crashes is to require manufacturers to install EDRs in all vehicles. This should not be considered voluntary equipment.

Sincerely,

Adrian K. Lund, Ph.D.
Chief Operating Officer

cc: Docket Clerk, Docket No. NHTSA-2004-18029