Automobile EDR data collection by the Government must include safeguards

Chris Warner, Executive Editor

Sometimes it seems that technological developments aimed at automotive safety come along faster than we can take our foot off the accelerator pedal. Just in the past few months, ECN associate editor Kasey Panetta wrote about Automatic Emergency Braking Systems (AEBS) (bit.ly/PcoOAu) and Mercedes' Belt Bag strap (bit.ly/On032z), while Anthony Le of Winbond Electronics has provided an overview of Advanced Driver Assistance System (ADAS) (bit.ly/NU4lSg). And in September I wrote about a research project that tests smart cars' ability to share driving and street data wirelessly (http://bit.ly/PxsRrz).

In December, The U.S. Department of Transportation's National Highway Traffic Safety Administration (NHTSA) announced a proposal that would require automakers to equip all light vehicles with event data recorders (EDRs) that capture information in the moments before and after a wreck similar to the way they are used to study airline crash. According to the NHTSA's announcement, some of the information recorded would include vehicle speed, whether the brake was activated in the moments before a crash, crash forces at the moment of impact, information about the state of the engine throttle, air bag deployment timing and air bag readiness prior to the crash, and whether the vehicle occupant's seat belt was buckled.

In previous columns, I've warned against abuse of data (read: invasion of privacy) and other mechanisms that lead to a police state. As the proposal now stands, there isn't much for privacy advocates to be alarmed about. According to the NHTSA's statement, "the EDR data would be treated by NHTSA as the property of the vehicle owner and would not be used or accessed by the agency without owner consent," and the agency estimates that 96 percent model year 2013 passenger cars already have an EDR.

Unfortunately, EDR data could be obtained for criminal prosecutions or potential lawsuits. Therefore, privacy advocates should be very concerned. It is safe to

assume that the EDRs will continue to evolve, with deeper memory and the ability to gather more data. Indeed, the Associated Press article on the subject, (Black Boxes in Cars Raise Privacy Concerns (URL)), notes that “Engineers have identified more than 80 data points that might be useful,” and the NHTSA itself is considering whether to add 30 additional data points to the collection. That’s a lot of potential information to offer Big Brother and quite a cookie jar for law enforcement and lawyers.

Those that dismiss the “slippery slope” mindset among privacy advocates are already ignoring the plans already mentioned above to expand both the technology and the amount of data the government wants. To be sure, manufacturers can learn from this data, but in an overly litigious society that is also using technology to take human judgment out of law and traffic enforcement, there will likely be a hefty price to pay in unintended consequences. Indeed, the NHTSA’s statement reaches for our emotions (“critical safety information”, “information we need to save more lives.") as officials often do when leading us down on a slippery slope.

Any legislation that stems from this proposal must include language that strictly limits access to EDR data to the NHTSA and auto manufacturers and no one else. Anything less will take us further down that slope, giving history another reason to be unkind to us for our willingness to surrender our privacy. All for some data points.

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I want to take time to thank Jon Titus for all his fine writing for us at ECN. Like everyone else, I enjoyed his columns and learned a lot from them. If you haven’t had the pleasure of working with Jon, he was always willing to share his knowledge with the rest of the staff, both in terms of his vast technical expertise and publishing experience. He never forgot that his readers included not just engineers who have been in the business for years but also newcomers to the field, students and hobbyists – just about everyone seeking to expand the boundaries of their curiosity in electronics. And, he taught us all to write well along the way! I’ve been stopped at trade shows and reminded how lucky I am to work with Jon, and you can bet I’ll pass that reminder along very often. Many, many thanks, Jon!

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