



NTSB/SAE TopTech

Event Data Recorders
Automotive Industry Perspective

Washington DC
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Auto industry is engaged in developing standards related to EDR functionality

- Vehicle Event Data Interface (VEDI) standards committee formed in December, 2002.
- First meeting held Feb. 27th, 2003
- Two sub committees established:
 - Vehicle Output Data Definitions
 - Data Extraction and Interface
- Committee Meetings held each month in Detroit at SAE world headquarters

Scope and Purpose of VEDI committee

- Develop common data output formats and definitions for a variety of data elements that may be used for analyzing vehicle “events,” most notably crashes.
- Specifies common connectors and network communications protocols to facilitate the extraction of such data.
- Intended to govern data element definitions and data extraction methodology as applicable for light-duty (less than 8,500 lbs GVW) Original Equipment applications.
- Facilitate easy and accurate comparison of post-event data after it has been extracted from an on-vehicle recording device or system.

Scope....continued

Vehicle Type	Off-Road								
	Motorcycles								
	Trailers & Non-Powered Vehicles								
	Heavy-Duty								
	Medium Duty								
	Light-Duty	SAE VEDI	SAE VEDI	SAE VEDI					
	Data Definitions (limited set)	Communications Protocol for Data Interface	Hardwire, Physical Connector Standards	Broadened definitions of "Event" Trigger	Expanded Data Definitions	Wireless Data Transfer Standards	A.C.N. Standards	After-Market MVEDRs	
Scope of Standard									

Development of standards is not without technical and management challenges

- On-board communications protocols not standardized....but will be in 2008 when CAN becomes common network backbone
- The “language” spoken over the network, (including message headers and data definitions) is not standardized among various OEMs...and will remain non-standard post 2008
- While methods of detecting and “predicting” a single, frontal crash event are reasonably mature among different OEMs— technologies, strategies and methods for detection of side impact, roll-over and other more complex (multiple) events is less mature....and,
- ...design for safety is a competitive differentiator.

In the near term, EDRs represent a double-edge sword for automotive OEM's

Benefits

- Extremely useful research tool
 - Real world crash simulations
 - SRS design
 - Vehicle design
- Liability benefits?
 - document vehicle performance, (versus driver performance)
 - Overall reduction in litigation costs

Challenges

- Adds cost
- CUSTOMERS WARY
 - Privacy concerns
 - Who controls/owns data
 - “Completeness” of available data... transition to fleet wide coverageand legal/court interpretation of data not yet mature.
- Competitive positioning