Event Data Recorders

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Overview

• Electronic engine control systems
• Data limitations from crash vehicles
• Crash survivability of recorders
• Previous EDR recommendations
Electronic Engine Control Systems

Primary Functions

• Control engine timing
• Control fuel injection
• Coordinate vehicle performance

Secondary functions

• Record diagnostic fault code data
• Record other triggered events
An exemplar of the electronic control module is in the photo and inset photo on the screen. This is a typical location where many heavy vehicle Electronic Control Modules are located.

Crash Survivability
The accident truck electronic control module is in the photo and inset photo.
The electronic control module in the motorcoach was housed in the electronics bay located in the general vicinity of the driver's seat, as highlighted here by the yellow circle.

Crash Survivability
Event Data Recorders

- Provide comprehensive account of collision related events
- Necessary to improve
  - Vehicle compatibility
  - Crashworthiness
  - Occupant protection
EDR Recommendation History

- Crash event recording is required in other modes of transportation
- 1998 - first EDR recommendations issued
- 1999 - recommendations were made concerning requirements and standards for EDRs
Summary

- Without EDRs, critical data remains unavailable
- EDR use would improve analysis of vehicle collisions
- EDR data would advance research in commercial vehicle safety strategies