



National
Transportation
Safety Board

Preserving Data with Crash-Protected Memory Modules

Cassandra Johnson

Crash-Protected Memory Modules

- Lead locomotive equipped with certified crashworthy event recorder memory module
- Located in the locomotive's cab



Crash-Protected Memory Modules

- Event recorder memory module sent to NTSB's Vehicle Recorder laboratory
- Sustained severe heat damage
- Successful download of event recorder data
- Critical information used in the investigation



Lack of Crash-Protected Data

- Forward-facing video recorder
- Not crash protected
- Located near the front of the locomotive cab



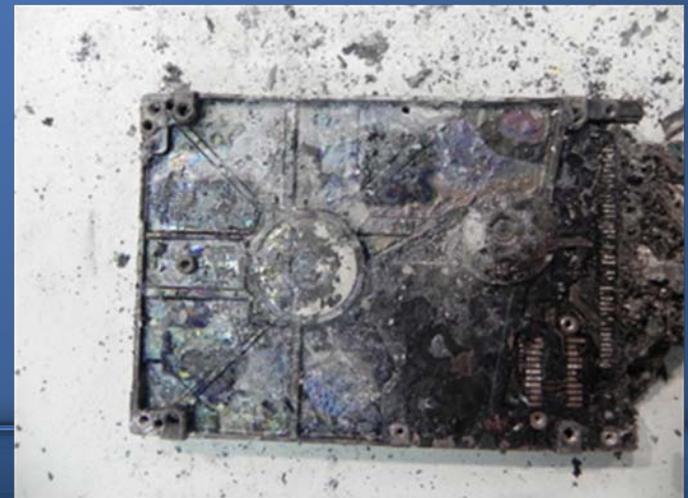
Video Recorder Hard Drive Enclosure
4 (orange case)

Lack of Crash-Protected Data

- Video recorder hard drive sent to NTSB's Vehicle Recorder laboratory
- Severe fire damage
- Video data unrecoverable
- Technology exists to preserve the data
- Data would aid in the investigation



Exterior



Interior



National Transportation Safety Board