



The Importance of Vehicle Airbag Control Module Data at Traffic Incidents

Technical Reconstruction Unit

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Organizational Chart

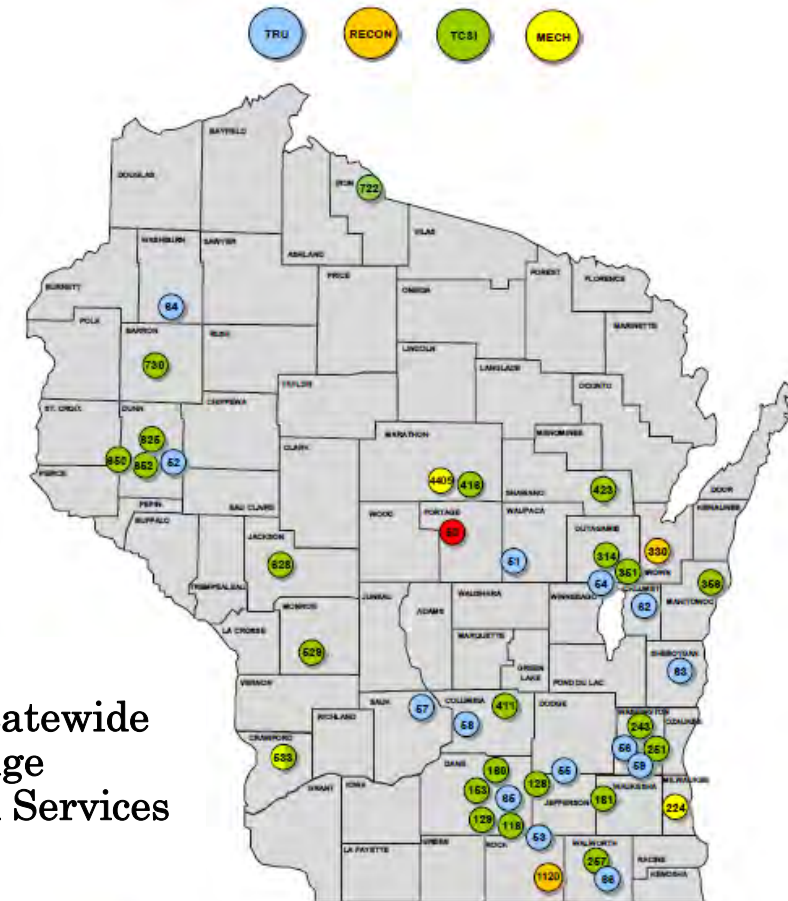


Technical Reconstruction Unit

- Two TRU reconstruction sergeants
- Thirteen TRU reconstruction personnel
- One TRU professional LTE consultant

Regional Support

- Four regional reconstruction personnel
- Two mechanical inspectors
- Twenty-five technical crash scene investigators



Providing Statewide
Coverage
of Specialized Services

Crash Reconstruction



- Comprehensive crash analysis
- Crash data retrieval
- Forensic scene mapping and photography
- Scale diagramming and 3D models
- Investigative services

Crash Data Retrieval

Image over 300 electronic data recorders in automobiles and heavy trucks annually





Crash Data Retrieval

Some of the Data that can ASSIST in the Reconstruction of the crash:

1. Driver and Passenger Seatbelt Status (Some newer vehicles monitor all seats)
2. Passenger Seat Occupancy Status (Occupied/Empty/Driver Identification)
3. Occupant Size Right Front Passenger
4. Longitudinal and Lateral Delta V
5. Up to 5 seconds of data related to Speed, Braking, Engine Throttle % and Accelerator Pedal %.
6. Cruise Control (On/Off)
7. Steering Wheel Angle in Degrees

Airbag Control Module Example



Airbag Control Module Example



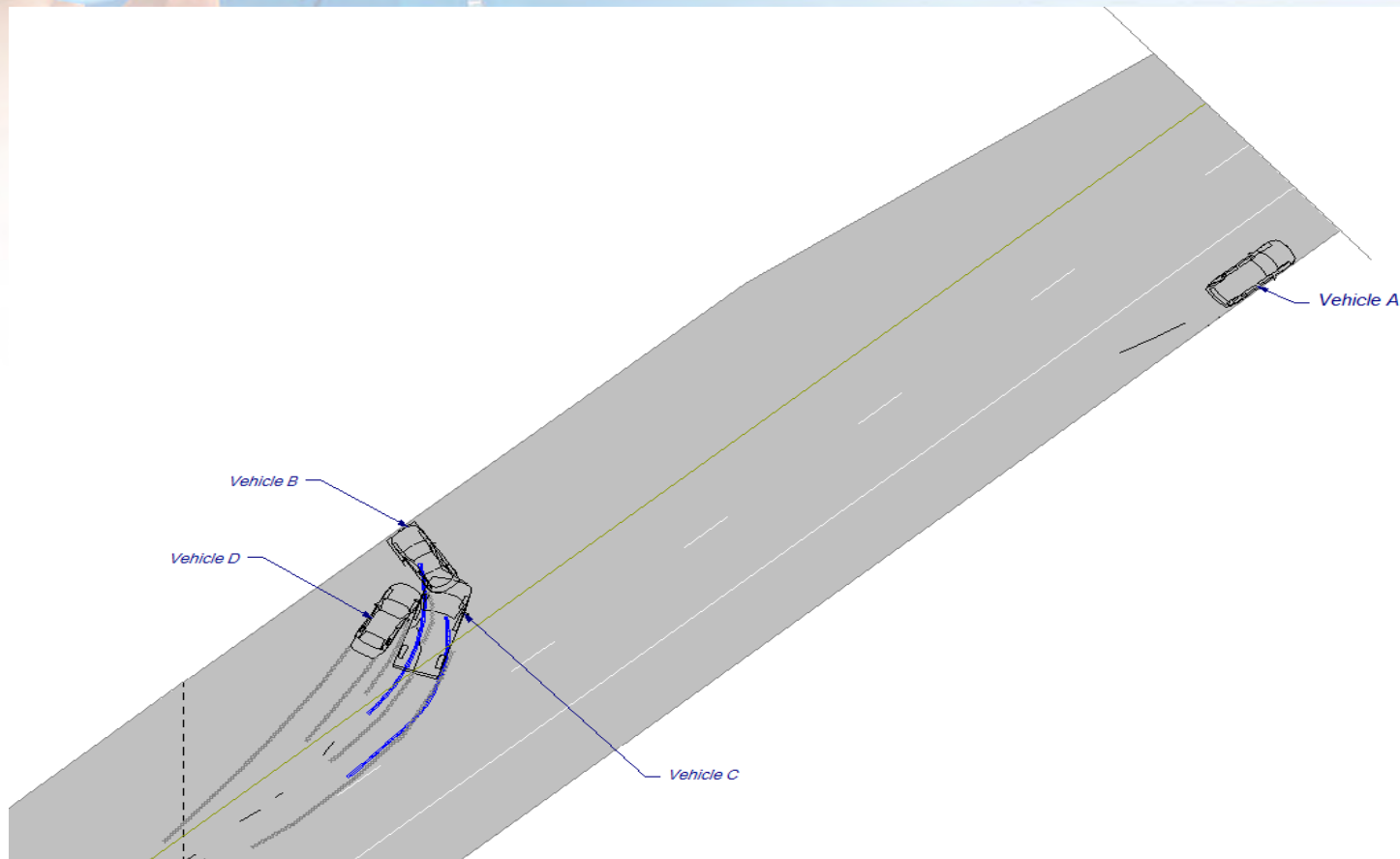
Airbag Control Module Example



Airbag Control Module Example



Airbag Control Module Example



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- A hand holding a glowing blue globe with a city skyline in the background. The globe is illuminated with a bright blue light, and the city skyline is visible in the background, rendered in a light blue color. The overall scene is set against a dark blue background with a grid pattern.
- Vehicle A (Chevrolet) Non-Deployment Event

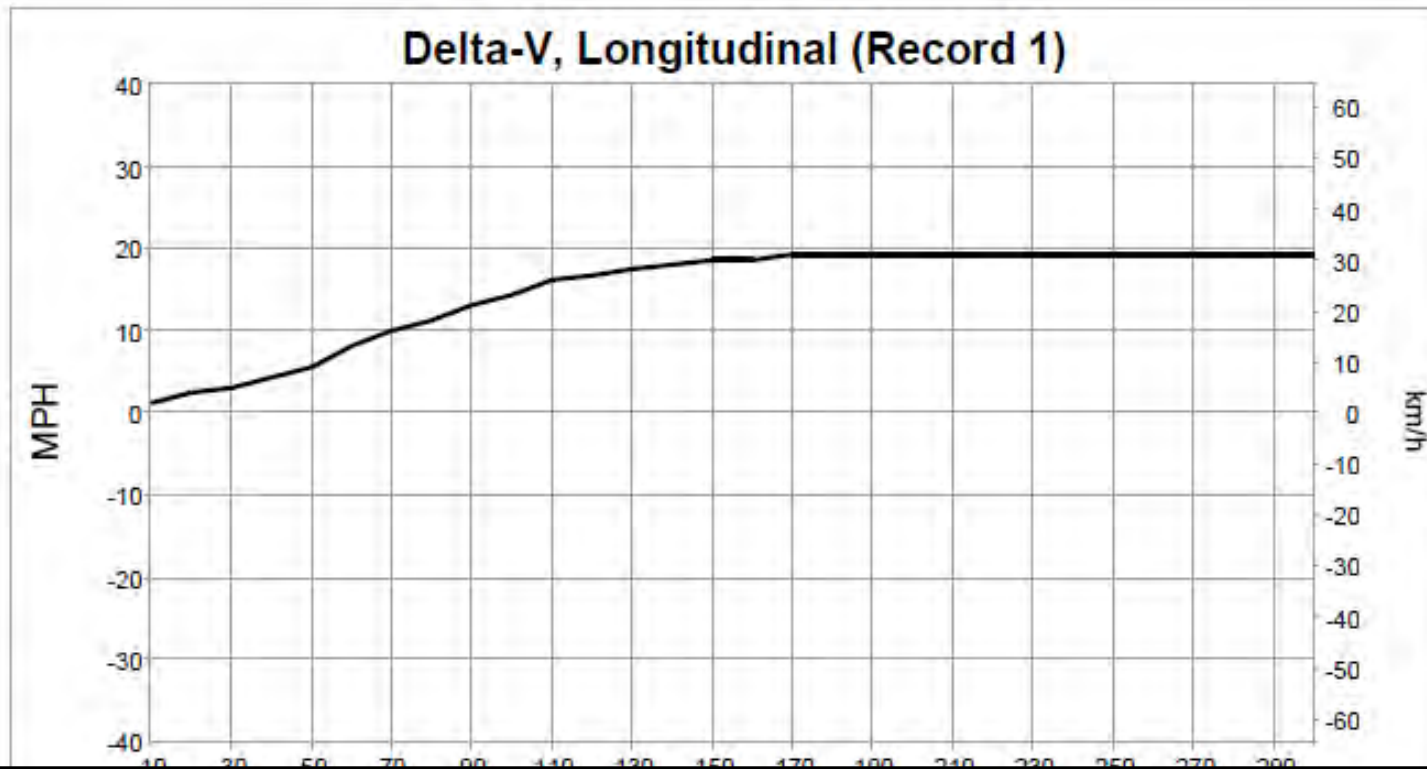


- Vehicle A Event 1

Pre-Crash Data -5.0 to -0.5 sec (Record 1)

Time (sec)	Accelerator Pedal Position, % Full (Accelerator Pedal Position) (%)	Service Brake (Brake Switch Circuit State)	Engine RPM (Engine Speed) (RPM)	Engine Throttle, % Full (Throttle Position) (%)	Speed, Vehicle Indicated (Vehicle Speed) (MPH [km/h])
-5.0	0	On	640	6	7.5 [12]
-4.5	0	On	640	7	6.8 [11]
-4.0	0	On	640	7	5.6 [9]
-3.5	0	On	704	6	4.3 [7]
-3.0	0	On	704	5	3.1 [5]
-2.5	0	On	640	6	2.5 [4]
-2.0	0	Off	640	7	3.1 [5]
-1.5	2	Off	640	6	3.1 [5]
-1.0	6	Off	960	15	3.1 [5]
-0.5	11	Off	1,216	21	4.3 [7]

- Vehicle A Longitudinal Delta V Graph



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- A hand holding a glowing blue globe with a city skyline in the background. The globe is illuminated with a bright light, and the city skyline is visible in the background. The overall scene is set against a blue and white background with a grid pattern.
- Vehicle B (Ford) Deployment Event



- Vehicle B Event 1

Pre-Crash Data -5.0 to -0.5 sec (Event Record 1)

Times (sec)	Accelerator Pedal, % Full (Accelerator Pedal Position)	Service Brake (Brake Switch Circuit State)	Engine RPM (Engine Speed)	Engine Throttle, % Full (Throttle Position)	Speed, Vehicle Indicated (Vehicle Speed) (MPH [km/h])
-5.0	0	On	1152	11	22 [36]
-4.5	0	On	1216	14	19 [30]
-4.0	0	On	1088	12	17 [27]
-3.5	0	On	1152	12	15 [24]
-3.0	0	On	1088	12	13 [21]
-2.5	0	On	1216	13	11 [17]
-2.0	0	On	1152	13	9 [14]
-1.5	0	On	1024	16	7 [11]
-1.0	0	On	1024	16	6 [9]
-0.5	0	On	896	16	3 [5]

- Chevrolet Event 1

- Ford Event 1

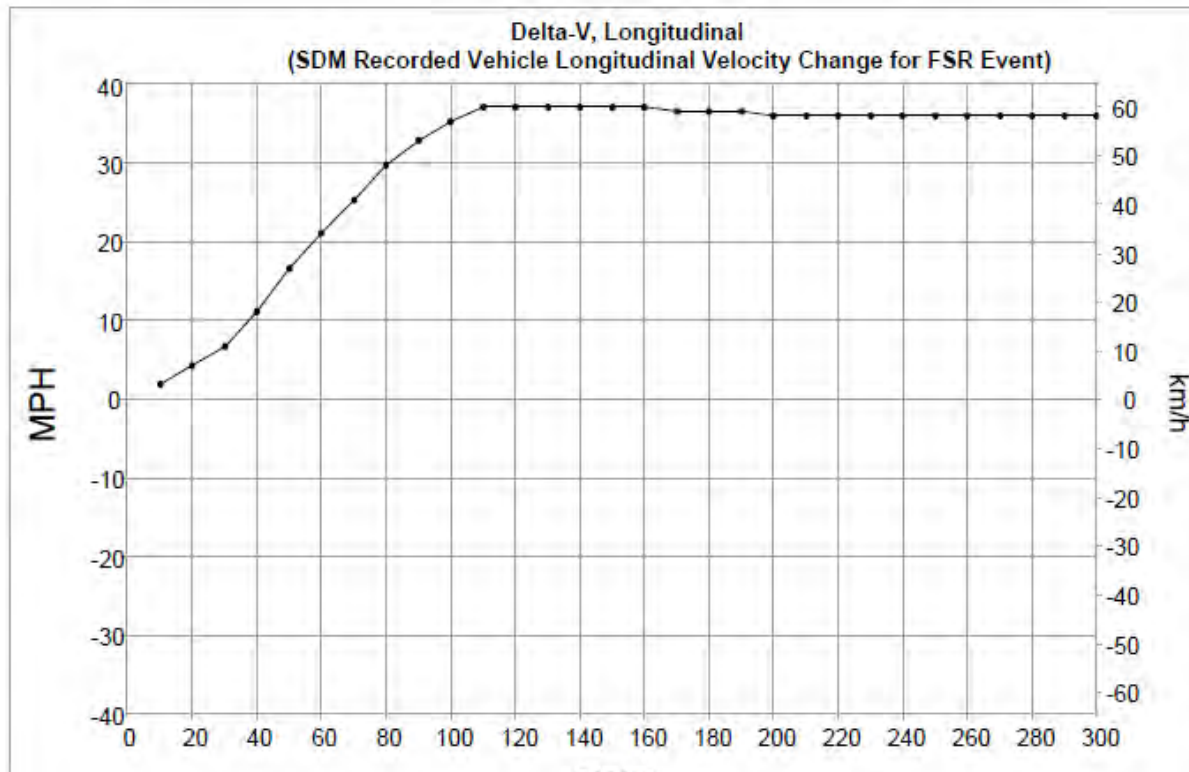
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- Vehicle B Longitudinal Delta V Graph



Contact the Technical Reconstruction Unit

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