

CRASH DATA RESEARCH CENTER

Calspan Corporation
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**CALSPAN ON-SITE CHILD SAFETY SEAT CRASH INVESTIGATION
SCI CASE NO: CA05-038**

**VEHICLE: 1998 CHEVROLET CAVALIER
LOCATION: FLORDIA
CRASH DATE: JUNE, 2005**

Contract No. DTNH22-01-C-17002

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The crash investigation process is an inexact science which requires that physical evidence such as skid marks, vehicular damage measurements, and occupant contact points are coupled with the investigator's expert knowledge and experience of vehicle dynamics and occupant kinematics in order to determine the pre-crash, crash, and post-crash movements of involved vehicles and occupants.

Because each crash is a unique sequence of events, generalized conclusions cannot be made concerning the crashworthiness performance of the involved vehicle(s) or their safety systems.

TECHNICAL REPORT STANDARD TITLE PAGE

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<p><i>15. Supplementary Note</i> An investigation of a side impact crash involving a 1998 Chevrolet Cavalier.</p>			
<p><i>16. Abstract</i></p> <p>This investigation focused on the crash dynamics and fatal injury mechanisms of a 20 month old female seated in a Cosco Touriva convertible Child Safety Seat (CSS) restrained in the rear left position of a 1998 Chevrolet Cavalier. The Chevrolet was involved in a left side impact crash with a 2005 Suzuki GSX 1300 R Hayabusa motorcycle. The 26 year old female driver of the Chevrolet pulled out from a parking lot directly into the path of the motorcycle precipitating the crash. The impact of the motorcycle into the left rear door area of the Chevrolet resulted in a 47 cm (18.5 in) of door panel intrusion. The child was seated at the point of impact and sustained fatal head injuries. She was life-flighted to a trauma center and pronounced deceased. The driver of the Chevrolet was not injured. The motorcyclist sustained unidentified minor injuries in the event.</p> <p>This fatal crash was identified through an internet news search conducted by the Crash Investigation Division of the National Highway Traffic Safety Administration on June 8, 2005. The Calspan Special Crash Investigations team initiated follow-up investigation and established cooperation with the investigating police department. The Child Safety Seat and the vehicles were impounded pending the conclusion of the criminal aspect of the investigation and were available for inspection. The on-site portion of the investigation took place June 22, 2005.</p>			
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**CALSPAN ON-SITE CHILD SAFETY SEAT/CHILD FATALITY
CRASH INVESTIGATION
SCI CASE NO: CA05-038**

**VEHICLE: 1998 CHEVROLET CAVALIER
LOCATION: FLORDIA
CRASH DATE: JUNE, 2005**

BACKGROUND

This investigation focused on the crash dynamics and fatal injury mechanisms of a 20 month old female seated in a Cosco Touriva convertible Child Safety Seat (CSS) restrained in the rear left position of a 1998 Chevrolet Cavalier. The Chevrolet was involved in a left side impact crash with a 2005 Suzuki GSX 1300 R Hayabusa motorcycle. **Figure 1** is a view depicting the vehicles in the approximate impact configuration. The 26 year old female driver of the Chevrolet pulled out from a parking lot directly into the path of the motorcycle precipitating the crash. The impact of the motorcycle into the left rear door area of the Chevrolet resulted in a 47 cm (18.5 in) of door panel intrusion. The child was seated at the point of impact and sustained fatal head injuries. She was life-flighted to a Level 1 pediatric trauma center and pronounced deceased. The driver of the Chevrolet was not injured. The motorcyclist sustained unidentified minor injuries in the event.



Figure 1: Left side view of the Chevrolet Cavalier and the impacting Suzuki motorcycle.

This fatal crash was identified through an internet news search conducted by the Crash Investigation Division of the National Highway Traffic Safety Administration on June 8, 2005. The Calspan Special Crash Investigations team initiated a follow-up investigation and established cooperation with the investigating police department. The Child Safety Seat and the vehicles were impounded pending the conclusion of the criminal aspect of the investigation and were available for inspection. The on-site portion of the investigation took place June 22, 2005.

SUMMARY

Crash Site

This two-vehicle crash occurred during the nighttime hours of June, 2005. At the time of the crash, it was dark and the weather was not a factor. The suburban setting was illuminated by artificial overhead street lamps. The crash occurred on a six-lane east/west road at the entrance/exit of a parking lot. The parking lot was located on the north side of the road. The primary road was configured with four westbound lanes and two eastbound lanes that were separated by a 15 cm (6 in) raised concrete median. There was a break in the center median to allow cross traffic access to the parking lot. The inboard and outboard westbound lanes were designated left and right turn lanes, respectively. The central two westbound lanes were for

through traffic. There were no obstructions located in the southeast intersection quadrant that would have affected the Chevrolet driver's visibility to the on-coming westbound traffic. There was a four-leg signalized intersection located several hundred meters east of the crash site. **Figure 2** is a northeasterly overall view of the crash site. **Figure 3** is a southeasterly trajectory view from the parking lot exit.



Figure 2: Northeasterly view of the crash site.



Figure 3: Southeasterly trajectory view from the parking lot exit.

VEHICLE DATA

1998 Chevrolet Cavalier

The 1998 Chevrolet Cavalier, four door sedan, **Figure 4**, was identified by the Vehicle Identification Number (VIN): 1G1JF524XW7 (production sequence deleted). The vehicle's power train consisted of a 2.2 liter/I-4 engine linked to a 4-speed automatic transmission. The service brakes were a front disc/rear drum system with ABS. The vehicle seating consisted of front bucket seats and a three passenger rear bench. The manual restraint system consisted of 3-point lap and shoulder belts for the four outboard seat positions and a center rear lap belt. The Chevrolet was also equipped with a frontal air bag system that



Figure 4: Left side view of the Cavalier.

consisted of redesigned driver and front right passenger air bags. The frontal air bags were not commanded to deploy. The vehicle was equipped with an Event Data Recorder (EDR) capable of recording data related to the crash. The EDR was downloaded at the time of the SCI inspection through the use of the Vetronix Crash Data Retrieval tool. A non-deployment event was recovered. The vehicle was manufactured in March 1998. The odometer had recorded 292,297 km (181,625 miles).

2005 Suzuki GSX 1300 R Hayabusa

The 2005 Suzuki GSX1300R was identified by the Vehicle Identification Number (VIN): JS1GW71A652 (production sequence deleted). The motorcycle was equipped with a liquid-cooled 1.3 liter four-cylinder engine linked to six-speed transmission. The brake system was a front and rear disc system. The undamaged overall length of the motorcycle was 214 cm (84.3 in). The undamaged wheelbase measurement was 149 cm (58.5 in). The dry weight of the motorcycle was 218 kg (480 lb). The Gross Vehicle Weight Rating (GVWR) was 430 kg (938 lb). The motorcycle was manufactured in October 2004. The odometer reading was unknown.

Figure 5 is a left side view of the motorcycle. The motorcycle sustained moderate damage to its front wheel assembly, front suspension/fork and the front fairings. The deformed wheelbase measured 132 cm (52 in). The 32 year old male driver of the motorcycle was wearing a full-face Shoei helmet, **Figure 6**, at the time of the crash. The left aspect of the helmet's chin guard fractured due to contact with the left roof rail during the impact. The helmet's face shield remained intact.



Figure 5: Left side view of the Suzuki.



Figure 6: View of the fractured helmet...

CRASH SEQUENCE

Pre-Crash

The 2005 Suzuki motorcycle was westbound driven by a 32 year old male. The motorcycle was stopped at an intersection located several hundred meters east of the crash site in the inboard westbound lane. When the traffic signal cycled to green, the motorcycle accelerated away from the intersection. The 1998 Chevrolet Cavalier was driven by an unrestrained 26 year old female. The driver's 20 month old daughter was restrained in a Cosco Touriva convertible Child Safety Seat (CSS) in the vehicle's rear left position. The female driver had become lost and had entered the parking lot on the north side of the road to turn around. It was the Chevrolet driver's intension to turn left out of the parking lot to travel east. The Chevrolet was southbound and exited from the parking lot directly into the path of the motorcycle.

The motorcycle applied the brakes in a response to the encroaching vehicle. The motorcycle's braking was evidenced by two in-line skid marks attributed to its locked front tire. The marks

measured 18.3 m (60 ft) and 11.9m (39 ft), respectively, and were separated by a 4.9 m (16 ft) gap. The gap in the skid marks indicated the motorcyclist released and then reapplied the brakes. The end of the west skid identified the point of impact. **Figure 7** is a motorcycle trajectory view of the west skid mark and the point of impact. A schematic of the crash is attached to the end of this report as **Figure 17**.



Figure 7: Trajectory view of the motorcycle and the west skid leading to the point of impact.

Crash

The Suzuki motorcycle impacted the left rear door of the Chevrolet in a T-configuration impact. **Figure 8** is a depiction of the vehicles at impact. The direction of force were in the 9/12 o'clock sectors for the Chevrolet and Suzuki respectively. The force of the impact rearward of the Chevrolet's center of gravity resulted in a counterclockwise (CCW) rotation of the vehicles during their engagement. The Chevrolet rotated approximately 330 degrees CCW and was displaced approximately 5.5 m (18 ft) to the southwest. The Suzuki and the motorcyclist separated from the Chevrolet as it neared the completion of its rotation. The Suzuki and motorcyclist came to rest approximately 9.1 m (30 ft) west of the impact. The Chevrolet came to momentary rest in the center of the road at the completion of its rotation and then rolled to its documented final rest location in the outboard westbound lane facing northward. The total delta V of the Chevrolet calculated by the Barrier Algorithm of the WINSMASH model was 37 km/h (23.0 mph). The longitudinal and lateral components of the delta V were -7 km/h (-4.3 mph) and 37 km/h (23.0 mph), respectively.



Figure 8: View of the impact configuration.

Post-Crash

The force of the impact resulted in 47 cm (18.5 in) of intrusion into the left rear seating area of the Chevrolet. The CSS was positioned in the crush zone and was directly contacted by the intruding door panel. The child was found restrained within the CSS post-crash and she was unresponsive.

A first responder reported to the police investigator that the CSS was installed in a forward-facing mode with the vehicle's 3-point lap and shoulder belt routed through the forward-facing belt path. The restraint webbing was cut in order to remove the child from the vehicle while still restrained by the CSS. The child was then removed from the CSS by the EMS personnel and life-flighted to a Level 1 pediatric trauma center. She was pronounced dead at the hospital. The child sustained fatal brain trauma as a result of her contact with the intruded door panel. The driver of the Chevrolet was not injured in the crash. The motorcyclist was transported to a local hospital with unknown minor injuries.

1998 CHEVROLET CAVALIER

Exterior Damage

The left side plane of the Chevrolet sustained 68 cm (26.8 in) of direct contact damage as a result of the impact. The direct contact began 116 cm (45.5 in) forward of the left rear axle on the aft aspect of the left front door. The direct contact ended 47 cm (18.7 in) forward of the left rear axle on the aft aspect of the left rear door. Blue paint transfers from the motorcycle were noted within the region of direct contact. The combined width of the direct and induced damage measured 213 cm (84 in). The induced damage began 202 cm (79.7 in) forward of the left rear axle and ended 11 cm (4.3 in) rearward of the left rear axle. The residual crush profile at the mid-door elevation was as follows: C1 = 0, C2 = 19 cm (7.5 in), C3 = 58 cm (22.8 in), C4 = 34 cm (13.4 in), C5 = 9 cm (3.5 in), C6 = 0. The maximum crush was located 74 cm (29.3 in) forward of the left rear axle at the C3 crush measurement. The lateral deformation of the left roof rail measured 33 cm (13 in) at the left B-pillar location. The left wheelbase dimension was reduced 12 cm (4.8 in). The right wheelbase was unchanged. The Collision Deformation Classification (CDC) of the damaged vehicle was 09-LPAW4. **Figure 9** is a view of the left side damage.



Figure 9: View of the left side damage.

Interior Damage

The interior damage to the Chevrolet consisted of the severe intrusion of the left side structures. Inspection of the interior did not reveal any direct evidence of occupant interior contact.

Figures 10 and 11 are views looking forward through the backlight depicting the front row and second intrusion, respectively. The residual left B-pillar intrusion measured 47 cm (18.5 in). The post-crash lateral distance from the left D-ring to the right D-ring measured 69 cm (27 in). The driver seat was displaced and rotated to the right by the intruding left side. The inboard aspect of the driver seat was in contact with the front right seat. The intrusion of the forward aspect of the left rear door panel measured 46 cm (18 in). This intrusion was measured 18 cm (7 in) forward of the leading edge of the rear seat cushion. The intrusion of the aft aspect of the left rear door (along the rear seat back) measured 19 cm (7.5 in). The painted C-rod in **Figure 11** was representative of the approximate center line of the vehicle.



Figure 10: View through the backlight of the extent of the intrusion.



Figure 11: View through the backlight into the rear seat.

Manual Restraint System

The manual restraint system in the 1998 Chevrolet Cavalier consisted of 3-point lap and shoulder belts in the four outboard positions and a center rear lap belt. The driver's 3-point restraint consisted of a continuous loop webbing, sliding latch plate, an adjustable D-ring and an Emergency Locking Retractor (ELR) located in the base of the B-pillar. The post-crash inspection of the driver's restraint revealed that the webbing was stowed in its retractor and trapped between the intruded left B-pillar and the outboard aspect of the driver's seat. The retractor was locked due to the deformation and the webbing was restricted. The driver restraint was not in use at the time of the crash.

The manual restraint in the left rear position consisted of a continuous loop webbing, light weight locking latch plate and an ELR retractor located in the upper C-pillar. The webbing was cut by the first responders in order to remove the child and child safety seat. The webbing was cut 128 cm (50.5 in) above its exit from the seat cushion. The balance of the webbing had spooled back into the retractor. No loading evidence was observed on the webbing. The latch plate was buckled in the receiver upon initial examination. The plastic hardware that comprised

the latch plates light weight locking mechanism was fractured and missing, **Figure 12**. The light weight locking hardware likely fractured due to loading from the child safety seat as it was displaced laterally by the intruding door.



Figure 12: View of the left rear latch plate and receiver.

Air Bag System

The frontal air bag system in the 1998 Chevrolet Cavalier consisted of redesigned driver and front right passenger bags. The air bags were not commanded to deploy in the side impact crash. The system was controlled and monitored by a single-point Sensing and Diagnostic Module (SDM) that was located under the front right seat. The SDM had Event Data Recording (EDR) capability. The SDM was not capable of recording pre-crash vehicle system data (i.e. Speed, RPM, Throttle Position, and Brake Circuit Status). The crash event data was downloaded through the diagnostic port located under the instrument panel via the Vetronix Crash Data Retrieval tool and software version 2.00. The complete EDR report is attached to the end of this narrative report.

The SDM had Event Data Recording (EDR) capability. The SDM was not capable of recording pre-crash vehicle system data (i.e. Speed, RPM, Throttle Position, and Brake Circuit Status). The crash event data was downloaded through the diagnostic port located under the instrument panel via the Vetronix Crash Data Retrieval tool and software version 2.00. The complete EDR report is attached to the end of this narrative report.

The EDR recorded a non-deployment event that was related to this side impact crash. The event was recorded on ignition cycle 25014. At the time of the event, the air bag warning lamp in the instrument cluster was “Off”. The driver’s seat belt circuit status was “Unbuckled”. The maximum recorded velocity change (delta V) -1.1 km/h (-0.66 mph).

CHILD SAFETY SEAT

The 20 month old female was restrained by the internal harness of a Cosco Touriva convertible Child Safety Seat (CSS) restrained in a forward-facing mode in the rear left position of the Chevrolet. **Figure 13** is a front view of the CSS. The seat was identified by Model No: 22-110-WAL and Serial No: T01B134613 and was manufactured on June 29, 2004. The CSS was labeled for use in a rear-facing mode by a child less than 1 year of age with a weight of 2.3 kg to 16 kg (5 lb to 35 lb) and a height 48 cm to 91 cm (19 in to 36 in). The CSS was to be used in a forward-facing mode by a child over 1 year of age. The child’s weight and height requirements for forward-facing use were 9 kg to 18 kg (20 lb to 40 lb) and 73 to 102 cm (29 in to 40 in). The seat’s instruction manual was not present.



Figure 13: Front view of the CSS.

The internal 5-point harness was adjusted to the middle slots. There was no crash related evidence identified on the harness straps. The chest clip was

present and was located 30 cm (12 in) below the slots. The CSS was equipped with the Lower Anchors and Tethers for CHildren (LATCH) system. This system was not in use during the crash. Inspection of the CSS with the padding removed revealed fractures of the left forward and center aspects of the plastic shell. The black plastic shell was highly stressed evidenced by the “whited” plastic regions. The fractures and related stresses were directly related to contact from the intruding left rear door at impact. Refer to **Figures 14 and 15**. Minor abrasions were noted to the outboard edges of the forward-facing belt path. The CSS could not be repositioned into the vehicle’s left rear seat due to the magnitude of the intrusion. The label indicated the rear foot was to be extended while the CSS was used in the forward-facing mode. The foot was in the retracted position at the time of the inspection, **Figure 16**. It was not known if the position of the foot was altered by post-crash handling of the CSS.



Figure 14: Front view of the fractured CSS.



Figure 15: View of the fractured shell.



Figure 16: Left side view of the CSS.

OCCUPANT DEMOGRAPHICS
1998 Chevrolet Cavalier

	<i>Driver</i>	<i>Rear Left Child Passenger</i>
Age/Sex:	26 year old / Female	20 month old / Female
Height:	Unknown	79 cm (31 in)
Weight:	Unknown	11 kg (25.3 lb)
Seat Position:	Mid track	Not adjustable
Manual Restraint Use:	None	CSS in a forward facing mode
Usage Source:	SCI inspection	SCI inspection
Medical Treatment:	Not injured	Fatal

DRIVER INJURY

The driver was not injured in the crash.

DRIVER KINEMATICS

The 26 year old female driver of the Chevrolet was seated in a mid-track position in an upright posture. She was unrestrained. During the course of her travels, the driver reportedly had become lost and turned into the parking lot in order to turn around and travel in the opposite direction. The driver accelerated out of the parking in a southerly direction directly across the path of the westbound motorcycle. It was the driver's intension to turn left and travel east on the road.

Upon impact, the driver initiated a left trajectory in response to the 9 o'clock direction of the impact force. The driver loaded the door panel with her left flank. The driver rode down the force of impact by her continued contact with the door panel as it intruded laterally. The driver then rebounded from the panel with a right ward trajectory. She was not injured in the event and came to rest within the left front of the vehicle.

CHILD PASSENGER INJURIES

<i>Injury</i>	<i>Injury Severity (AIS 98 Update)</i>	<i>Injury Source</i>
Intra-ventricular hemorrhage	Severe (140678.4,9)	Left rear door panel intrusion
Subarachnoid hemorrhage	Serious (140684.3,9)	Left rear door panel intrusion
Diffuse cerebral edema	Serious (140660.3,9)	Left rear door panel intrusion
Large abrasion and ecchymosis of the anterior forehead	Minor (290202.1,7) (290402.1,7)	Left rear door panel intrusion
Ecchymosis of the frontal subgaleal area and Ecchymosis of the left parietal area	Minor (190402.1,0)	Left rear door panel intrusion

<i>Injury</i>	<i>Injury Severity (AIS 98 Update)</i>	<i>Injury Source</i>
Ecchymosis of the medial thighs, bilateral	Minor (890402.1,3)	Self inflicted
Ecchymosis of the dorsal left thigh	Minor (890402.1,2)	Child safety seat

CHILD PASSENGER KINEMATICS

The 20 month old female was restrained by the five-point harness of the CSS in the left rear position. Upon impact, the child initiated a leftward trajectory in response to the 9 o'clock direction of the impact force and loaded the left aspect of the CSS shell. Contusions were noted to the dorsal left thigh and the medial aspects of the thighs bilaterally as a result of the loading. The force of the impact caused the left side structure of the Chevrolet to intrude laterally. The intruding left rear door contacted and fractured the CSS. The force of this contact resulted in the identified head and brain injuries. The dorsal left thigh sustained a contusion from contact with the CSS shell. The medial aspects of the bilateral thighs were contused by thigh-to-thigh contact. The child came to rest within the CSS shell and was unresponsive. She was transported to a regional trauma center where she was pronounced deceased.

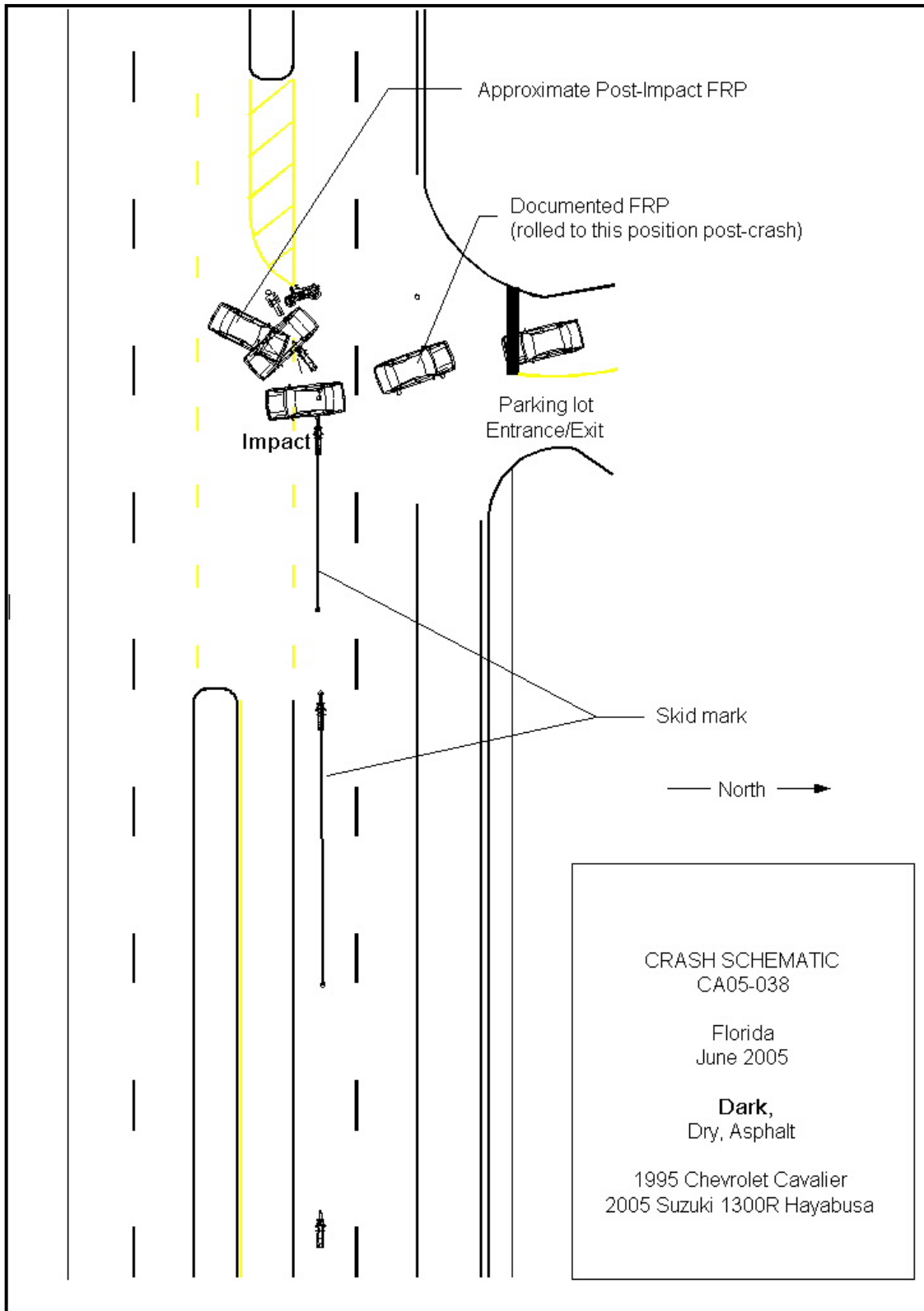


Figure 17: Crash Schematic.

ATTACHMENT A

EDR Data

CDR File Information

Vehicle Identification Number	1G1JF524XW7xxxxxx
Investigator	
Case Number	
Investigation Date	6/22/05
Crash Date	6/7/05
Filename	CA05-038.CDR
Saved on	6/22/2005 2:03:59 PM
Data check information	CBA5A997
Collected with CDR version	Crash Data Retrieval Tool 2.00
Collecting program verification number	A31D1C76
Reported with CDR version	Crash Data Retrieval Tool 2.70
Reporting program verification number	70812808
Interface used to collected data	Block number: 00 Interface version: 35 Date: 01-02-03 Checksum: 6200
Event(s) recovered	Non-Deployment

SDM Data Limitations

SDM Recorded Crash Events:

There are two types of SDM recorded crash events. The first is the Non-Deployment Event. A Non-Deployment Event is an event severe enough to "wake up" the sensing algorithm but not severe enough to deploy the air bag(s). The SDM can store up to one Non-Deployment Event. This event can be overwritten by an event that has a greater SDM recorded forward velocity change. This event will be cleared by the SDM after the ignition has been cycled 250 times.

The second type of SDM recorded crash event is the Deployment Event. The SDM can store up to two different Deployment Events, if they occur within five seconds of one another. Deployment events cannot be overwritten or cleared from the SDM. Once the SDM has deployed the air bag, the SDM must be replaced.

The data in the non-deployment file will be locked after a deployment, if the non-deployment occurred within 5 seconds before the deployment or a deployment level event occurs within 5 seconds after the deployment.

SDM Data Limitations:

-SDM Recorded Vehicle Forward Velocity Change reflects the change in forward velocity that the sensing system experienced during the recorded portion of the event. SDM Recorded Vehicle Forward Velocity Change is the change in velocity during the recording time and is not the speed the vehicle was traveling before the event, and is also not the Barrier Equivalent Velocity. This data should be examined in conjunction with other available physical evidence from the vehicle and scene when assessing occupant or vehicle forward velocity change. The SDM records the first 300 milliseconds of Vehicle Forward Velocity Change after Algorithm Enable. The maximum value that can be recorded for Vehicle Forward Velocity Change is 56 MPH.

-Driver's Belt Switch Circuit Status indicates the status of the driver's seat belt switch circuit.

-The Time between Non-Deployment and Deployment Events is displayed in seconds. If the time between the two events is greater than five seconds, "N/A" is displayed in place of the time.

-If power to the SDM is lost during a crash event, all or part of the crash record may not be recorded. An indication of a loss of power would be if the ignition cycles at Deployment or Non-Deployment is recorded as zero. Data recorded after that may not be reliable, such as Time Between Non-Deployment and Deployment Events, Driver Belt Switch Circuit Status, and Passenger SIR Suppression Switch Circuit Status.

SDM Data Source:

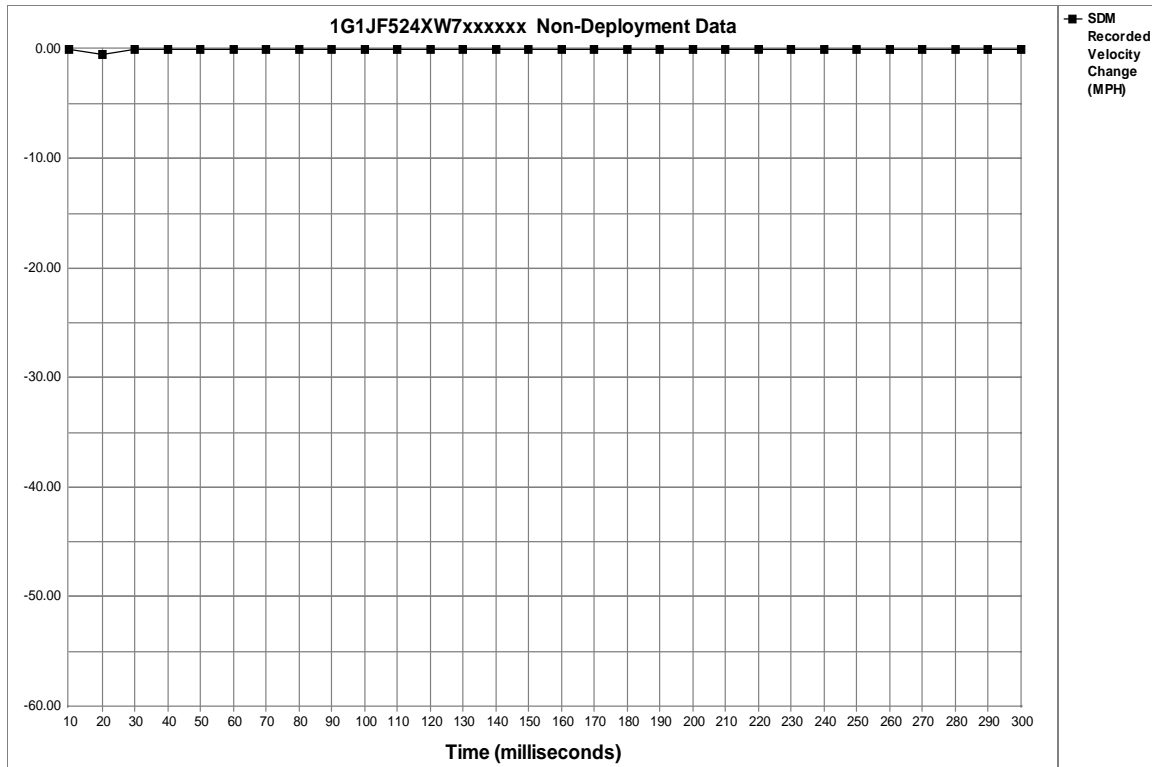
All SDM recorded data is measured, calculated, and stored internally, except for the following:

-The Driver's Belt Switch Circuit is wired directly to the SDM.

-The Passenger Front Air Bag Suppression Switch Circuit is wired directly to the SDM.

System Status At Non-Deployment

SIR Warning Lamp Status	OFF
Driver's Belt Switch Circuit Status	UNBUCKLED
Passenger Front Air Bag Suppression Switch Circuit Status	Air Bag Not Suppressed
Ignition Cycles At Non-Deployment	25014
Ignition Cycles At Investigation	25022
Algorithm Enable to Maximum SDM Recorded Velocity Change (msec)	22.5
Maximum SDM Recorded Velocity Change (MPH)	-0.66
A Deployment was Commanded Prior to this Event	No



Time (milliseconds)	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150
Recorded Velocity Change (MPH)	0.00	-0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Time (milliseconds)	160	170	180	190	200	210	220	230	240	250	260	270	280	290	300
Recorded Velocity Change (MPH)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Hexadecimal Data

This page displays all the data retrieved from the air bag module.
It contains data that is not converted by this program.

```
B600: 00 00 00 00 00 00 00 00
B608: 00 00 00 AA 00 00 00 00
B610: 00 00 00 AA 00 64 F9 F9
B618: F9 F9 16 F9 F9 F9 FF AA
B620: AA AA AA 00 00 00 00 00
B628: 00 00 00 00 00 00 00 00
B630: 00 00 00 00 00 00 00 00
B638: 00 00 00 00 00 00 00 00
B640: 00 00 00 00 00 00 00 00
B648: 00 00 00 00 00 00 00 00
B650: 00 00 00 00 00 00 00 AA
B658: 00 00 7D 00 00 00 12 03
B660: 00 02 00 00 00 00 00 00
B668: 00 00 00 00 00 00 00 00
B670: 00 00 00 00 00 00 00 00
B678: 00 00 00 00 00 00 61 B6
B680: 00 00 00 55 AA AA AA AA
B688: 00 00 00 00 7D FA 00 00
B690: 7D FA 00 00 7D FA 00 00
B698: 7D FA 00 00 7D FA 00 00
B6A0: 7D FA 00 00 00 00 00 00
B6A8: 7D FA 00 00 00 00 00 00
B6B0: 00 00 00 00 00 00 00 00
B6B8: 00 00 00 00 00 92 6E C6
B6C0: 34 4E 1A 01 00 64 02 00
B6C8: 00 00 00 00 00 00 01 01
B6D0: BE AD AE CD B7 CC BE AC
B6D8: 7A 76 B4 87 F7 90 00 00
B6E0: 00 00 45 4C 00 00 02 4A
B6E8: 02 AA 00 00 00 00 00 00
B6F0: 28 08 F0 05 50 04 0E 2A
B6F8: 64 FF FF FF FF 37 41 4A
B700: 4C 57 5A 67 6B 6E 6F 6F
B708: 6F 78 7A 81 83 83 83 84
B710: 89 8E 92 93 93 93 93 98
B718: A3 AF B8 C4 CE D7 DF E9
B720: F1 FE 42 44 47 49 4B 4D
B728: 4F 51 53 55 56 58 59 5B
B730: 5C 5E 5F 60 62 63 64 65
B738: 66 66 67 68 68 68 68 69
B740: 6B 6B 6B 6C 6C 6C 6C 6D
B748: 6D 6E 6E 6E 6E 6F 6F 6F
B750: 6F 6F 70 70 70 70 70 70
B758: 70 70 70 70 70 00 6C 00
B760: E0 0A 24 3C 20 12 15 06
B768: 0A AA 01 4C 4D FF FF FF
B770: FF 37 3C 44 47 52 54 60
B778: 64 67 68 68 68 70 74 77
B780: 78 78 78 79 80 83 86 87
B788: 87 87 87 87 87 87 87 87
B790: 87 87 87 87 87 87 87 87
B798: 87 87 87 87 87 87 87 87
B7A0: 87 87 87 87 87 87 87 87
B7A8: 87 87 87 87 87 87 87 87
B7B0: 87 87 87 87 87 87 87 87
B7B8: 87 FF FF FF FF 00 00 00
B7C0: 00 00 B6 FE 00 00 00 00
B7C8: 00 00 00 00 00 00 00 00
B7D0: 00 00 00 00 00 00 00 00
B7D8: 00 00 00 00 00 00 00 00
B7E0: 00 00 00 00 00 00 00 00
B7E8: 00 00 00 00 00 00 00 00
```

B7F0: 00 00 00 00 00 00 00 00
B7F8: 00 00 A5 A5 A5 A5 75 01

Comments

emerald