

REPORT NUMBER TR-P25108-01-NC

**NEW CAR ASSESSMENT PROGRAM
SIDE IMPACT TEST**

**GENERAL MOTORS CORPORATION
2005 CHEVROLET COBALT
4-DOOR SEDAN**

NHTSA NUMBER: G60105

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AUGUST 16, 2005

FINAL REPORT

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16. Abstract A 55/28 km/h 90 deg. Moving Deformable Barrier Side Impact NCAP Test was conducted on the subject 2005 Chevrolet Cobalt 4-Door Sedan in accordance with the specifications of the Office of Crash Worthiness Standards Test Procedures for the generation of consumer information on vehicle side crash protection. The test was conducted at KARCO Engineering, LLC laboratories in Adelanto, California, on August 16, 2005. The impact velocity of the Moving Deformable Barrier was 62.02 km/h, and the outside ambient temperature at the struck (driver's) side of the vehicle was 33.9 deg. C. The target vehicle's maximum post-test static crush was 323 mm located at level 2. The test vehicle's occupant performance data is as follows:																							
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 35%;">Measurement Description</th> <th style="width: 15%;">Driver SID/HIII</th> <th style="width: 15%;">Pass. SID/HIII</th> <th style="width: 35%;"></th> </tr> </thead> <tbody> <tr> <td>Left Upper Rib (LUR) G's</td> <td style="text-align: center;">71.8</td> <td style="text-align: center;">56.9</td> <td rowspan="5"></td> </tr> <tr> <td>Left Lower Rib (LLR) G's</td> <td style="text-align: center;">63.1</td> <td style="text-align: center;">67.1</td> </tr> <tr> <td>Lower Spine (T₁₂) G's</td> <td style="text-align: center;">86.4</td> <td style="text-align: center;">63.1</td> </tr> <tr> <td>Thoracic Trauma Index (TTI) G's</td> <td style="text-align: center;">79.0</td> <td style="text-align: center;">65.0</td> </tr> <tr> <td>Pelvis (PEV) G's</td> <td style="text-align: center;">65.4</td> <td style="text-align: center;">52.7</td> </tr> </tbody> </table>				Measurement Description	Driver SID/HIII	Pass. SID/HIII		Left Upper Rib (LUR) G's	71.8	56.9		Left Lower Rib (LLR) G's	63.1	67.1	Lower Spine (T ₁₂) G's	86.4	63.1	Thoracic Trauma Index (TTI) G's	79.0	65.0	Pelvis (PEV) G's	65.4	52.7
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SECTION 1

PURPOSE AND TEST PROCEDURE

1.1 PURPOSE

This Side Impact NCAP test is conducted as part of the FY' 2005 test program sponsored by the National Highway Traffic Safety Administration (NHTSA), under contract No. DTNH22-03-D-32005. The purpose of this test is to generate comparative side impact data on a 2005 Chevrolet Cobalt 4-Door Sedan manufactured by General Motors Corporation.

1.2 TEST PROCEDURE

The side impact test was conducted in accordance with the current National Highway Traffic Safety Administration (NHTSA), Office of Crashworthiness Standards (OCS), laboratory test procedure NCAP Side Impact Testing, dated November 2002. The procedures for receiving, inspection, testing, and reporting of test results are described in the test procedures and are not repeated in this report.

SECTION 2
SUMMARY OF SIDE IMPACT TEST

2.1 SUMMARY OF SIDE IMPACT NCAP TEST

A model year 2005 Chevrolet Cobalt 4-Door Sedan was impacted on the left (driver's) side by a Moving Deformable Barrier (MDB) which was moving forward in a 27° crabbed position to the tow road guidance system at a velocity of 62.02 km/h. The specified impact velocity range is from 61.14 to 62.75 km/h. The test (target) vehicle was stationary and positioned 63° to the line of forward motion. The weight of the vehicle as tested was 1496 kg and the test weight of the MDB was 1361 kg. The test was conducted at KARCO Engineering, LLC in Adelanto, California, on August 16, 2005.

Two (2) real-time cameras and ten (10) high-speed cameras were used to document the impact event. Camera locations and pertinent camera information is documented in the data sheets. Pre- and post-test photographs of the vehicle and SID/HIIs can be found in Appendix A. Two 50th percentile adult male Side Impact Dummies, Hybrid III (SID/HIIs) were placed in the driver's and left rear passenger designated seating positions according to the test procedure. Each SID/HII is instrumented with contact switches on the pelvis, thorax and six-axis neck load cells, and fourteen accelerometers in the following locations:

- Left Upper Rib (LUR) uni-axial accelerometer (Y-axis primary and redundant)
- Left Lower Rib (LLR) uni-axial accelerometer (Y-axis primary and redundant)
- Lower Thoracic Spine (T12) uni-axial accelerometer (Y-axis primary and redundant)
- Pelvic (PEV) section uni-axial accelerometer (Y-axis primary and redundant)
- Head Center of Gravity (CG) tri-axial accelerometers (X, Y, and Z axes primary and redundant)

SUPPLEMENTAL RESTRAINT INFORMATION

Restraint Type	Left Front Driver		Left Rear (Passenger)	
	Installed	Deployed	Installed	Deployed
Front Airbag	Yes	No	No	
Side Torso Airbag	No		No	
Head Airbag	No		No	
Curtain Airbag	No		No	

SECTION 2...(CONTINUED)

The test vehicle was instrumented with twenty-six (26) structural accelerometers and the MDB was instrumented with five (5) accelerometers and one (1) contact switch on the right bumper to compare left side to right side bumper impact timing. All data channels were recorded with the fully self contained on-board Data Acquisition System (DAS). The data was digitally sampled at 10,000 samples per second and processed per Appendix V of the Test Procedure.

2.2 GENERAL COMMENTS

The driver and passenger doors remained closed during impact. The test vehicle sustained a maximum static crush of 323 mm at level 2, 750-950 mm rearward of the left vertical impact point. The driver SID/Hybrid III, Serial No. 274 and the passenger SID/Hybrid III, Serial No. 275 were calibrated prior to this test. The SID/Hybrid III injury criteria is summarized as follows:

Measurement	Units	Driver	Passenger
Thoracic Trauma Index (TTI)	G's	79.0	65.0
Peak Pelvic G's (PEV)	G's	65.4	52.7

Tests summaries and post-test observations are presented in Section 3. Appendix A contains the still photograph prints. Appendix B contains the driver and passenger SID/HIIIs, vehicle, and MDB response data traces. Appendix C contains the SID Configuration and performance verification data. Appendix D contains the Instrumentation Data Channel Assignments.

SECTION 3

OCCUPANT AND VEHICLE INFORMATION SHEETS

Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan

NHTSA No.: G60105

Test Program: 55/28 km/h Side Impact NCAP

Test Date: 08/16/05

CONVERSION FACTORS USED IN THIS REPORT*

Quantity	Typical Application	Std Units	Metric Unit	Multiply By
Mass	Vehicle Weight	lb	kg	0.4536
Linear Velocity	Impact Velocity	mile/h	km/h	1.609
Length or Distance	Measurements	in	mm	25.4
Volume	Fuel Systems	gal	liter	3.785
Volume	Small Fluids	oz	mL	29.573
Pressure	Tire Pressures	lbf/in ²	kPa	7.0
Volume	Liquid	gal	liter	3.785
Temperature	General Use	°F	°C	$=(t_f - 32)/1.8$
Force	Dynamic Forces	lbf	N	4.448
Moment	Torque	lbf/ft	Nm	1.355

* Based on the Recommended Practice in SAE J916, May 85

DATA SHEET NO. 1

GENERAL TEST AND VEHICLE PARAMETER DATA

Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan

NHTSA No.: G60105

Test Program: 55/28 km/h Side Impact NCAP

Test Date: 08/16/05

TEST VEHICLE INFORMATION AND OPTIONS

NHTSA No.	G60105
Make	Chevrolet
Model	Cobalt
Body Style	4-Door
Vin No.	1G1AK52F257668600
Color	Light Blue
Delivery Date	8/9/2005
Odometer	87
Dealer	Crest Chevrolet
Transmission	4-Speed Automatic
Final Drive	Front
Type/No. Cyl.	In-Line 4
Engine Disp. (L)	2.2
Engine Placement	Transverse
Roof Rack	No
Sunroof/T-Top	No
Tinted Glass	No
Traction Control	No
Power Brakes	Yes
Front Disc	Yes
Rear Disc	No

Anti-Lock Brakes	No
All Wheel Drive	No
Power Steering	Yes
Driver Front Airbag	Yes
Driver Side Torso Airbag	No
Driver Side Head Airbag	No
Driver Curtain/Airbag	No
Rear Pass. Airbag	No
Rear Pass. Side Airbag	No
Rear Pass. Head Airbag	No
Rear Pass. Curtain/Airbag	No
Pre-Tensioners	Yes
Load Limiters	Yes
Bucket Seats	Yes
Air Cond.	Yes
AM/FM Cassette	Yes
Tilt Steering	Yes
Automatic Door Locks	No
Power Windows	No
Power Seats	No
Other	None

Does Owners Manual provide instructions to turn off automatic door locks.

No

DATA FROM CERTIFICATION LABEL

Manufactured By	General Motors Corporation
Date of Manufacture	06/05

GVWR (kg)	1705
GAWR Front (kg)	889
GAWR Rear (kg)	816

VEHICLE SEATING AND CAPACITY WEIGHT INFORMATION

Measured Parameter	Front	Rear	Third	Total
Type of Seats	Bucket	Bench	None	
Number of Occupants	2	3	0	5
Capacity Weight (VCW) (kg)				136
Cargo Weight (RCLW) (kg)				64

DATA SHEET NO. 1...(CONTINUED)

GENERAL TEST AND VEHICLE PARAMETER DATA

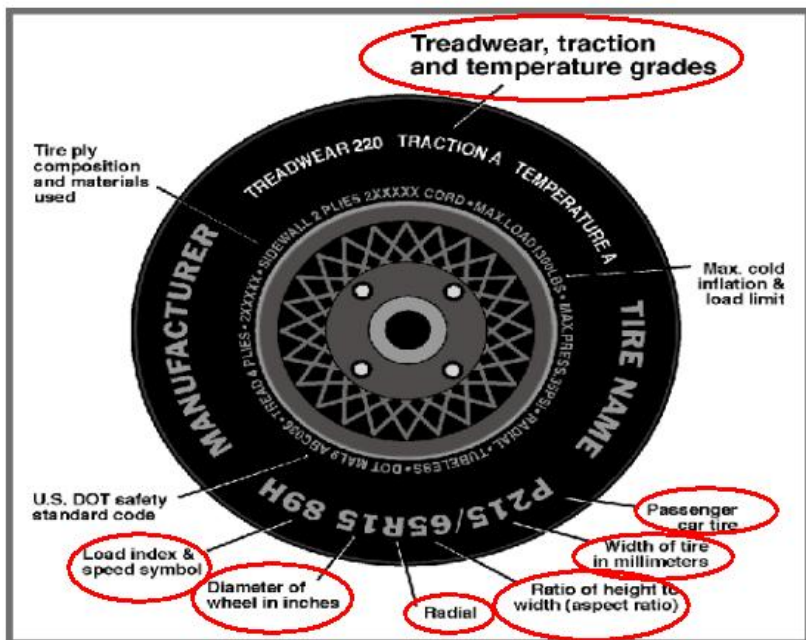
Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan

NHTSA No.: G60105

Test Program: 55/28 km/h Side Impact NCAP

Test Date: 08/16/05

Collect year, make, model, VIN, items circled in red, and tire manufacturer and tire name.



TIRE INFORMATION

Measured Parameter	Front	Rear
Max. Tire Pressure (kpg)	308	308
Cold Pressure (kpg)	210	210
Recommended Tire Size	P195/60R15	P195/60R15
Tire Size on Vehicle	P195/60R15	P195/60R15
Tire Manufacturer	Continental	Continental
Treadwear	520	520
Traction	A	A
Temperature Grades	A	A
Tire Plies Sidewall	1 Ply Polyester	1 Ply Polyester
Tire Plies Body	2 Steel	2 Steel
Load Index/Speed Symbol	87S	87S
Tire Material	1 Polyester/2 Steel	1 Polyester/2 Steel
DOT Safety Code Right	DOT ACV9 BLC	DOT ACV9 BLC
DOT Safety Code Left	DOT ACV9 BLC	DOT ACV9 BLC

DATA SHEET NO. 1...(CONTINUED)

GENERAL TEST AND VEHICLE PARAMETER DATA

Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan

NHTSA No.: G60105

Test Program: 55/28 km/h Side Impact NCAP

Test Date: 08/16/05

TEST VEHICLE WEIGHTS

	Units	As Delivered Weights (UVW)			As Tested Weights (ATW)		
		Front Axle	Rear Axle	Total	Front Axle	Rear Axle	Total
Left	kg	394	254		458	332	
Right	kg	386	243		417	289	
Ratio	%	61.1	38.9		58.5	41.5	
Totals	kg	780	497	1277	875	621	1496

TARGET TEST WEIGHT CALCULATION

Measured Parameter	Units	Value
Total Delivered Weight (UVW)	kg	1277
Weight of 2 P572 ATD's	kg	161
Rated Cargo/Luggage Wt. (RCLW)	kg	64
Calculated Vehicle Target Wt. (TVTW)	kg	1502

TEST VEHICLE ATTITUDE AND CG

	Units	LF	RF	LR	RR	CG (aft of front axle)
As Delivered	mm	670	676	703	696	1026
As Tested	mm	646	667	671	670	1094
Fully Loaded	mm	652	670	673	676	

GENERAL TEST VEHICLE DATA

Measurement Description	Units	Value
Test Vehicle Wheel Base	mm	2635
Total Vehicle Length at Left Side	mm	3075
Total Vehicle Length at Centerline	mm	4582
Total Vehicle Length at Right Side	mm	3075
Weight of Ballast In Cargo Area	kg	15
Amount of Stoddard Solvent in Fuel Tank	liters	47.5

TEST VEHICLE VERTICAL IMPACT LINE DATA

Measurement Description	Units	Value
Test Vehicle Wheel Base	mm	2635
Target Impact Point Aft of Front Axle	mm	378
Actual Impact Point Aft of Front Axle	mm	400

DATA SHEET NO. 1...(CONTINUED)

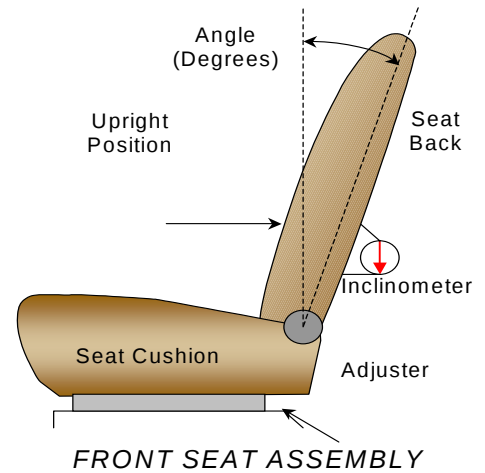
GENERAL TEST AND VEHICLE PARAMETER DATA

Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

NHTSA No.: G60105
 Test Date: 08/16/05

NOMINAL DESIGN RIDING POSITION

The driver and passenger seat backs are positioned to the manufacturers designated angle. The procedure is as follows: Seat back angle was measured at the headrest using a digital inclinometer.



SEAT BACK ANGLES

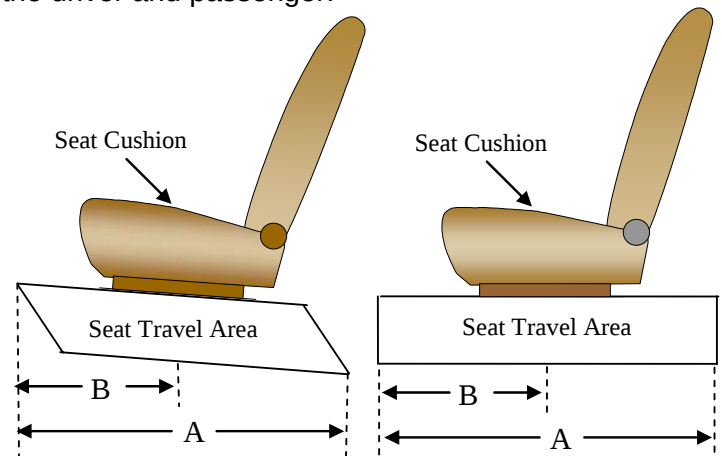
	Deg.
Driver Seat Back Angle	37.8
Rear Seat Back Angle	37.8

SEAT FORE/AFT POSITIONS

The total seat travel was measured from forward most position to rearmost position, irrespective of vertical seat height in those positions. The seat was set at the longitudinal mid position with vertical adjustment at the lowest position obtainable for both the driver and passenger.

SEAT FORE/AFT POSITIONING

	Total Fore/Aft Travel	Placed in Position #
Driver Seat	27 detents	14th detent
Rear Seat	Fixed	Fixed



SEAT BELT UPPER ANCHORAGE

Position number one (1) is the uppermost position

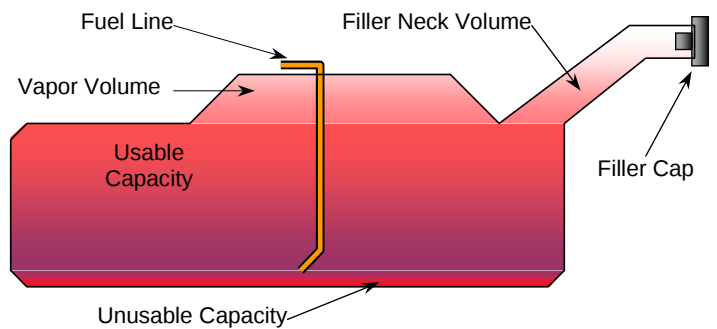
SEAT BELT UPPER ANCHORAGE

	Total # of Positions	Placed in Position #
Driver Seat	5	1
Rear Seat	Fixed	Fixed

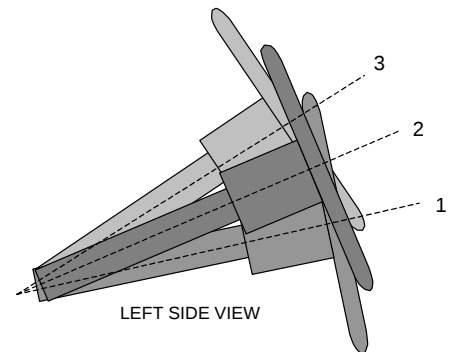
DATA SHEET NO. 1...(CONTINUED)**GENERAL TEST AND VEHICLE PARAMETER DATA**Test Vehicle: 2005 Chevrolet Cobalt 4-Door SedanNHTSA No.: G60105Test Program: 55/28 km/h Side Impact NCAPTest Date: 08/16/05**FUEL TANK CAPACITY**

	Liters
Usable Capacity of "Standard Tank"	51.1
Usable Capacity of "Optional" Tank	
Usable Capacity used for FMVSS 301	47.0 to 48.0
Actual Amount of Solvent used	47.5

The test vehicle is equipped with an electric fuel pump. The fuel pump will operate for approximately three (3) seconds with the ignition in the "ON" position, after which the fuel pump automatically shuts off. The fuel filler door is located on the left rear fender.

**VEHICLE FUEL TANK ASSEMBLY****STEERING COLUMN ADJUSTMENT**

Steering wheel and column adjustments are made so that the steering wheel hub is at the geometric center of the locus it describes when moved through its full range of motion. An aluminum plate is placed across the rim of the steering wheel, an inclinometer is placed on the plate and the angle is measured.

**STEERING COLUMN ASSEMBLY****STEERING COLUMN POSITIONS**

	Degrees	Fore/Aft Position (mm)
Lowermost position No. 1	18.2	
Geometric center position No. 2	20.4	
Uppermost position No. 3	22.6	

DATA SHEET NO. 2**TEST VEHICLE SUMMARY OF RESULTS**Test Vehicle: 2005 Chevrolet Cobalt 4-Door SedanNHTSA No.: G60105Test Program: 55/28 km/h Side Impact NCAPTest Date: 08/16/05**TEST VEHICLE WEIGHTS**

	Units	As Delivered Weights (UVW)			As Tested Weights (ATW)		
		Front Axle	Rear Axle	Total	Front Axle	Rear Axle	Total
Left	kg	394	254		458	332	
Right	kg	386	243		417	289	
Ratio	%	61.1	38.9		58.5	41.5	
Totals	kg	780	497	1277	875	621	1496

MAXIMUM EXTERIOR STATIC CRUSH

Level	Measured Parameter	Units	Maximum Crush	Above Ground
Level 1	Sill Top Height	mm	143	458
Level 2	Occupant H-Point	mm	323	718
Level 3	Mid Door	mm	290	758
Level 4	Window Sill	mm	292	1116
Level 5	Window top	mm	96	1680
N/A	Maximum Penetration	mm	323	

INSTRUMENTATION

Driver SID/Hybrid III Accelerometers	20
Passenger SID/Hybrid III Accelerometers	20
Vehicle Structure Accelerometers	26
MDB Accelerometers	5
Total No. of Contact Switches	5
Total	76

CAMERA COVERAGE

High Speed, Vehicle On-Board	3
High Speed, Off-Board	5
High Speed, MDB On-Board	2
Real Time, Panning	2
Total	12

DATA SHEET NO. 3**MOVING DEFORMABLE BARRIER (MDB) SUMMARY OF RESULTS**Test Vehicle: 2005 Chevrolet Cobalt 4-Door SedanNHTSA No.: G60105Test Program: 55/28 km/h Side Impact NCAPTest Date: 08/16/05**MDB SPECIFICATIONS (mm)**

Measurement Description	Length
Overall Width of Framework Carriage	1252
Overall Length including Honeycomb Face	4115
Wheel Base of Framework Carriage	2590
C.G. location aft of Front Axle	1127

MDB WEIGHTS

	Units	Front Axle	Rear Axle	Total
Left	kg	384	308	
Right	kg	385	284	
Ratio	%	56.5	43.5	
Totals	kg	769	592	1361

SPEED AND IMPACT DATA

Measured Parameter	Units	Requirement	Value
Trap No. 1 Velocity (Primary)	km/h	61.1 to 62.7	62.02
Trap No. 2 Velocity (Redundant)	km/h	61.1 to 62.7	62.04
MDB CL to Target Vehicle CL	degrees	88.5 to 91.5	89.5

MAXIMUM STATIC CRUSH OF HONEYCOMB FACE (mm)

Vertical Location			From Centerline		Max. Crush
Row	Description	Height	Distance	Direction	
A	Center of Bumper	432	800	Right	149
B	Top of Bumper	533	800	Right	89
C	Mid Level	686	800	Right	123
D	Top of Stack	813	800	Right	167

MDB INSTRUMENTATION AND CAMERAS

Accelerometers	5
Contact Switches	1
High Speed Cameras	2

DATA SHEET NO. 4

POST-TEST OBSERVATIONS

Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan

NHTSA No.: G60105

Test Program: 55/28 km/h Side Impact NCAP

Test Date: 08/16/05

TEST DUMMY INFORMATION AND CONTACT POINTS

Description	Front Seat SID/Hybrid III	Rear Seat SID/Hybrid III
Dummy Type / Serial No.	P572F, SID / No. 274	P572F, SID / No. 275
Head Contact	Lower window frame/door panel	Side Header
Upper Torso Contact	Door Panel	Door Panel
Lower Torso Contact	Door Panel	Door Panel
Left Knee Contact	Door Panel	Door Panel
Right Knee Contact	Left Knee	Left Knee

POST TEST DOOR OPENING AND SEAT TRACK INFORMATION

Description	Front	Rear
Left Side Door Opening	Remained closed, inoperable	Remained closed, inoperable
Right Side Door Opening	Remained closed, operable	Remained closed, operable
Seat Movement (mm)	0	0
Seat Back Failure	No	No

POST TEST STRUCTURAL OBSERVATIONS

Critical Areas of Performance	Observations and Conclusions
Pillar Performance	No Apparent Visible Failure
Sill Separation	No Apparent Visible Failure
Windshield Damage	None
Window Damage	Both Struck Side Windows Broke
Other Notable Effects	None

SUPPLEMENTAL RESTRAINT SYSTEM INFORMATION

Restraint Type	Left Front (Driver) Occupant Location 01		Left Rear (Passenger) Occupant Location 04	
	Installed	Operation	Installed	Operation
Front Airbag	Yes	No	No	
Side Torso Airbag	No		No	
Head Airbag	No		No	
Curtain Airbag	No		No	
Seat Belt Pretensioner	Yes			
Seat Belt Load Limiter	Yes			

MDB LEFT EDGE IMPACT POINT DATA

Measured Parameter	Units	Requirement	Value
Horizontal Offset	mm	+/- 50	-3 (left)
Vertical Offset	mm	+/- 20	-2 (below)

DATA SHEET NO. 5
SID/HIII INJURY CRITERIA AND SENSOR DATA

Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan

NHTSA No.: G60105

Test Program: 55/28 km/h Side Impact NCAP

Test Date: 8/16/05

THORAX AND PELVIS PEAK ACCELERATIONS, PRIMARY (FIR 100 Filtered)

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Upper Rib (LUR)	Y	G's	71.8	23.8	-19.8	70.6	56.9	33.8	-5.7	104.4
Lower Rib (LLR)	Y	G's	63.1	25.6	-14.2	70.0	67.1	31.9	-9.5	70.0
Lower Spine (T ₁₂)	Y	G's	86.4	28.1	-27.9	63.8	63.1	38.1	-28.8	64.4
Pelvis (PEV)	Y	G's	65.4	26.9	-14.0	52.5	52.7	28.8	-16.5	70.0

THORACIC TRAUMA INDEX (TTI) AND PELVIC ACCELERATION, PRIMARY (FIR 100 Filtered)

Location	Driver				Passenger			
	LUR	T ₁₂	TTI(g)	PEV(g)	LLR	T ₁₂	TTI(g)	PEV(g)
Primary Rib, Spine, and Pelvis	71.811	86.353	79	65	67.142	63.123	65	53

THORAX AND PELVIS PEAK ACCELERATIONS, REDUNDANT (FIR 100 Filtered)

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Upper Rib (LUR)	Y	G's	71.1	23.8	-19.9	70.0	56.8	33.8	-5.8	104.4
Lower Rib (LLR)	Y	G's	62.4	25.6	-14.3	70.0	67.5	31.9	-10.4	70.0
Lower Spine (T ₁₂)	Y	G's	86.1	28.1	-29.0	63.1	62.9	38.1	-28.6	64.4
Pelvis (PEV)	Y	G's	66.0	26.9	-13.9	52.5	52.6	28.8	-16.3	70.6

THORACIC TRAUMA INDEX (TTI) AND PELVIC ACCELERATION, REDUNDANT (FIR 100 Filtered)

Location	Driver				Passenger			
	LUR	T ₁₂	TTI(g)	PEV(g)	LLR	T ₁₂	TTI(g)	PEV(g)
Redundant Rib, Spine, and Pelvis	71.116	86.121	79	66	67.535	62.923	65	53

Positive Acceleration Polarities:

- Longitudinal (X) = Forward
- Lateral (Y) = Right
- Vertical (Z) = Down

DATA SHEET NO. 5...(CONTINUED)
SID/HII INJURY CRITERIA AND SENSOR DATA

Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan

NHTSA No.: G60105

Test Program: 55/28 km/h Side Impact NCAP

Test Date: 8/16/05

HEAD PRIMARY PEAK ACCELERATIONS (SAE CLASS 1000 Filtered)

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Head CG	X	G's	4.2	200.0	-36.3	74.9	10.7	159.6	-88.9	94.0
Head CG	Y	G's	40.7	75.0	-5.4	169.3	65.7	48.9	-8.9	165.2
Head CG	Z	G's	59.4	47.6	-0.2	7.9	38.9	70.8	-26.8	56.8
Head CG Resultant	N/A	G's	62.3	47.3			92.5	94.0		

HEAD PRIMARY INJURY CRITERIA (SAE CLASS 1000 Filtered)

Location	Driver				Passenger			
	HIC	T ¹	T ²	Avg G	HIC	T ¹	T ²	Avg G
Head CG	495.3	42.6	78.6	45.2	324.5	63.7	99.7	38.2

HEAD REDUNDANT PEAK ACCELERATIONS (SAE CLASS 1000 Filtered)

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Head CG	X	G's	4.3	200.0	-36.8	75.0	11.1	159.6	-89.5	94.0
Head CG	Y	G's	41.7	74.9	-5.5	167.3	66.2	48.8	-9.1	165.1
Head CG	Z	G's	61.3	47.5	-0.1	12.5	39.4	70.8	-27.4	56.8
Head CG Resultant	N/A	G's	64.0	47.5			92.6	94.0		

HEAD REDUNDANT INJURY CRITERIA (SAE CLASS 1000 Filtered)

Location	Driver				Passenger			
	HIC	T ¹	T ²	Avg G	HIC	T ¹	T ²	Avg G
Head CG	510.4	42.6	78.6	45.8	323.4	63.6	99.6	38.1

UPPER NECK PEAK FORCES AND MOMENTS

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Neck Force	X	Newtons	149.1	199.9	-937.7	71.2	187.6	52.4	-855.0	70.6
Neck Force	Y	Newtons	933.2	66.5	-235.8	168.7	231.8	57.0	-205.5	32.5
Neck Force	Z	Newtons	2369.0	47.6	-14.6	21.0	1543.2	70.8	-1885.1	52.2
Neck Force Resultant	N/A	Newtons	2518.3	47.6			1900.7	52.2		
Neck Moment	X	Nm	87.9	70.7	-58.6	39.6	31.2	74.1	-134.7	54.6
Neck Moment	Y	Nm	34.1	83.6	-30.2	46.8	40.9	91.5	-66.1	61.4
Neck Moment	Z	Nm	17.9	72.1	-7.9	181.6	27.8	85.4	-22.5	54.7
Neck Moment Resultant	N/A	Nm	89.9	70.8			144.4	54.8		

DATA SHEET NO. 6

VEHICLE PRE-TEST AND POST-TEST MEASUREMENTS

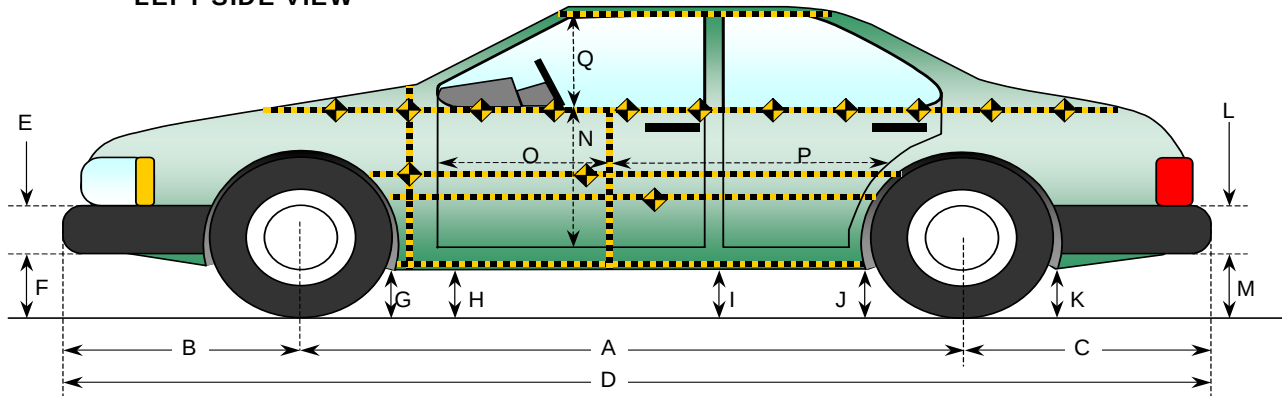
Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan

NHTSA No.: G60105

Test Program: 55/28 km/h Side Impact NCAP

Test Date: 08/16/05

LEFT SIDE VIEW



VEHICLE PRE AND POST TEST MEASUREMENT INFORMATION

Code	Measurement Description	Pre-Test	Post-Test	Difference
A	Wheelbase	2635	2620	-15
B	Front Axle to FSOV	972	970	-2
C	Rear Axle to RSOV	990	990	0
D	Total Length at Centerline	4582	4580	-2
E	Front Bumper Thickness	347	347	0
F	Front Bumper Bottom to Ground	187	206	19
G	Sill Height at Front Wheel Well	191	220	29
H	Sill Height at Front Door Leading Edge	194	220	26
I	Sill Height at "B" Pillar	197	255	58
J1	Sill Height at Rear Wheel Well	173	246	73
J2	Pinch Weld Height at Rear Wheel Well	196	242	46
K	Sill Height aft of Rear Wheel Well	256	297	41
L	Rear Bumper Thickness	336	336	0
M	Rear Bumper Bottom to Ground	334	334	0
N	Sill Height to Window Bottom Sill	644	593	-51
O	Front Door Leading Edge to Impact CL	780	742	-38
P	Rear Door Trailing Edge to Impact CL	1235	970	-265
Q	Front Window Opening	385	365	-20
R	Right Side Length	3075	3046	-29
S	Left Side Length	3075	3076	1
T	Vehicle Width at "B" Post	1724	1455	-269

DATA SHEET NO. 7

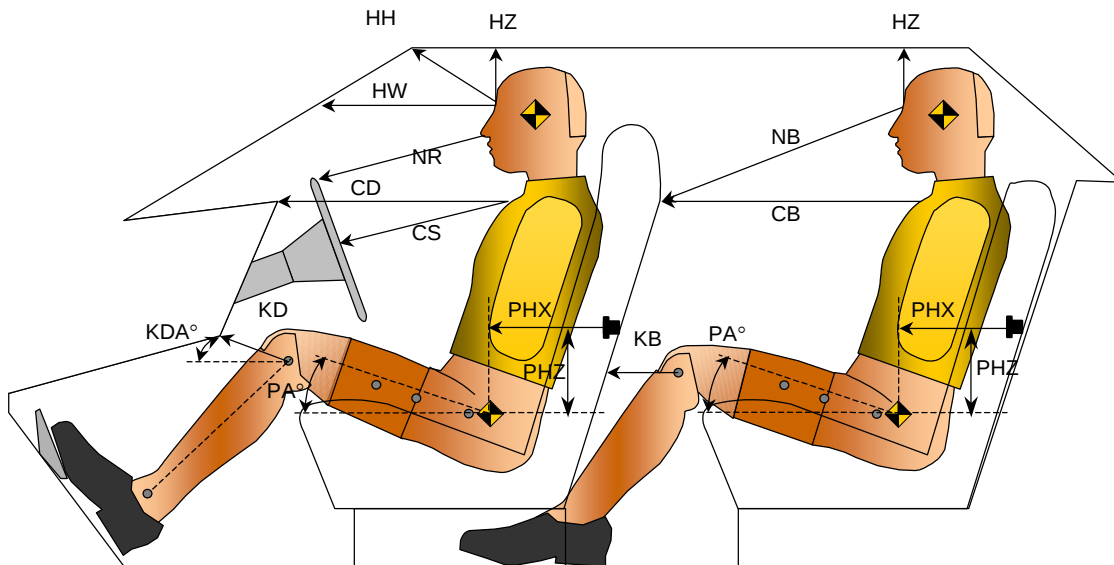
SID/HIII LONGITUDINAL CLEARANCE DIMENSIONS

Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan

NHTSA No.: G60105

Test Program: 55/28 km/h Side Impact NCAP

Test Date: 08/16/05



LONGITUDINAL CLEARANCE DIMENSION INFORMATION

Driver Code	Pass. Code	Measurement Description	Driver		Passenger	
			Length(mm)	Angle	Length(mm)	Angle
HH		Head to Header	452	14.0		
HW		Head to Windshield	730	0.0		
HZ	HZ	Head to Roof	195		170	90.0
NR	NB	Nose to Rim/Nose to Seat Back	490	12.3	492	20.5
CD	CB	Chest to Dash or Seat Back	580	9.0	455	4.0
CS		Chest to Steering Wheel	330	0.0		
KDL	KBL	Left Knee to Dash or Seat Back	202	12.0	180	0.0
KDR	KBR	Right Knee to Dash or Seat Back	200		180	
PA	PA	Pelvic Angle		23.0		24.7
PHX	PHX	H-Point to Striker (X-Axis)	188		210	
PHZ	PHZ	H-Point to Striker (Z-Axis)	112		268	

DATA SHEET NO. 8

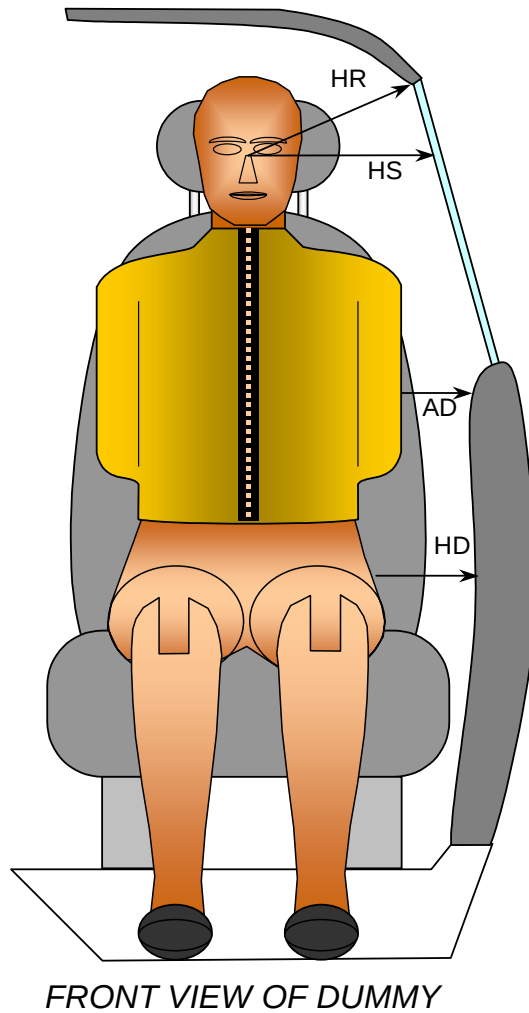
SID/HIII LATERAL CLEARANCE DIMENSIONS

Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan

NHTSA No.: G60105

Test Program: 55/28 km/h Side Impact NCAP

Test Date: 08/16/05



LATERAL CLEARANCE DIMENSION INFORMATION

Code	Measurement Description	Units	Driver	Passenger
HR	Head to Side Header	mm	265	235
HS	Head to Side Window	mm	335	290
AD	Arm to Door	mm	100	50
HD	H-Point to Door	mm	120	105

DATA SHEET NO. 9

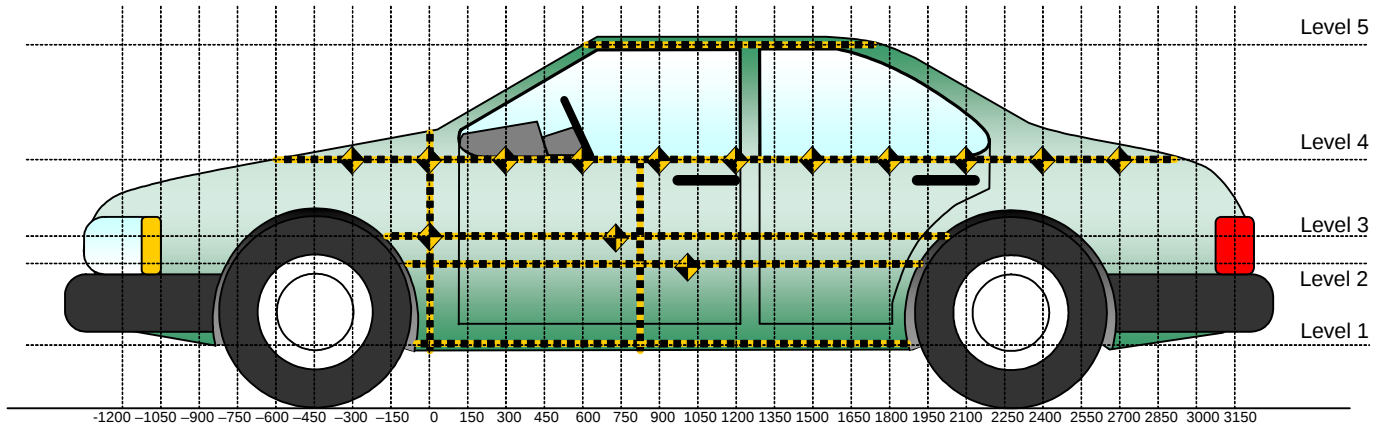
VEHICLE SIDE MEASUREMENTS

Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan

NHTSA No.: G60105

Test Program: 55/28 km/h Side Impact NCAP

Test Date: 08/16/05



All Measurements Shown in mm

LEFT SIDE VIEW

Measurements are taken with vehicle in the as tested condition.

Measurements taken 900 mm right of impact reference.

All measurements below in mm.

Level	Measurement Description	Height Above Ground
1	Sill Top	247
2	Occupant H-Point	512
3	Mid Door	586
4	Window Sill	856
5	Window Top	1354

DATA SHEET NO. 10 VEHICLE EXTERIOR CRUSH PROFILES

Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan

NHTSA No.: G60105

Test Program: 55/28 km/h Side Impact NCAP

Test Date: 08/16/05

	Pre-Test					Post-Test					Difference				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
-900															
-750															
-600				272					296					24	
-450				249					268					19	
-300				240					266					26	
-150			144	226				194	257				50	31	
0	176	148	153	216		240	225	221	263		64	77	68	47	
150	176	148	148	203		266	398	376	272		90	250	228	69	
300	170	146	148	196		286	431	396	351		116	285	248	155	
450	168	145	146	187		291	446	403	397		123	301	257	210	
600	170	143	146	182		288	454	406	426		118	311	260	244	
750	170	143	143	176	444	313	466	424	161	476	143	323	281	-15	32
900	174	143	143	171	444	311	466	419	243	476	137	323	276	72	32
1050	176	146	146	168	441	308	466	432	400	499	132	320	286	232	58
1200	176	148	146	170	438	316	462	436	436	522	140	314	290	266	84
1350	181	151	145	171	433	300	463	431	463	529	119	312	286	292	96
1500	188	156	148	172	435	302	432	416	456	504	114	276	268	284	69
1650	188	161	152	174	436	286	416	426	416	466	98	255	274	242	30
1800	191	163	163	176	439	282	408	263	362	454	91	245	100	186	15
1950		144	147	180	443		218	201	274	452		74	54	94	9
2100				181	459				186	452				5	-7
2250				187					204					17	
2400				200					206					6	
2550				206					211					5	
2700				206					211					5	
2850															
3000															

Measurements are taken from fixed reference 1000mm from vehicle CL.

DATA SHEET NO. 10...(CONTINUED)

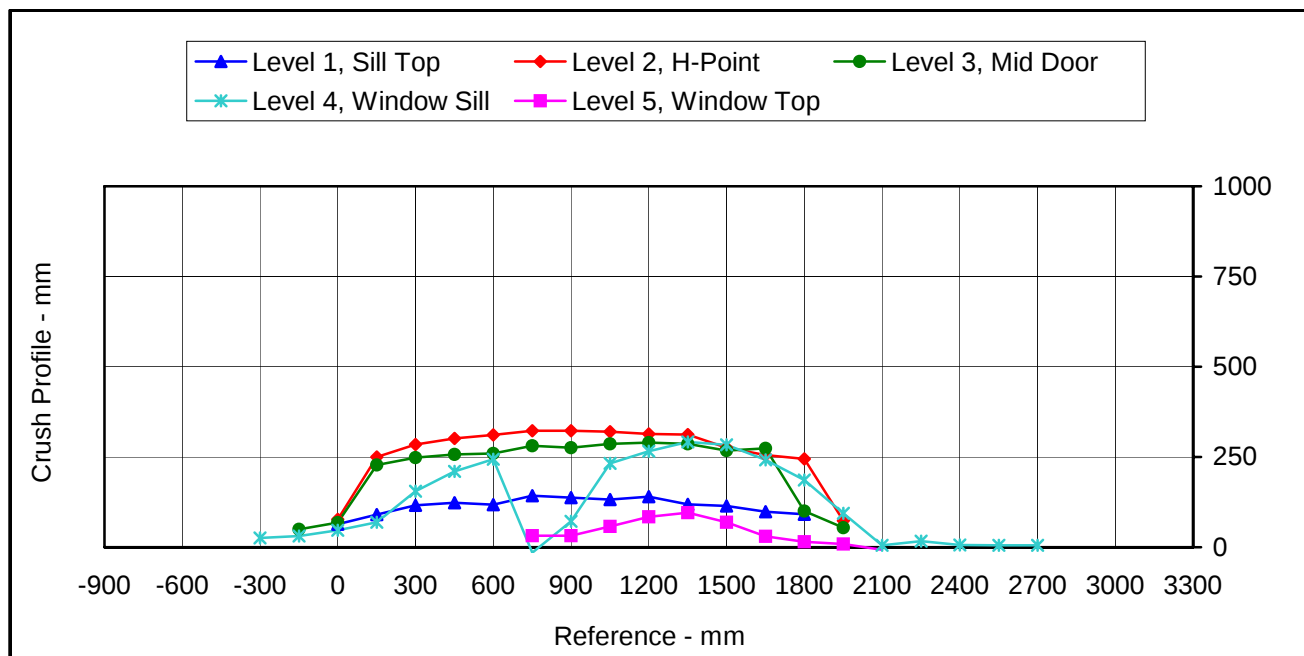
VEHICLE EXTERIOR CRUSH PROFILES

Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan

NHTSA No.: G60105

Test Program: 55/28 km/h Side Impact NCAP

Test Date: 08/16/05



	Units	Level 1	Level 2	Level 3	Level 4	Level 5
Maximum Crush	mm	143	323	290	292	96
Distance from Impact	mm	750	750	1200	1350	1350

DATA SHEET NO. 11

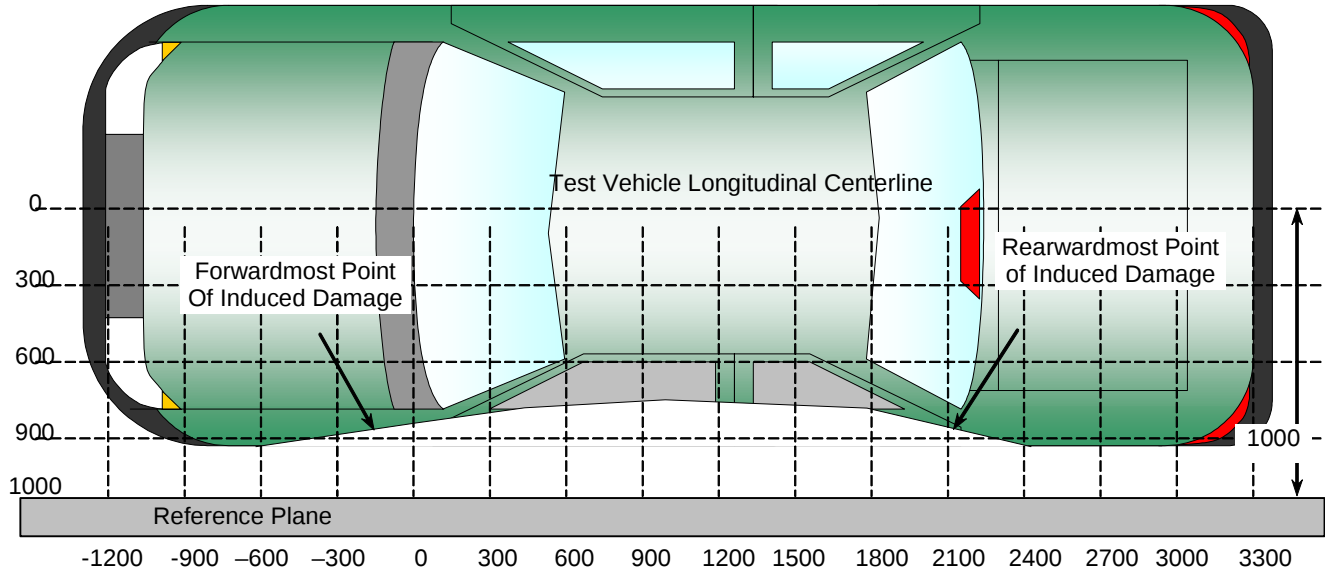
VEHICLE DAMAGE PROFILE DISTANCES

Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan

NHTSA No.: G60105

Test Program: 55/28 km/h Side Impact NCAP

Test Date: 08/16/05



All Dimensions Shown in millimeters

TOP VIEW

DAMAGE PROFILE DISTANCES

DPD	Distance From Impact Point in mm	Level	Pre-Test (mm)	Post-Test (mm)	Max. Static Crush (mm)
1	-600	4	272	296	24
2	0	2	148	225	77
3	600	2	143	454	311
4	1200	2	148	462	314
5	1950	4	180	274	94
6	2700	4	206	211	5

DATA SHEET NO. 12

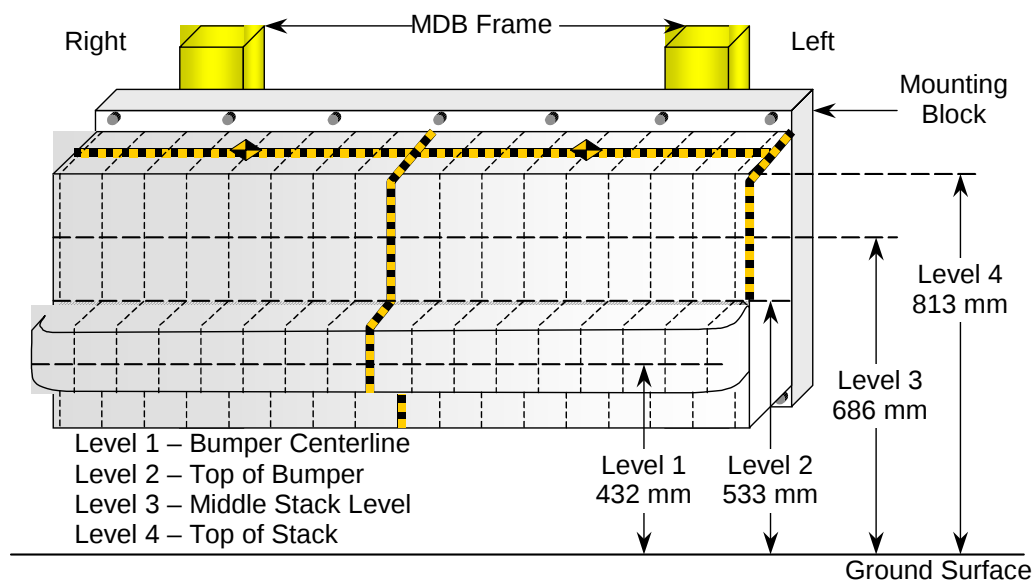
DEFORMABLE BARRIER HONEYCOMB FACE STATIC CRUSH

Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan

NHTSA No.: G60105

Test Program: 55/28 km/h Side Impact NCAP

Test Date: 08/16/05



DEFORMABLE BARRIER STATIC CRUSH

Stack Level	Distance Right of Center								C/L	Distance Left of Center							
	800	700	600	500	400	300	200	100		100	200	300	400	500	600	700	800
1	167	133	115	100	100	108	107	98	90	93	93	95	96	96	104	118	149
2	83	67	61	51	48	48	42	36	35	37	45	51	60	64	70	77	89
3	22	-3	-7	-7	-6	-5	5	2	3	6	7	13	22	31	43	69	123
4	69	19	-8	-21	-21	-19	9	7	-6	-4	1	11	19	36	65	120	167

All Dimensions in mm

DATA SHEET NO. 13

VEHICLE ACCELEROMETER LOCATION AND DATA SUMMARY

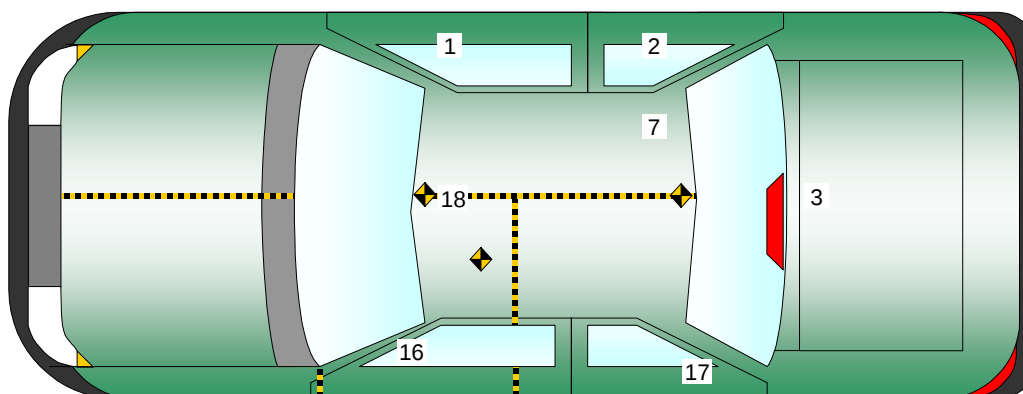
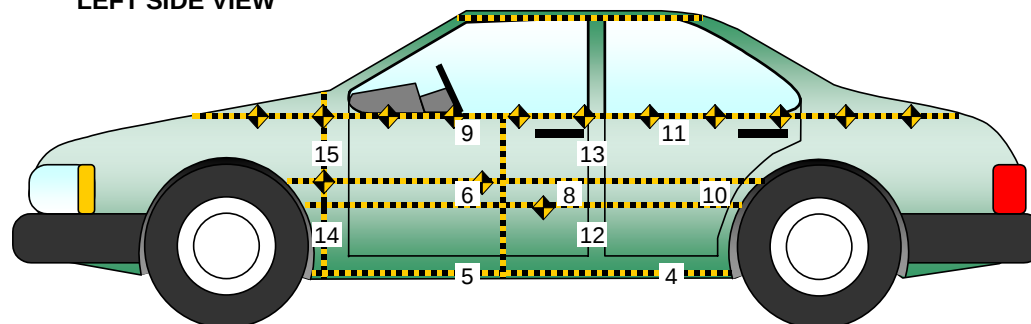
Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan

NHTSA No.: G60105

Test Program: 55/28 km/h Side Impact NCAP

Test Date: 08/16/05

LEFT SIDE VIEW



No.	Location
1	Right Sill at Front Seat
2	Right Sill at Rear Seat
3	Rear Floorpan Above Axle
4	Left Sill at Rear Door
5	Left Sill at Front Door
6	Left Front Door Centerline
7	Right Rear Occupant Compartment
8	Left Front Door Mid-Rear
9	Left Front Door Upper Centerline

No.	Location
10	Left Rear Door Mid-Rear
11	Left Rear Door Upper Centerline
12	Left Lower B-Post
13	Left Middle B-Post
14	Left Lower A-Post
15	Left Middle A-Post
16	Front Seat Track
17	Rear Seat Track or Structure
18	Vehicle CG

DATA SHEET NO. 13...(CONTINUED)
VEHICLE ACCELEROMETER LOCATION AND DATA SUMMARY

Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan

NHTSA No.: G60105

Test Program: 55/28 km/h Side Impact NCAP

Test Date: 8/16/05

VEHICLE ACCELEROMETER PEAK DATA AND PRE-TEST LOCATIONS

Loc. No.	Accelerometer Location	Measurements (mm)			Peak Values (G's)				
		X	Y	Z	Axis	Max	Time	Min	Time
1	Right Sill at Front Seat	2560	660	280	X	2.5	65.7	-5.2	13.9
					Y	24.1	6.6	-2.6	155.9
					Z	5.3	67.5	-4.8	10.9
					RES	24.1	6.6		
2	Right Sill at Rear Seat	1570	650	300	X	3.5	34.0	-4.8	13.8
					Y	30.3	8.1	-3.2	135.2
					Z	6.5	69.4	-5.0	10.7
					RES	30.5	8.1		
3	Rear Floorpan Above Axle	410	0	245	X	11.3	113.7	-10.6	14.1
					Y	33.8	21.9	-9.1	180.5
					Z	27.3	124.8	-27.2	186.1
					RES	38.3	43.4		
4	Left Sill at Rear Door	1665	-660	185	Y	33.6	7.7	-3.7	145.9
5	Left Sill at Front Door	2945	-600	175	Y	26.4	3.8	-3.9	59.5
6	Front Door Centerline				Y				1
7	Rt. Rear Occ. Compartment	2060	310	200	Y	25.3	7.9	-2.8	160.4
8	Front Door Mid-Rear				Y				1
9	Front Door Upper Centerline				Y				1
10	Rear Door Mid-Rear				Y				1
11	Rear Door Upper Centerline				Y				1
12	B-Post Lower	2010	670	500	Y	196.3	4.2	-46.6	23.1
13	B-Post Middle	2010	670	800	Y	179.7	4.9	-32.3	27.6
14	A-Post Lower	3040	775	455	Y	66.6	2.9	-24.5	13.0
15	A-Post Middle	3040	775	680	Y	111.6	3.1	-32.6	13.7
16	Front Seat Track	2200	-570	230	Y	73.6	12.4	-4.1	152.4
17	Rear Seat Structure				Y				1
18	Vehicle CG	2735	165	200	X	3.3	5.3	-7.5	22.1
					Y	22.1	6.1	-2.4	155.4
					Z	5.4	7.4	-4.0	3.7
					RES	22.6	6.2		

1.) Not installed

DATA SHEET NO. 14

MDB ACCELEROMETER LOCATION AND DATA SUMMARY

Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan

NHTSA No.: G60105

Test Program: 55/28 km/h Side Impact NCAP

Test Date: 8/16/05

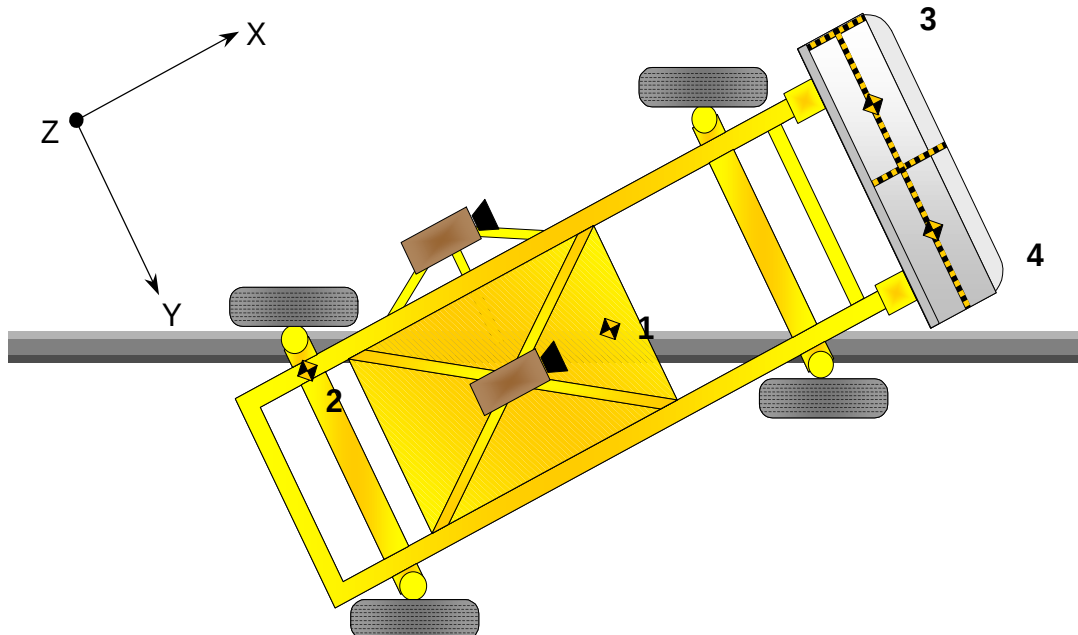
MDB ACCELEROMETER PEAK DATA AND LOCATIONS

Loc. No.	Accelerometer Location	Measurements (mm)			Peak Values (G's)				
		X	Y	Z	Axis	Max	Time	Min	Time
1	MDB CG	-1195	0	430	X	2.9	96.8	-19.4	37.2
					Y	1.8	151.5	-5.5	32.0
					Z	10.8	91.2	-16.6	125.2
					RES	20.4	36.1		
2	MDB Rear	-2642	-593	608	X	3.3	112.4	-21.3	34.4
					Y	4.2	110.2	-4.8	20.9

Reference Points X - MDB Front Axle Y - MDB Centerline Z - Ground Plane

MDB BUMPER CONTACT SWITCH DATA

Loc. No.	Contact Switch Location	Units	Peak and 50% Crossing Point			
			Max	Time	50%	Time
3	MDB Left Bumper (T=0)	% F.S.	100.0	0.0	50.0	0.0
4	MDB Right Bumper	% F.S.	100.6	9.6	50.0	0.7



DATA SHEET NO. 15

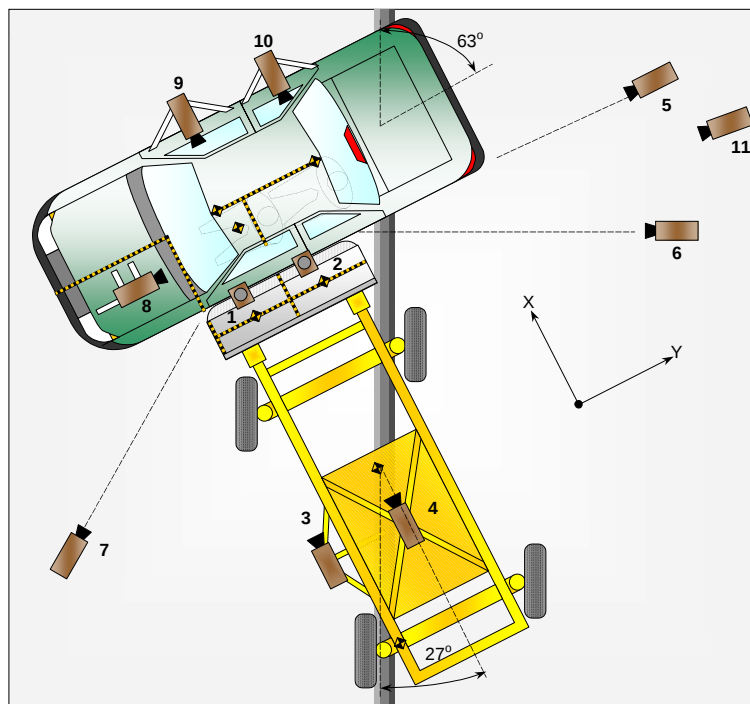
HIGH SPEED CAMERA LOCATIONS AND DATA

Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan

NHTSA No.: G60105

Test Program: 55/28 km/h Side Impact NCAP

Test Date: 08/16/05



No.	Camera View	Location (mm)			Angle (deg.)	Lens (mm)	Film Speed (fps)
		X	Y	Z			
Doc	Real Time Digital	3658	22860	-1730	-5	N/A	
1	Overhead Overall	1220	2286	-5485	-90	f4	
2	Overhead Close Up	609	1675	-5485	-90	f4	
3	Impact Point	-2134	0	-1145	-7	f4	
4	Side Overall	-3910	840	-1830	-11	f4	
5	Rear	228	15545	-1371	-1	f4	
6	Left Rear	-7188	16460	-940	-1	f4	
7	Left Front	-2665	-3550	-1475	-10	f4	
8	Driver Front	380	-545	-1356	-20	f2.8	
9	Driver Side	1705	710	-1055	-2	f2.8	
10	Passenger Side	1695	1592	-1100	-2	f2.8	
11	Additional Real Time Digital	-2600	-4700	-1473	-1	N/A	
12	Additonal Left Front	-2575	-3475	-1421	-7	85mm	

X = Barrier Face Y = Monorail Centerline Z = Ground DNR = Did Not Run NTM = No Timing Marks

DATA SHEET NO. 16

FMVSS 301 FUEL SYSTEM INTEGRITY POST-IMPACT DATA

Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan NHTSA No.: G60105
Test Program: 55/28 km/h Side Impact NCAP Test Date: 08/16/05

Test Time: 3:38 PM Temperature: 33.9 Deg. C.

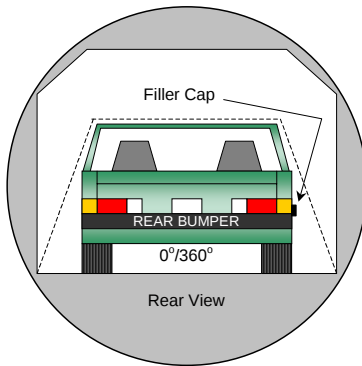
Stoddard Solvent Spillage Measurements

- A. From impact until vehicle motion ceases: 0.0 oz.
(Maximum Allowable = 1 ounce)
- B. For the 5 minute period after motion ceases: 0.0 oz.
(Maximum Allowable = 5 ounces)
- C. For the following 25 minutes: 0.0 oz.
(Maximum Allowable = 1 oz./minute)
- D. Spillage Details: No leakage occurred

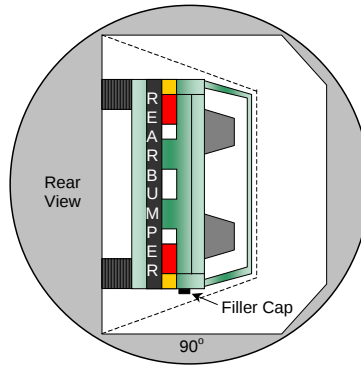
DATA SHEET NO. 17
FMVSS 301 STATIC ROLLOVER DATA

Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan
Test Program: 55/28 km/h Side Impact NCAP

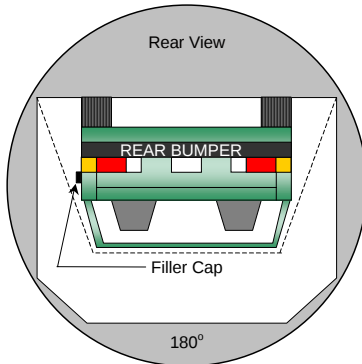
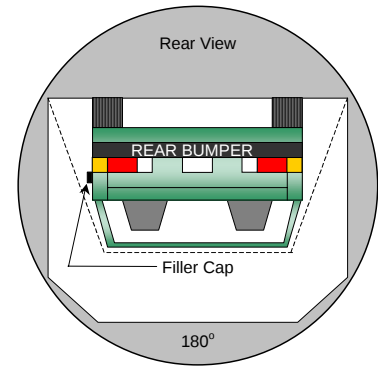
NHTSA No.: G60105
Test Date: 08/16/05



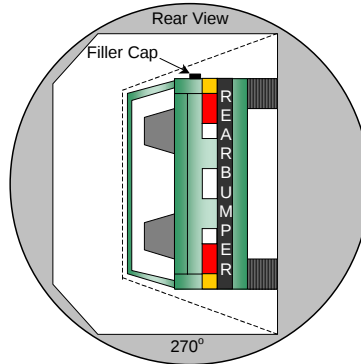
0° to 90°



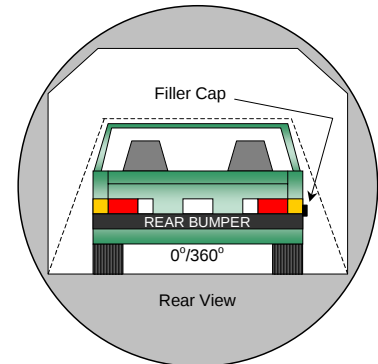
90° to 180°



180° to 270°



270° to 360°



1. The specified fixture rollover rate for each 90° of rotation is 60 to 120 seconds.
 2. The position hold time at each position is 300 seconds (minimum).
 3. Details of Stoddard Solvent spillage locations.
- No solvent leakage occurred during static rollover testing.

FMVSS 301 STATIC ROLLOVER DATA SHEETTest Vehicle: 2005 Chevrolet Cobalt 4-Door SedanNHTSA No.: G60105Test Program: 55/28 km/h Side Impact NCAPTest Date: 08/16/05**SOLVENT COLLECTION TIME TABLE IN SECONDS**

Test Phase	Rotation Time	Hold Time	Total Time
0° to 90°	85	300	385
90° to 180°	80	300	380
180° to 270°	76	300	376
270° to 360°	80	300	380

FMVSS 301 SPILLAGE TABLE REQUIREMENT (oz.)

First 5 Minutes	5.0
Sixth Minute	1.0
Seventh Minute	1.0
Eighth Minute	1.0

Test Phase	First 5 Minutes	Sixth Minute	Seventh Minute	Eighth Minute
0° to 90°	0	0	0	0
90° to 180°	0	0	0	0
180° to 270°	0	0	0	0
270° to 360°	0	0	0	0

SOLVENT SPILLAGE LOCATION TABLE

Test Phase	Spillage Location
0° to 90°	None
90° to 180°	None
180° to 270°	None
270° to 360°	None

**APPENDIX A
PHOTOGRAPHS**

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Figure A-1: Left Front $\frac{3}{4}$ View, as Received



Figure A-2: Right Rear $\frac{3}{4}$ View, as Received



MFD BY GENERAL MOTORS CORP

DATE
06/05

GVWR
1705 KG
3760 LB

GAWR FRT
889 KG
1960 LB

GAWR RR
816 KG
1800 LB

THIS VEHICLE CONFORMS TO ALL APPLICABLE U.S. FEDERAL MOTOR
VEHICLE SAFETY, BUMPER, AND THEFT PREVENTION STANDARDS IN
EFFECT ON THE DATE OF MANUFACTURE SHOWN ABOVE.

1G1AK52F257668600

TYPE: PASS CAR

Figure A-3: Manufacturer's Label



TIRE AND LOADING INFORMATION

SEATING CAPACITY | TOTAL 5 | FRONT 2 | CENTER 0 | REAR 3

The combined weight of occupants and cargo should never exceed 404 kg or 891 lbs.

ORIGINAL TIRE SIZE	COLD TIRE INFLATION PRESSURE	
P195/60R15	FRONT	210 kPa, 30 PSI
P195/60R15	REAR	210 kPa, 30 PSI
T115/70D15	SPARE	420 kPa, 60 PSI

**SEE OWNER'S
MANUAL FOR
ADDITIONAL
INFORMATION**

Figure A-4: Tire Placard



Figure A-5: Pre-Test Front View



Figure A-6: Post-Test Front View



Figure A-7: Pre-Test Left Front ¾ View



Figure A-8: Post-Test Left Front $\frac{3}{4}$ View



Figure A-9: Pre-Test Left Side View



Figure A-10: Post-Test Left Side View



Figure A-11: Pre-Test Left Rear $\frac{3}{4}$ View



Figure A-12: Post-Test Left Rear $\frac{3}{4}$ View



Figure A-13: Pre-Test Rear View



Figure A-14: Post-Test Rear View



Figure A-15: Pre-Test Right Rear $\frac{3}{4}$ View



Figure A-16: Post-Test Right Rear $\frac{3}{4}$ View



Figure A-17: Pre-Test Right Side View



Figure A-18: Post-Test Right Side View



Figure A-19: Pre-Test Right Front ¾ View



Figure A-20: Post-Test Right Front $\frac{3}{4}$ View



Figure A-21: Pre-Test Overhead View



Figure A-22: Post-Test Overhead View



Figure A-23: Pre-Test Overhead Close-up View



Figure A-24: Post-Test Overhead Close-up View



Figure A-25: Pre-Test Left Impact Point



Figure A-26: Post-Test Left Impact Point



Figure A-27: Pre-Test Front $\frac{3}{4}$ View of Left Side Doors



Figure A-28: Post-Test Front $\frac{3}{4}$ View of Left Side Doors



Figure A-29: Pre-Test Rear $\frac{3}{4}$ View of Left Side Doors



Figure A-30: Post-Test Rear $\frac{3}{4}$ View of Left Side Doors



Figure A-31: Pre-Test Left Front Door



Figure A-32: Post-Test Left Front Door



Figure A-33: Pre-Test Left Rear Door



Figure A-34: Post-Test Left Rear Door



Figure A-35: Pre-Test Driver Dummy (Door Open)



Figure A-36: Pre-Test Driver Dummy (Through Window)



Figure A-37: Post-Test Driver Dummy (Through Window)



Figure A-38: Pre-Test Driver Dummy Clearance From Door

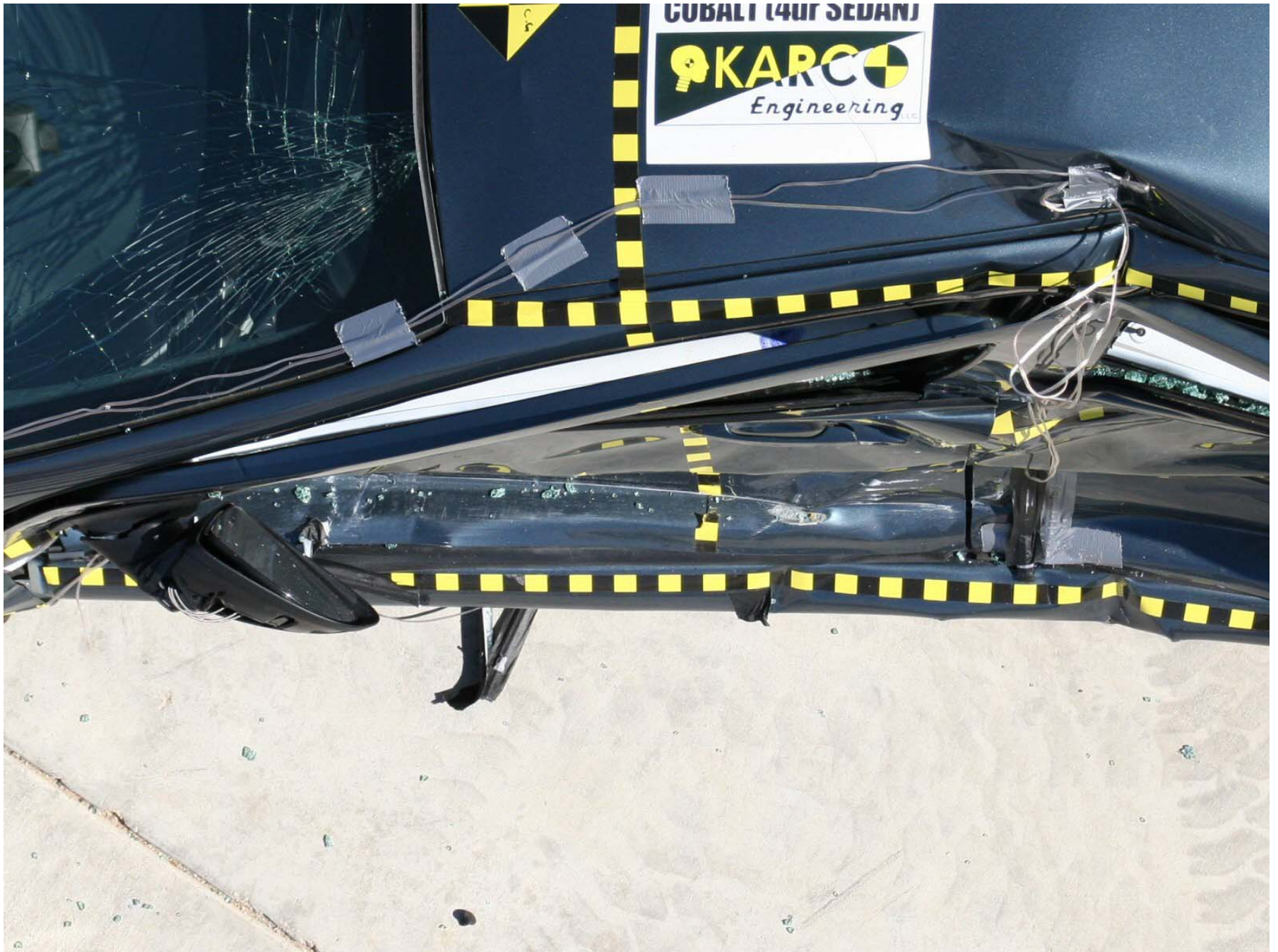


Figure A-39: Post-Test Driver Dummy Clearance From Door



Figure A-40: Pre-Test Driver Dummy Right Side View



Figure A-41: Post-Test Driver Dummy Right Side View



Figure A-42: Pre-Test Front Door Panel (Interior)



Figure A-43: Post-Test Front Door Panel (Interior)



Figure A-44: Pre-Test Passenger Dummy Left Side (Door Open)

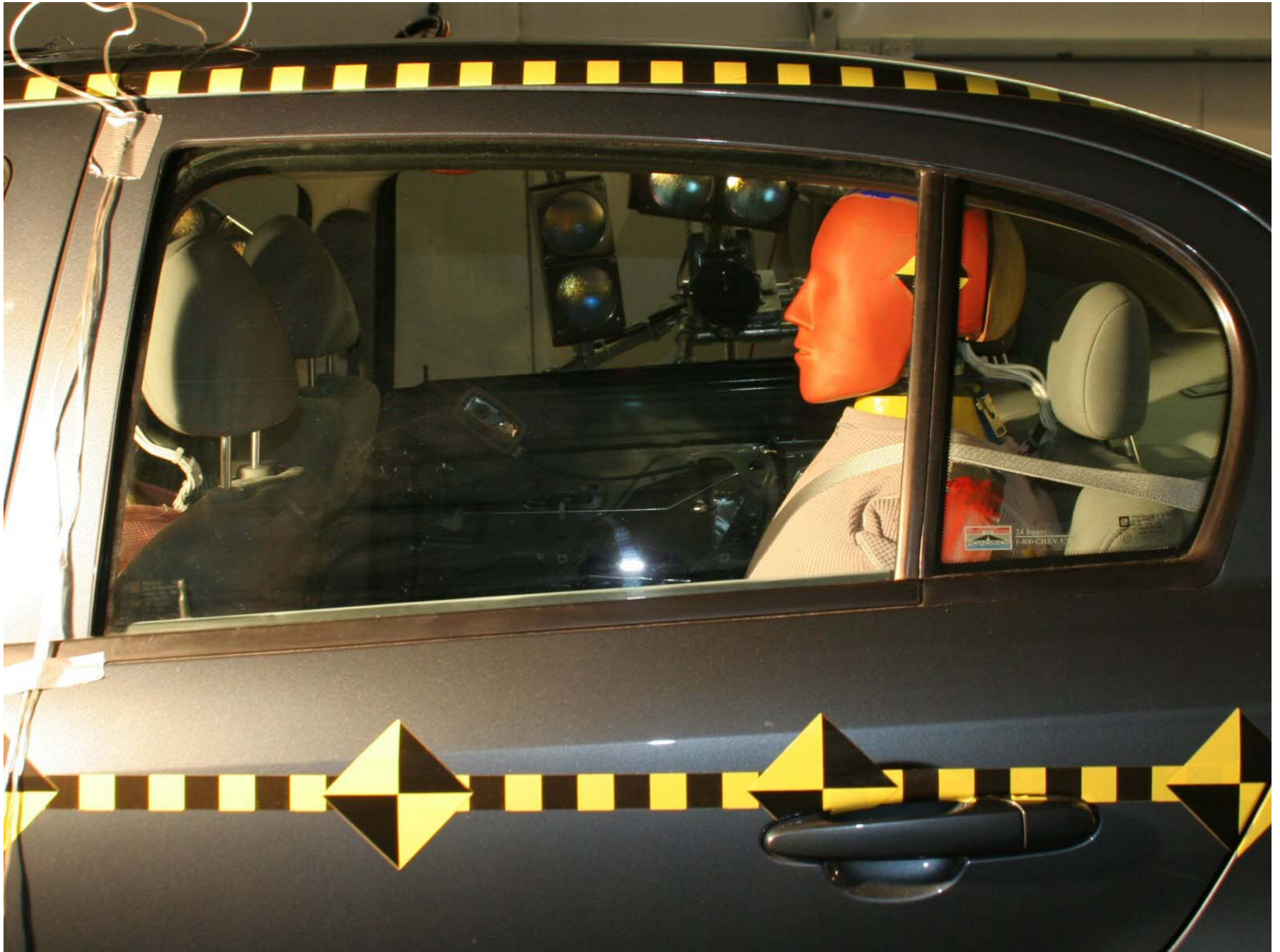


Figure A-45: Pre-Test Passenger Dummy Left Side (Through Window)



Figure A-46: Post-Test Passenger Dummy Left Side (Through Window)



Figure A-47: Pre-Test Passenger Dummy Clearance From Door



Figure A-48: Post-Test Passenger Dummy Clearance From Door



Figure A-49: Pre-Test Passenger Dummy Right Side View



Figure A-50: Post-Test Passenger Dummy Right Side View



Figure A-51: Pre-Test Rear Door Panel (Interior)



Figure A-52: Post-Test Rear Door Panel (Interior)



Figure A-53: Pre-Test Front View of Deformable Barrier



Figure A-54: Post-Test Front View of Deformable Barrier

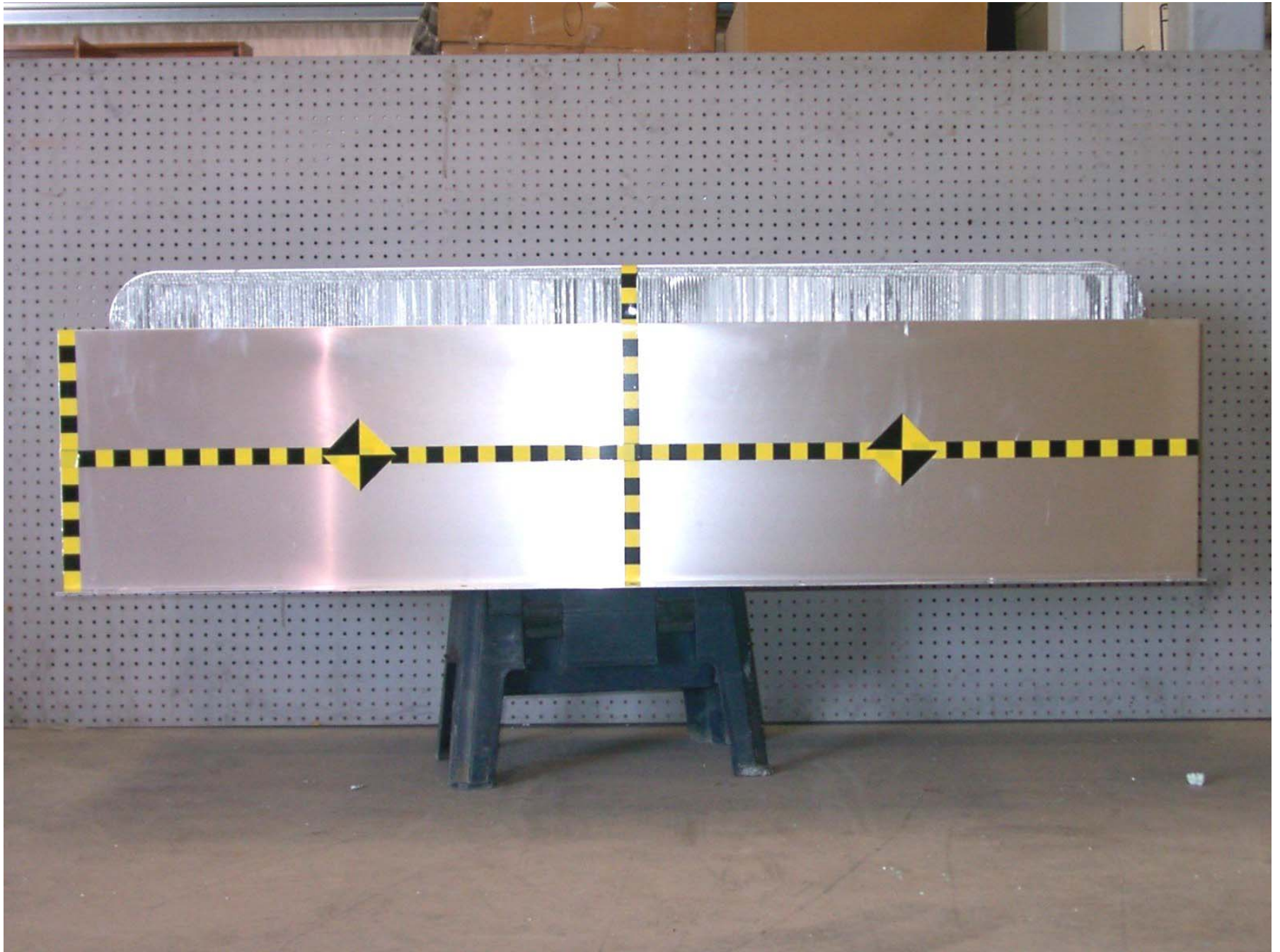


Figure A-55: Pre-Test Top View of Deformable Barrier



Figure A-56: Post-Test Top View of Deformable Barrier



Figure A-57: Pre-Test Right Side View of Deformable Barrier



Figure A-58: Post-Test Right Side View of Deformable Barrier



Figure A-59: Pre-Test Left Side View of Deformable Barrier



Figure A-60: Post-Test Left Side View of Deformable Barrier

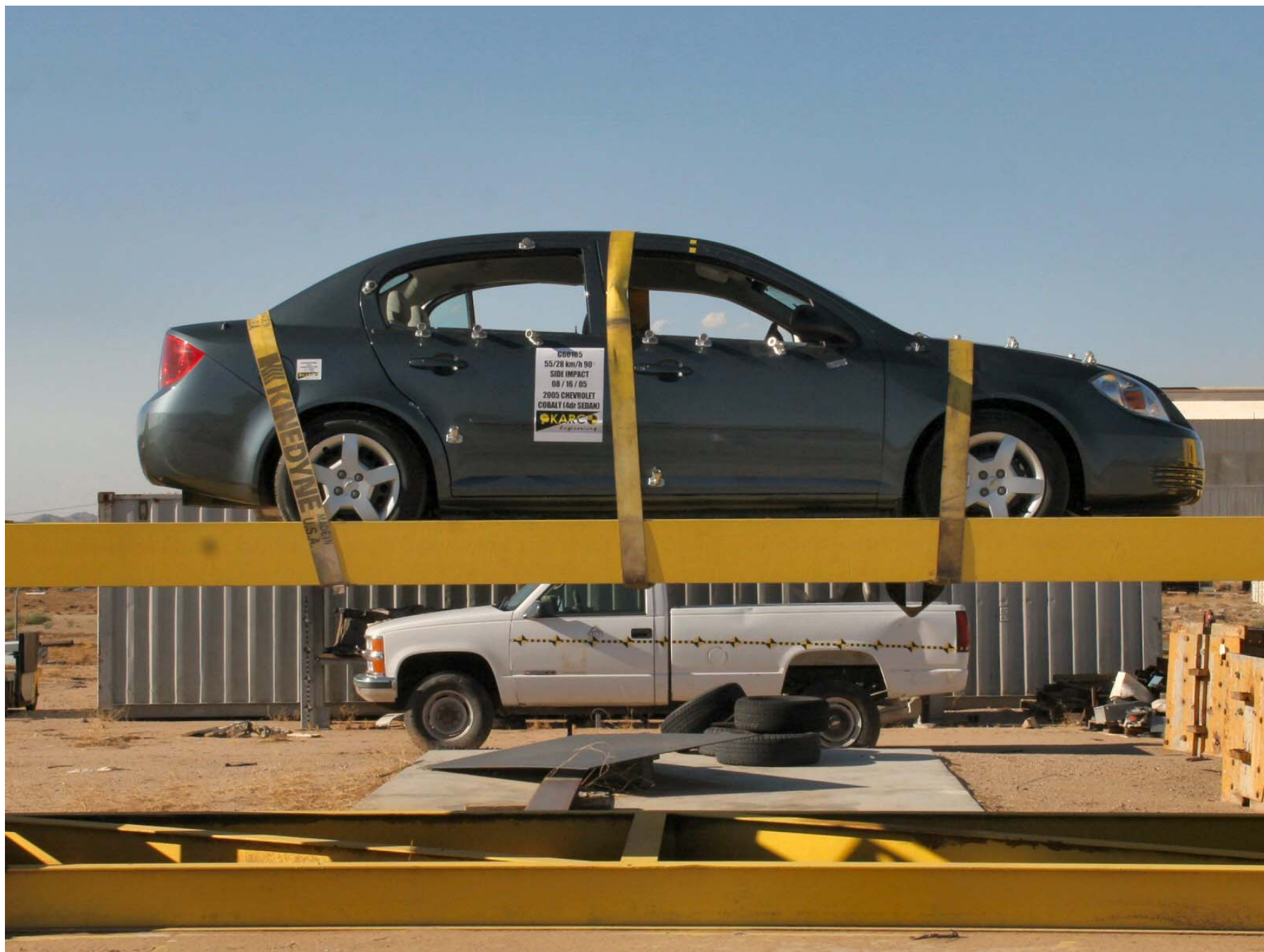


Figure A-61: Vehicle on Rollover Device (0°)



Figure A-62: Vehicle on Rollover Device (90°)



Figure A-63: Vehicle on Rollover Device (180°)

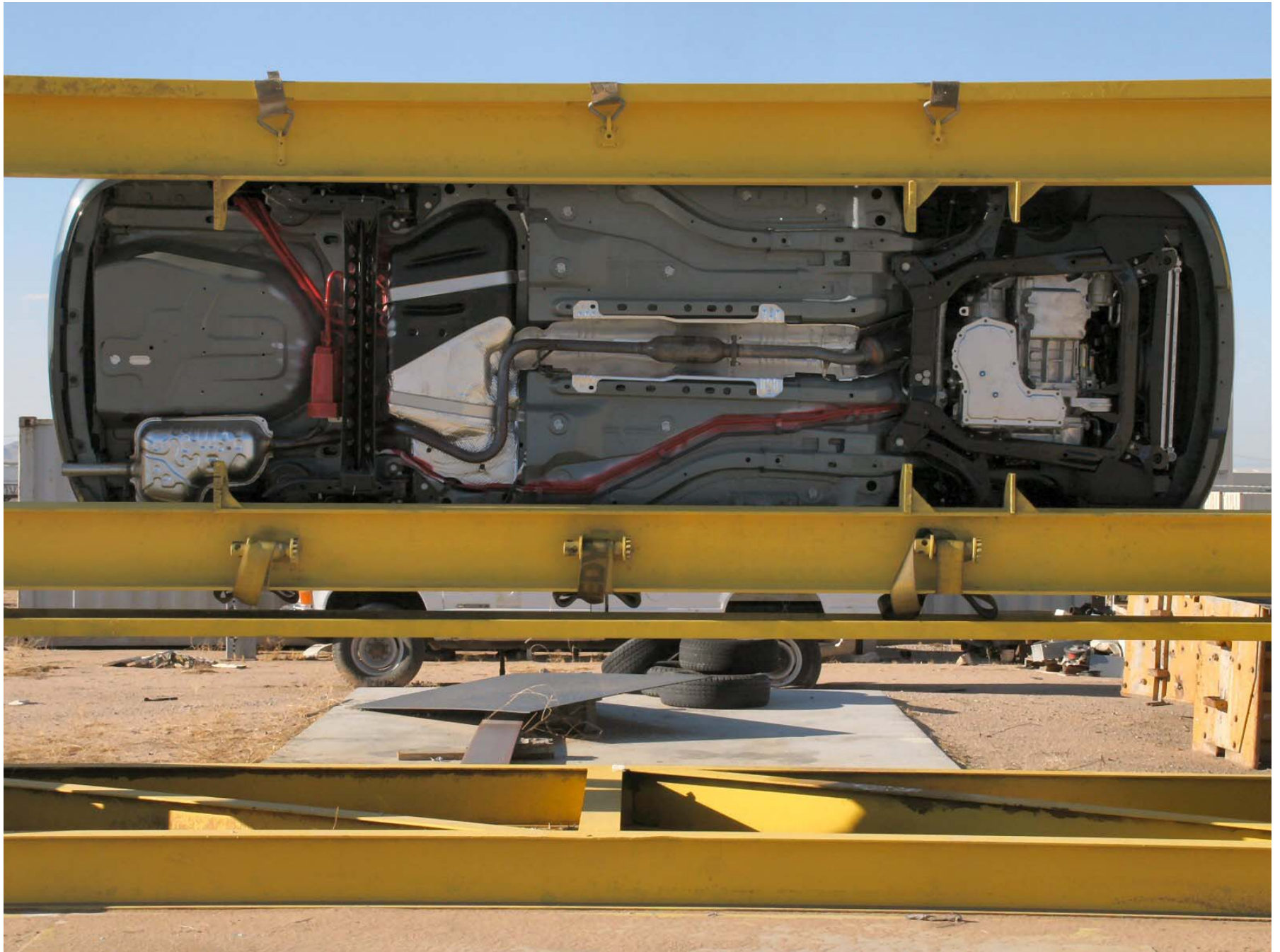


Figure A-64: Vehicle on Rollover Device (270°)



Figure A-65: Vehicle Impact



Figure A-66: Post Test Passenger Door Overhead View

APPENDIX B
SID/HIII, VEHICLE AND MDB RESPONSE DATA

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	Driver Upper Neck Force Y	B-5
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	Driver Lower Spine Redundant Y Velocity
	Driver Pelvis Redundant Y Velocity
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	Driver Pelvis Contact
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B-14	Passenger Head X Redundant
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	Passenger Head Redundant Y Velocity
	Passenger Head Redundant Z Velocity
B-16	Passenger Upper Neck Force X
	Passenger Upper Neck Force Y
	Passenger Upper Neck Force Z
	Passenger Upper Neck Force Resultant
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	Passenger Upper Neck Moment Y
	Passenger Upper Neck Moment Z
	Passenger Upper Neck Moment Resultant
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	Passenger Lower Spine Primary Y
	Passenger Pelvis Primary Y

LIST OF DATA PLOTS...(Continued)

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B-20	Passenger Upper Rib Redundant Y
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	B-28
	Vehicle Rear Floor Above Axle Y Velocity
	B-28
	Vehicle Rear Floor Above Axle Z Velocity
	B-28

LIST OF DATA PLOTS...(Continued)

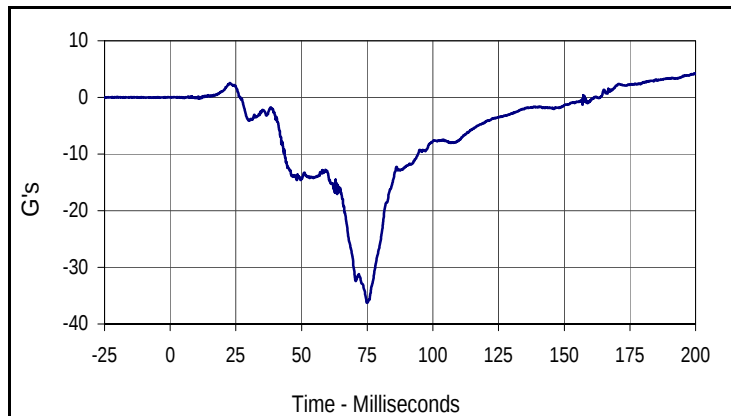
<u>Data Plot</u>	<u>Page</u>
B-29	Vehicle Left Sill at Rear Door Y
	Vehicle Left Sill at Front Door Y
	Vehicle Left Sill at Rear Door Y Velocity
	Vehicle Left Sill at Front Door Y Velocity
B-30	Vehicle Left Front Door C/L Y
	Vehicle Right Rear Occupant Compartment
	Vehicle Left Front Door Mid Rear Y
	Vehicle Left Front Door Upper CL Y
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	Vehicle Left Front Door Mid Rear Y Velocity
	Vehicle Left Rear Door Upper CL Y Velocity
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	Vehicle B-Post Middle Y Velocity
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	Vehicle A-Post Lower Y Velocity
	Vehicle A-Post Middle Y Velocity
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	Vehicle CG Resultant
B-37	Vehicle CG X Velocity
	Vehicle CG Y Velocity
	Vehicle CG Z Velocity

LIST OF DATA PLOTS...(Continued)

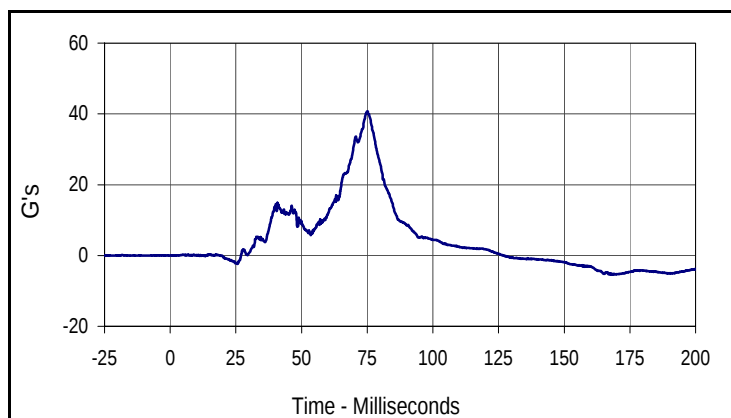
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B-38	Driver Upper Rib Primary Y	B-38
	Driver Lower Rib Primary Y	B-38
	Driver Lower Spine Primary Y	B-38
	Driver Pelvis Primary Y	B-38
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B-45	MDB Right Bumper Contact	B-45

Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

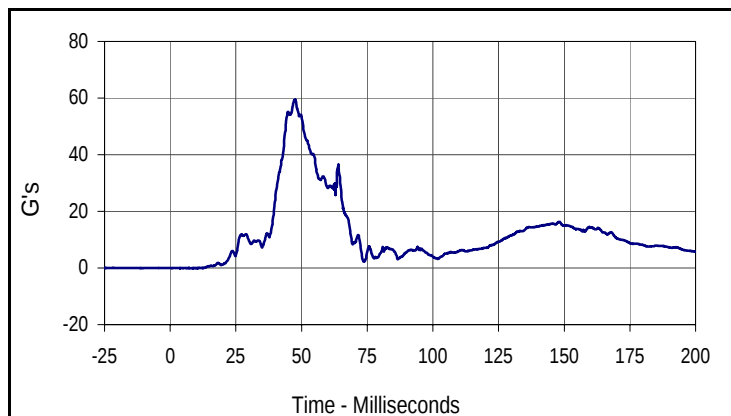
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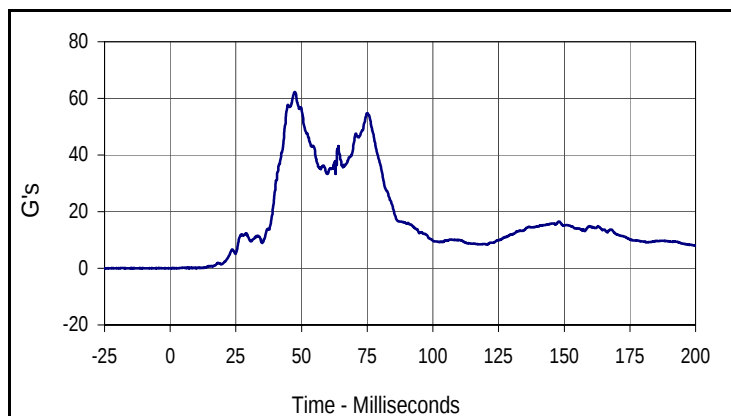
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001	FIL	1000	G's
Max	Time	Min	Time
4.2	200.0	-36.3	74.9



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40.7	75.0	-5.4	169.3



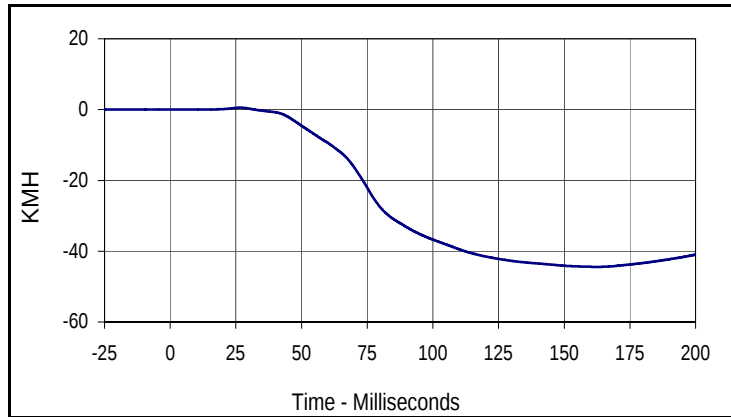
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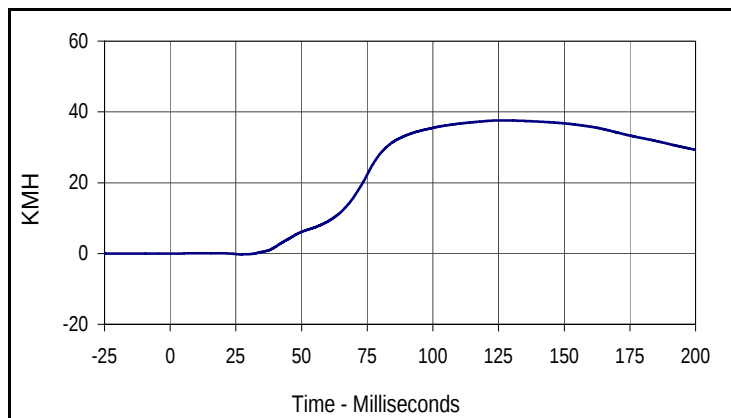
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Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

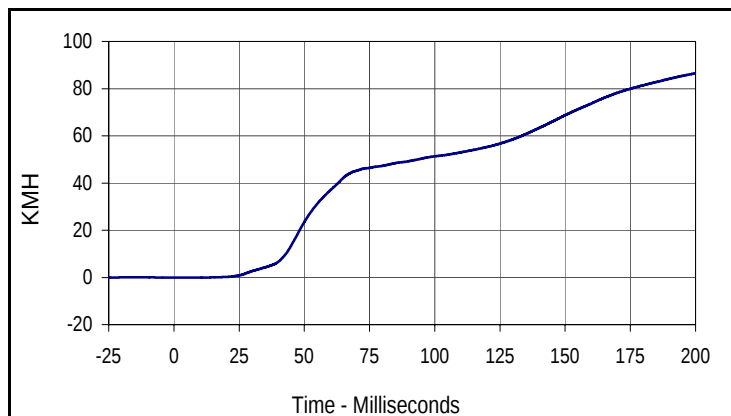
Test Date: 8/16/05
 NHTSA No.: G60105



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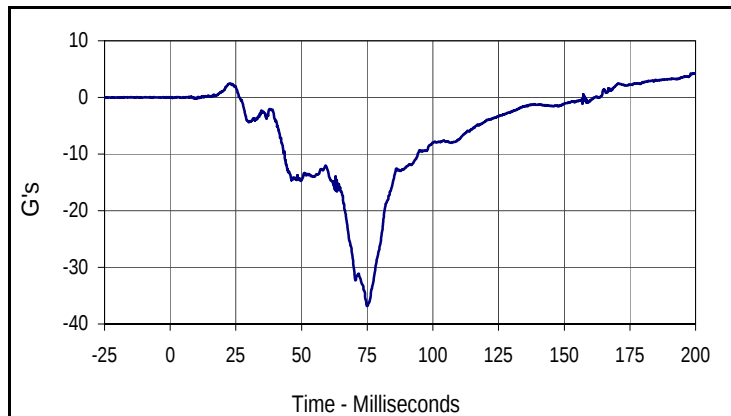
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Driver Head Y Primary Velocity			
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Max	Time	Min	Time
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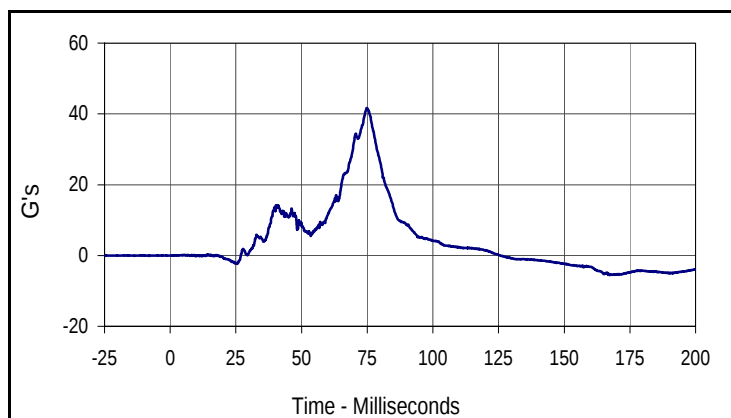
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Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

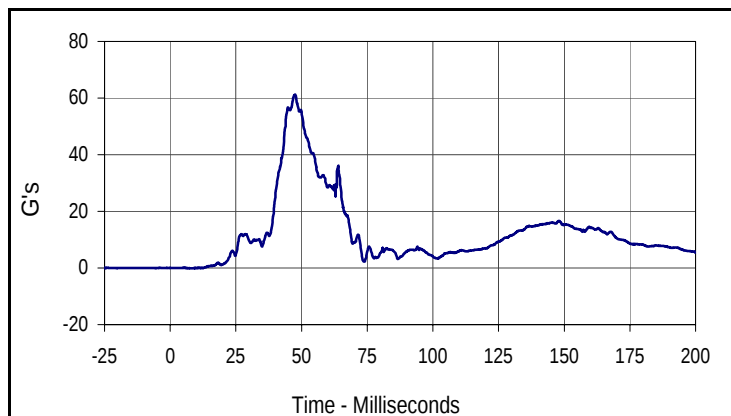
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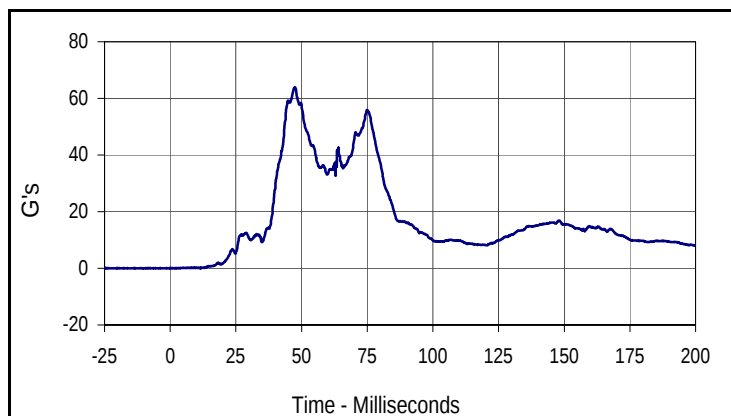
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41.7	74.9	-5.5	167.3



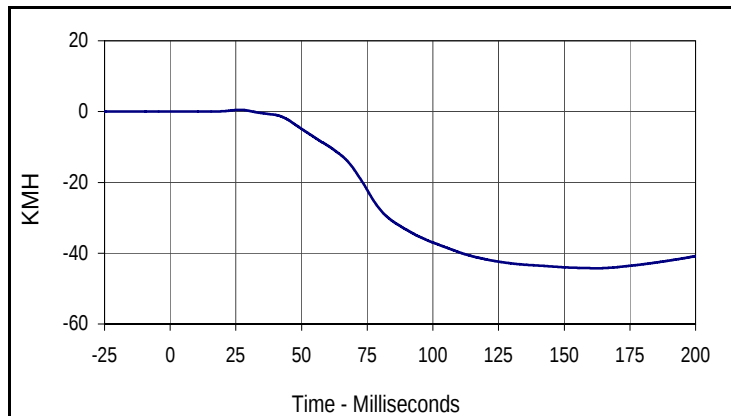
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Max	Time	Min	Time
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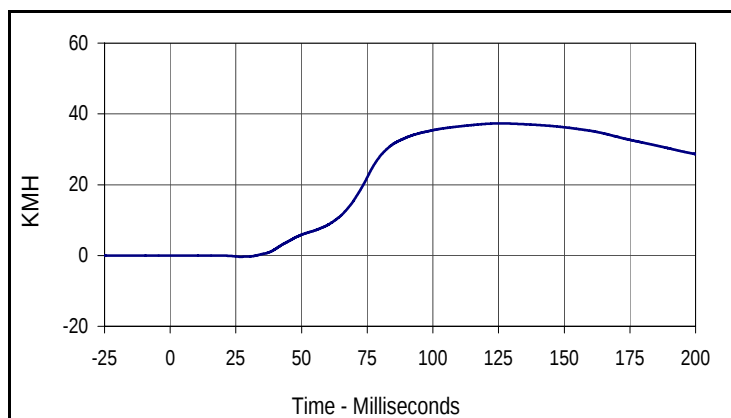
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Driver Head Resultant Redundant			
CURNO	Type	SAE Class	Units
004	RES	1000	G's
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Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

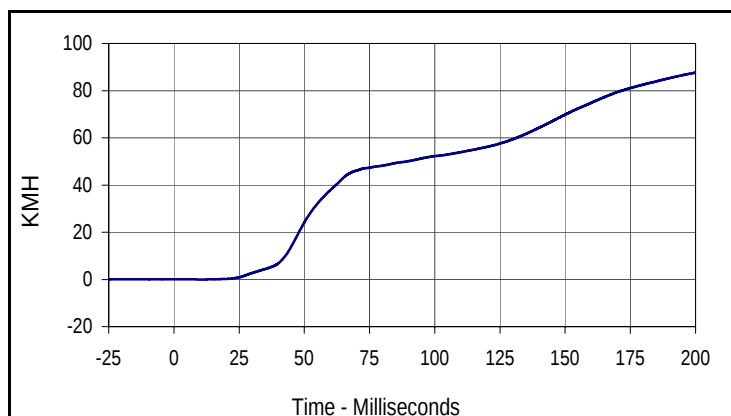
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Curve Description			
Driver Head X Redundant Velocity			
CURNO	Type	SAE Class	Units
004	IN1	180	KMH
Max	Time	Min	Time
0.5	26.5	-44.2	161.5



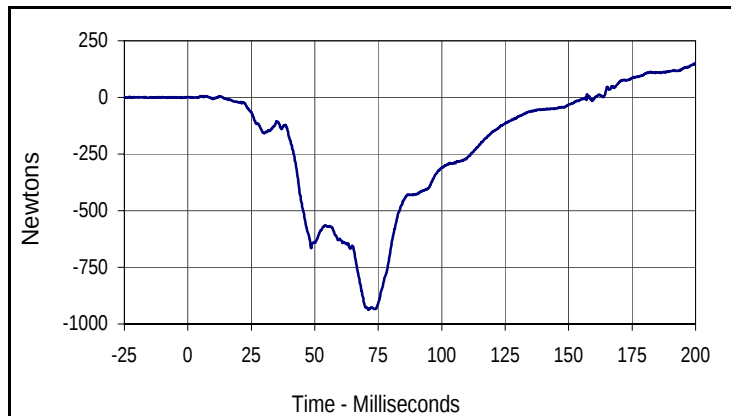
Curve Description			
Driver Head Y Redundant Velocity			
CURNO	Type	SAE Class	Units
005	IN1	180	KMH
Max	Time	Min	Time
37.3	125.7	-0.4	26.9



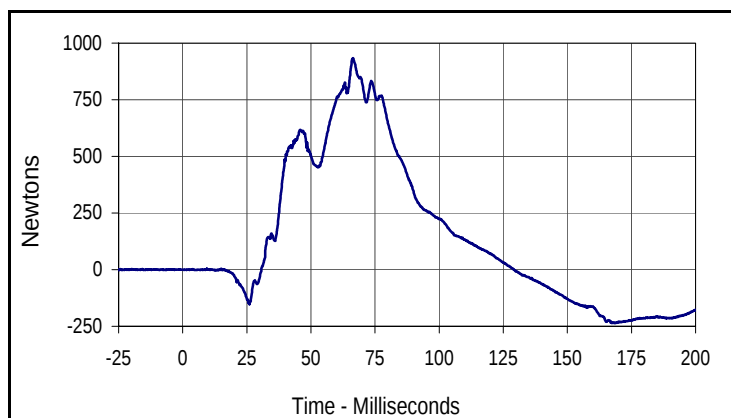
Curve Description			
Driver Head Z Redundant Velocity			
CURNO	Type	SAE Class	Units
006	IN1	180	KMH
Max	Time	Min	Time
87.6	200.0	0.0	10.3

Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

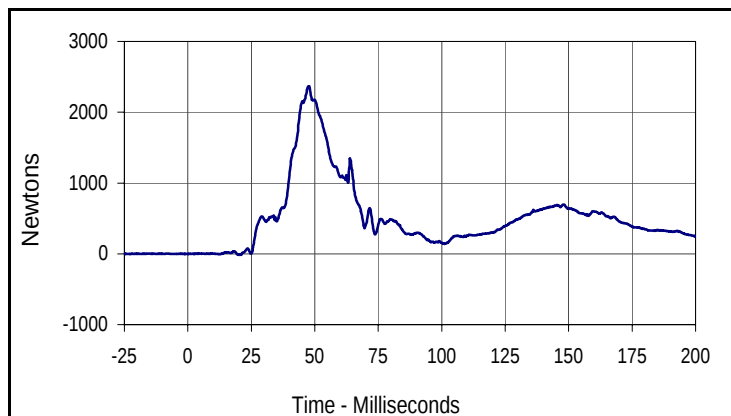
Test Date: 8/16/05
 NHTSA No.: G60105



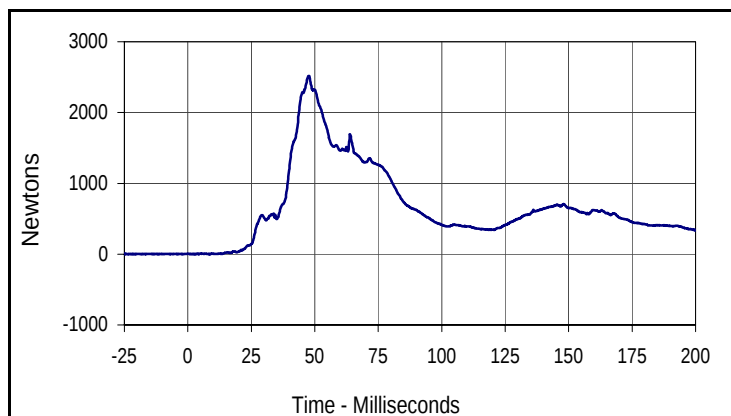
Curve Description			
Driver Upper Neck Force X			
CURNO	Type	SAE Class	Units
007	FIL	1000	Newtons
Max	Time	Min	Time
149.1	199.9	-937.7	71.2



Curve Description			
Driver Upper Neck Force Y			
CURNO	Type	SAE Class	Units
008	FIL	1000	Newtons
Max	Time	Min	Time
933.2	66.5	-235.8	168.7



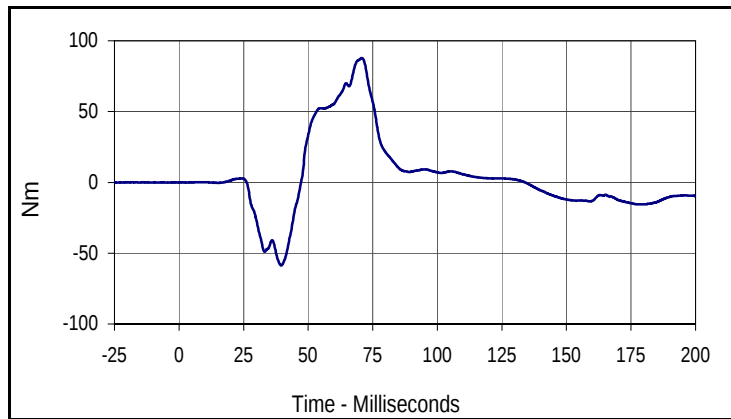
Curve Description			
Driver Upper Neck Force Z			
CURNO	Type	SAE Class	Units
009	FIL	1000	Newtons
Max	Time	Min	Time
2369.0	47.6	-14.6	21.0



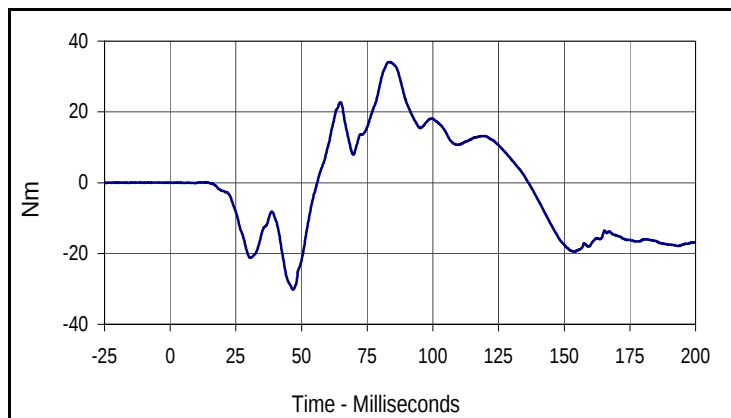
Curve Description			
Driver Upper Neck Force Resultant			
CURNO	Type	SAE Class	Units
007	RES	1000	Newtons
Max	Time	Min	Time
2518.3	47.6	0.3	3.1

Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

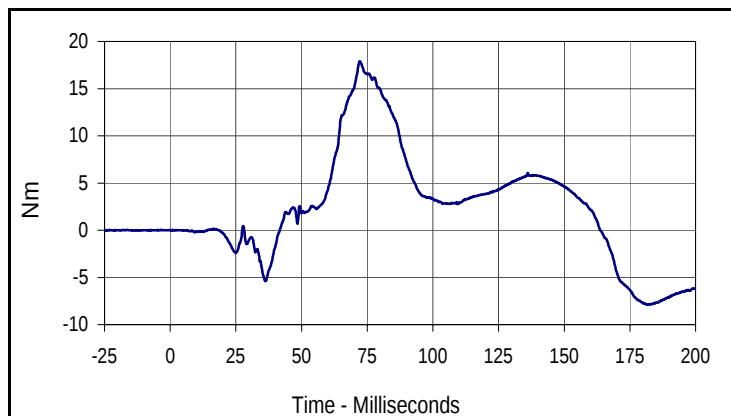
Test Date: 8/16/05
 NHTSA No.: G60105



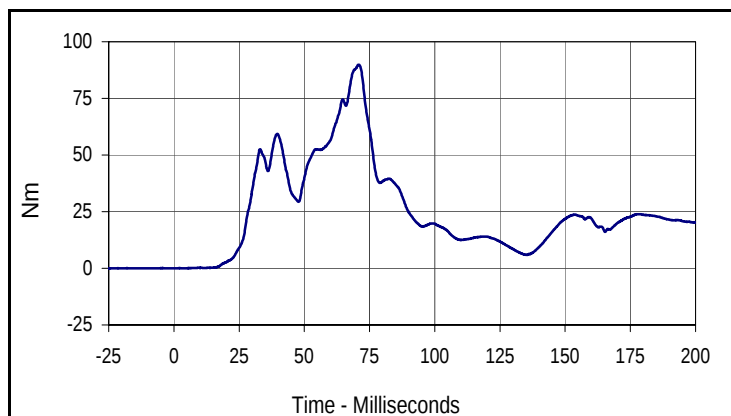
Curve Description			
Driver Upper Neck Moment X			
CURNO	Type	SAE Class	Units
010	FIL	600	Nm
Max	Time	Min	Time
87.9	70.7	-58.6	39.6



Curve Description			
Driver Upper Neck Moment Y			
CURNO	Type	SAE Class	Units
011	FIL	600	Nm
Max	Time	Min	Time
34.1	83.6	-30.2	46.8



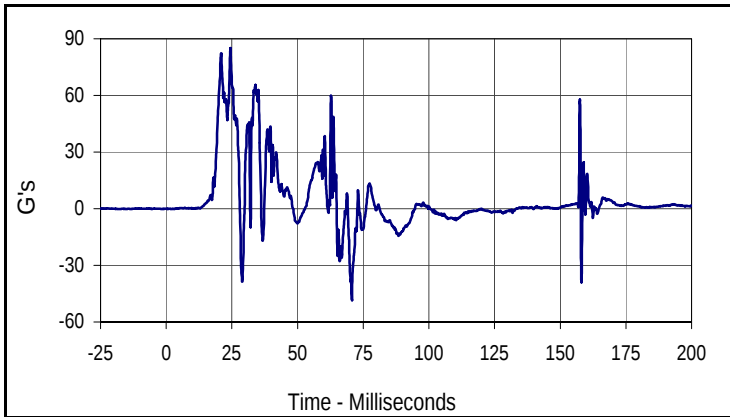
Curve Description			
Driver Upper Neck Moment Z			
CURNO	Type	SAE Class	Units
012	FIL	600	Nm
Max	Time	Min	Time
17.9	72.1	-7.9	181.6



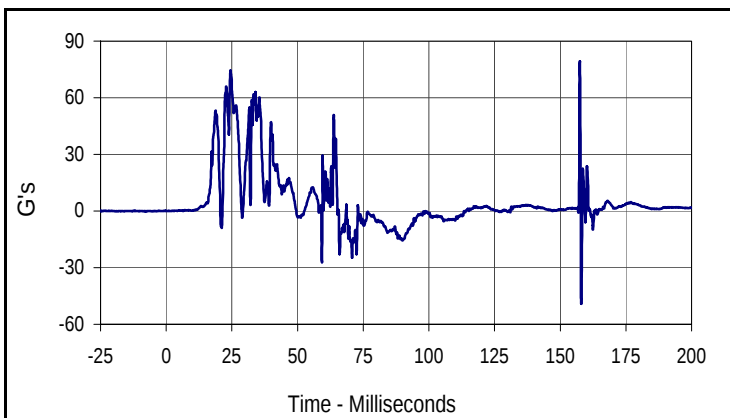
Curve Description			
Driver Upper Neck Moment Resultant			
CURNO	Type	SAE Class	Units
010	RES	600	Nm
Max	Time	Min	Time
89.9	70.8	0.0	3.9

Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

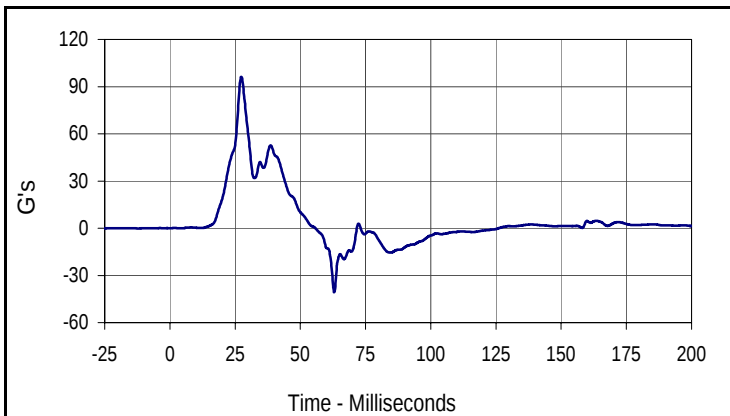
Test Date: 8/16/05
 NHTSA No.: G60105



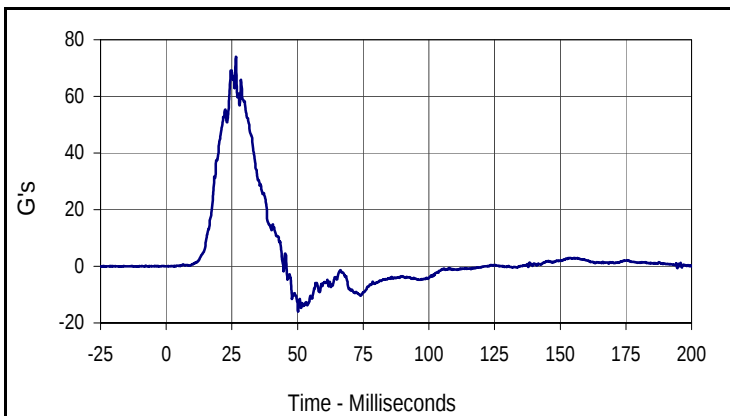
Curve Description			
Driver Upper Rib Y Primary			
CURNO	Type	SAE Class	Units
013	FIL	1000	G's
Max	Time	Min	Time
85.0	24.4	-48.5	70.7



Curve Description			
Driver Lower Rib Y Primary			
CURNO	Type	SAE Class	Units
014	FIL	1000	G's
Max	Time	Min	Time
79.2	157.5	-49.2	158.0



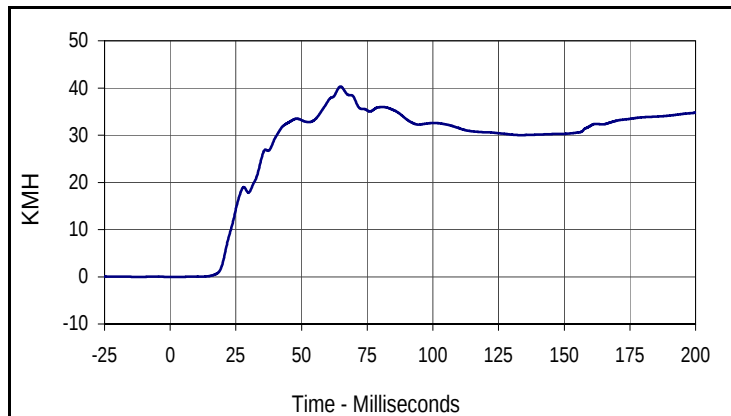
Curve Description			
Driver Lower Spine Y Primary			
CURNO	Type	SAE Class	Units
015	FIL	180	G's
Max	Time	Min	Time
96.3	27.4	-40.7	63.0



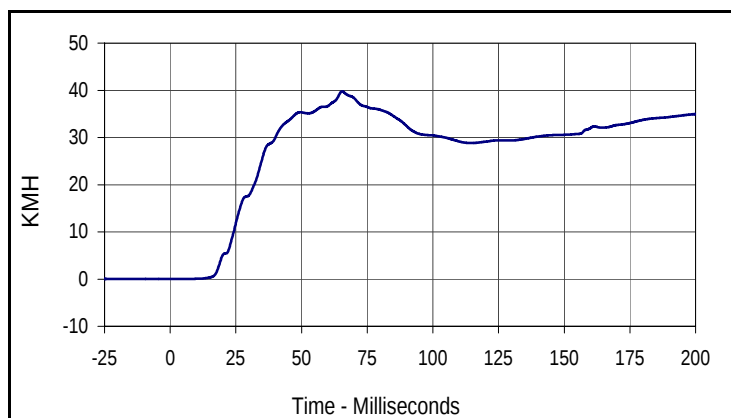
Curve Description			
Driver Pelvis Y Primary			
CURNO	Type	SAE Class	Units
016	FIL	1000	G's
Max	Time	Min	Time
74.1	26.5	-16.0	50.2

Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

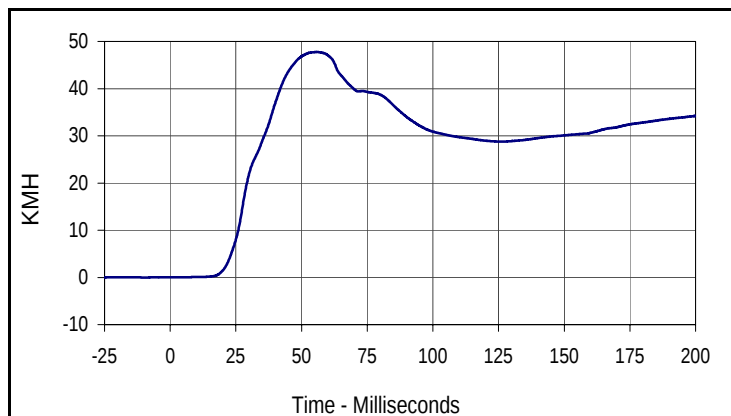
Test Date: 8/16/05
 NHTSA No.: G60105



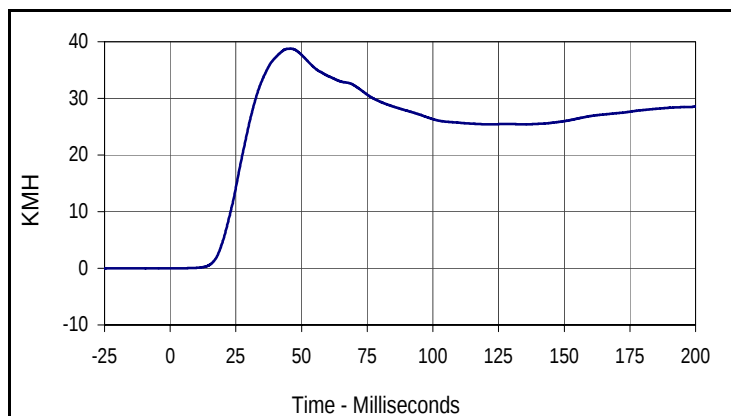
Curve Description			
Driver Upper Rib Y Primary Velocity			
CURNO	Type	SAE Class	Units
013	IN1	180	KMH
Max	Time	Min	Time
40.3	64.8	0.0	3.6



Curve Description			
Driver Lower Rib Y Primary Velocity			
CURNO	Type	SAE Class	Units
014	IN1	180	KMH
Max	Time	Min	Time
39.8	65.4	0.0	0.0



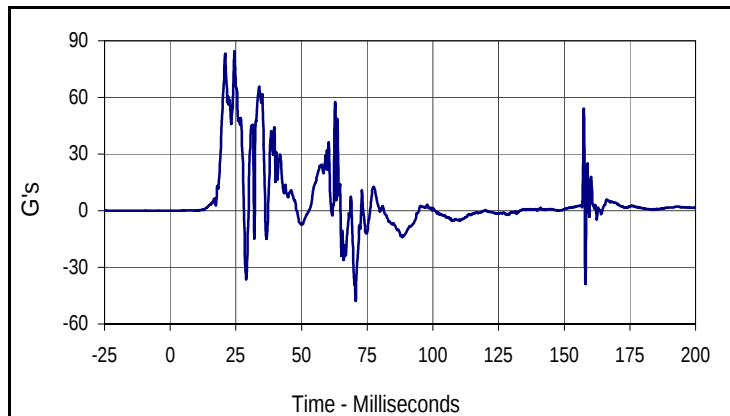
Curve Description			
Driver Lower Spine Y Primary Velocity			
CURNO	Type	SAE Class	Units
015	IN1	180	KMH
Max	Time	Min	Time
47.7	55.8	0.0	0.0



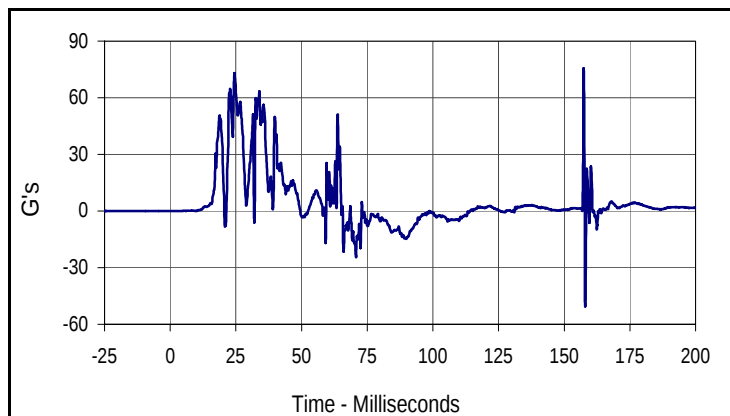
Curve Description			
Driver Pelvis Y Primary Velocity			
CURNO	Type	SAE Class	Units
016	IN1	180	KMH
Max	Time	Min	Time
38.8	45.8	0.0	0.0

Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

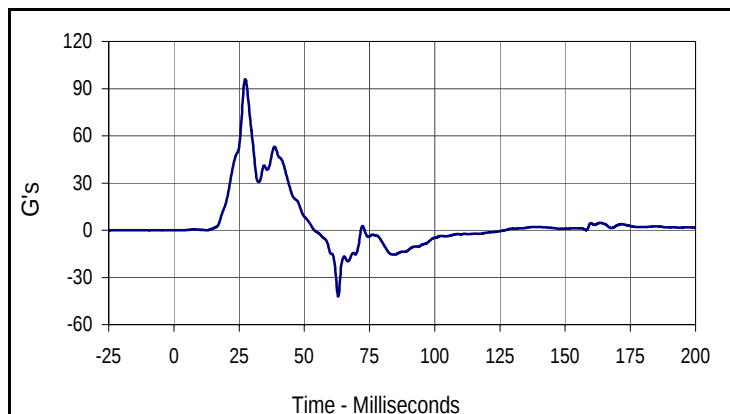
Test Date: 8/16/05
 NHTSA No.: G60105



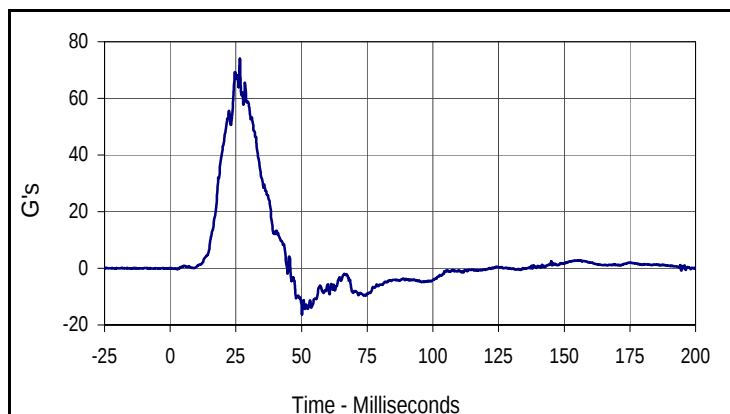
Curve Description			
Driver Upper Rib Y Redundant			
CURNO	Type	SAE Class	Units
017	FIL	1000	G's
Max	Time	Min	Time
84.4	24.4	-47.8	70.6



Curve Description			
Driver Lower Rib Y Redundant			
CURNO	Type	SAE Class	Units
018	FIL	1000	G's
Max	Time	Min	Time
75.3	157.4	-50.5	158.0



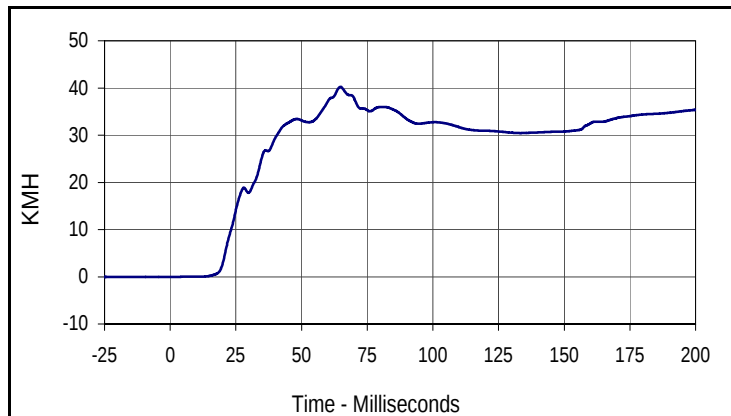
Curve Description			
Driver Lower Spine Y Redundant			
CURNO	Type	SAE Class	Units
019	FIL	180	G's
Max	Time	Min	Time
96.1	27.4	-42.2	63.0



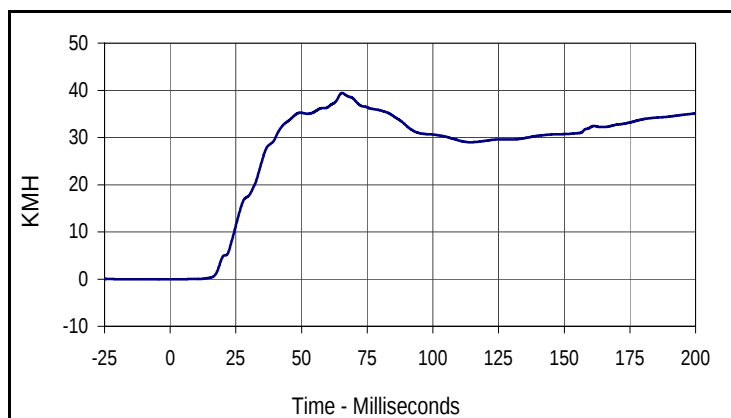
Curve Description			
Driver Pelvis Y Redundant			
CURNO	Type	SAE Class	Units
020	FIL	1000	G's
Max	Time	Min	Time
74.1	26.5	-16.3	50.2

Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

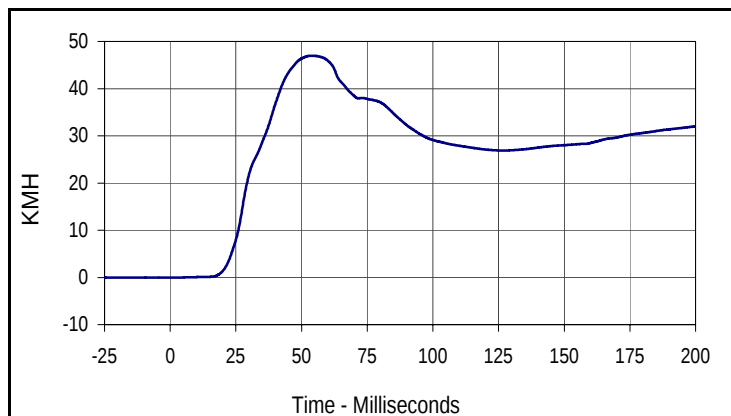
Test Date: 8/16/05
 NHTSA No.: G60105



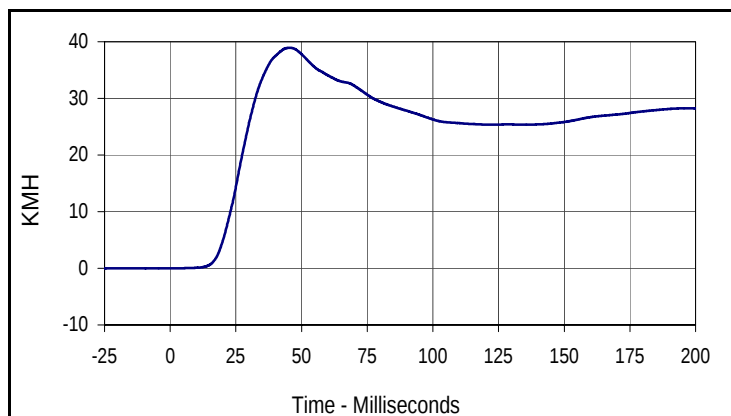
Curve Description			
Driver Upper Rib Y Redundant Velocity			
CURNO	Type	SAE Class	Units
017	IN1	180	KMH
Max	Time	Min	Time
40.2	64.8	0.0	0.0



Curve Description			
Driver Lower Rib Y Redundant Velocity			
CURNO	Type	SAE Class	Units
018	IN1	180	KMH
Max	Time	Min	Time
39.5	65.4	0.0	0.0



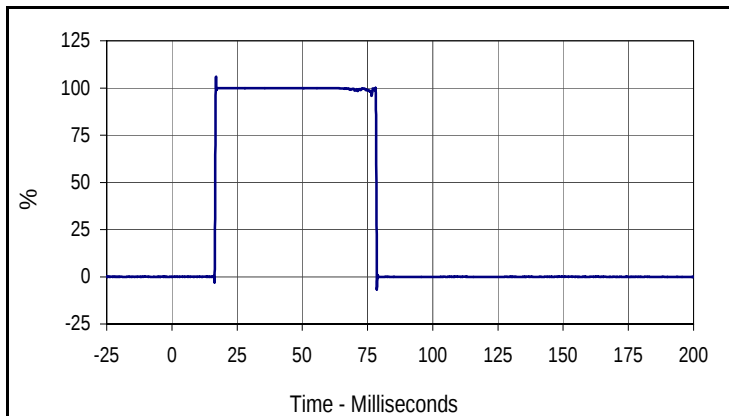
Curve Description			
Driver Lower Spine Y Redundant Velocity			
CURNO	Type	SAE Class	Units
019	IN1	180	KMH
Max	Time	Min	Time
47.0	53.8	0.0	0.0



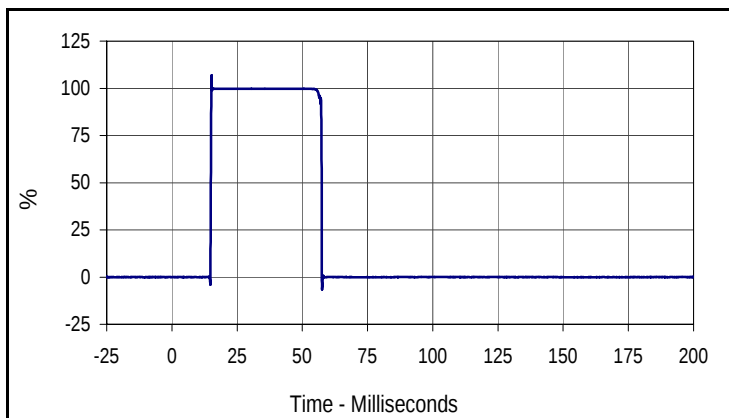
Curve Description			
Driver Pelvis Y Redundant Velocity			
CURNO	Type	SAE Class	Units
020	IN1	180	KMH
Max	Time	Min	Time
38.9	45.7	0.0	3.4

Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

Test Date: 8/16/05
 NHTSA No.: G60105



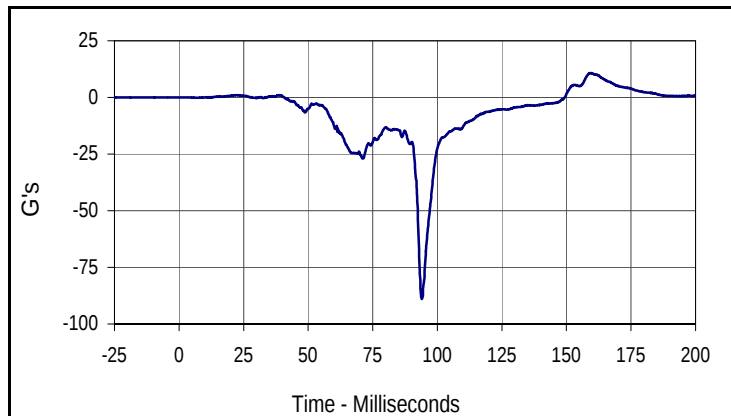
Curve Description			
Driver Thorax Contact			
CURNO	Type	SAE Class	Units
021	FIL	1000	%
Max	Time	Cross %	Time
106.0	16.9	50.0	16.7



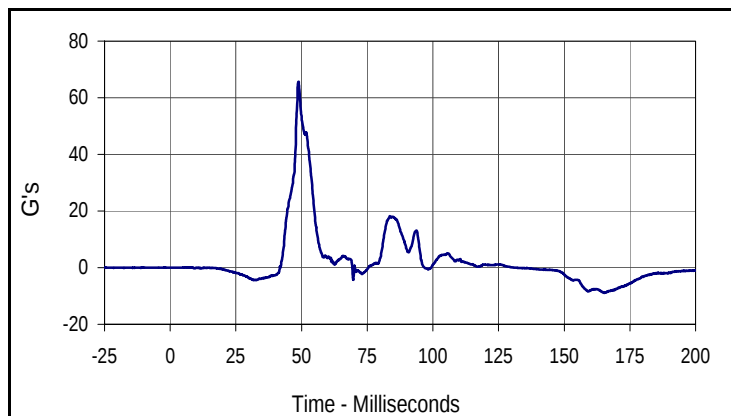
Curve Description			
Driver Pelvis Contact			
CURNO	Type	SAE Class	Units
022	FIL	1000	%
Max	Time	Cross %	Time
106.9	15.2	50.0	15.0

Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

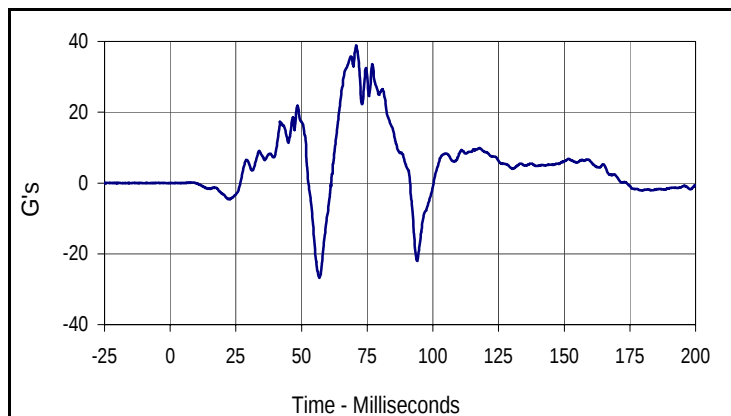
Test Date: 8/16/05
 NHTSA No.: G60105



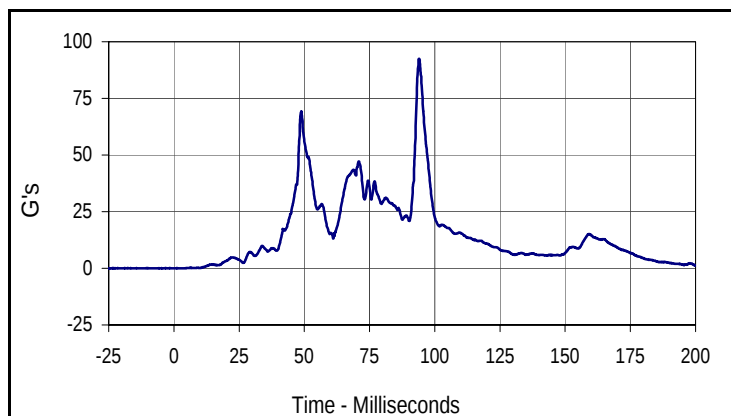
Curve Description			
Passenger Head X Primary			
CURNO	Type	SAE Class	Units
023	FIL	1000	G's
Max	Time	Min	Time
10.7	159.6	-88.9	94.0



Curve Description			
Passenger Head Y Primary			
CURNO	Type	SAE Class	Units
024	FIL	1000	G's
Max	Time	Min	Time
65.7	48.9	-8.9	165.2



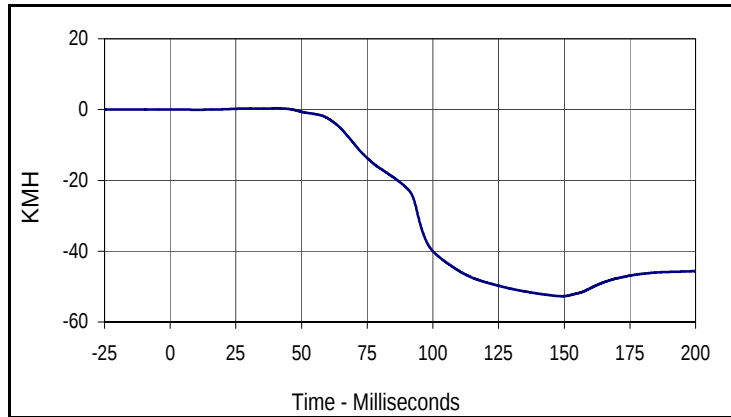
Curve Description			
Passenger Head Z Primary			
CURNO	Type	SAE Class	Units
025	FIL	1000	G's
Max	Time	Min	Time
38.9	70.8	-26.8	56.8



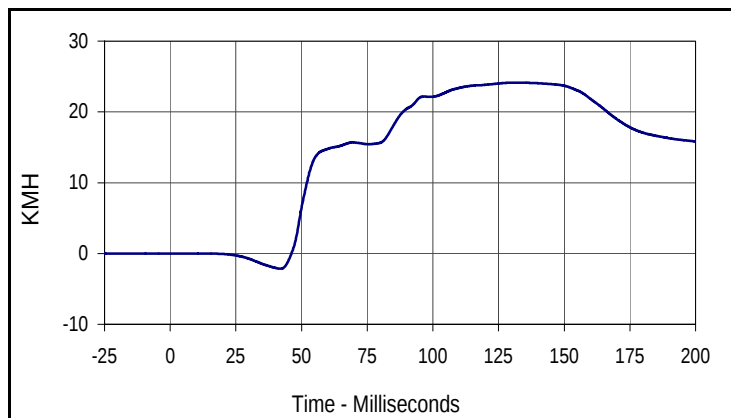
Curve Description			
Passenger Head Resultant Primary			
CURNO	Type	SAE Class	Units
023	RES	1000	G's
Max	Time	Min	Time
92.5	94.0	0.0	1.6

Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

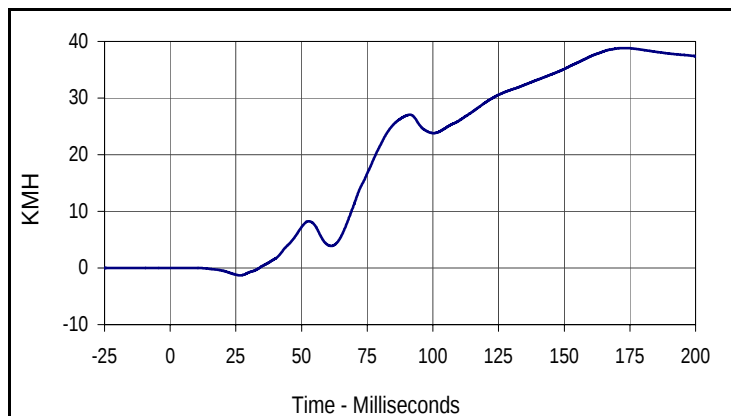
Test Date: 8/16/05
 NHTSA No.: G60105



Curve Description			
Passenger Head X Primary Velocity			
CURNO	Type	SAE Class	Units
023	IN1	180	KMH
Max	Time	Min	Time
0.4	40.7	-52.7	149.3



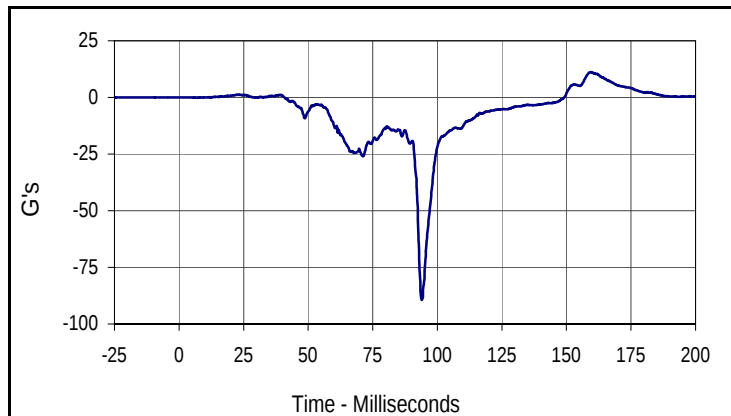
Curve Description			
Passenger Head Y Primary Velocity			
CURNO	Type	SAE Class	Units
024	IN1	180	KMH
Max	Time	Min	Time
24.1	131.4	-2.2	41.9



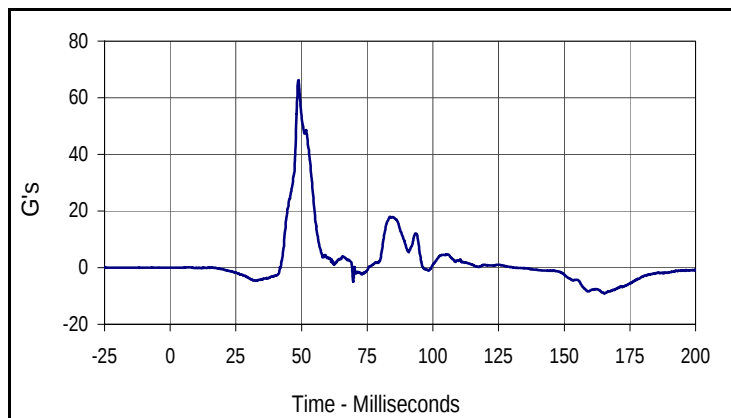
Curve Description			
Passenger Head Z Primary Velocity			
CURNO	Type	SAE Class	Units
025	IN1	180	KMH
Max	Time	Min	Time
38.8	173.7	-1.3	26.7

Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

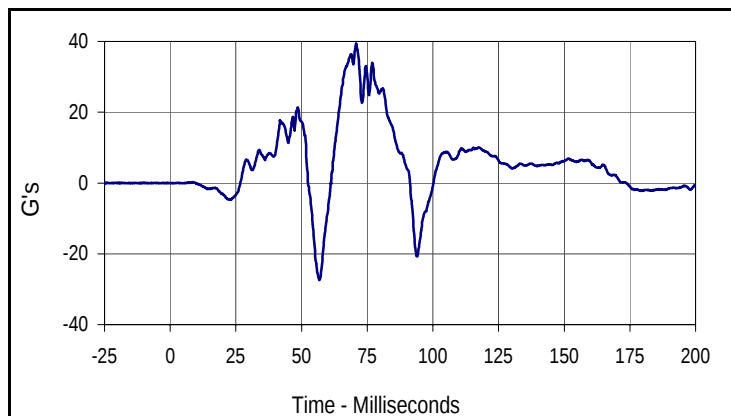
Test Date: 8/16/05
 NHTSA No.: G60105



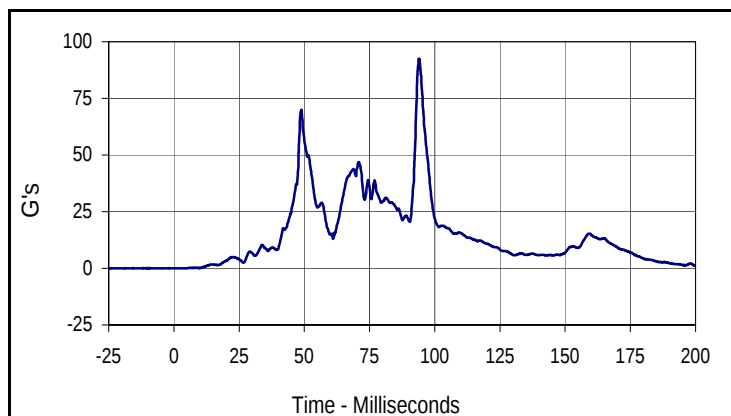
Curve Description			
Passenger Head X Redundant			
CURNO	Type	SAE Class	Units
026	FIL	1000	G's
Max	Time	Min	Time
11.1	159.6	-89.5	94.0



Curve Description			
Passenger Head Y Redundant			
CURNO	Type	SAE Class	Units
027	FIL	1000	G's
Max	Time	Min	Time
66.2	48.8	-9.1	165.1



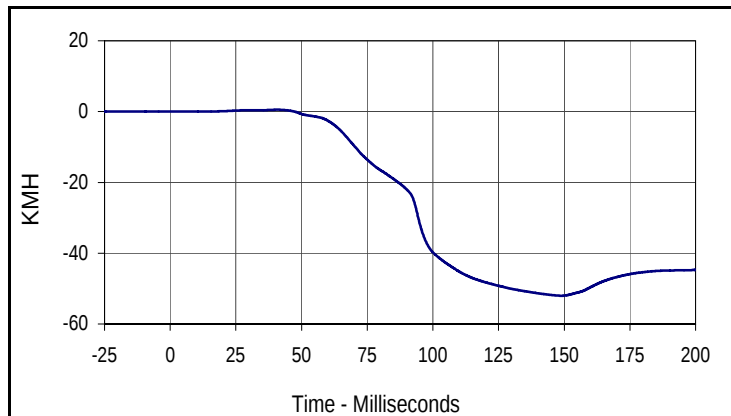
Curve Description			
Passenger Head Z Redundant			
CURNO	Type	SAE Class	Units
028	FIL	1000	G's
Max	Time	Min	Time
39.4	70.8	-27.4	56.8



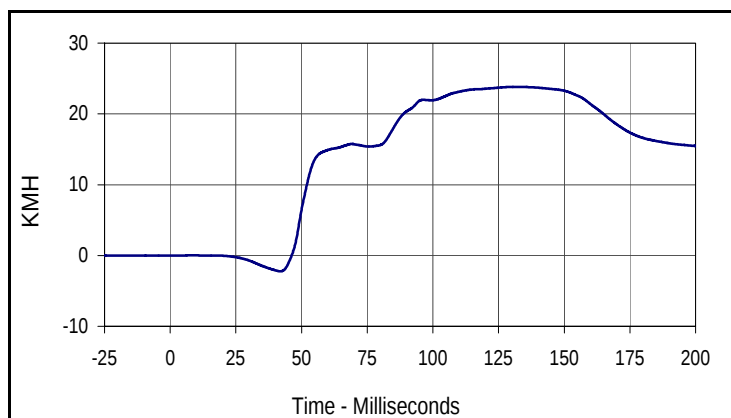
Curve Description			
Passenger Head Resultant Redundant			
CURNO	Type	SAE Class	Units
026	RES	1000	G's
Max	Time	Min	Time
92.6	94.0	0.0	3.5

Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

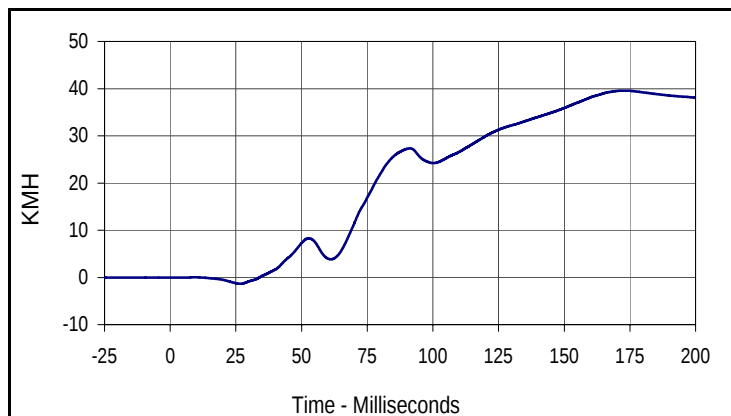
Test Date: 8/16/05
 NHTSA No.: G60105



Curve Description			
Passenger Head X Redundant Velocity			
CURNO	Type	SAE Class	Units
026	IN1	180	KMH
Max	Time	Min	Time
0.5	40.8	-52.0	149.0



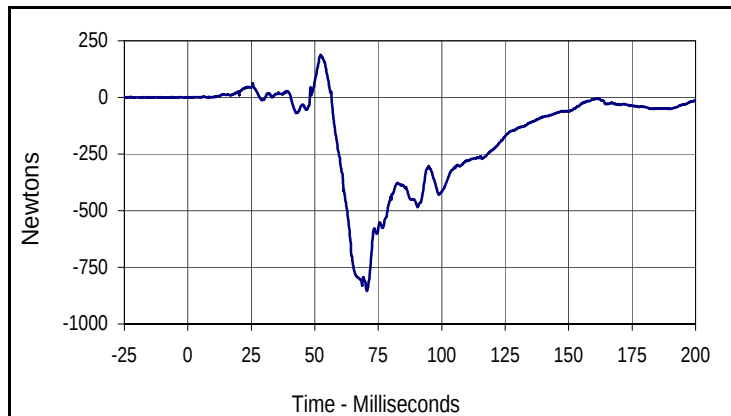
Curve Description			
Passenger Head Y Redundant Velocity			
CURNO	Type	SAE Class	Units
027	IN1	180	KMH
Max	Time	Min	Time
23.8	131.2	-2.2	41.9



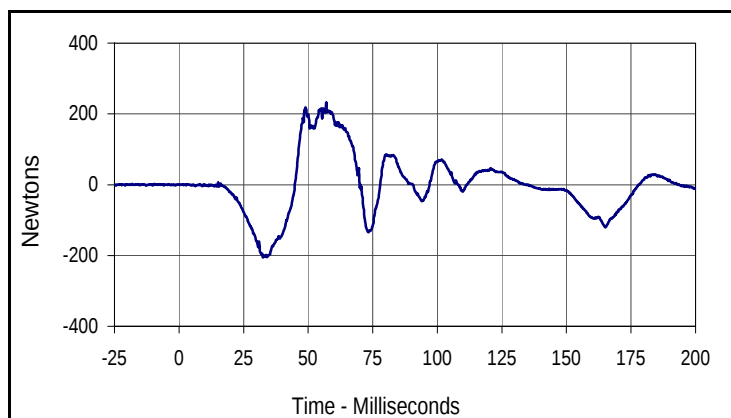
Curve Description			
Passenger Head Z Redundant Velocity			
CURNO	Type	SAE Class	Units
028	IN1	180	KMH
Max	Time	Min	Time
39.6	173.6	-1.4	26.7

Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

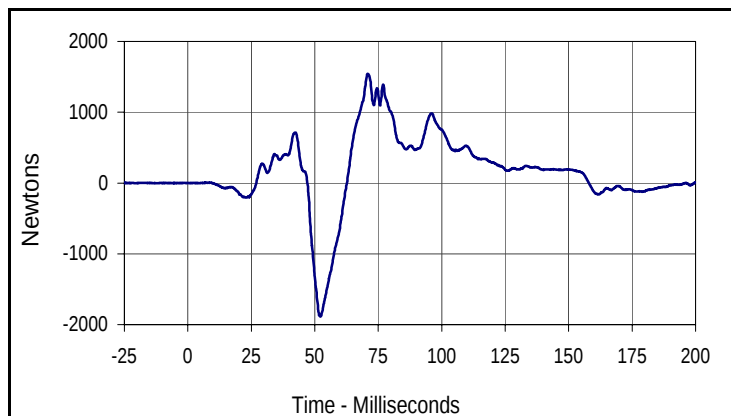
Test Date: 8/16/05
 NHTSA No.: G60105



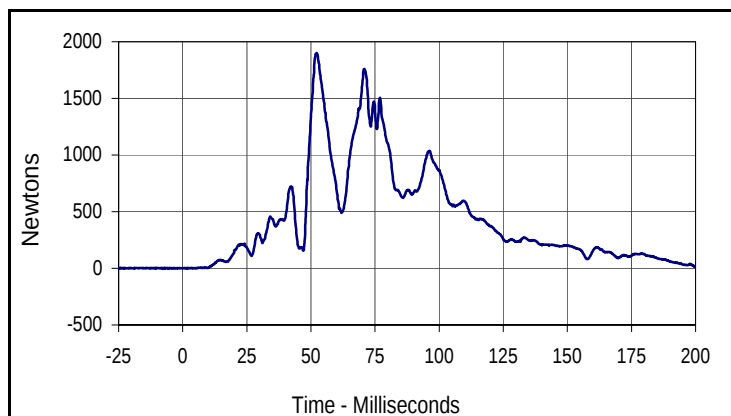
Curve Description			
Passenger Upper Neck Force X			
CURNO	Type	SAE Class	Units
029	FIL	1000	Newtons
Max	Time	Min	Time
187.6	52.4	-855.0	70.6



Curve Description			
Passenger Upper Neck Force Y			
CURNO	Type	SAE Class	Units
030	FIL	1000	Newtons
Max	Time	Min	Time
231.8	57.0	-205.5	32.5



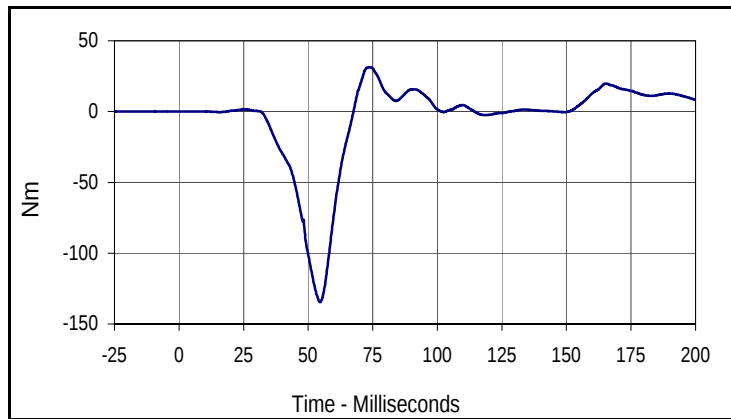
Curve Description			
Passenger Upper Neck Force Z			
CURNO	Type	SAE Class	Units
031	FIL	1000	Newtons
Max	Time	Min	Time
1543.2	70.8	-1885.1	52.2



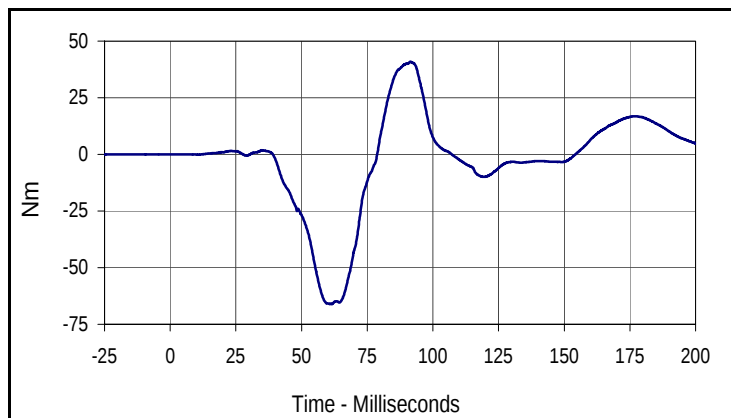
Curve Description			
Passenger Upper Neck Force Resultant			
CURNO	Type	SAE Class	Units
029	RES	1000	Newtons
Max	Time	Min	Time
1900.7	52.2	0.4	2.6

Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

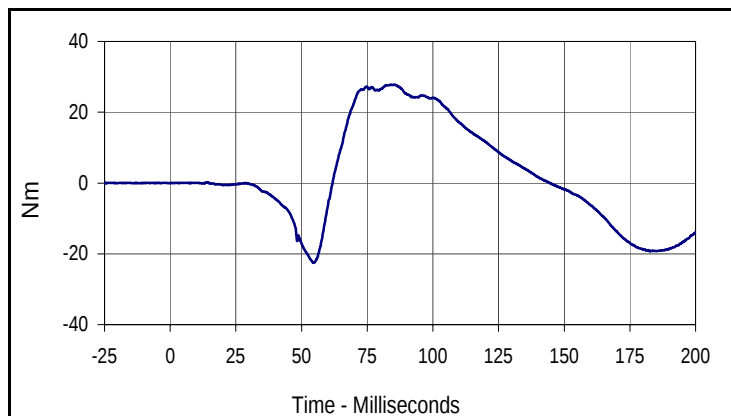
Test Date: 8/16/05
 NHTSA No.: G60105



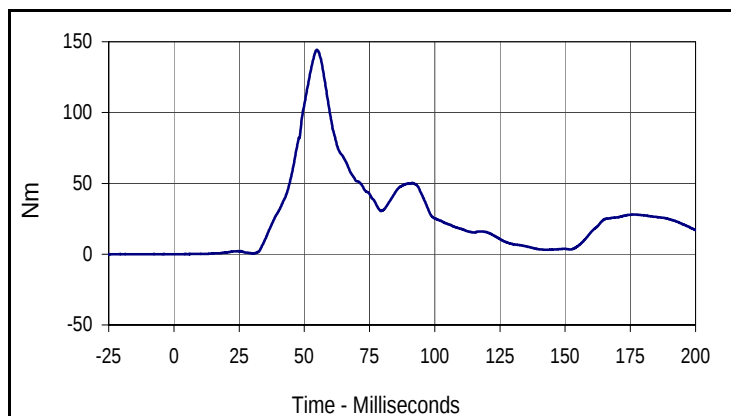
Curve Description			
Passenger Upper Neck Moment X			
CURNO	Type	SAE Class	Units
032	FIL	600	Nm
Max	Time	Min	Time
31.2	74.1	-134.7	54.6



Curve Description			
Passenger Upper Neck Moment Y			
CURNO	Type	SAE Class	Units
033	FIL	600	Nm
Max	Time	Min	Time
40.9	91.5	-66.1	61.4



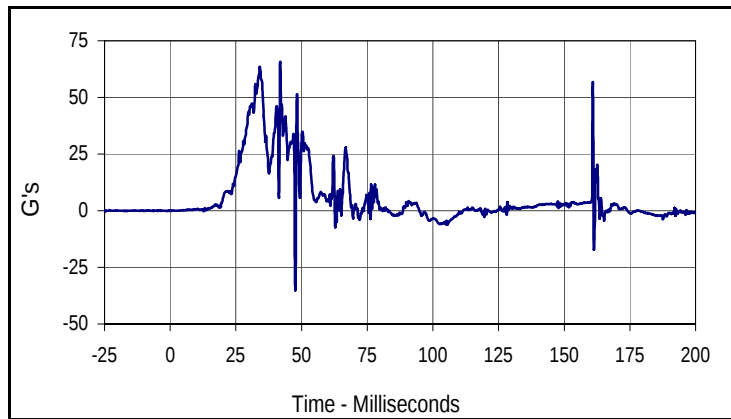
Curve Description			
Passenger Upper Neck Moment Z			
CURNO	Type	SAE Class	Units
034	FIL	600	Nm
Max	Time	Min	Time
27.8	85.4	-22.5	54.7



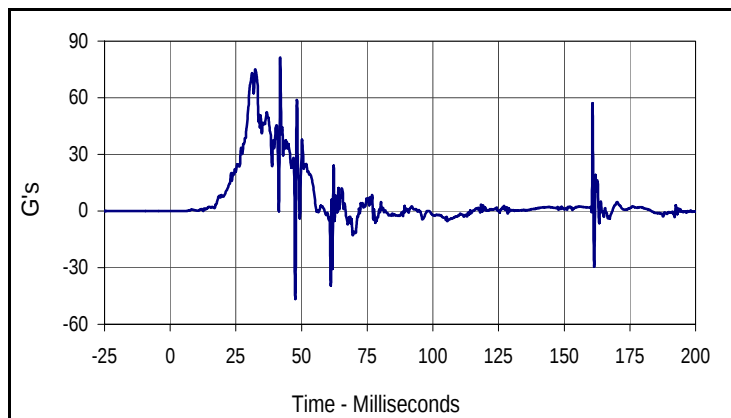
Curve Description			
Passenger Upper Neck Moment Resultant			
CURNO	Type	SAE Class	Units
032	RES	600	Nm
Max	Time	Min	Time
144.4	54.8	0.0	1.6

Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

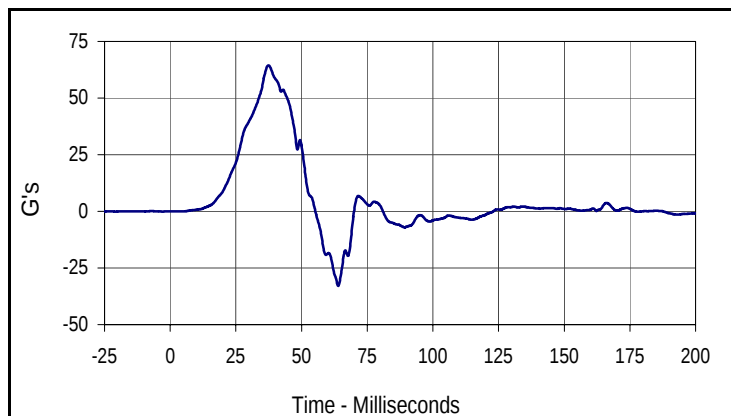
Test Date: 8/16/05
 NHTSA No.: G60105



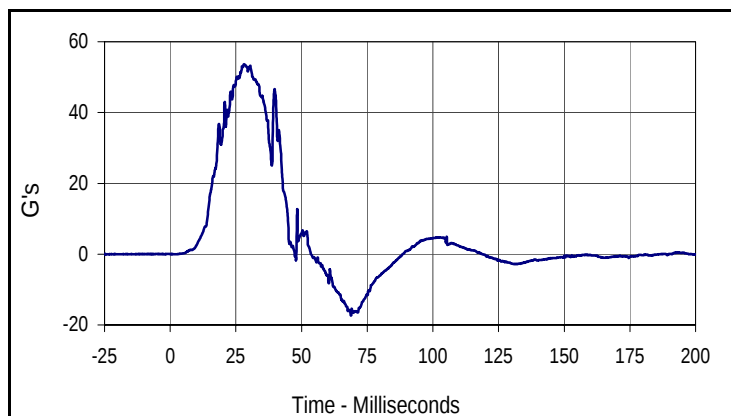
Curve Description			
Passenger Upper Rib Y Primary			
CURNO	Type	SAE Class	Units
035	FIL	1000	G's
Max	Time	Min	Time
65.7	41.9	-35.1	47.6



Curve Description			
Passenger Lower Rib Y Primary			
CURNO	Type	SAE Class	Units
036	FIL	1000	G's
Max	Time	Min	Time
81.4	41.9	-46.6	47.6



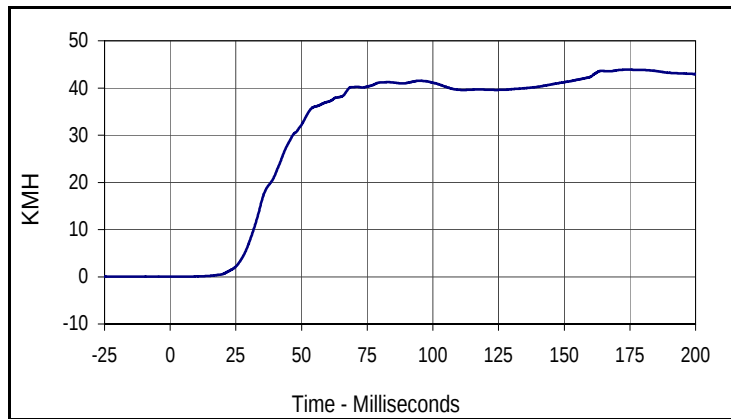
Curve Description			
Passenger Lower Spine Y Primary			
CURNO	Type	SAE Class	Units
037	FIL	180	G's
Max	Time	Min	Time
64.4	37.4	-33.0	64.0



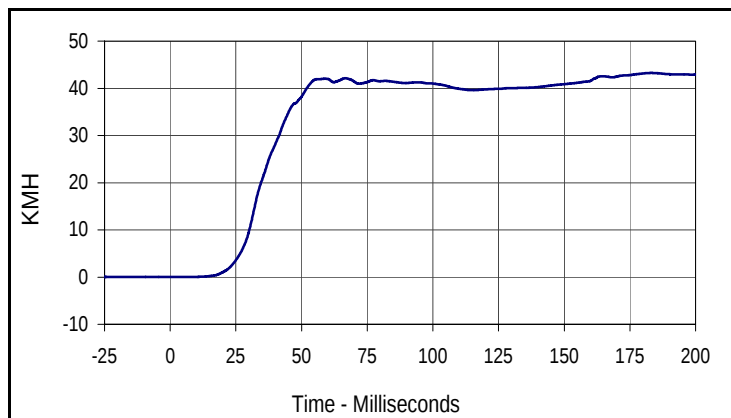
Curve Description			
Passenger Pelvis Primary Y			
CURNO	Type	SAE Class	Units
038	FIL	1000	G's
Max	Time	Min	Time
53.7	28.1	-17.4	68.8

Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

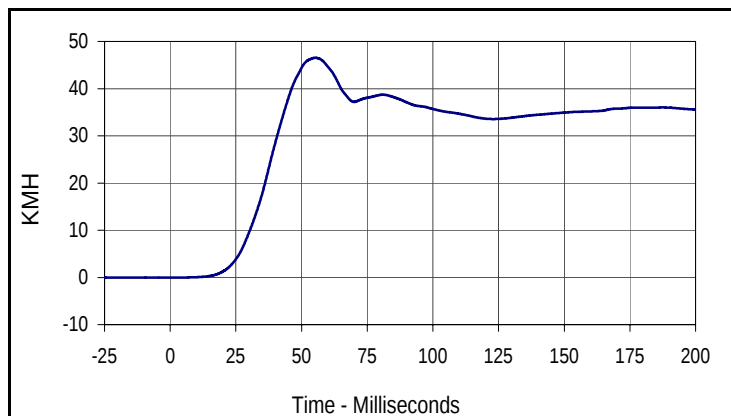
Test Date: 8/16/05
 NHTSA No.: G60105



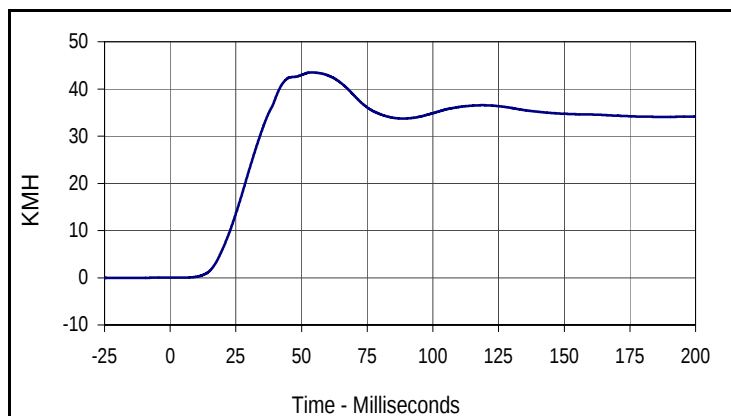
Curve Description			
Passenger Upper Rib Y Primary Velocity			
CURNO	Type	SAE Class	Units
035	IN1	180	KMH
Max	Time	Min	Time
43.9	174.1	0.0	0.0



Curve Description			
Passenger Lower Rib Y Primary Velocity			
CURNO	Type	SAE Class	Units
036	IN1	180	KMH
Max	Time	Min	Time
43.3	183.1	0.0	6.1



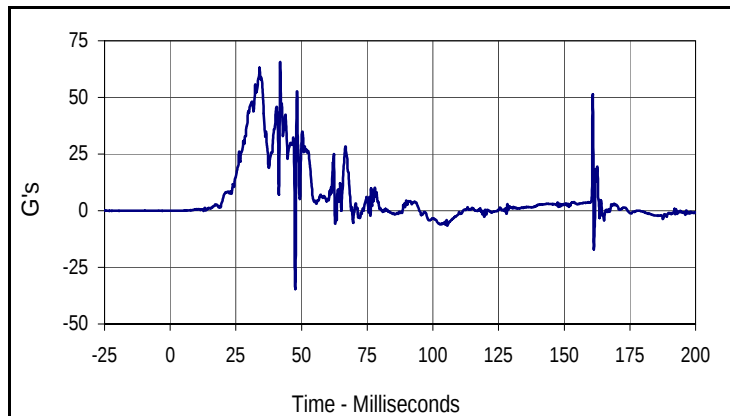
Curve Description			
Passenger Lower Spine Y Primary Velocity			
CURNO	Type	SAE Class	Units
037	IN1	180	KMH
Max	Time	Min	Time
46.5	55.3	0.0	1.7



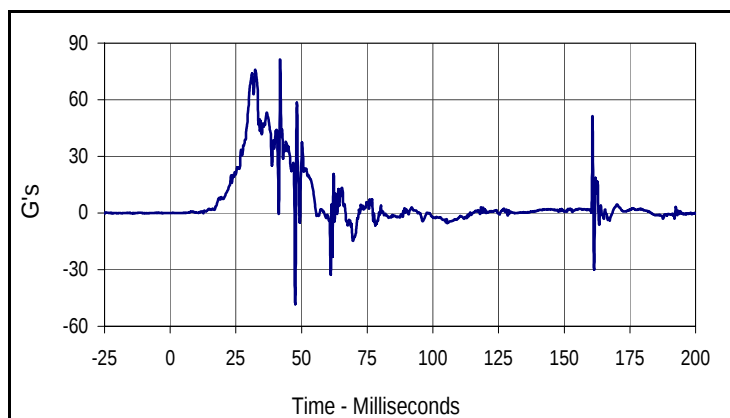
Curve Description			
Passenger Pelvis Y Primary Velocity			
CURNO	Type	SAE Class	Units
038	IN1	180	KMH
Max	Time	Min	Time
43.5	53.7	0.0	0.0

Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

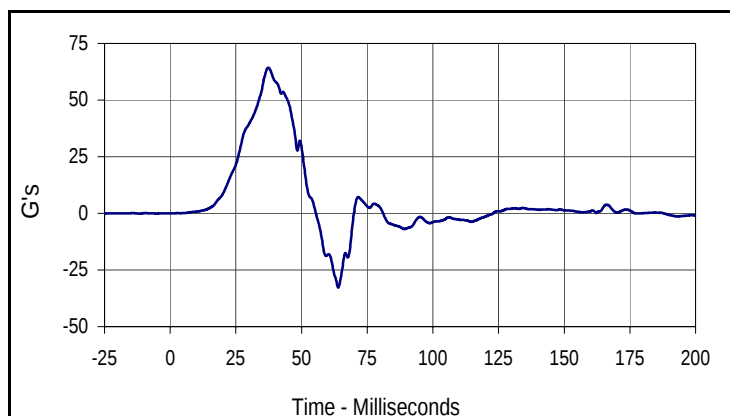
Test Date: 8/16/05
 NHTSA No.: G60105



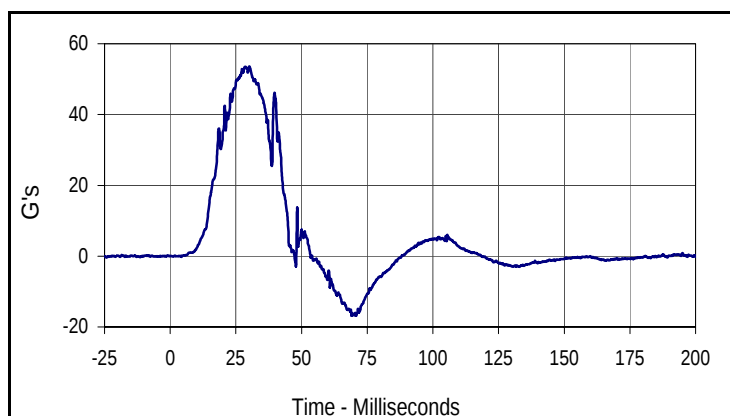
Curve Description			
Passenger Upper Rib Y Redundant			
CURNO	Type	SAE Class	Units
039	FIL	1000	G's
Max	Time	Min	Time
65.7	41.9	-34.6	47.6



Curve Description			
Passenger Lower Rib Y Redundant			
CURNO	Type	SAE Class	Units
040	FIL	1000	G's
Max	Time	Min	Time
81.3	41.8	-48.1	47.6



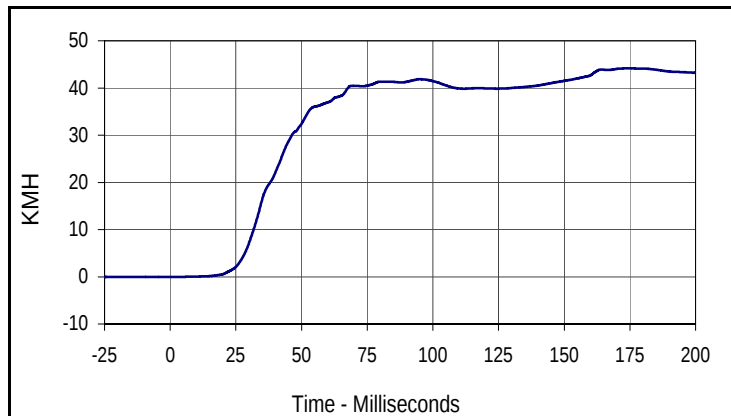
Curve Description			
Passenger Lower Spine Y Redundant			
CURNO	Type	SAE Class	Units
041	FIL	180	G's
Max	Time	Min	Time
64.3	37.3	-32.7	64.0



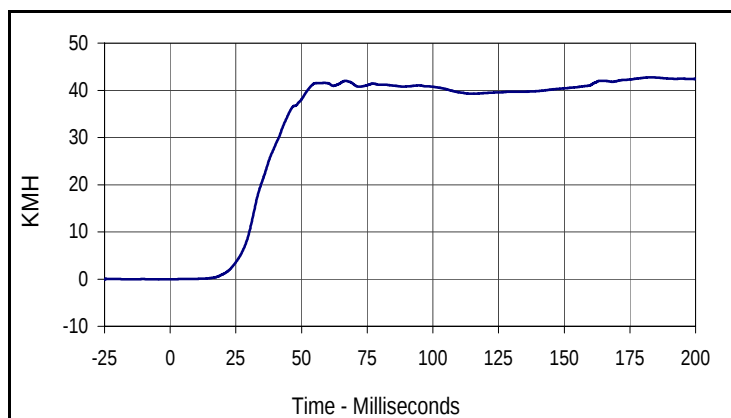
Curve Description			
Passenger Pelvis Redundant Y			
CURNO	Type	SAE Class	Units
042	FIL	1000	G's
Max	Time	Min	Time
53.6	30.1	-16.9	70.7

Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

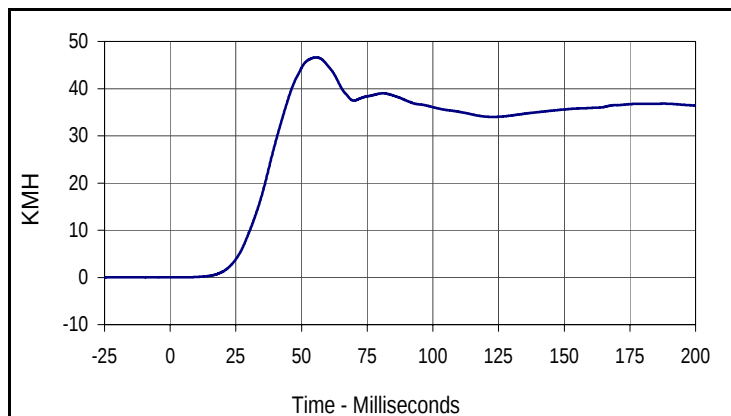
Test Date: 8/16/05
 NHTSA No.: G60105



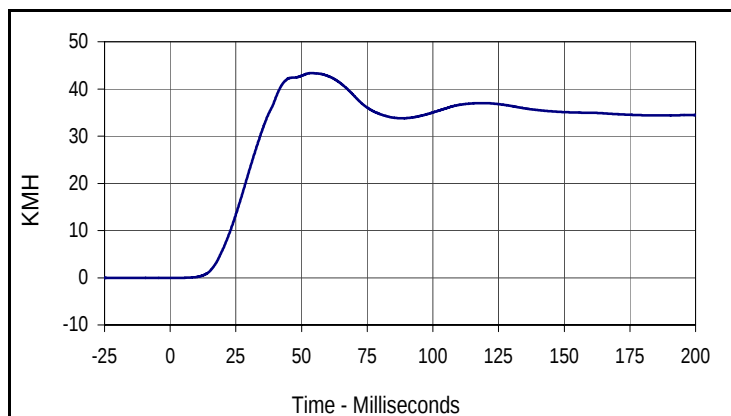
Curve Description			
Passenger Upper Rib Y Redundant Velocity			
CURNO	Type	SAE Class	Units
039	IN1	180	KMH
Max	Time	Min	Time
44.2	174.2	0.0	0.0



Curve Description			
Passenger Lower Rib Y Redundant Velocity			
CURNO	Type	SAE Class	Units
040	IN1	180	KMH
Max	Time	Min	Time
42.8	183.1	0.0	0.5



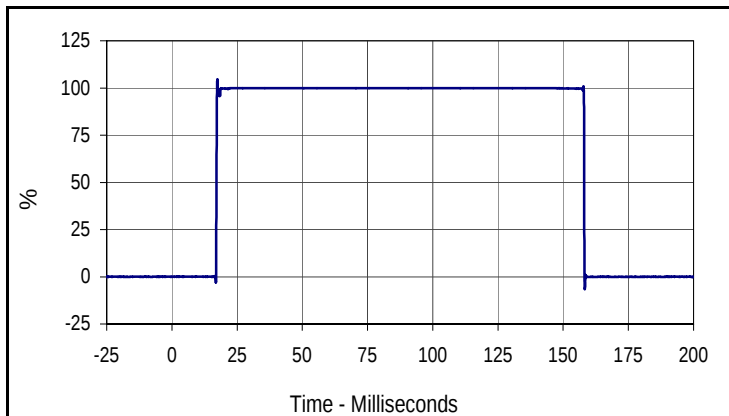
Curve Description			
Passenger Lower Spine Y Redundant Velocity			
CURNO	Type	SAE Class	Units
041	IN1	180	KMH
Max	Time	Min	Time
46.6	55.5	0.0	0.0



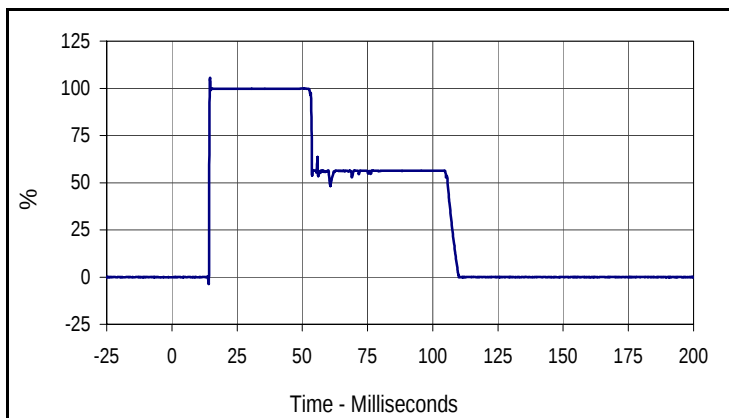
Curve Description			
Passenger Pelvis Y Redundant Velocity			
CURNO	Type	SAE Class	Units
042	IN1	180	KMH
Max	Time	Min	Time
43.3	53.7	0.0	0.0

Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

Test Date: 8/16/05
 NHTSA No.: G60105



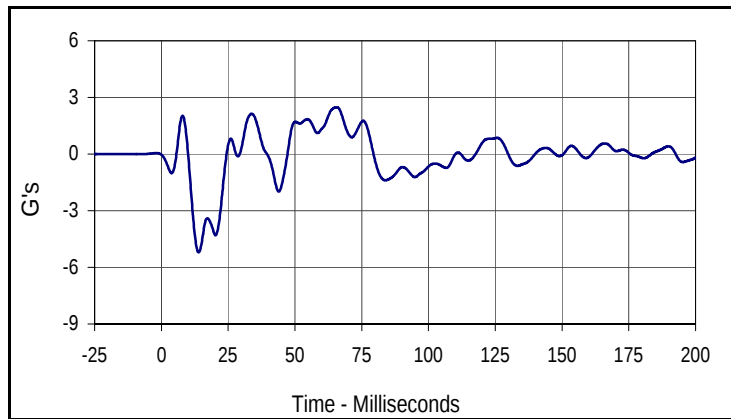
Curve Description			
Passenger Thorax Contact			
CURNO	Type	SAE Class	Units
043	FIL	1000	%
Max	Time	Cross %	Time
104.5	17.4	50.0	17.2



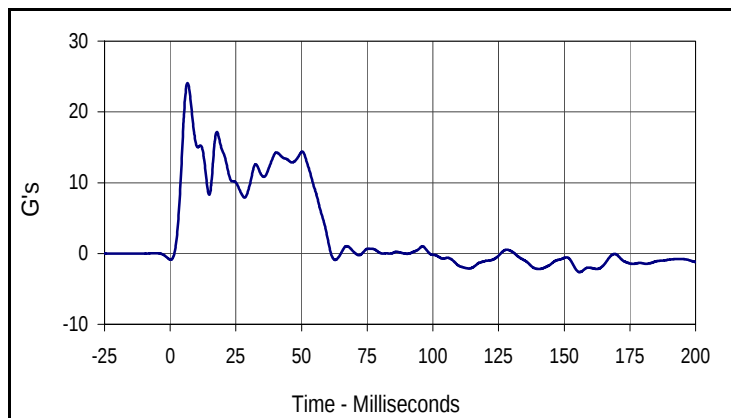
Curve Description			
Passenger Pelvis Contact			
CURNO	Type	SAE Class	Units
044	FIL	1000	%
Max	Time	Cross %	Time
105.6	14.6	50.0	14.4

Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

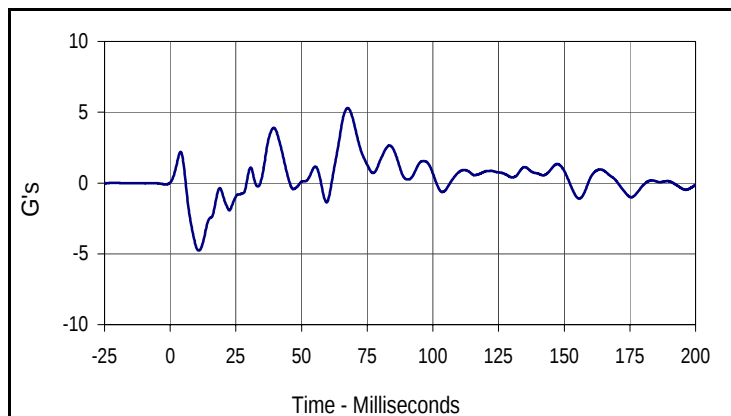
Test Date: 8/16/05
 NHTSA No.: G60105



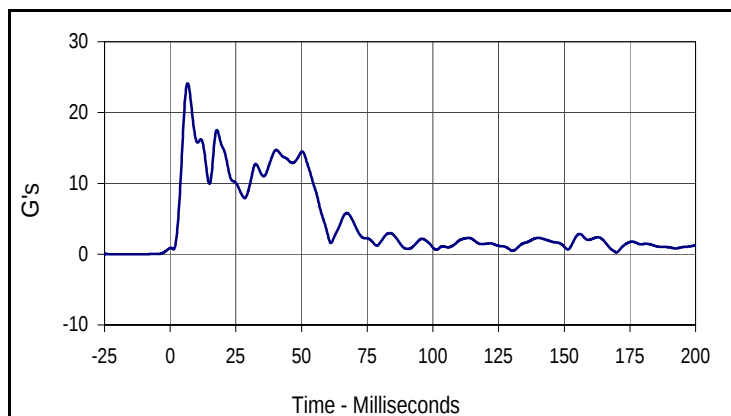
Curve Description			
Vehicle Right Sill at Front Seat X			
CURNO	Type	SAE Class	Units
045	FIL	60	G's
Max	Time	Min	Time
2.5	65.7	-5.2	13.9



Curve Description			
Vehicle Right Sill at Front Seat Y			
CURNO	Type	SAE Class	Units
046	FIL	60	G's
Max	Time	Min	Time
24.1	6.6	-2.6	155.9



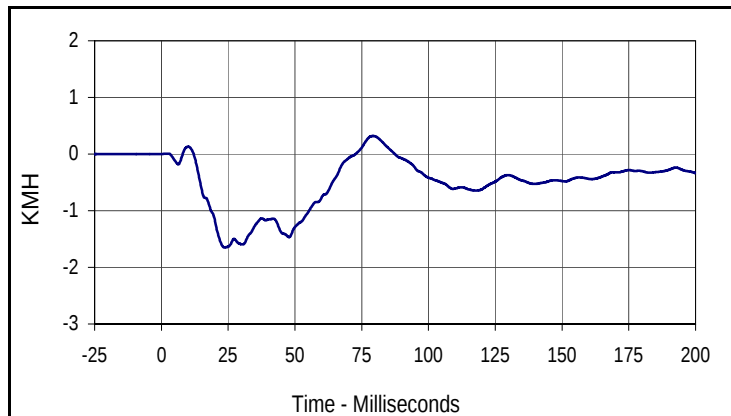
Curve Description			
Vehicle Right Sill at Front Seat Z			
CURNO	Type	SAE Class	Units
047	FIL	60	G's
Max	Time	Min	Time
5.3	67.5	-4.8	10.9



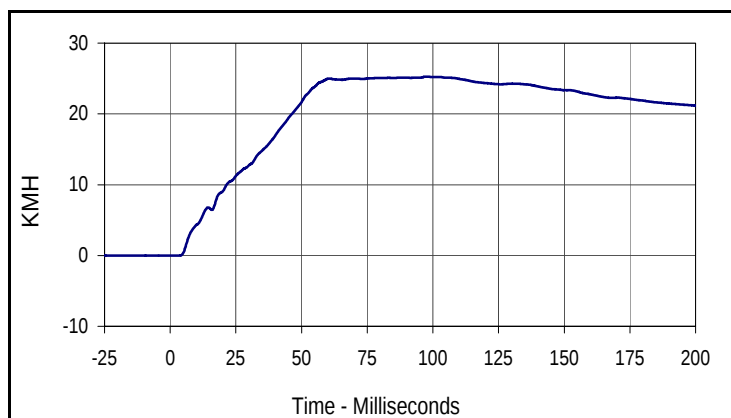
Curve Description			
Vehicle Right Sill Front Seat Resultant			
CURNO	Type	SAE Class	Units
045	RES	60	G's
Max	Time	Min	Time
24.1	6.6	0.3	169.9

Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

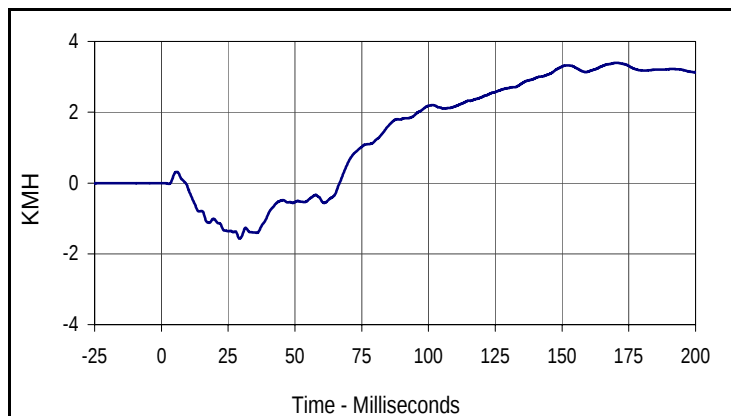
Test Date: 8/16/05
 NHTSA No.: G60105



Curve Description			
Vehicle Right Sill at Front Seat X Velocity			
CURNO	Type	SAE Class	Units
045	IN1	180	KMH
Max	Time	Min	Time
0.3	79.2	-1.6	23.6



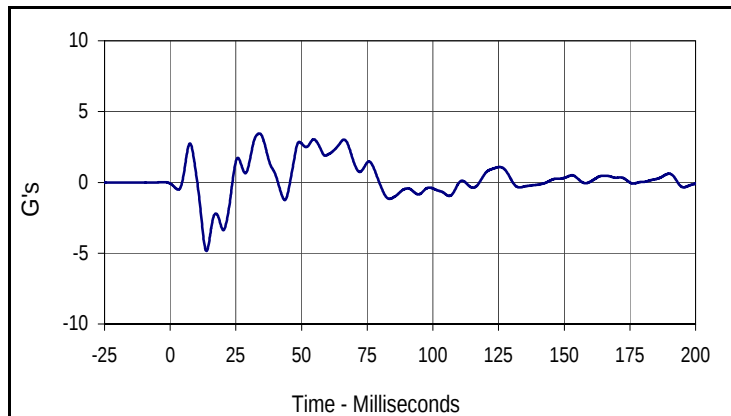
Curve Description			
Vehicle Right Sill at Front Seat Y Velocity			
CURNO	Type	SAE Class	Units
046	IN1	180	KMH
Max	Time	Min	Time
25.3	97.5	0.0	3.5



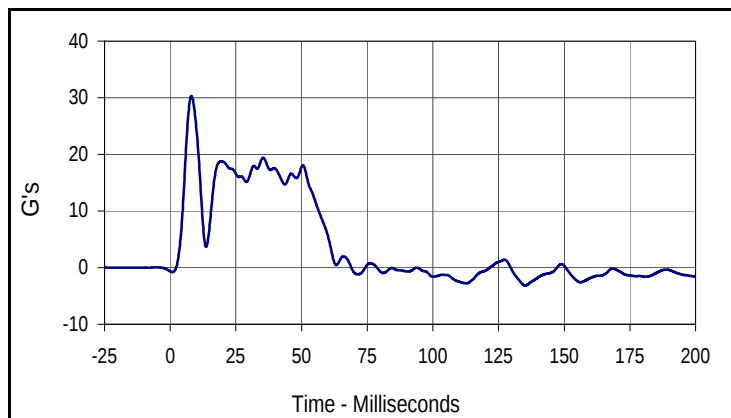
Curve Description			
Vehicle Right Sill at Front Seat Z Velocity			
CURNO	Type	SAE Class	Units
047	IN1	180	KMH
Max	Time	Min	Time
3.4	170.3	-1.6	29.3

Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

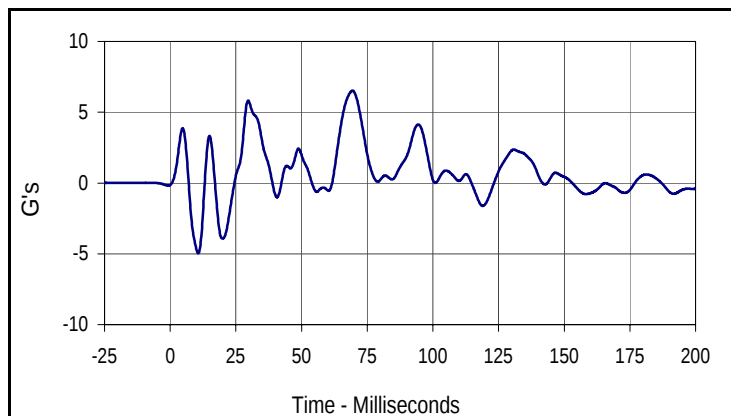
Test Date: 8/16/05
 NHTSA No.: G60105



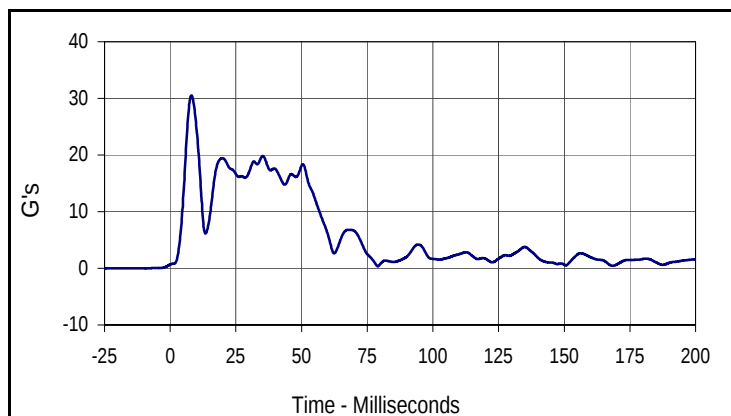
Curve Description			
Vehicle Right Sill at Rear Seat X			
CURNO	Type	SAE Class	Units
048	FIL	60	G's
Max	Time	Min	Time
3.5	34.0	-4.8	13.8



Curve Description			
Vehicle Right Sill at Rear Seat Y			
CURNO	Type	SAE Class	Units
049	FIL	60	G's
Max	Time	Min	Time
30.3	8.1	-3.2	135.2



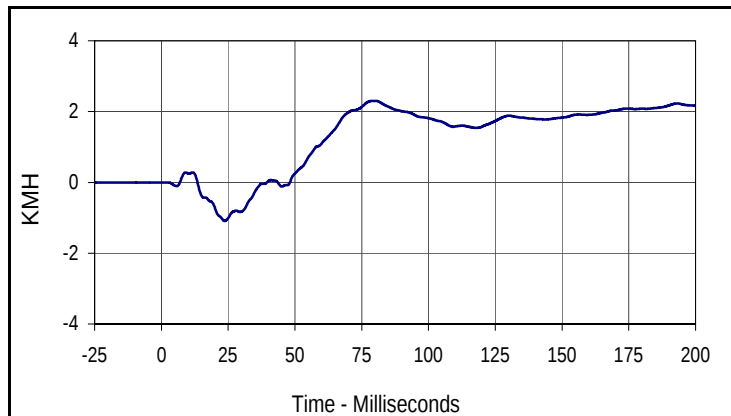
Curve Description			
Vehicle Right Sill at Rear Seat Z			
CURNO	Type	SAE Class	Units
050	FIL	60	G's
Max	Time	Min	Time
6.5	69.4	-5.0	10.7



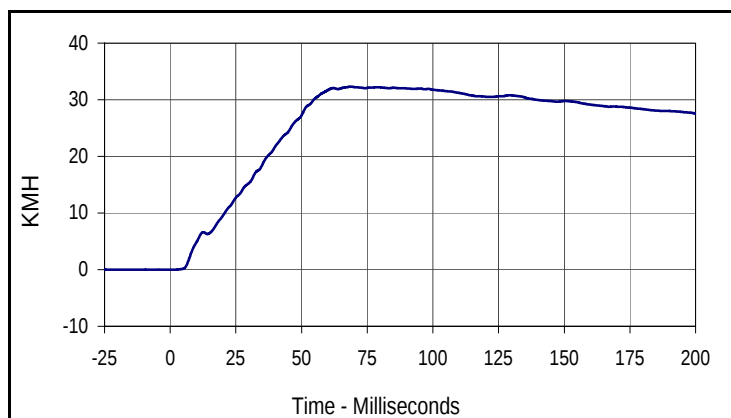
Curve Description			
Vehicle Right Sill Rear Seat Resultant			
CURNO	Type	SAE Class	Units
048	RES	60	G's
Max	Time	Min	Time
30.5	8.1	0.3	79.1

Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

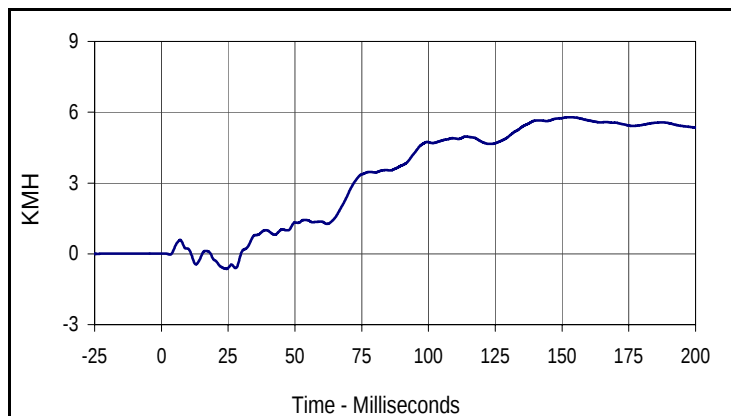
Test Date: 8/16/05
 NHTSA No.: G60105



Curve Description			
Vehicle Right Sill at Rear Seat X Velocity			
CURNO	Type	SAE Class	Units
048	IN1	180	KMH
Max	Time	Min	Time
2.3	79.9	-1.1	23.6



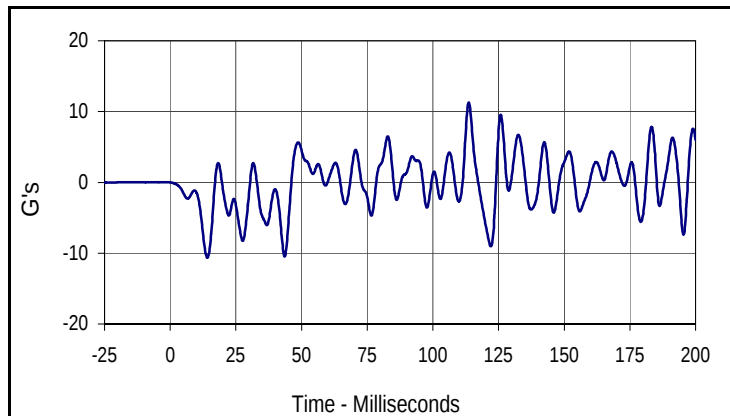
Curve Description			
Vehicle Right Sill at Rear Seat Y Velocity			
CURNO	Type	SAE Class	Units
049	IN1	180	KMH
Max	Time	Min	Time
32.3	68.8	0.0	0.0



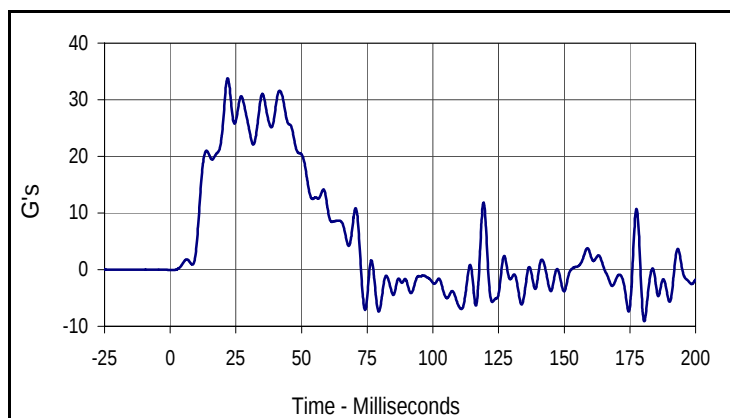
Curve Description			
Vehicle Right Sill at Rear Seat Z Velocity			
CURNO	Type	SAE Class	Units
050	IN1	180	KMH
Max	Time	Min	Time
5.8	152.4	-0.6	24.4

Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

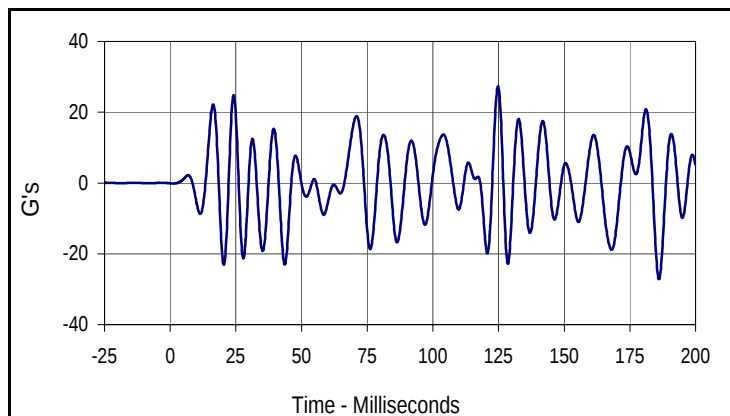
Test Date: 8/16/05
 NHTSA No.: G60105



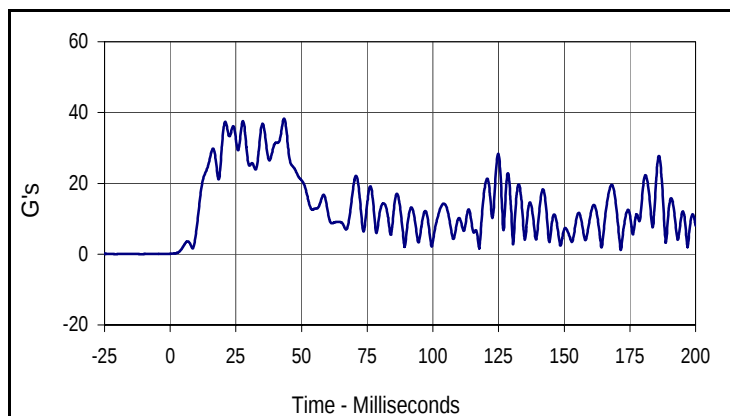
Curve Description			
Vehicle Rear Floor Above Axle X			
CURNO	Type	SAE Class	Units
051	FIL	60	G's
Max	Time	Min	Time
11.3	113.7	-10.6	14.1



Curve Description			
Vehicle Rear Floor Above Axle Y			
CURNO	Type	SAE Class	Units
052	FIL	60	G's
Max	Time	Min	Time
33.8	21.9	-9.1	180.5



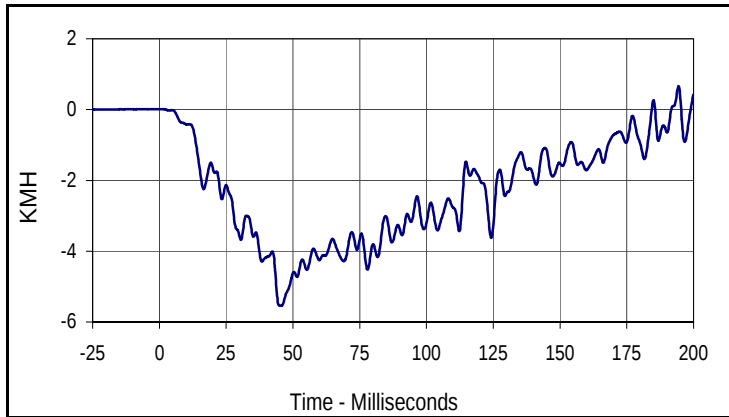
Curve Description			
Vehicle Rear Floor Above Axle Z			
CURNO	Type	SAE Class	Units
053	FIL	60	G's
Max	Time	Min	Time
27.3	124.8	-27.2	186.1



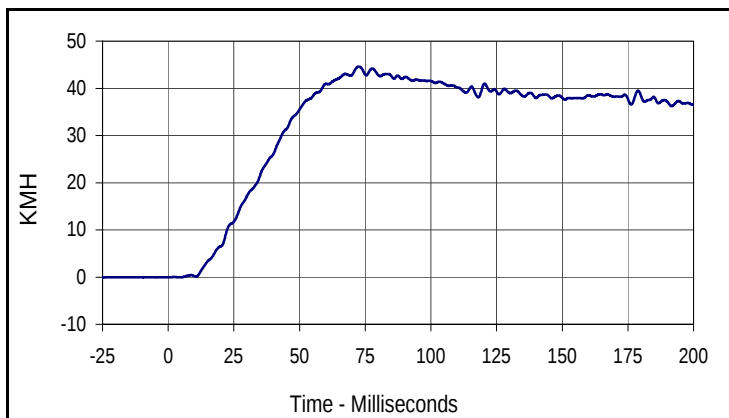
Curve Description			
Vehicle Rear Floor Above Axle Resultant			
CURNO	Type	SAE Class	Units
051	RES	60	G's
Max	Time	Min	Time
38.3	43.4	0.1	0.0

Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

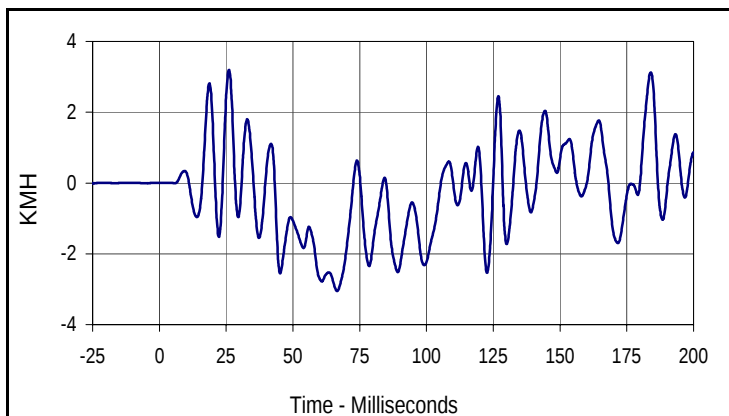
Test Date: 8/16/05
 NHTSA No.: G60105



Curve Description			
Vehicle Rear Floor Above Axle X Velocity			
CURNO	Type	SAE Class	Units
051	FIL	180	KMH
Max	Time	Min	Time
0.7	194.4	-5.5	45.0



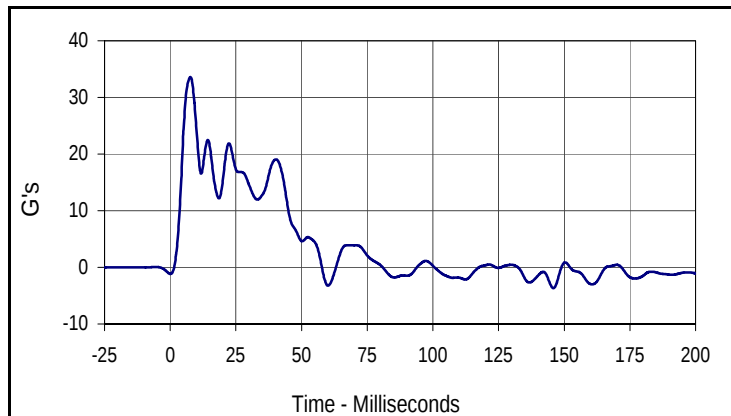
Curve Description			
Vehicle Rear Floor Above Axle Y Velocity			
CURNO	Type	SAE Class	Units
052	FIL	180	KMH
Max	Time	Min	Time
44.6	72.5	0.0	4.5



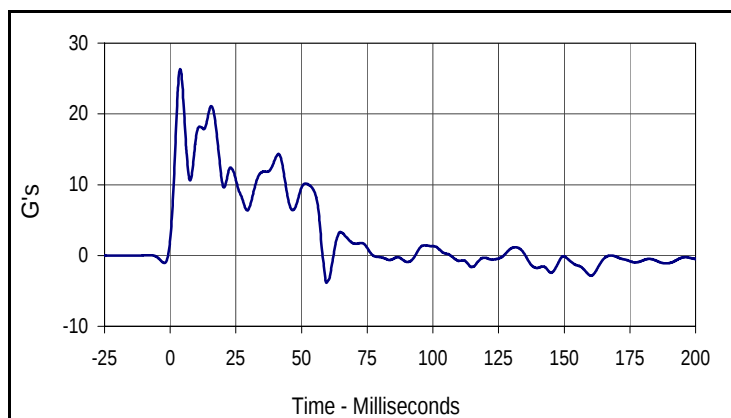
Curve Description			
Vehicle Rear Floor Above Axle Z Velocity			
CURNO	Type	SAE Class	Units
053	FIL	180	KMH
Max	Time	Min	Time
3.2	26.0	-3.1	66.5

Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

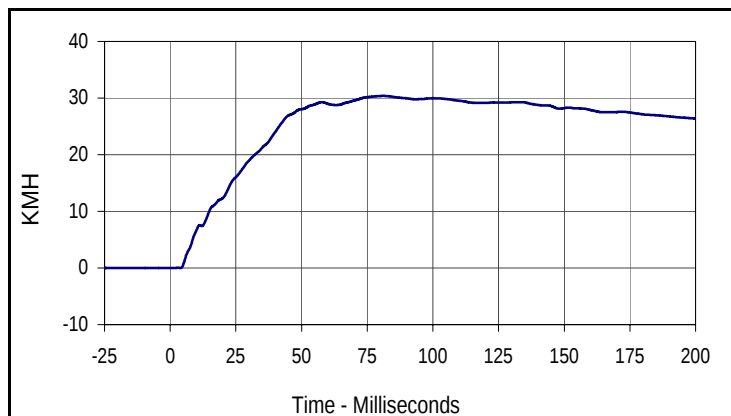
Test Date: 8/16/05
 NHTSA No.: G60105



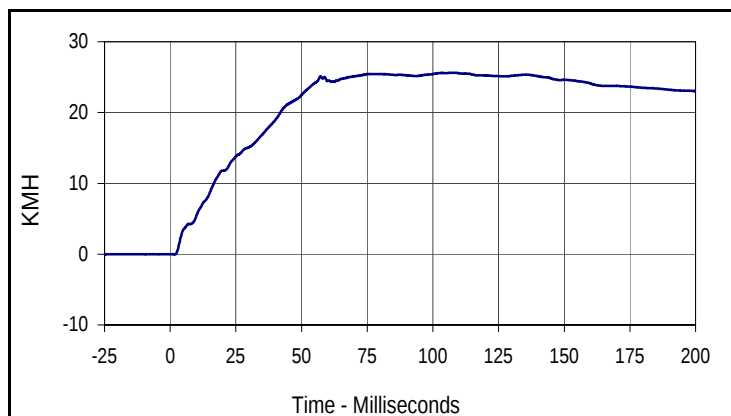
Curve Description			
Vehicle Left Sill at Rear Door Y			
CURNO	Type	SAE Class	Units
054	FIL	60	G's
Max	Time	Min	Time
33.6	7.7	-3.7	145.9



Curve Description			
Vehicle Left Sill at Front Door Y			
CURNO	Type	SAE Class	Units
055	FIL	60	G's
Max	Time	Min	Time
26.4	3.8	-3.9	59.5



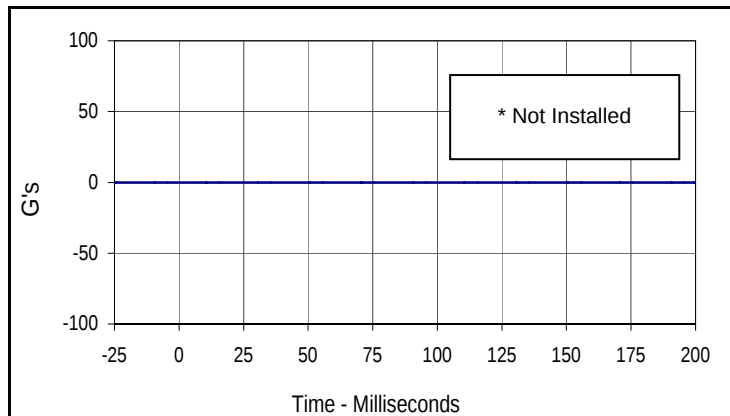
Curve Description			
Vehicle Left Sill at Rear Door Y Velocity			
CURNO	Type	SAE Class	Units
054	IN1	180	KMH
Max	Time	Min	Time
30.4	80.8	0.0	1.7



Curve Description			
Vehicle Left Sill at Front Door Y Velocity			
CURNO	Type	SAE Class	Units
055	IN1	180	KMH
Max	Time	Min	Time
25.6	106.6	0.0	1.5

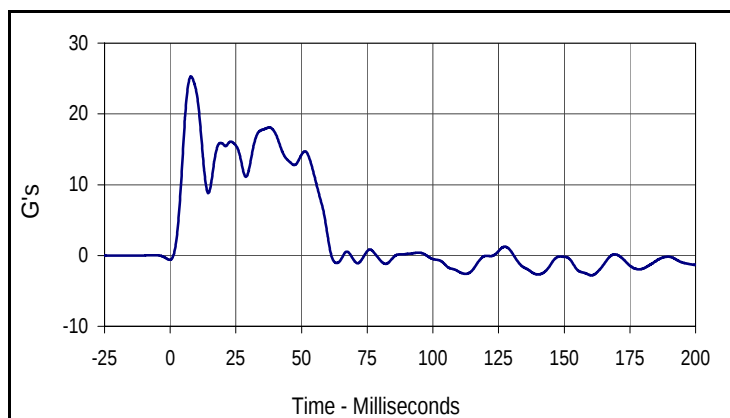
Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

Test Date: 8/16/05
 NHTSA No.: G60105

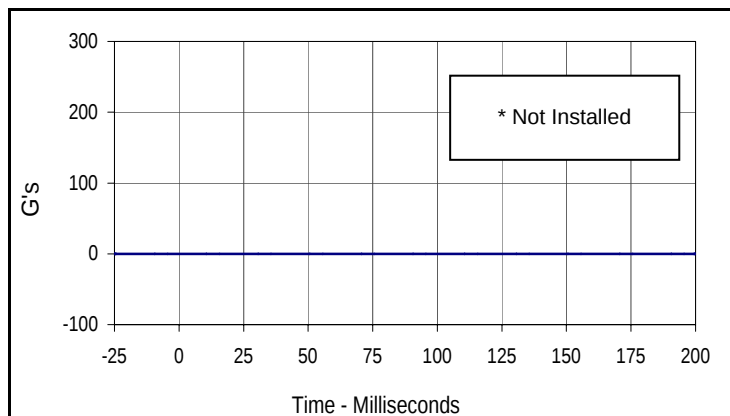


Curve Description			
Vehicle Left Front Door CL Y			
CURNO	Type	SAE Class	Units
056	FIL	60	G's
Max	Time	Min	Time
0.0	0.0	0.0	0.0

* Not Installed

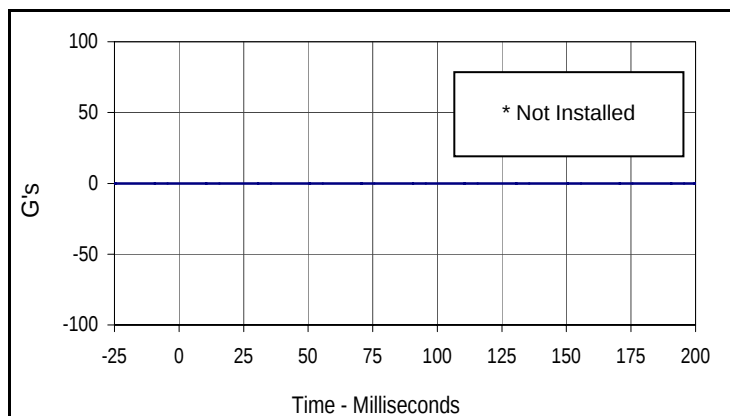


Curve Description			
Vehicle Right Rear Occupant Compartment			
CURNO	Type	SAE Class	Units
057	FIL	60	G's
Max	Time	Min	Time
25.3	7.9	-2.8	160.4



Curve Description			
Vehicle Left Front Door Mid Rear Y			
CURNO	Type	SAE Class	Units
058	FIL	60	G's
Max	Time	Min	Time
0.0	0.0	0.0	0.0

* Not Installed

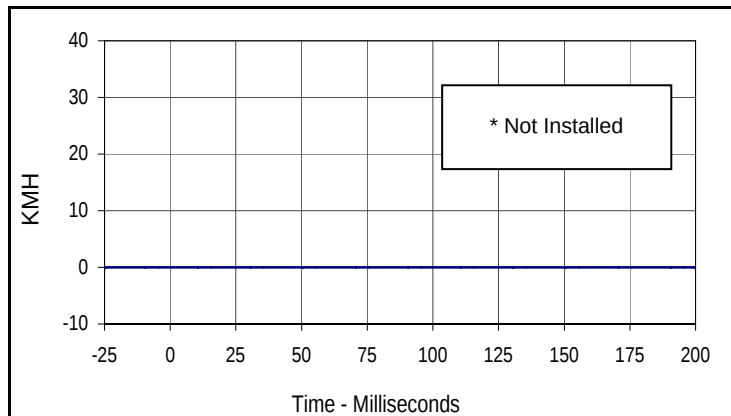


Curve Description			
Vehicle Left Front Door Upper CL Y			
CURNO	Type	SAE Class	Units
059	FIL	60	G's
Max	Time	Min	Time
0.0	0.0	0.0	0.0

* Not Installed

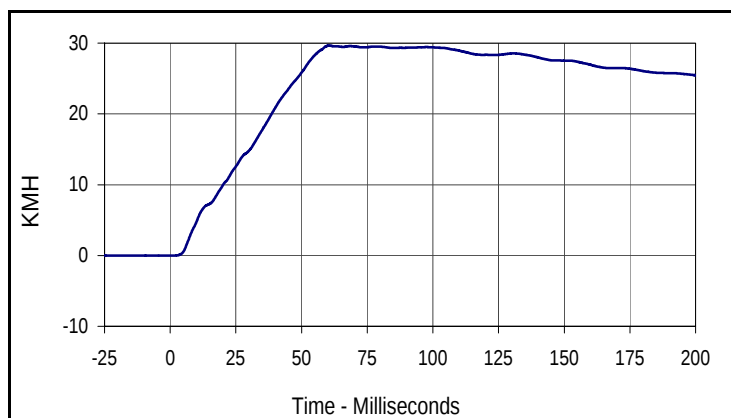
Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

Test Date: 8/16/05
 NHTSA No.: G60105

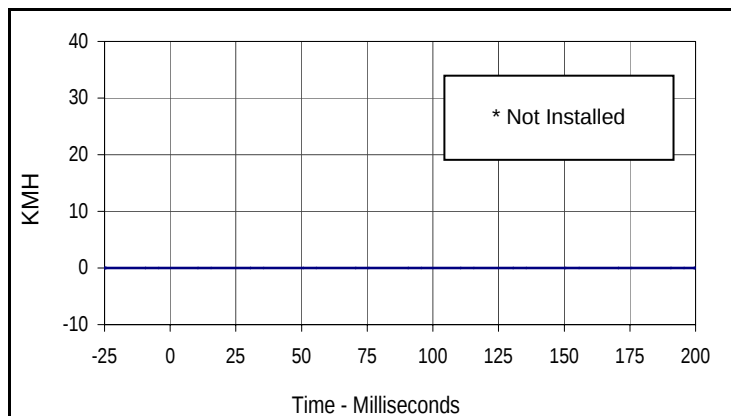


Curve Description			
Vehicle Left Front Door CL Y Velocity			
CURNO	Type	SAE Class	Units
056	IN1	180	KMH
Max	Time	Min	Time
0.0	0.0	0.0	0.0

* Not Installed

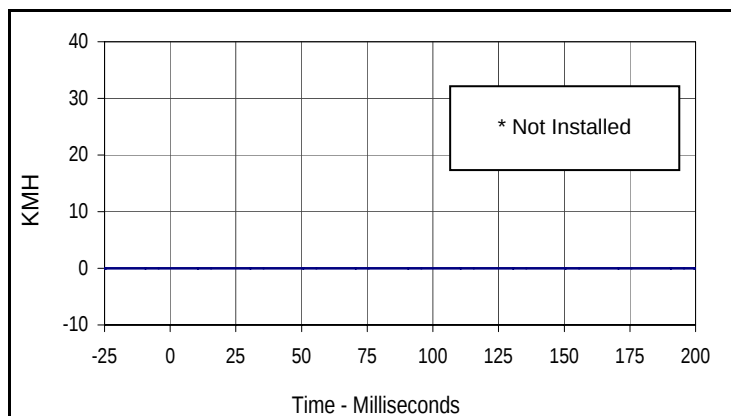


Curve Description			
Vehicle Right Rear Occupant Compartment Y Velocity			
CURNO	Type	SAE Class	Units
057	IN1	180	KMH
Max	Time	Min	Time
29.7	60.5	0.0	0.0



Curve Description			
Vehicle Left Front Door Mid Rear Y Velocity			
CURNO	Type	SAE Class	Units
058	IN1	180	KMH
Max	Time	Min	Time
0.0	0.0	0.0	0.0

* Not Installed

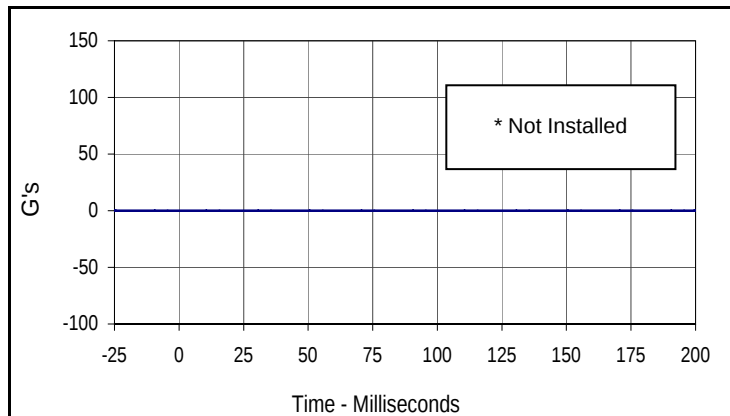


Curve Description			
Vehicle Left Front Door Upper CL Y Velocity			
CURNO	Type	SAE Class	Units
059	IN1	180	KMH
Max	Time	Min	Time
0.0	0.0	0.0	0.0

* Not Installed

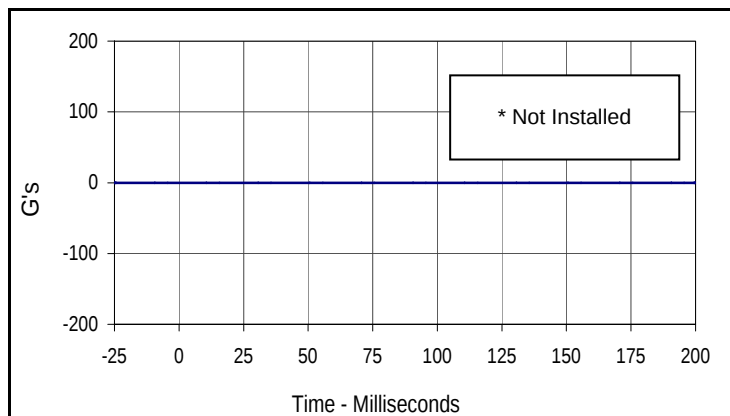
Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

Test Date: 8/16/05
 NHTSA No.: G60105



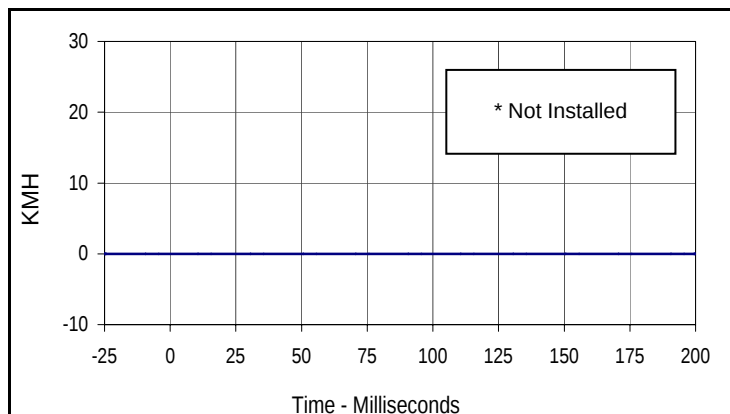
Curve Description			
Vehicle Left Rear Door Mid Rear Y			
CURNO	Type	SAE Class	Units
060	FIL	60	G's
Max	Time	Min	Time
0.0	0.0	0.0	0.0

* Not Installed



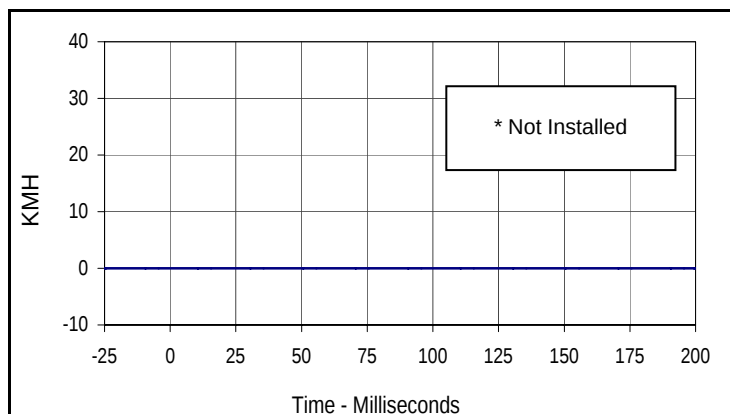
Curve Description			
Vehicle Left Rear Door Upper CL Y			
CURNO	Type	SAE Class	Units
061	FIL	60	G's
Max	Time	Min	Time
0.0	0.0	0.0	0.0

* Not Installed



Curve Description			
Vehicle Left Rear Door Mid Rear Y Velocity			
CURNO	Type	SAE Class	Units
060	IN1	180	KMH
Max	Time	Min	Time
0.0	0.0	0.0	0.0

* Not Installed

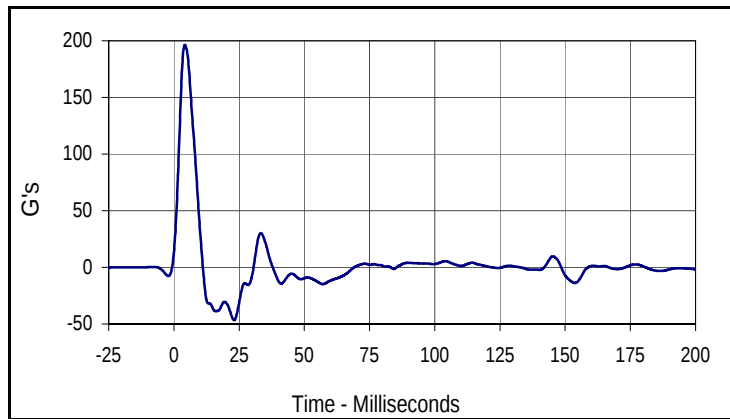


Curve Description			
Vehicle Left Rear Door Upper CL Y Velocity			
CURNO	Type	SAE Class	Units
061	IN1	180	KMH
Max	Time	Min	Time
0.0	0.0	0.0	0.0

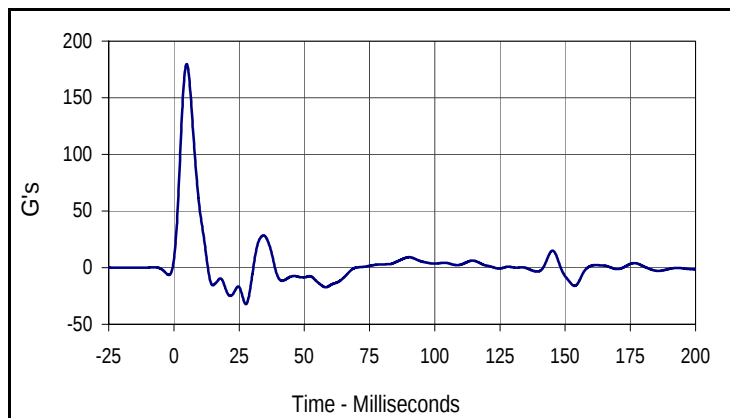
* Not Installed

Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

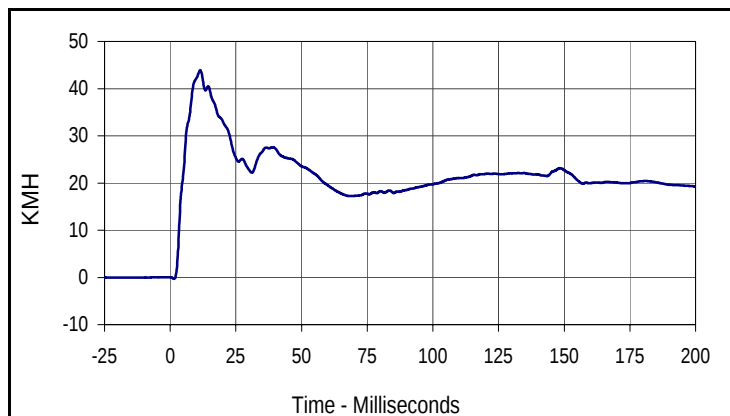
Test Date: 8/16/05
 NHTSA No.: G60105



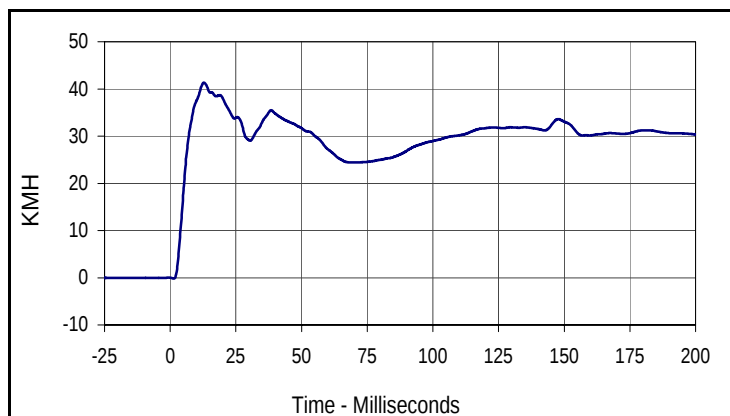
Curve Description			
Vehicle B-Post Lower Y			
CURNO	Type	SAE Class	Units
062	FIL	60	G's
Max	Time	Min	Time
196.3	4.2	-46.6	23.1



Curve Description			
Vehicle B-Post Middle Y			
CURNO	Type	SAE Class	Units
063	FIL	60	G's
Max	Time	Min	Time
179.7	4.9	-32.3	27.6



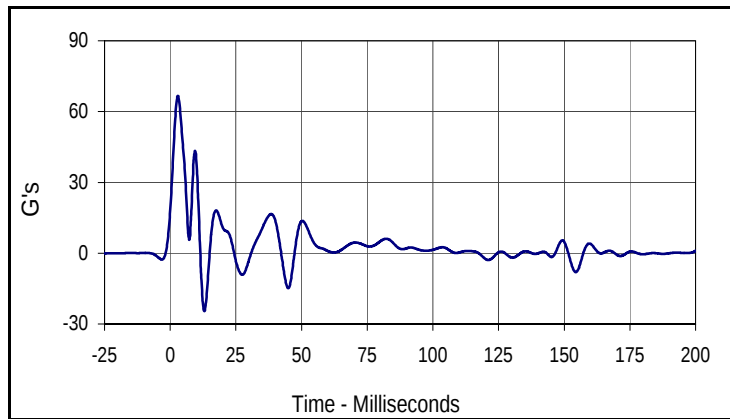
Curve Description			
Vehicle B-Post Lower Y Velocity			
CURNO	Type	SAE Class	Units
062	IN1	180	KMH
Max	Time	Min	Time
43.9	11.4	-0.3	1.5



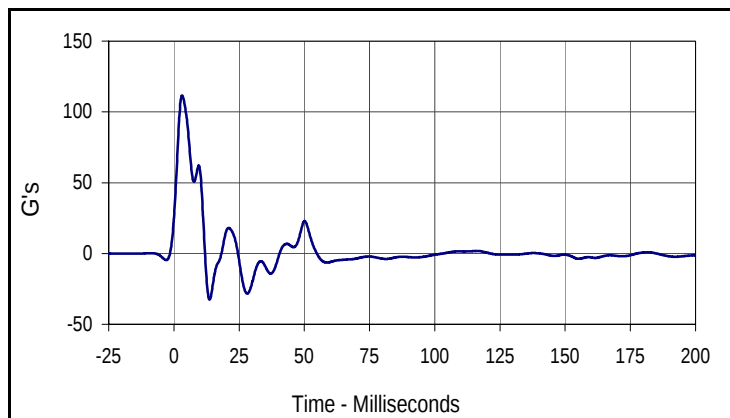
Curve Description			
Vehicle B-Post Middle Y Velocity			
CURNO	Type	SAE Class	Units
063	IN1	180	KMH
Max	Time	Min	Time
41.3	12.8	-0.2	1.4

Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

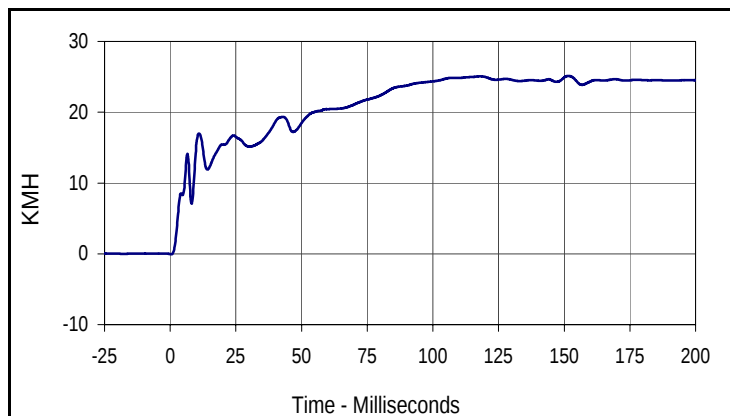
Test Date: 8/16/05
 NHTSA No.: G60105



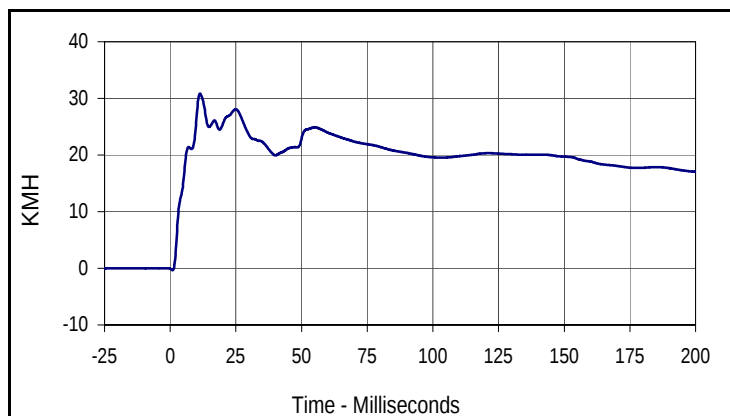
Curve Description			
Vehicle A-Post Lower Y			
CURNO	Type	SAE Class	Units
064	FIL	60	G's
Max	Time	Min	Time
66.6	2.9	-24.5	13.0



Curve Description			
Vehicle A-Post Middle Y			
CURNO	Type	SAE Class	Units
065	FIL	60	G's
Max	Time	Min	Time
111.6	3.1	-32.6	13.7



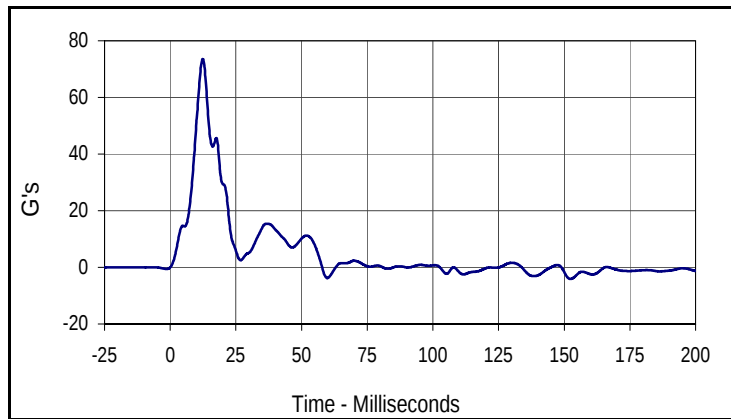
Curve Description			
Vehicle A-Post Lower Y Velocity			
CURNO	Type	SAE Class	Units
064	IN1	180	KMH
Max	Time	Min	Time
25.1	151.6	-0.1	0.4



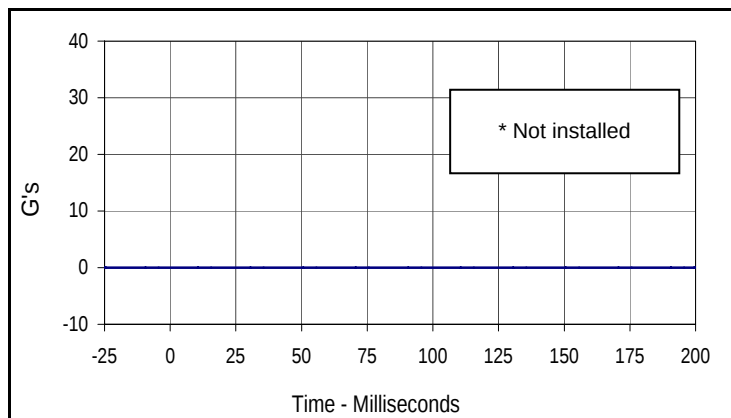
Curve Description			
Vehicle A-Post Middle Y Velocity			
CURNO	Type	SAE Class	Units
065	IN1	180	KMH
Max	Time	Min	Time
30.8	11.3	-0.3	0.9

Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

Test Date: 8/16/05
 NHTSA No.: G60105

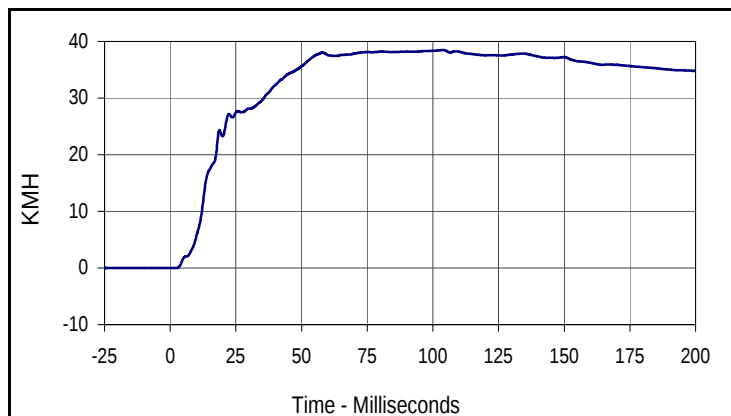


Curve Description			
Vehicle Left Front Seat Track			
CURNO	Type	SAE Class	Units
066	FIL	60	G's
Max	Time	Min	Time
73.6	12.4	-4.1	152.4

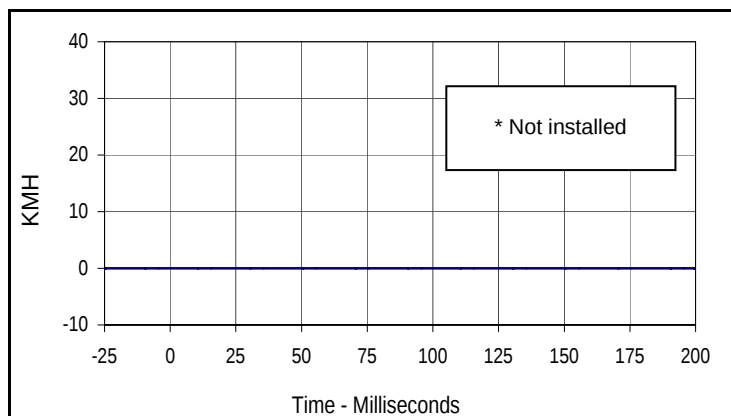


Curve Description			
Vehicle Rear Seat Structure			
CURNO	Type	SAE Class	Units
067	FIL	60	G's
Max	Time	Min	Time
0.0	0.0	0.0	0.0

* Not installed



Curve Description			
Vehicle Left Front Seat Track Y Velocity			
CURNO	Type	SAE Class	Units
066	IN1	180	KMH
Max	Time	Min	Time
38.5	103.8	0.0	2.4

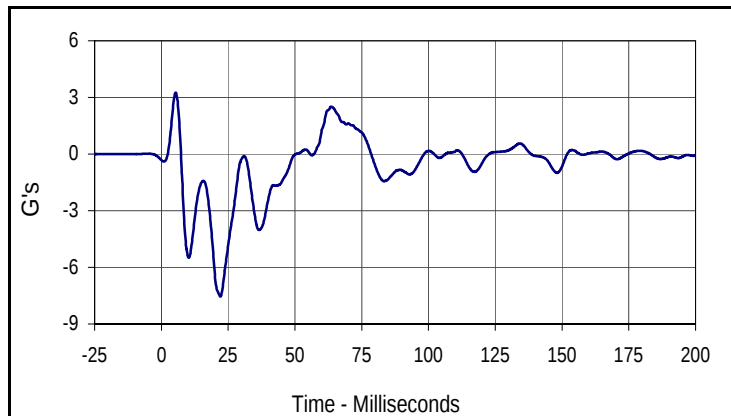


Curve Description			
Vehicle Rear Seat Structure Y Velocity			
CURNO	Type	SAE Class	Units
067	IN1	180	KMH
Max	Time	Min	Time
0.0	0.0	0.0	0.0

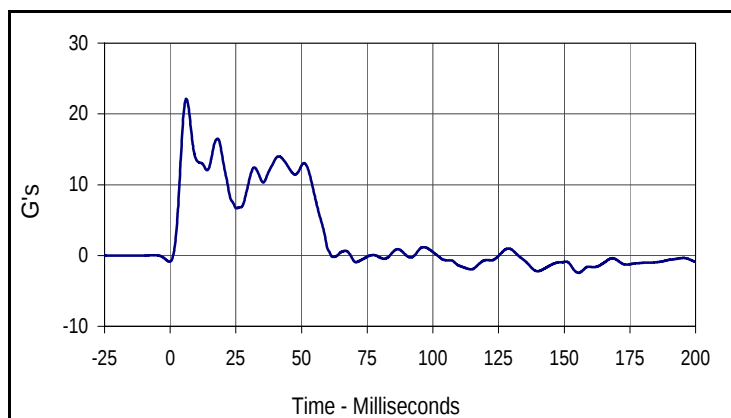
* Not installed

Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

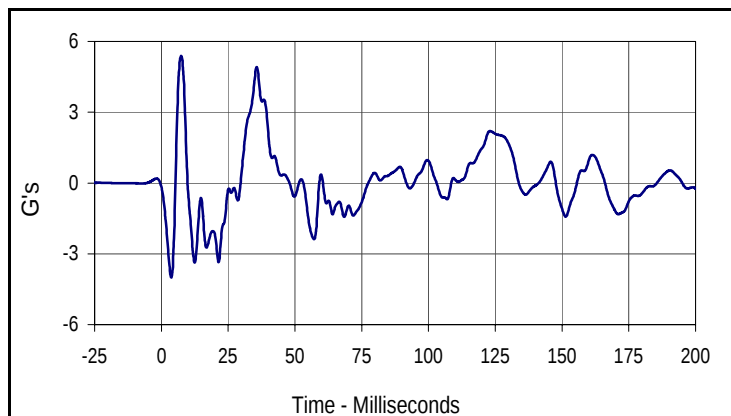
Test Date: 8/16/05
 NHTSA No.: G60105



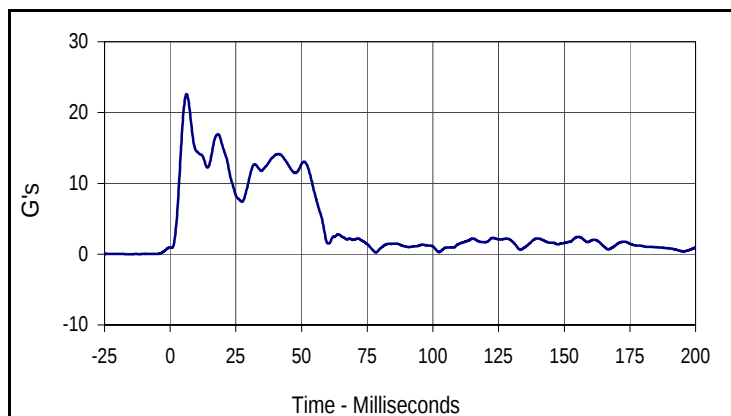
Curve Description			
Vehicle CG X			
CURNO	Type	SAE Class	Units
068	FIL	60	G's
Max	Time	Min	Time
3.3	5.3	-7.5	22.1



Curve Description			
Vehicle CG Y			
CURNO	Type	SAE Class	Units
069	FIL	60	G's
Max	Time	Min	Time
22.1	6.1	-2.4	155.4



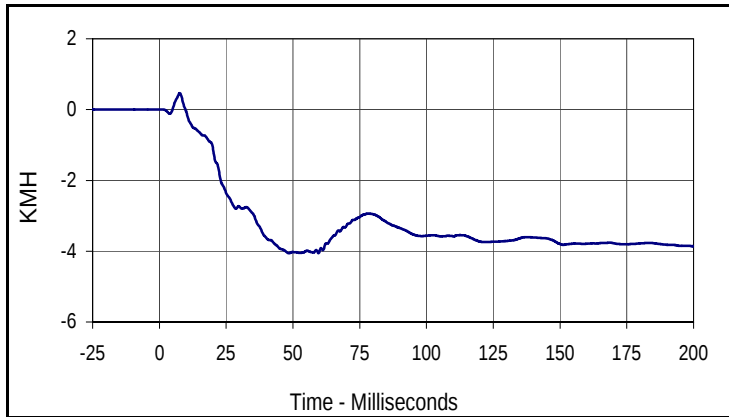
Curve Description			
Vehicle CG Z			
CURNO	Type	SAE Class	Units
070	FIL	60	G's
Max	Time	Min	Time
5.4	7.4	-4.0	3.7



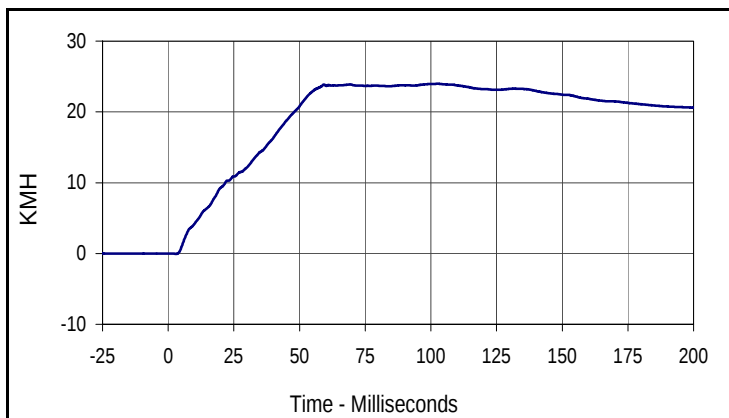
Curve Description			
Vehicle CG Resultant			
CURNO	Type	SAE Class	Units
068	RES	60	G's
Max	Time	Min	Time
22.6	6.2	0.2	78.3

Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

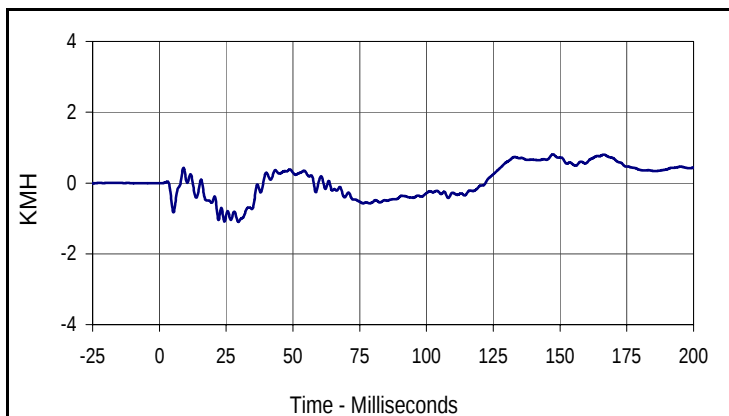
Test Date: 8/16/05
 NHTSA No.: G60105



Curve Description			
Vehicle CG X Velocity			
CURNO	Type	SAE Class	Units
068	IN1	180	KMH
Max	Time	Min	Time
0.5	7.6	-4.1	48.5



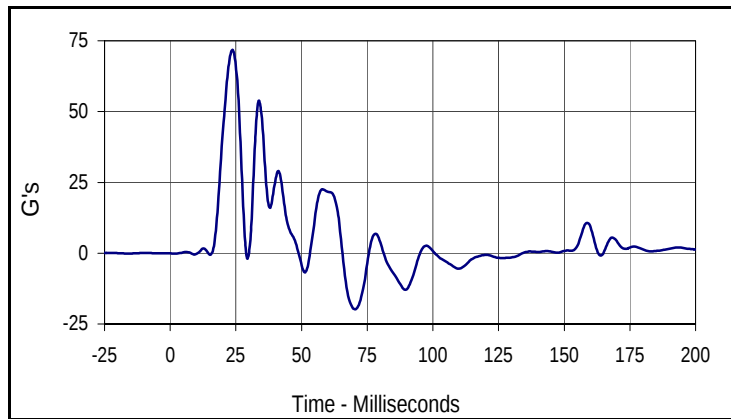
Curve Description			
Vehicle CG Y Velocity			
CURNO	Type	SAE Class	Units
069	IN1	180	KMH
Max	Time	Min	Time
24.0	102.7	-0.1	3.1



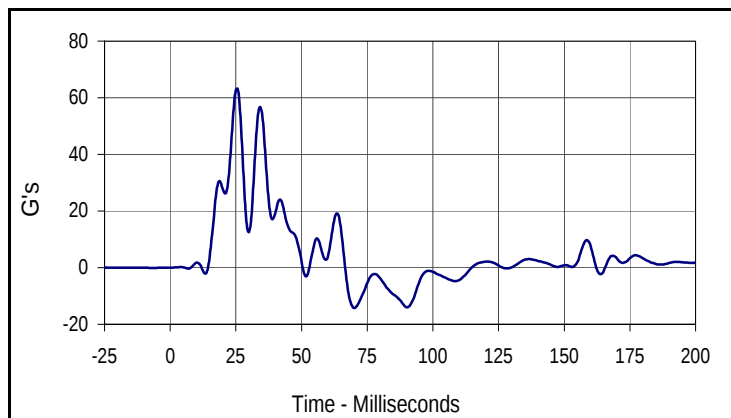
Curve Description			
Vehicle CG Z Velocity			
CURNO	Type	SAE Class	Units
070	IN1	180	KMH
Max	Time	Min	Time
0.8	147.3	-1.1	29.6

Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

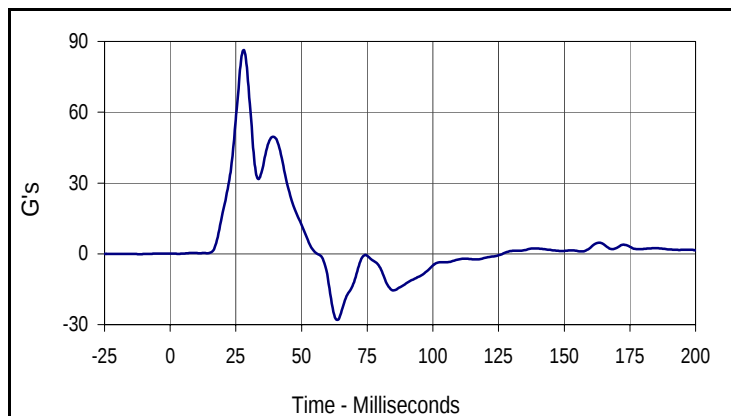
Test Date: 8/16/05
 NHTSA No.: G60105



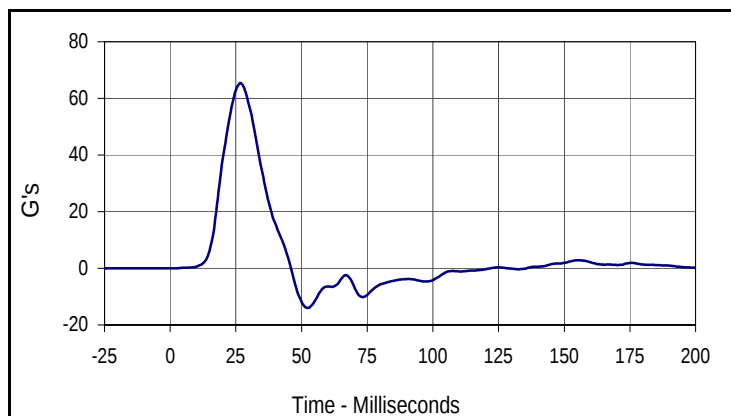
Curve Description			
Driver Upper Rib Primary Y			
CURNO	Type	SAE Class	Units
013	FIR	FIR100	G's
Max	Time	Min	Time
71.8	23.8	-19.8	70.6



Curve Description			
Driver Lower Rib Primary Y			
CURNO	Type	SAE Class	Units
014	FIR	FIR100	G's
Max	Time	Min	Time
63.1	25.6	-14.2	70.0



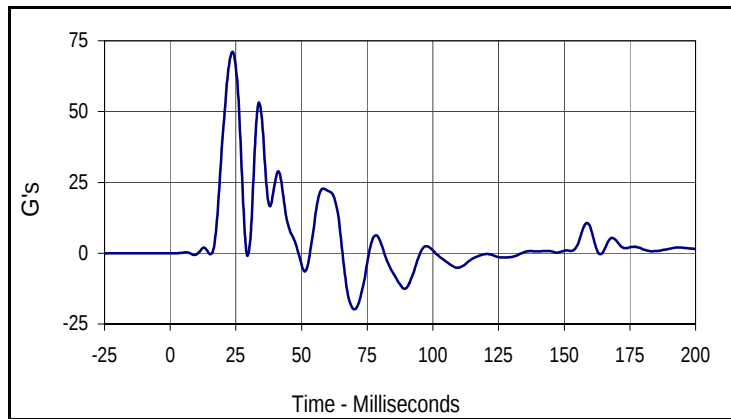
Curve Description			
Driver Lower Spine Primary Y			
CURNO	Type	SAE Class	Units
015	FIR	FIR100	G's
Max	Time	Min	Time
86.4	28.1	-27.9	63.8



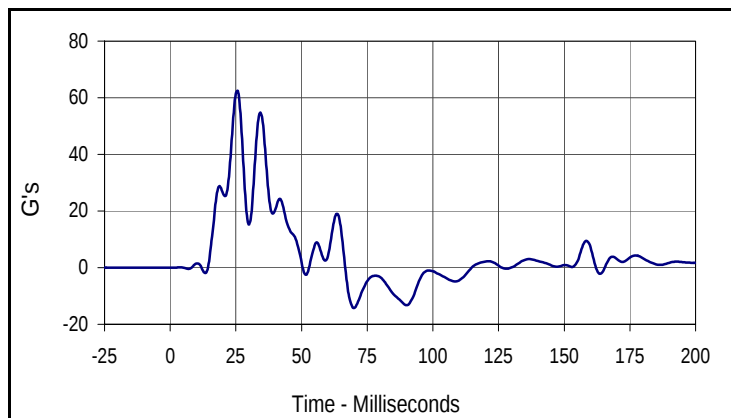
Curve Description			
Driver Pelvis Primary Y			
CURNO	Type	SAE Class	Units
016	FIR	FIR100	G's
Max	Time	Min	Time
65.4	26.9	-14.0	52.5

Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

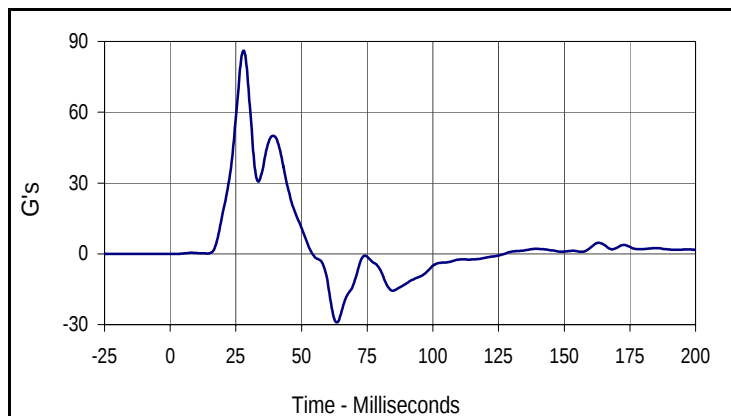
Test Date: 8/16/05
 NHTSA No.: G60105



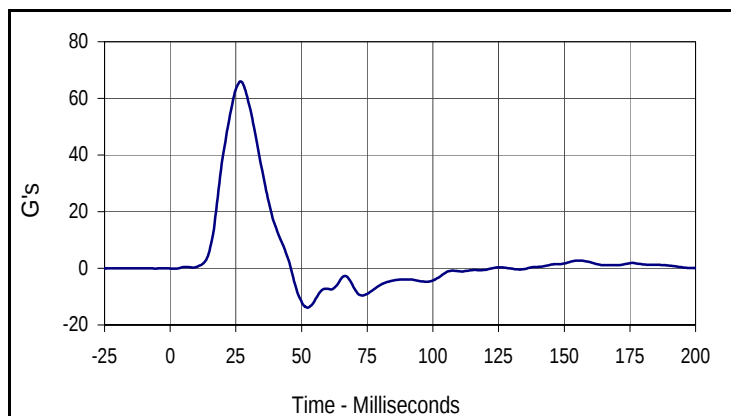
Curve Description			
Driver Upper Rib Redundant Y			
CURNO	Type	SAE Class	Units
017	FIR	FIR100	G's
Max	Time	Min	Time
71.1	23.8	-19.9	70.0



Curve Description			
Driver Lower Rib Redundant Y			
CURNO	Type	SAE Class	Units
018	FIR	FIR100	G's
Max	Time	Min	Time
62.4	25.6	-14.3	70.0



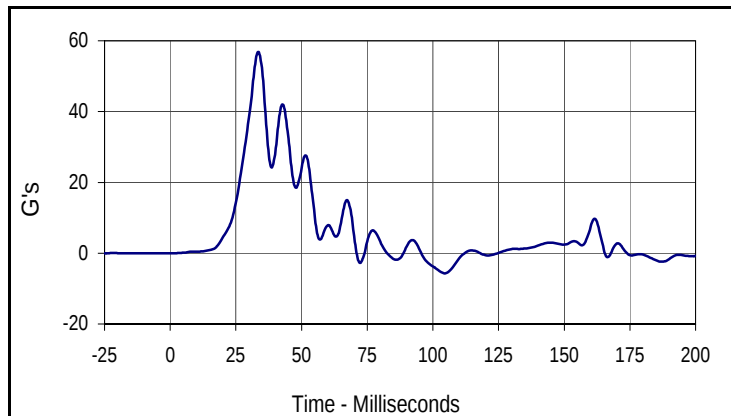
Curve Description			
Driver Lower Spine Redundant Y			
CURNO	Type	SAE Class	Units
019	FIR	FIR100	G's
Max	Time	Min	Time
86.1	28.1	-29.0	63.1



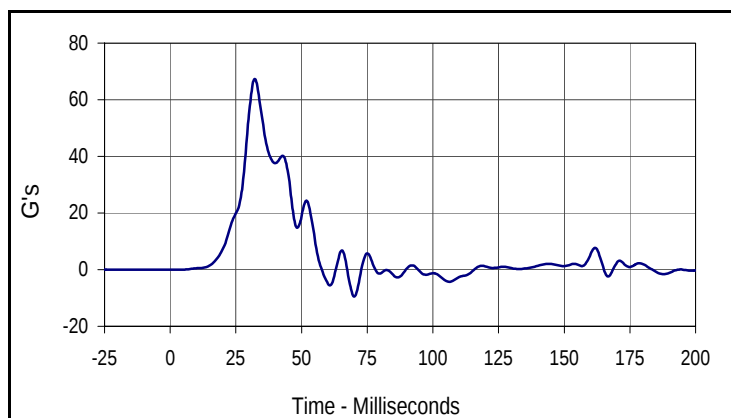
Curve Description			
Driver Pelvis Redundant Y			
CURNO	Type	SAE Class	Units
020	FIR	FIR100	G's
Max	Time	Min	Time
66.0	26.9	-13.9	52.5

Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

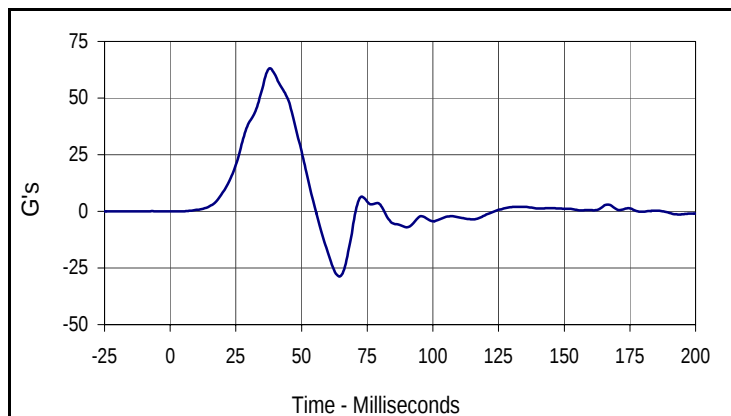
Test Date: 8/16/05
 NHTSA No.: G60105



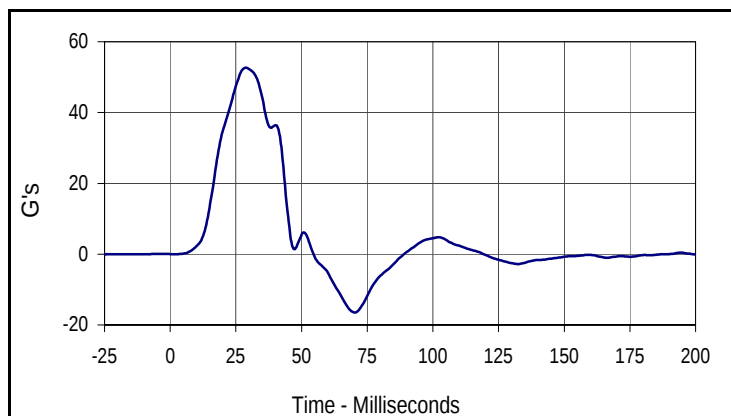
Curve Description			
Passenger Upper Rib Primary Y			
CURNO	Type	SAE Class	Units
035	FIR	FIR100	G's
Max	Time	Min	Time
56.9	33.8	-5.7	104.4



Curve Description			
Passenger Lower Rib Primary Y			
CURNO	Type	SAE Class	Units
036	FIR	FIR100	G's
Max	Time	Min	Time
67.1	31.9	-9.5	70.0



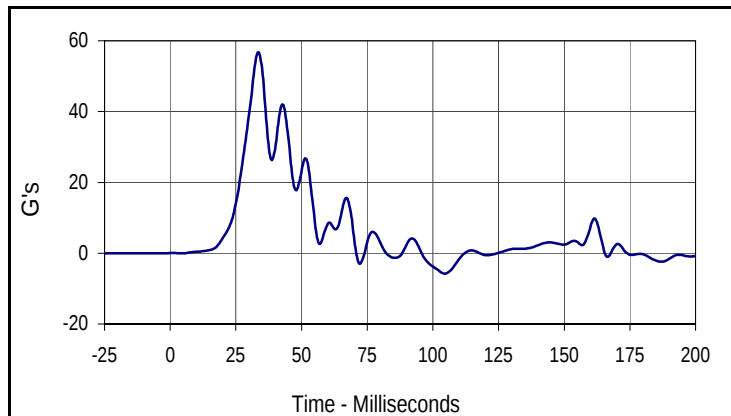
Curve Description			
Passenger Lower Spine Primary Y			
CURNO	Type	SAE Class	Units
037	FIR	FIR100	G's
Max	Time	Min	Time
63.1	38.1	-28.8	64.4



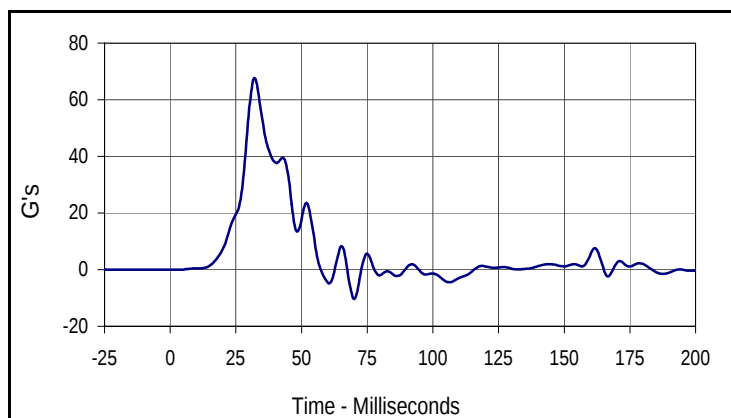
Curve Description			
Passenger Pelvis Primary Y			
CURNO	Type	SAE Class	Units
038	FIR	FIR100	G's
Max	Time	Min	Time
52.7	28.8	-16.5	70.0

Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

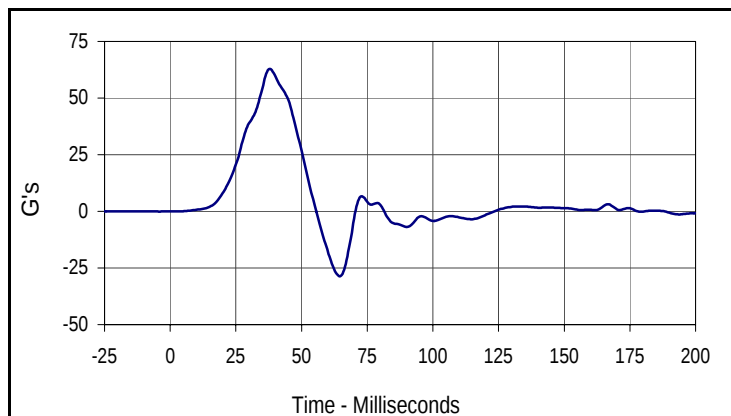
Test Date: 8/16/05
 NHTSA No.: G60105



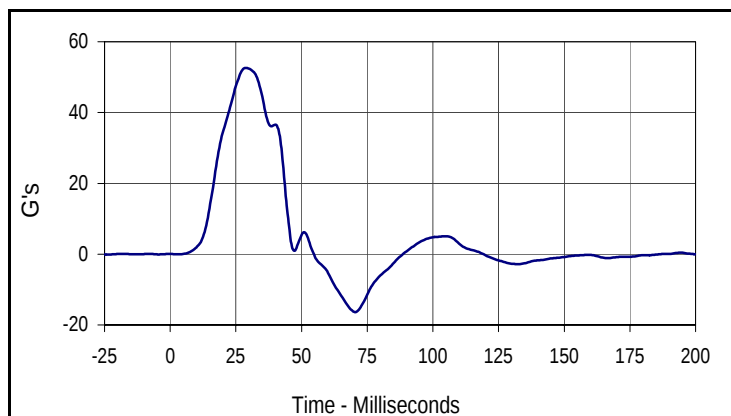
Curve Description			
Passenger Upper Rib Redundant Y			
CURNO	Type	SAE Class	Units
039	FIR	FIR100	G's
Max	Time	Min	Time
56.8	33.8	-5.8	104.4



Curve Description			
Passenger Lower Rib Redundant Y			
CURNO	Type	SAE Class	Units
040	FIR	FIR100	G's
Max	Time	Min	Time
67.5	31.9	-10.4	70.0



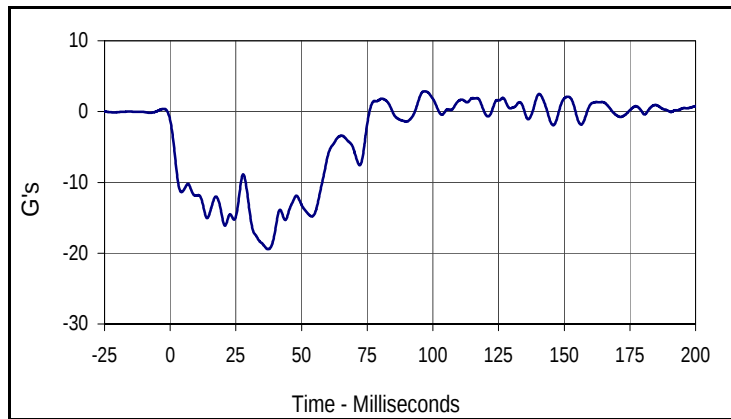
Curve Description			
Passenger Lower Spine Redundant Y			
CURNO	Type	SAE Class	Units
041	FIR	FIR100	G's
Max	Time	Min	Time
62.9	38.1	-28.6	64.4



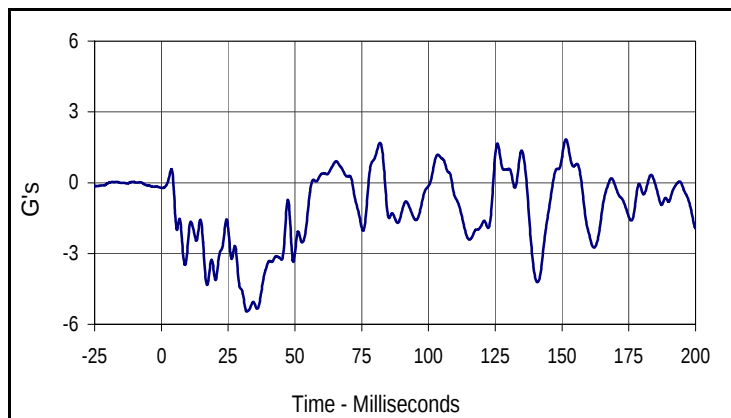
Curve Description			
Passenger Pelvis Redundant Y			
CURNO	Type	SAE Class	Units
042	FIR	FIR100	G's
Max	Time	Min	Time
52.6	28.8	-16.3	70.6

Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

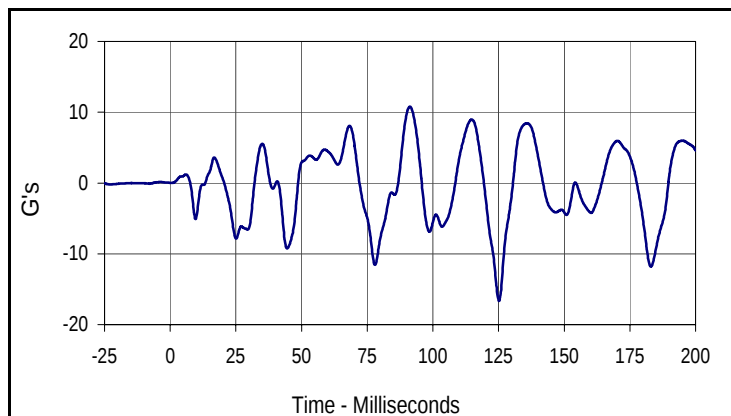
Test Date: 8/16/05
 NHTSA No.: G60105



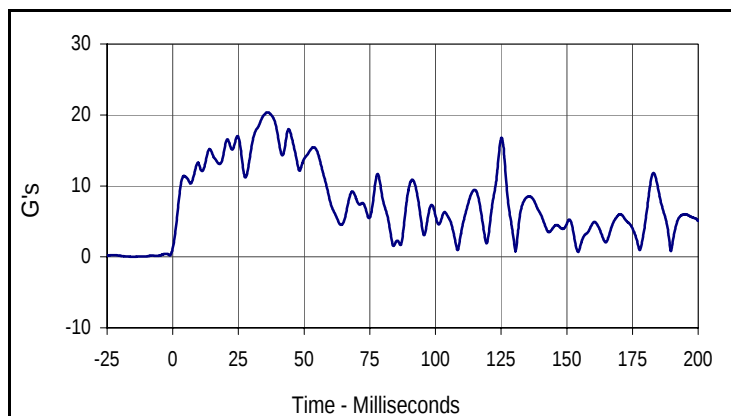
Curve Description			
MDB CG X			
CURNO	Type	SAE Class	Units
071	FIL	60	G's
Max	Time	Min	Time
2.9	96.8	-19.4	37.2



Curve Description			
MDB CG Y			
CURNO	Type	SAE Class	Units
072	FIL	60	G's
Max	Time	Min	Time
1.8	151.5	-5.5	32.0



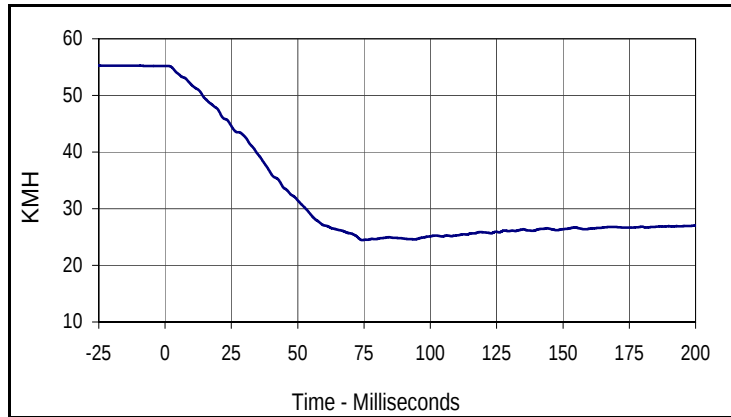
Curve Description			
MDB CG Z			
CURNO	Type	SAE Class	Units
073	FIL	60	G's
Max	Time	Min	Time
10.8	91.2	-16.6	125.2



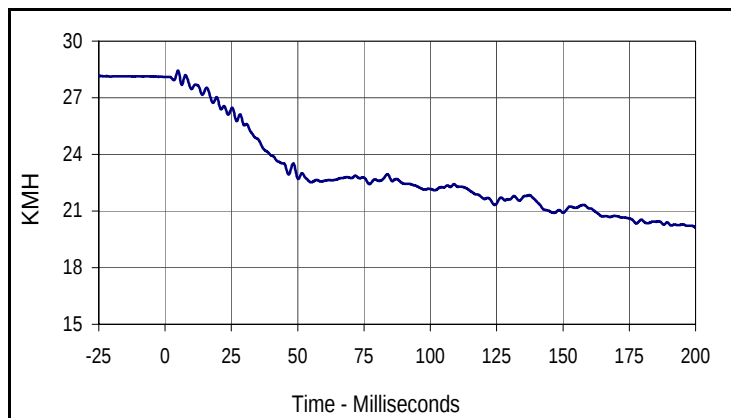
Curve Description			
CG Resultant			
CURNO	Type	SAE Class	Units
071	RES	60	G's
Max	Time	Min	Time
20.4	36.1	0.7	154.3

Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

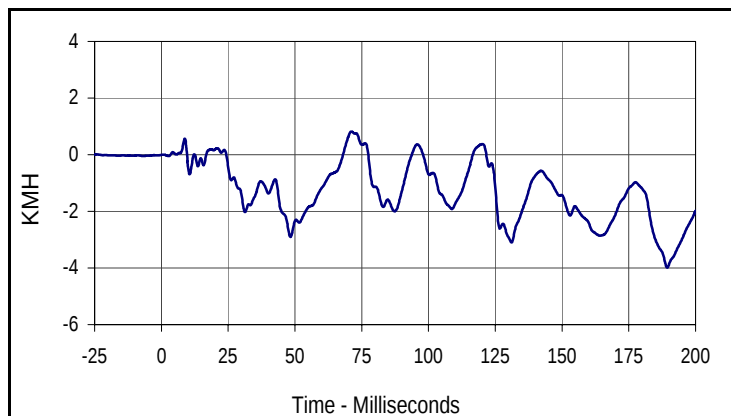
Test Date: 8/16/05
 NHTSA No.: G60105



Curve Description			
MDB CG X Velocity			
CURNO	Type	SAE Class	Units
071	IN1	180	KMH
Max	Time	Min	Time
55.2	1.0	24.5	74.4



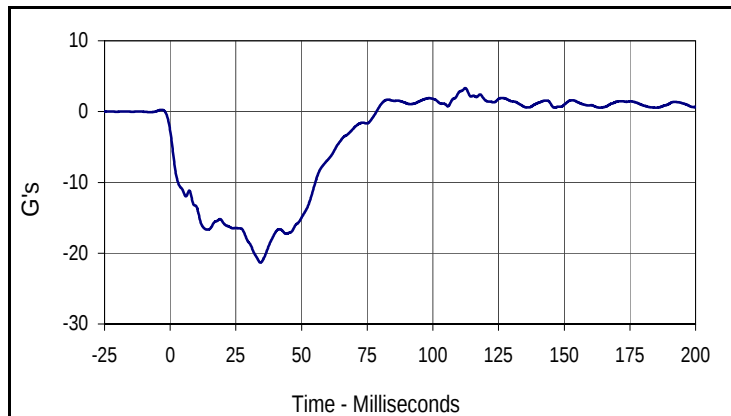
Curve Description			
MDB CG Y Velocity			
CURNO	Type	SAE Class	Units
072	IN1	180	KMH
Max	Time	Min	Time
28.4	4.9	20.1	200.0



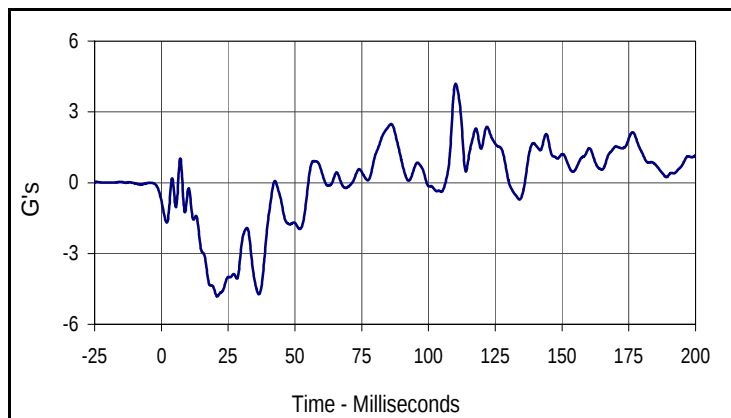
Curve Description			
MDB CG Z Velocity			
CURNO	Type	SAE Class	Units
073	IN1	180	KMH
Max	Time	Min	Time
0.8	71.1	-4.0	189.4

Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan
 Test Program: 55/28 km/h Side Impact NCAP

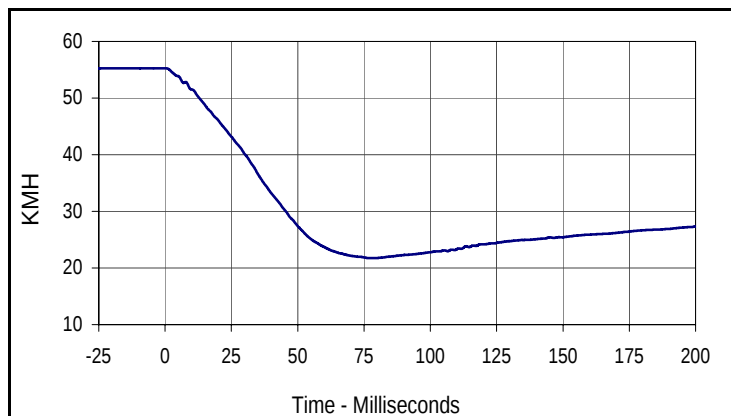
Test Date: 8/16/05
 NHTSA No.: G60105



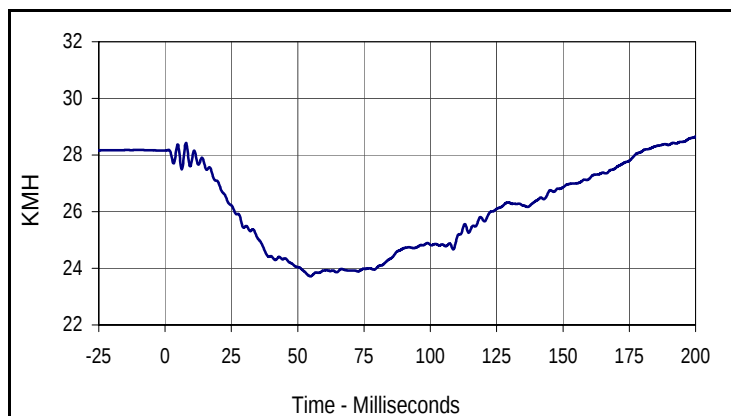
Curve Description			
MDB Rear X			
CURNO	Type	SAE Class	Units
074	FIL	60	G's
Max	Time	Min	Time
3.3	112.4	-21.3	34.4



Curve Description			
MDB Rear Y			
CURNO	Type	SAE Class	Units
075	FIL	60	G's
Max	Time	Min	Time
4.2	110.2	-4.8	20.9



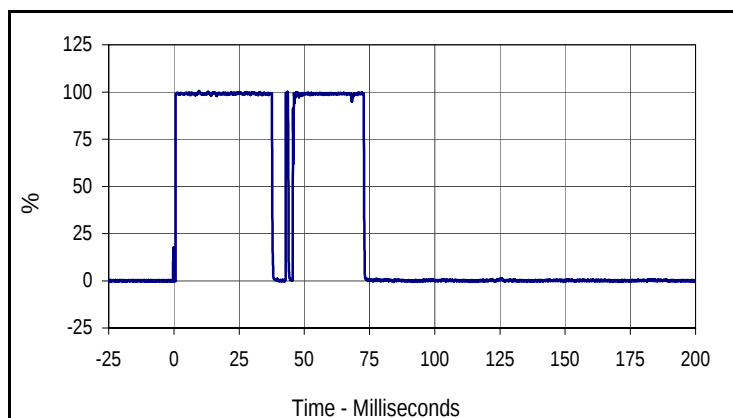
Curve Description			
MDB Rear X Velocity			
CURNO	Type	SAE Class	Units
074	IN1	180	KMH
Max	Time	Min	Time
55.2	0.3	21.7	78.6



Curve Description			
MDB Rear Y Velocity			
CURNO	Type	SAE Class	Units
075	IN1	180	KMH
Max	Time	Min	Time
28.6	200.0	23.7	54.8

Test Vehicle: 2005 Chevrolet Cobalt 4-Door Sedan
Test Program: 55/28 km/h Side Impact NCAP

Test Date: 8/16/05
NHTSA No.: G60105



Curve Description			
MDB Right Bumper Contact			
CURNO	Type	SAE Class	Units
076	FIL	1000	%
Max	Time	Cross %	Time
100.6	9.6	50.0	0.7

APPENDIX C
SID/HIII CONFIGURATION AND PERFORMANCE VERIFICATION DATA

APPENDIX C
PRE-TEST SID / HIII CONFIGURATION AND PERFORMANCE VERIFICATION DATA

Test Program: SID / HIII External Measurements
 ATD Serial No.: 274

Test Date: 8/12/05
 Test I.D.: N/A



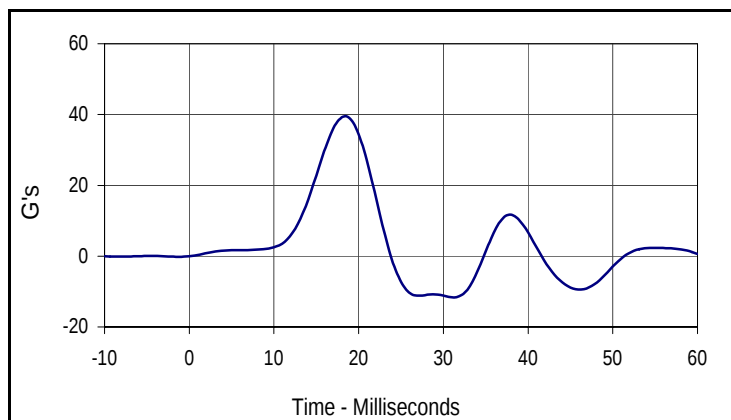
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
SH- Seated Height	mm	889 to 909	905	Pass
HP- Hip Point Height	mm	99 (reference)	99	Pass
RH- Rib Height	mm	502 to 520	505	Pass
KH- Knee Pivot From Back Line	mm	511 to 526	515	Pass
KV- Knee Pivot From Floor	mm	490 to 505	498	Pass
HW- Hip Width	mm	356 to 391	365	Pass
Overall Test Results				Pass

Test Program: SID / HIII Thorax Lateral Impact
 ATD Serial No.: 274

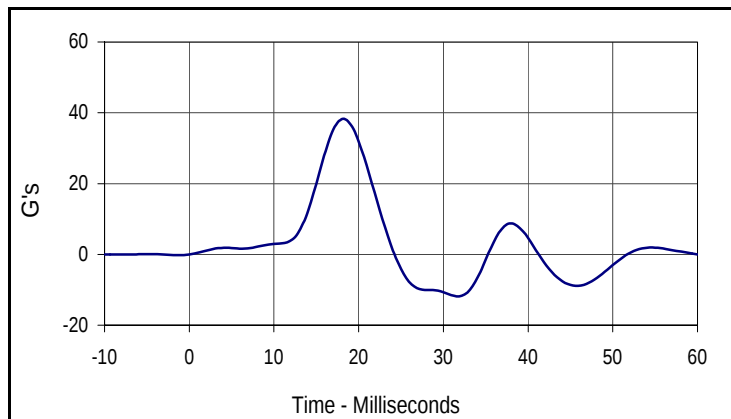
Test Date: 8/12/05
 Test I.D.: TH08A



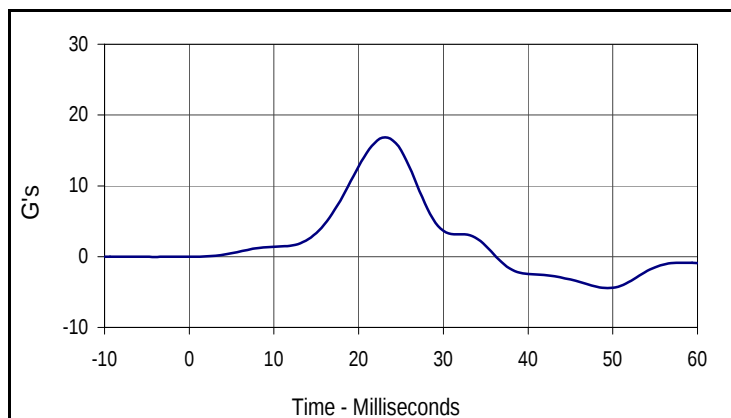
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	4.21 to 4.33	4.28	Pass
Upper Rib Acceleration	G's	37.0 to 46.0	39.4	Pass
Lower Rib Acceleration	G's	37.0 to 46.0	38.3	Pass
Thoracic Spine Acceleration	G's	15.0 to 22.0	16.9	Pass
Overall Test Results			Pass	



Curve Description			
Upper Rib Primary Y			
CURNO	Type	SAE Class	Units
001	FIL	FIR100	G's
Max	Time	Min	Time
39.4	18.1	-11.7	31.3



Curve Description			
Lower Rib Primary Y			
CURNO	Type	SAE Class	Units
002	FIL	FIR100	G's
Max	Time	Min	Time
38.3	18.1	-11.8	31.9



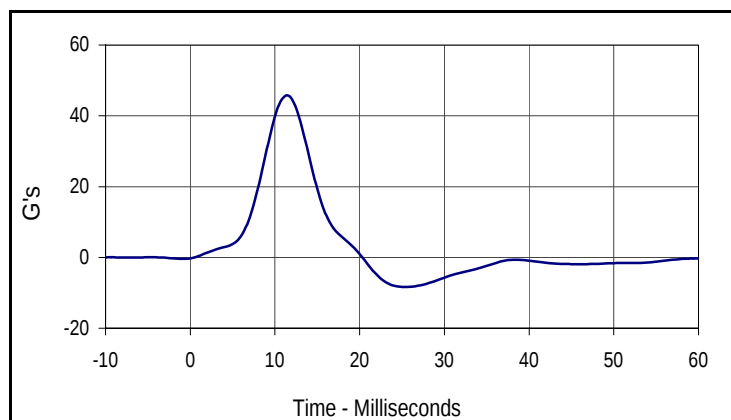
Curve Description			
Lower Spine Primary Y			
CURNO	Type	SAE Class	Units
003	FIL	FIR100	G's
Max	Time	Min	Time
16.9	23.1	-4.5	49.4

Test Program: SID / HIII Pelvis Lateral Impact
 ATD Serial No.: 274

Test Date: 8/12/05
 Test I.D.: PI08A



Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	4.21 to 4.33	4.26	Pass
Peak Pelvis Acceleration	G's	40.0 to 60.0	45.8	Pass
Acceleration Time Above 20 G's	Msec.	3.0 to 7.0	6.88	Pass
Overall Test Results				Pass



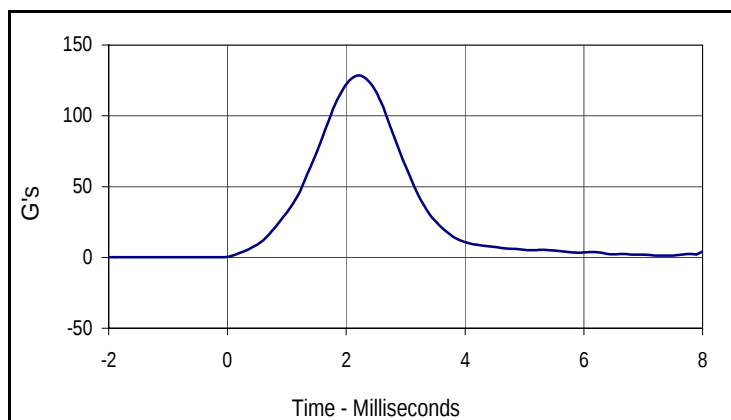
Curve Description			
Pelvis Primary Y			
CURNO	Type	SAE Class	Units
001	FIL	FIR100	G's
Max	Time	Min	Time
45.8	11.3	-8.4	25.6

Test Program: SID / HIII Head Drop Lateral Impact Test
 ATD Serial No.: 274

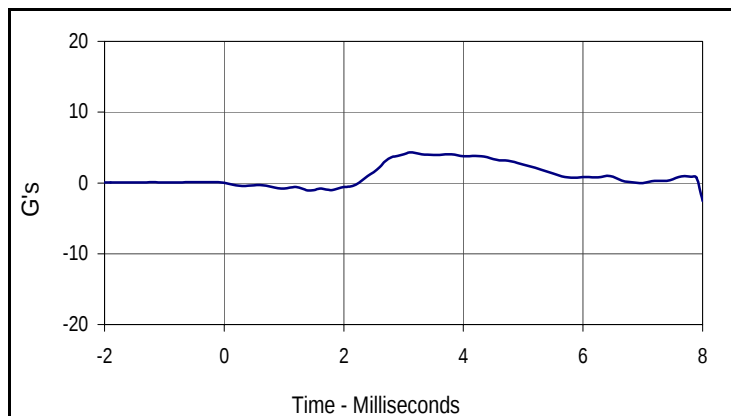
Test Date: 8/11/05
 Test I.D.: HD08A



Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Peak Resultant Acceleration	G's	120.0 to 150.0	128.6	Pass
Peak Longitudinal Acceleration	G's	≤15.0	4.3	Pass
Is Acceleration Unimodal?	Yes/No	Yes	Yes	Pass
Oscillations After Main Pulse	%	<15	4.3	Pass
Overall Test Results			Pass	



Curve Description			
Head Resultant			
CURNO	Type	SAE Class	Units
001	RES	1000	G's
Max	Time	Min	Time
128.6	2.2	0.1	-0.8



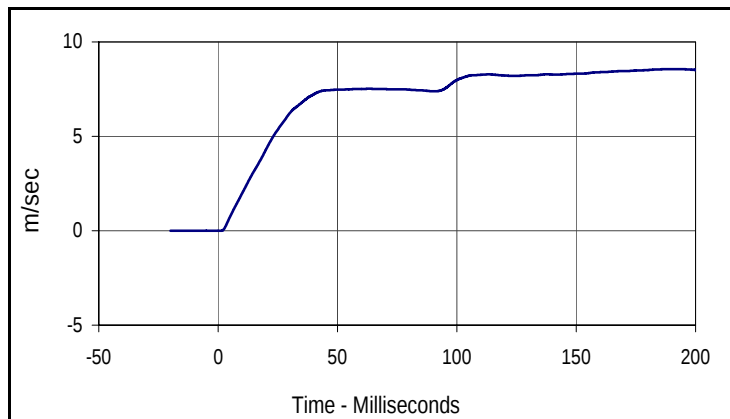
Curve Description			
Head X			
CURNO	Type	SAE Class	Units
002	FIL	1000	G's
Max	Time	Min	Time
4.3	3.1	-1.1	1.4

Test Program: SID / HIII Neck Pendulum Lateral Test
 ATD Serial No.: 274

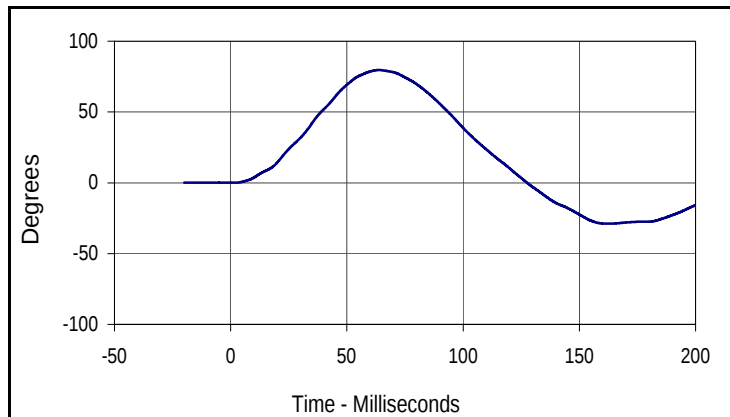
Test Date: 8/11/05
 Test I.D.: NB08A



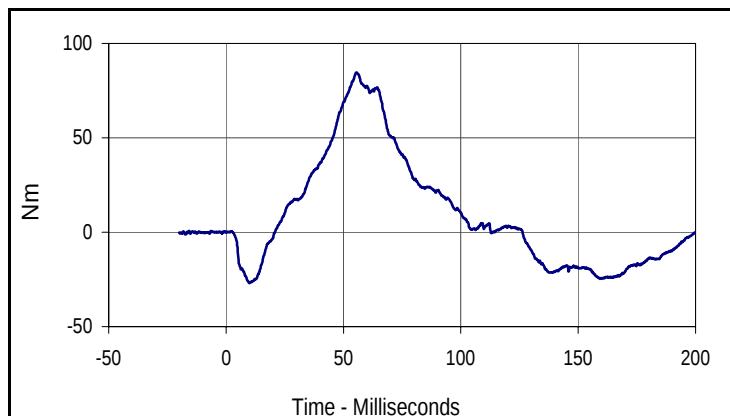
Tested Parameter		Units	Specification	Result	Pass/Fail
Laboratory Temperature		°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity		%	10 to 70	30	Pass
Pendulum Velocity		m/sec	6.89 to 7.13	7.03	Pass
Pendulum Deceleration	10 Msec.	m/sec	1.96 to 2.55	1.98	Pass
	20 Msec.	m/sec	4.12 to 5.10	4.29	Pass
	30 Msec.	m/sec	5.73 to 7.01	6.23	Pass
	40 to 70	m/sec	6.27 to 7.64	7.52	Pass
"D" Plane Rotation	Max	Degrees	66.0 to 82.0	79.6	Pass
Max Rotation Time After Peak Moment		Msec.	2.0 to 16.0	8.2	Pass
Rotation Time From Peak to Zero Angle		Msec.	58.0 to 67.0	63.9	Pass
Moment About Occipital Condyle		Nm	73.0 to 88.0	84.6	Pass
Positive Moment Decay, Time To 0 Nm		Msec.	49.0 to 64.0	57.3	Pass
			Overall Test Results		Pass



Curve Description			
Pendulum Velocity			
CURNO	Type	SAE Class	Units
001	FIL	180	m/sec
Max	Time	Min	Time
8.6	189.7	0.0	-16.6



Curve Description			
"D" Plane Rotation			
CURNO	Type	SAE Class	Units
003	FIL	60	Degrees
Max	Time	Min	Time
79.6	63.7	-28.9	162.0



Curve Description			
Moment About Occipital Condyle			
CURNO	Type	SAE Class	Units
004	FIL	600	Nm
Max	Time	Min	Time
84.6	55.5	-26.9	9.9

Test Program: SID / HIII External Measurements
 ATD Serial No.: 275

Test Date: 8/12/05
 Test I.D.: N/A



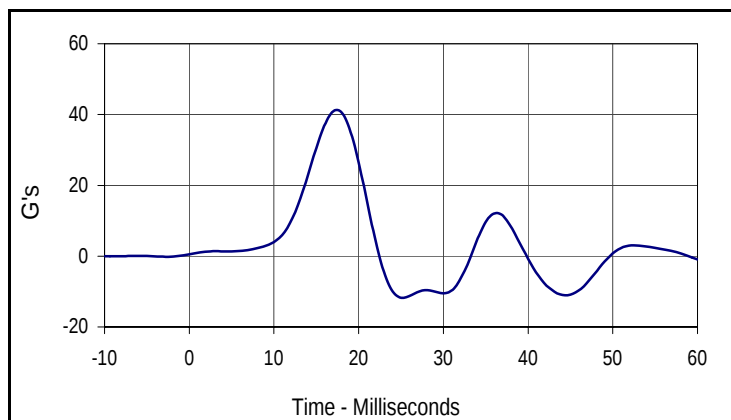
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
SH- Seated Height	mm	889 to 909	892	Pass
HP- Hip Point Height	mm	99 (reference)	99	Pass
RH- Rib Height	mm	502 to 520	510	Pass
KH- Knee Pivot From Back Line	mm	511 to 526	518	Pass
KV- Knee Pivot From Floor	mm	490 to 505	500	Pass
HW- Hip Width	mm	356 to 391	375	Pass
Overall Test Results				Pass

Test Program: SID / HIII Thorax Lateral Impact
 ATD Serial No.: 275

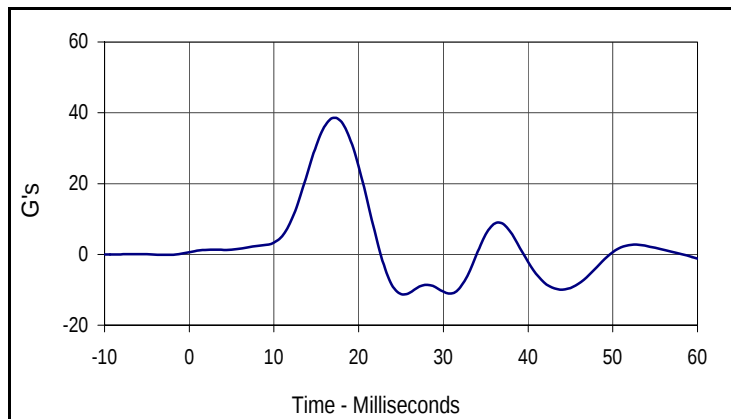
Test Date: 8/12/05
 Test I.D.: TH08B



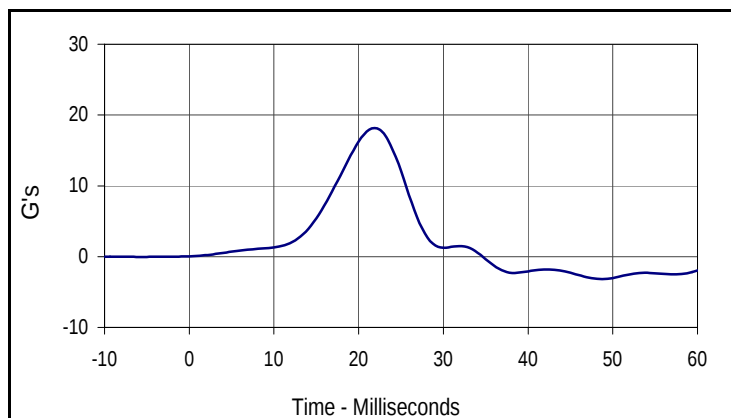
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	4.21 to 4.33	4.25	Pass
Upper Rib Acceleration	G's	37.0 to 46.0	41.3	Pass
Lower Rib Acceleration	G's	37.0 to 46.0	38.5	Pass
Thoracic Spine Acceleration	G's	15.0 to 22.0	18.2	Pass
Overall Test Results			Pass	



Curve Description			
Upper Rib Primary Y			
CURNO	Type	SAE Class	Units
001	FIL	FIR100	G's
Max	Time	Min	Time
41.3	17.5	-11.8	25.0



Curve Description			
Lower Rib Primary Y			
CURNO	Type	SAE Class	Units
002	FIL	FIR100	G's
Max	Time	Min	Time
38.5	16.9	-11.2	25.0



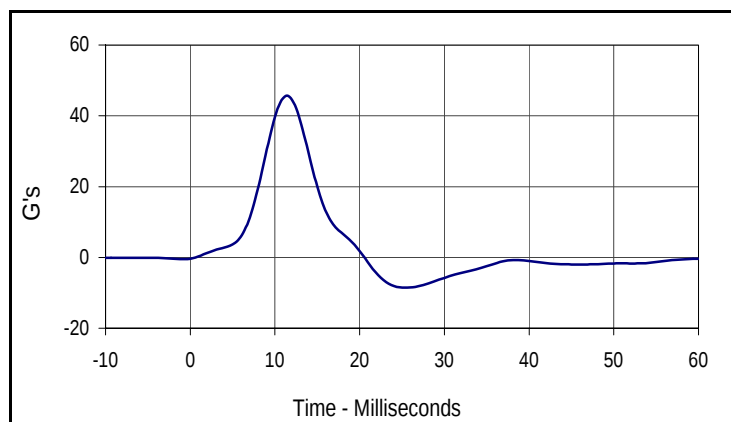
Curve Description			
Lower Spine Primary Y			
CURNO	Type	SAE Class	Units
003	FIL	FIR100	G's
Max	Time	Min	Time
18.2	21.9	-3.2	48.8

Test Program: SID / HIII Pelvis Lateral Impact
 ATD Serial No.: 275

Test Date: 8/12/05
 Test I.D.: PI08B



Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	4.21 to 4.33	4.30	Pass
Peak Pelvis Acceleration	G's	40.0 to 60.0	45.6	Pass
Acceleration Time Above 20 G's	Msec.	3.0 to 7.0	6.88	Pass
Overall Test Results				Pass



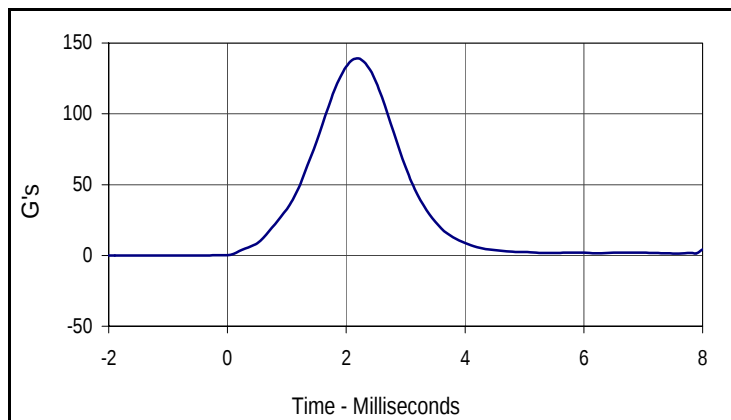
Curve Description			
Pelvis Primary Y			
CURNO	Type	SAE Class	Units
001	FIL	FIR100	G's
Max	Time	Min	Time
45.6	11.3	-8.5	25.6

Test Program: SID / HIII Head Drop Lateral Impact Test
 ATD Serial No.: 275

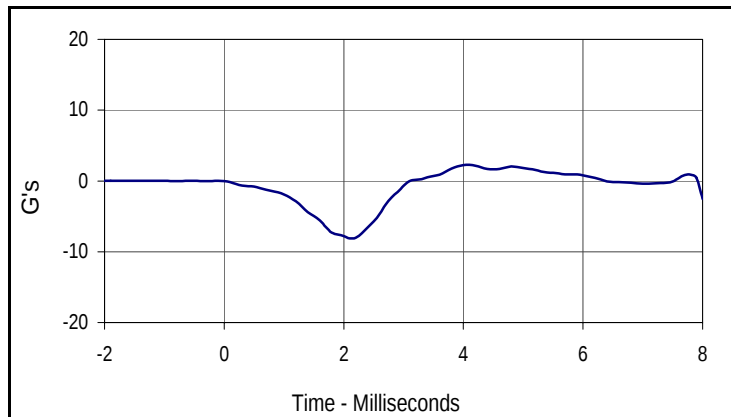
Test Date: 8/11/05
 Test I.D.: HD08B



Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Peak Resultant Acceleration	G's	120.0 to 150.0	139.2	Pass
Peak Longitudinal Acceleration	G's	≤15.0	8.1	Pass
Is Acceleration Unimodal?	Yes/No	Yes	Yes	Pass
Oscillations After Main Pulse	%	<15	1.7	Pass
Overall Test Results			Pass	



Curve Description			
Head Resultant			
CURNO	Type	SAE Class	Units
001	RES	1000	G's
Max	Time	Min	Time
139.2	2.2	0.0	-0.7



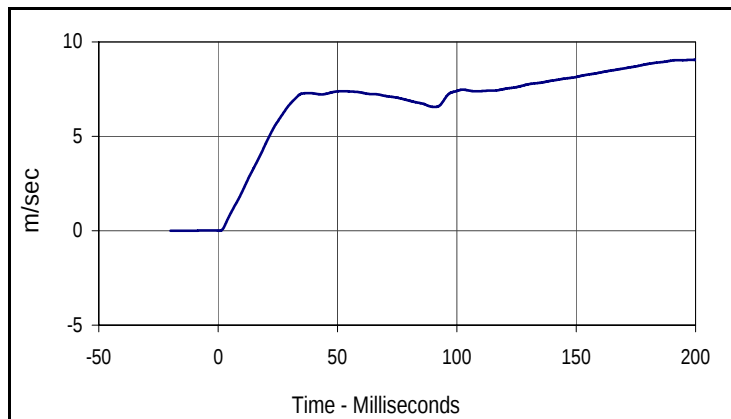
Curve Description			
Head X			
CURNO	Type	SAE Class	Units
002	FIL	1000	G's
Max	Time	Min	Time
2.3	4.1	-8.1	2.1

Test Program: SID / HIII Neck Pendulum Lateral Test
 ATD Serial No.: 275

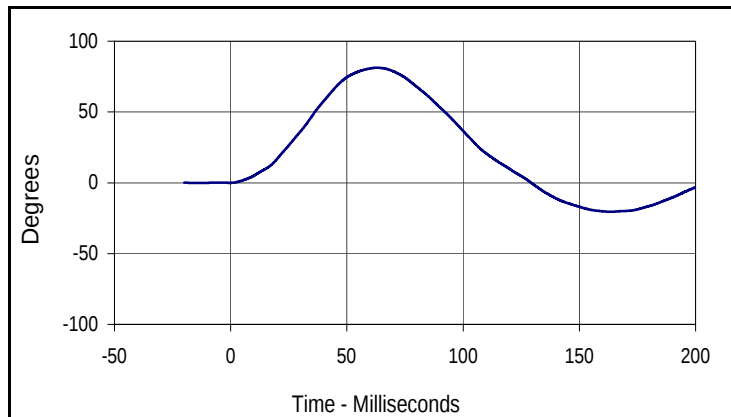
Test Date: 8/11/05
 Test I.D.: NB08B



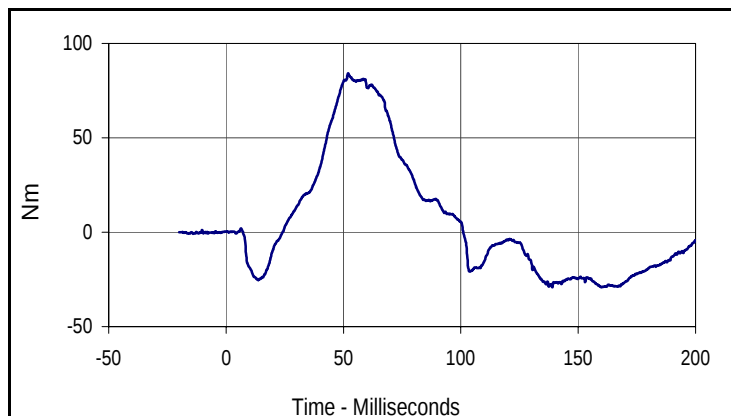
Tested Parameter		Units	Specification	Result	Pass/Fail
Laboratory Temperature		°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity		%	10 to 70	30	Pass
Pendulum Velocity		m/sec	6.89 to 7.13	6.94	Pass
Pendulum Deceleration	10 Msec.	m/sec	1.96 to 2.55	2.06	Pass
	20 Msec.	m/sec	4.12 to 5.10	4.63	Pass
	30 Msec.	m/sec	5.73 to 7.01	6.70	Pass
	40 to 70	m/sec	6.27 to 7.64	7.39	Pass
"D" Plane Rotation	Max	Degrees	66.0 to 82.0	81.2	Pass
Max Rotation Time After Peak Moment		Msec.	2.0 to 16.0	11.1	Pass
Rotation Time From Peak to Zero Angle		Msec.	58.0 to 67.0	66.3	Pass
Moment About Occipital Condyle		Nm	73.0 to 88.0	84.2	Pass
Positive Moment Decay, Time To 0 Nm		Msec.	49.0 to 64.0	49.2	Pass
			Overall Test Results		Pass



Curve Description			
Pendulum Velocity			
CURNO	Type	SAE Class	Units
001	FIL	180	m/sec
Max	Time	Min	Time
9.1	198.8	0.0	-19.6



Curve Description			
"D" Plane Rotation			
CURNO	Type	SAE Class	Units
003	FIL	60	Degrees
Max	Time	Min	Time
81.2	63.0	-20.5	163.5



Curve Description			
Moment About Occipital Condyle			
CURNO	Type	SAE Class	Units
004	FIL	600	Nm
Max	Time	Min	Time
84.2	51.9	-29.2	139.0

APPENDIX C
POST-TEST SID / HIII CONFIGURATION AND PERFORMANCE VERIFICATION DATA

Test Program: SID / HIII External Measurements
 ATD Serial No.: 274

Test Date: 8/19/05
 Test I.D.: N/A



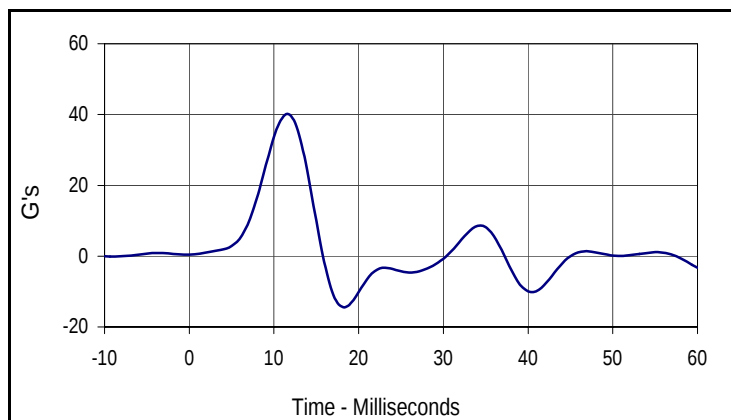
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
SH- Seated Height	mm	889 to 909	900	Pass
HP- Hip Point Height	mm	99 (reference)	99	Pass
RH- Rib Height	mm	502 to 520	510	Pass
KH- Knee Pivot From Back Line	mm	511 to 526	515	Pass
KV- Knee Pivot From Floor	mm	490 to 505	495	Pass
HW- Hip Width	mm	356 to 391	365	Pass
Overall Test Results				Pass

Test Program: SID / HIII Thorax Lateral Impact
 ATD Serial No.: 274

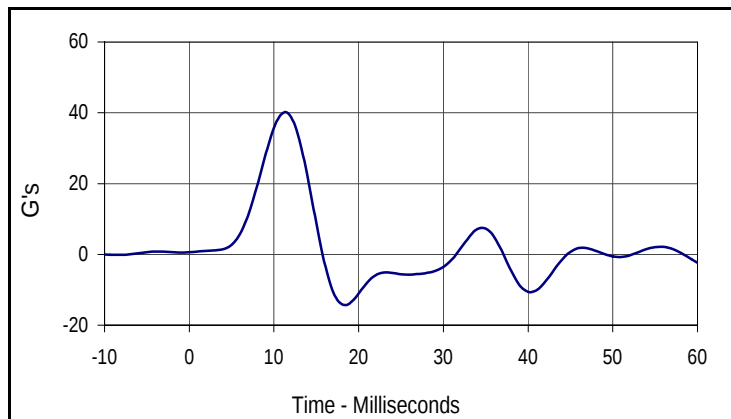
Test Date: 8/17/05
 Test I.D.: TH08A



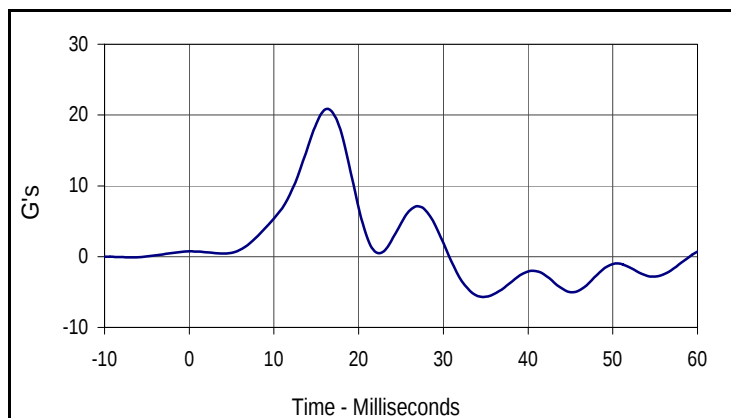
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	4.21 to 4.33	4.28	Pass
Upper Rib Acceleration	G's	37.0 to 46.0	39.9	Pass
Lower Rib Acceleration	G's	37.0 to 46.0	40.2	Pass
Thoracic Spine Acceleration	G's	15.0 to 22.0	20.9	Pass
Overall Test Results			Pass	



Curve Description			
Upper Rib Primary			
CURNO	Type	SAE Class	Units
001	FIL	FIR100	G's
Max	Time	Min	Time
39.9	11.9	-14.4	18.1



Curve Description			
Lower Rib Primary			
CURNO	Type	SAE Class	Units
002	FIL	FIR100	G's
Max	Time	Min	Time
40.2	11.3	-14.3	18.1



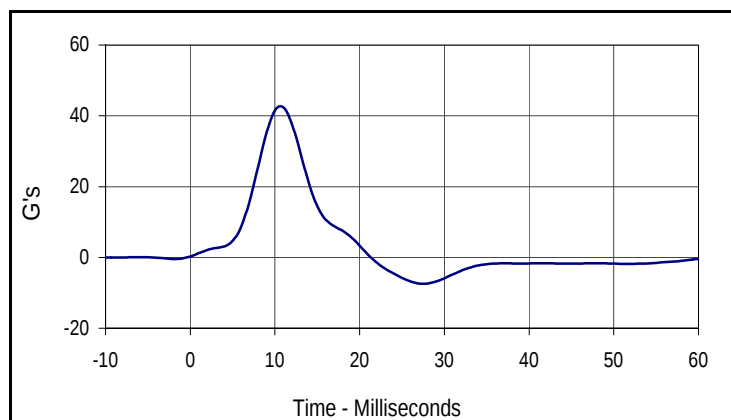
Curve Description			
Lower Spine Primary			
CURNO	Type	SAE Class	Units
003	FIL	FIR100	G's
Max	Time	Min	Time
20.9	16.3	-5.7	35.0

Test Program: SID / HIII Pelvis Lateral Impact
 ATD Serial No.: 274

Test Date: 8/17/05
 Test I.D.: PI08A



Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	4.21 to 4.33	4.26	Pass
Peak Pelvis Acceleration	G's	40.0 to 60.0	42.7	Pass
Acceleration Time Above 20 G's	Msec.	3.0 to 7.0	6.88	Pass
Overall Test Results				Pass



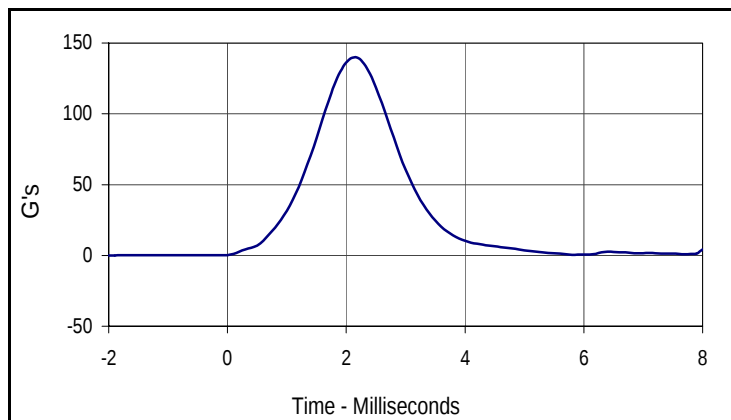
Curve Description			
Pelvis Primary Y			
CURNO	Type	SAE Class	Units
001	FIL	FIR100	G's
Max	Time	Min	Time
42.7	10.6	-7.5	27.5

Test Program: SID / HIII Head Drop Lateral Impact Test
 ATD Serial No.: 274

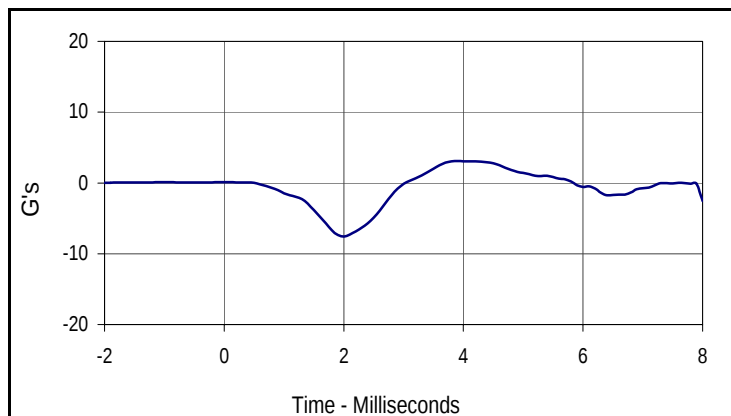
Test Date: 8/18/05
 Test I.D.: HD08A



Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Peak Resultant Acceleration	G's	120.0 to 150.0	139.6	Pass
Peak Longitudinal Acceleration	G's	≤15.0	7.6	Pass
Is Acceleration Unimodal?	Yes/No	Yes	Yes	Pass
Oscillations After Main Pulse	%	<15	2.6	Pass
Overall Test Results			Pass	



Curve Description			
Head Resultant			
CURNO	Type	SAE Class	Units
001	RES	1000	G's
Max	Time	Min	Time
139.6	2.1	0.0	-2.0



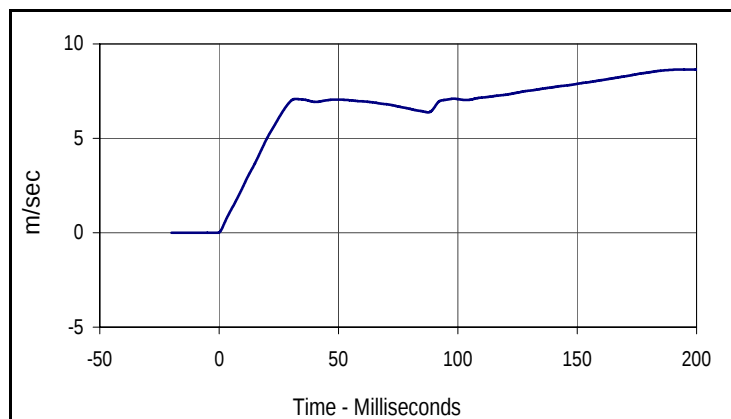
Curve Description			
Head X			
CURNO	Type	SAE Class	Units
002	FIL	1000	G's
Max	Time	Min	Time
3.1	3.9	-7.6	2.0

Test Program: SID / HIII Neck Pendulum Lateral Test
 ATD Serial No.: 274

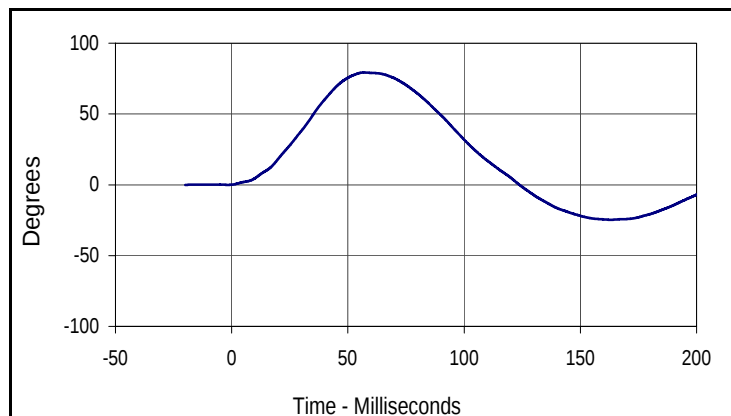
Test Date: 8/18/05
 Test I.D.: NB08C



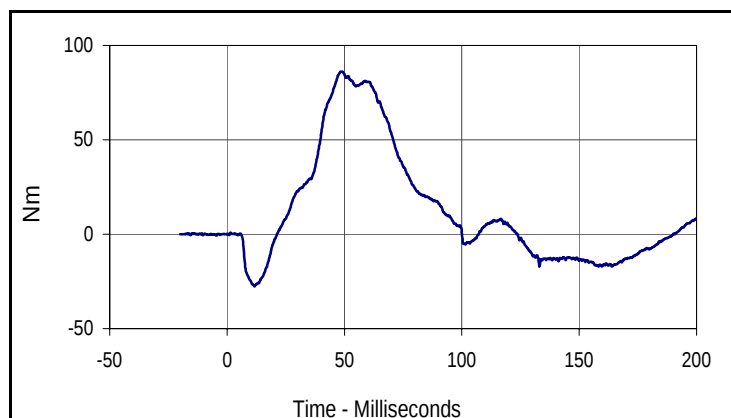
Tested Parameter		Units	Specification	Result	Pass/Fail
Laboratory Temperature		°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity		%	10 to 70	30	Pass
Pendulum Velocity		m/sec	6.89 to 7.13	7.06	Pass
Pendulum Deceleration	10 Msec.	m/sec	1.96 to 2.55	2.44	Pass
	20 Msec.	m/sec	4.12 to 5.10	4.99	Pass
	30 Msec.	m/sec	5.73 to 7.01	6.98	Pass
	40 to 70	m/sec	6.27 to 7.64	7.06	Pass
"D" Plane Rotation	Max	Degrees	66.0 to 82.0	79.3	Pass
Max Rotation Time After Peak Moment		Msec.	2.0 to 16.0	8.2	Pass
Rotation Time From Peak to Zero Angle		Msec.	58.0 to 67.0	66.9	Pass
Moment About Occipital Condyle		Nm	73.0 to 88.0	86.1	Pass
Positive Moment Decay, Time To 0 Nm		Msec.	49.0 to 64.0	51.4	Pass
			Overall Test Results		Pass



Curve Description			
Pendulum Velocity			
CURNO	Type	SAE Class	Units
001	FIL	180	m/sec
Max	Time	Min	Time
8.6	194.7	0.0	-0.8



Curve Description			
"D" Plane Rotation			
CURNO	Type	SAE Class	Units
003	FIL	60	Degrees
Max	Time	Min	Time
79.3	56.9	-24.7	163.0



Curve Description			
Moment About Occipital Condyle			
CURNO	Type	SAE Class	Units
004	FIL	600	Nm
Max	Time	Min	Time
86.1	48.7	-27.6	11.7

Test Program: SID / HIII External Measurements
 ATD Serial No.: 275

Test Date: 8/19/05
 Test I.D.: N/A



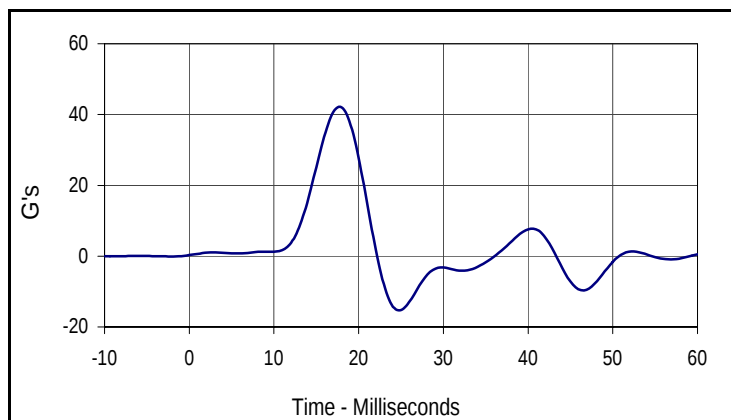
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
SH- Seated Height	mm	889 to 909	902	Pass
HP- Hip Point Height	mm	99 (reference)	99	Pass
RH- Rib Height	mm	502 to 520	508	Pass
KH- Knee Pivot From Back Line	mm	511 to 526	512	Pass
KV- Knee Pivot From Floor	mm	490 to 505	500	Pass
HW- Hip Width	mm	356 to 391	370	Pass
Overall Test Results				Pass

Test Program: SID / HIII Thorax Lateral Impact
 ATD Serial No.: 275

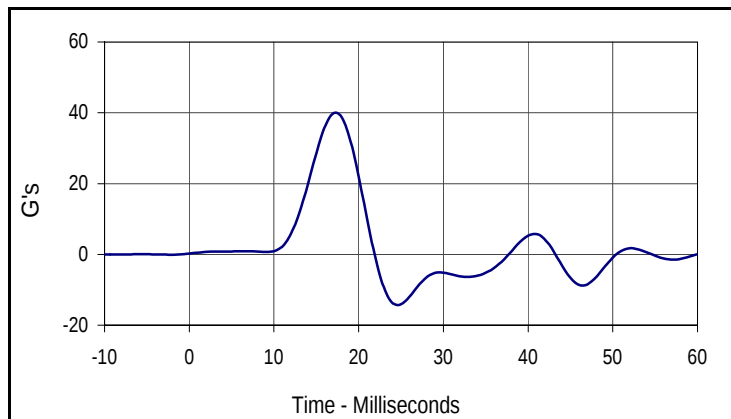
Test Date: 8/17/05
 Test I.D.: TH08B



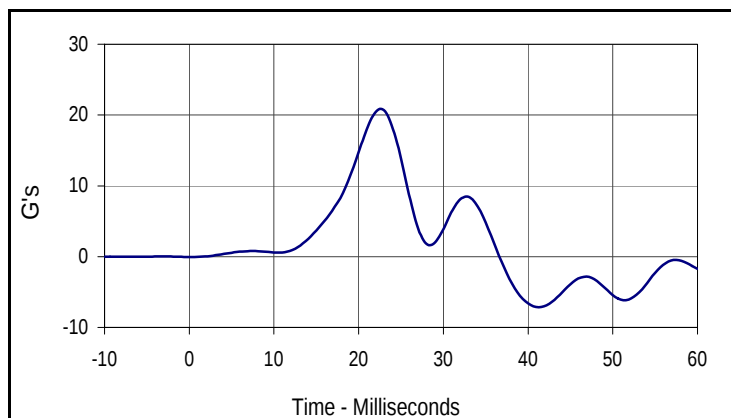
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	4.21 to 4.33	4.30	Pass
Upper Rib Acceleration	G's	37.0 to 46.0	42.0	Pass
Lower Rib Acceleration	G's	37.0 to 46.0	39.9	Pass
Thoracic Spine Acceleration	G's	15.0 to 22.0	20.9	Pass
Overall Test Results			Pass	



Curve Description			
Upper Rib Primary			
CURNO	Type	SAE Class	Units
001	FIL	FIR100	G's
Max	Time	Min	Time
42.0	17.5	-15.2	25.0



Curve Description			
Lower Rib Primary			
CURNO	Type	SAE Class	Units
002	FIL	FIR100	G's
Max	Time	Min	Time
39.9	17.5	-14.2	24.4



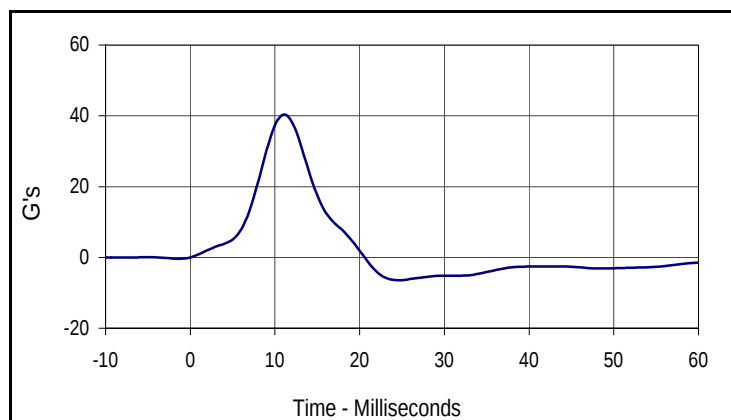
Curve Description			
Lower Spine Primary			
CURNO	Type	SAE Class	Units
003	FIL	FIR100	G's
Max	Time	Min	Time
20.9	22.5	-7.1	41.3

Test Program: SID / HIII Pelvis Lateral Impact
 ATD Serial No.: 275

Test Date: 8/17/05
 Test I.D.: PI08B



Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	4.21 to 4.33	4.30	Pass
Peak Pelvis Acceleration	G's	40.0 to 60.0	40.3	Pass
Acceleration Time Above 20 G's	Msec.	3.0 to 7.0	6.88	Pass
Overall Test Results				Pass



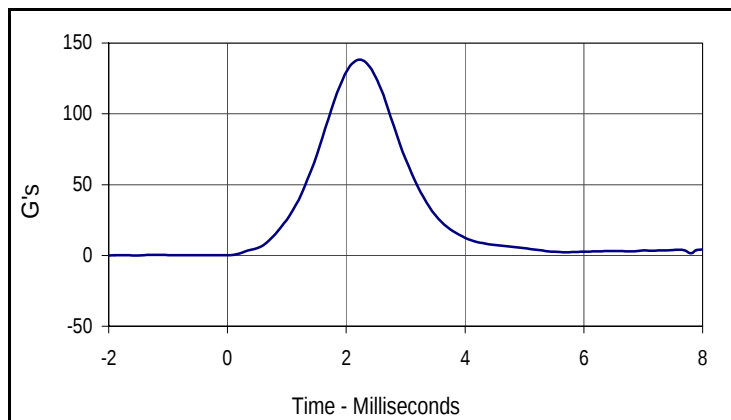
Curve Description			
Pelvis Primary Y			
CURNO	Type	SAE Class	Units
001	FIL	FIR100	G's
Max	Time	Min	Time
40.3	11.3	-6.5	24.4

Test Program: SID / HIII Head Drop Lateral Impact Test
 ATD Serial No.: 275

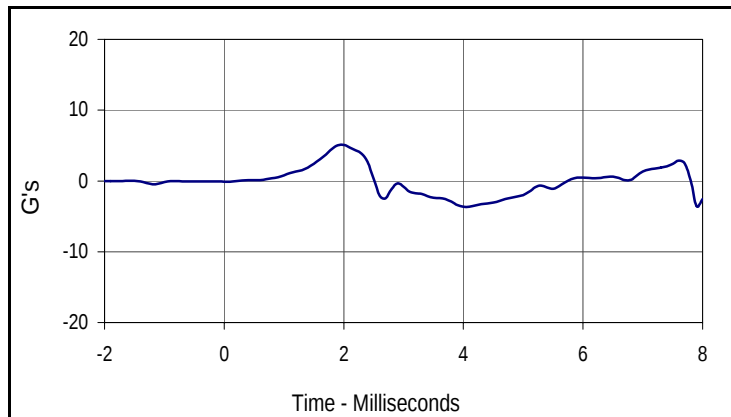
Test Date: 8/18/05
 Test I.D.: HD08B



Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Peak Resultant Acceleration	G's	120.0 to 150.0	138.3	Pass
Peak Longitudinal Acceleration	G's	≤15.0	5.1	Pass
Is Acceleration Unimodal?	Yes/No	Yes	Yes	Pass
Oscillations After Main Pulse	%	<15	3.7	Pass
Overall Test Results			Pass	



Curve Description			
Head Resultant			
CURNO	Type	SAE Class	Units
001	RES	1000	G's
Max	Time	Min	Time
138.3	2.2	0.0	-1.5



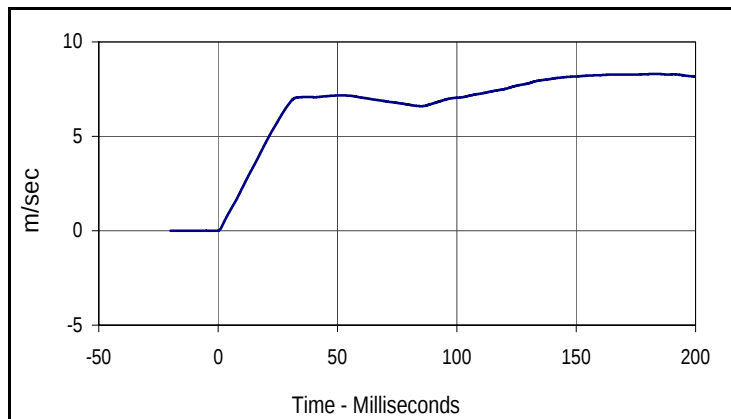
Curve Description			
Head X			
CURNO	Type	SAE Class	Units
002	FIL	1000	G's
Max	Time	Min	Time
5.1	2.0	-3.7	4.0

Test Program: SID / HIII Neck Pendulum Lateral Test
 ATD Serial No.: 275

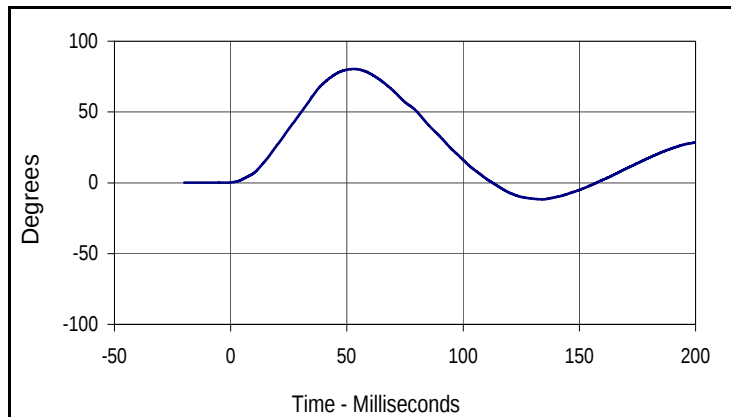
Test Date: 8/18/05
 Test I.D.: NB08D



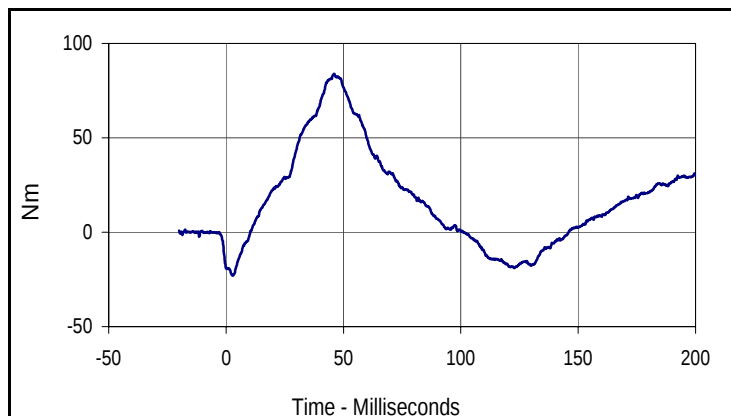
Tested Parameter		Units	Specification	Result	Pass/Fail
Laboratory Temperature		°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity		%	10 to 70	30	Pass
Pendulum Velocity		m/sec	6.89 to 7.13	7.09	Pass
Pendulum Deceleration	10 Msec.	m/sec	1.96 to 2.55	2.25	Pass
	20 Msec.	m/sec	4.12 to 5.10	4.68	Pass
	30 Msec.	m/sec	5.73 to 7.01	6.79	Pass
	40 to 70	m/sec	6.27 to 7.64	7.17	Pass
"D" Plane Rotation	Max	Degrees	66.0 to 82.0	80.3	Pass
Max Rotation Time After Peak Moment		Msec.	2.0 to 16.0	7.0	Pass
Rotation Time From Peak to Zero Angle		Msec.	58.0 to 67.0	59.6	Pass
Moment About Occipital Condyle		Nm	73.0 to 88.0	83.9	Pass
Positive Moment Decay, Time To 0 Nm		Msec.	49.0 to 64.0	55.0	Pass
			Overall Test Results		Pass



Curve Description			
Pendulum Velocity			
CURNO	Type	SAE Class	Units
001	FIL	180	m/sec
Max	Time	Min	Time
8.3	183.4	0.0	-0.5



Curve Description			
"D" Plane Rotation			
CURNO	Type	SAE Class	Units
003	FIL	60	Degrees
Max	Time	Min	Time
80.3	53.1	-11.7	133.8



Curve Description			
Moment About Occipital Condyle			
CURNO	Type	SAE Class	Units
004	FIL	600	Nm
Max	Time	Min	Time
83.9	46.1	-23.0	2.8

APPENDIX D
INSTRUMENTATION DATA CHANNEL ASSIGNMENTS

55/28 km/h Side Impact NCAP
Instrumentation Data Channel Assignments
Driver SID/HIII Serial Number 274
8/16/05
2005 Chevrolet Cobalt 4-Door Sedan

CH.	LOCATION	AXIS	IDENT. NO.	DESCRIPTION	MFR	MODEL	UNITS
1	Head CG	X	GPAC066X	Accel., Full Bridge	Entran	2000JF	G
2	Head CG	Y	GPAC067Y	Accel., Full Bridge	Entran	2000JF	G
3	Head CG	Z	GPAC068Z	Accel., Full Bridge	Entran	2000JF	G
4	Head CG, Redundant	X	GPAC069X	Accel., Full Bridge	Entran	2000JF	G
5	Head CG, Redundant	Y	GPAC070Y	Accel., Full Bridge	Entran	2000JF	G
6	Head CG, Redundant	Z	GPAC071Z	Accel., Full Bridge	Entran	2000JF	G
7	Neck Force	X	274_NFX	Load cell, six axis neck	R. A. Denton	1716A	N
8	Neck Force	Y	274_NFY	Load cell, six axis neck	R. A. Denton	1716A	N
9	Neck Force	Z	274_NFZ	Load cell, six axis neck	R. A. Denton	1716A	N
10	Neck Moment	X	274_NMX	Load cell, six axis neck	R. A. Denton	1716A	Nm
11	Neck Moment	Y	274_NMY	Load cell, six axis neck	R. A. Denton	1716A	Nm
12	Neck Moment	Z	274_NMZ	Load cell, six axis neck	R. A. Denton	1716A	Nm
13	Upper Rib Primary	Y	KEAC070X	Accel.,1/2 bridge	Endevco	7264-2000X	G
14	Lower Rib, Primary	Y	KEAC071Y	Accel.,1/2 bridge	Endevco	7264-2000Y	G
15	Lower Spine, Primary	Y	KEAC072Z	Accel.,1/2 bridge	Endevco	7264-2000Z	G
16	Pelvis, Primary	Y	GPAC065X	Accel.,Full bridge	Endevco	7264A-2000	G
17	Upper Rib Redundant	Y	KEAC076X	Accel.,1/2 bridge	Endevco	7264-2000X	G
18	Lower Rib, Redundant	Y	KEAC077Y	Accel.,1/2 bridge	Endevco	7264-2000Y	G
19	Lower Spine, Redundant	Y	KEAC078Z	Accel.,1/2 bridge	Endevco	7264-2000Z	G
20	Pelvis, Redundant	Y	KEAC089X	Accel.,1/2 bridge	Endevco	7264-2000X	G
21	Thorax Contact	N/A	T0	Contact Switch	Tapeswitch	8 oz. Yellow	%
22	Pelvis Contact	N/A	T0	Contact Switch	Tapeswitch	8 oz. Yellow	%

55/28 km/h Side Impact NCAP
Instrumentation Data Channel Assignments
Passenger SID/HIII Serial Number 275
8/16/05
2005 Chevrolet Cobalt 4-Door Sedan

CH.	LOCATION	AXIS	IDENT. NO.	DESCRIPTION	MFR	MODEL	UNITS
23	Head CG	X	GPAC072X	Accel., Full Bridge	Entran	2000JF	G
24	Head CG	Y	GPAC073Y	Accel., Full Bridge	Entran	2000JF	G
25	Head CG	Z	GPAC074Z	Accel., Full Bridge	Entran	2000JF	G
26	Head CG, Redundant	X	GPAC075X	Accel., Full Bridge	Entran	2000JF	G
27	Head CG, Redundant	Y	GPAC077Y	Accel., Full Bridge	Entran	2000JF	G
28	Head CG, Redundant	Z	GPAC078Z	Accel., Full Bridge	Entran	2000JF	G
29	Neck Force	X	275_NFX	Load cell, six axis neck	R. A. Denton	1716A	N
30	Neck Force	Y	275_NFY	Load cell, six axis neck	R. A. Denton	1716A	N
31	Neck Force	Z	275_NFZ	Load cell, six axis neck	R. A. Denton	1716A	N
32	Neck Moment	X	275_NMX	Load cell, six axis neck	R. A. Denton	1716A	Nm
33	Neck Moment	Y	275_NMY	Load cell, six axis neck	R. A. Denton	1716A	Nm
34	Neck Moment	Z	275_NMZ	Load cell, six axis neck	R. A. Denton	1716A	Nm
35	Upper Rib Primary	Y	KEAC066X	Accel., 1/2 bridge	Endevco	7264-2000X	G
36	Lower Rib, Primary	Y	KEAC067Y	Accel., 1/2 bridge	Endevco	7264-2000Y	G
37	Lower Spine, Primary	Y	KEAC068Z	Accel., 1/2 bridge	Endevco	7264-2000Z	G
38	Pelvis, Primary	Y	KEAC079X	Accel., 1/2 bridge	Endevco	7264-2000X	G
39	Upper Rib Redundant	Y	KEAC073X	Accel., 1/2 bridge	Endevco	7264-2000X	G
40	Lower Rib, Redundant	Y	KEAC074Y	Accel., 1/2 bridge	Endevco	7264-2000Y	G
41	Lower Spine, Redundant	Y	KEAC075Z	Accel., 1/2 bridge	Endevco	7264-2000Z	G
42	Pelvis, Redundant	Y	KEAC081X	Accel., 1/2 bridge	Endevco	7264-2000X	G
43	Thorax Contact	Y	T0	Contact Switch	Tapeswitch	8 oz. Yellow	%
44	Pelvis Contact	Y	T0	Contact Switch	Tapeswitch	8 oz. Yellow	%

55/28 km/h Side Impact NCAP
Instrumentation Data Channel Assignments
Vehicle Accelerometers
8/16/05
2005 Chevrolet Cobalt 4-Door Sedan

CH.	LOCATION	AXIS	IDENT. NO.	DESCRIPTION	MFR	MODEL	UNITS
45	Right at Sill Front Seat	X	KETX1A	Accel., Triax	I.C. Sensor	3031-200	G
46	Right at Sill Front Seat	Y	KETX1B	Accel., Triax	I.C. Sensor	3031-200	G
47	Right at Sill Front Seat	Z	KETX1C	Accel., Triax	I.C. Sensor	3031-200	G
48	Right at Sill Rear Seat	X	KETX4A	Accel., Triax	I.C. Sensor	3031-500	G
49	Right at Sill Rear Seat	Y	KETX4B	Accel., Triax	I.C. Sensor	3031-500	G
50	Right at Sill Rear Seat	Z	KETX4C	Accel., Triax	I.C. Sensor	3031-500	G
51	Rear Floorpan Above Axle	X	KETX5A	Accel., Triax	I.C. Sensor	3031-500	G
52	Rear Floorpan Above Axle	Y	KETX5B	Accel., Triax	I.C. Sensor	3031-500	G
53	Rear Floorpan Above Axle	Z	KETX5C	Accel., Triax	I.C. Sensor	3031-500	G
54	Left Sill at Rear Door	Y	KEVA012	Accel., Vehicle block	I.C. Sensor	3031-500	G
55	Left Sill at Front Door	Y	KEVA010	Accel., Vehicle block	I.C. Sensor	3031-500	G
56	Left Front Door Centerline	Y	ICST004X	Accel., Triax	I.C. Sensor	3031-500	G
57	Rear Occupant Compartment	Y	KEVA013	Accel., Vehicle block	I.C. Sensor	3031-200	G
58	Left Front Door Mid-Rear	Y	ICST004Y	Accel., Triax	I.C. Sensor	3031-500	G
59	Left Front Door Upper Centerline	Y	ICST004Z	Accel., Triax	I.C. Sensor	3031-500	G
60	Rear Door Mid-Rear	Y	ICST005X	Accel., Triax	I.C. Sensor	3031-500	G
61	Rear Door Upper Centerline	Y	ICST005Y	Accel., Triax	I.C. Sensor	3031-500	G
62	B-Post Lower	Y	KEBX2A	Accel., Biax	I.C. Sensor	3031-500	G
63	B-Post Middle	Y	KEBX2B	Accel., Biax	I.C. Sensor	3031-500	G
64	A-Post Lower	Y	KEBX1A	Accel., Biax	I.C. Sensor	3031-500	G
65	A-Post Middle	Y	KEBX1B	Accel., Biax	I.C. Sensor	3031-500	G
66	Front Seat Track	Y	KEIC008Y	Single	I.C. Sensor	3031-500	G
67	Rear Seat Structure	Y	N/A	N/A	N/A	N/A	N/A
68	Vehicle CG	X	KETX4A	Accel., Triax	I.C. Sensor	3031-200	G
69	Vehicle CG	Y	KETX4B	Accel., Triax	I.C. Sensor	3031-200	G
70	Vehicle CG	Z	KETX4C	Accel., Triax	I.C. Sensor	3031-200	G

55/28 km/h Side Impact NCAP
Instrumentation Data Channel Assignments
Moving Deformable Barrier
8/16/05
2005 Chevrolet Cobalt 4-Door Sedan

CH.	LOCATION	AXIS	IDENT. NO.	DESCRIPTION	MFR	MODEL	UNITS
71	MDB CG	X	MDASX	Accel., Triax	I.C. Sensor	3031-500	G
72	MDB CG	Y	MDASY	Accel., Triax	I.C. Sensor	3031-500	G
73	MDB CG	Z	MDASZ	Accel., Triax	I.C. Sensor	3031-500	G
74	MDB Rear Centerline	X	SLDBX	Accel., Triax	I.C. Sensor	3031-50	G
75	MDB Rear Centerline	Y	SLDBY	Accel., Triax	I.C. Sensor	3031-50	G
76	Right Bumper Contact	N/A	T0	Contact Switch	Tapeswitch	40 oz. Grey	%