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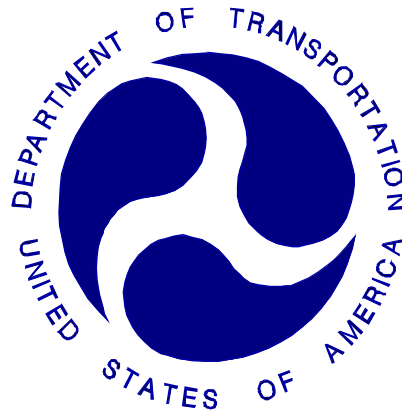
**NEW CAR ASSESSMENT PROGRAM
SIDE IMPACT TEST**

GM DAEWOO AUTO & TECHNOLOGY COMPANY
2005 SUZUKI VERONA
4-DOOR SEDAN

NHTSA NUMBER: M50504

GENERAL DYNAMICS TEST NUMBER: 8765-SNCAP-09

ADVANCED INFORMATION ENGINEERING SERVICES
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January 25, 2005

FINAL REPORT

U. S. DEPARTMENT OF TRANSPORTATION
National Highway Traffic Safety Administration
Rulemaking
Office of Crashworthiness Standards
Mail Code: NVS-111
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Washington, DC 20590

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16. Abstract A 55/28 kph 90⁰ Impact Moving Deformable Barrier NCAP Side Impact Test was conducted on the subject 2005 Suzuki Verona 4-Door Sedan in accordance with the specifications of the Office of Crashworthiness Standards Test Procedure for the generation of consumer information on vehicle side crash protection. This test was conducted at the General Dynamics Advanced Information Engineering Services Crash Test Facility in Buffalo, New York, on January 25, 2005. The impact velocity of the Moving Deformable Barrier (MDB) was 61.32 kph, and the ambient temperature at the struck (driver's) side of the target vehicle at the time of impact was 21.0⁰C. The target vehicle post-test maximum crush was 376 mm at level 2. The test or target vehicle's performance is given below: <table border="0"> <thead> <tr> <th></th> <th align="center"><u>Front SID H3</u></th> <th></th> <th align="center"><u>Rear SID H3</u></th> <th></th> </tr> </thead> <tbody> <tr> <td>Left Upper Rib Acceleration:</td> <td align="center">40.6</td> <td align="center">g's</td> <td align="center">84.7</td> <td align="center">g's</td> </tr> <tr> <td>Left Lower Rib Acceleration:</td> <td align="center">56.1</td> <td align="center">g's</td> <td align="center">91</td> <td align="center">g's</td> </tr> <tr> <td>Lower Spine Acceleration:</td> <td align="center">71</td> <td align="center">g's</td> <td align="center">64.3</td> <td align="center">g's</td> </tr> <tr> <td>Thoracic Trauma Index (TTI):</td> <td align="center">64</td> <td align="center">g's</td> <td align="center">78</td> <td align="center">g's</td> </tr> <tr> <td>Pelvis Acceleration (PEV):</td> <td align="center">108</td> <td align="center">g's</td> <td align="center">123</td> <td align="center">g's</td> </tr> </tbody> </table> The two doors on the struck side of the vehicle did not separate from the body at the hinges or latches and the opposite doors did not open during the side impact event.							<u>Front SID H3</u>		<u>Rear SID H3</u>		Left Upper Rib Acceleration:	40.6	g's	84.7	g's	Left Lower Rib Acceleration:	56.1	g's	91	g's	Lower Spine Acceleration:	71	g's	64.3	g's	Thoracic Trauma Index (TTI):	64	g's	78	g's	Pelvis Acceleration (PEV):	108	g's	123	g's
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17. Key Words New Car Assessment Program (NCAP) Side Impact MDB Side Impact Dummy Hybrid III (SID H3)			18. Distribution Statement <u>Copies of this report are available from:</u> National Highway Traffic Safety Administration Technical Reference Division Room 5111 (NAD-52) 400 Seventh St., S.W. Washington, D.C. 20590 Telephone No. (202) 366-4946 ATTN: Robert Hornicle																																
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SECTION 1

PURPOSE AND TEST PROCEDURE

This side impact test is part of the FY2004 New Car Assessment Program Side Impact Protection sponsored by the National Highway Traffic Safety Administration (NHTSA) under Contract No. DTNH22-03-D-22005. The purpose of this test was to generate comparative side impact performance in a 2005 Suzuki Verona 4-Door Sedan. The test was conducted in accordance with the Office of Crashworthiness Standards' Laboratory Test Procedure dated July 1997.

SECTION 2

SUMMARY OF SIDE IMPACT TEST

A 2005 Suzuki Verona 4-Door Sedan was impacted on the left or driver's side by a Moving Deformable Barrier (MDB) which was moving forward in a 27° crabbed position to the monorail at a velocity of 61.32 kph (38.1 mph). The target vehicle was stationary and was positioned at an angle of 63° to the line of forward motion. The side impact test was conducted by the General Dynamics Advanced Information Engineering Services in Buffalo, New York on January 25, 2005. Pre- and post-test photographs of the test vehicle, the moving deformable barrier (MDB), and the Side Impact Hybrid III Dummies (SID H3s) are included in Appendix A.

Two restrained Side Impact Hybrid III Dummies (SID H3s) were placed in the driver (Pos. #1) and left rear (Pos. #4) designated seating positions according to the instructions specified in the OCWS Side Impact Laboratory Test Procedure which is dated July, 1997. The side impact test was documented by one real-time camera and 10 high-speed cameras. Camera locations and other pertinent camera information are included in this report.

The SID H3s were instrumented with the following accelerometers:

1. Left Upper Rib (LUR) uniaxial and redundant accelerometer (Y-direction)
2. Left Lower Rib (LLR) uniaxial and redundant accelerometer (Y-direction)
3. Lower Thoracic Spine (T₁₂) uniaxial and redundant accelerometer (Y-direction)
4. Pelvic (PEV) section uniaxial and redundant accelerometer (Y-direction)
5. Head triaxial accelerometers (X-, Y- and Z-direction)
6. Upper neck force and moment (X-, Y and Z-direction) load cells

A summary of the Side Impact Hybrid III Dummy (SID H3) configuration and verification test data can be found in Appendix C. A total of 65 channels of data were recorded. Appendix B contains the vehicle, MDB and dummy response data traces.

The following table summarizes the results of the test.

Injury Criteria	Front SID H3	Rear SID H3
TTI (g)	64	78
PEV (g)	108	123

AIR BAG DEPLOYMENT STATUS

	DRIVER	FRONT PASSENGER	REAR PASSENGER
Front Air Bag	No	No	N/A
Knee Bolster Bag	N/A	N/A	N/A
Side Air Bag	Yes	No	N/A
Side Curtain Bag	N/A	N/A	N/A

AUTOMATIC DOOR LOCK SUMMARY

ADL Equipped Test Vehicle:	No
ADL Activation Status:	N/A
Struck Side Door Lock Condition:	Unlocked

SECTION 3

SUMMARY OF TEST RESULTS

DATA SHEET 1

GENERAL TEST AND VEHICLE PARAMETER DATA

TEST VEHICLE INFORMATION:

Year/Make/Model/Body Style: 2005 Suzuki Verona 4-Door Sedan

Vehicle Body Color: Red VIN: KL5VJ56L15B149052

Vehicle NHTSA No.: M50504 Month & Year of Manufacture: 09/04

Engine Data: 6 Cylinders; - CID; 2.5 Liters; - cc

Engine Placement: - Longitudinal; or X Lateral

Transmission: 4 Speed; - Manual; X Automatic; X Overdrive

Final Drive: - Rear Wheel Drive; X Front Wheel Drive; - Four Wheel Drive

Odometer Reading 58 km

Supplemental Airbag Restraints:

Front Occupant: X Frontal; - Knee; X Side; - Curtain

Rear Occupant: - Frontal; - Knee; - Side; - Curtain

Options:

- ADL; X A/C; X Power Steering; X Power Brakes; X Power Windows

DATA FROM TIRE PLACARD

Recommended Tire Size: P205/60R16 91H

*Recommended Cold Tire Pressure: 210 kPa FRONT; 210 kPa REAR

DATA FROM TIRE SIDEWALL:

Size of Tires on Test Vehicle: P205/60R16 91H; Manufacturer: Kumho

Tire Pressure with Maximum Capacity Vehicle Load: Front: 300 kPa; Rear: 300 kPa

Treadwear: 400; Traction: A; Temperature: A

VEHICLE CAPACITY DATA:

Number of Occupants: 2 Front; 3 Rear; - 3rd Seat; 5 Total

Type of Front Seats: X Bucket; - Bench; - Split Bench

Type of Front Seat Back: - Fixed; X Adjustable with X Lever or - Knob

Vehicle Max Capacity Loading = 408.0 kg (A)

No. of Occupants x 68.04 kg. = 340.2 kg (B)

Vehicle Cargo Capacity = 67.8 kg (A-B)

TEST VEHICLE DELIVERED WEIGHT WITH MAXIMUM FLUIDS:

Left Front = 462.0 kg Left Rear = 311.0 kg

Right Front = 454.0 kg Right Rear = 310.0 kg

TOTAL FRONT = 916.0 kg TOTAL REAR = 621.0 kg

% of Total Weight = 59.6 % % of Total Weight = 40.4 %

TOTAL WEIGHT = 1537.0 kg

* Tire pressure used in test.

DATA SHEET 1 (continued)**GENERAL TEST VEHICLE PARAMETER DATA**Vehicle: 2005 Suzuki Verona 4-Door SedanNHTSA No. M50504CALCULATION OF VEHICLE'S TARGET TEST WEIGHT:

Total Test Vehicle Delivered Weight with Max. Fluids	=	<u>1537.0</u>	kg (A)
Maximum Cargo Carrying Capacity of Test Vehicle	=	<u>67.8</u>	kg (B)
Weight of instrumented SID H3 Dummies (2 X 81.2 kg)	=	<u>162.4</u>	kg (C)
TEST VEHICLE TARGET WEIGHT:	=	<u>1767.2</u>	kg (A+B+C)

FULLY LOADED TEST VEHICLE (UDVW + 2 SID H3(s) + CARGO):

Left Front	=	<u>507.0</u>	kg	Left Rear	=	<u>421.0</u>	kg
Right Front	=	<u>458.0</u>	kg	Right Rear	=	<u>383.0</u>	kg
TOTAL FRONT	=	<u>965.0</u>	kg	TOTAL REAR	=	<u>804.0</u>	kg
% of Total Weight	=	<u>54.6</u>	%	% of Total Weight	=	<u>45.4</u>	%
TOTAL TEST WEIGHT =		<u>1769.0</u>	kg				

AS TESTED WEIGHT OF TEST VEHICLE (2 SID H3(s) + CARGO + EQUIPMENT & INSTRUMENTATION):

Left Front	=	<u>496.0</u>	kg	Left Rear	=	<u>422.0</u>	kg
Right Front	=	<u>458.5</u>	kg	Right Rear	=	<u>384.0</u>	kg
TOTAL FRONT	=	<u>954.5</u>	kg	TOTAL REAR	=	<u>806.0</u>	kg
% of Total Weight	=	<u>54.2</u>	%	% of Total Weight	=	<u>45.8</u>	%
TOTAL TEST WEIGHT =		<u>1760.5</u>	kg				

TEST VEHICLE ATTITUDE (all dimensions in millimeters):AS DELIVERED:

Left Front	<u>710</u>	Right Front	<u>715</u>	Left Rear	<u>720</u>	Right Rear	<u>720</u>
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FULLY LOADED:

Left Front	<u>700</u>	Right Front	<u>709</u>	Left Rear	<u>670</u>	Right Rear	<u>683</u>
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READY FOR TEST:

Left Front	<u>704</u>	Right Front	<u>711</u>	Left Rear	<u>673</u>	Right Rear	<u>683</u>
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Test Vehicle Wheelbase: 2702 millimetersC.G. = 1237 millimeters rearward of front wheel centerlineTOTAL VEHICLE LENGTH:

Right Side =	<u>4690</u>	millimeters
Left Side =	<u>4690</u>	millimeters
Centerline =	<u>4764</u>	millimeters

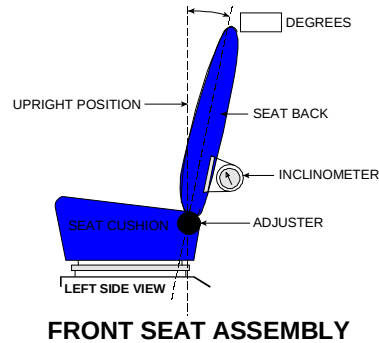
DATA SHEET 1 (continued)

GENERAL TEST VEHICLE PARAMETER DATA

Vehicle: 2005 Suzuki Verona 4-Door Sedan

NHTSA No. M50504

Nominal Design Riding Position for adjustable driver and passenger seat backs. Please describe how to position the inclinometer to measure the seat back angle. Include description of the location of the adjustment latch detent, if applicable.



FRONT SEAT CUSHION PLACEMENT: Positioned in detent 10 where the forward-most detent is defined as 0

Total Length of Adjustment Travel: 244 millimeters

Total Number of Adjustment Positions or Detents: 20

FRONT SEAT BACK ADJUSTMENT POSITION: Reclined 26 degrees from the forward-most locking position

Seat Back Torso Angle: 25.5 degrees (as measured with the H-point machine)

SECOND POSITION SEAT:

Total Length of Fore/Aft Adjustment Travel: 0 millimeters

Seat Back Adjustment Position: Fixed

ADJUSTABLE STEERING COLUMN POSITION: Positioned in detent 2 where the upper-most locking position is defined as detent 0 (mid position)

WINDOW POSITIONS: Left Front: Closed Left Rear: Closed

Right Front: Removed Right Rear: Removed

Note: Windows will be in closed position on struck side of test vehicle and in open position on opposite side.

AUTOMATIC DOOR LOCKS: Is test vehicle equipped with ADLs? - Yes X No

Does vehicle owner's manual describe how to deactivate ADLs? - Yes - No X N/A

Comments: None

AMOUNT OF STODDARD SOLVENT IN FUEL TANK:

64.7 liters (Fuel Tank Usable Capacity)

59.8 liters used for test (92%-94% of Fuel Tank Usable Capacity)

LOCATION OF IMPACT POINT ON TEST VEHICLE SIDE TO BE IMPACTED:

Wheelbase = 2702 millimeters

Impact Point is 411 millimeters rearward of front axle centerline

(which is 940 millimeters forward of the wheelbase midpoint)

Actual Impact Point is 407 millimeters rearward of front axle centerline

DATA SHEET 2

TEST VEHICLE SUMMARY OF RESULTS

VEHICLE IDENTIFICATION:

Vehicle Year/Make/Model: 2005 Suzuki Verona

Body Style: 4-Door Sedan

VIN: KL5VJ56L15B149052

NHTSA No.: M50504

Test Date: January 25, 2005

Overall Length = 4764 millimeters; Overall Width = 1800 millimeters

VEHICLE TEST WEIGHT (Pre-Test):

Left Front = 496.0 kg Left Rear = 422.0 kg

Right Front = 458.5 kg Right Rear = 384.0 kg

TOTAL FRONT = 954.5 kg TOTAL REAR = 806.0 kg

TOTAL VEHICLE WEIGHT 1760.5 kg

Wheelbase = 2702 millimeters

Longitudinal C.G. from Center of Front Axle = 1237 millimeters

Impact Angle with Respect to Impactor = 90 degrees

ACTUAL IMPACT POINT

Actual Impact Point is 4 mm forward of nominal impact ref. line (Lateral)

Actual Impact Point is 1 mm below nominal impact point (Vertical)

MAXIMUM EXTERIOR STATIC CRUSH:

1. LEVEL 1 (248 mm above ground) = 102 millimeters

2. LEVEL 2 (488 mm above ground) = 376 millimeters

3. LEVEL 3 (627 mm above ground) = 324 millimeters

4. LEVEL 4 (875 mm above ground) = 330 millimeters

5. LEVEL 5 (1379 mm above ground) = 73 millimeters

Maximum Post-Test Intrusion = 376 millimeters

OCCUPANTS:

Front Passenger:

Rear Passenger:

Dummy Identification

SID H3/269

SID H3/270

Restraints Used

3-Point Seat Belt; Side Impact
Air Bag

3-Point Seat Belt

INSTRUMENTATION:

Number of Vehicle Data Channels: = 26

Number of Cameras: Onboard = 3

Offboard = 8

TOTAL = 11

DATA SHEET 3

MOVING DEFORMABLE BARRIER (MDB) SUMMARY

Vehicle: 2005 Suzuki Verona 4-Door Sedan

NHTSA No. M50504

MDB FACE MANUFACTURER AND SERIAL NUMBER:

Plascore: 047A0504; 014A0604-2

POSITION OF IMPACT (MDB) ON MONORAIL:

Crabbed 27° to left

MDB DETAILS:

Overall Width of Framework Carriage	=	<u>1250</u>	millimeters
Overall Length of MDB (incl. honeycomb impact face)	=	<u>4120</u>	millimeters
Wheelbase of Framework Carriage	=	<u>2590</u>	millimeters
Tread of Framework Carriage (Front & Rear)	=	<u>1875</u>	millimeters
C.G. Location Rearward of Front Axle	=	<u>1104</u>	millimeters

MDB WEIGHT:

Left Front	=	<u>409.5</u>	kg	Left Rear	=	<u>281.5</u>	kg
Right Front	=	<u>372.5</u>	kg	Right Rear	=	<u>299.0</u>	kg
TOTAL FRONT	=	<u>782.0</u>	kg	TOTAL REAR	=	<u>580.5</u>	kg
TOTAL MDB WEIGHT	=	<u>1362.5</u>	kg				
Impact Angle (MDB C/L to Target Vehicle C/L)	=	<u>90</u>	degrees				
Impact Speed	=	<u>61.32</u>	kph				

MAXIMUM STATIC CRUSH OF HONEYCOMB IMPACT FACE:

1. Row A at Center of Bumper Level	=	<u>112</u>	millimeters
2. Row B at Top of Bumper Level	=	<u>98</u>	millimeters
3. Row C at Mid Level	=	<u>141</u>	millimeters
4. Row D at Top of Stack Level	=	<u>197</u>	millimeters

INSTRUMENTATION:

Number of MDB Data Channels	=	<u>5</u>
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DATA SHEET 4**POST-TEST OBSERVATIONS**Vehicle: 2005 Suzuki Verona 4-Door SedanNHTSA No. M50504TEST DUMMY INFORMATION AND CONTACT POINTS:

DESCRIPTION	FRONT SEAT	REAR SEAT
ATD Type/Serial No.	SID H3/269	SID H3/270
Head Contact:	Back of head to B-pillar; Side of head to side impact air bag	Side and top of head to upper C-pillar trim and side header
Upper Torso Contact:	Left arm to side impact airbag	Left arm to door trim above the armrest
Lower Torso Contact:	Pelvis to door trim below the arm rest	Pelvis to door trim below the arm rest
Left Knee Contact:	Left knee to door trim	Left knee to door trim
Right Knee Contact:	Right knee to left knee	Right knee to left knee

POST TEST DOOR OPENING AND SEAT TRACK INFORMATION

DESCRIPTION	FRONT	REAR
Left Side Doors	Closed, latched and inoperable without tools	Closed, latched and inoperable without tools
Right Side Doors	Closed, latched and operable without tools	Closed, latched and operable without tools
Hatch/Other Door	N/A	N/A
Seat Movement (mm)	0	0
Seat Back Failure	None	None

POST TEST STRUCTURAL OBSERVATIONS

CRITICAL AREAS OF PERFORMANCE	
Pillar Performance	The A- and B-Pillars were deformed inboard during the event with no visible tears or separations
Sill Separation	There were no visible tears or separations
Windshield Damage	Cracked along the A-Pillar during the event
Window Damage	The driver side window and left rear passenger side window shattered during the event.
Other Notable Effects	The secondary impact point was 3 mm rearward and 1 mm above the target point

AIR BAG DEPLOYMENT STATUS:

	DRIVER	FRONT PASSENGER	REAR PASSENGER
Front Air Bag	No	No	N/A
Knee Bolster Bag	N/A	N/A	N/A
Side Air Bag	Yes	No	N/A
Side Curtain Bag	N/A	N/A	N/A

MDB LEFT EDGE IMPACT DATA

Measured Parameter	Units	Requirement	Value
Horizontal Offset	mm	± 50 mm	4 mm forward
Vertical Offset	mm	± 20 mm	1 mm above

SECTION 4

OCCUPANT AND VEHICLE INFORMATION

DATA SHEET 5

SID H3 INSTRUMENTATION DATA

Vehicle: 2005 Suzuki Verona 4-Door Sedan

NHTSA No. M50504

		Front Dummy ID# 269				Rear Dummy ID# 270			
		Pos. Direction		Neg. Direction		Pos. Direction		Neg. Direction	
		Max (g)	Time (msec)	Max (g)	Time (msec)	Max (g)	Time (msec)	Max (g)	Time (msec)
HEAD ACCELERATIONS:									
Longitudinal	X	19.5	36.5	-20.4	52.2	7.0	172.9	-14.7	80.8
Lateral	Y	57.2	36.4	-3.7	176.5	82.0	53.0	-14.2	173.7
Vertical	Z	26.7	37.8	-0.3	15.8	26.7	45.7	-35.1	66.8
Resultant	R	63.5	36.4	-	-	84.5	53.0	-	-
HIC		145.2				362.5			
NECK FORCES:									
Longitudinal	X	162.3	193.5	-778.5	52.3	806.0	67.2	-154.6	107.6
Lateral	Y	526.1	31.4	-173.5	176.4	117.5	187.3	-1022.6	61.2
Vertical	Z	1532.3	38.2	-78.1	15.0	1181.2	45.9	-1317.9	67.9
Resultant	R	1536.2	38.2	-	-	1760.8	66.5	-	-
NECK MOMENTS:									
X		44.1	39.2	-44.4	29.7	32.7	177.1	-89.1	68.1
Y		35.6	79.6	-43.6	51.8	24.1	131.2	-60.9	74.5
Z		30.7	67.6	-13.5	109.9	13.2	79.3	-8.9	174.8
Resultant	R	52.4	39.5	-	-	95.3	69.8	-	-
RIB ACCELERATIONS:									
Upper Rib Lateral	Y	40.6	16.9	-8.1	86.8	84.7	47.5	-4.8	143.8
Upper Rib Lateral	Y(R)	39.9	16.8	-8.5	86.8	84.4	47.5	-4.8	143.8
Lower Rib Lateral	Y	56.1	25.0	-13.6	85.6	91.0	47.5	-7.0	73.7
Lower Rib Lateral	Y(R)	56.9	24.4	-13.8	85.6	90.2	47.5	-6.8	96.2
SPINE ACCELERATIONS:									
Lower Lateral	Y	71.0	35.0	-15.0	90.0	64.3	46.2	-14.5	75.6
Lower Lateral	Y(R)	70.8	34.4	-14.6	90.0	64.4	46.2	-14.9	75.6
PELVIC ACCELERATIONS:									
Lateral	Y	108.5	33.1	-15.7	77.5	122.8	40.6	-13.4	65.0
Lateral	Y(R)	107.1	33.1	-15.4	76.9	126.0	40.6	-13.8	65.0

REFERENCE: Positive Direction: Longitudinal (X) = forward; Lateral (Y) = to right; Vertical (Z) = down

Note: Rib, Spine and Pelvis data has been FIR filtered, Y(R) denotes redundant Y direction accelerometer.

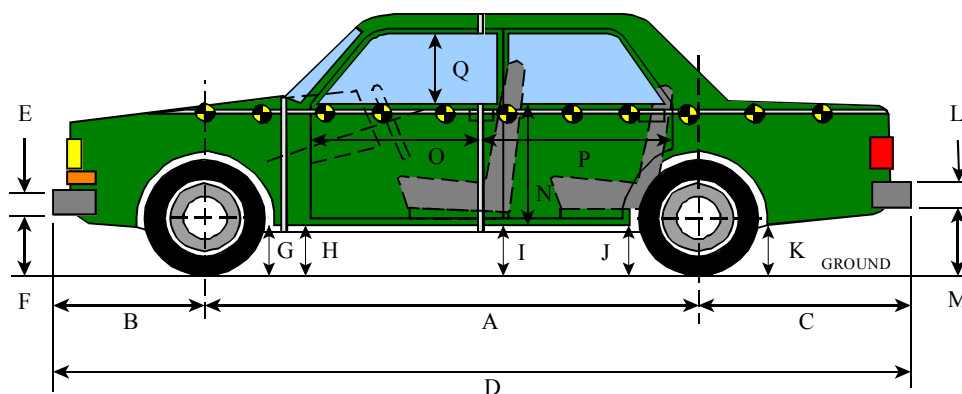
Head Accelerations and Neck Forces are filtered at SAE Class 1000, Neck Moments are filtered at SAE Class 600.

DATA SHEET 6

VEHICLE SIDE MEASUREMENTS

Vehicle: 2005 Suzuki Verona 4-Door Sedan

NHTSA No. M50504



LEFT SIDE VIEW

NOTE: all dimensions are in millimeters with tolerance of ± 3 mm

	PRE-TEST (as delivered)	PRE-TEST (as tested)	POST-TEST (as tested)	Δ CHANGE
A	2694	2702	2667	-35
B	954	-	977	23
C	1116	-	1106	-10
D	4764	-	4750	-14
E	120	-	120	0
F	400	413	435	22
G	206	187	234	47
H	212	188	237	49
I	225	189	227	38
J1	222	183	172	-11
J2	230	188	200	12
K	260	206	215	9
L	305	-	305	0
M	340	286	292	6
N	662	-	606	-56
O	700	-	701	1
P	1214	-	1117	-97
Q	436	-	427	-9
R	4690	-	4679	-11
S	4690	-	4643	-47
T	1800	-	1684	-116

D = Length at Centerline

E&L = Bumper Thickness

R = Right Side Length

S = Left Side Length

T = Width at B-Pillar

J1 = To Pinch Weld

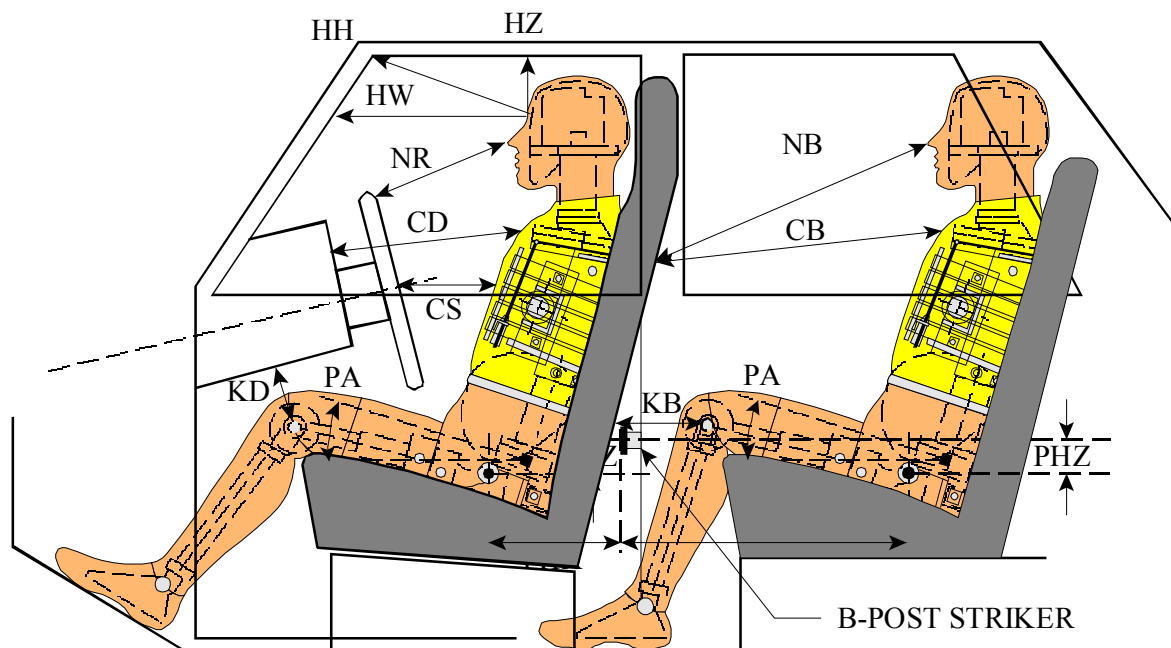
J2 = To Sill

DATA SHEET 7

SID H3 LONGITUDINAL CLEARANCE DIMENSIONS

Vehicle: 2005 Suzuki Verona 4-Door Sedan

NHTSA No. M50504



LEFT SIDE VIEW

NOTE: 2-DOOR VEHICLE SHOWN.
REAR DUMMY PHX & PHZ
MEASUREMENTS FOR A 4-DOOR
VEHICLE WOULD USE THE C-POST
STRIKER AS A REFERENCE POINT

NOTE: All dimensions are in millimeters with tolerance of ± 3 mm

	DRIVER ID# 269	LEFT REAR PASS. ID# 270
HH	445	N/A
HW	719	N/A
HZ	138	122
NR/NB	530	613
CD/CB	605	530
CS	340	N/A
KDL(KDA°)/KBL(KDA°)	156 / (38 °)	200 / (27 °)
KDR(KBA°)/KBR(KBA°)	162 / (38 °)	196 / (26 °)
PA°	23.3 °	23.5 °
PHX	201	302
PHZ	132	306

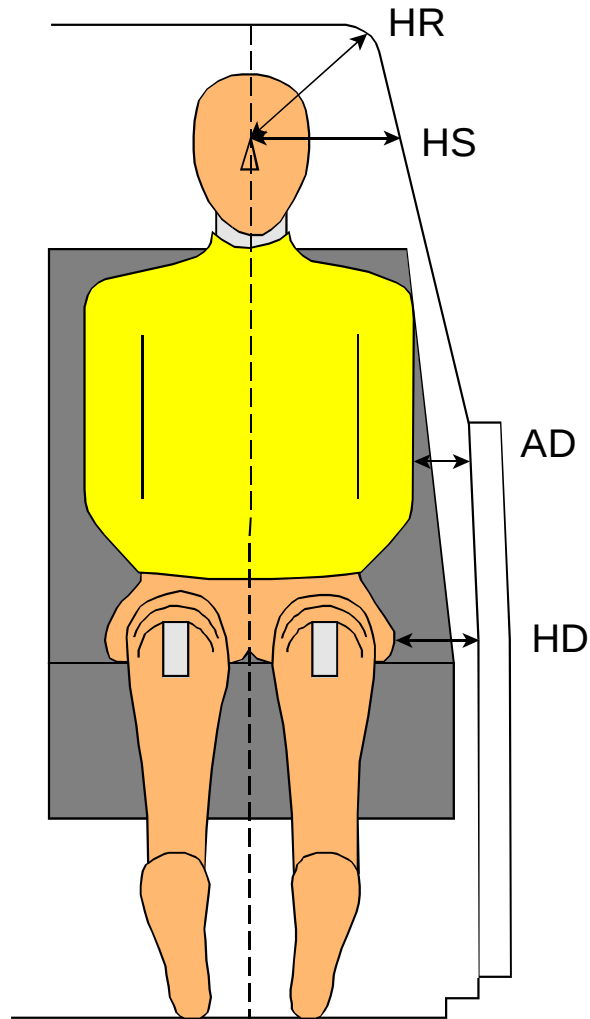
Note: 2-door vehicle shown. Rear dummy PHX & PHZ measurements for 4-door vehicle would use the C-post striker as a reference point.

DATA SHEET 8

SID H3 LATERAL CLEARANCE DIMENSIONS

Vehicle: 2005 Suzuki Verona 4-Door Sedan

NHTSA No. M50504



NOTE: All dimensions are in millimeters with tolerance of ± 3 mm

	DRIVER ID # 269		LEFT REAR PASS. ID # 270	
HR	219		224	
HS	320		312	
AD*	LOWER: 128	UPPER: 114	LOWER: 125	UPPER: 123
HD	157		221	

* Lower measurement is taken laterally at the center of the lower rib accelerometer height from the SID H3 arm to the closest part of the vehicle side.

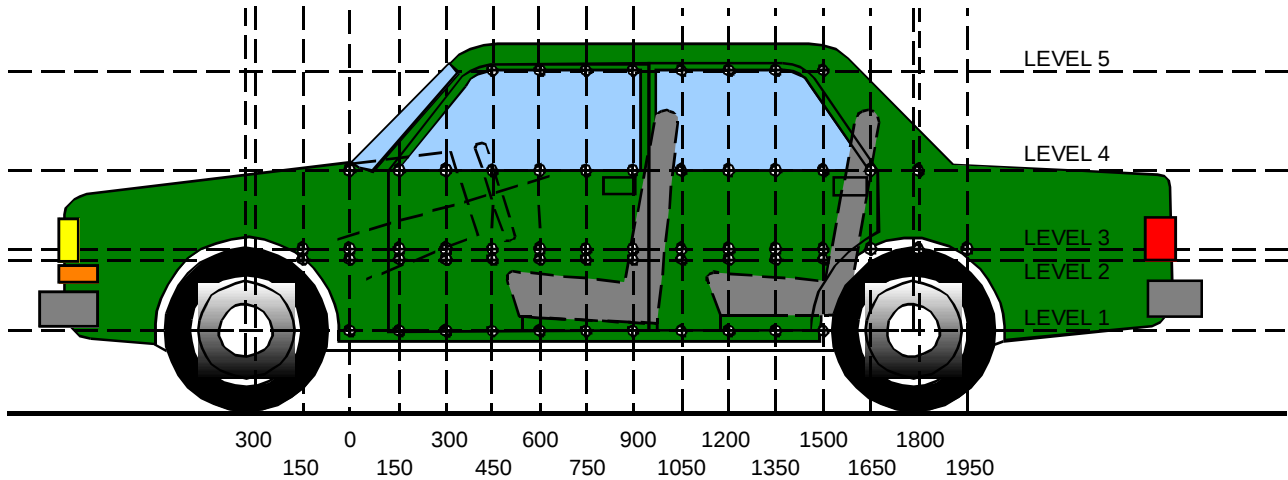
Upper measurement is taken laterally at the center of the upper rib accelerometer height from the SID H3 arm to the closest part of the vehicle side.

DATA SHEET 9

VEHICLE SIDE MEASUREMENTS

Vehicle: 2005 Suzuki Verona 4-Door Sedan

NHTSA No. M50504



LEFT SIDE VIEW

NOTE: All measurements are in millimeters (mm)

LEVEL 5 - WINDOW TOP
LEVEL 4 - WINDOW SILL
LEVEL 3 - MID-DOOR
LEVEL 2 - OCCUPANT H-POINT
LEVEL 1 - AXLE CENTERLINE HEIGHT OR SILL TOP HEIGHT

MEASUREMENTS ARE TAKEN WHEN THE VEHICLE IS IN THE "AS TESTED" CONFIGURATION.

Measurements Along the Vertical 750 mm Line Shown Above:

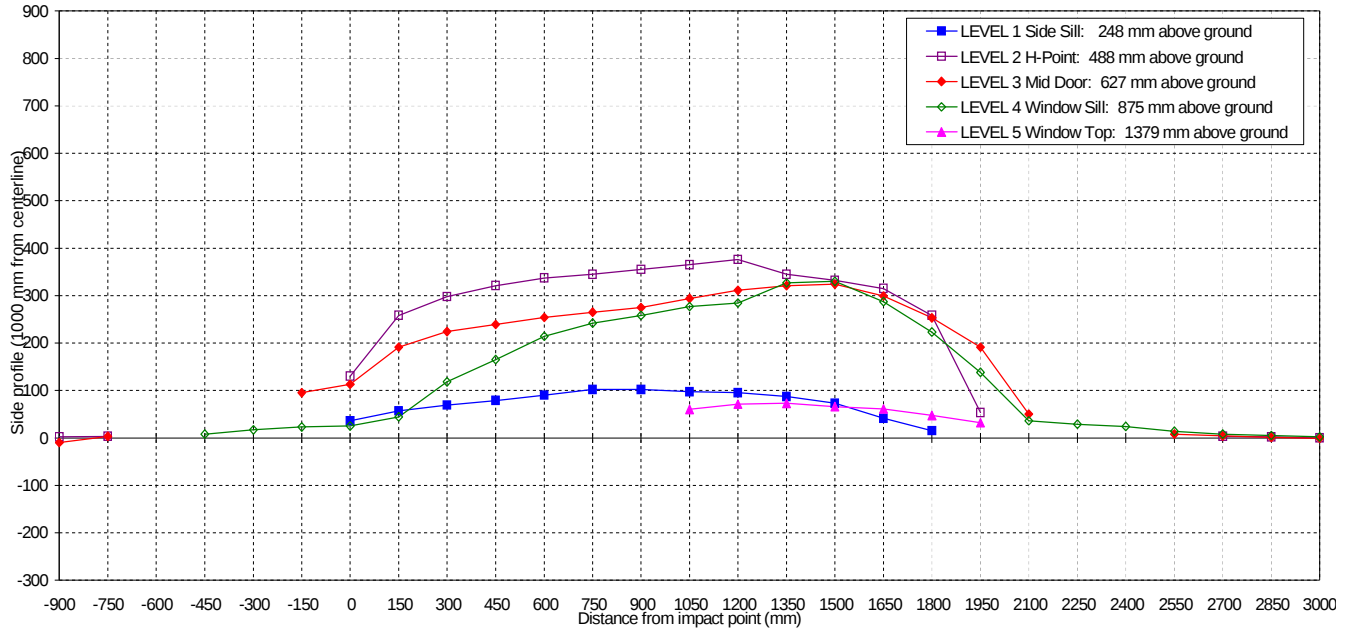
Level 5 @ Window Top	=	<u>1379</u>	millimeters
Level 4 @ Window Sill	=	<u>875</u>	millimeters
Level 3 @ Mid Door	=	<u>627</u>	millimeters
Level 2 @ Occupant H-Point	=	<u>488</u>	millimeters
Level 1 @ Axle Centerline Height (or Sill Top Height)	=	<u>248</u>	millimeters

DATA SHEET 10

VEHICLE EXTERIOR CRUSH PROFILES - ALL LEVELS

Vehicle: 2005 Suzuki Verona 4-Door Sedan

NHTSA No. M50504



NOTE: All dimensions are in millimeters with a tolerance of ± 3 mm

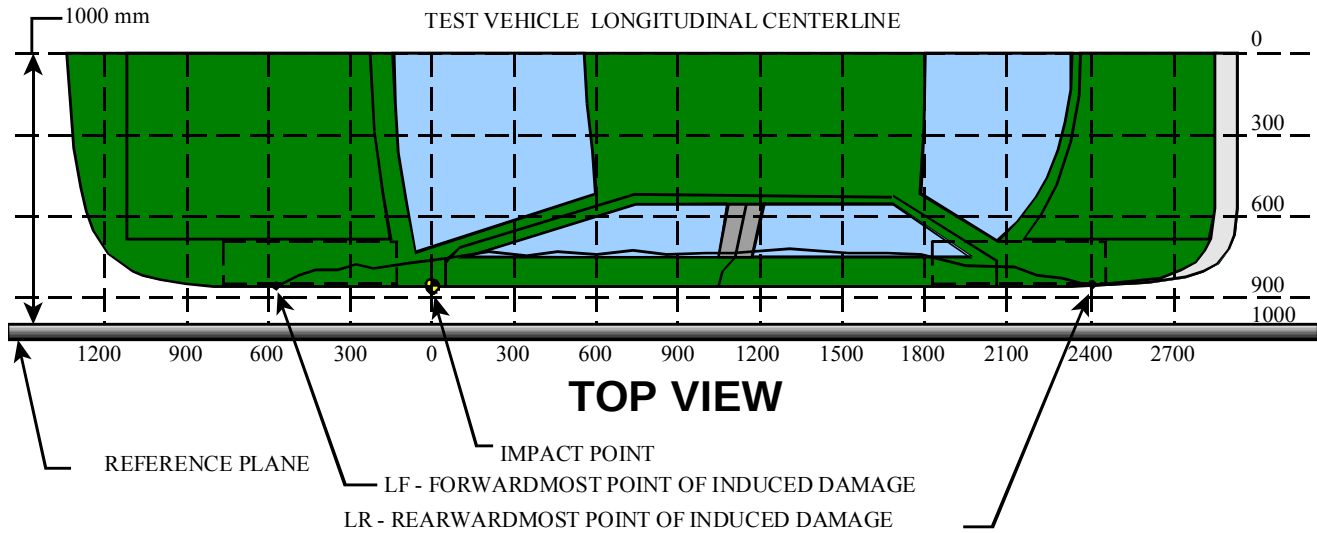
		DISTANCE IN MILLIMETERS (mm) FROM IMPACT POINT																											
LEVEL	HEIGHT (mm)		-900	-750	-600	-450	-300	-150	0	150	300	450	600	750	900	1050	1200	1350	1500	1650	1800	1950	2100	2250	2400	2550	2700	2850	3000
LEVEL 1 SIDE SILL	248	PRE	--	--	--	--	--	--	162	179	177	175	171	167	166	167	167	167	165	167	171	--	--	--	--	--	--	--	--
		POST	--	--	--	--	--	--	198	236	246	254	261	269	268	264	262	254	238	208	186	--	--	--	--	--	--	--	--
		CRUSH	N/A	N/A	N/A	N/A	N/A	N/A	36	57	69	79	90	102	102	97	95	87	73	41	15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
LEVEL 2 H POINT	488	PRE	196	151	--	--	--	--	130	129	125	121	119	116	118	116	114	118	118	122	125	123	--	--	--	--	154	163	177
		POST	198	154	--	--	--	--	260	387	423	442	456	461	473	481	490	463	450	437	383	176	--	--	--	--	157	165	177
		CRUSH	2	3	N/A	N/A	N/A	N/A	130	258	298	321	337	345	355	365	376	345	332	315	258	53	N/A	N/A	N/A	N/A	3	2	0
LEVEL 3 MID DOOR	627	PRE	209	176	--	--	--	117	130	130	130	129	127	126	127	125	120	121	121	123	121	110	--	--	--	128	153	170	189
		POST	199	179	--	--	--	212	243	321	354	369	383	392	401	421	436	441	445	420	376	312	160	--	--	136	157	171	188
		CRUSH	-10	3	N/A	N/A	N/A	95	113	191	224	239	254	265	275	294	311	321	324	299	253	191	50	N/A	N/A	8	4	1	-1
LEVEL 4 WINDOW SILL	875	PRE	--	--	--	233	209	190	180	174	170	162	160	159	156	154	151	148	146	144	143	138	146	148	154	163	175	191	213
		POST	--	--	--	241	226	213	205	218	288	327	374	401	414	431	435	475	476	431	366	276	182	177	178	177	183	196	215
		CRUSH	N/A	N/A	N/A	8	17	23	25	44	118	165	214	242	258	277	284	327	330	287	223	138	36	29	24	14	8	5	2
LEVEL 5 WINDOW TOP	1379	PRE	--	--	--	--	--	--	--	--	--	--	--	--	--	450	435	433	432	435	442	476	--	--	--	--	--	--	--
		POST	--	--	--	--	--	--	--	--	--	--	--	--	--	510	506	506	498	496	489	508	--	--	--	--	--	--	--
		CRUSH	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	60	71	73	66	61	47	32	N/A	N/A	N/A	N/A	N/A	N/A	N/A

DATA SHEET 11

VEHICLE DAMAGE PROFILE DISTANCES

Vehicle: 2005 Suzuki Verona 4-Door Sedan

NHTSA No. M50504



MEASUREMENT CONVENTIONS:
Forward of the impact point (towards front of vehicle) is considered negative (—).
Rearward of the impact point (toward rearend of vehicle) is considered positive (+).

NOTE: All dimensions are in millimeters with tolerance of ± 3 mm.

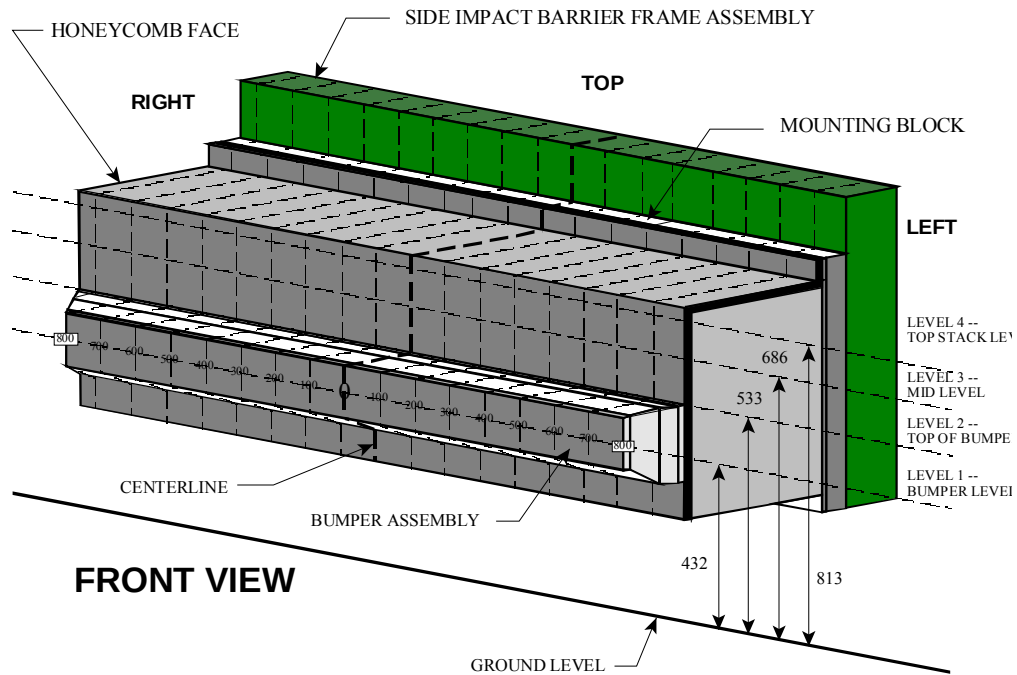
DPD MEASUREMENTS (mm)		POST TEST (mm)	PRETEST (mm)	STATIC CRUSH (mm)
1 (LR)	2850	196	191	5
2	2190	179	147	32
3	1530	447	119	328
4	870	471	118	353
5	210	401	127	274
6 (LF)	-450	241	233	8

DATA SHEET 12

EXTERIOR STATIC CRUSH FOR IMPACTOR FACE

Vehicle: 2005 Suzuki Verona 4-Door Sedan

NHTSA No. M50504



NOTE: Dimensions are shown in millimeters, mm

NOTE: All dimensions are in millimeters with a tolerance of ± 3 mm

			DISTANCE RIGHT OF CENTER (mm)										DISTANCE LEFT OF CENTER (mm)							
LEVEL	HEIGHT AT CL (mm)*		800	700	600	500	400	300	200	100	0	100	200	300	400	500	600	700	800	
LEVEL 4 TOP STACK	813	PRE	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	
		POST	691	641	607	608	616	637	639	637	638	634	634	633	656	681	712	760	816	
		CRUSH	72	22	-12	-11	-3	18	20	18	19	15	15	14	37	62	93	141	197	
LEVEL 3 MID LEVEL	686	PRE	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	
		POST	667	631	620	620	622	637	635	628	629	628	627	633	639	651	673	706	760	
		CRUSH	48	12	1	1	3	18	16	9	10	9	8	14	20	32	54	87	141	
LEVEL 2 TOP BUMPER	533	PRE	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	
		POST	668	663	660	662	663	658	655	654	657	658	659	660	664	666	671	691	717	
		CRUSH	49	44	41	43	44	39	36	35	38	39	40	41	45	47	52	72	98	
LEVEL 1 MID BUMPER	432	PRE	535	519	518	518	518	518	518	518	518	518	518	518	518	518	518	519	535	
		POST	633	613	605	606	618	612	600	598	595	594	597	597	599	603	611	630	647	
		CRUSH	98	94	87	88	100	94	82	80	77	76	79	79	81	85	93	111	112	

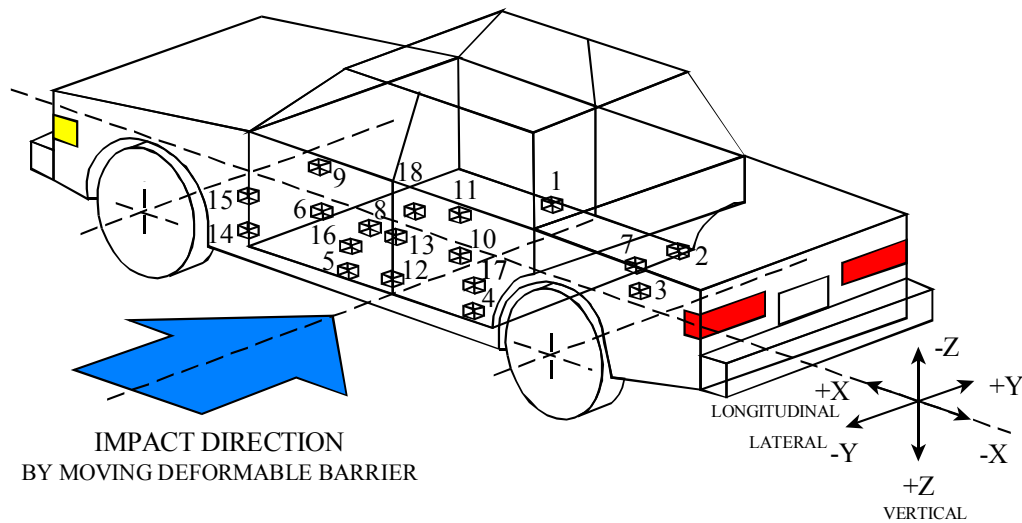
*Heights measured above ground level.

DATA SHEET 13

TEST VEHICLE ACCELEROMETER LOCATIONS AND DATA SUMMARY

Vehicle: 2005 Suzuki Verona 4-Door Sedan

NHTSA No. M50504



- 1-Right Side Sill @ Front Seat
- 2-Right Side Sill @ Rear Seat
- 3-Rear Floorpan Above Axle
- 4-Left Side Sill @ Rear Seat
- 5-Left Side Sill @ Front Seat
- 6-Left Front Door on Centerline
- 7-Right Rear Occupant Compartment
- 8-Midrear of Left Front Door
- 9-Left Front Door Upper Centerline

- 10-Midrear of Left Rear Door
- 11-Left Rear Door Upper Centerline
- 12-Left Lower B-Pillar
- 13-Left Middle B-Pillar
- 14-Left Lower A-Pillar
- 15-Left Middle A-Pillar
- 16-Front Seat Track
- 17-Rear Seat Track
- 18-Vehicle CG

DATA SHEET 13 (continued)

VEHICLE ACCELEROMETER LOCATIONS AND DATA SUMMARY

Vehicle: 2005 Suzuki Verona 4-Door Sedan

NHTSA No. M50504

Accel. No.	Location	Coordinates (mm)±3 mm				Long. (x)		Lat. (y)		Vert. (z)		Resultant	
						Max (g)	Time (msec)	Max (g)	Time (msec)	Max (g)	Time (msec)	Max (g)	Time (msec)
		X*	Y*	Z*									
1	Right Side Sill at Front Seat	2911	714	-216	pos. neg.	2.8 -4.9	54.0 16.8	20.7 -2.9	7.5 161.9	4.0 -6.6	73.2 12.1	21.3 -	7.7 -
2	Right Side Sill at Rear Seat	2073	707	-223	pos. neg.	2.9 -4.3	53.9 17.1	21.3 -2.2	9.2 162.9	3.4 -7.3	43.3 15.8	21.8 -	9.3 -
3	Rear Floorpan Above Axle	1260	27	-506	pos. neg.	5.3 -7.0	51.1 20.2	21.6 -1.8	30.4 121.6	11.5 -8.1	15.7 51.5	23.8 -	30.3 -
4	Left Side Sill at Rear Seat	2051	-709	-231	pos. neg.	- -	- -	51.6 -10.4	10.9 54.6	- -	- -	- -	- -
5	Left Side Sill at Front Seat	2982	-708	-236	pos. neg.	- -	- -	84.2 -15.4	8.7 29.6	- -	- -	- -	- -
6	Left Front Door on Centerline	2816	-709	-710	pos. neg.	- -	- -	251.0 -206.0	20.7 27.5	- -	- -	- -	- -
7	Right Rear Occupant Compartment	2152	403	-173	pos. neg.	- -	- -	23.6 -2.7	20.3 103.1	- -	- -	- -	- -
8	Midrear of Left Front Door	2646	-722	-709	pos. neg.	- -	- -	273.5 -212.4	22.2 27.1	- -	- -	- -	- -
9	Left Front Door Upper Centerline	2581	-727	-887	pos. neg.	- -	- -	199.0 -103.5	16.4 23.4	- -	- -	- -	- -
10	Midrear of Left Rear Door	1663	-732	-762	Pos. neg.	- -	- -	205.2 -108.1	20.6 31.6	- -	- -	- -	- -
11	Left Rear Door Upper Centerline	1684	-725	-911	pos. neg.	- -	- -	176.8 -66.7	19.6 33.6	- -	- -	- -	- -

*Reference: X - Rear Bumper (+ Forward) Y - Vehicle Centerline (+ To Right) Z - Ground Level (+ Down)

4-11

8765-SNCP-09

DATA SHEET 13 (continued)

VEHICLE ACCELEROMETER LOCATIONS AND DATA SUMMARY

Vehicle: 2005 Suzuki Verona 4-Door Sedan

NHTSA No. M50504

Accel. No.	Location	Coordinates (mm)±3 mm				Long. (x)		Lat. (y)		Vert. (z)		Resultant	
						Max (g)	Time (msec)	Max (g)	Time (msec)	Max (g)	Time (msec)	Max (g)	Time (msec)
		X*	Y*	Z*									
12	Left Lower B-Pillar	2254	-709	-403	pos.	-	-	187.3	7.0	-	-	-	-
					neg.	-	-	-70.1	17.7	-	-	-	-
13	Left Middle B-Pillar	2165	-700	-899	pos.	-	-	148.2	3.8	-	-	-	-
					neg.	-	-	-114.7	15.1	-	-	-	-
14	Left Lower A-Pillar	3273	-641	-412	pos.	-	-	145.7	8.8	-	-	-	-
					neg.	-	-	-132.3	19.8	-	-	-	-
15	Left Middle A-Pillar	3185	-684	-912	pos.	-	-	37.2	13.7	-	-	-	-
					neg.	-	-	-10.2	35.6	-	-	-	-
16	Front Seat Track	2366	-545	-239	pos.	-	-	37.8	19.2	-	-	-	-
					neg.	-	-	-12.7	55.6	-	-	-	-
17	Rear Seat Track	1148	-512	-563	pos.	-	-	21.9	20.1	-	-	-	-
					neg.	-	-	-1.6	181.8	-	-	-	-
18	Vehicle CG	2582	67	-408	pos.	17.1	34.8	128.7	26.7	19.5	40.2	143.3	33.4
					neg.	-19.2	31.3	-141.8	33.4	-21.2	33.1	-	-

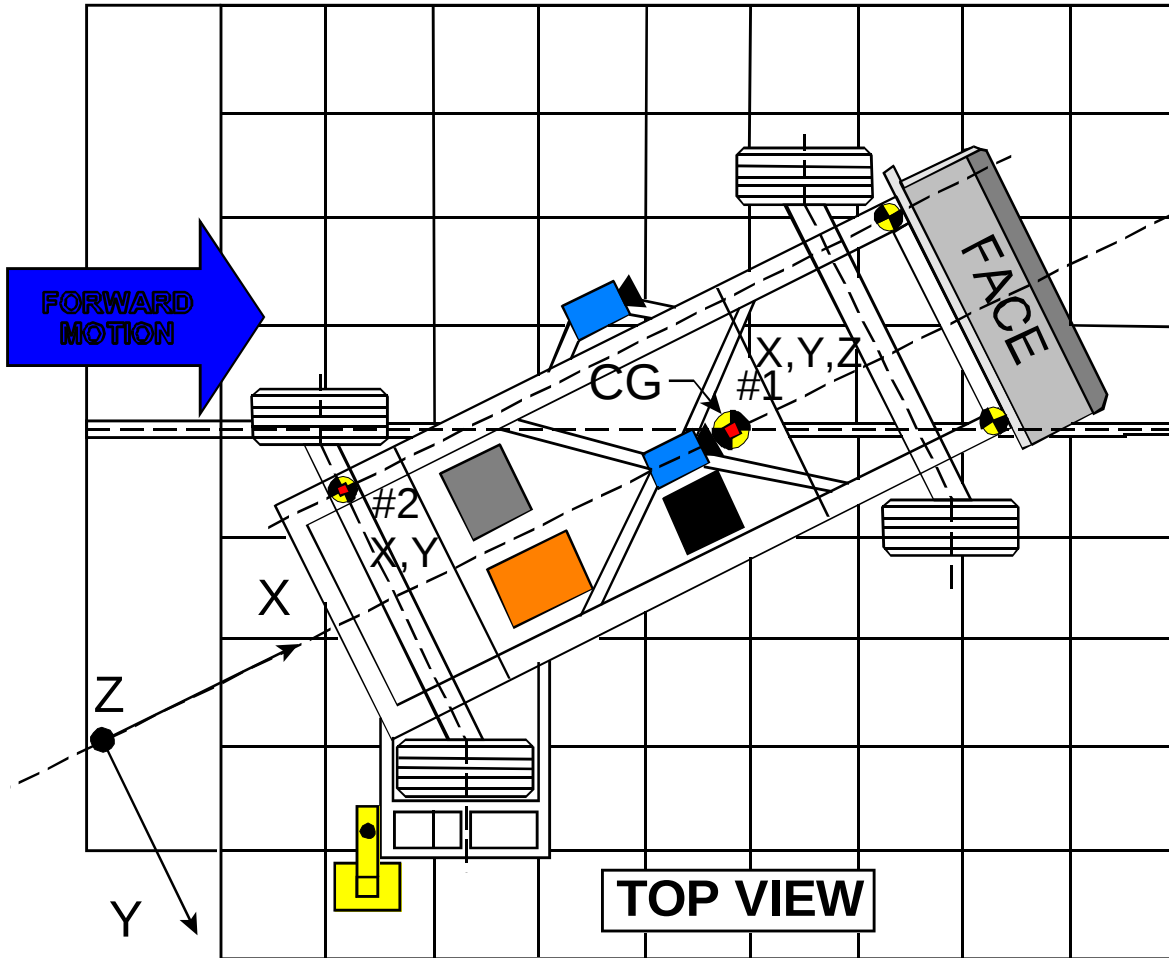
*Reference: X - Rear Bumper (+ Forward) Y - Vehicle Centerline (+ To Right) Z - Ground Level (+ Down)

DATA SHEET 14

MDB ACCELEROMETER LOCATIONS AND DATA SUMMARY

Vehicle: 2005 Suzuki Verona 4-Door Sedan

NHTSA No. M50504



Accel. No.	Location	Coordinates (millimeters)			Pos. Direct.		Neg. Direct.	
		X*	Y*	Z*	Max (g)	Time (msec)	Max (g)	Time (msec)
1	MDB Center of Gravity							
	Longitudinal... X	1859	0	-330	1.0	131.5	-20.0	41.6
	Lateral..... Y				3.6	56.8	-6.2	35.2
	Vertical..... Z				9.0	86.8	-12.6	20.9
	Resultant..... R				21.3	20.7	-	-
2	Rear Frame Member							
	Longitudinal... X	386	-660	-660	1.6	140.7	-21.7	35.1
	Lateral..... Y				3.9	31.6	-1.1	160.1

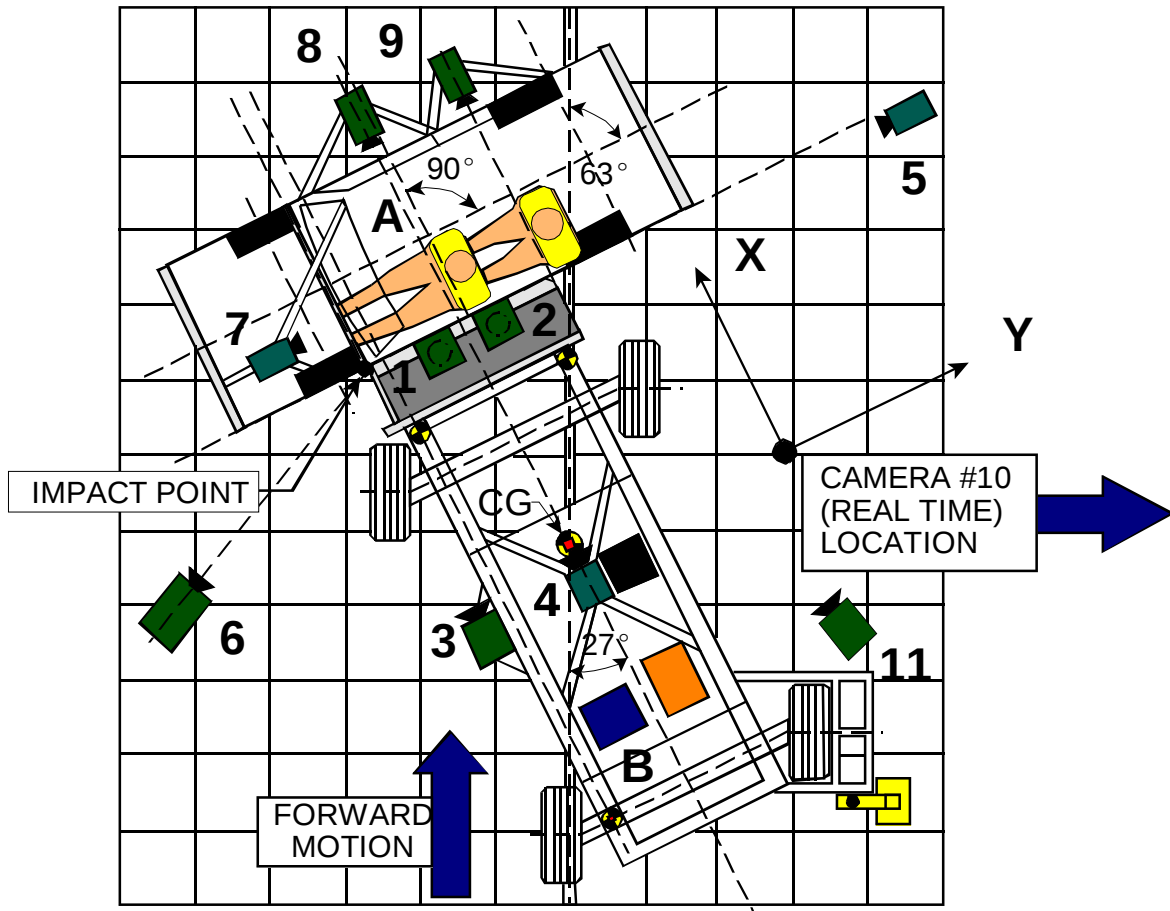
*Reference: X = Rear Bumper (+ Forward)
Y = Vehicle Centerline (+ To Right)
Z = Ground Level (+ Down)
All measurements accurate to within ± 3 mm.

DATA SHEET 15

HIGH SPEED CAMERA LOCATIONS AND DATA SUMMARY

Vehicle: 2005 Suzuki Verona 4-Door Sedan

NHTSA No. M50504



Camera No.	View	Coordinates (millimeters)			Angle (deg.)	Lens (mm)	Film Speed (fps)
		X*	Y*	Z*			
1	Overhead view of test vehicle	72	812	-4880	-90	8	500
2	Overhead closeup view of impact plane	195	855	-4880	-90	12.5	500
3	MDB onboard closeup view of impact point	-1470	0	-847	0	13	500
4	MDB onboard view of driver dummy	-1140	838	-1586	-17	7.5	500
5	Right side ground level overall view	0	10350	-1130	-3	25	500
6	Left side ground level overall view	-2370	-1020	-960	-5	28	500
7	Test vehicle onboard driver front view	530	-450	-1275	-12	28	1000
8	Test vehicle onboard driver side view	1585	740	-1045	9	12.5	1000
9	Test vehicle onboard passenger side view	1585	1725	-1085	-11	12.5	1000
10	Real time film coverage of test	-	-	-	-	-	30
11	Secondary impact point view	4880	2560	-1150	-4	25	500

* Reference (from point of impact); all measurements accurate to within ± 6 mm.

X = (Impact Point) + Forward

Y = (Impact Point) + To Right

Z = (Ground Level) + Down

SECTION 5

FUEL SYSTEM INTEGRITY

DATA SHEET 16

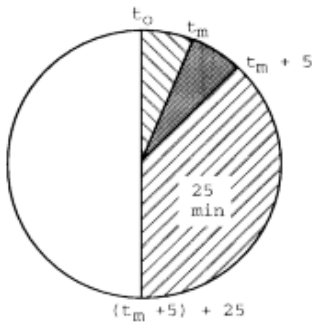
FMVSS 301 FUEL SYSTEM INTEGRITY DATA

NHTSA No.: M50504 TEST DATE: January 25, 2005
 Vehicle Mfgr./Make/Model: GM Daewoo Auto & Technology Company 2005 Suzuki Verona 4-Door Sedan

TEST VEHICLE IMPACT TYPE:

- Frontal (48.28 kph)
- Oblique (48.28 kph) with - ° barrier face first
 contacting the - side
 (driver/passenger)
- Rear Moving Barrier (48.28 kph)
- Lateral Moving Barrier (32.19 kph)
- X Side Impact Moving Deformable Barrier (62.0 kph)
 contacting the driver side side
 (driver/passenger)

FUEL SPILLAGE MEASUREMENT:



1. From impact until vehicle motion ceases
2. For five minute period after vehicle motion ceases
3. For next 25 minutes

ACTUAL	MAX ALLOWED
0 g	28 g
0 g	142 g
0 g	28 g/1 min.

SOLVENT SPILLAGE DETAILS:

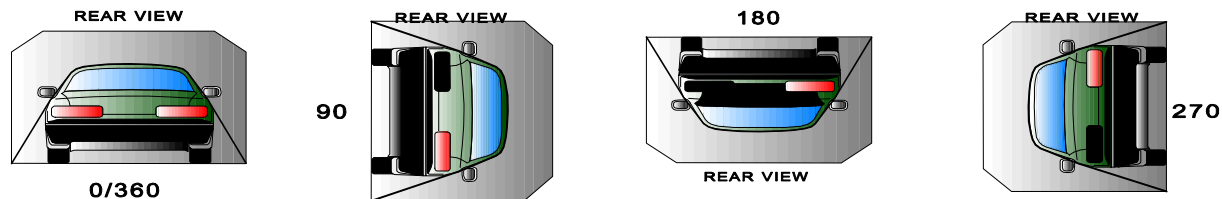
None

DATA SHEET 17

ROLLOVER DATA

Vehicle: 2005 Suzuki Verona 4-Door Sedan

NHTSA No.: M50504



I. DETERMINATION OF SOLVENT COLLECTION TIME PERIOD:

Rollover Stage	Rotation Time (spec. 1 -3 min)				FMVSS 301 Hold Time		Total Time				Next Whole Minute Interval	
0° - 90°	1	minutes	6	seconds	5	minutes	6	minutes	6	seconds	7	minutes
90° - 180°	1	minutes	14	seconds	5	minutes	6	minutes	14	seconds	7	minutes
180°-270°	1	minutes	8	seconds	5	minutes	6	minutes	8	seconds	7	minutes
270°-360°	1	minutes	3	seconds	5	minutes	6	minutes	3	seconds	7	minutes

II. FMVSS 301 REQUIREMENTS: (Maximum allowable solvent spillage):

First 5 minutes from onset of rotation	6th min.	7th min.	8th min. (if required)
142 g	28 g	28 g	28 g

III. ACTUAL TEST VEHICLE SOLVENT SPILLAGE:

Rollover Stage	First 5 minutes from onset of rotation (g)	6th min. (g)	7th min. (g)	8th min. (if required) (g)
0° - 90°	0	0	0	N/A
90° - 180°	0	0	0	N/A
180°-270°	0	0	0	N/A
270°-360°	0	0	0	N/A

Note: Record spillage for whole minute intervals only as determined above.

IV. SOLVENT SPILLAGE LOCATION(S):

Rollover Stage	Spillage Location
0° - 90°	None
90° - 180°	None
180°-270°	None
270°-360°	None

APPENDIX A

PHOTOGRAPHS

TABLE OF PHOTOGRAPHS

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Figure A- 17	PRE-TEST LEFT SIDE VIEW OF IMPACTOR FACE	A- 19
Figure A- 18	POST-TEST LEFT SIDE VIEW OF IMPACTOR FACE	A- 20
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Figure A- 25	PRE-TEST RIGHT OCCUPANT COMPARTMENT VIEW OF FRONT SID H3	A- 27
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Figure A- 30	POST-TEST LEFT OCCUPANT COMPARTMENT VIEW OF FRONT SID H3	A- 32
Figure A- 31	PRE-TEST LEFT OCCUPANT COMPARTMENT VIEW OF REAR SID H3	A- 33
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Figure A-1 PRE-TEST FRONTAL VIEW OF TEST VEHICLE



Figure A-2 POST-TEST FRONTAL VIEW OF TEST VEHICLE



Figure A-3 PRE-TEST REAR VIEW OF TEST VEHICLE



Figure A-4 POST-TEST REAR VIEW OF TEST VEHICLE



Figure A-5 PRE-TEST IMPACTED SIDE VIEW OF TEST VEHICLE



Figure A-6 POST-TEST IMPACTED SIDE VIEW OF TEST VEHICLE



Figure A-7 PRE-TEST LEFT FRONT VIEW OF TEST VEHICLE



Figure A-8 POST-TEST LEFT FRONT VIEW OF TEST VEHICLE



Figure A-9 PRE-TEST LEFT REAR VIEW OF TEST VEHICLE



Figure A-10 POST-TEST LEFT REAR VIEW OF TEST VEHICLE



Figure A-11 PRE-TEST RIGHT FRONT VIEW OF TEST VEHICLE



Figure A-12 POST-TEST RIGHT FRONT VIEW OF TEST VEHICLE



Figure A-13 PRE-TEST RIGHT REAR VIEW OF TEST VEHICLE



Figure A-14 POST-TEST RIGHT REAR VIEW OF TEST VEHICLE



Figure A-15 PRE-TEST FRONTAL VIEW OF IMPACTOR FACE



Figure A-16 POST-TEST FRONTAL VIEW OF IMPACTOR FACE



Figure A-17 PRE-TEST LEFT SIDE VIEW OF IMPACTOR FACE



Figure A-18 POST-TEST LEFT SIDE VIEW OF IMPACTOR FACE

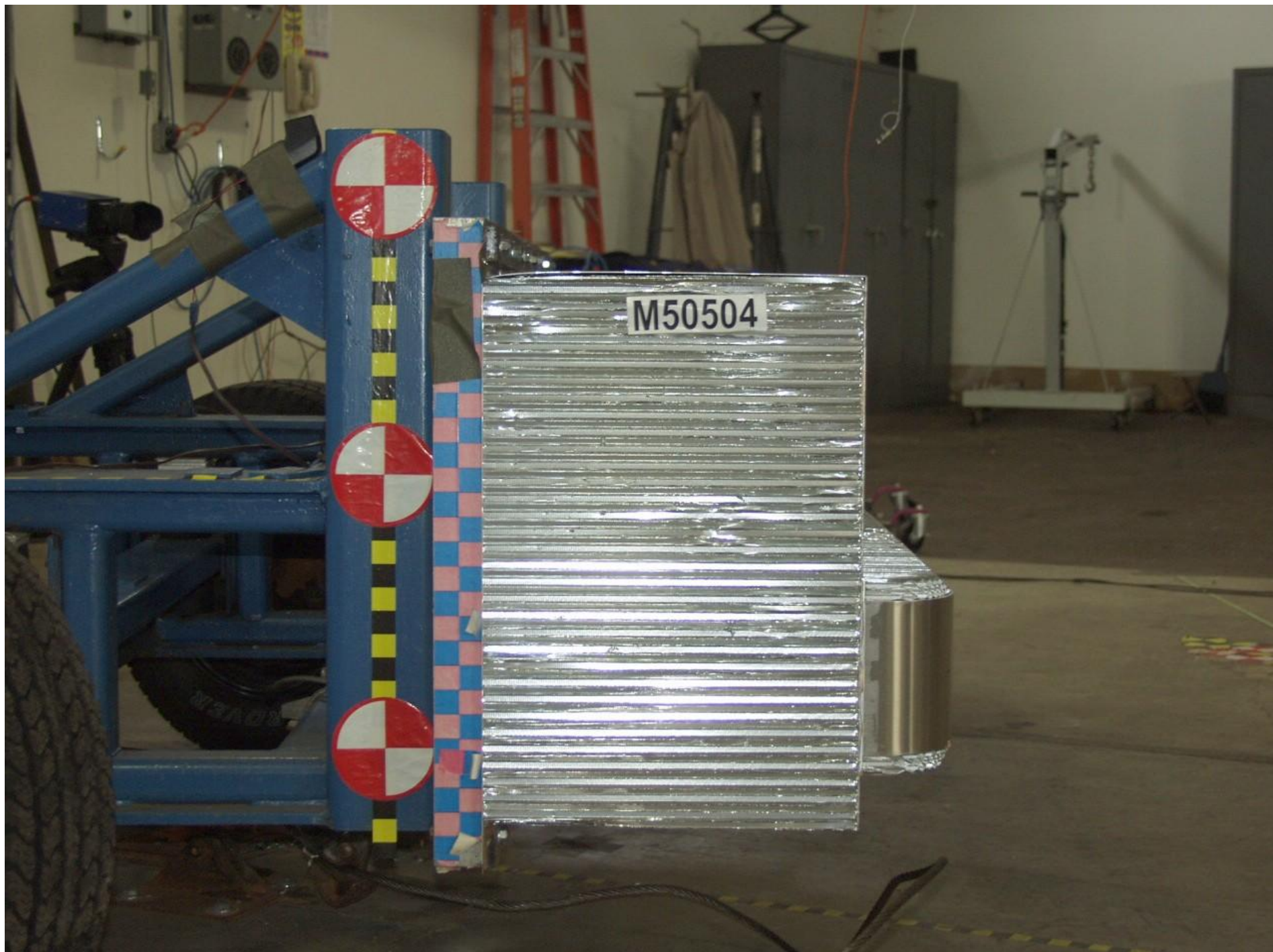


Figure A-19 PRE-TEST RIGHT SIDE VIEW OF IMPACTOR FACE



Figure A-20 POST-TEST RIGHT SIDE VIEW OF IMPACTOR FACE



Figure A-21 PRE-TEST TOP VIEW OF IMPACTOR FACE



Figure A-22 POST-TEST TOP VIEW OF IMPACTOR FACE

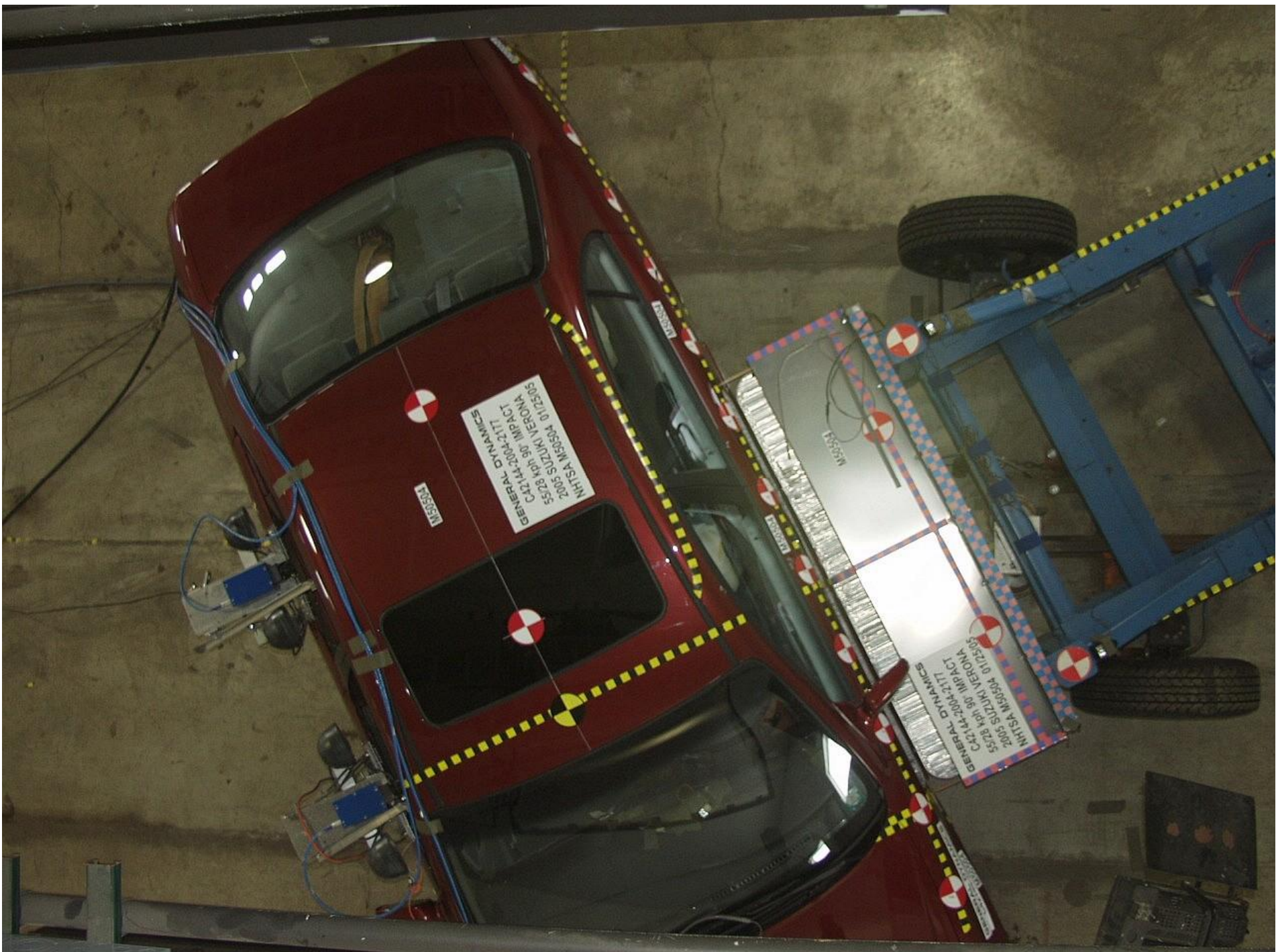


Figure A-23 PRE-TEST OVERHEAD VIEW OF ALIGNED MDB AND VEHICLE



Figure A-24 POST-TEST OVERHEAD VIEW OF MDB AND VEHICLE



Figure A-25 PRE-TEST RIGHT OCCUPANT COMPARTMENT VIEW OF FRONT SID H3



Figure A-26 POST-TEST RIGHT OCCUPANT COMPARTMENT VIEW OF FRONT SID H3



Figure A-27 PRE-TEST RIGHT OCCUPANT COMPARTMENT VIEW OF REAR SID H3



Figure A-28 POST-TEST RIGHT OCCUPANT COMPARTMENT VIEW OF REAR SID H3



Figure A-29 PRE-TEST LEFT OCCUPANT COMPARTMENT VIEW OF FRONT SID H3



Figure A-30 POST-TEST LEFT OCCUPANT COMPARTMENT VIEW OF FRONT SID H3



Figure A-31 PRE-TEST LEFT OCCUPANT COMPARTMENT VIEW OF REAR SID H3



Figure A-32 POST-TEST LEFT OCCUPANT COMPARTMENT VIEW OF REAR SID H3



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Figure A-33 PRE-TEST INTERIOR OF FRONT DOOR



Figure A-34 POST-TEST INTERIOR OF FRONT DOOR SHOWING SID H3 IMPACT LOCATIONS



Figure A-35 PRE-TEST INTERIOR OF REAR DOOR



Figure A-36 POST-TEST INTERIOR OF REAR DOOR SHOWING SID H3 IMPACT LOCATIONS



Figure A-37 PRE-TEST LEFT SIDE VIEW OF MDB WITH IMPACTOR FACE IN POSITION



Figure A-38 PRE-TEST RIGHT SIDE VIEW OF MDB WITH IMPACTOR FACE IN POSITION



Figure A-39 POST-TEST CLOSE-UP VIEW OF IMPACT POINT TARGET

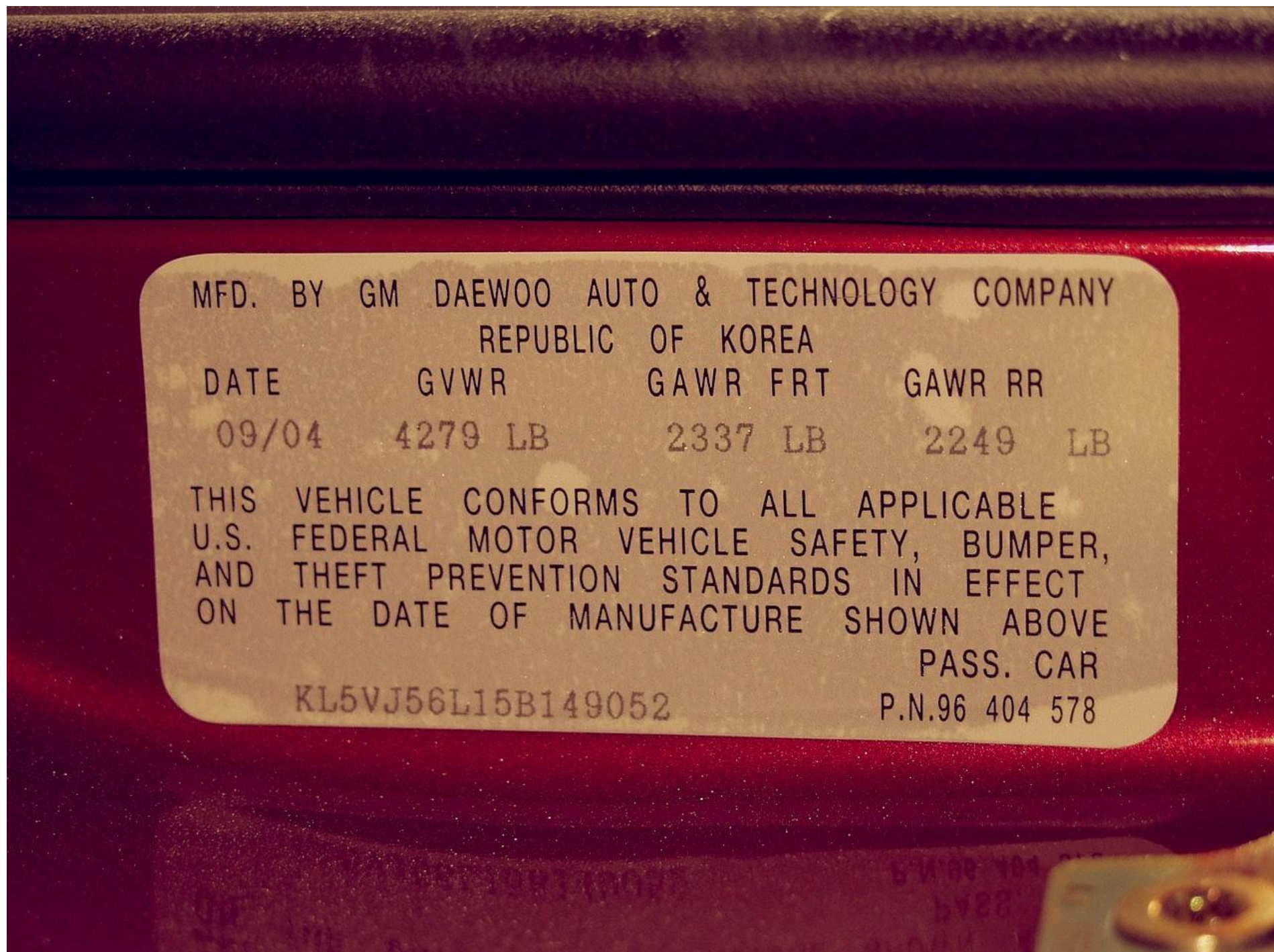


Figure A-40 CLOSE-UP VIEW OF VEHICLE'S CERTIFICATION LABEL



TIRE AND LOADING INFORMATION B3

SEATING CAPACITY | TOTAL 5 | FRONT 2 | REAR 3

The combined weight of occupants and cargo should never exceed 408kg or 898lbs

ORIGINAL TIRE SIZE	COLD TIRE INFLATION PRESSURE	
P205/60 R16 91H	FRONT	210KPA, 30PSI
	REAR	210KPA, 30PSI
COMPACT SPARE TIRE	COLD TIRE INFLATION PRESSURE	
T125 / 70D16	420KPA , 60PSI	

SEE OWNER'S
MANUAL FOR
ADDITIONAL
INFORMATION

96452856

Figure A-41 CLOSE-UP VIEW OF VEHICLE'S TIRE PLACARD LABEL



Figure A-42 IMPACT PHOTO



Figure A-43 ROLLOVER 90 DEGREES



Figure A-44 ROLLOVER 180 DEGREES



Figure A-45 ROLLOVER 270 DEGREES



Figure A-46 ROLLOVER 360 DEGREES

APPENDIX B

VEHICLE, MDB AND SID HYBRID III RESPONSE DATA

TABLE OF DATA PLOTS

DRIVER AND PASSENGER DUMMY INSTRUMENTATION PLOTS

ACCELERATION, FORCE AND MOMENT DATA - FILTER CLASS 1000, LOWER SPINE - FILTER CLASS 180
INTEGRATION DATA - FILTER CLASS 180

<u>Plot No.</u>	<u>Data Plot Title</u>	<u>Page</u>
1	DRIVER HEAD (X) ACCELERATION VS TIME	B- 6
2	DRIVER HEAD (X) VELOCITY VS TIME	B- 7
3	DRIVER HEAD (Y) ACCELERATION VS TIME	B- 8
4	DRIVER HEAD (Y) VELOCITY VS TIME	B- 9
5	DRIVER HEAD (Z) ACCELERATION VS TIME	B- 10
6	DRIVER HEAD (Z) VELOCITY VS TIME	B- 11
7	DRIVER HEAD RESULTANT ACCELERATION VS TIME	B- 12
8	DRIVER UPPER NECK (X) FORCE VS TIME	B- 13
9	DRIVER UPPER NECK (Y) FORCE VS TIME	B- 14
10	DRIVER UPPER NECK (Z) FORCE VS TIME	B- 15
11	DRIVER UPPER NECK RESULTANT FORCE VS TIME	B- 16
12	DRIVER UPPER NECK (X) MOMENT VS TIME	B- 17
13	DRIVER UPPER NECK (Y) MOMENT VS TIME	B- 18
14	DRIVER UPPER NECK (Z) MOMENT VS TIME	B- 19
15	DRIVER UPPER NECK RESULTANT MOMENT VS TIME	B- 20
16	DRIVER UPPER RIB (Y) ACCELERATION VS TIME	B- 21
17	DRIVER UPPER RIB (Y) VELOCITY VS TIME	B- 22
18	DRIVER LOWER RIB (Y) ACCELERATION VS TIME	B- 23
19	DRIVER LOWER RIB (Y) VELOCITY VS TIME	B- 24
20	DRIVER LOWER SPINE (Y) ACCELERATION VS TIME	B- 25
21	DRIVER LOWER SPINE (Y) VELOCITY VS TIME	B- 26
22	DRIVER PELVIC (Y) ACCELERATION VS TIME	B- 27
23	DRIVER PELVIC (Y) VELOCITY VS TIME	B- 28
24	PASSENGER HEAD (X) ACCELERATION VS TIME	B- 29
25	PASSENGER HEAD (X) VELOCITY VS TIME	B- 30
26	PASSENGER HEAD (Y) ACCELERATION VS TIME	B- 31
27	PASSENGER HEAD (Y) VELOCITY VS TIME	B- 32
28	PASSENGER HEAD (Z) ACCELERATION VS TIME	B- 33
29	PASSENGER HEAD (Z) VELOCITY VS TIME	B- 34
30	PASSENGER HEAD RESULTANT ACCELERATION VS TIME	B- 35
31	PASSENGER UPPER NECK (X) FORCE VS TIME	B- 36
32	PASSENGER UPPER NECK (Y) FORCE VS TIME	B- 37
33	PASSENGER UPPER NECK (Z) FORCE VS TIME	B- 38
34	PASSENGER UPPER NECK RESULTANT FORCE VS TIME	B- 39
35	PASSENGER UPPER NECK (X) MOMENT VS TIME	B- 40
36	PASSENGER UPPER NECK (Y) MOMENT VS TIME	B- 41
37	PASSENGER UPPER NECK (Z) MOMENT VS TIME	B- 42
38	PASSENGER UPPER NECK RESULTANT MOMENT VS TIME	B- 43
39	PASSENGER UPPER RIB (Y) ACCELERATION VS TIME	B- 44
40	PASSENGER UPPER RIB (Y) VELOCITY VS TIME	B- 45
41	PASSENGER LOWER RIB (Y) ACCELERATION VS TIME	B- 46
42	PASSENGER LOWER RIB (Y) VELOCITY VS TIME	B- 47
43	PASSENGER LOWER SPINE (Y) ACCELERATION VS TIME	B- 48
44	PASSENGER LOWER SPINE (Y) VELOCITY VS TIME	B- 49
45	PASSENGER PELVIC (Y) ACCELERATION VS TIME	B- 50
46	PASSENGER PELVIC (Y) VELOCITY VS TIME	B- 51

DRIVER & PASSENGER DUMMY INSTRUMENTATION PLOTS

ACCELERATION DATA - FIR FILTERED

<u>Plot No.</u>	<u>Data Plot Title</u>	<u>Page</u>
47	DRIVER UPPER RIB (Y) ACCELERATION VS TIME	B- 52
48	DRIVER LOWER RIB (Y) ACCELERATION VS TIME	B- 53
49	DRIVER LOWER SPINE (Y) ACCELERATION VS TIME	B- 54
50	DRIVER PELVIC (Y) ACCELERATION VS TIME	B- 55
51	PASSENGER UPPER RIB (Y) ACCELERATION VS TIME	B- 56
52	PASSENGER LOWER RIB (Y) ACCELERATION VS TIME	B- 57
53	PASSENGER LOWER SPINE (Y) ACCELERATION VS TIME	B- 58
54	PASSENGER PELVIC (Y) ACCELERATION VS TIME	B- 59

TEST VEHICLE INSTRUMENTATION PLOTS
ACCELERATION DATA - FILTER CLASS 60
INTEGRATION DATA - FILTER CLASS 180

<u>Plot No.</u>	<u>Data Plot Title</u>	<u>Page</u>
55	RIGHT SIDE SILL AT FRONT SEAT (X) ACCELERATION VS TIME	B- 60
56	RIGHT SIDE SILL AT FRONT SEAT (X) VELOCITY VS TIME	B- 61
57	RIGHT SIDE SILL AT FRONT SEAT (Y) ACCELERATION VS TIME	B- 62
58	RIGHT SIDE SILL AT FRONT SEAT (Y) VELOCITY VS TIME	B- 63
59	RIGHT SIDE SILL AT FRONT SEAT (Z) ACCELERATION VS TIME	B- 64
60	RIGHT SIDE SILL AT FRONT SEAT (Z) VELOCITY VS TIME	B- 65
61	RIGHT SIDE SILL AT FRONT SEAT RESULTANT ACCELERATION VS TIME	B- 66
62	RIGHT SIDE SILL AT REAR SEAT (X) ACCELERATION VS TIME	B- 67
63	RIGHT SIDE SILL AT REAR SEAT (X) VELOCITY VS TIME	B- 68
64	RIGHT SIDE SILL AT REAR SEAT (Y) ACCELERATION VS TIME	B- 69
65	RIGHT SIDE SILL AT REAR SEAT (Y) VELOCITY VS TIME	B- 70
66	RIGHT SIDE SILL AT REAR SEAT (Z) ACCELERATION VS TIME	B- 71
67	RIGHT SIDE SILL AT REAR SEAT (Z) VELOCITY VS TIME	B- 72
68	RIGHT SIDE SILL AT REAR SEAT RESULTANT ACCELERATION VS TIME	B- 73
69	REAR FLOORPAN ABOVE AXLE (X) ACCELERATION VS TIME	B- 74
70	REAR FLOORPAN ABOVE AXLE (X) VELOCITY VS TIME	B- 75
71	REAR FLOORPAN ABOVE AXLE (Y) ACCELERATION VS TIME	B- 76
72	REAR FLOORPAN ABOVE AXLE (Y) VELOCITY VS TIME	B- 77
73	REAR FLOORPAN ABOVE AXLE (Z) ACCELERATION VS TIME	B- 78
74	REAR FLOORPAN ABOVE AXLE (Z) VELOCITY VS TIME	B- 79
75	REAR FLOORPAN ABOVE AXLE RESULTANT ACCELERATION VS TIME	B- 80
76	LEFT SIDE SILL AT REAR SEAT (Y) ACCELERATION VS TIME	B- 81
77	LEFT SIDE SILL AT REAR SEAT (Y) VELOCITY VS TIME	B- 82
78	LEFT SIDE SILL AT FRONT SEAT (Y) ACCELERATION VS TIME	B- 83
79	LEFT SIDE SILL AT FRONT SEAT (Y) VELOCITY VS TIME	B- 84
80	LEFT FRONT DOOR ON CENTERLINE (Y) ACCELERATION VS TIME	B- 85
81	LEFT FRONT DOOR ON CENTERLINE (Y) VELOCITY VS TIME	B- 86
82	RIGHT REAR OCCUPANT COMPARTMENT (Y) ACCELERATION VS TIME	B- 87
83	RIGHT REAR OCCUPANT COMPARTMENT (Y) VELOCITY VS TIME	B- 88
84	MID REAR OF LEFT FRONT DOOR (Y) ACCELERATION VS TIME	B- 89
85	MID REAR OF LEFT FRONT DOOR (Y) VELOCITY VS TIME	B- 90
86	LEFT FRONT DOOR UPPER CENTERLINE (Y) ACCELERATION VS TIME	B- 91
87	LEFT FRONT DOOR UPPER CENTERLINE (Y) VELOCITY VS TIME	B- 92
88	MID REAR OF LEFT REAR DOOR (Y) ACCELERATION VS TIME	B- 93
89	MID REAR OF LEFT REAR DOOR (Y) VELOCITY VS TIME	B- 94
90	LEFT REAR DOOR UPPER CENTERLINE (Y) ACCELERATION VS TIME	B- 95
91	LEFT REAR DOOR UPPER CENTERLINE (Y) VELOCITY VS TIME	B- 96
92	LOWER B-POST (Y) ACCELERATION VS TIME	B- 97
93	LOWER B-POST (Y) VELOCITY VS TIME	B- 98
94	UPPER B-POST (Y) ACCELERATION VS TIME	B- 99
95	UPPER B-POST (Y) VELOCITY VS TIME	B- 100
96	LOWER A-POST (Y) ACCELERATION VS TIME	B- 101

TEST VEHICLE INSTRUMENTATION PLOTS
ACCELERATION DATA - FILTER CLASS 60
INTEGRATION DATA - FILTER CLASS 180

<u>Plot No.</u>	<u>Data Plot Title</u>	<u>Page</u>
97	LOWER A-POST (Y) VELOCITY VS TIME	B- 102
98	UPPER A-POST (Y) ACCELERATION VS TIME	B- 103
99	UPPER A-POST (Y) VELOCITY VS TIME	B- 104
100	FRONT SEAT TRACK (Y) ACCELERATION VS TIME	B- 105
101	FRONT SEAT TRACK (Y) VELOCITY VS TIME	B- 106
102	REAR SEAT TRACK (Y) ACCELERATION VS TIME	B- 107
103	REAR SEAT TRACK (Y) VELOCITY VS TIME	B- 108
104	VEHICLE CENTER OF GRAVITY (X) ACCELERATION VS TIME	B- 109
105	VEHICLE CENTER OF GRAVITY (X) VELOCITY VS TIME	B- 110
106	VEHICLE CENTER OF GRAVITY (Y) ACCELERATION VS TIME	B- 111
107	VEHICLE CENTER OF GRAVITY (Y) VELOCITY ACCELERATION VS TIME	B- 112
108	VEHICLE CENTER OF GRAVITY (Z) ACCELERATION VS TIME	B- 113
109	VEHICLE CENTER OF GRAVITY (Z) VELOCITY VS TIME	B- 114
110	VEHICLE CENTER OF GRAVITY RESULTANT ACCELERATION VS TIME	B- 115

MDB INSTRUMENTATION PLOTS
ACCELERATION DATA - FILTER CLASS 60
INTEGRATION DATA - FILTER CLASS 180

<u>Plot No.</u>	<u>Data Plot Title</u>	<u>Page</u>
111	MDB CENTER OF GRAVITY (X) ACCELERATION VS TIME	B- 116
112	MDB CENTER OF GRAVITY (X) VELOCITY VS TIME	B- 117
113	MDB CENTER OF GRAVITY (Y) ACCELERATION VS TIME	B- 118
114	MDB CENTER OF GRAVITY (Y) VELOCITY VS TIME	B- 119
115	MDB CENTER OF GRAVITY (Z) ACCELERATION VS TIME	B- 120
116	MDB CENTER OF GRAVITY (Z) VELOCITY VS TIME	B- 121
117	MDB CENTER OF GRAVITY RESULTANT ACCELERATION VS TIME	B- 122
118	MDB REAR (X) ACCELERATION VS TIME	B- 123
119	MDB REAR (X) VELOCITY VS TIME	B- 124
120	MDB REAR (Y) ACCELERATION VS TIME	B- 125
121	MDB REAR (Y) VELOCITY VS TIME	B- 126

DRIVER & PASSENGER DUMMY INSTRUMENTATION PLOTS (REDUNDANT)
ACCELERATION DATA - FILTER CLASS 1000, LOWER SPINE - FILTER CLASS 180
INTEGRATION DATA - FILTER CLASS 180

<u>Plot No.</u>	<u>Data Plot Title</u>	<u>Page</u>
122	DRIVER UPPER RIB (Y) ACCELERATION VS TIME	B- 127
123	DRIVER UPPER RIB (Y) VELOCITY VS TIME	B- 128
124	DRIVER LOWER RIB (Y) ACCELERATION VS TIME	B- 129
125	DRIVER LOWER RIB (Y) VELOCITY VS TIME	B- 130
126	DRIVER LOWER SPINE (Y) ACCELERATION VS TIME	B- 131
127	DRIVER LOWER SPINE (Y) VELOCITY VS TIME	B- 132
128	DRIVER PELVIC (Y) ACCELERATION VS TIME	B- 133
129	DRIVER PELVIC (Y) VELOCITY VS TIME	B- 134
130	PASSENGER UPPER RIB (Y) ACCELERATION VS TIME	B- 135
131	PASSENGER UPPER RIB (Y) VELOCITY VS TIME	B- 136
132	PASSENGER LOWER RIB (Y) ACCELERATION VS TIME	B- 137
133	PASSENGER LOWER RIB (Y) VELOCITY VS TIME	B- 138
134	PASSENGER LOWER SPINE (Y) ACCELERATION VS TIME	B- 139
135	PASSENGER LOWER SPINE (Y) VELOCITY VS TIME	B- 140
136	PASSENGER PELVIC (Y) ACCELERATION VS TIME	B- 141
137	PASSENGER PELVIC (Y) VELOCITY VS TIME	B- 142

DRIVER & PASSENGER DUMMY INSTRUMENTATION PLOTS (REDUNDANT)
ACCELERATION DATA - FIR FILTERED

<u>Plot No.</u>	<u>Data Plot Title</u>	<u>Page</u>
138	DRIVER UPPER RIB (Y) ACCELERATION VS TIME	B- 143
139	DRIVER LOWER RIB (Y) ACCELERATION VS TIME	B- 144
140	DRIVER LOWER SPINE (Y) ACCELERATION VS TIME	B- 145
141	DRIVER PELVIC (Y) ACCELERATION VS TIME	B- 146
142	PASSENGER UPPER RIB (Y) ACCELERATION VS TIME	B- 147
143	PASSENGER LOWER RIB (Y) ACCELERATION VS TIME	B- 148
144	PASSENGER LOWER SPINE (Y) ACCELERATION VS TIME	B- 149
145	PASSENGER PELVIC (Y) ACCELERATION VS TIME	B- 150

2005 SNCAP Test 4 - 2005 Suzuki Verona

V2P1 Head x

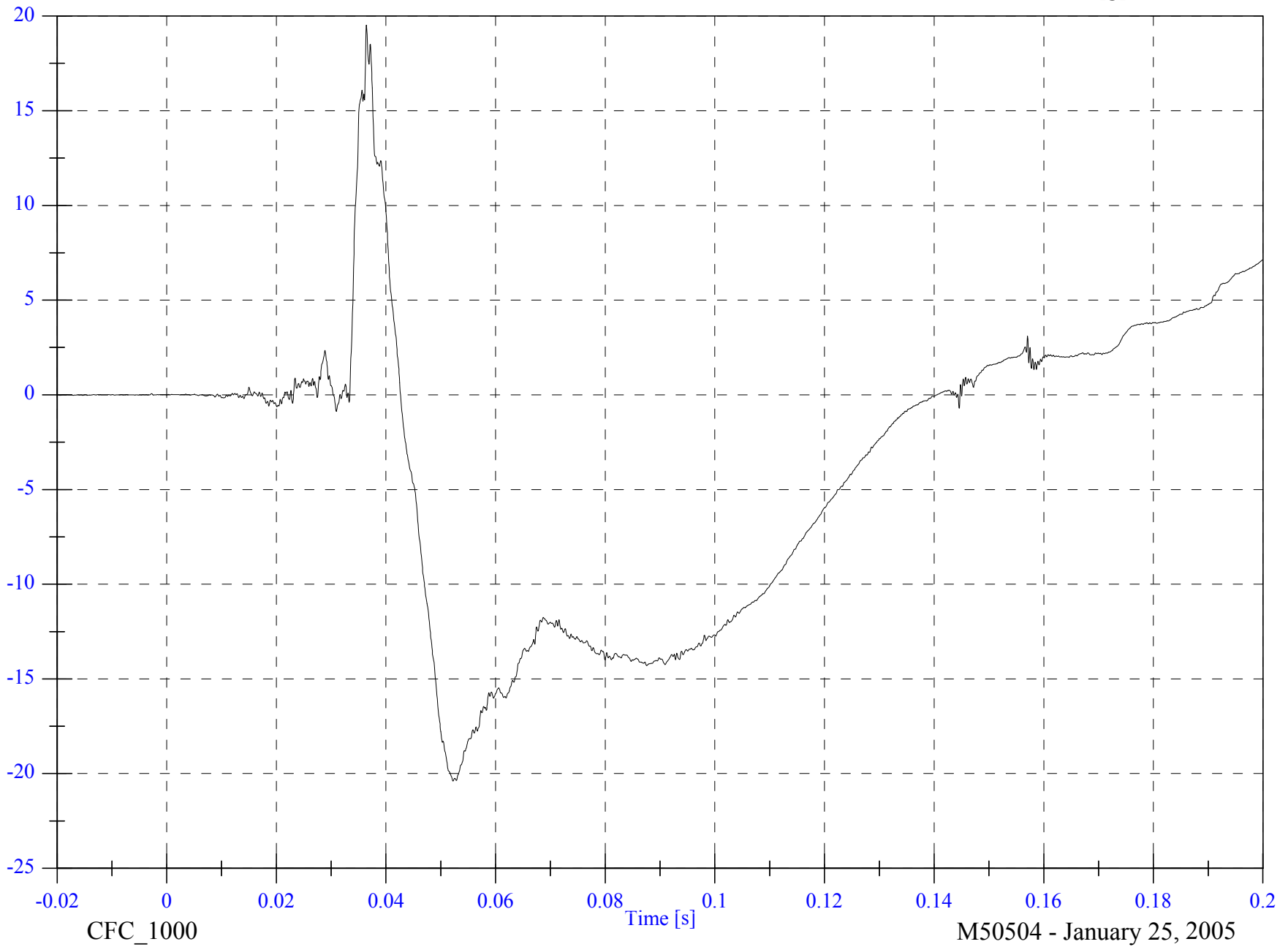
Max: 19.5 [g] at 0.036 [s]

Min: -20.4 [g] at 0.052 [s]

B-6

8765-SNCAP-09

g

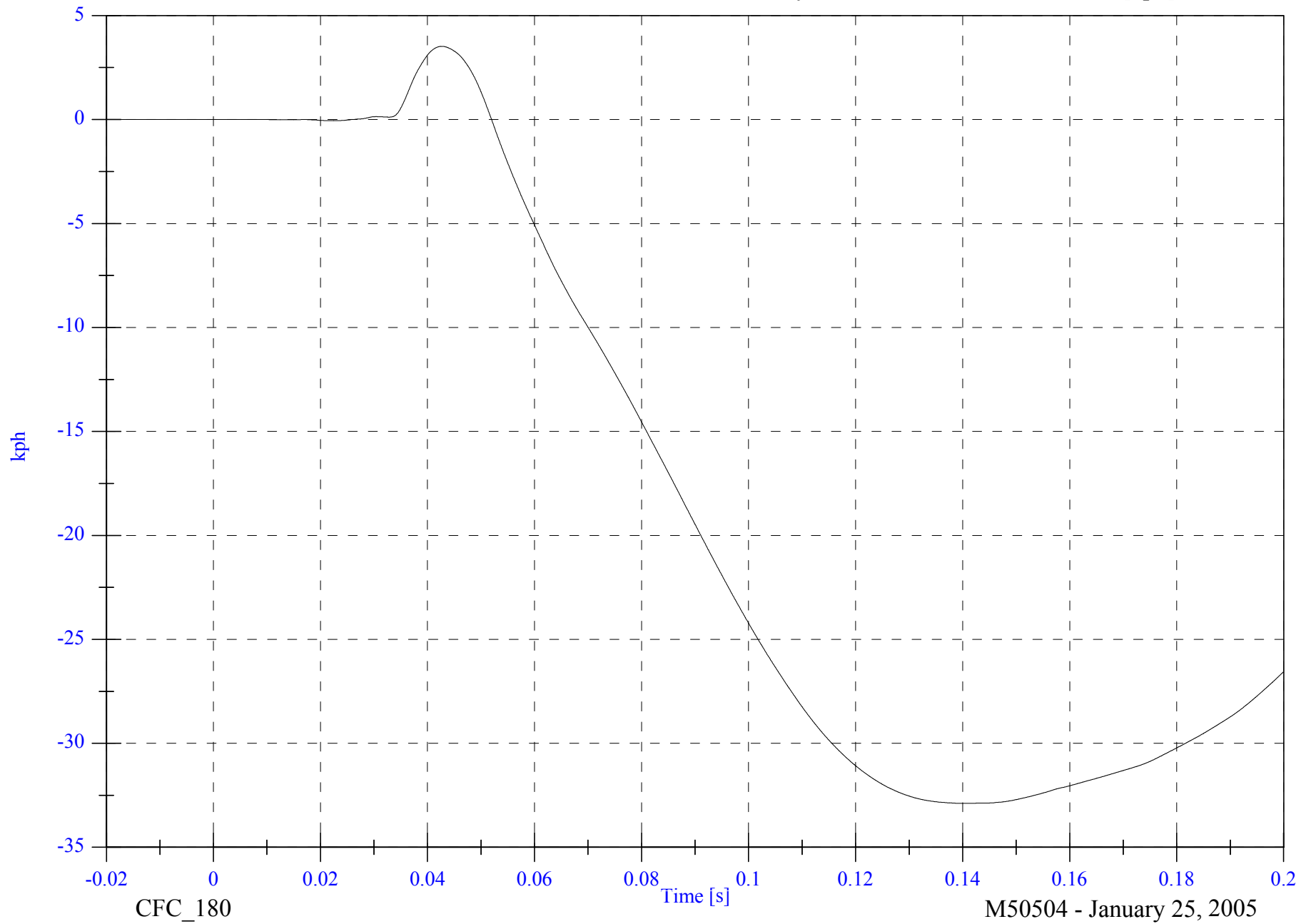


2005 SNCAP Test 4 - 2005 Suzuki Verona

V2P1 Head x Velocity

Max: 3.5 [kph] at 0.043 [s]

Min: -32.9 [kph] at 0.140 [s]



B-7

8765-SNCAP-09

CFC_180

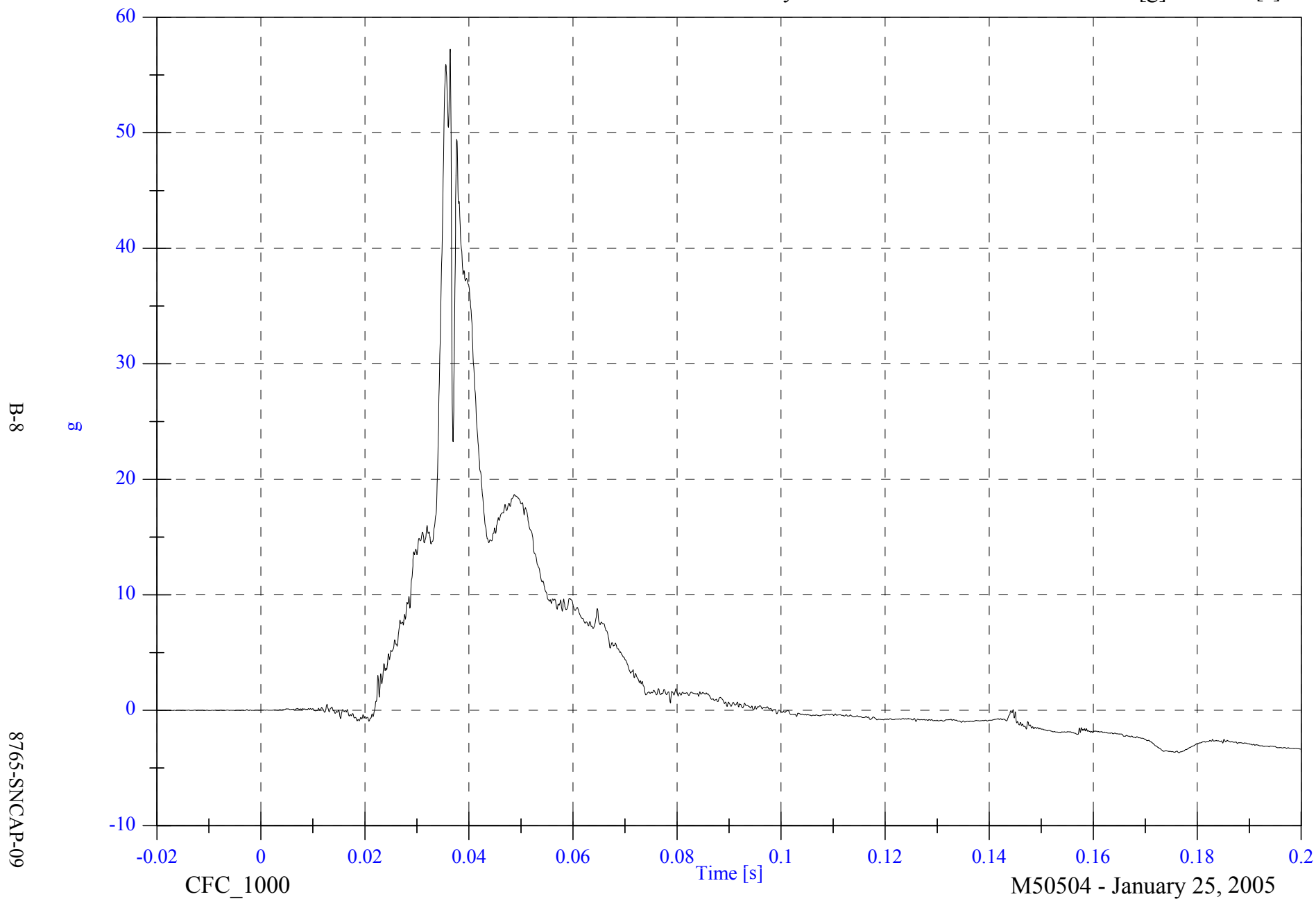
M50504 - January 25, 2005

2005 SNCAP Test 4 - 2005 Suzuki Verona

V2P1 Head y

Max: 57.2 [g] at 0.036 [s]

Min: -3.7 [g] at 0.176 [s]

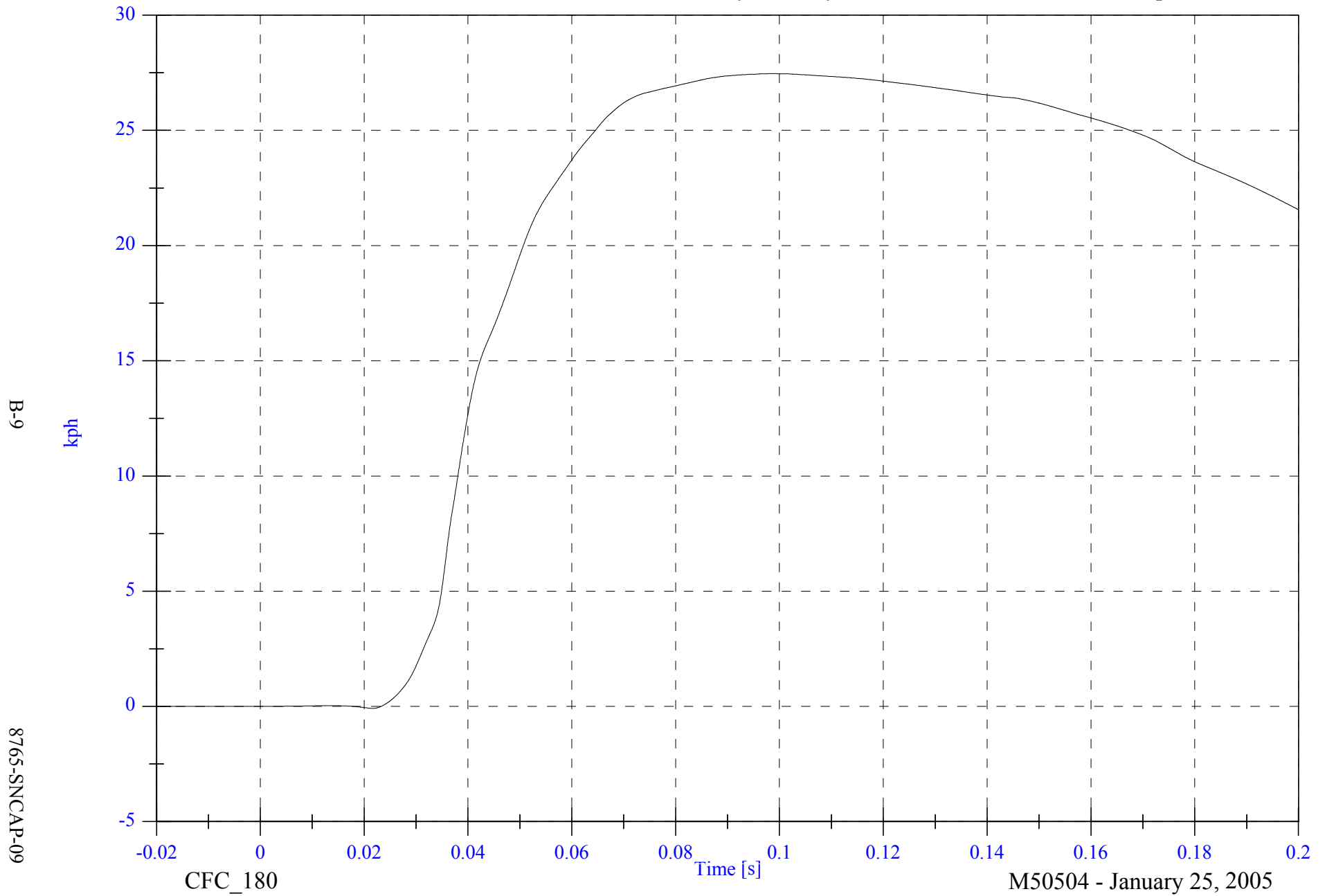


2005 SNCAP Test 4 - 2005 Suzuki Verona

V2P1 Head y Velocity

Max: 27.5 [kph] at 0.099 [s]

Min: -0.1 [kph] at 0.022 [s]



2005 SNCAP Test 4 - 2005 Suzuki Verona

V2P1 Head z

Max: 26.7 [g] at 0.038 [s]

Min: -0.3 [g] at 0.016 [s]



2005 SNCAP Test 4 - 2005 Suzuki Verona

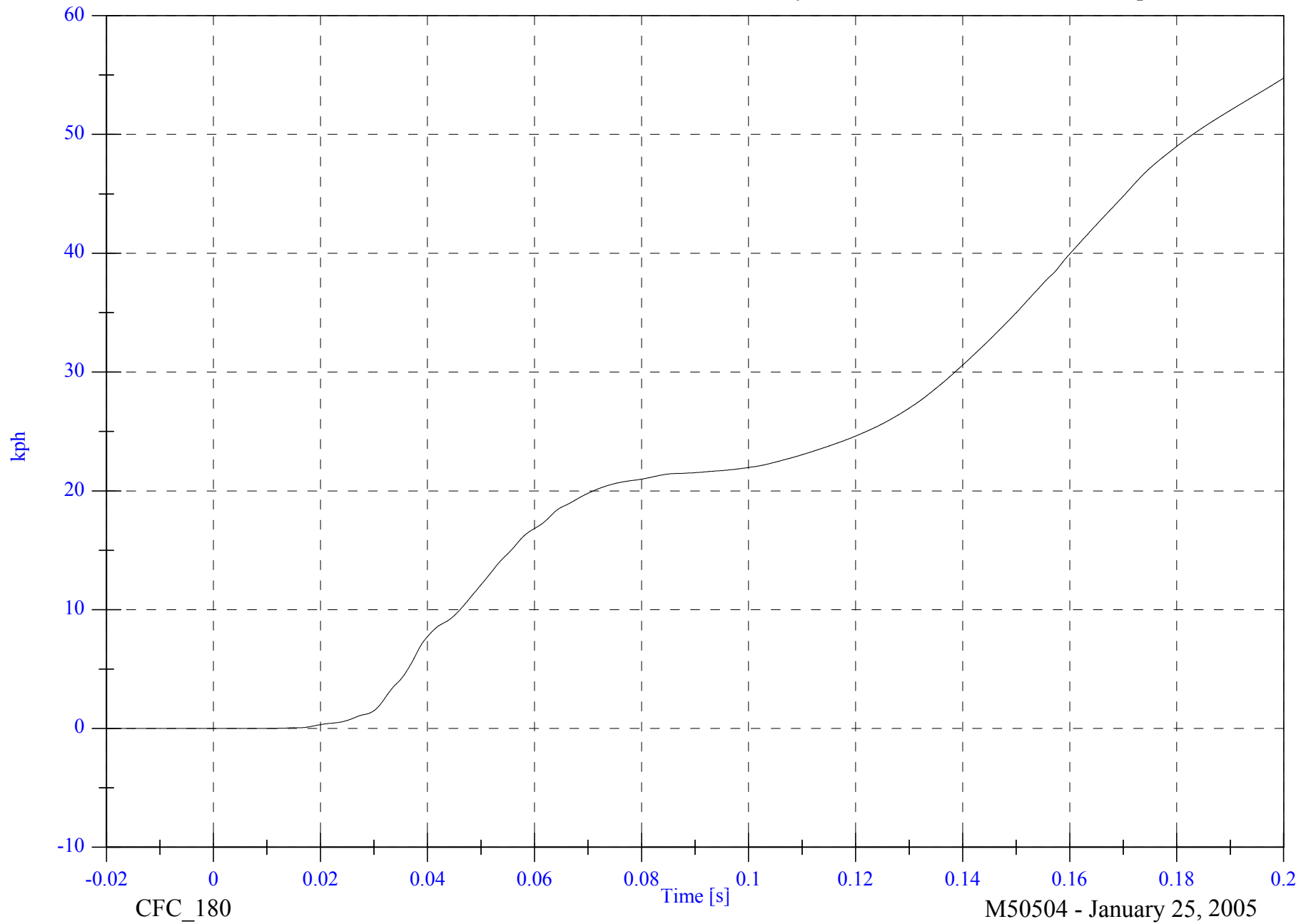
V2P1 Head z Velocity

Max: 54.7 [kph] at 0.200 [s]

Min: -0.0 [kph] at 0.005 [s]

B-11

8765-SNCAP-09



2005 SNCAP Test 4 - 2005 Suzuki Verona

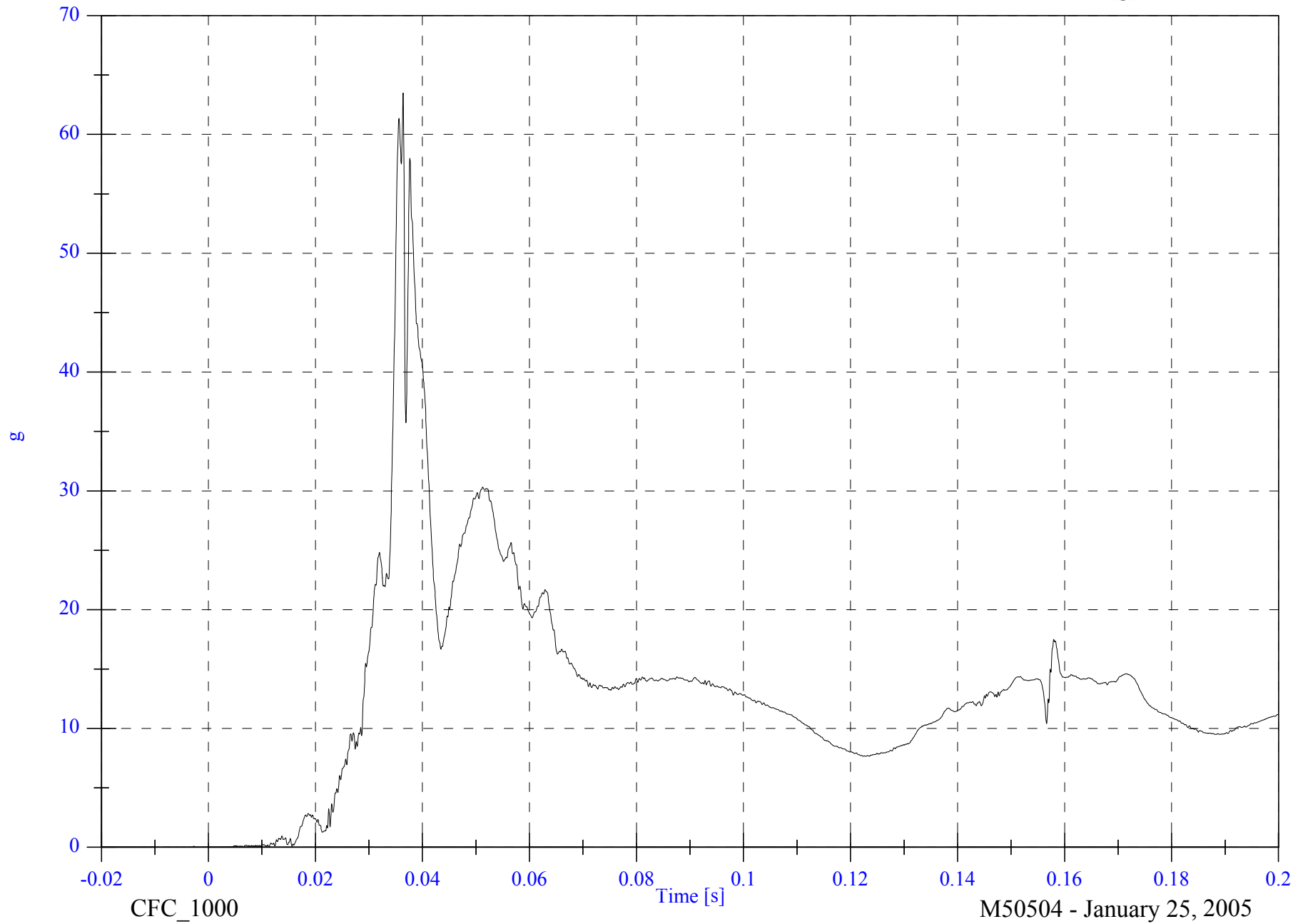
V2P1 Head Resultant

Max: 63.5 [g] at 0.036 [s]

Min: 0.0 [g] at -0.011 [s]

B-12

8765-SNCAP-09

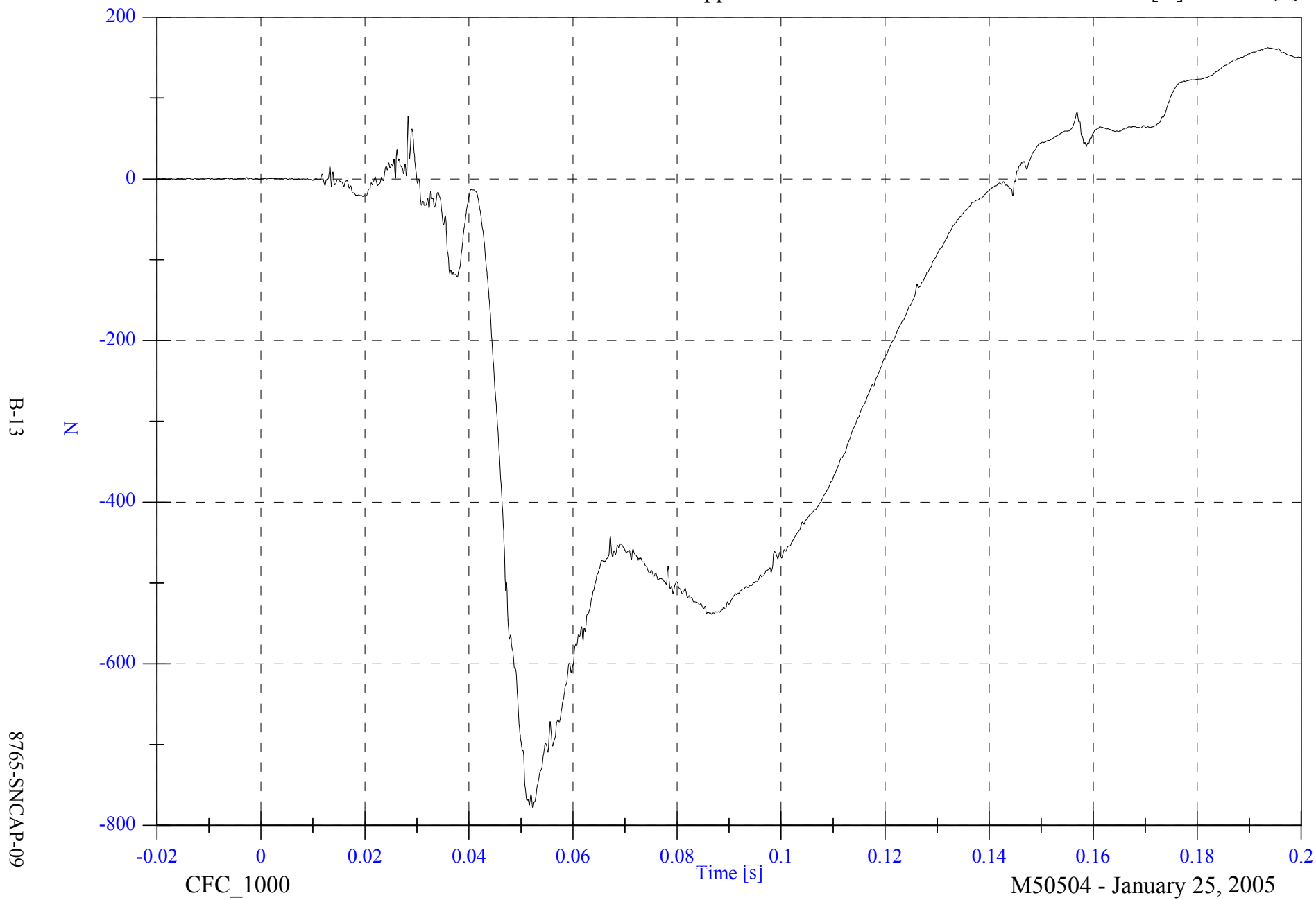


2005 SNCAP Test 4 - 2005 Suzuki Verona

V2P1 Upper Neck Fx

Max: 162.3 [N] at 0.194 [s]

Min: -778.5 [N] at 0.052 [s]



2005 SNCAP Test 4 - 2005 Suzuki Verona

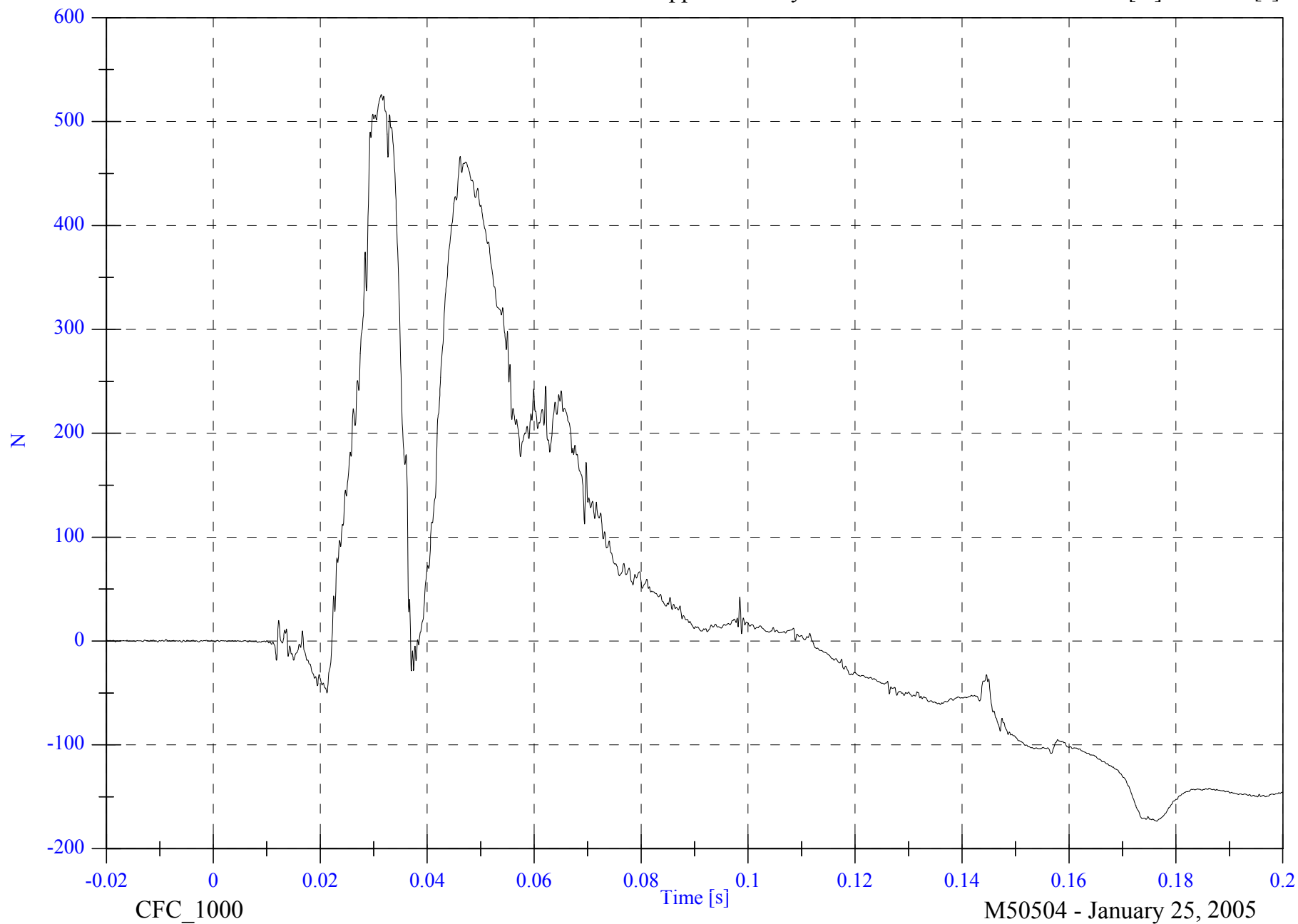
V2P1 Upper Neck Fy

Max: 526.1 [N] at 0.031 [s]

Min: -173.5 [N] at 0.176 [s]

B-14

8765-SNCAP-09



2005 SNCAP Test 4 - 2005 Suzuki Verona

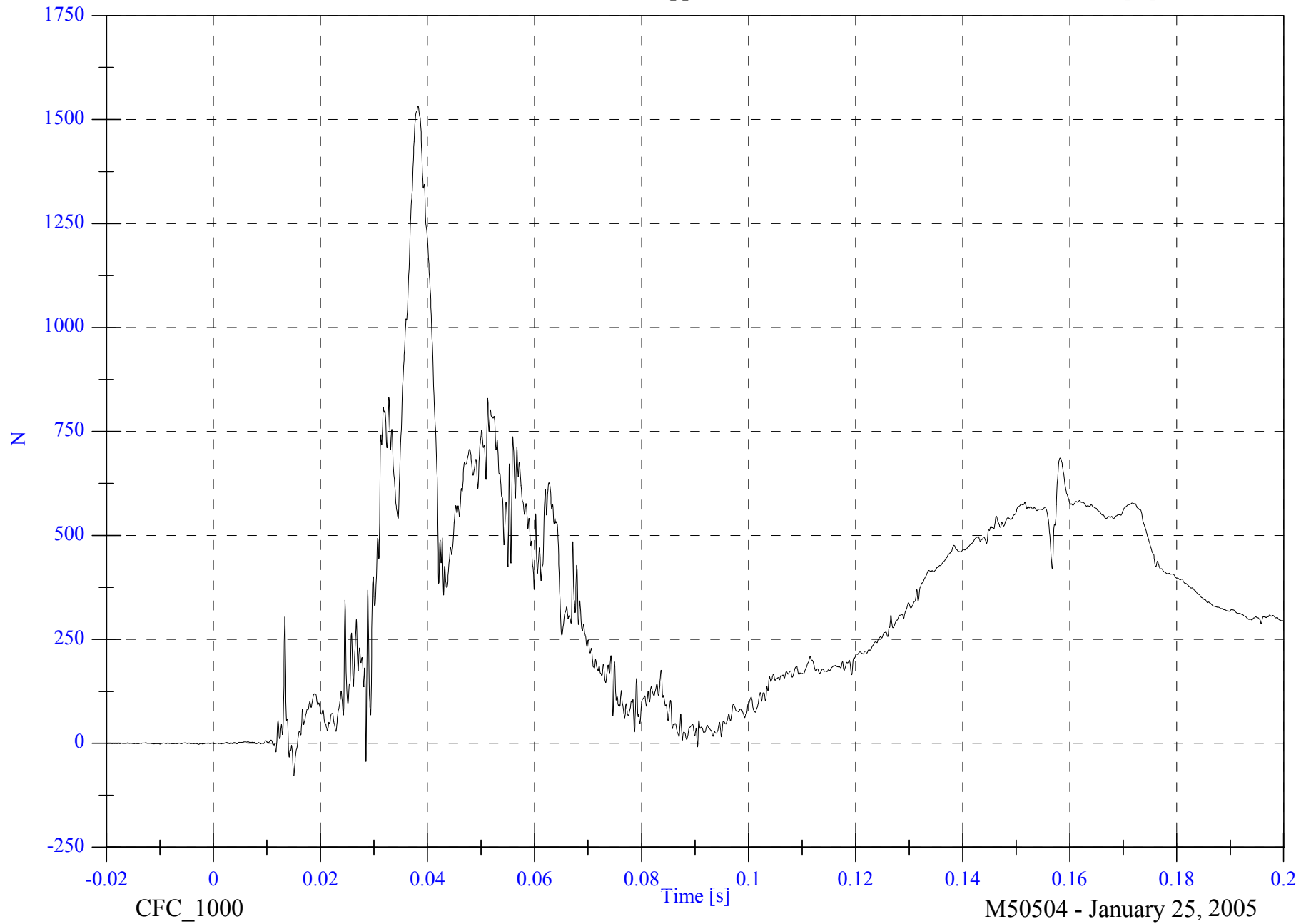
V2P1 Upper Neck Fz

Max: 1532.3 [N] at 0.038 [s]

Min: -78.1 [N] at 0.015 [s]

B-15

8765-SNCAP-09

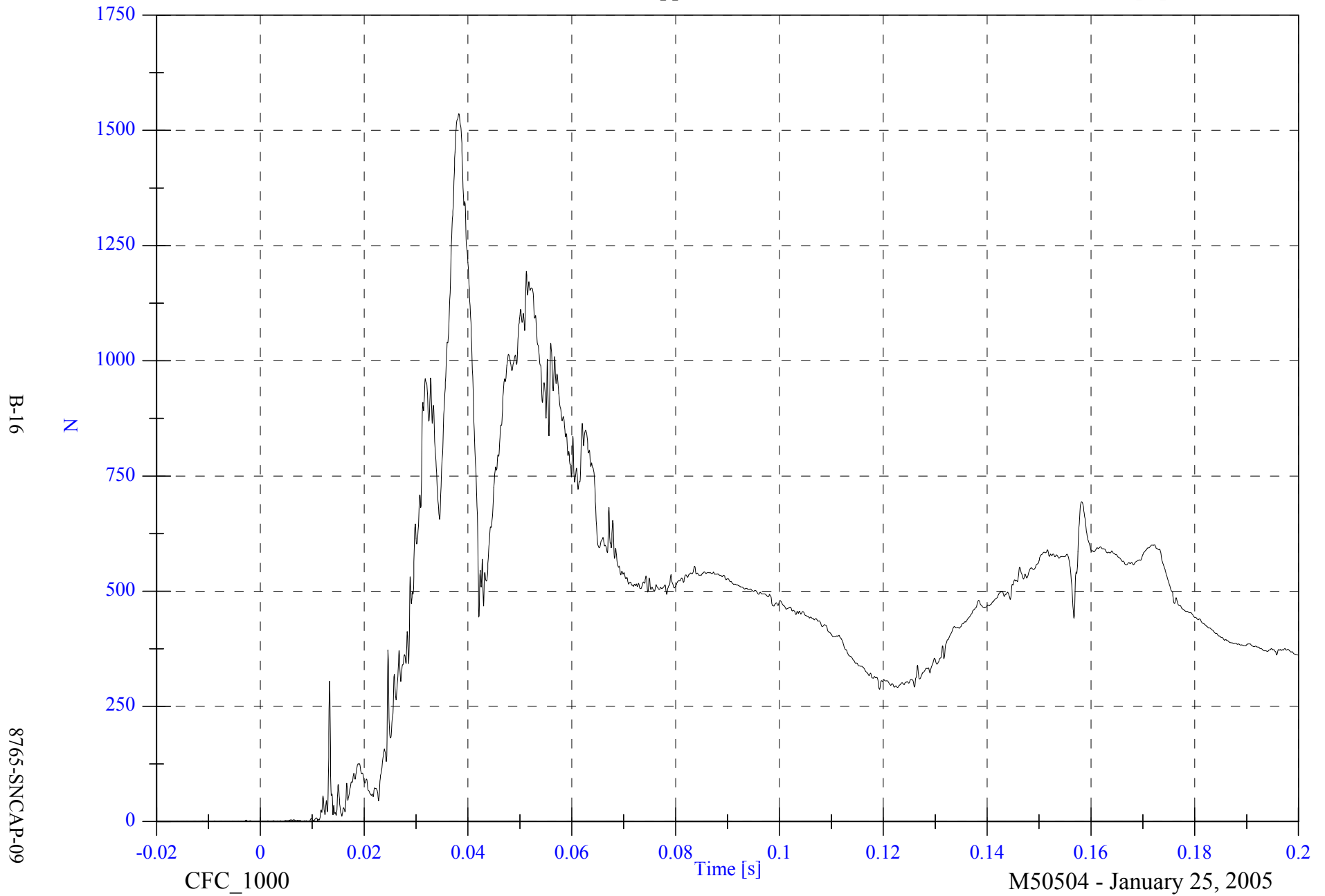


2005 SNCAP Test 4 - 2005 Suzuki Verona

V2P1 Upper Neck F Resultant

Max: 1536.2 [N] at 0.038 [s]

Min: 0.1 [N] at -0.016 [s]

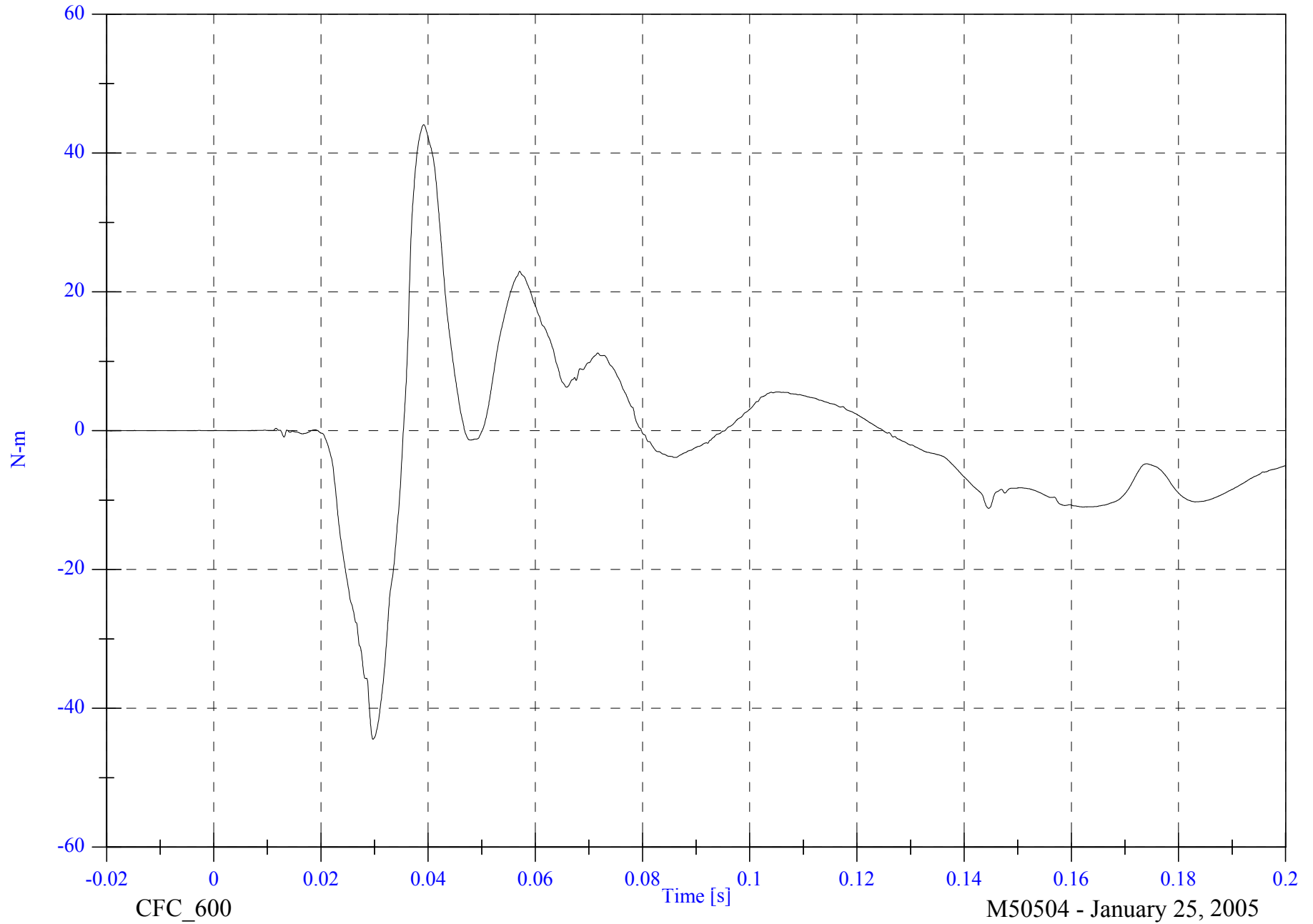


2005 SNCAP Test 4 - 2005 Suzuki Verona

V2P1 Upper Neck Mx

Max: 44.1 [N-m] at 0.039 [s]

Min: -44.4 [N-m] at 0.030 [s]



B-17

8765-SNCAP-09

2005 SNCAP Test 4 - 2005 Suzuki Verona

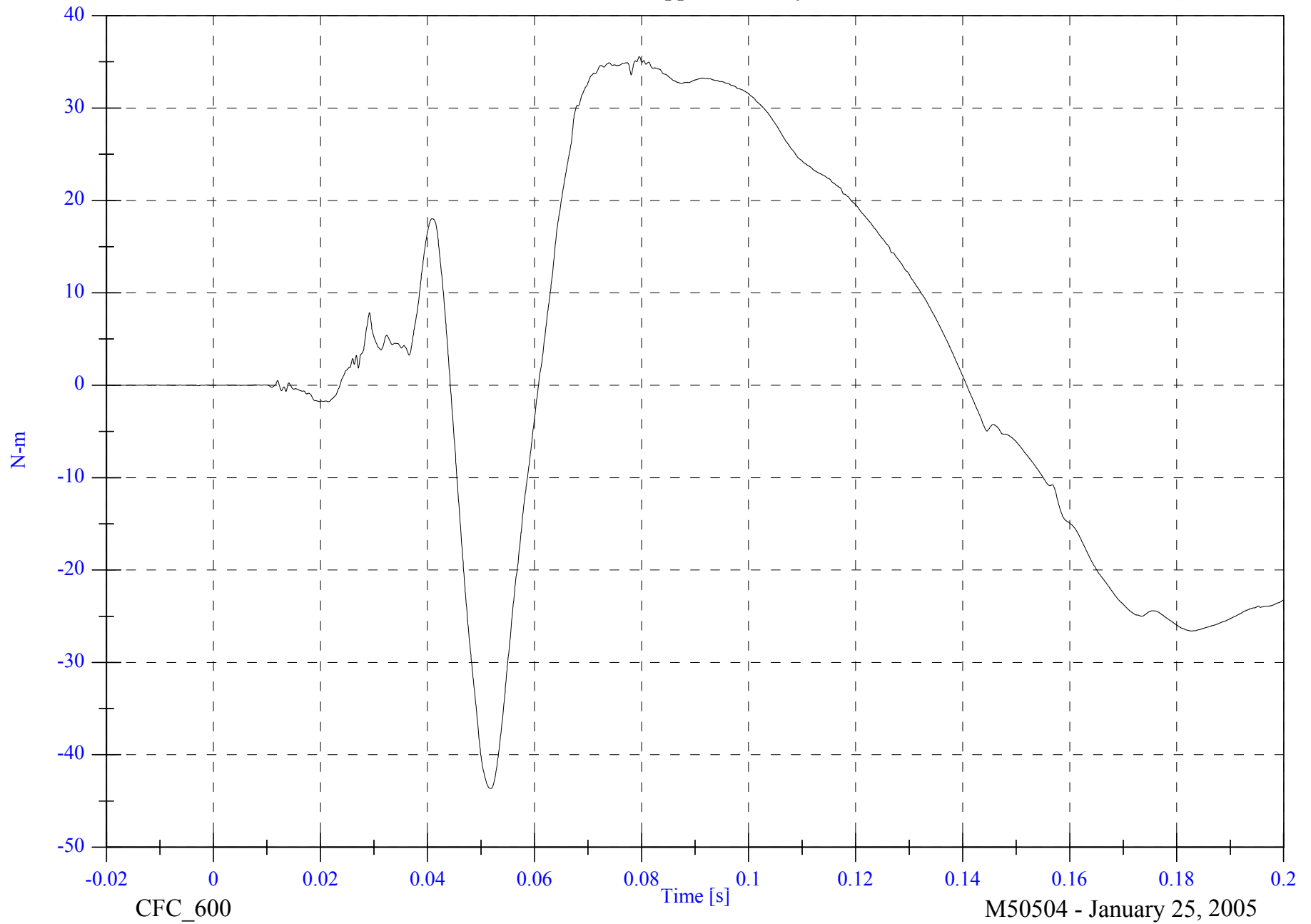
V2P1 Upper Neck My

Max: 35.6 [N-m] at 0.080 [s]

Min: -43.6 [N-m] at 0.052 [s]

B-18

8765-SNCAP-09

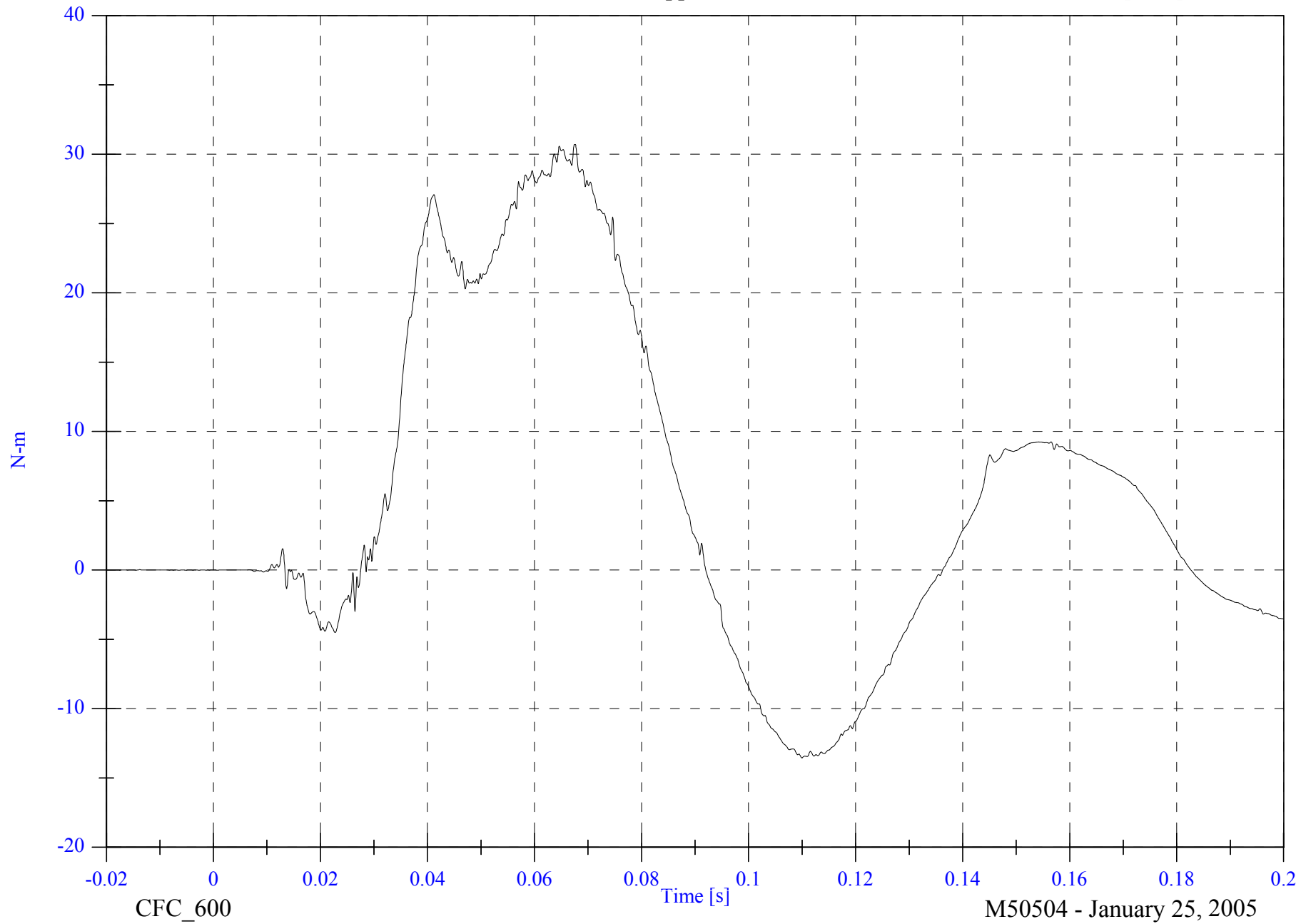


2005 SNCAP Test 4 - 2005 Suzuki Verona

V2P1 Upper Neck Mz

Max: 30.7 [N-m] at 0.068 [s]

Min: -13.5 [N-m] at 0.110 [s]



B-19

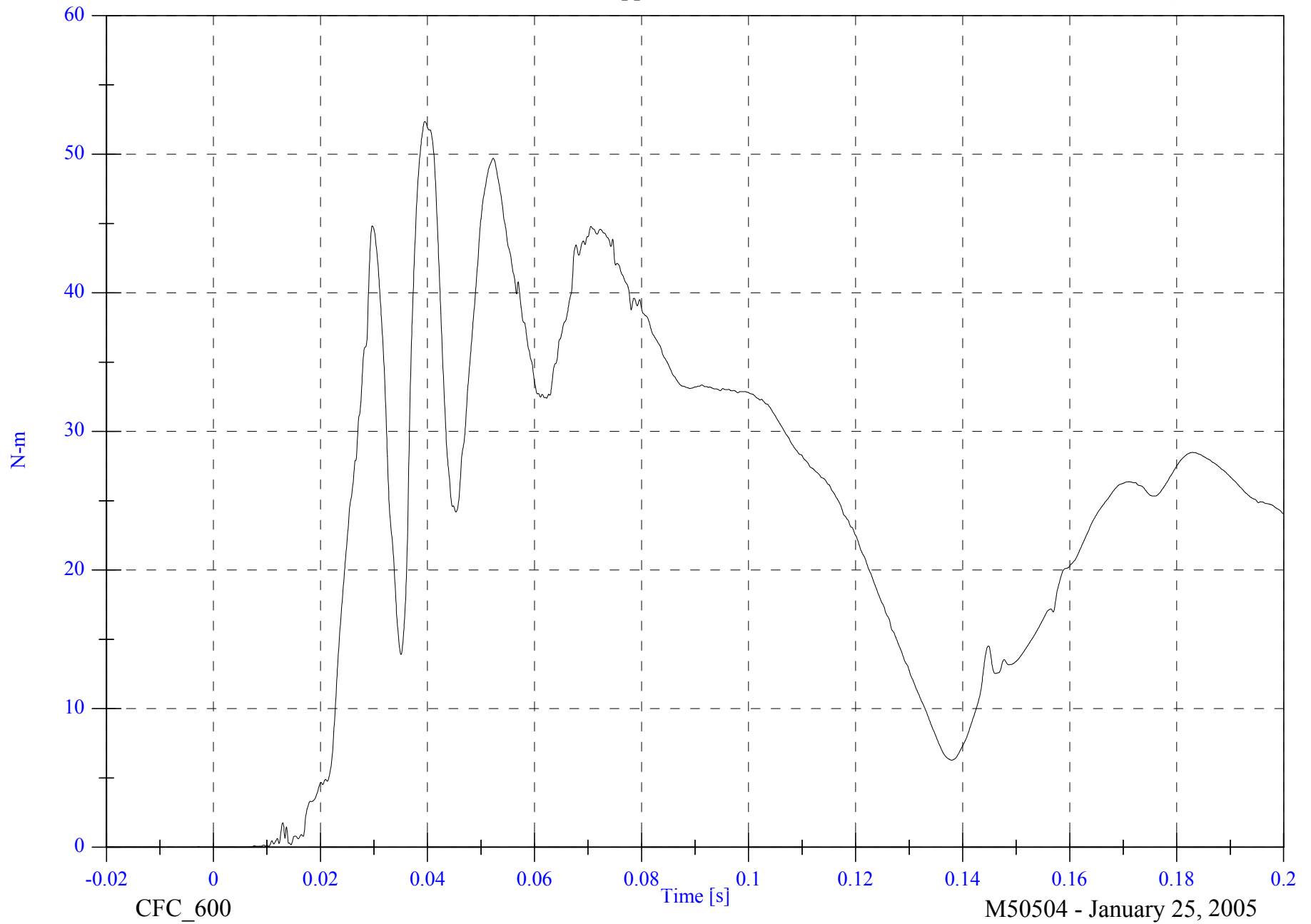
8765-SNCAP-09

2005 SNCAP Test 4 - 2005 Suzuki Verona

V2P1 Upper Neck M Resultant

Max: 52.4 [N-m] at 0.039 [s]

Min: 0.0 [N-m] at -0.004 [s]



B-20

8765-SNCAP-09

2005 SNCAP Test 4 - 2005 Suzuki Verona

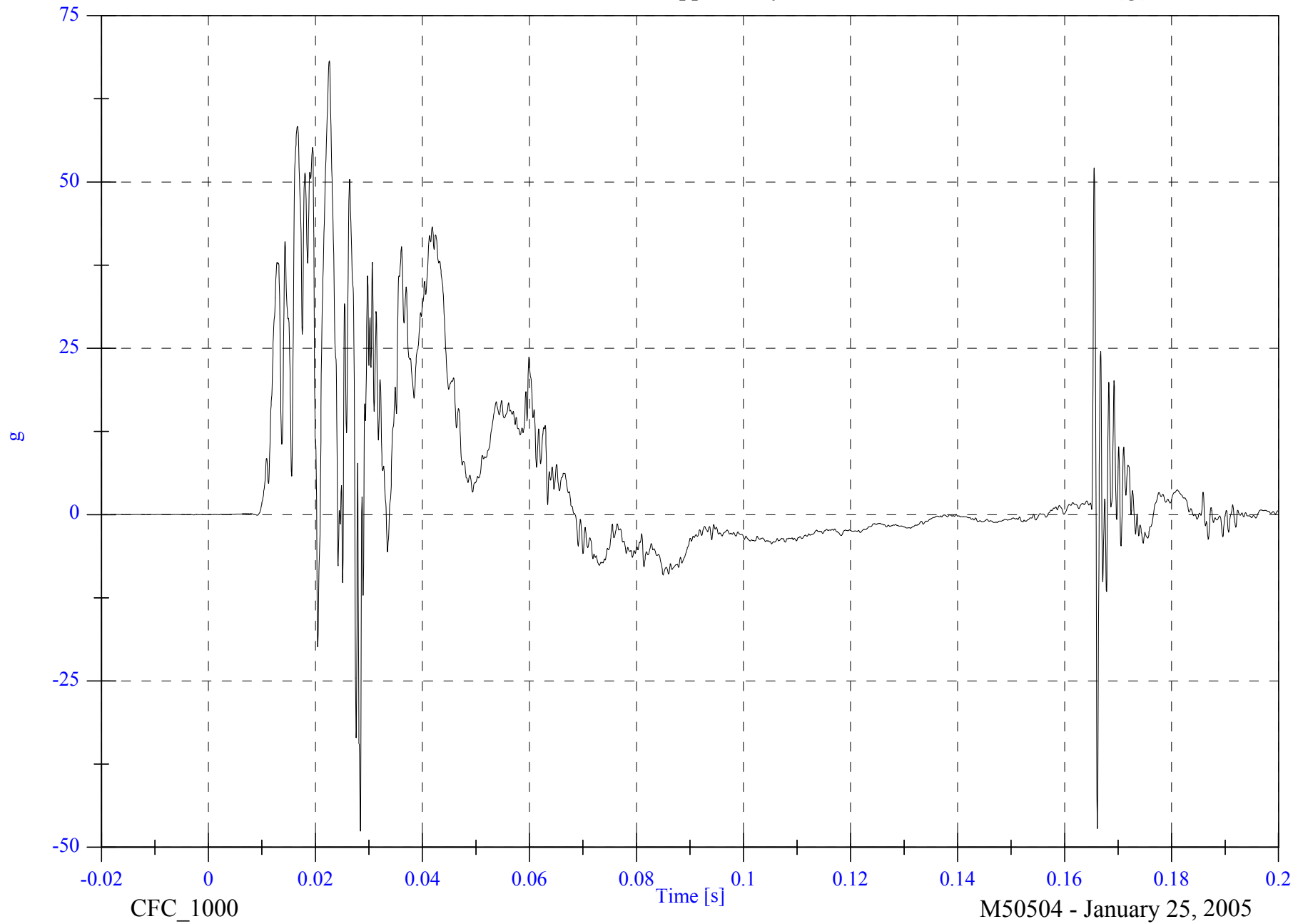
V2P1 Upper Rib y

Max: 68.2 [g] at 0.023 [s]

Min: -47.6 [g] at 0.028 [s]

B-21

8765-SNCAP-09

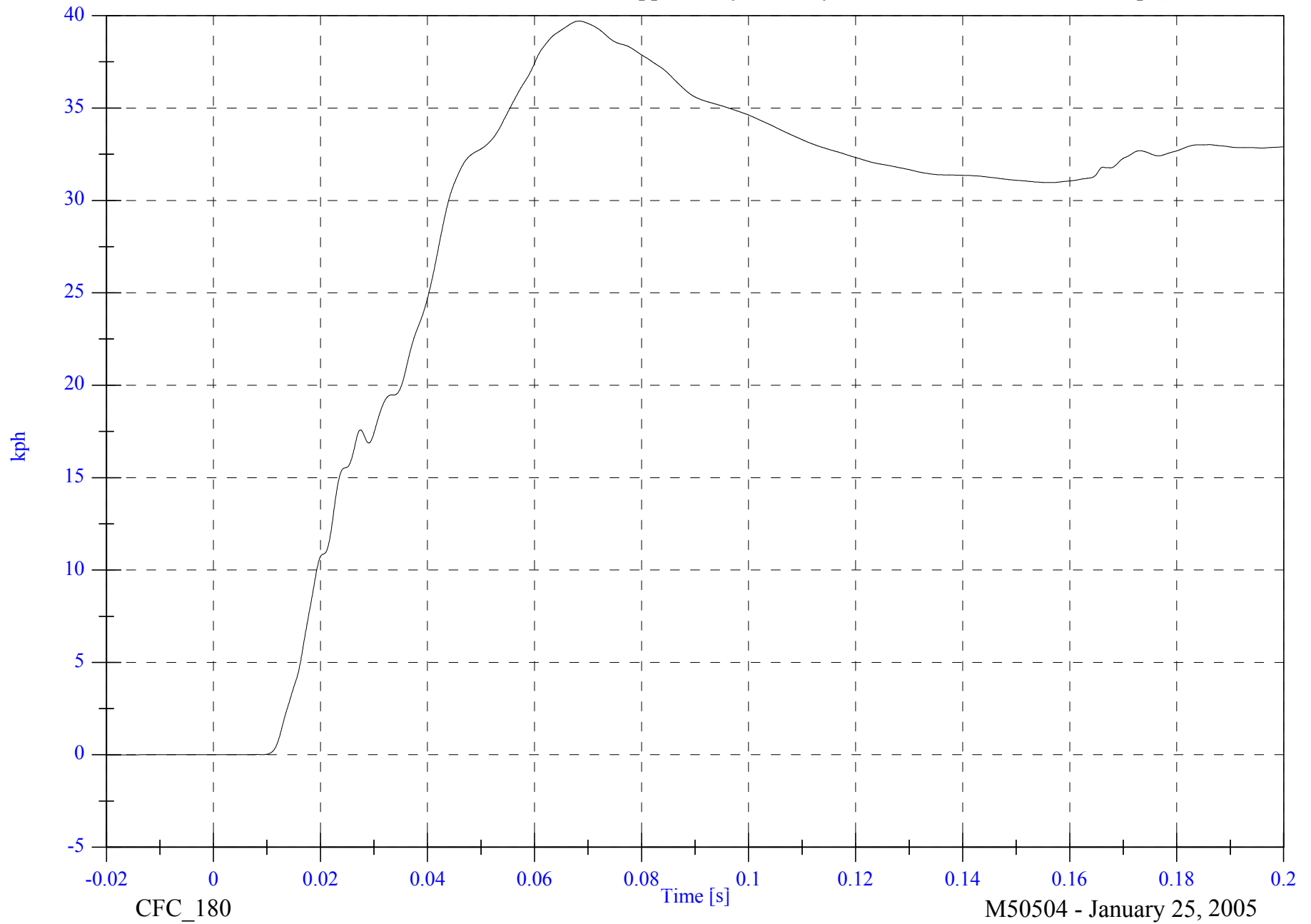


2005 SNCAP Test 4 - 2005 Suzuki Verona

V2P1 Upper Rib y Velocity

Max: 39.7 [kph] at 0.068 [s]

Min: -0.0 [kph] at -0.020 [s]



B-22

8765-SNCAP-09

2005 SNCAP Test 4 - 2005 Suzuki Verona

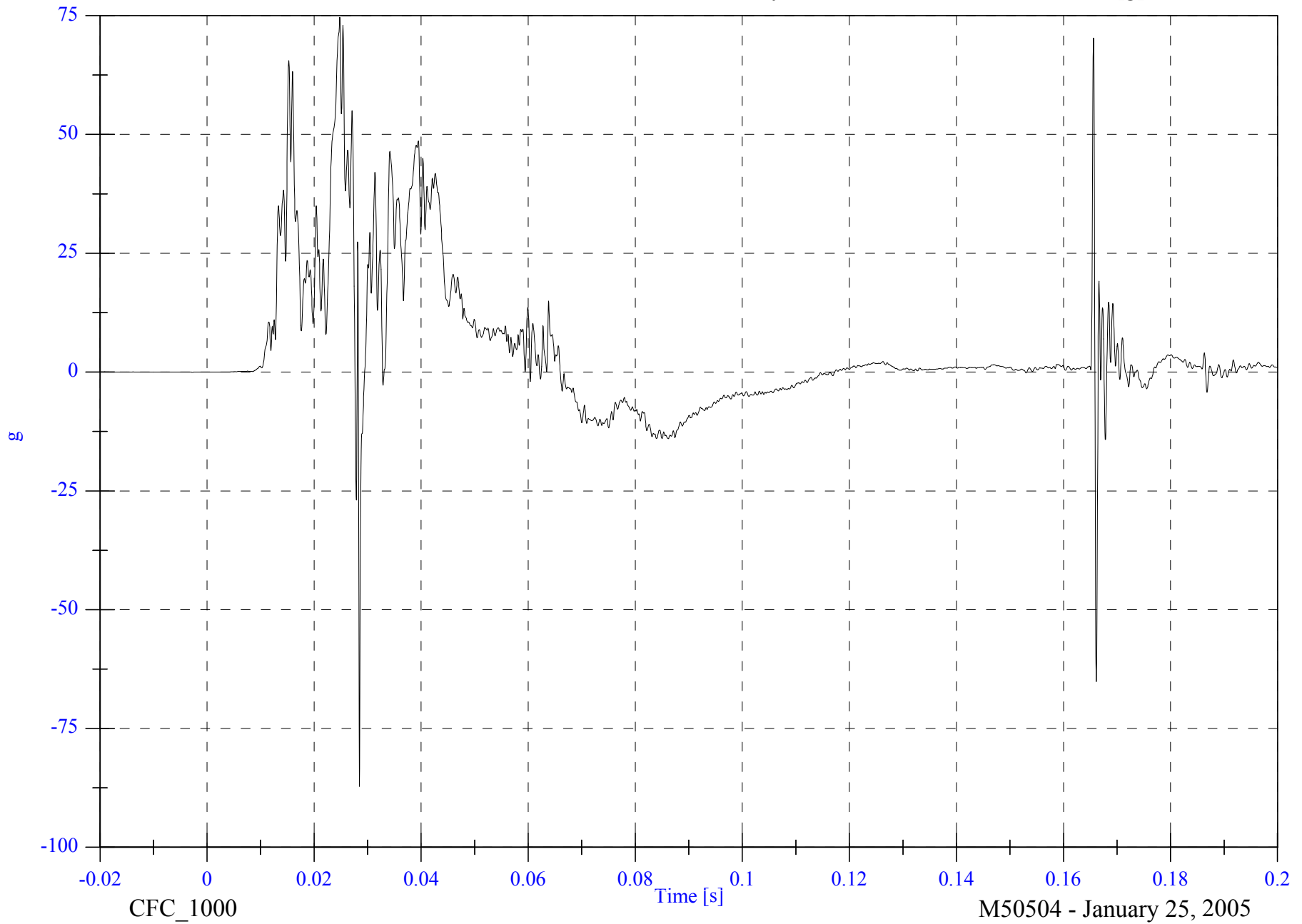
V2P1 Lower Rib y

Max: 74.6 [g] at 0.025 [s]

Min: -87.2 [g] at 0.028 [s]

B-23

8765-SNCAP-09

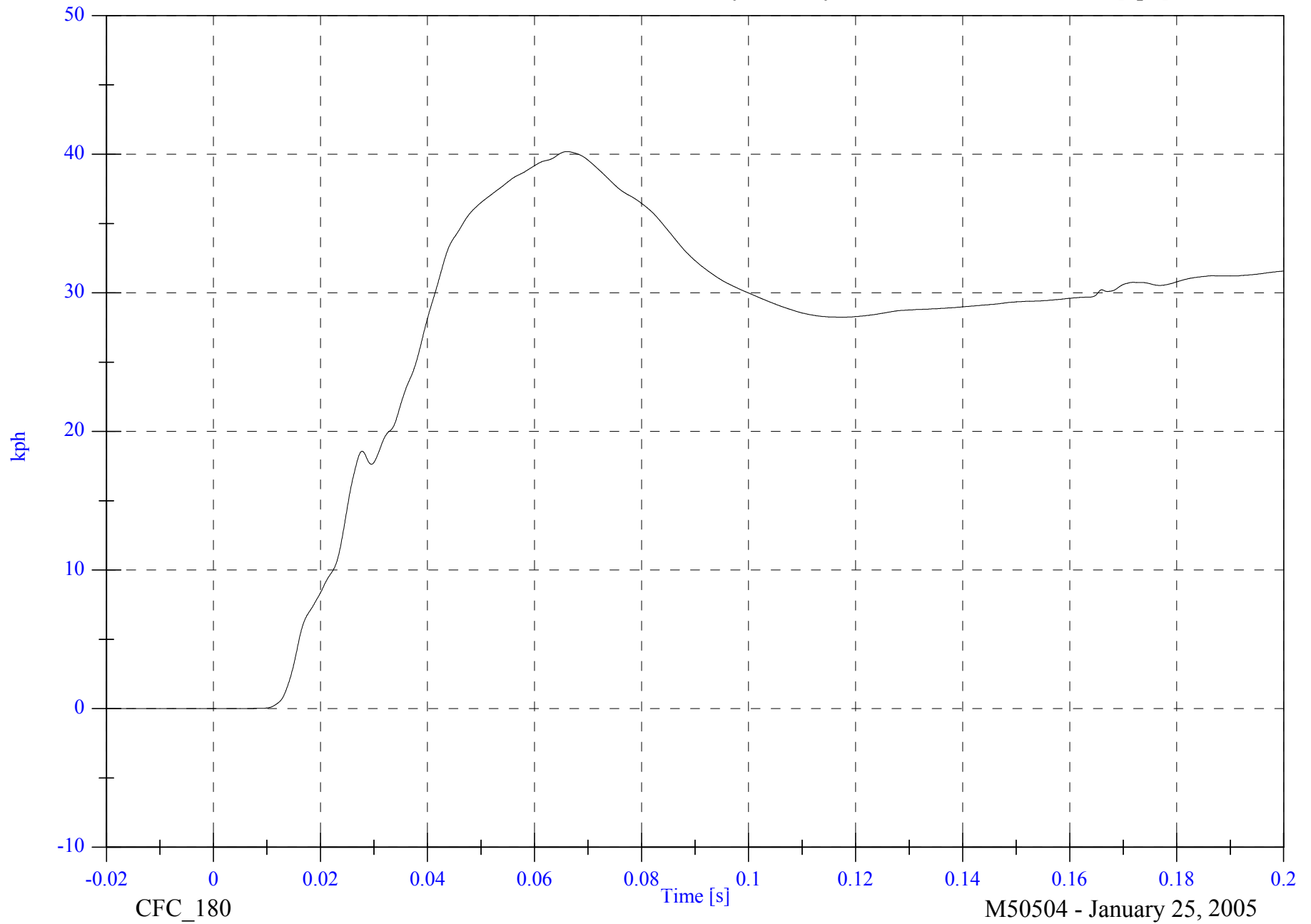


2005 SNCAP Test 4 - 2005 Suzuki Verona

V2P1 Lower Rib y Velocity

Max: 40.2 [kph] at 0.066 [s]

Min: -0.0 [kph] at -0.020 [s]



B-24

8765-SNCAP-09

2005 SNCAP Test 4 - 2005 Suzuki Verona

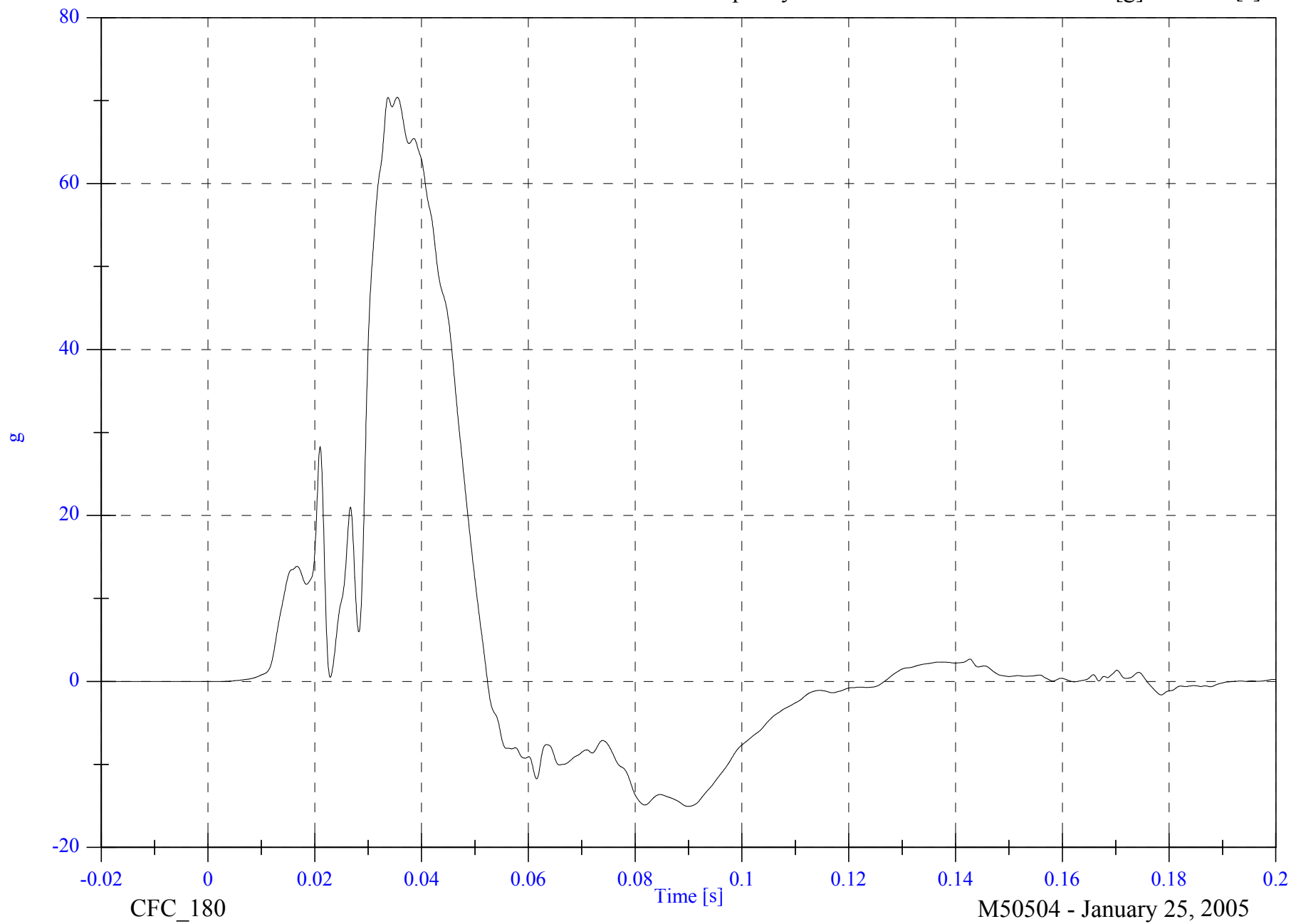
V2P1 Lower Spine y

Max: 70.4 [g] at 0.035 [s]

Min: -15.1 [g] at 0.090 [s]

B-25

8765-SNCAP-09

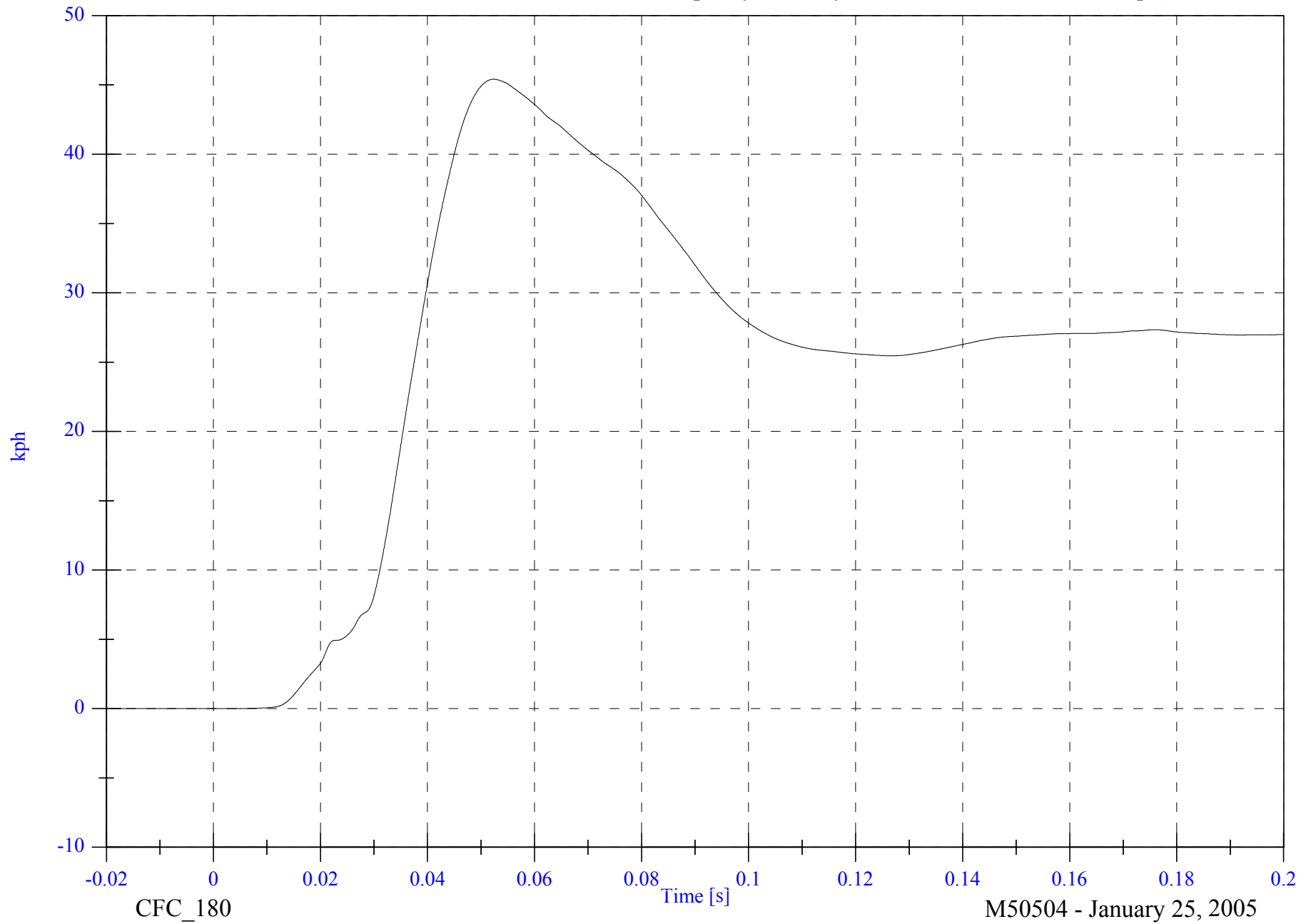


2005 SNCAP Test 4 - 2005 Suzuki Verona

V2P1 Lower Spine y Velocity

Max: 45.4 [kph] at 0.052 [s]

Min: -0.0 [kph] at -0.017 [s]



B-26

8765-SNCAP-09

2005 SNCAP Test 4 - 2005 Suzuki Verona

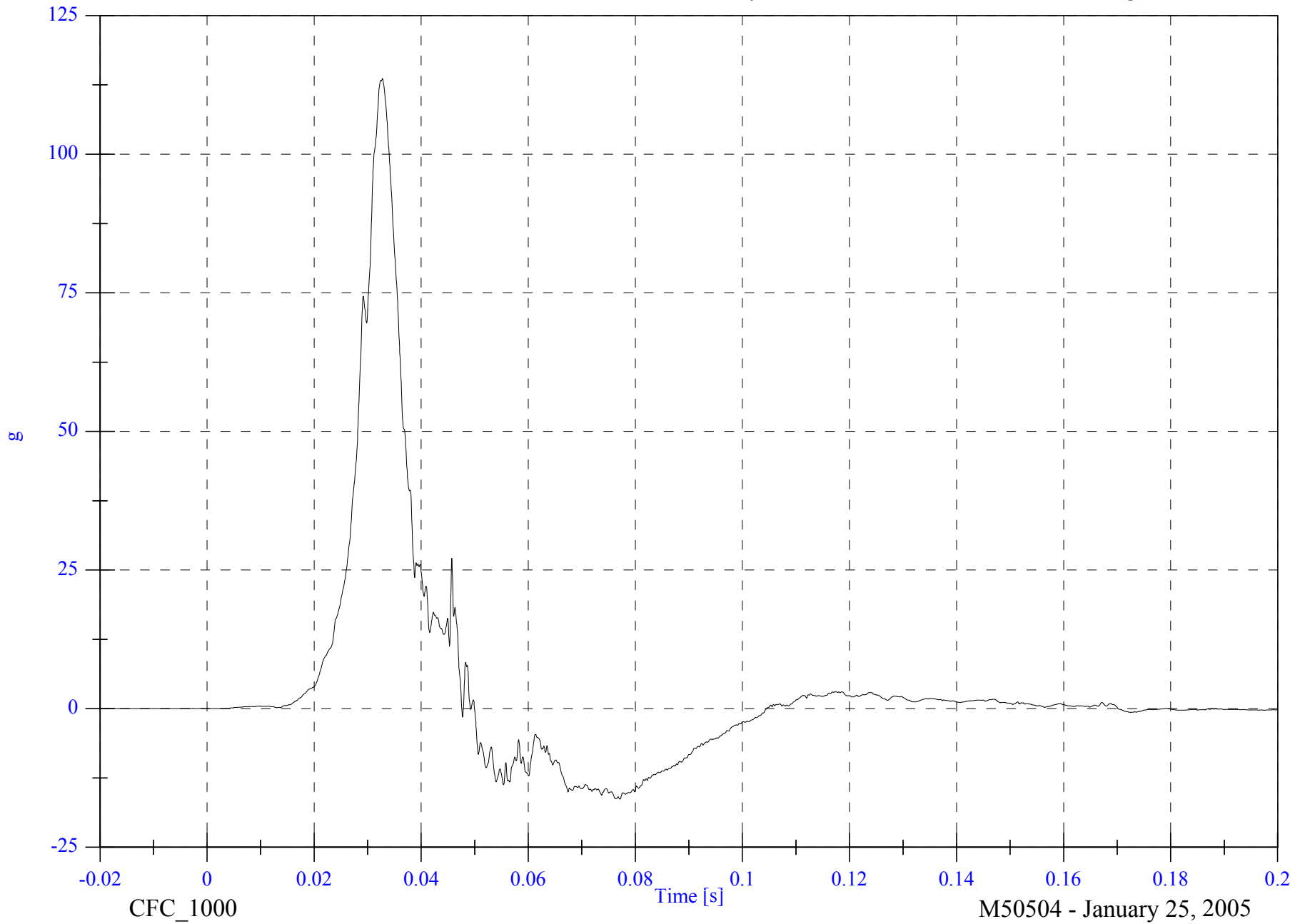
V2P1 Pelvic y

Max: 113.7 [g] at 0.033 [s]

Min: -16.3 [g] at 0.077 [s]

B-27

8765-SNCAP-09

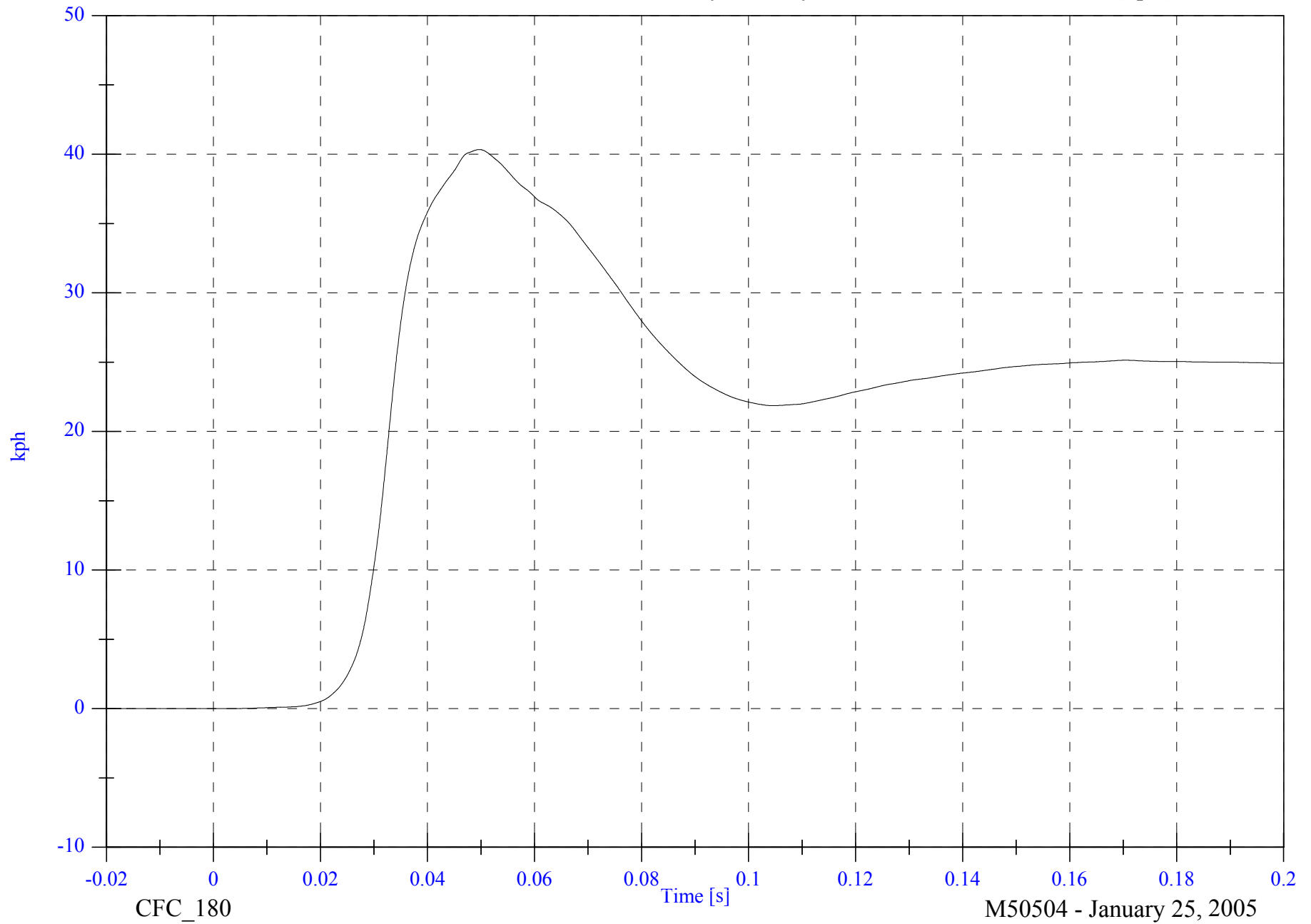


2005 SNCAP Test 4 - 2005 Suzuki Verona

V2P1 Pelvic y Velocity

Max: 40.3 [kph] at 0.050 [s]

Min: -0.0 [kph] at -0.019 [s]



2005 SNCAP Test 4 - 2005 Suzuki Verona

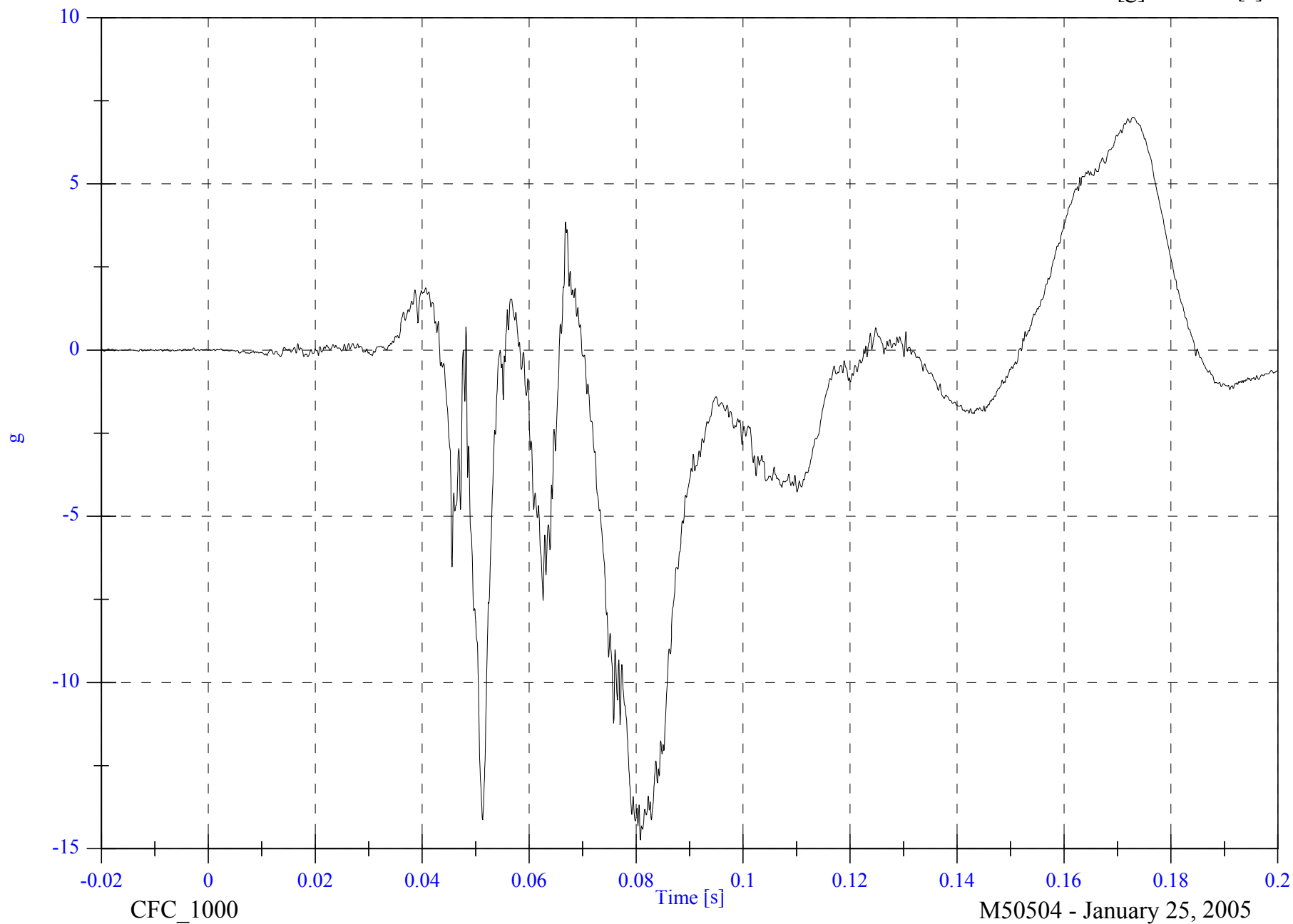
V2P4 Head x

Max: 7.0 [g] at 0.173 [s]

Min: -14.7 [g] at 0.081 [s]

B-29

8765-SNCAP-09

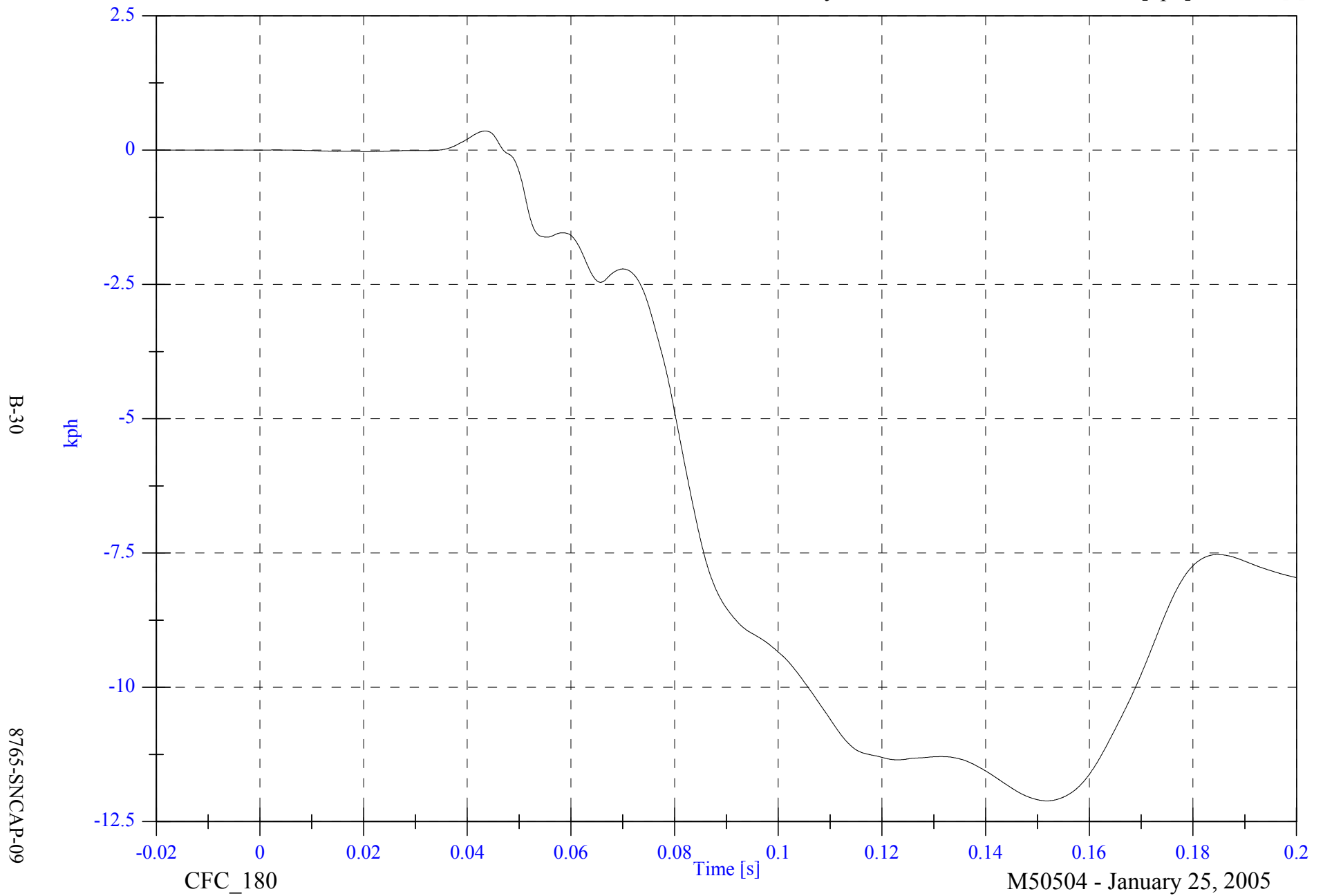


2005 SNCAP Test 4 - 2005 Suzuki Verona

V2P4 Head x Velocity

Max: 0.4 [kph] at 0.043 [s]

Min: -12.1 [kph] at 0.152 [s]



2005 SNCAP Test 4 - 2005 Suzuki Verona

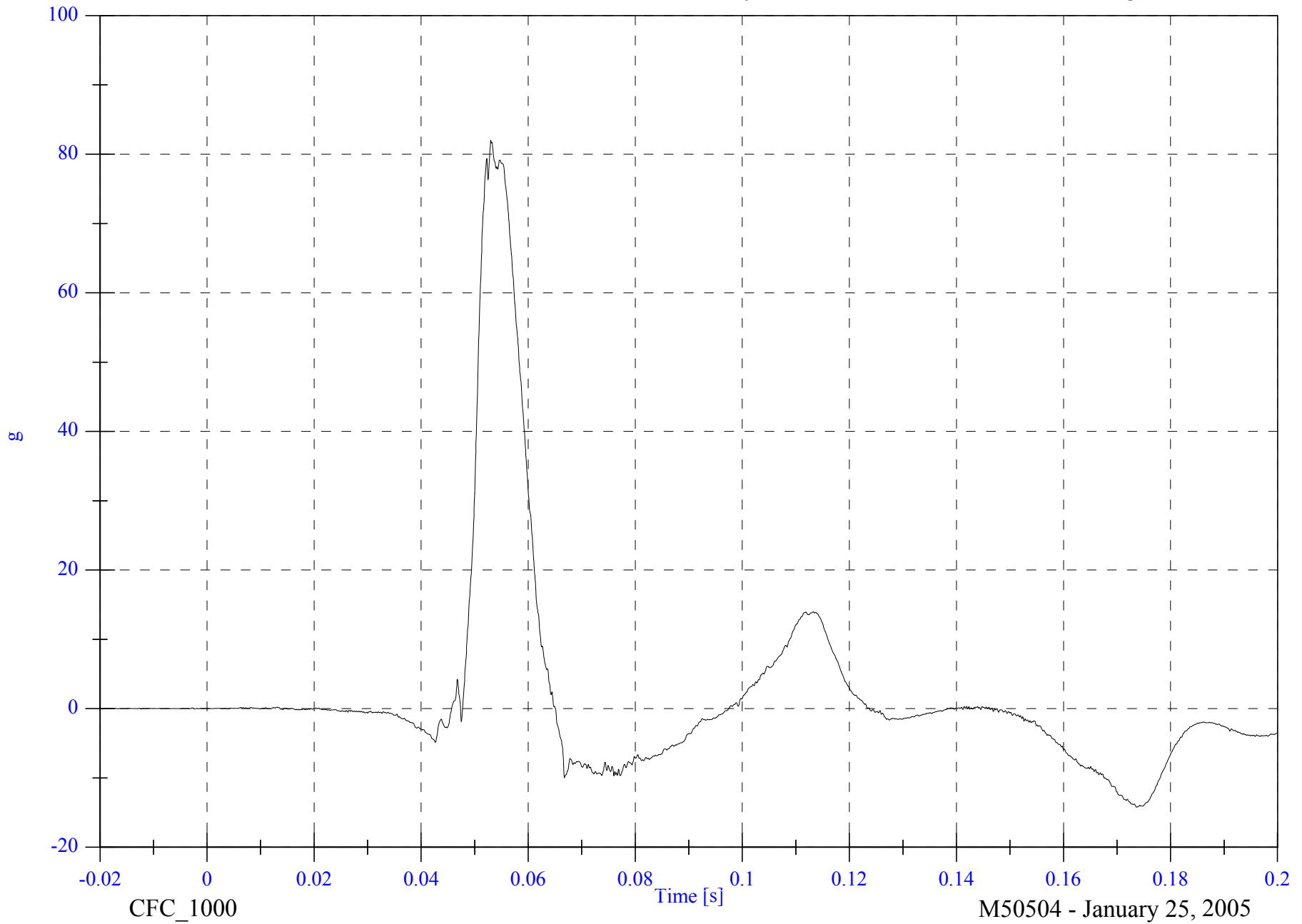
V2P4 Head y

Max: 82.0 [g] at 0.053 [s]

Min: -14.2 [g] at 0.174 [s]

B-31

8765-SNCAP-09

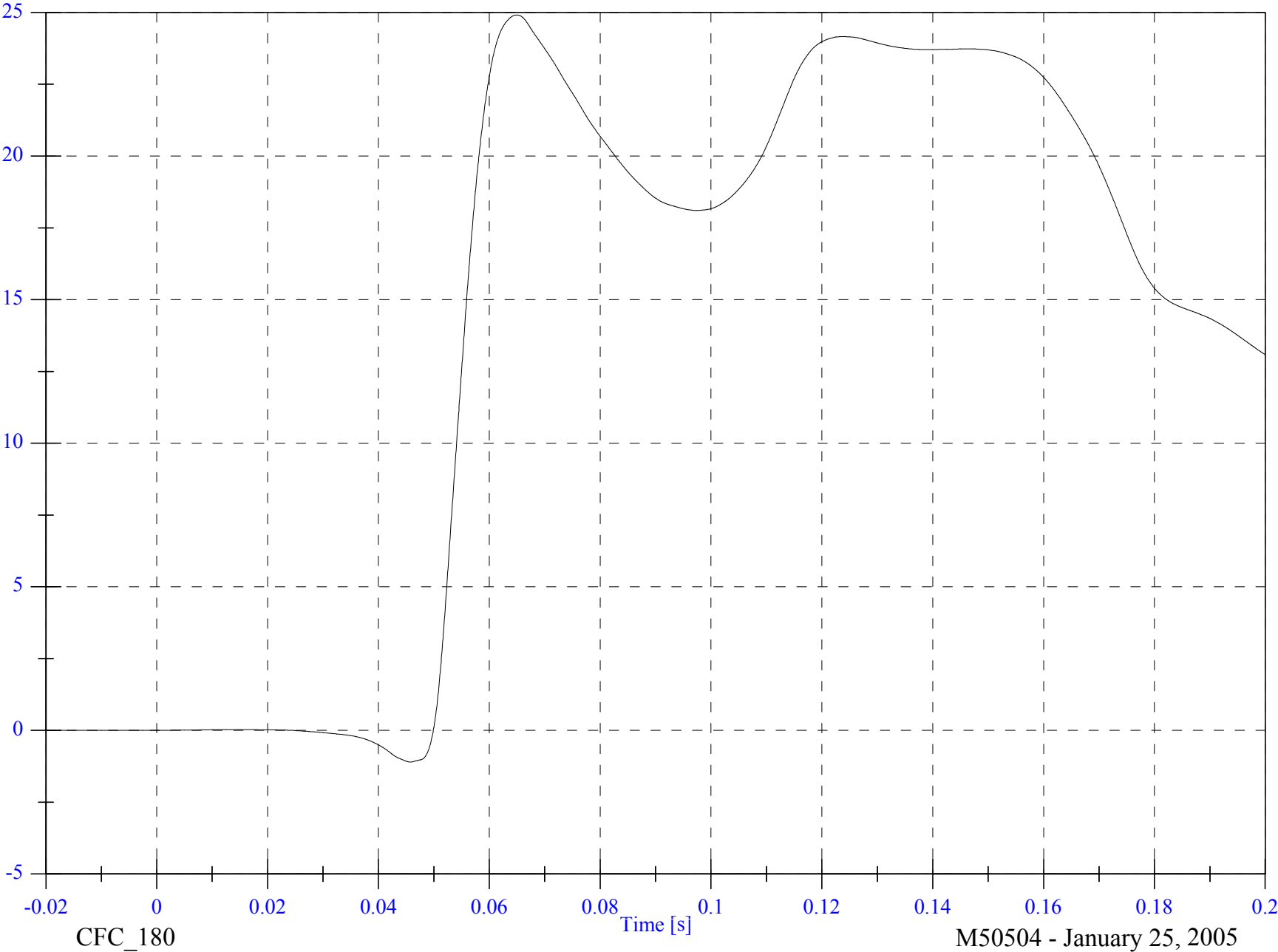


2005 SNCAP Test 4 - 2005 Suzuki Verona

V2P4 Head y Velocity

Max: 24.9 [kph] at 0.065 [s]

Min: -1.1 [kph] at 0.046 [s]



B-32

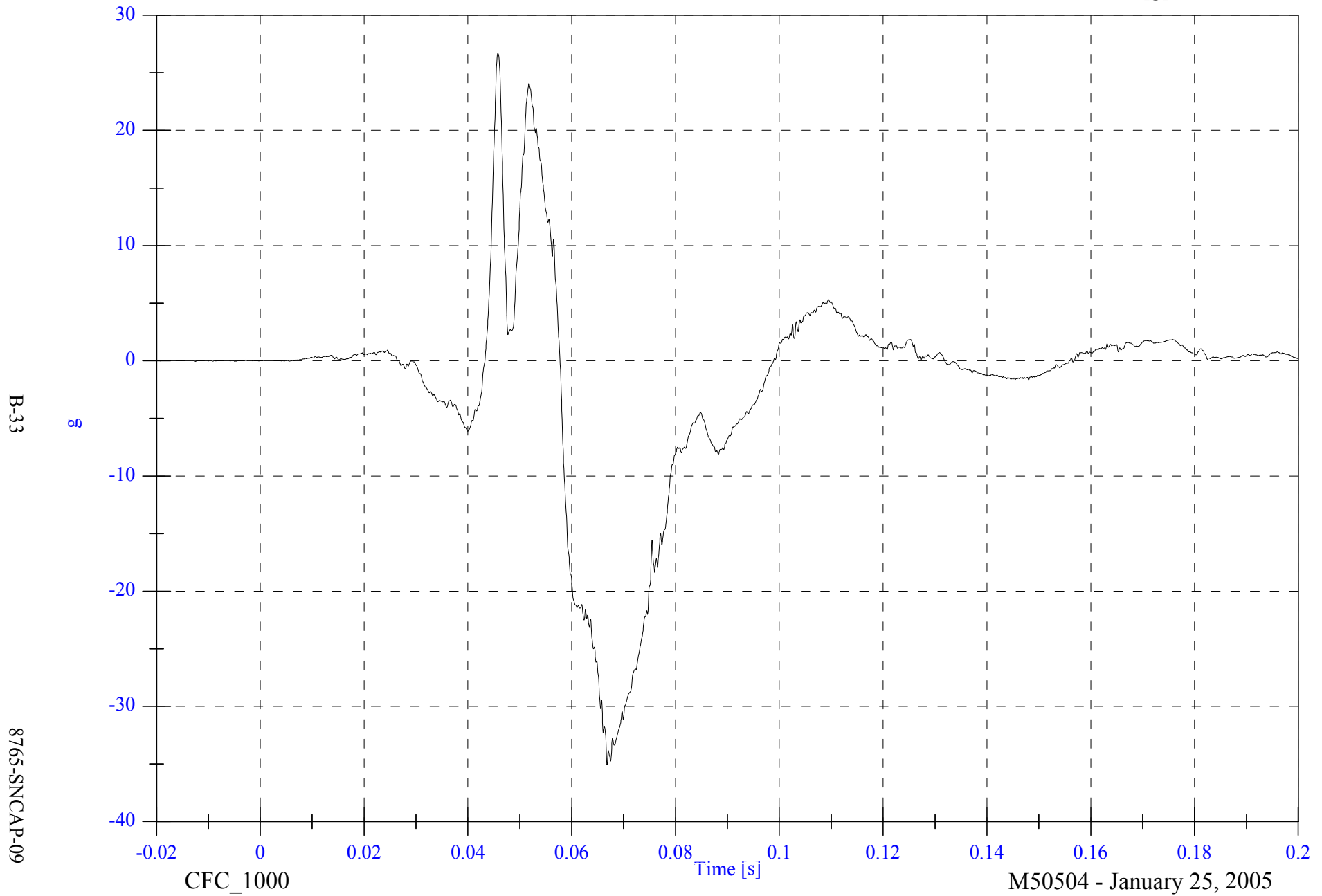
8765-SNCAP-09

2005 SNCAP Test 4 - 2005 Suzuki Verona

V2P4 Head z

Max: 26.7 [g] at 0.046 [s]

Min: -35.1 [g] at 0.067 [s]

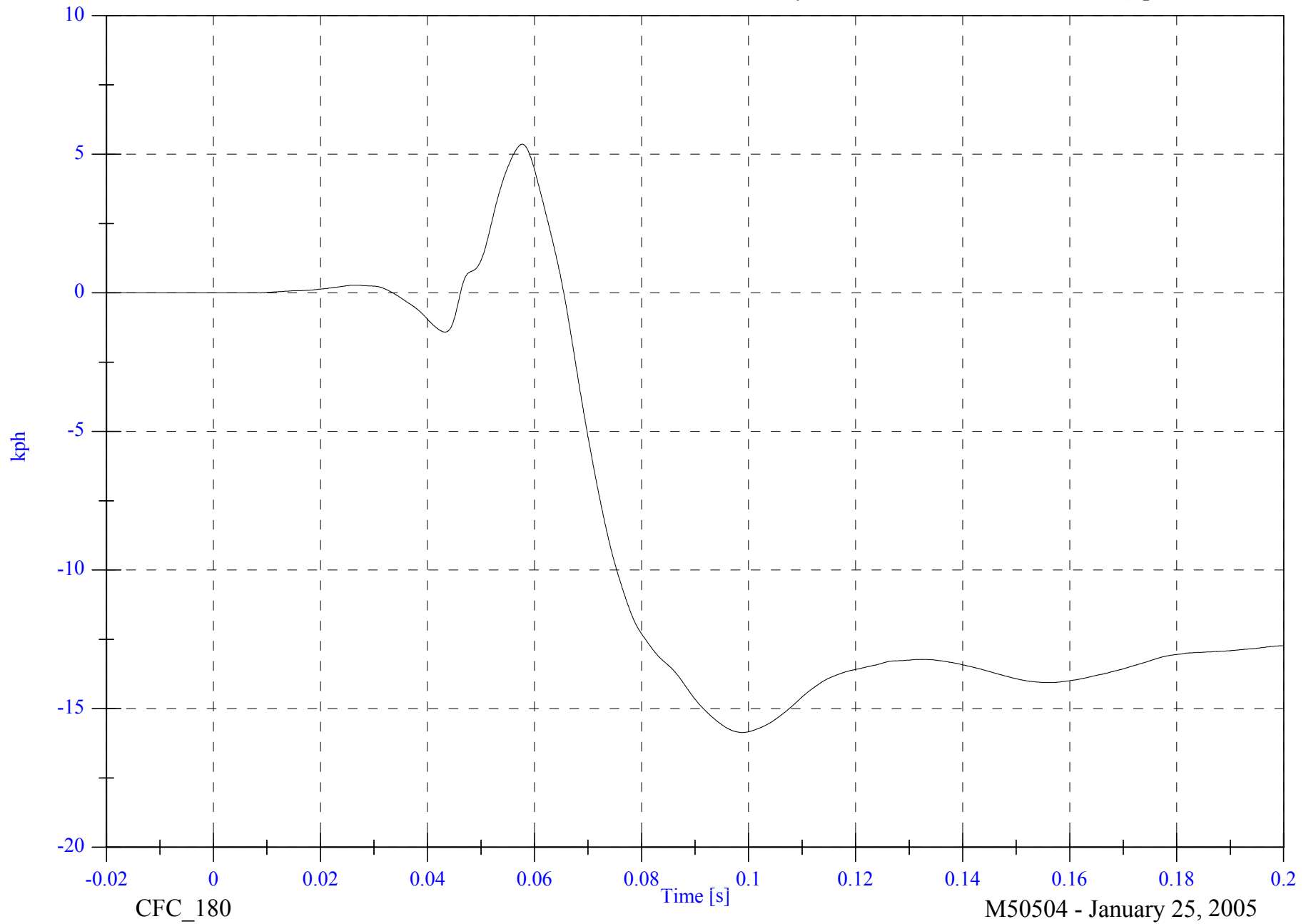


2005 SNCAP Test 4 - 2005 Suzuki Verona

V2P4 Head z Velocity

Max: 5.4 [kph] at 0.058 [s]

Min: -15.9 [kph] at 0.099 [s]



B-34

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2005 SNCAP Test 4 - 2005 Suzuki Verona

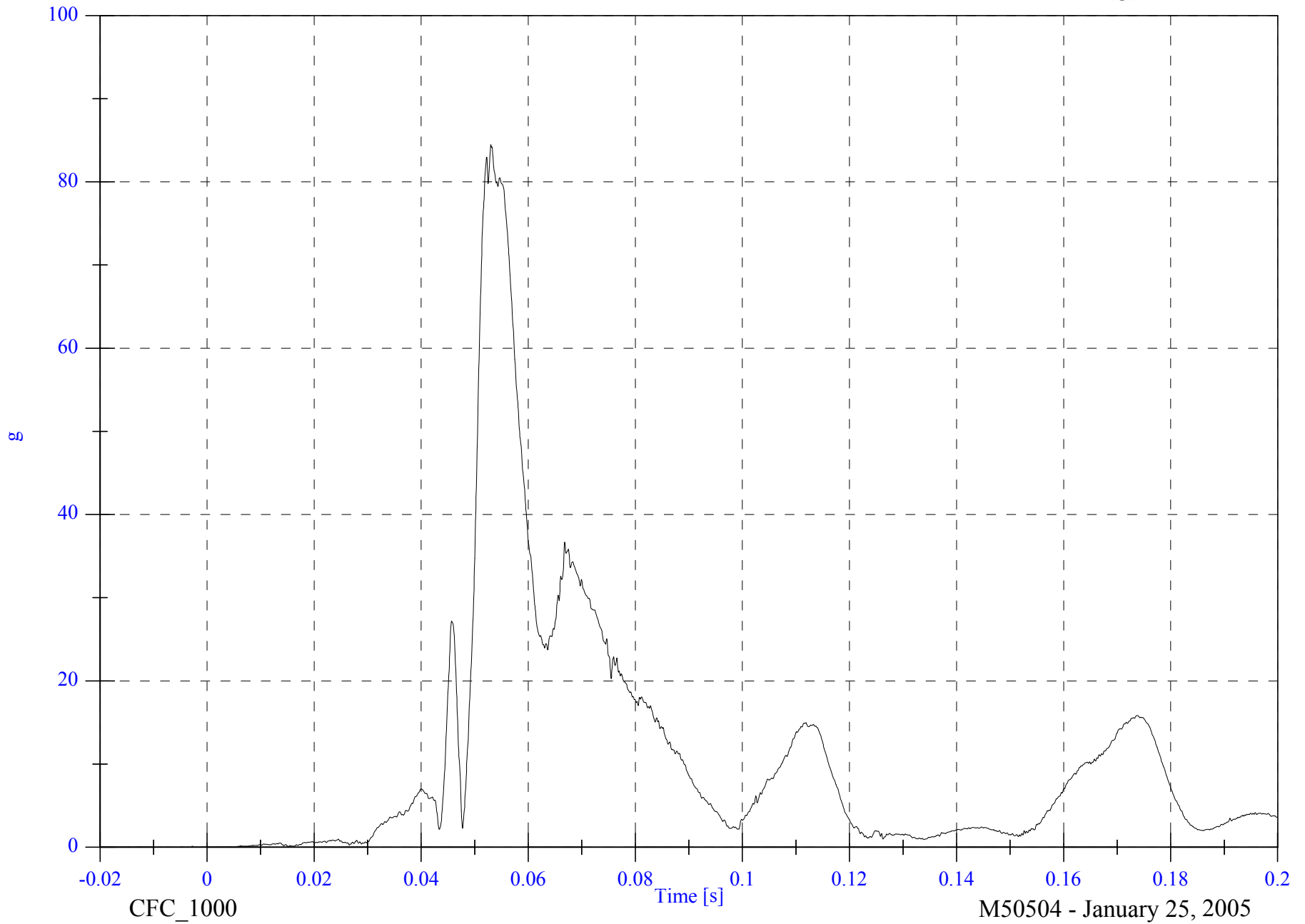
V2P4 Head Resultant

Max: 84.5 [g] at 0.053 [s]

Min: 0.0 [g] at -0.004 [s]

B-35

8765-SNCAP-09

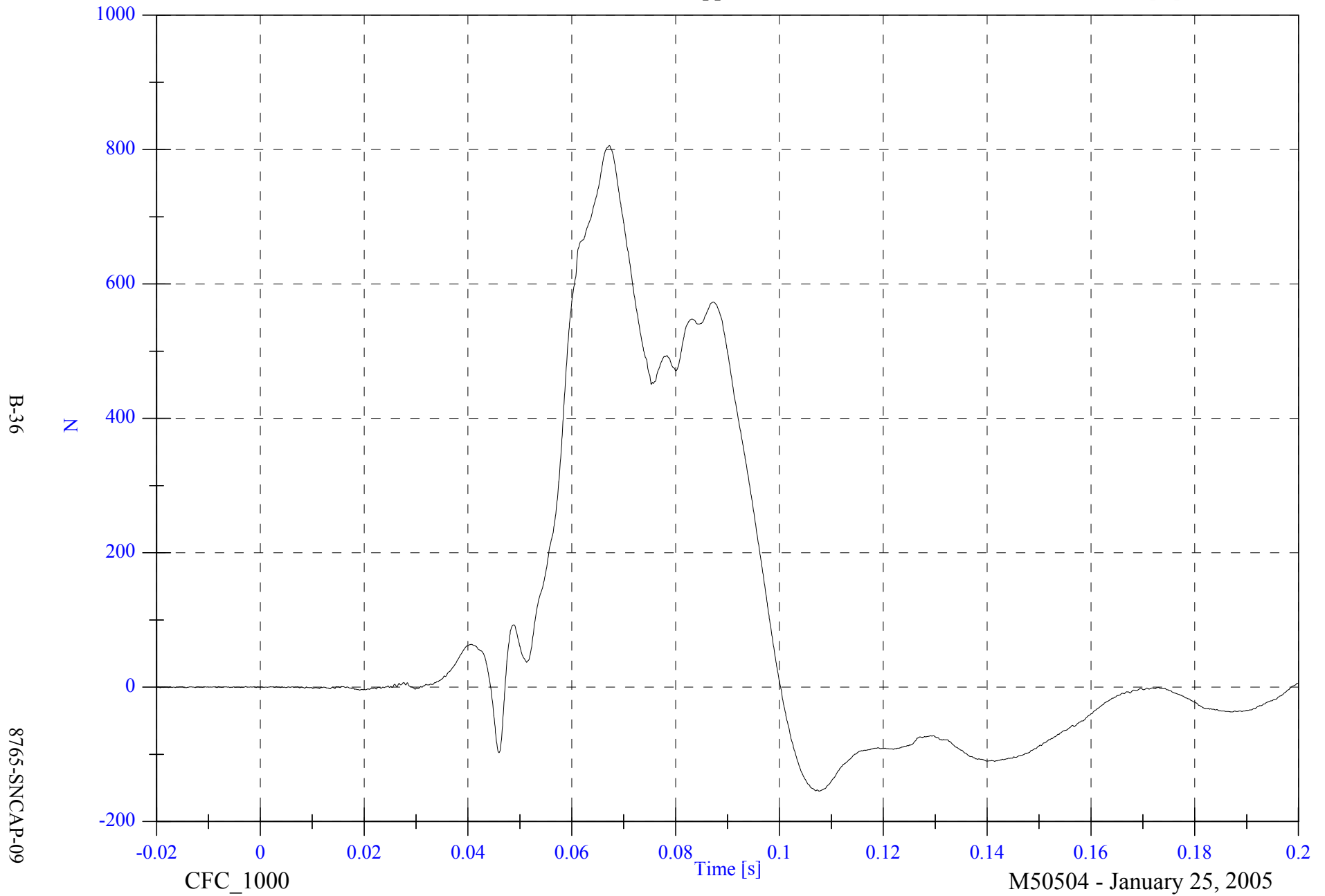


2005 SNCAP Test 4 - 2005 Suzuki Verona

V2P4 Upper Neck Fx

Max: 806.0 [N] at 0.067 [s]

Min: -154.6 [N] at 0.108 [s]

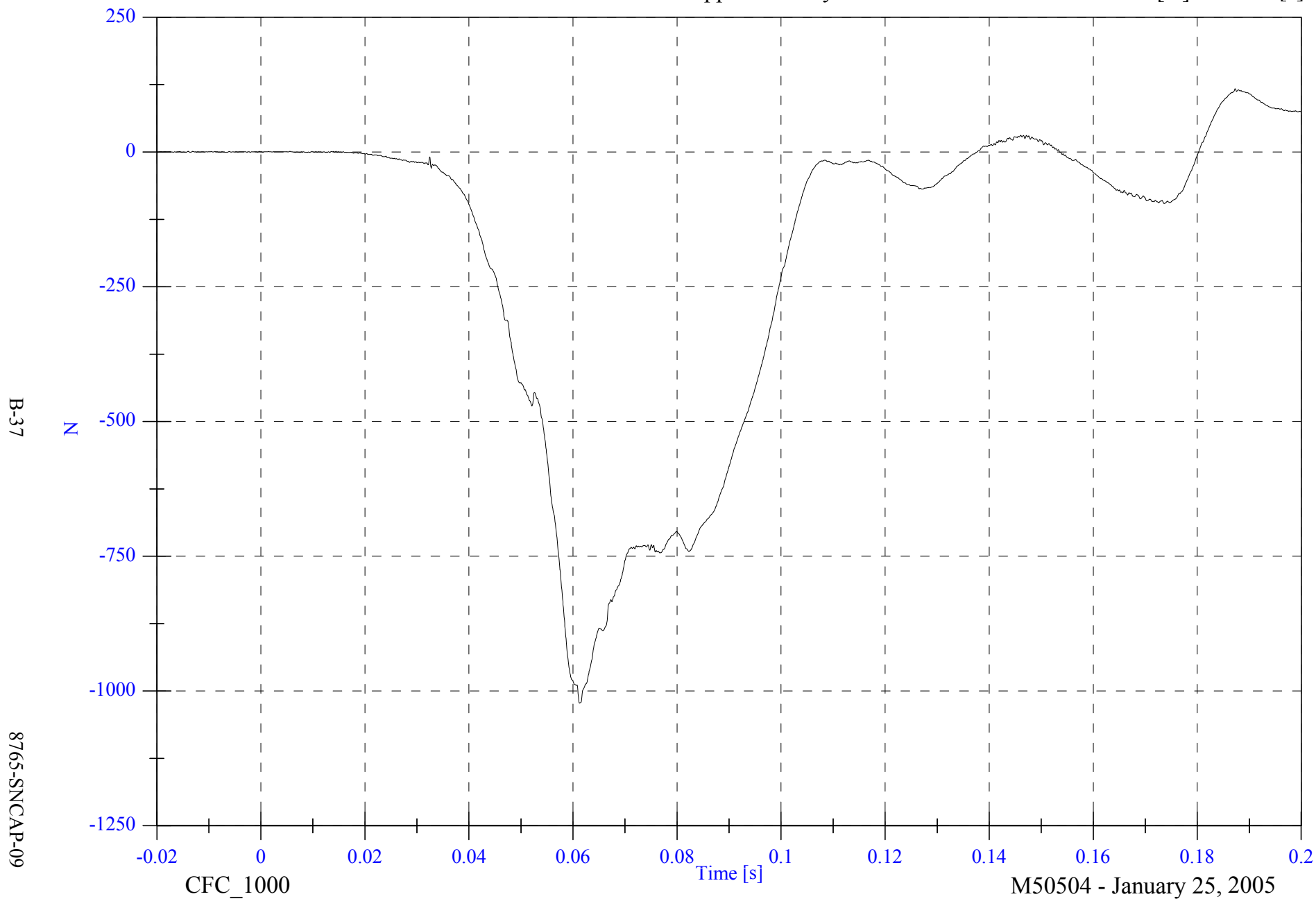


2005 SNCAP Test 4 - 2005 Suzuki Verona

V2P4 Upper Neck Fy

Max: 117.5 [N] at 0.187 [s]

Min: -1022.6 [N] at 0.061 [s]

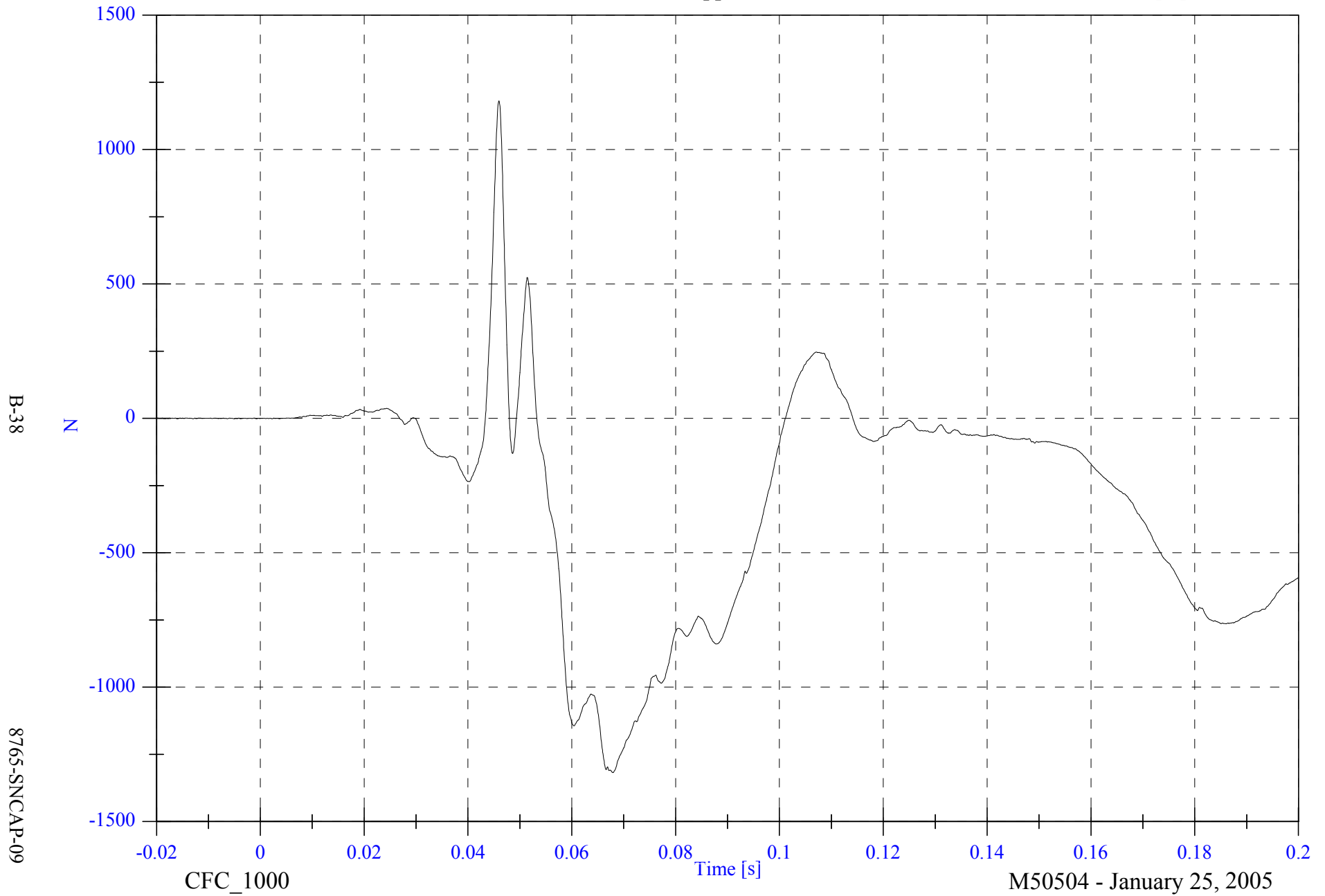


2005 SNCAP Test 4 - 2005 Suzuki Verona

V2P4 Upper Neck Fz

Max: 1181.2 [N] at 0.046 [s]

Min: -1317.9 [N] at 0.068 [s]



2005 SNCAP Test 4 - 2005 Suzuki Verona

V2P4 Upper Neck F Resultant

Max: 1760.8 [N] at 0.067 [s]

Min: 0.1 [N] at -0.017 [s]



2005 SNCAP Test 4 - 2005 Suzuki Verona

V2P4 Upper Neck Mx

Max: 32.7 [N-m] at 0.177 [s]

Min: -89.1 [N-m] at 0.068 [s]

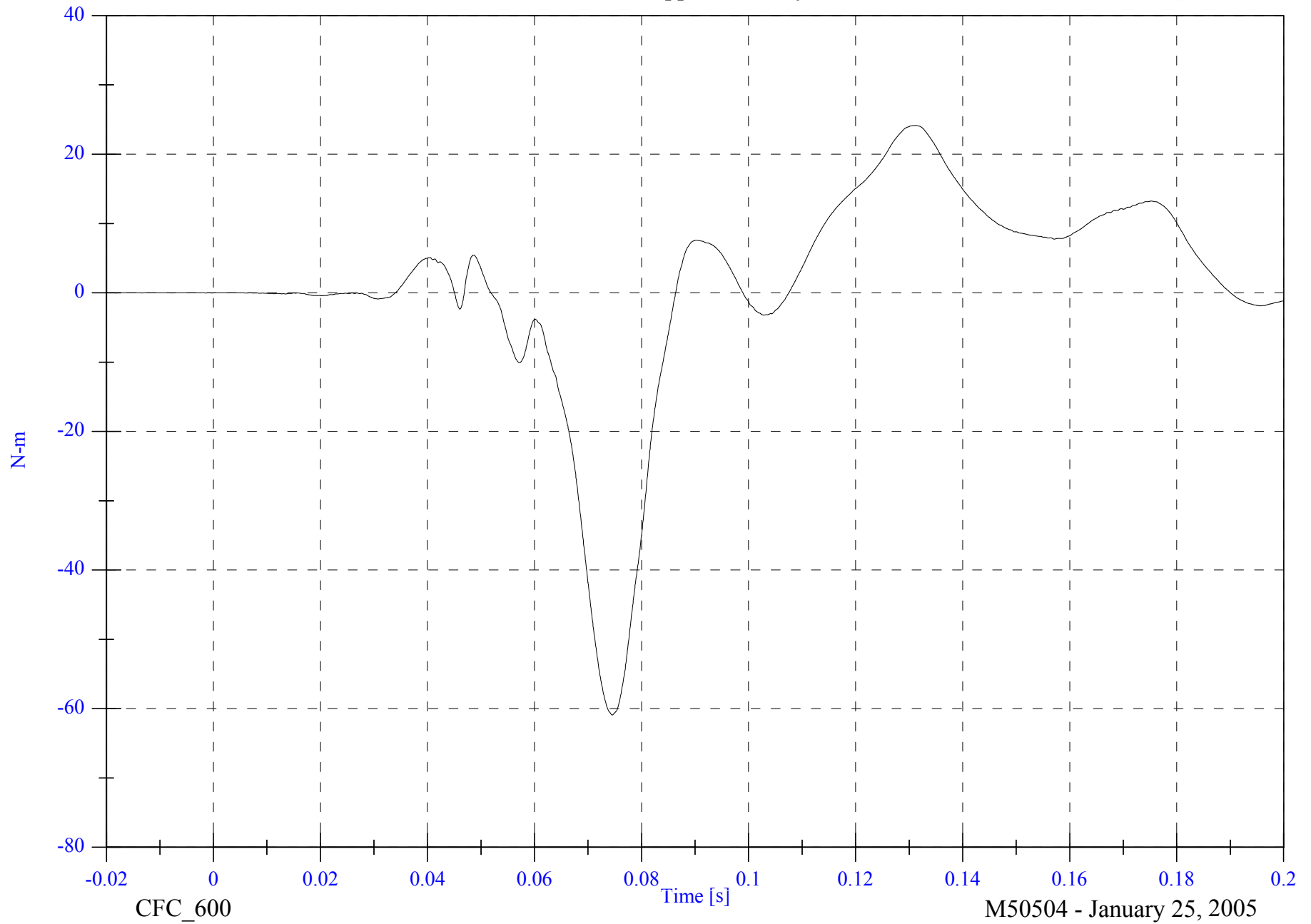


2005 SNCAP Test 4 - 2005 Suzuki Verona

V2P4 Upper Neck My

Max: 24.1 [N-m] at 0.131 [s]

Min: -60.9 [N-m] at 0.075 [s]



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2005 SNCAP Test 4 - 2005 Suzuki Verona

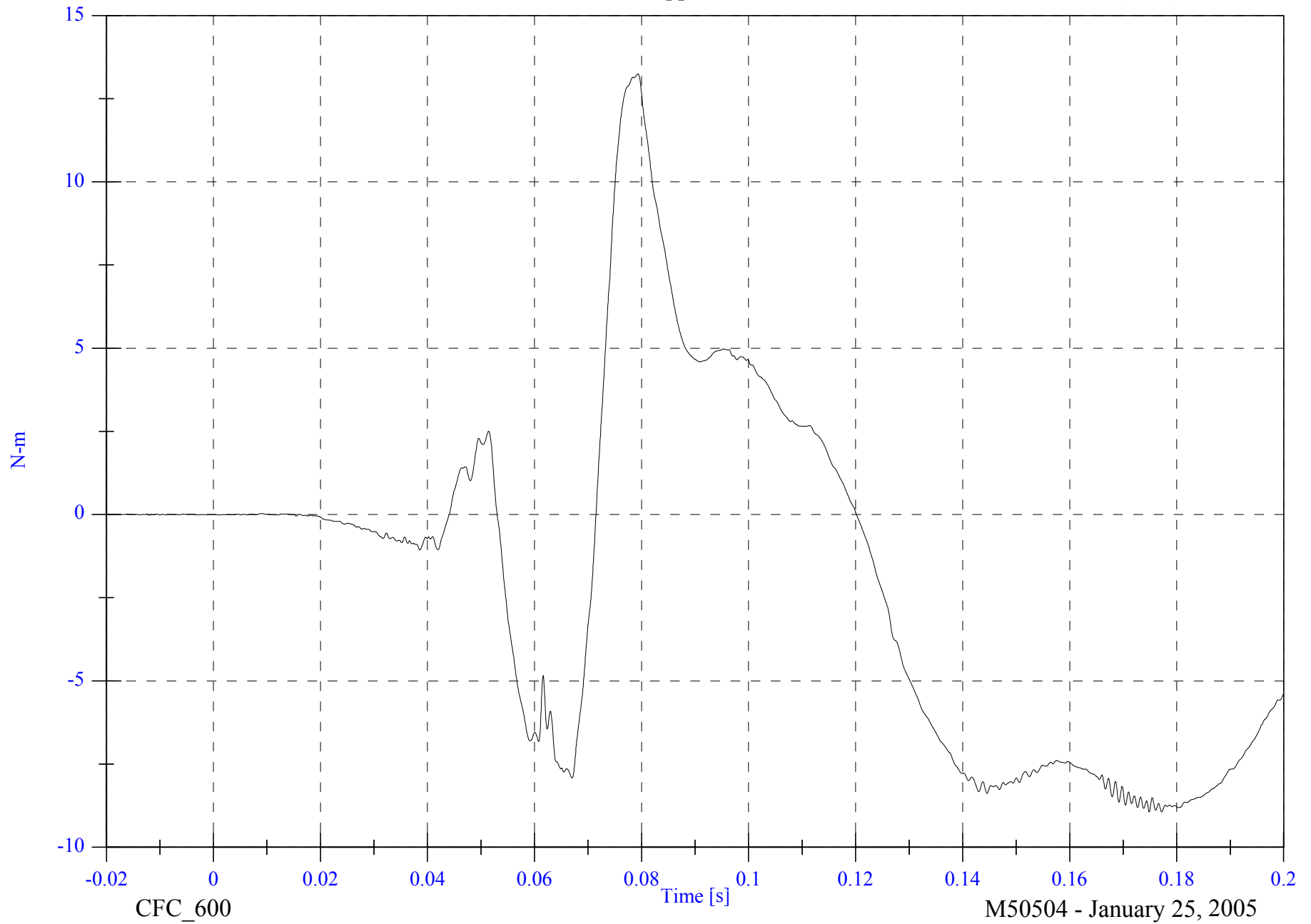
V2P4 Upper Neck Mz

Max: 13.2 [N-m] at 0.079 [s]

Min: -8.9 [N-m] at 0.175 [s]

B-42

8765-SNCAP-09

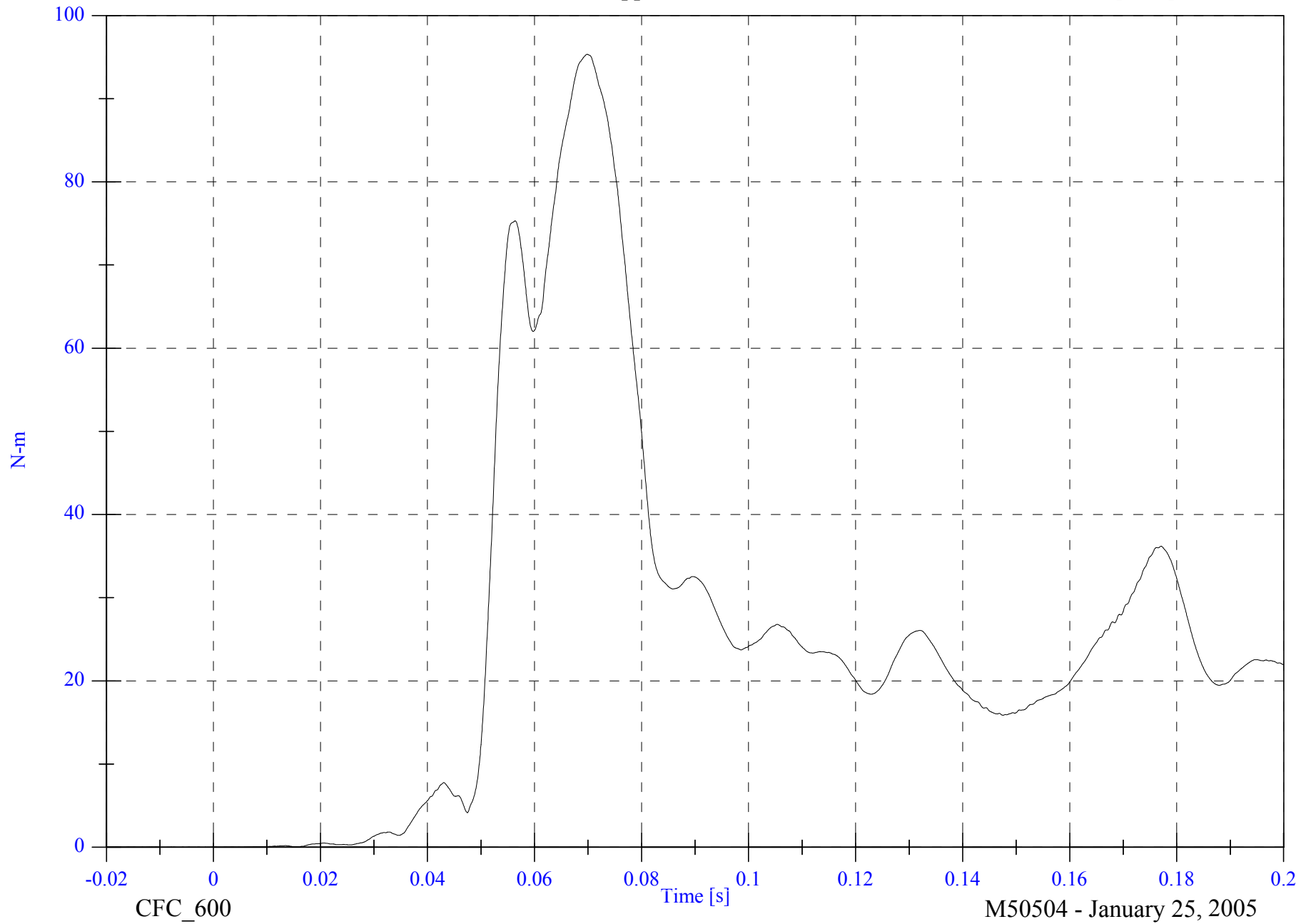


2005 SNCAP Test 4 - 2005 Suzuki Verona

V2P4 Upper Neck M Resultant

Max: 95.3 [N-m] at 0.070 [s]

Min: 0.0 [N-m] at -0.017 [s]



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2005 SNCAP Test 4 - 2005 Suzuki Verona

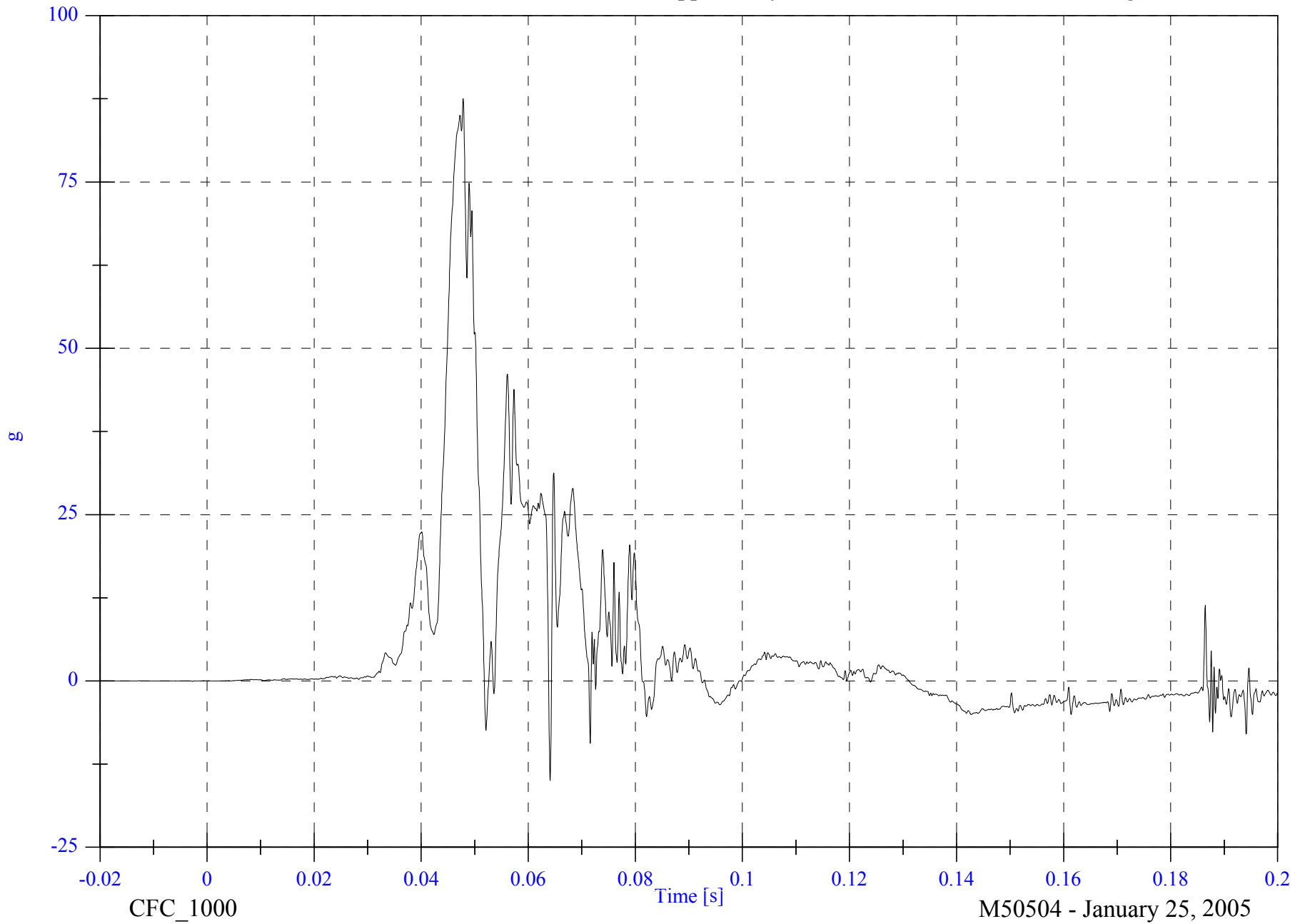
V2P4 Upper Rib y

Max: 87.5 [g] at 0.048 [s]

Min: -15.0 [g] at 0.064 [s]

B-44

8765-SNCAP-09

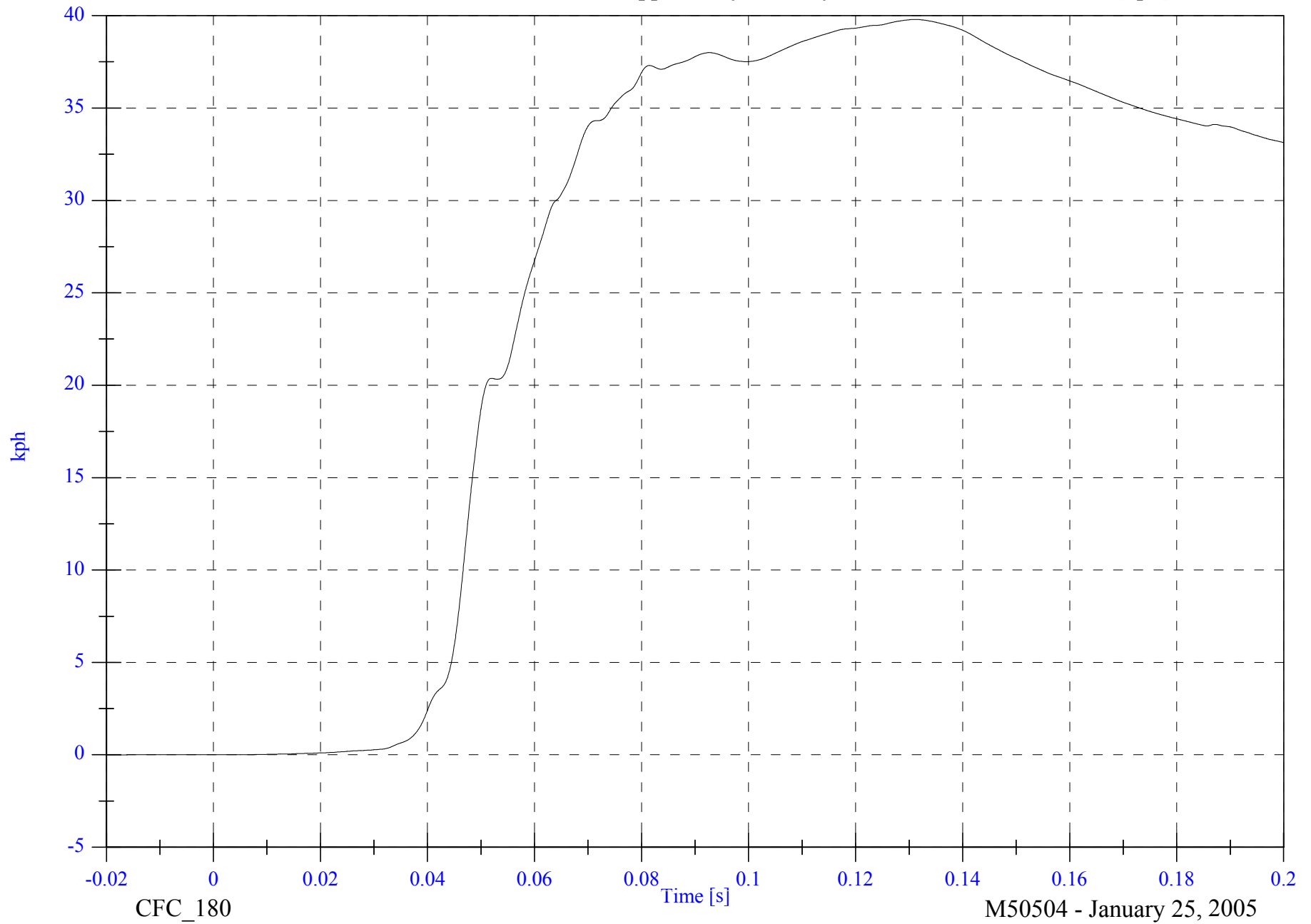


2005 SNCAP Test 4 - 2005 Suzuki Verona

V2P4 Upper Rib y Velocity

Max: 39.8 [kph] at 0.131 [s]

Min: -0.0 [kph] at -0.020 [s]



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2005 SNCAP Test 4 - 2005 Suzuki Verona

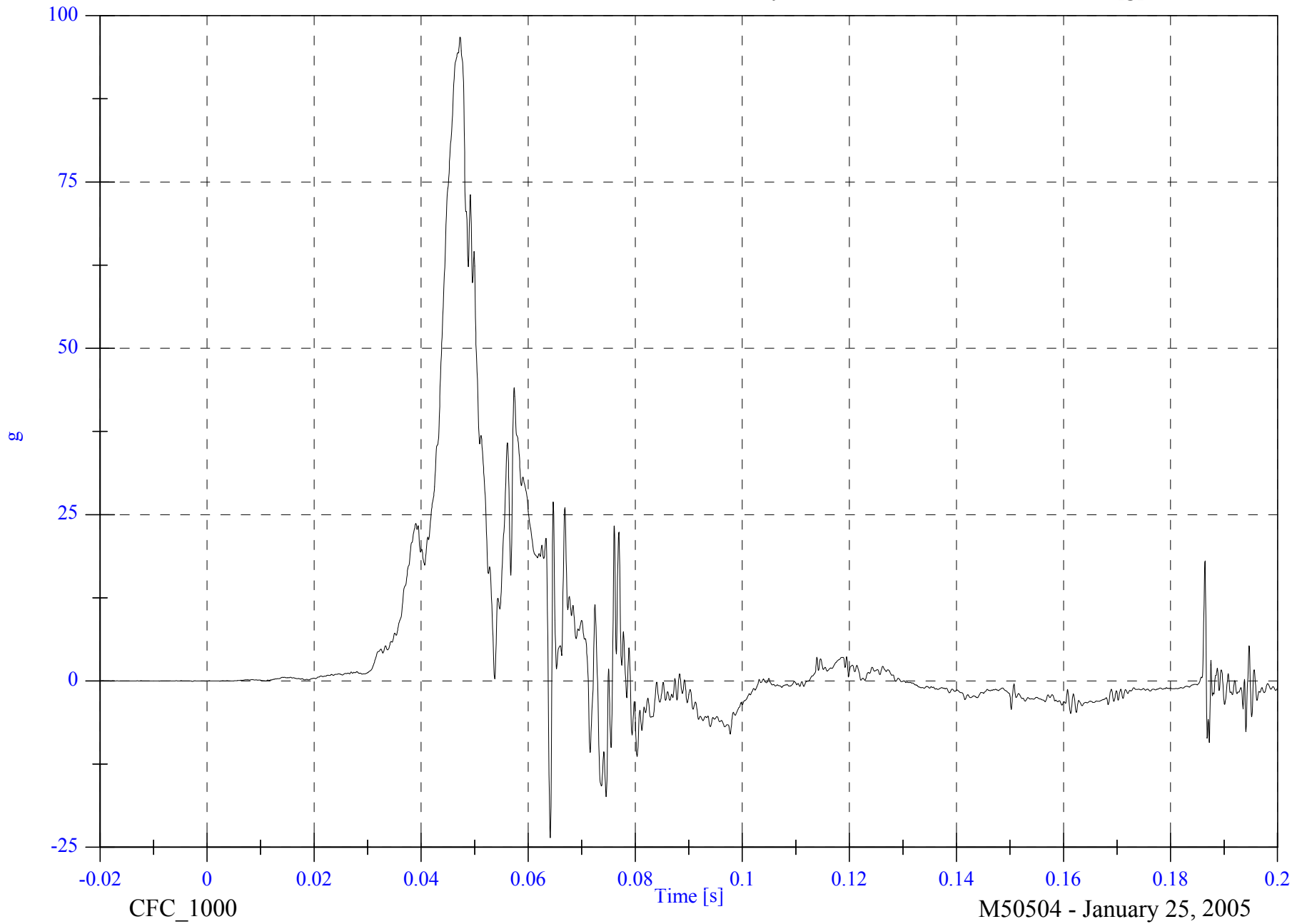
V2P4 Lower Rib y

Max: 96.8 [g] at 0.047 [s]

Min: -23.6 [g] at 0.064 [s]

B-46

8765-SNCAP-09

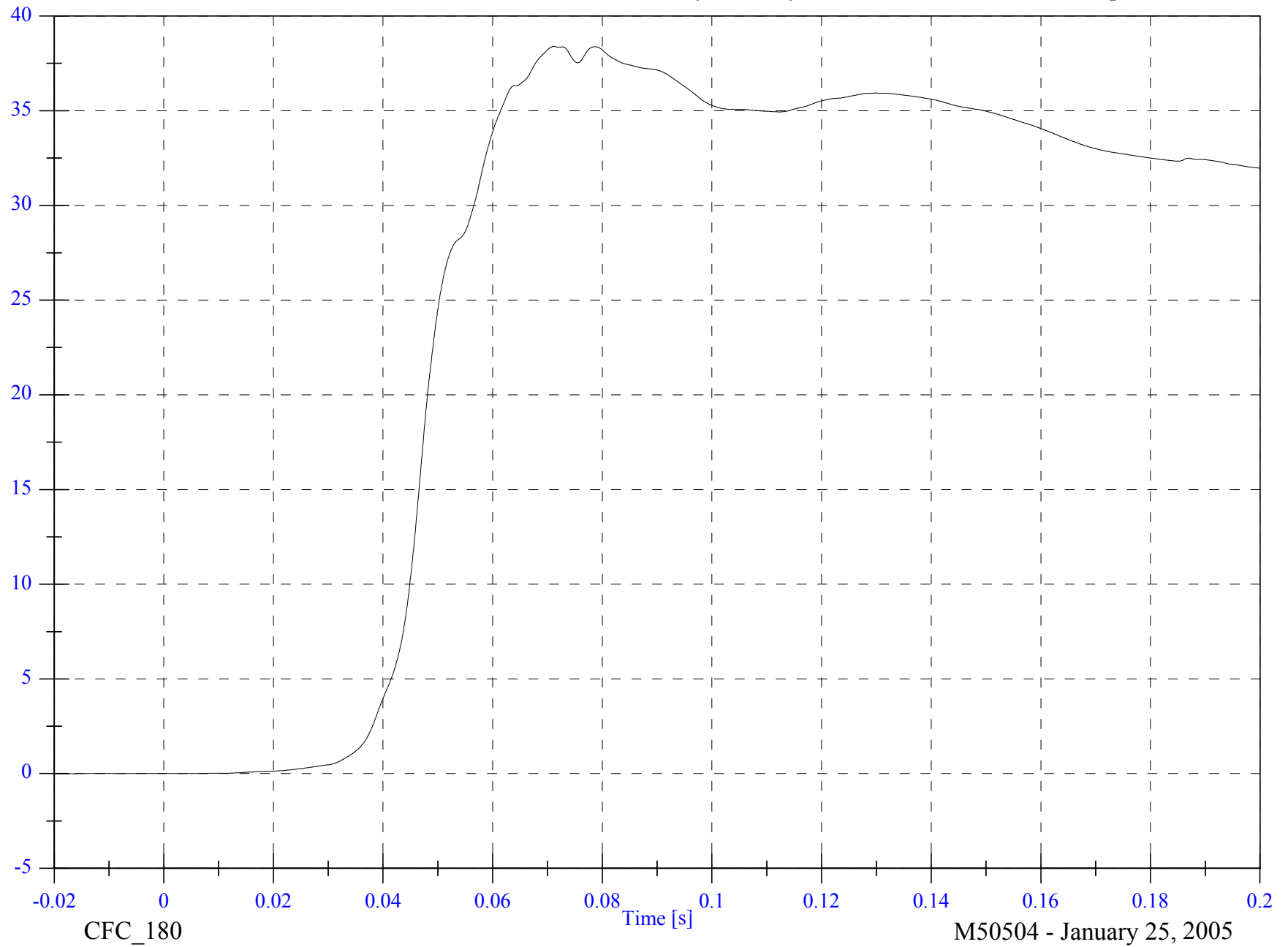


2005 SNCAP Test 4 - 2005 Suzuki Verona

V2P4 Lower Rib y Velocity

Max: 38.4 [kph] at 0.071 [s]

Min: -0.0 [kph] at -0.020 [s]



B-47

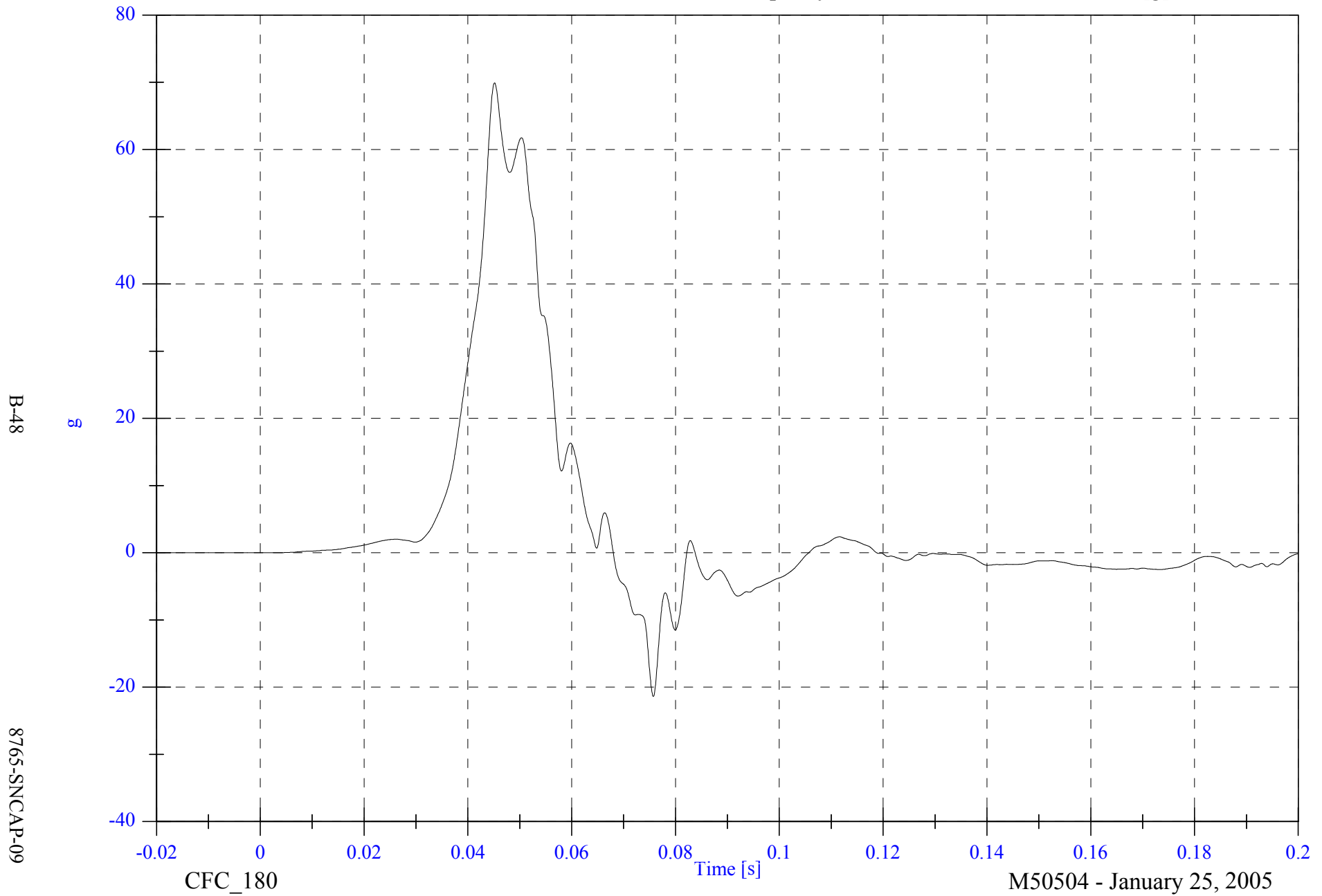
8765-SNCAP-09

2005 SNCAP Test 4 - 2005 Suzuki Verona

V2P4 Lower Spine y

Max: 69.9 [g] at 0.045 [s]

Min: -21.4 [g] at 0.076 [s]

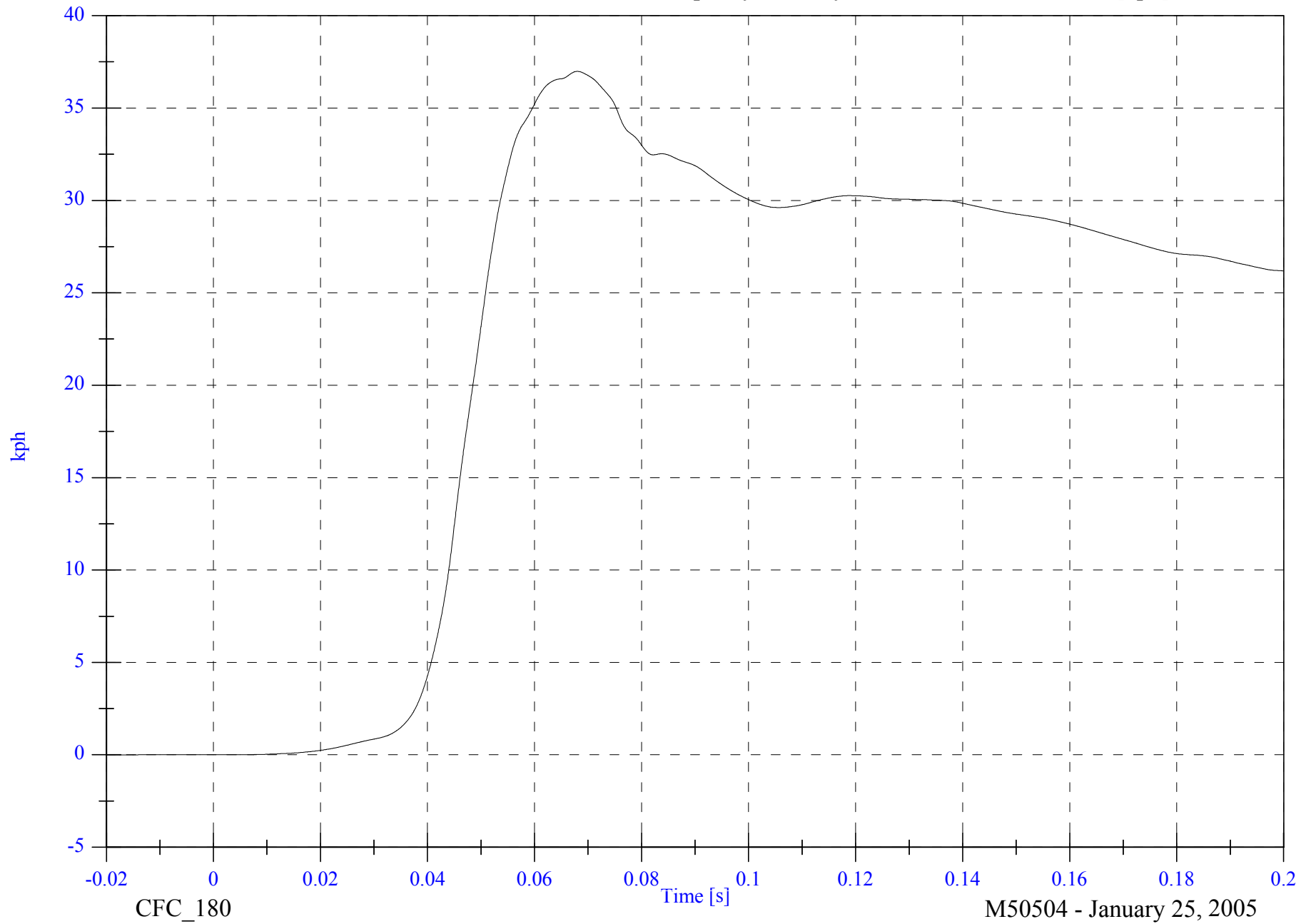


2005 SNCAP Test 4 - 2005 Suzuki Verona

V2P4 Lower Spine y Velocity

Max: 37.0 [kph] at 0.068 [s]

Min: -0.0 [kph] at -0.020 [s]



B-49

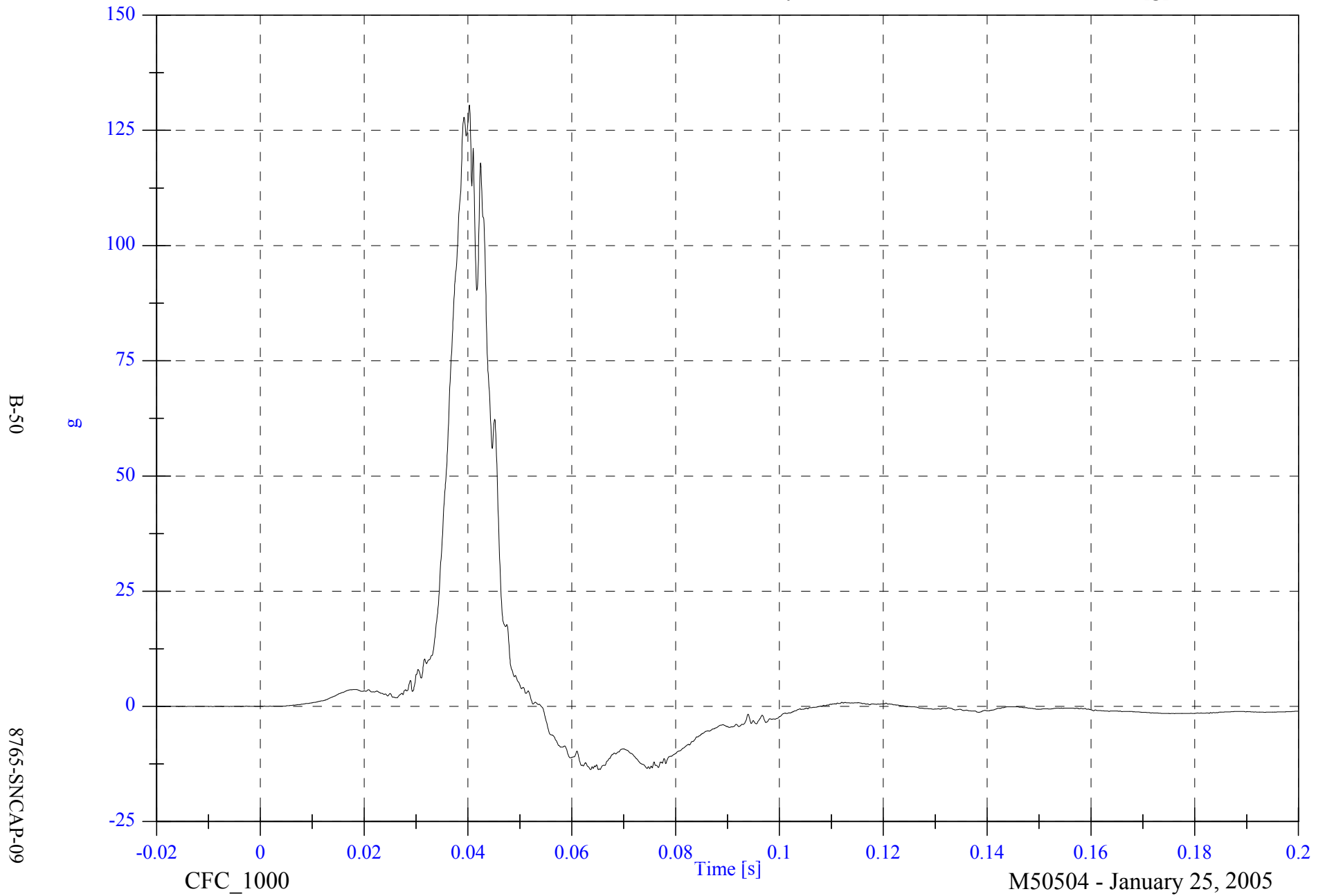
8765-SNCAP-09

2005 SNCAP Test 4 - 2005 Suzuki Verona

V2P4 Pelvic y

Max: 130.5 [g] at 0.040 [s]

Min: -13.7 [g] at 0.065 [s]



2005 SNCAP Test 4 - 2005 Suzuki Verona

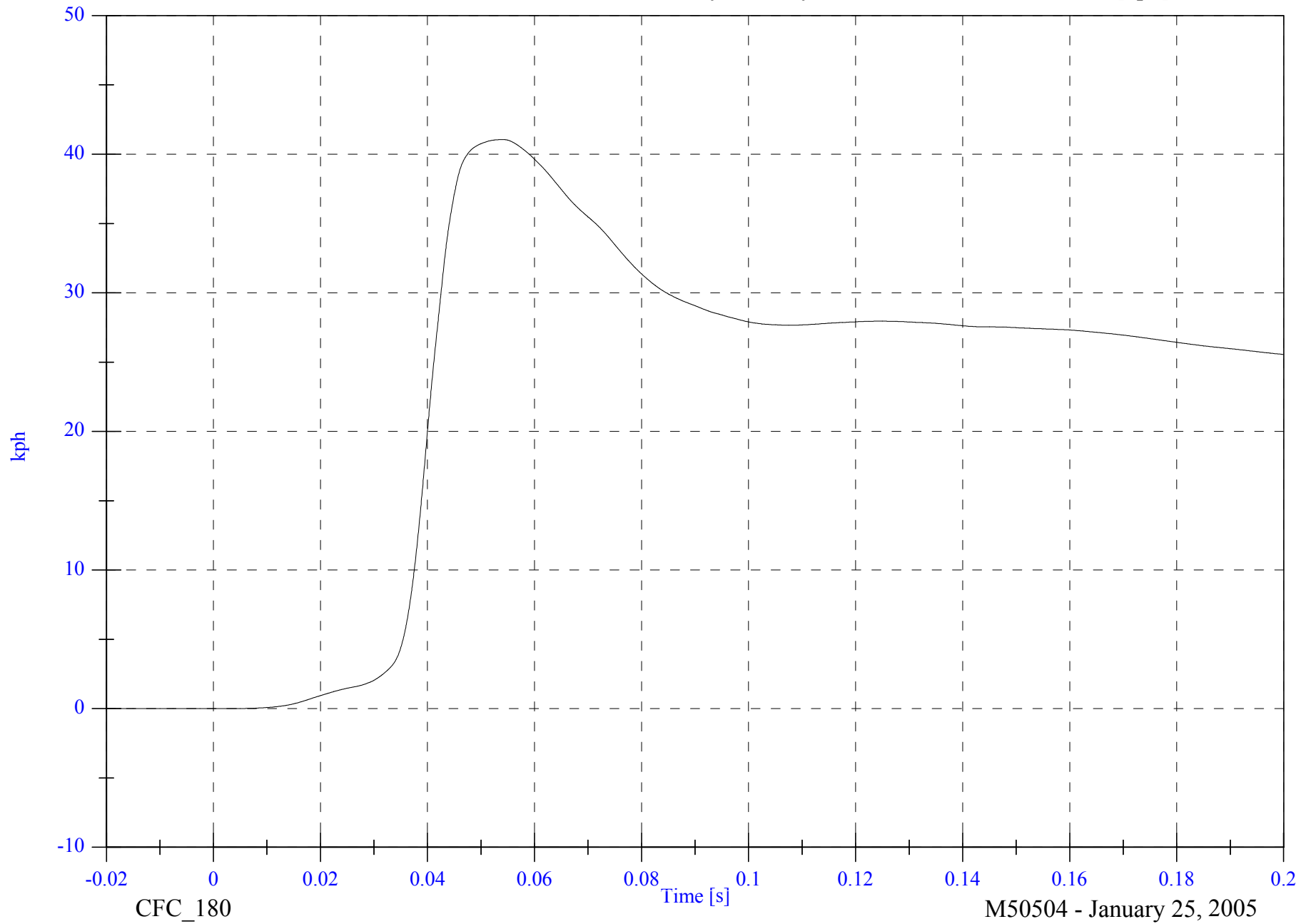
V2P4 Pelvic y Velocity

Max: 41.1 [kph] at 0.054 [s]

Min: -0.0 [kph] at -0.020 [s]

B-51

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2005 SNCAP Test 4 - 2005 Suzuki Verona

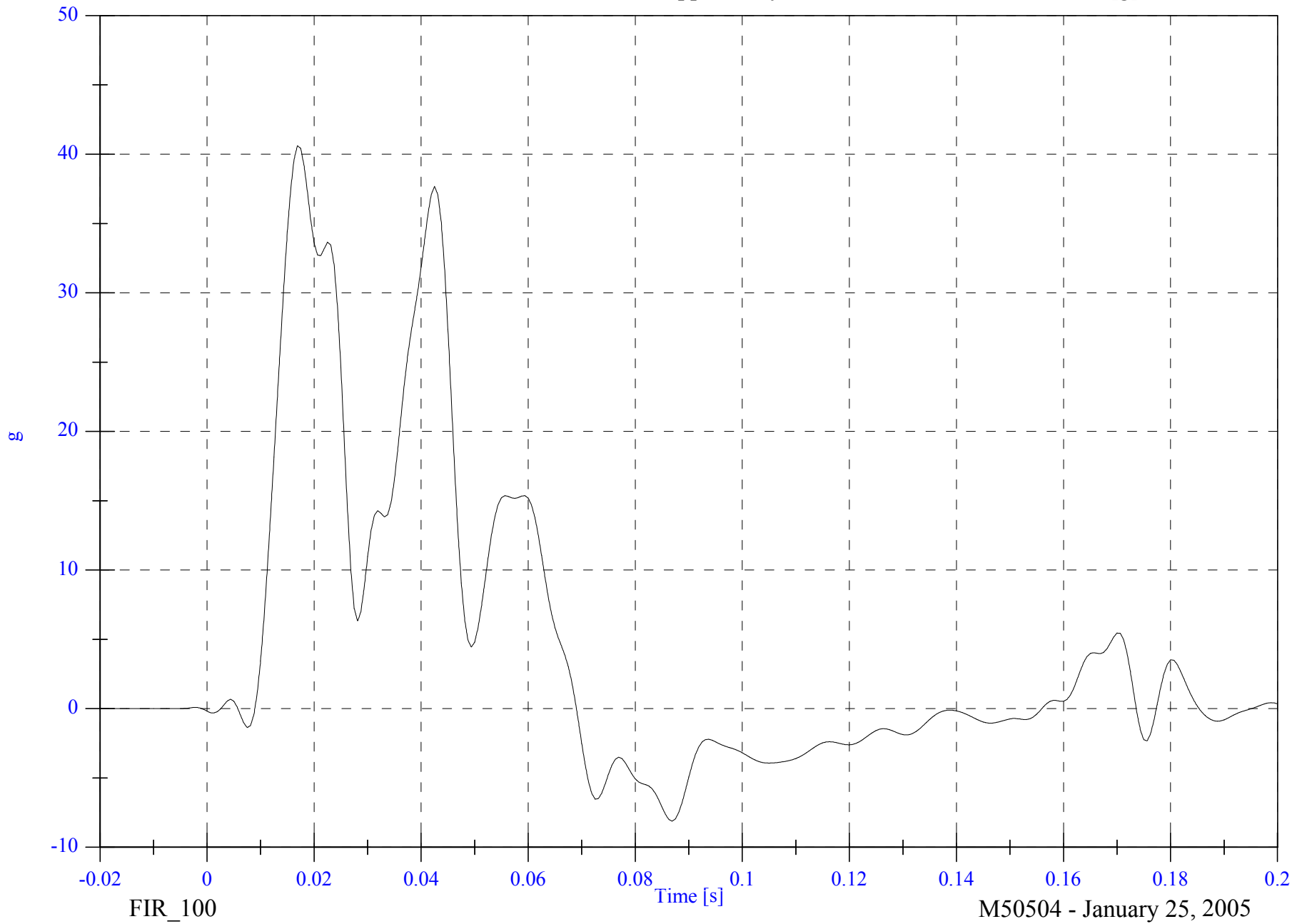
V2P1 Upper Rib y

Max: 40.6 [g] at 0.017 [s]

Min: -8.1 [g] at 0.087 [s]

B-52

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2005 SNCAP Test 4 - 2005 Suzuki Verona

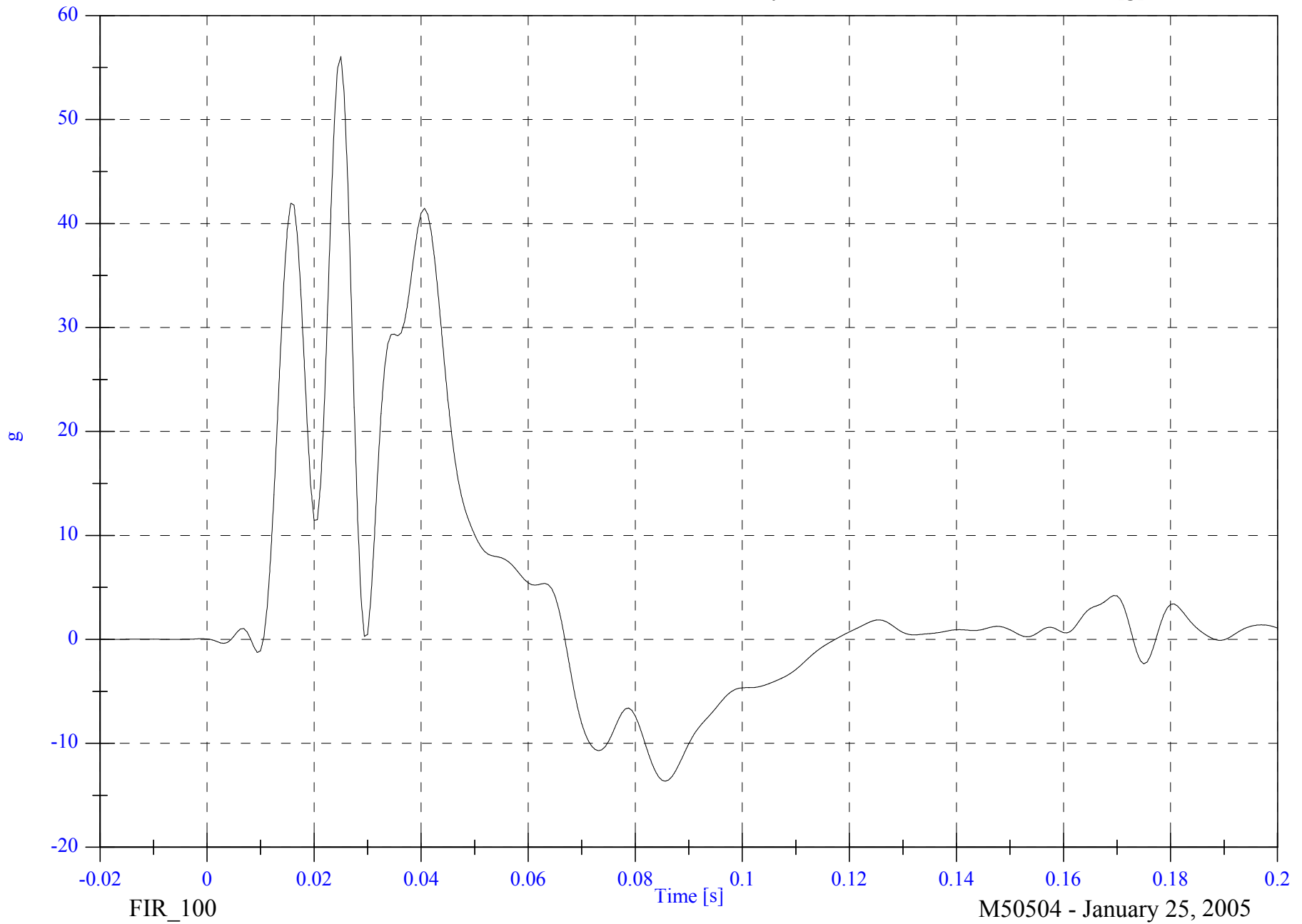
V2P1 Lower Rib y

Max: 56.1 [g] at 0.025 [s]

Min: -13.6 [g] at 0.086 [s]

B-53

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2005 SNCAP Test 4 - 2005 Suzuki Verona

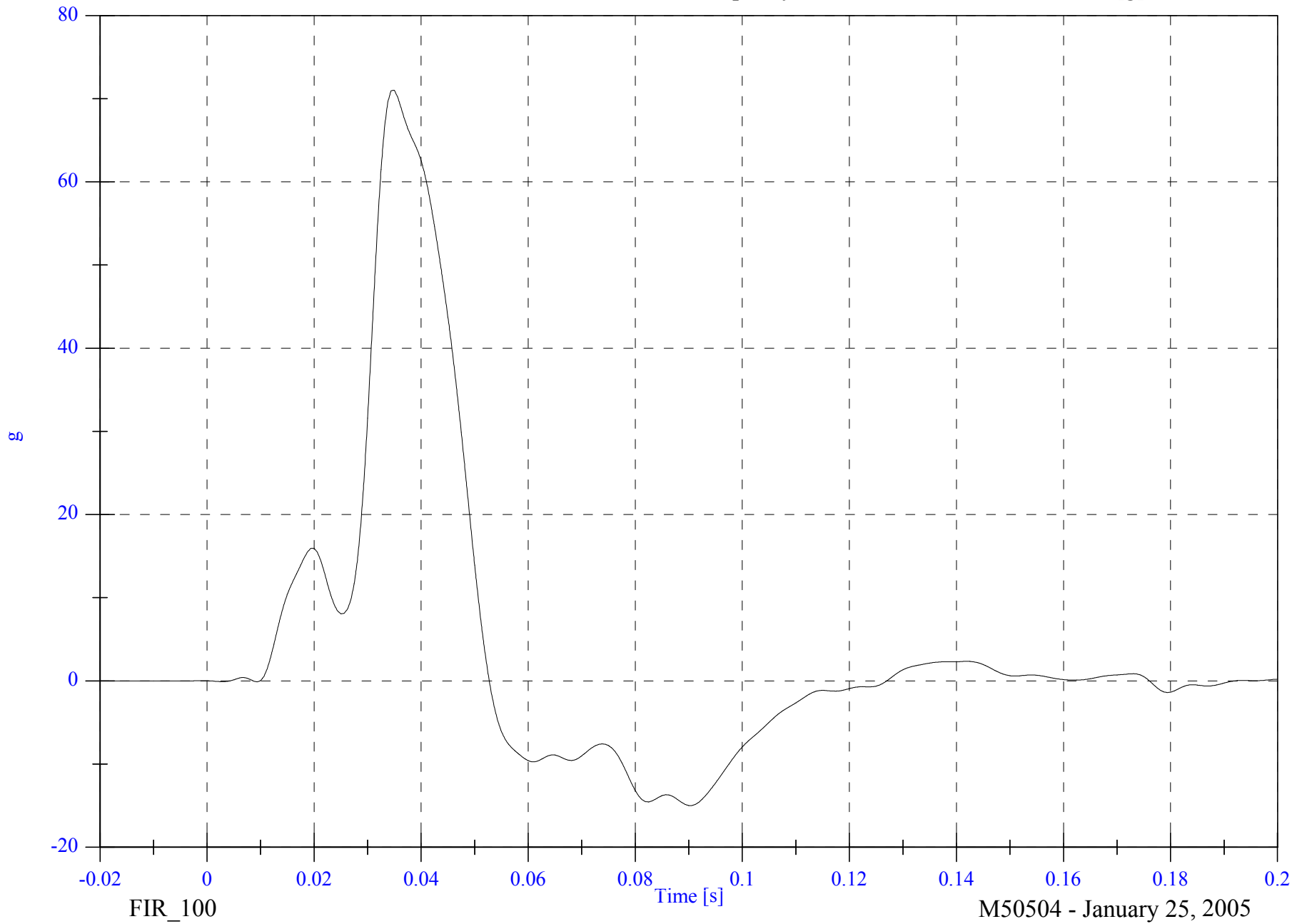
V2P1 Lower Spine y

Max: 71.0 [g] at 0.035 [s]

Min: -15.0 [g] at 0.090 [s]

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2005 SNCAP Test 4 - 2005 Suzuki Verona

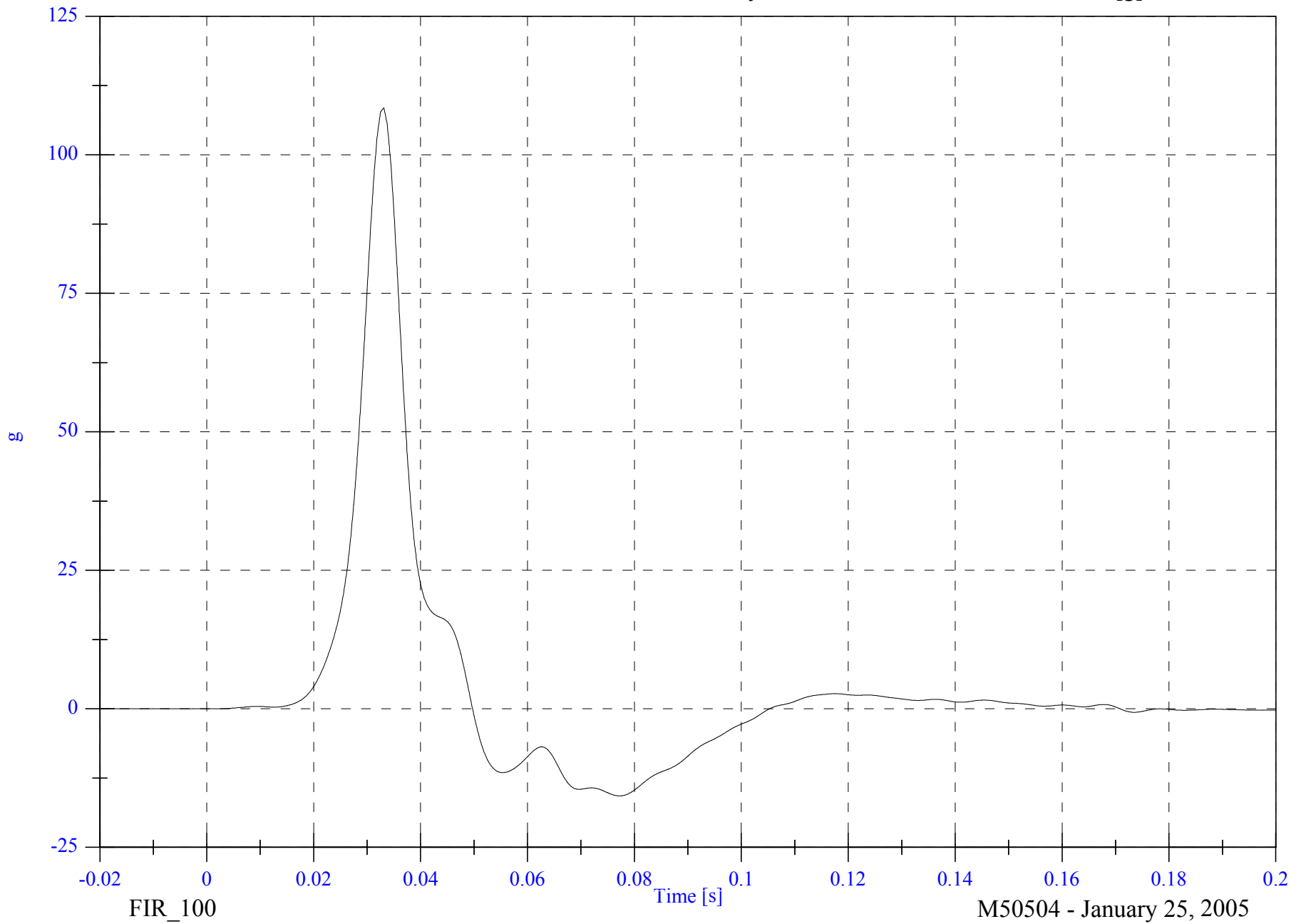
V2P1 Pelvic y

Max: 108.5 [g] at 0.033 [s]

Min: -15.7 [g] at 0.077 [s]

B-55

8765-SNCAP-09

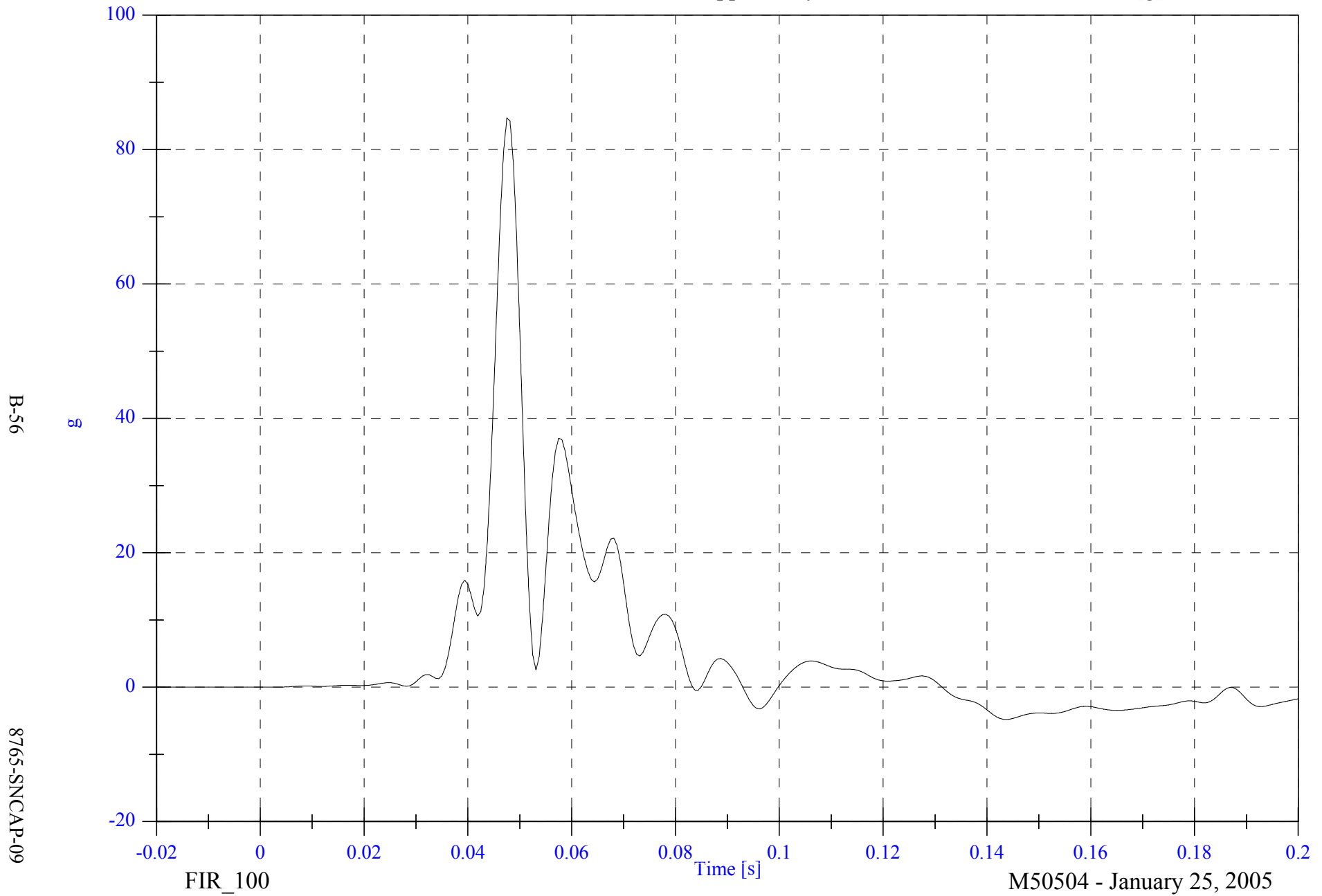


2005 SNCAP Test 4 - 2005 Suzuki Verona

V2P4 Upper Rib y

Max: 84.7 [g] at 0.047 [s]

Min: -4.8 [g] at 0.144 [s]

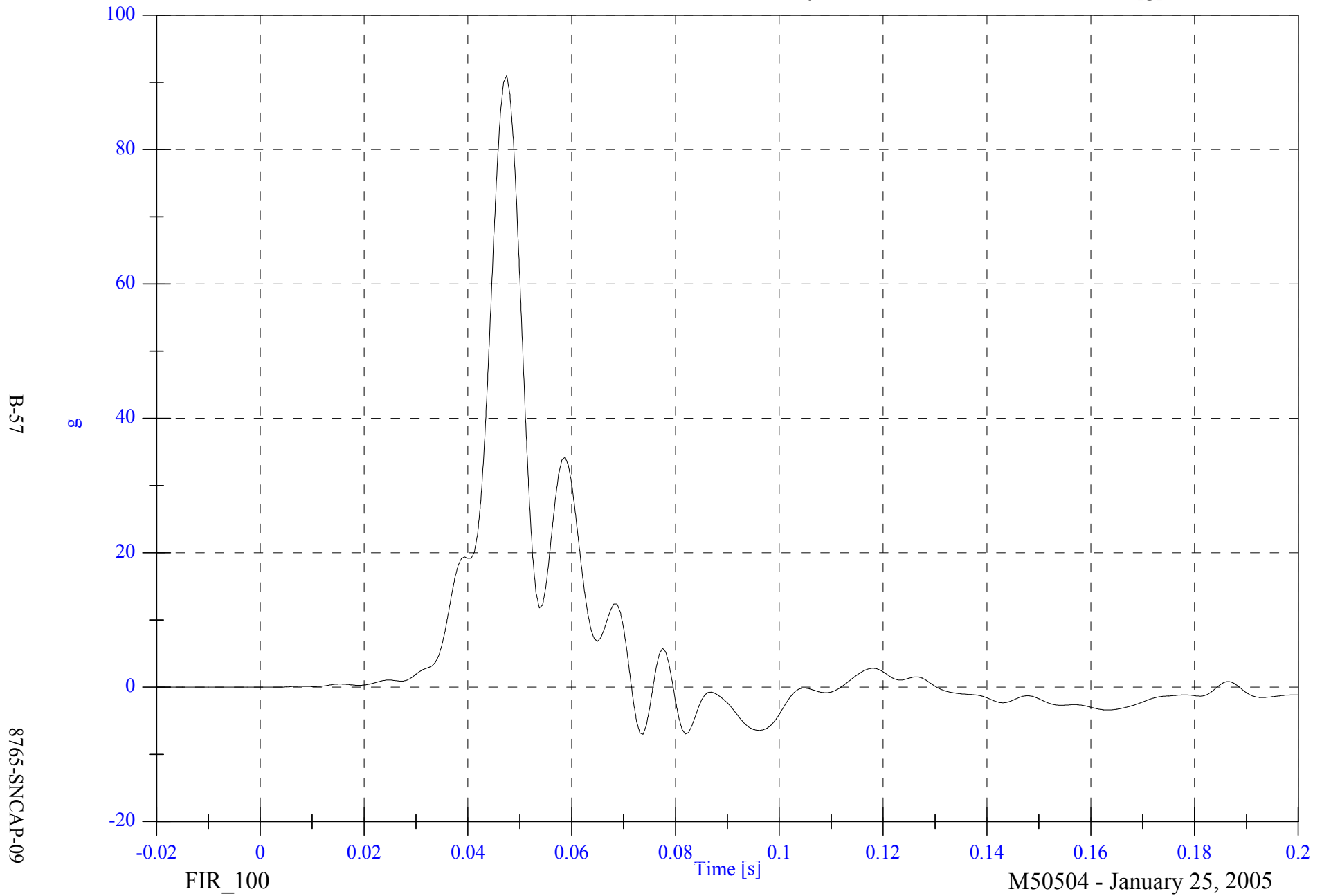


2005 SNCAP Test 4 - 2005 Suzuki Verona

V2P4 Lower Rib y

Max: 91.0 [g] at 0.047 [s]

Min: -7.0 [g] at 0.074 [s]



2005 SNCAP Test 4 - 2005 Suzuki Verona

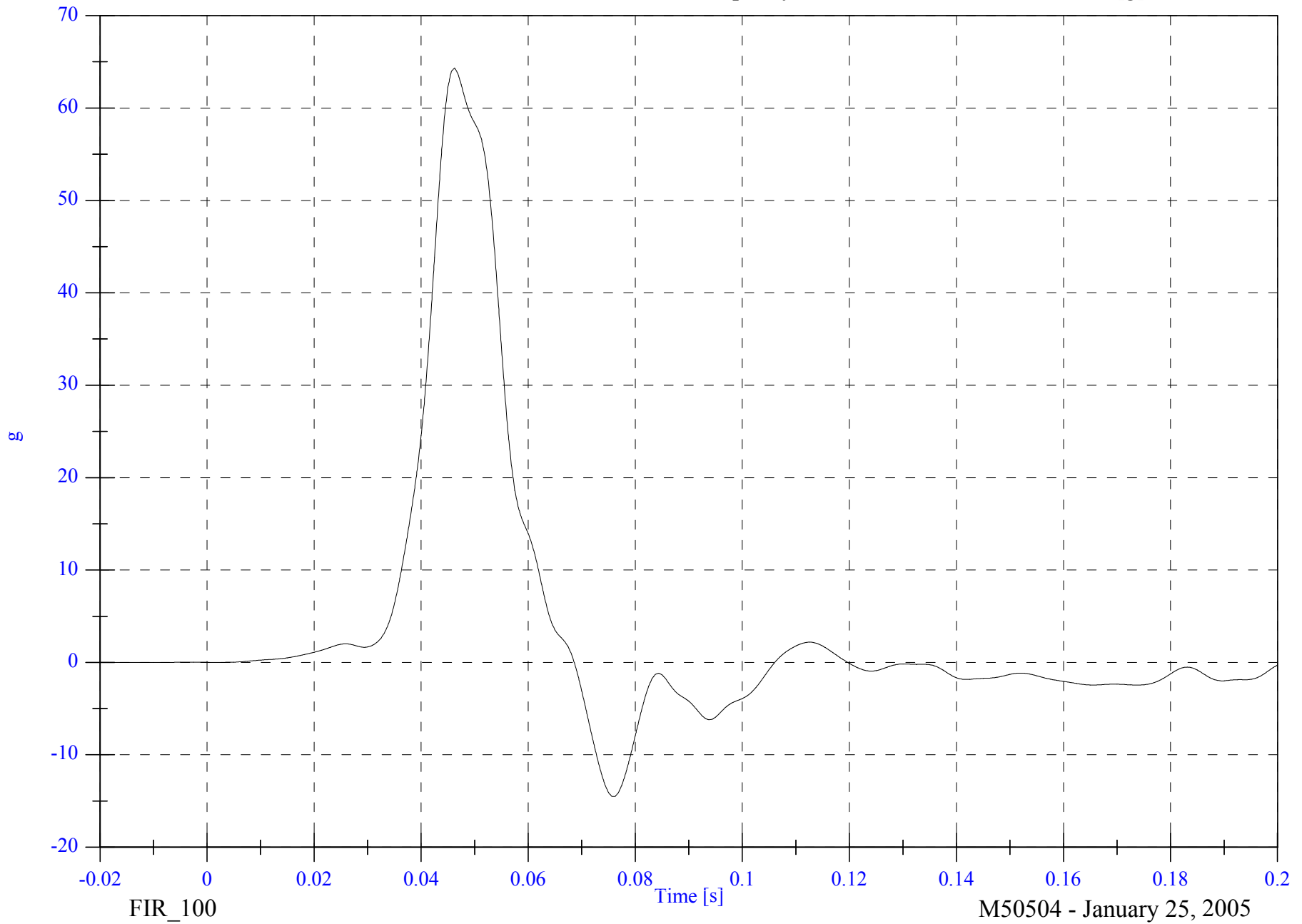
V2P4 Lower Spine y

Max: 64.3 [g] at 0.046 [s]

Min: -14.5 [g] at 0.076 [s]

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8765-SNCAP-09

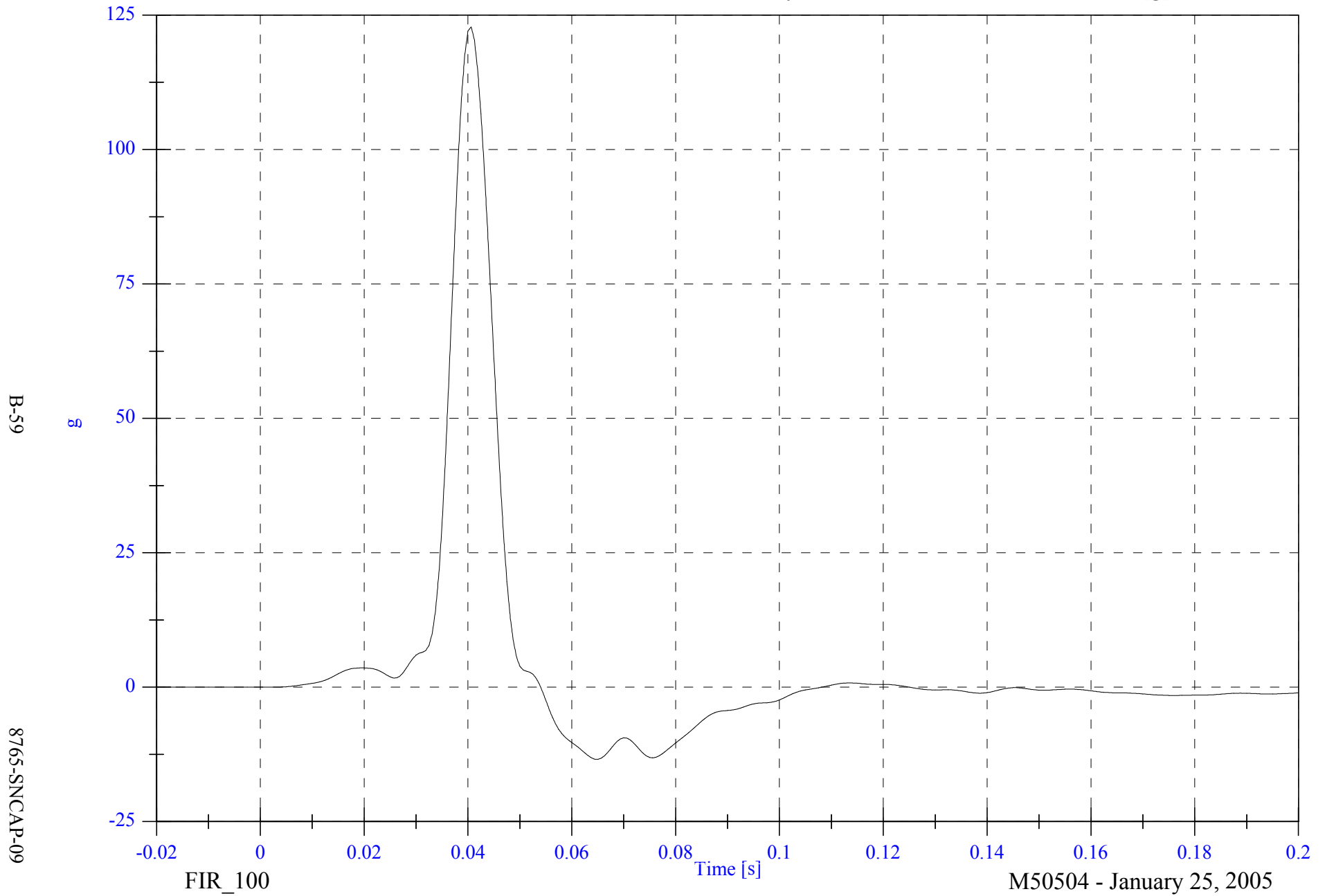


2005 SNCAP Test 4 - 2005 Suzuki Verona

V2P4 Pelvic y

Max: 122.8 [g] at 0.041 [s]

Min: -13.4 [g] at 0.065 [s]



2005 SNCAP Test 4 - 2005 Suzuki Verona

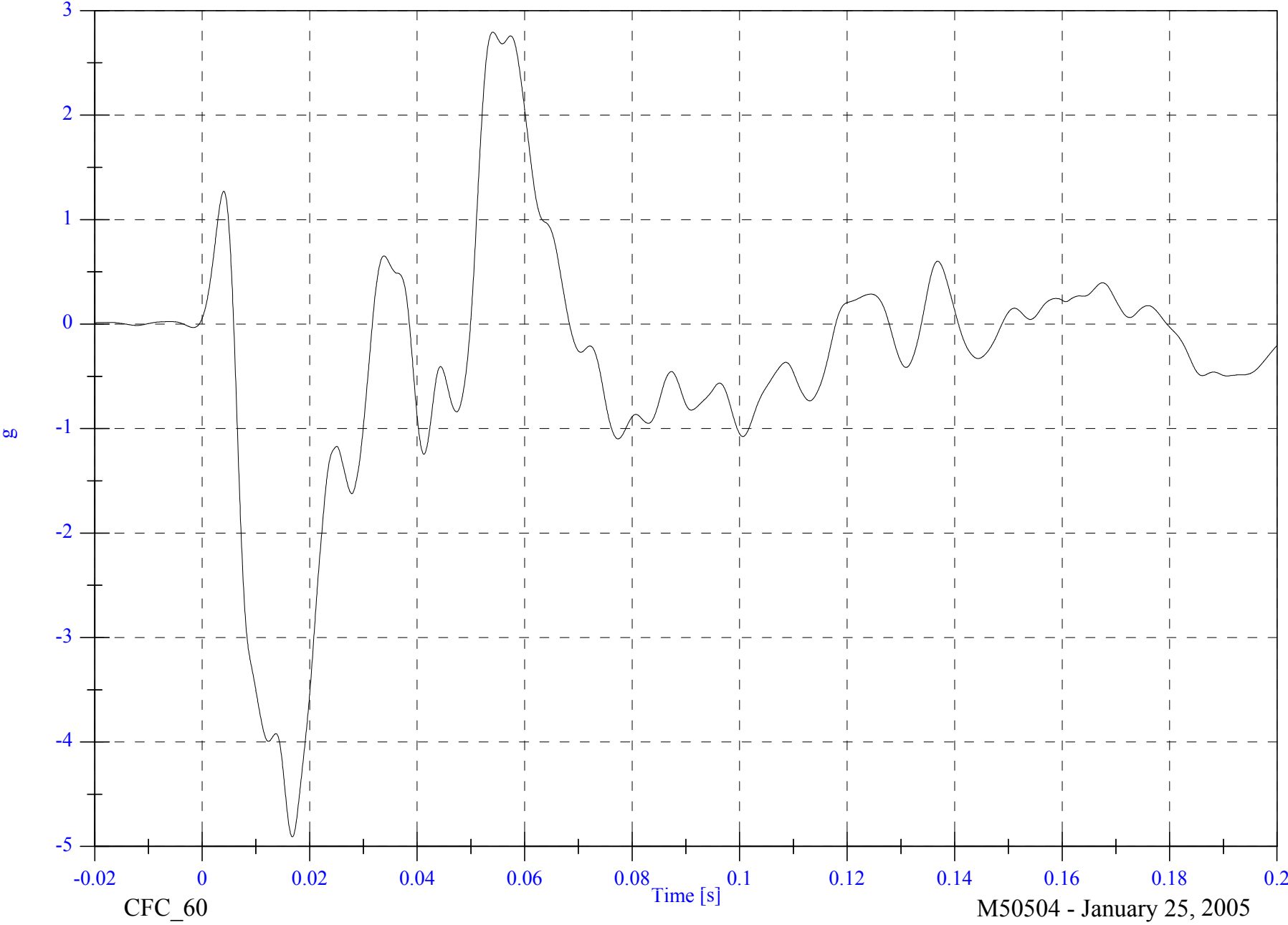
V2 A1 Right Front Sill X

Max: 2.8 [g] at 0.054 [s]

Min: -4.9 [g] at 0.017 [s]

B-60

8765-SNCAP-09

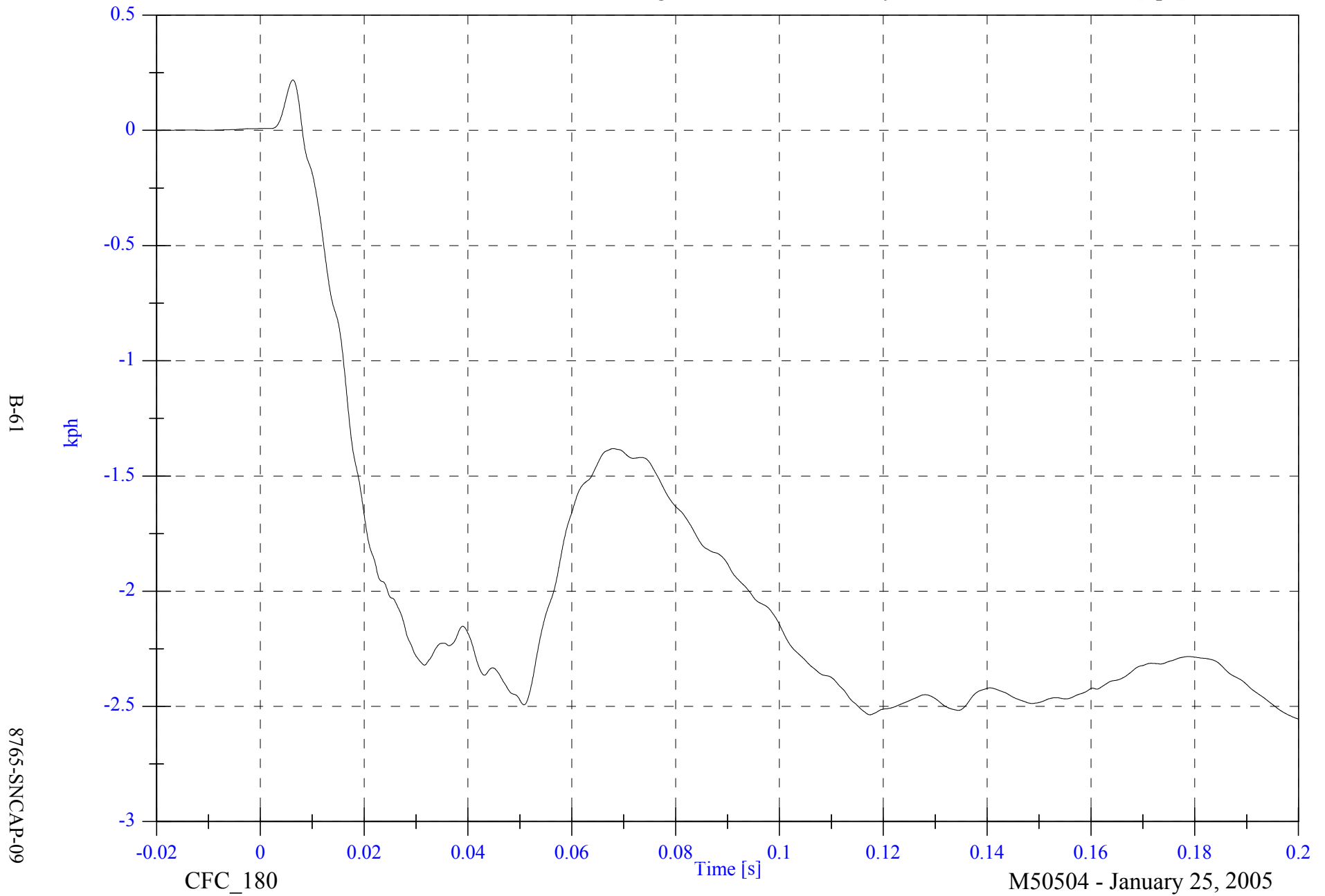


2005 SNCAP Test 4 - 2005 Suzuki Verona

V2 A1 Right Front Sill X Velocity

Max: 0.2 [kph] at 0.006 [s]

Min: -2.6 [kph] at 0.200 [s]

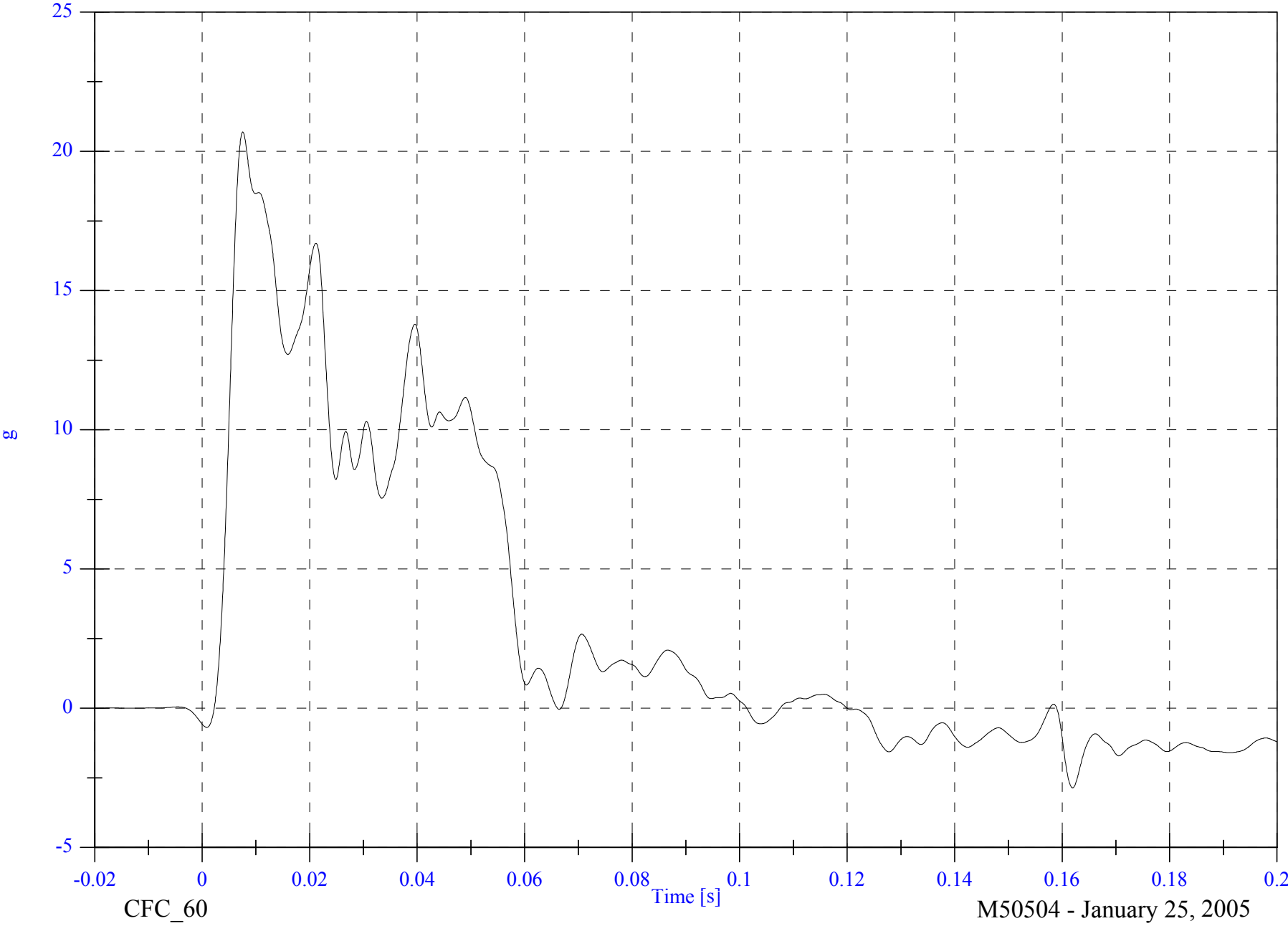


2005 SNCAP Test 4 - 2005 Suzuki Verona

V2 A1 Right Front Sill Y

Max: 20.7 [g] at 0.008 [s]
Min: -2.9 [g] at 0.162 [s]

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8765-SNCAP-09

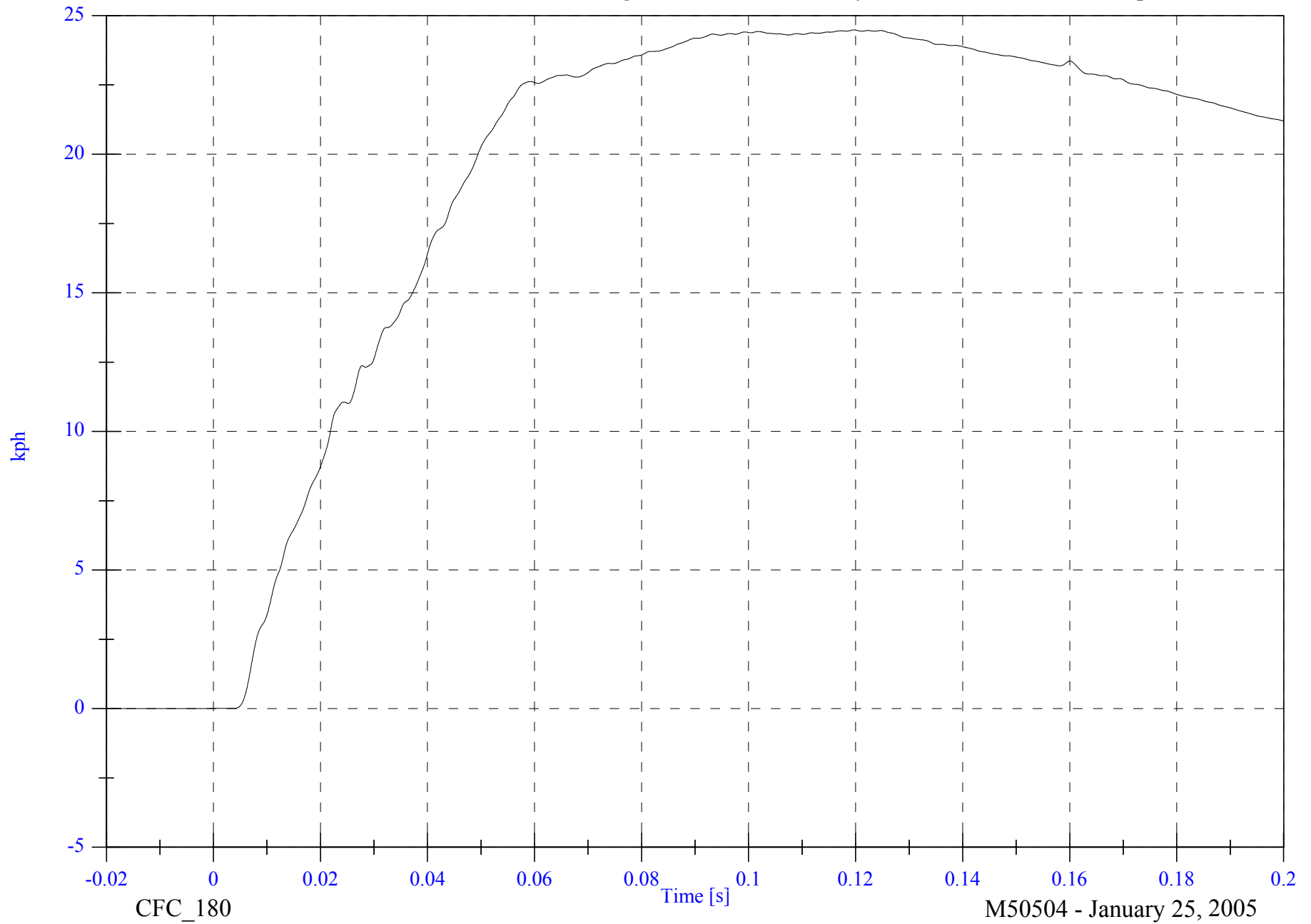


2005 SNCAP Test 4 - 2005 Suzuki Verona

V2 A1 Right Front Sill Y Velocity

Max: 24.5 [kph] at 0.120 [s]

Min: -0.0 [kph] at -0.019 [s]



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8765-SNCAP-09

2005 SNCAP Test 4 - 2005 Suzuki Verona

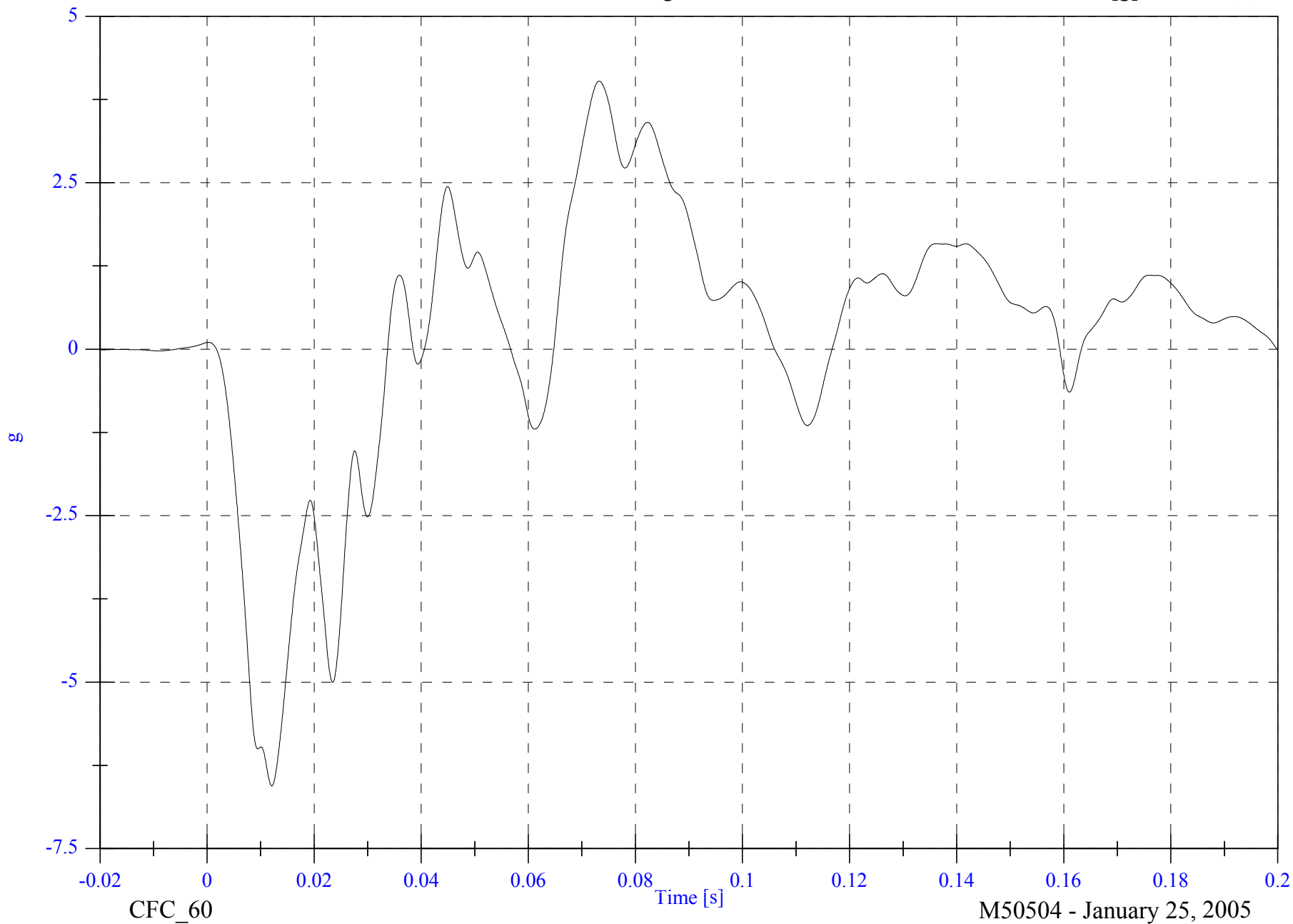
V2 A1 Right Front Sill Z

Max: 4.0 [g] at 0.073 [s]

Min: -6.6 [g] at 0.012 [s]

B-64

8765-SNCAP-09



2005 SNCAP Test 4 - 2005 Suzuki Verona

V2 A1 Right Front Sill Z Velocity

Max: 1.8 [kph] at 0.200 [s]

Min: -3.8 [kph] at 0.034 [s]



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8765-SNCAP-09

2005 SNCAP Test 4 - 2005 Suzuki Verona

V2 A1 Right Front Sill Resultant

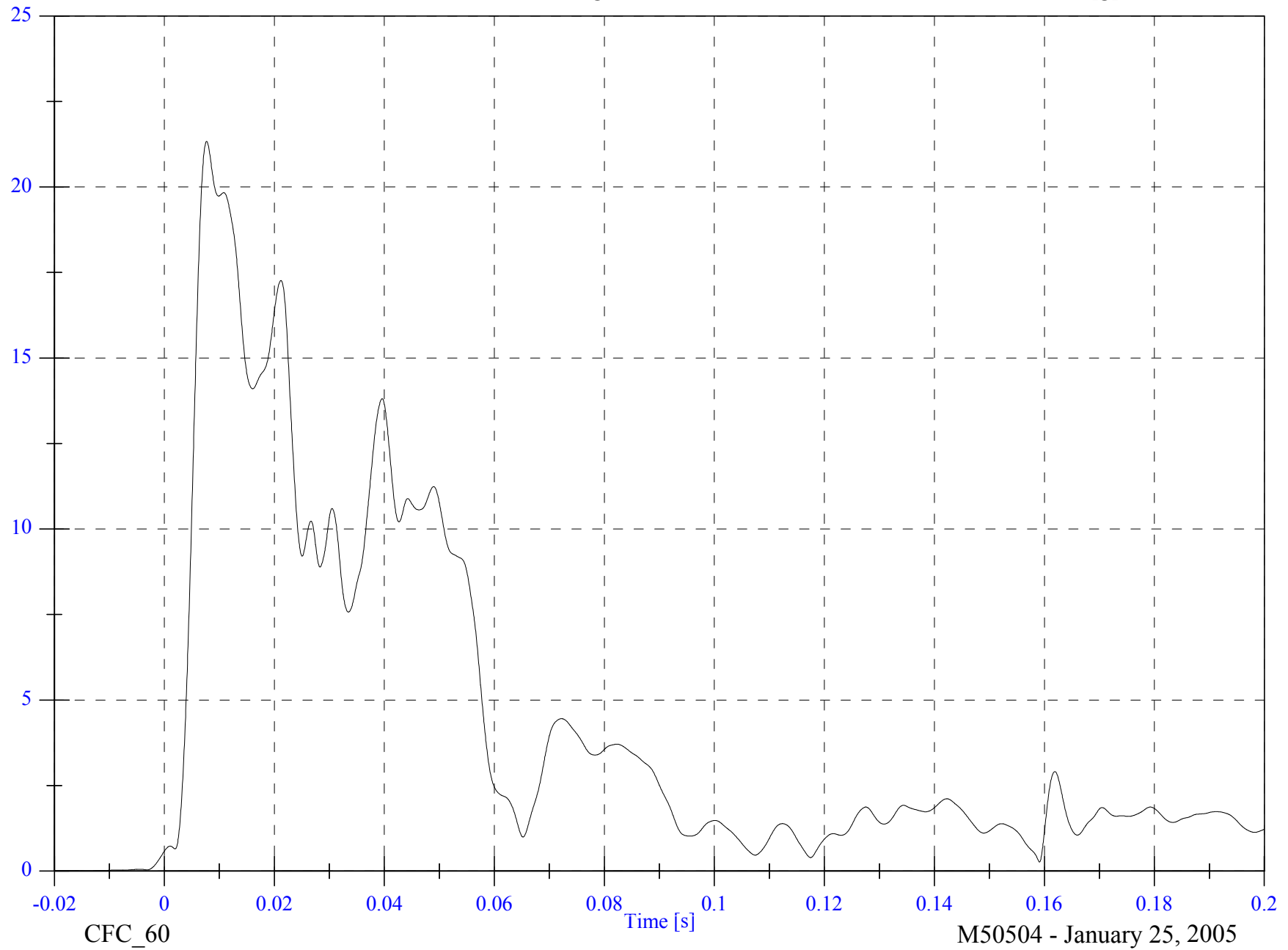
Max: 21.3 [g] at 0.008 [s]

Min: 0.0 [g] at -0.014 [s]

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8765-SNCAP-09

g



2005 SNCAP Test 4 - 2005 Suzuki Verona

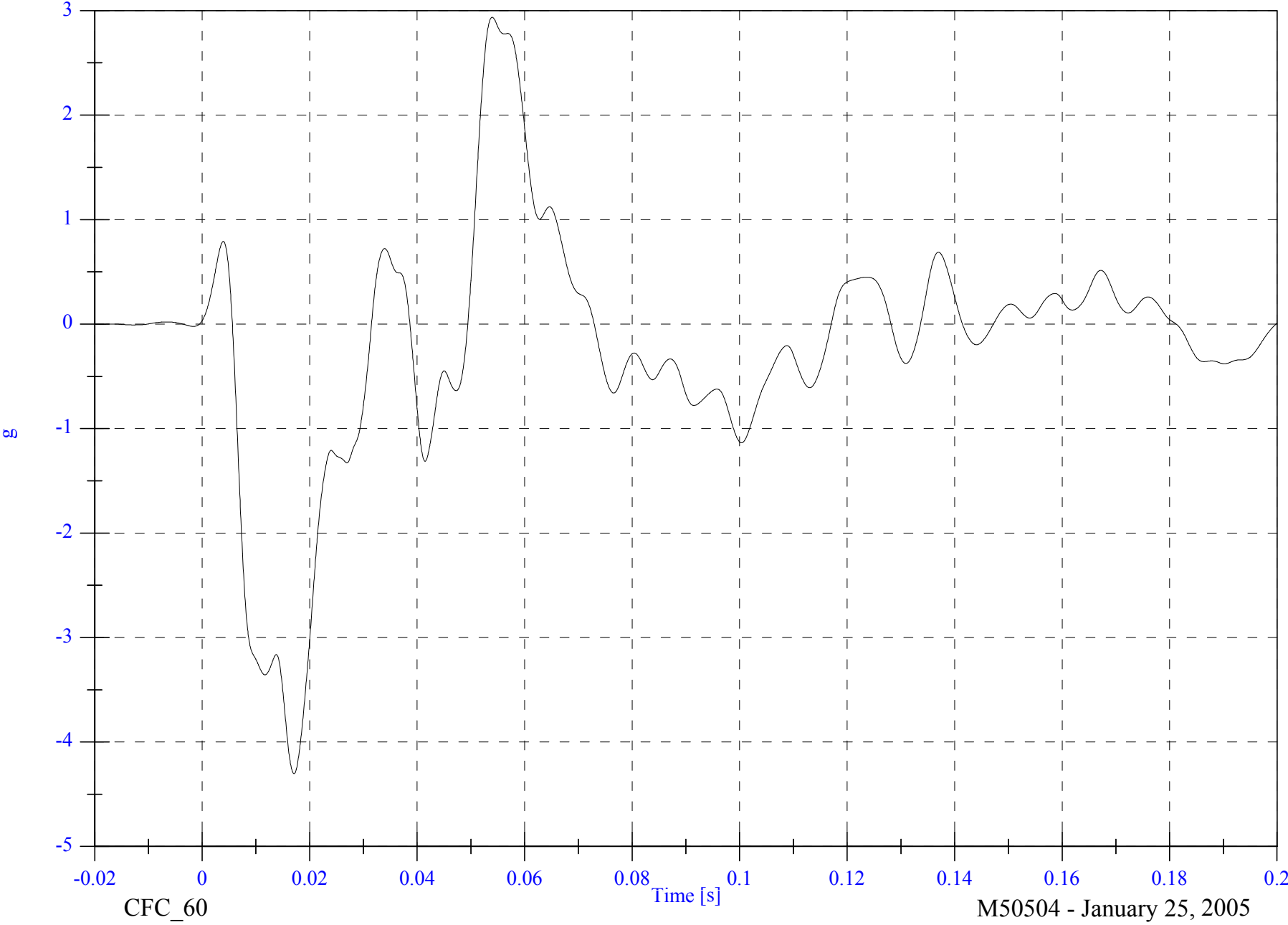
V2 A2 Right Rear Sill X

Max: 2.9 [g] at 0.054 [s]

Min: -4.3 [g] at 0.017 [s]

B-67

8765-SNCAP-09



2005 SNCAP Test 4 - 2005 Suzuki Verona

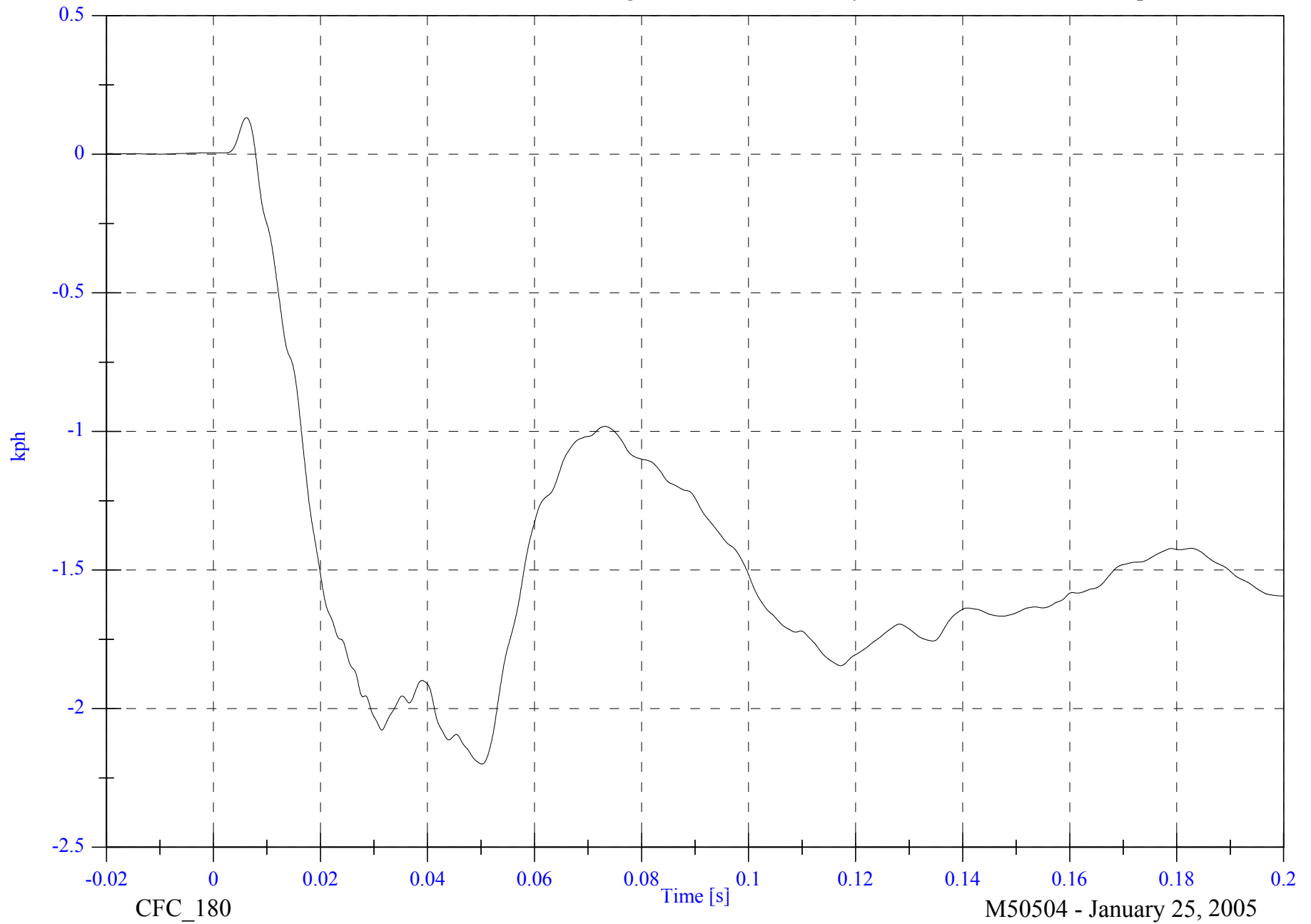
V2 A2 Right Rear Sill X Velocity

Max: 0.1 [kph] at 0.006 [s]

Min: -2.2 [kph] at 0.050 [s]

B-68

8765-SNCAP-09

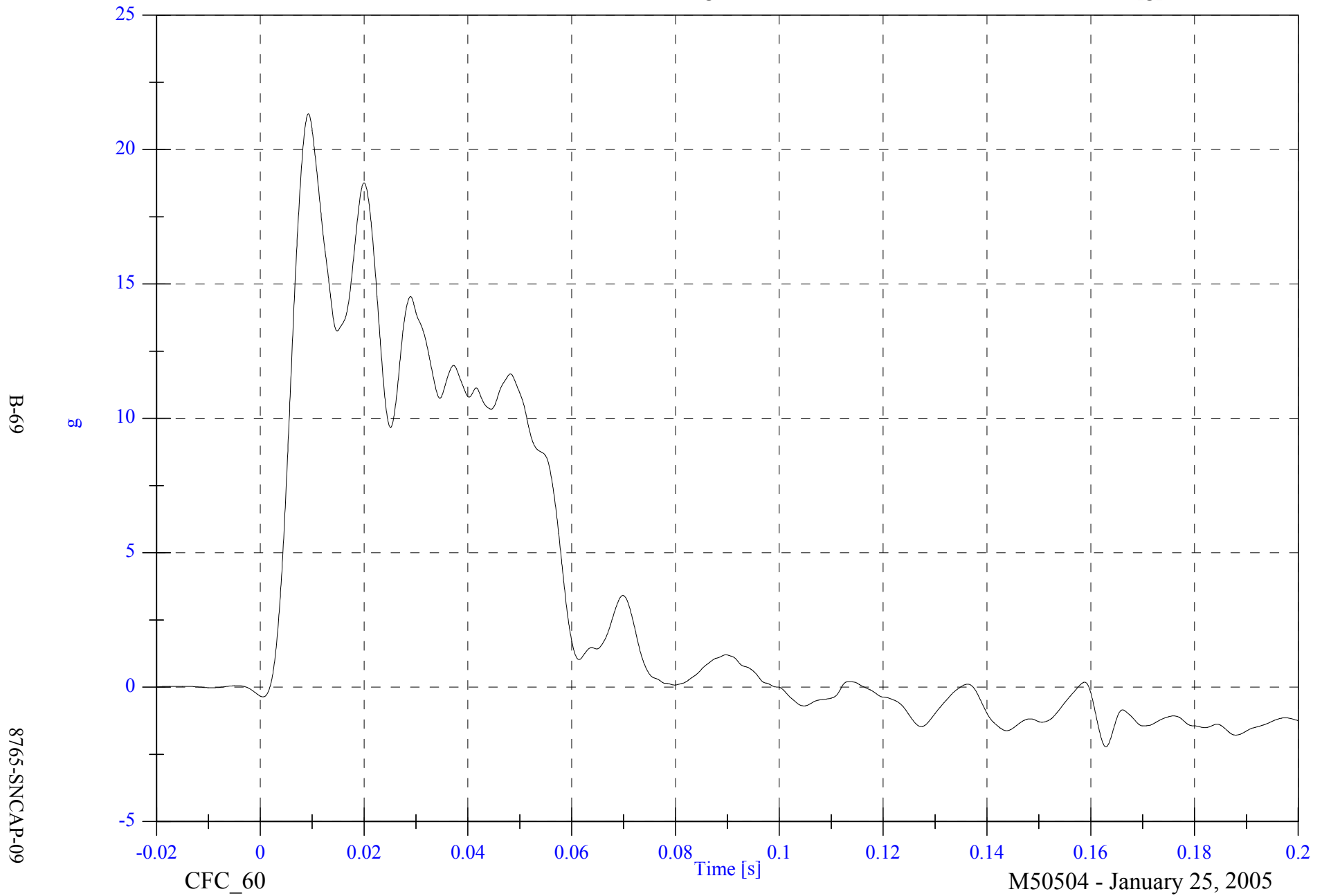


2005 SNCAP Test 4 - 2005 Suzuki Verona

V2 A2 Right Rear Sill Y

Max: 21.3 [g] at 0.009 [s]

Min: -2.2 [g] at 0.163 [s]



2005 SNCAP Test 4 - 2005 Suzuki Verona

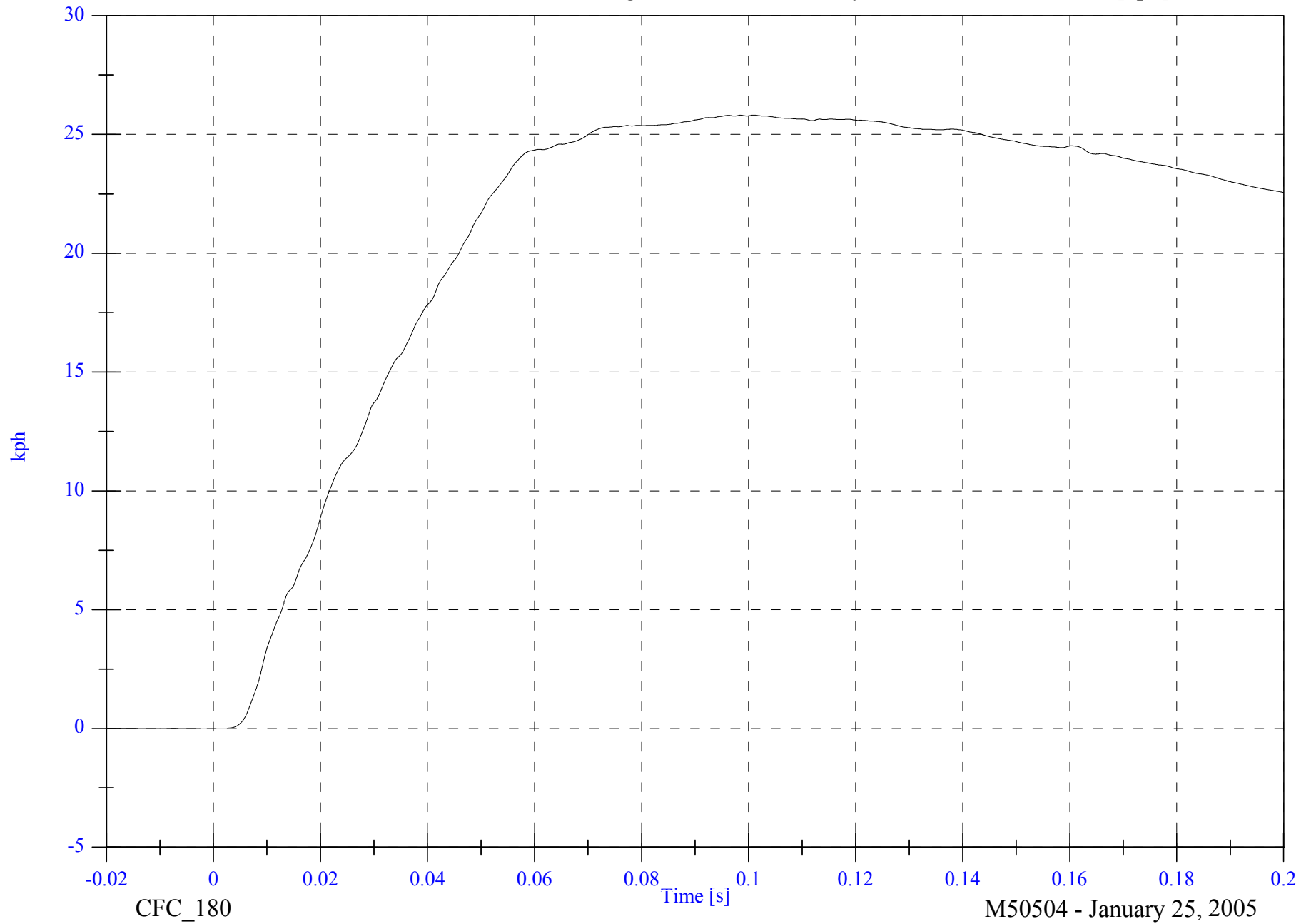
V2 A2 Right Rear Sill Y Velocity

Max: 25.8 [kph] at 0.101 [s]

Min: -0.0 [kph] at -0.019 [s]

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8765-SNCAP-09

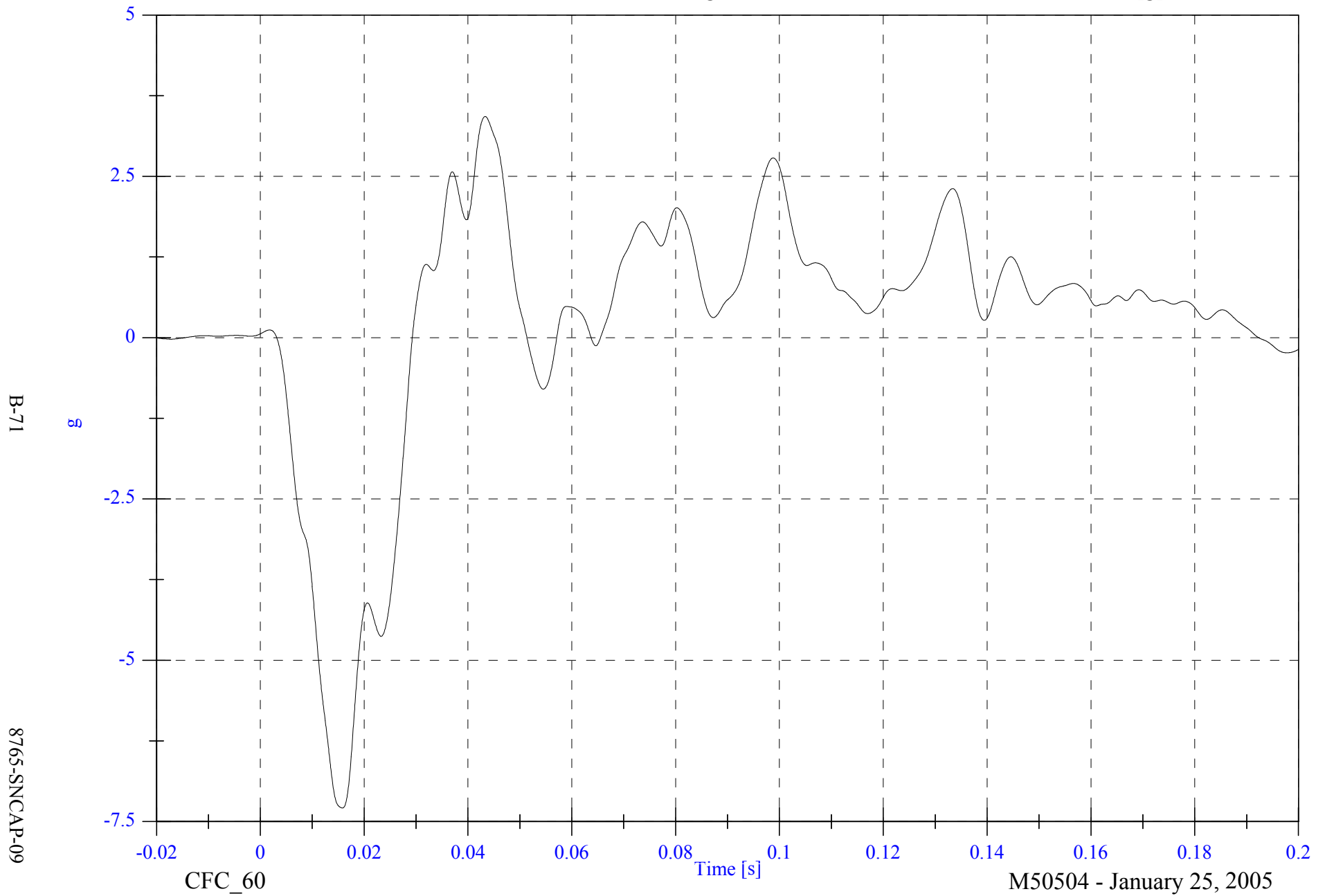


2005 SNCAP Test 4 - 2005 Suzuki Verona

V2 A2 Right Rear Sill Z

Max: 3.4 [g] at 0.043 [s]

Min: -7.3 [g] at 0.016 [s]

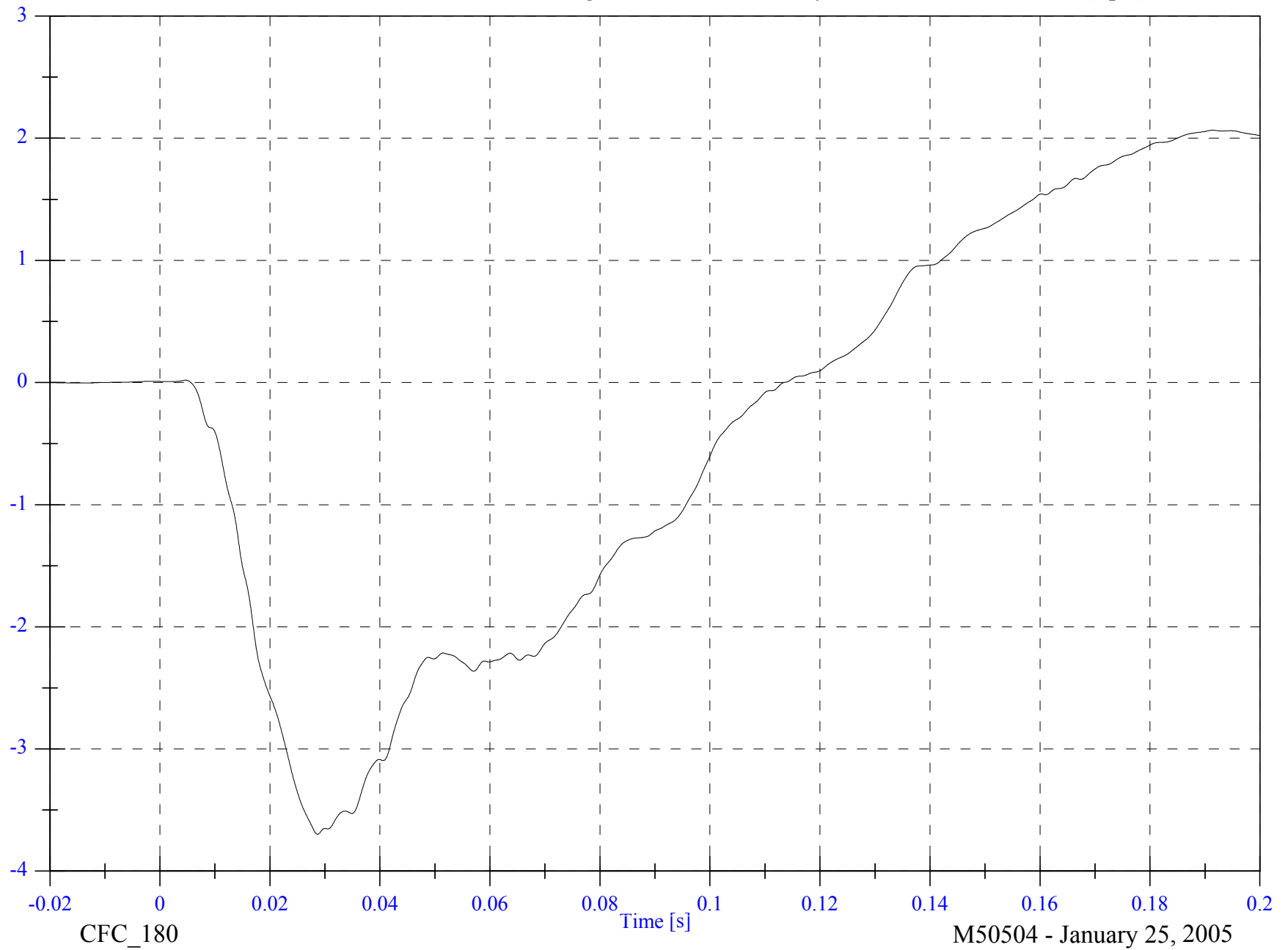


2005 SNCAP Test 4 - 2005 Suzuki Verona

V2 A2 Right Rear Sill Z Velocity

Max: 2.1 [kph] at 0.191 [s]

Min: -3.7 [kph] at 0.029 [s]



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2005 SNCAP Test 4 - 2005 Suzuki Verona

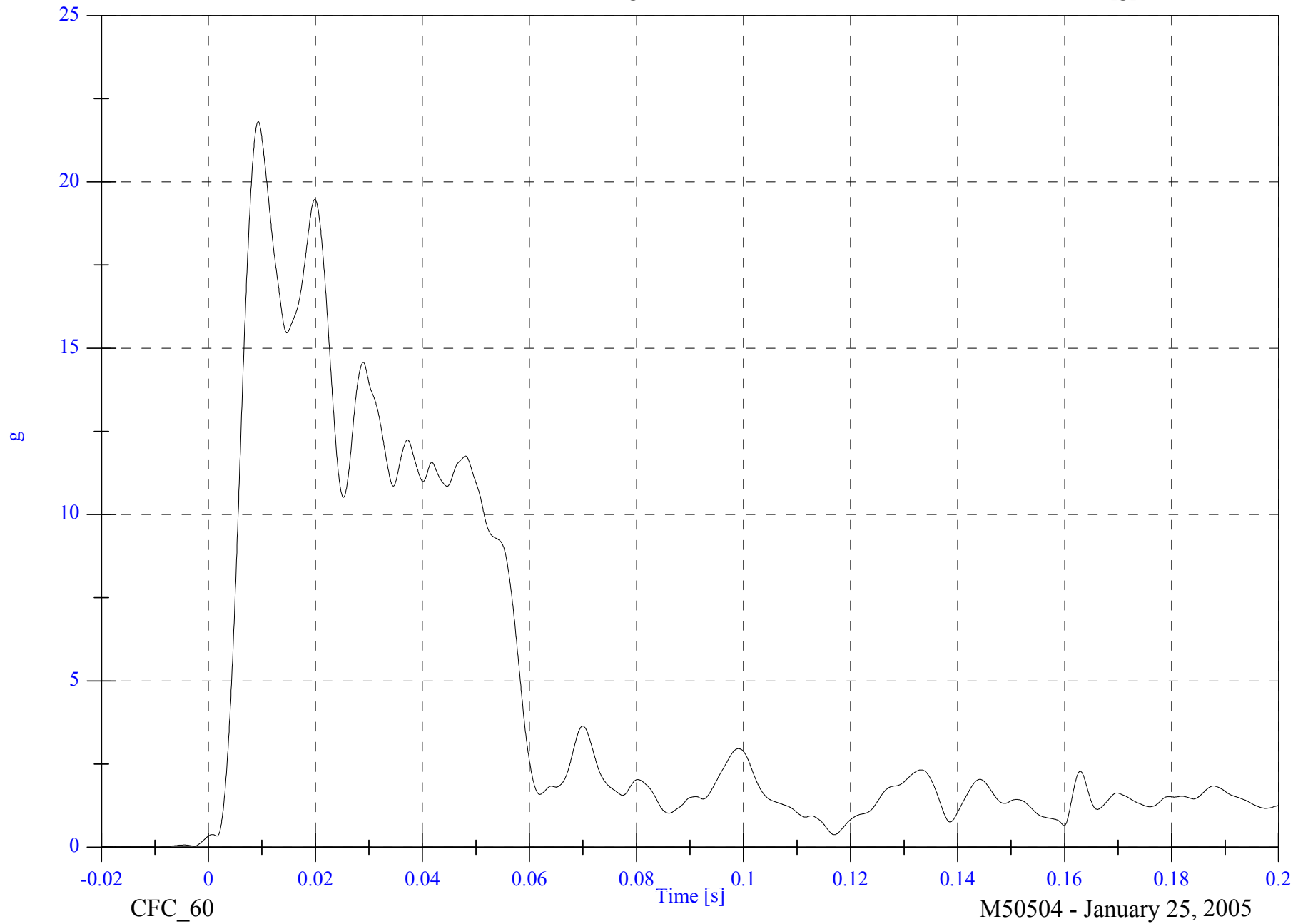
V2 A2 Right Rear Sill Resultant

Max: 21.8 [g] at 0.009 [s]

Min: 0.0 [g] at -0.020 [s]

B-73

8765-SNCAP-09

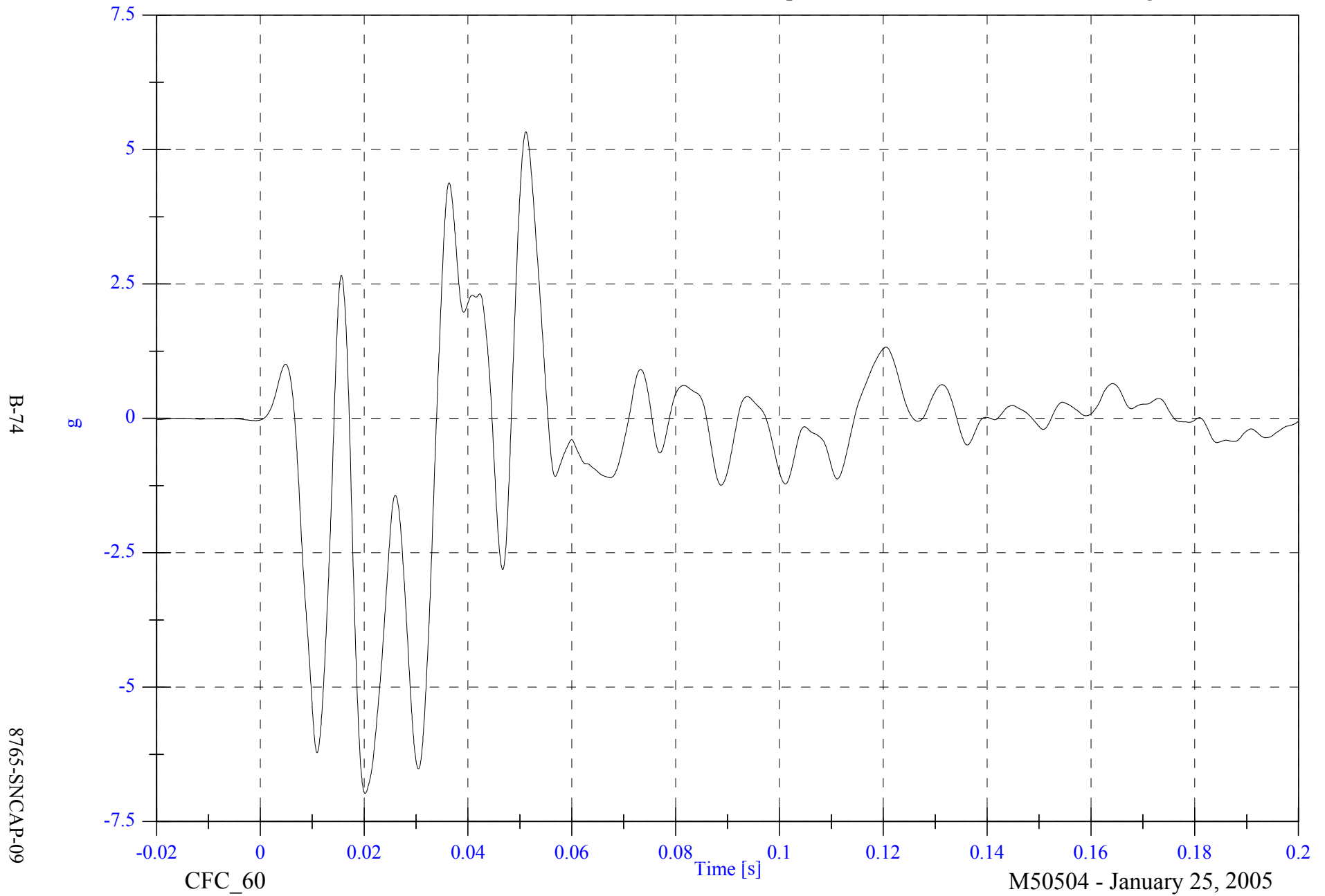


2005 SNCAP Test 4 - 2005 Suzuki Verona

V2 A3 Rear Floorpan X

Max: 5.3 [g] at 0.051 [s]

Min: -7.0 [g] at 0.020 [s]



2005 SNCAP Test 4 - 2005 Suzuki Verona

V2 A3 Rear Floorpan X Velocity

Max: 0.2 [kph] at 0.007 [s]

Min: -3.3 [kph] at 0.035 [s]



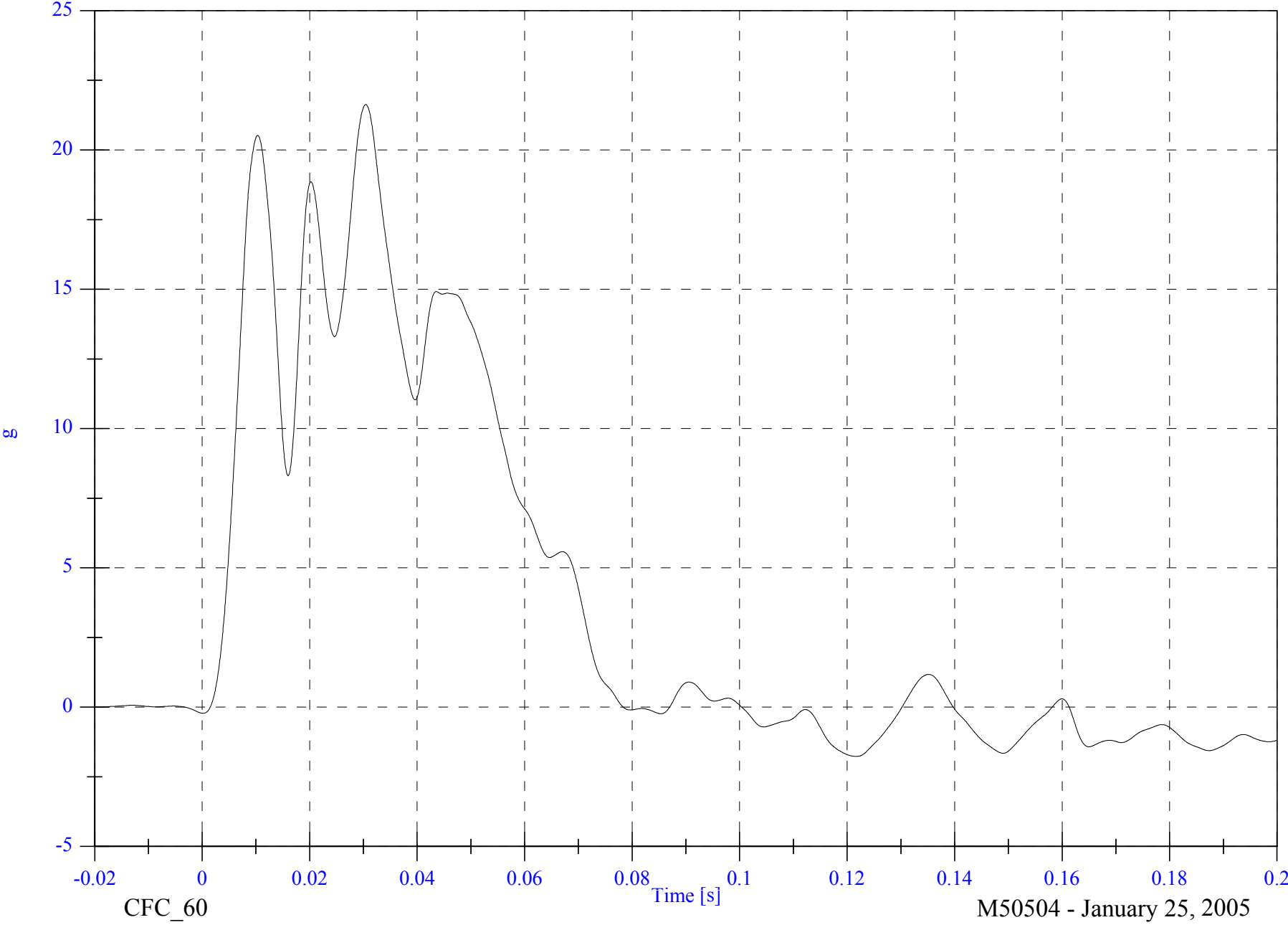
2005 SNCAP Test 4 - 2005 Suzuki Verona

V2 A3 Rear Floorpan Y

Max: 21.6 [g] at 0.030 [s]
Min: -1.8 [g] at 0.122 [s]

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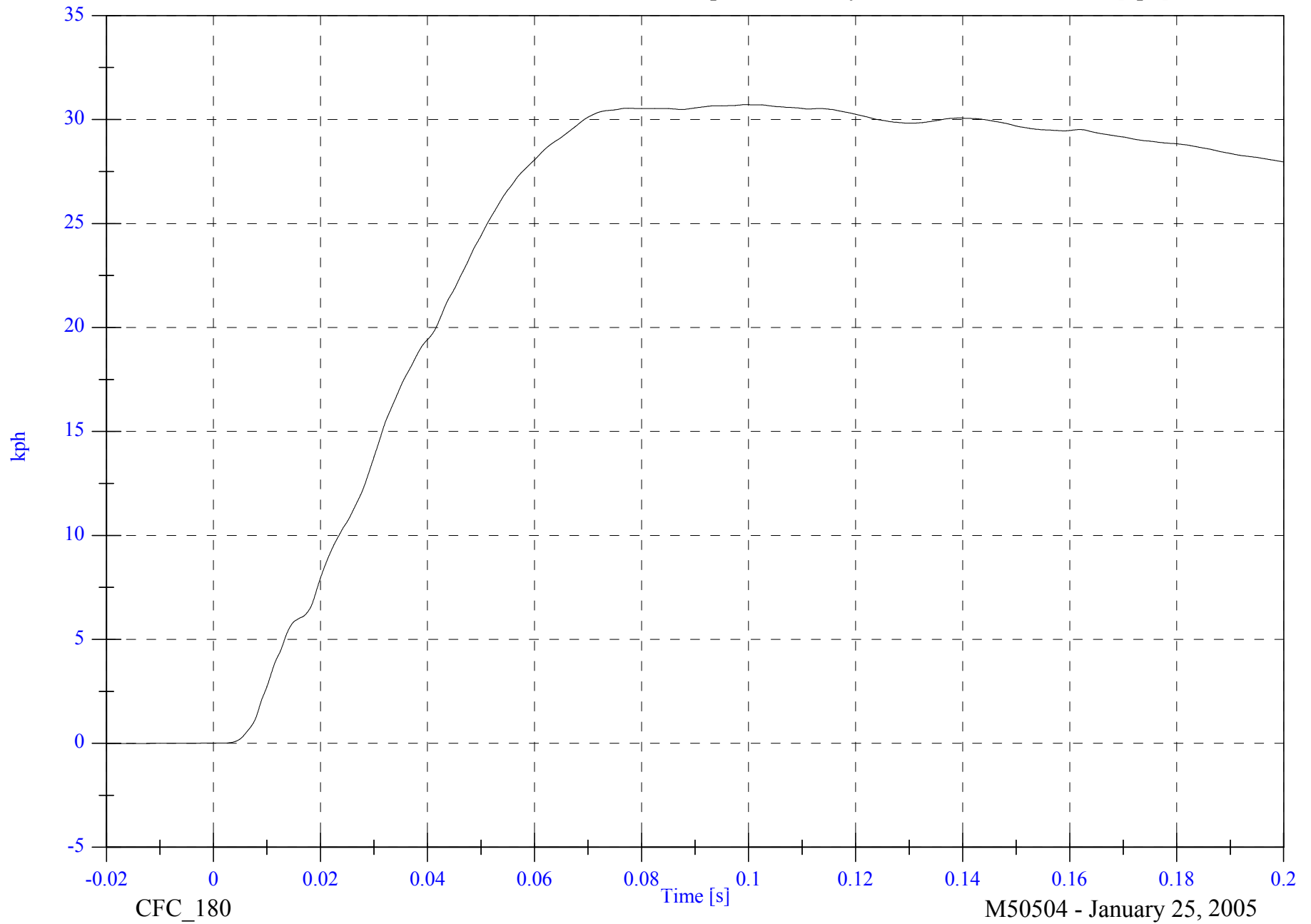


2005 SNCAP Test 4 - 2005 Suzuki Verona

V2 A3 Rear Floorpan Y Velocity

Max: 30.7 [kph] at 0.099 [s]

Min: -0.0 [kph] at -0.018 [s]



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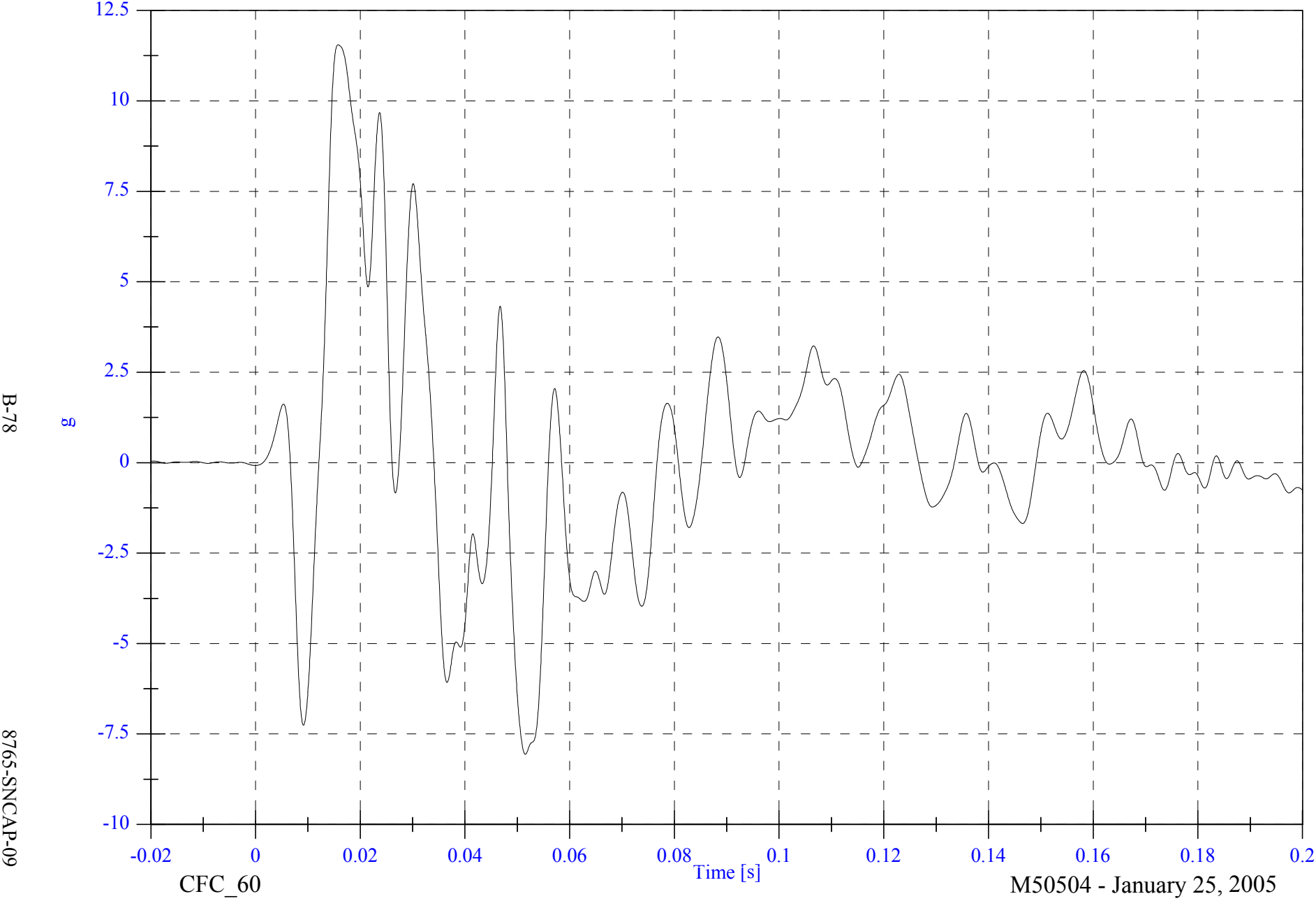
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2005 SNCAP Test 4 - 2005 Suzuki Verona

V2 A3 Rear Floorplan Z

Max: 11.5 [g] at 0.016 [s]

Min: -8.1 [g] at 0.052 [s]

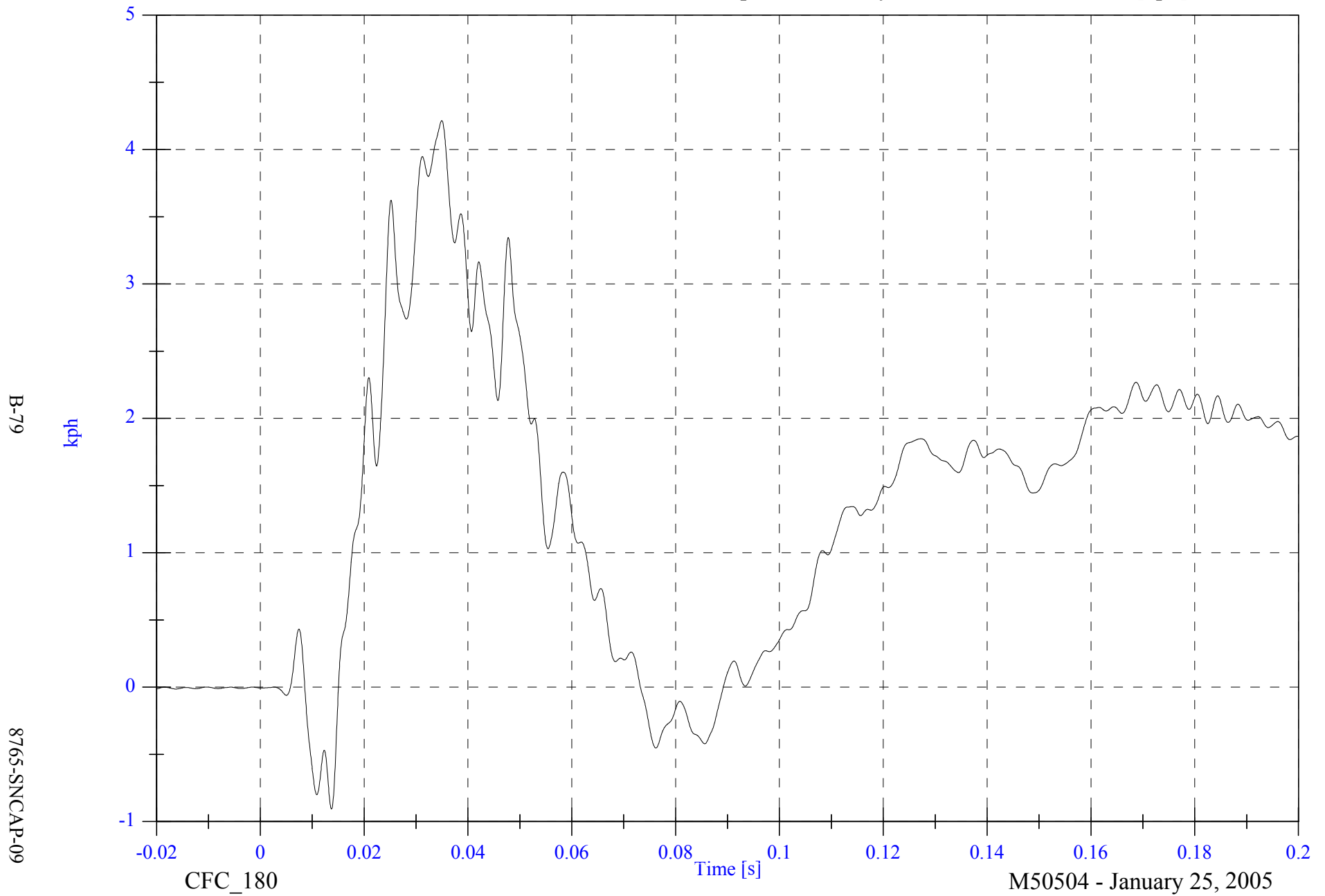


2005 SNCAP Test 4 - 2005 Suzuki Verona

V2 A3 Rear Floorplan Z Velocity

Max: 4.2 [kph] at 0.035 [s]

Min: -0.9 [kph] at 0.014 [s]



2005 SNCAP Test 4 - 2005 Suzuki Verona

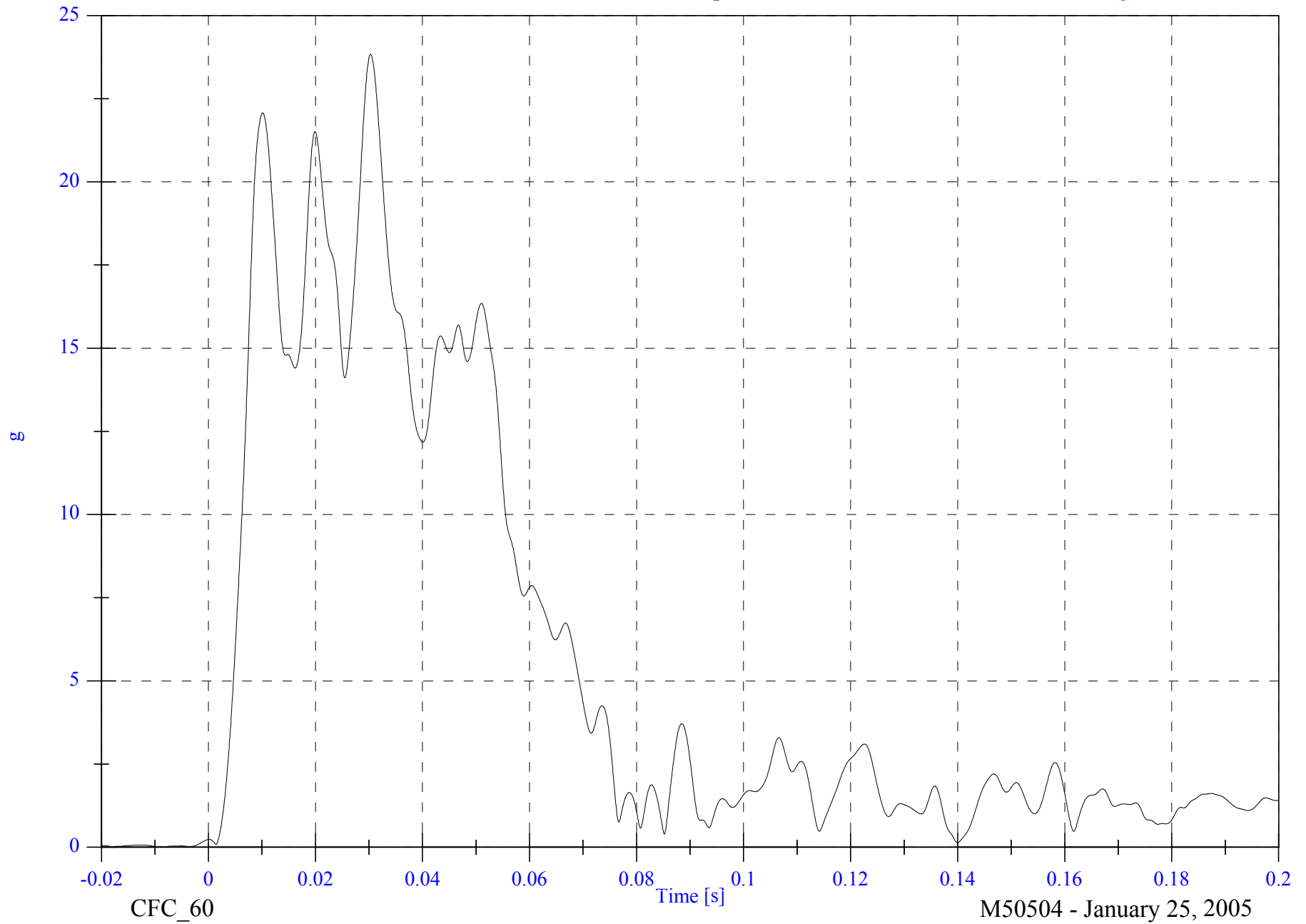
V2 A3 Rear Floorpan Resultant

Max: 23.8 [g] at 0.030 [s]

Min: 0.0 [g] at -0.018 [s]

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2005 SNCAP Test 4 - 2005 Suzuki Verona

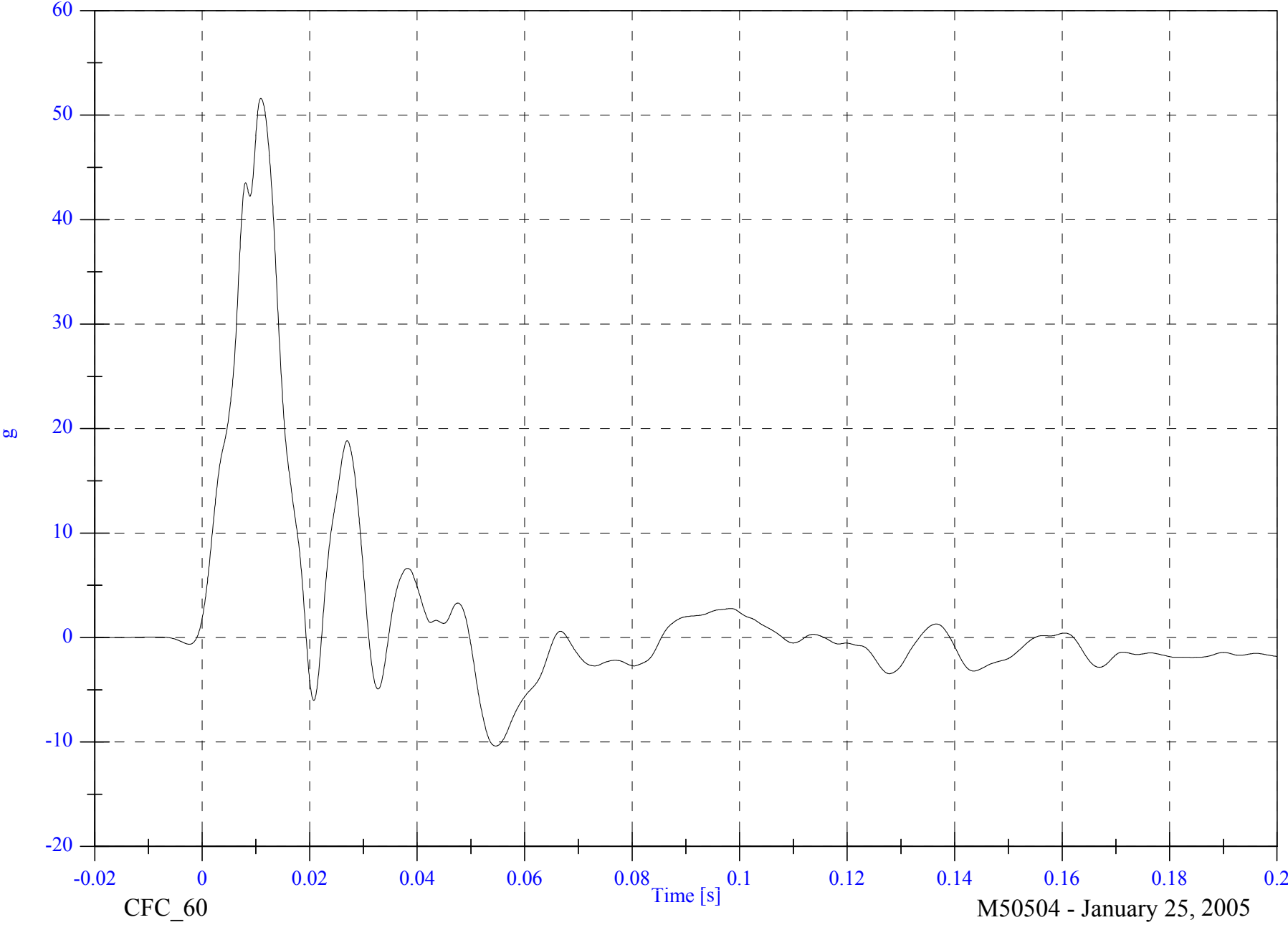
V2 A4 Left Rear Sill Y

Max: 51.6 [g] at 0.011 [s]

Min: -10.4 [g] at 0.055 [s]

B-81

8765-SNCAP-09

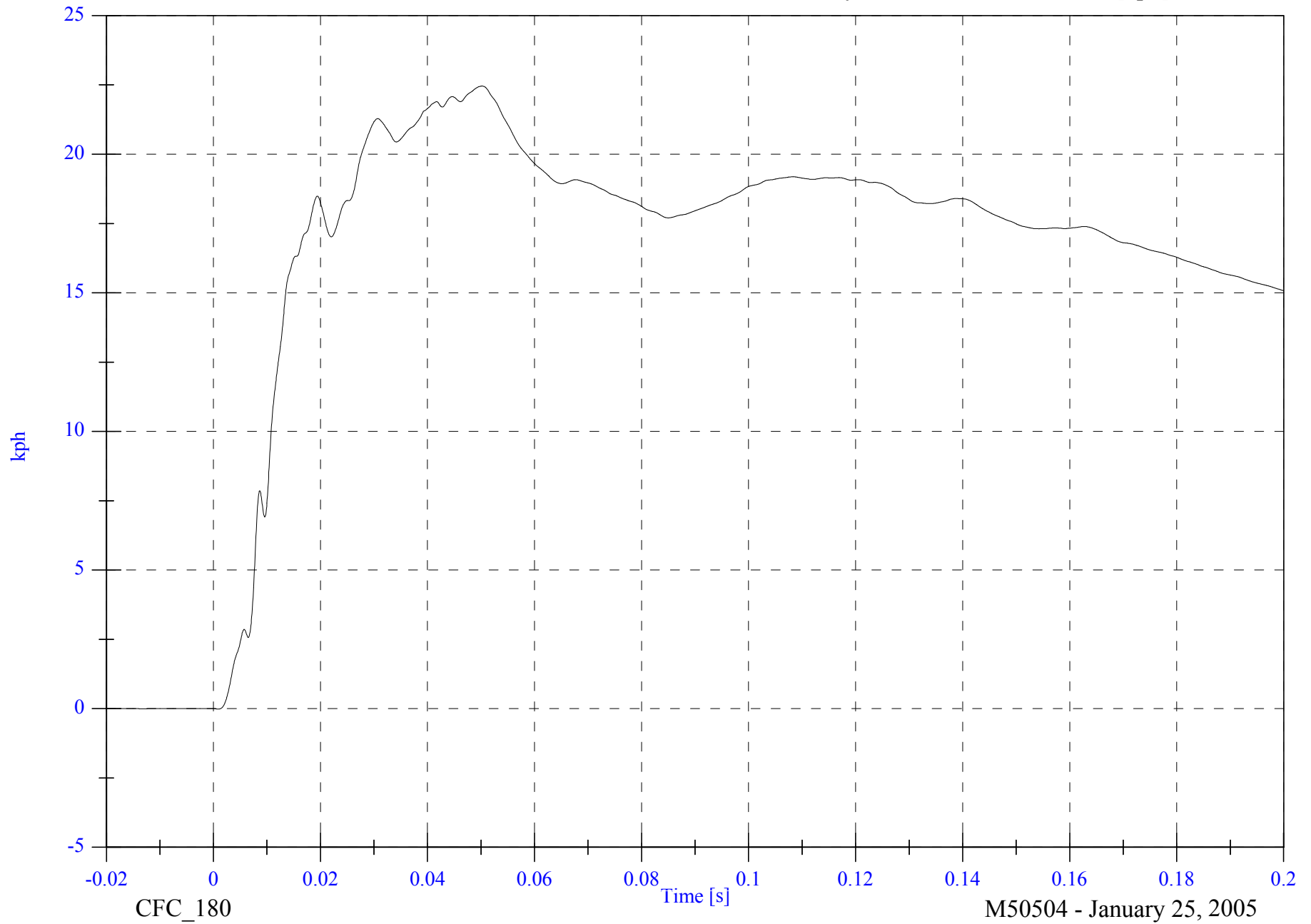


2005 SNCAP Test 4 - 2005 Suzuki Verona

V2 A4 Left Rear Sill Y Velocity

Max: 22.5 [kph] at 0.050 [s]

Min: -0.0 [kph] at 0.001 [s]



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2005 SNCAP Test 4 - 2005 Suzuki Verona

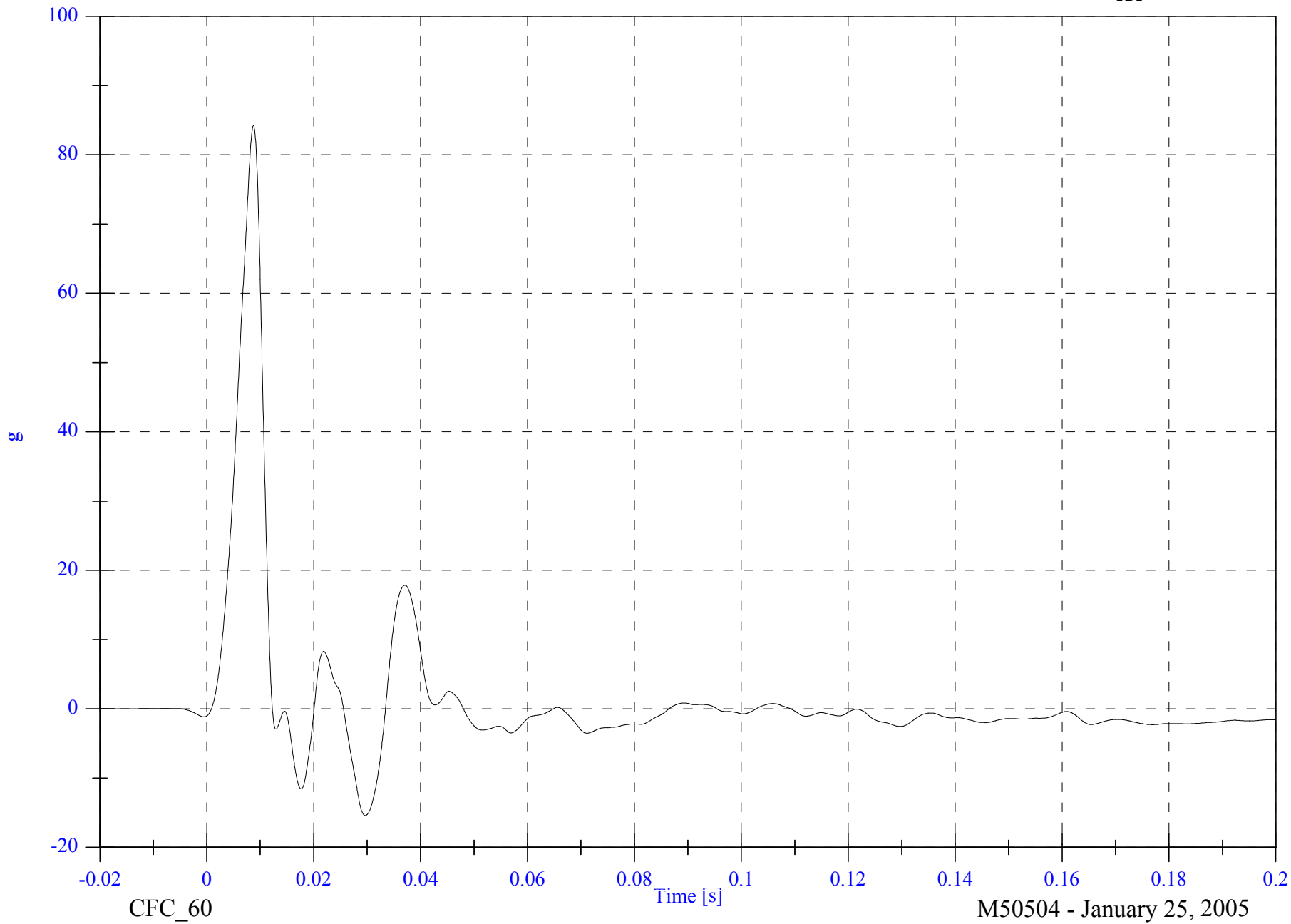
V2 A5 Left Front Sill Y

Max: 84.2 [g] at 0.009 [s]

Min: -15.4 [g] at 0.030 [s]

B-83

8765-SNCAP-09

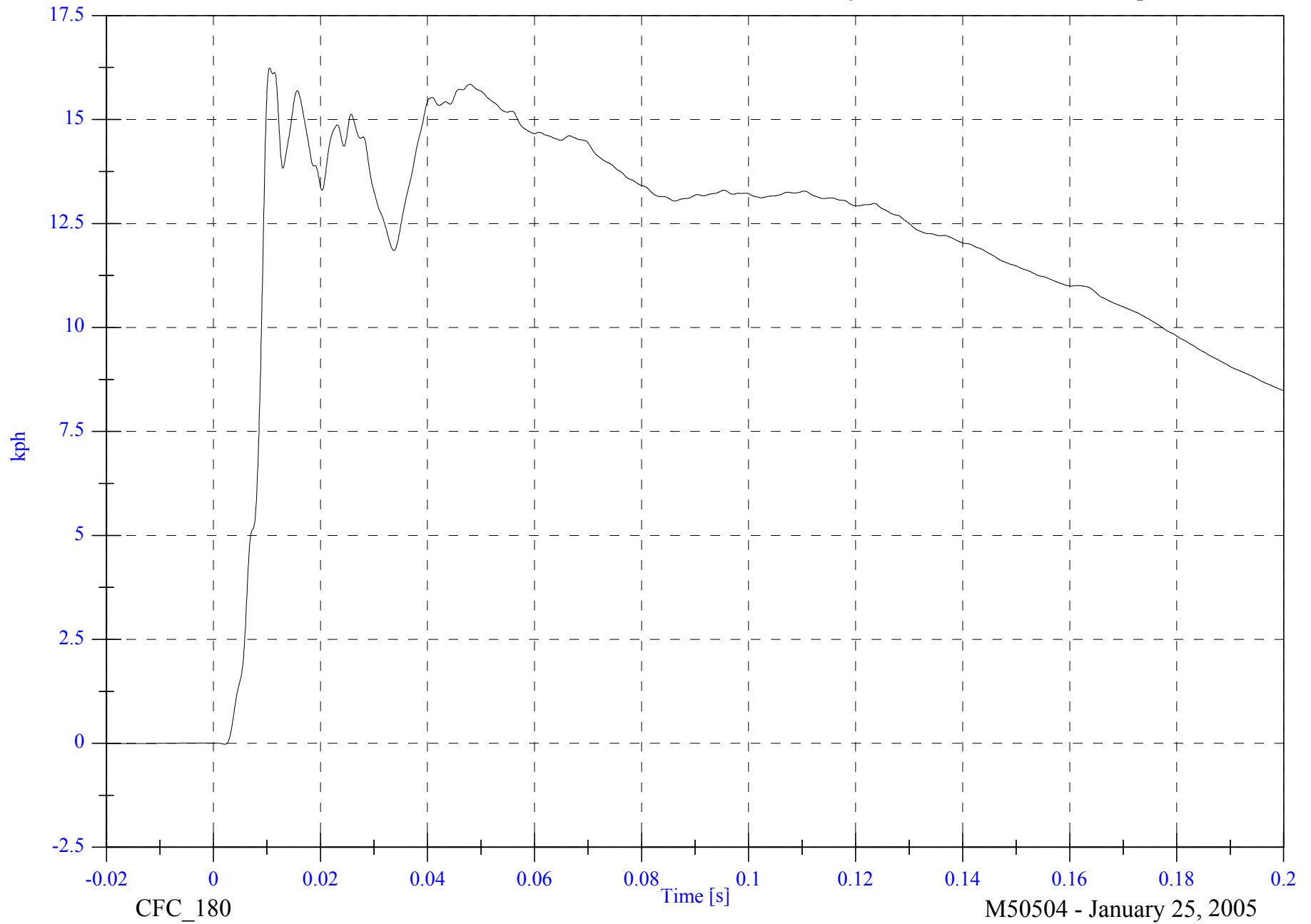


2005 SNCAP Test 4 - 2005 Suzuki Verona

V2 A5 Left Front Sill Y Velocity

Max: 16.2 [kph] at 0.010 [s]

Min: -0.0 [kph] at 0.002 [s]



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8765-SNCAP-09

CFC_180

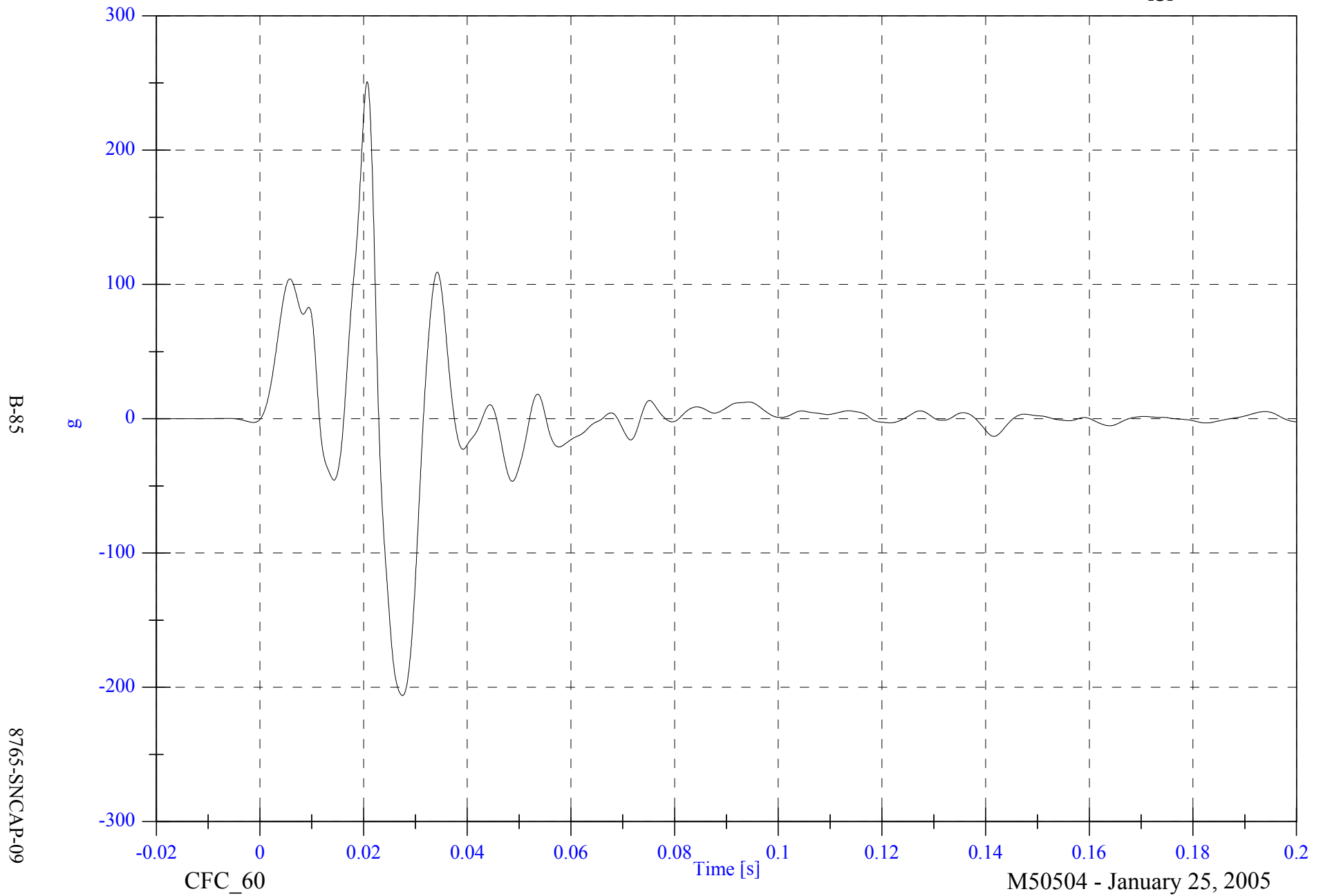
M50504 - January 25, 2005

2005 SNCAP Test 4 - 2005 Suzuki Verona

V2 A6 Left Front Door C/L Y

Max: 251.0 [g] at 0.021 [s]

Min: -206.0 [g] at 0.027 [s]



2005 SNCAP Test 4 - 2005 Suzuki Verona

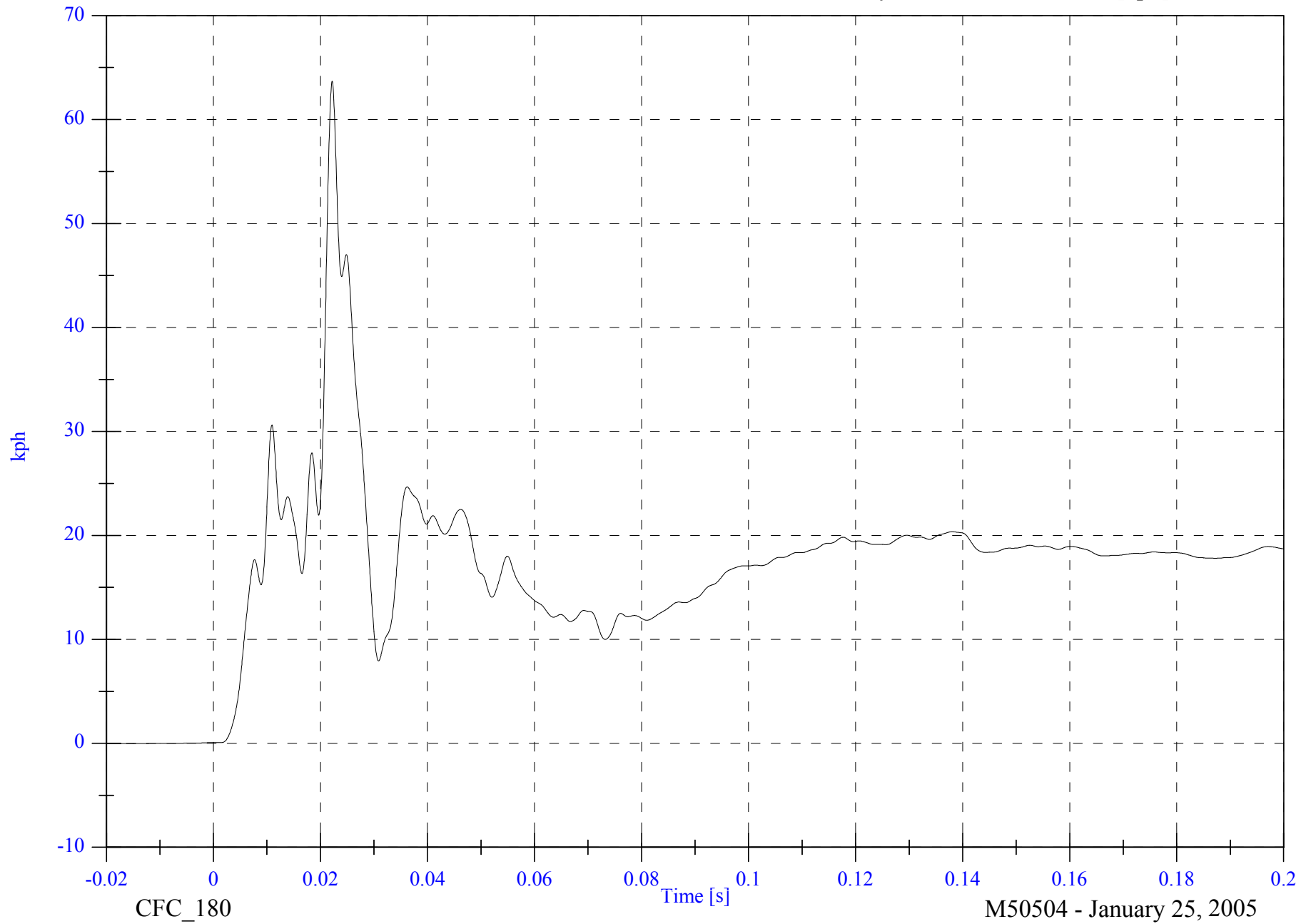
V2 A6 Left Front Door C/L Y Velocity

Max: 63.7 [kph] at 0.022 [s]

Min: -0.0 [kph] at -0.017 [s]

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8765-SNCAP-09

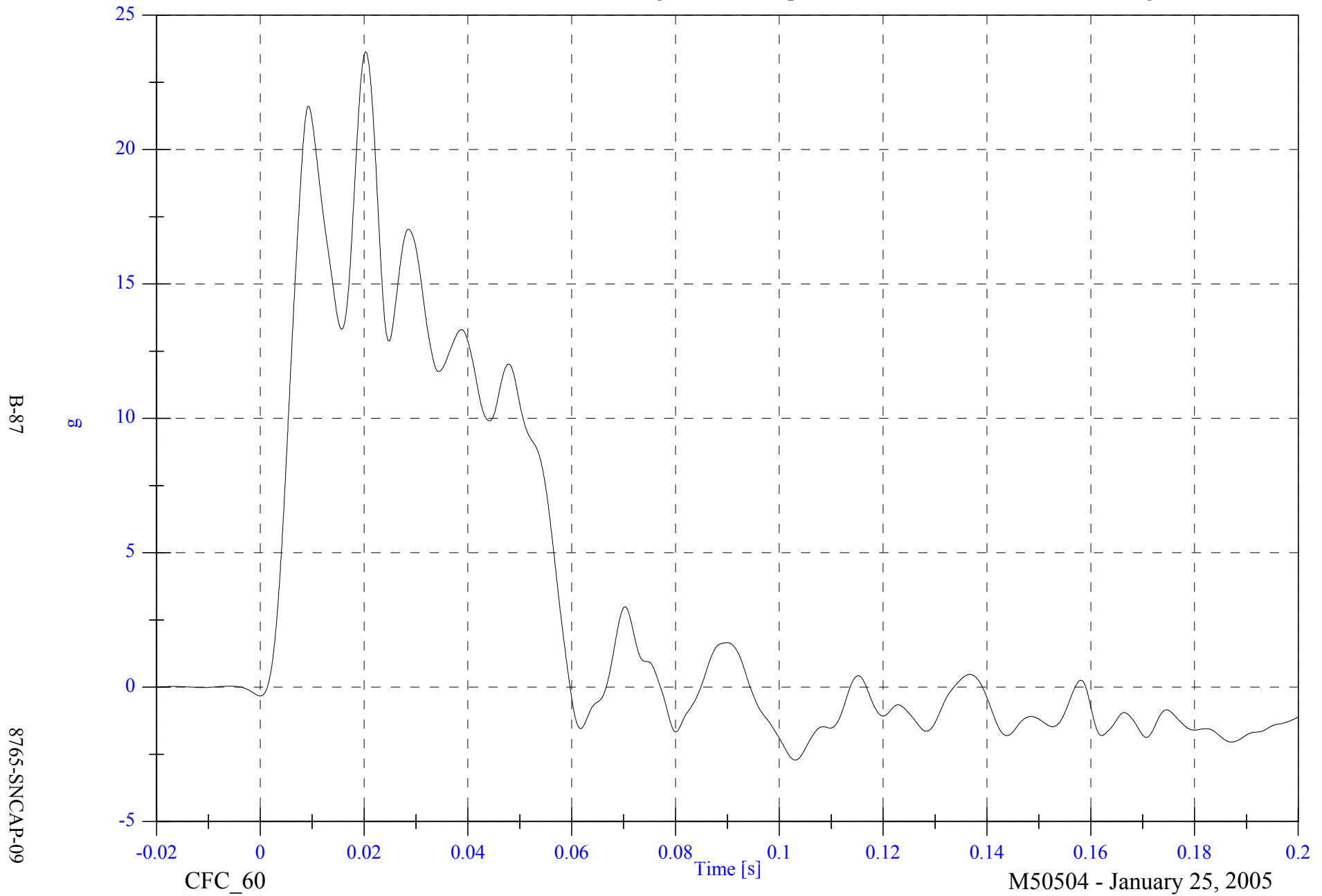


2005 SNCAP Test 4 - 2005 Suzuki Verona

V2 A7 Right Rear Compartment Y

Max: 23.6 [g] at 0.020 [s]

Min: -2.7 [g] at 0.103 [s]



2005 SNCAP Test 4 - 2005 Suzuki Verona

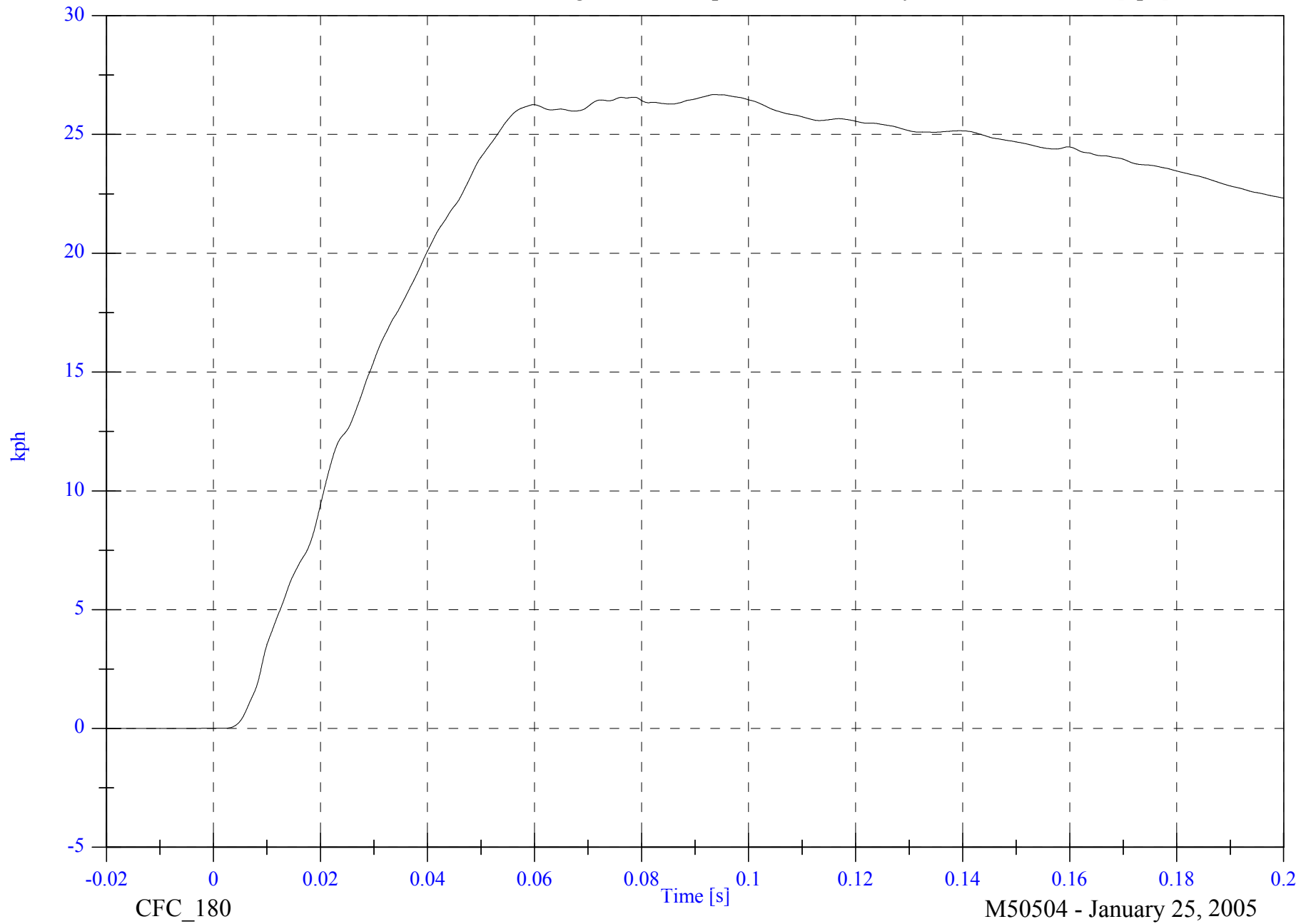
V2 A7 Right Rear Compartment Y Velocity

Max: 26.7 [kph] at 0.094 [s]

Min: -0.0 [kph] at -0.020 [s]

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2005 SNCAP Test 4 - 2005 Suzuki Verona

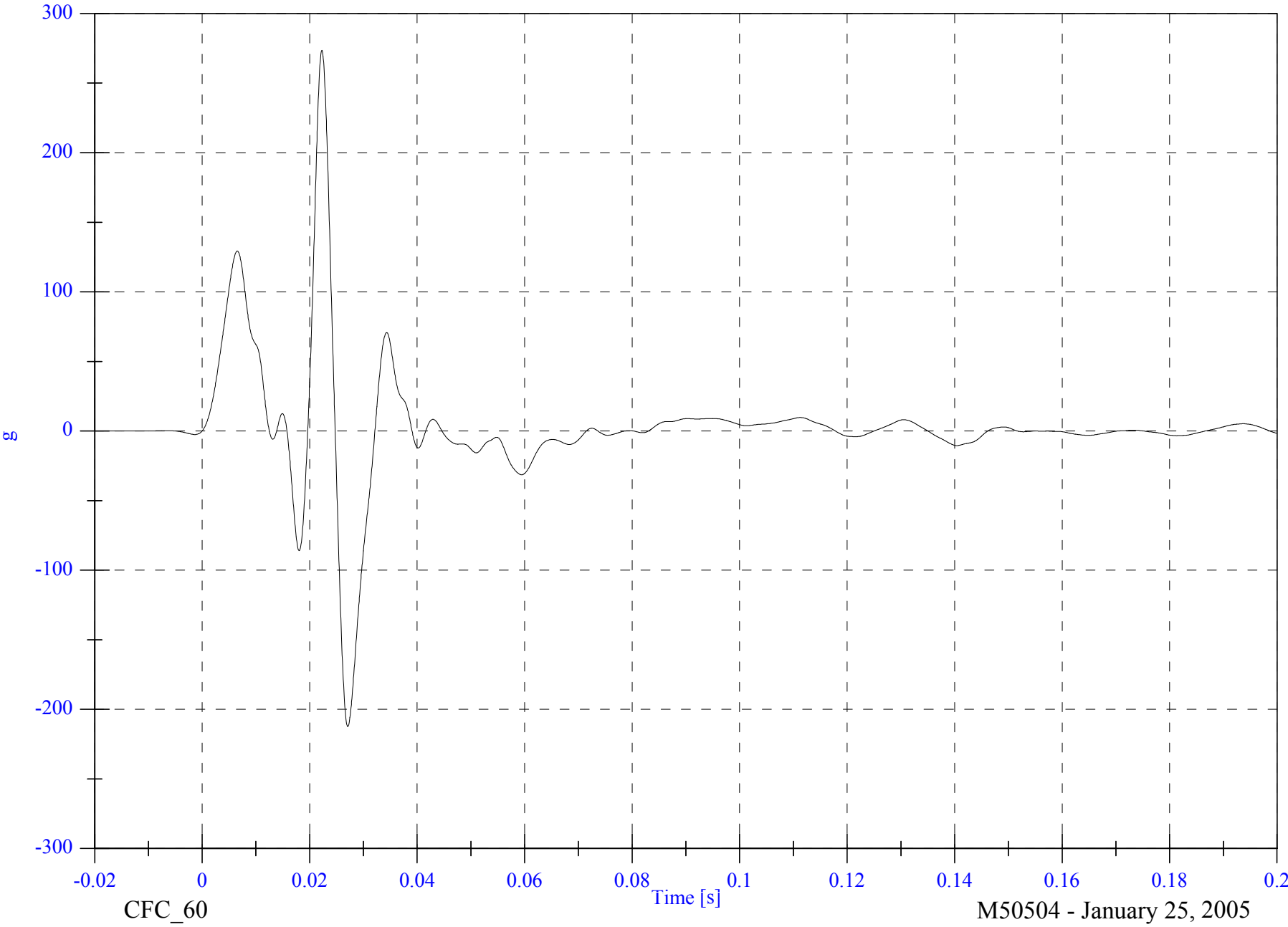
V2 A8 Left Front Door Midrear Y

Max: 273.5 [g] at 0.022 [s]

Min: -212.4 [g] at 0.027 [s]

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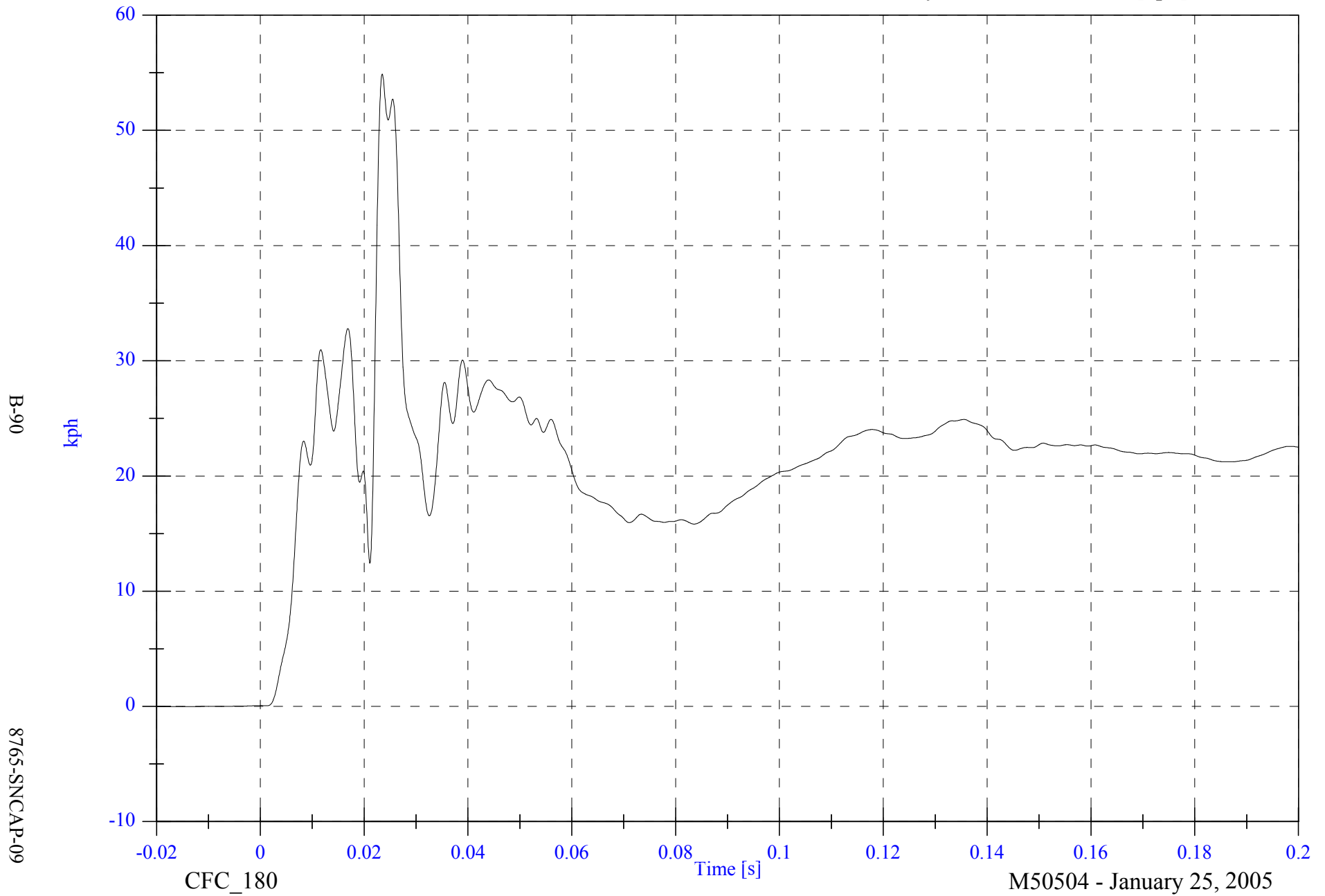


2005 SNCAP Test 4 - 2005 Suzuki Verona

V2 A8 Left Front Door Midrear Y Velocity

Max: 54.9 [kph] at 0.023 [s]

Min: -0.0 [kph] at -0.019 [s]

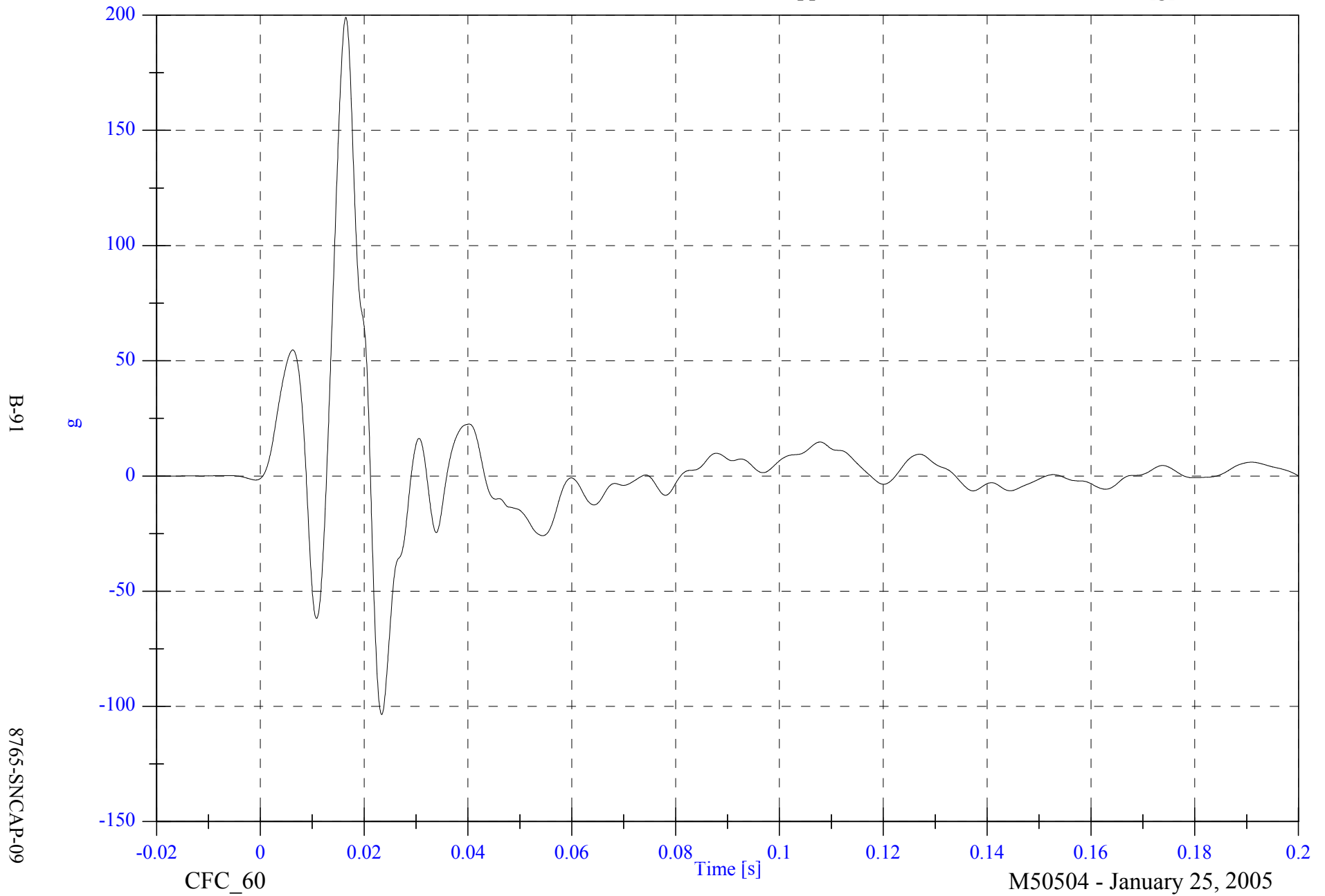


2005 SNCAP Test 4 - 2005 Suzuki Verona

V2 A9 Left Front Door Upper C/L Y

Max: 199.0 [g] at 0.016 [s]

Min: -103.5 [g] at 0.023 [s]



2005 SNCAP Test 4 - 2005 Suzuki Verona

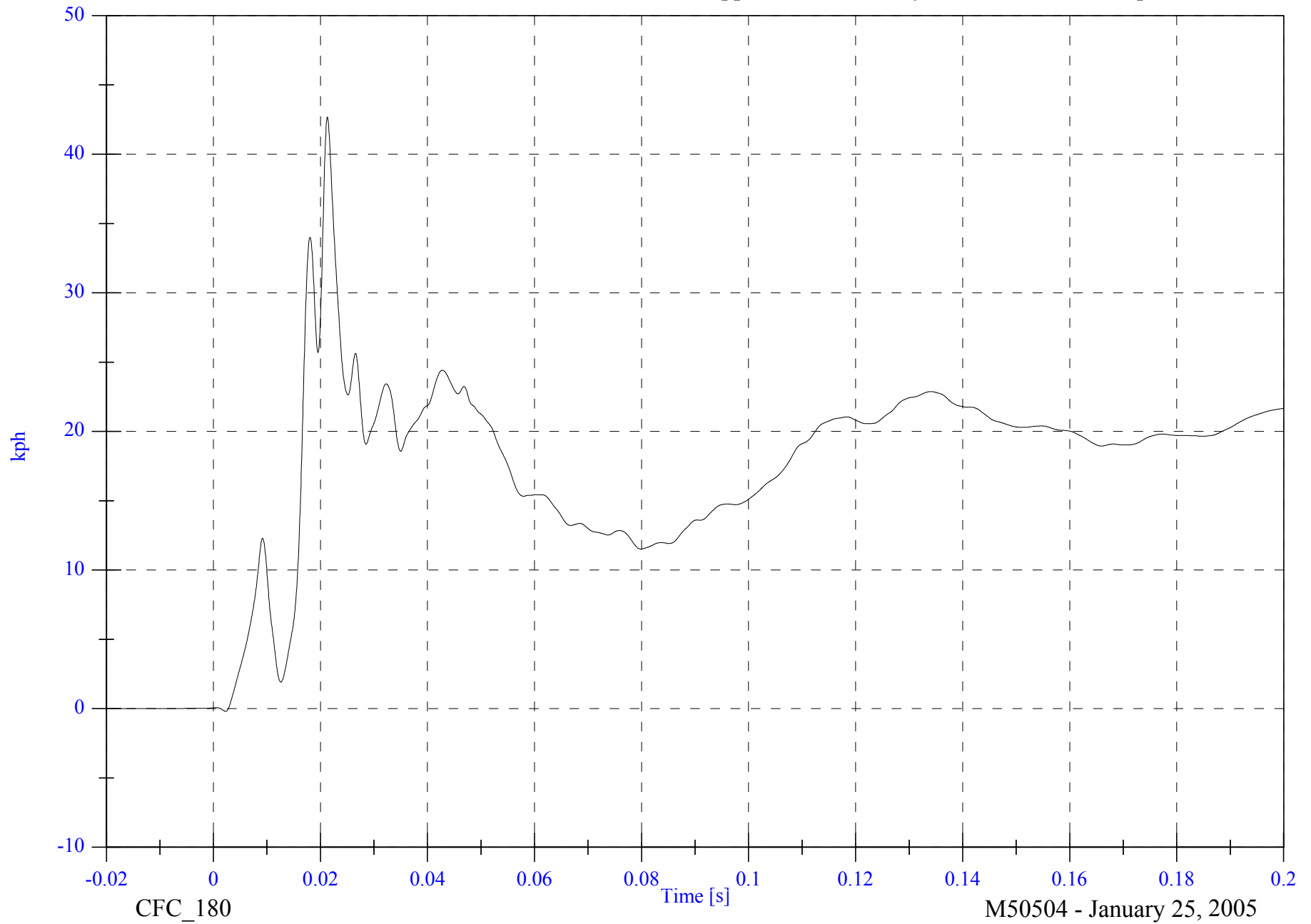
V2 A9 Left Front Door Upper C/L Y Velocity

Max: 42.7 [kph] at 0.021 [s]

Min: -0.2 [kph] at 0.002 [s]

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8765-SNCAP-09

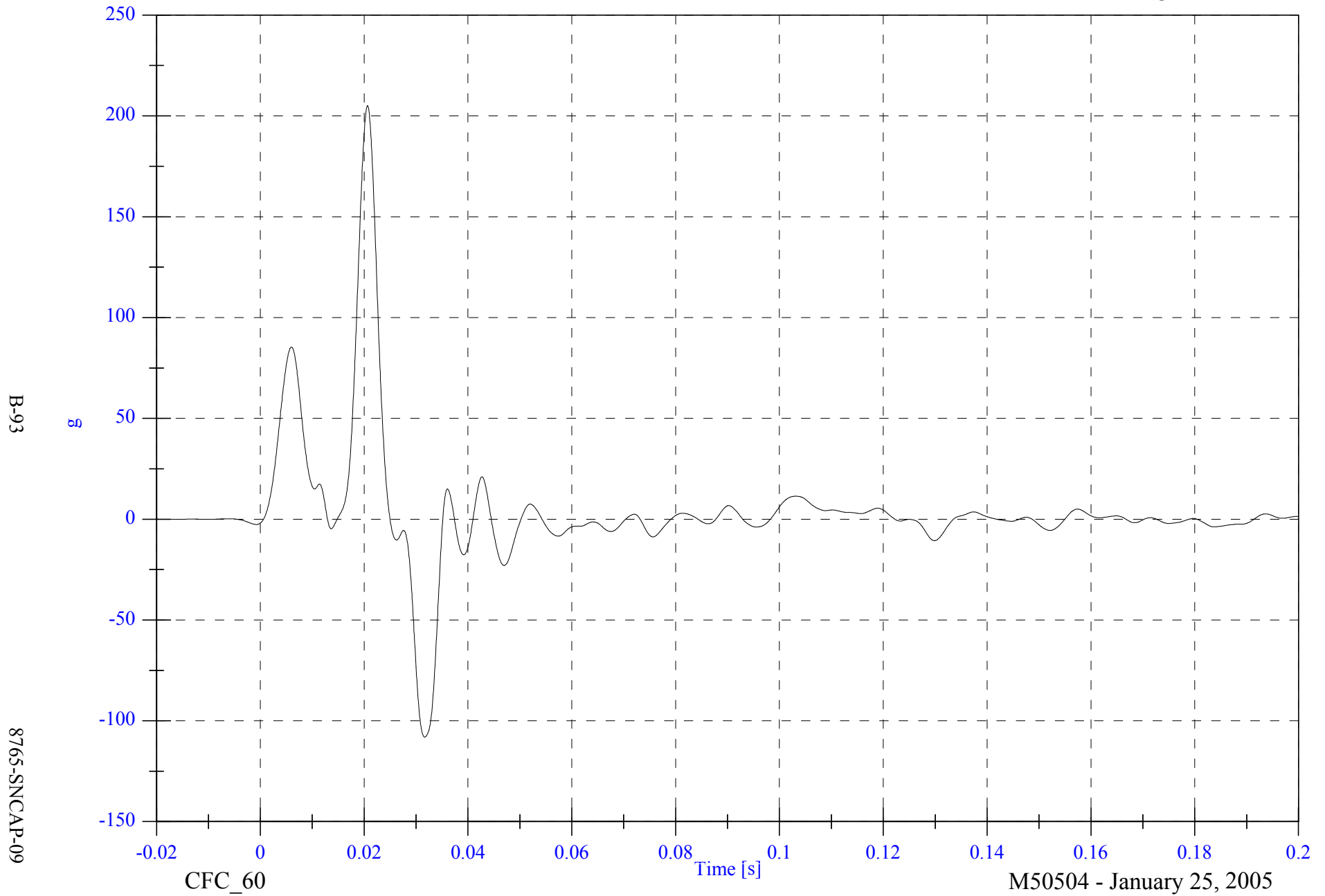


2005 SNCAP Test 4 - 2005 Suzuki Verona

V2 A10 Left Rear Door Midrear Y

Max: 205.2 [g] at 0.021 [s]

Min: -108.1 [g] at 0.032 [s]



2005 SNCAP Test 4 - 2005 Suzuki Verona

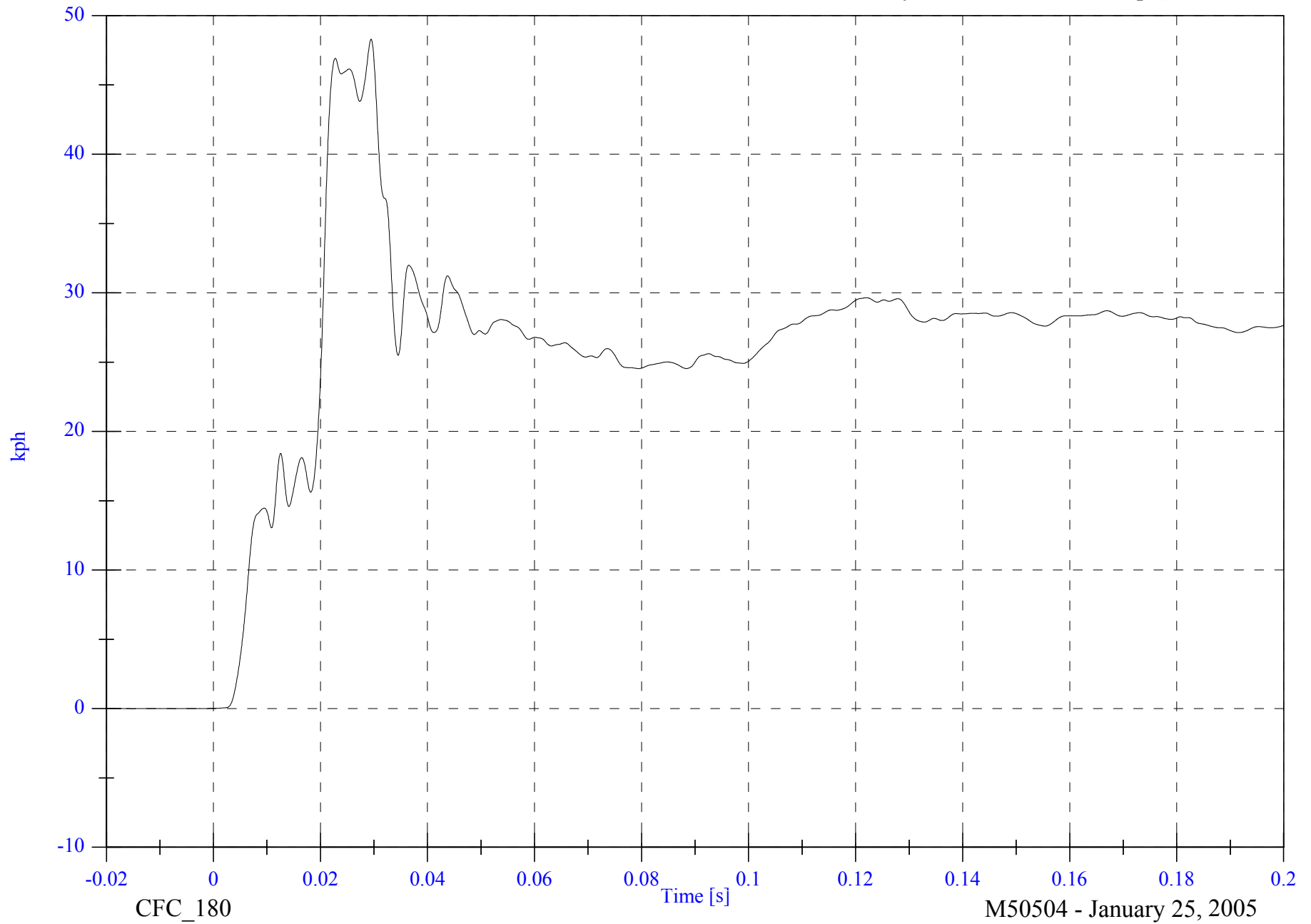
V2 A10 Left Rear Door Midrear Y Velocity

Max: 48.3 [kph] at 0.029 [s]

Min: -0.0 [kph] at -0.015 [s]

B-94

8765-SNCAP-09

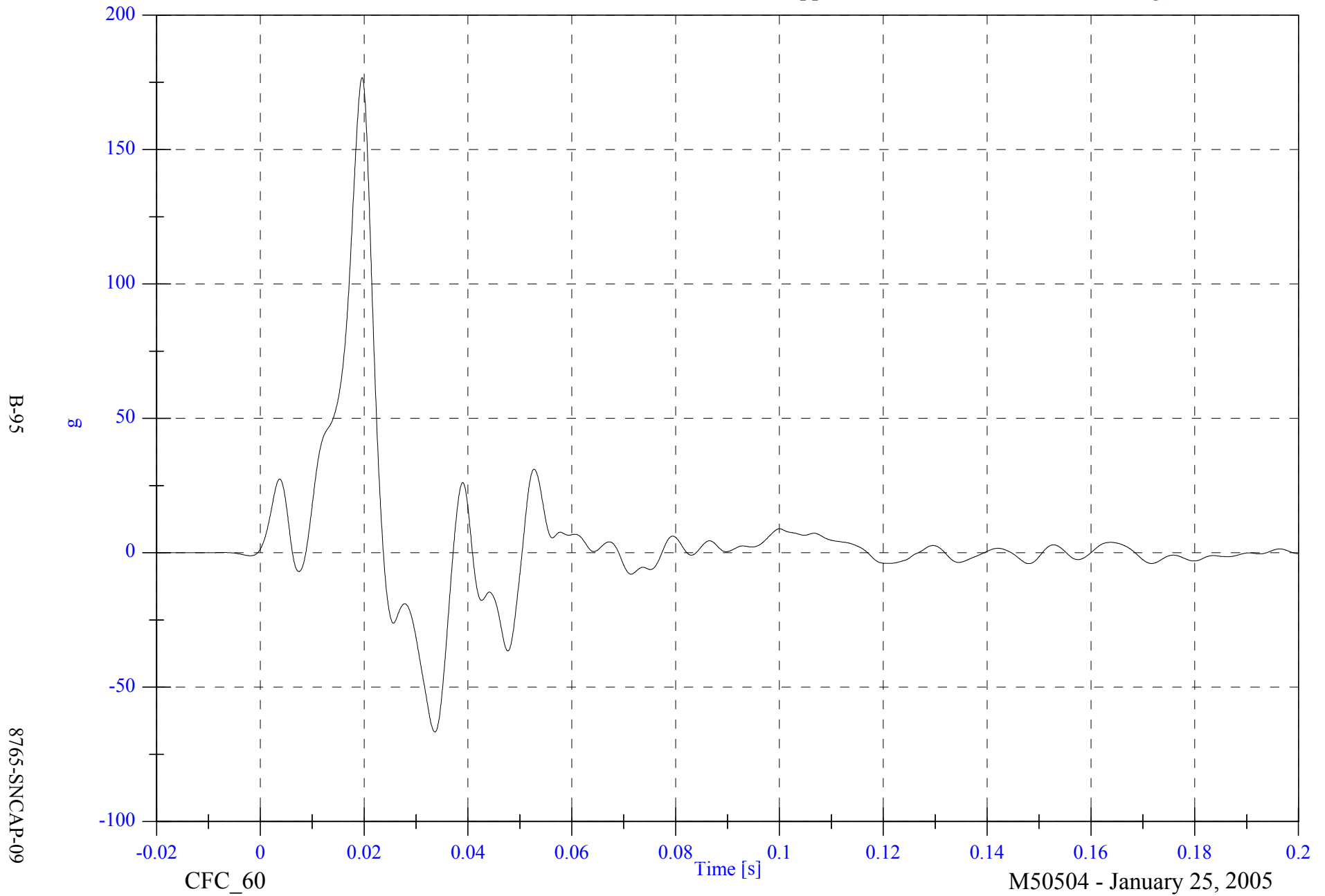


2005 SNCAP Test 4 - 2005 Suzuki Verona

V2 A11 Left Rear Door Upper C/L Y

Max: 176.8 [g] at 0.020 [s]

Min: -66.7 [g] at 0.034 [s]

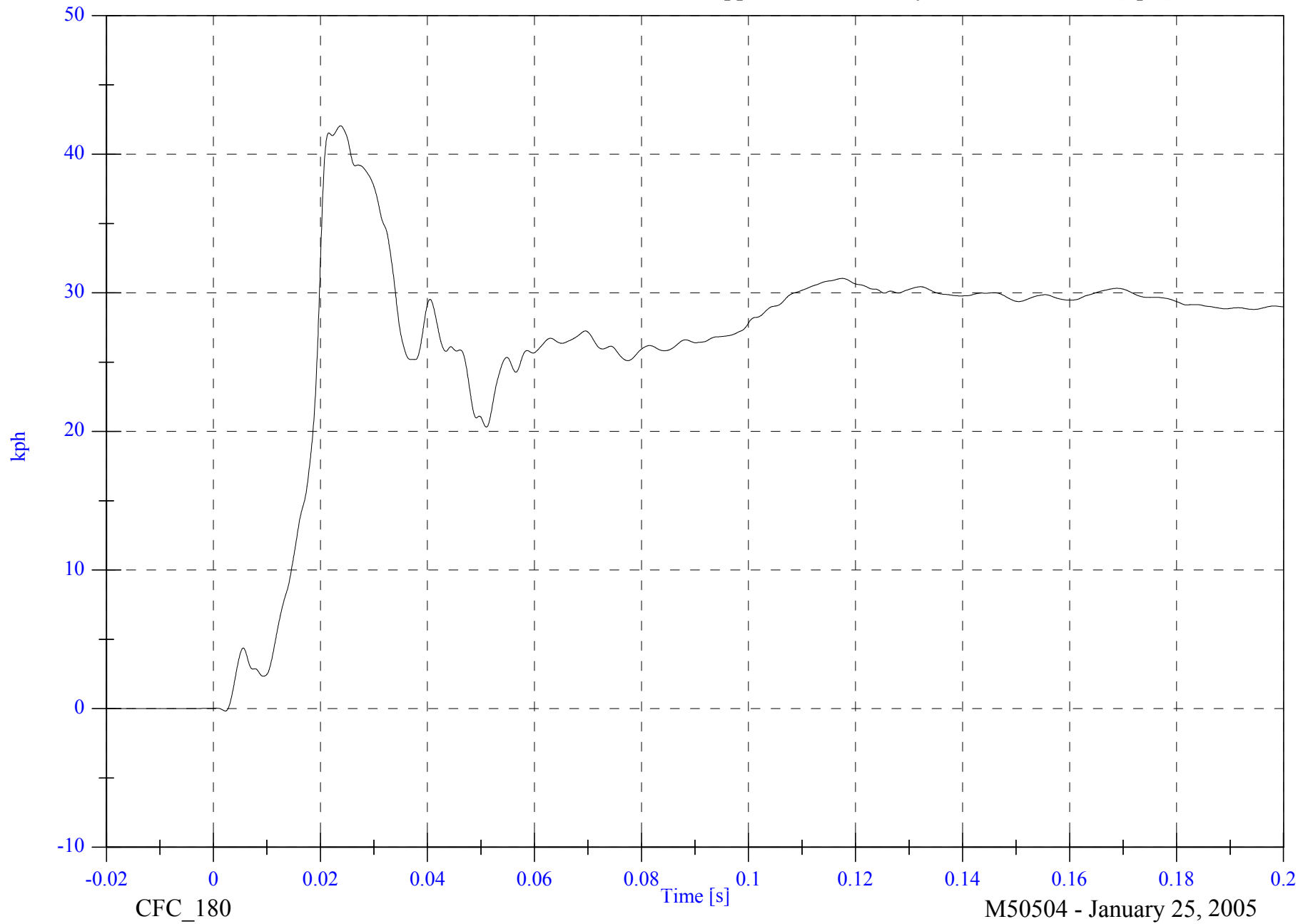


2005 SNCAP Test 4 - 2005 Suzuki Verona

V2 A11 Left Rear Door Upper C/L Y Velocity

Max: 42.1 [kph] at 0.024 [s]

Min: -0.2 [kph] at 0.002 [s]



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8765-SNCAP-09

CFC_180

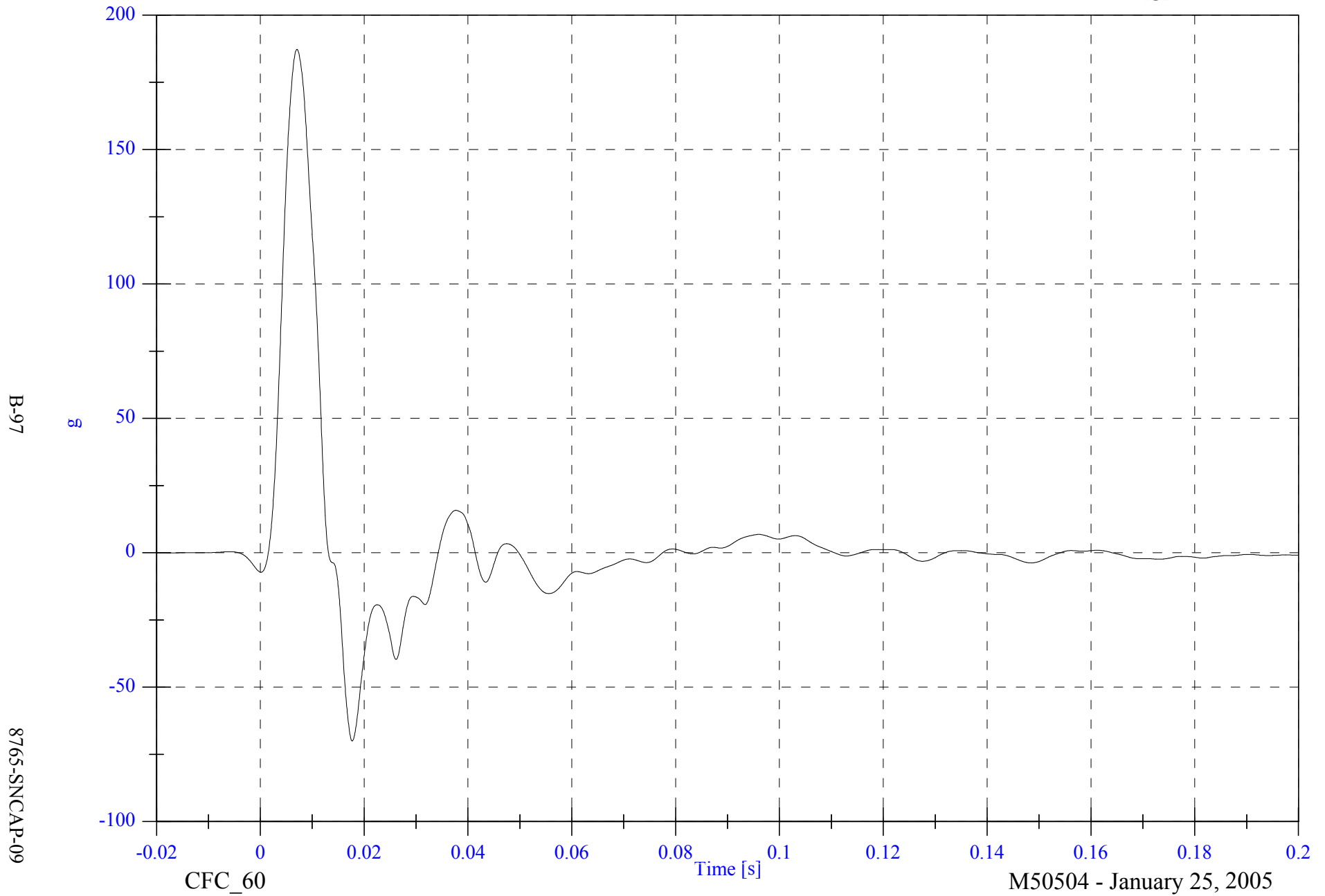
M50504 - January 25, 2005

2005 SNCAP Test 4 - 2005 Suzuki Verona

V2 A12 Left Lower B Post Y

Max: 187.3 [g] at 0.007 [s]

Min: -70.1 [g] at 0.018 [s]



2005 SNCAP Test 4 - 2005 Suzuki Verona

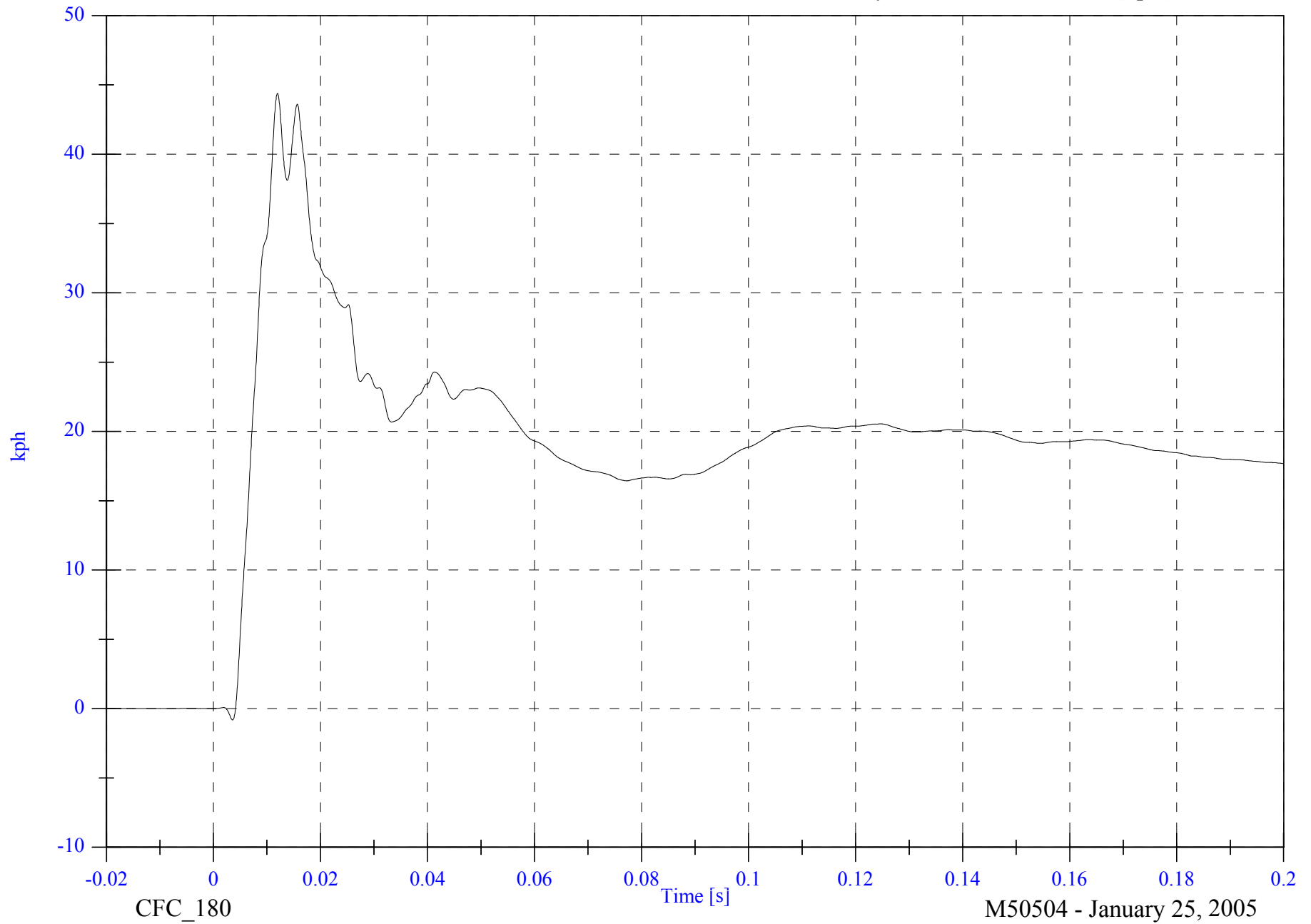
V2 A12 Left Lower B Post Y Velocity

Max: 44.4 [kph] at 0.012 [s]

Min: -0.8 [kph] at 0.004 [s]

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8765-SNCAP-09

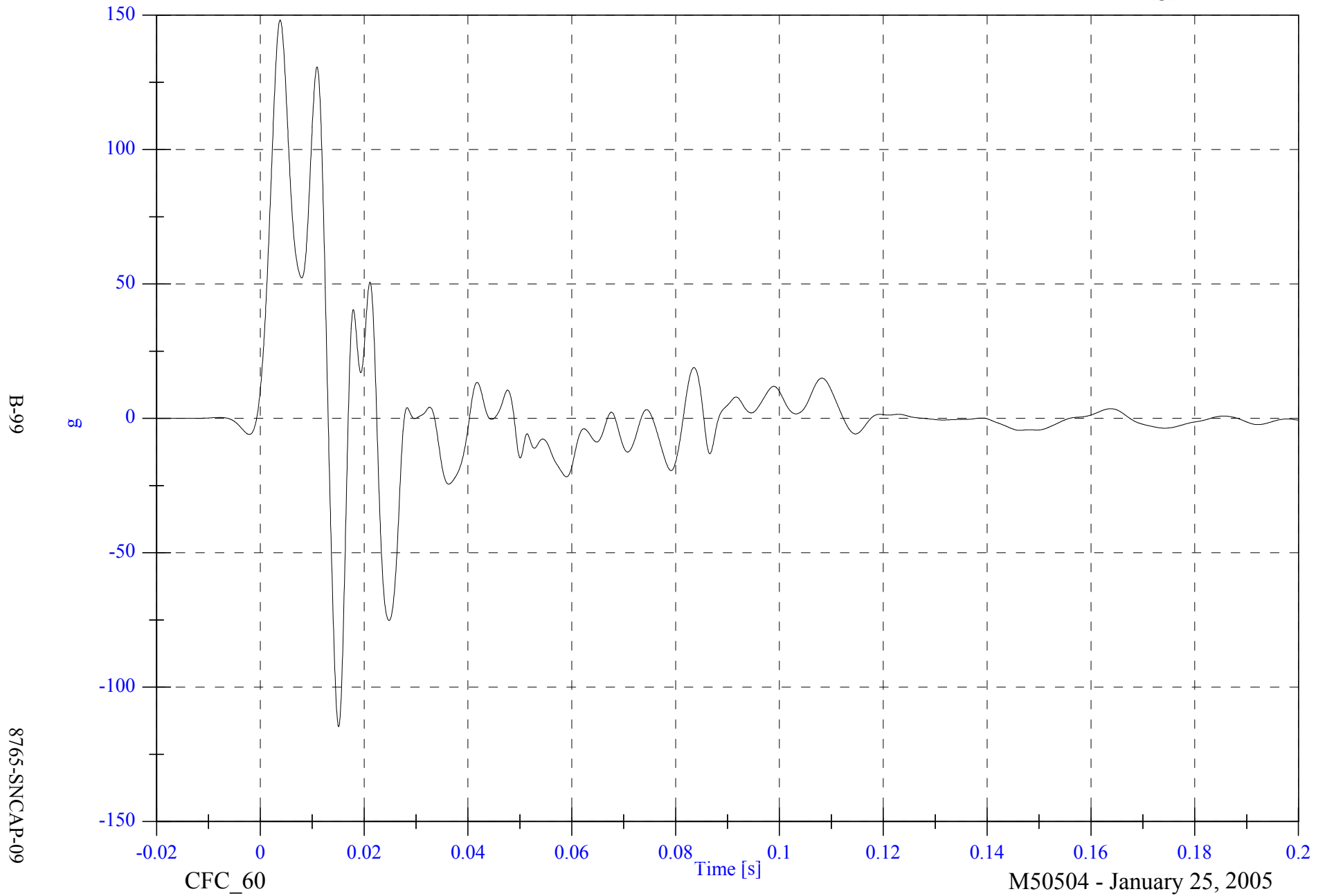


2005 SNCAP Test 4 - 2005 Suzuki Verona

V2 A13 Left Mid B Post Y

Max: 148.2 [g] at 0.004 [s]

Min: -114.7 [g] at 0.015 [s]

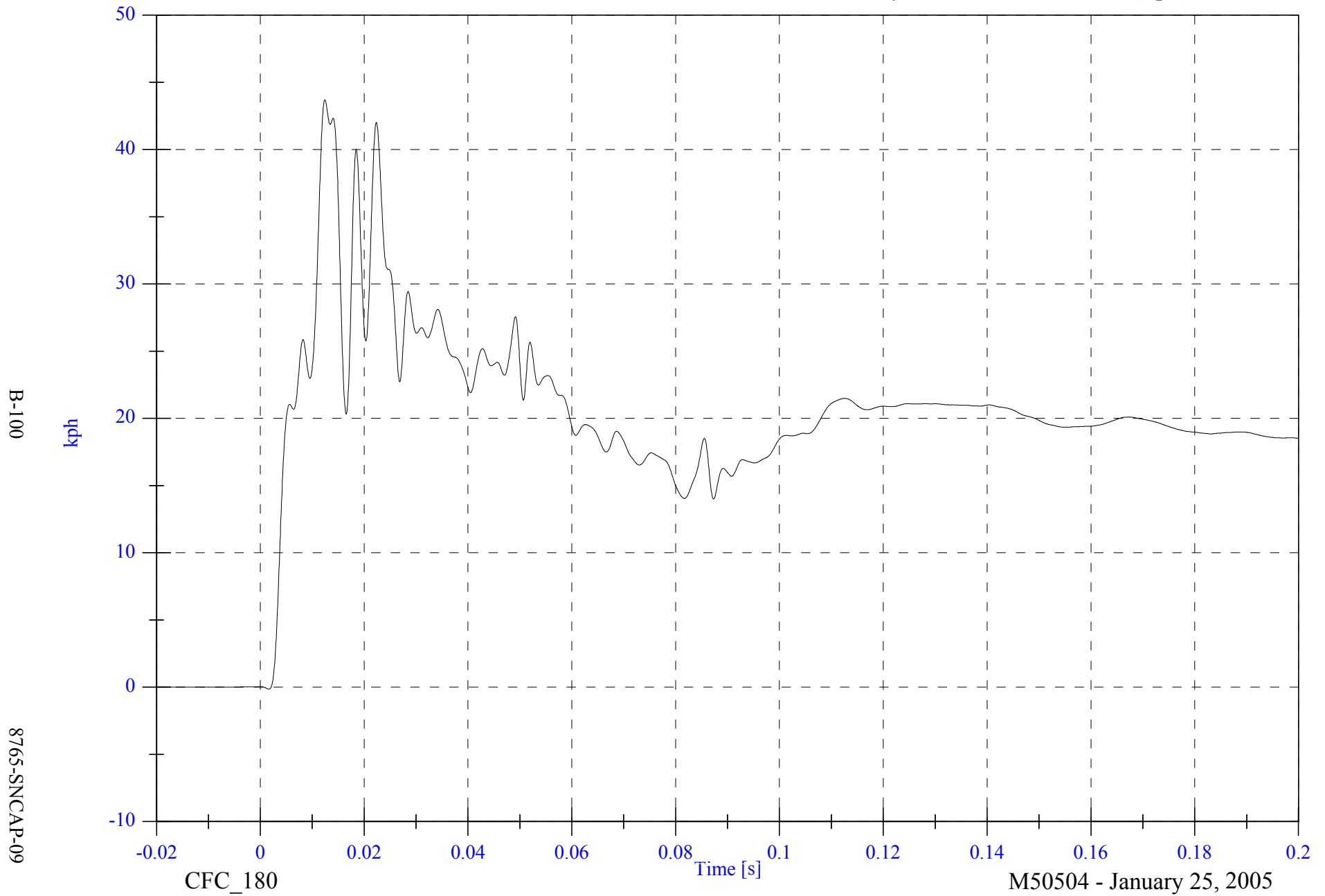


2005 SNCAP Test 4 - 2005 Suzuki Verona

V2 A13 Left Mid B Post Y Velocity

Max: 43.7 [kph] at 0.012 [s]

Min: -0.1 [kph] at 0.002 [s]

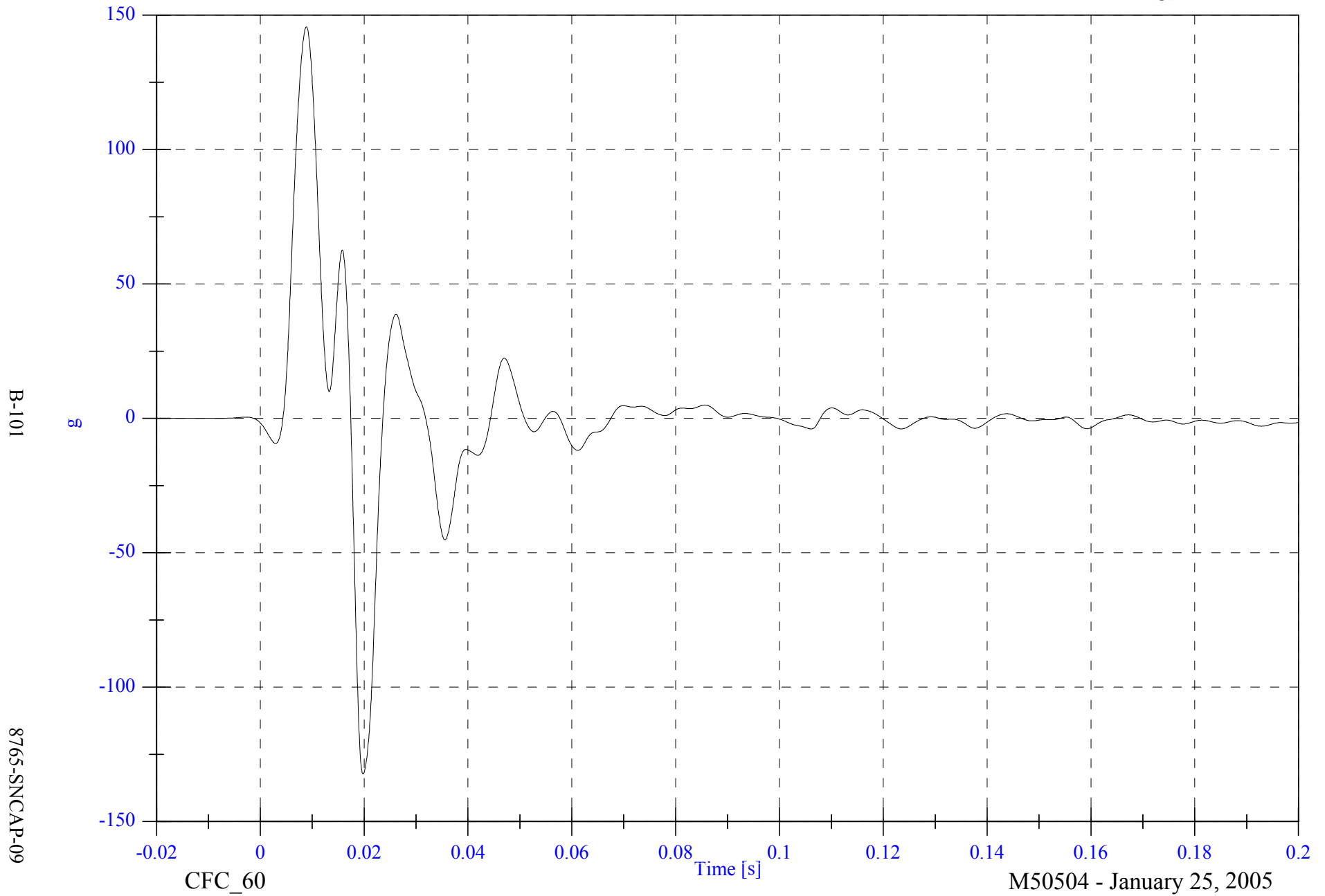


2005 SNCAP Test 4 - 2005 Suzuki Verona

V2 A14 Left Lower A Post Y

Max: 145.7 [g] at 0.009 [s]

Min: -132.3 [g] at 0.020 [s]



2005 SNCAP Test 4 - 2005 Suzuki Verona

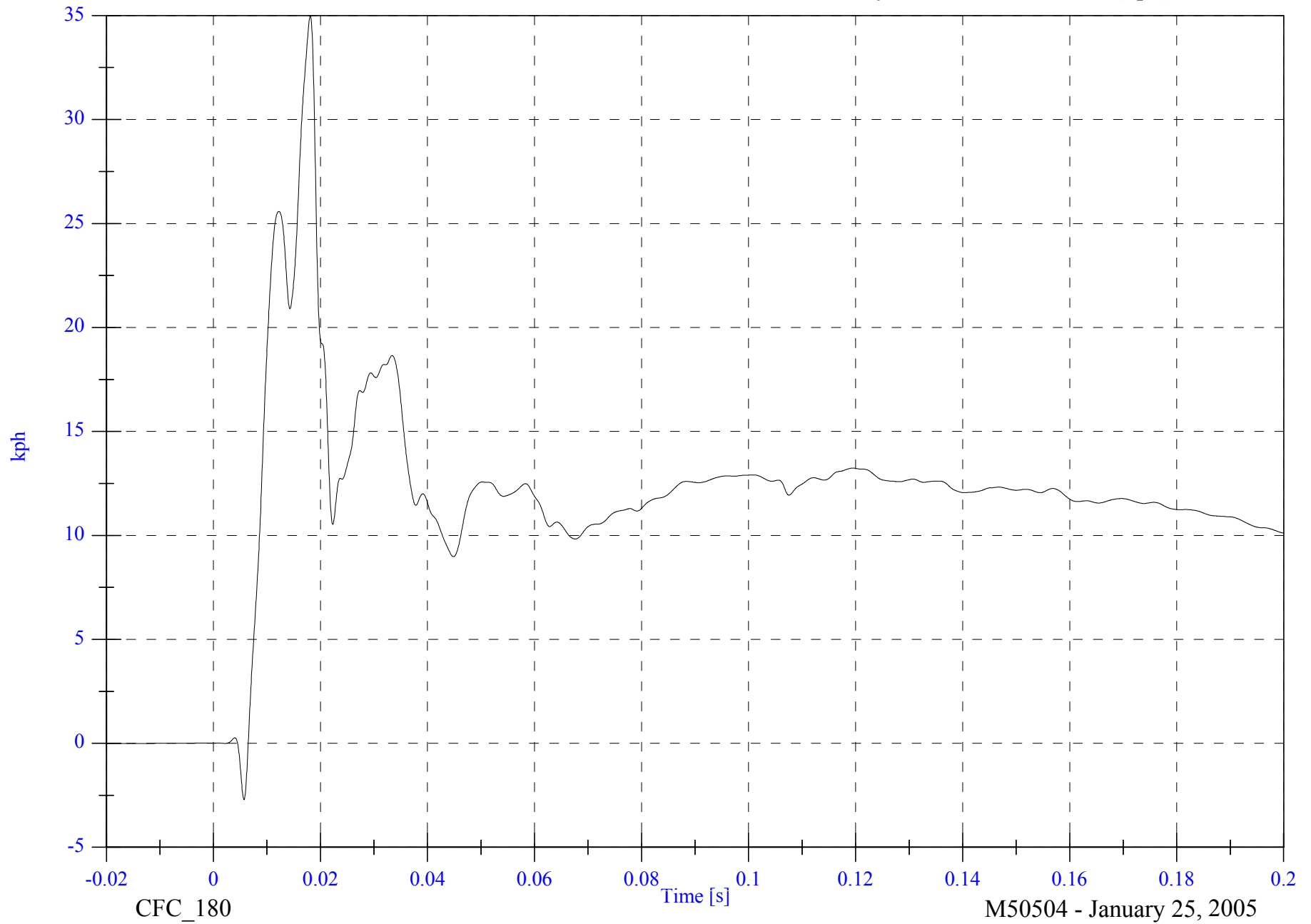
V2 A14 Left Lower A Post Y Velocity

Max: 35.0 [kph] at 0.018 [s]

Min: -2.7 [kph] at 0.006 [s]

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8765-SNCAP-09

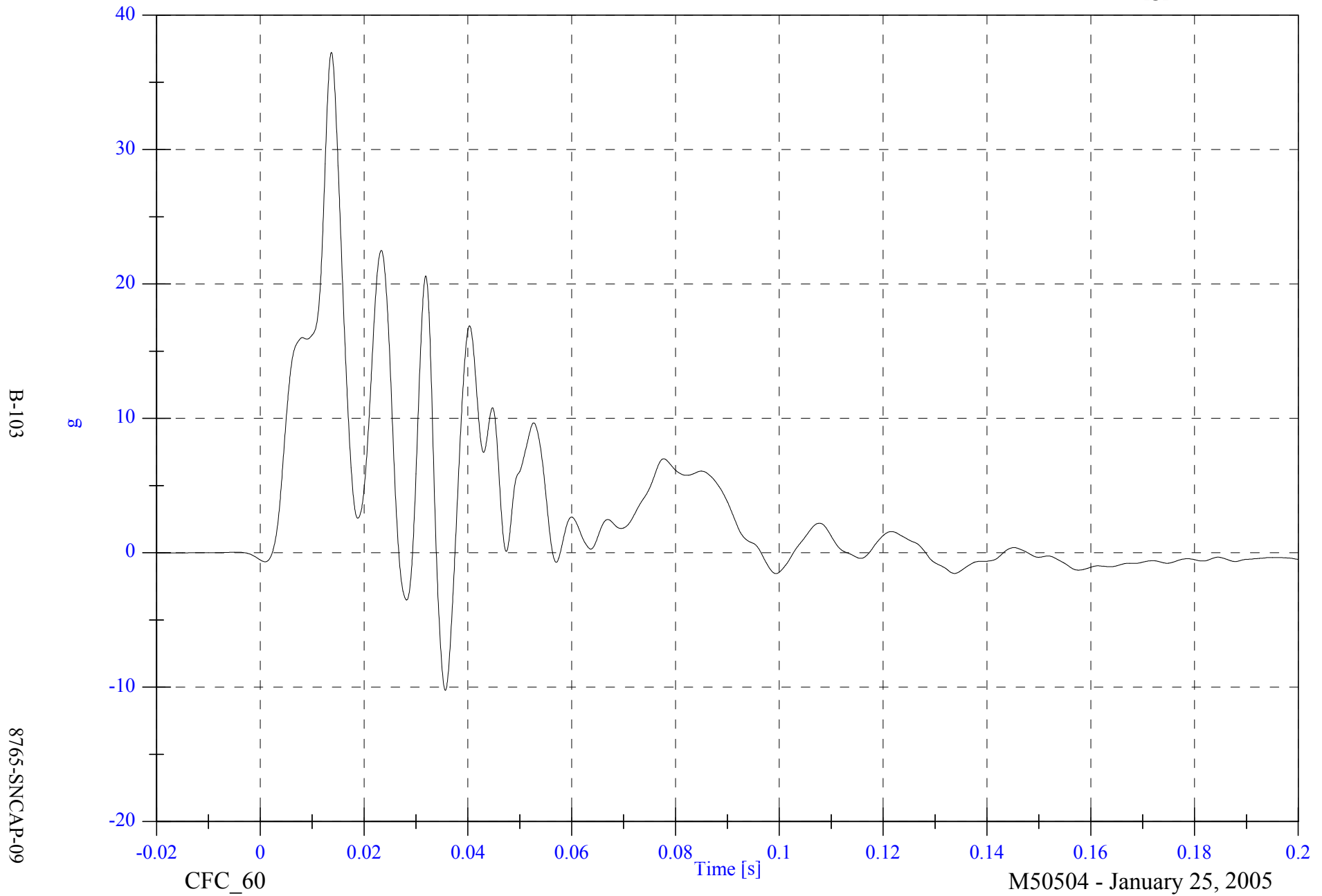


2005 SNCAP Test 4 - 2005 Suzuki Verona

V2 A15 Left Mid A Post Y

Max: 37.2 [g] at 0.014 [s]

Min: -10.2 [g] at 0.036 [s]



2005 SNCAP Test 4 - 2005 Suzuki Verona

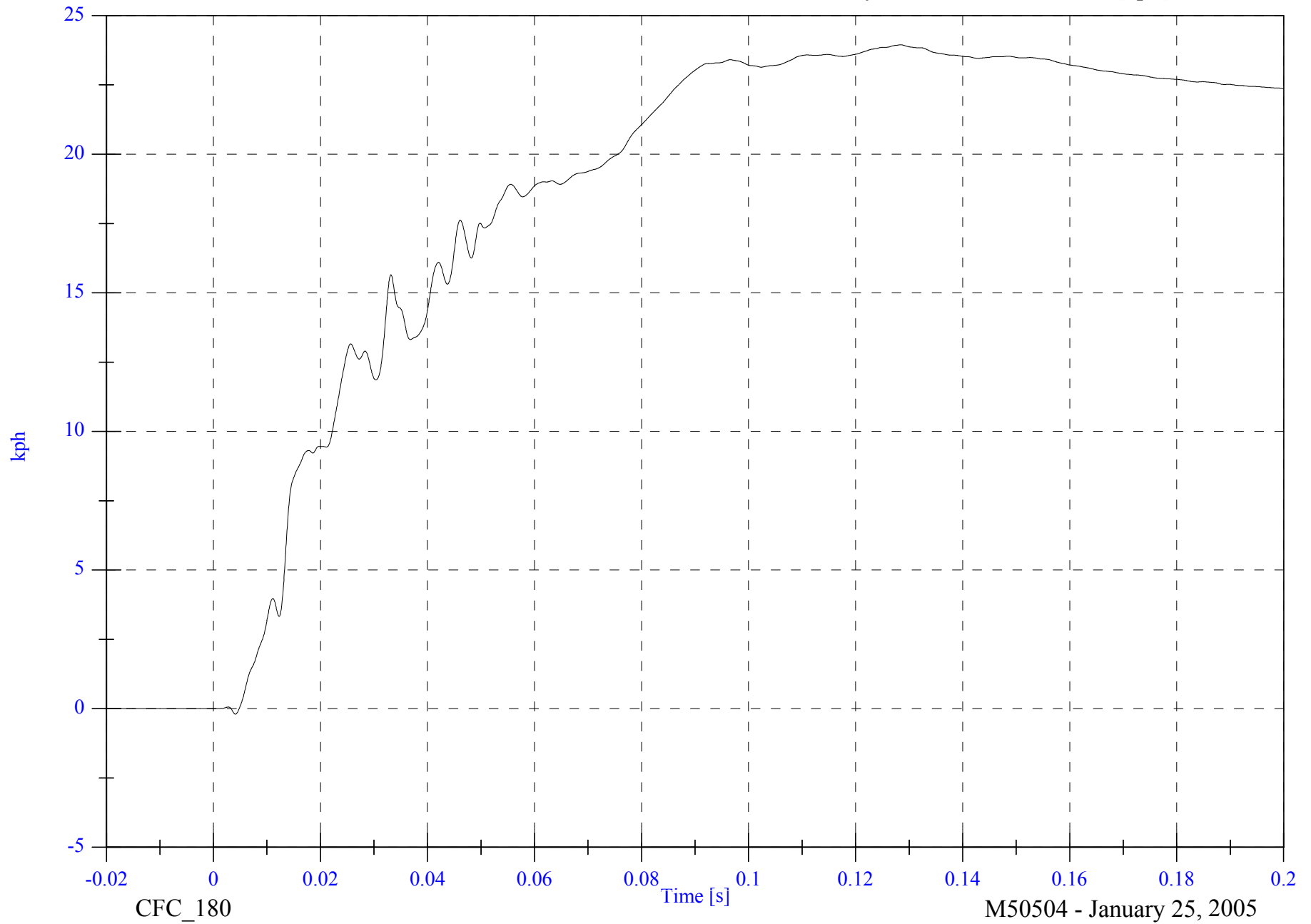
V2 A15 Left Mid A Post Y Velocity

Max: 23.9 [kph] at 0.128 [s]

Min: -0.2 [kph] at 0.004 [s]

B-104

8765-SNCAP-09

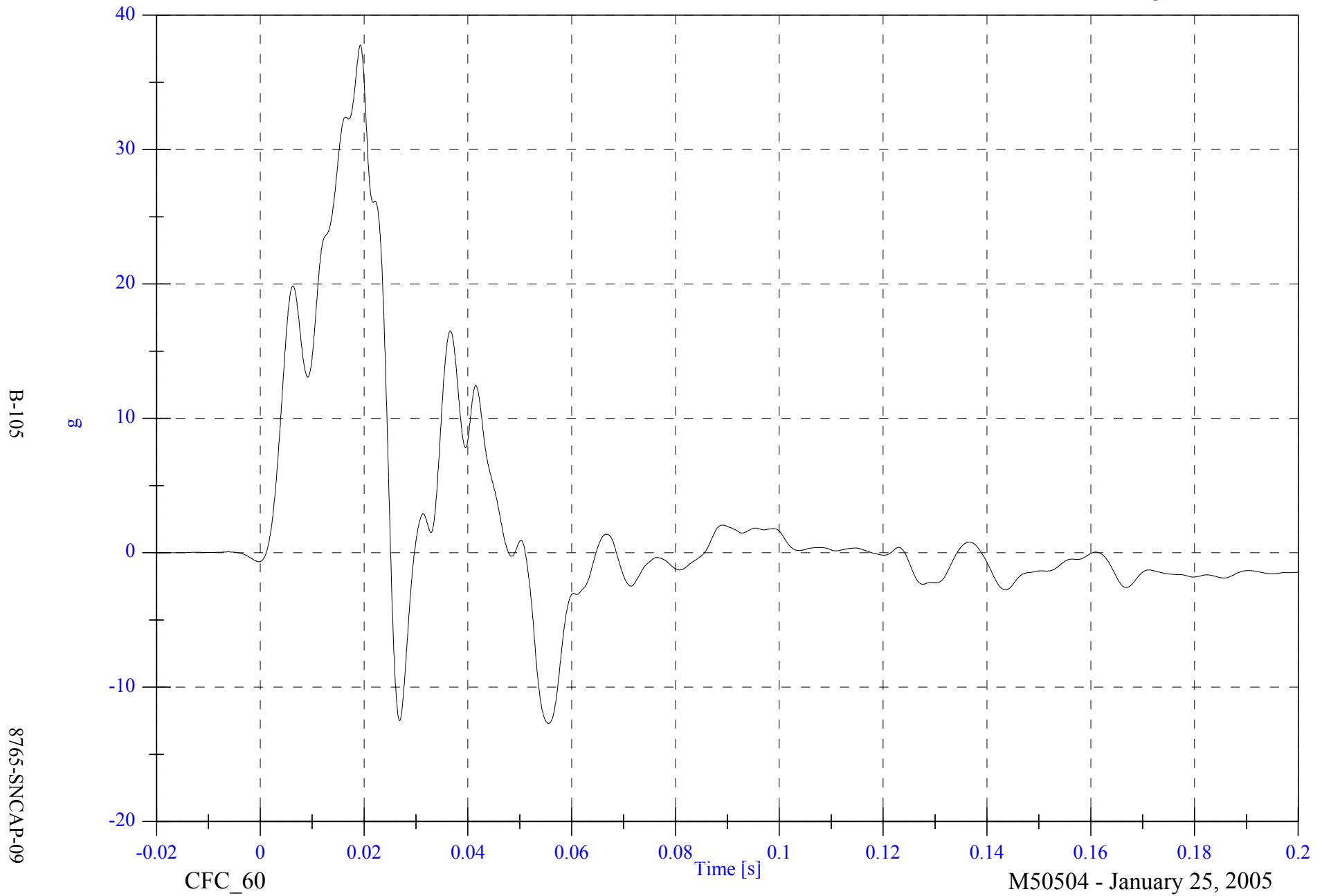


2005 SNCAP Test 4 - 2005 Suzuki Verona

V2 A16 Front Seat Track Y

Max: 37.8 [g] at 0.019 [s]

Min: -12.7 [g] at 0.056 [s]

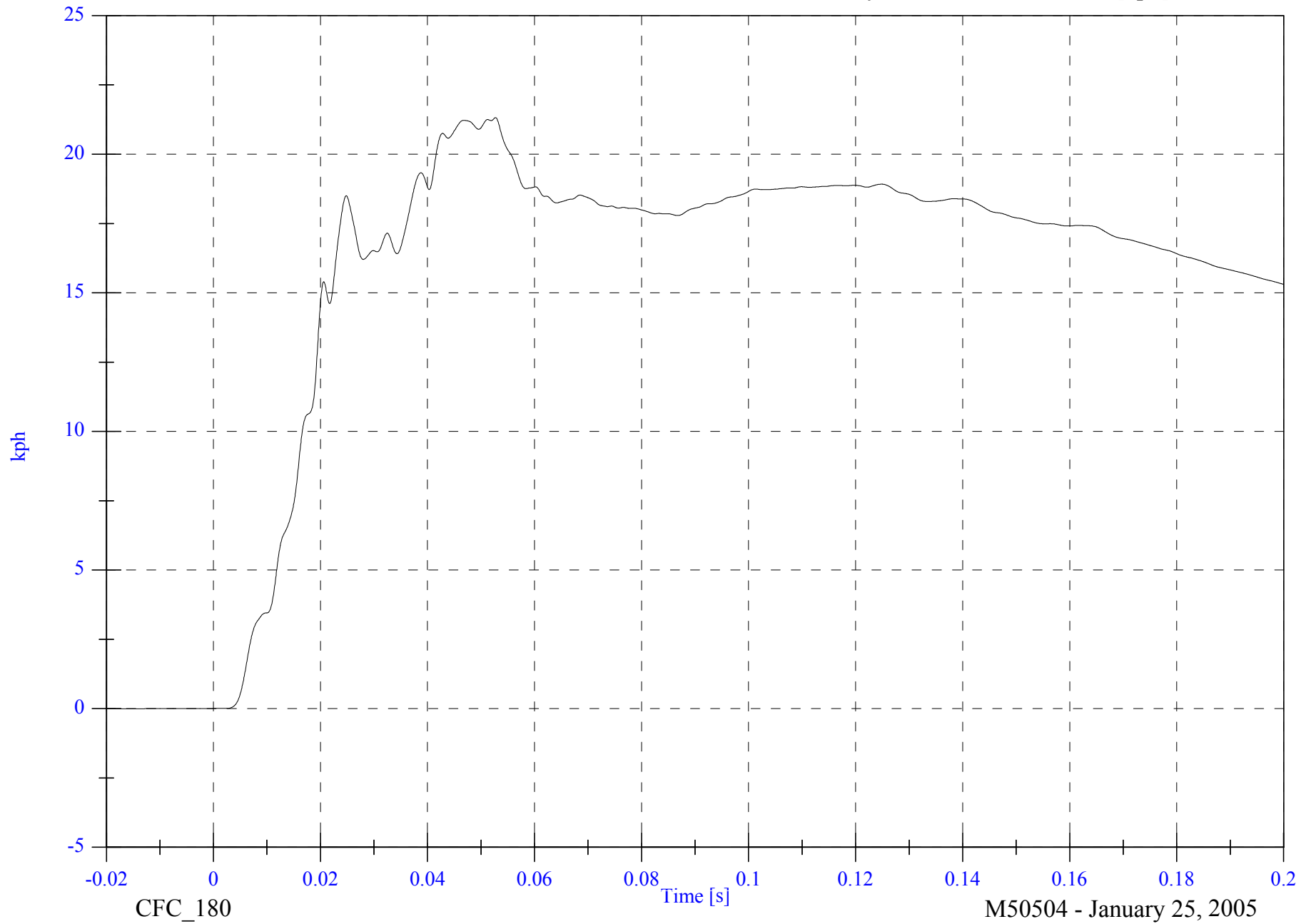


2005 SNCAP Test 4 - 2005 Suzuki Verona

V2 A16 Front Seat Track Y Velocity

Max: 21.3 [kph] at 0.053 [s]

Min: -0.0 [kph] at -0.020 [s]



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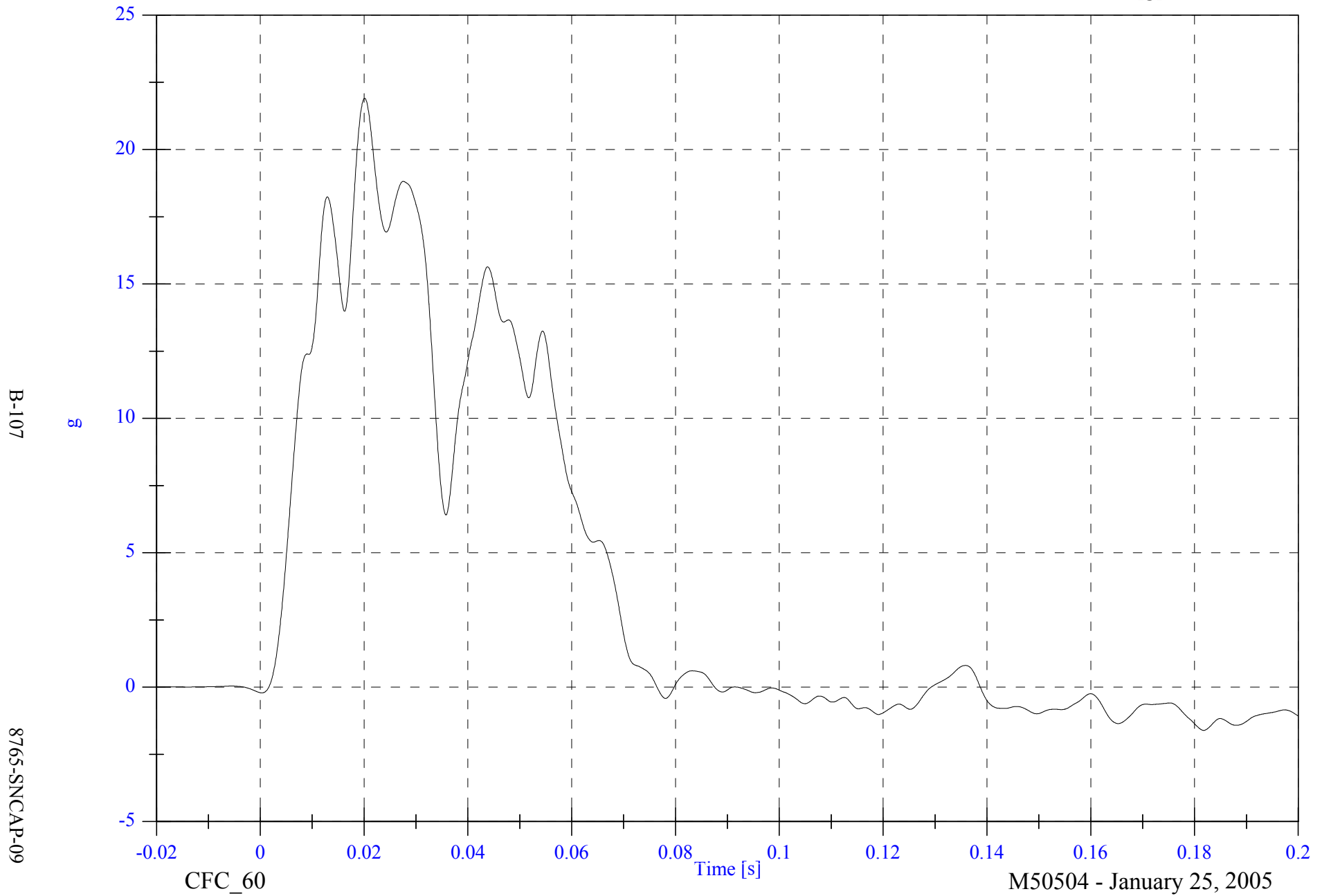
8765-SNCAP-09

2005 SNCAP Test 4 - 2005 Suzuki Verona

V2 A17 Rear Seat Track Y

Max: 21.9 [g] at 0.020 [s]

Min: -1.6 [g] at 0.182 [s]



2005 SNCAP Test 4 - 2005 Suzuki Verona

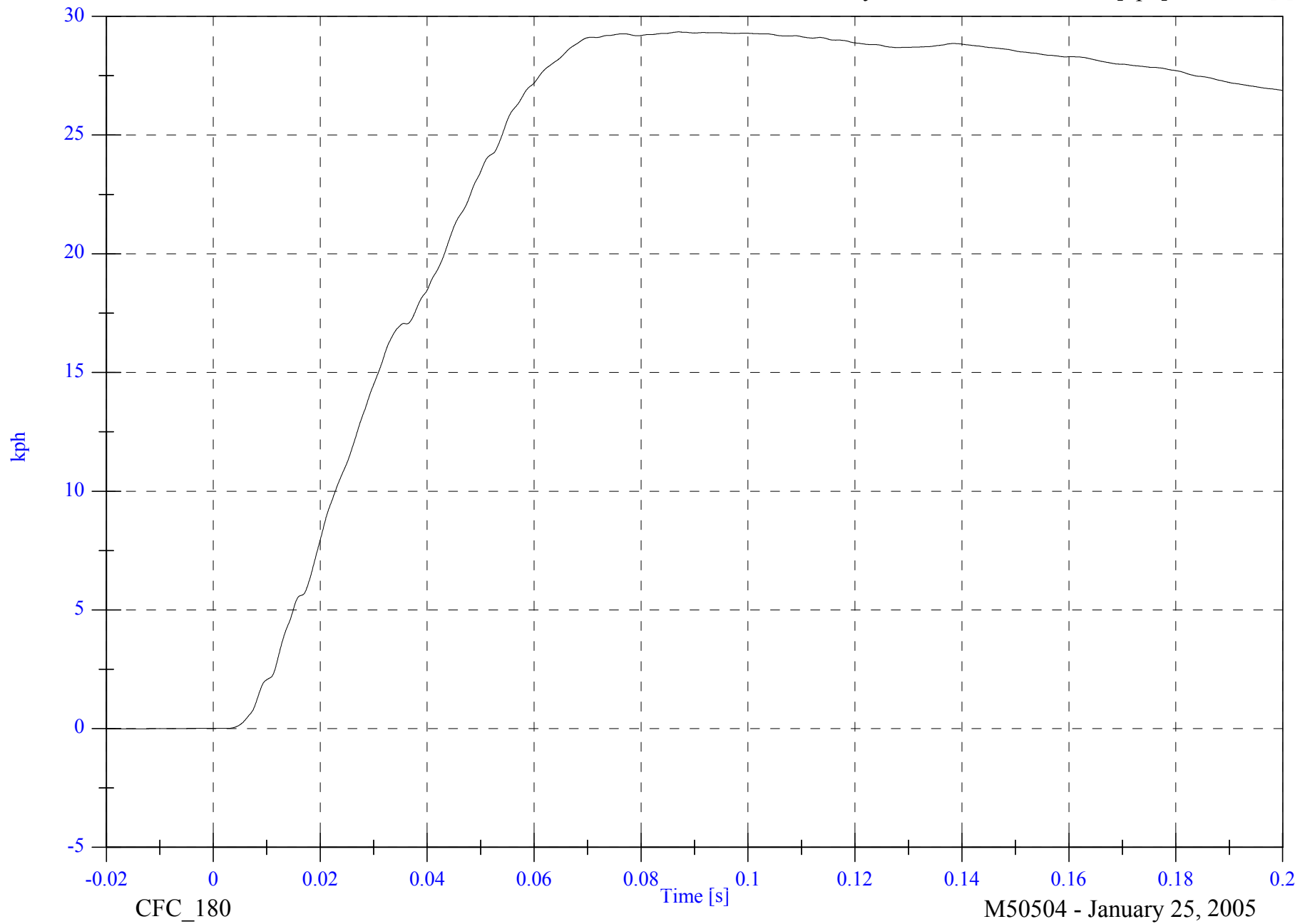
V2 A17 Rear Seat Track Y Velocity

Max: 29.3 [kph] at 0.087 [s]

Min: -0.0 [kph] at -0.020 [s]

B-108

8765-SNCAP-09

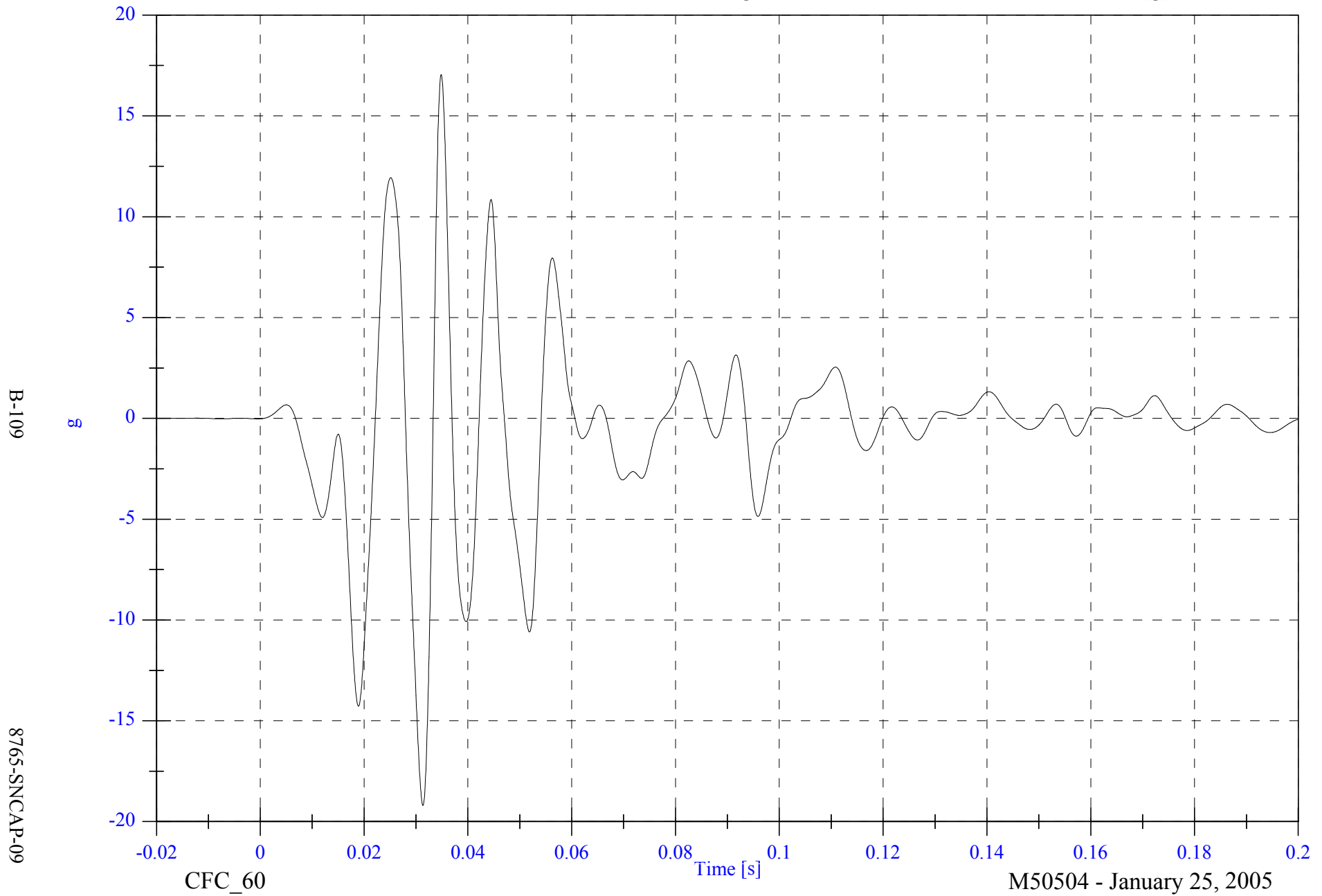


2005 SNCAP Test 4 - 2005 Suzuki Verona

V2 A18 Target CG X

Max: 17.1 [g] at 0.035 [s]

Min: -19.2 [g] at 0.031 [s]

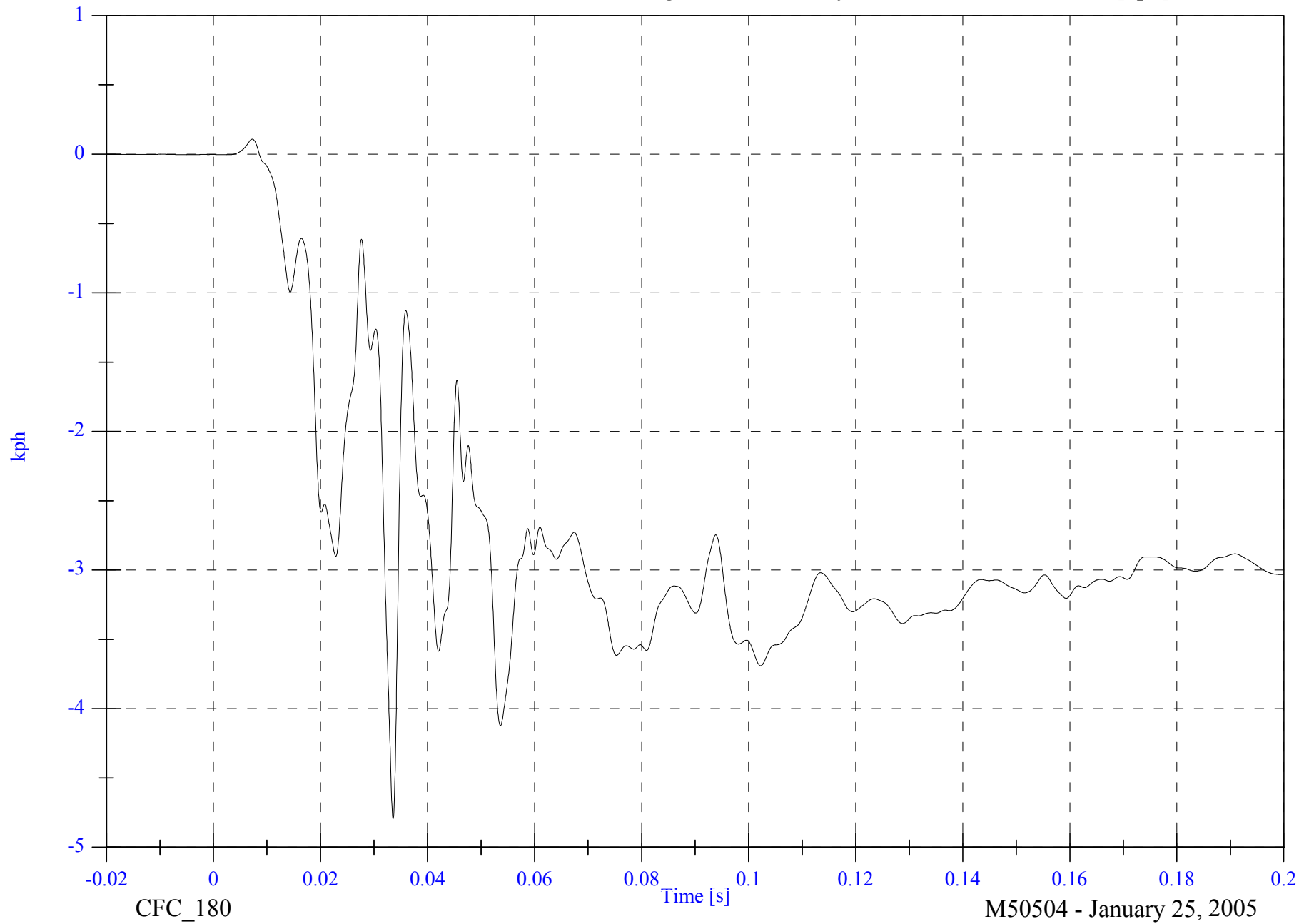


2005 SNCAP Test 4 - 2005 Suzuki Verona

V2 A18 Target CG X Velocity

Max: 0.1 [kph] at 0.007 [s]

Min: -4.8 [kph] at 0.034 [s]



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CFC_180

M50504 - January 25, 2005

2005 SNCAP Test 4 - 2005 Suzuki Verona

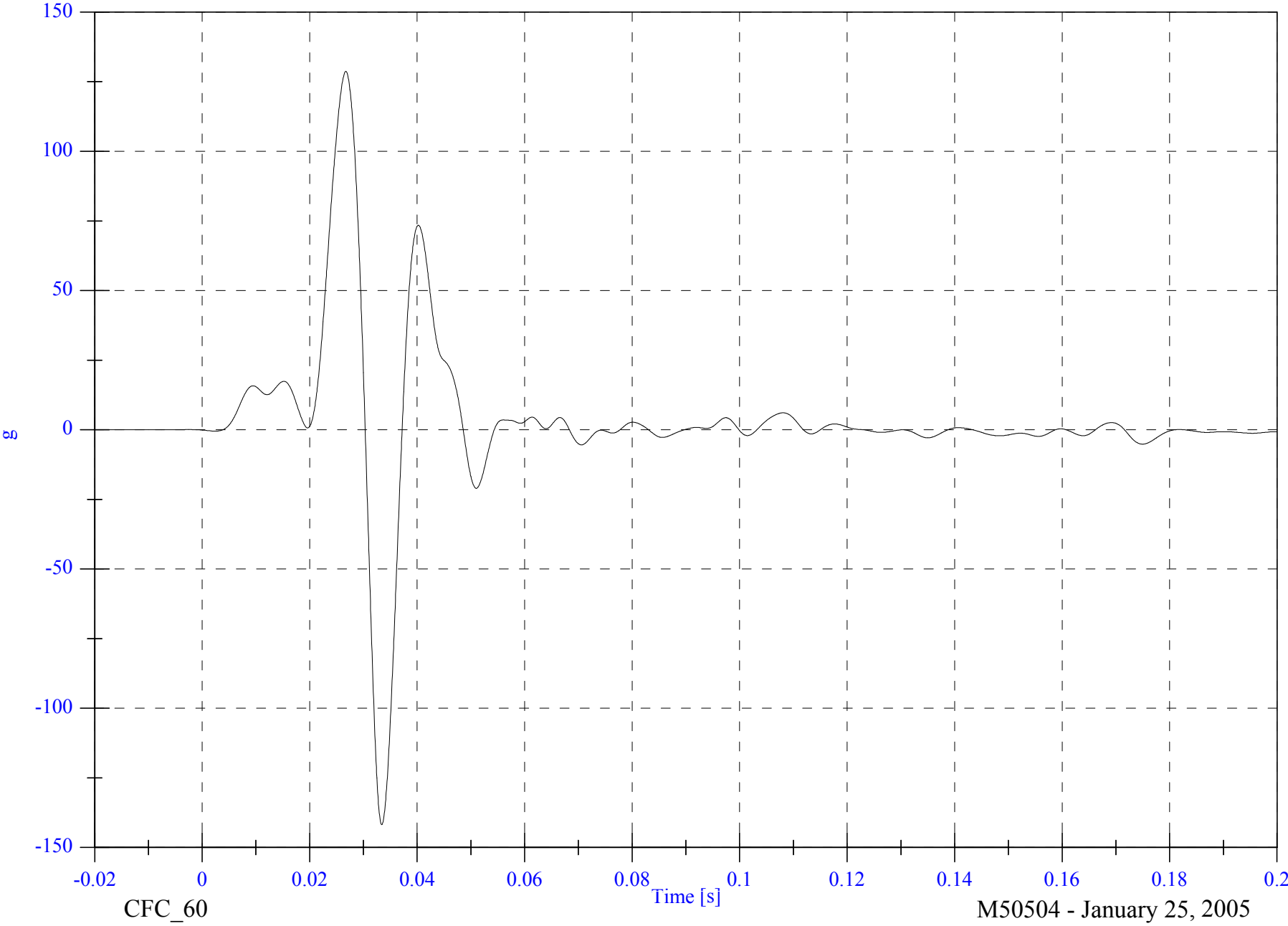
V2 A18 Target CG Y

Max: 128.7 [g] at 0.027 [s]

Min: -141.8 [g] at 0.033 [s]

B-111

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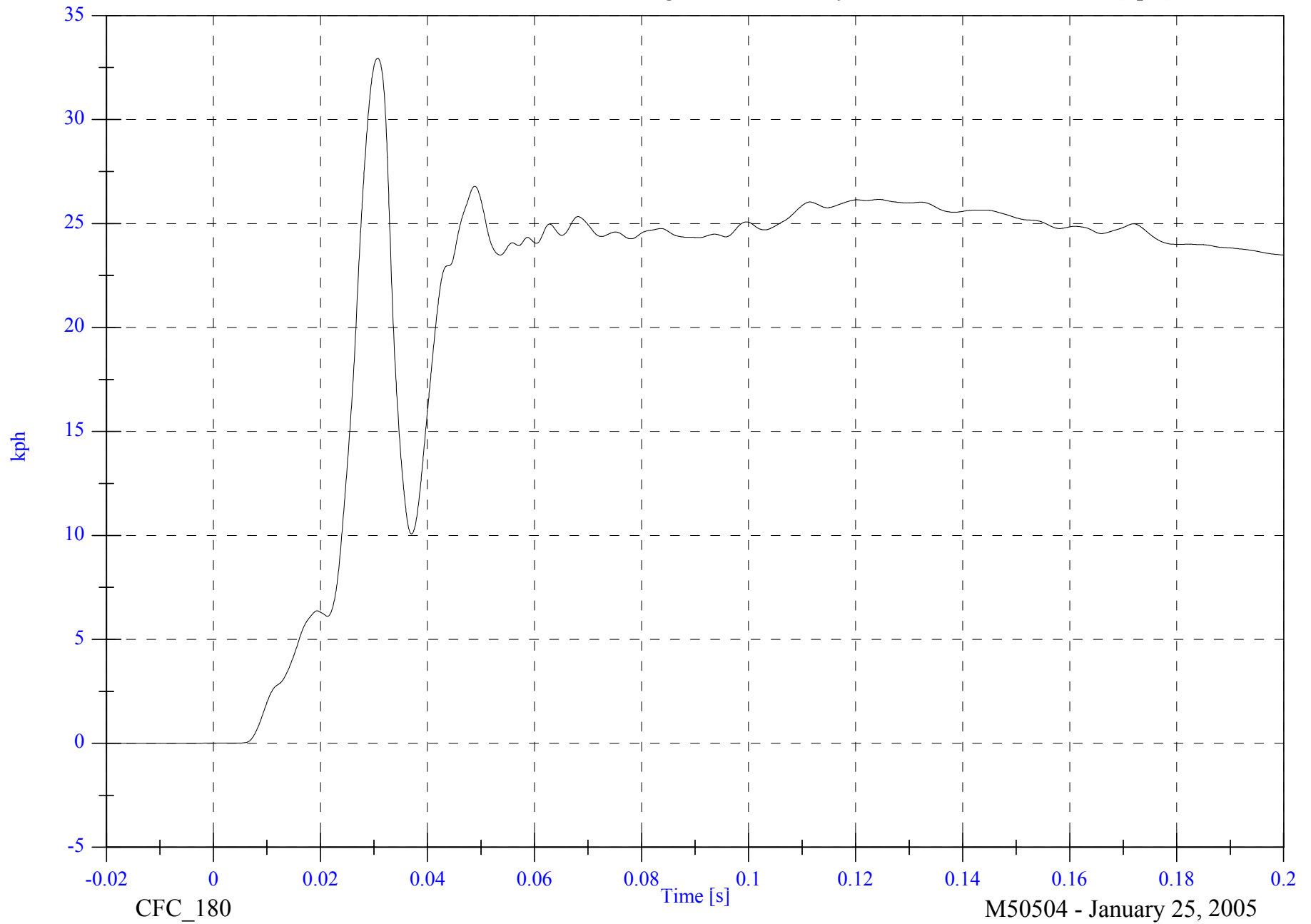


2005 SNCAP Test 4 - 2005 Suzuki Verona

V2 A18 Target CG Y Velocity

Max: 32.9 [kph] at 0.031 [s]

Min: -0.0 [kph] at -0.018 [s]



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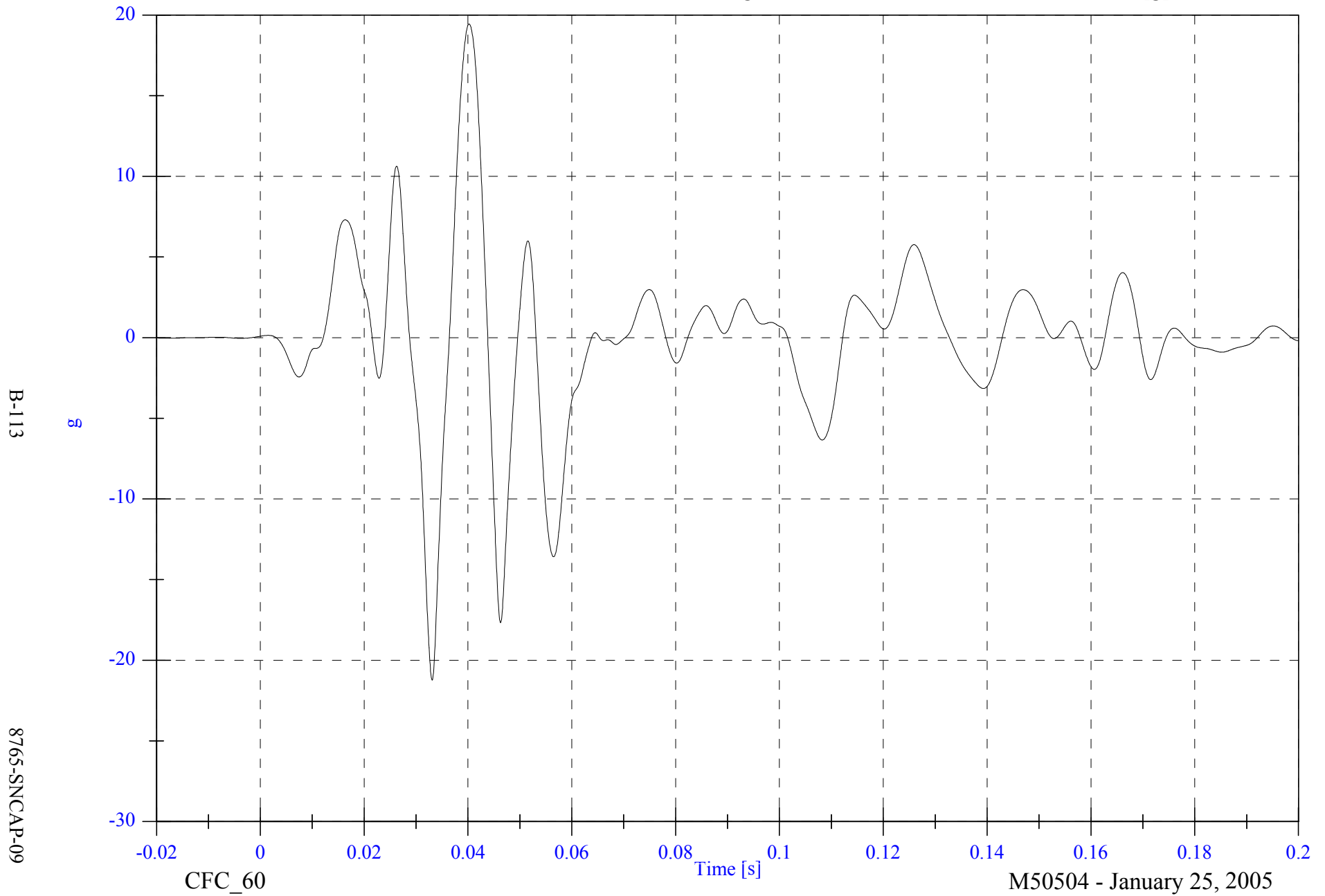
8765-SNCAP-09

2005 SNCAP Test 4 - 2005 Suzuki Verona

V2 A18 Target CG Z

Max: 19.5 [g] at 0.040 [s]

Min: -21.2 [g] at 0.033 [s]



2005 SNCAP Test 4 - 2005 Suzuki Verona

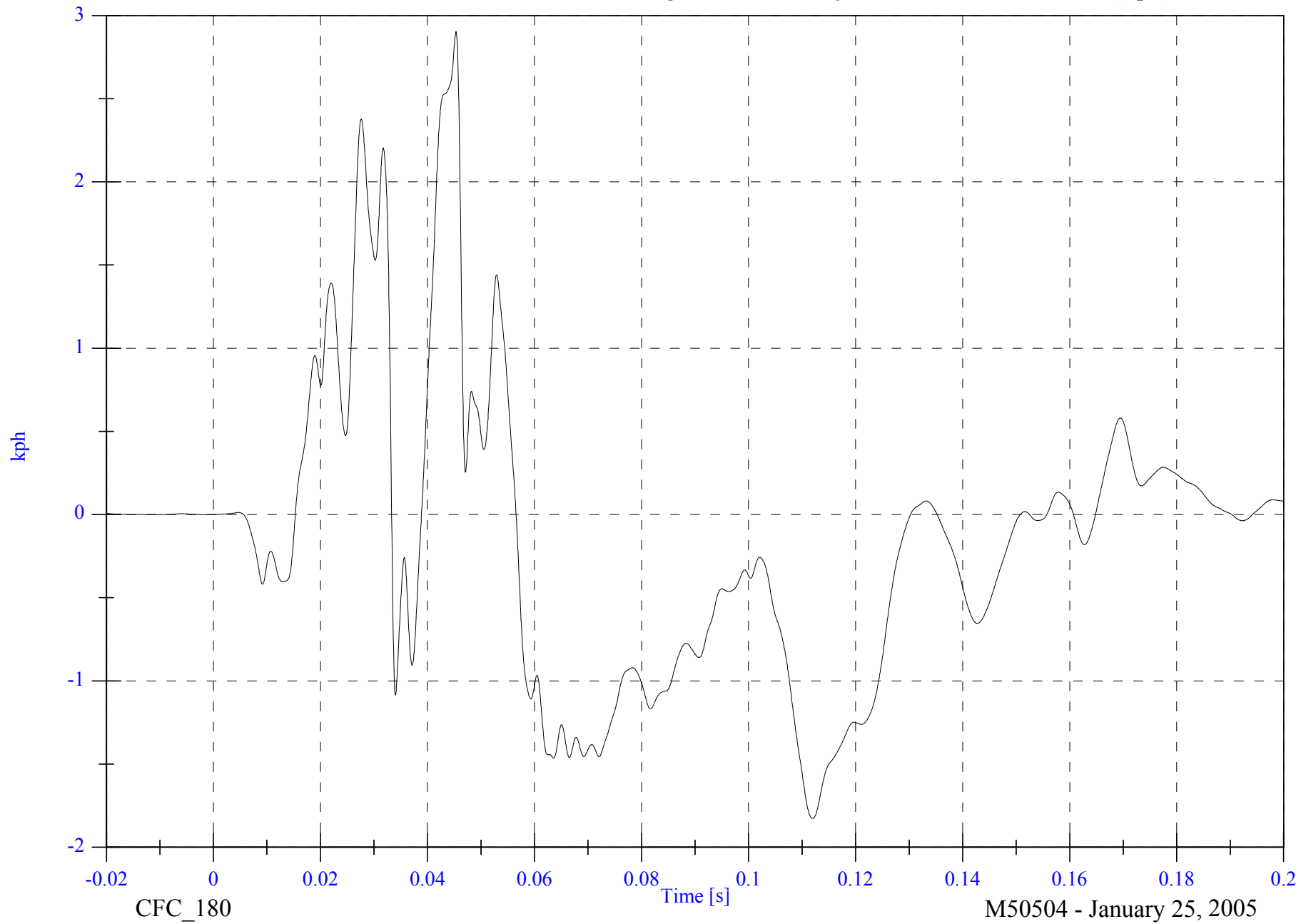
V2 A18 Target CG Z Velocity

Max: 2.9 [kph] at 0.045 [s]

Min: -1.8 [kph] at 0.112 [s]

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2005 SNCAP Test 4 - 2005 Suzuki Verona

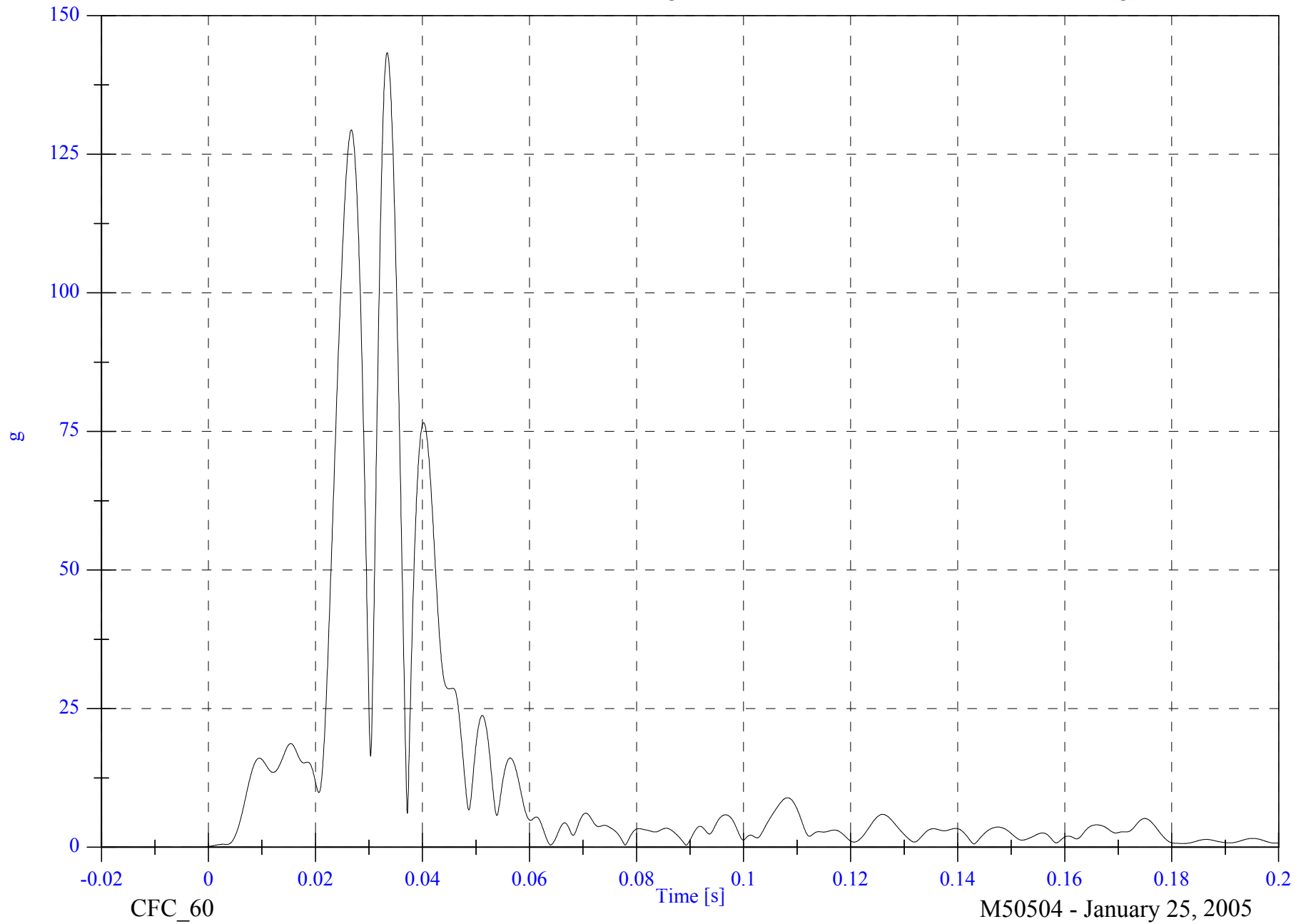
V2 A18 Target CG Resultant

Max: 143.3 [g] at 0.033 [s]

Min: 0.0 [g] at -0.014 [s]

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2005 SNCAP Test 4 - 2005 Suzuki Verona

V1 Moving Barrier CG X

Max: 1.0 [g] at 0.131 [s]

Min: -20.0 [g] at 0.042 [s]

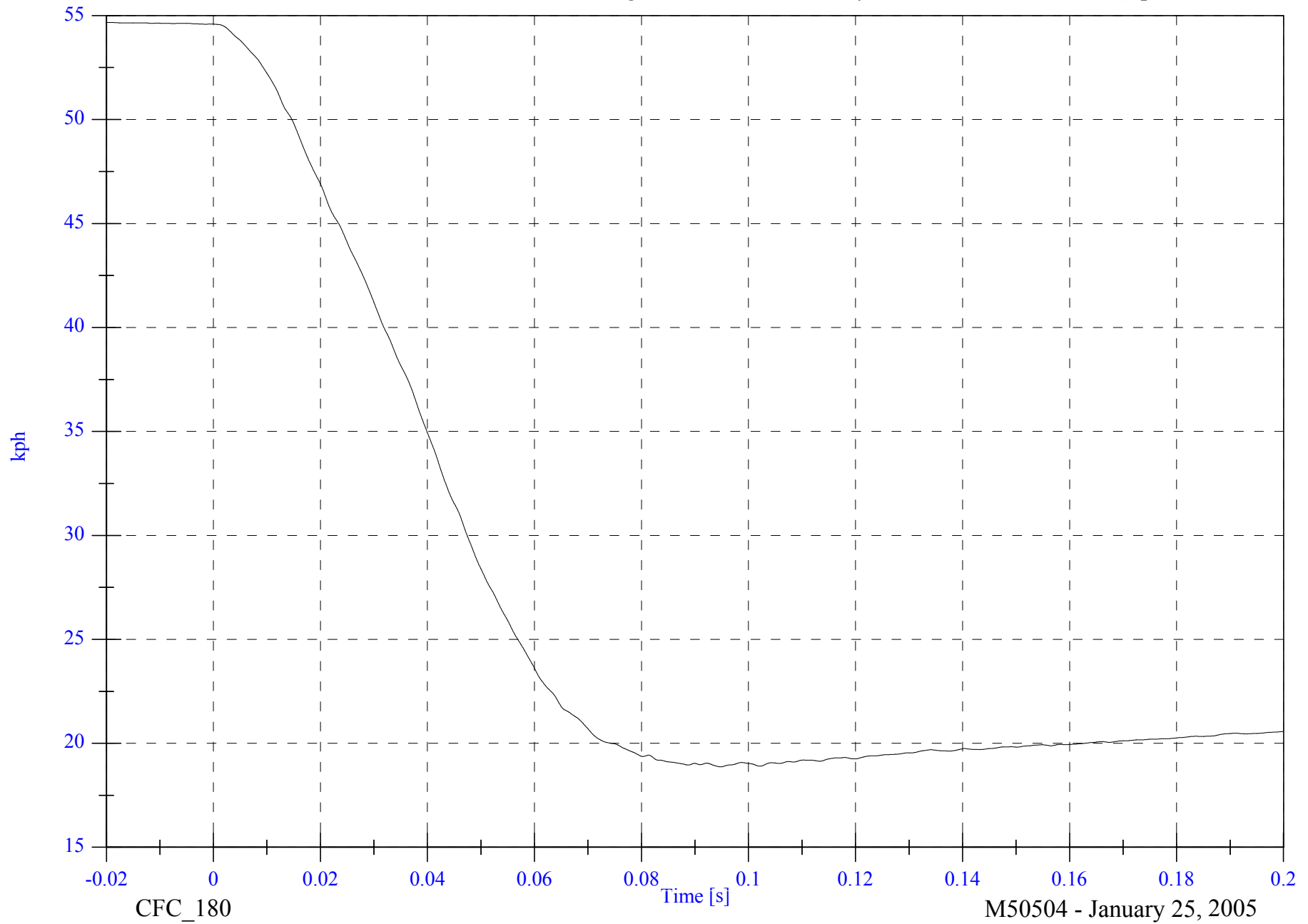


2005 SNCAP Test 4 - 2005 Suzuki Verona

Max: 54.7 [kph] at -0.019 [s]

V1 Moving Barrier CG X Velocity

Min: 18.9 [kph] at 0.095 [s]



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CFC_180

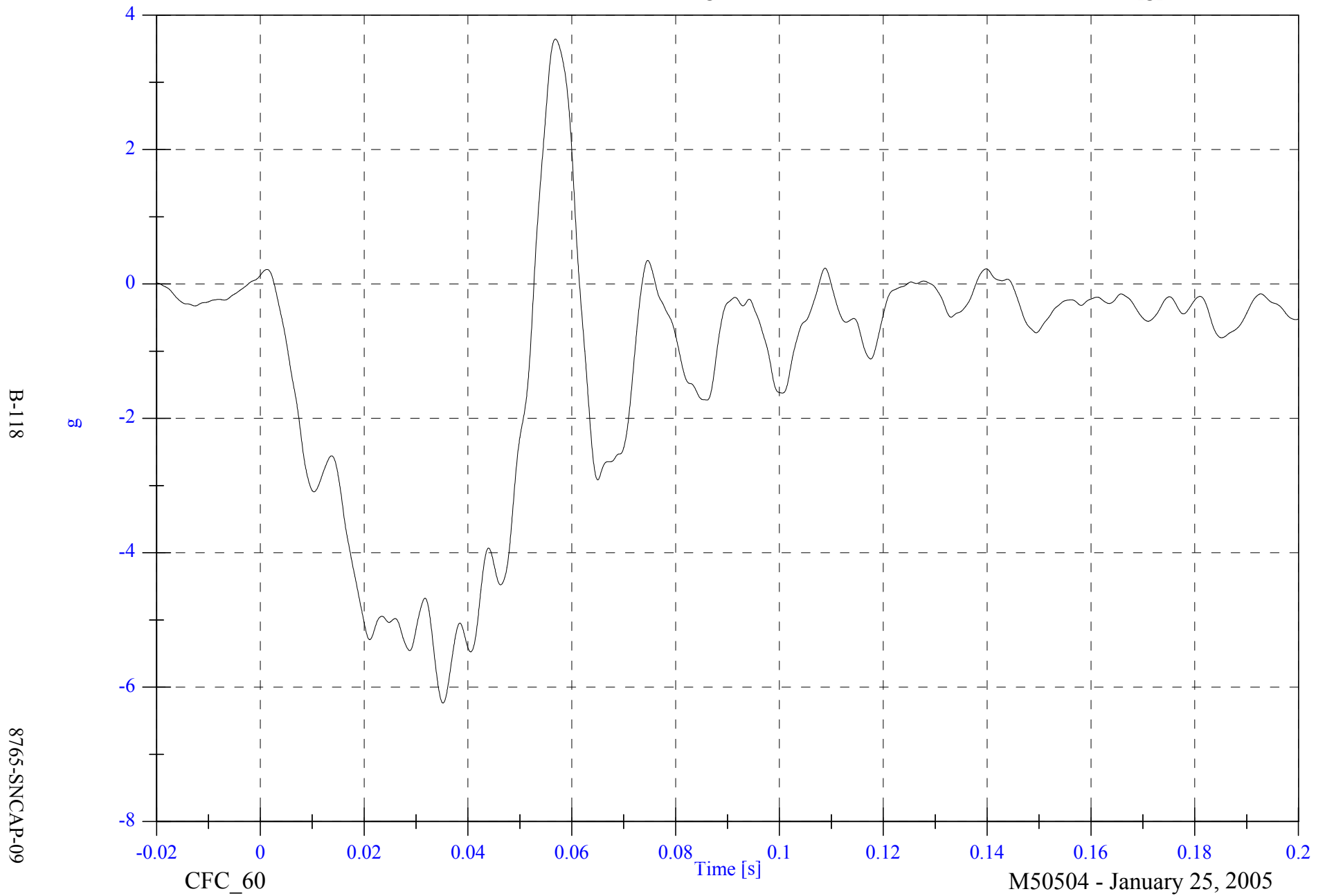
M50504 - January 25, 2005

2005 SNCAP Test 4 - 2005 Suzuki Verona

V1 Moving Barrier CG Y

Max: 3.6 [g] at 0.057 [s]

Min: -6.2 [g] at 0.035 [s]



2005 SNCAP Test 4 - 2005 Suzuki Verona

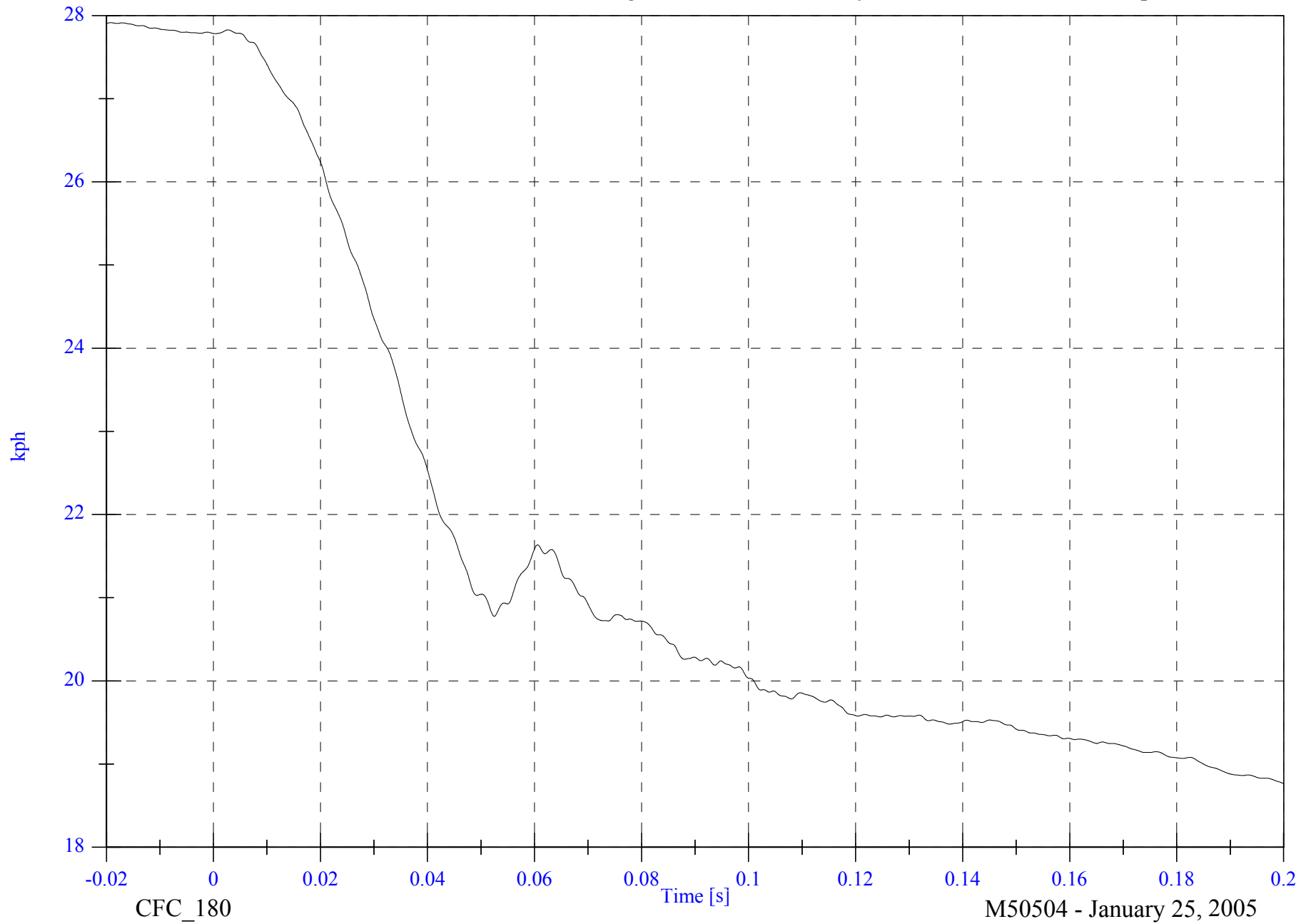
Max: 27.9 [kph] at -0.019 [s]

V1 Moving Barrier CG Y Velocity

Min: 18.8 [kph] at 0.200 [s]

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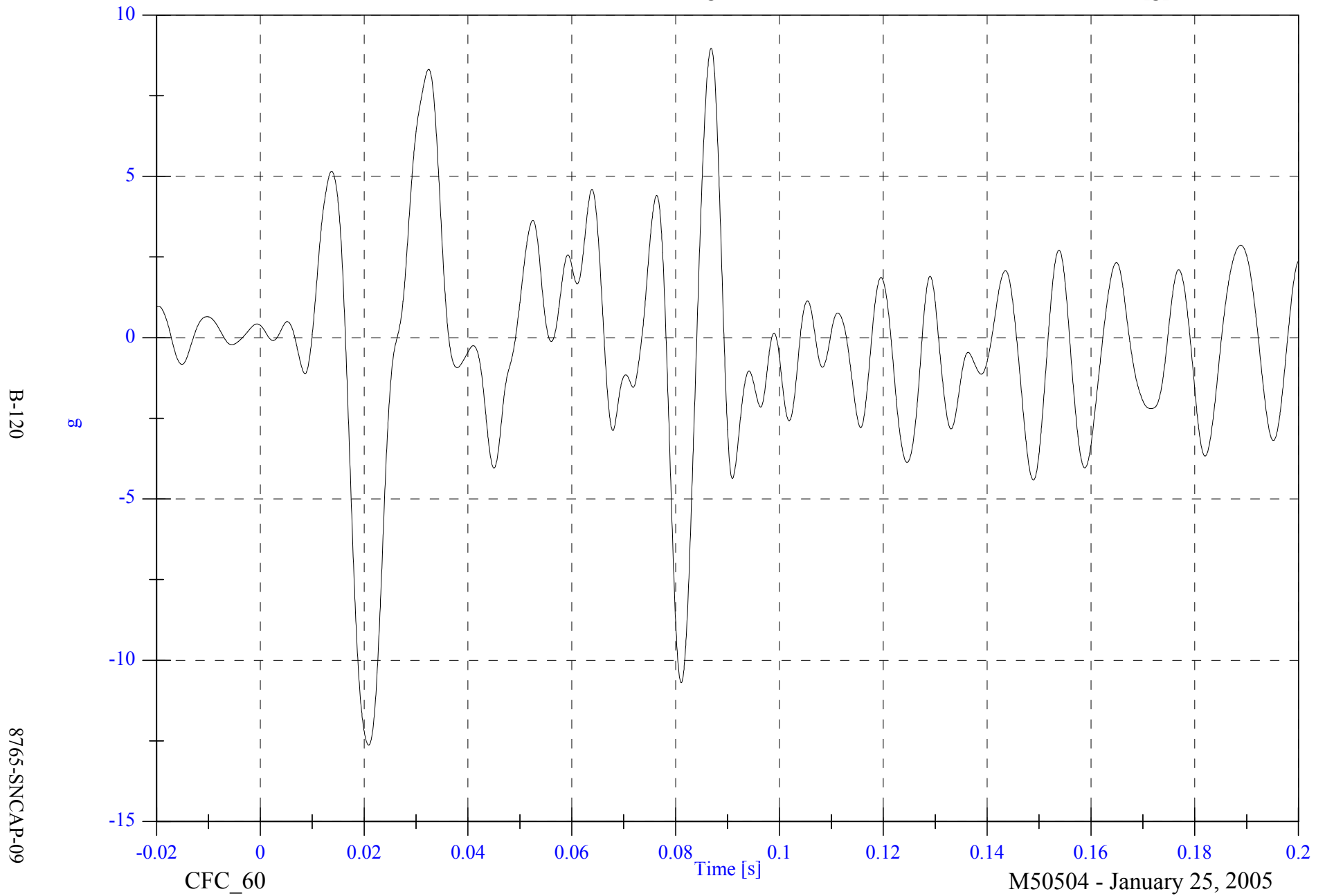


2005 SNCAP Test 4 - 2005 Suzuki Verona

V1 Moving Barrier CG Z

Max: 9.0 [g] at 0.087 [s]

Min: -12.6 [g] at 0.021 [s]



2005 SNCAP Test 4 - 2005 Suzuki Verona

V1 Moving Barrier CG Z Velocity

Max: 0.9 [kph] at 0.017 [s]

Min: -2.8 [kph] at 0.185 [s]

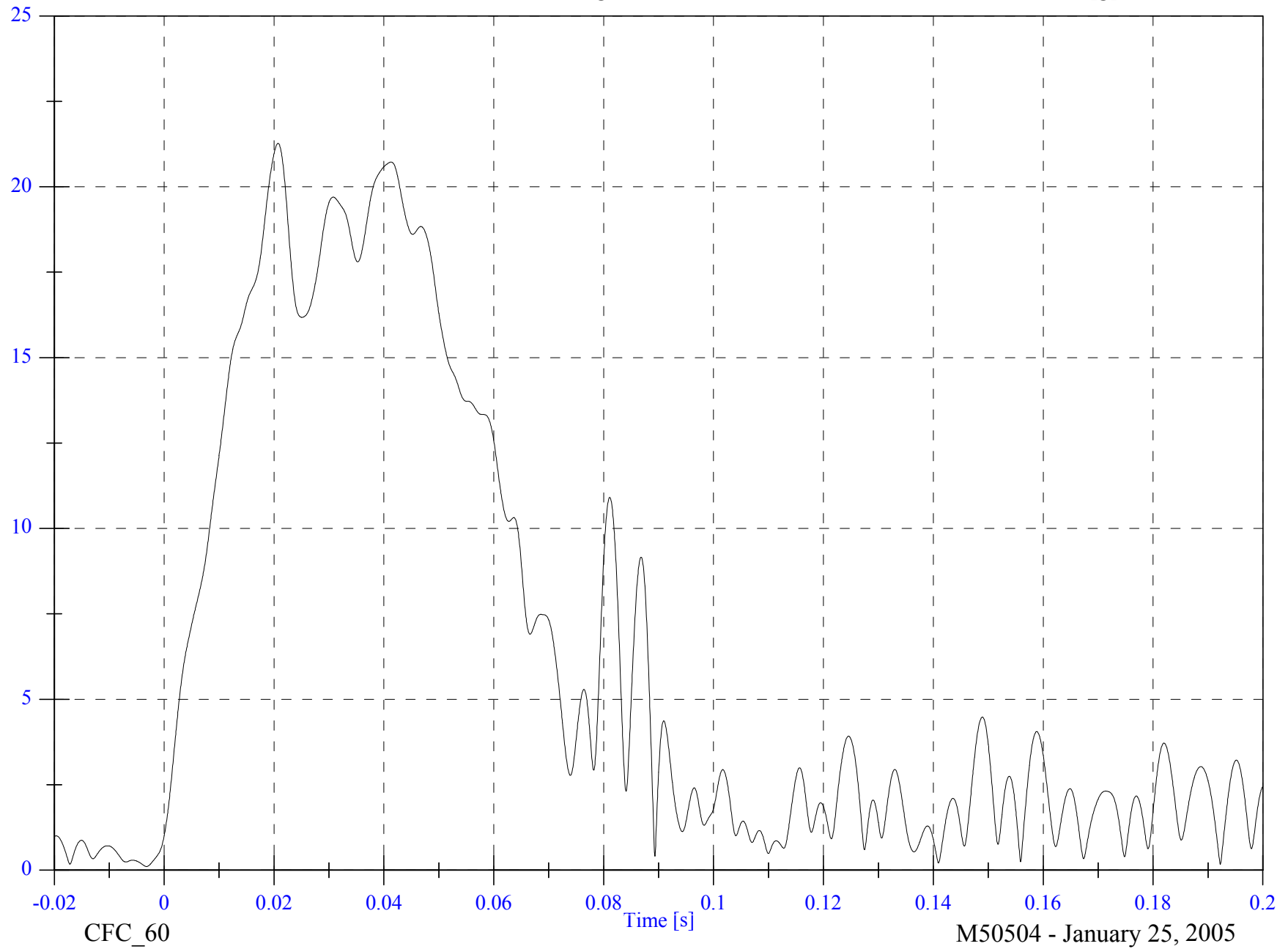


2005 SNCAP Test 4 - 2005 Suzuki Verona

V1 Moving Barrier CG Resultant

Max: 21.3 [g] at 0.021 [s]

Min: 0.1 [g] at -0.003 [s]



B-122

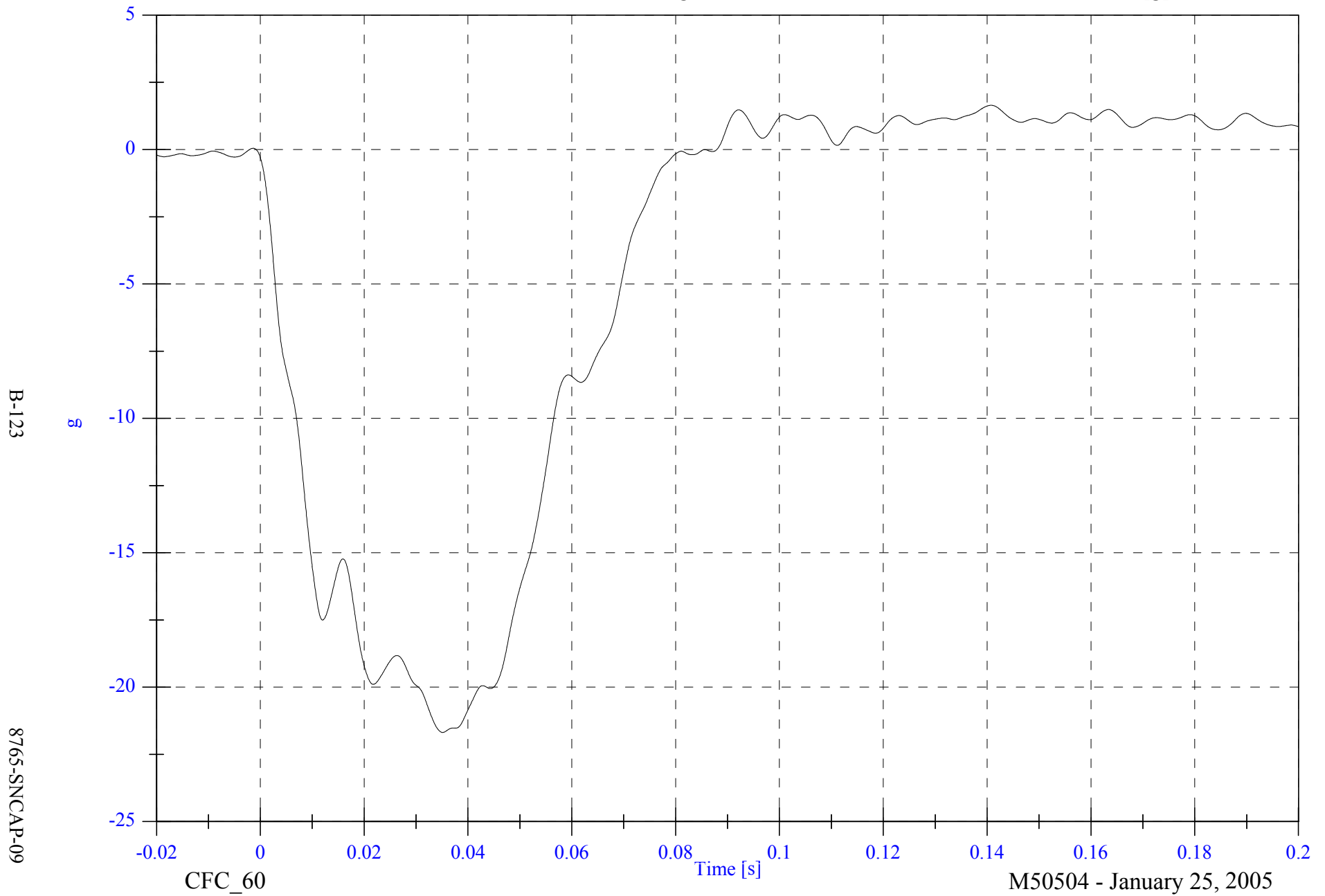
8765-SNCAP-09

2005 SNCAP Test 4 - 2005 Suzuki Verona

V1 Moving Barrier Left Rail X

Max: 1.6 [g] at 0.141 [s]

Min: -21.7 [g] at 0.035 [s]

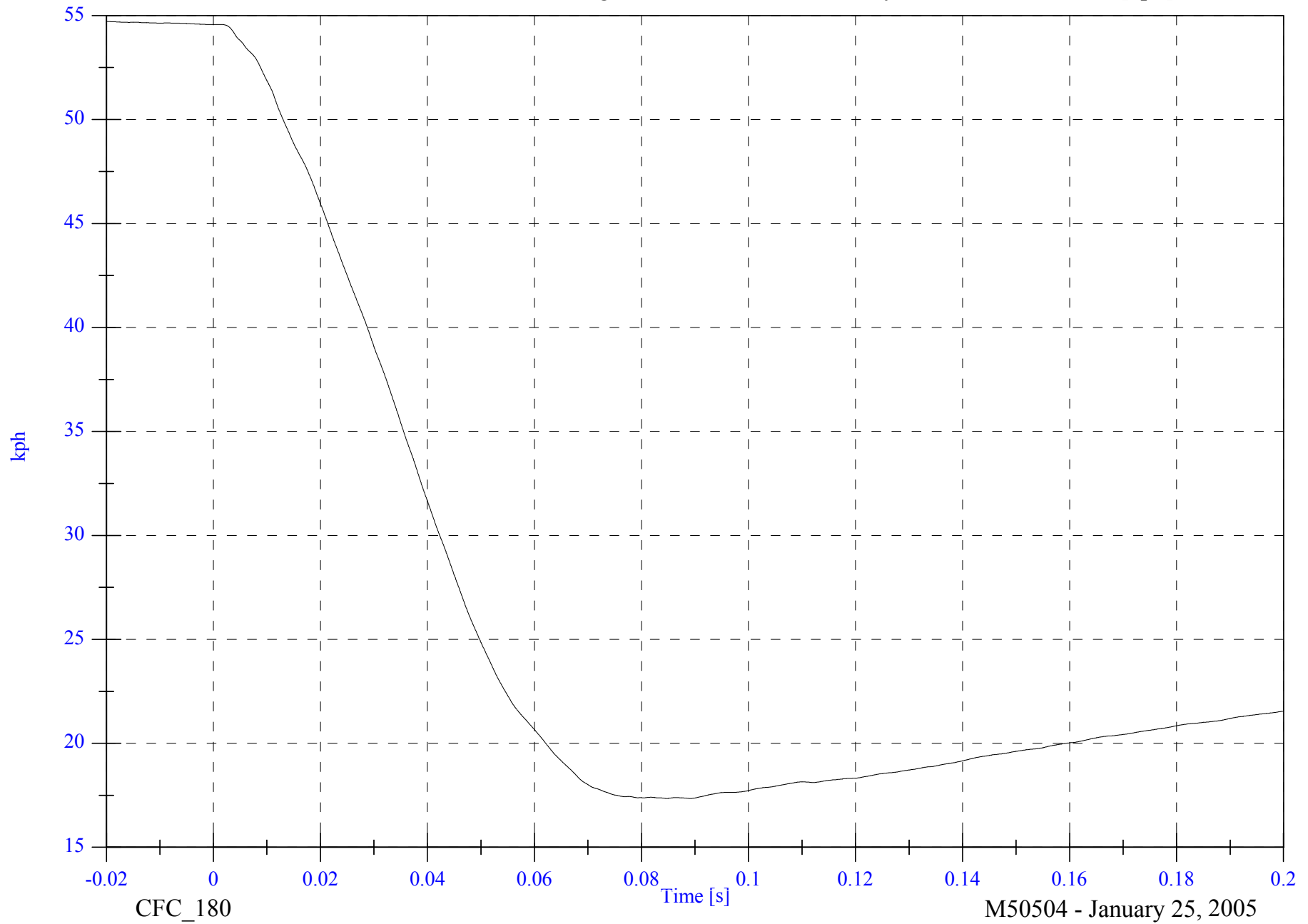


2005 SNCAP Test 4 - 2005 Suzuki Verona

V1 Moving Barrier Left Rail X Velocity

Max: 54.7 [kph] at -0.020 [s]

Min: 17.3 [kph] at 0.089 [s]



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8765-SNCAP-09

CFC_180

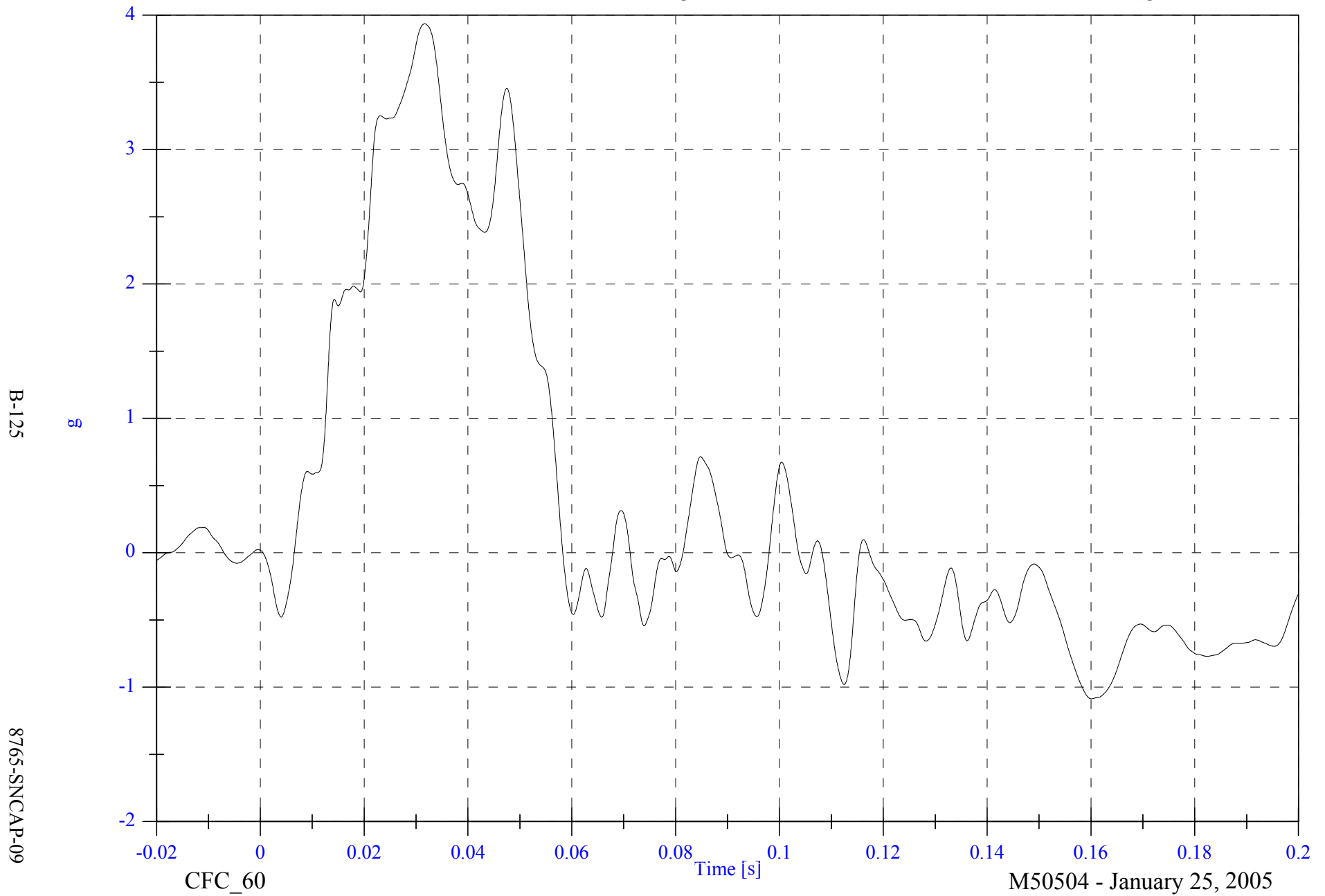
M50504 - January 25, 2005

2005 SNCAP Test 4 - 2005 Suzuki Verona

V1 Moving Barrier Left Rail Y

Max: 3.9 [g] at 0.032 [s]

Min: -1.1 [g] at 0.160 [s]

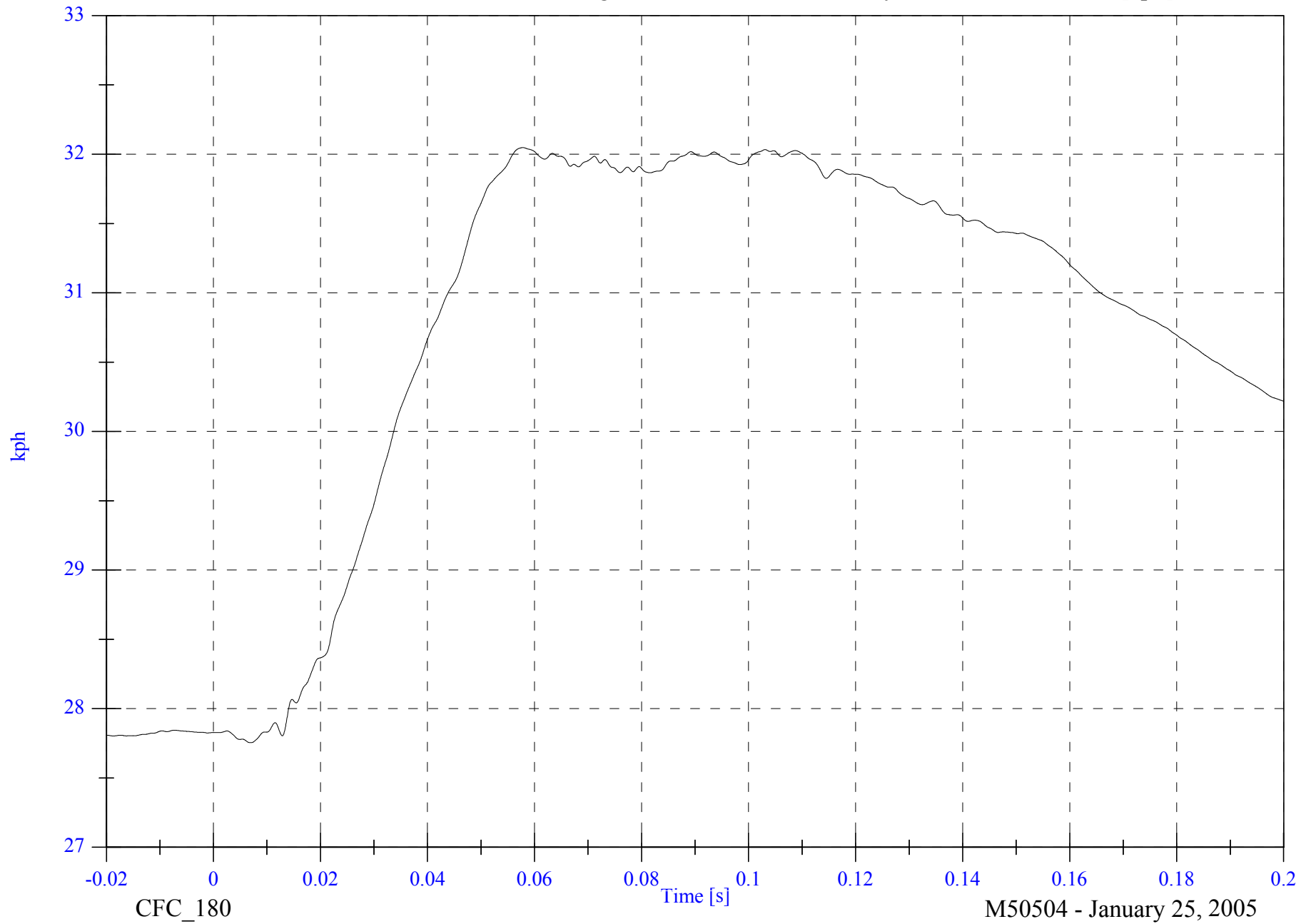


2005 SNCAP Test 4 - 2005 Suzuki Verona

V1 Moving Barrier Left Rail Y Velocity

Max: 32.0 [kph] at 0.058 [s]

Min: 27.8 [kph] at 0.007 [s]



B-126

8765-SNCAP-09

CFC_180

M50504 - January 25, 2005

2005 SNCAP Test 4 - 2005 Suzuki Verona

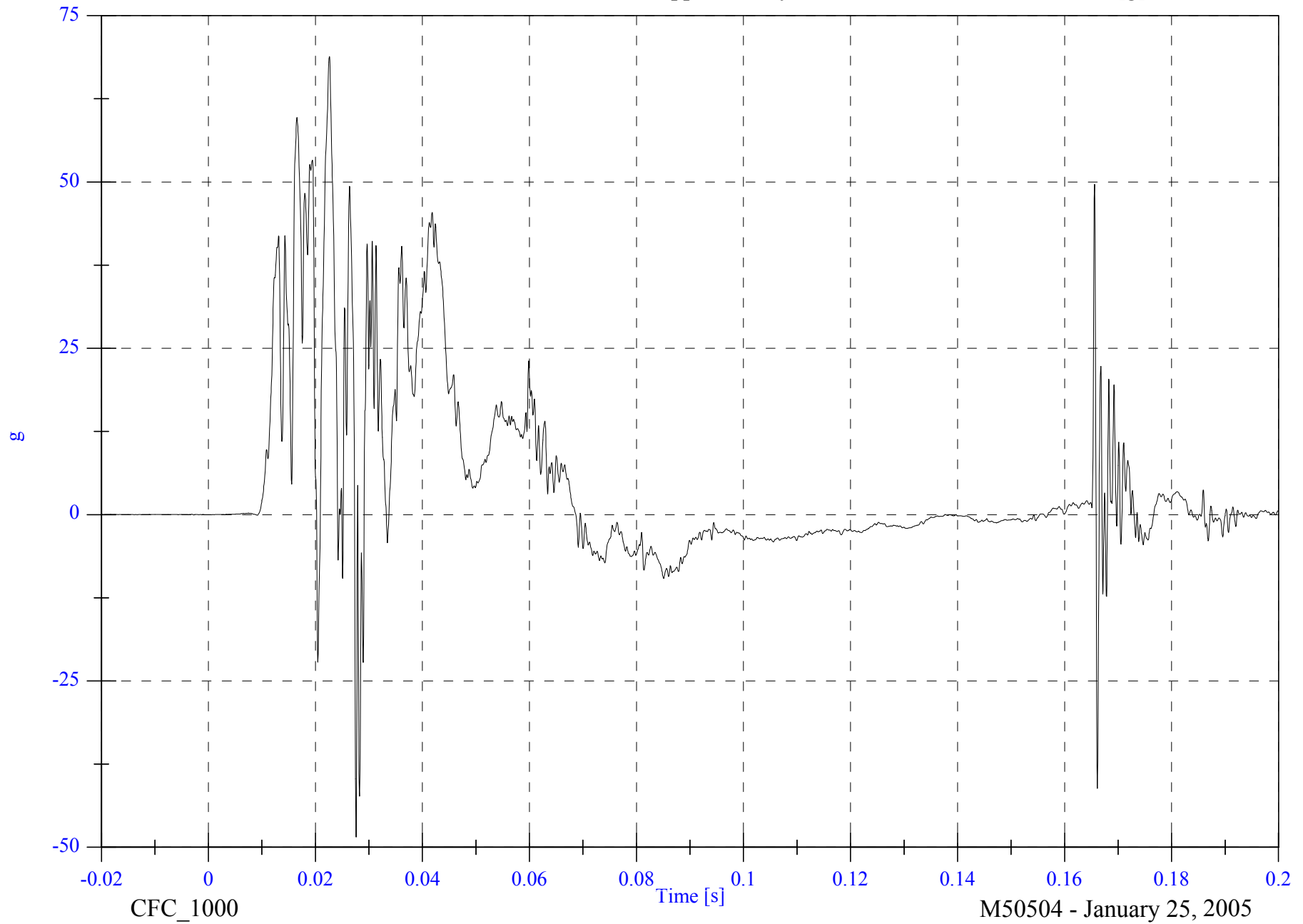
V2P1 Upper Rib Ry

Max: 68.8 [g] at 0.023 [s]

Min: -48.5 [g] at 0.028 [s]

B-127

8765-SNCAP-09

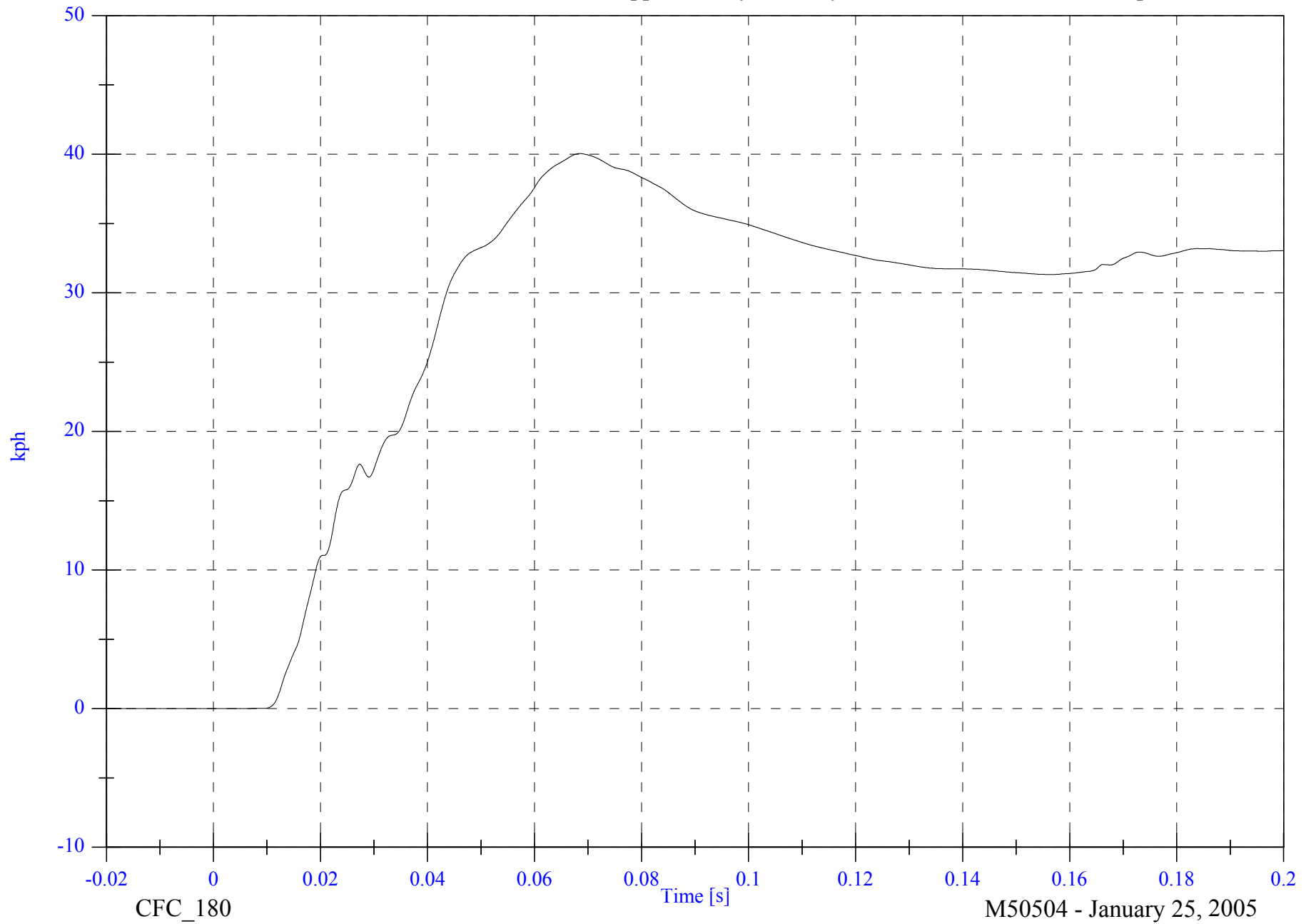


2005 SNCAP Test 4 - 2005 Suzuki Verona

V2P1 Upper Rib Ry Velocity

Max: 40.0 [kph] at 0.068 [s]

Min: -0.0 [kph] at -0.020 [s]



B-128

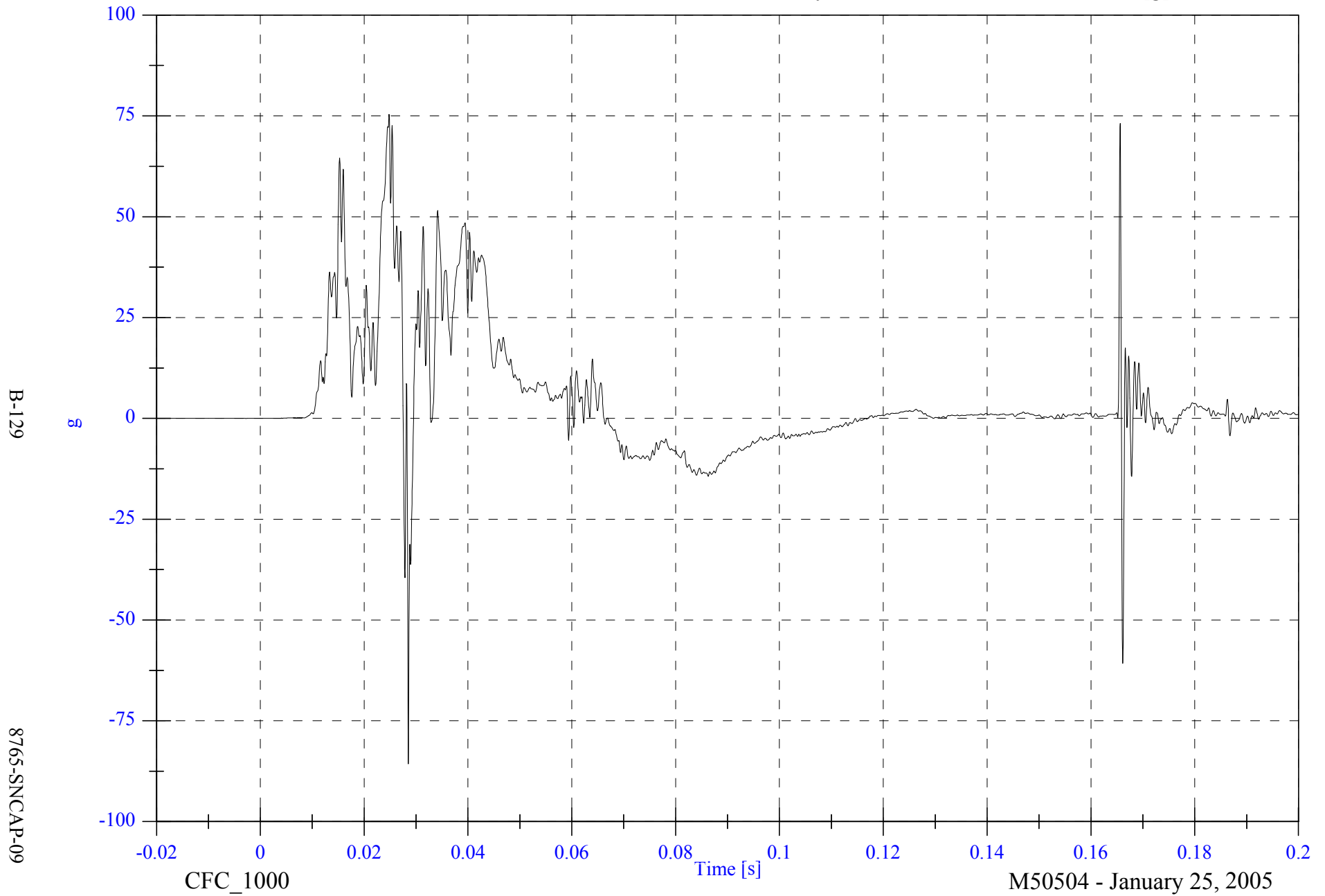
8765-SNCAP-09

2005 SNCAP Test 4 - 2005 Suzuki Verona

V2P1 Lower Rib Ry

Max: 75.4 [g] at 0.025 [s]

Min: -85.7 [g] at 0.028 [s]



2005 SNCAP Test 4 - 2005 Suzuki Verona

V2P1 Lower Rib Ry Velocity

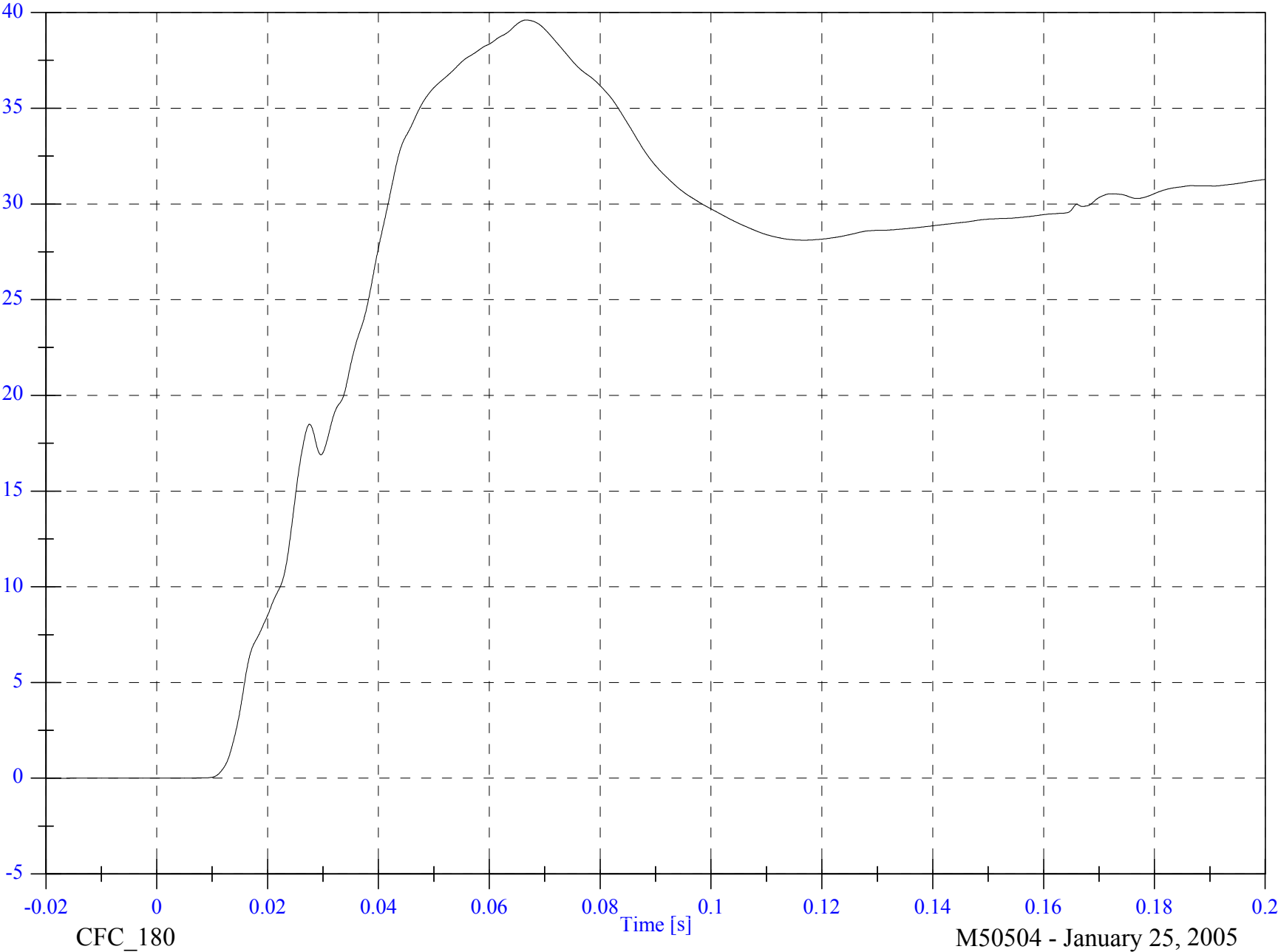
Max: 39.6 [kph] at 0.067 [s]

Min: -0.0 [kph] at -0.020 [s]

B-130

8765-SNCAP-09

kph



2005 SNCAP Test 4 - 2005 Suzuki Verona

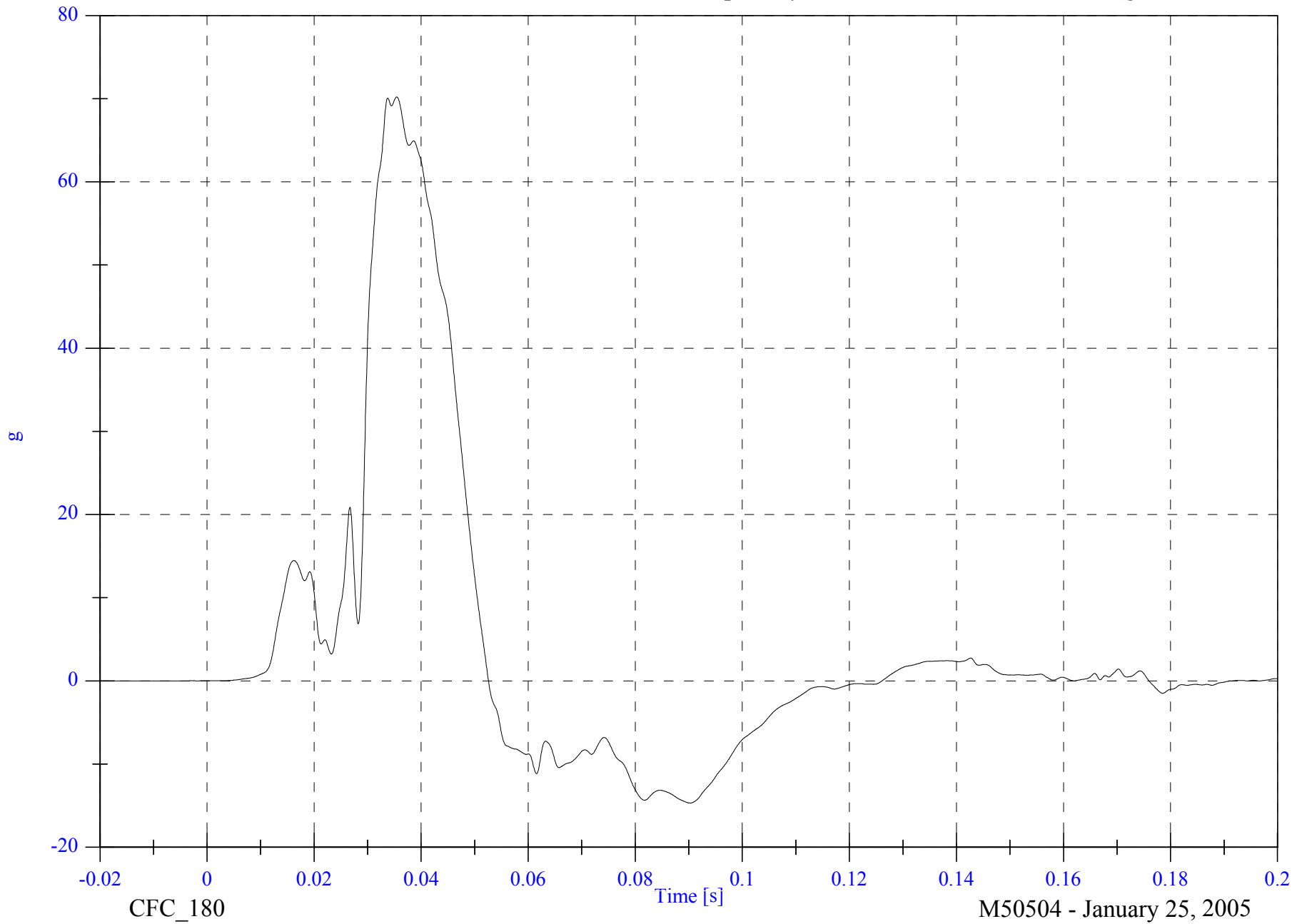
V2P1 Lower Spine Ry

Max: 70.2 [g] at 0.035 [s]

Min: -14.7 [g] at 0.090 [s]

B-131

8765-SNCAP-09

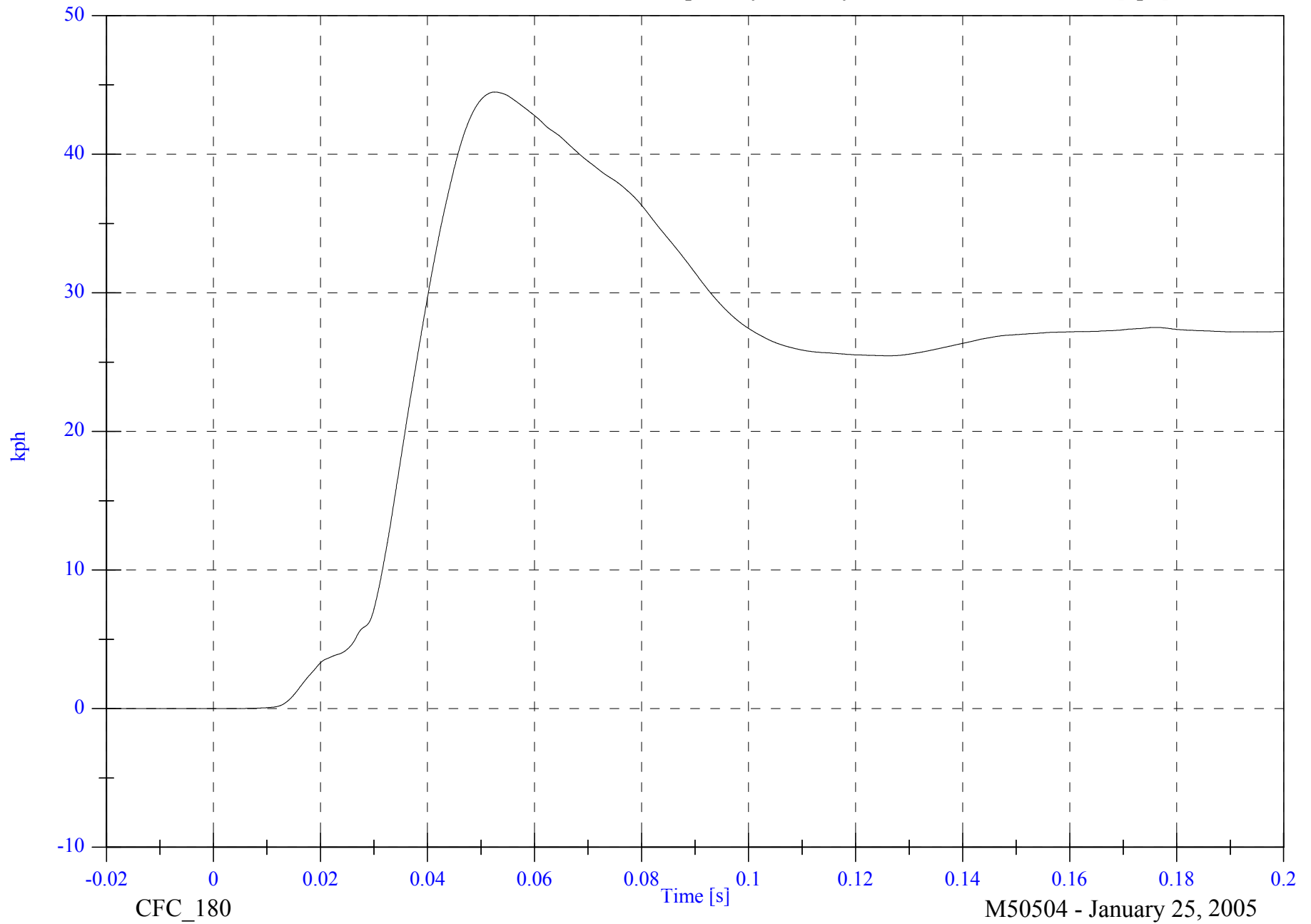


2005 SNCAP Test 4 - 2005 Suzuki Verona

V2P1 Lower Spine Ry Velocity

Max: 44.5 [kph] at 0.053 [s]

Min: -0.0 [kph] at -0.016 [s]



B-132

8765-SNCAP-09

2005 SNCAP Test 4 - 2005 Suzuki Verona

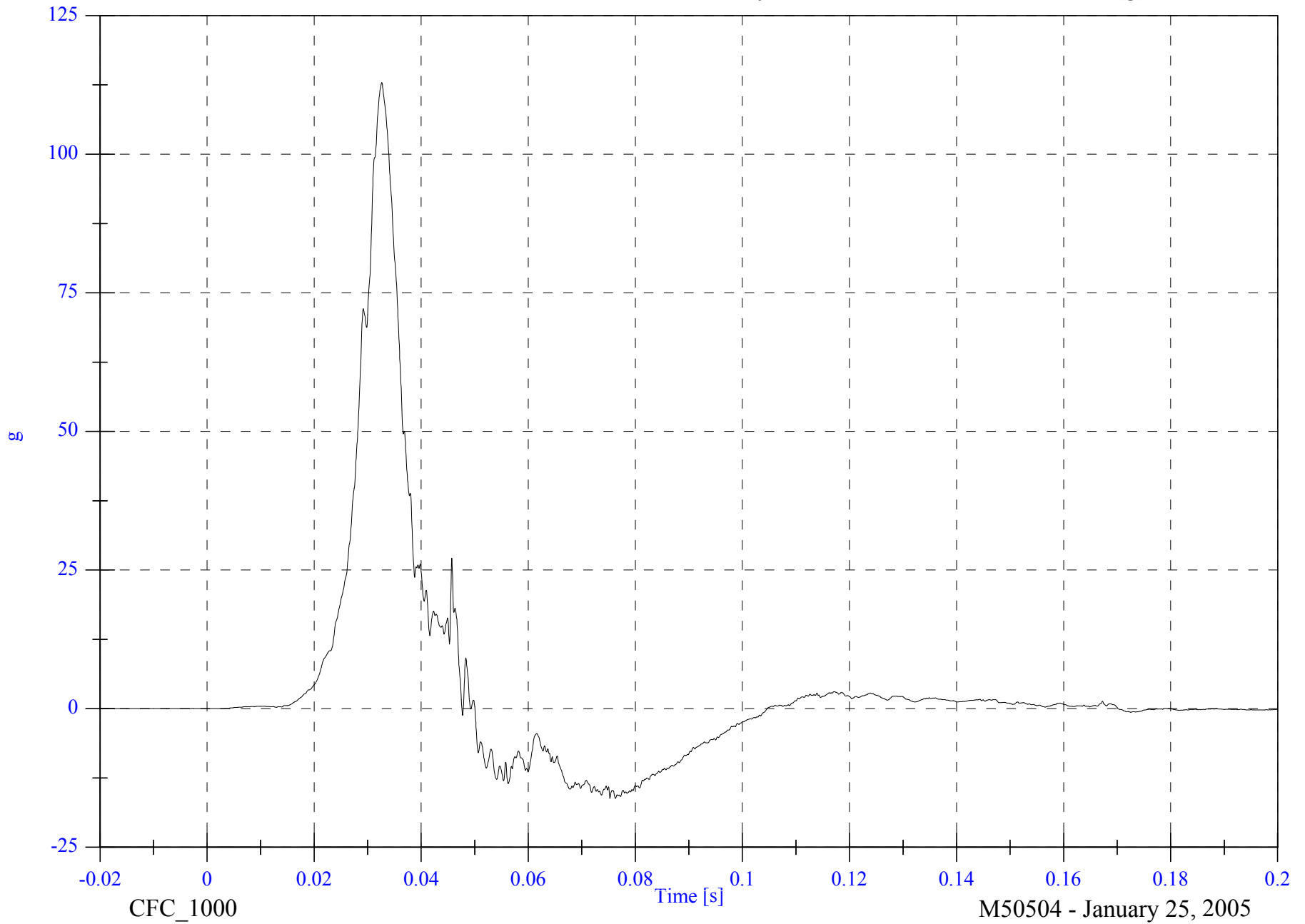
V2P1 Pelvic Ry

Max: 112.9 [g] at 0.033 [s]

Min: -16.2 [g] at 0.075 [s]

B-133

8765-SNCAP-09

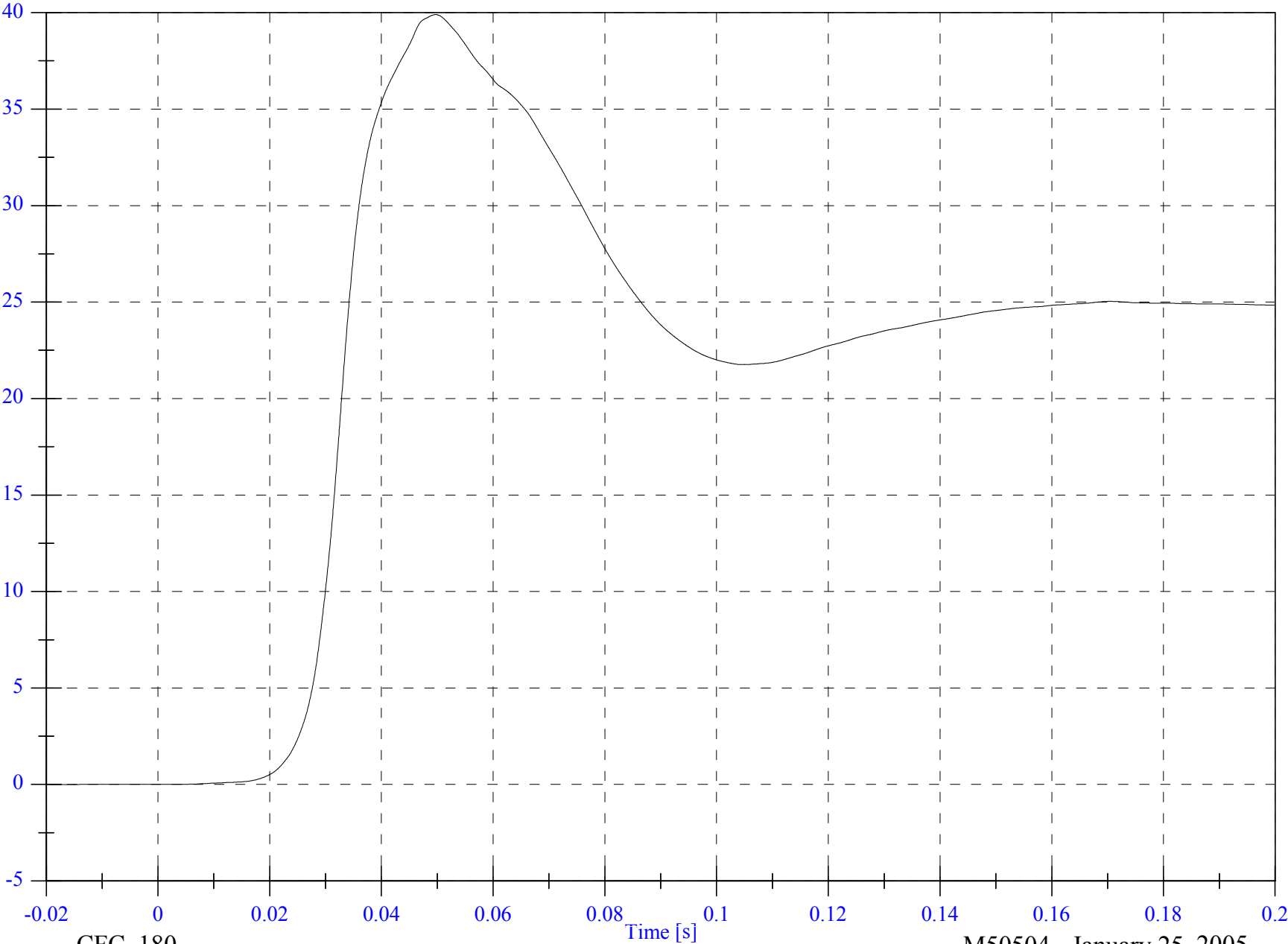


V2P1 Pelvic Ry Velocity

B-134

8765-SNCAP-09

kph



CFC_180

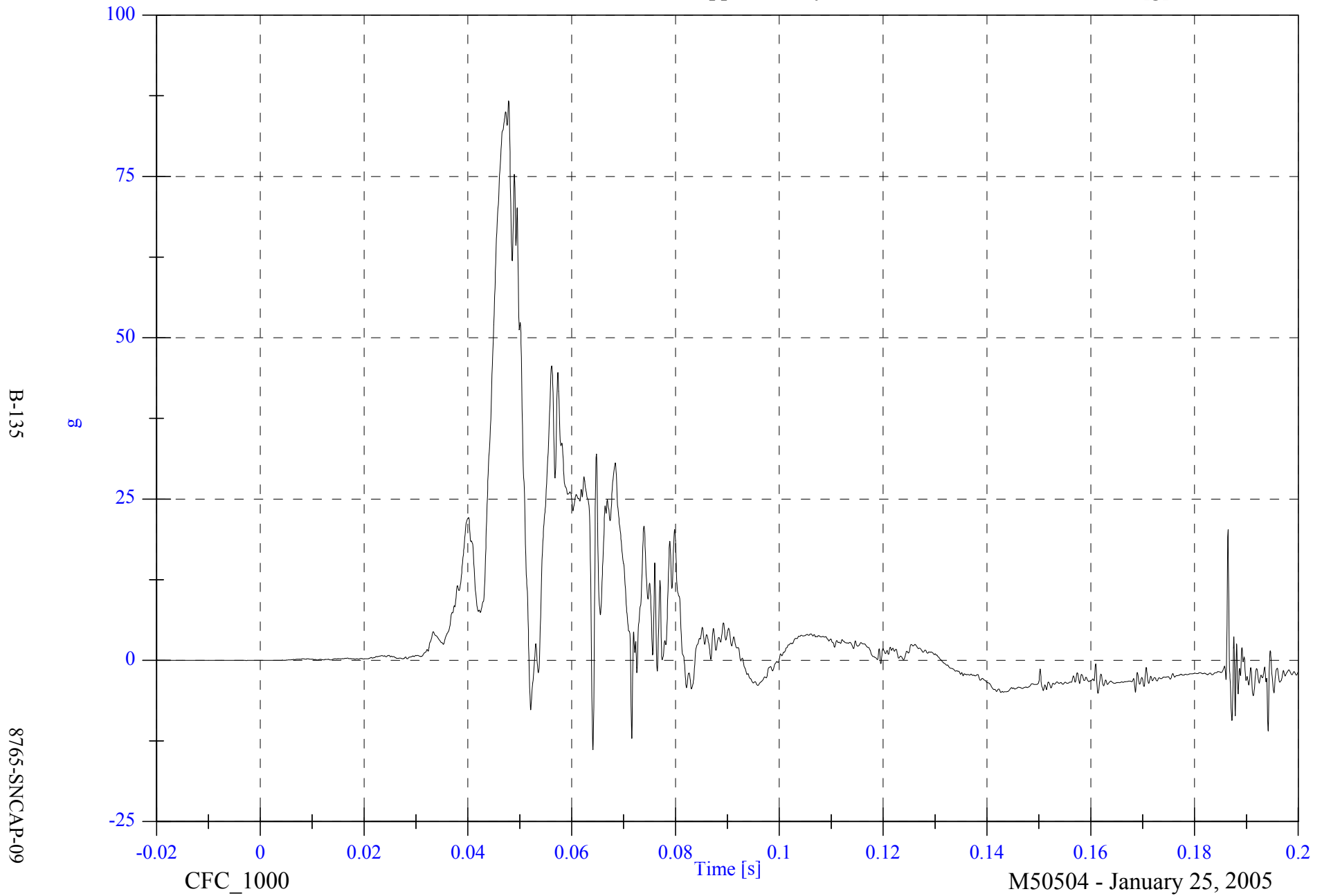
M50504 - January 25, 2005

2005 SNCAP Test 4 - 2005 Suzuki Verona

V2P4 Upper Rib Ry

Max: 86.7 [g] at 0.048 [s]

Min: -13.8 [g] at 0.064 [s]

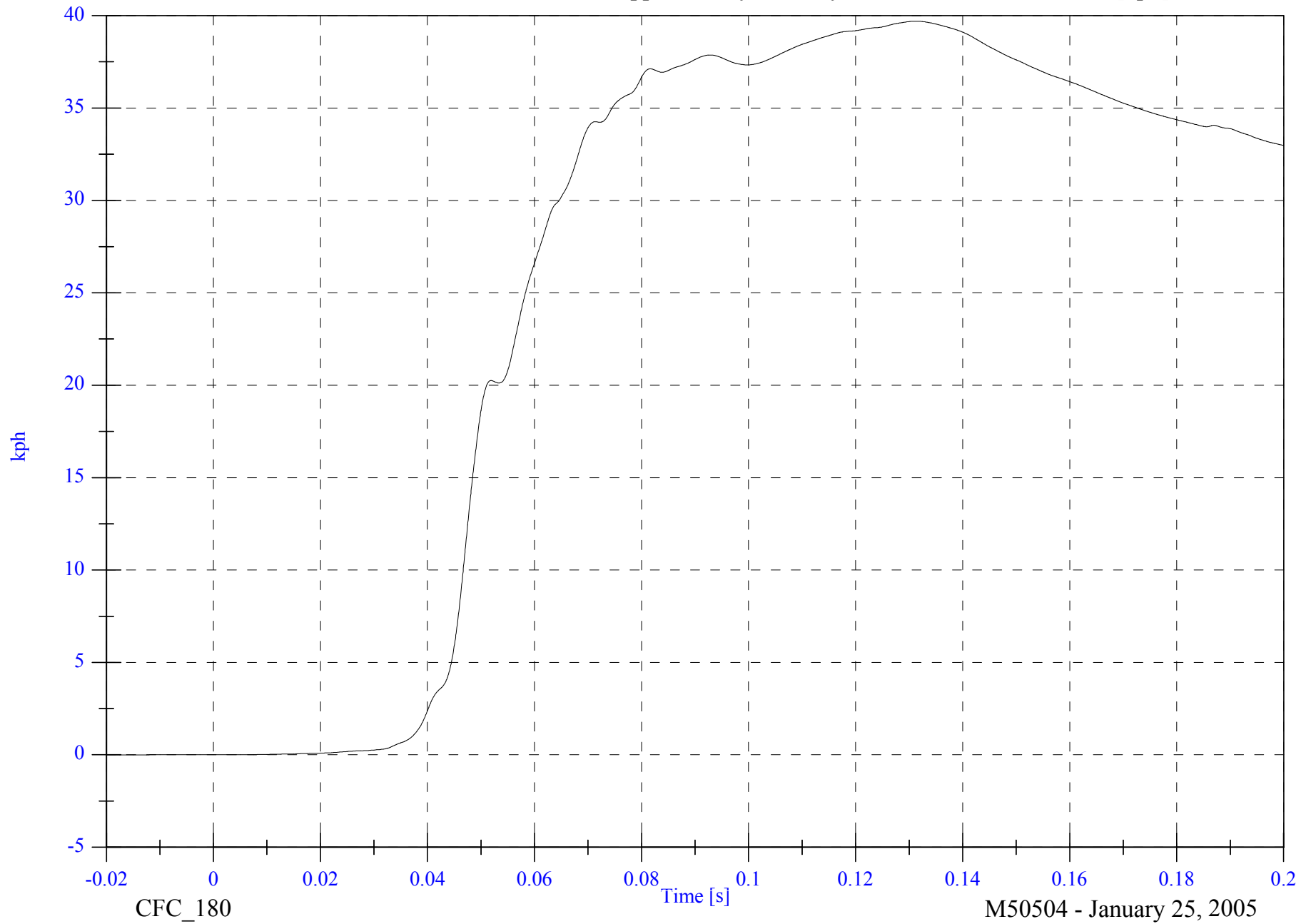


2005 SNCAP Test 4 - 2005 Suzuki Verona

V2P4 Upper Rib Ry Velocity

Max: 39.7 [kph] at 0.131 [s]

Min: -0.0 [kph] at -0.020 [s]



B-136

8765-SNCAP-09

2005 SNCAP Test 4 - 2005 Suzuki Verona

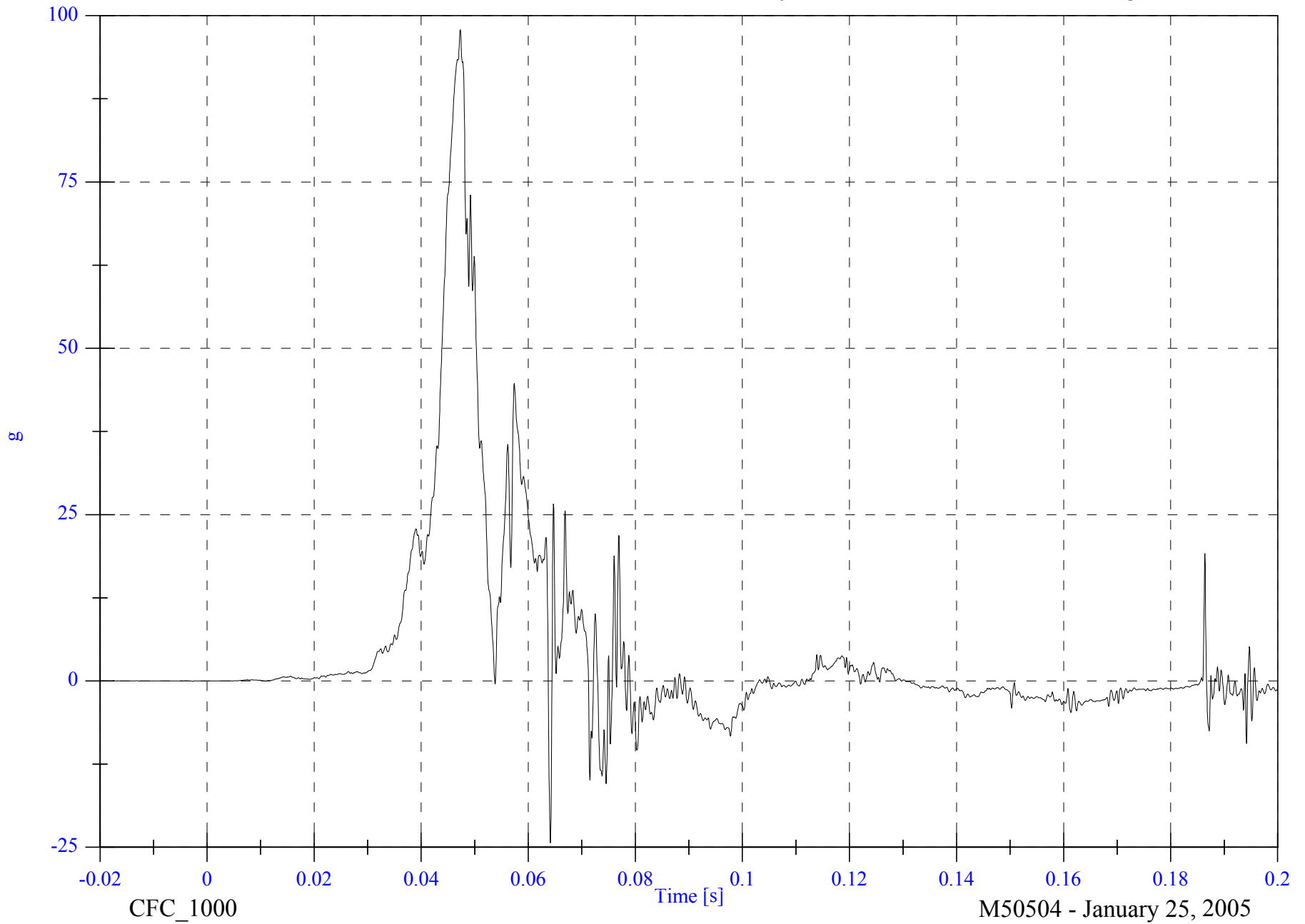
V2P4 Lower Rib Ry

Max: 97.9 [g] at 0.047 [s]

Min: -24.3 [g] at 0.064 [s]

B-137

8765-SNCAP-09



2005 SNCAP Test 4 - 2005 Suzuki Verona

V2P4 Lower Rib Ry Velocity

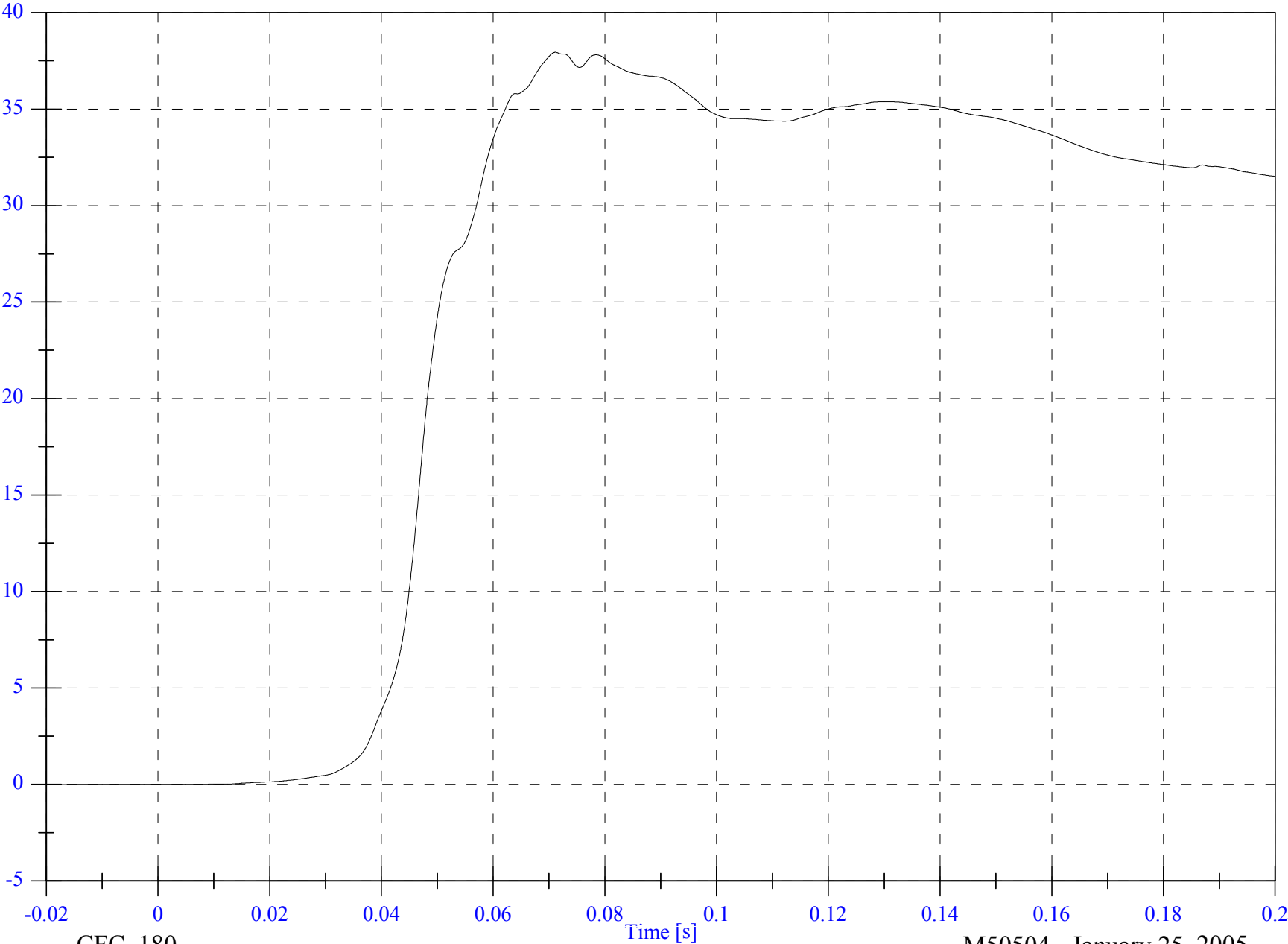
Max: 37.9 [kph] at 0.071 [s]

Min: -0.0 [kph] at -0.020 [s]

B-138

8765-SNCAP-09

kph



CFC_180

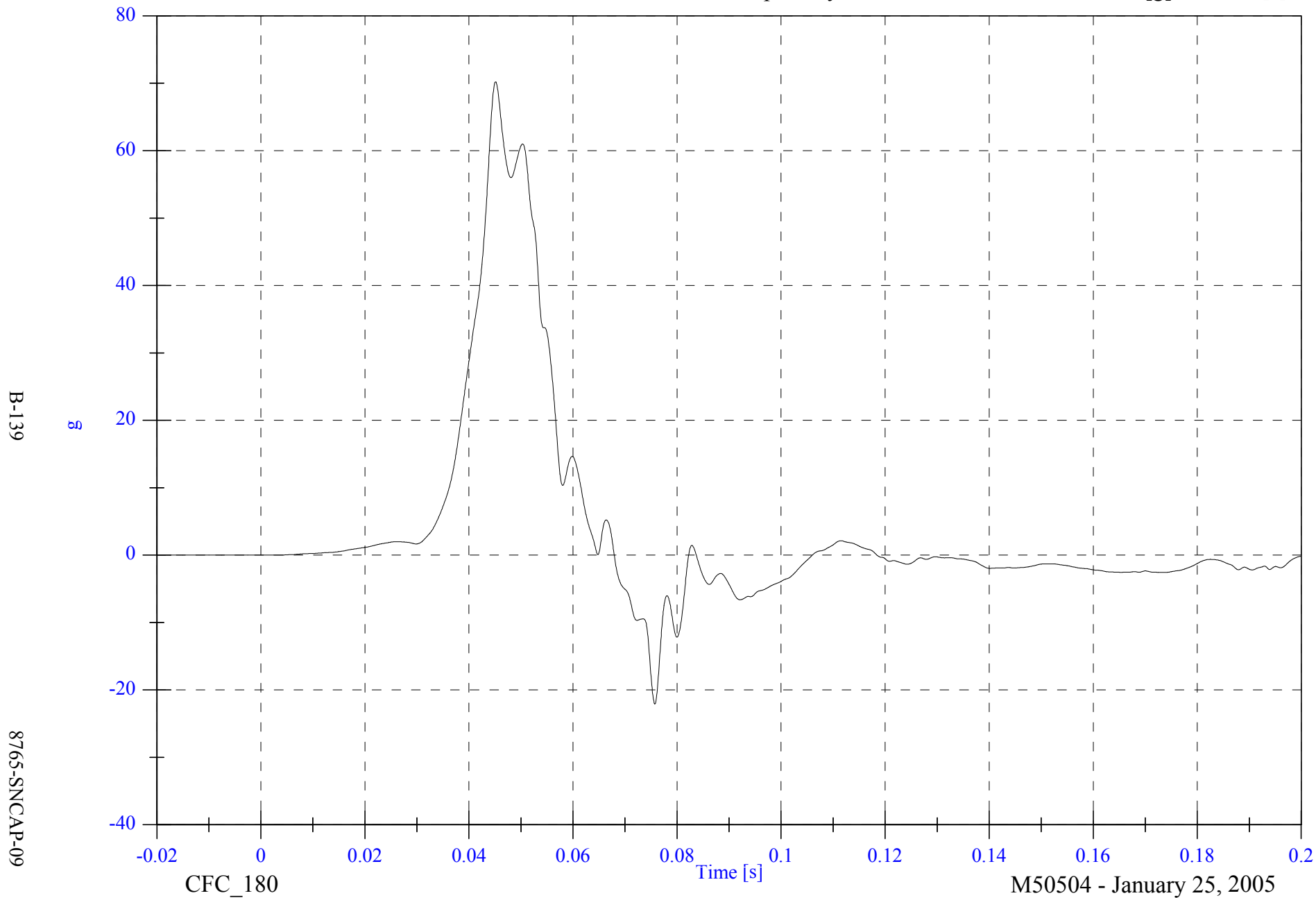
M50504 - January 25, 2005

2005 SNCAP Test 4 - 2005 Suzuki Verona

V2P4 Lower Spine Ry

Max: 70.2 [g] at 0.045 [s]

Min: -22.1 [g] at 0.076 [s]



2005 SNCAP Test 4 - 2005 Suzuki Verona

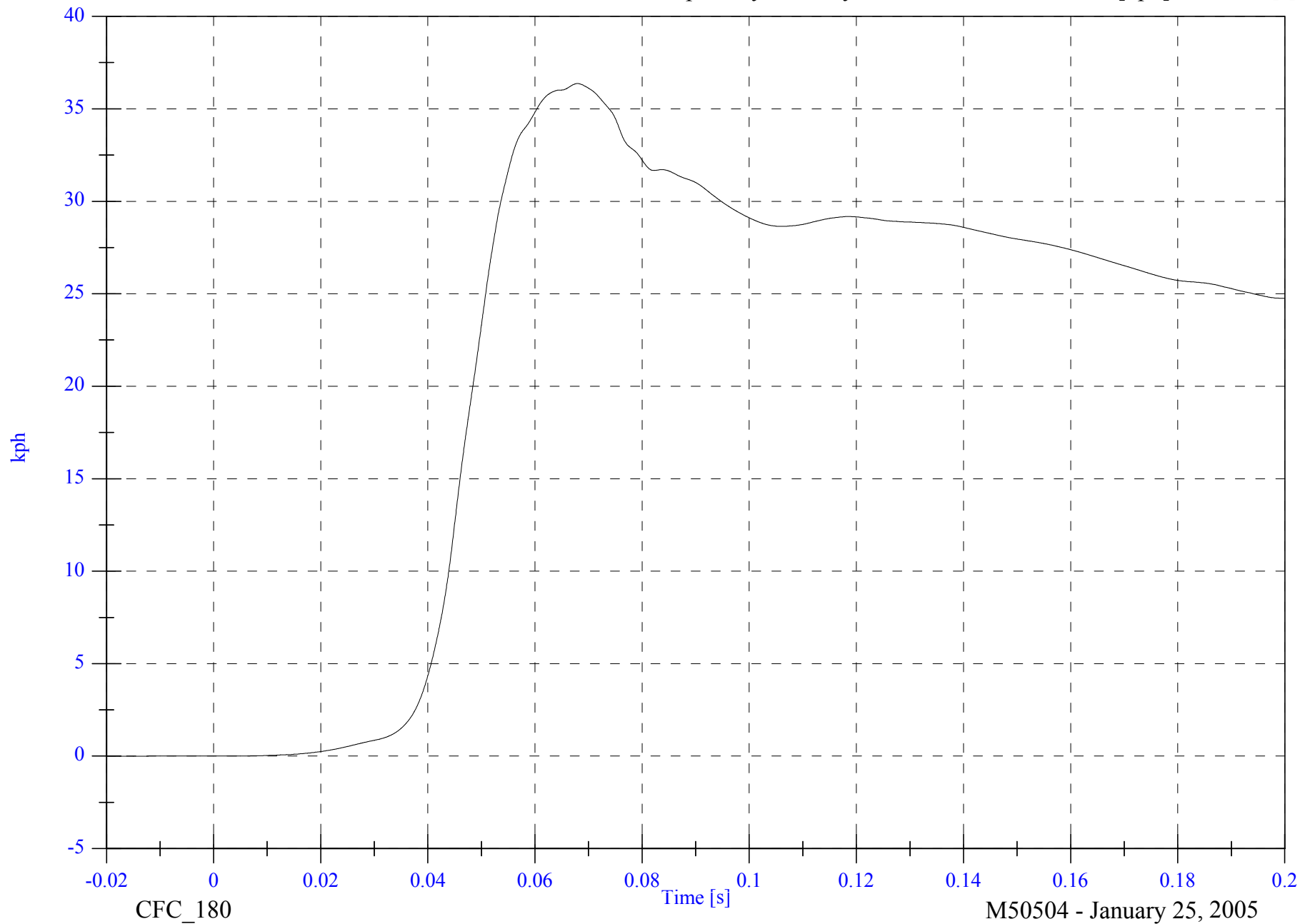
V2P4 Lower Spine Ry Velocity

Max: 36.4 [kph] at 0.068 [s]

Min: -0.0 [kph] at -0.020 [s]

B-140

8765-SNCAP-09

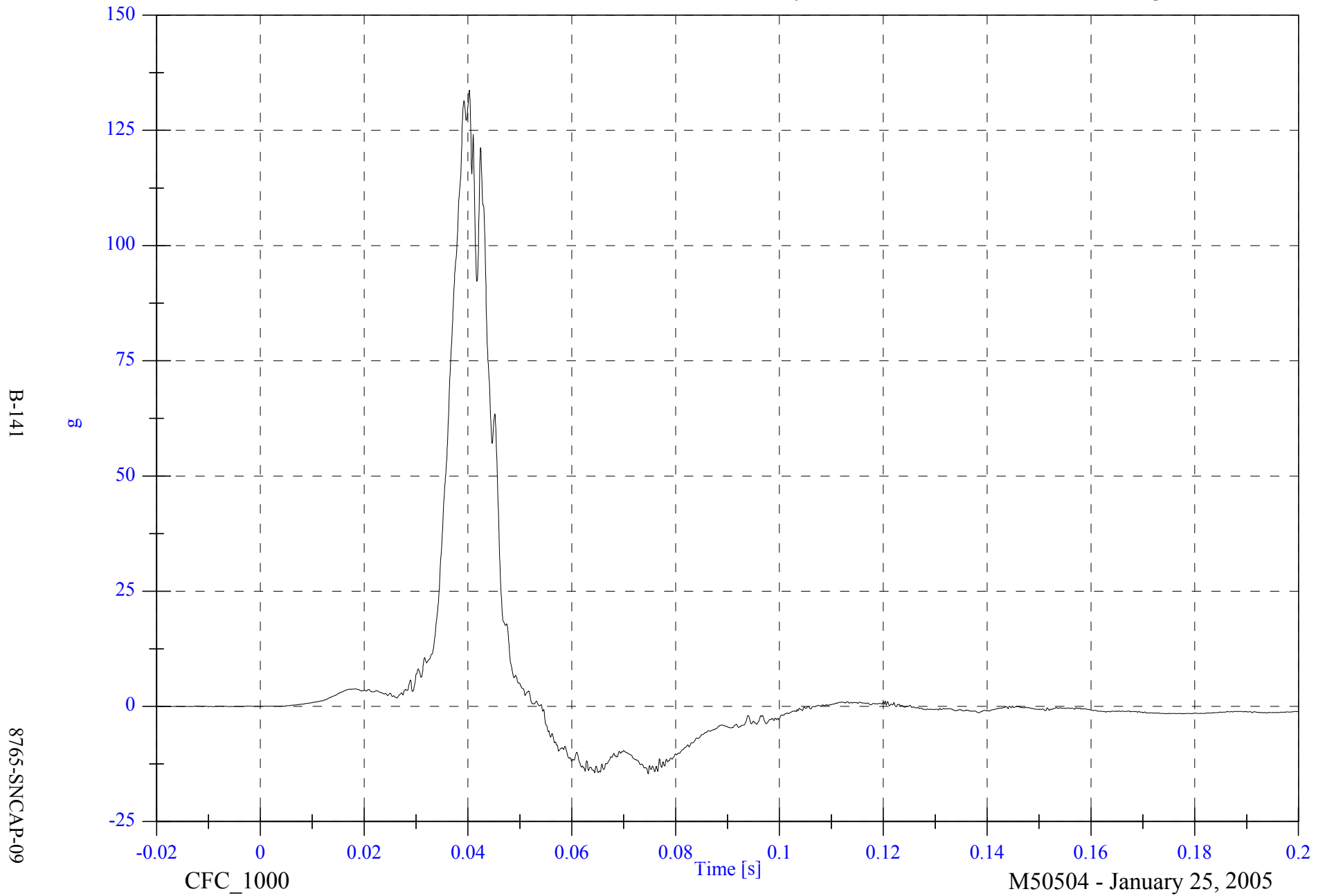


2005 SNCAP Test 4 - 2005 Suzuki Verona

V2P4 Pelvic Ry

Max: 133.7 [g] at 0.040 [s]

Min: -14.6 [g] at 0.075 [s]

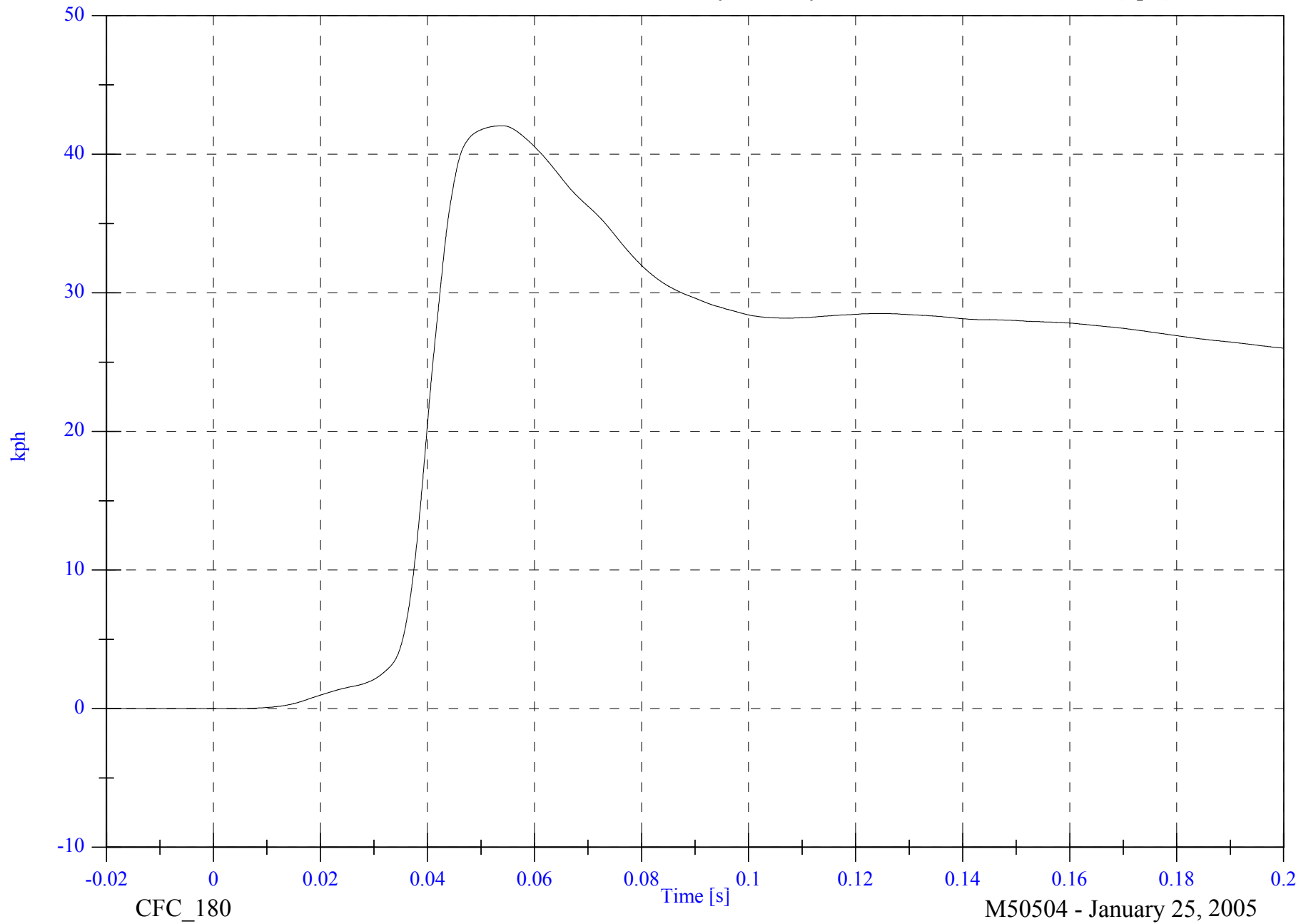


2005 SNCAP Test 4 - 2005 Suzuki Verona

V2P4 Pelvic Ry Velocity

Max: 42.1 [kph] at 0.054 [s]

Min: -0.0 [kph] at -0.013 [s]



B-142

8765-SNCAP-09

CFC_180

M50504 - January 25, 2005

2005 SNCAP Test 4 - 2005 Suzuki Verona

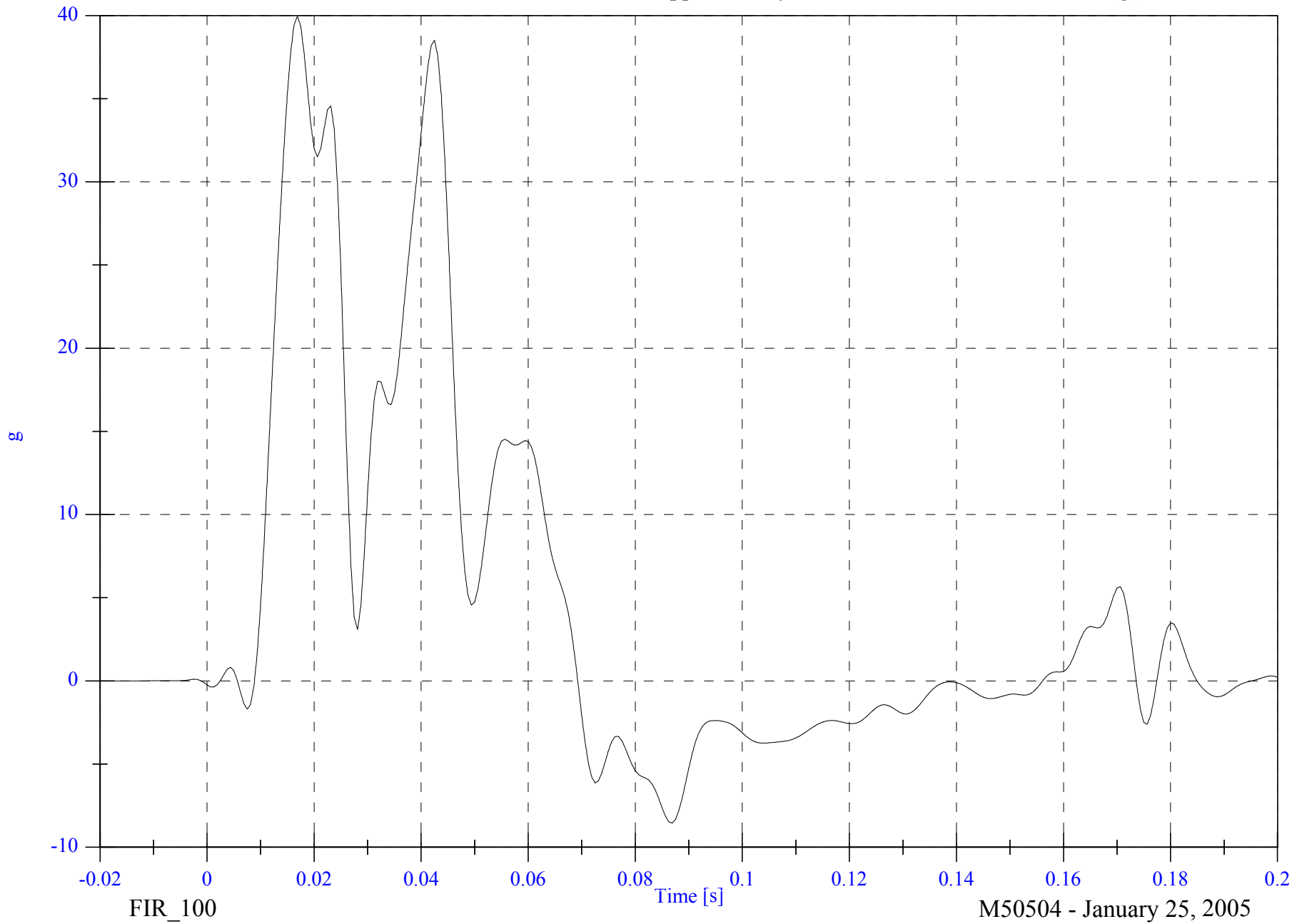
V2P1 Upper Rib Ry

Max: 39.9 [g] at 0.017 [s]

Min: -8.5 [g] at 0.087 [s]

B-143

8765-SNCAP-09



2005 SNCAP Test 4 - 2005 Suzuki Verona

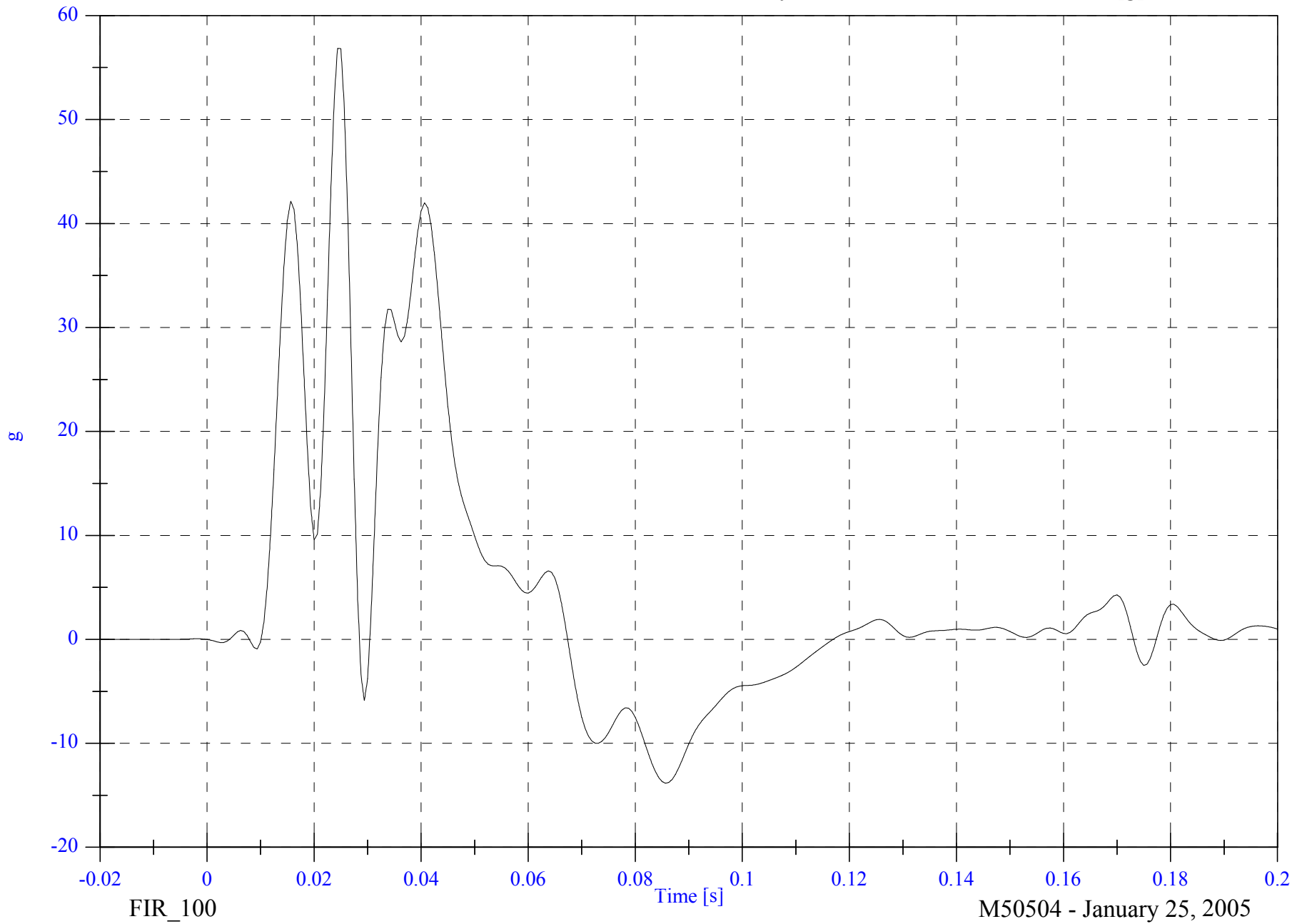
V2P1 Lower Rib Ry

Max: 56.9 [g] at 0.024 [s]

Min: -13.8 [g] at 0.086 [s]

B-144

8765-SNCAP-09

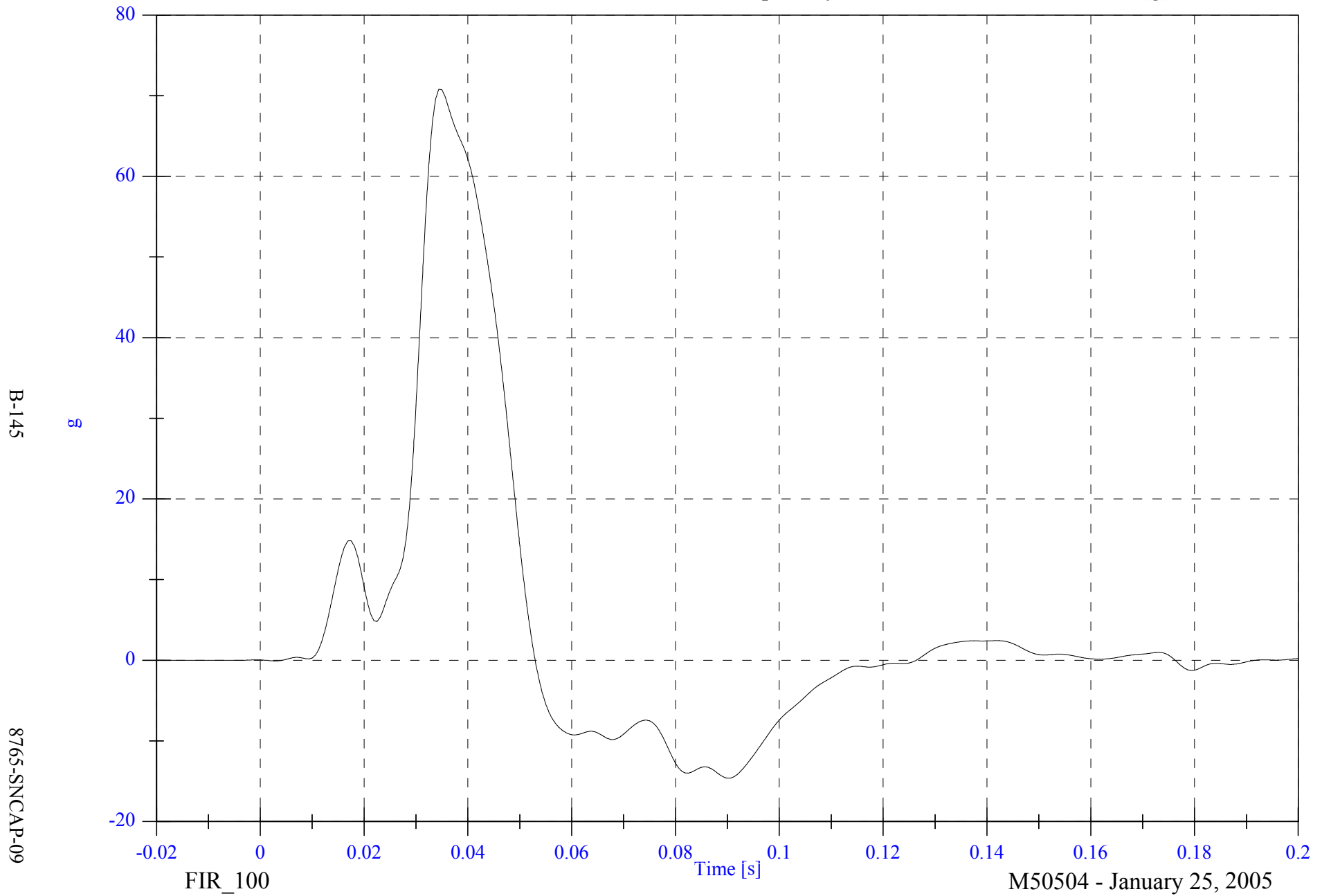


2005 SNCAP Test 4 - 2005 Suzuki Verona

V2P1 Lower Spine Ry

Max: 70.8 [g] at 0.034 [s]

Min: -14.6 [g] at 0.090 [s]



2005 SNCAP Test 4 - 2005 Suzuki Verona

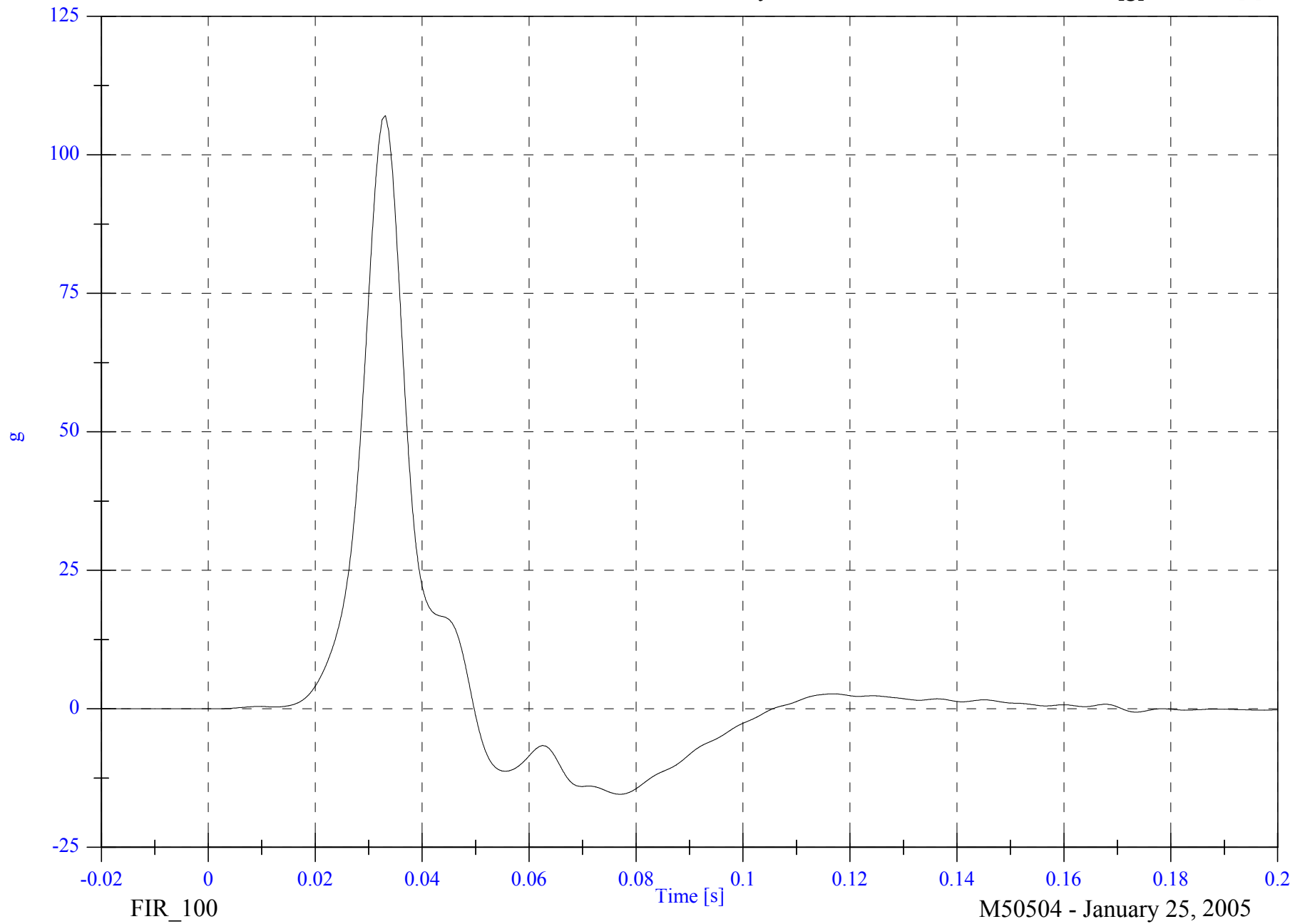
V2P1 Pelvic Ry

Max: 107.1 [g] at 0.033 [s]

Min: -15.4 [g] at 0.077 [s]

B-146

8765-SNCAP-09



2005 SNCAP Test 4 - 2005 Suzuki Verona

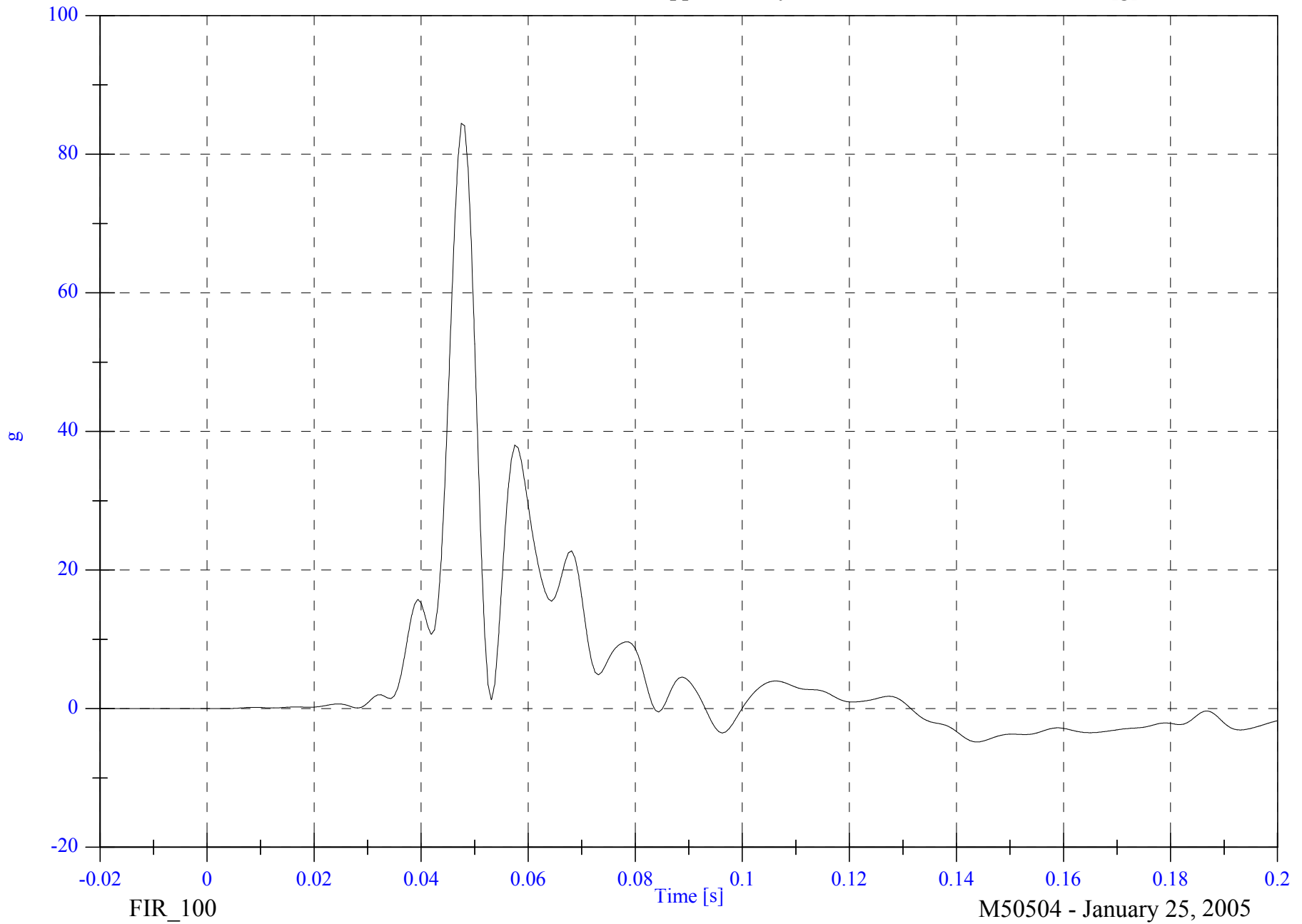
V2P4 Upper Rib Ry

Max: 84.4 [g] at 0.047 [s]

Min: -4.8 [g] at 0.144 [s]

B-147

8765-SNCAP-09

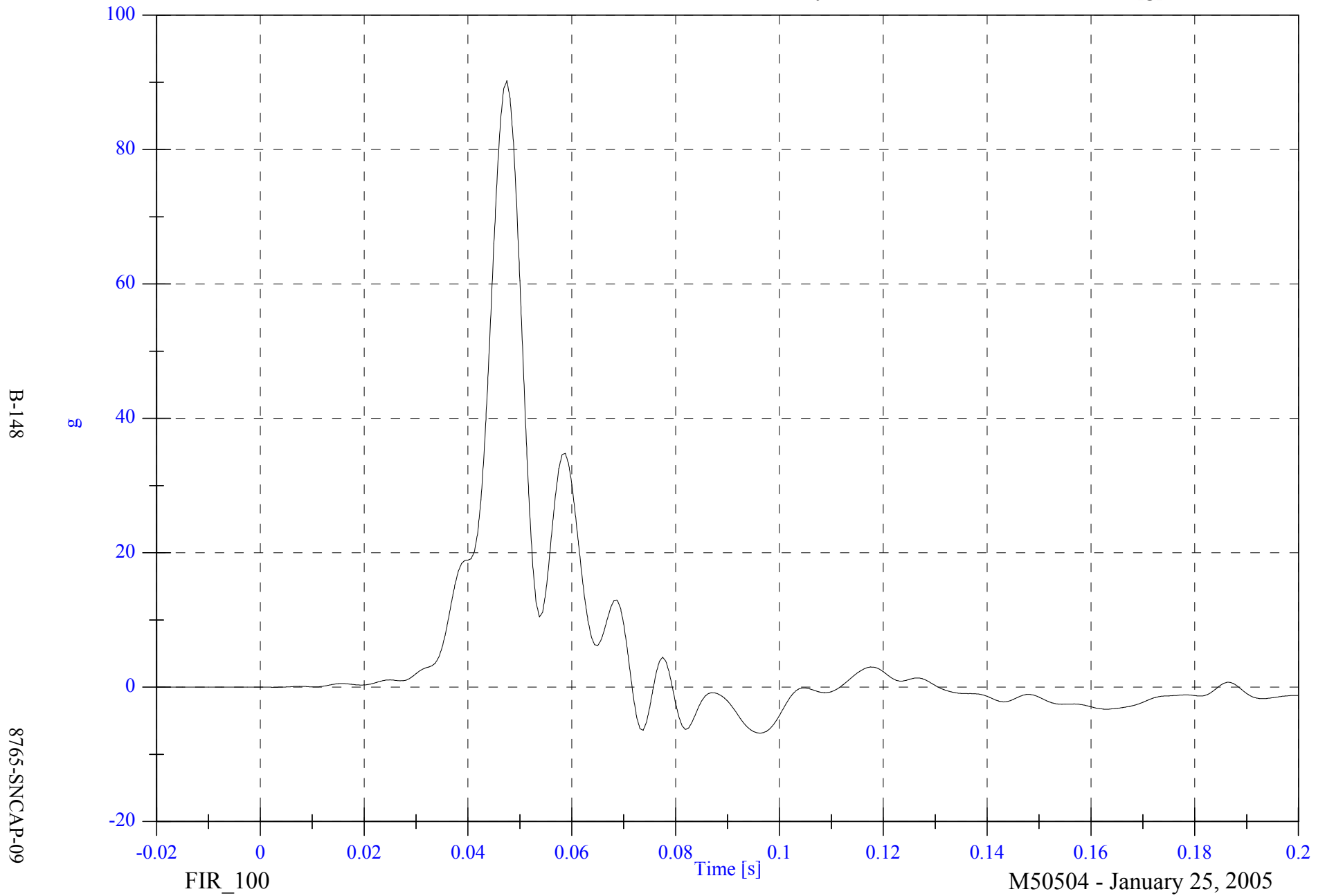


2005 SNCAP Test 4 - 2005 Suzuki Verona

V2P4 Lower Rib Ry

Max: 90.2 [g] at 0.047 [s]

Min: -6.8 [g] at 0.096 [s]



2005 SNCAP Test 4 - 2005 Suzuki Verona

V2P4 Lower Spine Ry

Max: 64.4 [g] at 0.046 [s]

Min: -14.9 [g] at 0.076 [s]

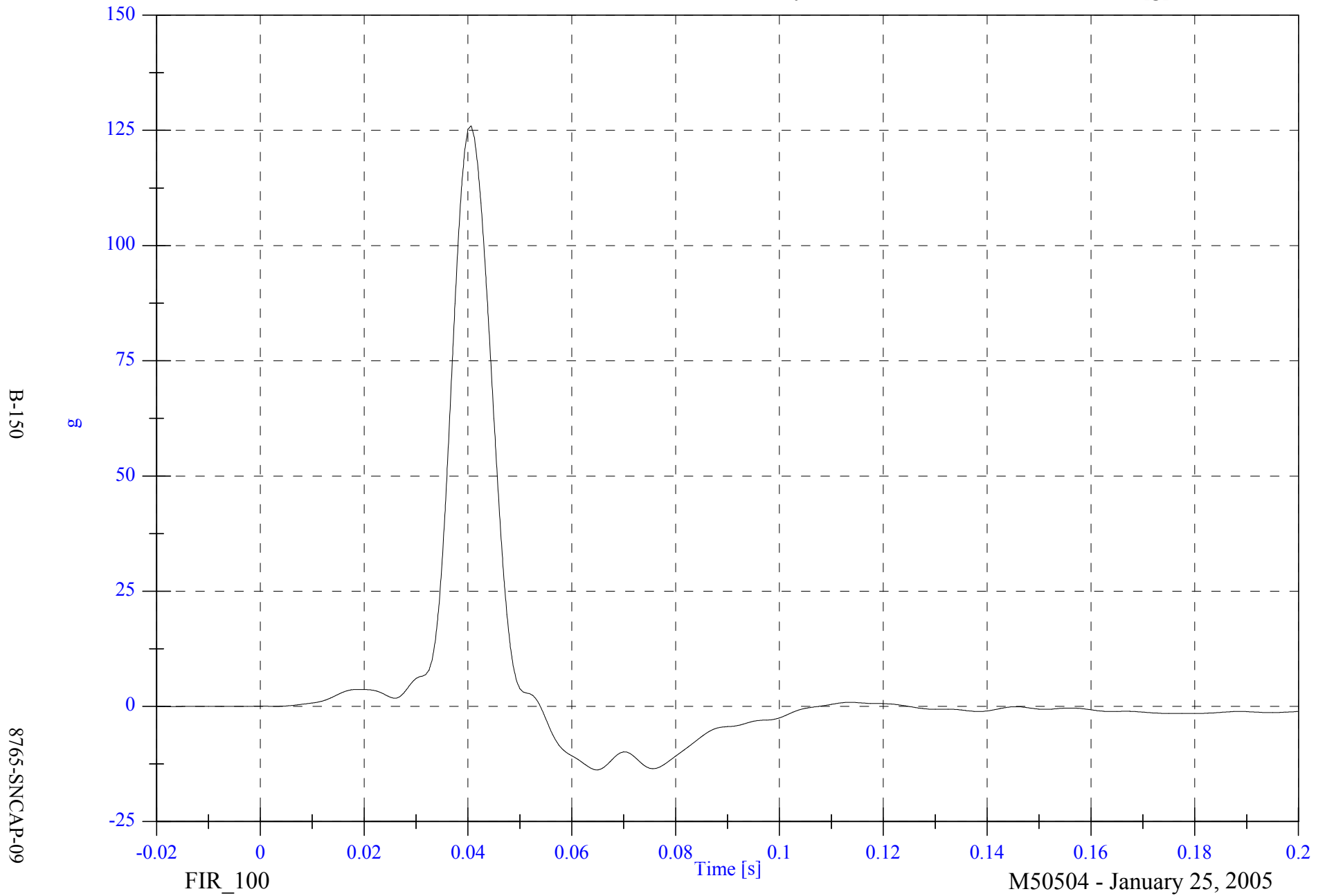


2005 SNCAP Test 4 - 2005 Suzuki Verona

V2P4 Pelvic Ry

Max: 126.0 [g] at 0.041 [s]

Min: -13.8 [g] at 0.065 [s]



APPENDIX C

SID HYBRID III CONFIGURATION AND PERFORMANCE VERIFICATION DATA

SUMMARY
SID H3 PRE & POST TEST CALIBRATION
CONFIGURED FOR LEFT SIDE IMPACT

Date: January 17, 2005 Sequential Test Number: 1.1; 1.1
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	SID H3 269 NO.:		SID H3 270 NO.:	
		PRE TEST	POST TEST	PRE TEST	POST TEST
SH- Seated Height (mm)	889 - 909	899	899	899	900
RH- Rib Height (mm)	501 - 521	503	503	503	503
HP- Hip Pivot Height (mm)	99 ref.	99	99	99	99
RD- Rib from Back Line (mm)	229 - 241	234	234	234	234
KV- Knee Pivot from Back Line (mm)	511 - 526	518	518	513	514
SW- Knee Pivot to Floor (mm)	490 - 505	495	495	495	495
HW- Hip Width (mm)	356 - 391	381	381	384	384
THORAX IMPACTS					
TEMPERATURE (°C)	18.9 - 25.5	21.1	21.1	20.6	21.1
RELATIVE HUMIDITY (%)	10 -70	37.00	40.00	38.00	40.00
PROBE SPEED (m/s)	4.27 - 4.33	4.28	4.29	4.29	4.30
UPPER RIB (g's)	37 - 46	40.52	40.26	38.30	41.77
LOWER RIB (g's)	37 - 46	38.56	40.10	37.46	41.56
LOWER SPINE (g's)	15 -22	17.56	19.63	19.43	21.22
PELVIS IMPACT					
TEMPERATURE (°C)	18.9 - 25.5	21.1	21.1	31.1	21.1
RELATIVE HUMIDITY (%)	10 - 70	36.00	40.00	37.00	40.0
PROBE SPEED (m/s)	4.27 - 4.33	4.28	4.28	4.28	4.30
PELVIS (g's)	40 -60	43.88	56.27	51.11	57.57

REMARKS: None

CALIBRATION TEST RESULTS

PRE-TEST

SID H3 NO.: 269

CONFIGURED FOR LEFT SIDE IMPACT

**CALIBRATION TEST RESULTS SUMMARY
PRE-TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 269 Sequential Test Number: 1
Date: January 17, 2005 Laboratory Technician: B. Swiecicki

TEST	COMMENTS
EXTERNAL DIMENSIONS	Passed all requirements.
THORACIC SHOCK ABSORBER TEST	Passed all requirements.
LATERAL THORAX IMPACT TEST	Passed all requirements.
LATERAL PELVIS IMPACT TEST	Passed all requirements.
HEAD DROP TEST*	Passed all requirements.
LATERAL NECK BEND TEST*	Passed all requirements.
ABDOMINAL COMPRESSION TEST*	Passed all requirements.
LUMBAR FLEXION TEST*	Passed all requirements.

* Test not required for SID certification.

REMARKS: None

**EXTERNAL DIMENSIONS
PRE-TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 269 Sequential Test Number: 1
Date: January 17, 2005 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
SH- Seated Height (mm)	889 – 909	899
RH- Rib Height (mm)	502 – 520	503
HP- Hip Pivot Height (mm)	99 ref.	99
RD- Rib from Back Line (mm)	229 – 241	234
KH- Knee Pivot from Back Line (mm)	511 – 526	518
KV- Knee Pivot to Floor (mm)	490 – 505	495
HW- Hip Width (mm)	356 - 391	381

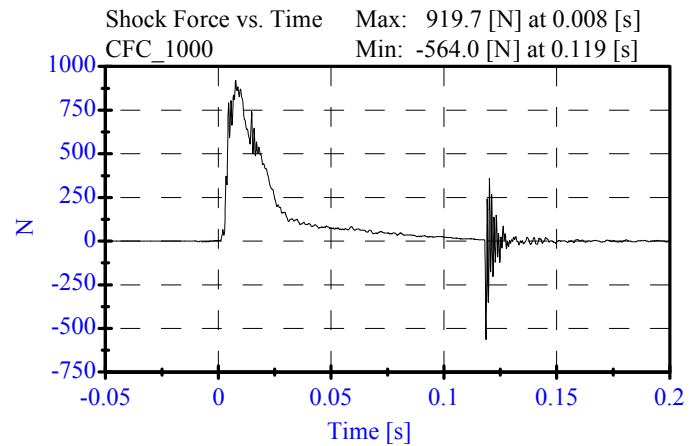
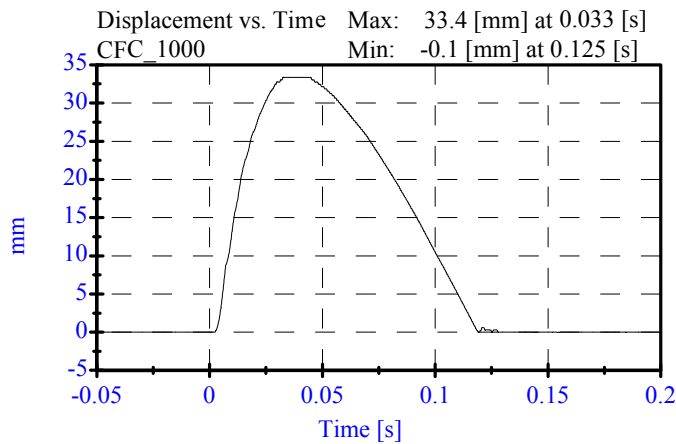
REMARKS: None

Shock Impact Low (3.05 m/s)
PRE TEST
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269
Date: 01-14-05

Sequential Test Number: 1 File: 269SL 01-14-05
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	30.00 %	Passed
Displacement:	30.00-35.00 mm	33.39 mm	Passed
Maximum Force:	836.00-1125.00 N	919.71 N	Passed
Impact Test Velocity:	3.05 m/s		
Damper Identification:	269		
Damper Setting:	5		



Shock Impact Med (4.27 m/s)

PRE TEST

CONFIGURED FOR LEFT SIDE IMPACT

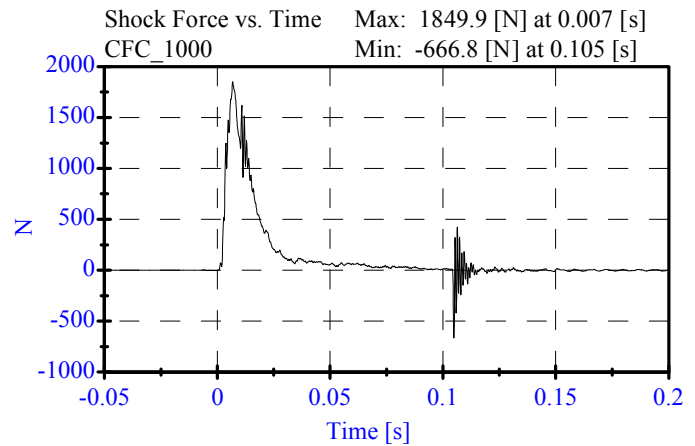
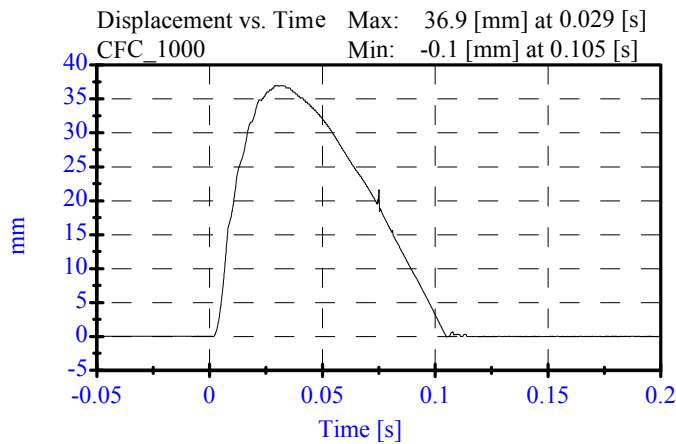
ATD Serial No: 269

Date: 01-14-05

Sequential Test Number: 1 File: 269SM2 01-14-05

Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	30.00 %	Passed
Displacement:	32.00-37.00 mm	36.94 mm	Passed
Maximum Force:	1730.00-2099.00 N	1849.91 N	Passed
Impact Test Velocity:	4.27 m/s		
Damper Identification:	269		
Damper Setting:	5		

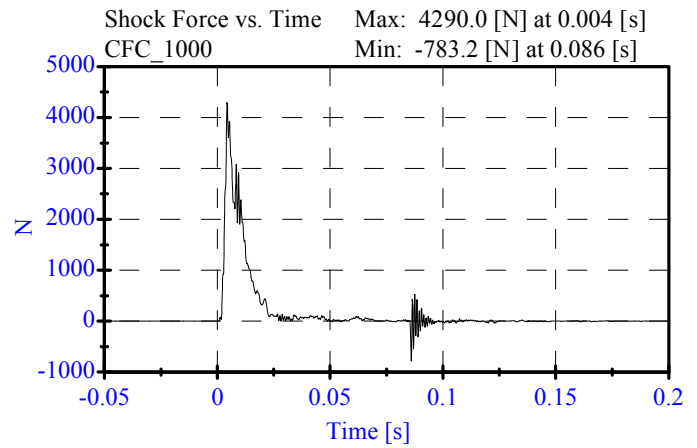
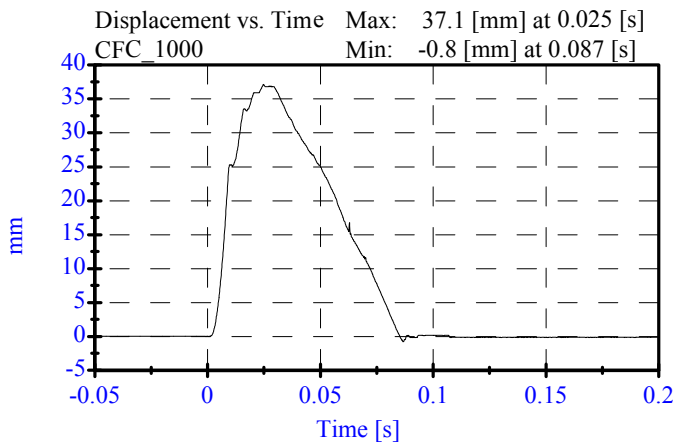


Shock Impact High (6.10 m/s)
PRE TEST
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269
Date: 01-14-05

Sequential Test Number: 1 File: 269SH 01-14-05
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	30.00 %	Passed
Displacement:	33.00-40.00 mm	37.12 mm	Passed
Maximum Force:	3741.00-4448.00 N	4290.04 N	Passed
Impact Test Velocity:	6.10 m/s		
Damper Identification:	269		
Damper Setting:	5		



Thorax Impact

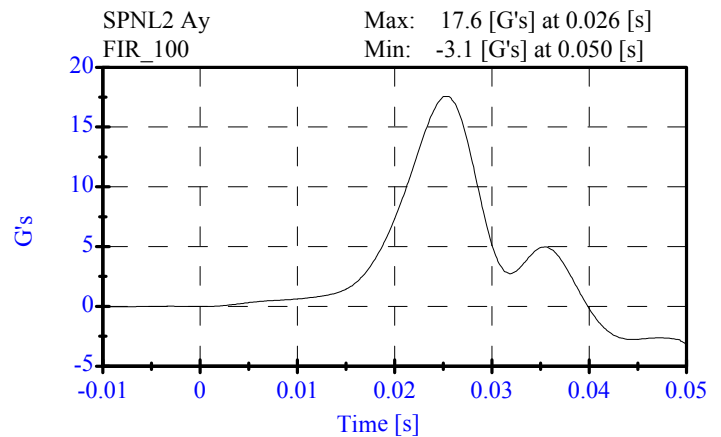
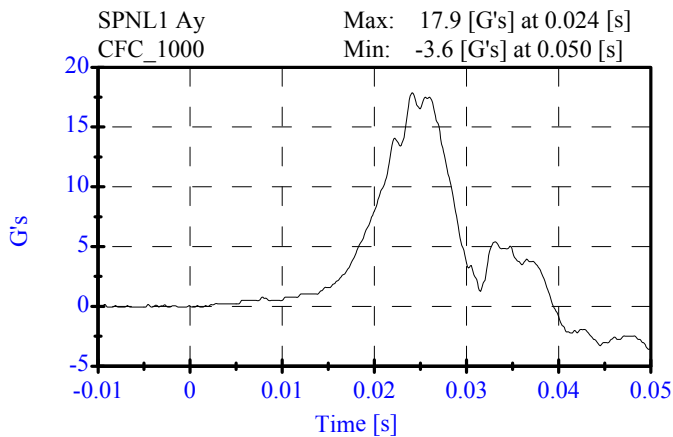
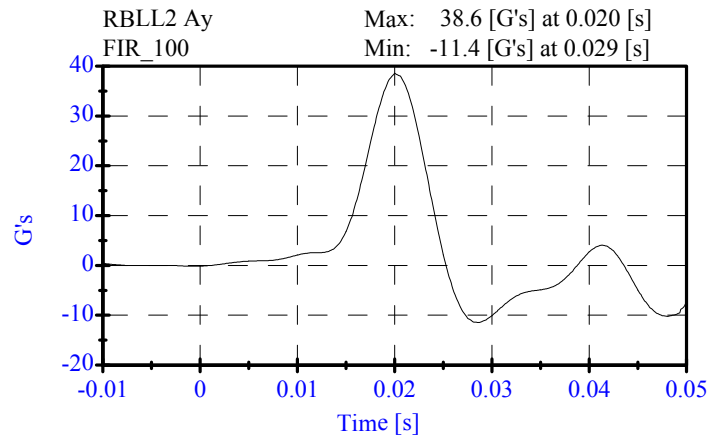
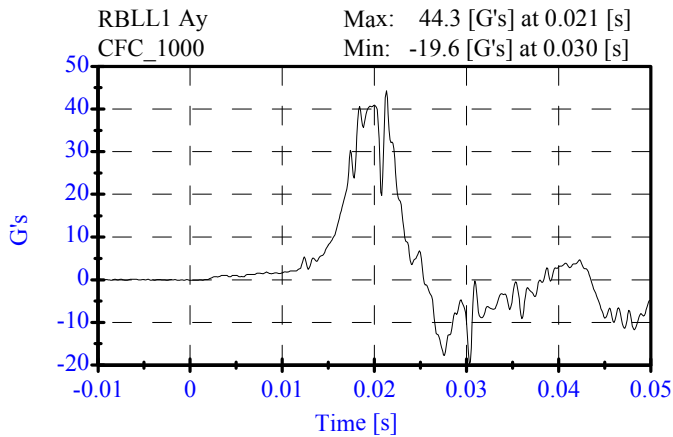
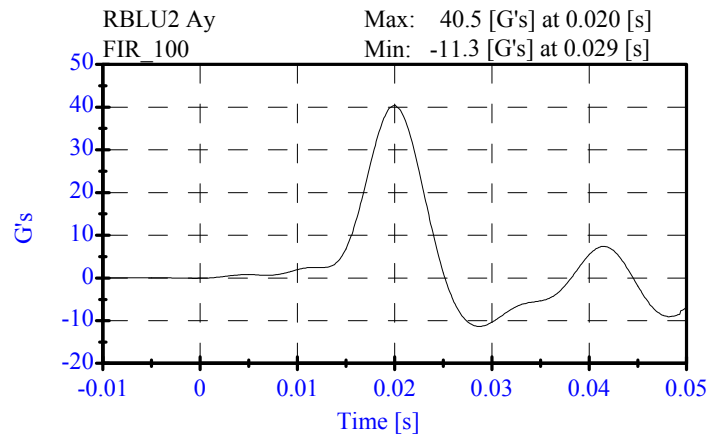
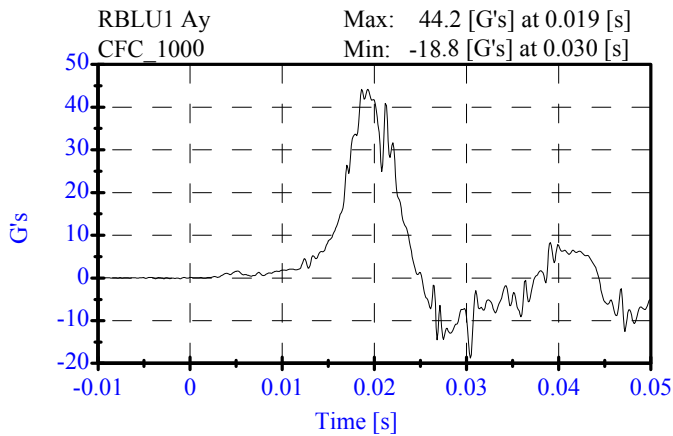
Pre-Test

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269
Date: January 17, 2005

Sequential Test Number: 1 File: 269T 01-17-05
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	37.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.28 m/s	Passed
Upper Rib Acceleration:	37.00-46.00 G's	40.52 G's	Passed
Lower Rib Acceleration:	37.00-46.00 G's	38.56 G's	Passed
Lower Spine Acceleration:	15.00-22.00 G's	17.56 G's	Passed



Pelvic Impact

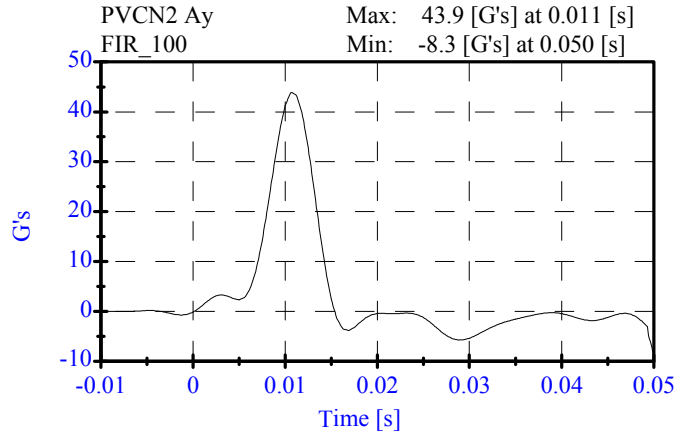
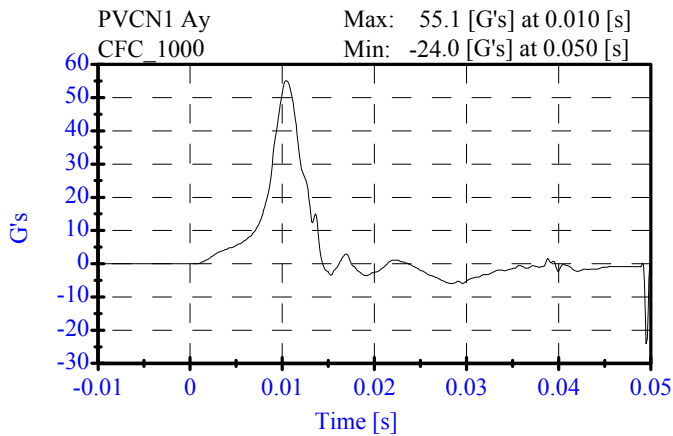
Pre-Test

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269
Date: January 17, 2005

Sequential Test Number: 1 File: 269P 01-17-05
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	36.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.28 m/s	Passed
Pelvis Y Acceleration:	40.00-60.00 G's	43.88 G's	Passed
Time Above 20 Gs	3.0-7.0 ms	5.4 ms	Passed



Head Drop

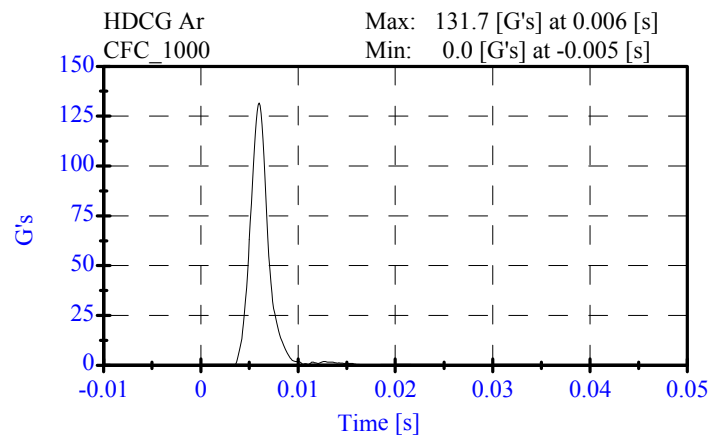
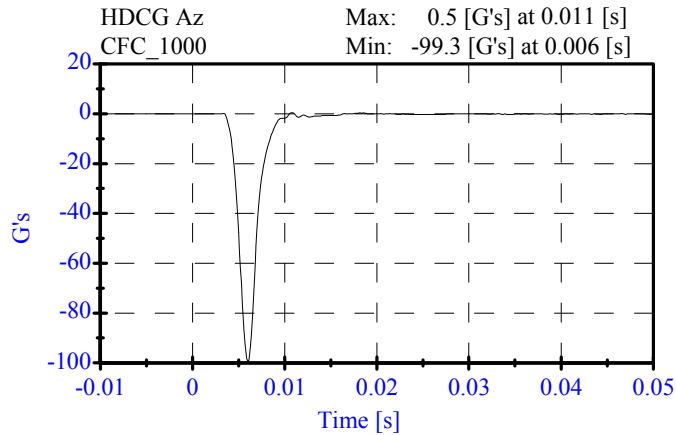
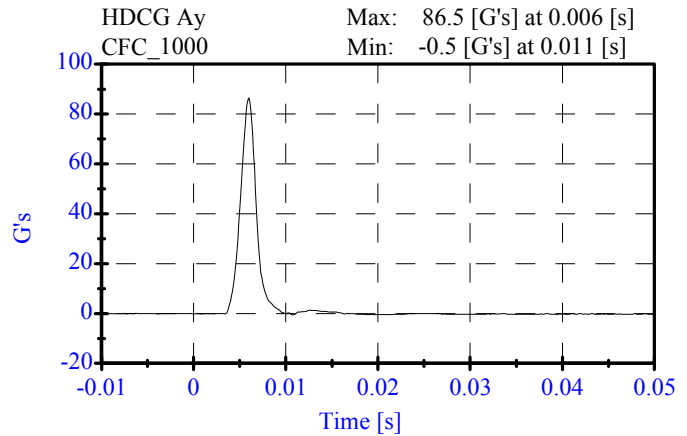
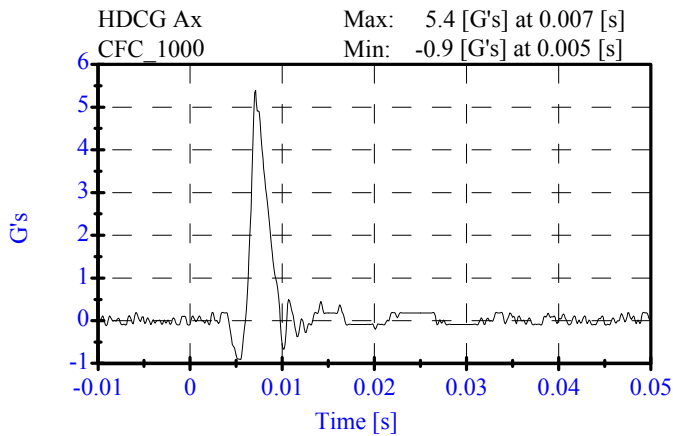
Pre-Test

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269
Date: January 11, 2005

Sequential Test Number: 1 File: 269H 01-11-05
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.6 C	21.1 C	Passed
Lab Humidity:	10-70 %	33.00 %	Passed
Peak Resultant Accel.:	120-150 Gs	131.66 Gs	Passed
Peak Lateral Accel.:	15 Gs Max	5.39 Gs	Passed
Curve PerCent NonModal:	< 15%	1.45 %	Passed



Neck Test**Pre-Test****CONFIGURED FOR LEFT SIDE IMPACT**

ATD Serial No: 269
Date: January 13, 2005

Sequential Test Number: 1 File: 269N1 01-13-05
Laboratory Technician: B. Swiecicki

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	20.6-22.2 C	21.1 C	Passed
Lab Humidity:	10-70 %	37.00 %	Passed
Impact Velocity:	6.89- 7.13 m/s	6.90 m/s	Passed
PENDULUM DELTA V			
Delta V at 10 ms:	1.96- 2.55 m/s	2.27 m/s	Passed
Delta V at 20 ms:	4.12- 5.10 m/s	4.66 m/s	Passed
Delta V at 30 ms:	5.73- 7.01 m/s	6.63 m/s	Passed
Delta V between 40-70 ms:	6.27- 7.64 m/s	7.31 m/s	Passed
D PLANE ROTATION			
Maximum Rotation:	66.0-82.0 Deg	72.67 Deg	Passed
Rotation Angle Decay:	58.0-67.0 ms	59.80 ms	Passed
MOMENT ABOUT THE OCCIPITAL CONDYLE			
Max Occipital Moment:	73.00- 88.00 N-m	78.61 N-m	Passed
Occipital Moment Decay:	49.0-64.0 ms	54.10 ms	Passed
HEAD ROTATION TIME WITH RESPECT TO THE OCCIPITAL CONDYLE MOMENT			
Moment to Rotation Peak:	2.0-16.0 ms	9.80 ms	Passed

Neck Test

Pre-Test

CONFIGURED FOR LEFT SIDE IMPACT

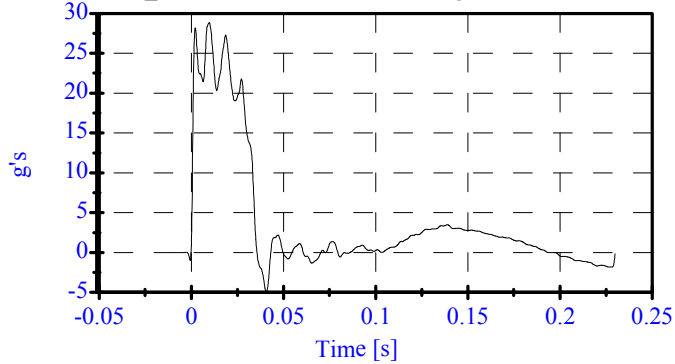
ATD Serial No: 269

Date: January 13, 2005

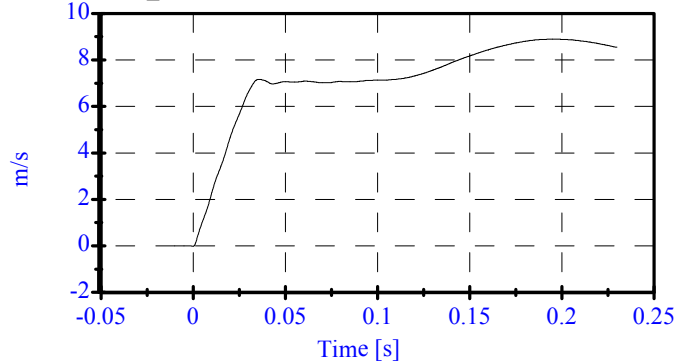
Sequential Test Number: 1 File: 269N1 01-13-05

Laboratory Technician: B. Swiecicki

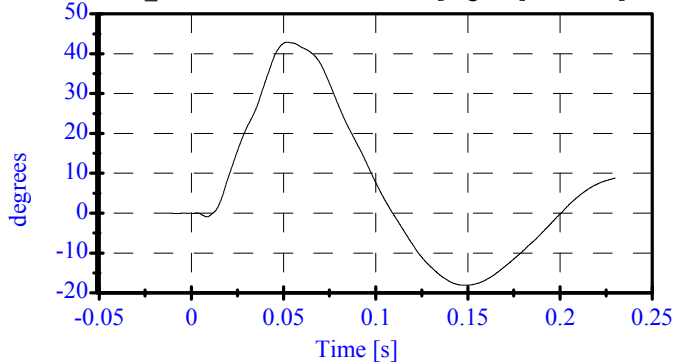
Pend Ax
CFC_180
Max: 28.9 [g's] at 0.010 [s]
Min: -5.0 [g's] at 0.041 [s]



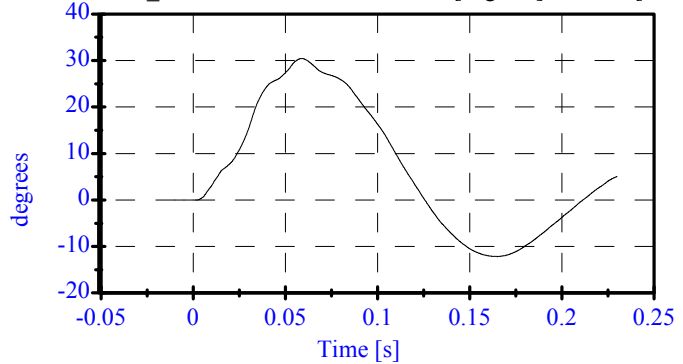
Pend Vx
CFC_180
Max: 8.9 [m/s] at 0.196 [s]
Min: -0.0 [m/s] at -0.000 [s]



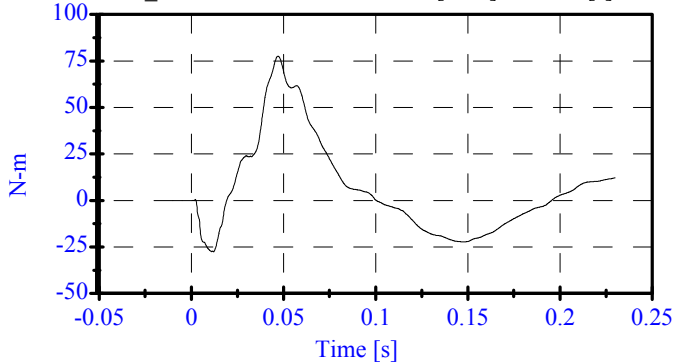
Head Rot
CFC_180
Max: 42.9 [degrees] at 0.052 [s]
Min: -18.1 [degrees] at 0.149 [s]



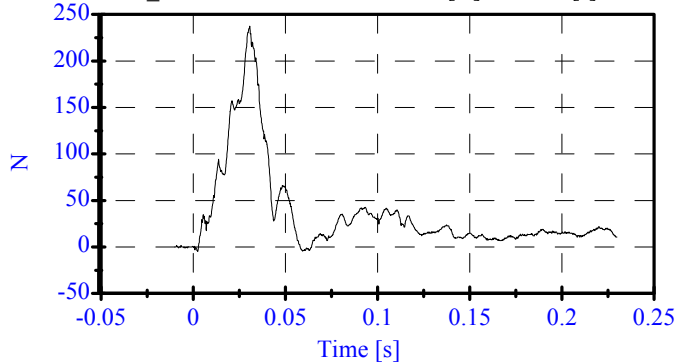
Arm Rot
CFC_180
Max: 30.4 [degrees] at 0.059 [s]
Min: -12.2 [degrees] at 0.165 [s]



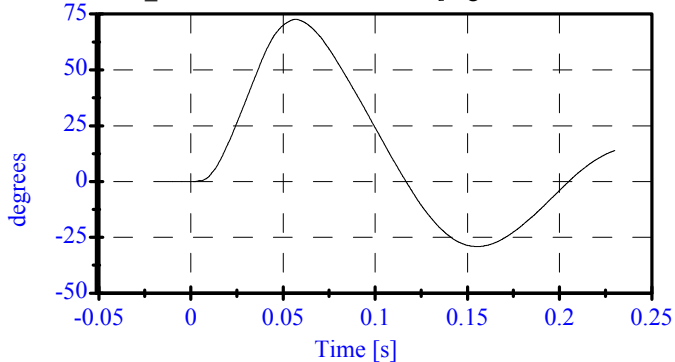
Neck Mx
CFC_600
Max: 77.5 [N-m] at 0.047 [s]
Min: -27.7 [N-m] at 0.012 [s]



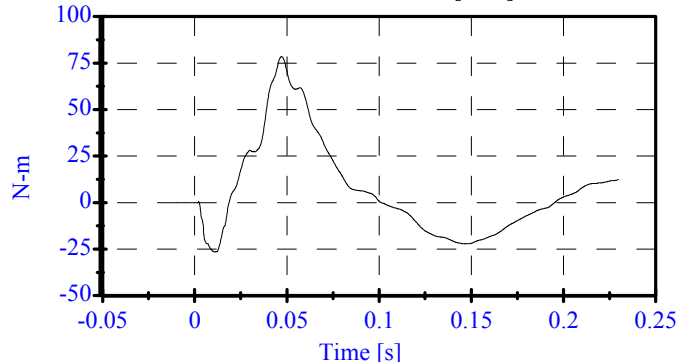
Neck Fy
CFC_1000
Max: 237.4 [N] at 0.031 [s]
Min: -5.0 [N] at 0.002 [s]



Tot Rot
CFC_180
Max: 72.7 [degrees] at 0.057 [s]
Min: -29.1 [degrees] at 0.156 [s]



MOCX
Max: 78.6 [N-m] at 0.047 [s]
Min: -26.6 [N-m] at 0.011 [s]



Abdomen Test

Pre-Test

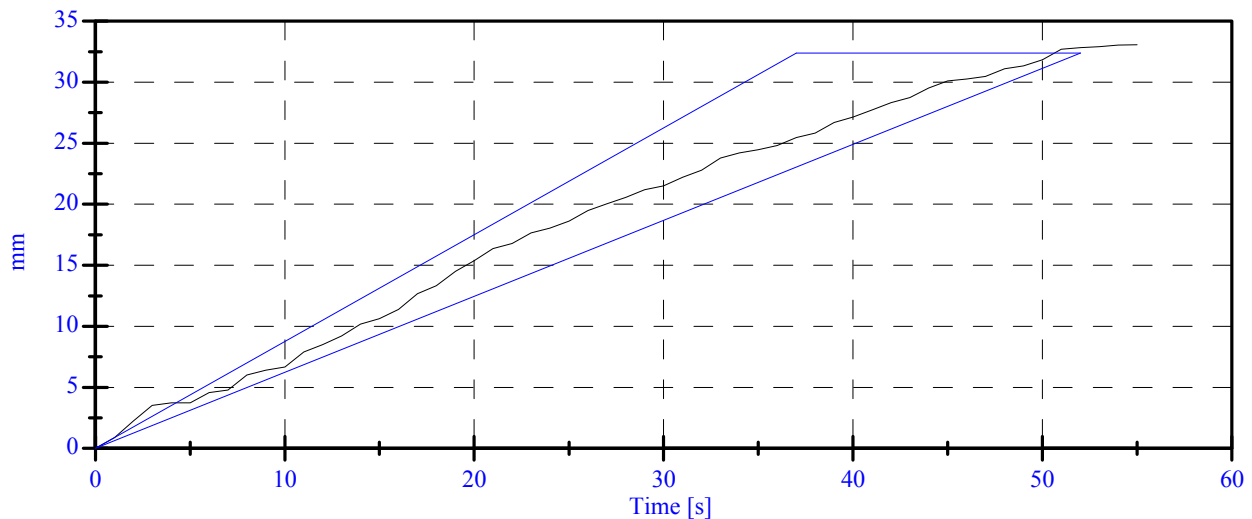
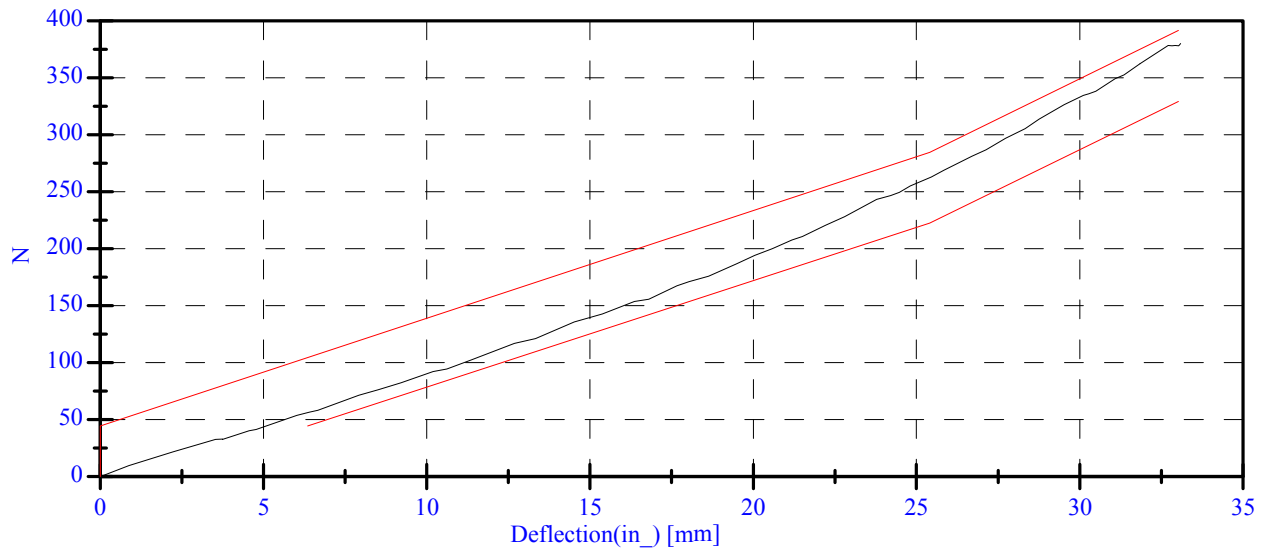
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 270
Date: January 17, 2005

Sequential Test Number: 1 File: 269Ab 01-17-05
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	36.00 %	Passed
Force at 12.95 mm :	104.00-162.00 N	116.68 N	Passed
Force at 19.05 mm :	162.98-220.99 N	175.89 N	Passed
Force at 25.40 mm :	221.97-280.02 N	262.89 N	Passed
Force at 33.02 mm :	324.99-391.00 N	378.03 N	Passed

ABDOMINAL COMPRESSION TEST



Lumbar Spine

Pre-Test

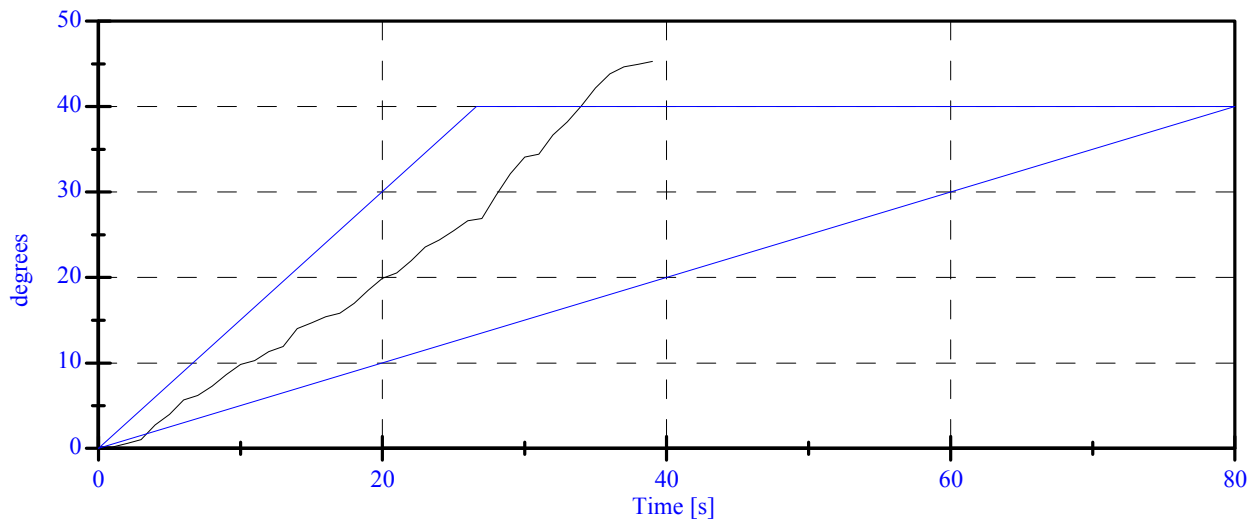
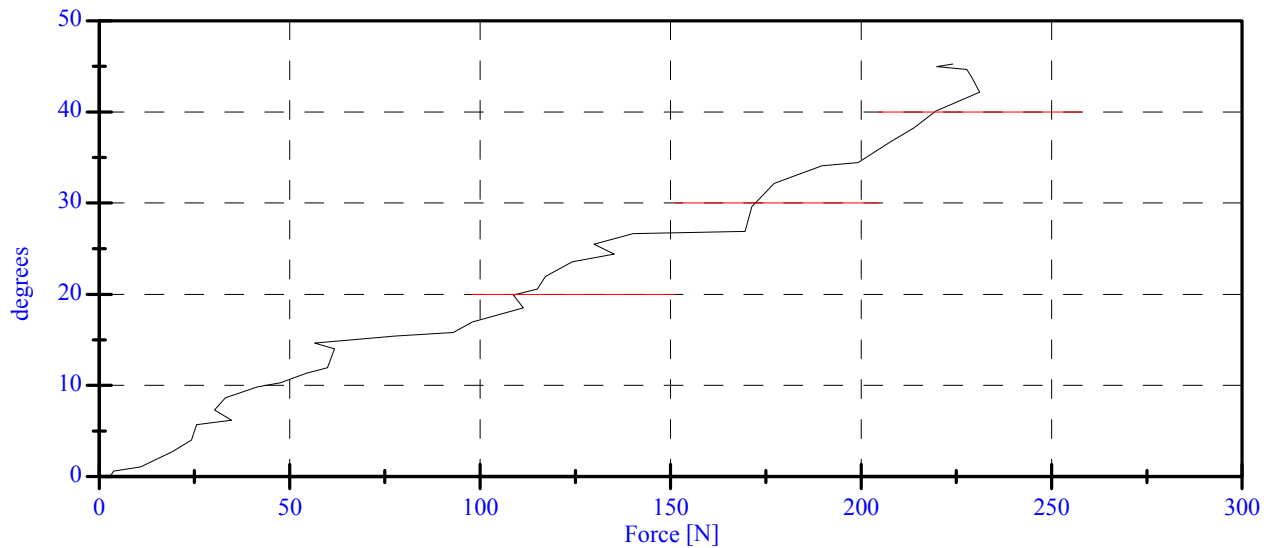
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269
Date: January 17, 2005

Sequential Test Number: 1 File: 269Spine1 01-17-05
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	36.00 %	Passed
Force at 0 Deg:	0.00-26.69 N	1.97 N	Passed
Force at 20 Deg:	97.86-151.24 N	108.69 N	Passed
Force at 30 Deg:	151.24-204.62 N	171.36 N	Passed
Force at 40 Deg:	204.62-258.00 N	219.61 N	Passed
Return Angle	12 Deg Max	5.53 deg	Passed

LUMBAR SPINE FLEXION TEST



PRE-TEST DUMMY INSPECTION LIST

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.:	<u>269</u>	Sequential Test Number:	<u>1</u>
Date:	<u>January 17, 2005</u>	Laboratory Technician:	<u>B. Swiecicki</u>

PART	ITEMS CHECKED	COMMENTS
SKIN	VISUAL INSPECTION	OK
HEAD	VISUAL, BALLAST, ACCELEROMETER MOUNT	OK
NECK	VISUAL, CABLE TORQUE	OK
SPINE BOX	VISUAL, BALLAST, WELDMENT, ACCELEROMETER MOUNT	OK
RIB CAGE	VISUAL, MEASURE, STIFFENERS	OK
STERNUM	VISUAL	OK
LUMBAR SPINE	VISUAL	OK
ABDOMEN	VISUAL	OK
PELVIS	VISUAL, PALPATE, ACCELEROMETER MOUNT	OK
UPPER LEGS	VISUAL	OK
KNEES	VISUAL, STOPS, INSERTS	OK
LOWER LEGS	VISUAL, RANGE OF MOTION	OK
ANKLES	VISUAL, RANGE OF MOTION	OK
FEET	VISUAL, RANGE OF MOTION	OK
JOINTS	1 TO 2 g RANGE	OK
OTHER	NONE	-

REMARKS: None

CALIBRATION TEST RESULTS

PRE-TEST

SID H3 NO.: 270

CONFIGURED FOR LEFT SIDE IMPACT

**CALIBRATION TEST RESULTS SUMMARY
PRE-TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 270 Sequential Test Number: 1
Date: January 17, 2005 Laboratory Technician: B. Swiecicki

TEST	COMMENTS
EXTERNAL DIMENSIONS	Passed all requirements.
THORACIC SHOCK ABSORBER TEST	Passed all requirements.
LATERAL THORAX IMPACT TEST	Passed all requirements.
LATERAL PELVIS IMPACT TEST	Passed all requirements.
HEAD DROP TEST*	Passed all requirements.
LATERAL NECK BEND TEST*	Passed all requirements.
ABDOMINAL COMPRESSION TEST*	Passed all requirements.
LUMBAR FLEXION TEST*	Passed all requirements.

* Test not required for SID certification.

REMARKS: None

**EXTERNAL DIMENSIONS
PRE-TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 270 Sequential Test Number: 1
Date: January 17, 2005 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
SH- Seated Height (mm)	889 - 909	899
RH- Rib Height (mm)	502 - 520	503
HP- Hip Pivot Height (mm)	99 ref.	99
RD- Rib from Back Line (mm)	229 - 241	234
KH- Knee Pivot from Back Line (mm)	511 - 526	513
KV- Knee Pivot to Floor (mm)	490 - 505	495
HW- Hip Width (mm)	356 - 391	384

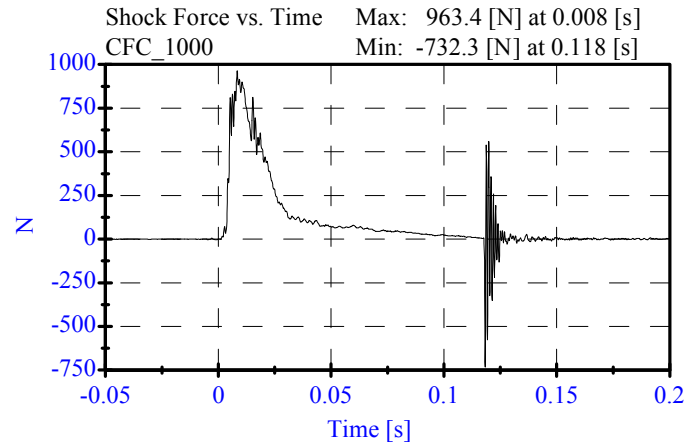
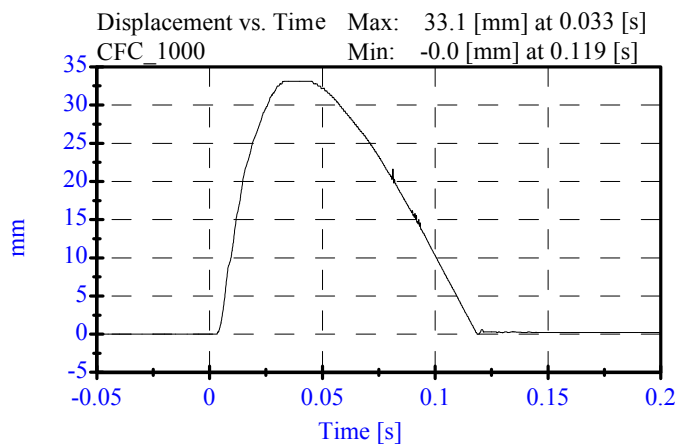
REMARKS: None

Shock Impact Low (3.05 m/s)
PRE TEST
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 270
Date: 01-14-05

Sequential Test Number: 1 File: 270SL 01-14-05
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.7 C	Passed
Lab Humidity:	10-70 %	31.00 %	Passed
Displacement:	30.00-35.00 mm	33.11 mm	Passed
Maximum Force:	836.00-1125.00 N	963.38 N	Passed
Impact Test Velocity:	3.05 m/s		
Damper Identification:	270		
Damper Setting:	5		

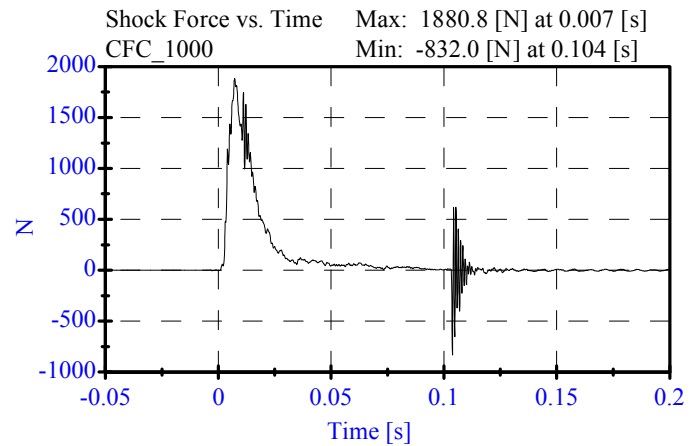
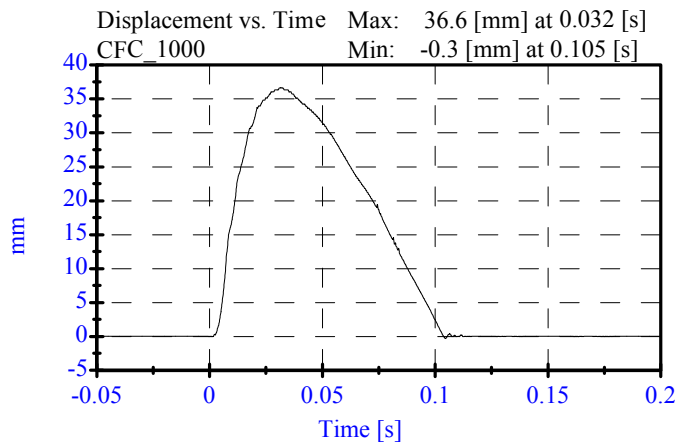


Shock Impact Med (4.27 m/s)
PRE TEST
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 270
Date: 01-14-05

Sequential Test Number: 1 File: 270SM 01-14-05
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.7 C	Passed
Lab Humidity:	10-70 %	31.00 %	Passed
Displacement:	32.00-37.00 mm	36.65 mm	Passed
Maximum Force:	1730.00-2099.00 N	1880.84 N	Passed
Impact Test Velocity:	4.27 m/s		
Damper Identification:	270		
Damper Setting:	5		



Shock Impact High (6.10 m/s)

PRE TEST

CONFIGURED FOR LEFT SIDE IMPACT

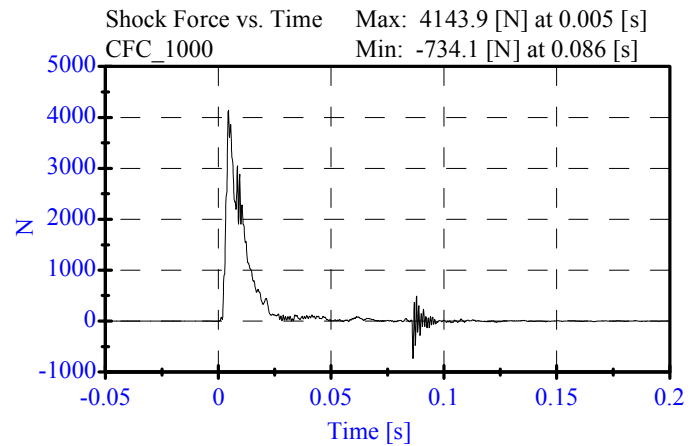
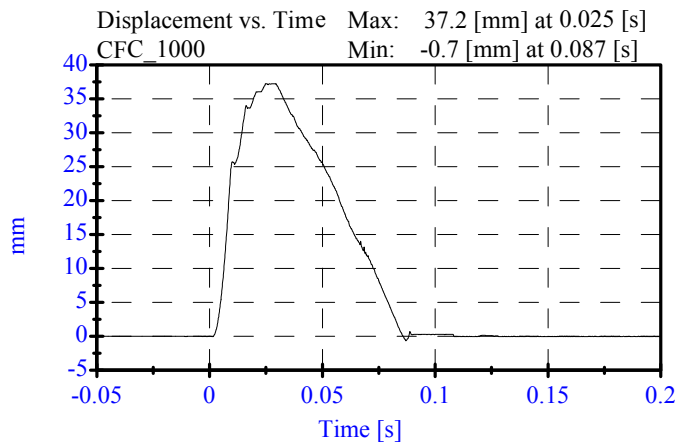
ATD Serial No: 270

Date: 01-14-05

Sequential Test Number: 1 File: 270SH1 01-14-05

Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	30.00 %	Passed
Displacement:	33.00-40.00 mm	37.23 mm	Passed
Maximum Force:	3741.00-4448.00 N	4143.90 N	Passed
Impact Test Velocity:	6.10 m/s		
Damper Identification:	270		
Damper Setting:	5		

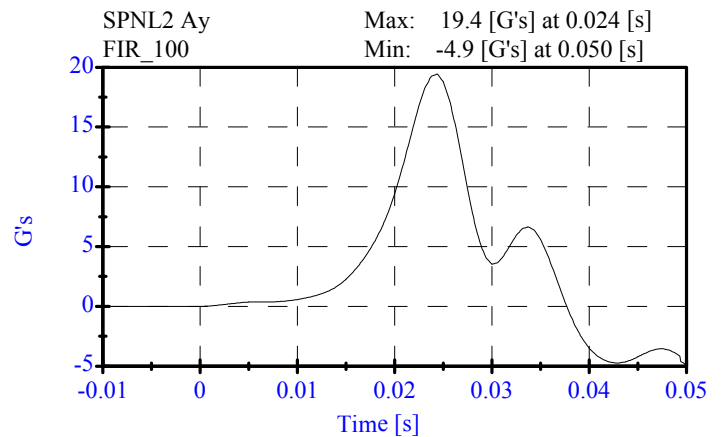
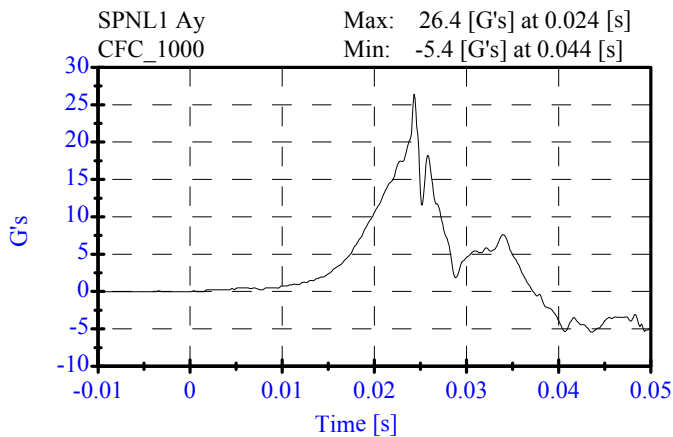
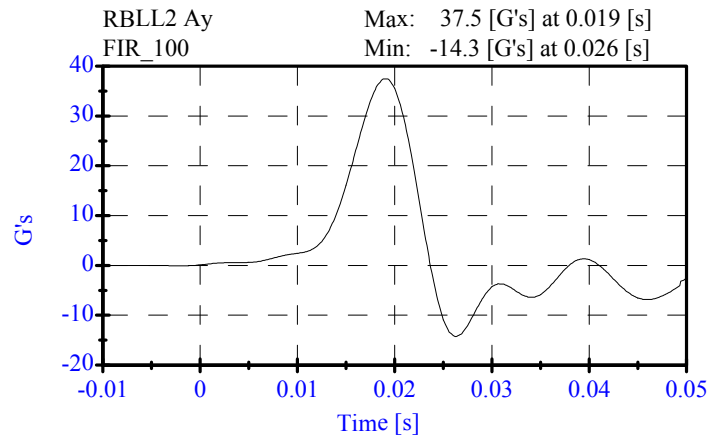
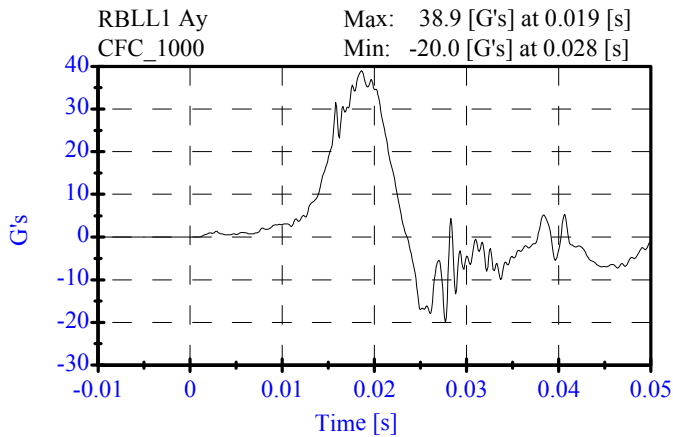
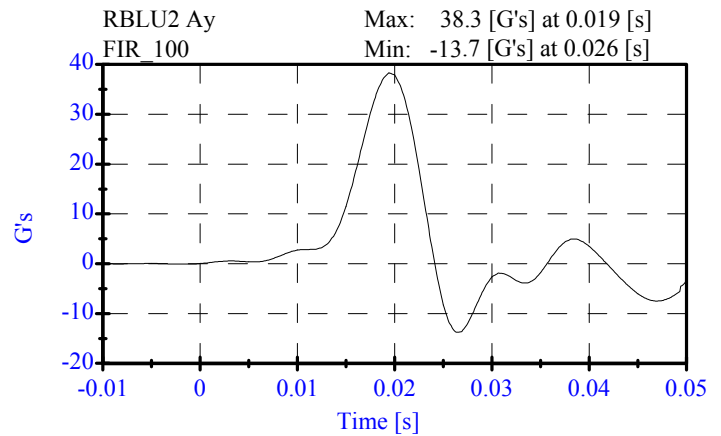
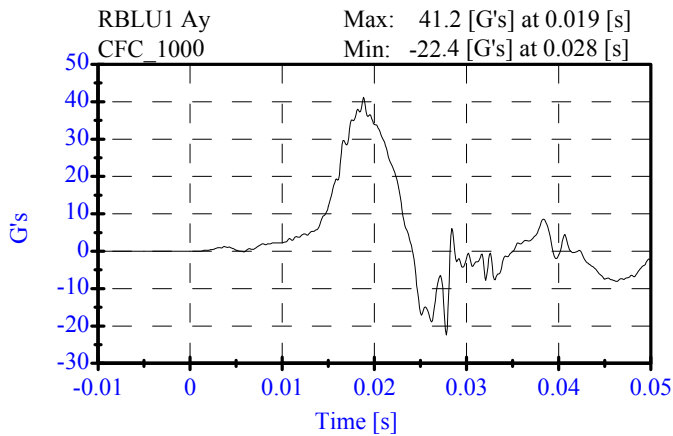


Thorax Impact
Pre-Test
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 270
Date: January 17, 2005

Sequential Test Number: 1 File: 270T 01-17-05
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	20.6 C	Passed
Lab Humidity:	10-70 %	38.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.29 m/s	Passed
Upper Rib Acceleration:	37.00-46.00 G's	38.30 G's	Passed
Lower Rib Acceleration:	37.00-46.00 G's	37.46 G's	Passed
Lower Spine Acceleration:	15.00-22.00 G's	19.43 G's	Passed



Pelvic Impact

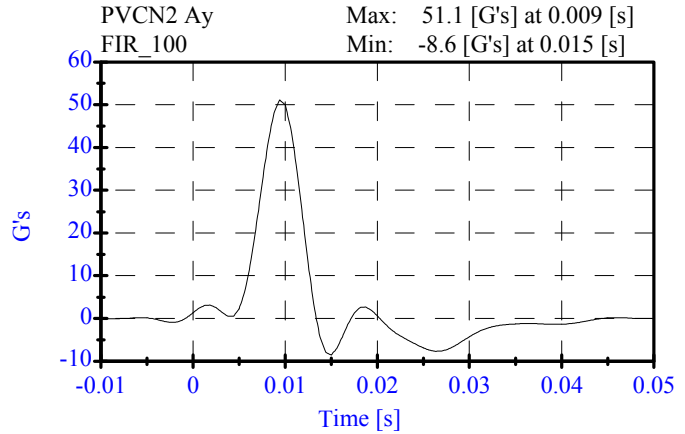
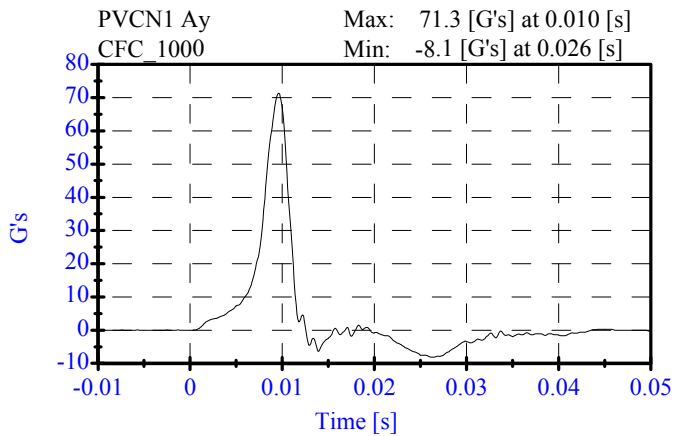
Pre-Test

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 270
Date: January 17, 2005

Sequential Test Number: 1 File: 270P 01-17-05
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	37.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.28 m/s	Passed
Pelvis Y Acceleration:	40.00-60.00 G's	51.11 G's	Passed
Time Above 20 Gs	3.0-7.0 ms	5.4 ms	Passed



Head Drop

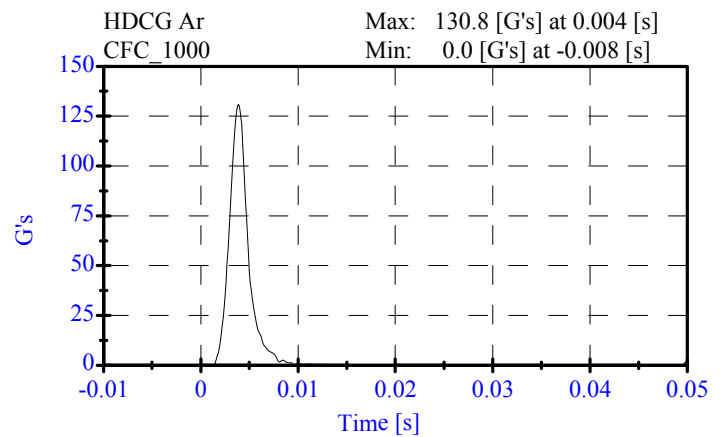
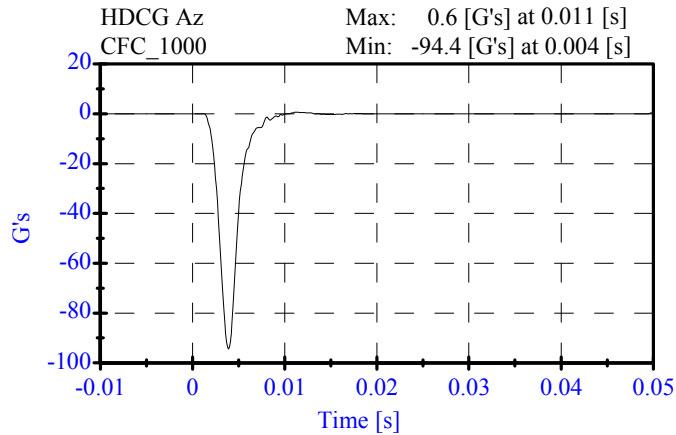
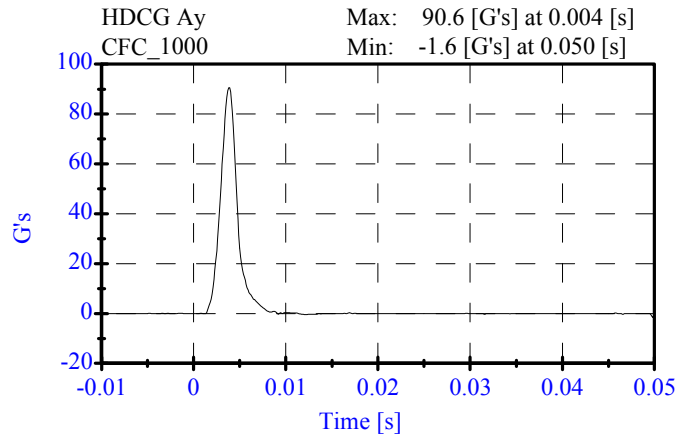
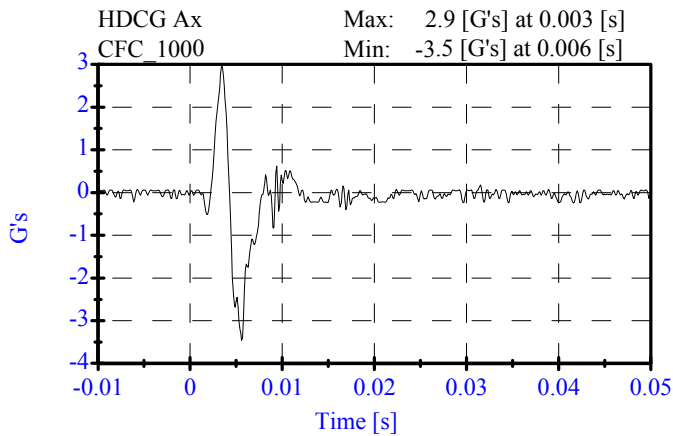
Pre-Test

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 270
Date: January 11, 2005

Sequential Test Number: 1 File: 270H1 01-11-05
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.6 C	21.1 C	Passed
Lab Humidity:	10-70 %	34.00 %	Passed
Peak Resultant Accel.:	120-150 Gs	130.77 Gs	Passed
Peak Lateral Accel.:	15 Gs Max	2.95 Gs	Passed
Curve PerCent NonModal:	< 15%	2.01 %	Passed



Neck Test**Pre-Test****CONFIGURED FOR LEFT SIDE IMPACT**

ATD Serial No: 270
Date: January 12, 2005

Sequential Test Number: 1 File: 270N5 01-12-05
Laboratory Technician: B. Swiecicki

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	20.6-22.2 C	21.1 C	Passed
Lab Humidity:	10-70 %	35.00 %	Passed
Impact Velocity:	6.89- 7.13 m/s	6.91 m/s	Passed
PENDULUM DELTA V			
Delta V at 10 ms:	1.96- 2.55 m/s	2.24 m/s	Passed
Delta V at 20 ms:	4.12- 5.10 m/s	4.58 m/s	Passed
Delta V at 30 ms:	5.73- 7.01 m/s	6.48 m/s	Passed
Delta V between 40-70 ms:	6.27- 7.64 m/s	7.09 m/s	Passed
D PLANE ROTATION			
Maximum Rotation:	66.0-82.0 Deg	69.75 Deg	Passed
Rotation Angle Decay:	58.0-67.0 ms	58.20 ms	Passed
MOMENT ABOUT THE OCCIPITAL CONDYLE			
Max Occipital Moment:	73.00- 88.00 N-m	87.97 N-m	Passed
Occipital Moment Decay:	49.0-64.0 ms	51.70 ms	Passed
HEAD ROTATION TIME WITH RESPECT TO THE OCCIPITAL CONDYLE MOMENT			
Moment to Rotation Peak:	2.0-16.0 ms	8.90 ms	Passed

Neck Test

Pre-Test

CONFIGURED FOR LEFT SIDE IMPACT

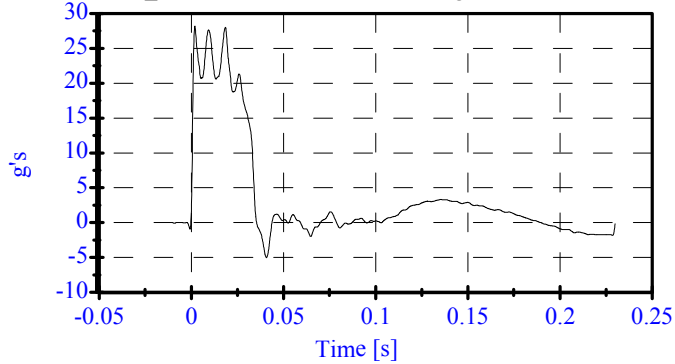
ATD Serial No: 270

Date: January 12, 2005

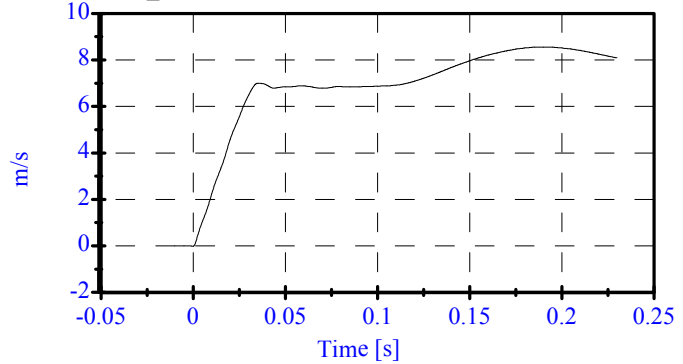
Sequential Test Number: 1 File: 270N5 01-12-05

Laboratory Technician: B. Swiecicki

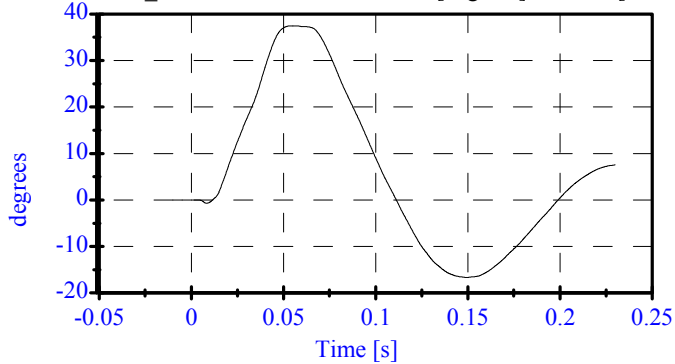
Pend Ax
CFC_180
Max: 28.2 [g's] at 0.002 [s]
Min: -5.0 [g's] at 0.041 [s]



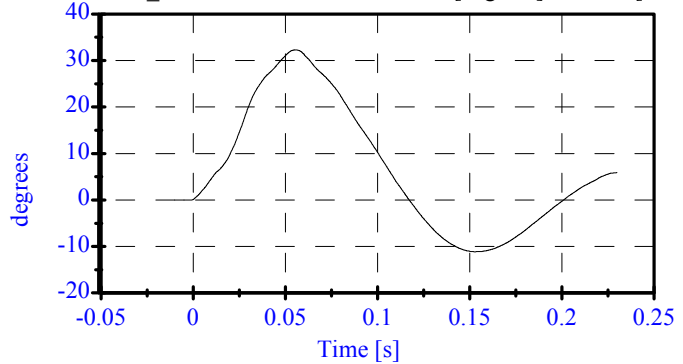
Pend Vx
CFC_180
Max: 8.6 [m/s] at 0.190 [s]
Min: -0.0 [m/s] at -0.000 [s]



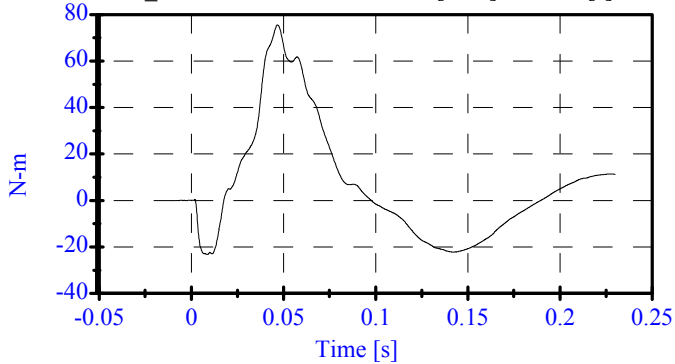
Head Rot
CFC_180
Max: 37.5 [degrees] at 0.055 [s]
Min: -16.6 [degrees] at 0.149 [s]



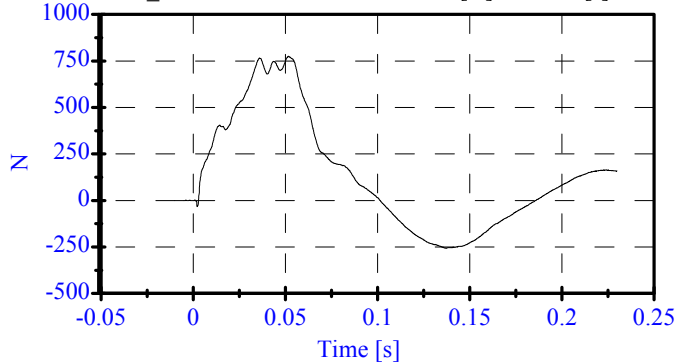
Arm Rot
CFC_180
Max: 32.3 [degrees] at 0.056 [s]
Min: -11.1 [degrees] at 0.153 [s]



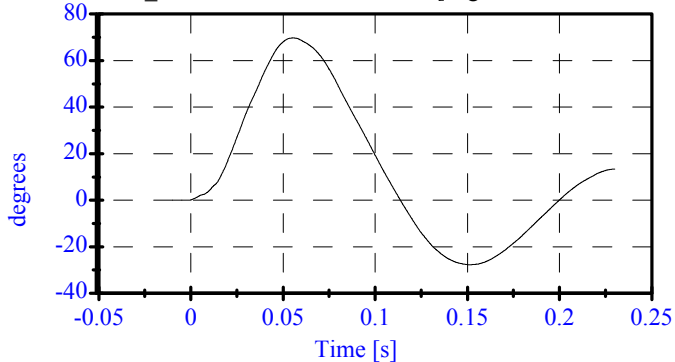
Neck Mx
CFC_600
Max: 75.5 [N-m] at 0.047 [s]
Min: -23.2 [N-m] at 0.008 [s]



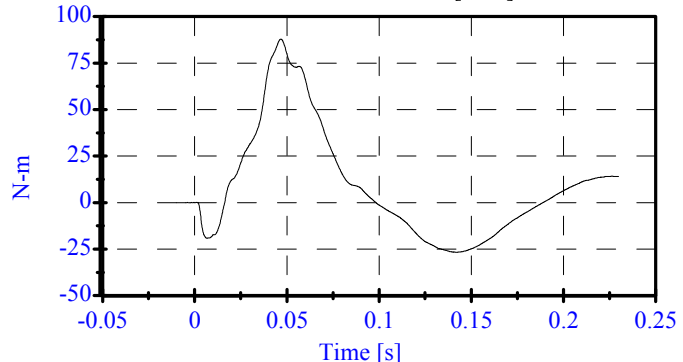
Neck Fy
CFC_1000
Max: 775.0 [N] at 0.052 [s]
Min: -257.0 [N] at 0.137 [s]



Tot Rot
CFC_180
Max: 69.7 [degrees] at 0.056 [s]
Min: -27.7 [degrees] at 0.151 [s]



MOCX
Max: 88.0 [N-m] at 0.047 [s]
Min: -26.7 [N-m] at 0.142 [s]



Abdomen Test

Pre-Test

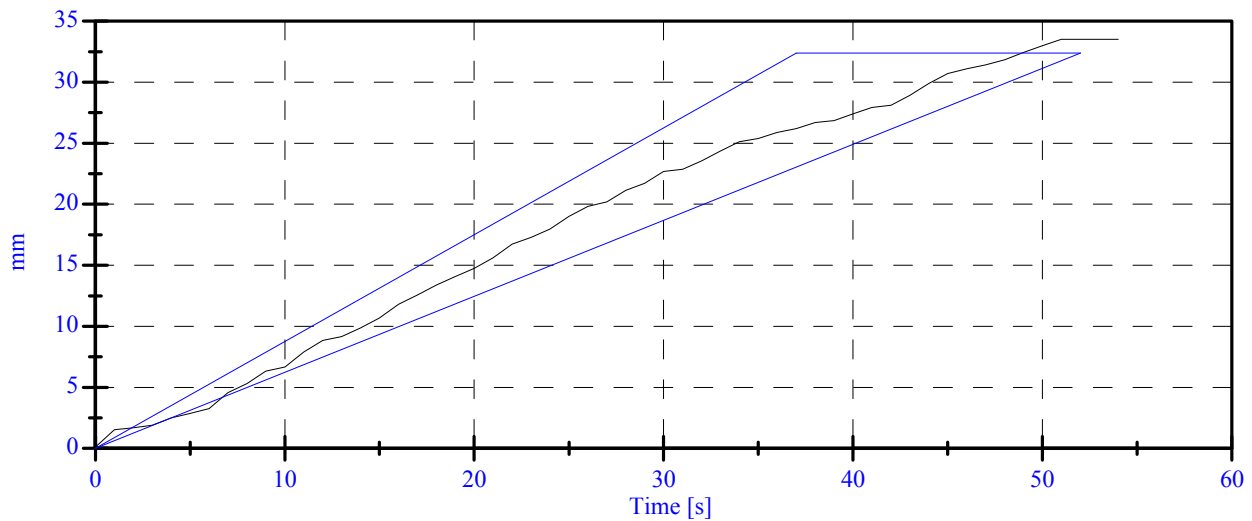
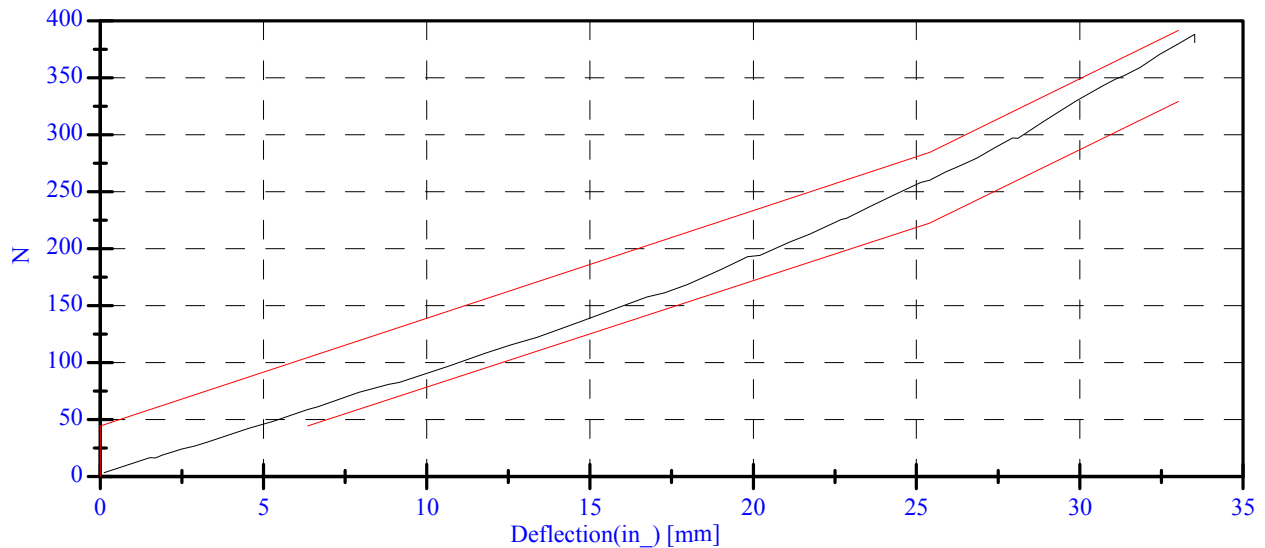
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 270
Date: January 17, 2005

Sequential Test Number: 1 File: 270Ab 01-17-05
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	36.00 %	Passed
Force at 12.95 mm :	104.00-162.00 N	115.58 N	Passed
Force at 19.05 mm :	162.98-220.99 N	181.74 N	Passed
Force at 25.40 mm :	221.97-280.02 N	259.96 N	Passed
Force at 33.02 mm :	324.99-391.00 N	379.13 N	Passed

ABDOMINAL COMPRESSION TEST



Lumbar Spine

Pre-Test

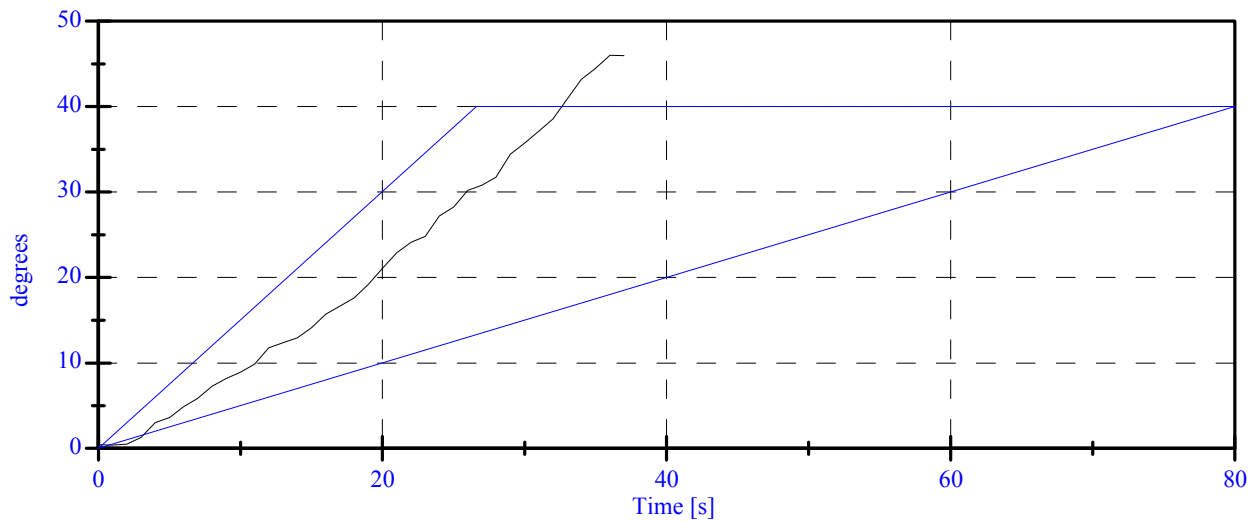
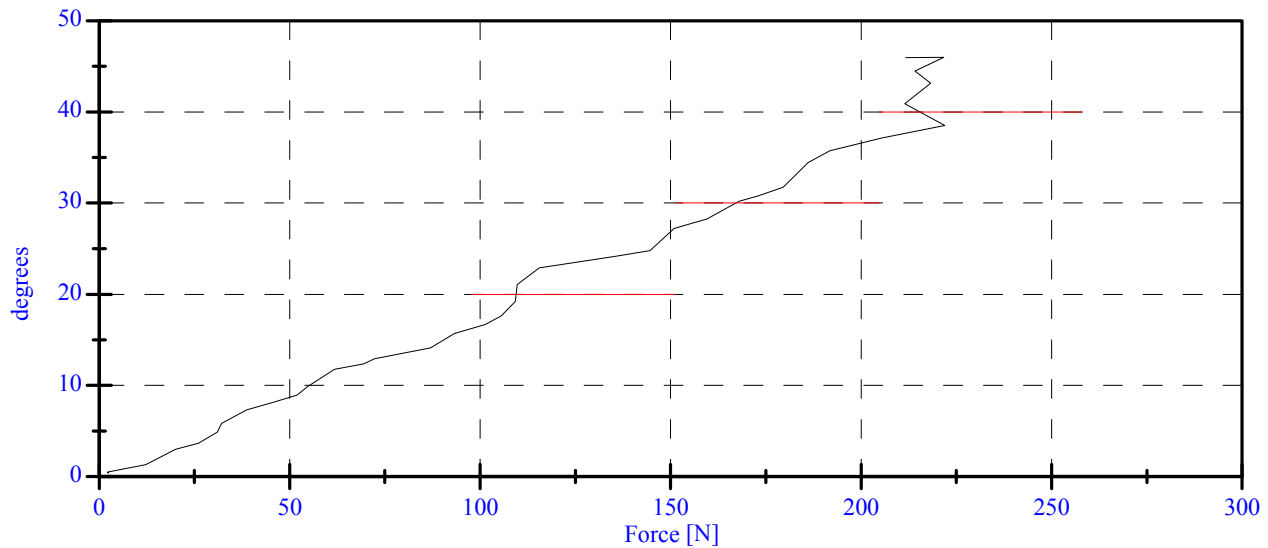
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 270
Date: January 17, 2005

Sequential Test Number: 1 File: 270Spine 01-17-05
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	36.00 %	Passed
Force at 0 Deg:	0.00-26.69 N	2.50 N	Passed
Force at 20 Deg:	97.86-151.24 N	109.22 N	Passed
Force at 30 Deg:	151.24-204.62 N	167.95 N	Passed
Force at 40 Deg:	204.62-258.00 N	211.48 N	Passed
Return Angle	12 Deg Max	7.33 deg	Passed

LUMBAR SPINE FLEXION TEST



PRE-TEST DUMMY INSPECTION LIST

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 270 Sequential Test Number: 1
Date: January 17, 2005 Laboratory Technician: B. Swiecicki

PART	ITEMS CHECKED	COMMENTS
SKIN	VISUAL INSPECTION	OK
HEAD	VISUAL, BALLAST, ACCELEROMETER MOUNT	OK
NECK	VISUAL, CABLE TORQUE	OK
SPINE BOX	VISUAL, BALLAST, WELDMENT, ACCELEROMETER MOUNT	OK
RIB CAGE	VISUAL, MEASURE, STIFFENERS	OK
STERNUM	VISUAL	OK
LUMBAR SPINE	VISUAL	OK
ABDOMEN	VISUAL	OK
PELVIS	VISUAL, PALPATE, ACCELEROMETER MOUNT	OK
UPPER LEGS	VISUAL	OK
KNEES	VISUAL, STOPS, INSERTS	OK
LOWER LEGS	VISUAL, RANGE OF MOTION	OK
ANKLES	VISUAL, RANGE OF MOTION	OK
FEET	VISUAL, RANGE OF MOTION	OK
JOINTS	1 TO 2 g RANGE	OK
OTHER	NONE	-

REMARKS: None

CALIBRATION TEST RESULTS

POST TEST

SID H3 NO.: 269

CONFIGURED FOR LEFT SIDE IMPACT

**CALIBRATION TEST RESULTS SUMMARY
POST TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 269 Sequential Test Number: 1
Date: February 9, 2005 Laboratory Technician: B. Swiecicki

TEST	COMMENTS
EXTERNAL DIMENSIONS	Passed all requirements.
LATERAL THORAX IMPACT TEST	Passed all requirements.
LATERAL PELVIS IMPACT TEST	Passed all requirements.
HEAD DROP TEST*	Passed all requirements.
LATERAL NECK BEND TEST*	Passed all requirements.
ABDOMINAL COMPRESSION TEST*	Passed all requirements.
LUMBAR FLEXION TEST*	Passed all requirements.

* Test not required for SID certification.

REMARKS: None

**EXTERNAL DIMENSIONS
POST TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 269 Sequential Test Number: 1
Date: February 9, 2005 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
SH- Seated Height (mm)	889 - 909	899
RH- Rib Height (mm)	502 - 520	503
HP- Hip Pivot Height (mm)	99 ref.	99
RD- Rib from Back Line (mm)	229 - 241	234
KH- Knee Pivot from Back Line (mm)	511 - 526	518
KV- Knee Pivot to Floor (mm)	490 - 505	495
HW- Hip Width (mm)	356 - 391	381

REMARKS: None

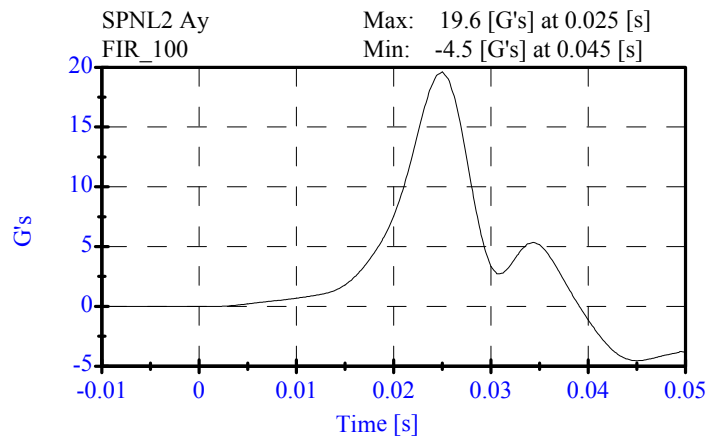
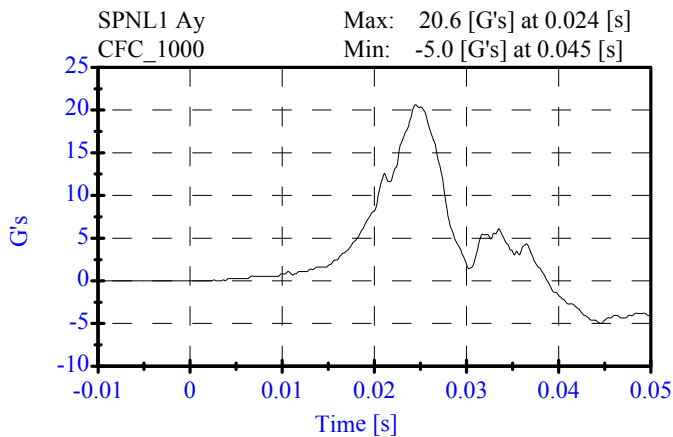
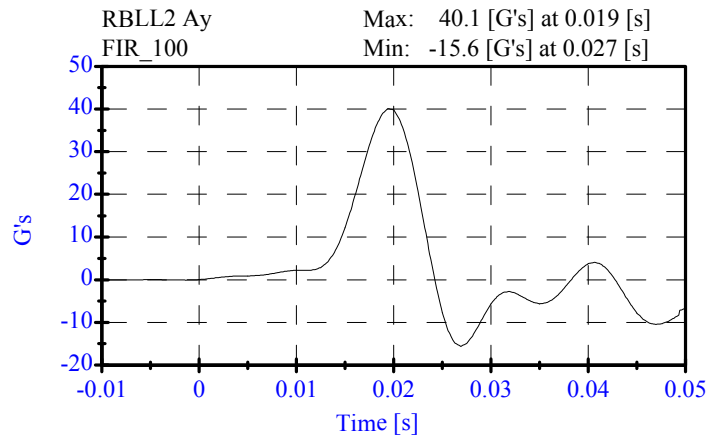
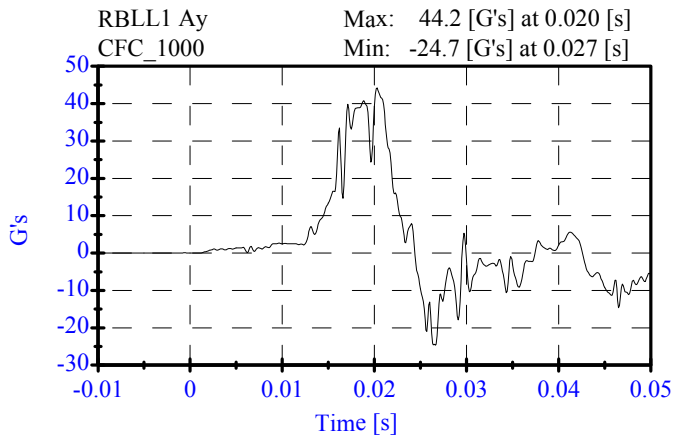
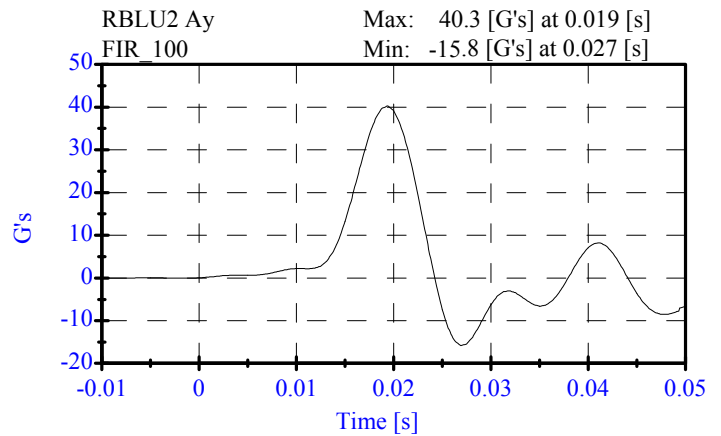
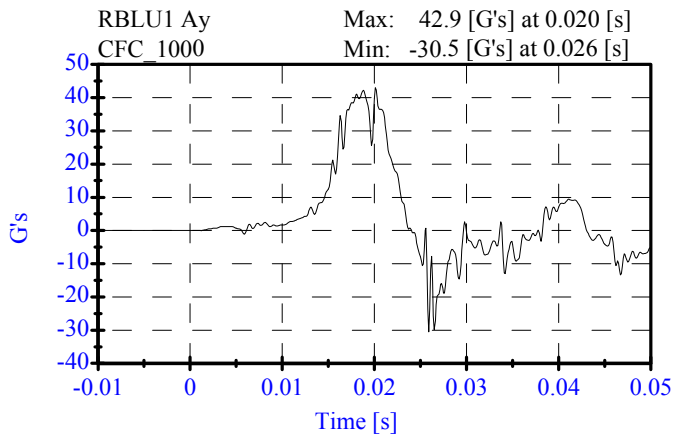
Thorax Impact Post-Test

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269
Date: February 8, 2005

Sequential Test Number: 1 File: 269T 02-08-05
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	40.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.29 m/s	Passed
Upper Rib Acceleration:	37.00-46.00 G's	40.26 G's	Passed
Lower Rib Acceleration:	37.00-46.00 G's	40.10 G's	Passed
Lower Spine Acceleration:	15.00-22.00 G's	19.63 G's	Passed



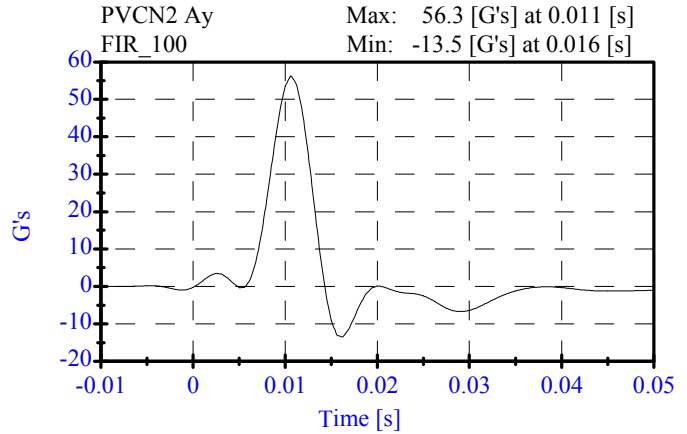
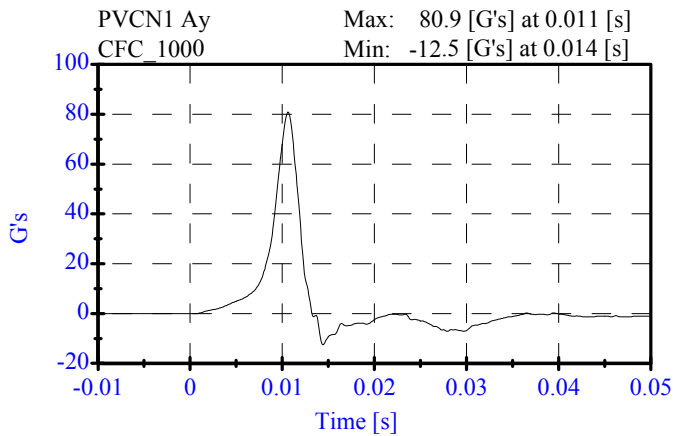
Pelvic Impact **Post-Test**

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269
Date: February 8, 2005

Sequential Test Number: 1 File: 269P 02-08-05
Laboratory Technician: B. Swiecicki

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	40.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.28 m/s	Passed
Pelvis Y Acceleration:	40.00-60.00 G's	56.27 G's	Passed
Time Above 20 Gs	3.0-7.0 ms	5.4 ms	Passed



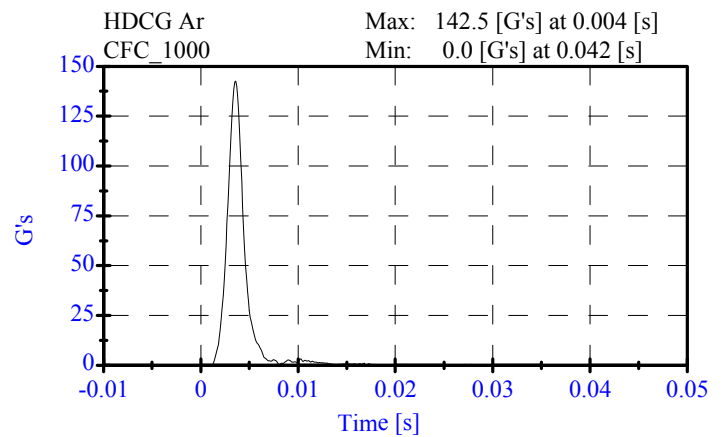
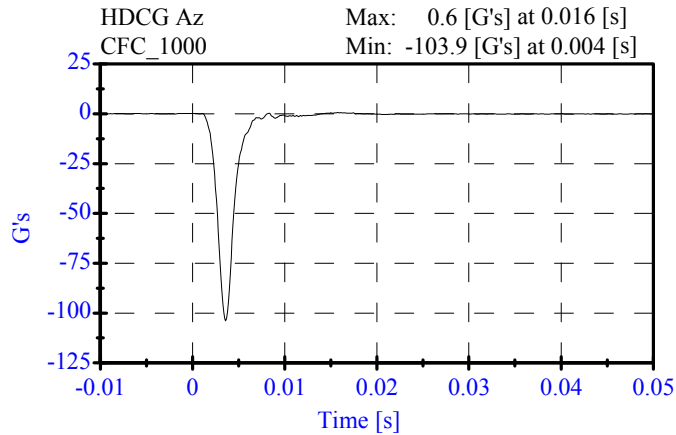
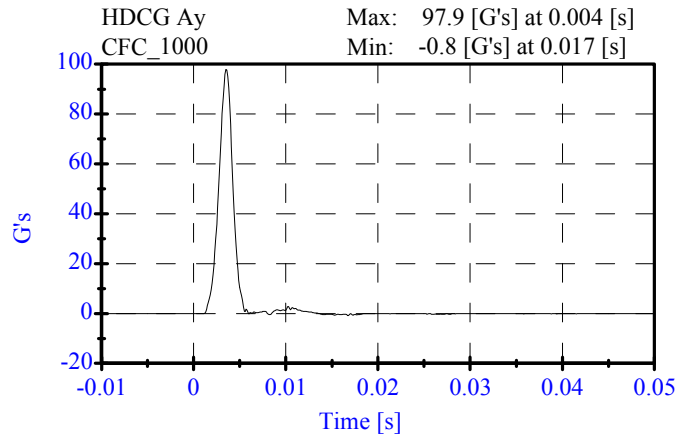
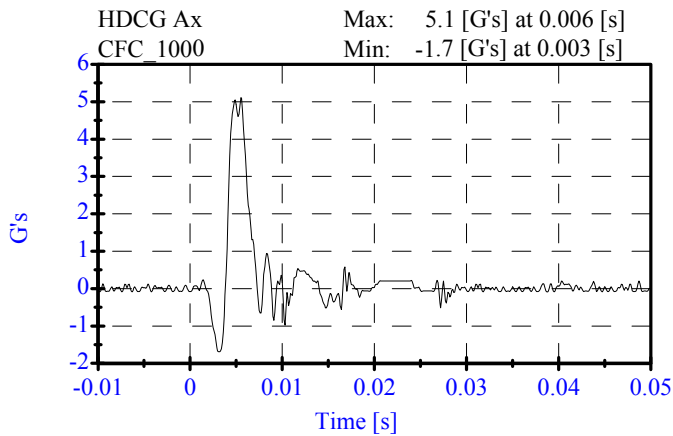
Head Drop Post-Test

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269
Date: February 7, 2005

Sequential Test Number: 1 File: 269H 02-07-05
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.6 C	21.1 C	Passed
Lab Humidity:	10-70 %	39.00 %	Passed
Peak Resultant Accel.:	120-150 Gs	142.55 Gs	Passed
Peak Lateral Accel.:	15 Gs Max	5.11 Gs	Passed
Curve PerCent NonModal:	< 15%	2.30 %	Passed



Neck Test**Post-Test****CONFIGURED FOR LEFT SIDE IMPACT**

ATD Serial No: 269
Date: February 8, 2005

Sequential Test Number: 1 File: 269N1 02-08-05
Laboratory Technician: B. Swiecicki

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	20.6-22.2 C	21.1 C	Passed
Lab Humidity:	10-70 %	40.00 %	Passed
Impact Velocity:	6.89- 7.13 m/s	7.00 m/s	Passed
PENDULUM DELTA V			
Delta V at 10 ms:	1.96- 2.55 m/s	2.38 m/s	Passed
Delta V at 20 ms:	4.12- 5.10 m/s	4.89 m/s	Passed
Delta V at 30 ms:	5.73- 7.01 m/s	6.97 m/s	Passed
Delta V between 40-70 ms:	6.27- 7.64 m/s	7.15 m/s	Passed
D PLANE ROTATION			
Maximum Rotation:	66.0-82.0 Deg	70.46 Deg	Passed
Rotation Angle Decay:	58.0-67.0 ms	60.80 ms	Passed
MOMENT ABOUT THE OCCIPITAL CONDYLE			
Max Occipital Moment:	73.00- 88.00 N-m	86.82 N-m	Passed
Occipital Moment Decay:	49.0-64.0 ms	52.70 ms	Passed
HEAD ROTATION TIME WITH RESPECT TO THE OCCIPITAL CONDYLE MOMENT			
Moment to Rotation Peak:	2.0-16.0 ms	10.40 ms	Passed

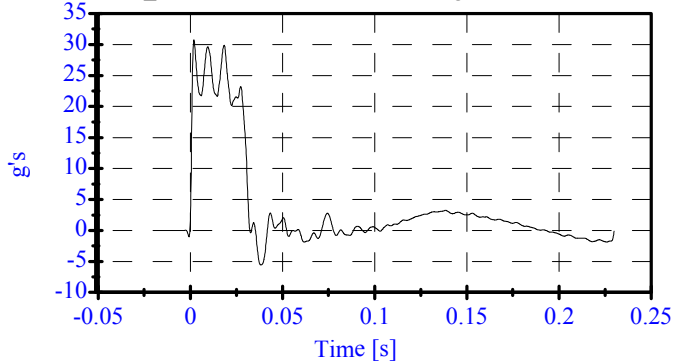
Neck Test
Post-Test

CONFIGURED FOR LEFT SIDE IMPACT

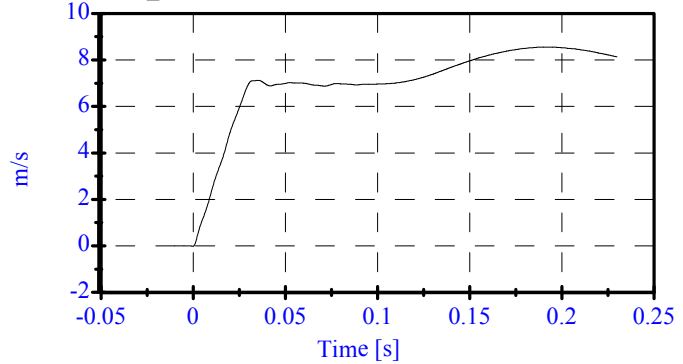
ATD Serial No: 269
Date: February 8, 2005

Sequential Test Number: 1 File: 269N1 02-08-05
Laboratory Technician: B. Swiecicki

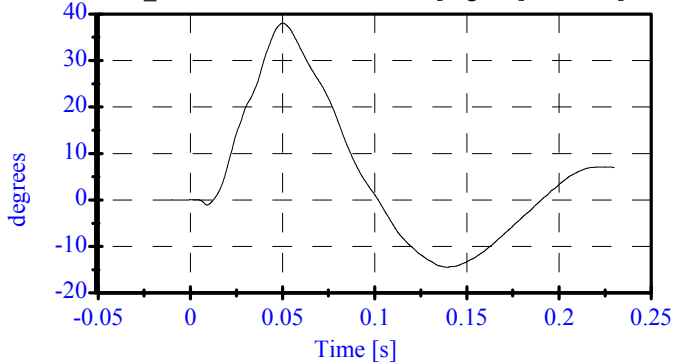
Pend Ax
CFC_180
Max: 30.8 [g's] at 0.002 [s]
Min: -5.6 [g's] at 0.038 [s]



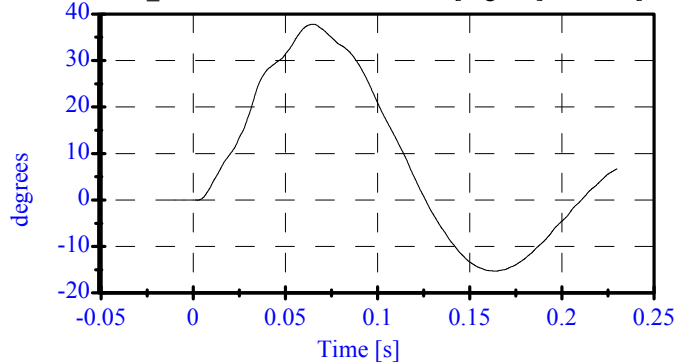
Pend Vx
CFC_180
Max: 8.6 [m/s] at 0.193 [s]
Min: -0.0 [m/s] at -0.000 [s]



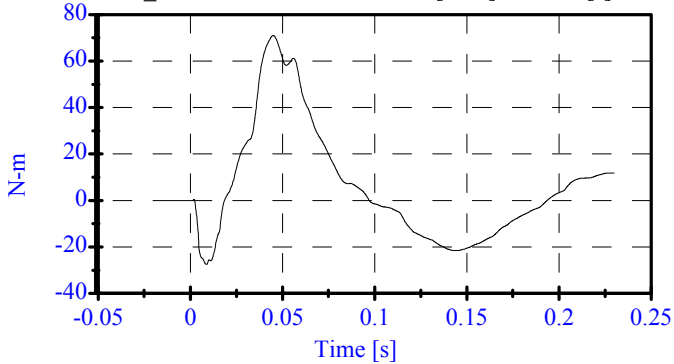
Head Rot
CFC_180
Max: 38.1 [degrees] at 0.050 [s]
Min: -14.5 [degrees] at 0.139 [s]



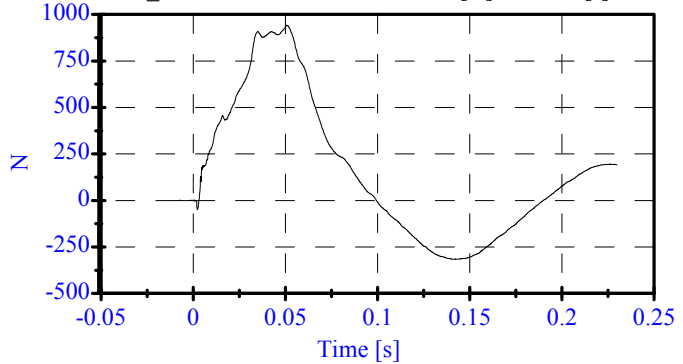
Arm Rot
CFC_180
Max: 37.8 [degrees] at 0.065 [s]
Min: -15.3 [degrees] at 0.164 [s]



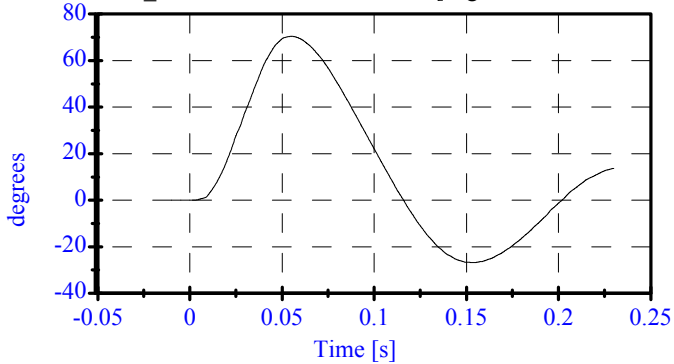
Neck Mx
CFC_600
Max: 70.9 [N-m] at 0.045 [s]
Min: -27.5 [N-m] at 0.009 [s]



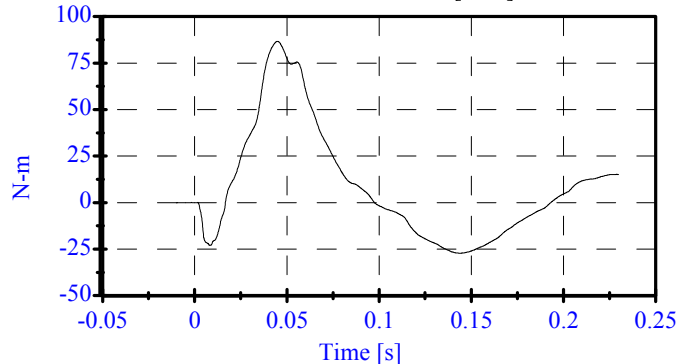
Neck Fy
CFC_1000
Max: 942.2 [N] at 0.051 [s]
Min: -316.0 [N] at 0.143 [s]



Tot Rot
CFC_180
Max: 70.5 [degrees] at 0.055 [s]
Min: -26.8 [degrees] at 0.154 [s]



MOCX
Max: 86.8 [N-m] at 0.045 [s]
Min: -27.2 [N-m] at 0.144 [s]



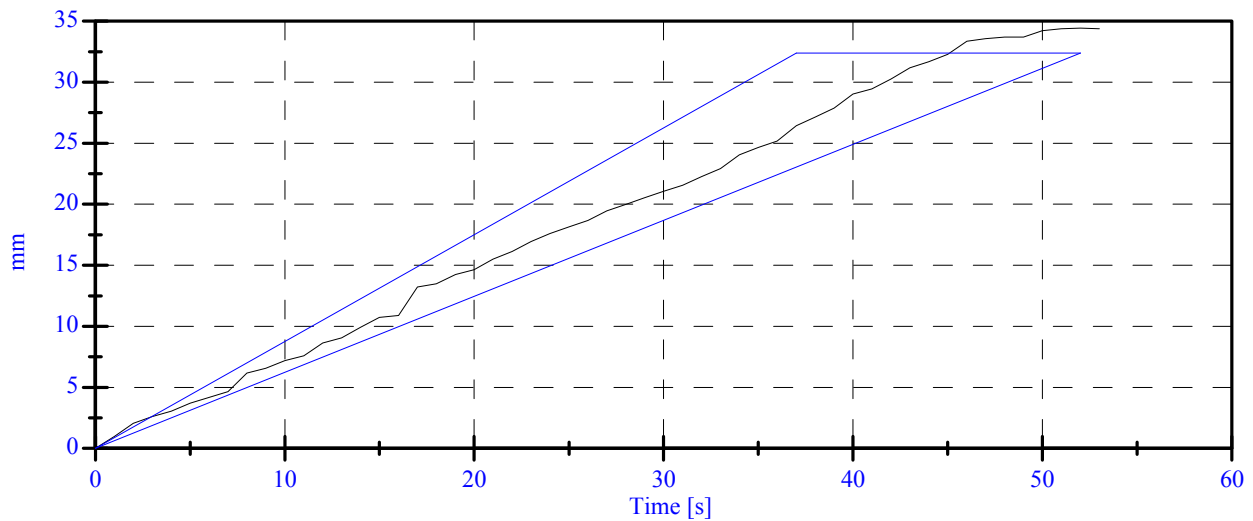
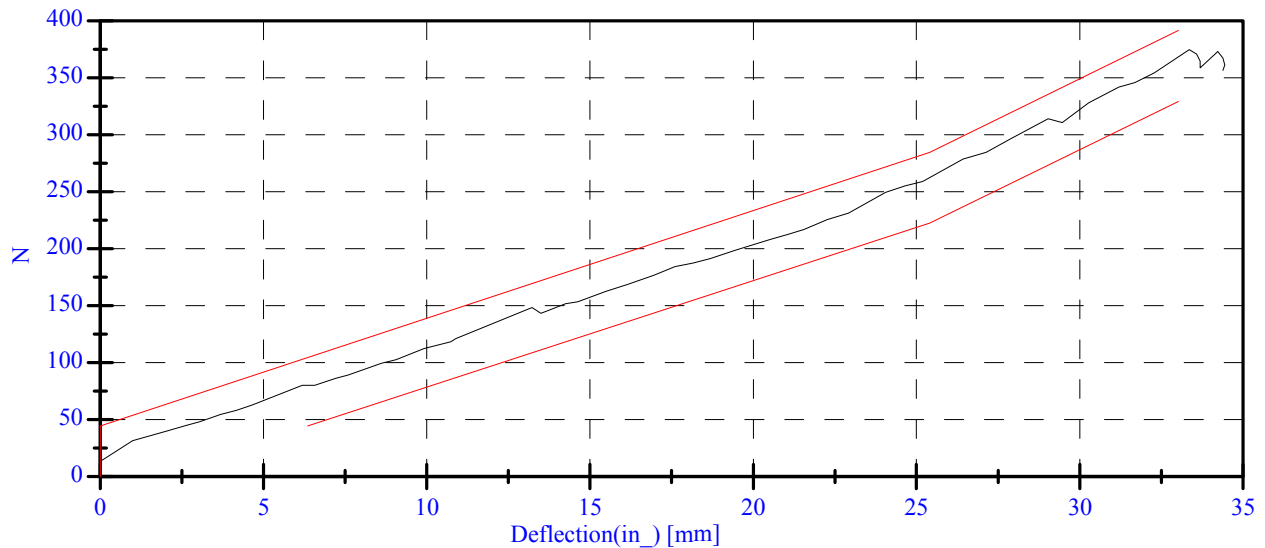
Abdominal Test
Post-Test
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269
Date: February 9, 2005

Sequential Test Number: 1 File: 269AB 02-09-05
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	30.00 %	Passed
Force at 12.95 mm :	104.00-162.00 N	148.48 N	Passed
Force at 19.05 mm :	162.98-220.99 N	191.24 N	Passed
Force at 25.40 mm :	221.97-280.02 N	258.87 N	Passed
Force at 33.02 mm :	324.99-391.00 N	374.74 N	Passed

ABDOMINAL COMPRESSION TEST



Spine Test

Post-Test

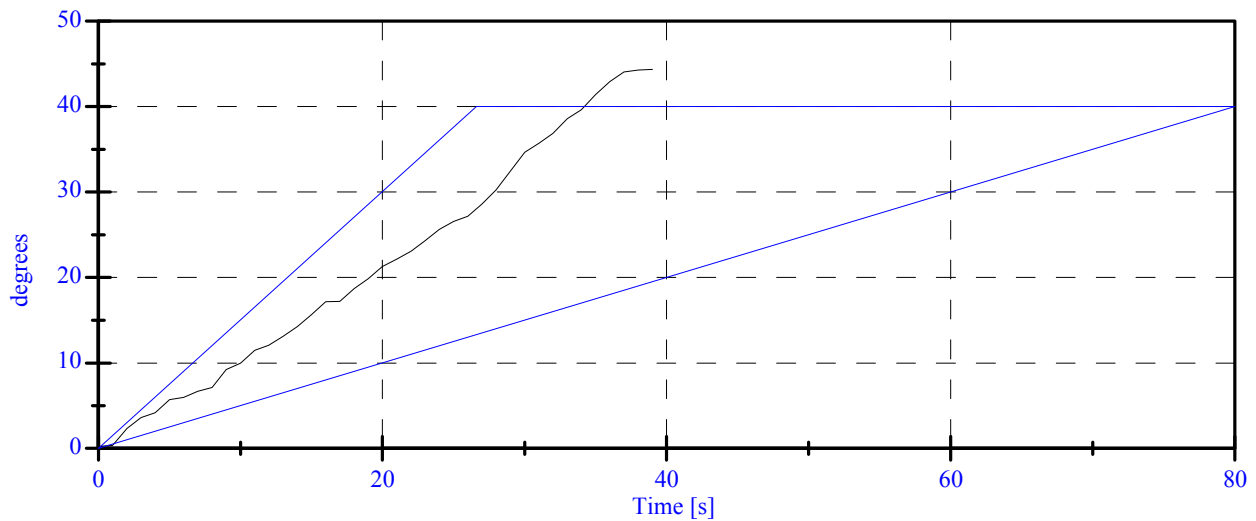
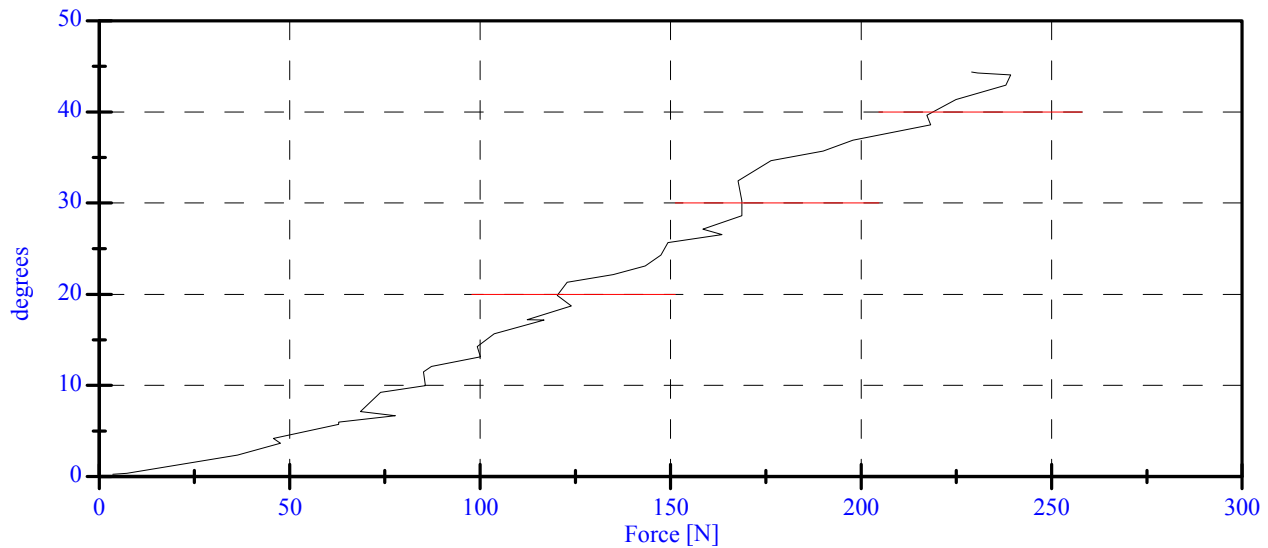
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269
Date: February 9, 2005

Sequential Test Number: 1 File: 269Spine 02-09-05
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	29.00 %	Passed
Force at 0 Deg:	0.00-26.69 N	3.54 N	Passed
Force at 20 Deg:	97.86-151.24 N	120.23 N	Passed
Force at 30 Deg:	151.24-204.62 N	168.74 N	Passed
Force at 40 Deg:	204.62-258.00 N	217.25 N	Passed
Return Angle	12 Deg Max	4.59 deg	Passed

LUMBAR SPINE FLEXION TEST



POST TEST DUMMY INSPECTION LIST
CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 269 Sequential Test Number: 1
Date: February 9, 2005 Laboratory Technician: B. Swiecicki

PART	ITEMS CHECKED	COMMENTS
SKIN	VISUAL INSPECTION	OK
HEAD	VISUAL, BALLAST, ACCELEROMETER MOUNT	OK
NECK	VISUAL, CABLE TORQUE	OK
SPINE BOX	VISUAL, BALLAST, WELDMENT, ACCELEROMETER MOUNT	OK
RIB CAGE	VISUAL, MEASURE, STIFFENERS	OK
STERNUM	VISUAL	OK
LUMBAR SPINE	VISUAL	OK
ABDOMEN	VISUAL	OK
PELVIS	VISUAL, PALPATE, ACCELEROMETER MOUNT	OK
UPPER LEGS	VISUAL	OK
KNEES	VISUAL, STOPS, INSERTS	OK
LOWER LEGS	VISUAL, RANGE OF MOTION	OK
ANKLES	VISUAL, RANGE OF MOTION	OK
FEET	VISUAL, RANGE OF MOTION	OK
JOINTS	1 TO 2 g RANGE	OK
OTHER	NONE	-

REMARKS: None

CALIBRATION TEST RESULTS

POST TEST

SID H3 NO.: 270

CONFIGURED FOR LEFT SIDE IMPACT

**CALIBRATION TEST RESULTS SUMMARY
POST TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 270 Sequential Test Number: 1
Date: February 9, 2005 Laboratory Technician: B. Swiecicki

TEST	COMMENTS
EXTERNAL DIMENSIONS	Passed all requirements.
LATERAL THORAX IMPACT TEST	Passed all requirements.
LATERAL PELVIS IMPACT TEST	Passed all requirements.
HEAD DROP TEST*	Passed all requirements.
LATERAL NECK BEND TEST*	Passed all requirements.
ABDOMINAL COMPRESSION TEST*	Passed all requirements.
LUMBAR FLEXION TEST*	Passed all requirements.

* Test not required for SID certification.

REMARKS: None

**EXTERNAL DIMENSIONS
POST TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 270 Sequential Test Number: 1
Date: February 9, 2005 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
SH- Seated Height (mm)	889 - 909	900
RH- Rib Height (mm)	502 - 520	503
HP- Hip Pivot Height (mm)	99 ref.	99
RD- Rib from Back Line (mm)	229 - 241	234
KH- Knee Pivot from Back Line (mm)	511 - 526	514
KV- Knee Pivot to Floor (mm)	490 - 505	495
HW- Hip Width (mm)	356 - 391	384

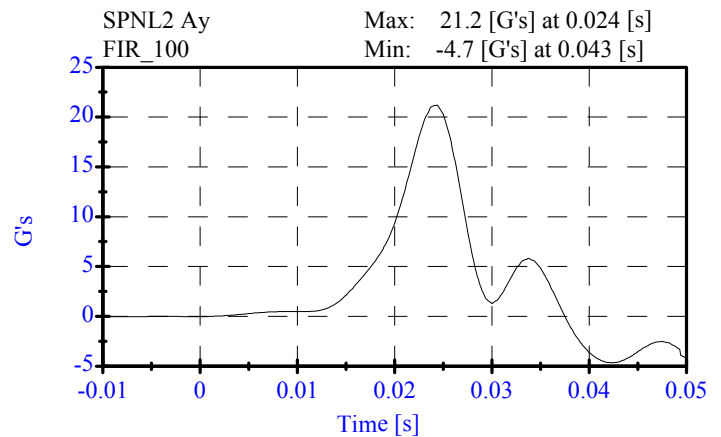
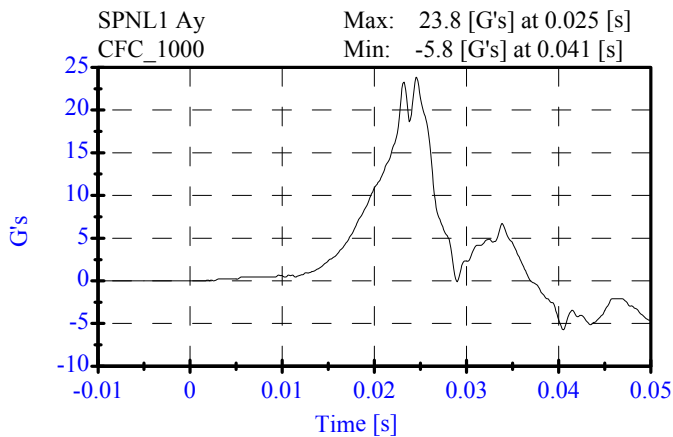
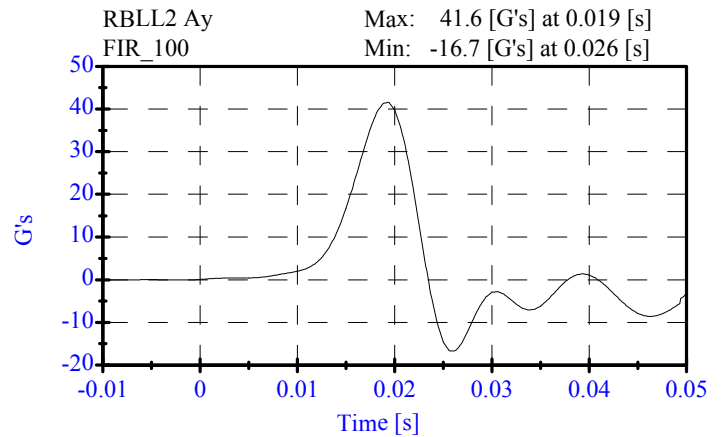
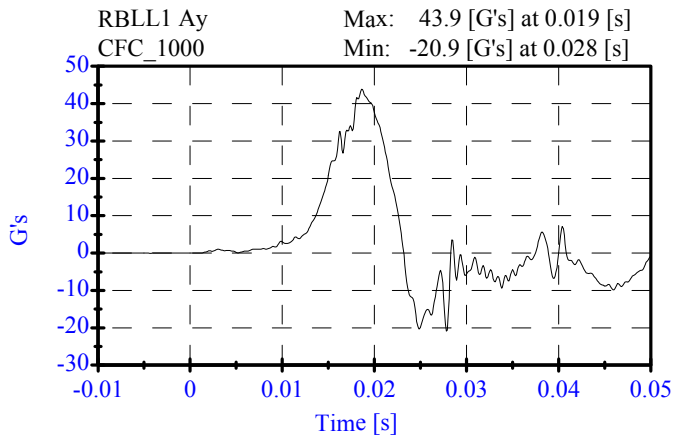
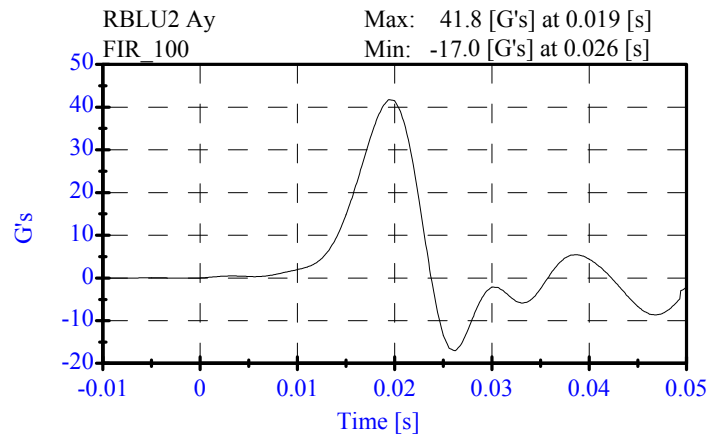
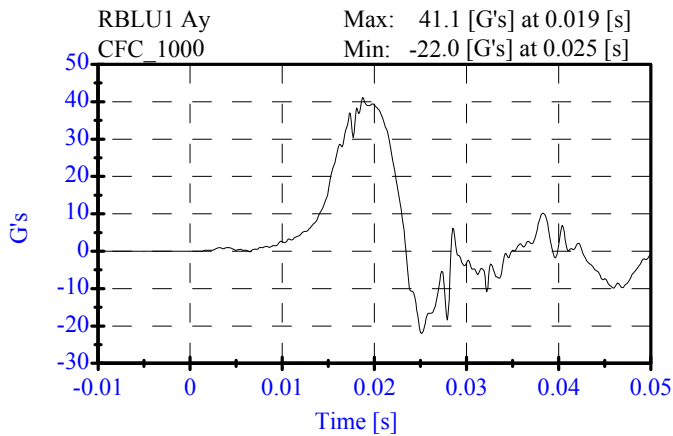
REMARKS: None

Thorax Impact
Post-Test
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 270
Date: 02-08-05

Sequential Test Number: 1 File: 270T 02-08-05
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	40.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.30 m/s	Passed
Upper Rib Acceleration:	37.00-46.00 G's	41.77 G's	Passed
Lower Rib Acceleration:	37.00-46.00 G's	41.56 G's	Passed
Lower Spine Acceleration:	15.00-22.00 G's	21.22 G's	Passed



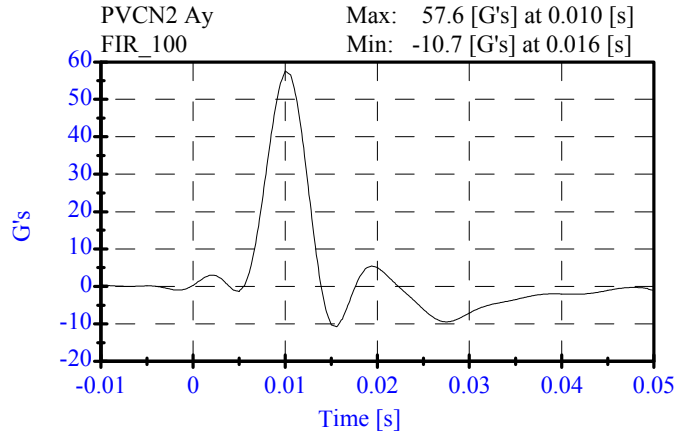
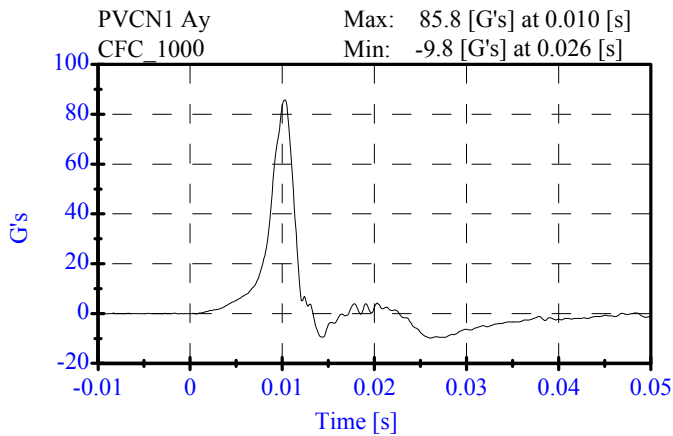
Pelvic Impact POST TEST

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 270
Date: 02-08-05

Sequential Test Number: 1 File: 270P 02-08-05
Laboratory Technician: B. Swiecicki

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	40.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.30 m/s	Passed
Pelvis Y Acceleration:	40.00-60.00 G's	57.57 G's	Passed
Time Above 20 Gs	3.0-7.0 ms	5.5 ms	Passed



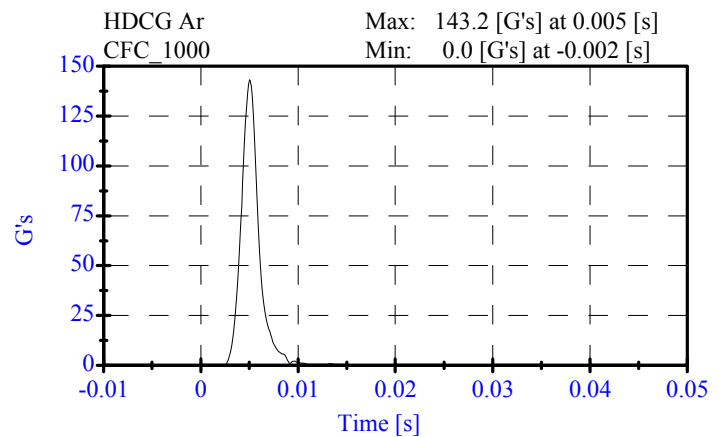
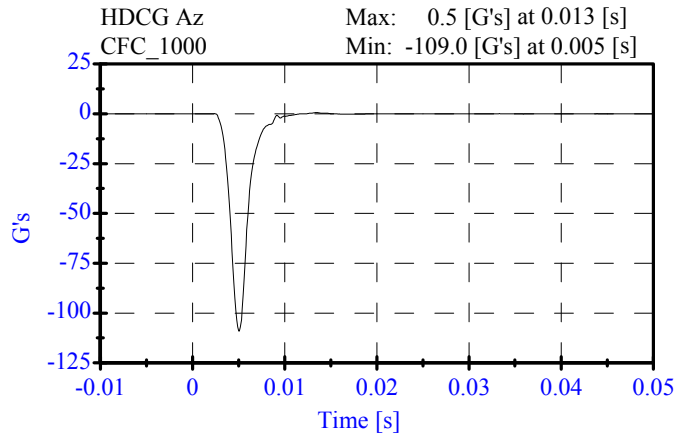
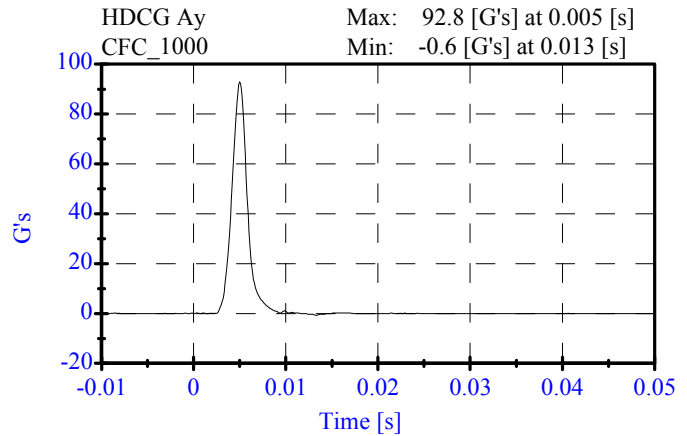
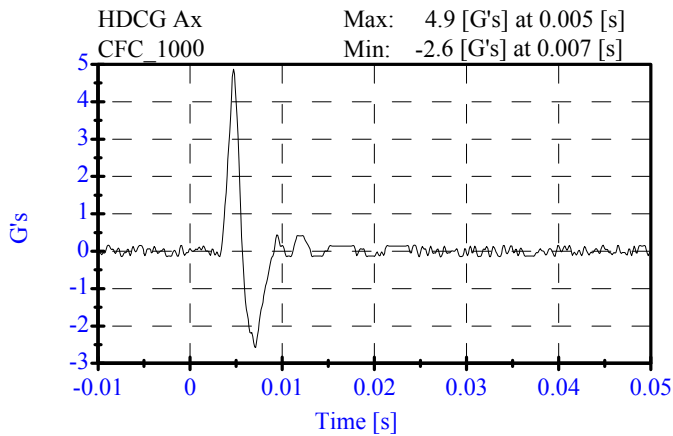
Head Drop POST TEST

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 270
Date: 02-07-05

Sequential Test Number: 1 File: 270H 02-07-05
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	66.0-78.0 F	70.0 F	Passed
Lab Humidity:	10-70 %	39.00 %	Passed
Peak Resultant Accel.:	120-150 Gs	143.17 Gs	Passed
Peak Lateral Accel.:	15 Gs Max	4.87 Gs	Passed
Curve PerCent NonModal:	< 15%	1.52 %	Passed



**Neck Test
POST TEST**

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 270
Date: 02-07-05

Sequential Test Number: 1 File: 270N 02-07-05
Laboratory Technician: B. Swiecicki

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	20.6-22.2 C	21.1 C	Passed
Lab Humidity:	10-70 %	39.00 %	Passed
Impact Velocity:	6.89- 7.13 m/s	7.00 m/s	Passed
PENDULUM DELTA V			
Delta V at 10 ms:	1.96- 2.55 m/s	2.25 m/s	Passed
Delta V at 20 ms:	4.12- 5.10 m/s	4.66 m/s	Passed
Delta V at 30 ms:	5.73- 7.01 m/s	6.58 m/s	Passed
Delta V between 40-70 ms:	6.27- 7.64 m/s	7.15 m/s	Passed
D PLANE ROTATION			
Maximum Rotation:	66.0-82.0 Deg	71.02 Deg	Passed
Rotation Angle Decay:	58.0-67.0 ms	60.20 ms	Passed
MOMENT ABOUT THE OCCIPITAL CONDYLE			
Max Occipital Moment:	73.00- 88.00 N-m	87.22 N-m	Passed
Occipital Moment Decay:	49.0-64.0 ms	55.40 ms	Passed
HEAD ROTATION TIME WITH RESPECT TO THE OCCIPITAL CONDYLE MOMENT			
Moment to Rotation Peak:	2.0-16.0 ms	9.90 ms	Passed

Neck Test
POST TEST

CONFIGURED FOR LEFT SIDE IMPACT

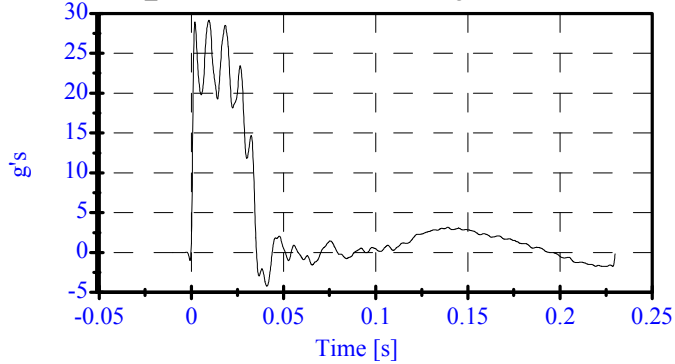
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Date: 02-07-05

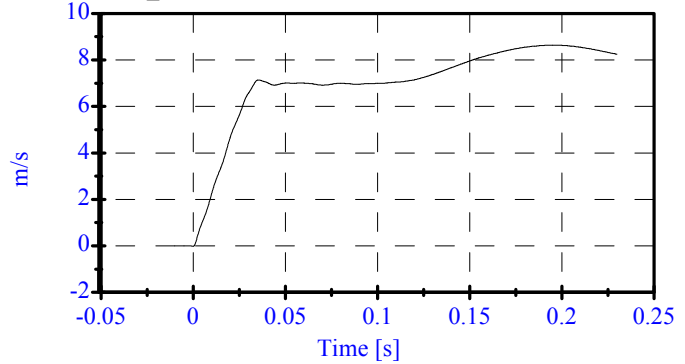
Sequential Test Number: 1 File: 270N 02-07-05

Laboratory Technician: B. Swiecicki

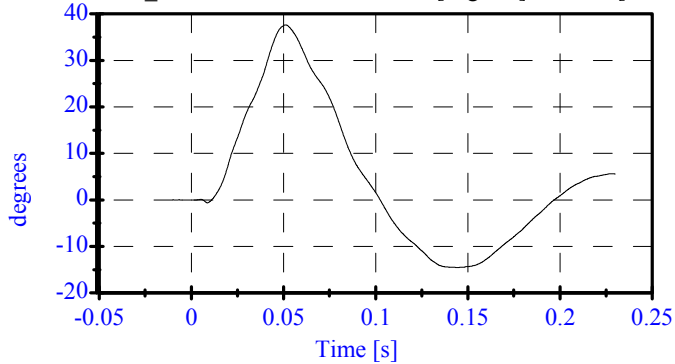
Pend Ax
CFC_180
Max: 29.1 [g's] at 0.010 [s]
Min: -4.2 [g's] at 0.041 [s]



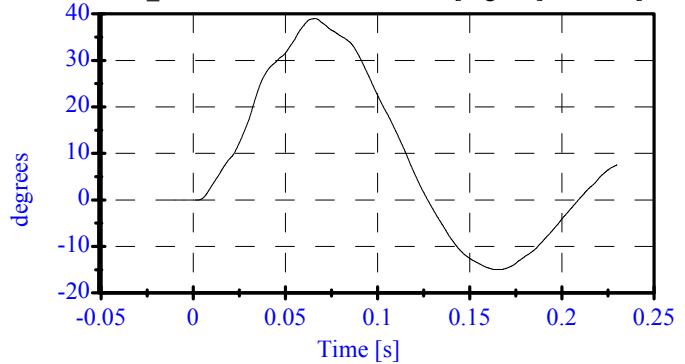
Pend Vx
CFC_180
Max: 8.6 [m/s] at 0.196 [s]
Min: -0.0 [m/s] at -0.000 [s]



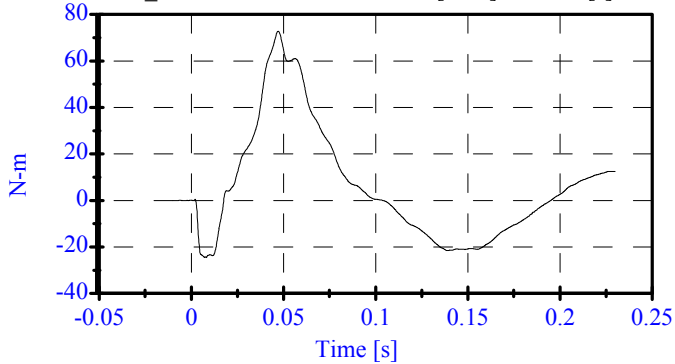
Head Rot
CFC_180
Max: 37.7 [degrees] at 0.051 [s]
Min: -14.5 [degrees] at 0.144 [s]



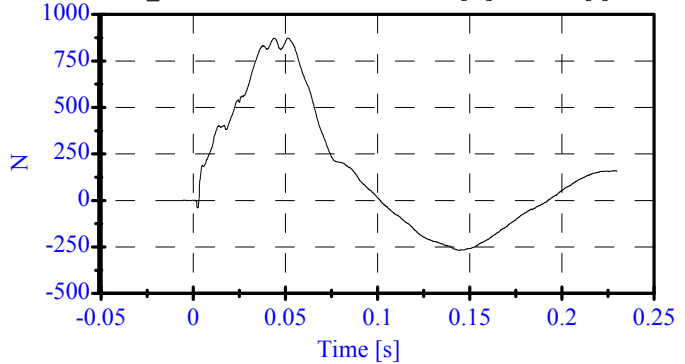
Arm Rot
CFC_180
Max: 39.0 [degrees] at 0.066 [s]
Min: -15.0 [degrees] at 0.164 [s]



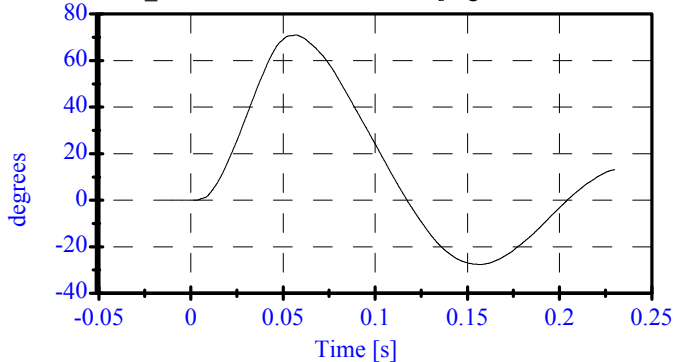
Neck Mx
CFC_600
Max: 72.7 [N-m] at 0.047 [s]
Min: -24.5 [N-m] at 0.008 [s]



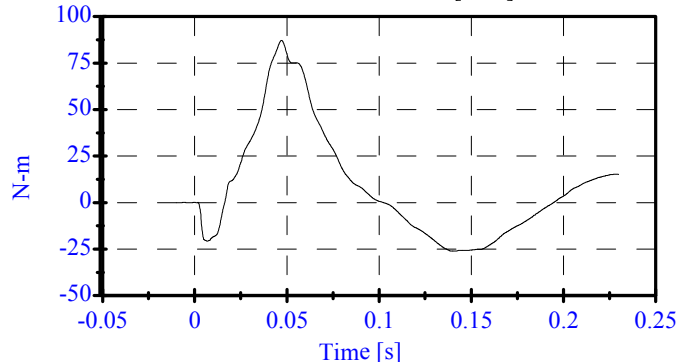
Neck Fy
CFC_1000
Max: 873.1 [N] at 0.051 [s]
Min: -268.6 [N] at 0.145 [s]



Tot Rot
CFC_180
Max: 71.0 [degrees] at 0.057 [s]
Min: -27.6 [degrees] at 0.157 [s]



Mocx
Max: 87.2 [N-m] at 0.047 [s]
Min: -26.0 [N-m] at 0.140 [s]



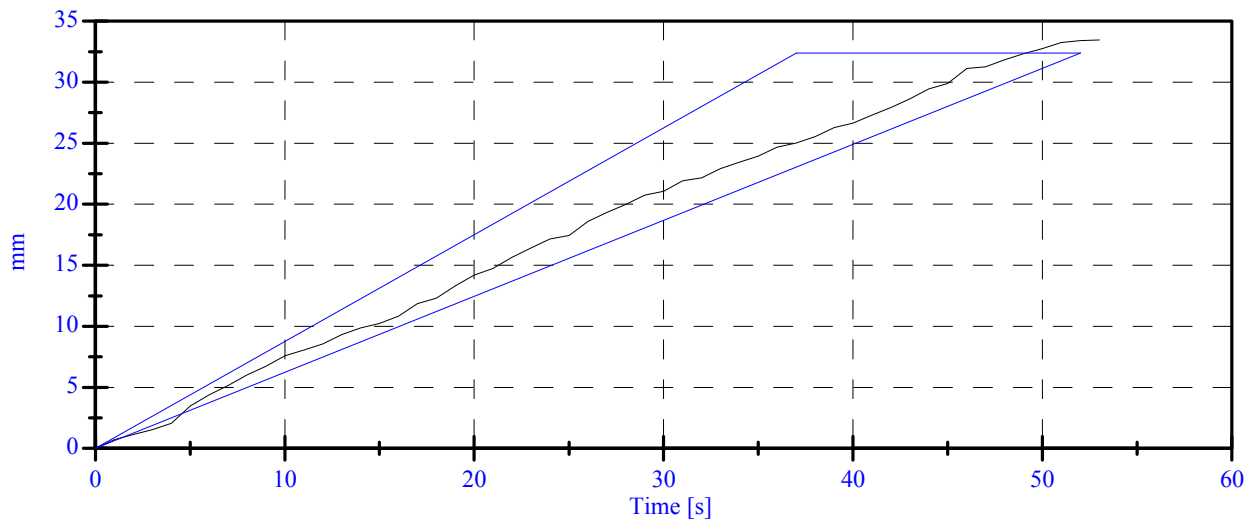
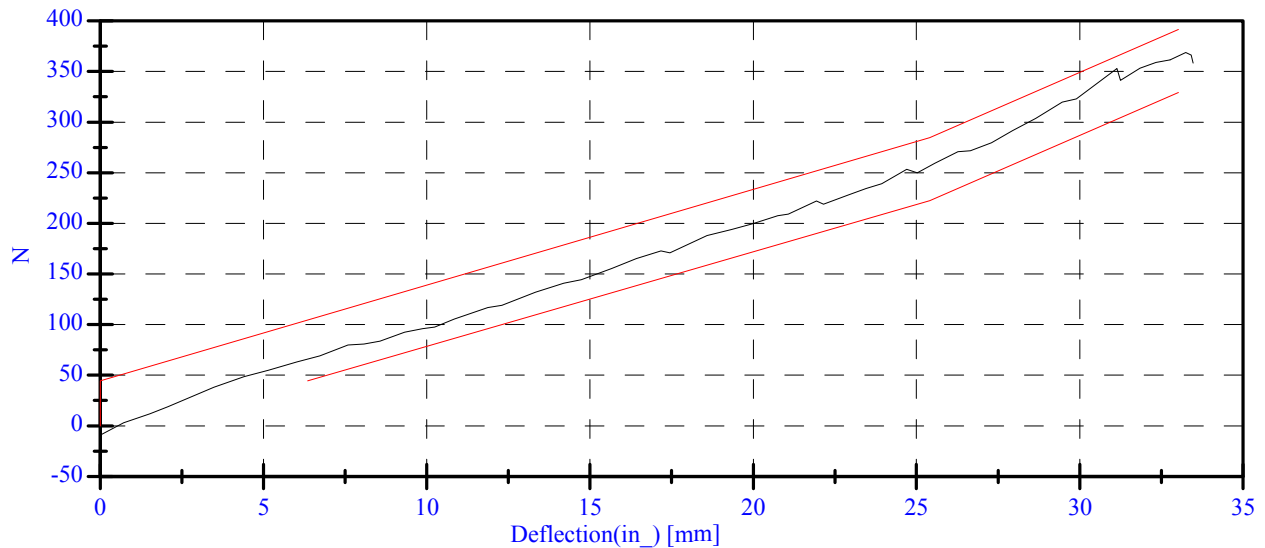
Abdominal Test
POST TEST
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 270
Date: 02-09-05

Sequential Test Number: 1 File: 270AB 02-09-05
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	30.00 %	Passed
Force at 12.95 mm :	104.00-162.00 N	132.03 N	Passed
Force at 19.05 mm :	162.98-220.99 N	194.17 N	Passed
Force at 25.40 mm :	221.97-280.02 N	259.23 N	Passed
Force at 33.02 mm :	324.99-391.00 N	368.89 N	Passed

ABDOMINAL COMPRESSION TEST



**Spine Test
POST TEST**

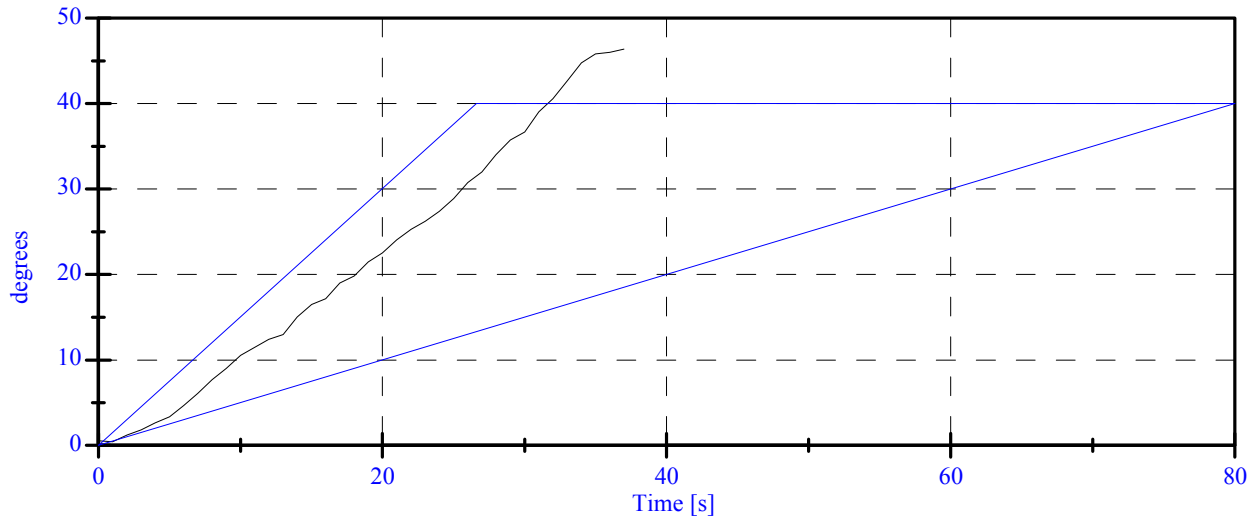
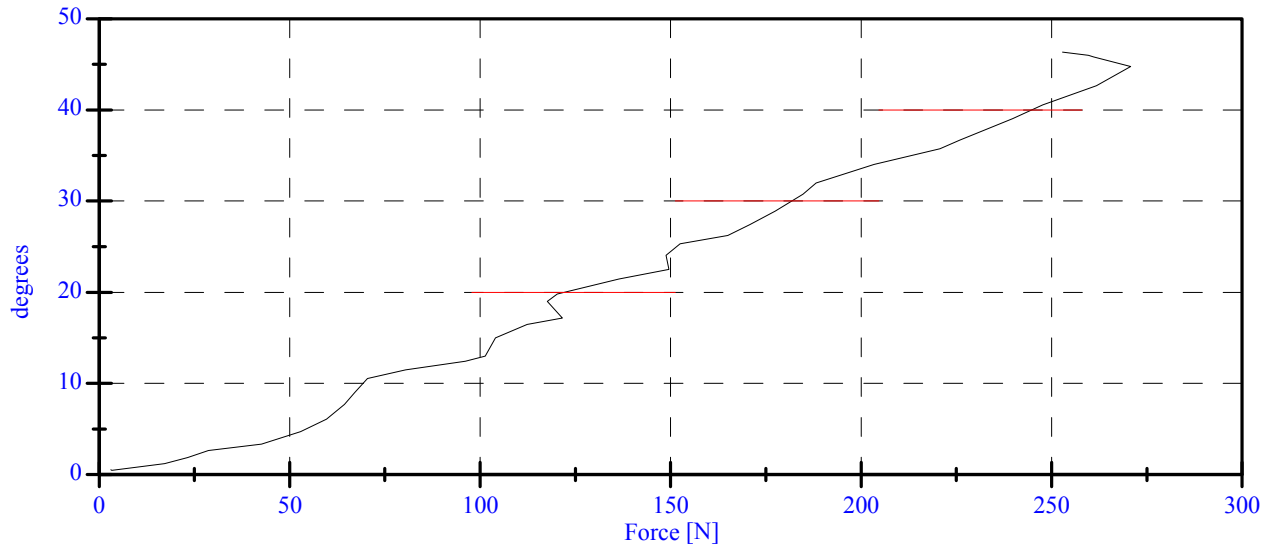
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 270
Date: 02-09-05

Sequential Test Number: 1 File: 270Spine 02-09-05
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	29.00 %	Passed
Force at 0 Deg:	0.00-26.69 N	3.28 N	Passed
Force at 20 Deg:	97.86-151.24 N	120.23 N	Passed
Force at 30 Deg:	151.24-204.62 N	184.73 N	Passed
Force at 40 Deg:	204.62-258.00 N	247.67 N	Passed
Return Angle	12 Deg Max	3.39 deg	Passed

LUMBAR SPINE FLEXION TEST



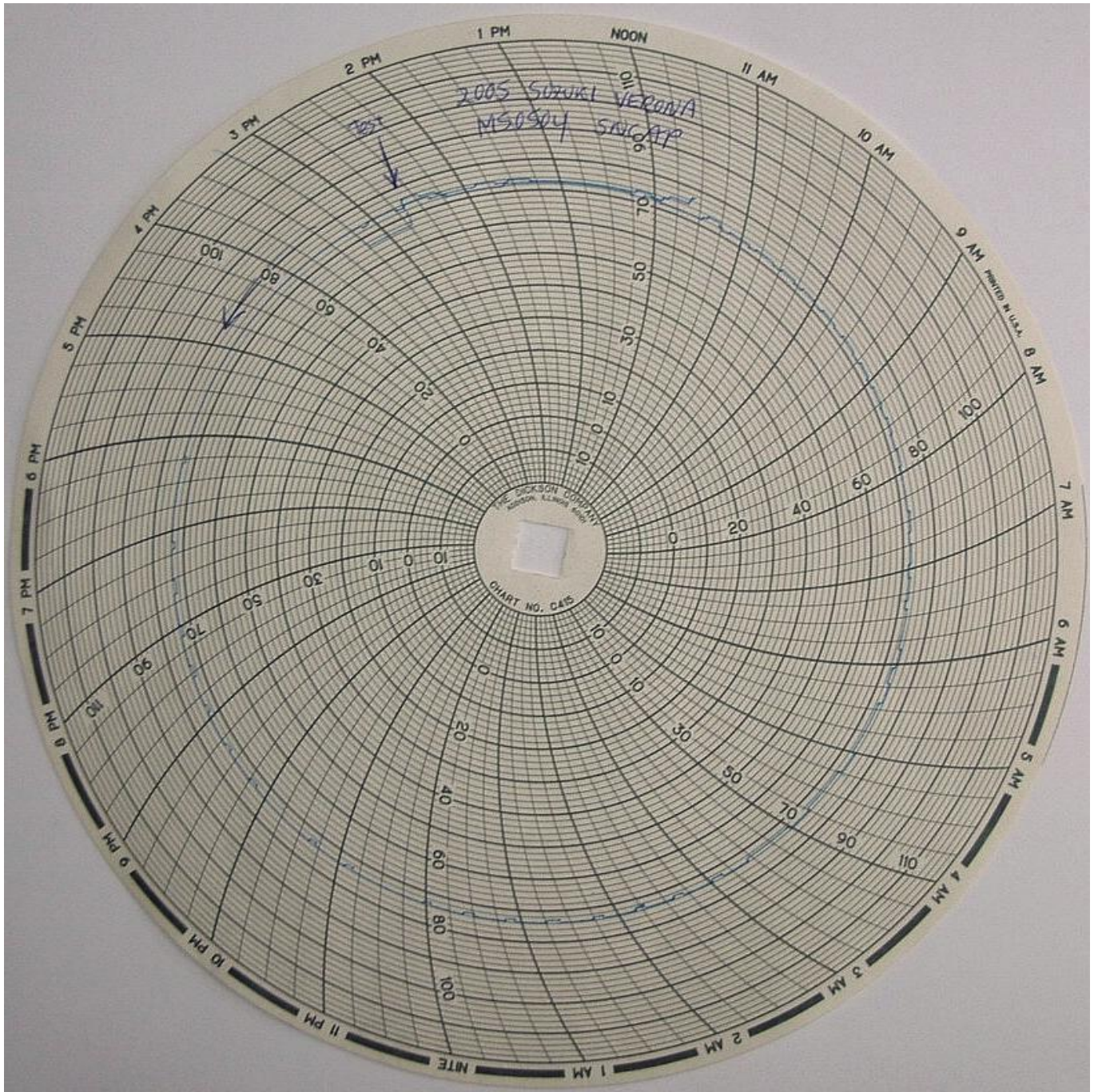
POST TEST DUMMY INSPECTION LIST
CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 270 Sequential Test Number: 1
Date: February 9, 2005 Laboratory Technician: B. Swiecicki

PART	ITEMS CHECKED	COMMENTS
SKIN	VISUAL INSPECTION	OK
HEAD	VISUAL, BALLAST, ACCELEROMETER MOUNT	OK
NECK	VISUAL, CABLE TORQUE	OK
SPINE BOX	VISUAL, BALLAST, WELDMENT, ACCELEROMETER MOUNT	OK
RIB CAGE	VISUAL, MEASURE, STIFFENERS	OK
STERNUM	VISUAL	OK
LUMBAR SPINE	VISUAL	OK
ABDOMEN	VISUAL	OK
PELVIS	VISUAL, PALPATE, ACCELEROMETER MOUNT	OK
UPPER LEGS	VISUAL	OK
KNEES	VISUAL, STOPS, INSERTS	OK
LOWER LEGS	VISUAL, RANGE OF MOTION	OK
ANKLES	VISUAL, RANGE OF MOTION	OK
FEET	VISUAL, RANGE OF MOTION	OK
JOINTS	1 TO 2 g RANGE	OK
OTHER	NONE	-

REMARKS: None

TEMPERATURE TRACE



APPENDIX D

TEST EQUIPMENT LIST AND CALIBRATION INFORMATION

TEST EQUIPMENT LIST AND CALIBRATION INFORMATION

SID INSTRUMENTATION

	FRONT SID NO.: 269		
	SERIAL NUMBER	MANUFACTURER	CALIBRATION DATE
HEAD AX	AC-P35812	ENDEVCO	12/7/2004
HEAD AY	AC-P18739	ENDEVCO	1/19/2005
HEAD AZ	AC-P19212	ENDEVCO	1/19/2005
UPPER NECK FX	LC-440FX	DENTON	11/6/2004
UPPER NECK FY	LC-440FY	DENTON	11/6/2004
UPPER NECK FZ	LC-440FZ	DENTON	11/6/2004
UPPER NECK MX	LC-440MX	DENTON	11/6/2004
UPPER NECK MY	LC-440MY	DENTON	11/6/2004
UPPER NECK MZ	LC-440MZ	DENTON	11/6/2004
UPPER RIB	AC-P16862	ENDEVCO	10/7/2004
LOWER RIB	AC-P23156	ENDEVCO	10/7/2004
LOWER SPINE	AC-P16645	ENDEVCO	10/7/2004
PELVIS	AC-P16843	ENDEVCO	10/7/2004
UPPER RIB REDUNDANT	AC-P16866	ENDEVCO	10/7/2004
LOWER RIB REDUNDANT	AC-P16656	ENDEVCO	10/7/2004
LOWER SPINE REDUNDANT	AC-P19343	ENDEVCO	10/7/2004
PELVIS REDUNDANT	AC-P16676	ENDEVCO	10/7/2004

	REAR SID NO.: 270		
	SERIAL NUMBER	MANUFACTURER	CALIBRATION DATE
HEAD AX	AC-P16845	ENDEVCO	8/18/2004
HEAD AY	AC-P23788	ENDEVCO	8/18/2004
HEAD AZ	AC-P21393	ENDEVCO	8/18/2004
UPPER NECK FX	LC-205FX	DENTON	11/6/2004
UPPER NECK FY	LC-205FY	DENTON	11/6/2004
UPPER NECK FZ	LC-205FZ	DENTON	11/6/2004
UPPER NECK MX	LC-205MX	DENTON	11/6/2004
UPPER NECK MY	LC-205MY	DENTON	11/6/2004
UPPER NECK MZ	LC-205MZ	DENTON	11/6/2004
UPPER RIB	AC-P15736	ENDEVCO	8/12/2004
LOWER RIB	AC-P16289	ENDEVCO	8/12/2004
LOWER SPINE	AC-P16761	ENDEVCO	8/13/2004
PELVIS	AC-P32221	ENDEVCO	8/12/2004
UPPER RIB REDUNDANT	AC-P16593	ENDEVCO	8/12/2004
LOWER RIB REDUNDANT	AC-P23142	ENDEVCO	8/12/2004
LOWER SPINE REDUNDANT	AC-P21516	ENDEVCO	11/12/2004
PELVIS REDUNDANT	AC-P23960	ENDEVCO	8/12/2004

REMARKS: None

TEST EQUIPMENT LIST AND CALIBRATION INFORMATION

VEHICLE AND MDB INSTRUMENTATION

	VEHICLE AND MDB INSTRUMENTS		
	SERIAL NUMBER	MANUFACTURER	CALIBRATION DATE
RIGHT FRONT SILL (X)	AC-P23161	ENDEVCO	9/8/2004
RIGHT FRONT SILL (Y)	AC-P24011	ENDEVCO	9/8/2004
RIGHT FRONT SILL (Z)	AC-P19111	ENDEVCO	9/8/2004
RIGHT REAR SILL (X)	AC-J37980	ENDEVCO	10/7/2004
RIGHT REAR SILL (Y)	AC-J38127	ENDEVCO	10/7/2004
RIGHT REAR SILL (Z)	AC-J37854	ENDEVCO	10/7/2004
REAR FLOORPAN ABOVE AXLE (X)	AC-J31020	ENDEVCO	11/4/2004
REAR FLOORPAN ABOVE AXLE (Y)	AC-J31101	ENDEVCO	11/4/2004
REAR FLOORPAN ABOVE AXLE (Z)	AC-J31059	ENDEVCO	11/4/2004
LEFT REAR SILL (Y)	AC-FGP21	ICS	8/20/2004
LEFT FRONT SILL (Y)	AC-FGP25	ICS	8/24/2004
LEFT FRONT DOOR CENTERLINE (Y)	AC-FGP40	ICS	8/24/2004
RIGHT REAR SEAT OCCUPANT COMP. (Y)	AC-9440-045	GS SENSORS	12/1/2004
MID REAR OF LEFT FRONT DOOR (Y)	AC-FGP39	ICS	8/27/2004
LEFT FRONT DOOR UPPER C/L (Y)	AC-FGP46	ICS	8/24/2004
MID REAR OF LEFT REAR DOOR (Y)	AC-FGP37	ICS	8/27/2004
LEFT REAR DOOR UPPER C/L (Y)	AC-FGP24	ICS	8/20/2004
LOWER LEFT B- PILLAR (Y)	AC-FGP16	ICS	8/27/2004
MIDDLE LEFT B-PILLAR (Y)	AC-FGP11	ICS	8/27/2004
LOWER LEFT A-PILLAR (Y)	AC-FGP33	ICS	8/20/2004
UPPER LEFT A-PILLAR (Y)	AC-FGP42	ICS	8/20/2004
FRONT SEAT TRACK (Y)	AC-FGP47	ICS	8/20/2004
REAR SEAT TRACK (Y)	AC-FGP34	ICS	8/24/2004
VEHICLE CG (X)	AC-P22943	ENDEVCO	10/27/2004
VEHICLE CG (Y)	AC-P23139	ENDEVCO	10/27/2004
VEHICLE CG (Z)	AC-P13323	ENDEVCO	10/27/2004
MDB CG (X)	AC-C16433	ENDEVCO	8/31/2004
MDB CG (Y)	AC-C16416	ENDEVCO	8/31/2004
MDB CG (Z)	AC-C16499	ENDEVCO	8/31/2004
MDB REAR FRAME MEMBER (X)	AC-C14948	ENDEVCO	8/31/2004
MDB REAR FRAME MEMBER (Y)	AC-C16680	ENDEVCO	8/31/2004

REMARKS: None