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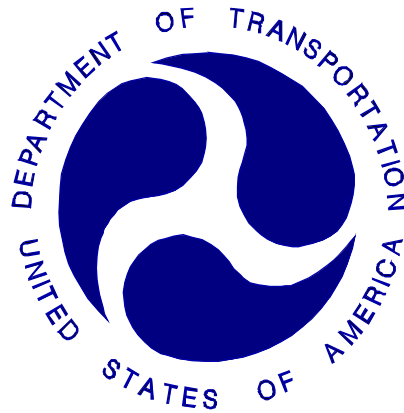
**NEW CAR ASSESSMENT PROGRAM
SIDE IMPACT TEST**

TOYOTA MOTOR MANUFACTURING CALIFORNIA, INC.
2005 TOYOTA TACOMA
PICKUP

NHTSA NUMBER: M55107

GENERAL DYNAMICS TEST NUMBER: 8765-SNCAP-10

ADVANCED INFORMATION ENGINEERING SERVICES
A GENERAL DYNAMICS COMPANY
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February 15, 2005

FINAL REPORT

U. S. DEPARTMENT OF TRANSPORTATION
National Highway Traffic Safety Administration
Rulemaking
Office of Crashworthiness Standards
Mail Code: NVS-111
400 Seventh Street, SW, Room No. 5313
Washington, DC 20590

This Final Test Report was prepared for the U.S. Department of Transportation, National Highway Traffic Safety Administration, under Contract No. DTNH22-03-D-22005. This document is disseminated under the sponsorship of the U.S. Department of Transportation in the interest of information exchange. The United States Government assumes no liability for its contents or use thereof.

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				14. Sponsoring Agency Code NVS-111																			
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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 Toyota Tacoma Pickup 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 February 15, 2005. The impact velocity of the Moving Deformable Barrier (MDB) was 61.64 kph, and the ambient temperature at the struck (driver's) side of the target vehicle at the time of impact was 21⁰C. The target vehicle post-test maximum crush was 195 mm at level 2. The test or target vehicle's performance is given below: <table border="0"> <tr> <td></td> <td align="center"><u>Front SID H3</u></td> <td></td> </tr> <tr> <td>Left Upper Rib Acceleration:</td> <td align="center"><u>49.5</u></td> <td align="center">g's</td> </tr> <tr> <td>Left Lower Rib Acceleration:</td> <td align="center"><u>44.8</u></td> <td align="center">g's</td> </tr> <tr> <td>Lower Spine Acceleration:</td> <td align="center"><u>46.5</u></td> <td align="center">g's</td> </tr> <tr> <td>Thoracic Trauma Index (TTI):</td> <td align="center"><u>48</u></td> <td align="center">g's</td> </tr> <tr> <td>Pelvis Acceleration (PEV):</td> <td align="center"><u>73.5</u></td> <td align="center">g's</td> </tr> </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>		Left Upper Rib Acceleration:	<u>49.5</u>	g's	Left Lower Rib Acceleration:	<u>44.8</u>	g's	Lower Spine Acceleration:	<u>46.5</u>	g's	Thoracic Trauma Index (TTI):	<u>48</u>	g's	Pelvis Acceleration (PEV):	<u>73.5</u>	g's
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TABLE OF CONTENTS

<u>Section</u>		<u>Page No.</u>
1	PURPOSE AND TEST PROCEDURE	1-1
2	SUMMARY OF SIDE IMPACT TEST	2-1
3	VEHICLE TEST DATA	3-1
	Data Sheet 1 - General Vehicle Test Parameter Data	3-2
	Data Sheet 2 - Test Vehicle Summary of Results	3-5
	Data Sheet 3 - Moving Deformable Barrier (MDB) Summary	3-6
	Data Sheet 4 - Post Test Observations	3-7
4	OCCUPANT AND VEHICLE INFORMATION	4-1
	Data Sheet 5 – SID HYBRID III Instrumentation Data	4-2
	Data Sheet 6 - Vehicle Pre- And Post Test Measurements	4-3
	Data Sheet 7 - SID HYBRID III Longitudinal Clearance Dimensions	4-4
	Data Sheet 8 - SID HYBRID III Lateral Clearance Dimensions	4-5
	Data Sheet 9 - Vehicle Side Measurements	4-6
	Data Sheet 10 - Vehicle Exterior Crush Profiles - All Levels	4-7
	Data Sheet 11 - Vehicle Damage Profile Distances	4-8
	Data Sheet 12 - Exterior Static Crush For Impactor Face	4-9
	Data Sheet 13 - Test Vehicle Accelerometer Locations And Data Summary	4-10
	Data Sheet 14 - MDB Accelerometer Locations and Data Summary	4-13
	Data Sheet 15 - High Speed Camera Locations and Data	4-14
5	VEHICLE FUEL SYSTEM INTEGRITY	5-1
	Data Sheet 16 - FMVSS 301 Fuel System Integrity Data	5-2
	Data Sheet 17 - FMVSS 301 Rollover Data	5-3
APPENDIX A	PHOTOGRAPHS	A-1
APPENDIX B	VEHICLE, MDB AND SID HYBRID III RESPONSE DATA	B-1
APPENDIX C	SID HYBRID III CONFIGURATION AND PERFORMANCE VERIFICATION DATA	C-1
APPENDIX D	TEST EQUIPMENT LIST AND CALIBRATION INFORMATION	D -1

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 Toyota Tacoma Pickup. 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 Toyota Tacoma Pickup 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 61.64 kph (38.3 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 February 15, 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.

One restrained Side Impact Hybrid III Dummy (SID H3) was placed in the driver (Pos. #1) designated seating position 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 9 high-speed cameras. Camera locations and other pertinent camera information are included in this report.

The SID H3 was 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 45 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
TTI (g)	48
PEV (g)	73.5

AIR BAG DEPLOYMENT STATUS

	DRIVER	FRONT PASSENGER
Front Air Bag	Yes	Yes
Knee Bolster Bag	N/A	N/A
Side Air Bag	N/A	N/A
Side Curtain Bag	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 Toyota Tacoma Pickup

Vehicle Body Color: Silver VIN: 5TENX22N05Z013716

Vehicle NHTSA No.: M55107 Month & Year of Manufacture: 10/04

Engine Data: 4 Cylinders; - CID; 2.7 Liters; - cc

Engine Placement: X Longitudinal; or - Lateral

Transmission: 5 Speed; X Manual; - Automatic; X Overdrive

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

Odometer Reading 95 km

Supplemental Airbag Restraints:

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

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

Options:

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

DATA FROM TIRE PLACARD

Recommended Tire Size: P215/70R15

*Recommended Cold Tire Pressure: 200 kPa FRONT; 220 kPa REAR

DATA FROM TIRE SIDEWALL:

Size of Tires on Test Vehicle: P215/70R15 97S ; Manufacturer: Firestone

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

Treadwear: 480 ; Traction: A ; Temperature: B

VEHICLE CAPACITY DATA:

Number of Occupants: 3 Front; - Rear; 0 3rd Seat; 3 Total

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

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

Vehicle Max Capacity Loading = 521 kg (A)

No. of Occupants x 68.04 kg. = 204.12 kg (B)

Vehicle Cargo Capacity = 316.88 kg (A-B) (136.1 kg Maximum)

TEST VEHICLE DELIVERED WEIGHT WITH MAXIMUM FLUIDS:

Left Front = 411.0 kg Left Rear = 339.0 kg

Right Front = 396.0 kg Right Rear = 324.0 kg

TOTAL FRONT = 807.0 kg TOTAL REAR = 663.0 kg

% of Total Weight = 54.9% % % of Total Weight = 45.1 %

TOTAL WEIGHT = 1470.0 kg

* Tire pressure used in test.

DATA SHEET 1 (continued)

GENERAL TEST VEHICLE PARAMETER DATA

Vehicle: 2005 Toyota Tacoma Pickup

NHTSA No. M55107

CALCULATION OF VEHICLE'S TARGET TEST WEIGHT:

Total Test Vehicle Delivered Weight with Max. Fluids	=	<u>1470.0</u>	kg (A)
Maximum Cargo Carrying Capacity of Test Vehicle	=	<u>136.1</u>	kg (B)
Weight of instrumented SID H3 Dummy (1 X 81.2 kg)	=	<u>81.2</u>	kg (C)
TEST VEHICLE TARGET WEIGHT:	=	<u>1687.3</u>	kg (A+B+C)

FULLY LOADED TEST VEHICLE (UDVW + 1 SID H3 + CARGO):

Left Front	=	<u>448.0</u>	kg	Left Rear	=	<u>433.0</u>	kg
Right Front	=	<u>406.0</u>	kg	Right Rear	=	<u>402.0</u>	kg
TOTAL FRONT	=	<u>854.0</u>	kg	TOTAL REAR	=	<u>835.0</u>	kg
% of Total Weight	=	<u>50.6%</u>	%	% of Total Weight	=	<u>49.4%</u>	%
TOTAL TEST WEIGHT =		<u>1689.0</u>	kg				

AS TESTED WEIGHT OF TEST VEHICLE (1 SID H3 + CARGO + EQUIPMENT & INSTRUMENTATION):

Left Front	=	<u>446.0</u>	kg	Left Rear	=	<u>419.0</u>	kg
Right Front	=	<u>421.0</u>	kg	Right Rear	=	<u>393.0</u>	kg
TOTAL FRONT	=	<u>867.0</u>	kg	TOTAL REAR	=	<u>812.0</u>	kg
% of Total Weight	=	<u>51.6%</u>	%	% of Total Weight	=	<u>48.4%</u>	%
TOTAL TEST WEIGHT =		<u>1679.0</u>	kg				

TEST VEHICLE ATTITUDE (all dimensions in millimeters):

AS DELIVERED:

Left Front	<u>805</u>	Right Front	<u>812</u>	Left Rear	<u>848</u>	Right Rear	<u>854</u>
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FULLY LOADED:

Left Front	<u>791</u>	Right Front	<u>805</u>	Left Rear	<u>810</u>	Right Rear	<u>822</u>
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READY FOR TEST:

Left Front	<u>791</u>	Right Front	<u>805</u>	Left Rear	<u>820</u>	Right Rear	<u>825</u>
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Test Vehicle Wheelbase: 2776 millimeters

C.G. = 1342.53 millimeters rearward of front wheel centerline

TOTAL VEHICLE LENGTH:

Right Side =	<u>4830</u>	millimeters
Left Side =	<u>4831</u>	millimeters
Centerline =	<u>4840</u>	millimeters

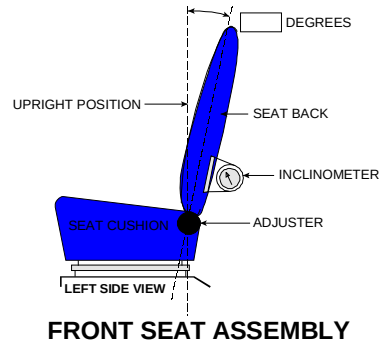
DATA SHEET 1 (continued)

GENERAL TEST VEHICLE PARAMETER DATA

Vehicle: 2005 Toyota Tacoma Pickup

NHTSA No. M55107

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: Detent 8 or 118 mm rear of full forward

Total Length of Adjustment Travel: 224 millimeters

Total Number of Adjustment Positions or Detents: Detents numbered 0 – 15, 16 total

FRONT SEAT BACK ADJUSTMENT POSITION: Fixed

Seat Back Torso Angle: N/A degrees

SECOND POSITION SEAT:

Total Length of Fore/Aft Adjustment Travel: - millimeters

Seat Back Adjustment Position: N/A

ADJUSTABLE STEERING COLUMN POSITION: Mid tilt (24.8°) and telescope (10 mm)

WINDOW POSITIONS: Left Front: Closed Left Rear: N/A

Right Front: Open Right Rear: N/A

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: This vehicle was not equipped with the automatic door locking feature

AMOUNT OF STODDARD SOLVENT IN FUEL TANK:

79.9 liters (Fuel Tank Usable Capacity)

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

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

Wheelbase = 2776 millimeters

Impact Point is 448 millimeters rearward of front axle centerline

(which is 940 millimeters forward of the wheelbase midpoint)

Actual Impact Point is 446 millimeters rearward of front axle centerline

DATA SHEET 2

TEST VEHICLE SUMMARY OF RESULTS

VEHICLE IDENTIFICATION:

Vehicle Year/Make/Model: 2005 Toyota Tacoma

Body Style: Pickup

VIN: 5TENX22N05Z013716

NHTSA No.: M55107

Test Date: February 15, 2005

Overall Length = 4840 millimeters; Overall Width = 1808 millimeters

VEHICLE TEST WEIGHT (Pre-Test):

Left Front = 446.0 kg Left Rear = 419.0 kg

Right Front = 421.0 kg Right Rear = 393.0 kg

TOTAL FRONT = 867.0 kg TOTAL REAR = 812.0 kg

TOTAL VEHICLE WEIGHT 1679.0 kg

Wheelbase = 2776 millimeters

Longitudinal C.G. from Center of Front Axle = 1342.53 millimeters

Impact Angle with Respect to Impactor = 90 degrees

ACTUAL IMPACT POINT

Actual Impact Point is 2 mm forward of nominal impact ref. line (Lateral)

Actual Impact Point is 10 mm below nominal impact point (Vertical)

MAXIMUM EXTERIOR STATIC CRUSH:

1. LEVEL 1 (367 mm above ground) = 155 millimeters

2. LEVEL 2 (687 mm above ground) = 195 millimeters

3. LEVEL 3 (736 mm above ground) = 181 millimeters

4. LEVEL 4 (1020 mm above ground) = 65 millimeters

5. LEVEL 5 (1552 mm above ground) = -1 millimeters

Maximum Post-Test Intrusion = 195 millimeters

OCCUPANT:

Front Passenger:

Dummy Identification SID H3/269

Restraints Used Three-point safety belt with torso belt pretensioner and force limiter.

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 Toyota Tacoma Pickup

NHTSA No. M55107

MDB FACE MANUFACTURER AND SERIAL NUMBER:

Plascore, Inc. 012A0604-4 049A0504

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>61.64</u>	kph				

MAXIMUM STATIC CRUSH OF HONEYCOMB IMPACT FACE:

1. Row A at Center of Bumper Level	=	<u>102</u>	millimeters
2. Row B at Top of Bumper Level	=	<u>91</u>	millimeters
3. Row C at Mid Level	=	<u>121</u>	millimeters
4. Row D at Top of Stack Level	=	<u>135</u>	millimeters

INSTRUMENTATION:

Number of MDB Data Channels	=	<u>5</u>
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DATA SHEET 4**POST-TEST OBSERVATIONS**Vehicle: 2005 Toyota Tacoma PickupNHTSA No. M55107TEST DUMMY INFORMATION AND CONTACT POINTS:

DESCRIPTION	FRONT SEAT
ATD Type/Serial No.	SID H3/269
Head Contact:	The top of the head to the side header
Upper Torso Contact:	Door trim panel
Lower Torso Contact:	Door trim panel
Left Knee Contact:	Door trim panel
Right Knee Contact:	Left Knee

POST TEST DOOR OPENING AND SEAT TRACK INFORMATION

DESCRIPTION	FRONT
Left Side Doors	Closed, latched and inoperable
Right Side Doors	Closed, latched and operable without the use of tools
Hatch/Other Door	Not Applicable
Seat Movement (mm)	0
Seat Back Failure	None

POST TEST STRUCTURAL OBSERVATIONS

CRITICAL AREAS OF PERFORMANCE	
Pillar Performance	The A- and B- pillars were moved inboard during the event with no visible tears or separations.
Sill Separation	None
Windshield Damage	None
Window Damage	None
Other Notable Effects	The secondary impact point showed the point to be 10 mm forward and 7 mm below

AIR BAG DEPLOYMENT STATUS:

	DRIVER	FRONT PASSENGER
Front Air Bag	Yes	Yes
Knee Bolster Bag	N/A	N/A
Side Air Bag	N/A	N/A
Side Curtain Bag	N/A	N/A

MDB LEFT EDGE IMPACT DATA

Measured Parameter	Units	Requirement	Value
Horizontal Offset	mm	± 50 mm	2 mm forward
Vertical Offset	mm	± 20 mm	10 mm below

SECTION 4

OCCUPANT AND VEHICLE INFORMATION

DATA SHEET 5

SID H3 INSTRUMENTATION DATA

Vehicle: 2005 Toyota Tacoma Pickup

NHTSA No. M55107

		Front Dummy ID# 269			
		Pos. Direction		Neg. Direction	
		Max (g)	Time (msec)	Max (g)	Time (msec)
HEAD ACCELERATIONS:					
Longitudinal	X	6.2	199.9	-9.7	61.8
Lateral	Y	31.5	84.9	-19.7	193.8
Vertical	Z	36.6	65.1	-3.4	26.3
Resultant	R	39.2	65.1	0.0	-6.6
HIC		208.5			
NECK FORCES:					
Longitudinal	X	111.0	199.9	-372.9	61.5
Lateral	Y	856.5	89.0	-357.3	43.7
Vertical	Z	1481.6	65.0	-306.4	55.0
Resultant	R	1558.4	65.0	0.1	-0.5
NECK MOMENTS:					
X		61.2	94.9	-61.5	52.0
Y		14.6	93.9	-24.9	53.1
Z		21.4	89.1	-6.3	49.3
Resultant	R	65.9	52.1	0.0	-16.0
RIB ACCELERATIONS:					
Upper Rib Lateral	Y	49.5	56.9	-6.3	18.1
Upper Rib Lateral	Y(R)	49.9	56.9	-6.0	18.1
Lower Rib Lateral	Y	44.8	43.1	-8.6	20.6
Lower Rib Lateral	Y(R)	44.2	43.1	-8.5	20.6
SPINE ACCELERATIONS:					
Lower Lateral	Y	46.5	40.0	-5.1	69.3
Lower Lateral	Y(R)	46.4	40.0	-4.9	69.3
PELVIC ACCELERATIONS:					
Lateral	Y	73.5	35.6	-22.1	61.2
Lateral	Y(R)	72.9	35.6	-21.6	61.2

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.

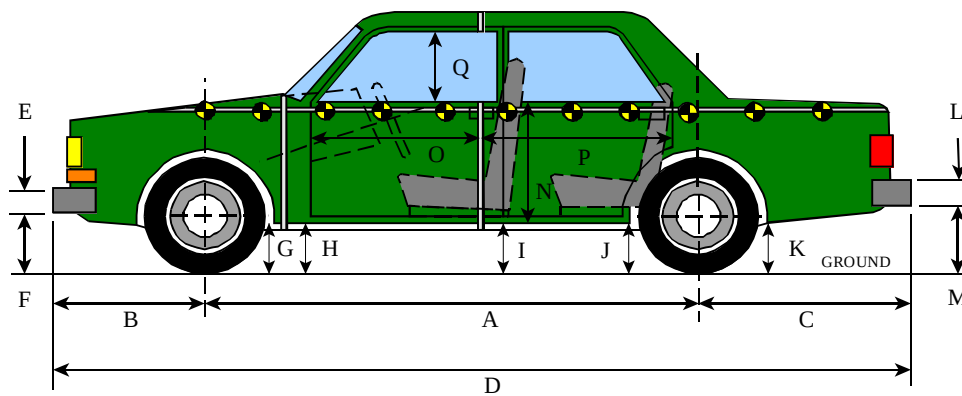
Head Accelerations and Neck Forces are filtered at SAE Class 1000, Neck Moments are filtered at SAE Class 600.

DATA SHEET 6

VEHICLE SIDE MEASUREMENTS

Vehicle: 2005 Toyota Tacoma Pickup

NHTSA No. M55107



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	2777	2776	2780	4
B	845	-	833	-12
C	1218	-	1222	4
D	4840	-	4835	-5
E	370	-	370	0
F	330	330	353	23
G	350	317	303	-14
H	357	320	282	-38
I	372	324	317	-7
J1	366	337	366	29
J2	366	337	318	-19
K	391	346	361	15
L	224	-	225	1
M	416	380	386	6
N	712	-	709	-3
O	724	-	719	-5
P	453	-	445	-8
Q	460	-	448	-12
R	4830	-	4835	5
S	4831	-	4825	-6
T	1808	-	1758	-50

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

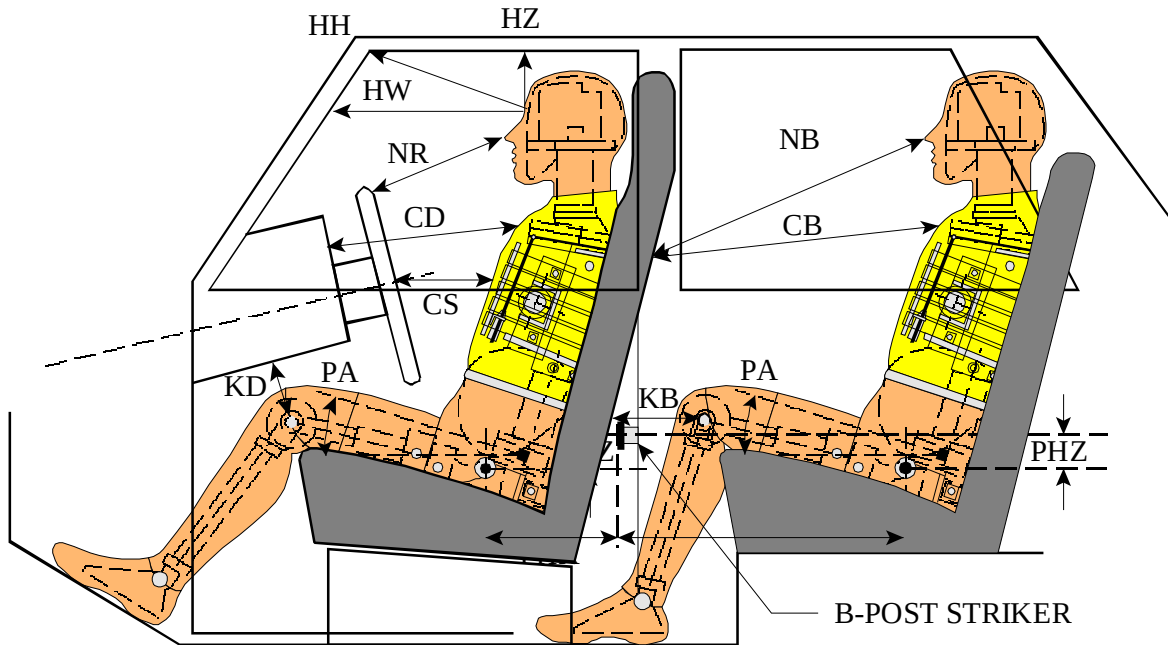
J2 = To Sill

DATA SHEET 7

SID H3 LONGITUDINAL CLEARANCE DIMENSIONS

Vehicle: 2005 Toyota Tacoma Pickup

NHTSA No. M55107



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	
HH	480
HW	678
HZ	197
NR/NB	499
CD/CB	573
CS	338
KDL(KDA°)/KBL(KDA°)	184 / (25 °)
KDR(KBA°)/KBR(KBA°)	202 / (45 °)
PA°	23.1 °
PHX	285
PHZ	157

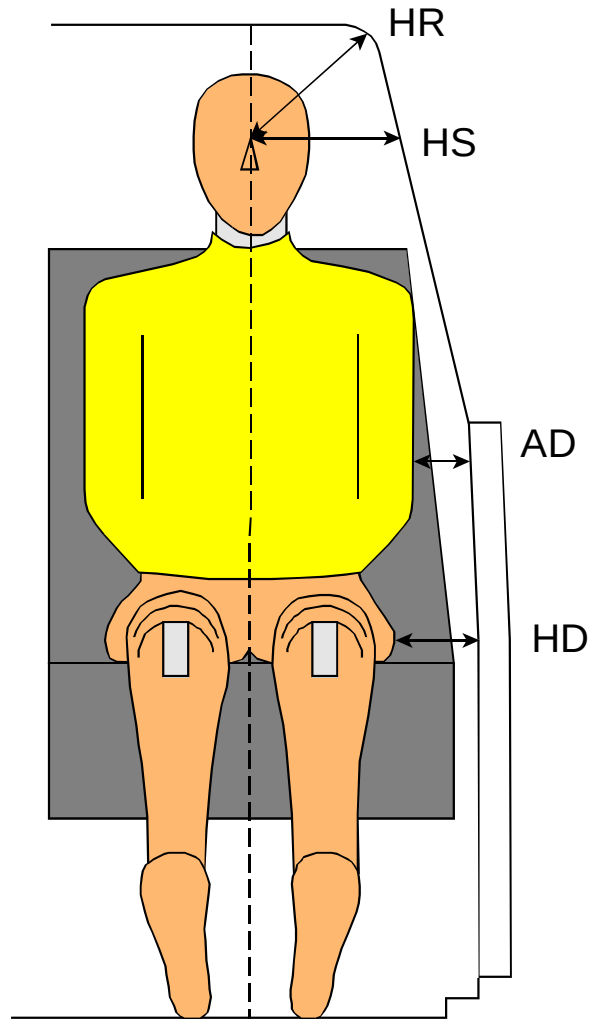
Note: 2-door vehicle shown. Rear dummy PHX & PHZ measurements for 4-door vehicle would use the C-post striker as a reference point.

DATA SHEET 8

SID H3 LATERAL CLEARANCE DIMENSIONS

Vehicle: 2005 Toyota Tacoma Pickup

NHTSA No. M55107



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

DRIVER ID # 269				
HR	220			
HS	342			
AD*	LOWER:	133	UPPER:	115
HD	145			

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

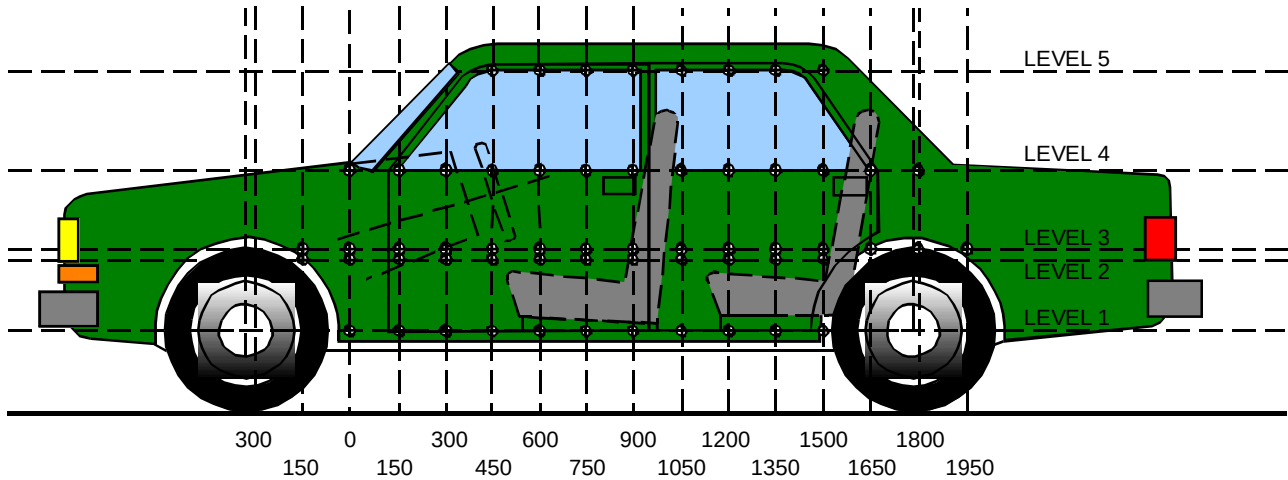
Upper measurement is taken laterally at the center of the upper rib accelerometer height from the SID H3 arm segment to the closest part of the vehicle side.

DATA SHEET 9

VEHICLE SIDE MEASUREMENTS

Vehicle: 2005 Toyota Tacoma Pickup

NHTSA No. M55107



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:

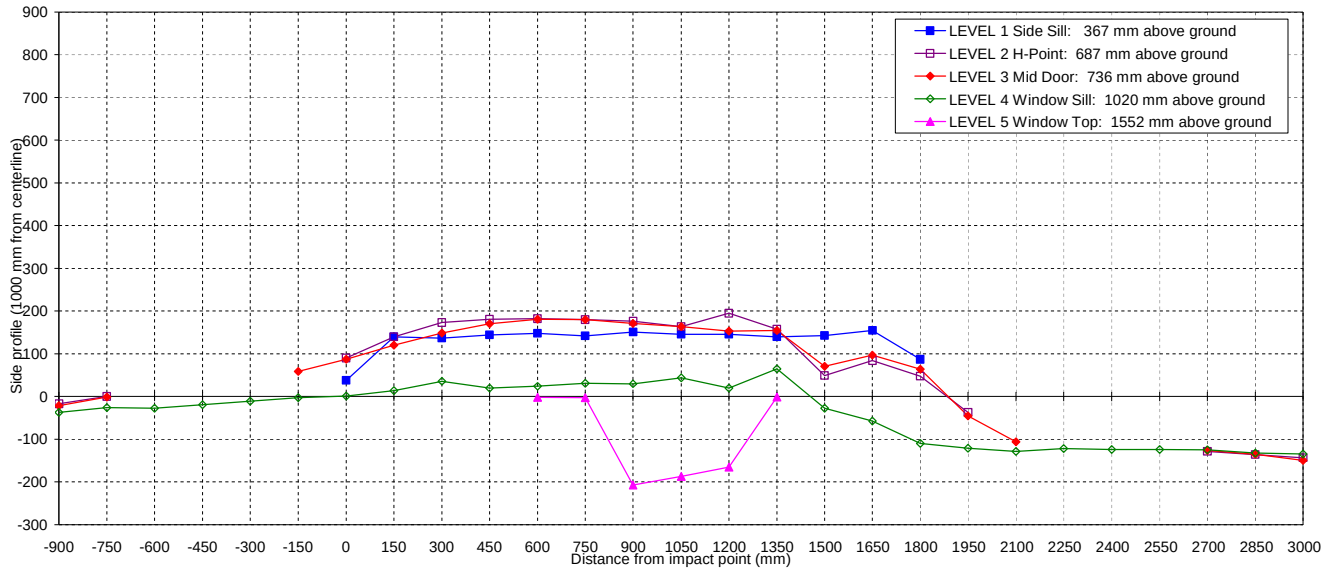
Level 5 @ Window Top	=	<u>1552</u>	millimeters
Level 4 @ Window Sill	=	<u>1020</u>	millimeters
Level 3 @ Mid Door	=	<u>736</u>	millimeters
Level 2 @ Occupant H-Point	=	<u>687</u>	millimeters
Level 1 @ Axle Centerline Height (or Sill Top Height)	=	<u>367</u>	millimeters

DATA SHEET 10

VEHICLE EXTERIOR CRUSH PROFILES - ALL LEVELS

Vehicle: 2005 Toyota Tacoma Pickup

NHTSA No. M55107



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

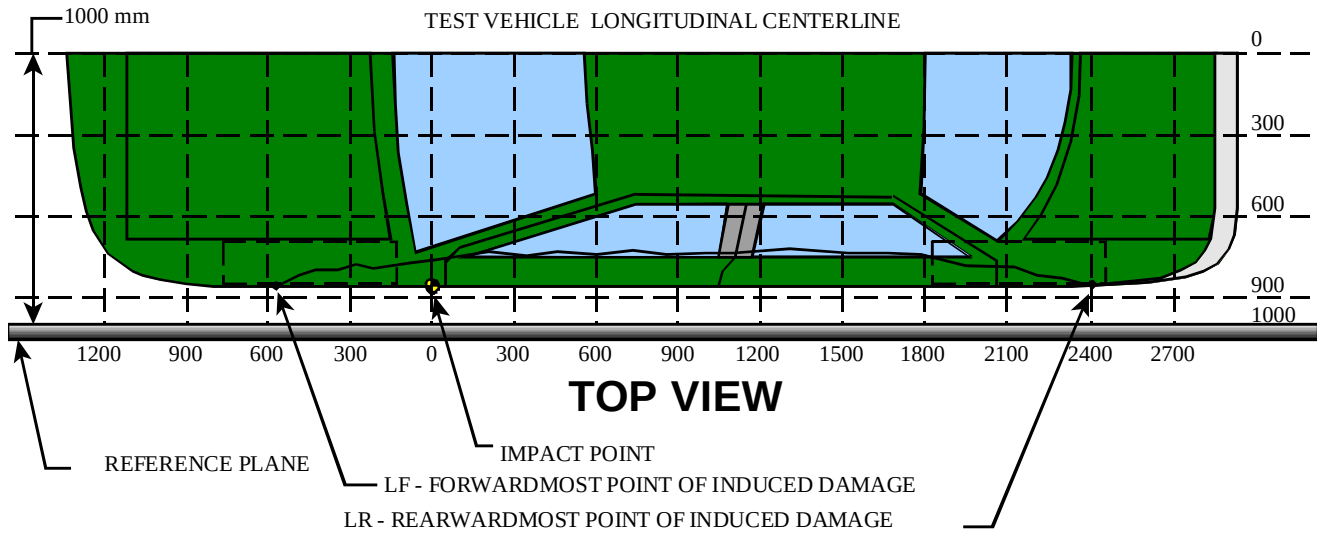
			DISTANCE IN MILLIMETERS (mm) FROM IMPACT POINT																											
LEVEL	HEIGHT (mm)		-900	-750	-600	-450	-300	-150	0	150	300	450	600	750	900	1050	1200	1350	1500	1650	1800	1950	2100	2250	2400	2550	2700	2850	3000	
LEVEL 1 SIDE SILL	367	PRE	--	--	--	--	--	--	179	181	201	197	193	189	185	182	181	180	195	172	147	--	--	--	--	--	--	--	--	--
		POST	--	--	--	--	--	--	217	321	338	341	341	331	336	328	327	320	338	327	234	--	--	--	--	--	--	--	--	--
		CRUSH	N/A	N/A	N/A	N/A	N/A	N/A	38	140	137	144	148	142	151	146	146	140	143	155	87	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
LEVEL 2 H POINT	687	PRE	168	143	--	--	--	--	121	135	140	138	134	131	122	121	96	110	141	135	101	87	--	--	--	--	--	83	93	106
		POST	151	143	--	--	--	--	211	275	313	319	316	311	298	285	291	268	190	219	149	50	--	--	--	--	-45	-43	-37	
		CRUSH	-17	0	N/A	N/A	N/A	N/A	90	140	173	181	182	180	176	164	195	158	49	84	48	-37	N/A	N/A	N/A	N/A	N/A	-128	-136	-143
LEVEL 3 MID DOOR	736	PRE	188	145	--	--	--	120	118	137	139	137	131	125	121	120	120	115	139	131	103	85	91	--	--	--	80	93	108	
		POST	167	144	--	--	--	179	205	257	288	307	312	305	292	284	273	270	210	228	167	40	-15	--	--	--	-46	-42	-41	
		CRUSH	-21	-1	N/A	N/A	N/A	59	87	120	149	170	181	180	171	164	153	155	71	97	64	-45	-106	N/A	N/A	N/A	-126	-135	-149	
LEVEL 4 WINDOW SILL	1020	PRE	291	249	226	206	191	183	177	171	165	158	154	147	143	139	138	133	148	148	145	144	141	136	137	133	131	137	139	
		POST	254	223	199	187	180	180	178	185	201	178	178	178	173	183	158	198	121	91	35	23	13	14	13	9	6	5	5	
		CRUSH	-37	-26	-27	-19	-11	-3	1	14	36	20	24	31	30	44	20	65	-27	-57	-110	-121	-128	-122	-124	-124	-125	-132	-134	
LEVEL 5 WINDOW TOP	1552	PRE	--	--	--	--	--	--	--	--	--	--	617	363	348	341	336	336	--	--	--	--	--	--	--	--	--	--	--	
		POST	--	--	--	--	--	--	--	--	--	--	--	615	360	141	154	171	335	--	--	--	--	--	--	--	--	--	--	
		CRUSH	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-2	-3	-207	-187	-165	-1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

DATA SHEET 11

VEHICLE DAMAGE PROFILE DISTANCES

Vehicle: 2005 Toyota Tacoma Pickup

NHTSA No. M55107



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.

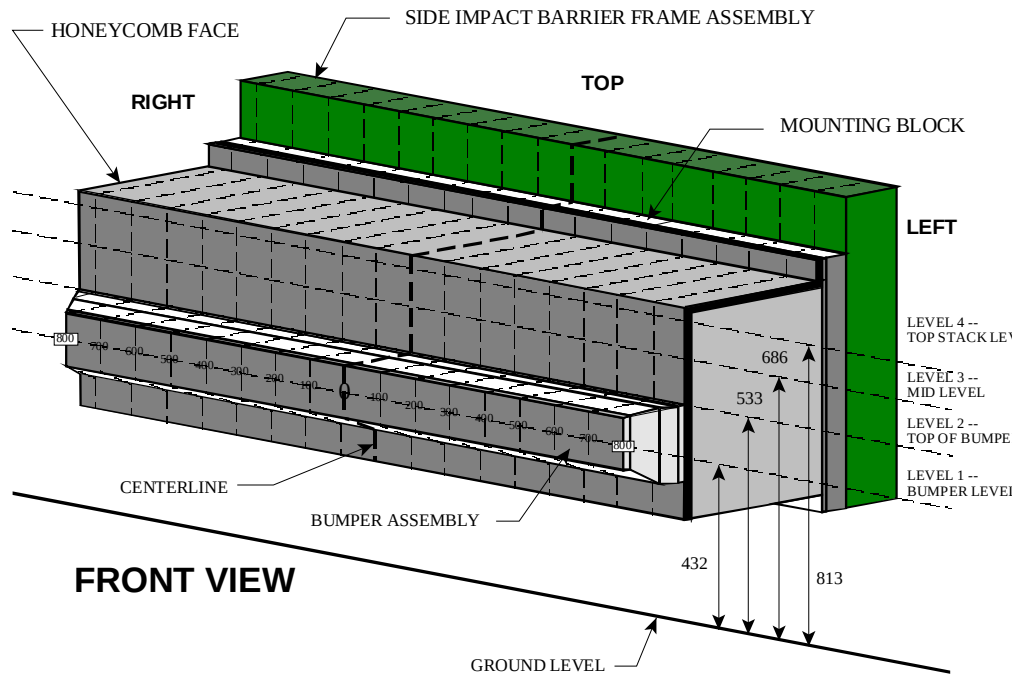
DPD MEASUREMENTS (mm)		POST TEST (mm)	PRETEST (mm)	STATIC CRUSH (mm)
1 (LR)	2400	13	137	-124
2	1888	92	92	0
3	1376	260	119	141
4	864	301	124	177
5	352	315	139	176
6 (LF)	-160	180	184	-4

DATA SHEET 12

EXTERIOR STATIC CRUSH FOR IMPACTOR FACE

Vehicle: 2005 Toyota Tacoma Pickup

NHTSA No. M55107



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	754	720	731	710	686	678	663	654	652	651	652	650	652	662	686	712	746	
		CRUSH	135	101	112	91	67	59	44	35	33	32	33	31	33	43	67	93	127	
LEVEL 3 MID LEVEL	686	PRE	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	
		POST	725	733	740	698	666	646	638	632	627	624	624	626	628	633	642	654	678	
		CRUSH	106	114	121	79	47	27	19	13	8	5	5	7	9	14	23	35	59	
LEVEL 2 TOP BUMPER	533	PRE	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	
		POST	699	692	690	692	695	695	692	689	684	681	685	685	685	687	690	699	710	
		CRUSH	80	73	71	73	76	76	73	70	65	62	66	66	66	68	71	80	91	
LEVEL 1 MID BUMPER	432	PRE	535	519	518	518	518	518	518	518	518	518	518	518	518	518	518	519	535	
		POST	610	597	593	605	609	603	602	599	595	593	594	593	594	596	601	614	637	
		CRUSH	75	78	75	87	91	85	84	81	77	75	76	75	76	78	83	95	102	

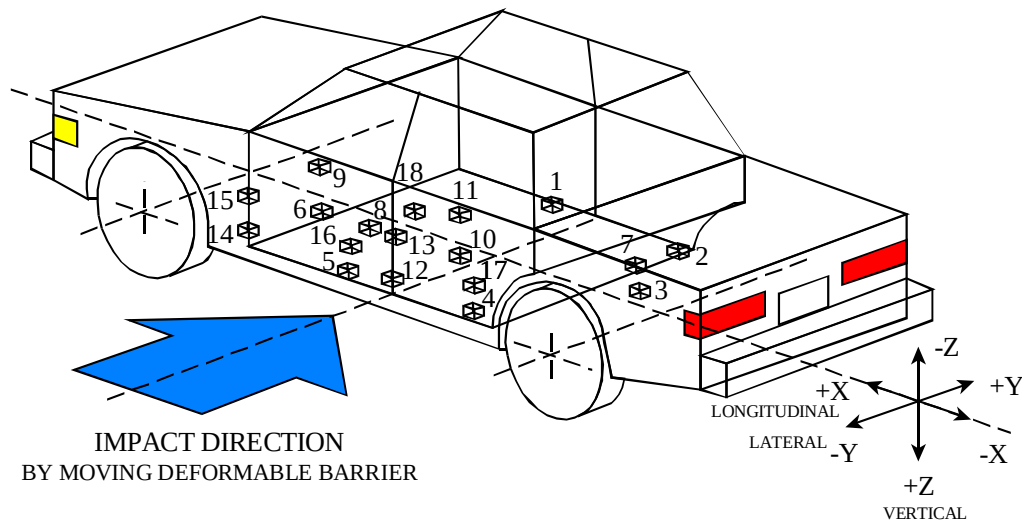
*Heights measured above ground level.

DATA SHEET 13

TEST VEHICLE ACCELEROMETER LOCATIONS AND DATA SUMMARY

Vehicle: 2005 Toyota Tacoma Pickup

NHTSA No. M55107



- 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 Toyota Tacoma Pickup

NHTSA No. M55107

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	3280	719	-454	pos. neg.	§ §	§ §	§ §	§ §	§ §	§ §	§ §	§ §
2	Right Side Sill at Rear Seat	2442	745	-480	pos. neg.	18.6 -20.4	37.2 19.8	61.4 -20.5	10.1 55.7	20.4 -21.7	14.9 19.1	64.4 0.0	9.9 -14.5
3	Rear Floorpan Above Axle	1527	-2	-678	pos. neg.	3.1 -13.3	100.6 21.6	28.0 -5.9	18.5 127.5	13.0 -15.6	51.2 41.9	28.7 0.0	21.0 -0.4
4	Left Side Sill at Rear Seat	2377	-684	-460	pos. neg.	- -	- -	260.2 -185.6	7.5 13.1	- -	- -	- -	- -
5	Left Side Sill at Front Seat	3287	-655	-431	pos. neg.	- -	- -	166.8 -374.4	11.1 17.6	- -	- -	- -	- -
6	Left Front Door on Centerline	2967	-741	-864	pos. neg.	- -	- -	118.5 -96.0	22.7 27.3	- -	- -	- -	- -
7	Right Rear Occupant Compartment	3069	475	-418	pos. neg.	- -	- -	9.4 -9.6	14.1 33.2	- -	- -	- -	- -
8	Midrear of Left Front Door	2707	-751	-962	pos. neg.	- -	- -	129.7 -148.4	27.0 33.4	- -	- -	- -	- -
9	Left Front Door Upper Centerline	2818	-736	-1061	pos. neg.	- -	- -	132.0 -113.7	19.9 36.0	- -	- -	- -	- -
10	Midrear of Left Rear Door	-	-	-	Pos. neg.	- -	- -	- -	- -	- -	- -	- -	- -
11	Left Rear Door Upper Centerline	-	-	-	pos. neg.	- -	- -	- -	- -	- -	- -	- -	- -

*Reference: X - Rear Bumper (+ Forward)

Y - Vehicle Centerline (+ To Right) Z - Ground Level (+ Down)

**Accelerometer was not requested by COTR.

§ - Data is questionable after 30 ms

4-11

8765-SNCAP-10

DATA SHEET 13 (continued)

VEHICLE ACCELEROMETER LOCATIONS AND DATA SUMMARY

Vehicle: 2005 Toyota Tacoma Pickup

NHTSA No. M55107

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	2404	-690	-460	pos.	-	-	284.3	6.6	-	-	-	-
					neg.	-	-	-156.4	13.3	-	-	-	-
13	Left Middle B-Pillar	2174	-674	-1202	pos.	-	-	91.2	14.4	-	-	-	-
					neg.	-	-	-101.7	18.4	-	-	-	-
14	Left Lower A-Pillar	3411	-652	-465	pos.	-	-	122.1	11.0	-	-	-	-
					neg.	-	-	-234.5	15.4	-	-	-	-
15	Left Middle A-Pillar	3338	-664	-1133	pos.	-	-	36.3	11.4	-	-	-	-
					neg.	-	-	-11.6	57.4	-	-	-	-
16	Front Seat Track	2406	-541	-439	pos.	-	-	45.1	19.7	-	-	-	-
					neg.	-	-	-11.6	50.2	-	-	-	-
17	Rear Seat Track	-	-	-	pos.	-	-	-	-	-	-	-	-
					neg.	-	-	-	-	-	-	-	-
18	Vehicle CG	2905	40	-579	pos.	24.2	16.3	51.4	7.7	38.5	16.0	73.1	9.4
					neg.	-29.0	10.1	-8.7	51.5	-55.9	9.8	0.0	-14.1

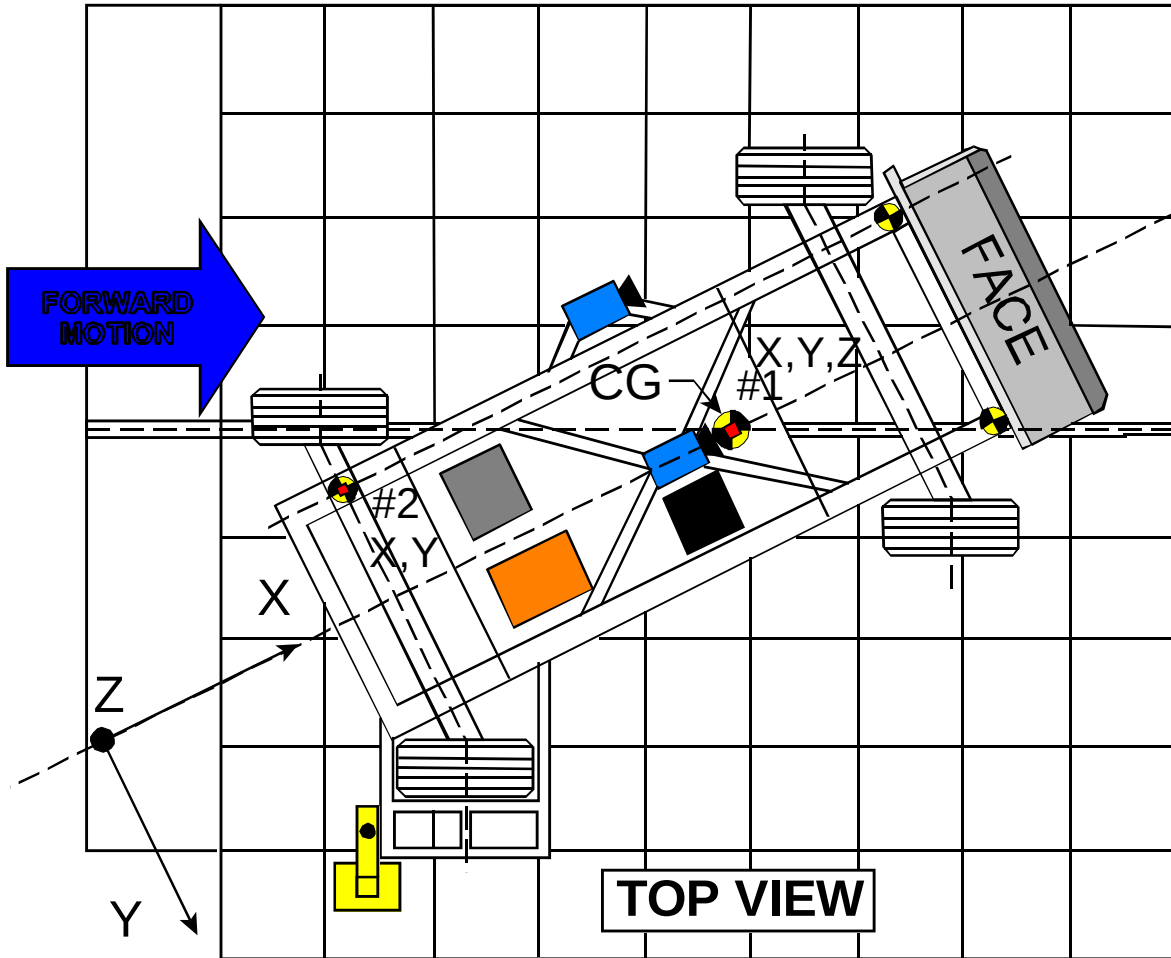
*Reference: X - Rear Bumper (+ Forward) Y - Vehicle Centerline (+ To Right) Z - Ground Level (+ Down)

DATA SHEET 14

MDB ACCELEROMETER LOCATIONS AND DATA SUMMARY

Vehicle: 2005 Toyota Tacoma Pickup

NHTSA No. M55107



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	1.5	106.3	-21.3	45.8
	Lateral..... Y				1.0	67.2	-8.5	33.5
	Vertical..... Z				13.1	15.1	-11.4	63.4
	Resultant..... R				24.0	36.7	0.1	-2.7
2	Rear Frame Member							
	Longitudinal... X	386	-660	-660	2.0	101.5	-24.5	34.2
	Lateral..... Y				3.4	38.7	-1.7	152.4

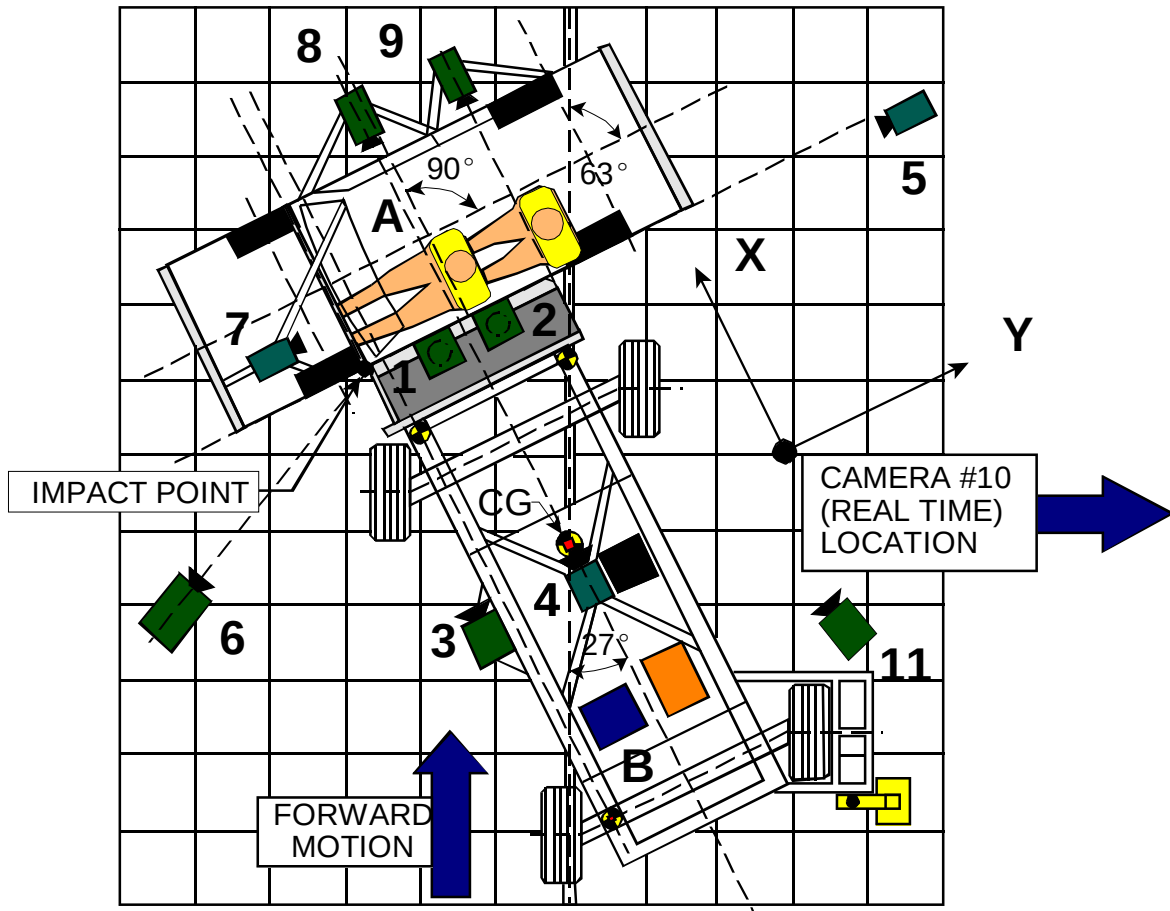
*Reference: X = Rear Bumper (+ Forward)
Y = Vehicle Centerline (+ To Right)
Z = Ground Level (+ Down)
All measurements accurate to within ± 3 mm.

DATA SHEET 15

HIGH SPEED CAMERA LOCATIONS AND DATA SUMMARY

Vehicle: 2005 Toyota Tacoma Pickup

NHTSA No. M55107



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	14	500
2	Overhead closeup view of impact plane	195	855	-4880	-90	24	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	1	10460	-1208	-5	50	500
6	Left side ground level overall view	-2495	1383	-1030	-5	24	500
7	Test vehicle onboard driver front view	437	394	-1461	-6	25	1000
8	Test vehicle onboard driver side view	1777	812	-1077	0	12.5	1000
9	Test vehicle onboard passenger side view	-	-	-	-	-	1000
10	Real time film coverage of test	-	-	-	-	-	30
11	Secondary impact point view	3740	4350	-1074	-3	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

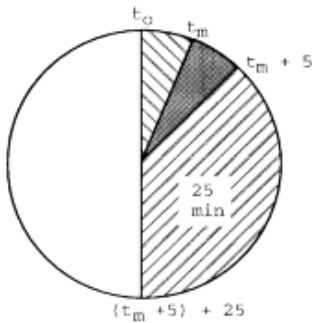
SECTION 5

FUEL SYSTEM INTEGRITY

FMVSS 301 FUEL SYSTEM INTEGRITY DATA

- 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:

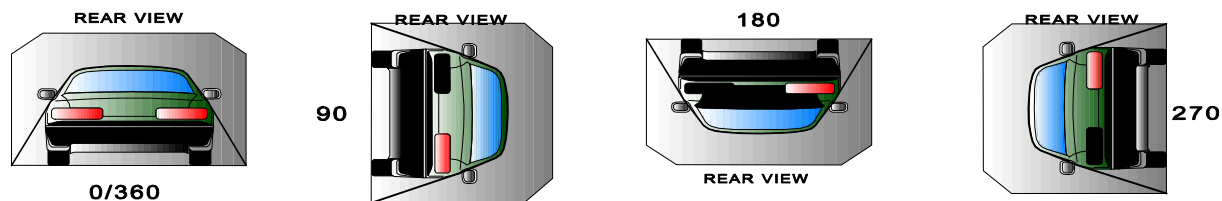
None

DATA SHEET 17

ROLLOVER DATA

Vehicle: 2005 Toyota Tacoma Pickup

NHTSA No.: M55107



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	12	seconds	5	minutes	6	minutes	12	seconds	7	minutes
90° - 180°	1	minutes	07	seconds	5	minutes	6	minutes	7	seconds	7	minutes
180°-270°	1	minutes	03	seconds	5	minutes	6	minutes	3	seconds	7	minutes
270°-360°	1	minutes	10	seconds	5	minutes	6	minutes	10	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

<u>Figure</u>	<u>Photograph Title</u>	<u>Page</u>
Figure A- 1	PRE-TEST FRONTAL VIEW OF TEST VEHICLE	A- 3
Figure A- 2	POST-TEST FRONTAL VIEW OF TEST VEHICLE	A- 4
Figure A- 3	PRE-TEST REAR VIEW OF TEST VEHICLE	A- 5
Figure A- 4	POST-TEST REAR VIEW OF TEST VEHICLE	A- 6
Figure A- 5	PRE-TEST IMPACTED SIDE VIEW OF TEST VEHICLE	A- 7
Figure A- 6	POST-TEST IMPACTED SIDE VIEW OF TEST VEHICLE	A- 8
Figure A- 7	PRE-TEST LEFT FRONT VIEW OF TEST VEHICLE	A- 9
Figure A- 8	POST-TEST LEFT FRONT VIEW OF TEST VEHICLE	A- 10
Figure A- 9	PRE-TEST LEFT REAR VIEW OF TEST VEHICLE	A- 11
Figure A- 10	POST-TEST LEFT REAR VIEW OF TEST VEHICLE	A- 12
Figure A- 11	PRE-TEST RIGHT FRONT VIEW OF TEST VEHICLE	A- 13
Figure A- 12	POST-TEST RIGHT FRONT VIEW OF TEST VEHICLE	A- 14
Figure A- 13	PRE-TEST RIGHT REAR VIEW OF TEST VEHICLE	A- 15
Figure A- 14	POST-TEST RIGHT REAR VIEW OF TEST VEHICLE	A- 16
Figure A- 15	PRE-TEST FRONTAL VIEW OF IMPACTOR FACE	A- 17
Figure A- 16	POST-TEST FRONTAL VIEW OF IMPACTOR FACE	A- 18
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
Figure A- 19	PRE-TEST RIGHT SIDE VIEW OF IMPACTOR FACE	A- 21
Figure A- 20	POST-TEST RIGHT SIDE VIEW OF IMPACTOR FACE	A- 22
Figure A- 21	PRE-TEST TOP VIEW OF IMPACTOR FACE	A- 23
Figure A- 22	POST-TEST TOP VIEW OF IMPACTOR FACE	A- 24
Figure A- 23	PRE-TEST OVERHEAD VIEW OF ALIGNED MDB AND VEHICLE	A- 25
Figure A- 24	POST-TEST OVERHEAD VIEW OF MDB AND VEHICLE	A- 26
Figure A- 25	PRE-TEST RIGHT OCCUPANT COMPARTMENT VIEW OF FRONT SID H3	A- 27
Figure A- 26	POST-TEST RIGHT OCCUPANT COMPARTMENT VIEW OF FRONT SID H3	A- 28
Figure A- 27	PRE-TEST LEFT OCCUPANT COMPARTMENT VIEW OF FRONT SID H3	A- 29
Figure A- 28	POST-TEST LEFT OCCUPANT COMPARTMENT VIEW OF FRONT SID H3	A- 30
Figure A- 29	PRE-TEST INTERIOR OF FRONT DOOR	A- 31
Figure A- 30	POST-TEST INTERIOR OF FRONT DOOR SHOWING SID H3 IMPACT LOCATIONS	A- 32
Figure A- 31	PRE-TEST LEFT SIDE VIEW OF MDB WITH IMPACTOR FACE IN POSITION	A- 33
Figure A- 32	PRE-TEST RIGHT SIDE VIEW OF MDB WITH IMPACTOR FACE IN POSITION	A- 34
Figure A- 33	POST-TEST CLOSE-UP VIEW OF IMPACT POINT TARGET	A- 35
Figure A- 34	CLOSE-UP VIEW OF VEHICLE'S CERTIFICATION LABEL	A- 36
Figure A- 35	CLOSE-UP VIEW OF VEHICLE'S TIRE PLACARD LABEL	A- 37
Figure A- 36	IMPACT PHOTO	A- 38
Figure A- 37	ROLLOVER 90 DEGREES	A- 39
Figure A- 38	ROLLOVER 180 DEGREES	A- 40
Figure A- 39	ROLLOVER 270 DEGREES	A- 41
Figure A- 40	ROLLOVER 360 DEGREES	A- 42



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

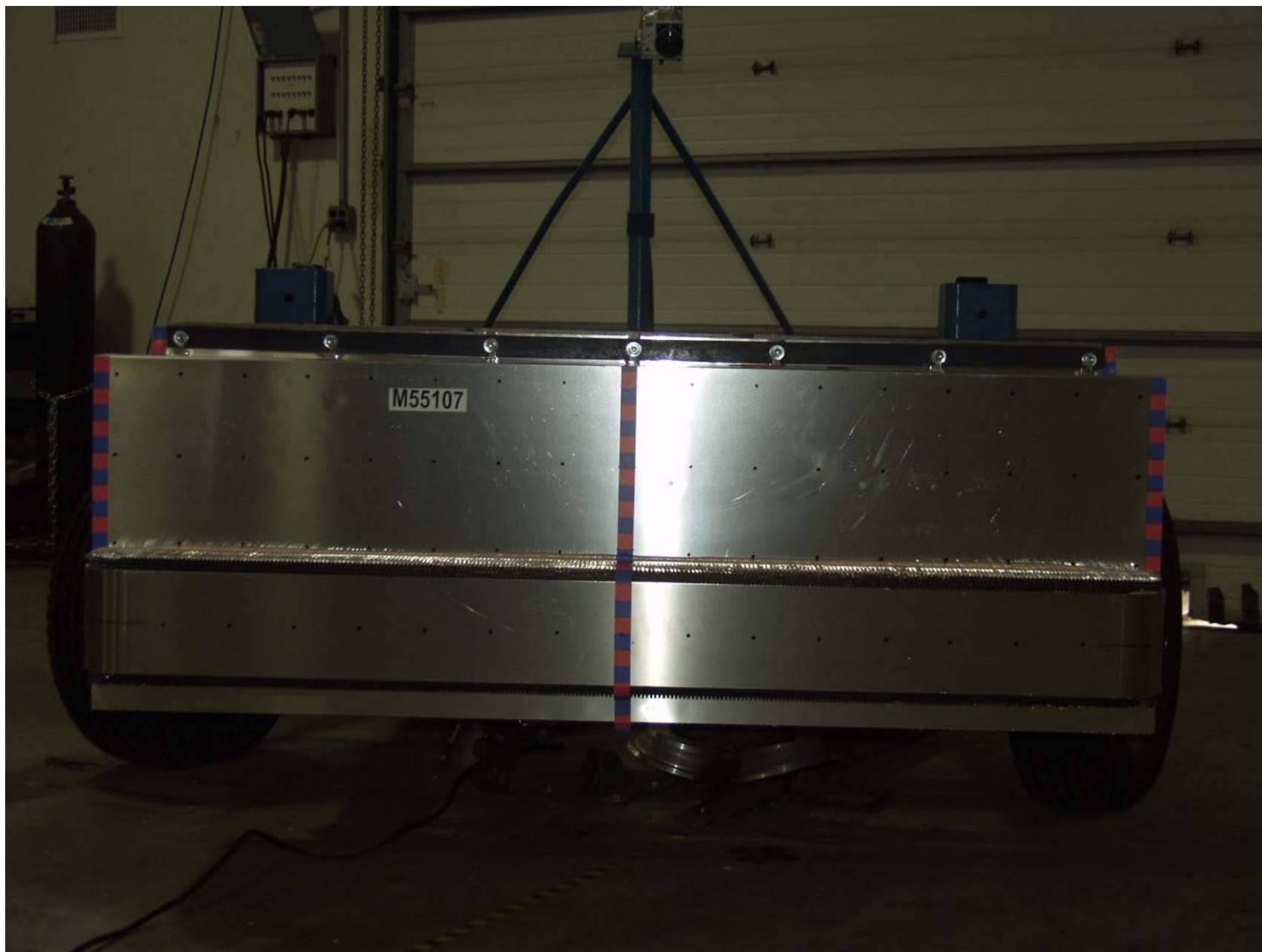


Figure A-15 PRE-TEST FRONTAL VIEW OF IMPACTOR FACE



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 LEFT OCCUPANT COMPARTMENT VIEW OF FRONT SID H3



Figure A-28 POST-TEST LEFT OCCUPANT COMPARTMENT VIEW OF FRONT SID H3



Figure A-29 PRE-TEST INTERIOR OF FRONT DOOR



Figure A-30 POST-TEST INTERIOR OF FRONT DOOR SHOWING SID H3 IMPACT LOCATIONS



Figure A-31 PRE-TEST LEFT SIDE VIEW OF MDB WITH IMPACTOR FACE IN POSITION



Figure A-32 PRE-TEST RIGHT SIDE VIEW OF MDB WITH IMPACTOR FACE IN POSITION



Figure A-33 POST-TEST CLOSE-UP VIEW OF IMPACT POINT TARGET



Figure A-34 CLOSE-UP VIEW OF VEHICLE'S CERTIFICATION LABEL

CALIFORNIA, INC.
 2063 KG (4550LBS)
 OR15 TIRES
 SI) COLD
 OR15 TIRES
 SI) COLD
 E FEDERAL MOTOR
 STANDARDS IN
 N ABOVE.
 MADE IN U.S.A.
 NO. 2676



TIRE AND LOADING INFORMATION
 SEE OWNER'S MANUAL FOR ADDITIONAL INFORMATION
RENSEIGNEMENTS RELATIFS AUX PNEUS ET À LA CHARGE DU VÉHICULE
 CONSULTER LE GUIDE DU PROPRIÉTAIRE POUR DE PLUS AMPLES RENSEIGNEMENTS

SEATING CAPACITY	TOTAL	FRONT	REAR
NOMBRE DE PLACES	TOTAL: 3	AVANT: 3	ARRIÈRE: 0

The combined weight of occupants and cargo should never exceed 521 kg or 1149 lbs.
 La charge du véhicule (occupants et bagages) ne doit jamais dépasser 521 kg ou 1149 lbs.

ORIGINAL TIRE SIZE DIMENSIONS DES PNEUS D'ORIGINE		COLD TIRE INFLATION PRESSURE PRESSION DE GONFLAGE À FROID	
FRONT/AVANT	P215/70R15	FRONT/AVANT	29 PSI, 200 kPa
REAR/ARRIÈRE	P215/70R15	REAR/ARRIÈRE	32 PSI, 220 kPa
COMPACT SIZE SPARE TIRE DIMENSIONS DU PNEU DE SECOURS COMPACT		COLD TIRE INFLATION PRESSURE PRESSION DE GONFLAGE À FROID	
---/---/---		--- PSI, --- kPa	



2676

Figure A-35 CLOSE-UP VIEW OF VEHICLE'S TIRE PLACARD LABEL



Figure A-36 IMPACT PHOTO



Figure A-37 ROLLOVER 90 DEGREES



Figure A-38 ROLLOVER 180 DEGREES



Figure A-39 ROLLOVER 270 DEGREES



Figure A-40 ROLLOVER 360 DEGREES

APPENDIX B

VEHICLE, MDB AND SID HYBRID III RESPONSE DATA

TABLE OF DATA PLOTS

DRIVER 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

DRIVER DUMMY INSTRUMENTATION PLOTS

ACCELERATION DATA - FIR FILTERED

<u>Plot No.</u>	<u>Data Plot Title</u>	<u>Page</u>
24	DRIVER UPPER RIB (Y) ACCELERATION VS TIME	B- 29
25	DRIVER LOWER RIB (Y) ACCELERATION VS TIME	B- 30
26	DRIVER LOWER SPINE (Y) ACCELERATION VS TIME	B- 31
27	DRIVER PELVIC (Y) ACCELERATION VS TIME	B- 32

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>
28	RIGHT SIDE SILL AT FRONT SEAT (X) ACCELERATION VS TIME	B- 33
29	RIGHT SIDE SILL AT FRONT SEAT (X) VELOCITY VS TIME	B- 34
30	RIGHT SIDE SILL AT FRONT SEAT (Y) ACCELERATION VS TIME	B- 35
31	RIGHT SIDE SILL AT FRONT SEAT (Y) VELOCITY VS TIME	B- 36
32	RIGHT SIDE SILL AT FRONT SEAT (Z) ACCELERATION VS TIME	B- 37
33	RIGHT SIDE SILL AT FRONT SEAT (Z) VELOCITY VS TIME	B- 38
34	RIGHT SIDE SILL AT FRONT SEAT RESULTANT ACCELERATION VS TIME	B- 39
35	RIGHT SIDE SILL AT REAR SEAT (X) ACCELERATION VS TIME	B- 40
36	RIGHT SIDE SILL AT REAR SEAT (X) VELOCITY VS TIME	B- 41
37	RIGHT SIDE SILL AT REAR SEAT (Y) ACCELERATION VS TIME	B- 42
38	RIGHT SIDE SILL AT REAR SEAT (Y) VELOCITY VS TIME	B- 43
39	RIGHT SIDE SILL AT REAR SEAT (Z) ACCELERATION VS TIME	B- 44
40	RIGHT SIDE SILL AT REAR SEAT (Z) VELOCITY VS TIME	B- 45
41	RIGHT SIDE SILL AT REAR SEAT RESULTANT ACCELERATION VS TIME	B- 46
42	REAR FLOORPAN ABOVE AXLE (X) ACCELERATION VS TIME	B- 47
43	REAR FLOORPAN ABOVE AXLE (X) VELOCITY VS TIME	B- 48
44	REAR FLOORPAN ABOVE AXLE (Y) ACCELERATION VS TIME	B- 49
45	REAR FLOORPAN ABOVE AXLE (Y) VELOCITY VS TIME	B- 50
46	REAR FLOORPAN ABOVE AXLE (Z) ACCELERATION VS TIME	B- 51
47	REAR FLOORPAN ABOVE AXLE (Z) VELOCITY VS TIME	B- 52
48	REAR FLOORPAN ABOVE AXLE RESULTANT ACCELERATION VS TIME	B- 53
49	LEFT SIDE SILL AT REAR SEAT (Y) ACCELERATION VS TIME	B- 54
50	LEFT SIDE SILL AT REAR SEAT (Y) VELOCITY VS TIME	B- 55
51	LEFT SIDE SILL AT FRONT SEAT (Y) ACCELERATION VS TIME	B- 56
52	LEFT SIDE SILL AT FRONT SEAT (Y) VELOCITY VS TIME	B- 57
53	LEFT FRONT DOOR ON CENTERLINE (Y) ACCELERATION VS TIME	B- 58
54	LEFT FRONT DOOR ON CENTERLINE (Y) VELOCITY VS TIME	B- 59
55	RIGHT REAR OCCUPANT COMPARTMENT (Y) ACCELERATION VS TIME	B- 60
56	RIGHT REAR OCCUPANT COMPARTMENT (Y) VELOCITY VS TIME	B- 61
57	MID REAR OF LEFT FRONT DOOR (Y) ACCELERATION VS TIME	B- 62
58	MID REAR OF LEFT FRONT DOOR (Y) VELOCITY VS TIME	B- 63
59	LEFT FRONT DOOR UPPER CENTERLINE (Y) ACCELERATION VS TIME	B- 64
60	LEFT FRONT DOOR UPPER CENTERLINE (Y) VELOCITY VS TIME	B- 65
61	LOWER B-POST (Y) ACCELERATION VS TIME	B- 66
62	LOWER B-POST (Y) VELOCITY VS TIME	B- 67
63	UPPER B-POST (Y) ACCELERATION VS TIME	B- 68
64	UPPER B-POST (Y) VELOCITY VS TIME	B- 69
65	LOWER A-POST (Y) ACCELERATION VS TIME	B- 70

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>
66	LOWER A-POST (Y) VELOCITY VS TIME	B- 71
67	UPPER A-POST (Y) ACCELERATION VS TIME	B- 72
68	UPPER A-POST (Y) VELOCITY VS TIME	B- 73
69	FRONT SEAT TRACK (Y) ACCELERATION VS TIME	B- 74
70	FRONT SEAT TRACK (Y) VELOCITY VS TIME	B- 75
71	VEHICLE CENTER OF GRAVITY (X) ACCELERATION VS TIME	B- 76
72	VEHICLE CENTER OF GRAVITY (X) VELOCITY VS TIME	B- 77
73	VEHICLE CENTER OF GRAVITY (Y) ACCELERATION VS TIME	B- 78
74	VEHICLE CENTER OF GRAVITY (Y) VELOCITY ACCELERATION VS TIME	B- 79
75	VEHICLE CENTER OF GRAVITY (Z) ACCELERATION VS TIME	B- 80
76	VEHICLE CENTER OF GRAVITY (Z) VELOCITY VS TIME	B- 81
77	VEHICLE CENTER OF GRAVITY RESULTANT ACCELERATION VS TIME	B- 82

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>
78	MDB CENTER OF GRAVITY (X) ACCELERATION VS TIME	B- 83
79	MDB CENTER OF GRAVITY (X) VELOCITY VS TIME	B- 84
80	MDB CENTER OF GRAVITY (Y) ACCELERATION VS TIME	B- 85
81	MDB CENTER OF GRAVITY (Y) VELOCITY VS TIME	B- 86
82	MDB CENTER OF GRAVITY (Z) ACCELERATION VS TIME	B- 87
83	MDB CENTER OF GRAVITY (Z) VELOCITY VS TIME	B- 88
84	MDB CENTER OF GRAVITY RESULTANT ACCELERATION VS TIME	B- 89
85	MDB REAR (X) ACCELERATION VS TIME	B- 90
86	MDB REAR (X) VELOCITY VS TIME	B- 91
87	MDB REAR (Y) ACCELERATION VS TIME	B- 92
88	MDB REAR (Y) VELOCITY VS TIME	B- 93

DRIVER 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>
89	DRIVER UPPER RIB (Y) ACCELERATION VS TIME	B- 94
90	DRIVER UPPER RIB (Y) VELOCITY VS TIME	B- 95
91	DRIVER LOWER RIB (Y) ACCELERATION VS TIME	B- 96
92	DRIVER LOWER RIB (Y) VELOCITY VS TIME	B- 97
93	DRIVER LOWER SPINE (Y) ACCELERATION VS TIME	B- 98
94	DRIVER LOWER SPINE (Y) VELOCITY VS TIME	B- 99
95	DRIVER PELVIC (Y) ACCELERATION VS TIME	B- 100
96	DRIVER PELVIC (Y) VELOCITY VS TIME	B- 101

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

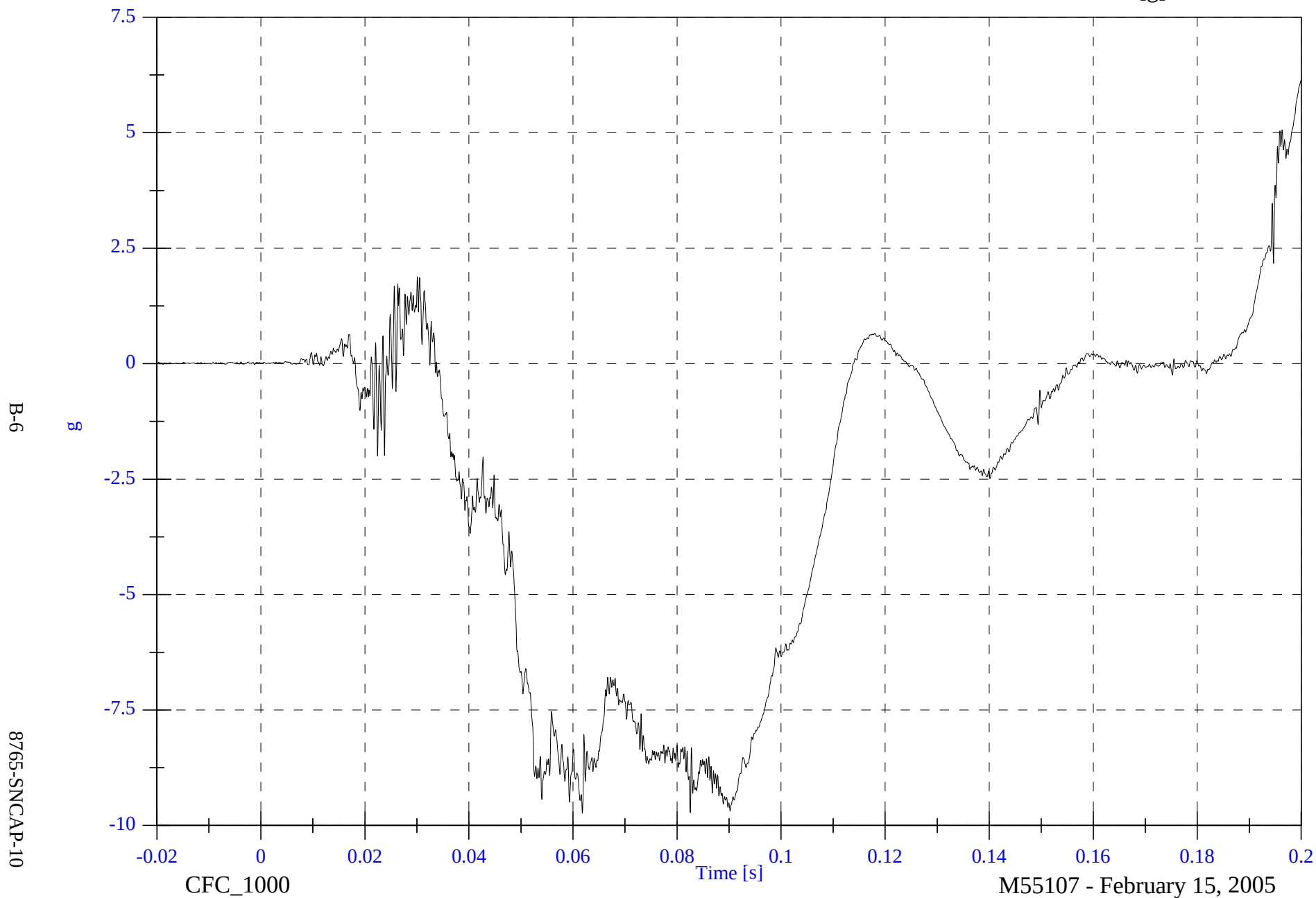
<u>Plot No.</u>	<u>Data Plot Title</u>	<u>Page</u>
97	DRIVER UPPER RIB (Y) ACCELERATION VS TIME	B- 102
98	DRIVER LOWER RIB (Y) ACCELERATION VS TIME	B- 103
99	DRIVER LOWER SPINE (Y) ACCELERATION VS TIME	B- 104
100	DRIVER PELVIC (Y) ACCELERATION VS TIME	B- 105

2005 SENCAP Test 5 2005 Toyota Tacoma

V2P1 Head x

Max: 6.2 [g] at 0.200 [s]

Min: -9.7 [g] at 0.062 [s]

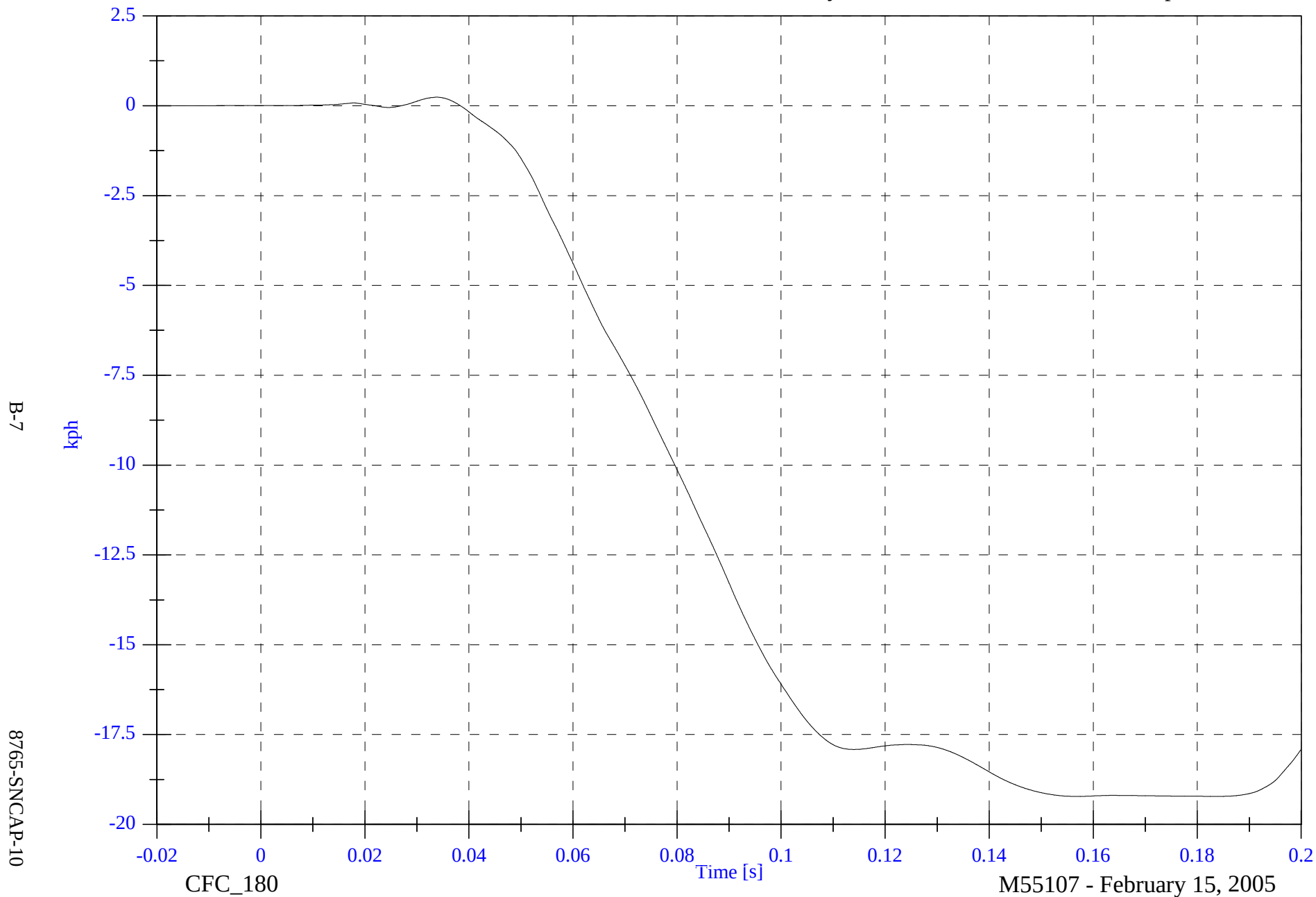


2005 SNCAP Test 5 2005 Toyota Tacoma

V2P1 Head x Velocity

Max: 0.2 [kph] at 0.034 [s]

Min: -19.2 [kph] at 0.183 [s]

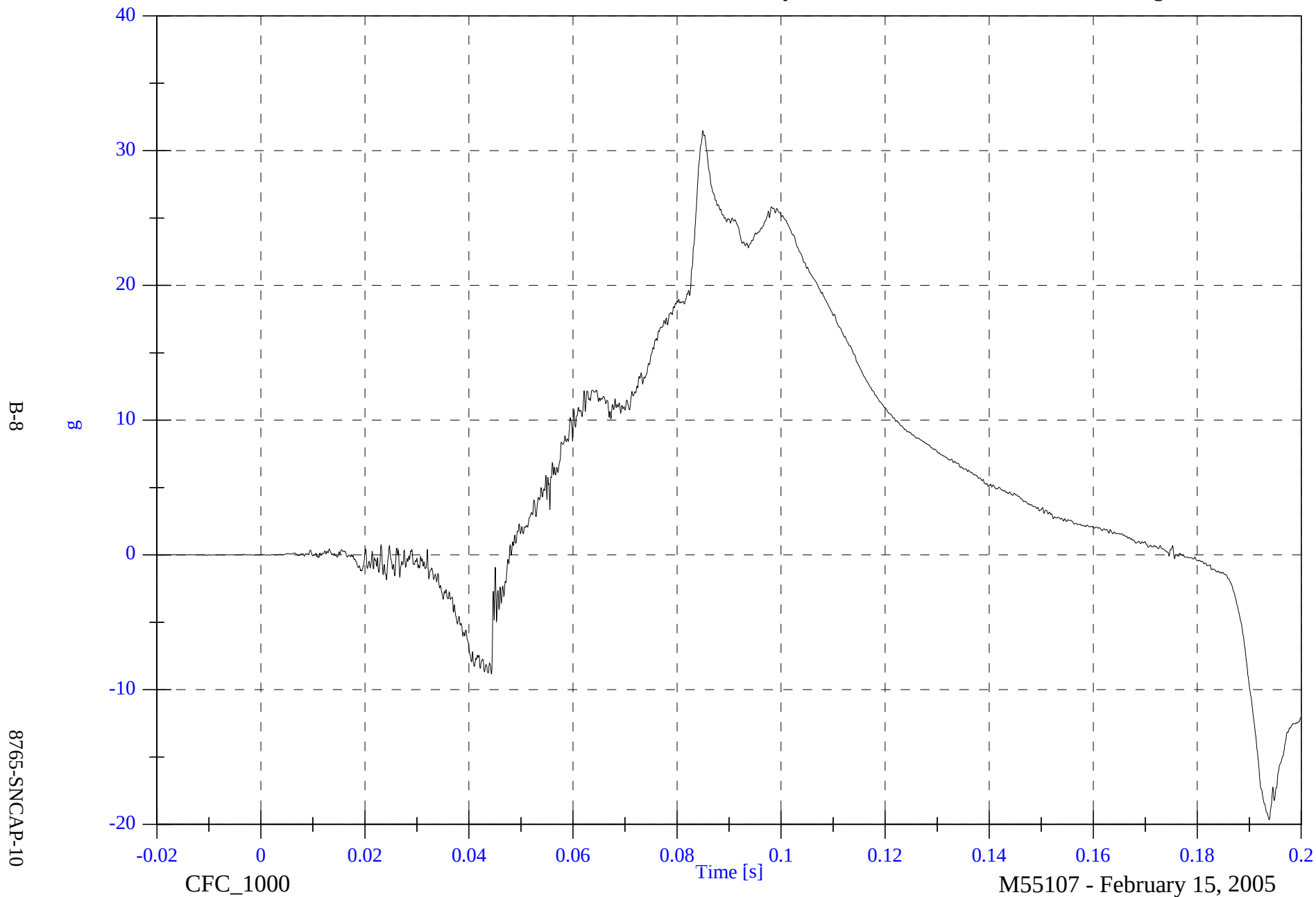


2005 SNCAP Test 5 2005 Toyota Tacoma

Max: 31.5 [g] at 0.085 [s]

Min: -19.7 [g] at 0.194 [s]

V2P1 Head y



2005 SNCAP Test 5 2005 Toyota Tacoma

V2P1 Head y Velocity

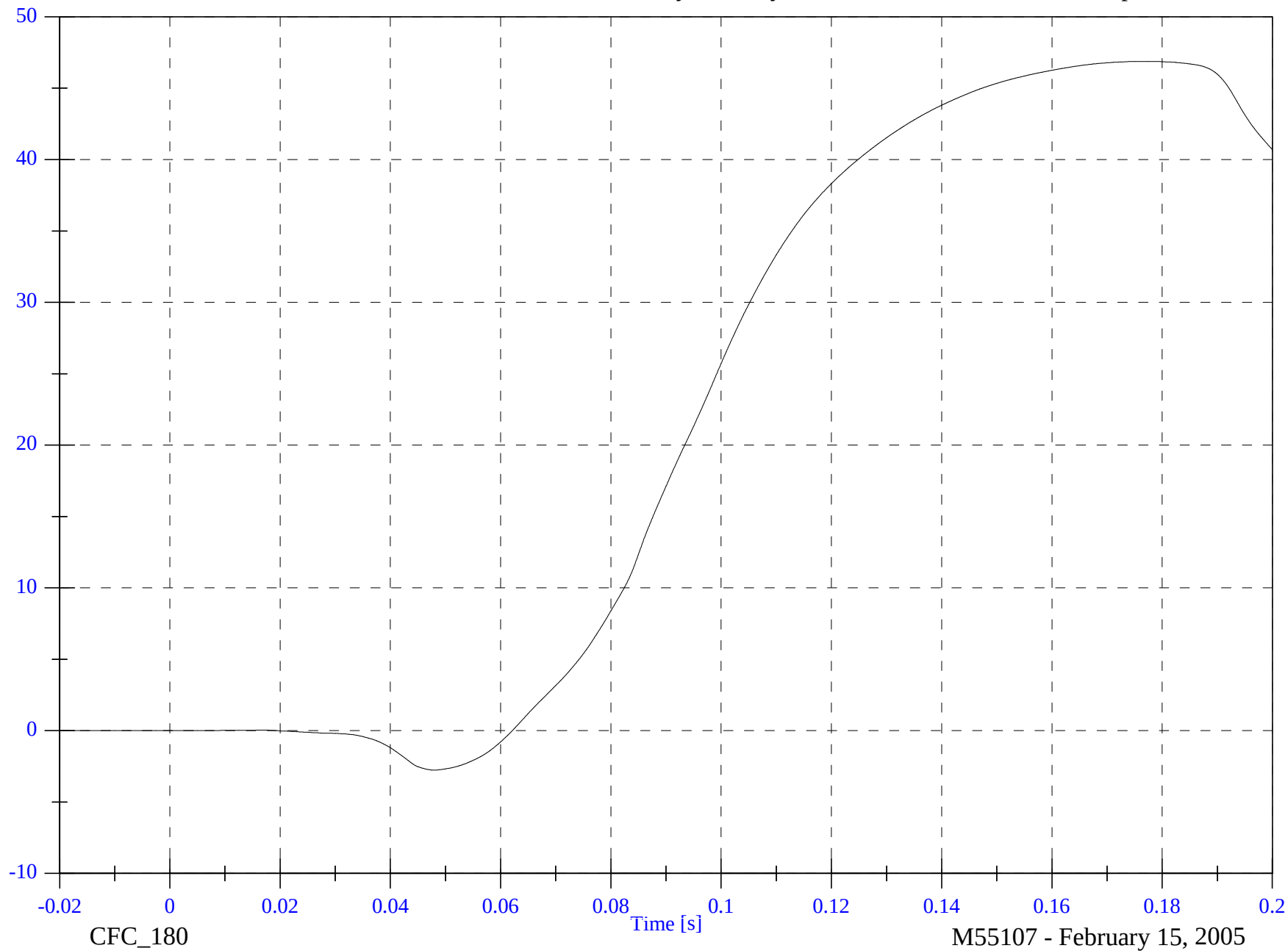
Max: 46.9 [kph] at 0.176 [s]

Min: -2.8 [kph] at 0.048 [s]

B-9

kph

8765-SNCAP-10

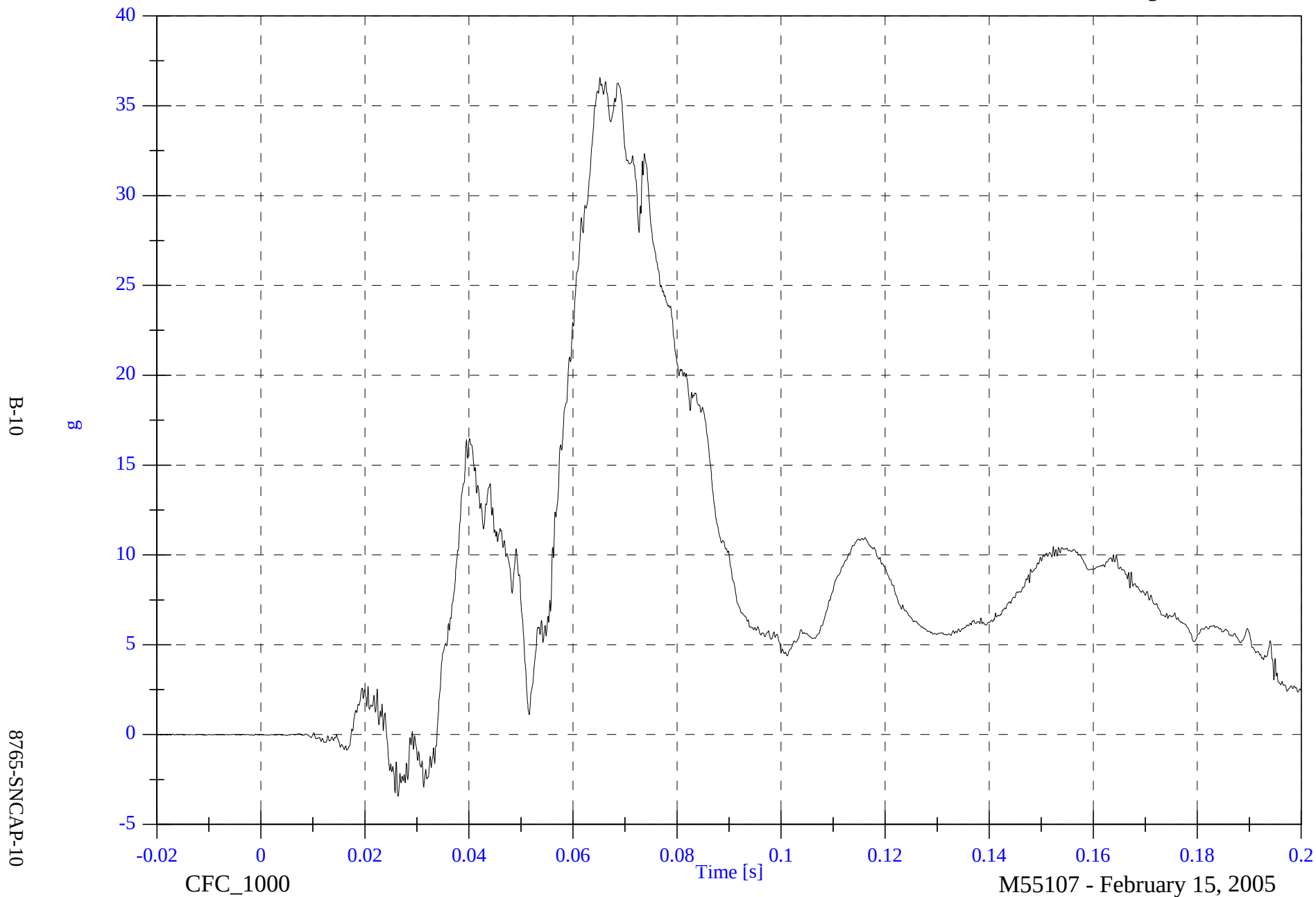


2005 SENCAP Test 5 2005 Toyota Tacoma

Max: 36.6 [g] at 0.065 [s]

Min: -3.4 [g] at 0.026 [s]

V2P1 Head z



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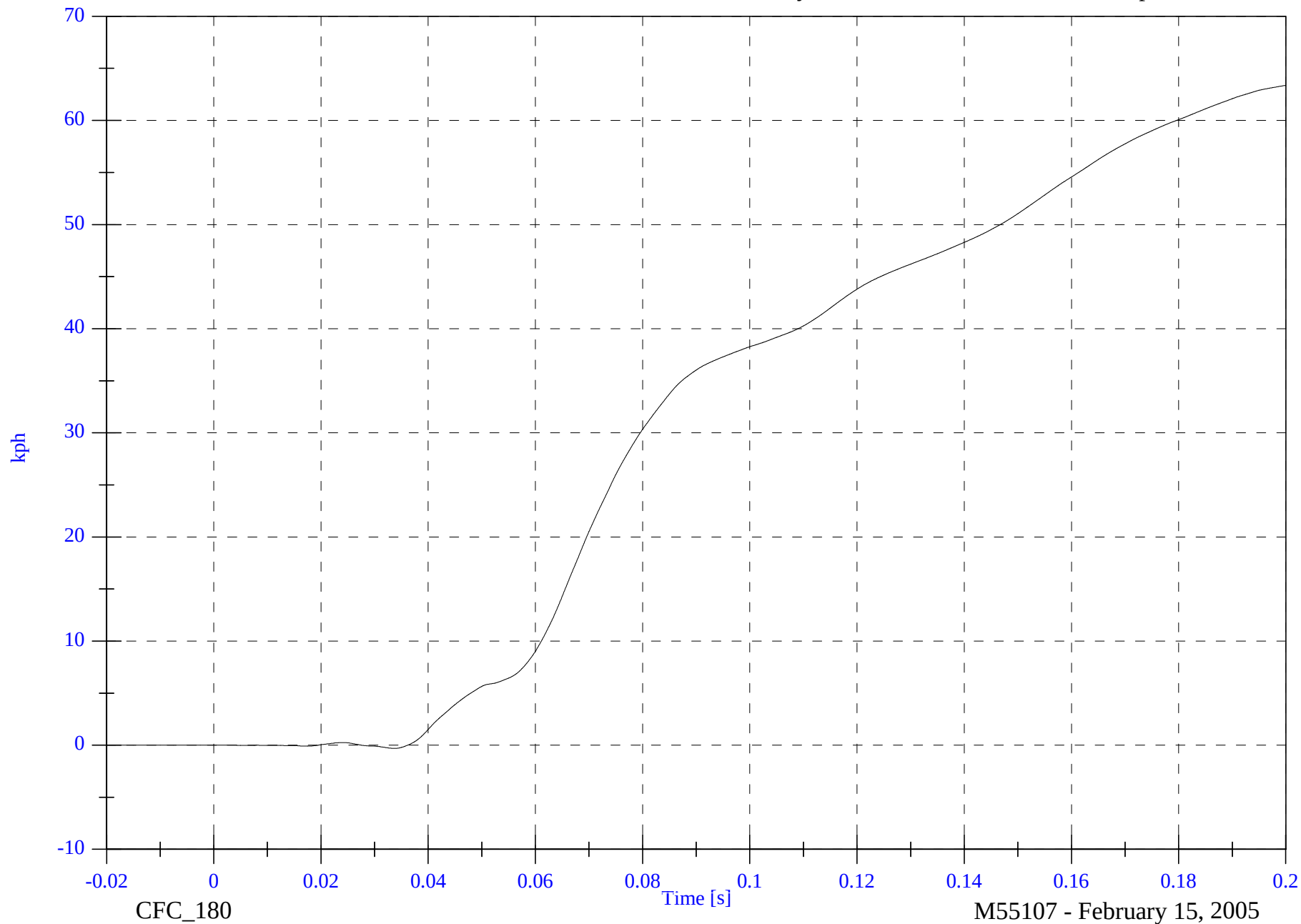
V2P1 Head z Velocity

Max: 63.4 [kph] at 0.200 [s]

Min: -0.3 [kph] at 0.034 [s]

B-11

8765-SNCAP-10



2005 SNCAP Test 5 2005 Toyota Tacoma

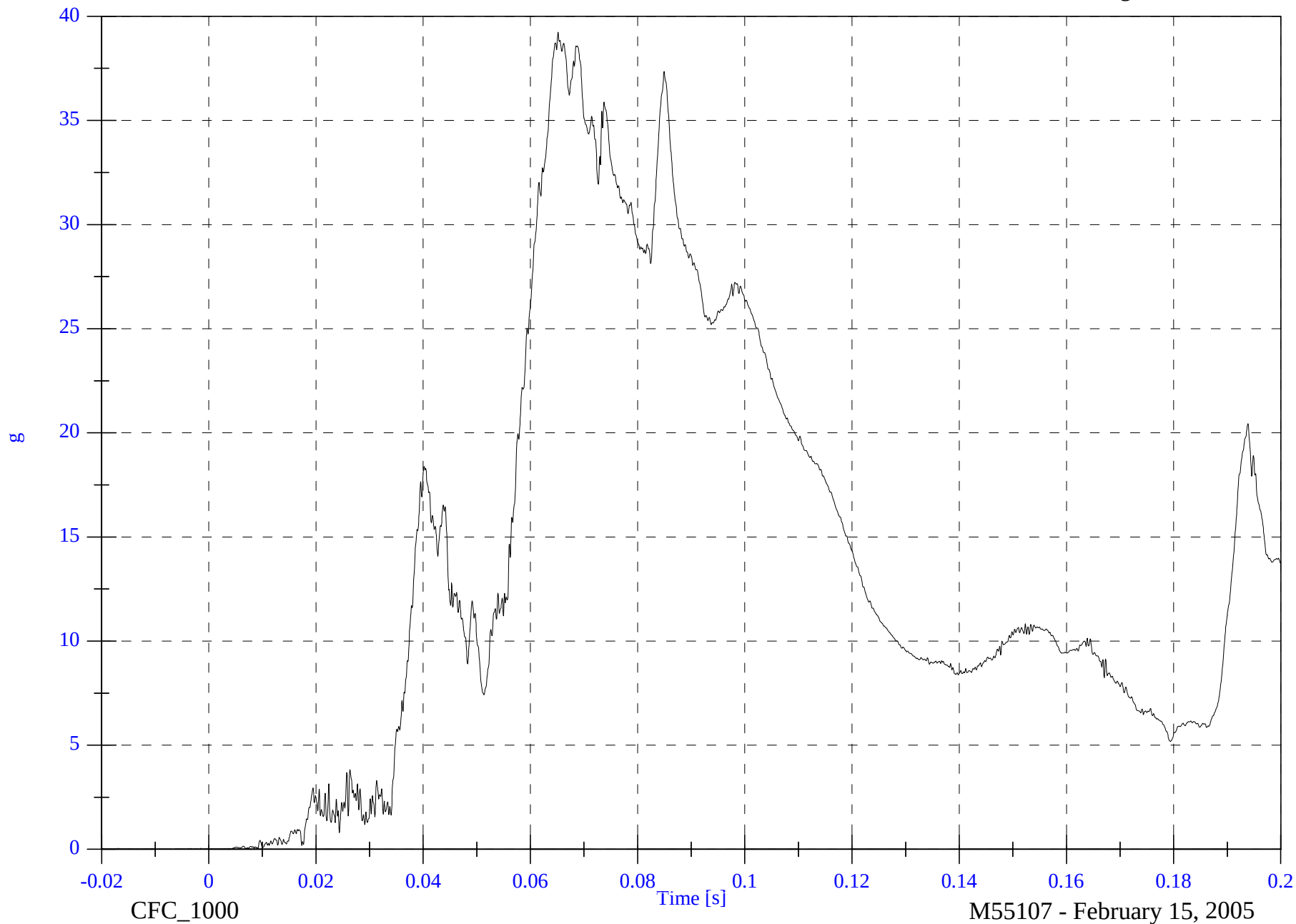
V2P1 Head Resultant

Max: 39.2 [g] at 0.065 [s]

Min: 0.0 [g] at -0.007 [s]

B-12

8765-SNCAP-10

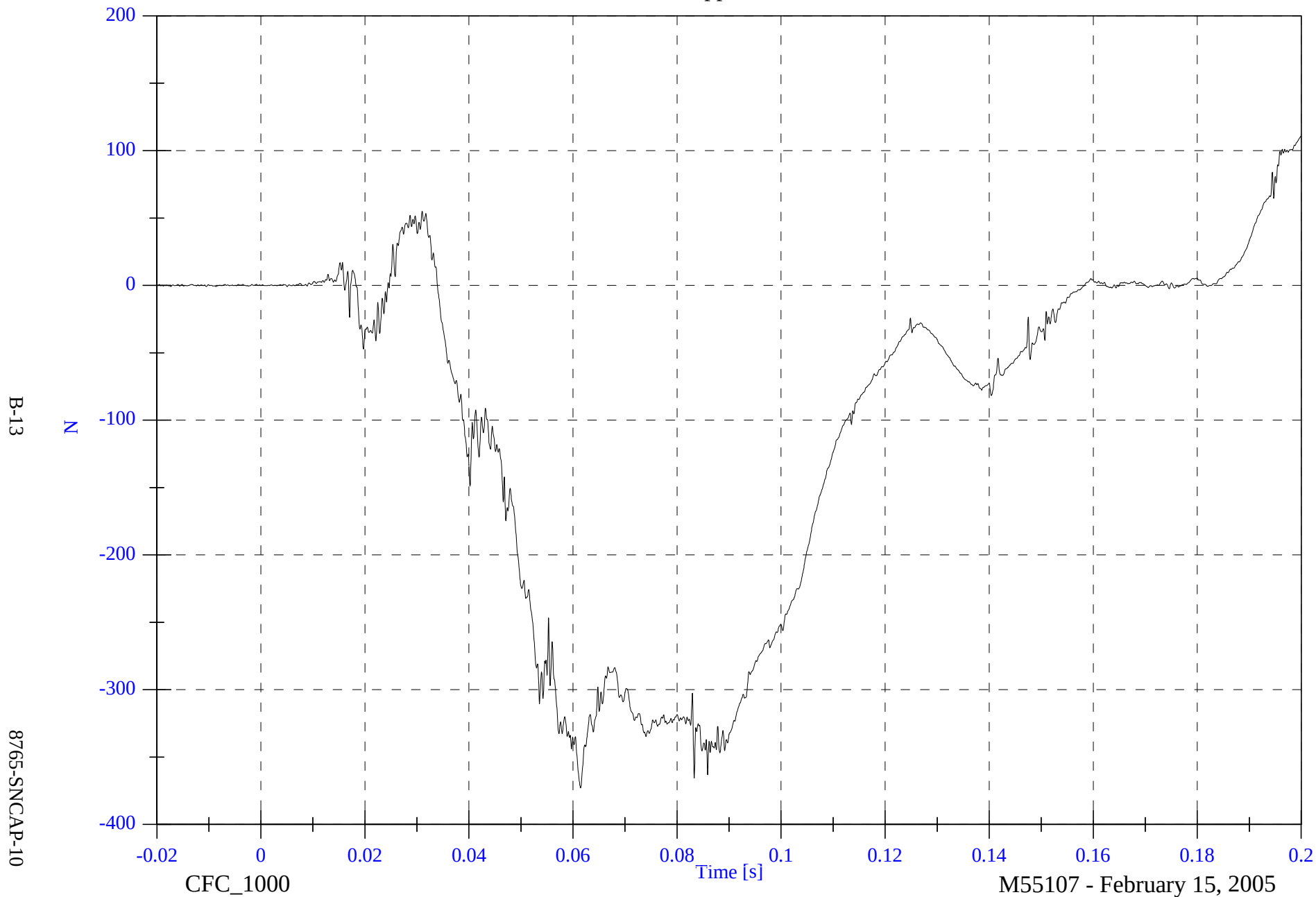


2005 SNCAP Test 5 2005 Toyota Tacoma

V2P1 Upper Neck Fx

Max: 111.0 [N] at 0.200 [s]

Min: -372.9 [N] at 0.061 [s]

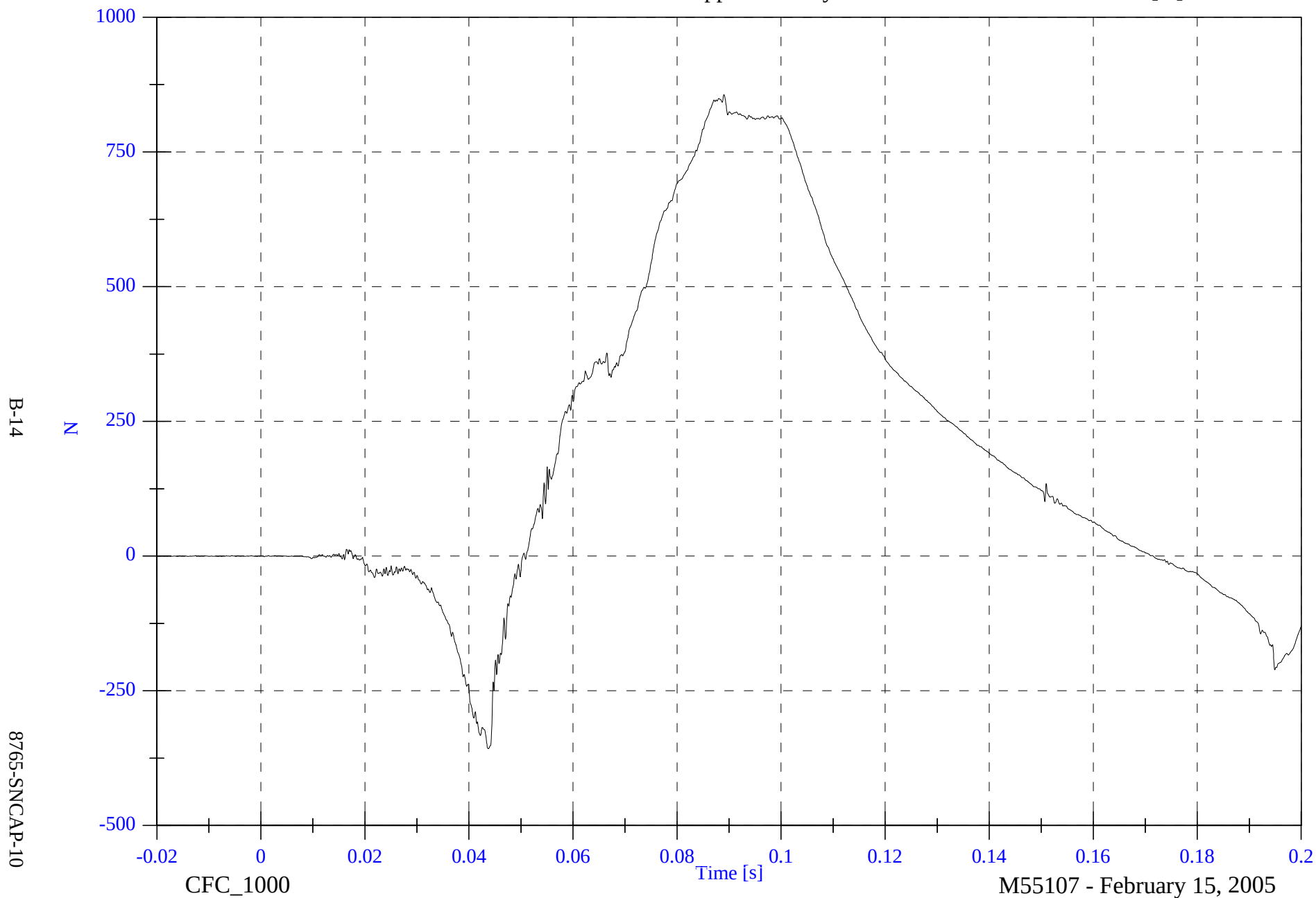


2005 SNCAP Test 5 2005 Toyota Tacoma

Max: 856.5 [N] at 0.089 [s]

Min: -357.3 [N] at 0.044 [s]

V2P1 Upper Neck Fy

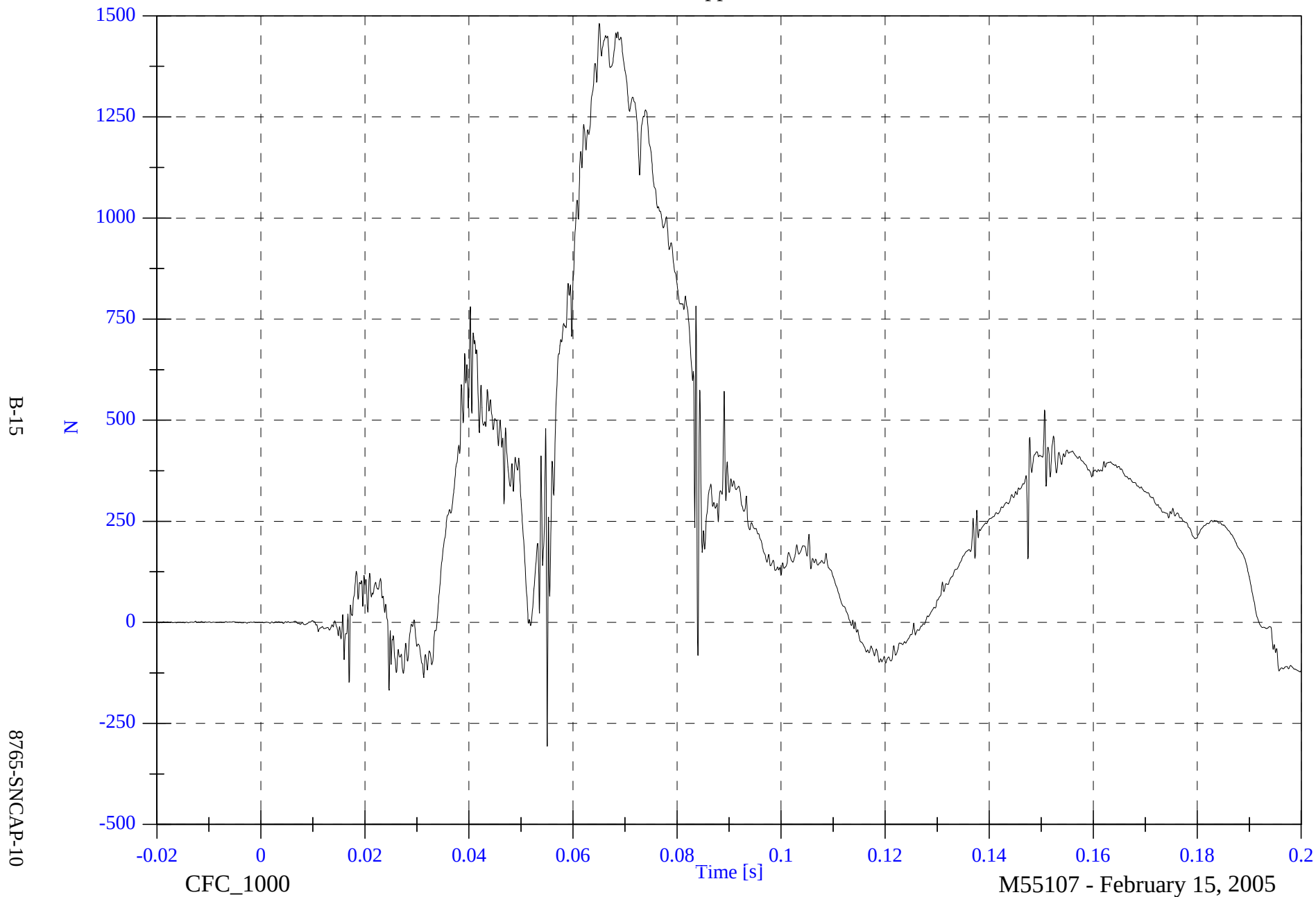


2005 SNCAP Test 5 2005 Toyota Tacoma

Max: 1481.6 [N] at 0.065 [s]

Min: -306.4 [N] at 0.055 [s]

V2P1 Upper Neck Fz

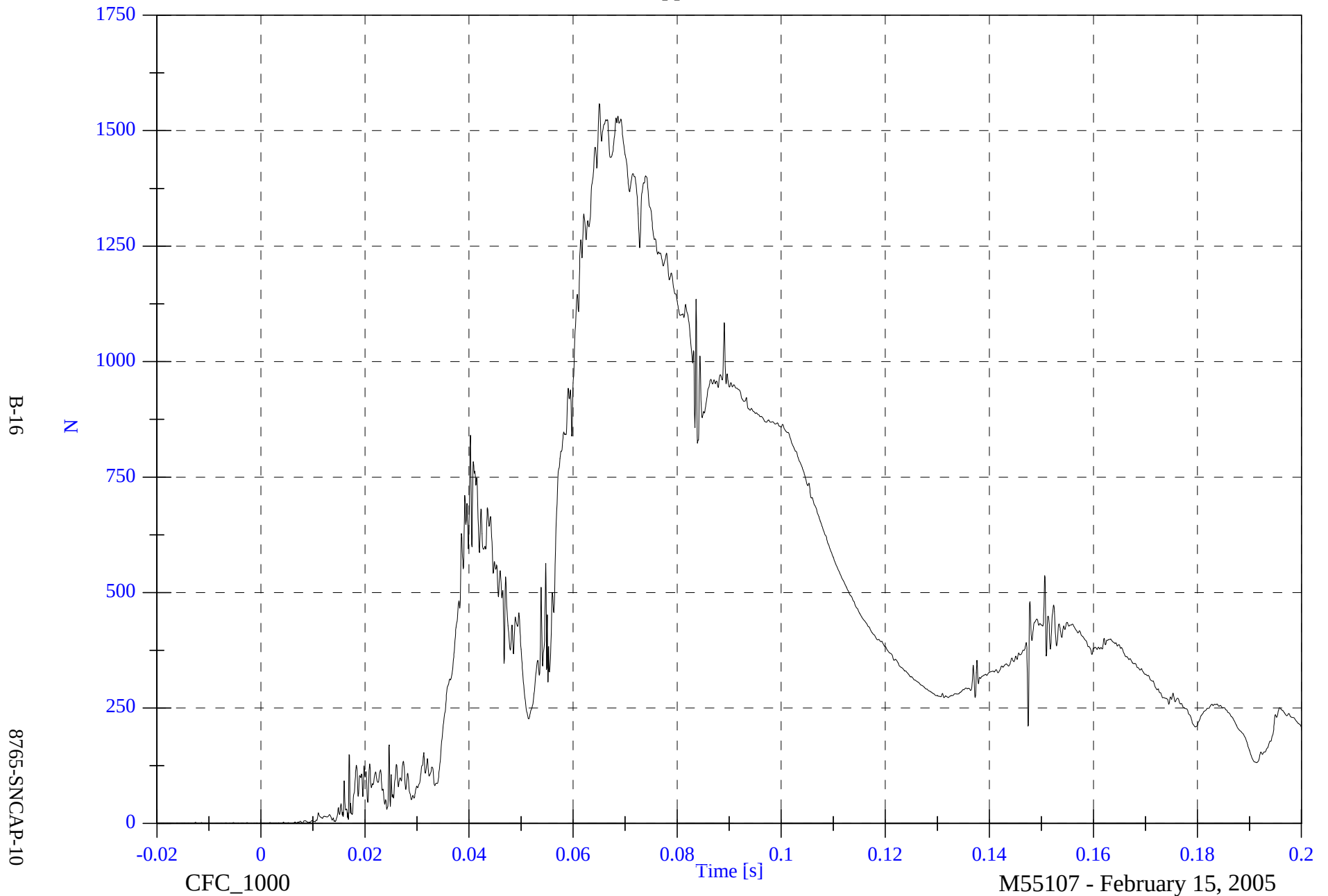


2005 SNCAP Test 5 2005 Toyota Tacoma

V2P1 Upper Neck F Resultant

Max: 1558.4 [N] at 0.065 [s]

Min: 0.1 [N] at -0.000 [s]

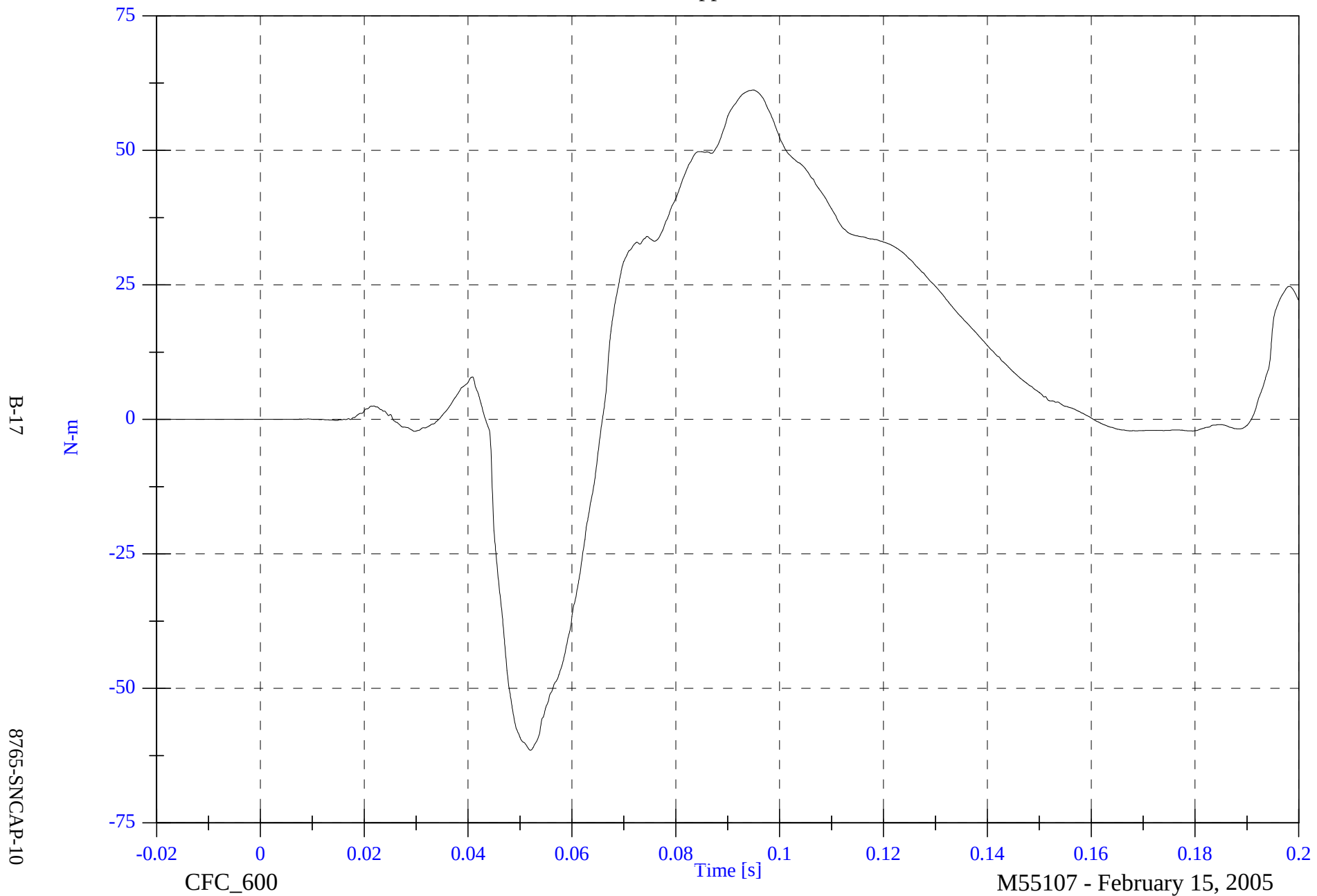


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V2P1 Upper Neck Mx

Max: 61.2 [N-m] at 0.095 [s]

Min: -61.5 [N-m] at 0.052 [s]

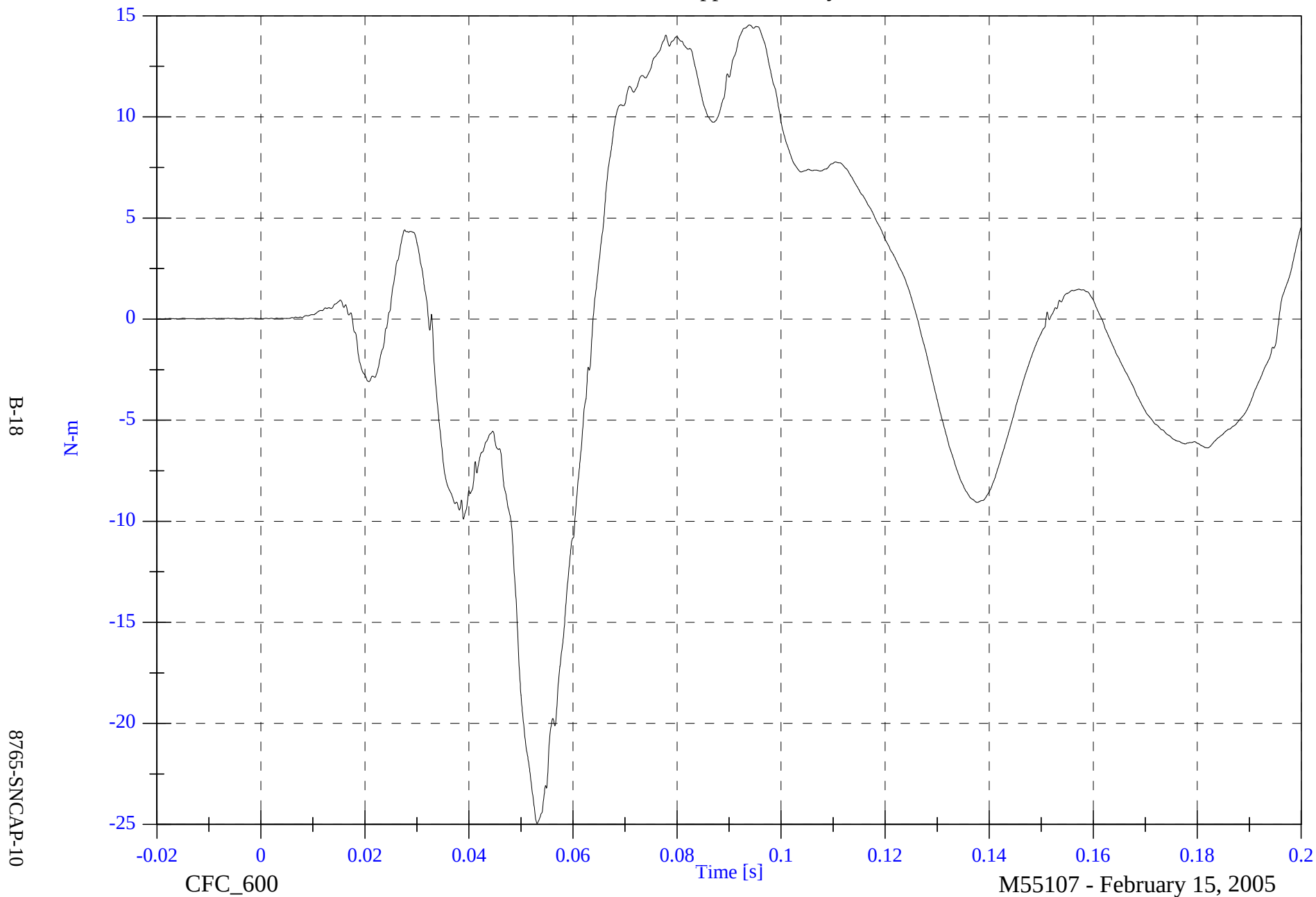


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Max: 14.6 [N-m] at 0.094 [s]

Min: -24.9 [N-m] at 0.053 [s]

V2P1 Upper Neck My

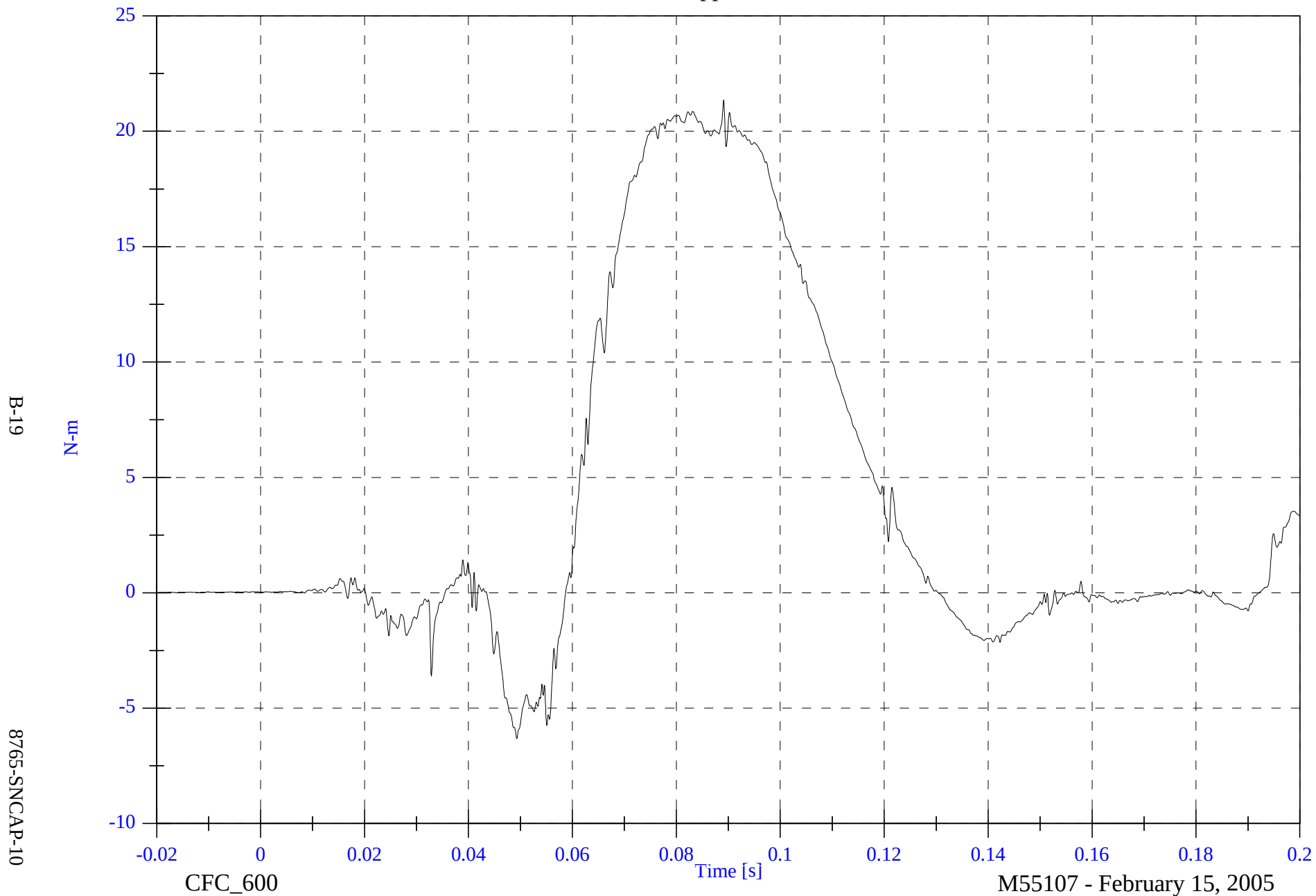


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Max: 21.4 [N-m] at 0.089 [s]

V2P1 Upper Neck Mz

Min: -6.3 [N-m] at 0.049 [s]



2005 SNCAP Test 5 2005 Toyota Tacoma

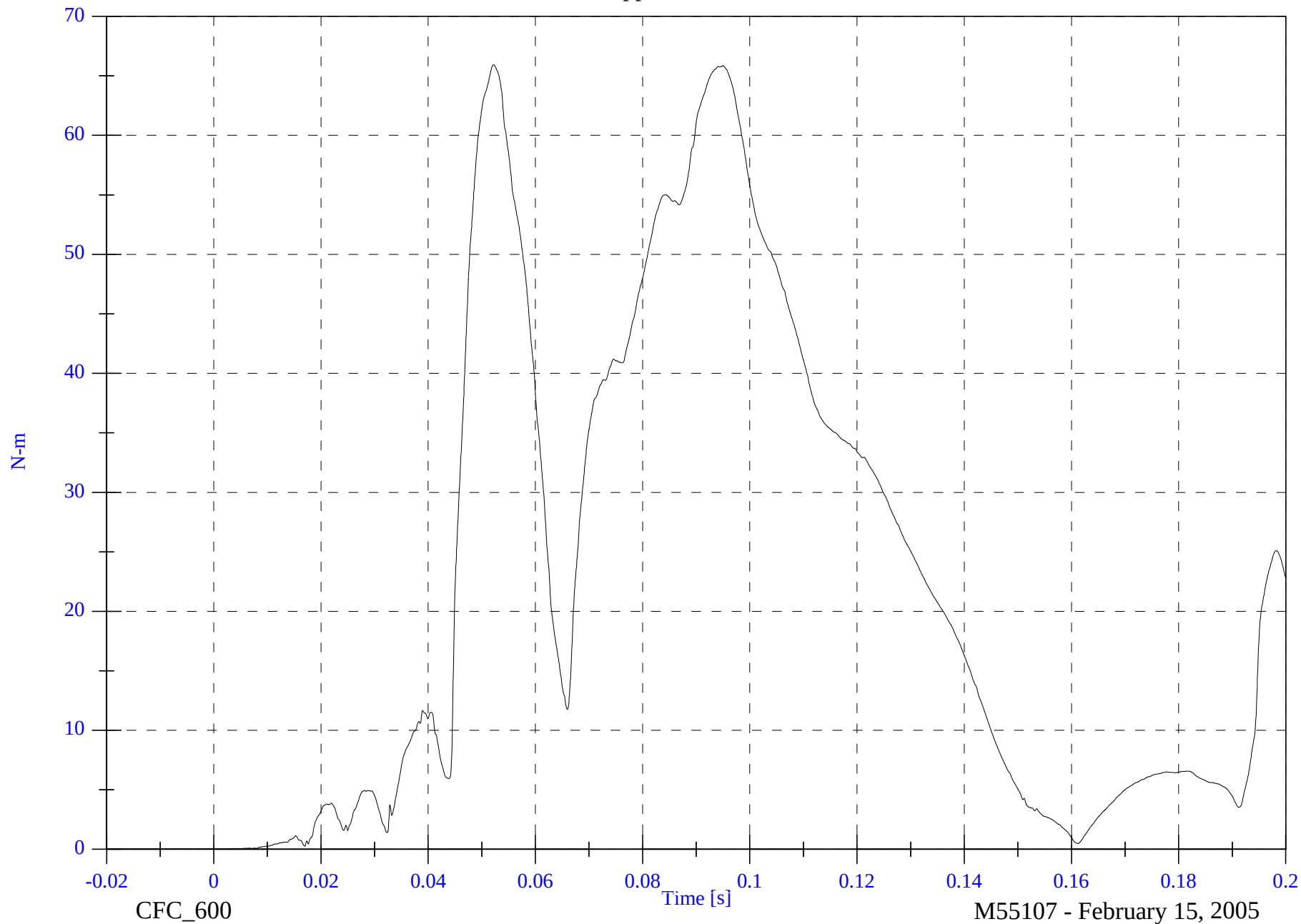
V2P1 Upper Neck M Resultant

Max: 65.9 [N-m] at 0.052 [s]

Min: 0.0 [N-m] at -0.016 [s]

B-20

8765-SNCAP-10



2005 SENCAP Test 5 2005 Toyota Tacoma

V2P1 Upper Rib y

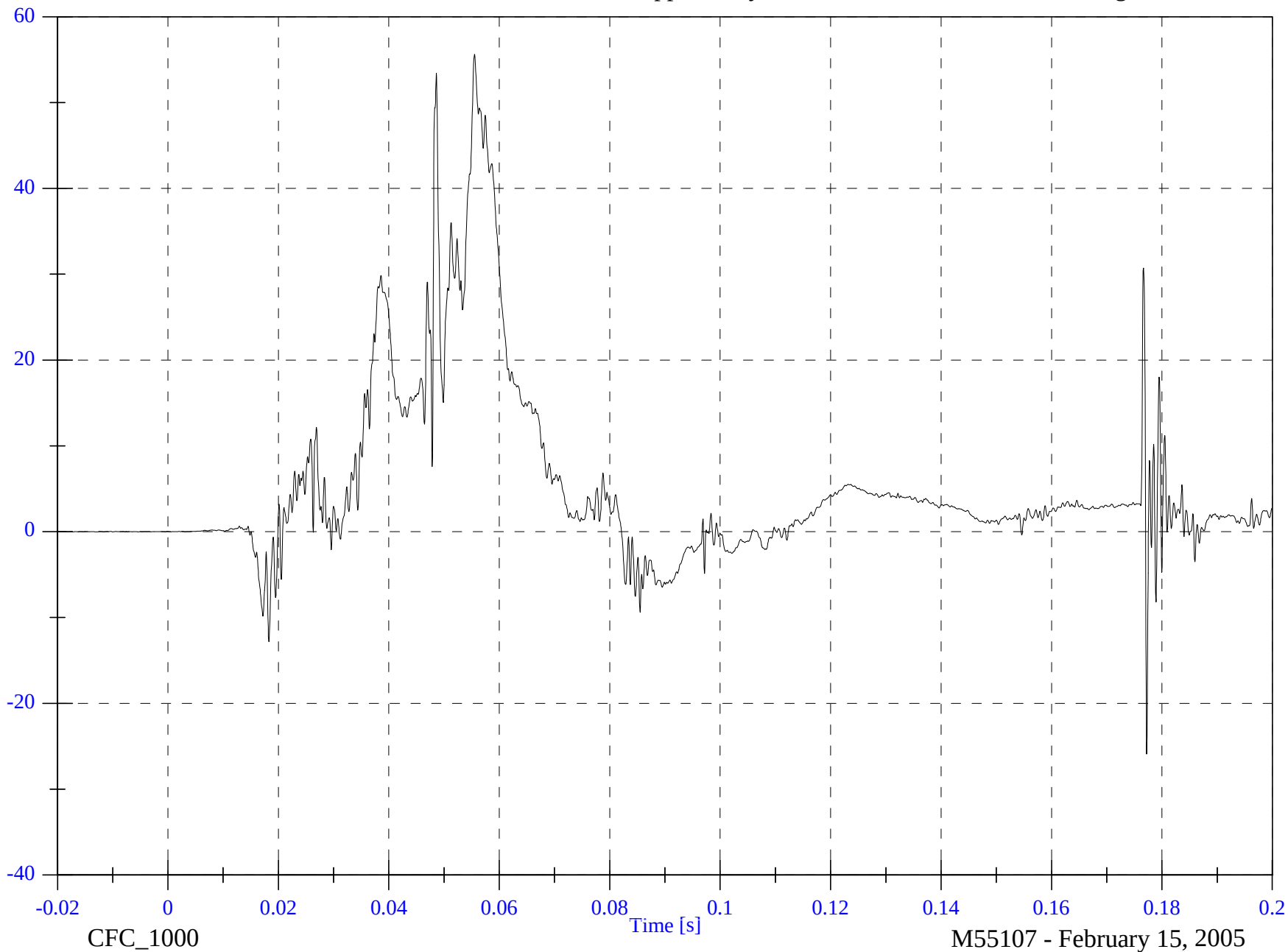
Max: 55.6 [g] at 0.055 [s]

Min: -25.9 [g] at 0.177 [s]

B-21

8765-SNCAP-10

g

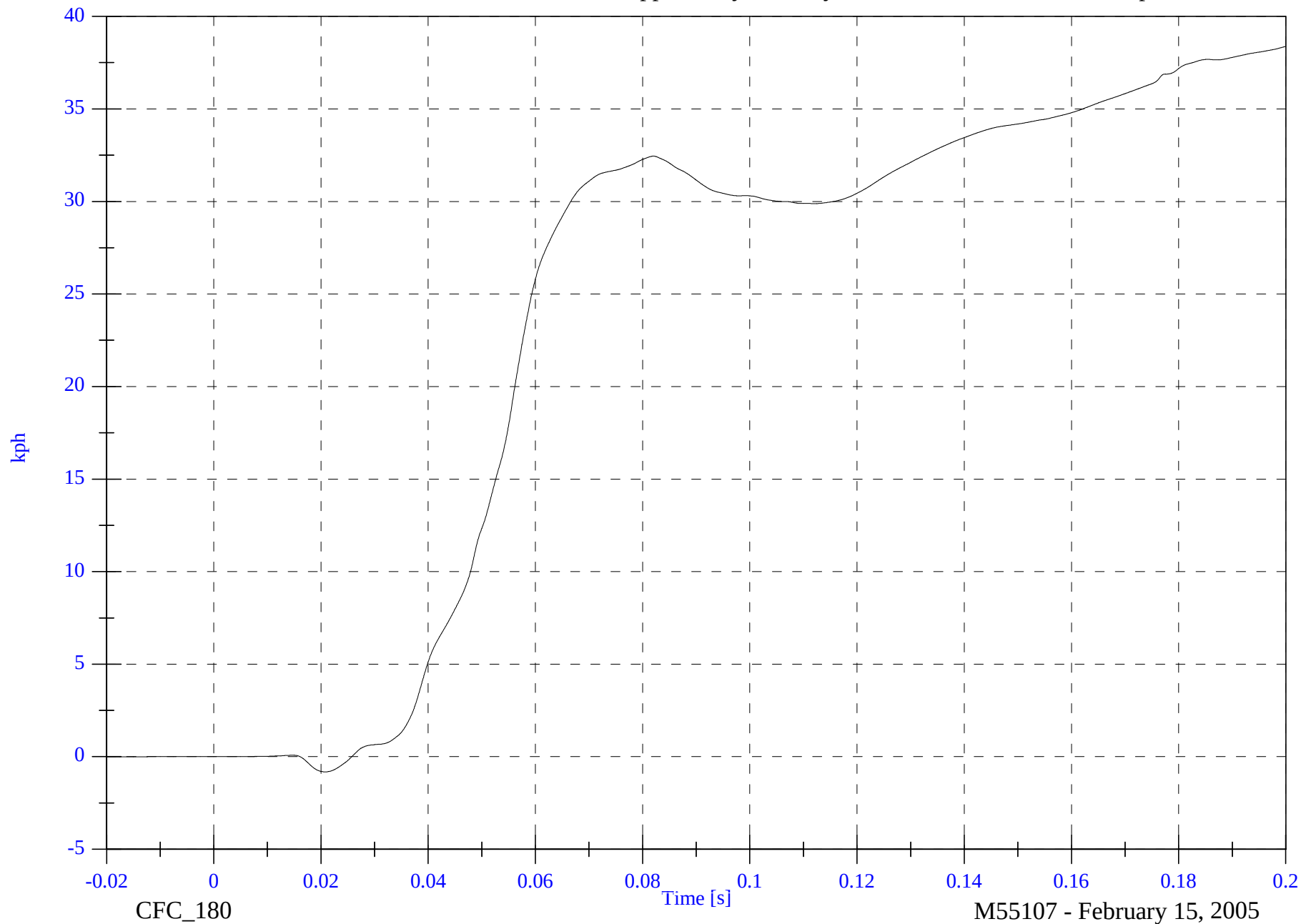


2005 SNCAP Test 5 2005 Toyota Tacoma

Max: 38.4 [kph] at 0.200 [s]

V2P1 Upper Rib y Velocity

Min: -0.8 [kph] at 0.021 [s]



B-22

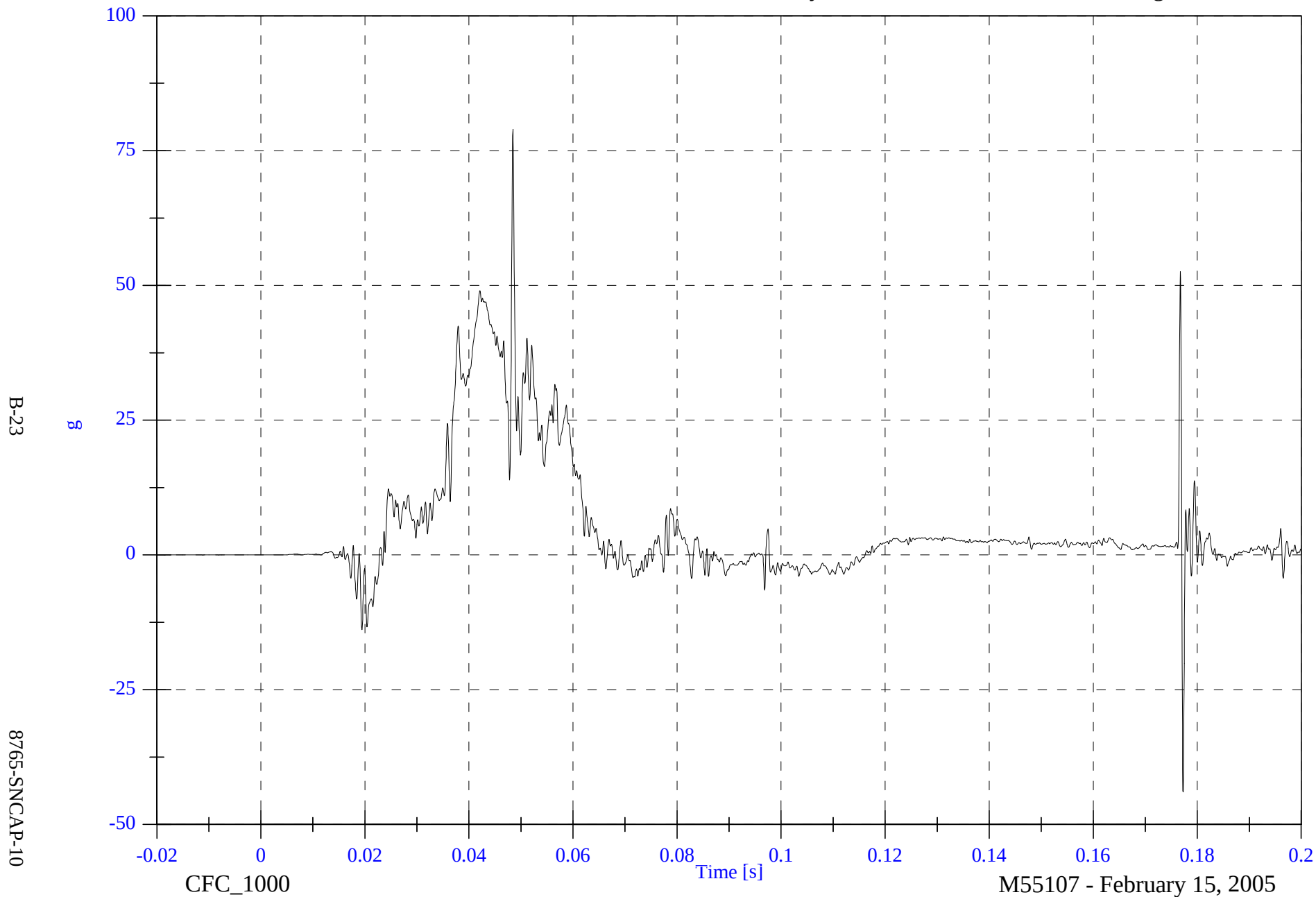
8765-SNCAP-10

2005 SENCAP Test 5 2005 Toyota Tacoma

V2P1 Lower Rib y

Max: 79.0 [g] at 0.048 [s]

Min: -44.0 [g] at 0.177 [s]

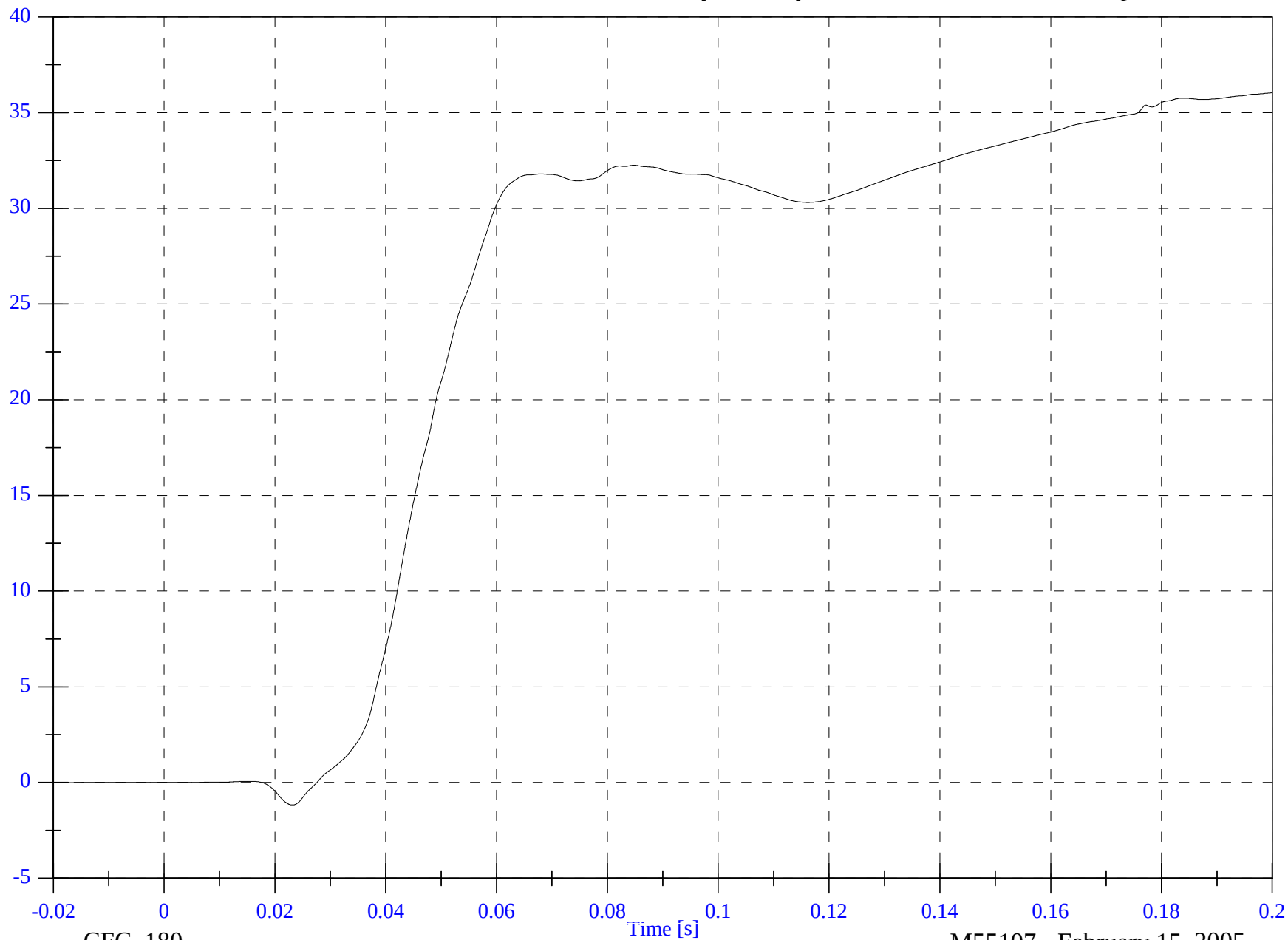


2005 SNCAP Test 5 2005 Toyota Tacoma

V2P1 Lower Rib y Velocity

Max: 36.0 [kph] at 0.200 [s]

Min: -1.2 [kph] at 0.023 [s]



B-24

8765-SNCAP-10

CFC_180

M55107 - February 15, 2005

2005 SNCAP Test 5 2005 Toyota Tacoma

V2P1 Lower Spine y

Max: 47.6 [g] at 0.039 [s]

Min: -5.3 [g] at 0.068 [s]

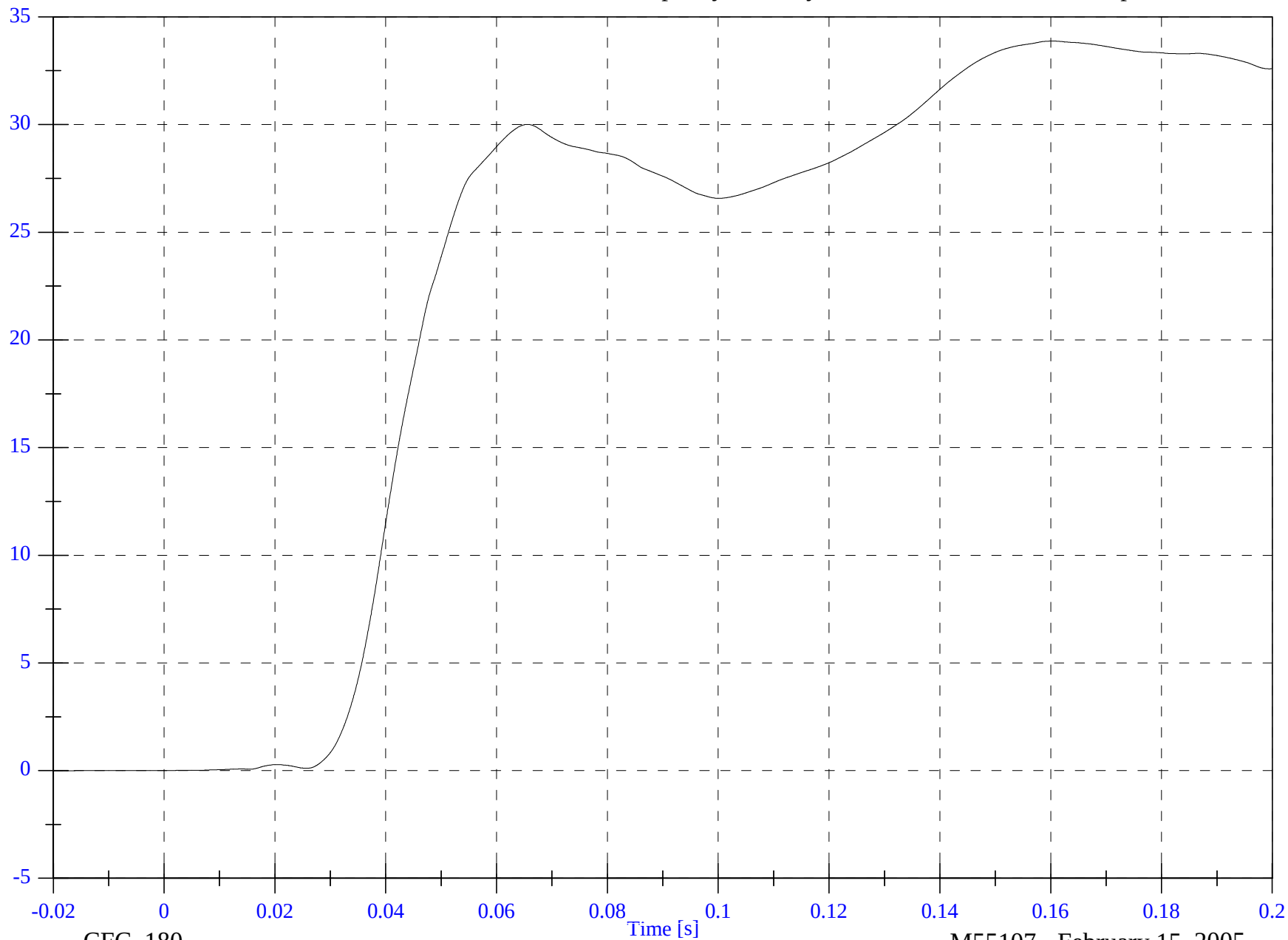


2005 SNCAP Test 5 2005 Toyota Tacoma

V2P1 Lower Spine y Velocity

Max: 33.9 [kph] at 0.160 [s]

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



B-26

8765-SNCAP-10

CFC_180

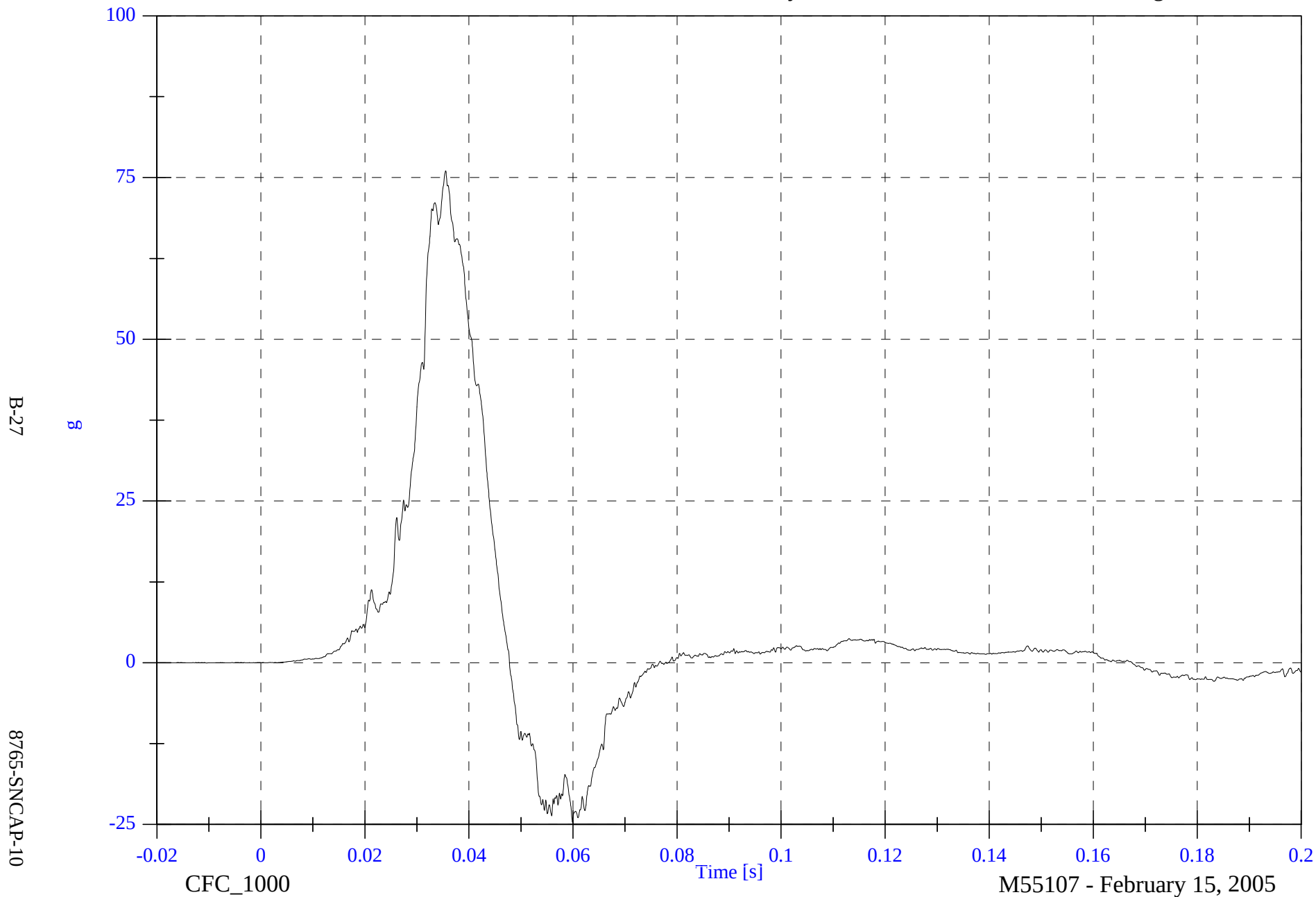
M55107 - February 15, 2005

2005 SNCAP Test 5 2005 Toyota Tacoma

V2P1 Pelvic y

Max: 76.1 [g] at 0.035 [s]

Min: -24.7 [g] at 0.060 [s]



2005 SNCAP Test 5 2005 Toyota Tacoma

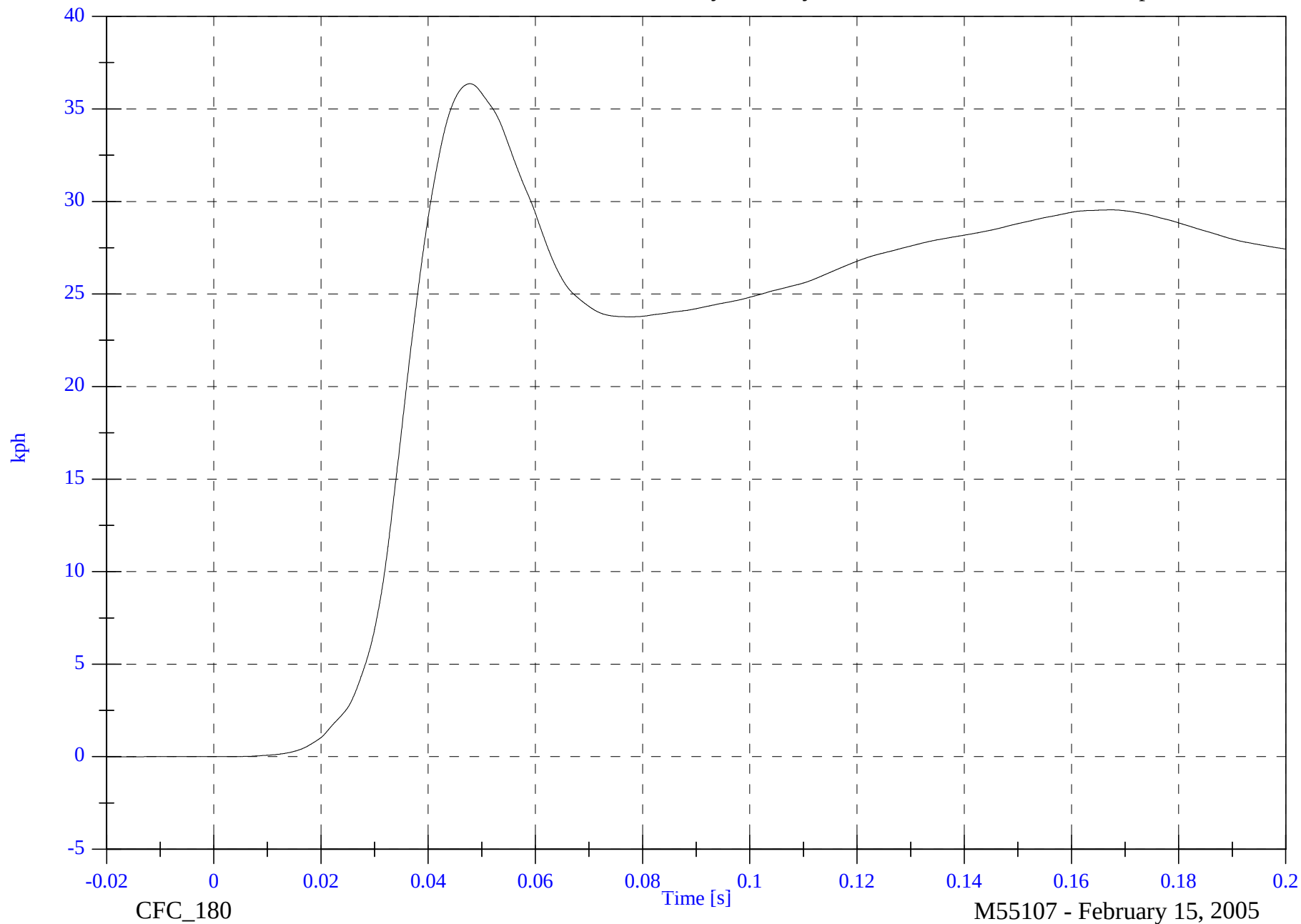
Max: 36.4 [kph] at 0.048 [s]

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

V2P1 Pelvic y Velocity

B-28

8765-SNCAP-10



2005 SENCAP Test 5 2005 Toyota Tacoma

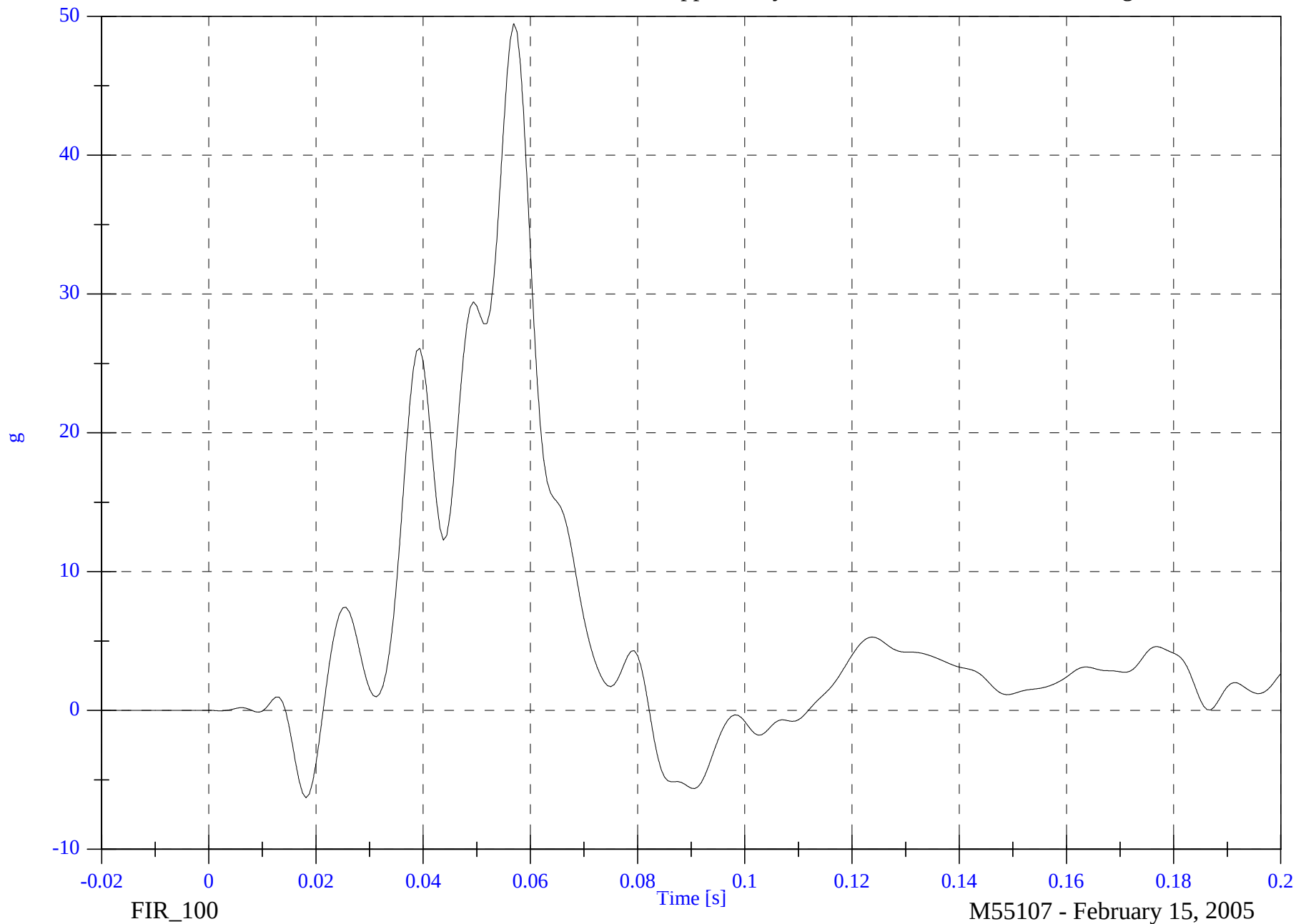
V2P1 Upper Rib y

Max: 49.5 [g] at 0.057 [s]

Min: -6.3 [g] at 0.018 [s]

B-29

8765-SNCRAP-10



2005 SNCAP Test 5 2005 Toyota Tacoma

V2P1 Lower Rib y

Max: 44.8 [g] at 0.043 [s]

Min: -8.6 [g] at 0.021 [s]



2005 SNCAP Test 5 2005 Toyota Tacoma

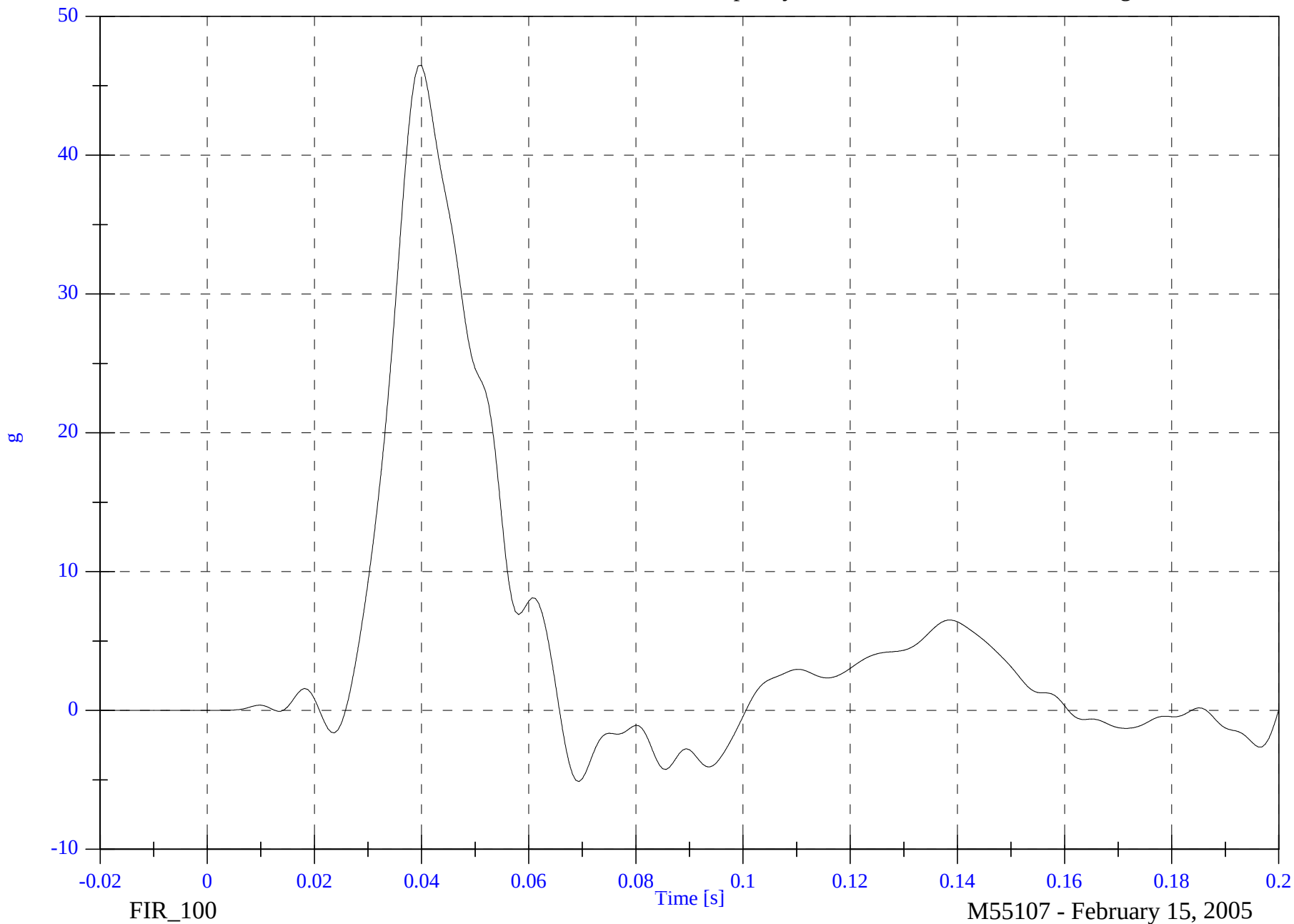
V2P1 Lower Spine y

Max: 46.5 [g] at 0.040 [s]

Min: -5.1 [g] at 0.069 [s]

B-31

8765-SNCAP-10



2005 SNCAP Test 5 2005 Toyota Tacoma

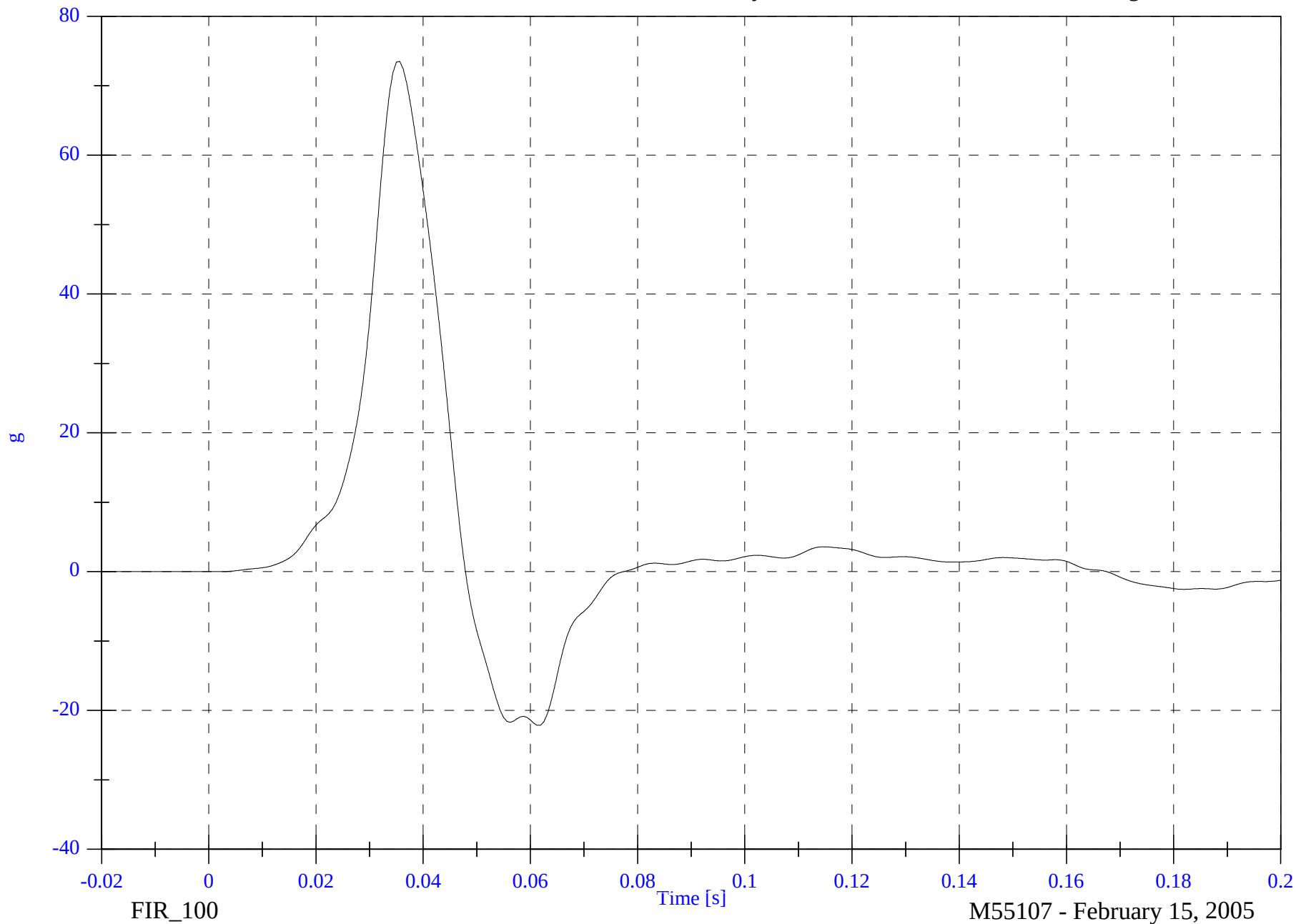
V2P1 Pelvic y

Max: 73.5 [g] at 0.036 [s]

Min: -22.1 [g] at 0.061 [s]

B-32

8765-SNCAP-10

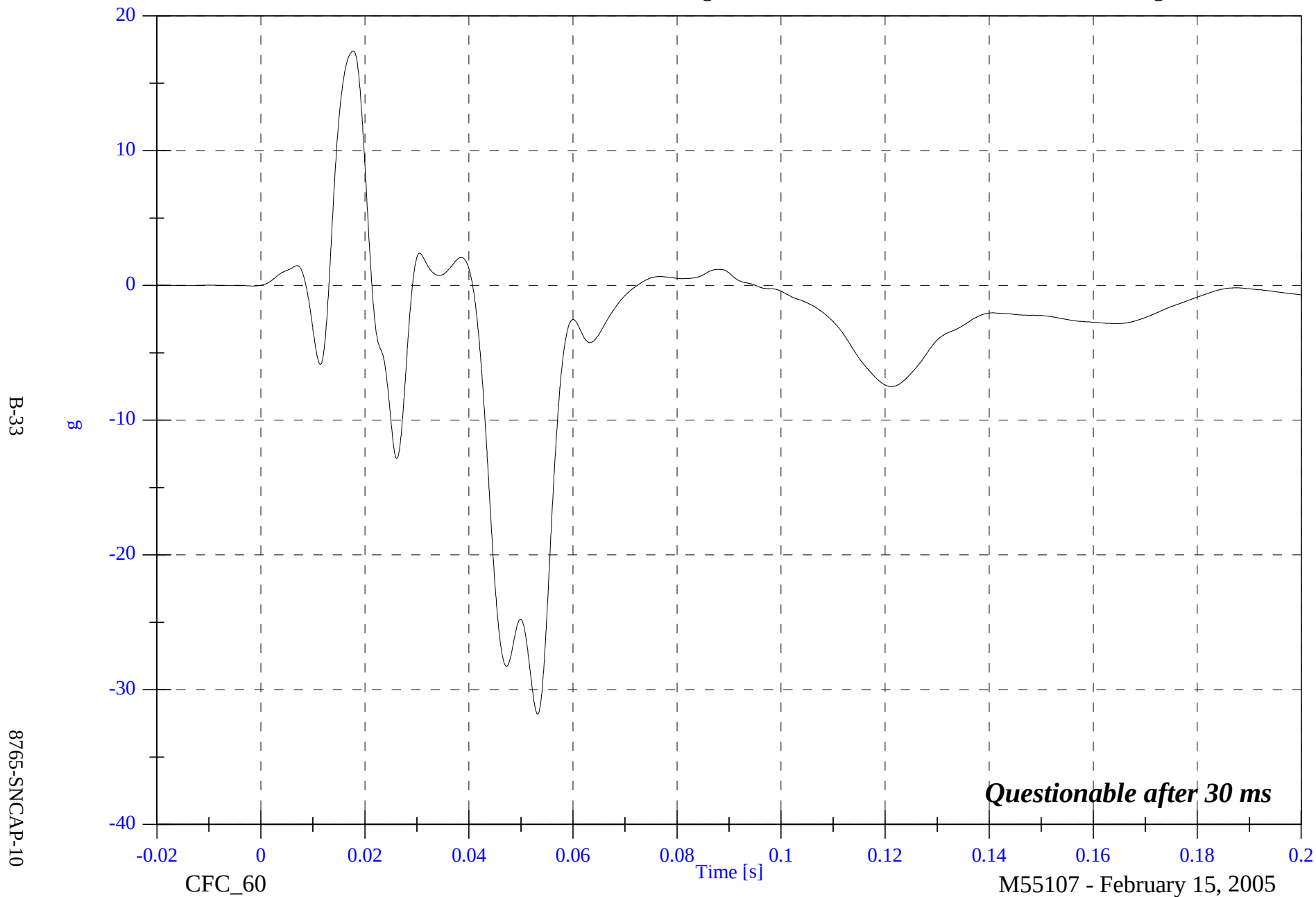


2005 SNCAP Test 5 2005 Toyota Tacoma

V2 A1 Right Front Sill X

Max: 17.4 [g] at 0.018 [s]

Min: -31.8 [g] at 0.053 [s]

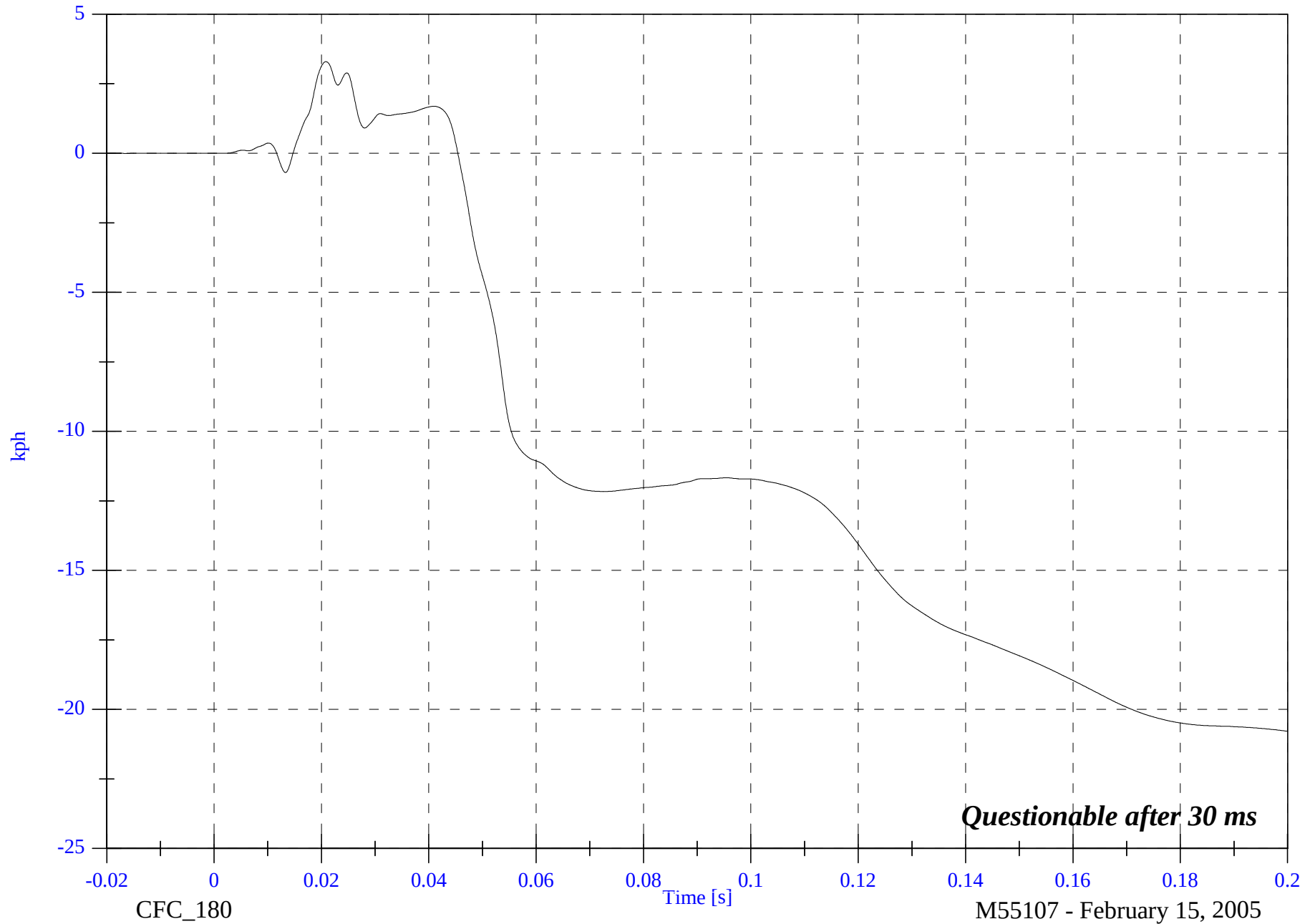


2005 SNCAP Test 5 2005 Toyota Tacoma

V2 A1 Right Front Sill X Velocity

Max: 3.3 [kph] at 0.021 [s]

Min: -20.8 [kph] at 0.200 [s]



B-34

8765-SNCAP-10

2005 SNCAP Test 5 2005 Toyota Tacoma

V2 A1 Right Front Sill Y

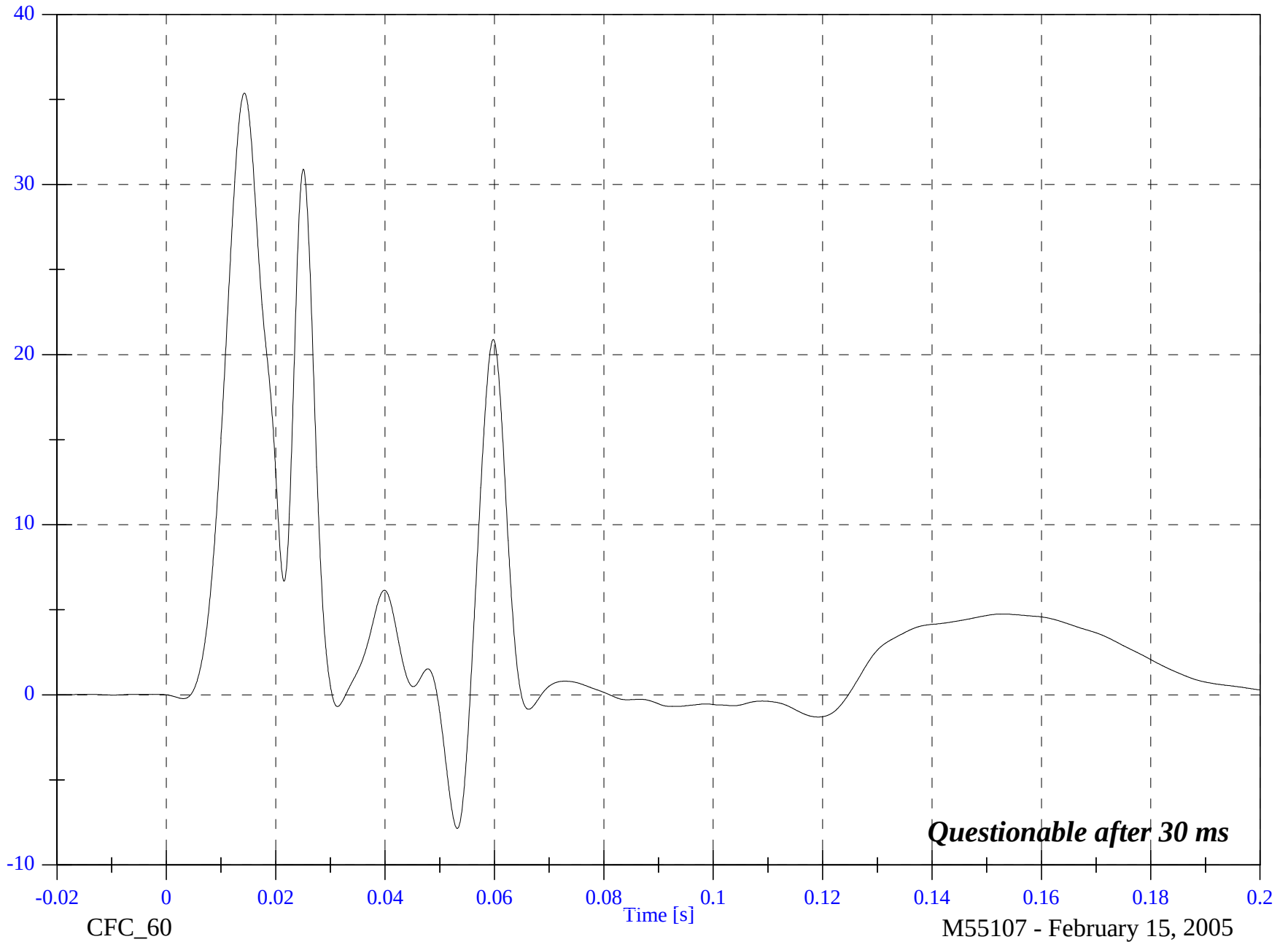
Max: 35.4 [g] at 0.014 [s]

Min: -7.8 [g] at 0.053 [s]

B-35

8765-SNCAP-10

g



Questionable after 30 ms

M55107 - February 15, 2005

2005 SNCAP Test 5 2005 Toyota Tacoma

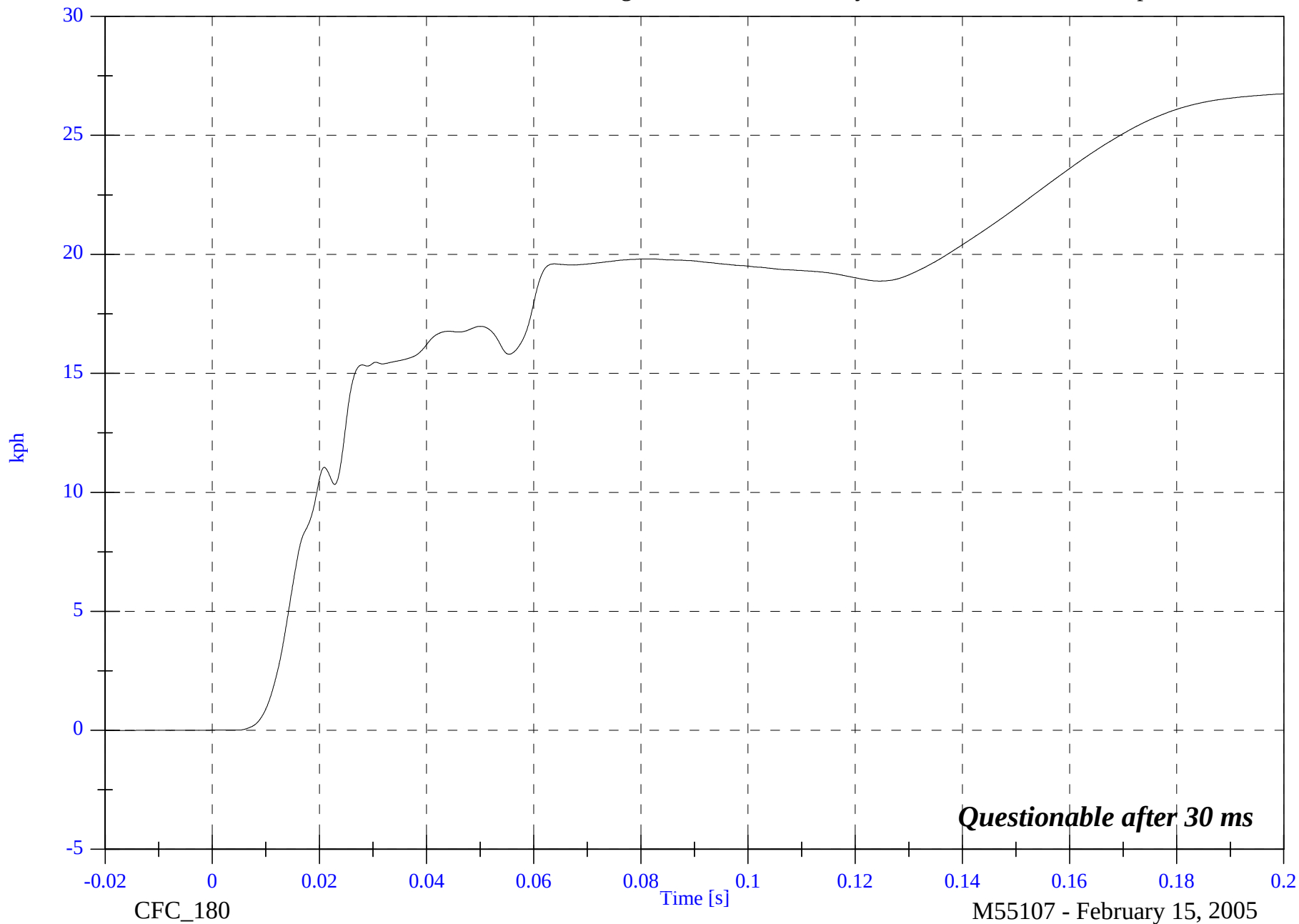
Max: 26.7 [kph] at 0.200 [s]

V2 A1 Right Front Sill Y Velocity

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

B-36

8765-SNCAP-10

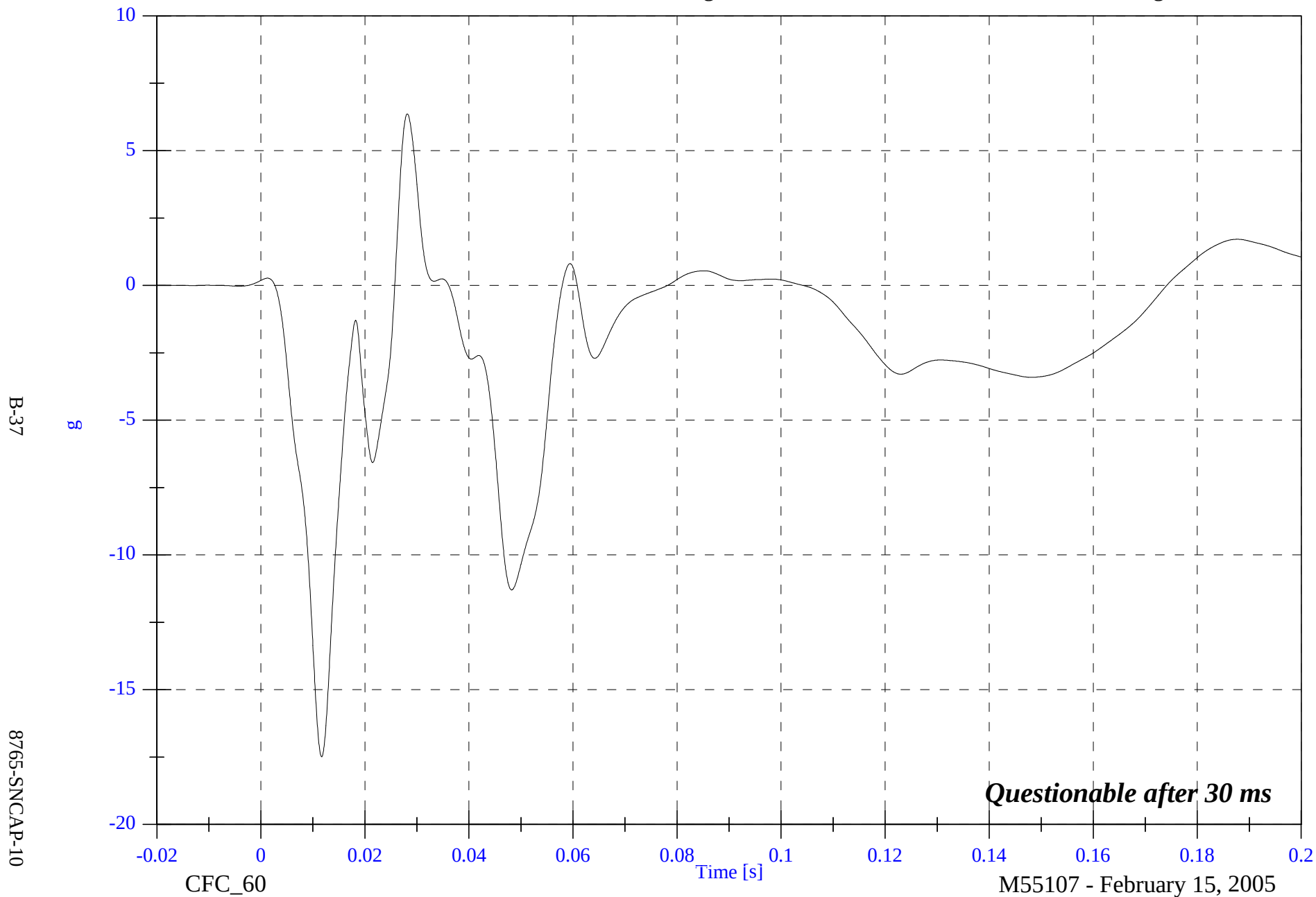


2005 SENCAP Test 5 2005 Toyota Tacoma

V2 A1 Right Front Sill Z

Max: 6.4 [g] at 0.028 [s]

Min: -17.5 [g] at 0.012 [s]

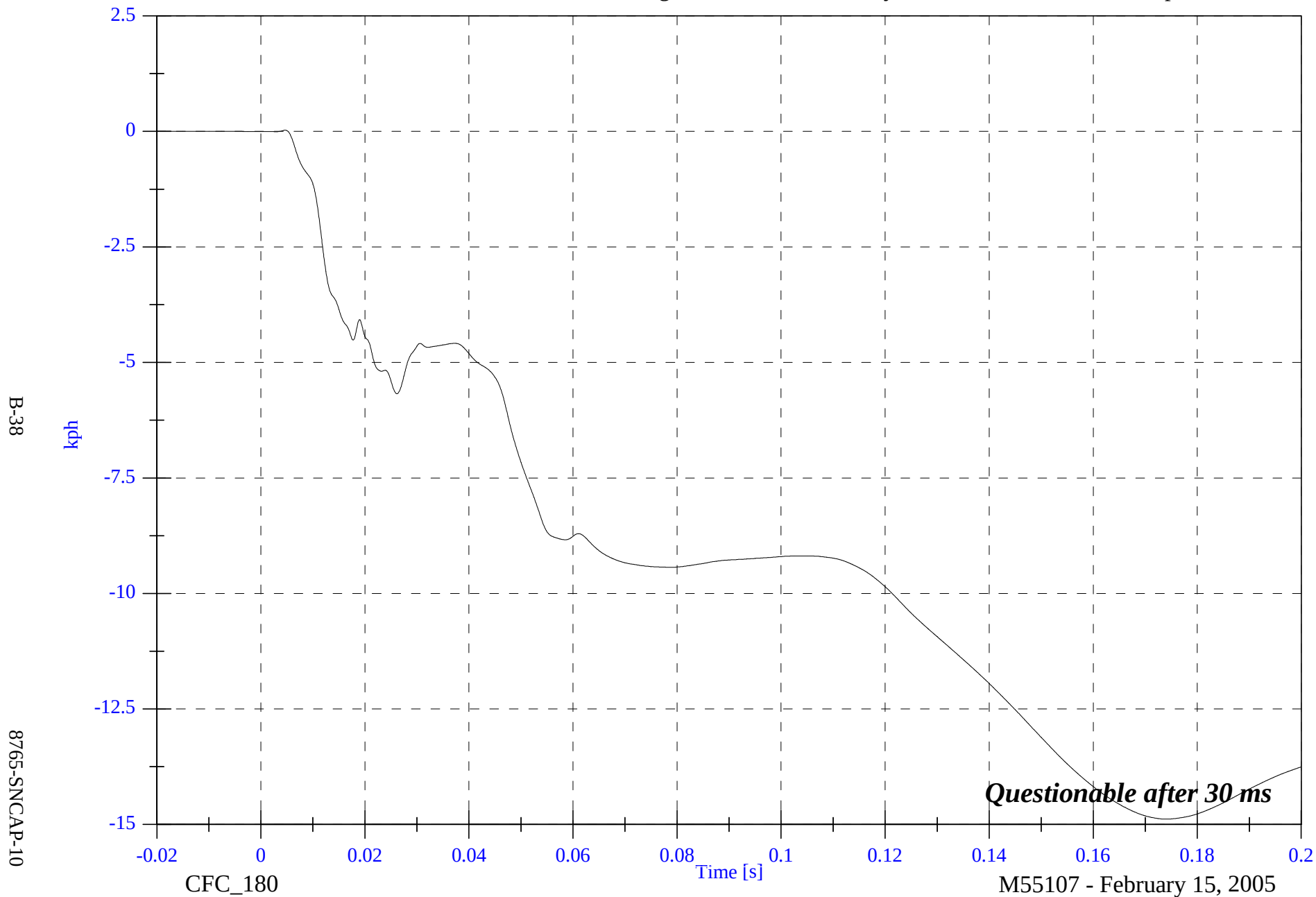


2005 SNCAP Test 5 2005 Toyota Tacoma

V2 A1 Right Front Sill Z Velocity

Max: 0.0 [kph] at 0.005 [s]

Min: -14.9 [kph] at 0.174 [s]



2005 SNCAP Test 5 2005 Toyota Tacoma

V2 A1 Right Front Sill Resultant

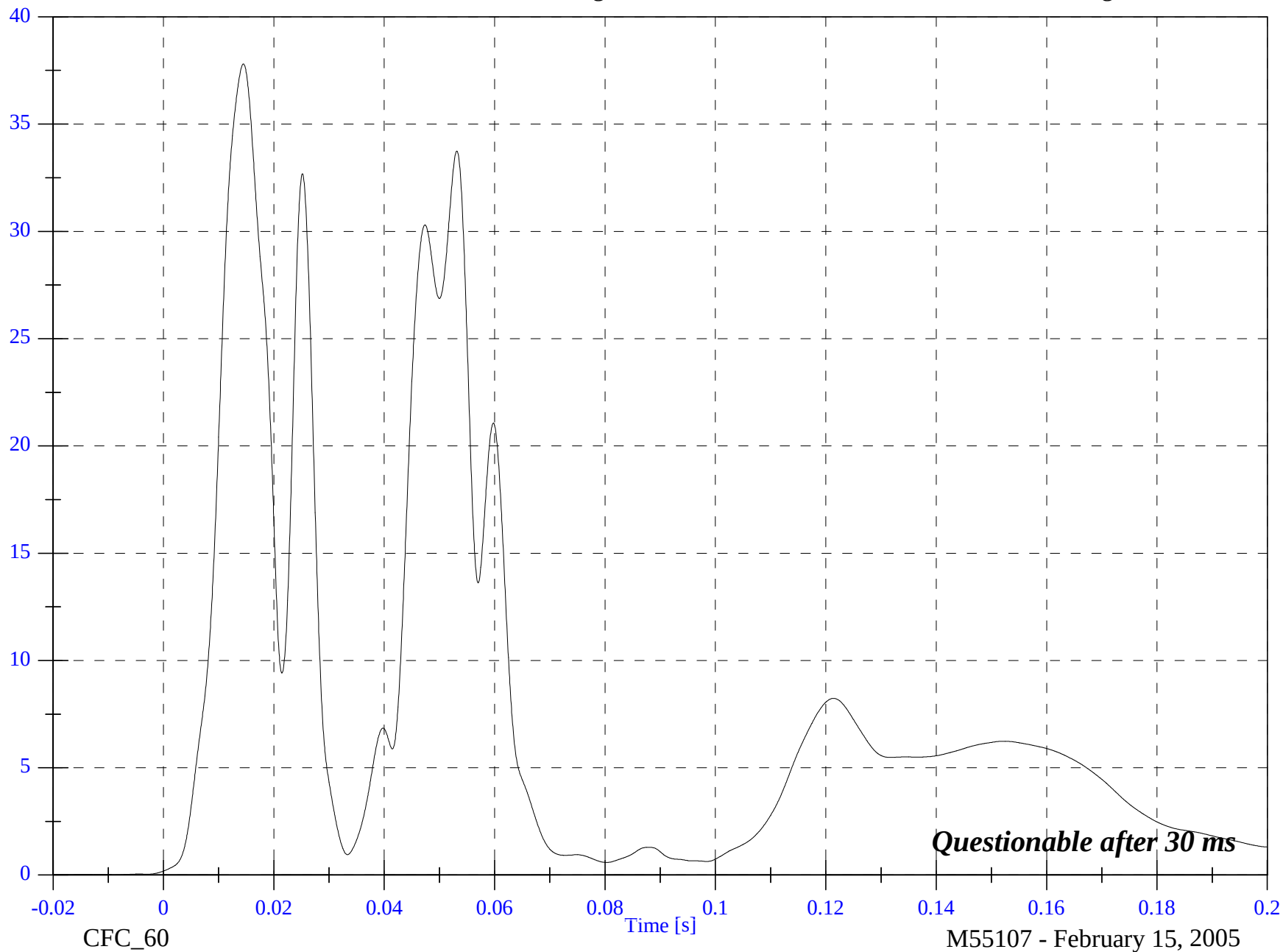
Max: 37.8 [g] at 0.014 [s]

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

B-39

8765-SNCAP-10

g

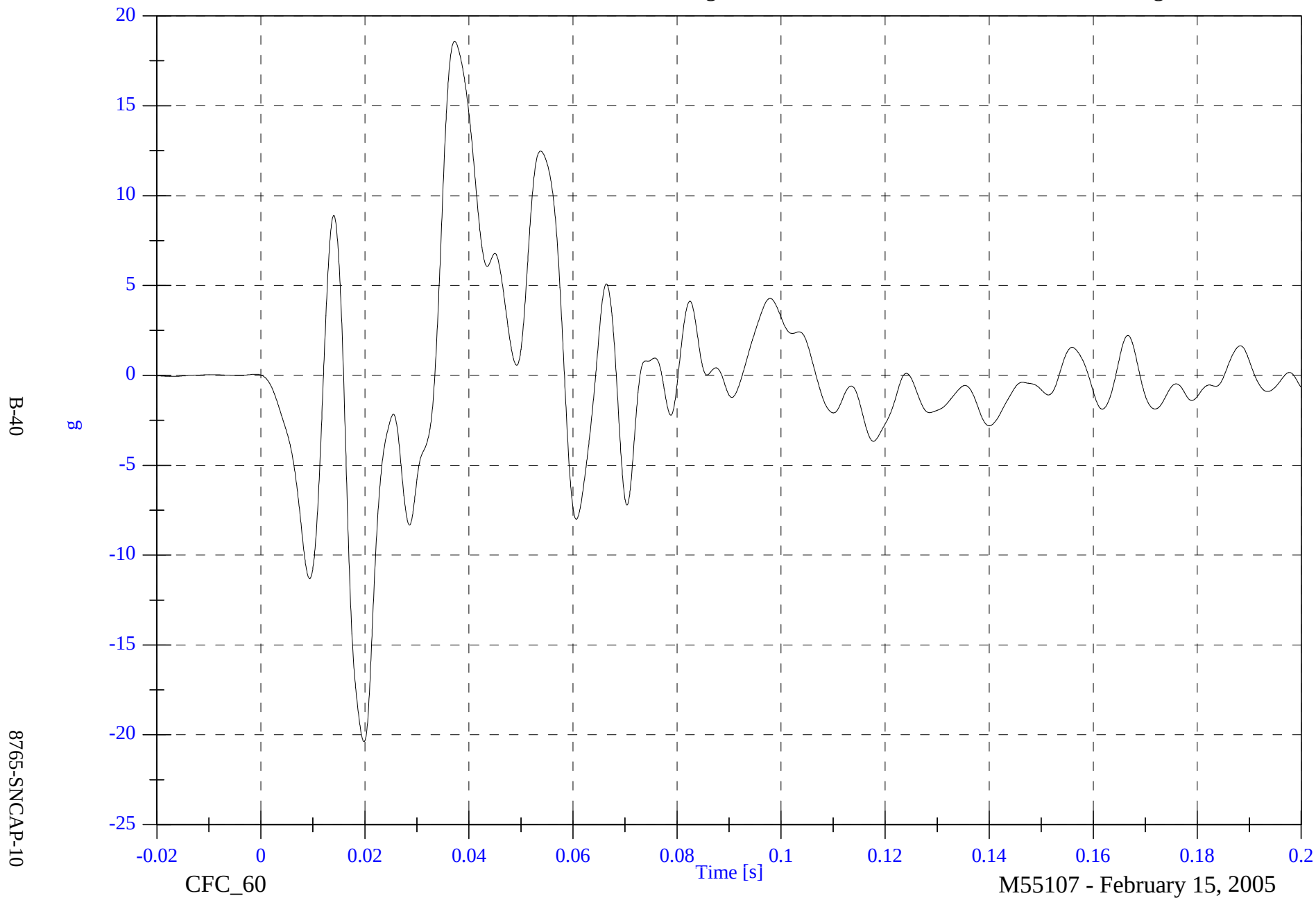


2005 SENCAP Test 5 2005 Toyota Tacoma

V2 A2 Right Rear Sill X

Max: 18.6 [g] at 0.037 [s]

Min: -20.4 [g] at 0.020 [s]

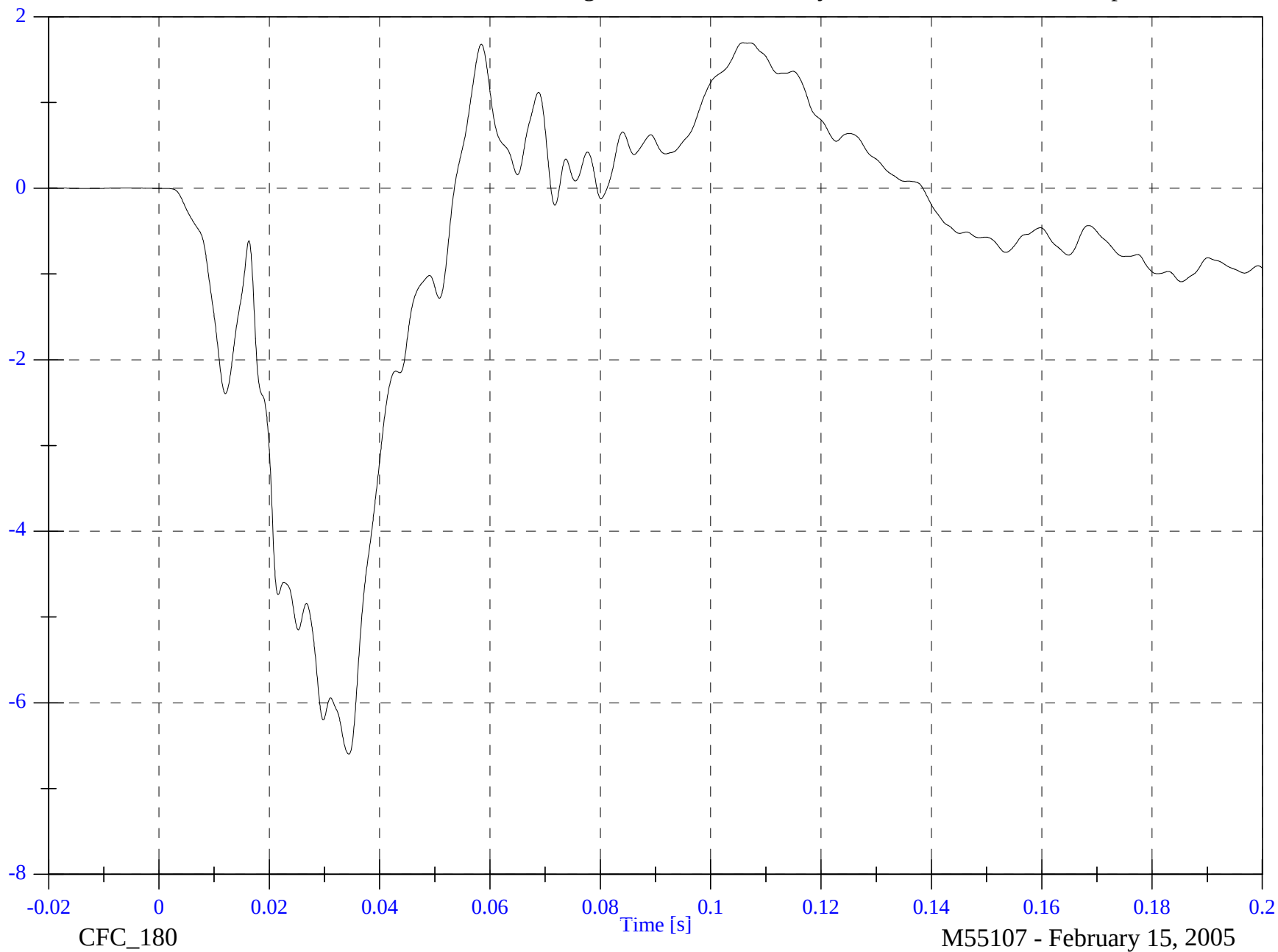


2005 SNCAP Test 5 2005 Toyota Tacoma

Max: 1.7 [kph] at 0.106 [s]

V2 A2 Right Rear Sill X Velocity

Min: -6.6 [kph] at 0.034 [s]



B-41

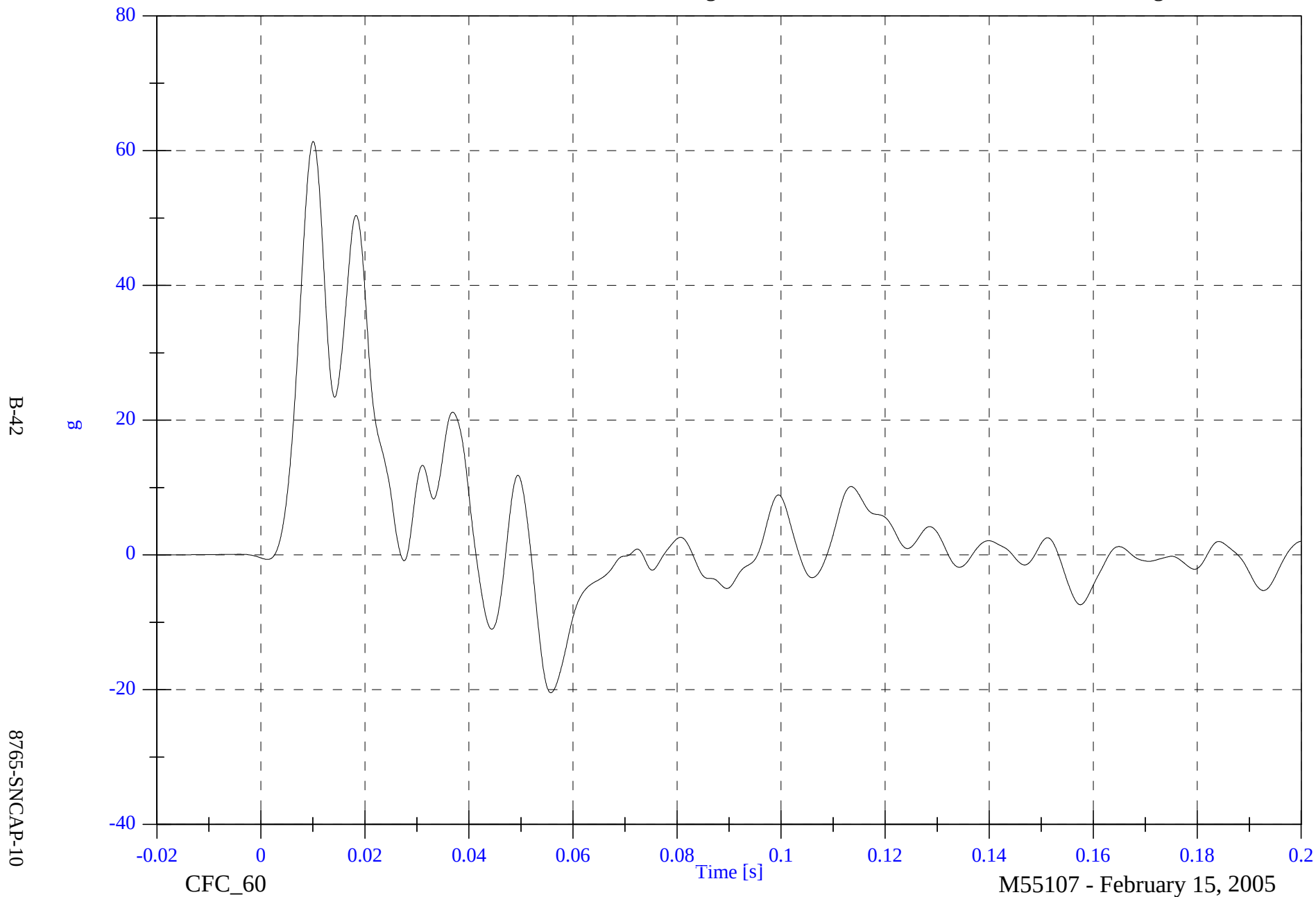
8765-SNCAP-10

2005 SENCAP Test 5 2005 Toyota Tacoma

V2 A2 Right Rear Sill Y

Max: 61.4 [g] at 0.010 [s]

Min: -20.5 [g] at 0.056 [s]

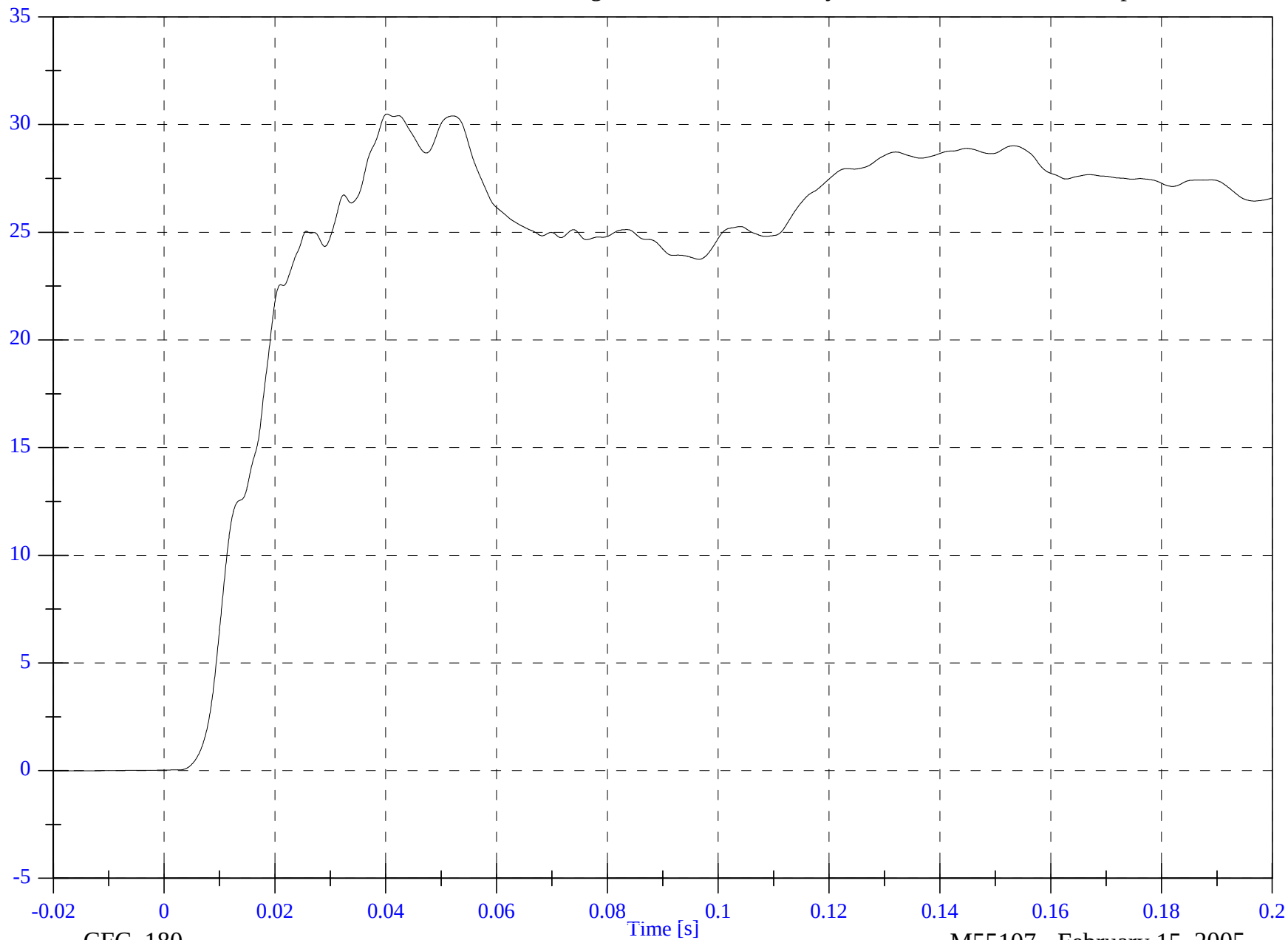


2005 SNCAP Test 5 2005 Toyota Tacoma

V2 A2 Right Rear Sill Y Velocity

Max: 30.5 [kph] at 0.040 [s]

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



B-43

8765-SNCAP-10

CFC_180

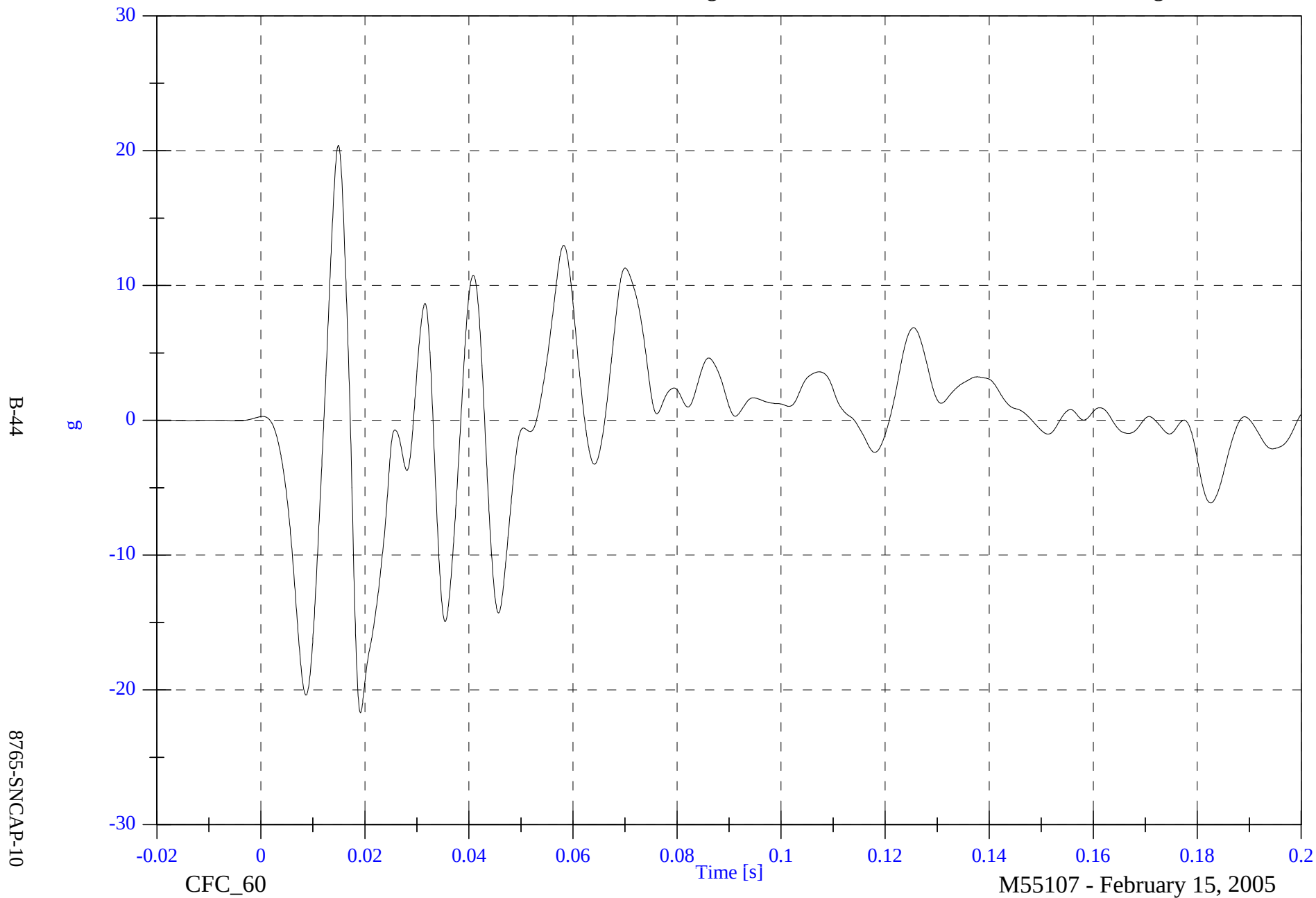
M55107 - February 15, 2005

2005 SENCAP Test 5 2005 Toyota Tacoma

V2 A2 Right Rear Sill Z

Max: 20.4 [g] at 0.015 [s]

Min: -21.7 [g] at 0.019 [s]



2005 SENCAP Test 5 2005 Toyota Tacoma

V2 A2 Right Rear Sill Z Velocity

Max: 2.0 [kph] at 0.163 [s]

Min: -7.4 [kph] at 0.053 [s]

B-45

8765-SENCAP-10



2005 SENCAP Test 5 2005 Toyota Tacoma

V2 A2 Right Rear Sill Resultant

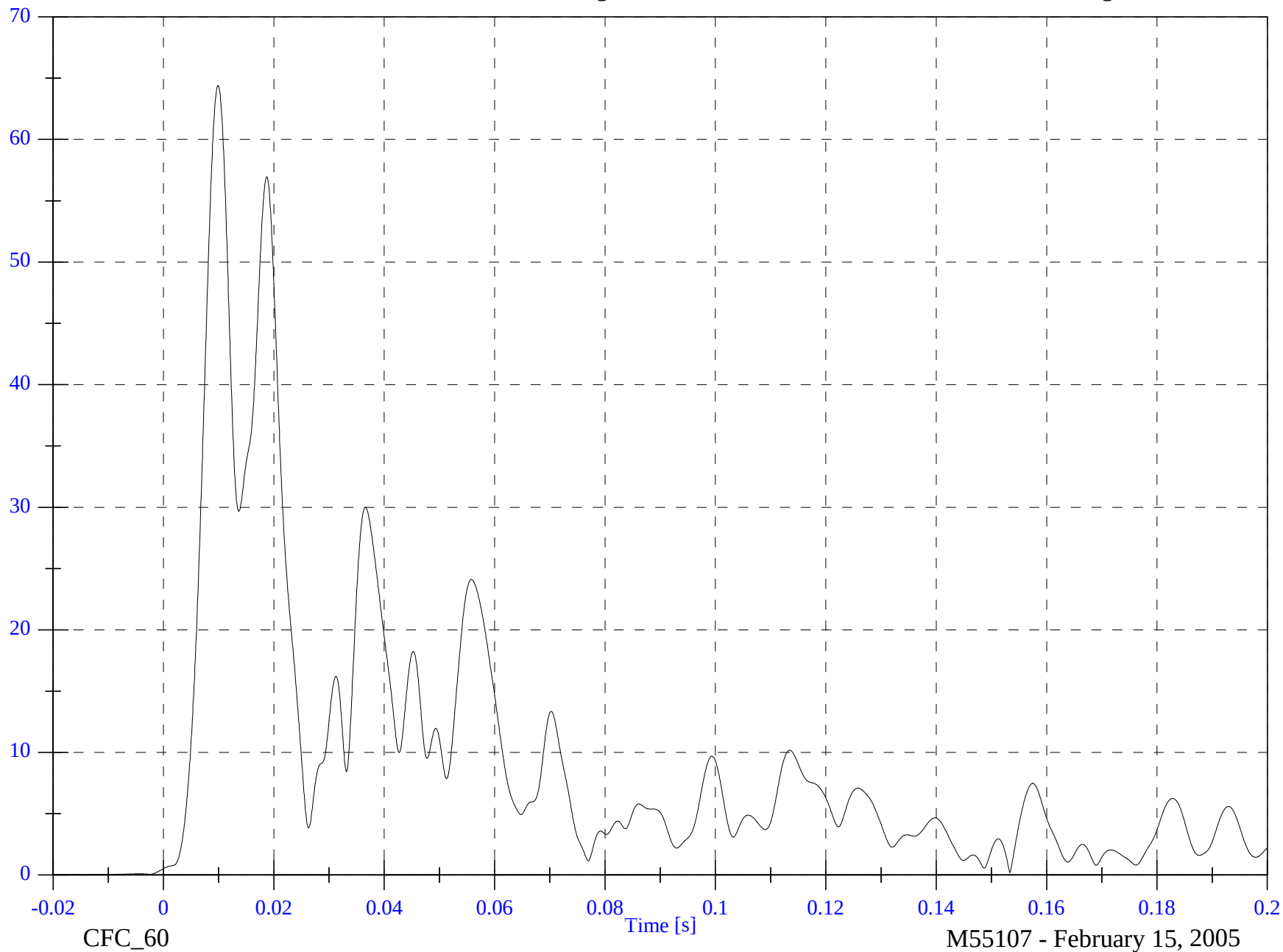
Max: 64.4 [g] at 0.010 [s]

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

B-46

8765-SNAP-10

g



2005 SNCAP Test 5 2005 Toyota Tacoma

V2 A3 Rear Floorpan X

Max: 3.1 [g] at 0.101 [s]

Min: -13.3 [g] at 0.022 [s]



2005 SMCAP Test 5 2005 Toyota Tacoma

V2 A3 Rear Floorpan X Velocity

Max: 0.1 [kph] at 0.012 [s]

Min: -6.4 [kph] at 0.096 [s]

B-48

8765-SMCAP-10



2005 SNCAP Test 5 2005 Toyota Tacoma

V2 A3 Rear Floorpan Y

Max: 28.0 [g] at 0.018 [s]

Min: -5.9 [g] at 0.127 [s]



2005 SNCAP Test 5 2005 Toyota Tacoma

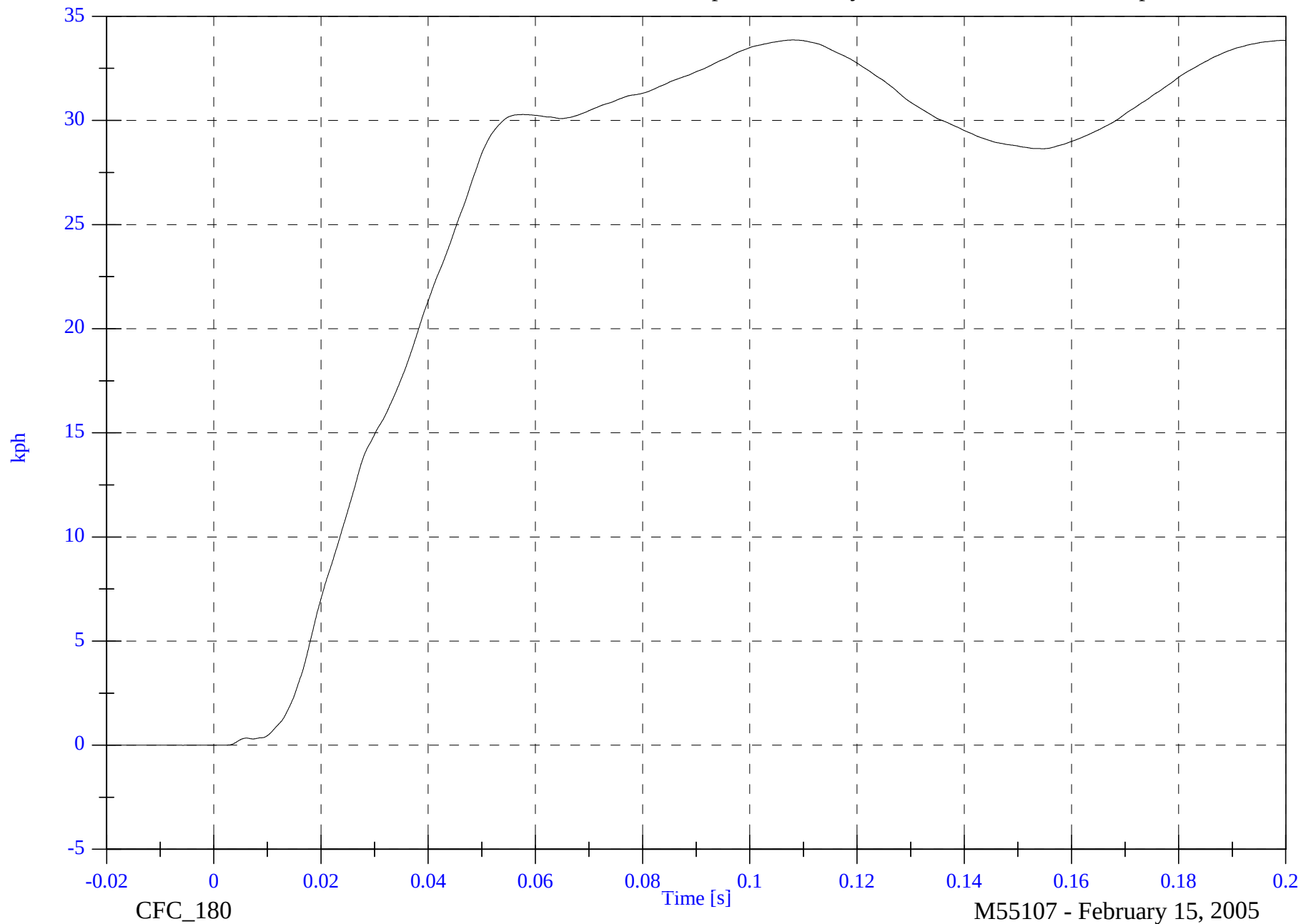
V2 A3 Rear Floorpan Y Velocity

Max: 33.9 [kph] at 0.108 [s]

Min: -0.0 [kph] at -0.006 [s]

B-50

8765-SNCAP-10

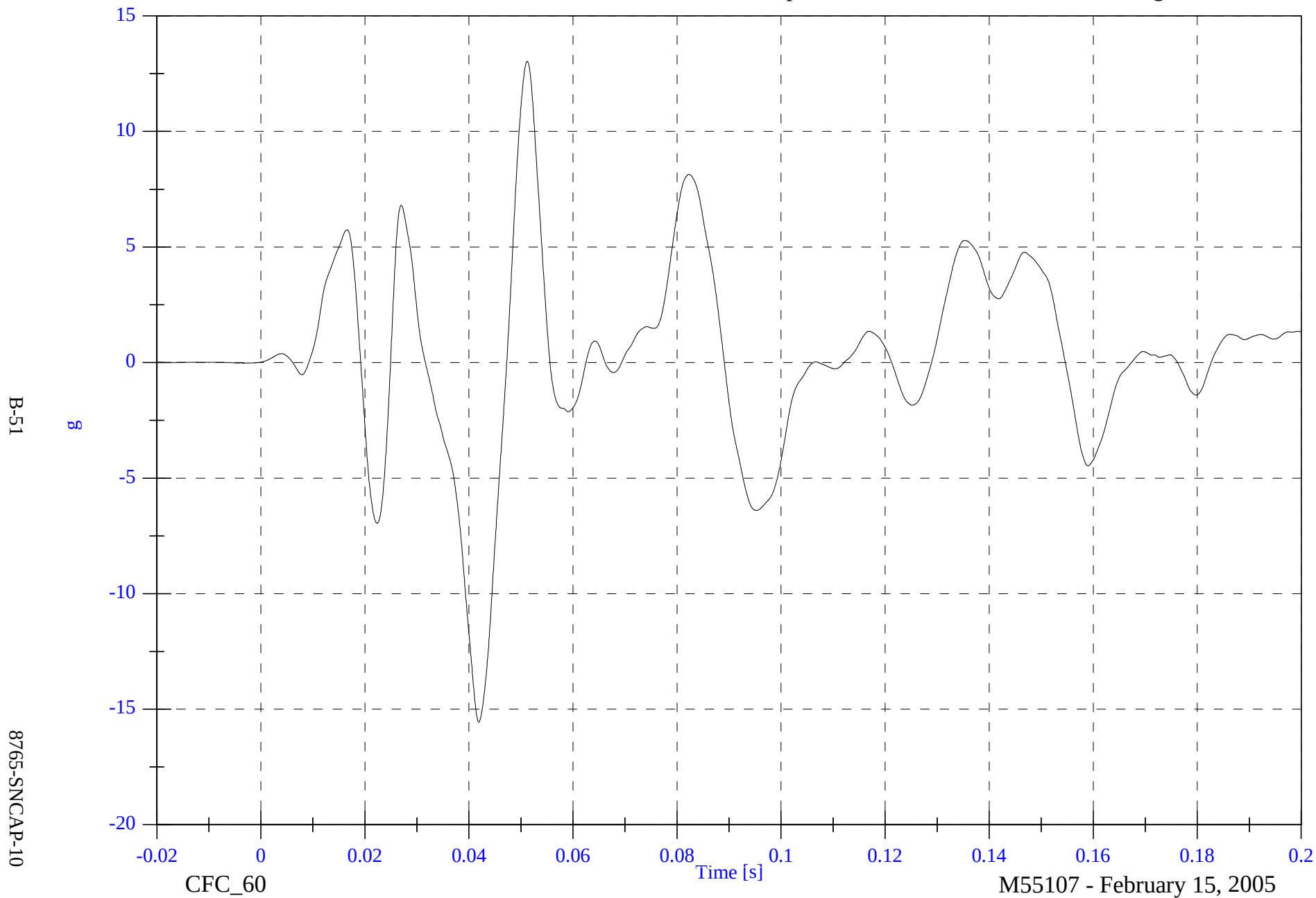


2005 SNCAP Test 5 2005 Toyota Tacoma

V2 A3 Rear Floorplan Z

Max: 13.0 [g] at 0.051 [s]

Min: -15.6 [g] at 0.042 [s]



2005 SNCAP Test 5 2005 Toyota Tacoma

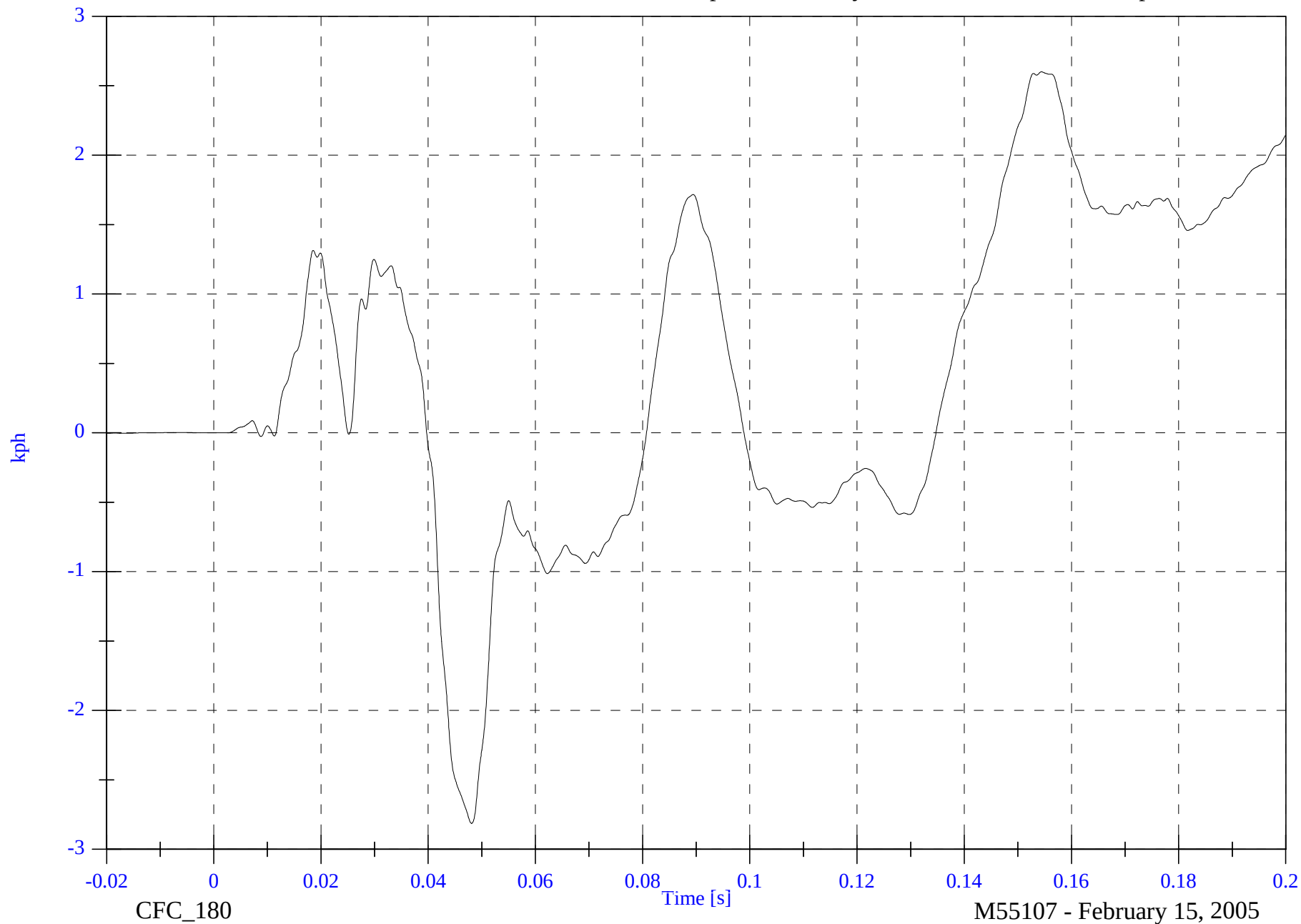
V2 A3 Rear Floorplan Z Velocity

Max: 2.6 [kph] at 0.154 [s]

Min: -2.8 [kph] at 0.048 [s]

B-52

8765-SNCAP-10



2005 SNCAP Test 5 2005 Toyota Tacoma

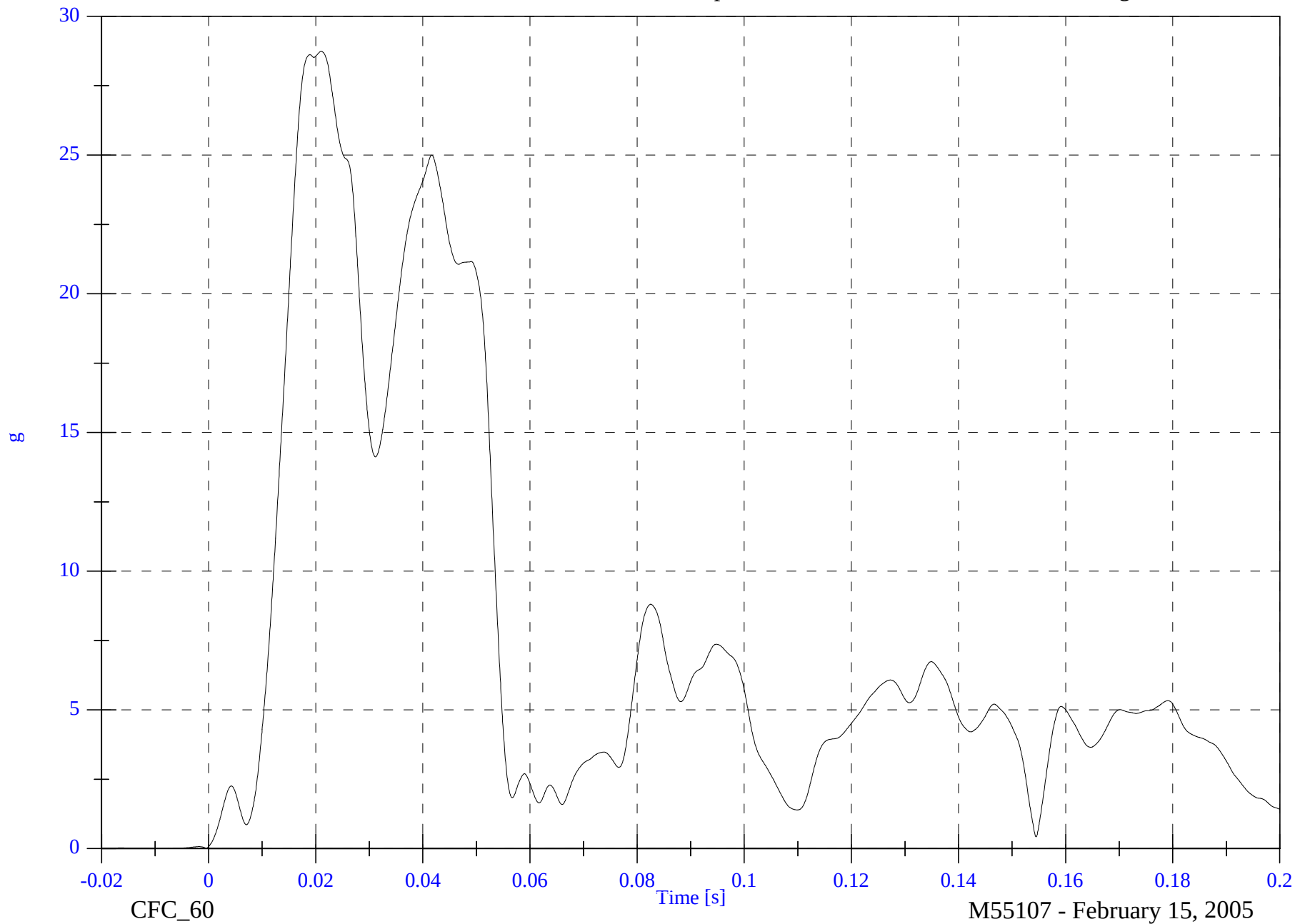
V2 A3 Rear Floorpan Resultant

Max: 28.7 [g] at 0.021 [s]

Min: 0.0 [g] at -0.000 [s]

B-53

8765-SNCAP-10

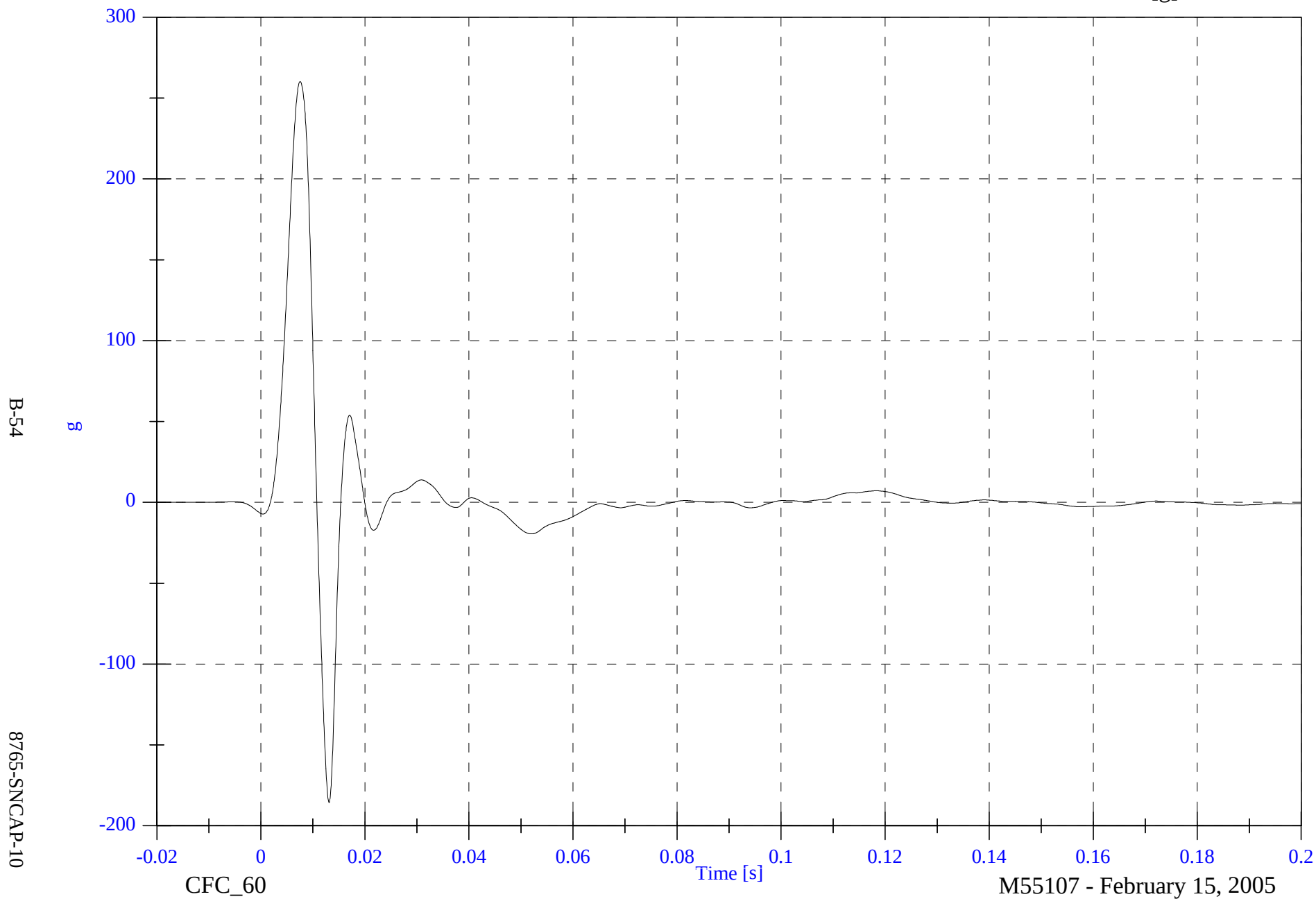


2005 SNCAP Test 5 2005 Toyota Tacoma

V2 A4 Left Rear Sill Y

Max: 260.2 [g] at 0.008 [s]

Min: -185.6 [g] at 0.013 [s]



2005 SNCAP Test 5 2005 Toyota Tacoma

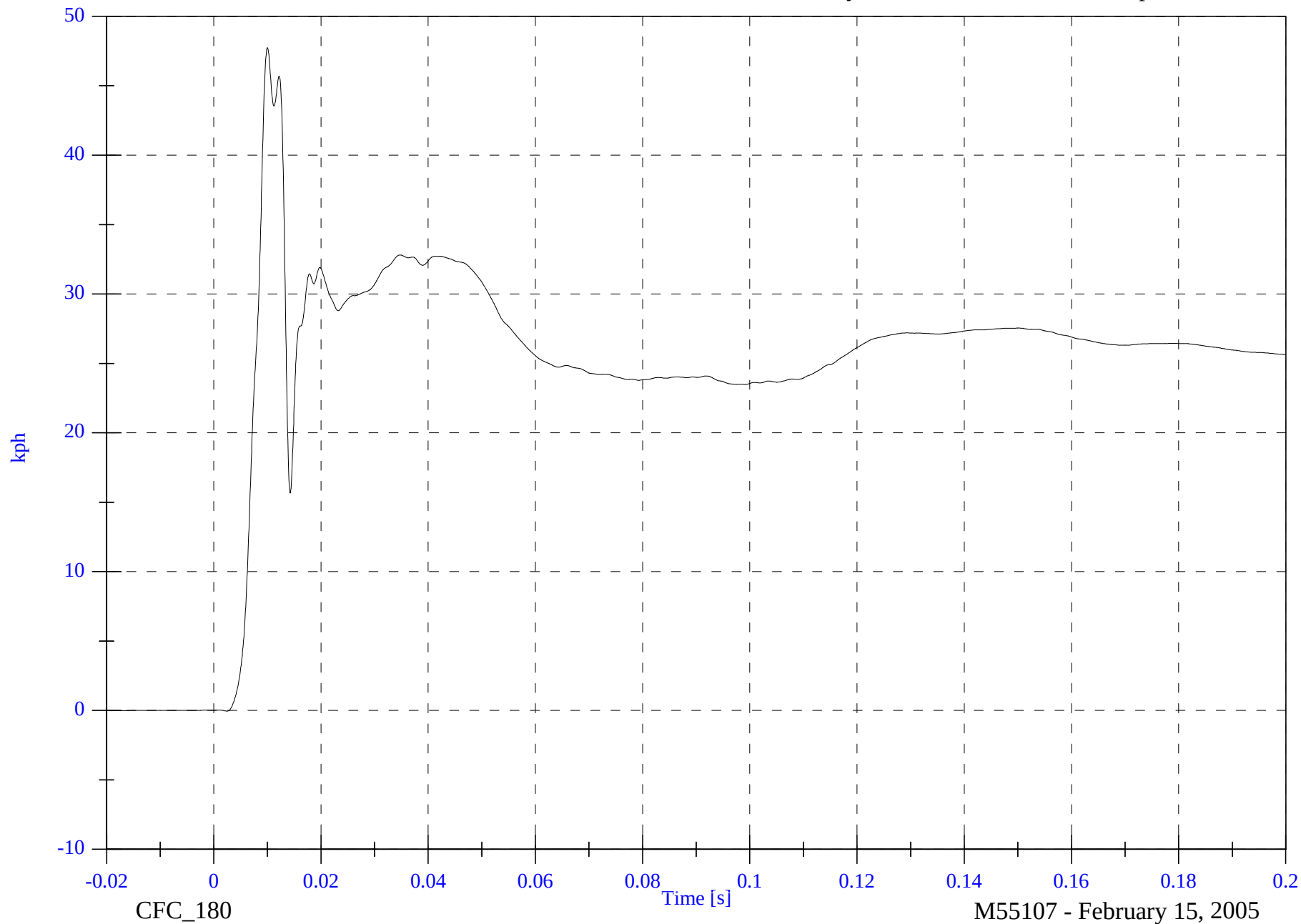
V2 A4 Left Rear Sill Y Velocity

Max: 47.7 [kph] at 0.010 [s]

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

B-55

8765-SNCAP-10

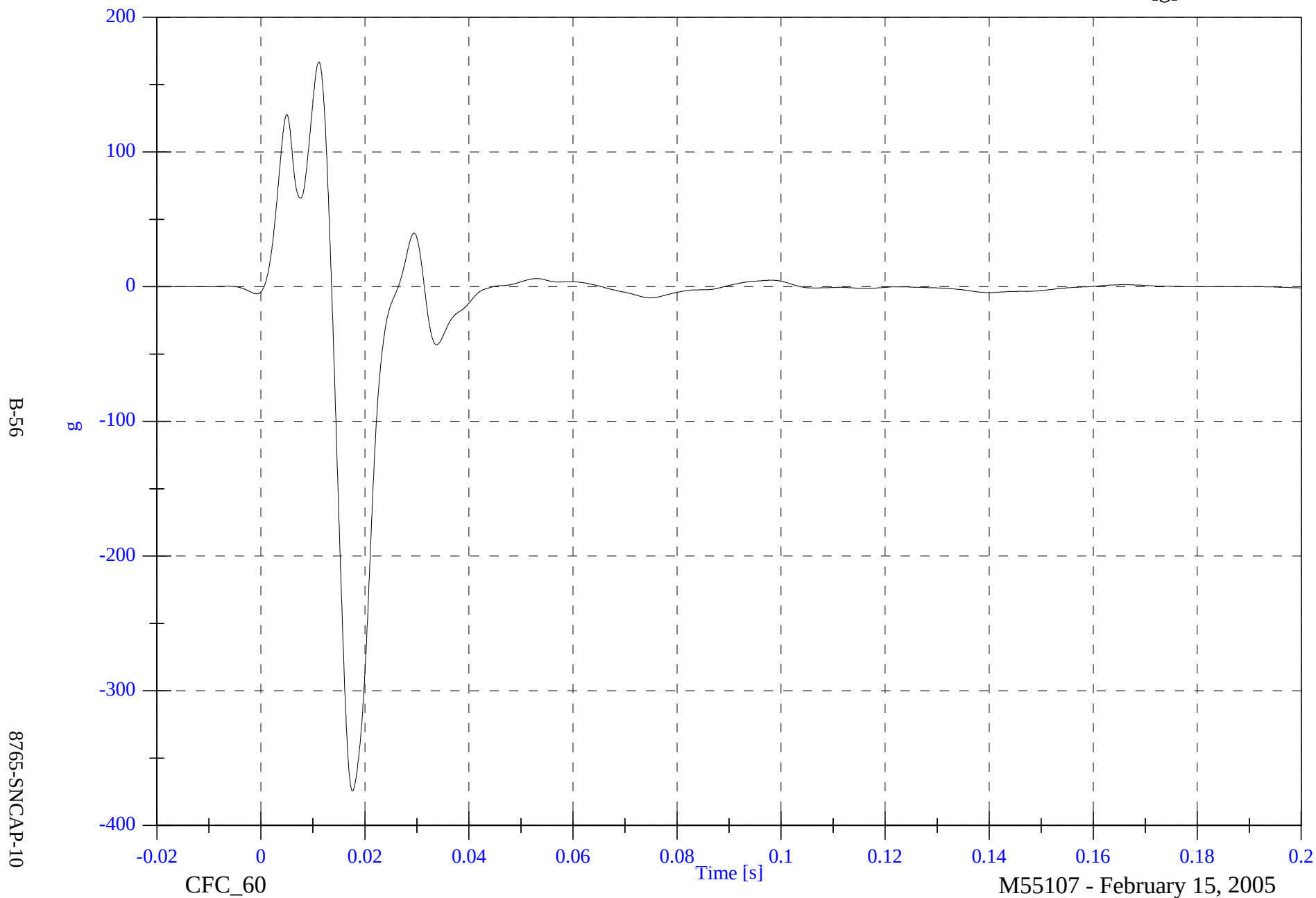


2005 SNCAP Test 5 2005 Toyota Tacoma

V2 A5 Left Front Sill Y

Max: 166.8 [g] at 0.011 [s]

Min: -374.4 [g] at 0.018 [s]



2005 SNCAP Test 5 2005 Toyota Tacoma

V2 A5 Left Front Sill Y Velocity

Max: 42.6 [kph] at 0.013 [s]

Min: -47.5 [kph] at 0.160 [s]

B-57

8765-SNCAP-10

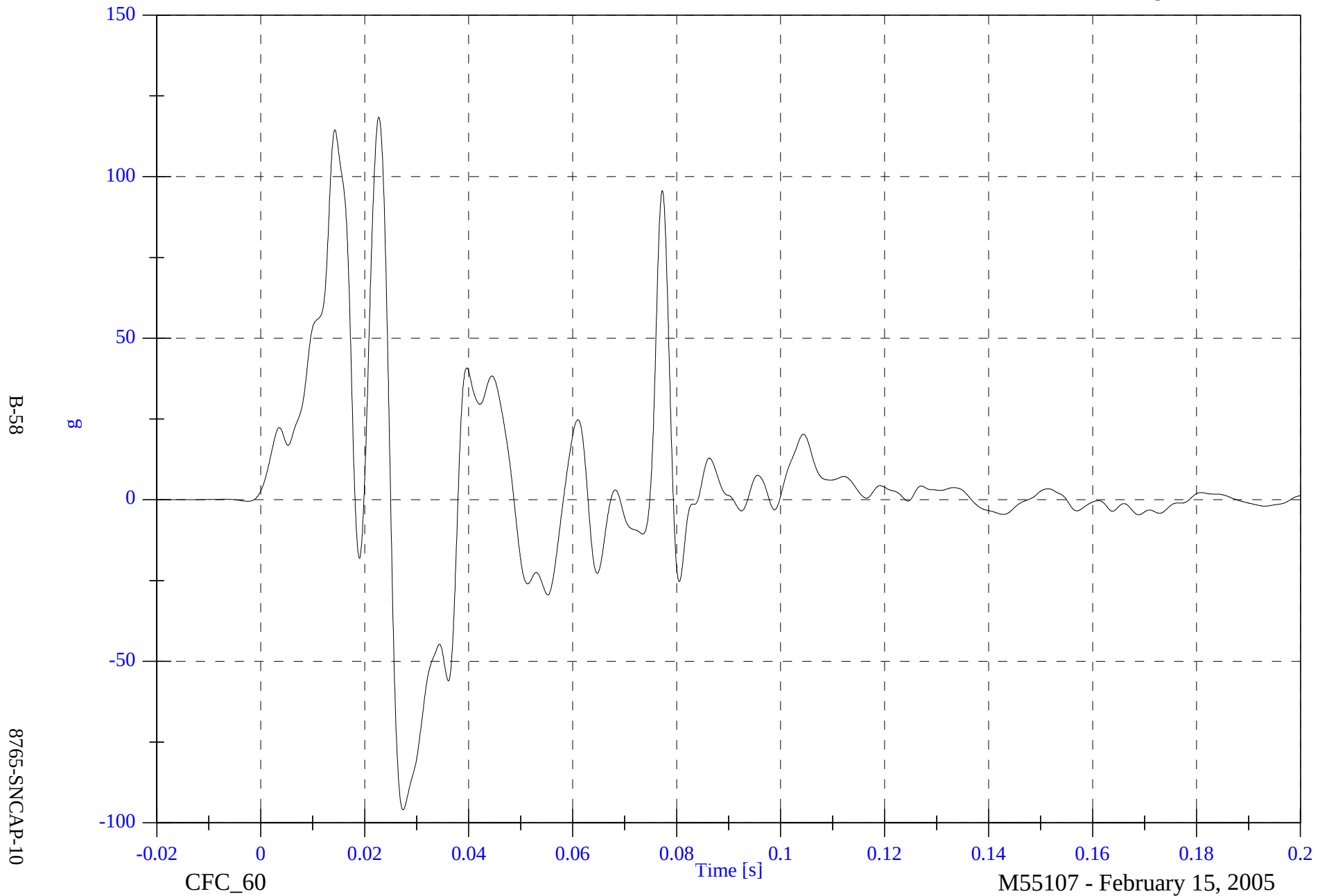


2005 SNCAP Test 5 2005 Toyota Tacoma

V2 A6 Left Front Door C/L Y

Max: 118.5 [g] at 0.023 [s]

Min: -96.0 [g] at 0.027 [s]

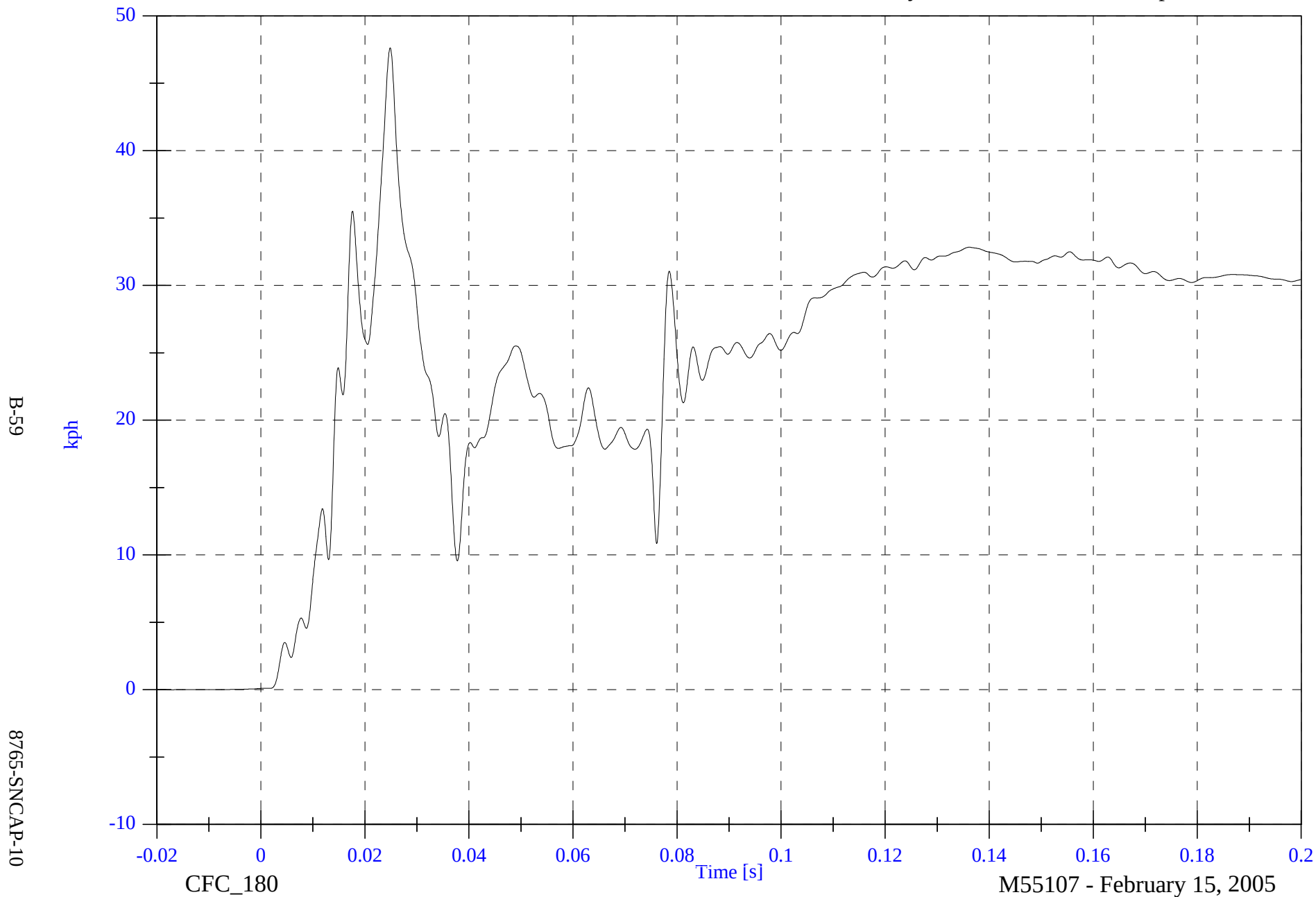


2005 SNCAP Test 5 2005 Toyota Tacoma

Max: 47.6 [kph] at 0.025 [s]

V2 A6 Left Front Door C/L Y Velocity

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

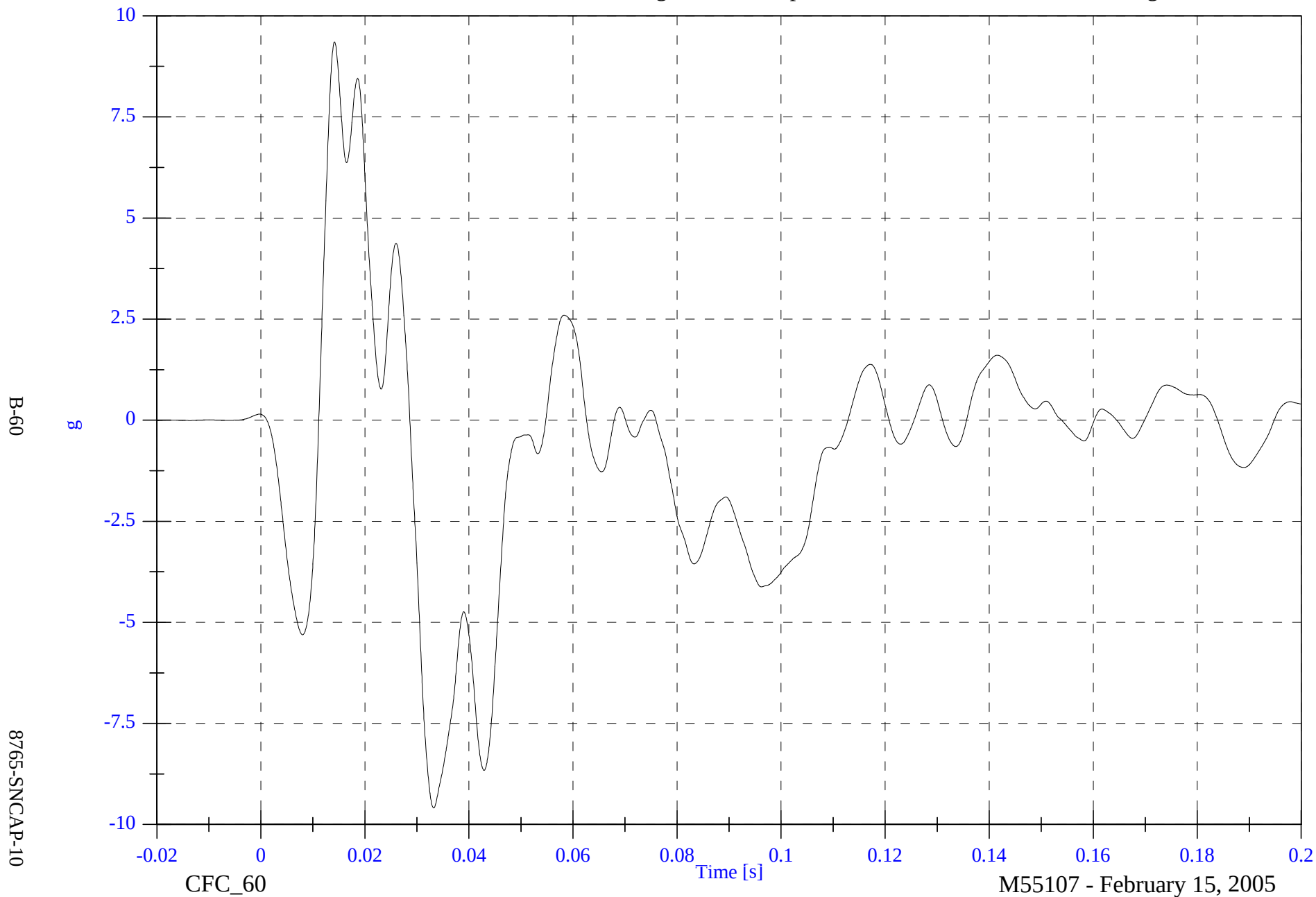


2005 SNCAP Test 5 2005 Toyota Tacoma

V2 A7 Right Rear Compartment Y

Max: 9.4 [g] at 0.014 [s]

Min: -9.6 [g] at 0.033 [s]



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V2 A7 Right Rear Compartment Y Velocity

Max: 2.0 [kph] at 0.029 [s]

Min: -5.4 [kph] at 0.113 [s]

B-61

8765-SNCAP-10

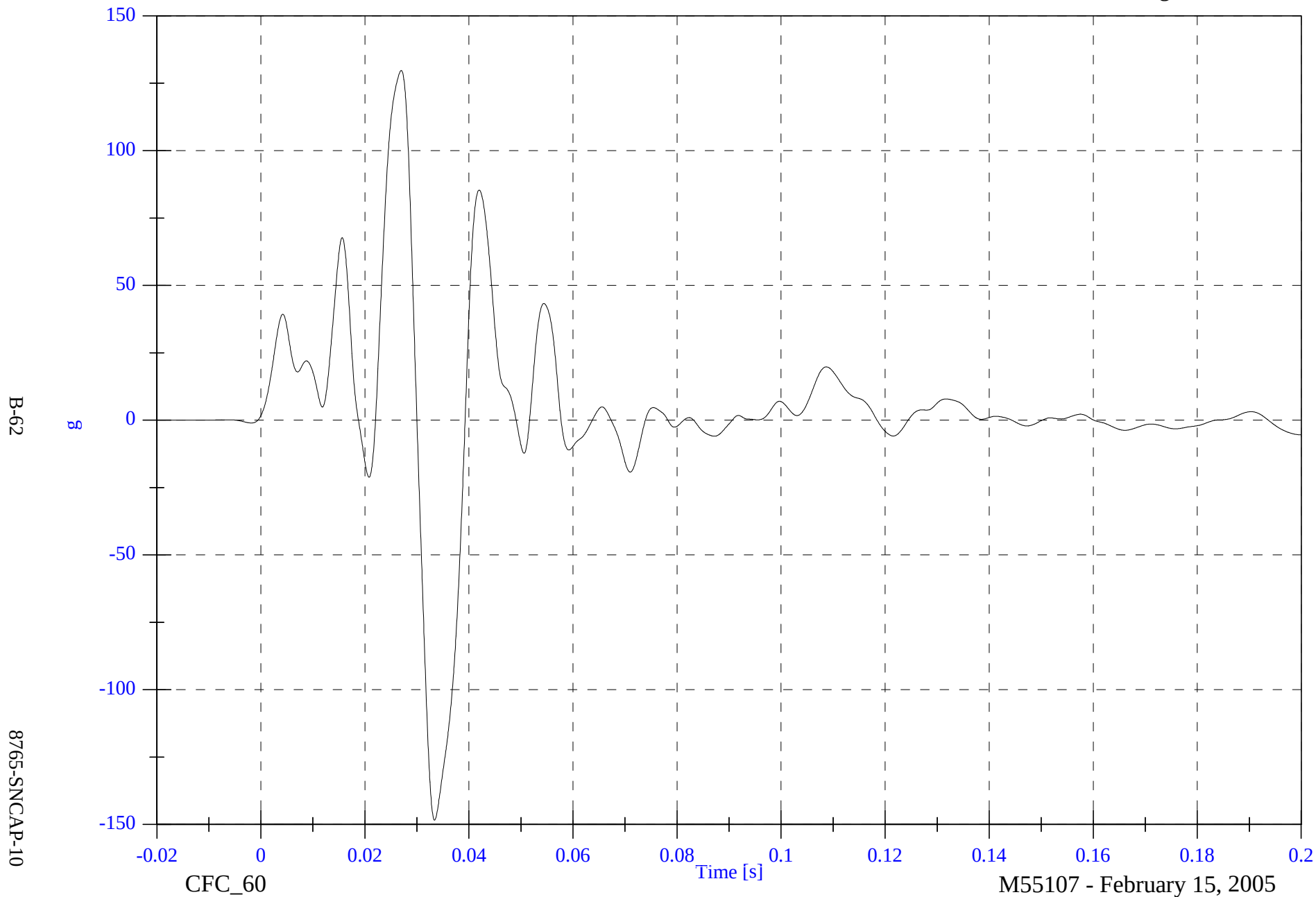


2005 SMCAP Test 5 2005 Toyota Tacoma

V2 A8 Left Front Door Midrear Y

Max: 129.7 [g] at 0.027 [s]

Min: -148.4 [g] at 0.033 [s]



2005 SNCAP Test 5 2005 Toyota Tacoma

V2 A8 Left Front Door Midrear Y Velocity

Max: 41.1 [kph] at 0.029 [s]

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

B-63

8765-SNCAP-10

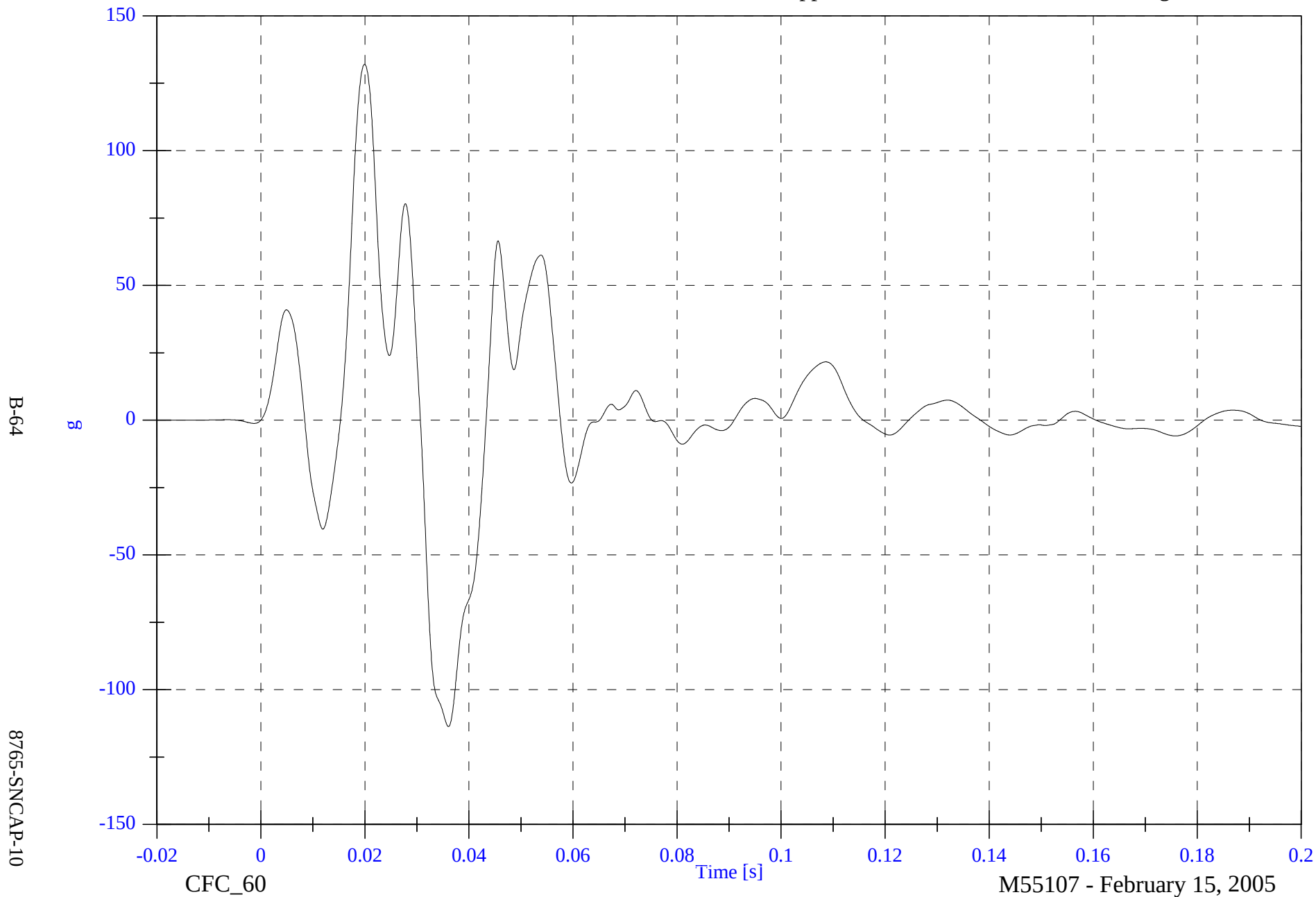


2005 SNCAP Test 5 2005 Toyota Tacoma

V2 A9 Left Front Door Upper C/L Y

Max: 132.0 [g] at 0.020 [s]

Min: -113.7 [g] at 0.036 [s]



2005 SNCAP Test 5 2005 Toyota Tacoma

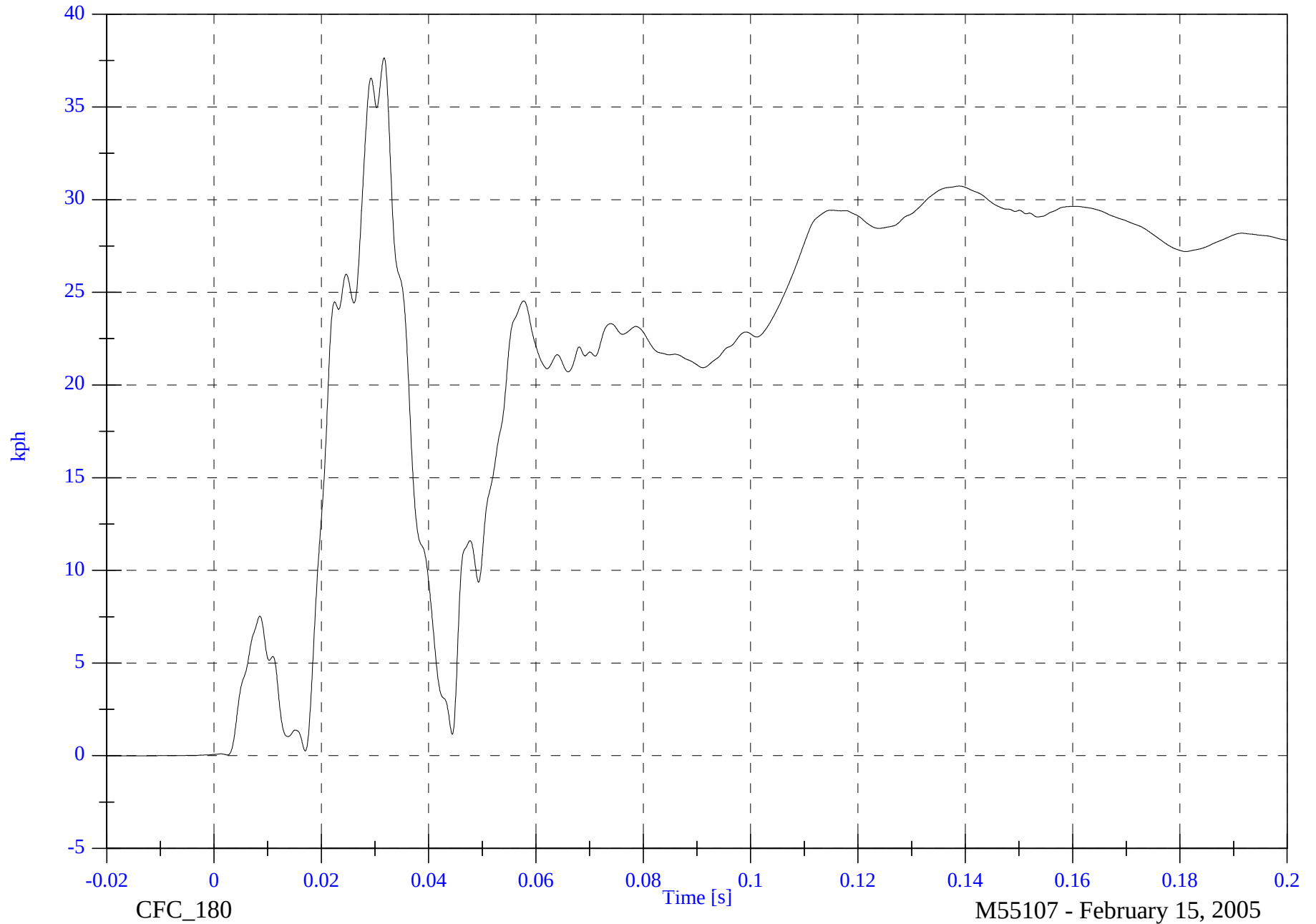
V2 A9 Left Front Door Upper C/L Y Velocity

Max: 37.7 [kph] at 0.032 [s]

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

B-65

8765-SNCAP-10

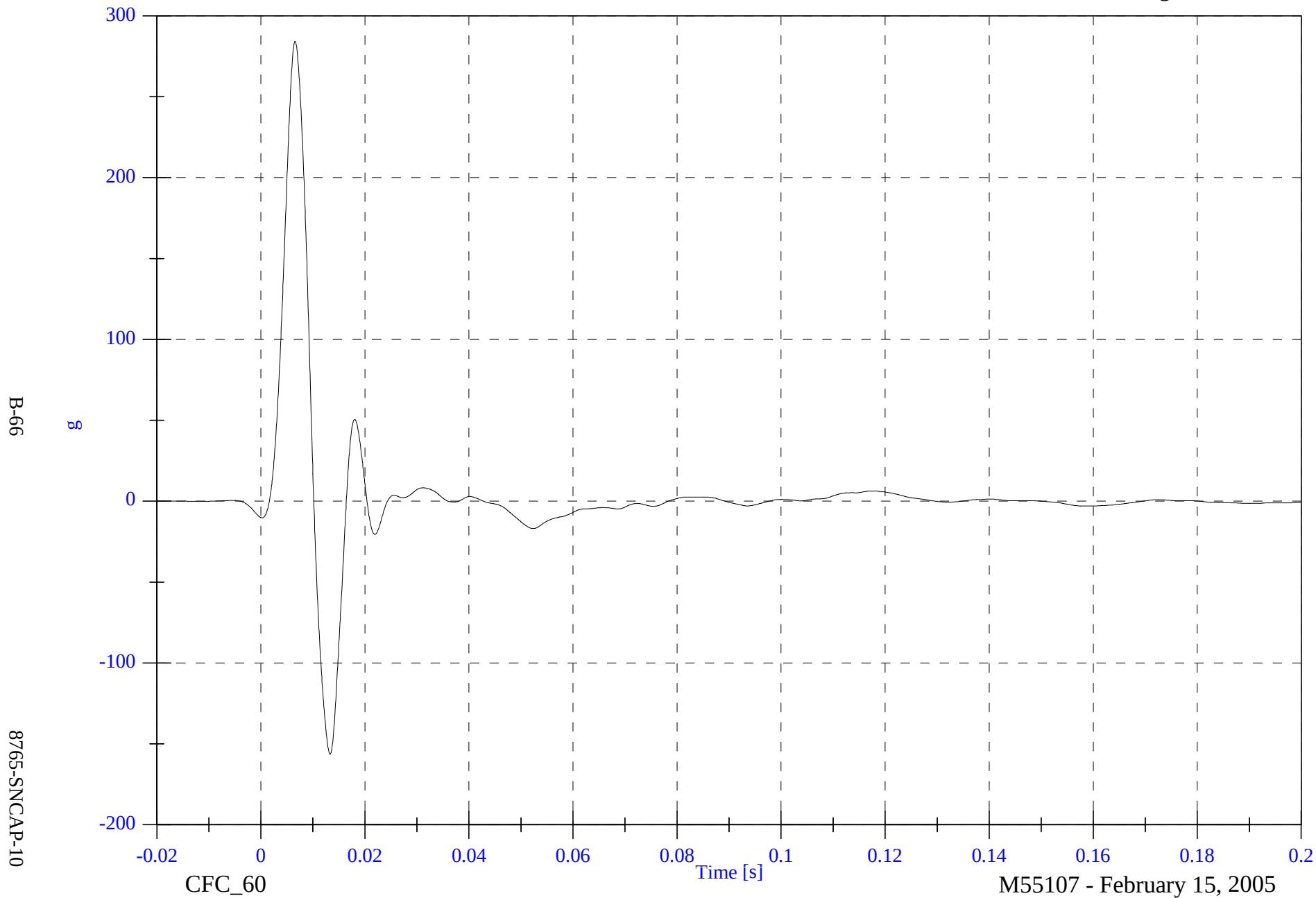


2005 SENCAP Test 5 2005 Toyota Tacoma

V2 A12 Left Lower B Post Y

Max: 284.3 [g] at 0.007 [s]

Min: -156.4 [g] at 0.013 [s]



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Max: 48.2 [kph] at 0.010 [s]

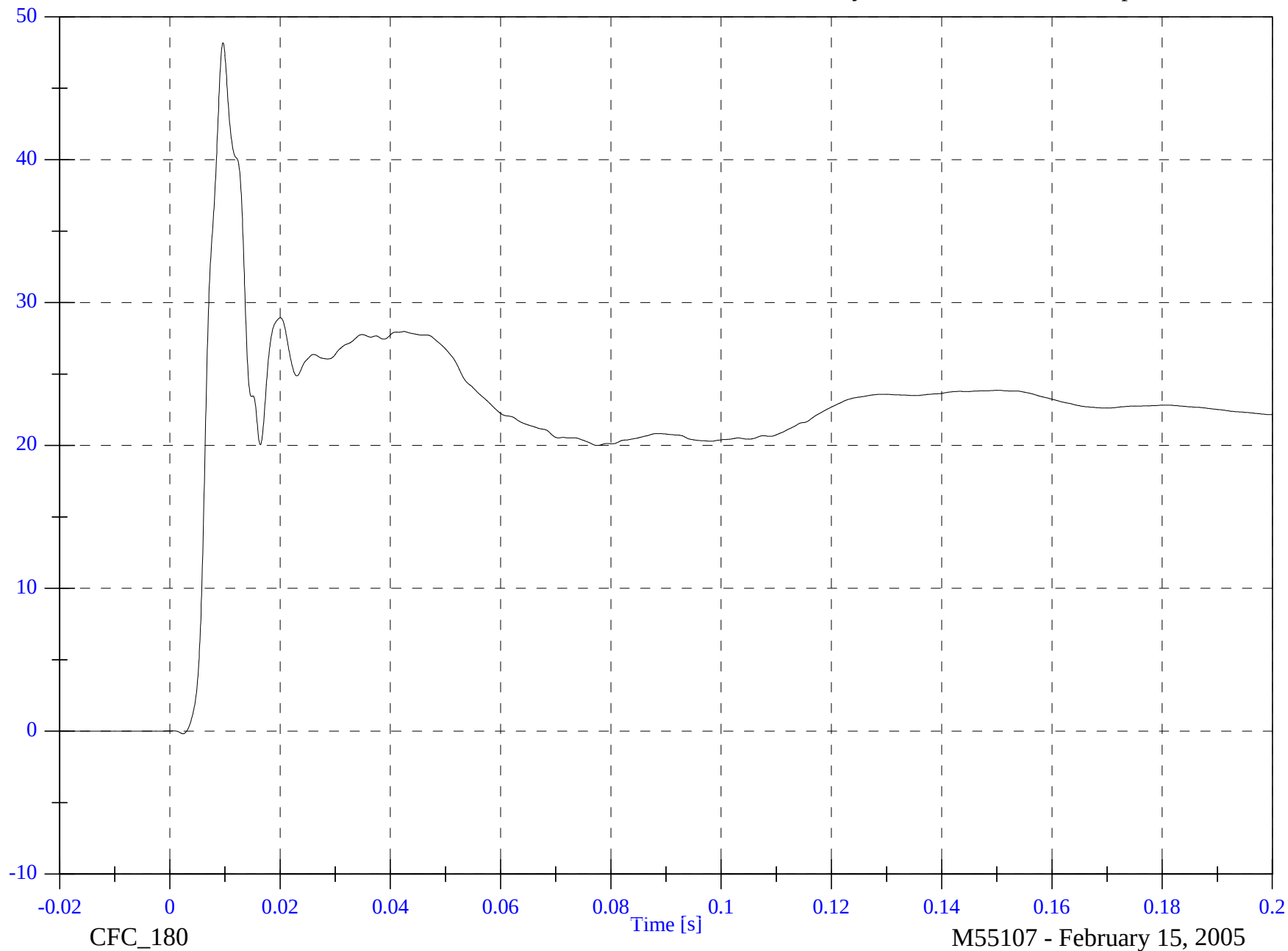
V2 A12 Left Lower B Post Y Velocity

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

B-67

kph

8765-SNCAP-10

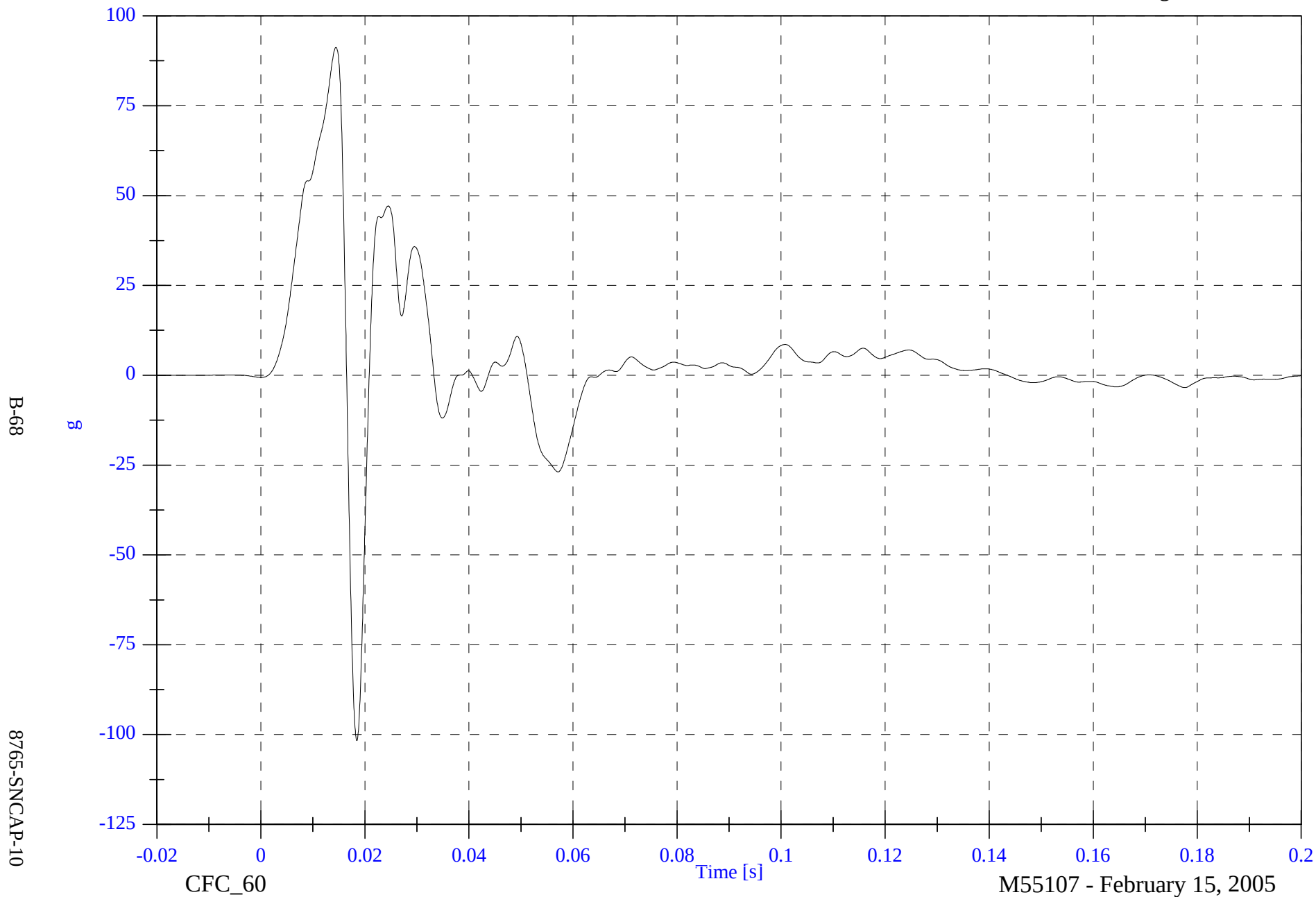


2005 SNCAP Test 5 2005 Toyota Tacoma

V2 A13 Left Mid B Post Y

Max: 91.2 [g] at 0.014 [s]

Min: -101.7 [g] at 0.018 [s]



2005 SNCAP Test 5 2005 Toyota Tacoma

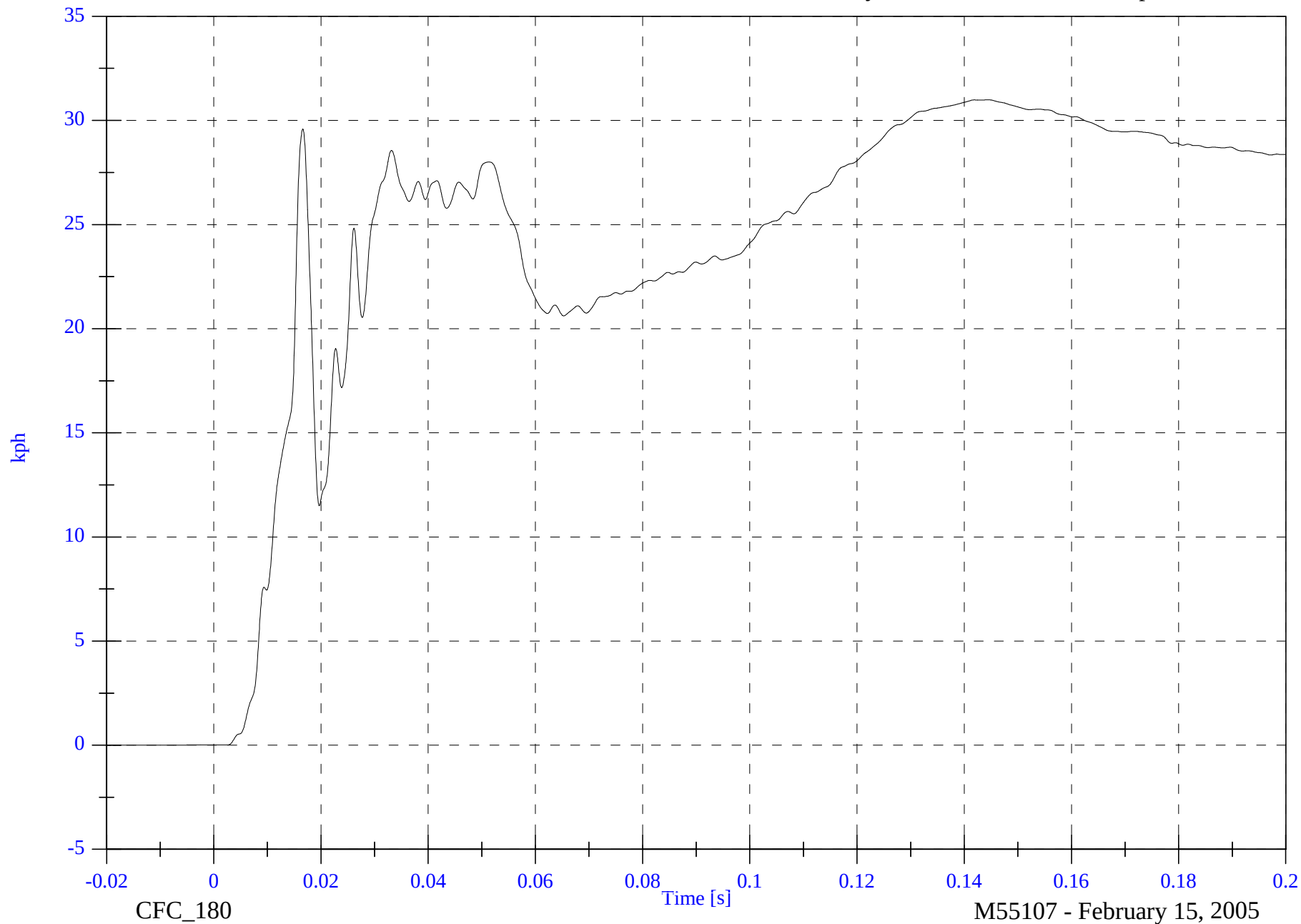
V2 A13 Left Mid B Post Y Velocity

Max: 31.0 [kph] at 0.144 [s]

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

B-69

8765-SNCAP-10

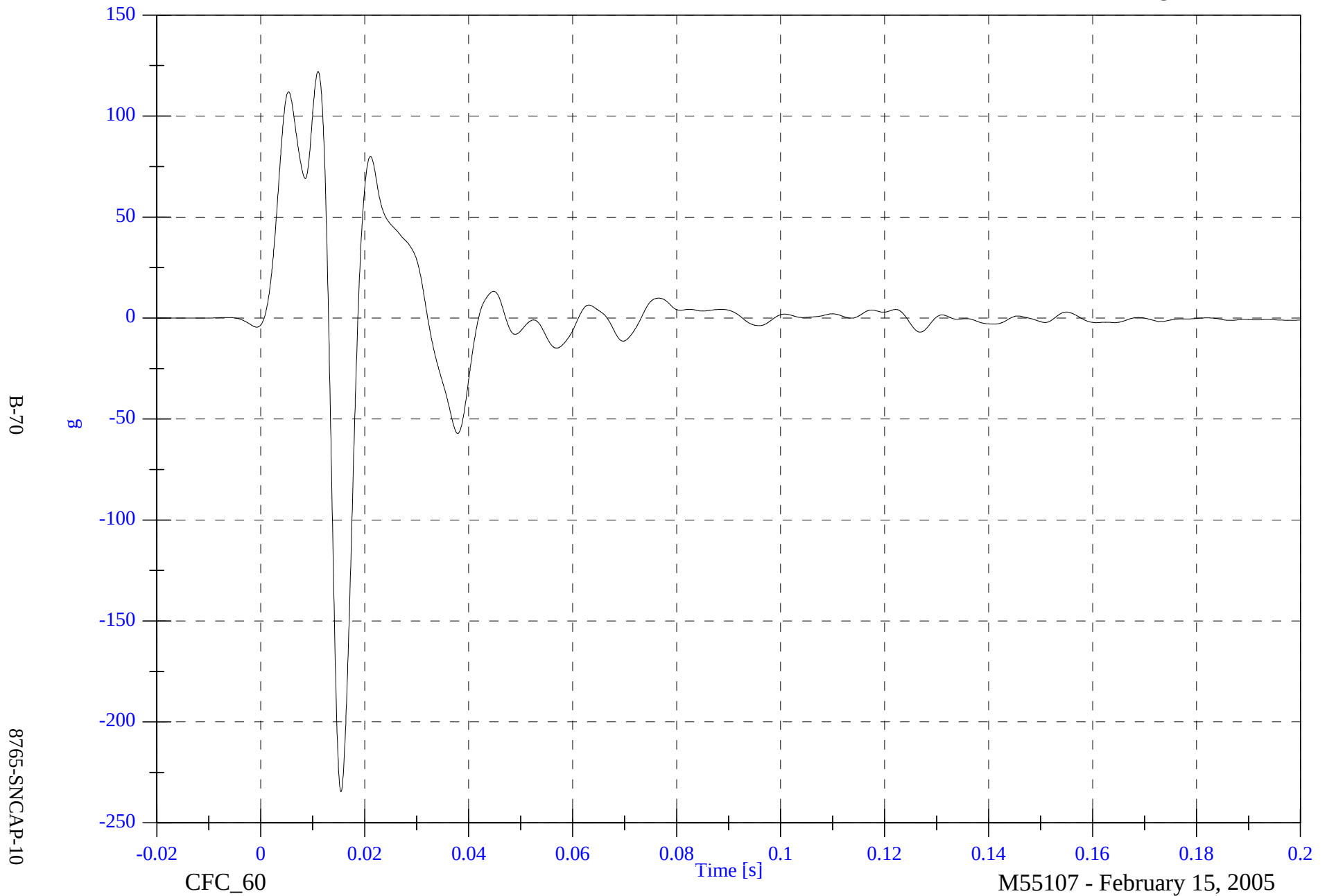


2005 SNCAP Test 5 2005 Toyota Tacoma

V2 A14 Left Lower A Post Y

Max: 122.1 [g] at 0.011 [s]

Min: -234.5 [g] at 0.015 [s]

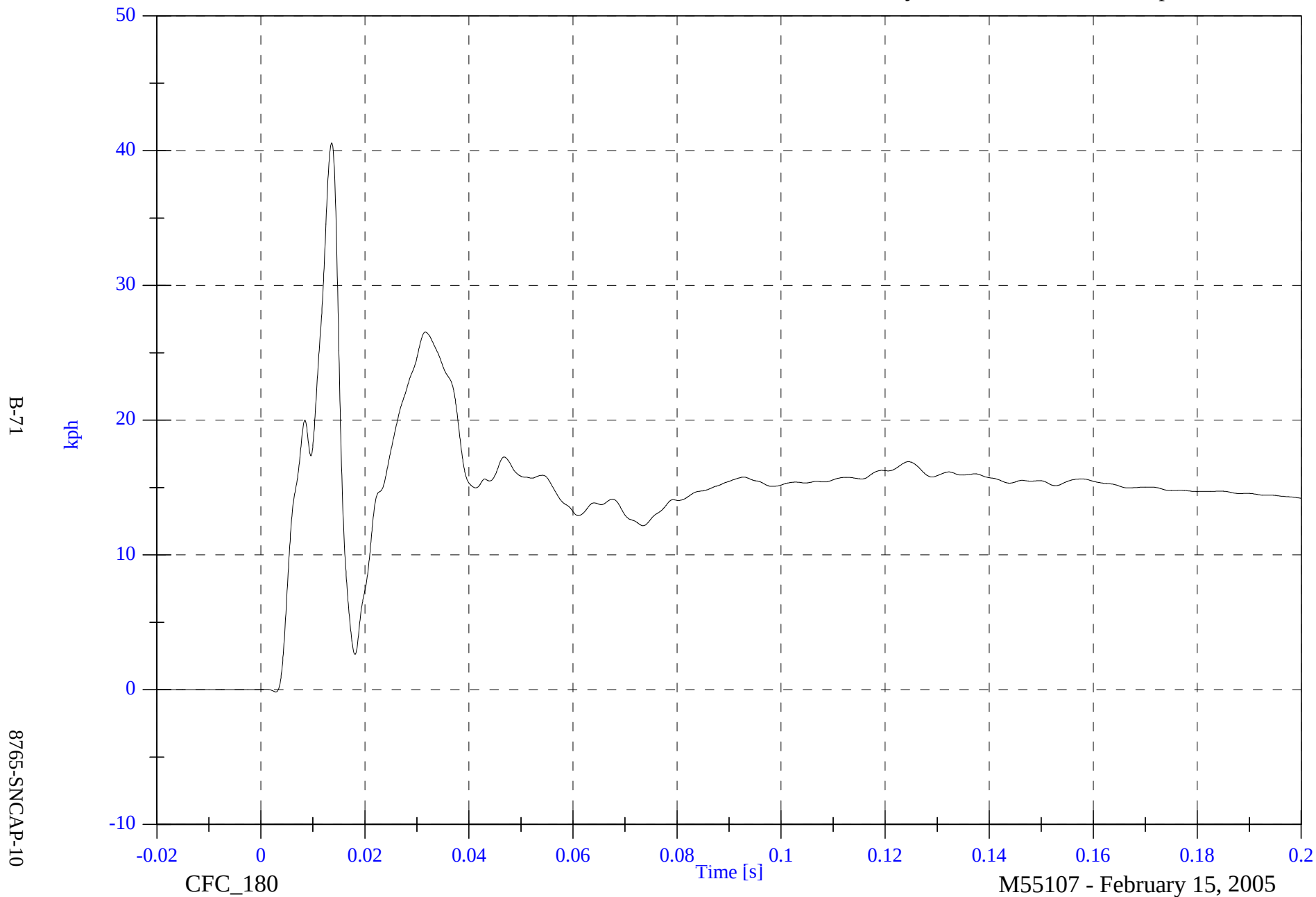


2005 SNCAP Test 5 2005 Toyota Tacoma

V2 A14 Left Lower A Post Y Velocity

Max: 40.6 [kph] at 0.014 [s]

Min: -0.2 [kph] at 0.003 [s]

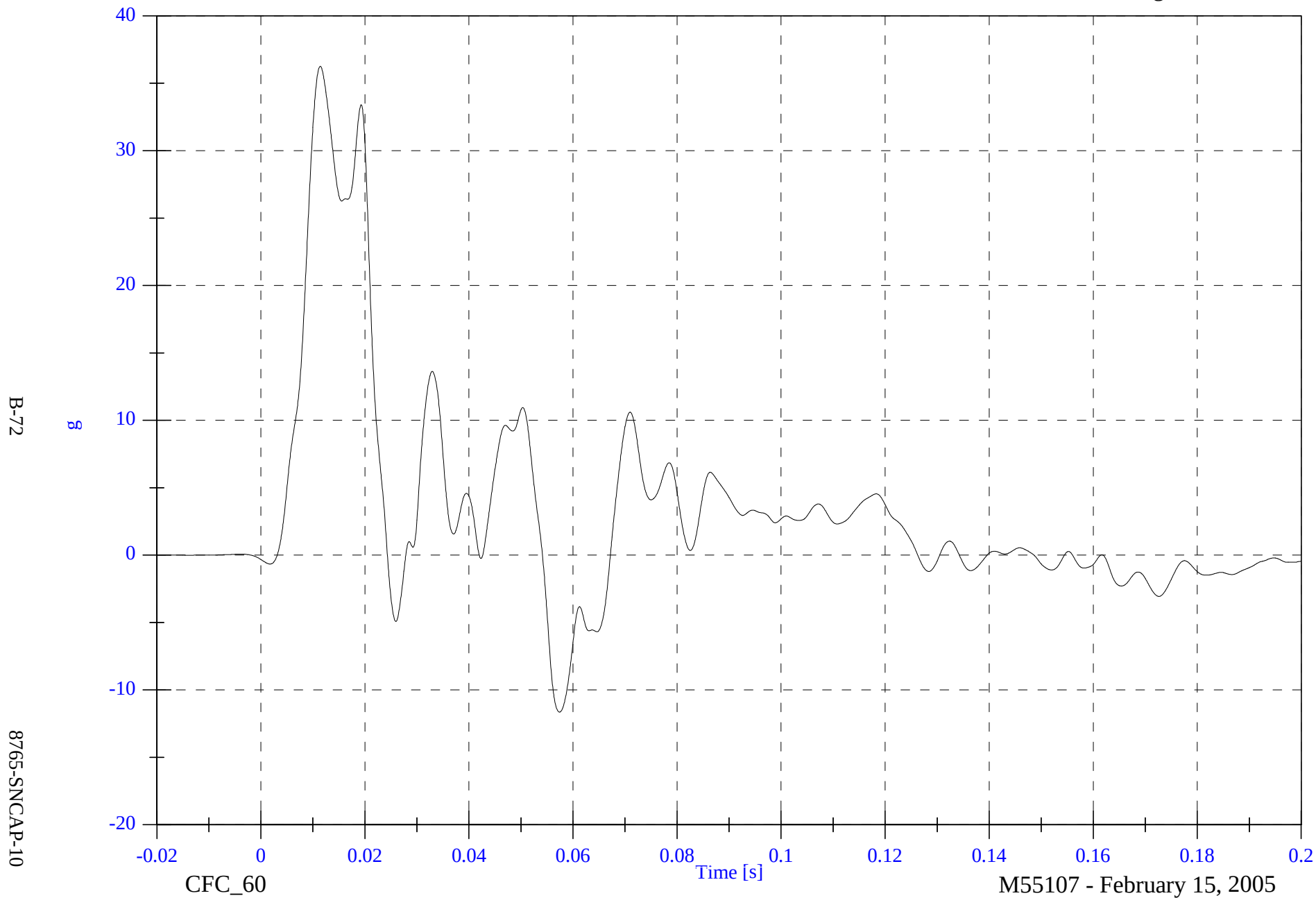


2005 SNCAP Test 5 2005 Toyota Tacoma

V2 A15 Left Mid A Post Y

Max: 36.3 [g] at 0.011 [s]

Min: -11.6 [g] at 0.057 [s]

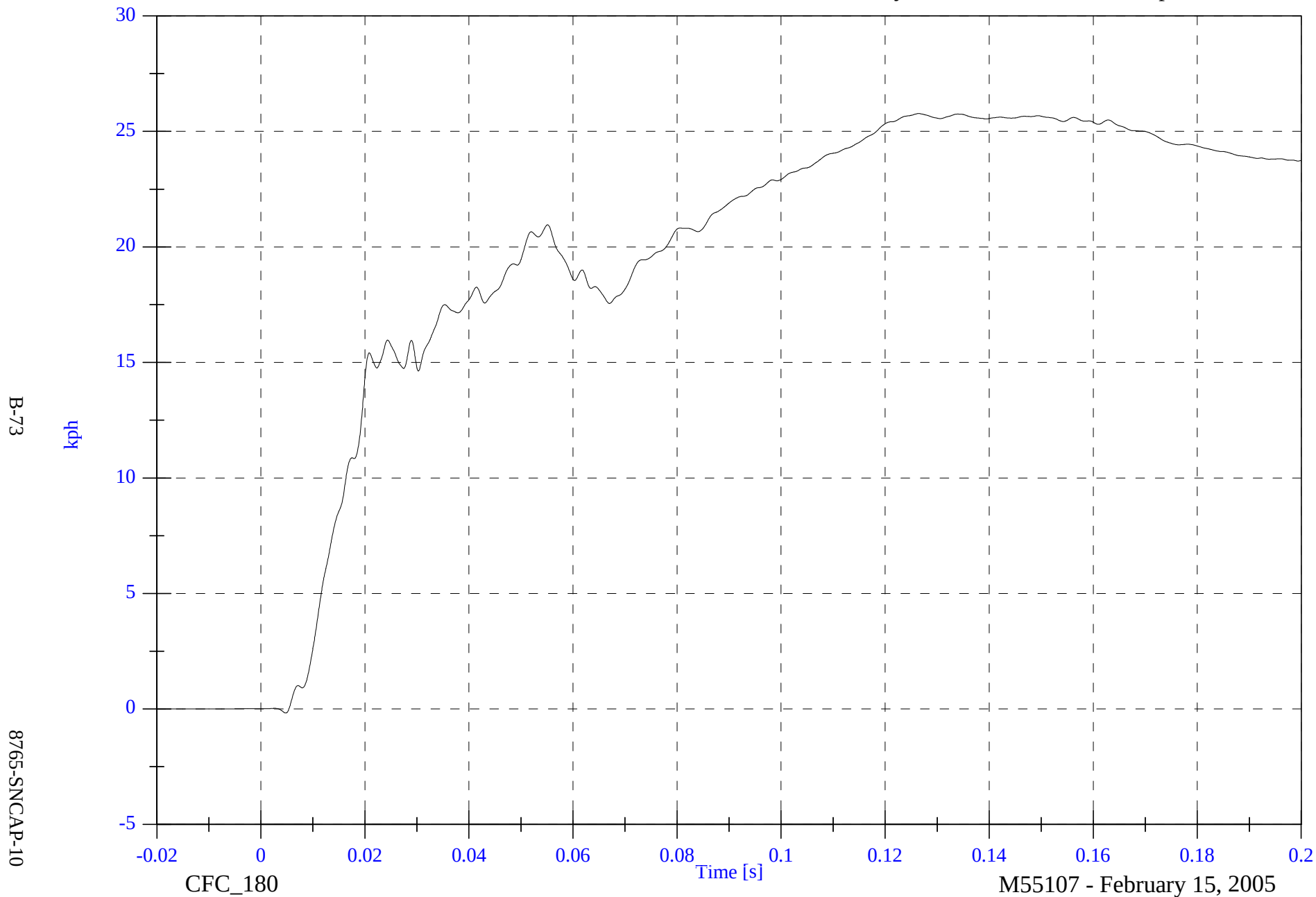


2005 SNCAP Test 5 2005 Toyota Tacoma

V2 A15 Left Mid A Post Y Velocity

Max: 25.8 [kph] at 0.126 [s]

Min: -0.2 [kph] at 0.005 [s]

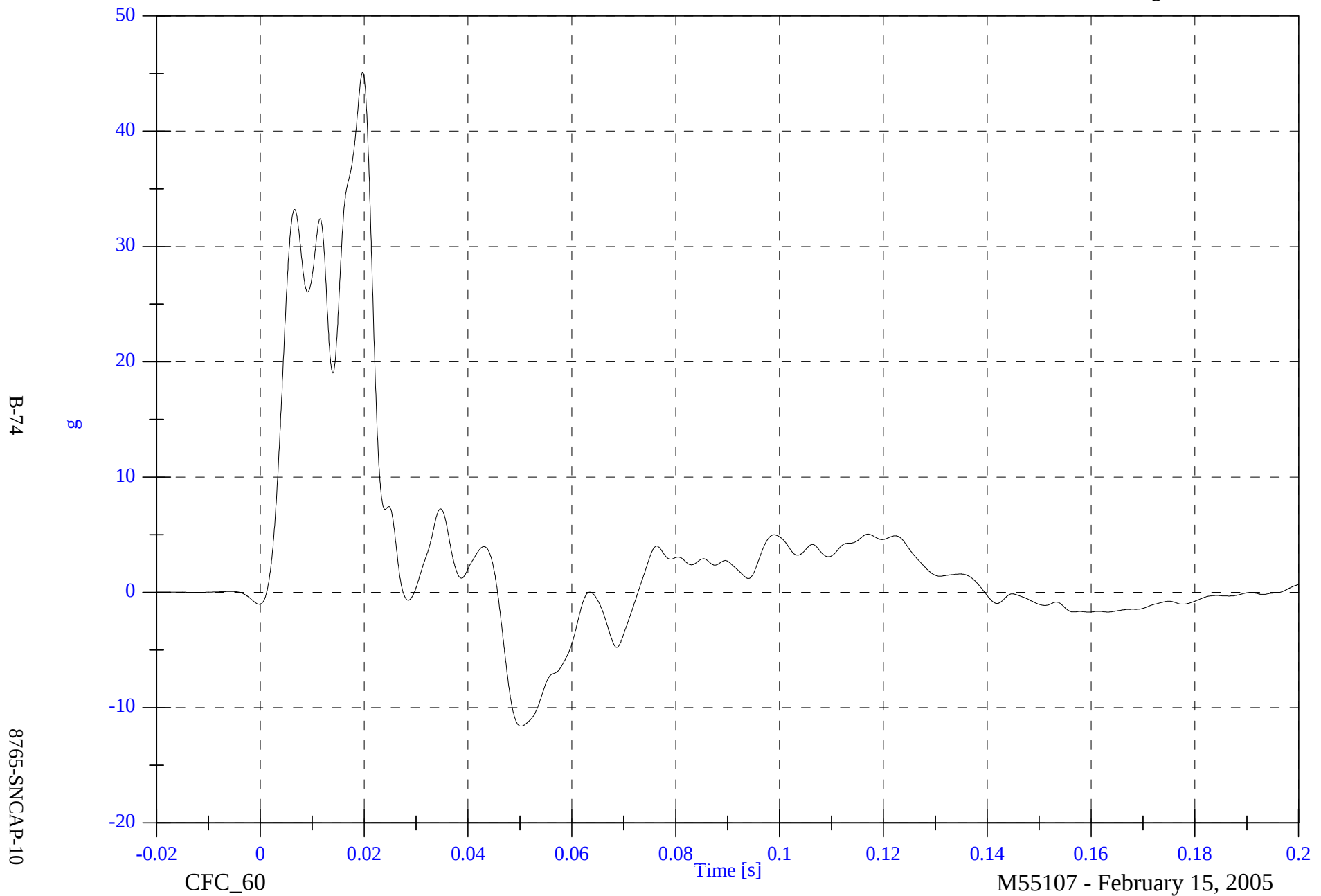


2005 SNCAP Test 5 2005 Toyota Tacoma

V2 A16 Front Seat Track Y

Max: 45.1 [g] at 0.020 [s]

Min: -11.6 [g] at 0.050 [s]



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Max: 25.4 [kph] at 0.140 [s]

V2 A16 Front Seat Track Y Velocity

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

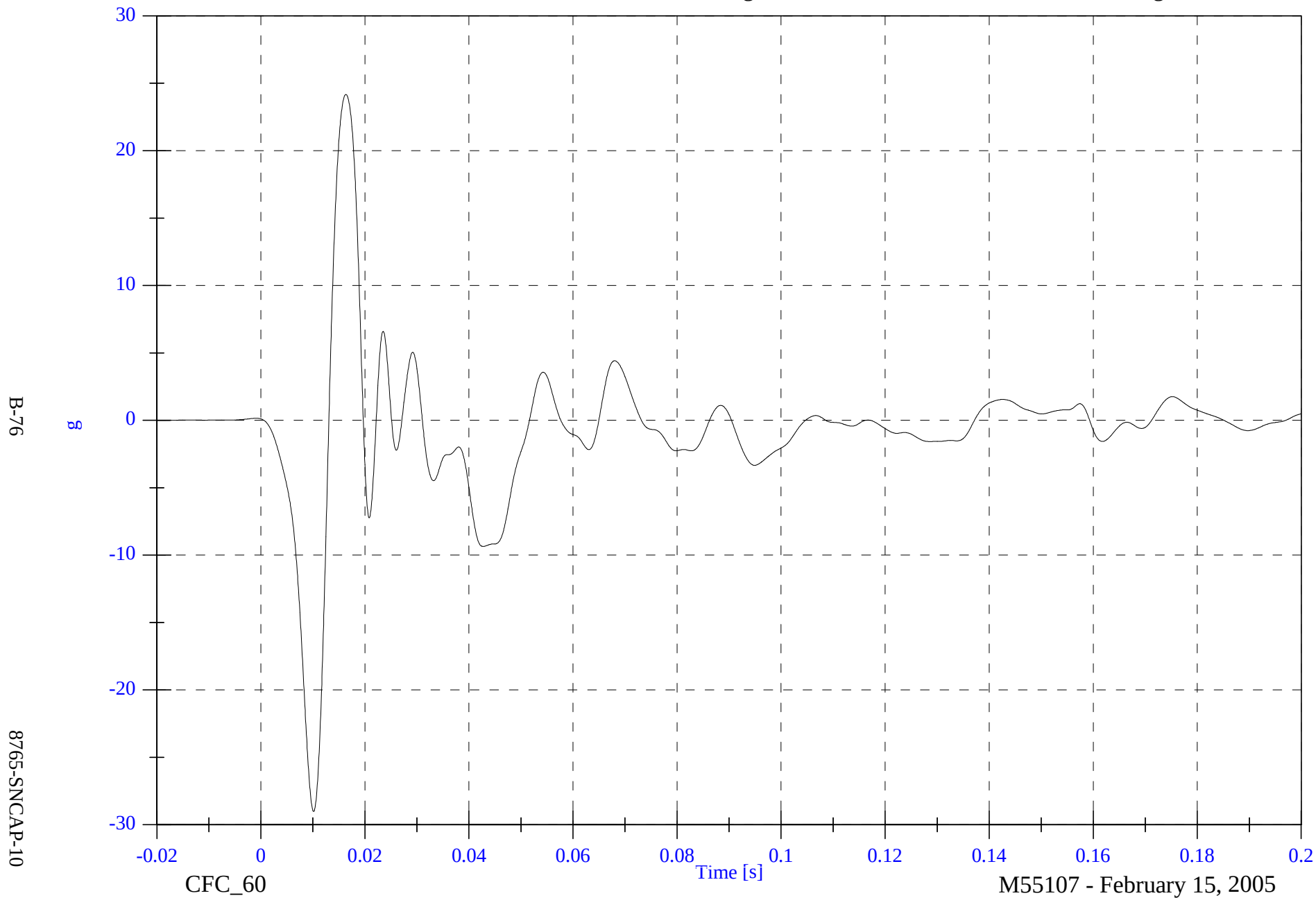


2005 SNCAP Test 5 2005 Toyota Tacoma

V2 A18 Target CG X

Max: 24.2 [g] at 0.016 [s]

Min: -29.0 [g] at 0.010 [s]



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V2 A18 Target CG X Velocity

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

Min: -6.0 [kph] at 0.137 [s]

B-77

8765-SNCAP-10

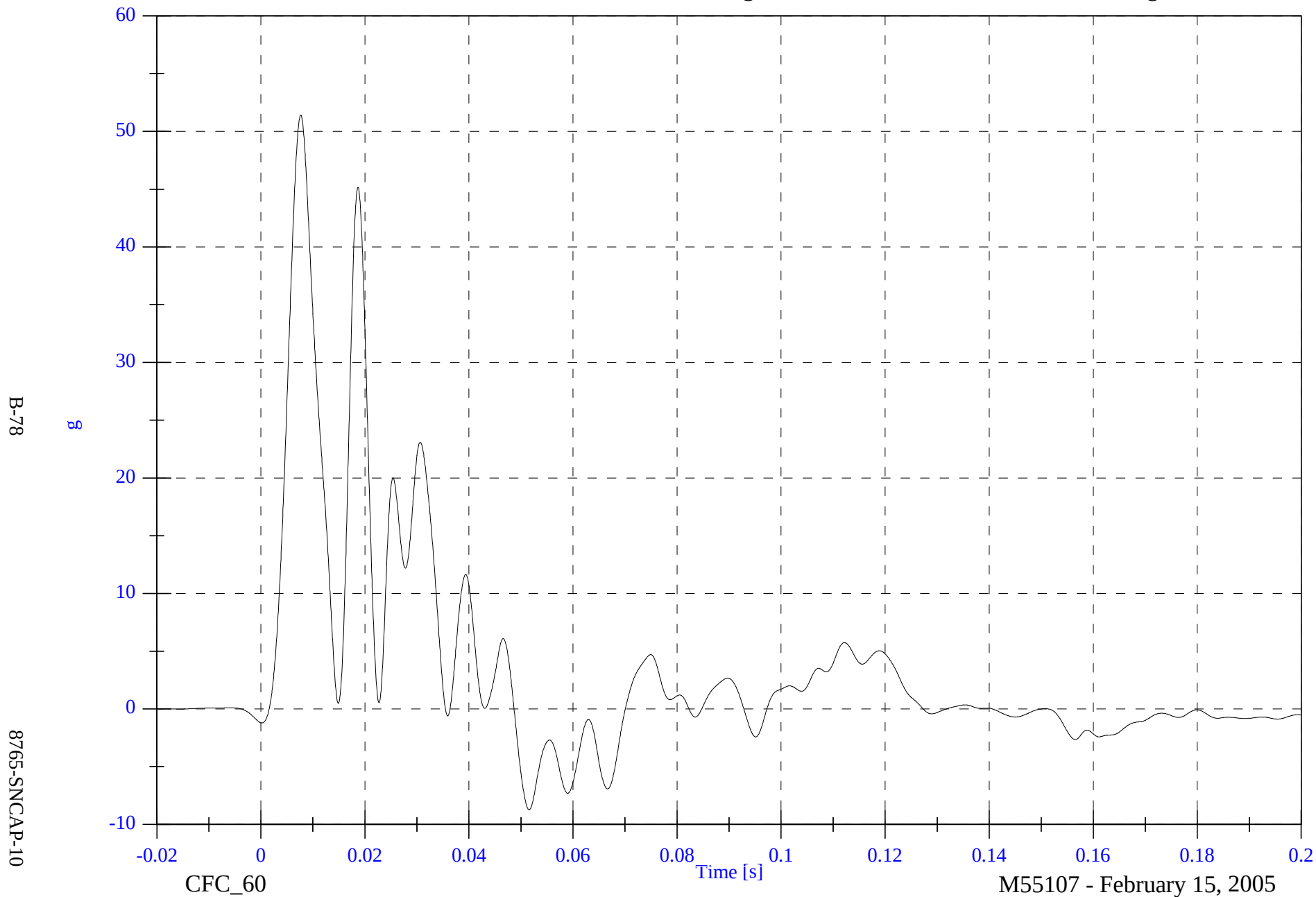


2005 SNCAP Test 5 2005 Toyota Tacoma

V2 A18 Target CG Y

Max: 51.4 [g] at 0.008 [s]

Min: -8.7 [g] at 0.052 [s]

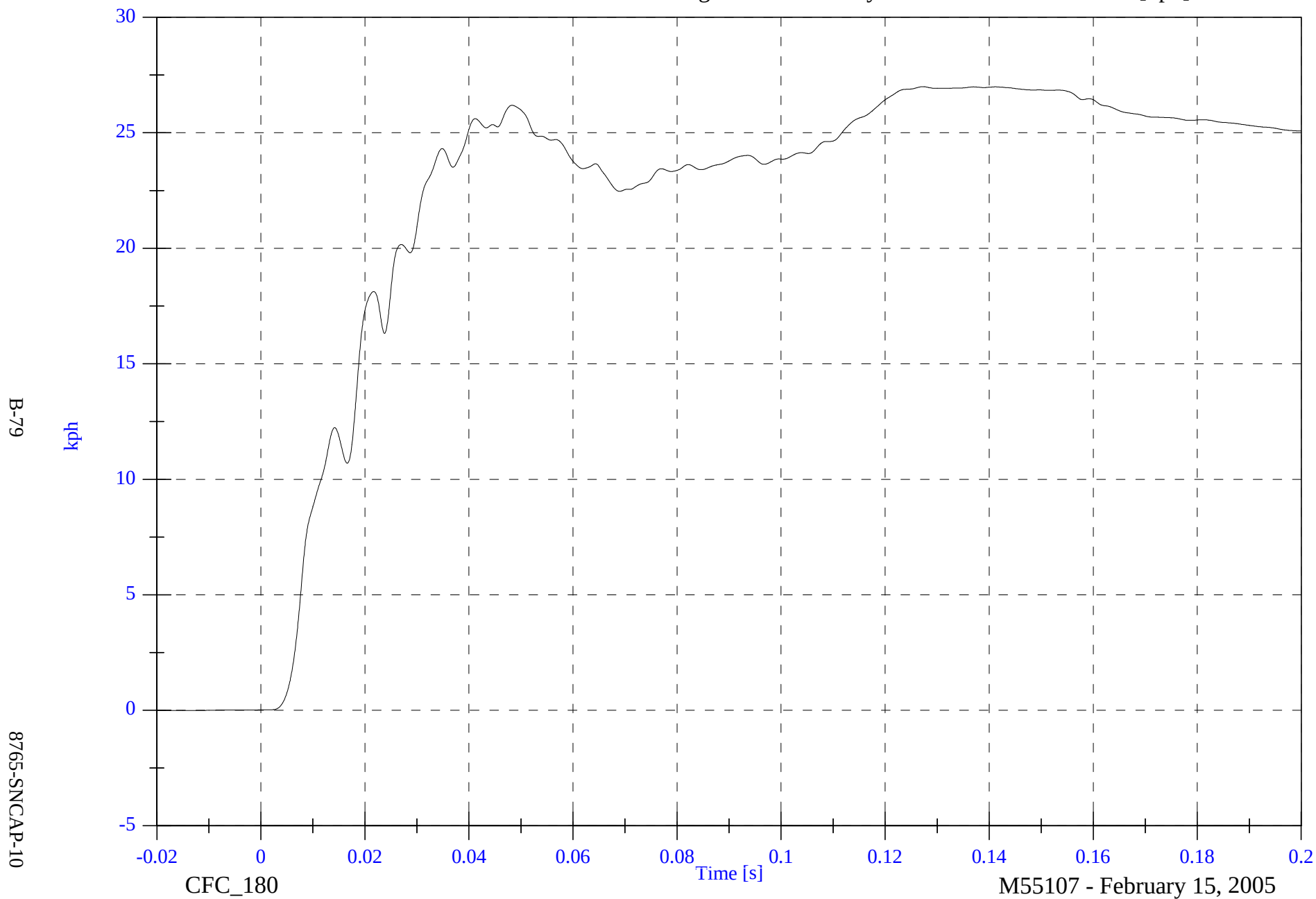


2005 SNCAP Test 5 2005 Toyota Tacoma

Max: 27.0 [kph] at 0.127 [s]

V2 A18 Target CG Y Velocity

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

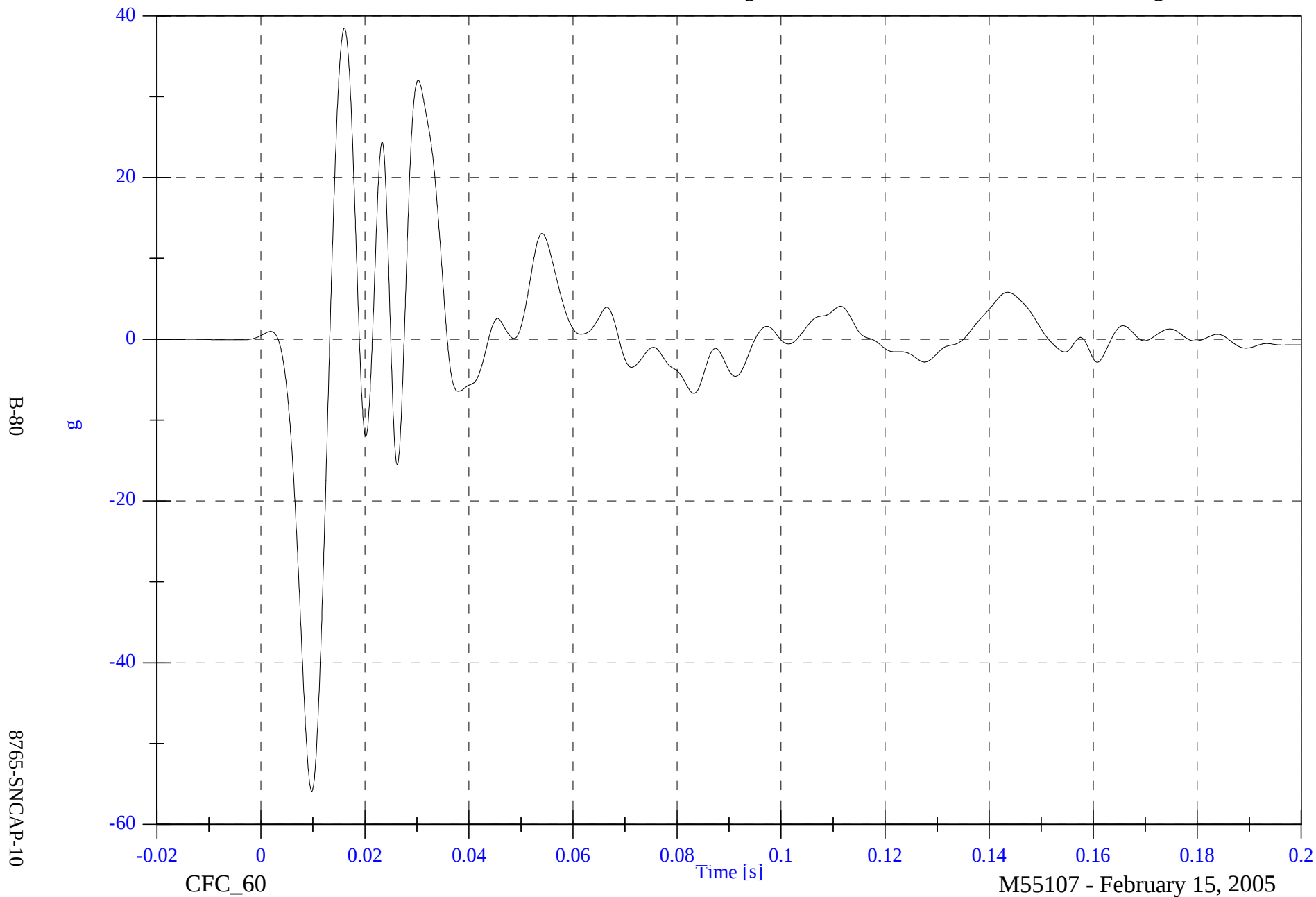


2005 SNCAP Test 5 2005 Toyota Tacoma

V2 A18 Target CG Z

Max: 38.5 [g] at 0.016 [s]

Min: -55.9 [g] at 0.010 [s]

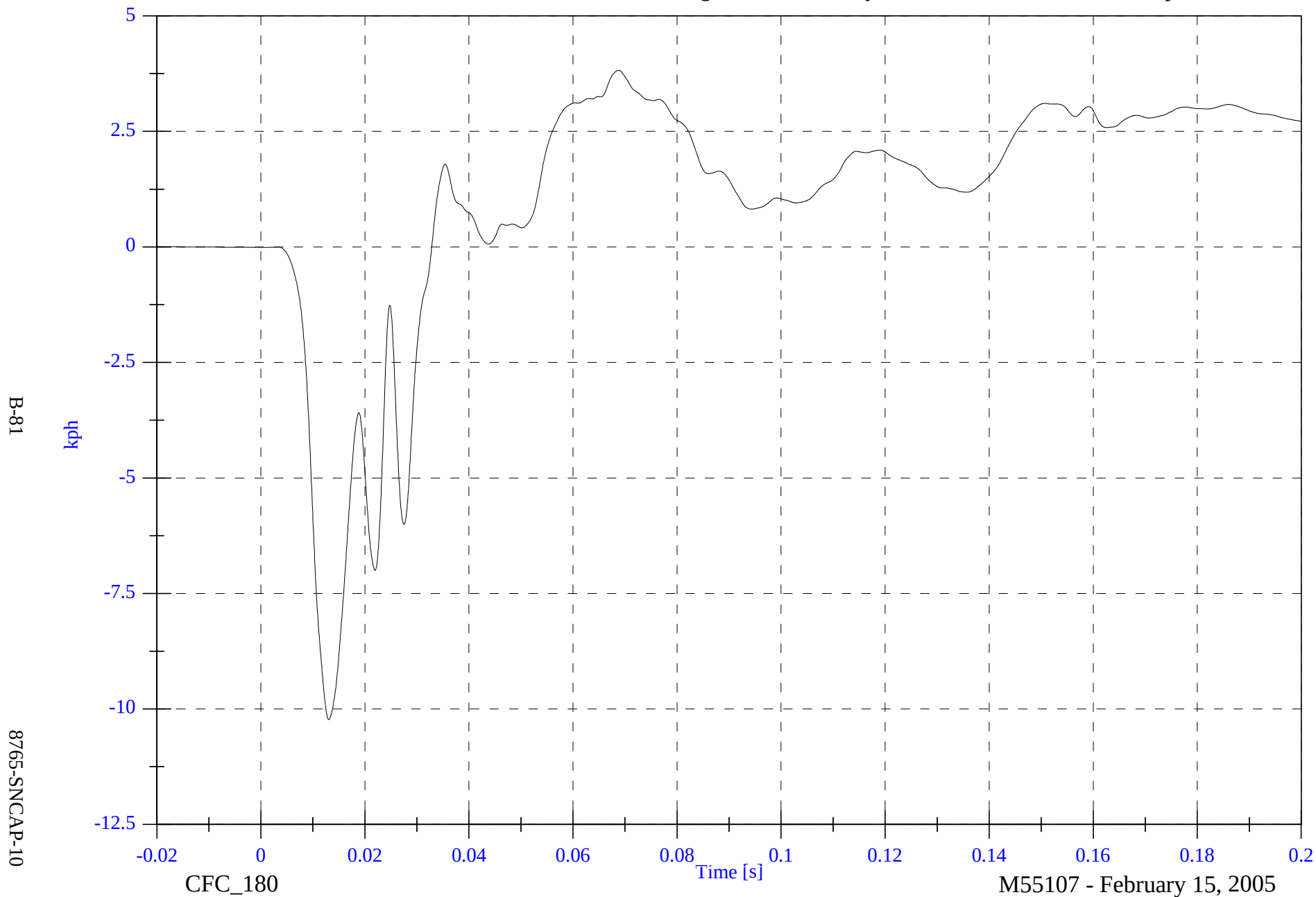


2005 SNCAP Test 5 2005 Toyota Tacoma

V2 A18 Target CG Z Velocity

Max: 3.8 [kph] at 0.069 [s]

Min: -10.2 [kph] at 0.013 [s]



2005 SMCAP Test 5 2005 Toyota Tacoma

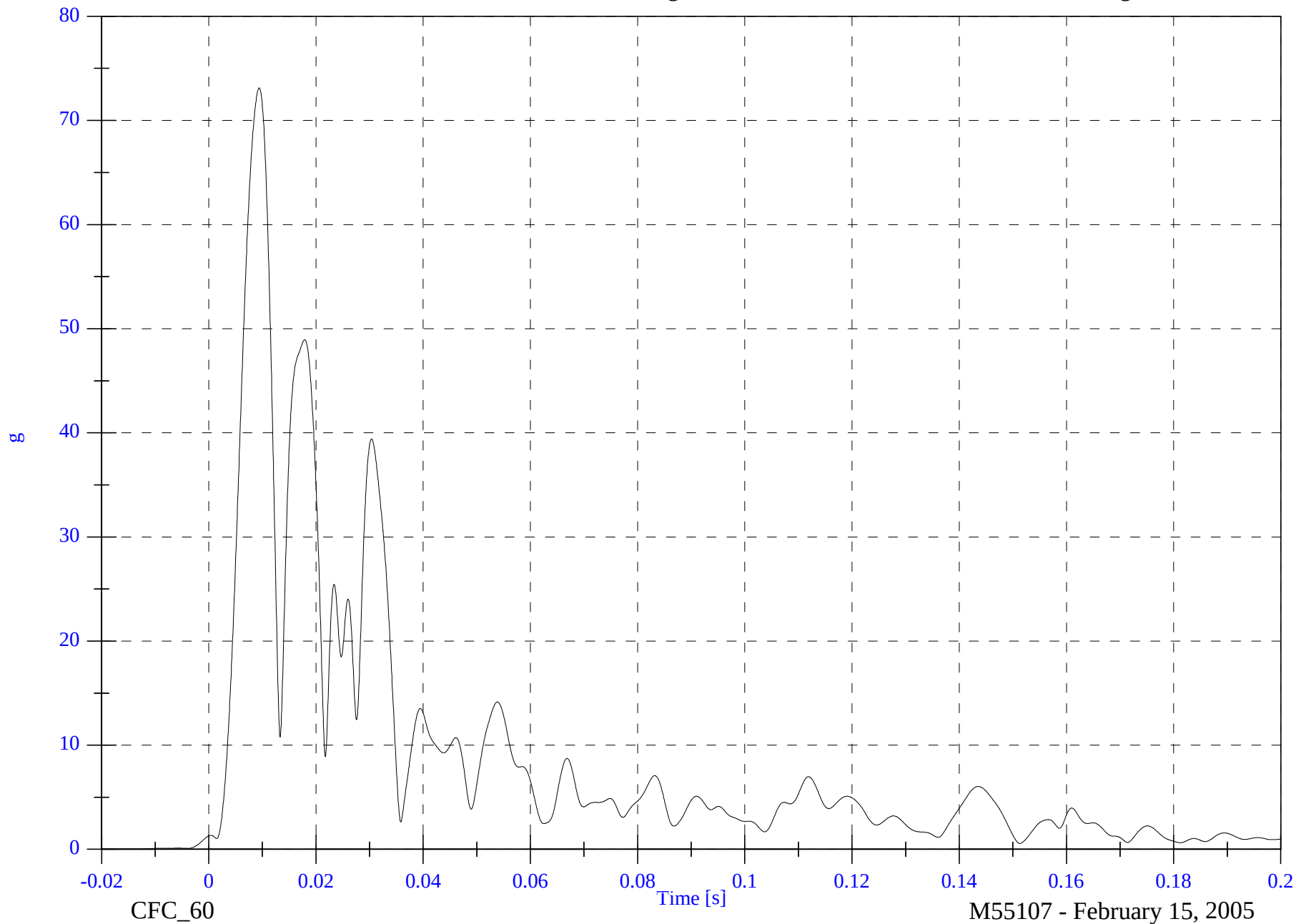
V2 A18 Target CG Resultant

Max: 73.1 [g] at 0.009 [s]

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

B-82

8765-SMCAP-10

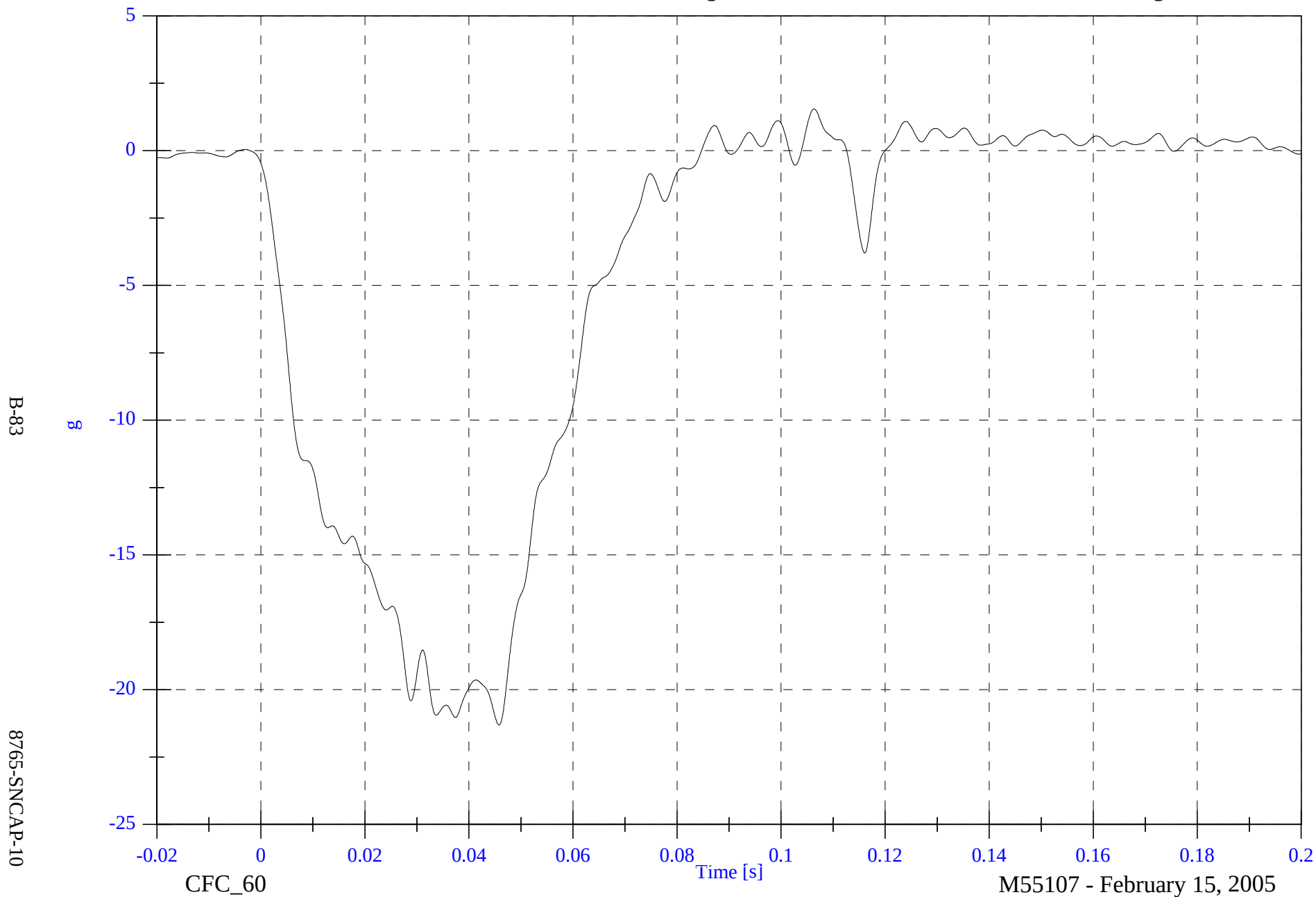


2005 SNCAP Test 5 2005 Toyota Tacoma

V1 Moving Barrier CG X

Max: 1.5 [g] at 0.106 [s]

Min: -21.3 [g] at 0.046 [s]



2005 SNCAP Test 5 2005 Toyota Tacoma

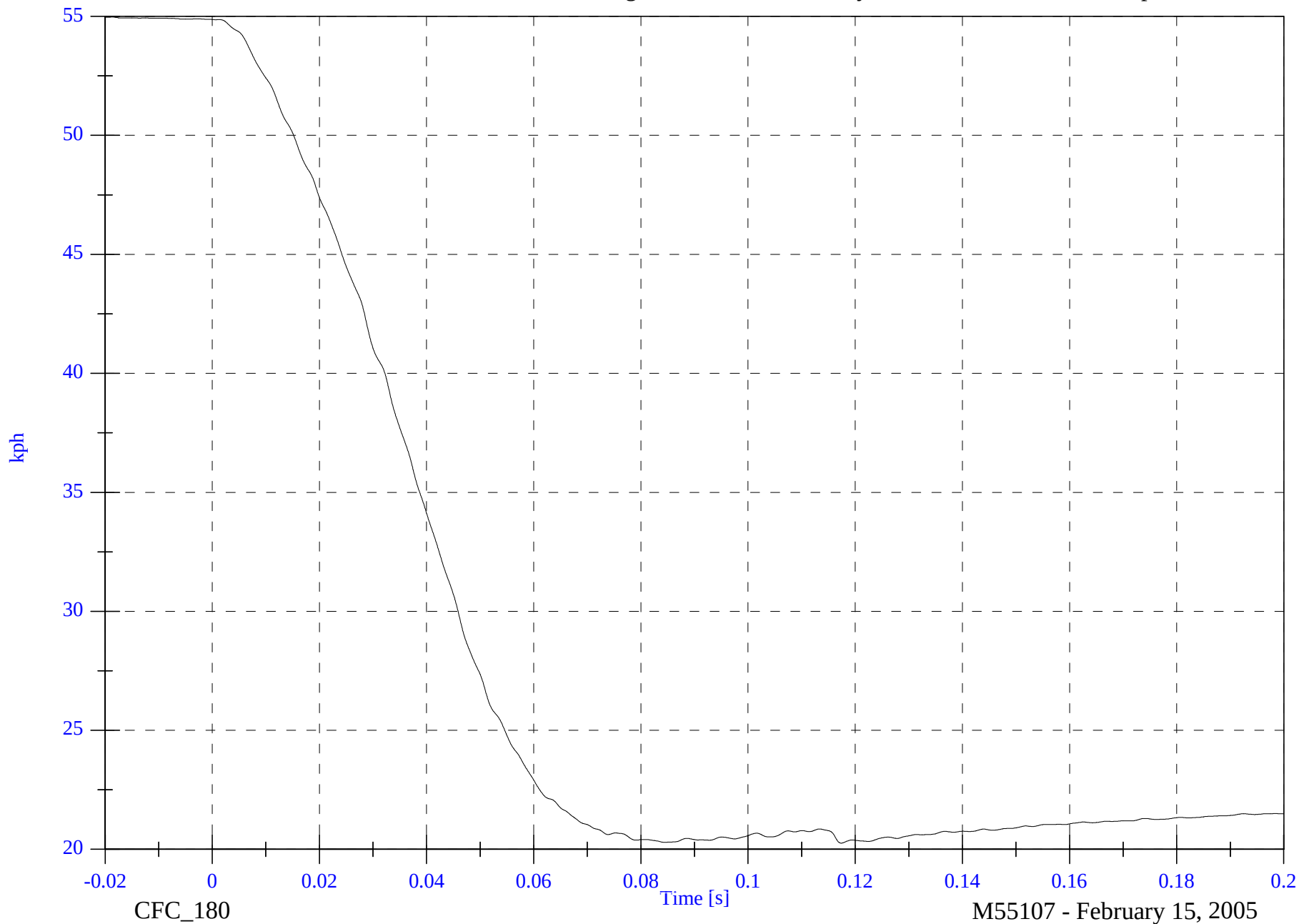
V1 Moving Barrier CG X Velocity

Max: 55.0 [kph] at -0.019 [s]

Min: 20.3 [kph] at 0.117 [s]

B-84

8765-SNCAP-10

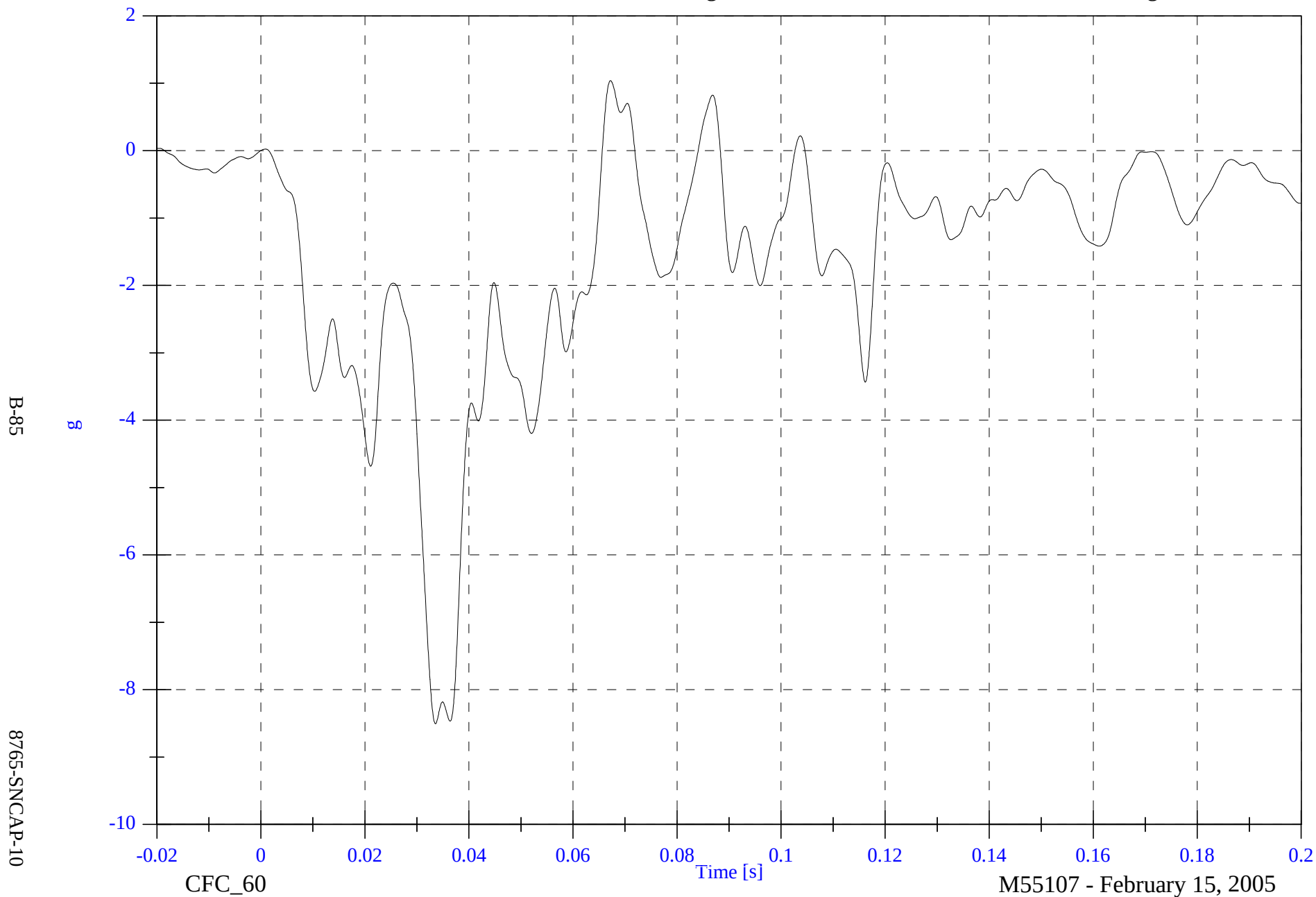


2005 SNCAP Test 5 2005 Toyota Tacoma

V1 Moving Barrier CG Y

Max: 1.0 [g] at 0.067 [s]

Min: -8.5 [g] at 0.034 [s]

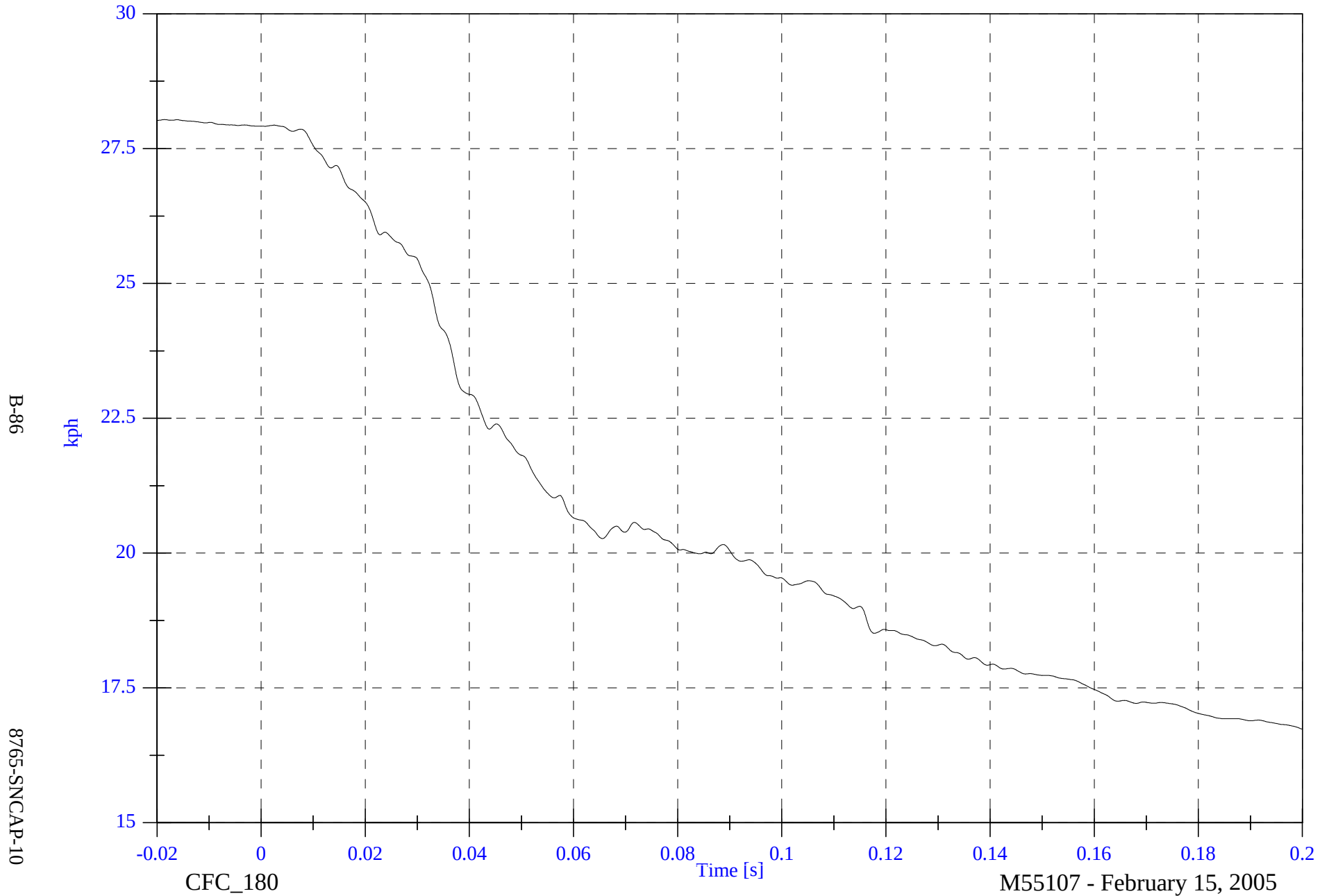


2005 SNCAP Test 5 2005 Toyota Tacoma

Max: 28.0 [kph] at -0.019 [s]

V1 Moving Barrier CG Y Velocity

Min: 16.7 [kph] at 0.200 [s]

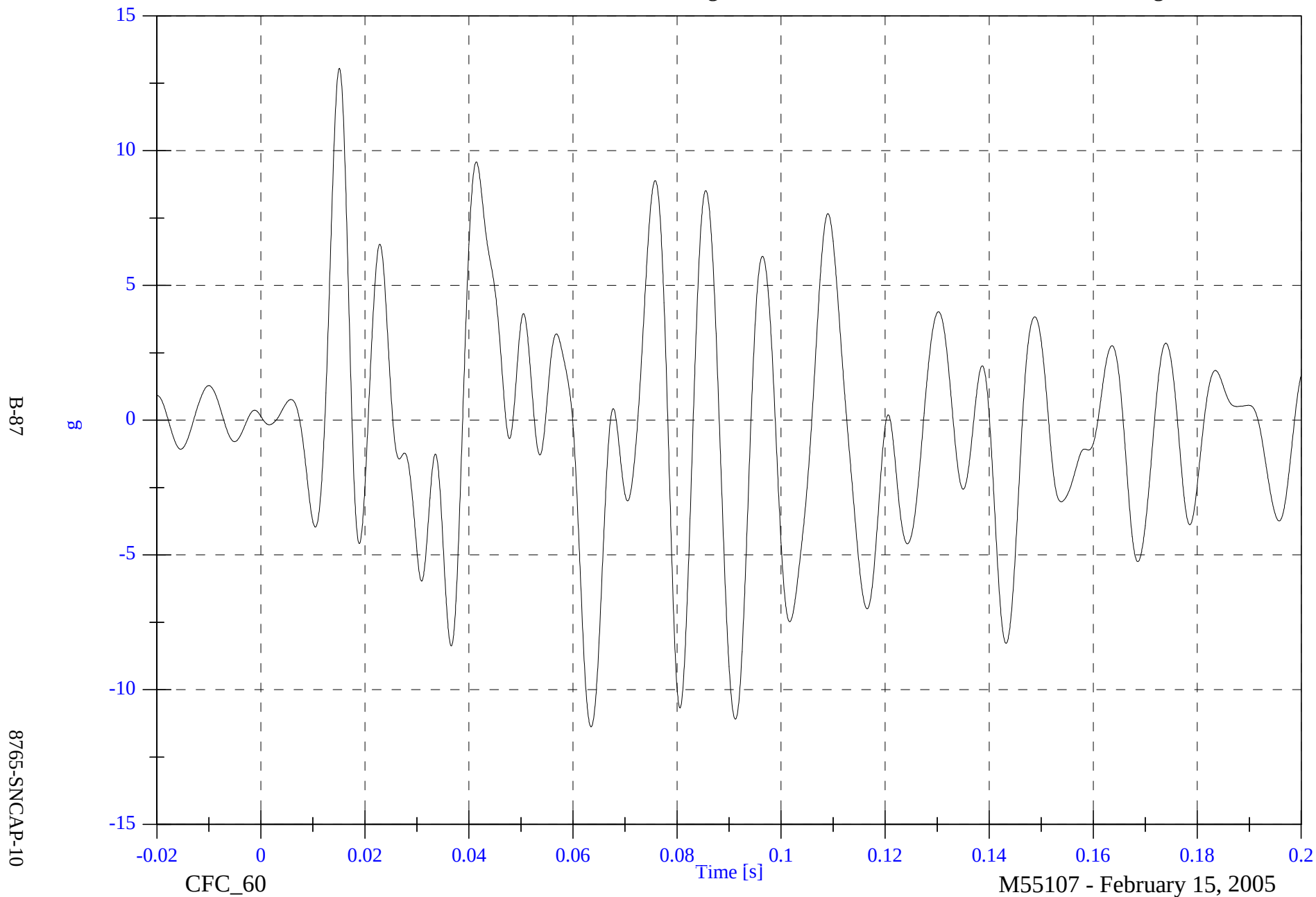


2005 SNCAP Test 5 2005 Toyota Tacoma

V1 Moving Barrier CG Z

Max: 13.1 [g] at 0.015 [s]

Min: -11.4 [g] at 0.063 [s]

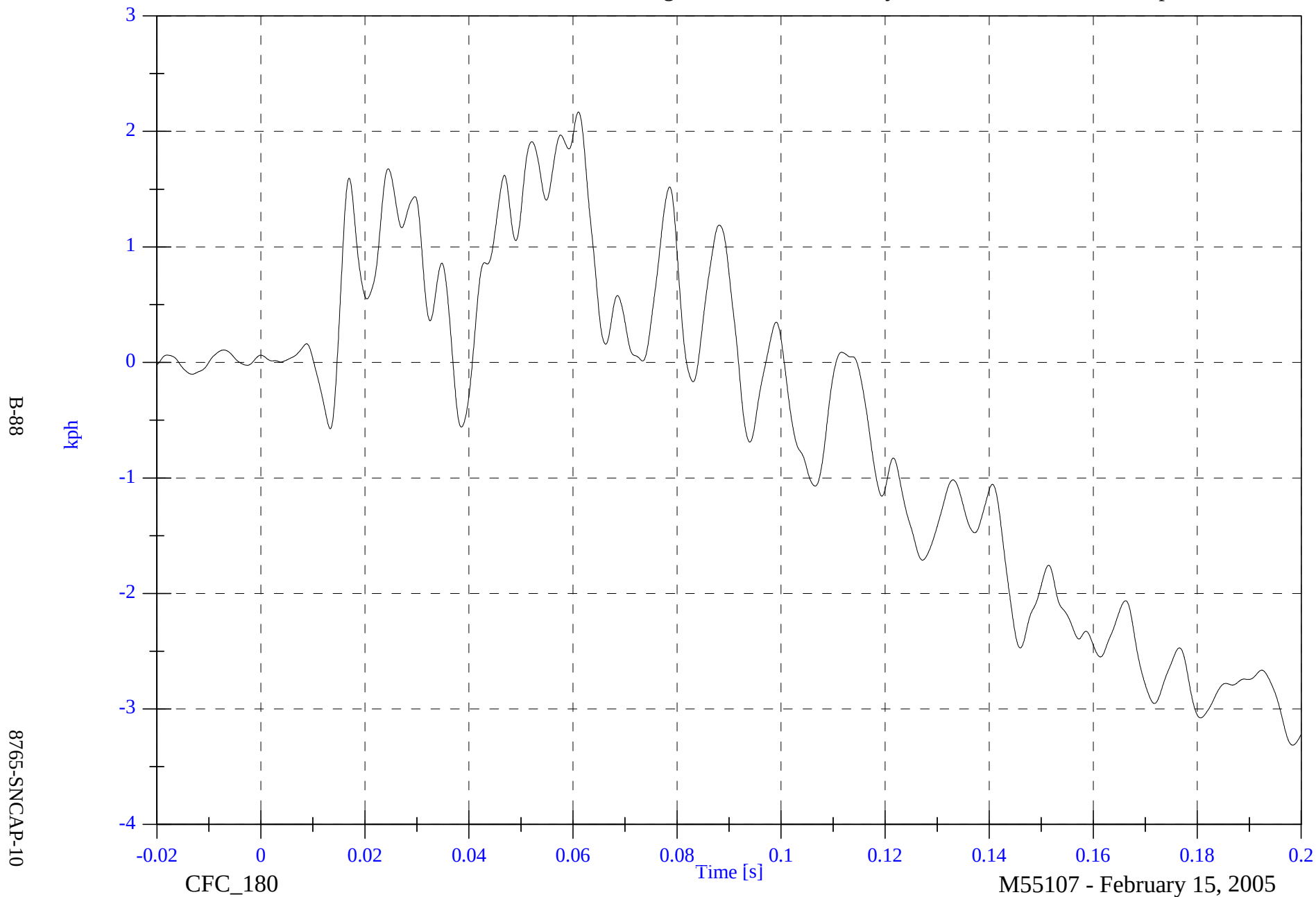


2005 SNCAP Test 5 2005 Toyota Tacoma

Max: 2.2 [kph] at 0.061 [s]

V1 Moving Barrier CG Z Velocity

Min: -3.3 [kph] at 0.198 [s]

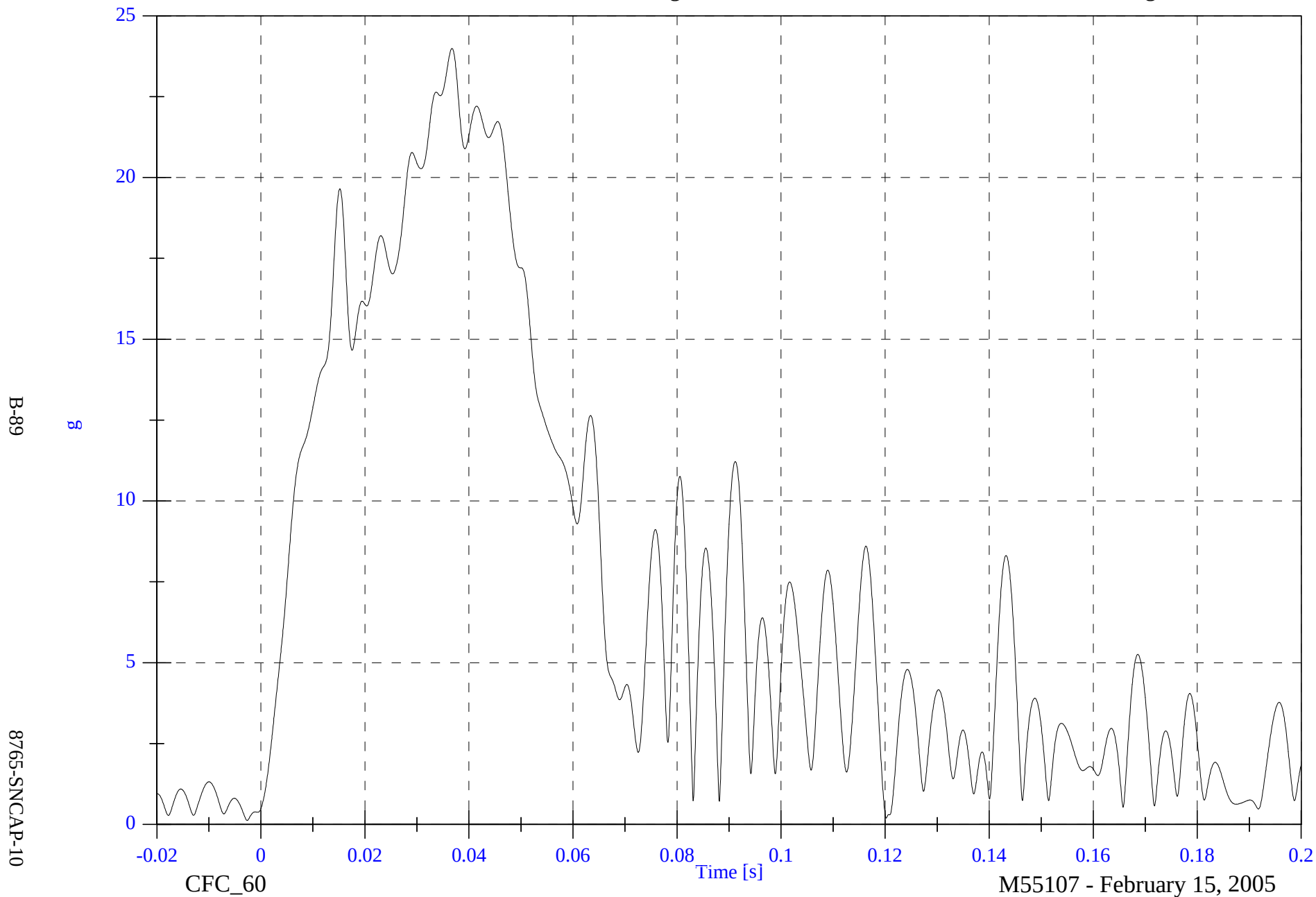


2005 SNCAP Test 5 2005 Toyota Tacoma

V1 Moving Barrier CG Resultant

Max: 24.0 [g] at 0.037 [s]

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

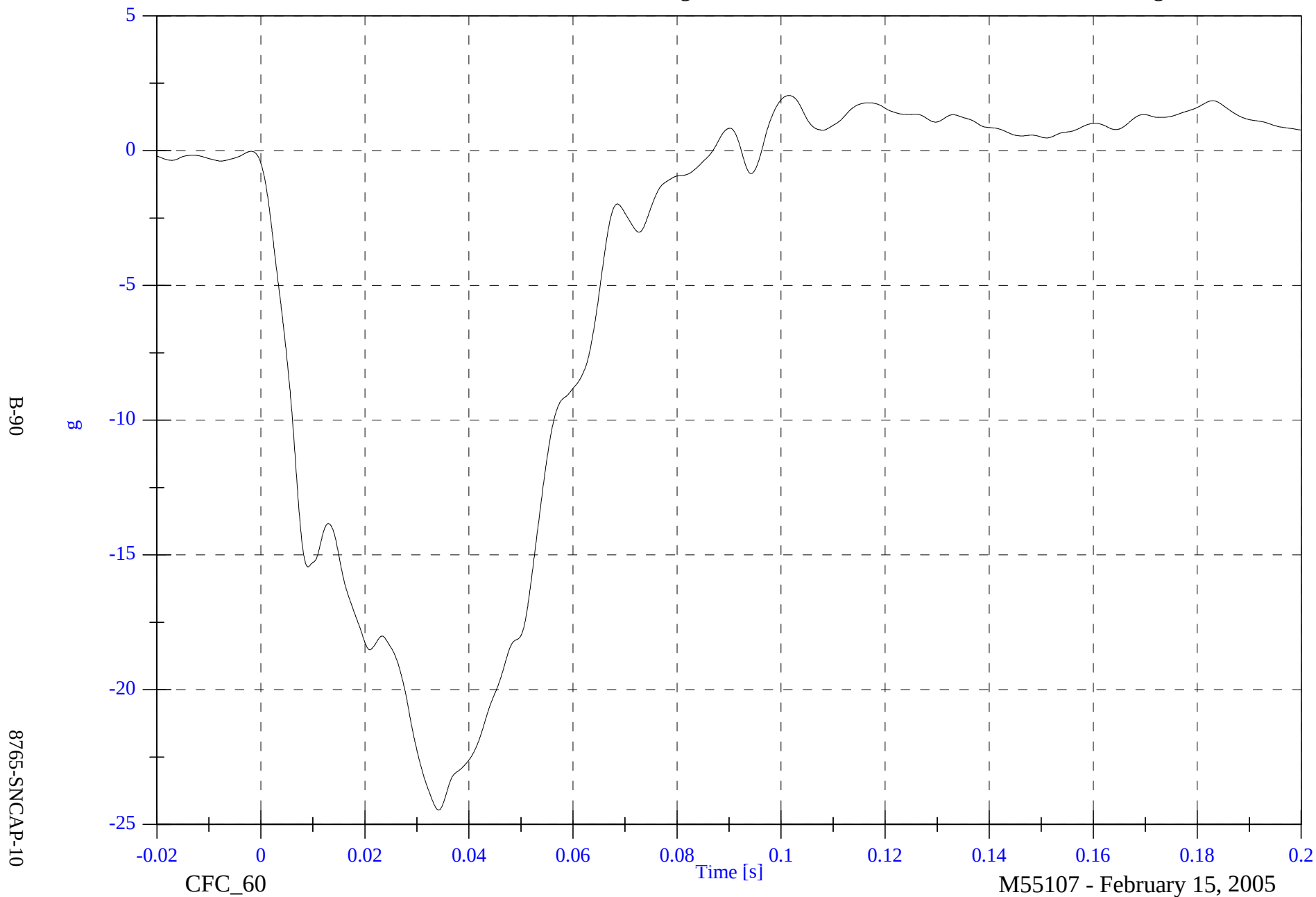


2005 SNCAP Test 5 2005 Toyota Tacoma

V1 Moving Barrier Left Rail X

Max: 2.0 [g] at 0.101 [s]

Min: -24.5 [g] at 0.034 [s]



2005 SNCAP Test 5 2005 Toyota Tacoma

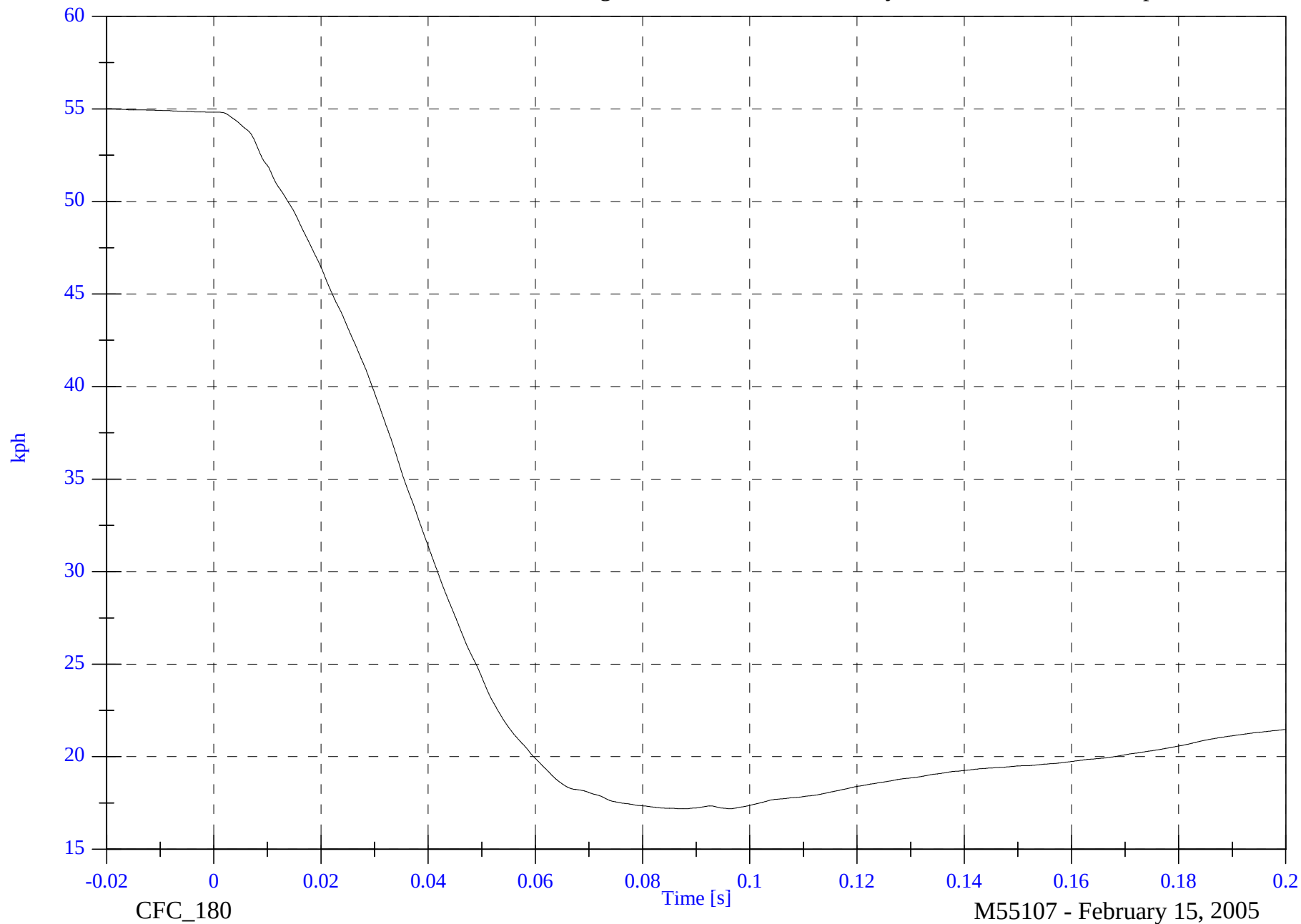
V1 Moving Barrier Left Rail X Velocity

Max: 55.0 [kph] at -0.020 [s]

Min: 17.2 [kph] at 0.088 [s]

B-91

8765-SNCAP-10

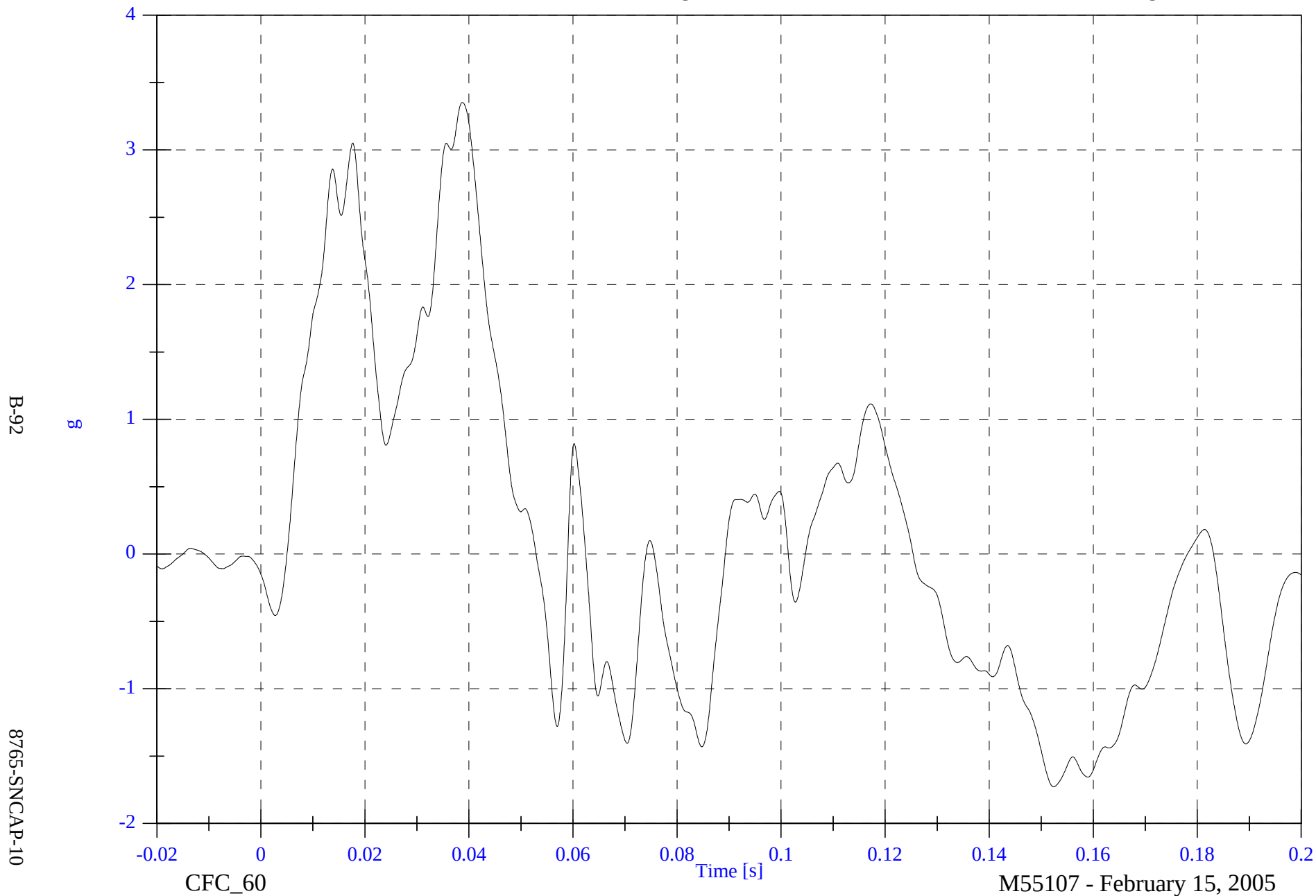


2005 SNCAP Test 5 2005 Toyota Tacoma

V1 Moving Barrier Left Rail Y

Max: 3.4 [g] at 0.039 [s]

Min: -1.7 [g] at 0.152 [s]

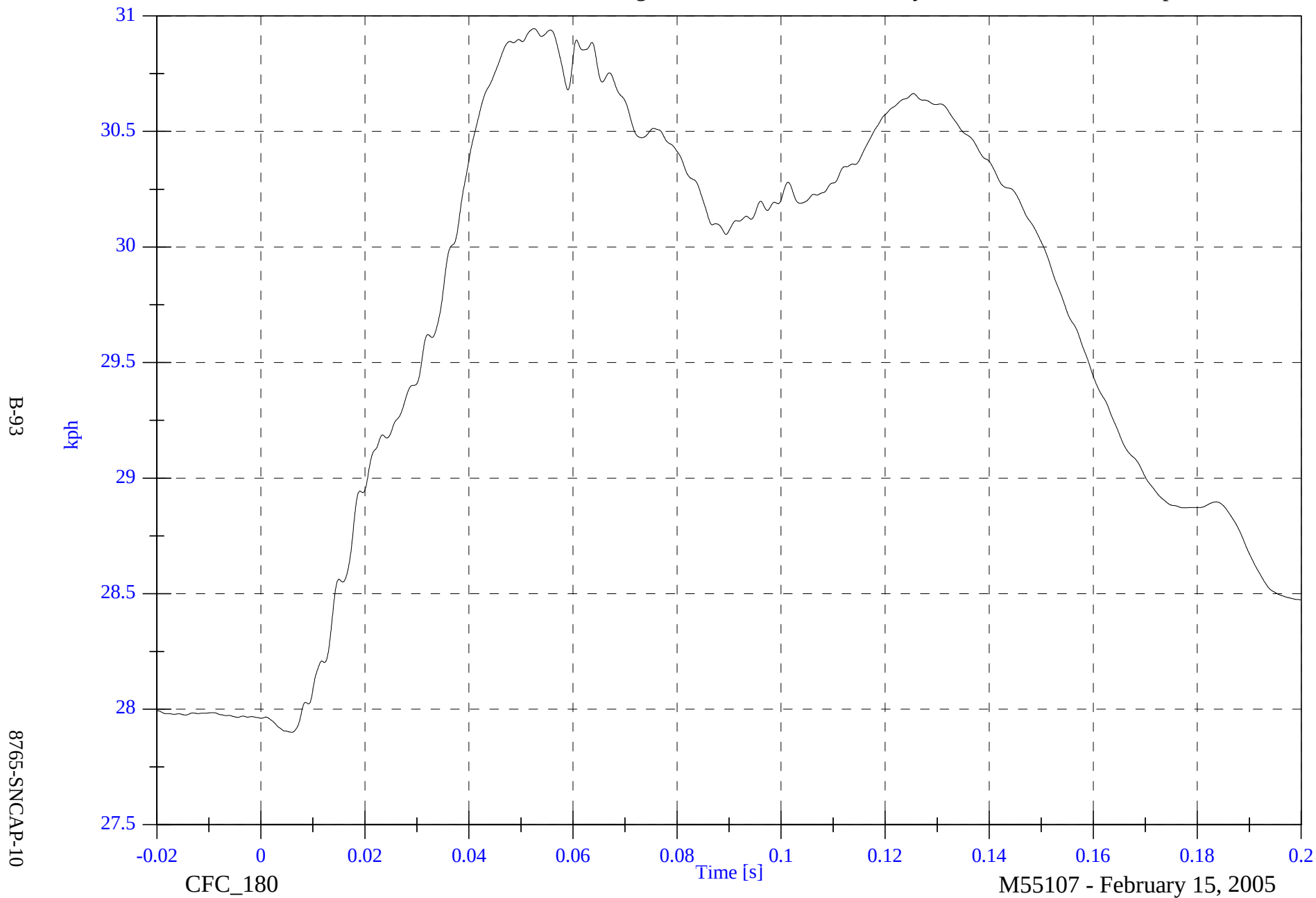


2005 SNCAP Test 5 2005 Toyota Tacoma

V1 Moving Barrier Left Rail Y Velocity

Max: 30.9 [kph] at 0.052 [s]

Min: 27.9 [kph] at 0.006 [s]



2005 SNCAP Test 5 2005 Toyota Tacoma

V2P1 Upper Rib Ry

Max: 55.7 [g] at 0.056 [s]

Min: -21.5 [g] at 0.177 [s]



2005 SNCAP Test 5 2005 Toyota Tacoma

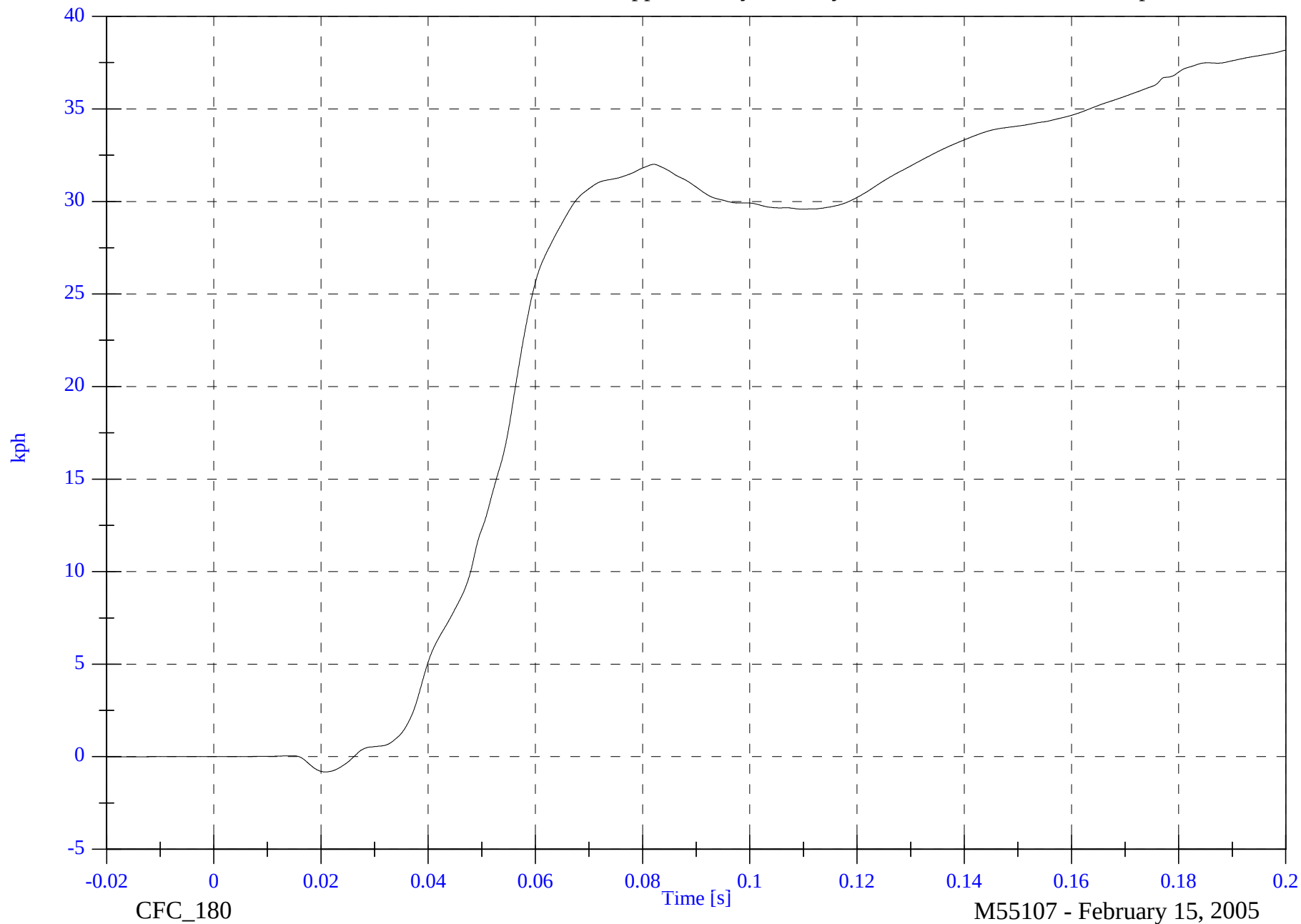
V2P1 Upper Rib Ry Velocity

Max: 38.2 [kph] at 0.200 [s]

Min: -0.8 [kph] at 0.021 [s]

B-95

8765-SNCAP-10

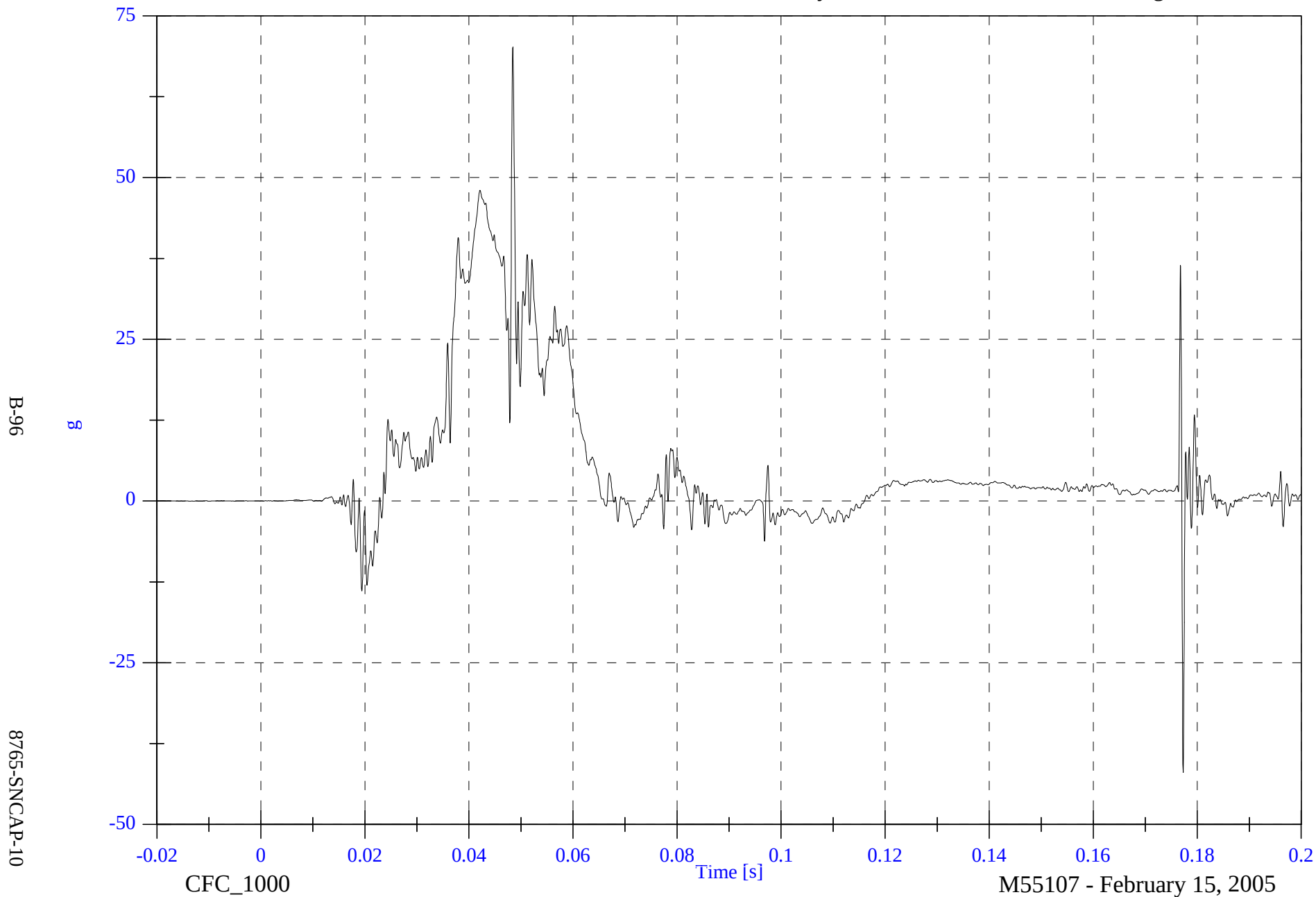


2005 SNCAP Test 5 2005 Toyota Tacoma

V2P1 Lower Rib Ry

Max: 70.2 [g] at 0.048 [s]

Min: -42.0 [g] at 0.177 [s]



2005 SNCAP Test 5 2005 Toyota Tacoma

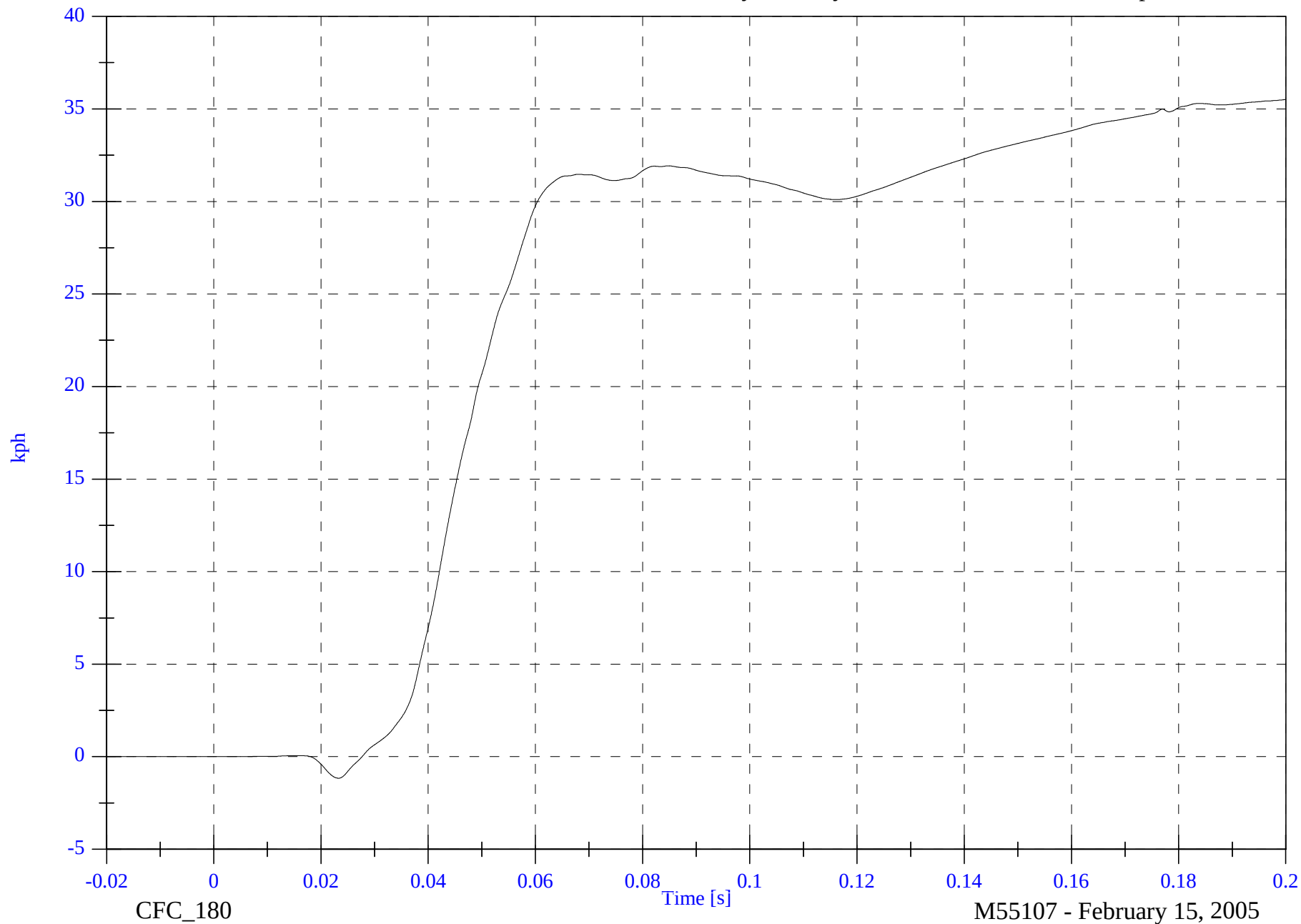
V2P1 Lower Rib Ry Velocity

Max: 35.5 [kph] at 0.200 [s]

Min: -1.2 [kph] at 0.023 [s]

B-97

8765-SNCAP-10

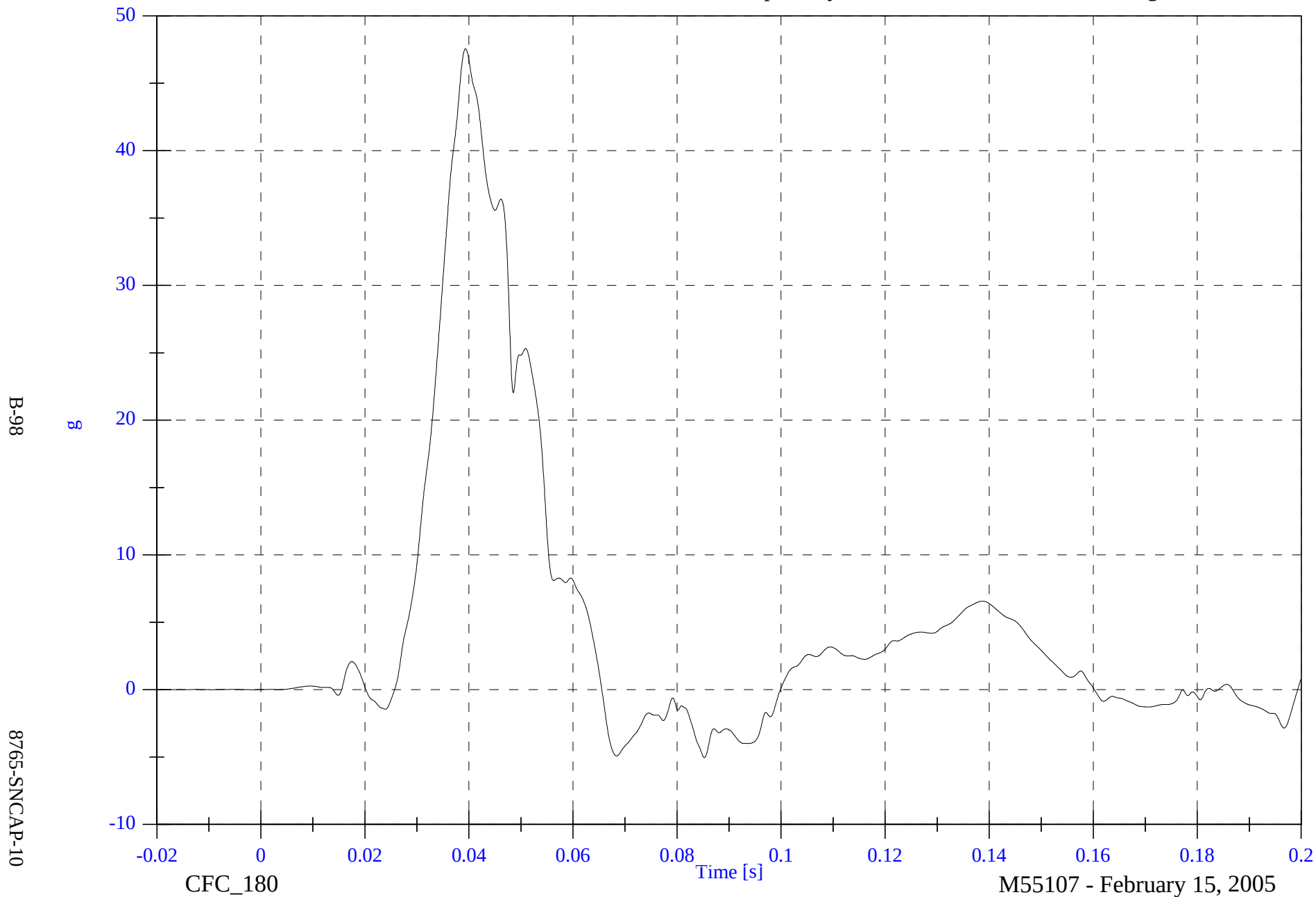


2005 SNCAP Test 5 2005 Toyota Tacoma

V2P1 Lower Spine Ry

Max: 47.6 [g] at 0.039 [s]

Min: -5.0 [g] at 0.085 [s]



2005 SNCAP Test 5 2005 Toyota Tacoma

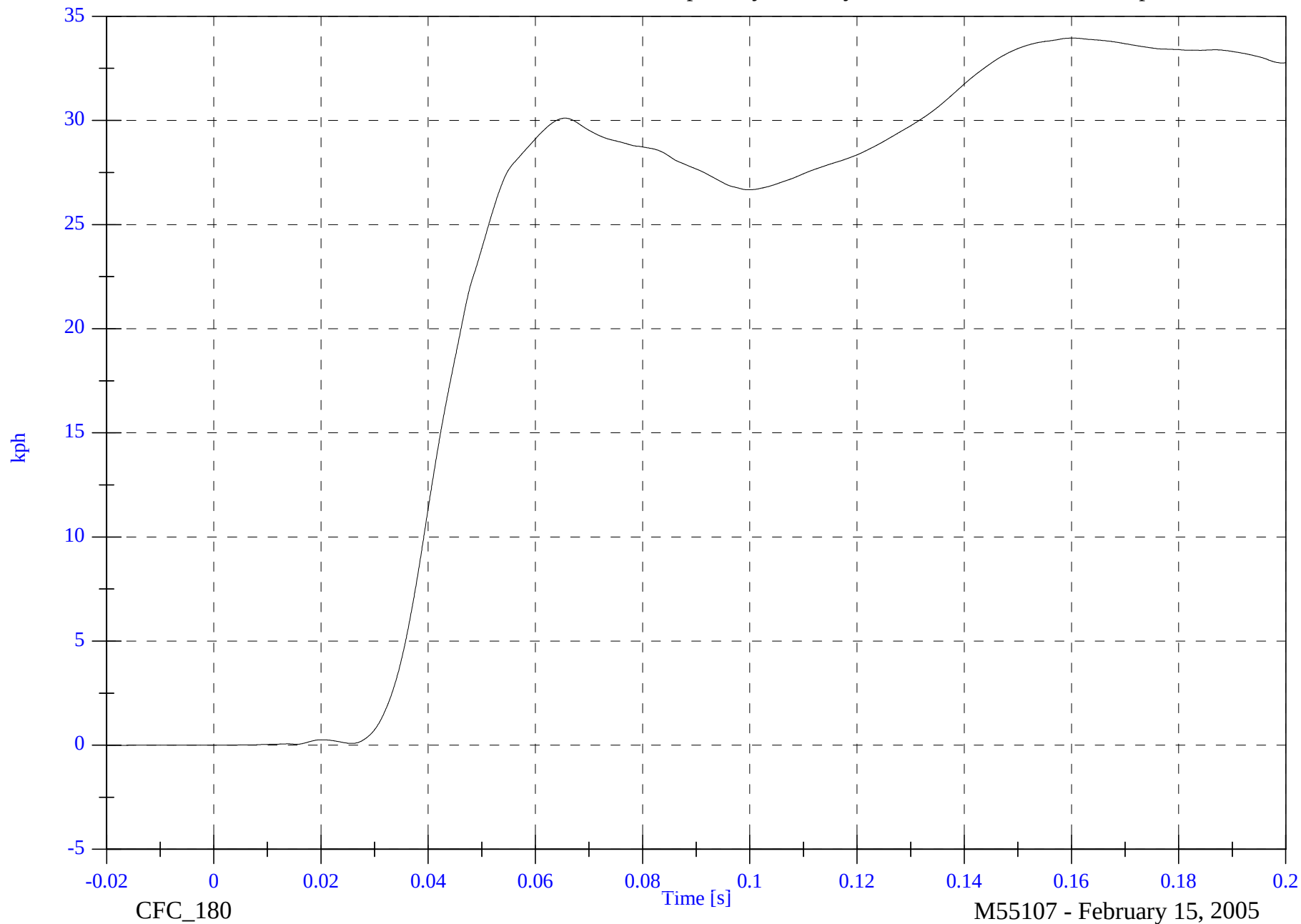
V2P1 Lower Spine Ry Velocity

Max: 34.0 [kph] at 0.160 [s]

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

B-99

8765-SNCAP-10

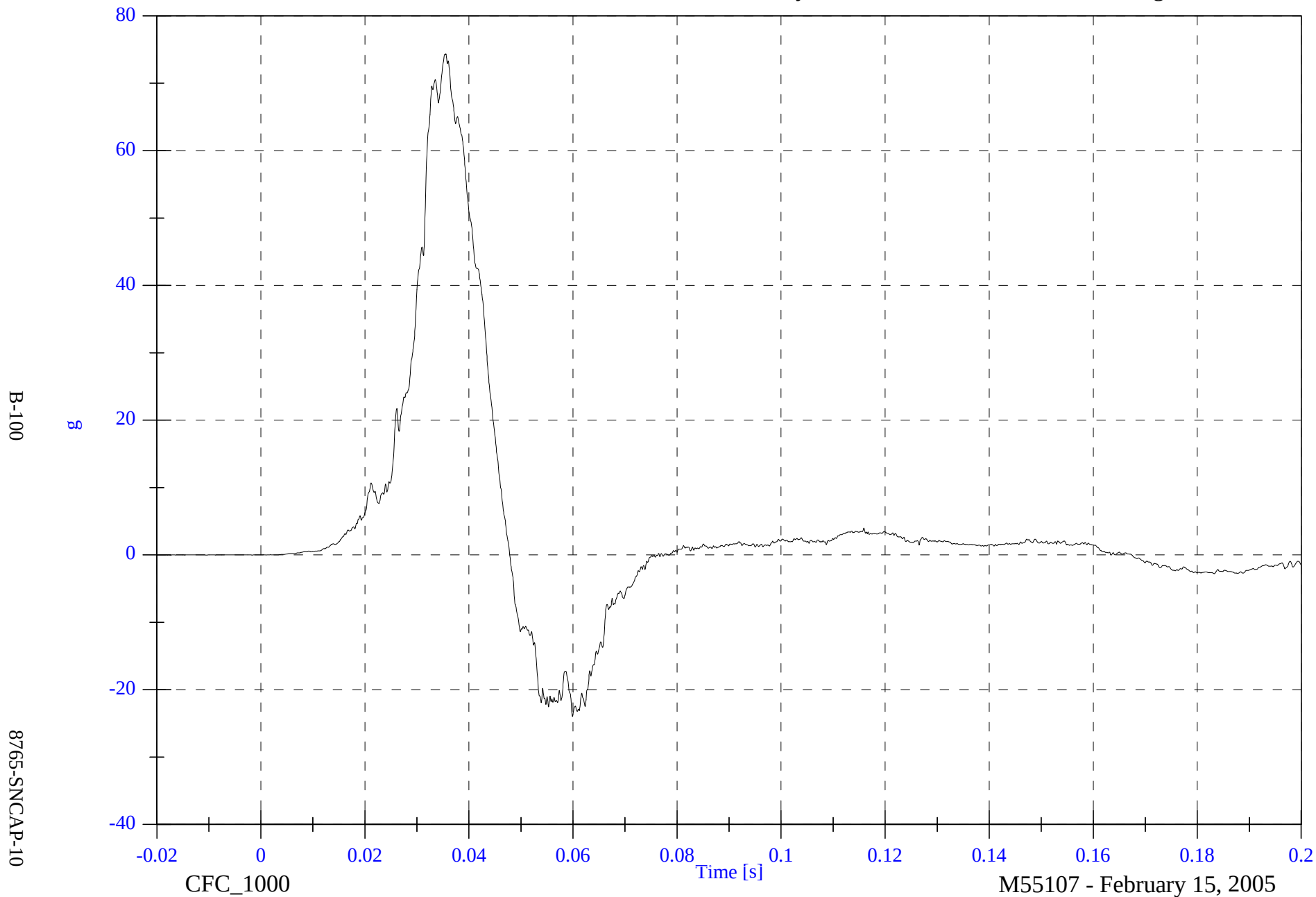


2005 SMCAP Test 5 2005 Toyota Tacoma

V2P1 Pelvic Ry

Max: 74.3 [g] at 0.036 [s]

Min: -24.0 [g] at 0.060 [s]



2005 SENCAP Test 5 2005 Toyota Tacoma

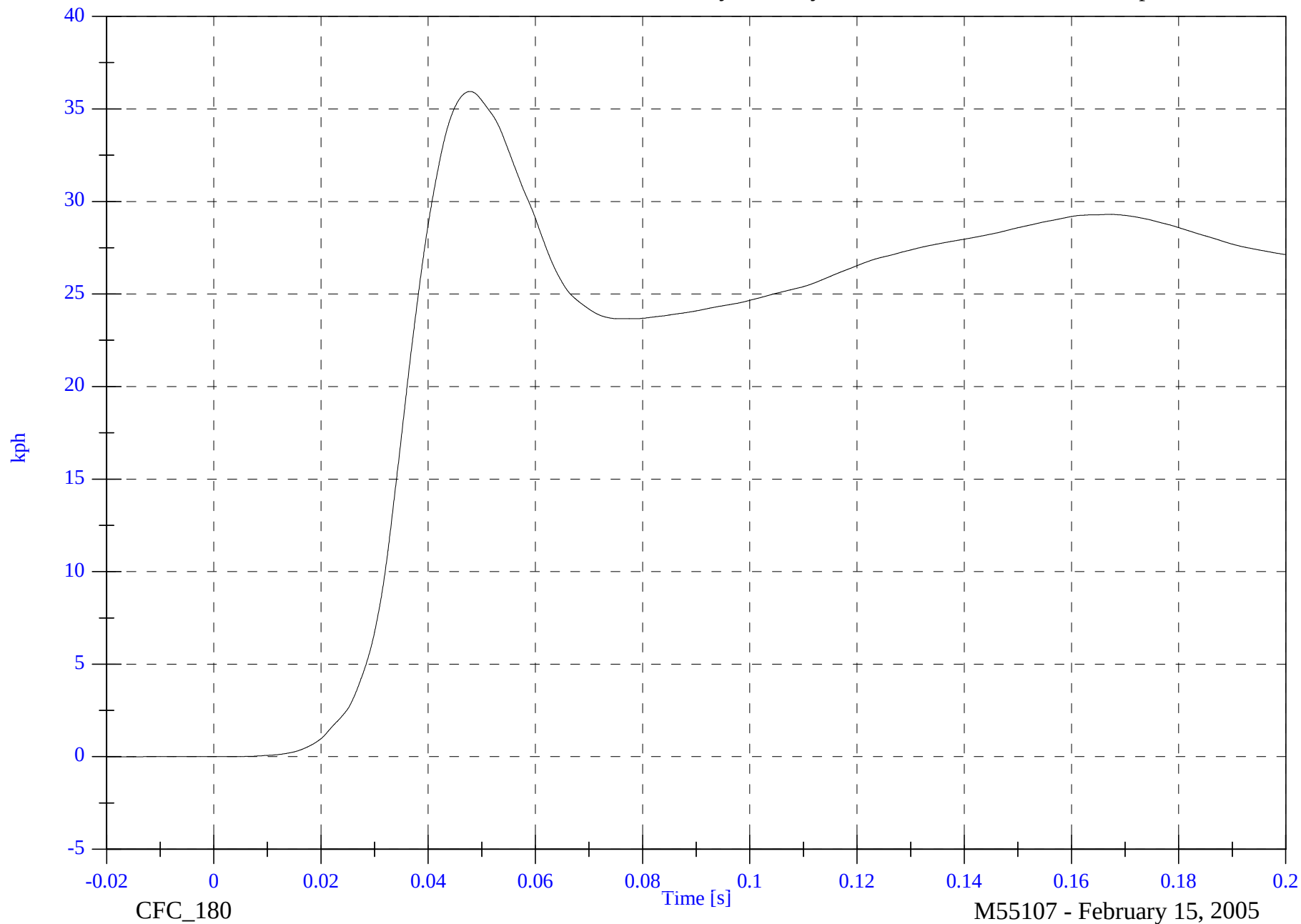
V2P1 Pelvic Ry Velocity

Max: 35.9 [kph] at 0.048 [s]

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

B-101

8765-SNCAP-10



2005 SENCAP Test 5 2005 Toyota Tacoma

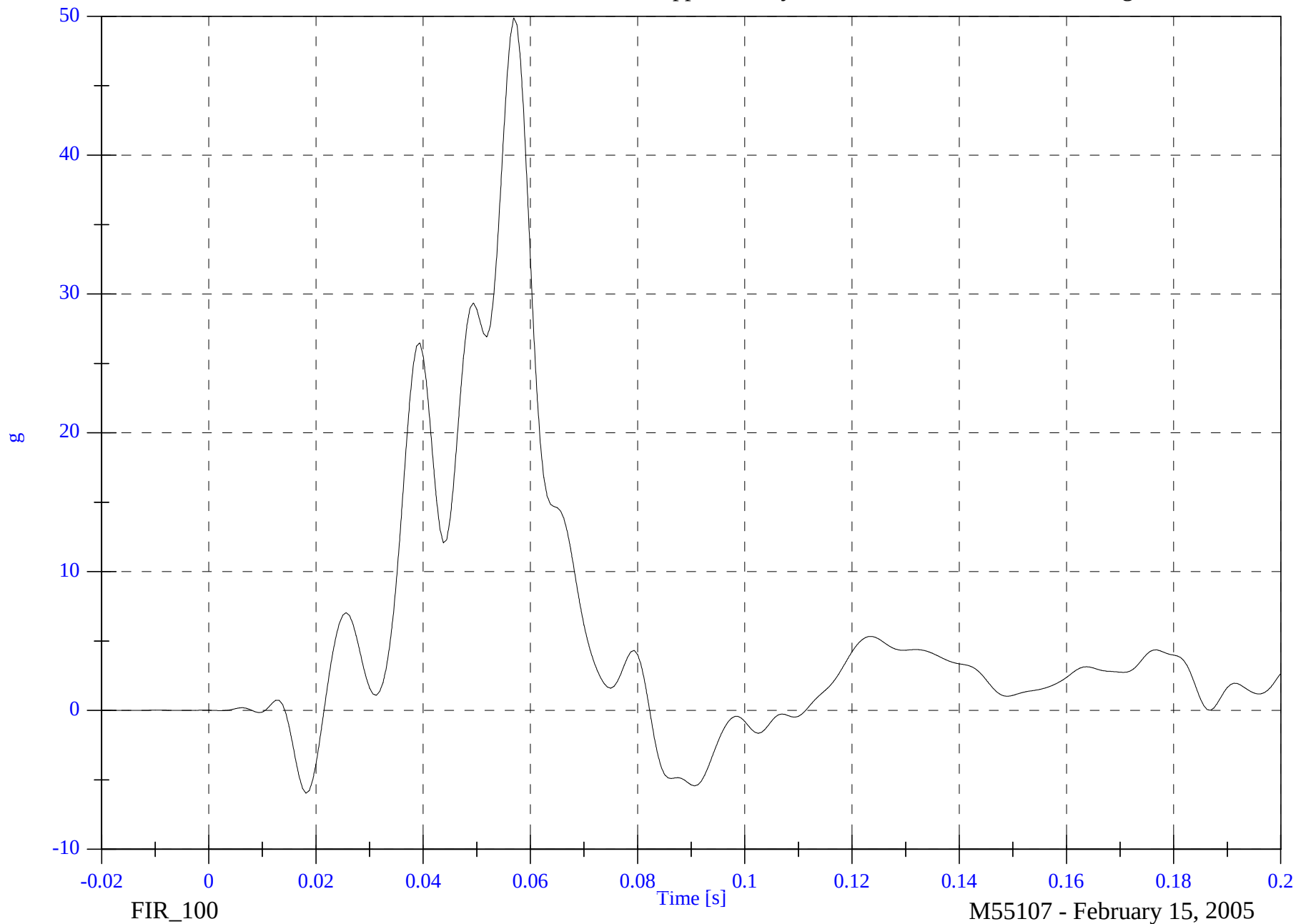
V2P1 Upper Rib Ry

Max: 49.9 [g] at 0.057 [s]

Min: -6.0 [g] at 0.018 [s]

B-102

8765-SENCAP-10



2005 SNCAP Test 5 2005 Toyota Tacoma

V2P1 Lower Rib Ry

Max: 44.2 [g] at 0.043 [s]

Min: -8.5 [g] at 0.021 [s]



2005 SNCAP Test 5 2005 Toyota Tacoma

V2P1 Lower Spine Ry

Max: 46.4 [g] at 0.040 [s]

Min: -4.9 [g] at 0.069 [s]

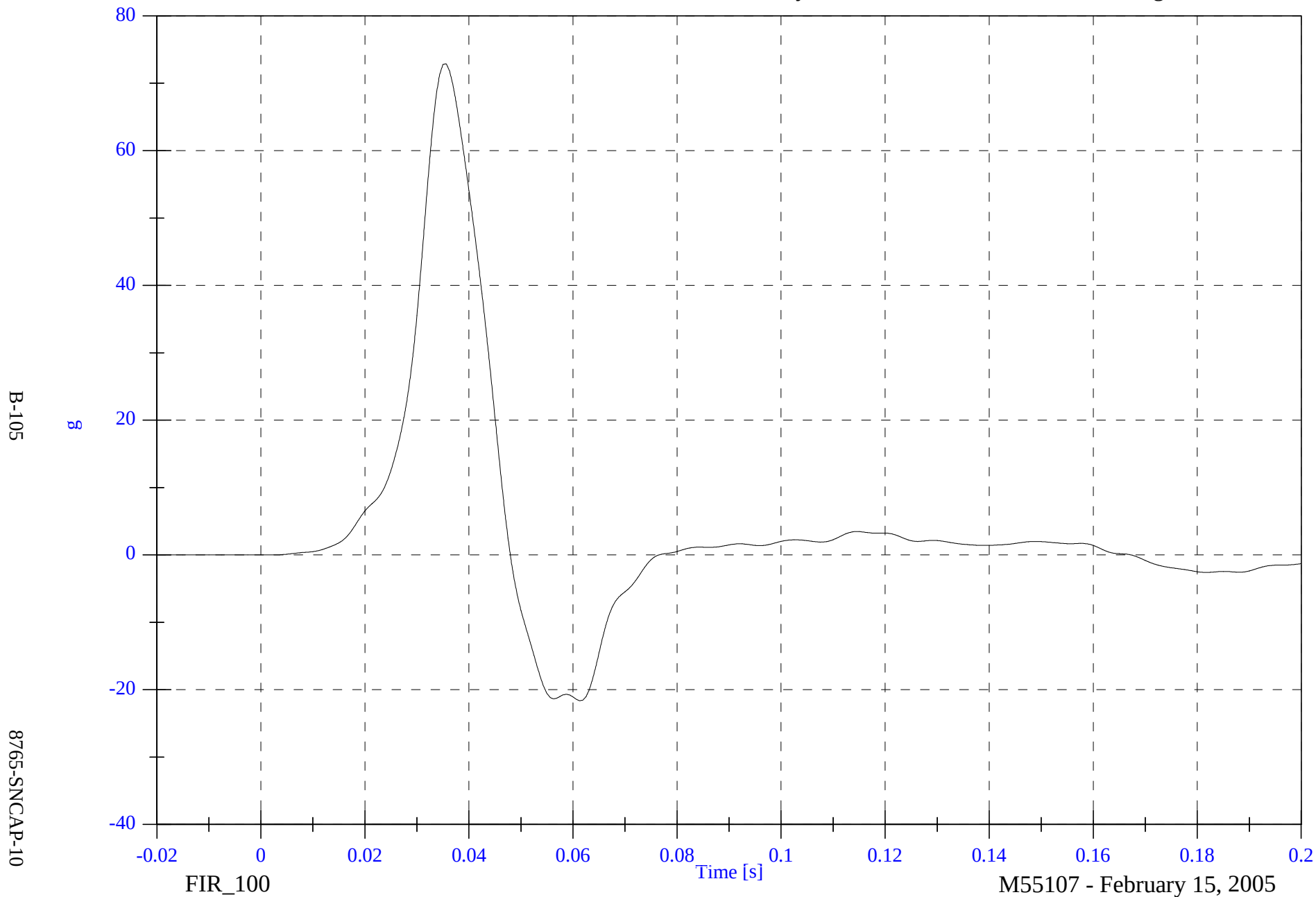


2005 SNCAP Test 5 2005 Toyota Tacoma

V2P1 Pelvic Ry

Max: 72.9 [g] at 0.036 [s]

Min: -21.6 [g] at 0.061 [s]



APPENDIX C

SID HYBRID III CONFIGURATION AND PERFORMANCE VERIFICATION DATA

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

Date: February 9, 2005; February 25, 2005 Sequential Test Number: 2, 3
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	SID H3 NO.: 269	
		PRE TEST	POST TEST
SH- Seated Height (mm)	889 - 909	899	899
RH- Rib Height (mm)	501 - 521	503	503
HP- Hip Pivot Height (mm)	99 ref.	99	99
RD- Rib from Back Line (mm)	229 - 241	234	234
KV- Knee Pivot from Back Line (mm)	511 - 526	518	518
SW- Knee Pivot to Floor (mm)	490 - 505	495	495
HW- Hip Width (mm)	356 - 391	381	381
THORAX IMPACTS			
TEMPERATURE (°C)	18.9 - 25.5	21.1	21.1
RELATIVE HUMIDITY (%)	10 -70	40.00	35.00
PROBE SPEED (m/s)	4.27 - 4.33	4.29	4.28
UPPER RIB (g's)	37 - 46	40.26	39.85
LOWER RIB (g's)	37 - 46	40.10	37.36
LOWER SPINE (g's)	15 -22	19.63	17.57
PELVIS IMPACT			
TEMPERATURE (°C)	18.9 - 25.5	21.1	21.1
RELATIVE HUMIDITY (%)	10 - 70	40.00	37.00
PROBE SPEED (m/s)	4.27 - 4.33	4.28	4.27
PELVIS (g's)	40 -60	56.27	56.93

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: 2
Date: February 9, 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: 2
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

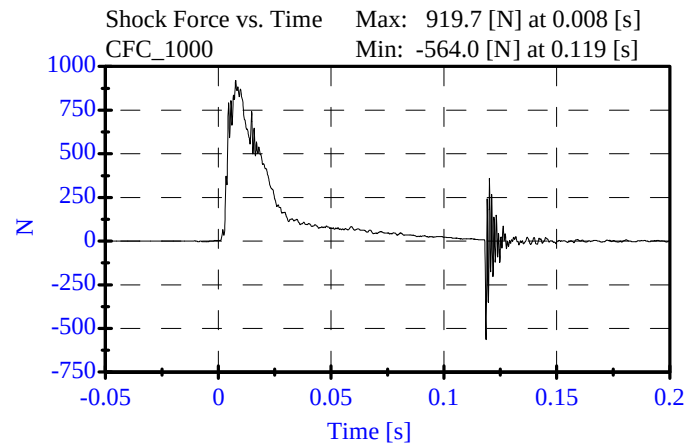
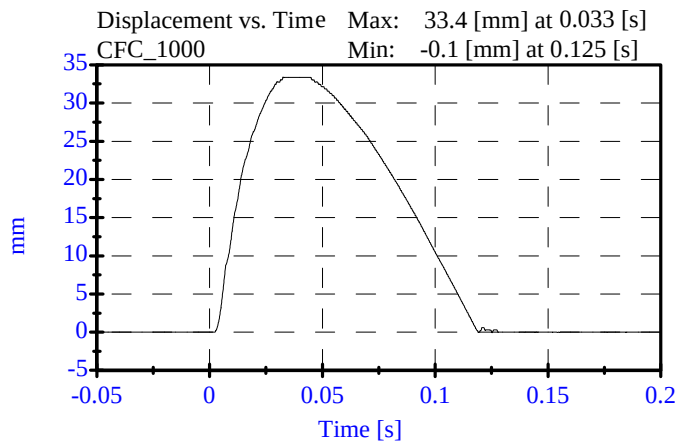
REMARKS: None

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

ATD Serial No: 269
Date: January 14, 2005

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)

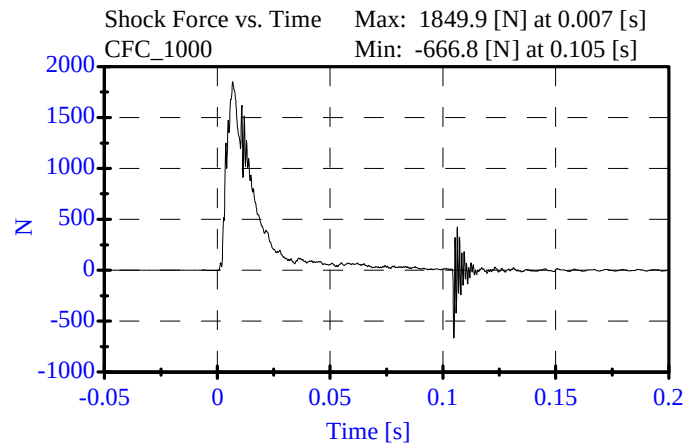
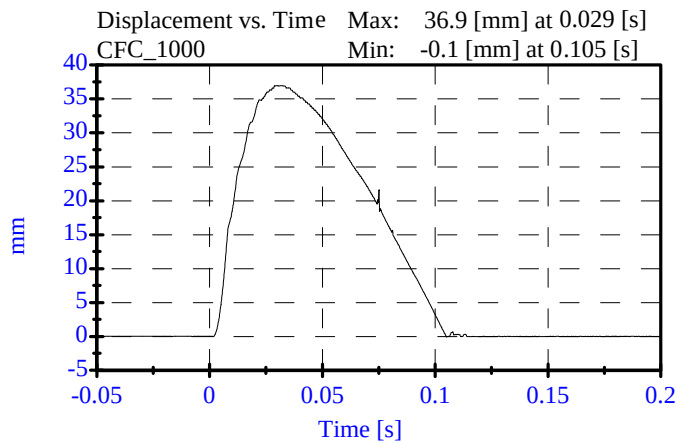
PRE TEST

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269
Date: January 14, 2005

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)

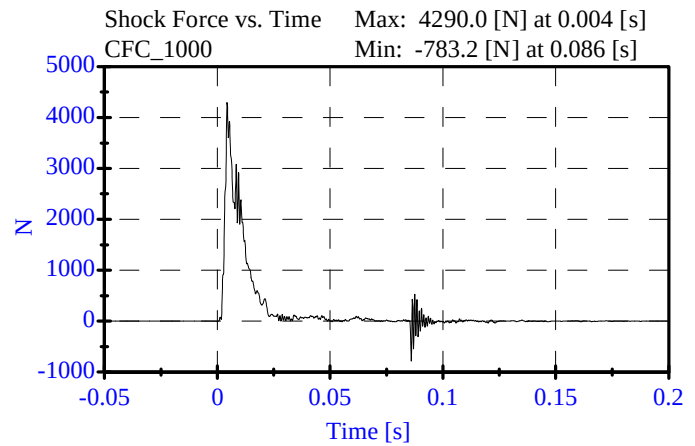
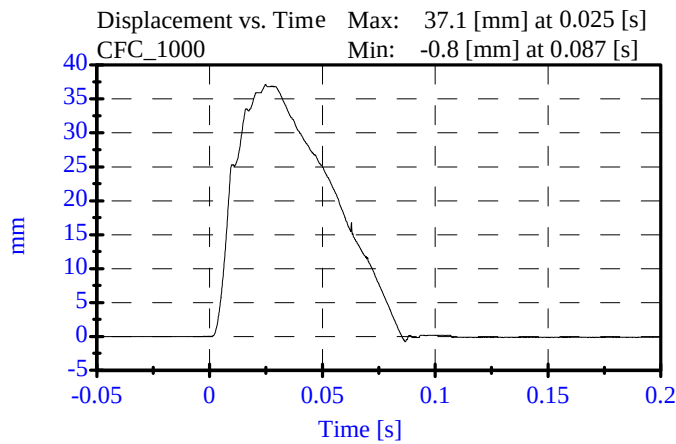
PRE TEST

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269
Date: January 14, 2005

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

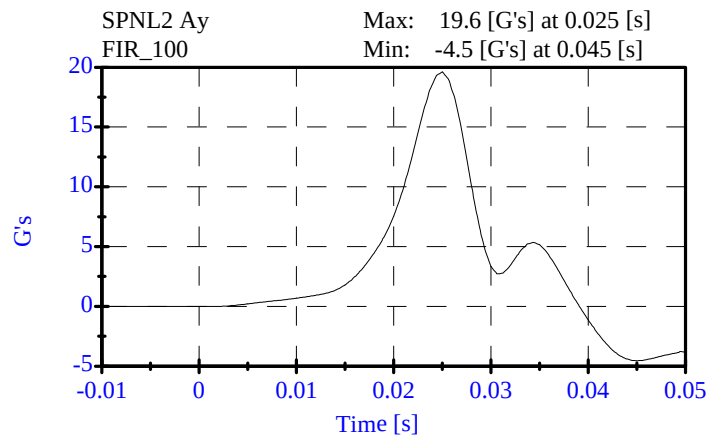
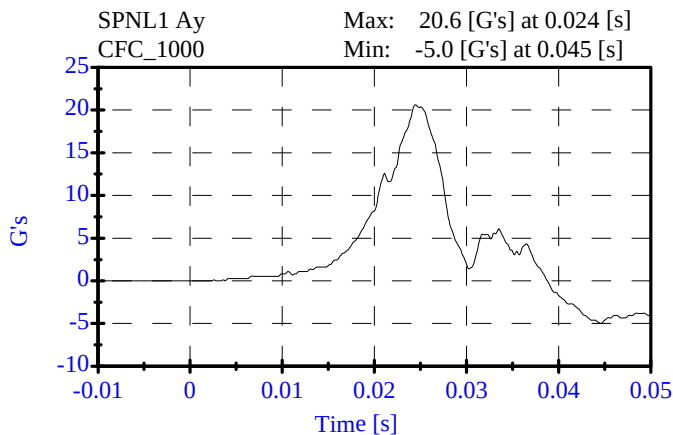
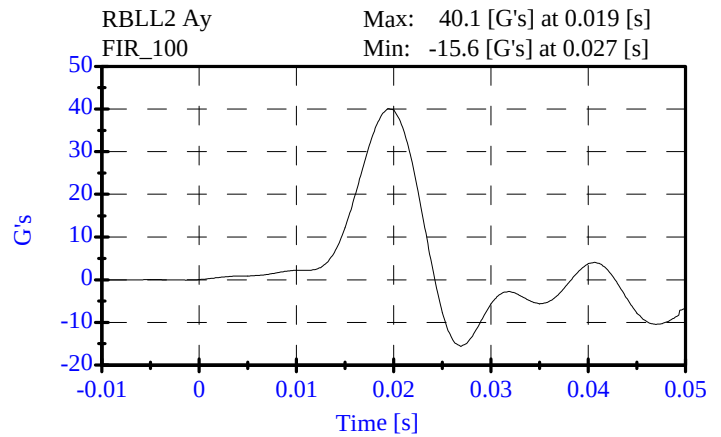
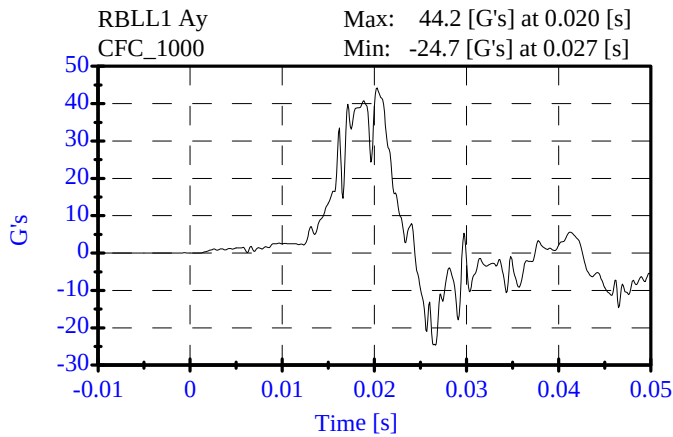
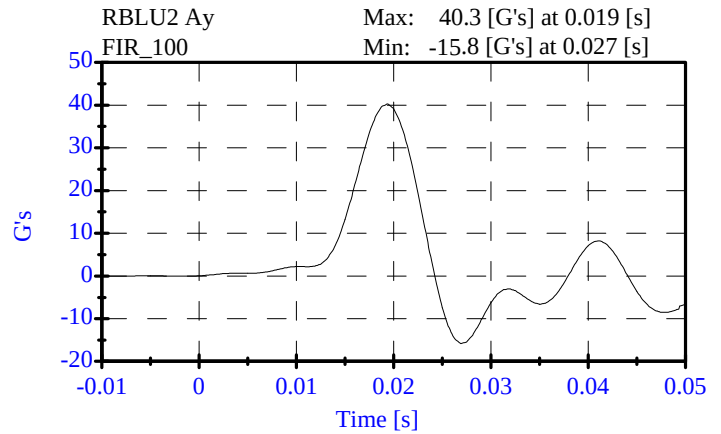
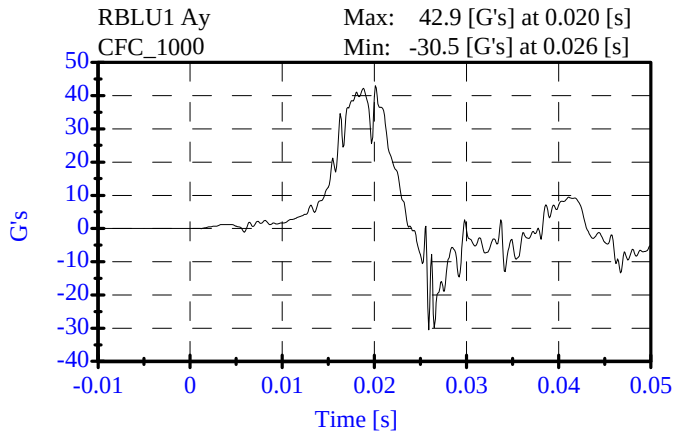
Pre-Test

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269
Date: 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

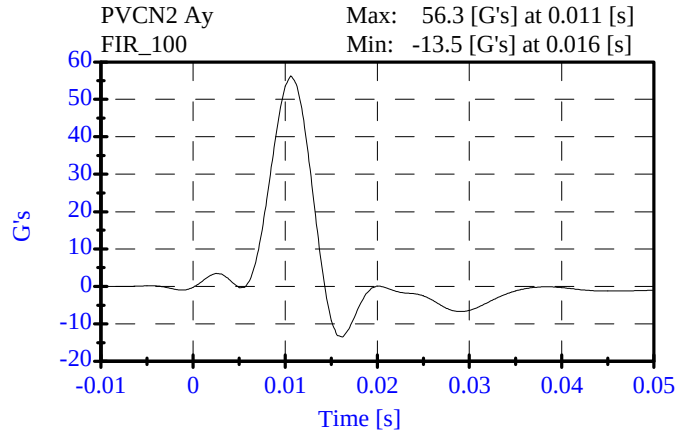
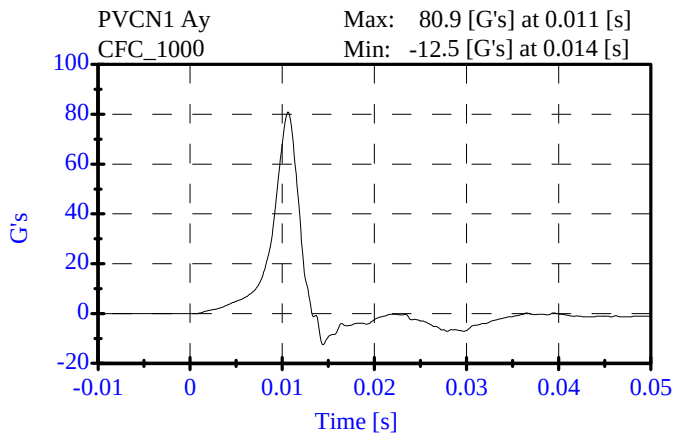
Pre-Test

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

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	4.28 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



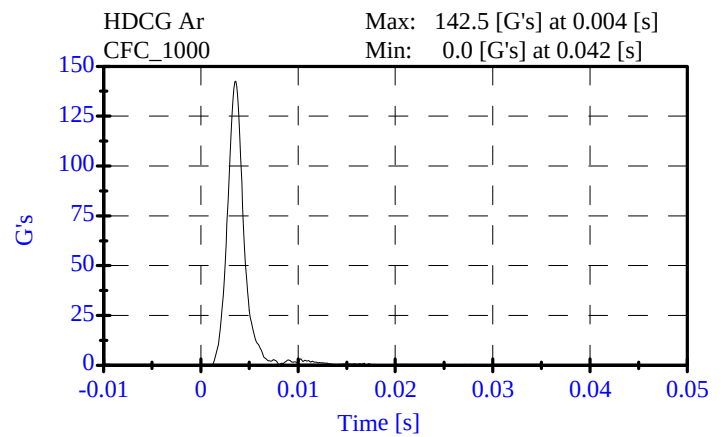
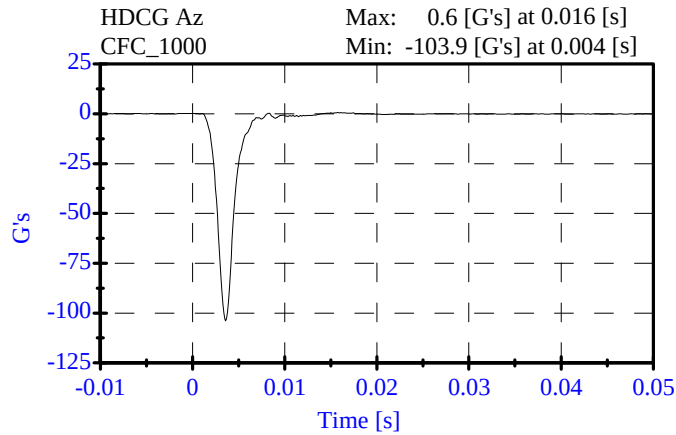
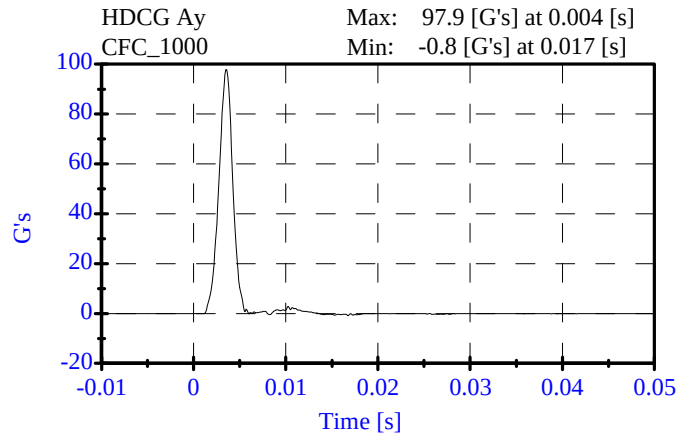
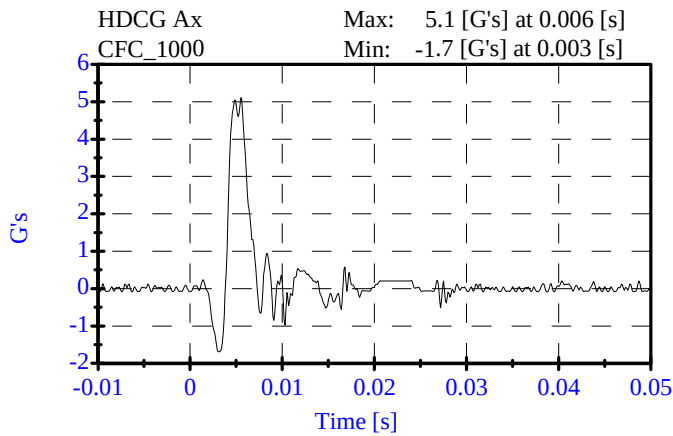
Head Drop Pre-Test

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**Pre-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

Pre-Test

CONFIGURED FOR LEFT SIDE IMPACT

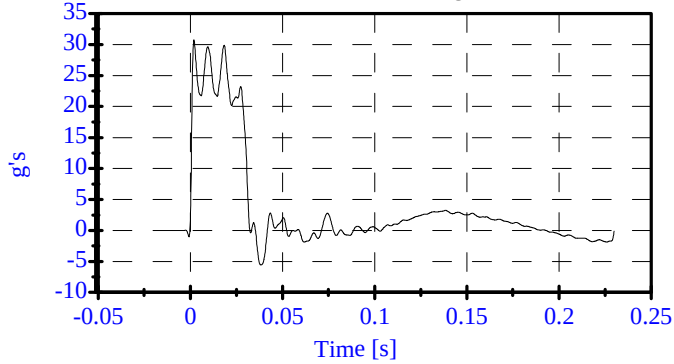
ATD Serial No: 269

Date: February 8, 2005

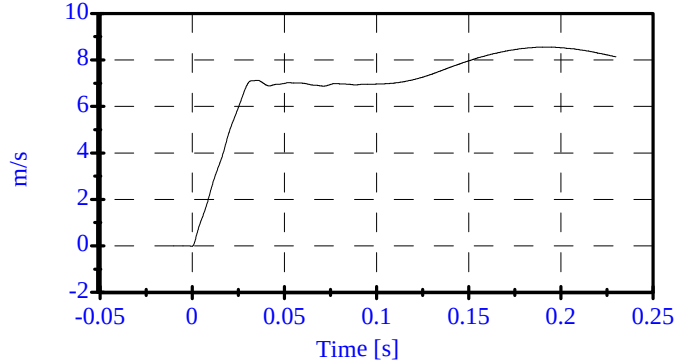
Sequential Test Number: 1 File: 269N1 02-08-05

Laboratory Technician: B. Swiecicki

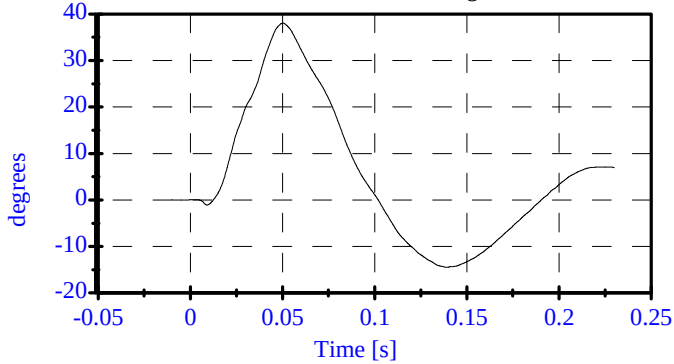
Pend Ax
CFC_180
Max: 30.8 [g's] at 0.002 [s]
Min: -5.6 [g's] at 0.038 [s]



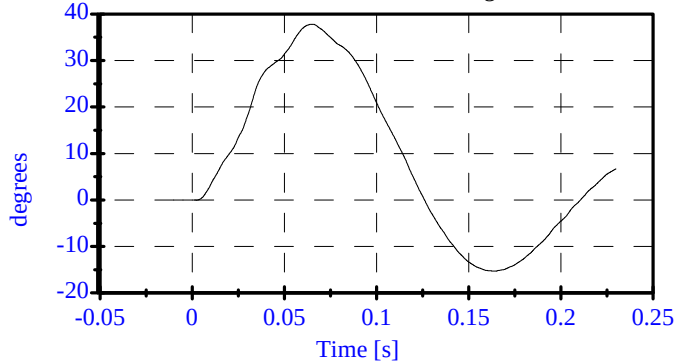
Pend Vx
CFC_180
Max: 8.6 [m/s] at 0.193 [s]
Min: -0.0 [m/s] at -0.000 [s]



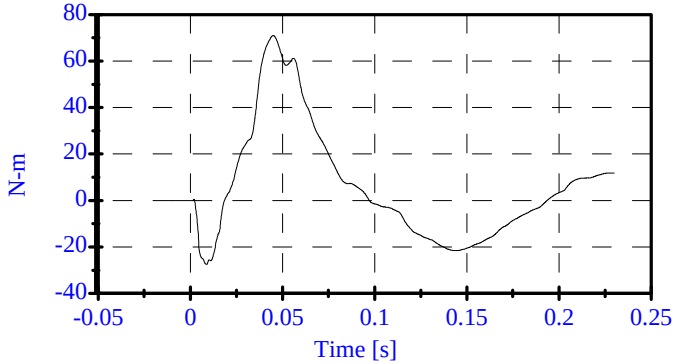
Head Rot
CFC_180
Max: 38.1 [degrees] at 0.050 [s]
Min: -14.5 [degrees] at 0.139 [s]



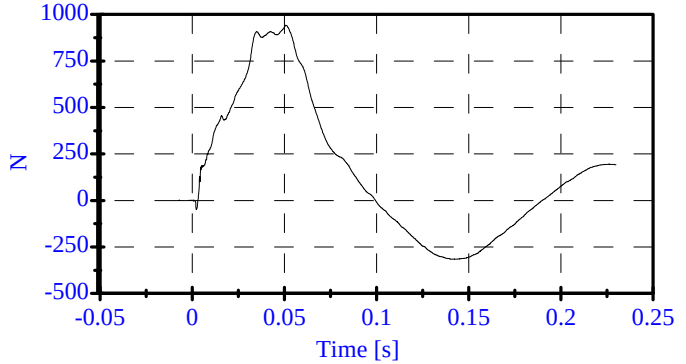
Arm Rot
CFC_180
Max: 37.8 [degrees] at 0.065 [s]
Min: -15.3 [degrees] at 0.164 [s]



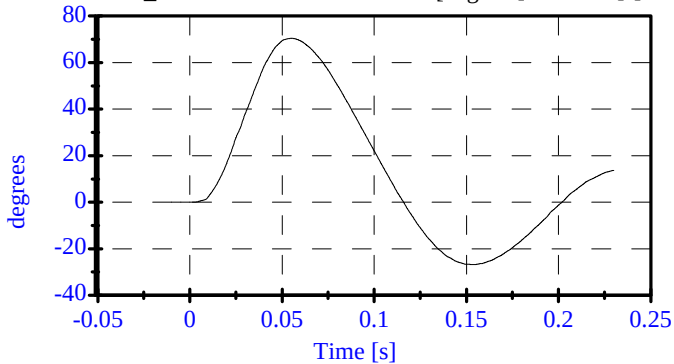
Neck Mx
CFC_600
Max: 70.9 [N-m] at 0.045 [s]
Min: -27.5 [N-m] at 0.009 [s]



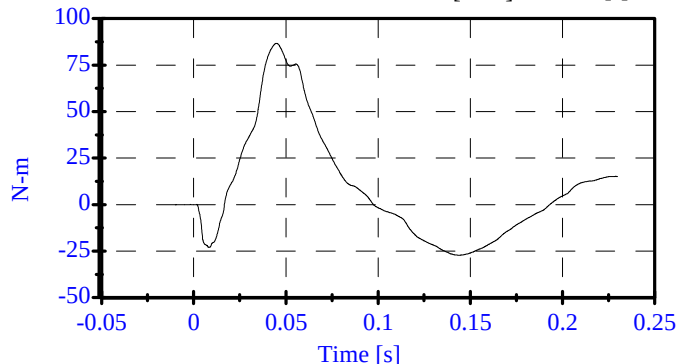
Neck Fy
CFC_1000
Max: 942.2 [N] at 0.051 [s]
Min: -316.0 [N] at 0.143 [s]



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]



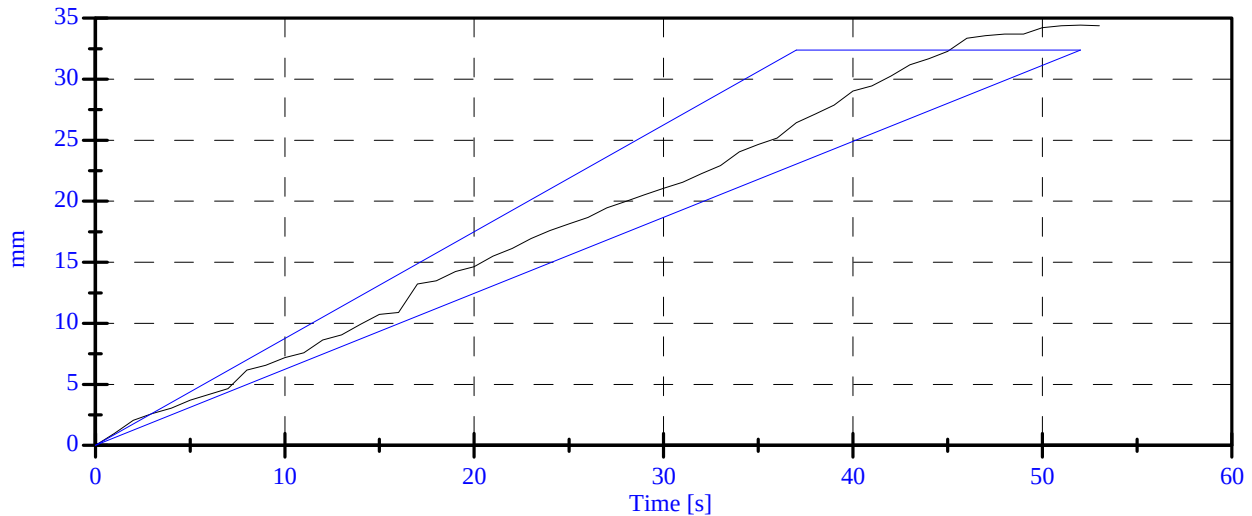
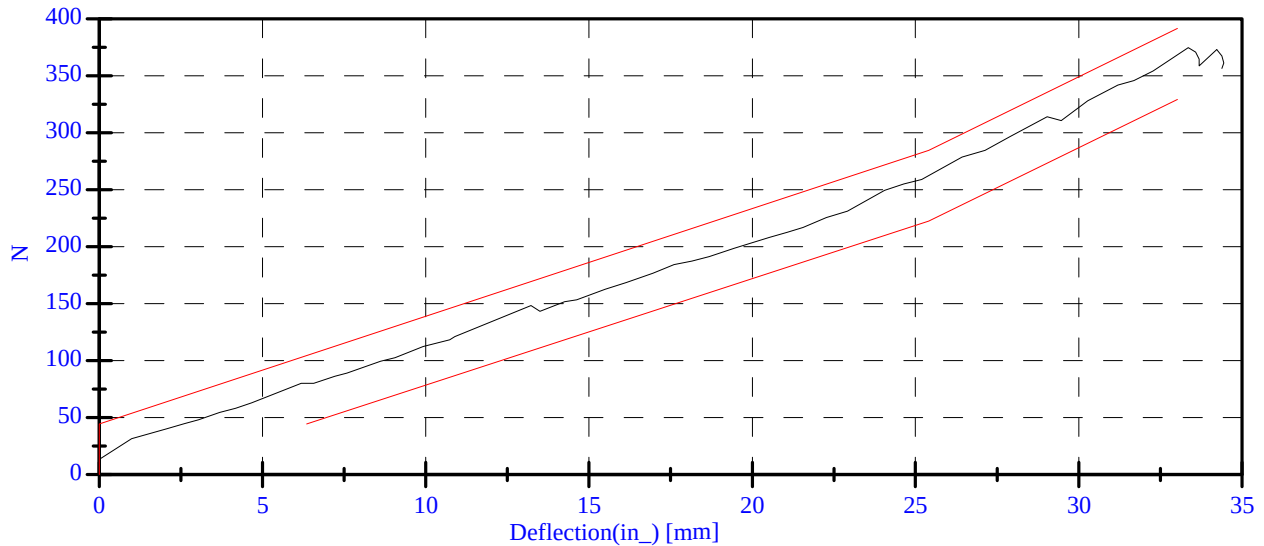
Abdominal Test
Pre-Test
CONFIGURED FOR LEFT SIDE IMPACT

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

Pre-Test

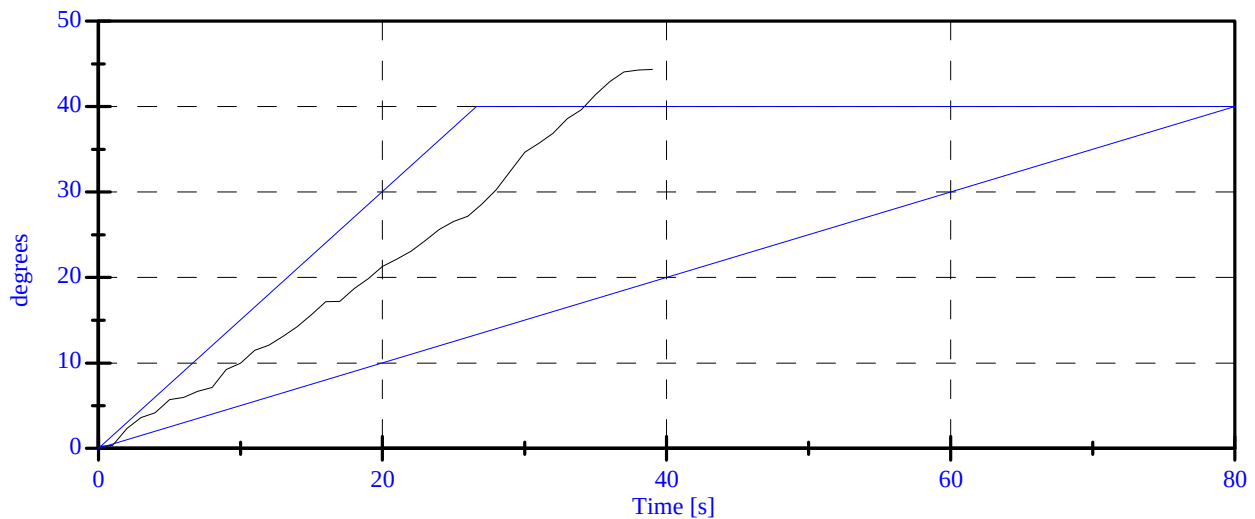
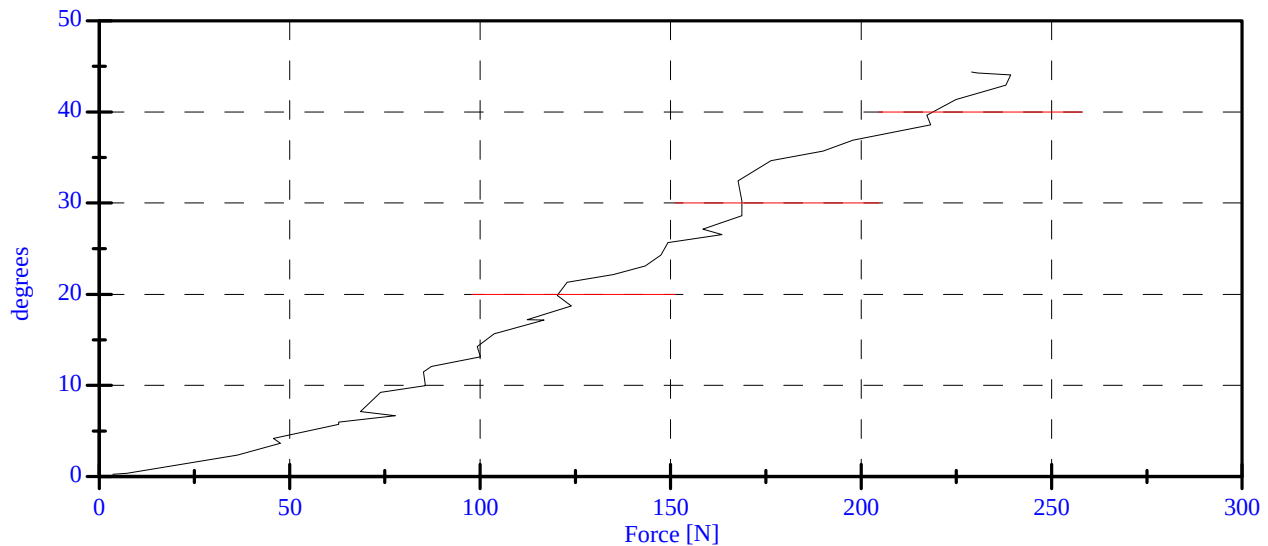
CONFIGURED FOR LEFT SIDE IMPACT

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



PRE-TEST DUMMY INSPECTION LIST

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 269 Sequential Test Number: 2
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.: 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: 3
Date: February 25, 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: 3
Date: February 25, 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

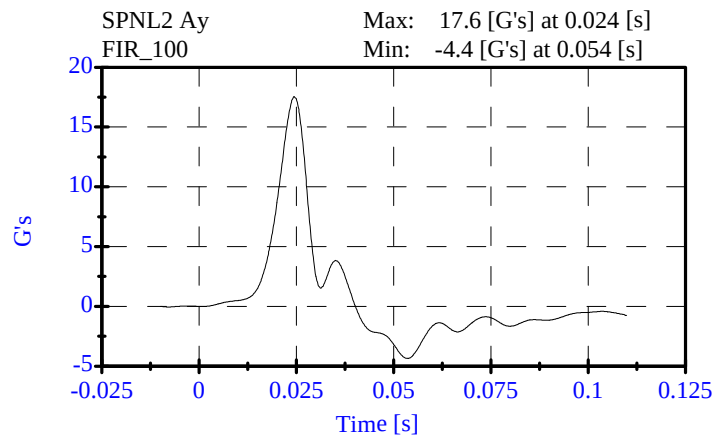
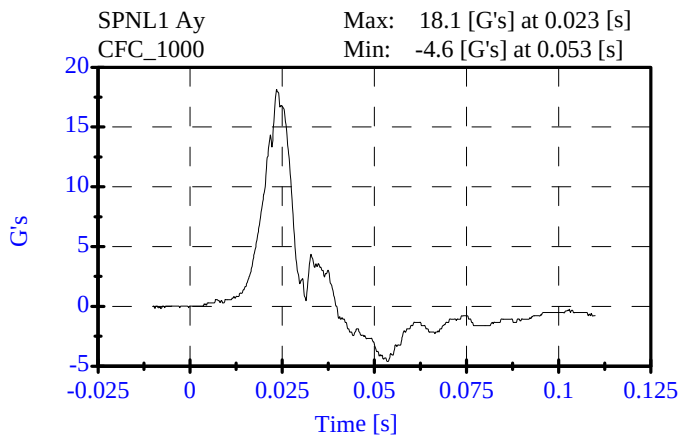
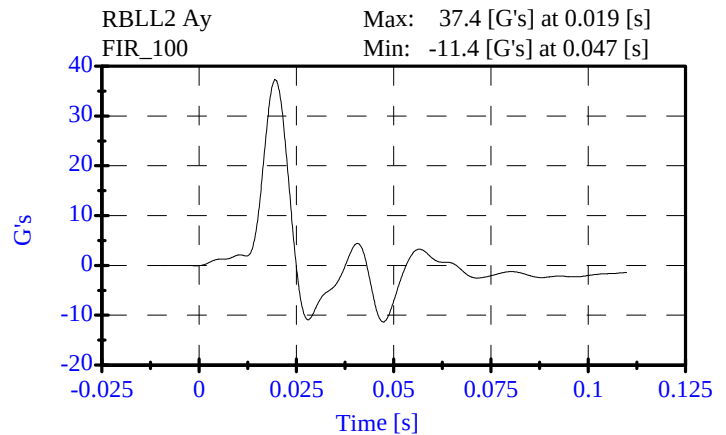
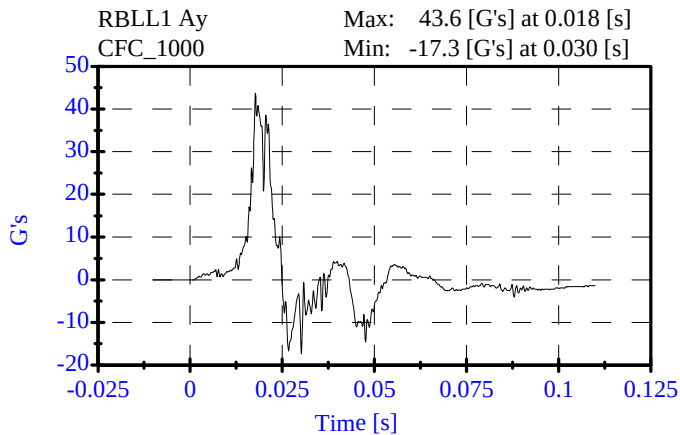
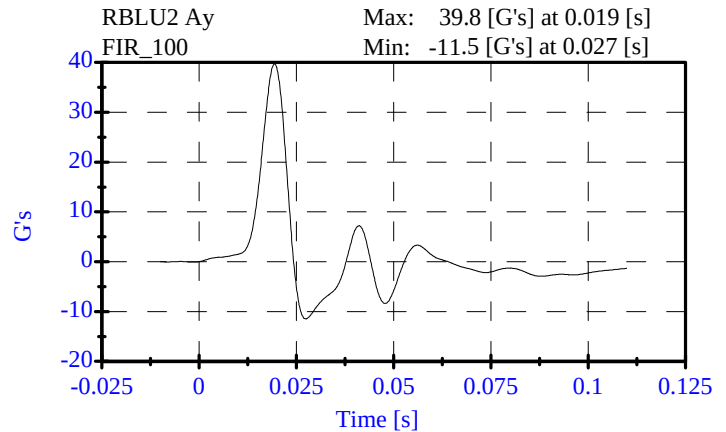
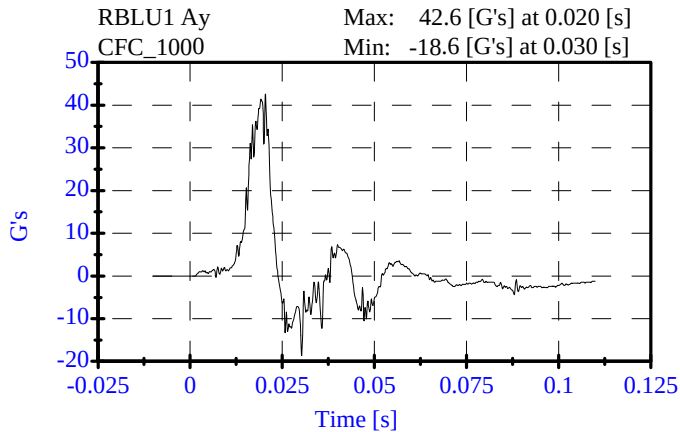
REMARKS: None

Thorax Impact
Post-Test
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269
Date: February 24, 2005

Sequential Test Number: 1 File: 269T 02-24-05
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 %	35.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.28 m/s	Passed
Upper Rib Acceleration:	37.00-46.00 G's	39.85 G's	Passed
Lower Rib Acceleration:	37.00-46.00 G's	37.36 G's	Passed
Lower Spine Acceleration:	15.00-22.00 G's	17.57 G's	Passed



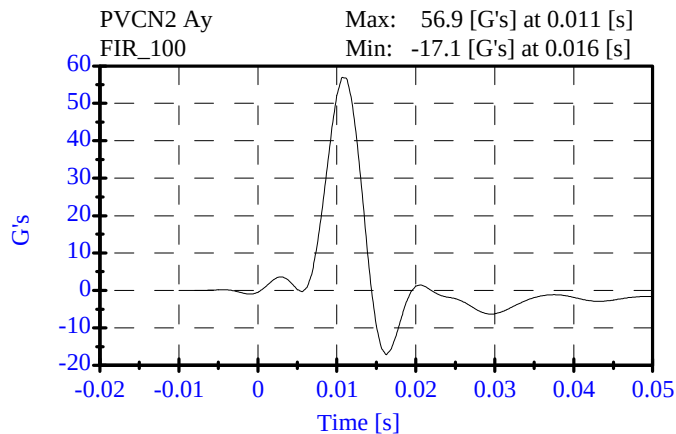
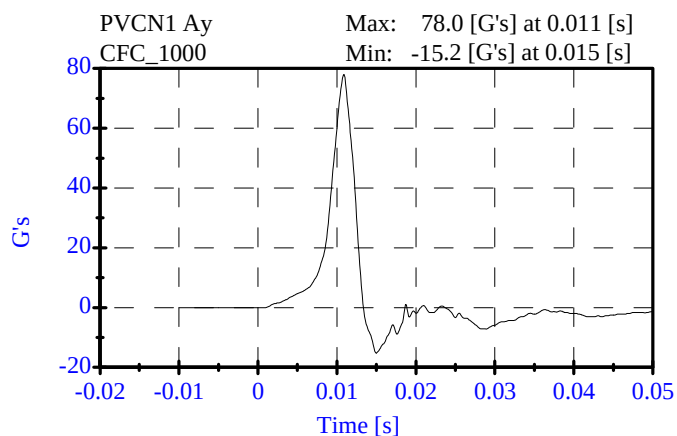
Pelvic Impact Post-Test

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269
Date: February 25, 2005

Sequential Test Number: 1 File: 269P 02-25-05
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 %	37.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.27 m/s	Passed
Pelvis Y Acceleration:	40.00-60.00 G's	56.93 G's	Passed
Time Above 20 Gs	3.0-7.0 ms	5.4 ms	Passed



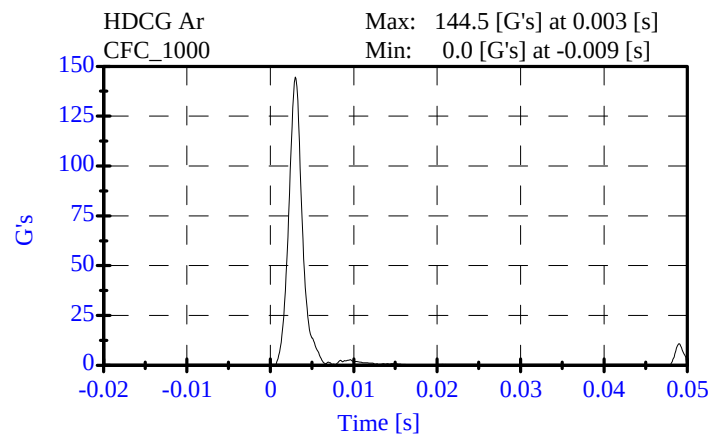
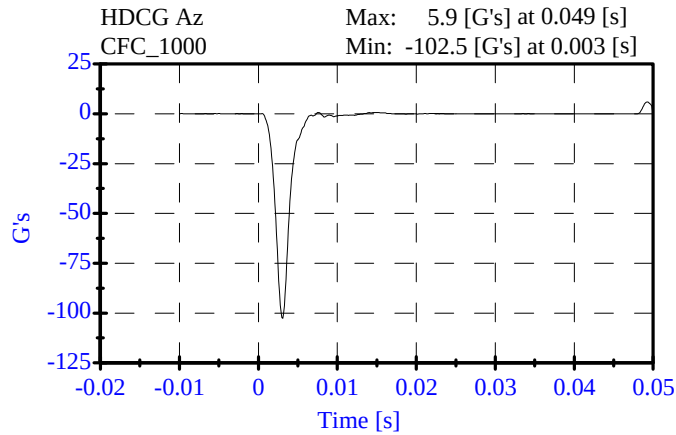
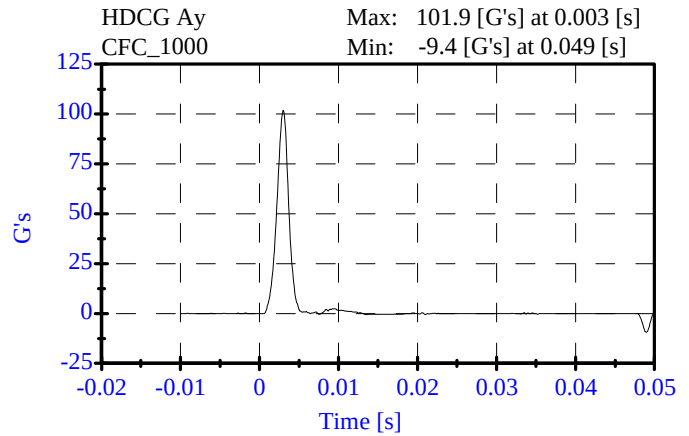
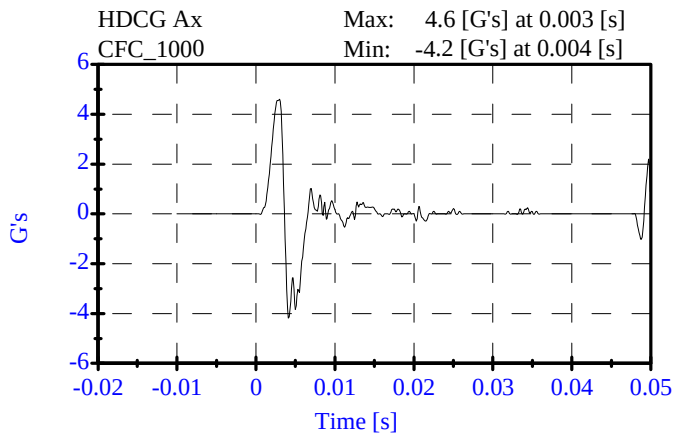
Head Drop Post-Test

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269
Date: February 23, 2005

Sequential Test Number: 1 File: 269H 02-23-05
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	144.51 Gs	Passed
Peak Lateral Accel.:	15 Gs Max	4.60 Gs	Passed
Curve PerCent NonModal:	< 15%	7.49 %	Passed



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

ATD Serial No: 269
Date: February 23, 2005

Sequential Test Number: 1 File: 269N 02-23-05
Laboratory Technician: B. Swiecicki

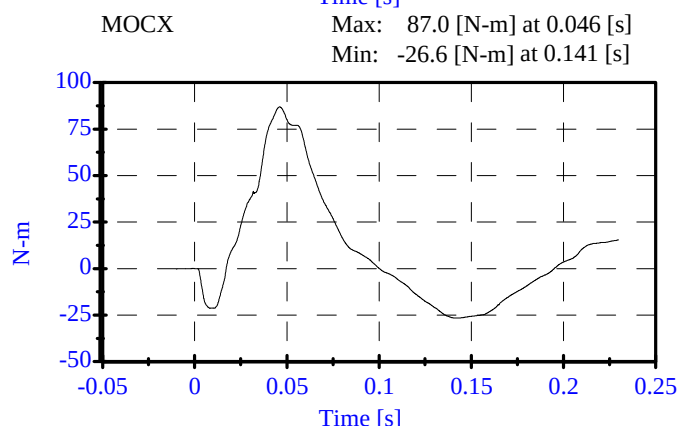
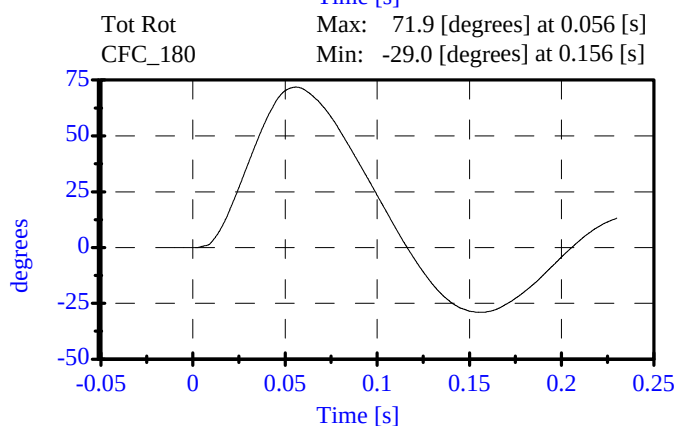
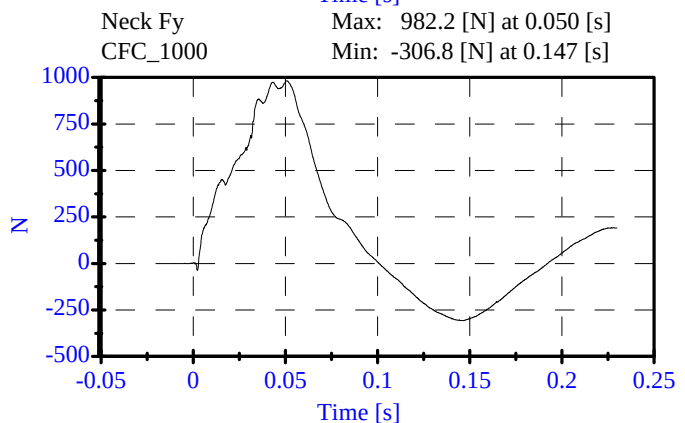
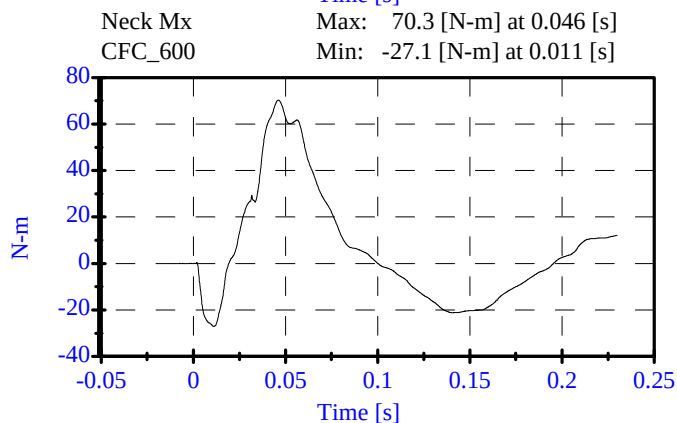
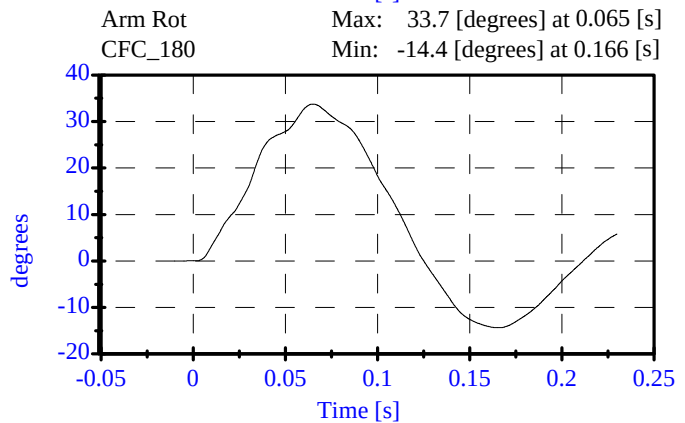
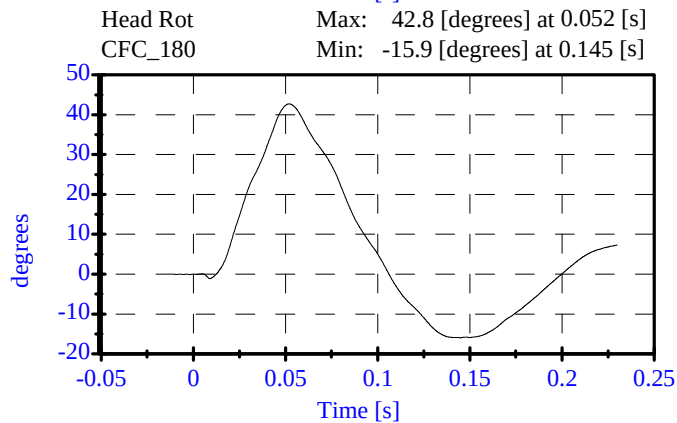
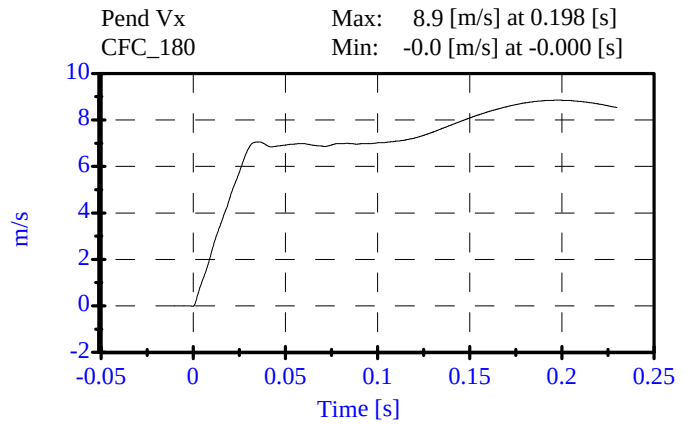
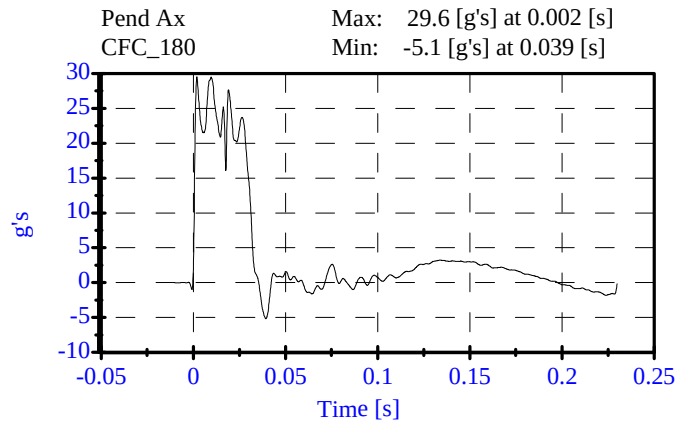
<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	20.6-22.2 C	21.1 C	Passed
Lab Humidity:	10-70 %	34.00 %	Passed
Impact Velocity:	6.89- 7.13 m/s	7.00 m/s	Passed
PENDULUM DELTA V			
Delta V at 10 ms:	1.96- 2.55 m/s	2.35 m/s	Passed
Delta V at 20 ms:	4.12- 5.10 m/s	4.69 m/s	Passed
Delta V at 30 ms:	5.73- 7.01 m/s	6.78 m/s	Passed
Delta V between 40-70 ms:	6.27- 7.64 m/s	7.22 m/s	Passed
D PLANE ROTATION			
Maximum Rotation:	66.0-82.0 Deg	71.89 Deg	Passed
Rotation Angle Decay:	58.0-67.0 ms	60.40 ms	Passed
MOMENT ABOUT THE OCCIPITAL CONDYLE			
Max Occipital Moment:	73.00- 88.00 N-m	87.00 N-m	Passed
Occipital Moment Decay:	49.0-64.0 ms	54.20 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
Post-Test

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269
Date: February 23, 2005

Sequential Test Number: 1 File: 269N 02-23-05
Laboratory Technician: B. Swiecicki



Abdominal Test

Post-Test

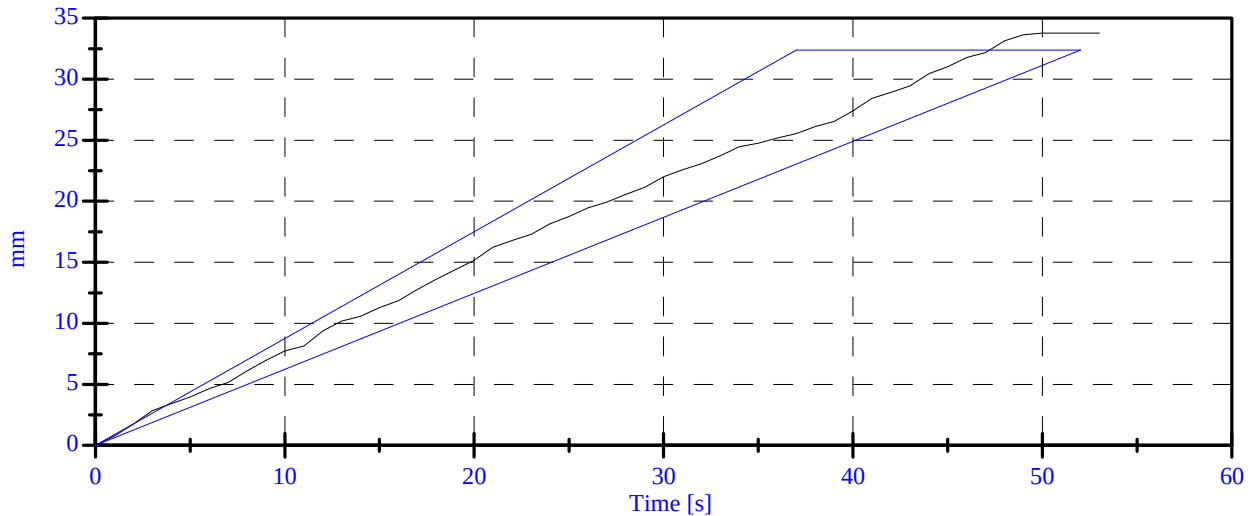
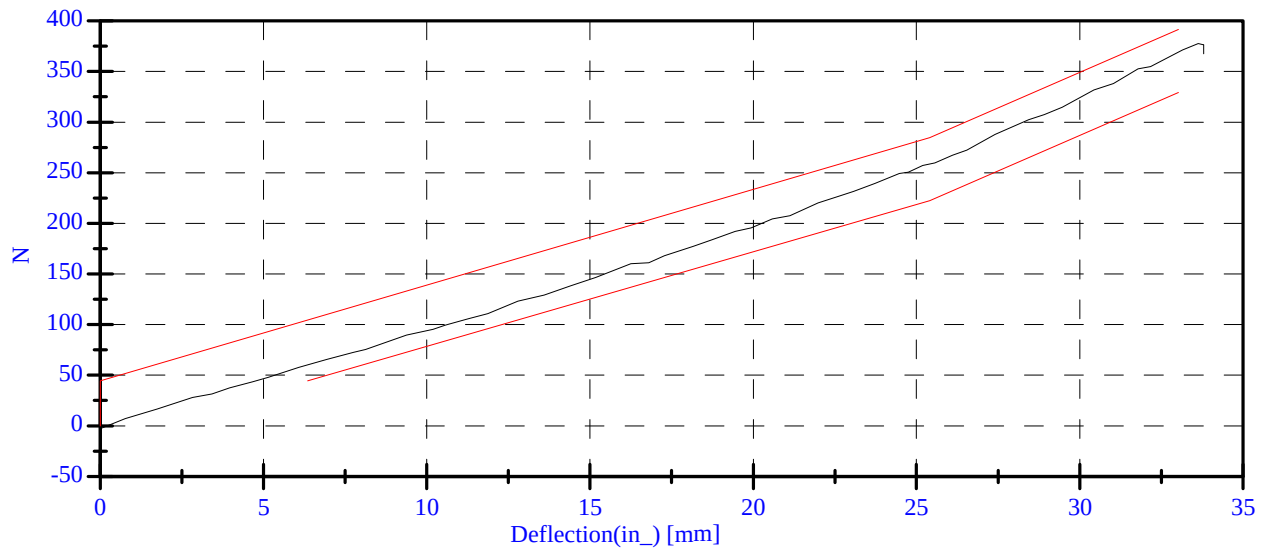
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269
Date: February 24, 2005

Sequential Test Number: 1 File: 269abdominal 02-25-05
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 %	38.00 %	Passed
Force at 12.95 mm :	104.00-162.00 N	123.26 N	Passed
Force at 19.05 mm :	162.98-220.99 N	183.93 N	Passed
Force at 25.40 mm :	221.97-280.02 N	259.60 N	Passed
Force at 33.02 mm :	324.99-391.00 N	371.45 N	Passed

ABDOMINAL COMPRESSION TEST



Lumbar Spine Test

Post-Test

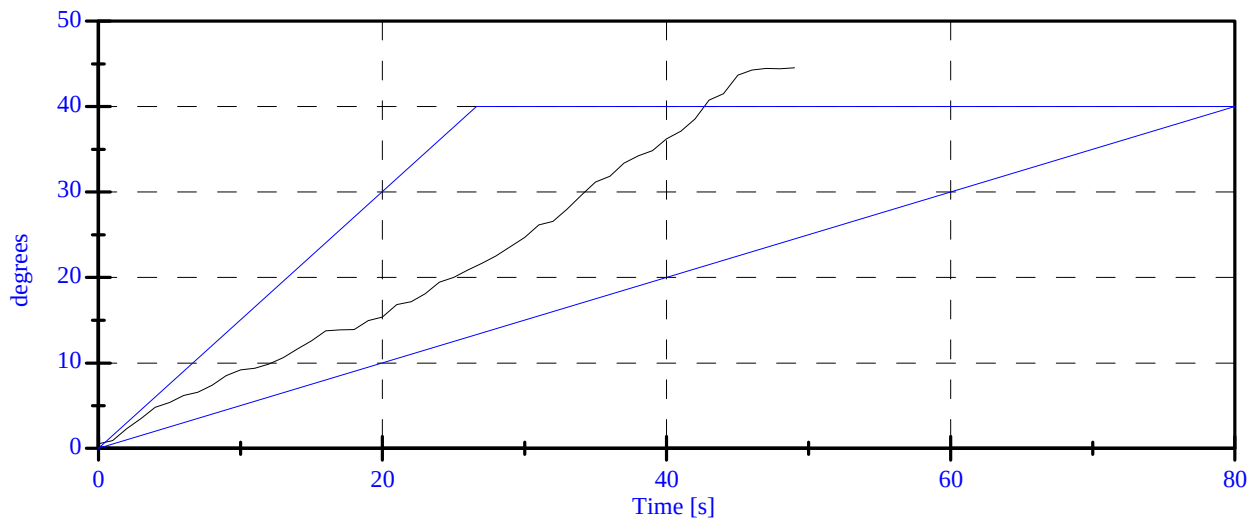
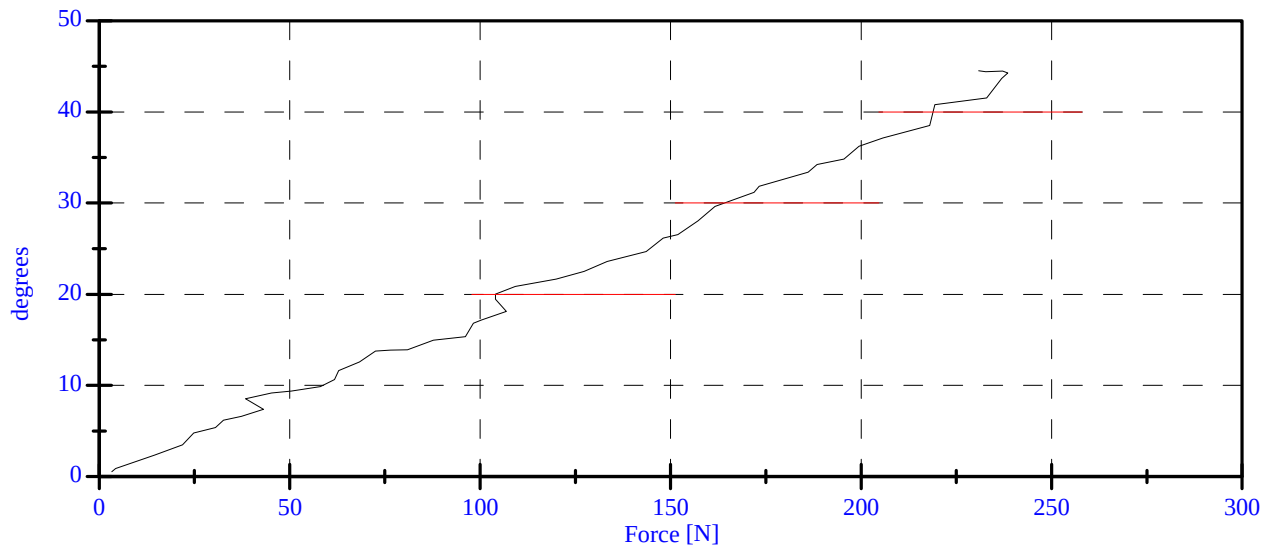
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269
Date: February 15, 2005

Sequential Test Number: 1 File: 269Spine 02-25-05
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 %	38.00 %	Passed
Force at 0 Deg:	0.00-26.69 N	3.28 N	Passed
Force at 20 Deg:	97.86-151.24 N	103.97 N	Passed
Force at 30 Deg	151.24-204.62 N	161.66 N	Passed
Force at 40 Deg	204.62-258.00 N	219.35 N	Passed
Return Angle	12 Deg Max	2.19 deg	Passed

LUMBAR SPINE FLEXION TEST



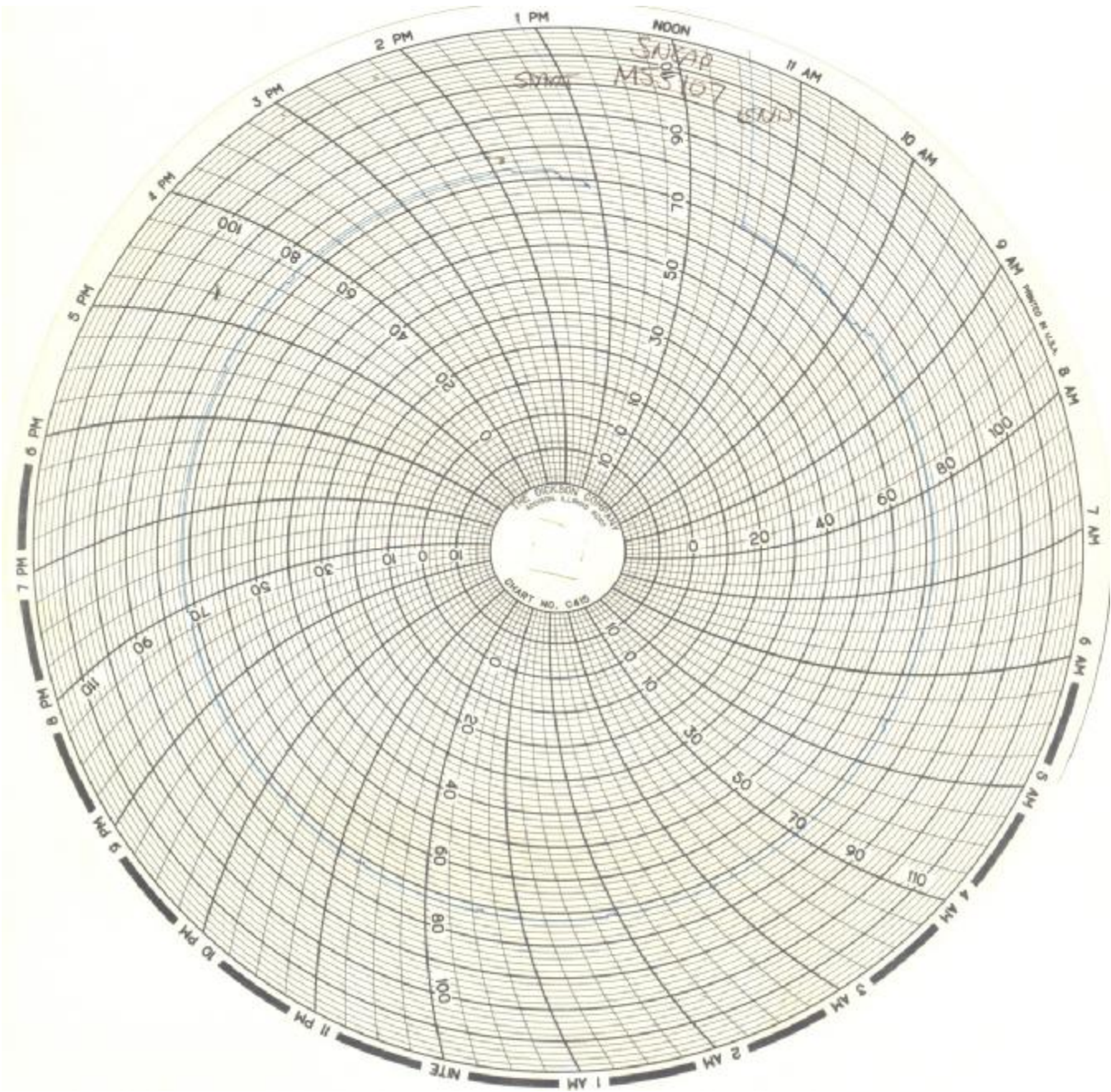
POST-TEST DUMMY INSPECTION LIST
CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 269 Sequential Test Number: 3
Date: February 25, 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	07-Dec-04
HEAD AY	AC-P18739	ENDEVCO	19-Jan-05
HEAD AZ	AC-P19212	ENDEVCO	19-Jan-05
UPPER NECK FX	LC-440Fx	DENTON	06-Nov-04
UPPER NECK FY	LC-440Fy	DENTON	06-Nov-04
UPPER NECK FZ	LC-440Fz	DENTON	06-Nov-04
UPPER NECK MX	LC-440Mx	DENTON	06-Nov-04
UPPER NECK MY	LC-440My	DENTON	06-Nov-04
UPPER NECK MZ	LC-440Mz	DENTON	06-Nov-04
UPPER RIB	AC-P16862	ENDEVCO	07-Oct-04
LOWER RIB	AC-P23156	ENDEVCO	07-Oct-04
LOWER SPINE	AC-P16645	ENDEVCO	07-Oct-04
PELVIS	AC-P16843	ENDEVCO	07-Oct-04
UPPER RIB REDUNDANT	AC-P16866	ENDEVCO	07-Oct-04
LOWER RIB REDUNDANT	AC-P16656	ENDEVCO	07-Oct-04
LOWER SPINE REDUNDANT	AC-P19343	ENDEVCO	07-Oct-04
PELVIS REDUNDANT	AC-P16676	ENDEVCO	07-Oct-04

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-P23139	ENDEVCO	27-Oct-04
RIGHT FRONT SILL (Y)	AC-P13323	ENDEVCO	27-Oct-04
RIGHT FRONT SILL (Z)	AC-P22943	ENDEVCO	27-Oct-04
RIGHT REAR SILL (X)	AC-J31101	ENDEVCO	04-Nov-04
RIGHT REAR SILL (Y)	AC-J31059	ENDEVCO	04-Nov-04
RIGHT REAR SILL (Z)	AC-J31020	ENDEVCO	04-Nov-04
REAR FLOORPAN ABOVE AXLE (X)	AC-J30491	ENDEVCO	07-Jan-05
REAR FLOORPAN ABOVE AXLE (Y)	AC-J31011	ENDEVCO	07-Jan-05
REAR FLOORPAN ABOVE AXLE (Z)	AC-J33071	ENDEVCO	07-Jan-05
LEFT REAR SILL (Y)	AC-FGP21	ICS	20-Aug-04
LEFT FRONT SILL (Y)	AC-FGP24	ICS	20-Aug-04
LEFT FRONT DOOR CENTERLINE (Y)	AC-P23155	ENDEVCO	02-Dec-04
RIGHT REAR SEAT OCCUPANT COMP. (Y)	AC-9440-039	GS SENSORS	09-Sep-04
MID REAR OF LEFT FRONT DOOR (Y)	AC-P18728	ENDEVCO	07-Jan-05
LEFT FRONT DOOR UPPER C/L (Y)	AC-P17539	ENDEVCO	07-Jan-05
LOWER LEFT B- PILLAR (Y)	AC-FGP34	ICS	24-Aug-04
MIDDLE LEFT B-PILLAR (Y)	AC-FGP39	ICS	27-Aug-04
LOWER LEFT A-PILLAR (Y)	AC-FGP22	ICS	27-Aug-04
UPPER LEFT A-PILLAR (Y)	AC-FGP40	ICS	24-Aug-04
FRONT SEAT TRACK (Y)	AC-FGP31	ICS	20-Aug-04
VEHICLE CG (X)	AC-P19111	ENDEVCO	08-Sep-04
VEHICLE CG (Y)	AC-P23161	ENDEVCO	08-Sep-04
VEHICLE CG (Z)	AC-P24011	ENDEVCO	08-Sep-04
MDB CG (X)	AC-C16433	ENDEVCO	31-Aug-04
MDB CG (Y)	AC-C16416	ENDEVCO	31-Aug-04
MDB CG (Z)	AC-C16499	ENDEVCO	31-Aug-04
MDB REAR FRAME MEMBER (X)	AC-C14948	ENDEVCO	31-Aug-04
MDB REAR FRAME MEMBER (Y)	AC-C16680	ENDEVCO	31-Aug-04

REMARKS: None