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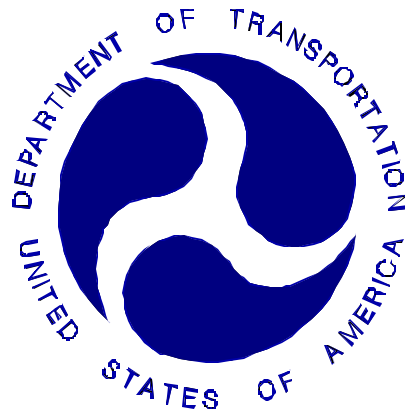
**NEW CAR ASSESSMENT PROGRAM
SIDE IMPACT TEST**

HONDA MOTOR COMPANY, LTD.
2002 ACURA RSX
3-DOOR HATCHBACK

NHTSA NUMBER: M25304

VERIDIAN ENGINEERING TEST NUMBER: 8652-SNCAP-01

VERIDIAN ENGINEERING
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February 4, 2002

FINAL REPORT

U. S. DEPARTMENT OF TRANSPORTATION
National Highway Traffic Safety Administration
Safety Performance Standards
Office of Crashworthiness Standards
Mail Code: NPS-10
400 Seventh Street, SW, Room No. 5313
Washington, DC 20590

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16. Abstract A 55/28 kph 90° Impact Moving Deformable Barrier NCAP Side Impact Test was conducted on the subject 2002 Acura RSX 3-Door Hatchback 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 Veridian Engineering Crash Test Facility in Buffalo, New York, on February 4, 2002. The impact velocity of the Moving Deformable Barrier (MDB) was 61.96 kph, and the ambient temperature at the struck (driver's) side of the target vehicle at the time of impact was 21°C. The target vehicle post-test maximum crush was 273 mm at level 4. The test or target vehicle's performance is given below: <table border="0"> <tr> <td></td> <td style="text-align: center;"><u>Front SID</u></td> <td></td> </tr> <tr> <td>Left Upper Rib Acceleration:</td> <td style="text-align: center;">52</td> <td style="text-align: center;">g's</td> </tr> <tr> <td>Left Lower Rib Acceleration:</td> <td style="text-align: center;">56.8</td> <td style="text-align: center;">g's</td> </tr> <tr> <td>Lower Spine Acceleration:</td> <td style="text-align: center;">72.2</td> <td style="text-align: center;">g's</td> </tr> <tr> <td>Thoracic Trauma Index (TTI):</td> <td style="text-align: center;">65</td> <td style="text-align: center;">g's</td> </tr> <tr> <td>Pelvis Acceleration (PEV):</td> <td style="text-align: center;">94</td> <td style="text-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</u>		Left Upper Rib Acceleration:	52	g's	Left Lower Rib Acceleration:	56.8	g's	Lower Spine Acceleration:	72.2	g's	Thoracic Trauma Index (TTI):	65	g's	Pelvis Acceleration (PEV):	94	g's
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17. Key Words New Car Assessment Program (NCAP) Side Impact MDB Side Impact Dummy (SID)		18. Distribution Statement <u>Copies of this report are available from:</u> National Highway Traffic Safety Administration Technical Reference Division Room 5108 (NAD-52) 400 Seventh St., S.W. Washington, D.C. 20590 Telephone No. (202) 366-4946 ATTN: Robert Hornicle																			
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SECTION 1

PURPOSE AND TEST PROCEDURE

This side impact test is part of the FY2001 New Car Assessment Program Side Impact Protection sponsored by the National Highway Traffic Safety Administration (NHTSA) under Contract No. DTNH22-98-D-02001. The purpose of this test was to generate comparative side impact performance in a 2002 Acura RSX 3-Door Hatchback. 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 2002 Acura RSX 3-Door Hatchback 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 61.96 kph (38.5 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 Veridian Engineering Transportation Sciences Center in Buffalo, New York on February 4, 2002. Pre- and post-test photographs of the test vehicle, the moving deformable barrier (MDB), and the side impact dummies (SIDs) are included in Appendix A.

One restrained Side Impact Dummy (SID) 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 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)

A summary of the side impact dummy (SID) configuration and verification test data can be found in Appendix C. A total of 42 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
TTI (g)	65
PEV (g)	94

SECTION 3

SUMMARY OF TEST RESULTS

DATA SHEET 1**GENERAL TEST AND VEHICLE PARAMETER DATA****TEST VEHICLE INFORMATION:**

Year/Make/Model/Body Style: 2002 Acura RSX 3-Door Hatchback

Vehicle Body Color: Red VIN: JH4DC53832C013574

Vehicle NHTSA No.: M25304 Month & Year of Manufacture: 9/01

Engine Data: 4 Cylinders; - CID; 2.0 Liters; - cc

Engine Placement: - Longitudinal; or X Lateral

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

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

Odometer Reading 29 km

Options: X A/C; X Power Steering; X Power Brakes; X Power Windows

DATA FROM TIRE PLACARD

Tire Pressure* (at capacity); 230 kPa FRONT
230 kPa REAR

Recommended Tire Size: P205/55R16

Tires on Test Vehicle: P205/55R16 ; Manufacturer: Michelin

Vehicle Capacity Data:

Number of Occupants: 2 Front; 2 Rear; - 3rd Seat; 4 Total

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

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

Vehicle Max Capacity Loading = 317.5 kg (A)

No. of Occupants x 68.04 kg. = 272.16 kg (B)

Vehicle Cargo Capacity = 45.34 kg (A-B)

TEST VEHICLE DELIVERED WEIGHT WITH MAXIMUM FLUIDS:

Left Front = 378.0 kg Left Rear = 239.0 kg

Right Front = 373.0 kg Right Rear = 239.5 kg

TOTAL FRONT = 751.0 kg TOTAL REAR = 478.5 kg

% of Total Weight = 61.1% % % of Total Weight = 38.92 %

TOTAL WEIGHT = 1229.5 kg

* Tire pressure used in test.

DATA SHEET 1 (continued)

GENERAL TEST VEHICLE PARAMETER DATA

Vehicle: 2002 Acura RSX 3-Door Hatchback

NHTSA No. M25304

CALCULATION OF VEHICLE'S TARGET TEST WEIGHT:

Total Test Vehicle Delivered Weight with Max. Fluids	=	<u>1229.5</u>	kg (A)
Maximum Cargo Carrying Capacity of Test Vehicle	=	<u>45.34</u>	kg (B)
Weight of instrumented Side Impact Dummies (2 X 81.2 kg)	=	<u>162.4</u>	kg (C)
TEST VEHICLE TARGET WEIGHT:	=	<u>1437.24</u>	kg (A+B+C)

FULLY LOADED TEST VEHICLE (UDVW + 1 or 2 SID(s) + CARGO):

Left Front	=	<u>415.0</u>	kg	Left Rear	=	<u>315.5</u>	kg
Right Front	=	<u>389.0</u>	kg	Right Rear	=	<u>291.5</u>	kg
TOTAL FRONT	=	<u>804.0</u>	kg	TOTAL REAR	=	<u>607.0</u>	kg
% of Total Weight	=	<u>57.0%</u>	%	% of Total Weight	=	<u>43.0%</u>	%
TOTAL TEST WEIGHT =		<u>1411.0</u>	kg				

AS TESTED WEIGHT OF TEST VEHICLE (1 OR 2 SID(s) + CARGO + EQUIPMENT & INSTRUMENTATION):

Left Front	=	<u>400.5</u>	kg	Left Rear	=	<u>310.0</u>	kg
Right Front	=	<u>401.5</u>	kg	Right Rear	=	<u>317.0</u>	kg
TOTAL FRONT	=	<u>802.0</u>	kg	TOTAL REAR	=	<u>627.0</u>	kg
% of Total Weight	=	<u>56.1%</u>	%	% of Total Weight	=	<u>43.9%</u>	%
TOTAL TEST WEIGHT =		<u>1429</u>	kg				

TEST VEHICLE ATTITUDE (all dimensions in millimeters):

AS DELIVERED:

Left Front	<u>696</u>	Right Front	<u>698</u>	Left Rear	<u>704</u>	Right Rear	<u>701</u>
------------	------------	-------------	------------	-----------	------------	------------	------------

FULLY LOADED:

Left Front	<u>682</u>	Right Front	<u>693</u>	Left Rear	<u>682</u>	Right Rear	<u>685</u>
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READY FOR TEST:

Left Front	<u>688</u>	Right Front	<u>694</u>	Left Rear	<u>685</u>	Right Rear	<u>686</u>
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Test Vehicle Wheelbase: 2570 millimeters

C.G. = 1127.63 millimeters rearward of front wheel centerline

TOTAL VEHICLE LENGTH:

Right Side =	<u>4215</u>	millimeters
Left Side =	<u>4215</u>	millimeters
Centerline =	<u>4370</u>	millimeters

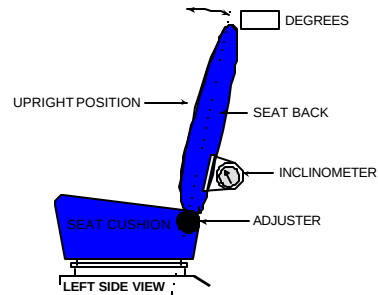
DATA SHEET 1 (continued)

GENERAL TEST VEHICLE PARAMETER DATA

Vehicle: 2002 Acura RSX 3-Door Hatchback

NHTSA No. M25304

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 ASSEMBLY

FRONT SEAT CUSHION PLACEMENT: Mid-position (120 mm or detent 12)

Total Length of Adjustment Travel: 240 millimeters

Total Number of Adjustment Positions or Detents: 24

FRONT SEAT BACK ADJUSTMENT POSITION: 3 notches rearward of full forward

Seat Back Torso Angle: - degrees

SECOND POSITION SEAT:

Total Length of Fore/Aft Adjustment Travel: 0 millimeters

Seat Back Adjustment Position: N/A

ADJUSTABLE STEERING COLUMN POSITION: _____

WINDOW POSITIONS: Left Front: Closed Left Rear: Fixed

Right Front: Removed Right Rear: Removed

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

AMOUNT OF STODDARD SOLVENT IN FUEL TANK:

50 liters (Fuel Tank Usable Capacity)

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

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

Wheelbase = 2570 millimeters

Impact Point is 345 millimeters rearward of front axle centerline

(which is 940 millimeters forward of the wheelbase midpoint)

Actual Impact Point is 356 millimeters rearward of front axle centerline

DATA SHEET 2

TEST VEHICLE SUMMARY OF RESULTS

VEHICLE IDENTIFICATION:

Vehicle Year/Make/Model: 2002 Acura RSX

Body Style: 3-Door Hatchback

VIN: JH4DC53832C013574

NHTSA No.: M25304

Test Date: February 4, 2002

Overall Length = 4370 millimeters; Overall Width = 1710 millimeters

VEHICLE TEST WEIGHT (Pre-Test):

Left Front = 400.5 kg Left Rear = 310.0 kg

Right Front = 401.5 kg Right Rear = 317.0 kg

TOTAL FRONT = 802.0 kg TOTAL REAR = 627.0 kg

TOTAL VEHICLE WEIGHT 1429.0 kg

Wheelbase = 2570 millimeters

Longitudinal C.G. from Center of Front Axle = 1127.63 millimeters

Impact Angle with Respect to Impactor = 90 degrees

ACTUAL IMPACT POINT

Actual Impact Point is 11 mm rearward of nominal impact ref. line (Lateral)

Actual Impact Point is 0 mm on nominal impact point (Vertical)

MAXIMUM EXTERIOR STATIC CRUSH:

1. LEVEL 1 (263 mm above ground) = 50 millimeters

2. LEVEL 2 (460 mm above ground) = 222 millimeters

3. LEVEL 3 (599 mm above ground) = 255 millimeters

4. LEVEL 4 (831 mm above ground) = 273 millimeters

5. LEVEL 5 (1317 mm above ground) = 12 millimeters

Maximum Post-Test Intrusion = 273 millimeters

OCCUPANTS:

Front Passenger:

Rear Passenger:

Dummy Identification 026

142

Restraints Used Safety Belt/Seat Bolster Side
Airbag

Safety Belt/CRS LATCH and top
Tether

INSTRUMENTATION:

Number of Vehicle Data Channels: = 21

Number of Cameras: Onboard = 6

Offboard = 8

TOTAL = 14

DATA SHEET 3

MOVING DEFORMABLE BARRIER (MDB) SUMMARY

Vehicle: 2002 Acura RSX 3-Door Hatchback

NHTSA No. M25304

MDB FACE MANUFACTURER AND SERIAL NUMBER:

Plascore Inc. 085B1001-1 020C1001

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>61.96</u>	kph				

MAXIMUM STATIC CRUSH OF HONEYCOMB IMPACT FACE:

1. Row A at Center of Bumper Level	=	<u>171</u>	millimeters
2. Row B at Top of Bumper Level	=	<u>151</u>	millimeters
3. Row C at Mid Level	=	<u>102</u>	millimeters
4. Row D at Top of Stack Level	=	<u>158</u>	millimeters

INSTRUMENTATION:

Number of MDB Data Channels	=	<u>5</u>
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DATA SHEET 4

POST-TEST OBSERVATIONS

Vehicle: 2002 Acura RSX 3-Door Hatchback

NHTSA No. M25304

TEST DUMMY INFORMATION AND CONTACT POINTS:

DESCRIPTION	FRONT SEAT	REAR SEAT
ATD Type/Serial No.	SID/026	H3 3C/142
Head Contact:	Side of the face to the left shoulder; The back of the head to the headrest.	Top of the head and side of the face to CRS upper bolster and side door trim panel.
Upper Torso Contact:	Airbag	Left arm to side door trim panel
Lower Torso Contact:	Airbag	CRS Bolster
Left Knee Contact:	Door Trim Panel	CRS Bolster
Right Knee Contact:	Left Knee	Left Knee

POST TEST DOOR OPENING AND SEAT TRACK INFORMATION

DESCRIPTION	FRONT	REAR
Left Side Doors	Closed and Latched but Inoperable	N/A
Right Side Doors	Closed, Latched and Operable without tools	N/A
Hatch/Other Door	N/A	Closed, Latched and Operable without tools
Seat Movement (mm)	0	0
Seat Back Failure	None	None

POST TEST STRUCTURAL OBSERVATIONS

CRITICAL AREAS OF PERFORMANCE	
Pillar Performance	The A- and B-Pillars were pushed inboard during the event with no visible tears or separations
Sill Separation	No visible tears or separations
Windshield Damage	None
Window Damage	Left front side door window glass shattered upon impact; rear window remained intact.
Other Notable Effects	None

AIR BAG DEPLOYMENT STATUS:

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

MDB LEFT EDGE IMPACT DATA

Measured Parameter	Units	Requirement	Value
Horizontal Offset	mm	? 50 mm	11
Vertical Offset	mm	? 20 mm	0

SECTION 4

OCCUPANT AND VEHICLE INFORMATION

DATA SHEET 5

SID INSTRUMENTATION DATA

Vehicle: 2002 Acura RSX 3-Door Hatchback

NHTSA No. M25304

	Front Dummy ID# 026			
	Pos. Direction		Neg. Direction	
	Max (g)	Time (msec)	Max (g)	Time (msec)
HEAD ACCELERATIONS:				
Longitudinal X	9.5	146.6	-26.9	70.3
Lateral Y	54.9	75.1	-10.5	149.9
Vertical Z	69.9	54.8	-0.3	14.8
Resultant R	71.3	54.2	0.0	-7.4
HIC	601.6			
RIB ACCELERATIONS:				
Upper Rib Lateral Y	52.0	33.2	-14.1	63.2
Upper Rib Lateral Y(R)	53.0	33.2	-13.3	63.2
Lower Rib Lateral Y	56.8	33.1	-15.0	62.5
Lower Rib Lateral Y(R)	58.1	33.1	-13.6	62.5
SPINE ACCELERATIONS:				
Lower Lateral Y	72.2	33.8	-12.8	93.8
Lower Lateral Y(R)	72.8	33.8	-12.8	93.8
PELVIC ACCELERATIONS:				
Lateral Y	93.7	26.9	-11.2	43.1
Lateral Y(R)	92.3	26.9	-11.6	43.1

REFERENCE: Positive Direction - Longitudinal (X) = forward
 Lateral (Y) = to right
 Vertical (Z) = down
 Negative Direction - Longitudinal (X) = rearward
 Lateral (Y) = to left
 Vertical (Z) = up

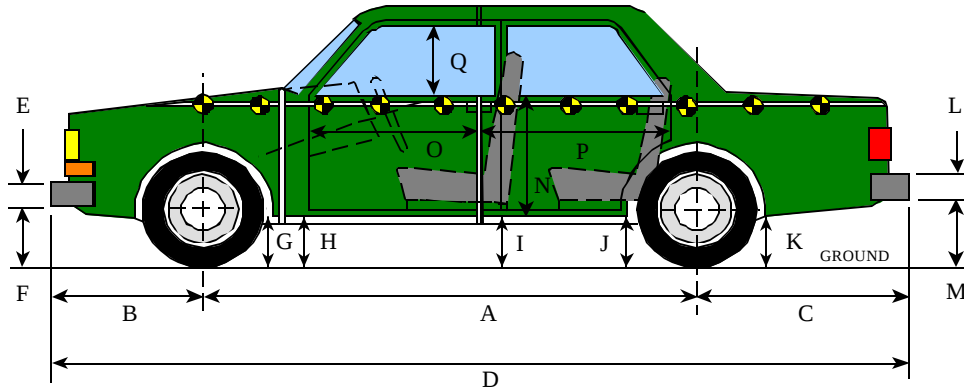
Note: Above data has been FIR filtered, Y(R) denotes redundant Y direction accelerometer.
 Head Accelerations are filtered at SAE Class 1000.

DATA SHEET 6

VEHICLE SIDE MEASUREMENTS

Vehicle: 2002 Acura RSX 3-Door Hatchback

NHTSA No. M25304



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)	? CHANGE
A	2570	2570	2540	30
B	905	-	915	-10
C	895	-	900	-5
D	4370	-	4355	15
E	112	-	112	0
F	396	391	401	-10
G	199	186	176	10
H	199	186	179	7
I	208	191	202	-11
J1	201	181	165	16
J2	214	194	190	4
K	279	258	238	20
L	370	-	370	0
M	328	305	290	15
N	693	-	606	87
O	700	-	680	20
P	614	-	618	-4
Q	395	-	361	34
R	4215	-	4210	5
S	4215	-	4182	33
T	1710	-	1637	73

D = Length at Centerline
T = Width at B-Pillar

E&L = Bumper Thickness
J1 = To Pinch Weld

R = Right Side Length
J2 = To Sill

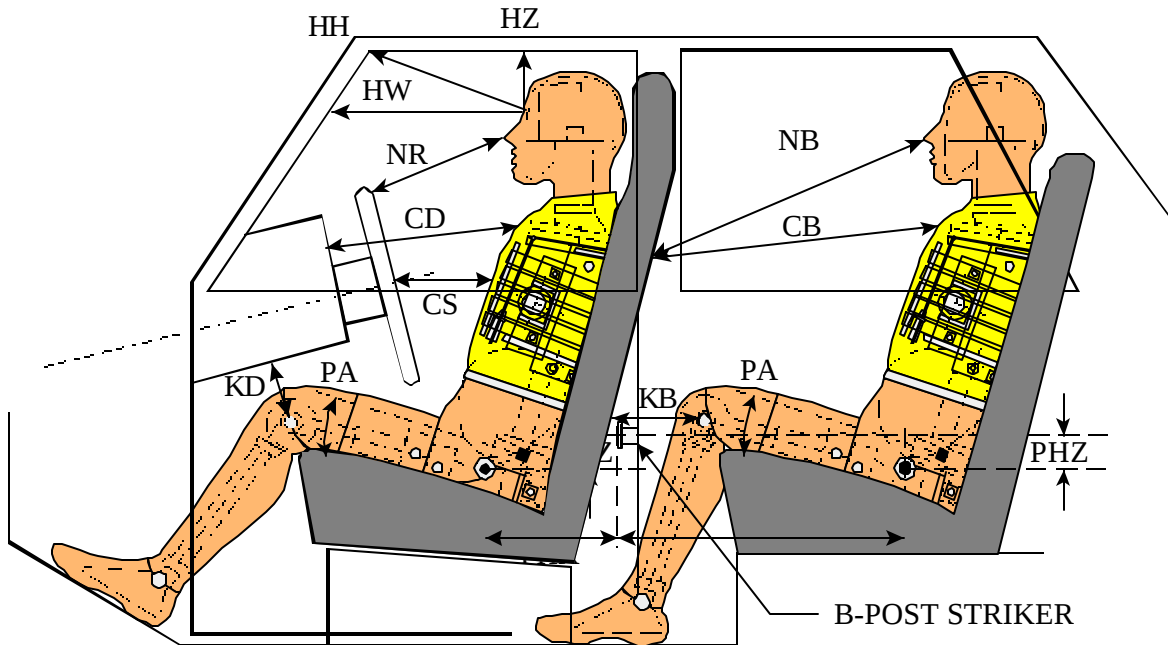
S = Left Side Length

DATA SHEET 7

SID LONGITUDINAL CLEARANCE DIMENSIONS

Vehicle: 2002 Acura RSX 3-Door Hatchback

NHTSA No. M25304



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# 026	
HH	388
HW	679
HZ	156
NR/NB	450
CD/CB	505
CS	308
KDL(KDA°)/KBL(KDA°)	194 / (37 °)
KDR(KBA°)/KBR(KBA°)	204 / (38 °)
PA°	23.2°
PHX	415
PHZ	195

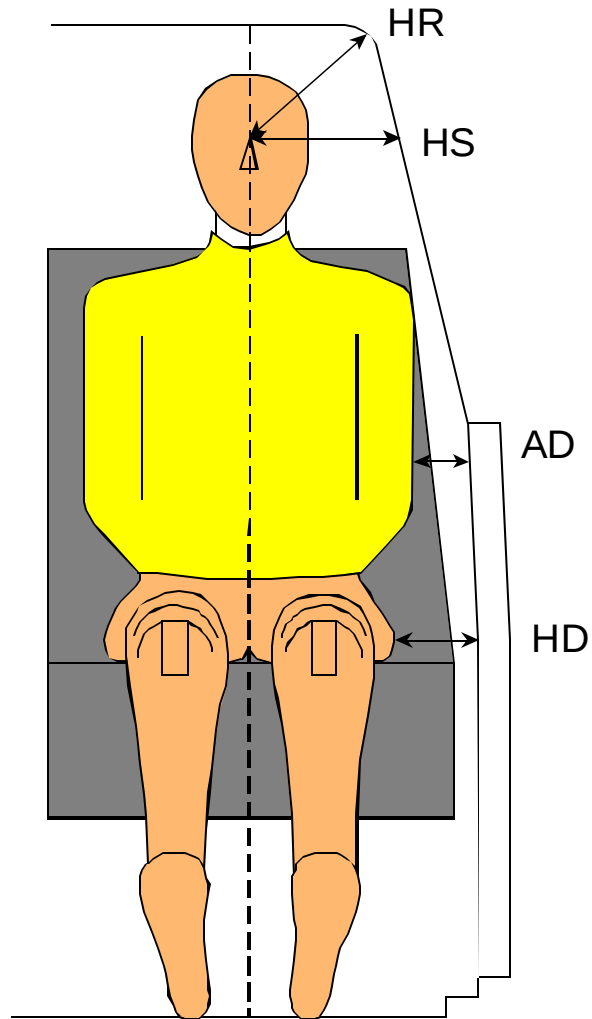
Note: 2-door vehicle shown. Rear dummy PHX & PHZ measurements for 4-door vehicle would use the C-post striker as a reference point.

DATA SHEET 8

SID LATERAL CLEARANCE DIMENSIONS

Vehicle: 2002 Acura RSX 3-Door Hatchback

NHTSA No. M25304



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

DRIVER ID # 026			
HR	183		
HS	307		
AD*	LOWER:	134	UPPER: 87
HD	136		

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

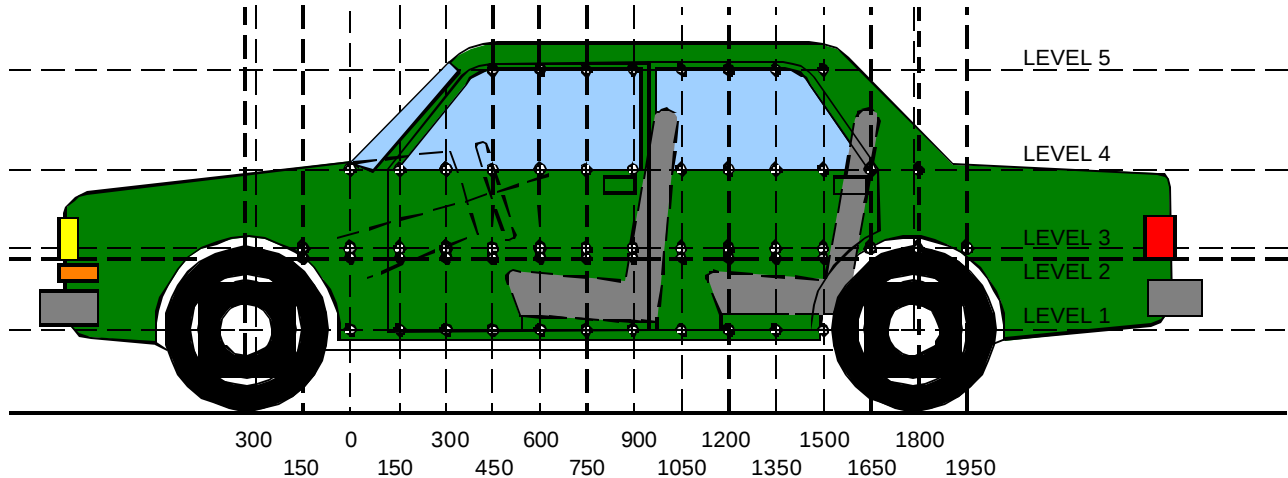
*Upper measurement is taken laterally at the center of the upper rib accelerometer height from the SID arm segment to the closest part of the vehicle side.

DATA SHEET 9

VEHICLE SIDE MEASUREMENTS

Vehicle: 2002 Acura RSX 3-Door Hatchback

NHTSA No. M25304



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:

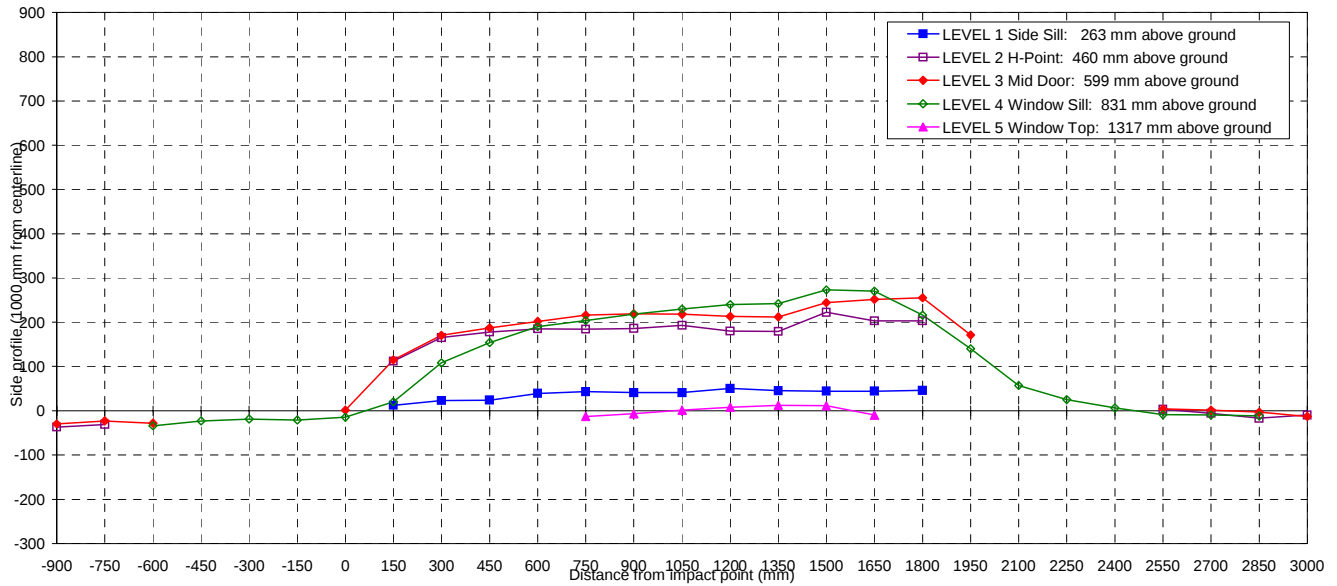
Level 5 @ Window Top	=	<u>263</u>	millimeters
Level 4 @ Window Sill	=	<u>460</u>	millimeters
Level 3 @ Mid Door	=	<u>599</u>	millimeters
Level 2 @ Occupant H-Point	=	<u>831</u>	millimeters
Level 1 @ Sill Top Height	=	<u>1317</u>	millimeters

DATA SHEET 10

VEHICLE EXTERIOR CRUSH PROFILES - ALL LEVELS

Vehicle: 2002 Acura RSX 3-Door Hatchback

NHTSA No. M25304



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

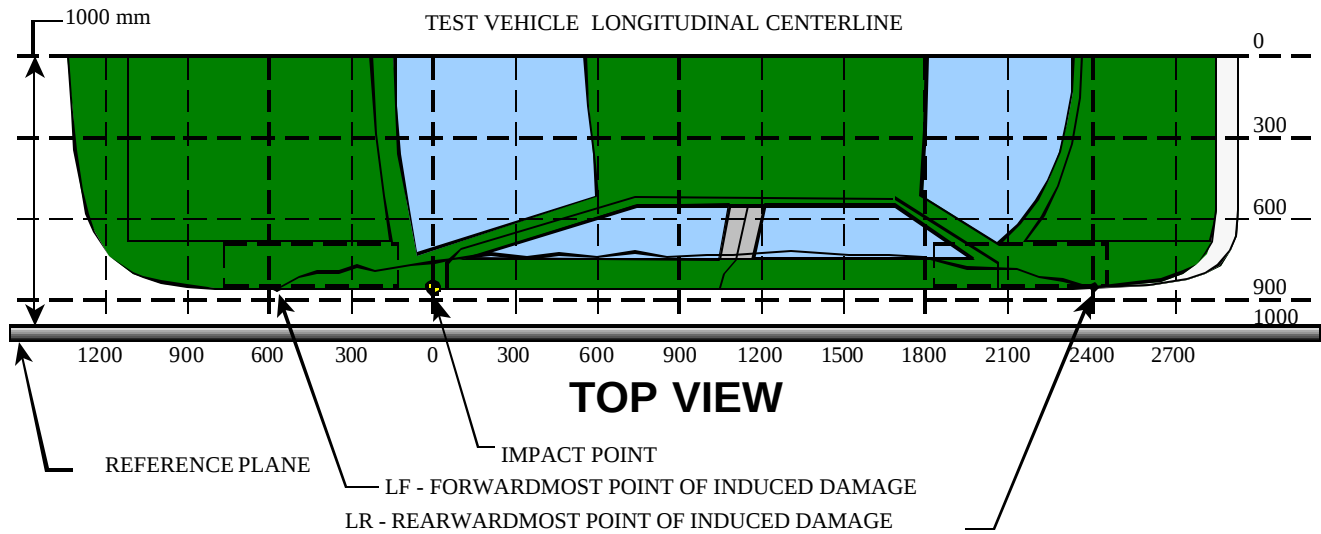
			DISTANCE IN MILLIMETERS (mm) FROM IMPACT POINT																											
LEVEL	HEIGHT (mm)		-900	-750	-600	-450	-300	-150	0	150	300	450	600	750	900	1050	1200	1350	1500	1650	1800	1950	2100	2250	2400	2550	2700	2850	3000	
LEVEL 1 SIDE SILL	263	PRE	--	--	--	--	--	--	--	174	172	174	172	172	172	177	168	183	186	185	183	--	--	--	--	--	--	--	--	--
		POST	--	--	--	--	--	--	--	186	195	198	211	215	213	218	218	228	230	229	229	--	--	--	--	--	--	--	--	--
		CRUSH	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	12	23	24	39	43	41	41	50	45	44	44	46	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
LEVEL 2 H POINT	460	PRE	210	164	--	--	--	--	--	145	144	144	143	146	147	147	149	152	152	153	142	--	--	--	--	146	204	244	310	
		POST	173	133	--	--	--	--	--	257	309	322	328	330	333	340	329	331	374	356	345	--	--	--	--	149	198	227	300	
		CRUSH	-37	-31	N/A	N/A	N/A	N/A	N/A	N/A	112	165	178	185	184	186	193	180	179	222	203	203	N/A	N/A	N/A	N/A	3	-6	-17	-10
LEVEL 3 MID DOOR	599	PRE	236	192	136	--	--	--	135	138	135	136	136	133	134	135	138	139	141	144	145	139	--	--	--	168	203	235	297	
		POST	206	169	108	--	--	--	136	253	305	323	338	349	353	353	351	351	385	396	400	310	--	--	--	172	204	232	284	
		CRUSH	-30	-23	-28	N/A	N/A	N/A	1	115	170	187	202	216	219	218	213	212	244	252	255	171	N/A	N/A	N/A	4	1	-3	-13	
LEVEL 4 WINDOW SILL	831	PRE	--	--	358	263	229	207	194	182	176	171	167	161	157	155	155	155	156	155	159	164	172	180	194	209	230	261	--	
		POST	--	--	324	240	210	186	179	202	284	325	357	365	375	385	395	397	429	425	375	304	229	205	200	200	220	249	--	
		CRUSH	N/A	N/A	-34	-23	-19	-21	-15	20	108	154	190	204	218	230	240	242	273	270	216	140	57	25	6	-9	-10	-12	N/A	
LEVEL 5 WINDOW TOP	1317	PRE	--	--	--	--	--	--	--	--	--	--	--	587	445	440	441	443	453	475	--	--	--	--	--	--	--	--	--	
		POST	--	--	--	--	--	--	--	--	--	--	--	--	574	438	441	449	455	464	465	--	--	--	--	--	--	--	--	--
		CRUSH	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-13	-7	1	8	12	11	-10	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: 2002 Acura RSX 3-Door Hatchback

NHTSA No. M25304



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

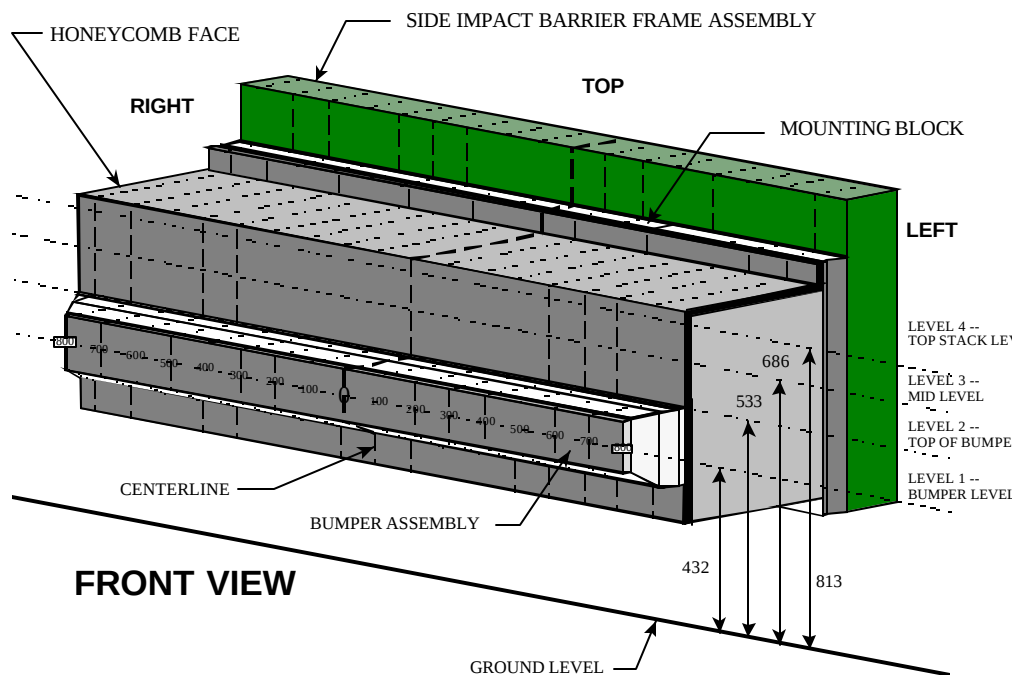
DPD MEASUREMENTS		POST TEST (mm)	PRETEST (mm)	STATIC CRUSH (mm)
1	(LR = <u>2650</u> mm)	193	191	2
2	2120	226	173	53
3	1590	426	155	271
4	1060	386	155	231
5	530	331	136	195
6	(LF = <u>0</u> mm)	179	194	-15

DATA SHEET 12

EXTERIOR STATIC CRUSH FOR IMPACTOR FACE

Vehicle: 2002 Acura RSX 3-Door Hatchback

NHTSA No. M25304



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	661	615	606	612	627	615	613	619	621	625	631	637	644	663	696	735	790			
		CRUSH	42	-4	-13	-7	8	-4	-6	0	2	6	12	18	25	44	77	116	171			
LEVEL 3 MID LEVEL	686	PRE	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619			
		POST	641	615	619	637	625	621	621	622	623	625	628	632	637	647	669	705	770			
		CRUSH	22	-4	0	18	6	2	2	3	4	6	9	13	18	28	50	86	151			
LEVEL 2 TOP BUMPER	533	PRE	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619			
		POST	683	675	677	679	680	672	666	664	667	667	665	668	669	678	686	701	721			
		CRUSH	64	56	58	60	61	53	47	45	48	48	46	49	50	59	67	82	102			
LEVEL 1 MID BUMPER	432	PRE	535	519	518	518	518	518	518	518	518	518	518	518	518	518	518	519	535			
		POST	672	663	666	665	660	653	641	635	631	629	629	631	634	640	651	669	693			
		CRUSH	137	144	148	147	142	135	123	117	113	111	111	113	116	122	133	150	158			

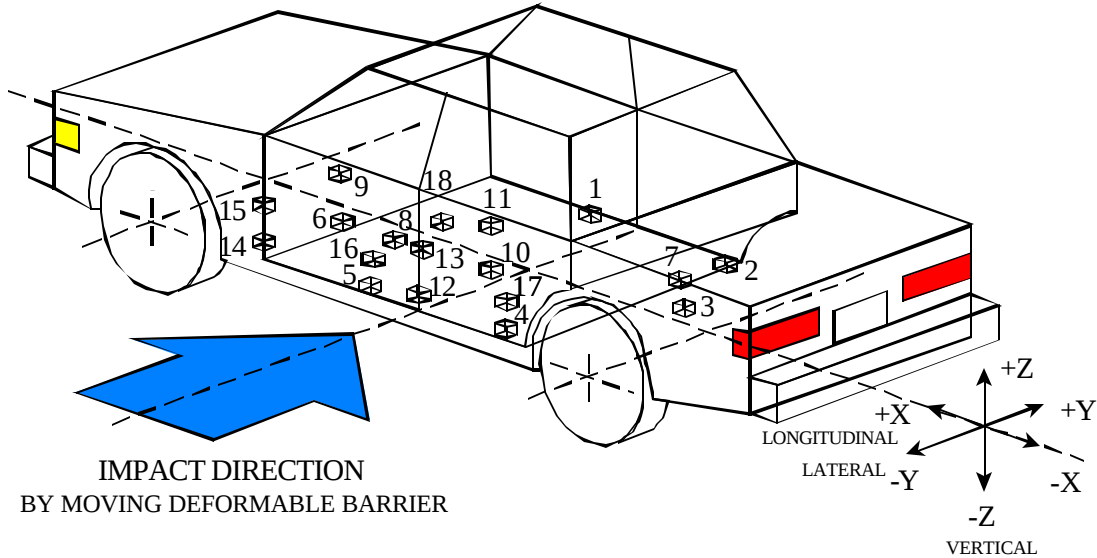
*Heights measured above ground level.

DATA SHEET 13

TEST VEHICLE ACCELEROMETER LOCATIONS AND DATA SUMMARY

Vehicle: 2002 Acura RSX 3-Door Hatchback

NHTSA No. M25304



- 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: 2002 Acura RSX 3-Door Hatchback

NHTSA No. M25304

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	2788	586	-230	pos.	***	***	30.4	15.1	5.6	46.1	***	***
					neg.	***	***	-2.0	141.2	-9.0	11.3	***	***
2	Right Side Sill at Rear Seat	1659	553	-222	pos.	3.5	60.5	37.3	6.9	6.8	100.9	38.0	6.9
					neg.	-5.7	14.0	-2.6	113.0	-19.0	20.1	0.0	-17.0
3	Rear Floorpan Above Axle	1048	-15	-525	pos.	4.3	14.3	30.3	8.3	7.7	20.9	30.5	8.3
					neg.	-17.5	20.5	-1.9	94.2	-7.8	26.7	0.0	-18.6
4	Left Side Sill at Rear Seat	1803	-590	-229	pos.	-	-	63.8	33.4	-	-	-	-
					neg.	-	-	-4.0	56.0	-	-	-	-
5	Left Side Sill at Front Seat	2767	-603	-223	pos.	-	-	30.1	11.4	-	-	-	-
					neg.	-	-	-1.8	131.4	-	-	-	-
6	Left Front Door on Centerline	2364	-713	-690	pos.	-	-	****	****	-	-	-	-
					neg.	-	-	****	****	-	-	-	-
7	Right Rear Occupant Compartment	1902	367	-205	pos.	-	-	36.5	6.9	-	-	-	-
					neg.	-	-	-4.5	112.2	-	-	-	-
8	Midrear of Left Front Door	2062	-718	-697	pos.	-	-	281.9	16.6	-	-	-	-
					neg.	-	-	-439.4	11.0	-	-	-	-
9	Left Front Door Upper Centerline	2358	-688	-882	pos.	-	-	129.8	14.9	-	-	-	-
					neg.	-	-	-106.6	11.6	-	-	-	-
10	Midrear of Left Rear Door	1201	-646	-751	Pos.			210.4	17.5				
					neg.	-	-	-48.1	32.2	-	-	-	-
11	Left Rear Door Upper Centerline	1369	-677	-929	pos.	-	-	228.6	4.2	-	-	-	-
					neg.	-	-	-135.9	24.1	-	-	-	-

*Reference: X - Rear Bumper (+ Forward)

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

**Accelerometer was not requested by COTR.

*** - Data not accurate – sensor opened during event

**** - Data is not accurate – sensor clipped

DATA SHEET 13 (continued)

VEHICLE ACCELEROMETER LOCATIONS AND DATA SUMMARY

Vehicle: 2002 Acura RSX 3-Door Hatchback

NHTSA No. M25304

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	1790	-639	-362	pos.	-	-	207.7	5.2	-	-	-	-
					neg.	-	-	-108.0	11.7	-	-	-	-
13	Left Middle B-Pillar	1701	-655	-879	pos.	-	-	**	**	-	-	-	-
					neg.	-	-	**	**	-	-	-	-
14	Left Lower A-Pillar	2990	-629	-347	pos.	-	-	122.3	4.7	-	-	-	-
					neg.	-	-	-105.9	21.3	-	-	-	-
15	Left Middle A-Pillar	2894	-642	-973	pos.	-	-	31.1	10.4	-	-	-	-
					neg.	-	-	-16.0	26.1	-	-	-	-
16	Front Seat Track	2003	-511	-229	pos.	-	-	28.7	5.0	-	-	-	-
					neg.	-	-	-1.3	114.5	-	-	-	-
17	Rear Seat Track	1458	-637	-630	pos.	-	-	28.6	9.3	-	-	-	-
					neg.	-	-	-2.1	94.6	-	-	-	-
18	Vehicle CG	2315	-6	-468	pos.	8.3	22.0	41.3	24.8	15.0	23.7	43.1	24.6
					neg.	-10.0	14.6	-13.8	33.6	-15.7	18.6	0.0	-14.3

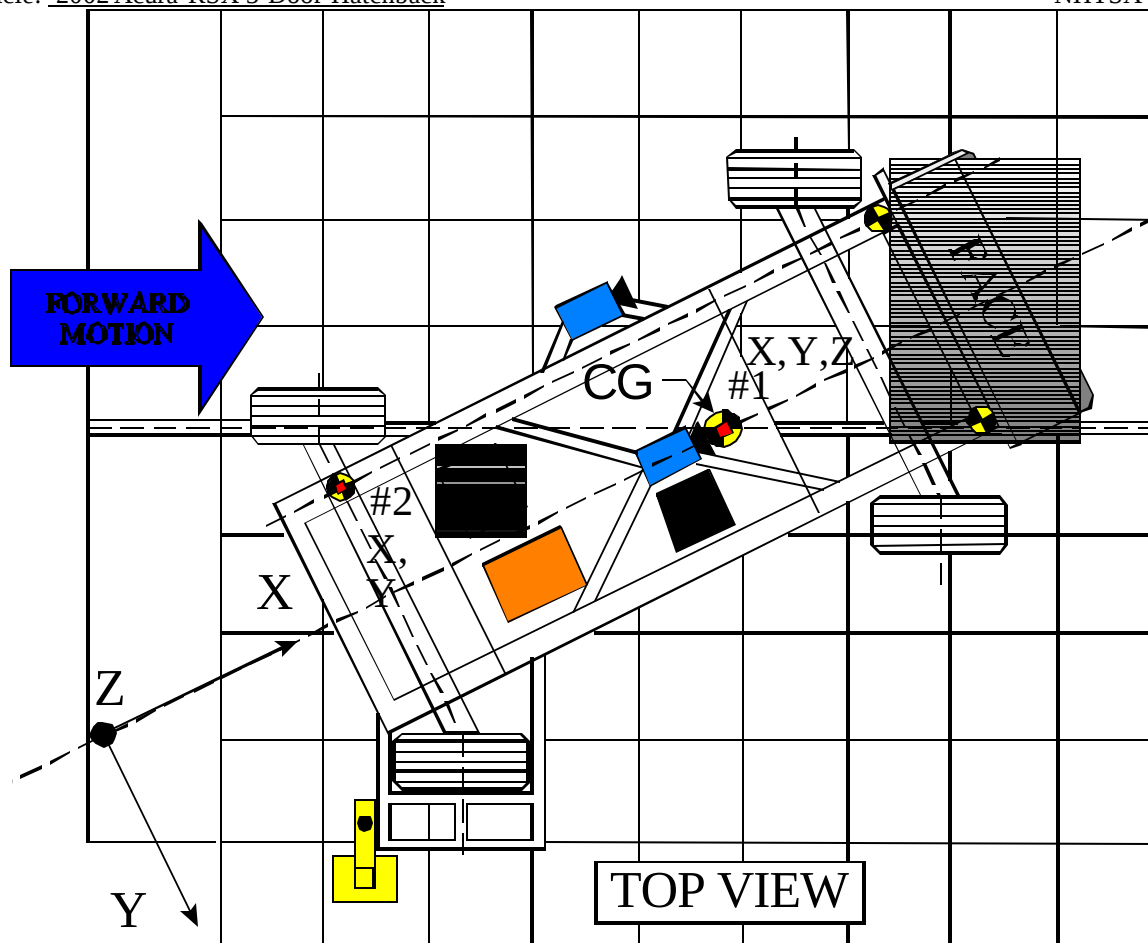
*Reference: X - Rear Bumper (+ Forward) Y - Vehicle Centerline (+ To Right) Z - Ground Level (+ Down) **Not accurate – spikes in data

DATA SHEET 14

MDB ACCELEROMETER LOCATIONS AND DATA SUMMARY

Vehicle: 2002 Acura RSX 3-Door Hatchback

NHTSA No. M25304



Accel. No.	Location	Coordinates (millimeters)			Pos. Direct.		Neg. Direct.	
					Max (g)	Time (msec)	Max (g)	Time (msec)
		X*	Y*	Z*				
1	MDB Center of Gravity							
	Longitudinal... X	1859	0	-330	0.9	108.6	-19.3	39.6
	Lateral..... Y				7.2	44.7	-2.3	65.1
	Vertical..... Z				12.1	27.2	-19.1	19.6
	Resultant..... R				24.9	19.7	0.1	193.8
2	Rear Frame Member							
	Longitudinal... X	386	-660	-660	1.7	91.6	-21.6	34.1
	Lateral..... Y				3.3	28.3	-0.9	67.3

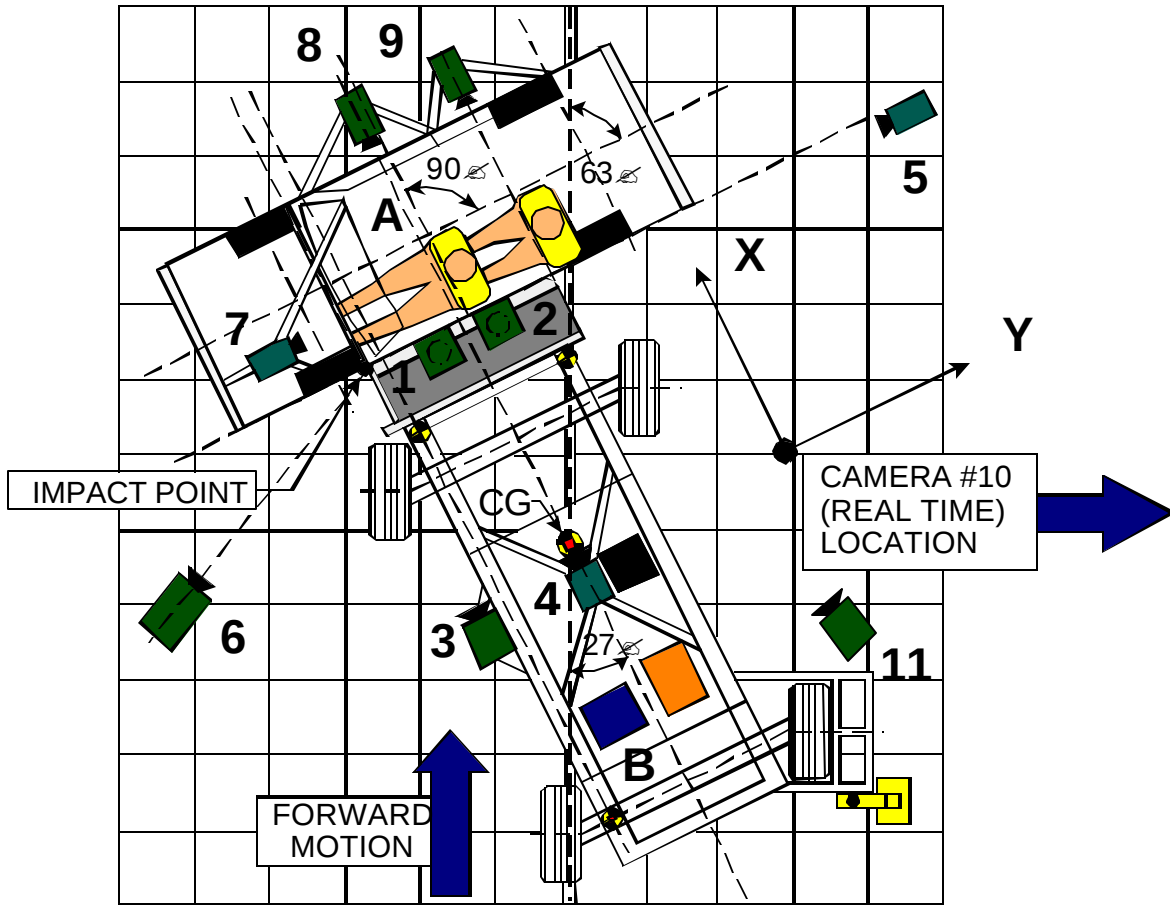
*Reference:
X = Rear Bumper (+ Forward)
Y = Vehicle Centerline (+ To Right)
Z = Ground Level (+ Down)
All measurements accurate to within ± 3 mm.

DATA SHEET 15

HIGH SPEED CAMERA LOCATIONS AND DATA SUMMARY

Vehicle: 2002 Acura RSX 3-Door Hatchback

NHTSA No. M25304



Camera No.	View	Coordinates (millimeters)			Angle (deg.)	Lens (mm)	Film Speed (fps)
		X*	Y*	Z*			
1	Overhead view of test vehicle	331	905	-4880	90	8	1015
2	Overhead closeup view of impact plane	12	744	-4880	-90	12.5	1005
3	MDB onboard closeup view of impact point	-1470	0	-847	0	13	1015
4	MDB onboard view of driver dummy	-1140	838	-1586	-17	7.5	1010
5	Right side ground level overall view	-50	8926	1065	-3	25	100
6	Left side ground level overall view	2527	-2263	1082	-6	13	1000
7	Test vehicle onboard driver front view	525	-375	1201	-7	13	1005
8	Test vehicle onboard driver side view	1694	838	1060	-9	8	1005
9	Test vehicle onboard passenger side view	1767	1638	1112	-12	8	1005
10	Real time film coverage of test	-	-	-	-	-	24
11	Secondary impact point view	-4384	3702	1107	-4	25	1015

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

X = (Impact Point) + Forward

Y = (Impact Point) + To Right

Z = (Ground Level) + Down

SECTION 5

FUEL SYSTEM INTEGRITY

DATA SHEET 16

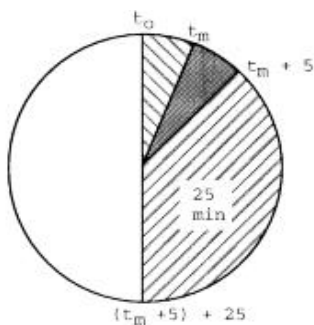
FMVSS 301 FUEL SYSTEM INTEGRITY DATA

NHTSA No.: M25304 TEST DATE: February 4, 2002
 Vehicle Mfgr./Make/Model: Honda Motor Company, Ltd. 2002 Acura RSX 3-Door Hatchback

TEST VEHICLE IMPACT TYPE:

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

FUEL SPILLAGE MEASUREMENT:



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

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

SOLVENT SPILLAGE DETAILS:

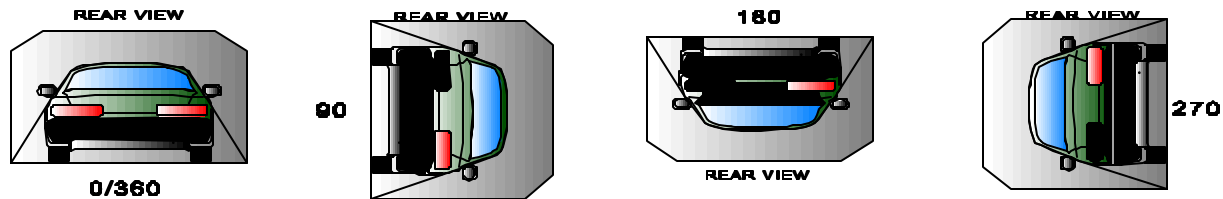
None

DATA SHEET 17

ROLLOVER DATA

Vehicle: 2002 Acura RSX 3-Door Hatchback

NHTSA No.: M25304



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	19	seconds	5	minutes	6	minutes	19	seconds	7	minutes
90° - 180°	1	minutes	13	seconds	5	minutes	6	minutes	13	seconds	7	minutes
180°-270°	1	minutes	02	seconds	5	minutes	6	minutes	2	seconds	7	minutes
270°-360°	1	minutes	12	seconds	5	minutes	6	minutes	12	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

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Figure A-1 PRE-TEST FRONTAL VIEW OF TEST VEHICLE



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

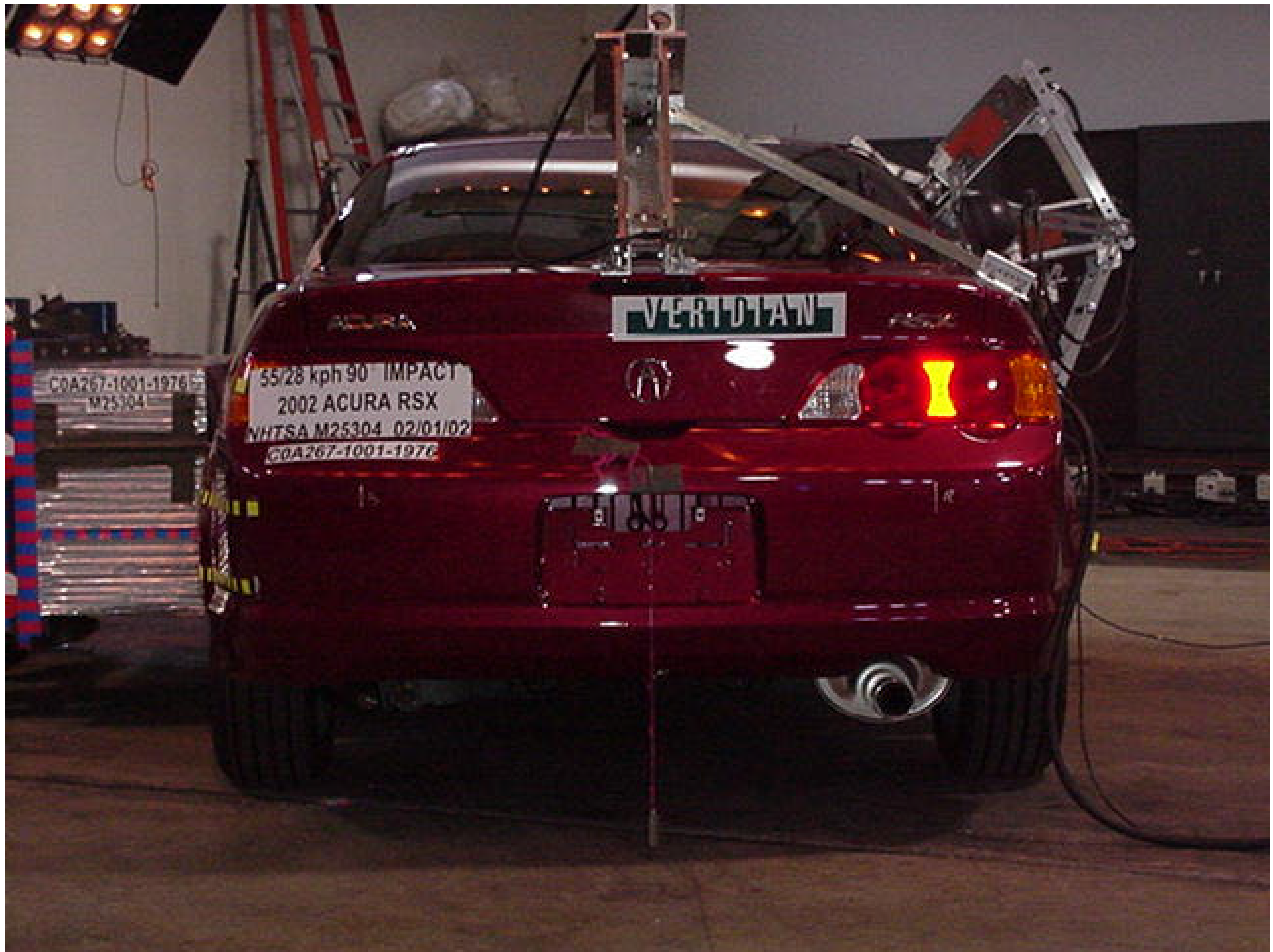


Figure A-3 PRE-TEST REAR VIEW OF TEST VEHICLE



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



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



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





Figure A-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

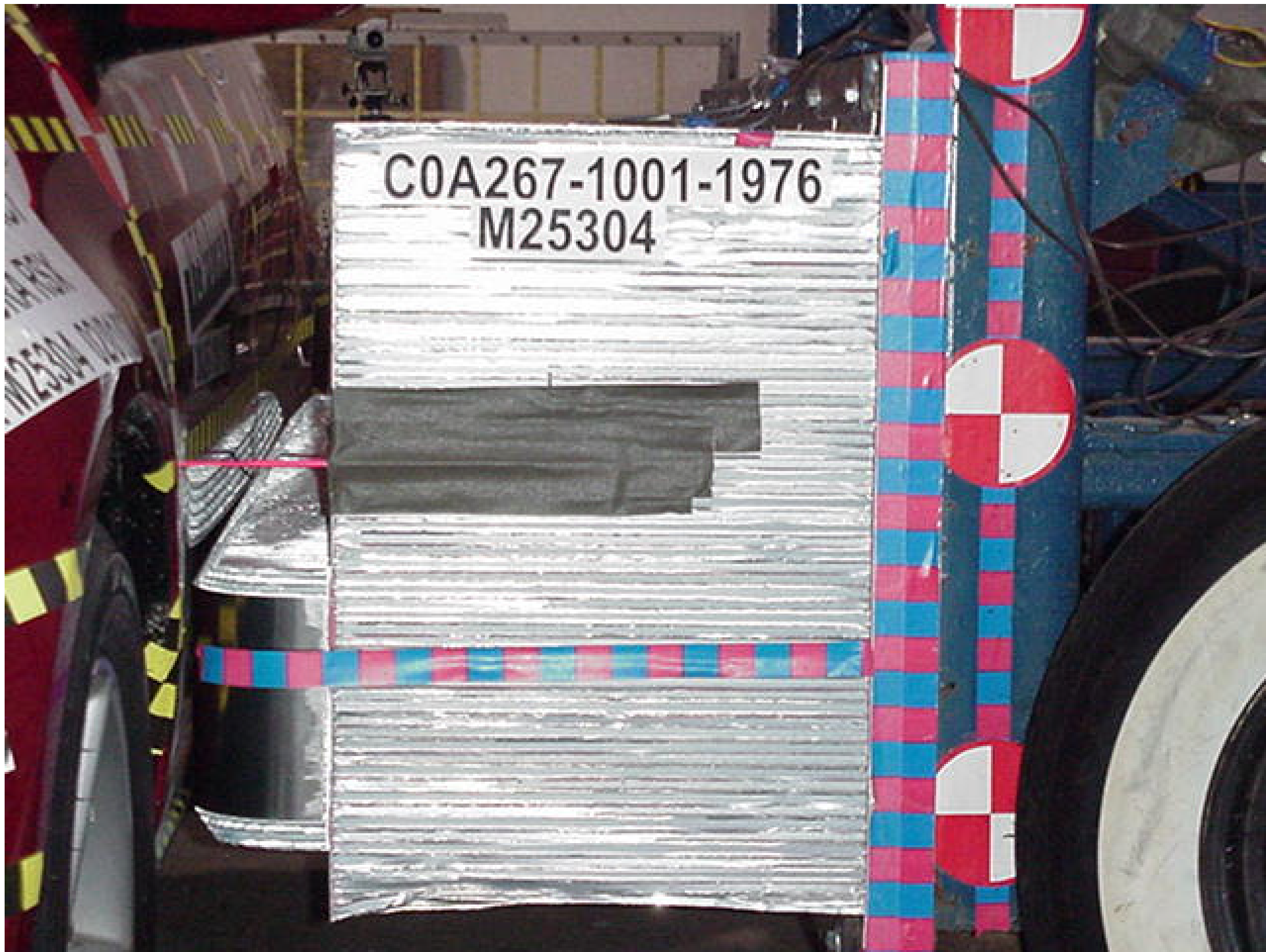


Figure A-17 PRE-TEST LEFT SIDE VIEW OF IMPACTOR FACE



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



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

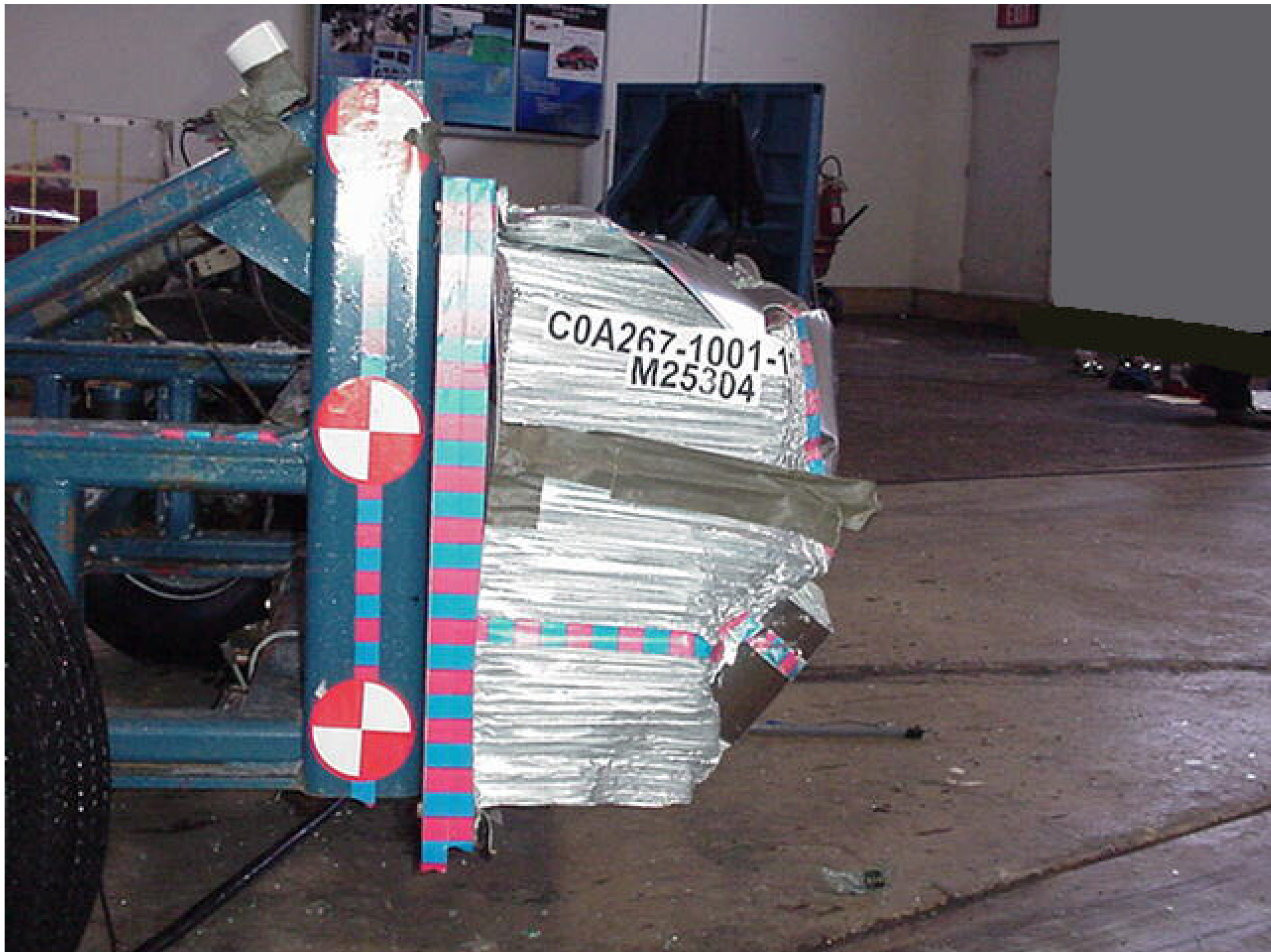


Figure A-20 POST-TEST RIGHT SIDE VIEW OF IMPACTOR FACE



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

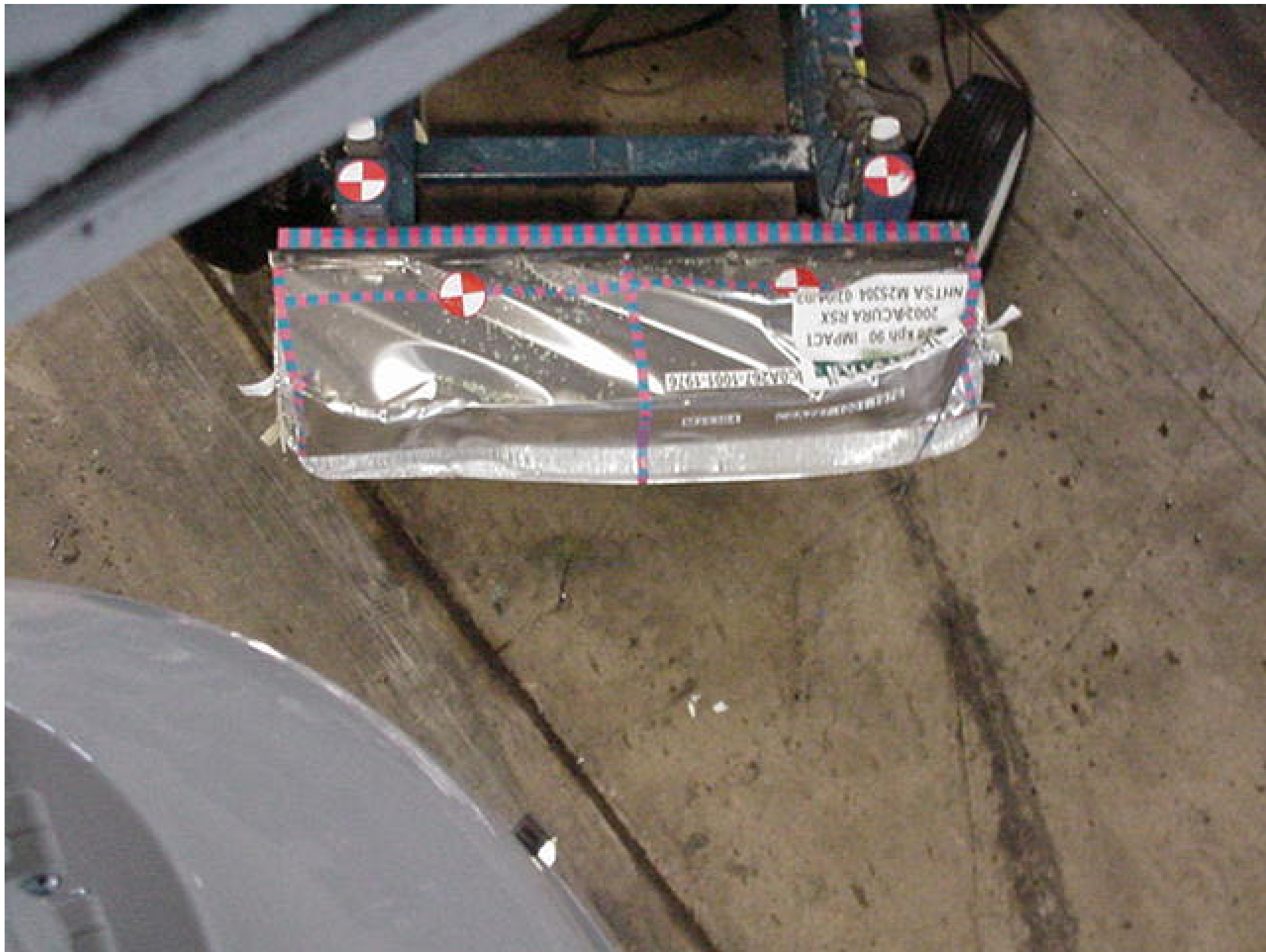


Figure A-22 POST-TEST TOP VIEW OF IMPACTOR FACE

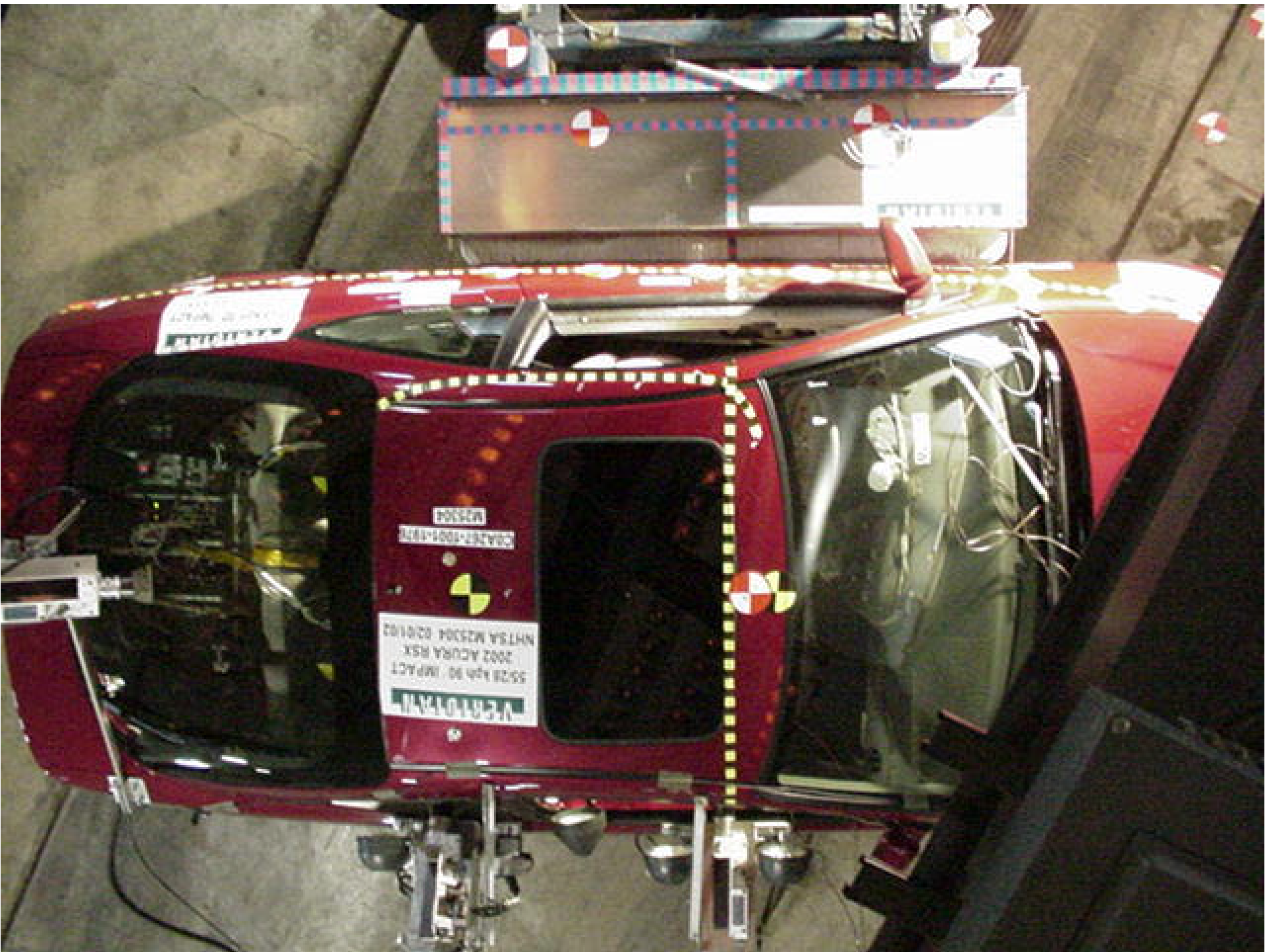


Figure A-23 PRE-TEST OVERHEAD VIEW OF ALIGNED MDB AND VEHICLE



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



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



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



Figure A-27 PRE-TEST LEFT OCCUPANT COMPARTMENT VIEW OF FRONT SID



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



Figure A-29 PRE-TEST INTERIOR OF FRONT DOOR



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

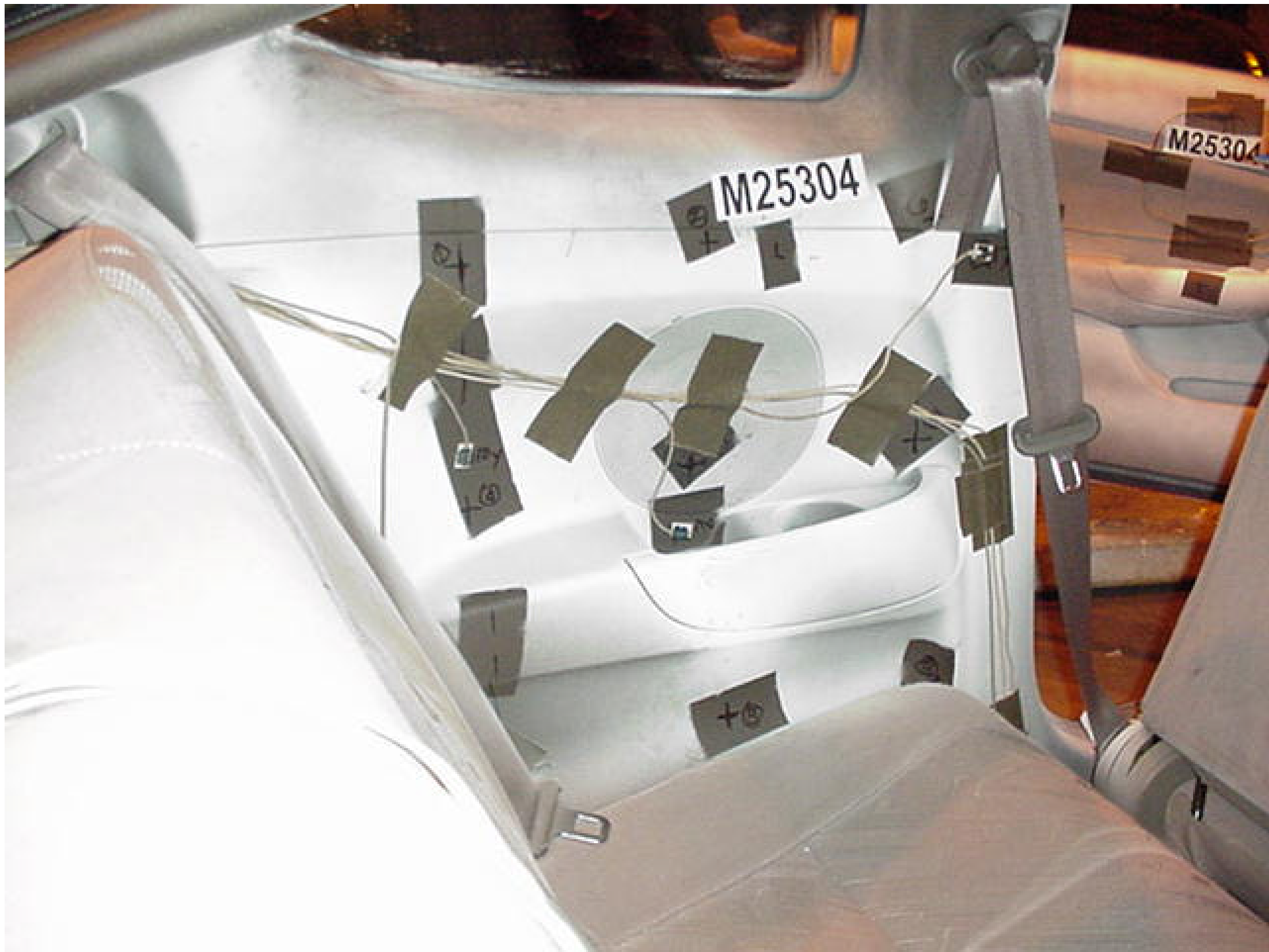


Figure A-31 PRE-TEST INTERIOR OF REAR DOOR



Figure A-32 POST-TEST INTERIOR OF REAR DOOR SHOWING IMPACT LOCATIONS



Figure A-33 PRE-TEST LEFT SIDE VIEW OF MDB WITH IMPACTOR FACE IN POSITION



Figure A-34 PRE-TEST RIGHT SIDE VIEW OF MDB WITH IMPACTOR FACE IN POSITION



Figure A-35 POST-TEST CLOSE-UP VIEW OF IMPACT POINT TARGET

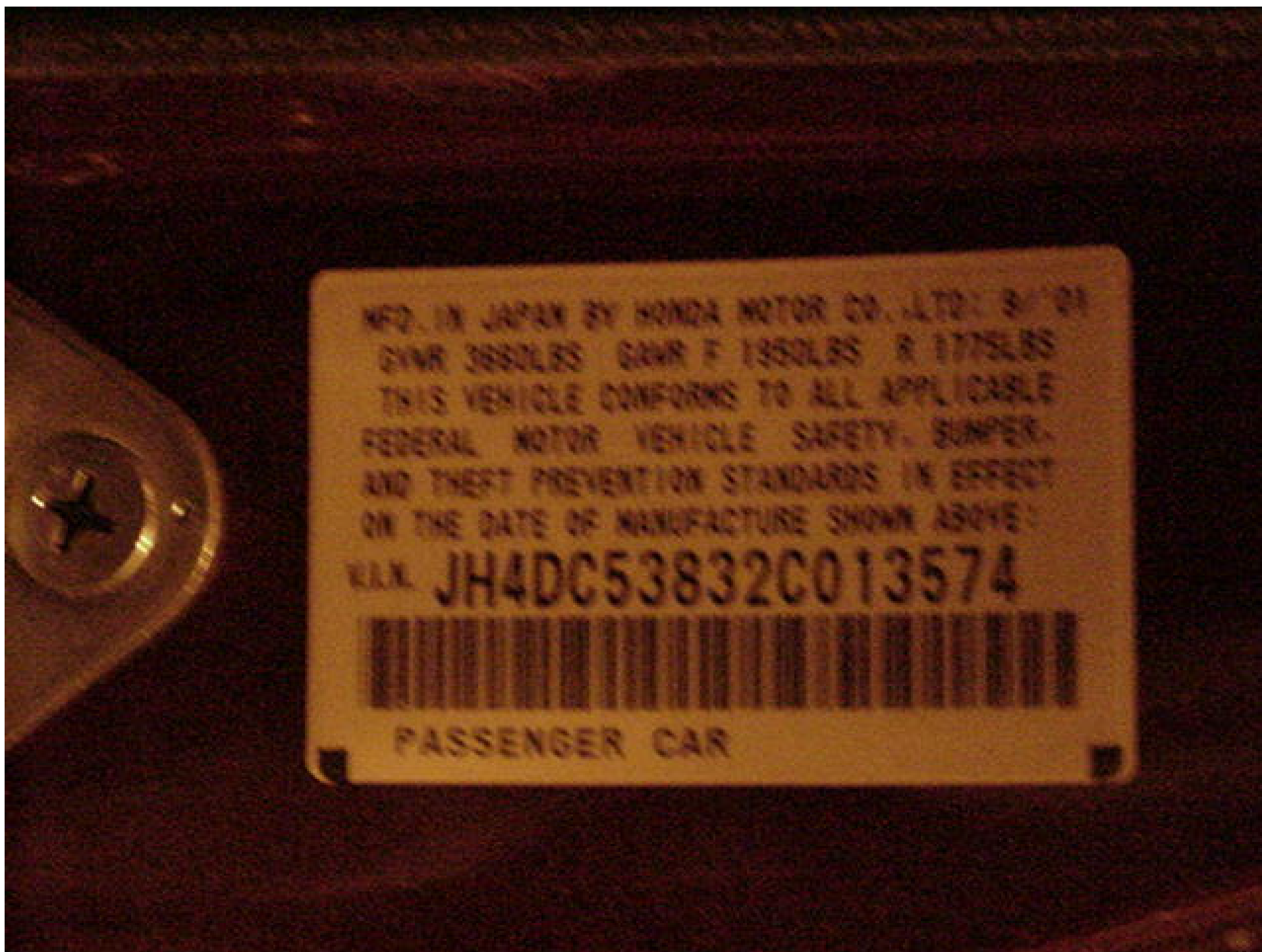


Figure A-36CLOSE-UP VIEW OF VEHICLE'S CERTIFICATION LABEL

TIRE INFORMATION			VEHICLE CAPACITY WEIGHT		7001bs
SEATING CAPACITY			TOTAL 4; FRONT 2; REAR 2		
RECOMMENDED TIRE SIZE	COLD TIRE INFLATION PRESSURE		SEE OWNER'S MANUAL FOR ADDITIONAL INFORMATION		
P205/55R16 89V	FRONT	230kPa, 33psi			
	REAR	220kPa, 31psi			
COMPACT SPARE TIRE	UP TO VEHICLE CAPACITY WEIGHT				
T135/70D15 99M	420kPa, 60psi		M A - A 0		

Figure A-37 CLOSE-UP VIEW OF VEHICLE'S TIRE PLACARD LABEL

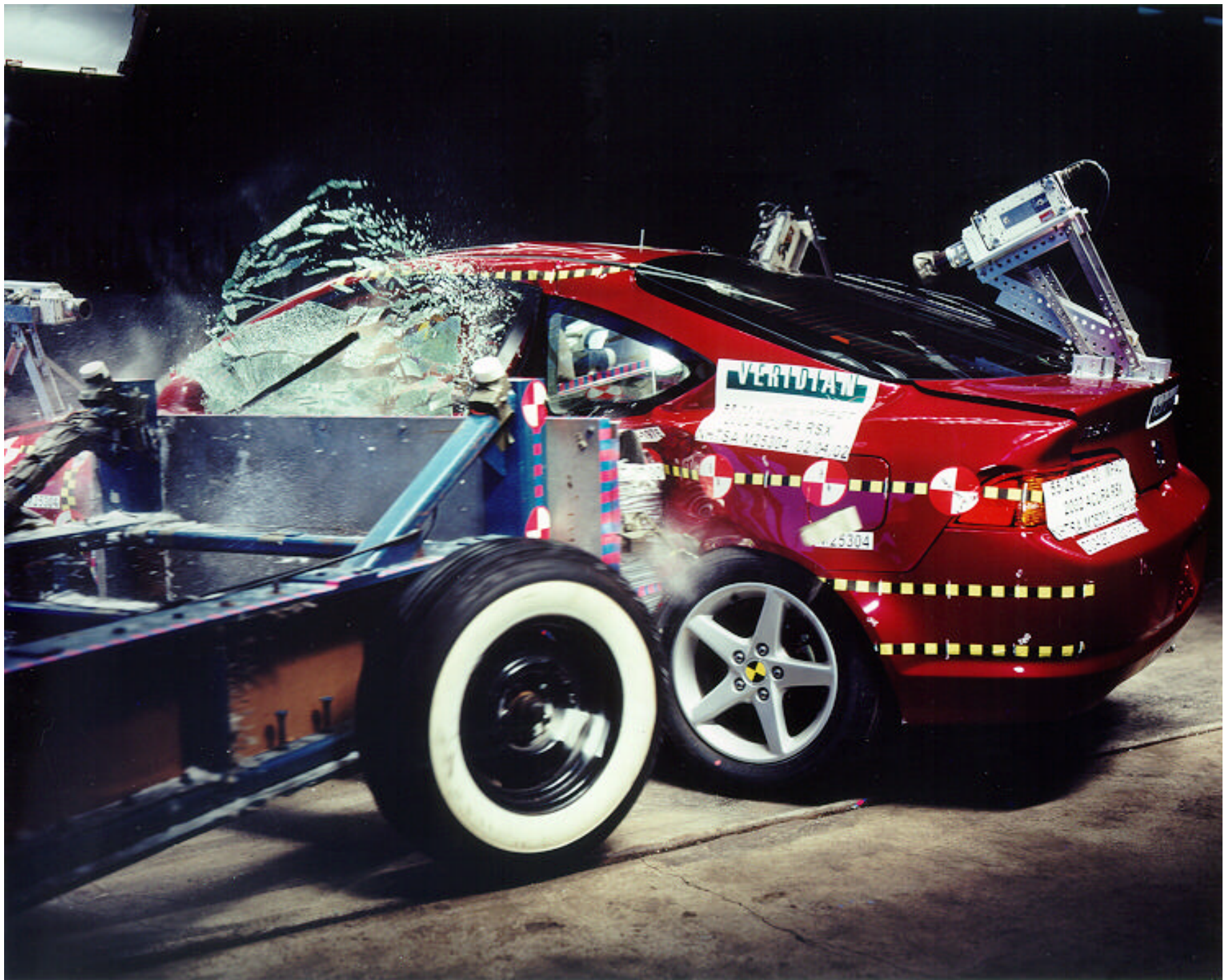


Figure A-38 IMPACT PHOTO



Figure A-39 ROLLOVER 90 DEGREES



Figure A-40 ROLLOVER 180 DEGREES



Figure A-41 ROLLOVER 270 DEGREES



Figure A-42 ROLLOVER 360 DEGREES

APPENDIX B

VEHICLE, MDB AND SID RESPONSE DATA

TABLE OF DATA PLOTS

DRIVER DUMMY INSTRUMENTATION PLOTS

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>
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 RIB (Y) ACCELERATION VS TIME	B- 13
9	DRIVER UPPER RIB (Y) VELOCITY VS TIME	B- 14
10	DRIVER LOWER RIB (Y) ACCELERATION VS TIME	B- 15
11	DRIVER LOWER RIB (Y) VELOCITY VS TIME	B- 16
12	DRIVER LOWER SPINE (Y) ACCELERATION VS TIME	B- 17
13	DRIVER LOWER SPINE (Y) VELOCITY VS TIME	B- 18
14	DRIVER PELVIC (Y) ACCELERATION VS TIME	B- 19
15	DRIVER PELVIC (Y) VELOCITY VS TIME	B- 20

DRIVER DUMMY INSTRUMENTATION PLOTS

ACCELERATION DATA - FIR FILTERED

<u>Plot No.</u>	<u>Data Plot Title</u>	<u>Page</u>
16	DRIVER UPPER RIB (Y) ACCELERATION VS TIME	B- 21
17	DRIVER LOWER RIB (Y) ACCELERATION VS TIME	B- 22
18	DRIVER LOWER SPINE (Y) ACCELERATION VS TIME	B- 23
19	DRIVER PELVIC (Y) ACCELERATION VS TIME	B- 24

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>
20	RIGHT SIDE SILL AT FRONT SEAT (X) ACCELERATION VS TIME	B- 25
21	RIGHT SIDE SILL AT FRONT SEAT (X) VELOCITY VS TIME	B- 26
22	RIGHT SIDE SILL AT FRONT SEAT (Y) ACCELERATION VS TIME	B- 27
23	RIGHT SIDE SILL AT FRONT SEAT (Y) VELOCITY VS TIME	B- 28
24	RIGHT SIDE SILL AT FRONT SEAT (Z) ACCELERATION VS TIME	B- 29
25	RIGHT SIDE SILL AT FRONT SEAT (Z) VELOCITY VS TIME	B- 30
26	RIGHT SIDE SILL AT FRONT SEAT RESULTANT ACCELERATION VS TIME	B- 31
27	RIGHT SIDE SILL AT REAR SEAT (X) ACCELERATION VS TIME	B- 32
28	RIGHT SIDE SILL AT REAR SEAT (X) VELOCITY VS TIME	B- 33
29	RIGHT SIDE SILL AT REAR SEAT (Y) ACCELERATION VS TIME	B- 34
30	RIGHT SIDE SILL AT REAR SEAT (Y) VELOCITY VS TIME	B- 35
31	RIGHT SIDE SILL AT REAR SEAT (Z) ACCELERATION VS TIME	B- 36
32	RIGHT SIDE SILL AT REAR SEAT (Z) VELOCITY VS TIME	B- 37
33	RIGHT SIDE SILL AT REAR SEAT RESULTANT ACCELERATION VS TIME	B- 38
34	REAR FLOORPAN ABOVE AXLE (X) ACCELERATION VS TIME	B- 39
35	REAR FLOORPAN ABOVE AXLE (X) VELOCITY VS TIME	B- 40
36	REAR FLOORPAN ABOVE AXLE (Y) ACCELERATION VS TIME	B- 41
37	REAR FLOORPAN ABOVE AXLE (Y) VELOCITY VS TIME	B- 42
38	REAR FLOORPAN ABOVE AXLE (Z) ACCELERATION VS TIME	B- 43
39	REAR FLOORPAN ABOVE AXLE (Z) VELOCITY VS TIME	B- 44
40	REAR FLOORPAN ABOVE AXLE RESULTANT ACCELERATION VS TIME	B- 45
41	LEFT SIDE SILL AT REAR SEAT (Y) ACCELERATION VS TIME	B- 46
42	LEFT SIDE SILL AT REAR SEAT (Y) VELOCITY VS TIME	B- 47
43	LEFT SIDE SILL AT FRONT SEAT (Y) ACCELERATION VS TIME	B- 48
44	LEFT SIDE SILL AT FRONT SEAT (Y) VELOCITY VS TIME	B- 49
45	LEFT FRONT DOOR ON CENTERLINE (Y) ACCELERATION VS TIME	B- 50
46	LEFT FRONT DOOR ON CENTERLINE (Y) VELOCITY VS TIME	B- 51
47	RIGHT REAR OCCUPANT COMPARTMENT (Y) ACCELERATION VS TIME	B- 52
48	RIGHT REAR OCCUPANT COMPARTMENT (Y) VELOCITY VS TIME	B- 53
49	MID REAR OF LEFT FRONT DOOR (Y) ACCELERATION VS TIME	B- 54
50	MID REAR OF LEFT FRONT DOOR (Y) VELOCITY VS TIME	B- 55
51	LEFT FRONT DOOR UPPER CENTERLINE (Y) ACCELERATION VS TIME	B- 56
52	LEFT FRONT DOOR UPPER CENTERLINE (Y) VELOCITY VS TIME	B- 57
53	MID REAR OF LEFT REAR DOOR (Y) ACCELERATION VS TIME	B- 58
54	MID REAR OF LEFT REAR DOOR (Y) VELOCITY VS TIME	B- 59
55	LEFT REAR DOOR UPPER CENTERLINE (Y) ACCELERATION VS TIME	B- 60
56	LEFT REAR DOOR UPPER CENTERLINE (Y) VELOCITY VS TIME	B- 61
57	LOWER B-POST (Y) ACCELERATION VS TIME	B- 62
58	LOWER B-POST (Y) VELOCITY VS TIME	B- 63
59	UPPER B-POST (Y) ACCELERATION VS TIME	B- 64
60	UPPER B-POST (Y) VELOCITY VS TIME	B- 65
61	LOWER A-POST (Y) ACCELERATION VS TIME	B- 66

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

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

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

<u>Plot No.</u>	<u>Data Plot Title</u>	<u>Page</u>
87	DRIVER UPPER RIB (Y) ACCELERATION VS TIME	B- 92
88	DRIVER UPPER RIB (Y) VELOCITY VS TIME	B- 93
89	DRIVER LOWER RIB (Y) ACCELERATION VS TIME	B- 94
90	DRIVER LOWER RIB (Y) VELOCITY VS TIME	B- 95
91	DRIVER LOWER SPINE (Y) ACCELERATION VS TIME	B- 96
92	DRIVER LOWER SPINE (Y) VELOCITY VS TIME	B- 97
93	DRIVER PELVIC (Y) ACCELERATION VS TIME	B- 98
94	DRIVER PELVIC (Y) VELOCITY VS TIME	B- 99

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

<u>Plot No.</u>	<u>Data Plot Title</u>	<u>Page</u>
95	DRIVER UPPER RIB (Y) ACCELERATION VS TIME	B- 100
96	DRIVER LOWER RIB (Y) ACCELERATION VS TIME	B- 101
97	DRIVER LOWER SPINE (Y) ACCELERATION VS TIME	B- 102
98	DRIVER PELVIC (Y) ACCELERATION VS TIME	B- 103

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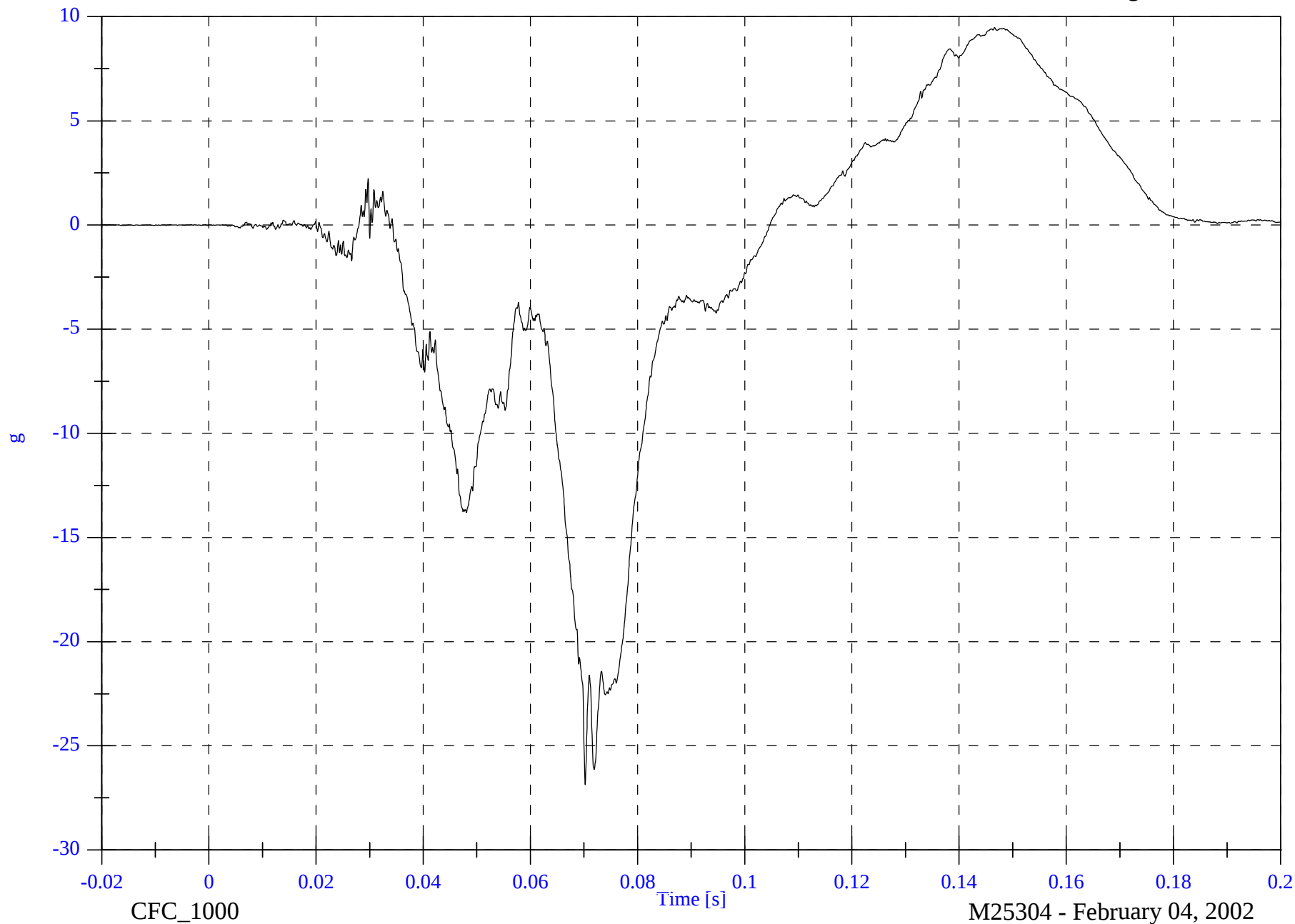
Max: 9.5 [g] at 0.147 [s]

Min: -26.9 [g] at 0.070 [s]

P1 Head x

B-6

8652-SNCAP-01



2002 SNCAP Test 1 - 2002 Acura RSX

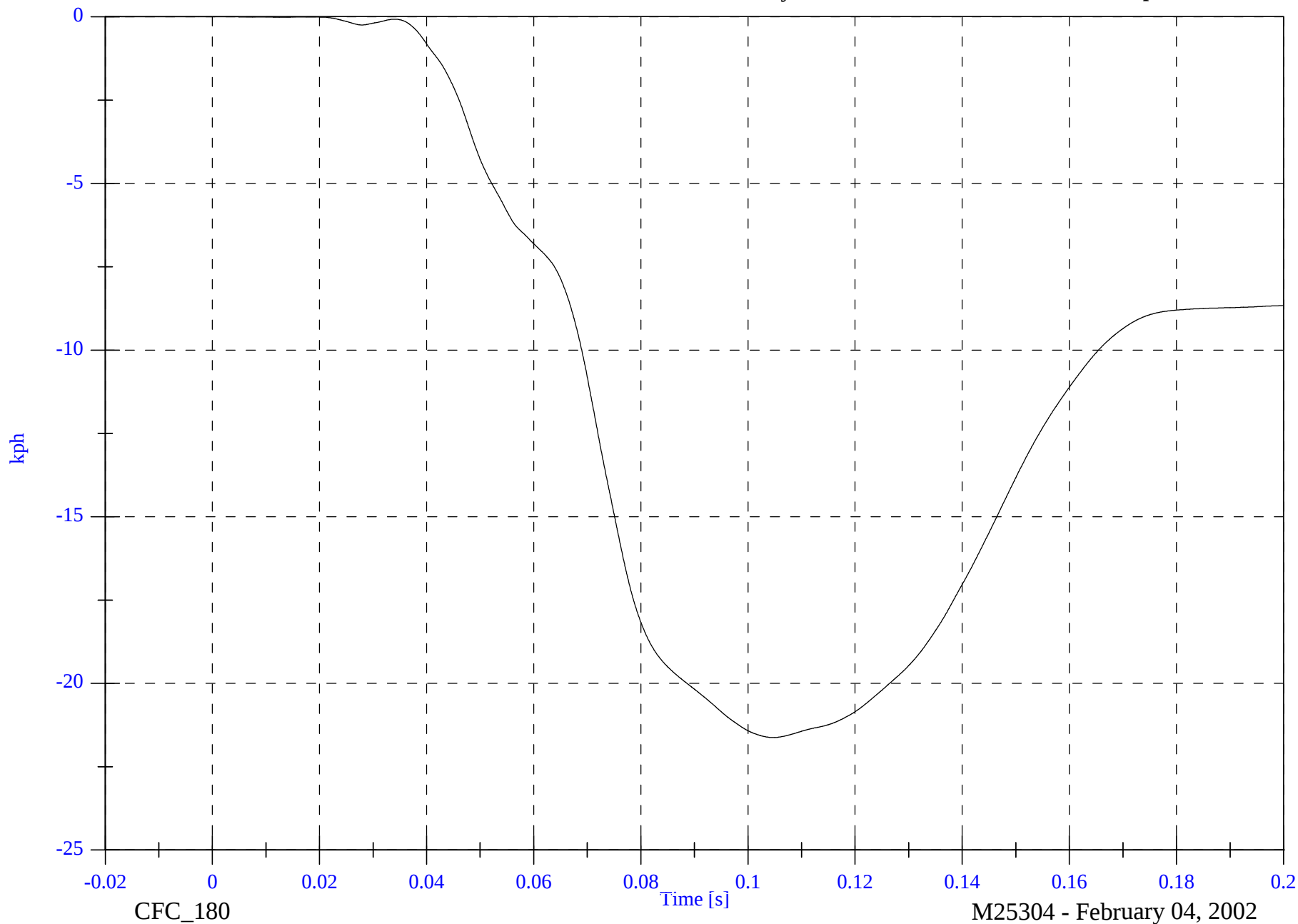
P1 Head x Velocity

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

Min: -21.6 [kph] at 0.105 [s]

B-7

8652-SNCAP-01



2002 SNCAP Test 1 - 2002 Acura RSX

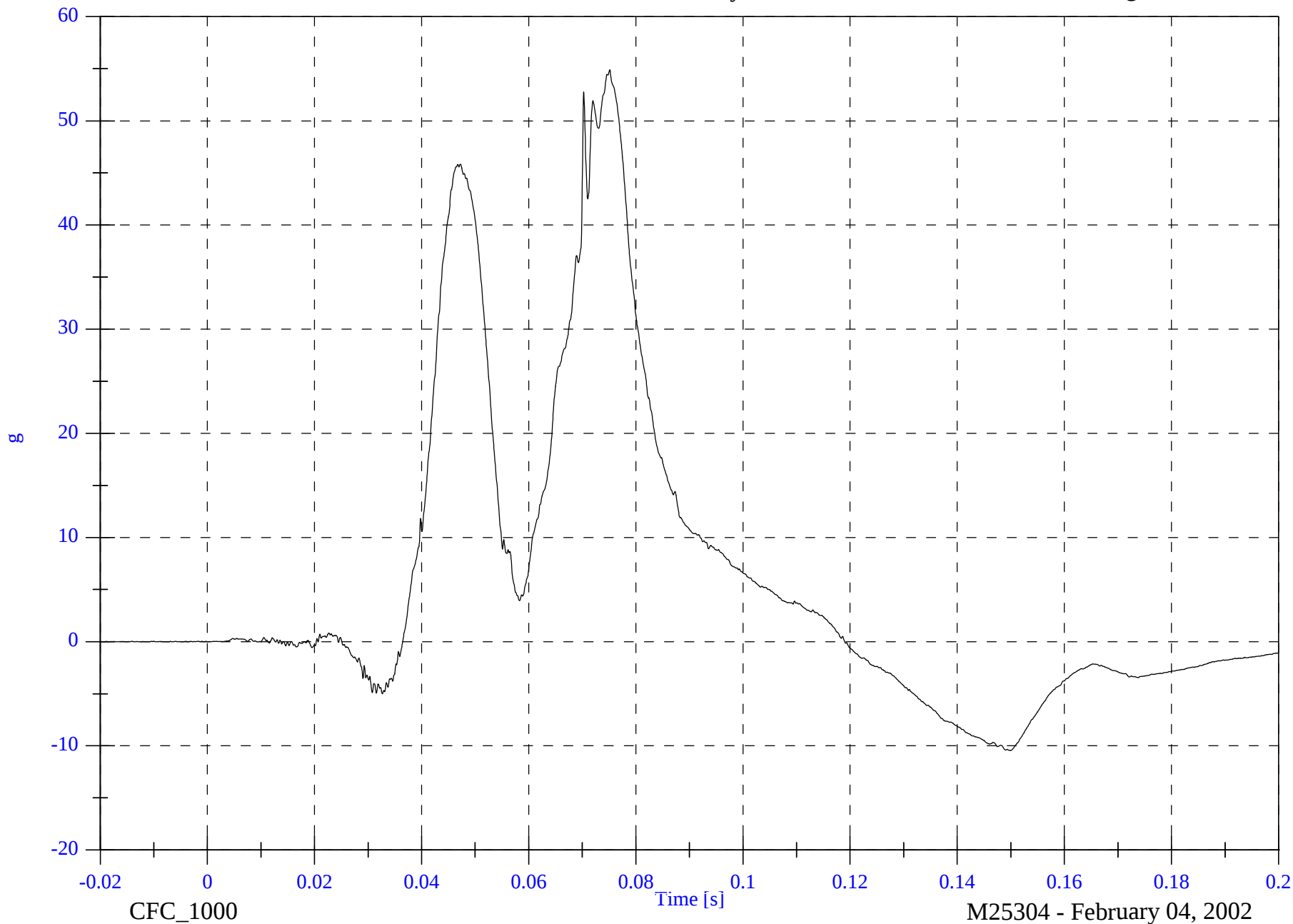
Max: 54.9 [g] at 0.075 [s]

Min: -10.5 [g] at 0.150 [s]

P1 Head y

B-8

8652-SNCAP-01

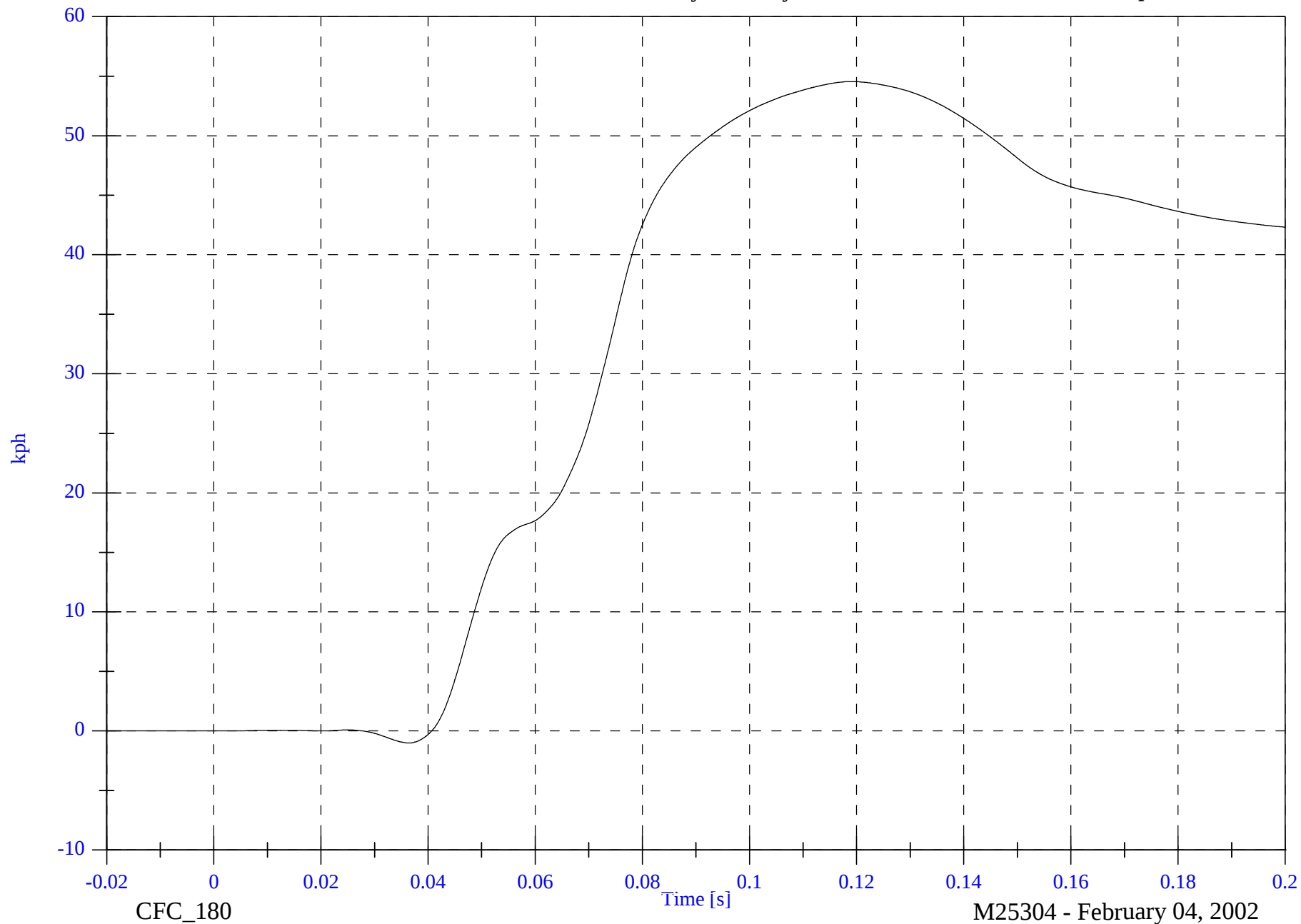


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P1 Head y Velocity

Max: 54.5 [kph] at 0.119 [s]

Min: -1.0 [kph] at 0.036 [s]



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2002 SNCAP Test 1 - 2002 Acura RSX

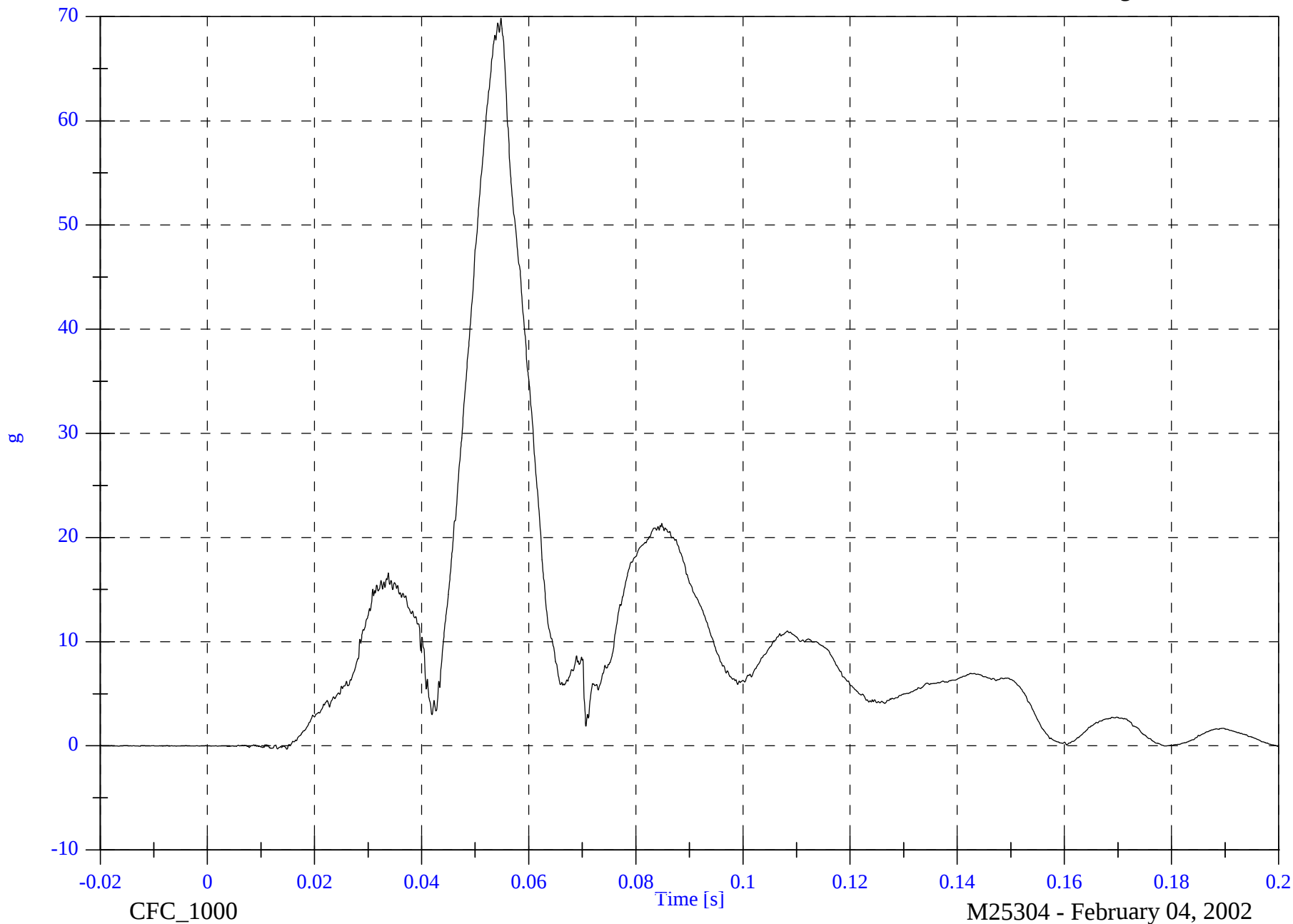
P1 Head z

Max: 69.9 [g] at 0.055 [s]

Min: -0.3 [g] at 0.015 [s]

B-10

8652-SNCAP-01



2002 SNCAP Test 1 - 2002 Acura RSX

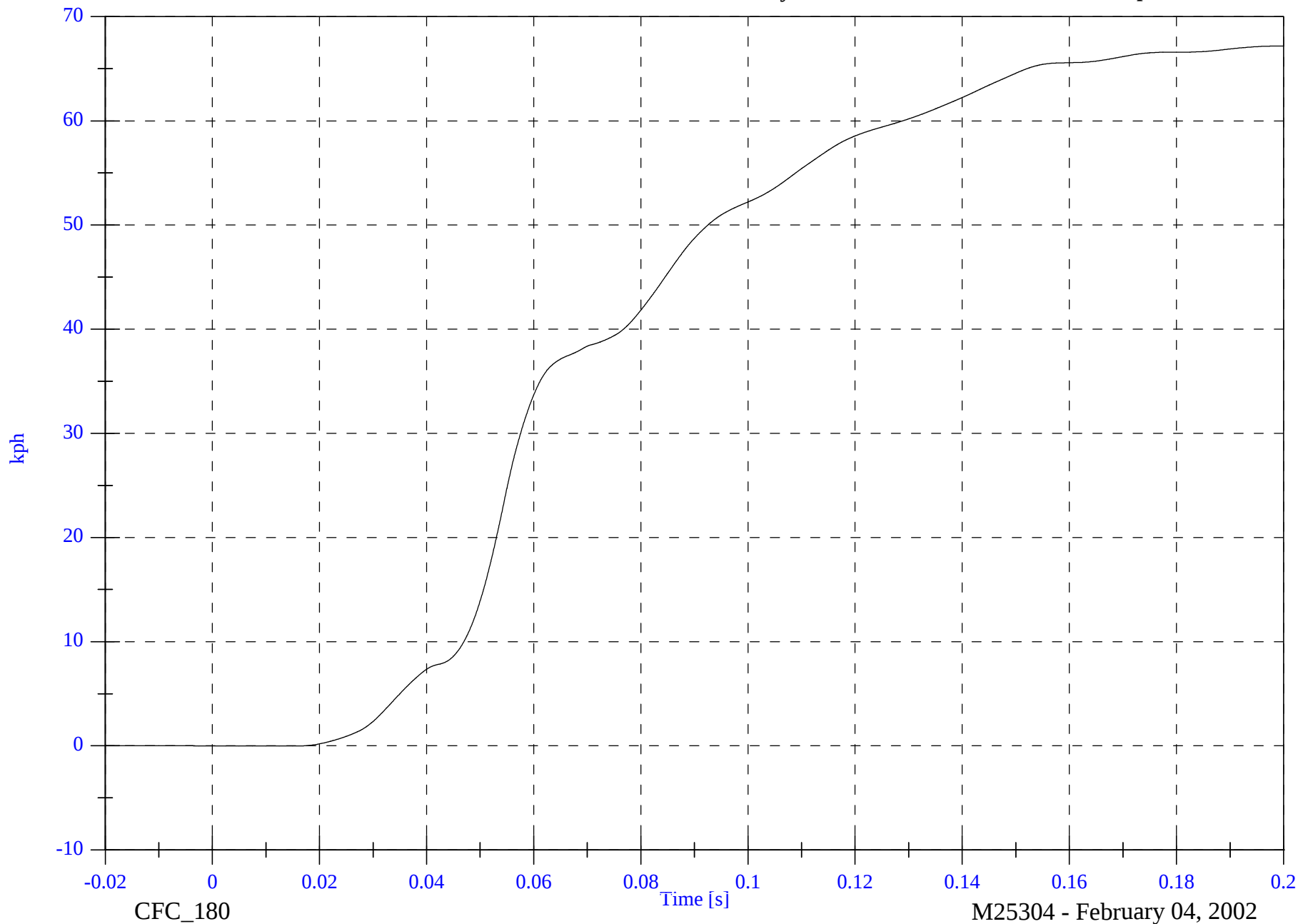
P1 Head z Velocity

Max: 67.2 [kph] at 0.200 [s]

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

B-11

8652-SNCAP-01



2002 SNCAP Test 1 - 2002 Acura RSX

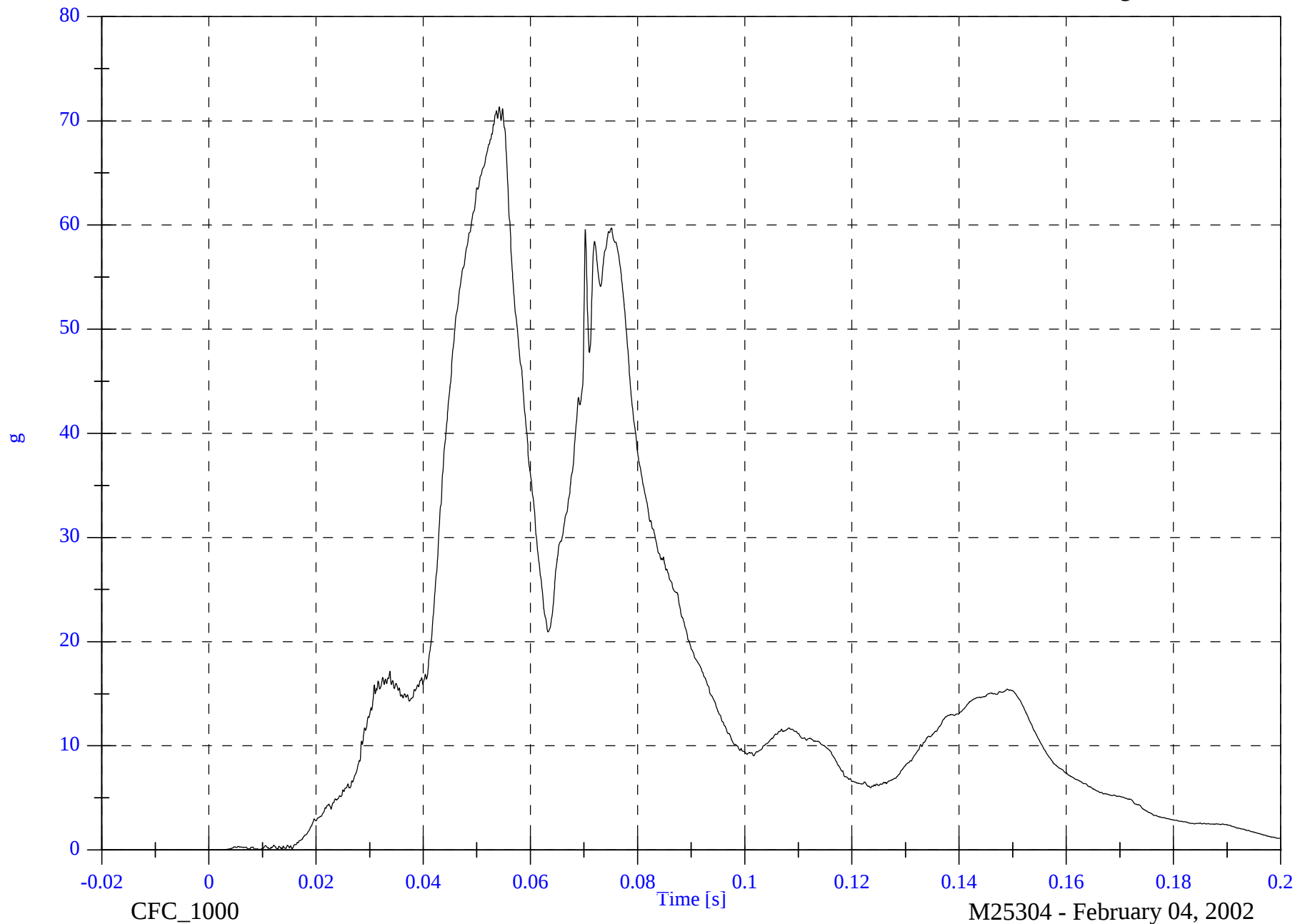
P1 Head Resultant

Max: 71.3 [g] at 0.054 [s]

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

B-12

8652-SNCAP-01



2002 SNCAP Test 1 - 2002 Acura RSX

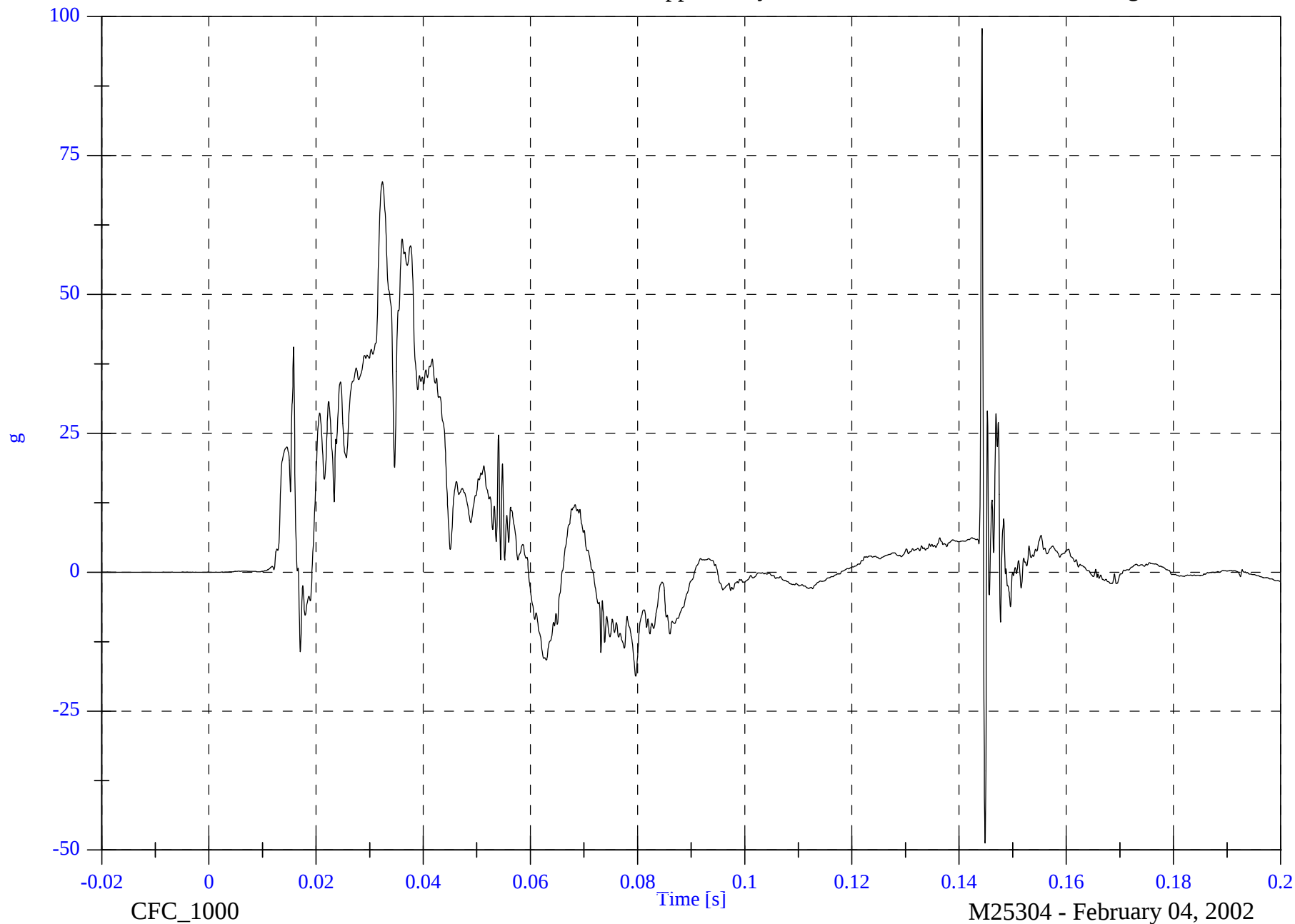
P1 Upper Rib y

Max: 97.9 [g] at 0.144 [s]

Min: -48.7 [g] at 0.145 [s]

B-13

8652-SNCAP-01

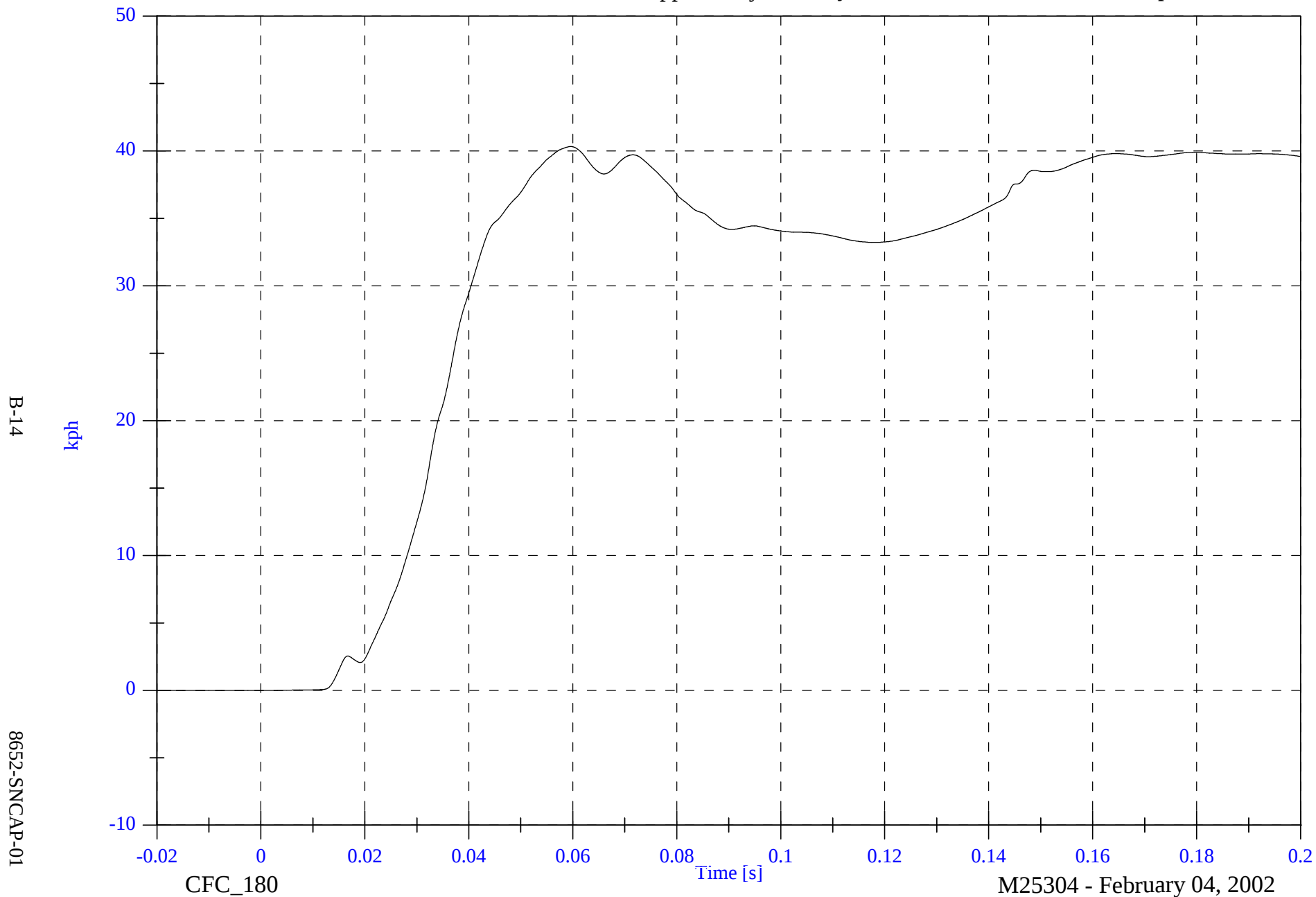


2002 SNCAP Test 1 - 2002 Acura RSX

Max: 40.3 [kph] at 0.060 [s]

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

P1 Upper Rib y Velocity



2002 SENCAP Test 1 - 2002 Acura RSX

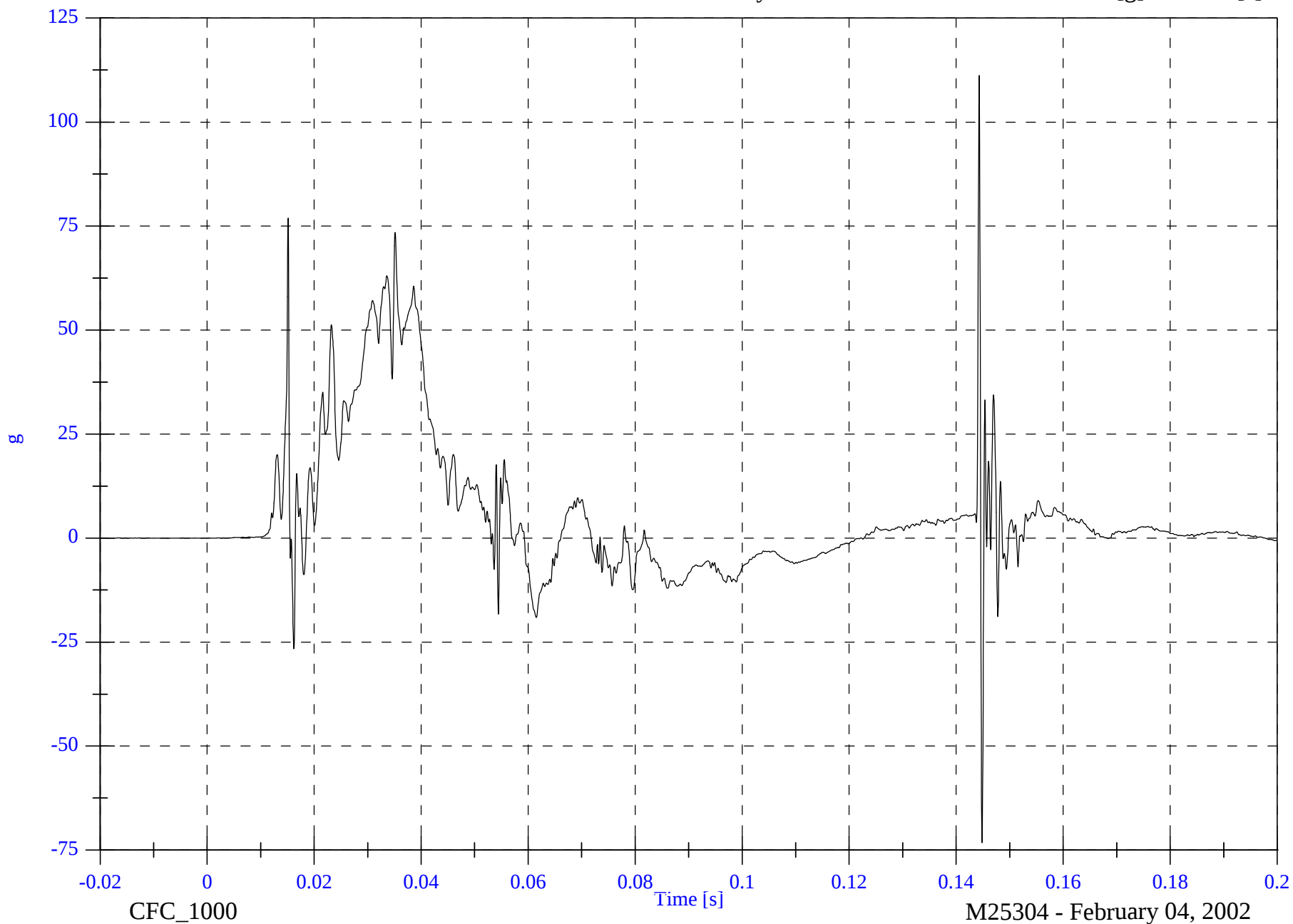
P1 Lower Rib y

Max: 111.2 [g] at 0.144 [s]

Min: -73.2 [g] at 0.145 [s]

B-15

8652-SENCAP-01



2002 SENCAP Test 1 - 2002 Acura RSX

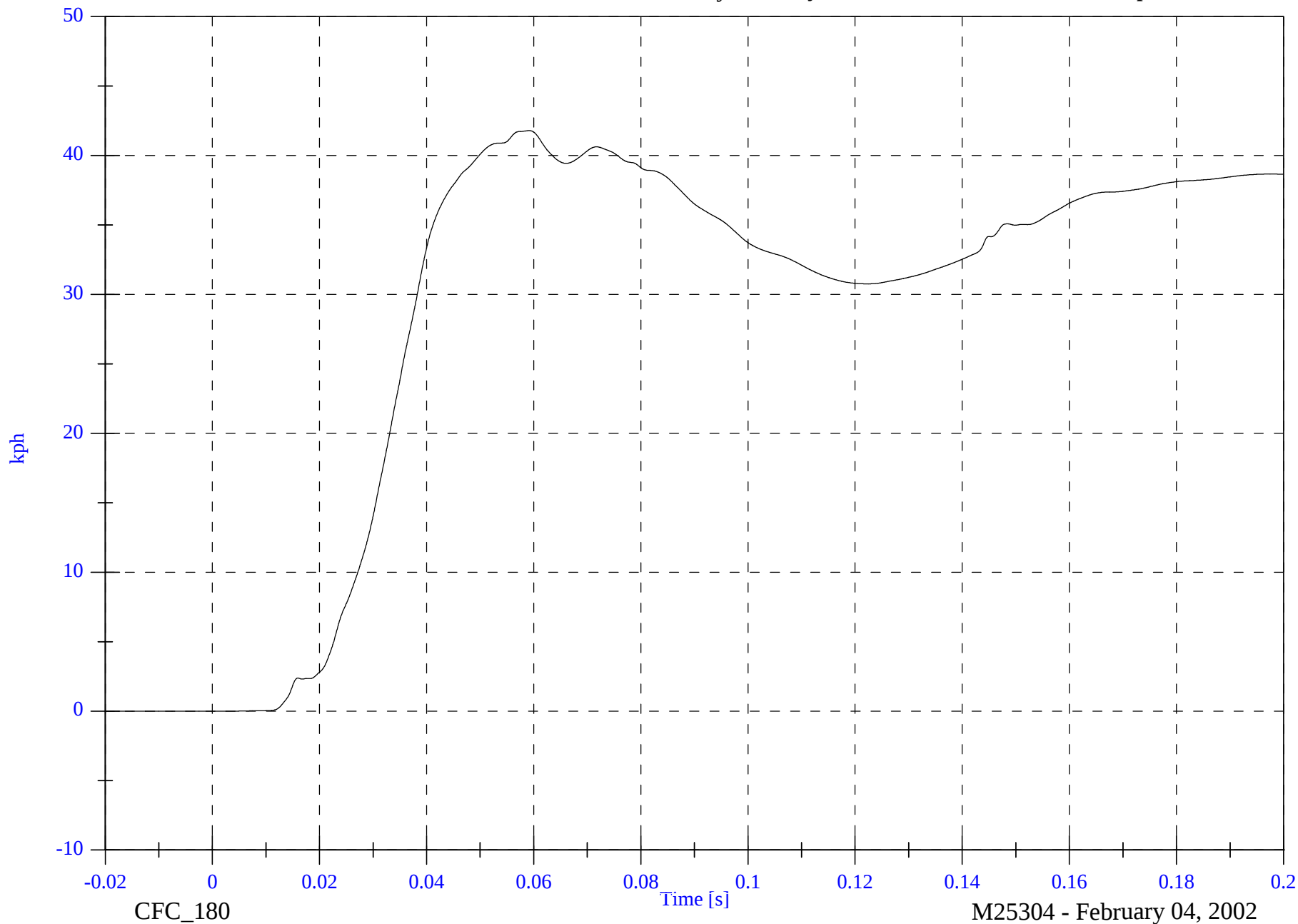
P1 Lower Rib y Velocity

Max: 41.8 [kph] at 0.059 [s]

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

B-16

8652-SENCAP-01

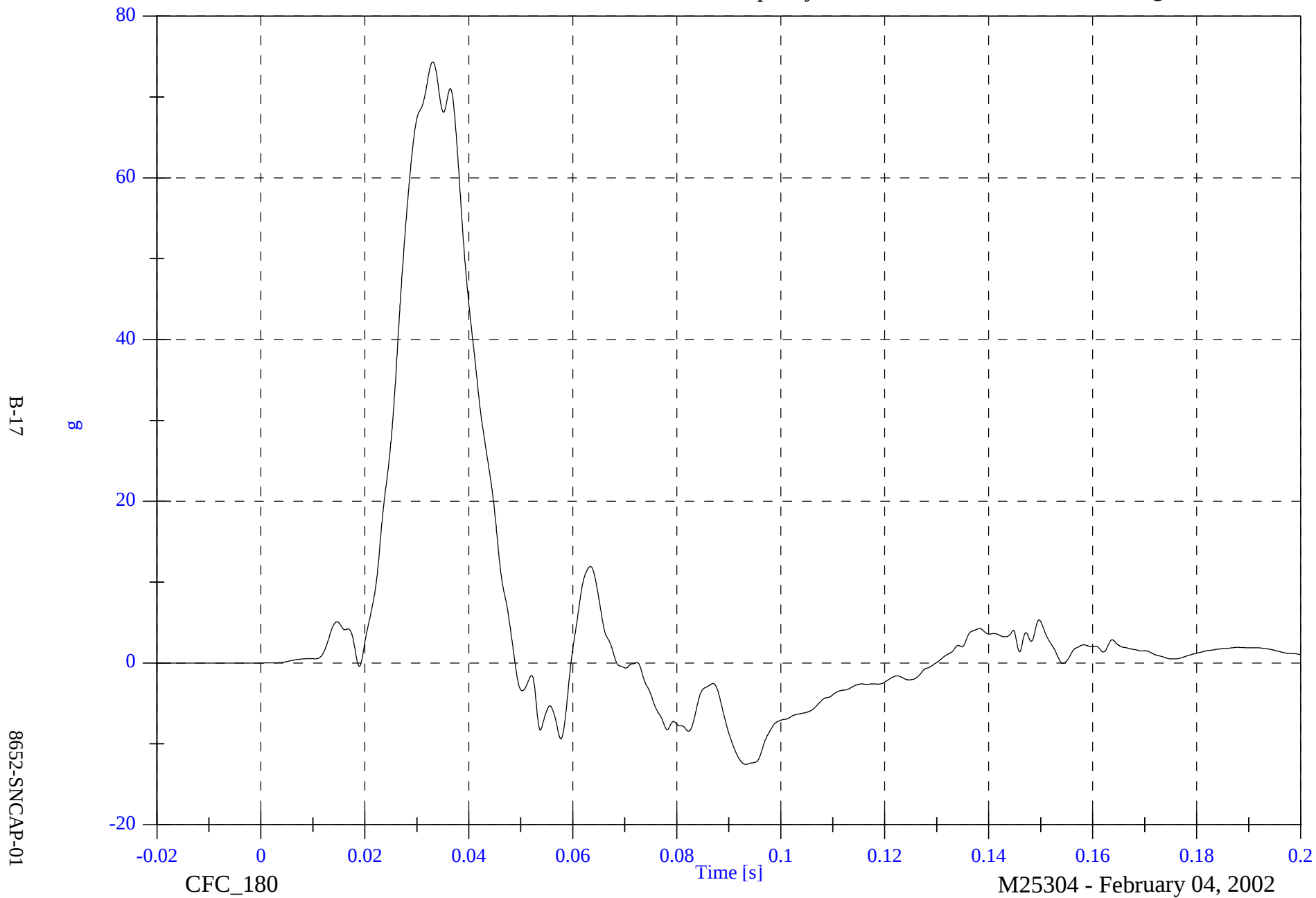


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P1 Lower Spine y

Max: 74.3 [g] at 0.033 [s]

Min: -12.5 [g] at 0.093 [s]



2002 SNCAP Test 1 - 2002 Acura RSX

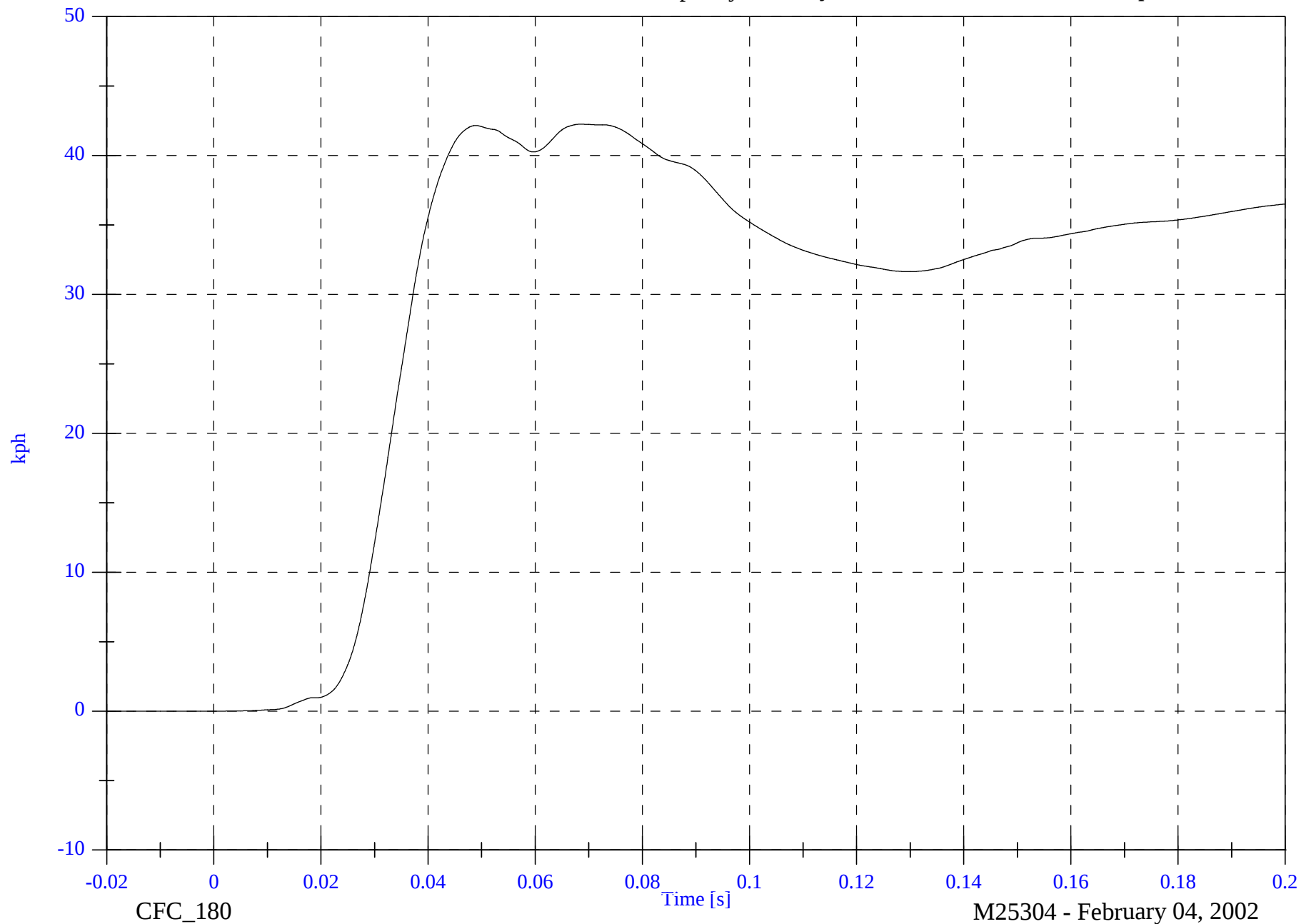
P1 Lower Spine y Velocity

Max: 42.3 [kph] at 0.068 [s]

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

B-18

8652-SNCAP-01

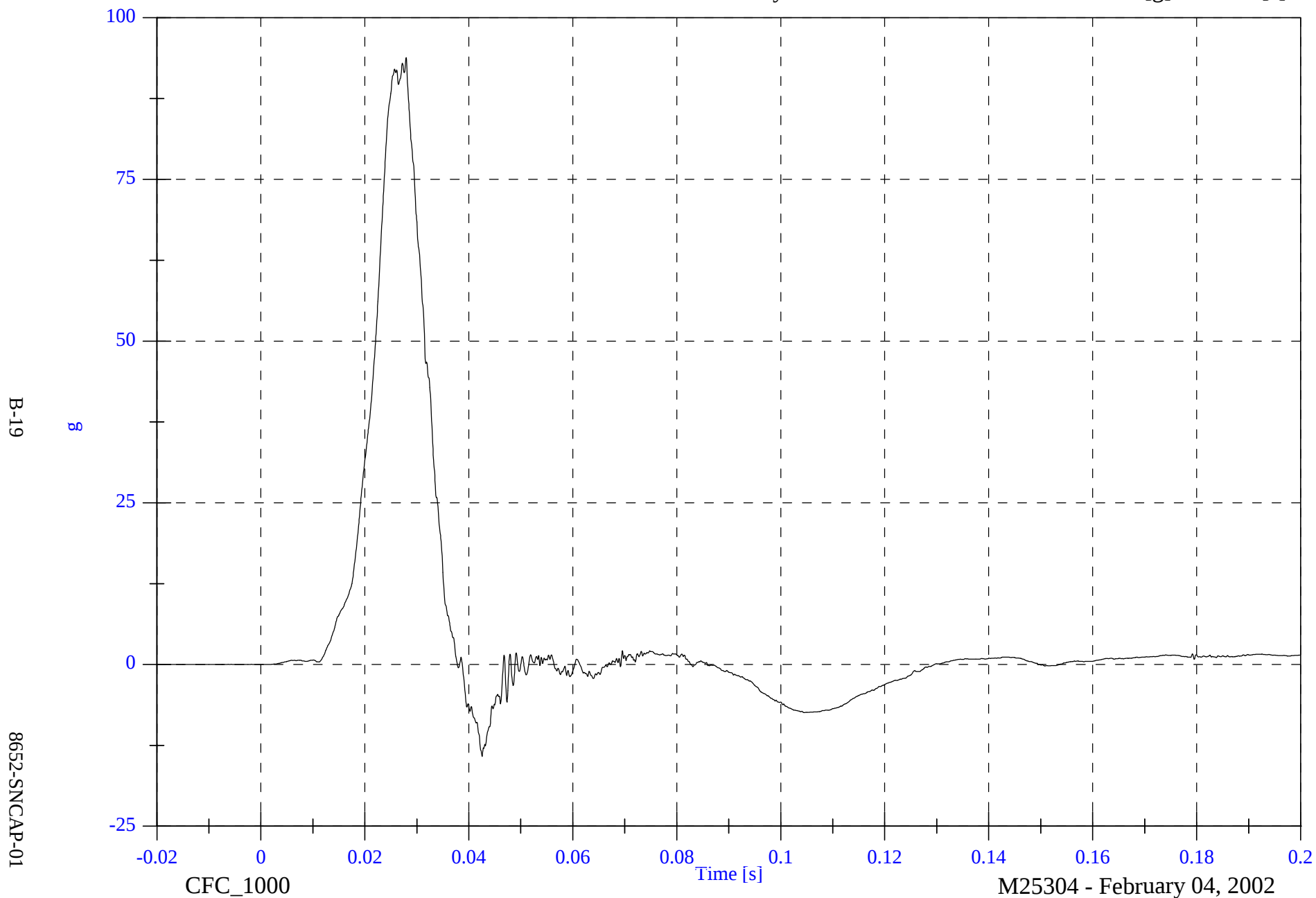


2002 SNCAP Test 1 - 2002 Acura RSX

P1 Pelvic y

Max: 93.8 [g] at 0.028 [s]

Min: -14.2 [g] at 0.043 [s]

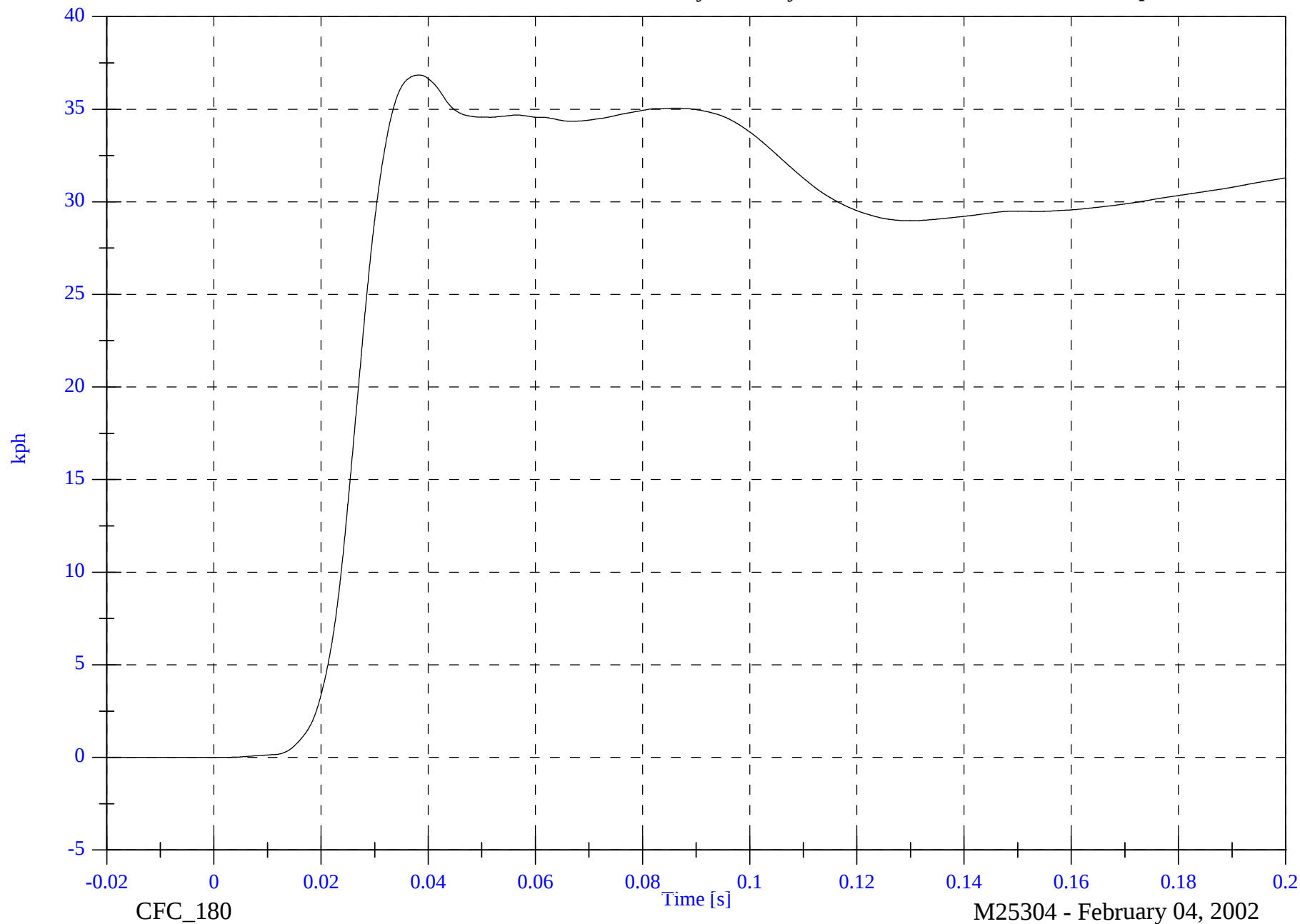


2002 SNCAP Test 1 - 2002 Acura RSX

P1 Pelvic y Velocity

Max: 36.8 [kph] at 0.038 [s]

Min: -0.0 [kph] at -0.012 [s]



B-20

8652-SNCAP-01

2002 SNCAP Test 1 - 2002 Acura RSX

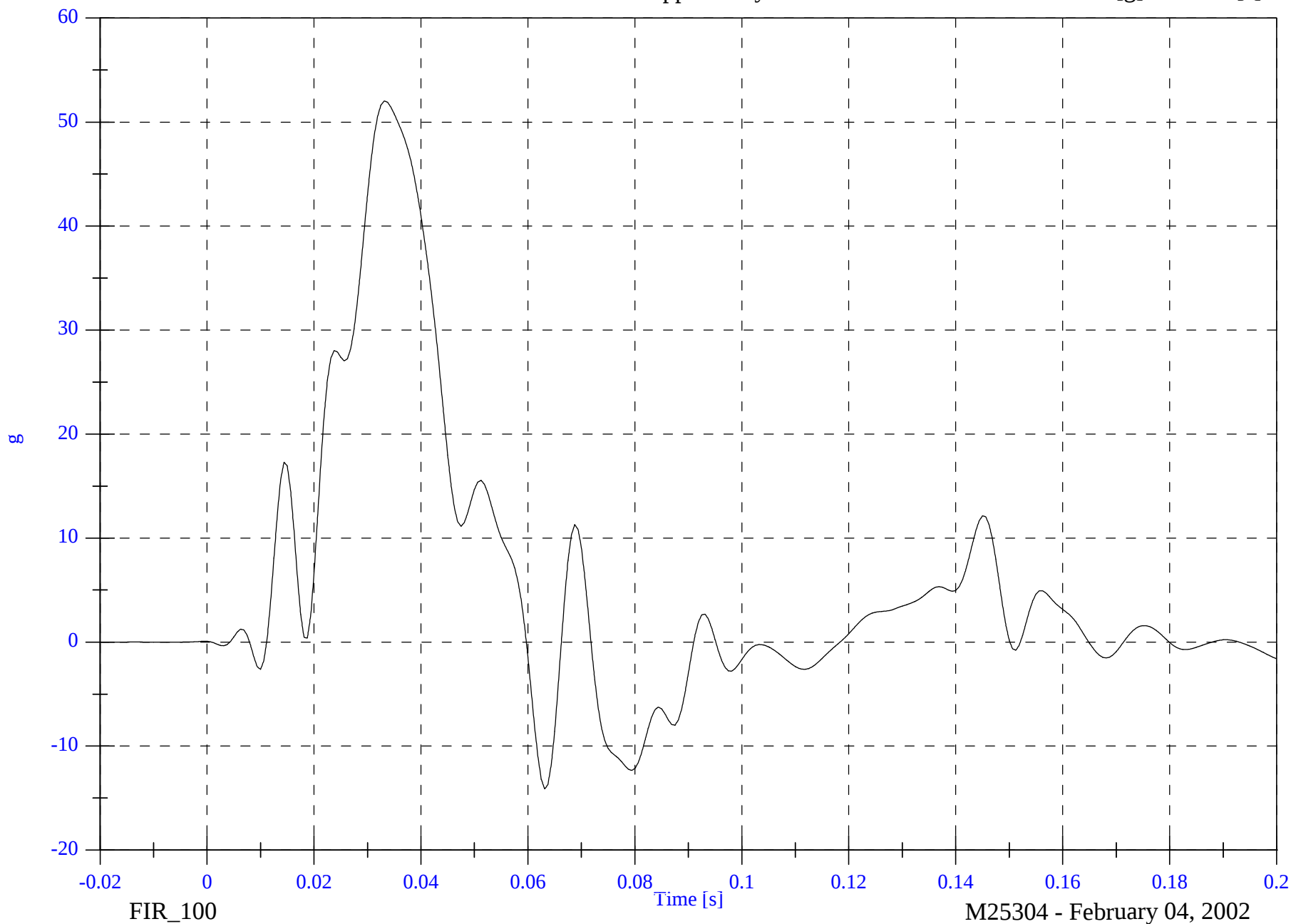
P1 Upper Rib y

Max: 52.0 [g] at 0.033 [s]

Min: -14.1 [g] at 0.063 [s]

B-21

8652-SNCAP-01



2002 SNCAP Test 1 - 2002 Acura RSX

P1 Lower Rib y

Max: 56.8 [g] at 0.033 [s]

Min: -15.0 [g] at 0.063 [s]

B-22

8652-SNCAP-01



2002 SNCAP Test 1 - 2002 Acura RSX

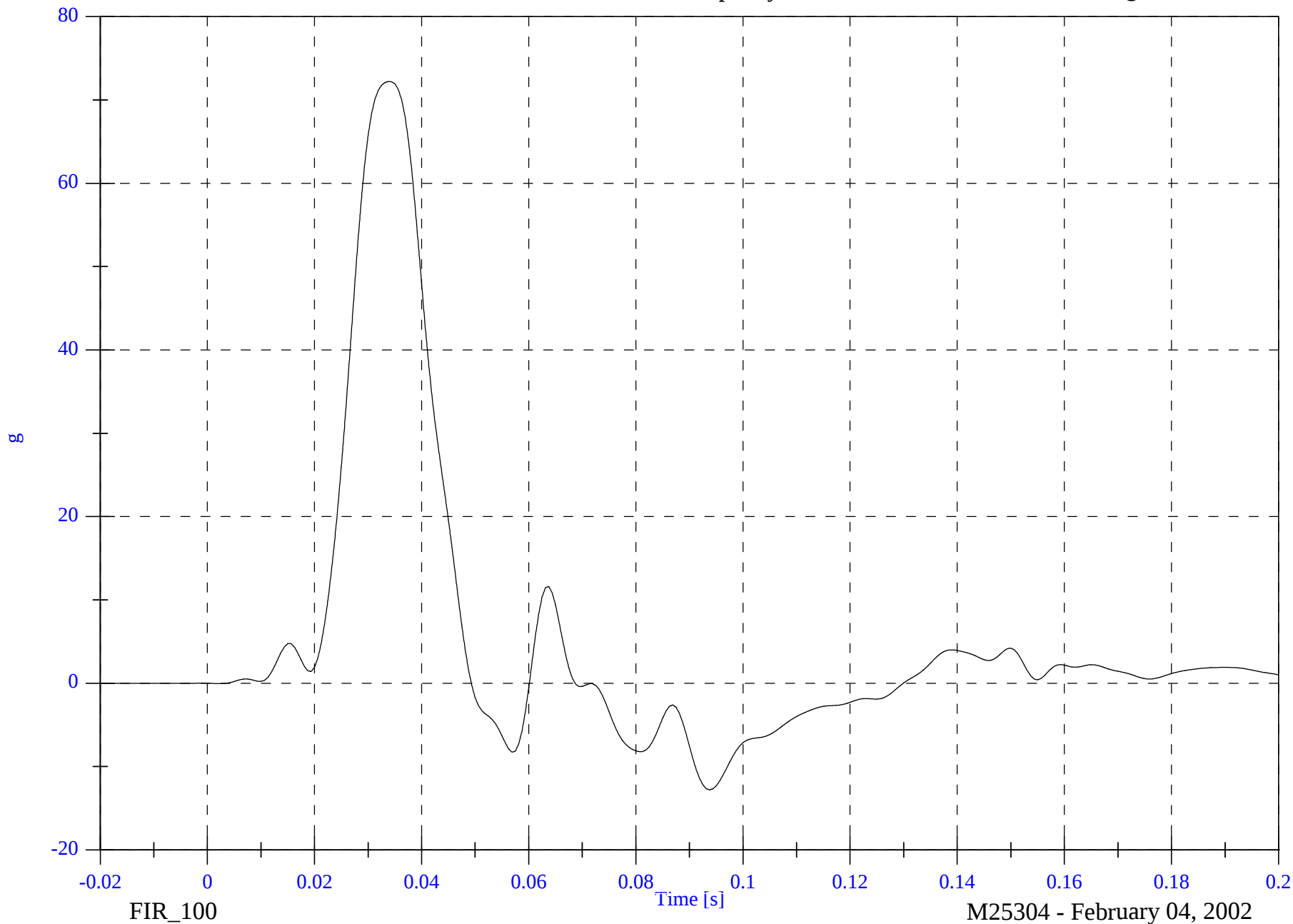
P1 Lower Spine y

Max: 72.2 [g] at 0.034 [s]

Min: -12.8 [g] at 0.094 [s]

B-23

8652-SNCAP-01

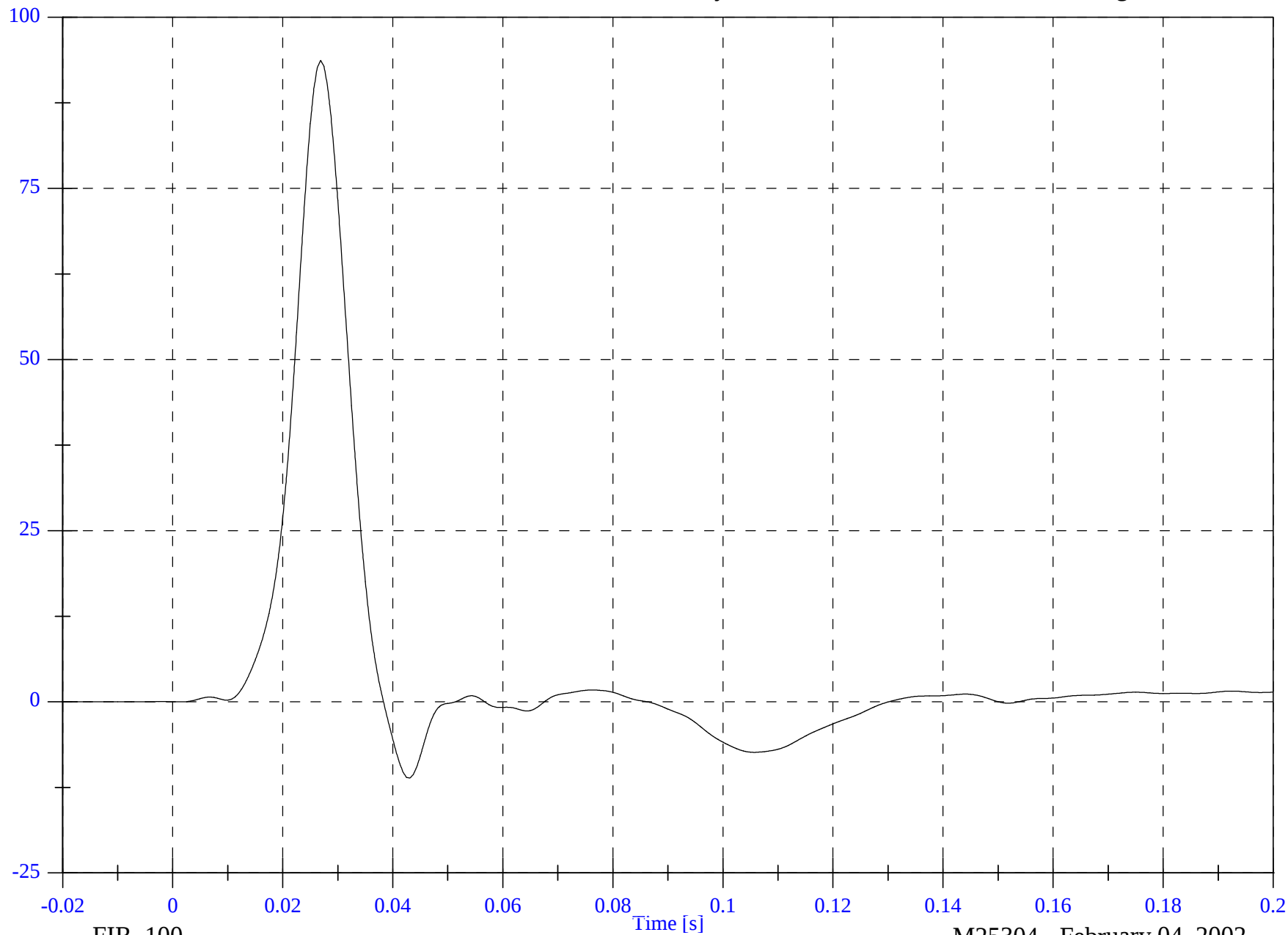


2002 SNCAP Test 1 - 2002 Acura RSX

P1 Pelvic y

Max: 93.7 [g] at 0.027 [s]

Min: -11.2 [g] at 0.043 [s]



B-24

8652-SNCAP-01

FIR_100

M25304 - February 04, 2002

2002 SNCAP Test 1 - 2002 Acura RSX

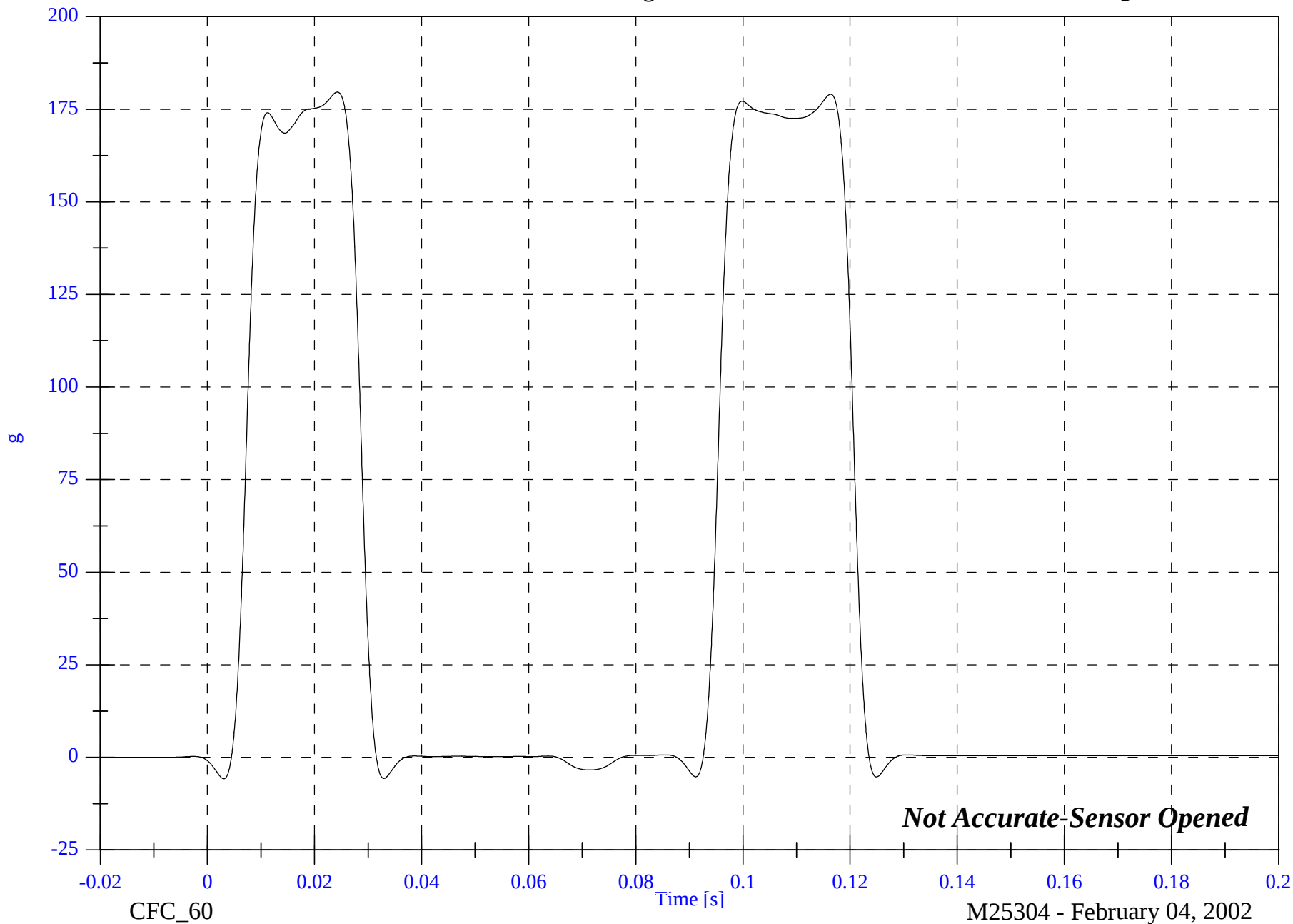
A1 Right Front Sill X

Max: 179.6 [g] at 0.024 [s]

Min: -5.8 [g] at 0.003 [s]

B-25

8652-SNCAP-01

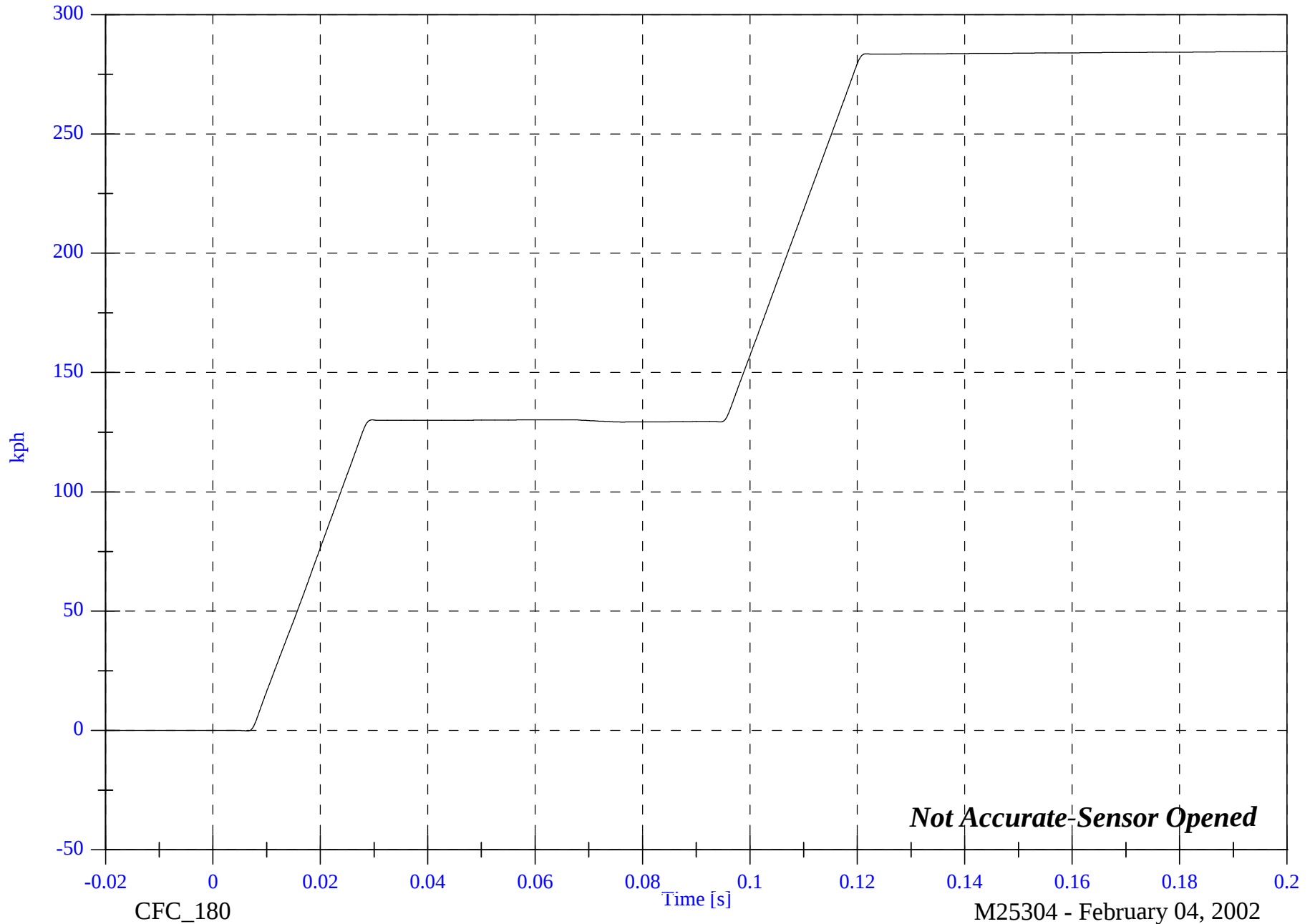


2002 SENCAP Test 1 - 2002 Acura RSX

A1 Right Front Sill X Velocity

Max: 284.5 [kph] at 0.200 [s]

Min: -0.2 [kph] at 0.006 [s]



B-26

8652-SENCAP-01

CFC_180

Time [s]

M25304 - February 04, 2002

2002 SNCAP Test 1 - 2002 Acura RSX

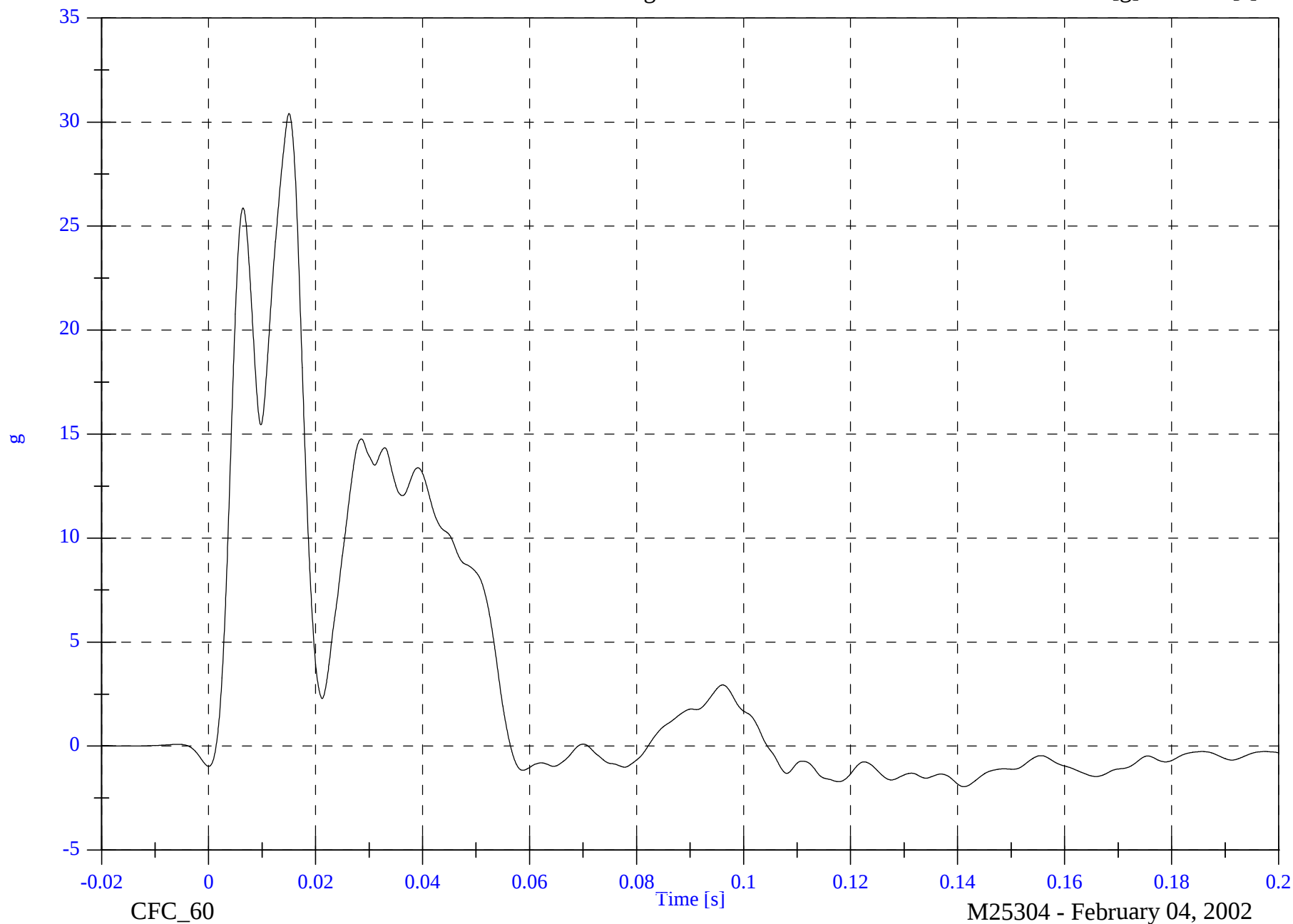
A1 Right Front Sill Y

Max: 30.4 [g] at 0.015 [s]

Min: -2.0 [g] at 0.141 [s]

B-27

8652-SNCAP-01



2002 SNCAP Test 1 - 2002 Acura RSX

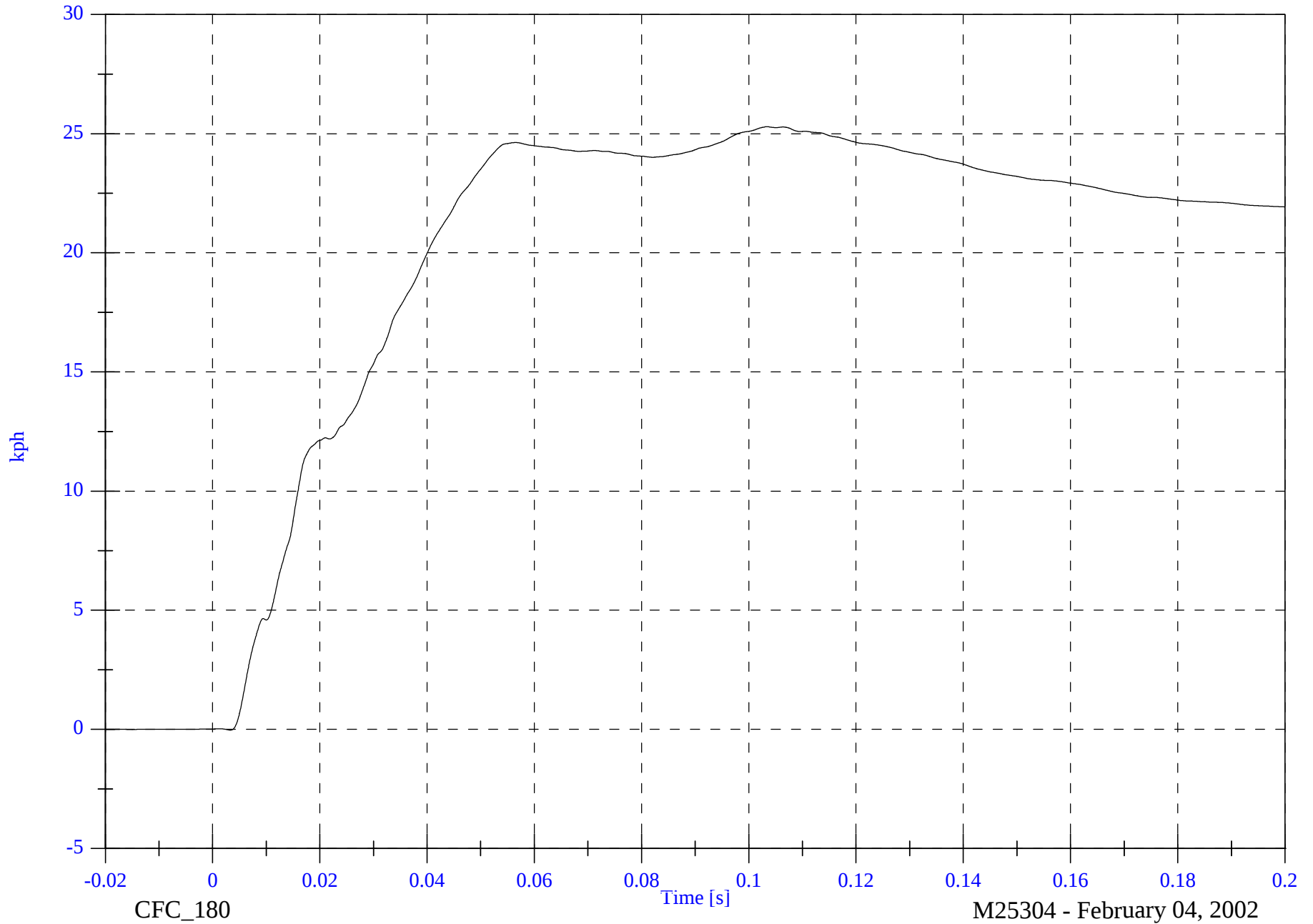
Max: 25.3 [kph] at 0.103 [s]

A1 Right Front Sill Y Velocity

Min: -0.0 [kph] at 0.003 [s]

B-28

8652-SNCAP-01



2002 SNCAP Test 1 - 2002 Acura RSX

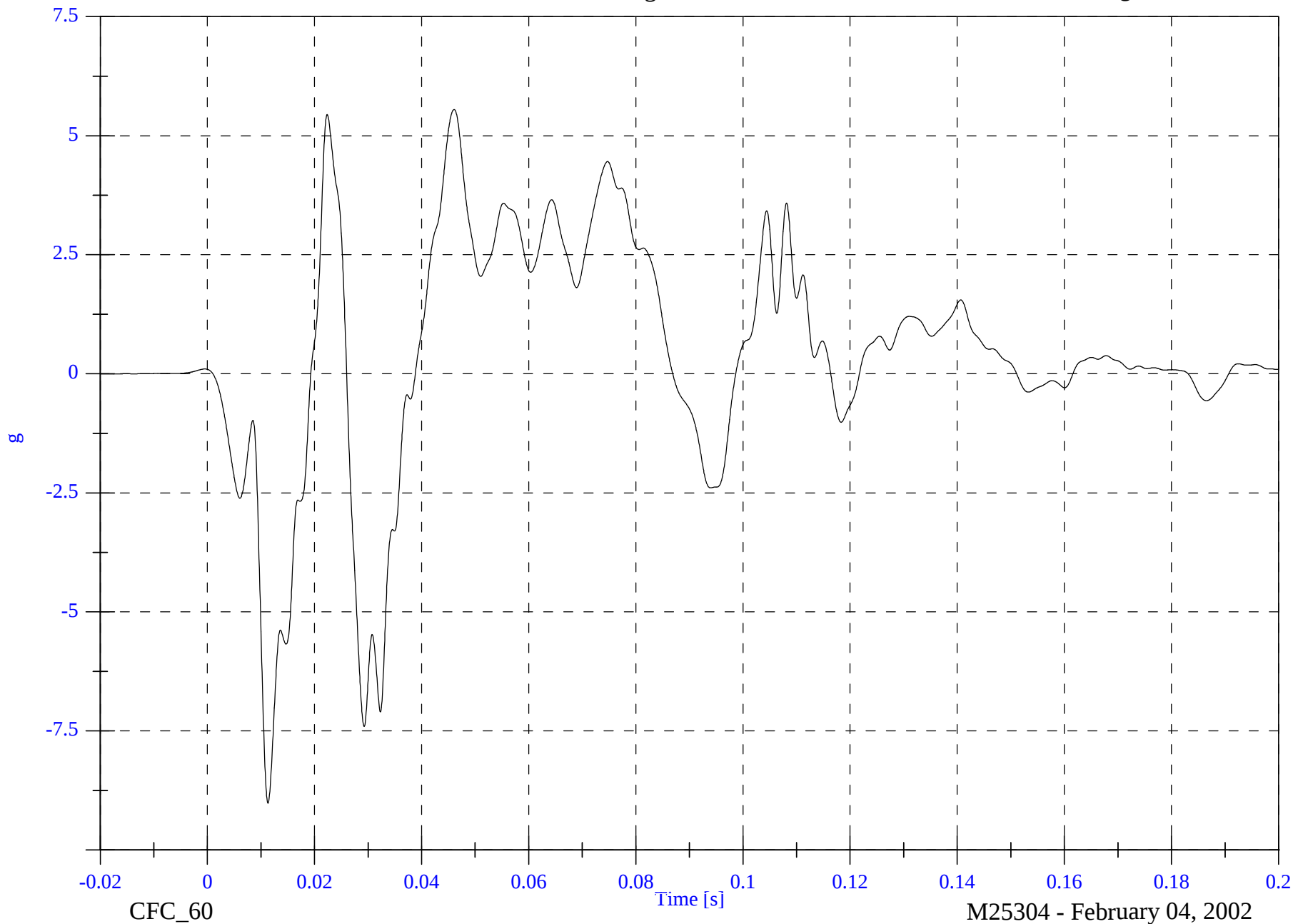
A1 Right Front Sill Z

Max: 5.6 [g] at 0.046 [s]

Min: -9.0 [g] at 0.011 [s]

B-29

8652-SNCAP-01



2002 SNCAP Test 1 - 2002 Acura RSX

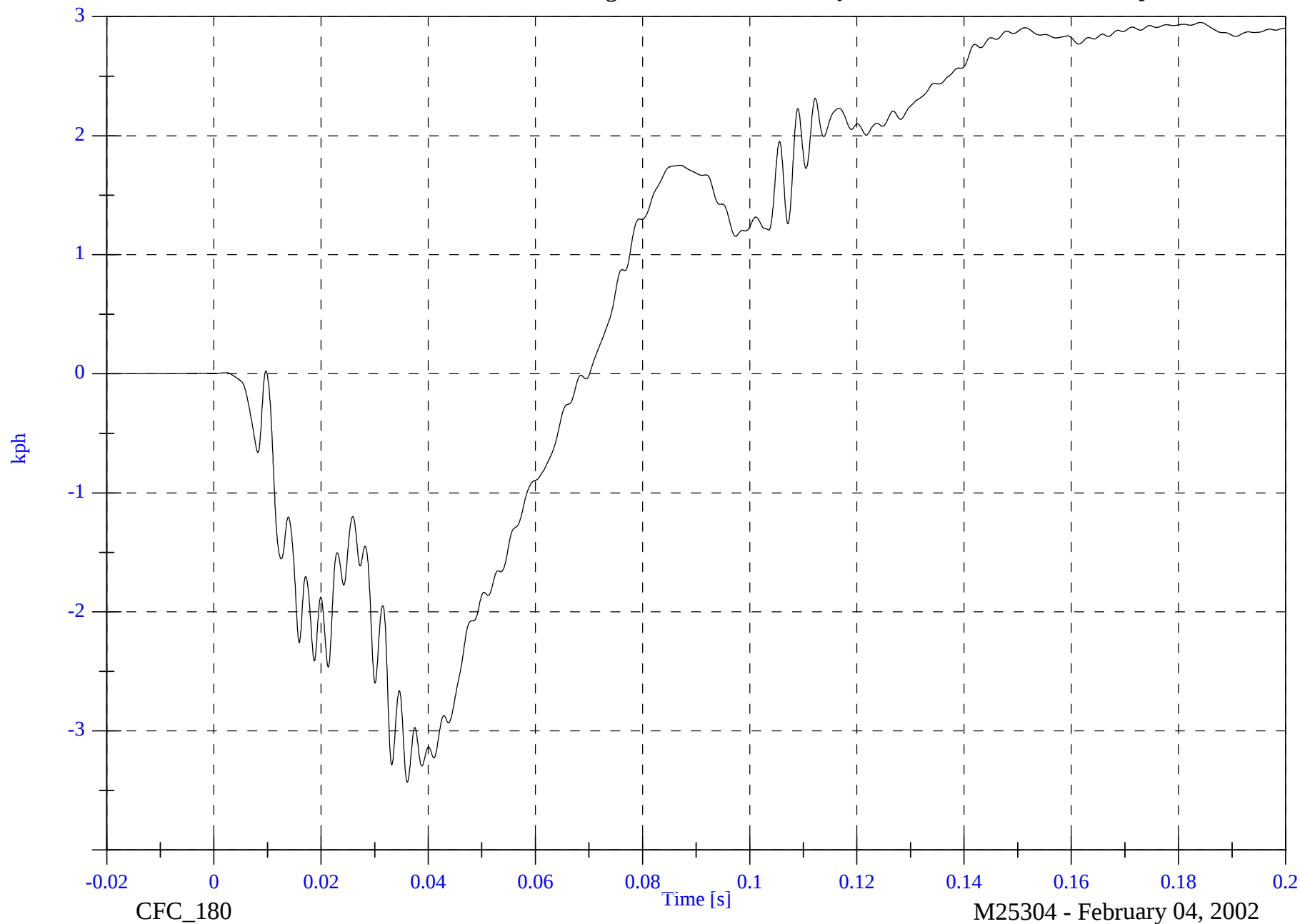
A1 Right Front Sill Z Velocity

Max: 3.0 [kph] at 0.184 [s]

Min: -3.4 [kph] at 0.036 [s]

B-30

8652-SNCAP-01



2002 SENCAP Test 1 - 2002 Acura RSX

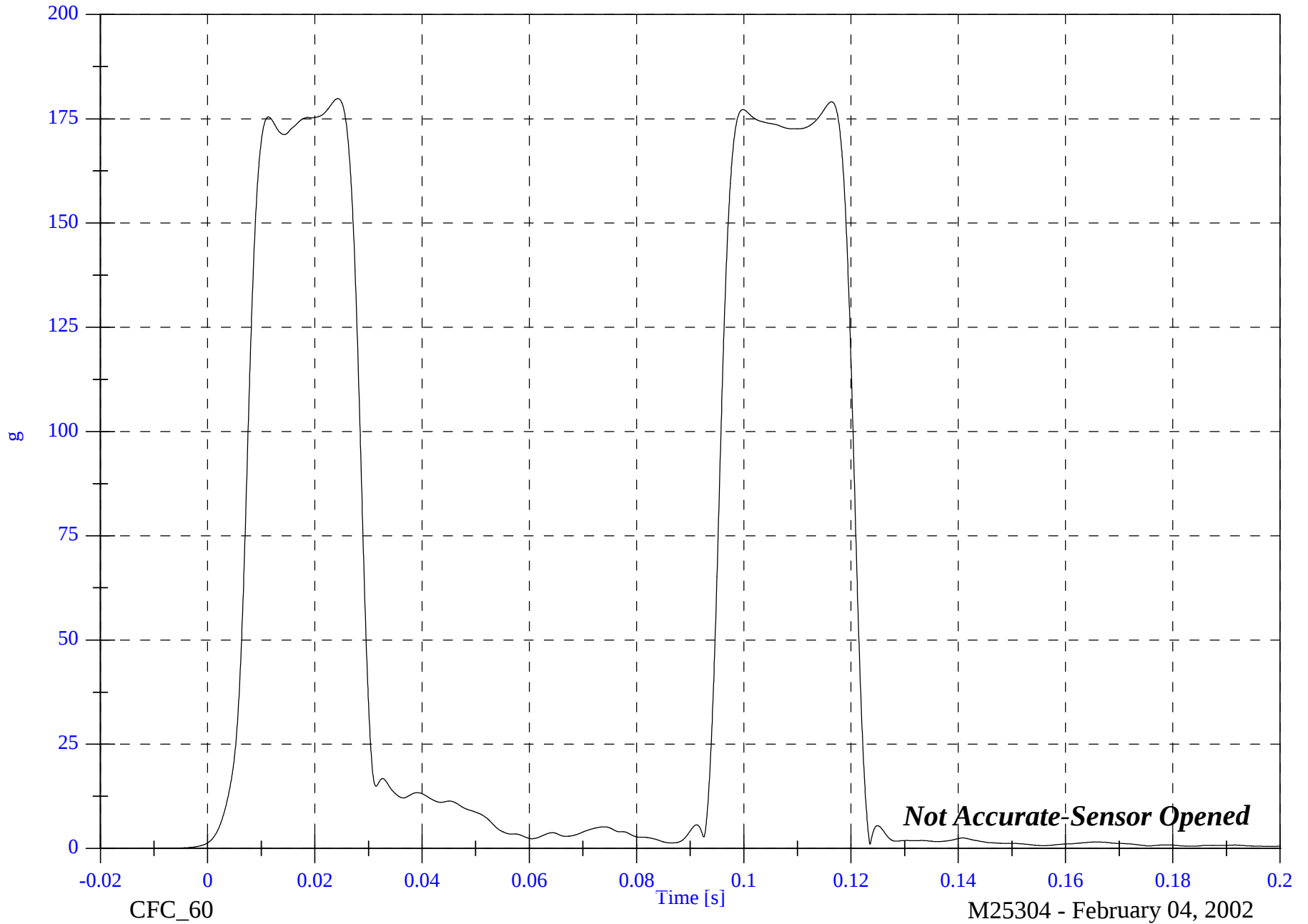
A1 Right Front Sill Resultant

Max: 179.8 [g] at 0.024 [s]

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

B-31

8652-SENCAP-01

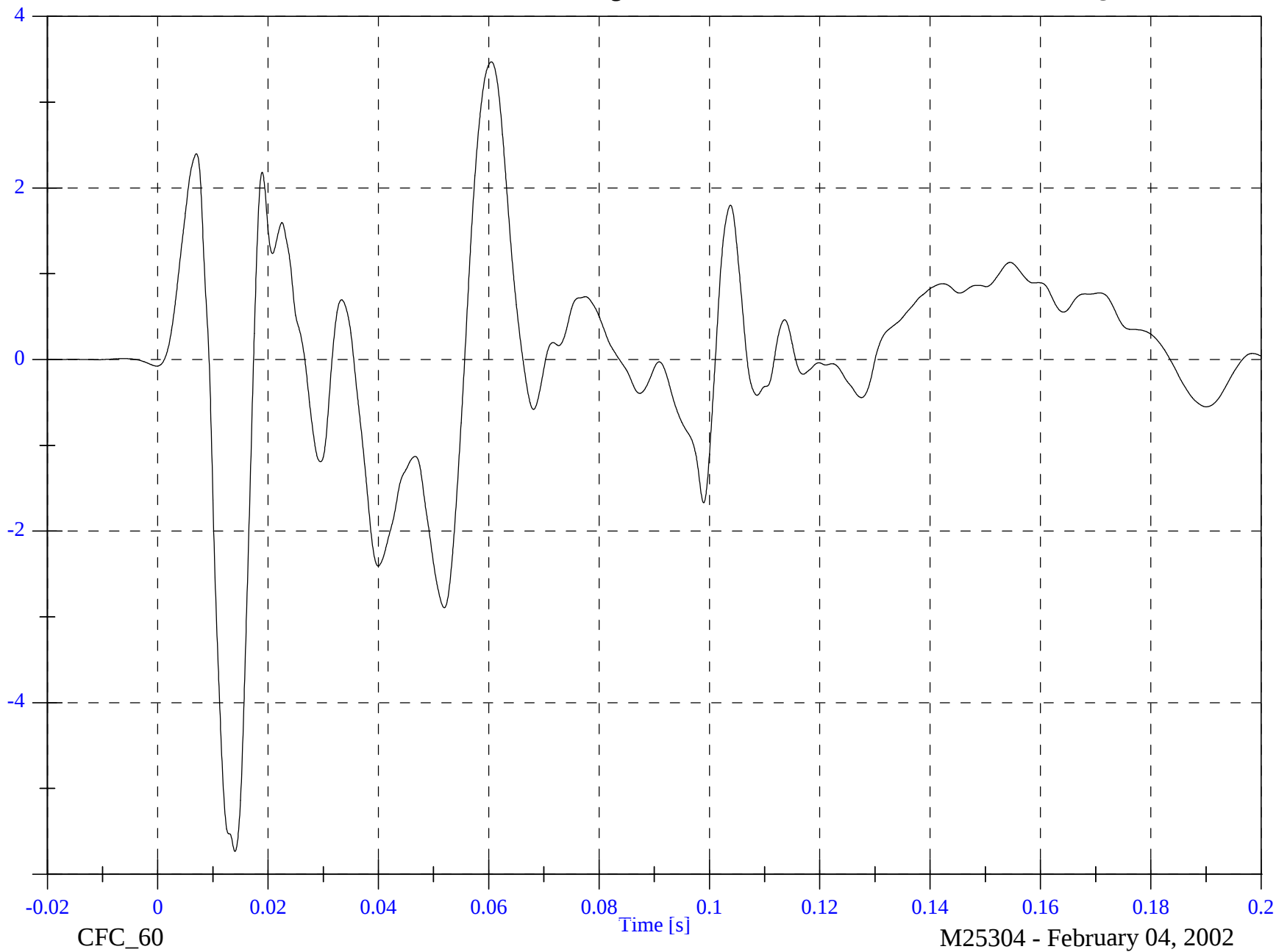


2002 SNCAP Test 1 - 2002 Acura RSX

A2 Right Rear Sill X

Max: 3.5 [g] at 0.060 [s]

Min: -5.7 [g] at 0.014 [s]



B-32

8652-SNCAP-01

2002 SNCAP Test 1 - 2002 Acura RSX

A2 Right Rear Sill X Velocity

Max: 0.5 [kph] at 0.010 [s]

Min: -1.7 [kph] at 0.056 [s]

B-33

8652-SNCAP-01



2002 SNCAP Test 1 - 2002 Acura RSX

A2 Right Rear Sill Y

Max: 37.3 [g] at 0.007 [s]

Min: -2.6 [g] at 0.113 [s]

B-34

8652-SNCAP-01

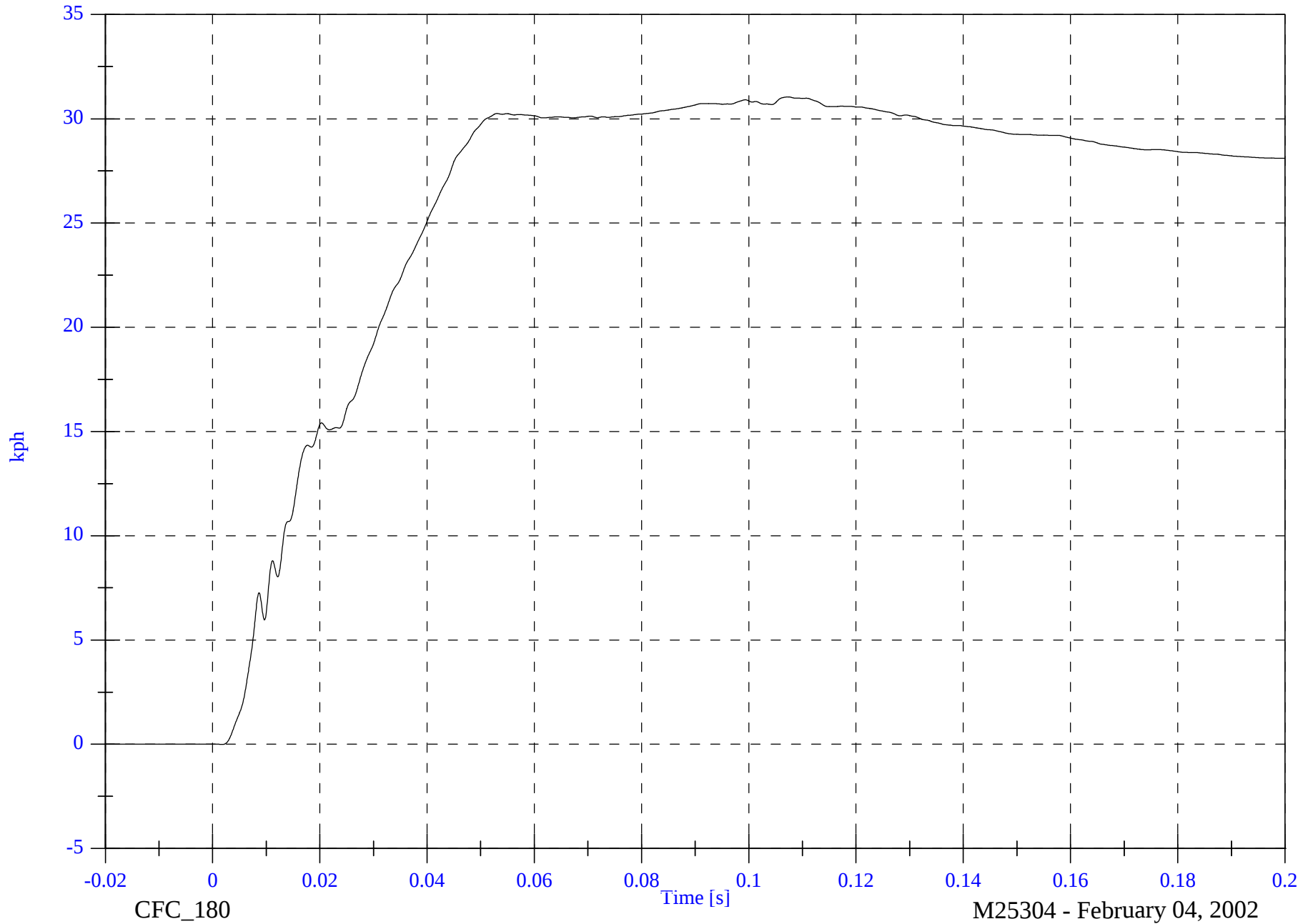


2002 SENCAP Test 1 - 2002 Acura RSX

A2 Right Rear Sill Y Velocity

Max: 31.1 [kph] at 0.107 [s]

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



B-35

8652-SENCAP-01

2002 SNCAP Test 1 - 2002 Acura RSX

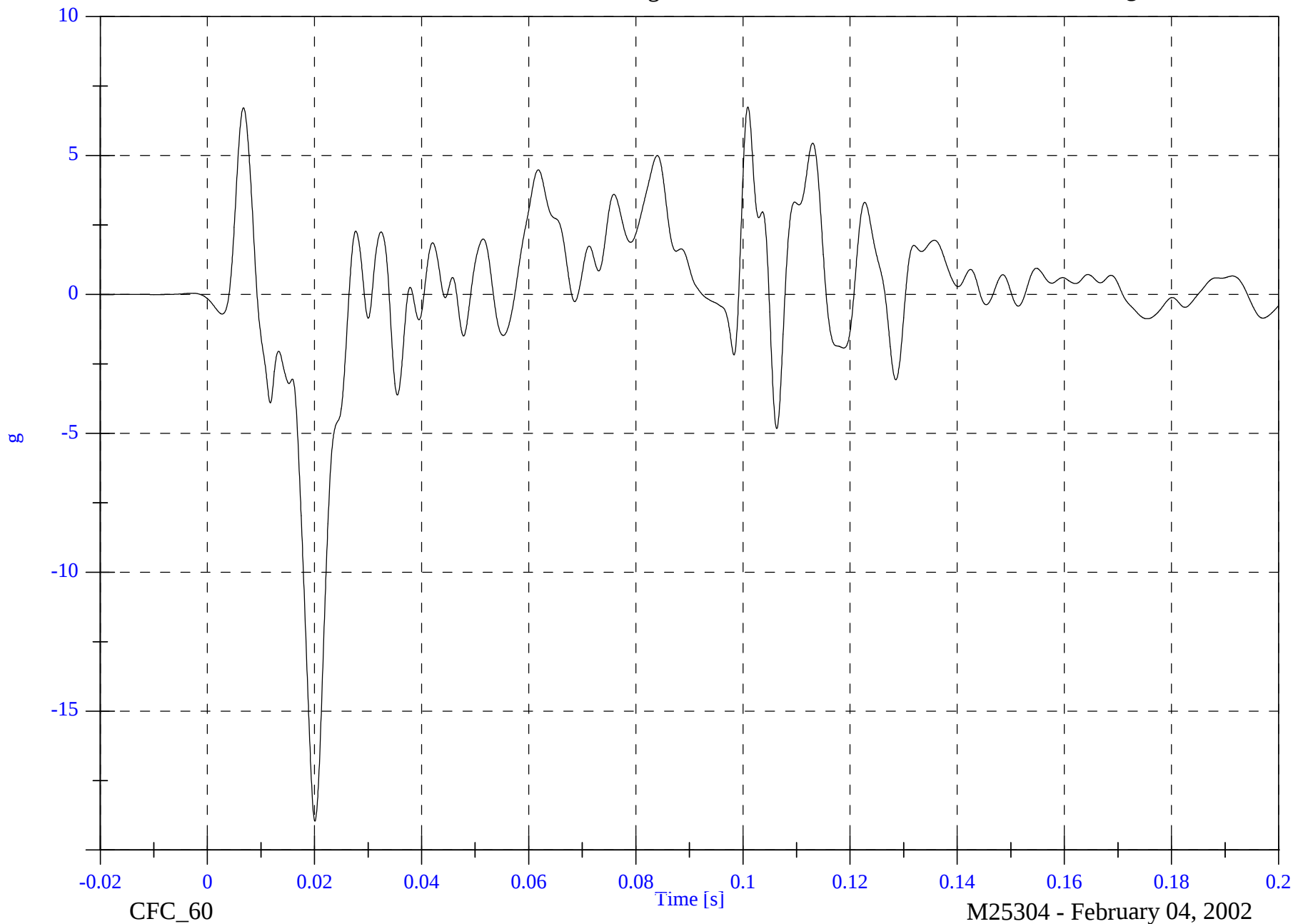
A2 Right Rear Sill Z

Max: 6.8 [g] at 0.101 [s]

Min: -19.0 [g] at 0.020 [s]

B-36

8652-SNCAP-01



2002 SNCAP Test 1 - 2002 Acura RSX

A2 Right Rear Sill Z Velocity

Max: 1.5 [kph] at 0.170 [s]

Min: -3.7 [kph] at 0.037 [s]



B-37

8652-SNCAP-01

2002 SMCAP Test 1 - 2002 Acura RSX

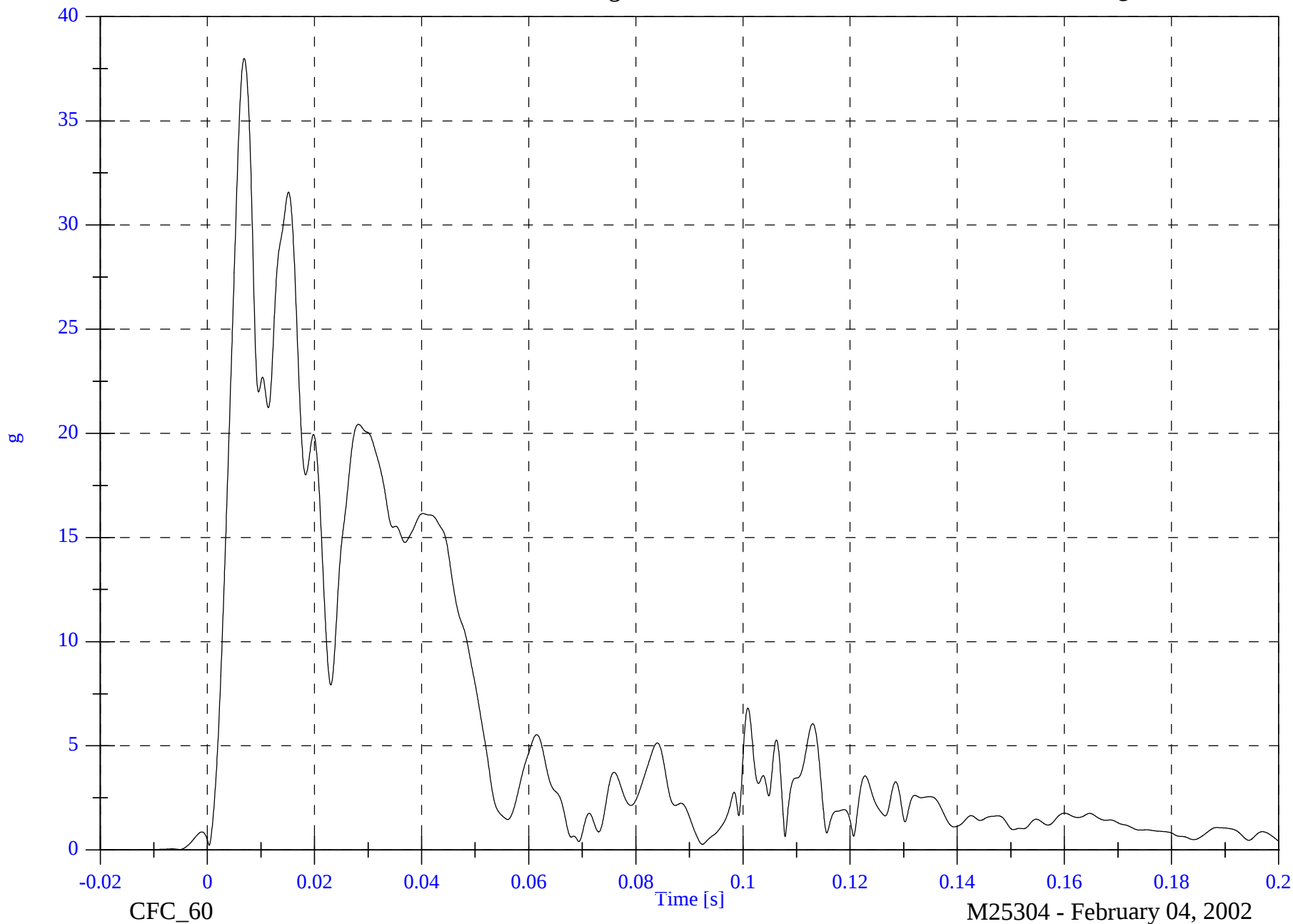
A2 Right Rear Sill Resultant

Max: 38.0 [g] at 0.007 [s]

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

B-38

8652-SMCAP-01



2002 SNCAP Test 1 - 2002 Acura RSX

A3 Rear Floorpan X

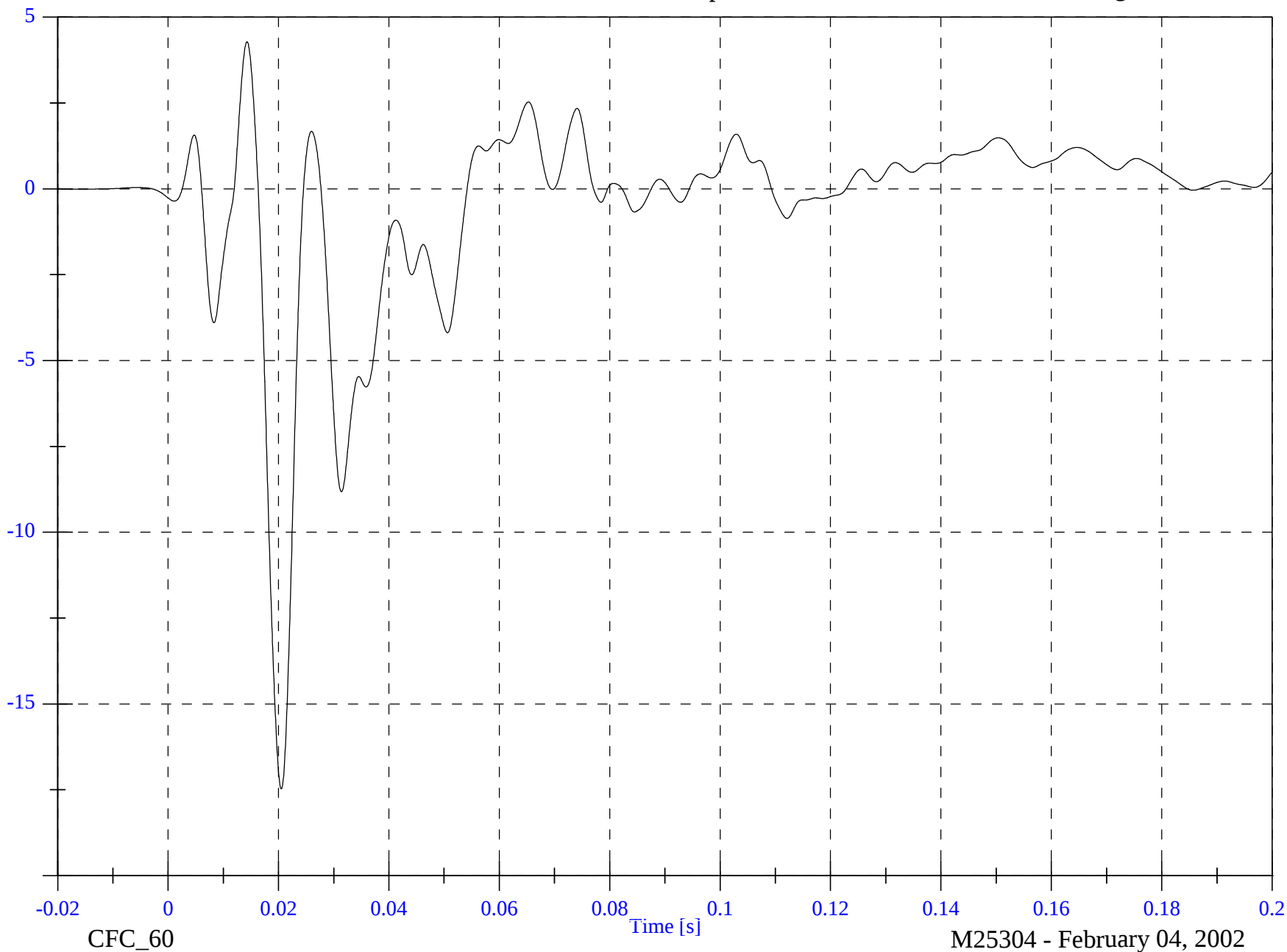
Max: 4.3 [g] at 0.014 [s]

Min: -17.5 [g] at 0.021 [s]

B-39

8652-SNCAP-01

g



2002 SNCAP Test 1 - 2002 Acura RSX

A3 Rear Floorpan X Velocity

Max: 0.3 [kph] at 0.007 [s]

Min: -6.0 [kph] at 0.054 [s]

B-40

8652-SNCAP-01



2002 SNCAP Test 1 - 2002 Acura RSX

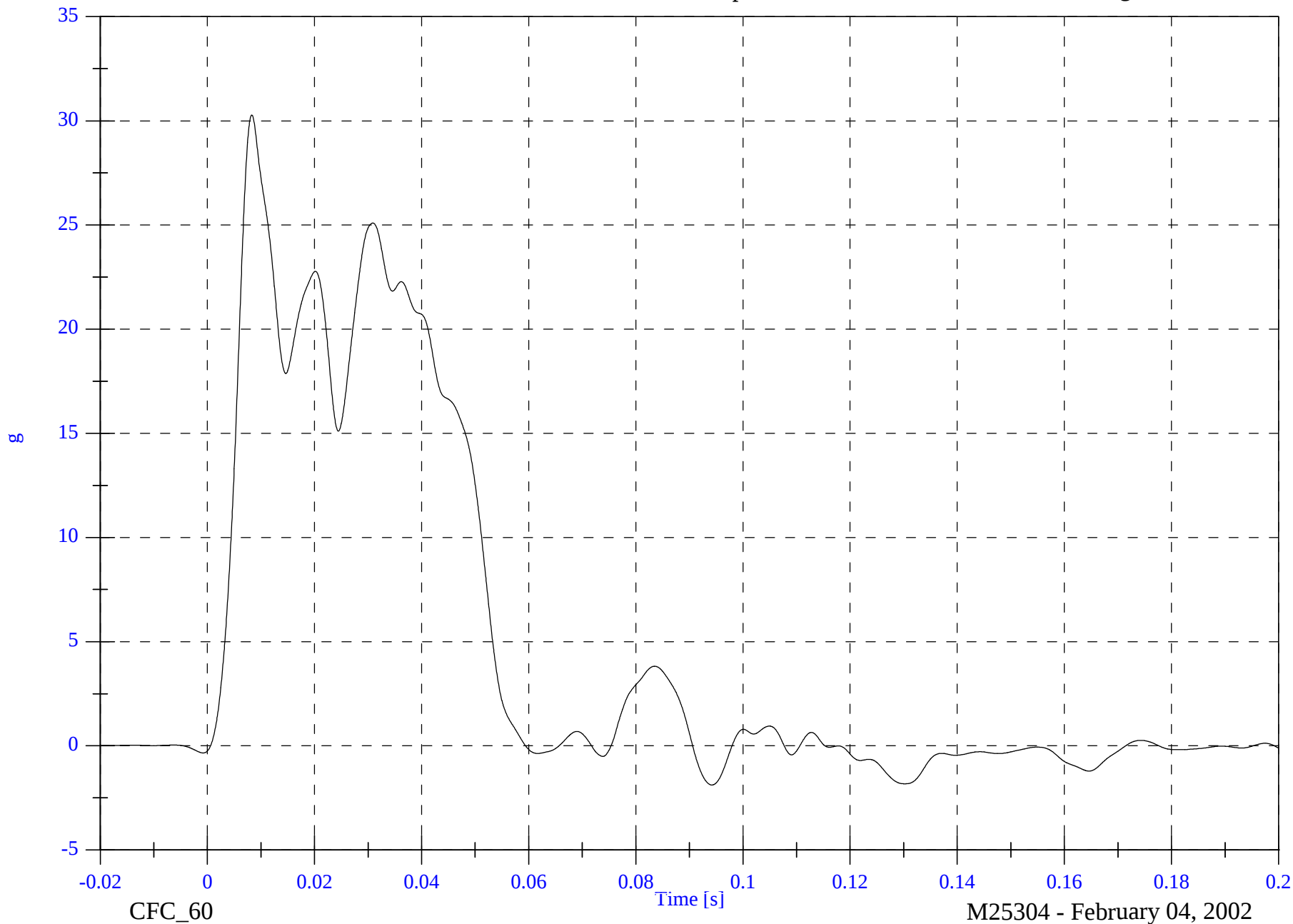
A3 Rear Floorpan Y

Max: 30.3 [g] at 0.008 [s]

Min: -1.9 [g] at 0.094 [s]

B-41

8652-SNCAP-01

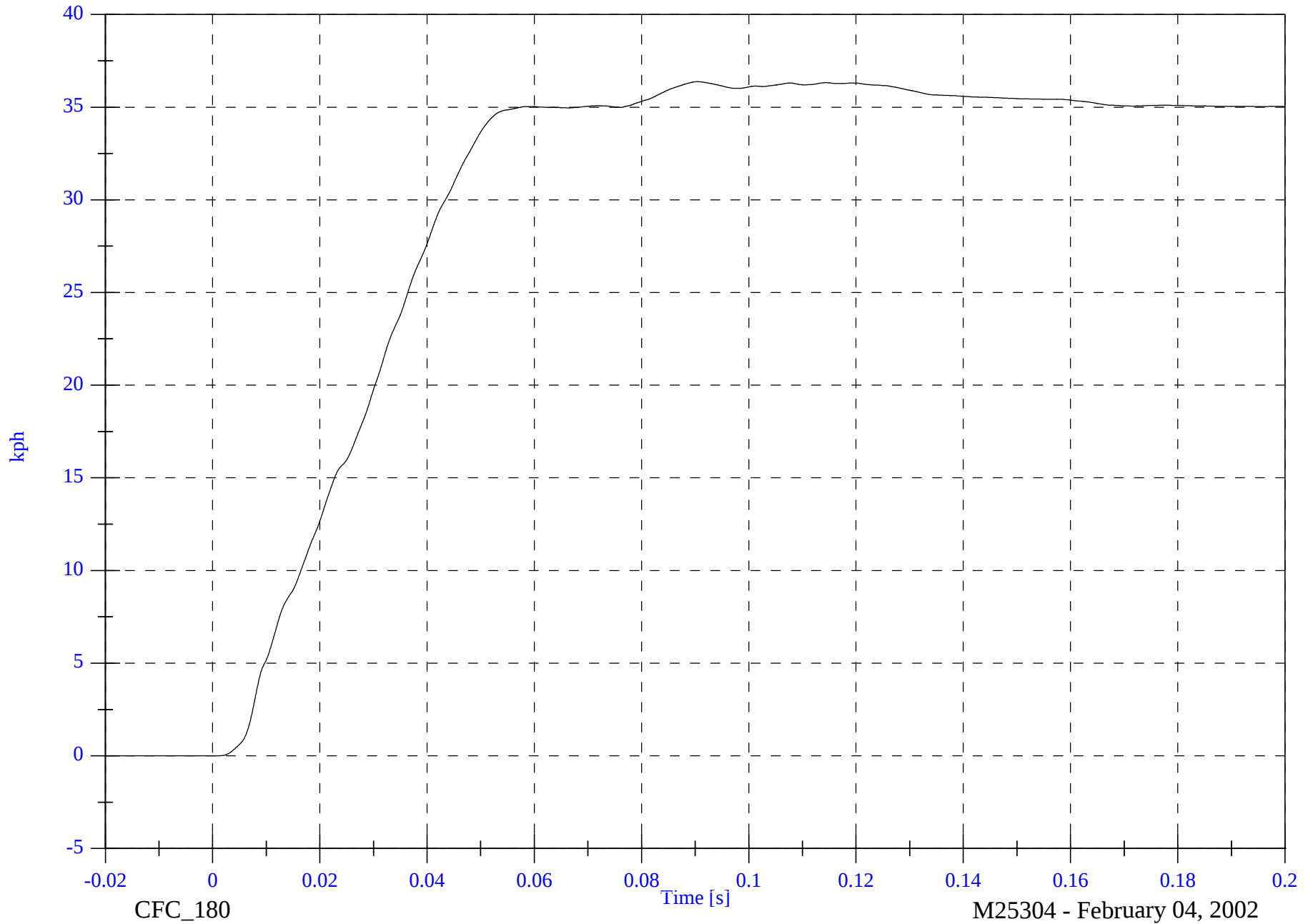


2002 SNCAP Test 1 - 2002 Acura RSX

A3 Rear Floorpan Y Velocity

Max: 36.4 [kph] at 0.090 [s]

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



B-42

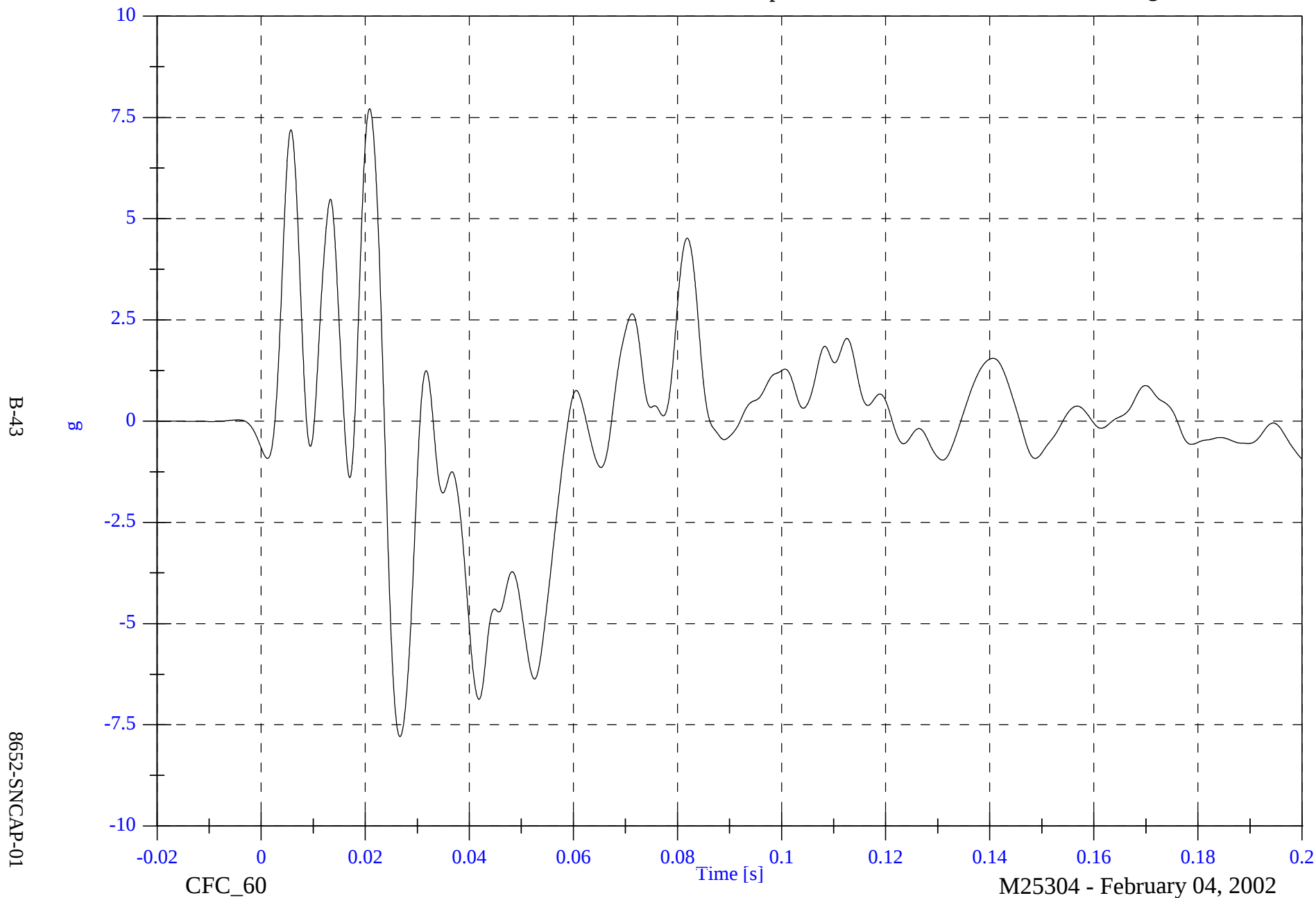
8652-SNCAP-01

2002 SNCAP Test 1 - 2002 Acura RSX

A3 Rear Floorplan Z

Max: 7.7 [g] at 0.021 [s]

Min: -7.8 [g] at 0.027 [s]



2002 SNCAP Test 1 - 2002 Acura RSX

A3 Rear Floorplan Z Velocity

Max: 2.4 [kph] at 0.024 [s]

Min: -2.5 [kph] at 0.067 [s]

B-44

8652-SNCAP-01



2002 SNCAP Test 1 - 2002 Acura RSX

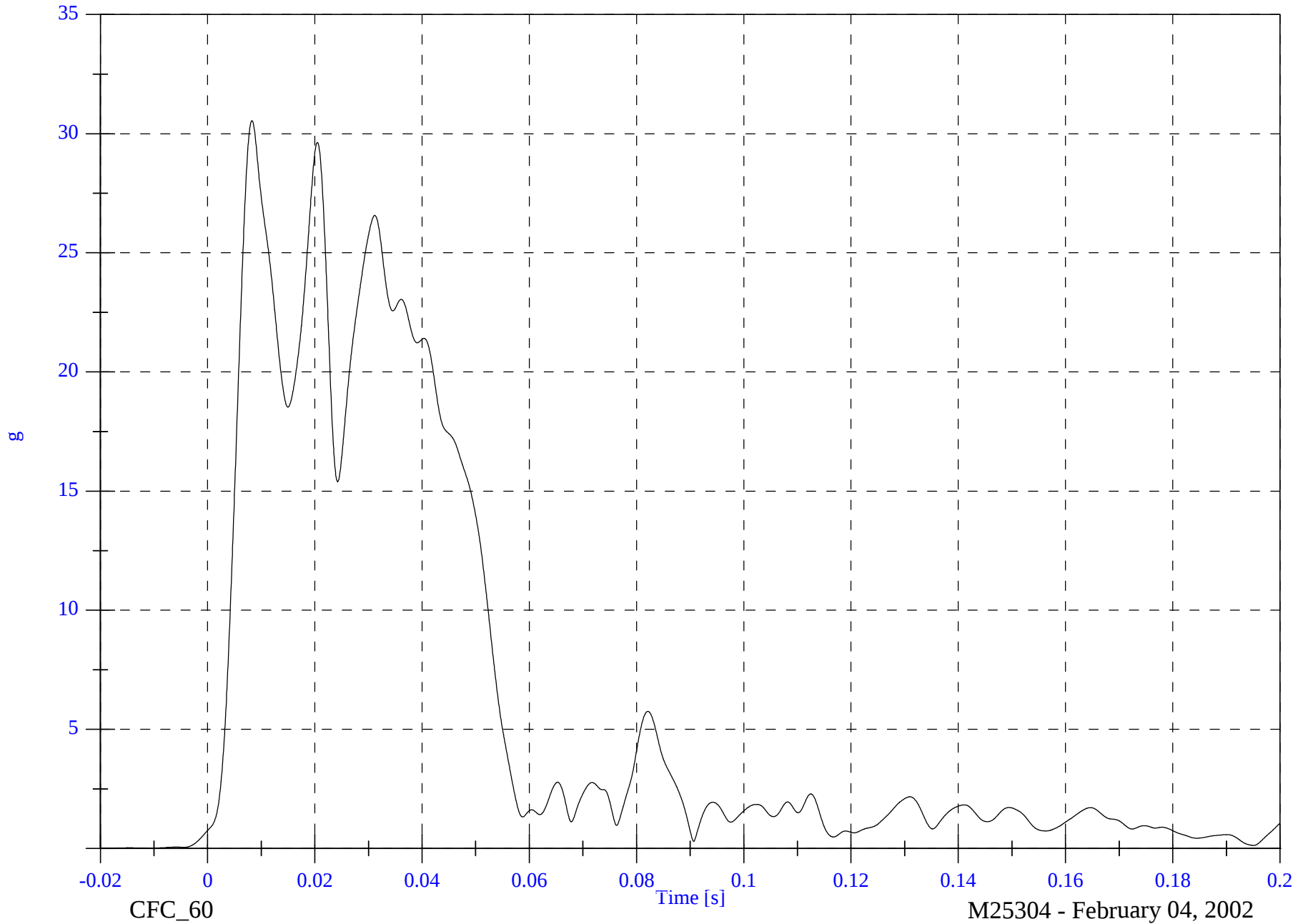
A3 Rear Floorpan Resultant

Max: 30.5 [g] at 0.008 [s]

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

B-45

8652-SNCAP-01



2002 SNCAP Test 1 - 2002 Acura RSX

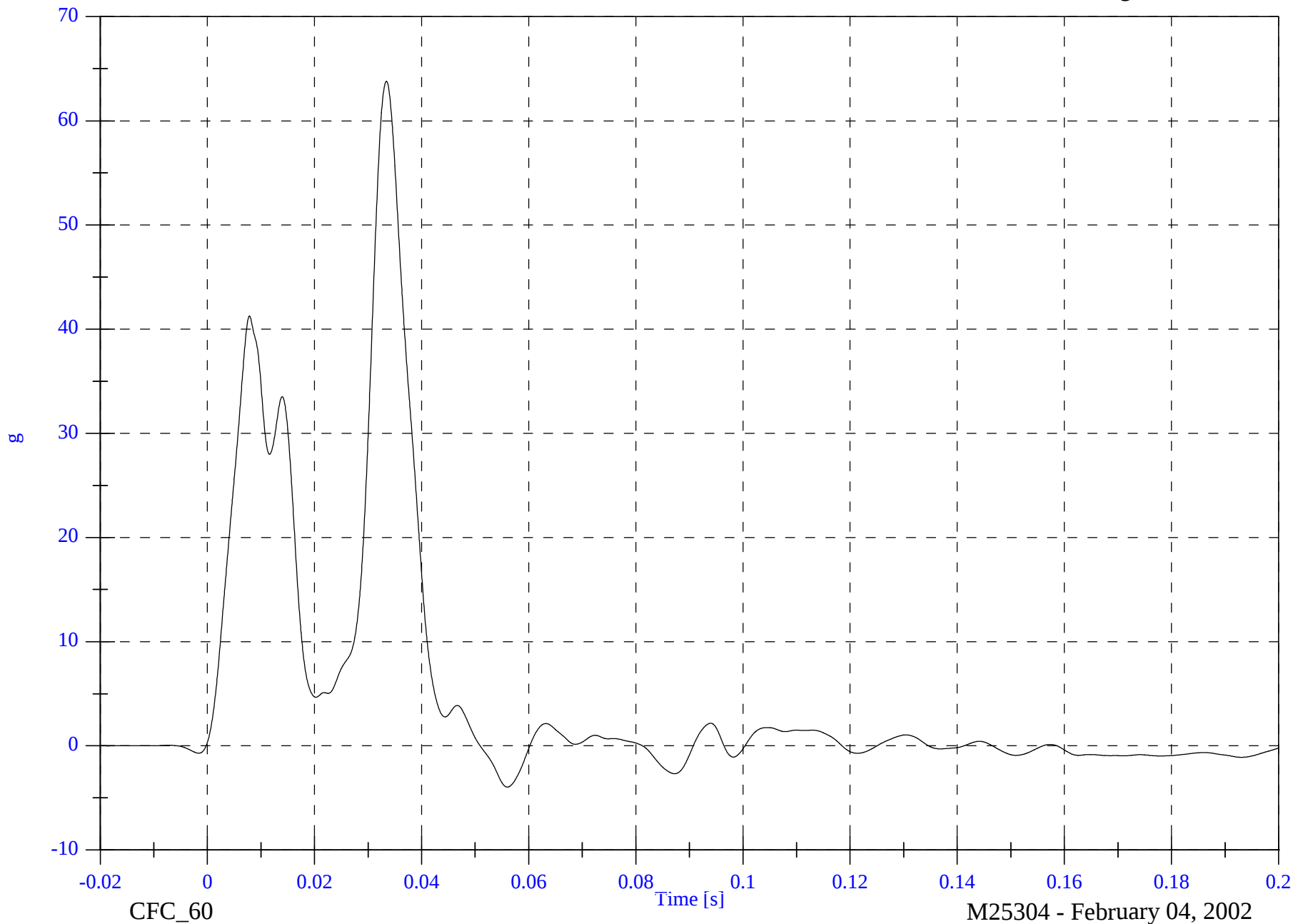
A4 Left Rear Sill Y

Max: 63.8 [g] at 0.033 [s]

Min: -4.0 [g] at 0.056 [s]

B-46

8652-SNCAP-01

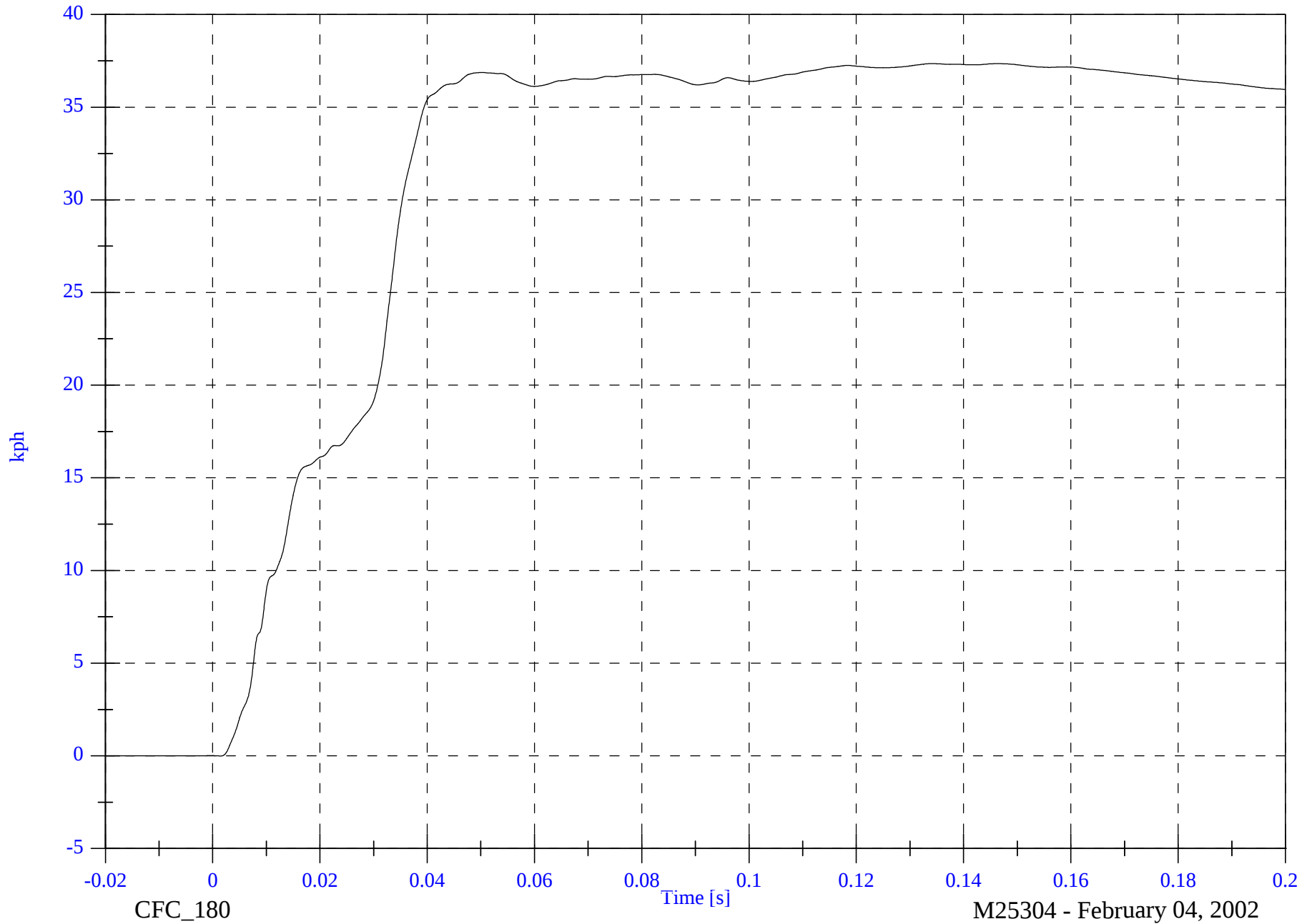


2002 SNCAP Test 1 - 2002 Acura RSX

A4 Left Rear Sill Y Velocity

Max: 37.4 [kph] at 0.134 [s]

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



B-47

8652-SNCAP-01

2002 SNCAP Test 1 - 2002 Acura RSX

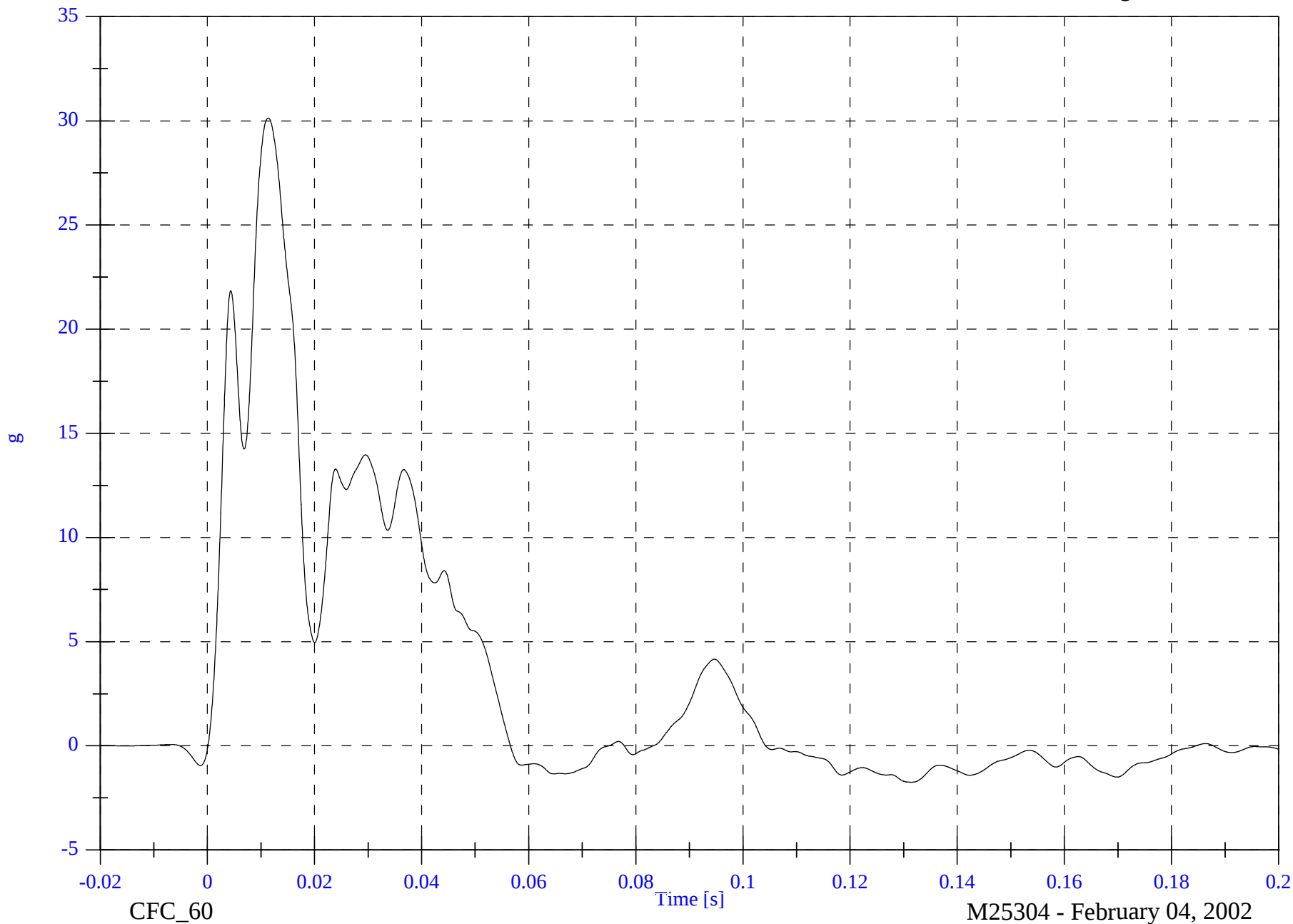
A5 Left Front Sill Y

Max: 30.1 [g] at 0.011 [s]

Min: -1.8 [g] at 0.131 [s]

B-48

8652-SNCAP-01

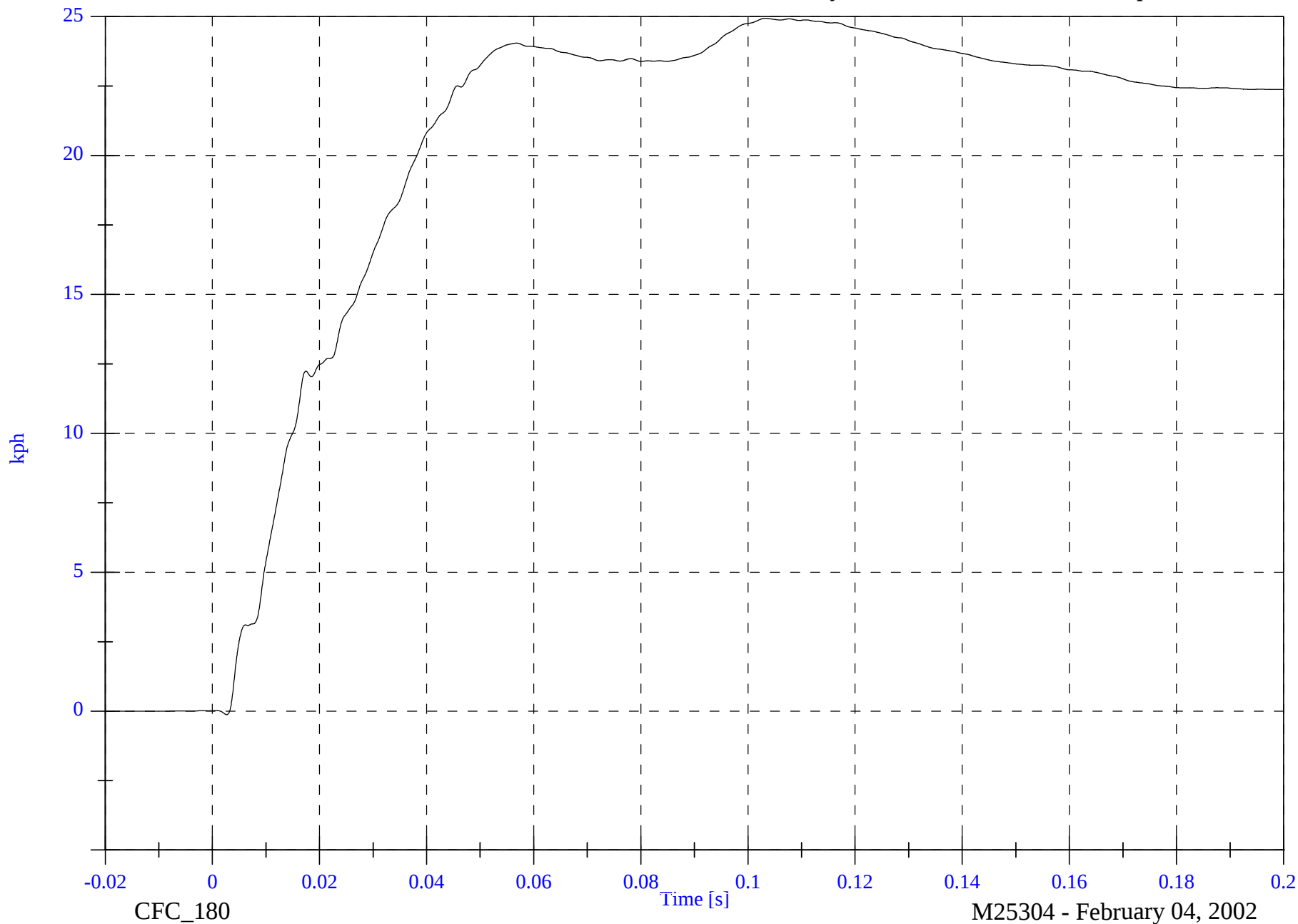


2002 SNCAP Test 1 - 2002 Acura RSX

Max: 24.9 [kph] at 0.103 [s]

A5 Left Front Sill Y Velocity

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



B-49

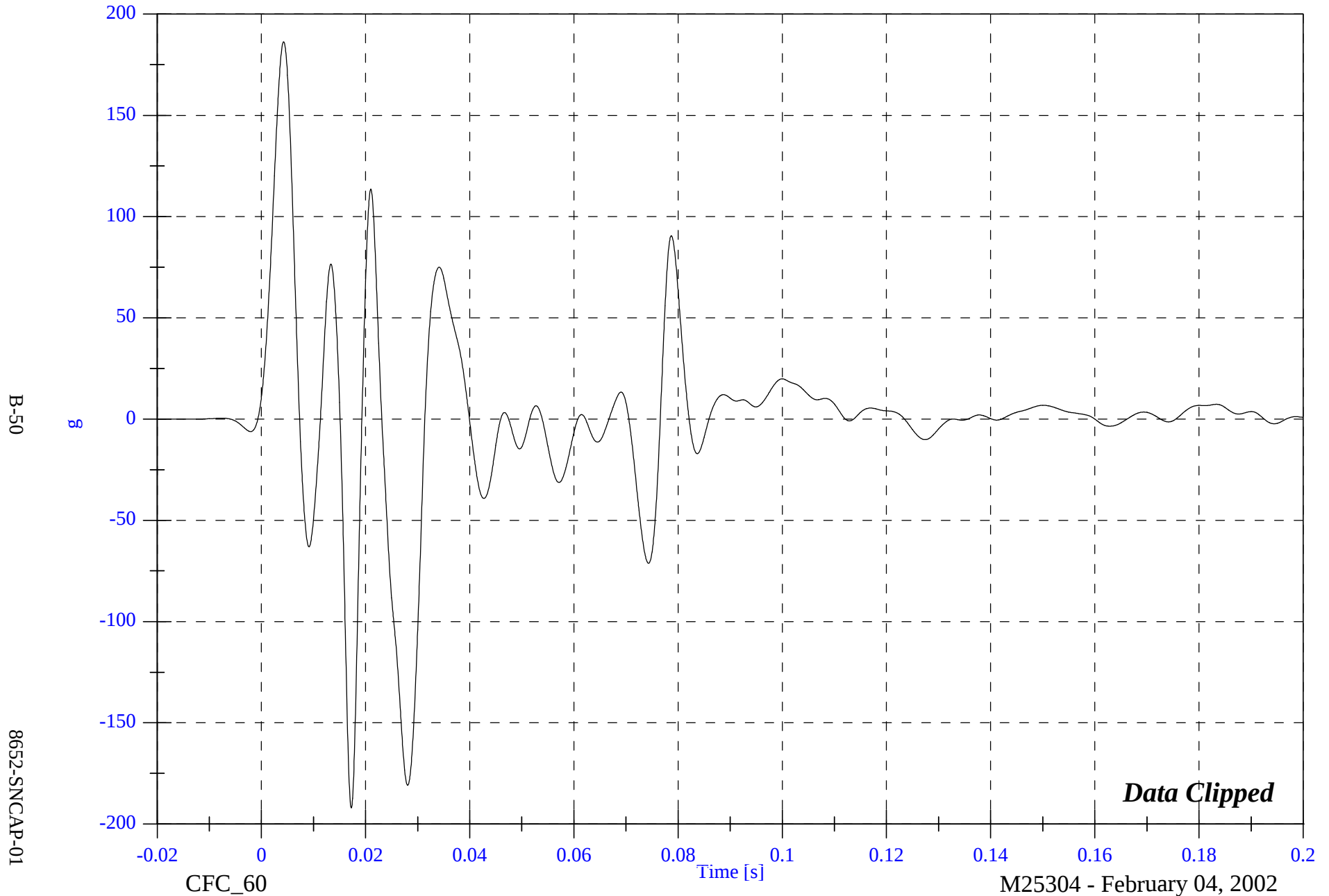
8652-SNCAP-01

2002 SMCAP Test 1 - 2002 Acura RSX

A6 Left Front Door CL Y

Max: 186.4 [g] at 0.004 [s]

Min: -192.1 [g] at 0.017 [s]



2002 SENCAP Test 1 - 2002 Acura RSX

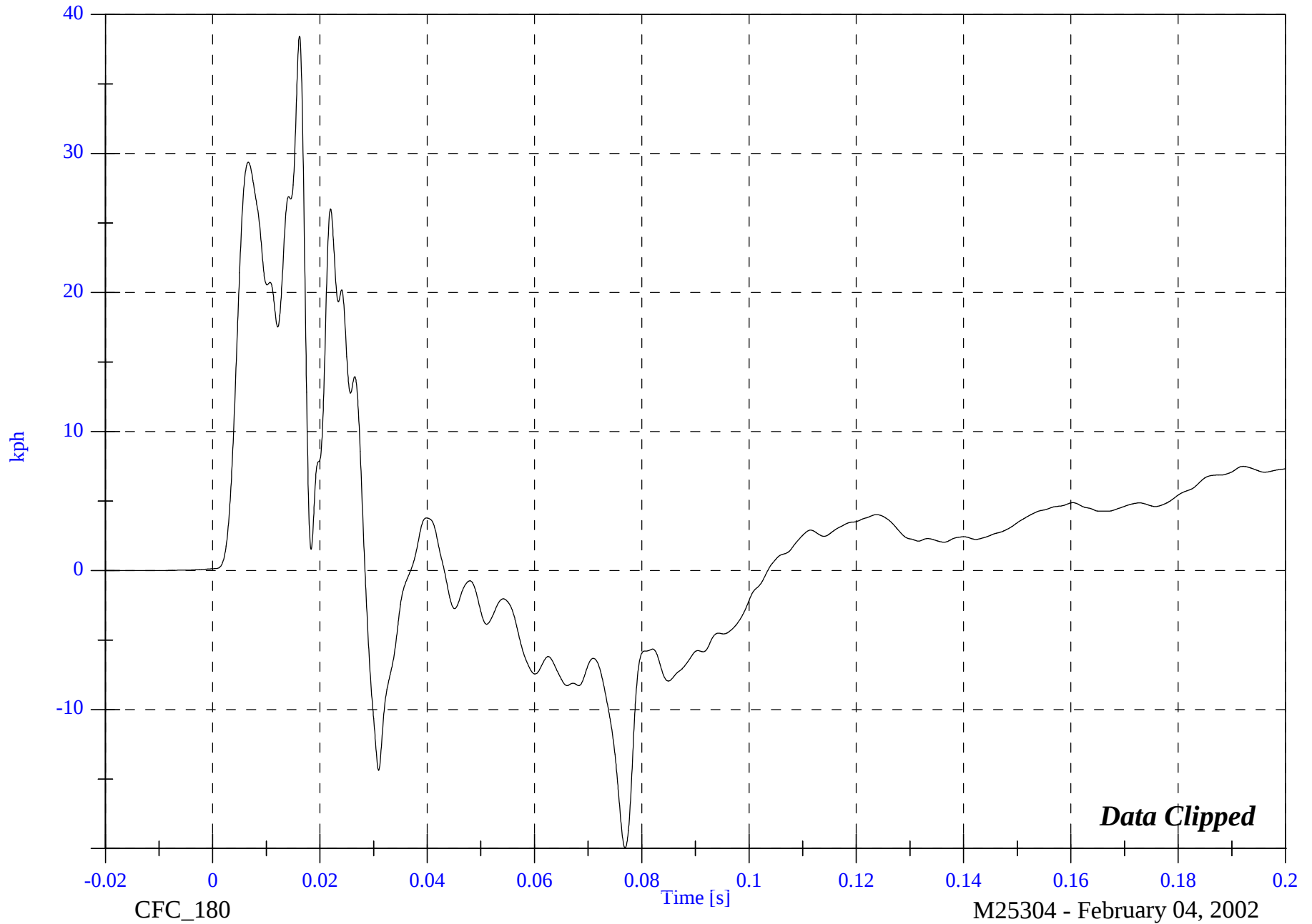
A6 Left Front Door CL Y Velocity

Max: 38.4 [kph] at 0.016 [s]

Min: -20.0 [kph] at 0.077 [s]

B-51

8652-SENCAP-01



2002 SENCAP Test 1 - 2002 Acura RSX

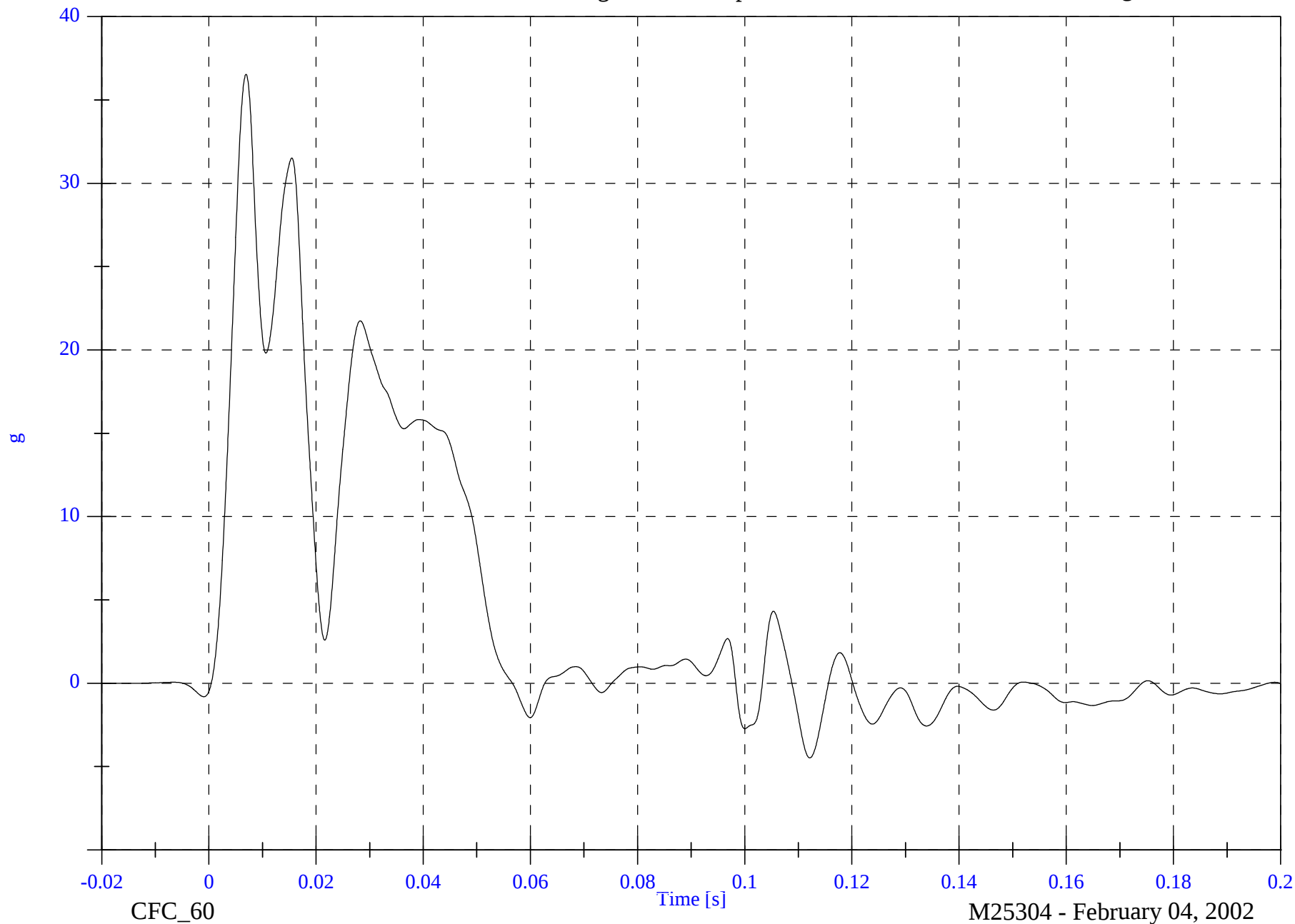
A7 Right Rear Compartment Y

Max: 36.5 [g] at 0.007 [s]

Min: -4.5 [g] at 0.112 [s]

B-52

8652-SNCAP-01

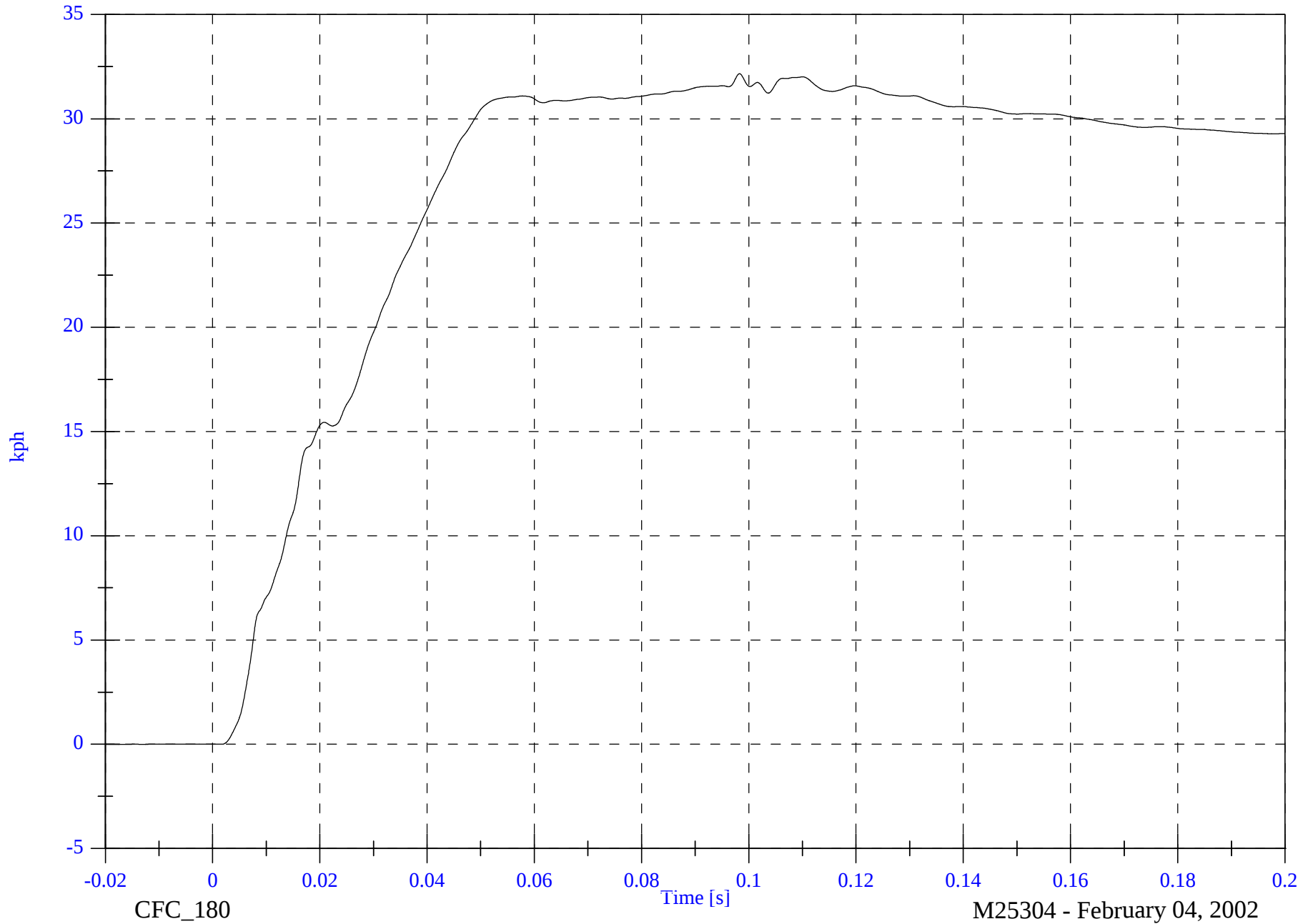


2002 SNCAP Test 1 - 2002 Acura RSX

A7 Right Rear Compartment Y Velocity

Max: 32.2 [kph] at 0.098 [s]

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



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CFC_180

M25304 - February 04, 2002

2002 SNCAP Test 1 - 2002 Acura RSX

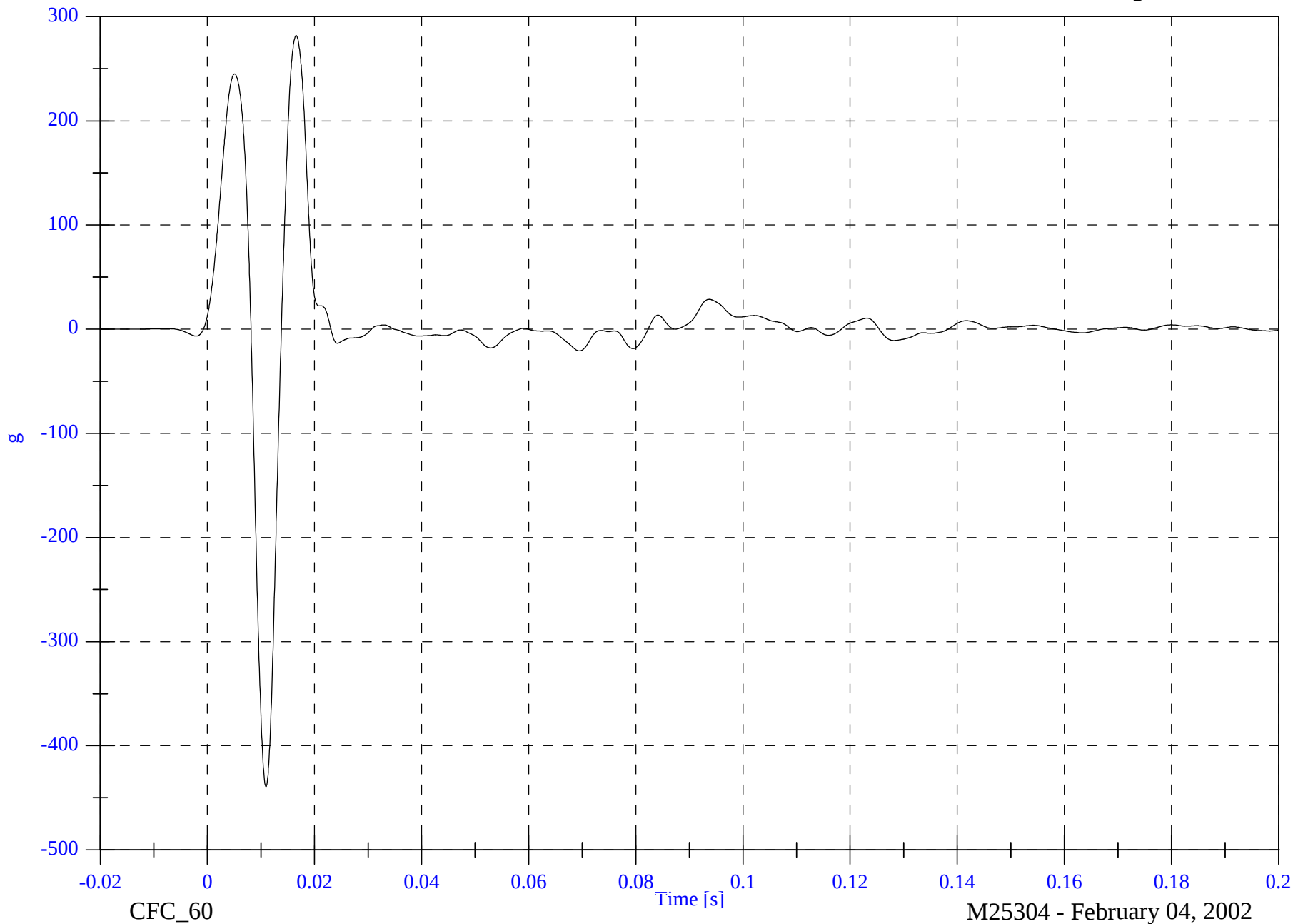
A8 Left Front Door Midrear Y

Max: 281.9 [g] at 0.017 [s]

Min: -439.4 [g] at 0.011 [s]

B-54

8652-SNCAP-01



2002 SNCAP Test 1 - 2002 Acura RSX

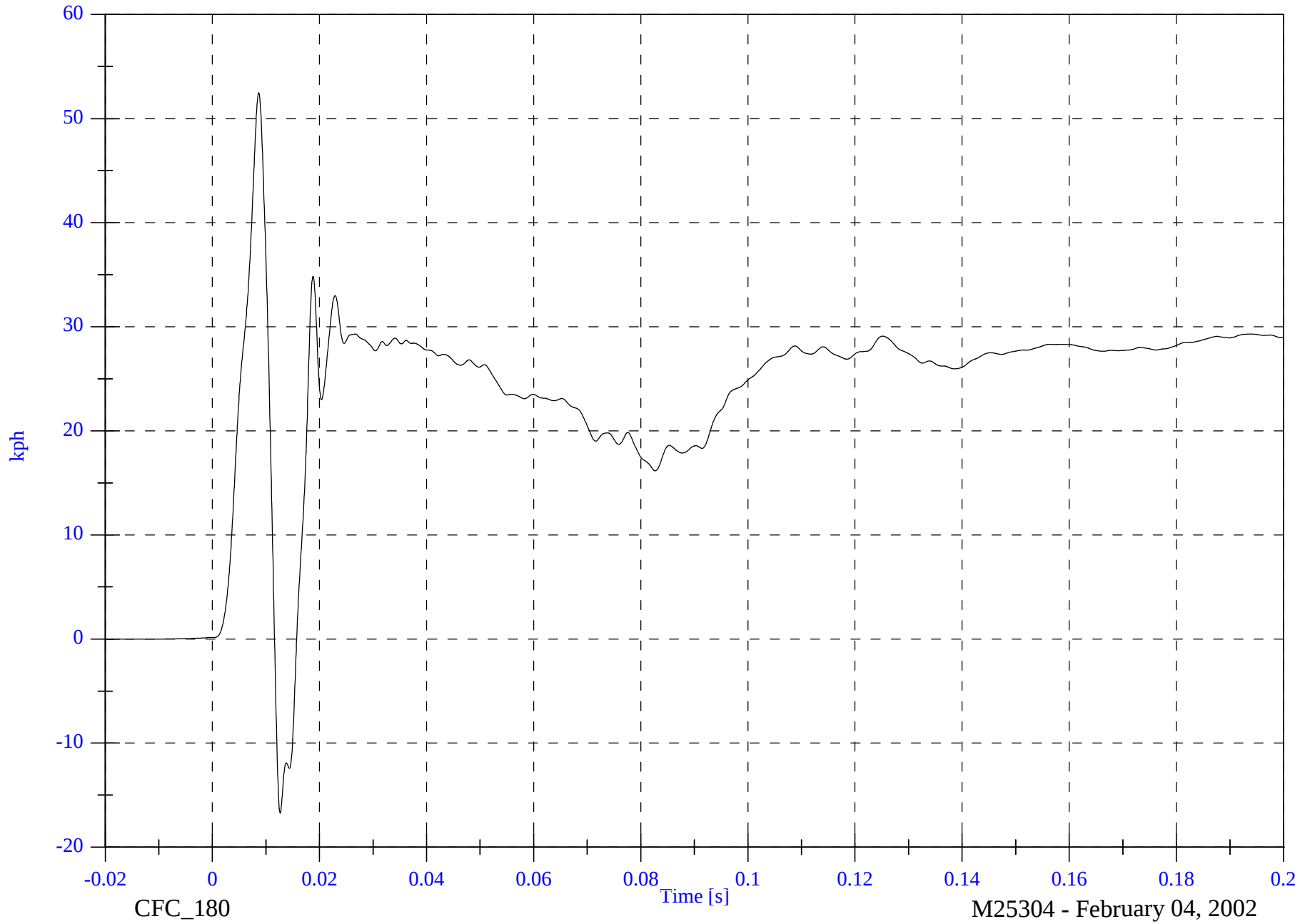
A8 Left Front Door Midrear Y Velocity

Max: 52.5 [kph] at 0.009 [s]

Min: -16.7 [kph] at 0.013 [s]

B-55

8652-SNCAP-01

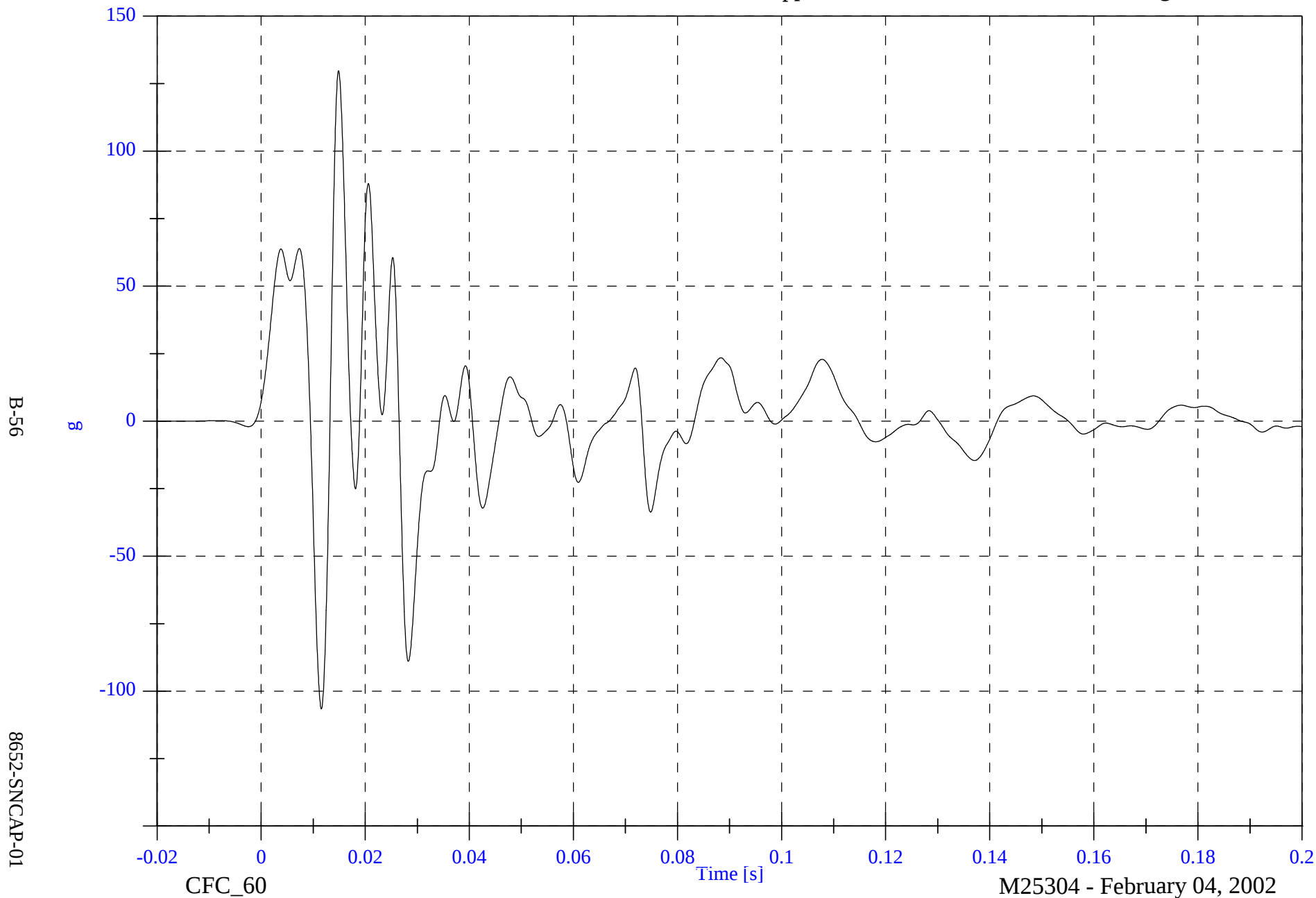


2002 SNCAP Test 1 - 2002 Acura RSX

A9 Left Front Door Upper C/L Y

Max: 129.8 [g] at 0.015 [s]

Min: -106.6 [g] at 0.012 [s]



2002 SNCAP Test 1 - 2002 Acura RSX

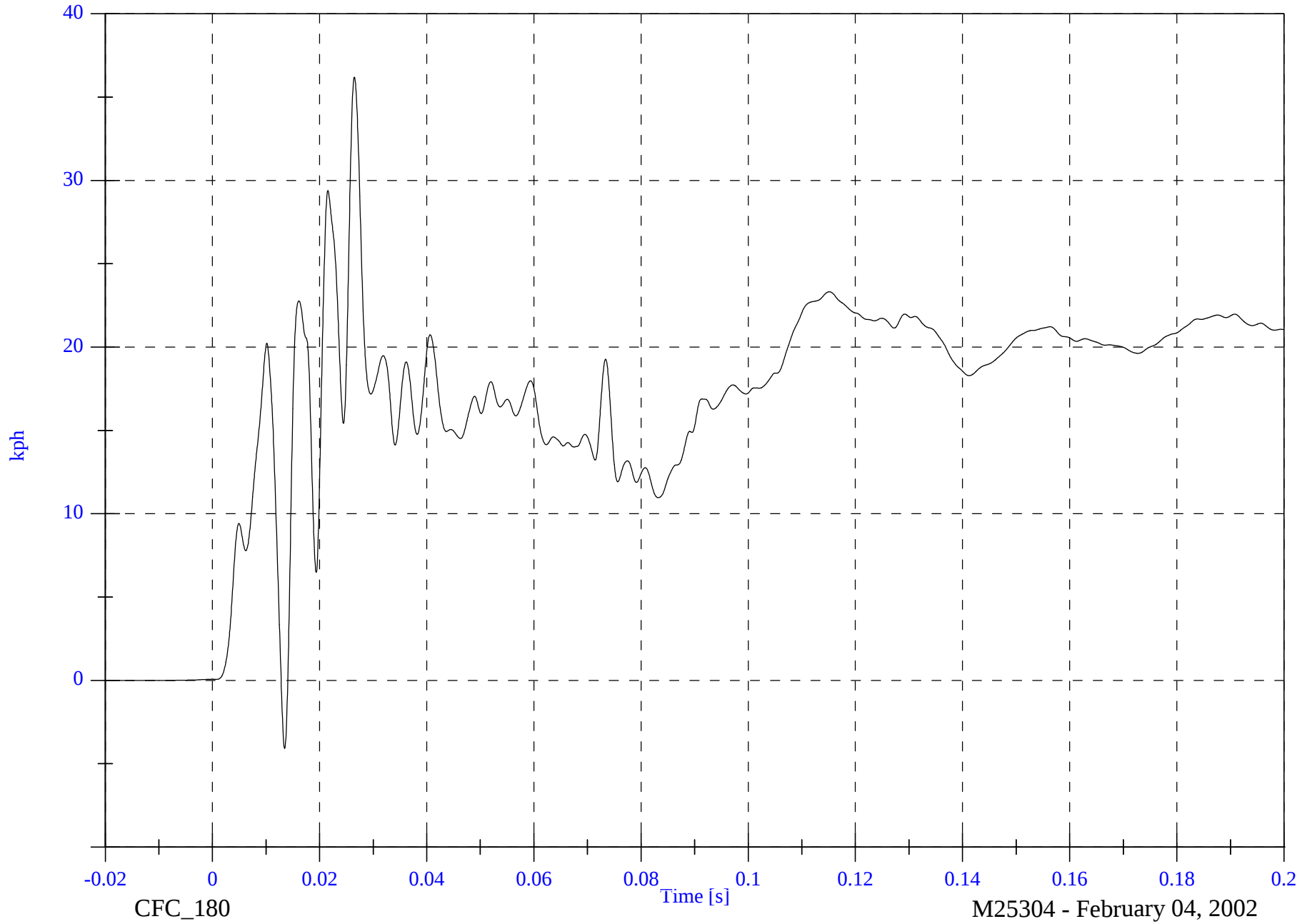
A9 Left Front Door Upper C/L Y Velocity

Max: 36.2 [kph] at 0.027 [s]

Min: -4.1 [kph] at 0.013 [s]

B-57

8652-SNCAP-01



2002 SNCAP Test 1 - 2002 Acura RSX

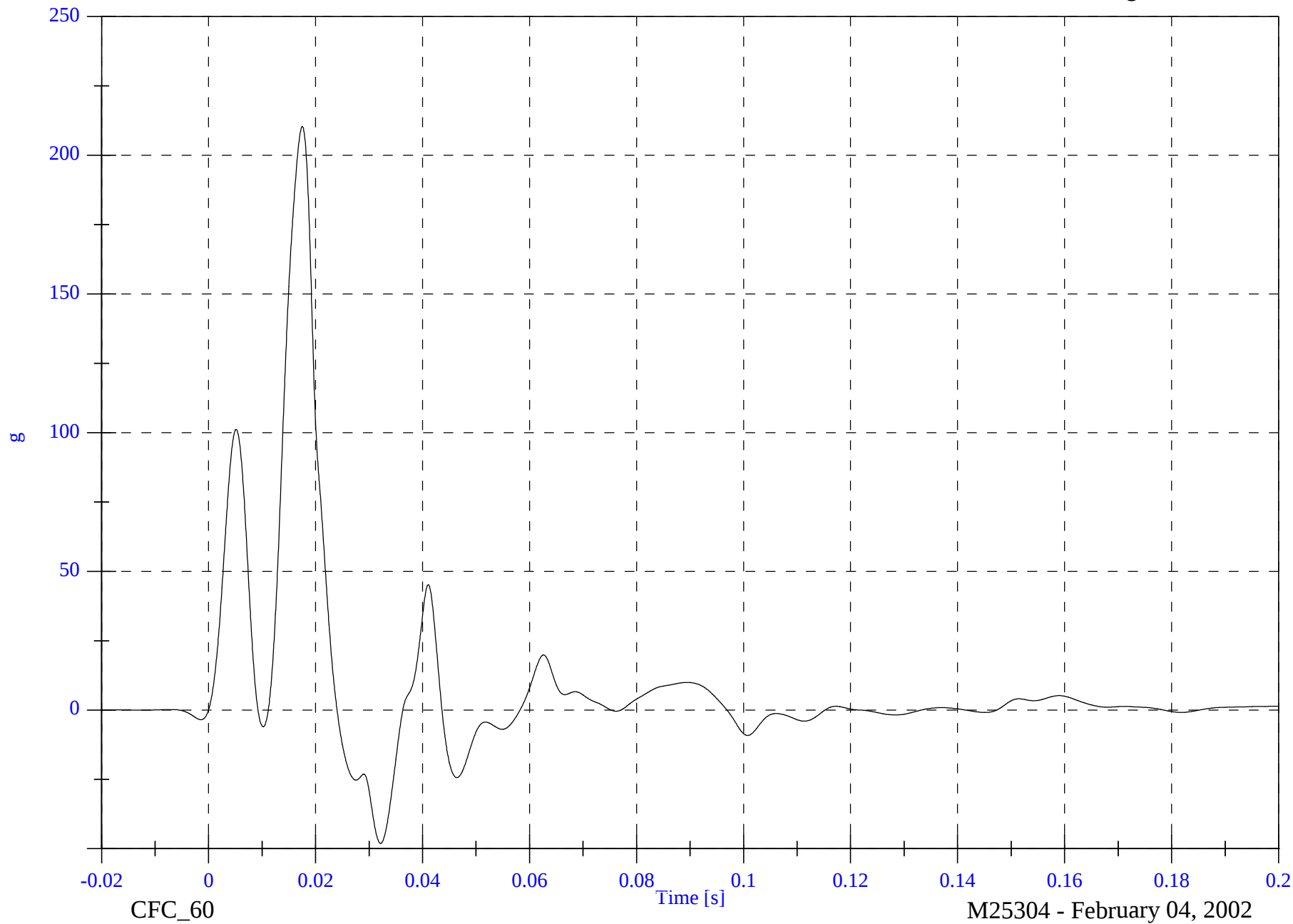
A10 Left Rear Door Midrear Y

Max: 210.4 [g] at 0.018 [s]

Min: -48.1 [g] at 0.032 [s]

B-58

8652-SNCAP-01



2002 SNCAP Test 1 - 2002 Acura RSX

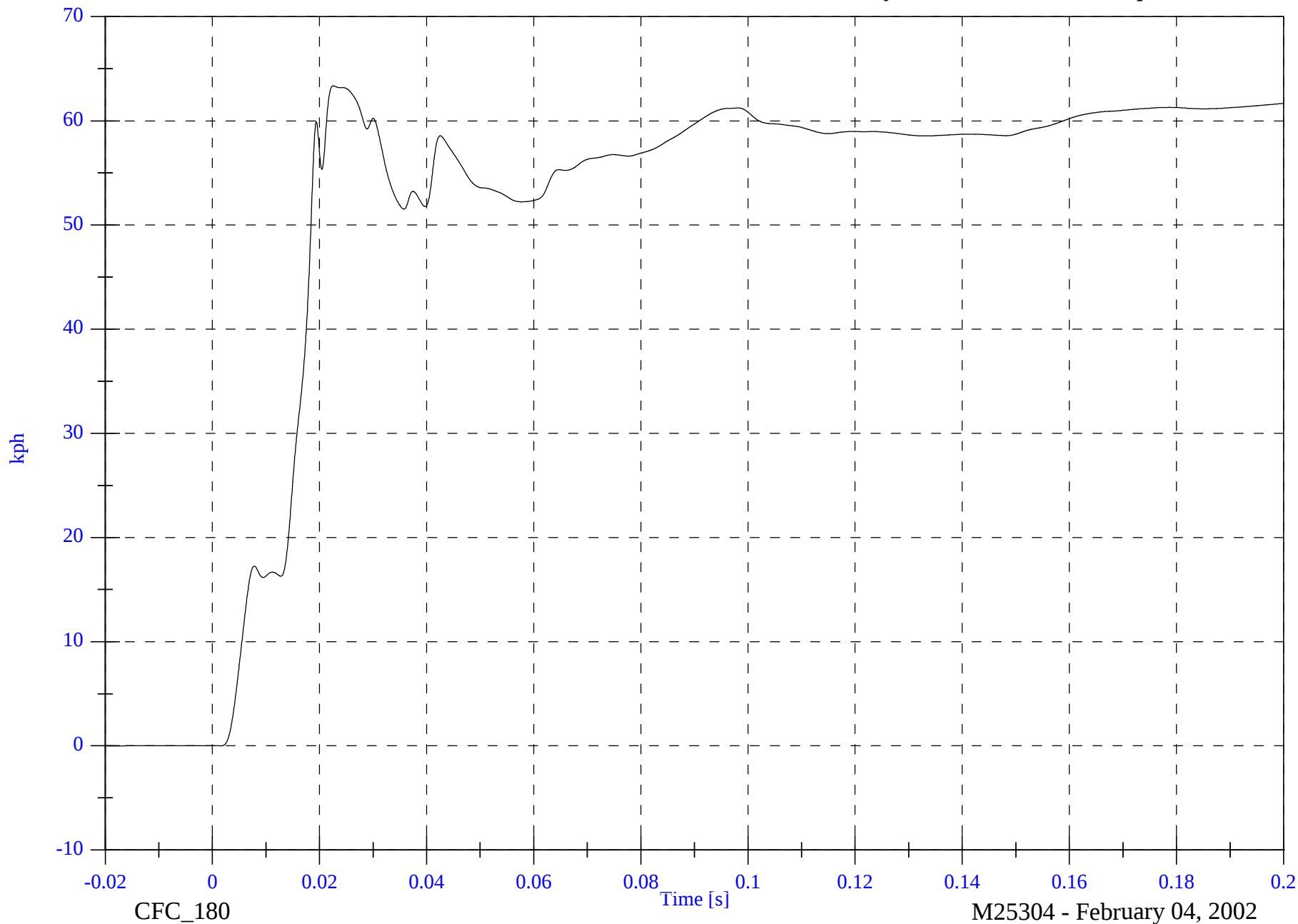
A10 Left Rear Door Midrear Y Velocity

Max: 63.4 [kph] at 0.023 [s]

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

B-59

8652-SNCAP-01

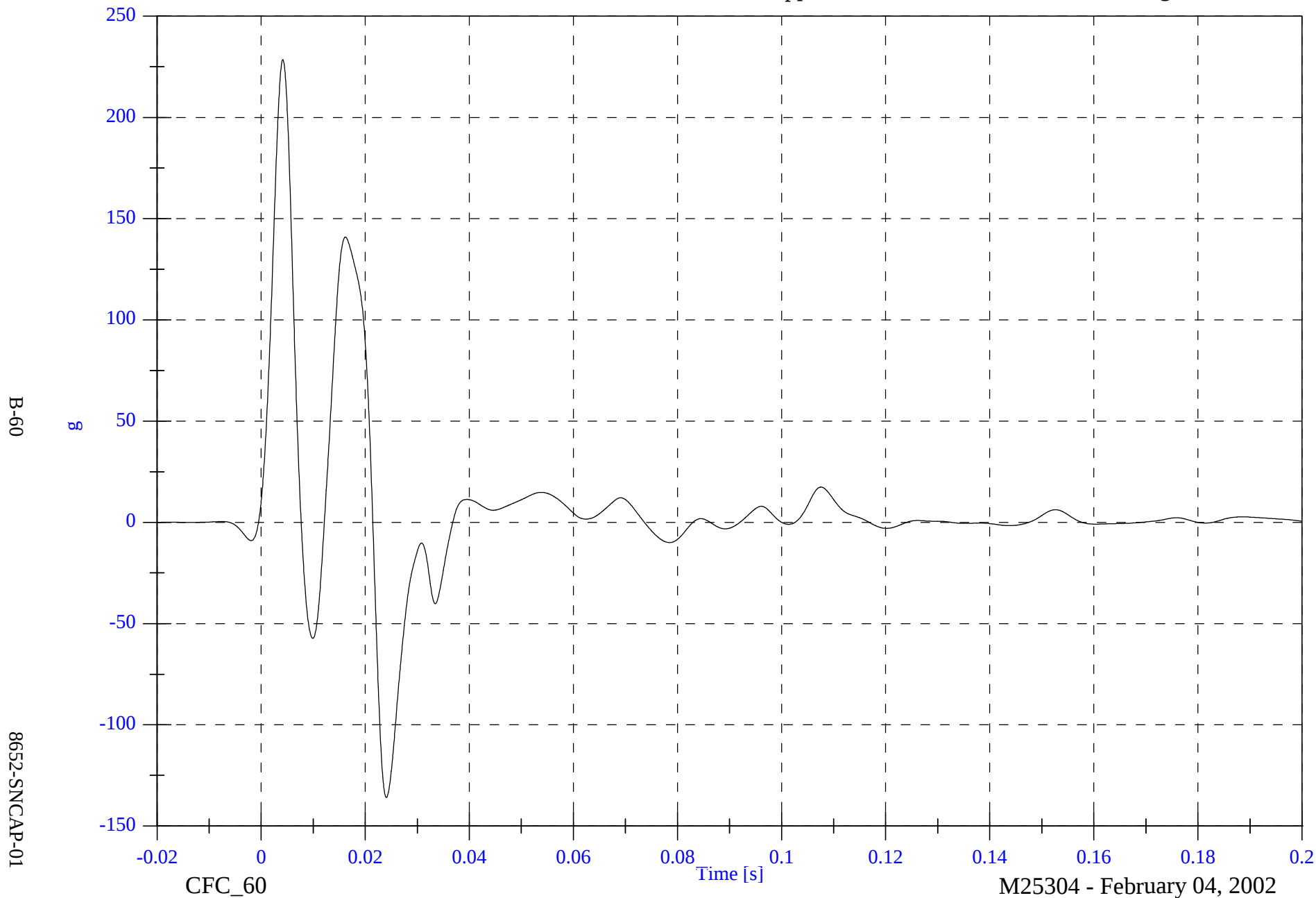


2002 SENCAP Test 1 - 2002 Acura RSX

A11 Left Rear Door Upper C/L Y

Max: 228.6 [g] at 0.004 [s]

Min: -135.9 [g] at 0.024 [s]

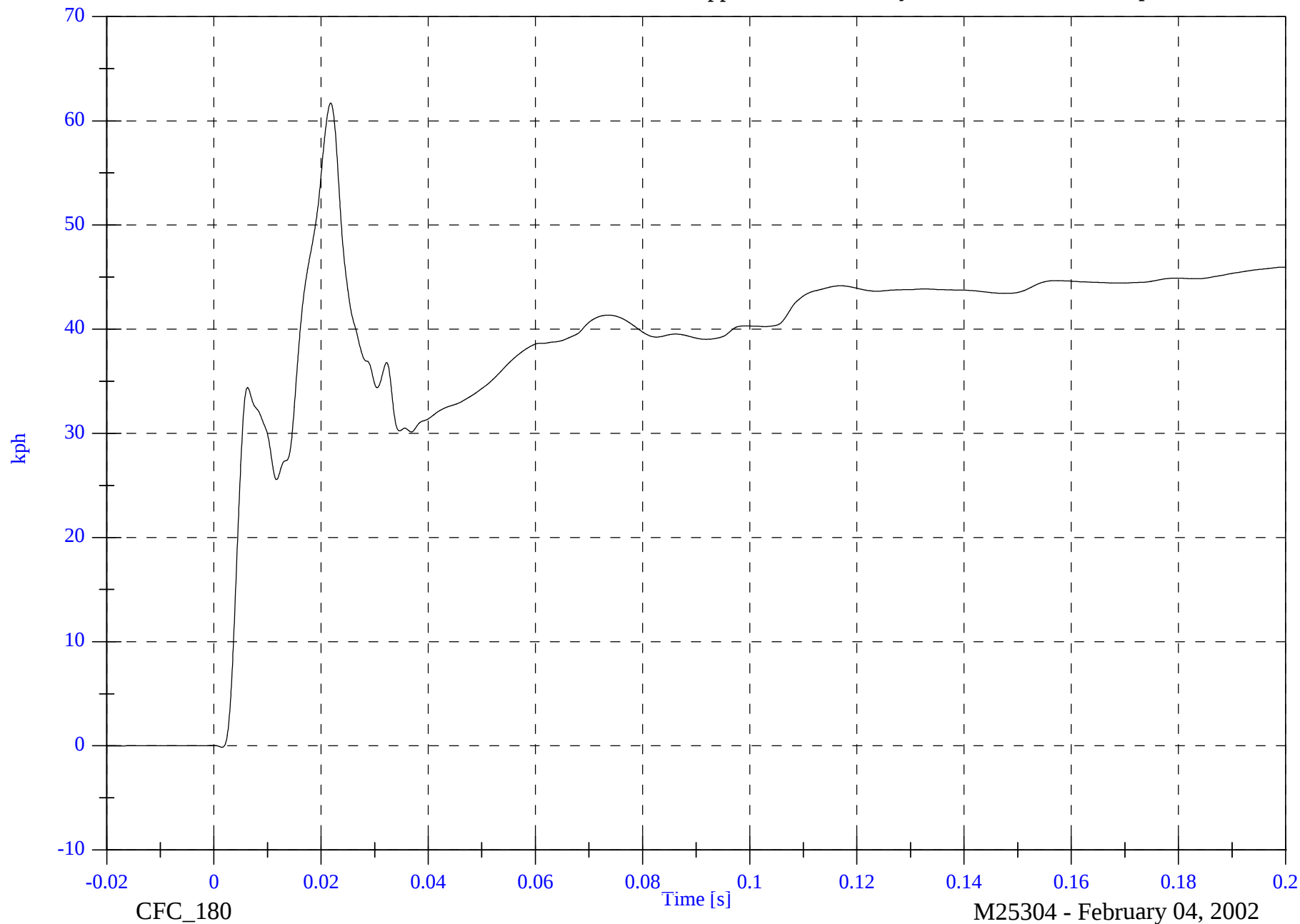


2002 SNCAP Test 1 - 2002 Acura RSX

A11 Left Rear Door Upper C/L Y Velocity

Max: 61.7 [kph] at 0.022 [s]

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



B-61

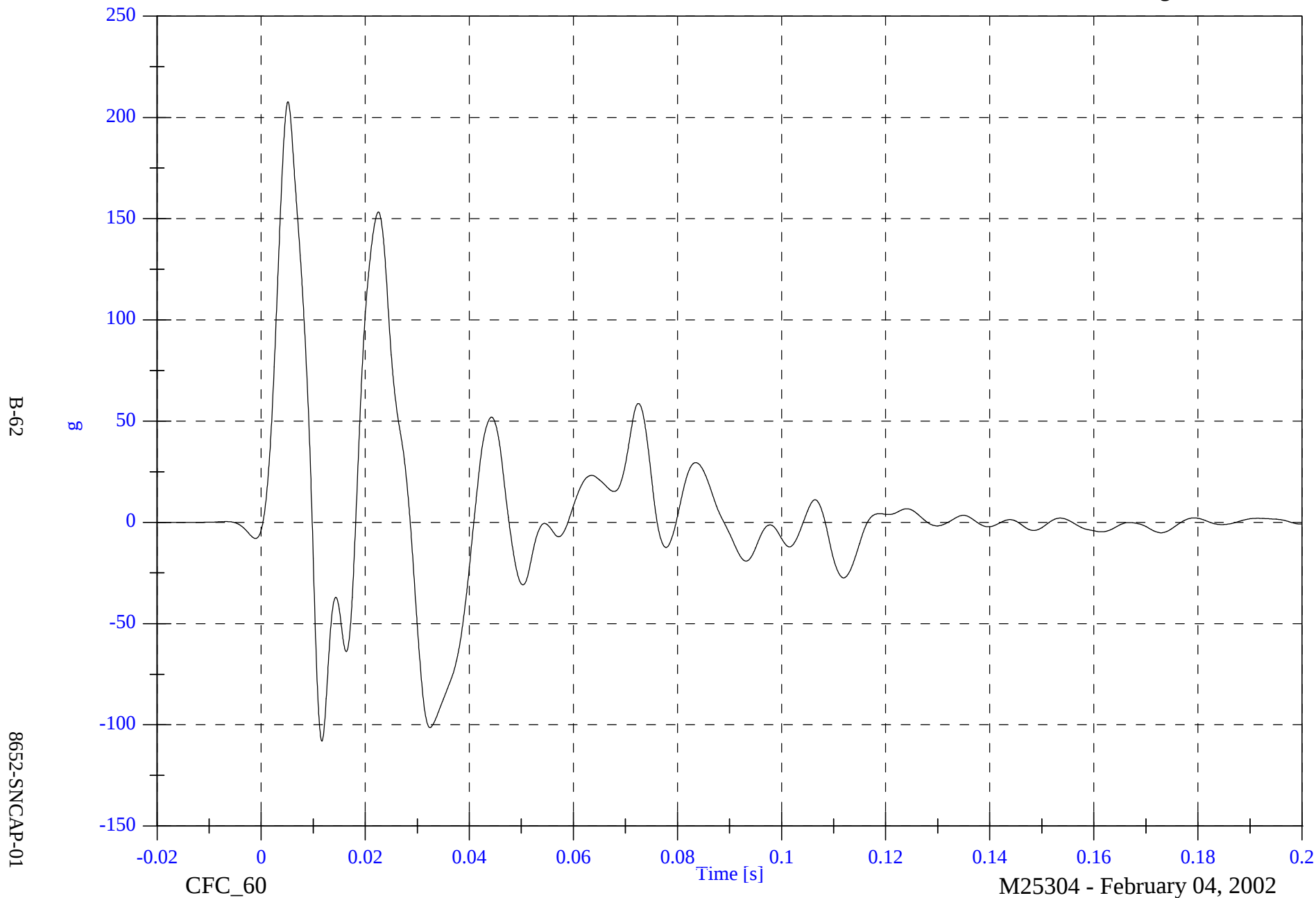
8652-SNCAP-01

2002 SNCAP Test 1 - 2002 Acura RSX

A12 Left Lower B Post Y

Max: 207.7 [g] at 0.005 [s]

Min: -108.0 [g] at 0.012 [s]



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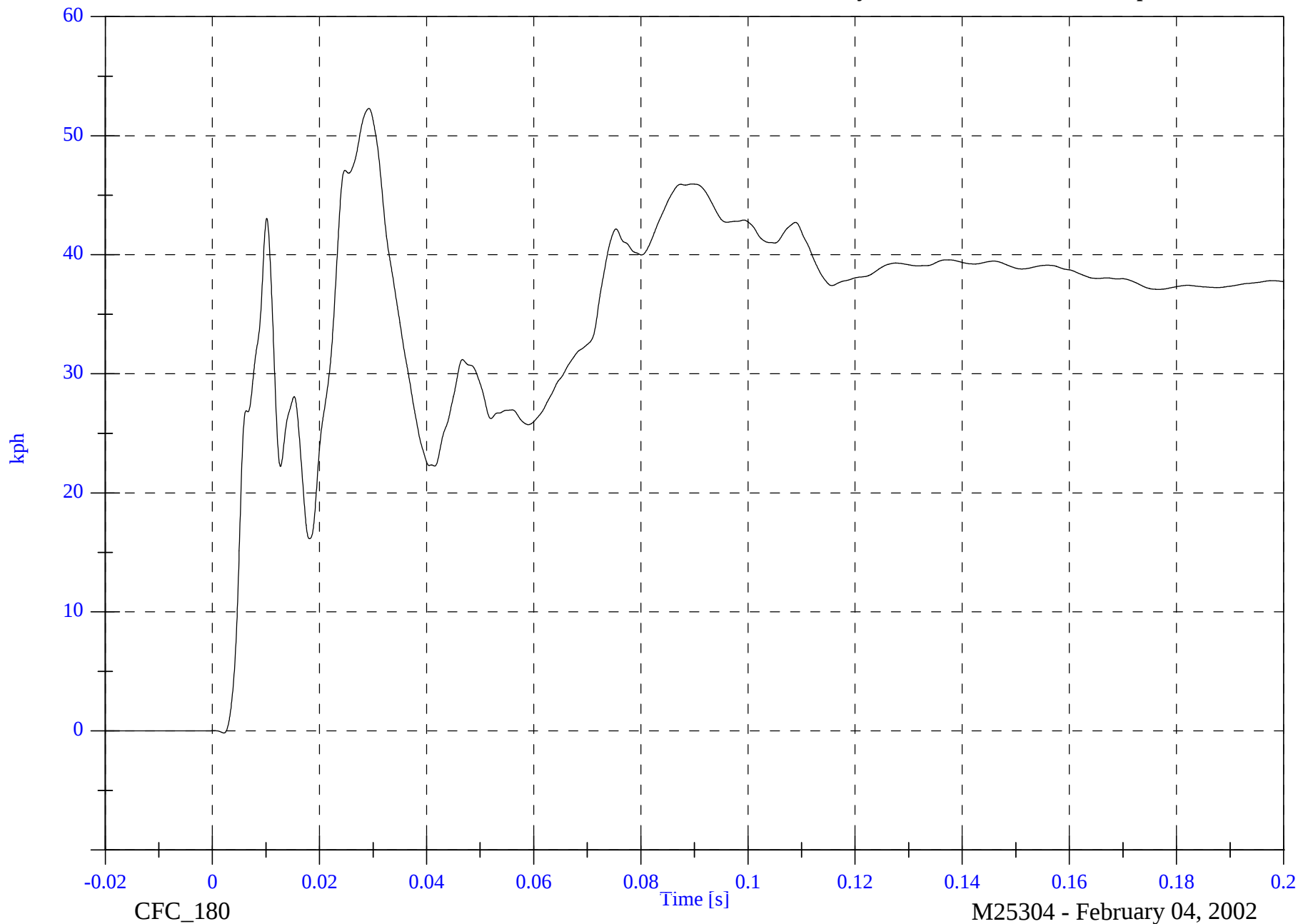
A12 Left Lower B Post Y Velocity

Max: 52.3 [kph] at 0.029 [s]

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

B-63

8652-SNCAP-01

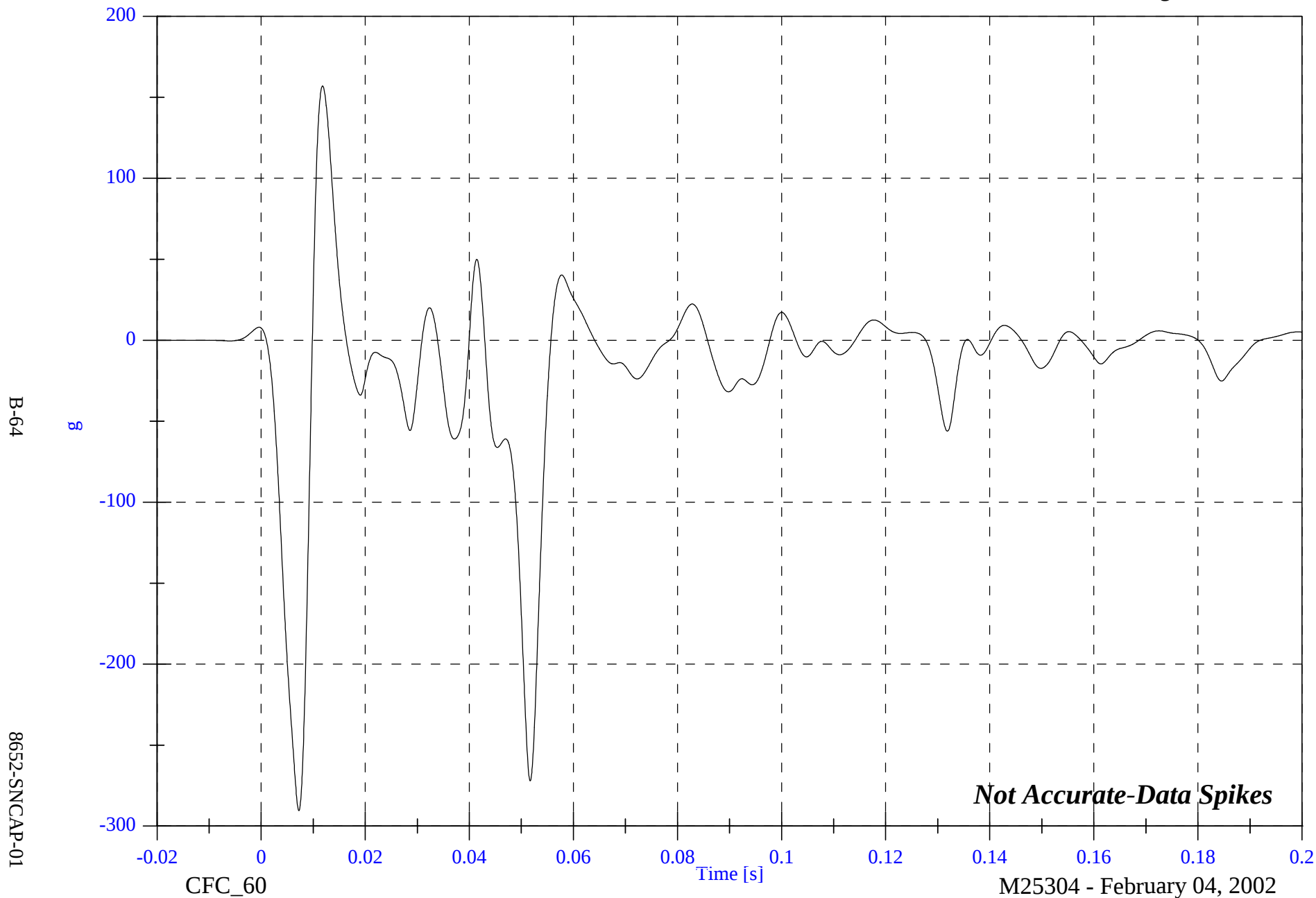


2002 SNCAP Test 1 - 2002 Acura RSX

A13 Left Mid B Post Y

Max: 156.9 [g] at 0.012 [s]

Min: -290.6 [g] at 0.007 [s]



2002 SNCAP Test 1 - 2002 Acura RSX

A13 Left Mid B Post Y Velocity

Max: 0.2 [kph] at 0.003 [s]

Min: -111.9 [kph] at 0.191 [s]

B-65

8652-SNCAP-01

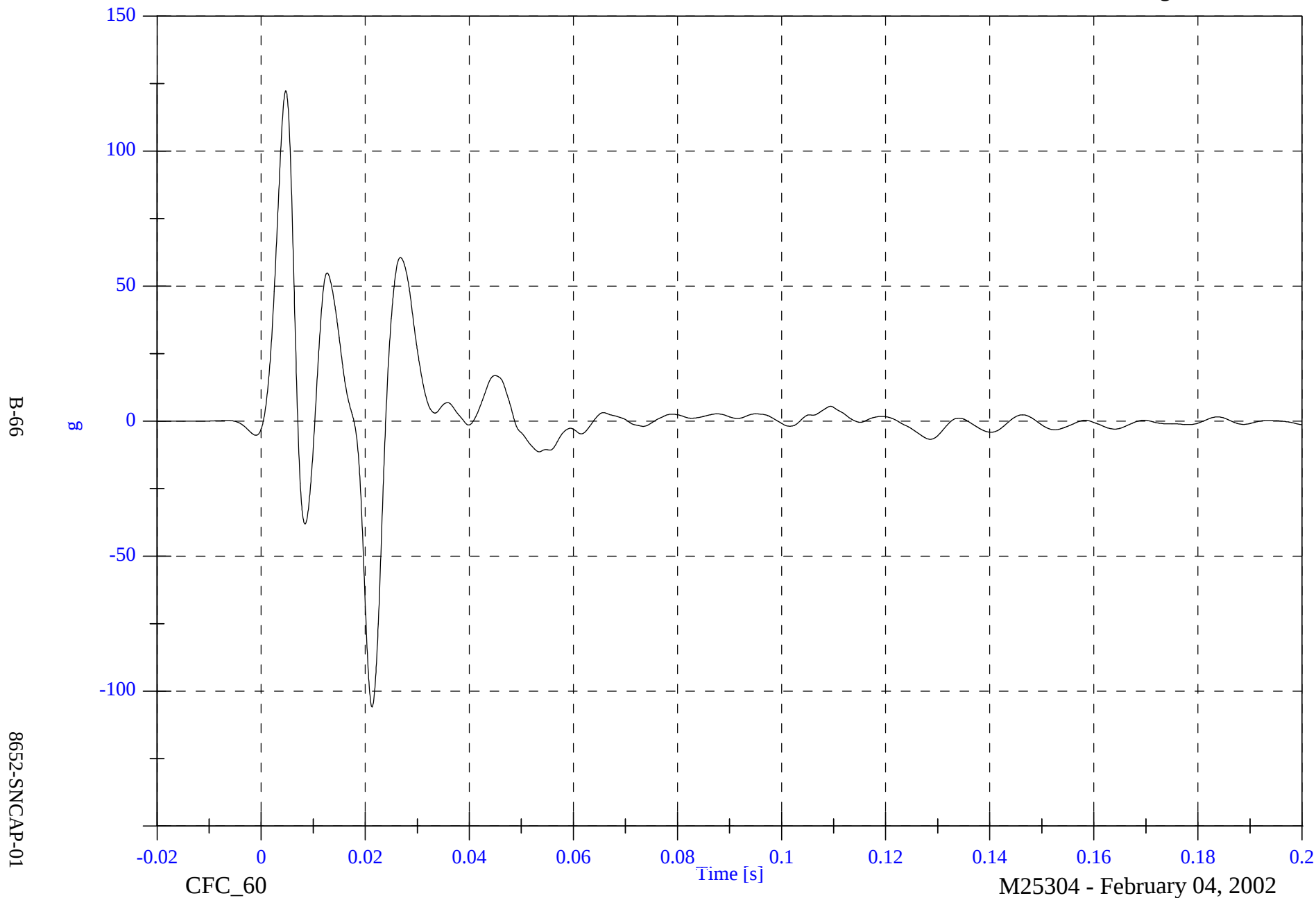


2002 SNCAP Test 1 - 2002 Acura RSX

A14 Left Lower A Post Y

Max: 122.3 [g] at 0.005 [s]

Min: -105.9 [g] at 0.021 [s]

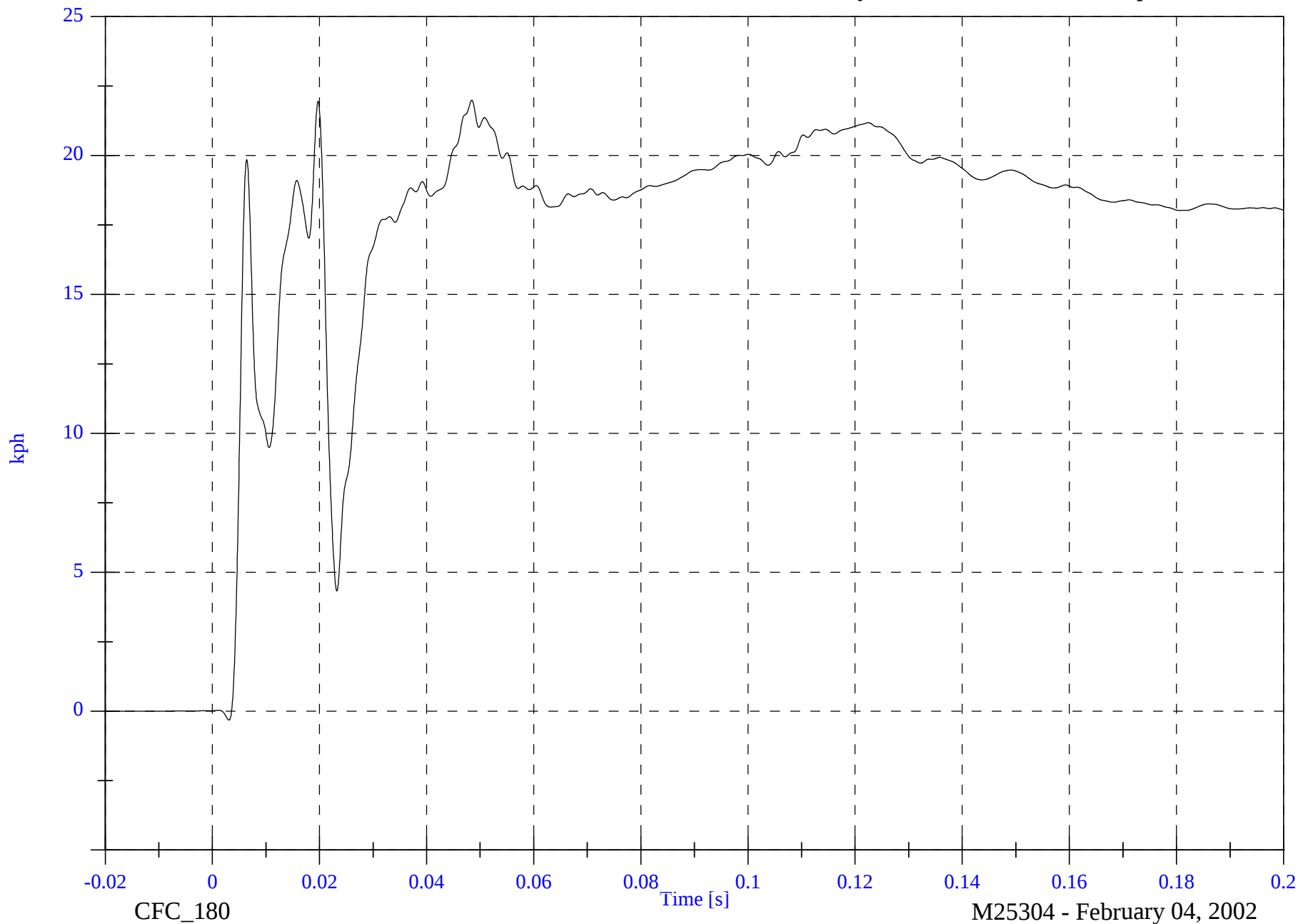


2002 SNCAP Test 1 - 2002 Acura RSX

A14 Left Lower A Post Y Velocity

Max: 22.0 [kph] at 0.048 [s]

Min: -0.3 [kph] at 0.003 [s]



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8652-SNCAP-01

2002 SNCAP Test 1 - 2002 Acura RSX

A15 Left Mid A Post Y

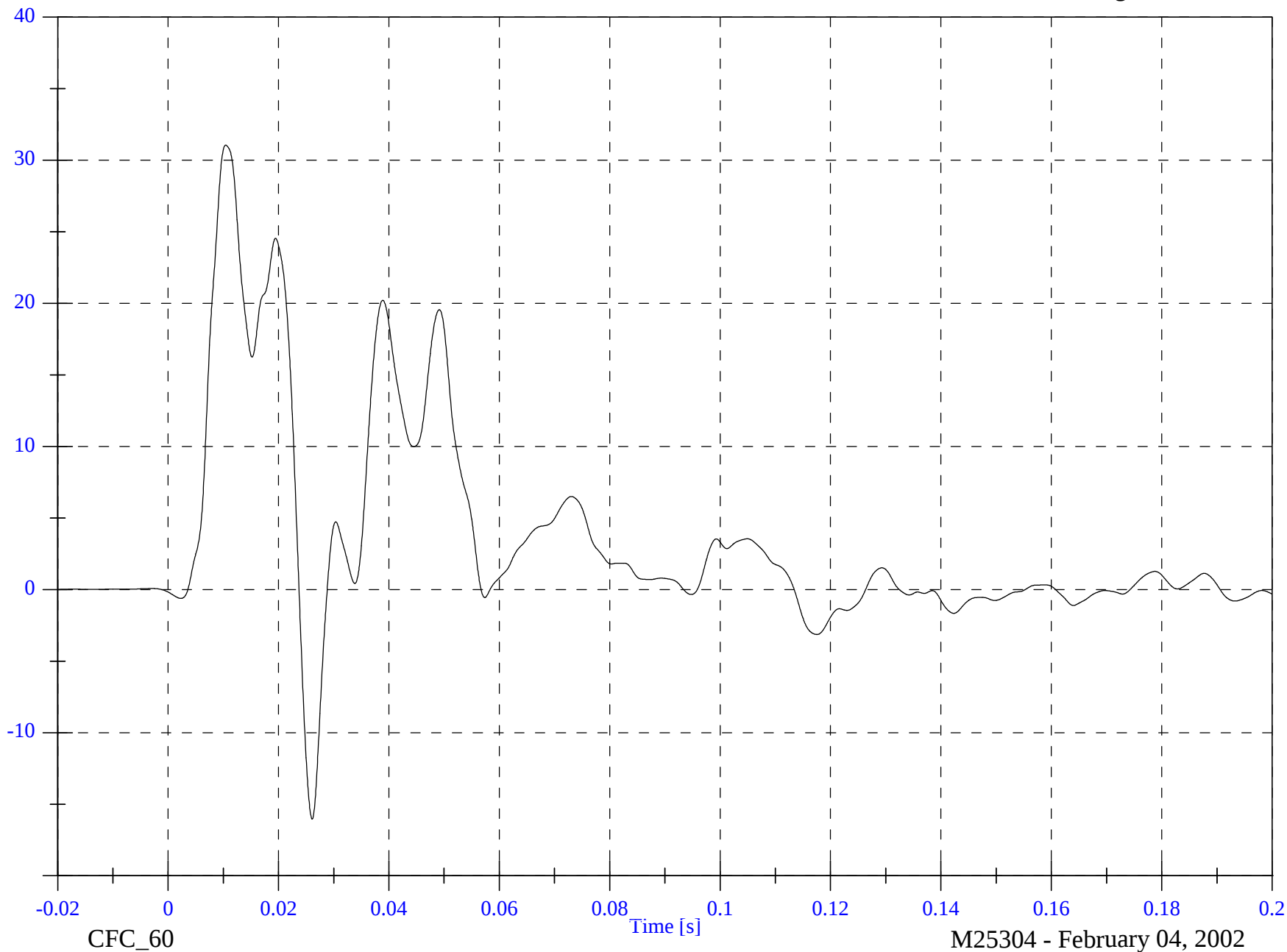
Max: 31.1 [g] at 0.010 [s]

Min: -16.0 [g] at 0.026 [s]

B-68

g

8652-SNCAP-01

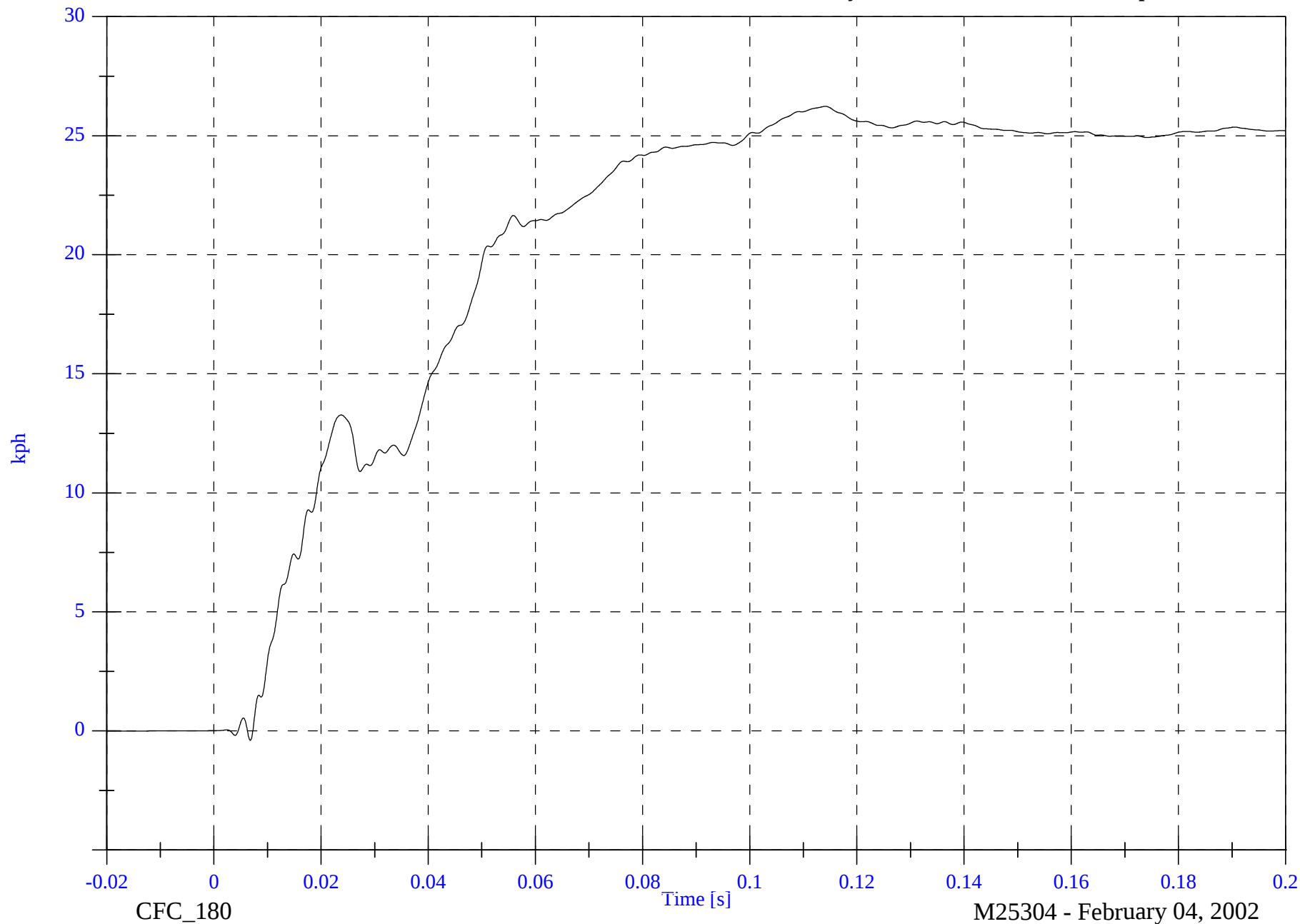


2002 SNCAP Test 1 - 2002 Acura RSX

A15 Left Mid A Post Y Velocity

Max: 26.2 [kph] at 0.114 [s]

Min: -0.4 [kph] at 0.007 [s]



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8652-SNCAP-01

2002 SENCAP Test 1 - 2002 Acura RSX

A16 Front Seat Track Y

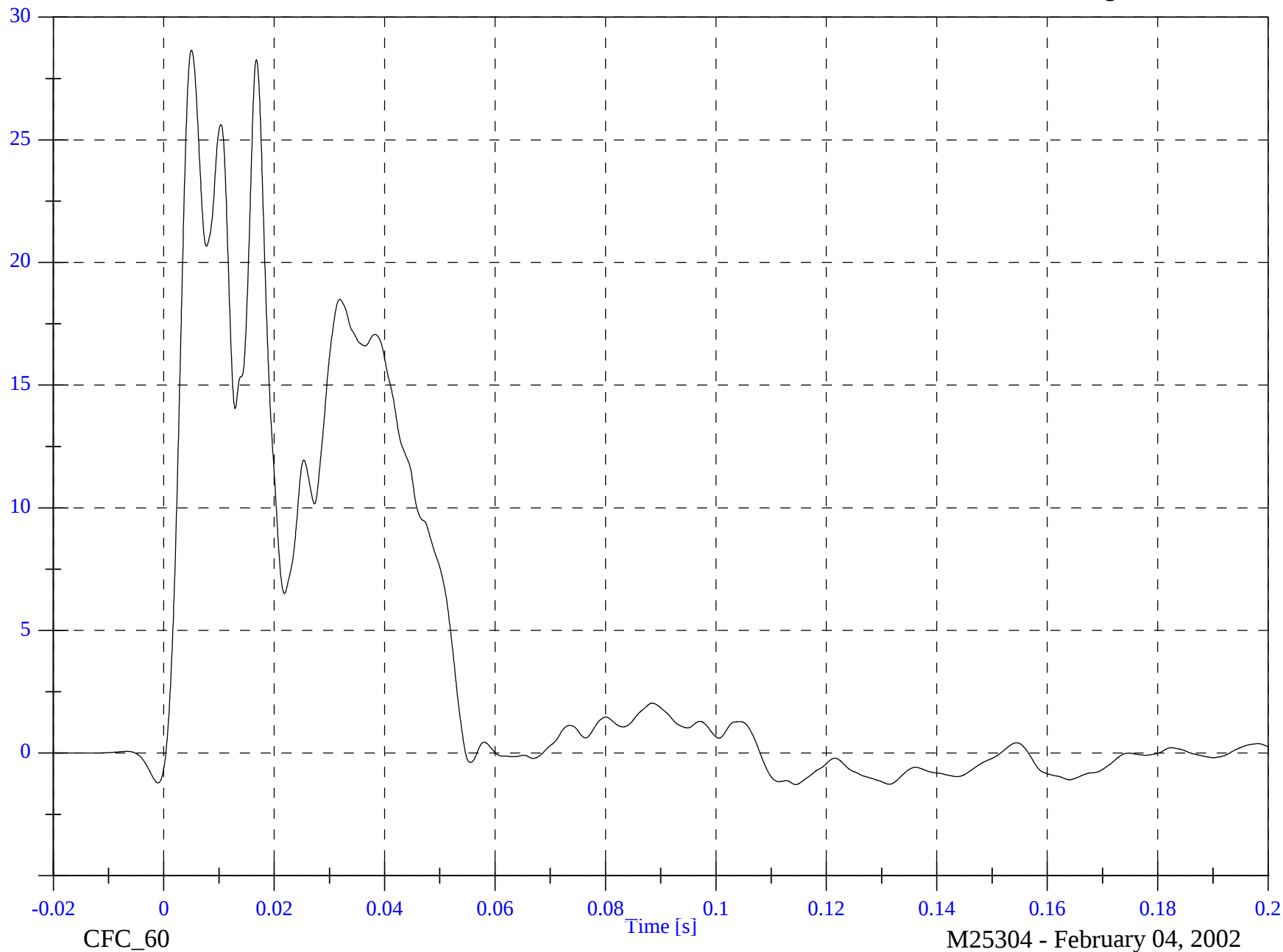
Max: 28.7 [g] at 0.005 [s]

Min: -1.3 [g] at 0.114 [s]

B-70

8652-SENCAP-01

g



CFC_60

Time [s]

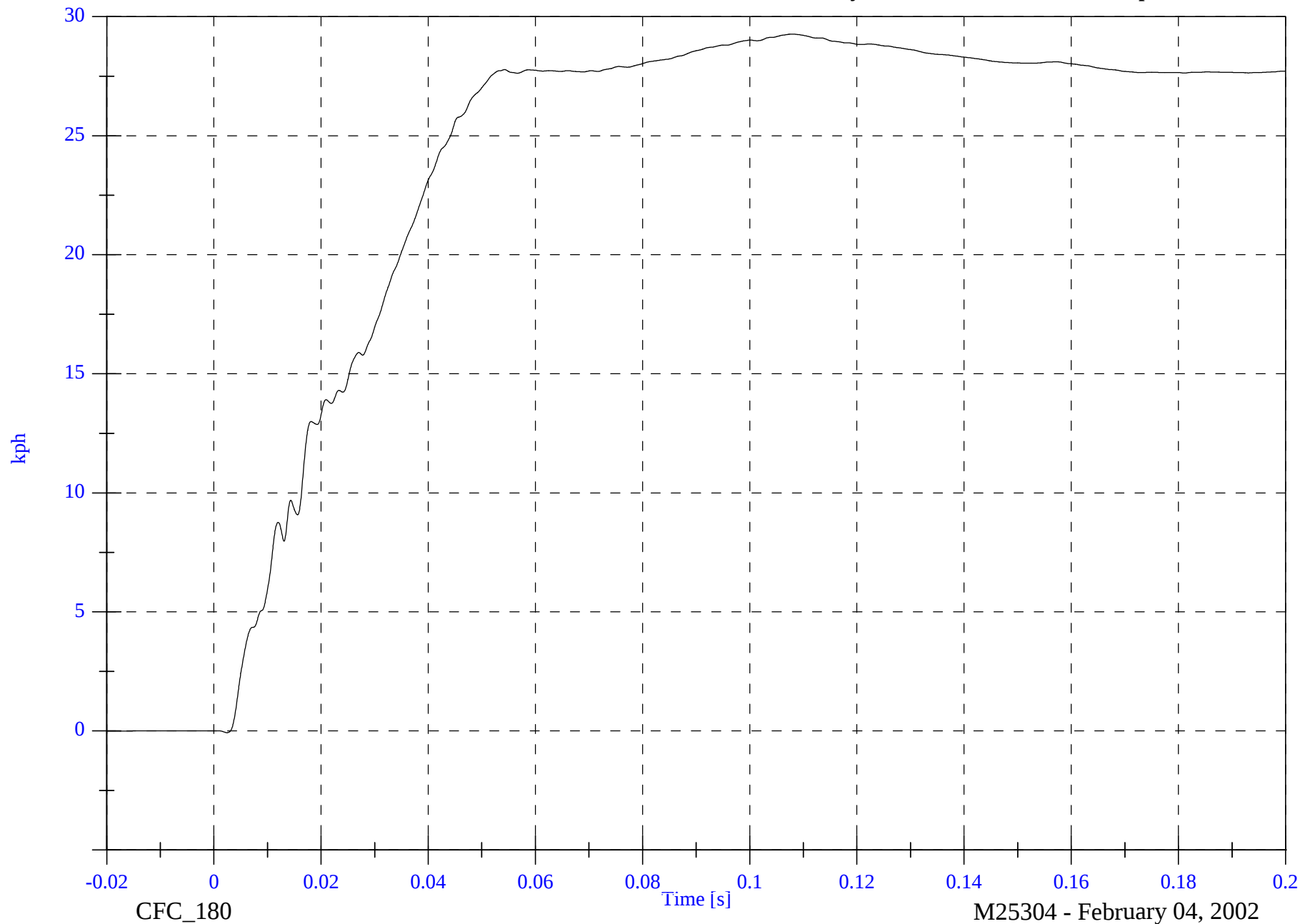
M25304 - February 04, 2002

2002 SNCAP Test 1 - 2002 Acura RSX

A16 Front Seat Track Y Velocity

Max: 29.3 [kph] at 0.108 [s]

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



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8652-SNCAP-01

2002 SNCAP Test 1 - 2002 Acura RSX

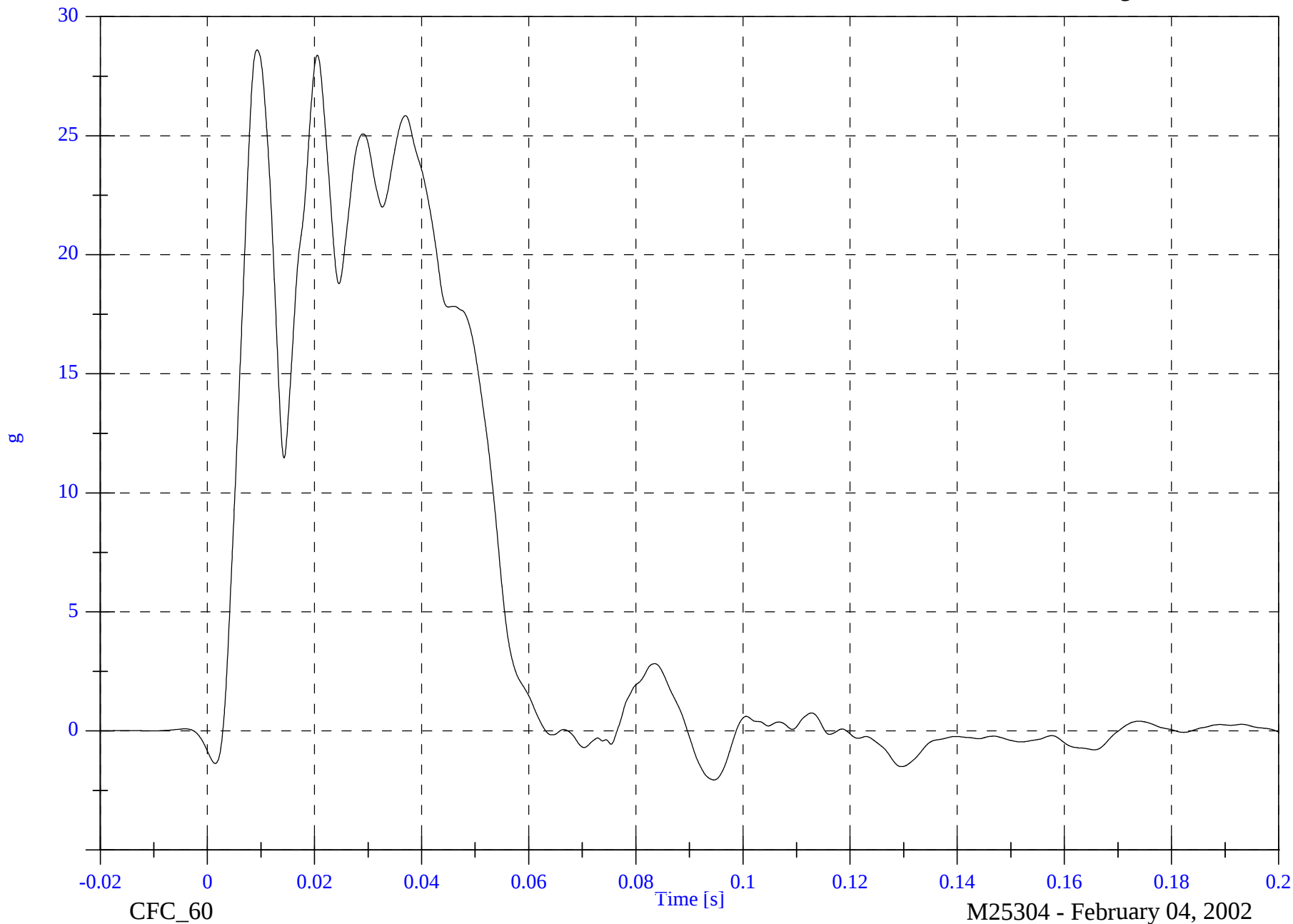
A17 Rear Seat Track Y

Max: 28.6 [g] at 0.009 [s]

Min: -2.1 [g] at 0.095 [s]

B-72

8652-SNCAP-01

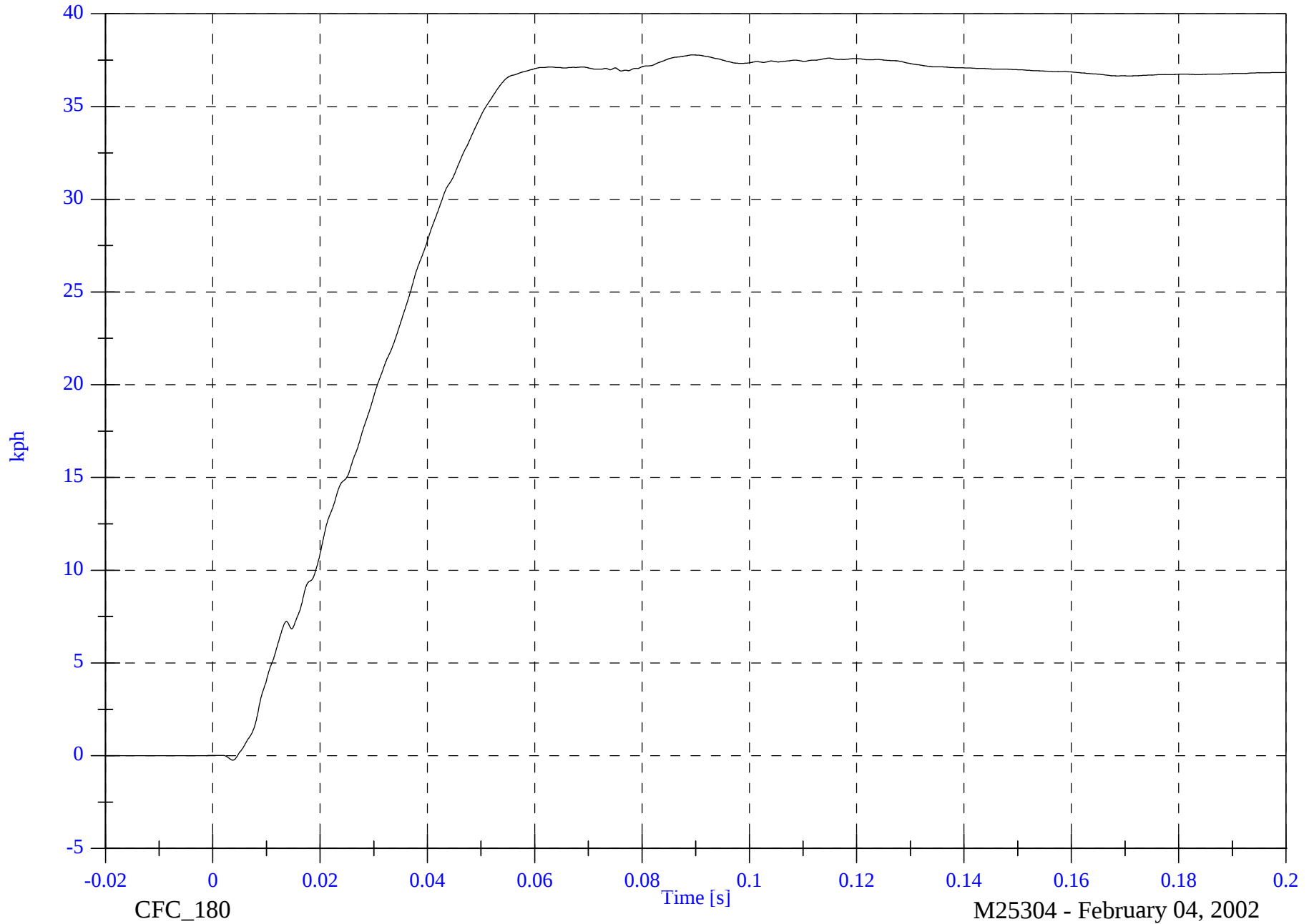


2002 SNCAP Test 1 - 2002 Acura RSX

Max: 37.8 [kph] at 0.089 [s]

A17 Rear Seat Track Y Velocity

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



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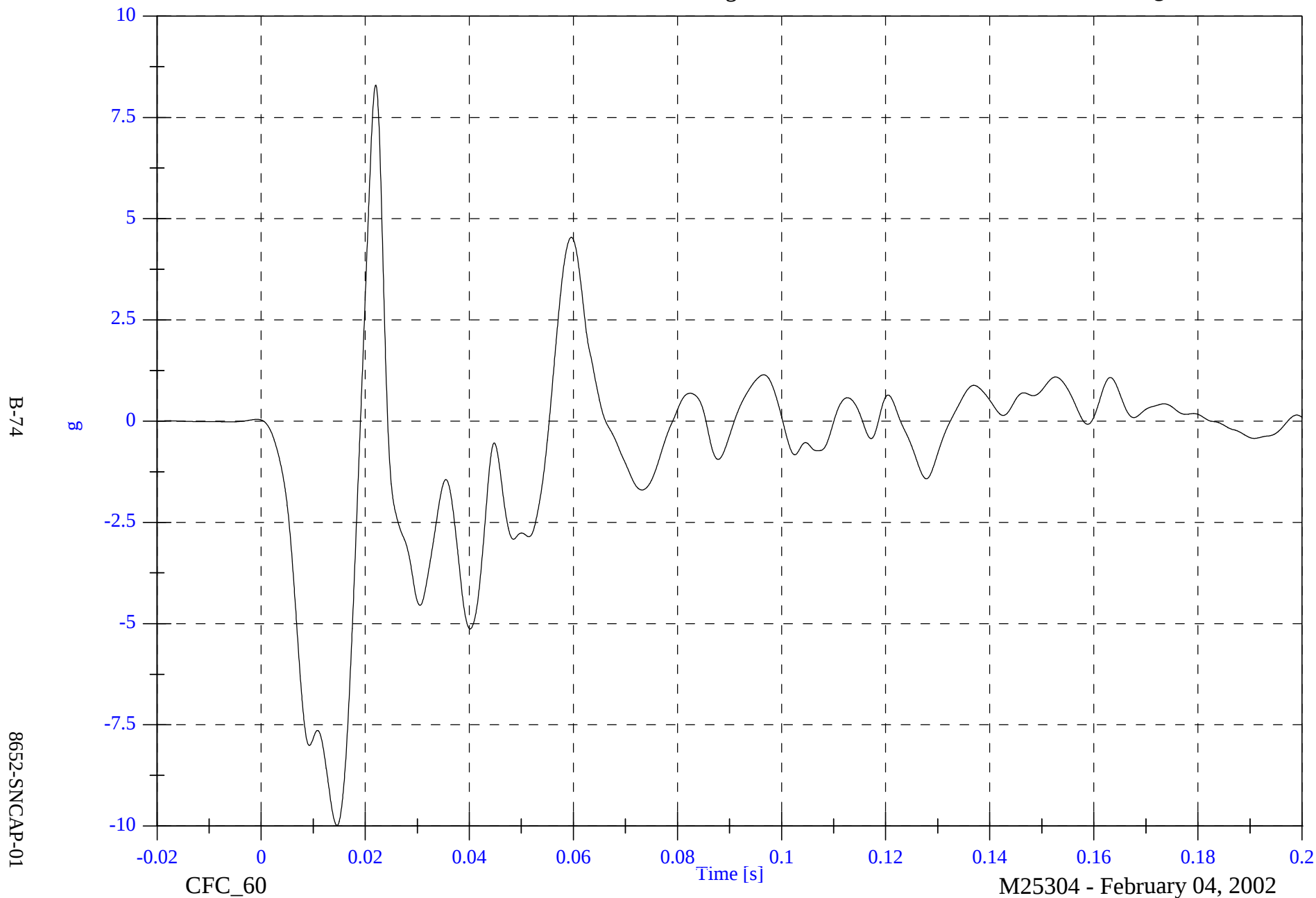
8652-SNCAP-01

2002 SNCAP Test 1 - 2002 Acura RSX

A18 Target CG X

Max: 8.3 [g] at 0.022 [s]

Min: -10.0 [g] at 0.015 [s]

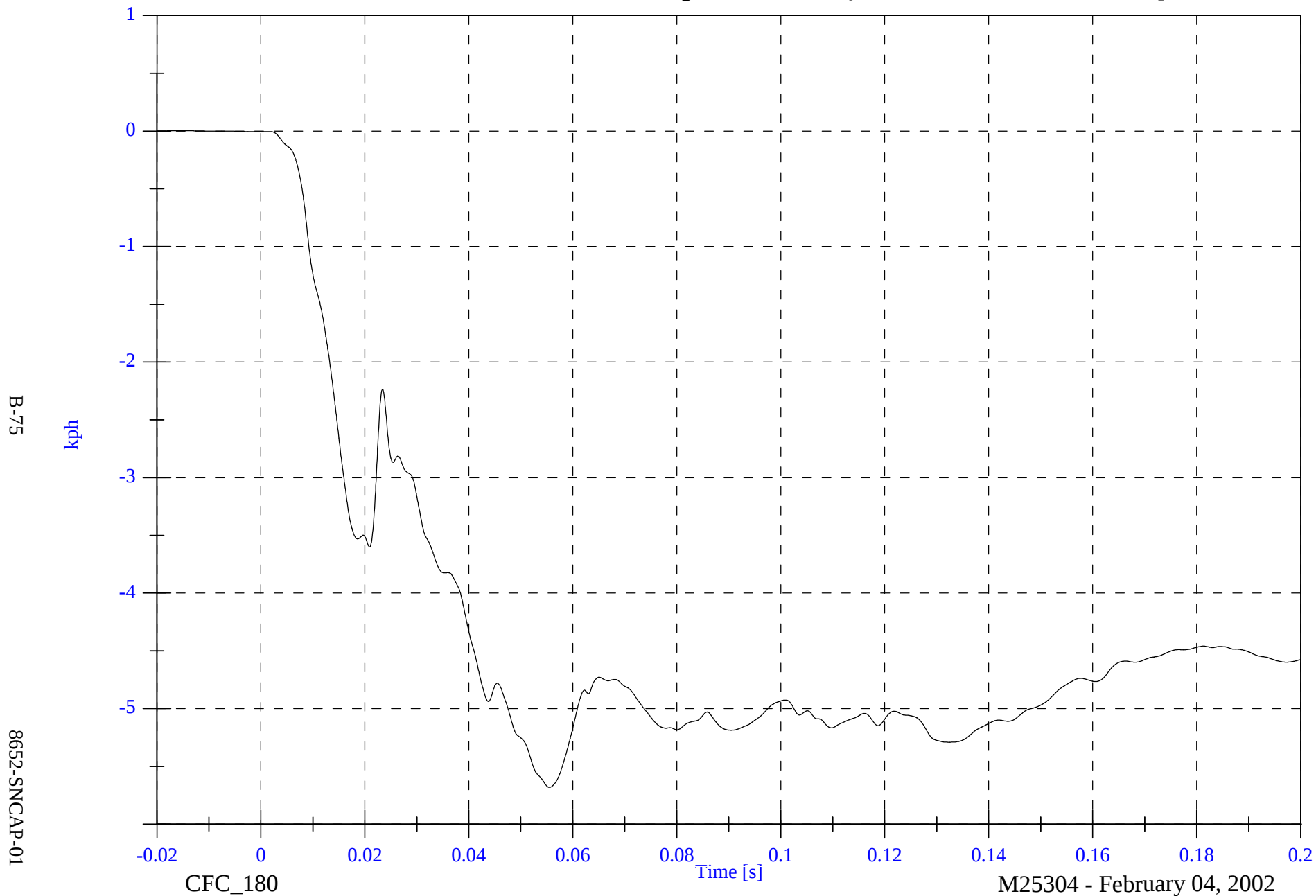


2002 SNCAP Test 1 - 2002 Acura RSX

A18 Target CG X Velocity

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

Min: -5.7 [kph] at 0.056 [s]

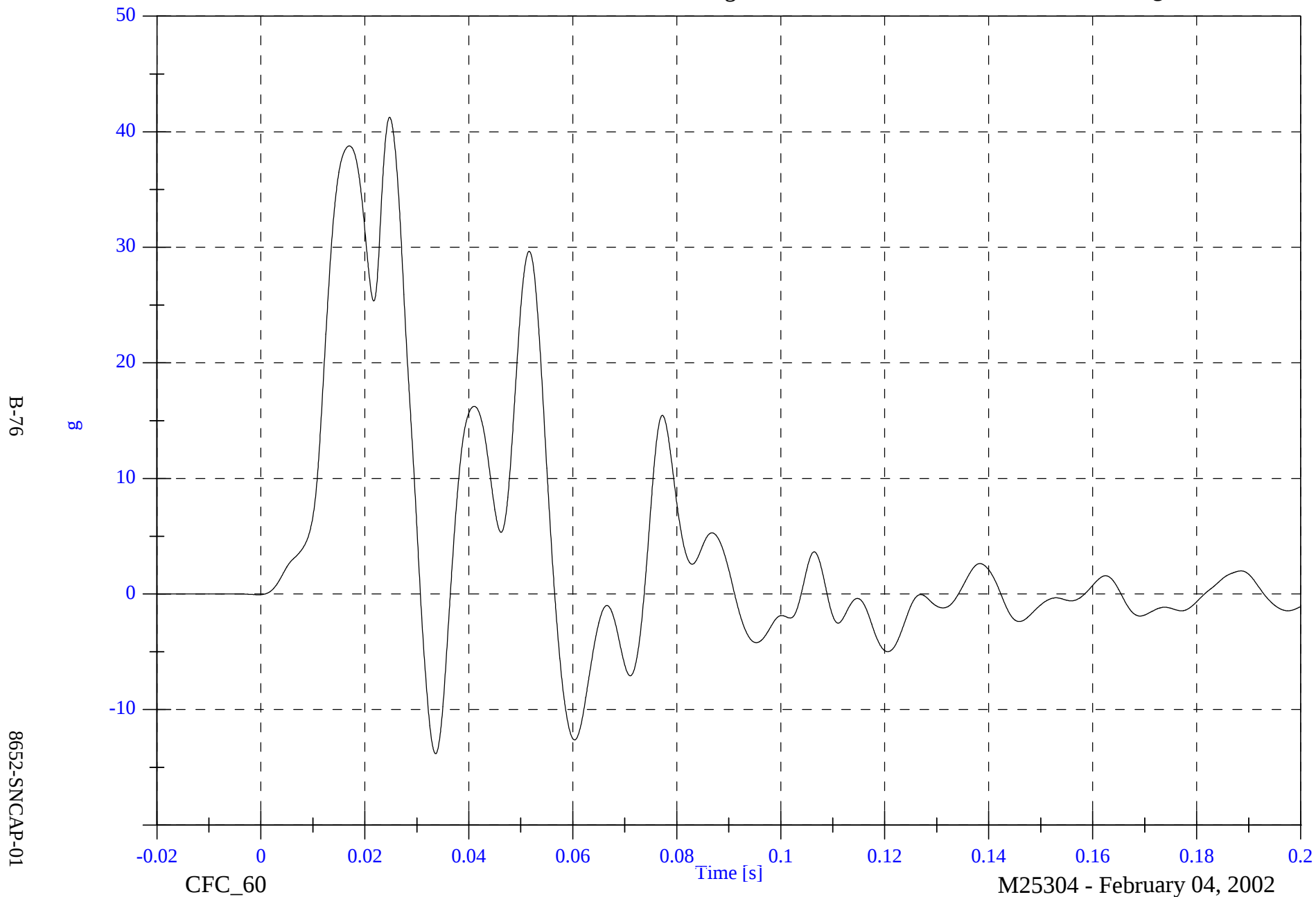


2002 SNCAP Test 1 - 2002 Acura RSX

A18 Target CG Y

Max: 41.3 [g] at 0.025 [s]

Min: -13.8 [g] at 0.034 [s]



2002 SNCAP Test 1 - 2002 Acura RSX

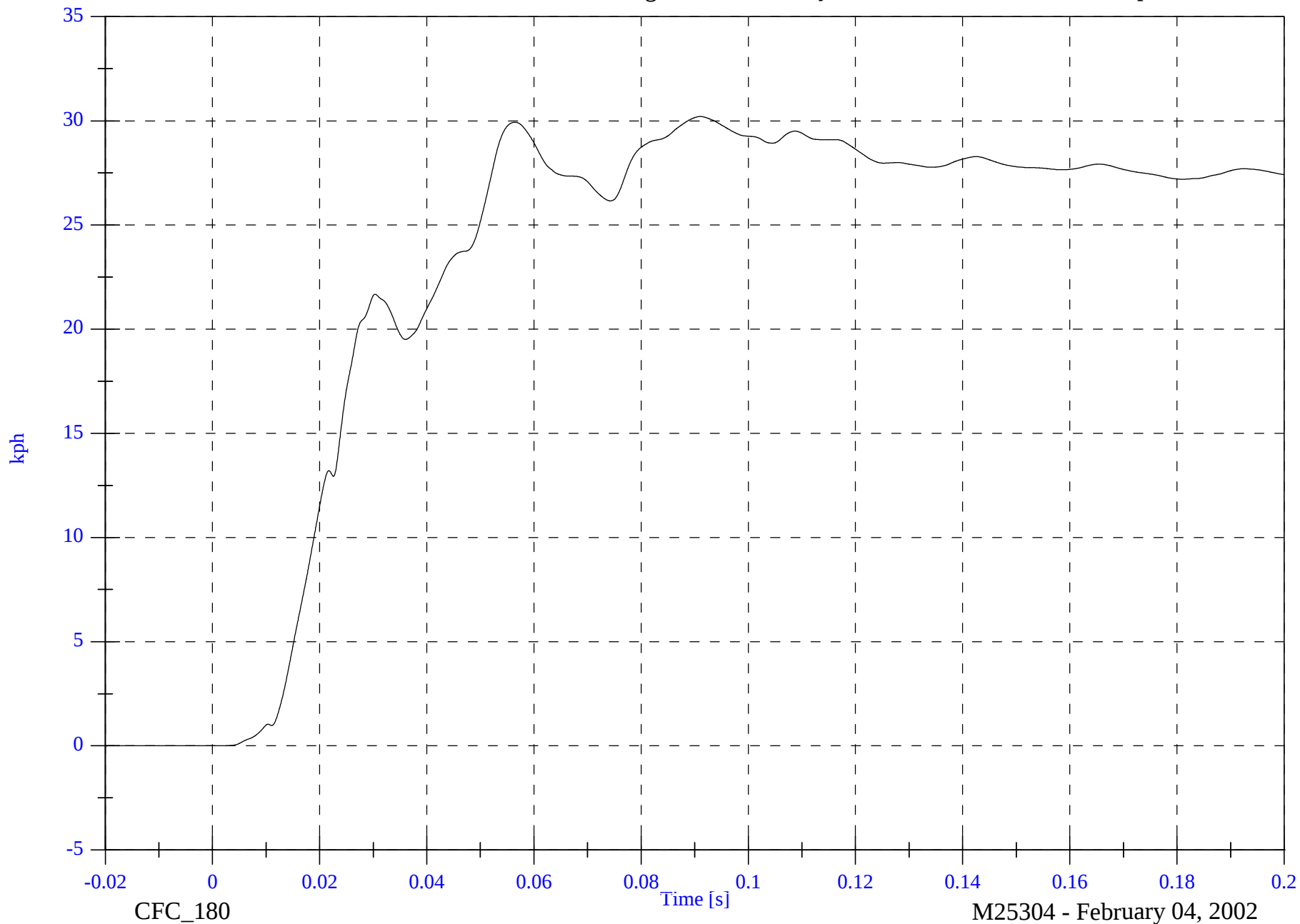
A18 Target CG Y Velocity

Max: 30.2 [kph] at 0.091 [s]

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

B-77

8652-SNCAP-01

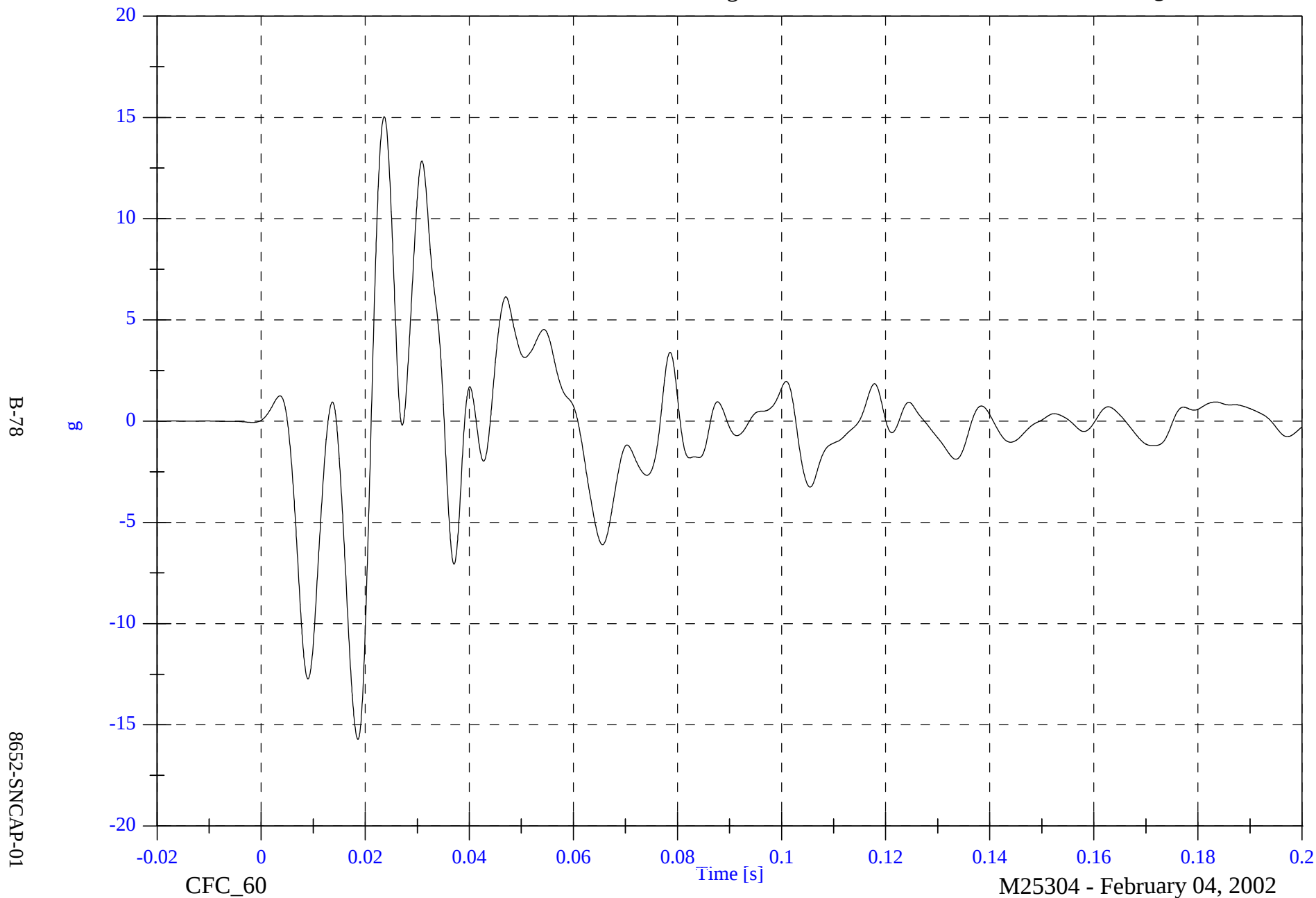


2002 SNCAP Test 1 - 2002 Acura RSX

A18 Target CG Z

Max: 15.0 [g] at 0.024 [s]

Min: -15.7 [g] at 0.019 [s]



2002 SNCAP Test 1 - 2002 Acura RSX

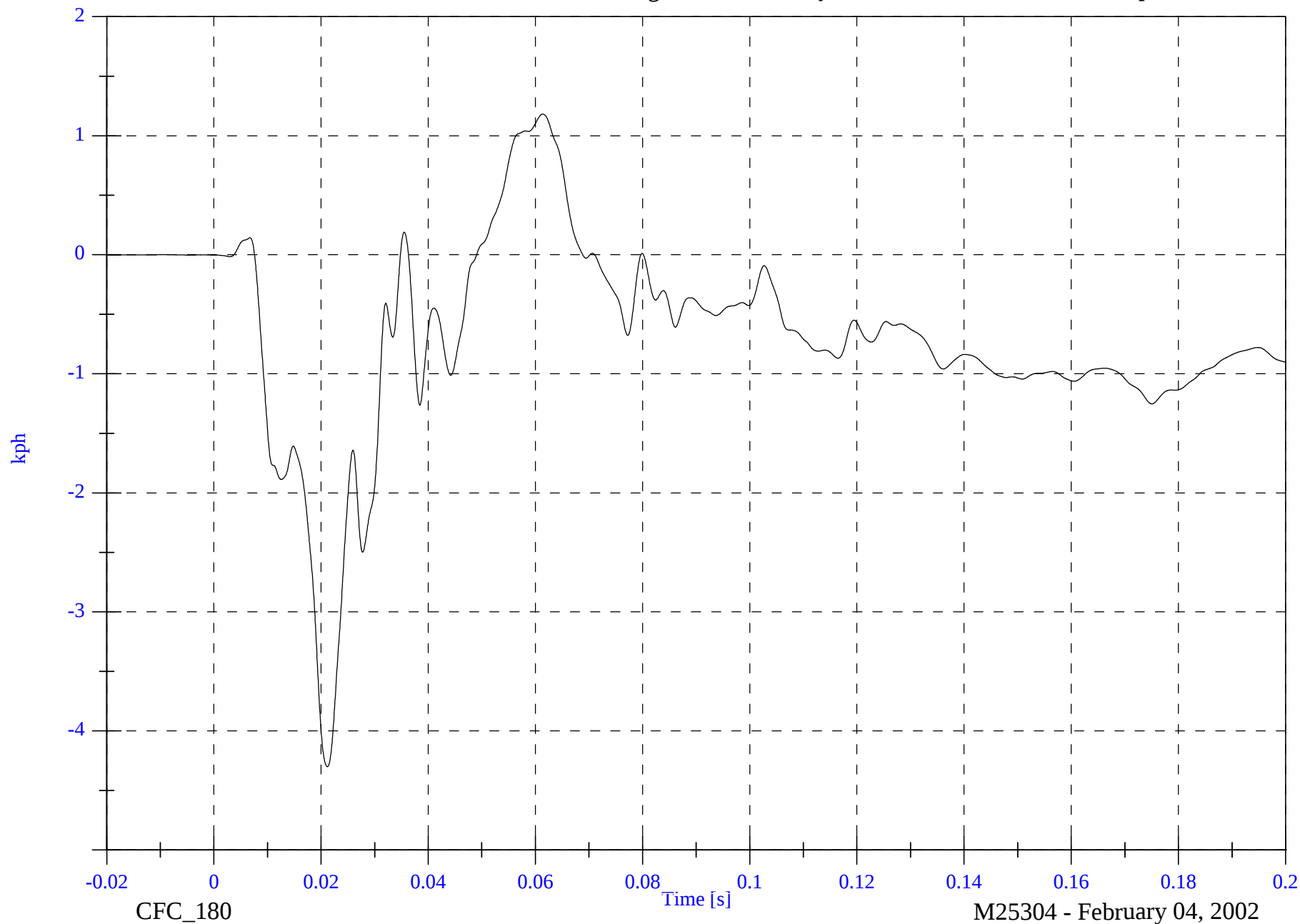
A18 Target CG Z Velocity

Max: 1.2 [kph] at 0.061 [s]

Min: -4.3 [kph] at 0.021 [s]

B-79

8652-SNCAP-01



2002 SENCAP Test 1 - 2002 Acura RSX

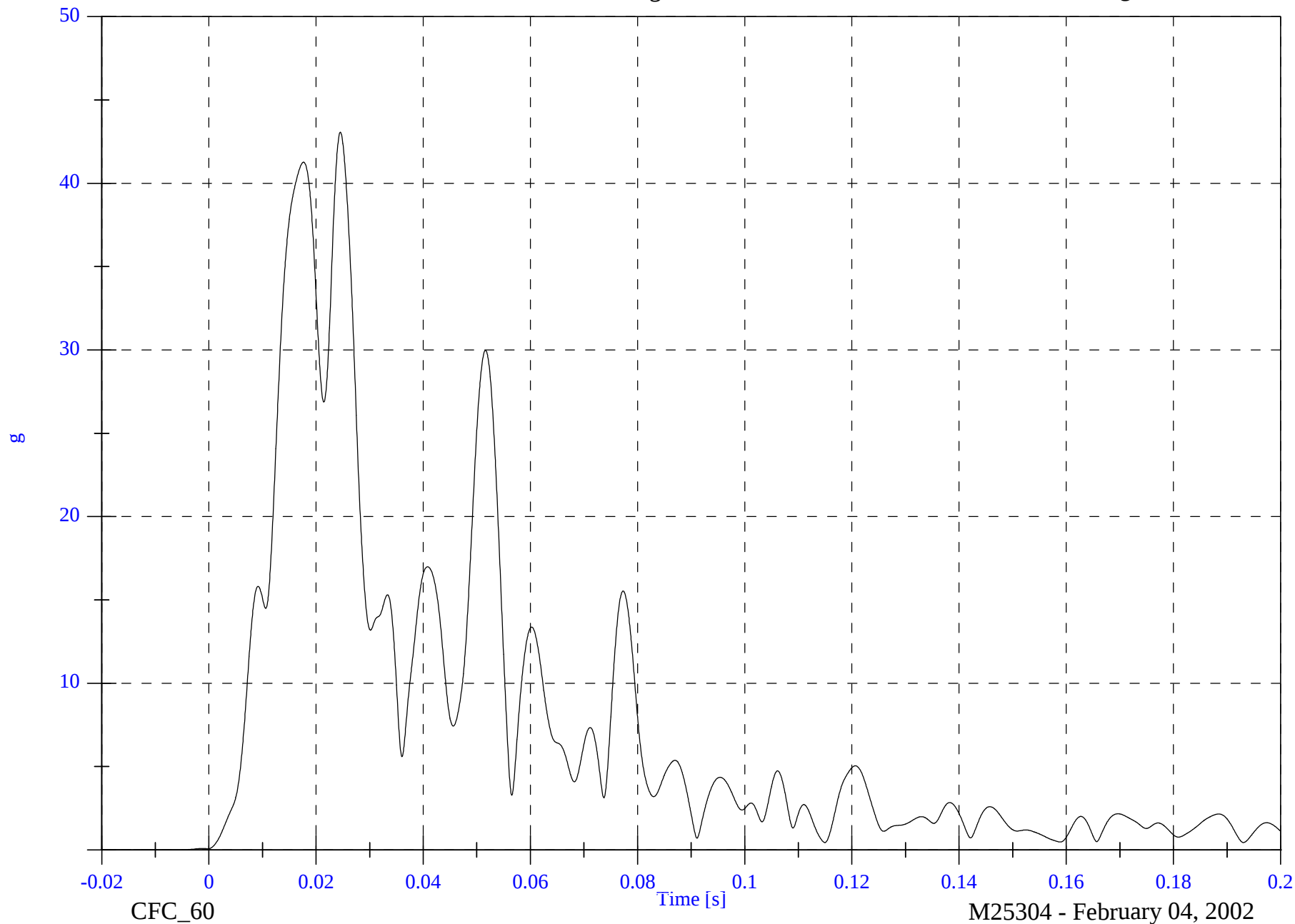
A18 Target CG Resultant

Max: 43.1 [g] at 0.025 [s]

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

B-80

8652-SENCAP-01



2002 SNCAP Test 1 - 2002 Acura RSX

Moving Barrier CG X

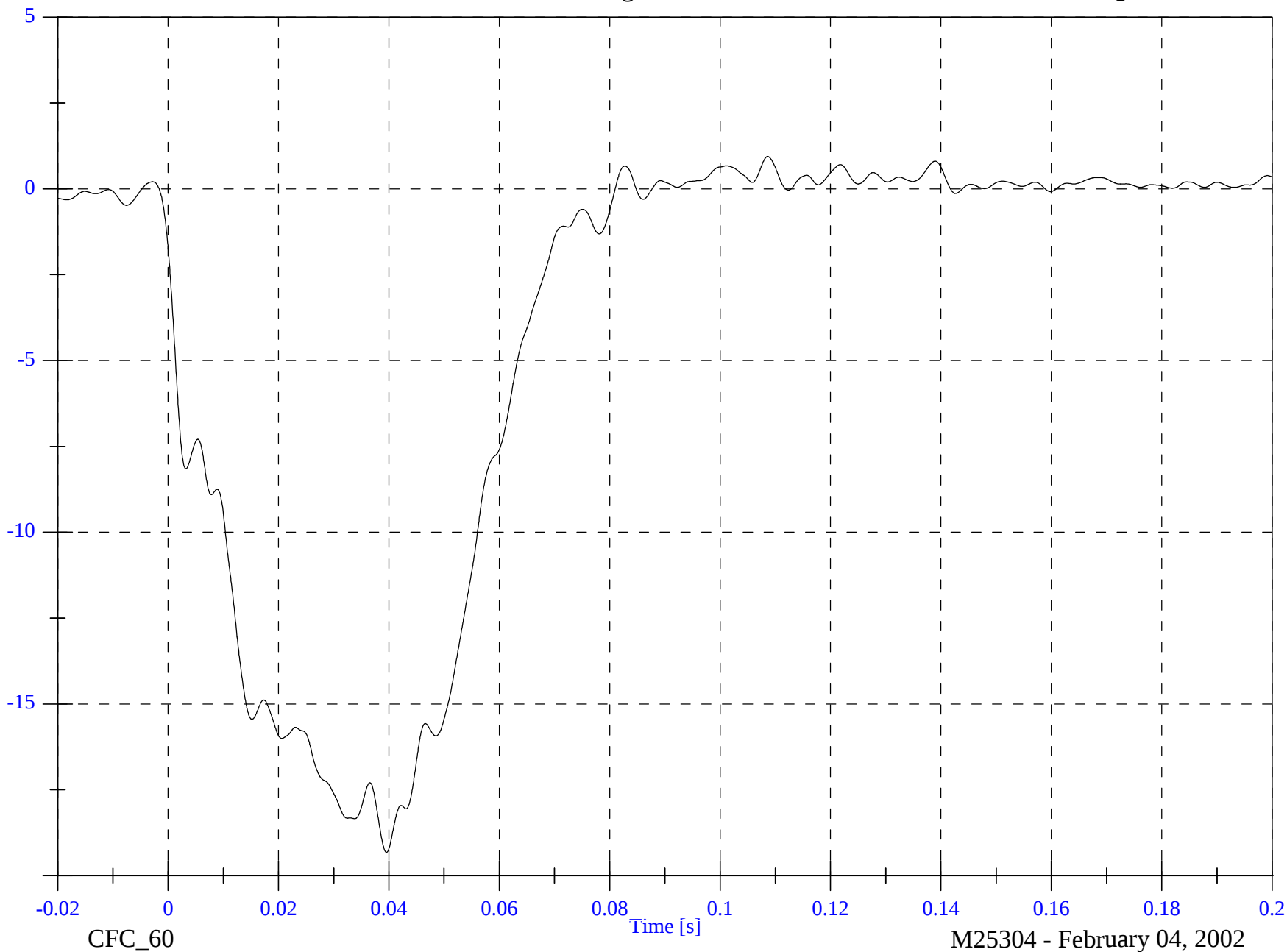
Max: 0.9 [g] at 0.109 [s]

Min: -19.3 [g] at 0.040 [s]

B-81

8652-SNCAP-01

g

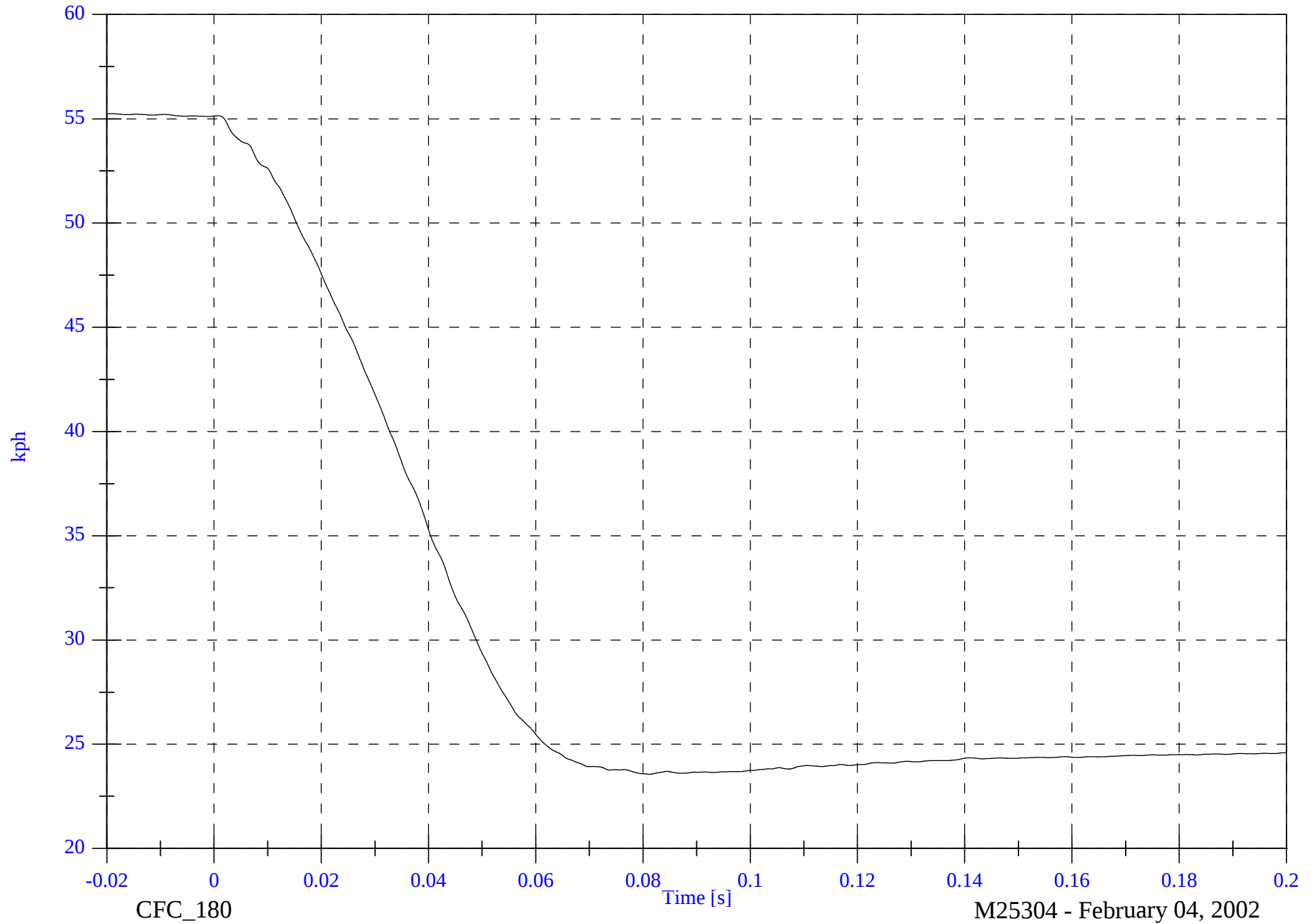


2002 SNCAP Test 1 - 2002 Acura RSX

Moving Barrier CG X Velocity

Max: 55.3 [kph] at -0.019 [s]

Min: 23.6 [kph] at 0.081 [s]



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2002 SNCAP Test 1 - 2002 Acura RSX

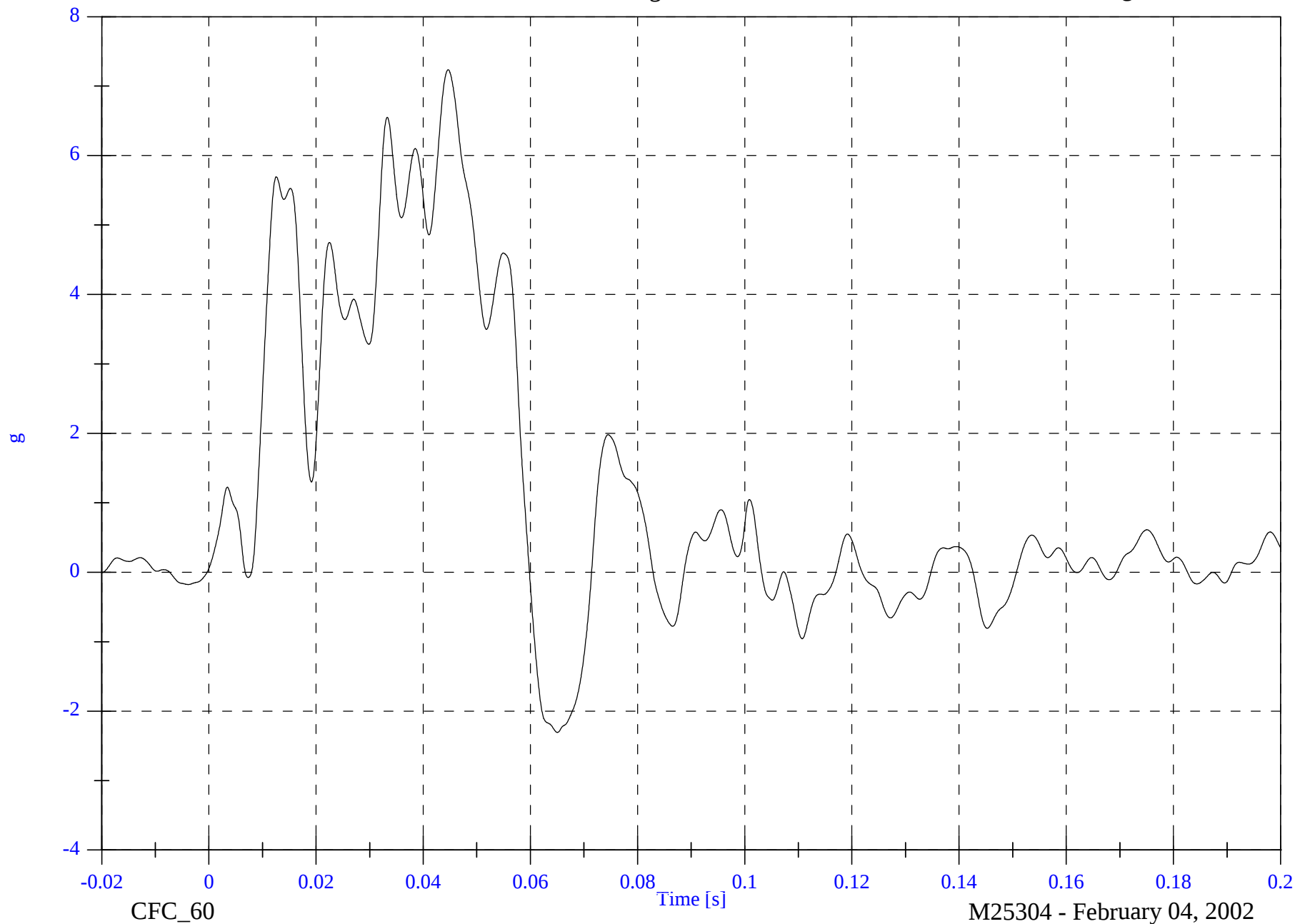
Moving Barrier CG Y

Max: 7.2 [g] at 0.045 [s]

Min: -2.3 [g] at 0.065 [s]

B-83

8652-SNCAP-01



2002 SNCAP Test 1 - 2002 Acura RSX

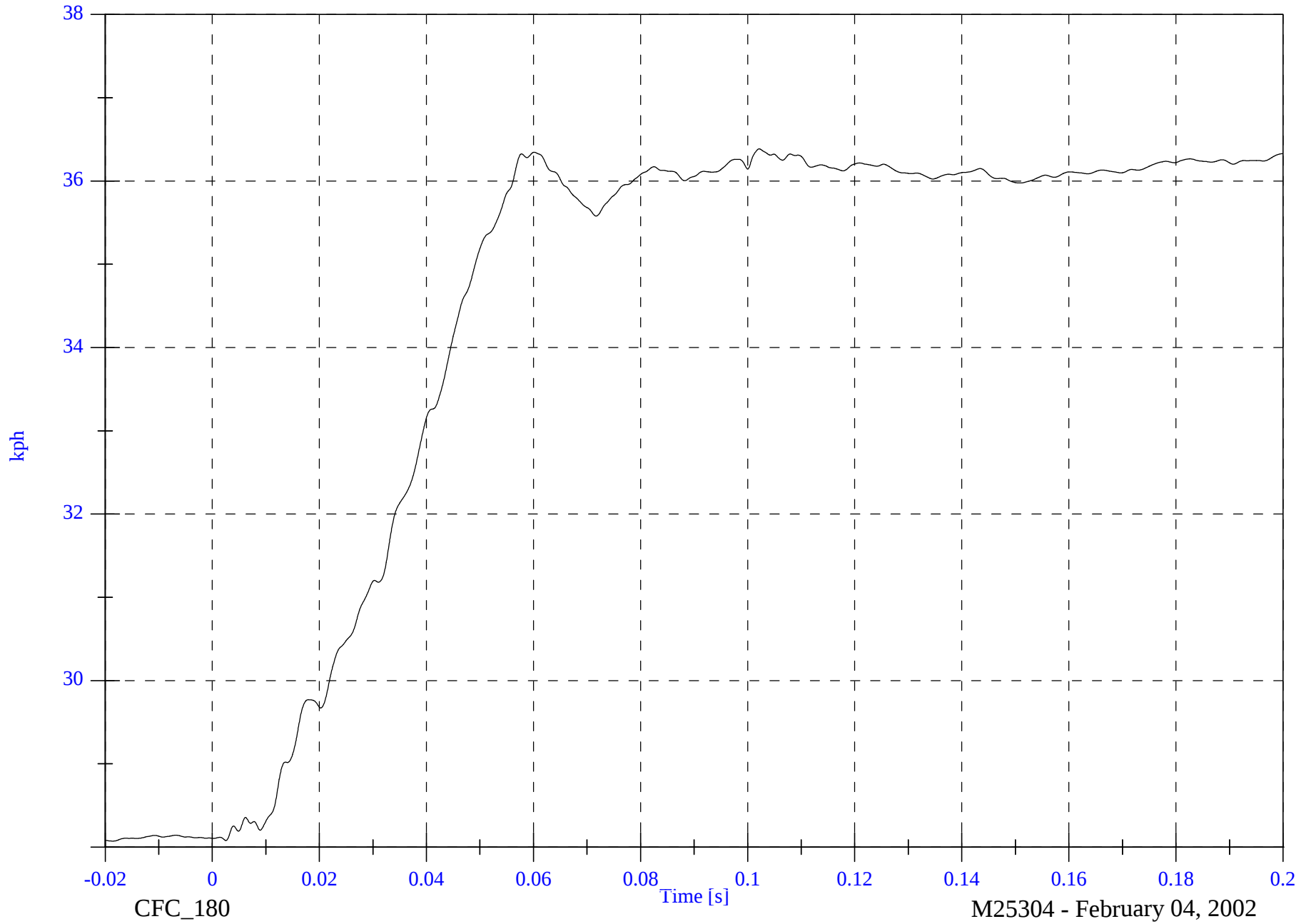
Moving Barrier CG Y Velocity

Max: 36.4 [kph] at 0.102 [s]

Min: 28.1 [kph] at -0.019 [s]

B-84

8652-SNCAP-01

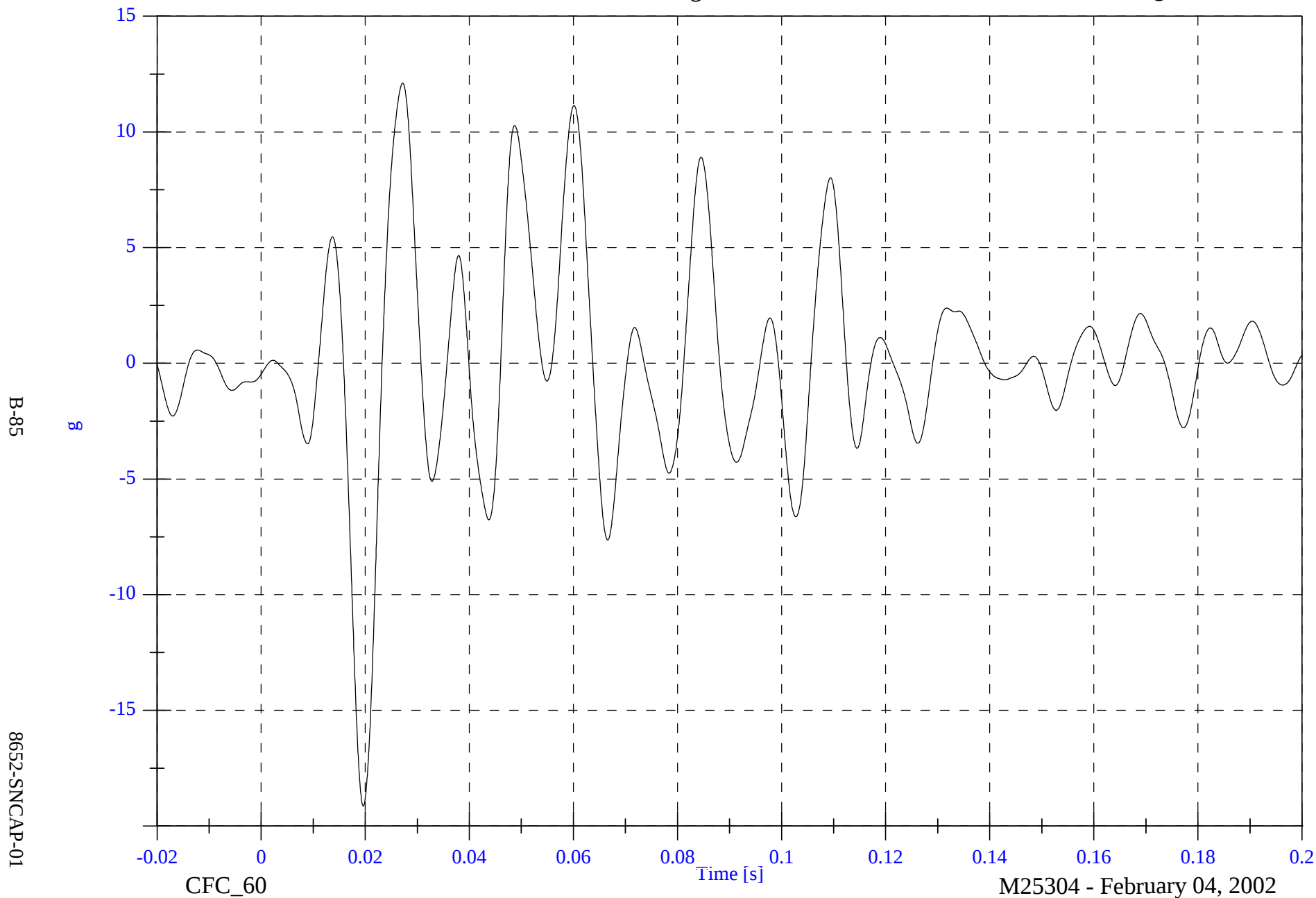


2002 SNCAP Test 1 - 2002 Acura RSX

Moving Barrier CG Z

Max: 12.1 [g] at 0.027 [s]

Min: -19.1 [g] at 0.020 [s]

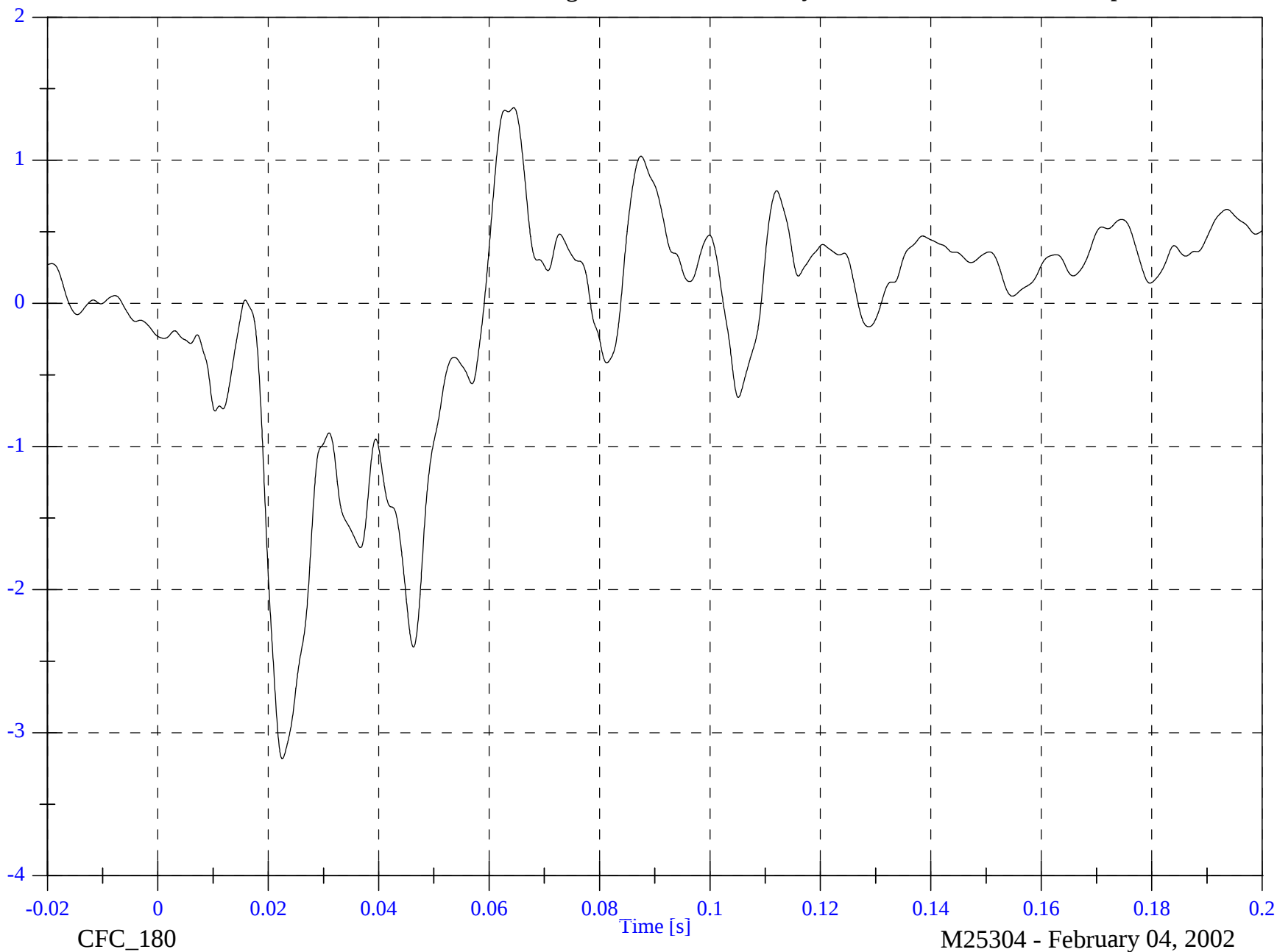


2002 SNCAP Test 1 - 2002 Acura RSX

Moving Barrier CG Z Velocity

Max: 1.4 [kph] at 0.064 [s]

Min: -3.2 [kph] at 0.023 [s]



B-86

8652-SNCAP-01

2002 SNCAP Test 1 - 2002 Acura RSX

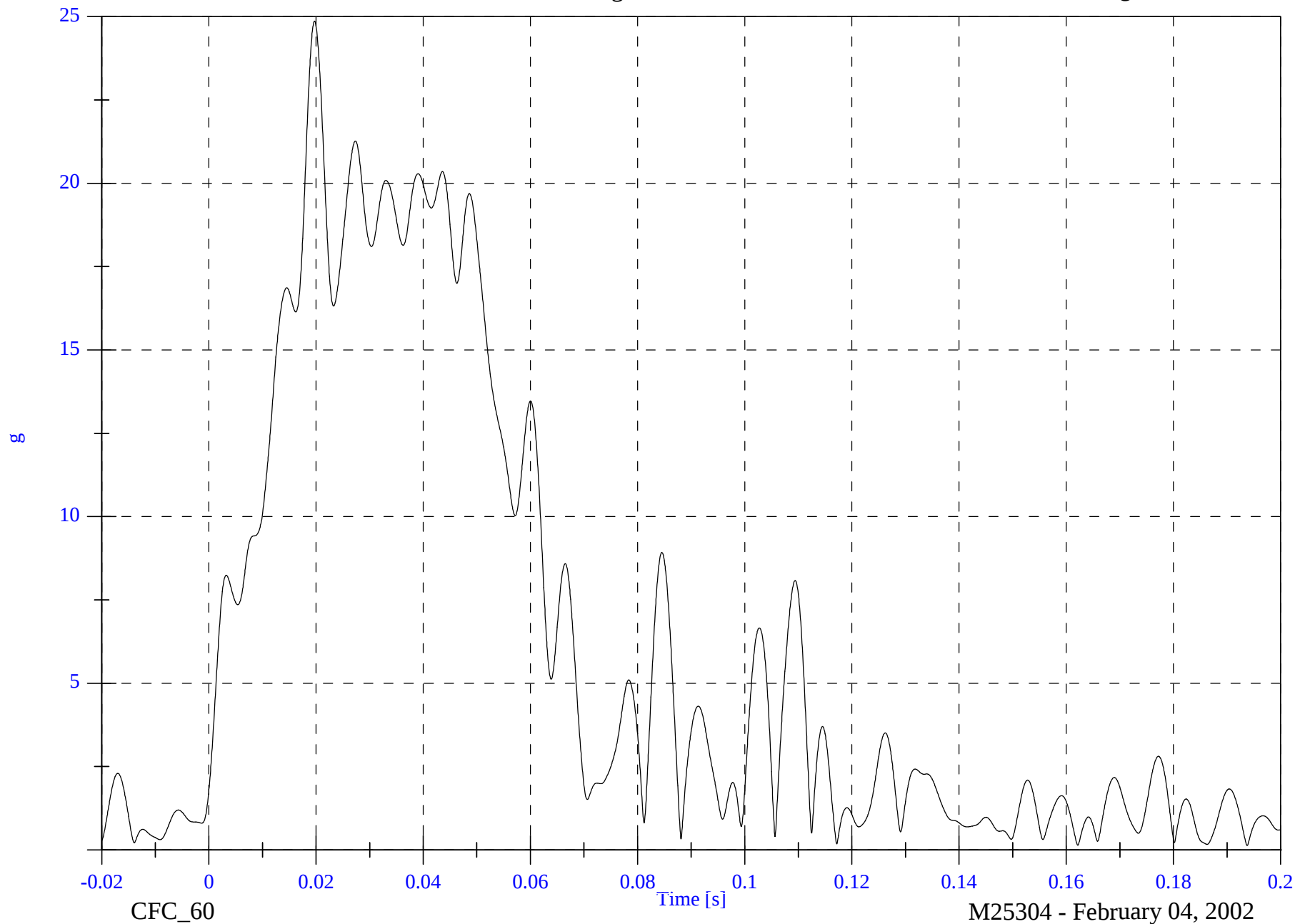
Moving Barrier CG Resultant

Max: 24.9 [g] at 0.020 [s]

Min: 0.1 [g] at 0.194 [s]

B-87

8652-SNCAP-01



2002 SNCAP Test 1 - 2002 Acura RSX

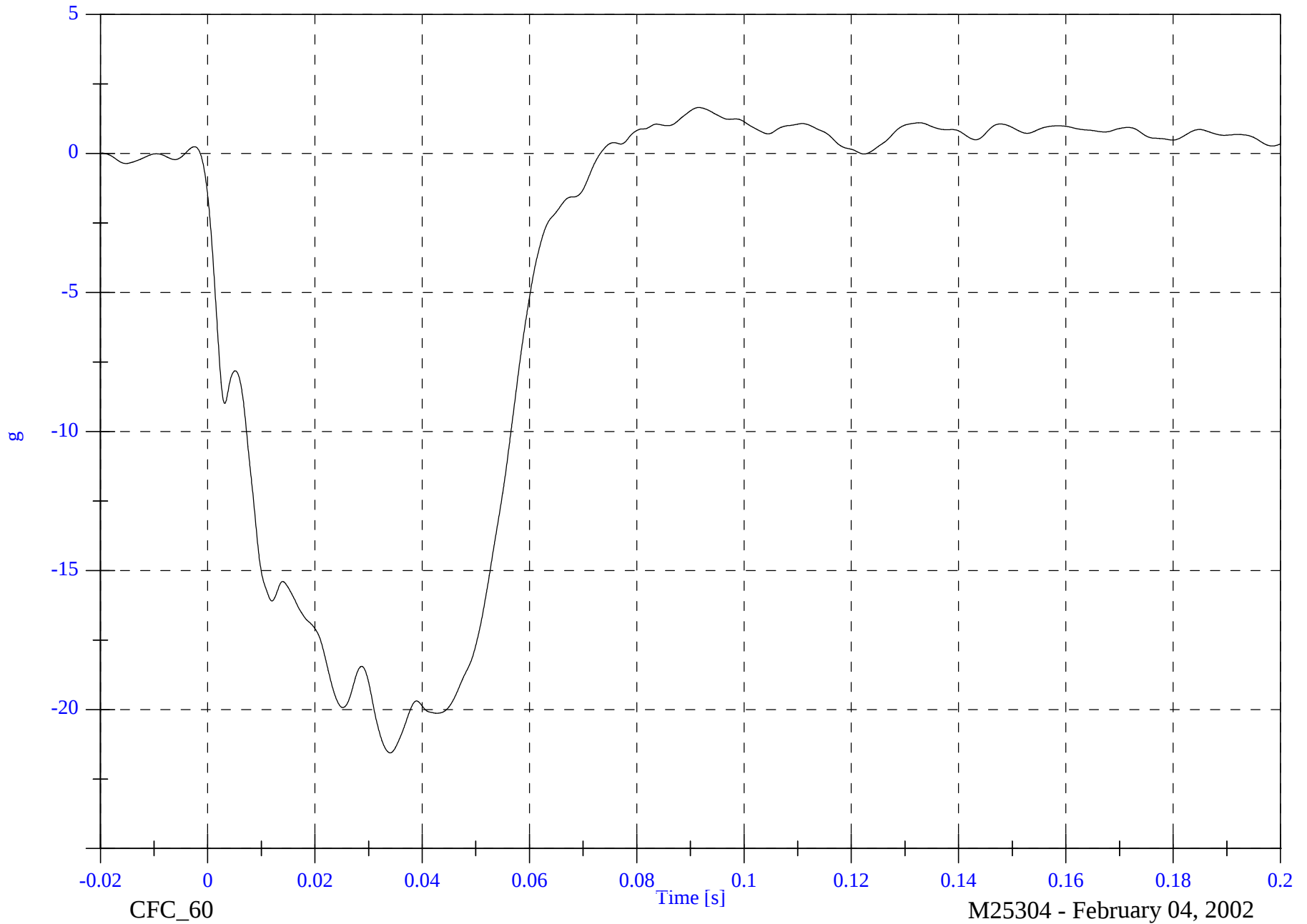
Moving Barrier Left Rail X

Max: 1.7 [g] at 0.092 [s]

Min: -21.6 [g] at 0.034 [s]

B-88

8652-SNCAP-01

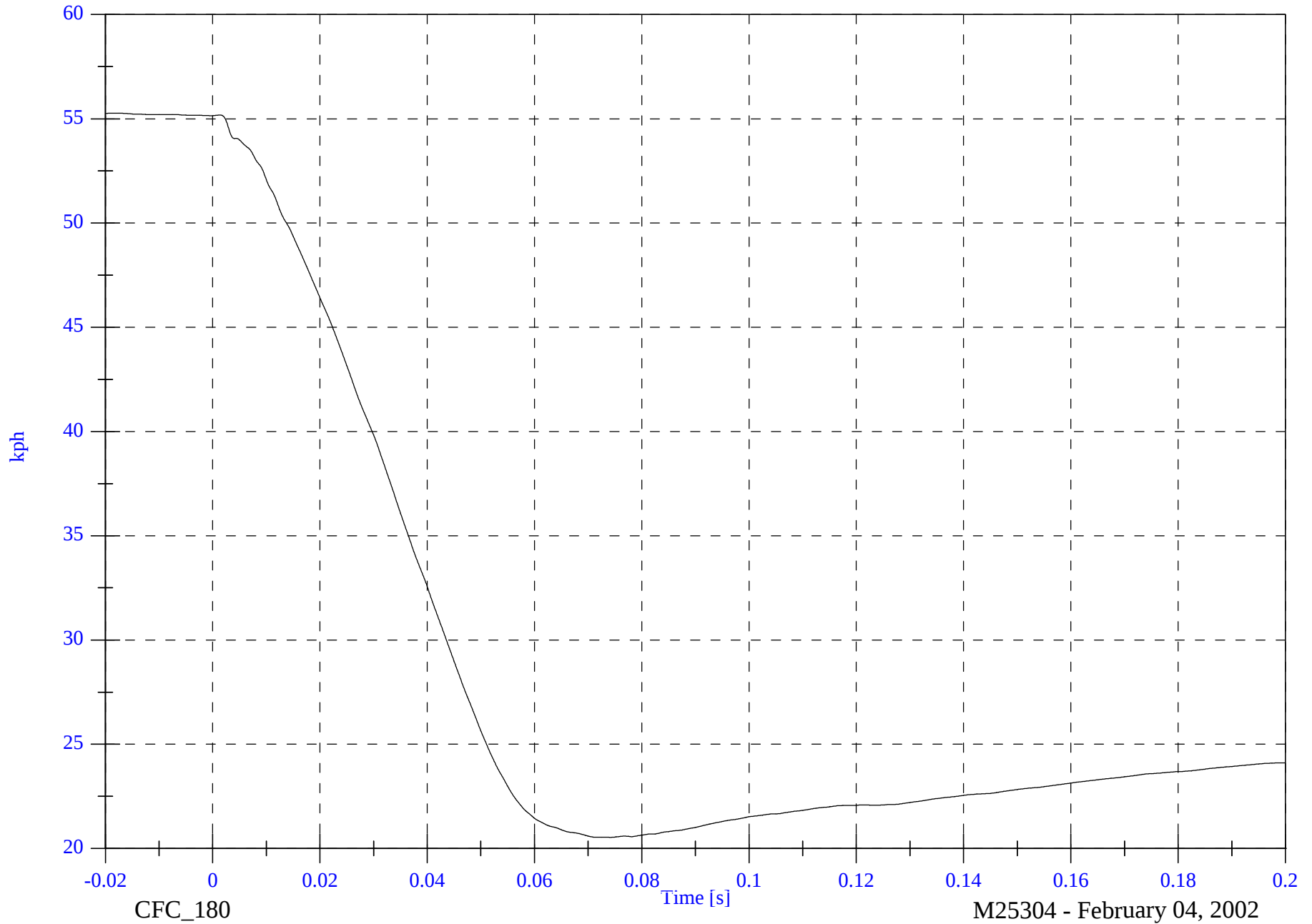


2002 SNCAP Test 1 - 2002 Acura RSX

Moving Barrier Left Rail X Velocity

Max: 55.3 [kph] at -0.017 [s]

Min: 20.5 [kph] at 0.074 [s]



B-89

8652-SNCAP-01

CFC_180

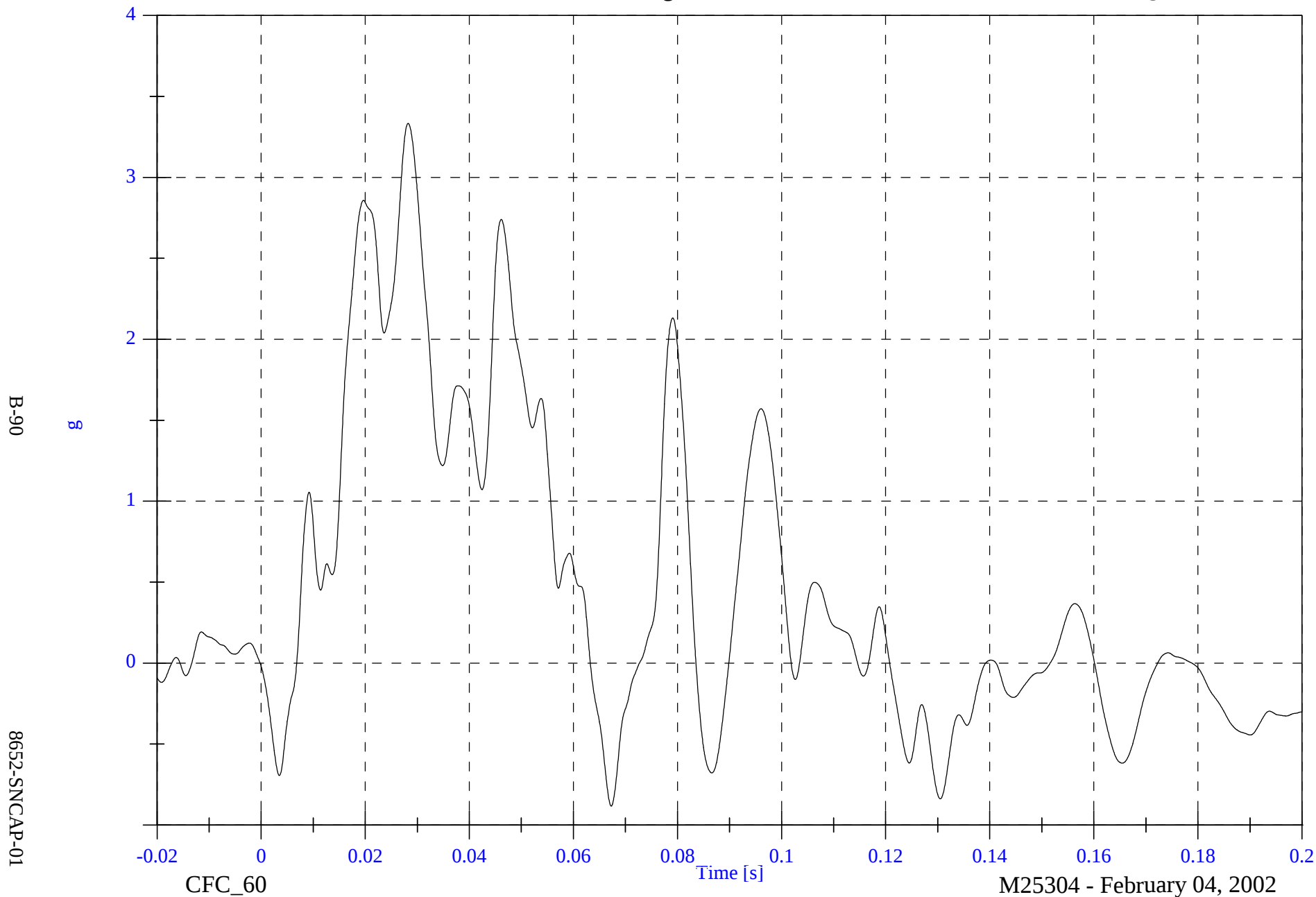
M25304 - February 04, 2002

2002 SNCAP Test 1 - 2002 Acura RSX

Moving Barrier Left Rail Y

Max: 3.3 [g] at 0.028 [s]

Min: -0.9 [g] at 0.067 [s]



2002 SNCAP Test 1 - 2002 Acura RSX

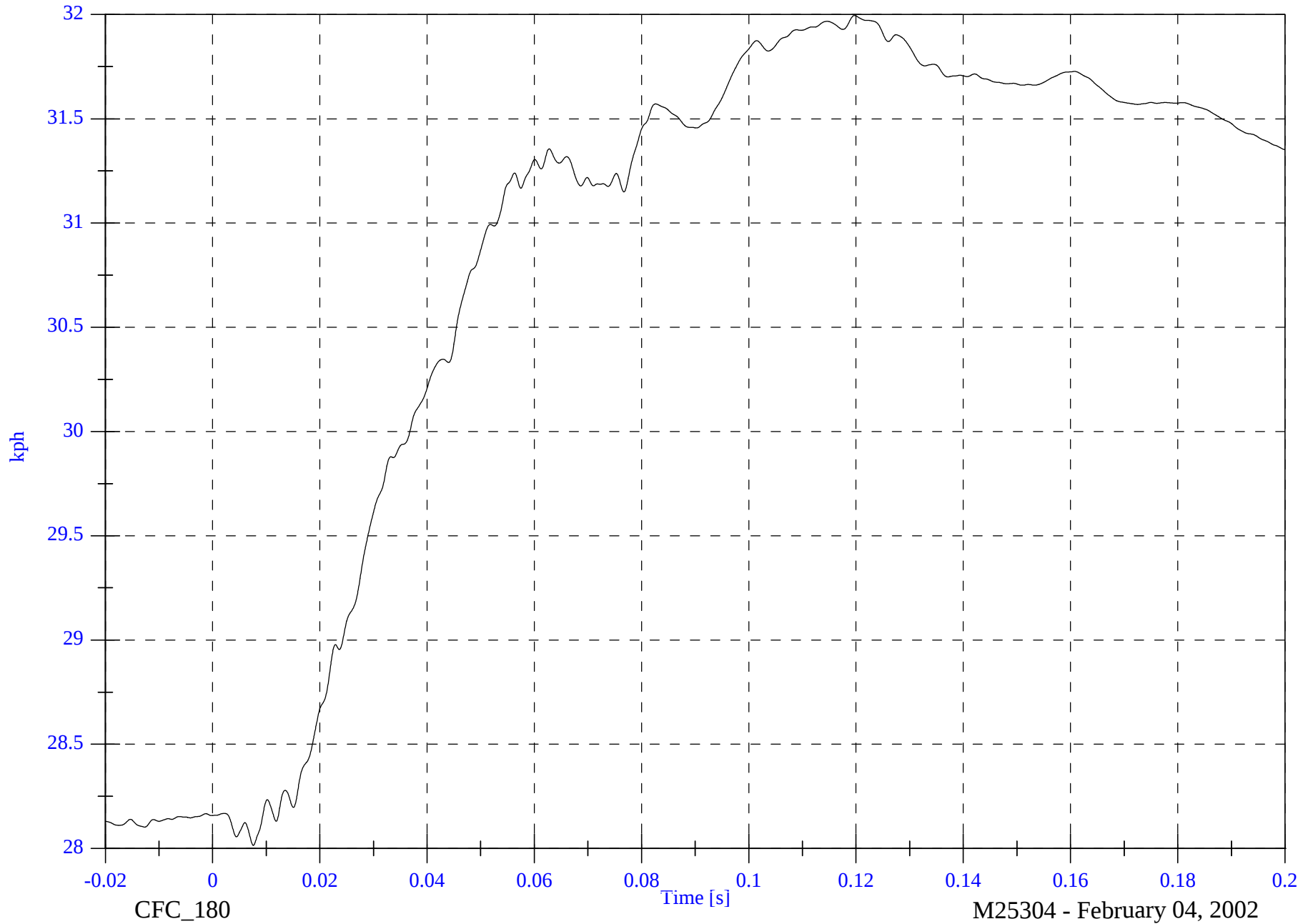
Moving Barrier Left Rail Y Velocity

Max: 32.0 [kph] at 0.120 [s]

Min: 28.0 [kph] at 0.008 [s]

B-91

8652-SNCAP-01



2002 SNCAP Test 1 - 2002 Acura RSX

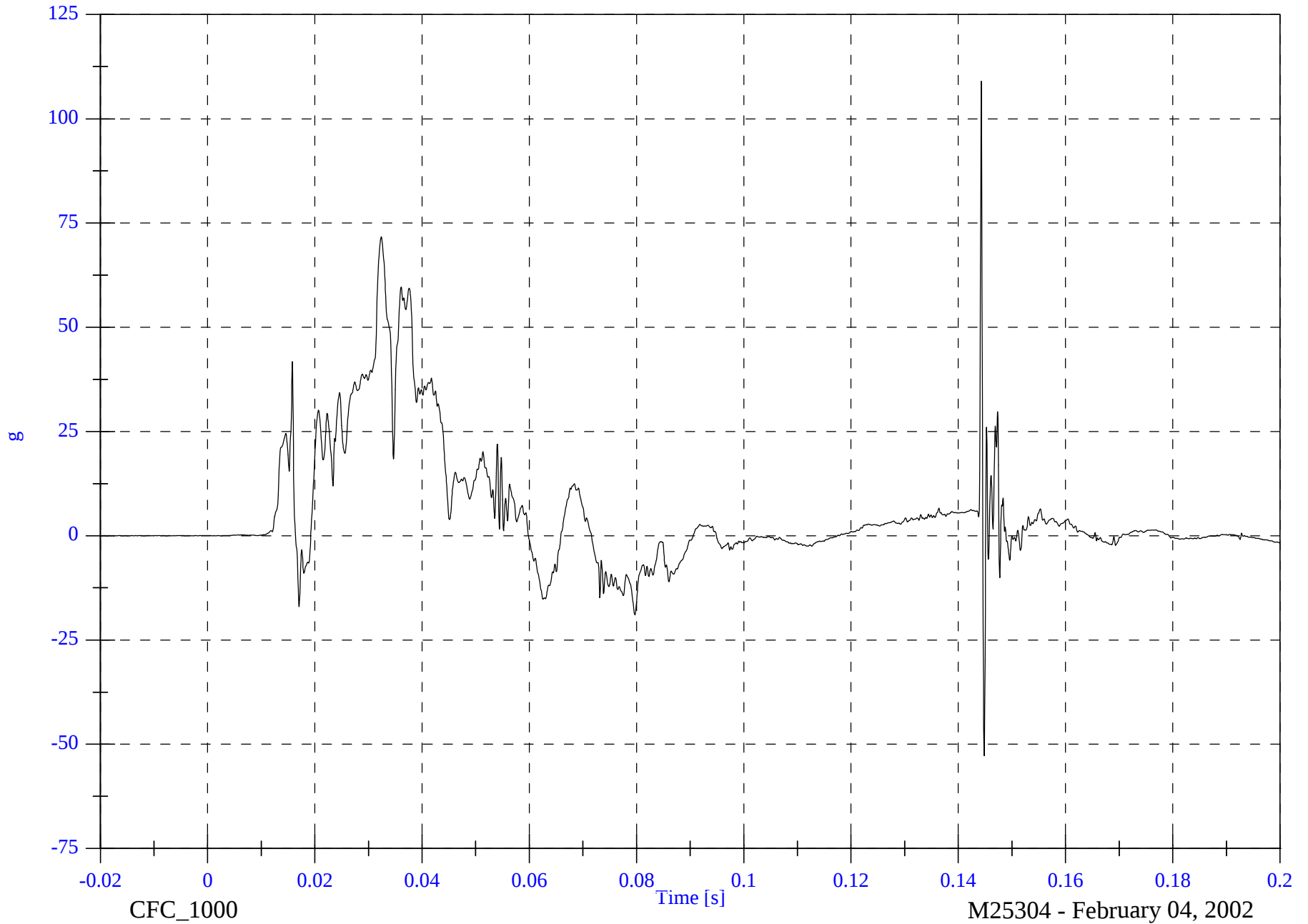
P1 Upper Rib Ry

Max: 109.0 [g] at 0.144 [s]

Min: -52.8 [g] at 0.145 [s]

B-92

8652-SNCAP-01



2002 SNCAP Test 1 - 2002 Acura RSX

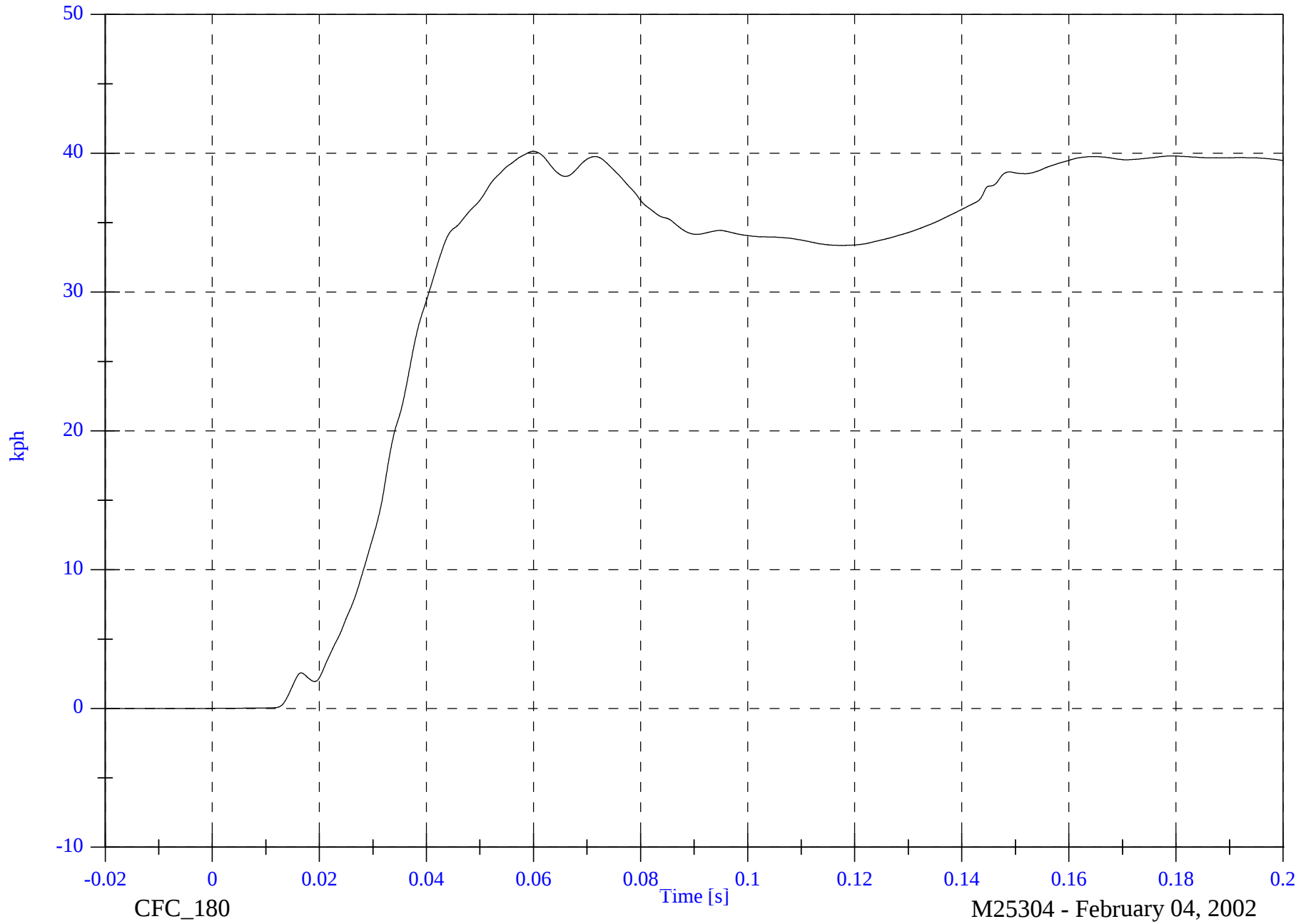
P1 Upper Rib Ry Velocity

Max: 40.1 [kph] at 0.060 [s]

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

B-93

8652-SNCAP-01



2002 SNCAP Test 1 - 2002 Acura RSX

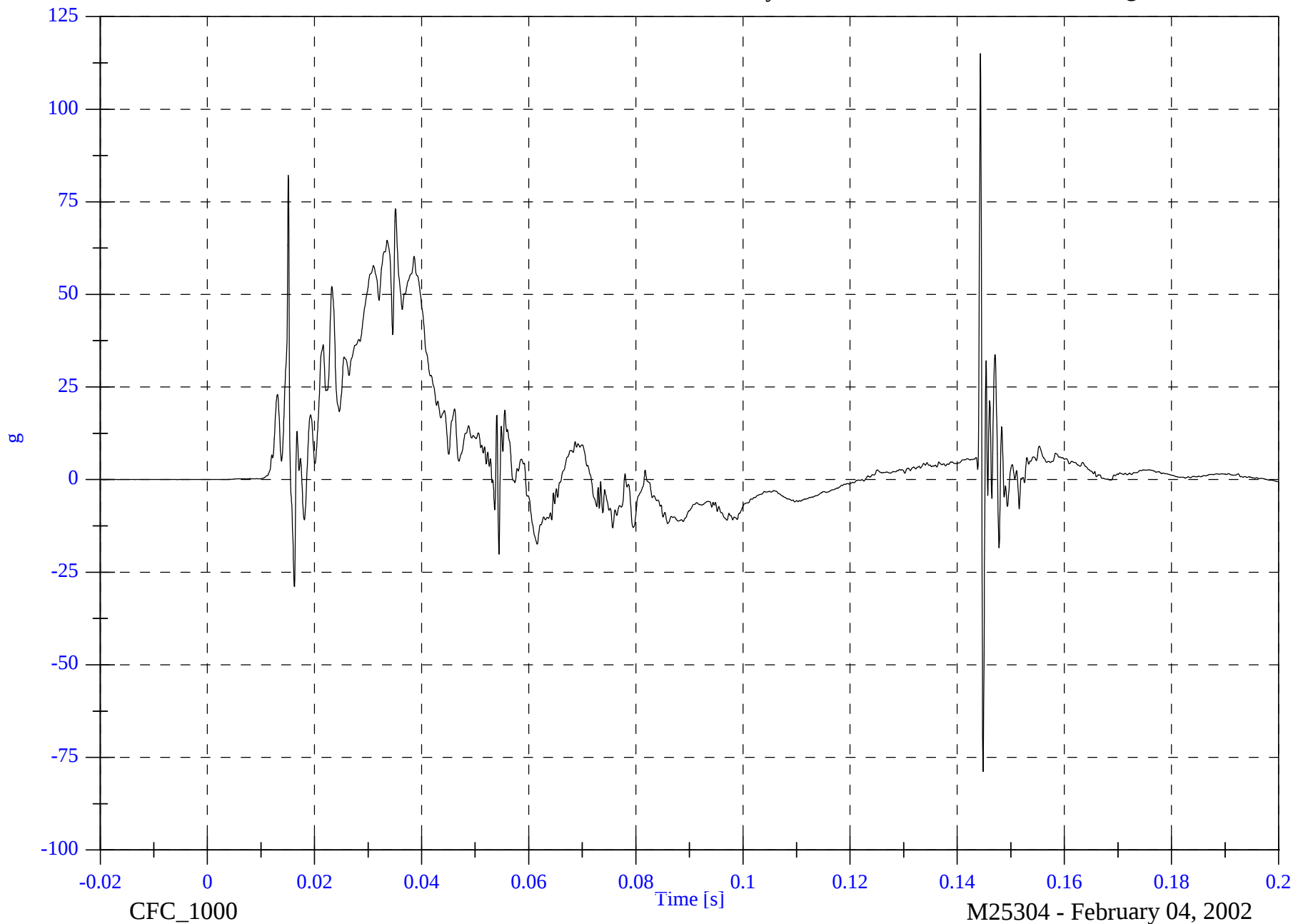
P1 Lower Rib Ry

Max: 115.0 [g] at 0.144 [s]

Min: -78.8 [g] at 0.145 [s]

B-94

8652-SNCAP-01



2002 SNCAP Test 1 - 2002 Acura RSX

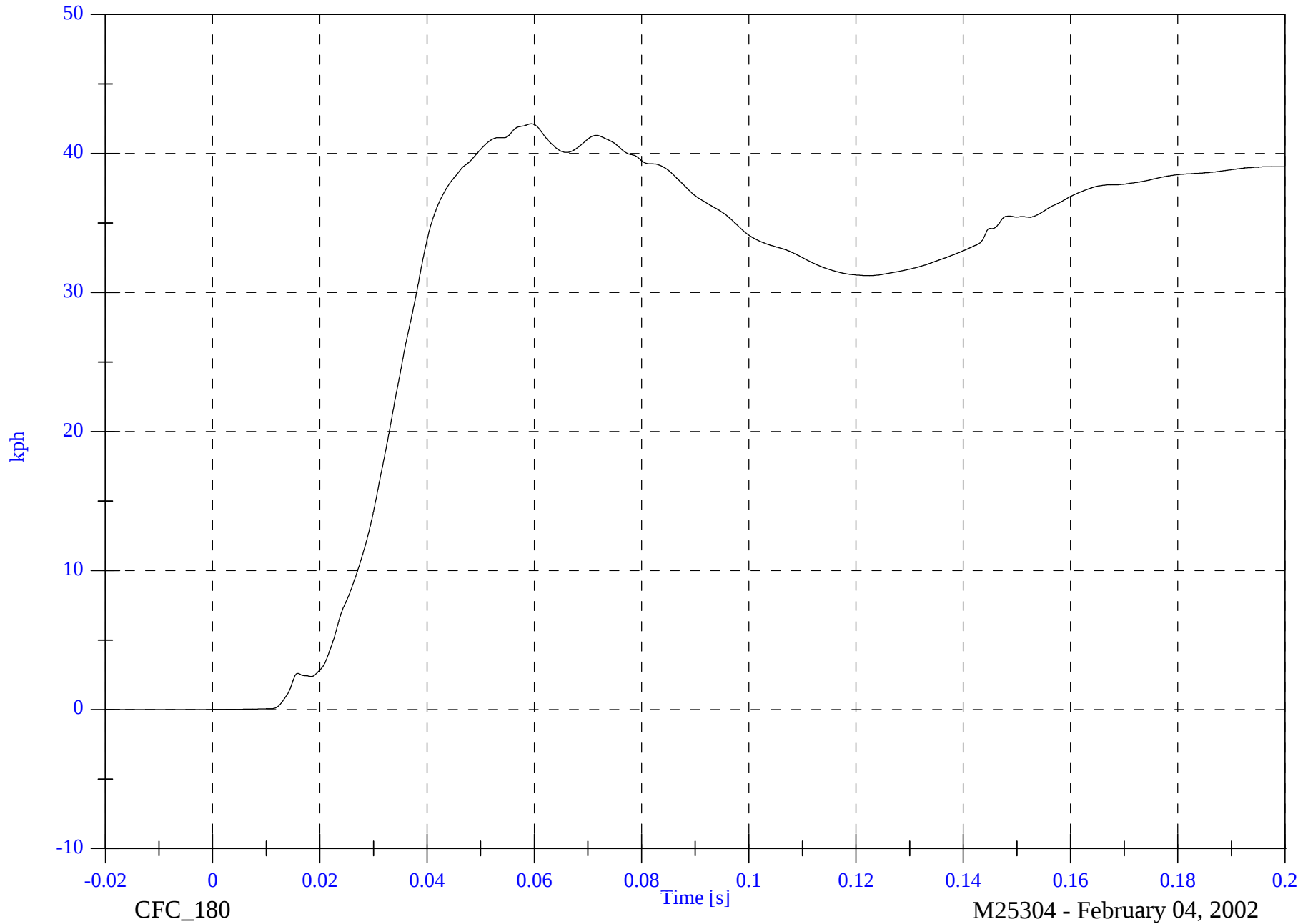
P1 Lower Rib Ry Velocity

Max: 42.1 [kph] at 0.059 [s]

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

B-95

8652-SNCAP-01



2002 SNCAP Test 1 - 2002 Acura RSX

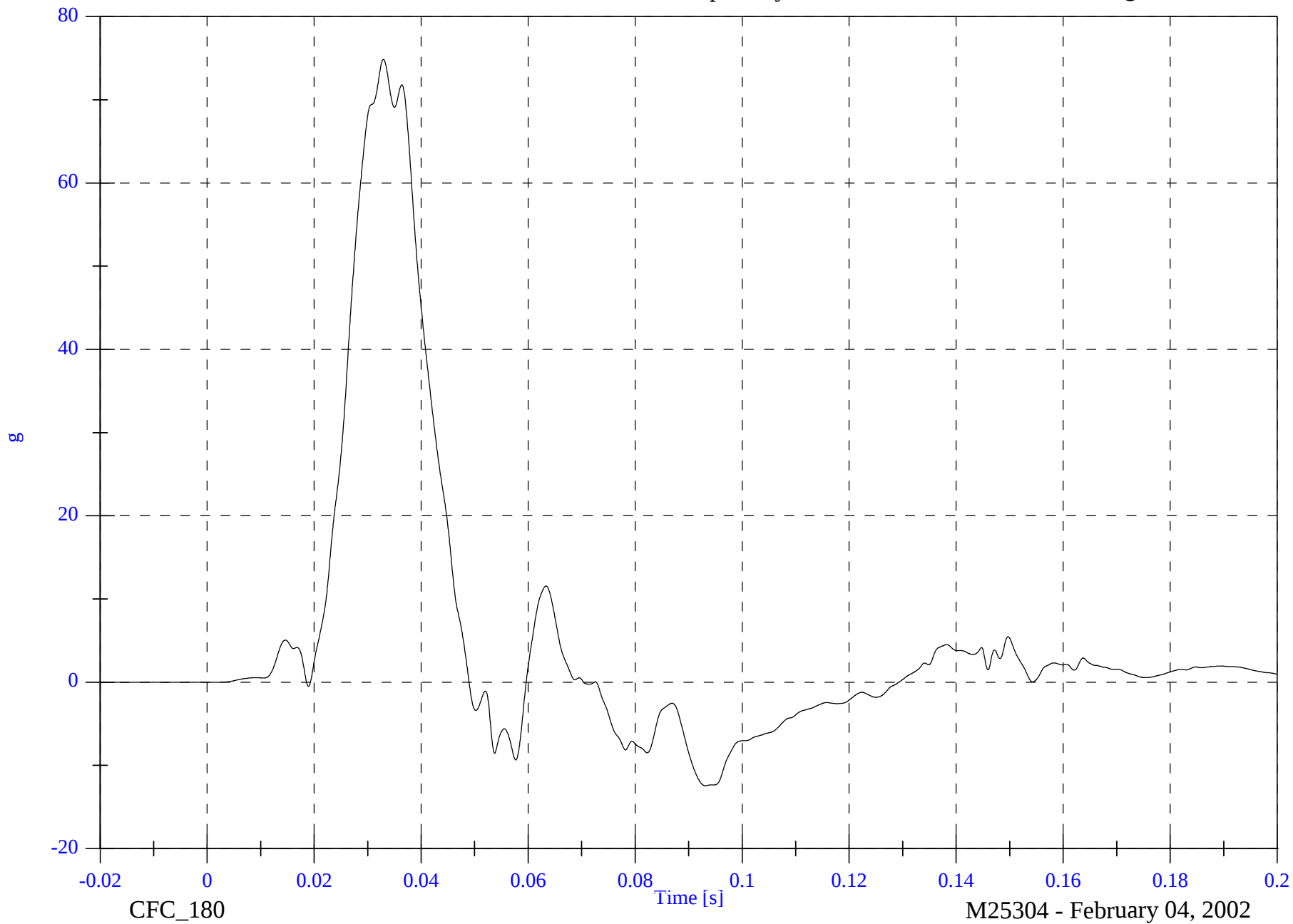
P1 Lower Spine Ry

Max: 74.9 [g] at 0.033 [s]

Min: -12.4 [g] at 0.093 [s]

B-96

8652-SNCAP-01



2002 SNCAP Test 1 - 2002 Acura RSX

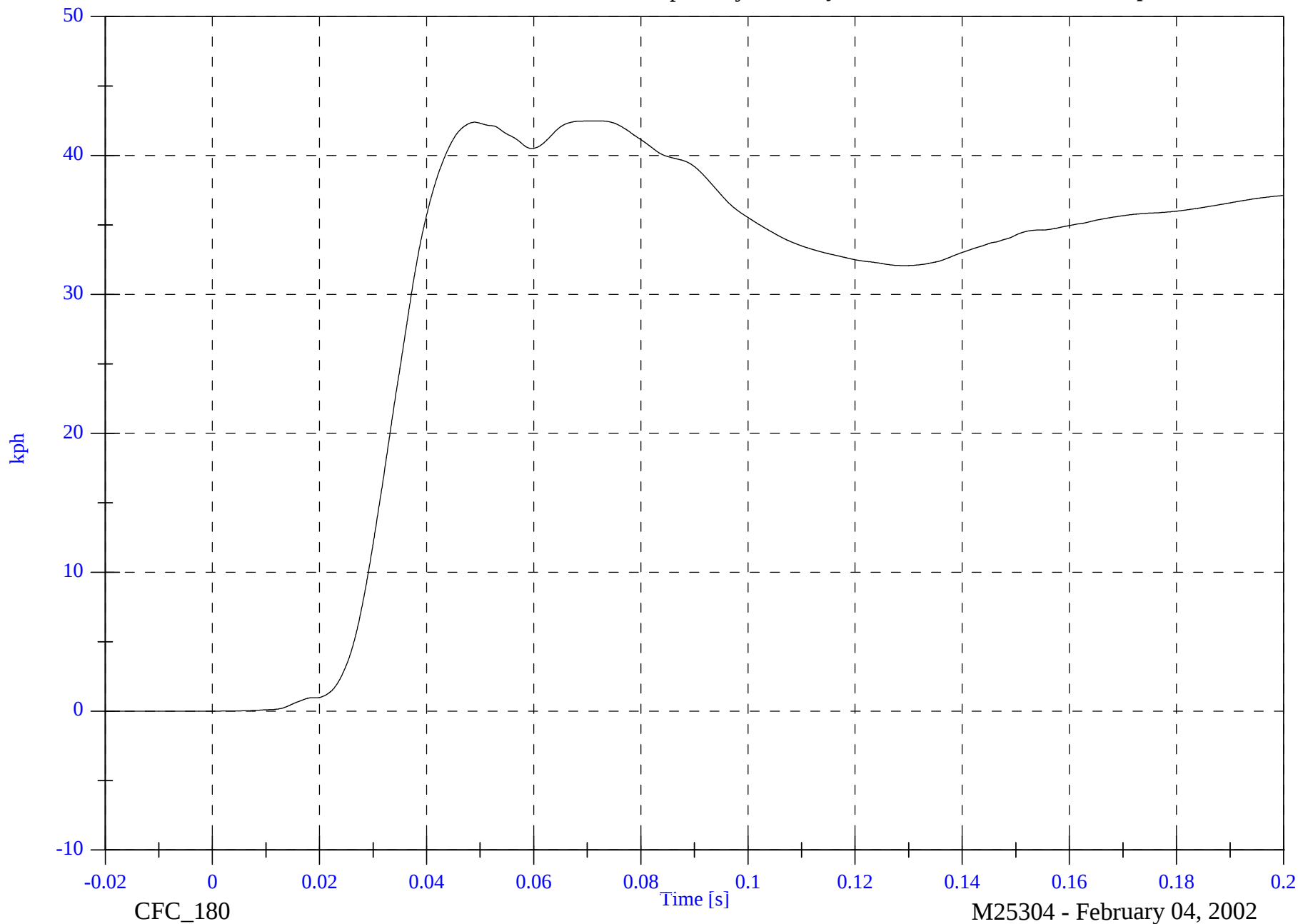
P1 Lower Spine Ry Velocity

Max: 42.5 [kph] at 0.070 [s]

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

B-97

8652-SNCAP-01

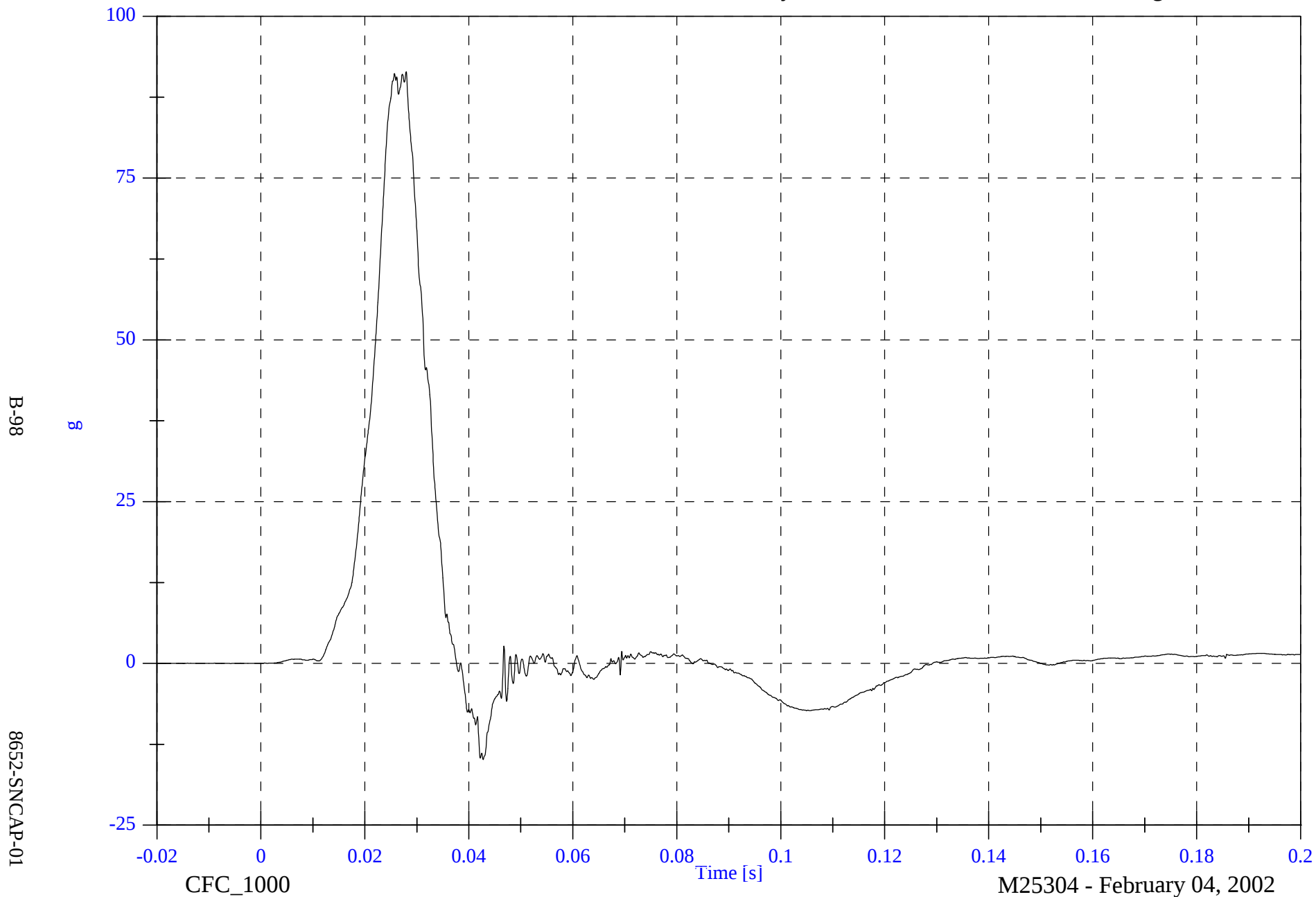


2002 SNCAP Test 1 - 2002 Acura RSX

P1 Pelvic Ry

Max: 91.4 [g] at 0.028 [s]

Min: -14.9 [g] at 0.043 [s]

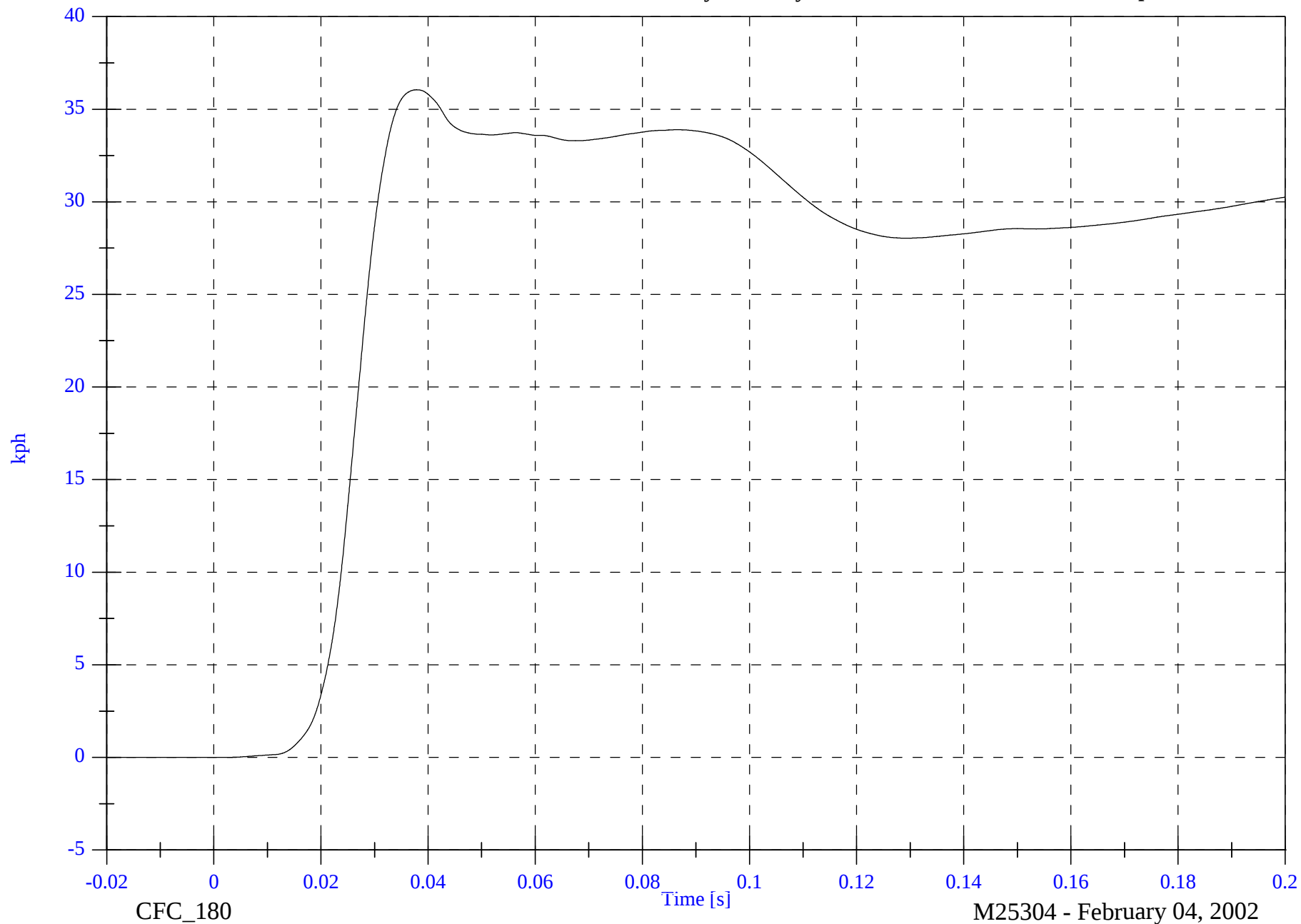


2002 SNCAP Test 1 - 2002 Acura RSX

P1 Pelvic Ry Velocity

Max: 36.1 [kph] at 0.038 [s]

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



B-99

8652-SNCAP-01

CFC_180

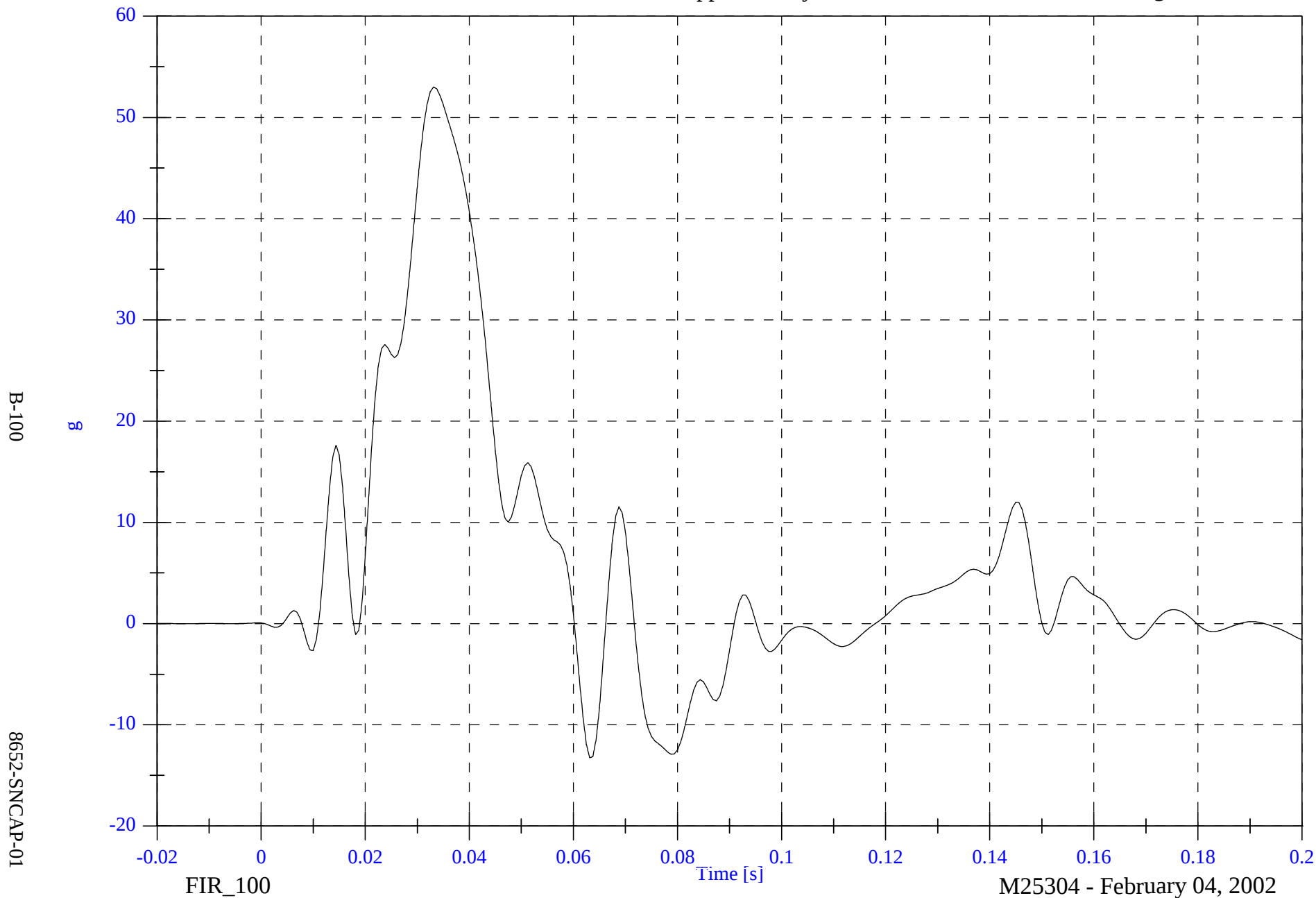
M25304 - February 04, 2002

2002 SNCAP Test 1 - 2002 Acura RSX

P1 Upper Rib Ry

Max: 53.0 [g] at 0.033 [s]

Min: -13.3 [g] at 0.063 [s]



2002 SNCAP Test 1 - 2002 Acura RSX

P1 Lower Rib Ry

Max: 58.1 [g] at 0.033 [s]

Min: -13.6 [g] at 0.063 [s]

B-101

8652-SNCAP-01



2002 SNCAP Test 1 - 2002 Acura RSX

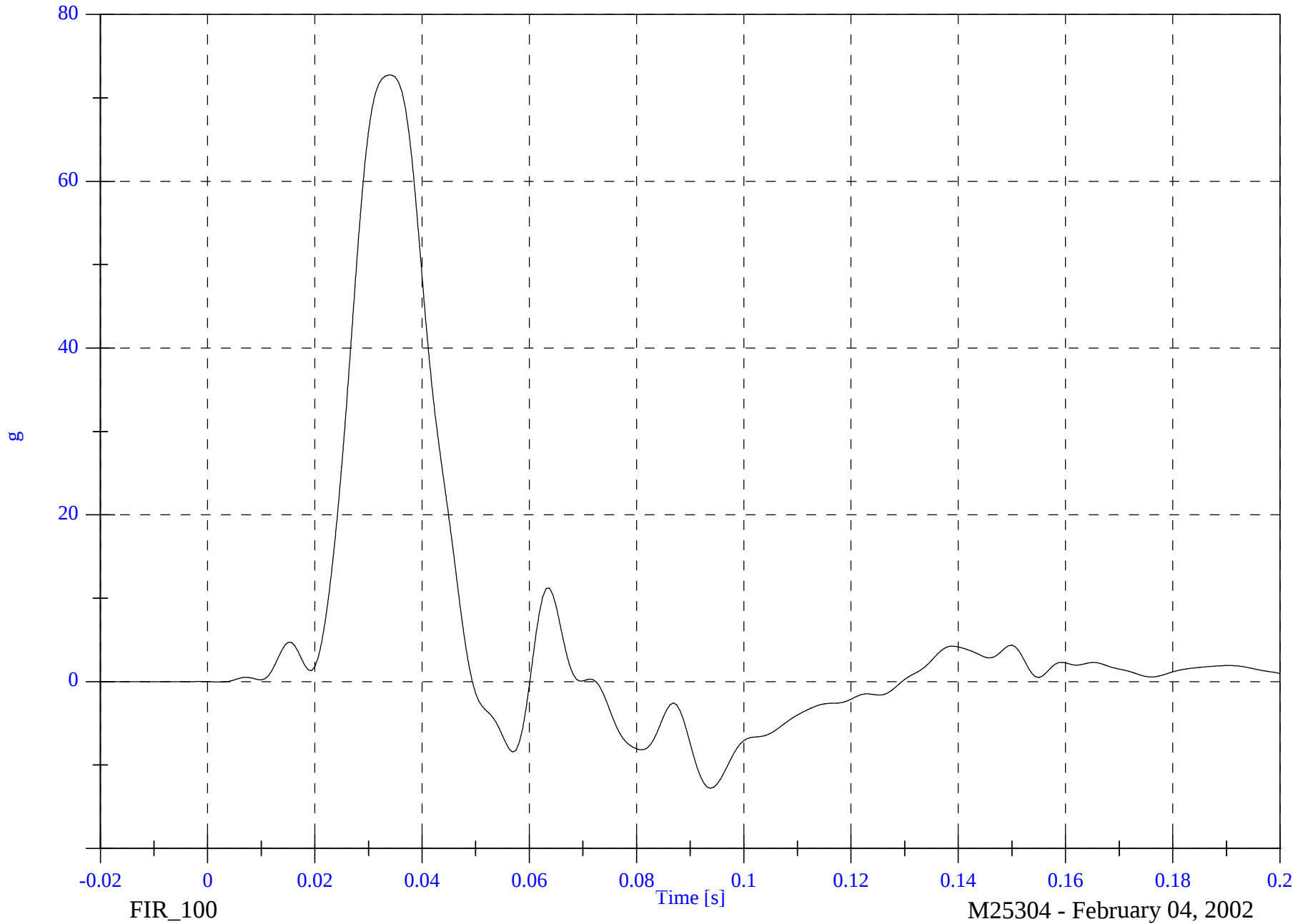
P1 Lower Spine Ry

Max: 72.8 [g] at 0.034 [s]

Min: -12.8 [g] at 0.094 [s]

B-102

8652-SNCAP-01

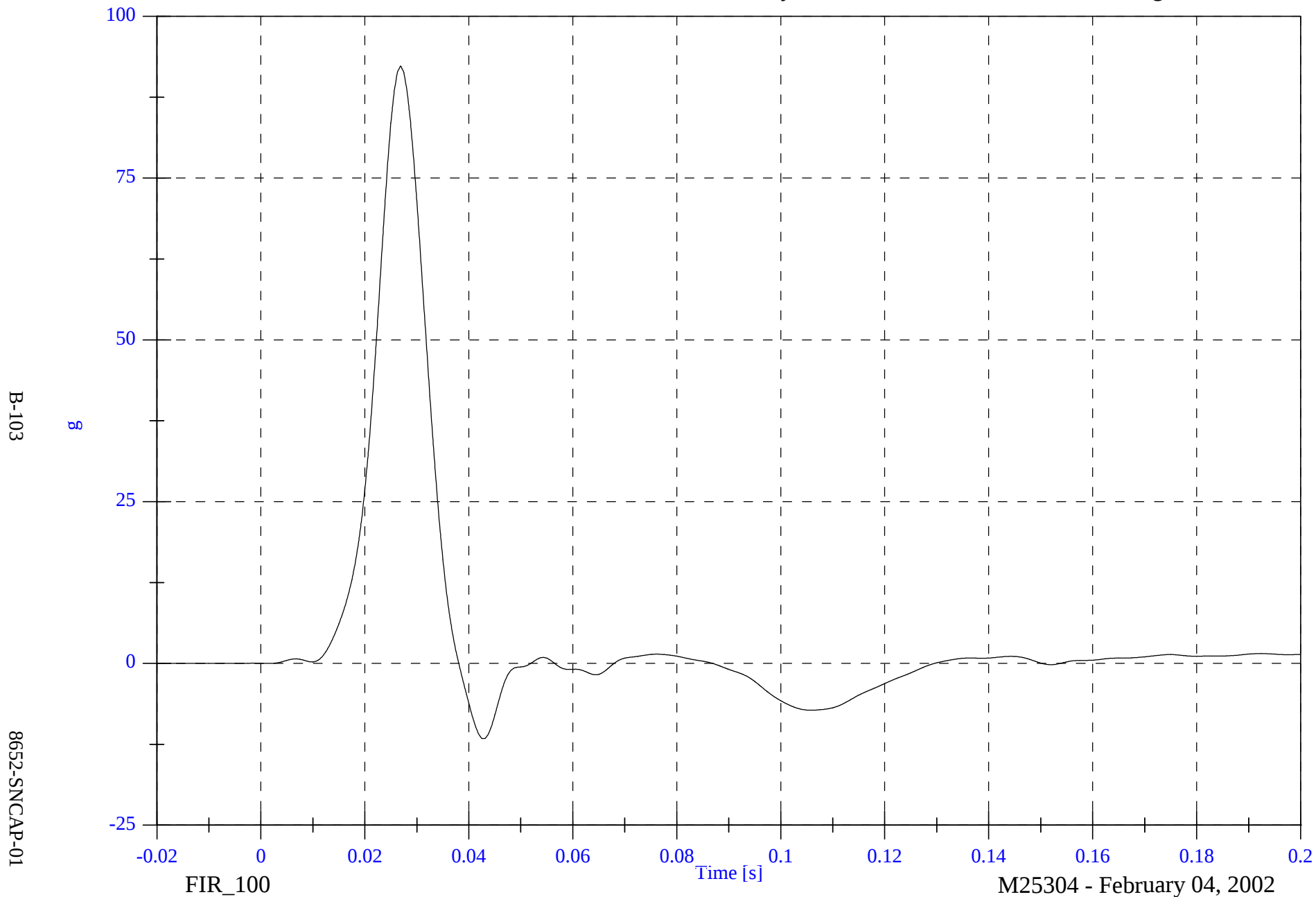


2002 SNCAP Test 1 - 2002 Acura RSX

P1 Pelvic Ry

Max: 92.3 [g] at 0.027 [s]

Min: -11.6 [g] at 0.043 [s]



APPENDIX C

SID CONFIGURATION AND PERFORMANCE VERIFICATION DATA

SUMMARY
SID PRE & POST TEST CALIBRATION

CONFIGURED FOR LEFT SIDE IMPACT

Date: January 14, 2002; February 13, 2002 Sequential Test Number: 2,3
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	SID NO.: 026	
		PRE TEST	POST TEST
SH- Seated Height (mm)	889 - 909	899	899
RH- Rib Height (mm)	501 - 521	518	517
HP- Hip Pivot Height (mm)	99 ref.	99	99
RD- Rib from Back Line (mm)	229 - 241	236	236
KV- Knee Pivot from Back Line (mm)	511 - 526	518	518
SW- Knee Pivot to Floor (mm)	490 - 505	493	493
HW- Hip Width (mm)	356 - 391	371	373
THORAX IMPACTS			
TEMPERATURE (? C)	18.9 - 25.5	21.7	20.6
RELATIVE HUMIDITY (%)	10 - 70	30	29
PROBE SPEED (m/s)	4.27 - 4.33	4.31	4.30
UPPER RIB (g's)	37 - 46	38.7	39.4
LOWER RIB (g's)	37 - 46	37.9	39.7
LOWER SPINE (g's)	15 - 22	19.1	20.0
PELVIS IMPACT			
TEMPERATURE (? C)	18.9 - 25.5	21.7	20.6
RELATIVE HUMIDITY (%)	10 - 70	30	29
PROBE SPEED (m/s)	4.27 - 4.33	4.27	4.29
PELVIS (g's)	40 - 60	48.9	45.4

REMARKS: None

CALIBRATION TEST RESULTS

PRE-TEST

SID NO.: 026

CONFIGURED FOR LEFT SIDE IMPACT

**CALIBRATION TEST RESULTS SUMMARY
PRE-TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 026 Sequential Test Number: 2
Date: January 14, 2002 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.
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 Serial No.: 026 Sequential Test Number: 2
Date: January 14, 2002 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
SH- Seated Height (mm)	889 – 909	899
RH- Rib Height (mm)	502 – 520	518
HP- Hip Pivot Height (mm)	99 ref.	99
RD- Rib from Back Line (mm)	229 – 241	236
KH- Knee Pivot from Back Line (mm)	511 – 526	518
KV- Knee Pivot to Floor (mm)	490 – 505	493
HW- Hip Width (mm)	356 - 391	371

REMARKS: None

**THORACIC SHOCK ABSORBER TESTS
PRE-TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 026 Sequential Test Number: 1.2
Date: September 20, 2001 Laboratory Technician: B. Swiecicki

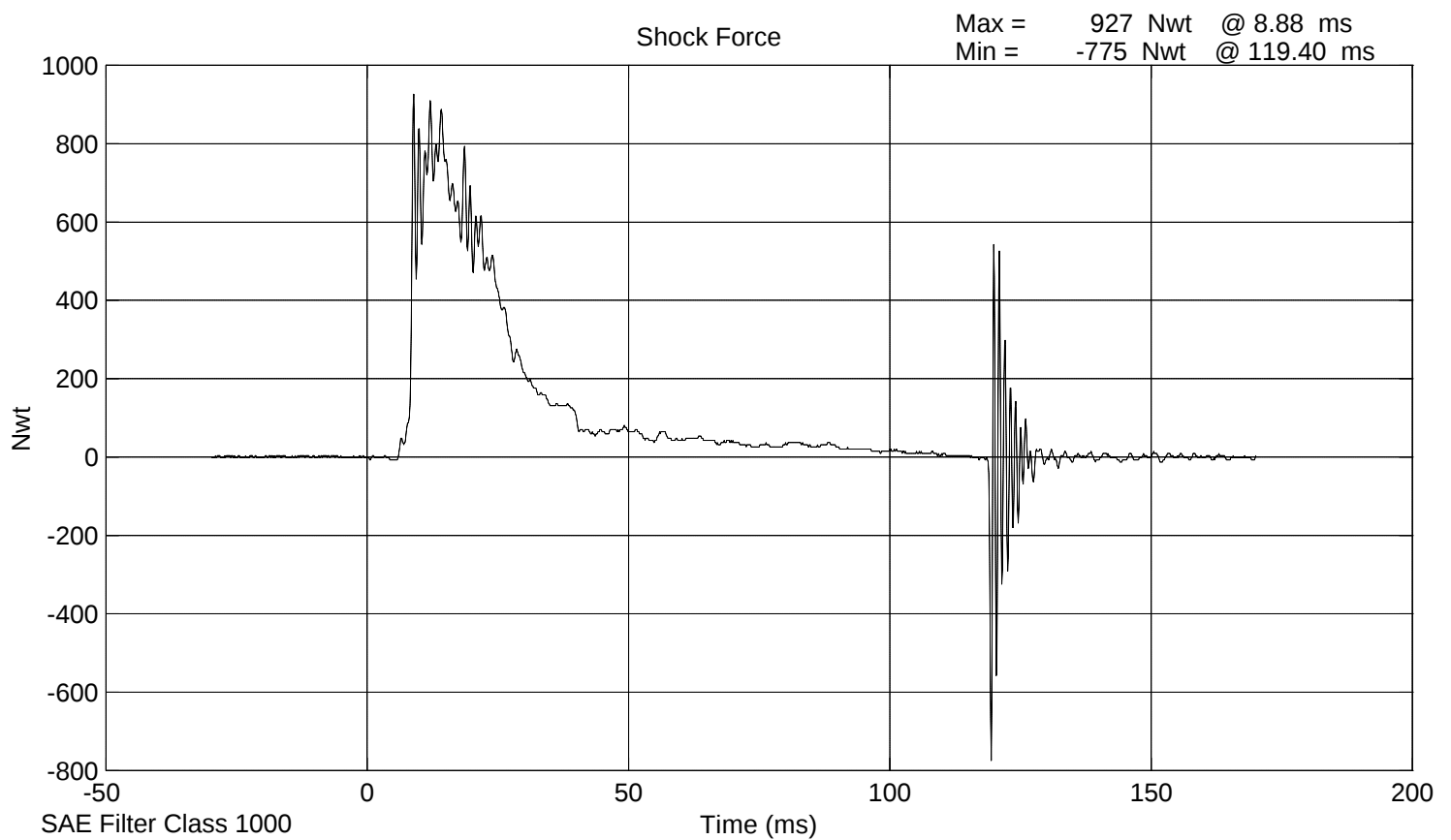
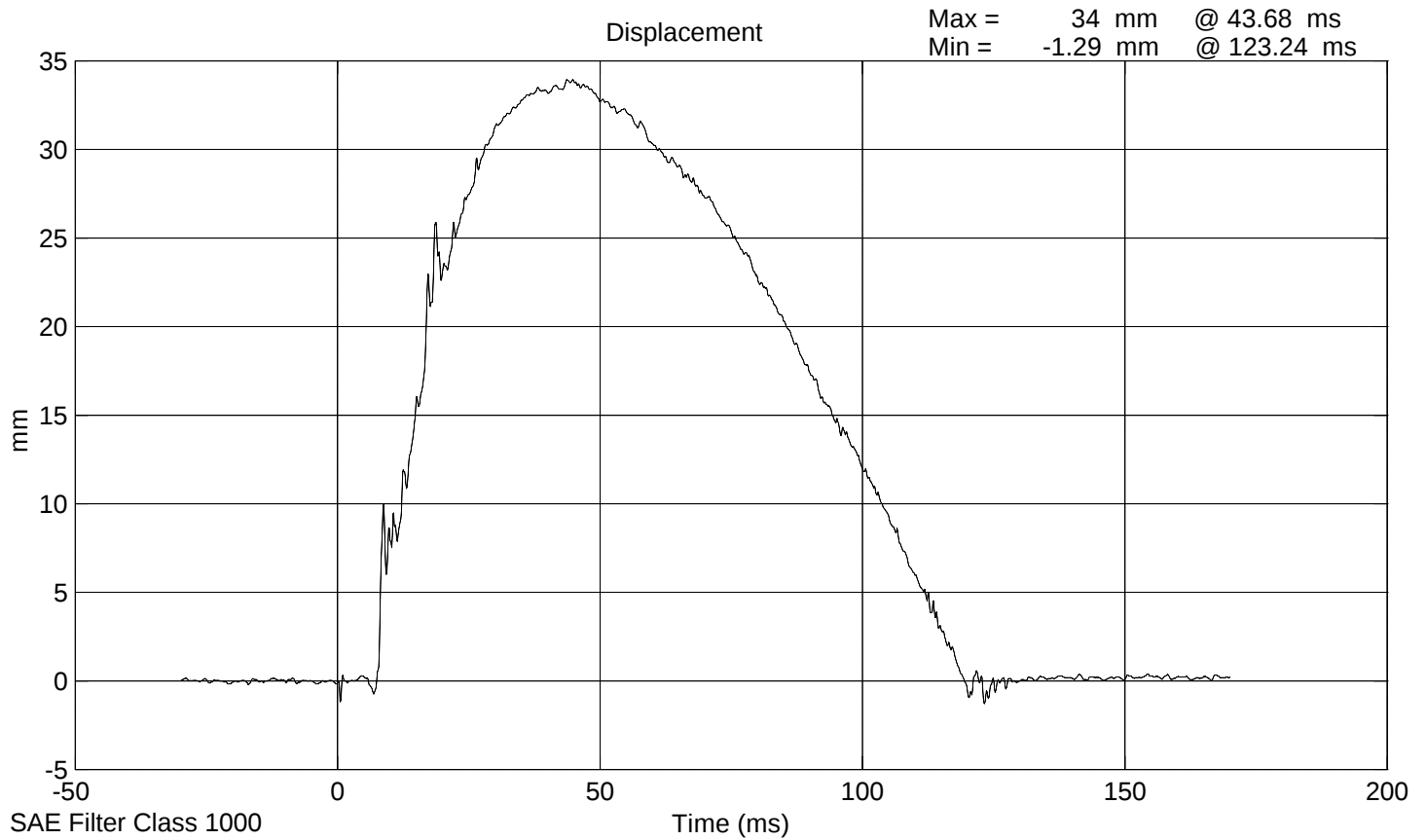
DAMPER IDENTIFICATION: _____

TEST PARAMETER		SPECIFICATION	TEST RESULTS
TEMPERATURE (? C)		18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)		10 - 70	32
VELOCITY 3.05 m/s	FORCE (N)	836 - 1125	926
	DISPLACEMENT (mm)	30 - 35	34
VELOCITY 4.27 m/s	FORCE (N)	1730 - 2099	1773
	DISPLACEMENT (mm)	32 - 37	36
VELOCITY 6.10 m/s	FORCE (N)	3741 - 4448	4155
	DISPLACEMENT (mm)	33 - 40	40

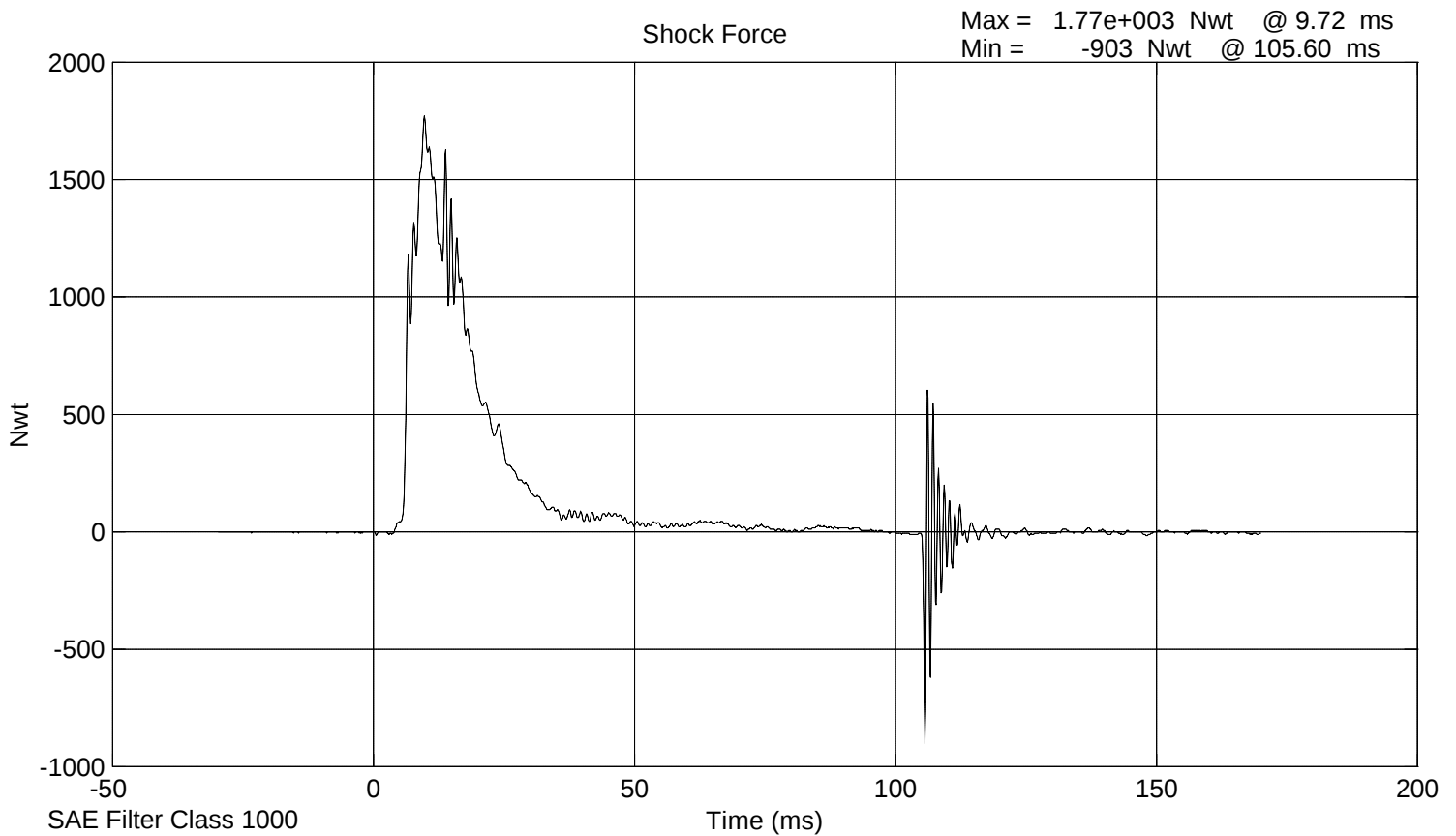
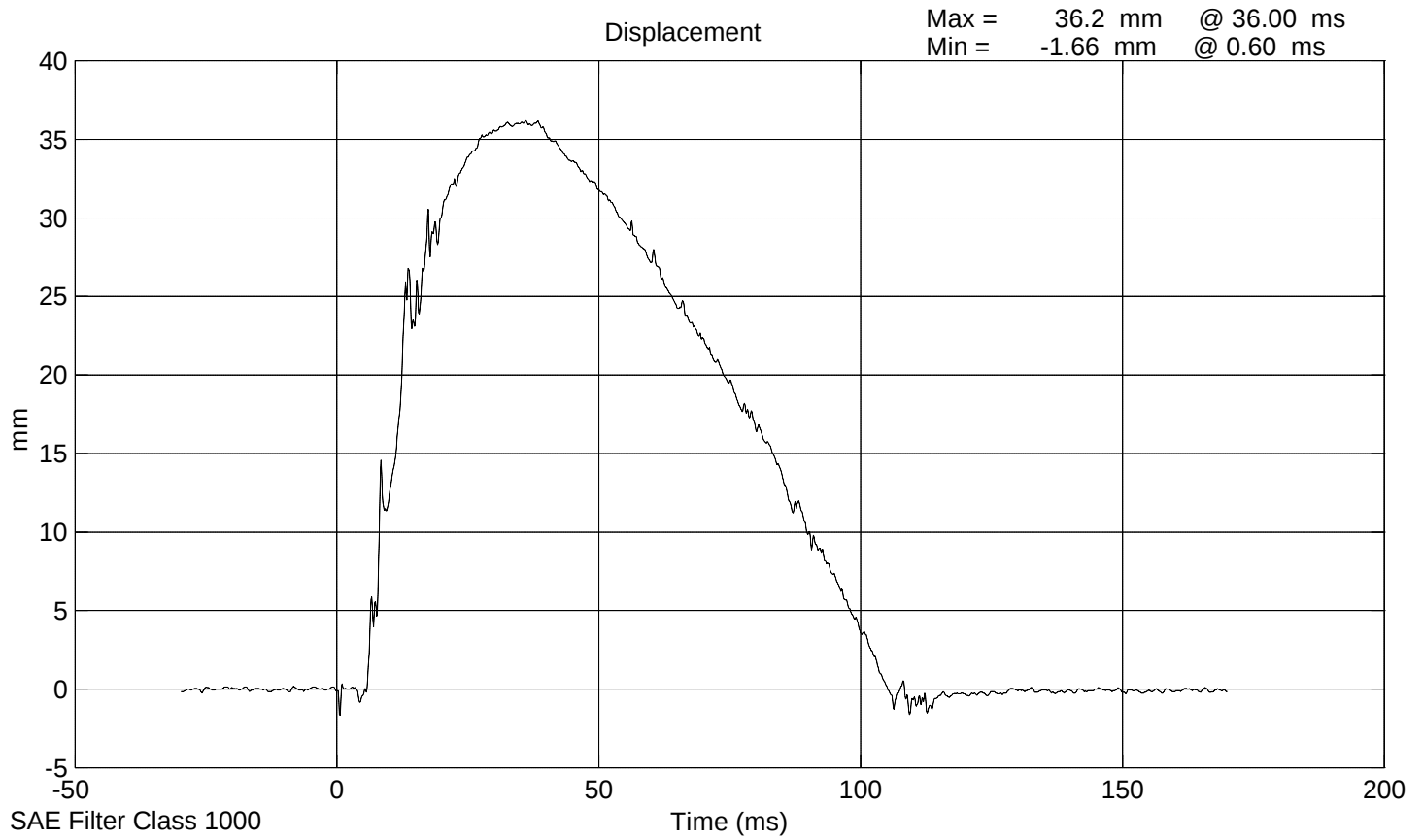
DAMPER SETTING: 5

REMARKS: None

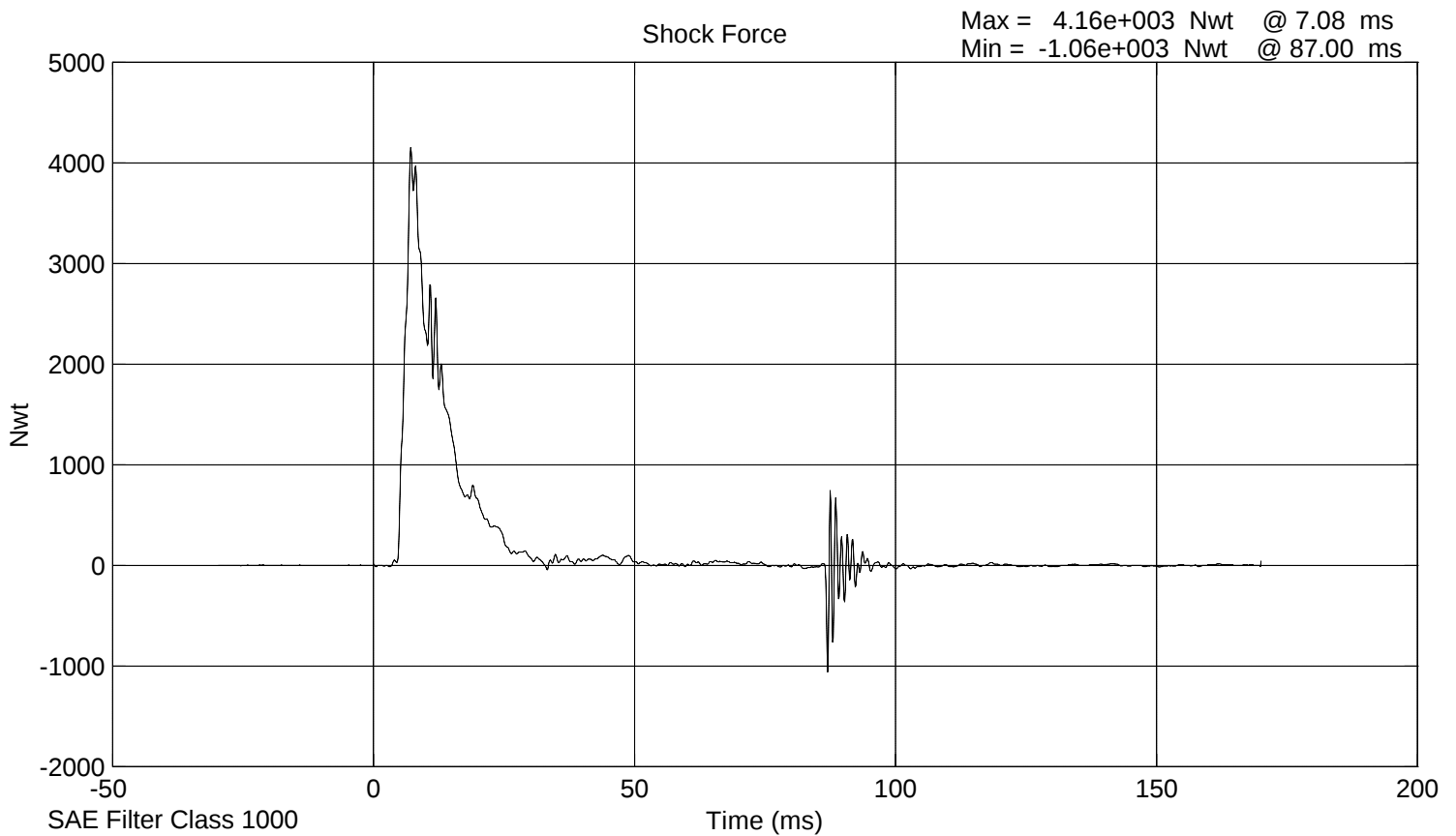
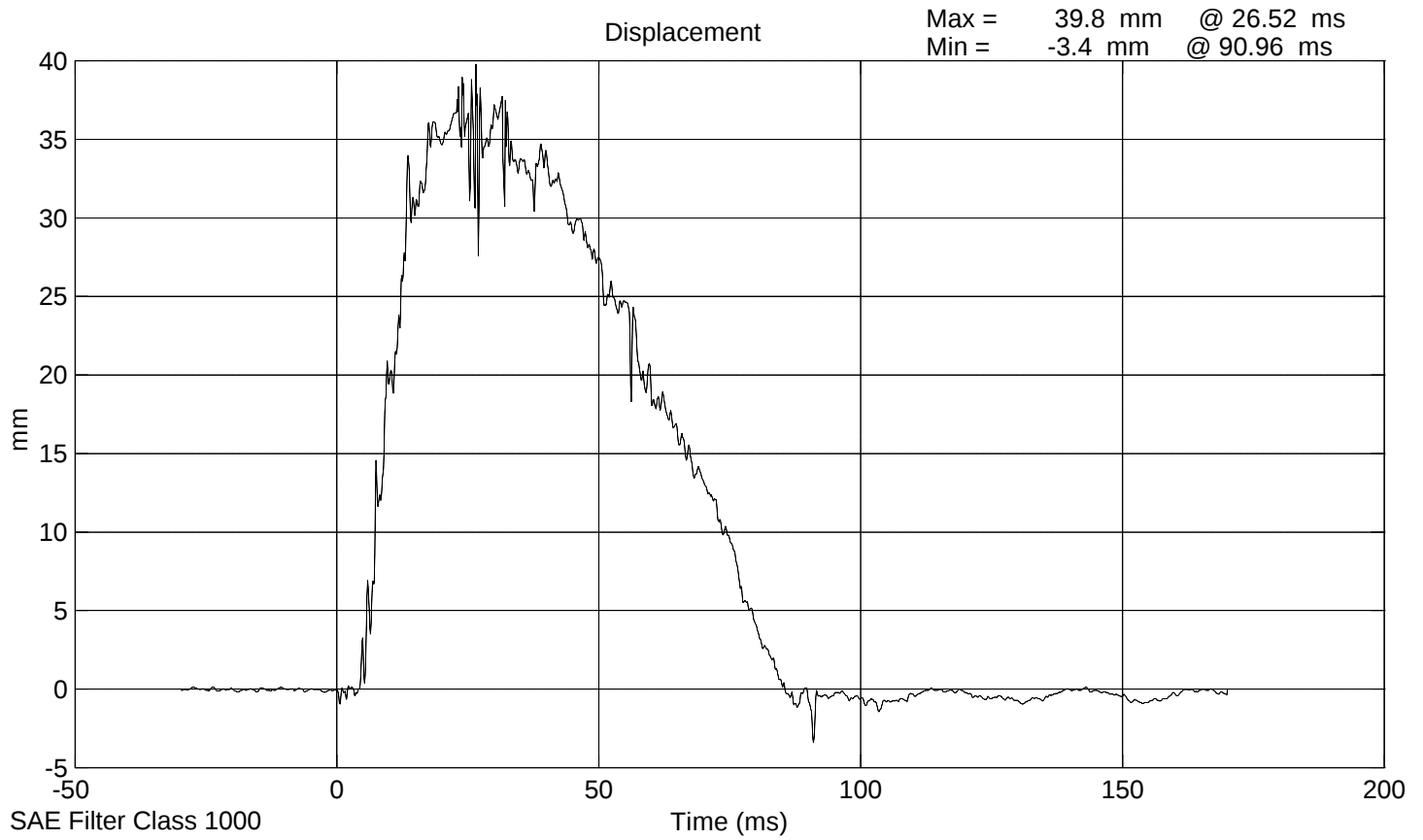
SID 026 Shock Absorber Impact Test @ 3.048 m/s



SID 026 Shock Absorber Impact Test @ 4.2672 m/s



SID 026 Shock Absorber Impact Test @ 6.096 m/s



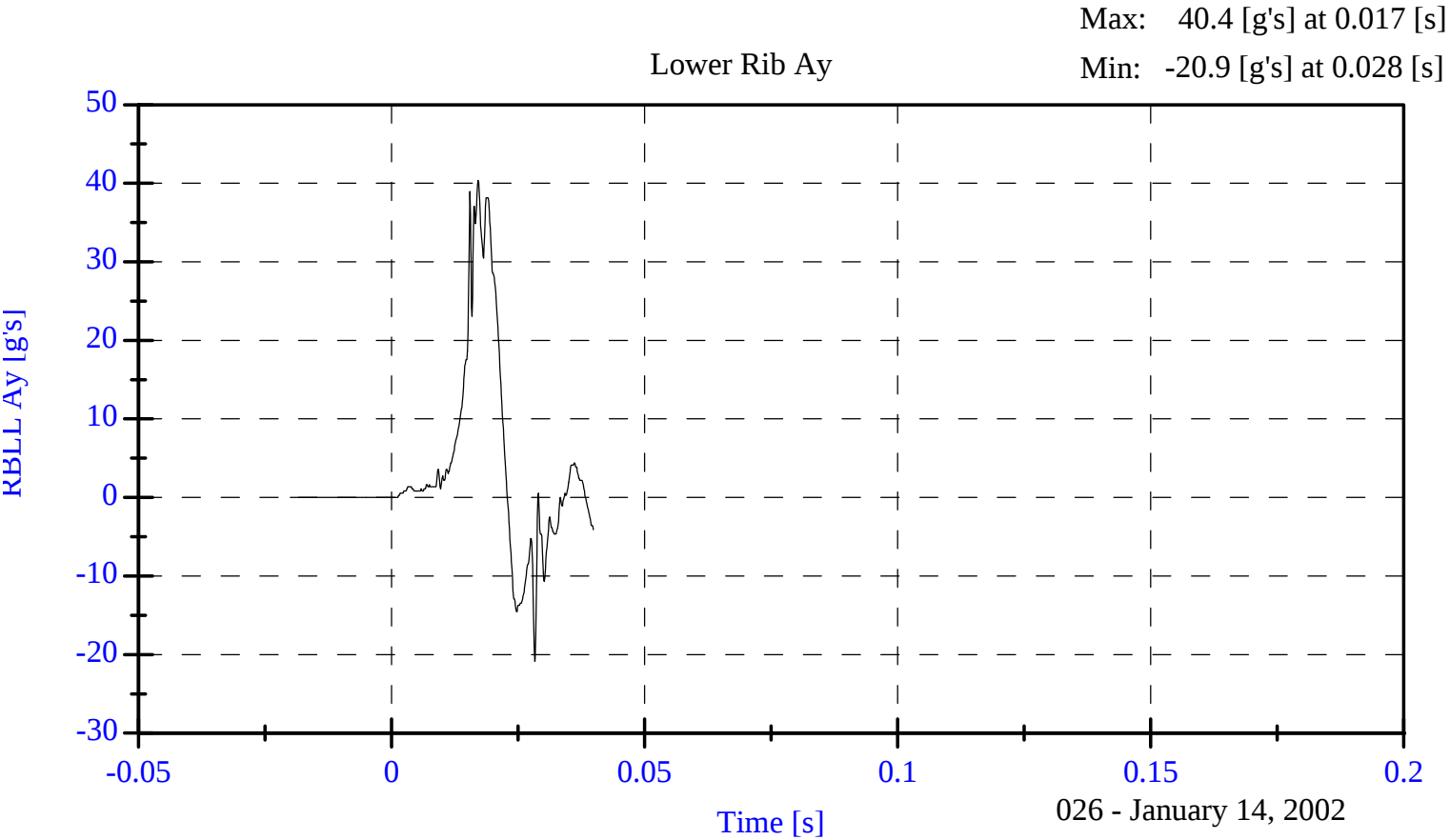
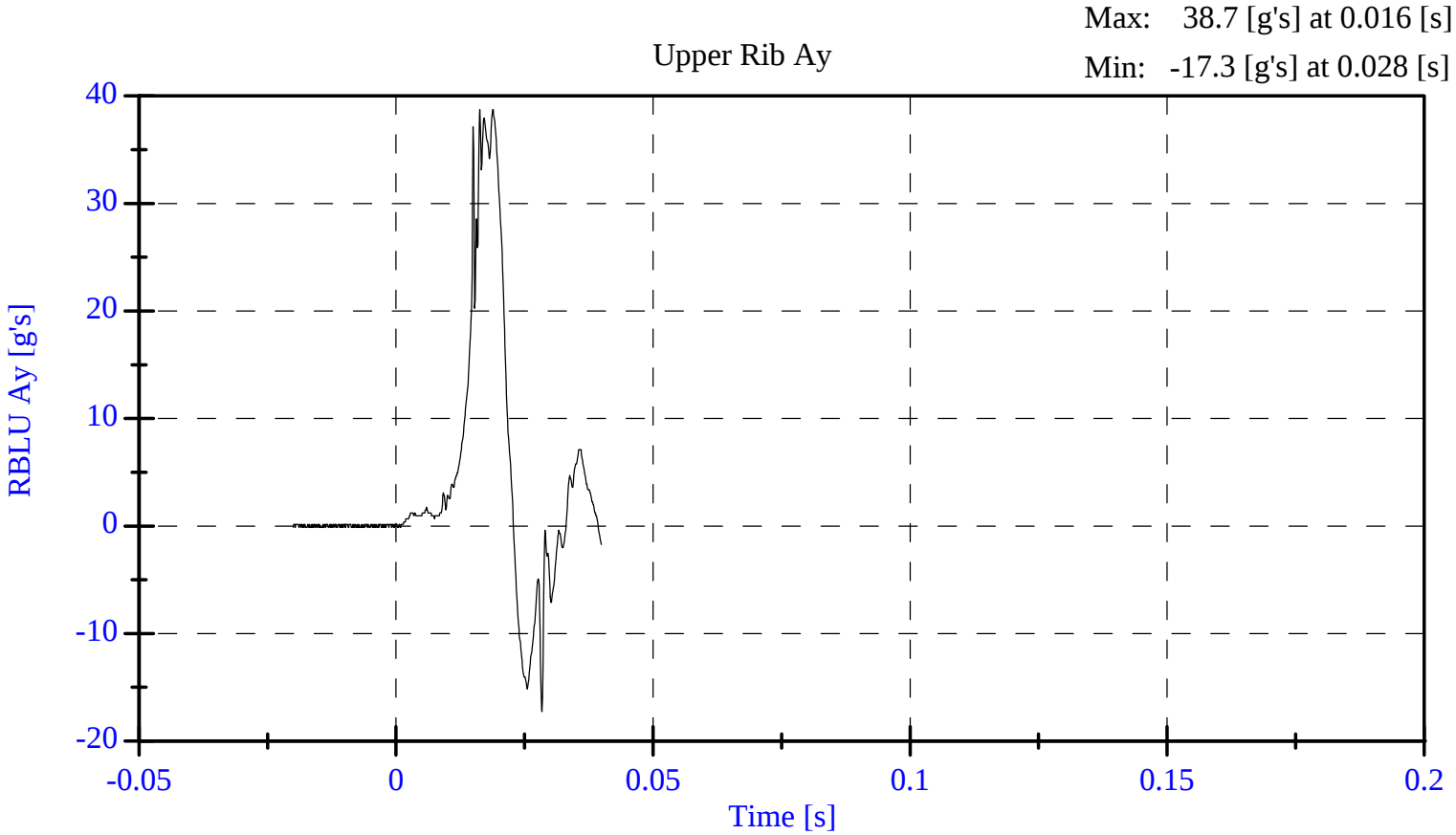
**LATERAL THORAX IMPACT TEST
PRE-TEST**

CONFIGURED FOR LEFT SIDE IMPACT

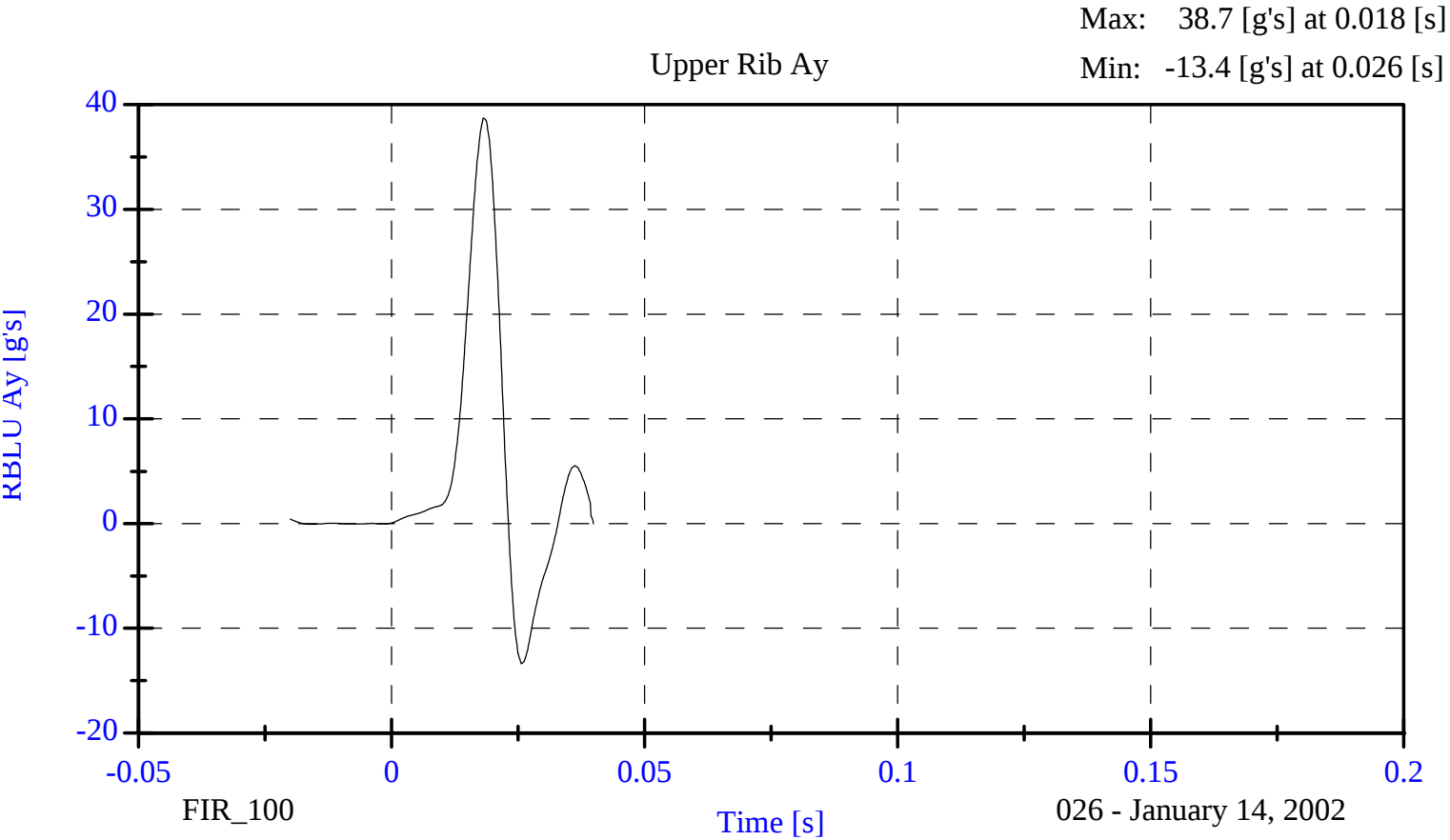
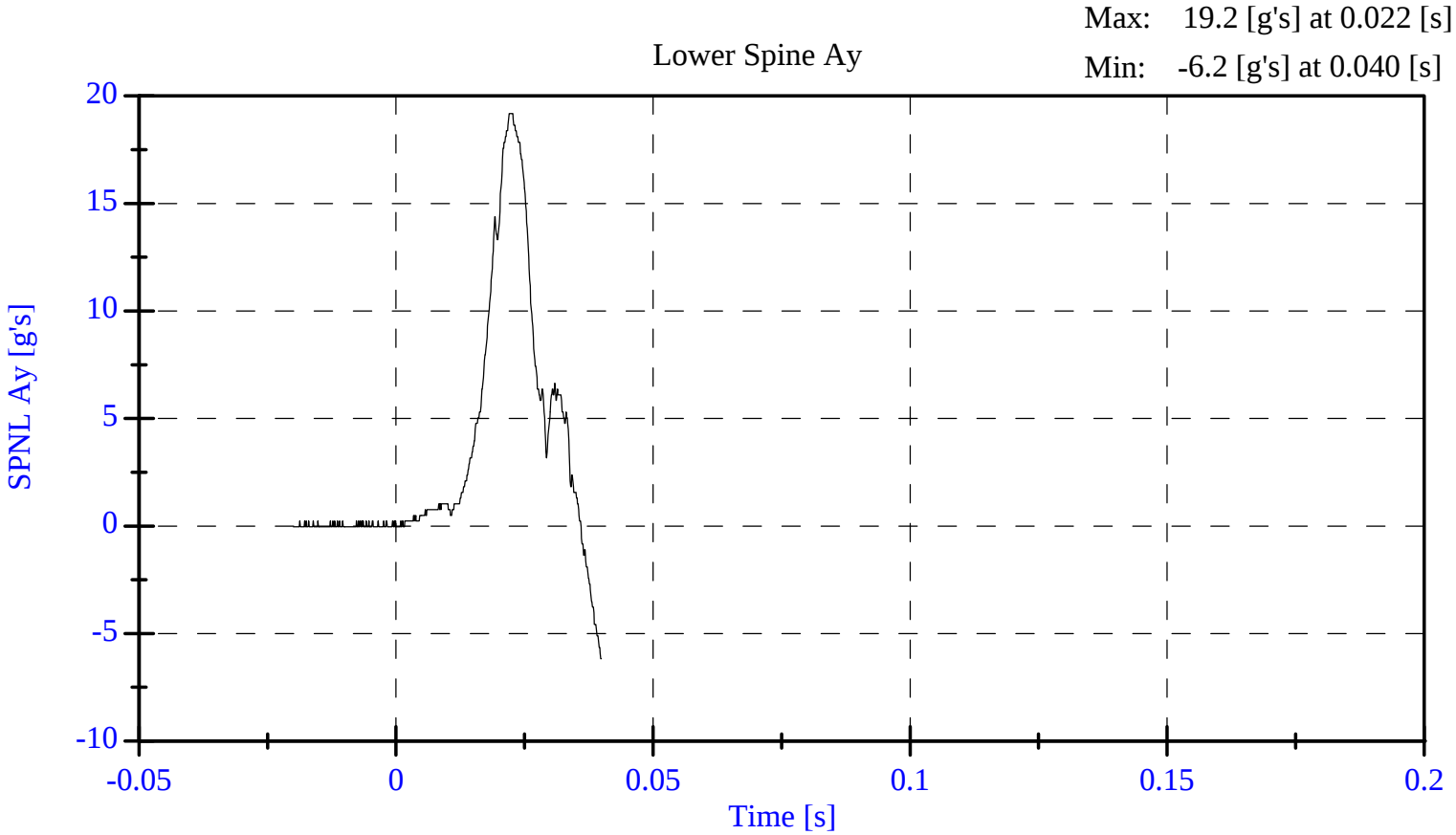
SID Serial No.: 026 Sequential Test Number: 2
Date: January 14, 2002 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (? C)	18.9 - 25.5	21.7
RELATIVE HUMIDITY (%)	10 - 70	30
PROBE SPEED (m/s)	4.27 - 4.33	4.31
UPPER RIB (g's)	37 - 46	38.7
LOWER RIB (g's)	37 - 46	37.9
LOWER SPINE (g's)	15 - 22	19.1

REMARKS: None

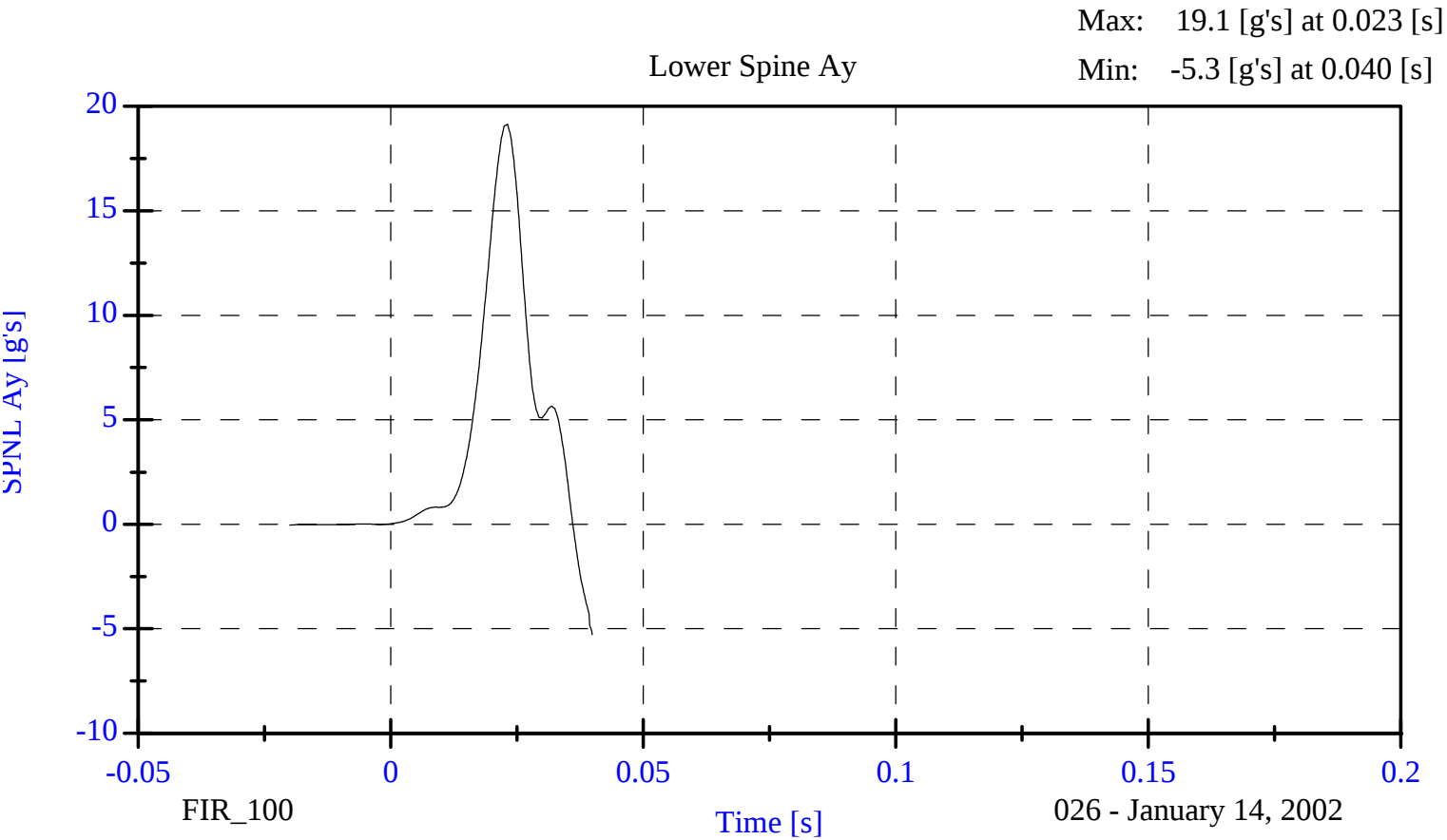
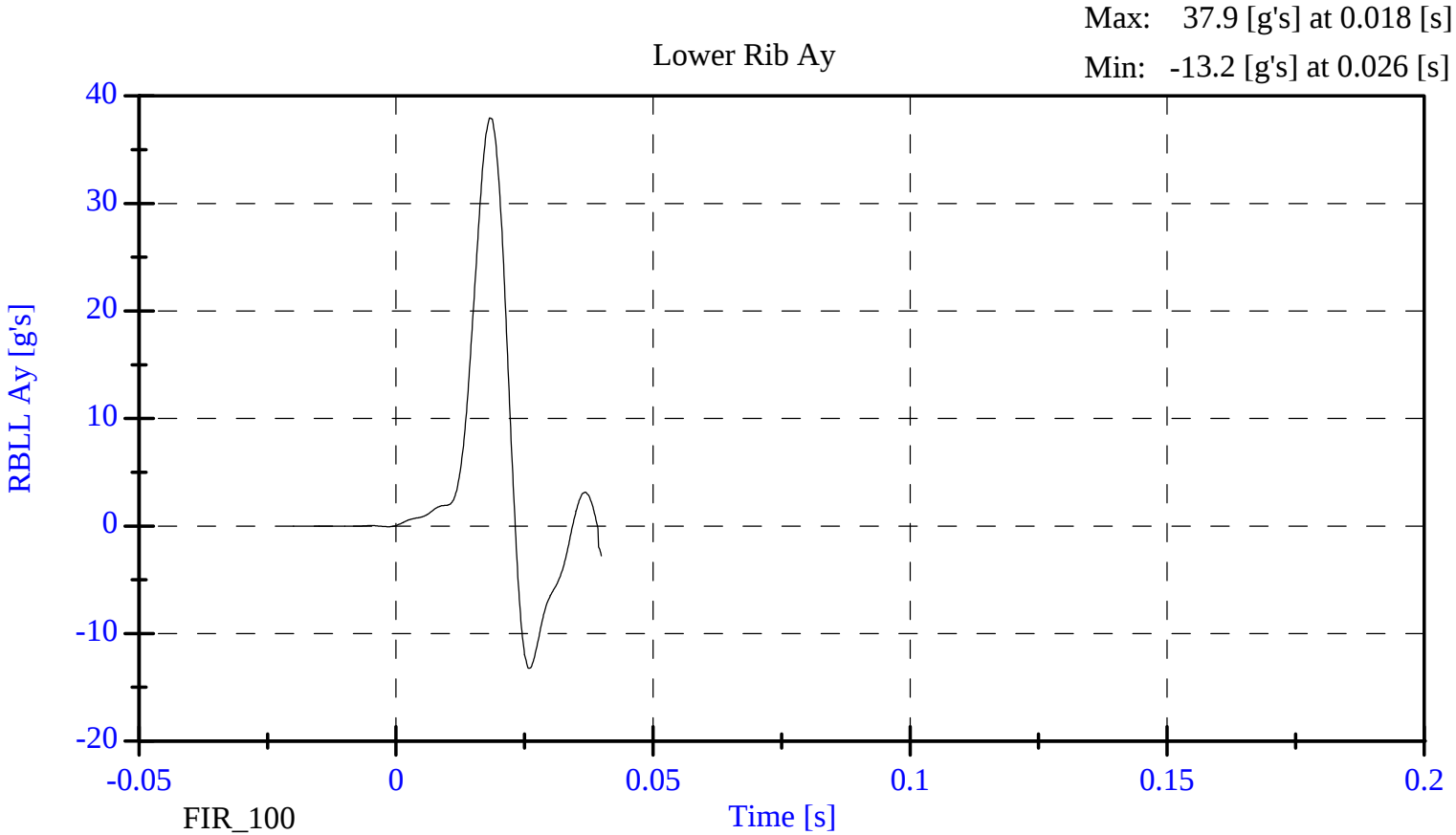


026 - January 14, 2002



FIR_100

026 - January 14, 2002



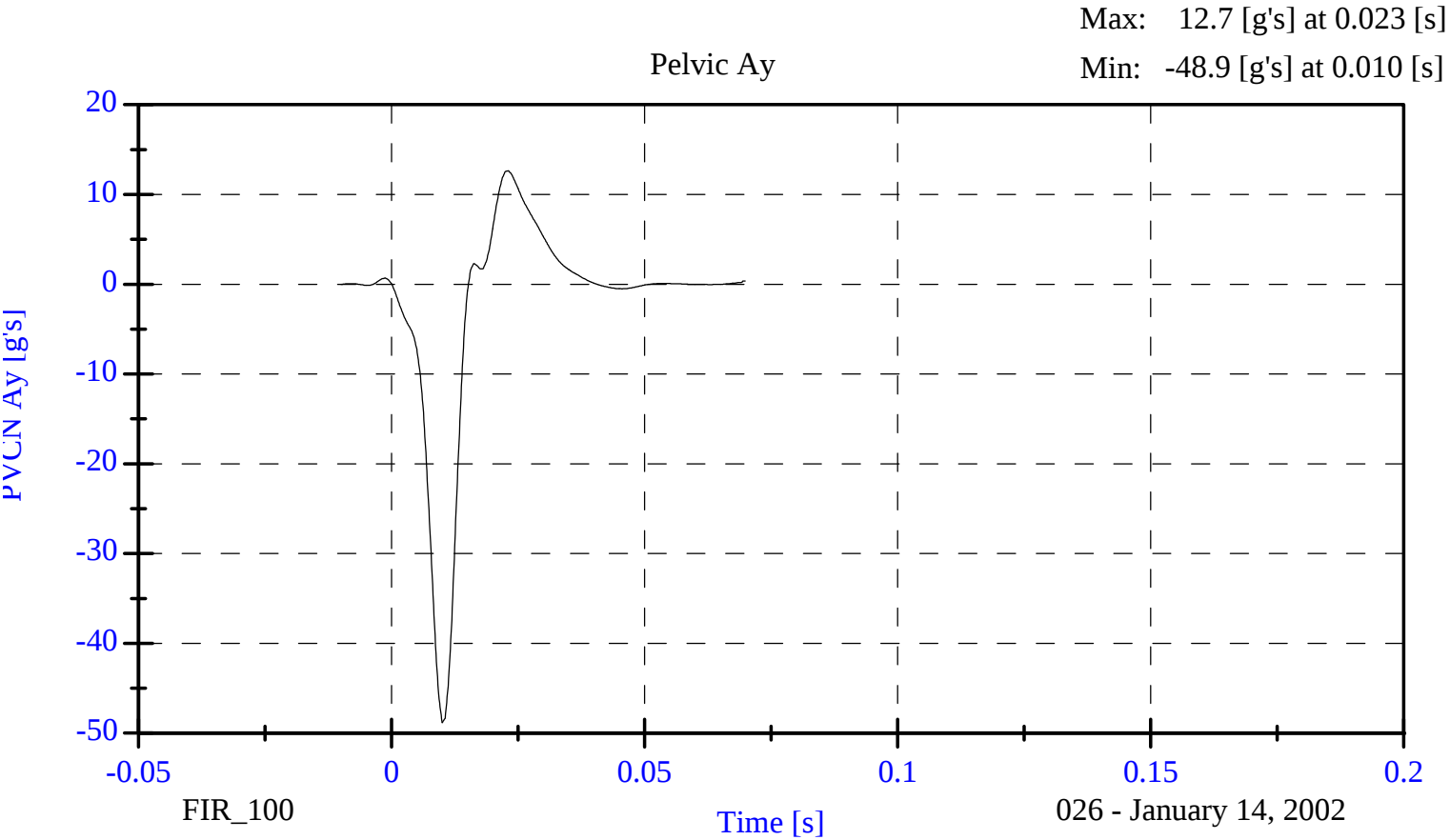
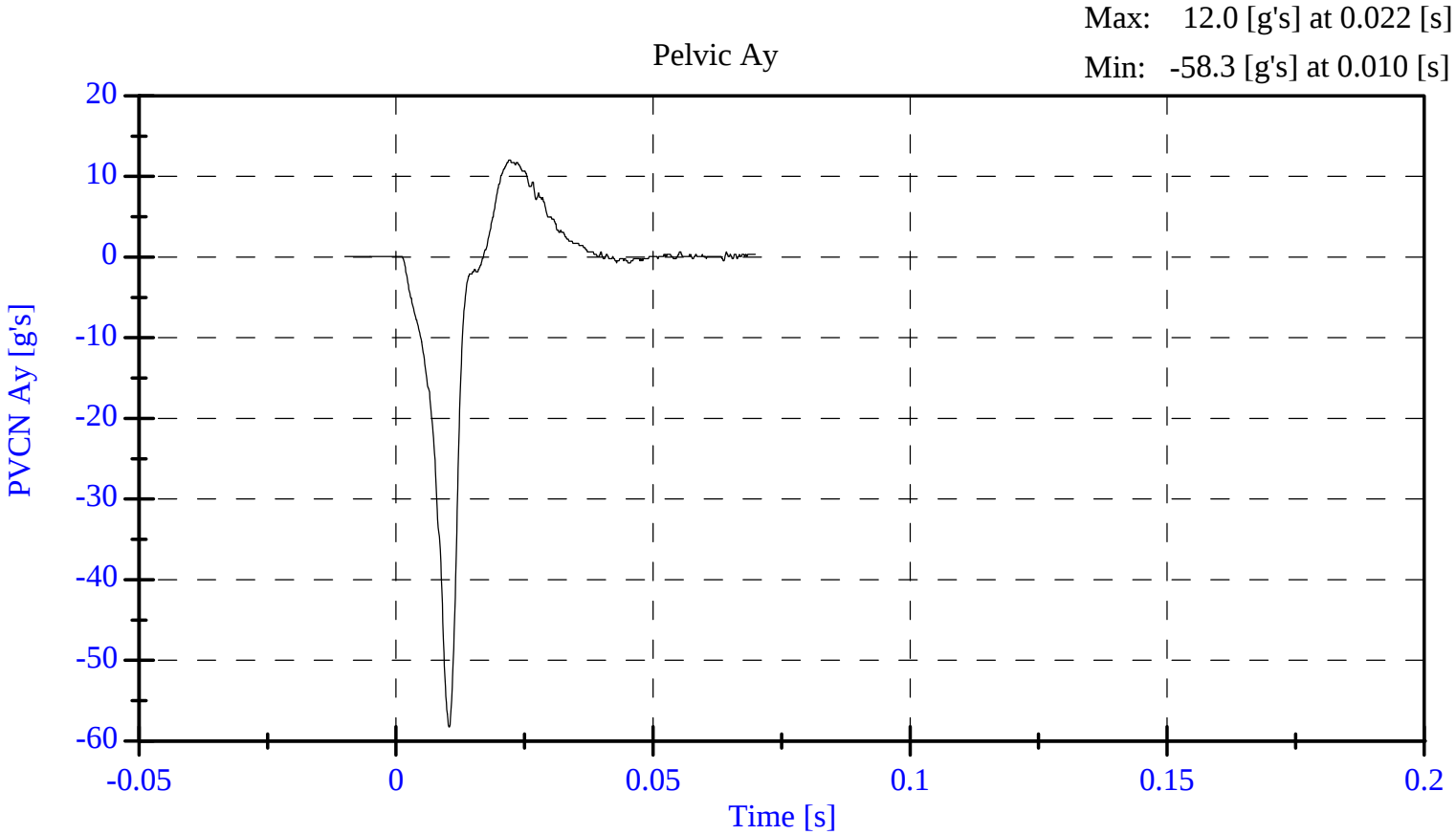
**LATERAL PELVIS IMPACT TEST
PRE-TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 026 Sequential Test Number: 2
Date: January 14, 2002 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (? C)	18.9 - 25.5	21.7
RELATIVE. HUMIDITY (%)	10 - 70	30
PROBE SPEED (m/s)	4.27 - 4.33	4.27
PELVIS ACCELERATION (g's)	40 - 60	48.9

REMARKS: None



FIR_100

026 - January 14, 2002

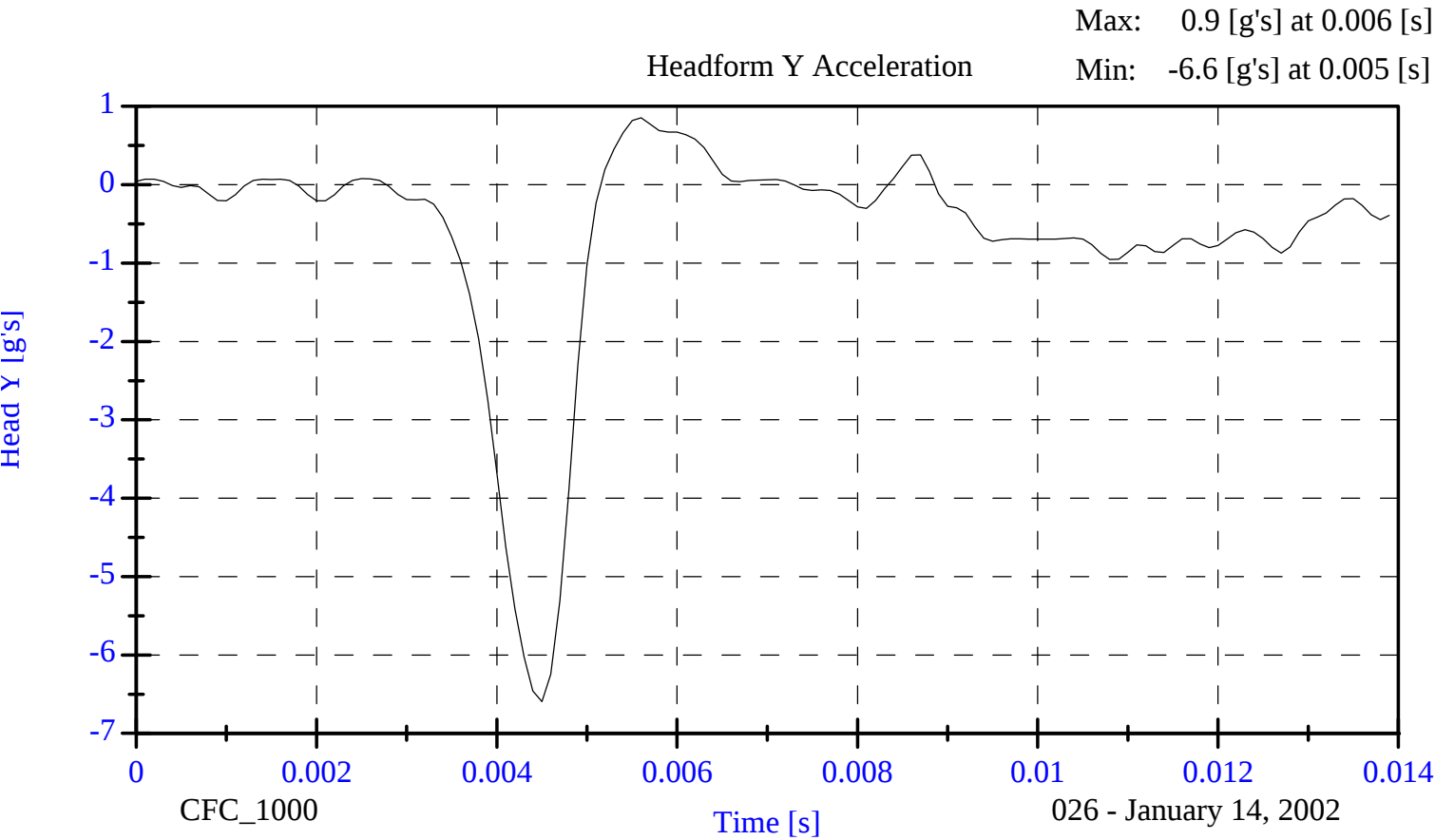
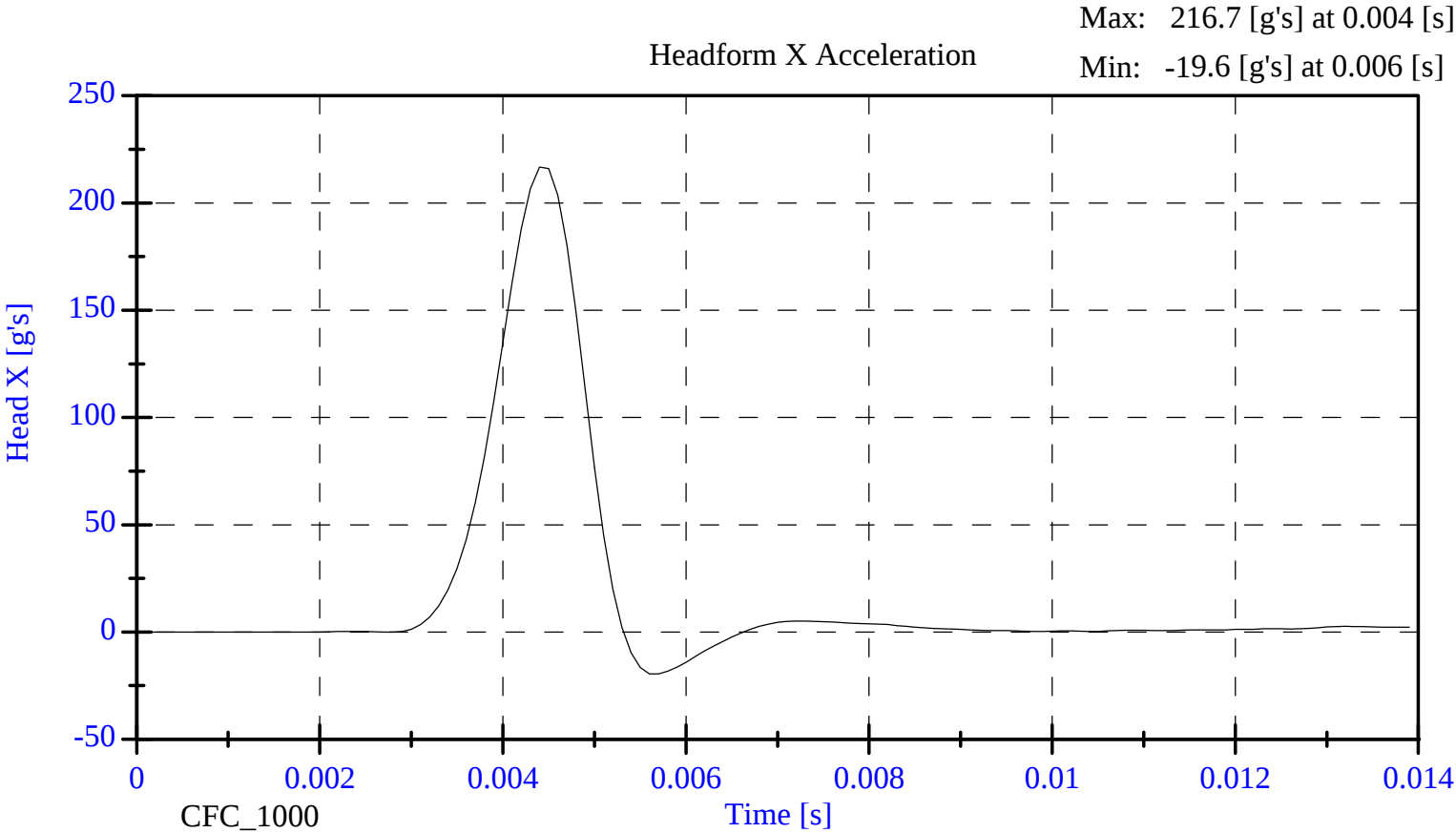
HEAD DROP TEST
PRE-TEST
(Test not required for SID certification)

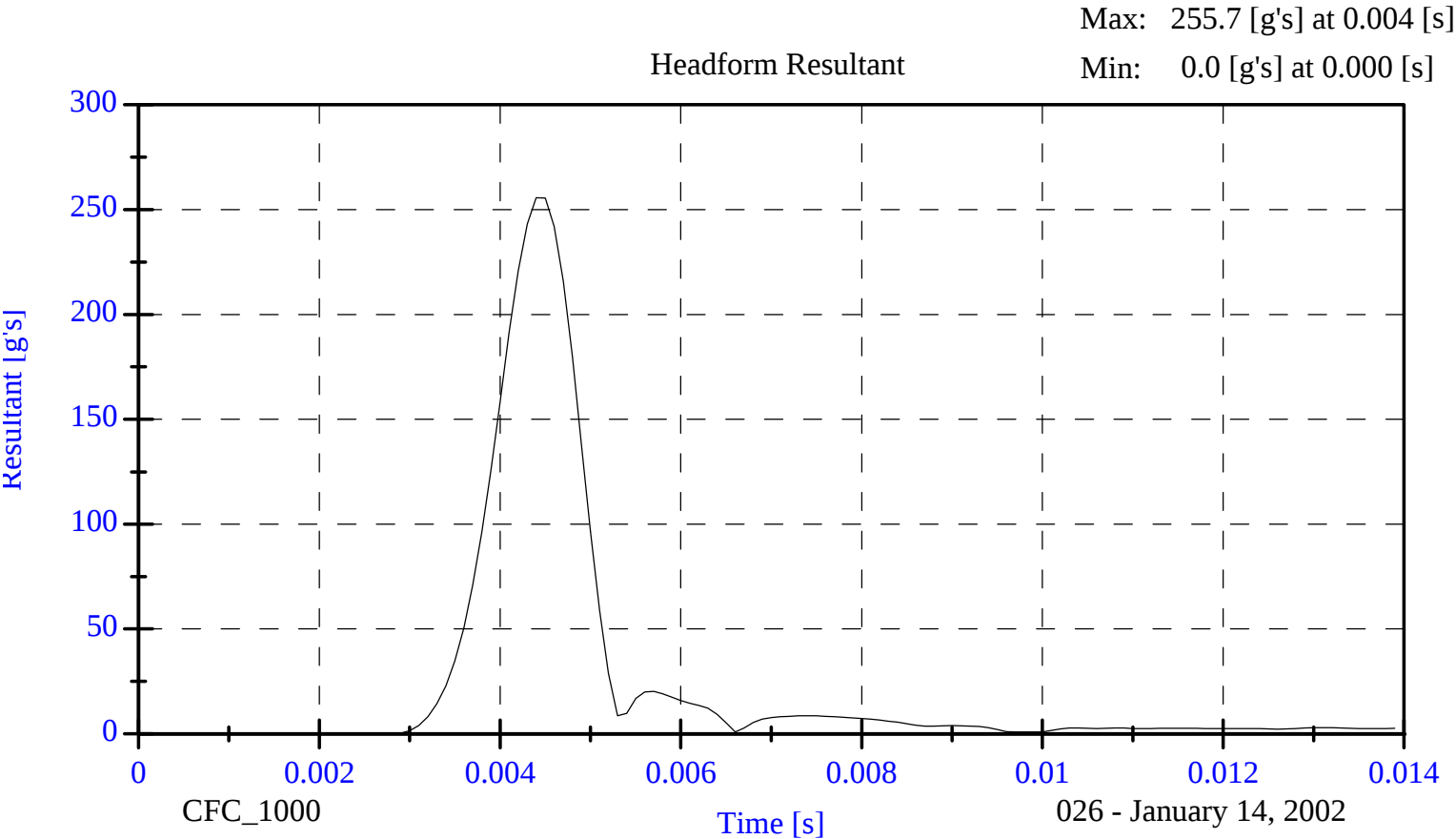
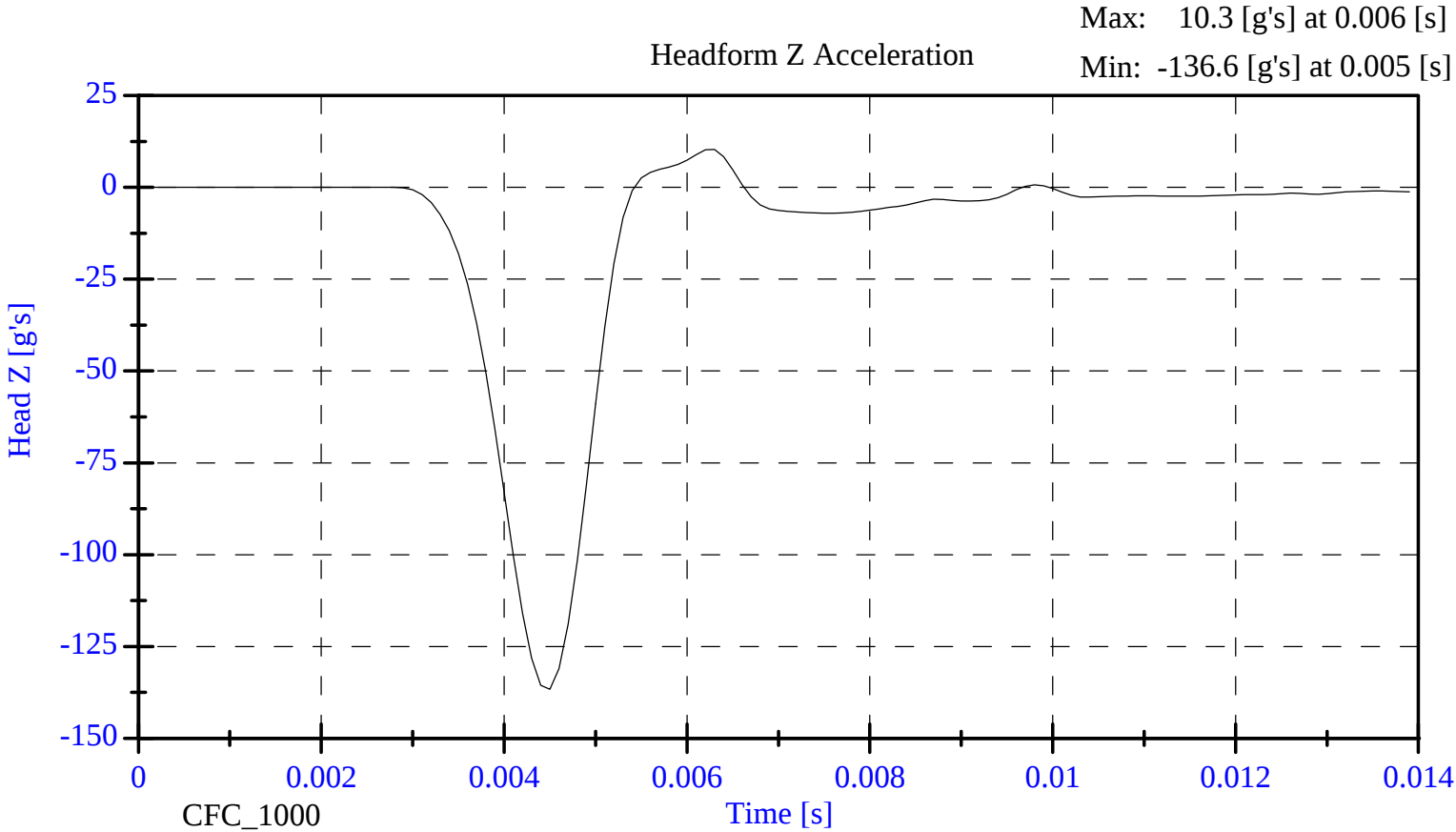
CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 026 Sequential Test Number: 2
Date: January 14, 2002 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (? C)	18.9 - 25.5	21.7
RELATIVE HUMIDITY (%)	10 - 70	30.0
PEAK RESULTANT ACCELERATION (Gs)	210 - 260	255.7
PEAK LATERAL ACCELERATION (Gs)	Not to Exceed 10	0.85
UNIMODAL CRITERIA ABOVE 100 Gs (ms)	0.9 - 1.5	1.18

REMARKS: None





**ABDOMINAL COMPRESSION TEST
PRE-TEST**

(Test not required for SID certification)

CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 026 Sequential Test Number: 2
Date: January 14, 2002 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (? C)	18.9 - 25.5	21.7
RELATIVE HUMIDITY (%)	10 - 70	30
FORCE @ 13 mm (N)	104 - 162	110
FORCE @ 19 mm (N)	163 - 221	175
FORCE @ 25 mm (N)	222 - 280	249
FORCE @ 33 mm (N)	325 - 391	363

REMARKS: None

Dummy S/N 026

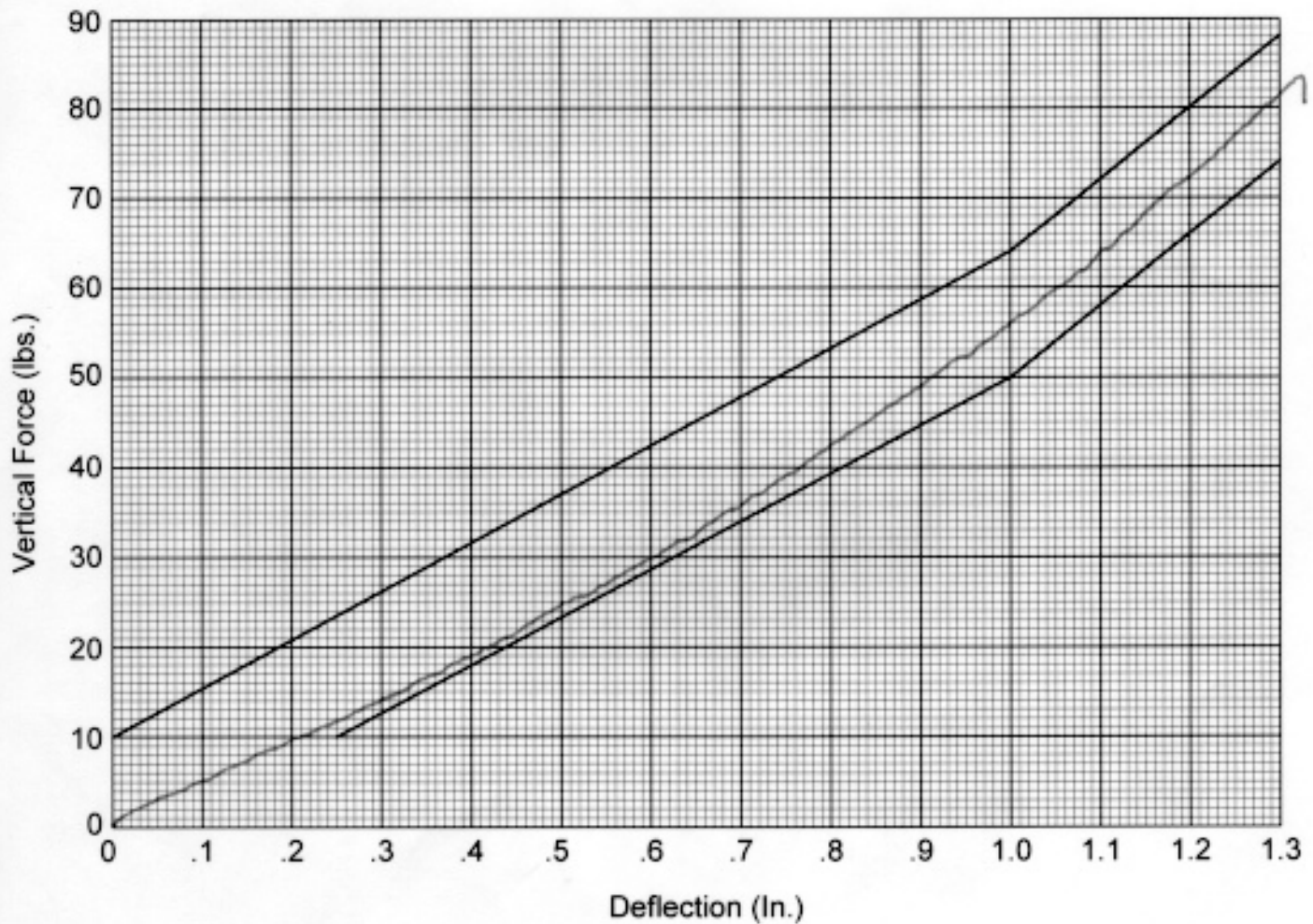
W/A _____

Date 01-14-02

Performed By [Signature]

Temp. 70

Humidity 29



**Hybrid II
Abdomen Static Press**

LUMBAR FLEXION TEST
PRE-TEST
(Test not required for SID certification)

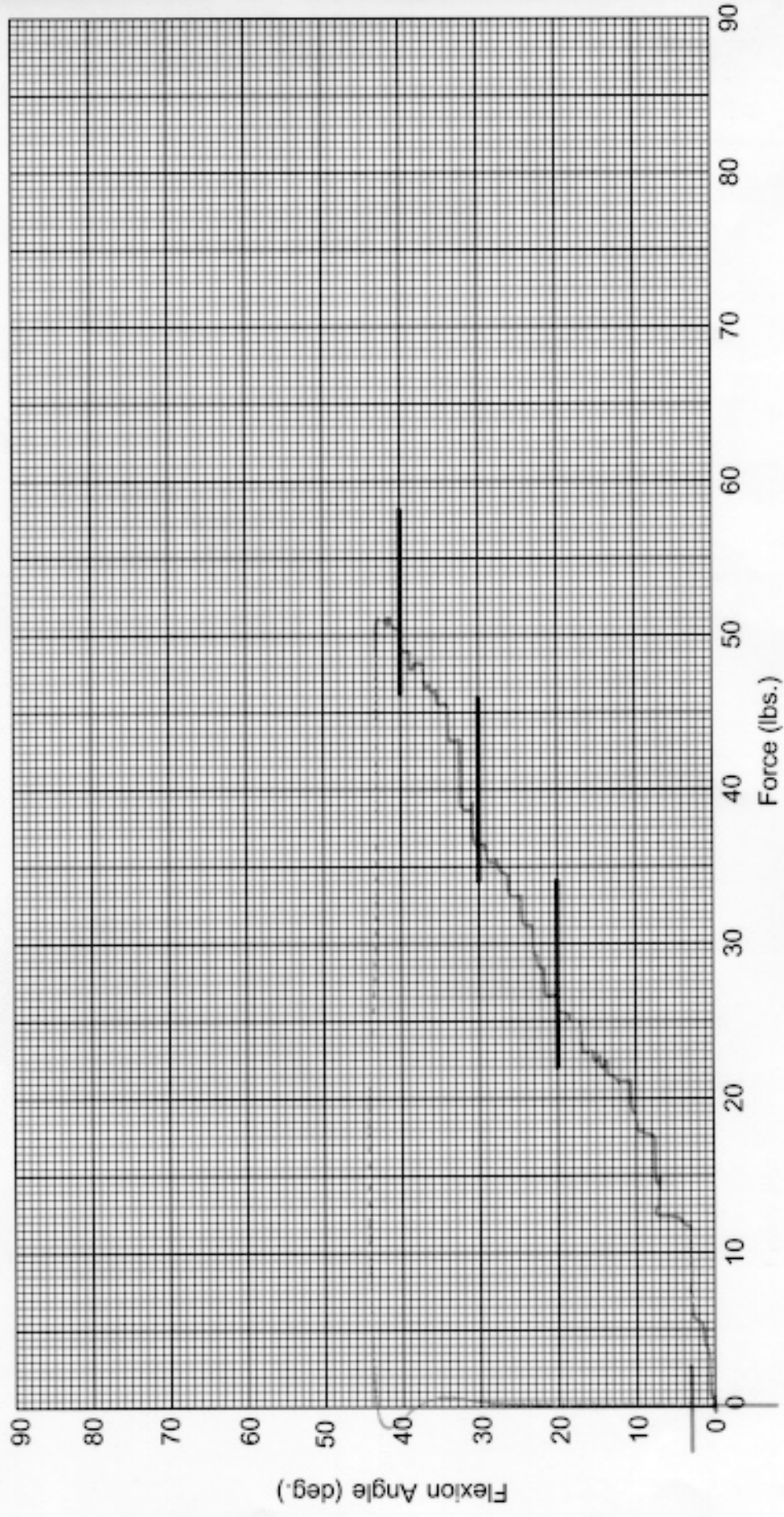
CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 026 Sequential Test Number: 2
Date: January 14, 2002 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (? C)	18.9 - 25.5	21.7
RELATIVE HUMIDITY (%)	10 - 70	30
FORCE @ 0? (N)	0 - 26.7	0
FORCE @ 20? (N)	97.8 - 151.2	116
FORCE @ 30? (N)	151.2 - 204.6	162
FORCE @ 40? (N)	204.6 - 258	221
RETURN ANGLE	12? max.	3.0

REMARKS: None

Dummy S/N 026
 W/A _____
 Date 01-14-02
 Performed By BS
 Temp. 71
 Humidity 30



Hybrid II Lumbar Spine Flexion Test

PRE-TEST DUMMY INSPECTION LIST
CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 026 Sequential Test Number: 2
Date: January 14, 2002 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 NO.: 026

CONFIGURED FOR LEFT SIDE IMPACT

**CALIBRATION TEST RESULTS SUMMARY
POST TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 026 Sequential Test Number: 3
Date: February 12, 2002 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.
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 Serial No.: 026 Sequential Test Number: 3
Date: February 12, 2002 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
SH- Seated Height (mm)	889 - 909	899
RH- Rib Height (mm)	502 - 520	517
HP- Hip Pivot Height (mm)	99 ref.	99
RD- Rib from Back Line (mm)	229 - 241	236
KH- Knee Pivot from Back Line (mm)	511 - 526	518
KV- Knee Pivot to Floor (mm)	490 - 505	493
HW- Hip Width (mm)	356 - 391	373

REMARKS: None

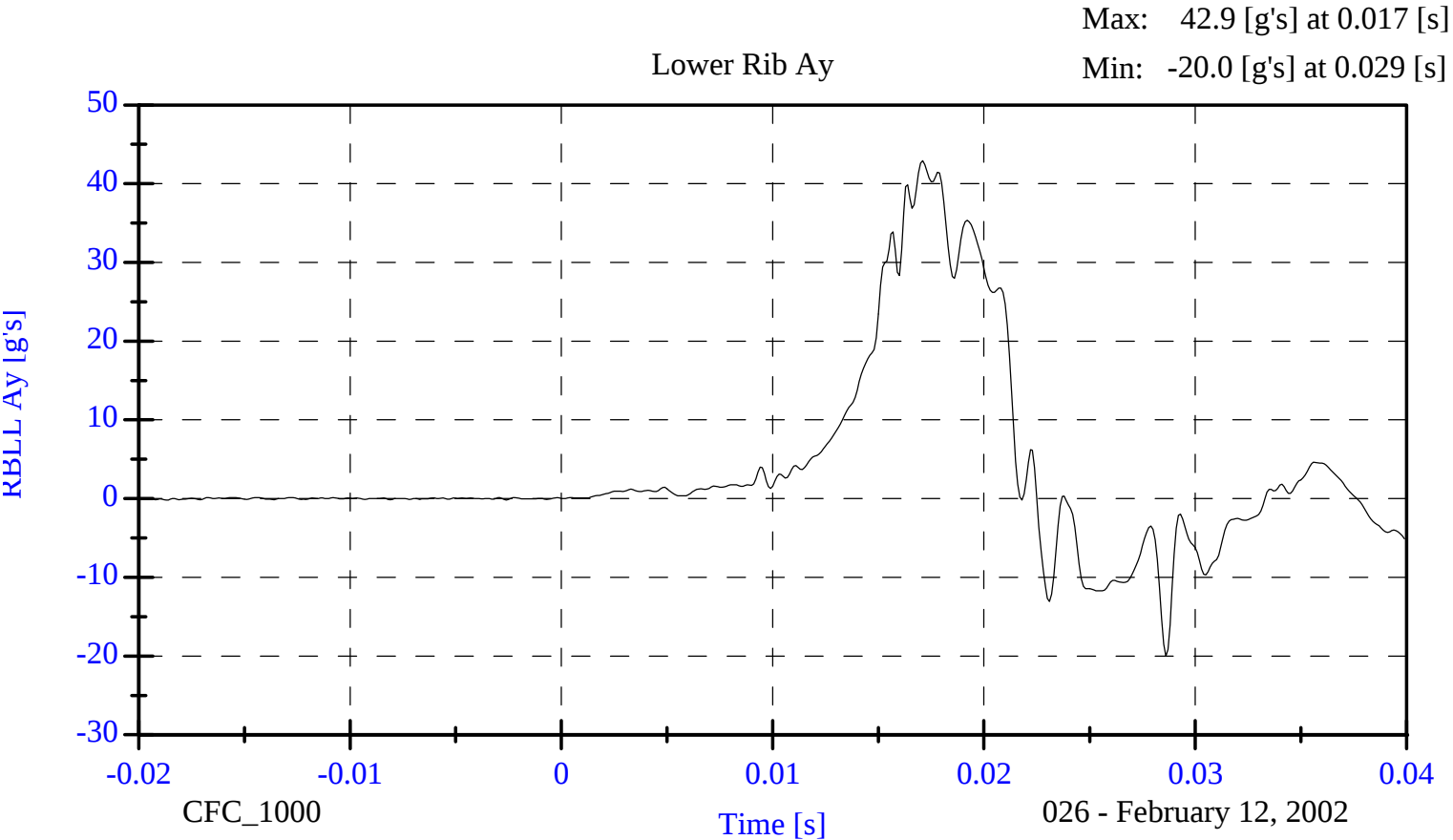
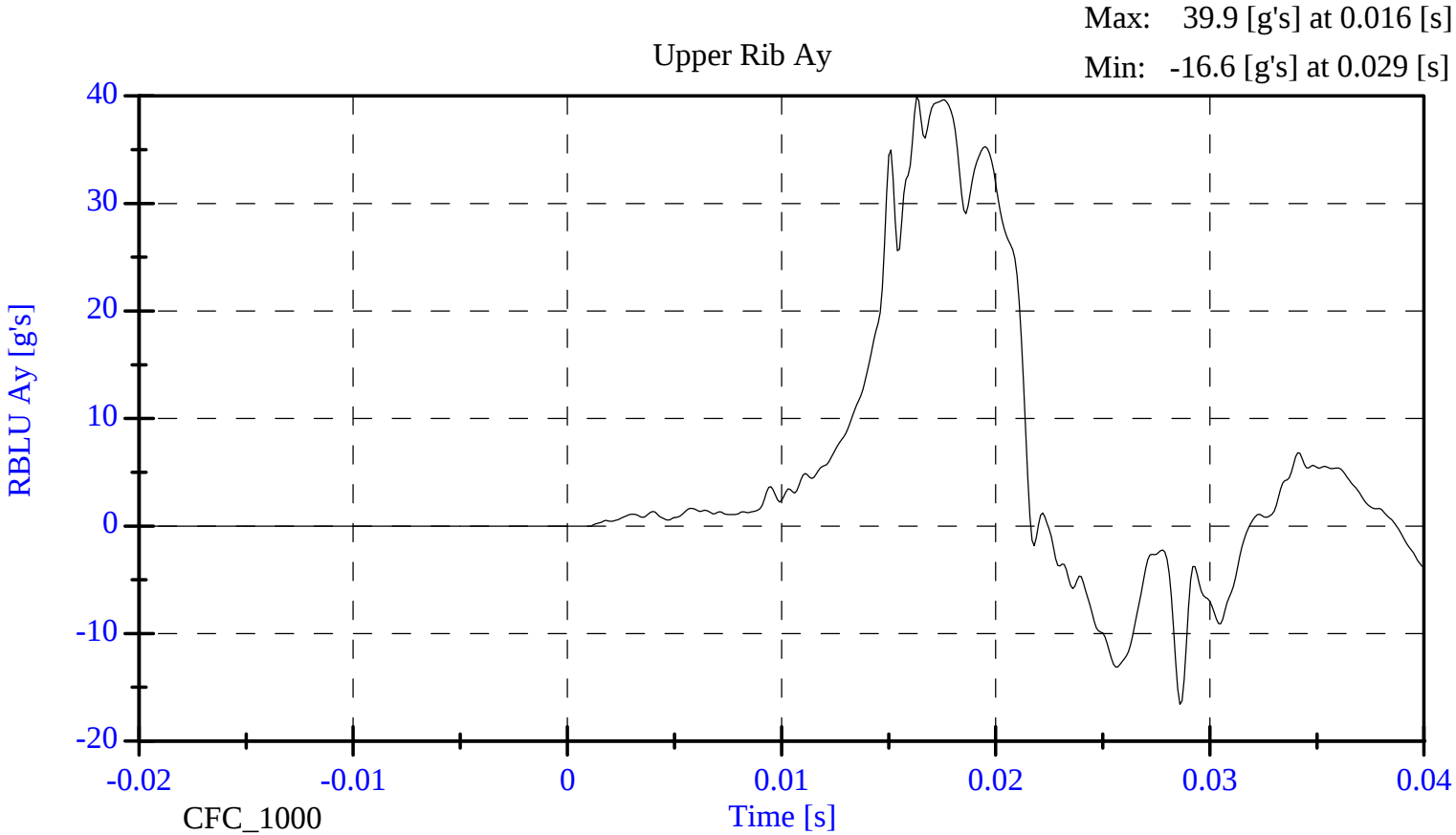
**LATERAL THORAX IMPACT TEST
POST TEST**

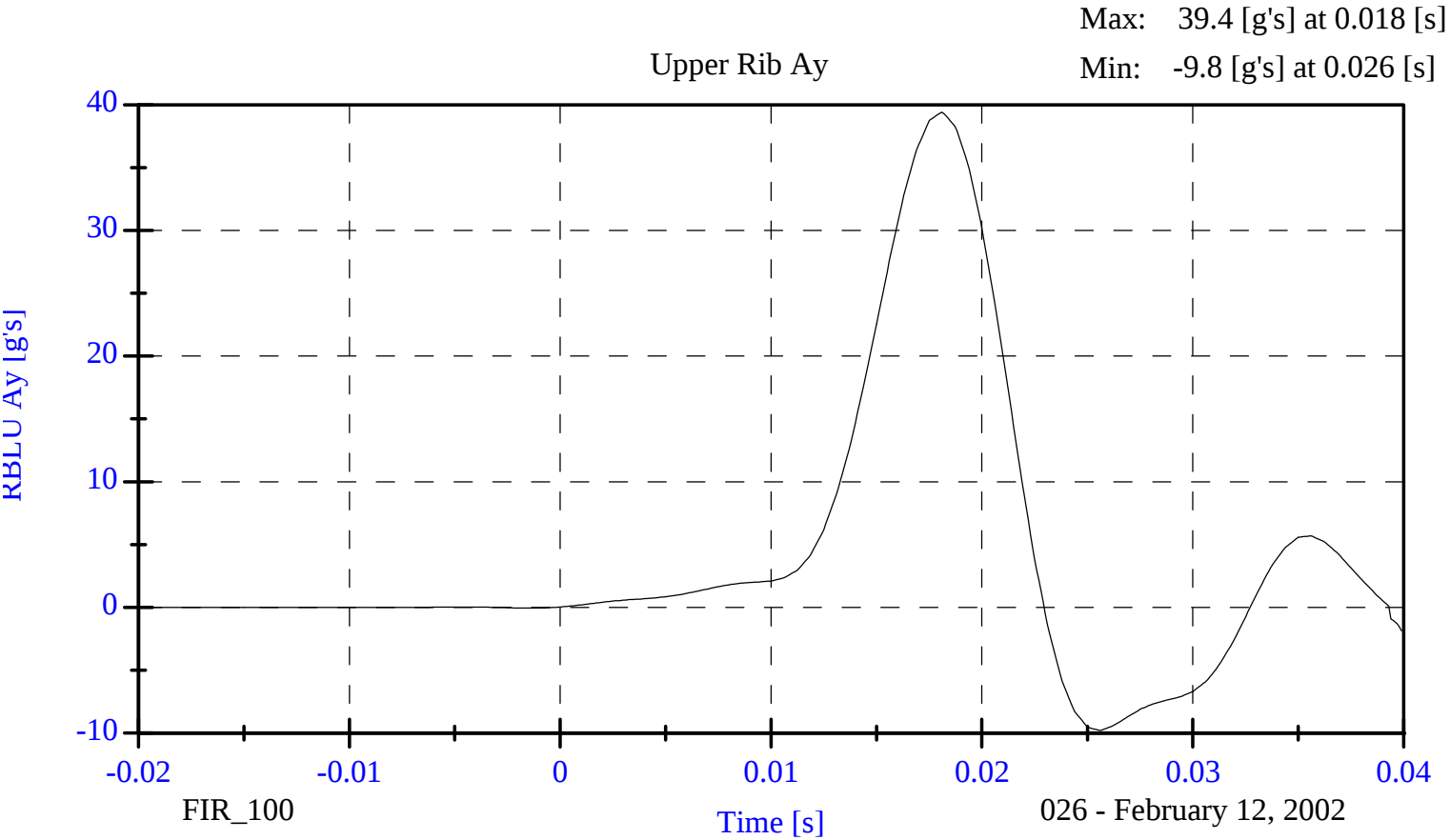
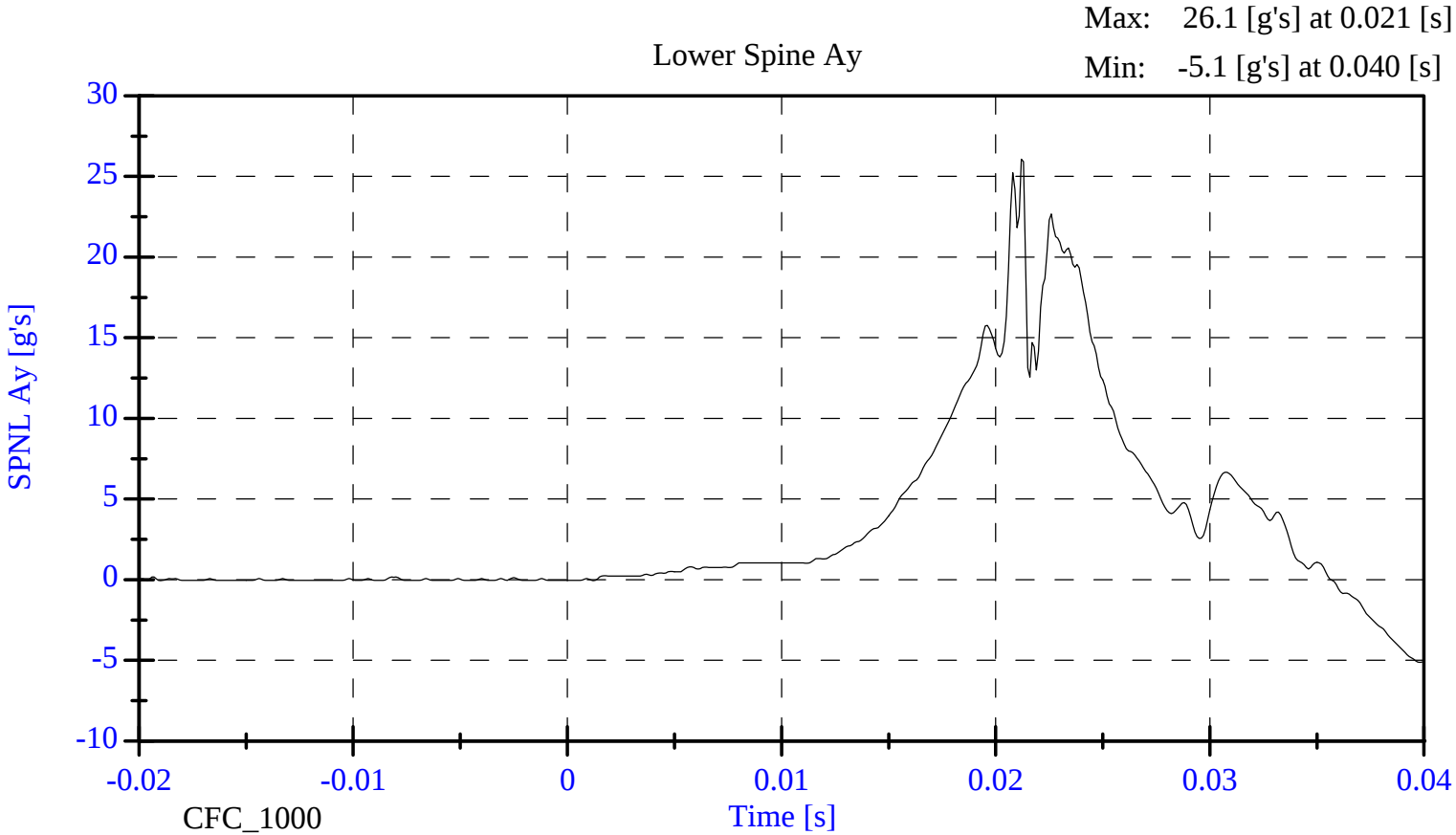
CONFIGURED FOR LEFT SIDE IMPACT

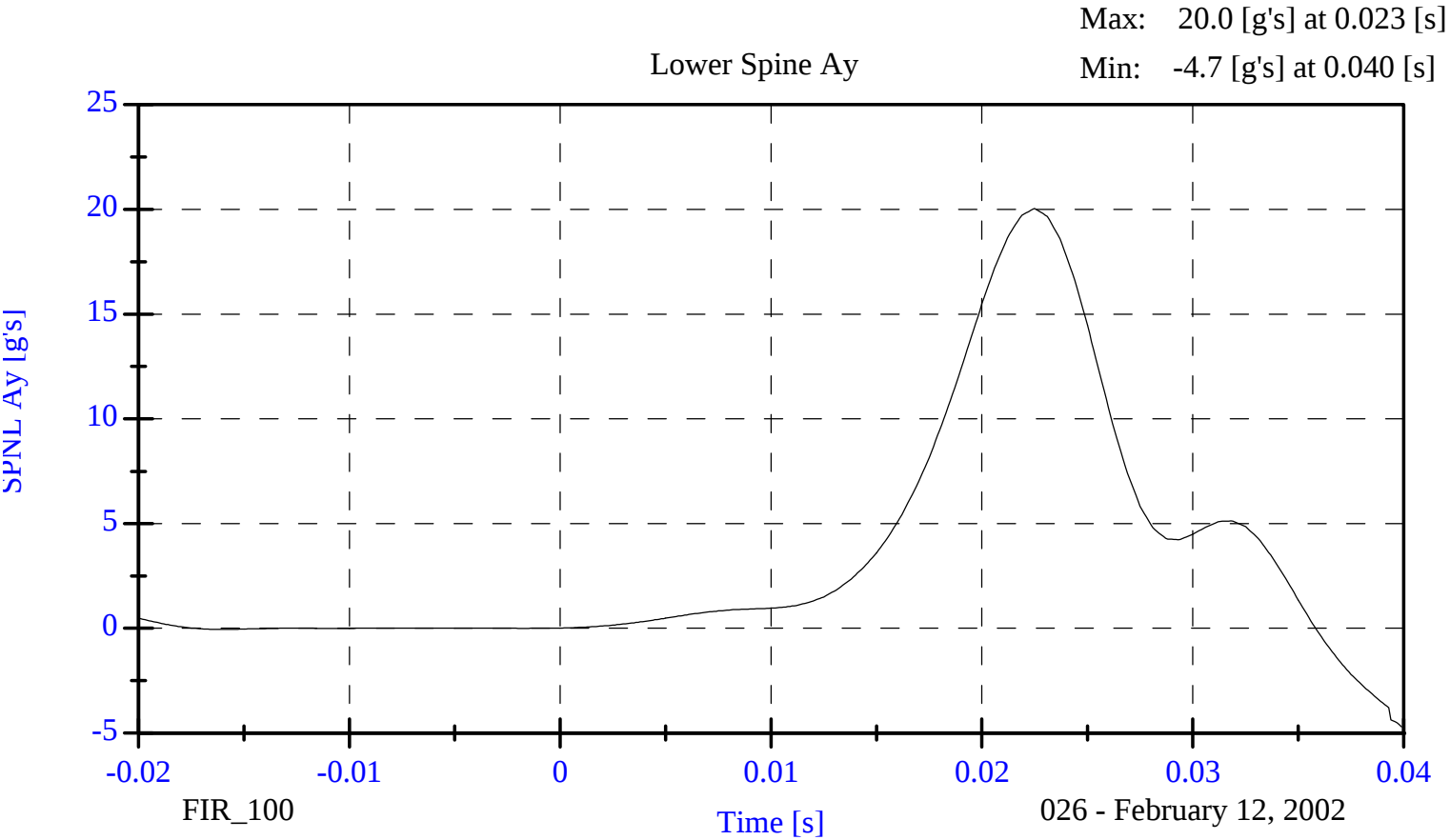
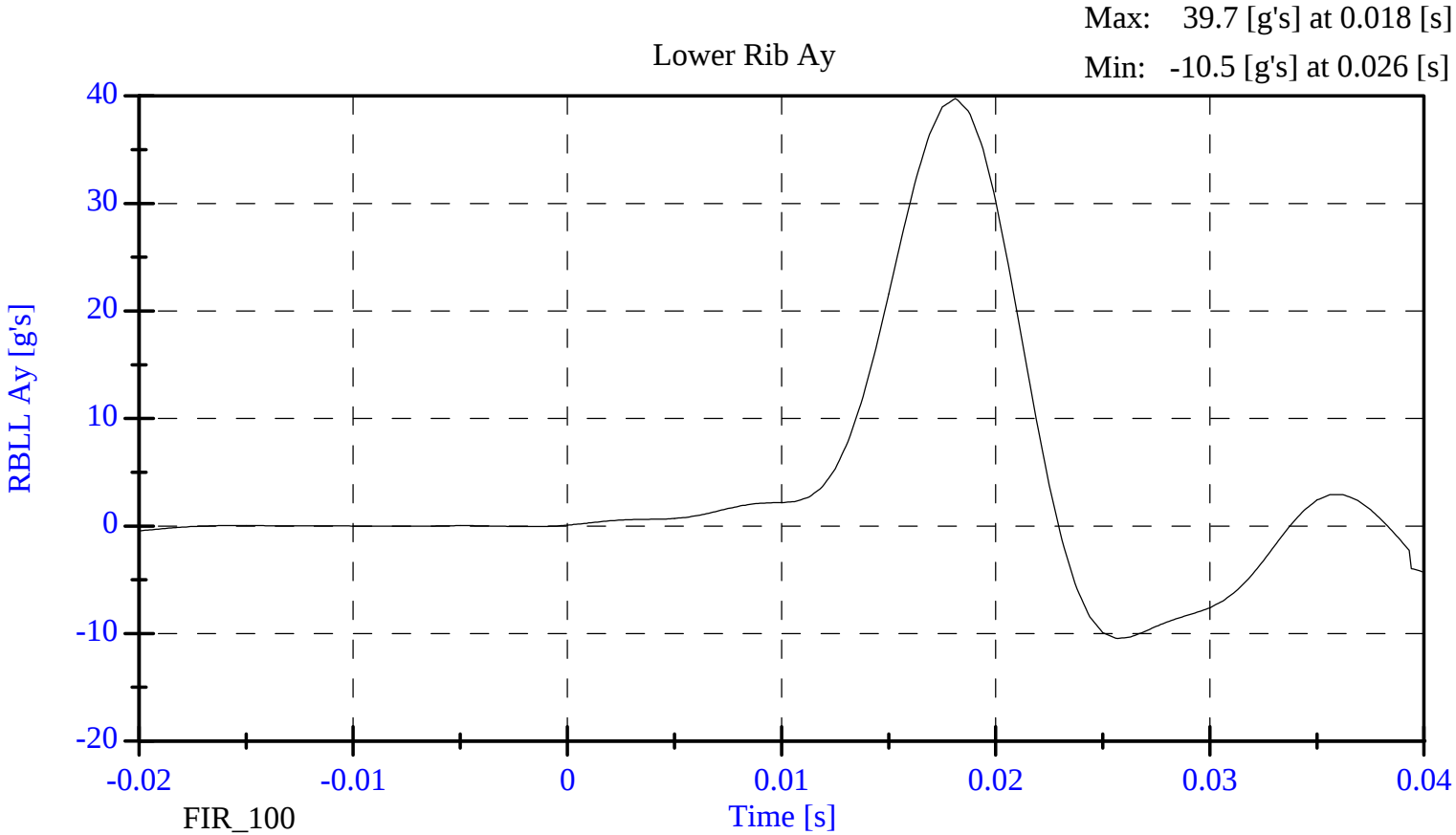
SID Serial No.: 026 Sequential Test Number: 3
Date: February 12, 2002 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (? C)	18.9 - 25.5	20.6
RELATIVE HUMIDITY (%)	10 - 70	29
PROBE SPEED (m/s)	4.27 - 4.33	4.30
UPPER RIB (g's)	37 - 46	39.4
LOWER RIB (g's)	37 - 46	39.7
LOWER SPINE (g's)	15 - 22	20.0

REMARKS: None







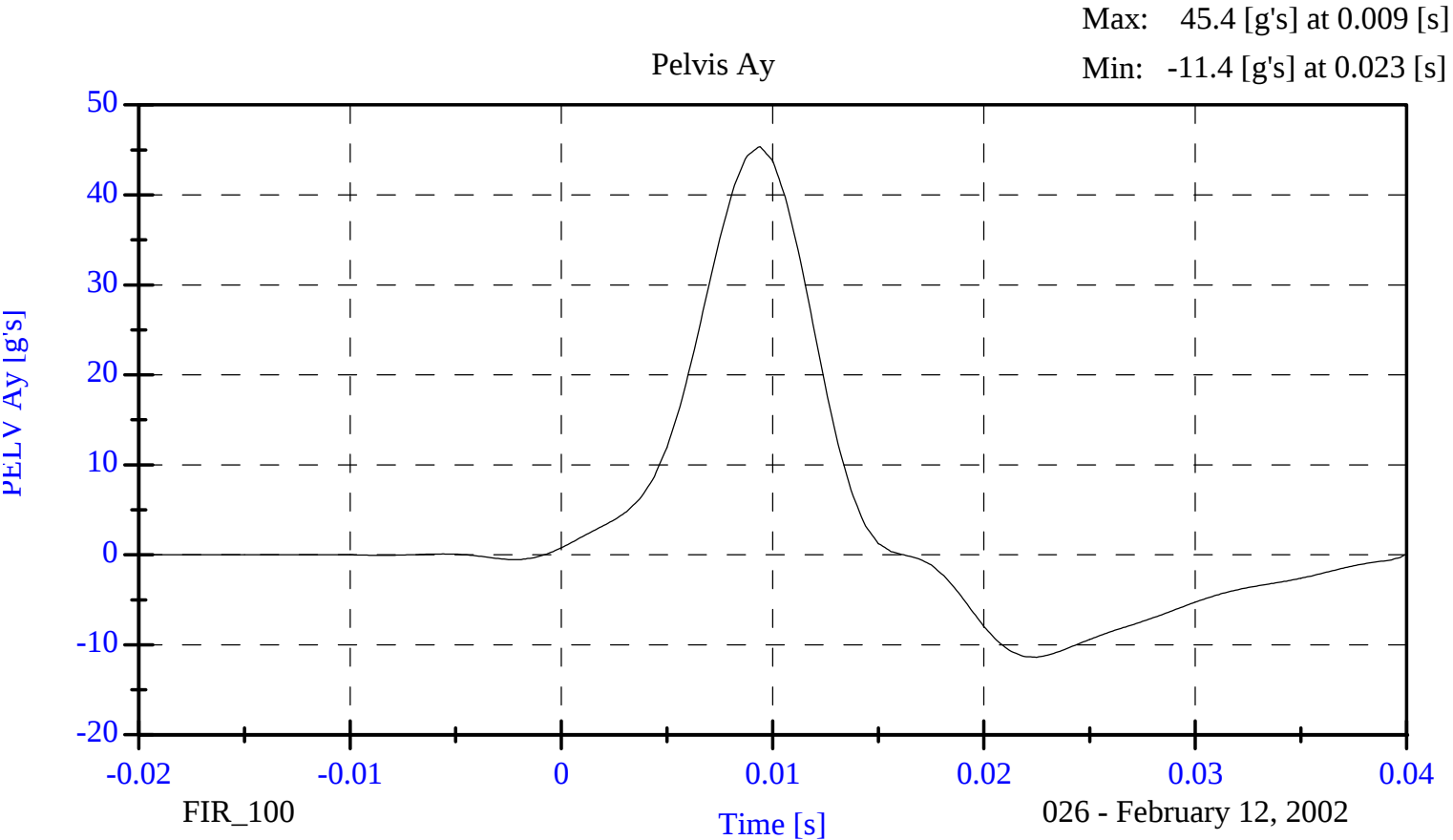
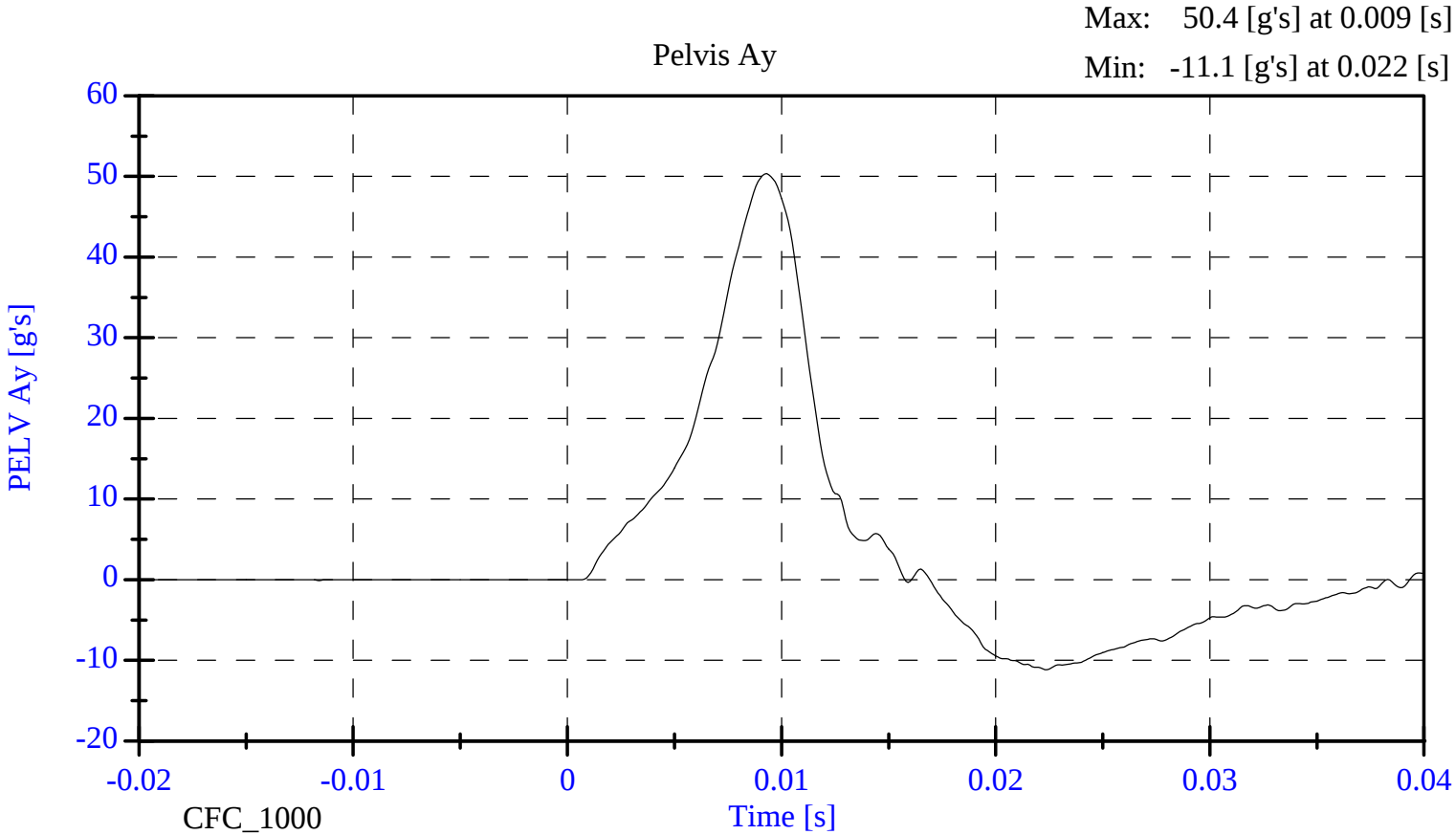
**LATERAL PELVIS IMPACT TEST
POST TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 026 Sequential Test Number: 3
Date: February 12, 2002 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (? C)	18.9 - 25.5	20.6
RELATIVE. HUMIDITY (%)	10 - 70	29
PROBE SPEED (m/s)	4.27 - 4.33	4.29
PELVIS ACCELERATION (g's)	40 - 60	45.4

REMARKS: None



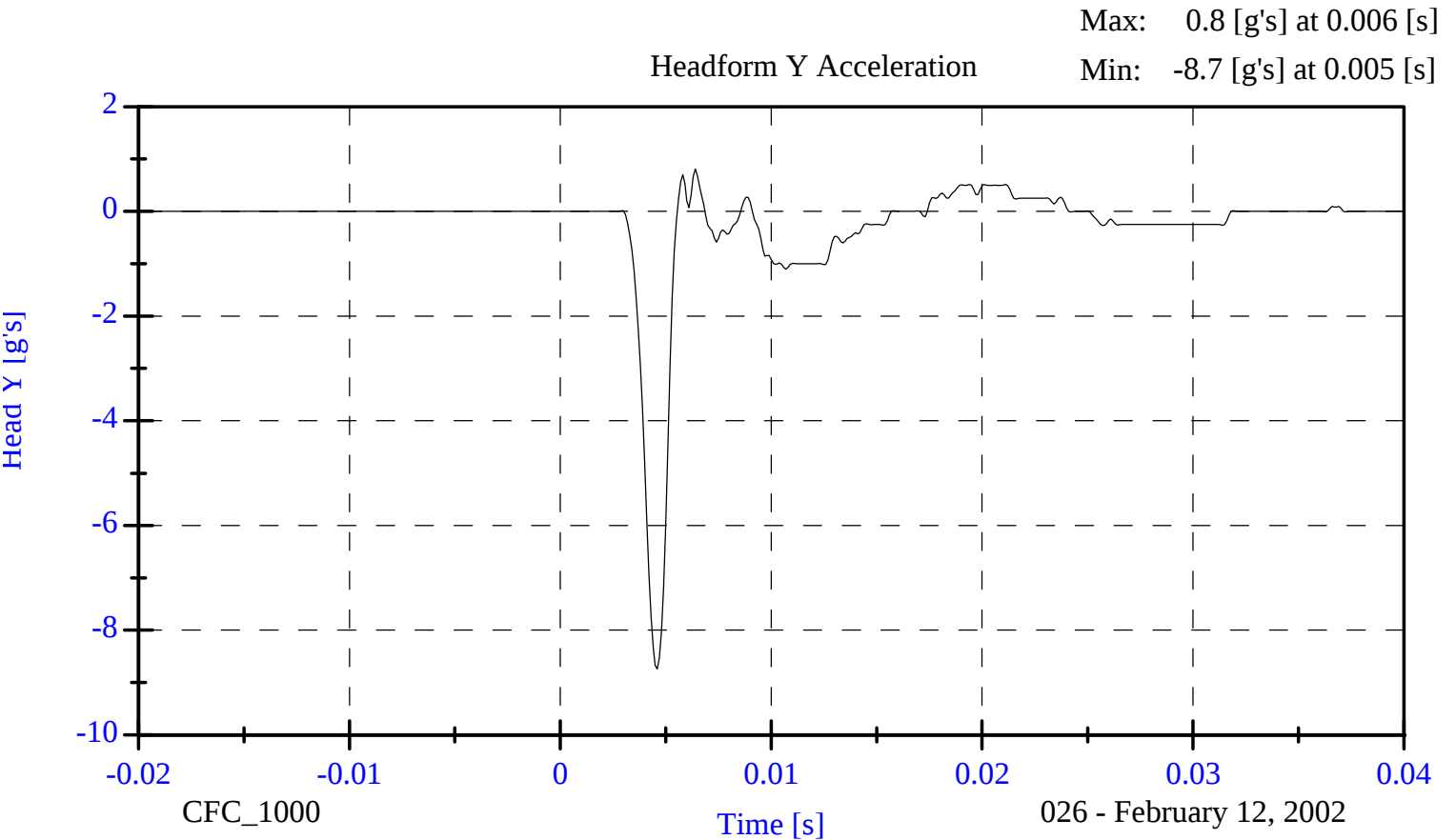
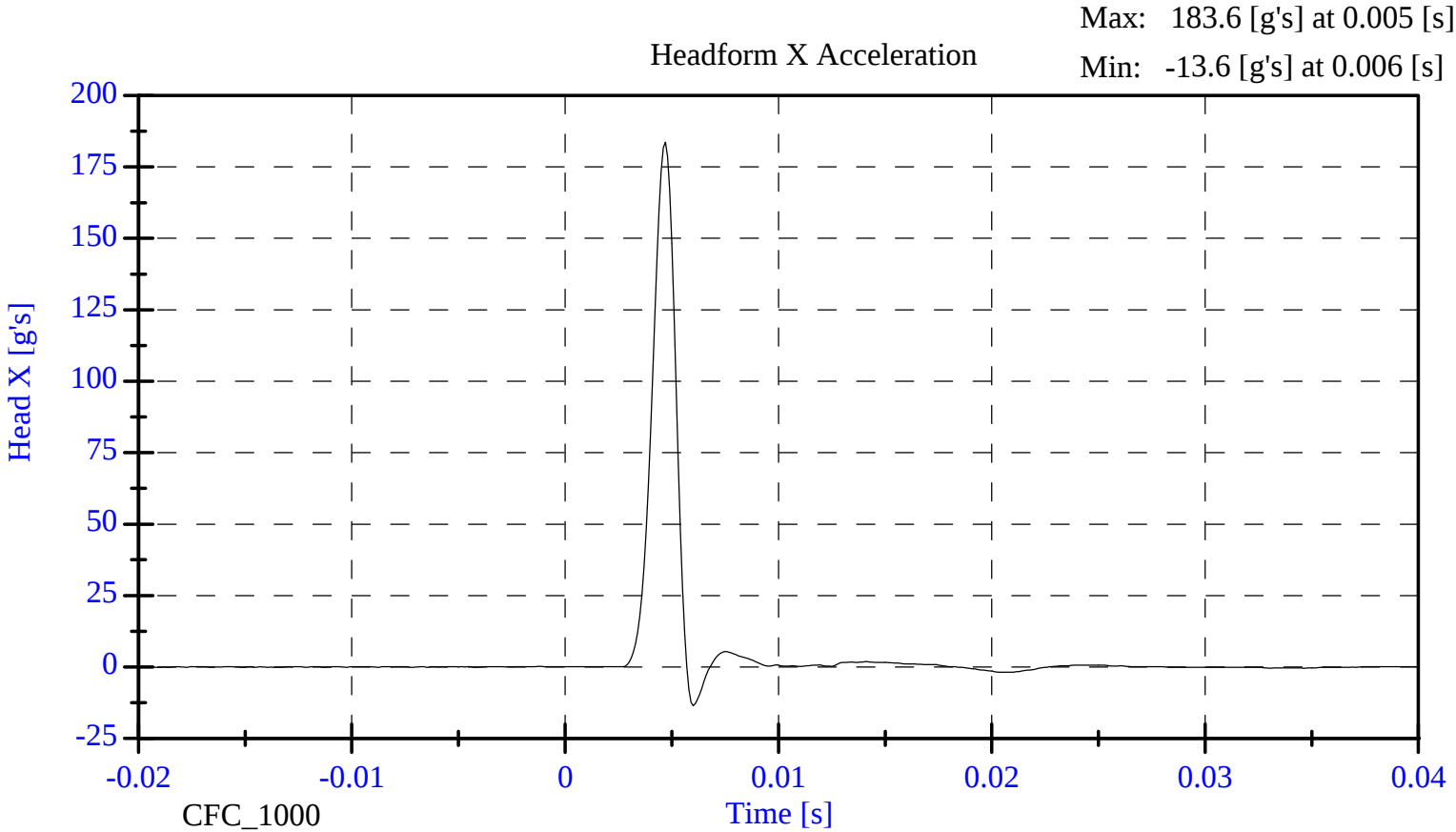
**HEAD DROP TEST
POST-TEST**
(Test not required for SID certification)

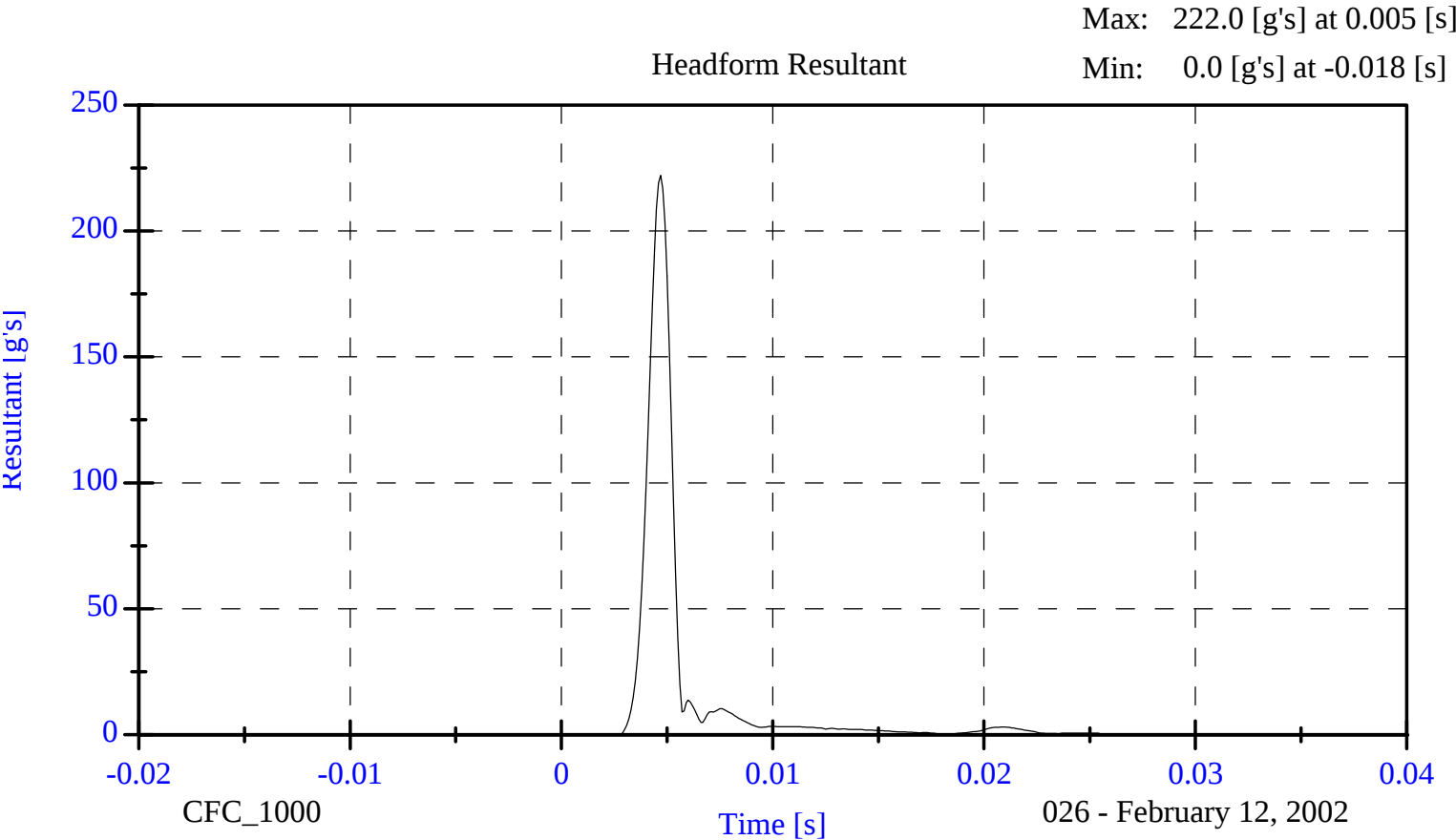
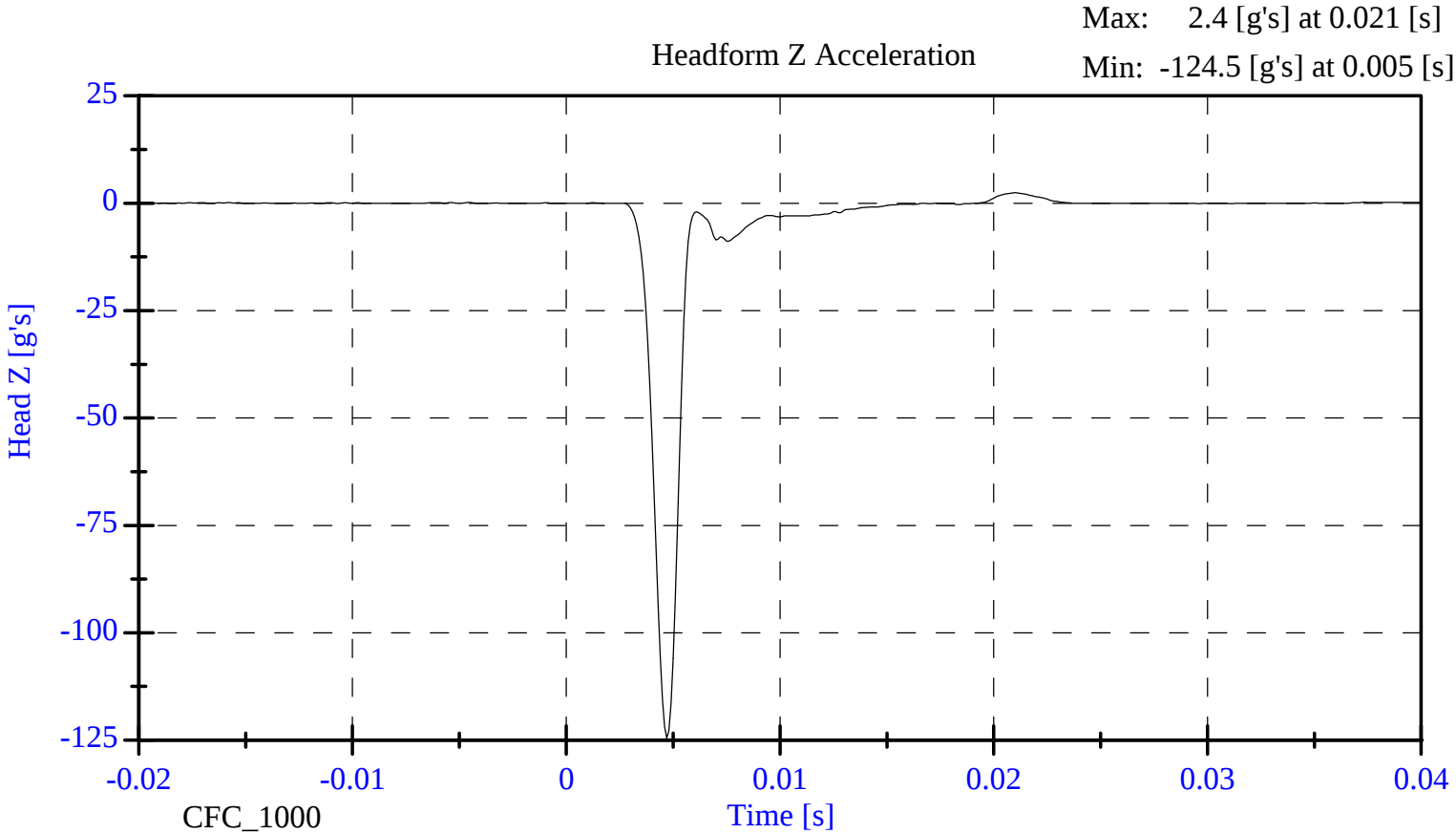
CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 026 Sequential Test Number: 3
Date: February 12, 2002 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (? C)	18.9 - 25.5	20.6
RELATIVE HUMIDITY (%)	10 - 70	29
PEAK RESULTANT ACCELERATION (Gs)	210 - 260	221.01
PEAK LATERAL ACCELERATION (Gs)	Not to Exceed 10	0.81
UNIMODAL CRITERIA ABOVE 100 Gs (ms)	0.9 - 1.5	1.27

REMARKS: None





**ABDOMINAL COMPRESSION TEST
POST TEST**

(Test not required for SID certification)

CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 026 Sequential Test Number: 3
Date: February 12, 2002 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (? C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	29
FORCE @ 13 mm (N)	104 - 162	120.1
FORCE @ 19 mm (N)	163 - 221	174.4
FORCE @ 25 mm (N)	222 - 280	244.7
FORCE @ 33 mm (N)	325 - 391	355.9

REMARKS: None

Dummy S/N 026

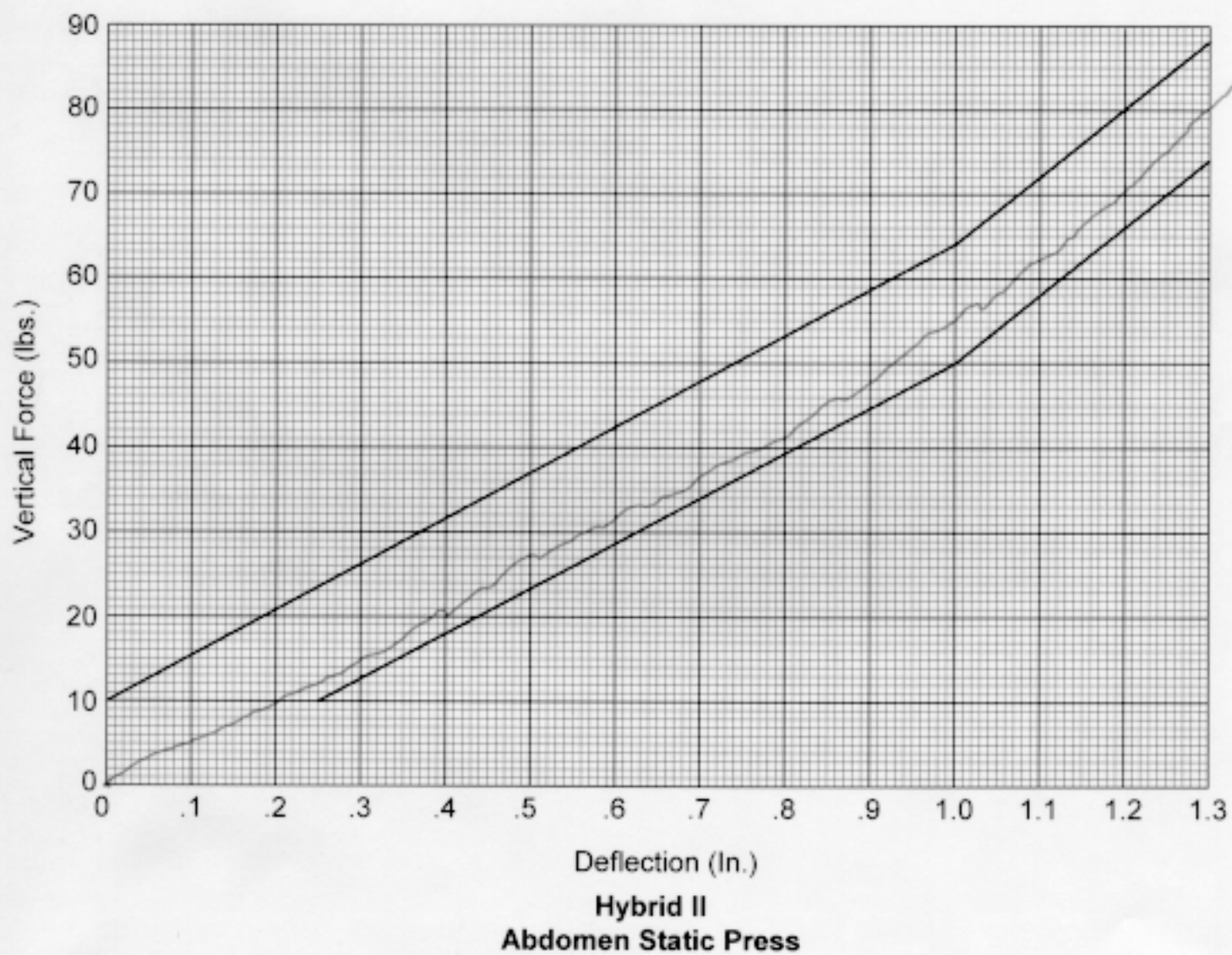
W/A _____

Date 2-13-02

Performed By BB

Temp. 70

Humidity 29



LUMBAR FLEXION TEST
POST TEST
(Test not required for SID certification)

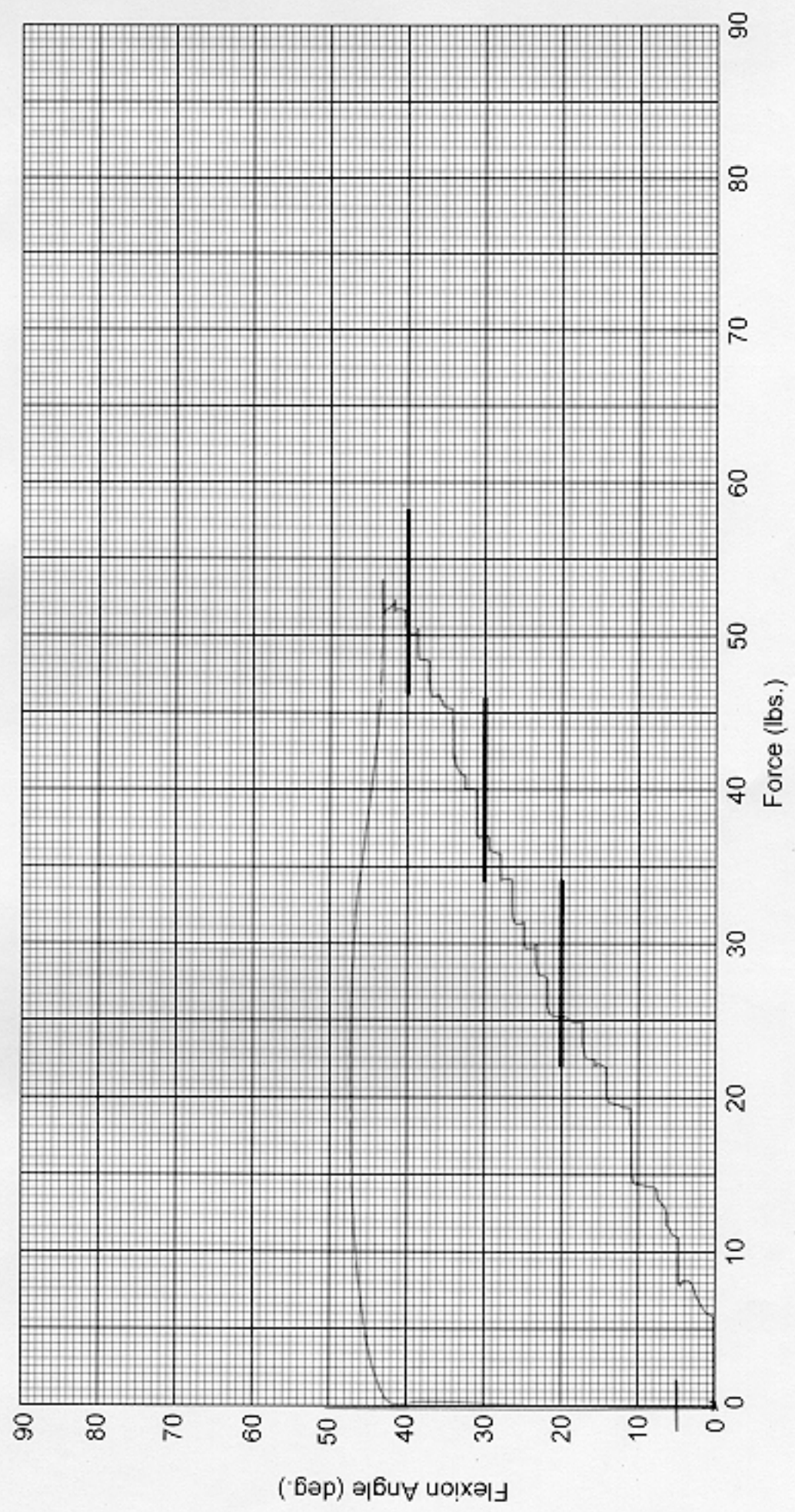
CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 026 Sequential Test Number: 3
Date: February 12, 2002 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (? C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	30
FORCE @ 0? (N)	0 - 26.7	0
FORCE @ 20? (N)	97.8 - 151.2	112.3
FORCE @ 30? (N)	151.2 - 204.6	164.6
FORCE @ 40? (N)	204.6 - 258	222.4
RETURN ANGLE	12? max.	5°

REMARKS: None

Dummy S/N 026
 W/A _____
 Date 2-13-02
 Performed By [Signature]
 Temp. 70
 Humidity 38



Hybrid II Lumbar Spine Flexion Test

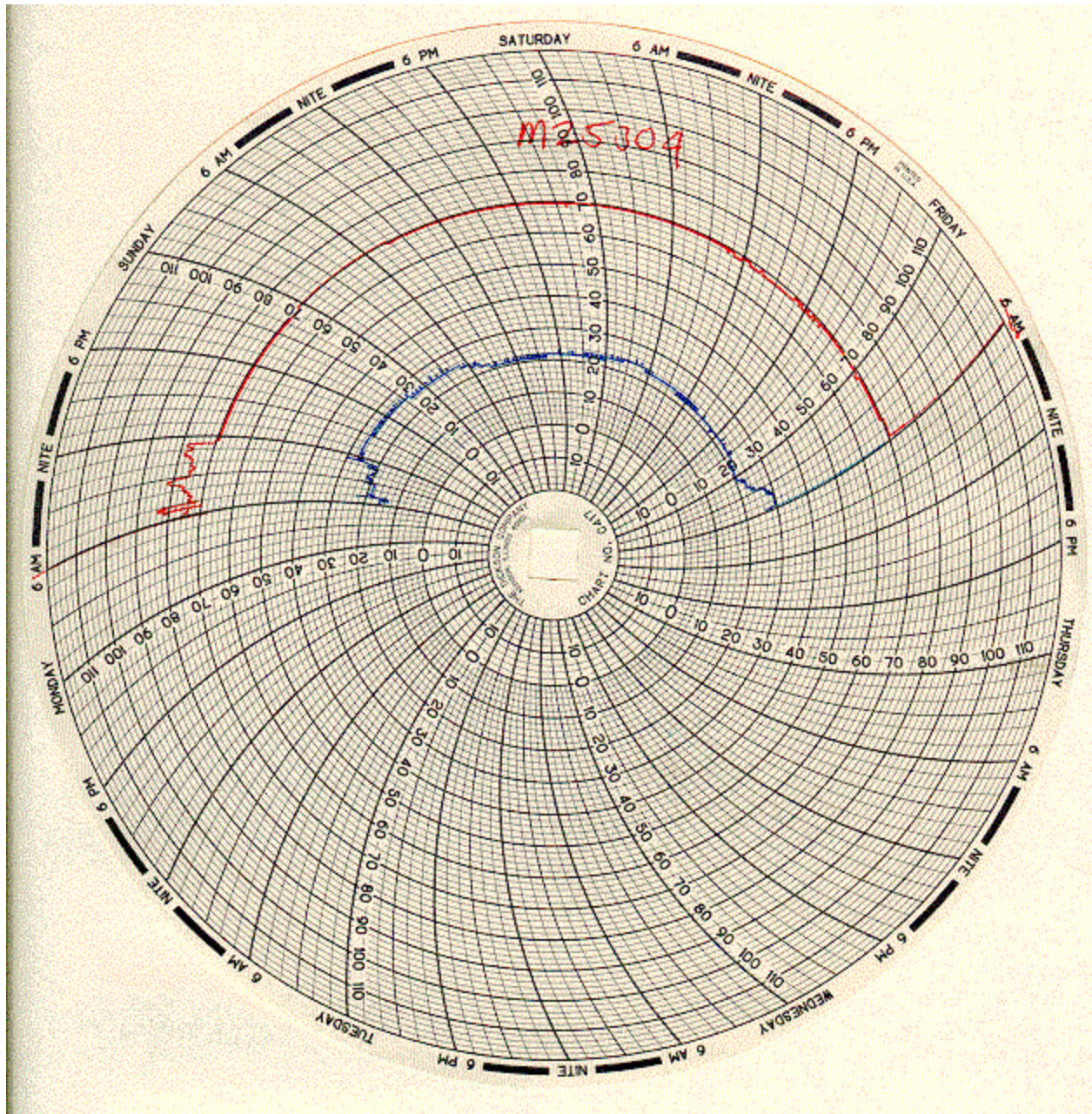
POST TEST DUMMY INSPECTION LIST
CONFIGURED FOR LEFT SIDE IMPACT

SID Serial No.: 026 Sequential Test Number: 3
Date: February 12, 2002 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.: 026		
	SERIAL NUMBER	MANUFACTURER	CALIBRATION DATE
HEAD AX	P18663	ENDEVCO	4-Sep-01
HEAD AY	P18639	ENDEVCO	4-Sep-01
HEAD AZ	P19222	ENDEVCO	4-Sep-01
UPPER RIB	P19255	ENDEVCO	24-Sep-01
LOWER RIB	P17535	ENDEVCO	4-Sep-01
LOWER SPINE	P15534	ENDEVCO	21-Aug-01
PELVIS	P16585	ENDEVCO	21-Aug-01
UPPER RIB REDUNDANT	P19216	ENDEVCO	4-Sep-01
LOWER RIB REDUNDANT	P23303	ENDEVCO	5-Oct-01
LOWER SPINE REDUNDANT	P15526	ENDEVCO	21-Aug-01
PELVIS REDUNDANT	P16576	ENDEVCO	21-Aug-01

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)	J32143	ENDEVCO	7-Jan-02
RIGHT FRONT SILL (Y)	J32838	ENDEVCO	7-Jan-02
RIGHT FRONT SILL (Z)	J32174	ENDEVCO	7-Jan-02
RIGHT REAR SILL (X)	B10827	ENDEVCO	29-Aug-01
RIGHT REAR SILL (Y)	A13513	ENDEVCO	29-Aug-01
RIGHT REAR SILL (Z)	B11408	ENDEVCO	29-Aug-01
REAR FLOORPAN ABOVE AXLE (X)	BB14	ENDEVCO	29-Aug-01
REAR FLOORPAN ABOVE AXLE (Y)	AP064	ENDEVCO	29-Aug-01
REAR FLOORPAN ABOVE AXLE (Z)	B10955	ENDEVCO	29-Aug-01
LEFT REAR SILL (Y)	X92	ICS	25-Sep-01
LEFT FRONT SILL (Y)	D36	ICS	30-Oct-01
LEFT FRONT DOOR CENTERLINE (Y)	J32186	ENDEVCO	5-Sep-01
RIGHT REAR SEAT OCCUPANT COMP. (Y)	J31050	ENDEVCO	4-Sep-01
MID REAR OF LEFT FRONT DOOR (Y)	J27927	ENDEVCO	5-Oct-01
LEFT FRONT DOOR UPPER C/L (Y)	J24754	ENDEVCO	25-Sep-01
MID REAR OF LEFT REAR DOOR (Y)	B11073	ENDEVCO	7-Jan-02
LEFT REAR DOOR UPPER C/L (Y)	B10481	ENDEVCO	25-Sep-01
LOWER LEFT B- PILLAR (Y)	J31060	ENDEVCO	4-Sep-01
MIDDLE LEFT B-PILLAR (Y)	J26604	ENDEVCO	5-Oct-01
LOWER LEFT A-PILLAR (Y)	A14433	ENDEVCO	25-Sep-01
UPPER LEFT A-PILLAR (Y)	J33032	ENDEVCO	4-Sep-01
FRONT SEAT TRACK (Y)	J33156	ENDEVCO	20-Aug-01
REAR SEAT TRACK (Y)	A13883	ENDEVCO	29-Aug-01
VEHICLE CG (X)	J32782	ENDEVCO	28-Aug-01
VEHICLE CG (Y)	J33091	ENDEVCO	28-Aug-01
VEHICLE CG (Z)	J33127	ENDEVCO	28-Aug-01
MDB CG (X)	C16682	ENDEVCO	6-Sep-01
MDB CG (Y)	CJ54	ENDEVCO	6-Sep-01
MDB CG (Z)	GK12	ENDEVCO	6-Sep-01
MDB REAR FRAME MEMBER (X)	CX05	ENDEVCO	6-Sep-01
MDB REAR FRAME MEMBER (Y)	C16685	ENDEVCO	6-Sep-01

REMARKS: None

REPORT NUMBER: SNCAP-CAL-02-1

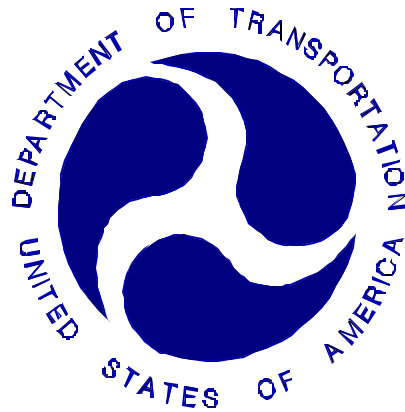
**NEW CAR ASSESSMENT PROGRAM
SIDE IMPACT TEST**

SAFETY FIRST FORERUNNER LATCH

NHTSA NUMBER: M25304

VERIDIAN ENGINEERING TEST NUMBER: 8652-SNCAP-01

VERIDIAN ENGINEERING
TRANSPORTATION SCIENCES CENTER
P.O. BOX 400
BUFFALO, NEW YORK 14225



February 4, 2002

FINAL REPORT

U. S. DEPARTMENT OF TRANSPORTATION
National Highway Traffic Safety Administration
Safety Performance Standards
Office of Crashworthiness Standards
Mail Code: NPS-10
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. DTNH22-01-D-32005. 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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Acceptance Date:

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				6. Performing Organization Code CAL	
7. Author(s) Patrick G. MacDiarmid, Jr., Project Engineer David J. Travale, Program Manager				8. Performing Organization Report No. 8652-SNCAP-01	
9. Performing Organization Name and Address Veridian Engineering Transportation Sciences Center P.O. Box 400 Buffalo, New York 14225				10. Work Unit No.	
				11. Contract or Grant No. DTNH22-01-D-32005	
12. Sponsoring Agency Name and Address U.S. Department of Transportation National Highway Traffic Safety Administration Office of Crashworthiness Standards Mail Code: NPS-10 400 Seventh SW, Room 5313 Washington, D.C. 20590				13. Type of Report and Period Covered Final Report, February 2002	
				14. Sponsoring Agency Code NPS-10	
15. Supplementary Notes					
16. Abstract A 55/28 kph 90 ⁰ Impact Moving Deformable Barrier NCAP Side Impact Test was conducted on the subject CRS Safety First Forerunner LATCH in accordance with the specifications of the Office of Crashworthiness Standards Test Procedure for the determination of CRS crashworthiness. This test was conducted at the Veridian Engineering Crash Test Facility in Buffalo, New York, on February 4, 2002.					
17. Key Words New Car Assessment Program (NCAP) Side Impact				18. Distribution Statement <u>Copies of this report are available from:</u> National Highway Traffic Safety Administration Technical Reference Division Room 5108 (NAD-52) 400 Seventh St., S.W. Washington, D.C. 20590 Telephone No. (202) 366-4946 ATTN: Robert Hornicle	
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SECTION 1

PURPOSE AND SUMMARY OF TEST M25304

The purpose of this test was to obtain CRS performance data in a side impact NCAP condition.

The 61.96 kph side impact NCAP moving deformable barrier (MDB) test was conducted in accordance with the Office of Crashworthiness Standards (OCS) Side Impact NCAP Laboratory Test Procedure.

SUMMARY

Both child dummies were instrumented with head, chest, and pelvic triaxial accelerometers. In addition, redundant head z acceleration, chest displacement and upper and lower six axial neck force and moment load cell sensors were utilized.

The right rear (Position 3) child dummy (serial no. 042) and left rear (Position 4) child dummy (serial no. 142) were calibrated previous to this test. Child dummy certification information is found in section 5.

The right rear child dummy's HIC was 458.9, maximum chest deceleration over 3 ms was not available. The left rear child dummy's HIC was 322.2, maximum chest deceleration over 3 ms was not available.

SECTION 2
DATA SHEET NO. 1
CRASH TEST SUMMARY

TEST DUMMY INFORMATION:

DESCRIPTION	Position #3 CRS	Position #4 CRS
ATD Type/Serial No.	Hybrid III 3C/042	Hybrid III 3C /142
Restraint System:	Safety First Forerunner LATCH	Safety First Forerunner LATCH

Number of Data Channels 57
Number of Cameras: 1 Real Time
3 High Speed

POST TEST DOOR OPENING

DESCRIPTION	FRONT	REAR
Left Side Doors	Closed and Latched, Inoperable	N/A
Right Side Doors	Closed, Latched and Operable without tools	N/A
Hatch/Other Door	N/A	Closed, Latched and Operable without tools

POST TEST SEAT DATA

LOCATION	SEAT MOVEMENT (mm)	SEAT BACK FAILURE
P1 (Left Front)	0	None
P2 (Right Front)	0	None
P3 (Right Rear)	0	None
P4 (Left Rear)	0	None

VISIBLE DUMMY CONTACT POINTS

	Position #3 CRS	Position #4 CRS
Head Contact:	Side of the face and top of the head to the CRS upper bolster and left side of P4 CRS	Top of the head and side of the face to CRS upper bolster and side door trim panel.
Upper Torso Contact:	CRS Bolster	Left arm to side door trim panel
Lower Torso Contact:	CRS Bolster	CRS Bolster
Left Knee Contact:	CRS Bolster	CRS Bolster
Right Knee Contact:	Left Knee	Left Knee

DATA SHEET NO. 2

CRS PARAMETER DATA

CRS: Safety First Forerunner LATCH

NHTSA No. M25304

CALCULATION OF VEHICLE'S TARGET TEST WEIGHT:

Delivered Weight of Vehicle with Maximum Fluids = 1229.5 kg (A)

AS TESTED WEIGHT OF VEHICLE (1 SID + 2 P572C w/ CRS +CARGO + EQUIPMENT & INSTRUMENTATION):

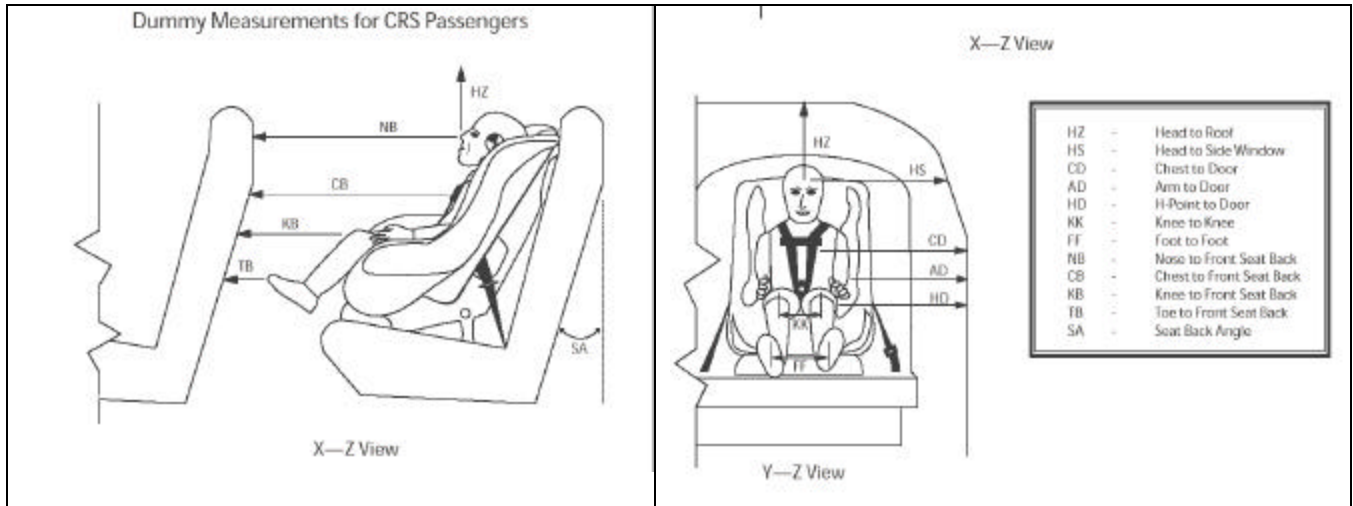
Left Front	=	<u>400.5</u>	kg	Left Rear	=	<u>310.0</u>	kg
Right Front	=	<u>401.5</u>	kg	Right Rear	=	<u>317.0</u>	kg
TOTAL FRONT	=	<u>802.0</u>	kg	TOTAL REAR	=	<u>627.0</u>	kg
TOTAL TEST WEIGHT	=	<u>1429.0</u>	kg				

DATA SHEET NO. 3

CHILD DUMMY POSITIONING IN VEHICLE

CRS: Safety First Forerunner LATCH

NHTSA No. M25304



Measurement	Pre-Test (mm)		Post Test (mm)	
	P3 CRS (042)	P4 CRS (142)	P3 CRS (042)	P4 CRS (142)
SA	26.8°	26.8°	26.8°	26.8°
HS	397	400	449	190
CD	416	383	427	219
AD	292	273	285	108
HD	327	300	353	172
HZ	258	265	263	277
NB	465	471	464	453
CB	455	441	444	420
KB	147	122	216	145
FF	156	120	314	180
KB – LEFT	290	310	280	283
KB – RIGHT	294	292	285	270
TB – LEFT	0	0	0	0
TB – RIGHT	0	0	0	0

All dimensions in mm (unless noted)

P3 – Right Rear Passenger (CRS #1)

P4 – Left Rear Passenger (CRS #2)

DATA SHEET 4

CHILD DUMMY INJURY CRITERIA VALUES

CRS: Safety First Forerunner LATCH

NHTSA No. M25304

DESCRIPTION	Unit	MAXIMUM VALUE							
		Position #3				Position #4			
		Pos	msec	Neg	msec	Pos	msec	Neg	msec
Head X	g	0.6	36.7	-25.7	81.5	6.8	199.9	-20.4	47.3
Head Y	g	65.6	80.4	-3.2	199.9	65.6	53.1	-9.3	85.4
Head Z	g	43.8	72.3	-4.5	39.4	34.3	49.9	-5.0	83.1
Head Resultant	g	74.5	80.7	0.0	4.1	72.0	53.1	0.0	-16.7
Redundant Head Z	g	40.5	72.1	-9.6	41.8	27.5	50.1	-10.5	42.2
Upper Neck Fx	N	1.2	19.4	-320.4	75.0	43.3	199.9	-481.8	47.9
Upper Neck Fy	N	463.0	78.1	-85.8	199.9	684.7	49.6	-193.1	84.8
Upper Neck Fz	N	1230.3	74.1	-123.9	39.7	1150.4	51.6	-85.5	114.3
Upper Neck F Resultant	N	1339.0	74.2	0.0	-5.7	1369.2	51.5	0.1	-8.8
Upper Neck Mx	N-m	14.2	77.3	-8.5	59.4	32.8	57.0	-13.1	90.1
Upper Neck My	N-m	8.2	102.0	-6.7	68.3	15.2	83.7	-15.6	45.0
Upper Neck Mz	N-m	20.3	94.2	-3.9	185.4	20.8	75.7	-9.5	118.9
Upper Neck M Resultant	N-m	20.8	94.3	0.0	-10.2	34.3	57.7	0.0	-8.2
Lower Neck Fx	N	11.4	185.4	-334.5	74.0	66.9	199.9	-480.2	47.8
Lower Neck Fy	N	75.2	74.5	-117.2	199.4	825.8	51.6	-277.5	85.1
Lower Neck Fz	N	938.6	74.0	-160.4	40.4	893.3	51.5	-96.9	107.5
Lower Neck F Resultant	N	998.7	74.1	0.0	-5.9	1288.8	51.5	0.0	-7.5
Lower Neck Mx	N-m	64.9	77.6	-13.9	199.9	105.0	51.7	-27.8	85.2
Lower Neck My	N-m	27.9	74.1	-3.5	188.2	33.0	77.1	-6.1	199.9
Lower Neck Mz	N-m	14.2	80.1	-2.4	40.5	16.3	63.8	-7.0	119.6
Lower Neck M Resultant	N-m	70.9	77.3	0.0	-19.5	109.2	51.7	0.0	-18.7
Chest X	g	6.6	115.8	-16.4	62.0	5.7	69.5	-21.3	41.0
Chest Y	g	29.4	63.1	-4.4	199.9	**	**	**	**
Chest Z	g	*	*	*	*	9.6	81.0	-22.8	45.2
Chest Resultant	g	*	*	*	*	**	**	**	**
Chest Displacement	g	0.2	42.2	-6.7	71.1	8.2	43.4	-1.7	30.9
Pelvic X	g	9.0	112.9	-14.8	71.6	12.5	62.2	-24.0	33.0
Pelvic Y	g	34.7	42.7	-8.1	96.2	114.9	32.5	-19.3	76.7
Pelvic Z	g	9.4	85.9	-9.6	59.1	10.9	62.5	-33.7	53.5
Pelvic Resultant	g	35.2	42.7	0.0	-17.5	117.3	32.6	0.0	-18.4
Tether Load	N	147.6	44.9	-42.5	98.6	523.7	34.7	-50.6	79.6

*Spikes present in data – not accurate

** Data not accurate – sensor opened during the event

DATA SHEET 4

CHILD DUMMY INJURY CRITERIA VALUES (CONTINUED)

CRS: Safety First Forerunner LATCH

NHTSA No. M25304

	HEAD INJURY CRITERIA (HIC)			
	HIC**	t ₁ (msec)	t ₂ (msec)	Average Acceleration (g's) t ₁ to t ₂
Position #3 - Right	458.9	63.0	93.1	47.2
Position #4 - Left	322.2	43.1	61.5	49.8

** HIC is as defined in FMVSS 208. The maximum time interval from t₁ to t₂ is 36 milliseconds.

	CLIP SUMMARY*			
	CLIP (g's)	t ₁ (msec)	t ₂ (msec)	CSI
Position #3 - Right	*	**	**	**
Position #4 - Left	*	***	***	***

*The maximum chest resultant acceleration is defined as the maximum acceleration which exceeds 0.003 seconds in duration.

** Not Accurate – Spikes in Data; *** Data not accurate – Sensor opened

Position 3 Neck Injury Summary (HIII 3 year old – In Position)

Nij V10	Nij	Time (ms)	Z Force (N)	X Force (N)	Y Moment (N-m)
Ntf	0.3	82.9	601.9	-272.1	0.0
Nte	0.7	74.0	1230.4	-314.6	-5.3
Ncf	0.1	125.3	-11.9	-121.3	4.8
Nce	0.1	42.1	-105.6	-41.6	-2.6

Peak Tension (CFC1000) 1230.32 N

Peak Compression (CFC1000) 123.91 N

Critical Values

Nij Intercepts				Peak Limits	
Tension (CVt)	2340 N	Extension (mCVe)	30 N-m	Tension	1430 N
Compression (CVc)	2120 N	Flexion (mCVf)	68 N-m	Compression	-1380 N

Condyle Offset 0

Position 4 Neck Injury Summary (HIII 3 year old – In Position)

Nij V10	Nij	Time (ms)	Z Force (N)	X Force (N)	Y Moment (N-m)
Ntf	0.5	54.1	1028.0	-316.9	1.2
Nte	0.8	47.6	862.3	-476.6	-14.0
Ncf	0.3	83.3	-76.3	-28.6	15.1
Nce	0.0	7.1	-0.8	-0.1	0.0

Peak Tension (CFC1000) 1150.36 N

Peak Compression (CFC1000) 85.54 N

Critical Values

Nij Intercepts				Peak Limits	
Tension (CVt)	2340 N	Extension (mCVe)	30 N-m	Tension	1430 N
Compression (CVc)	2120 N	Flexion (mCVf)	68 N-m	Compression	-1380 N

Condyle Offset 0

DATA SHEET NO. 5

CRS PERFORMANCE DATA

CRS: Safety First Forerunner LATCH

NHTSA No. M25304

		MAXIMUM VALUE			
DESCRIPTION	Unit	Positive	Time (ms)	Negative	Time (ms)
Right Rear Compartment YR	g	36.5	6.9	-4.4	112.2
Right Rear Compartment X	g	6.5	13.9	-3.5	60.5
Right Rear Compartment Ang	g	25.8	15.0	-4.2	60.2
P3 CRS X	g	5.6	126.0	-18.2	52.2
P3 CRS Y	g	27.9	49.5	-4.4	163.3
P3 CRS Z	g	8.0	78.6	-6.9	31.6
P3 CRS Resultant	g	32.0	49.8	0.0	-9.0
P4 CRS X	g	26.1	61.0	-43.5	22.9
P4 CRS Y	g	78.9	25.0	-45.7	32.5
P4 CRS Z	g	10.4	62.2	-30.4	33.6
P4 CRS Resultant	g	86.6	24.5	0.0	-20.0

DATA SHEET NO. 5**CRS PERFORMANCE DATA (CONTINUED)**CRS: Safety First Forerunner LATCHNHTSA No. M25304**POSITION #3 CRS POST-TEST INSPECTION (Serial No. 02-925-BRD)**

LOCATION	DAMAGE	REMARKS
Upper Tether Strap	No	None
Upper Tether Buckle	No	None
Upper Tether Hook	No	None
Vehicle Upper Tether Anchor	No	None
Lower Anchor Strap	No	None
Lower Anchor Buckle	No	None
Lower Anchor Hooks	No	None
Vehicle Lower CRS Anchors	No	None
Five Point Harness Connections	No	None
Cracks on CRS	No	None
Fabric Tears on CRS	No	None
Vehicle Seat Structure	No	None
Vehicle Seat Fabric Tears	No	None
Child Dummy	No	None

POSITION #4 CRS POST-TEST INSPECTION (Serial No. 02-925-BRD)

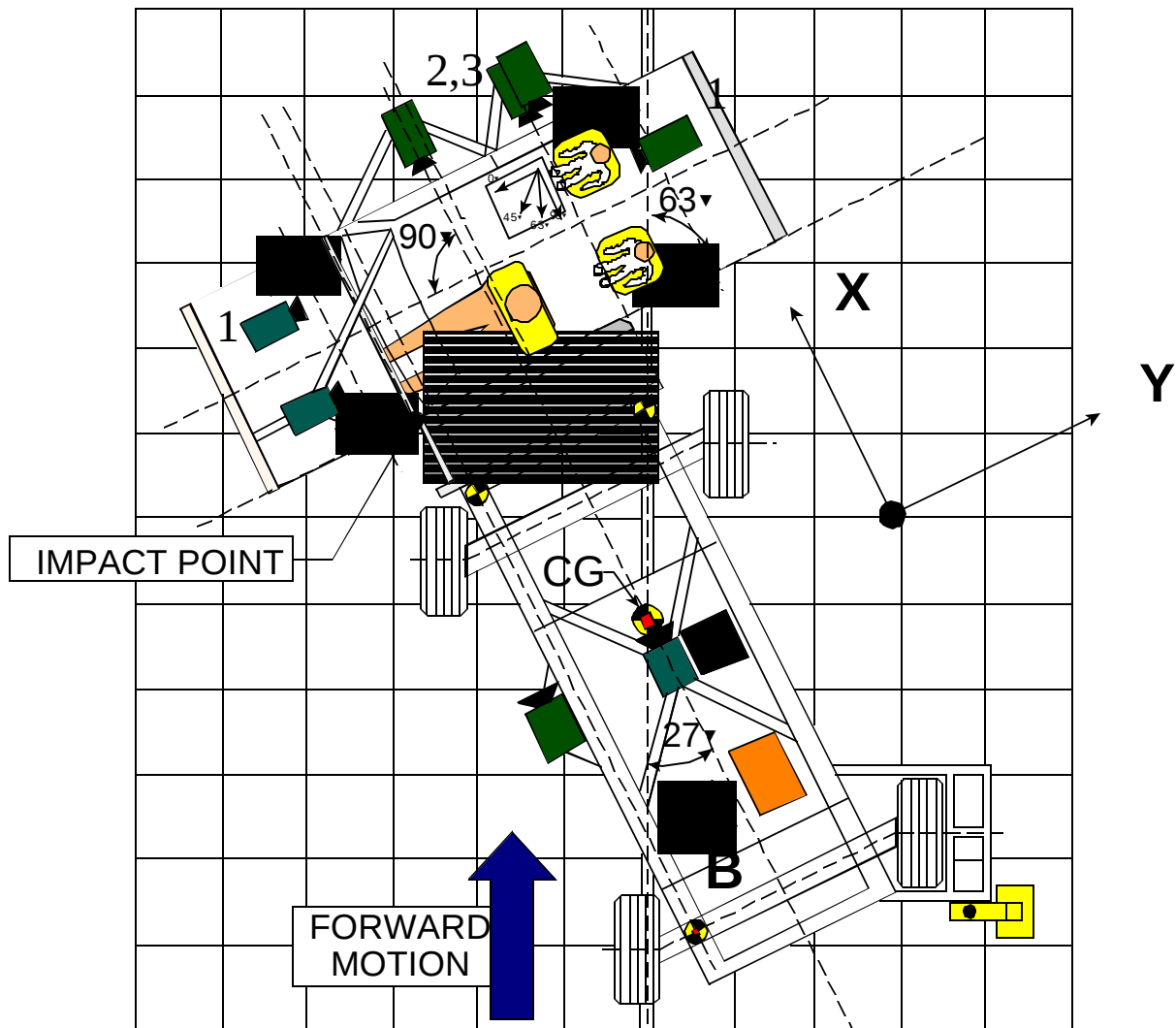
LOCATION	DAMAGE	REMARKS
Upper Tether Strap	No	None
Upper Tether Buckle	No	None
Upper Tether Hook	No	None
Vehicle Upper Tether Anchor	No	None
Lower Anchor Strap	No	None
Lower Anchor Buckle	No	None
Lower Anchor Hooks	No	None
Vehicle Lower CRS Anchors	No	None
Five Point Harness Connections	No	None
Cracks on CRS	No	None
Fabric Tears on CRS	No	None
Vehicle Seat Structure	No	None
Vehicle Seat Fabric Tears	No	None
Child Dummy	No	None

DATA SHEET NO. 6

CRS CAMERA DATA

CRS: Safety First Forerunner LATCH

NHTSA No. M25304



Camera No.	View	Coordinates (millimeters)			Angle (deg.)	Lens (mm)	Film Speed (fps)
		X*	Y*	Z*			
1**	Overall longitudinal view of child restraints	854	2550	1433	-24	8	900
2	Right side CRS lower lateral view	1767	1638	1112	-12	8	1005
3	Right side CRS upper lateral view	1767	1638	1294	-45	8	845

* 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

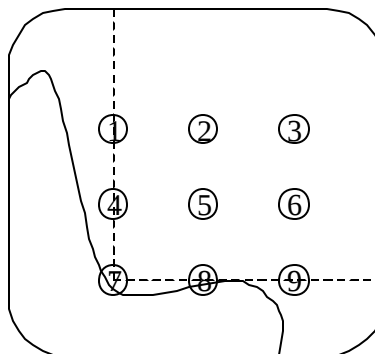
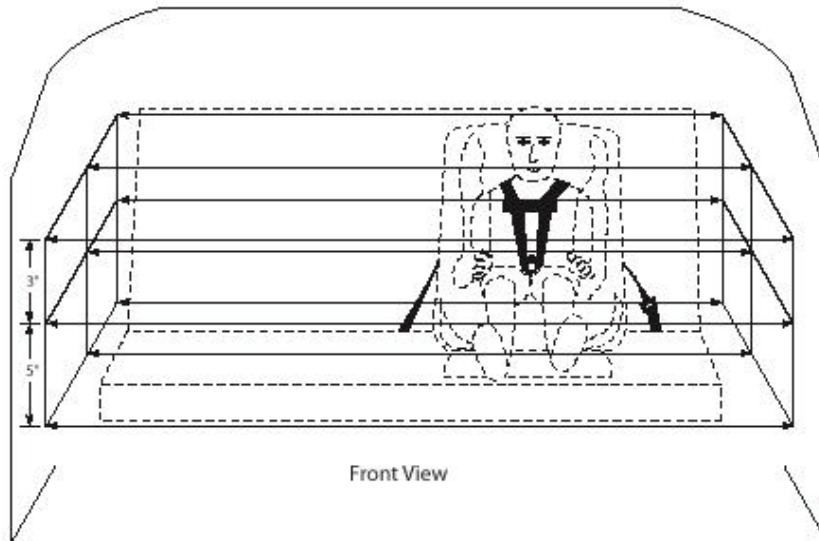
** Camera can be mounted for front or rear view

DATA SHEET NO. 7

REAR SEAT LATERAL DIMENSIONS

CRS: Safety First Forerunner LATCH

NHTSA No. M25304



Location	Pre-Test (mm)	Post-Test (mm)	Crush (mm)
1	1290	1183	107
2	1325	1157	168
3	1329	1112	217
4	1384	1062	322
5	1423	1148	275
6	1359	1154	205
7	1251	965	286
8	1229	912	317
9	1235	906	329

?? Origin taken from intersection of seat bight and horizontal of uppermost point on bottom seat cushion.

?? Rows heights and column widths are at 200 mm intervals

SECTION 3

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Figure 3-1 CLOSE-UP VIEW OF POSITION 3 CRS LABEL



Figure 3-2 PRE-TEST FRONTAL VIEW OF POSITION 3 CRS



Figure 3-3 POST-TEST FRONTAL VIEW OF POSITION 3 CRS



Figure 3-4 PRE-TEST REAR VIEW OF POSITION 3 CRS



Figure 3-5 POST-TEST REAR VIEW OF POSITION 3 CRS



Figure 3-6 PRE-TEST LEFT SIDE VIEW OF POSITION 3 CRS

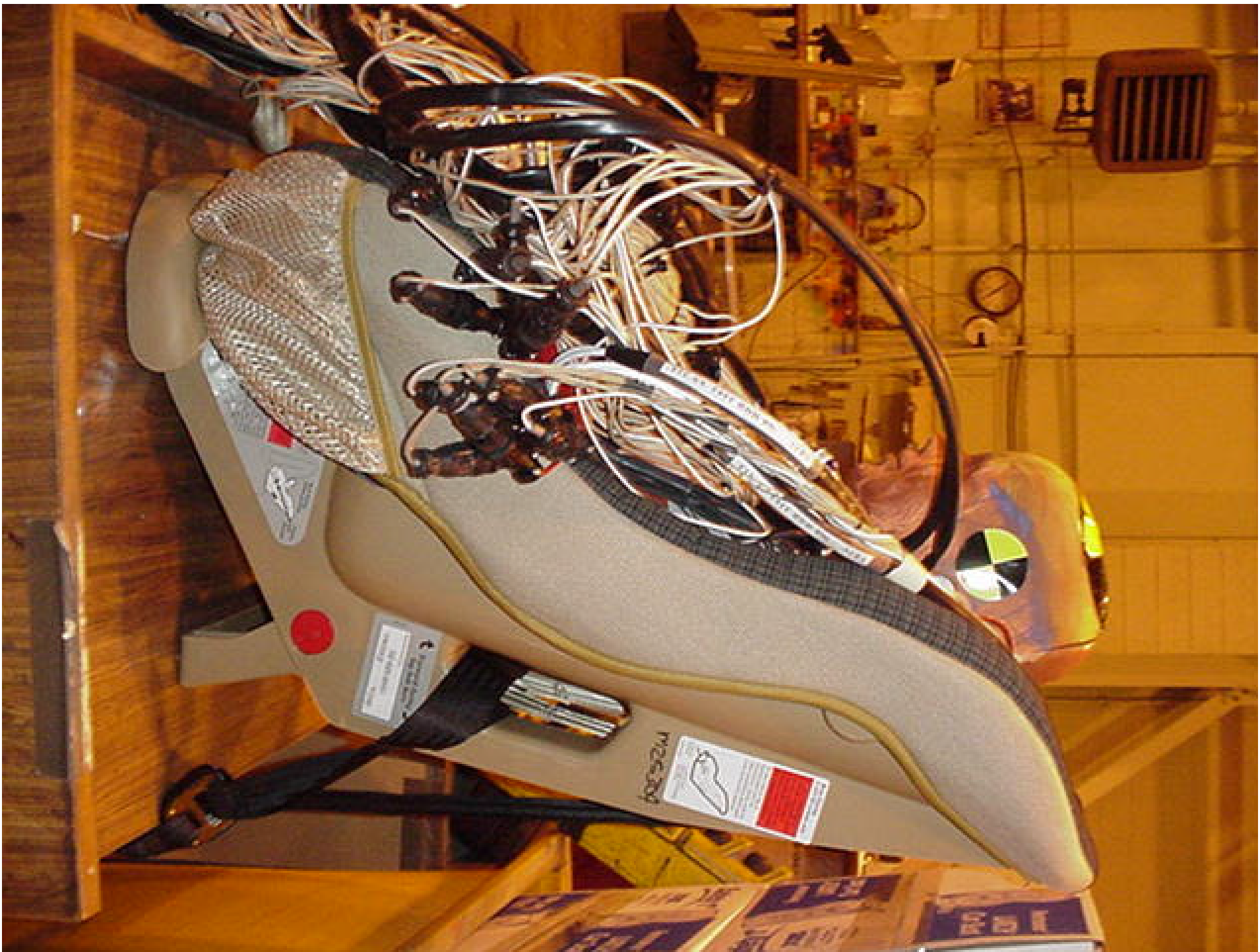


Figure 3-7 POST-TEST LEFT SIDE VIEW OF POSITION 3 CRS



Figure 3-8 PRE-TEST RIGHT SIDE VIEW OF POSITION 3 CRS



Figure 3-9 POST-TEST RIGHT SIDE VIEW OF POSITION 3 CRS

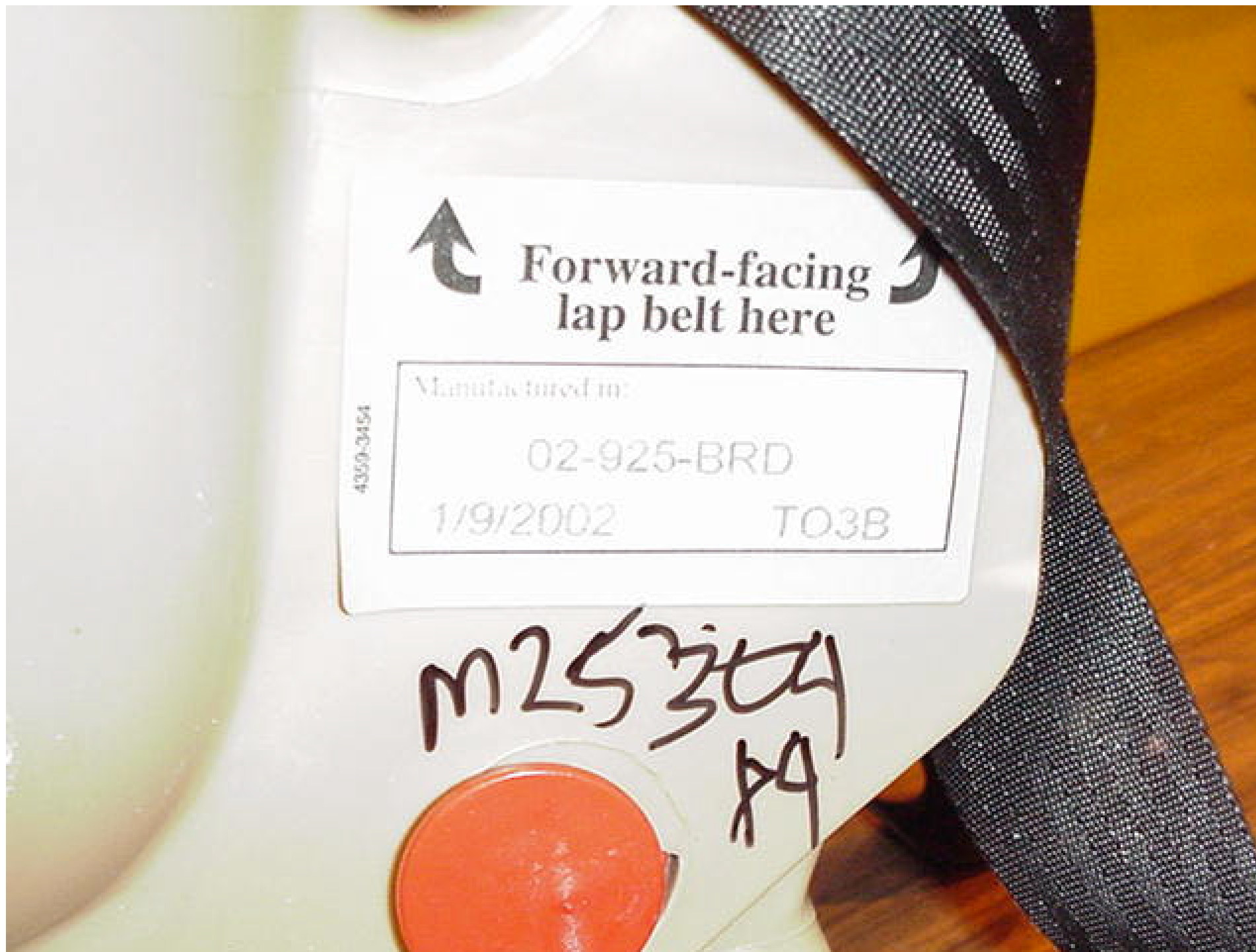


Figure 3-10 CLOSE-UP VIEW OF POSITION 4 CRS LABEL



Figure 3-11 PRE-TEST FRONTAL VIEW OF POSITION 4 CRS



Figure 3-13 PRE-TEST REAR VIEW OF POSITION 4 CRS



Figure 3-14 POST-TEST REAR VIEW OF POSITION 4 CRS



Figure 3-15 PRE-TEST LEFT SIDE VIEW OF POSITION 4 CRS



Figure 3-16 POST-TEST LEFT SIDE VIEW OF POSITION 4 CRS



Figure 3-17 PRE-TEST RIGHT SIDE VIEW OF POSITION 4 CRS



Figure 3-18 POST-TEST RIGHT SIDE VIEW OF POSITION 4 CRS



Figure 3-19 PRE-TEST POSITION 3 LEFT SIDE VIEW



Figure 3-20 POST-TEST POSITION 3 LEFT SIDE VIEW



Figure 3-21 PRE-TEST POSITION 4 LEFT SIDE VIEW



Figure 3-22 POST-TEST POSITION 4 LEFT SIDE VIEW



Figure 3-23 PRE-TEST POSITION 3 RIGHT SIDE VIEW



Figure 3-24 POST-TEST POSITION 3 RIGHT SIDE VIEW



Figure 3-25 PRE-TEST POSITION 4 RIGHT SIDE VIEW



Figure 3-26 POST-TEST POSITION 4 RIGHT SIDE VIEW



Figure 3-27 PRE-TEST POSITION 3 REAR VIEW



Figure 3-28 POST-TEST POSITION 3 REAR VIEW



Figure 3-29 PRE-TEST POSITION 4 REAR VIEW



Figure 3-30 POST-TEST POSITION 4 REAR VIEW

SECTION 4

CHILD DUMMY RESPONSE AND CRS DATA TRACES

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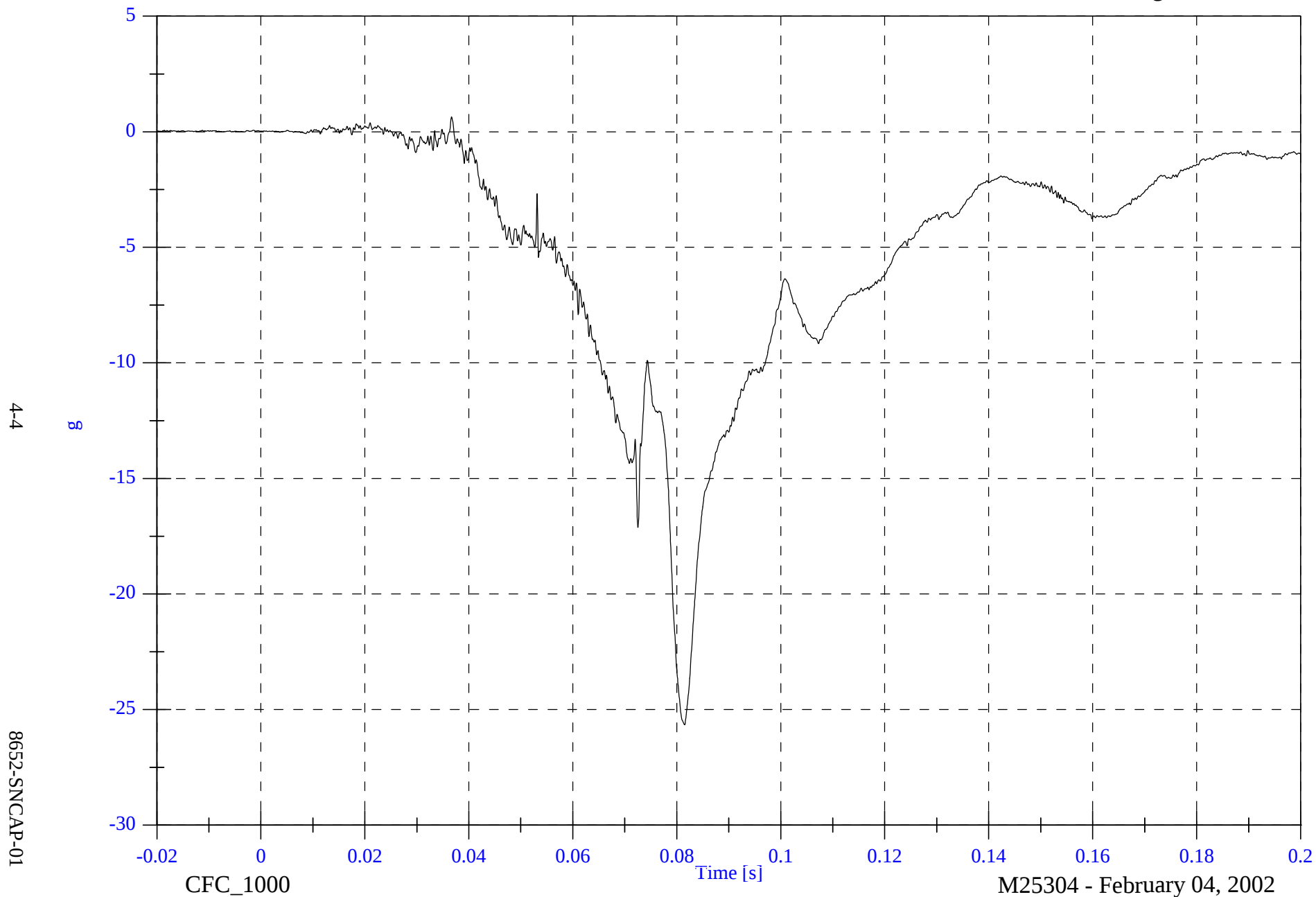
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2002 SNCAP Test 1 - 2002 Acura RSX

P3 Head x

Max: 0.6 [g] at 0.037 [s]

Min: -25.7 [g] at 0.082 [s]



2002 SNCAP Test 1 - 2002 Acura RSX

Max: 65.6 [g] at 0.080 [s]

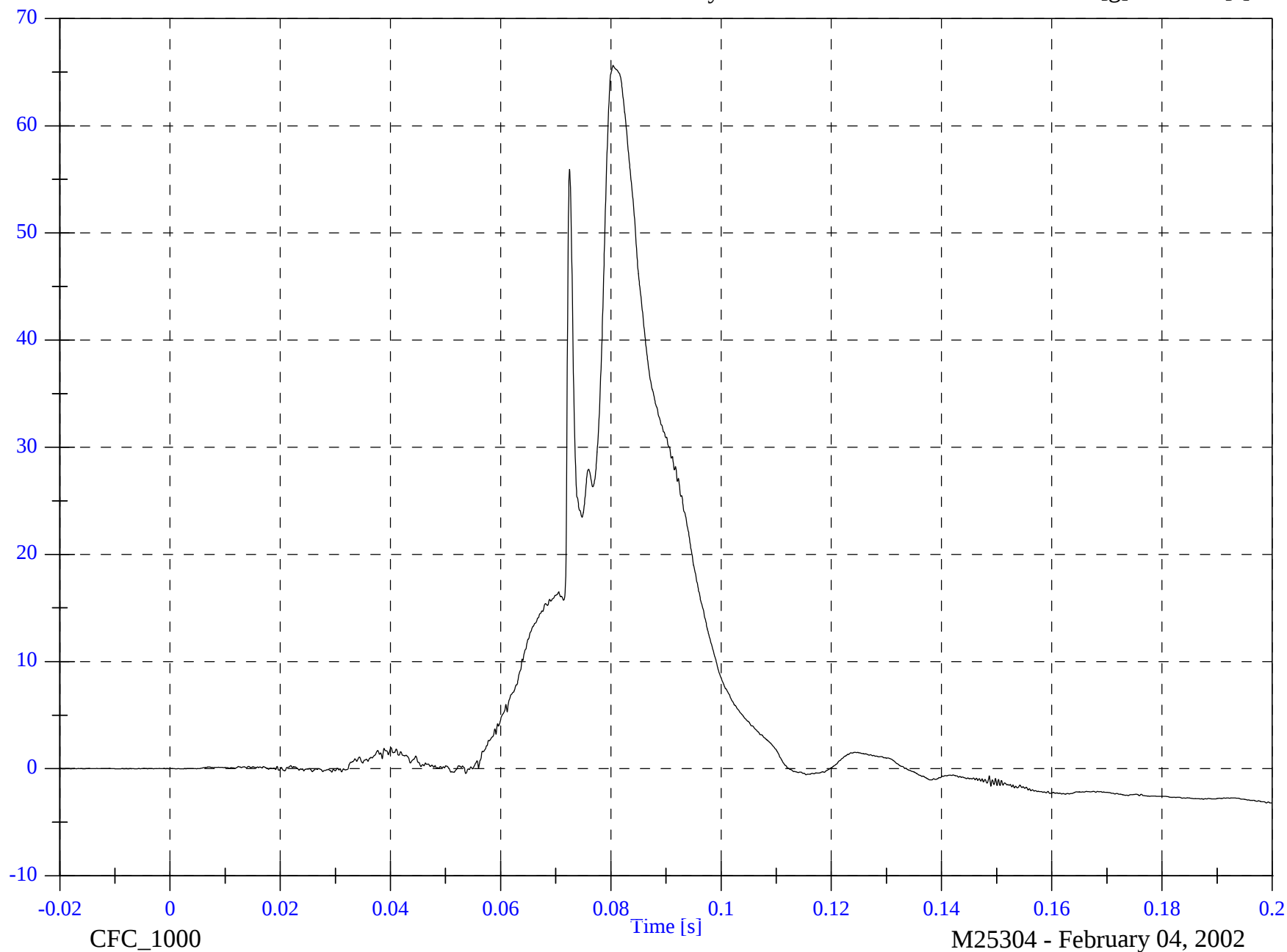
Min: -3.2 [g] at 0.200 [s]

P3 Head y

4-5

g

8652-SNCAP-01

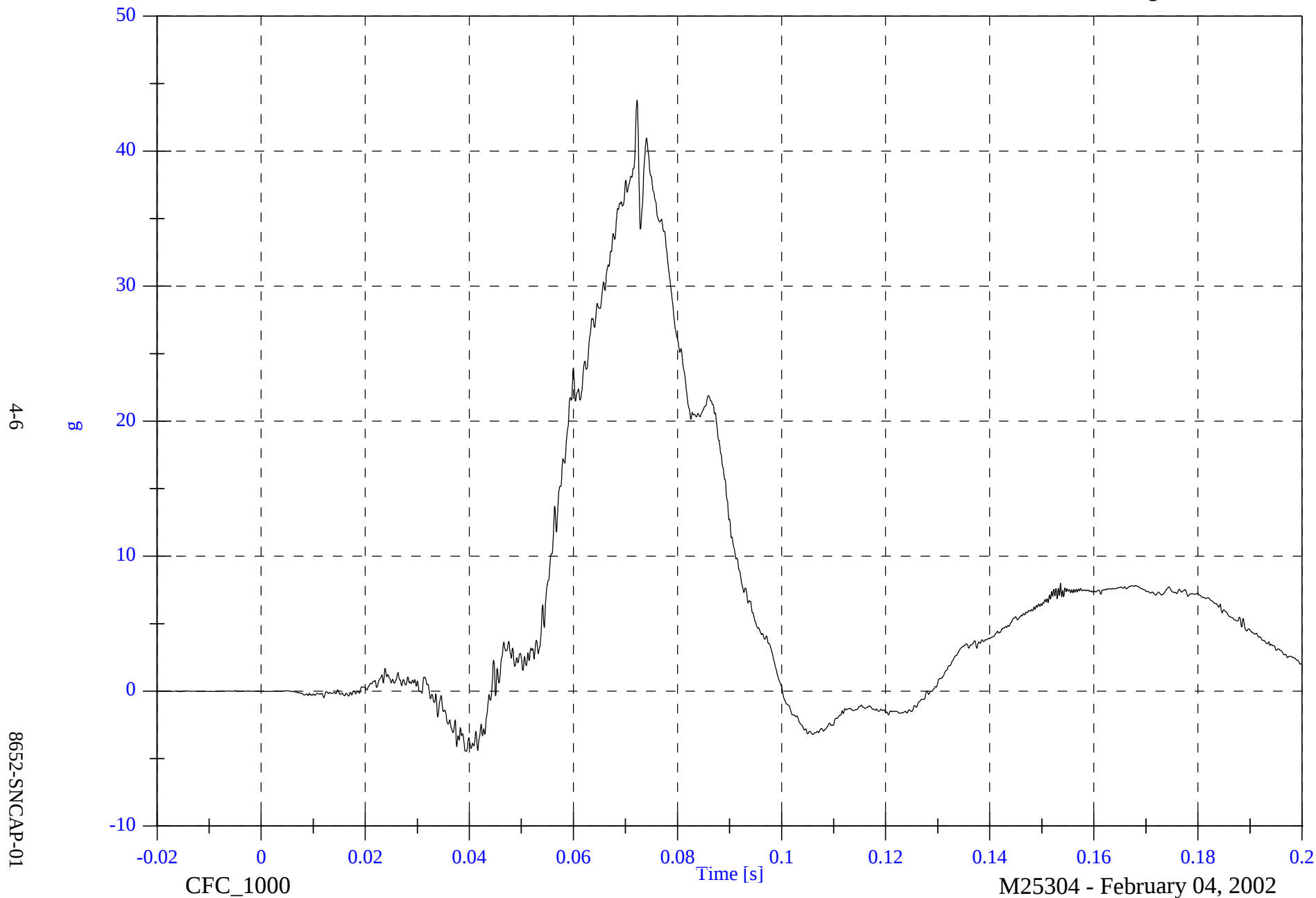


2002 SNCAP Test 1 - 2002 Acura RSX

Max: 43.8 [g] at 0.072 [s]

Min: -4.5 [g] at 0.039 [s]

P3 Head z

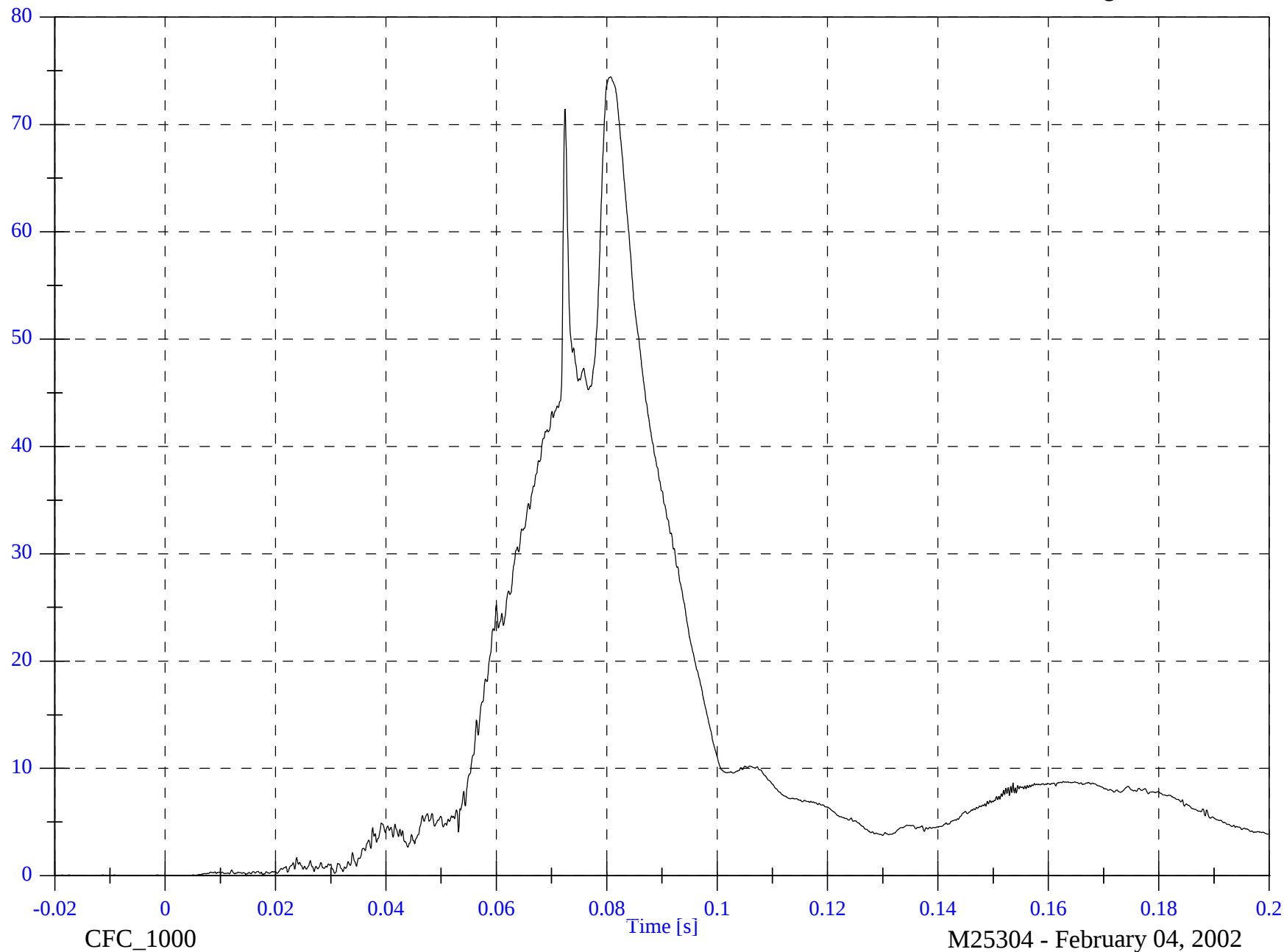


2002 SNCAP Test 1 - 2002 Acura RSX

P3 Head Resultant

Max: 74.5 [g] at 0.081 [s]

Min: 0.0 [g] at 0.004 [s]



4-7

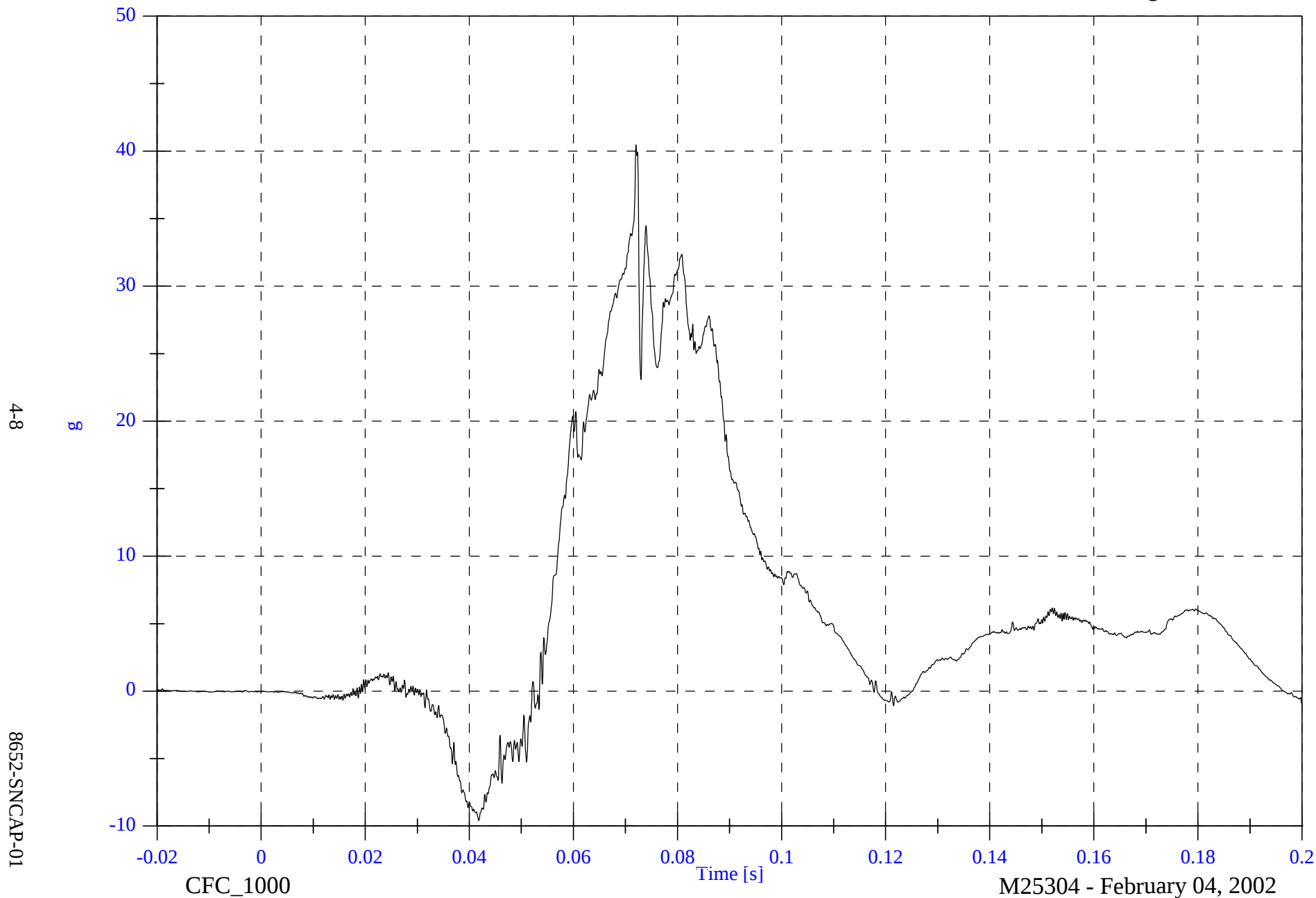
8652-SNCAP-01

2002 SNCAP Test 1 - 2002 Acura RSX

P3 Head Red z

Max: 40.5 [g] at 0.072 [s]

Min: -9.6 [g] at 0.042 [s]



2002 SNCAP Test 1 - 2002 Acura RSX

P3 Upper Neck Fx

Max: 1.2 [N] at 0.019 [s]

Min: -320.4 [N] at 0.075 [s]

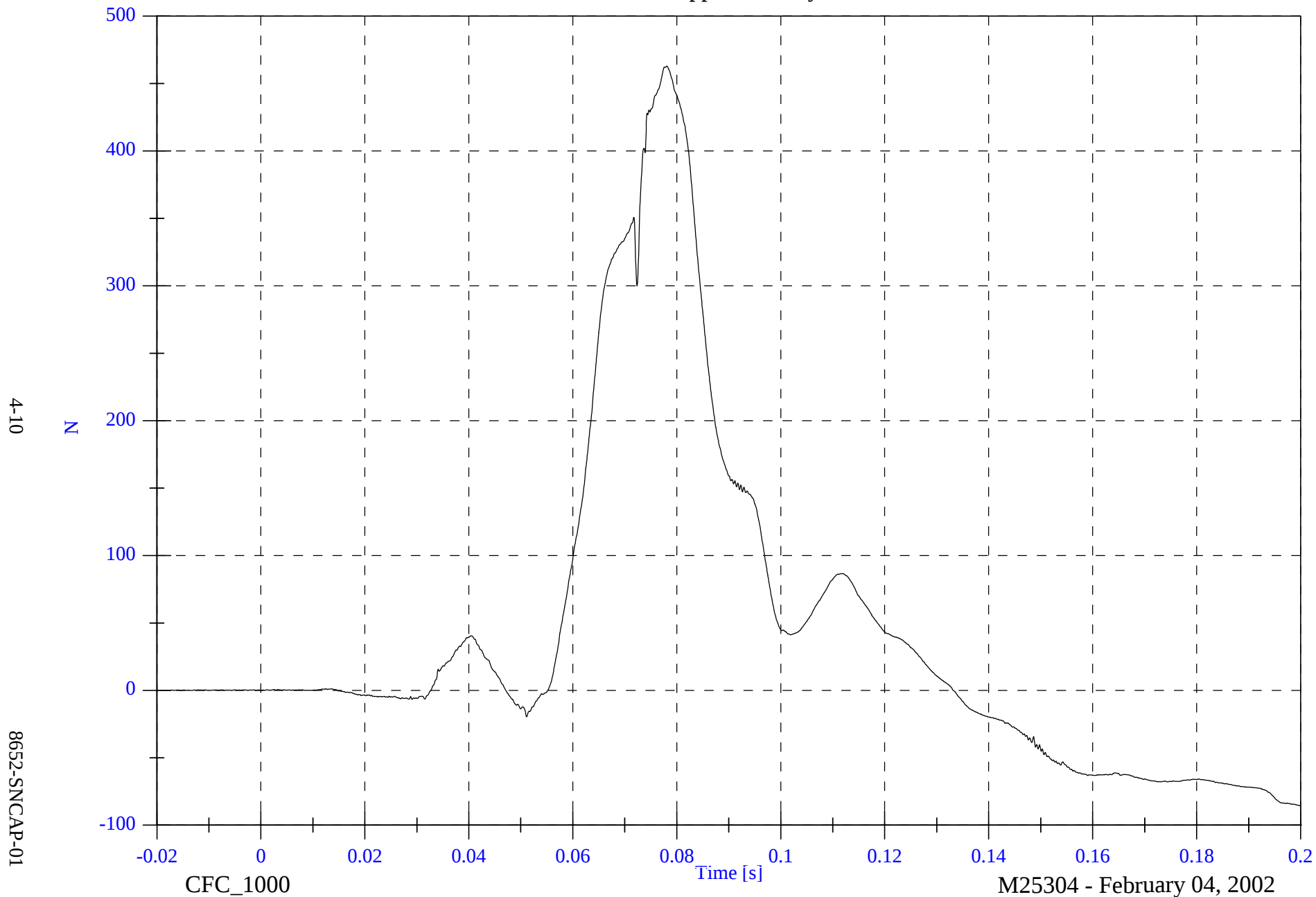


2002 SNCAP Test 1 - 2002 Acura RSX

P3 Upper Neck Fy

Max: 463.0 [N] at 0.078 [s]

Min: -85.8 [N] at 0.200 [s]

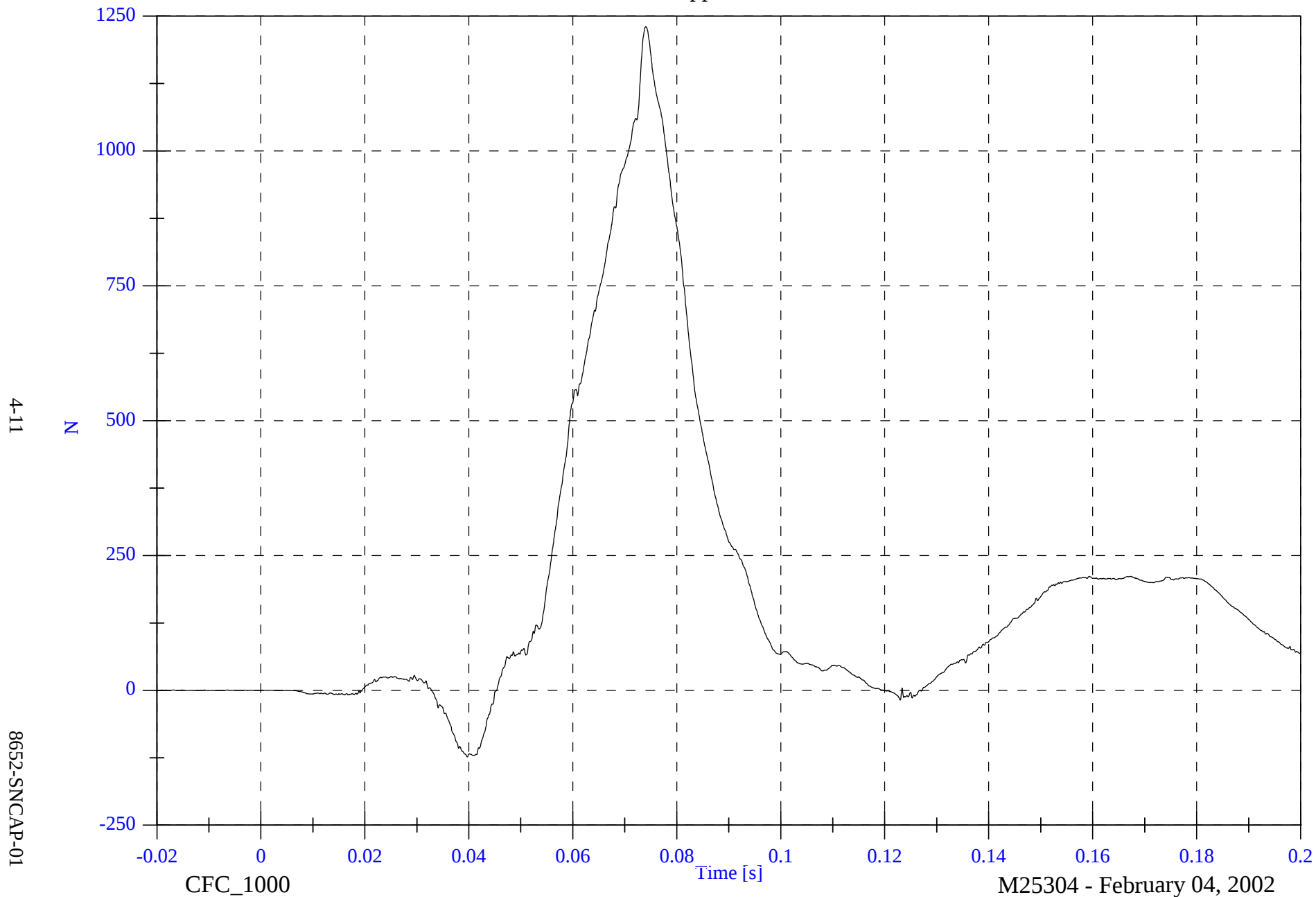


2002 SNCAP Test 1 - 2002 Acura RSX

Max: 1230.3 [N] at 0.074 [s]

Min: -123.9 [N] at 0.040 [s]

P3 Upper Neck Fz



2002 SNCAP Test 1 - 2002 Acura RSX

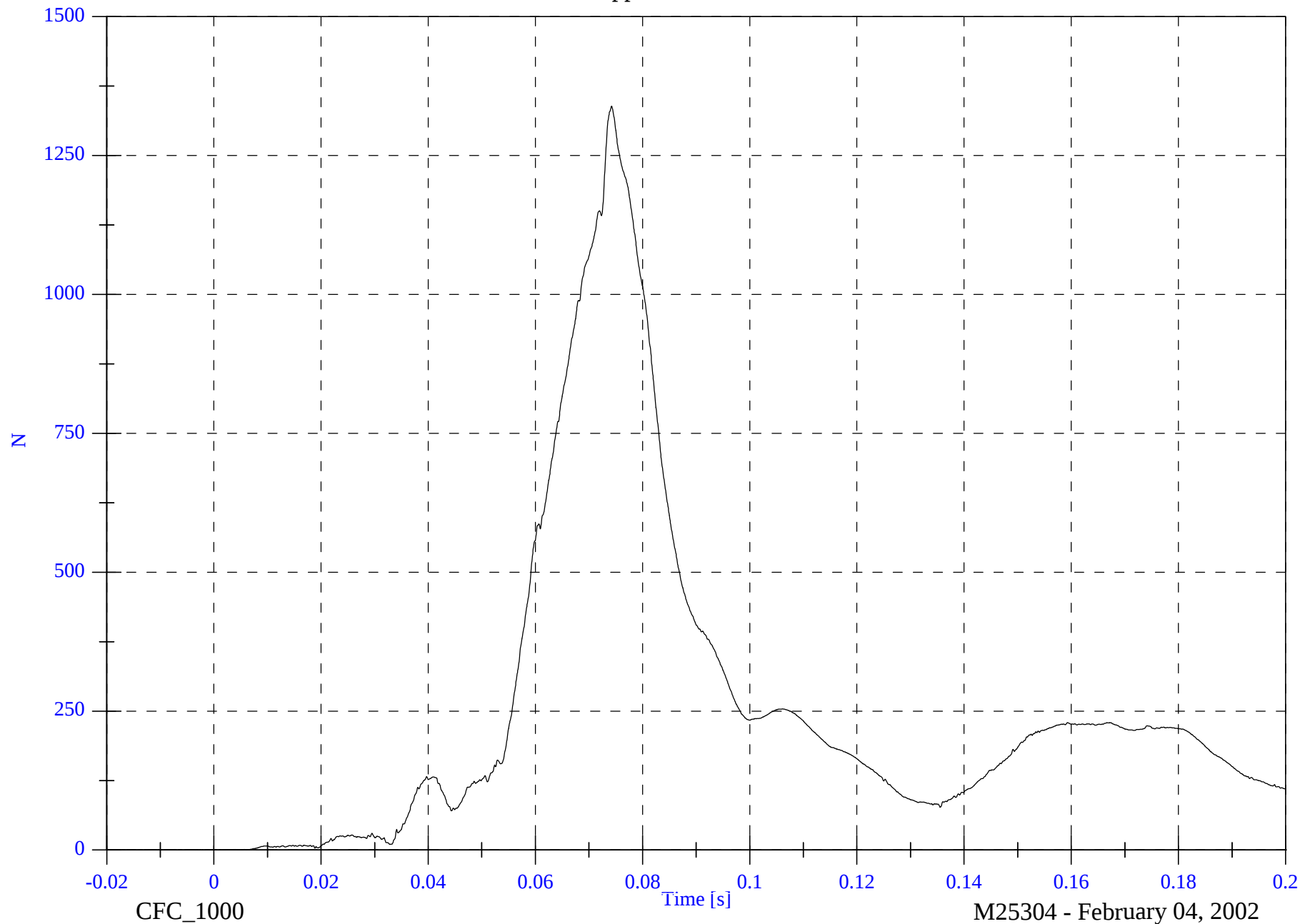
P3 Upper Neck F Resultant

Max: 1339.0 [N] at 0.074 [s]

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

4-12

8652-SNCAP-01



2002 SNCAP Test 1 - 2002 Acura RSX

Max: 14.2 [N-m] at 0.077 [s]

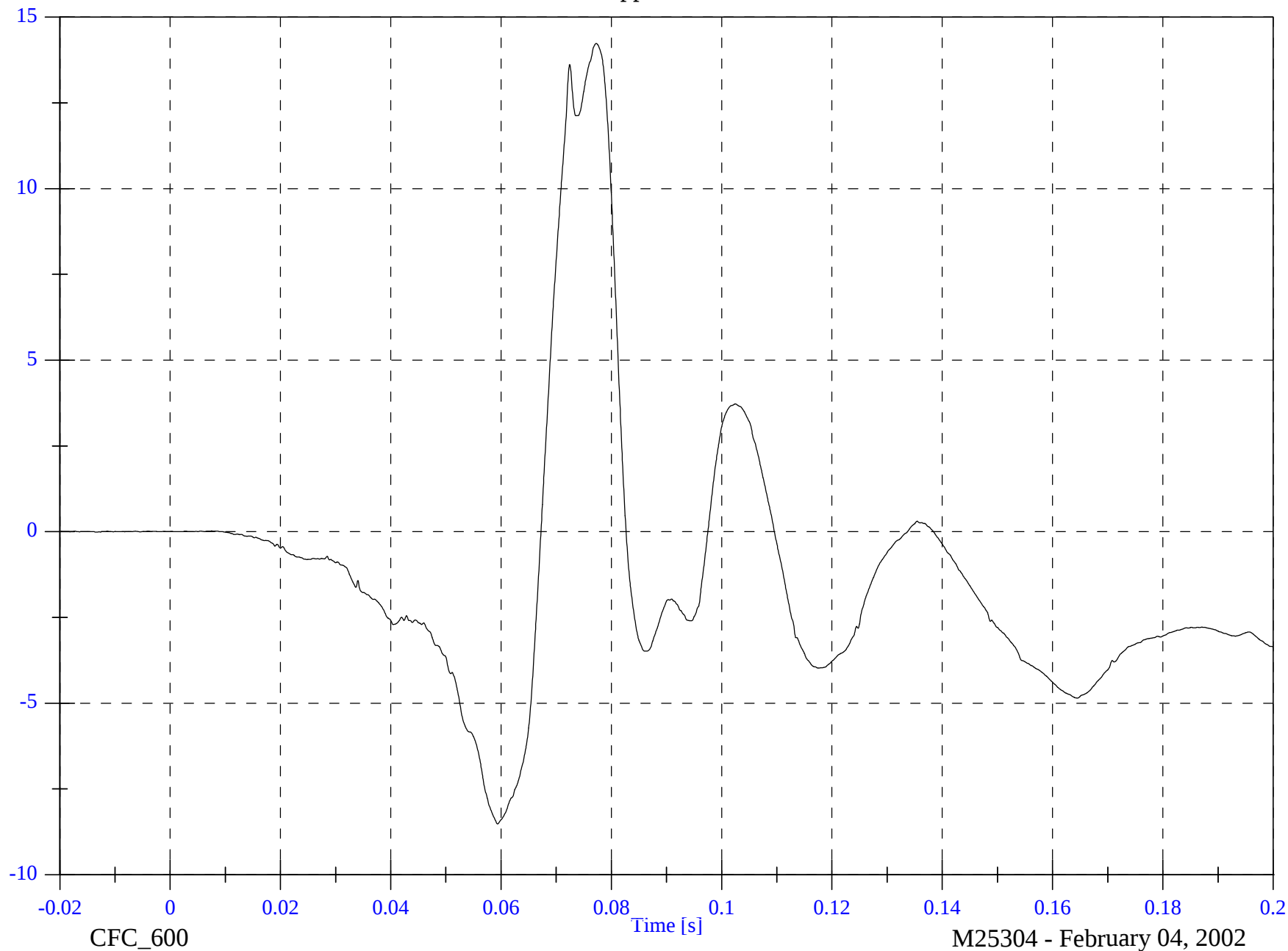
Min: -8.5 [N-m] at 0.059 [s]

P3 Upper Neck Mx

4-13

N-m

8652-SNCAP-01

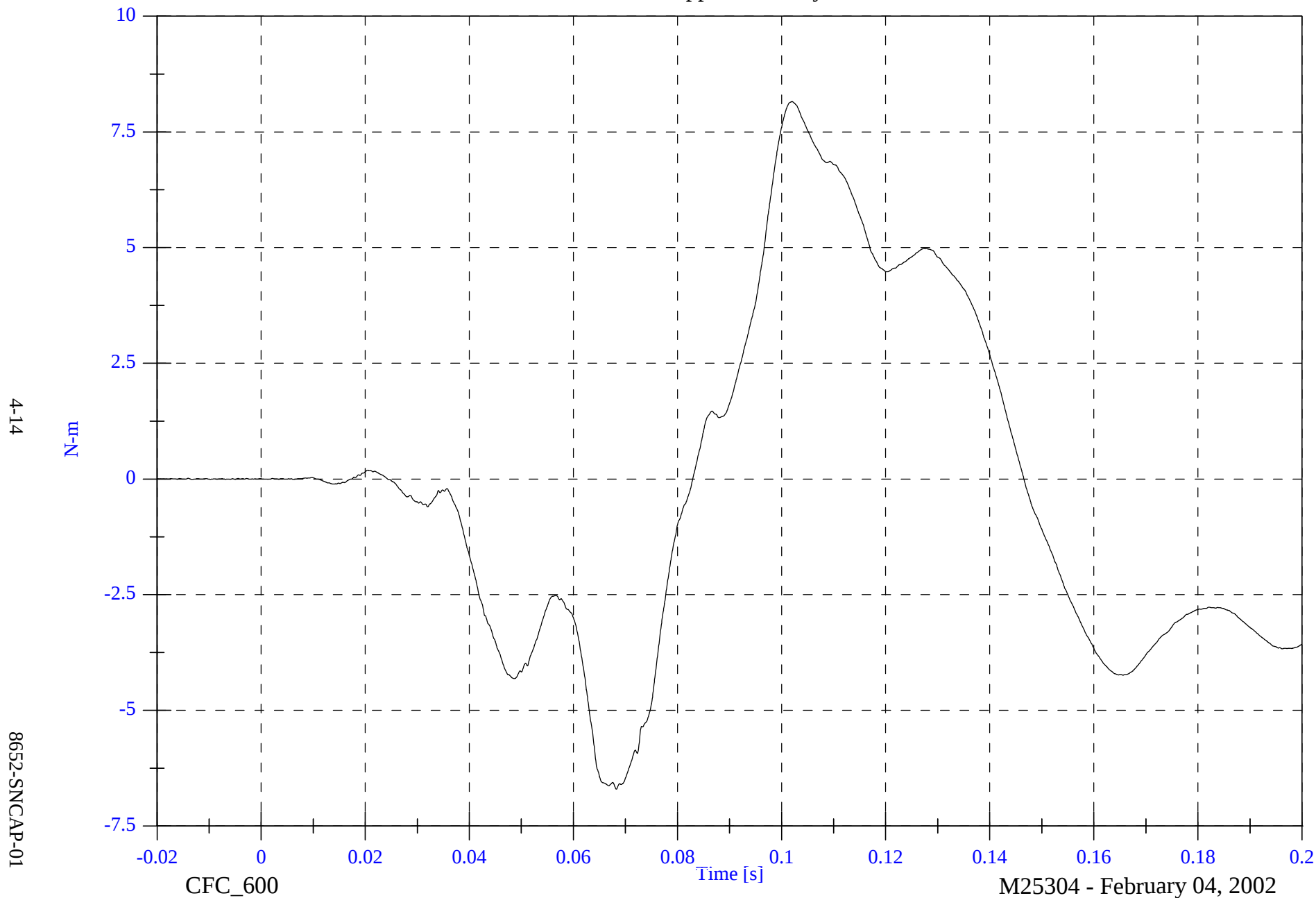


2002 SNCAP Test 1 - 2002 Acura RSX

P3 Upper Neck My

Max: 8.2 [N-m] at 0.102 [s]

Min: -6.7 [N-m] at 0.068 [s]



2002 SNCAP Test 1 - 2002 Acura RSX

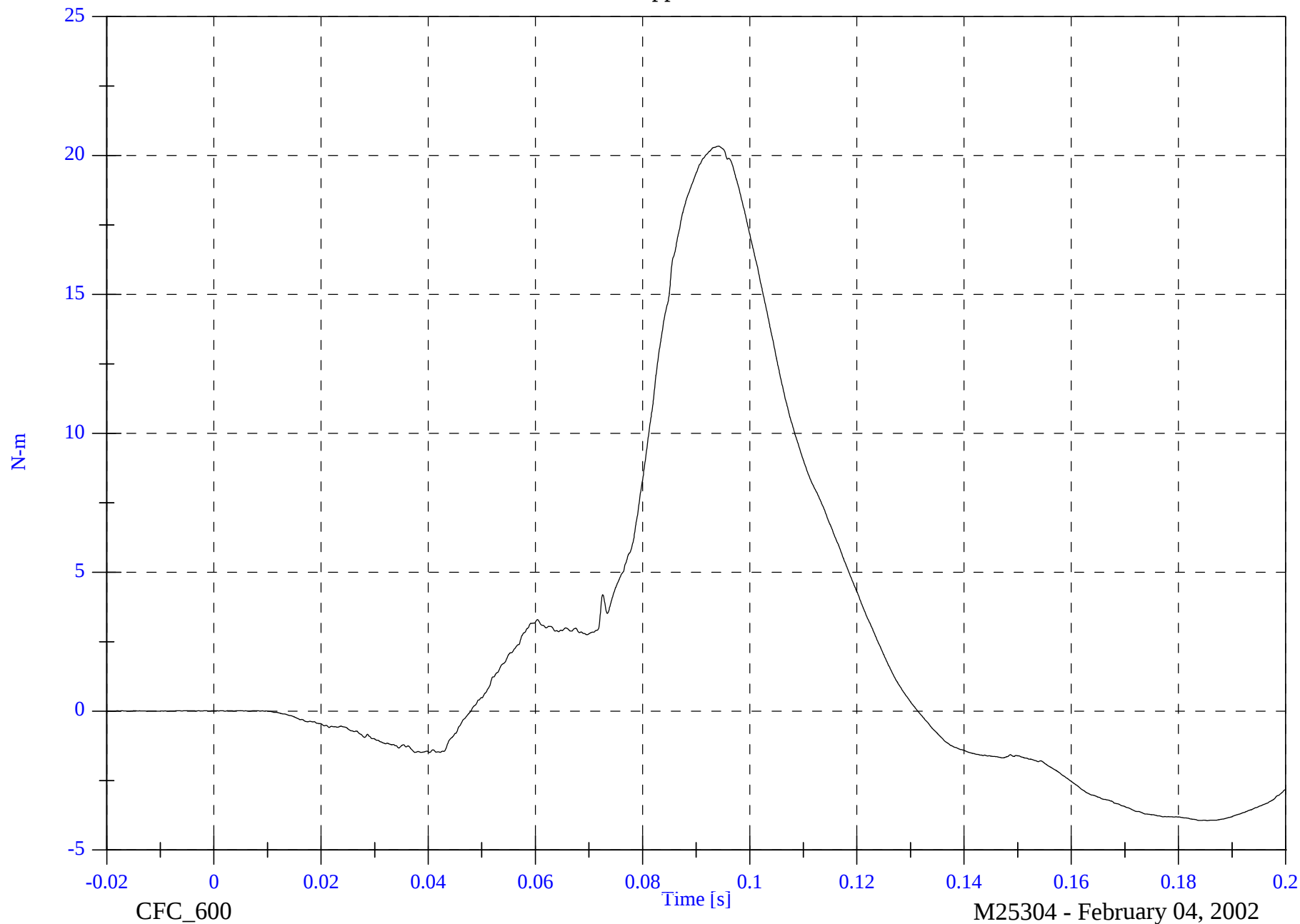
P3 Upper Neck Mz

Max: 20.3 [N-m] at 0.094 [s]

Min: -3.9 [N-m] at 0.185 [s]

4-15

8652-SNCAP-01



2002 SNCAP Test 1 - 2002 Acura RSX

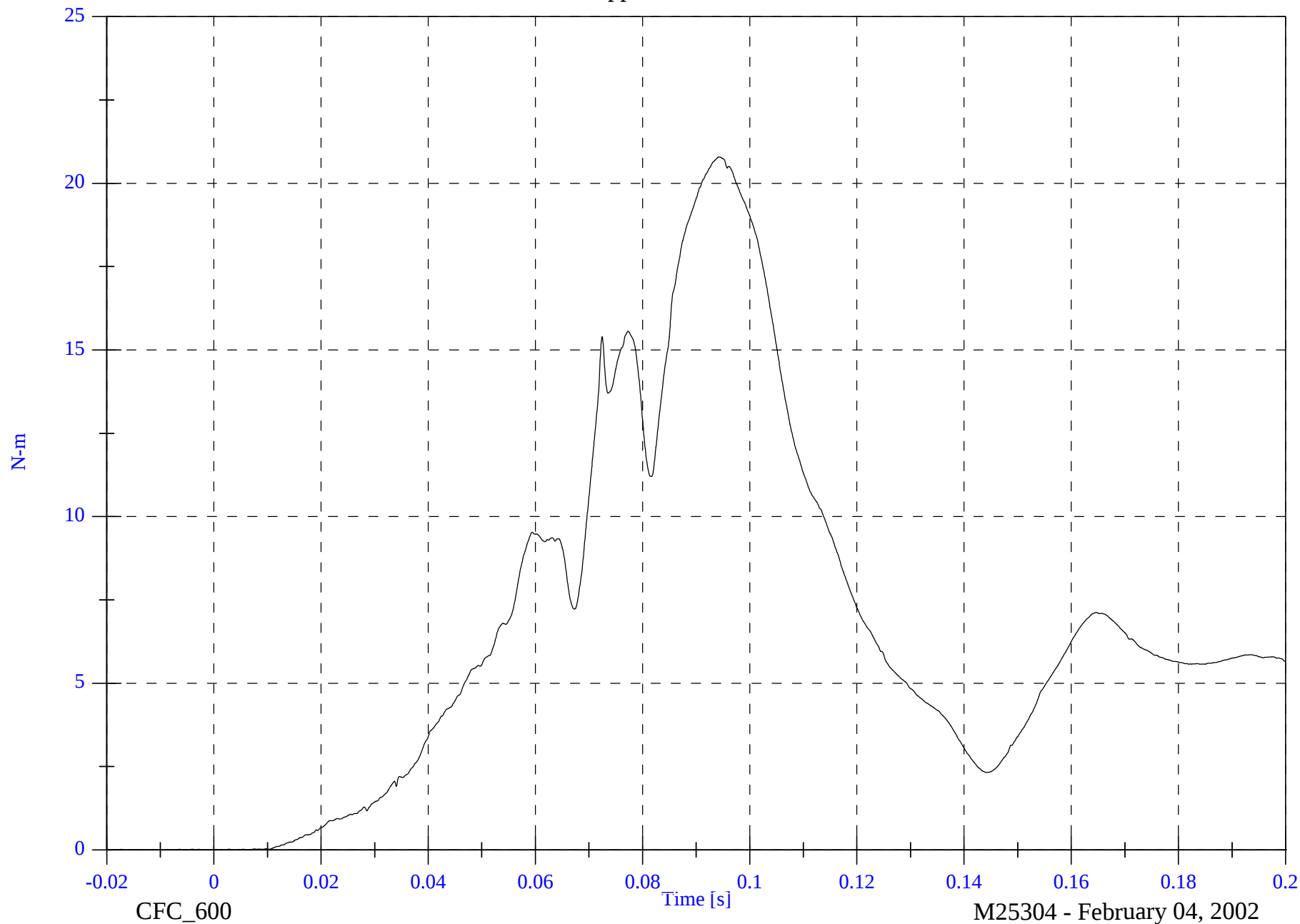
P3 Upper Neck M Resultant

Max: 20.8 [N-m] at 0.094 [s]

Min: 0.0 [N-m] at -0.010 [s]

4-16

8652-SNCAP-01

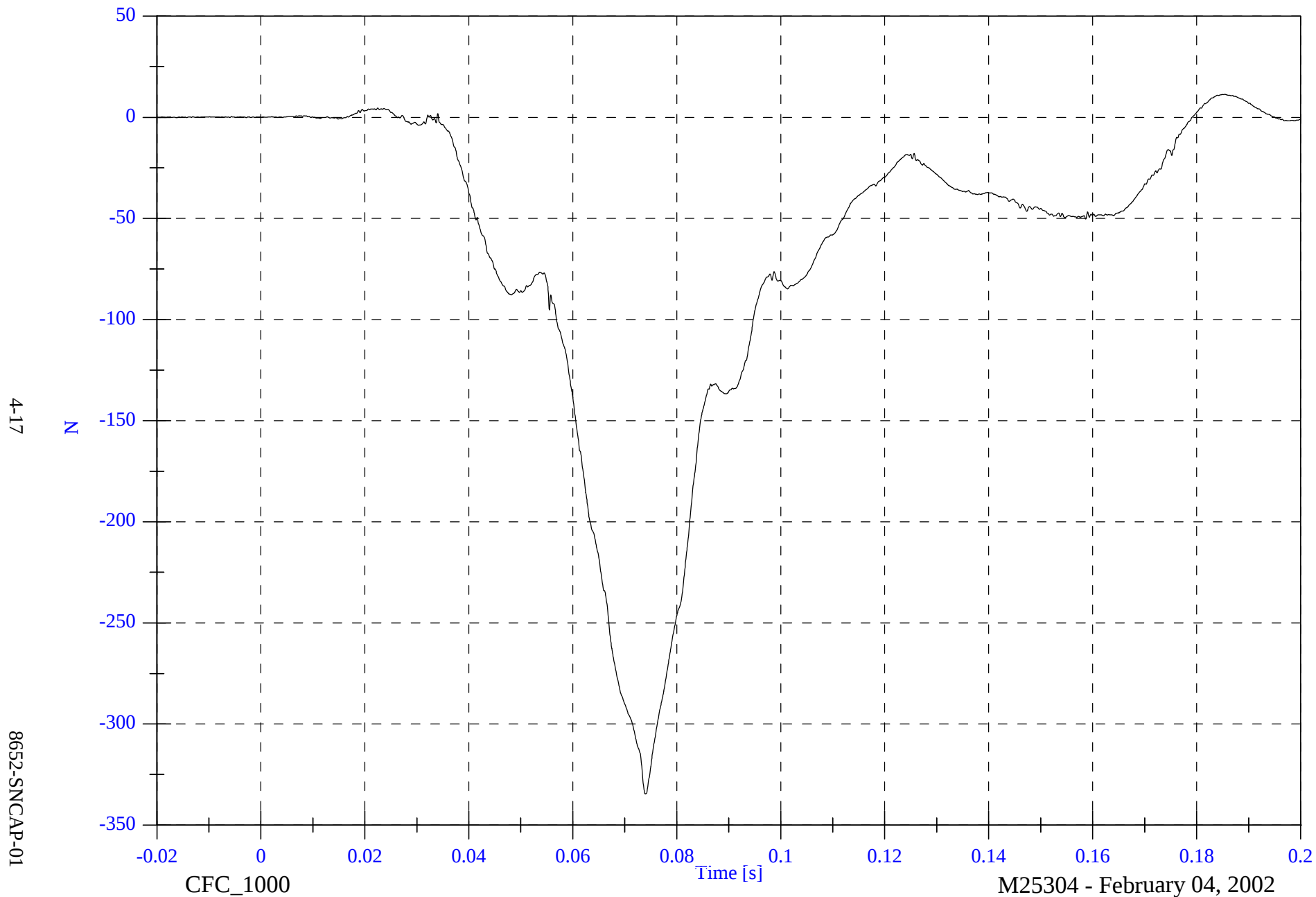


2002 SNCAP Test 1 - 2002 Acura RSX

P3 Lower Neck Fx

Max: 11.4 [N] at 0.185 [s]

Min: -334.5 [N] at 0.074 [s]

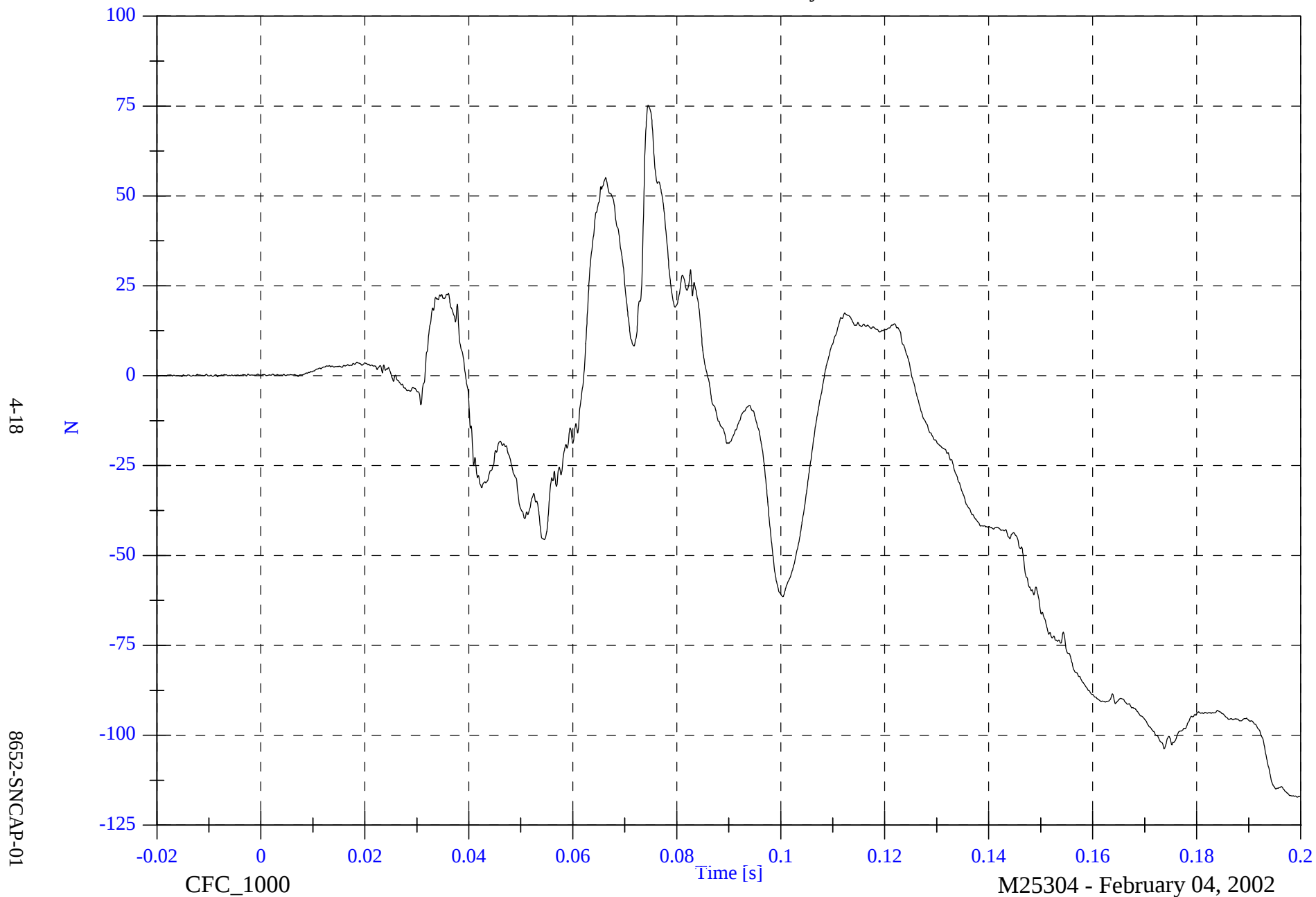


2002 SNCAP Test 1 - 2002 Acura RSX

P3 Lower Neck Fy

Max: 75.2 [N] at 0.074 [s]

Min: -117.2 [N] at 0.199 [s]



2002 SNCAP Test 1 - 2002 Acura RSX

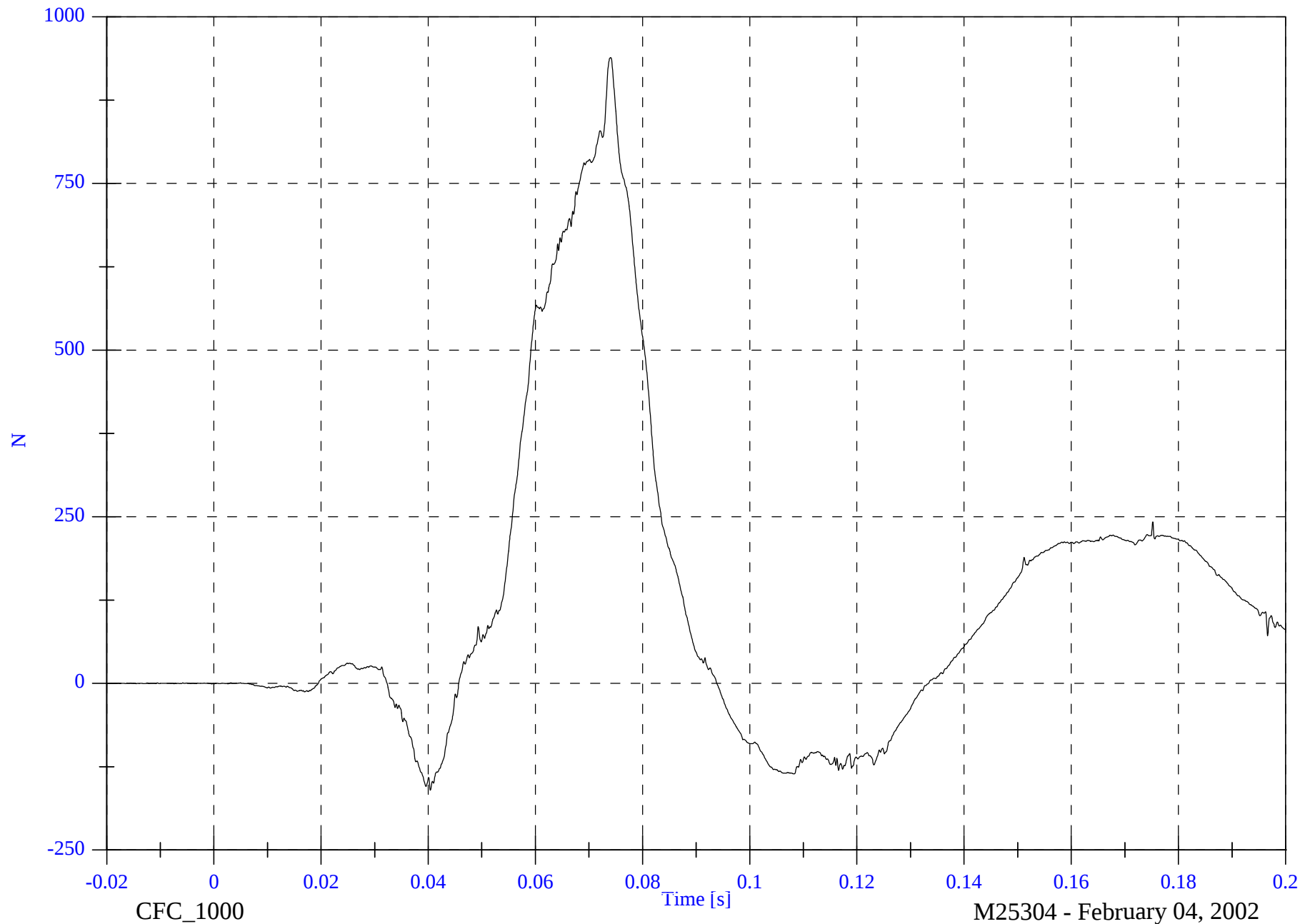
P3 Lower Neck Fz

Max: 938.6 [N] at 0.074 [s]

Min: -160.4 [N] at 0.040 [s]

4-19

8652-SNCAP-01

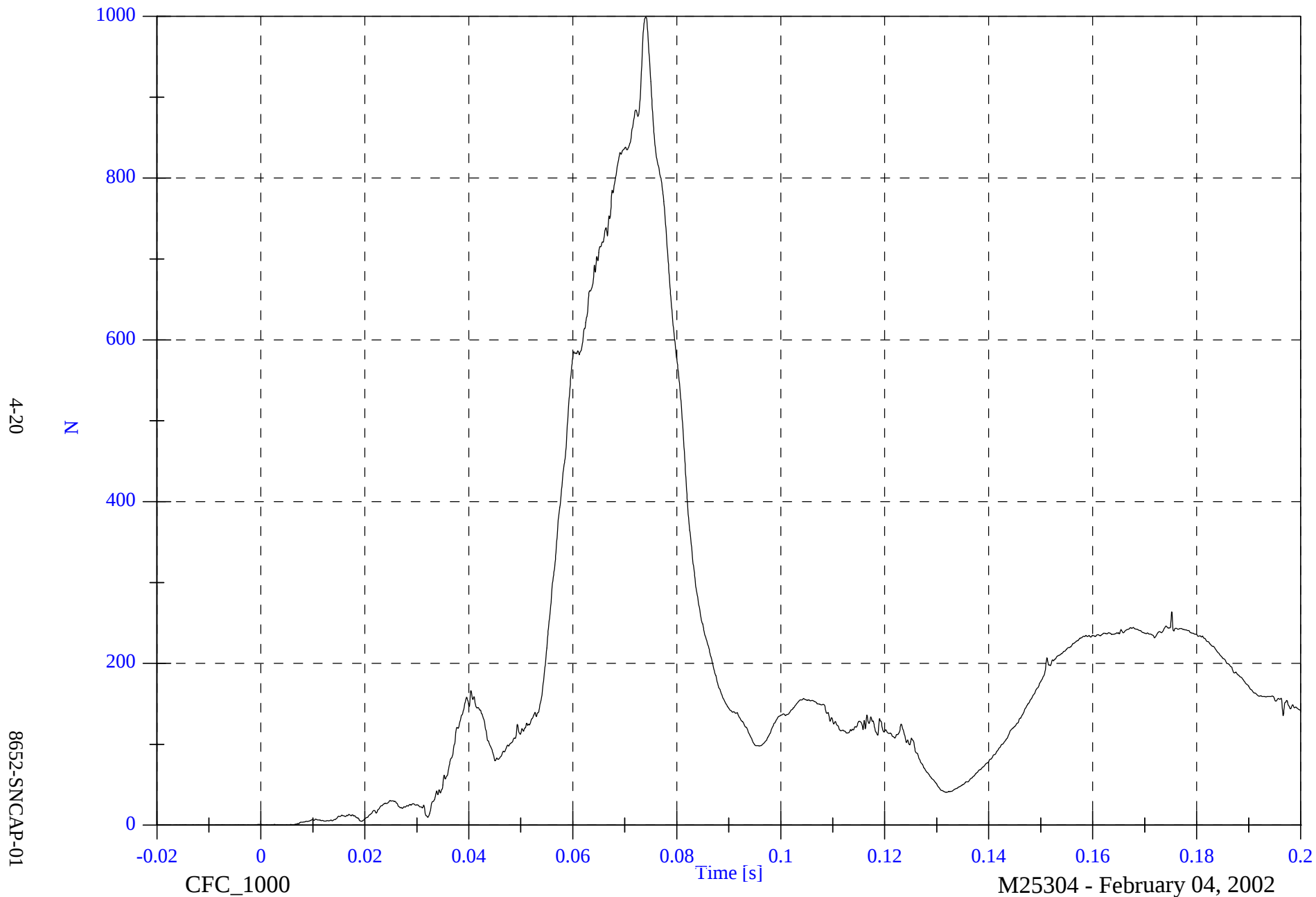


2002 SNCAP Test 1 - 2002 Acura RSX

P3 Lower Neck F Resultant

Max: 998.7 [N] at 0.074 [s]

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

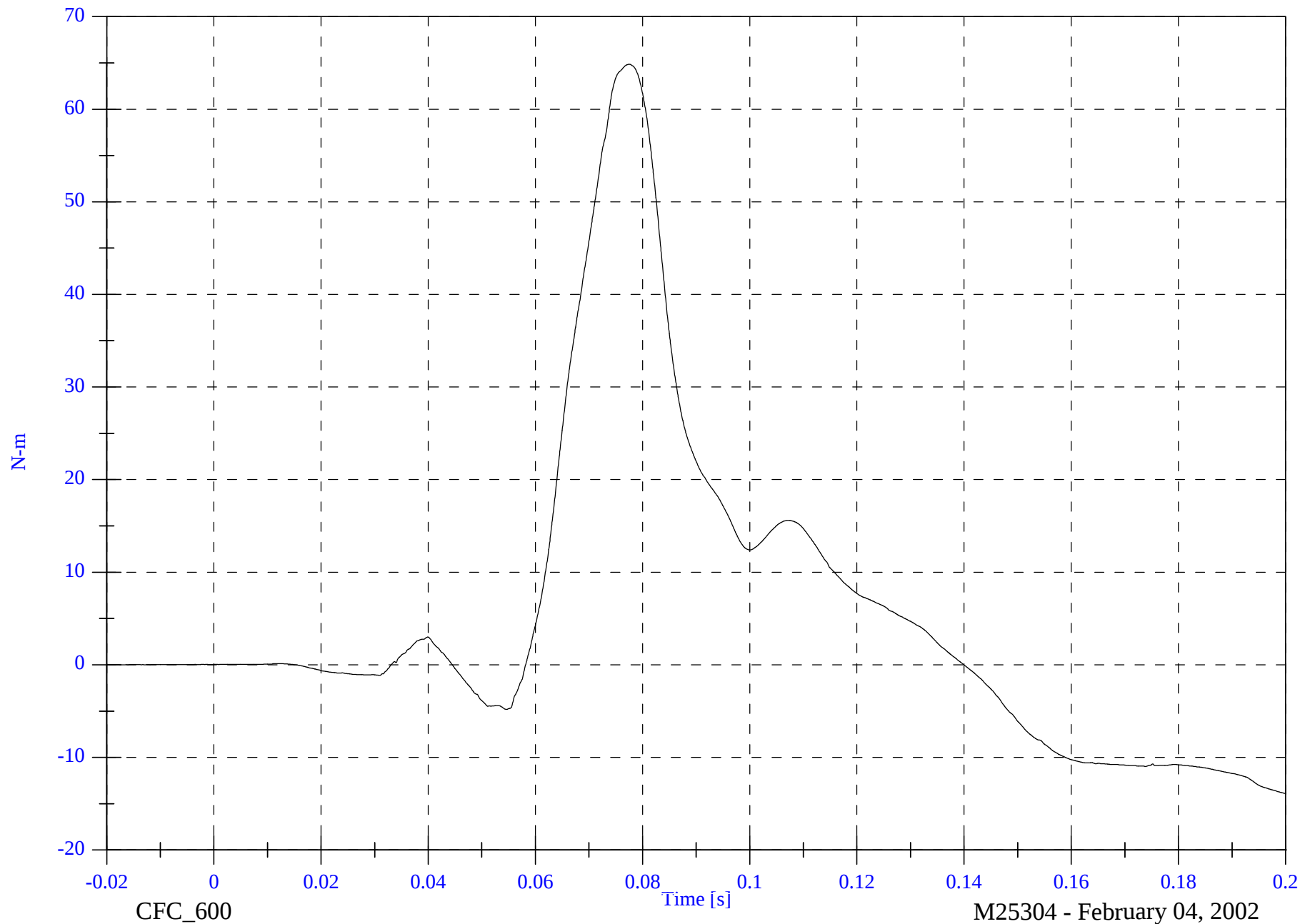


2002 SNCAP Test 1 - 2002 Acura RSX

P3 Lower Neck Mx

Max: 64.9 [N-m] at 0.078 [s]

Min: -13.9 [N-m] at 0.200 [s]



4-21

8652-SNCAP-01

2002 SNCAP Test 1 - 2002 Acura RSX

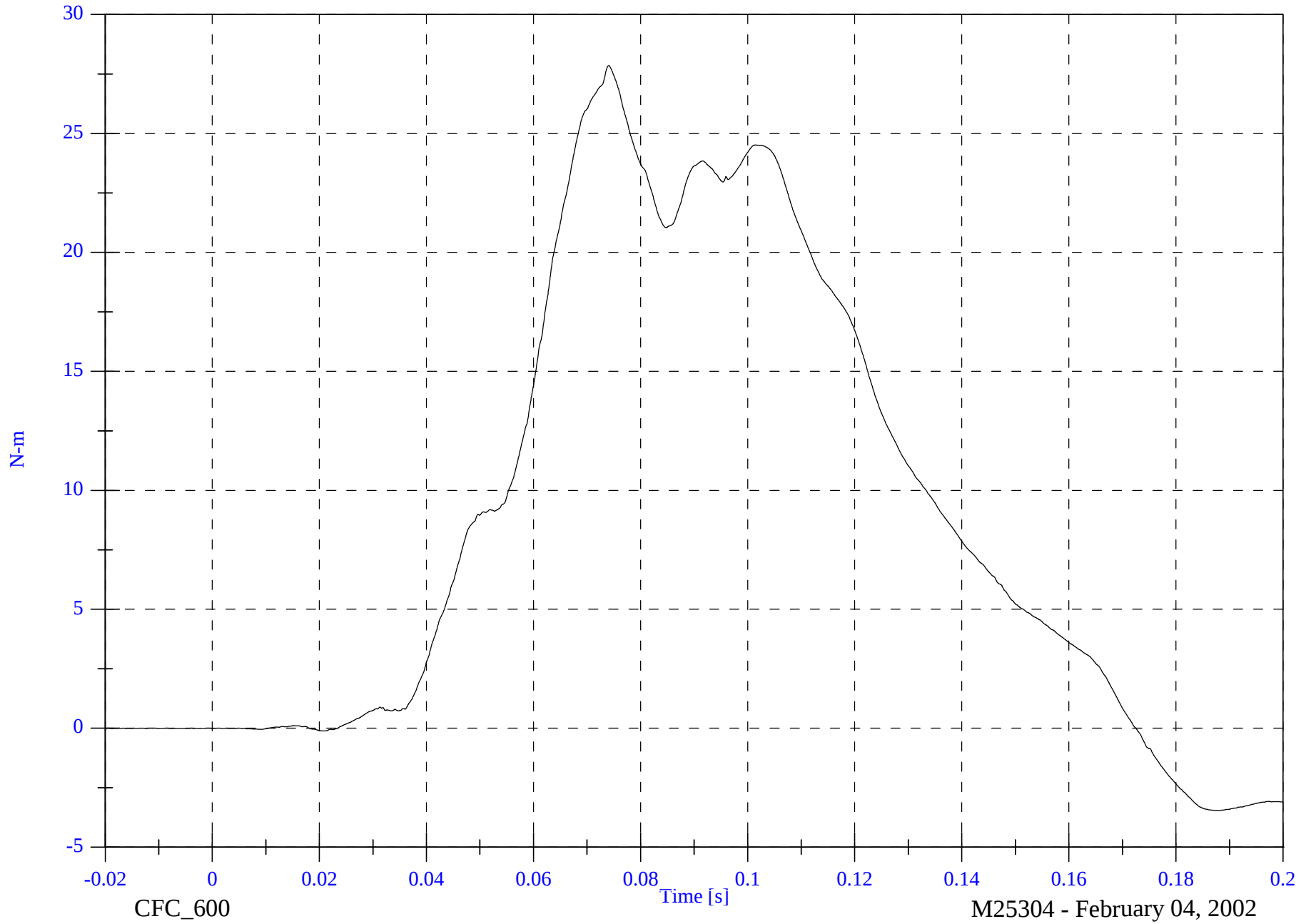
Max: 27.9 [N-m] at 0.074 [s]

Min: -3.5 [N-m] at 0.188 [s]

P3 Lower Neck My

4-22

8652-SNCAP-01



2002 SNCAP Test 1 - 2002 Acura RSX

Max: 14.2 [N-m] at 0.080 [s]

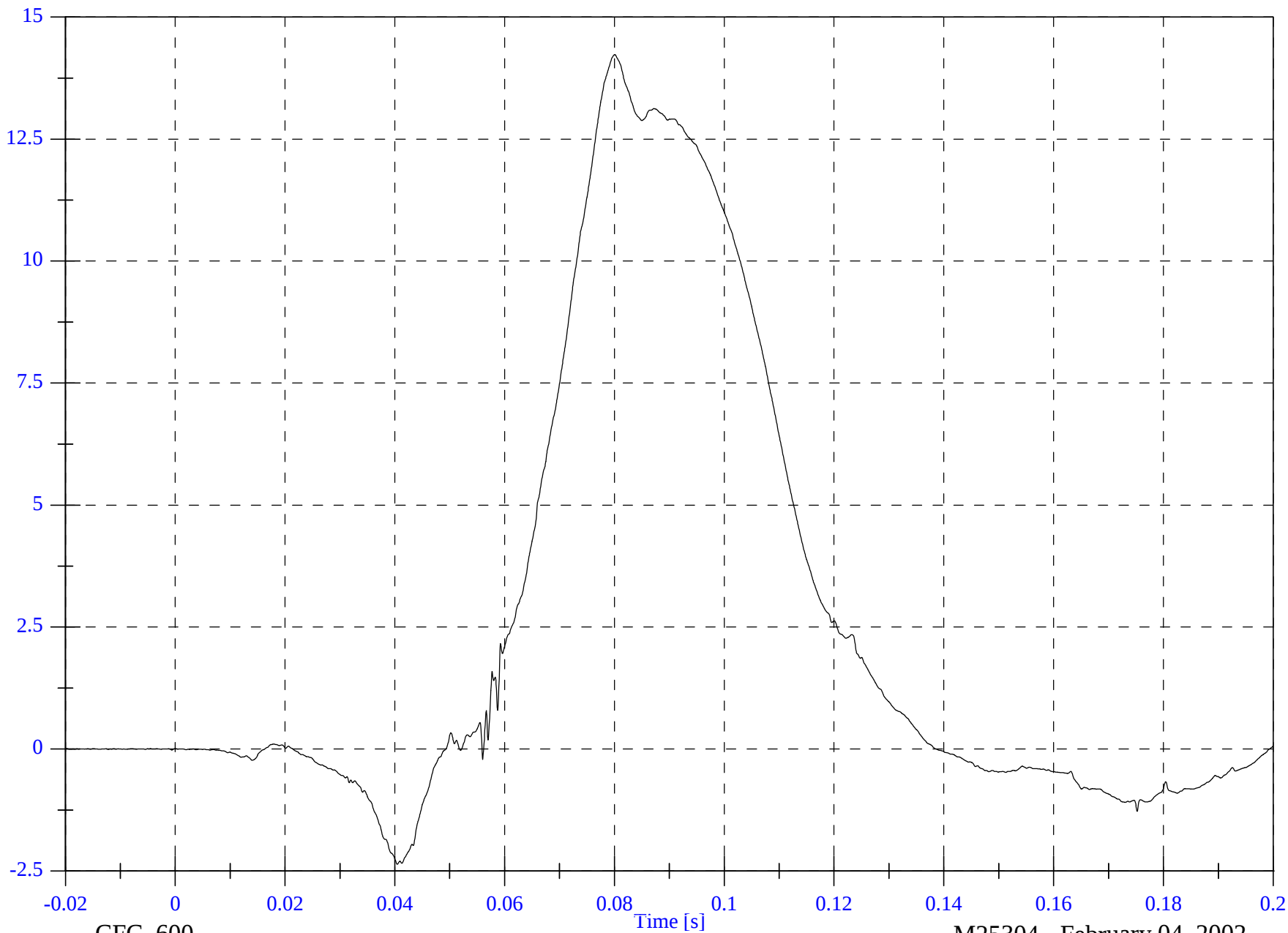
P3 Lower Neck Mz

Min: -2.4 [N-m] at 0.040 [s]

4-23

N-m

8652-SNCAP-01



CFC_600

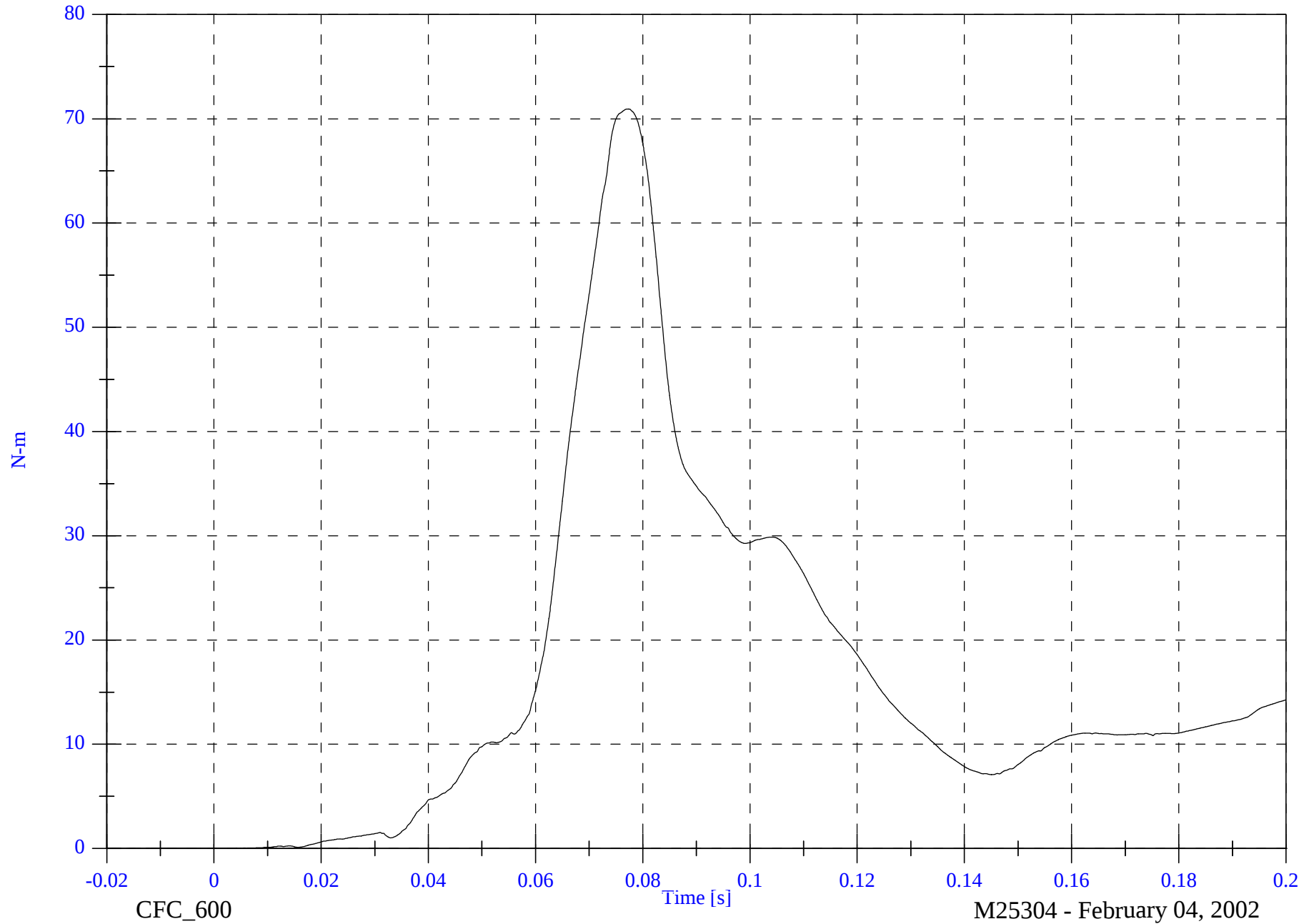
M25304 - February 04, 2002

2002 SNCAP Test 1 - 2002 Acura RSX

P3 Lower Neck M Resultant

Max: 70.9 [N-m] at 0.077 [s]

Min: 0.0 [N-m] at -0.019 [s]



4-24

8652-SNCAP-01

CFC_600

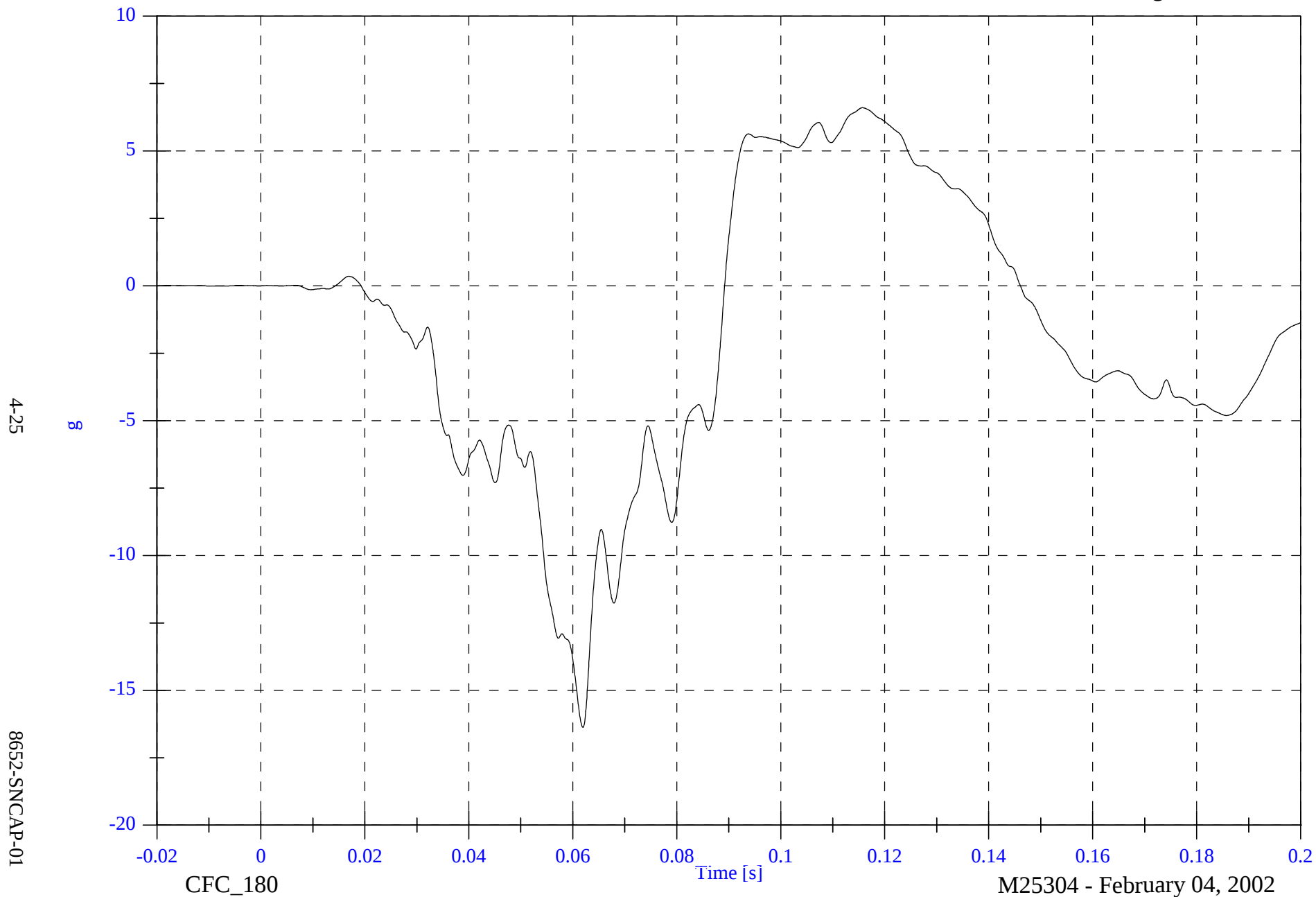
M25304 - February 04, 2002

2002 SNCAP Test 1 - 2002 Acura RSX

Max: 6.6 [g] at 0.116 [s]

Min: -16.4 [g] at 0.062 [s]

P3 Chest x



2002 SENCAP Test 1 - 2002 Acura RSX

P3 Chest y

Max: 29.4 [g] at 0.063 [s]

Min: -4.4 [g] at 0.200 [s]

4-26

8652-SENCAP-01

g

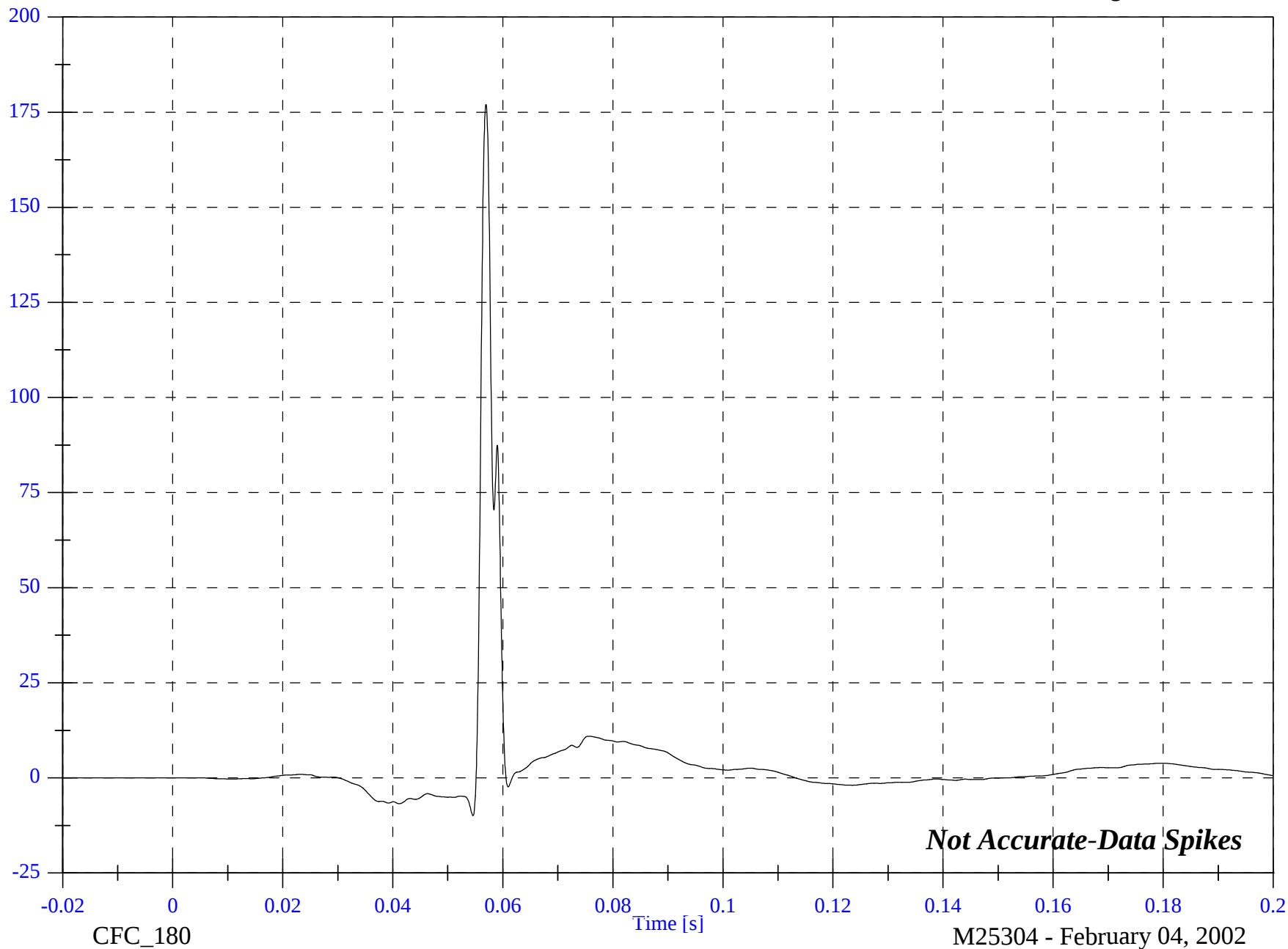


2002 SNCAP Test 1 - 2002 Acura RSX

Max: 177.1 [g] at 0.057 [s]

Min: -9.9 [g] at 0.055 [s]

P3 Chest z



4-27

8652-SNCAP-01

2002 SNCAP Test 1 - 2002 Acura RSX

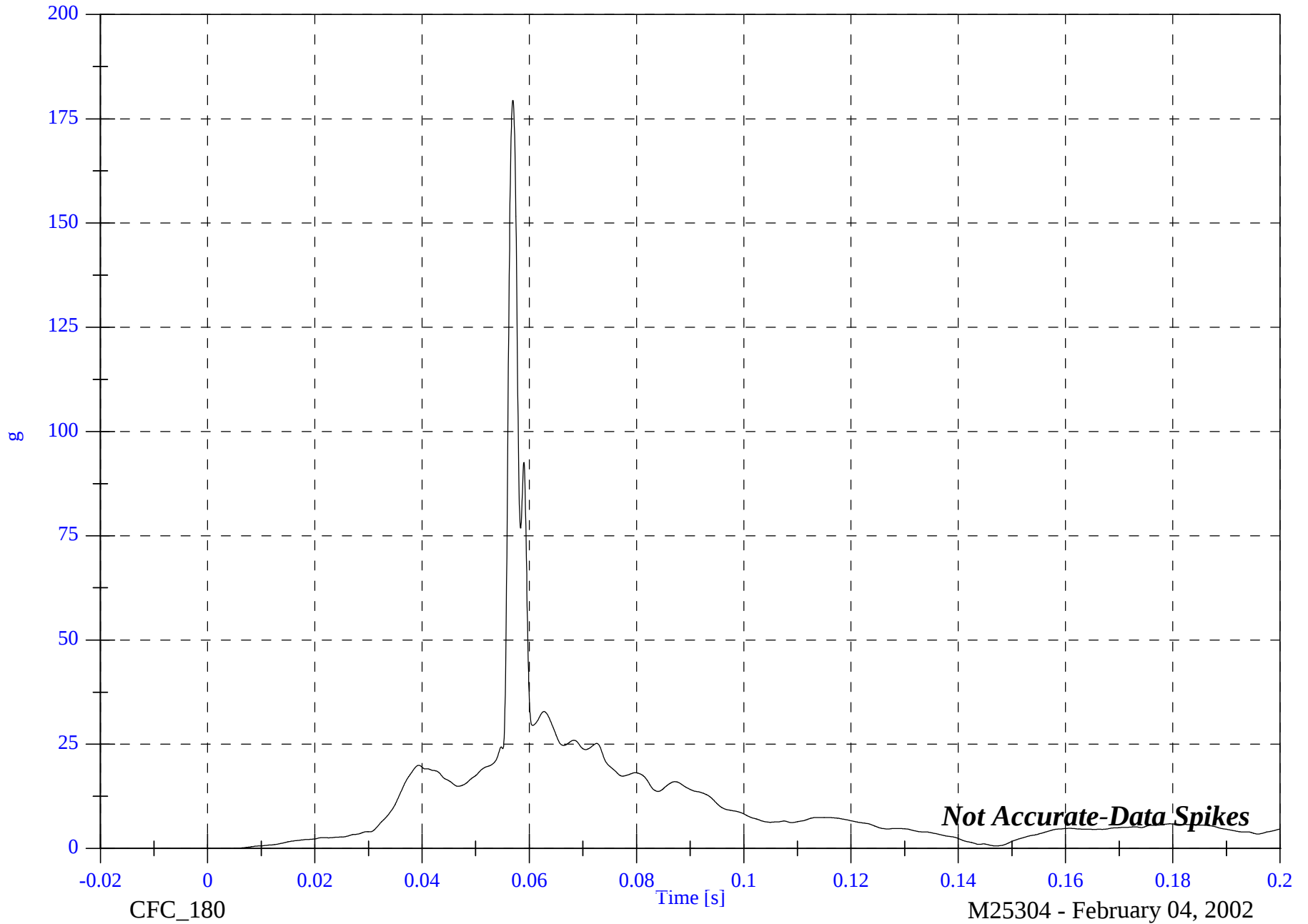
P3 Chest Resultant

Max: 179.4 [g] at 0.057 [s]

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

4-28

8652-SNCAP-01



2002 SNCAP Test 1 - 2002 Acura RSX

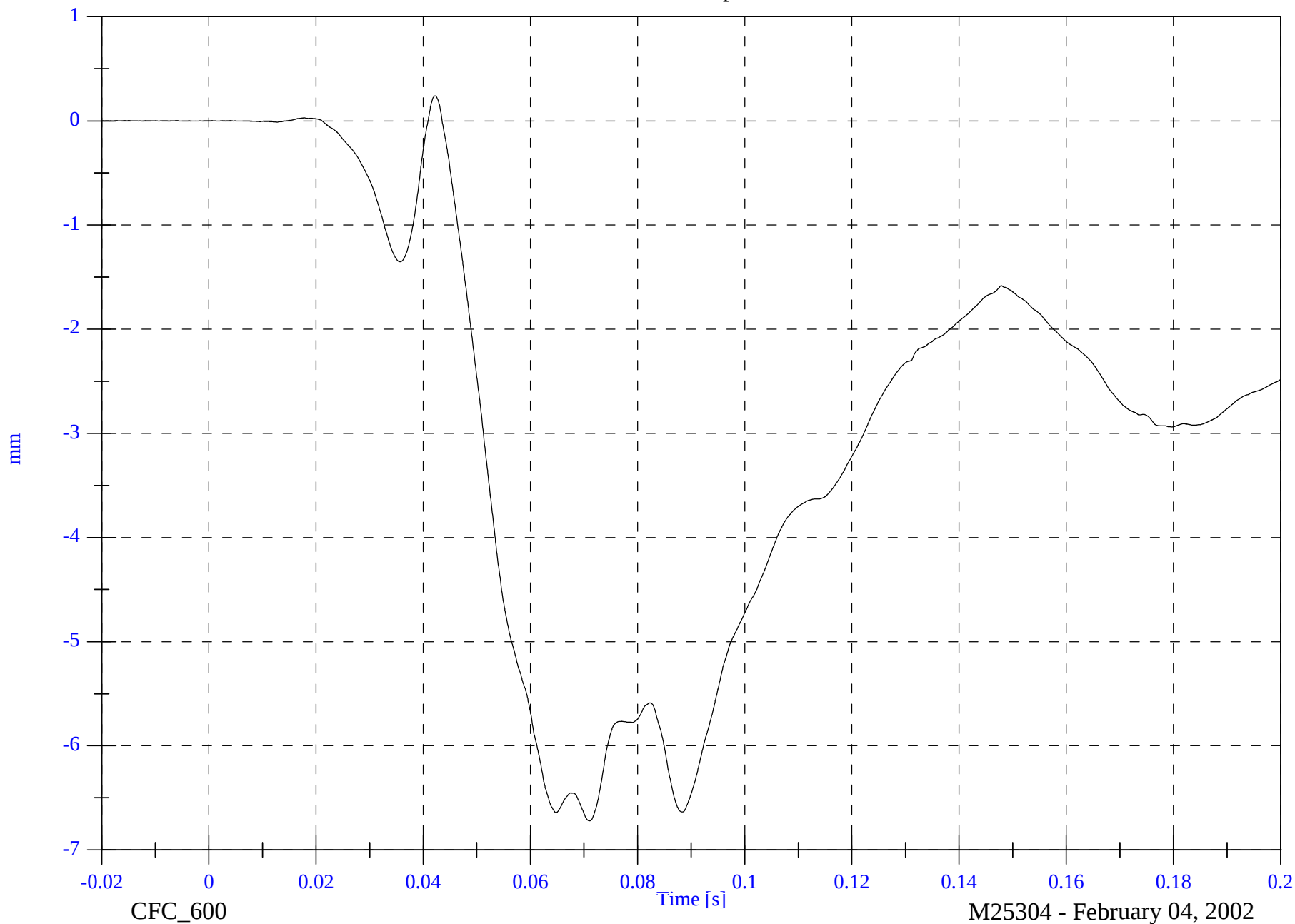
P3 Chest Compression

Max: 0.2 [mm] at 0.042 [s]

Min: -6.7 [mm] at 0.071 [s]

4-29

8652-SNCAP-01

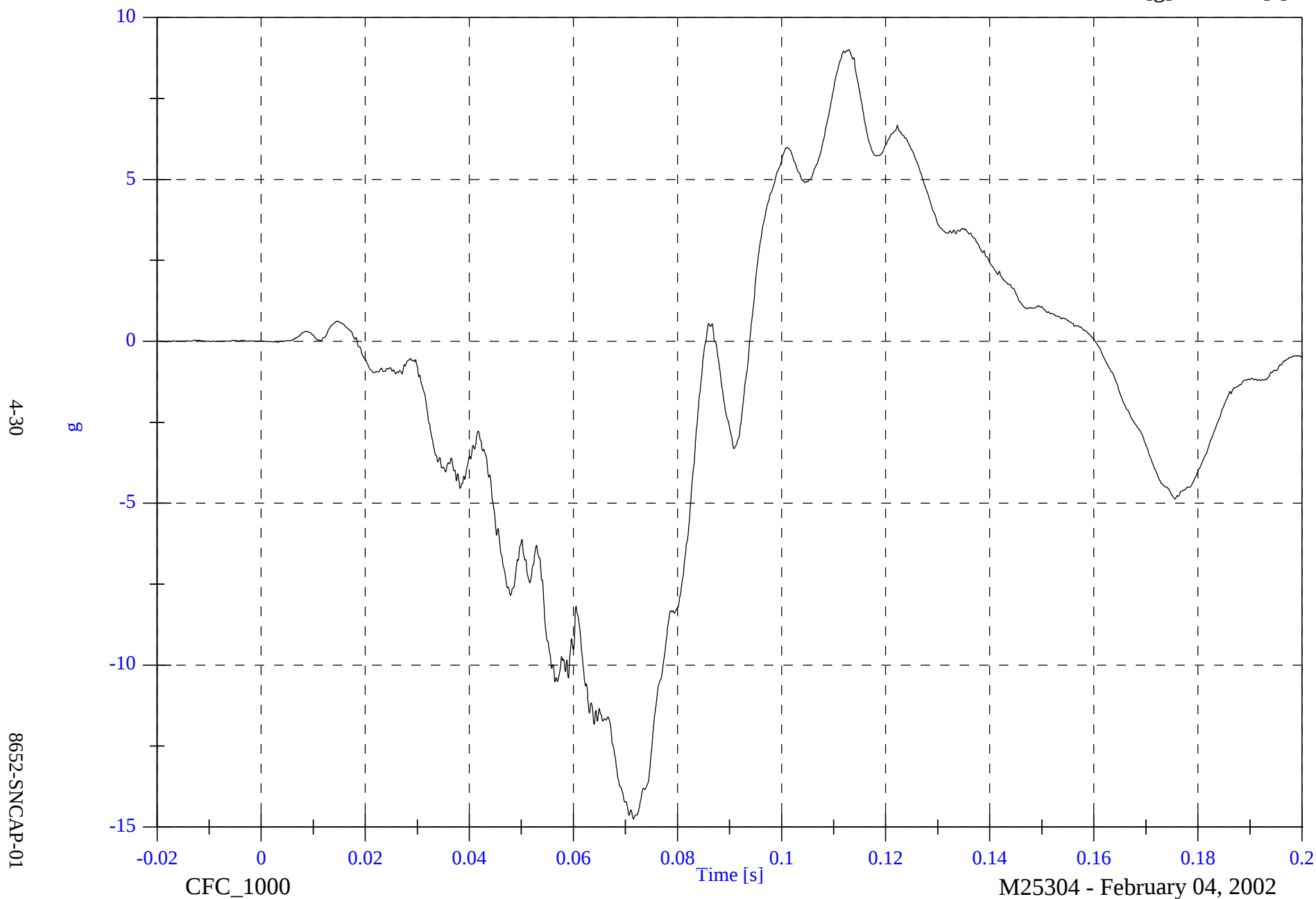


2002 SNCAP Test 1 - 2002 Acura RSX

Max: 9.0 [g] at 0.113 [s]

Min: -14.8 [g] at 0.072 [s]

P3 Pelvic x



2002 SNCAP Test 1 - 2002 Acura RSX

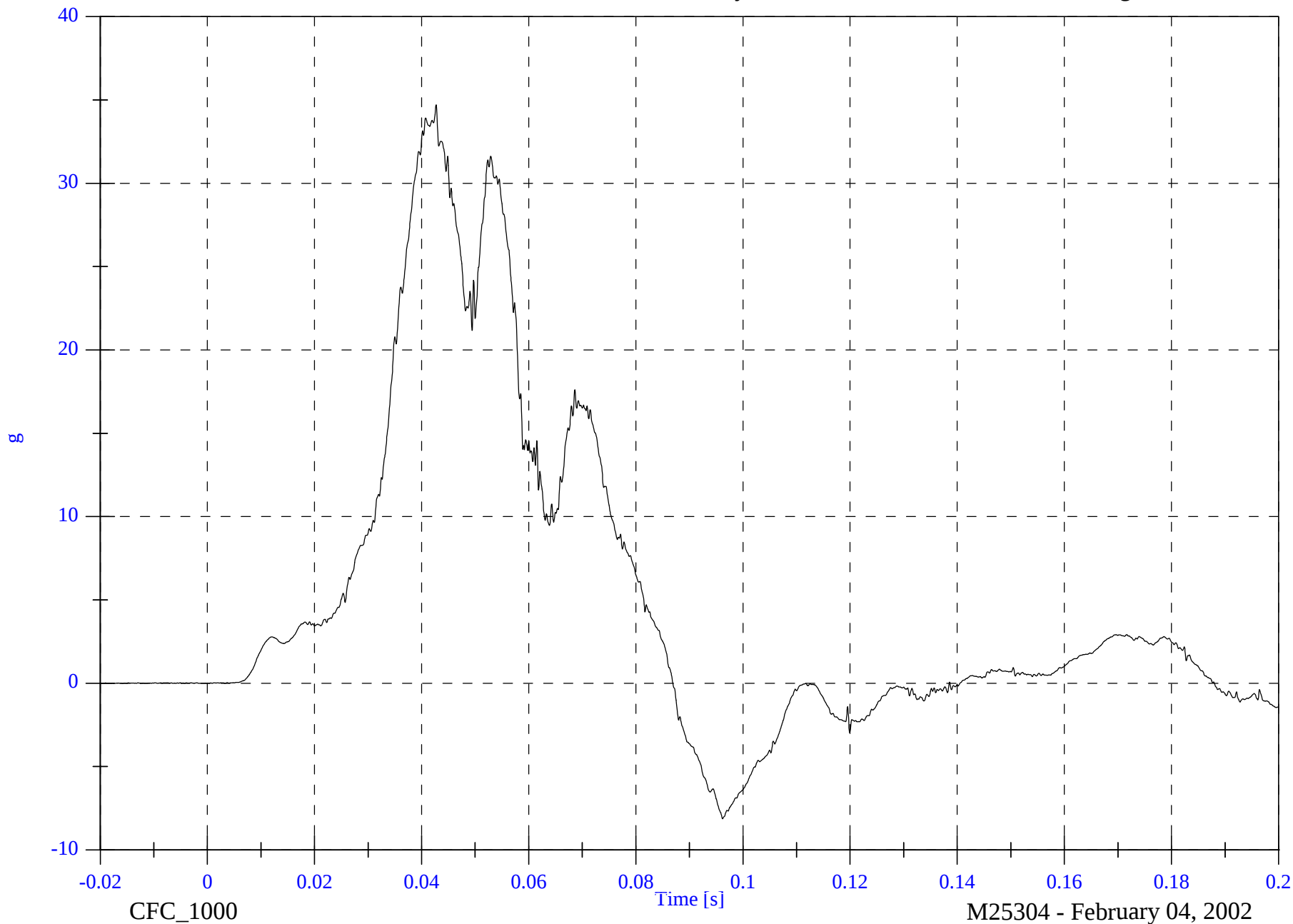
P3 Pelvic y

Max: 34.7 [g] at 0.043 [s]

Min: -8.1 [g] at 0.096 [s]

4-31

8652-SNCAP-01

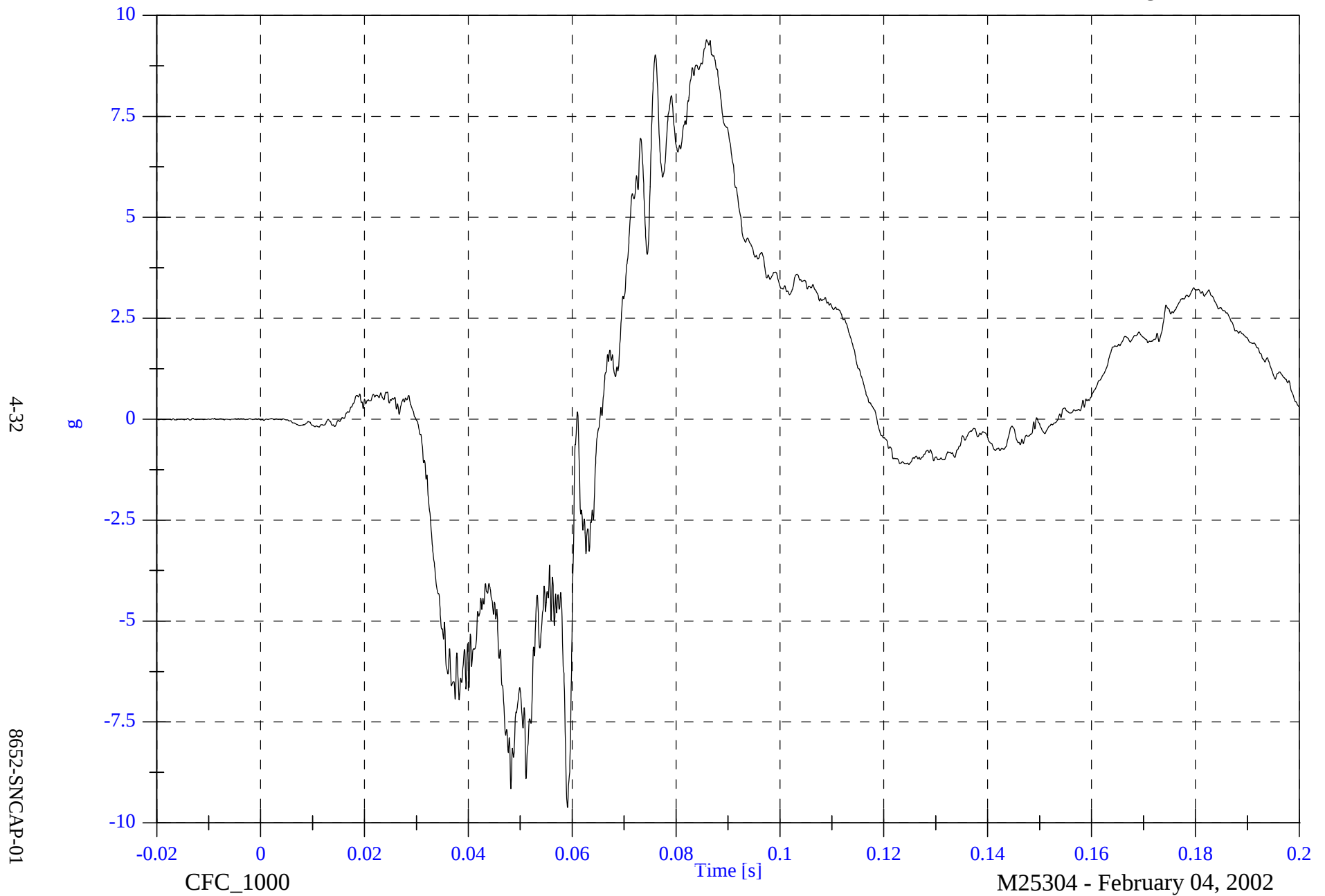


2002 SNCAP Test 1 - 2002 Acura RSX

Max: 9.4 [g] at 0.086 [s]

Min: -9.6 [g] at 0.059 [s]

P3 Pelvic z



2002 SNCAP Test 1 - 2002 Acura RSX

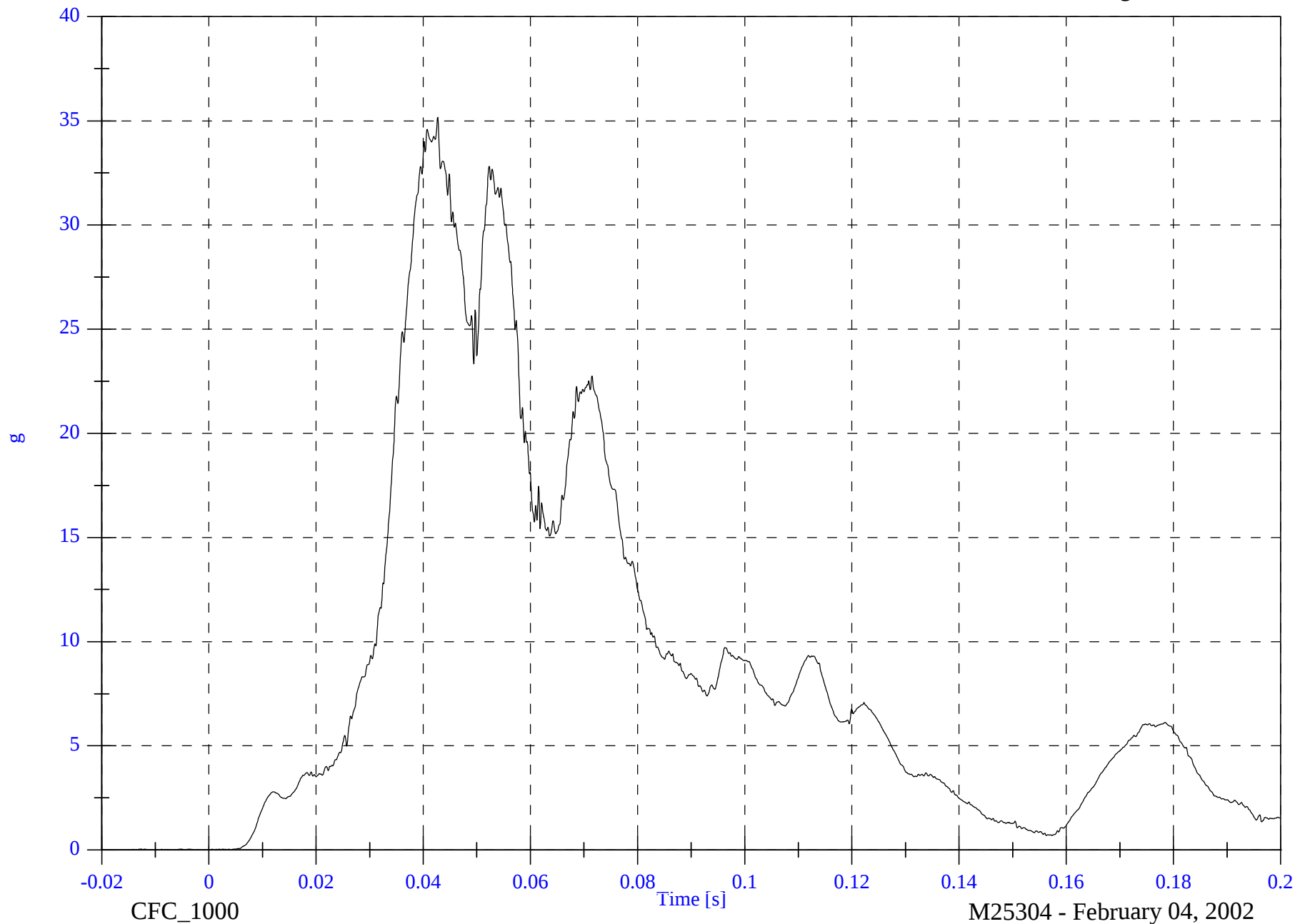
P3 Pelvic Resultant

Max: 35.2 [g] at 0.043 [s]

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

4-33

8652-SNCAP-01



2002 SNCAP Test 1 - 2002 Acura RSX

P3 Tether Strap Load

Max: 147.6 [N] at 0.045 [s]

Min: -42.5 [N] at 0.099 [s]



4-34

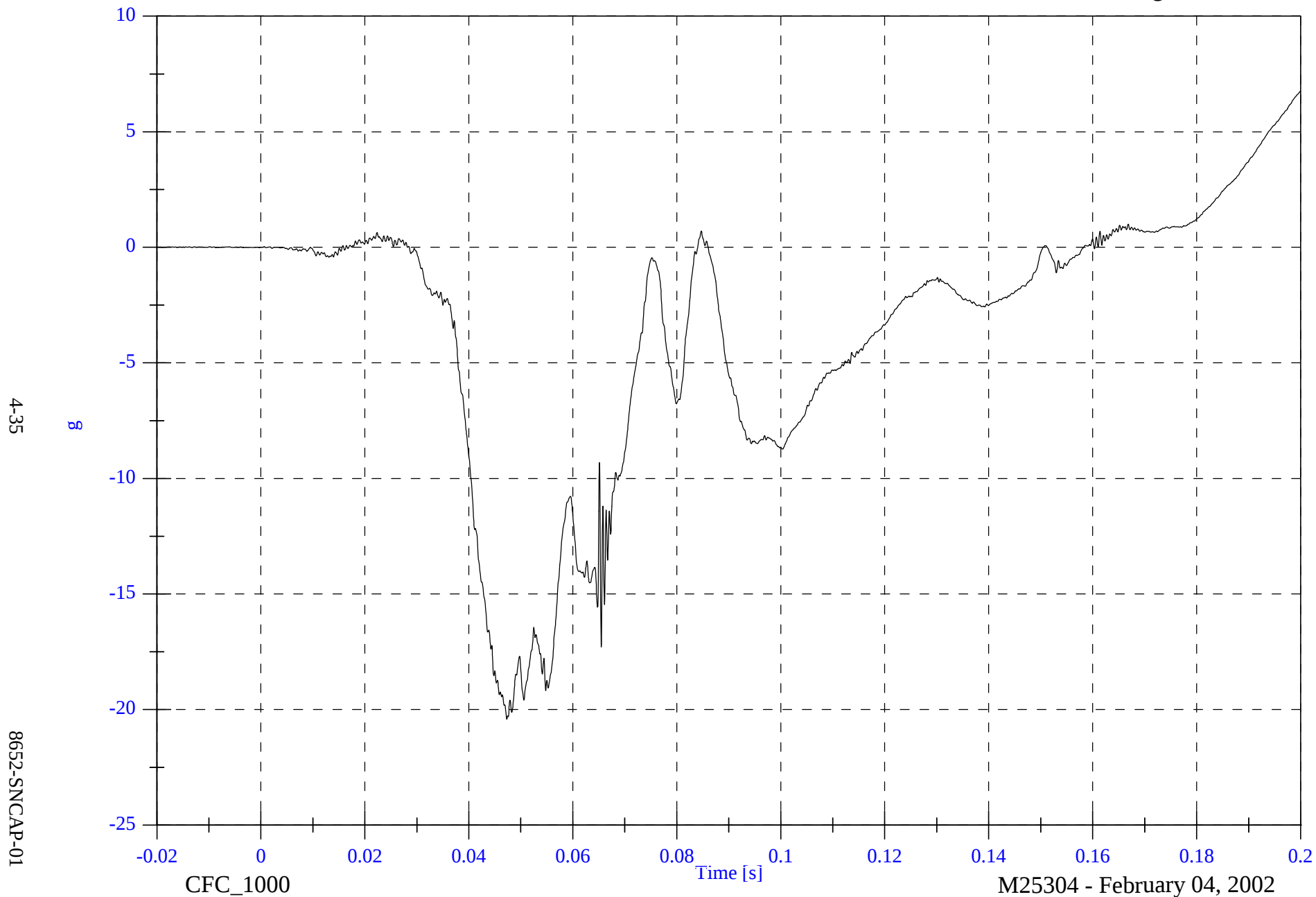
8652-SNCAP-01

2002 SNCAP Test 1 - 2002 Acura RSX

Max: 6.8 [g] at 0.200 [s]

Min: -20.4 [g] at 0.047 [s]

P4 Head x



2002 SENCAP Test 1 - 2002 Acura RSX

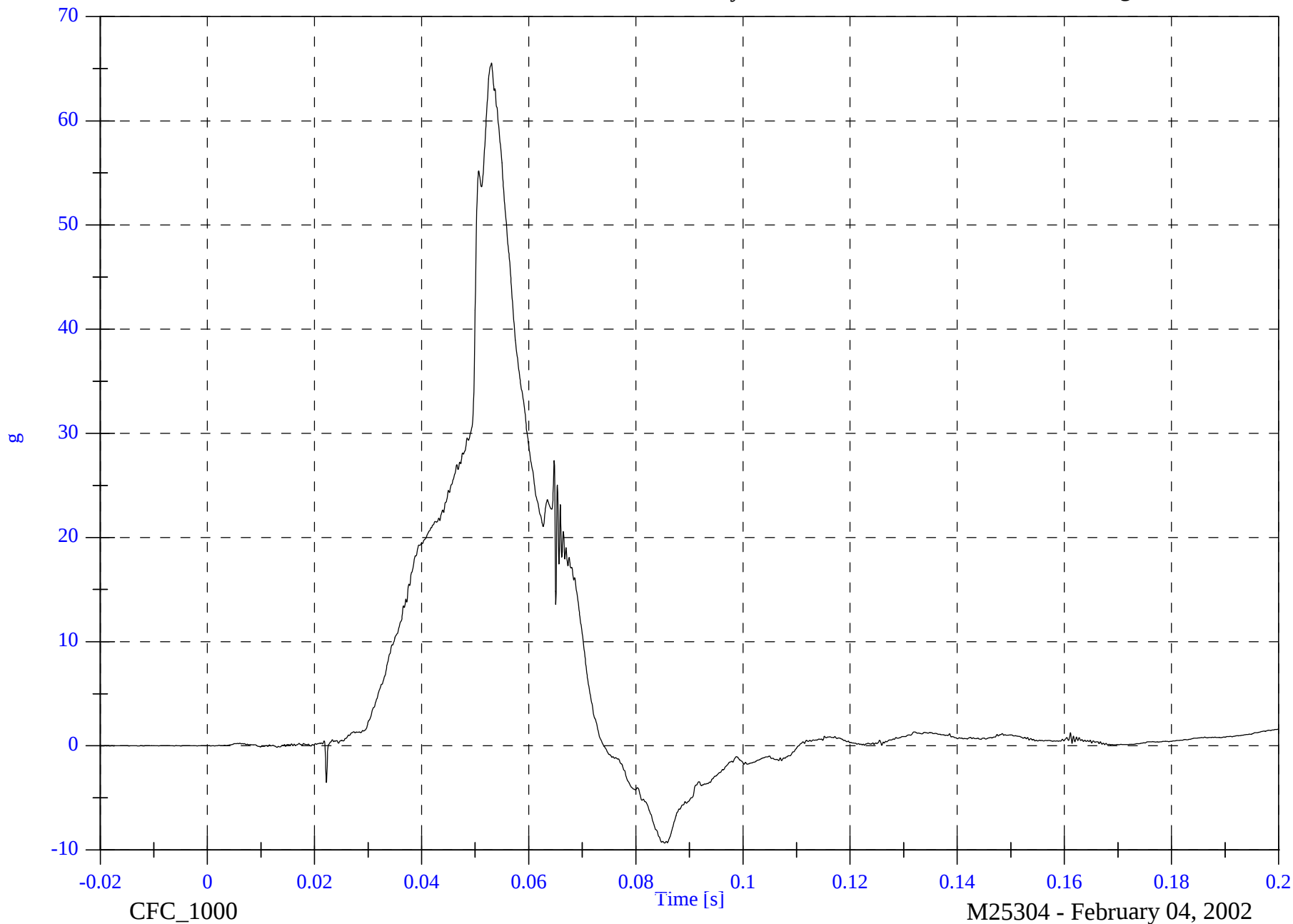
P4 Head y

Max: 65.6 [g] at 0.053 [s]

Min: -9.3 [g] at 0.085 [s]

4-36

8652-SENCAP-01

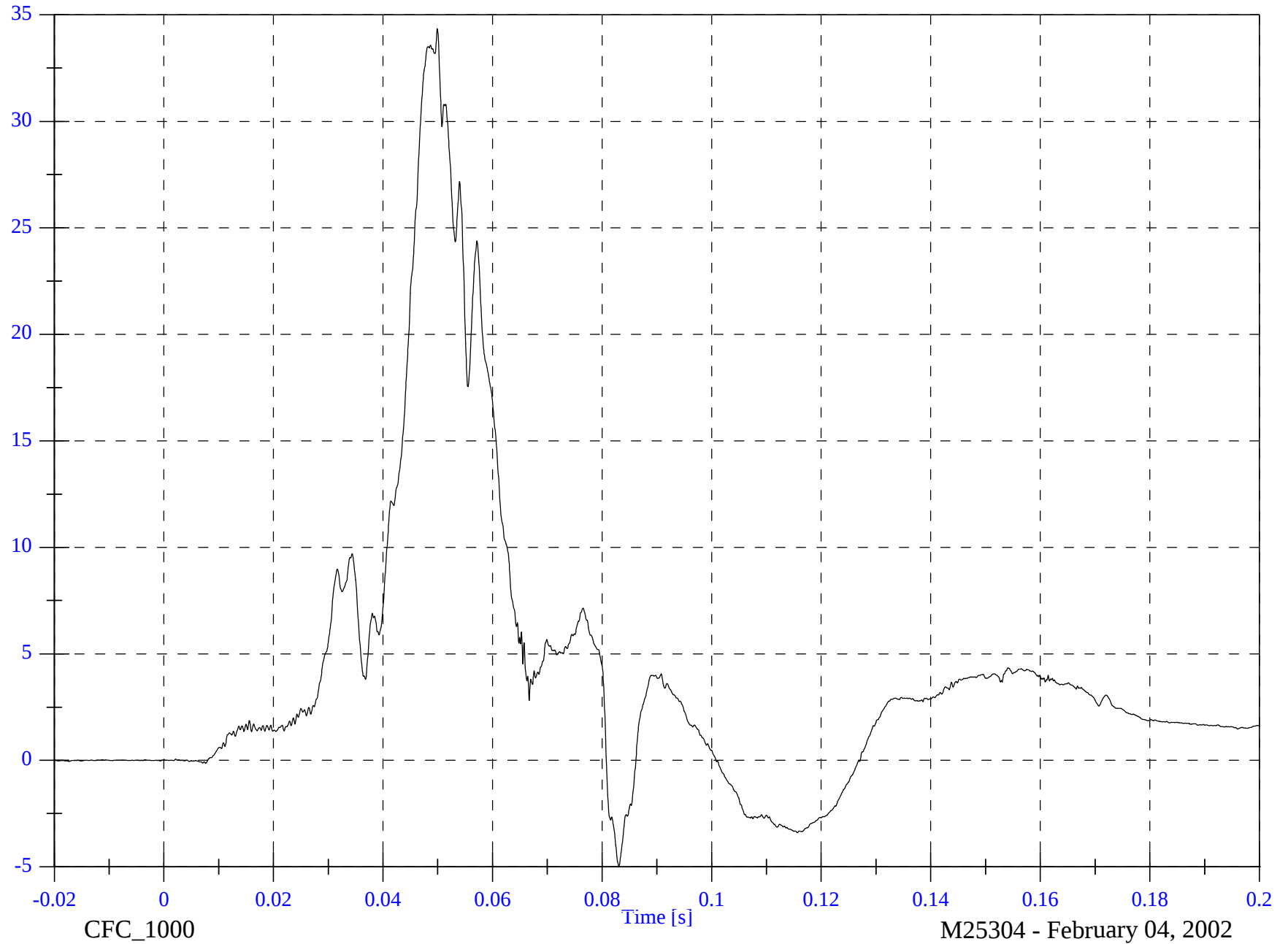


2002 SNCAP Test 1 - 2002 Acura RSX

P4 Head z

Max: 34.3 [g] at 0.050 [s]

Min: -5.0 [g] at 0.083 [s]



2002 SENCAP Test 1 - 2002 Acura RSX

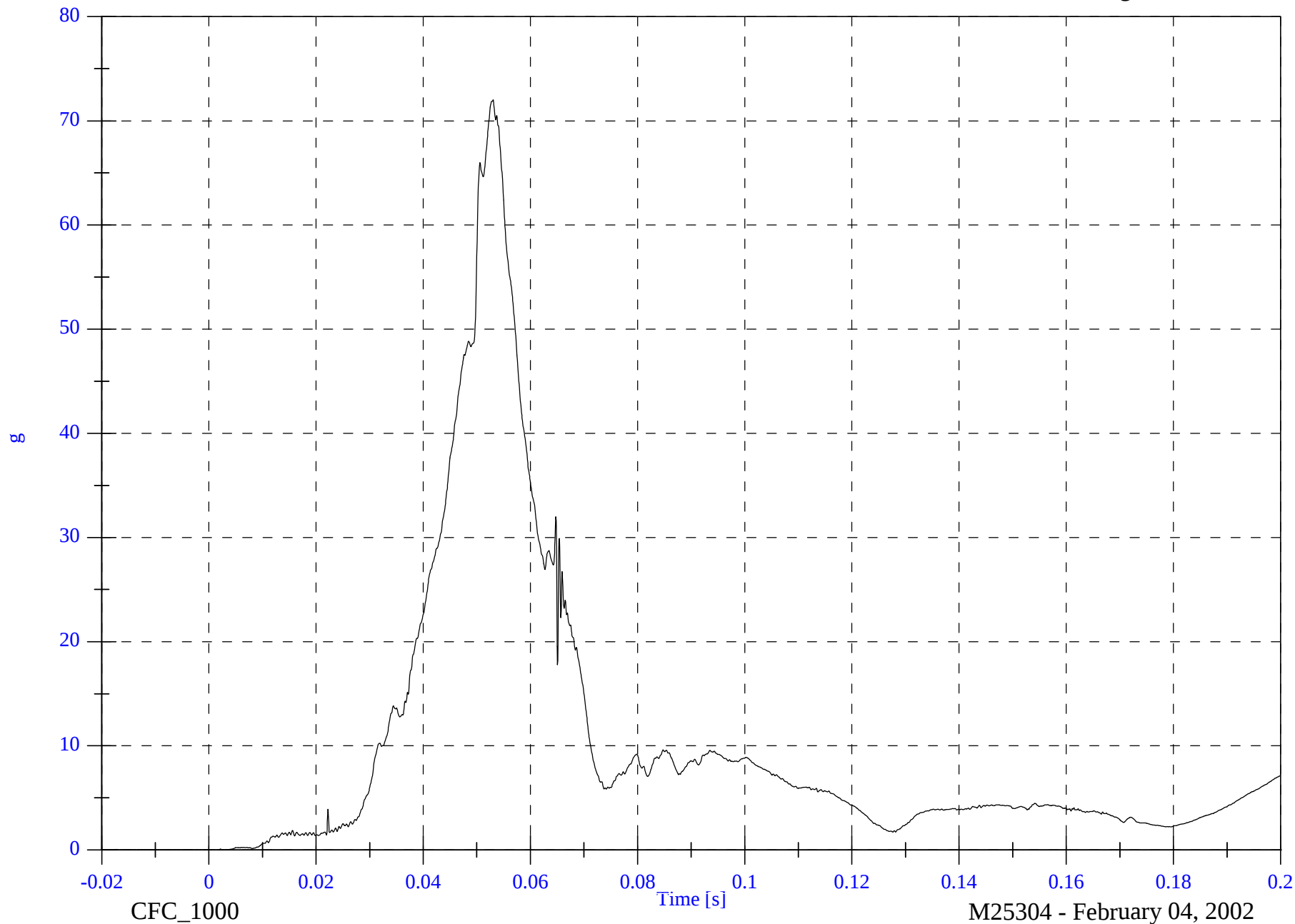
P4 Head Resultant

Max: 72.0 [g] at 0.053 [s]

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

4-38

8652-SENCAP-01



2002 SNCAP Test 1 - 2002 Acura RSX

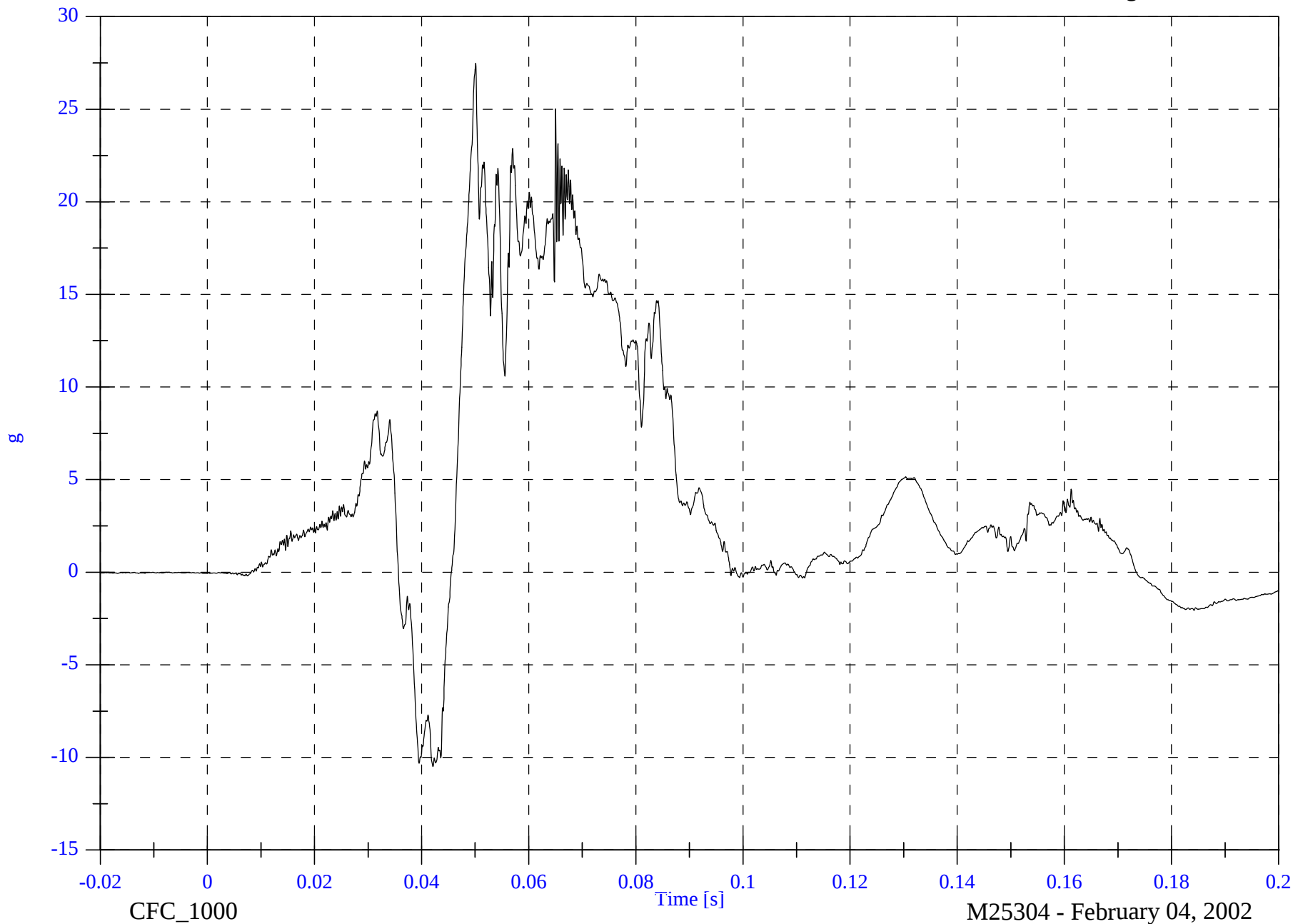
P4 Head Red z

Max: 27.5 [g] at 0.050 [s]

Min: -10.5 [g] at 0.042 [s]

4-39

8652-SNCAP-01

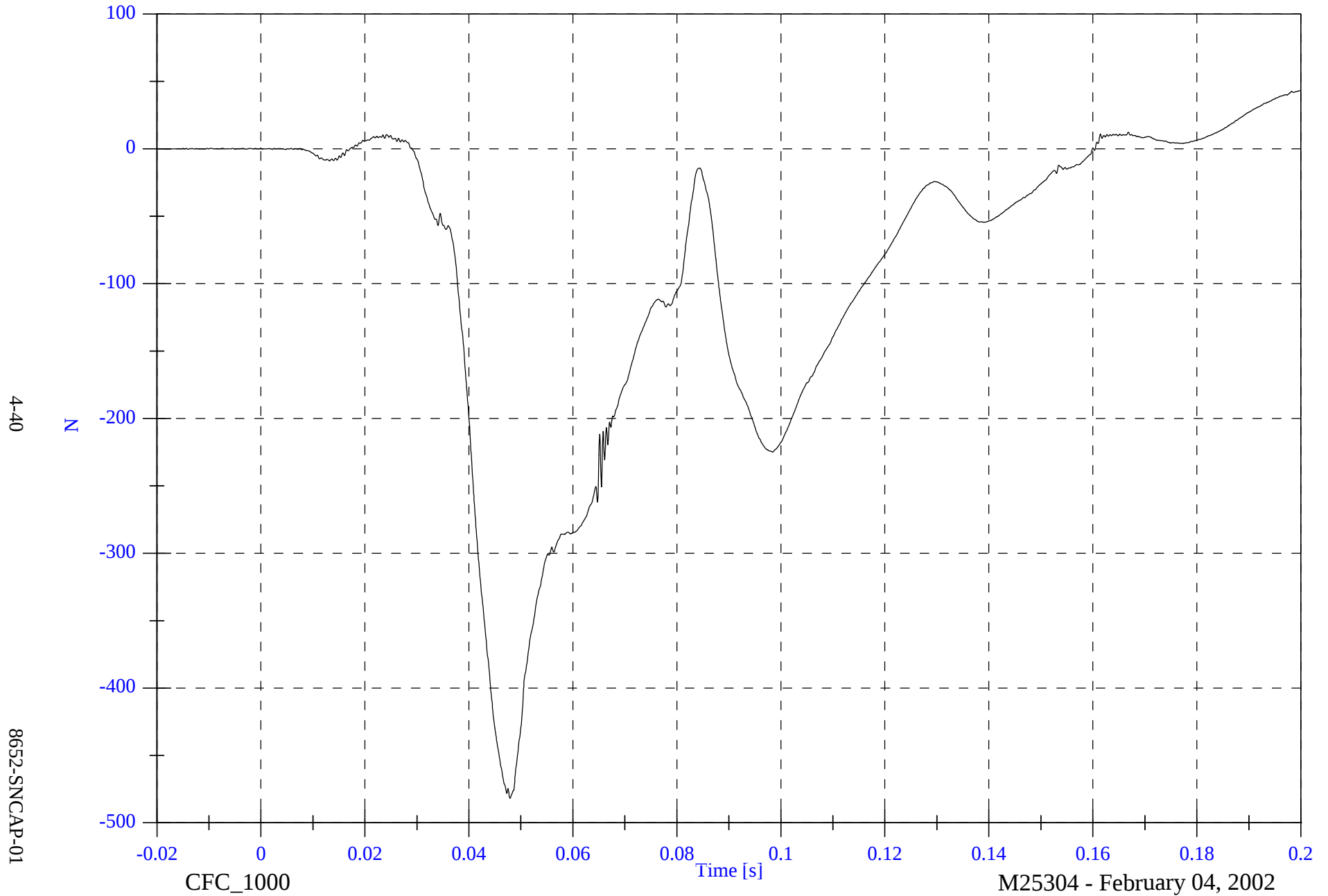


2002 SNCAP Test 1 - 2002 Acura RSX

P4 Upper Neck Fx

Max: 43.3 [N] at 0.200 [s]

Min: -481.8 [N] at 0.048 [s]

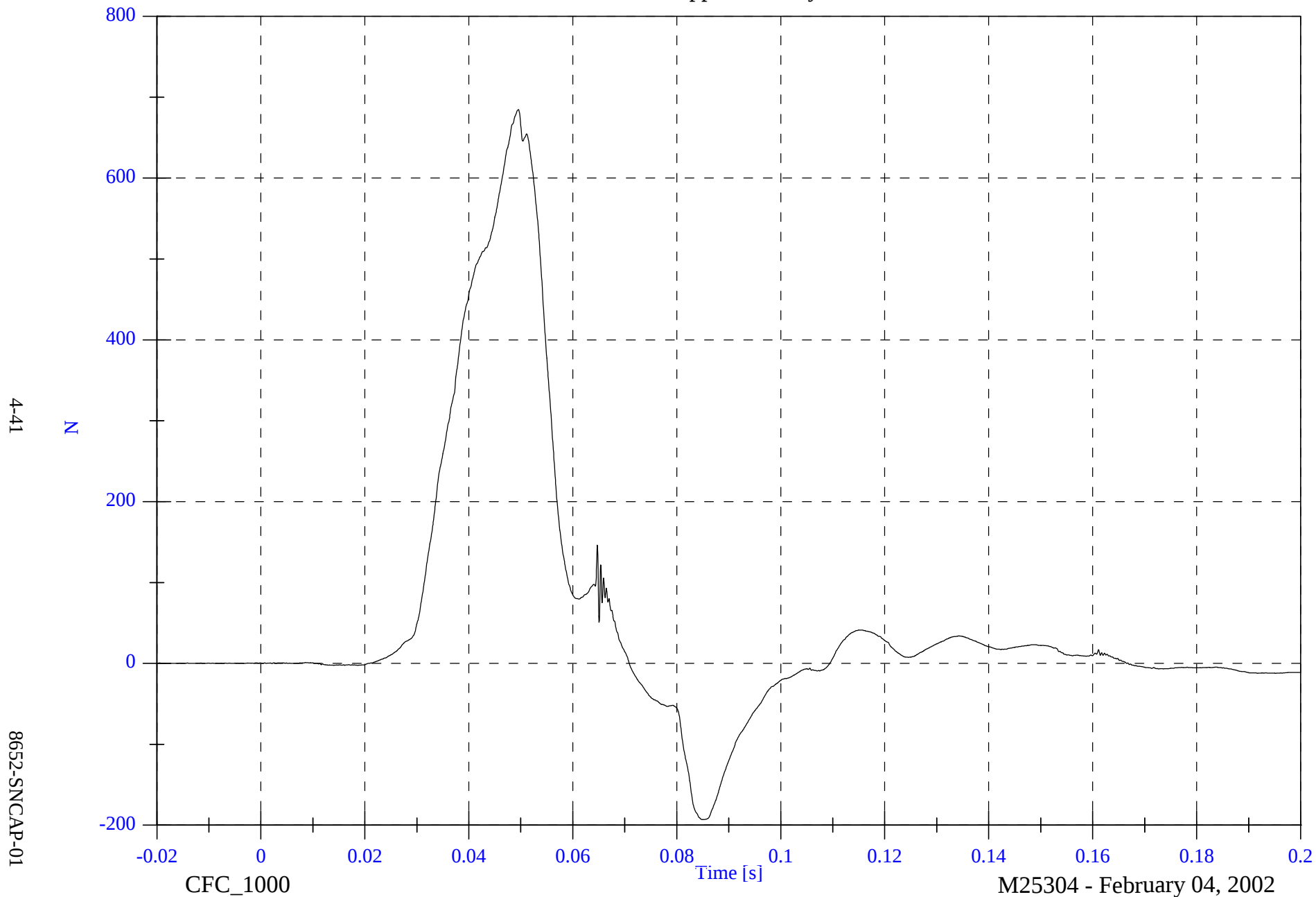


2002 SNCAP Test 1 - 2002 Acura RSX

P4 Upper Neck Fy

Max: 684.7 [N] at 0.050 [s]

Min: -193.1 [N] at 0.085 [s]



2002 SNCAP Test 1 - 2002 Acura RSX

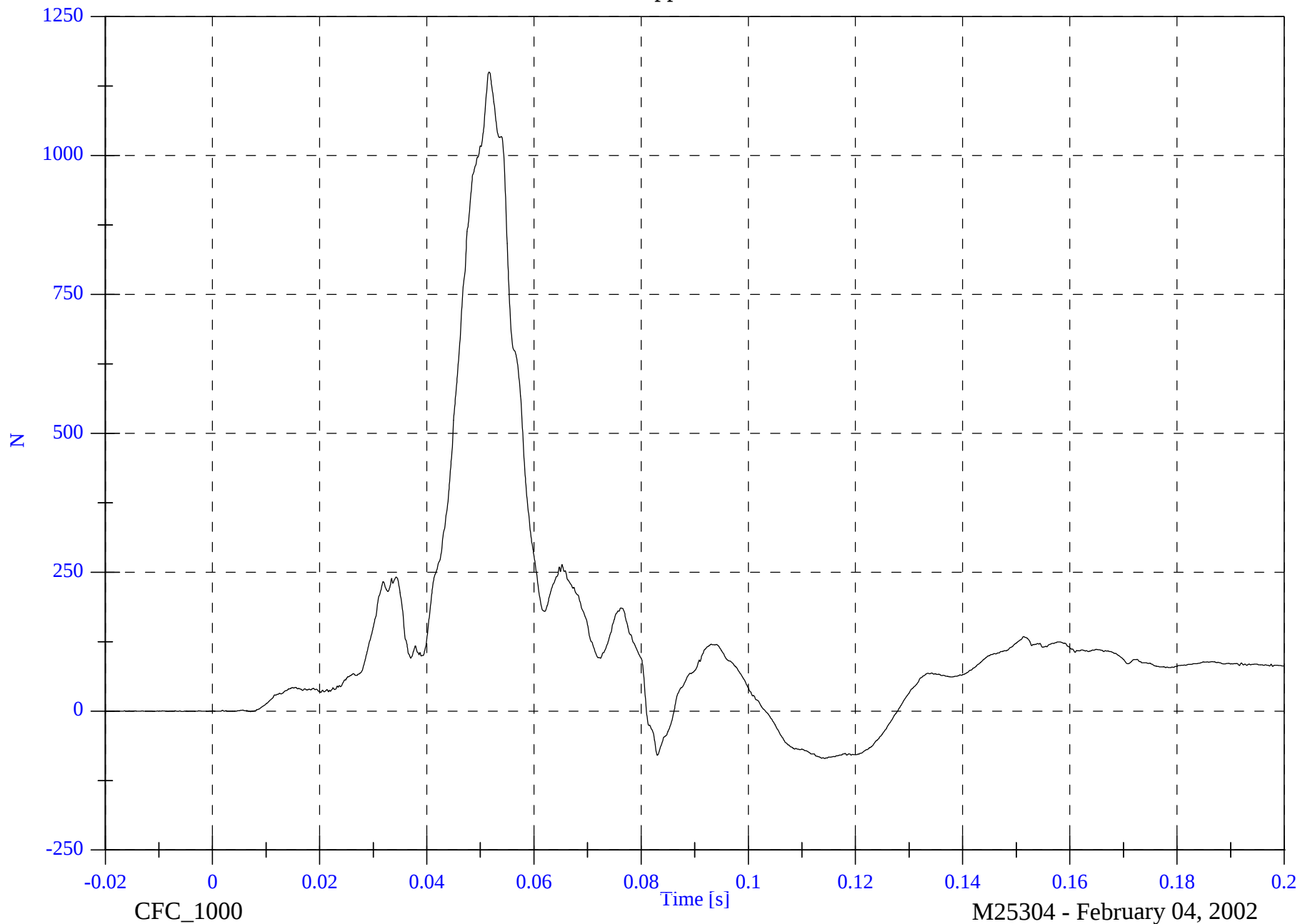
P4 Upper Neck Fz

Max: 1150.4 [N] at 0.052 [s]

Min: -85.5 [N] at 0.114 [s]

4-42

8652-SNCAP-01

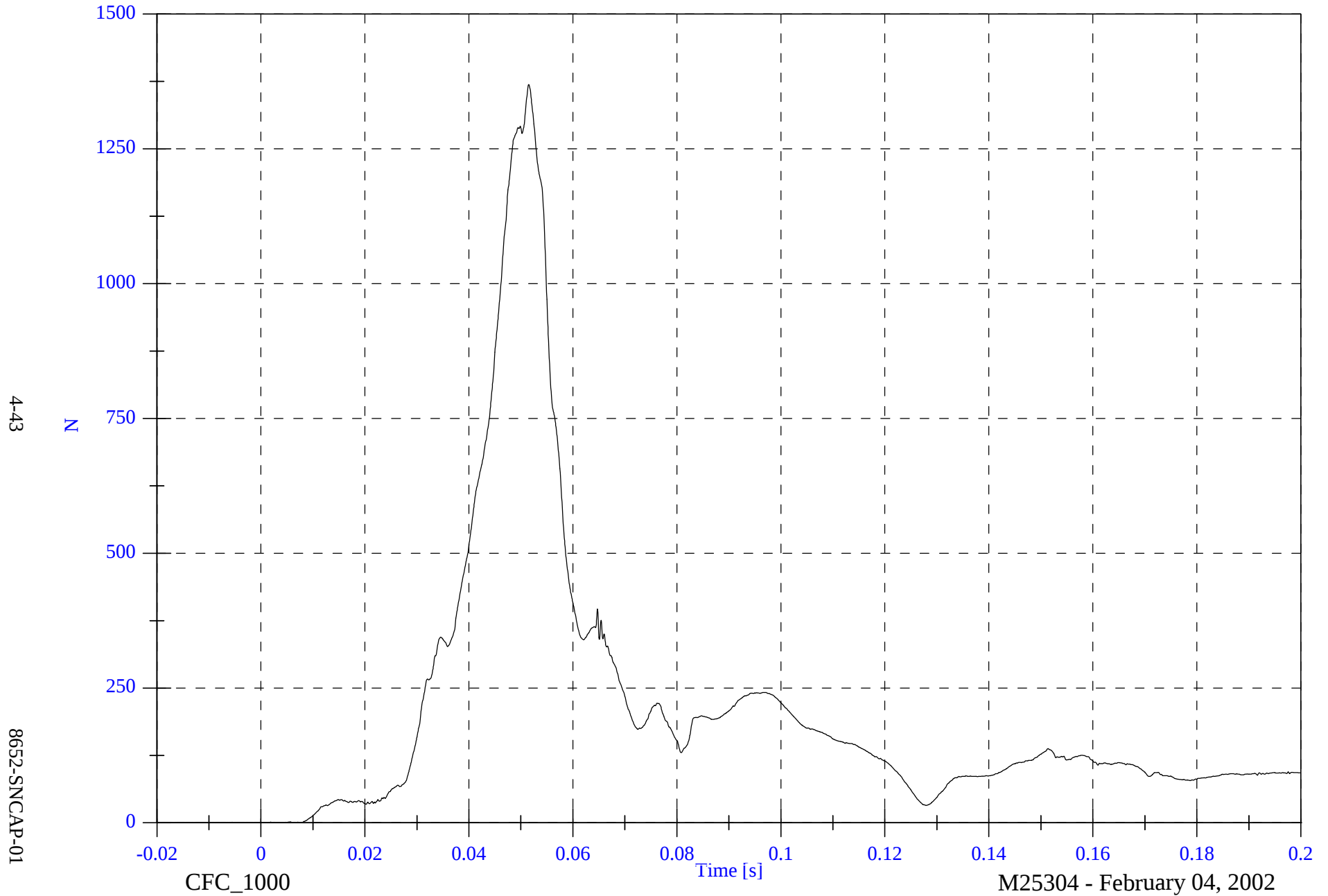


2002 SNCAP Test 1 - 2002 Acura RSX

P4 Upper Neck F Resultant

Max: 1369.2 [N] at 0.052 [s]

Min: 0.1 [N] at -0.009 [s]



2002 SNCAP Test 1 - 2002 Acura RSX

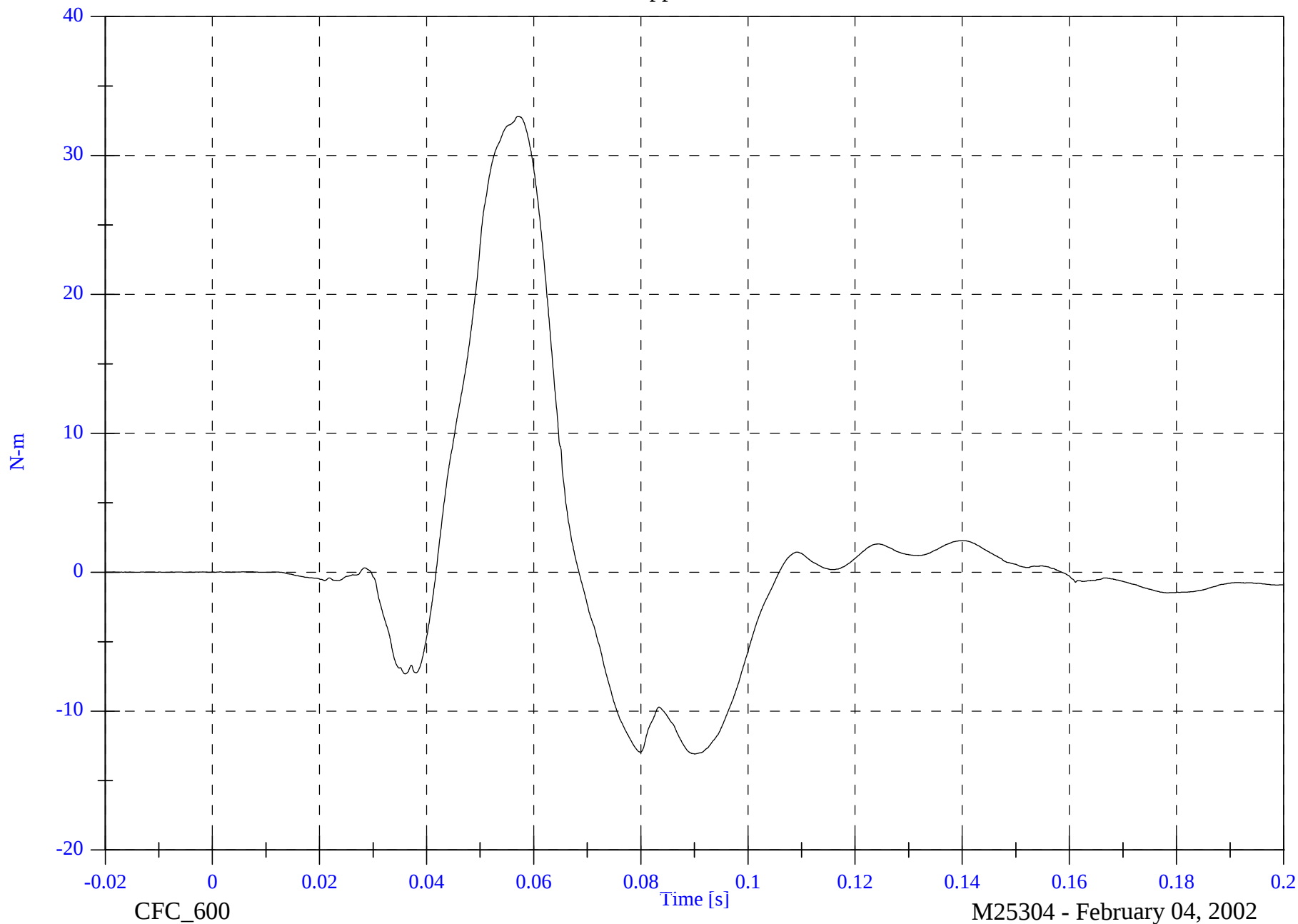
P4 Upper Neck Mx

Max: 32.8 [N-m] at 0.057 [s]

Min: -13.1 [N-m] at 0.090 [s]

4-44

8652-SNCAP-01

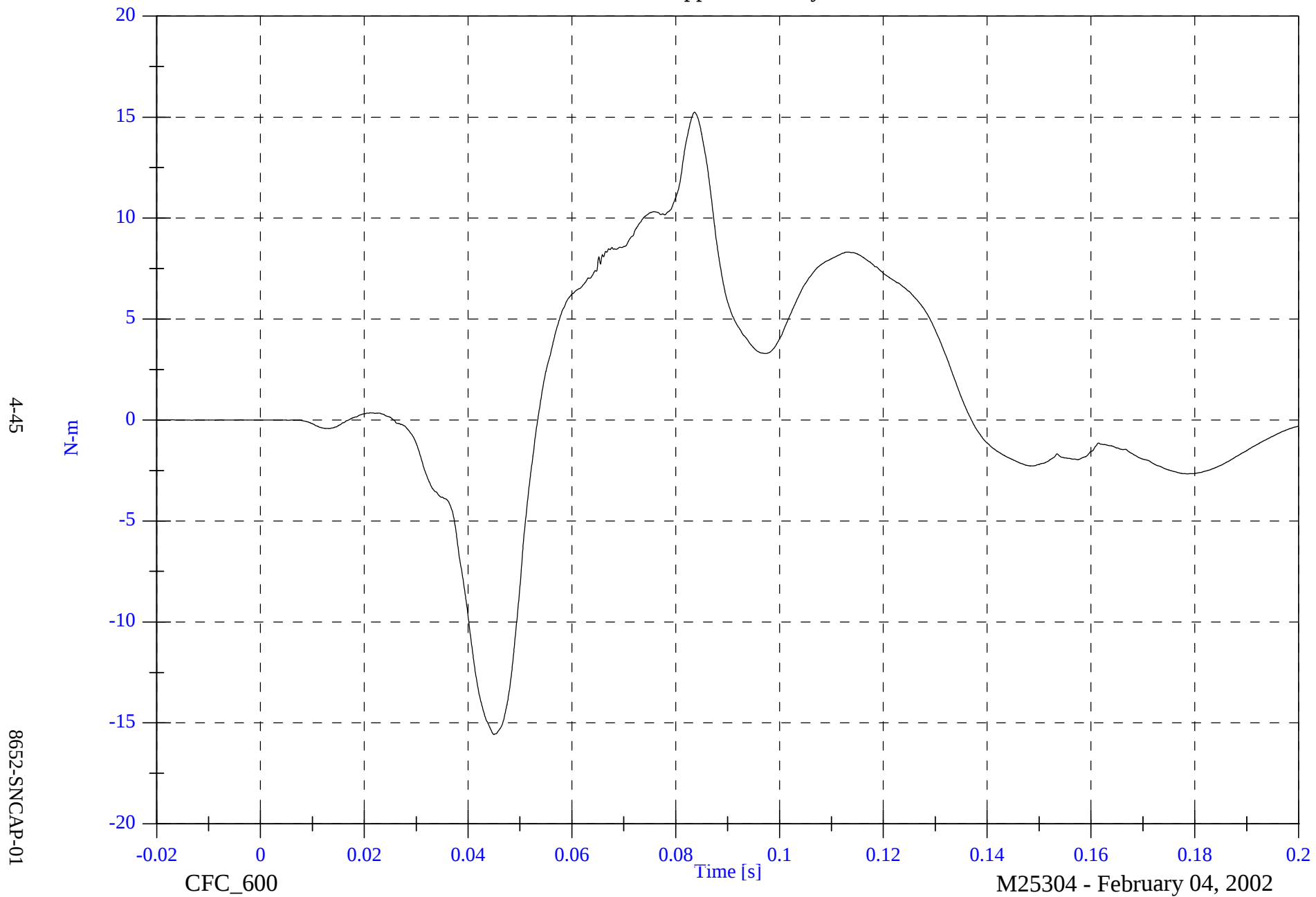


2002 SNCAP Test 1 - 2002 Acura RSX

P4 Upper Neck My

Max: 15.2 [N-m] at 0.084 [s]

Min: -15.6 [N-m] at 0.045 [s]



2002 SNCAP Test 1 - 2002 Acura RSX

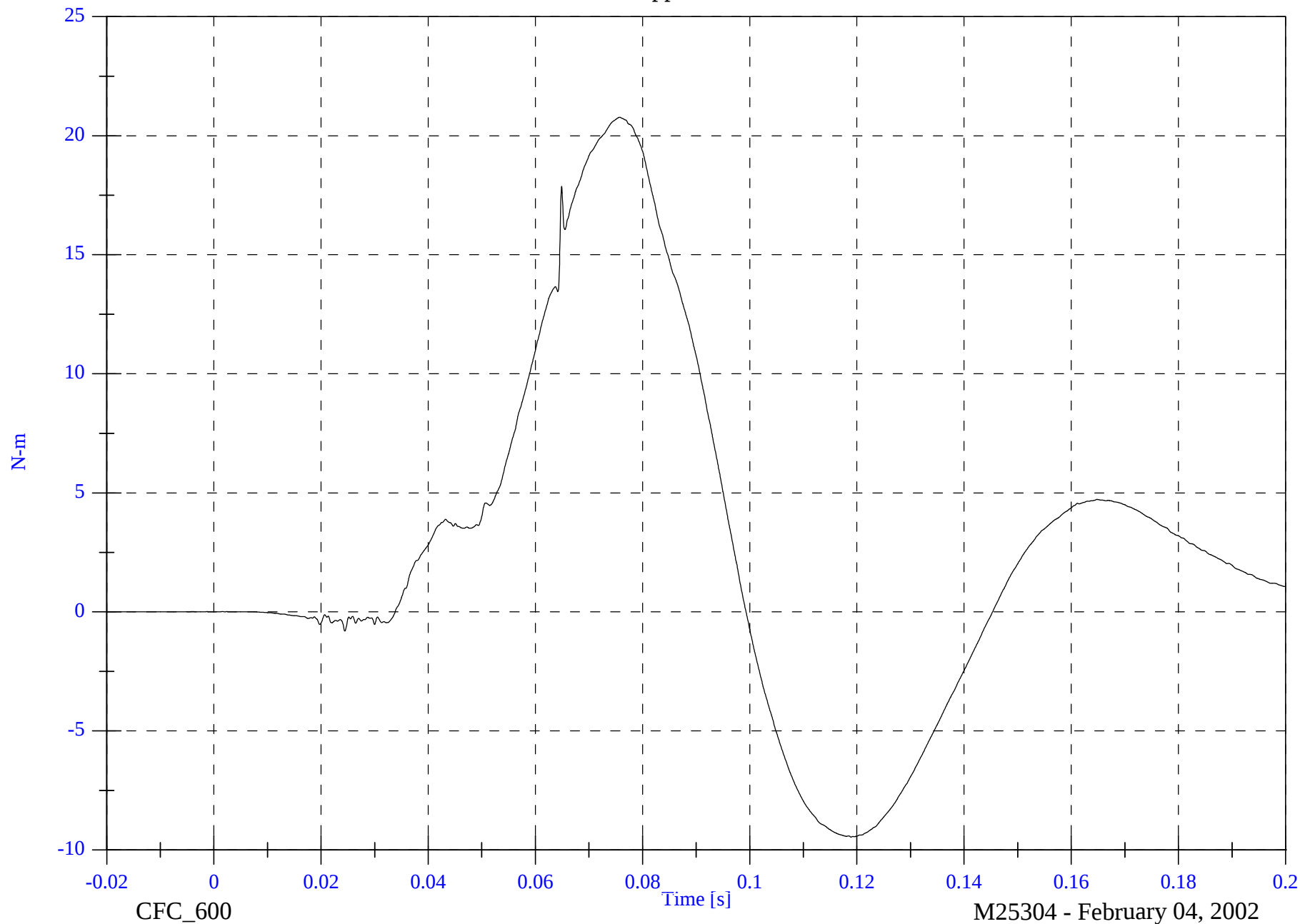
P4 Upper Neck Mz

Max: 20.8 [N-m] at 0.076 [s]

Min: -9.5 [N-m] at 0.119 [s]

4-46

8652-SNCAP-01

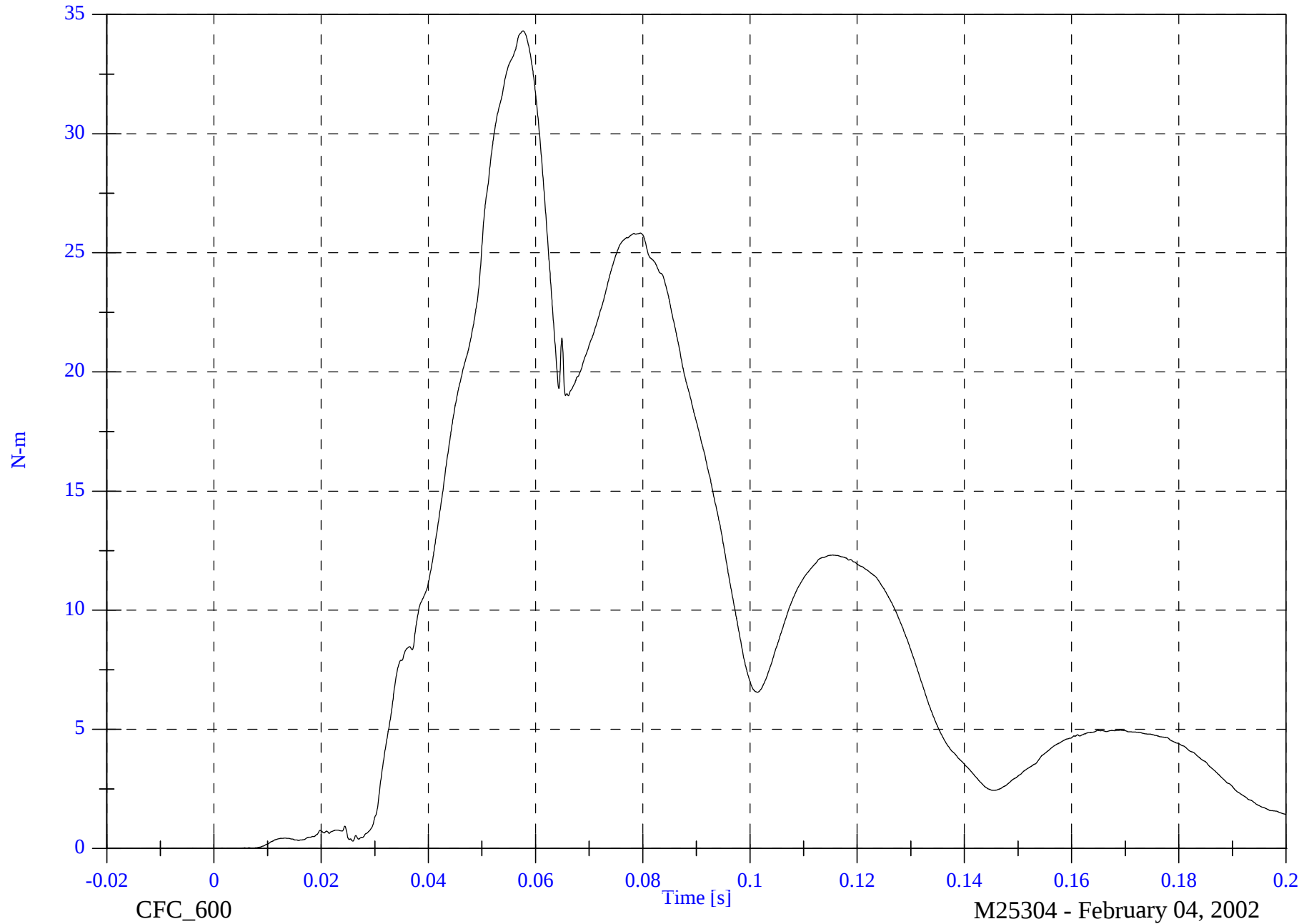


2002 SNCAP Test 1 - 2002 Acura RSX

P4 Upper Neck M Resultant

Max: 34.3 [N-m] at 0.058 [s]

Min: 0.0 [N-m] at -0.008 [s]



4-47

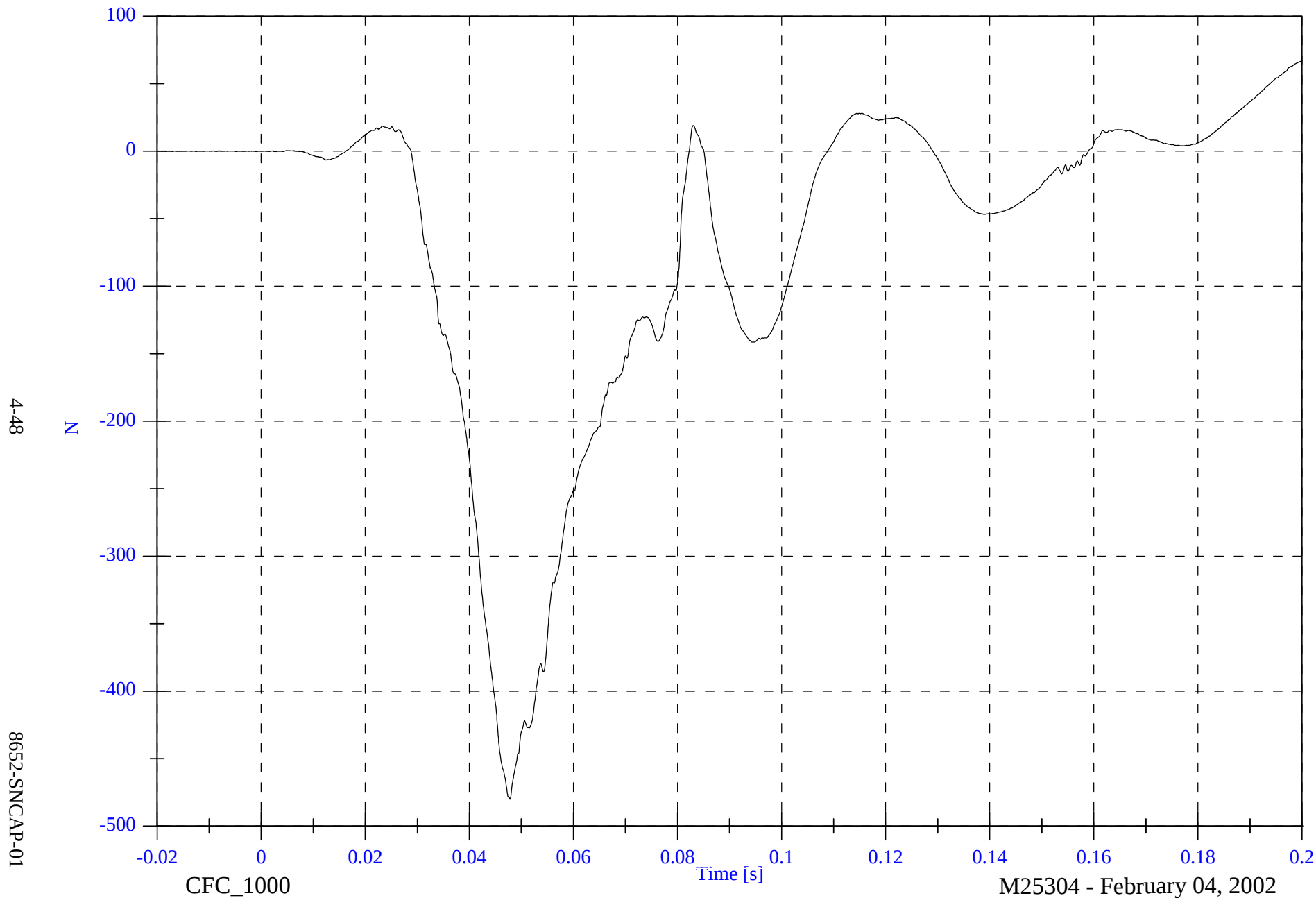
8652-SNCAP-01

2002 SNCAP Test 1 - 2002 Acura RSX

P4 Lower Neck Fx

Max: 66.9 [N] at 0.200 [s]

Min: -480.2 [N] at 0.048 [s]

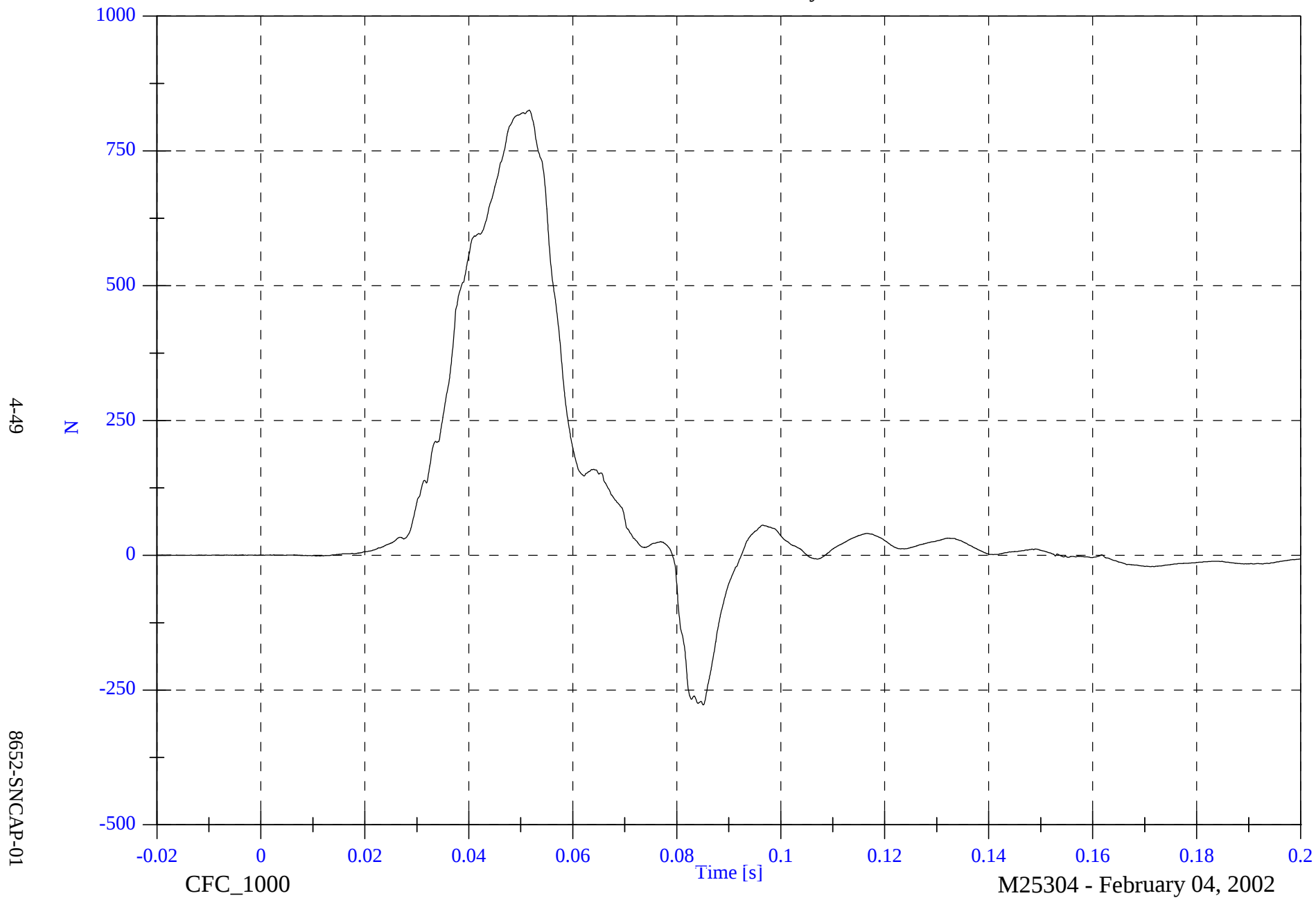


2002 SNCAP Test 1 - 2002 Acura RSX

P4 Lower Neck Fy

Max: 825.8 [N] at 0.052 [s]

Min: -277.5 [N] at 0.085 [s]

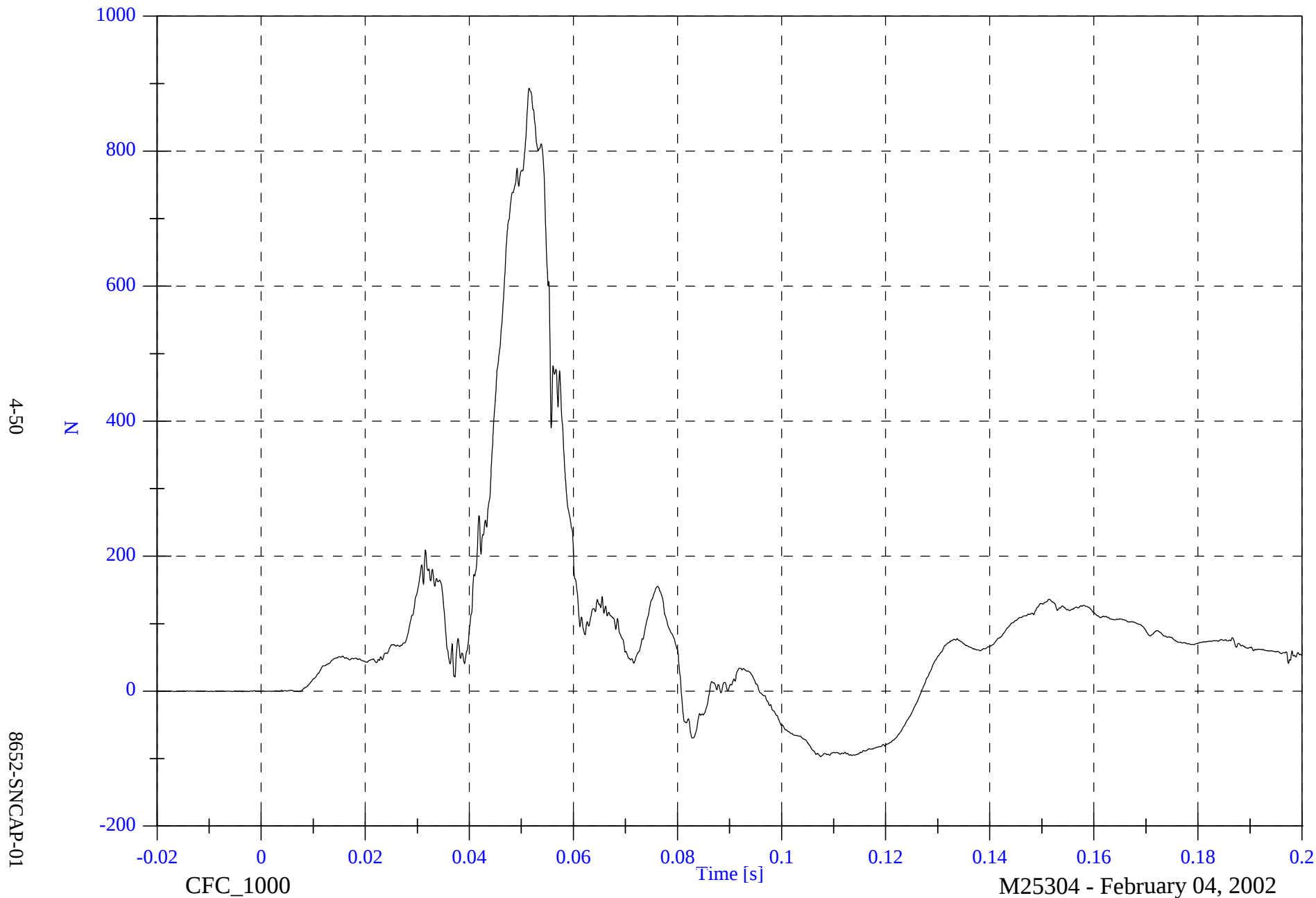


2002 SNCAP Test 1 - 2002 Acura RSX

P4 Lower Neck Fz

Max: 893.3 [N] at 0.052 [s]

Min: -96.9 [N] at 0.108 [s]



2002 SNCAP Test 1 - 2002 Acura RSX

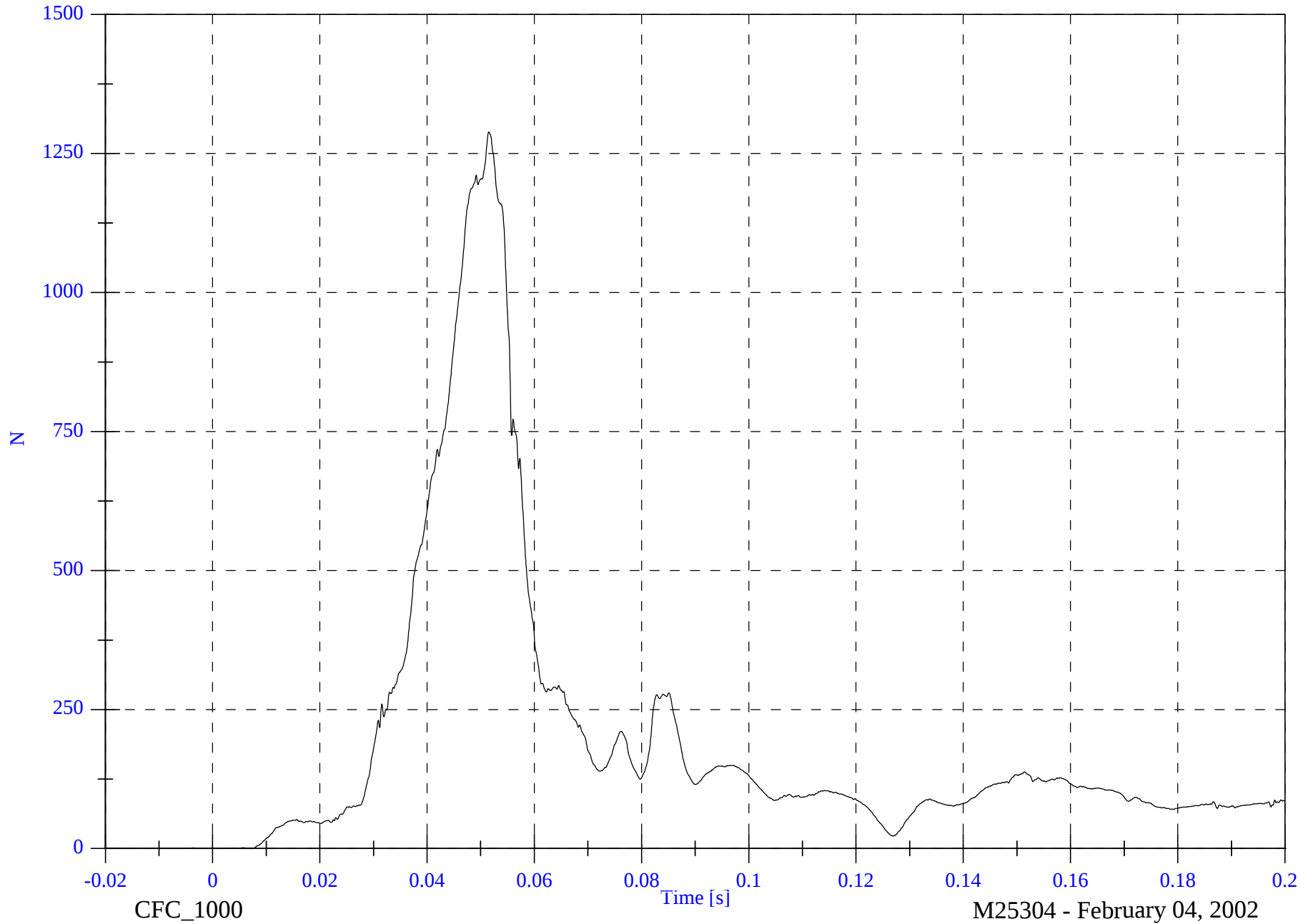
P4 Lower Neck F Resultant

Max: 1288.8 [N] at 0.052 [s]

Min: 0.0 [N] at -0.008 [s]

4-51

8652-SNCAP-01

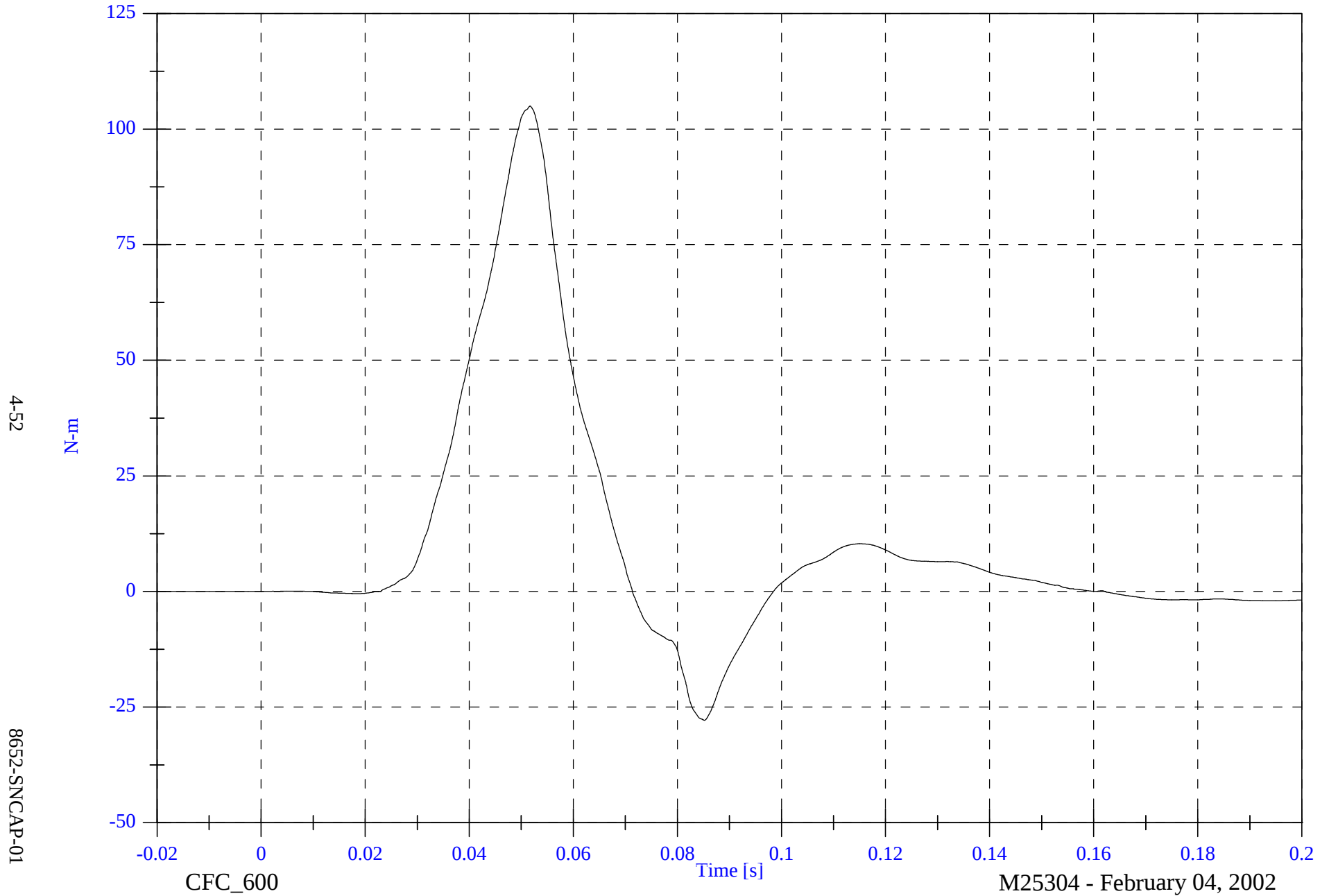


2002 SNCAP Test 1 - 2002 Acura RSX

P4 Lower Neck Mx

Max: 105.0 [N-m] at 0.052 [s]

Min: -27.8 [N-m] at 0.085 [s]



2002 SNCAP Test 1 - 2002 Acura RSX

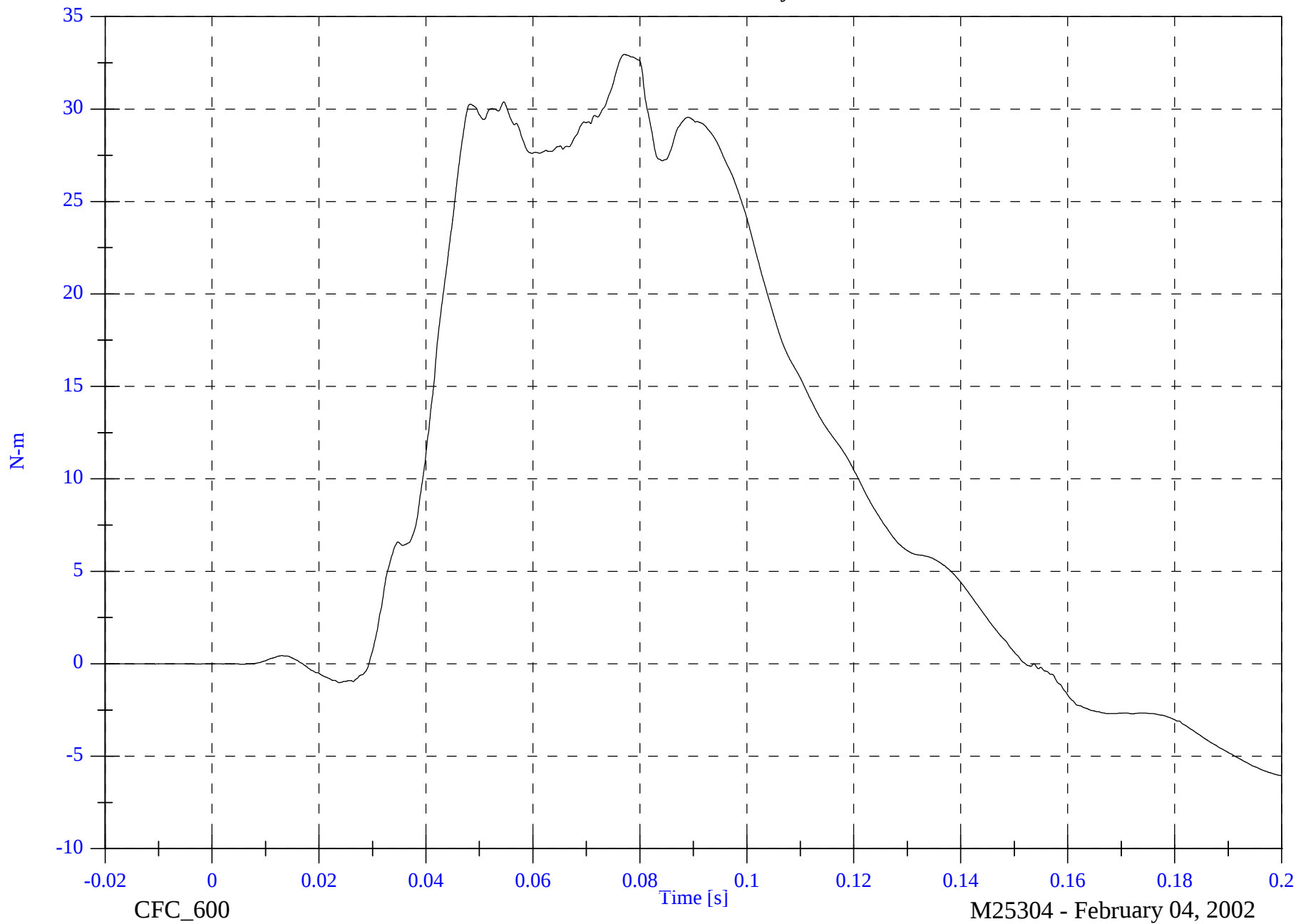
P4 Lower Neck My

Max: 33.0 [N-m] at 0.077 [s]

Min: -6.1 [N-m] at 0.200 [s]

4-53

8652-SNCAP-01



2002 SNCAP Test 1 - 2002 Acura RSX

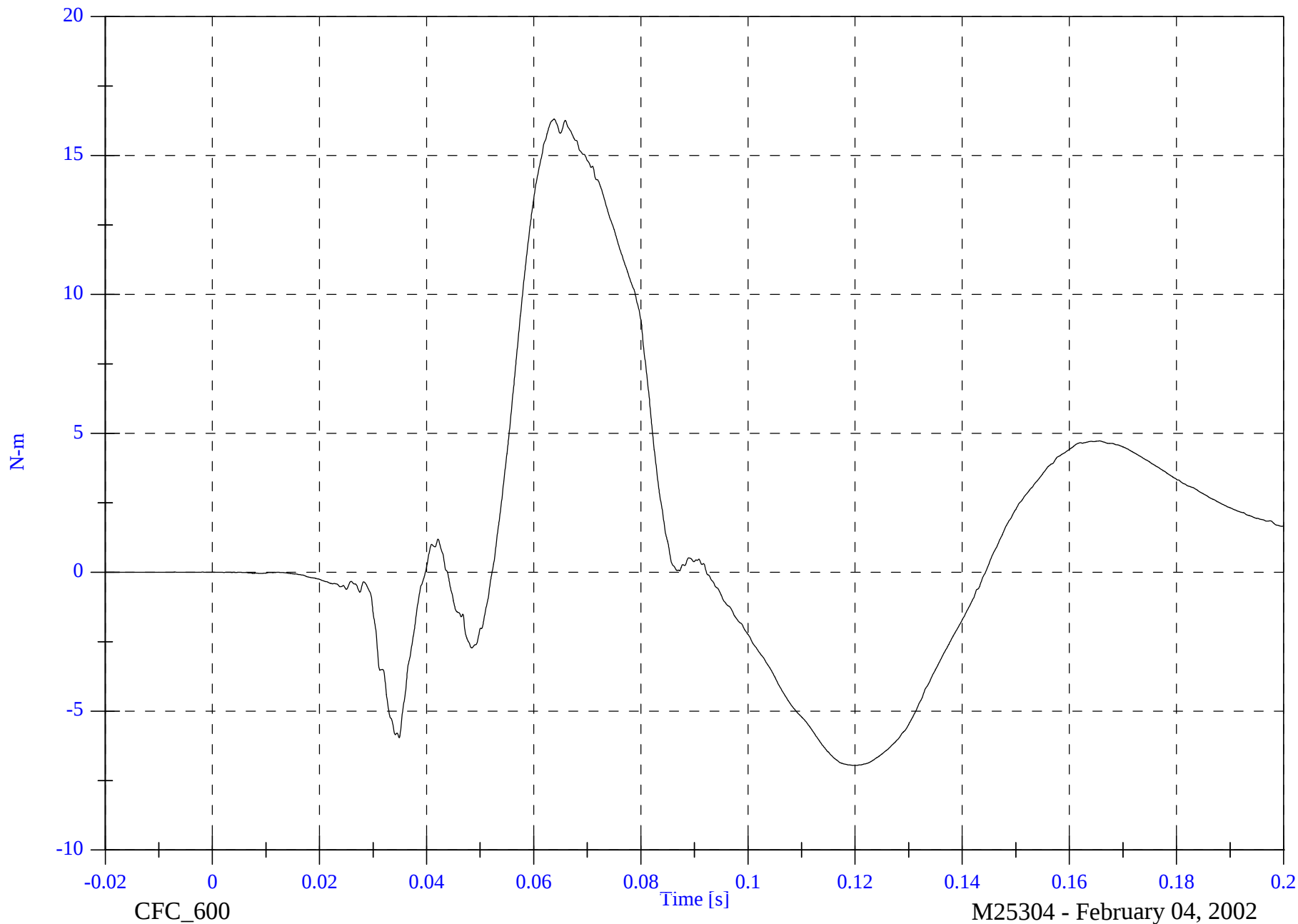
P4 Lower Neck Mz

Max: 16.3 [N-m] at 0.064 [s]

Min: -7.0 [N-m] at 0.120 [s]

4-54

8652-SNCAP-01



2002 SNCAP Test 1 - 2002 Acura RSX

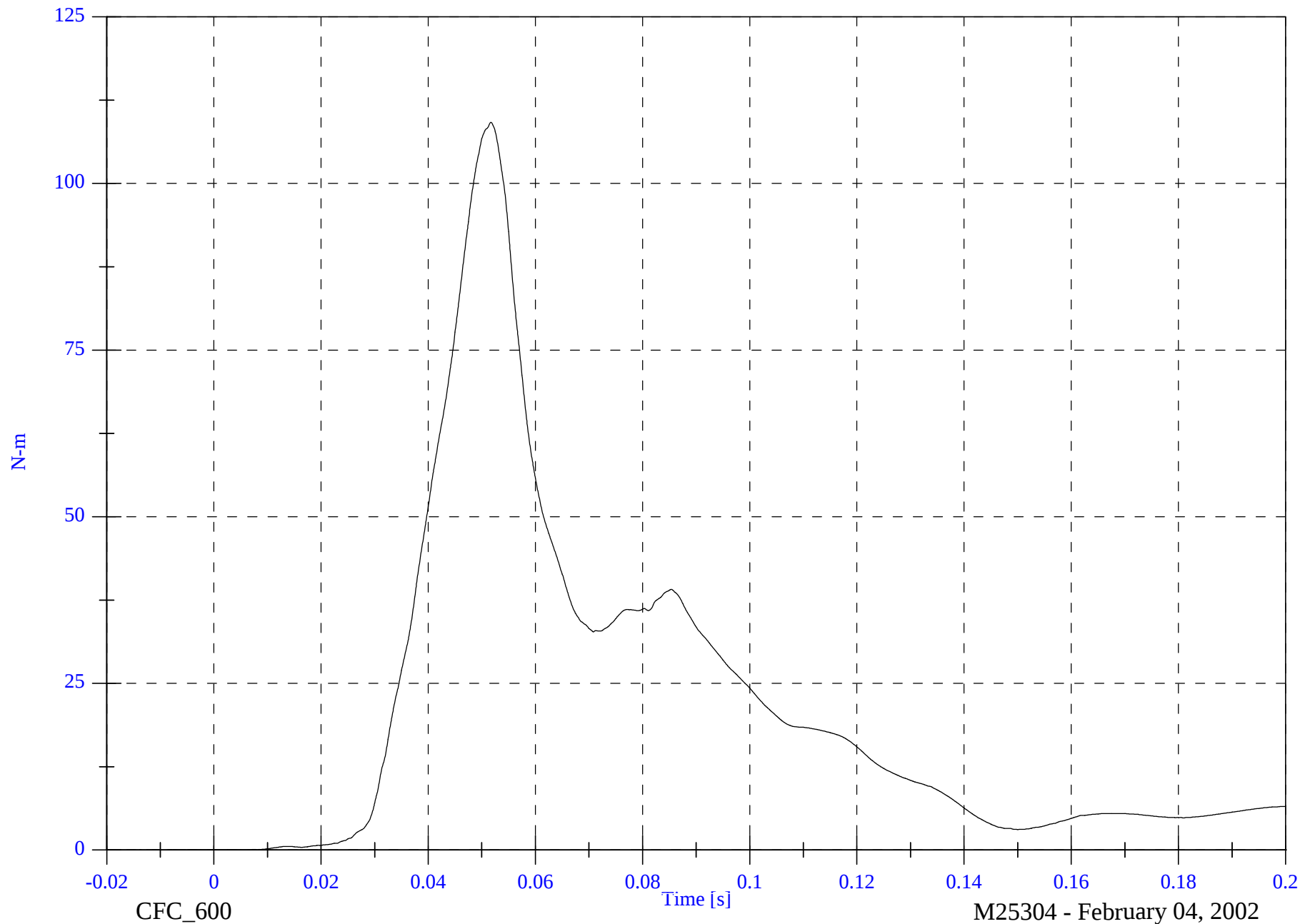
P4 Lower Neck M Resultant

Max: 109.2 [N-m] at 0.052 [s]

Min: 0.0 [N-m] at -0.019 [s]

4-55

8652-SNCAP-01

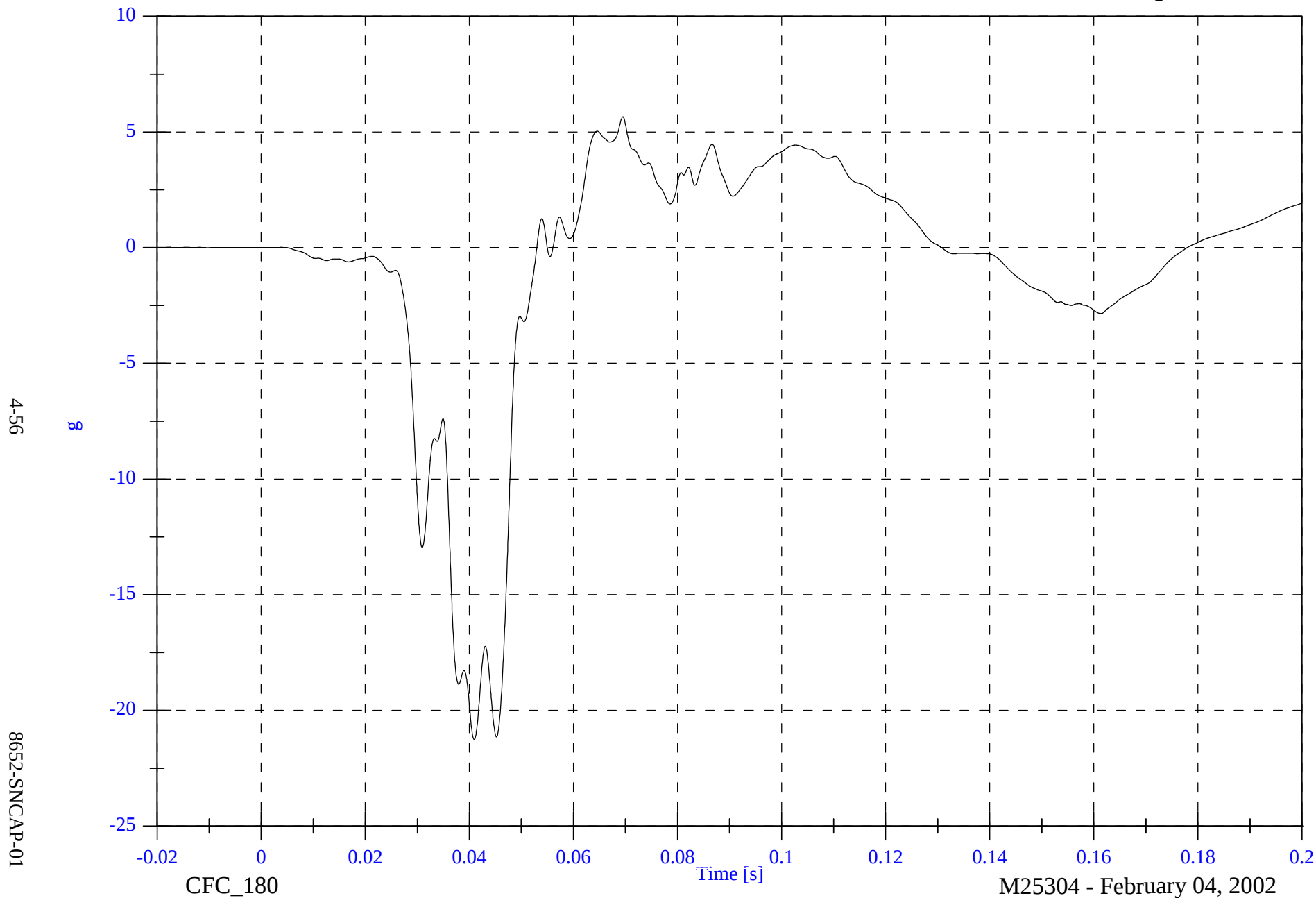


2002 SNCAP Test 1 - 2002 Acura RSX

Max: 5.7 [g] at 0.070 [s]

Min: -21.3 [g] at 0.041 [s]

P4 Chest x



2002 SENCAP Test 1 - 2002 Acura RSX

Max: 19.9 [g] at 0.025 [s]

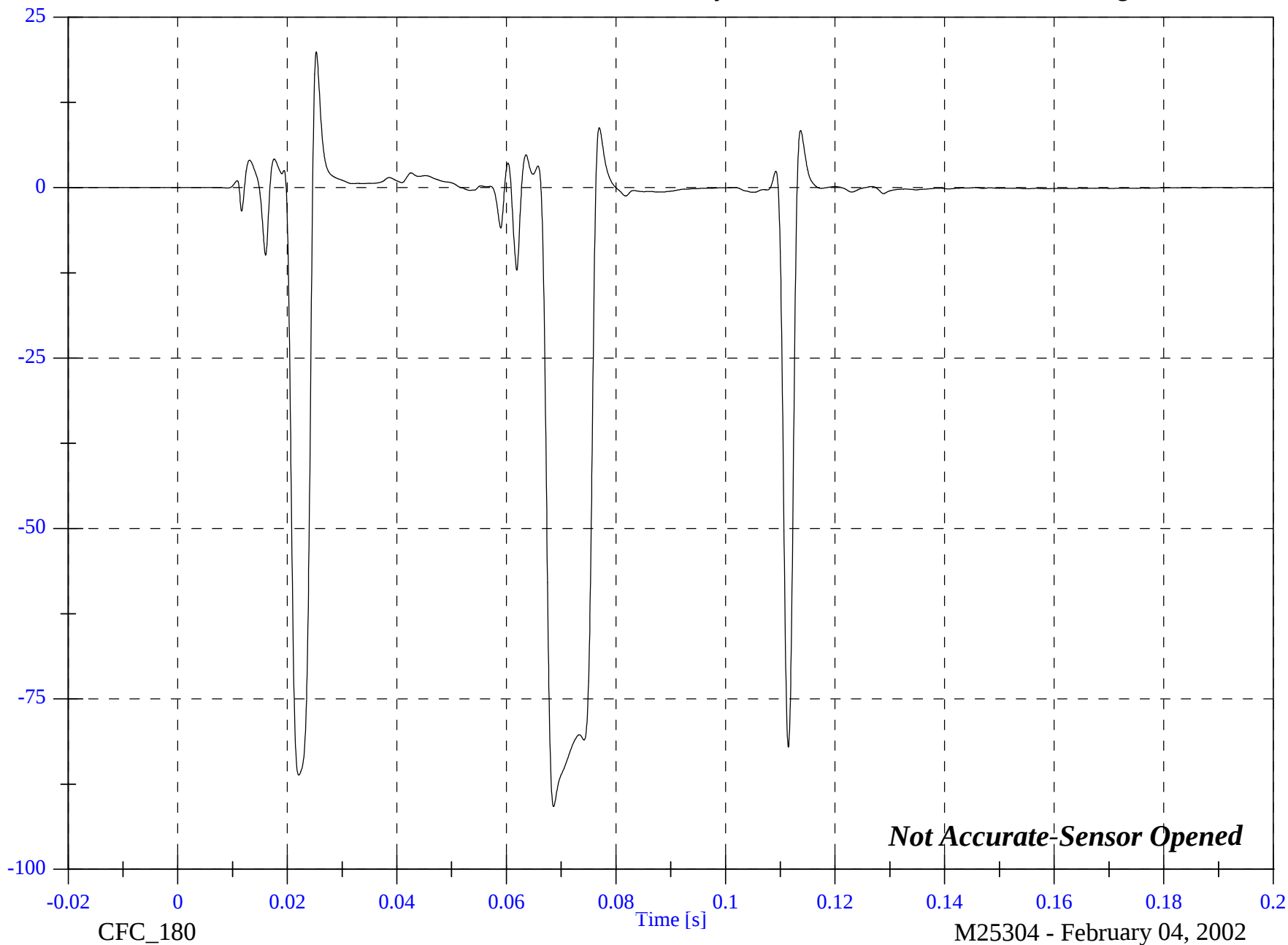
Min: -90.8 [g] at 0.069 [s]

P4 Chest y

4-57

8652-SENCAP-01

g

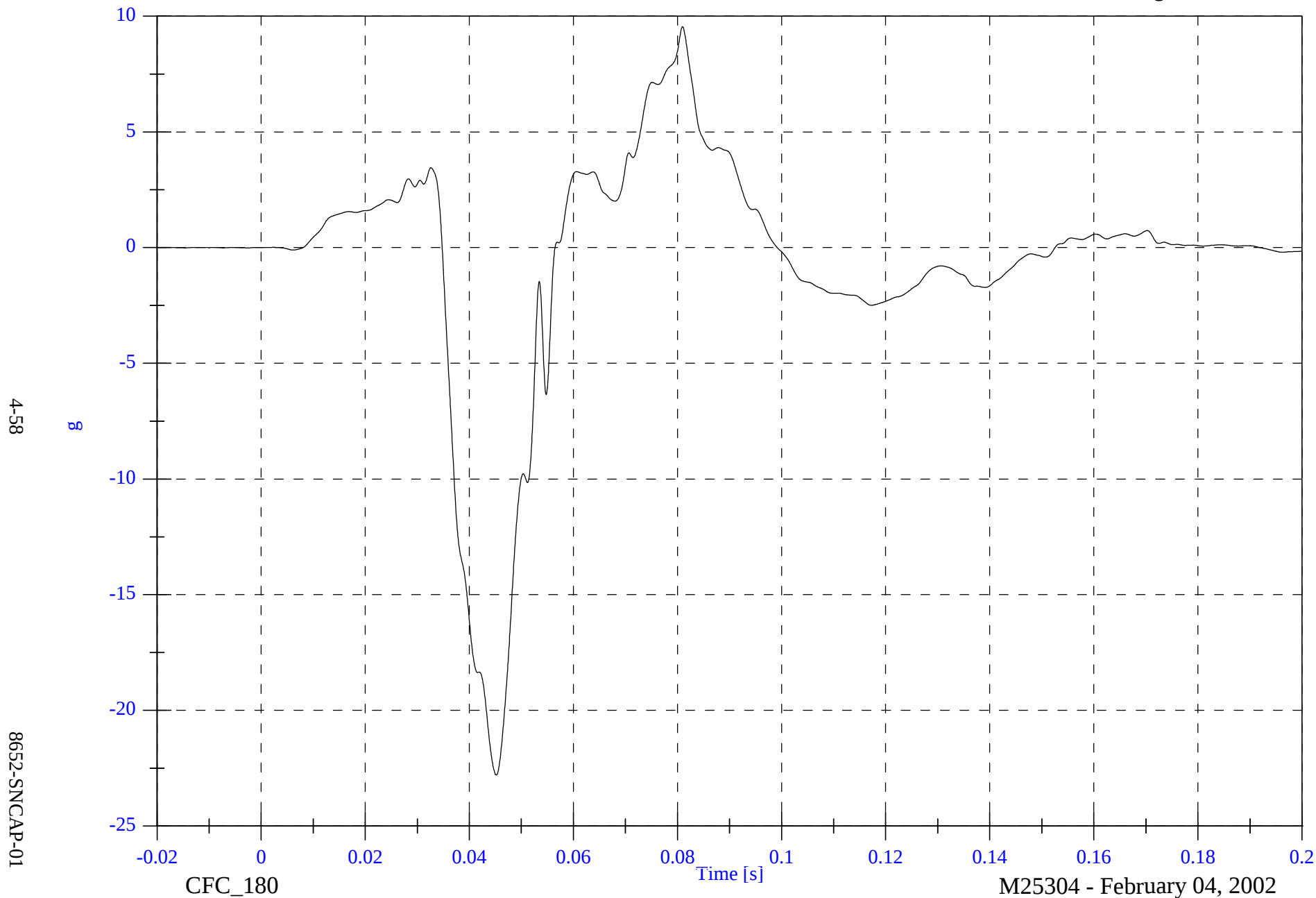


2002 SNCAP Test 1 - 2002 Acura RSX

Max: 9.6 [g] at 0.081 [s]

Min: -22.8 [g] at 0.045 [s]

P4 Chest z

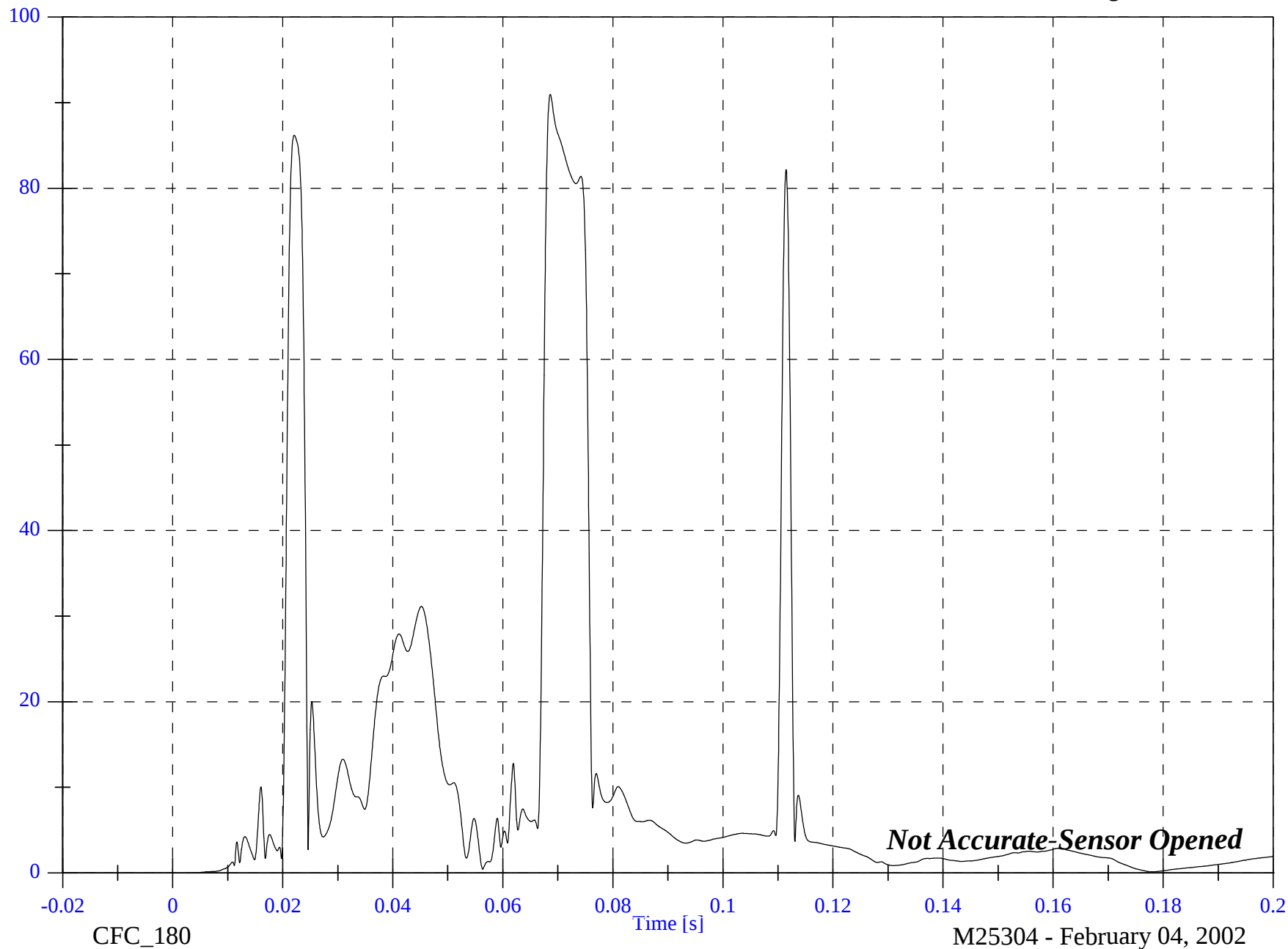


2002 SMCAP Test 1 - 2002 Acura RSX

P4 Chest Resultant

Max: 91.0 [g] at 0.069 [s]

Min: 0.0 [g] at 0.000 [s]



4-59

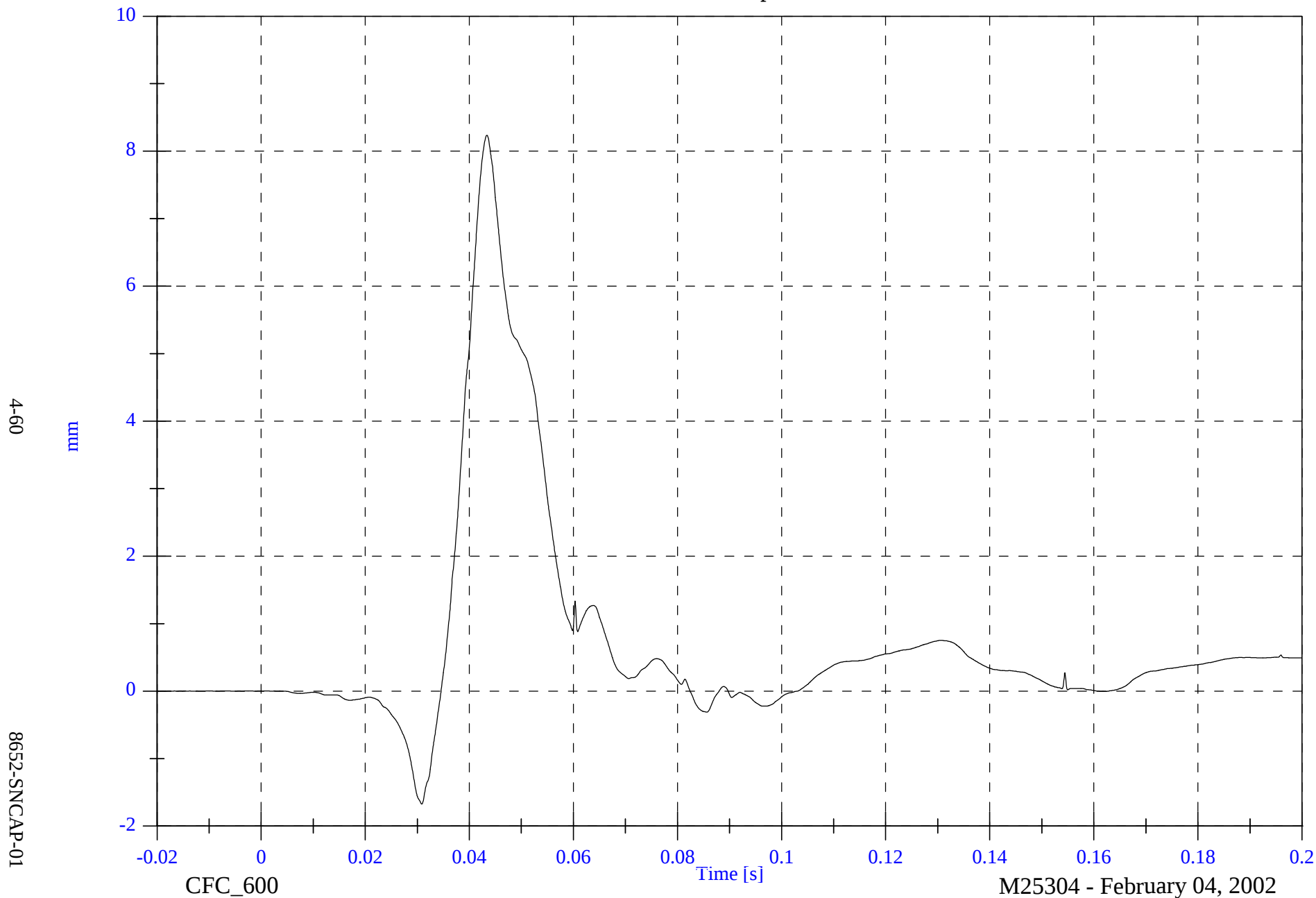
8652-SMCAP-01

2002 SNCAP Test 1 - 2002 Acura RSX

P4 Chest Compression

Max: 8.2 [mm] at 0.043 [s]

Min: -1.7 [mm] at 0.031 [s]

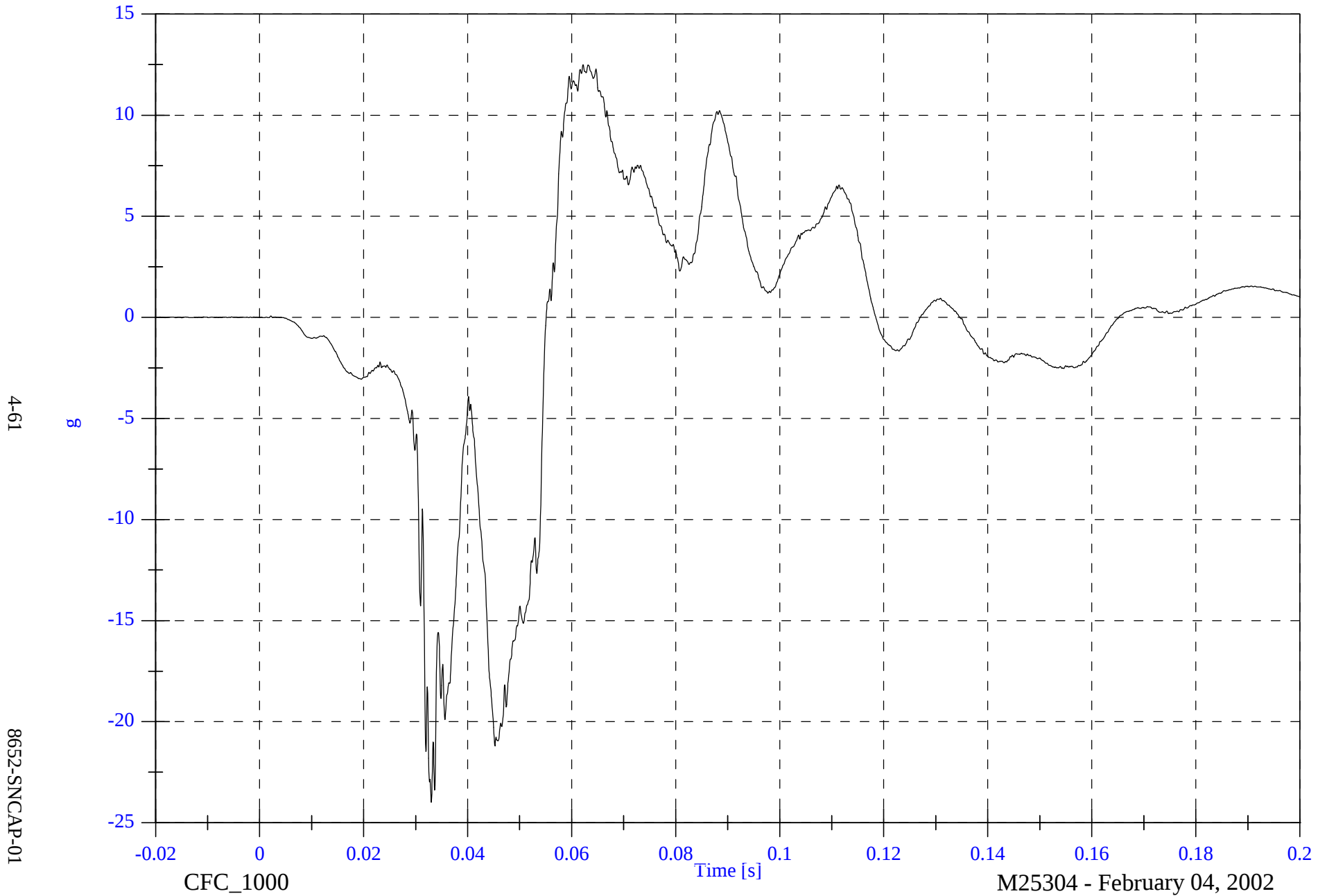


2002 SMCAP Test 1 - 2002 Acura RSX

Max: 12.5 [g] at 0.062 [s]

Min: -24.0 [g] at 0.033 [s]

P4 Pelvic x



2002 SNCAP Test 1 - 2002 Acura RSX

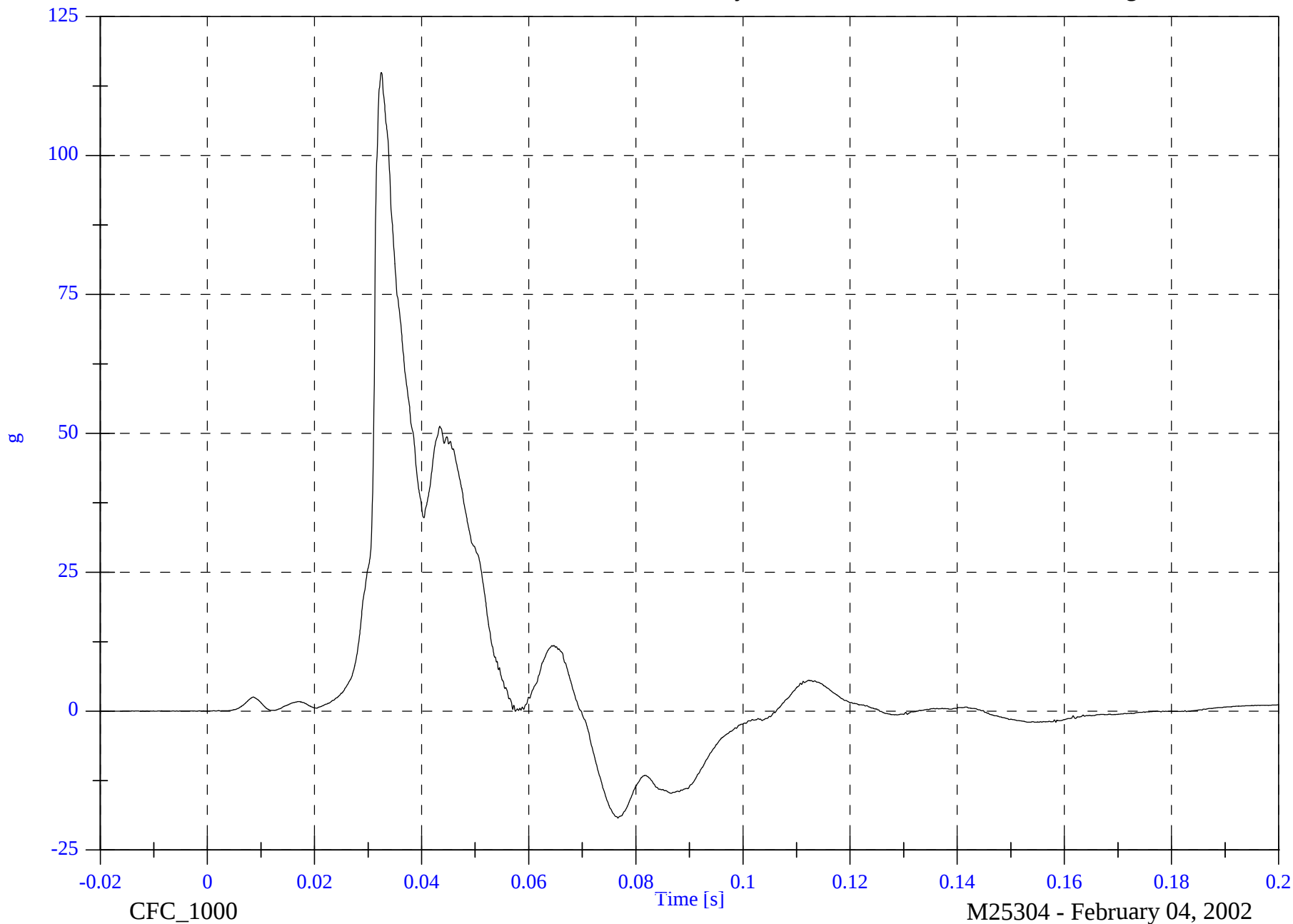
P4 Pelvic y

Max: 114.9 [g] at 0.033 [s]

Min: -19.3 [g] at 0.077 [s]

4-62

8652-SNCAP-01

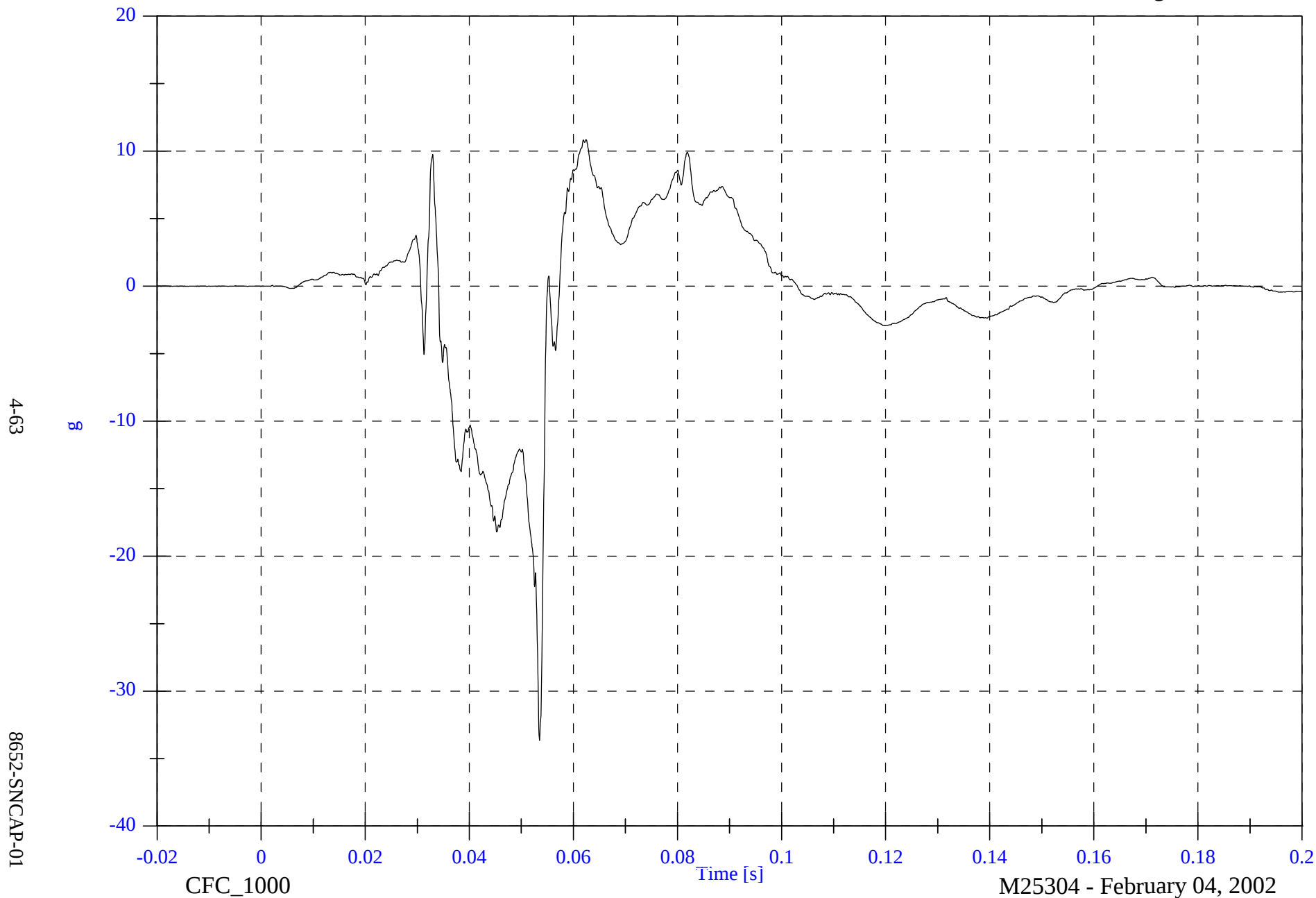


2002 SNCAP Test 1 - 2002 Acura RSX

Max: 10.9 [g] at 0.062 [s]

Min: -33.7 [g] at 0.054 [s]

P4 Pelvic z



2002 SNCAP Test 1 - 2002 Acura RSX

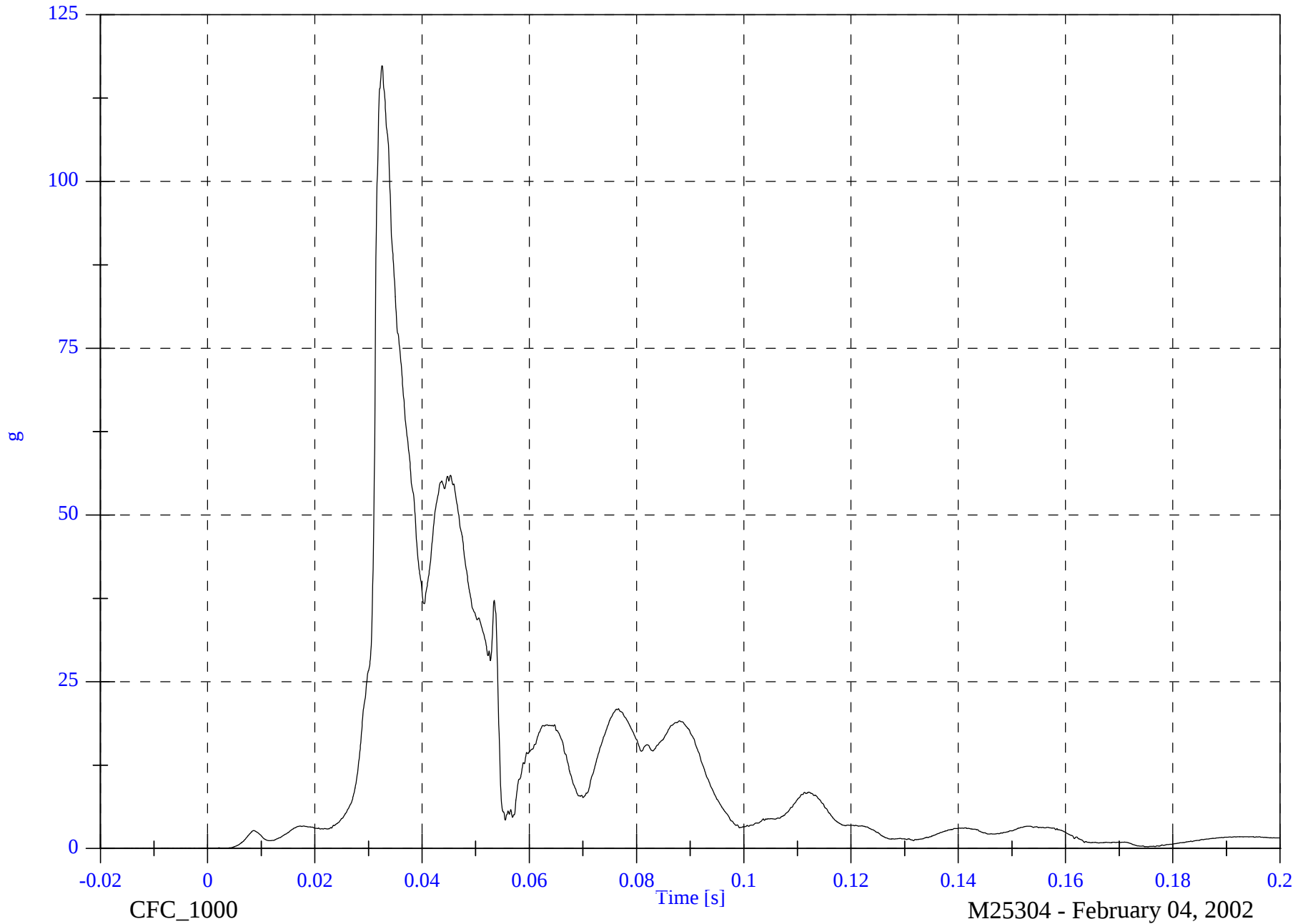
P4 Pelvic Resultant

Max: 117.3 [g] at 0.033 [s]

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

4-64

8652-SNCAP-01



2002 SNCAP Test 1 - 2002 Acura RSX

P4 Tether Strap Load

Max: 523.7 [N] at 0.035 [s]

Min: -50.6 [N] at 0.080 [s]



2002 SENCAP Test 1 - 2002 Acura RSX

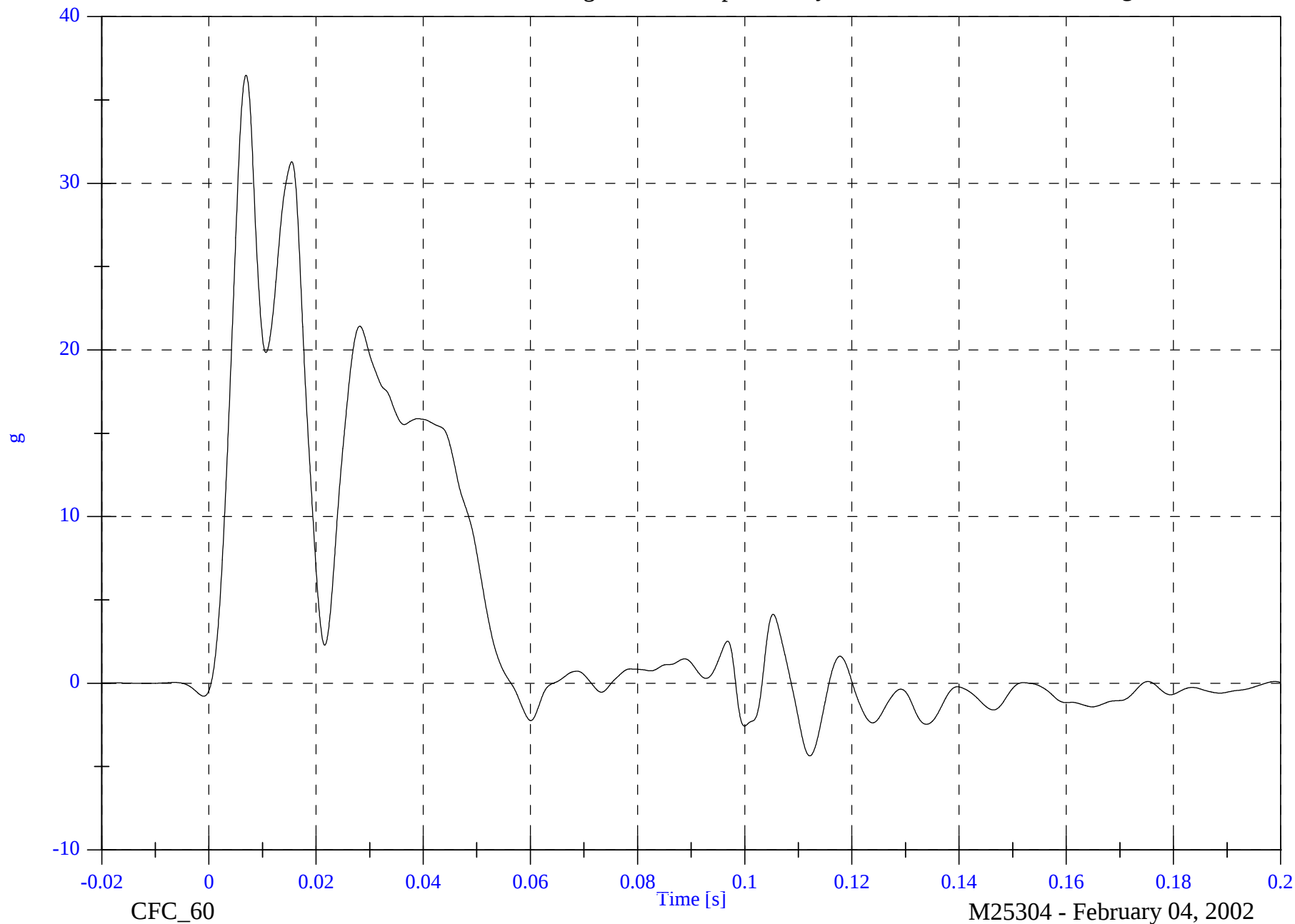
A19 Right Rear Compartment y Red

Max: 36.5 [g] at 0.007 [s]

Min: -4.4 [g] at 0.112 [s]

4-66

8652-SENCAP-01

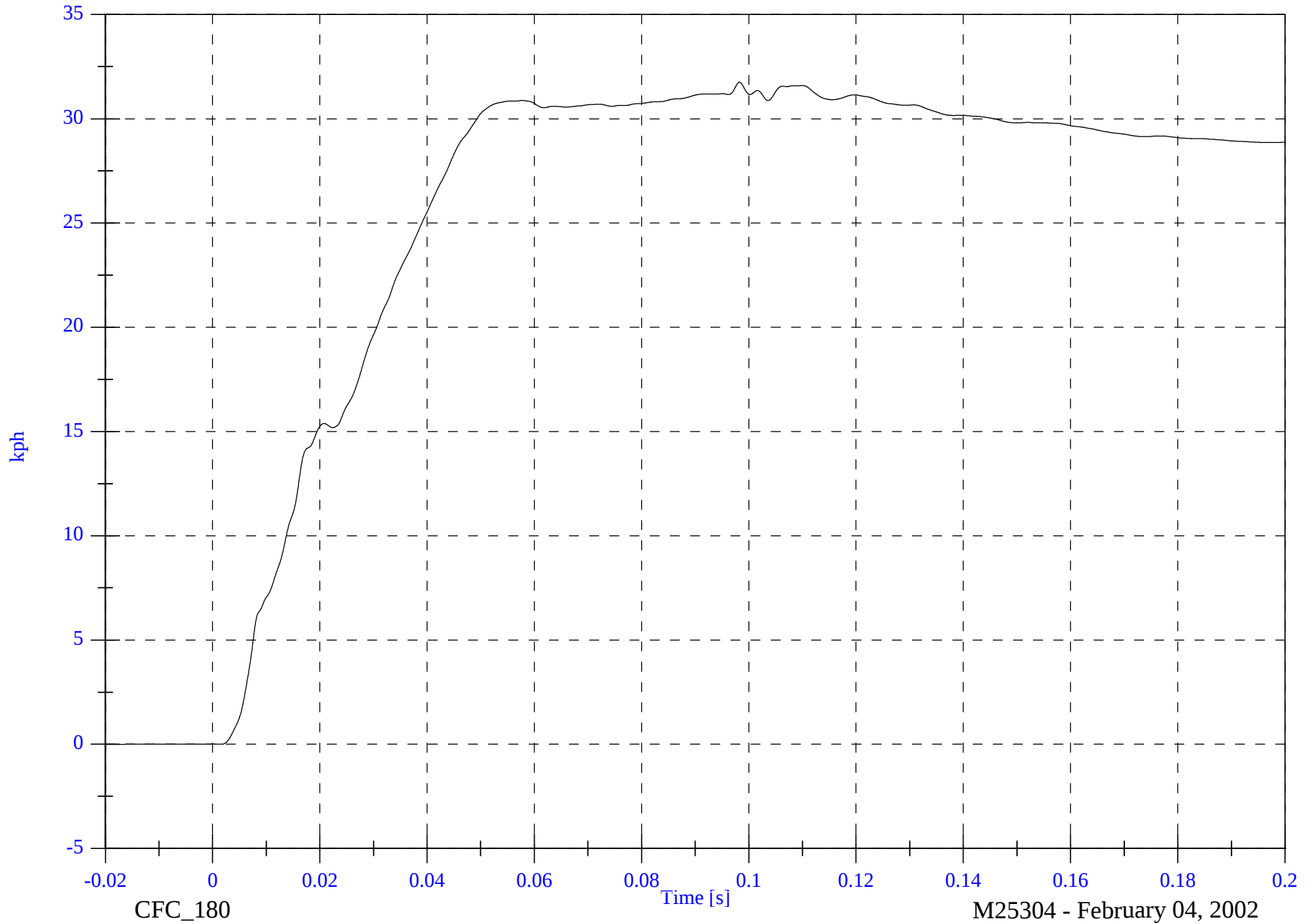


2002 SENCAP Test 1 - 2002 Acura RSX

A19 Right Rear Compartment y Red Velocity

Max: 31.8 [kph] at 0.098 [s]

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



4-67

8652-SENCAP-01

CFC_180

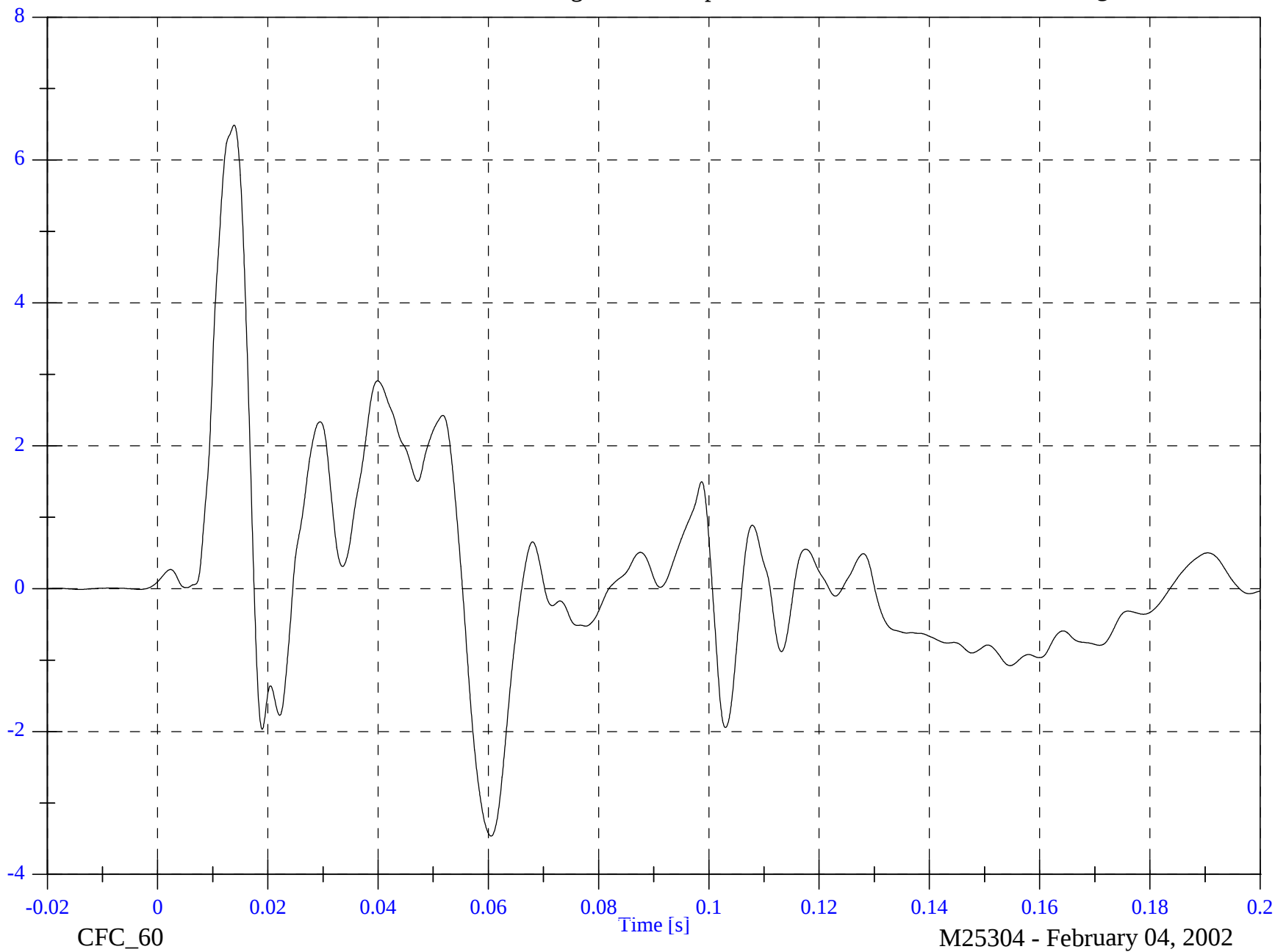
M25304 - February 04, 2002

2002 SNCAP Test 1 - 2002 Acura RSX

A20 Right rear Compartment x

Max: 6.5 [g] at 0.014 [s]

Min: -3.5 [g] at 0.061 [s]



2002 SNCAP Test 1 - 2002 Acura RSX

A20 Right rear Compartment x Velocity

Max: 3.0 [kph] at 0.056 [s]

Min: -0.0 [kph] at 0.010 [s]

4-69

8652-SNCAP-01

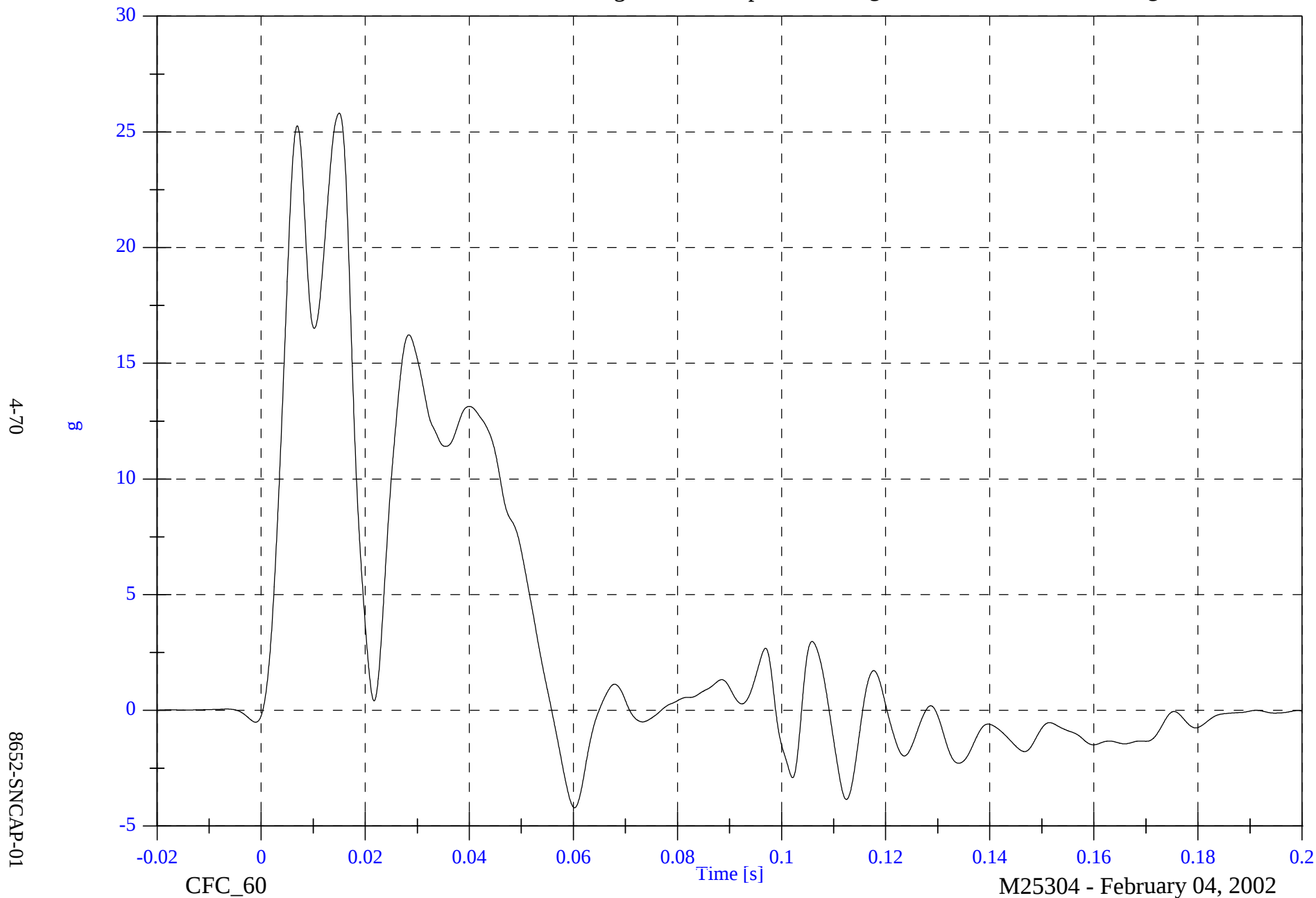


2002 SENCAP Test 1 - 2002 Acura RSX

A21 Right Rear Compartment Angular

Max: 25.8 [g] at 0.015 [s]

Min: -4.2 [g] at 0.060 [s]

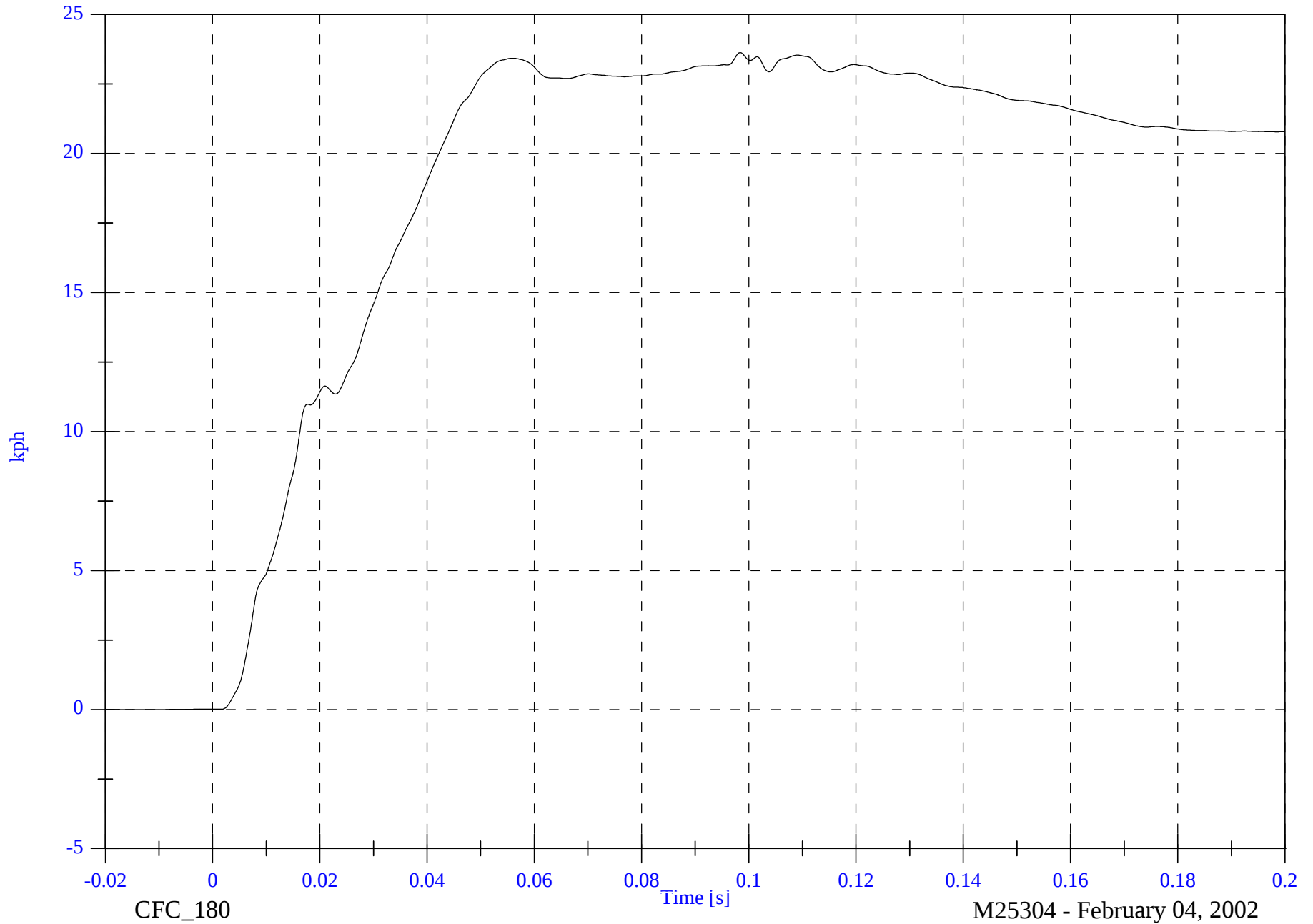


2002 SNCAP Test 1 - 2002 Acura RSX

A21 Right Rear Compartment Angular Velocity

Max: 23.6 [kph] at 0.098 [s]

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



4-71

8652-SNCAP-01

2002 SNCAP Test 1 - 2002 Acura RSX

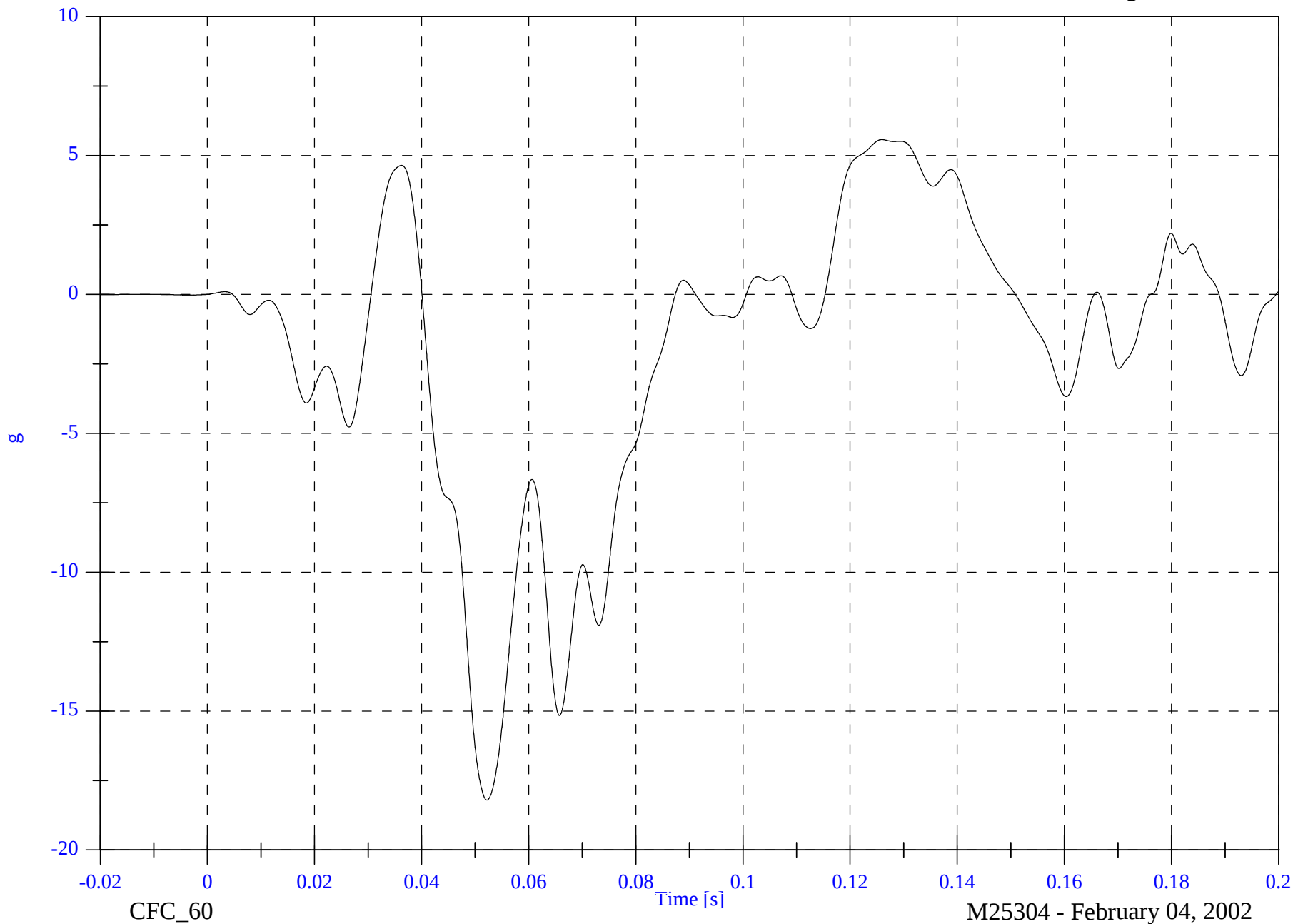
P3 Child Seat x

Max: 5.6 [g] at 0.126 [s]

Min: -18.2 [g] at 0.052 [s]

4-72

8652-SNCAP-01

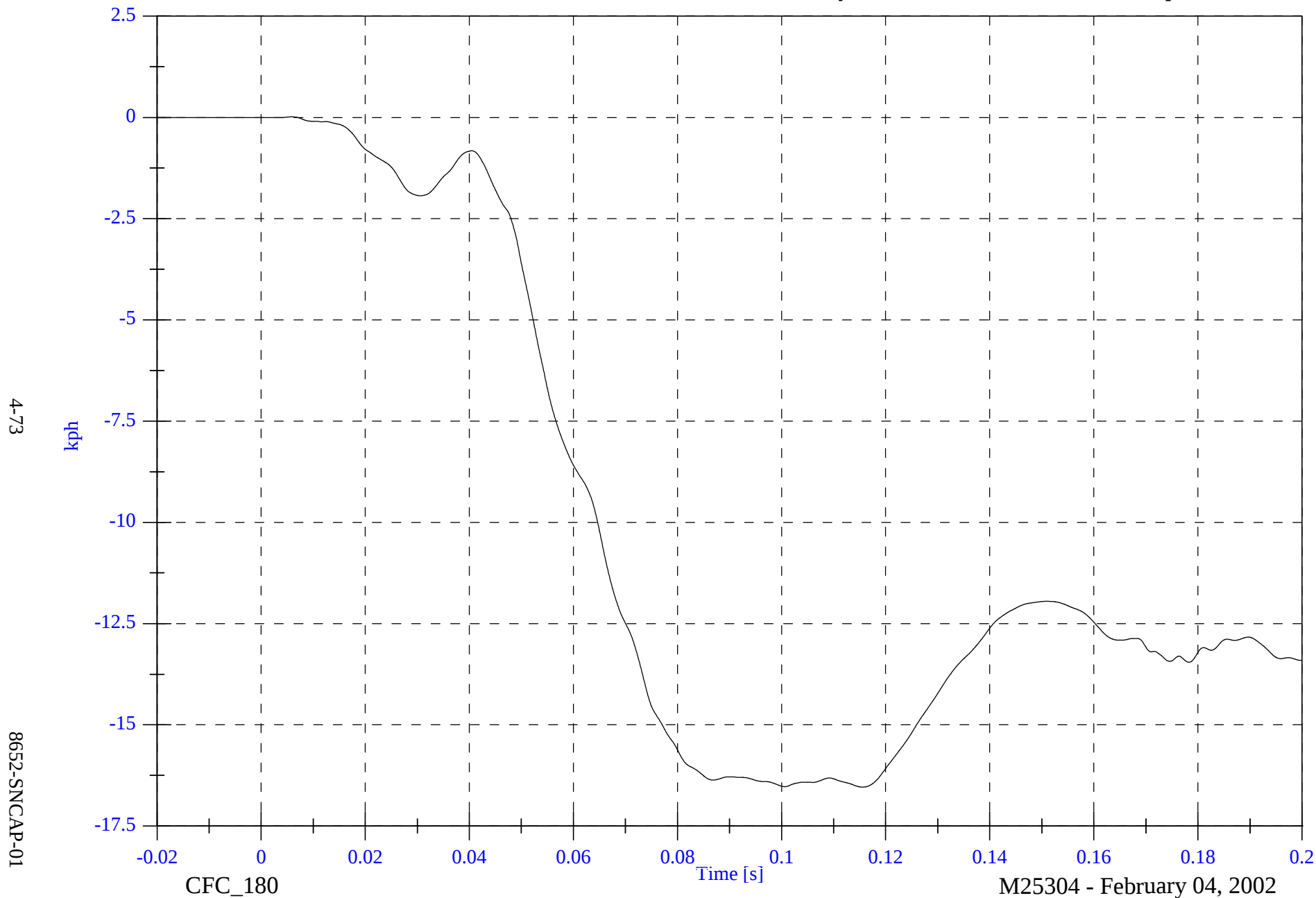


2002 SNCAP Test 1 - 2002 Acura RSX

P3 Child Seat x Velocity

Max: 0.0 [kph] at 0.006 [s]

Min: -16.5 [kph] at 0.116 [s]



2002 SNCAP Test 1 - 2002 Acura RSX

P3 Child Seat y

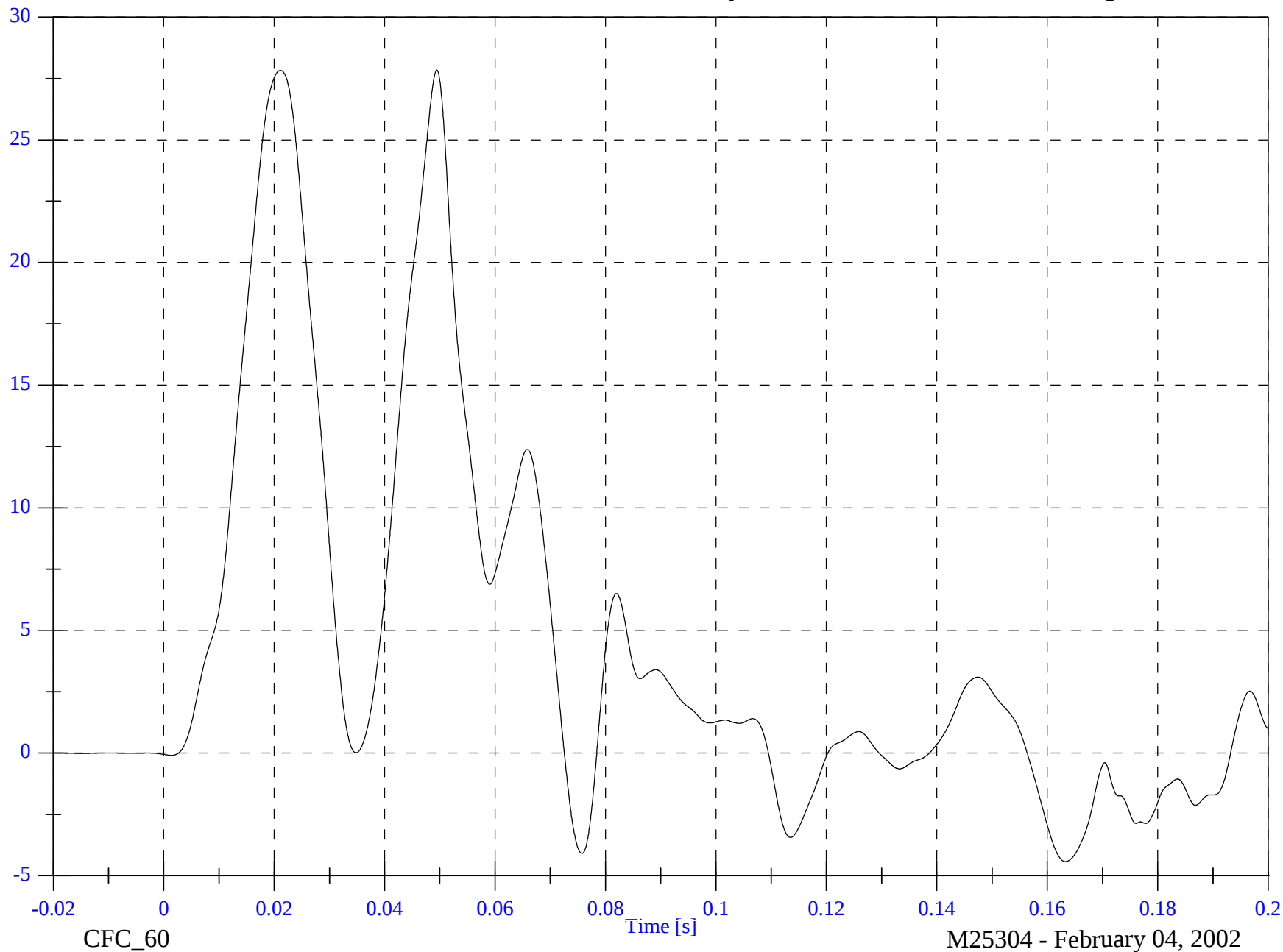
Max: 27.9 [g] at 0.049 [s]

Min: -4.4 [g] at 0.163 [s]

4-74

8652-SNCAP-01

g

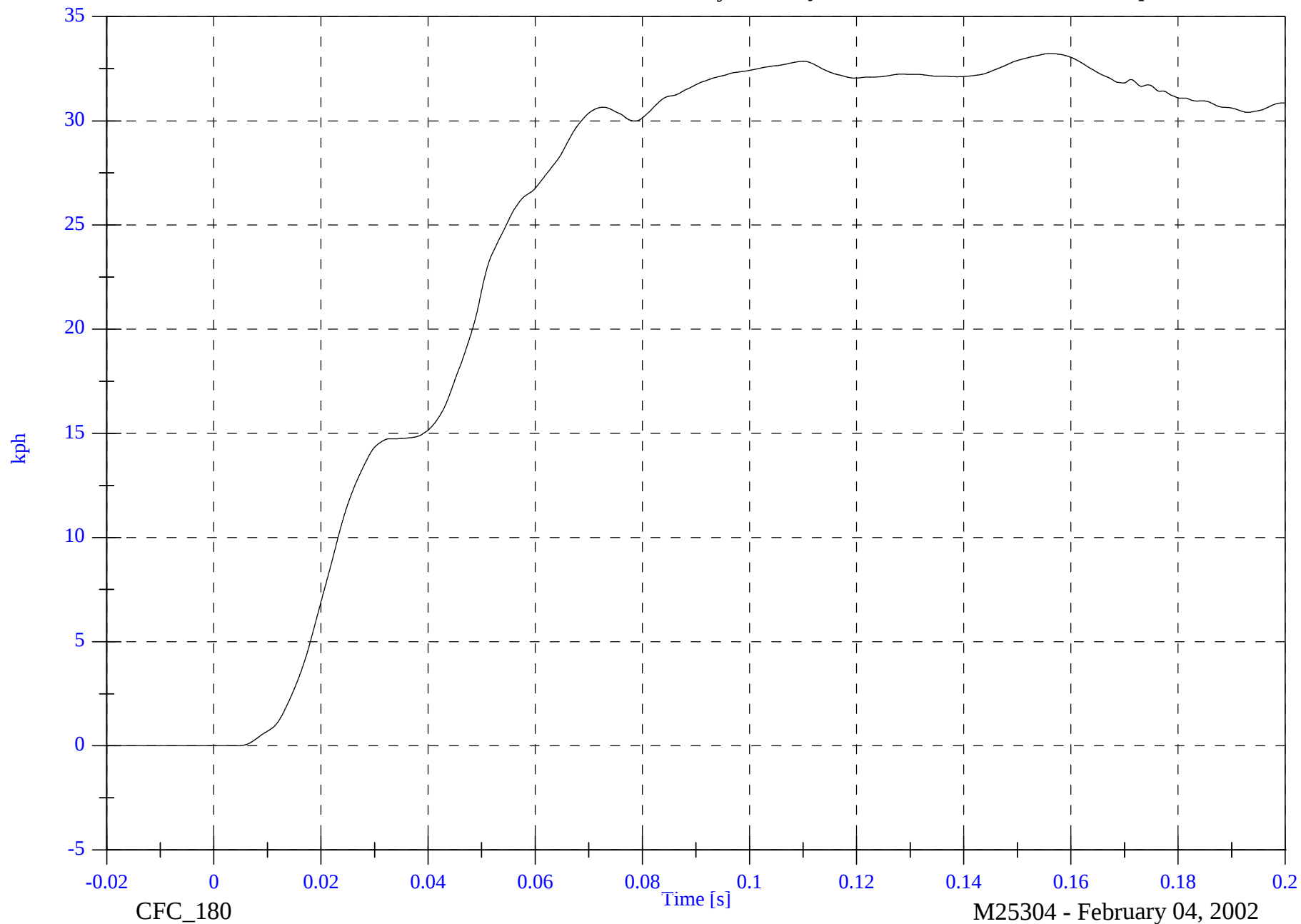


2002 SNCAP Test 1 - 2002 Acura RSX

P3 Child Seat y Velocity

Max: 33.2 [kph] at 0.156 [s]

Min: -0.0 [kph] at -0.003 [s]



4-75

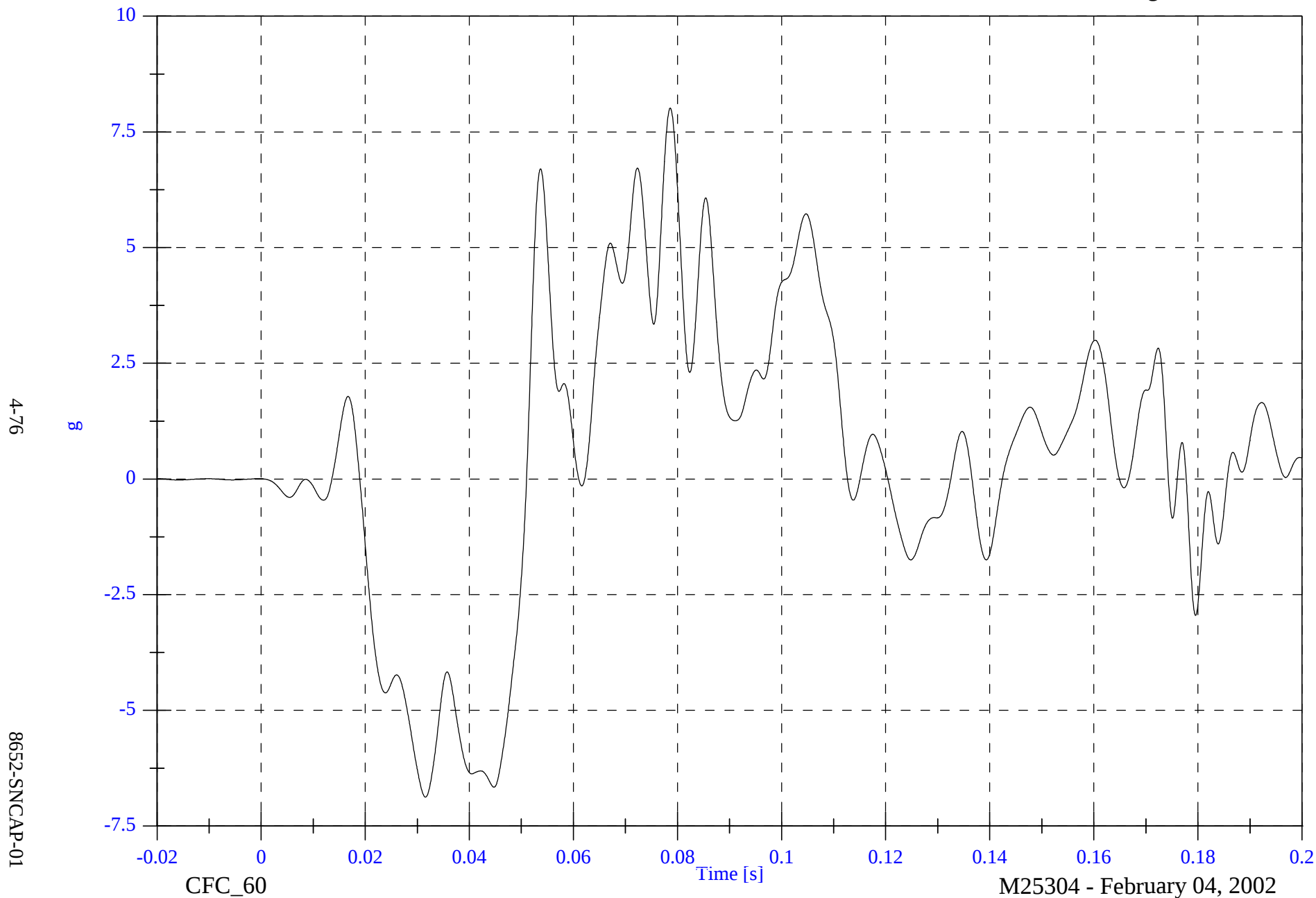
8652-SNCAP-01

2002 SNCAP Test 1 - 2002 Acura RSX

P3 Child Seat z

Max: 8.0 [g] at 0.079 [s]

Min: -6.9 [g] at 0.032 [s]



2002 SNCAP Test 1 - 2002 Acura RSX

P3 Child Seat z Velocity

Max: 3.8 [kph] at 0.178 [s]

Min: -5.6 [kph] at 0.052 [s]



4-77

8652-SNCAP-01

2002 SNCAP Test 1 - 2002 Acura RSX

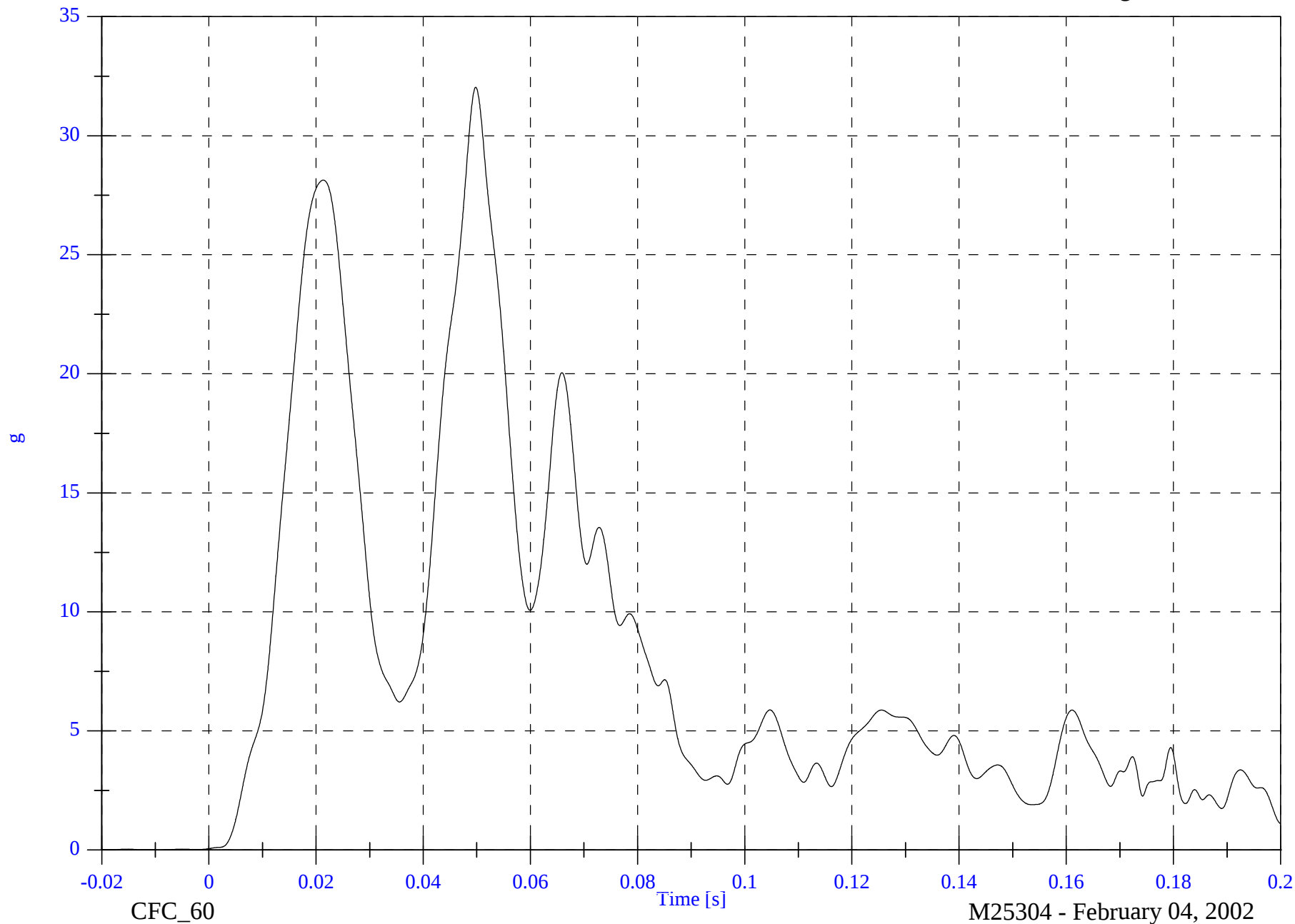
P3 Child Seat Resultant

Max: 32.0 [g] at 0.050 [s]

Min: 0.0 [g] at -0.009 [s]

4-78

8652-SNCAP-01



2002 SNCAP Test 1 - 2002 Acura RSX

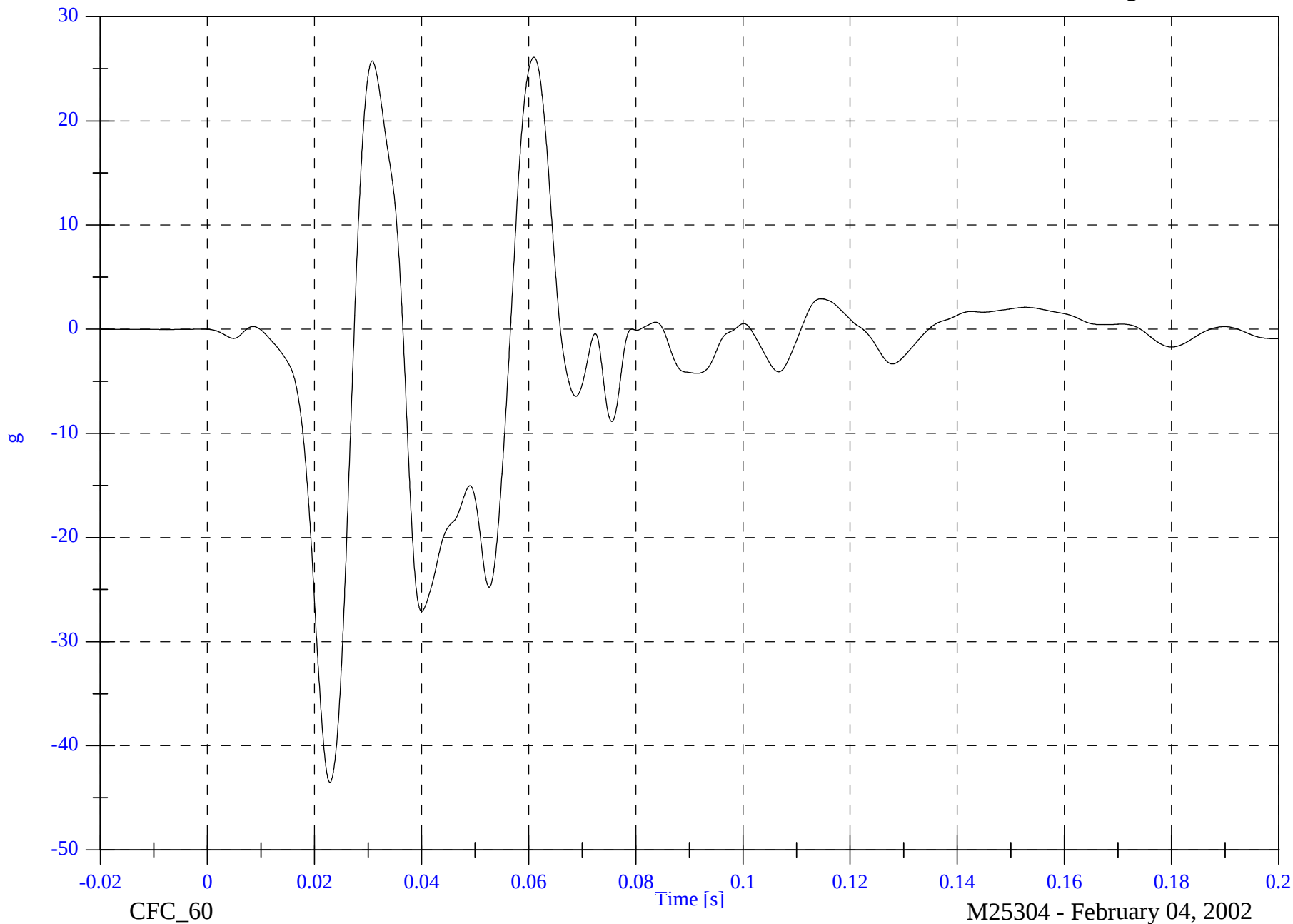
P4 Child Seat x

Max: 26.1 [g] at 0.061 [s]

Min: -43.5 [g] at 0.023 [s]

4-79

8652-SNCAP-01



2002 SNCAP Test 1 - 2002 Acura RSX

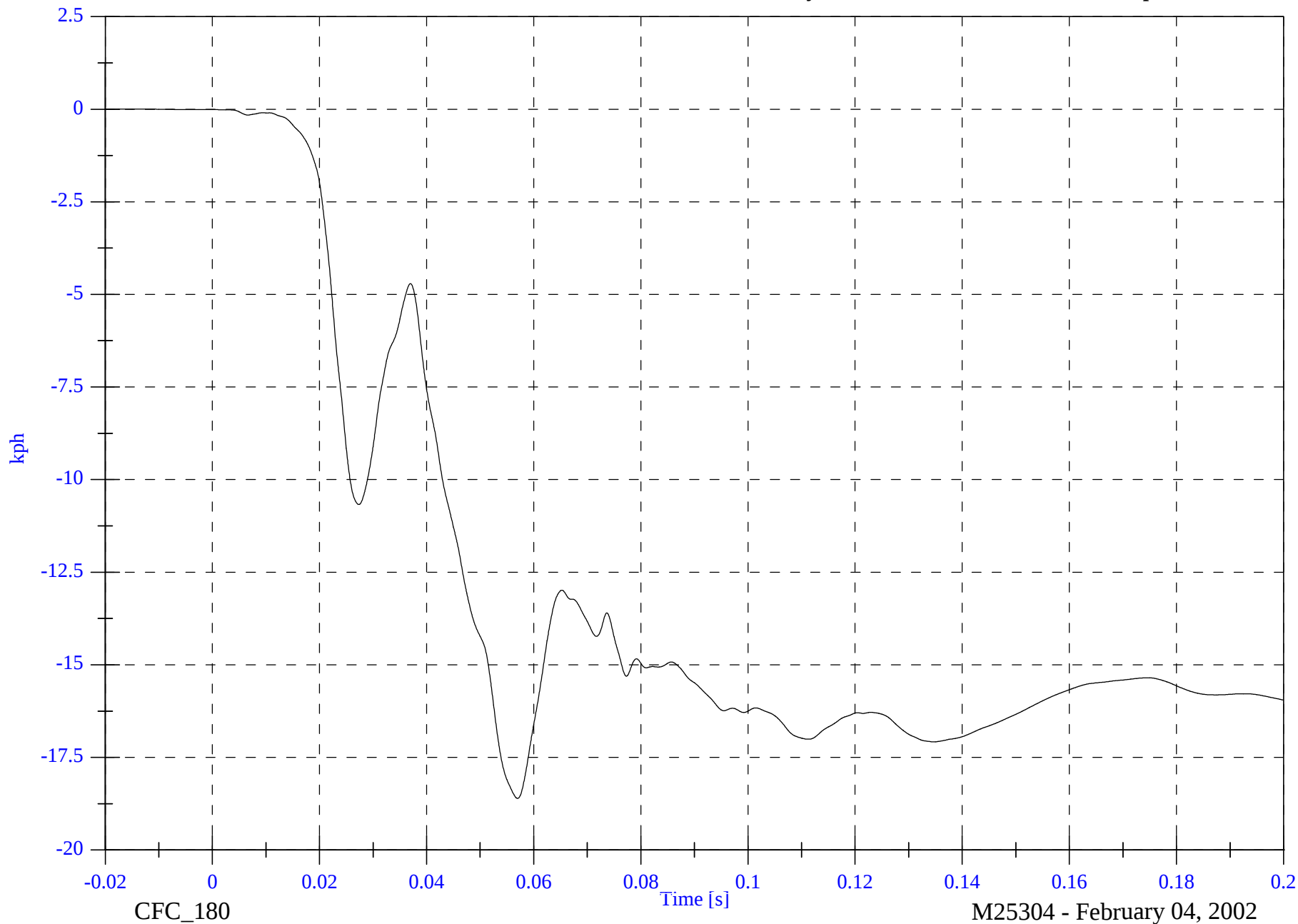
P4 Child Seat x Velocity

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

Min: -18.6 [kph] at 0.057 [s]

4-80

8652-SNCAP-01

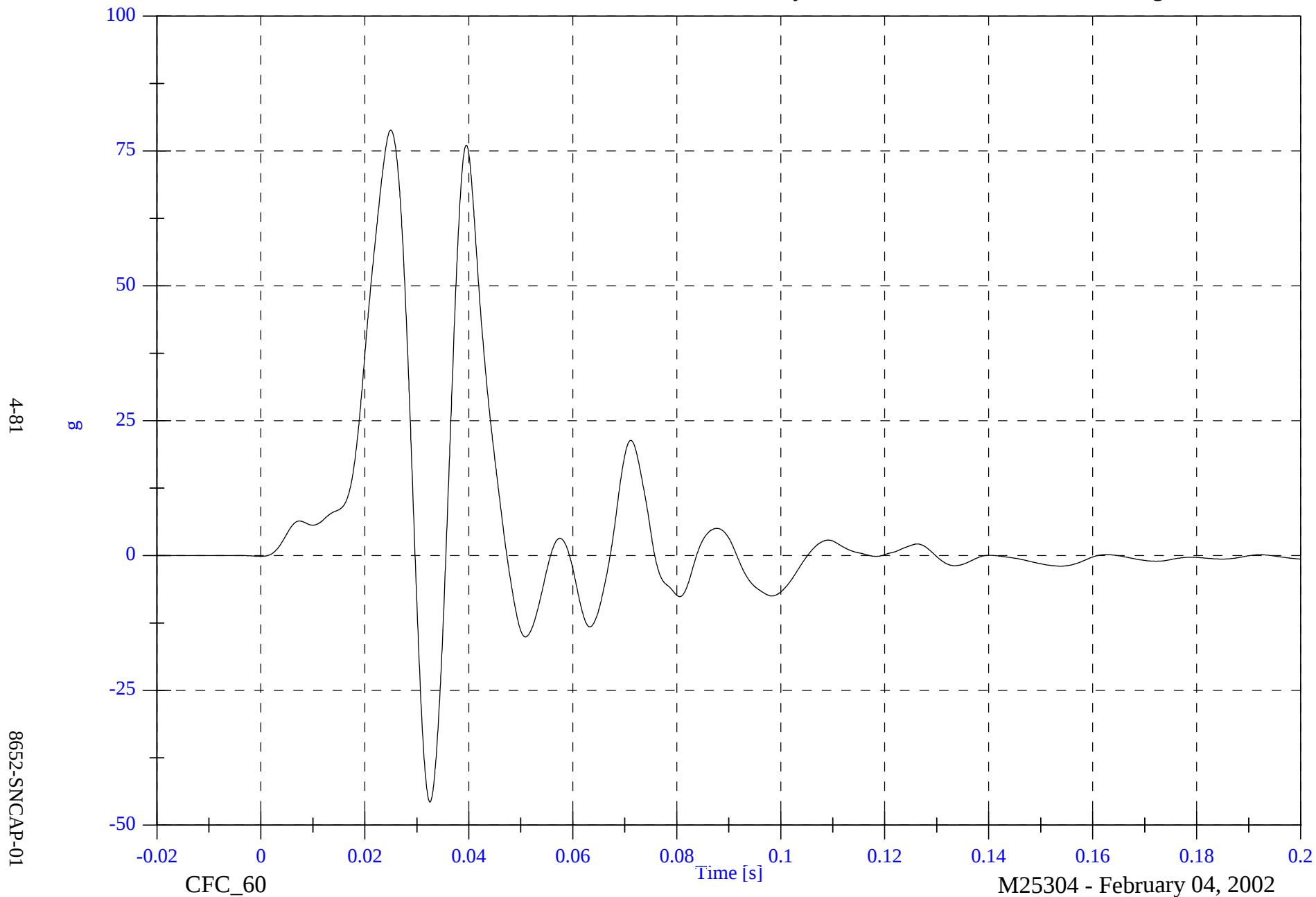


2002 SNCAP Test 1 - 2002 Acura RSX

P4 Child Seat y

Max: 78.9 [g] at 0.025 [s]

Min: -45.7 [g] at 0.033 [s]



2002 SNCAP Test 1 - 2002 Acura RSX

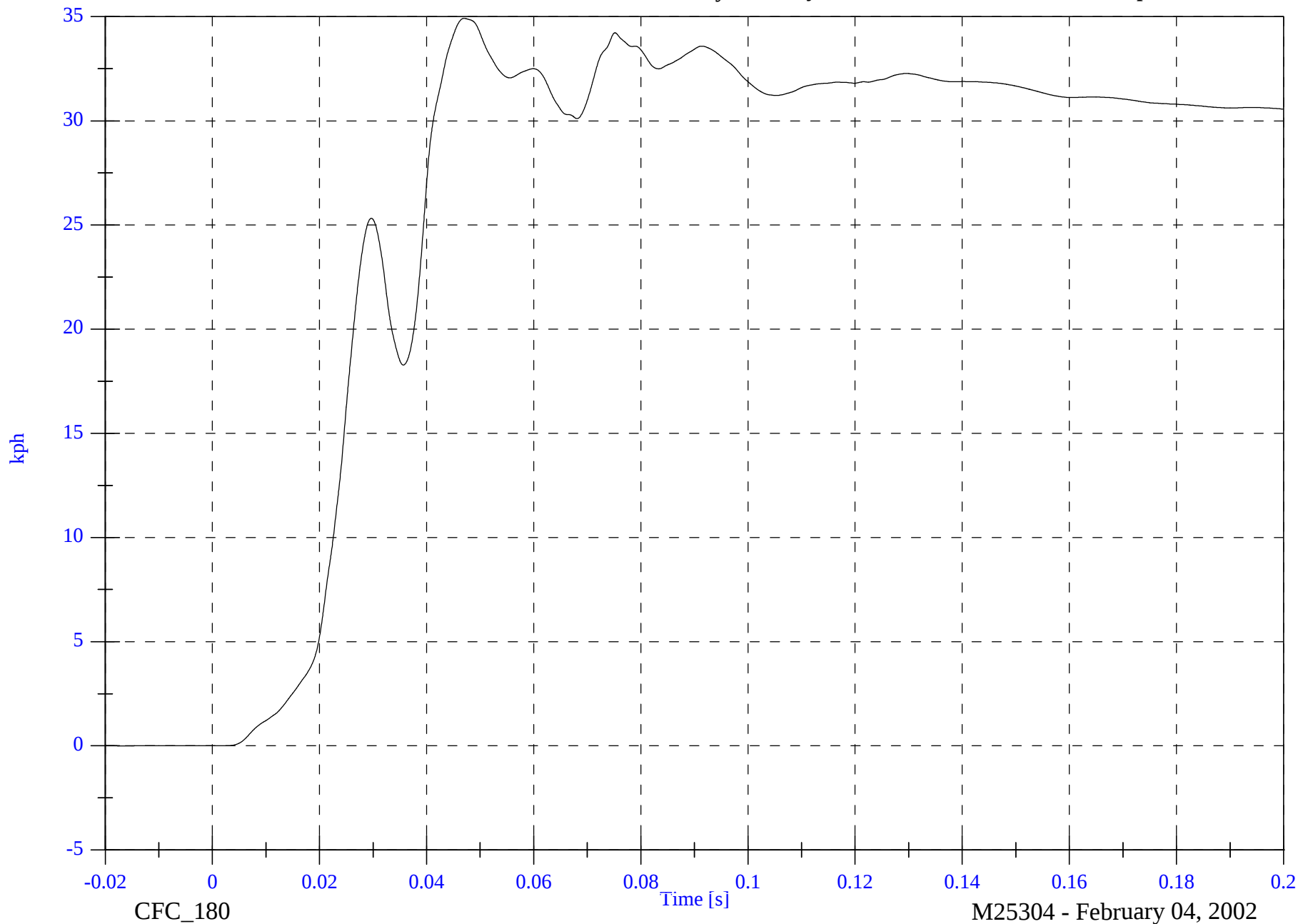
P4 Child Seat y Velocity

Max: 34.9 [kph] at 0.047 [s]

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

4-82

8652-SNCAP-01



2002 SNCAP Test 1 - 2002 Acura RSX

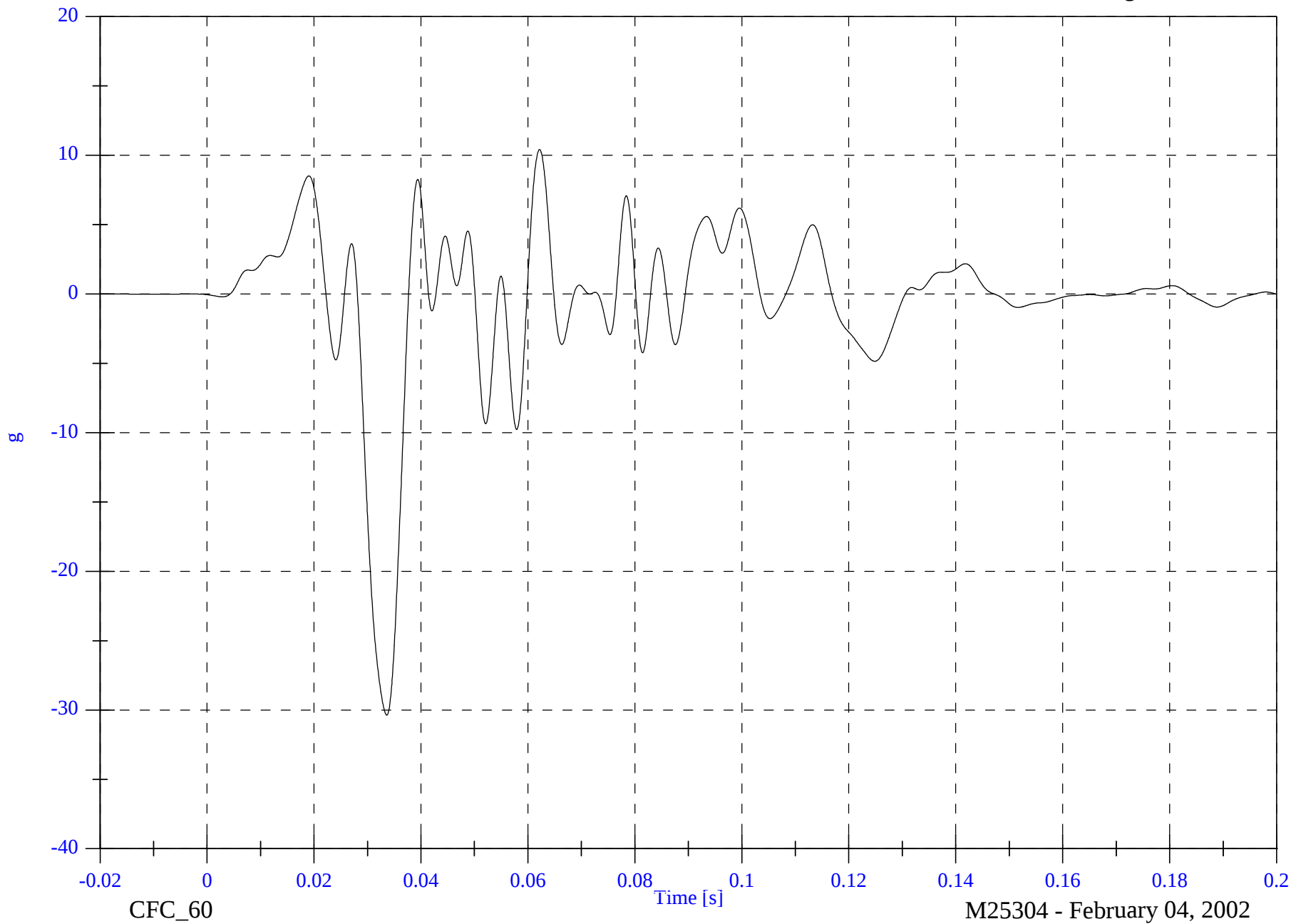
P4 Child seat z

Max: 10.4 [g] at 0.062 [s]

Min: -30.4 [g] at 0.034 [s]

4-83

8652-SNCAP-01



2002 SNCAP Test 1 - 2002 Acura RSX

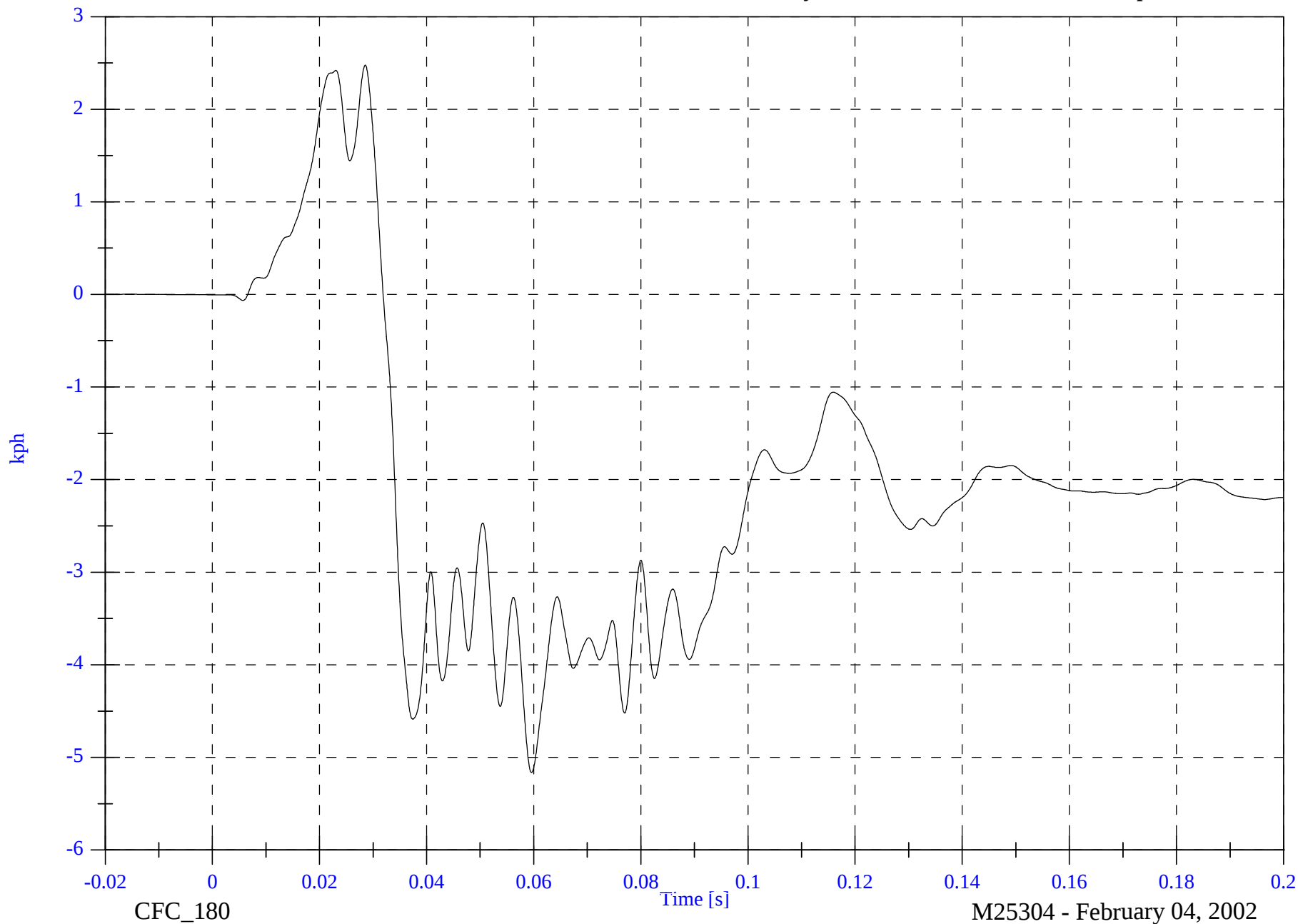
P4 Child seat z Velocity

Max: 2.5 [kph] at 0.029 [s]

Min: -5.2 [kph] at 0.060 [s]

4-84

8652-SNCAP-01

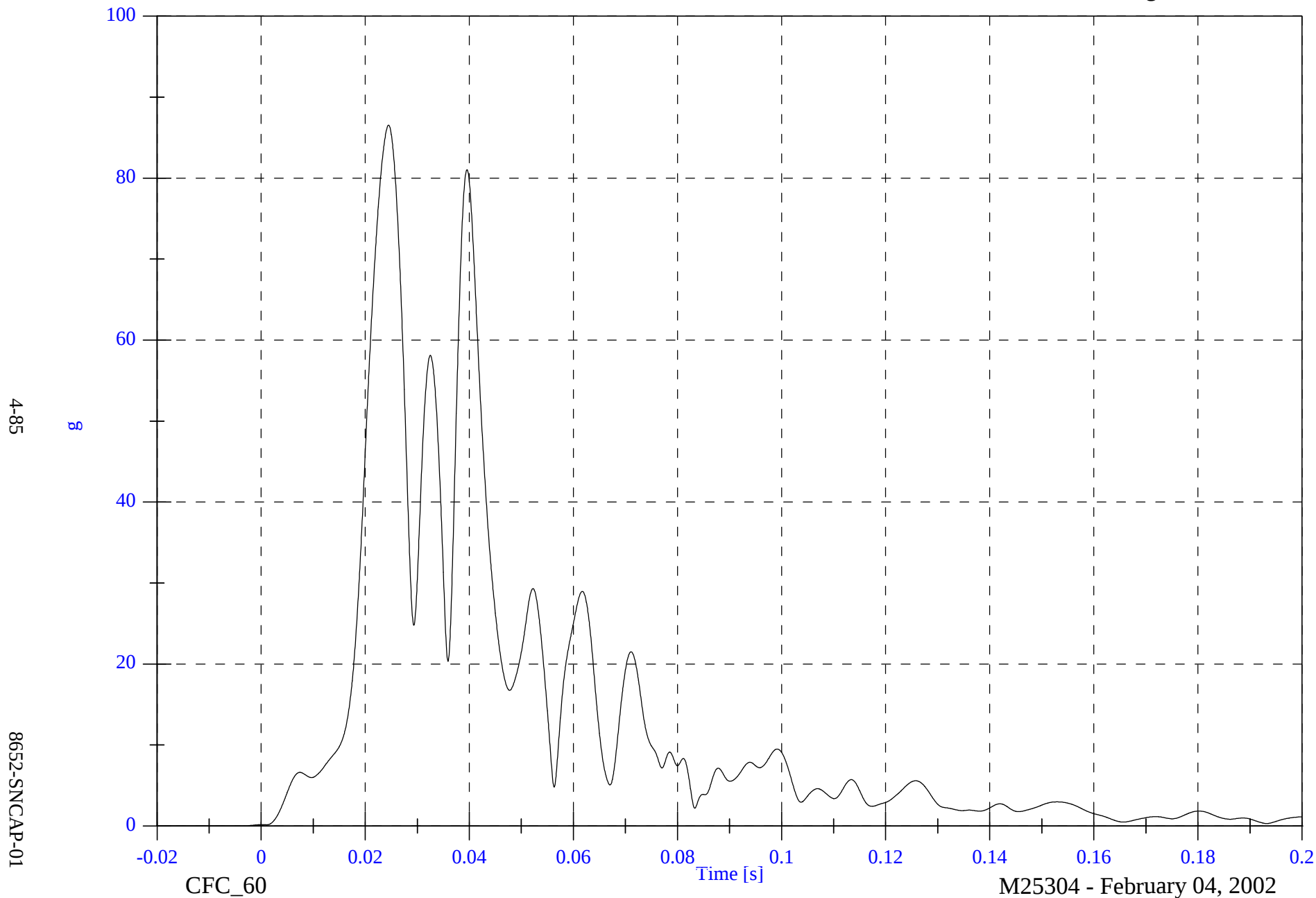


2002 SNCAP Test 1 - 2002 Acura RSX

P4 Child Seat Resultant

Max: 86.6 [g] at 0.025 [s]

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



SECTION 5

CHILD DUMMY CALIBRATION INFORMATION

ATD's Certified by VRTC Prior to Test Program
Data included in bound report

SECTION 6

TEST EQUIPMENT LIST AND CALIBRATION INFORMATION

TEST EQUIPMENT LIST AND CALIBRATION INFORMATION

P572C INSTRUMENTATION

	POSITION #3 (RIGHT) SERIAL NO.: 042		
	SERIAL NUMBER	MANUFACTURER	CALIBRATION DATE
HEAD AX	98H10-F10	ENTRAN	27-Dec-01
HEAD AY	98H10-F12	ENTRAN	26-Dec-01
HEAD AZ	AJ4L1	ENDEVCO	27-Dec-01
HEAD RAZ	ADAT0	ENDEVCO	27-Dec-01
UPPER NECK FX	215-Fx	Denton	5-Jan-02
UPPER NECK FY	215-Fy	Denton	5-Jan-02
UPPER NECK FZ	215-Fz	Denton	5-Jan-02
UPPER NECK MX	215-Mx	Denton	5-Jan-02
UPPER NECK MY	215-My	Denton	5-Jan-02
UPPER NECK MZ	215-Mz	Denton	5-Jan-02
LOWER NECK FX	213-FX	Denton	7-Jan-02
LOWER NECK FY	213-Fy	Denton	7-Jan-02
LOWER NECK FZ	213-Fz	Denton	7-Jan-02
LOWER NECK MX	213-Mx	Denton	7-Jan-02
LOWER NECK MY	213-My	Denton	7-Jan-02
LOWER NECK MZ	213-Mz	Denton	7-Jan-02
CHEST AX	J19547	ENDEVCO	27-Dec-01
CHEST AY	CC92H	ENDEVCO	27-Dec-01
CHEST AZ	J26976	ENDEVCO	27-Dec-01
CHEST DISPLACEMENT X	42	SERVO	4-Jan-02
PELVIS AX	BE95J	ENDEVCO	27-Dec-01
PELVIS AY	DE54J	ENDEVCO	27-Dec-01
PELVIS AZ	99H12-F30	ENTRAN	27-Dec-01
TETHER	635	LEBOW	24-Aug-01

TEST EQUIPMENT LIST AND CALIBRATION INFORMATION

P572C INSTRUMENTATION

	POSITION #4 (LEFT) SERIAL NO.: 142		
	SERIAL NUMBER	MANUFACTURER	CALIBRATION DATE
HEAD AX	99108-F29	ENTRAN	9-Jan-02
HEAD AY	99102-F12	ENTRAN	9-Jan-02
HEAD AZ	00L13-F03	ENTRAN	9-Jan-02
HEAD RAZ	98G18-F18	ENTRAN	9-Jan-02
UPPER NECK FX	121-Fx	Denton	8-Nov-00
UPPER NECK FY	121-Fy	Denton	8-Nov-00
UPPER NECK FZ	121-Fz	Denton	8-Nov-00
UPPER NECK MX	121-Mx	Denton	8-Nov-00
UPPER NECK MY	121-My	Denton	8-Nov-00
UPPER NECK MZ	121-Mz	Denton	8-Nov-00
LOWER NECK FX	120-Fx	Denton	6-Nov-00
LOWER NECK FY	120-Fy	Denton	6-Nov-00
LOWER NECK FZ	120-Fz	Denton	6-Nov-00
LOWER NECK MX	120-Mx	Denton	6-Nov-00
LOWER NECK MY	120-My	Denton	6-Nov-00
LOWER NECK MZ	120-Mz	Denton	6-Nov-00
CHEST AX	99H30-Z04	ENTRAN	9-Jan-02
CHEST AY	99108-F28	ENTRAN	9-Jan-02
CHEST AZ	99108-F30	ENTRAN	9-Jan-02
CHEST DISPLACEMENT X	142	SERVO	4-Jan-02
PELVIS AX	99102-F06	ENTRAN	9-Jan-02
PELVIS AY	99102-F15	ENTRAN	9-Jan-02
PELVIS AZ	99G29-Q13	ENTRAN	9-Jan-02
TETHER	706	LEBOW	24-Aug-01

TEST EQUIPMENT LIST AND CALIBRATION INFORMATION

VEHICLE AND MDB INSTRUMENTATION

	VEHICLE AND MDB INSTRUMENTS		
	SERIAL NUMBER	MANUFACTURER	CALIBRATION DATE
RIGHT REAR COMPARTMENT (Y)	J32383	ENDEVCO	5-Sep-01
RIGHT REAR COMPARTMENT (X)	J32787	ENDEVCO	21-Aug-01
RIGHT REAR COMPARTMENT ANGLED	J32098	ENDEVCO	5-Sep-01
P3 CRS (X)	J31009	ENDEVCO	21-Sep-01
P3 CRS (Y)	J31042	ENDEVCO	21-Sep-01
P3 CRS (Z)	J33030	ENDEVCO	16-Aug-01
P4 CRS (X)	J27941	ENDEVCO	16-Aug-01
P4 CRS (Y)	J32176	ENDEVCO	21-Sep-01
P4 CRS (Z)	ACC06	ENDEVCO	25-Sep-01

REMARKS: None