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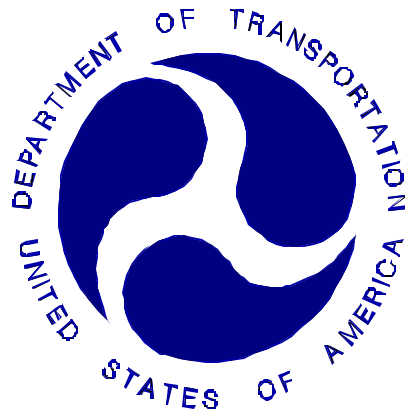
**SAFETY COMPLIANCE TESTING FOR FMVSS 214
SIDE IMPACT PROTECTION
INDICANT**

MITSUBISHI MOTORS NORTH AMERICA, INC.
2004 MITSUBISHI GALANT
4-DOOR SEDAN

NHTSA NUMBER: C45602

ADVANCED INFORMATION ENGINEERING SERVICES TEST NUMBER: 8675-F214-15

GENERAL DYNAMICS
ADVANCED INFORMATION ENGINEERING SERVICES
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March 24, 2004

FINAL REPORT

U. S. DEPARTMENT OF TRANSPORTATION
National Highway Traffic Safety Administration
Enforcement
Office of Vehicle Safety Compliance
400 Seventh Street, SW
Room 6111 (NVS-220)
Washington, DC 20590

This Final Test Report was prepared for the U.S. Department of Transportation, National Highway Traffic Safety Administration, under Contract No. DTNH22-02-D-01114. This publication is distributed by the U.S. Department of Transportation, National Highway Traffic Safety Administration, in the interest of information exchange. The opinions, findings and conclusions expressed in this publication are those of the author(s) and not necessarily those of the Department of Transportation or the National Highway Traffic Safety Administration. The United States Government assumes no liability for its contents or use thereof. If trade or manufactures' names or products are mentioned, it is only because they are considered essential to the object of the publication and should not be construed as an endorsement. The United States Government does not endorse products or manufacturers.

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16. Abstract A 55/28 kph 90° Side Impact (Moving Deformable Barrier) Indicant Test was conducted on the subject Mitsubishi Galant 4-Door Sedan. This test was performed at the New Car Assessment Program (NCAP) target test velocity of 62.0 kph, which is 8 kph faster than the target velocity required by the Office of Vehicle Safety Compliance's Laboratory Test Procedure (TP-214D-06, dated July 26, 2001). This test was conducted at the Advanced Information Engineering Services Crash Test Facility in Buffalo, New York, on March 24, 2004. The impact velocity of the Moving Deformable Barrier (MDB) was 61.8 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 238 mm at level 2. The test or target vehicle's performance is given below: <table border="0"> <thead> <tr> <th></th> <th><u>Front SID H3</u></th> <th></th> <th><u>Rear SID H3</u></th> <th></th> </tr> </thead> <tbody> <tr> <td>Left Upper Rib Acceleration:</td> <td>47.5</td> <td>g's</td> <td>53.4</td> <td>g's</td> </tr> <tr> <td>Left Lower Rib Acceleration:</td> <td>47.6</td> <td>g's</td> <td>51.4</td> <td>g's</td> </tr> <tr> <td>Lower Spine Acceleration:</td> <td>59.2</td> <td>g's</td> <td>62.4</td> <td>g's</td> </tr> <tr> <td>Thoracic Trauma Index (TTI):</td> <td>53</td> <td>g's</td> <td>58</td> <td>g's</td> </tr> <tr> <td>Pelvis Acceleration (PEV):</td> <td>50</td> <td>g's</td> <td>51</td> <td>g's</td> </tr> </tbody> </table> The two doors on the struck side of the vehicle did not separate from the body at the hinges or latches and the opposite doors did not open during the side impact event.							<u>Front SID H3</u>		<u>Rear SID H3</u>		Left Upper Rib Acceleration:	47.5	g's	53.4	g's	Left Lower Rib Acceleration:	47.6	g's	51.4	g's	Lower Spine Acceleration:	59.2	g's	62.4	g's	Thoracic Trauma Index (TTI):	53	g's	58	g's	Pelvis Acceleration (PEV):	50	g's	51	g's
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SECTION 1

PURPOSE AND TEST PROCEDURE

This side impact test is part of the FMVSS 214 Side Impact Protection Compliance Test Program sponsored by the National Highway Traffic Safety Administration (NHTSA) under Contract No. DTNH22-02-D-01114. The purpose of this indicant test was to evaluate side impact protection in a 2004 Mitsubishi Galant 4-Door Sedan when tested at the New Car Assessment Program (NCAP) target test velocity of 62.0 kph, which is 8 kph faster than the target velocity required by the Office of Vehicle Safety Compliance's Laboratory Test Procedure (TP-214D-06, dated July 26, 2001).

SECTION 2

SUMMARY OF SIDE IMPACT TEST

This Side Impact Protection Indicant Test was performed at the New Car Assessment Program (NCAP) target test velocity of 62.0 kph, which is 8 kph faster than the target velocity required by the Office of Vehicle Safety Compliance's Laboratory Test Procedure (TP-214D-06, dated July 26, 2001).

A 2004 Mitsubishi Galant 4-Door Sedan was impacted on the left or driver's side by a Moving Deformable Barrier (MDB) which was moving forward in a 27° crabbed position to the monorail at a velocity of 61.8 kph (38.4 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 Advanced Information Engineering Services Transportation Sciences Center in Buffalo, New York on March 24, 2004. Pre- and post-test photographs of the test vehicle, the moving deformable barrier (MDB), and the Side Impact Hybrid III Dummies (SID H3s) are included in Appendix A.

Two restrained Side Impact Hybrid III Dummies (SID H3s) were placed in the driver (Pos. #1) and left rear (Pos. #4) designated seating positions according to the instructions specified in the OCWS Side Impact Laboratory Test Procedure which is dated July, 1997. The side impact test was documented by one real-time camera and 9 high-speed cameras. Camera locations and other pertinent camera information are included in this report.

The SID H3s were instrumented with the following accelerometers:

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

A summary of the Side Impact Hybrid III Dummy (SID H3) configuration and verification test data can be found in Appendix C. A total of 60 channels of data were recorded. Appendix B contains the vehicle, MDB and dummy response data traces.

The following table summarizes the results of the test.

Injury Criteria	Front SID H3	Rear SID H3
TTI (g)	53	58
PEV (g)	50	51

AIR BAG DEPLOYMENT STATUS

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

AUTOMATIC DOOR LOCK SUMMARY

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

SECTION 3

SUMMARY OF TEST RESULTS

DATA SHEET 1

GENERAL TEST AND VEHICLE PARAMETER DATA

TEST VEHICLE INFORMATION:

Year/Make/Model/Body Style: 2004 Mitsubishi Galant 4-Door Sedan

Vehicle Body Color: Green VIN: 4A3AB26F14E072837

Vehicle NHTSA No.: C45602 Month & Year of Manufacture: Nov 2003

Engine Data: 4 Cylinders; - CID; 2.4 Liters; - cc

Engine Placement: - Longitudinal; or X Lateral

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

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

Odometer Reading 19 km

Supplemental Airbag Restraints:

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

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

Options:

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

DATA FROM TIRE PLACARD

Recommended Tire Size: P215/60R16

* Recommended Cold Tire Pressure: 220 kpa FRONT; 220 kpa REAR

DATA FROM TIRE SIDEWALL:

Size of Tires on Test Vehicle: P215/60R16 94H ; Manufacturer: Bridgestone

Tire Pressure with Maximum Capacity Vehicle Load: Front: 275 kPa; Rear: 275 kPa

Treadwear: 260 ; Traction: A ; Temperature: A

VEHICLE CAPACITY DATA:

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

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

Type of Rear Seats: - Bucket; X Bench; - Split Bench; X Contoured

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

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

Vehicle Max Capacity Loading = 375.0 kg (A)

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

Vehicle Cargo Capacity = 34.8 kg (A-B)

TEST VEHICLE DELIVERED WEIGHT WITH MAXIMUM FLUIDS:

Left Front = 466.0 kg Left Rear = 314.0 kg

Right Front = 460.0 kg Right Rear = 310.0 kg

TOTAL FRONT = 926.0 kg TOTAL REAR = 624.0 kg

% of Total Weight = 59.7 % % of Total Weight = 40.3 %

TOTAL WEIGHT = 1550.0 kg

* Tire pressure used in test.

DATA SHEET 1 (continued)

GENERAL TEST VEHICLE PARAMETER DATA

Vehicle: 2004 Mitsubishi Galant 4-Door Sedan

NHTSA No. C45602

CALCULATION OF VEHICLE'S TARGET TEST WEIGHT:

Total Test Vehicle Delivered Weight with Max. Fluids	=	<u>1550.0</u>	kg (A)
Maximum Cargo Carrying Capacity of Test Vehicle	=	<u>34.8</u>	kg (B)
Weight of instrumented SID H3 Dummies (2 X 81.2 kg)	=	<u>162.4</u>	kg (C)
TEST VEHICLE TARGET WEIGHT:	=	<u>1747.2</u>	kg (A+B+C)

FULLY LOADED TEST VEHICLE (UDVW + 2 SID H3s + CARGO):

Left Front	=	<u>515.0</u>	kg	Left Rear	=	<u>404.0</u>	kg
Right Front	=	<u>460.0</u>	kg	Right Rear	=	<u>366.0</u>	kg
TOTAL FRONT	=	<u>975.0</u>	kg	TOTAL REAR	=	<u>770.0</u>	kg
% of Total Weight	=	<u>55.9%</u>	%	% of Total Weight	=	<u>44.1%</u>	%
TOTAL TEST WEIGHT =		<u>1745.0</u>	kg				

AS TESTED WEIGHT OF TEST VEHICLE (2 SID H3s + CARGO + EQUIPMENT & INSTRUMENTATION):

Left Front	=	<u>511.0</u>	kg	Left Rear	=	<u>398.5</u>	kg
Right Front	=	<u>461.0</u>	kg	Right Rear	=	<u>368.5</u>	kg
TOTAL FRONT	=	<u>972.0</u>	kg	TOTAL REAR	=	<u>767.0</u>	kg
% of Total Weight	=	<u>55.9%</u>	%	% of Total Weight	=	<u>44.1%</u>	%
TOTAL TEST WEIGHT =		<u>1739</u>	kg				

TEST VEHICLE ATTITUDE (all dimensions in millimeters):

AS DELIVERED:

Left Front	<u>755</u>	Right Front	<u>760</u>	Left Rear	<u>735</u>	Right Rear	<u>737</u>
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FULLY LOADED:

Left Front	<u>738</u>	Right Front	<u>753</u>	Left Rear	<u>696</u>	Right Rear	<u>714</u>
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READY FOR TEST:

Left Front	<u>742</u>	Right Front	<u>754</u>	Left Rear	<u>703</u>	Right Rear	<u>714</u>
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Test Vehicle Wheelbase: 2752 millimeters

C.G. = 1213.79 millimeters rearward of front wheel centerline

TOTAL VEHICLE LENGTH:

Right Side =	<u>4720</u>	millimeters
Left Side =	<u>4720</u>	millimeters
Centerline =	<u>4845</u>	millimeters

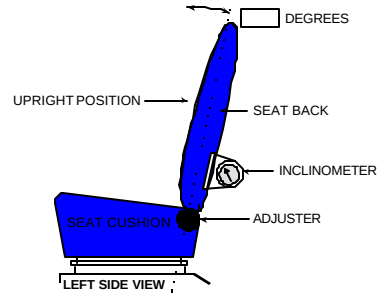
DATA SHEET 1 (continued)

GENERAL TEST VEHICLE PARAMETER DATA

Vehicle: 2004 Mitsubishi Galant 4-Door Sedan

NHTSA No. C45602

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: The seat was placed in mid-position (110 mm or detent 11)

Total Length of Adjustment Travel: 220 millimeters

Total Number of Adjustment Positions or Detents: 23 (numbered 0 to 22)

FRONT SEAT BACK ADJUSTMENT POSITION: Seven detents rearward from full up (0)

Seat Back Torso Angle: 25 degrees

SECOND POSITION SEAT:

Total Length of Fore/Aft Adjustment Travel: N/A millimeters

Seat Back Adjustment Position: N/A

ADJUSTABLE STEERING COLUMN POSITION: Placed in mid-tilt (20.5 degrees)

WINDOW POSITIONS: Left Front: Closed Left Rear: Closed

Right Front: Open Right Rear: Removed

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

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

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

Comments: None

AMOUNT OF STODDARD SOLVENT IN FUEL TANK:

67 liters (Fuel Tank Usable Capacity)

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

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

Wheelbase = 2752 millimeters

Impact Point is 436 millimeters rearward of front axle centerline

(which is 940 millimeters forward of the wheelbase midpoint)

Actual Impact Point is 436 millimeters rearward of front axle centerline

DATA SHEET 2

TEST VEHICLE SUMMARY OF RESULTS

VEHICLE IDENTIFICATION:

Vehicle Year/Make/Model: 2004 Mitsubishi Galant

Body Style: 4-Door Sedan

VIN: 4A3AB26F14E072837

NHTSA No.: C45602

Test Date: March 24, 2004

Overall Length = 4845 millimeters; Overall Width = 1830 millimeters

VEHICLE TEST WEIGHT (Pre-Test):

Left Front = 511.0 kg Left Rear = 398.5 kg

Right Front = 461.0 kg Right Rear = 368.5 kg

TOTAL FRONT = 972.0 kg TOTAL REAR = 767.0 kg

TOTAL VEHICLE WEIGHT 1739.0 kg

Wheelbase = 2752 millimeters

Longitudinal C.G. from Center of Front Axle = 1213.79 millimeters

Impact Angle with Respect to Impactor = 90 degrees

ACTUAL IMPACT POINT

Actual Impact Point is 0 mm on the nominal impact ref. line (Lateral)

Actual Impact Point is 11 mm Below the nominal impact point (Vertical)

MAXIMUM EXTERIOR STATIC CRUSH:

1. LEVEL 1 (251 mm above ground) = 46 millimeters

2. LEVEL 2 (503 mm above ground) = 238 millimeters

3. LEVEL 3 (607 mm above ground) = 227 millimeters

4. LEVEL 4 (846 mm above ground) = 177 millimeters

5. LEVEL 5 (1394 mm above ground) = -2 millimeters

Maximum Post-Test Intrusion = 238 millimeters

OCCUPANTS:

Front Passenger:

Rear Passenger:

Dummy Identification SID H3/ 269

SID H3/ 270

Restraints Used Three-point safety belt

Three-point safety belt

INSTRUMENTATION:

Number of Vehicle Data Channels: = 21

Number of Cameras: Onboard = 3

Offboard = 6

TOTAL = 9

DATA SHEET 3

MOVING DEFORMABLE BARRIER (MDB) SUMMARY

Vehicle: 2004 Mitsubishi Galant 4-Door Sedan

NHTSA No. C45602

MDB FACE MANUFACTURER AND SERIAL NUMBER:

Plascore Inc. 031A0703-1 003B0703

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>61.8</u>	kph				

MAXIMUM STATIC CRUSH OF HONEYCOMB IMPACT FACE:

1. Row A at Center of Bumper Level	=	<u>241</u>	millimeters
2. Row B at Top of Bumper Level	=	<u>144</u>	millimeters
3. Row C at Mid Level	=	<u>138</u>	millimeters
4. Row D at Top of Stack Level	=	<u>155</u>	millimeters

INSTRUMENTATION:

Number of MDB Data Channels	=	<u>5</u>
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DATA SHEET 4**POST-TEST OBSERVATIONS**Vehicle: 2004 Mitsubishi Galant 4-Door SedanNHTSA No. C45602TEST DUMMY INFORMATION AND CONTACT POINTS:

DESCRIPTION	FRONT SEAT	REAR SEAT
ATD Type/Serial No.	SID H3/ 269	SID H3/ 270
Head Contact:	The side of the face to the left shoulder and the top of the head to the side window.	The top and the back of the head to the c-pillar and side header
Upper Torso Contact:	Door Trim Panel	Door Trim Panel
Lower Torso Contact:	Door Trim Panel	Door Trim Panel
Left Knee Contact:	Door Trim Panel	Door Trim Panel
Right Knee Contact:	Left Knee	Left Knee

POST TEST DOOR OPENING AND SEAT TRACK INFORMATION

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

POST TEST STRUCTURAL OBSERVATIONS

CRITICAL AREAS OF PERFORMANCE	
Pillar Performance	The A- and B-Pillars were moved inboard during the event with no visible tears or separations.
Sill Separation	No visible tears or separations
Windshield Damage	None
Window Damage	Rear left side window glass shattered during the event.
Other Notable Effects	None

AIR BAG DEPLOYMENT STATUS:

	DRIVER	FRONT PASSENGER	REAR PASSENGER
Front Air Bag	No	No	N/A
Knee Bolster Bag	N/A	N/A	N/A
Side Air Bag	N/A	N/A	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	0
Vertical Offset	mm	? 20 mm	-11

SECTION 4

OCCUPANT AND VEHICLE INFORMATION

DATA SHEET 5

SID H3 INSTRUMENTATION DATA

Vehicle: 2004 Mitsubishi Galant 4-Door Sedan

NHTSA No. C45602

		Front Dummy ID# 269				Rear Dummy ID# 270			
		Pos. Direction		Neg. Direction		Pos. Direction		Neg. Direction	
		Max (g)	Time (msec)	Max (g)	Time (msec)	Max (g)	Time (msec)	Max (g)	Time (msec)
HEAD ACCELERATIONS:									
Longitudinal	X	0.5	17.4	-21.4	63.2	12.0	60.8	-36.2	74.0
Lateral	Y	99.1	60.0	-4.4	36.6	81.5	44.7	-14.1	62.2
Vertical	Z	59.2	59.1	-1.4	96.4	29.6	47.9	-40.4	62.5
Resultant	R	110.9	60.0	0.0	-13.5	83.7	45.5	0.0	-7.9
HIC		421.4				362.5			
NECK FORCES:									
Longitudinal	X	9.9	20.9	-510.4	59.2	831.8	79.3	-104.1	153.2
Lateral	Y	719.4	64.4	-171.5	35.5	100.5	171.7	-711.7	87.9
Vertical	Z	1750.7	56.3	-1406.1	61.8	396.8	48.3	-1577.1	62.4
Resultant	R	1908.8	56.3	0.1	-10.6	1793.6	62.5	0.1	2.5
NECK MOMENTS:									
X		46.3	59.2	-61.2	47.3	14.1	165.9	-101.9	60.3
Y		31.0	92.6	-21.2	52.4	14.3	158.3	-77.4	67.4
Z		24.4	81.5	-15.5	43.6	14.0	80.2	-6.5	157.5
Resultant	R	64.9	47.3	0.0	-12.8	107.5	60.3	0.0	-2.4
RIB ACCELERATIONS:									
Upper Rib Lateral	Y	47.5	33.1	-7.5	71.9	53.4	43.8	-6.5	140.6
Upper Rib Lateral	Y(R)	47.8	33.1	-7.5	71.9	53.6	43.8	-8.2	140.0
Lower Rib Lateral	Y	47.6	33.1	-12.2	72.5	51.4	43.8	-10.0	140.0
Lower Rib Lateral	Y(R)	48.1	33.1	-12.2	72.5	53.0	43.8	-8.3	133.7
SPINE ACCELERATIONS:									
Lower Lateral	Y	59.2	37.5	-9.3	72.5	62.4	47.5	-9.0	80.0
Lower Lateral	Y(R)	59.7	37.5	-9.0	71.9	62.2	47.5	-8.9	80.0
PELVIC ACCELERATIONS:									
Lateral	Y	49.9	34.4	-8.9	59.4	51.3	39.3	-5.0	138.7
Lateral	Y(R)	50.5	33.7	-8.9	59.4	50.8	39.3	-4.8	138.7

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

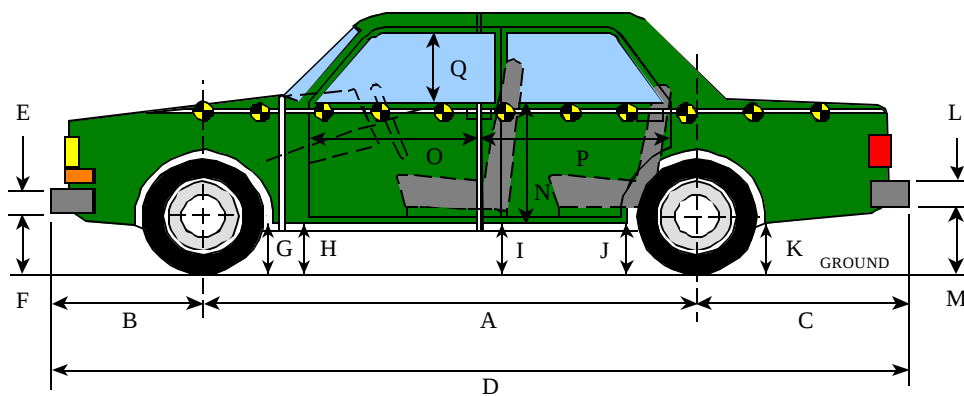
Note: Rib, Spine and Pelvis data has been FIR filtered, Y(R) denotes redundant Y direction accelerometer.

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

DATA SHEET 6

VEHICLE SIDE MEASUREMENTS

Vehicle: 2004 Mitsubishi Galant 4-Door Sedan

NHTSA No. C45602

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	2750	2752	2755	3
B	990	-	988	-2
C	1105	-	1099	-6
D	4845	-	4842	-3
E	300	-	300	0
F	252	242	254	12
G	186	166	181	15
H	204	184	199	15
I	211	189	201	12
J1	189	167	164	-3
J2	209	187	190	3
K	255	221	235	14
L	290	-	290	0
M	419	382	392	10
N	714	-	684	-30
O	765	-	749	-16
P	1209	-	1184	-25
Q	448	-	443	-5
R	4720	-	4720	0
S	4720	-	4720	0
T	1830	-	1742	-88

D = Length at Centerline

T = Width at B-Pillar

E&L = Bumper Thickness

J1 = To Pinch Weld

R = Right Side Length

J2 = To Sill

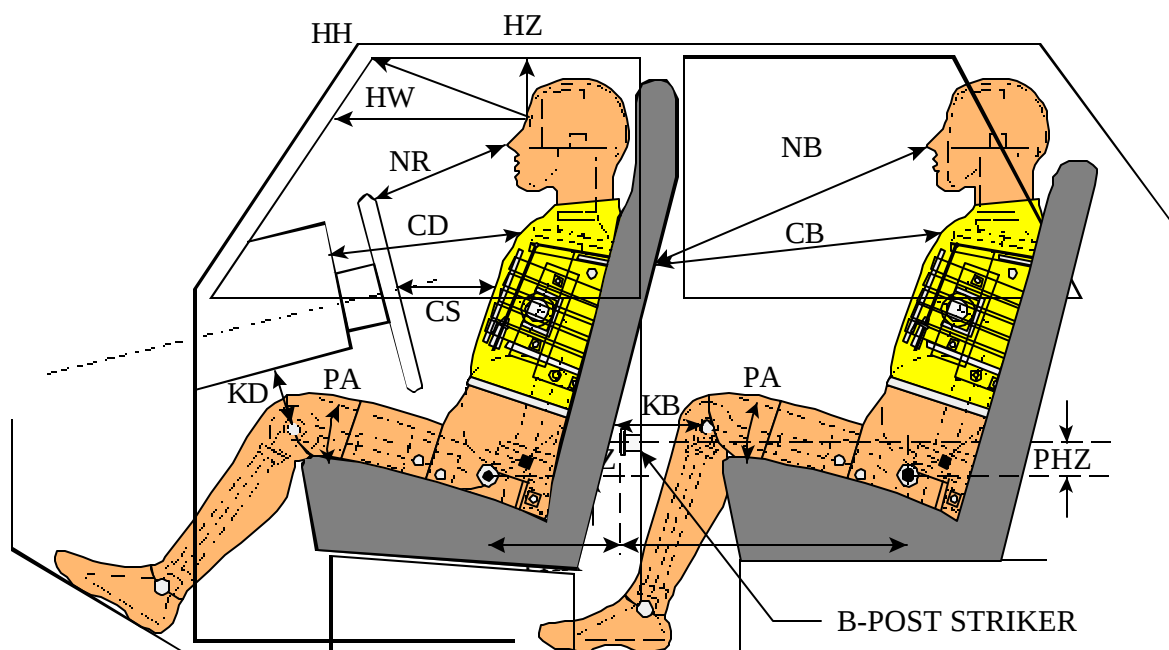
S = Left Side Length

DATA SHEET 7

SID H3 LONGITUDINAL CLEARANCE DIMENSIONS

Vehicle: 2004 Mitsubishi Galant 4-Door Sedan

NHTSA No. C45602



LEFT SIDE VIEW

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

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

	DRIVER ID# 269	LEFT REAR PASS. ID# 270
HH	415	N/A
HW	642	N/A
HZ	140	135
NR/NB	451	662
CD/CB	572	563
CS	307	N/A
KDL(KDA°)/KBL(KDA°)	213 / (20 °)	250 / (20 °)
KDR(KBA°)/KBR(KBA°)	195 / (27 °)	245 / (21 °)
PA°	23.2°	23.8°
PHX	216	294
PHZ	166	315

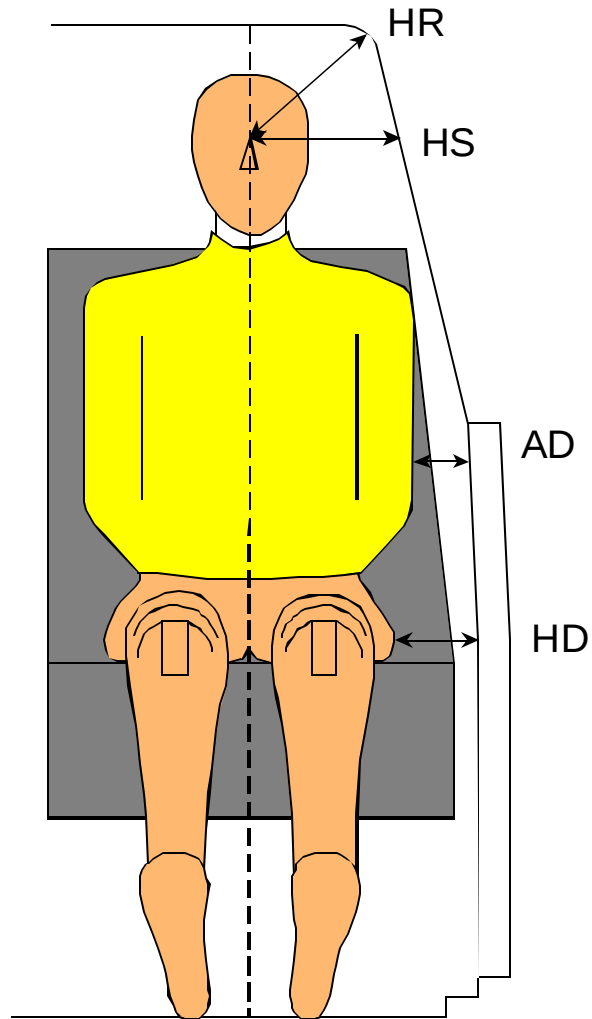
Note: 2-door vehicle shown. Rear dummy PHX & PHZ measurements for 4-door vehicle would use the C-post striker as a reference point.

DATA SHEET 8

SID H3 LATERAL CLEARANCE DIMENSIONS

Vehicle: 2004 Mitsubishi Galant 4-Door Sedan

NHTSA No. C45602



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

	DRIVER ID # 269				LEFT REAR PASS. ID # 270			
HR	178				167			
HS	330				300			
AD*	LOWER:	128	UPPER:	106	LOWER:	108	UPPER:	97
HD	153				146			

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

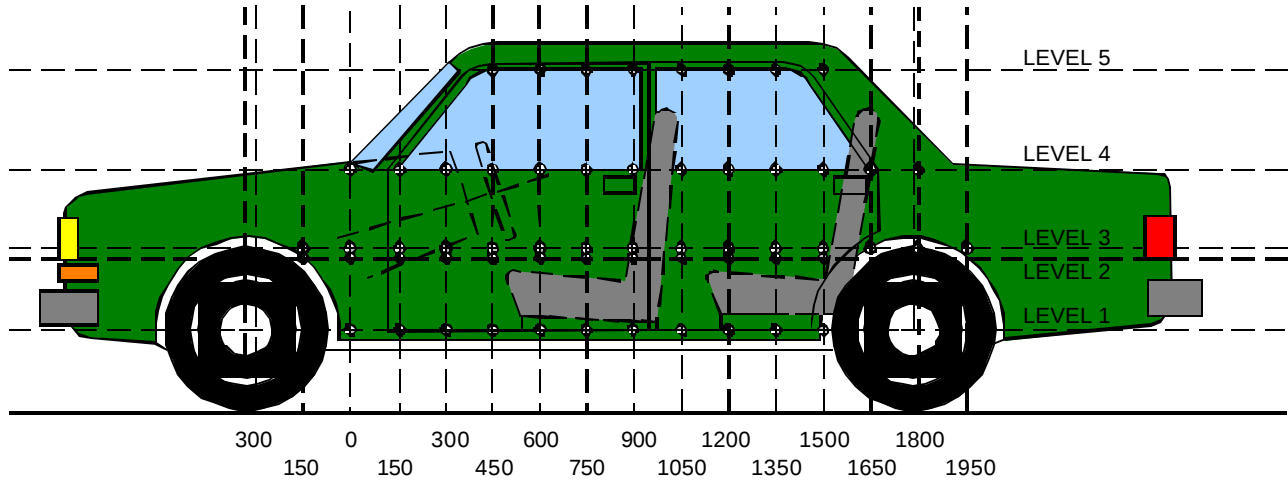
Upper measurement is taken laterally at the center of the upper rib accelerometer height from the SID H3 arm segment to the closest part of the vehicle side.

DATA SHEET 9

VEHICLE SIDE MEASUREMENTS

Vehicle: 2004 Mitsubishi Galant 4-Door Sedan

NHTSA No. C45602



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:

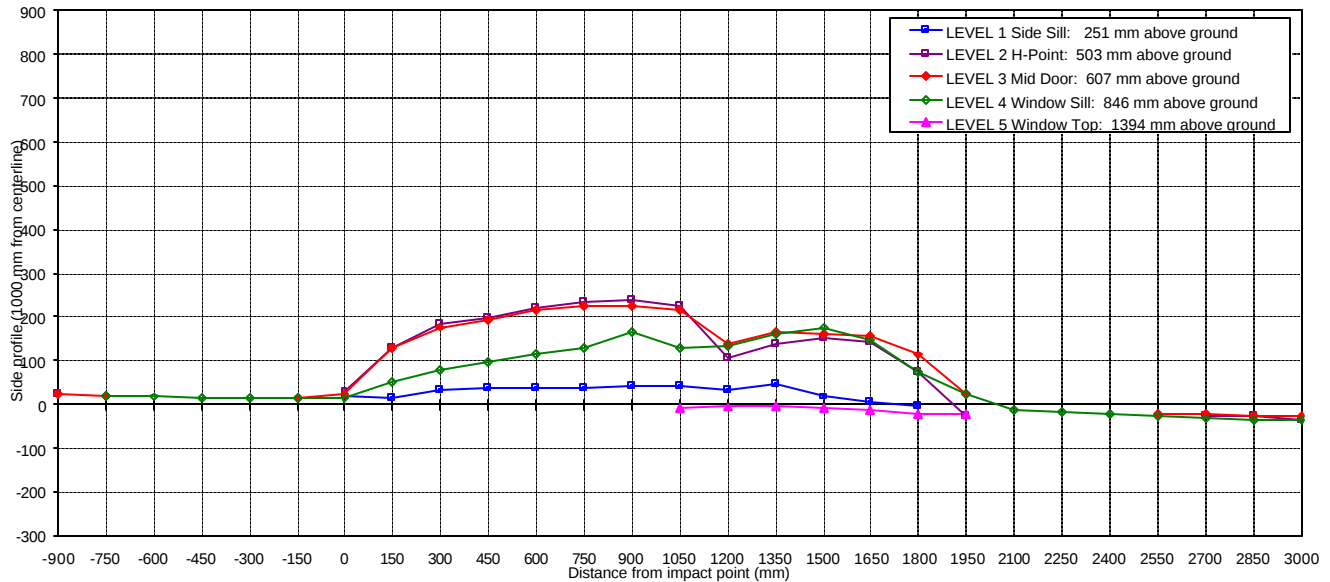
Level 5 @ Window Top	=	<u>1394</u>	millimeters
Level 4 @ Window Sill	=	<u>846</u>	millimeters
Level 3 @ Mid Door	=	<u>607</u>	millimeters
Level 2 @ Occupant H-Point	=	<u>503</u>	millimeters
Level 1 @ Axle Centerline Height (or Sill Top Height)	=	<u>251</u>	millimeters

DATA SHEET 10

VEHICLE EXTERIOR CRUSH PROFILES - ALL LEVELS

Vehicle: 2004 Mitsubishi Galant 4-Door Sedan

NHTSA No. C45602



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

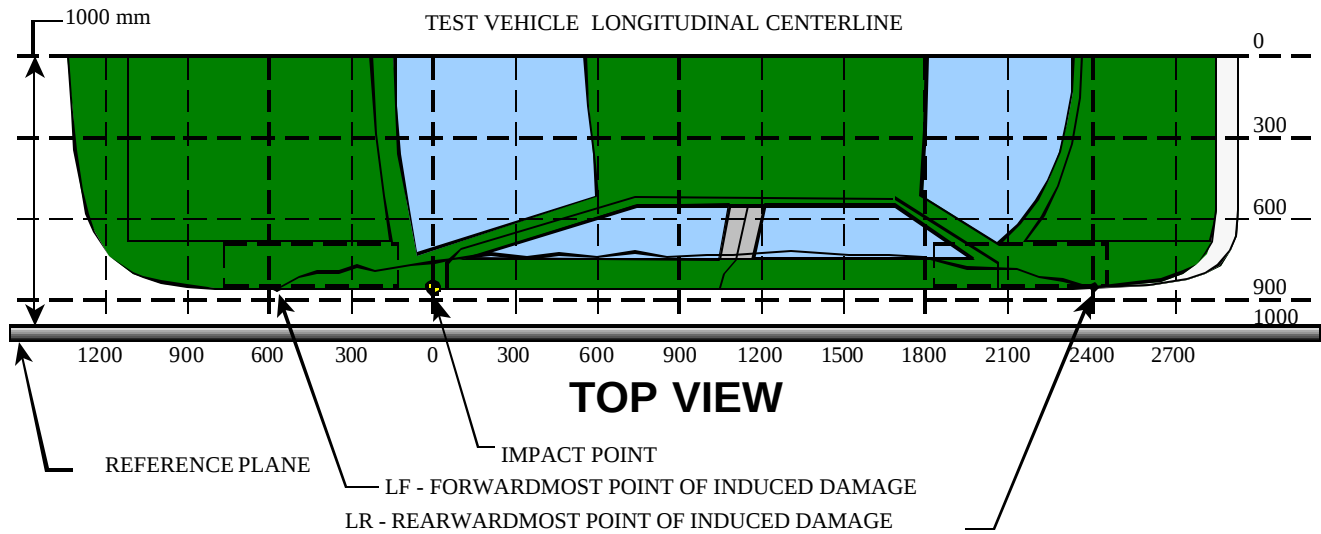
			DISTANCE IN MILLIMETERS (mm) FROM IMPACT POINT																											
LEVEL	HEIGHT (mm)		-900	-750	-600	-450	-300	-150	0	150	300	450	600	750	900	1050	1200	1350	1500	1650	1800	1950	2100	2250	2400	2550	2700	2850	3000	
LEVEL 1 SIDE SILL	251	PRE	-	-	--	--	-	-	116	147	150	147	146	147	145	145	145	145	147	149	136	--	--	-	-	--	--	-	-	-
		POST	-	-	--	--	-	-	137	163	183	184	184	184	185	185	180	191	164	154	132	--	--	-	-	--	--	-	-	-
		CRUSH	N/A	N/A	N/A	N/A	N/A	N/A	21	16	33	37	38	37	40	40	35	46	17	5	-4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
LEVEL 2 H POINT	503	PRE	119	-	--	--	-	-	81	82	81	80	80	80	80	83	84	87	84	87	87	88	--	-	-	--	98	132	169	
		POST	141	-	--	--	-	-	111	209	267	278	301	313	318	306	192	226	236	228	161	63	--	-	-	--	74	105	135	
		CRUSH	22	N/A	N/A	N/A	N/A	N/A	30	127	186	198	221	233	238	223	108	139	152	141	74	-25	N/A	N/A	N/A	N/A	N/A	-24	-27	-34
LEVEL 3 MID DOOR	607	PRE	120	86	--	--	-	77	76	78	77	75	75	74	75	74	76	80	81	83	90	88	--	-	-	78	96	124	153	
		POST	142	105	--	--	-	92	101	208	254	267	289	301	301	288	216	247	244	240	203	113	--	-	-	55	75	100	128	
		CRUSH	22	19	N/A	N/A	N/A	15	25	130	177	192	214	227	226	214	140	167	163	157	113	25	N/A	N/A	N/A	N/A	-23	-21	-24	-25
LEVEL 4 WINDOW SILL	846	PRE	-	218	166	139	125	123	119	119	116	113	112	111	104	85	109	106	104	106	107	106	104	105	111	125	145	168	191	
		POST	-	237	183	152	138	137	135	170	193	210	228	242	269	216	241	268	281	251	183	131	89	87	91	99	112	131	154	
		CRUSH	N/A	19	17	13	13	14	16	51	77	97	116	131	165	131	132	162	177	145	76	25	-15	-18	-20	-26	-33	-37	-37	
LEVEL 5 WINDOW TOP	1394	PRE	-	-	--	--	-	-	--	--	-	-	--	--	-	408	397	396	401	407	442	642	--	-	-	--	--	-	-	
		POST	-	-	--	--	-	-	--	--	-	-	--	--	-	400	391	394	393	395	420	622	--	-	-	--	--	-	-	
		CRUSH	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-8	-6	-2	-8	-12	-22	-20	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

DATA SHEET 11

VEHICLE DAMAGE PROFILE DISTANCES

Vehicle: 2004 Mitsubishi Galant 4-Door Sedan

NHTSA No. C45602



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

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

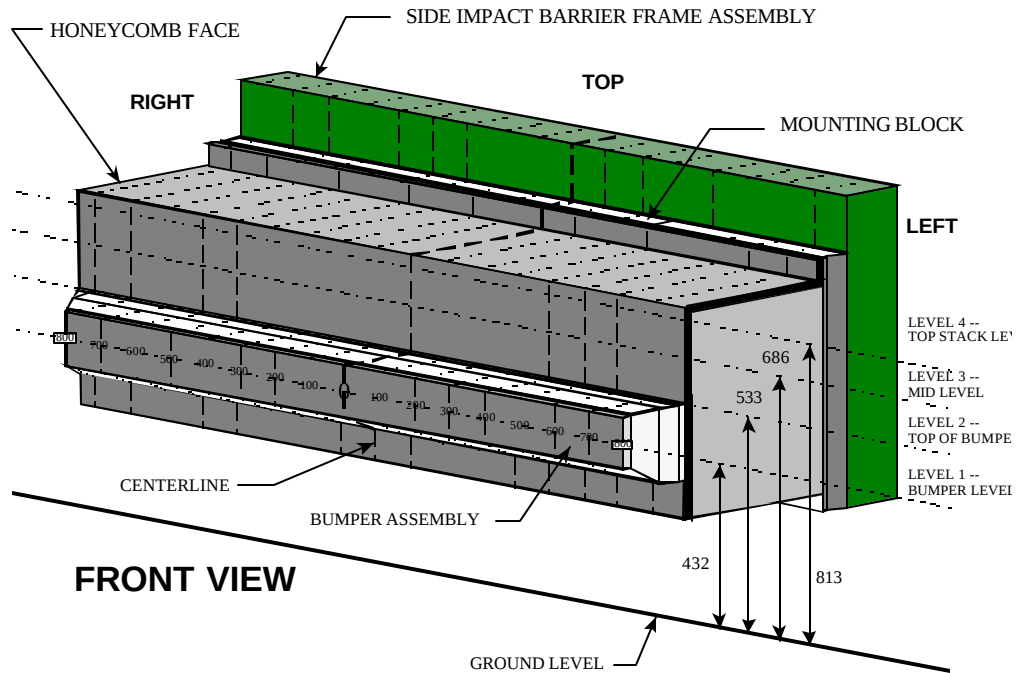
DPD MEASUREMENTS		POST TEST (mm)	PRETEST (mm)	STATIC CRUSH (mm)
1	(LR = <u>2040</u> mm)	106	105	1
2	1592	242	82	160
3	1144	243	75	168
4	696	309	80	229
5	248	247	81	166
6	(LF = <u>-200</u> mm)	137	124	13

DATA SHEET 12

EXTERIOR STATIC CRUSH FOR IMPACTOR FACE

Vehicle: 2004 Mitsubishi Galant 4-Door Sedan

NHTSA No. C45602



NOTE: Dimensions are shown in millimeters, mm

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

			NOTE: All dimensions are in millimeters with a tolerance of ±1 mm																
			DISTANCE RIGHT OF CENTER (mm)									DISTANCE LEFT OF CENTER (mm)							
LEVEL	HEIGHT AT CL (mm)*		800	700	600	500	400	300	200	100	0	100	200	300	400	500	600	700	800
LEVEL 4 TOP STACK	813	PRE	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619
		POST	691	651	634	628	640	680	668	650	643	643	648	654	664	675	690	718	774
		CRUSH	72	32	15	9	21	61	49	31	24	24	29	35	45	56	71	99	155
LEVEL 3 MID LEVEL	686	PRE	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619
		POST	676	649	640	639	637	656	668	639	634	630	633	638	642	654	672	698	757
		CRUSH	57	30	21	20	18	37	49	20	15	11	14	19	23	35	53	79	138
LEVEL 2 TOP BUMPER	533	PRE	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619
		POST	704	700	694	693	696	692	694	692	691	693	699	704	707	712	719	728	763
		CRUSH	85	81	75	74	77	73	75	73	72	74	80	85	88	93	100	109	144
LEVEL 1 MID BUMPER	432	PRE	535	519	518	518	518	518	518	518	518	518	518	518	518	518	518	519	535
		POST	704	681	670	667	673	680	675	668	665	667	669	672	674	679	689	715	776
		CRUSH	169	162	152	149	155	162	157	150	147	149	151	154	156	161	171	196	241

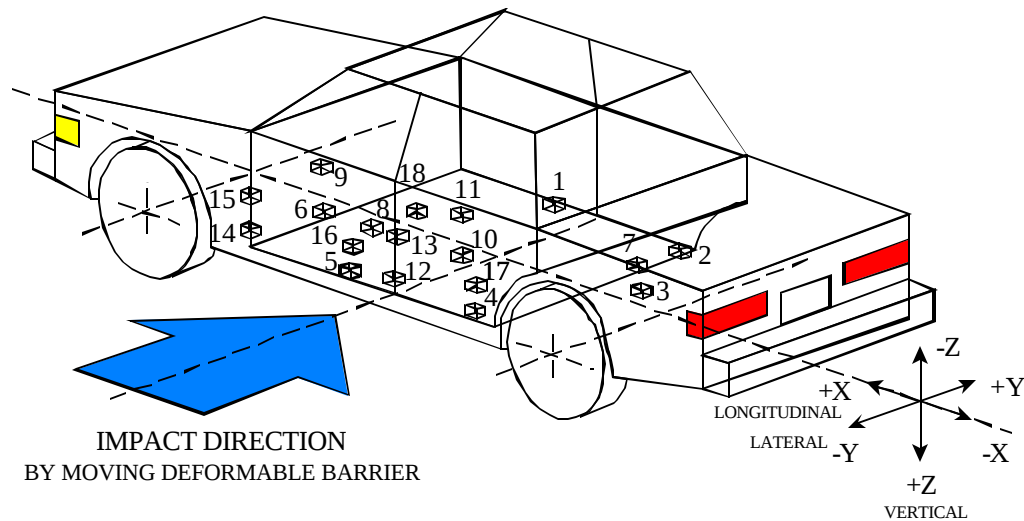
*Heights measured above ground level.

DATA SHEET 13

TEST VEHICLE ACCELEROMETER LOCATIONS AND DATA SUMMARY

Vehicle: 2004 Mitsubishi Galant 4-Door Sedan

NHTSA No. C45602



- 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: 2004 Mitsubishi Galant 4-Door Sedan

NHTSA No. C45602

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	3127	678	-273	pos.	4.0	56.5	25.3	7.5	3.5	58.1	26.6	7.5
					neg.	-5.1	10.4	-1.8	147.9	-7.0	7.8	0.0	-18.7
2	Right Side Sill at Rear Seat	2109	685	-245	pos.	4.1	56.5	26.6	7.4	2.7	75.8	28.7	7.5
					neg.	-4.1	10.6	-2.2	82.8	-10.9	8.1	0.0	-9.9
3	Rear Floorpan Above Axle	1360	92	-556	pos.	5.2	53.2	25.9	7.6	5.0	12.5	26.1	7.5
					neg.	-5.1	6.0	-2.3	75.0	-4.9	51.9	0.0	-4.0
4	Left Side Sill at Rear Seat	2105	-685	-259	pos.	-	-	46.3	5.1	-	-	-	-
					neg.	-	-	-4.6	51.2	-	-	-	-
5	Left Side Sill at Front Seat	3119	-694	-331	pos.	-	-	47.6	4.0	-	-	-	-
					neg.	-	-	-4.0	51.1	-	-	-	-
6	Left Front Door on Centerline**	-	-	-	pos.	-	-	-	-	-	-	-	-
					neg.	-	-	-	-	-	-	-	-
7	Right Rear Occupant Compartment	2100	738	-198	pos.	-	-	28.0	7.4	-	-	-	-
					neg.	-	-	-2.6	74.7	-	-	-	-
8	Midrear of Left Front Door**	-	-	-	pos.	-	-	-	-	-	-	-	-
					neg.	-	-	-	-	-	-	-	-
9	Left Front Door Upper Centerline**	-	-	-	pos.	-	-	-	-	-	-	-	-
					neg.	-	-	-	-	-	-	-	-
10	Midrear of Left Rear Door**	-	-	-	Pos.			-	-			-	-
					neg.	-	-	-	-	-	-	-	-
11	Left Rear Door Upper Centerline**	-	-	-	pos.	-	-	-	-	-	-	-	-
					neg.	-	-	-	-	-	-	-	-

*Reference: X - Rear Bumper (+ Forward)

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

**Accelerometer was not requested by COTR.

4-11

8675-F214-15

DATA SHEET 13 (continued)

VEHICLE ACCELEROMETER LOCATIONS AND DATA SUMMARY

Vehicle: 2004 Mitsubishi Galant 4-Door Sedan

NHTSA No. C45602

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	2221	-719	-341	pos.	-	-	179.0	5.6	-	-	-	-
					neg.	-	-	-101.1	23.4	-	-	-	-
13	Left Middle B-Pillar	2140	-721	-892	pos.	-	-	146.6	4.4	-	-	-	-
					neg.	-	-	-45.2	28.2	-	-	-	-
14	Left Lower A-Pillar	3309	-657	-422	pos.	-	-	64.1	28.3	-	-	-	-
					neg.	-	-	-30.9	23.0	-	-	-	-
15	Left Middle A-Pillar	3298	-702	-983	pos.	-	-	29.3	11.1	-	-	-	-
					neg.	-	-	-7.8	24.9	-	-	-	-
16	Front Seat Track	2365	-635	-222	pos.	-	-	43.5	5.3	-	-	-	-
					neg.	-	-	-10.3	50.9	-	-	-	-
17	Rear Seat Track	1247	-747	-825	pos.	-	-	26.2	30.1	-	-	-	-
					neg.	-	-	-1.7	73.6	-	-	-	-
18	Vehicle CG	2939	-6	-471	pos.	3.7	64.5	29.9	11.0	9.4	18.8	31.0	11.0
					neg.	-7.5	14.3	-3.7	88.1	-8.7	36.2	0.0	-17.7

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

4-12

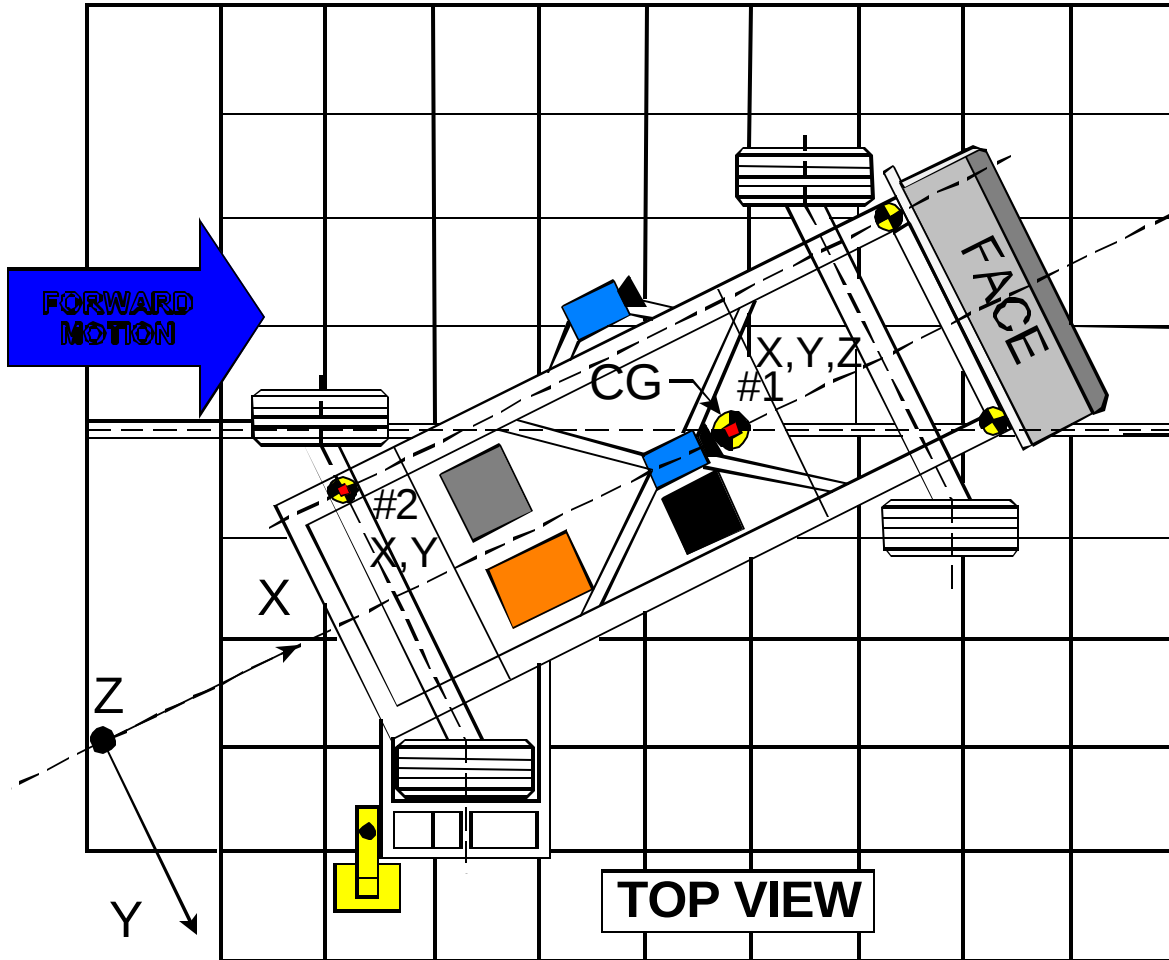
8675-F214-15

DATA SHEET 14

MDB ACCELEROMETER LOCATIONS AND DATA SUMMARY

Vehicle: 2004 Mitsubishi Galant 4-Door Sedan

NHTSA No. C45602



Accel. No.	Location	Coordinates (millimeters)			Pos. Direct.		Neg. Direct.	
		X*	Y*	Z*	Max (g)	Time (msec)	Max (g)	Time (msec)
1	MDB Center of Gravity							
	Longitudinal... X	1859	0	-330	1.1	109.5	-22.1	40.0
	Lateral..... Y				1.5	60.8	-6.1	34.8
	Vertical..... Z				14.4	15.0	-19.4	20.3
	Resultant..... R				27.0	20.4	0.2	175.8
2	Rear Frame Member							
	Longitudinal... X	386	-660	-660	1.9	89.0	-24.4	32.9
	Lateral..... Y				3.3	22.7	-2.5	59.8

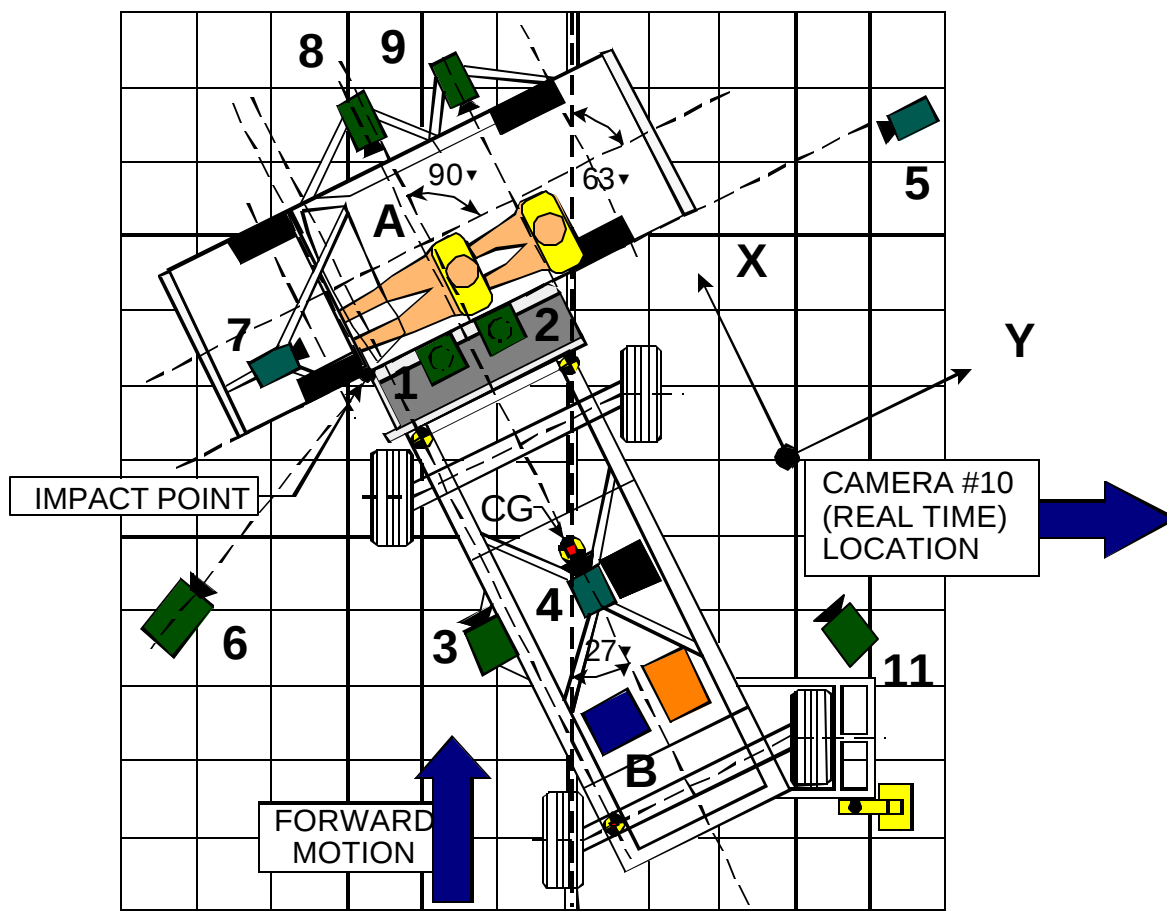
*Reference: X = Rear Bumper (+ Forward)
Y = Vehicle Centerline (+ To Right)
Z = Ground Level (+ Down)
All measurements accurate to within ± 3 mm.

DATA SHEET 15

HIGH SPEED CAMERA LOCATIONS AND DATA SUMMARY

Vehicle: 2004 Mitsubishi Galant 4-Door Sedan

NHTSA No. C45602



Camera No.	View	Coordinates (millimeters)			Angle (deg.)	Lens (mm)	Film Speed (fps)
		X*	Y*	Z*			
1	Overhead view of test vehicle	219	822	-4880	-90	8	1025
2	Overhead closeup view of impact plane	341	844	-4880	-90	12.5	1015
3	MDB onboard closeup view of impact point	-1470	0	-847	0	13	1020
4	MDB onboard view of driver dummy	-1140	838	-1586	-17	7.5	1030
5	Right side ground level overall view	52	9218	-1097	-3	25	1030
6	Left side ground level overall view	-1701	-1284	-1037	-8	13	1025
7	Test vehicle onboard driver front view	-544	-512	-1228	-12	13	1020
8	Test vehicle onboard driver side view	1813	838	-1100	-11	8	1015
9	Test vehicle onboard passenger side view	1815	1825	-1585	-15	8	1015
10	Real time film coverage of test	-	-	-	-	-	24

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

X = (Impact Point) + Forward

Y = (Impact Point) + To Right

Z = (Ground Level) + Down

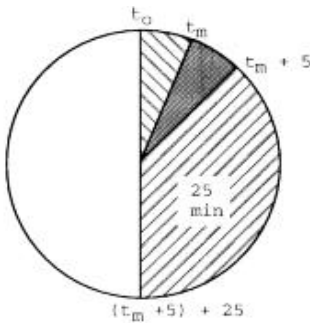
SECTION 5

FUEL SYSTEM INTEGRITY

FMVSS 301 FUEL SYSTEM INTEGRITY DATA

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

FUEL SPILLAGE MEASUREMENT:



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

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

SOLVENT SPILLAGE DETAILS:

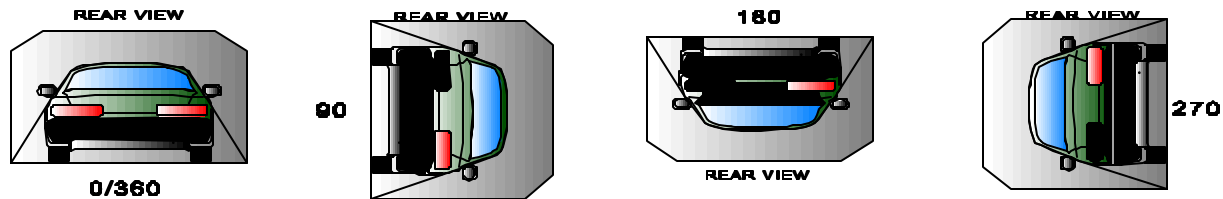
None

DATA SHEET 17

ROLLOVER DATA

Vehicle: 2004 Mitsubishi Galant 4-Door Sedan

NHTSA No.: C45602



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	15	seconds	5	minutes	6	minutes	15	seconds	7	minutes
90° - 180°	1	minutes	01	seconds	5	minutes	6	minutes	1	seconds	7	minutes
180°-270°	1	minutes	04	seconds	5	minutes	6	minutes	4	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-2 POST-TEST FRONTAL VIEW OF TEST VEHICLE



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

PHOTOGRAPH IS NOT AVAILABLE

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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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

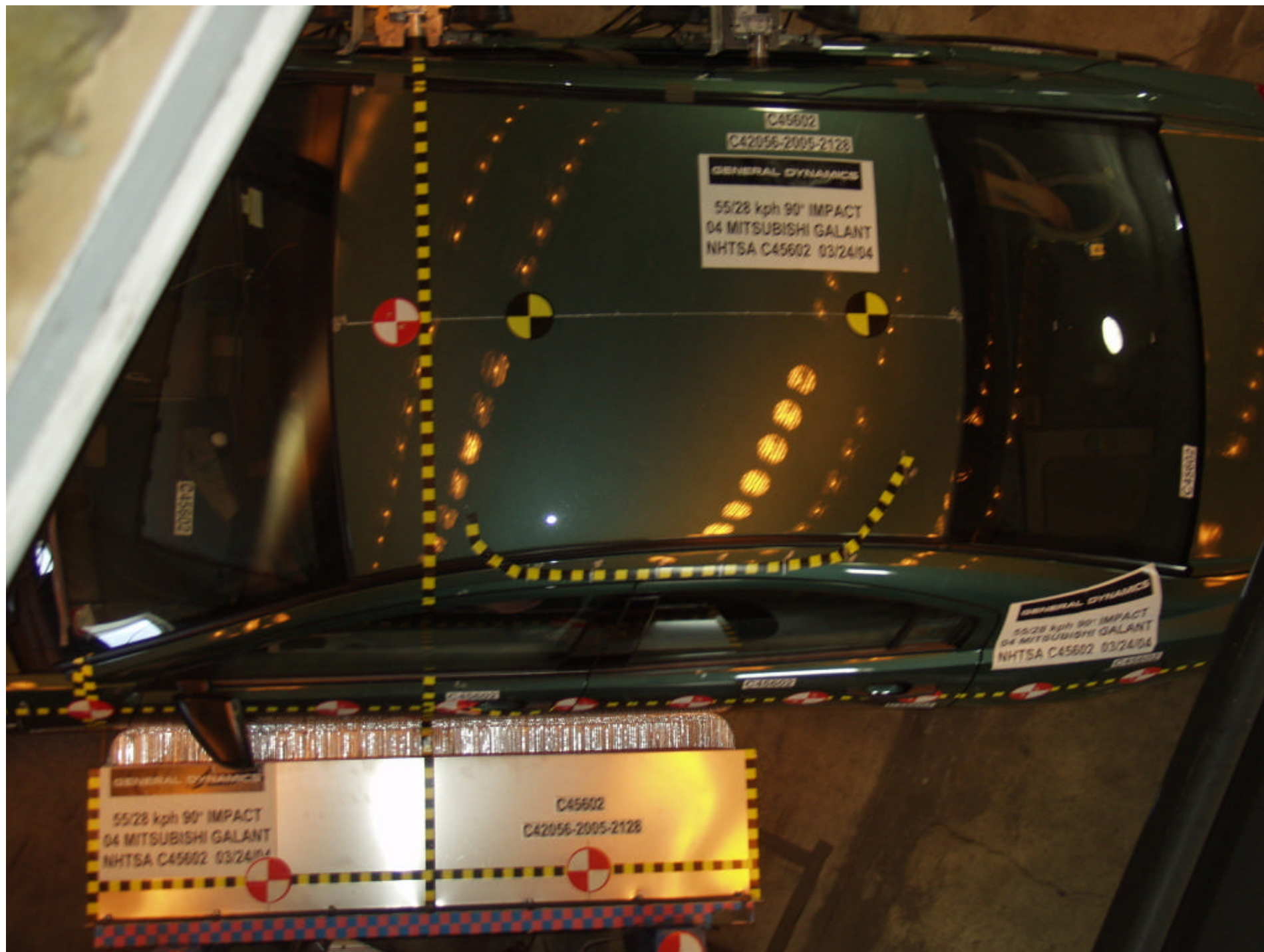


Figure A-23 PRE-TEST OVERHEAD VIEW OF ALIGNED MDB AND VEHICLE



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



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



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



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



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



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



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



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



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



Figure A-33 PRE-TEST INTERIOR OF FRONT DOOR



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



Figure A-35 PRE-TEST INTERIOR OF REAR DOOR



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



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



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



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

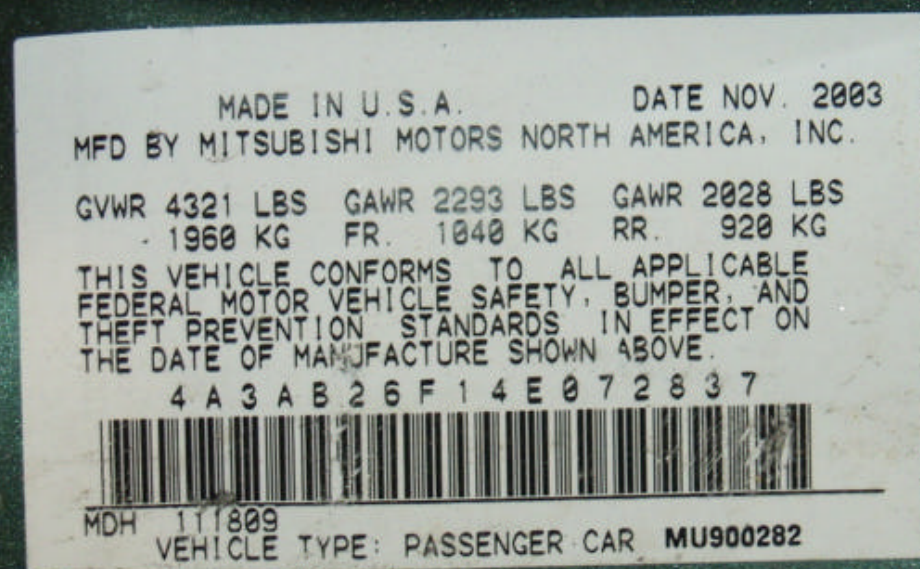


Figure A-40 CLOSE-UP VIEW OF VEHICLE'S CERTIFICATION LABEL



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



Figure A-42 IMPACT PHOTO



Figure A-43 ROLLOVER 90 DEGREES



Figure A-44 ROLLOVER 180 DEGREES

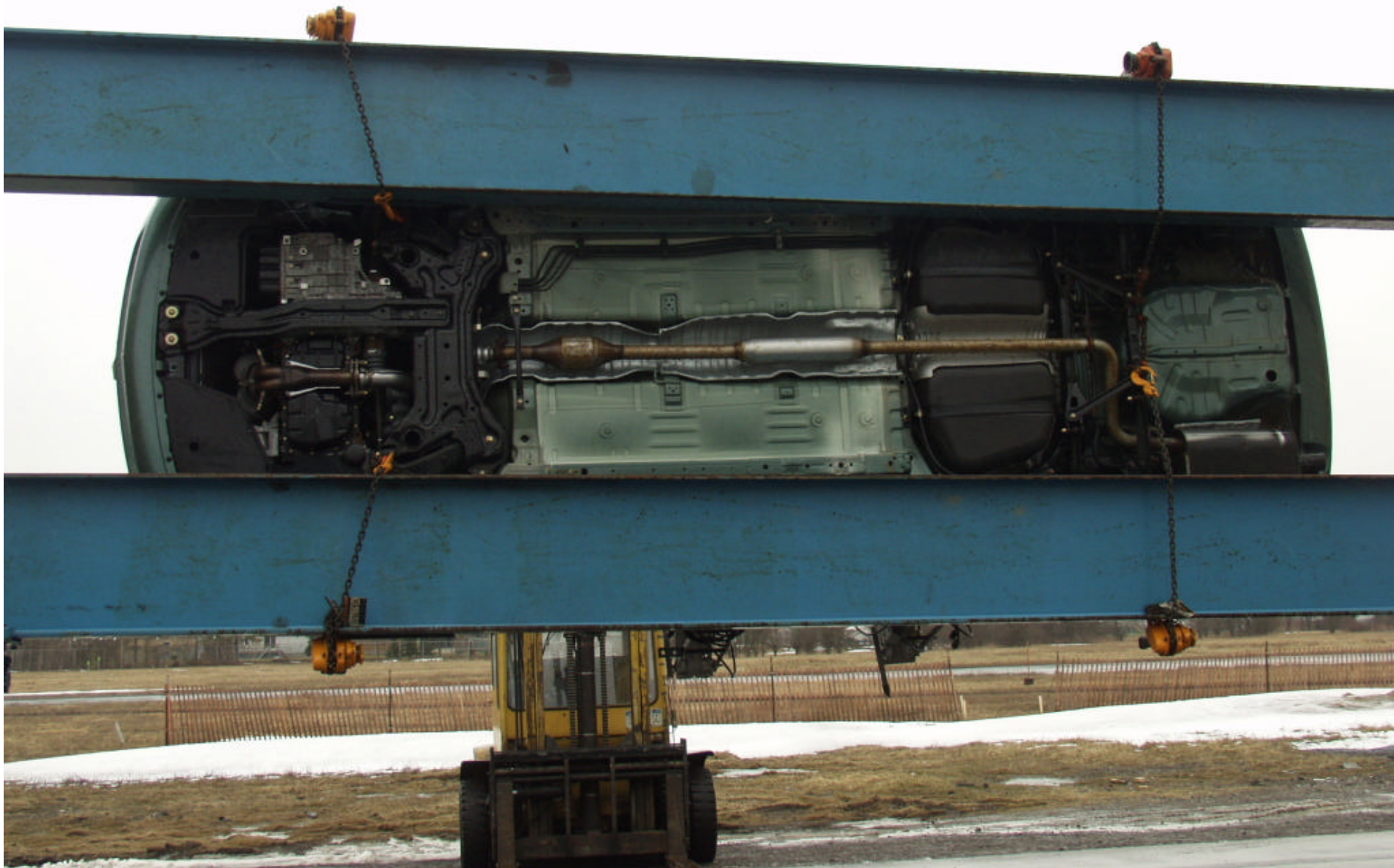


Figure A-45 ROLLOVER 270 DEGREES



Figure A-46 ROLLOVER 360 DEGREES

APPENDIX B

VEHICLE, MDB AND SID HYBRID III RESPONSE DATA

TABLE OF DATA PLOTS

DRIVER AND PASSENGER DUMMY INSTRUMENTATION PLOTS

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

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

DRIVER & PASSENGER DUMMY INSTRUMENTATION PLOTS

ACCELERATION DATA - FIR FILTERED

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

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

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

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>
94	VEHICLE CENTER OF GRAVITY (X) ACCELERATION VS TIME	B- 99
95	VEHICLE CENTER OF GRAVITY (X) VELOCITY VS TIME	B- 100
96	VEHICLE CENTER OF GRAVITY (Y) ACCELERATION VS TIME	B- 101
97	VEHICLE CENTER OF GRAVITY (Y) VELOCITY ACCELERATION VS TIME	B- 102
98	VEHICLE CENTER OF GRAVITY (Z) ACCELERATION VS TIME	B- 103
99	VEHICLE CENTER OF GRAVITY (Z) VELOCITY VS TIME	B- 104
100	VEHICLE CENTER OF GRAVITY RESULTANT ACCELERATION VS TIME	B- 105

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>
101	MDB CENTER OF GRAVITY (X) ACCELERATION VS TIME	B- 106
102	MDB CENTER OF GRAVITY (X) VELOCITY VS TIME	B- 107
103	MDB CENTER OF GRAVITY (Y) ACCELERATION VS TIME	B- 108
104	MDB CENTER OF GRAVITY (Y) VELOCITY VS TIME	B- 109
105	MDB CENTER OF GRAVITY (Z) ACCELERATION VS TIME	B- 110
106	MDB CENTER OF GRAVITY (Z) VELOCITY VS TIME	B- 111
107	MDB CENTER OF GRAVITY RESULTANT ACCELERATION VS TIME	B- 112
108	MDB REAR (X) ACCELERATION VS TIME	B- 113
109	MDB REAR (X) VELOCITY VS TIME	B- 114
110	MDB REAR (Y) ACCELERATION VS TIME	B- 115
111	MDB REAR (Y) VELOCITY VS TIME	B- 116

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>
112	DRIVER UPPER RIB (Y) ACCELERATION VS TIME	B- 117
113	DRIVER UPPER RIB (Y) VELOCITY VS TIME	B- 118
114	DRIVER LOWER RIB (Y) ACCELERATION VS TIME	B- 119
115	DRIVER LOWER RIB (Y) VELOCITY VS TIME	B- 120
116	DRIVER LOWER SPINE (Y) ACCELERATION VS TIME	B- 121
117	DRIVER LOWER SPINE (Y) VELOCITY VS TIME	B- 122
118	DRIVER PELVIC (Y) ACCELERATION VS TIME	B- 123
119	DRIVER PELVIC (Y) VELOCITY VS TIME	B- 124
120	PASSENGER UPPER RIB (Y) ACCELERATION VS TIME	B- 125
121	PASSENGER UPPER RIB (Y) VELOCITY VS TIME	B- 126
122	PASSENGER LOWER RIB (Y) ACCELERATION VS TIME	B- 127
123	PASSENGER LOWER RIB (Y) VELOCITY VS TIME	B- 128
124	PASSENGER LOWER SPINE (Y) ACCELERATION VS TIME	B- 129
125	PASSENGER LOWER SPINE (Y) VELOCITY VS TIME	B- 130
126	PASSENGER PELVIC (Y) ACCELERATION VS TIME	B- 131
127	PASSENGER PELVIC (Y) VELOCITY VS TIME	B- 132

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

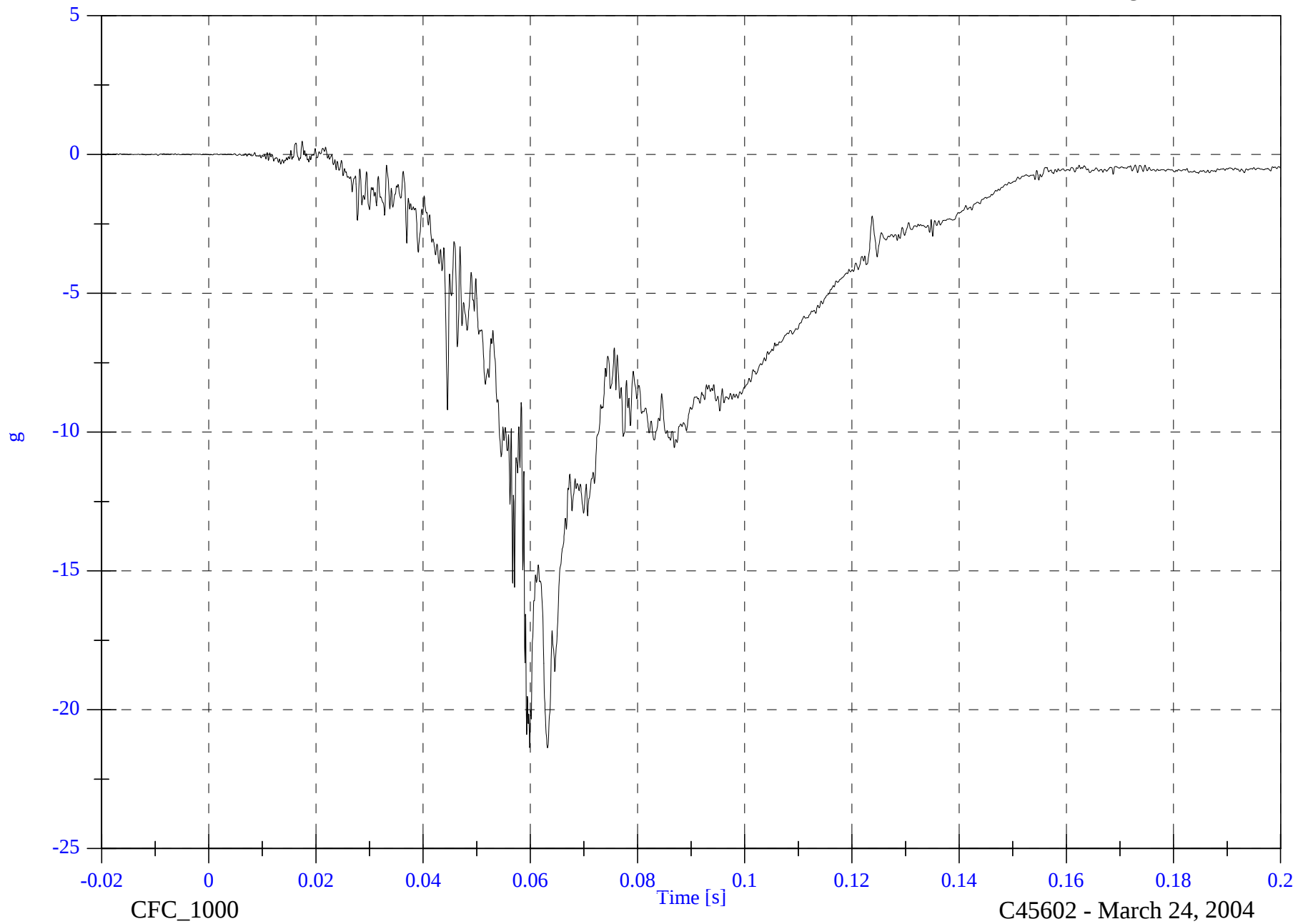
<u>Plot No.</u>	<u>Data Plot Title</u>	<u>Page</u>
128	DRIVER UPPER RIB (Y) ACCELERATION VS TIME	B- 133
129	DRIVER LOWER RIB (Y) ACCELERATION VS TIME	B- 134
130	DRIVER LOWER SPINE (Y) ACCELERATION VS TIME	B- 135
131	DRIVER PELVIC (Y) ACCELERATION VS TIME	B- 136
132	PASSENGER UPPER RIB (Y) ACCELERATION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

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P1 Head x

Max: 0.5 [g] at 0.017 [s]

Min: -21.4 [g] at 0.063 [s]



B-6

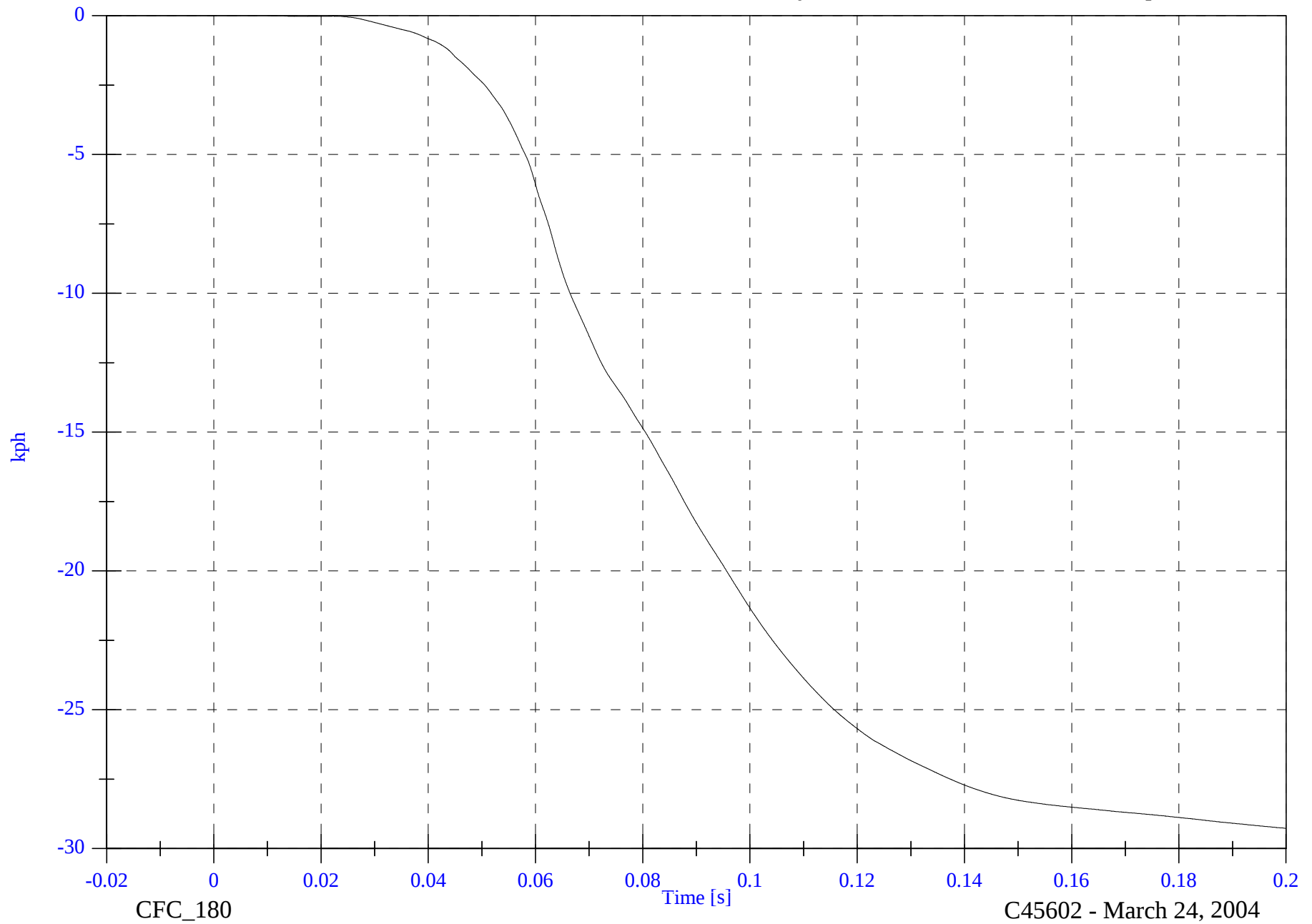
8675-F214-15

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P1 Head x Velocity

Max: 0.0 [kph] at 0.005 [s]

Min: -29.3 [kph] at 0.200 [s]



B-7

8675-F214-15

CFC_180

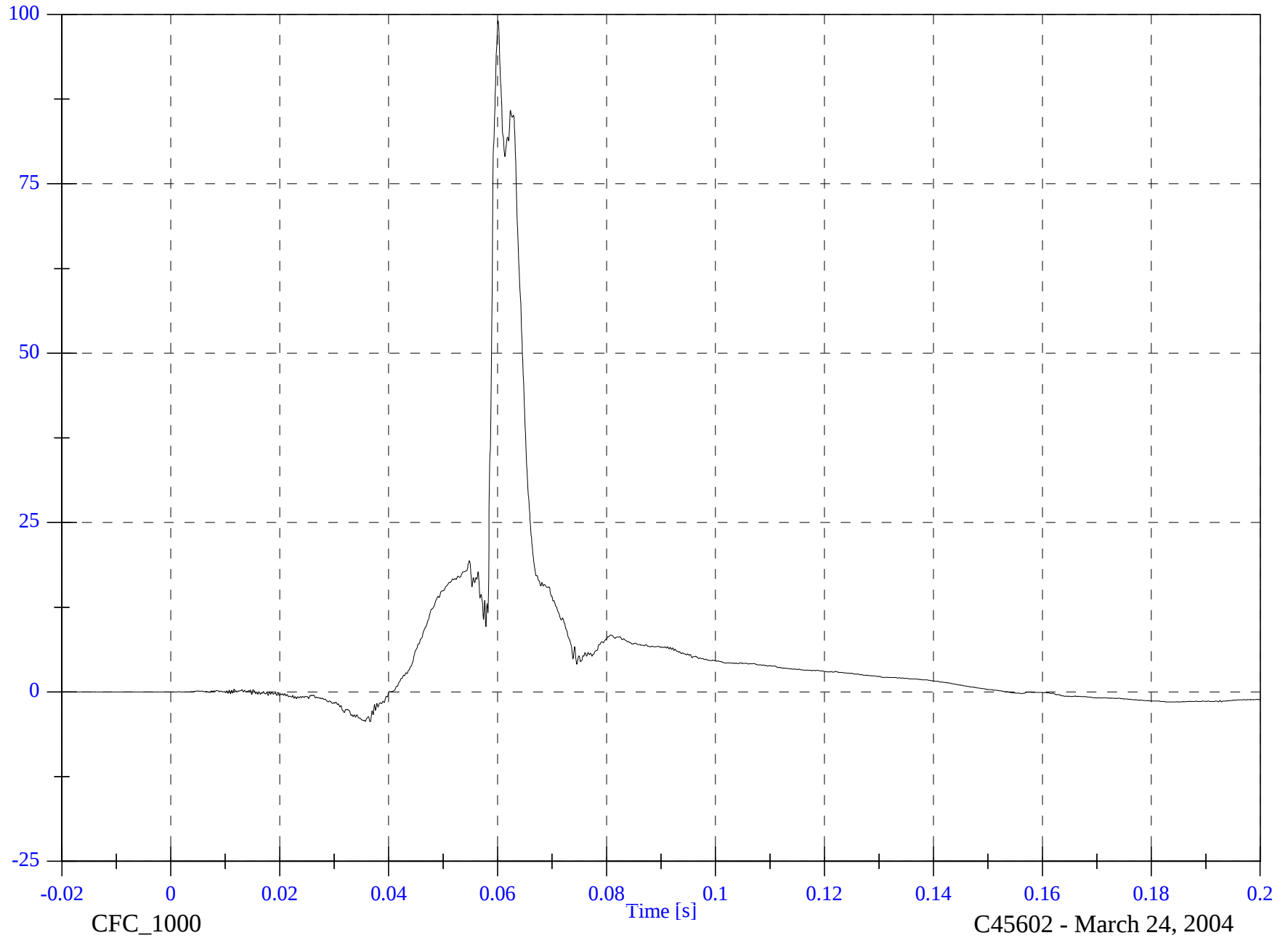
C45602 - March 24, 2004

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P1 Head y

Max: 99.1 [g] at 0.060 [s]

Min: -4.4 [g] at 0.037 [s]

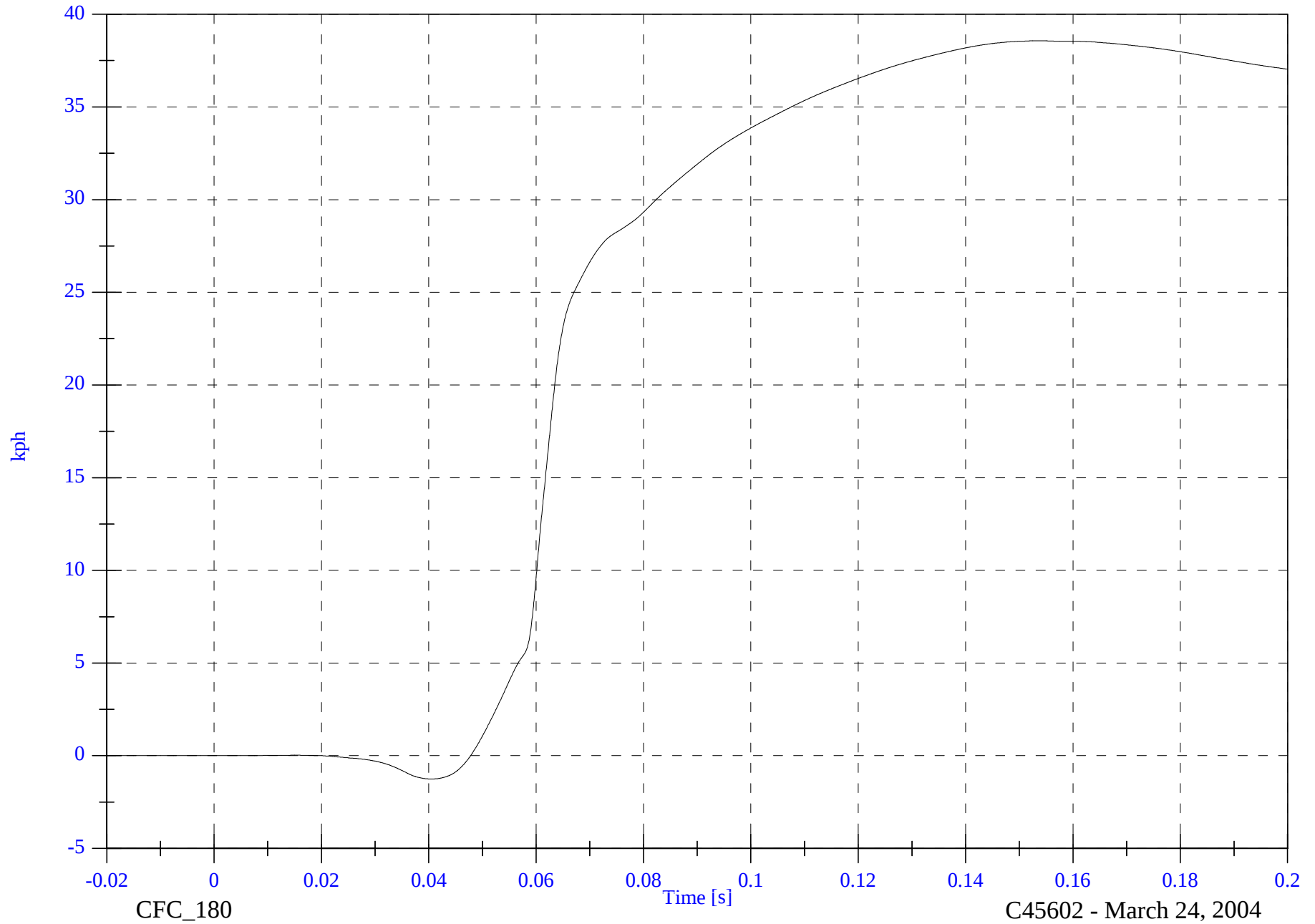


2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P1 Head y Velocity

Max: 38.6 [kph] at 0.154 [s]

Min: -1.3 [kph] at 0.040 [s]



B-9

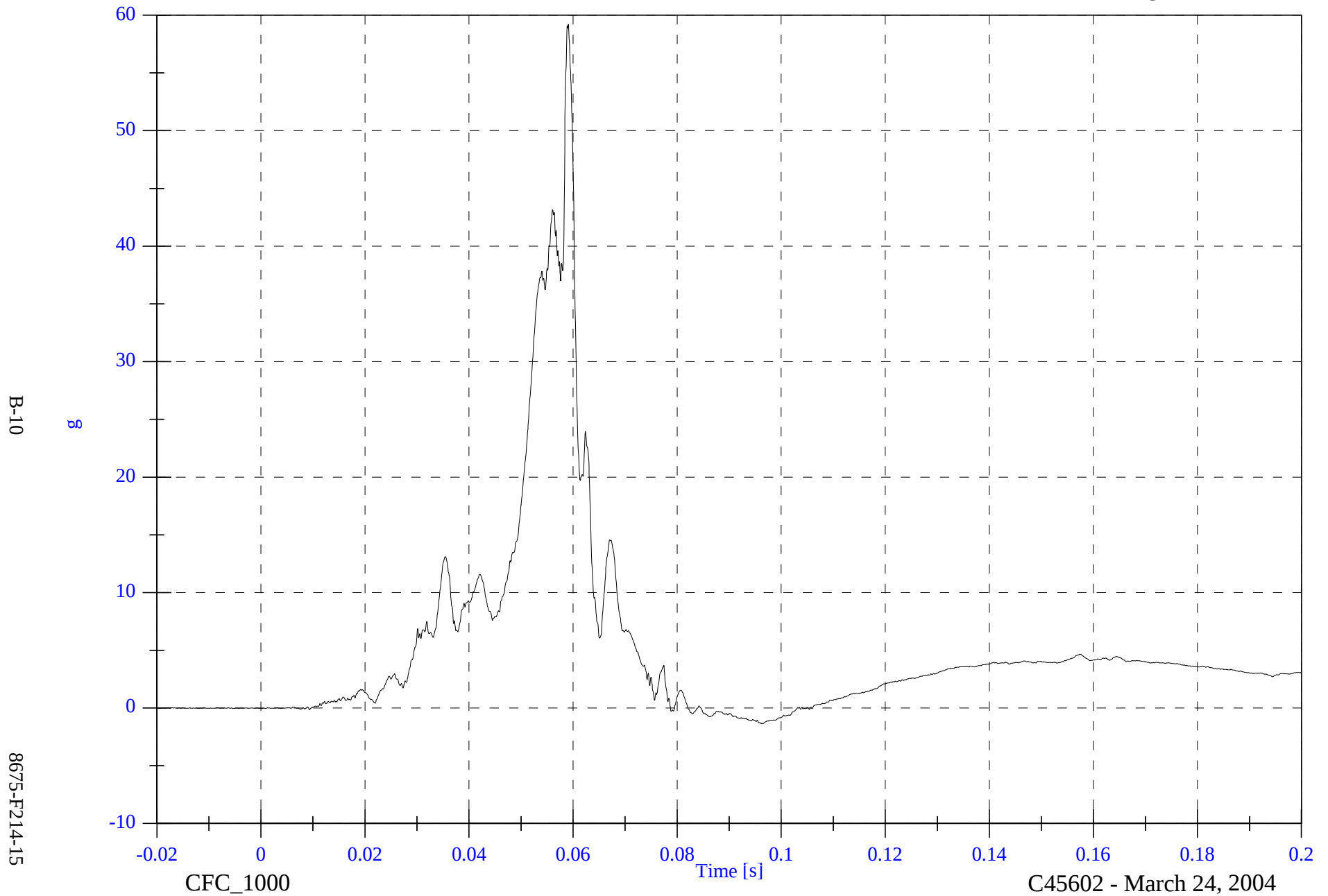
8675-F214-15

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P1 Head z

Max: 59.2 [g] at 0.059 [s]

Min: -1.4 [g] at 0.096 [s]

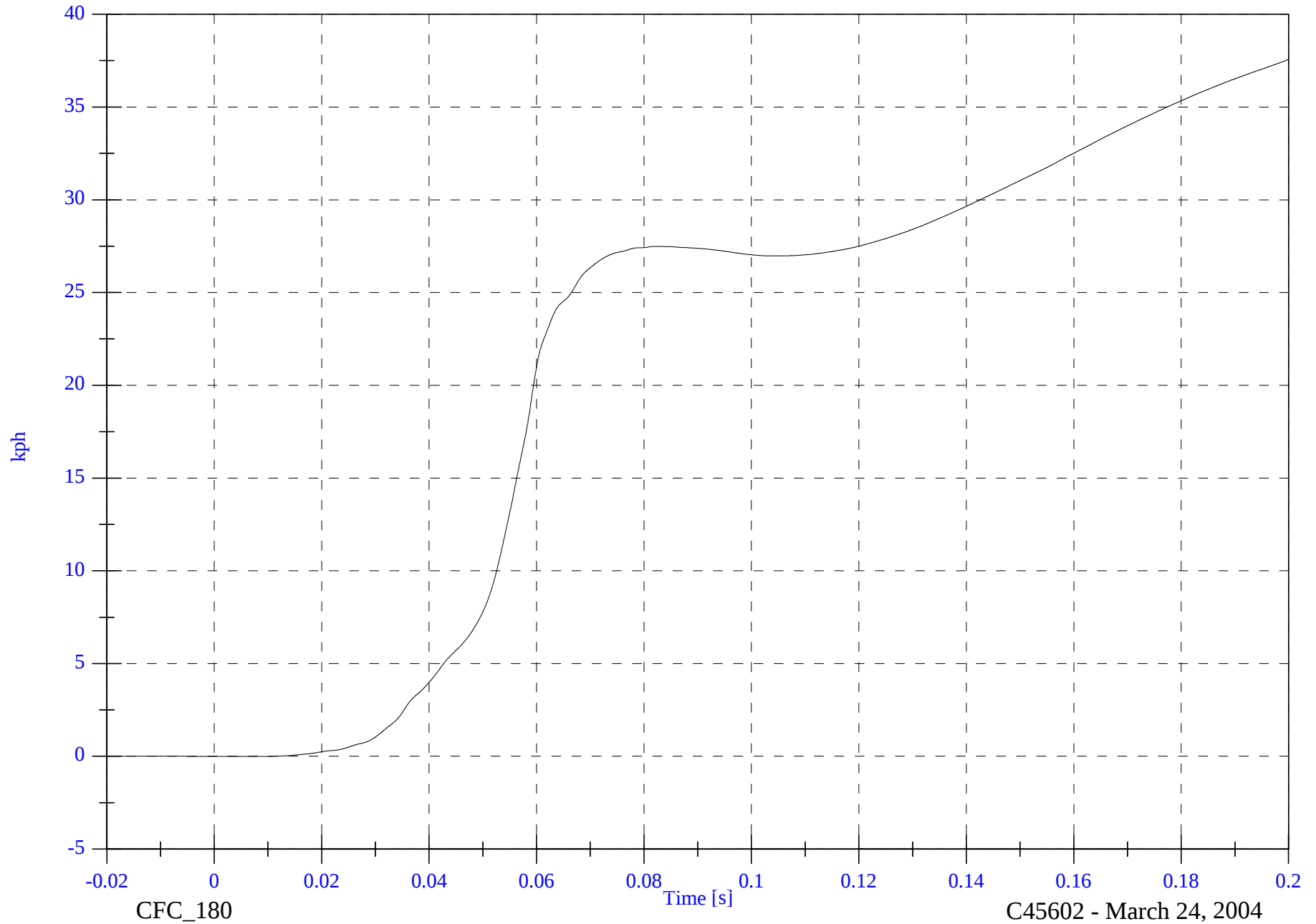


2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P1 Head z Velocity

Max: 37.6 [kph] at 0.200 [s]

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



B-11

8675-F214-15

CFC_180

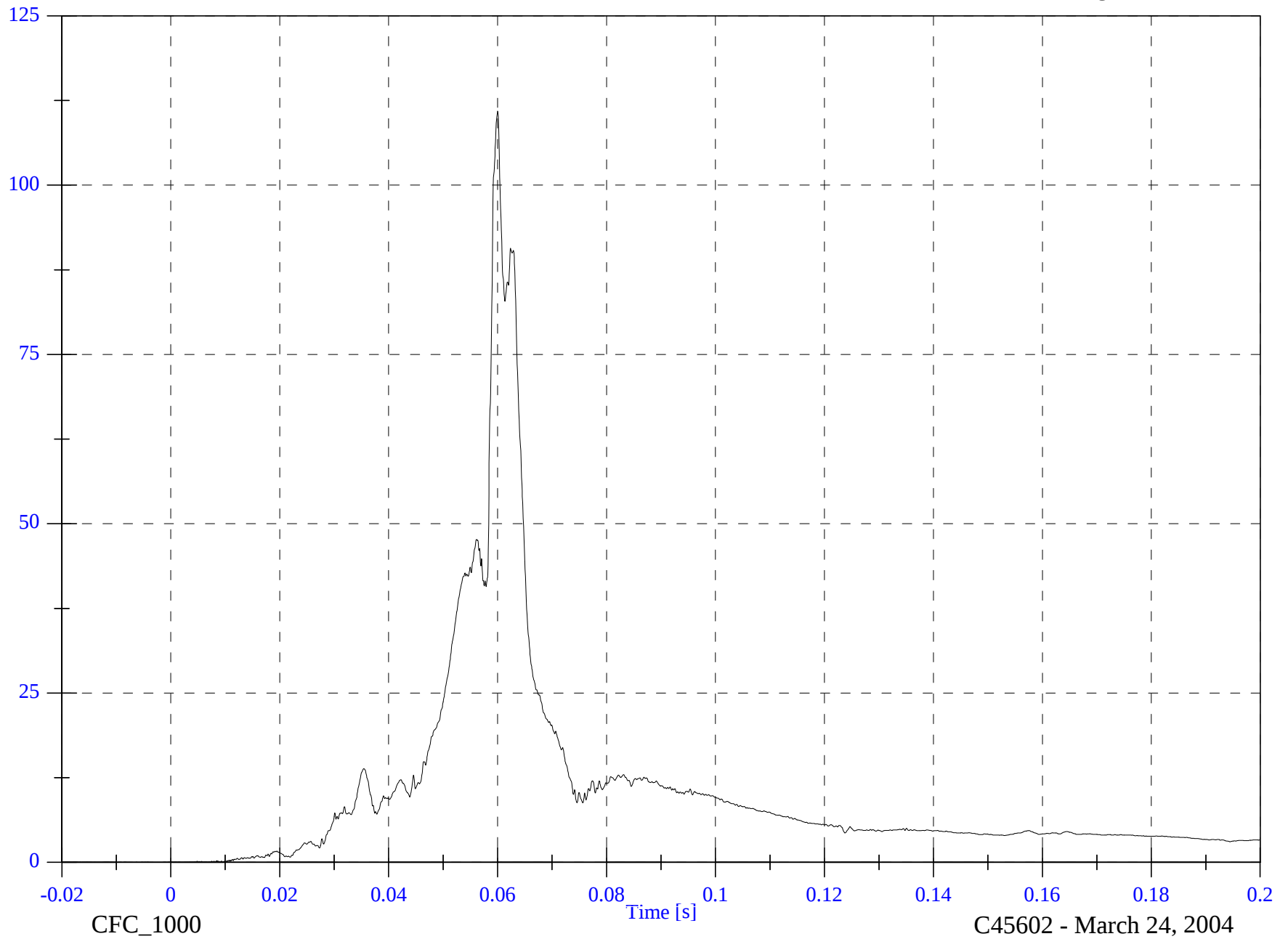
C45602 - March 24, 2004

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P1 Head Resultant

Max: 110.9 [g] at 0.060 [s]

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



B-12

8675-F214-15

CFC_1000

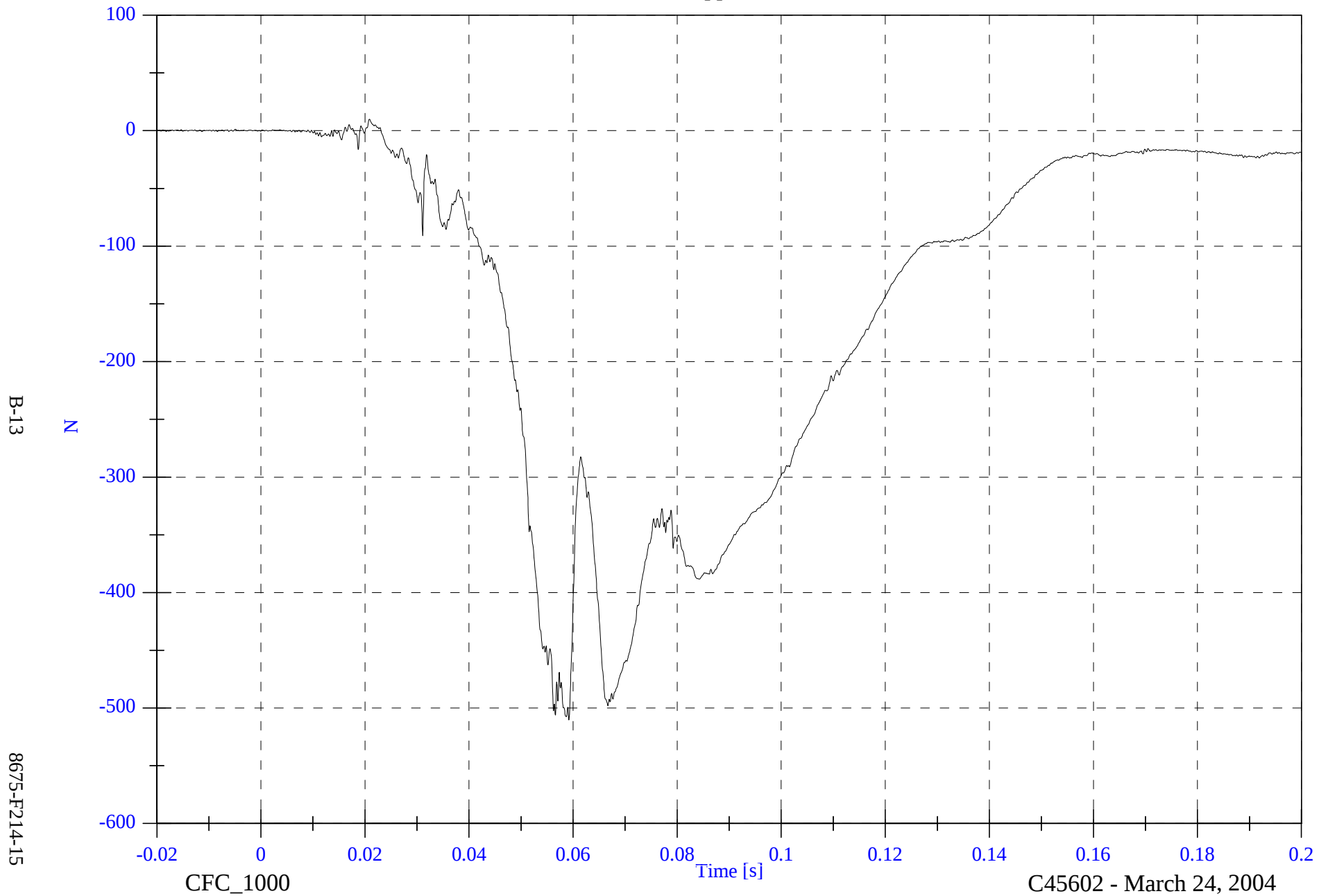
C45602 - March 24, 2004

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P1 Upper Neck Fx

Max: 9.9 [N] at 0.021 [s]

Min: -510.4 [N] at 0.059 [s]



2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P1 Upper Neck Fy

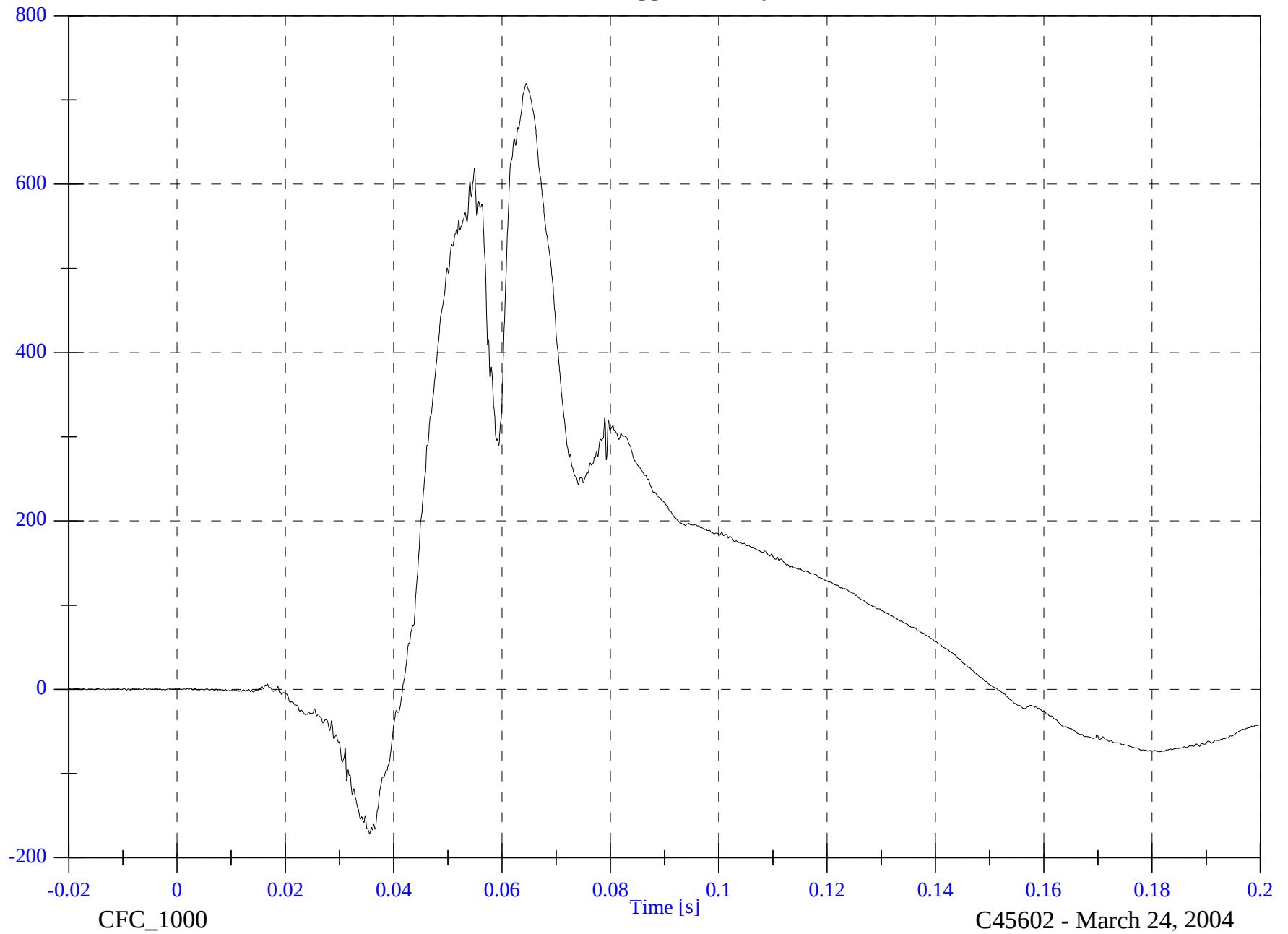
Max: 719.4 [N] at 0.064 [s]

Min: -171.5 [N] at 0.036 [s]

B-14

N

8675-F214-15

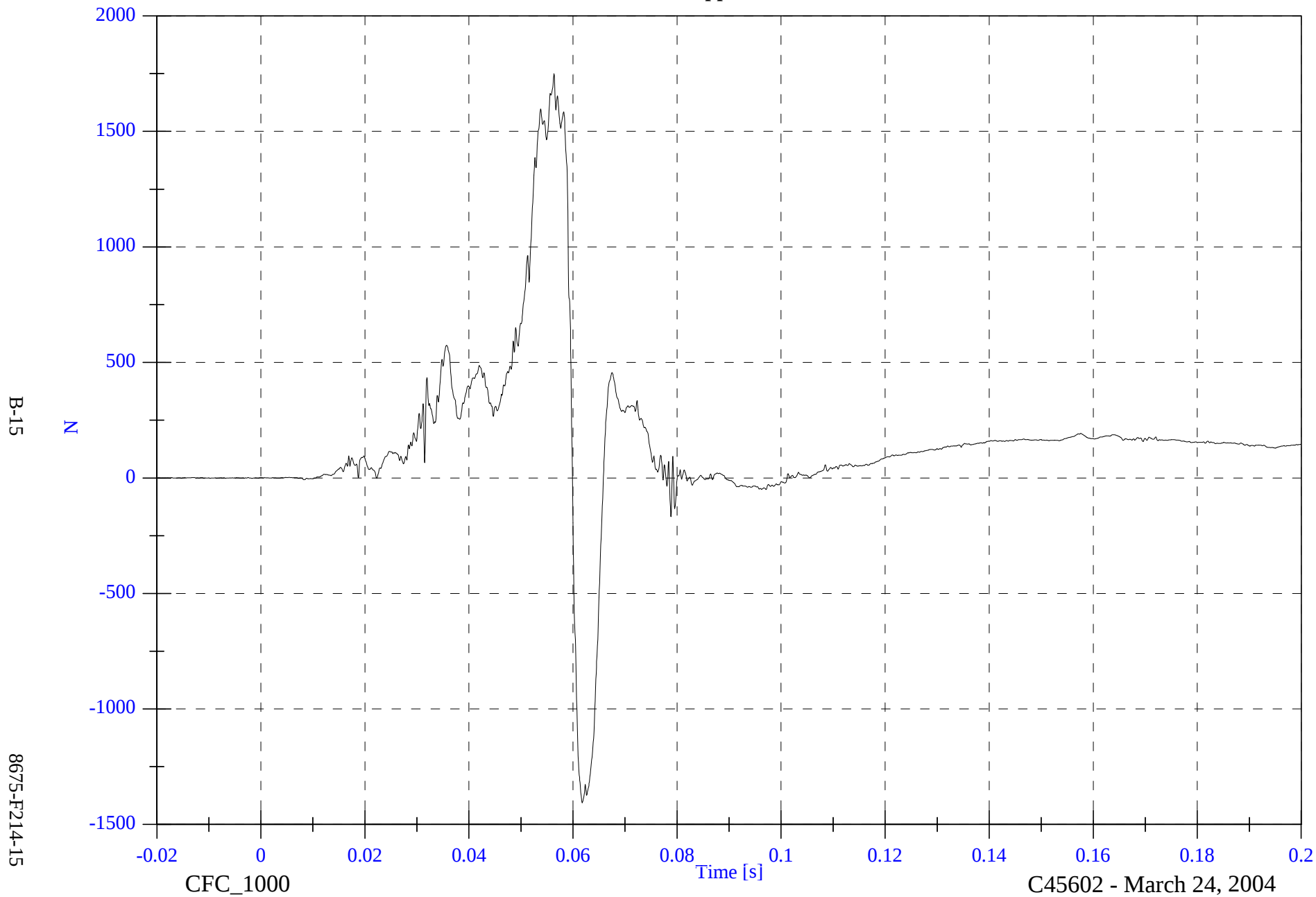


2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P1 Upper Neck Fz

Max: 1750.7 [N] at 0.056 [s]

Min: -1406.1 [N] at 0.062 [s]

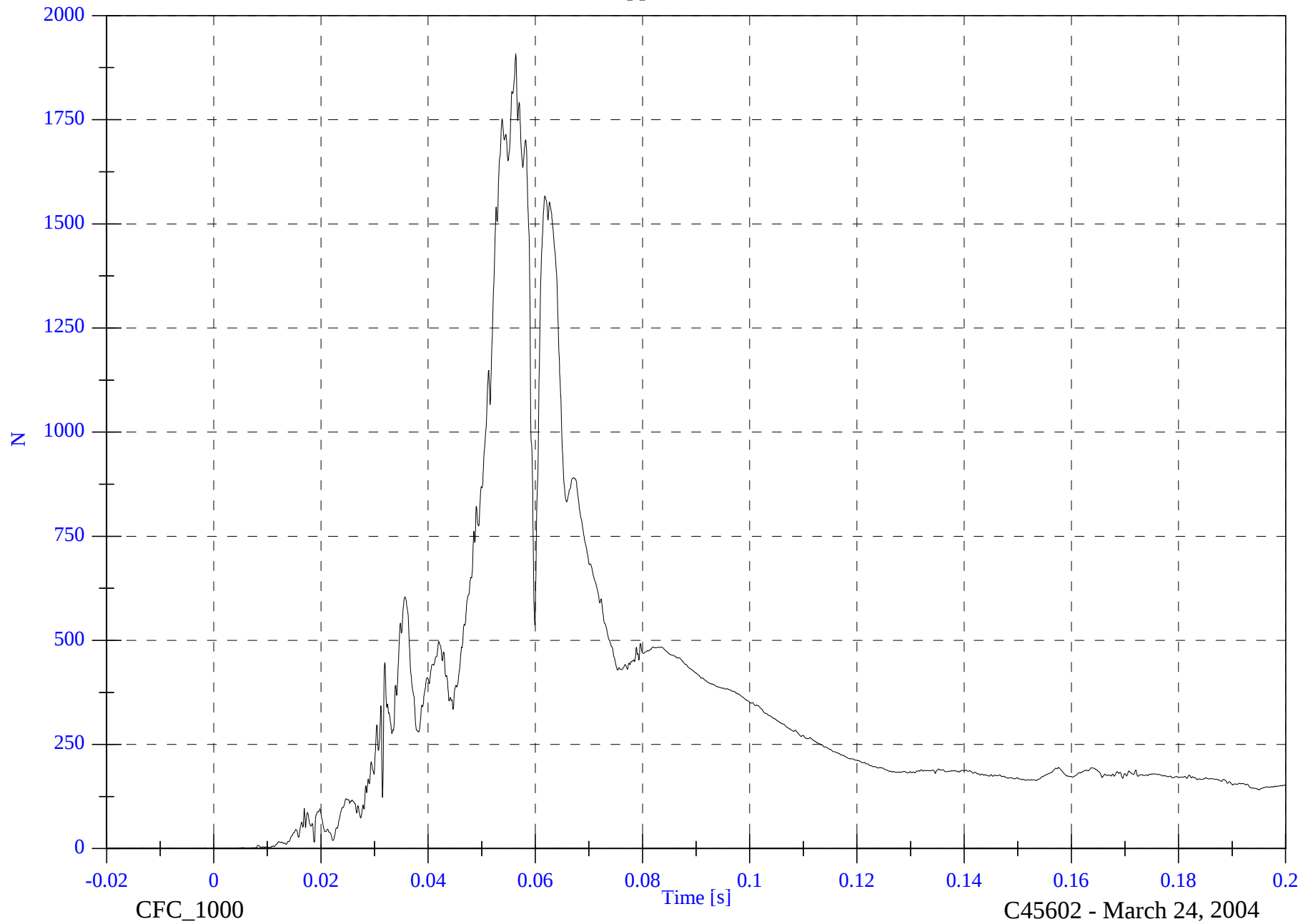


2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P1 Upper Neck F Resultant

Max: 1908.8 [N] at 0.056 [s]

Min: 0.1 [N] at -0.011 [s]



B-16

8675-F214-15

CFC_1000

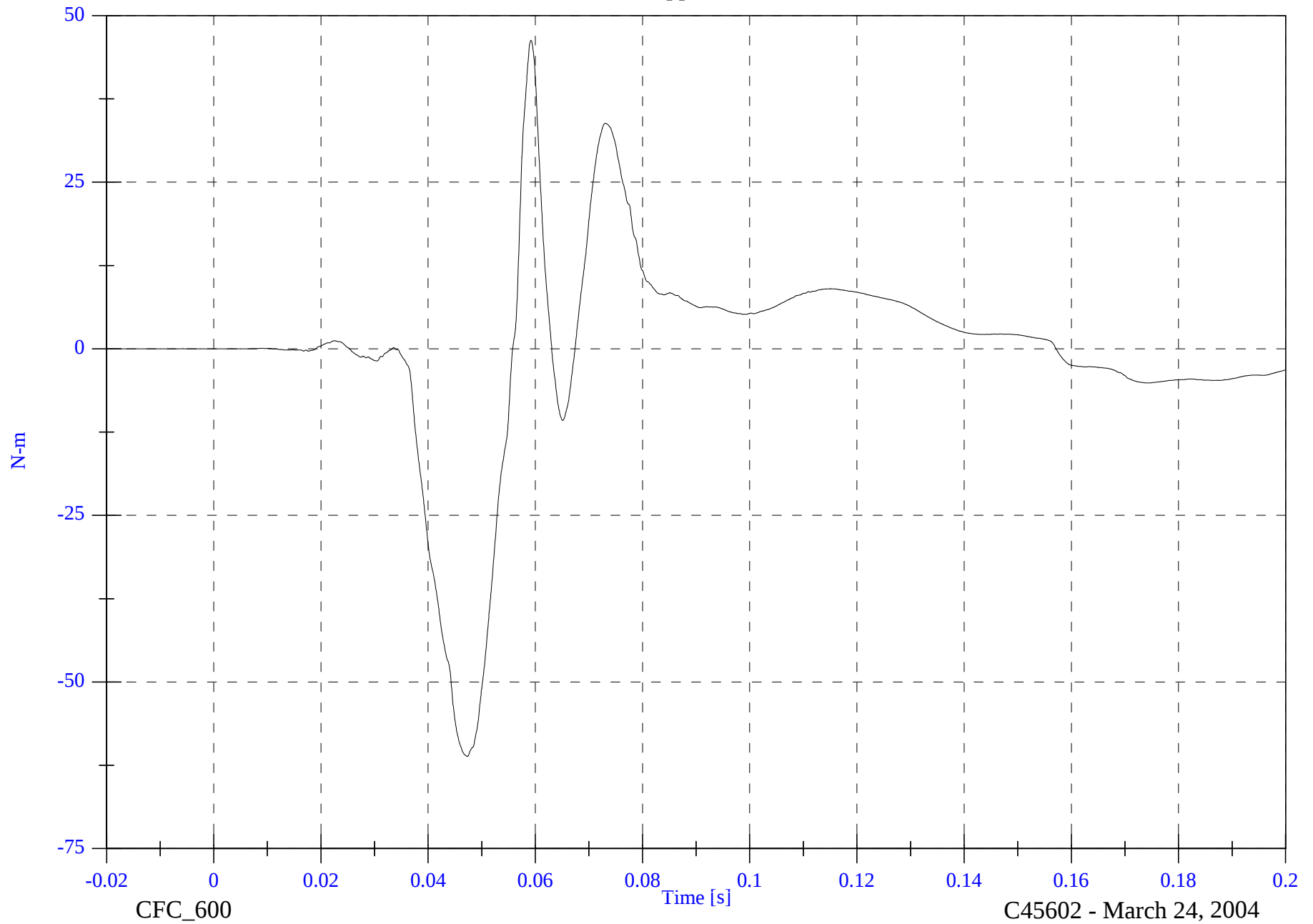
C45602 - March 24, 2004

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P1 Upper Neck Mx

Max: 46.3 [N-m] at 0.059 [s]

Min: -61.2 [N-m] at 0.047 [s]



B-17

8675-F214-15

CFC_600

C45602 - March 24, 2004

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P1 Upper Neck My

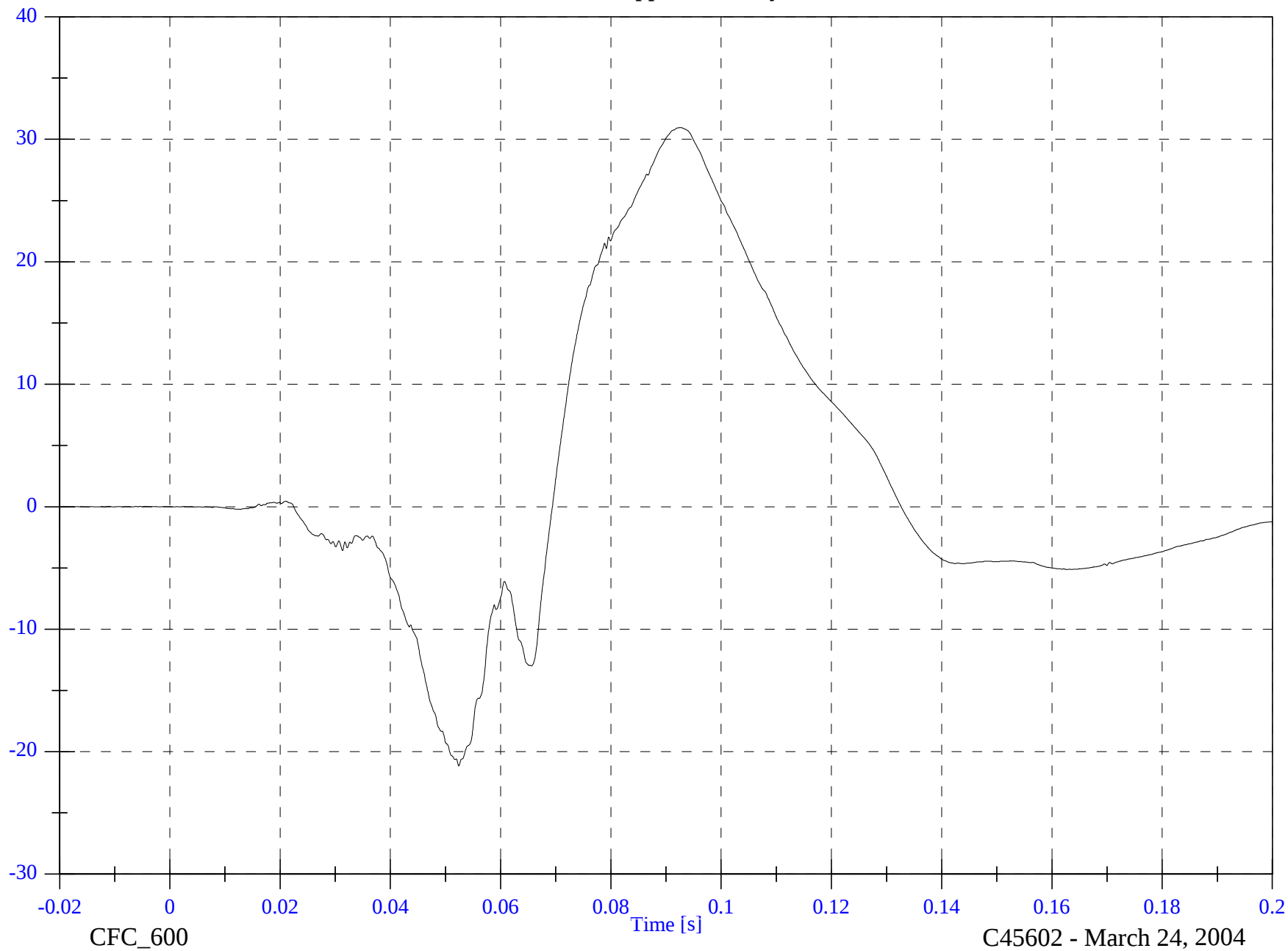
Max: 31.0 [N-m] at 0.093 [s]

Min: -21.2 [N-m] at 0.052 [s]

B-18

N-m

8675-F214-15

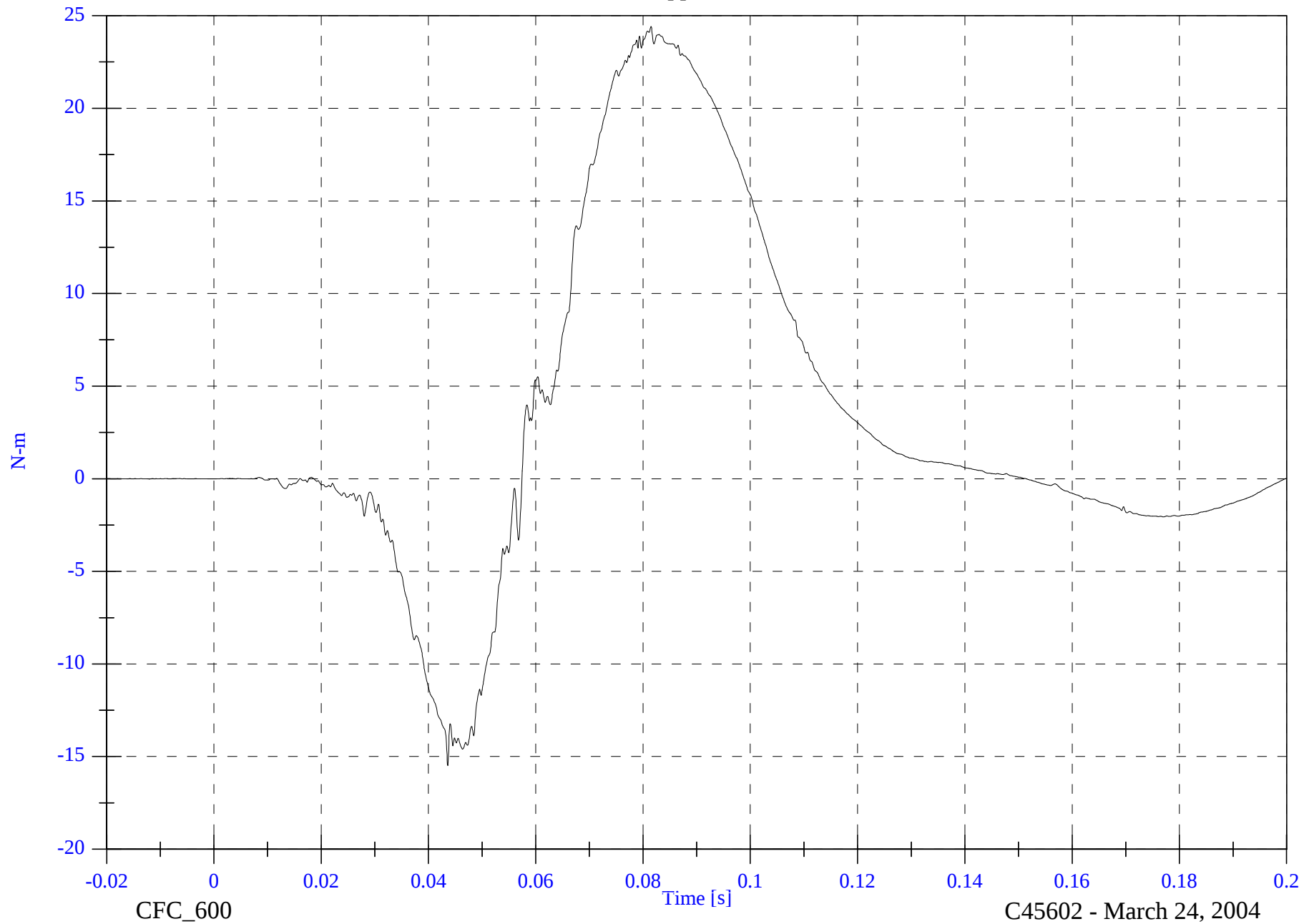


2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P1 Upper Neck Mz

Max: 24.4 [N-m] at 0.081 [s]

Min: -15.5 [N-m] at 0.044 [s]



B-19

8675-F214-15

CFC_600

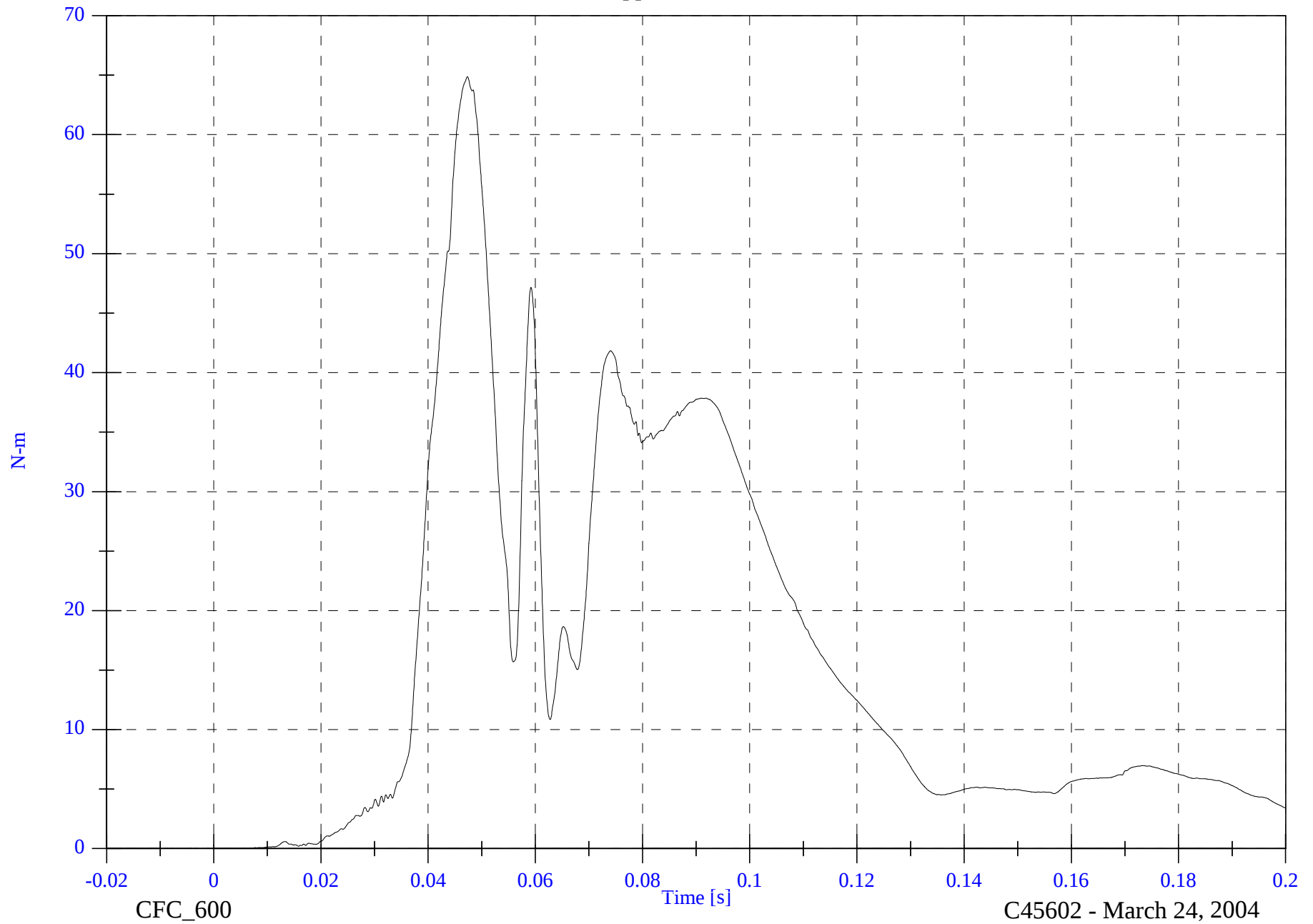
C45602 - March 24, 2004

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P1 Upper Neck M Resultant

Max: 64.9 [N-m] at 0.047 [s]

Min: 0.0 [N-m] at -0.013 [s]



B-20

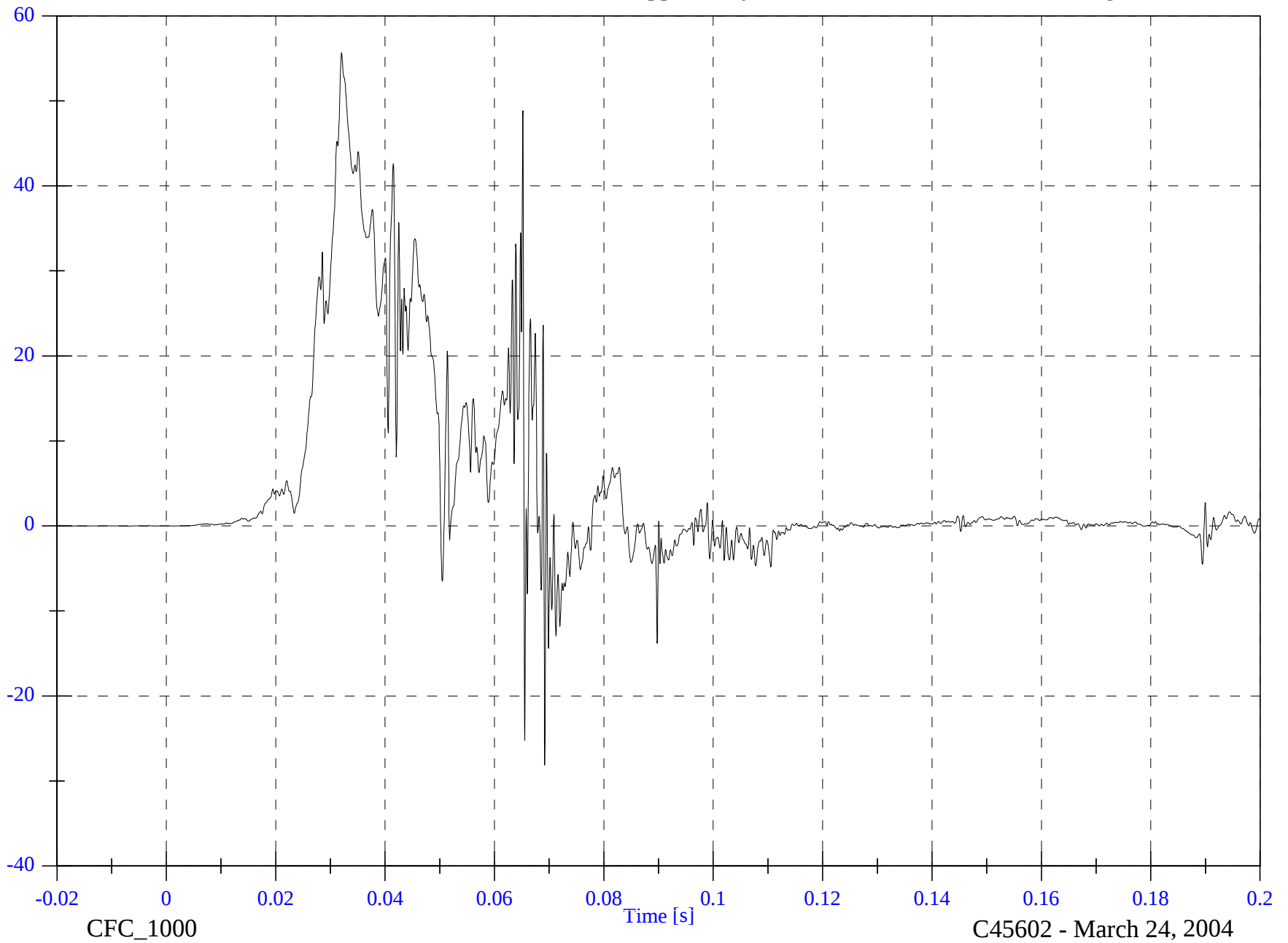
8675-F214-15

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P1 Upper Rib y

Max: 55.7 [g] at 0.032 [s]

Min: -28.1 [g] at 0.069 [s]



B-21

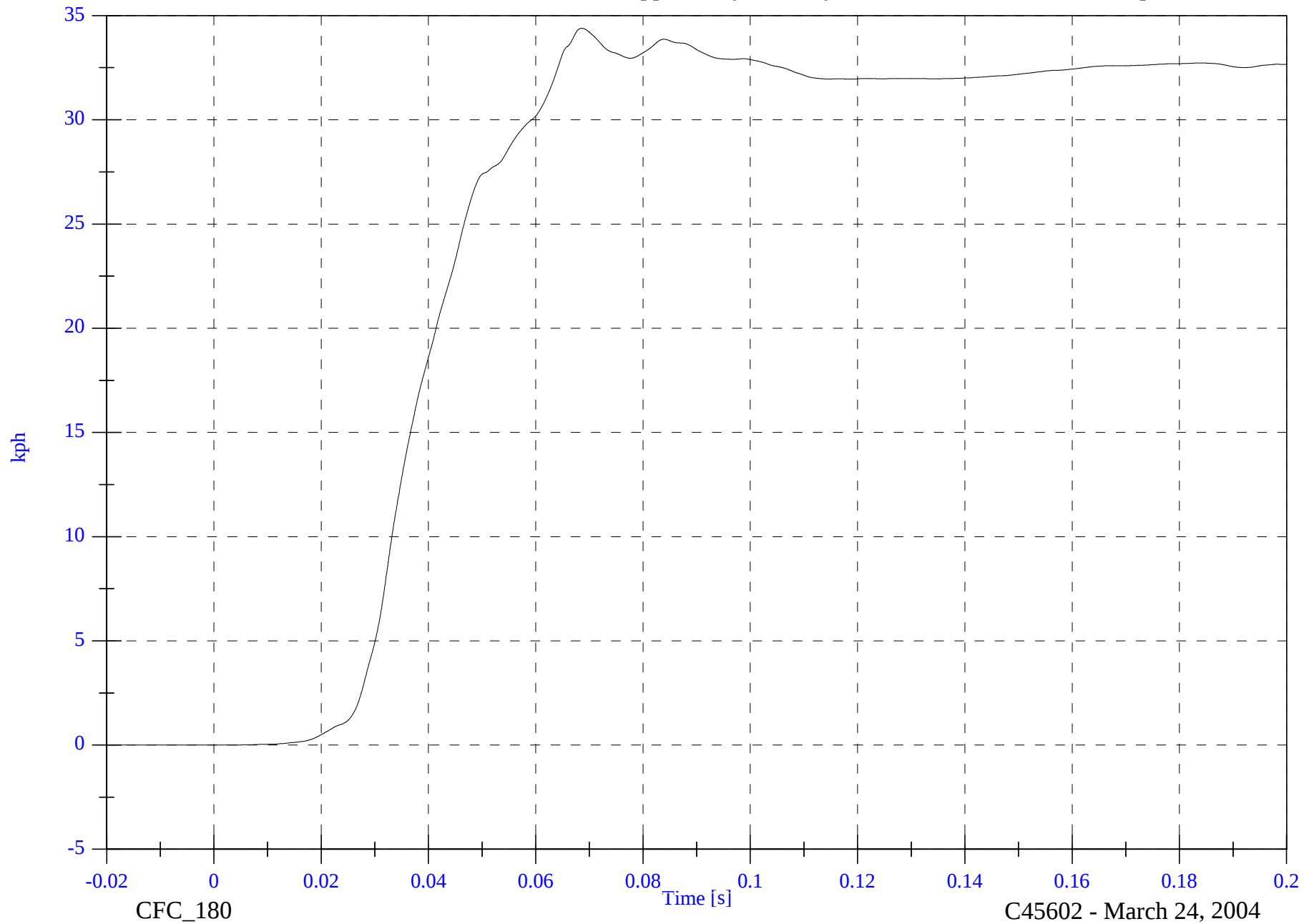
8675-F214-15

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P1 Upper Rib y Velocity

Max: 34.4 [kph] at 0.069 [s]

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



B-22

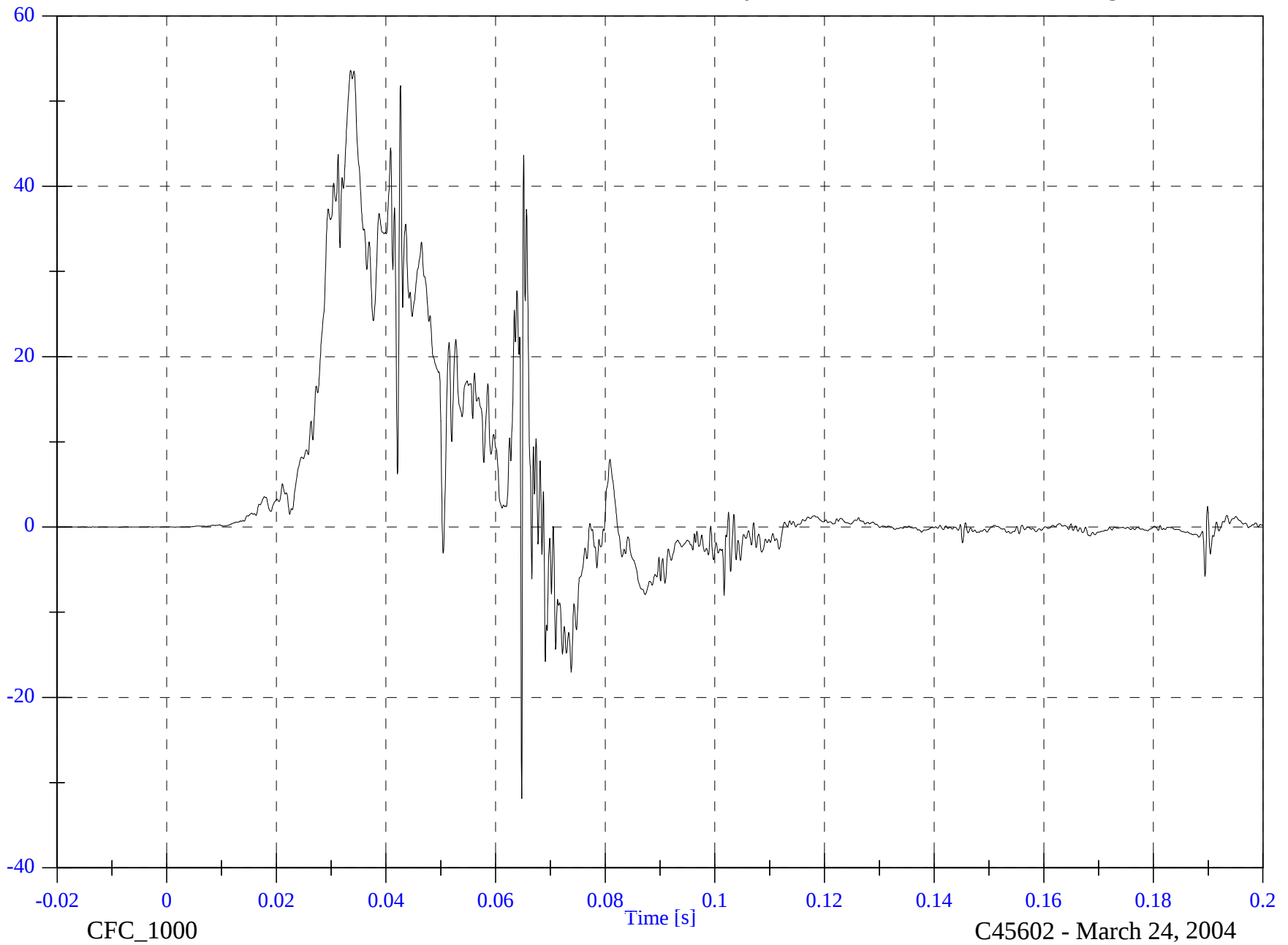
8675-F214-15

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P1 Lower Rib y

Max: 53.6 [g] at 0.034 [s]

Min: -31.9 [g] at 0.065 [s]



B-23

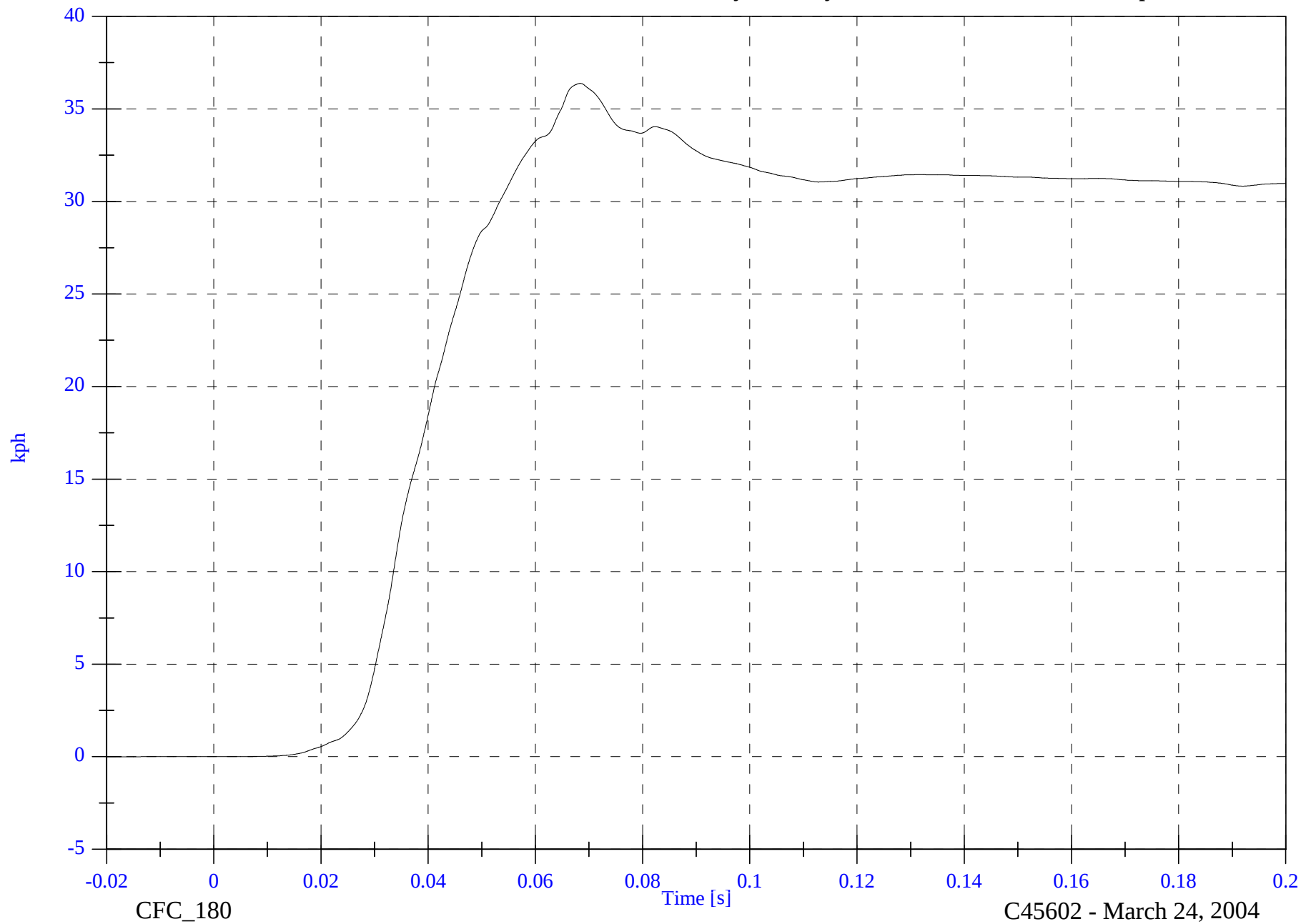
8675-F214-15

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P1 Lower Rib y Velocity

Max: 36.4 [kph] at 0.068 [s]

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



B-24

8675-F214-15

CFC_180

Time [s]

C45602 - March 24, 2004

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

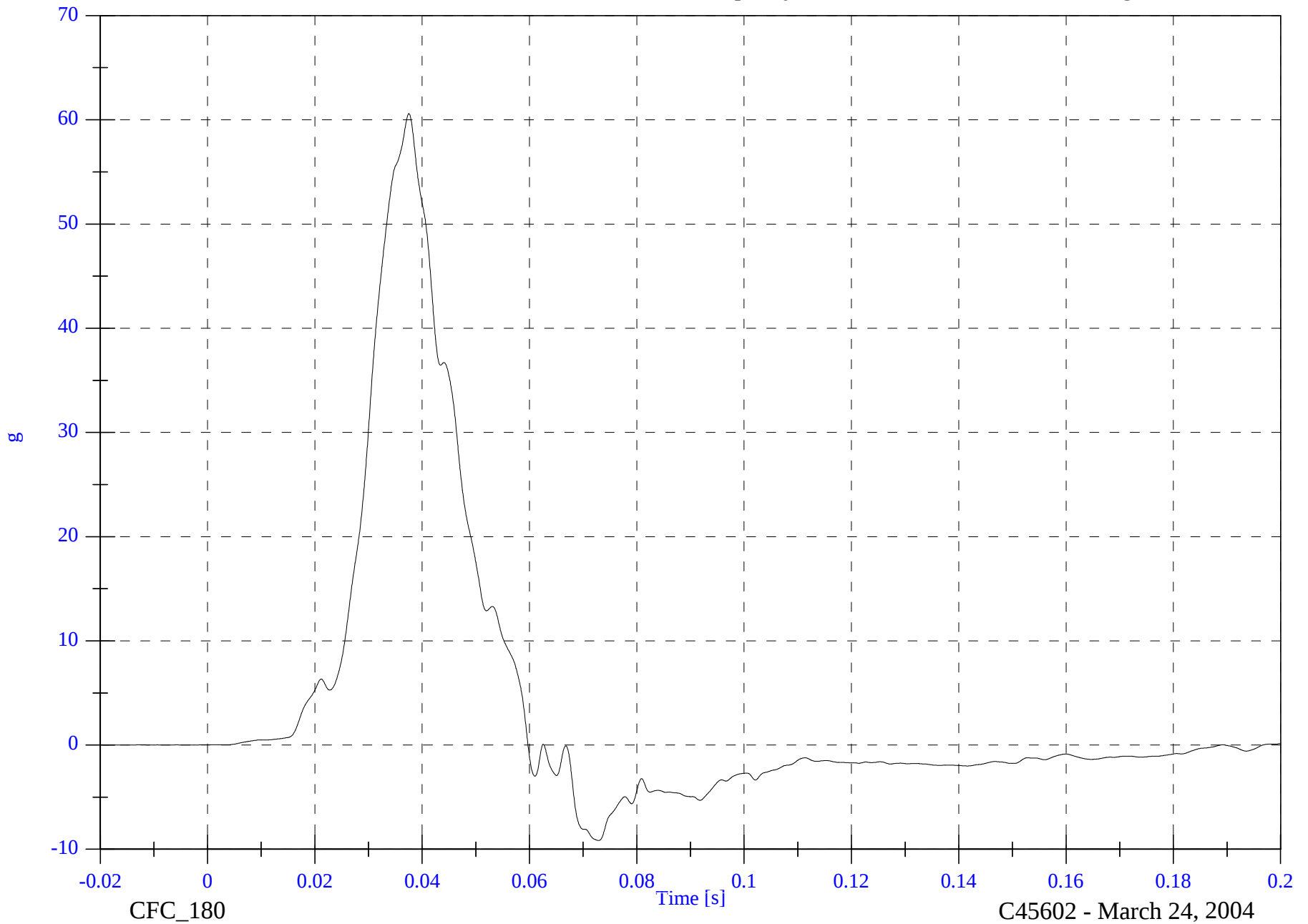
V2P1 Lower Spine y

Max: 60.6 [g] at 0.037 [s]

Min: -9.2 [g] at 0.073 [s]

B-25

8675-F214-15

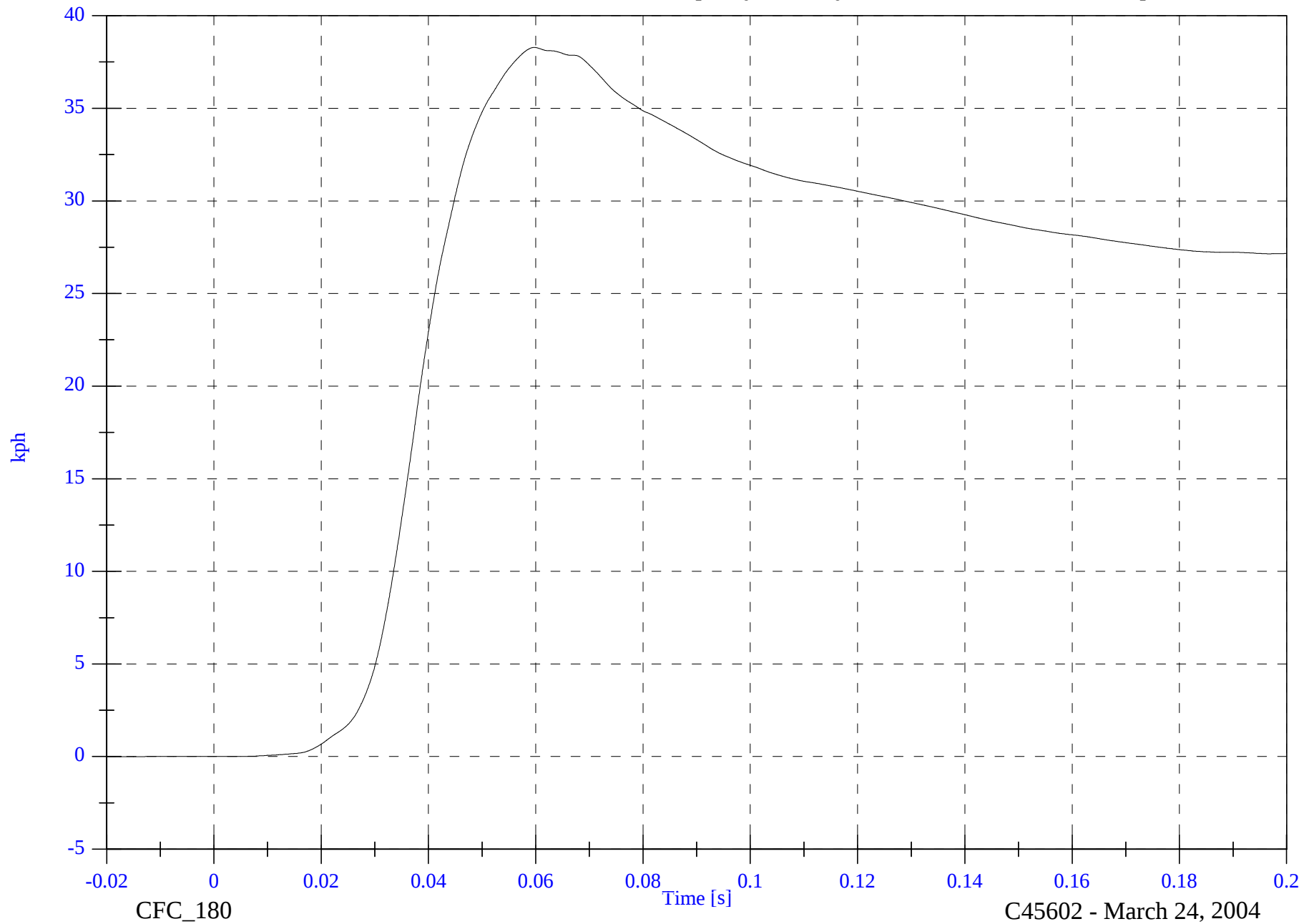


2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P1 Lower Spine y Velocity

Max: 38.3 [kph] at 0.060 [s]

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

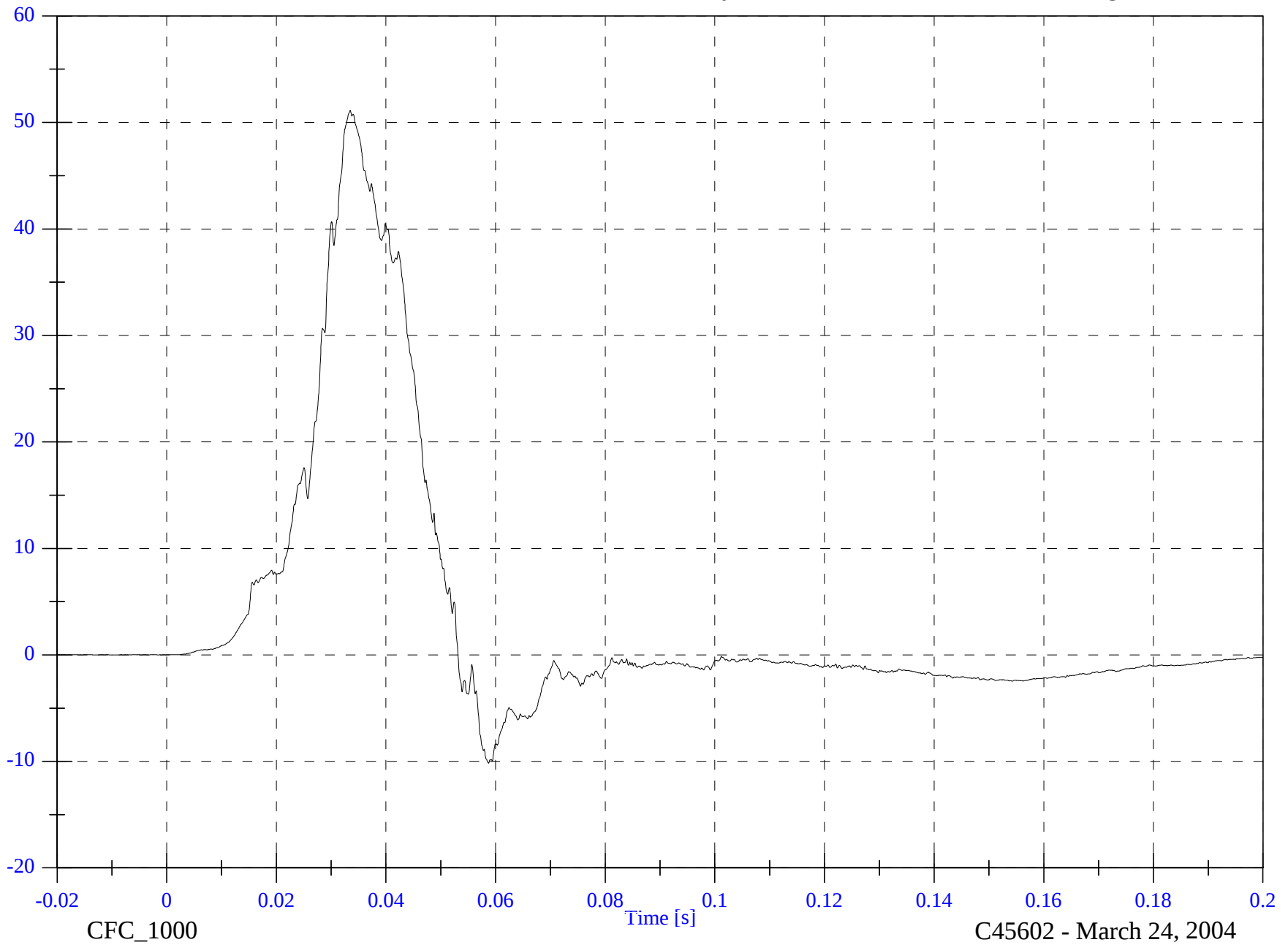


2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P1 Pelvic y

Max: 51.1 [g] at 0.034 [s]

Min: -10.2 [g] at 0.059 [s]



B-27

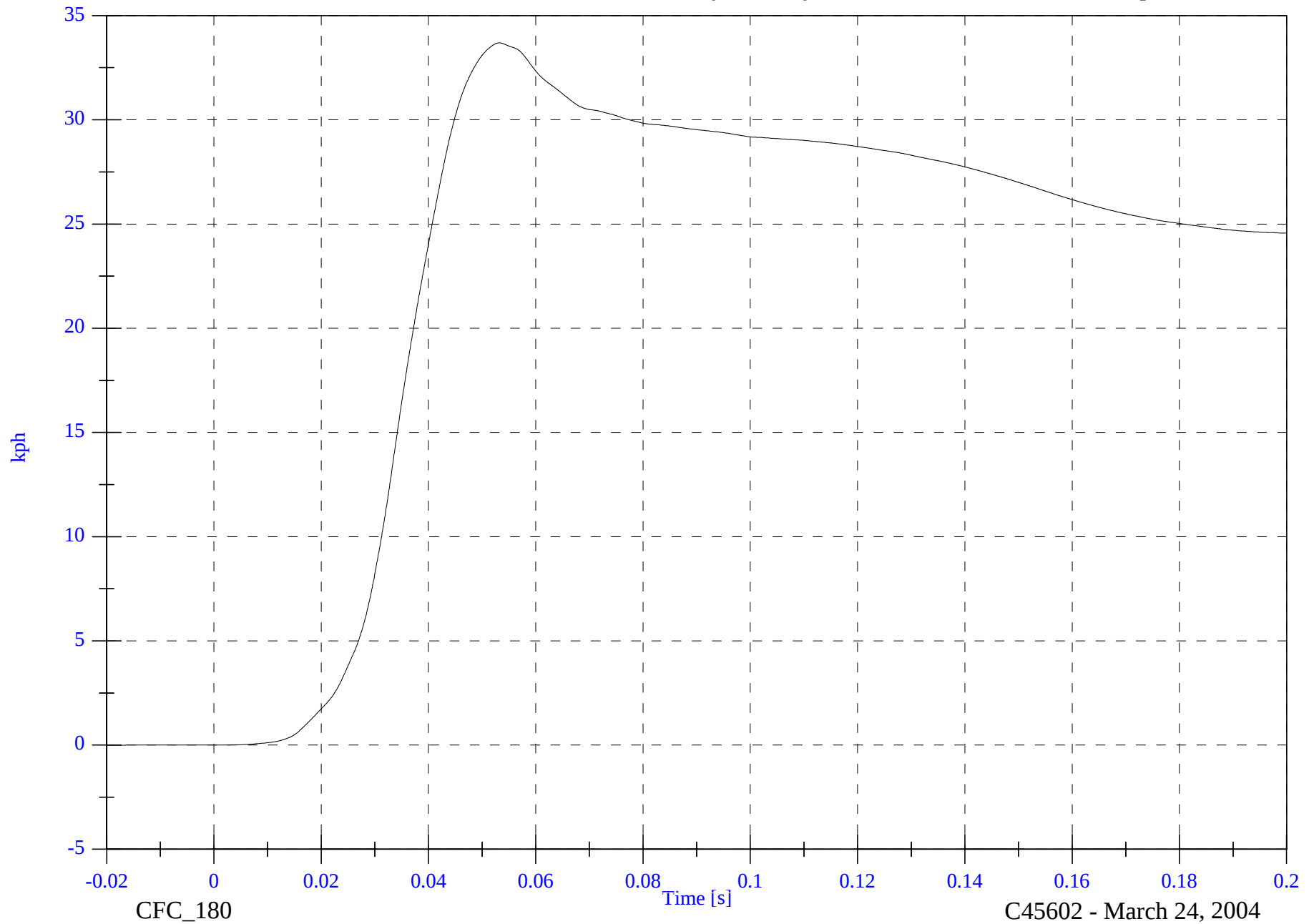
8675-F214-15

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

Max: 33.7 [kph] at 0.053 [s]

V2P1 Pelvic y Velocity

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



B-28

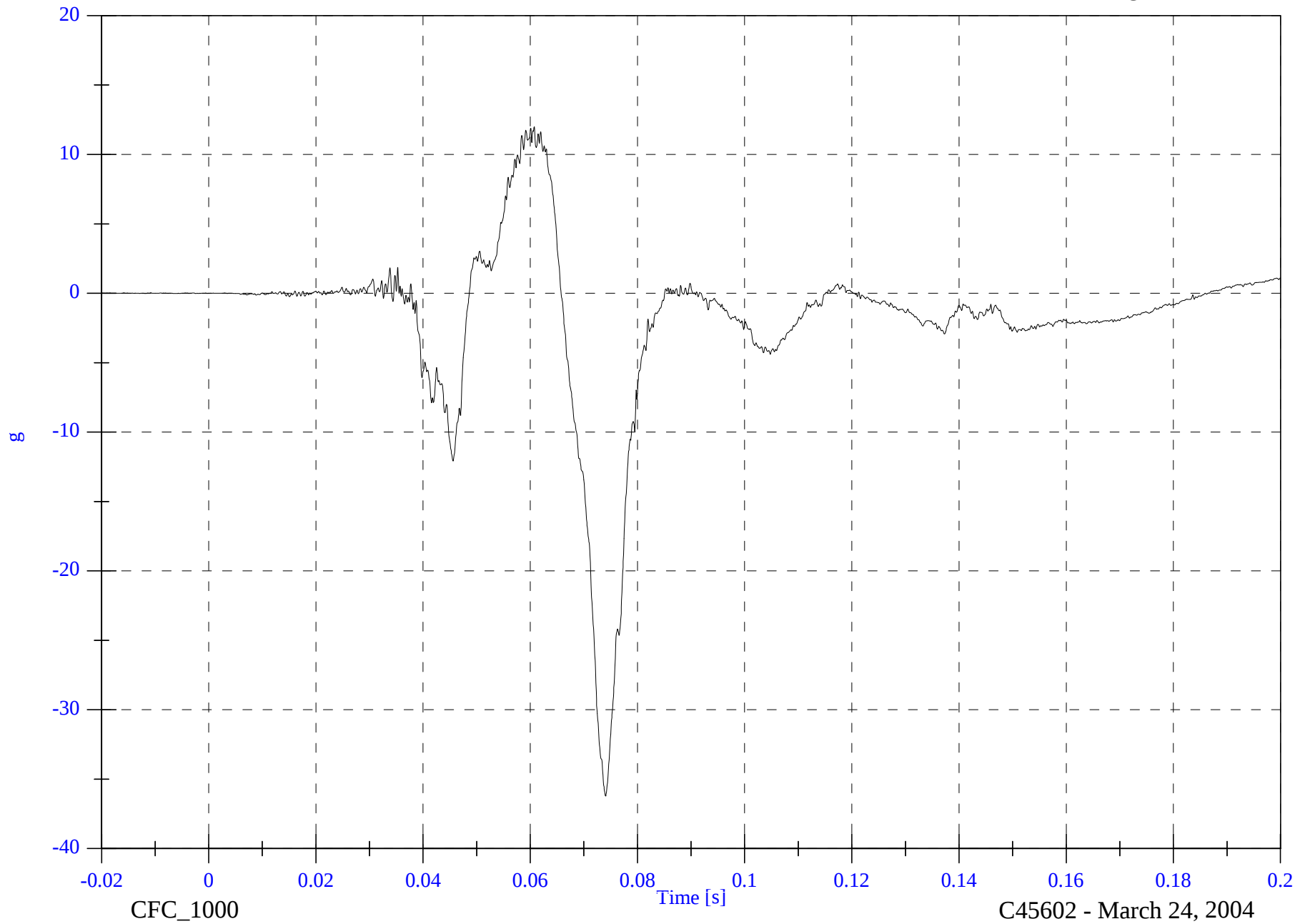
8675-F214-15

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P4 Head x

Max: 12.0 [g] at 0.061 [s]

Min: -36.2 [g] at 0.074 [s]



B-29

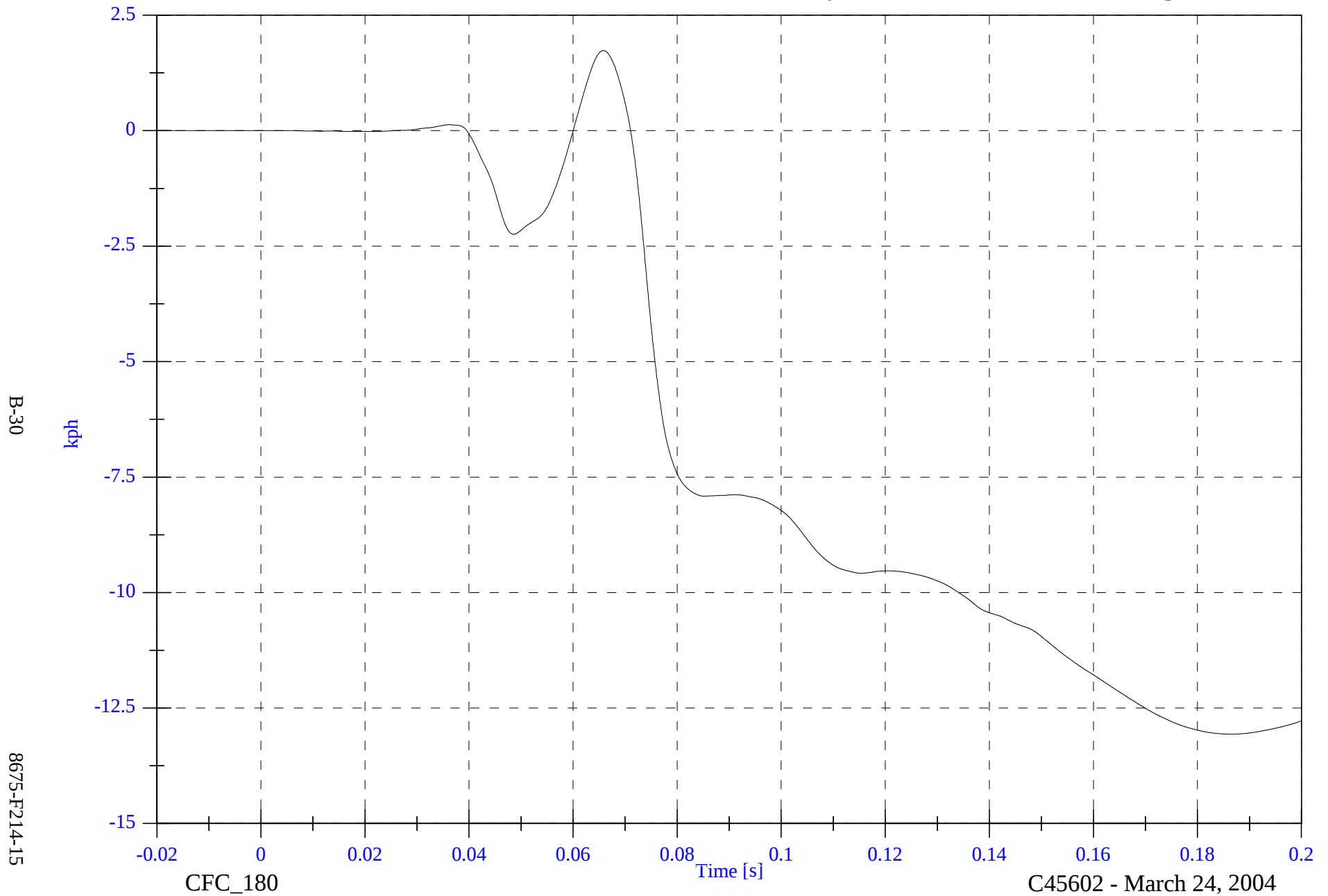
8675-F214-15

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P4 Head x Velocity

Max: 1.7 [kph] at 0.066 [s]

Min: -13.1 [kph] at 0.186 [s]

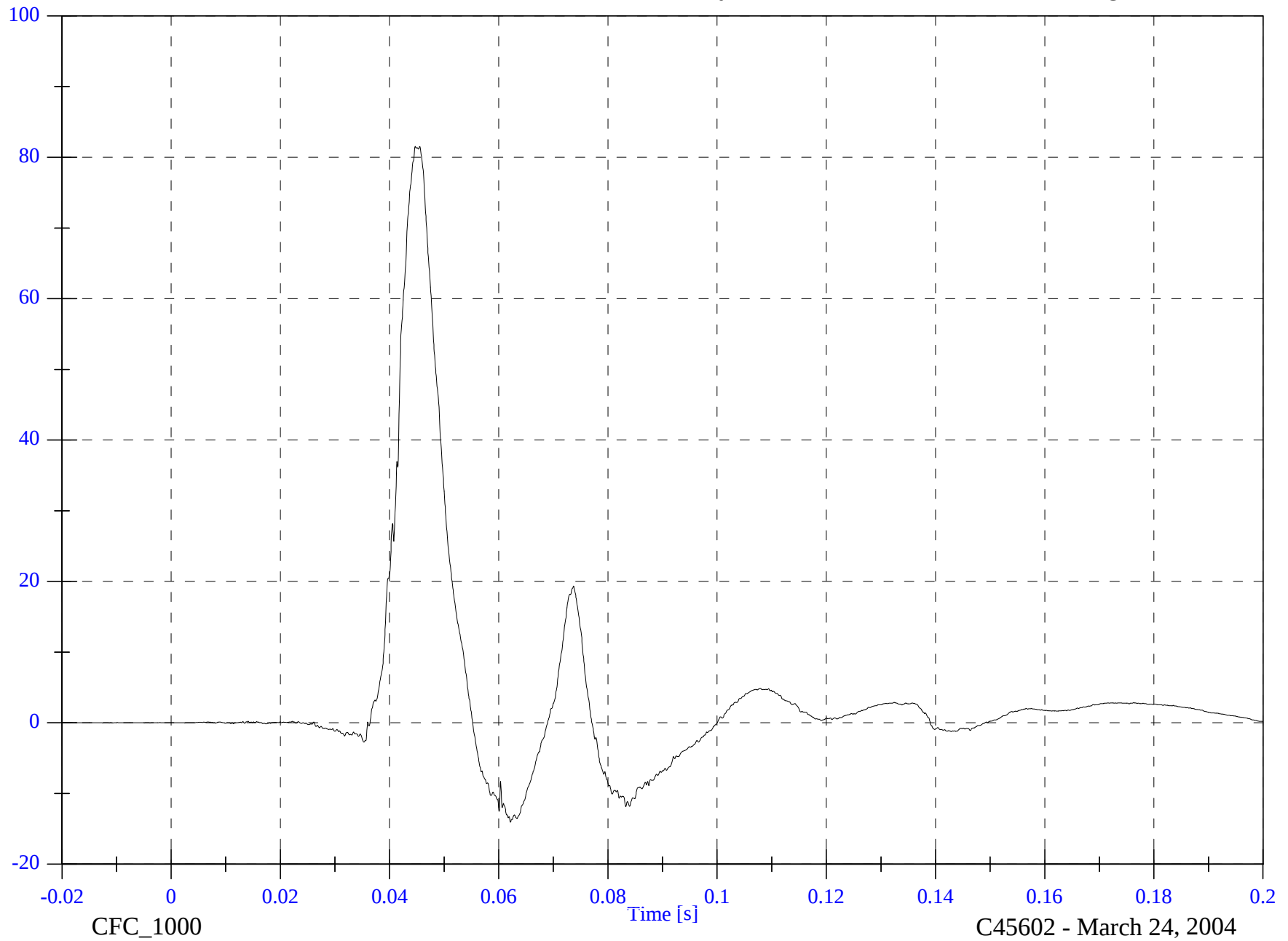


2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P4 Head y

Max: 81.5 [g] at 0.045 [s]

Min: -14.1 [g] at 0.062 [s]



B-31

8675-F214-15

CFC_1000

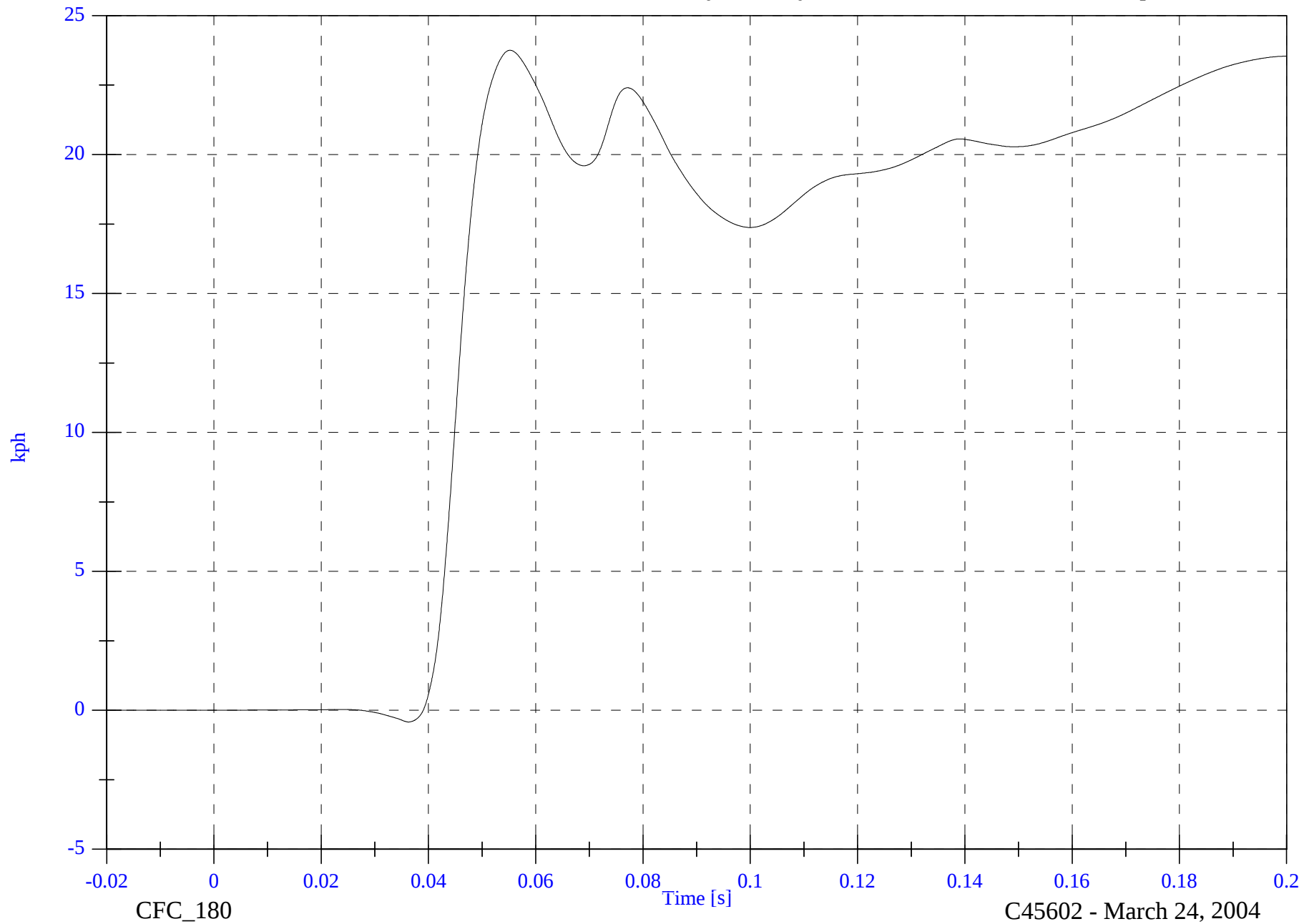
C45602 - March 24, 2004

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P4 Head y Velocity

Max: 23.8 [kph] at 0.055 [s]

Min: -0.4 [kph] at 0.036 [s]



B-32

8675-F214-15

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

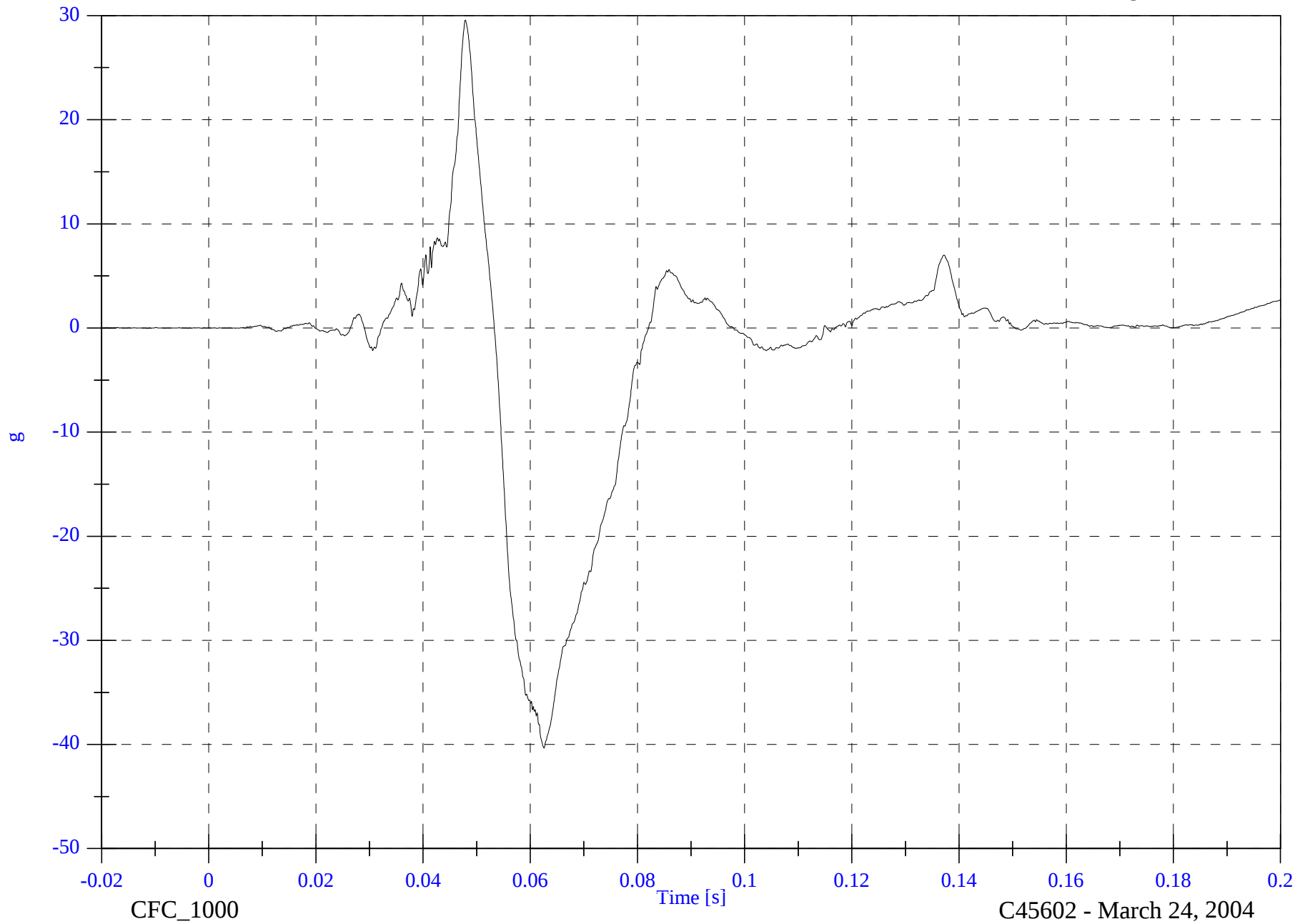
V2P4 Head z

Max: 29.6 [g] at 0.048 [s]

Min: -40.4 [g] at 0.063 [s]

B-33

8675-F214-15

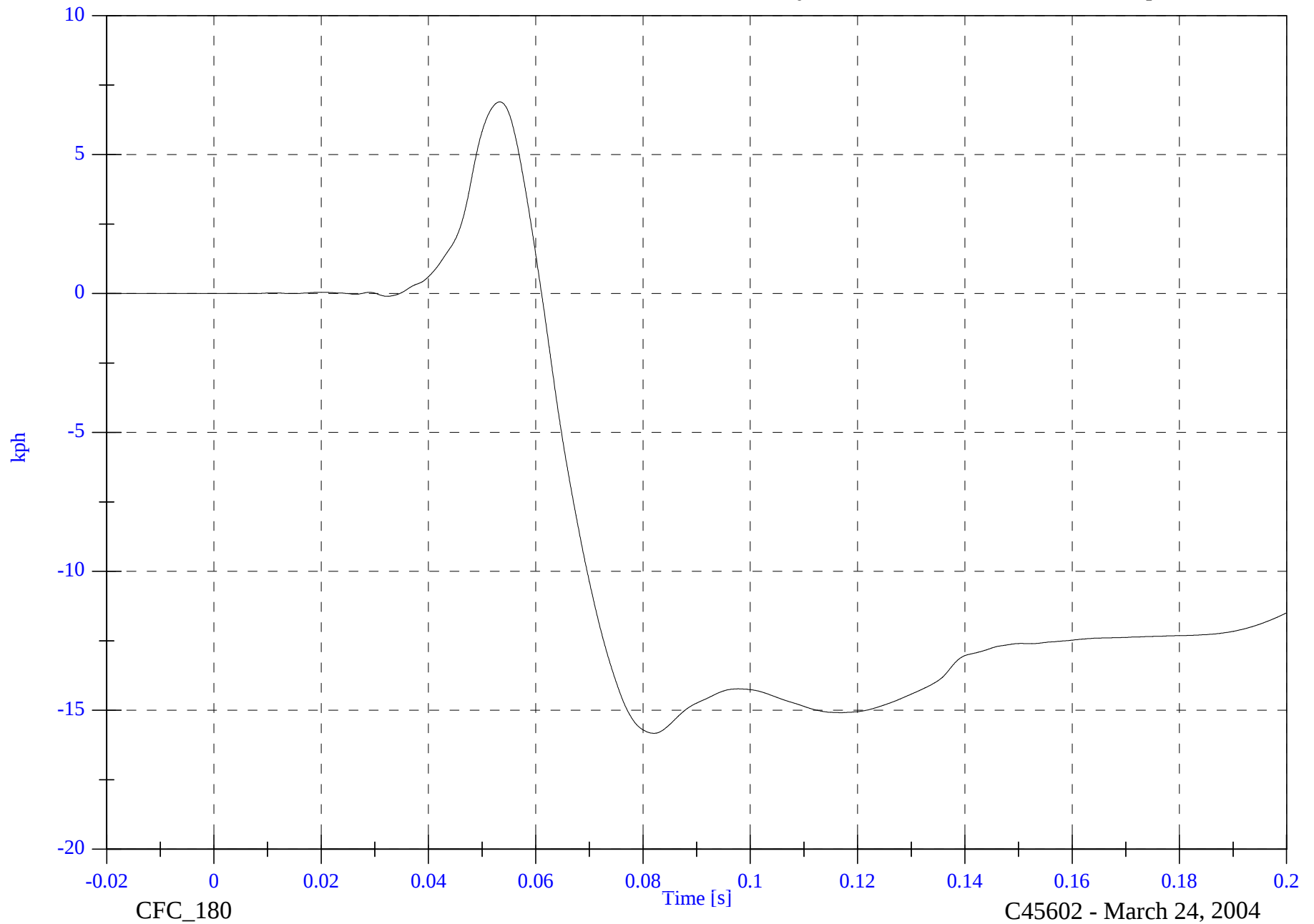


2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P4 Head z Velocity

Max: 6.9 [kph] at 0.053 [s]

Min: -15.8 [kph] at 0.082 [s]



B-34

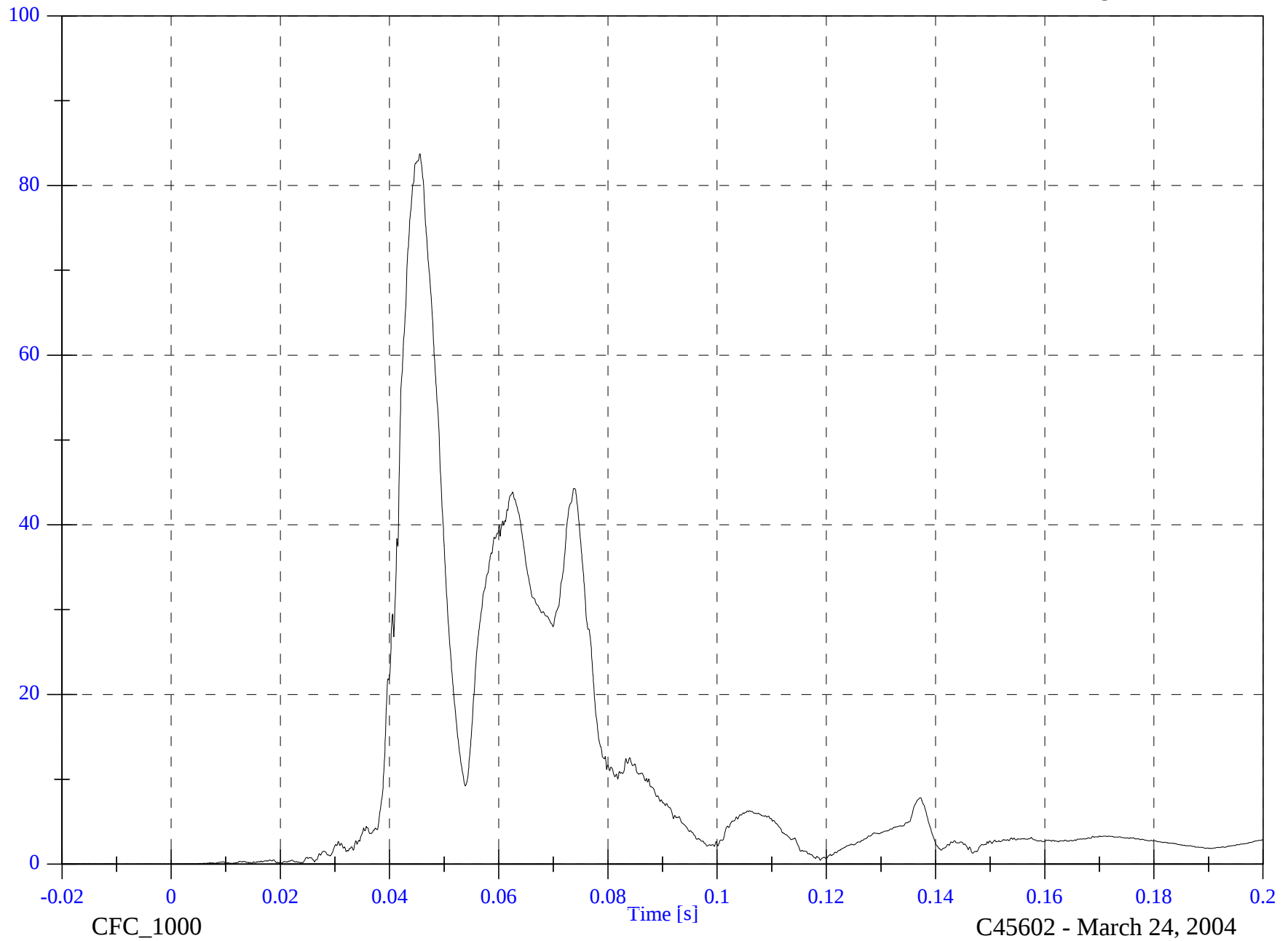
8675-F214-15

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P4 Head Resultant

Max: 83.7 [g] at 0.046 [s]

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



B-35

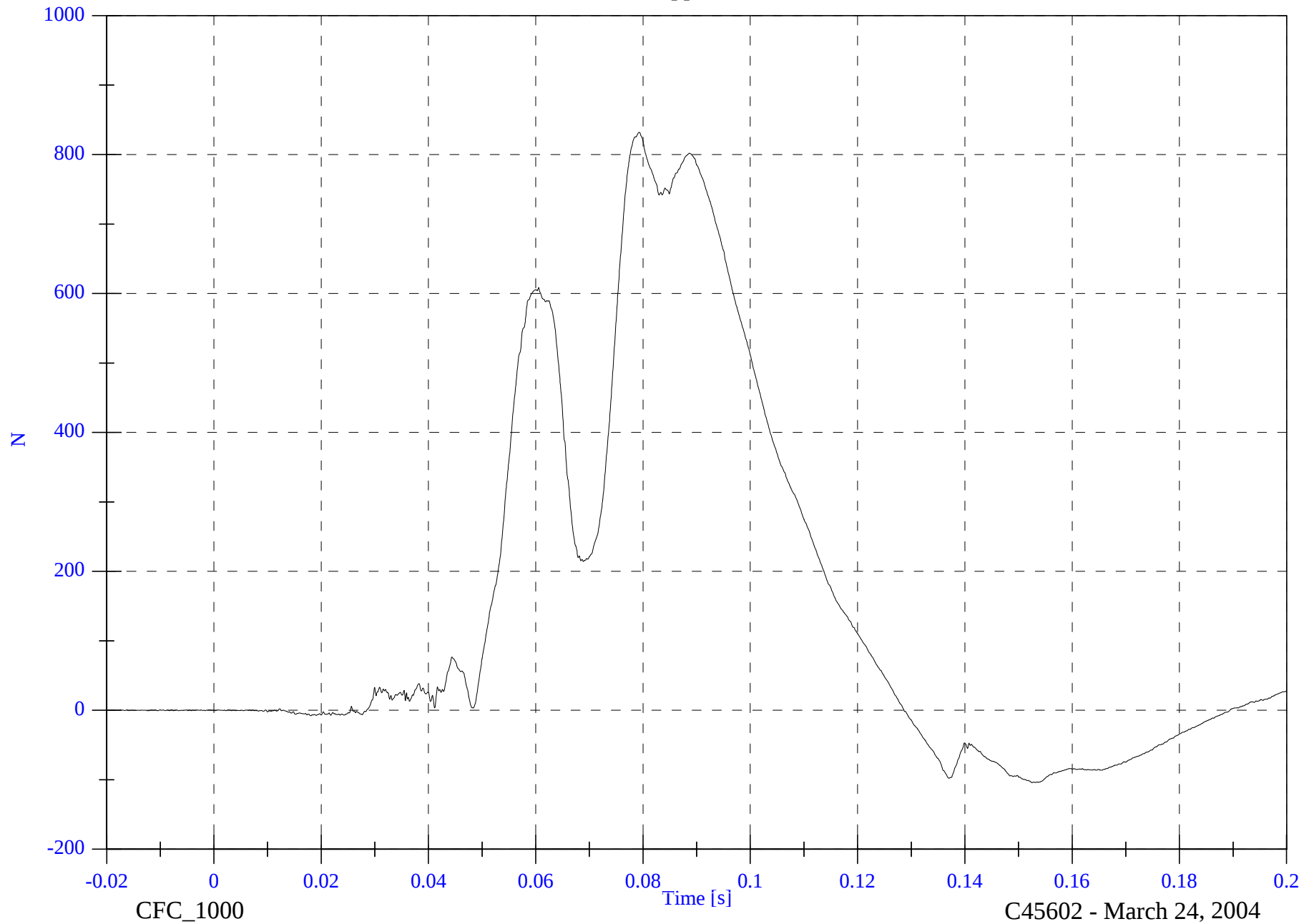
8675-F214-15

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P4 Upper Neck Fx

Max: 831.8 [N] at 0.079 [s]

Min: -104.1 [N] at 0.153 [s]



B-36

8675-F214-15

CFC_1000

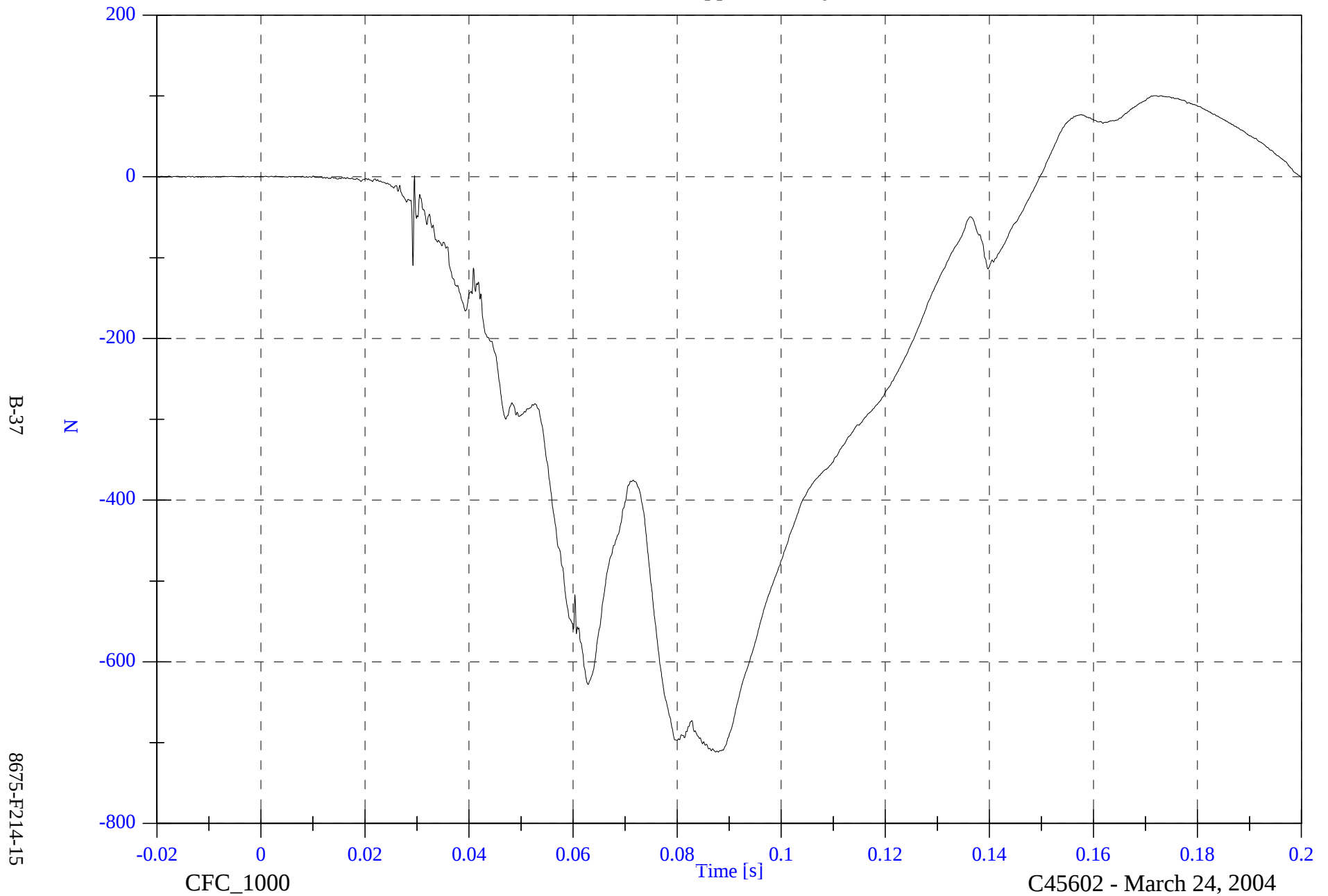
C45602 - March 24, 2004

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P4 Upper Neck Fy

Max: 100.5 [N] at 0.172 [s]

Min: -711.7 [N] at 0.088 [s]

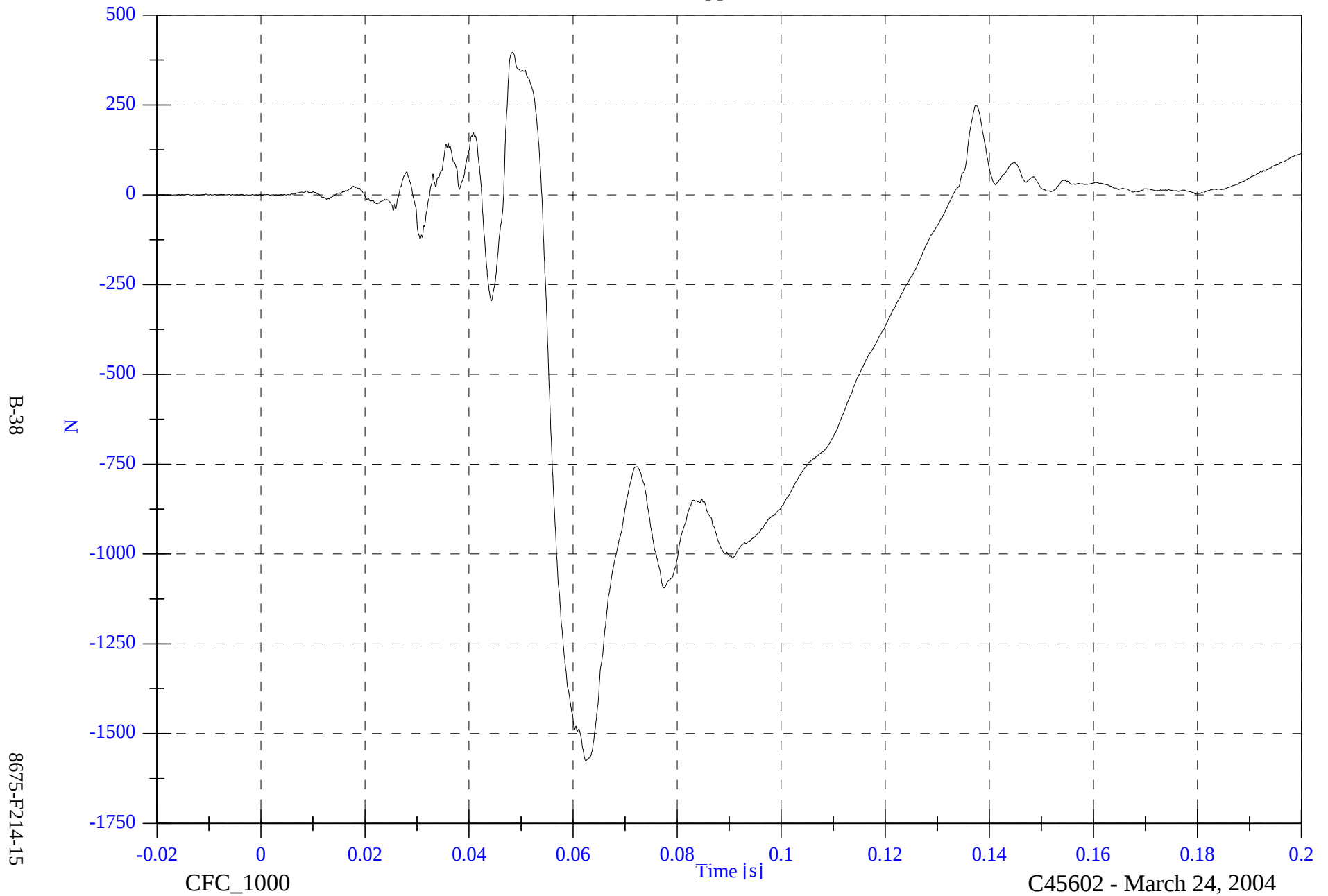


2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P4 Upper Neck Fz

Max: 396.8 [N] at 0.048 [s]

Min: -1577.1 [N] at 0.062 [s]

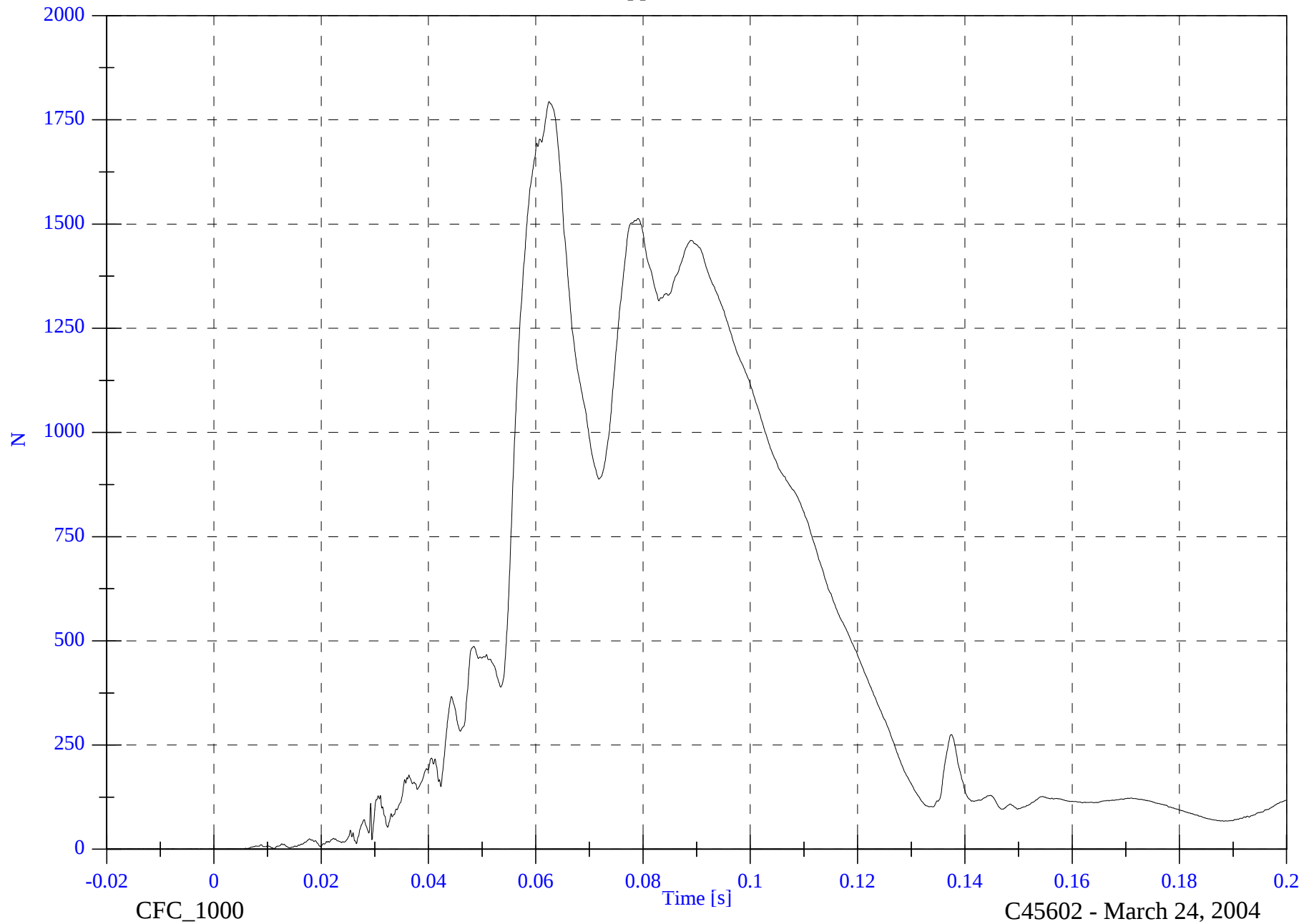


2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P4 Upper Neck F Resultant

Max: 1793.6 [N] at 0.062 [s]

Min: 0.1 [N] at 0.002 [s]



B-39

8675-F214-15

CFC_1000

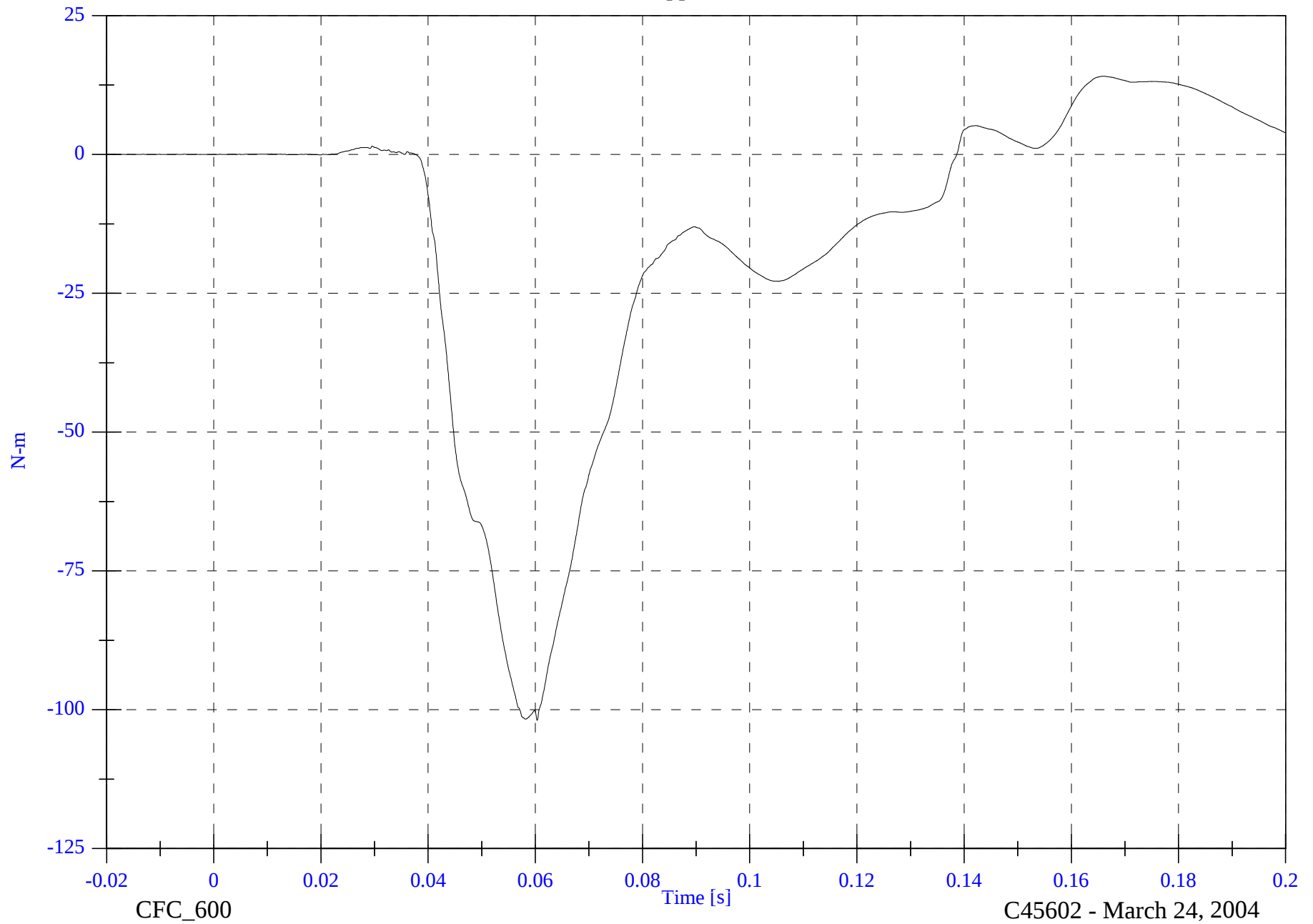
C45602 - March 24, 2004

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P4 Upper Neck Mx

Max: 14.1 [N-m] at 0.166 [s]

Min: -101.9 [N-m] at 0.060 [s]



B-40

8675-F214-15

CFC_600

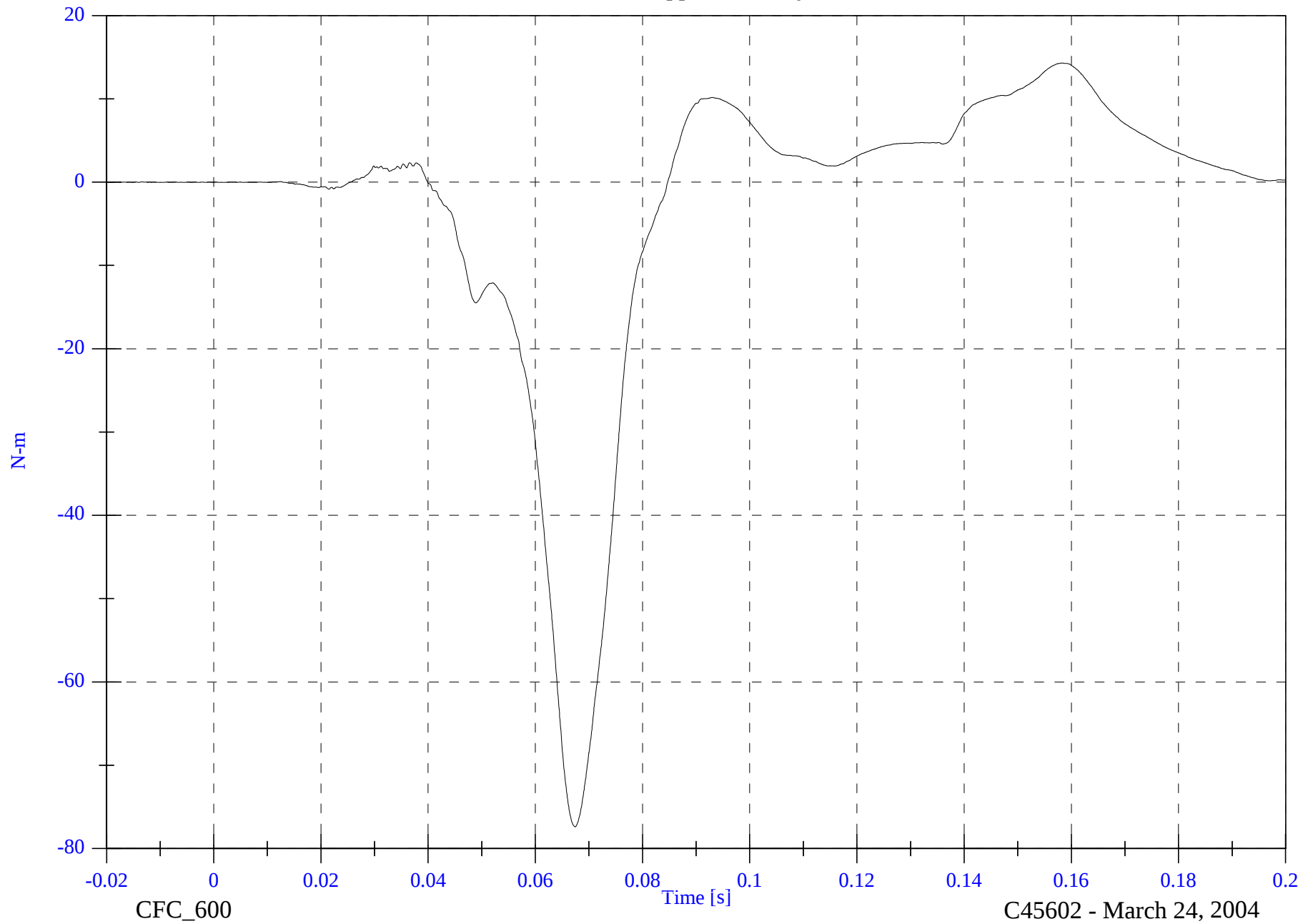
C45602 - March 24, 2004

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P4 Upper Neck My

Max: 14.3 [N-m] at 0.158 [s]

Min: -77.4 [N-m] at 0.067 [s]



B-41

8675-F214-15

CFC_600

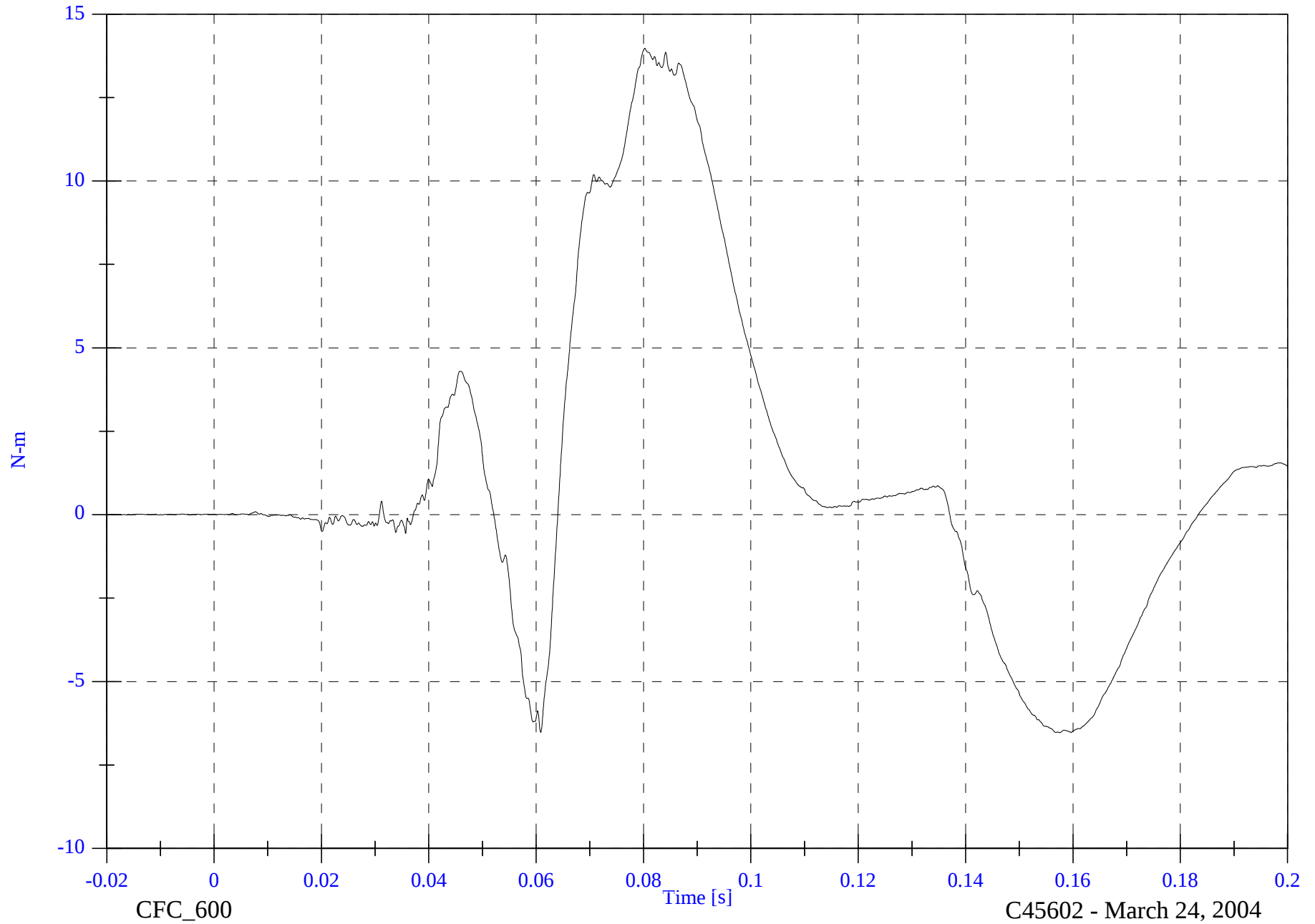
C45602 - March 24, 2004

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P4 Upper Neck Mz

Max: 14.0 [N-m] at 0.080 [s]

Min: -6.5 [N-m] at 0.158 [s]



B-42

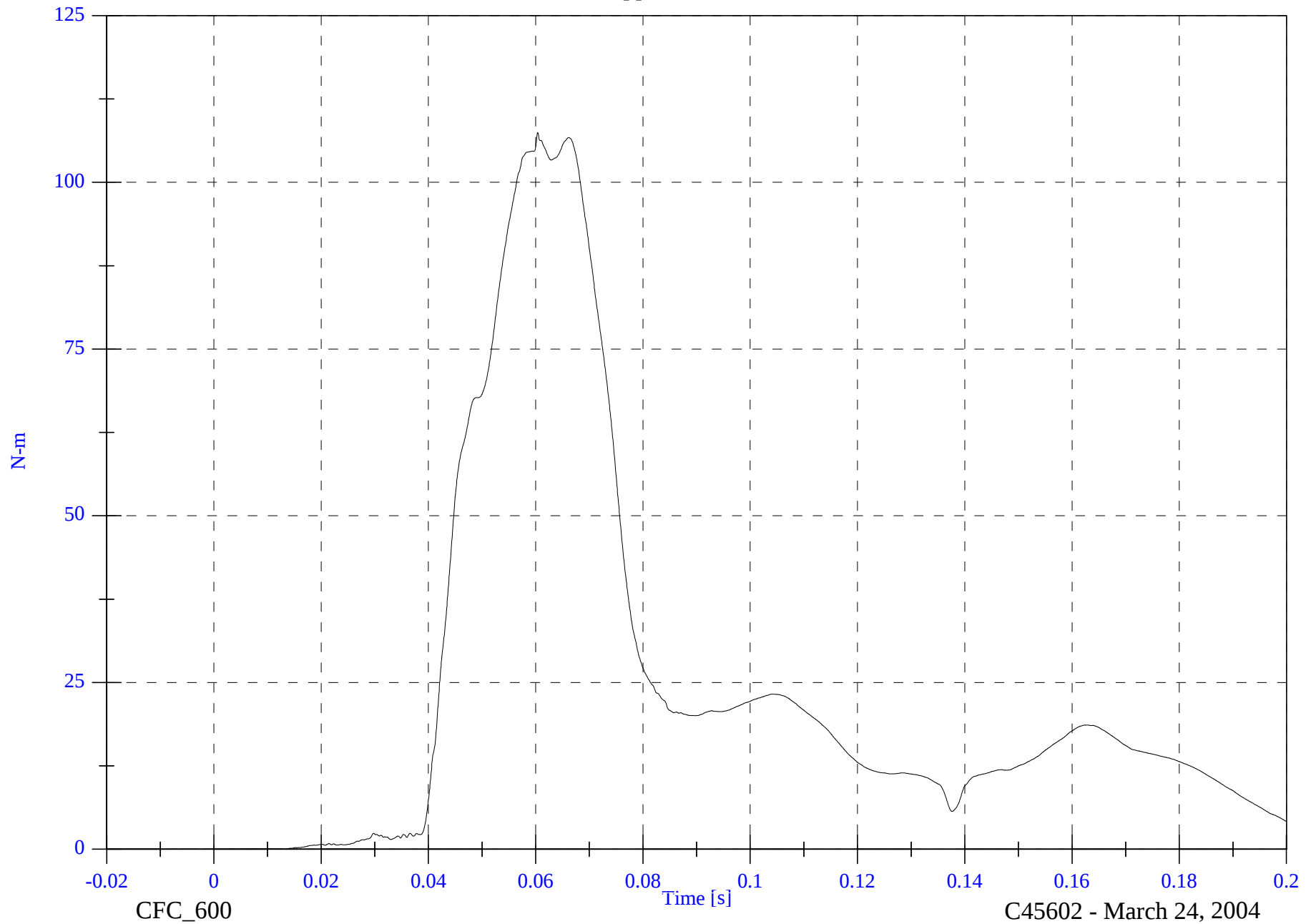
8675-F214-15

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P4 Upper Neck M Resultant

Max: 107.5 [N-m] at 0.060 [s]

Min: 0.0 [N-m] at -0.002 [s]



B-43

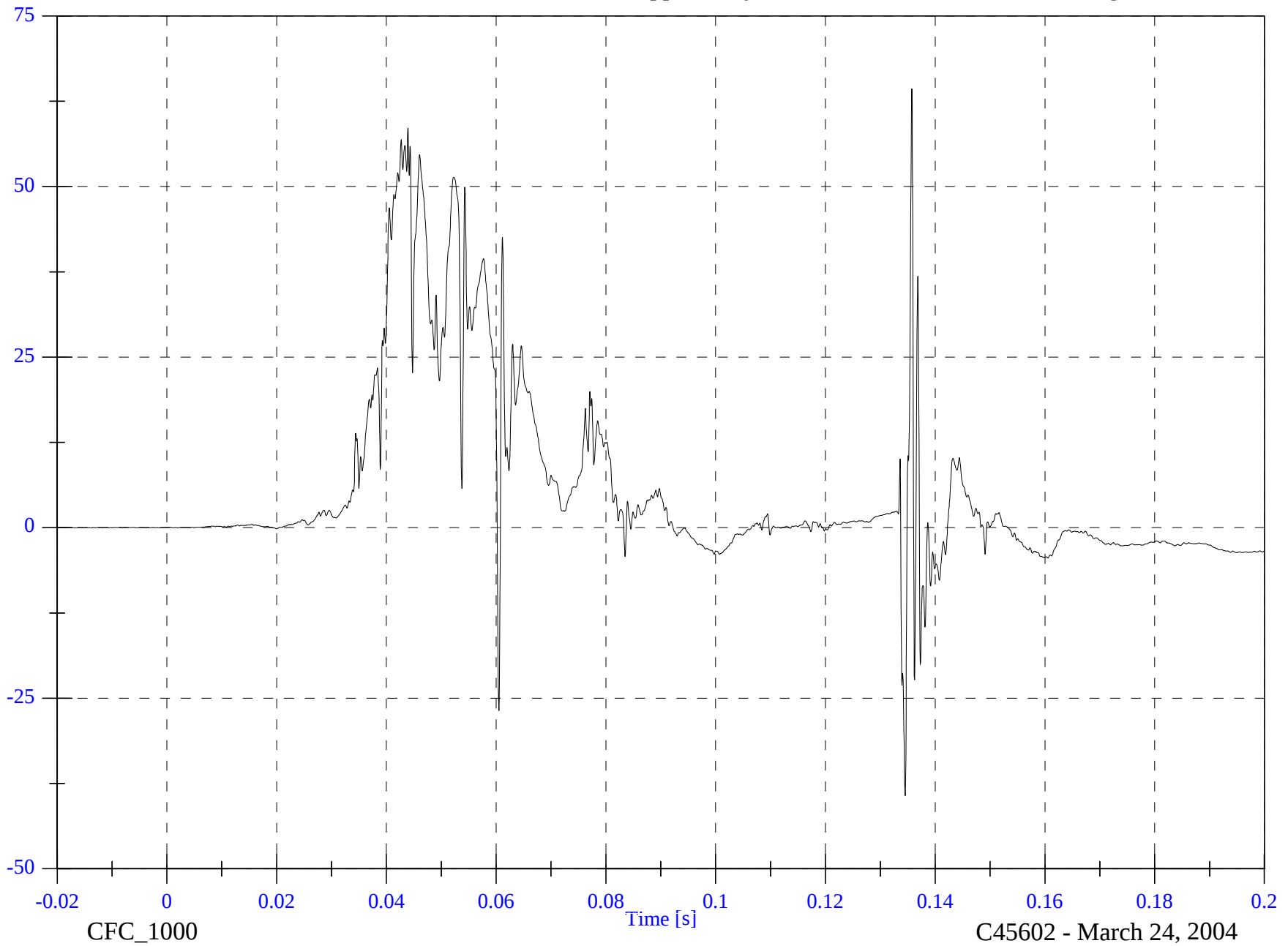
8675-F214-15

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P4 Upper Rib y

Max: 64.3 [g] at 0.136 [s]

Min: -39.3 [g] at 0.135 [s]



B-44

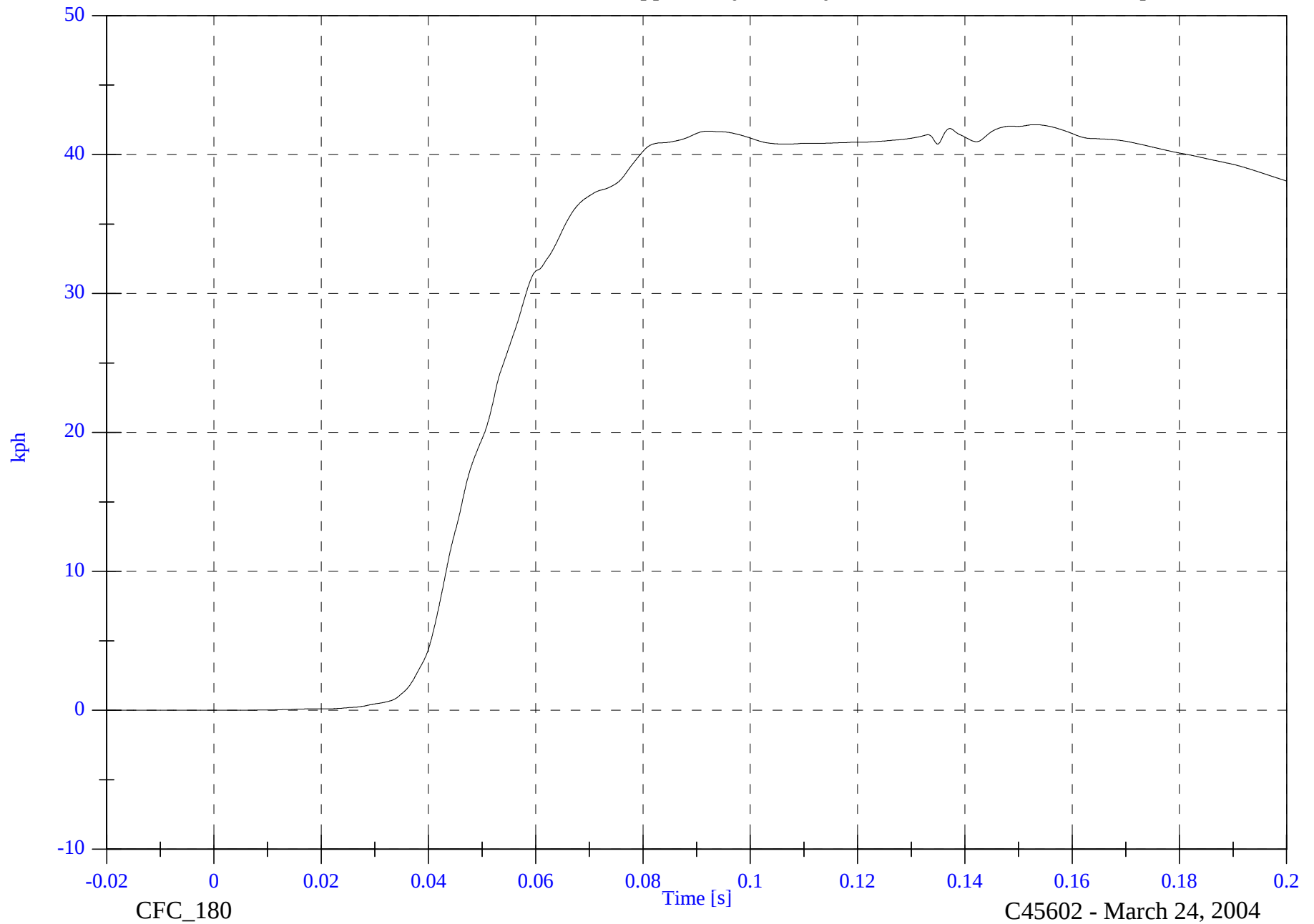
8675-F214-15

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P4 Upper Rib y Velocity

Max: 42.1 [kph] at 0.153 [s]

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



B-45

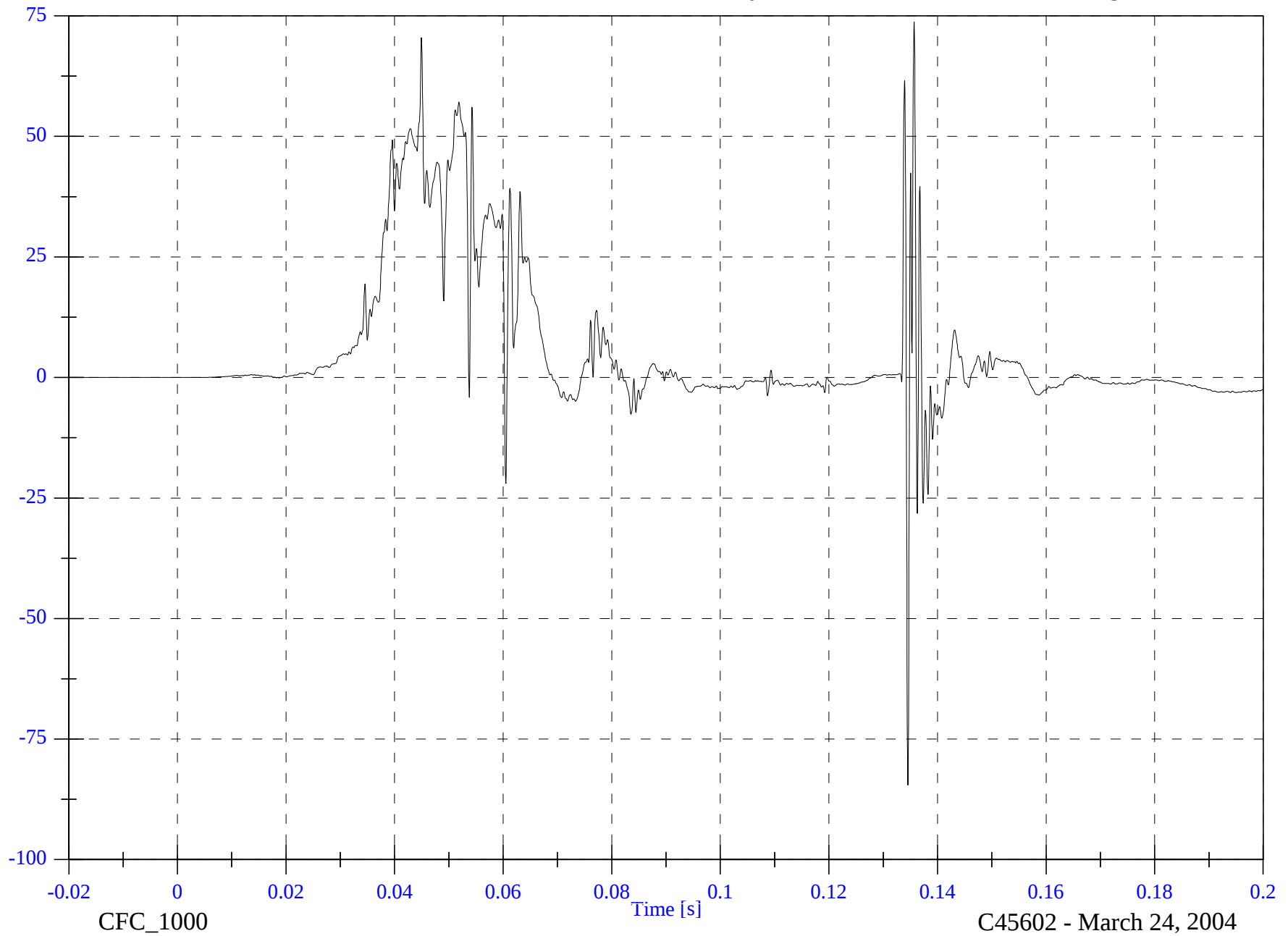
8675-F214-15

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P4 Lower Rib y

Max: 73.7 [g] at 0.136 [s]

Min: -84.6 [g] at 0.135 [s]



B-46

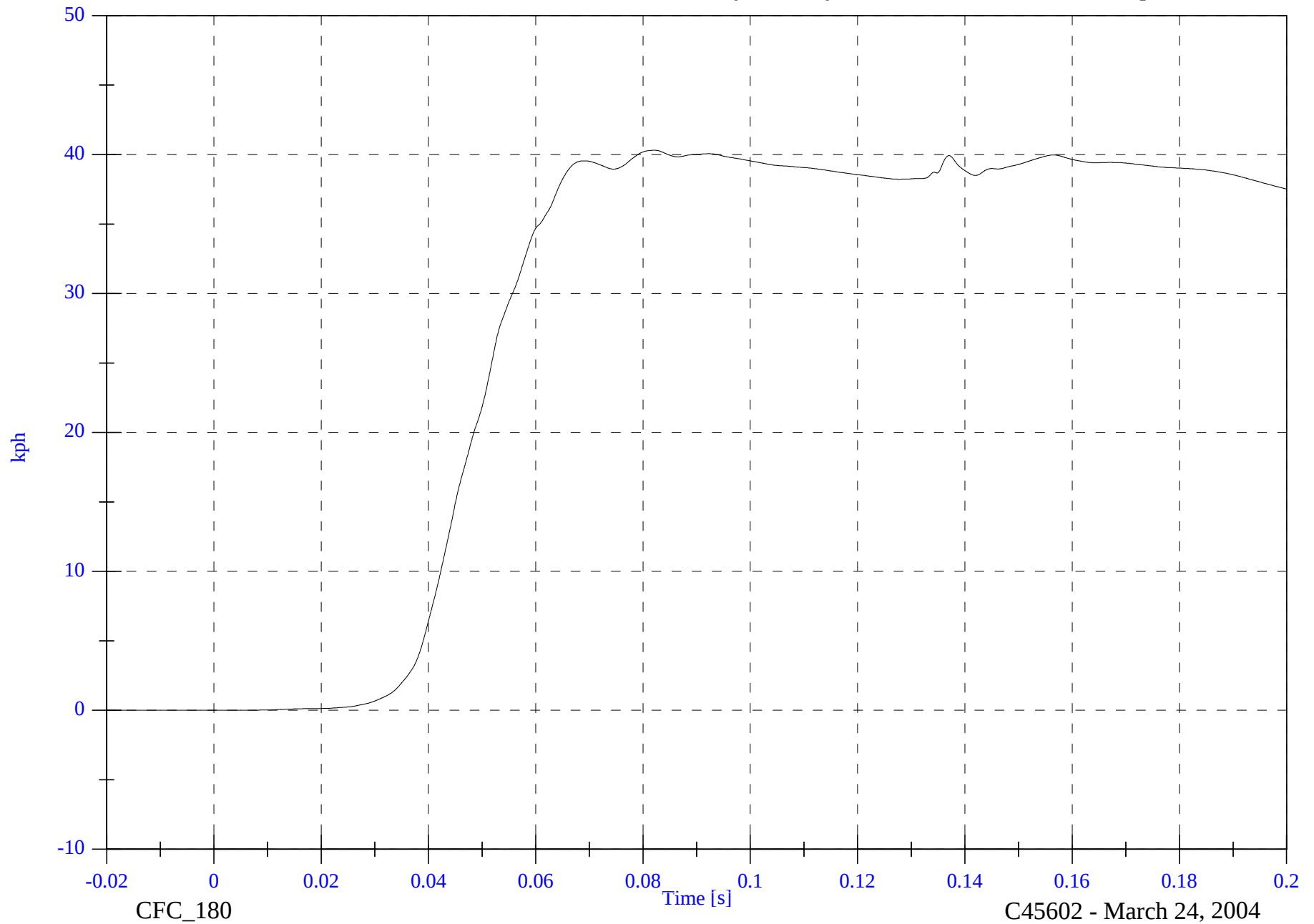
8675-F214-15

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P4 Lower Rib y Velocity

Max: 40.3 [kph] at 0.082 [s]

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



B-47

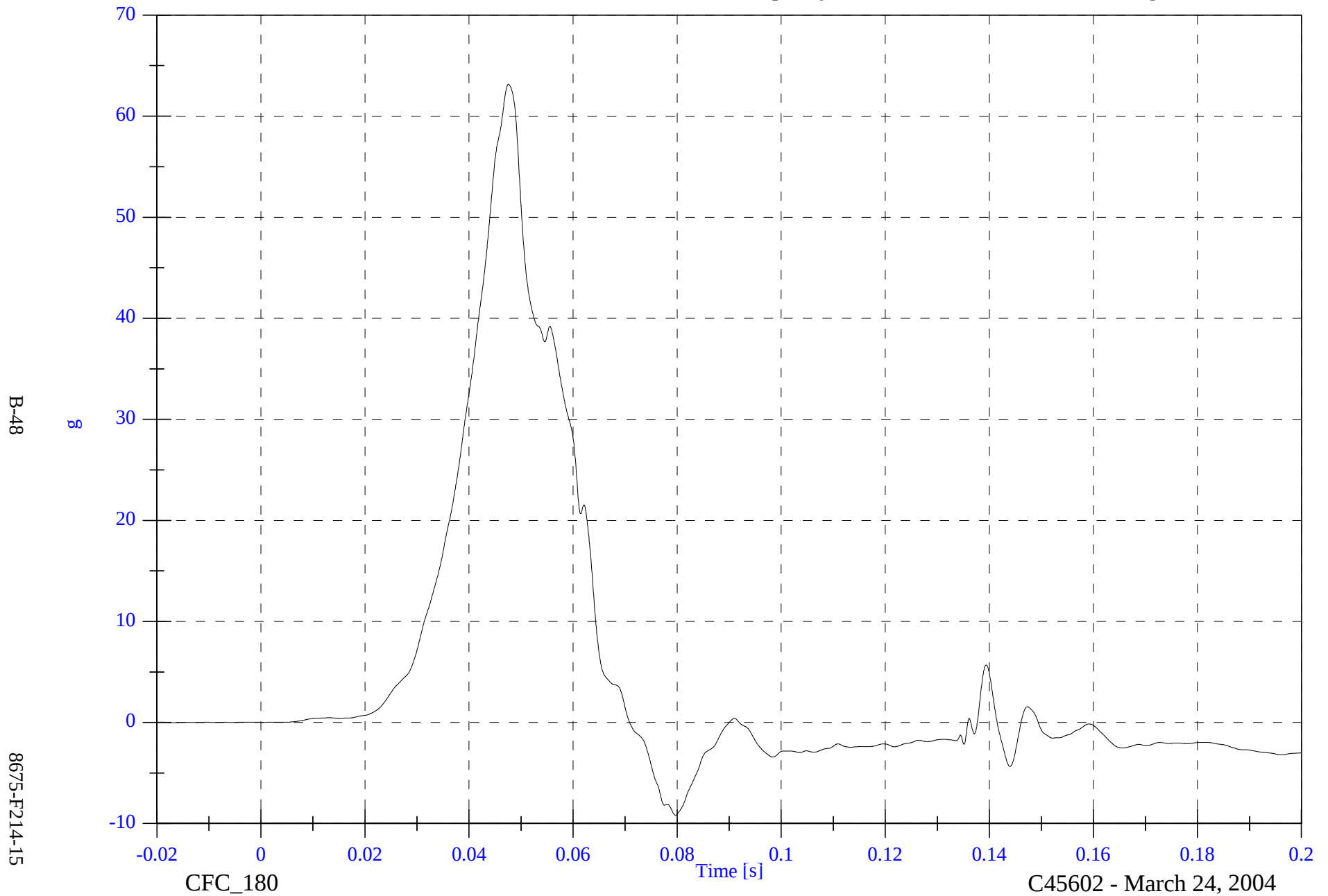
8675-F214-15

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P4 Lower Spine y

Max: 63.2 [g] at 0.048 [s]

Min: -9.2 [g] at 0.080 [s]

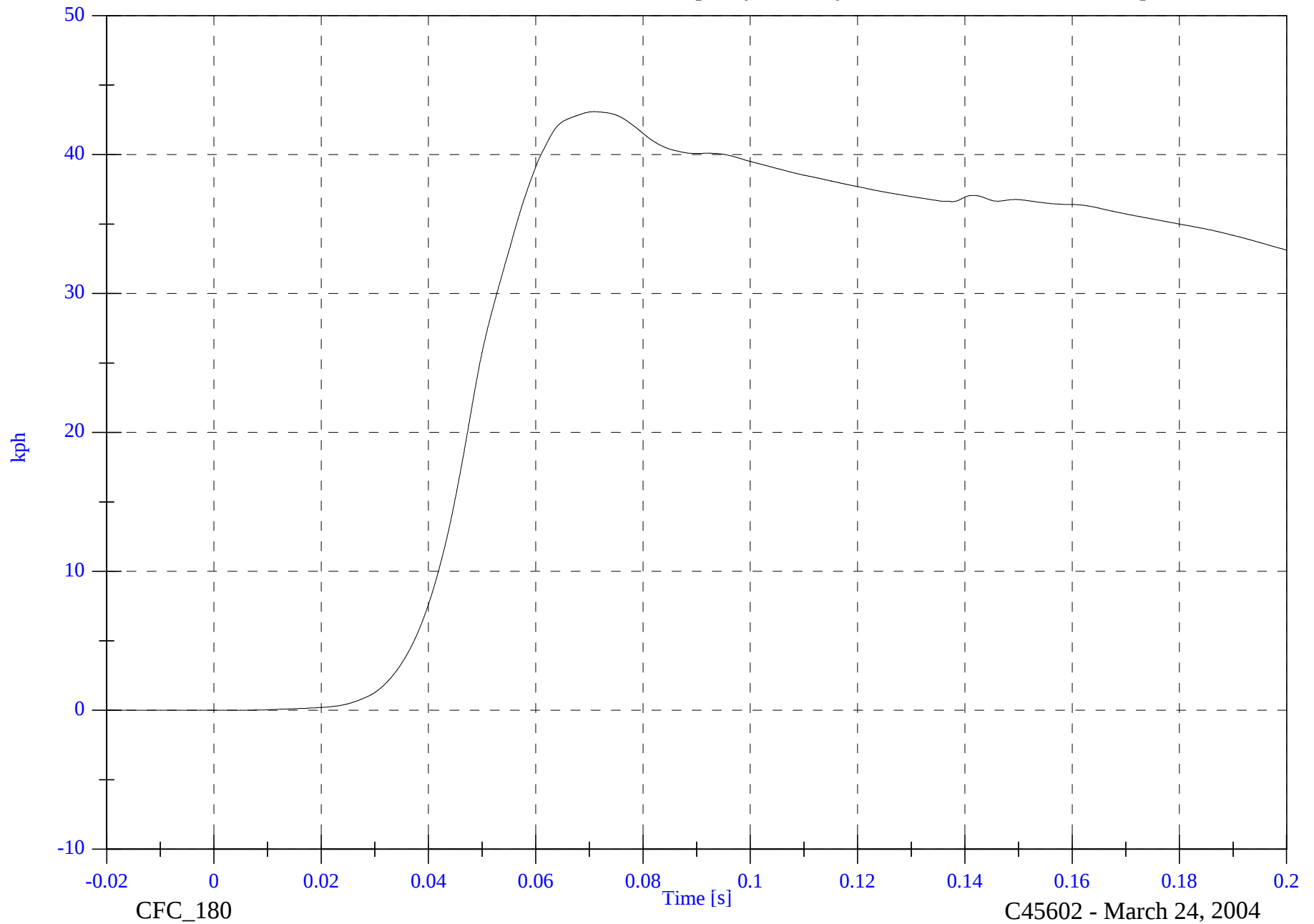


2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P4 Lower Spine y Velocity

Max: 43.1 [kph] at 0.071 [s]

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



B-49

8675-F214-15

CFC_180

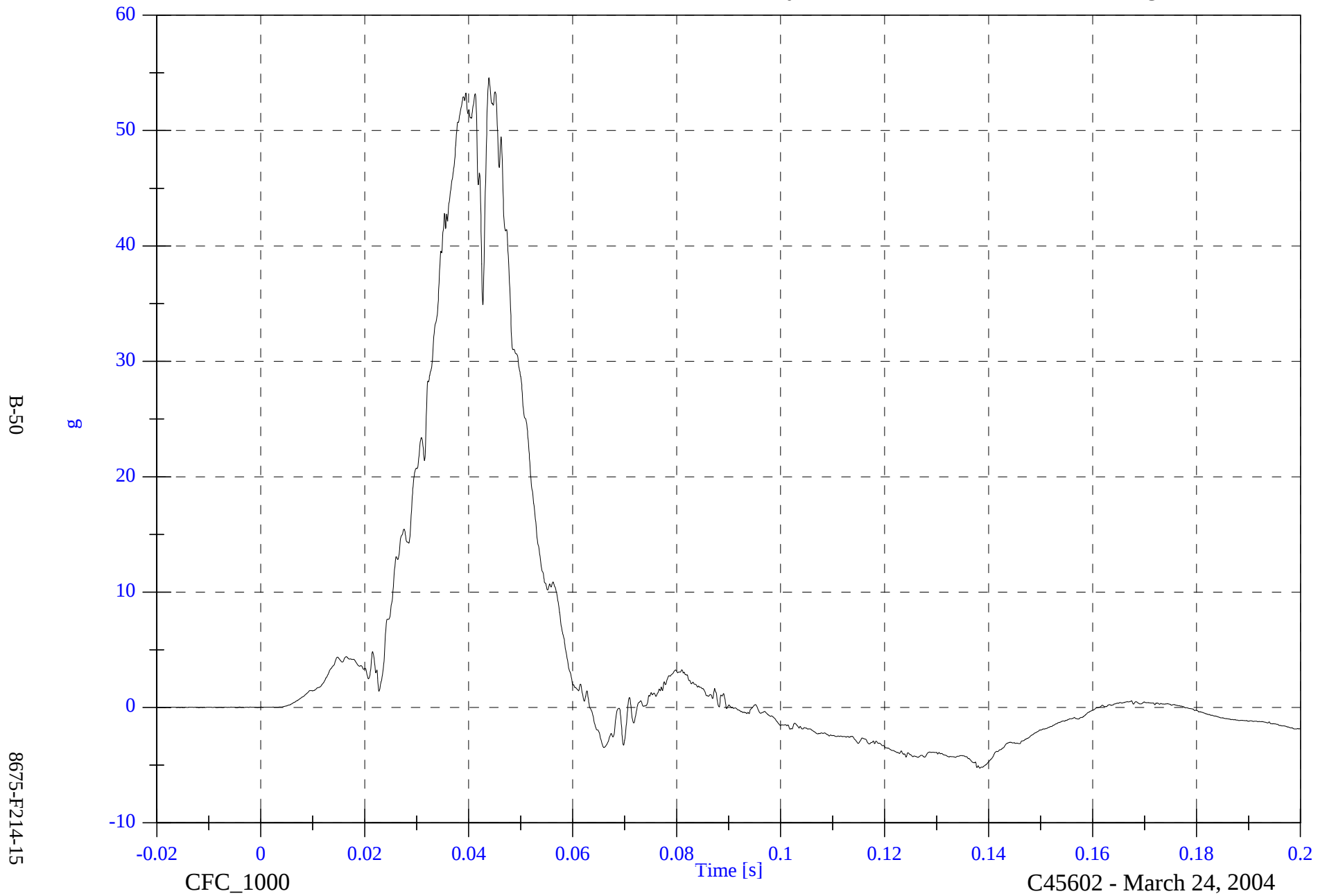
C45602 - March 24, 2004

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P4 Pelvic y

Max: 54.6 [g] at 0.044 [s]

Min: -5.3 [g] at 0.138 [s]

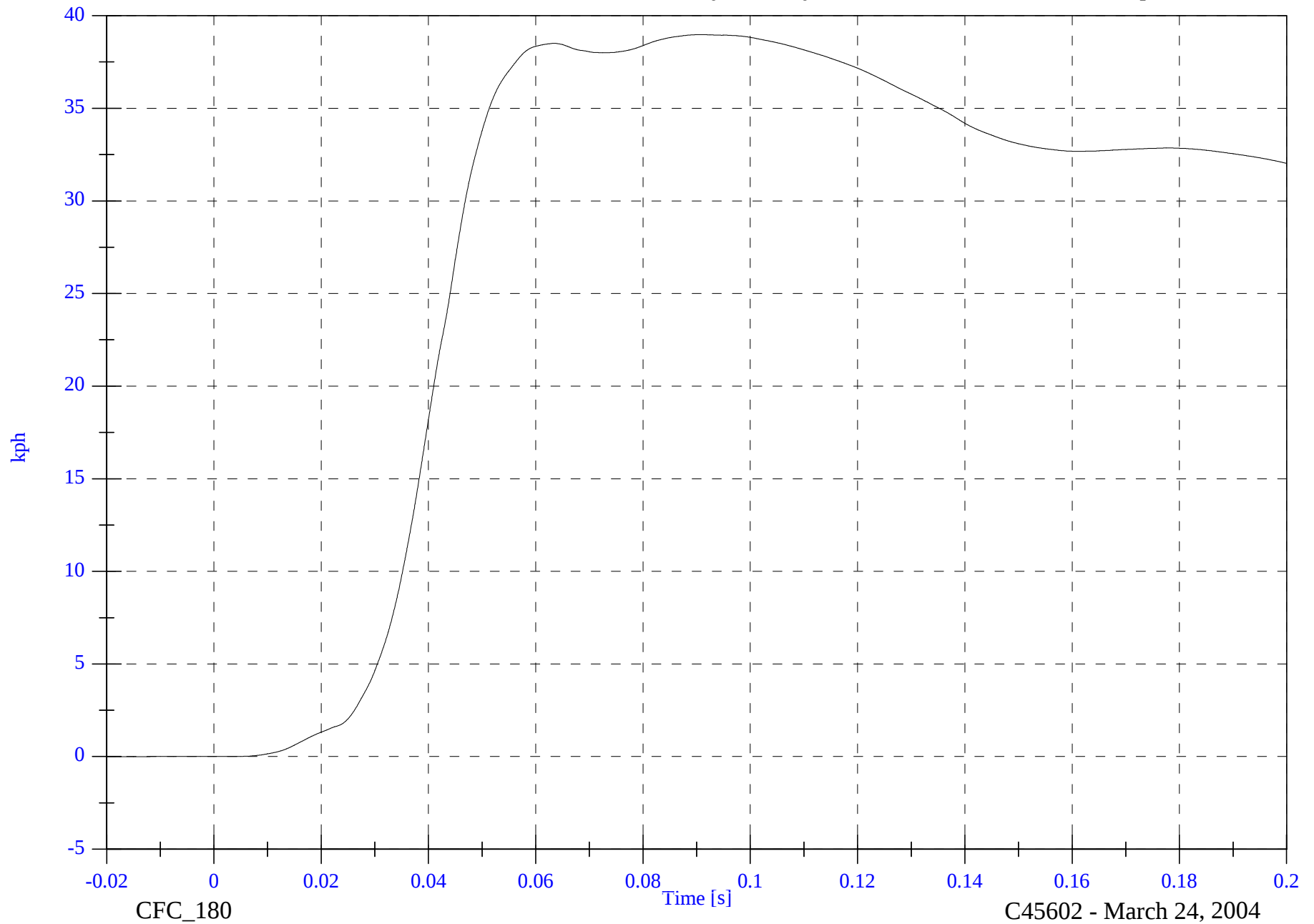


2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

Max: 39.0 [kph] at 0.091 [s]

V2P4 Pelvic y Velocity

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



B-51

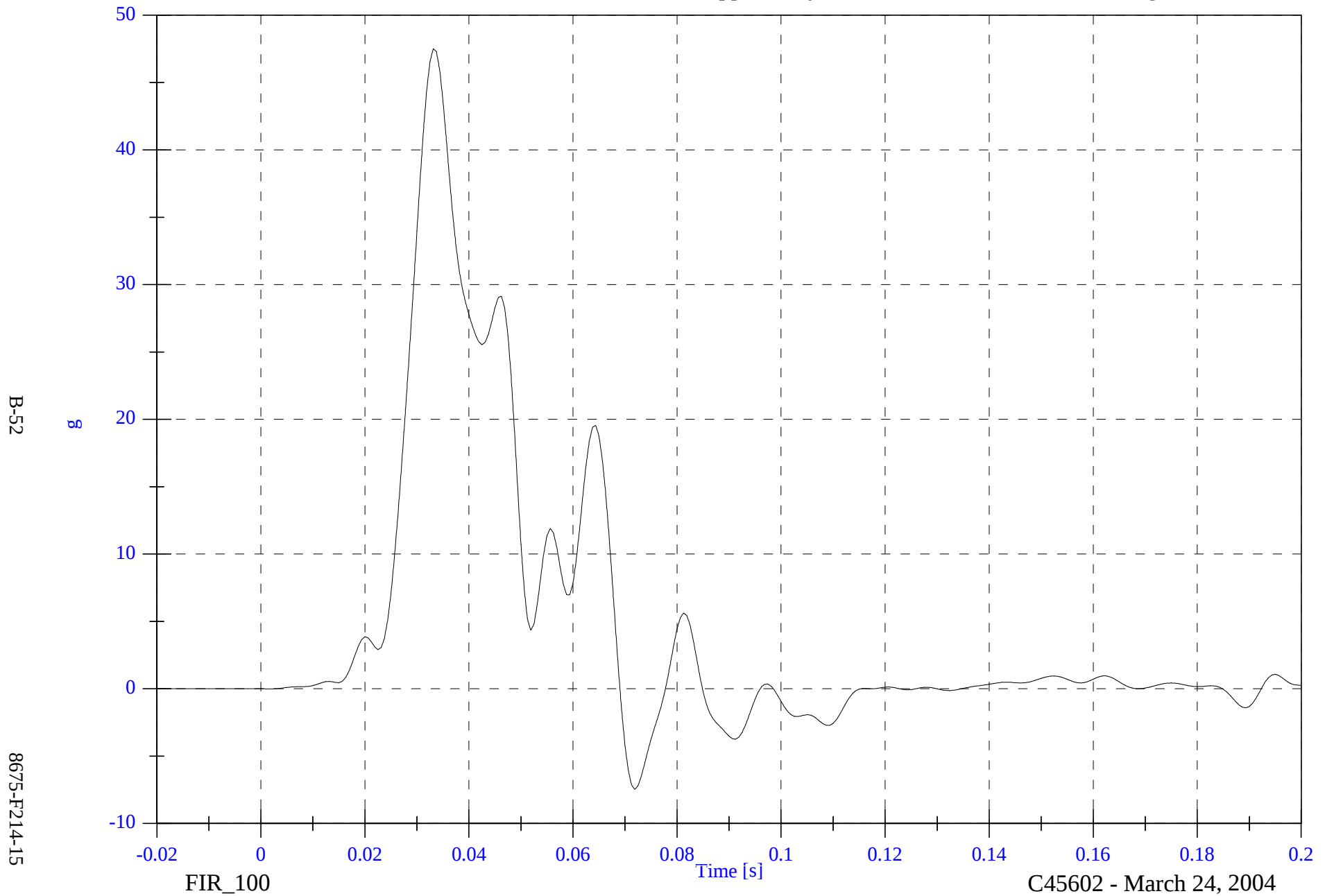
8675-F214-15

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P1 Upper Rib y

Max: 47.5 [g] at 0.033 [s]

Min: -7.5 [g] at 0.072 [s]

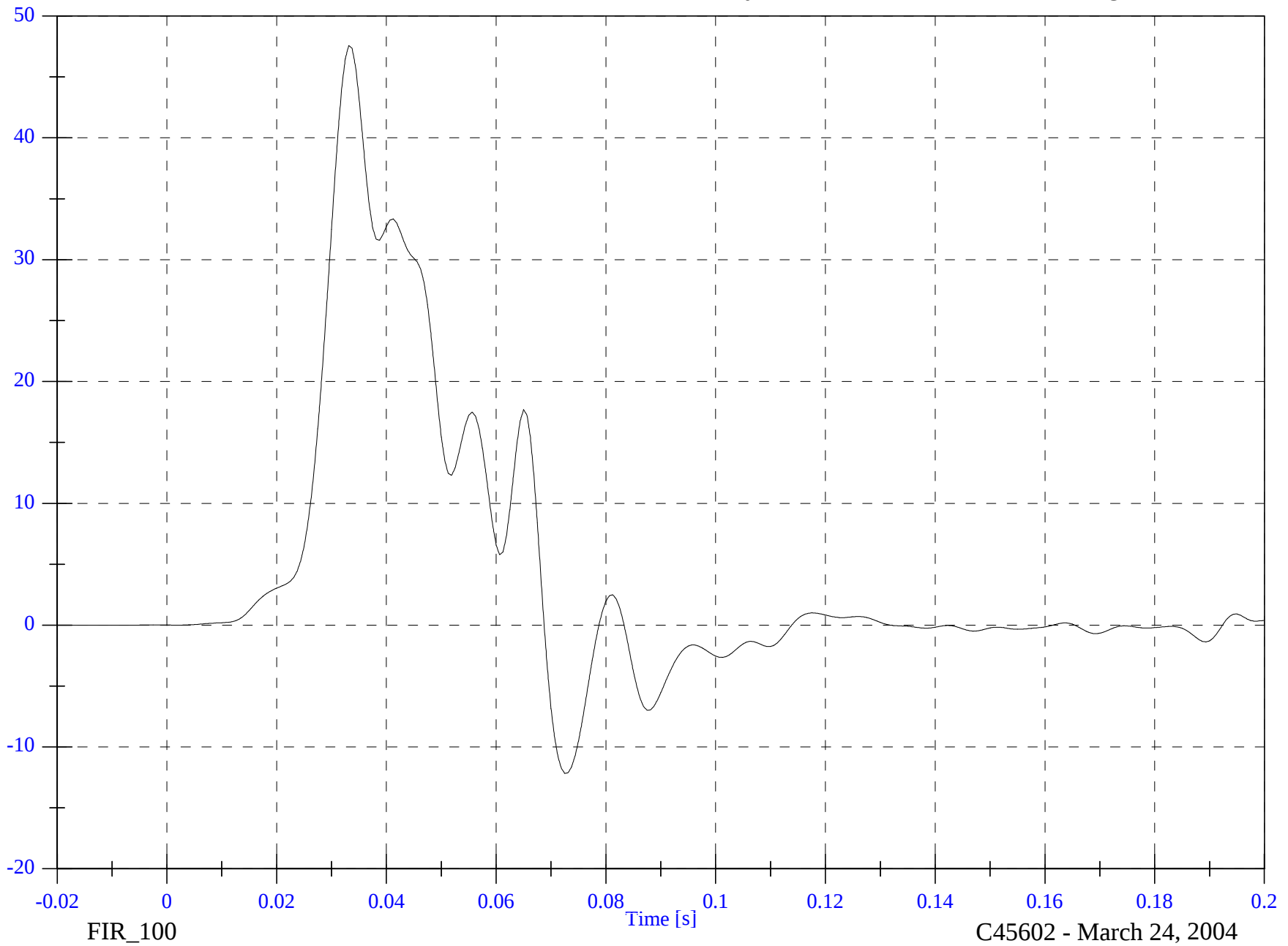


2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P1 Lower Rib y

Max: 47.6 [g] at 0.033 [s]

Min: -12.2 [g] at 0.072 [s]



B-53

8675-F214-15

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

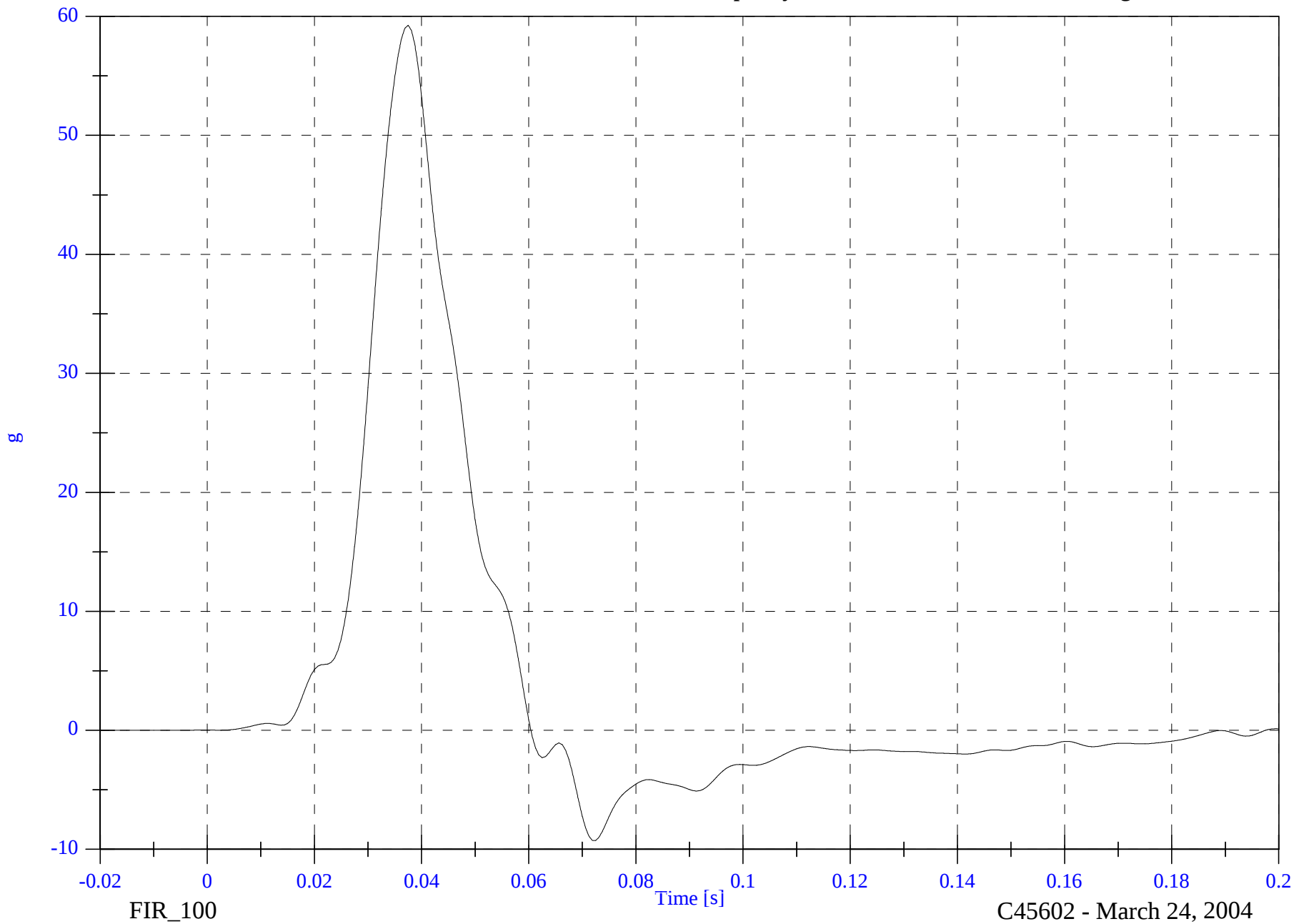
V2P1 Lower Spine y

Max: 59.2 [g] at 0.037 [s]

Min: -9.3 [g] at 0.072 [s]

B-54

8675-F214-15

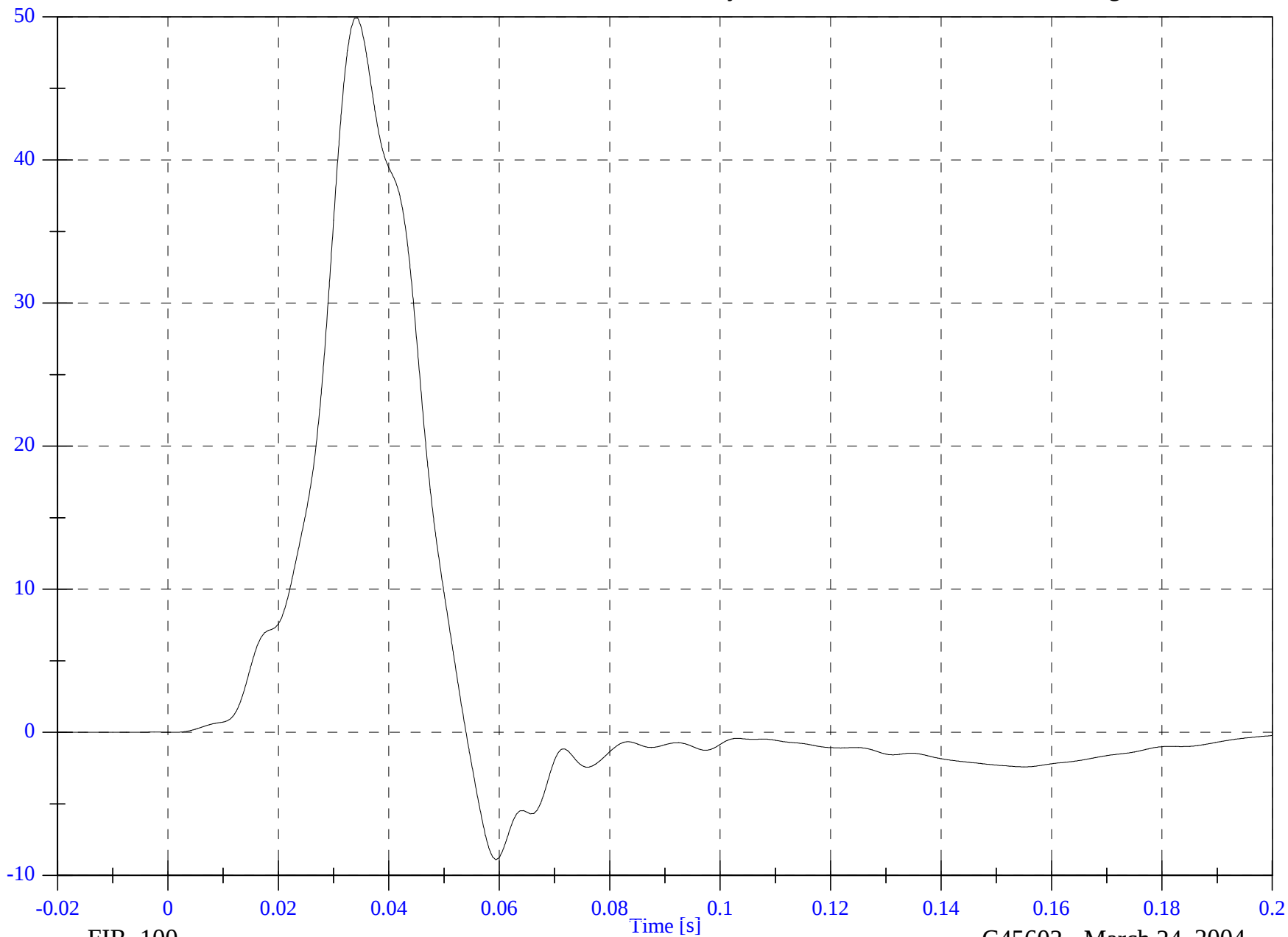


2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P1 Pelvic y

Max: 49.9 [g] at 0.034 [s]

Min: -8.9 [g] at 0.059 [s]



B-55

8675-F214-15

FIR_100

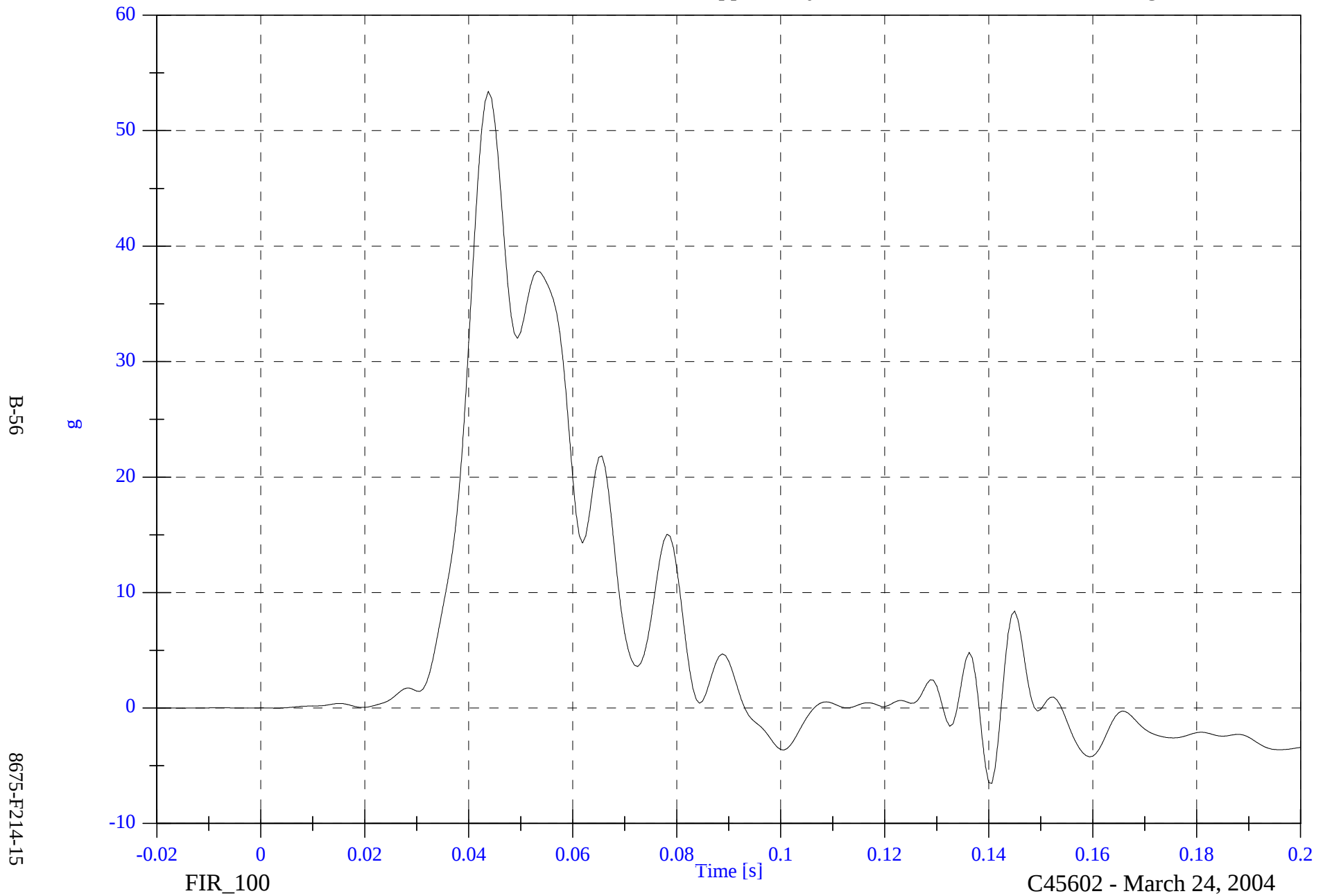
C45602 - March 24, 2004

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P4 Upper Rib y

Max: 53.4 [g] at 0.044 [s]

Min: -6.5 [g] at 0.141 [s]

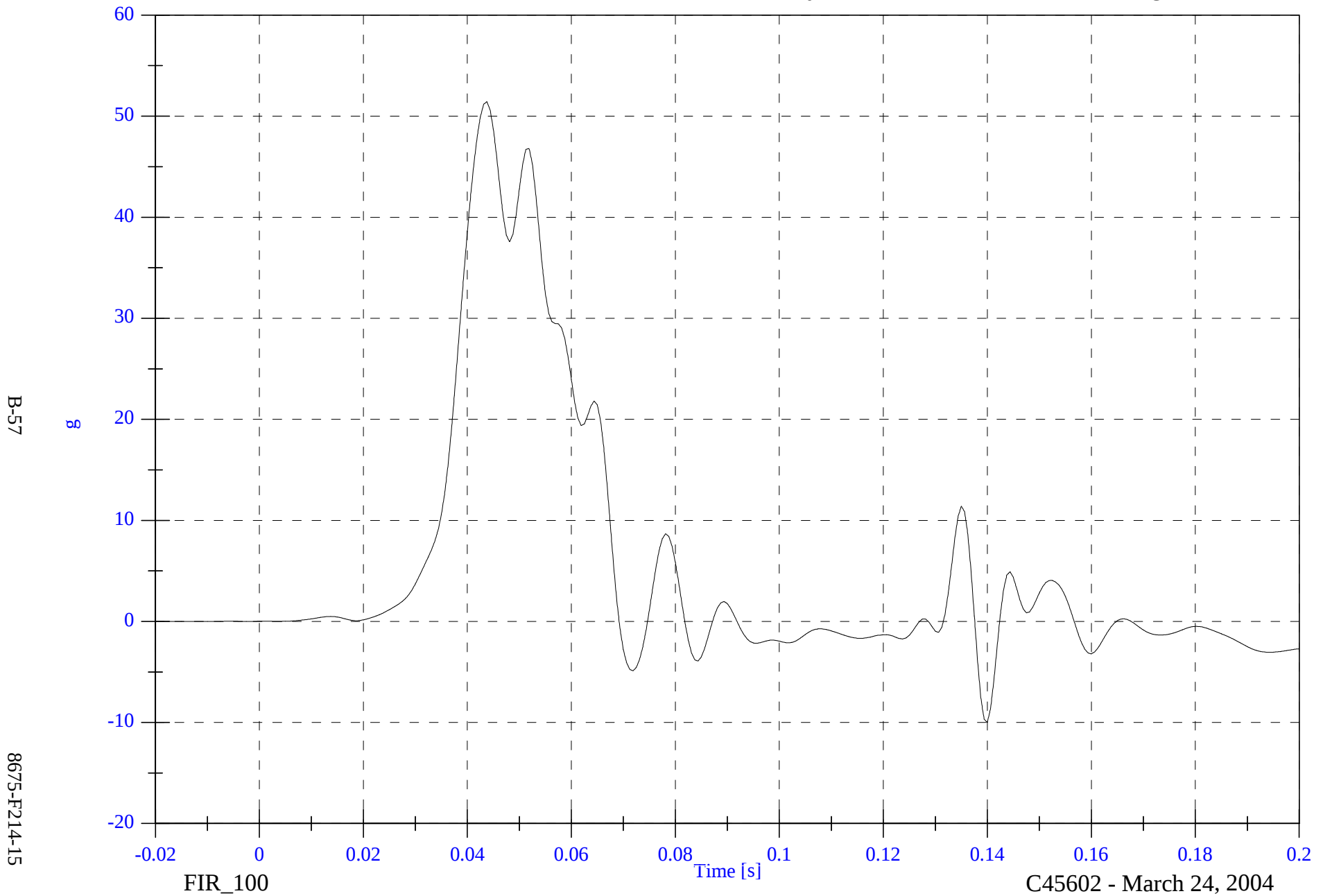


2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P4 Lower Rib y

Max: 51.4 [g] at 0.044 [s]

Min: -10.0 [g] at 0.140 [s]



2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

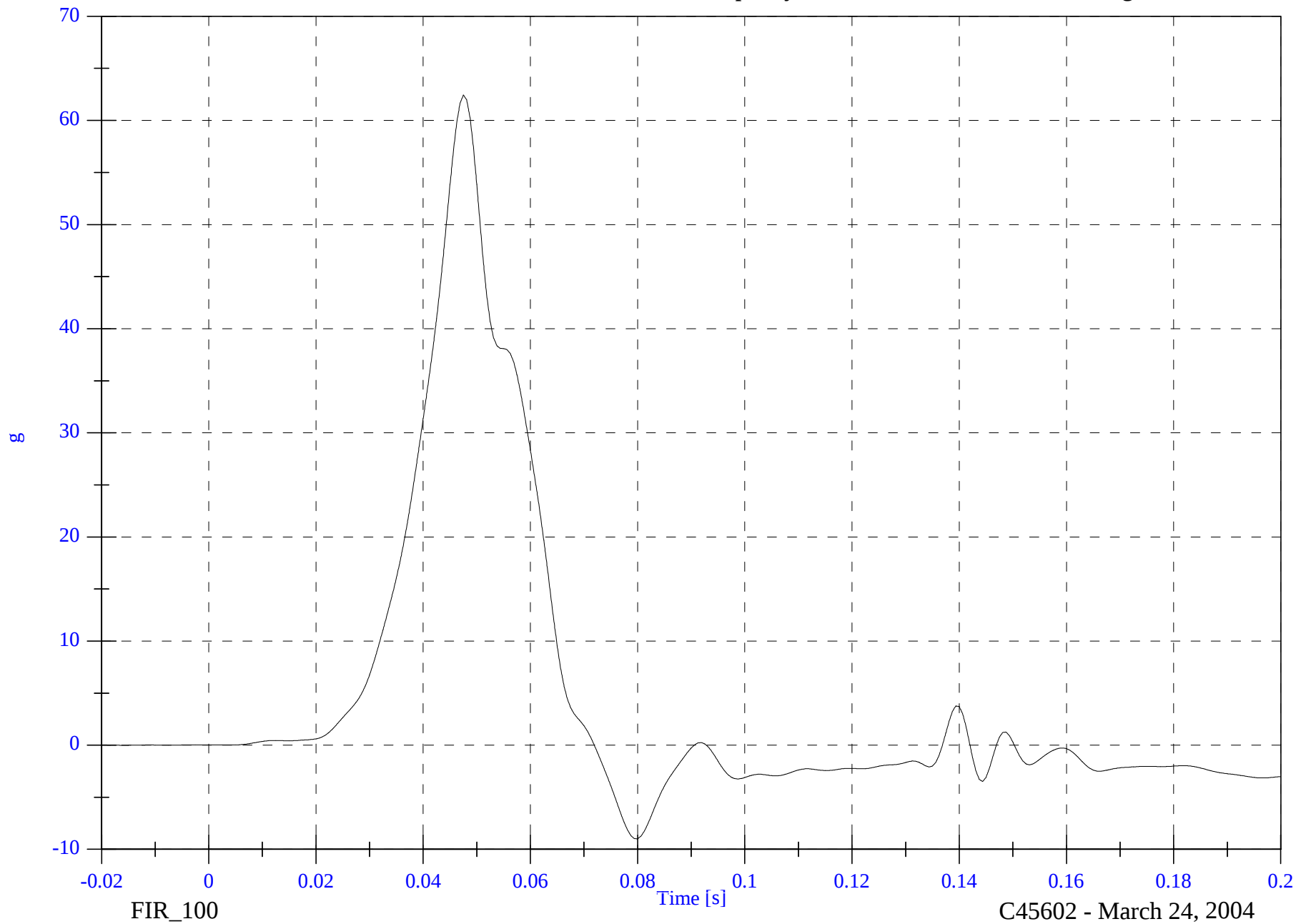
V2P4 Lower Spine y

Max: 62.4 [g] at 0.047 [s]

Min: -9.0 [g] at 0.080 [s]

B-58

8675-F214-15

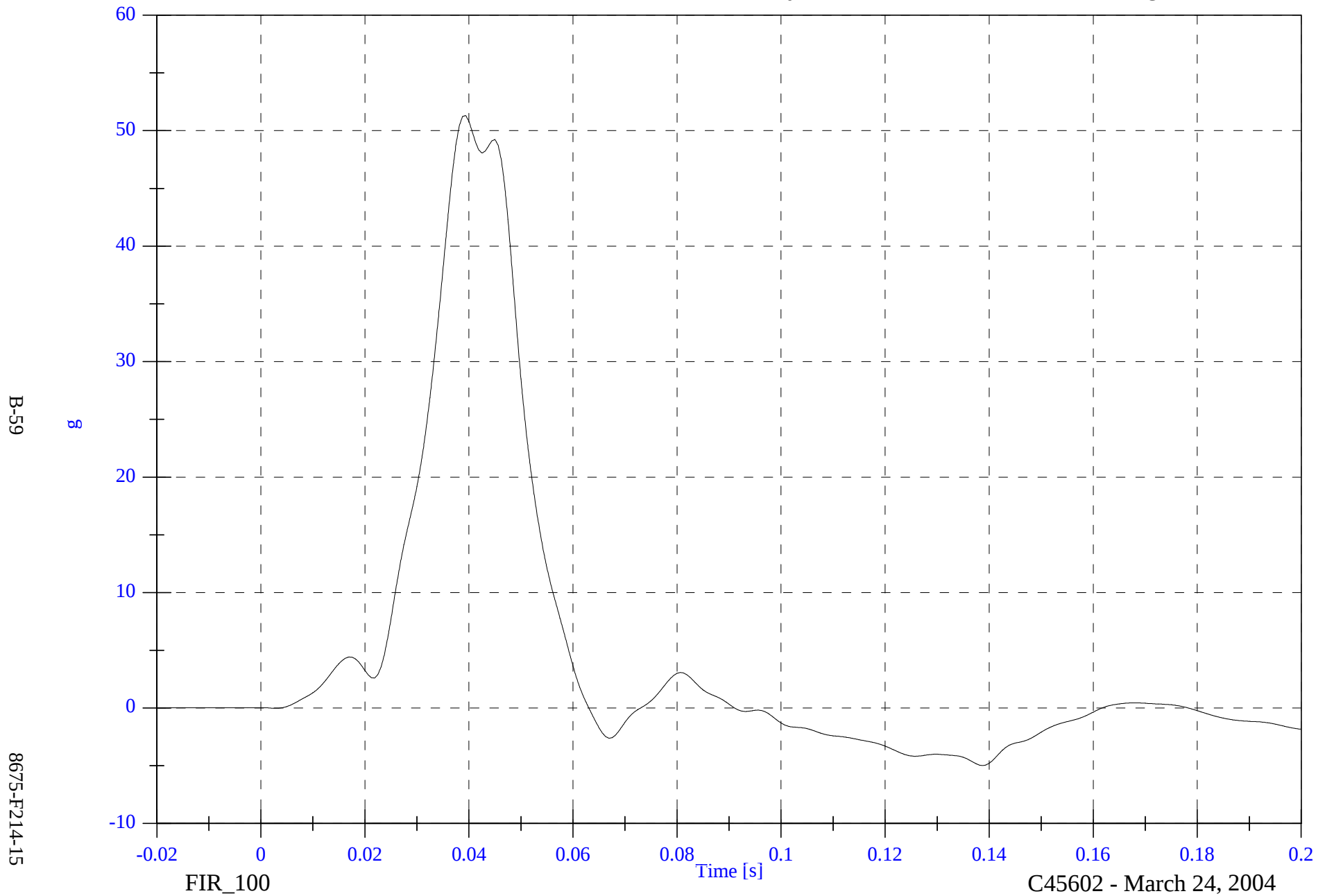


2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P4 Pelvic y

Max: 51.3 [g] at 0.039 [s]

Min: -5.0 [g] at 0.139 [s]

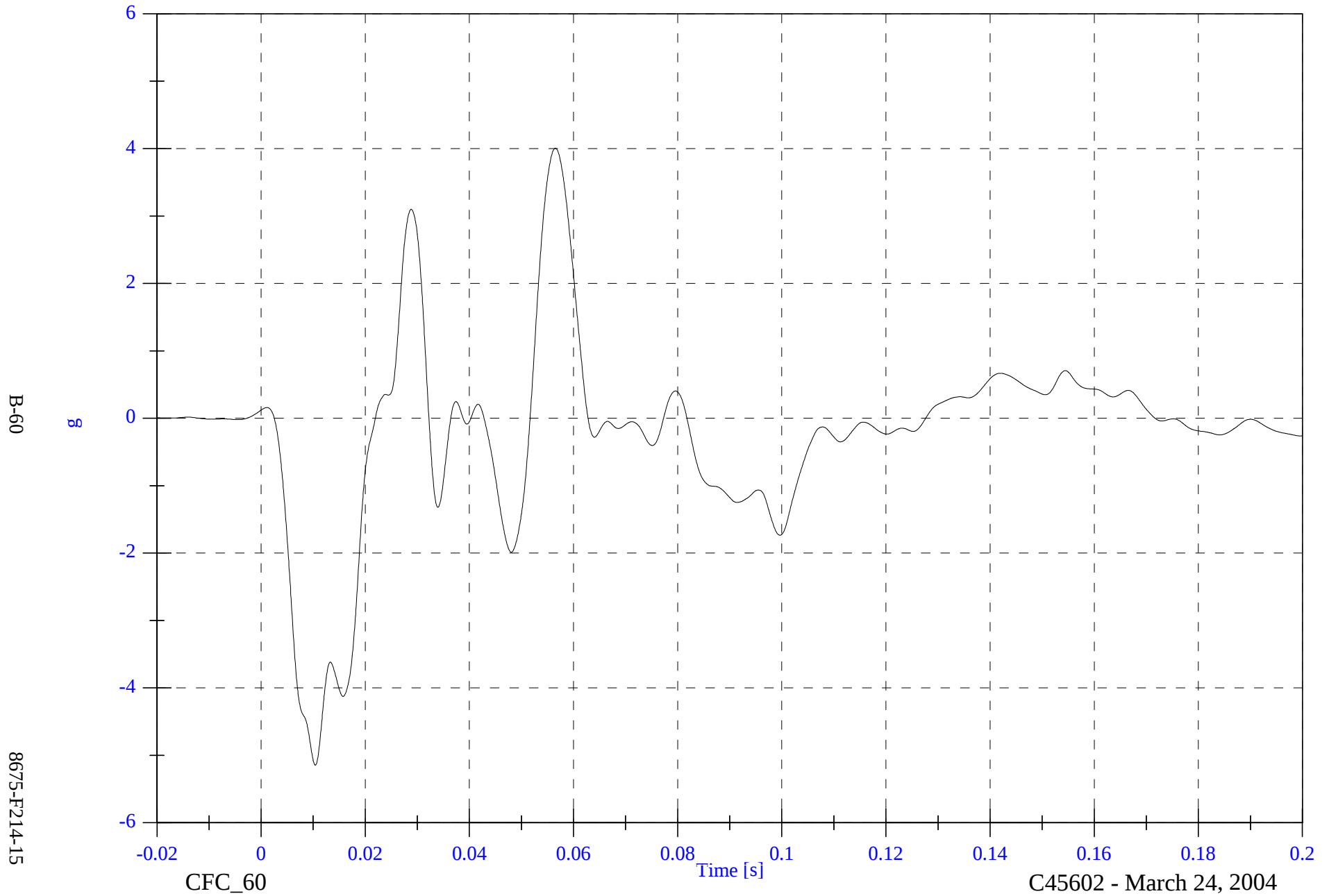


2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2 A1 Right Front Sill X

Max: 4.0 [g] at 0.056 [s]

Min: -5.1 [g] at 0.010 [s]

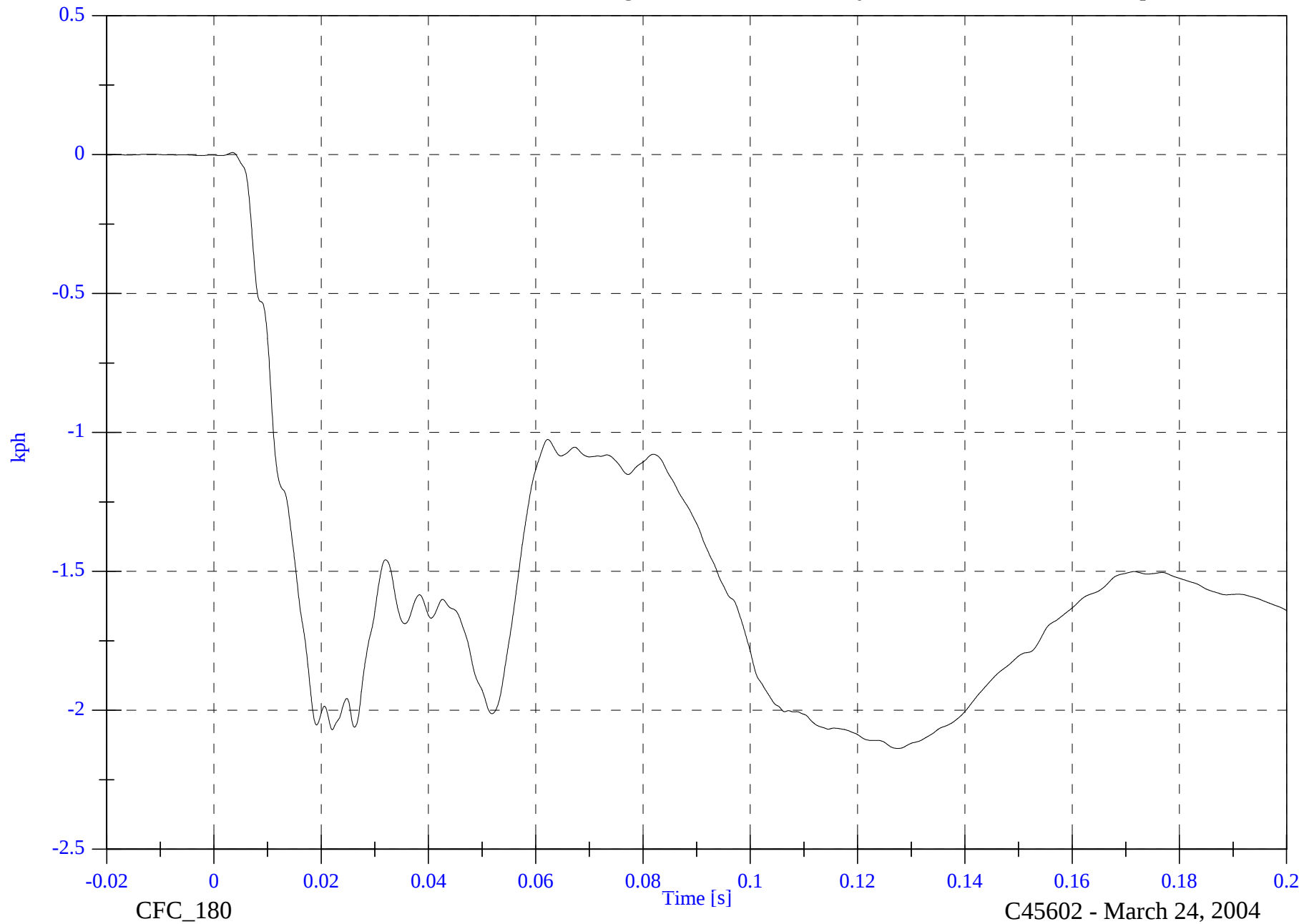


2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2 A1 Right Front Sill X Velocity

Max: 0.0 [kph] at 0.003 [s]

Min: -2.1 [kph] at 0.127 [s]



B-61

8675-F214-15

CFC_180

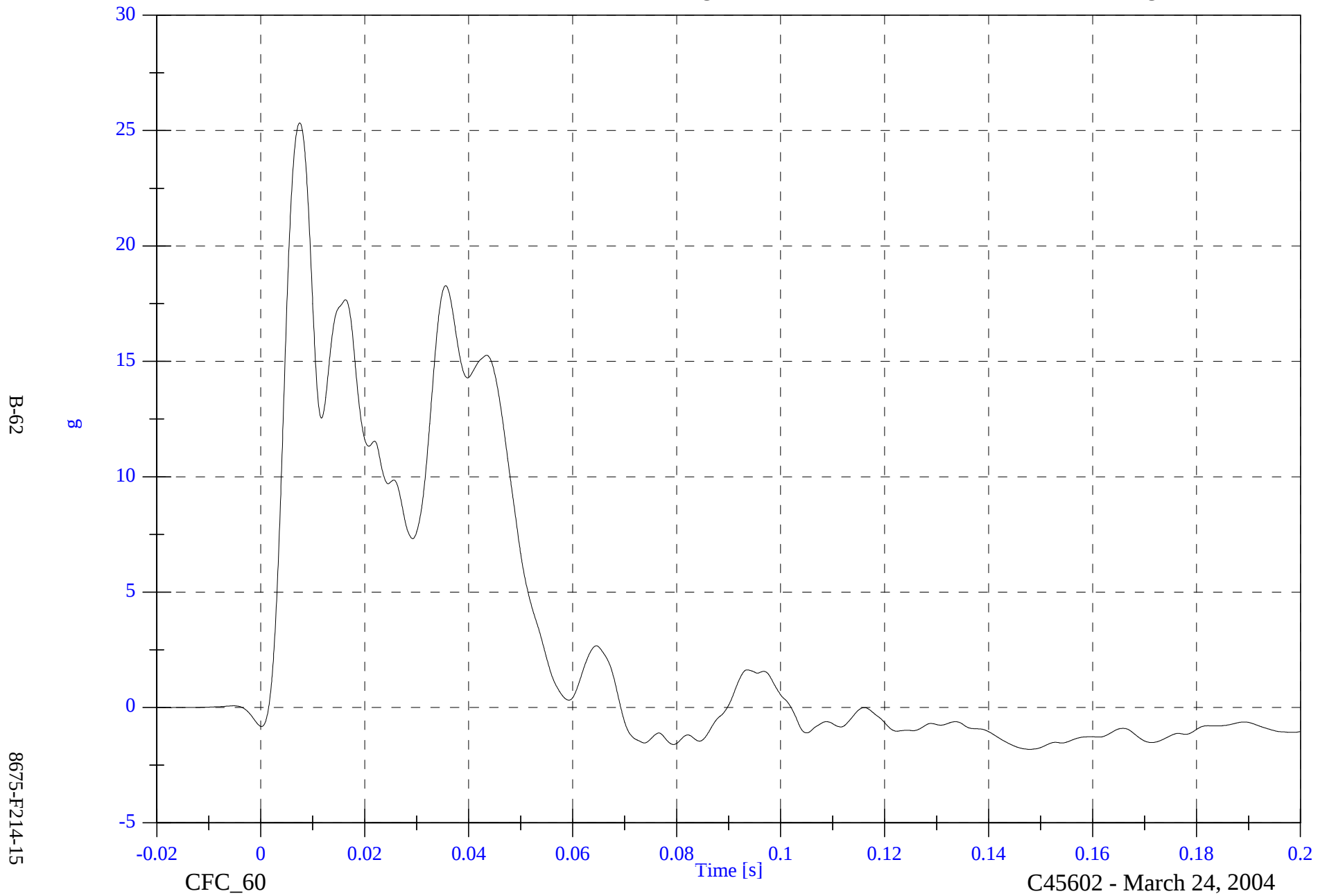
C45602 - March 24, 2004

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2 A1 Right Front Sill Y

Max: 25.3 [g] at 0.007 [s]

Min: -1.8 [g] at 0.148 [s]

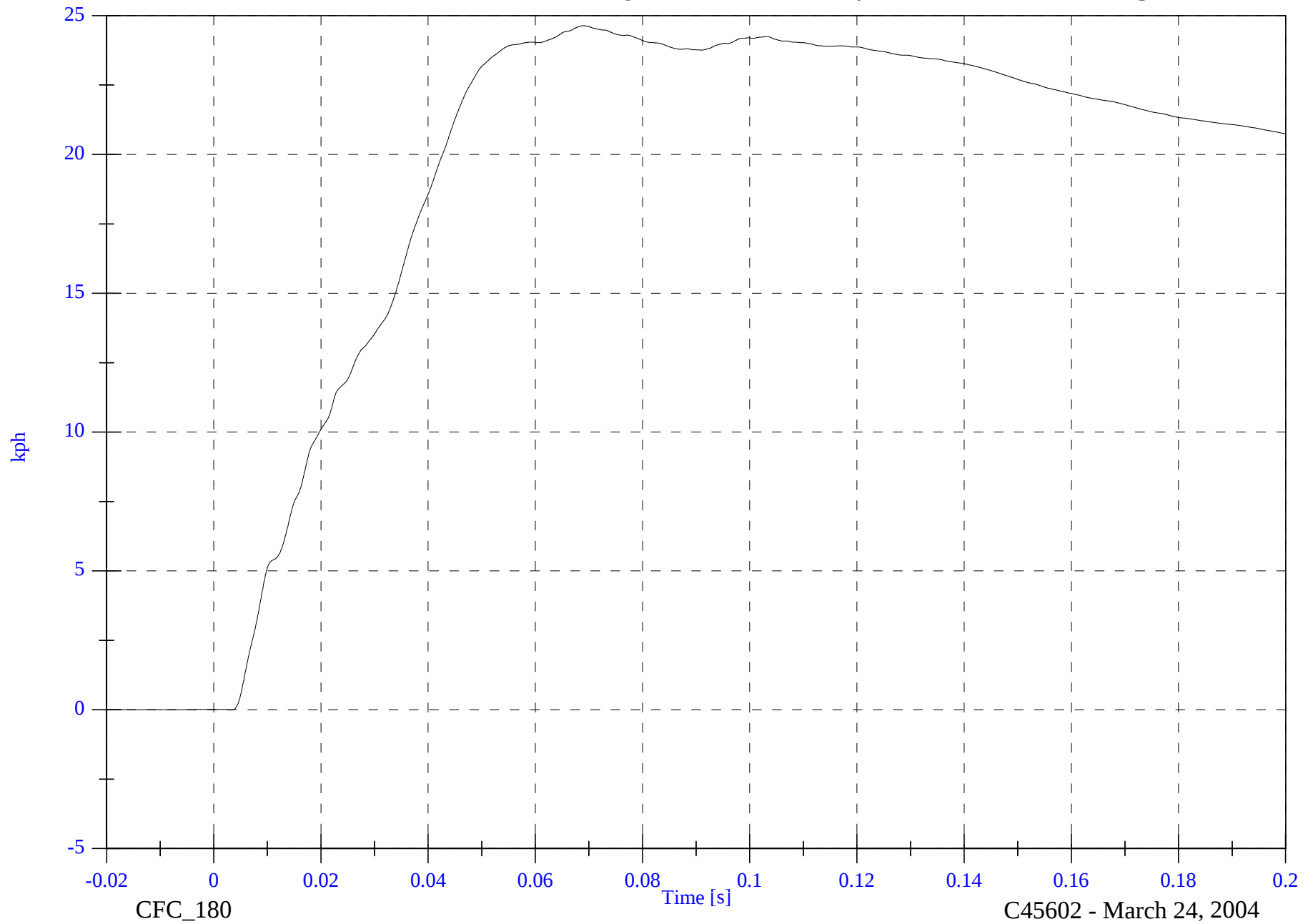


2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

Max: 24.6 [kph] at 0.069 [s]

V2 A1 Right Front Sill Y Velocity

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



B-63

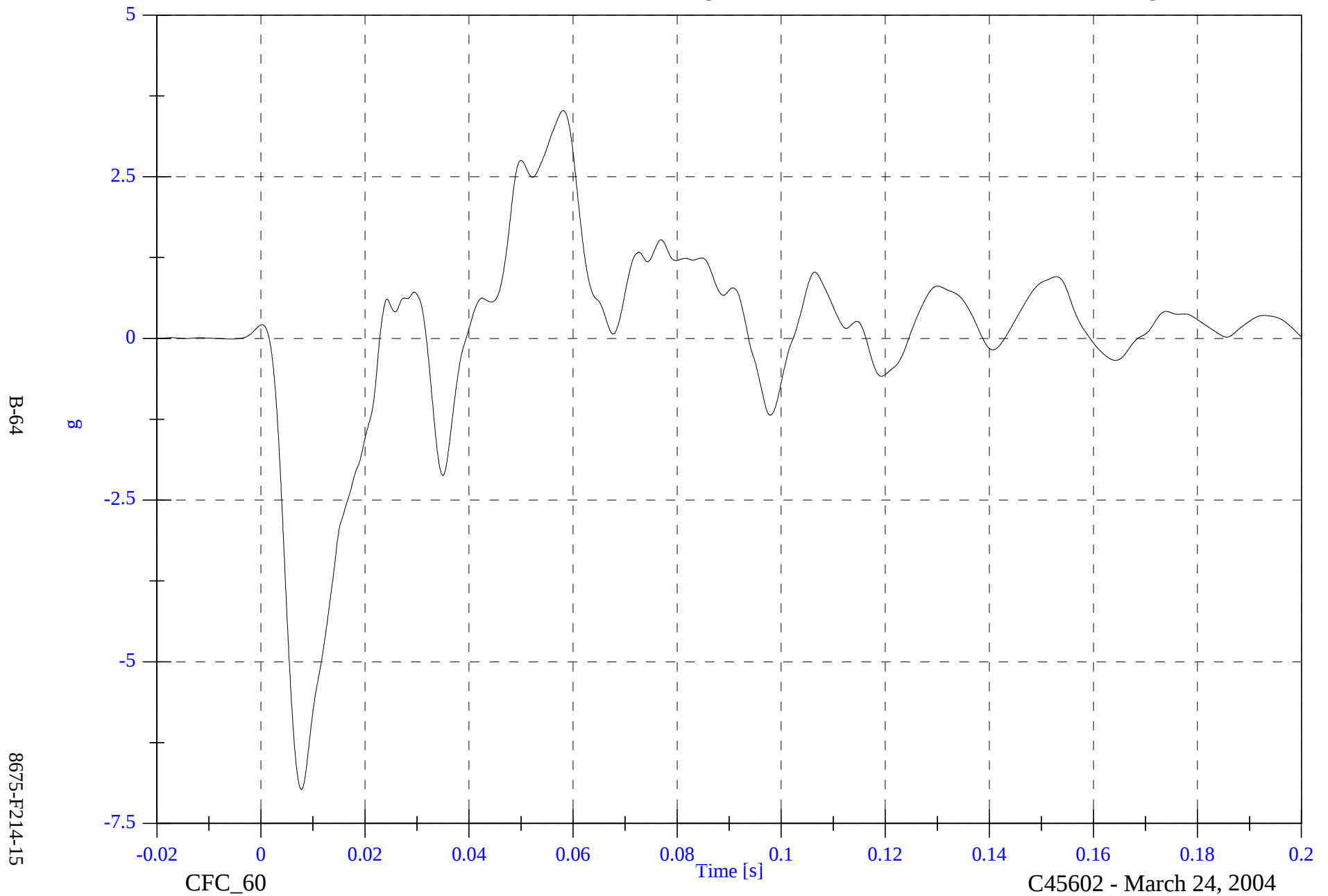
8675-F214-15

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2 A1 Right Front Sill Z

Max: 3.5 [g] at 0.058 [s]

Min: -7.0 [g] at 0.008 [s]

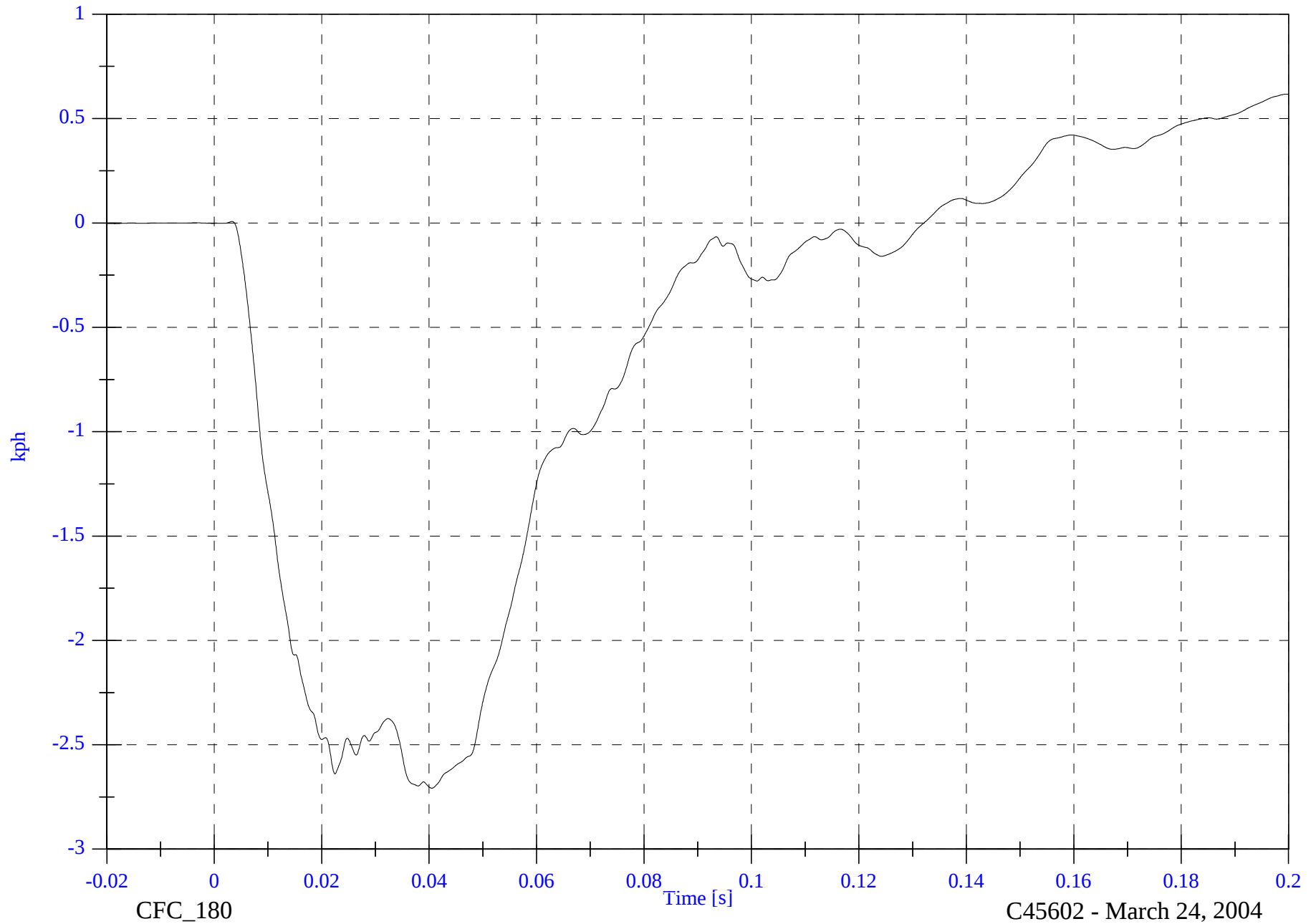


2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2 A1 Right Front Sill Z Velocity

Max: 0.6 [kph] at 0.200 [s]

Min: -2.7 [kph] at 0.040 [s]



B-65

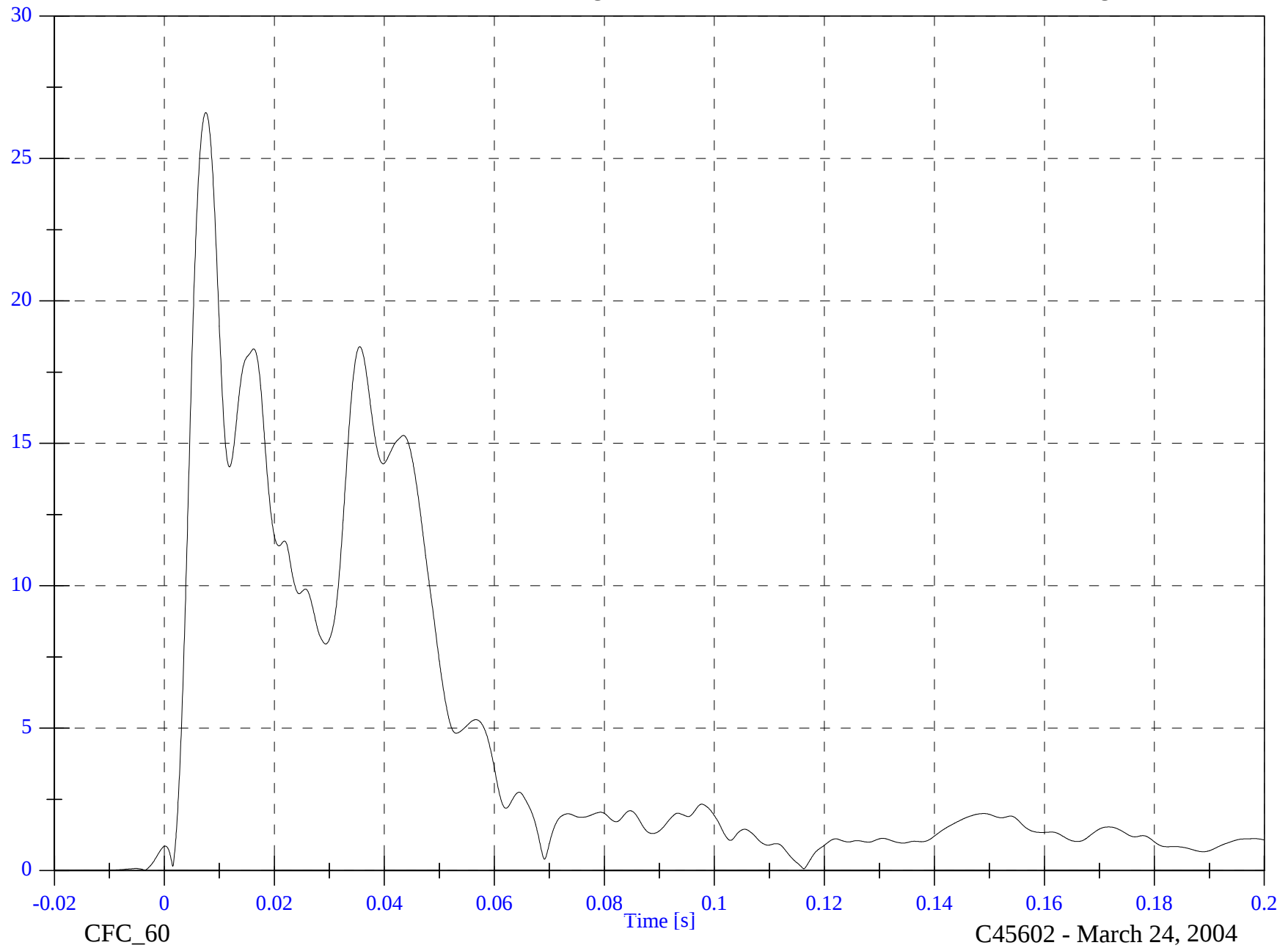
8675-F214-15

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2 A1 Right Front Sill Resultant

Max: 26.6 [g] at 0.008 [s]

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



B-66

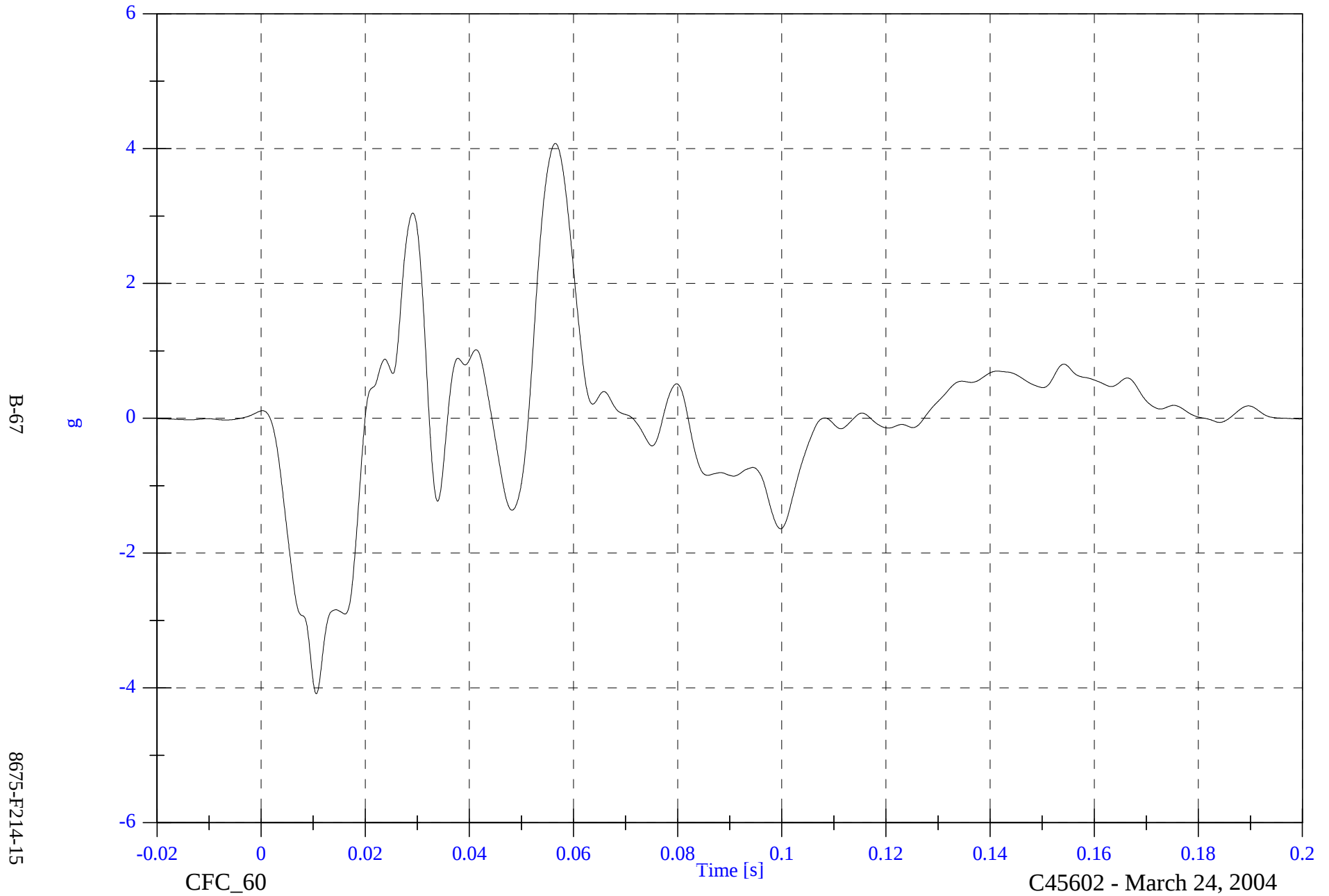
8675-F214-15

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2 A2 Right Rear Sill X

Max: 4.1 [g] at 0.056 [s]

Min: -4.1 [g] at 0.011 [s]

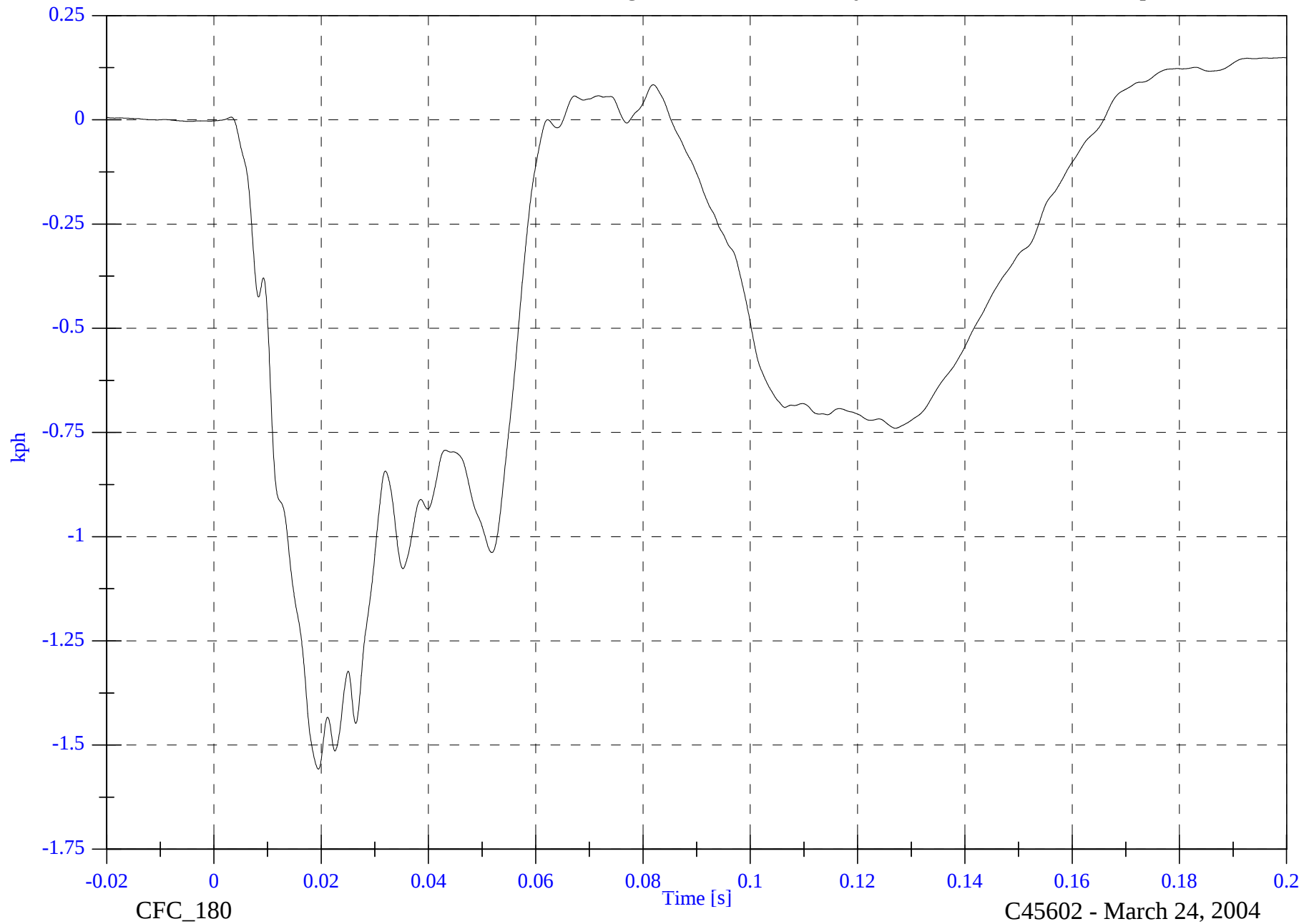


2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2 A2 Right Rear Sill X Velocity

Max: 0.1 [kph] at 0.199 [s]

Min: -1.6 [kph] at 0.019 [s]



B-68

8675-F214-15

CFC_180

C45602 - March 24, 2004

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2 A2 Right Rear Sill Y

Max: 26.6 [g] at 0.007 [s]

Min: -2.2 [g] at 0.083 [s]

B-69

8675-F214-15

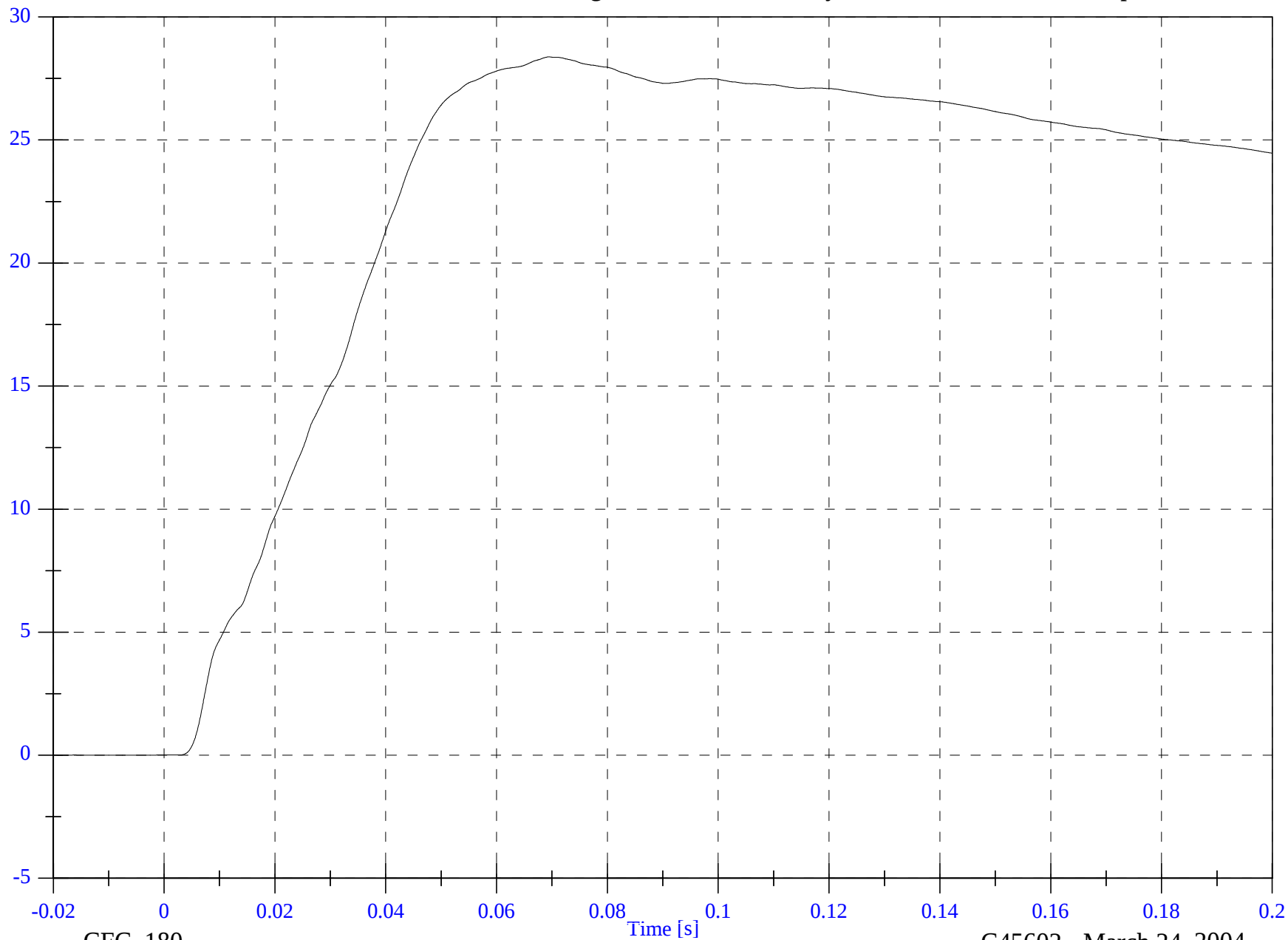


2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

Max: 28.4 [kph] at 0.069 [s]

V2 A2 Right Rear Sill Y Velocity

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



B-70

8675-F214-15

CFC_180

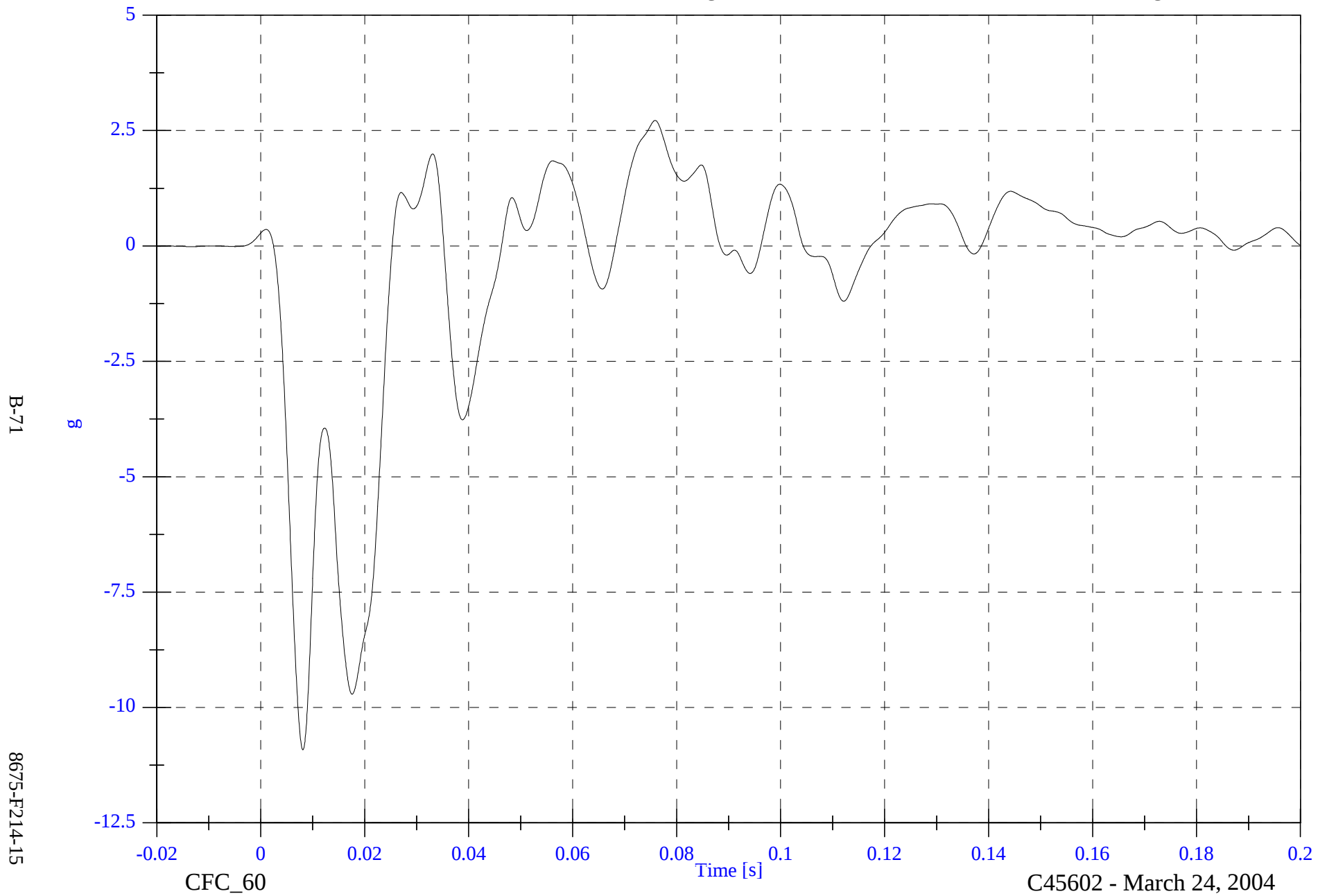
C45602 - March 24, 2004

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2 A2 Right Rear Sill Z

Max: 2.7 [g] at 0.076 [s]

Min: -10.9 [g] at 0.008 [s]



2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2 A2 Right Rear Sill Z Velocity

Max: 0.0 [kph] at 0.004 [s]

Min: -5.6 [kph] at 0.047 [s]



B-72

8675-F214-15

CFC_180

C45602 - March 24, 2004

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

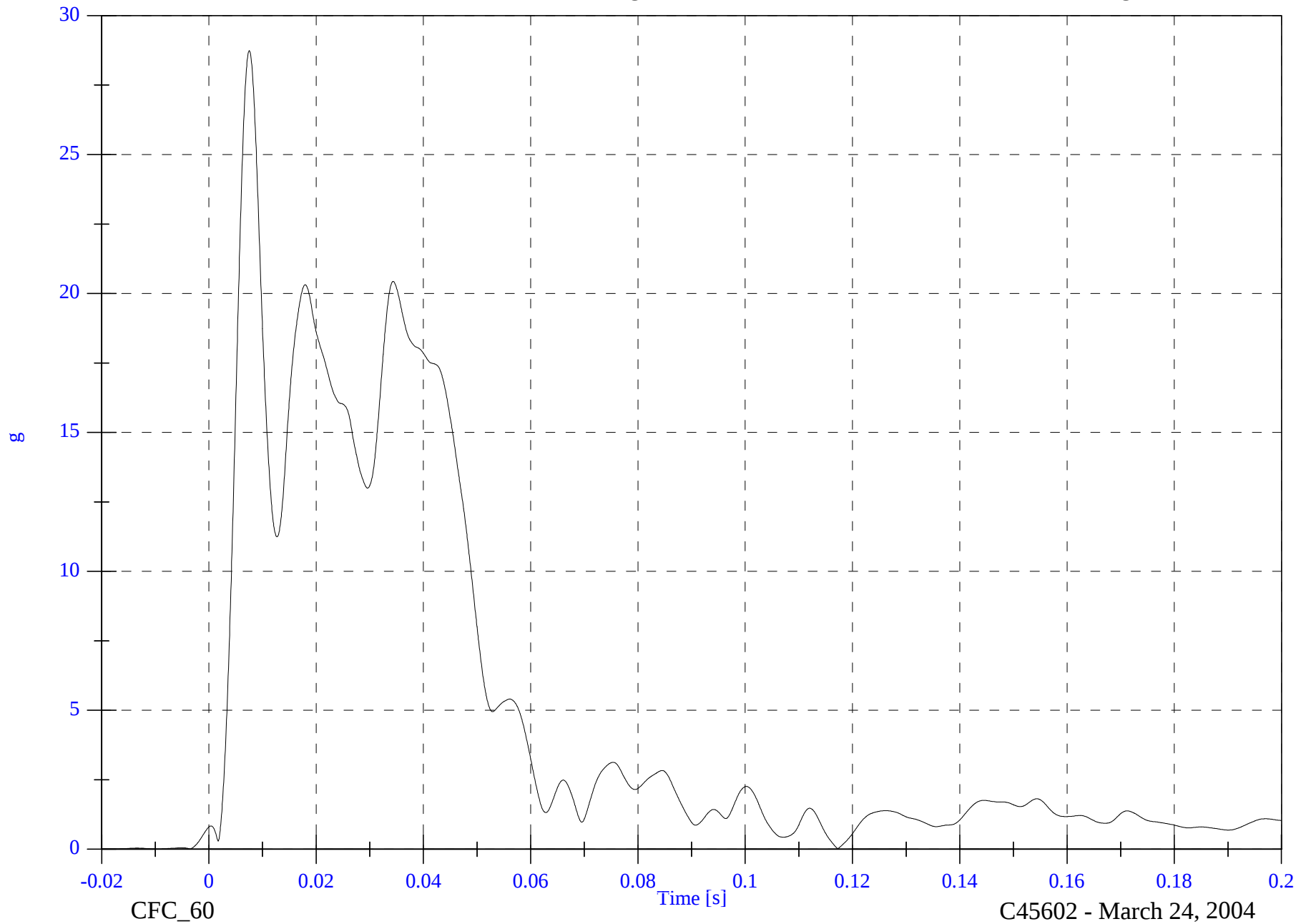
V2 A2 Right Rear Sill Resultant

Max: 28.7 [g] at 0.008 [s]

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

B-73

8675-F214-15

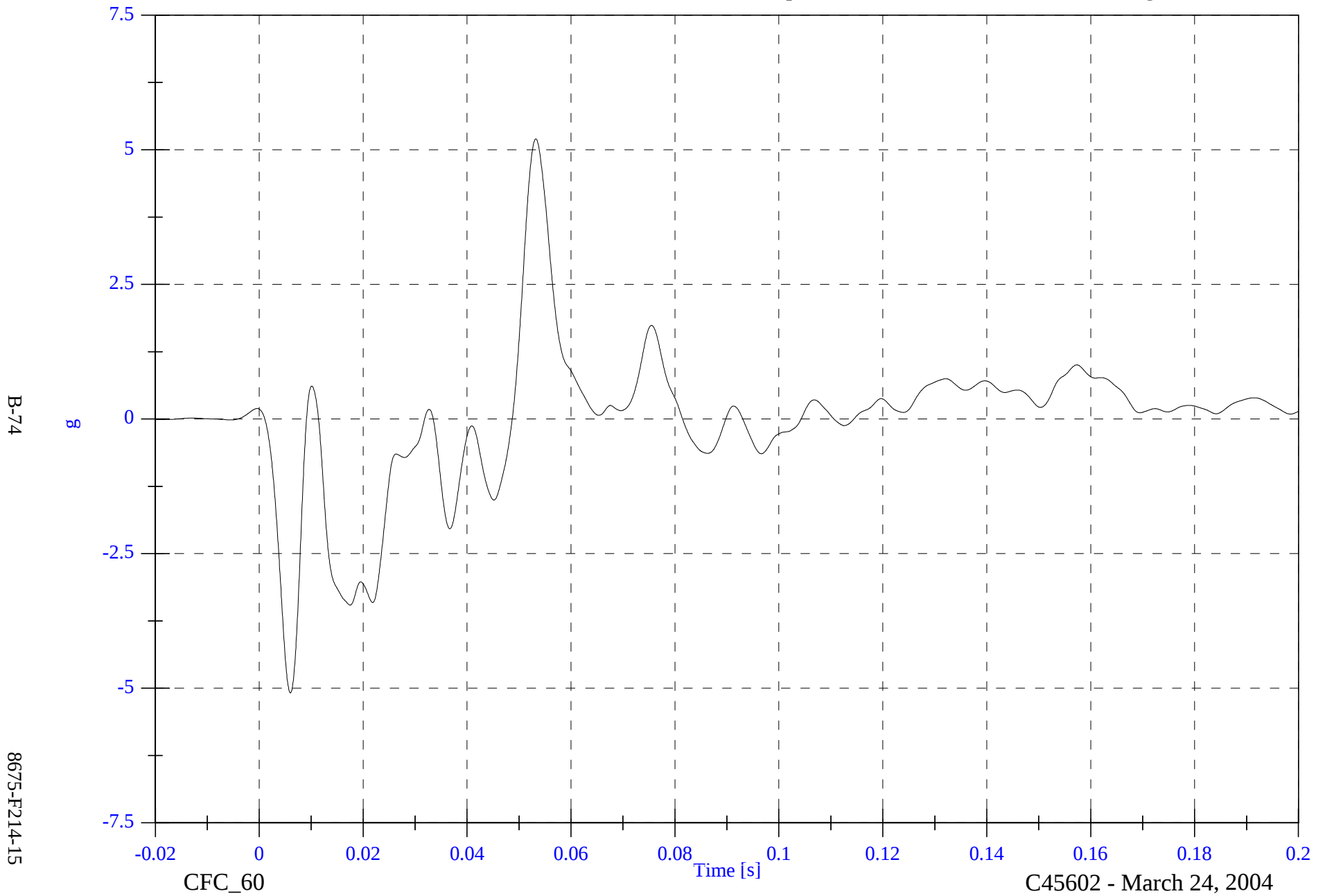


2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2 A3 Rear Floorpan X

Max: 5.2 [g] at 0.053 [s]

Min: -5.1 [g] at 0.006 [s]



2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2 A3 Rear Floorpan X Velocity

Max: 0.0 [kph] at 0.001 [s]

Min: -2.7 [kph] at 0.050 [s]



2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2 A3 Rear Floorpan Y

Max: 25.9 [g] at 0.008 [s]

Min: -2.3 [g] at 0.075 [s]

B-76

8675-F214-15

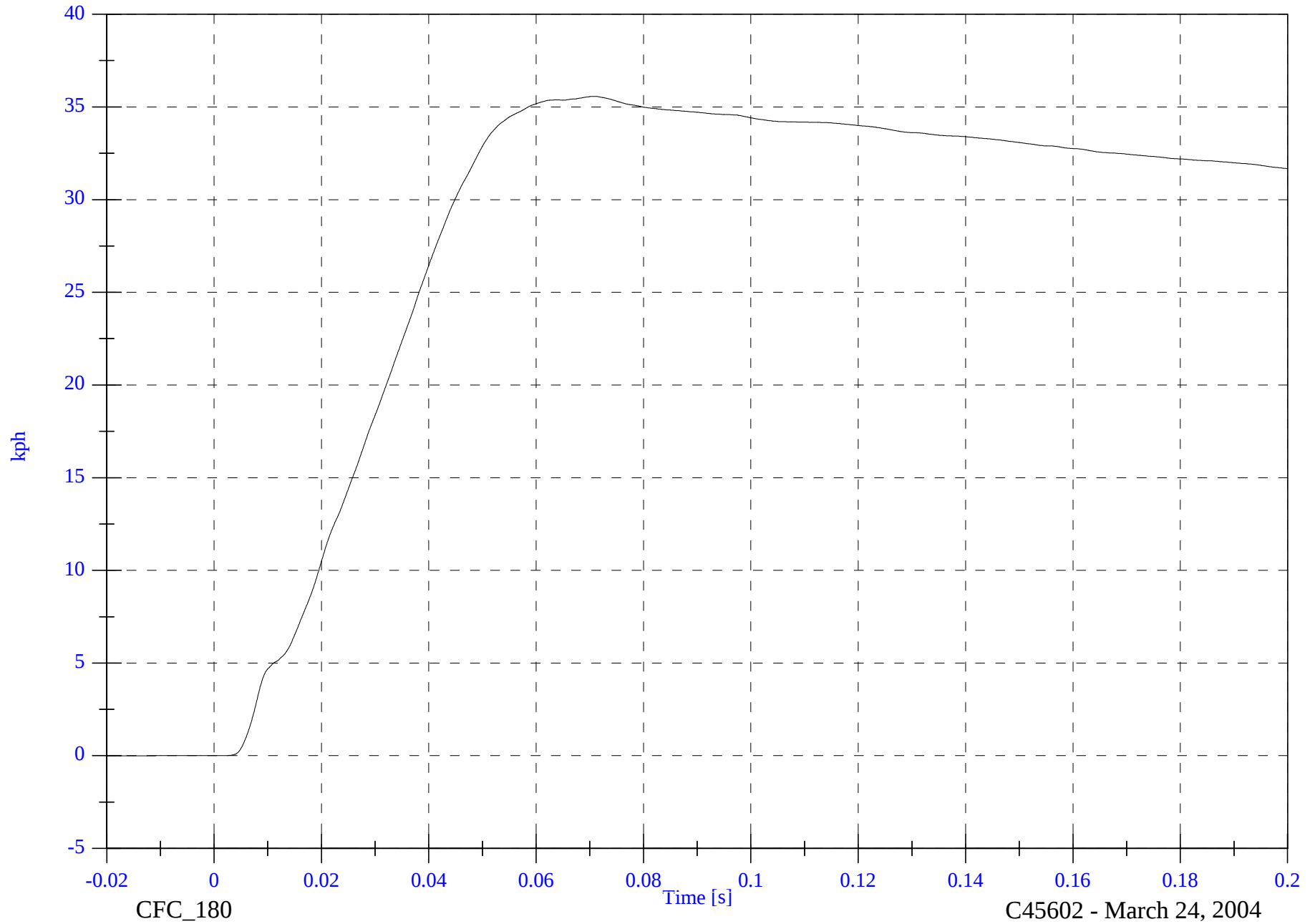


2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2 A3 Rear Floorpan Y Velocity

Max: 35.6 [kph] at 0.071 [s]

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



B-77

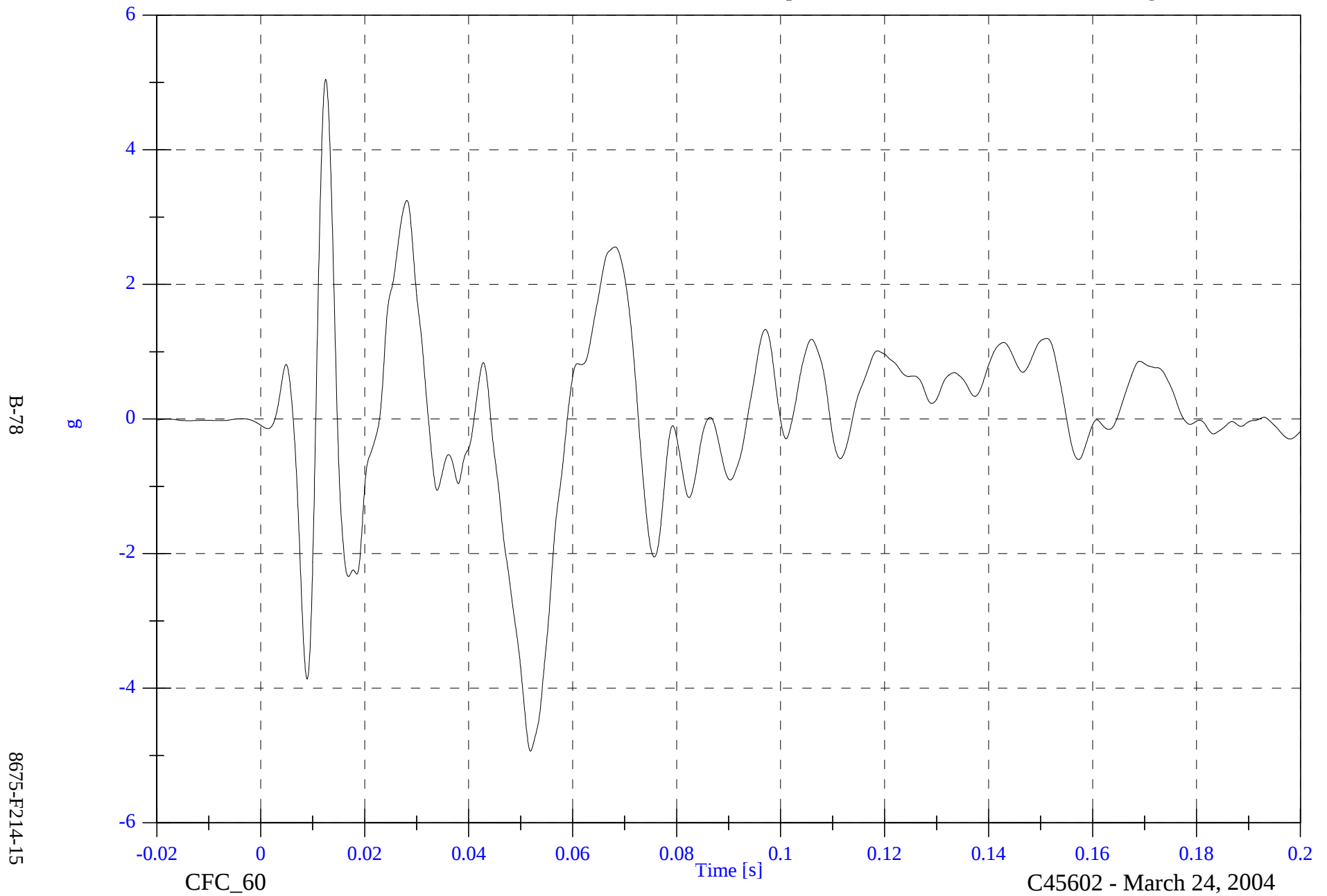
8675-F214-15

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2 A3 Rear Floorplan Z

Max: 5.0 [g] at 0.012 [s]

Min: -4.9 [g] at 0.052 [s]

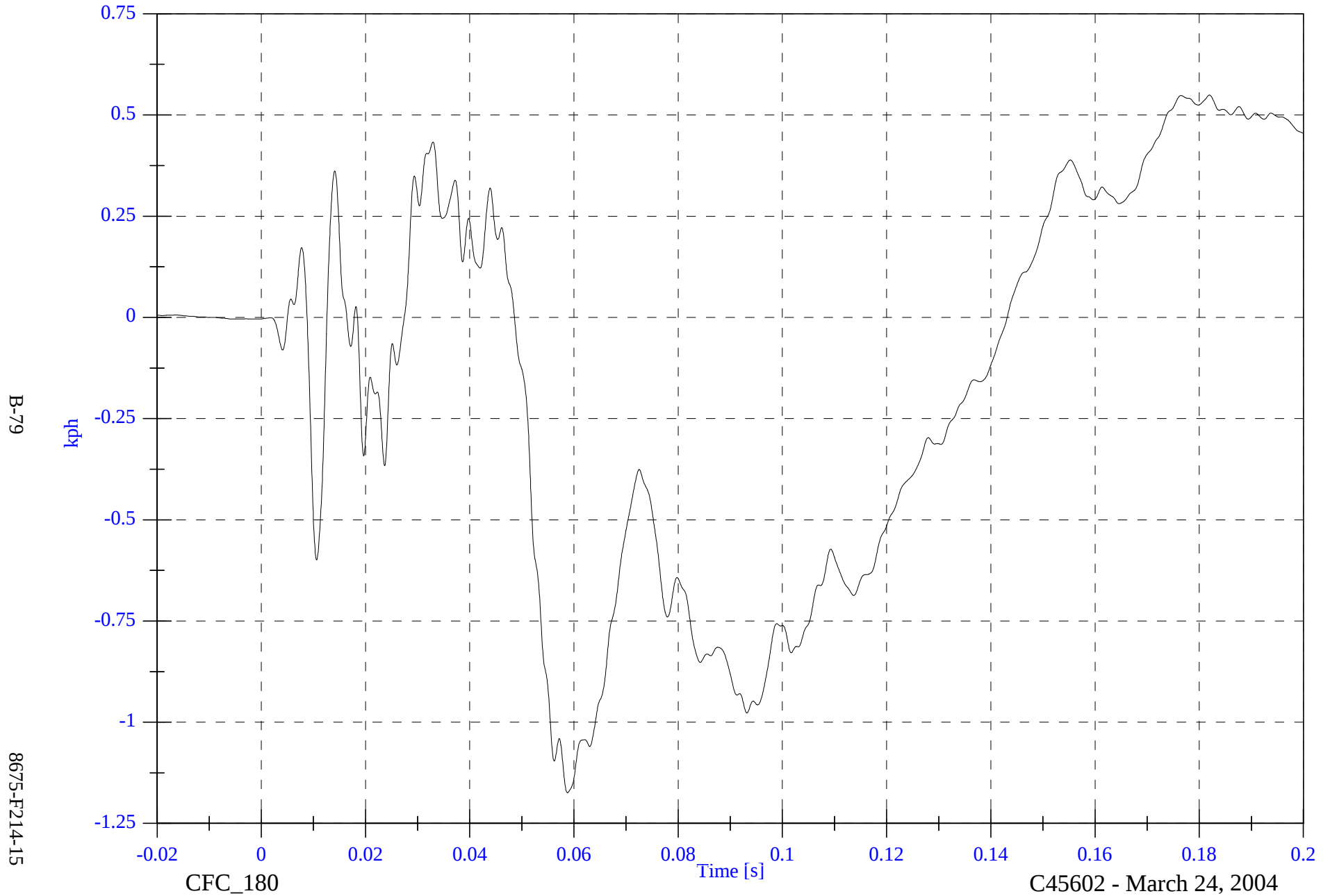


2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2 A3 Rear Floorplan Z Velocity

Max: 0.5 [kph] at 0.182 [s]

Min: -1.2 [kph] at 0.059 [s]



2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

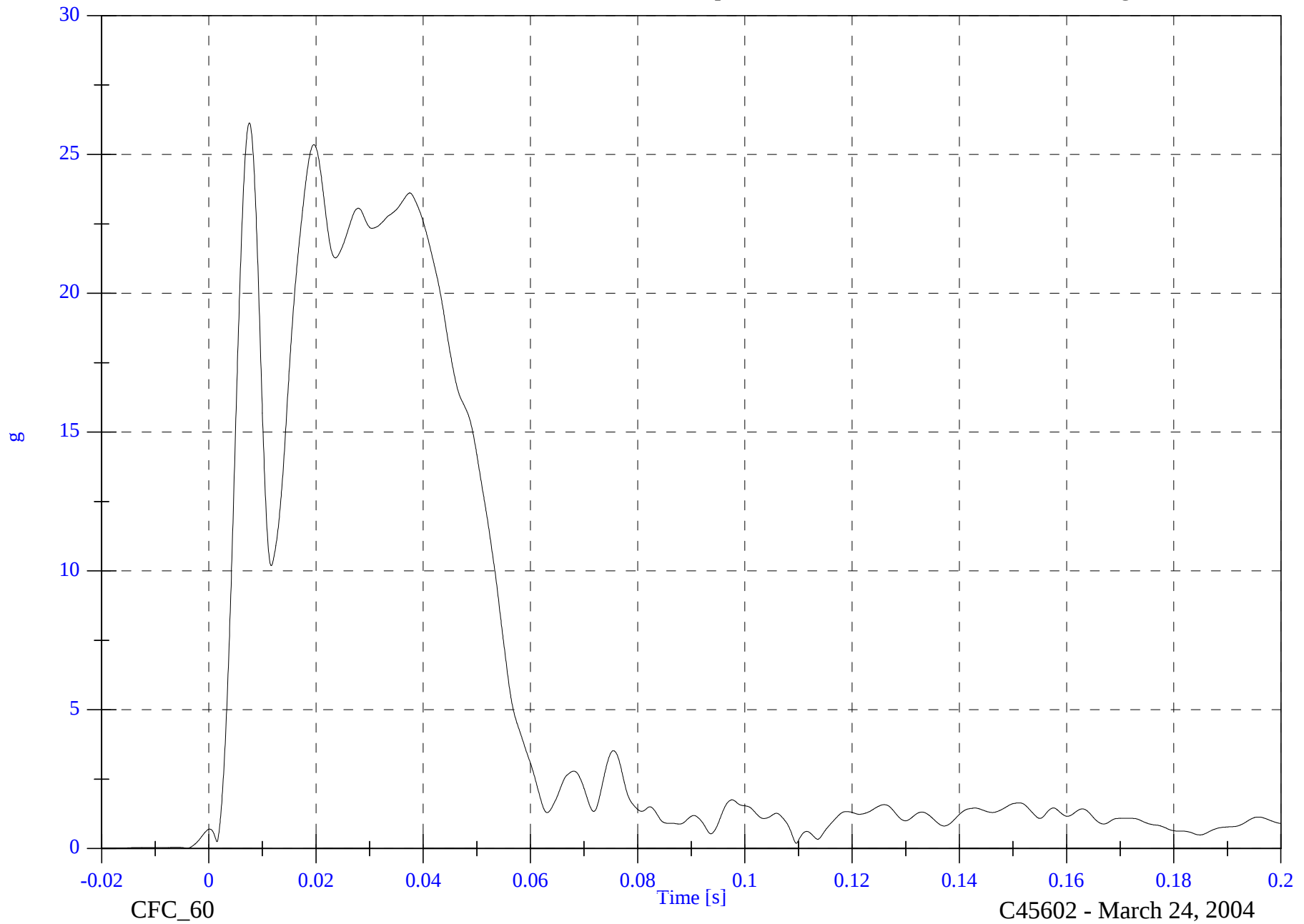
V2 A3 Rear Floorpan Resultant

Max: 26.1 [g] at 0.008 [s]

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

B-80

8675-F214-15



2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

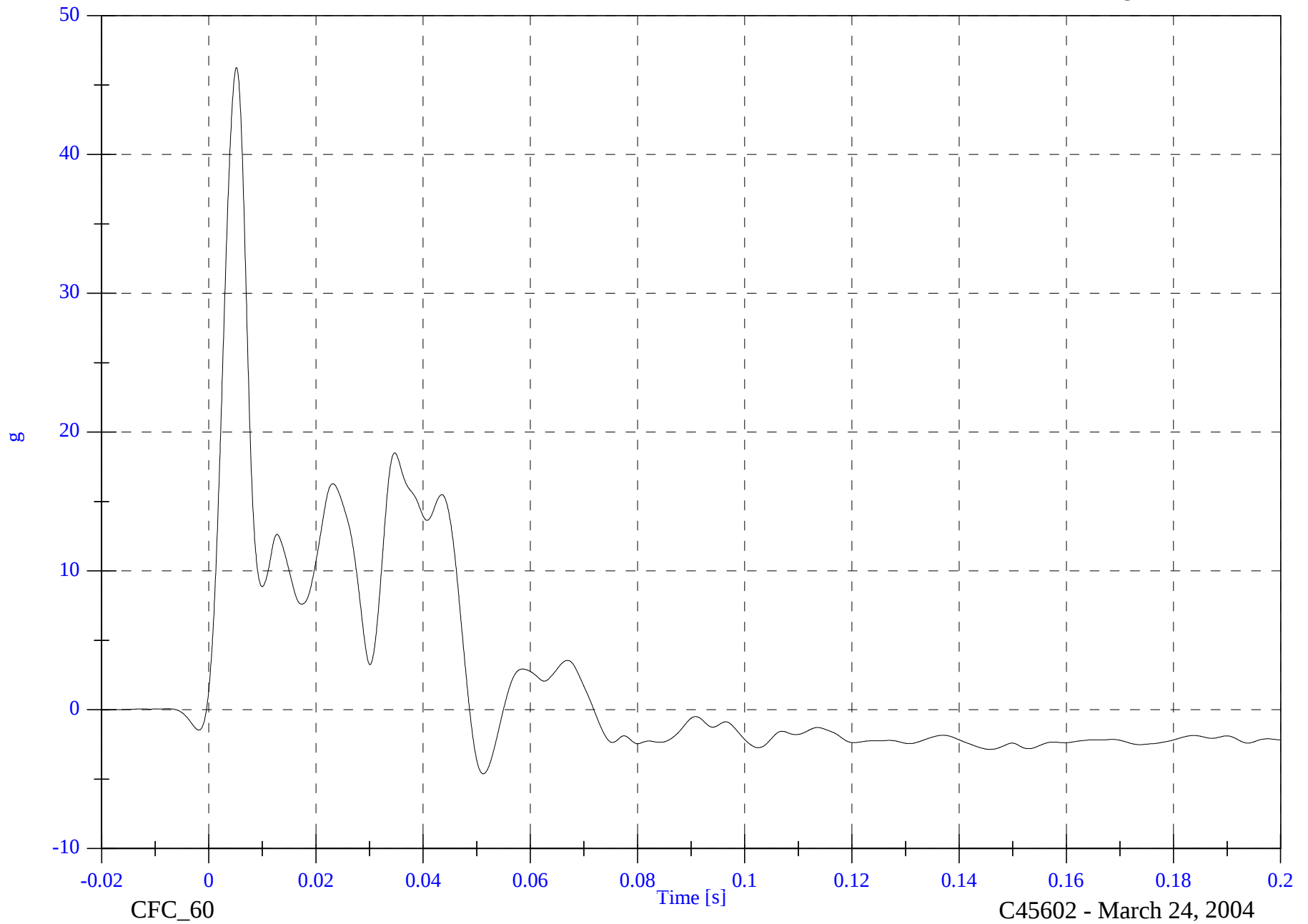
V2 A4 Left Rear Sill Y

Max: 46.3 [g] at 0.005 [s]

Min: -4.6 [g] at 0.051 [s]

B-81

8675-F214-15

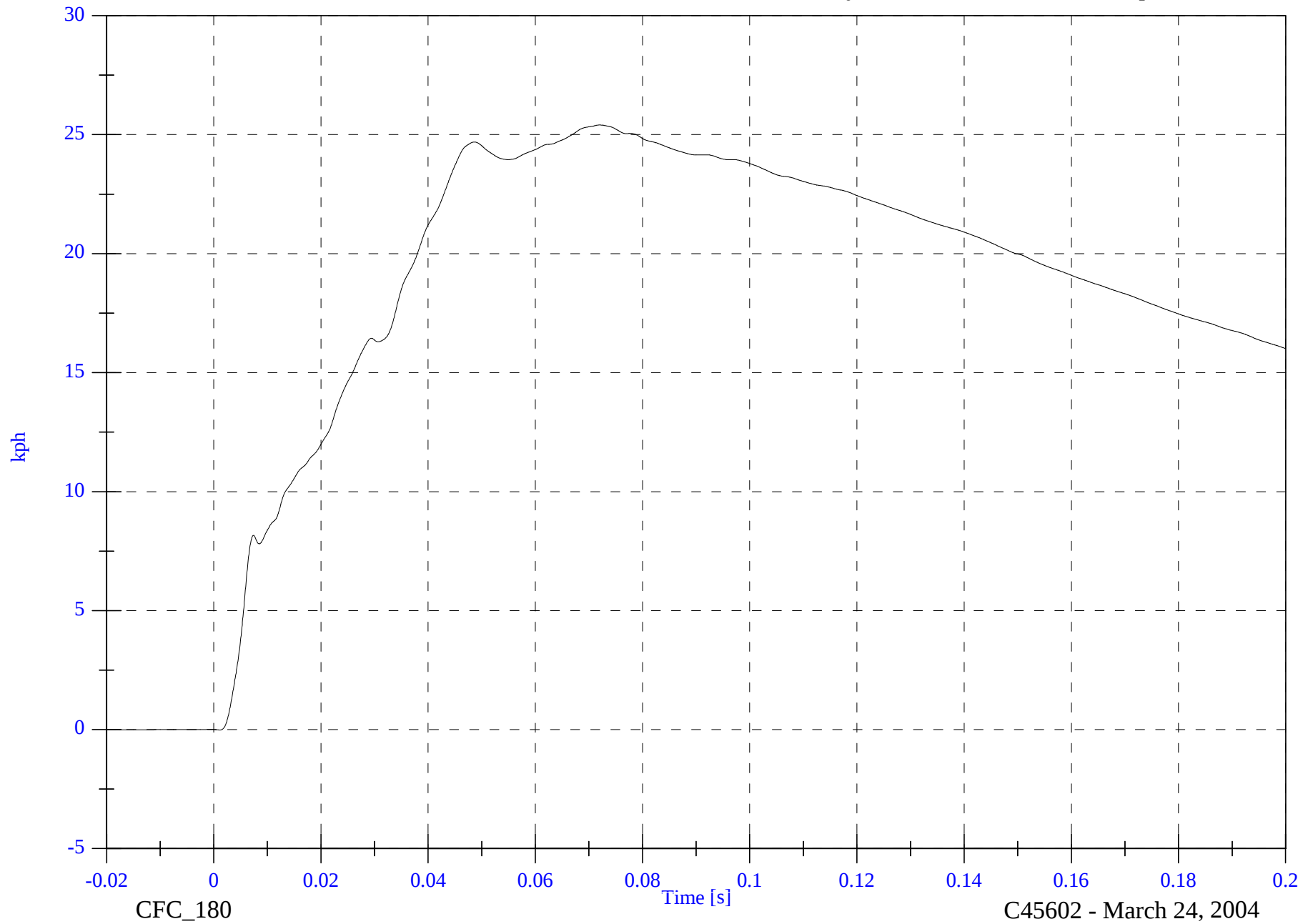


2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2 A4 Left Rear Sill Y Velocity

Max: 25.4 [kph] at 0.072 [s]

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



B-82

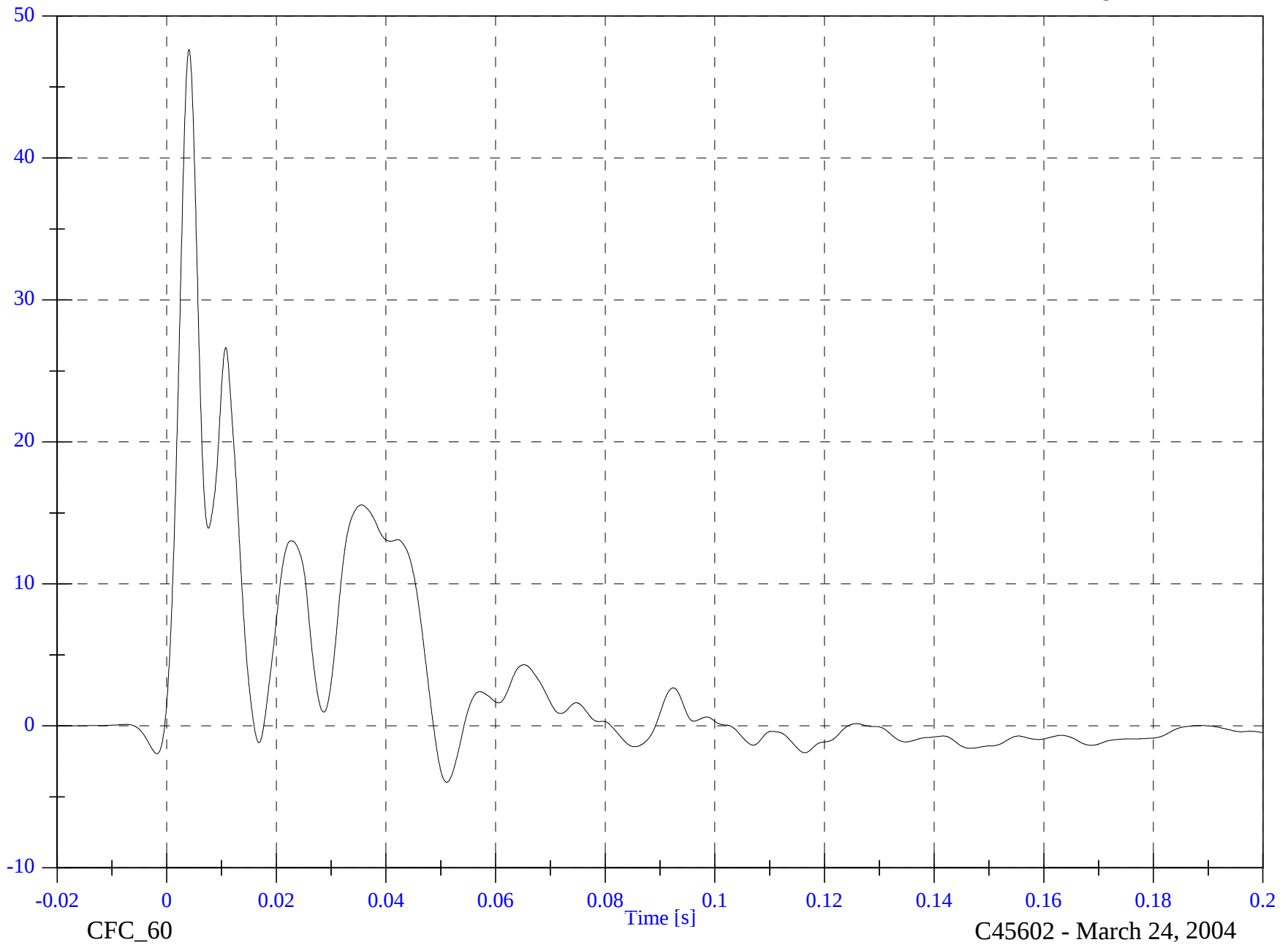
8675-F214-15

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2 A5 Left Front Sill Y

Max: 47.6 [g] at 0.004 [s]

Min: -4.0 [g] at 0.051 [s]



B-83

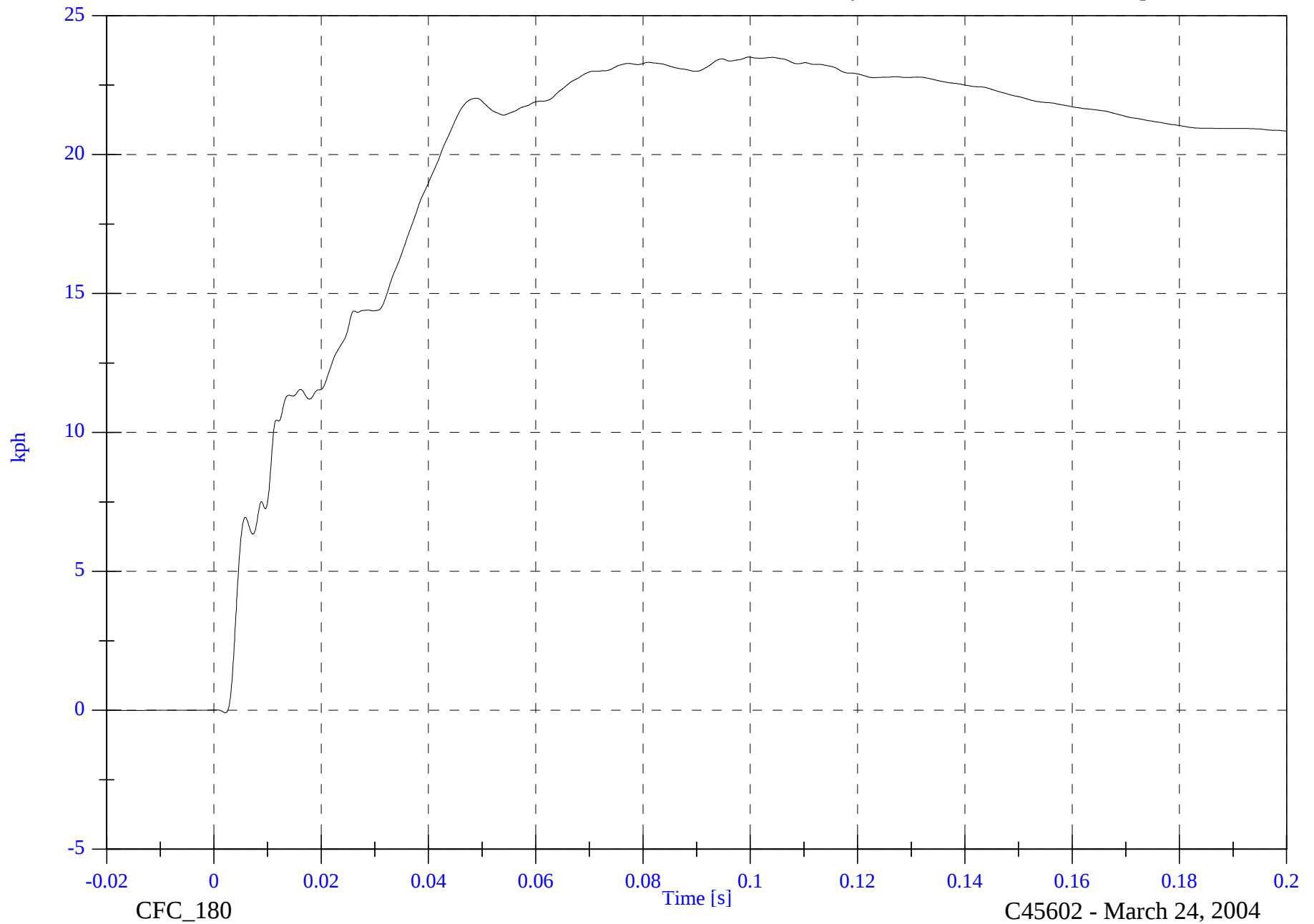
8675-F214-15

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

Max: 23.5 [kph] at 0.100 [s]

V2 A5 Left Front Sill Y Velocity

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



B-84

8675-F214-15

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

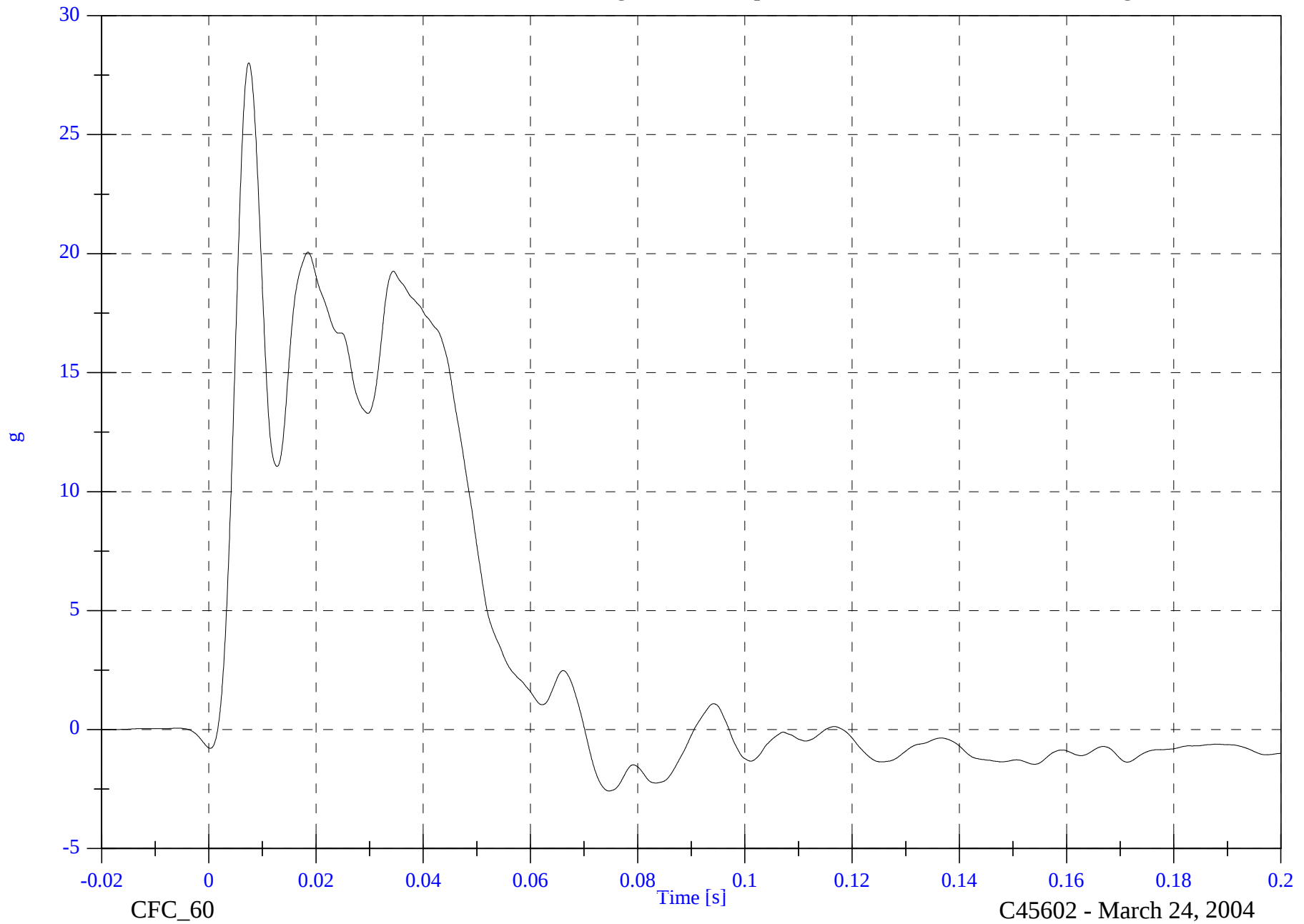
V2 A7 Right Rear Compartment Y

Max: 28.0 [g] at 0.007 [s]

Min: -2.6 [g] at 0.075 [s]

B-85

8675-F214-15

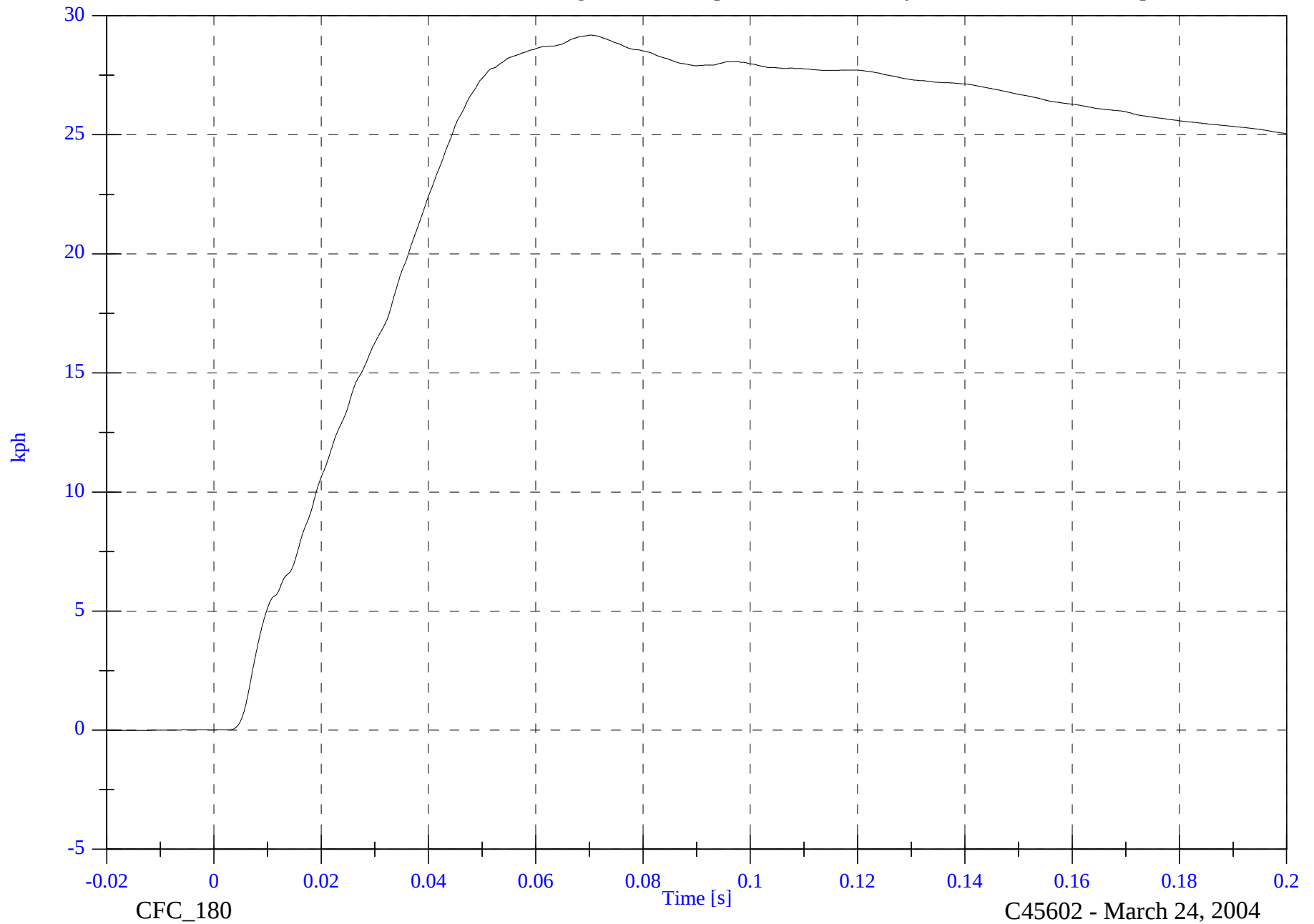


2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2 A7 Right Rear Compartment Y Velocity

Max: 29.2 [kph] at 0.070 [s]

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



B-86

8675-F214-15

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

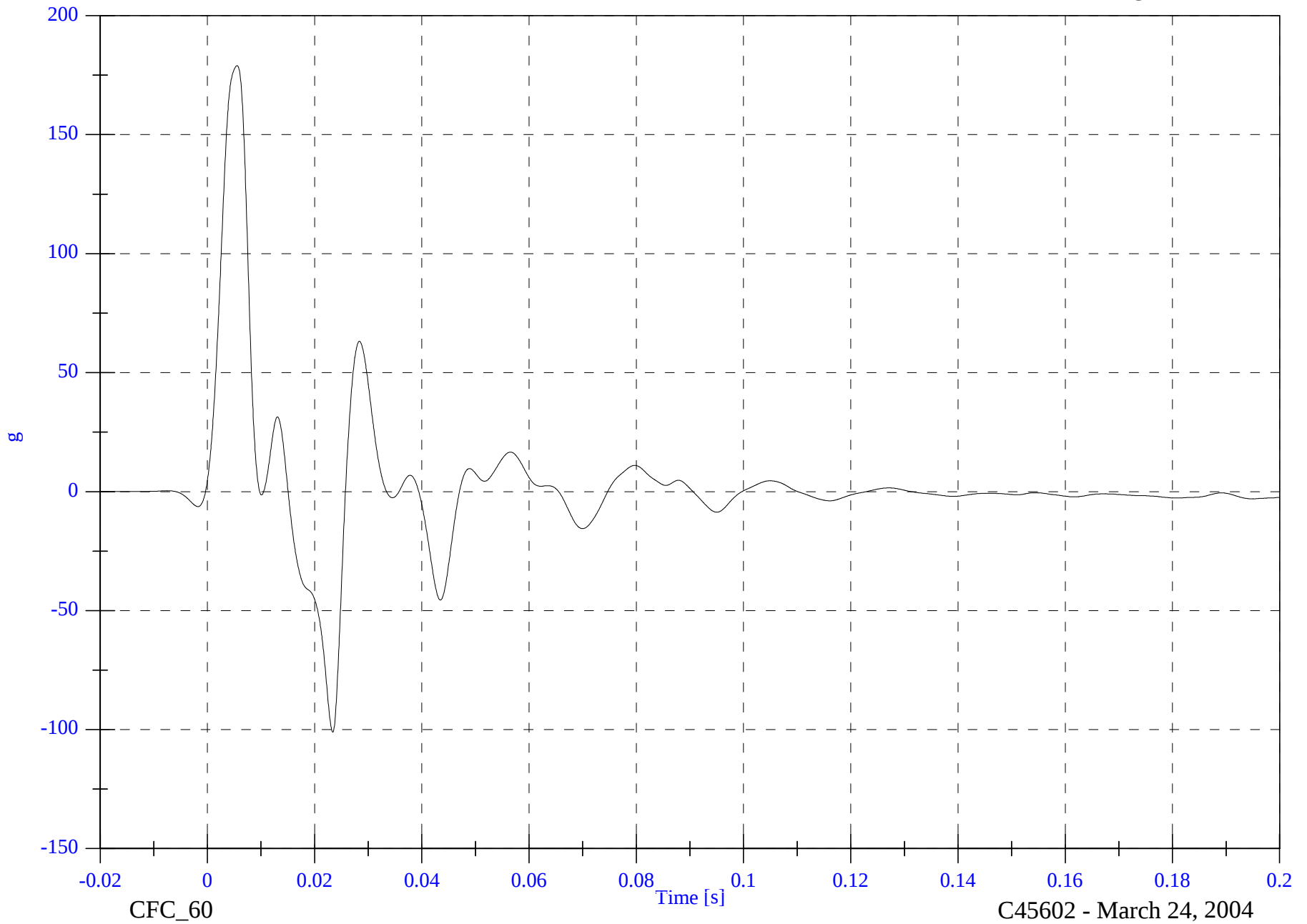
V2 A12 Left Lower B Post Y

Max: 179.0 [g] at 0.006 [s]

Min: -101.1 [g] at 0.023 [s]

B-87

8675-F214-15

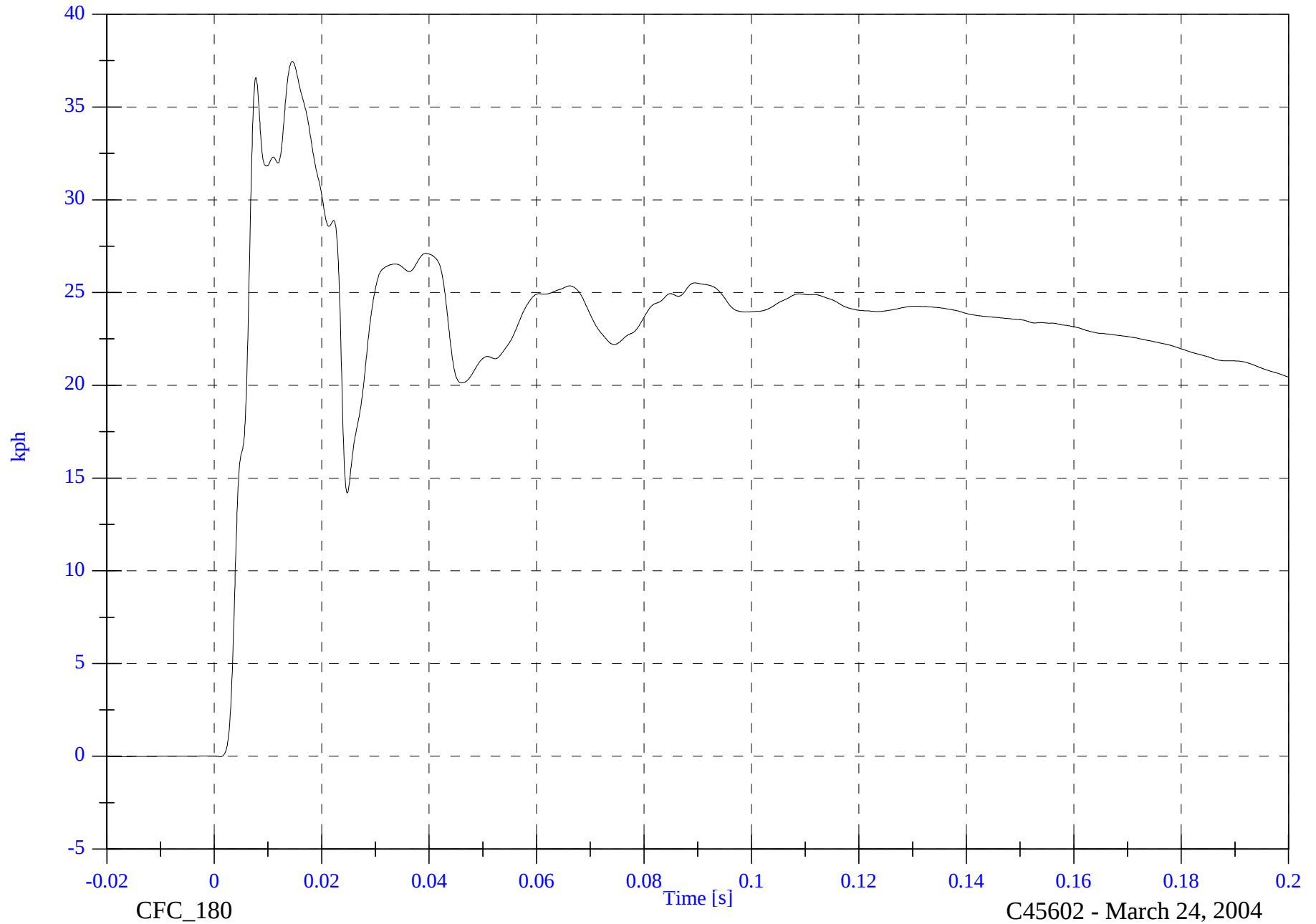


2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2 A12 Left Lower B Post Y Velocity

Max: 37.5 [kph] at 0.015 [s]

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



B-88

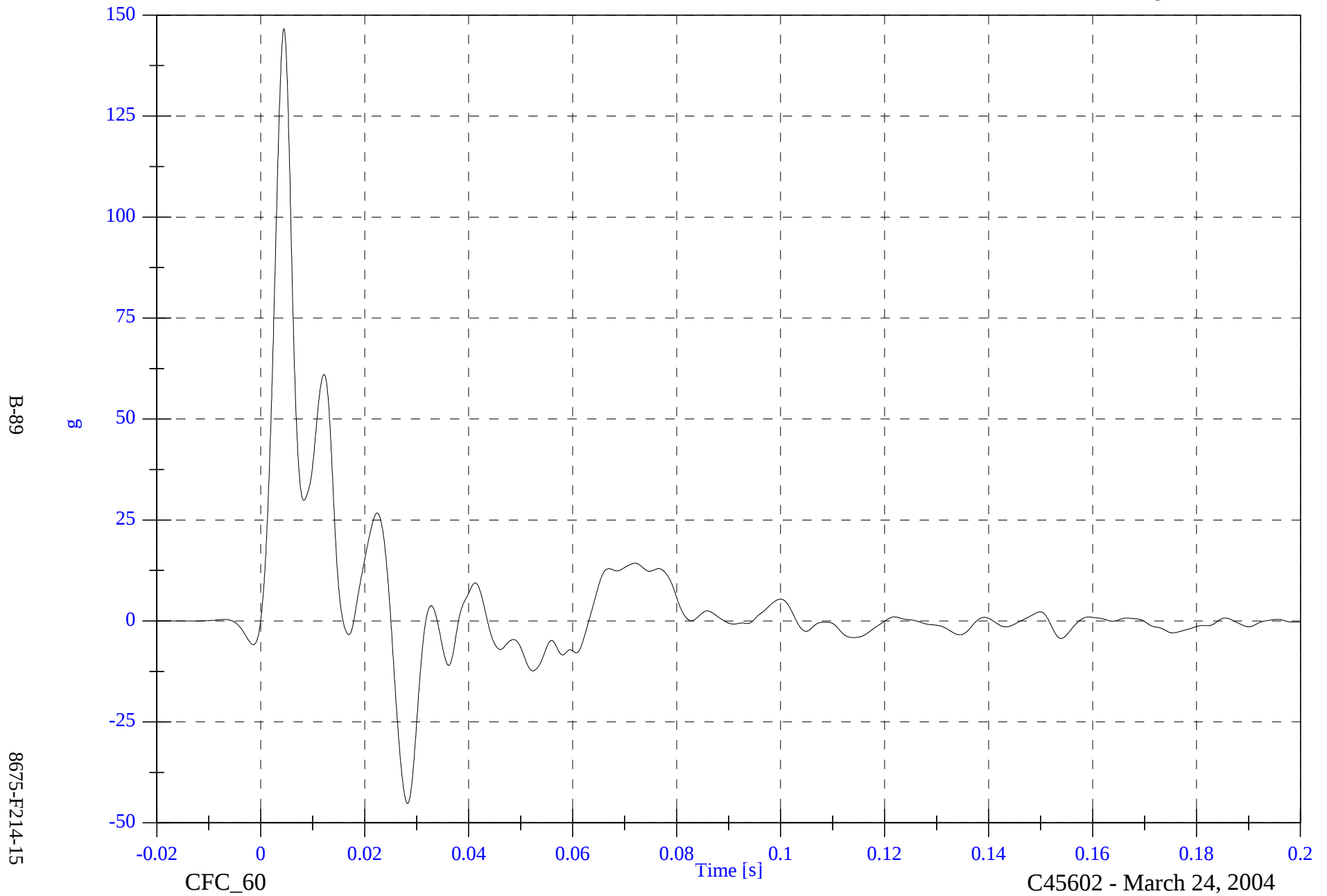
8675-F214-15

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2 A13 Left Mid B Post Y

Max: 146.6 [g] at 0.004 [s]

Min: -45.2 [g] at 0.028 [s]



2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2 A13 Left Mid B Post Y Velocity

Max: 35.3 [kph] at 0.025 [s]

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

B-90

8675-F214-15

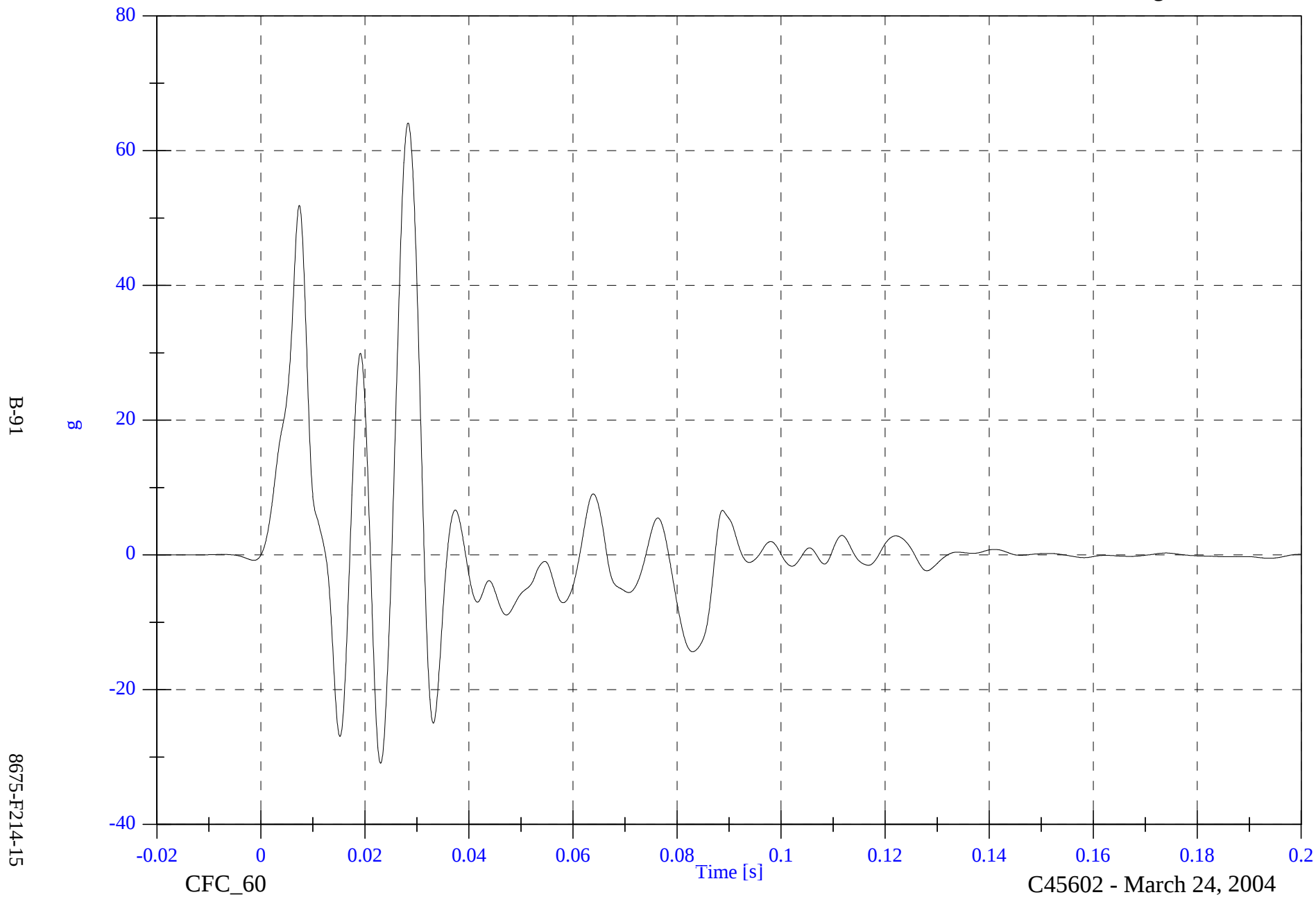


2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2 A14 Left Lower A Post Y

Max: 64.1 [g] at 0.028 [s]

Min: -30.9 [g] at 0.023 [s]



2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

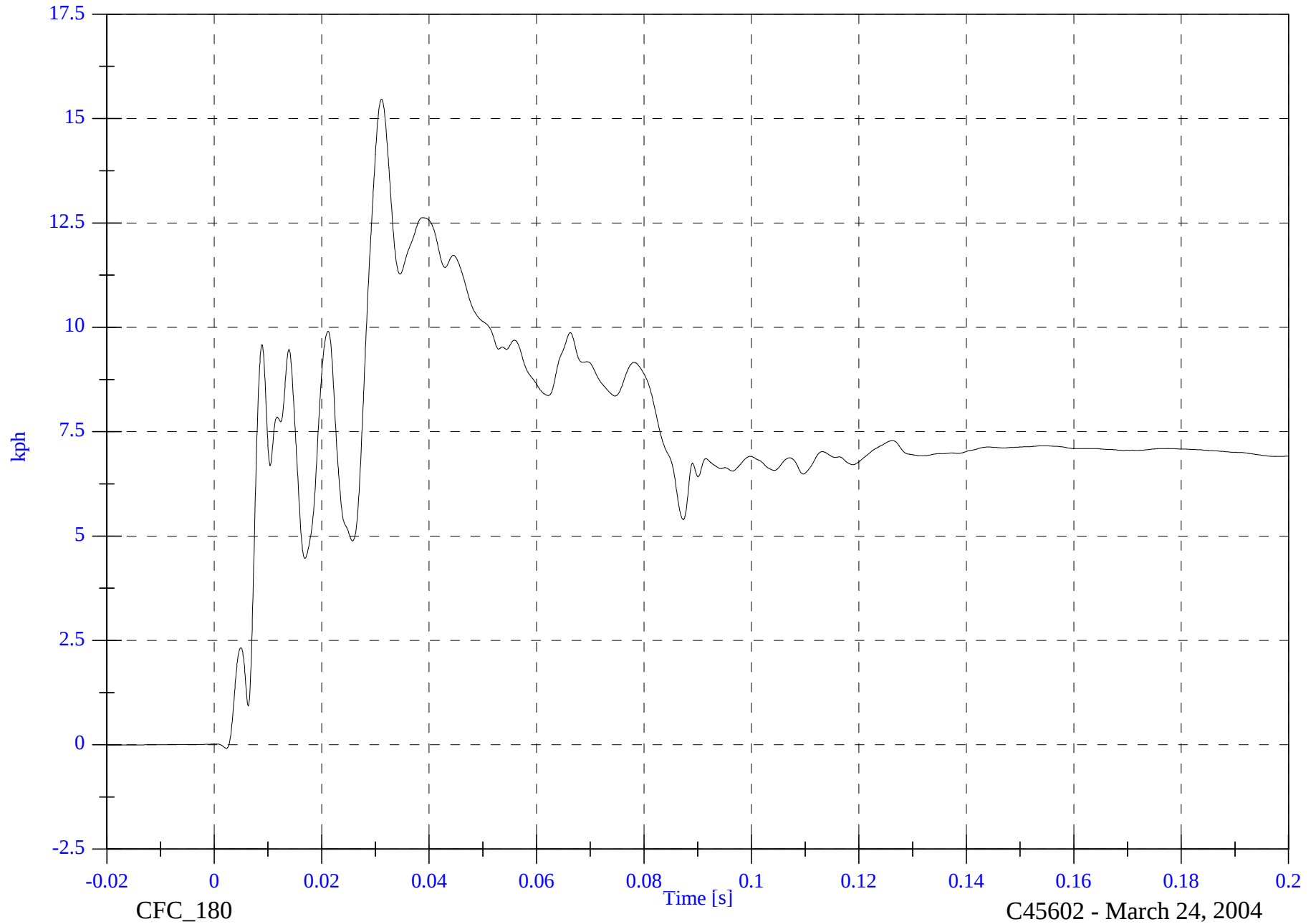
V2 A14 Left Lower A Post Y Velocity

Max: 15.5 [kph] at 0.031 [s]

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

B-92

8675-F214-15



2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

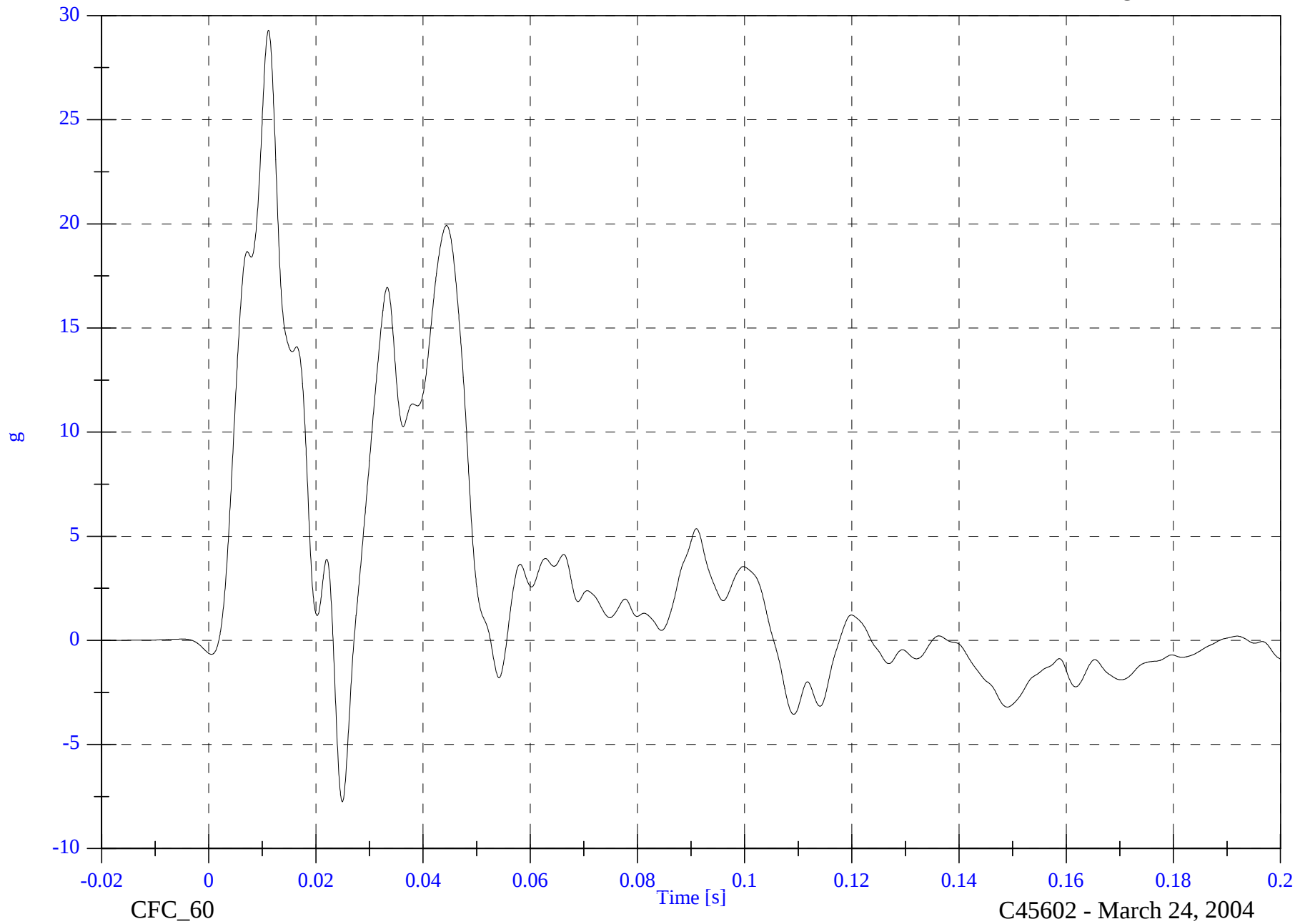
V2 A15 Left Mid A Post Y

Max: 29.3 [g] at 0.011 [s]

Min: -7.8 [g] at 0.025 [s]

B-93

8675-F214-15

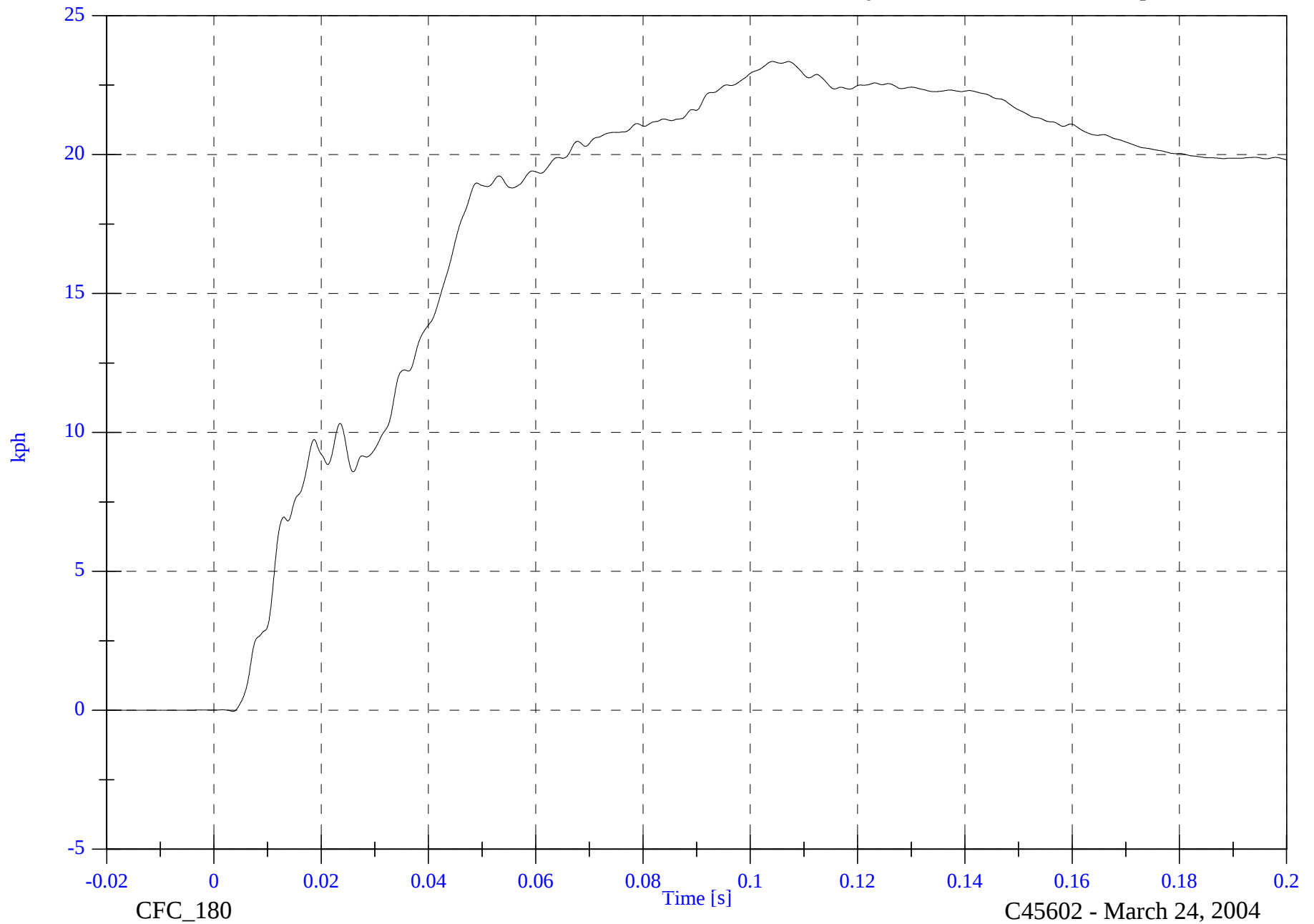


2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2 A15 Left Mid A Post Y Velocity

Max: 23.4 [kph] at 0.104 [s]

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



B-94

8675-F214-15

CFC_180

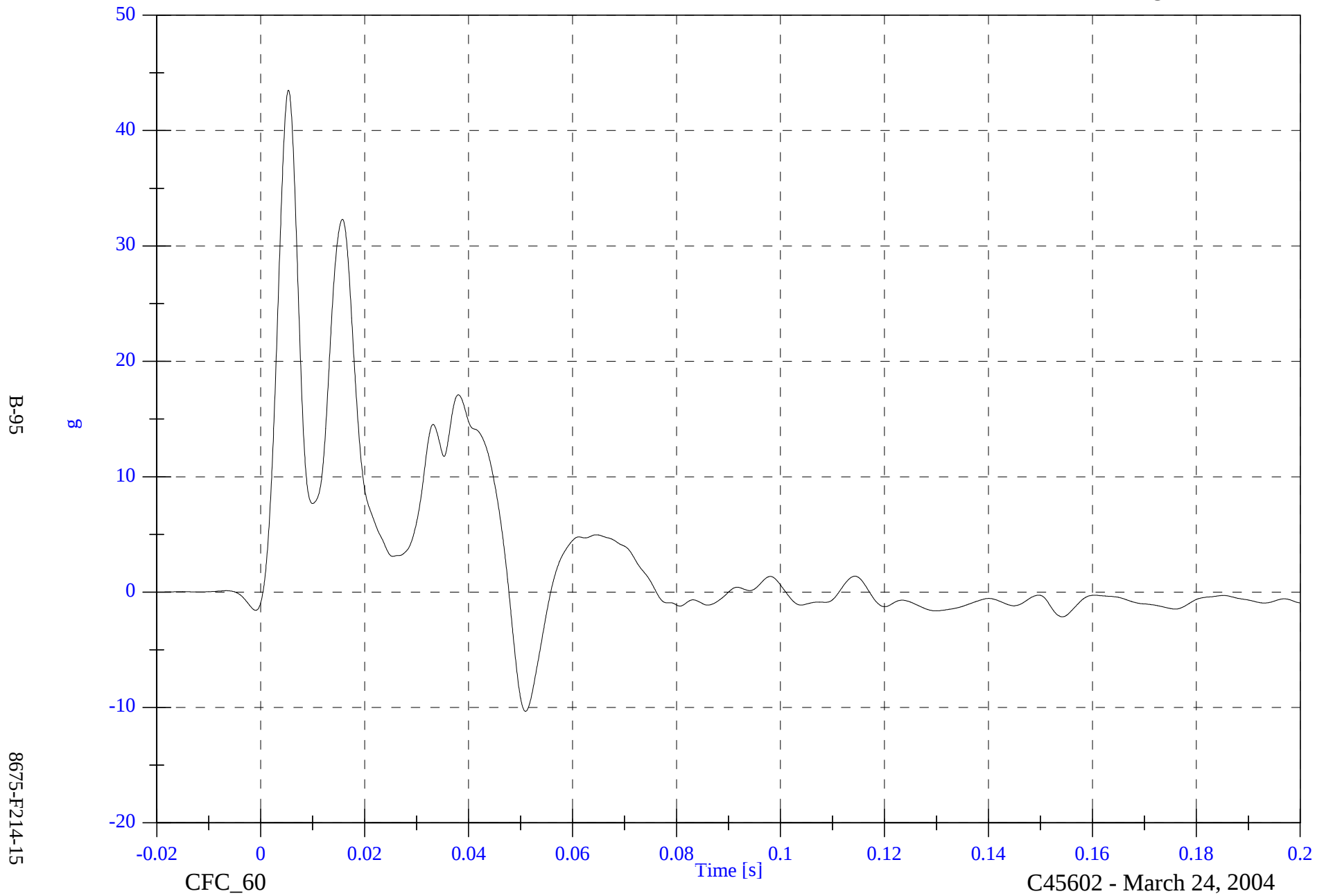
C45602 - March 24, 2004

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2 A16 Front Seat Track Y

Max: 43.5 [g] at 0.005 [s]

Min: -10.3 [g] at 0.051 [s]

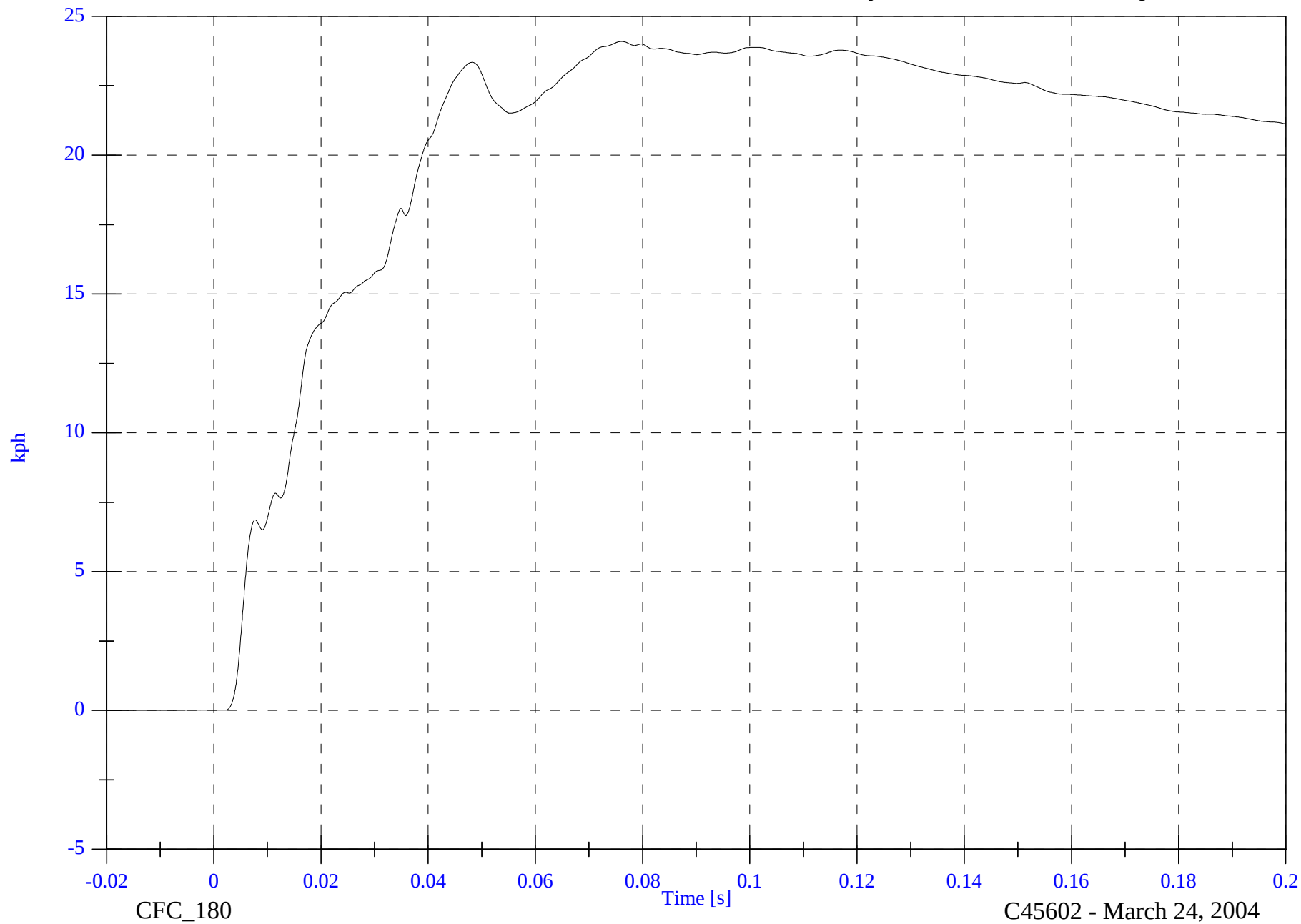


2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

Max: 24.1 [kph] at 0.076 [s]

V2 A16 Front Seat Track Y Velocity

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



B-96

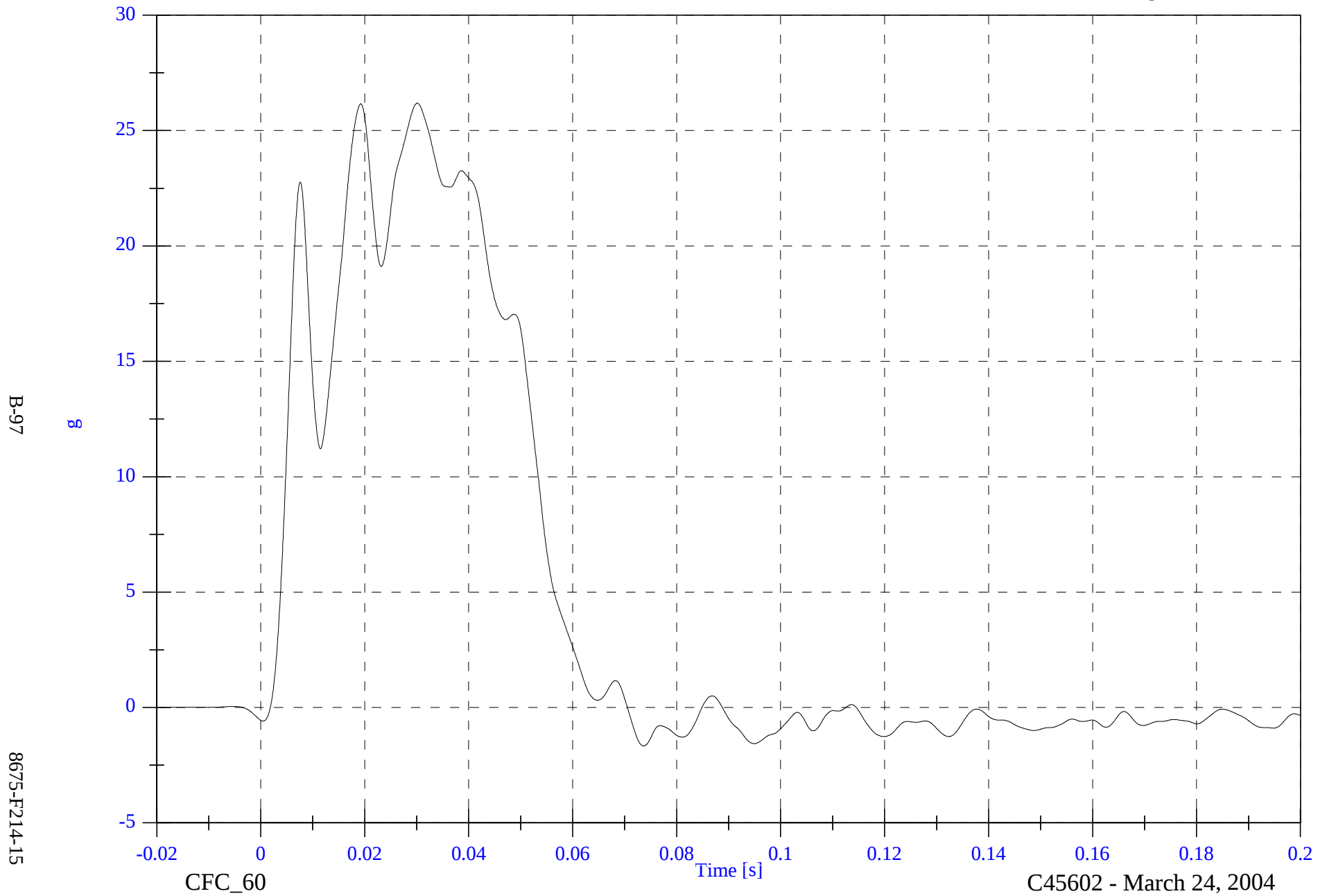
8675-F214-15

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2 A17 Rear Seat Track Y

Max: 26.2 [g] at 0.030 [s]

Min: -1.7 [g] at 0.074 [s]

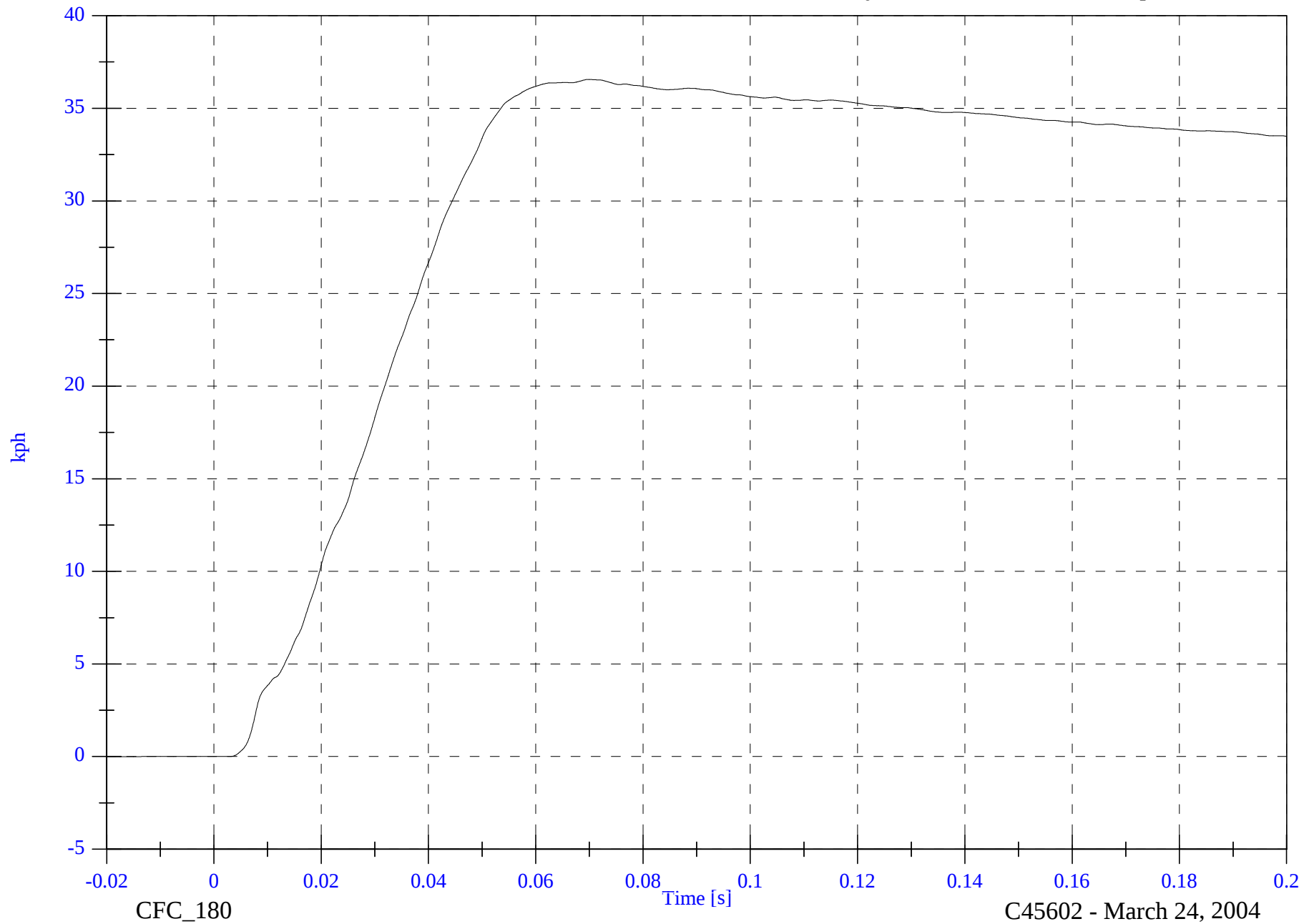


2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2 A17 Rear Seat Track Y Velocity

Max: 36.6 [kph] at 0.070 [s]

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



B-98

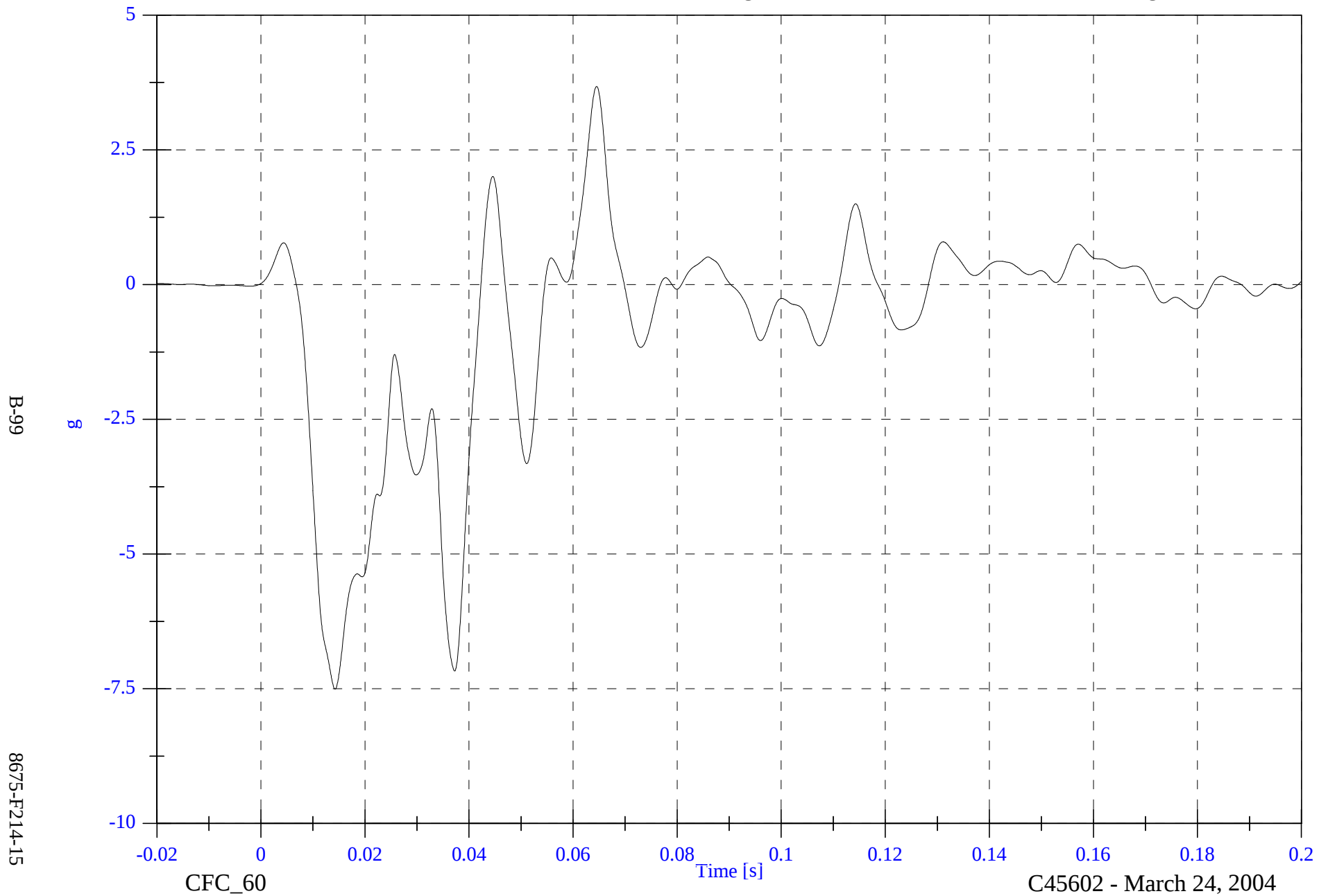
8675-F214-15

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2 A18 Target CG X

Max: 3.7 [g] at 0.064 [s]

Min: -7.5 [g] at 0.014 [s]



2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2 A18 Target CG X Velocity

Max: 0.1 [kph] at 0.006 [s]

Min: -5.5 [kph] at 0.054 [s]



B-100

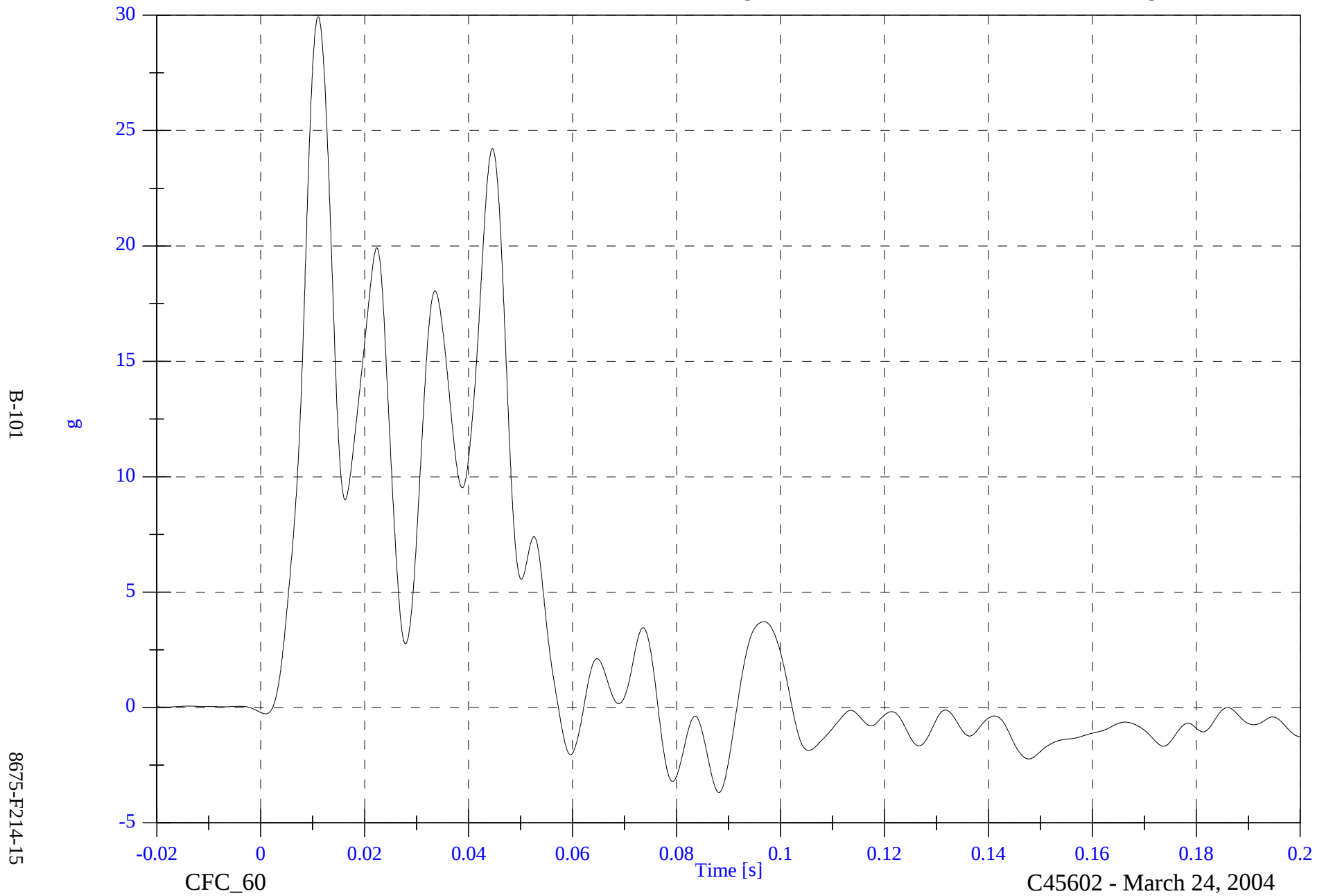
8675-F214-15

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2 A18 Target CG Y

Max: 29.9 [g] at 0.011 [s]

Min: -3.7 [g] at 0.088 [s]

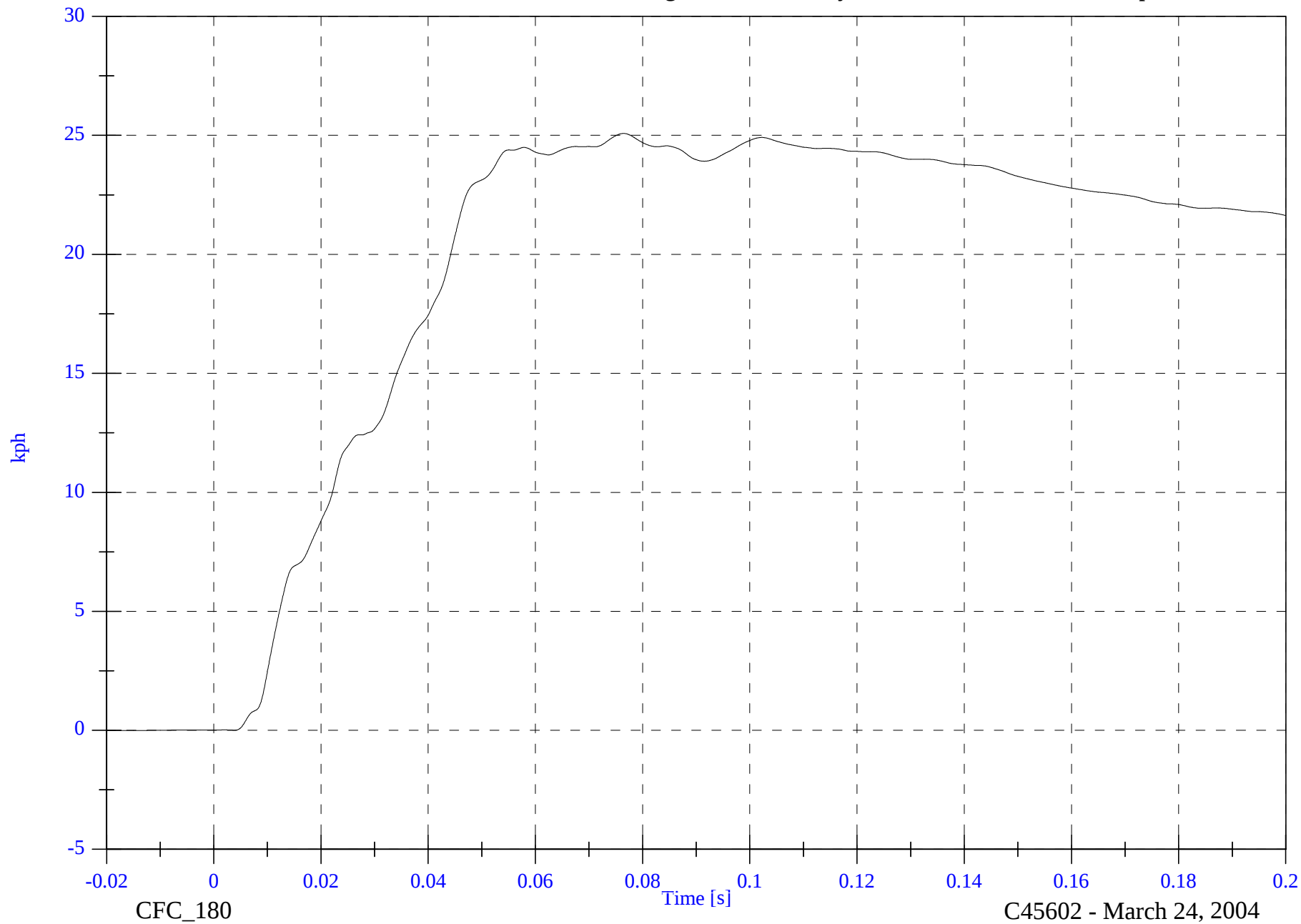


2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2 A18 Target CG Y Velocity

Max: 25.1 [kph] at 0.076 [s]

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



B-102

8675-F214-15

CFC_180

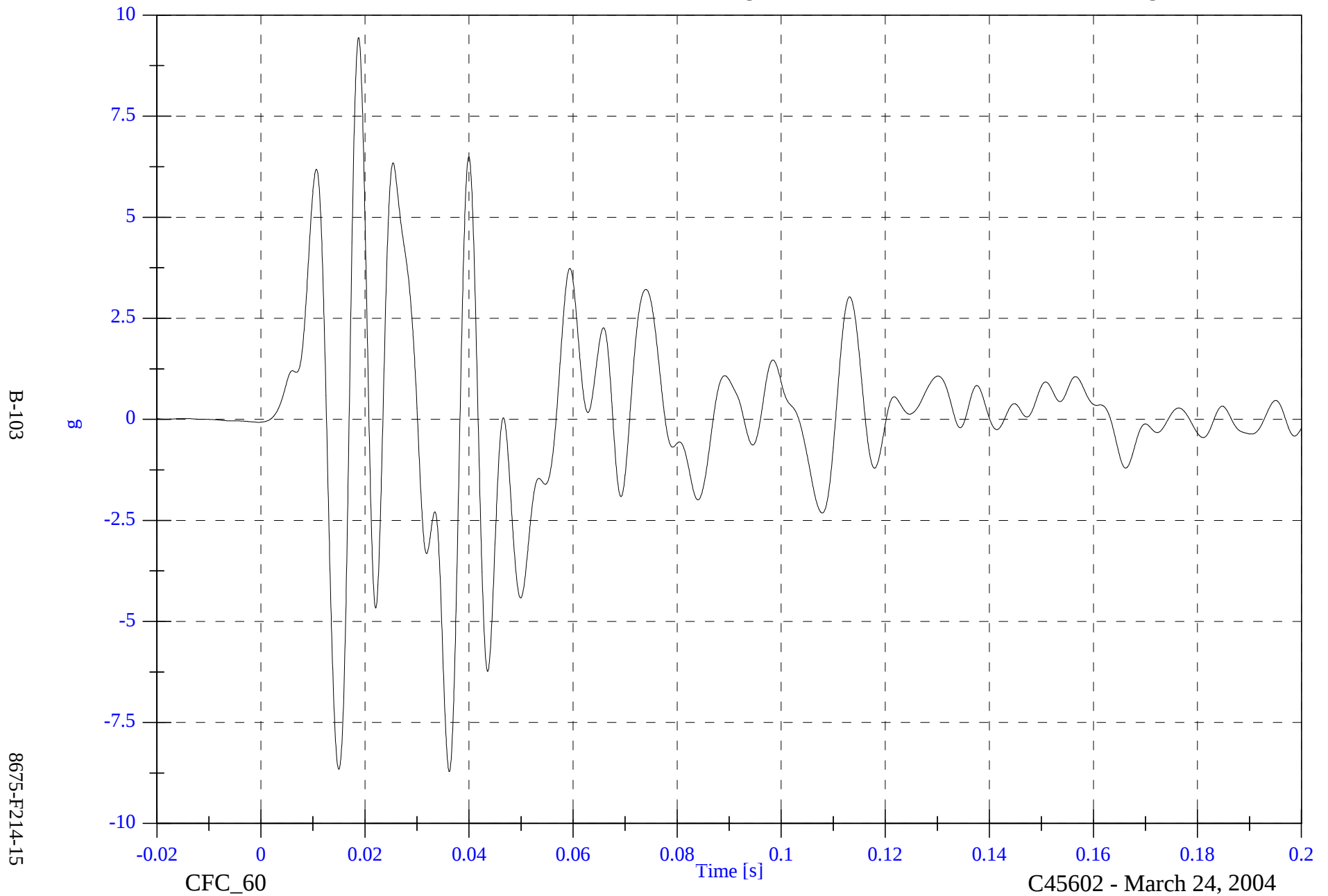
C45602 - March 24, 2004

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2 A18 Target CG Z

Max: 9.4 [g] at 0.019 [s]

Min: -8.7 [g] at 0.036 [s]

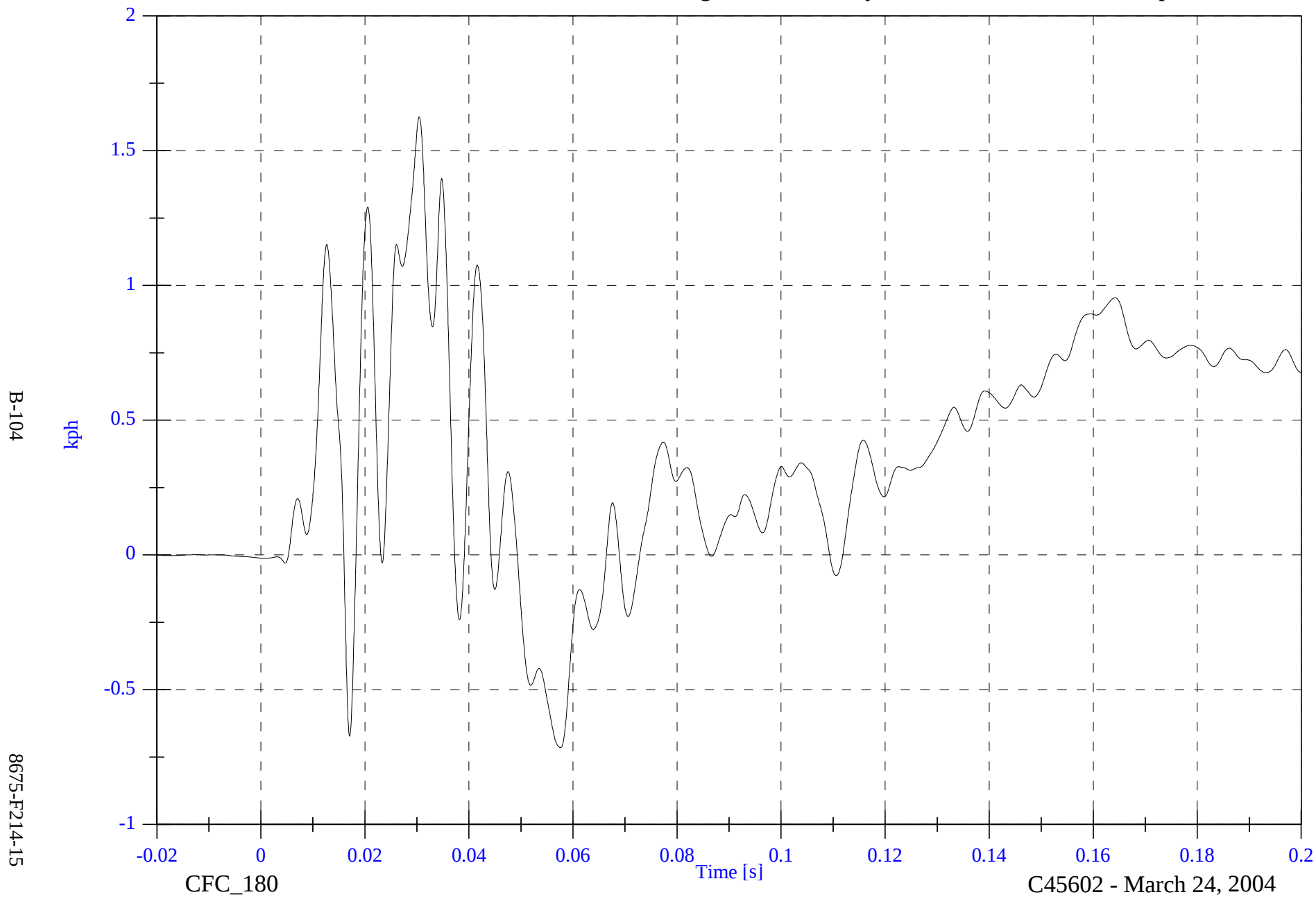


2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2 A18 Target CG Z Velocity

Max: 1.6 [kph] at 0.030 [s]

Min: -0.7 [kph] at 0.058 [s]



2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

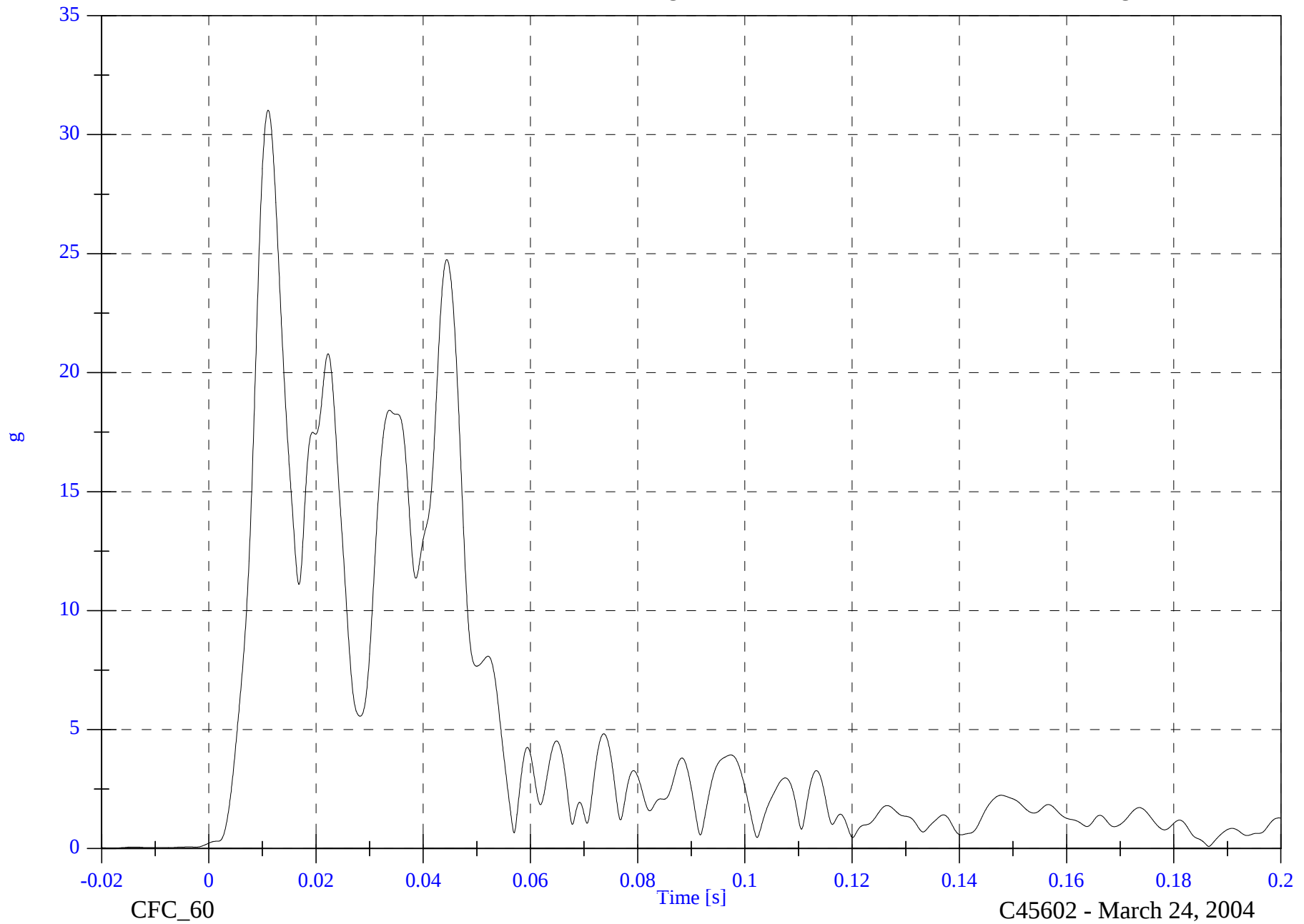
V2 A18 Target CG Resultant

Max: 31.0 [g] at 0.011 [s]

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

B-105

8675-F214-15

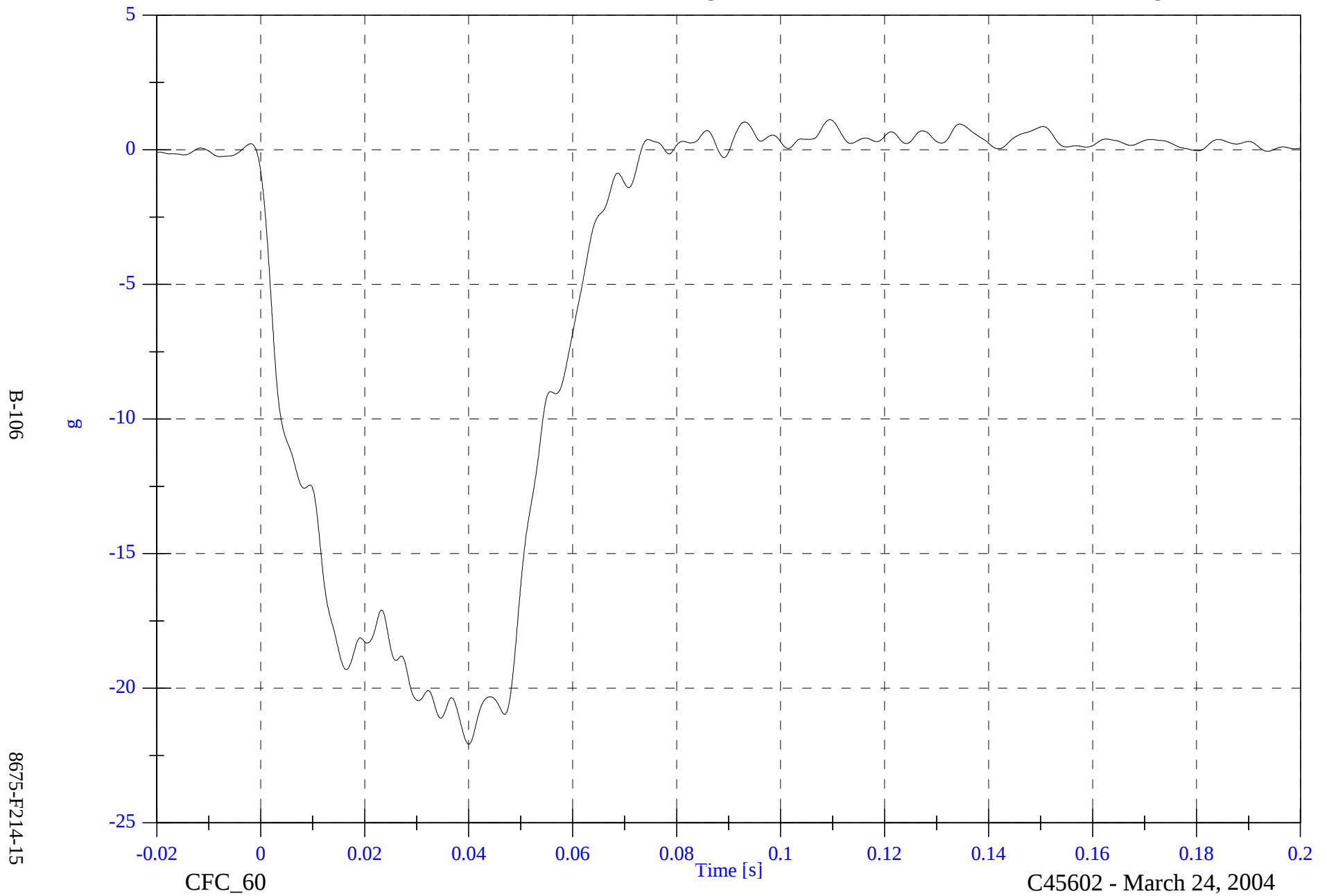


2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V1 Moving Barrier CG X

Max: 1.1 [g] at 0.109 [s]

Min: -22.1 [g] at 0.040 [s]

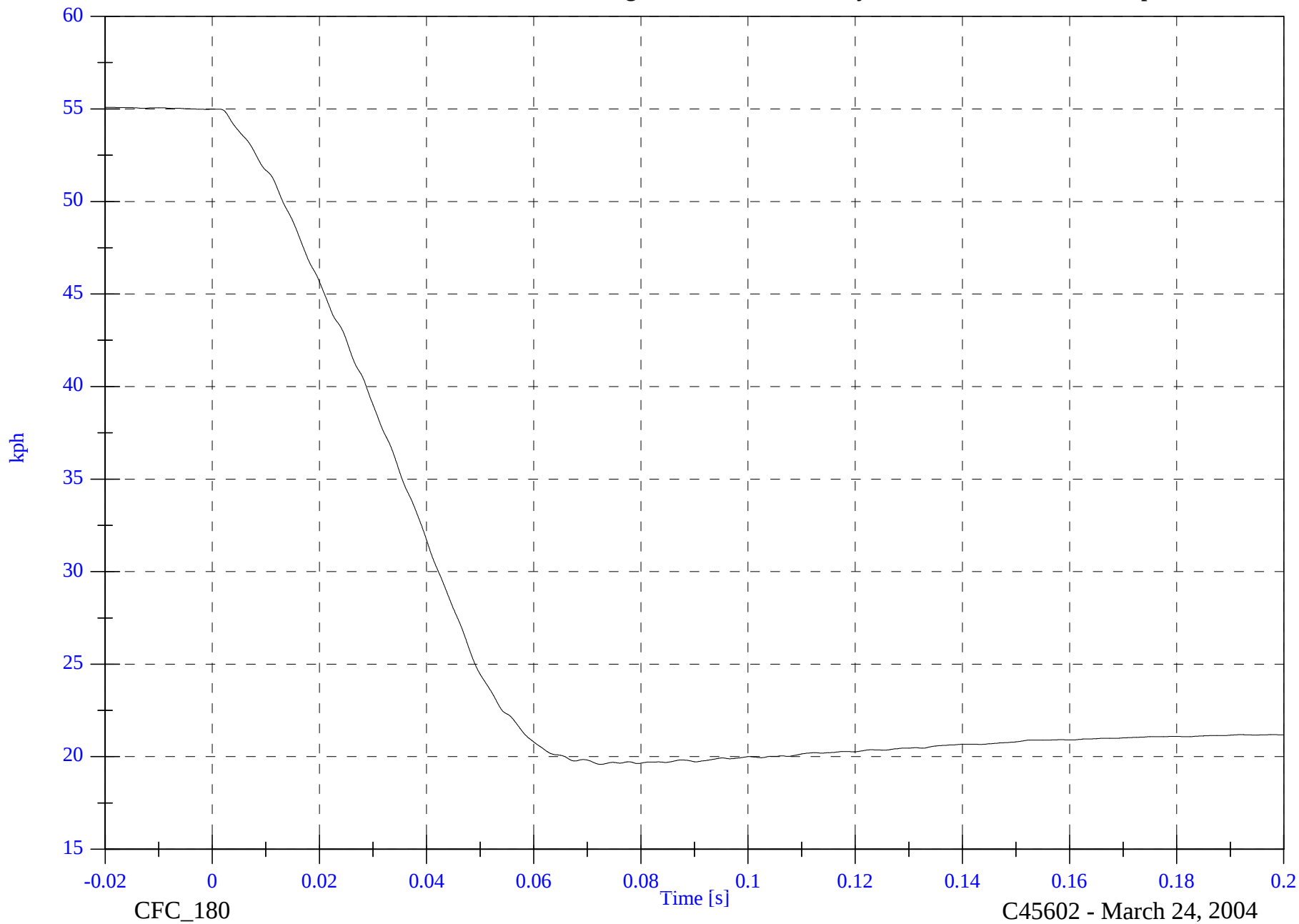


2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V1 Moving Barrier CG X Velocity

Max: 55.1 [kph] at -0.019 [s]

Min: 19.6 [kph] at 0.072 [s]



B-107

8675-F214-15

CFC_180

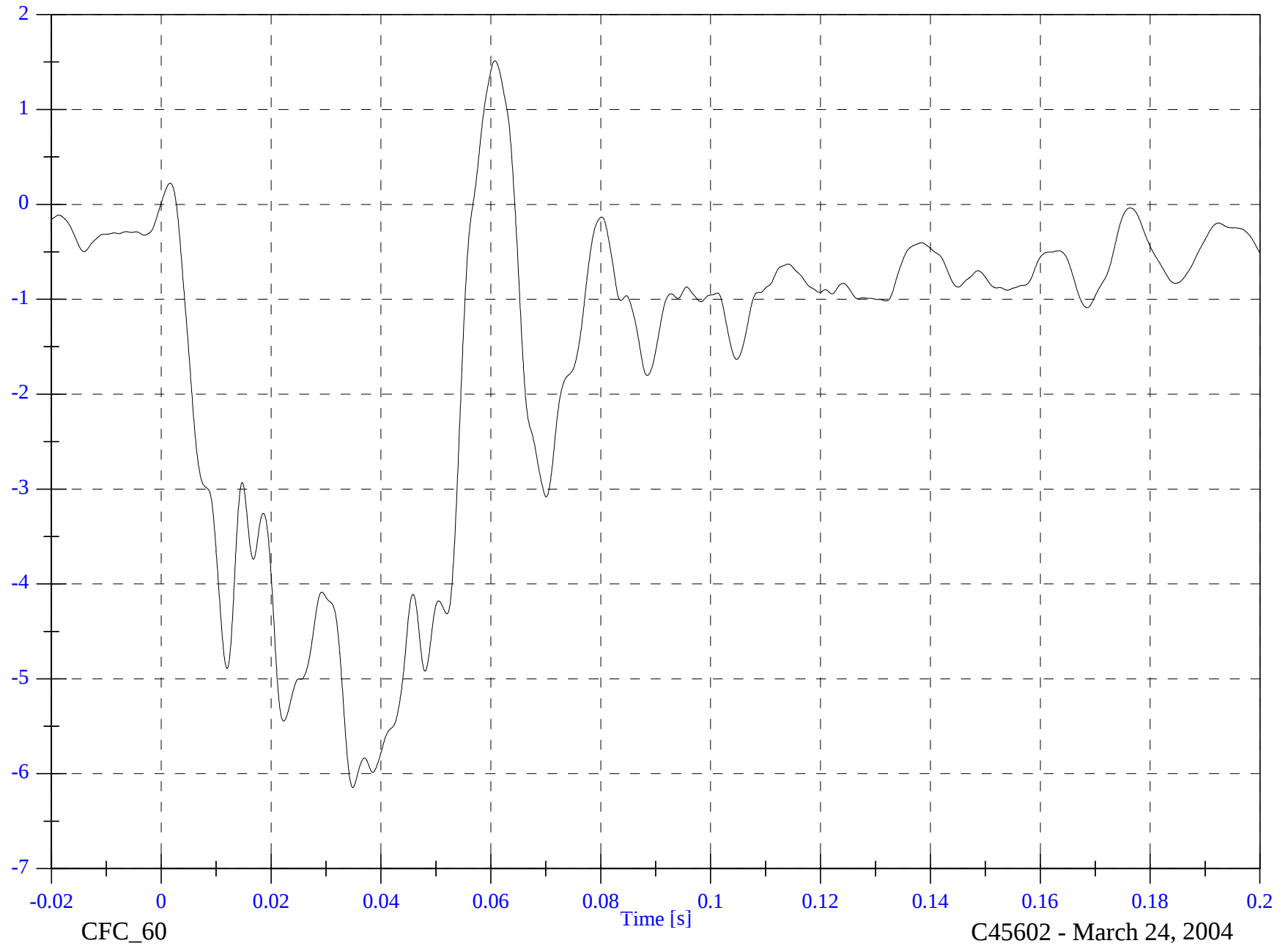
C45602 - March 24, 2004

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V1 Moving Barrier CG Y

Max: 1.5 [g] at 0.061 [s]

Min: -6.1 [g] at 0.035 [s]



B-108

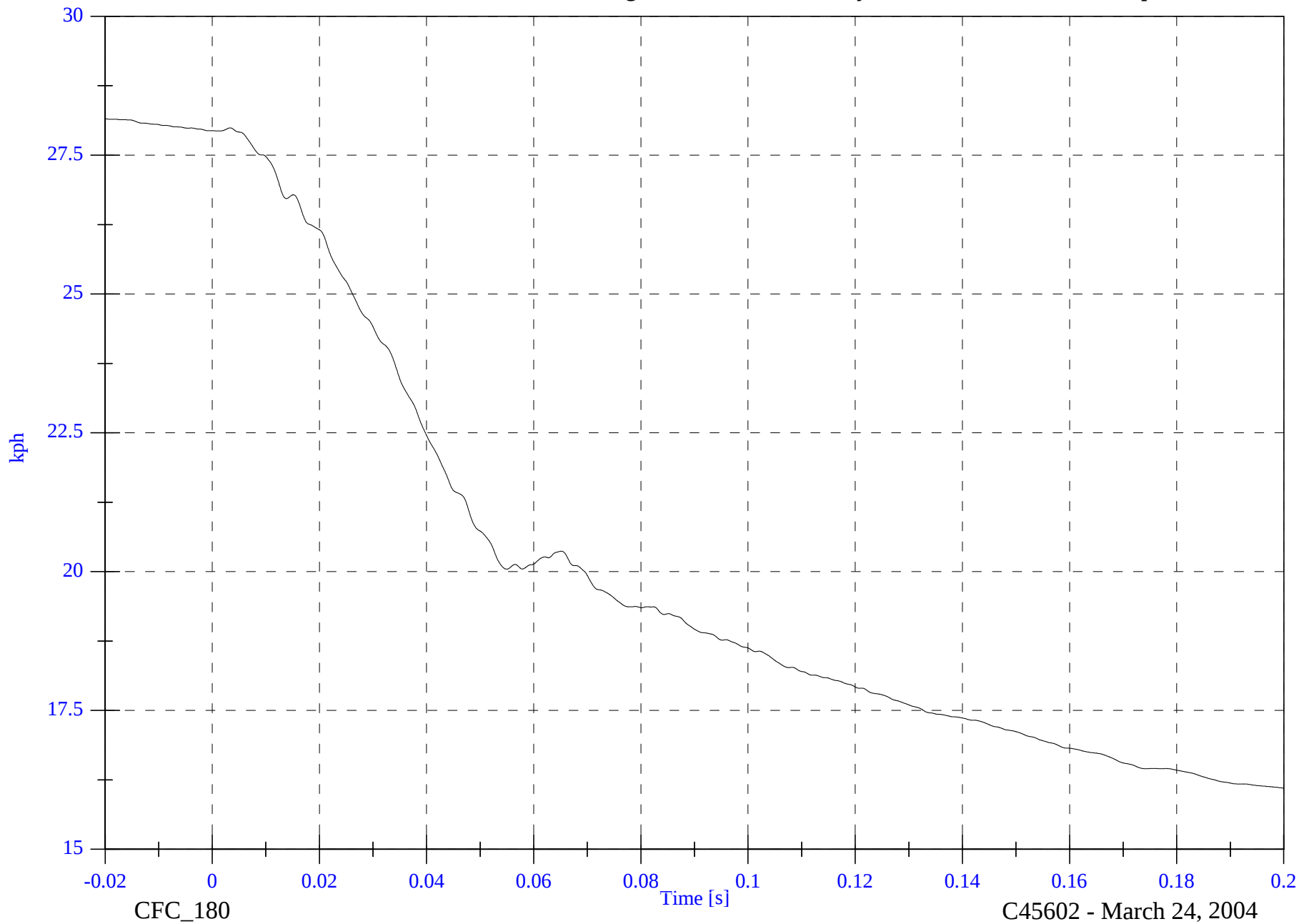
8675-F214-15

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V1 Moving Barrier CG Y Velocity

Max: 28.2 [kph] at -0.020 [s]

Min: 16.1 [kph] at 0.200 [s]



B-109

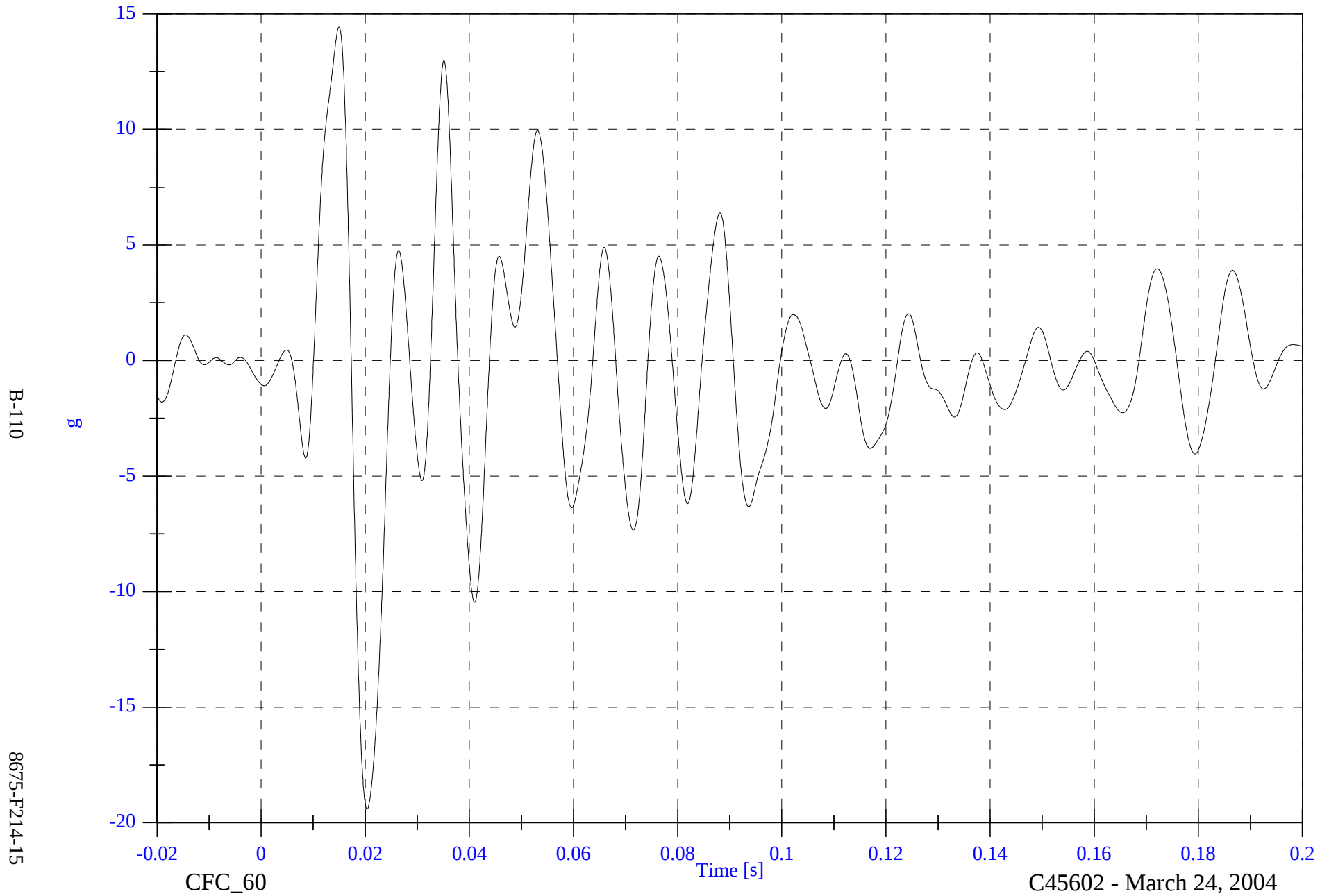
8675-F214-15

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V1 Moving Barrier CG Z

Max: 14.4 [g] at 0.015 [s]

Min: -19.4 [g] at 0.020 [s]



2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

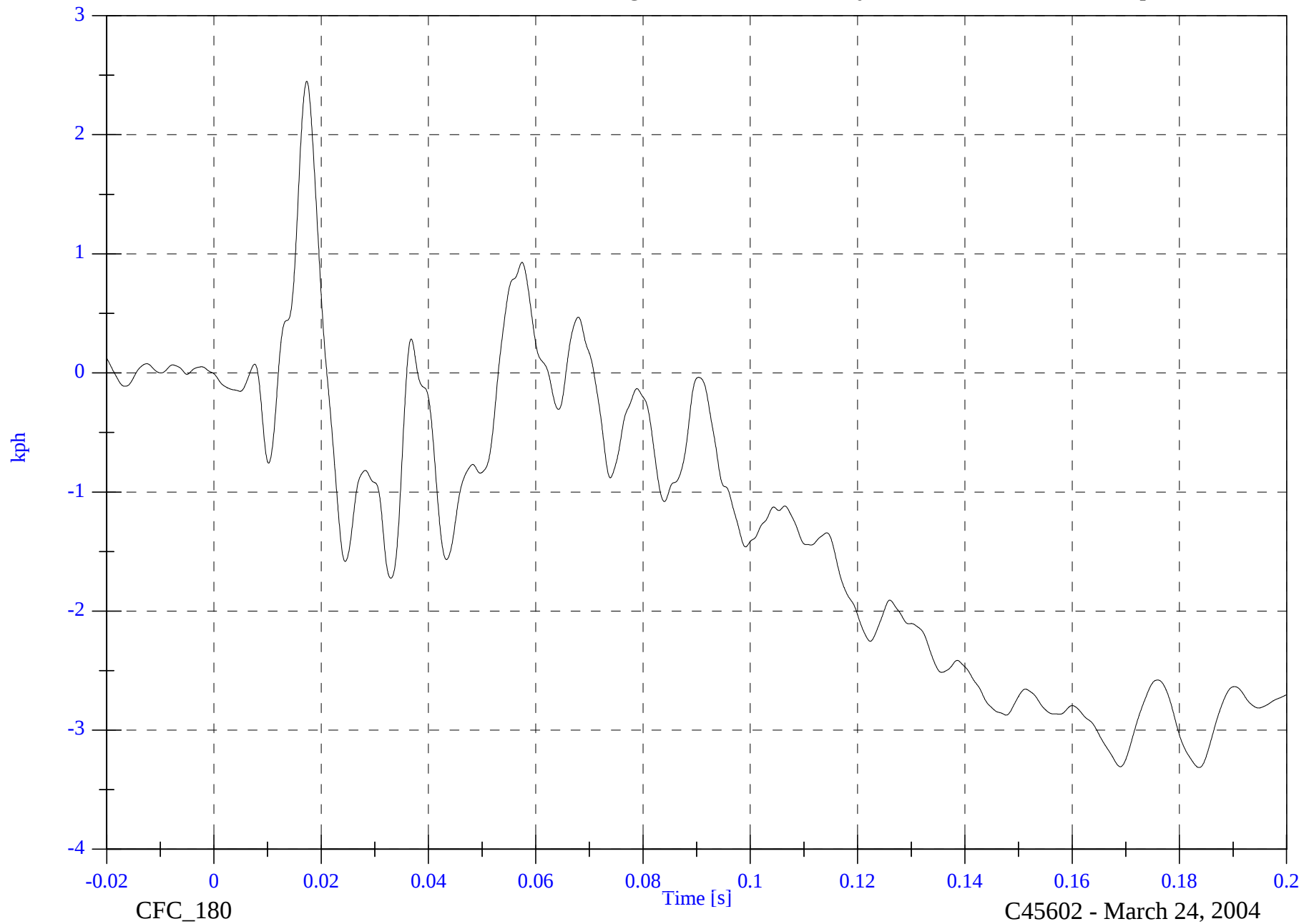
V1 Moving Barrier CG Z Velocity

Max: 2.4 [kph] at 0.017 [s]

Min: -3.3 [kph] at 0.184 [s]

B-111

8675-F214-15



2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

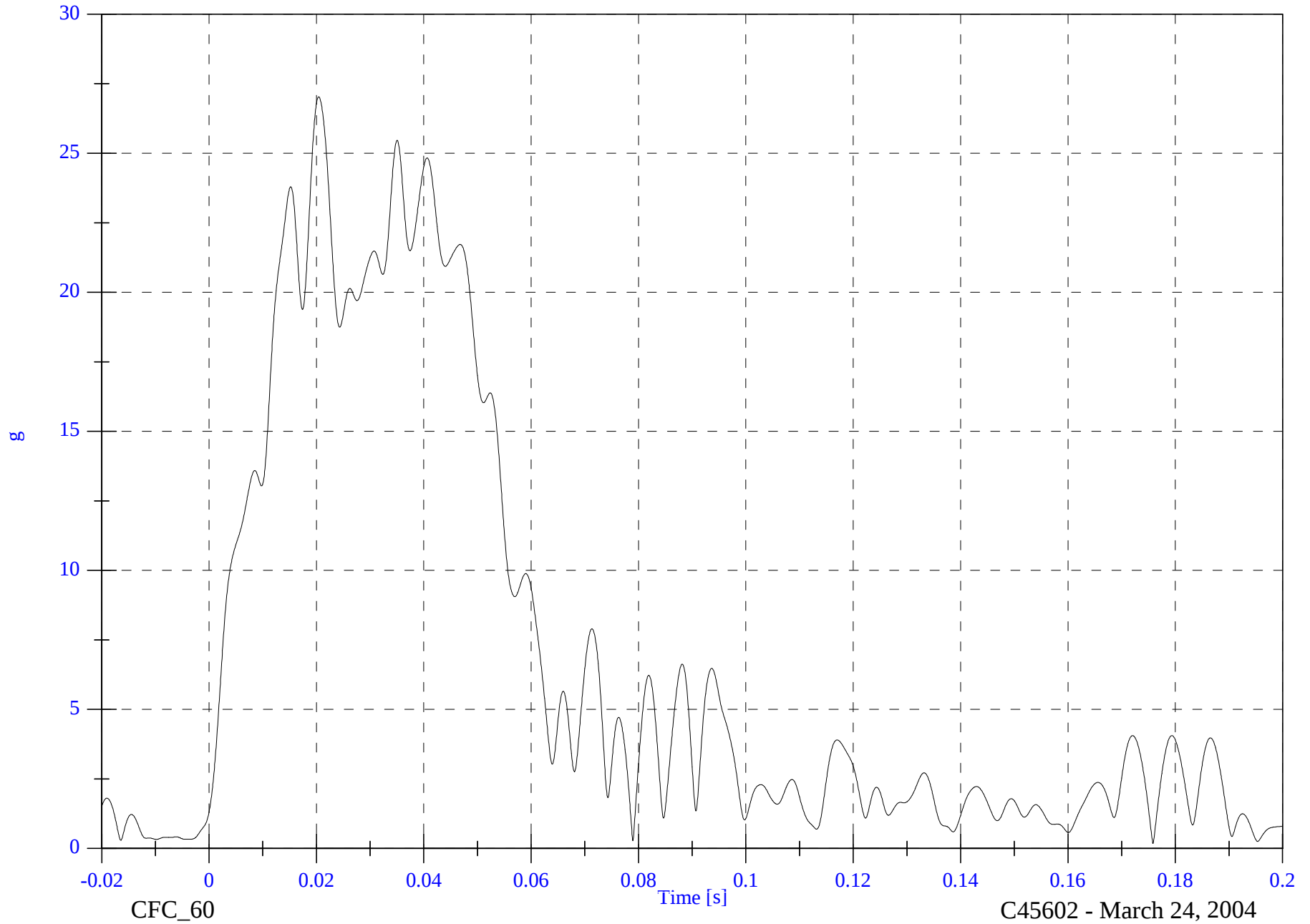
V1 Moving Barrier CG Resultant

Max: 27.0 [g] at 0.020 [s]

Min: 0.2 [g] at 0.176 [s]

B-112

8675-F214-15

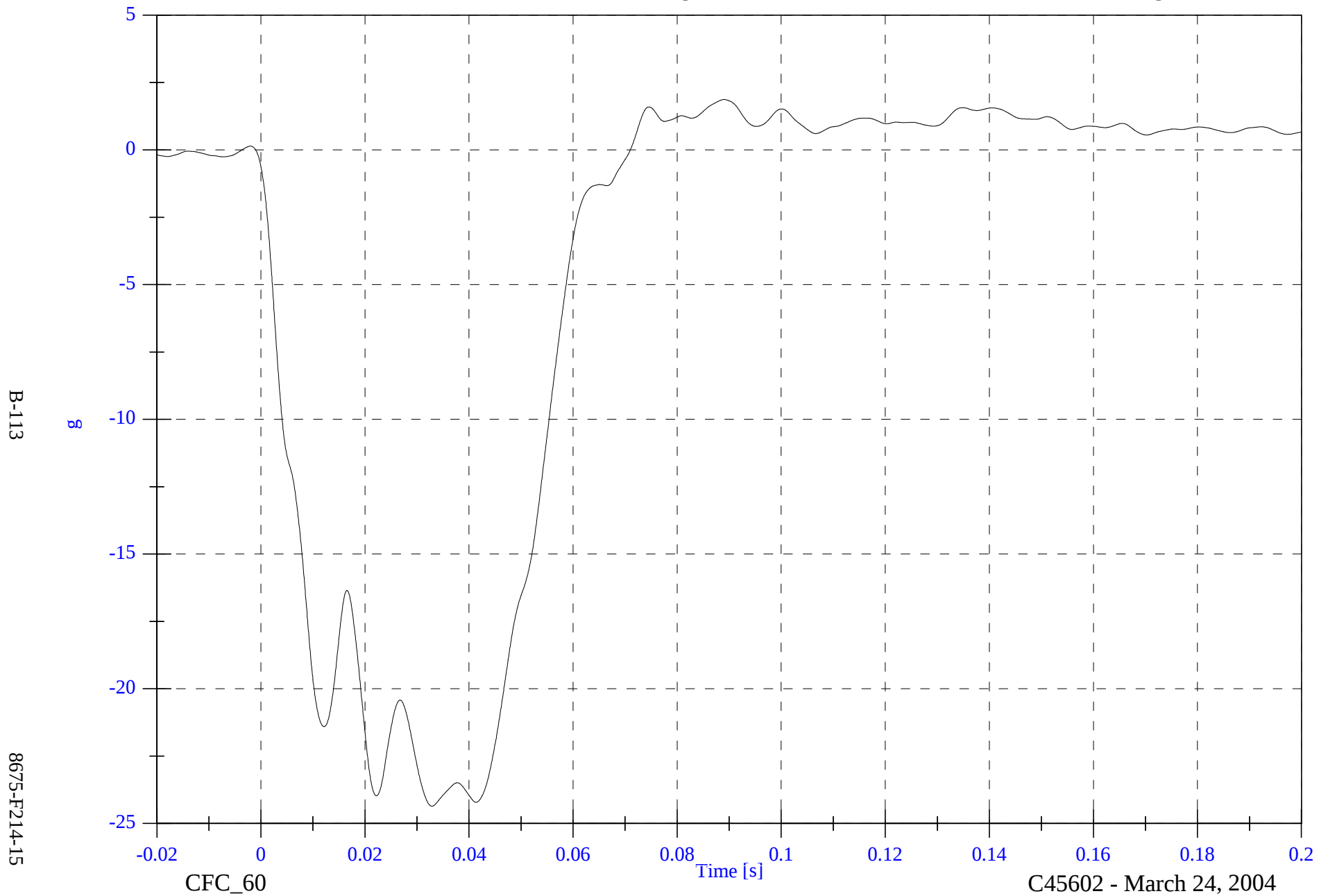


2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V1 Moving Barrier Left Rail X

Max: 1.9 [g] at 0.089 [s]

Min: -24.4 [g] at 0.033 [s]

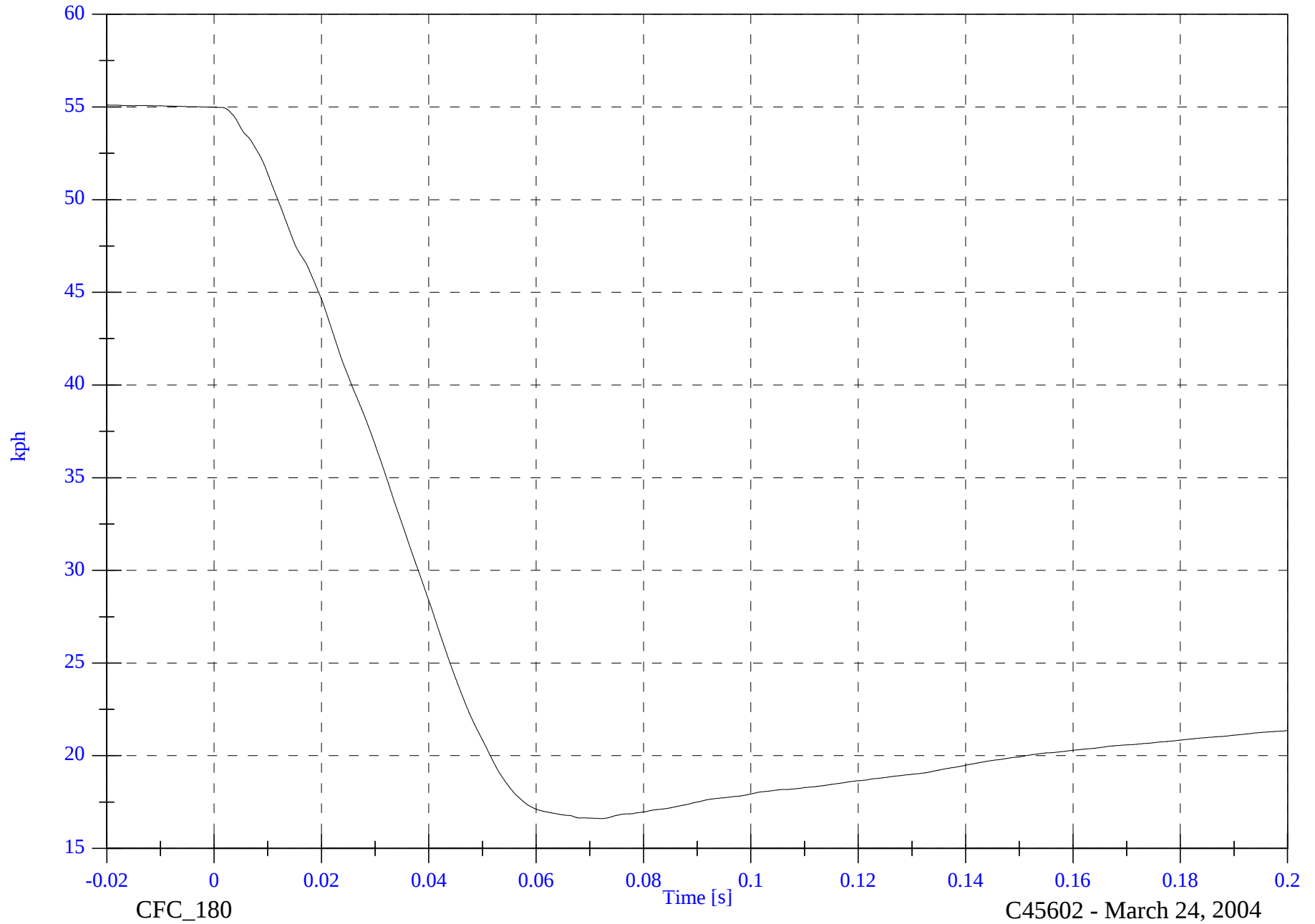


2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V1 Moving Barrier Left Rail X Velocity

Max: 55.1 [kph] at -0.020 [s]

Min: 16.6 [kph] at 0.072 [s]



B-114

8675-F214-15

CFC_180

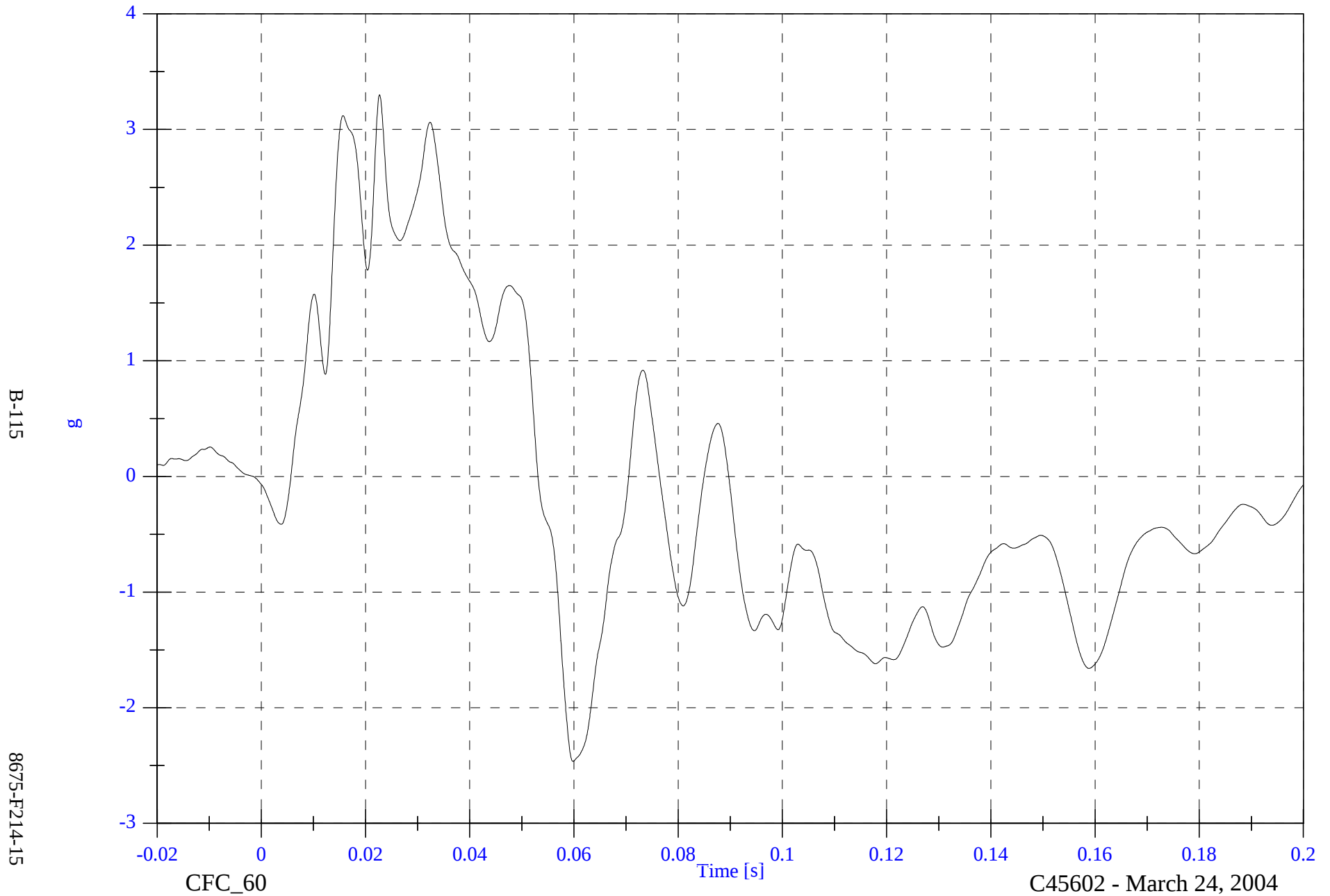
C45602 - March 24, 2004

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V1 Moving Barrier Left Rail Y

Max: 3.3 [g] at 0.023 [s]

Min: -2.5 [g] at 0.060 [s]

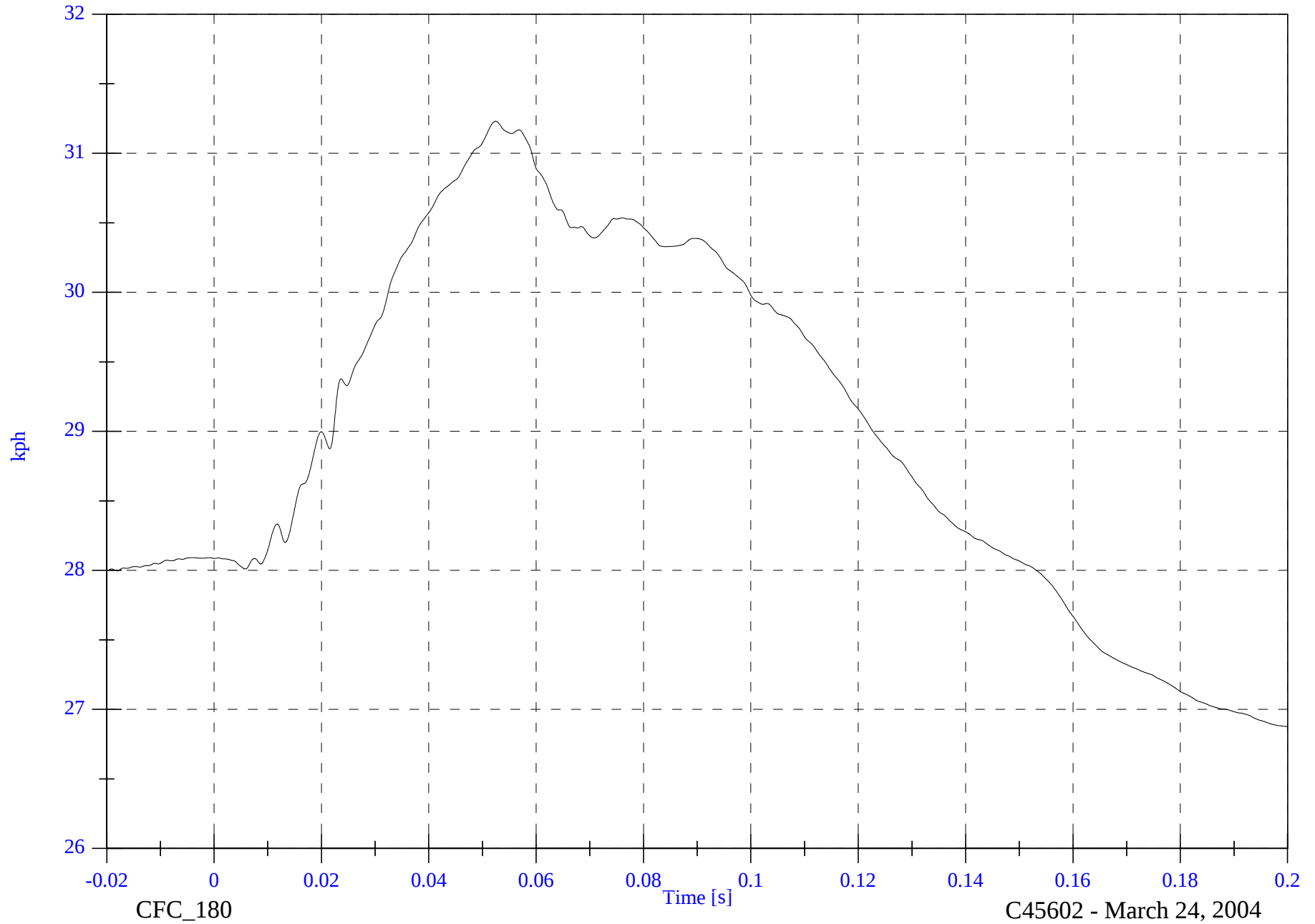


2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V1 Moving Barrier Left Rail Y Velocity

Max: 31.2 [kph] at 0.052 [s]

Min: 26.9 [kph] at 0.200 [s]



B-116

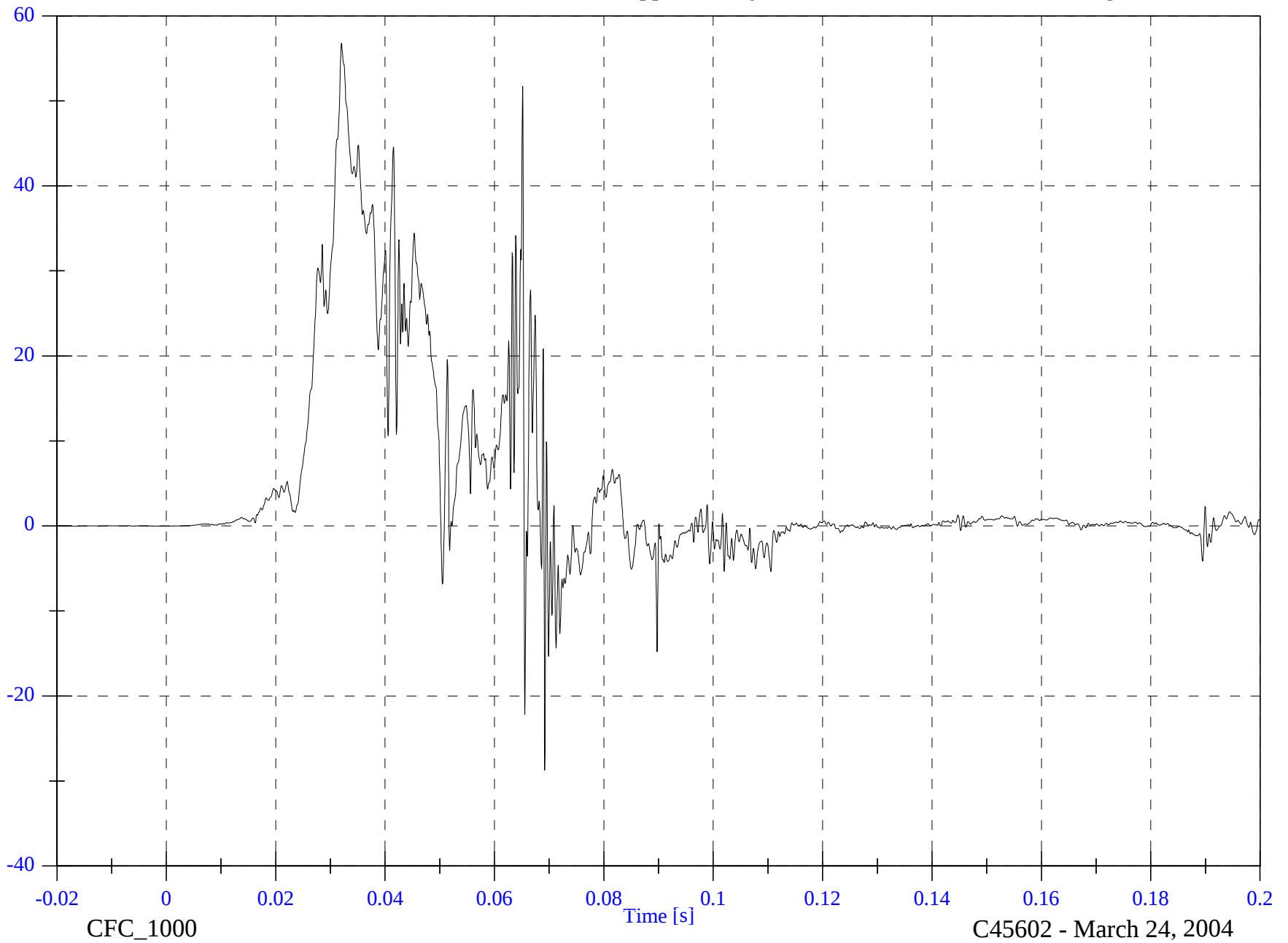
8675-F214-15

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P1 Upper Rib Ry

Max: 56.8 [g] at 0.032 [s]

Min: -28.7 [g] at 0.069 [s]



B-117

8675-F214-15

CFC_1000

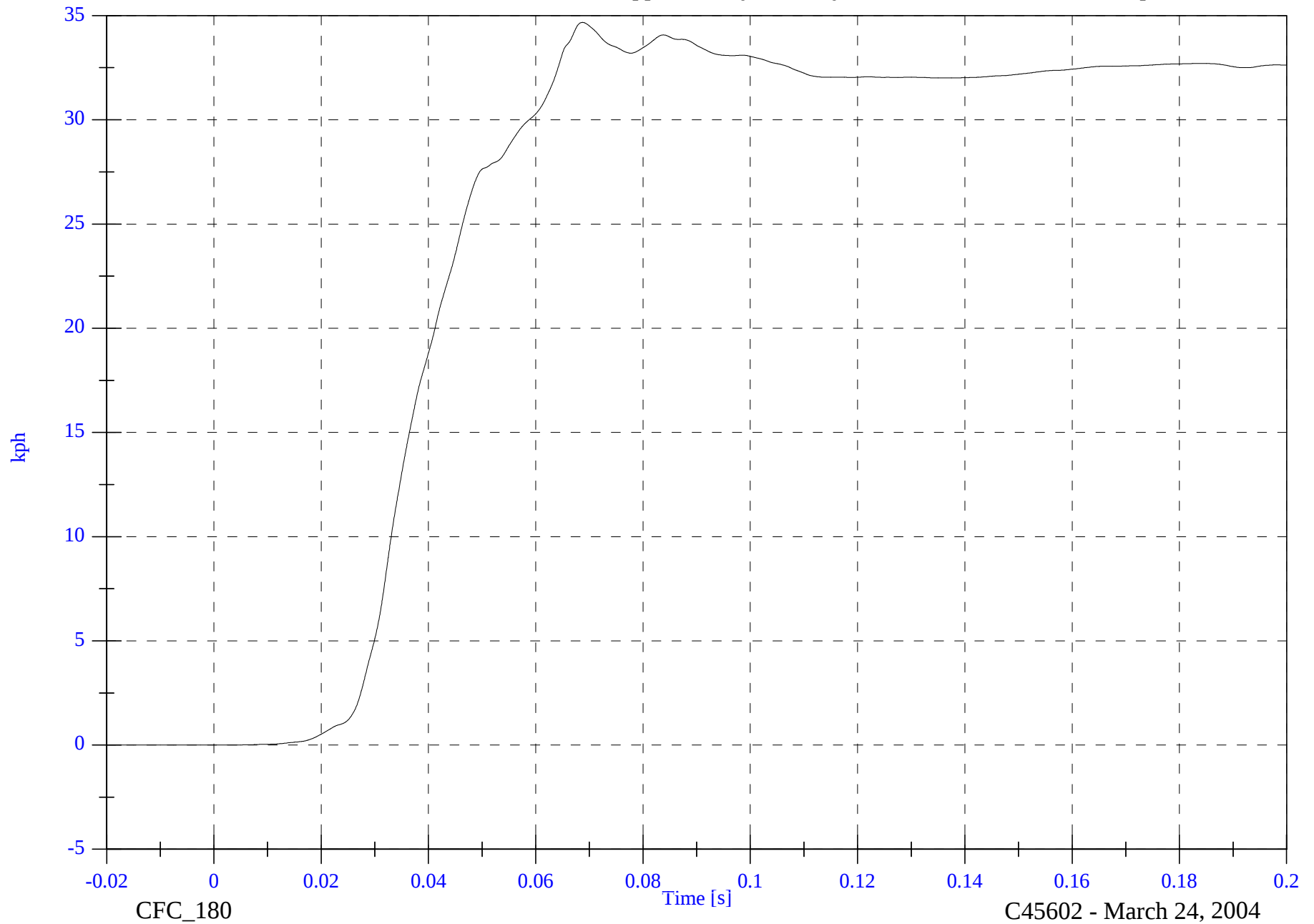
C45602 - March 24, 2004

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P1 Upper Rib Ry Velocity

Max: 34.7 [kph] at 0.069 [s]

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



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8675-F214-15

CFC_180

C45602 - March 24, 2004

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

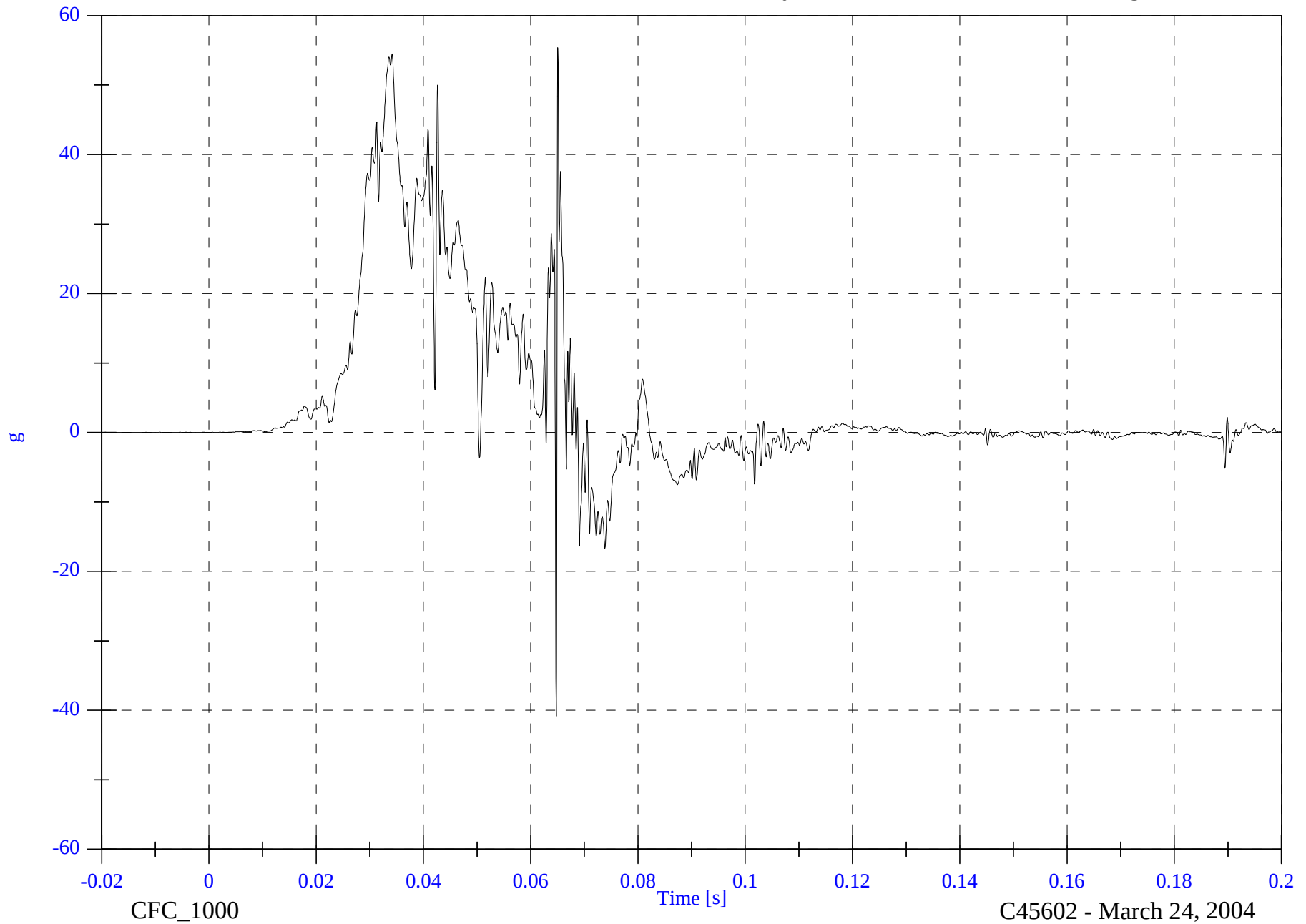
V2P1 Lower Rib Ry

Max: 55.4 [g] at 0.065 [s]

Min: -40.9 [g] at 0.065 [s]

B-119

8675-F214-15

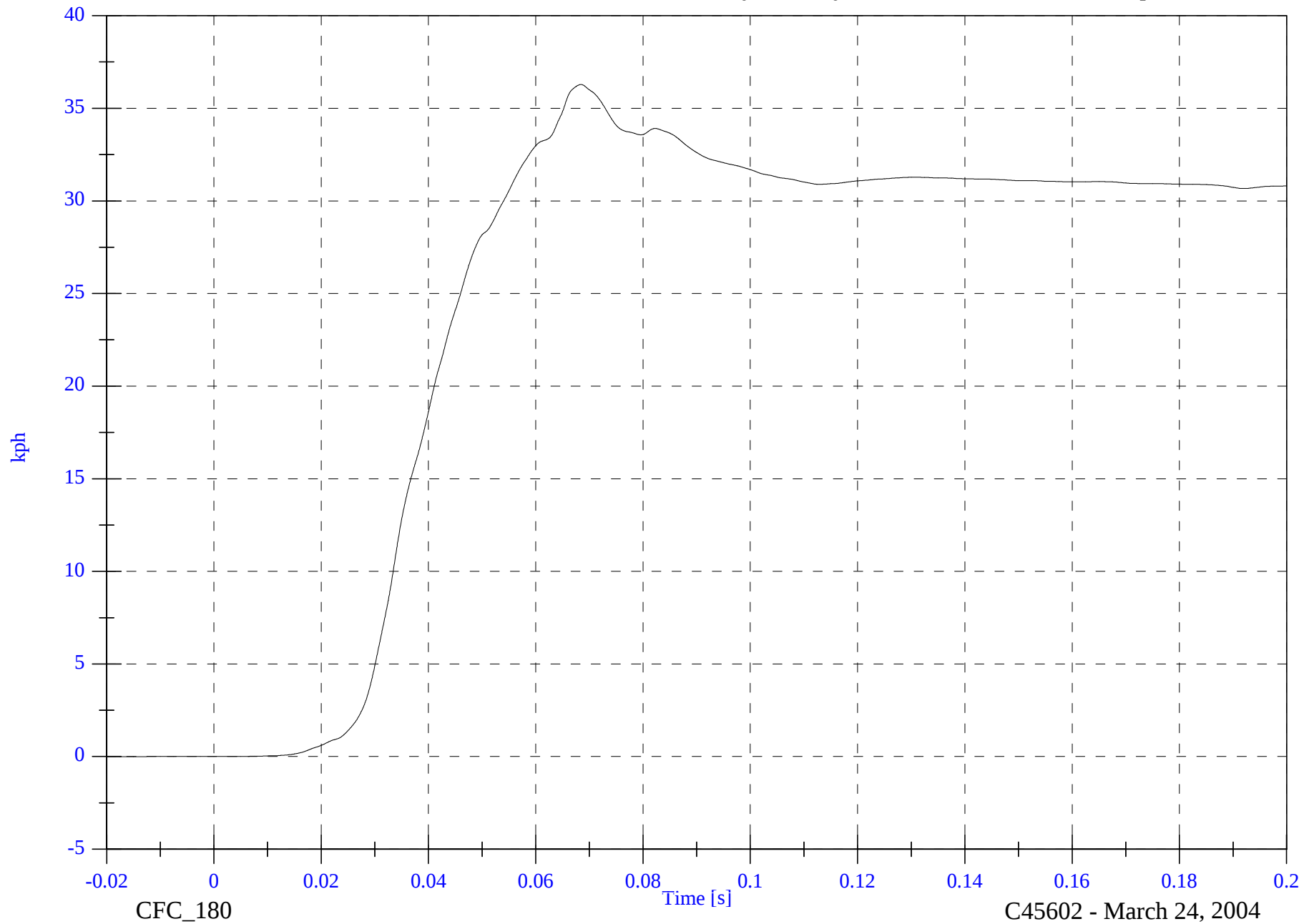


2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P1 Lower Rib Ry Velocity

Max: 36.3 [kph] at 0.068 [s]

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



B-120

8675-F214-15

CFC_180

C45602 - March 24, 2004

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

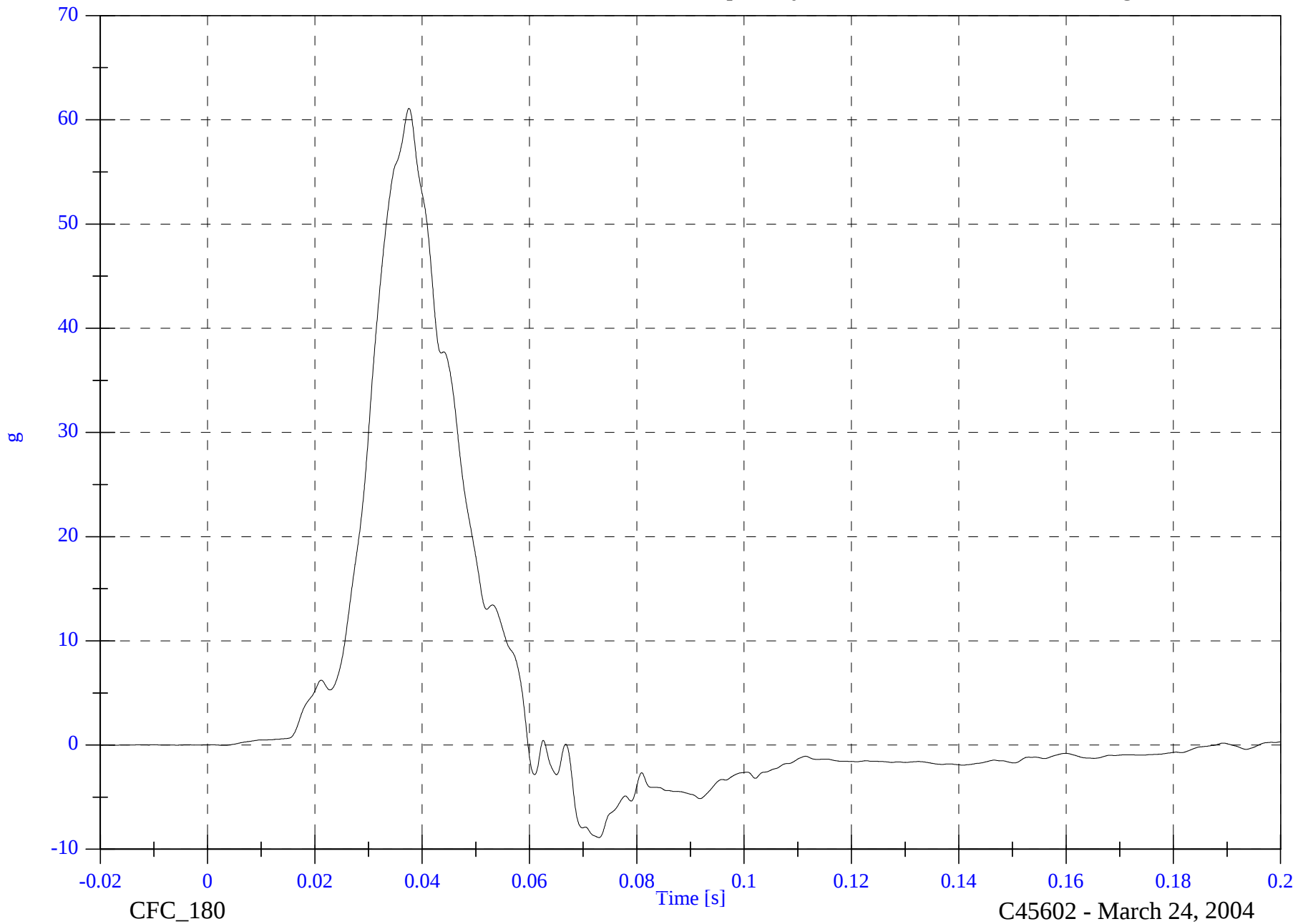
V2P1 Lower Spine Ry

Max: 61.1 [g] at 0.038 [s]

Min: -8.9 [g] at 0.073 [s]

B-121

8675-F214-15

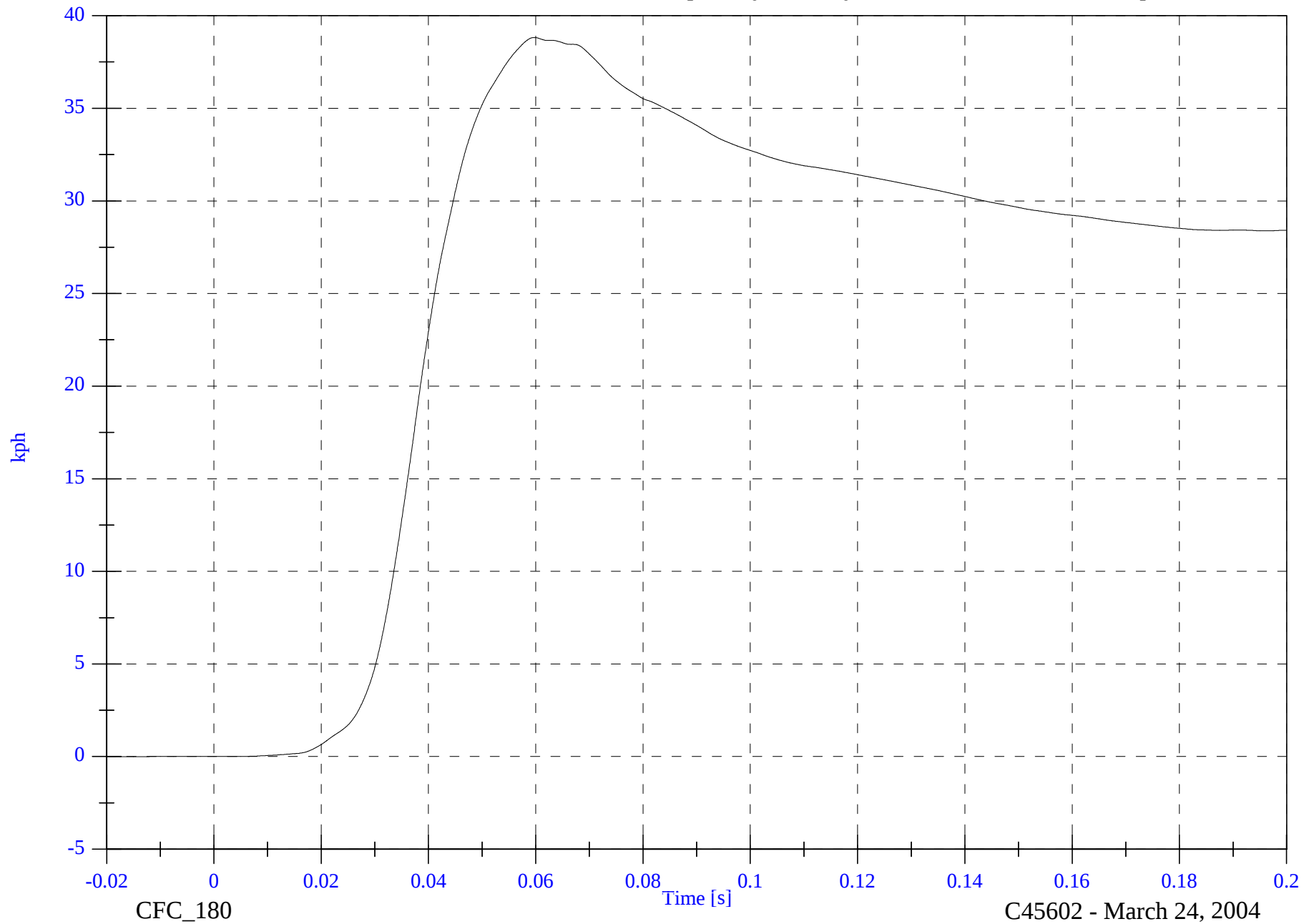


2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P1 Lower Spine Ry Velocity

Max: 38.8 [kph] at 0.060 [s]

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



B-122

8675-F214-15

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

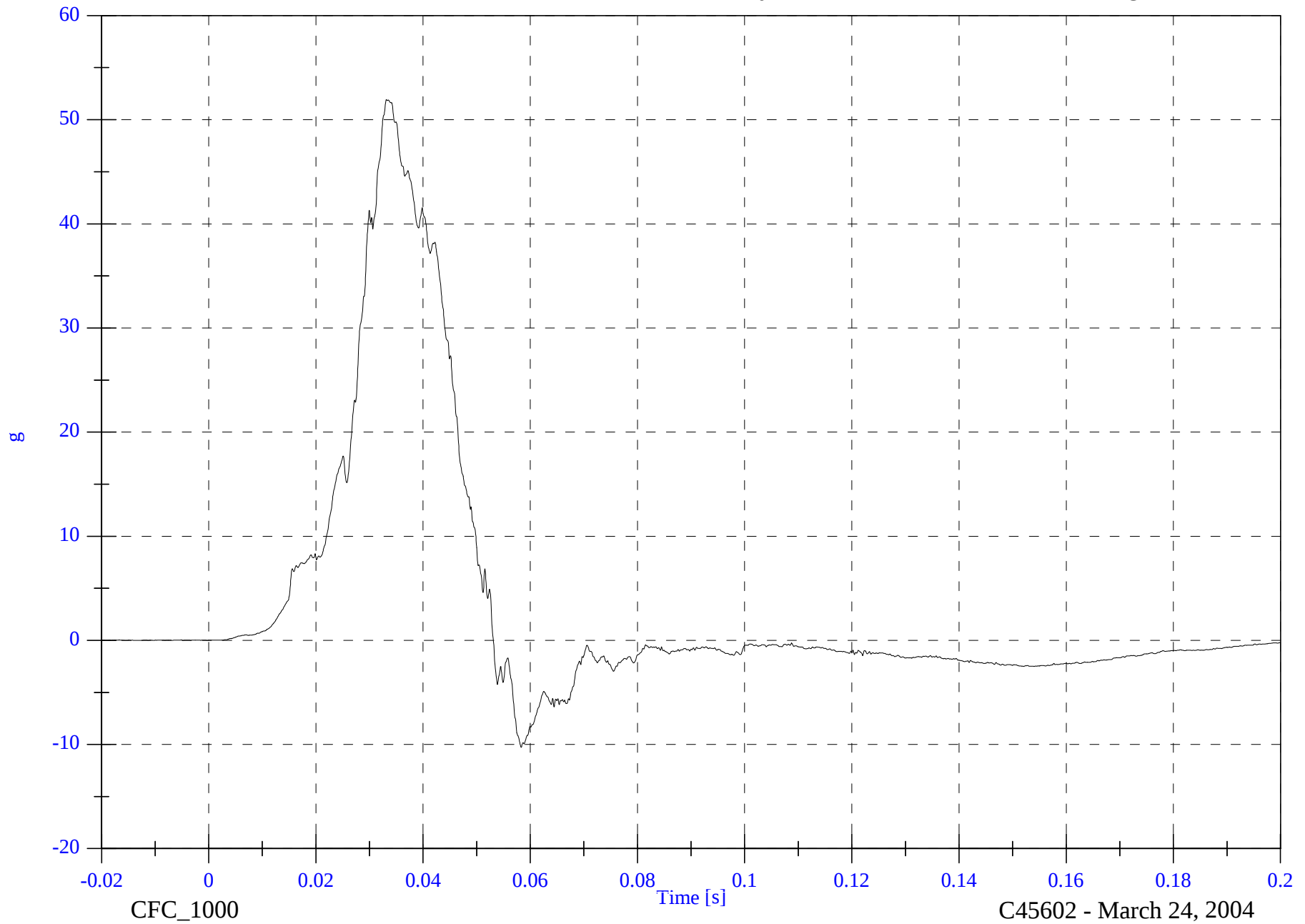
V2P1 Pelvic Ry

Max: 51.9 [g] at 0.033 [s]

Min: -10.3 [g] at 0.058 [s]

B-123

8675-F214-15

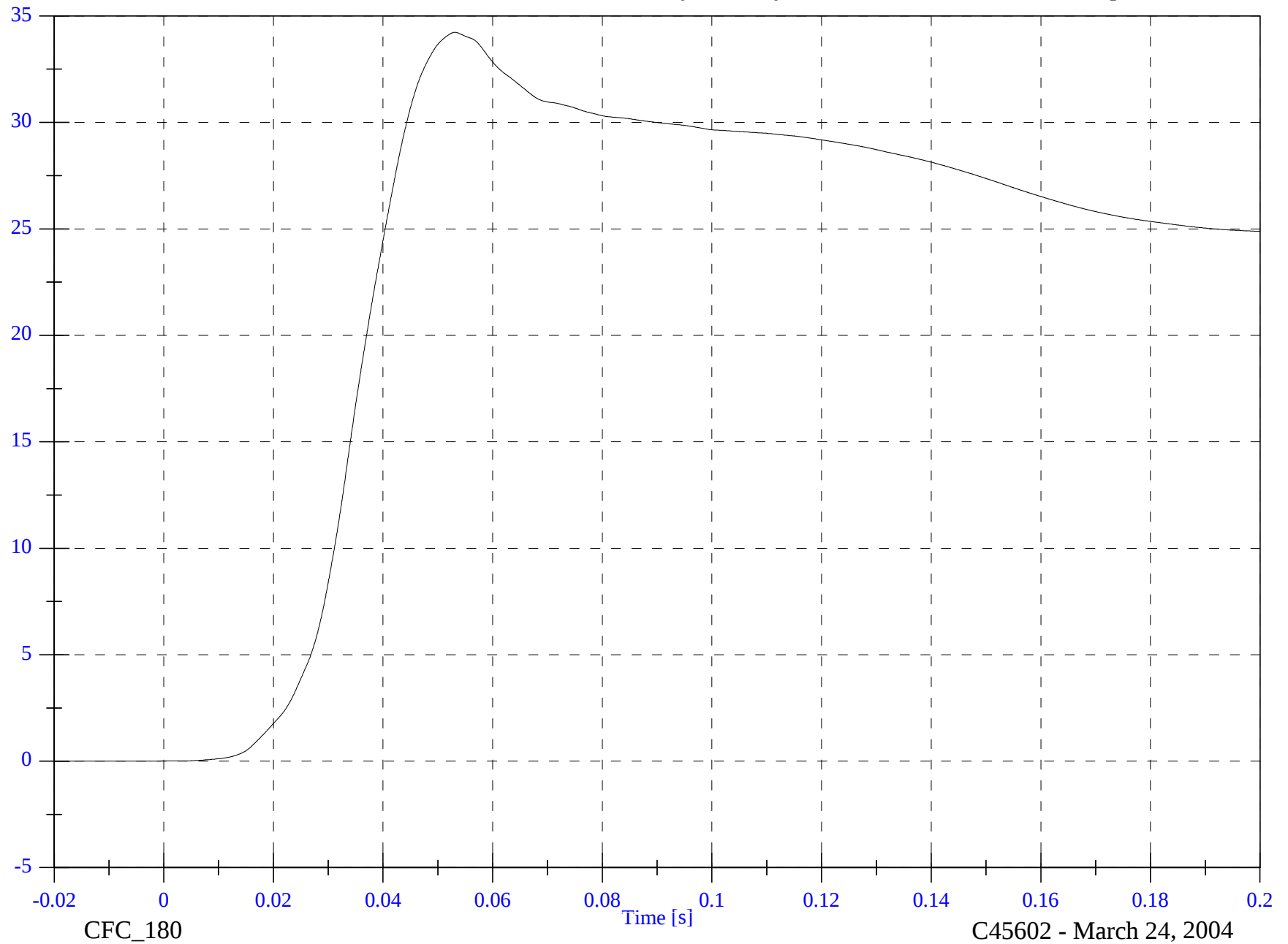


2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P1 Pelvic Ry Velocity

Max: 34.2 [kph] at 0.053 [s]

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



B-124

8675-F214-15

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

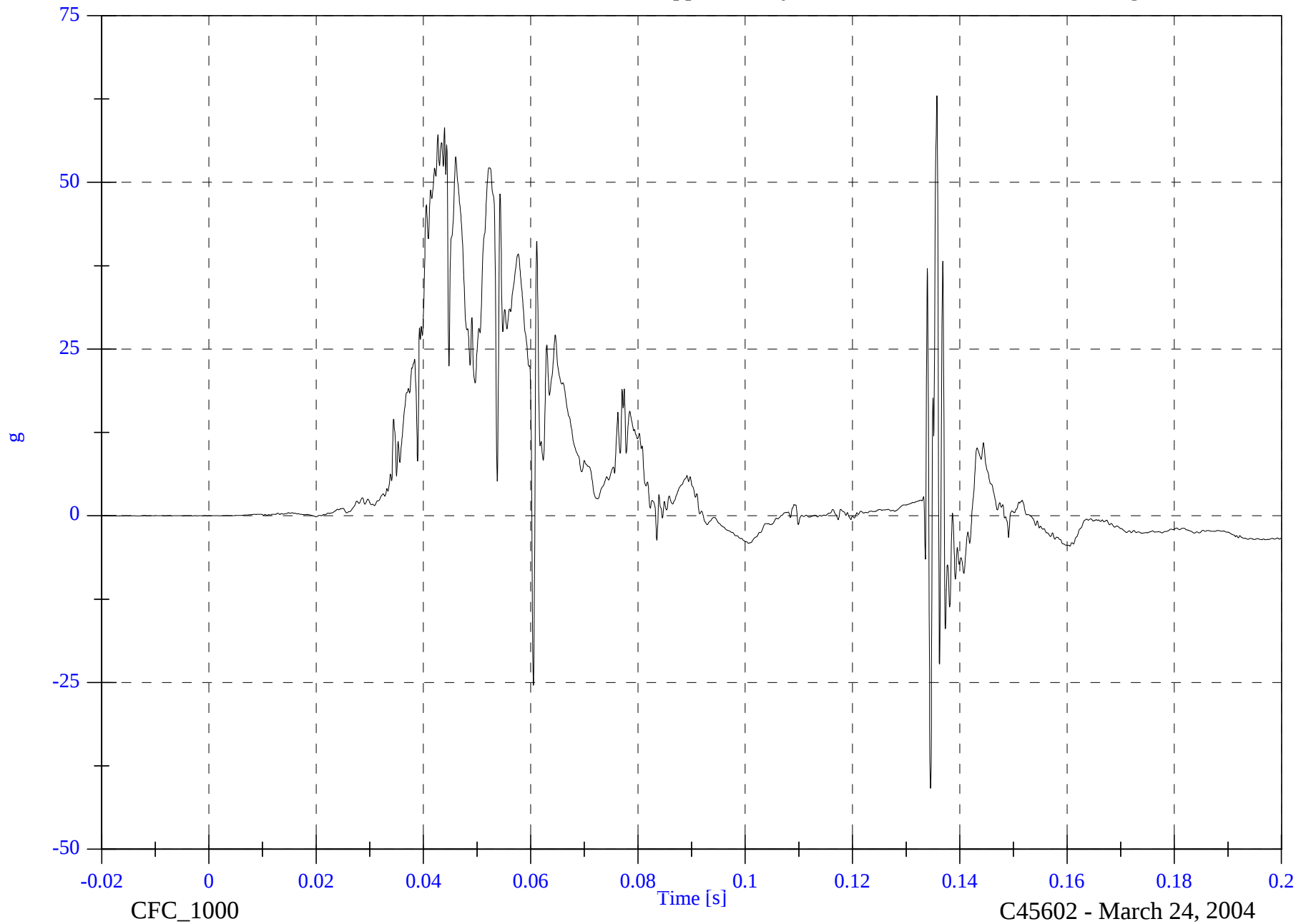
V2P4 Upper Rib Ry

Max: 63.0 [g] at 0.136 [s]

Min: -40.9 [g] at 0.135 [s]

B-125

8675-F214-15

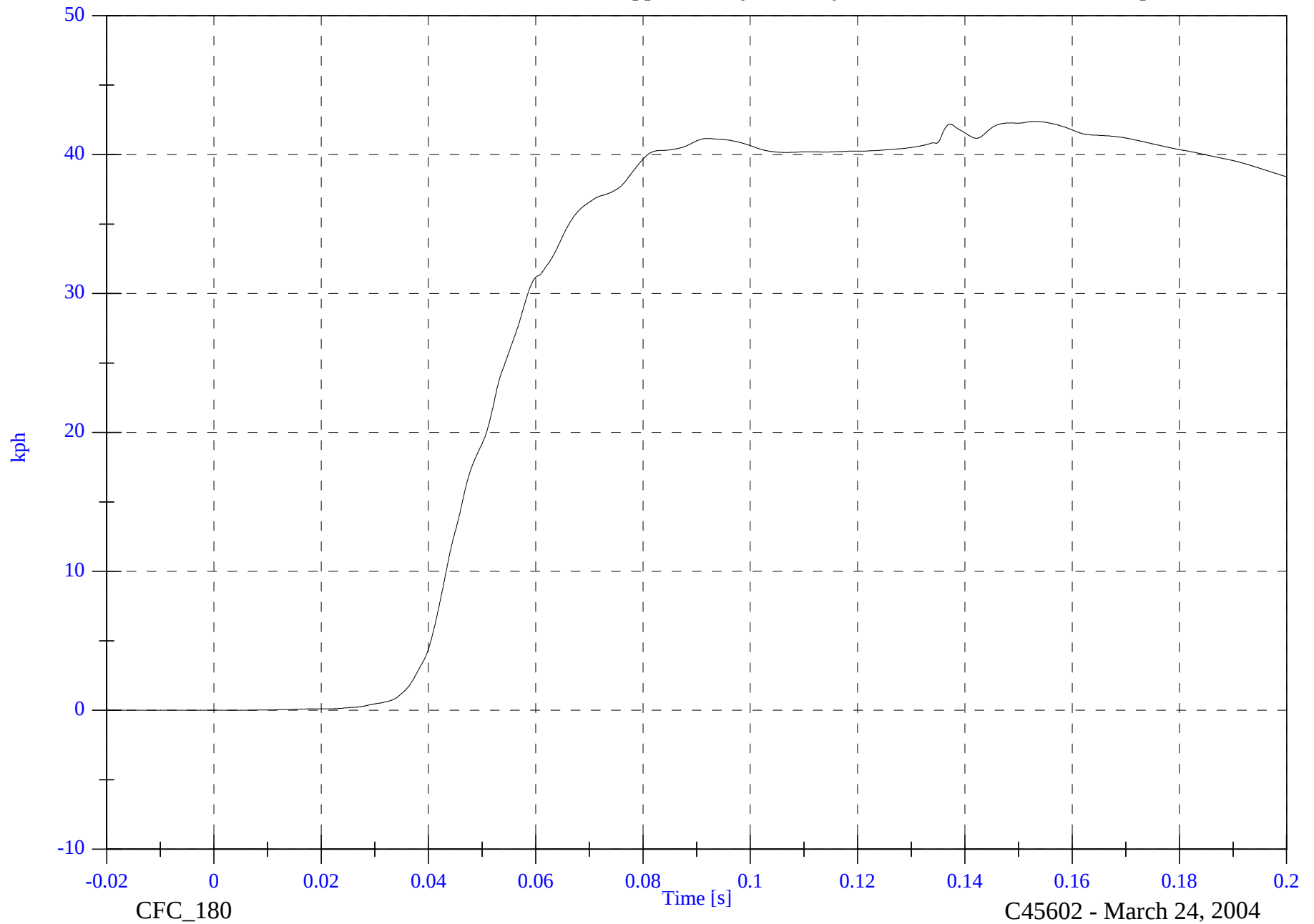


2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P4 Upper Rib Ry Velocity

Max: 42.4 [kph] at 0.153 [s]

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



B-126

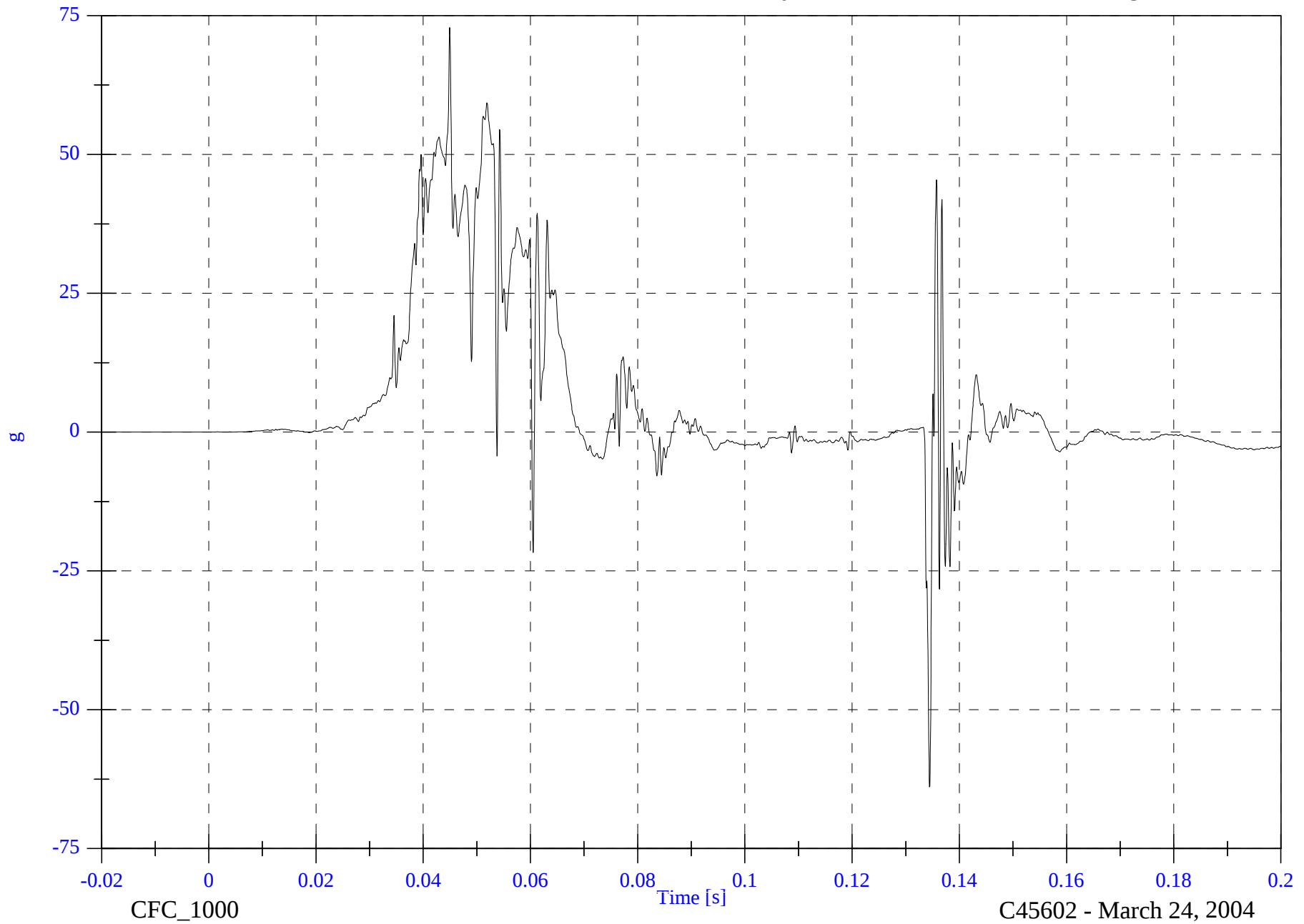
8675-F214-15

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P4 Lower Rib Ry

Max: 72.8 [g] at 0.045 [s]

Min: -63.9 [g] at 0.134 [s]



B-127

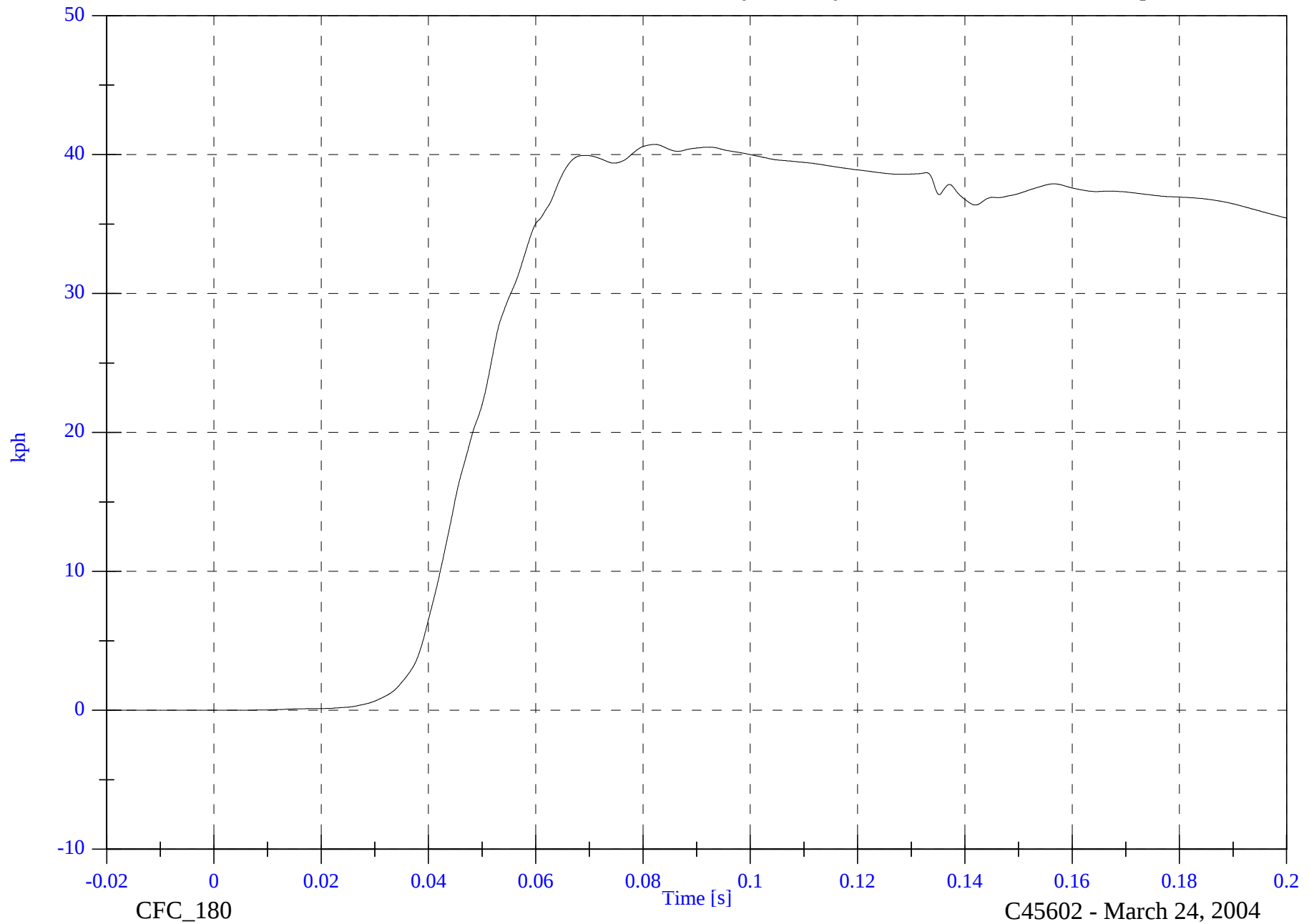
8675-F214-15

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P4 Lower Rib Ry Velocity

Max: 40.7 [kph] at 0.082 [s]

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



B-128

8675-F214-15

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

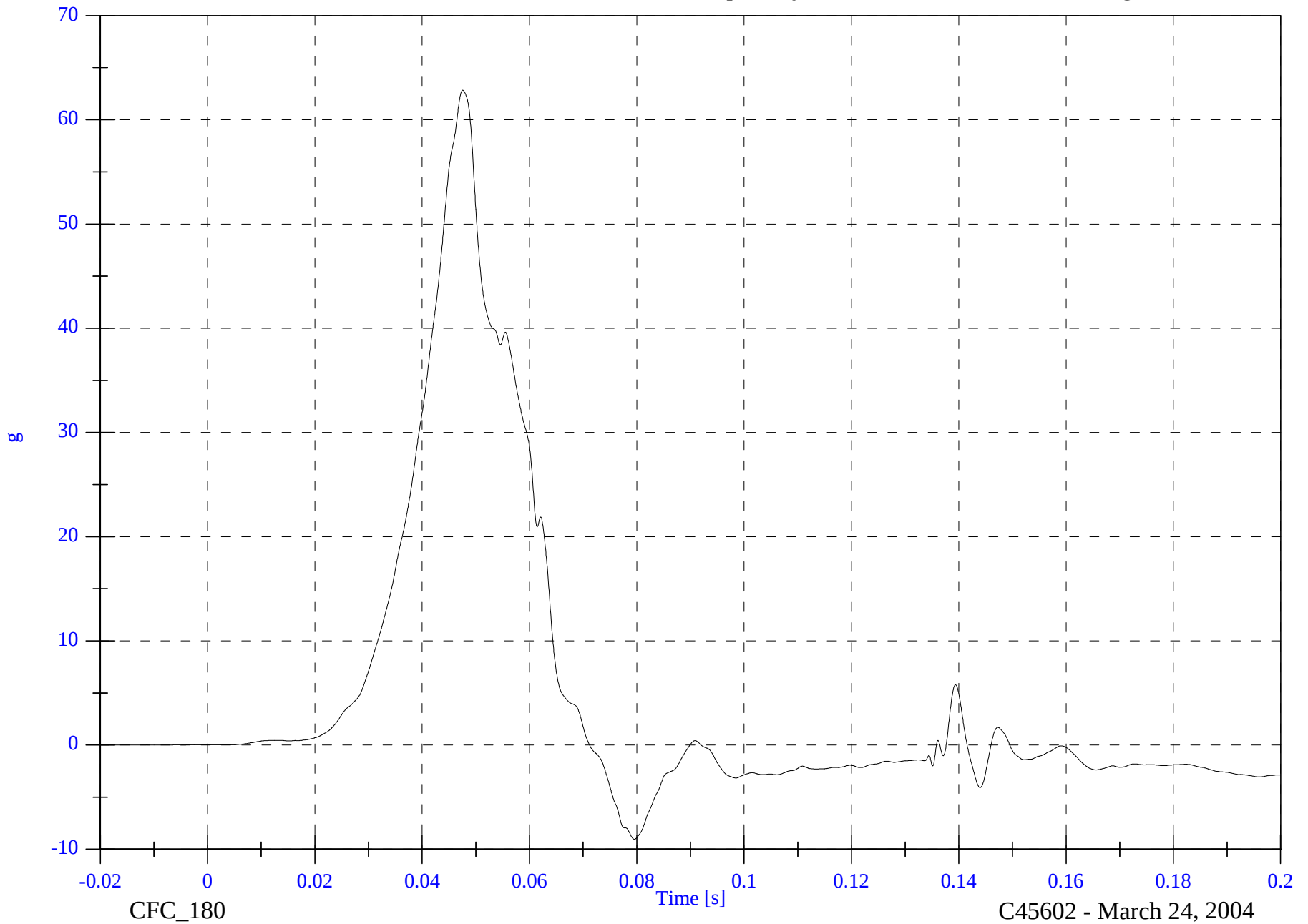
V2P4 Lower Spine Ry

Max: 62.8 [g] at 0.048 [s]

Min: -9.0 [g] at 0.080 [s]

B-129

8675-F214-15

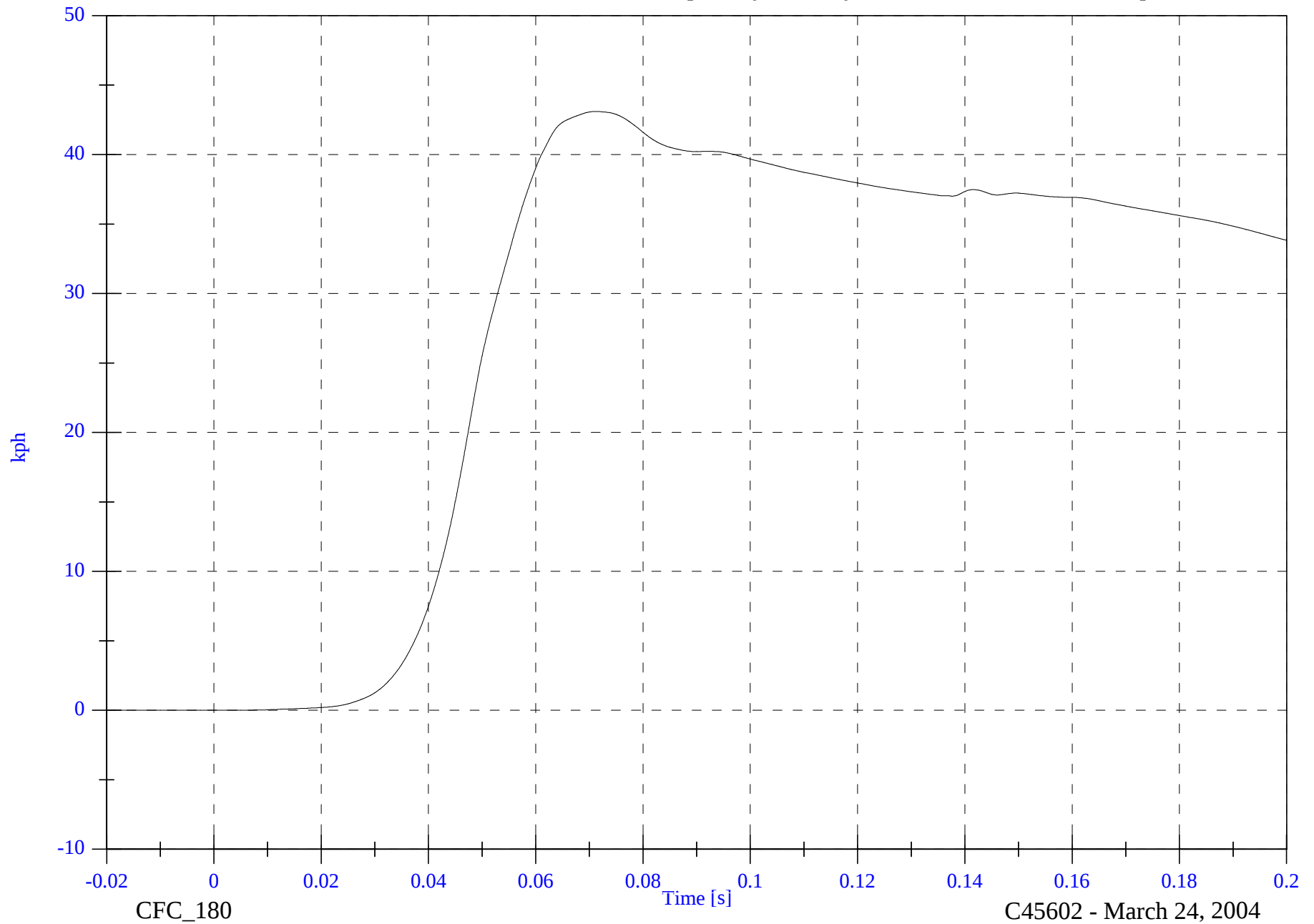


2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P4 Lower Spine Ry Velocity

Max: 43.1 [kph] at 0.071 [s]

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



B-130

8675-F214-15

CFC_180

C45602 - March 24, 2004

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

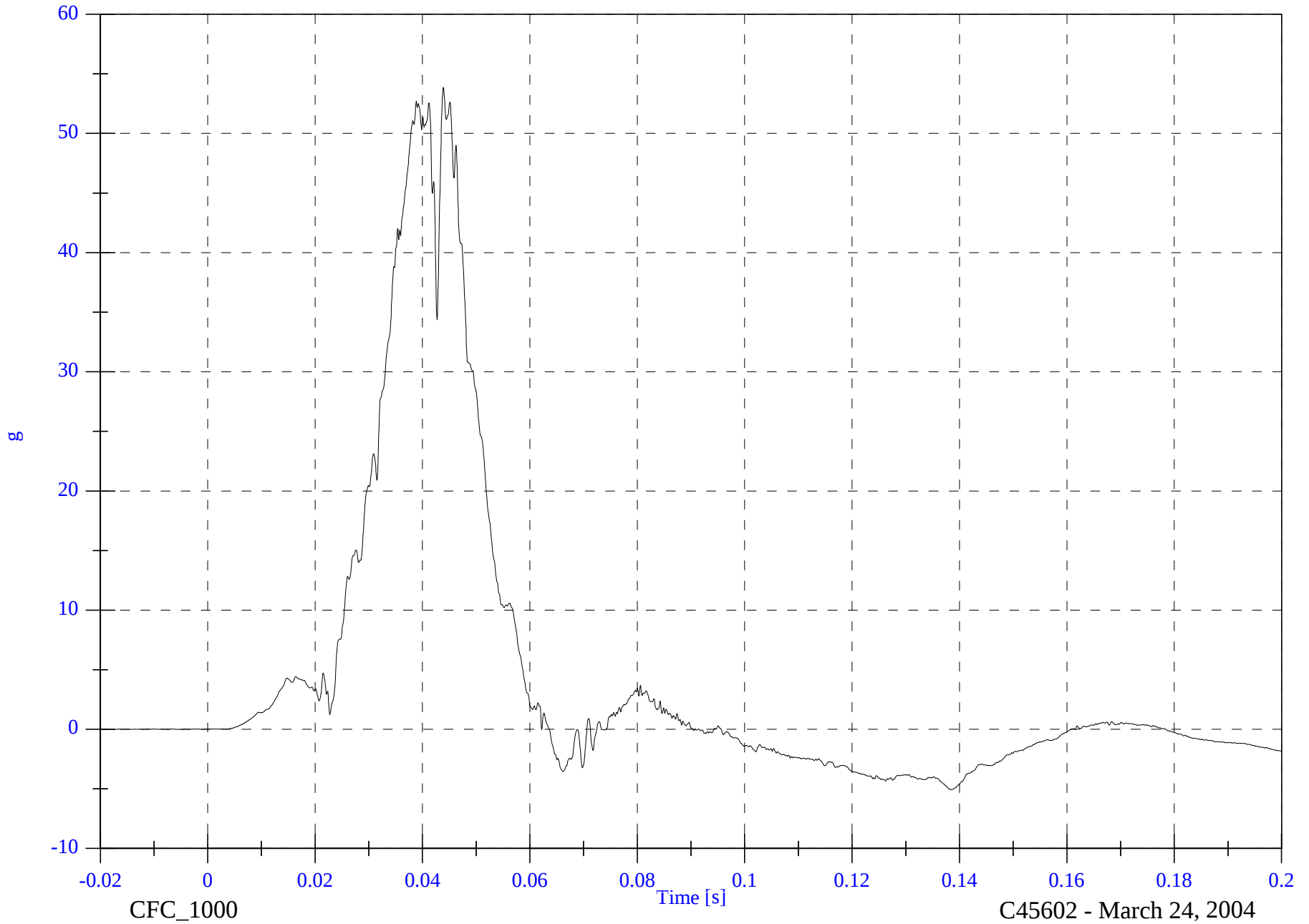
V2P4 Pelvic Ry

Max: 53.9 [g] at 0.044 [s]

Min: -5.1 [g] at 0.138 [s]

B-131

8675-F214-15

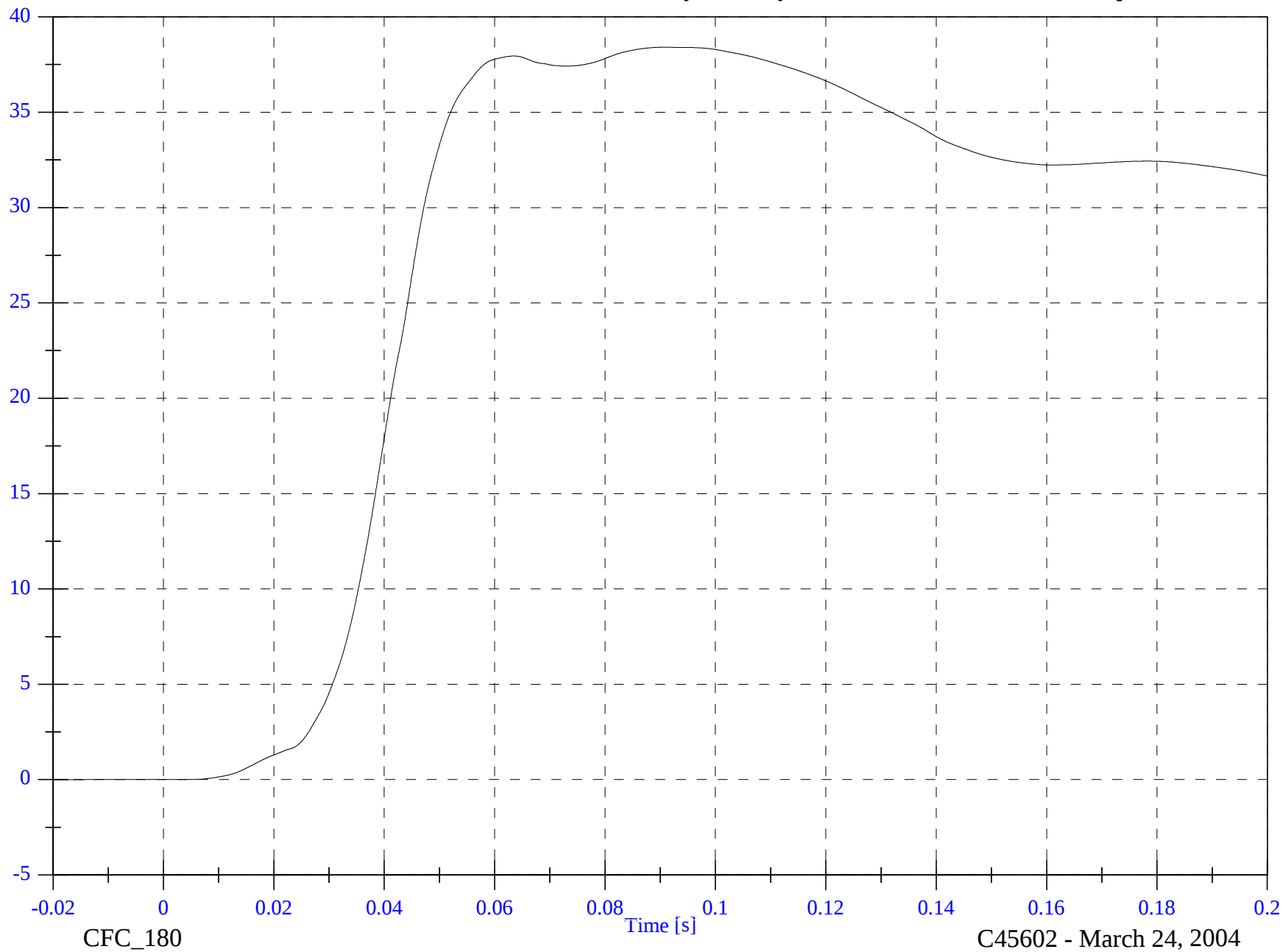


2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P4 Pelvic Ry Velocity

Max: 38.4 [kph] at 0.091 [s]

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



B-132

8675-F214-15

2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

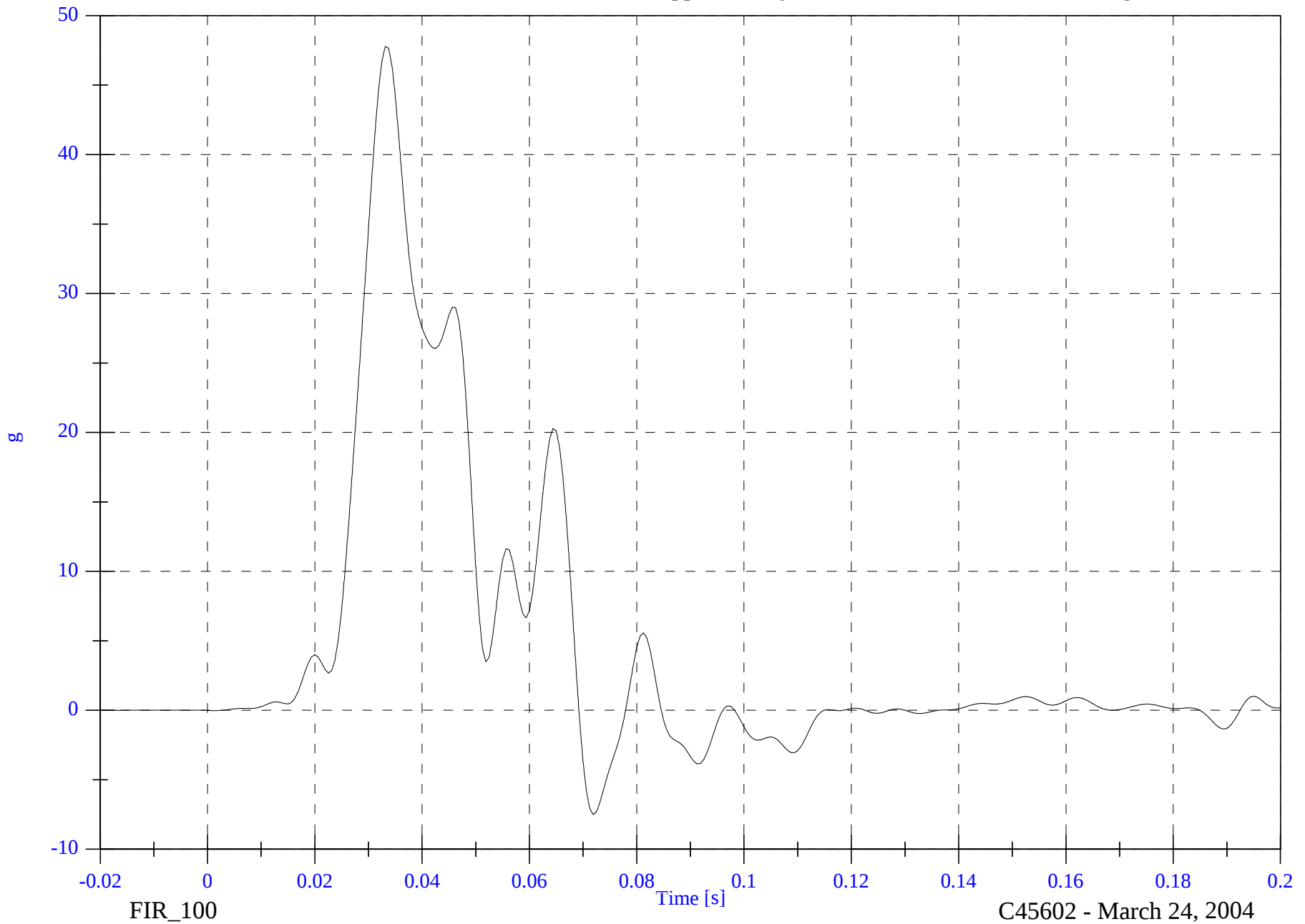
V2P1 Upper Rib Ry

Max: 47.8 [g] at 0.033 [s]

Min: -7.5 [g] at 0.072 [s]

B-133

8675-F214-15

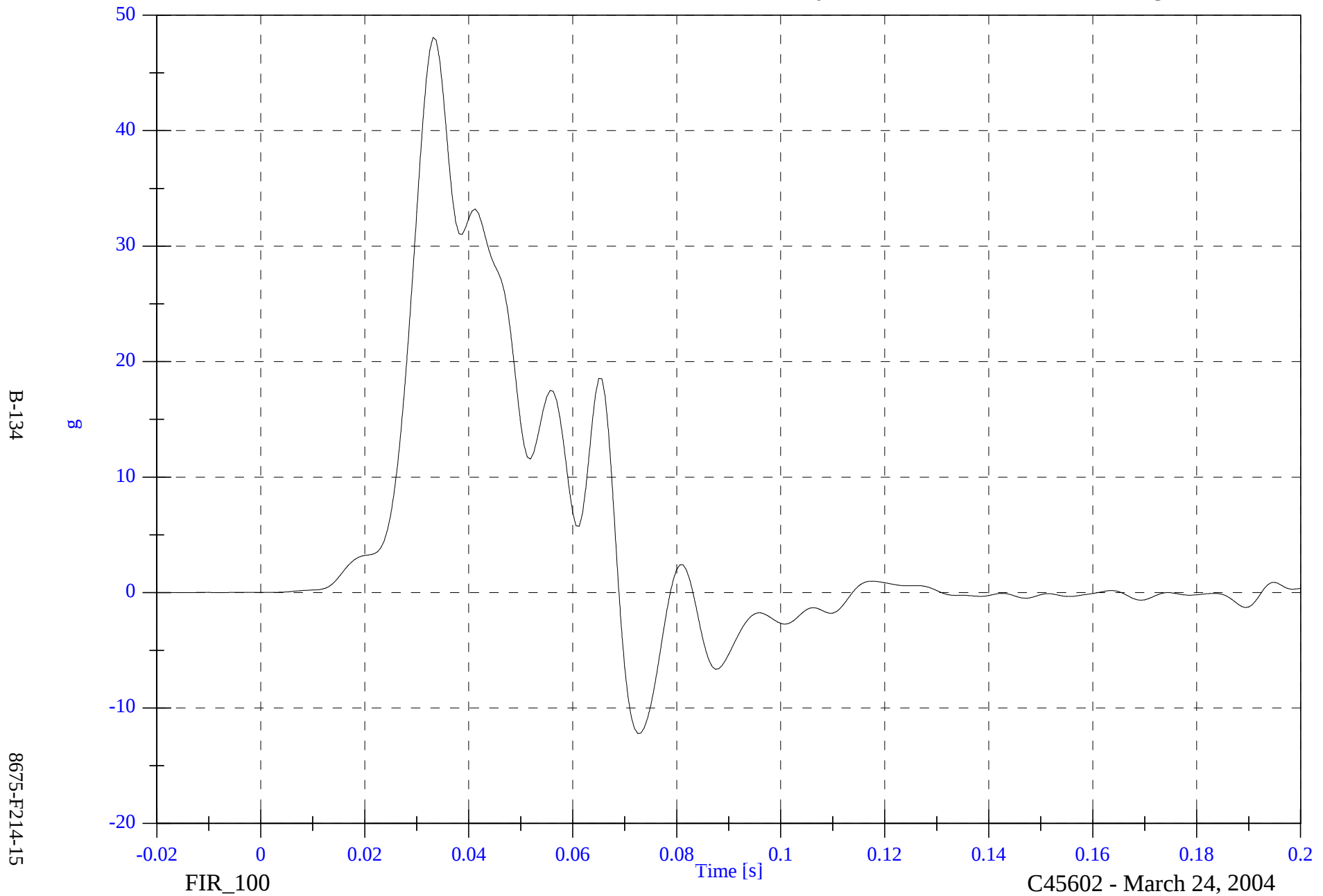


2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P1 Lower Rib Ry

Max: 48.1 [g] at 0.033 [s]

Min: -12.2 [g] at 0.072 [s]

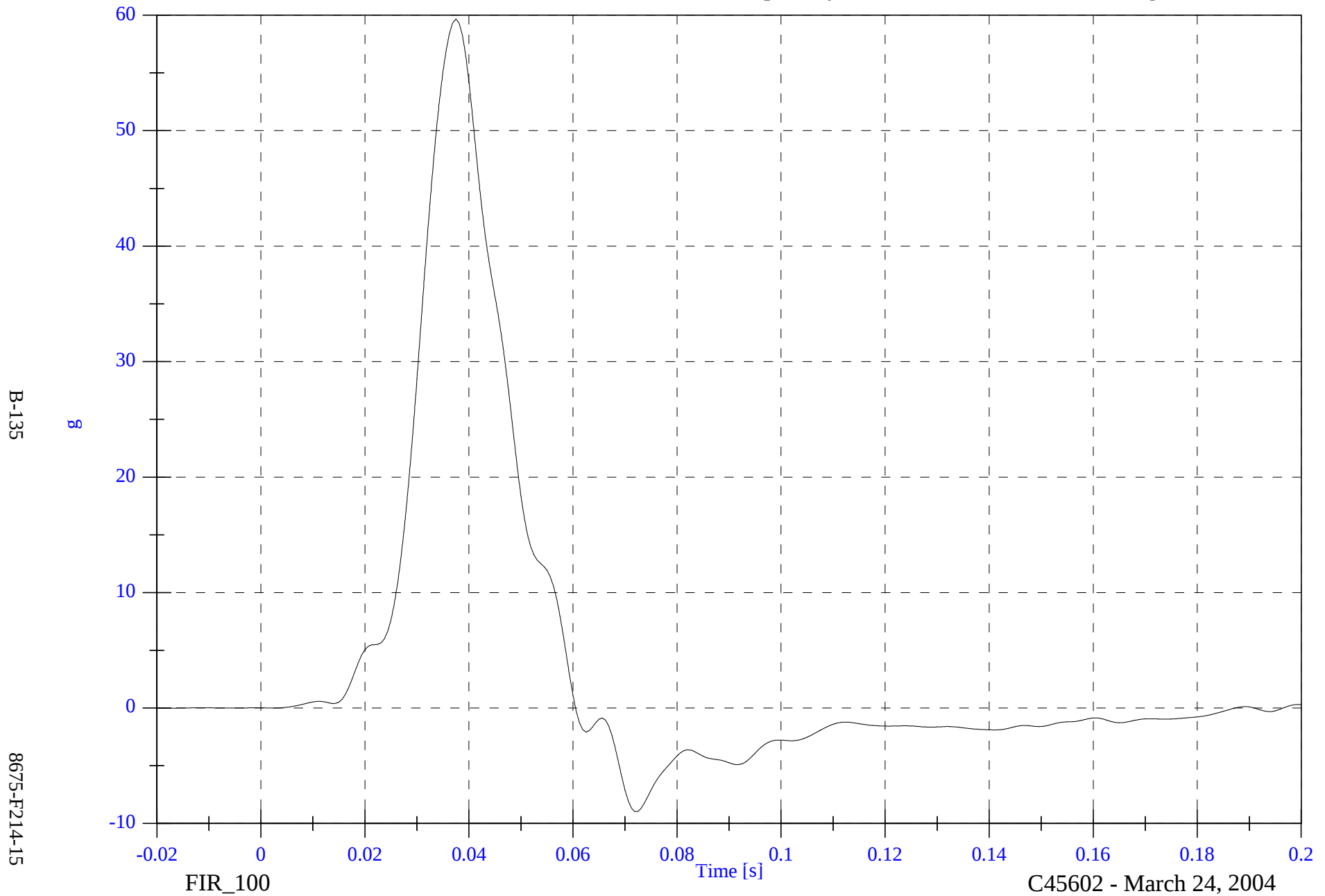


2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P1 Lower Spine Ry

Max: 59.7 [g] at 0.037 [s]

Min: -9.0 [g] at 0.072 [s]



2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

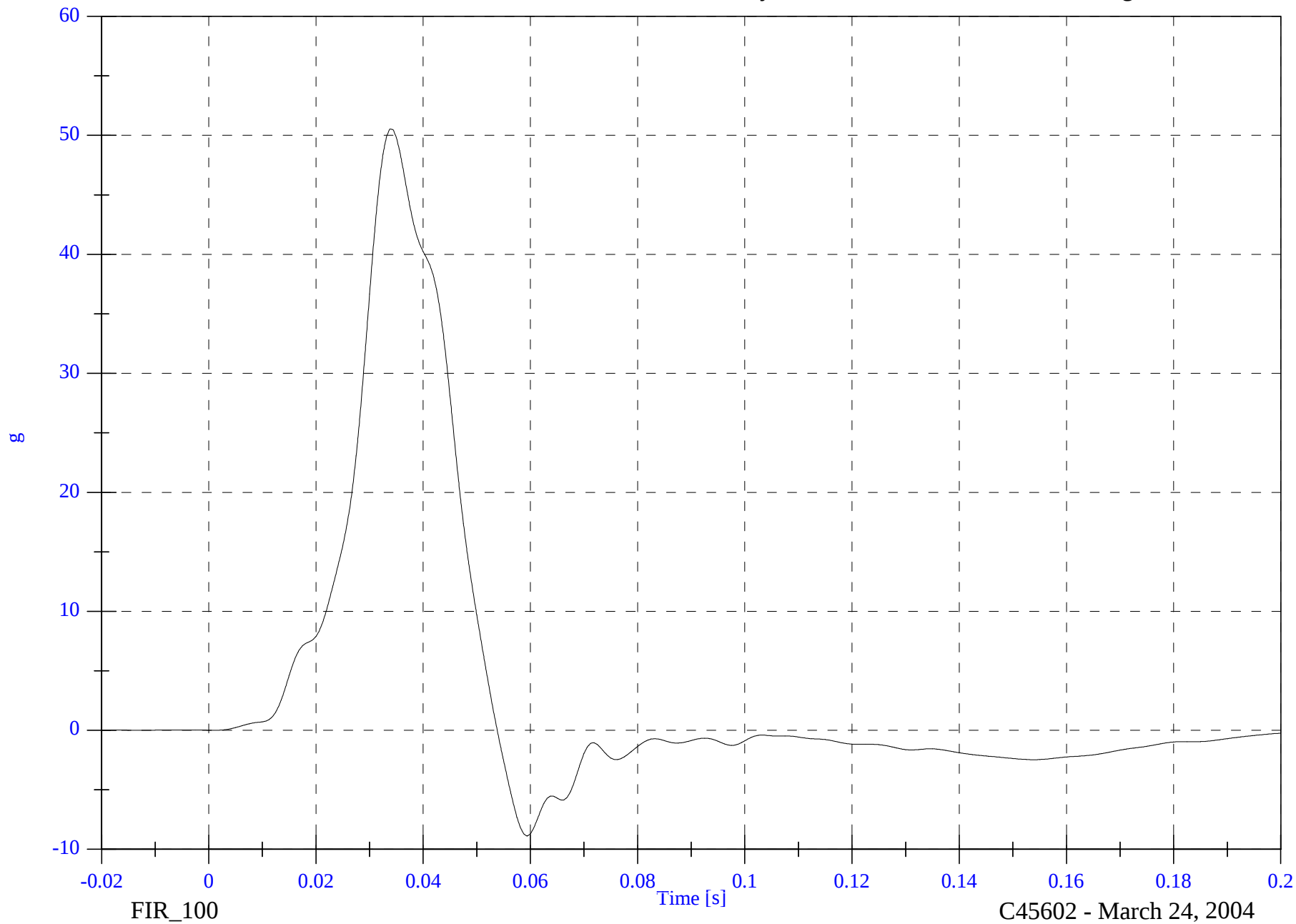
V2P1 Pelvic Ry

Max: 50.5 [g] at 0.034 [s]

Min: -8.9 [g] at 0.059 [s]

B-136

8675-F214-15

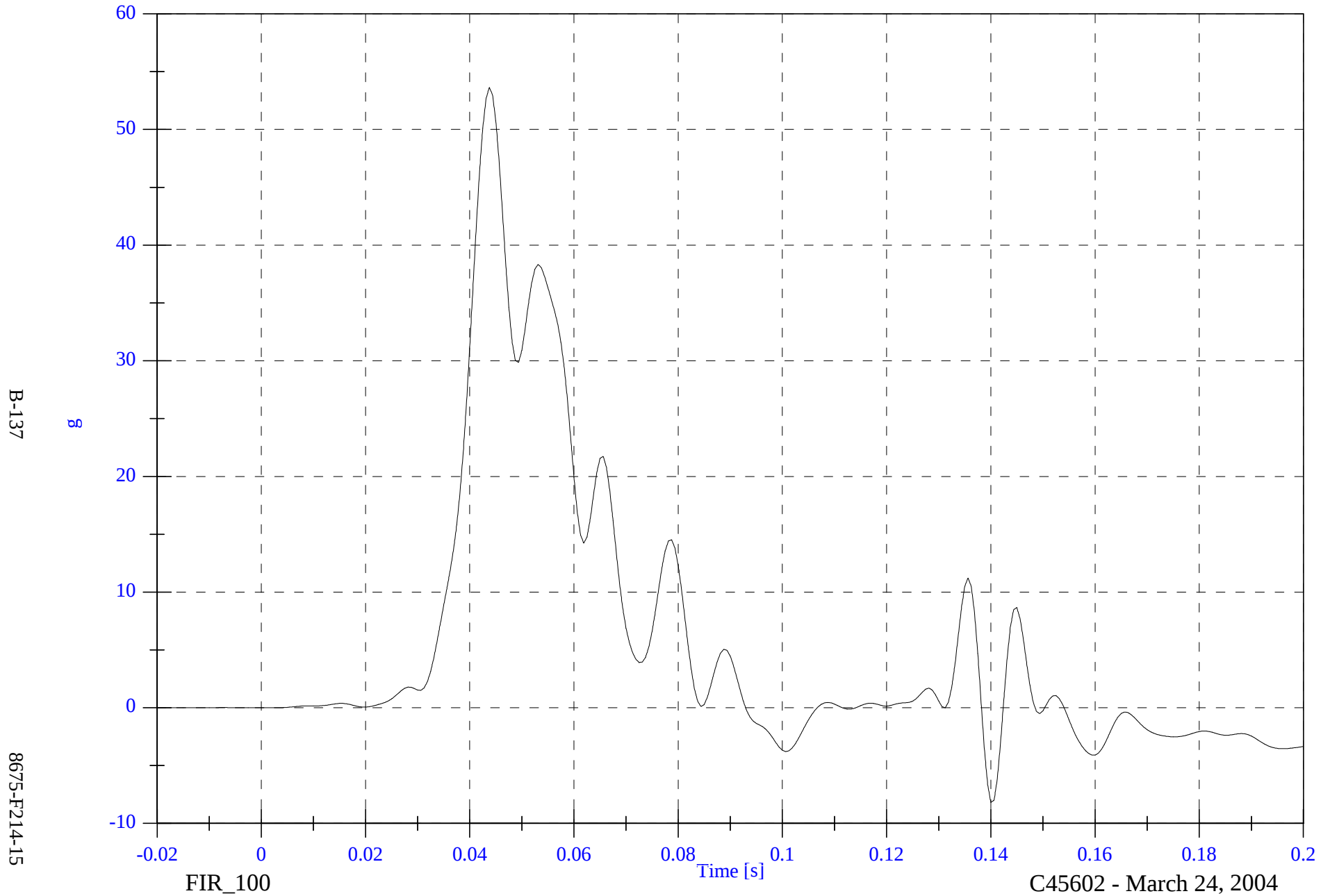


2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P4 Upper Rib Ry

Max: 53.6 [g] at 0.044 [s]

Min: -8.2 [g] at 0.140 [s]

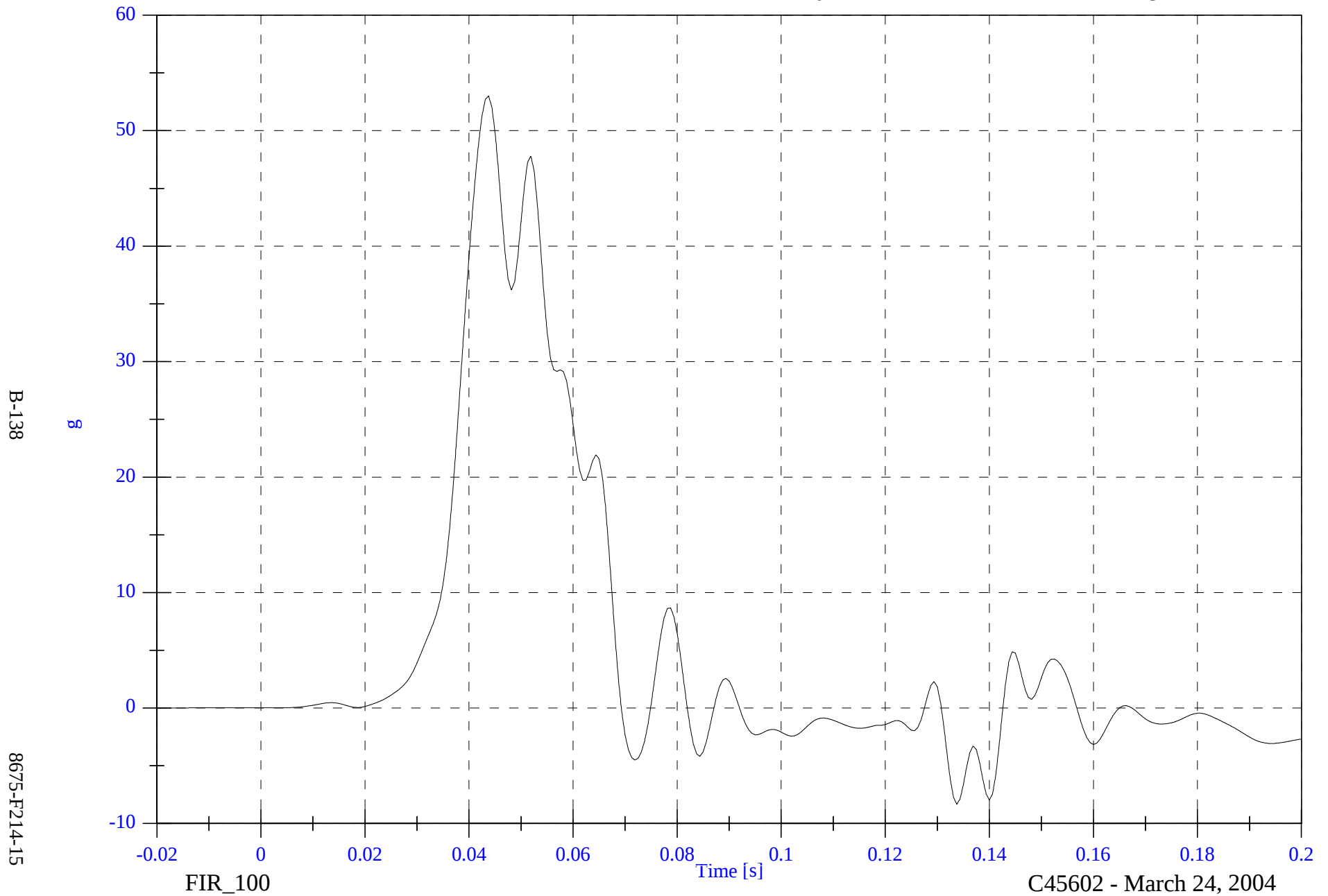


2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P4 Lower Rib Ry

Max: 53.0 [g] at 0.044 [s]

Min: -8.3 [g] at 0.134 [s]



2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

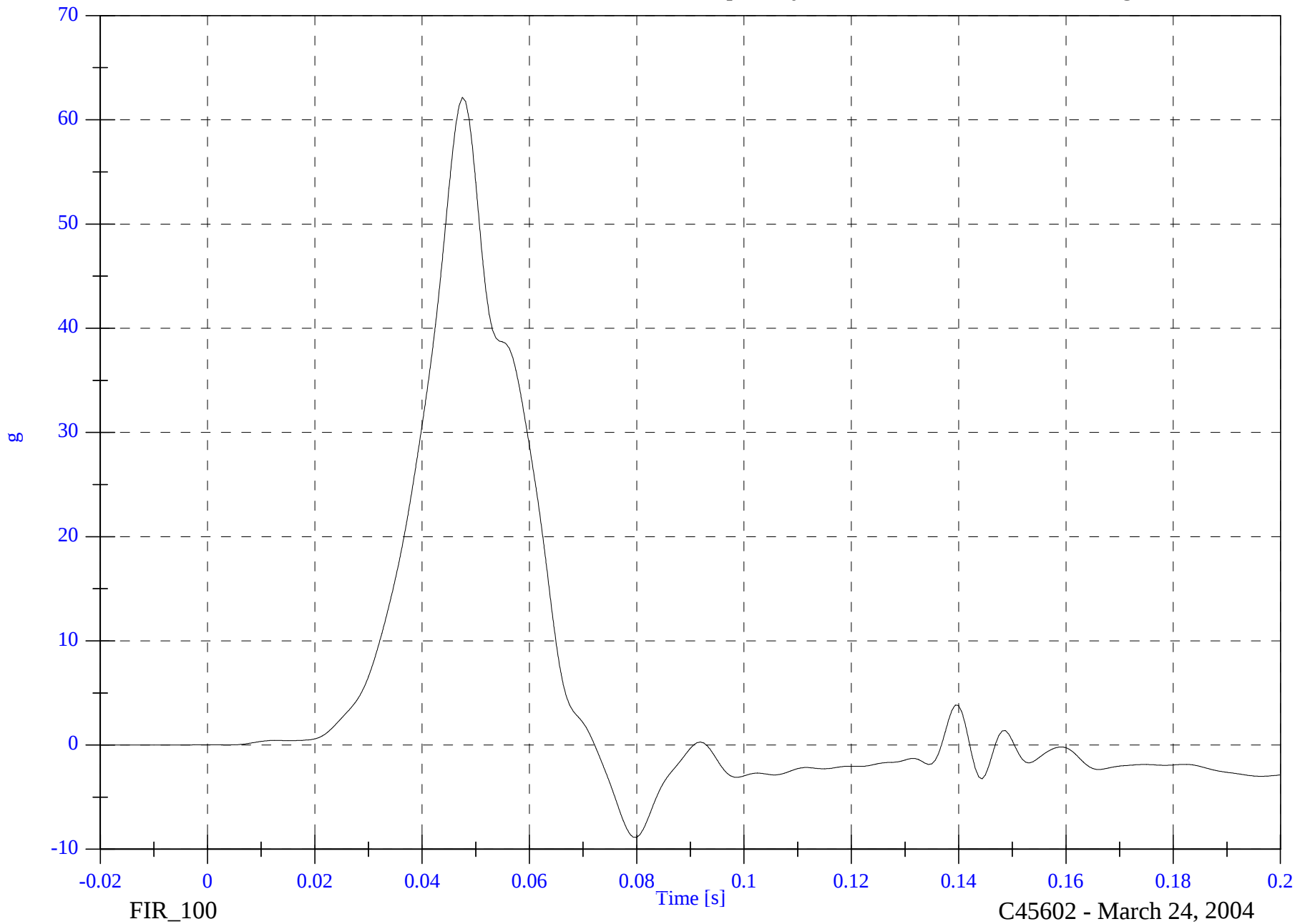
V2P4 Lower Spine Ry

Max: 62.2 [g] at 0.047 [s]

Min: -8.9 [g] at 0.080 [s]

B-139

8675-F214-15

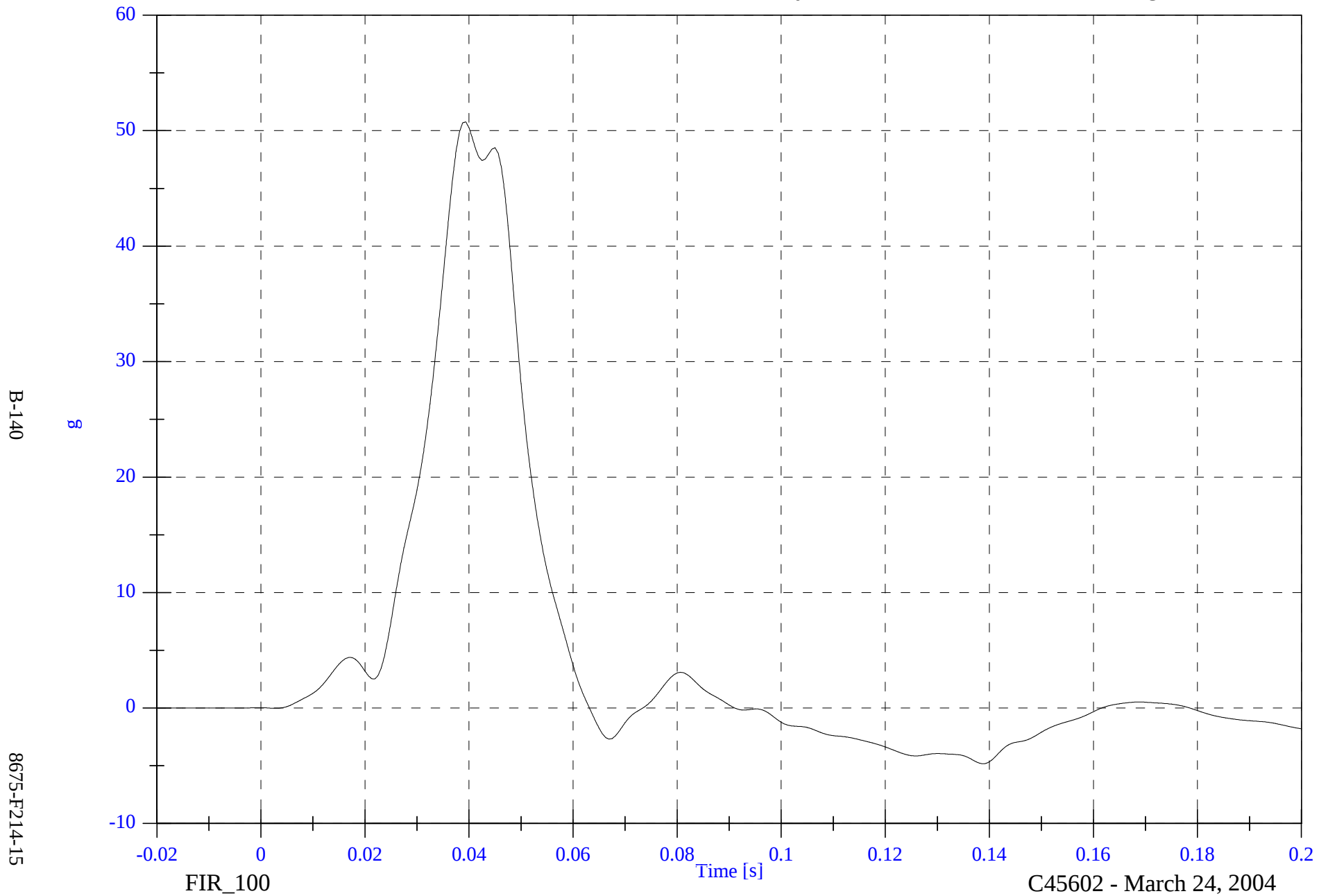


2004 FMVSS 214D Test 5 2004 Mitsubishi Galant

V2P4 Pelvic Ry

Max: 50.8 [g] at 0.039 [s]

Min: -4.8 [g] at 0.139 [s]



APPENDIX C

SID HYBRID III CONFIGURATION AND PERFORMANCE VERIFICATION DATA

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

Date: March 22, 2004; March 30, 2004 Sequential Test Number: 1;2
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	SID H3 269 NO.:		SID H3 270 NO.:	
		PRE TEST	POST TEST	PRE TEST	POST TEST
SH- Seated Height (mm)	889 - 909	904	904	902	902
RH- Rib Height (mm)	501 - 521	505	505	506	506
HP- Hip Pivot Height (mm)	99 ref.	99	99	99	99
RD- Rib from Back Line (mm)	229 - 241	234	234	234	234
KV- Knee Pivot from Back Line (mm)	511 - 526	518	518	516	516
SW- Knee Pivot to Floor (mm)	490 - 505	495	495	495	495
HW- Hip Width (mm)	356 - 391	371	371	376	376
THORAX IMPACTS					
TEMPERATURE (°C)	18.9 - 25.5	21.1	21.1	21.1	21.1
RELATIVE HUMIDITY (%)	10 - 70	35.0	31.0	28.0	31.0
PROBE SPEED (m/s)	4.27 - 4.33	4.31	4.29	4.33	4.29
UPPER RIB (g's)	37 - 46	42.46	37.57	42.58	44.50
LOWER RIB (g's)	37 - 46	40.68	37.50	41.06	42.18
LOWER SPINE (g's)	15 - 22	21.19	19.09	21.04	21.68
PELVIS IMPACT					
TEMPERATURE (°C)	18.9 - 25.5	21.1	21.1	21.1	21.1
RELATIVE HUMIDITY (%)	10 - 70	35.0	31.0	48.0	31.0
PROBE SPEED (m/s)	4.27 - 4.33	4.28	4.31	4.33	4.30
PELVIS (g's)	40 - 60	50.52	53.37	54.95	50.33

REMARKS: None

CALIBRATION TEST RESULTS

PRE-TEST

SID H3 NO.: 269

CONFIGURED FOR LEFT SIDE IMPACT

**CALIBRATION TEST RESULTS SUMMARY
PRE-TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 269 Sequential Test Number: 1
Date: March 22, 2004 Laboratory Technician: B. Swiecicki

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

* Test not required for SID certification.

REMARKS: None

**EXTERNAL DIMENSIONS
PRE-TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 269 Sequential Test Number: 1
Date: March 22, 2004 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
SH- Seated Height (mm)	889 – 909	904
RH- Rib Height (mm)	502 – 520	505
HP- Hip Pivot Height (mm)	99 ref.	99
RD- Rib from Back Line (mm)	229 – 241	234
KH- Knee Pivot from Back Line (mm)	511 – 526	518
KV- Knee Pivot to Floor (mm)	490 – 505	495
HW- Hip Width (mm)	356 - 391	371

REMARKS: None

Shock Impact (3.05 m/s)

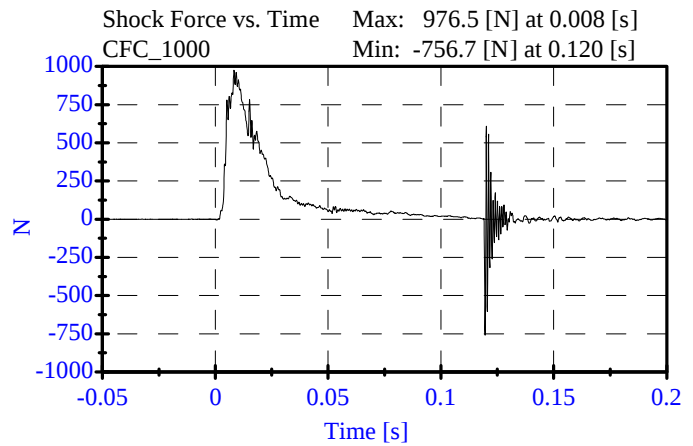
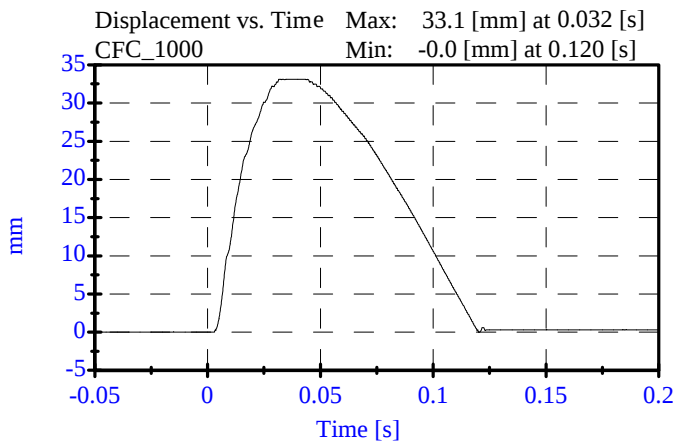
PRE TEST

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269
Date: March 18, 2004

Sequential Test Number: 1 File: 269SL 03-18-04
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	35.00 %	Passed
Displacement:	30.00-35.00 mm	33.13 mm	Passed
Maximum Force:	836.00-1125.00 N	976.52 N	Passed
Impact Test Velocity:	3.05 m/s		
Damper Identification:	269		
Damper Setting:	5		

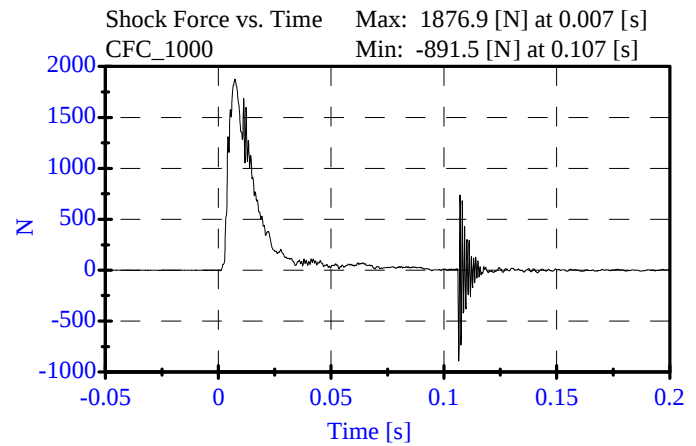
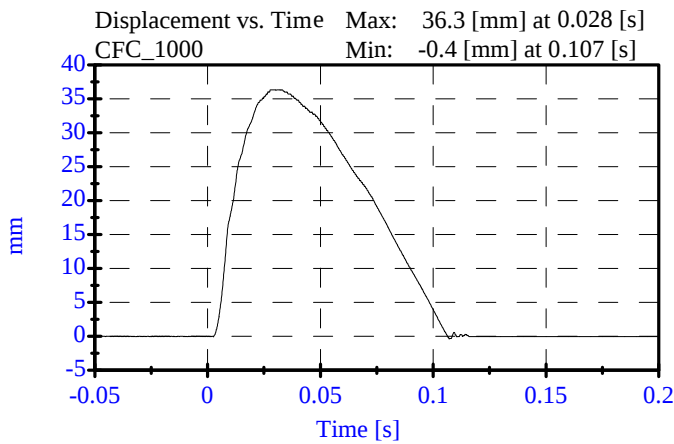


Shock Impact (4.27 m/s)
PRE TEST
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269
Date: March 18, 2004

Sequential Test Number: 1 File: 269SM 03-18-04
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	35.00 %	Passed
Displacement:	32.00-37.00 mm	36.33 mm	Passed
Maximum Force:	1730.00-2099.00 N	1876.91 N	Passed
Impact Test Velocity:	4.27 m/s		
Damper Identification:	269		
Damper Setting:	5		



Shock Impact (6.10 m/s)

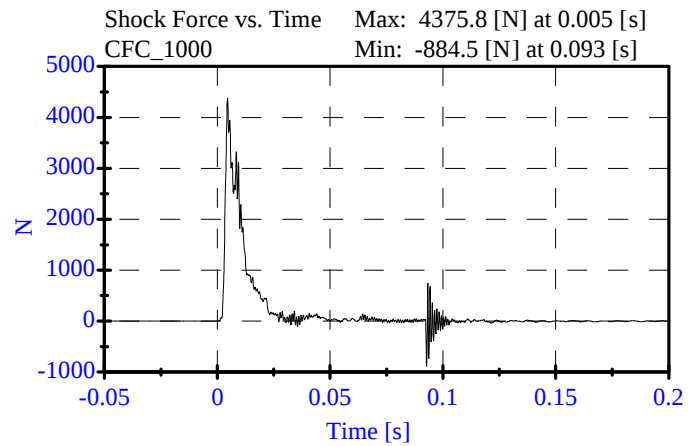
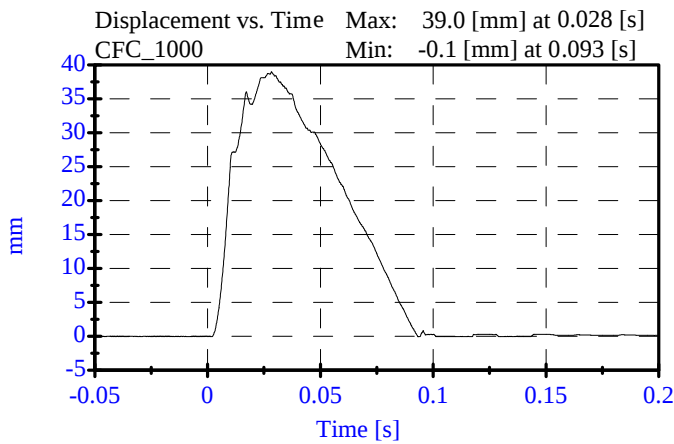
PRE TEST

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269
Date: March 18, 2004

Sequential Test Number: 1 File: 269SH 03-18-04
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	35.00 %	Passed
Displacement:	33.00-40.00 mm	38.99 mm	Passed
Maximum Force:	3741.00-4448.00 N	4375.75 N	Passed
Impact Test Velocity:	6.10 m/s		
Damper Identification:	269		
Damper Setting:	5		

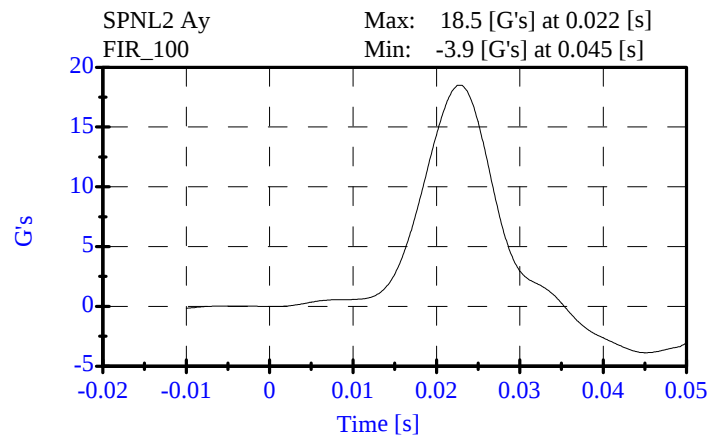
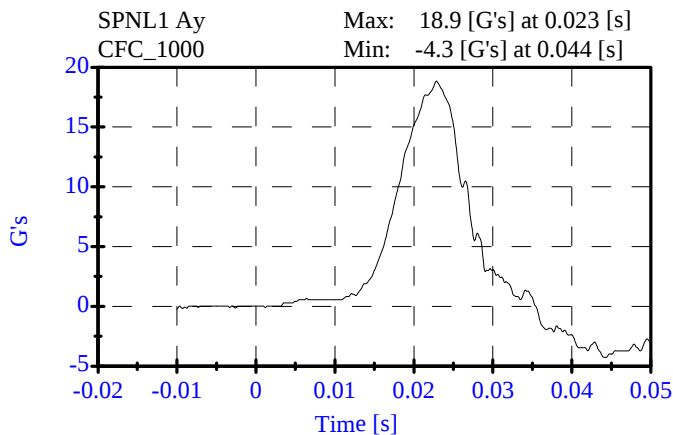
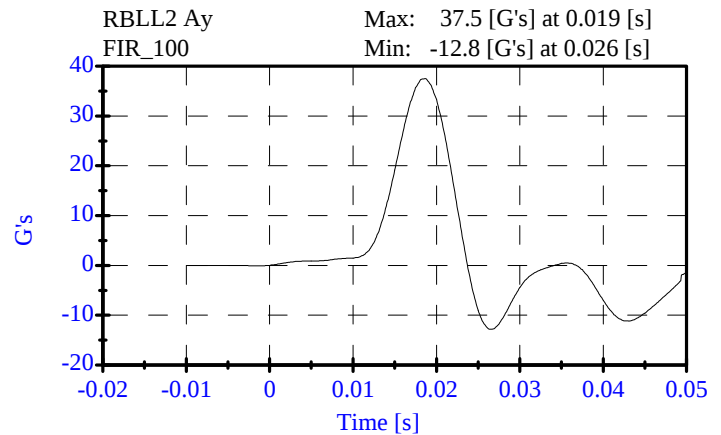
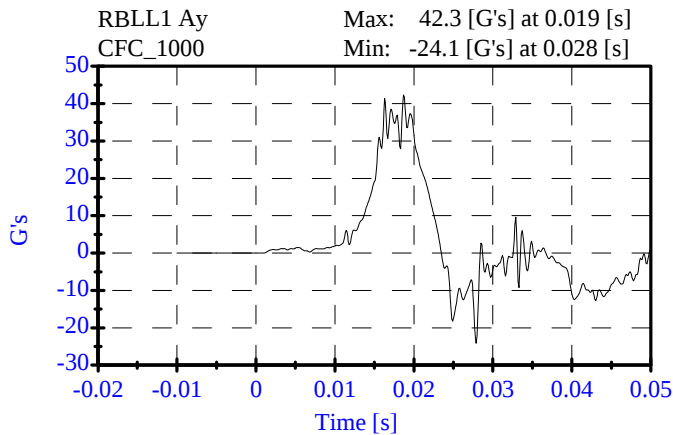
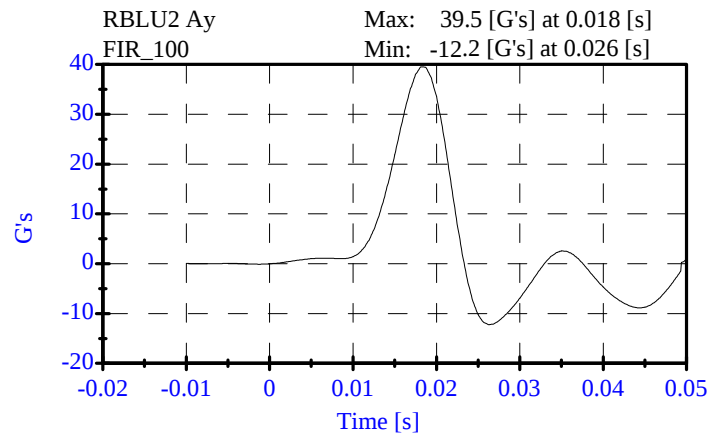
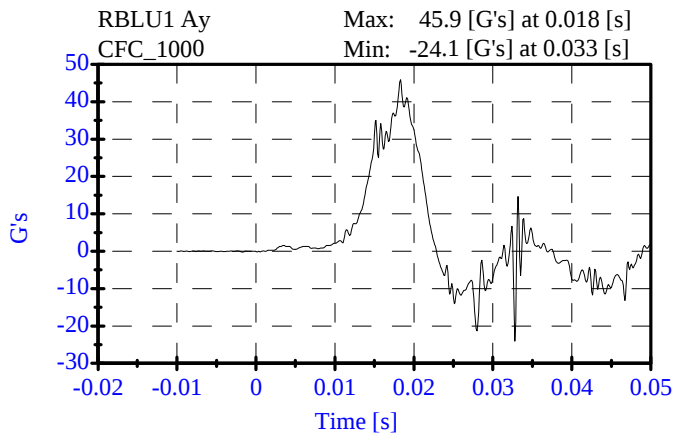


Thorax Impact
Pre-Test
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269
Date: March 22, 2004

Sequential Test Number: 1 File: 269T 03-22-04
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	30.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.32 m/s	Passed
Upper Rib Acceleration:	37.00-46.00 G's	39.52 G's	Passed
Lower Rib Acceleration:	37.00-46.00 G's	37.53 G's	Passed
Lower Spine Acceleration:	15.00-22.00 G's	18.50 G's	Passed

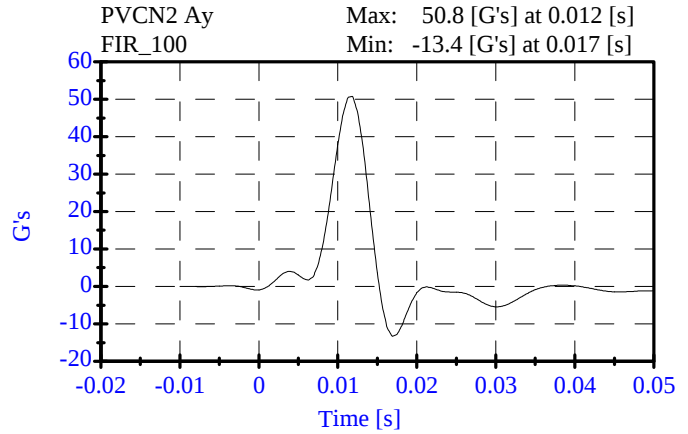
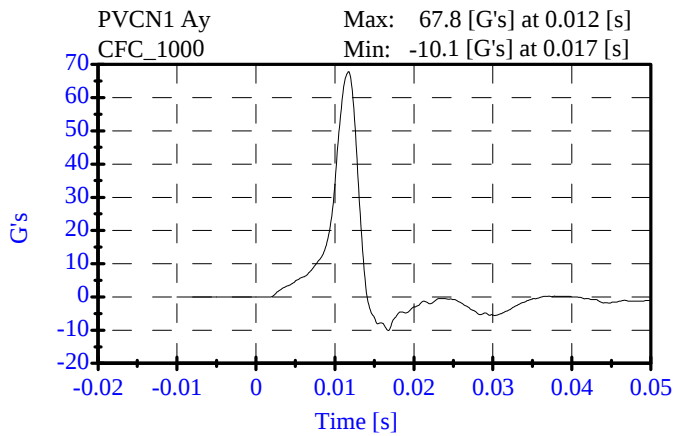


Pelvic Impact
Pre-Test
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269
Date: March 22, 2004

Sequential Test Number: 1 File: 269P 03-22-04
Laboratory Technician: B. Swiecicki

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	28.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.32 m/s	Passed
Pelvis Y Acceleration:	40.00-60.00 G's	50.81 G's	Passed



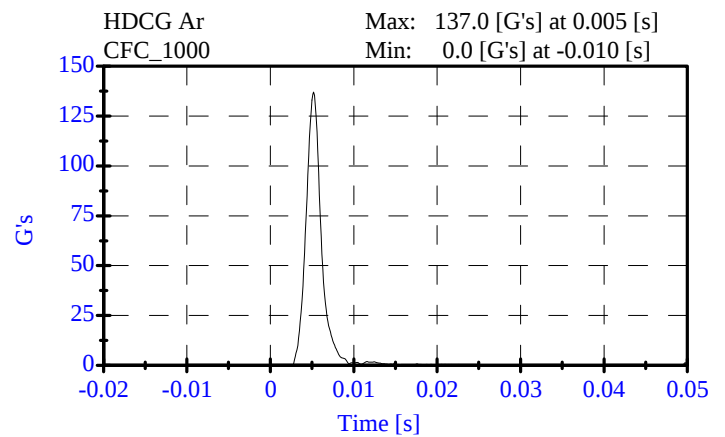
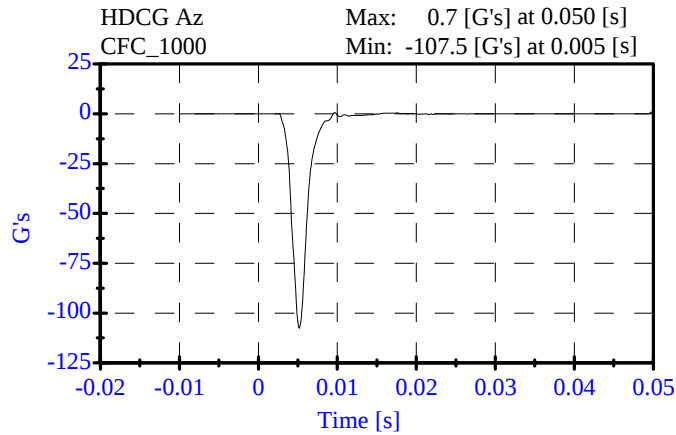
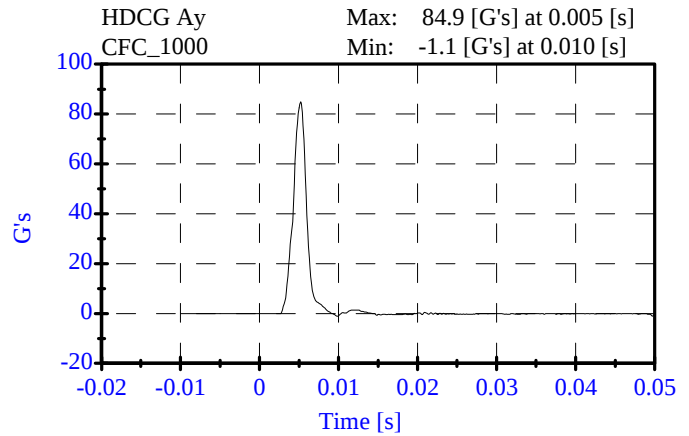
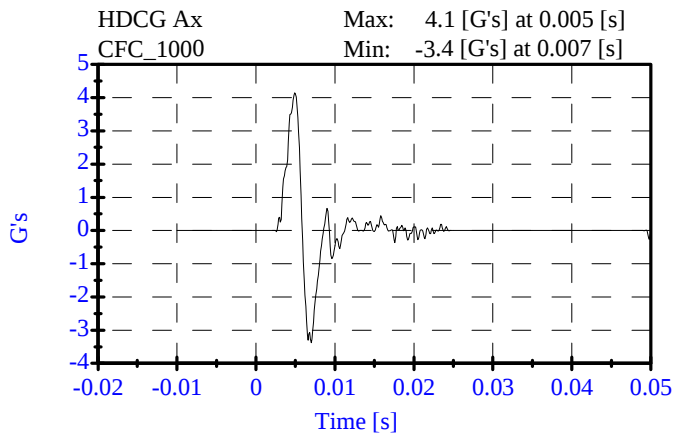
Head Drop Pre-Test

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269
Date: March 19, 2004

Sequential Test Number: 1 File: 269H1 03-19-04
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	20.6-22.2 C	21.1 C	Passed
Lab Humidity:	10-70 %	33.00 %	Passed
Peak Resultant Accel.:	120-150 Gs	137.03 Gs	Passed
Peak Lateral Accel.:	15 Gs Max	4.14 Gs	Passed
Curve PerCent NonModal:	< 15%	1.34 %	Passed



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

ATD Serial No: 269
Date: March 19, 2004

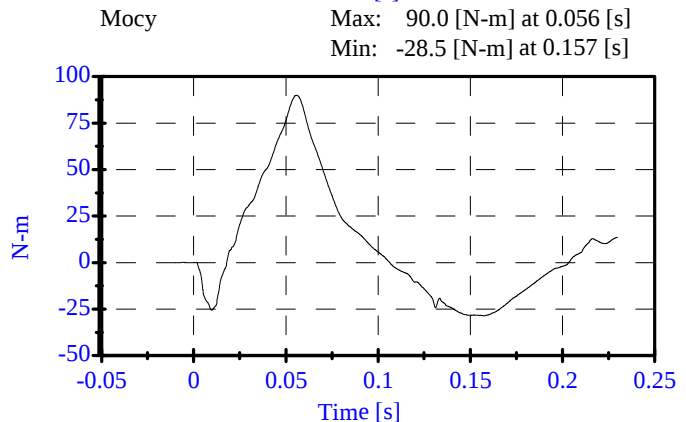
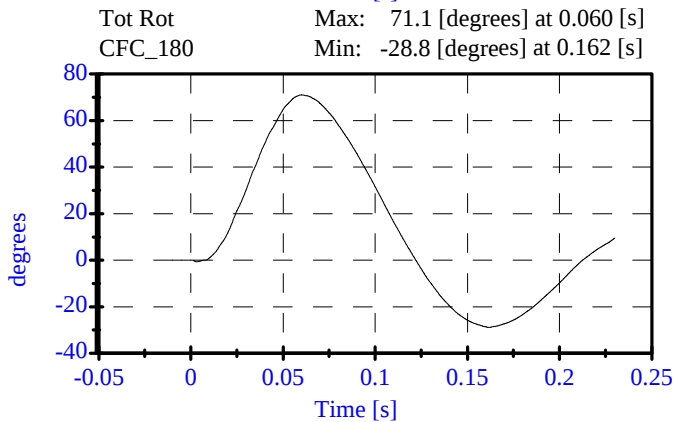
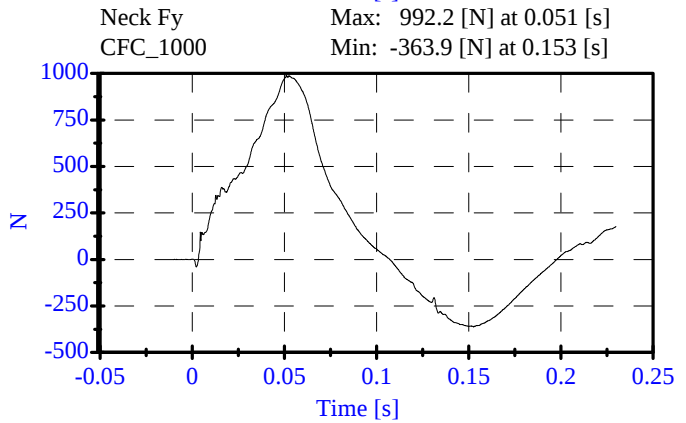
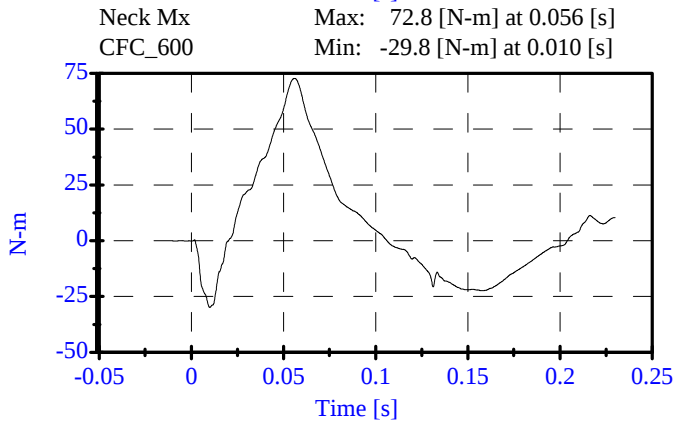
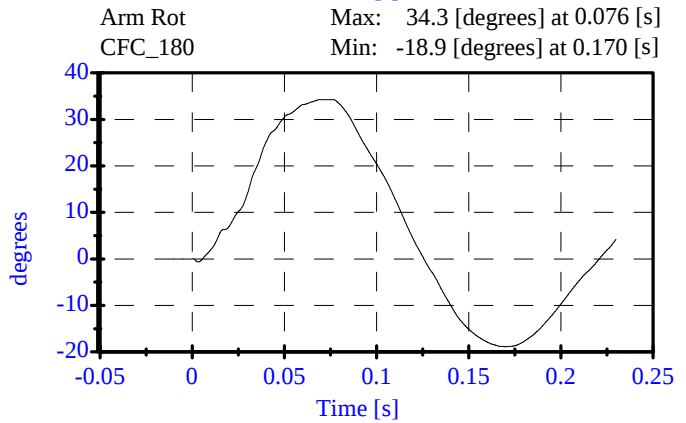
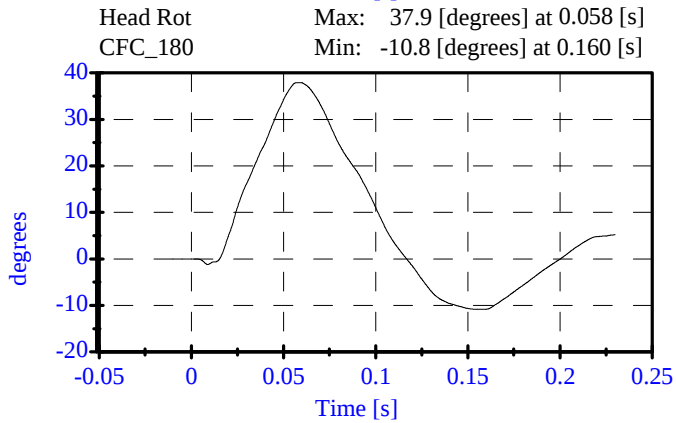
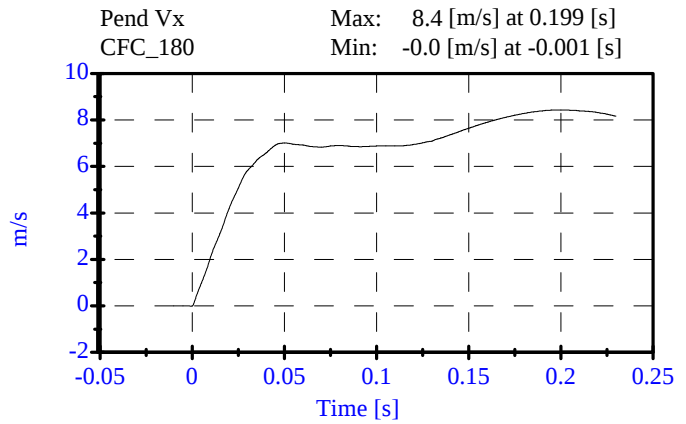
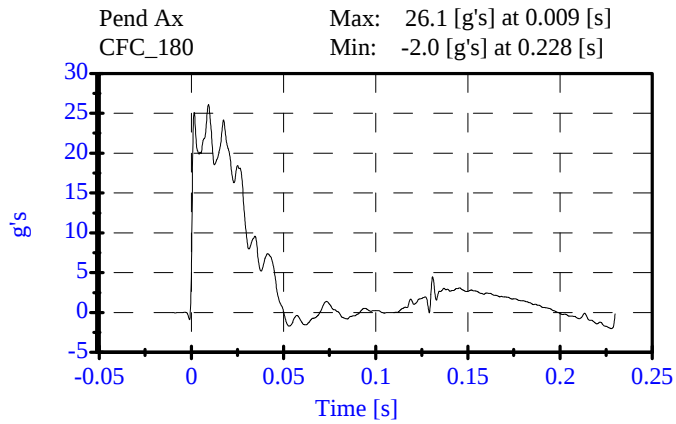
Sequential Test Number: 1 File: 269N 03-19-04
Laboratory Technician: B. Swiecicki

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	20.6-22.2 C	21.1 C	Passed
Lab Humidity:	10-70 %	33.00 %	Passed
Impact Velocity:	6.89- 7.13 m/s	7.01 m/s	Passed
PENDULUM DELTA V			
Delta V at 10 ms:	1.96- 2.55 m/s	2.11 m/s	Passed
Delta V at 20 ms:	4.12- 5.10 m/s	4.19 m/s	Passed
Delta V at 30 ms:	5.73- 7.01 m/s	5.83 m/s	Passed
Delta V between 40-70 ms:	6.27- 7.64 m/s	7.02 m/s	Passed
D PLANE ROTATION			
Maximum Rotation:	64.0-78.0 Deg	71.09 Deg	Passed
Rotation Angle Decay:	50.0-70.0 ms	62.00 ms	Passed
MOMENT ABOUT THE OCCIPITAL CONDYLE			
Max Occipital Moment:	88.00-108.00 N-m	89.99 N-m	Passed
Occipital Moment Decay:	40.0-60.0 ms	50.50 ms	Passed
HEAD ROTATION TIME WITH RESPECT TO THE OCCIPITAL CONDYLE MOMENT			
Moment to Rotation Peak:	0.0-20.0 ms	4.10 ms	Passed

Neck Test
Pre-Test
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269
Date: March 19, 2004

Sequential Test Number: 1 File: 269N 03-19-04
Laboratory Technician: B. Swiecicki



ABDOMINAL COMPRESSION TEST

PRE-TEST

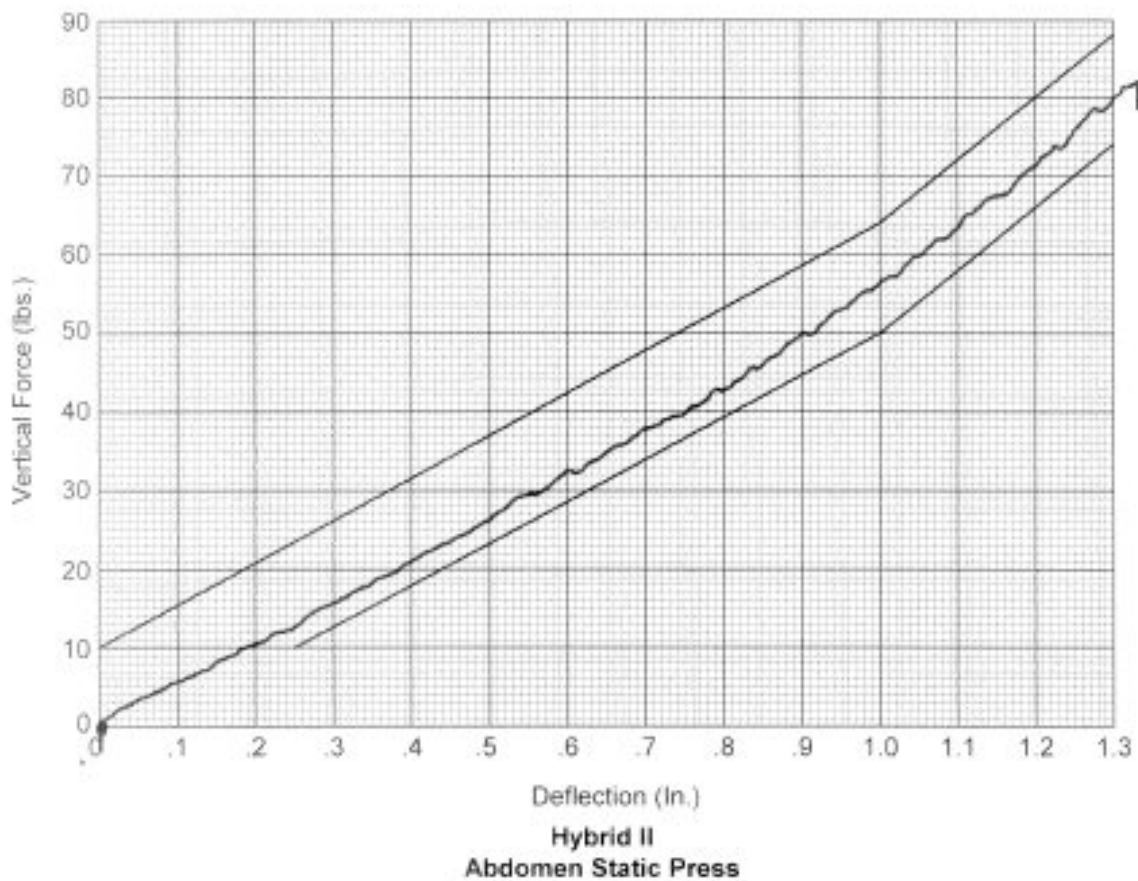
(Test not required for SID certification)

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 269 Sequential Test Number: 1
Date: March 22, 2004 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	28
FORCE @ 13 mm (N)	104 - 162	120.1
FORCE @ 19 mm (N)	163 - 221	177.9
FORCE @ 25 mm (N)	222 - 280	253.5
FORCE @ 33 mm (N)	325 - 391	351.4

REMARKS: None



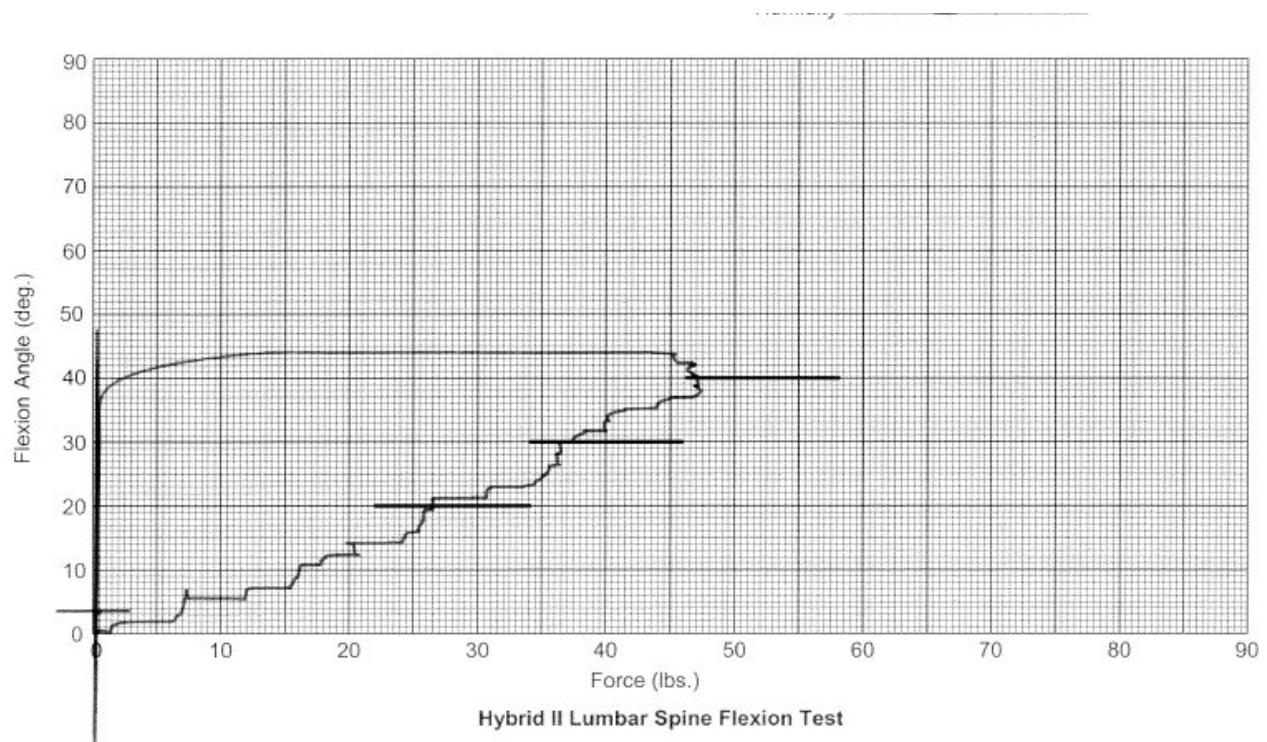
LUMBAR FLEXION TEST
PRE-TEST
 (Test not required for SID certification)

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 269	Sequential Test Number: 1	
Date: March 22, 2004	Laboratory Technician: B. Swiecicki	

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	28
FORCE @ 0° (N)	0 - 26.7	0
FORCE @ 20° (N)	97.8 - 151.2	115.7
FORCE @ 30° (N)	151.2 - 204.6	164.6
FORCE @ 40° (N)	204.6 - 258	209.1
RETURN ANGLE	12° max.	4

REMARKS: None



PRE-TEST DUMMY INSPECTION LIST
CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 269 Sequential Test Number: 1
Date: March 22, 2004 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

PRE-TEST

SID H3 NO.: 270

CONFIGURED FOR LEFT SIDE IMPACT

**CALIBRATION TEST RESULTS SUMMARY
PRE-TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 270 Sequential Test Number: 1
Date: March 22, 2004 Laboratory Technician: B. Swiecicki

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

* Test not required for SID certification.

REMARKS: None

**EXTERNAL DIMENSIONS
PRE-TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 270 Sequential Test Number: 1
Date: March 22, 2004 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
SH- Seated Height (mm)	889 - 909	902
RH- Rib Height (mm)	502 - 520	506
HP- Hip Pivot Height (mm)	99 ref.	99
RD- Rib from Back Line (mm)	229 - 241	234
KH- Knee Pivot from Back Line (mm)	511 - 526	516
KV- Knee Pivot to Floor (mm)	490 - 505	495
HW- Hip Width (mm)	356 - 391	376

REMARKS: None

Shock Impact (3.05 m/s)

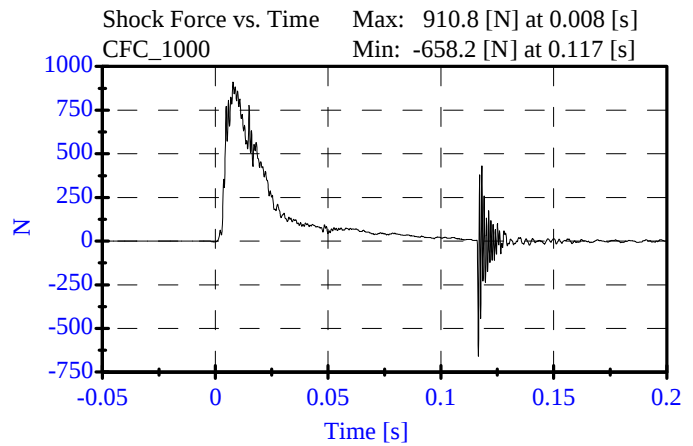
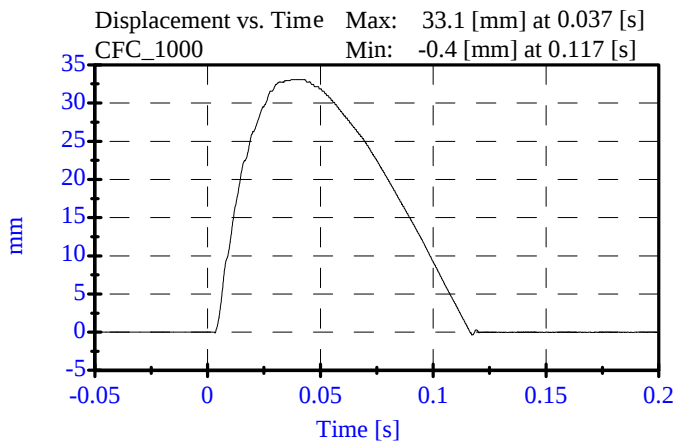
PRE TEST

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 270
Date: March 18, 2004

Sequential Test Number: 1 File: 270SL 03-18-04
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	35.00 %	Passed
Displacement:	30.00-35.00 mm	33.07 mm	Passed
Maximum Force:	836.00-1125.00 N	910.80 N	Passed
Impact Test Velocity:	3.05 m/s		
Damper Identification:	270		
Damper Setting:	5		



Shock Impact (4.27 m/s)

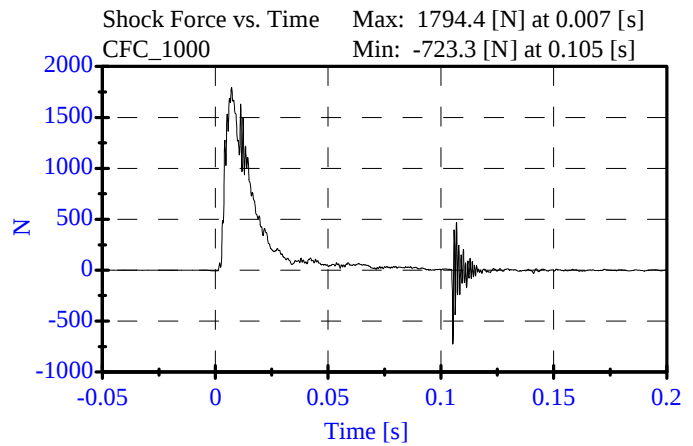
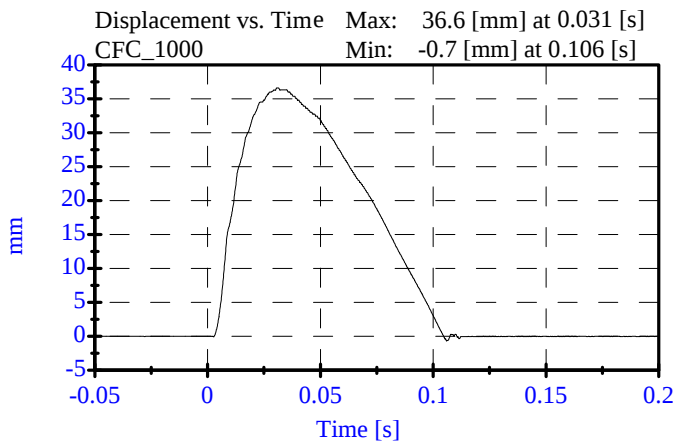
PRE TEST

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 270
Date: March 18, 2004

Sequential Test Number: 1 File: 270SM 03-18-04
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	35.00 %	Passed
Displacement:	32.00-37.00 mm	36.64 mm	Passed
Maximum Force:	1730.00-2099.00 N	1794.45 N	Passed
Impact Test Velocity:	4.27 m/s		
Damper Identification:	270		
Damper Setting:	5		



Shock Impact (6.10 m/s)

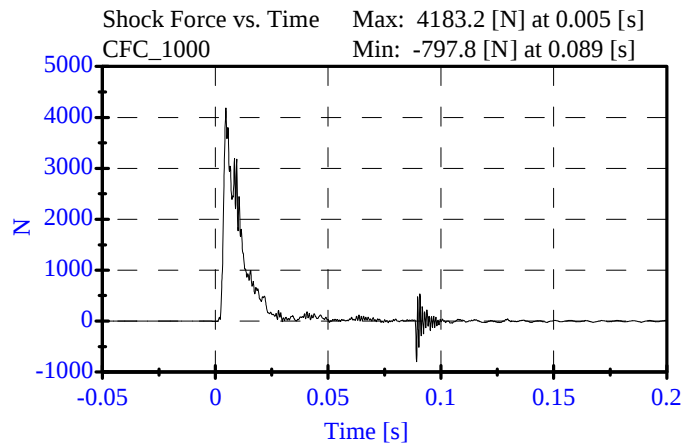
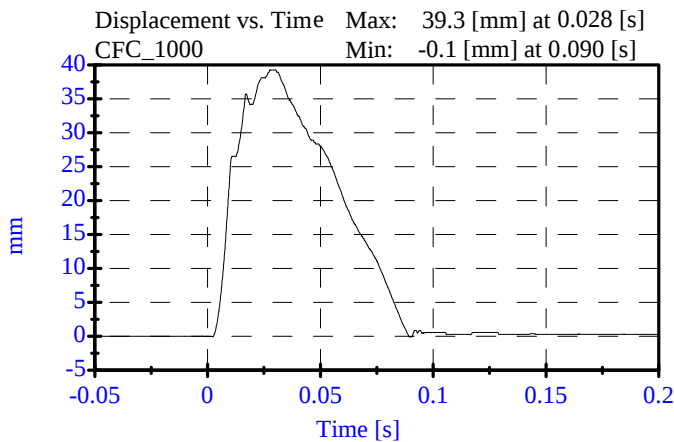
PRE TEST

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 270
Date: March 18, 2004

Sequential Test Number: 1 File: 270SH 03-18-04
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	35.00 %	Passed
Displacement:	33.00-40.00 mm	39.29 mm	Passed
Maximum Force:	3741.00-4448.00 N	4183.25 N	Passed
Impact Test Velocity:	6.10 m/s		
Damper Identification:	270		
Damper Setting:	5		

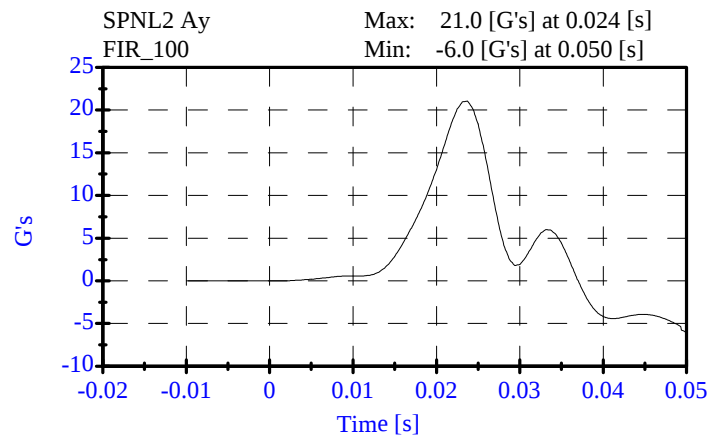
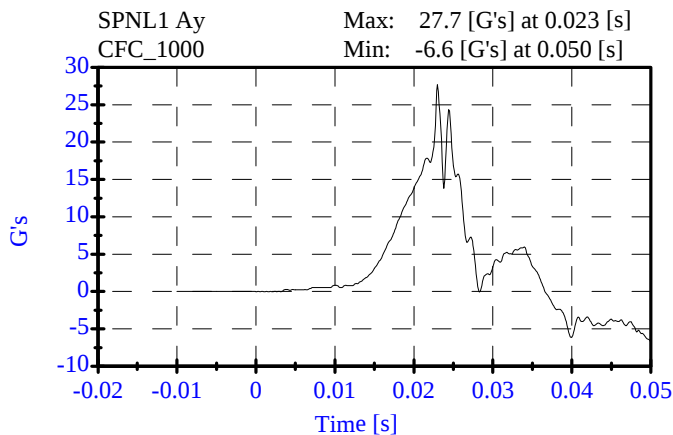
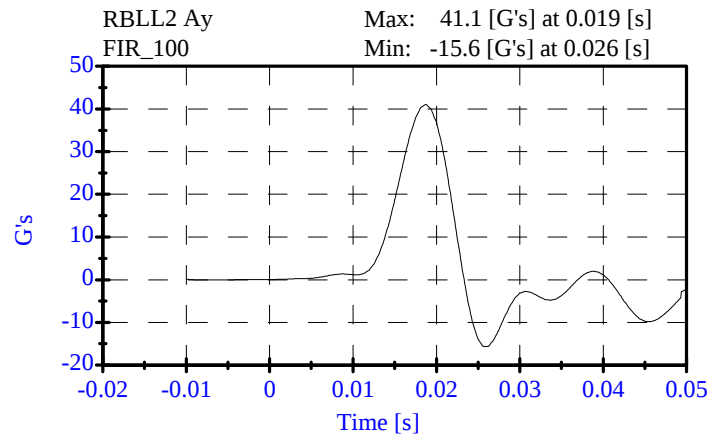
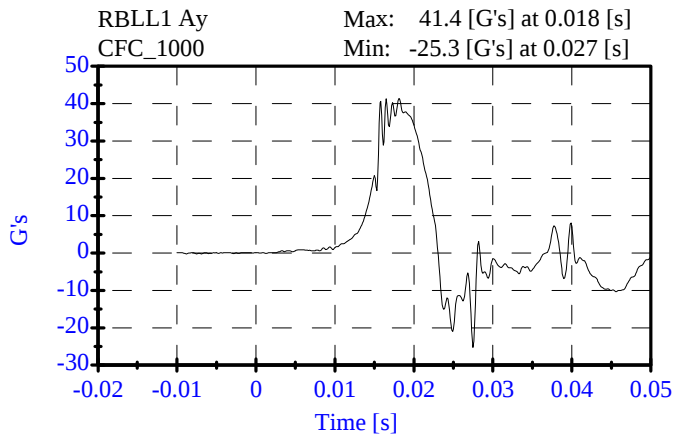
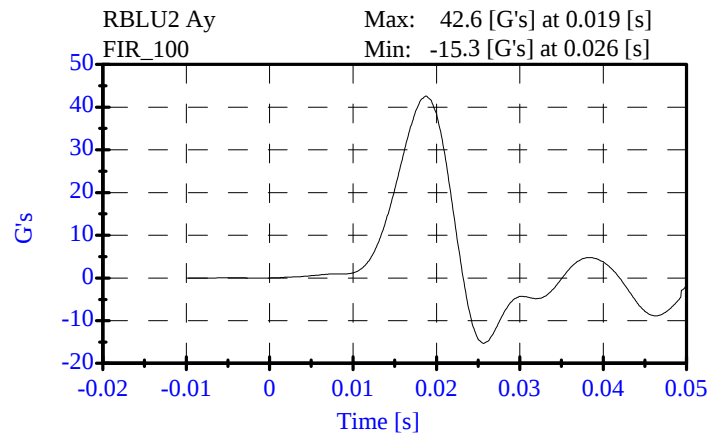
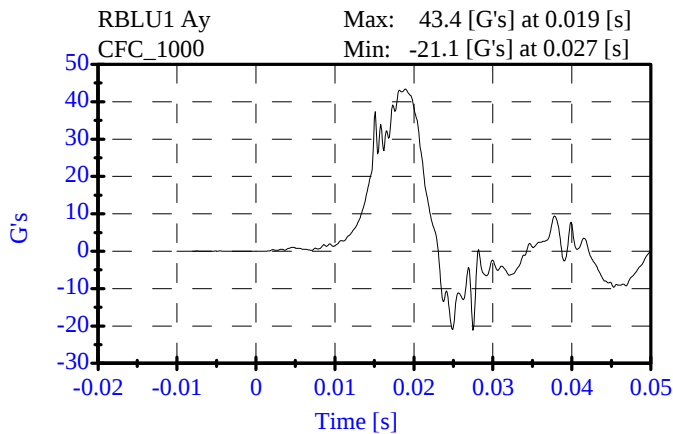


Thorax Impact
Pre-Test
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 270
Date: March 22, 2004

Sequential Test Number: 1 File: 270T 03-22-04
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	28.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.33 m/s	Passed
Upper Rib Acceleration:	37.00-46.00 G's	42.58 G's	Passed
Lower Rib Acceleration:	37.00-46.00 G's	41.06 G's	Passed
Lower Spine Acceleration:	15.00-22.00 G's	21.04 G's	Passed



Pelvic Impact

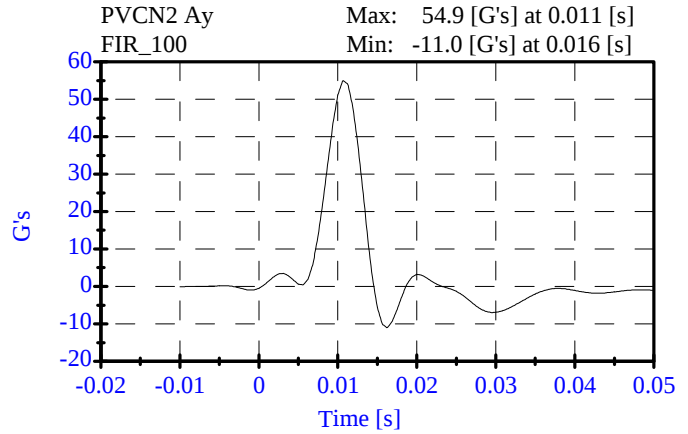
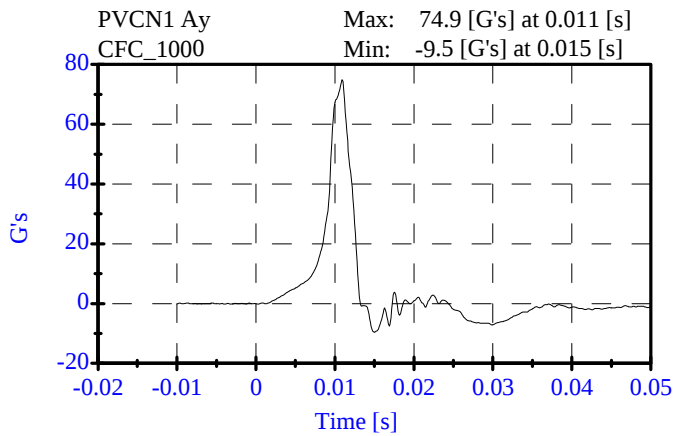
Pre-Test

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 270
Date: March 22, 2004

Sequential Test Number: 1 File: 270P 03-22-04
Laboratory Technician: B. Swiecicki

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	28.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.33 m/s	Passed
Pelvis Y Acceleration:	40.00-60.00 G's	54.95 G's	Passed



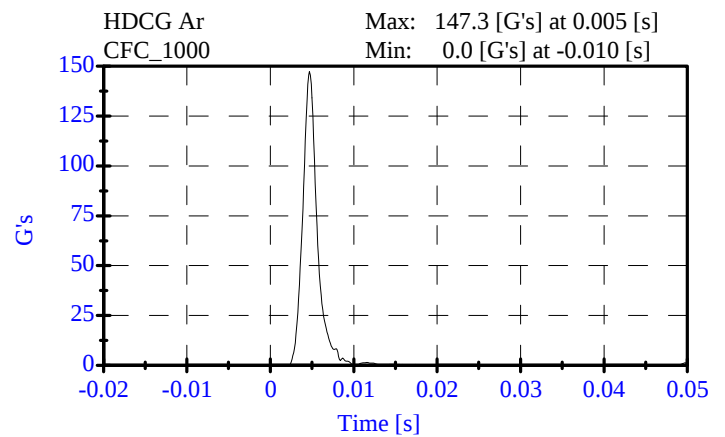
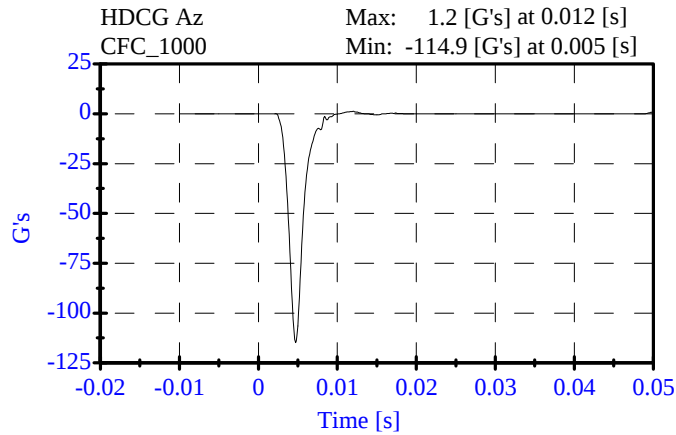
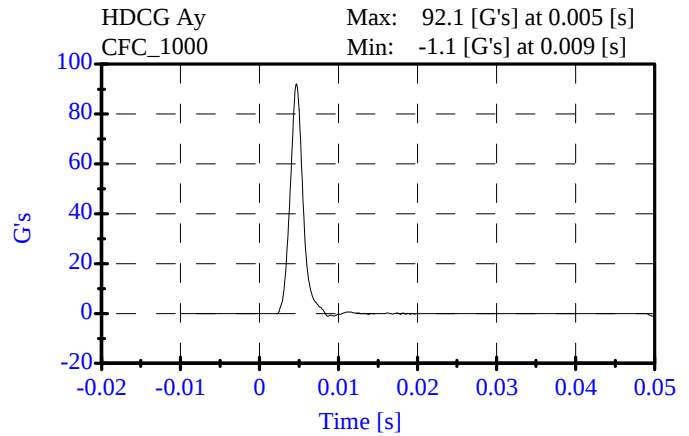
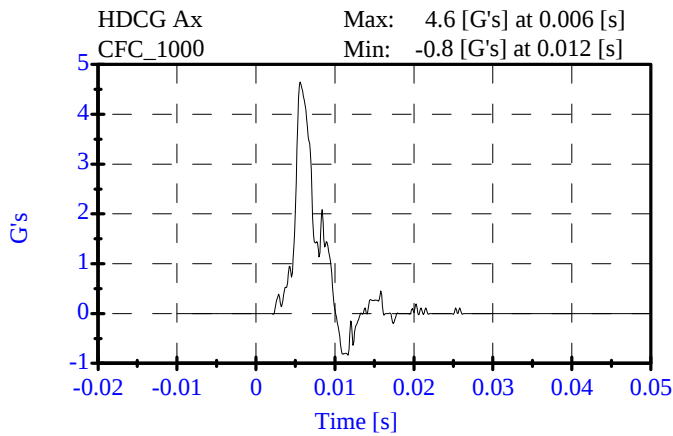
Head Drop Pre-Test

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 270
Date: March 19, 2004

Sequential Test Number: 1 File: 270H 03-19-04
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	20.6-22.2 C	21.1 C	Passed
Lab Humidity:	10-70 %	33.00 %	Passed
Peak Resultant Accel.:	120-150 Gs	147.28 Gs	Passed
Peak Lateral Accel.:	15 Gs Max	4.65 Gs	Passed
Curve PerCent NonModal:	< 15%	5.65 %	Passed



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

ATD Serial No: 270
Date: March 22, 2004

Sequential Test Number: 1 File: 270N 03-22-04
Laboratory Technician: B. Swiecicki

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	20.6-22.2 C	21.1 C	Passed
Lab Humidity:	10-70 %	30.00 %	Passed
Impact Velocity:	6.89- 7.13 m/s	6.91 m/s	Passed
PENDULUM DELTA V			
Delta V at 10 ms:	1.96- 2.55 m/s	2.04 m/s	Passed
Delta V at 20 ms:	4.12- 5.10 m/s	4.14 m/s	Passed
Delta V at 30 ms:	5.73- 7.01 m/s	5.83 m/s	Passed
Delta V between 40-70 ms:	6.27- 7.64 m/s	7.02 m/s	Passed
D PLANE ROTATION			
Maximum Rotation:	64.0-78.0 Deg	69.47 Deg	Passed
Rotation Angle Decay:	50.0-70.0 ms	59.70 ms	Passed
MOMENT ABOUT THE OCCIPITAL CONDYLE			
Max Occipital Moment:	88.00-108.00 N-m	90.97 N-m	Passed
Occipital Moment Decay:	40.0-60.0 ms	53.70 ms	Passed
HEAD ROTATION TIME WITH RESPECT TO THE OCCIPITAL CONDYLE MOMENT			
Moment to Rotation Peak:	0.0-20.0 ms	9.70 ms	Passed

Neck Test

Pre-Test

CONFIGURED FOR LEFT SIDE IMPACT

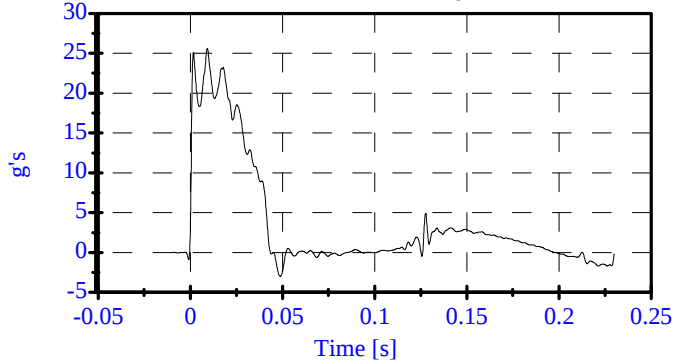
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Date: March 22, 2004

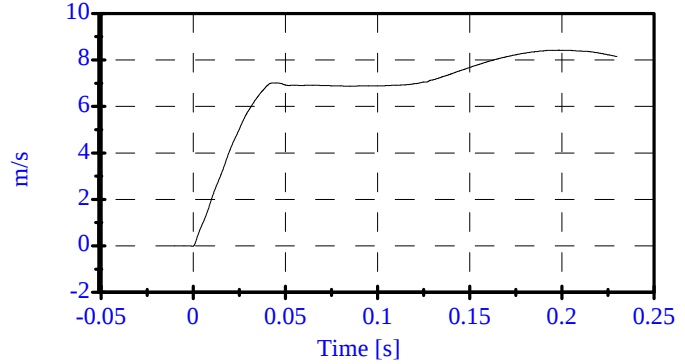
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Laboratory Technician: B. Swiecicki

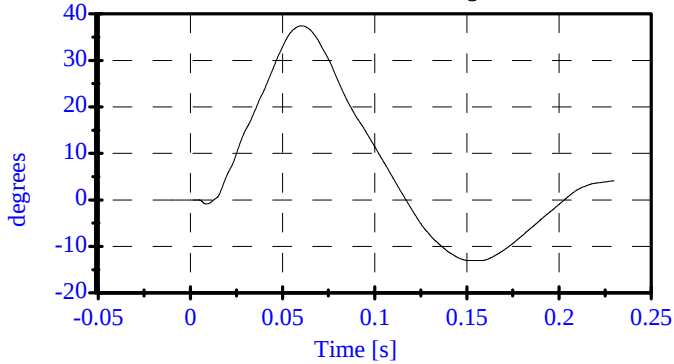
Pend Ax
CFC_180
Max: 25.6 [g's] at 0.009 [s]
Min: -3.0 [g's] at 0.049 [s]



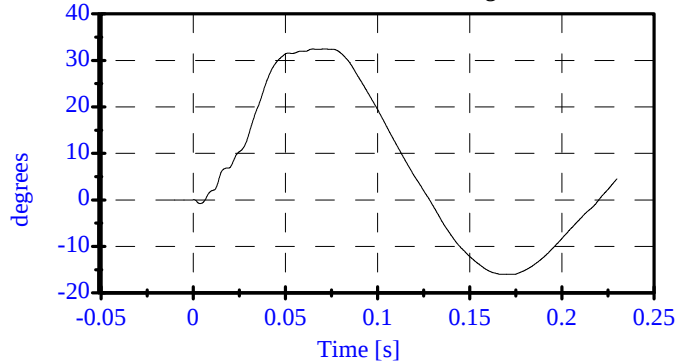
Pend Vx
CFC_180
Max: 8.4 [m/s] at 0.198 [s]
Min: -0.0 [m/s] at -0.000 [s]



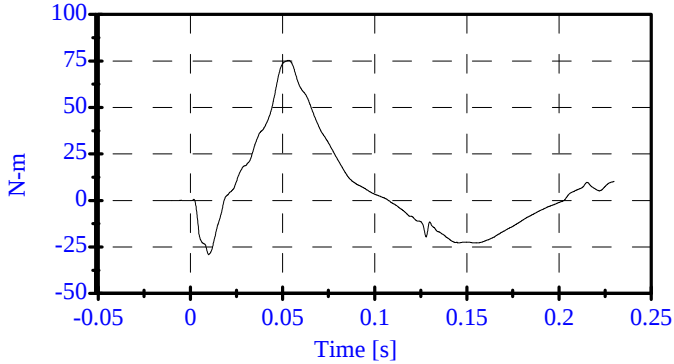
Head Rot
CFC_180
Max: 37.4 [degrees] at 0.060 [s]
Min: -13.1 [degrees] at 0.153 [s]



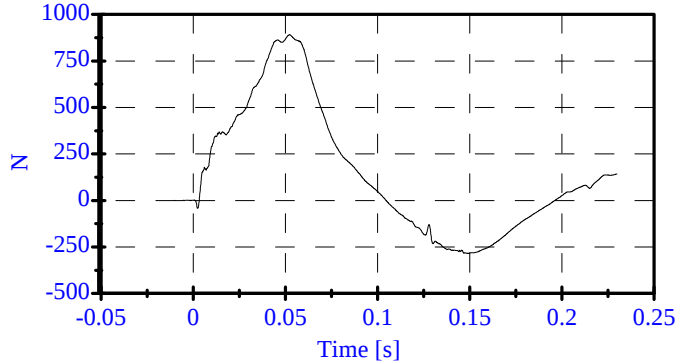
Arm Rot
CFC_180
Max: 32.5 [degrees] at 0.065 [s]
Min: -16.0 [degrees] at 0.169 [s]



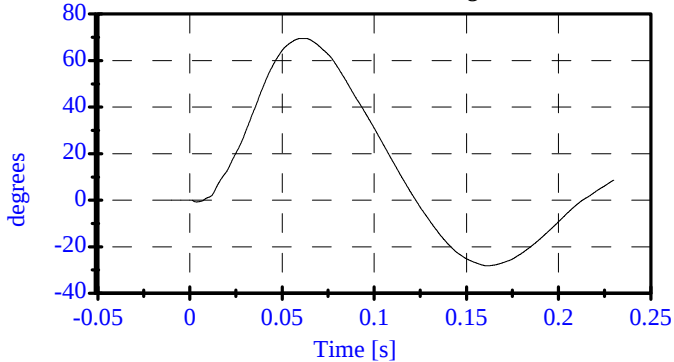
Neck Mx
CFC_600
Max: 75.3 [N-m] at 0.053 [s]
Min: -29.1 [N-m] at 0.010 [s]



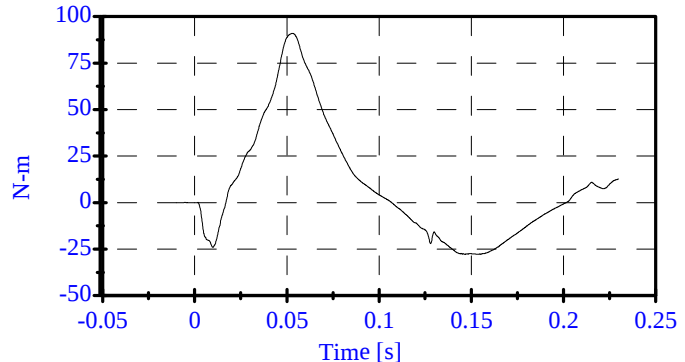
Neck Fy
CFC_1000
Max: 890.7 [N] at 0.052 [s]
Min: -285.0 [N] at 0.148 [s]



Tot Rot
CFC_180
Max: 69.5 [degrees] at 0.063 [s]
Min: -28.2 [degrees] at 0.161 [s]



Mocy
Max: 91.0 [N-m] at 0.053 [s]
Min: -27.7 [N-m] at 0.146 [s]



**ABDOMINAL COMPRESSION TEST
PRE-TEST**

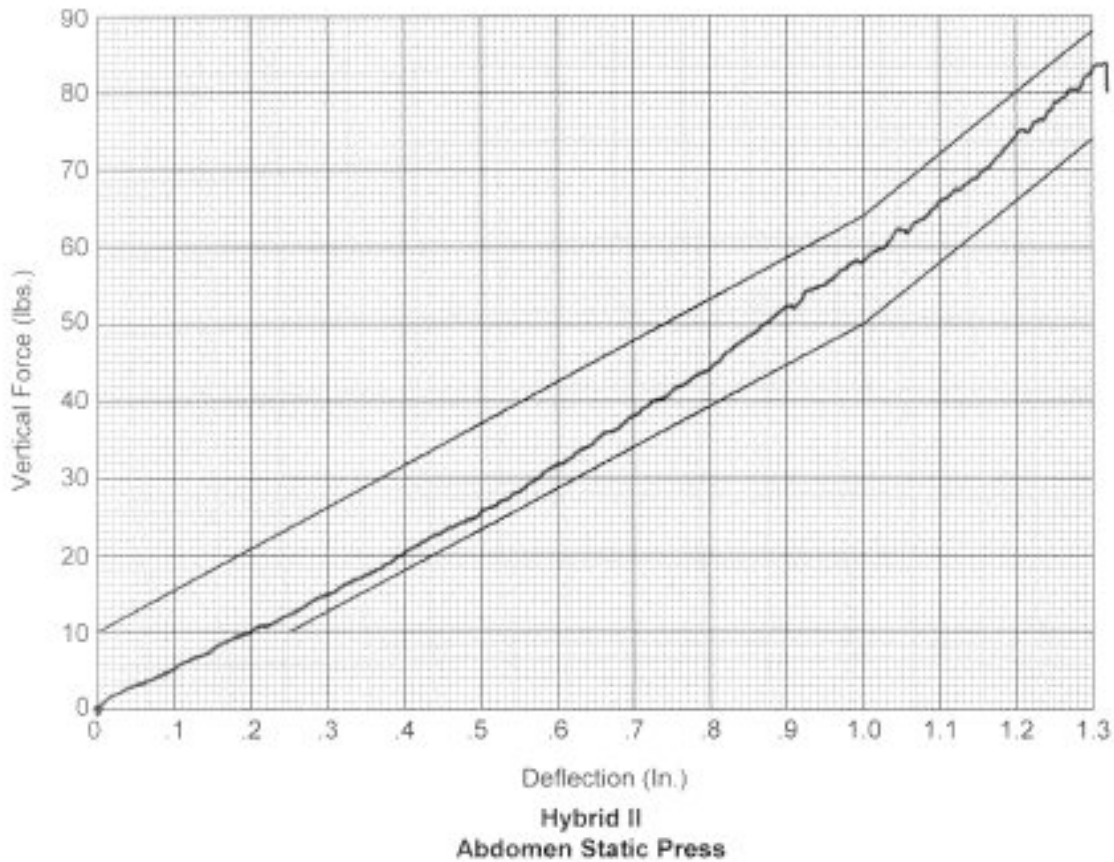
(Test not required for SID certification)

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 270	Sequential Test Number: 1	
Date: March 22, 2004	Laboratory Technician: B. Swiecicki	

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	28
FORCE @ 13 mm (N)	104 - 162	115.7
FORCE @ 19 mm (N)	163 - 221	182.4
FORCE @ 25 mm (N)	222 - 280	258.0
FORCE @ 33 mm (N)	325 - 391	369.2

REMARKS: None



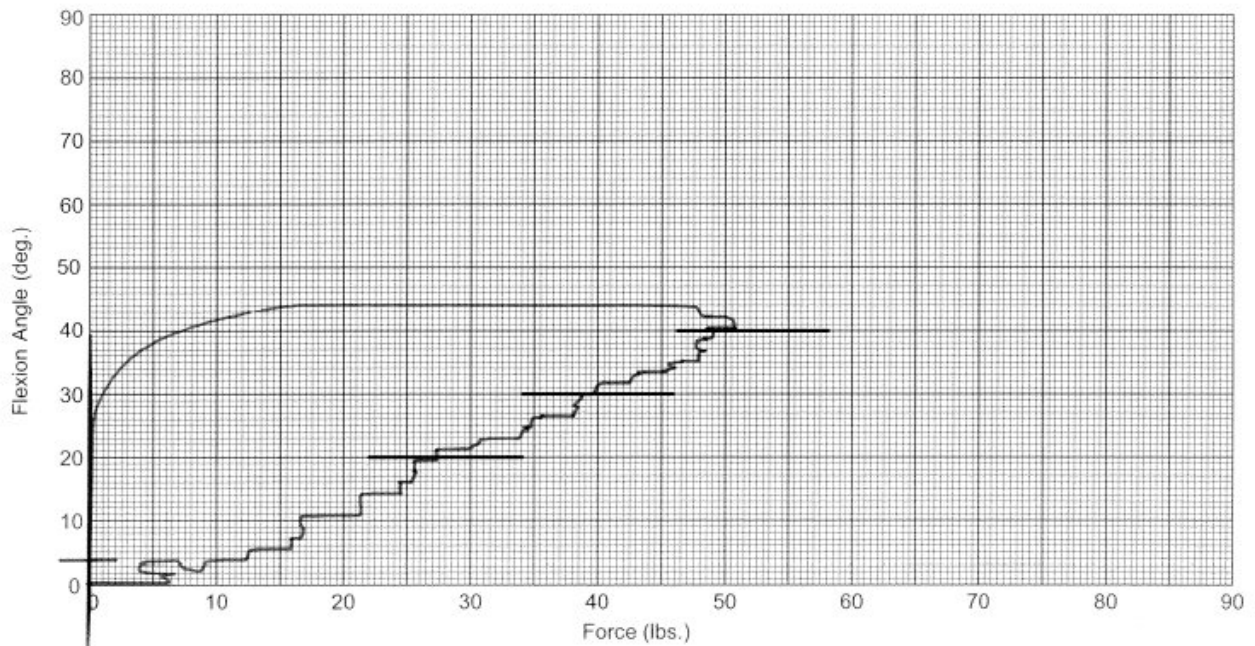
LUMBAR FLEXION TEST
PRE-TEST
(Test not required for SID certification)

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 270	Sequential Test Number: 1	
Date: March 22, 2004	Laboratory Technician: B. Swiecicki	

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	28.0
FORCE @ 0° (N)	0 - 26.7	0
FORCE @ 20° (N)	97.8 - 151.2	120.1
FORCE @ 30° (N)	151.2 - 204.6	169.0
FORCE @ 40° (N)	204.6 - 258	213.5
RETURN ANGLE	12° max.	4

REMARKS: None



Hybrid II Lumbar Spine Flexion Test

PRE-TEST DUMMY INSPECTION LIST
CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 270 Sequential Test Number: 1
Date: March 22, 2004 Laboratory Technician: B. Swiecicki

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

REMARKS: None

CALIBRATION TEST RESULTS

POST TEST

SID H3 NO.: 269

CONFIGURED FOR LEFT SIDE IMPACT

**CALIBRATION TEST RESULTS SUMMARY
POST TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 269 Sequential Test Number: 2
Date: March 30, 2004 Laboratory Technician: B. Swiecicki

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

* Test not required for SID certification.

REMARKS: None

**EXTERNAL DIMENSIONS
POST TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 269 Sequential Test Number: 2
Date: March 30, 2004 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
SH- Seated Height (mm)	889 - 909	904
RH- Rib Height (mm)	502 - 520	505
HP- Hip Pivot Height (mm)	99 ref.	99
RD- Rib from Back Line (mm)	229 - 241	234
KH- Knee Pivot from Back Line (mm)	511 - 526	518
KV- Knee Pivot to Floor (mm)	490 - 505	495
HW- Hip Width (mm)	356 - 391	371

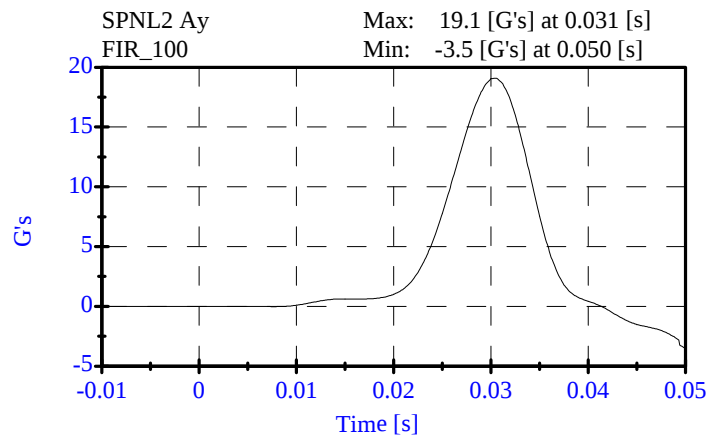
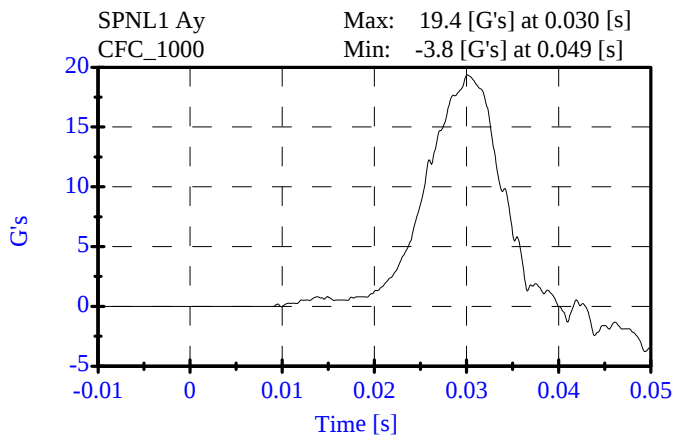
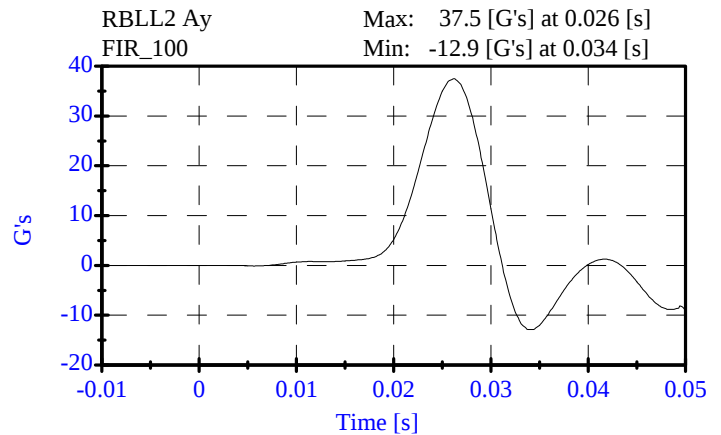
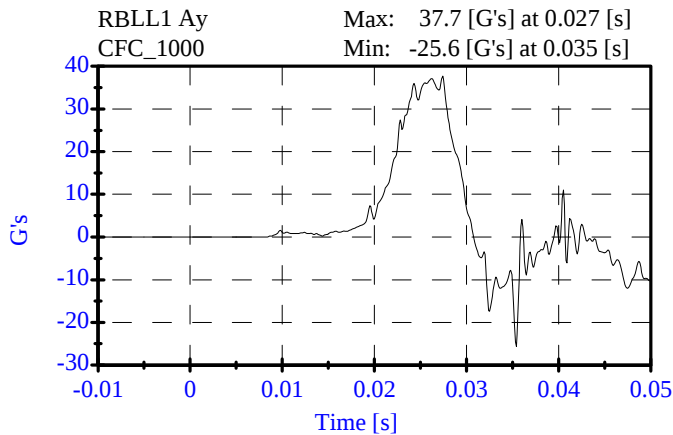
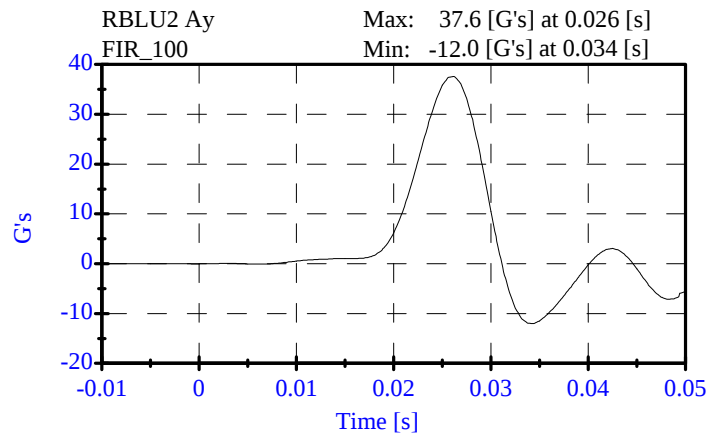
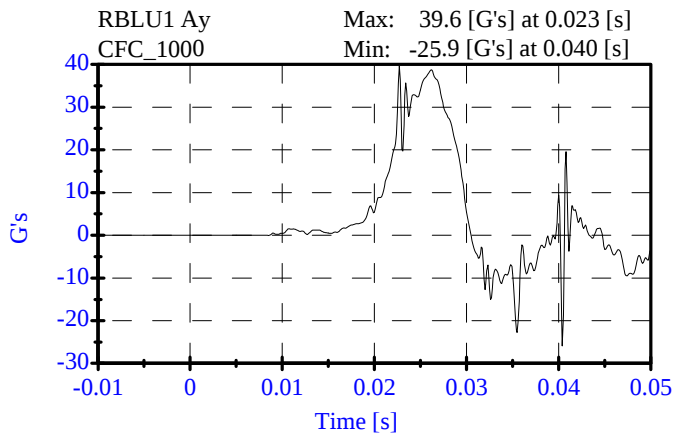
REMARKS: None

Thorax Impact
Post-Test
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269
Date: March 30, 2004

Sequential Test Number: 1 File: 269T 03-30-04
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	31.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.29 m/s	Passed
Upper Rib Acceleration:	37.00-46.00 G's	37.57 G's	Passed
Lower Rib Acceleration:	37.00-46.00 G's	37.50 G's	Passed
Lower Spine Acceleration:	15.00-22.00 G's	19.09 G's	Passed



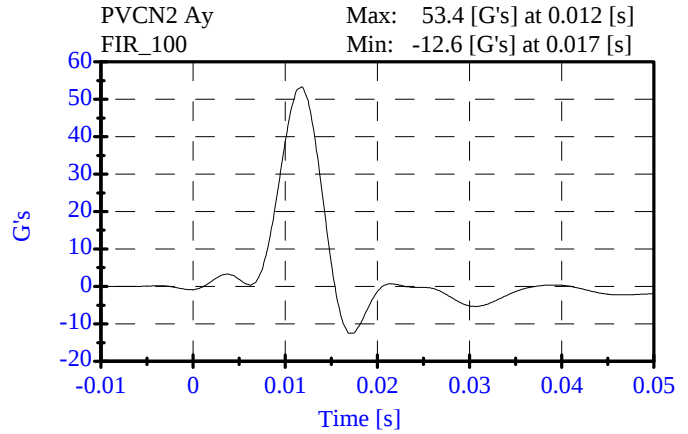
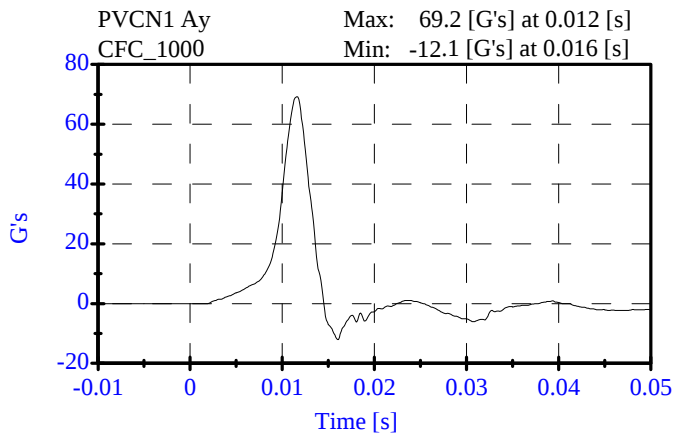
**Pelvic Impact
Post-Test**

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269
Date: March 30, 2004

Sequential Test Number: 1 File: 269P 03-30-04
Laboratory Technician: B. Swiecicki

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	31.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.31 m/s	Passed
Pelvis Y Acceleration:	40.00-60.00 G's	53.37 G's	Passed



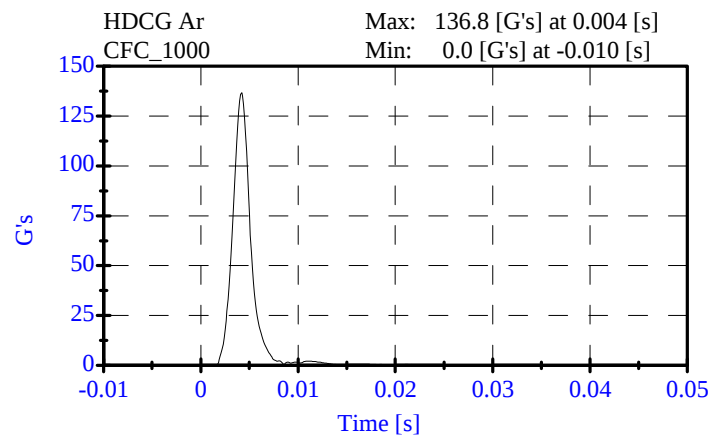
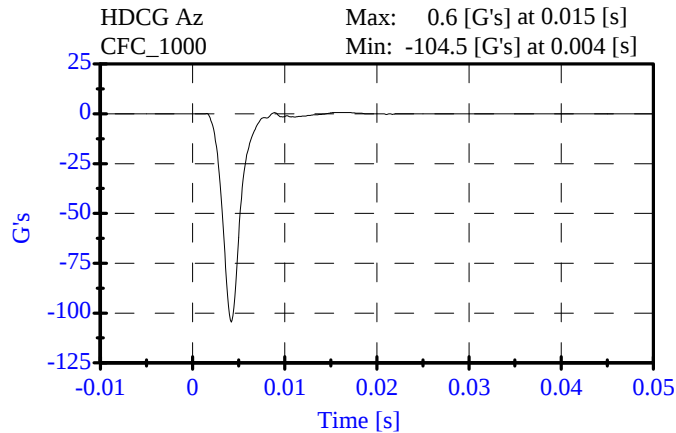
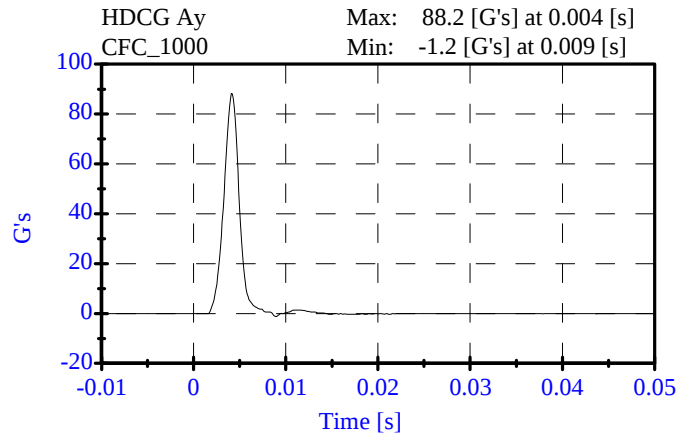
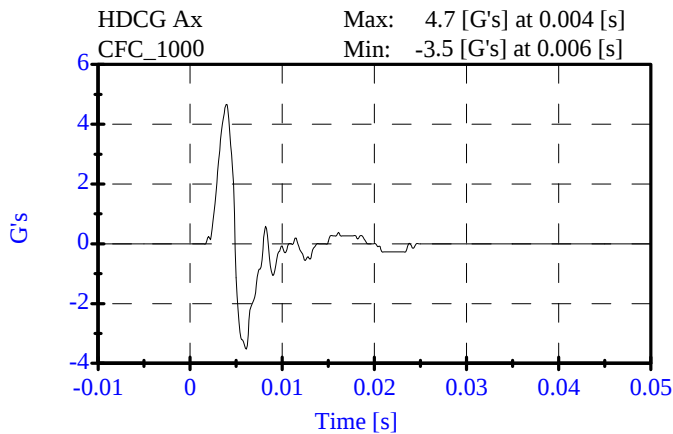
Head Drop Post-Test

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 269
Date: March 29, 2004

Sequential Test Number: 1 File: 269H1 03-29-04
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	20.6-22.2 C	21.1 C	Passed
Lab Humidity:	10-70 %	28.00 %	Passed
Peak Resultant Accel.:	120-150 Gs	136.77 Gs	Passed
Peak Lateral Accel.:	15 Gs Max	4.66 Gs	Passed
Curve PerCent NonModal:	< 15%	1.65 %	Passed



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

ATD Serial No: 269
Date: March 30, 2004

Sequential Test Number: 1 File: 269N 03-30-04
Laboratory Technician: B. Swiecicki

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	20.6-22.2 C	21.1 C	Passed
Lab Humidity:	10-70 %	31.00 %	Passed
Impact Velocity:	6.89- 7.13 m/s	6.98 m/s	Passed
PENDULUM DELTA V			
Delta V at 10 ms:	1.96- 2.55 m/s	2.06 m/s	Passed
Delta V at 20 ms:	4.12- 5.10 m/s	4.21 m/s	Passed
Delta V at 30 ms:	5.73- 7.01 m/s	5.99 m/s	Passed
Delta V between 40-70 ms:	6.27- 7.64 m/s	7.08 m/s	Passed
D PLANE ROTATION			
Maximum Rotation:	64.0-78.0 Deg	71.77 Deg	Passed
Rotation Angle Decay:	50.0-70.0 ms	59.00 ms	Passed
MOMENT ABOUT THE OCCIPITAL CONDYLE			
Max Occipital Moment:	88.00-108.00 N-m	89.95 N-m	Passed
Occipital Moment Decay:	40.0-60.0 ms	55.70 ms	Passed
HEAD ROTATION TIME WITH RESPECT TO THE OCCIPITAL CONDYLE MOMENT			
Moment to Rotation Peak:	0.0-20.0 ms	11.20 ms	Passed

Neck Test

Post-Test

CONFIGURED FOR LEFT SIDE IMPACT

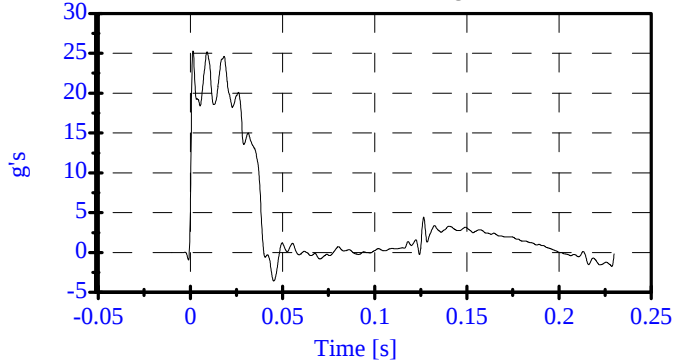
ATD Serial No: 269

Date: March 30, 2004

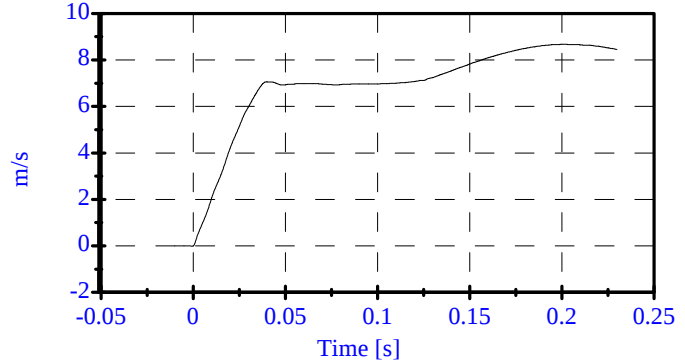
Sequential Test Number: 1 File: 269N 03-30-04

Laboratory Technician: B. Swiecicki

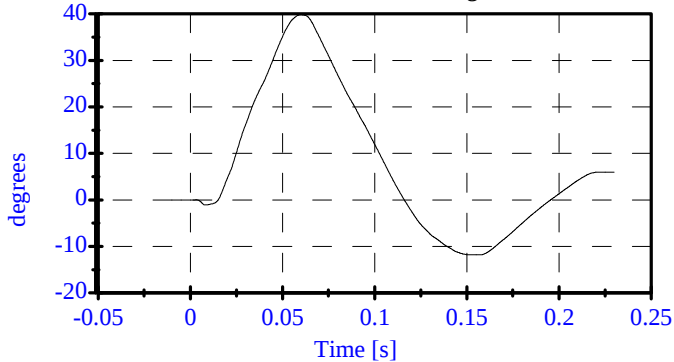
Pend Ax
CFC_180
Max: 25.3 [g's] at 0.002 [s]
Min: -3.6 [g's] at 0.045 [s]



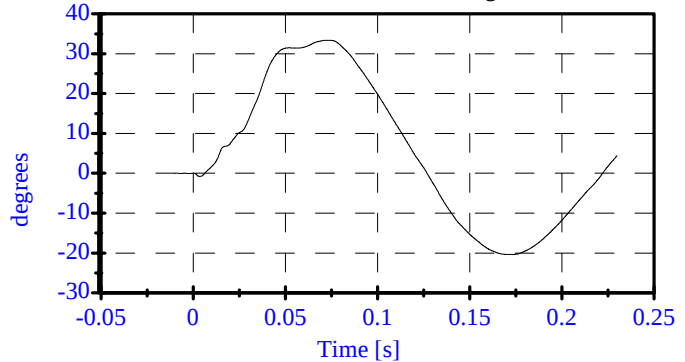
Pend Vx
CFC_180
Max: 8.7 [m/s] at 0.201 [s]
Min: -0.0 [m/s] at -0.001 [s]



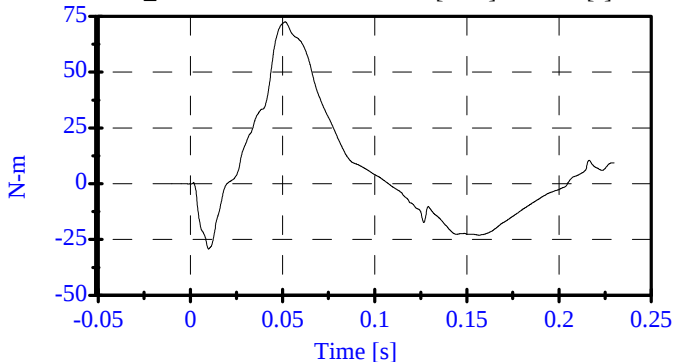
Head Rot
CFC_180
Max: 39.8 [degrees] at 0.060 [s]
Min: -11.8 [degrees] at 0.153 [s]



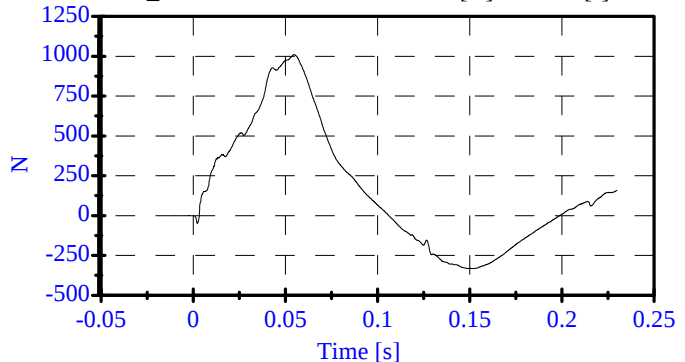
Arm Rot
CFC_180
Max: 33.4 [degrees] at 0.071 [s]
Min: -20.3 [degrees] at 0.170 [s]



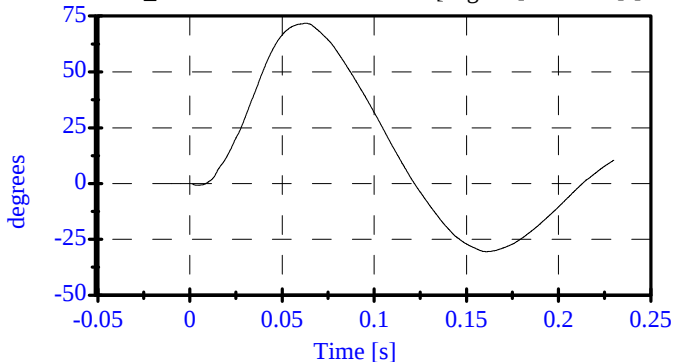
Neck Mx
CFC_600
Max: 72.6 [N-m] at 0.052 [s]
Min: -29.2 [N-m] at 0.010 [s]



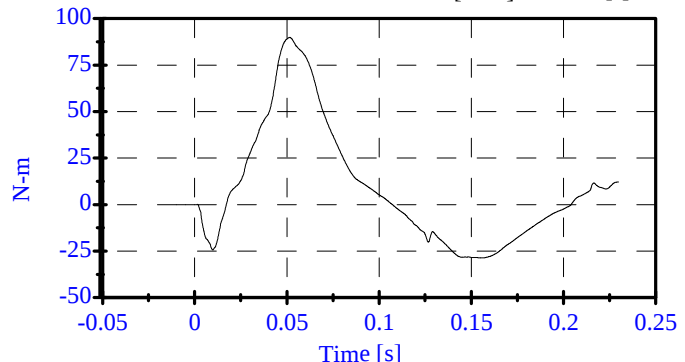
Neck Fy
CFC_1000
Max: 1009.5 [N] at 0.055 [s]
Min: -331.8 [N] at 0.152 [s]



Tot Rot
CFC_180
Max: 71.8 [degrees] at 0.063 [s]
Min: -30.5 [degrees] at 0.161 [s]



Mocy
Max: 90.0 [N-m] at 0.052 [s]
Min: -28.6 [N-m] at 0.155 [s]



**ABDOMINAL COMPRESSION TEST
POST TEST**

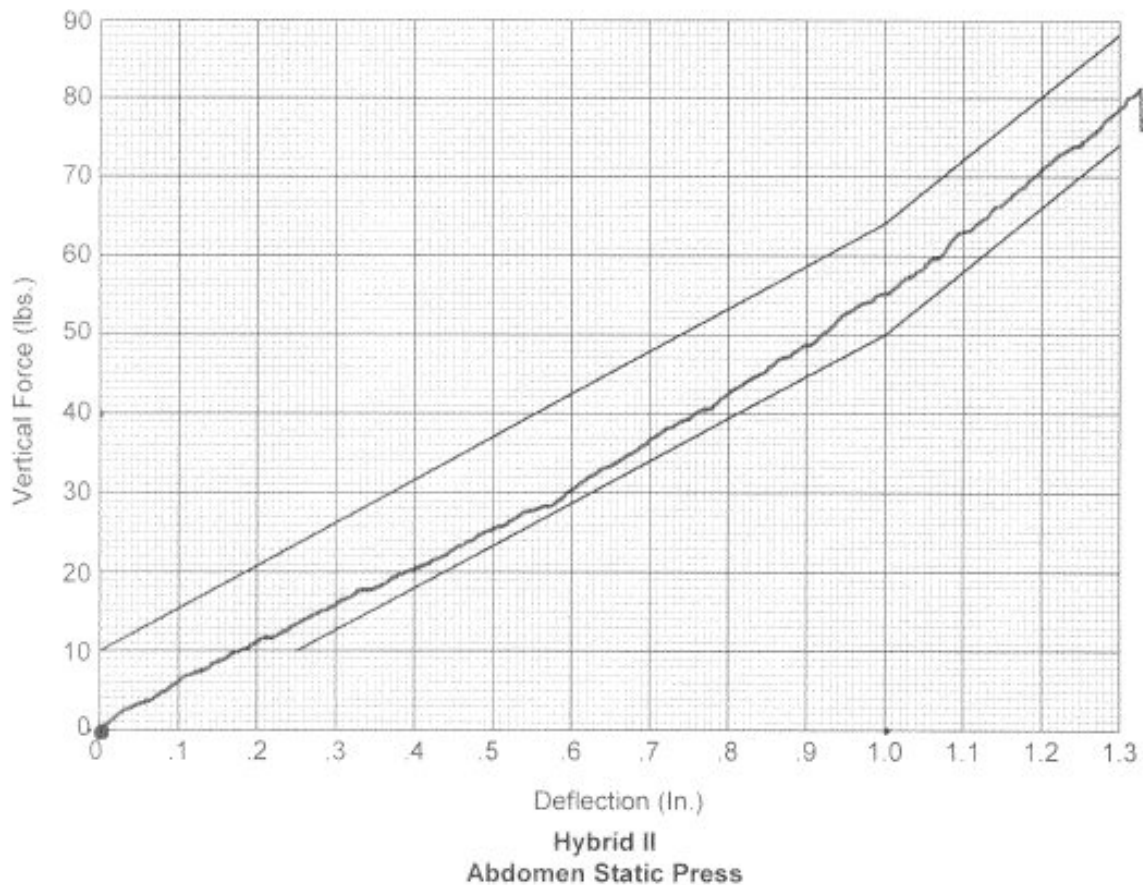
(Test not required for SID certification)

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 269 Sequential Test Number: 2
Date: March 30, 2004 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	31.0
FORCE @ 13 mm (N)	104 - 162	115.7
FORCE @ 19 mm (N)	163 - 221	175.7
FORCE @ 25 mm (N)	222 - 280	246.9
FORCE @ 33 mm (N)	325 - 391	349.2

REMARKS: None



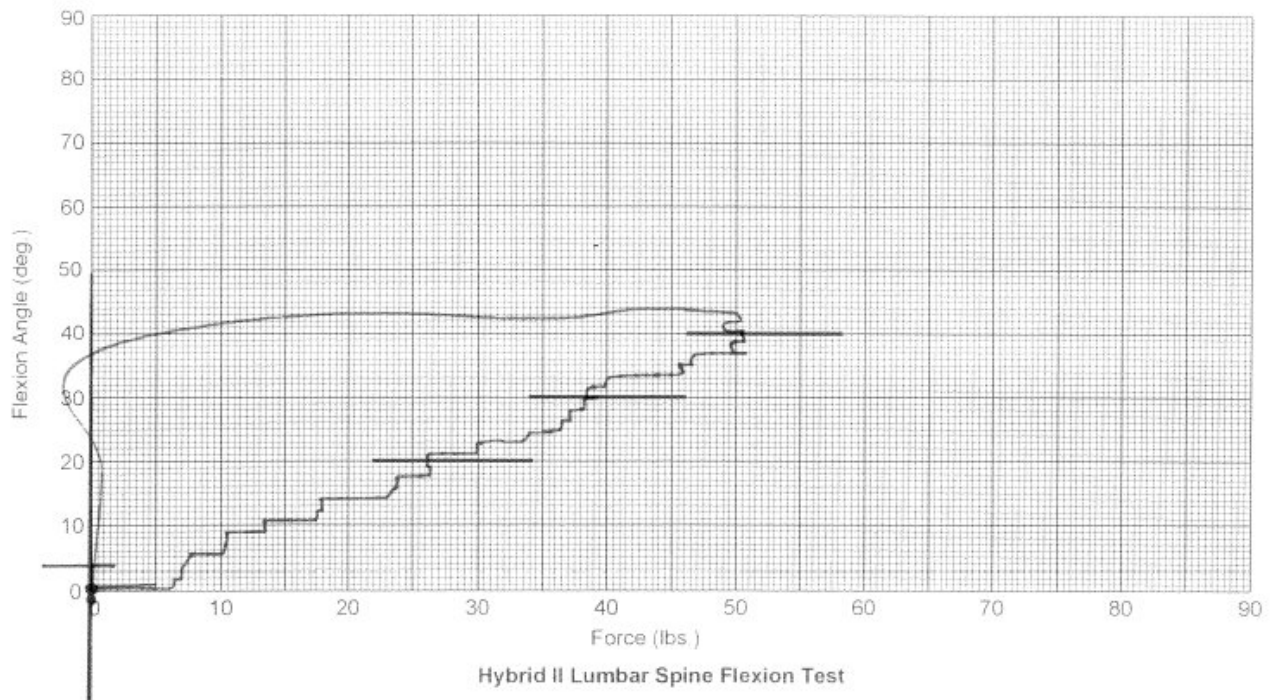
LUMBAR FLEXION TEST
POST TEST
(Test not required for SID certification)

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: <u>269</u>	Sequential Test Number: <u>2</u>	
Date: <u>March 30, 2004</u>	Laboratory Technician: <u>B. Swiecicki</u>	

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	31.0
FORCE @ 0° (N)	0 - 26.7	0.0
FORCE @ 20° (N)	97.8 - 151.2	115.7
FORCE @ 30° (N)	151.2 - 204.6	169.0
FORCE @ 40° (N)	204.6 - 258	224.6
RETURN ANGLE	12° max.	4°

REMARKS: None



POST TEST DUMMY INSPECTION LIST
CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 269 Sequential Test Number: 2
Date: March 30, 2004 Laboratory Technician: B. Swiecicki

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

REMARKS: None

CALIBRATION TEST RESULTS

POST TEST

SID H3 NO.: 270

CONFIGURED FOR LEFT SIDE IMPACT

**CALIBRATION TEST RESULTS SUMMARY
POST TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 270 Sequential Test Number: 2
Date: March 30, 2004 Laboratory Technician: B. Swiecicki

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

* Test not required for SID certification.

REMARKS: None

**EXTERNAL DIMENSIONS
POST TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 270 Sequential Test Number: 2
Date: March 30, 2004 Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
SH- Seated Height (mm)	889 - 909	902
RH- Rib Height (mm)	502 - 520	506
HP- Hip Pivot Height (mm)	99 ref.	99
RD- Rib from Back Line (mm)	229 - 241	234
KH- Knee Pivot from Back Line (mm)	511 - 526	516
KV- Knee Pivot to Floor (mm)	490 - 505	495
HW- Hip Width (mm)	356 - 391	376

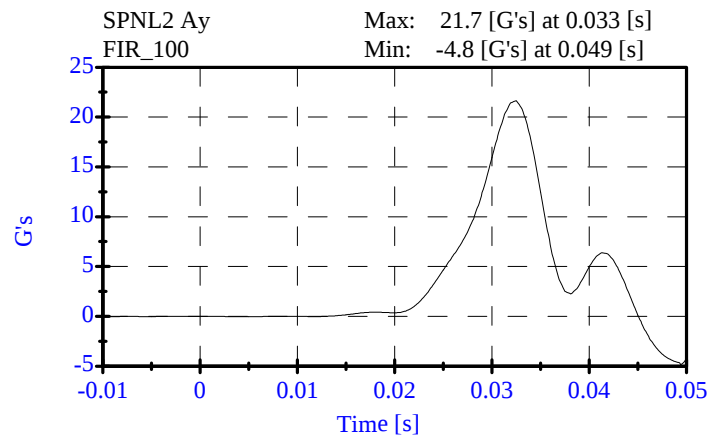
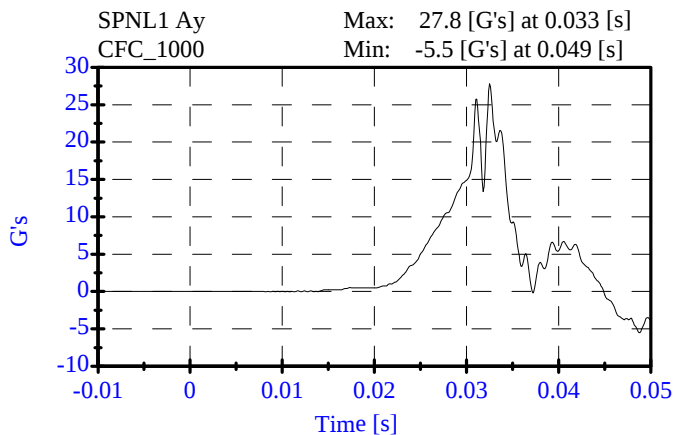
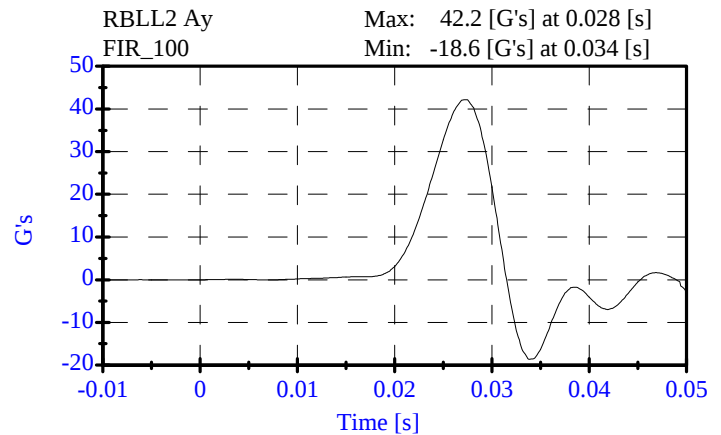
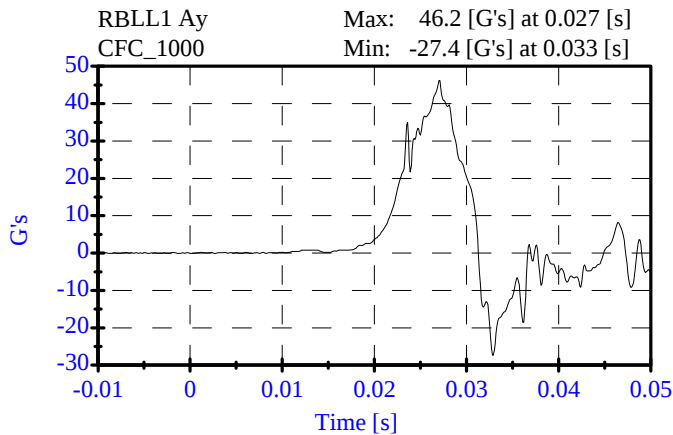
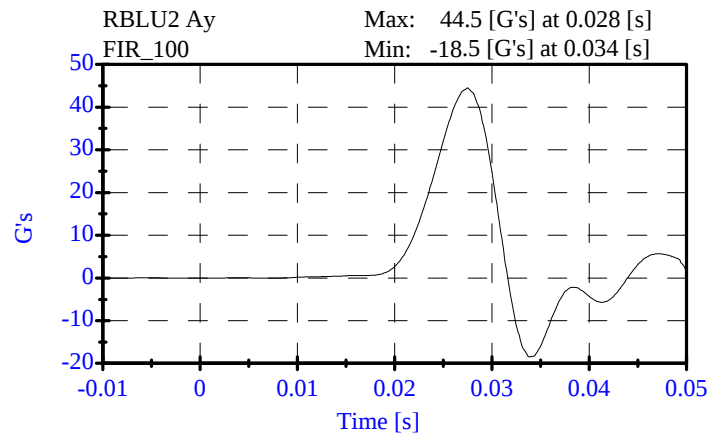
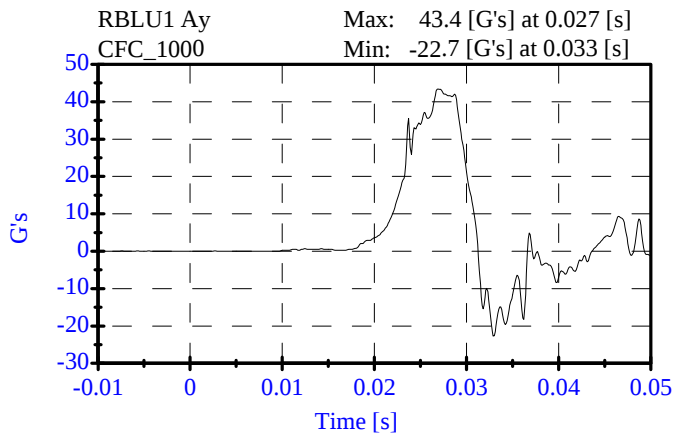
REMARKS: None

Thorax Impact
Post-Test
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 270
Date: March 30, 2004

Sequential Test Number: 1 File: 270T 03-30-04
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	31.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.29 m/s	Passed
Upper Rib Acceleration:	37.00-46.00 G's	44.50 G's	Passed
Lower Rib Acceleration:	37.00-46.00 G's	42.18 G's	Passed
Lower Spine Acceleration:	15.00-22.00 G's	21.68 G's	Passed



Pelvic Impact

Post-Test

CONFIGURED FOR LEFT SIDE IMPACT

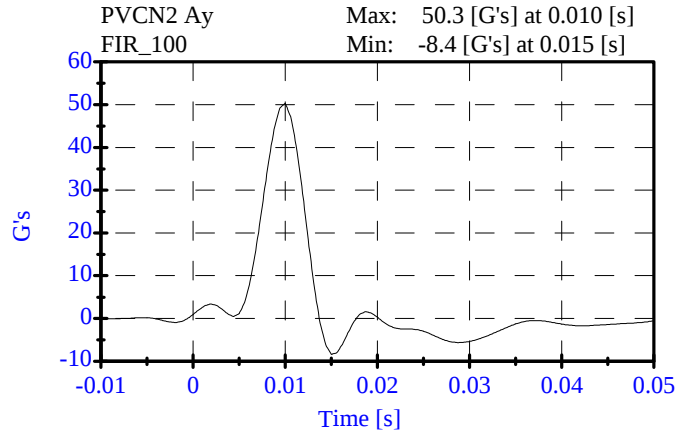
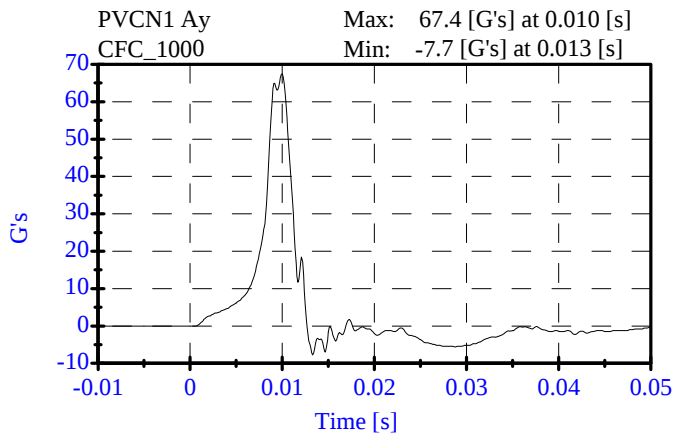
ATD Serial No: 270

Date: March 30, 2004

Sequential Test Number: 1 File: 270P 03-30-04

Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	31.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.30 m/s	Passed
Pelvis Y Acceleration:	40.00-60.00 G's	50.33 G's	Passed



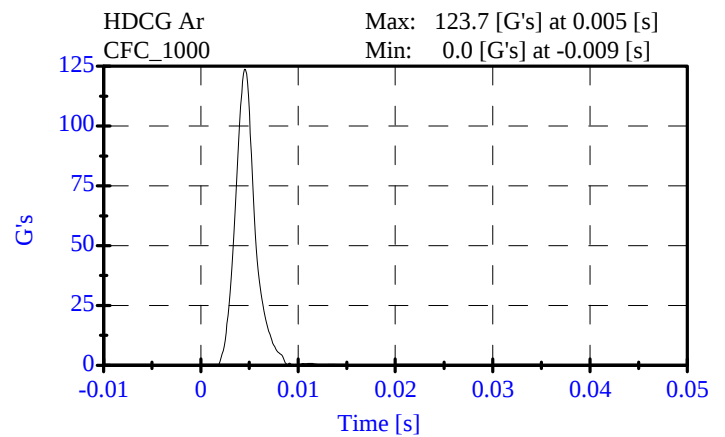
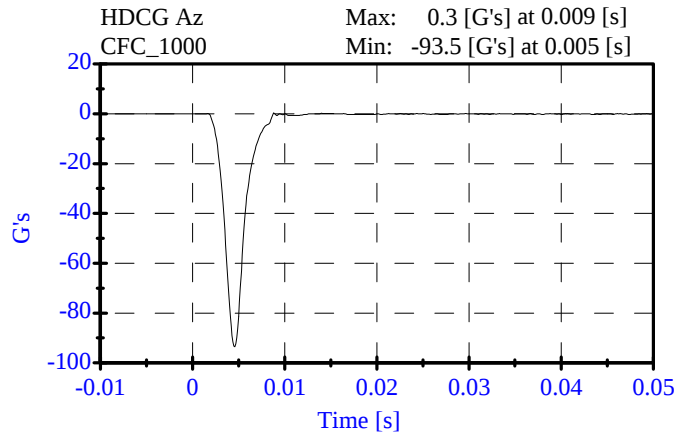
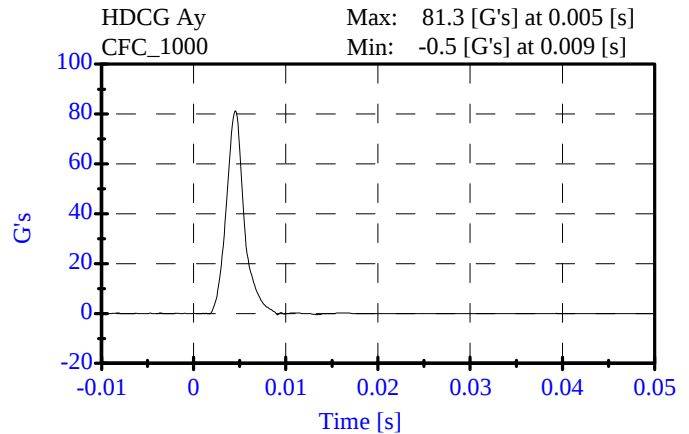
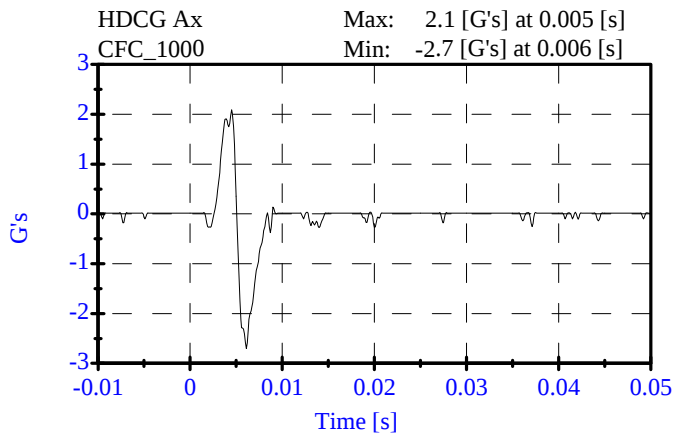
Head Drop Post-Test

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 270
Date: March 26, 2004

Sequential Test Number: 1 File: 270H1 03-26-04
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	20.6-22.2 C	21.1 C	Passed
Lab Humidity:	10-70 %	33.00 %	Passed
Peak Resultant Accel.:	120-150 Gs	123.73 Gs	Passed
Peak Lateral Accel.:	15 Gs Max	2.09 Gs	Passed
Curve PerCent NonModal:	< 15%	0.76 %	Passed



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

ATD Serial No: 270
Date: March 29, 2004

Sequential Test Number: 1 File: 270N 03-29-04
Laboratory Technician: B. Swiecicki

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	20.6-22.2 C	21.1 C	Passed
Lab Humidity:	10-70 %	28.00 %	Passed
Impact Velocity:	6.89- 7.13 m/s	6.95 m/s	Passed
PENDULUM DELTA V			
Delta V at 10 ms:	1.96- 2.55 m/s	1.98 m/s	Passed
Delta V at 20 ms:	4.12- 5.10 m/s	4.17 m/s	Passed
Delta V at 30 ms:	5.73- 7.01 m/s	6.02 m/s	Passed
Delta V between 40-70 ms:	6.27- 7.64 m/s	7.02 m/s	Passed
D PLANE ROTATION			
Maximum Rotation:	64.0-78.0 Deg	71.65 Deg	Passed
Rotation Angle Decay:	50.0-70.0 ms	59.00 ms	Passed
MOMENT ABOUT THE OCCIPITAL CONDYLE			
Max Occipital Moment:	88.00-108.00 N-m	89.04 N-m	Passed
Occipital Moment Decay:	40.0-60.0 ms	54.00 ms	Passed
HEAD ROTATION TIME WITH RESPECT TO THE OCCIPITAL CONDYLE MOMENT			
Moment to Rotation Peak:	0.0-20.0 ms	10.50 ms	Passed

Neck Test

Post-Test

CONFIGURED FOR LEFT SIDE IMPACT

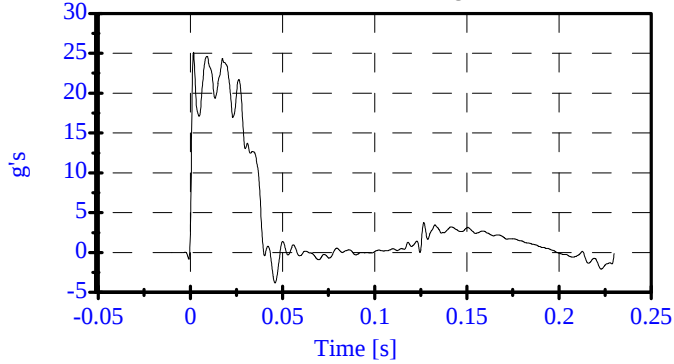
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Date: March 29, 2004

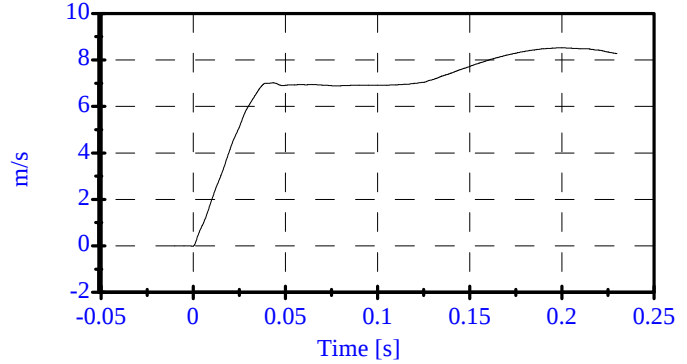
Sequential Test Number: 1 File: 270N 03-29-04

Laboratory Technician: B. Swiecicki

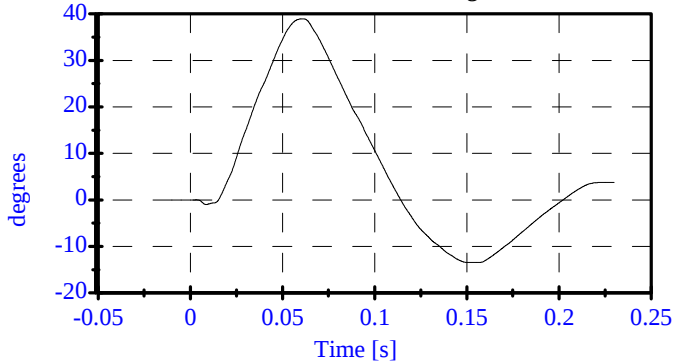
Pend Ax
CFC_180
Max: 25.1 [g's] at 0.002 [s]
Min: -3.8 [g's] at 0.046 [s]



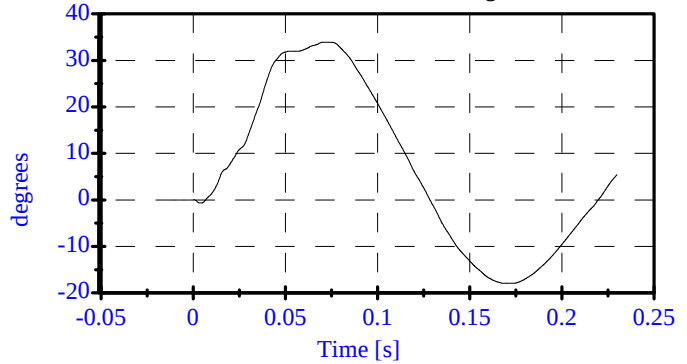
Pend Vx
CFC_180
Max: 8.5 [m/s] at 0.199 [s]
Min: -0.0 [m/s] at -0.000 [s]



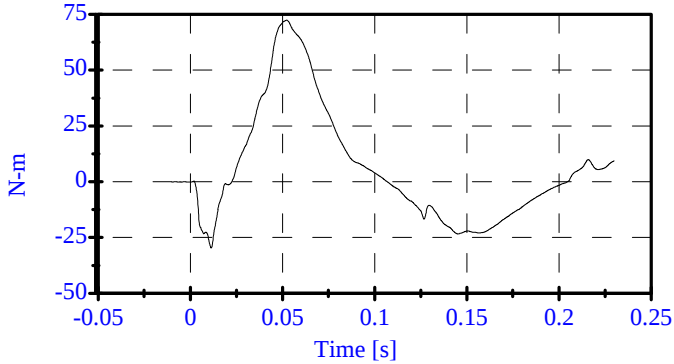
Head Rot
CFC_180
Max: 38.9 [degrees] at 0.061 [s]
Min: -13.4 [degrees] at 0.156 [s]



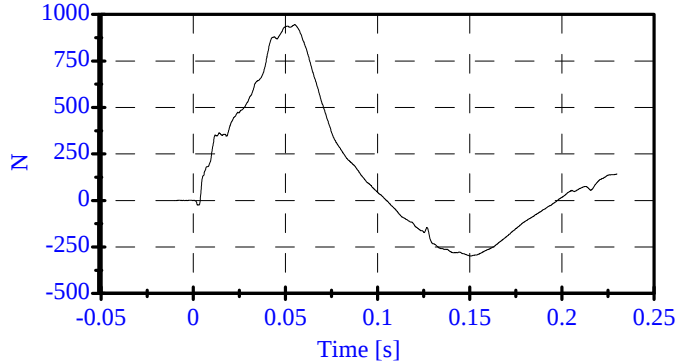
Arm Rot
CFC_180
Max: 33.9 [degrees] at 0.071 [s]
Min: -17.9 [degrees] at 0.169 [s]



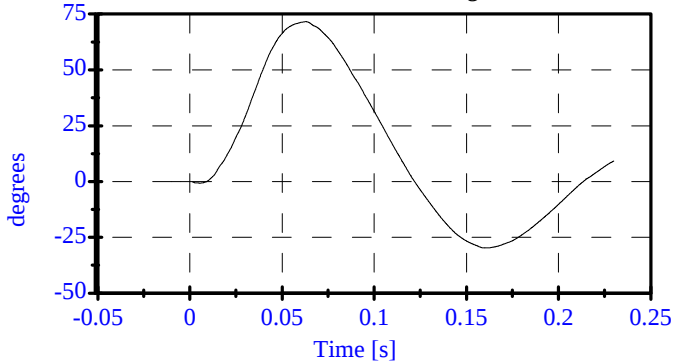
Neck Mx
CFC_600
Max: 72.5 [N-m] at 0.052 [s]
Min: -29.6 [N-m] at 0.011 [s]



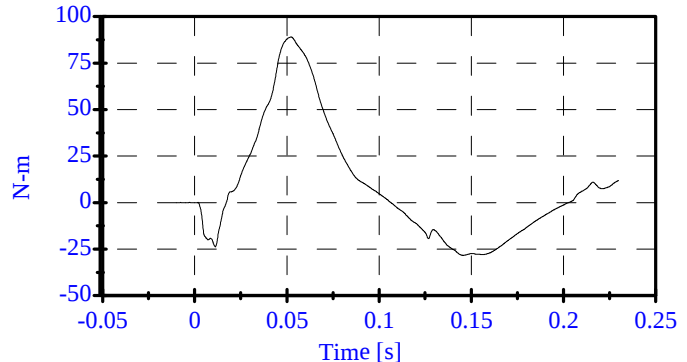
Neck Fy
CFC_1000
Max: 945.2 [N] at 0.055 [s]
Min: -298.8 [N] at 0.151 [s]



Tot Rot
CFC_180
Max: 71.6 [degrees] at 0.063 [s]
Min: -29.7 [degrees] at 0.160 [s]



Mocy
Max: 89.0 [N-m] at 0.052 [s]
Min: -28.4 [N-m] at 0.146 [s]



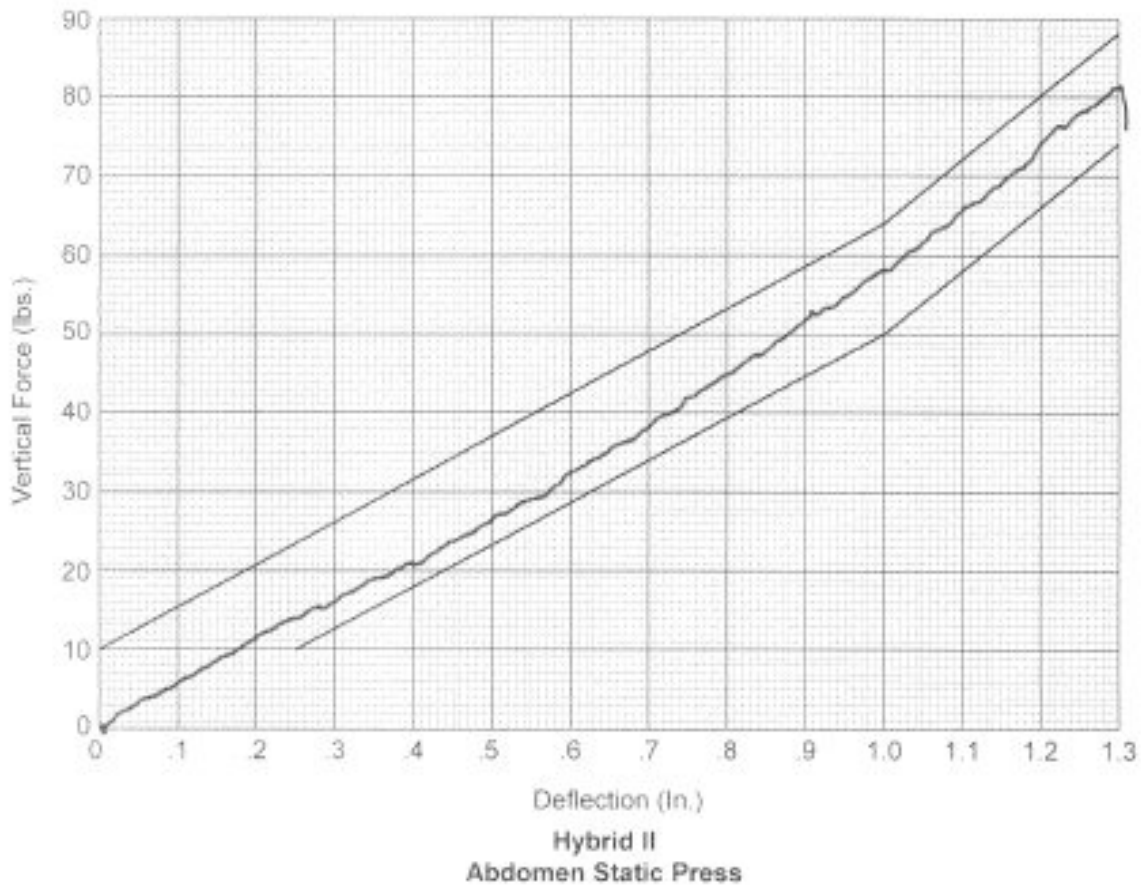
ABDOMINAL COMPRESSION TEST
POST TEST
 (Test not required for SID certification)

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: <u>270</u>	Sequential Test Number: <u>2</u>	
Date: <u>March 30, 2004</u>	Laboratory Technician: <u>B. Swiecicki</u>	

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	31.0
FORCE @ 13 mm (N)	104 - 162	120.1
FORCE @ 19 mm (N)	163 - 221	191.3
FORCE @ 25 mm (N)	222 - 280	258.0
FORCE @ 33 mm (N)	325 - 391	360.3

REMARKS: None



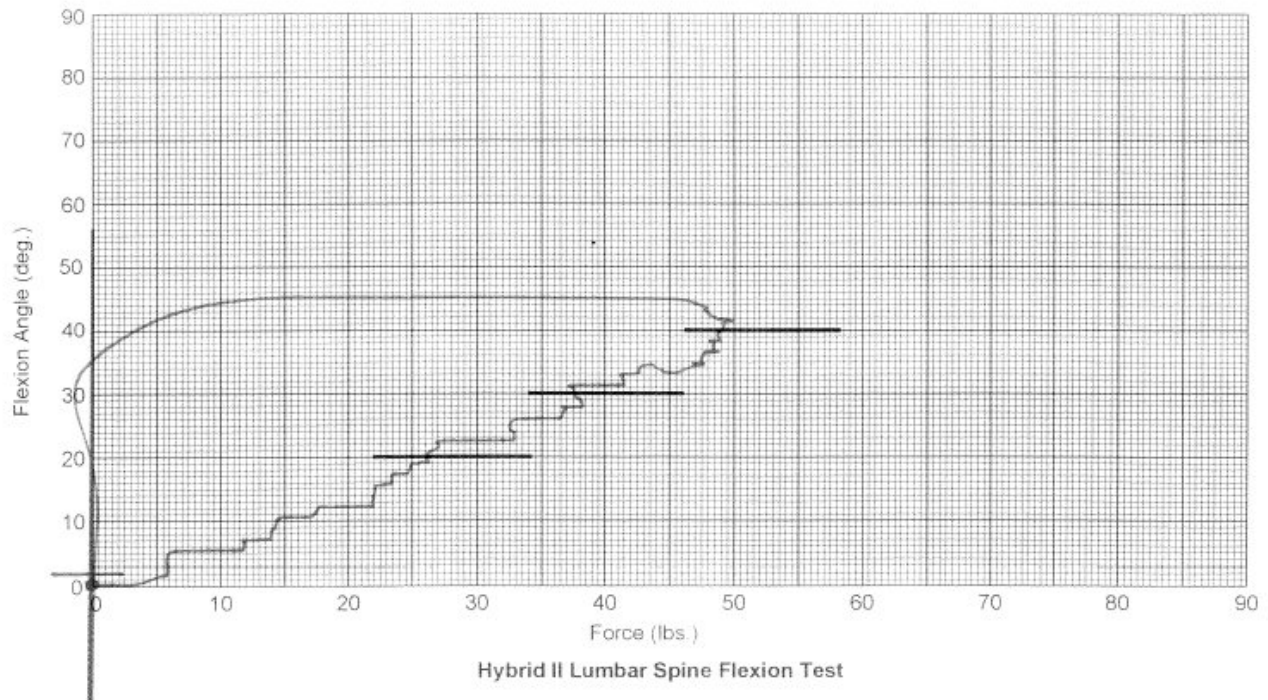
LUMBAR FLEXION TEST
POST TEST
(Test not required for SID certification)

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: <u>270</u>	Sequential Test Number: <u>2</u>	
Date: <u>March 30, 2004</u>	Laboratory Technician: <u>B. Swiecicki</u>	

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	31.0
FORCE @ 0° (N)	0 - 26.7	0.0
FORCE @ 20° (N)	97.8 - 151.2	115.7
FORCE @ 30° (N)	151.2 - 204.6	169.0
FORCE @ 40° (N)	204.6 - 258	218.0
RETURN ANGLE	12° max.	2.0°

REMARKS: None



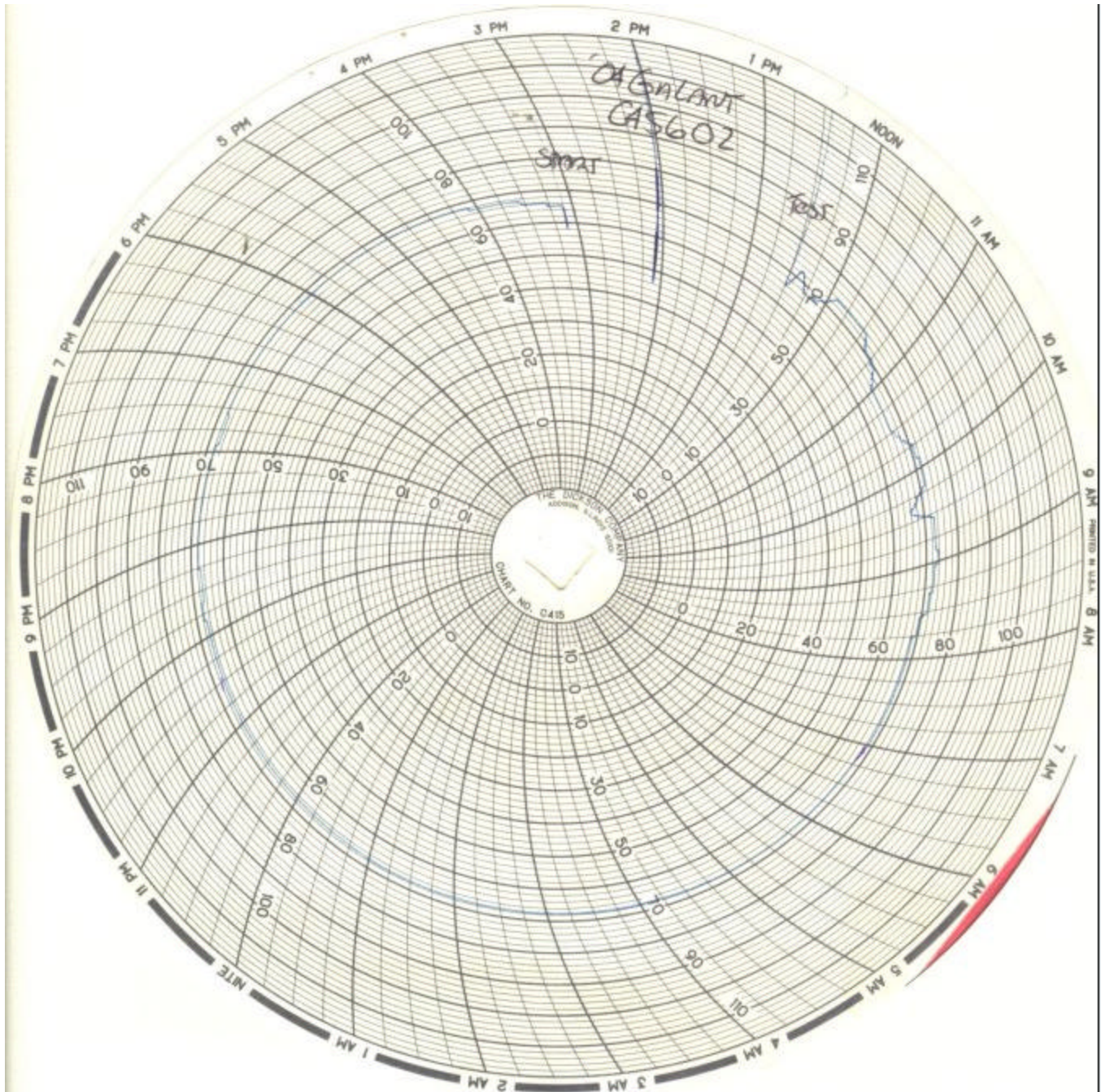
POST TEST DUMMY INSPECTION LIST
CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 270 Sequential Test Number: 2
Date: March 30, 2004 Laboratory Technician: B. Swiecicki

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

REMARKS: None

TEMPERATURE TRACE



APPENDIX D

TEST EQUIPMENT LIST AND CALIBRATION INFORMATION

TEST EQUIPMENT LIST AND CALIBRATION INFORMATION

SID INSTRUMENTATION

	FRONT SID NO.: 269		
	SERIAL NUMBER	MANUFACTURER	CALIBRATION DATE
HEAD AX	ENDEVCO	AC- P23161	30-Sep-03
HEAD AY	ENDEVCO	AC- P24011	18-Oct-03
HEAD AZ	ENDEVCO	AC-P19111	30-Sep-03
UPPER NECK FX	DENTON	LC-440Fx	18-Jun-03
UPPER NECK FY	DENTON	LC-440Fy	18-Jun-03
UPPER NECK FZ	DENTON	LC-440Fz	18-Jun-03
UPPER NECK MX	DENTON	LC-440Mx	18-Jun-03
UPPER NECK MY	DENTON	LC-440My	18-Jun-03
UPPER NECK MZ	DENTON	LC-440Mz	18-Jun-03
UPPER RIB	ENDEVCO	AC-P16862	16-Oct-03
LOWER RIB	ENDEVCO	AC-P16656	16-Oct-03
LOWER SPINE	ENDEVCO	AC-P16866	16-Oct-03
PELVIS	ENDEVCO	AC-P16676	16-Oct-03
UPPER RIB REDUNDANT	ENDEVCO	AC-P23156	16-Oct-03
LOWER RIB REDUNDANT	ENDEVCO	AC-P16645	16-Oct-03
LOWER SPINE REDUNDANT	ENDEVCO	AC-P19343	16-Oct-03
PELVIS REDUNDANT	ENDEVCO	AC-P16843	16-Oct-03

	REAR SID NO.: 270		
	SERIAL NUMBER	MANUFACTURER	CALIBRATION DATE
HEAD AX	ENDEVCO	AC-P23139	30-Sep-03
HEAD AY	ENDEVCO	AC-P13323	30-Sep-03
HEAD AZ	ENDEVCO	AC-P22943	30-Sep-03
UPPER NECK FX	DENTON	LC-205Fx	18-Jun-03
UPPER NECK FY	DENTON	LC-205Fy	18-Jun-03
UPPER NECK FZ	DENTON	LC-205Fz	18-Jun-03
UPPER NECK MX	DENTON	LC-205Mx	18-Jun-03
UPPER NECK MY	DENTON	LC-205My	18-Jun-03
UPPER NECK MZ	DENTON	LC-205Mz	18-Jun-03
UPPER RIB	ENDEVCO	AC-P18524	17-Oct-03
LOWER RIB	ENDEVCO	AC-P18533	17-Oct-03
LOWER SPINE	ENDEVCO	AC-P18514	17-Oct-03
PELVIS	ENDEVCO	AC-P18519	17-Oct-03
UPPER RIB REDUNDANT	ENDEVCO	AC-P18528	17-Oct-03
LOWER RIB REDUNDANT	ENDEVCO	AC-P18518	17-Oct-03
LOWER SPINE REDUNDANT	ENDEVCO	AC-P18688	17-Oct-03
PELVIS REDUNDANT	ENDEVCO	AC-P18531	17-Oct-03

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)	ENDEVCO	AC-P23993	22-Mar-04
RIGHT FRONT SILL (Y)	ENDEVCO	AC-P23999	22-Mar-04
RIGHT FRONT SILL (Z)	ENDEVCO	AC-P23939	22-Mar-04
RIGHT REAR SILL (X)	ENDEVCO	AC-P19246	16-Jan-04
RIGHT REAR SILL (Y)	ENDEVCO	AC-J31034	22-Jan-04
RIGHT REAR SILL (Z)	ENDEVCO	AC-P23873	16-Jan-04
REAR FLOORPAN ABOVE AXLE (X)	ENDEVCO	AC-P21135	18-Mar-04
REAR FLOORPAN ABOVE AXLE (Y)	ENDEVCO	AC-P16575	17-Mar-04
REAR FLOORPAN ABOVE AXLE (Z)	ENDEVCO	AC-P14388	18-Mar-04
LEFT REAR SILL (Y)	ENDEVCO	AC-J33843	22-Mar-04
LEFT FRONT SILL (Y)	GS SENSORS	AC-9440-045	16-Dec-03
LEFT FRONT DOOR CENTERLINE (Y)	-	-	-
RIGHT REAR SEAT OCCUPANT COMP. (Y)	ICS	AC-F53	1-Dec-03
MID REAR OF LEFT FRONT DOOR (Y)	-	-	-
LEFT FRONT DOOR UPPER C/L (Y)	-	-	-
MID REAR OF LEFT REAR DOOR (Y)	-	-	-
LEFT REAR DOOR UPPER C/L (Y)	-	-	-
LOWER LEFT B- PILLAR (Y)	ENDEVCO	AC-J33198	22-Mar-04
MIDDLE LEFT B-PILLAR (Y)	ENDEVCO	AC-P23960	22-Mar-04
LOWER LEFT A-PILLAR (Y)	GS SENSORS	AC-9440-006	16-Dec-03
UPPER LEFT A-PILLAR (Y)	GS SENSORS	AC-9440-034	3-Dec-03
FRONT SEAT TRACK (Y)	GS SENSORS	AC-9440-032	19-Jan-04
REAR SEAT TRACK (Y)	ENDEVCO	AC-P16616	17-Mar-04
VEHICLE CG (X)	ENDEVCO	AC-J37980	22-Mar-04
VEHICLE CG (Y)	ENDEVCO	AC-J37854	22-Mar-04
VEHICLE CG (Z)	ENDEVCO	AC-J38127	22-Mar-04
MDB CG (X)	ENDEVCO	AC-C16433	12-Feb-04
MDB CG (Y)	ENDEVCO	AC-C16416	12-Feb-04
MDB CG (Z)	ENDEVCO	AC-C16499	12-Feb-04
MDB REAR FRAME MEMBER (X)	ENDEVCO	AC-C14948	12-Feb-04
MDB REAR FRAME MEMBER (Y)	ENDEVCO	AC-C16680	12-Feb-04

REMARKS: None