

REPORT NUMBER: 201UI-CAL-09-02

**SAFETY COMPLIANCE TESTING FOR FMVSS 201  
OCCUPANT PROTECTION IN INTERIOR IMPACT  
UPPER INTERIOR HEAD IMPACT PROTECTION**

**CHRYSLER LLC.  
2009 DODGE JOURNEY**

NHTSA NUMBER: C90301

CALSPAN TEST NUMBER: 8877-02

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



Test Date: January 09, 2009

FINAL REPORT

PREPARED FOR:

U. S. DEPARTMENT OF TRANSPORTATION  
National Highway Traffic Safety Administration  
Enforcement  
Office of Vehicle Safety Compliance  
Mail Code: NVS-220, West Building 4<sup>th</sup> Floor  
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Washington, DC 20590

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**APPROVED**

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15. <i>Supplementary Notes</i>																							
16. <i>Abstract</i>  Compliance tests were conducted on the subject vehicle, a 2009 Dodge Journey, in accordance with the specifications of the Office of Vehicle Safety Compliance Test Procedure TP-201U-01 for determination of FMVSS 201 compliance. Test failures identified were as follows in the table below:																							
<table border="1"> <thead> <tr> <th>Target Point</th> <th>Horizontal</th> <th>Vertical</th> <th>Velocity</th> <th>HIC</th> <th>HICd</th> </tr> </thead> <tbody> <tr> <td>None</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> </tr> <tr> <td>None</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> </tr> </tbody> </table>						Target Point	Horizontal	Vertical	Velocity	HIC	HICd	None	-	-	-	-	-	None	-	-	-	-	-
Target Point	Horizontal	Vertical	Velocity	HIC	HICd																		
None	-	-	-	-	-																		
None	-	-	-	-	-																		
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## **SECTION 1**

### **PURPOSE AND TEST PROCEDURE**

This head impact compliance test is part of the FMVSS 201 Upper Interior Head Impact Protection Test Program sponsored by the National Highway Traffic Safety Administration (NHTSA) under Contract No. DTNH22-04-C-01027. The purpose of this head impact compliance test was to determine whether the subject vehicle, a 2009 Dodge Journey, NHTSA No. C90301, meets the performance requirements of FMVSS 201, Occupant Protection in Interior Impact. The compliance test was conducted in accordance with the OVSC Laboratory Test Procedure No. TP-201U-01 dated April 03, 1998.

## SECTION 2

### SUMMARY OF UPPER INTERIOR HEAD IMPACTS

A 2009 Dodge Journey, NHTSA No. C90301, was tested at various upper interior locations by a 4.54 kg 50<sup>th</sup> percentile headform. A total of twelve (12) impacts were performed in this test series. The target area impacts were chosen by the NHTSA Contracting Officer's Technical Representative (COTR). A summary of test results can be found on Data Sheet 2-1, Summary of Upper Interior Head Impact Tests. The twelve (12) area chosen for testing were:

OP1	UROP	URREAR	URRSR	BP4
BP1	SR2A	AP3	AP1	BP2
URBP	AP2			

The selected impact areas on the test vehicle appeared to comply with the performance requirements of FMVSS 201.

Five Free Motion Headforms (FMH) were used in this test series. All five FMH's were calibrated prior to and after the test series. Calibration information are included in Appendix B. Each FMH weighed  $4.54 \pm 0.5$  kg and had an orthogonal tri-axis accelerometer pack mounted at the headform's center of gravity (c.g.).

A total of three (3) channels of data for each test were recorded on a Keyser-Threde data acquisition system. Data plots, along with still images, can be found in Section 3, Summary of Test Results and Data Plots.

To document each target area impact test, a Weinberger high-speed video camera was placed at an appropriate location to record the headform contact with the selected target area.

## DATA SHEET 2-1

### SUMMARY OF UPPER INTERIOR HEAD IMPACT TESTS

VEHICLE YEAR/MAKE/MODEL/STYLE:	2009 Dodge Journey
VIN:	3D4GG47B99T216926
DATE OF MANUFACTURE:	06/08 (SEE CERTIFICATION LABEL)
COLOR:	Silver

TARGET CODE	Target Coordinates						Approach Angles (degrees)		Velocity (kph)	FMH HIC	HIC(d)
	Driver Side			Passenger Side			Horizontal	Vertical			
	X(mm)	Y(mm)	Z(mm)	X(mm)	Y(mm)	Z(mm)					
AP1	1016.583	-574.728	1132.219	1023.523	573.228	1129.539	120°	15°	18.57	105.6	246.1
AP2	868.832	-627.709	1042.733	870.554	627.032	1042.230	210°	45°	23.70	222.2	334.0
AP3	710.066	-660.526	962.411	714.001	657.458	962.996	150°	41°	18.45	247.3	353.0
BP1	1589.853	-513.869	1235.833	1587.637	515.603	1235.217	90°	13°	18.54	287.9	383.6
BP2	1574.610	-606.195	988.043	1574.415	604.438	989.755	270°	2°	23.47	623.8	637.0
BP3	1540.397	-606.036	993.449	1545.626	606.039	992.272	-	-	-	-	-
BP4	1624.274	-669.692	873.419	1627.568	663.819	871.330	133°	-10°	23.56	273.6	372.8
FH1	926.950	-490.445	1173.955	932.354	490.017	1174.524	Relocated 1 circle		-	-	-
FH1_R1	921.185	-465.457	1172.567	928.240	463.456	1173.562	-	-	-	-	-
FH2	894.096	-346.680	1174.573	903.790	347.313	1176.184	-	-	-	-	-
OP1	2479.230	-621.120	1018.714	2467.801	623.668	1021.331	90°	0°	23.80	816.7	782.6
OP2	2486.727	-616.947	1035.051	2489.274	620.232	1035.384	-	-	-	-	-
SR1	1166.279	-529.524	1212.916	1171.434	532.022	1209.708	-	-	-	-	-
SR2A	1316.975	-538.269	1210.196	1321.582	539.139	1209.313	90°	27°	18.48	194.4	313.8
SR2B	1287.070	-537.726	1209.117	1286.612	538.421	1208.162	-	-	-	-	-
SR3	1739.323	-532.966	1220.251	1738.442	531.445	1223.225	Relocated 1 circle		-	-	-
SR3_R1	1710.481	-528.151	1219.159	1710.506	528.995	1219.780	-	-	-	-	-
URAP	1215.660	-409.078	1270.880	1212.538	415.929	1270.993	-	-	-	-	-
URBP	1587.850	-398.421	1276.383	1591.263	389.500	1280.562	270°	47°	23.70	683.5	682.1
UROP	2406.403	-372.899	1306.845	2409.616	394.675	1307.512	90°	47°	23.46	442.3	500.1
URREAR	2672.871	-395.133	1278.288	2667.131	426.837	1276.977	90°	35°	23.51	435.0	494.6
URRSR	2116.932	-393.587	1289.441	2114.628	412.702	1292.035	90°	35°	23.47	572.3	598.2

\*HIC(d)=0.75446(Free Motion Headform HIC)+166.4



**DATA SHEET 2-2**

**GENERAL TEST AND VEHICLE PARAMETER DATA**

<b>TEST VEHICLE INFORMATION:</b>									
Year/Make/Model/Body Style:				2009 Dodge Journey					
VIN:				3D4GG47B99T216926					
Month & Year of Manufacture:				06/08 (SEE CERTIFICATION LABEL)					
Vehicle Body Color:				Silver					
Engine Data:	4	Cylinders;	-	CID;	2.4	Liters;	-	cc	
Engine Placement:		x	Longitudinal;	or		-	Lateral		
Transmission:	4	Speed;	-	Manual;	x	Automatic;	-	Overdrive	
Final Drive:	-	Rear Wheel Drive;	x	Front Wheel Drive;	-	Four Wheel Drive			
Odometer Reading:		42	km						
Options:	x	A/C;	x	Power Steering;	x	Pwr.Brakes;	x	Pwr. Windows	
Interior Trim Information :									
1. No grab handles on vehicle side rails and not a sunroof model									
2. Adjustable seat belt anchorages on both B-Pillars									
3. Non-adjustable seat belt anchorages on both Other Pillars									

<b>DATA FROM TIRE PLACARD:</b>									
Tire Pressure (at capacity);				220		kPa FRONT			
				220		kPa REAR			
Recommended Tire Size:				P225/70R16					
Tires on Test Vehicle:		P225/70R16			Manufacturer:		Hankook		
Vehicle Capacity Data:									
Number of Occupants:	2	Front;	3	Rear;	-	3rd Seat;	5	Total	
Type of Front Seats:	x	Bucket;	-	Bench;	-	Split Bench			
Type of Front Seat Back:	-	Fixed;	x	Adjustable with	x	Lever or	-	Knob	
Vehicle Capacity Weight (VCW)=				408		kg (A)			
No. of Occupants x 68 kg. =				340		kg (B)			
Rated Cargo/Luggage Weight (RCLW) =				68		kg (A-B) Max. RCLW = 136 kg.			

**DATA SHEET 2-2**

**GENERAL TEST AND VEHICLE PARAMETER DATA (cont.)**

<b>TEST VEHICLE DELIVERED WEIGHT WITH MAXIMUM FLUIDS:</b>							
Left Front	=	508	kg	Left Rear	=	368	kg
Right Front	=	462	kg	Right Rear	=	376	kg
TOTAL FRONT	=	970.0	kg	TOTAL REAR	=	744.0	kg
% of Total Weight	=	56.6%	%	% of Total Weight	=	43.4%	%
TOTAL WEIGHT	=	1714.0				kg	

<b>CALCULATION OF VEHICLE'S TARGET TEST WEIGHT:</b>		
Total Test Vehicle Delivered Weight=	1714.0	kg (A)
+ Rated Cargo/Luggage Weight =	68	kg (B)
<b>TEST VEHICLE TARGET WEIGHT =</b>	<b>1782.0</b>	<b>kg (A+B)</b>

<b>WEIGHT OF TEST VEHICLE (FULLY LOADED):</b>							
Left Front	=	503	kg	Left Rear	=	400	kg
Right Front	=	467	kg	Right Rear	=	406	kg
TOTAL FRONT	=	970.0	kg	TOTAL REAR	=	806.0	kg
% of Total Weight	=	54.6%	%	% of Total Weight	=	45.4%	%
TOTAL TEST WEIGHT	=	1776.0					
Weight of vehicle secured in test vehicles cargo area	=	62.0				kg	

<b>TEST VEHICLE ATTITUDE (all dimensions in millimeters):</b>				
AS DELIVERED:	Left Front	810	Left Rear	835
	Right Front	818	Right Rear	843
FULLY LOADED:	Left Front	810	Left Rear	825
	Right Front	816	Right Rear	831
Test Vehicle Wheelbase:	2890		millimeters	

<b>TEST VEHICLE PITCH AND ROLL ANGLES:</b>				
AS DELIVERED:	PITCH ANGLES		ROLL ANGLES	
	Left Door Sill	↑1.4↓	Front Bumper	0.0
	Right Door Sill	↓1.3↑	Rear Bumper	↓0.1↑
FULLY LOADED:	PITCH ANGLES		ROLL ANGLES	
	Left Door Sill	↑1.1↓	Front Bumper	0.0
	Right Door Sill	↓1.0↑	Rear Bumper	↓0.1↑
AS TESTED:	PITCH ANGLES		ROLL ANGLES	
	Left Door Sill	↑1.1↓	Front Bumper	0.0
	Right Door Sill	↓1.0↑	Rear Bumper	↓0.1↑

DATA SHEET 2-3

APPROACH ANGLE LIMITS

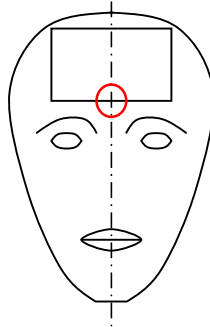
Target Code	Left Side				Target Code	Right Side			
	Horizontal Angles (deg.)		Vertical Angles (deg.)			Horizontal Angles (deg.)		Vertical Angles (deg.)	
	Minimum	Maximum	Minimum	Maximum		Minimum	Maximum	Minimum	Maximum
AP1	207	248	-5	15	AP1	112	153	-5	15
AP2	207	248	-5	45	AP2	112	153	-5	45
AP3	207	248	-5	41	AP3	112	153	-5	41
BP1	201	271	-10	13	BP1	89	159	-10	13
BP2	ANY		0	2	BP2	ANY		0	2
BP3	201	271	-10	2	BP3	89	159	-10	2
BP4	201	271	-10	-10	BP4	89	159	-10	-10
OP1	ANY		0	0	OP1	ANY		0	0
OP2	270		-10	0	OP2	90		-10	0
FH1	180		0	50	FH1	180		0	50
FH2	180		0	50	FH2	180		0	50
RH	360		0	50	RH	0		0	50
SR1	270		0	20	SR1	90		0	20
SR2A	270		0	27	SR2A	90		0	27
SR2B	270		0	25	SR2B	90		0	25
SR3	270		0	25	SR3	90		0	25
URAP	ANY		0	50	URAP	ANY		0	50
URBP	ANY		0	47	URBP	ANY		0	47
UROPP	ANY		0	47	UROPP	ANY		0	47
URRSR	ANY		0	35	URRSR	ANY		0	35
URREAR	ANY		0	35	URREAR	ANY		0	35

Note : BP2 and OP1 target location – Seat belt anchorage

**DATA SHEET 2-4**

**SUMMARY TARGET IMPACT LOCATION ON FMH**

VEHICLE YEAR/MAKE/MODEL/STYLE:	2009 Dodge Journey
VIN:	3D4GG47B99T216926
DATE OF MANUFACTURE:	06/08(SEE CERTIFICATION LABEL)
COLOR:	Silver



ã RIGHT SIDE OF FACE

TARGET	Distance Above Point 0 (mm)	Distance Over From Pt. O (mm)
OP1	9	7L
UROP	38	0
URREAR	70	11L
URRSR	64	11L
BP4	15	8L
BP1	16	5R
SR2A	3	10R
AP3	8	5R
AP1	5	35R
BP2	10	4L
URBP	50	0
AP2	24	10R

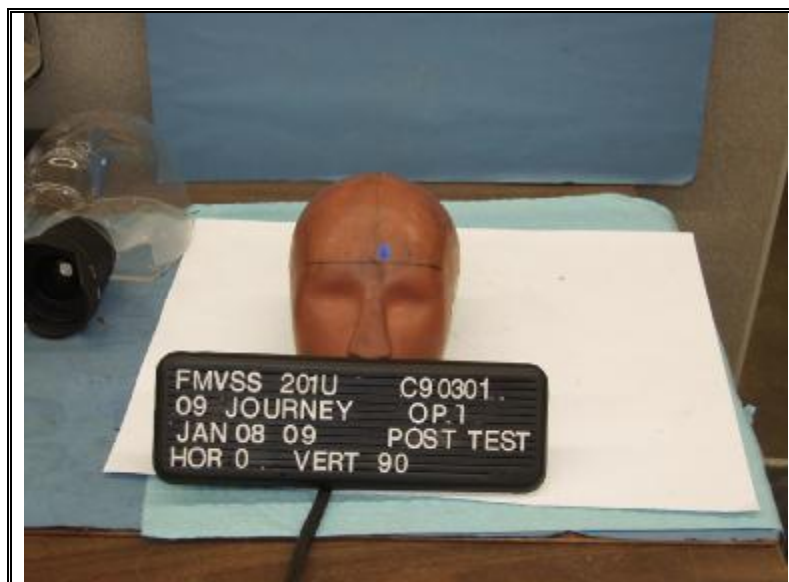
**SECTION 3**

**SUMMARY OF TEST RESULTS AND DATA PLOTS**

VEHICLE YEAR/MAKE/MODEL/STYLE:	2009 Dodge Journey
VIN:	3D4GG47B99T216926
DATE OF MANUFACTURE:	06/08(SEE CERTIFICATION LABEL)
COLOR:	Silver

Test Number:	1
Test Date:	Jan 08,2009
Target Location:	Other Pillar
Target Code:	OP1
Horizontal Impact Angle:	90°
Vertical Impact Angle:	0°
Ambient Temperature:	20°C
Relative Humidity:	23
Time of Impact:	9:00
Headform Number:	0062

Impact Point Description (from lower midpoint on midsagittal line)			
On Centerline	7	<input type="checkbox"/>	mm right <input checked="" type="checkbox"/> mm left
On Centerline	9		mm up



POST-IMPACT OP1 HEADFORM

Free Motion HIC	816.7
HIC(d)	782.6
Impact Velocity (kph)	23.8
HIC T1 (msec)	5.1
HIC T2 (msec)	11.3

# FMVSS 201U 09 Dodge Journey C90301 - OP1

FMH Headform 0062

Location: OP1

Test Date: January 08, 2009

Work File: OP1

## -----TEST RESULTS-----

Lab Temperature: 20 C

HICd: 782.6

Lab Humidity: 23 %

HIC (36ms): 816.7

Velocity at Impact: 23.80 KPH

t1: 5.1 msec

t2: 11.3 msec

Free Flight Distance: 217.57 mm

Duration: 6.2 msec

Average Acceleration: 9.0 g

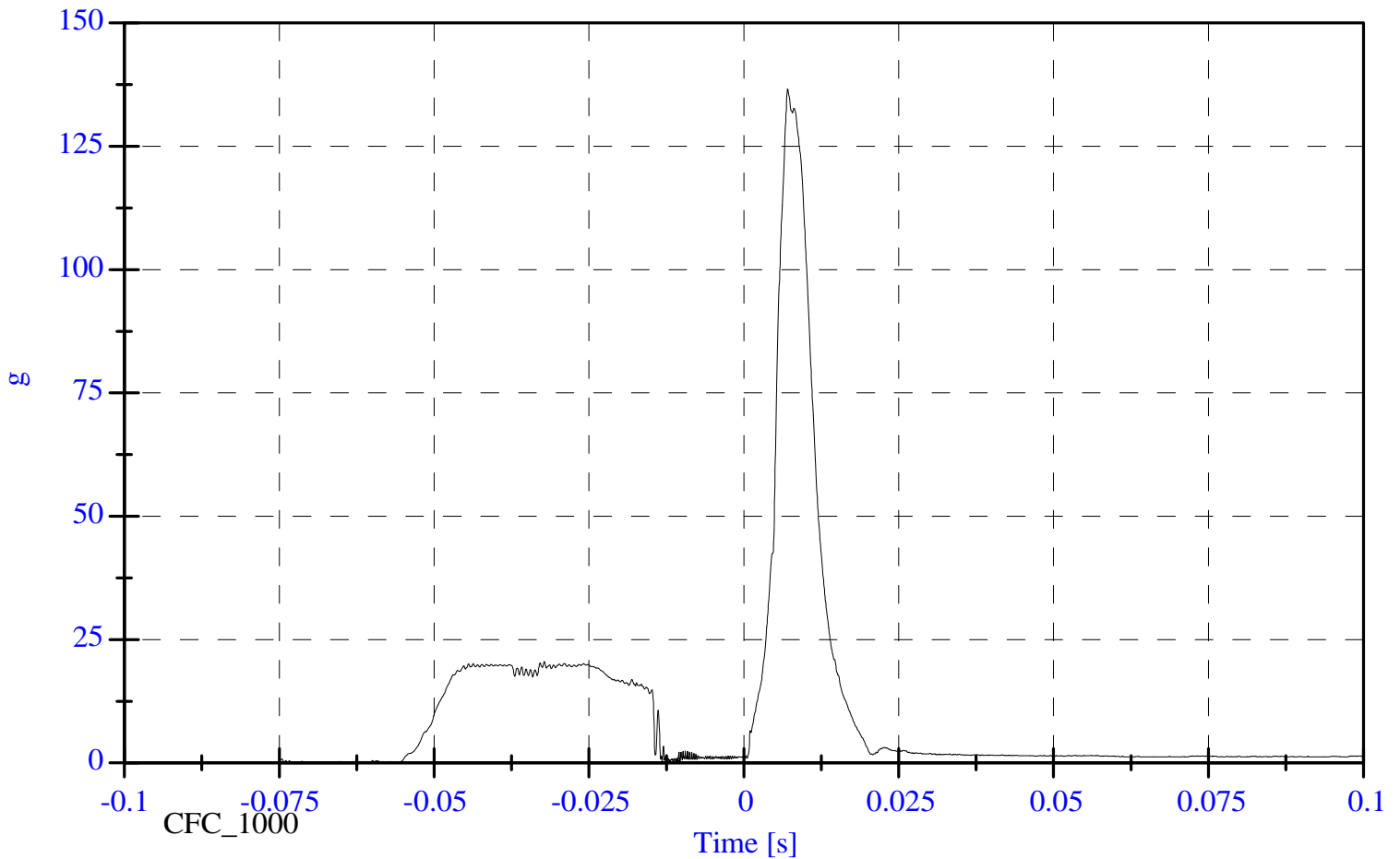
Maximum: 136.6 g

FMVSS 201U 09 Dodge Journey

Headform Resultant

Max: 136.6 [g] at 0.007 [s]

Min: 0.0 [g] at -0.099 [s]



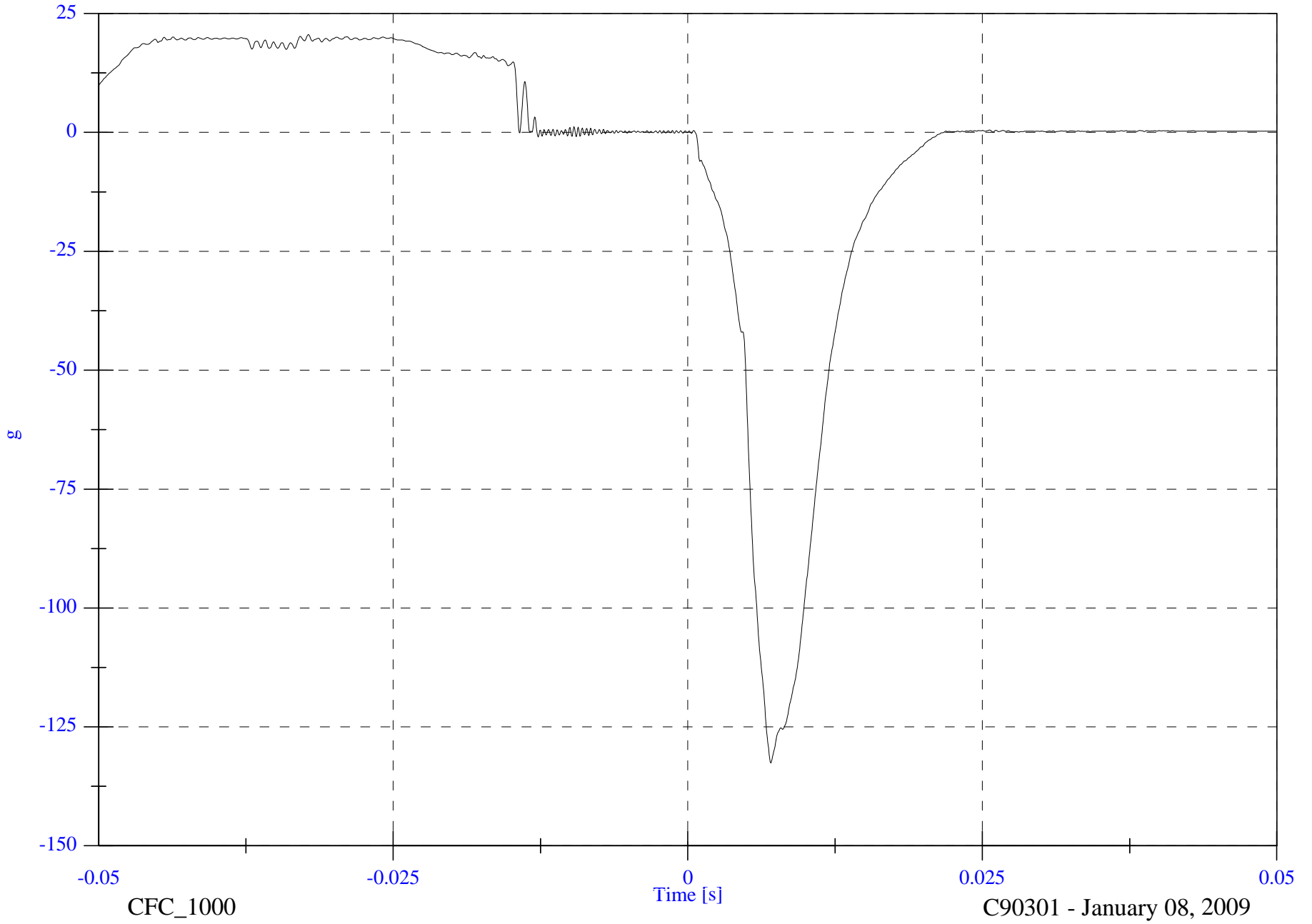
FMVSS 201U 09 Dodge Journey

Headform X Acceleration

Max: 20.5 [g] at -0.032 [s]

Min: -132.6 [g] at 0.007 [s]

C90301 PASSENGER SIDE OP1 IMPACT PLOT #1



CFC\_1000

C90301 - January 08, 2009



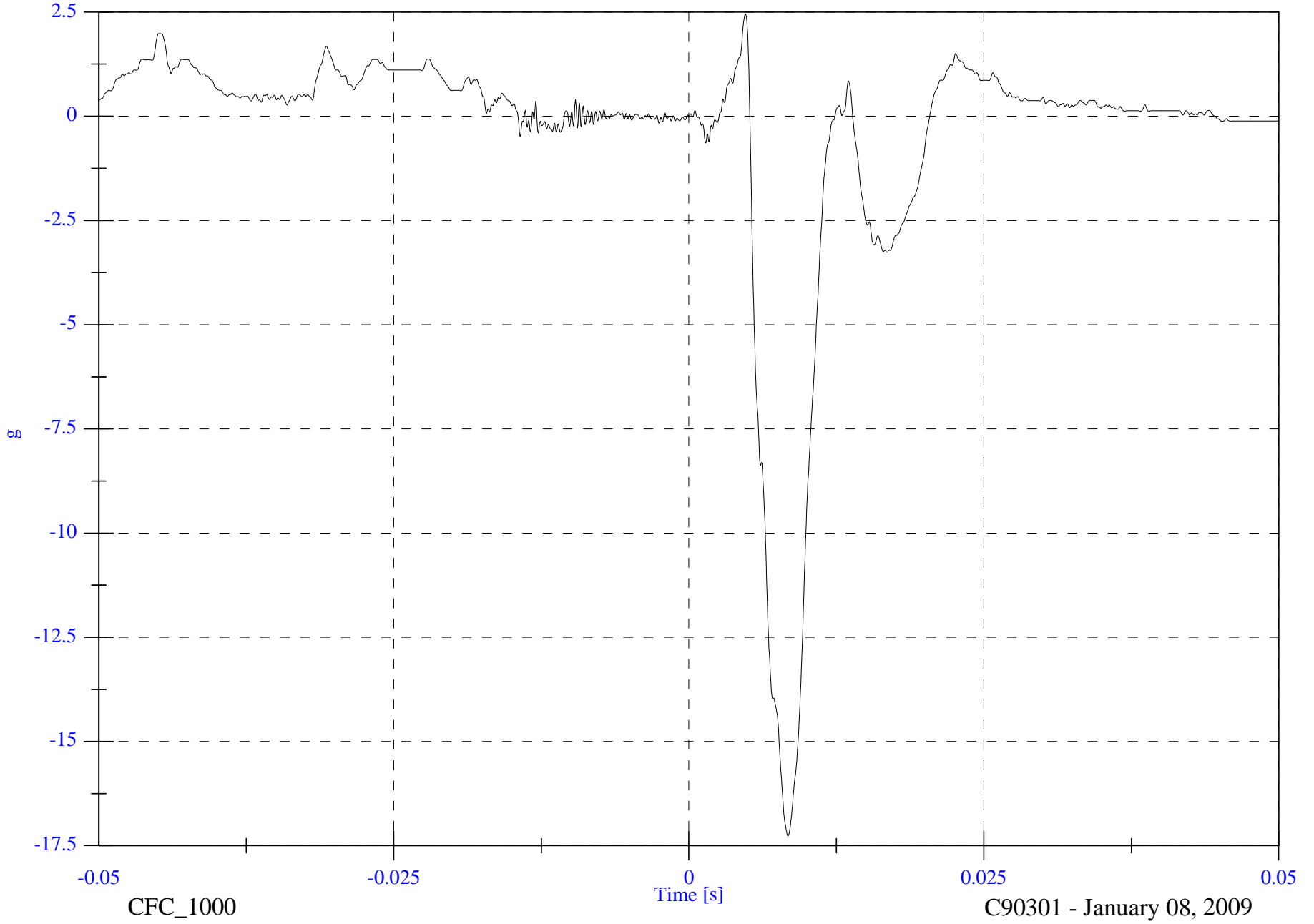
FMVSS 201U 09 Dodge Journey

Headform Y Acceleration

Max: 2.5 [g] at 0.005 [s]

Min: -17.3 [g] at 0.008 [s]

C90301 PASSENGER SIDE OP1 IMPACT PLOT #2



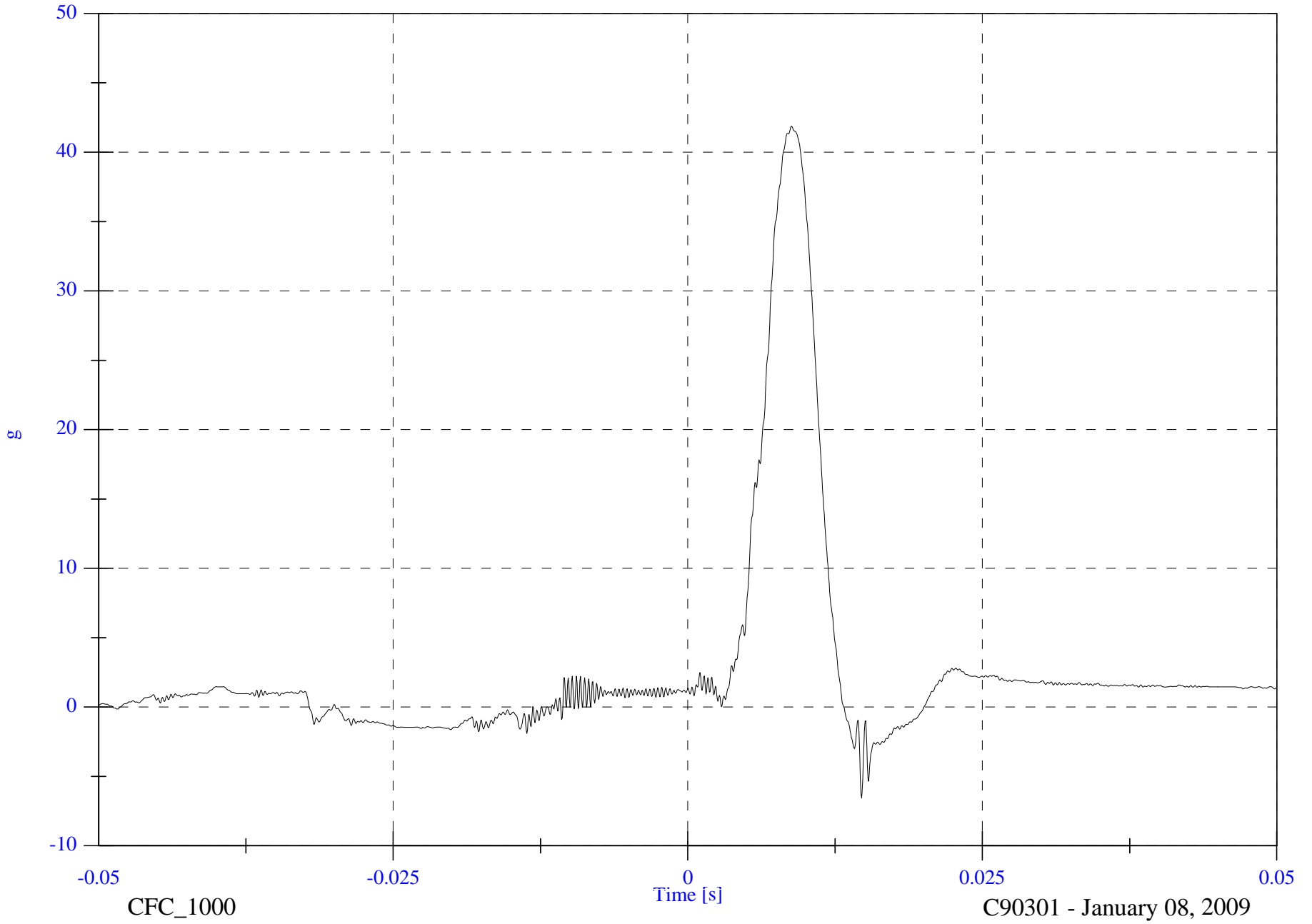
FMVSS 201U 09 Dodge Journey

Headform Z Acceleration

Max: 41.9 [g] at 0.009 [s]

Min: -6.6 [g] at 0.015 [s]

C90301 PASSENGER SIDE OP1 IMPACT PLOT #3



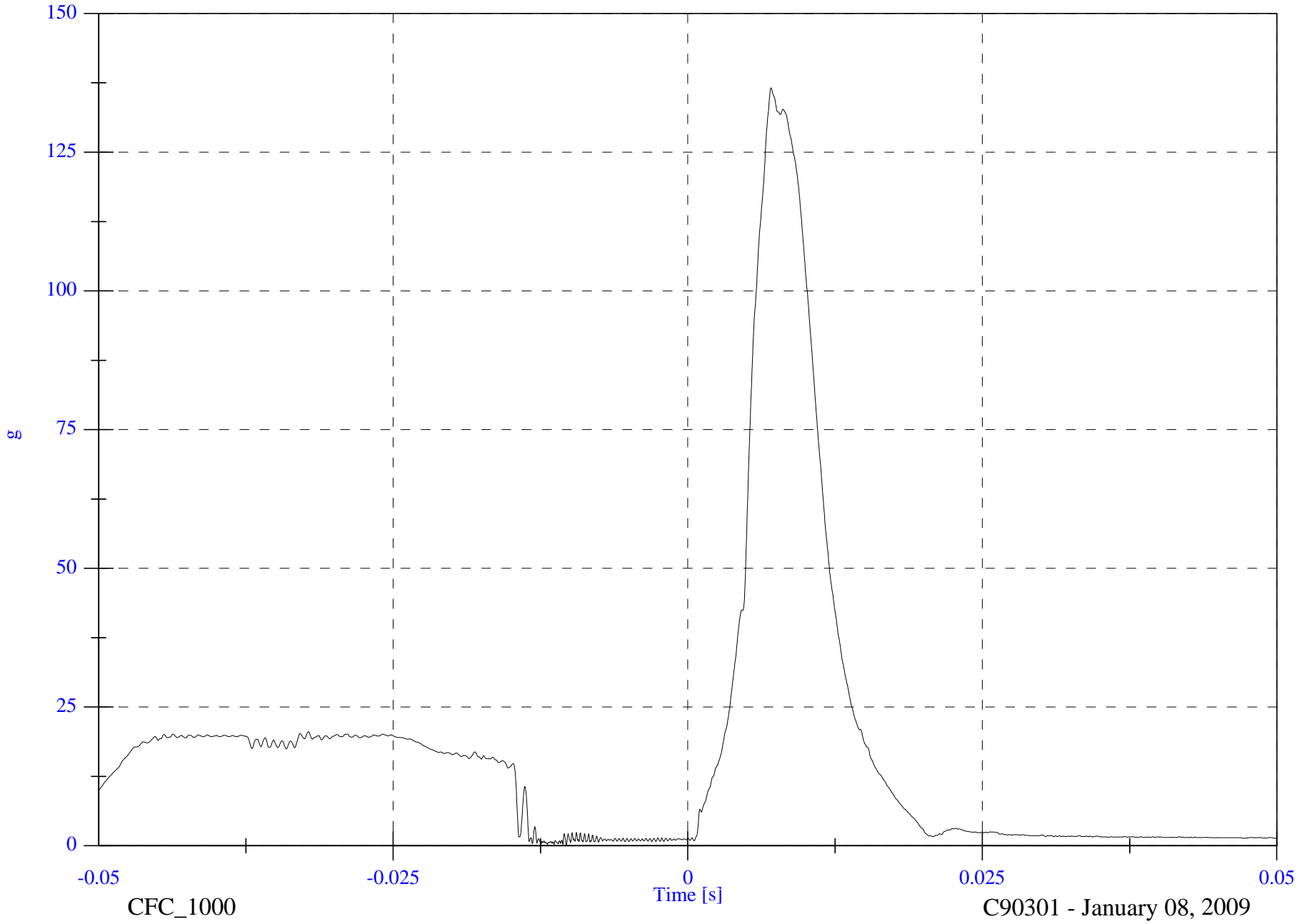
FMVSS 201U 09 Dodge Journey

Headform Resultant

Max: 136.6 [g] at 0.007 [s]

Min: 0.1 [g] at -0.010 [s]

C90301 PASSENGER SIDE OP1 IMPACT PLOT #4



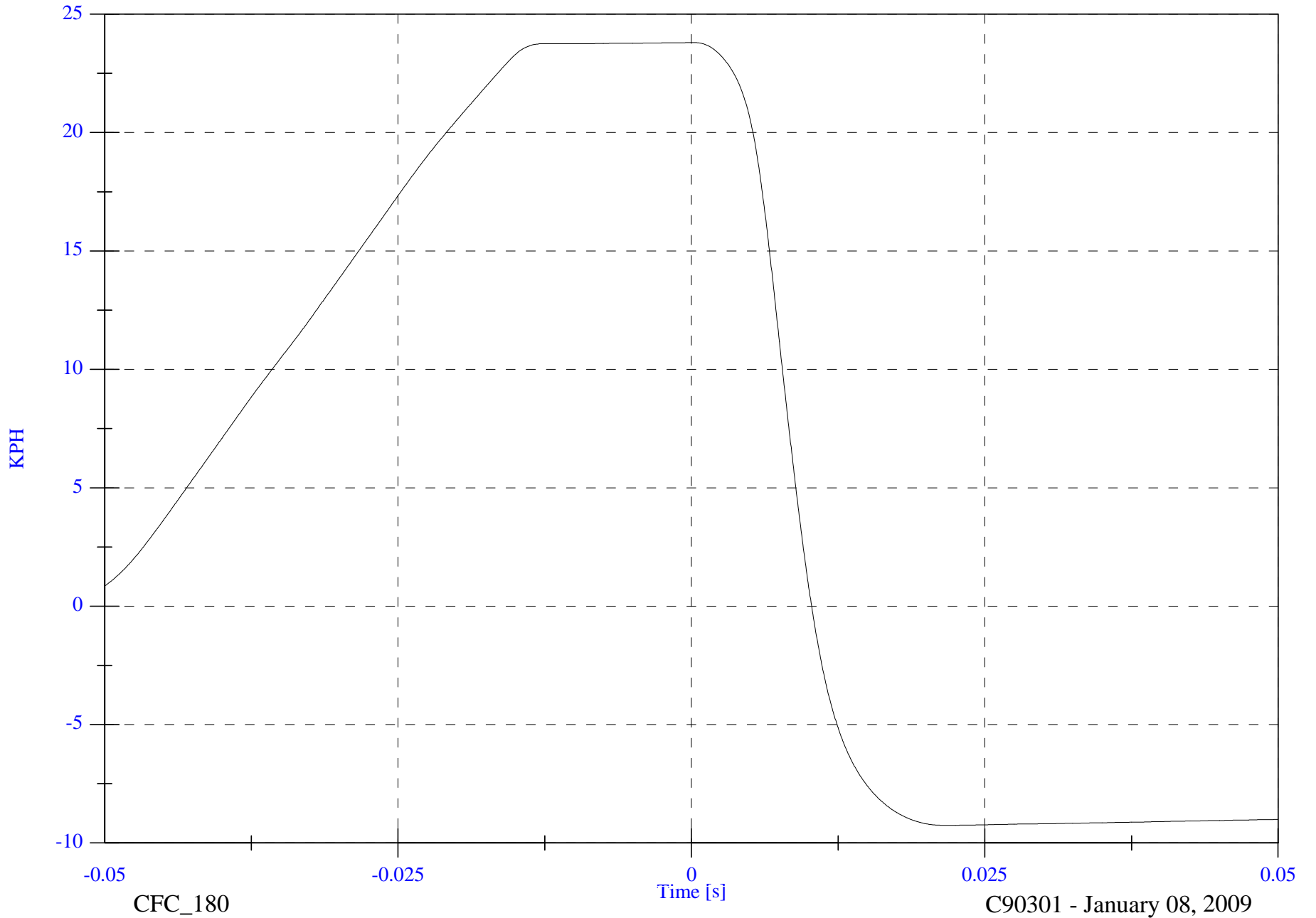
FMVSS 201U 09 Dodge Journey

Max: 23.8 [KPH] at 0.000 [s]

Min: -9.3 [KPH] at 0.022 [s]

### Headform Velocity

C90301 PASSENGER SIDE OP1 IMPACT PLOT #5



CFC\_180

C90301 - January 08, 2009



PRE-IMPACT OP1

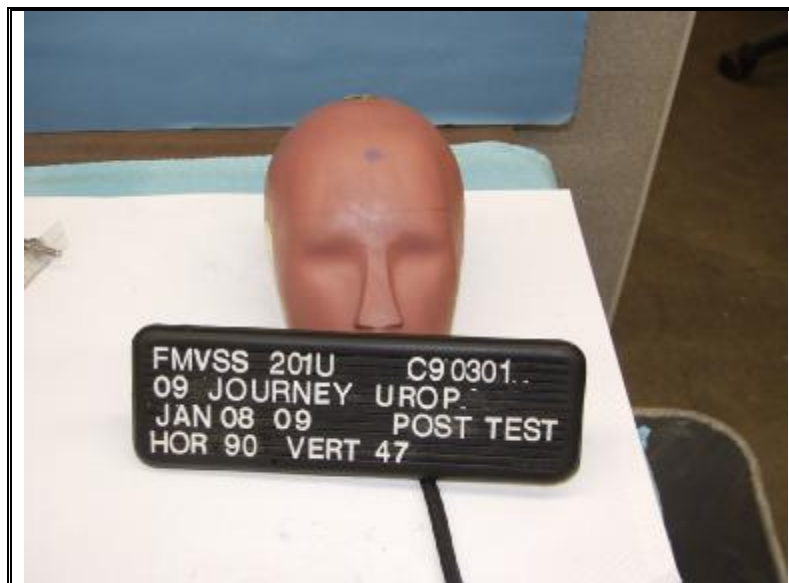


POST-IMPACT OPI

VEHICLE YEAR/MAKE/MODEL/STYLE:	2009 Dodge Journey
VIN:	3D4GG47B99T216926
DATE OF MANUFACTURE:	06/08(SEE CERTIFICATION LABEL)
COLOR:	Silver

Test Number:	2
Test Date:	Jan 08, 2009
Target Location:	Upper Roof
Target Code:	UROP
Horizontal Impact Angle:	90°
Vertical Impact Angle:	47°
Ambient Temperature:	20°C
Relative Humidity:	23
Time of Impact:	9:30
Headform Number:	1140

Impact Point Description (from lower midpoint on midsagittal line)					
On Centerline	0	<input type="checkbox"/>	mm right	<input type="checkbox"/>	mm left
On Centerline	38				mm up



POST-IMPACT UROP HEADFORM

Free Motion HIC	442.3
HIC(d)	500.1
Impact Velocity (kph)	23.46
HIC T1 (msec)	3.7
HIC T2 (msec)	15.3

# FMVSS 201U 09 Dodge Journey C90301 - UROP

FMH Headform 1140

Location: UROP

Test Date: January 08, 2009

Work File: UROP

## -----TEST RESULTS-----

Lab Temperature: 20 C

HICd: 500.1

Lab Humidity: 23 %

HIC (36ms): 442.3

Velocity at Impact: 23.46 KPH

t1: 3.7 msec

t2: 15.3 msec

Free Flight Distance: 218.01 mm

Duration: 11.6 msec

Average Acceleration: 12.0 g

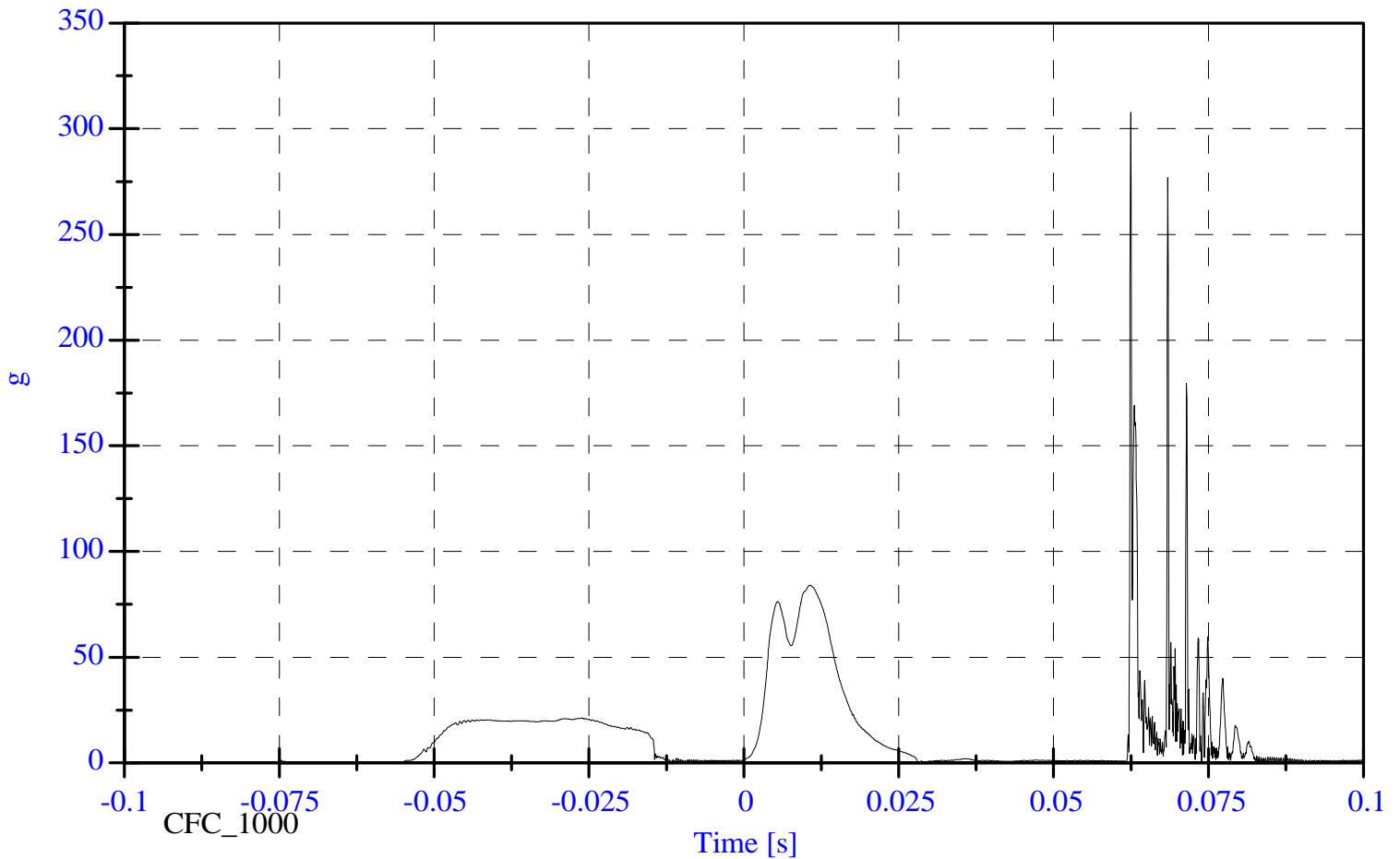
Maximum: 84.1 g

FMVSS 201U 09 Dodge Journey

Headform Resultant

Max: 84.1 [g] at 0.011 [s]

Min: 0.0 [g] at -0.093 [s]





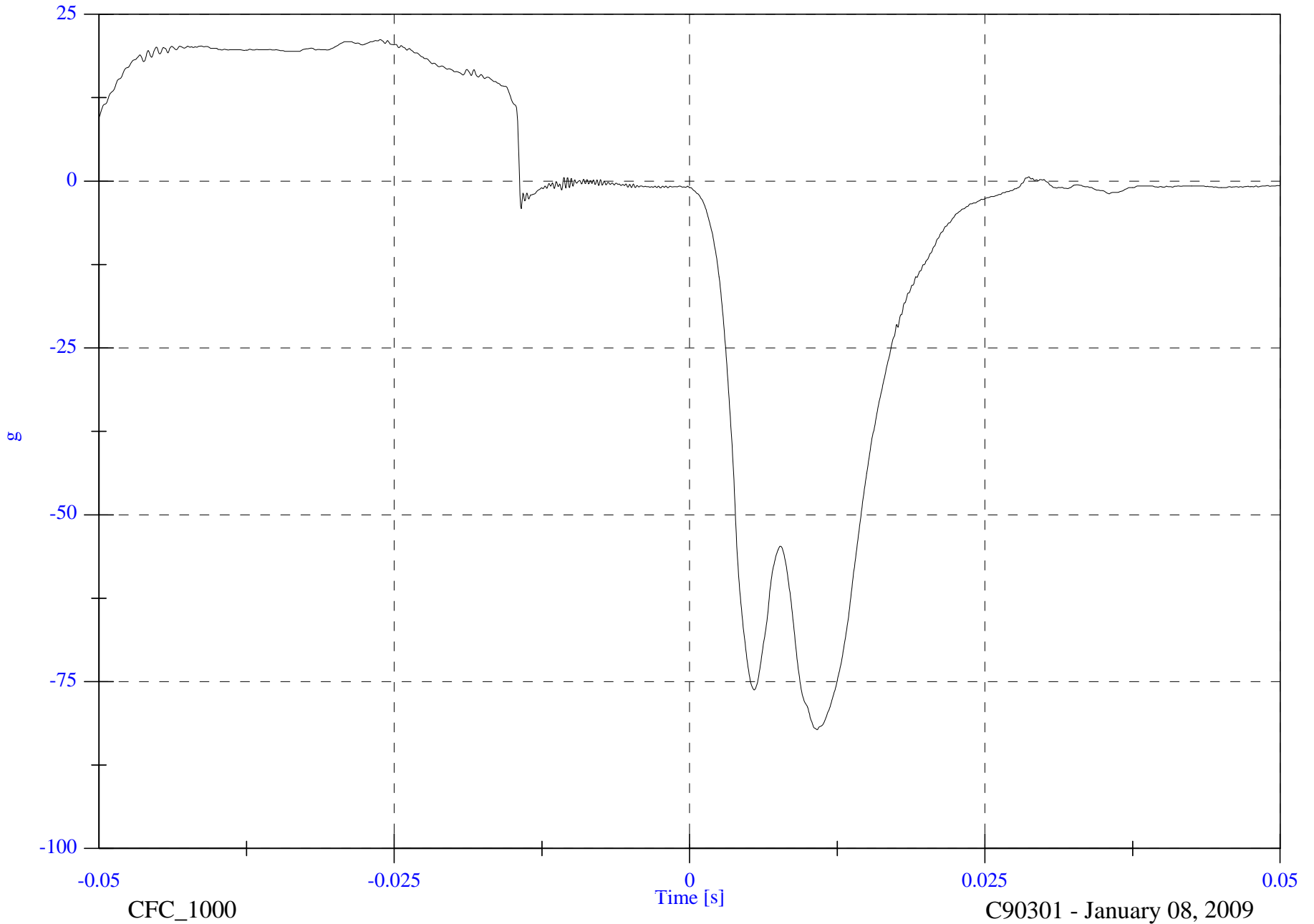
FMVSS 201U 09 Dodge Journey

Headform X Acceleration

Max: 21.2 [g] at -0.026 [s]

Min: -82.2 [g] at 0.011 [s]

C90301 PASSENGER SIDE UROP IMPACT PLOT #1



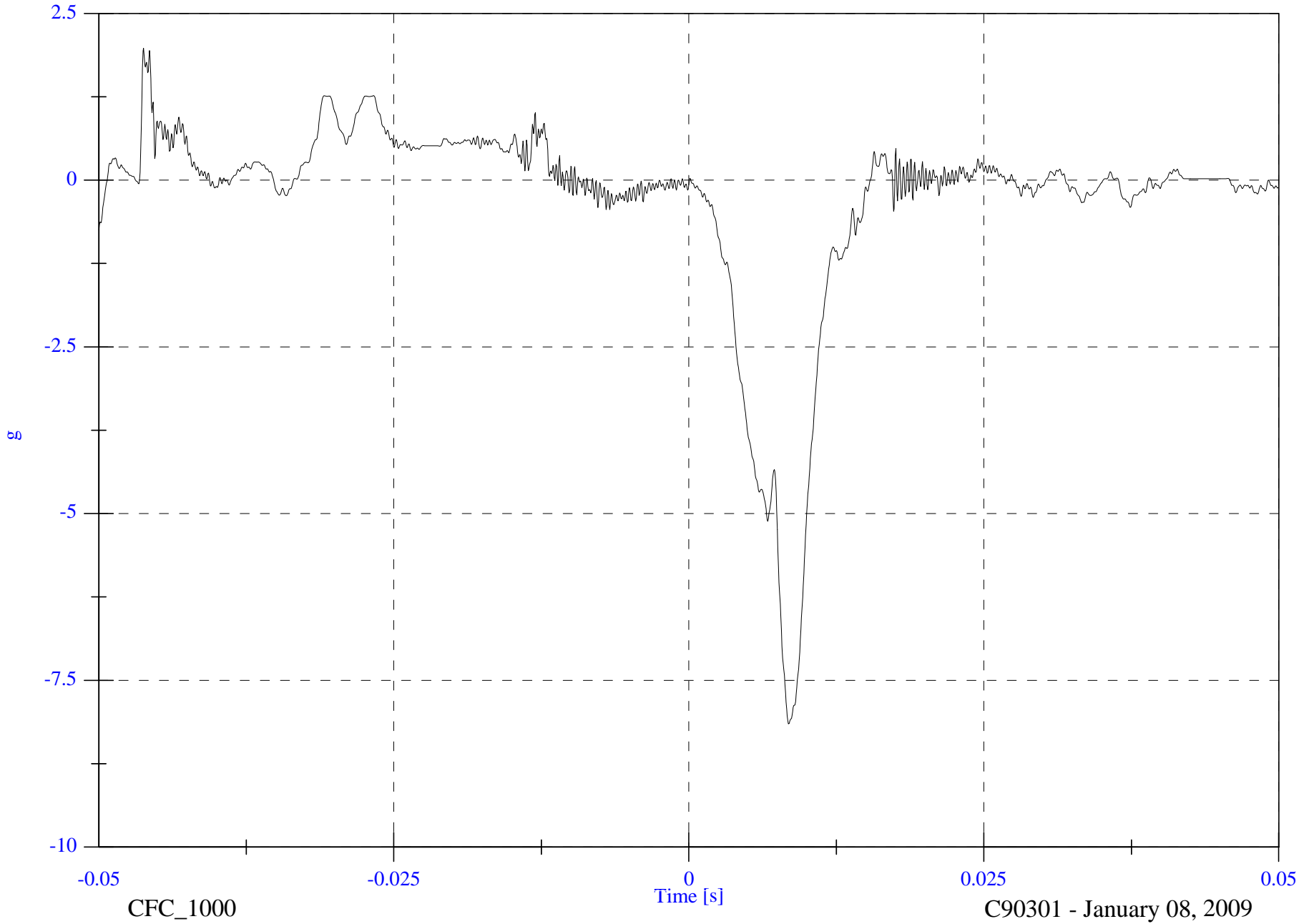
FMVSS 201U 09 Dodge Journey

Headform Y Acceleration

Max: 2.0 [g] at -0.046 [s]

Min: -8.2 [g] at 0.008 [s]

C90301 PASSENGER SIDE UROP IMPACT PLOT #2



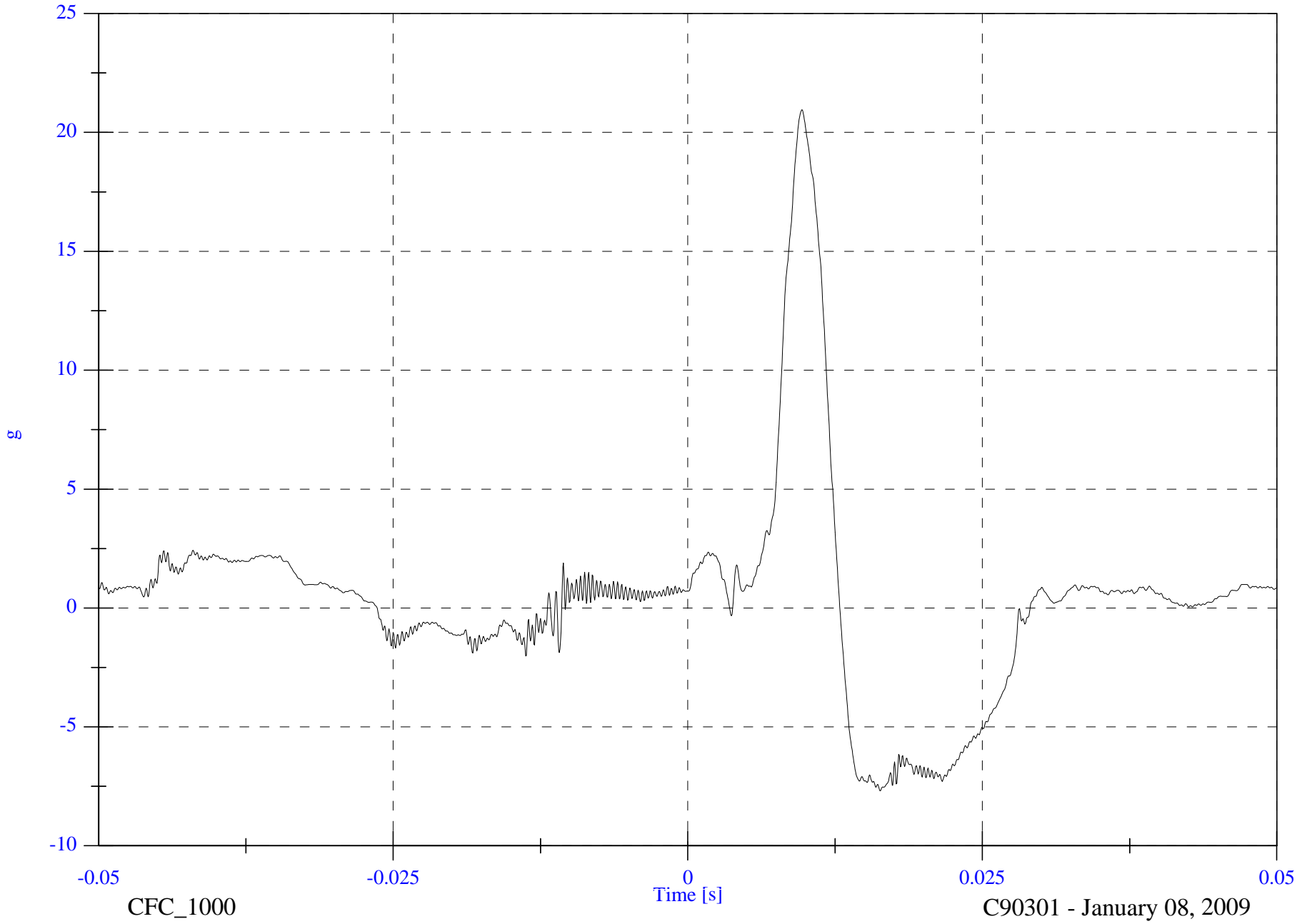
FMVSS 201U 09 Dodge Journey

Headform Z Acceleration

Max: 21.0 [g] at 0.010 [s]

Min: -7.7 [g] at 0.016 [s]

C90301 PASSENGER SIDE UROP IMPACT PLOT #3



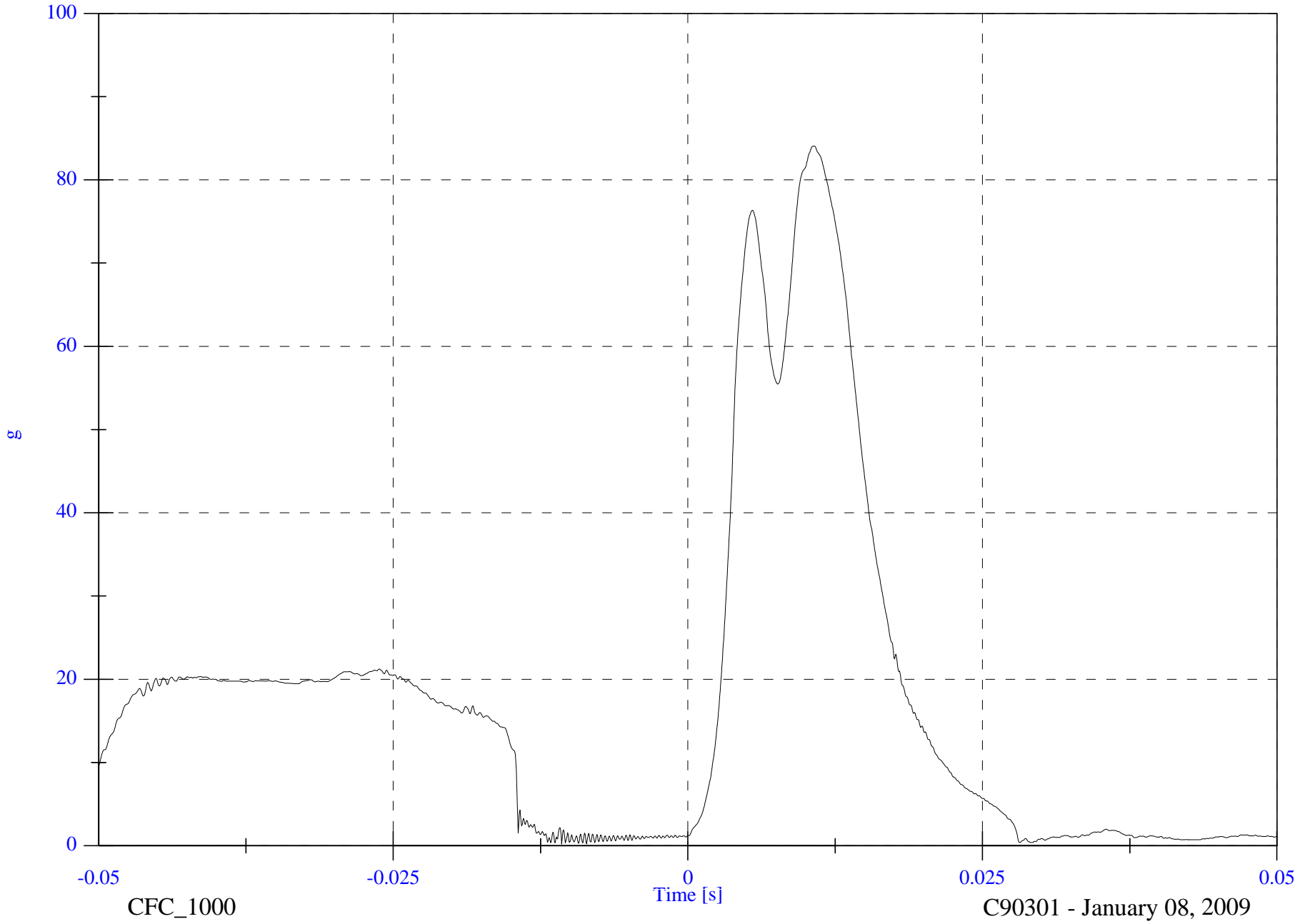
FMVSS 201U 09 Dodge Journey

Headform Resultant

Max: 84.1 [g] at 0.011 [s]

Min: 0.2 [g] at -0.011 [s]

C90301 PASSENGER SIDE UROP IMPACT PLOT #4



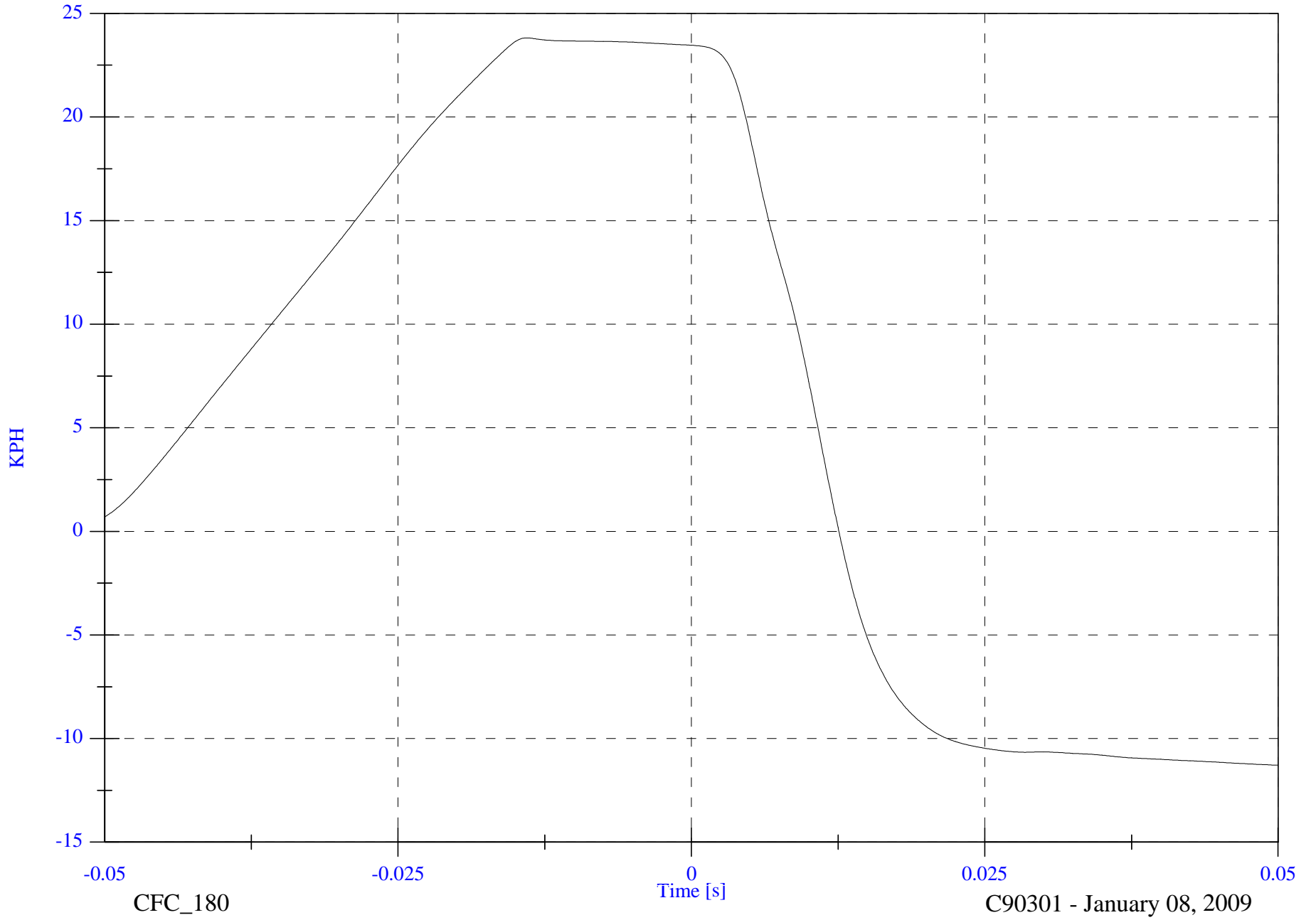
FMVSS 201U 09 Dodge Journey

### Headform Velocity

Max: 23.8 [KPH] at -0.014 [s]

Min: -11.3 [KPH] at 0.050 [s]

C90301 PASSENGER SIDE UROP IMPACT PLOT #5



CFC\_180

C90301 - January 08, 2009



PRE-IMPACT UROP

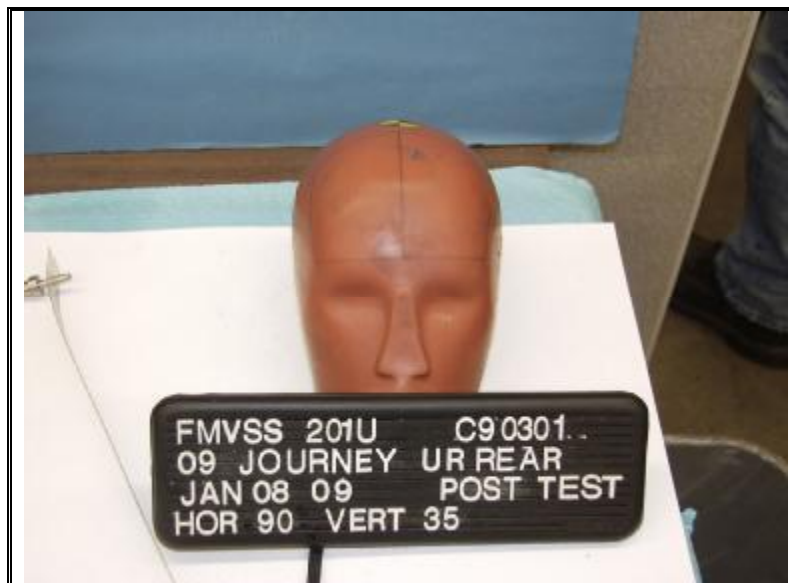


POST-IMPACT UROP

VEHICLE YEAR/MAKE/MODEL/STYLE:	2009 Dodge Journey
VIN:	3D4GG47B99T216926
DATE OF MANUFACTURE:	06/08(SEE CERTIFICATION LABEL)
COLOR:	Silver

Test Number:	3
Test Date:	Jan 08,2009
Target Location:	Upper Roof
Target Code:	URREAR
Horizontal Impact Angle:	90°
Vertical Impact Angle:	35°
Ambient Temperature:	20°C
Relative Humidity:	23
Time of Impact:	10:00
Headform Number:	0355

Impact Point Description (from lower midpoint on midsagittal line)			
On Centerline	11	mm right	x mm left
On Centerline	70	mm up	



POST-IMPACT URREAR HEADFORM

Free Motion HIC	435.0
HIC(d)	494.6
Impact Velocity (kph)	23.51
HIC T1 (msec)	4.4
HIC T2 (msec)	15.2



# FMVSS 201U 09 Dodge Journey C90301 - URREAR

FMH Headform 0355

Location: URREAR

Test Date: January 08, 2009

Work File: URREAR

## -----TEST RESULTS-----

Lab Temperature: 20 C

HICd: 494.6

Lab Humidity: 23 %

HIC (36ms): 435.0

Velocity at Impact: 23.51 KPH

t1: 4.4 msec

t2: 15.2 msec

Free Flight Distance: 223.28 mm

Duration: 10.8 msec

Average Acceleration: 10.6 g

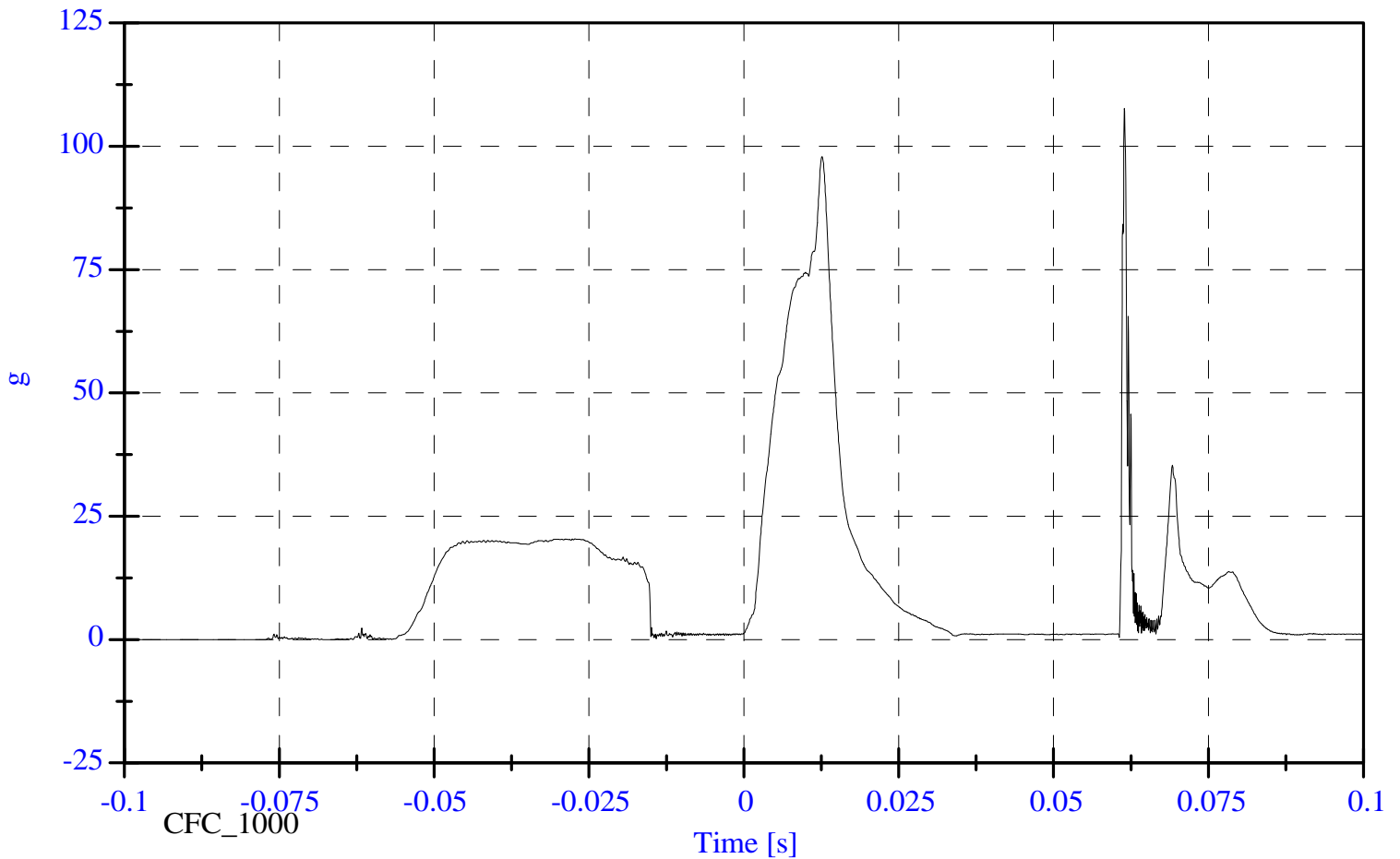
Maximum: 97.9 g

FMVSS 201U 09 Dodge Journey

Headform Resultant

Max: 97.9 [g] at 0.013 [s]

Min: -0.0 [g] at -0.098 [s]



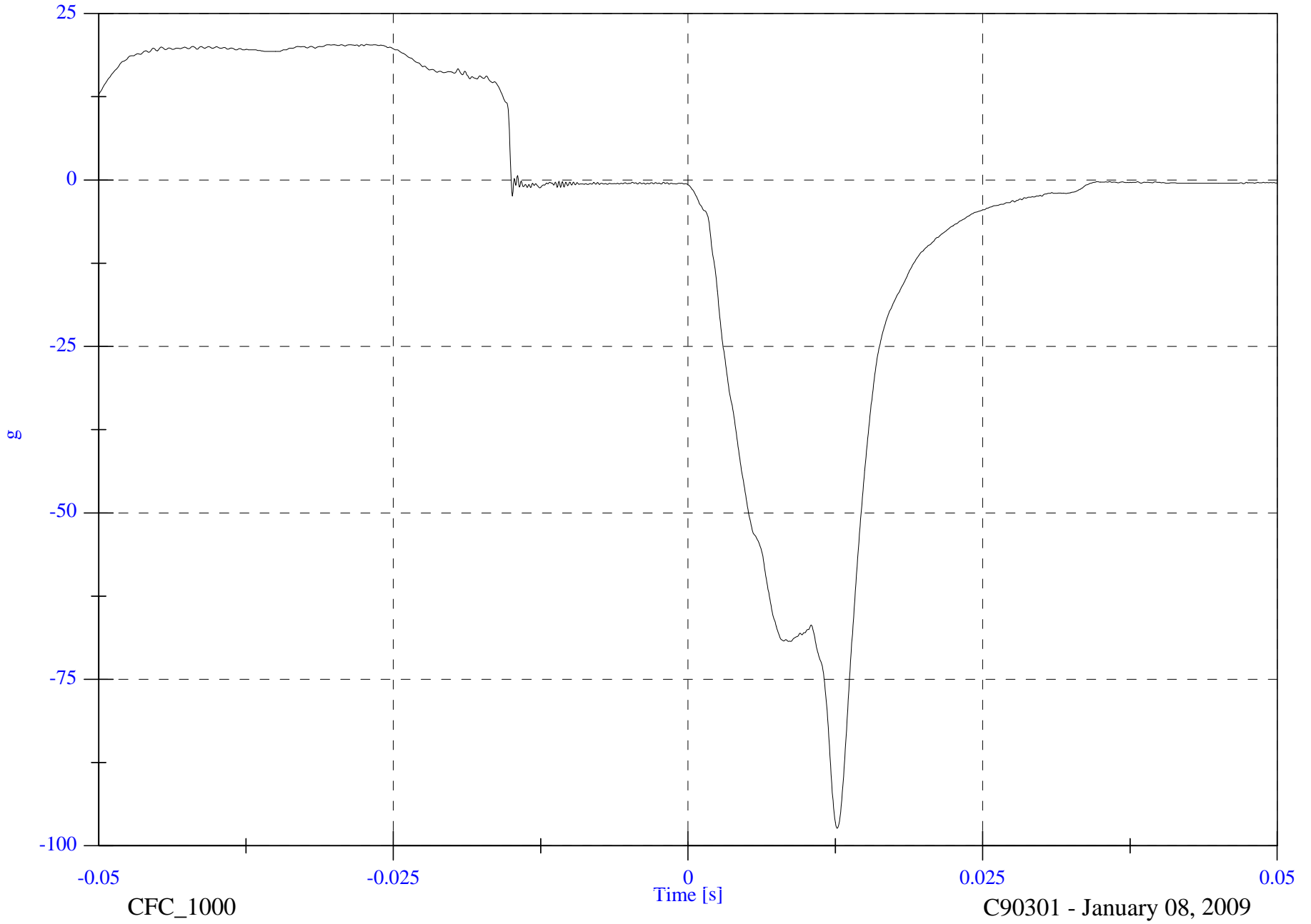
FMVSS 201U 09 Dodge Journey

Headform X Acceleration

Max: 20.4 [g] at -0.027 [s]

Min: -97.4 [g] at 0.013 [s]

C90301 PASSENGER SIDE URREAR IMPACT PLOT #1



CFC\_1000

C90301 - January 08, 2009

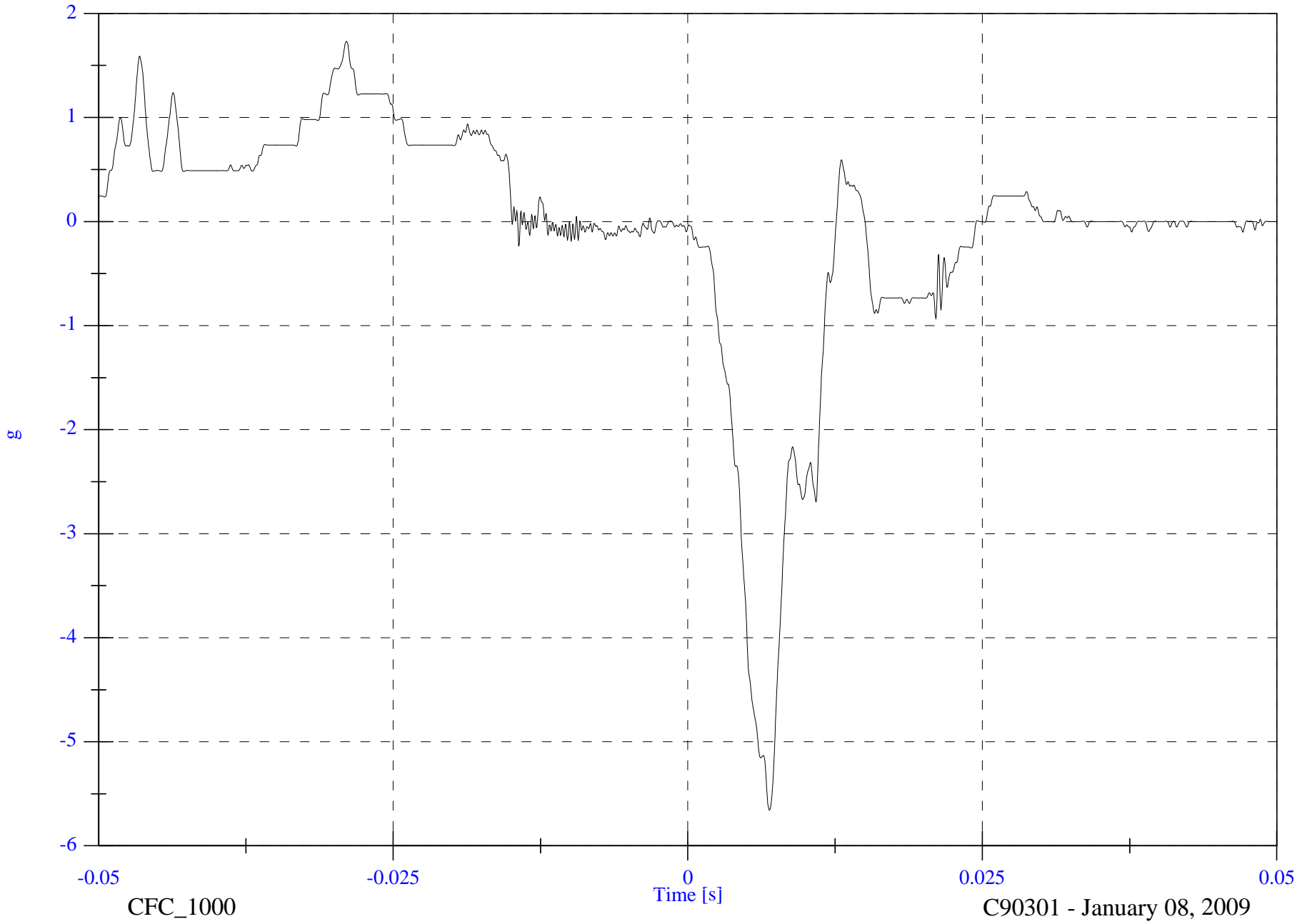
FMVSS 201U 09 Dodge Journey

Headform Y Acceleration

Max: 1.7 [g] at -0.029 [s]

Min: -5.7 [g] at 0.007 [s]

C90301 PASSENGER SIDE URREAR IMPACT PLOT #2



CFC\_1000

Time [s]

C90301 - January 08, 2009

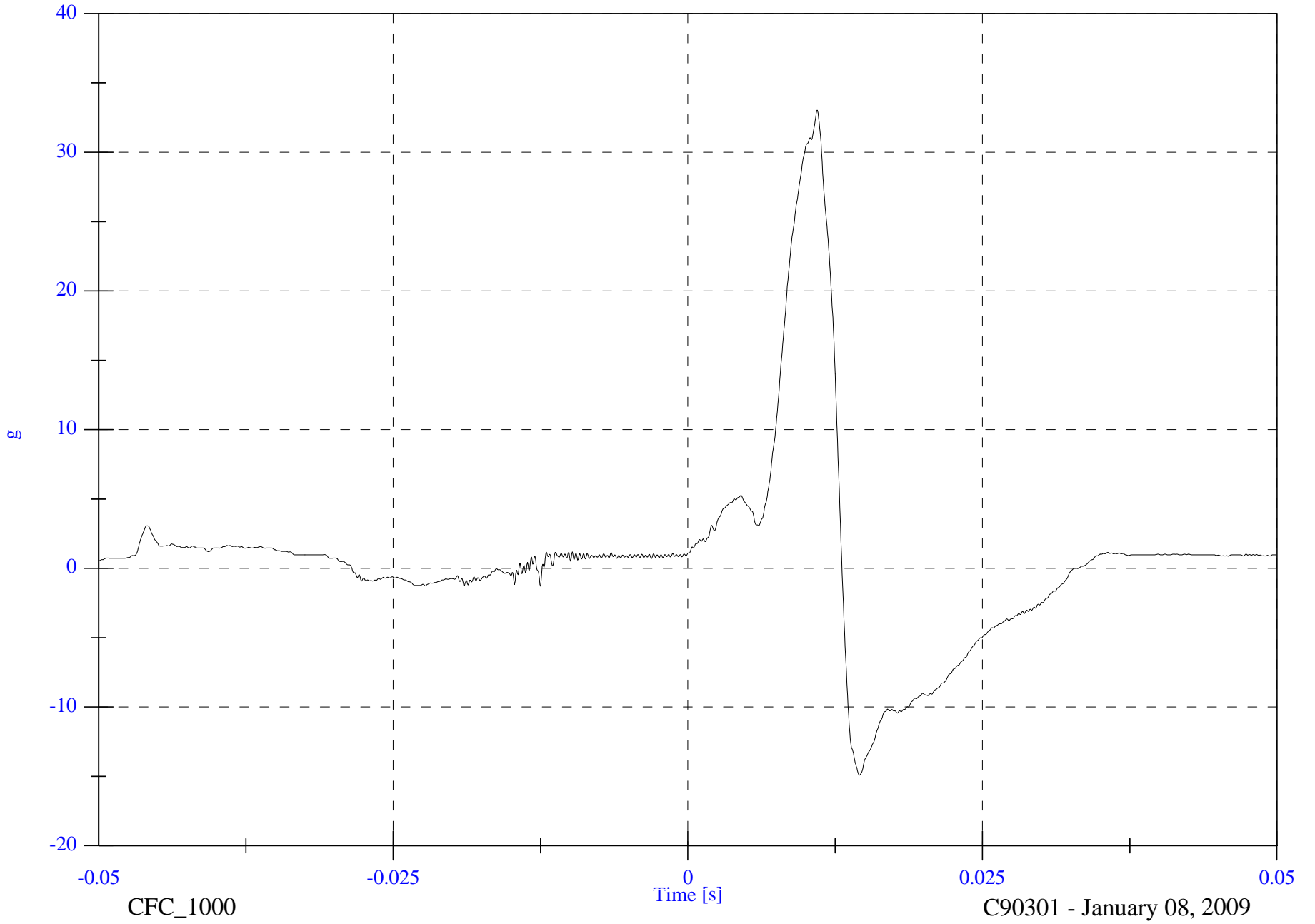
FMVSS 201U 09 Dodge Journey

Headform Z Acceleration

Max: 33.0 [g] at 0.011 [s]

Min: -14.9 [g] at 0.015 [s]

C90301 PASSENGER SIDE URREAR IMPACT PLOT #3



CFC\_1000

C90301 - January 08, 2009

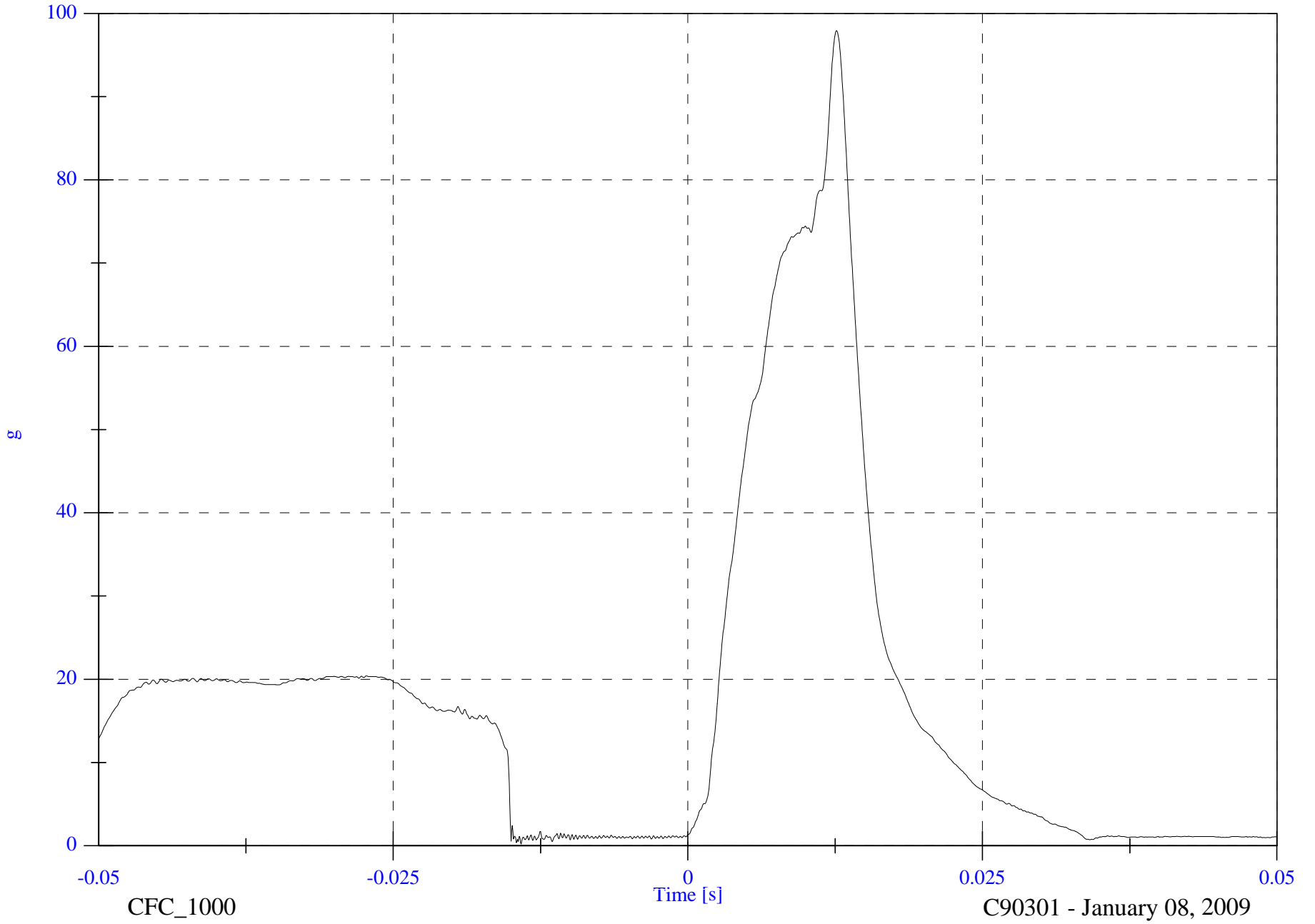
FMVSS 201U 09 Dodge Journey

Headform Resultant

Max: 97.9 [g] at 0.013 [s]

Min: 0.2 [g] at -0.014 [s]

C90301 PASSENGER SIDE URREAR IMPACT PLOT #4



CFC\_1000

C90301 - January 08, 2009

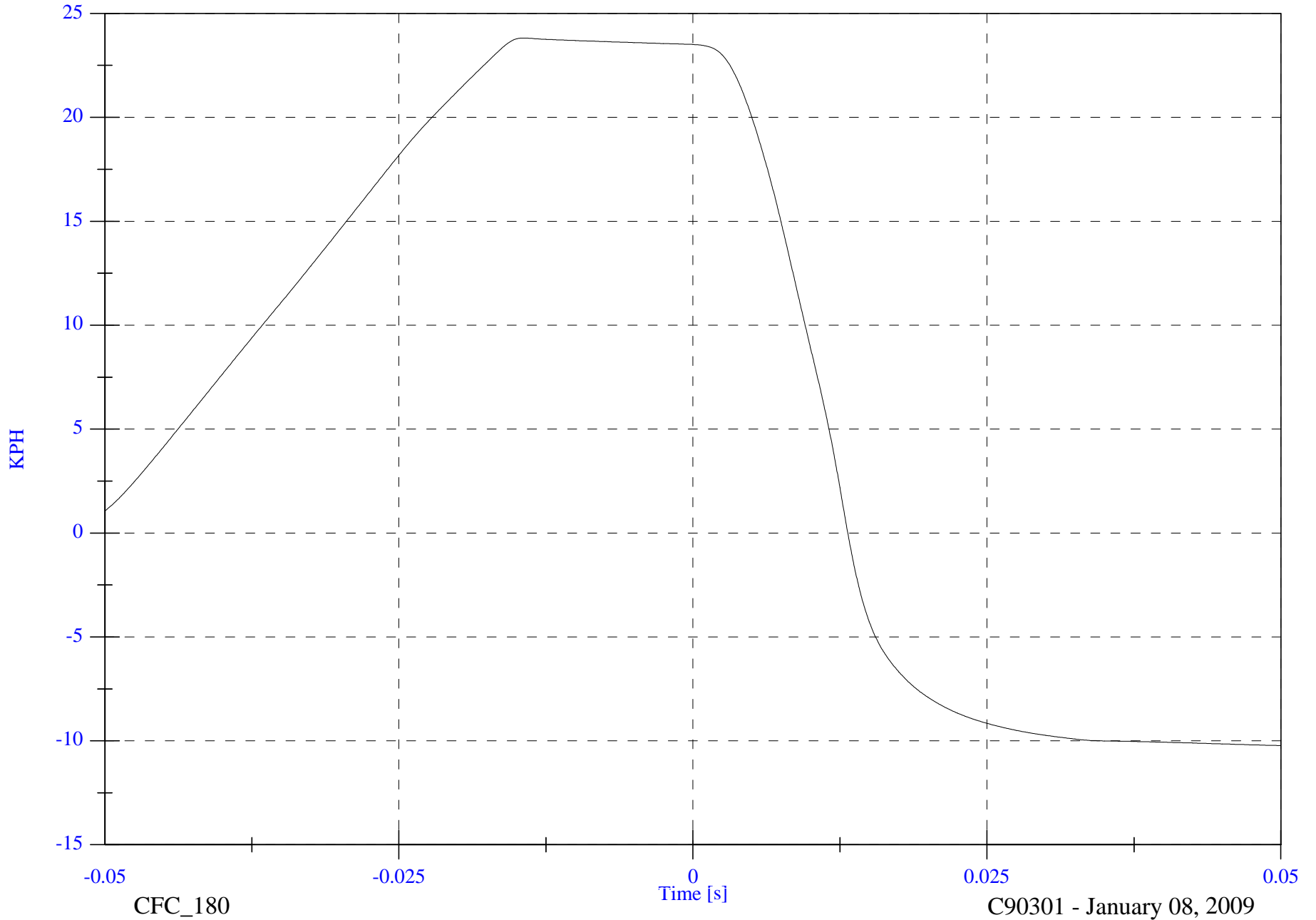
FMVSS 201U 09 Dodge Journey

Max: 23.8 [KPH] at -0.014 [s]

Min: -10.2 [KPH] at 0.050 [s]

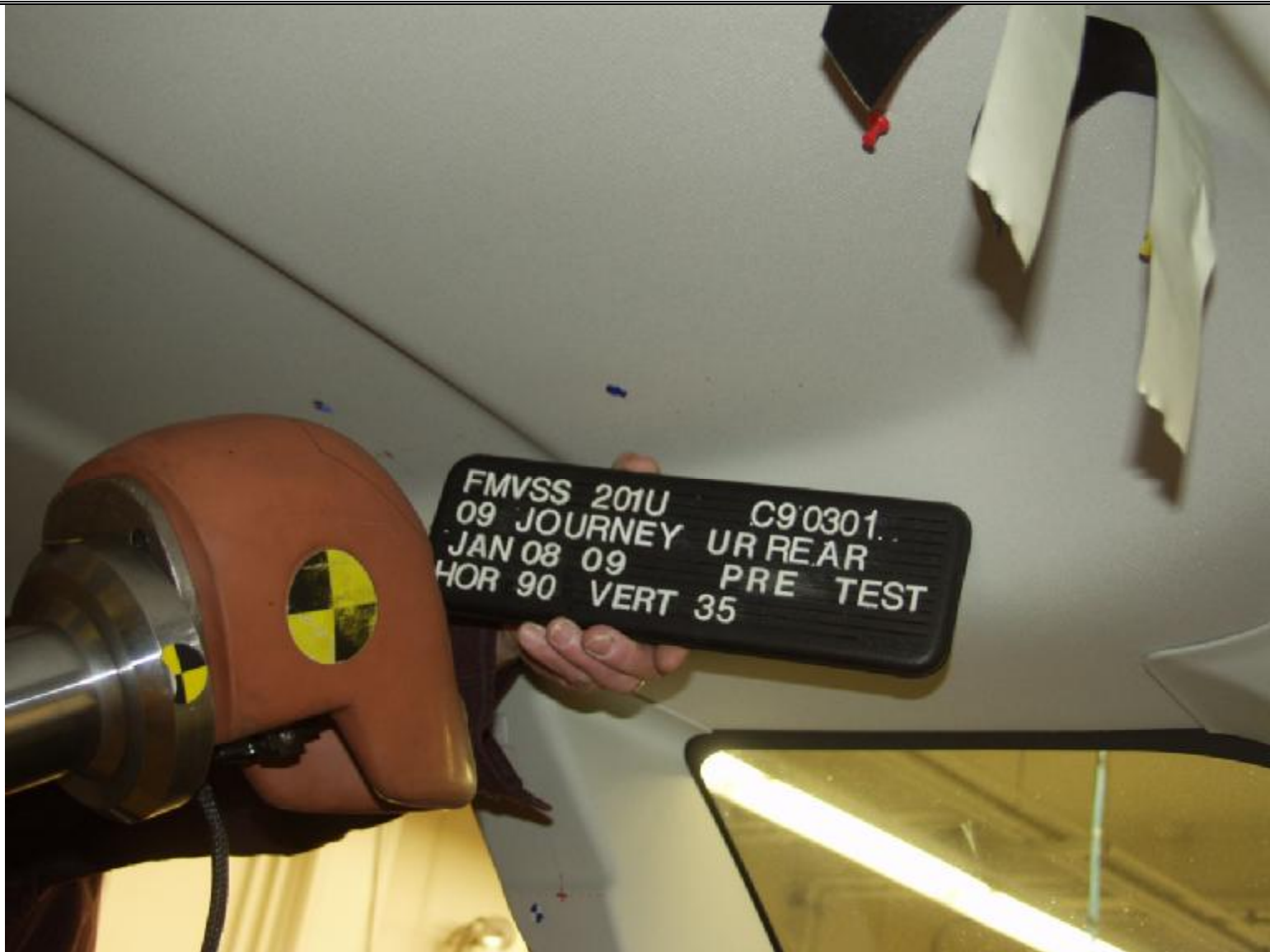
### Headform Velocity

C90301 PASSENGER SIDE URREAR IMPACT PLOT #5



CFC\_180

C90301 - January 08, 2009



PRE-IMPACT URREAR



POST-IMPACT URREAR



VEHICLE YEAR/MAKE/MODEL/STYLE:	2009 Dodge Journey
VIN:	3D4GG47B99T216926
DATE OF MANUFACTURE:	06/08(SEE CERTIFICATION LABEL)
COLOR:	Silver

Test Number:	4
Test Date:	Jan 08,2009
Target Location:	Upper Roof
Target Code:	URRSR
Horizontal Impact Angle:	90°
Vertical Impact Angle:	35°
Ambient Temperature:	20°C
Relative Humidity:	23
Time of Impact:	10:30
Headform Number:	0805

Impact Point Description (from lower midpoint on midsagittal line)			
On Centerline	11	<input type="checkbox"/>	mm right <input checked="" type="checkbox"/> mm left
On Centerline	64		mm up



POST-IMPACT URRSR HEADFORM

Free Motion HIC	572.3
HIC(d)	598.2
Impact Velocity (kph)	23.47
HIC T1 (msec)	5.5
HIC T2 (msec)	13.8

# FMVSS 201U 09 Dodge Journey C90301 - URRSR

FMH Headform 0805

Location: URRSR

Test Date: January 08, 2009

Work File: URRSR

## -----TEST RESULTS-----

Lab Temperature: 20 C

HICd: 598.2

Lab Humidity: 23 %

HIC (36ms): 572.3

Velocity at Impact: 23.47 KPH

t1: 5.5 msec

t2: 13.8 msec

Free Flight Distance: 209.57 mm

Duration: 8.3 msec

Average Acceleration: 8.8 g

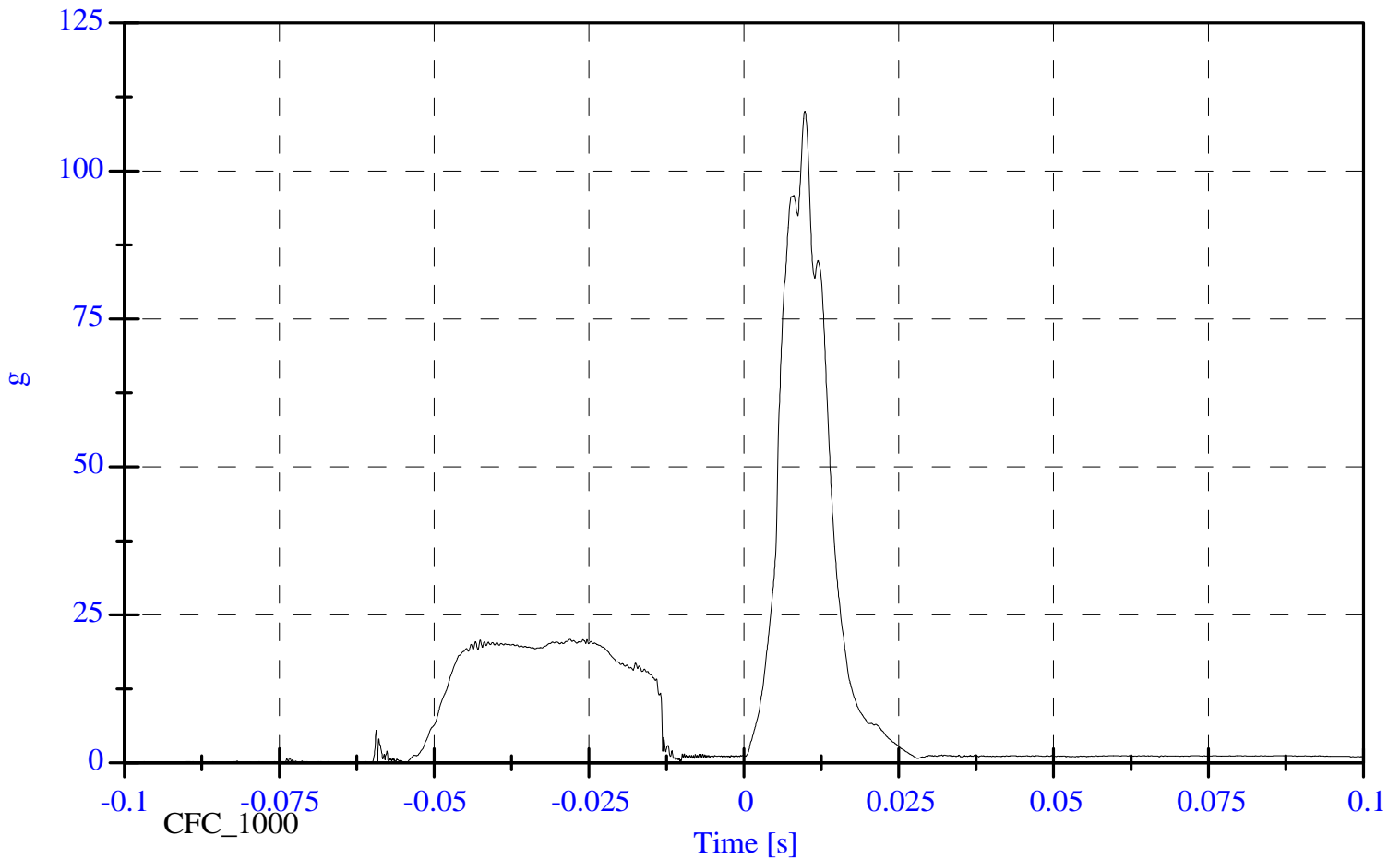
Maximum: 110.1 g

FMVSS 201U 09 Dodge Journey

Headform Resultant

Max: 110.1 [g] at 0.010 [s]

Min: 0.0 [g] at -0.079 [s]



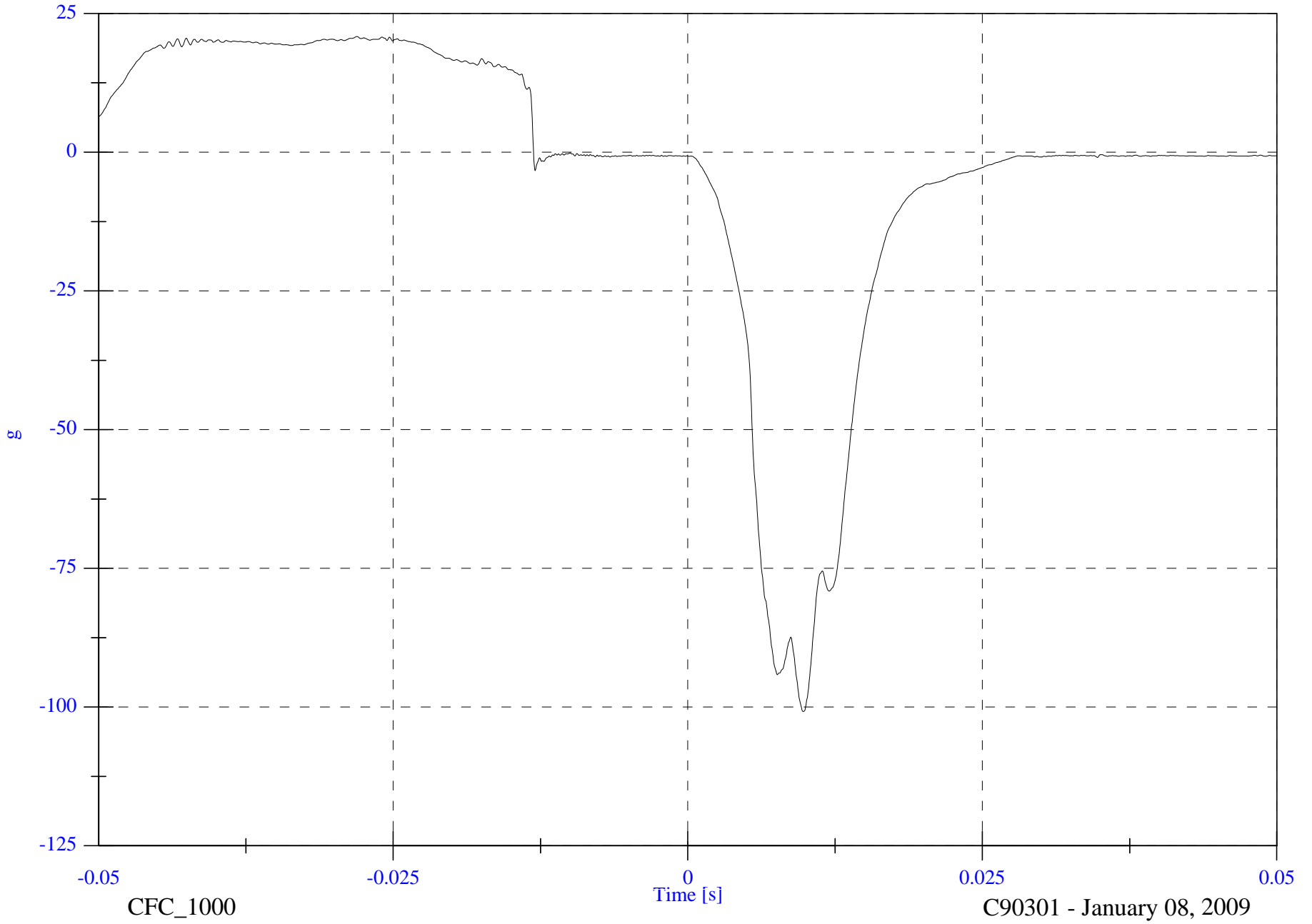
FMVSS 201U 09 Dodge Journey

Headform X Acceleration

Max: 20.8 [g] at -0.028 [s]

Min: -100.8 [g] at 0.010 [s]

C90301 PASSENGER SIDE URRSR IMPACT PLOT #1



CFC\_1000

C90301 - January 08, 2009

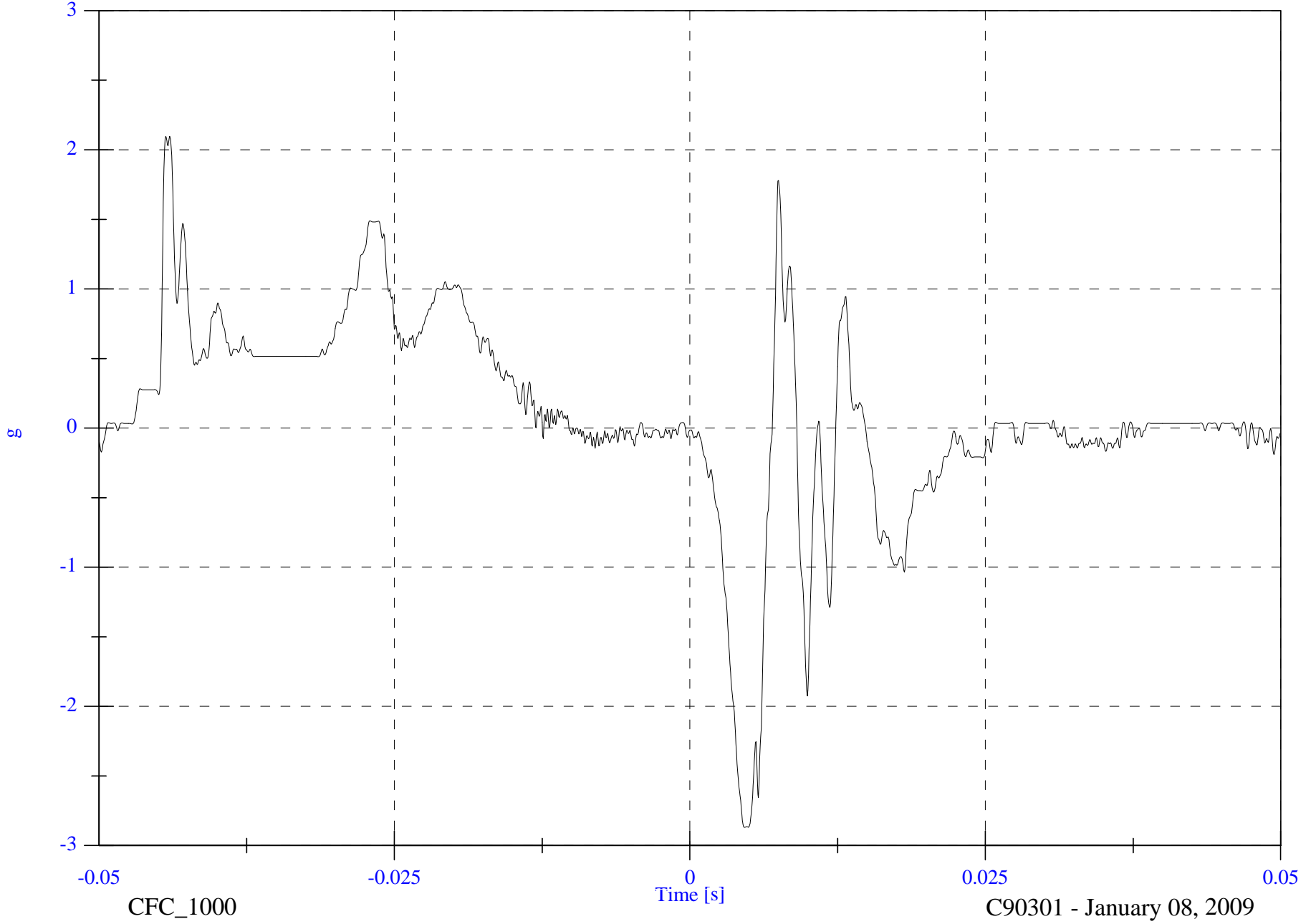
FMVSS 201U 09 Dodge Journey

Headform Y Acceleration

Max: 2.1 [g] at -0.044 [s]

Min: -2.9 [g] at 0.005 [s]

C90301 PASSENGER SIDE URRSR IMPACT PLOT #2



CFC\_1000

C90301 - January 08, 2009

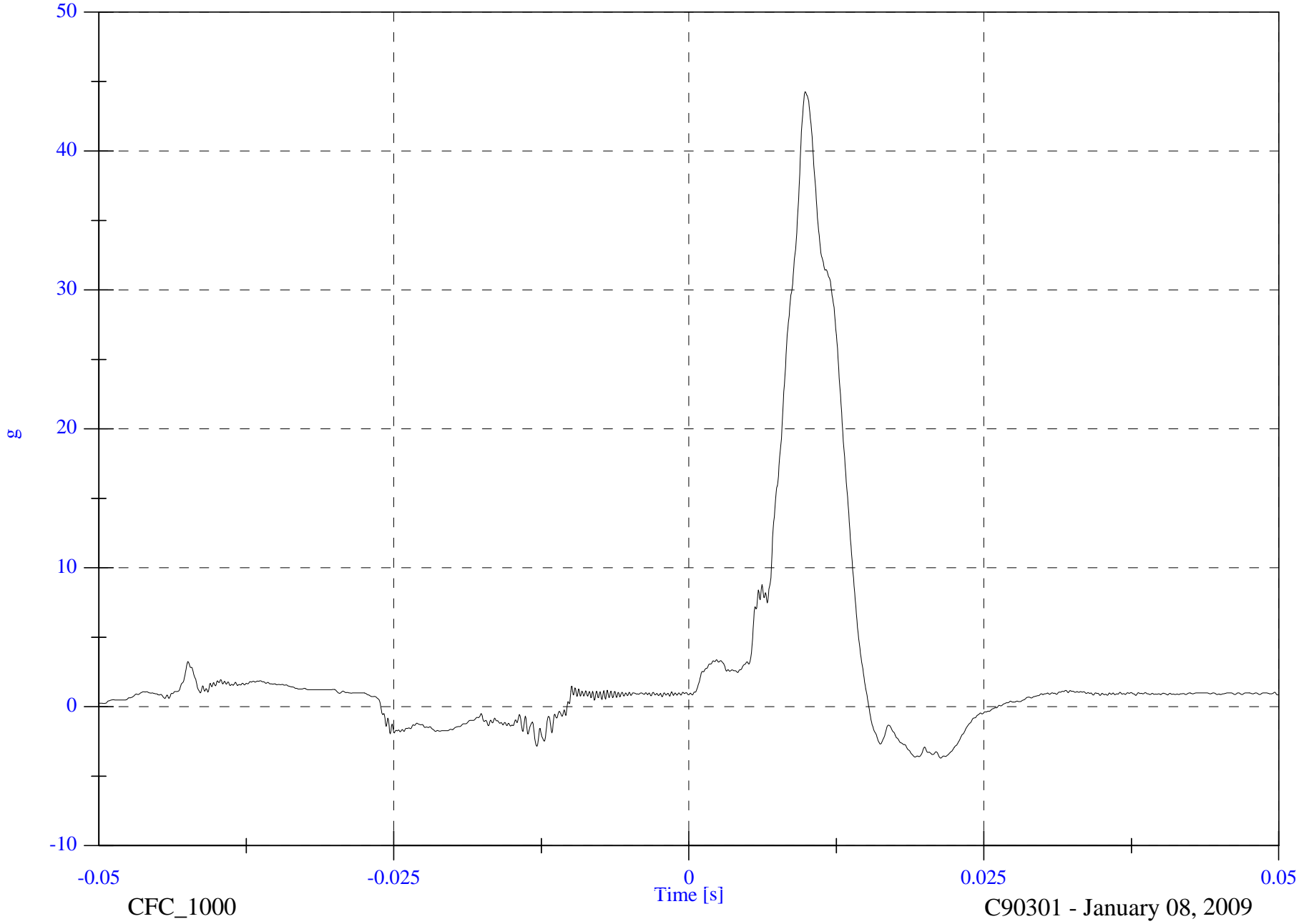
FMVSS 201U 09 Dodge Journey

Headform Z Acceleration

Max: 44.3 [g] at 0.010 [s]

Min: -3.7 [g] at 0.021 [s]

C90301 PASSENGER SIDE URRSR IMPACT PLOT #3



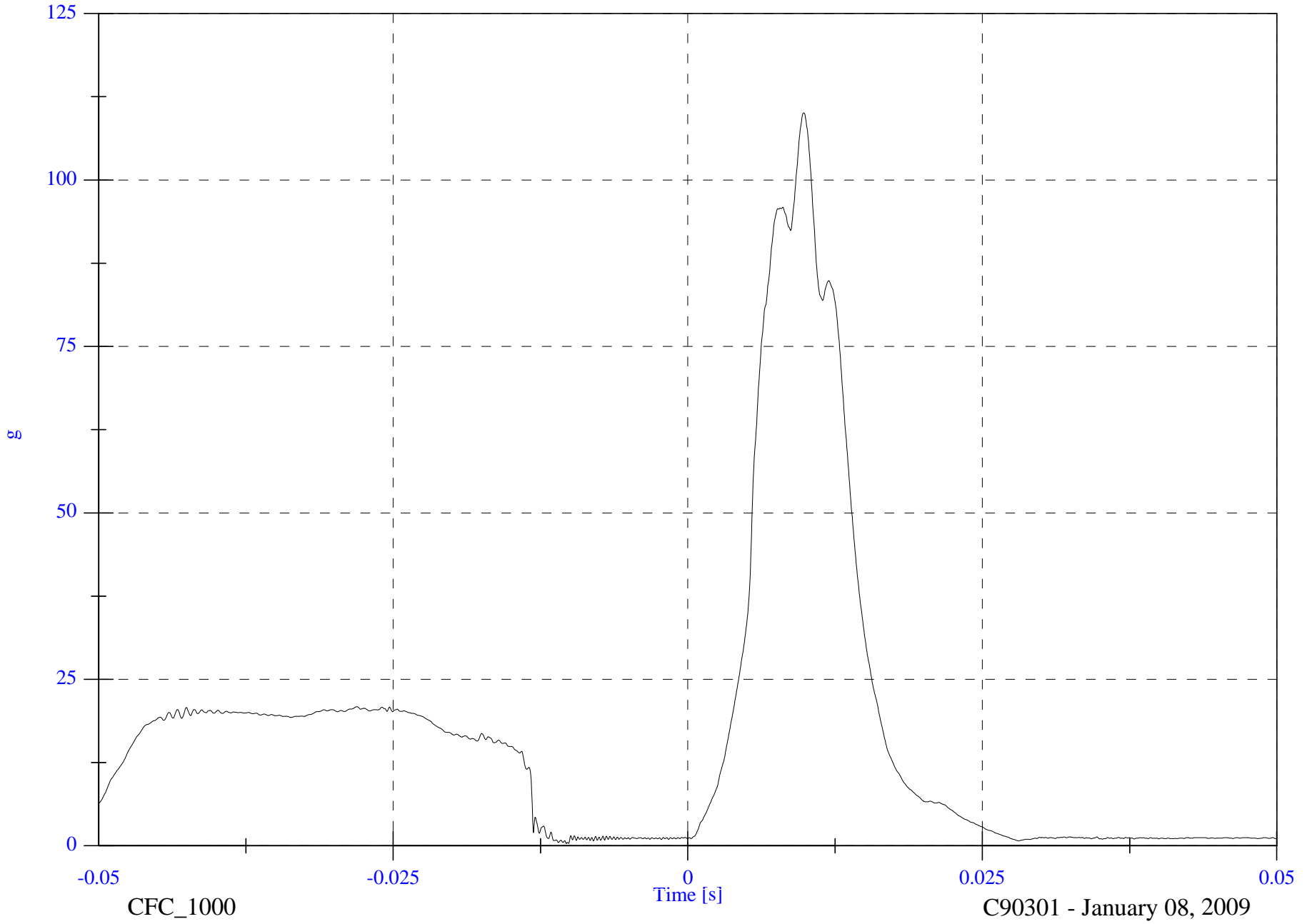
FMVSS 201U 09 Dodge Journey

Headform Resultant

Max: 110.1 [g] at 0.010 [s]

Min: 0.3 [g] at -0.010 [s]

C90301 PASSENGER SIDE URRSR IMPACT PLOT #4



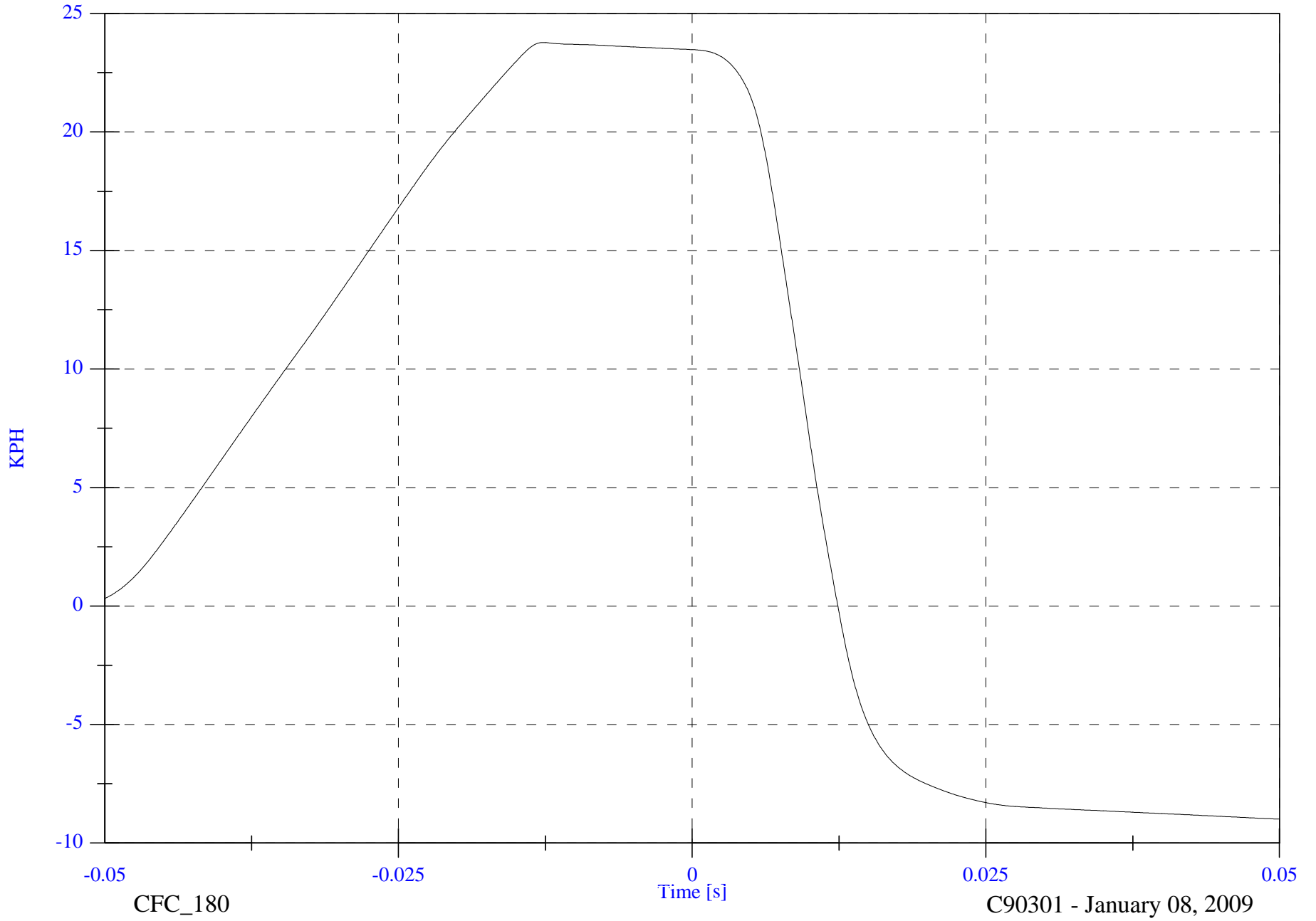
FMVSS 201U 09 Dodge Journey

Max: 23.8 [KPH] at -0.013 [s]

Min: -9.0 [KPH] at 0.050 [s]

### Headform Velocity

C90301 PASSENGER SIDE URRSR IMPACT PLOT #5



CFC\_180

C90301 - January 08, 2009



PRE-IMPACT URRSR



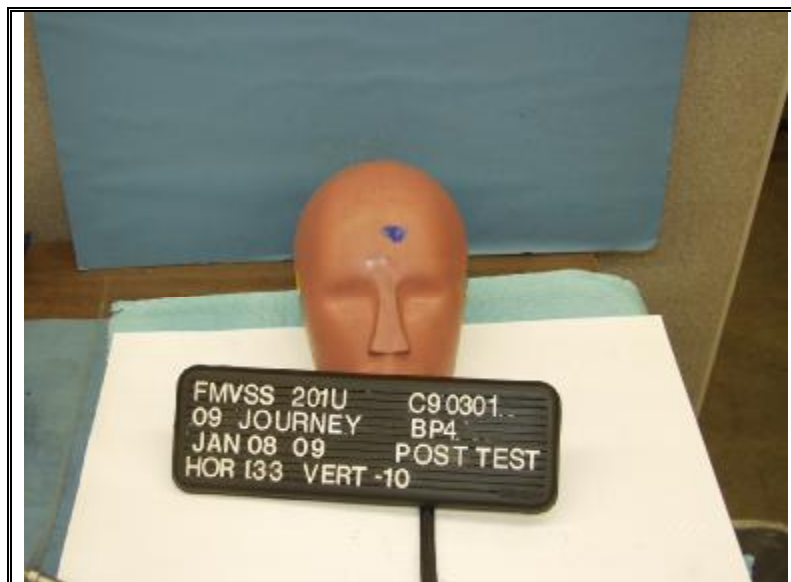


POST-IMPACT URRSR

VEHICLE YEAR/MAKE/MODEL/STYLE:	2009 Dodge Journey
VIN:	3D4GG47B99T216926
DATE OF MANUFACTURE:	06/08(SEE CERTIFICATION LABEL)
COLOR:	Silver

Test Number:	5
Test Date:	Jan 08,2009
Target Location:	B-Pillar
Target Code:	BP4
Horizontal Impact Angle:	133°
Vertical Impact Angle:	-10°
Ambient Temperature:	20°C
Relative Humidity:	23
Time of Impact:	11:00
Headform Number:	1142

Impact Point Description (from lower midpoint on midsagittal line)			
On Centerline	8	<input type="checkbox"/>	mm right <input checked="" type="checkbox"/> mm left
On Centerline	15		mm up



POST-IMPACT BP4 HEADFORM

Free Motion HIC	273.6
HIC(d)	372.8
Impact Velocity (kph)	23.56
HIC T1 (msec)	1.3
HIC T2 (msec)	18.3

# FMVSS 201U 09 Dodge Journey C90301 - BP4

FMH Headform 1142

Location: BP4

Test Date: January 08, 2009

Work File: BP4

## -----TEST RESULTS-----

Lab Temperature: 20 C

HICd: 372.8

Lab Humidity: 23 %

HIC (36ms): 273.6

Velocity at Impact: 23.56 KPH

t1: 1.3 msec

t2: 18.3 msec

Free Flight Distance: 222.96 mm

Duration: 17.0 msec

Average Acceleration: 8.7 g

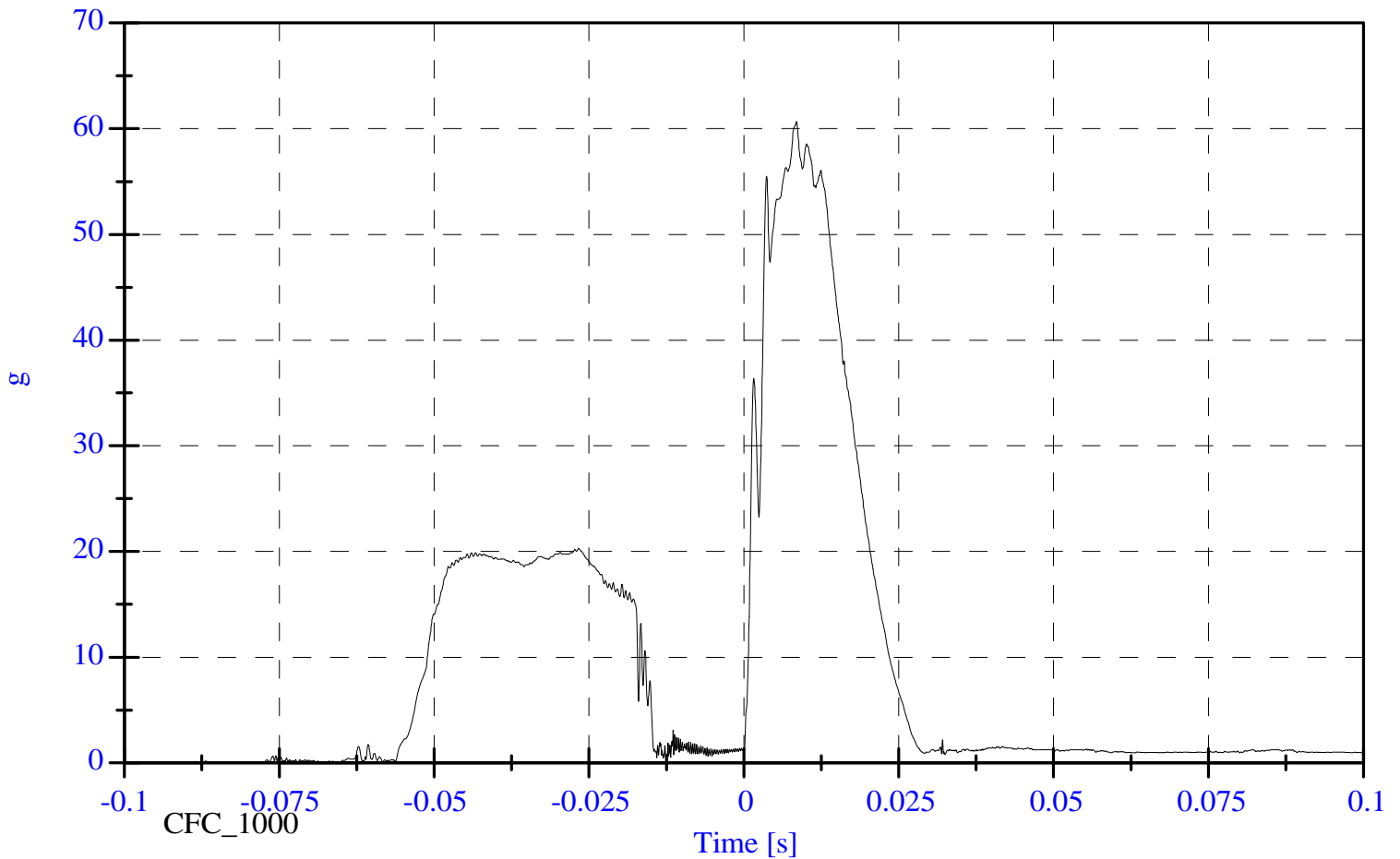
Maximum: 60.7 g

FMVSS 201U 09 Dodge Journey

Headform Resultant

Max: 60.7 [g] at 0.009 [s]

Min: 0.0 [g] at -0.099 [s]



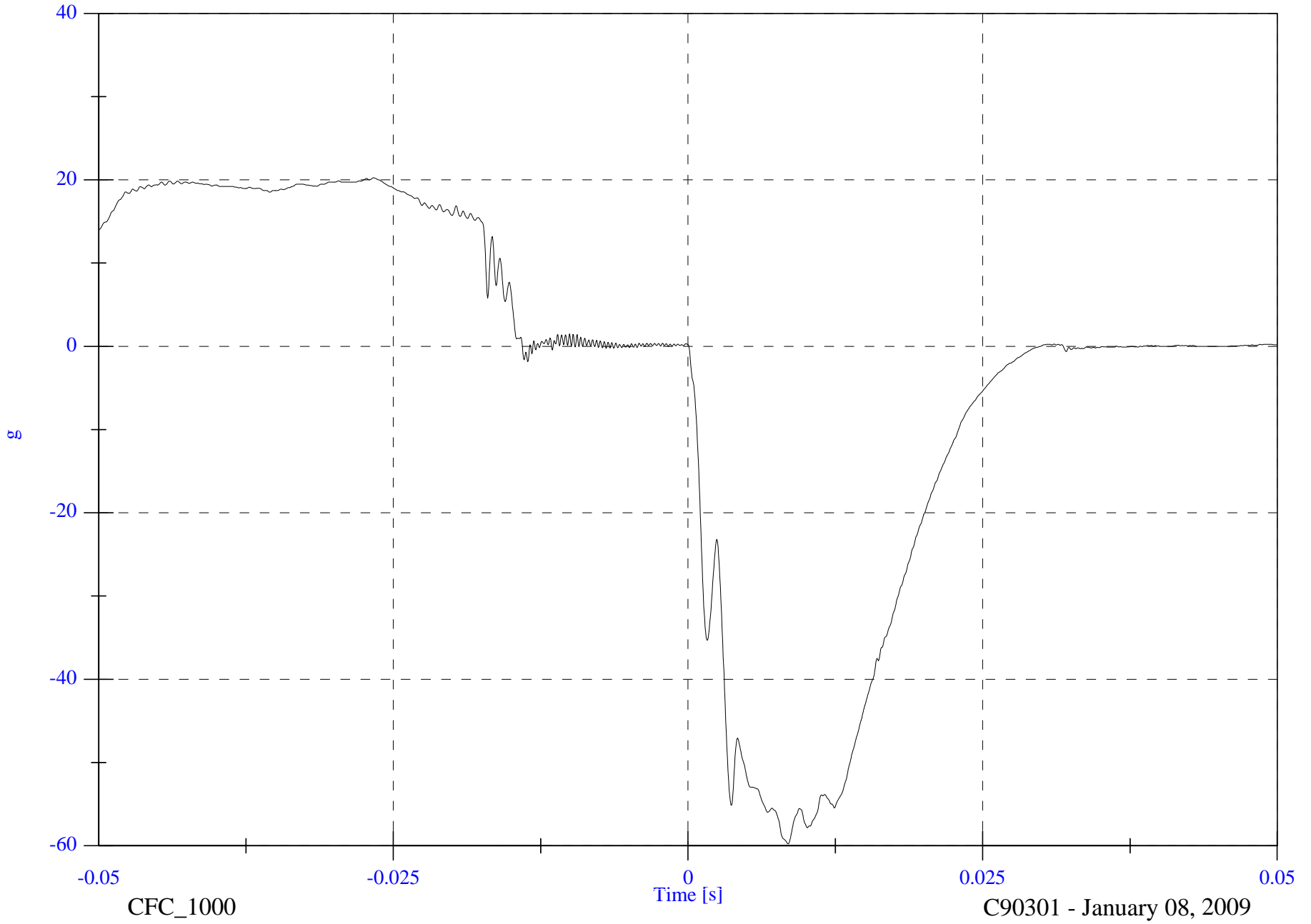
FMVSS 201U 09 Dodge Journey

Headform X Acceleration

Max: 20.3 [g] at -0.027 [s]

Min: -59.8 [g] at 0.009 [s]

C90301 PASSENGER SIDE BP4 IMPACT PLOT #1



CFC\_1000

C90301 - January 08, 2009

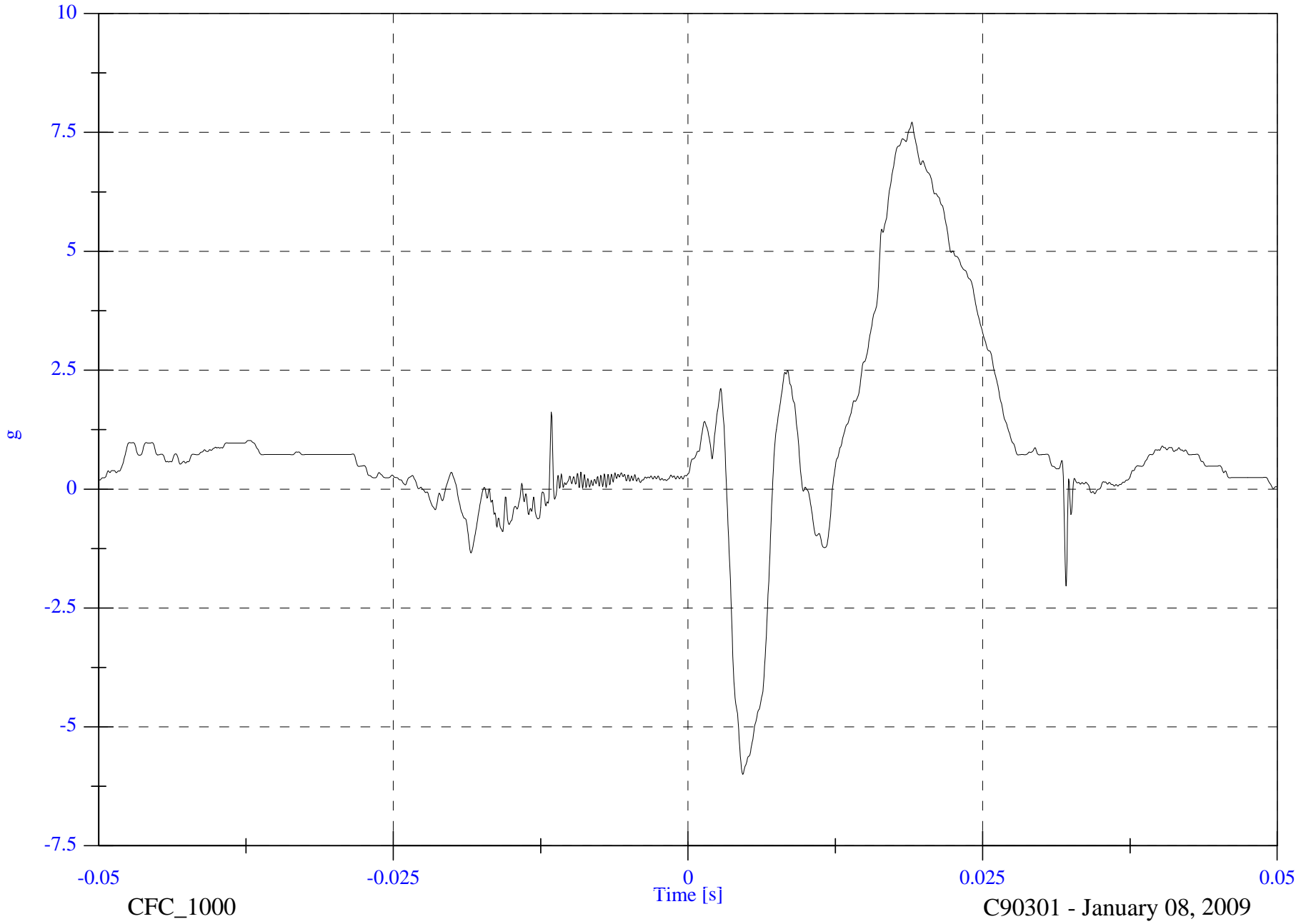
FMVSS 201U 09 Dodge Journey

Headform Y Acceleration

Max: 7.7 [g] at 0.019 [s]

Min: -6.0 [g] at 0.005 [s]

C90301 PASSENGER SIDE BP4 IMPACT PLOT #2



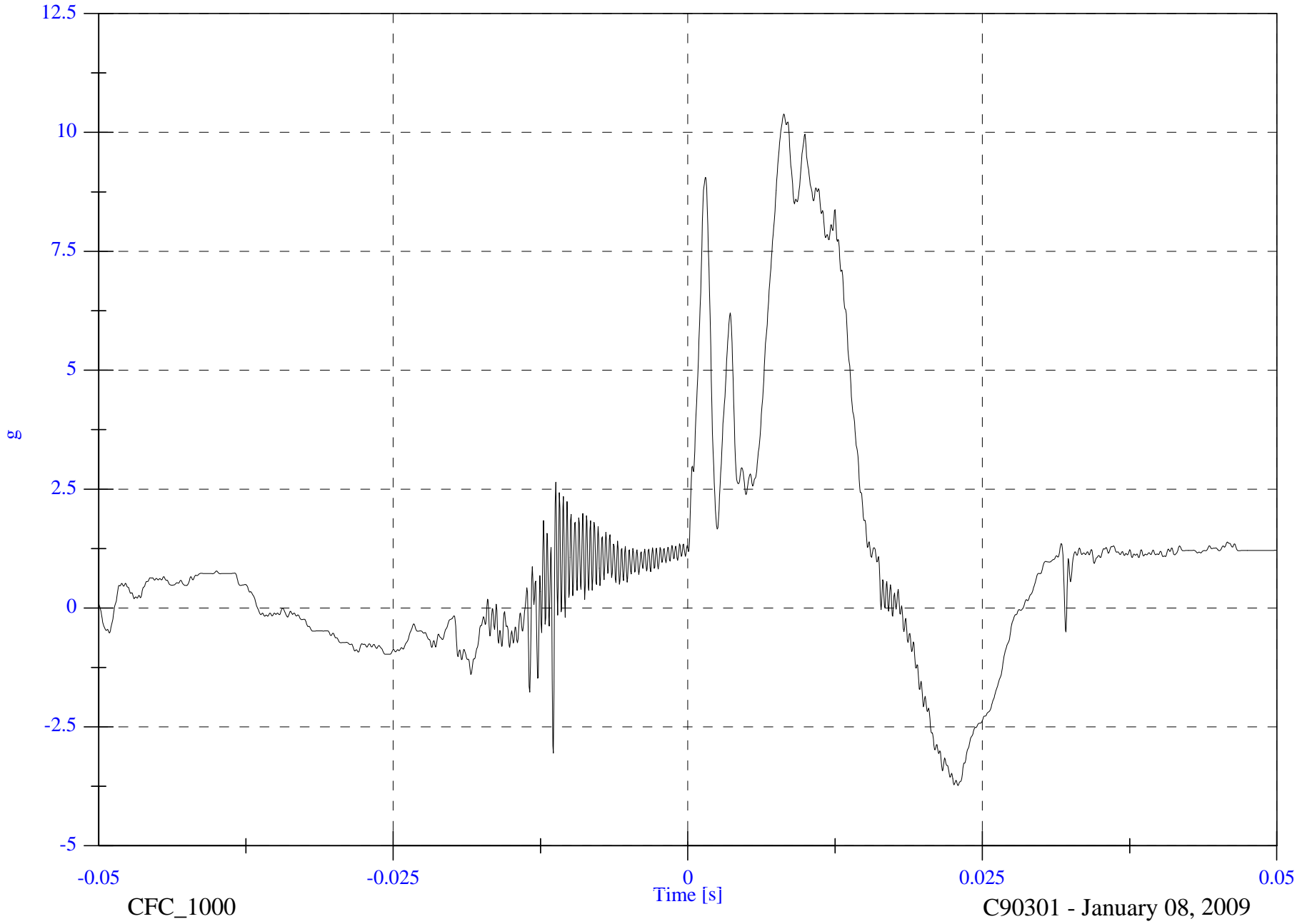
FMVSS 201U 09 Dodge Journey

Headform Z Acceleration

Max: 10.4 [g] at 0.008 [s]

Min: -3.7 [g] at 0.023 [s]

C90301 PASSENGER SIDE BP4 IMPACT PLOT #3



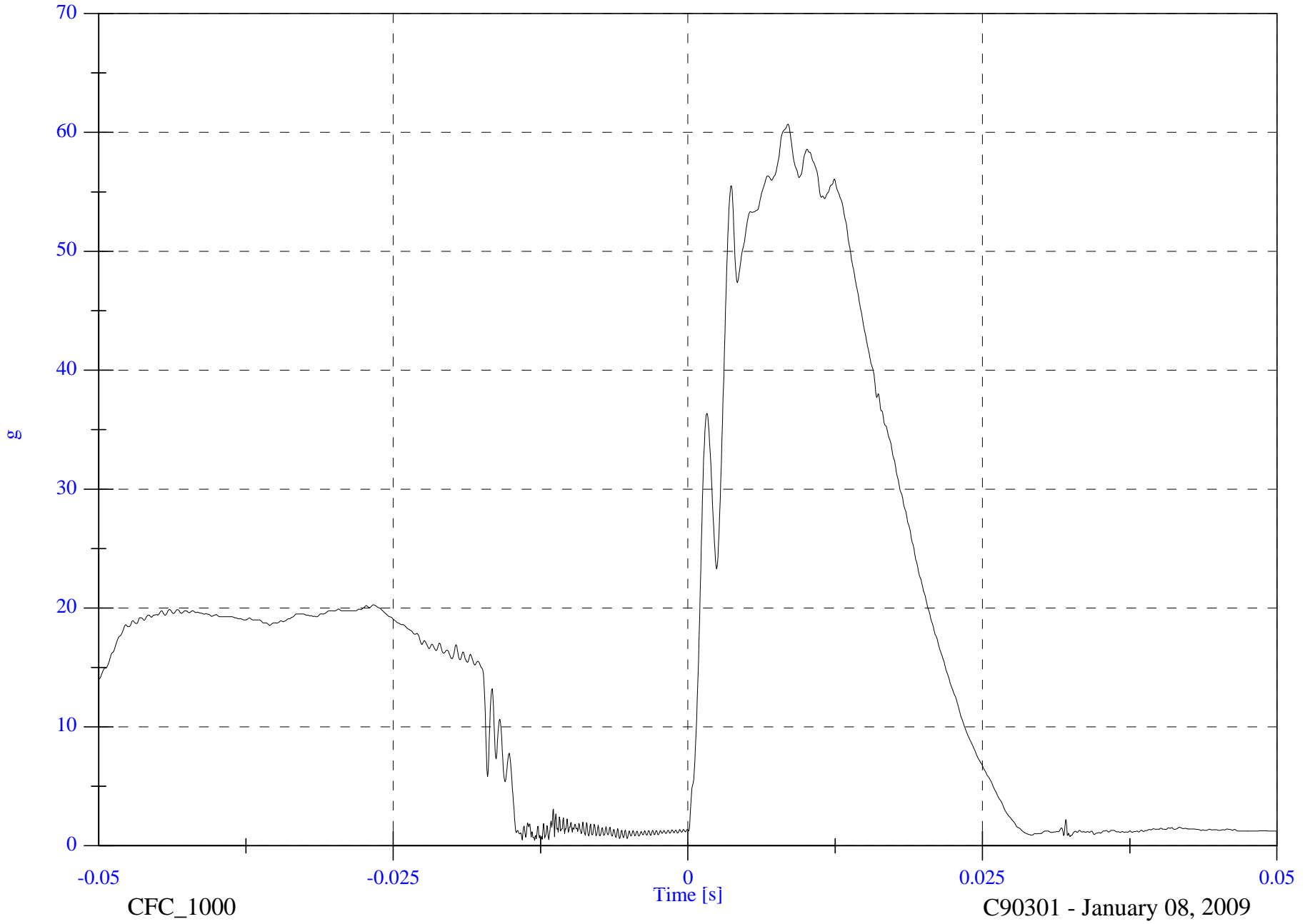
FMVSS 201U 09 Dodge Journey

Headform Resultant

Max: 60.7 [g] at 0.009 [s]

Min: 0.4 [g] at -0.013 [s]

C90301 PASSENGER SIDE BP4 IMPACT PLOT #4



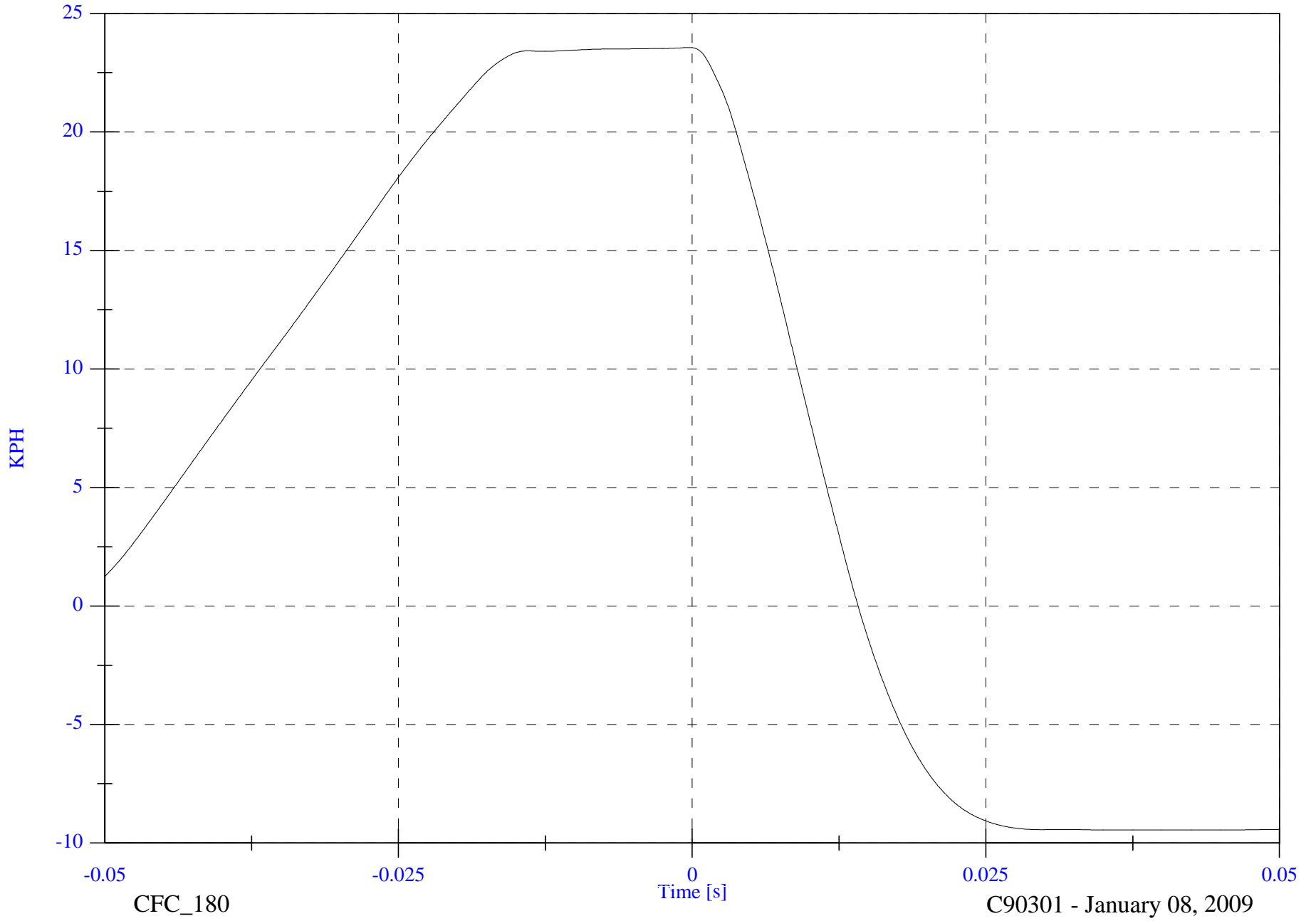
FMVSS 201U 09 Dodge Journey

### Headform Velocity

Max: 23.6 [KPH] at -0.000 [s]

Min: -9.5 [KPH] at 0.038 [s]

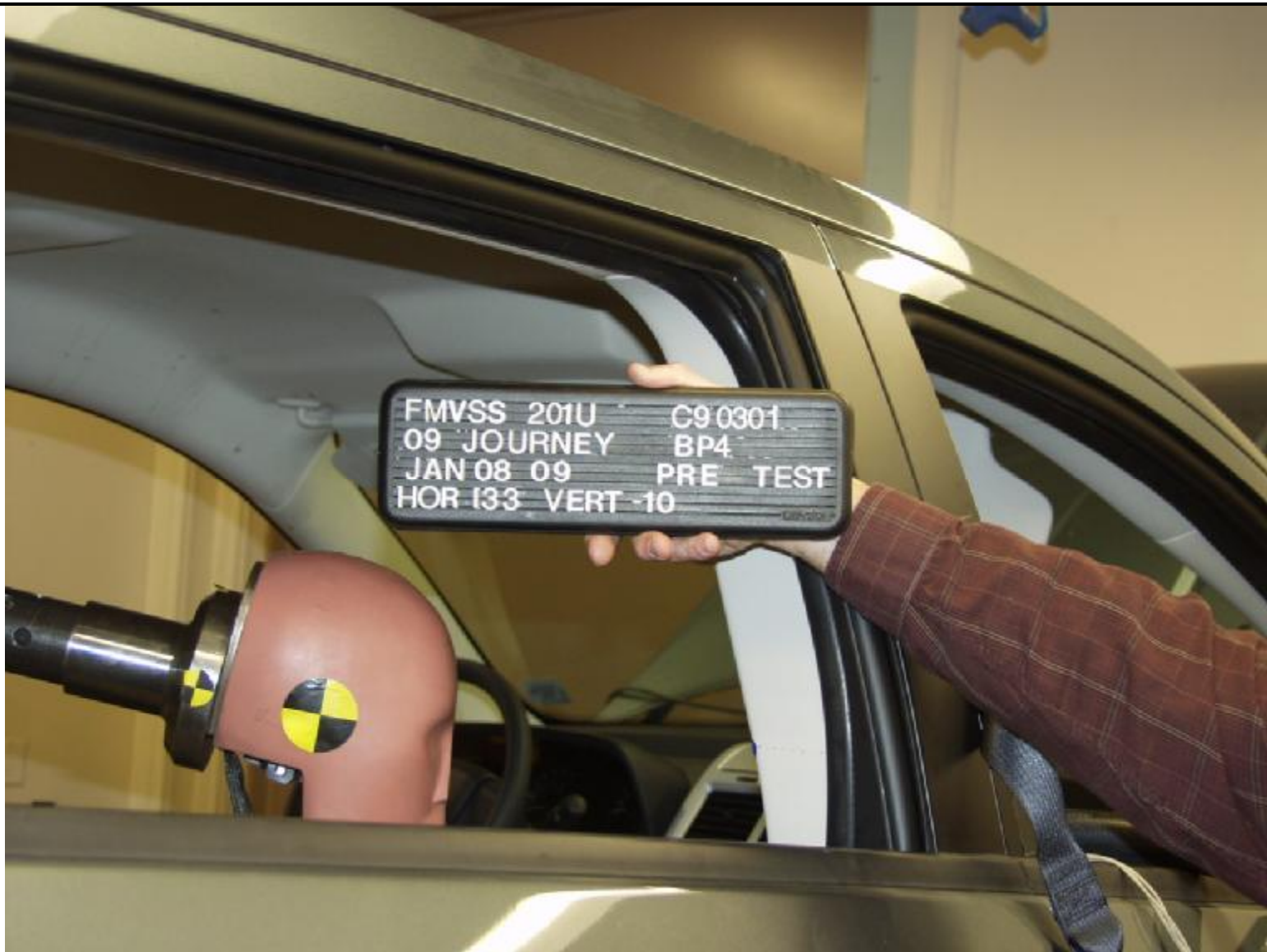
C90301 PASSENGER SIDE BP4 IMPACT PLOT #5



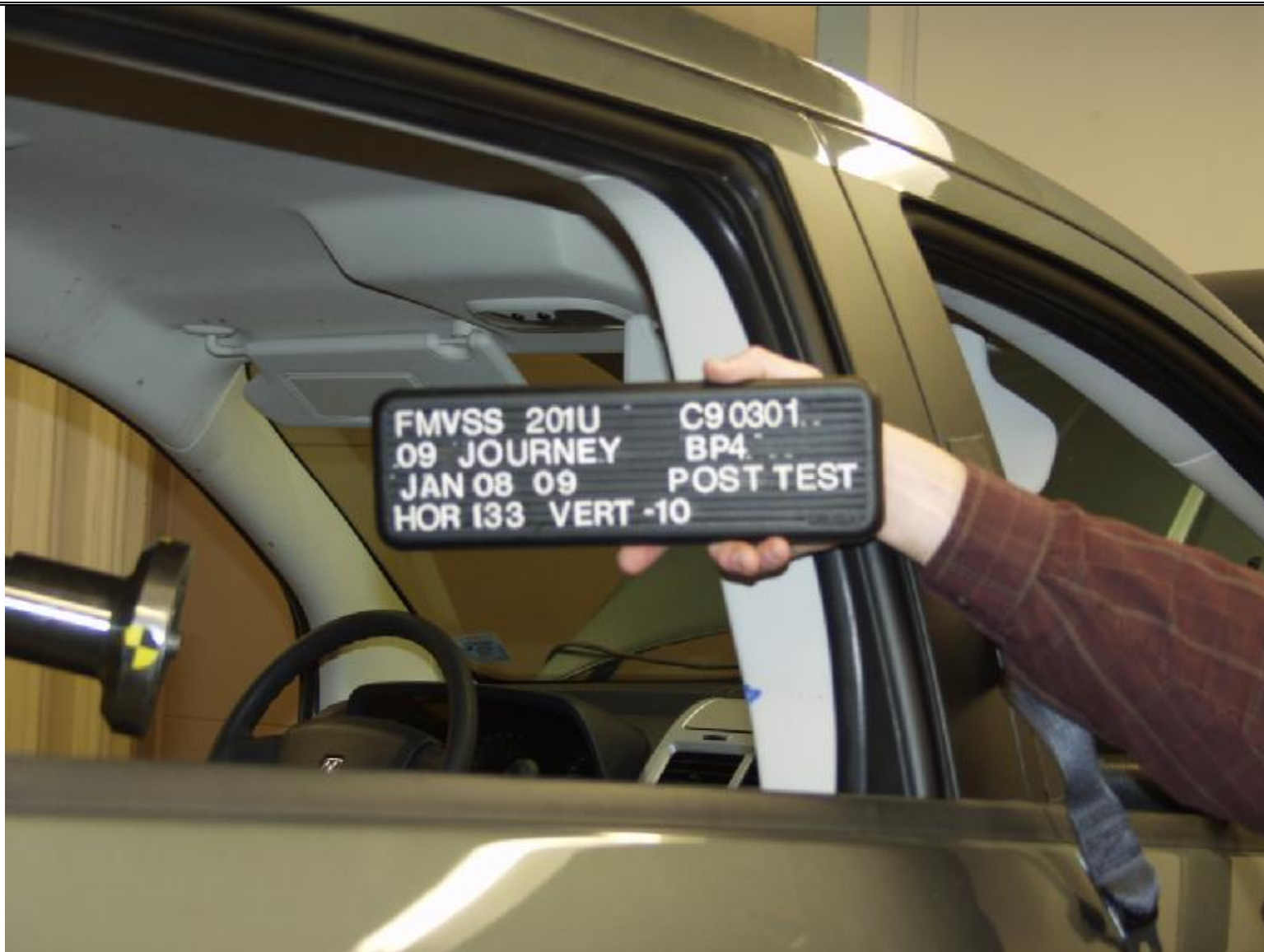
CFC\_180

C90301 - January 08, 2009





PRE-IMPACT BP4

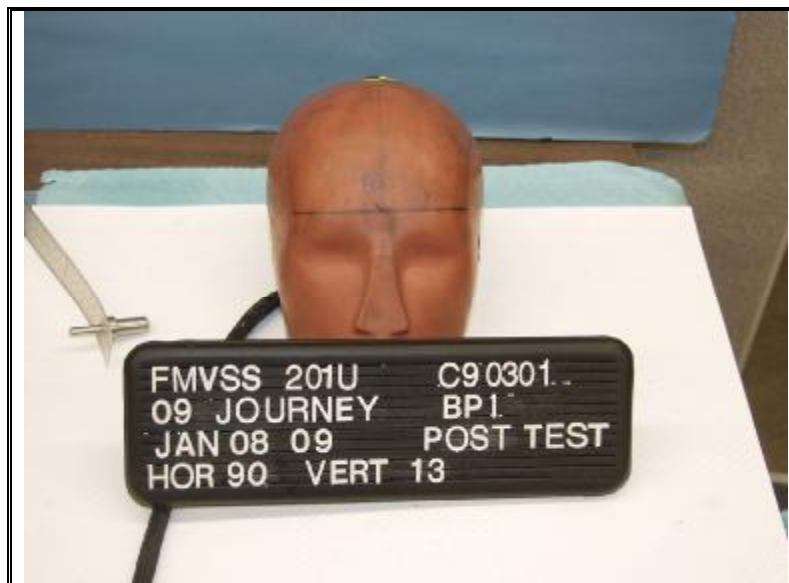


POST-IMPACT BP4

VEHICLE YEAR/MAKE/MODEL/STYLE:	2009 Dodge Journey
VIN:	3D4GG47B99T216926
DATE OF MANUFACTURE:	06/08(SEE CERTIFICATION LABEL)
COLOR:	Silver

Test Number:	<b>6</b>
Test Date:	<b>Jan 08,2009</b>
Target Location:	<b>B-Pillar</b>
Target Code:	<b>BP1</b>
Horizontal Impact Angle:	<b>90°</b>
Vertical Impact Angle:	<b>13°</b>
Ambient Temperature:	<b>20°C</b>
Relative Humidity:	<b>23</b>
Time of Impact:	<b>12:00</b>
Headform Number:	<b>0062</b>

Impact Point Description (from lower midpoint on midsagittal line)					
On Centerline	<b>5</b>	<input checked="" type="checkbox"/>	mm right	<input type="checkbox"/>	mm left
On Centerline	<b>16</b>				mm up



POST-IMPACT BP1 HEADFORM

Free Motion HIC	<b>287.9</b>
HIC(d)	<b>383.6</b>
Impact Velocity (kph)	<b>18.54</b>
HIC T1 (msec)	<b>1.9</b>
HIC T2 (msec)	<b>13.3</b>

# FMVSS 201U 09 Dodge Journey C90301 - BP1

FMH Headform 0062

Location: BP1

Test Date: January 08, 2009

Work File: BP1

## -----TEST RESULTS-----

Lab Temperature: 20 C

HICd: 383.6

Lab Humidity: 23 %

HIC (36ms): 287.9

Velocity at Impact: 18.54 KPH

t1: 1.9 msec

t2: 13.4 msec

Free Flight Distance: 224.07 mm

Duration: 11.4 msec

Average Acceleration: 7.3 g

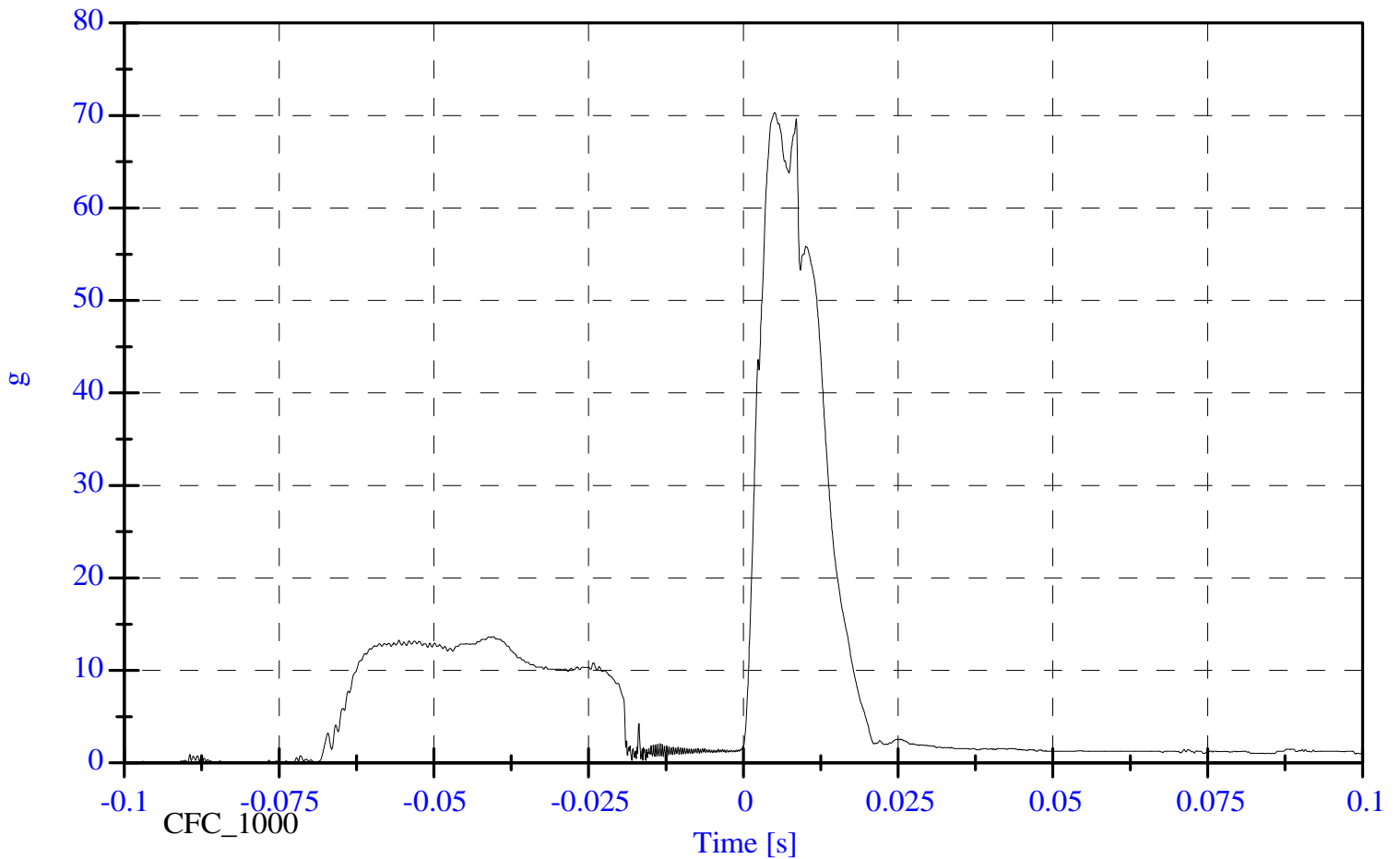
Maximum: 70.3 g

FMVSS 201U 09 Dodge Journey

Headform Resultant

Max: 70.3 [g] at 0.005 [s]

Min: 0.0 [g] at -0.098 [s]



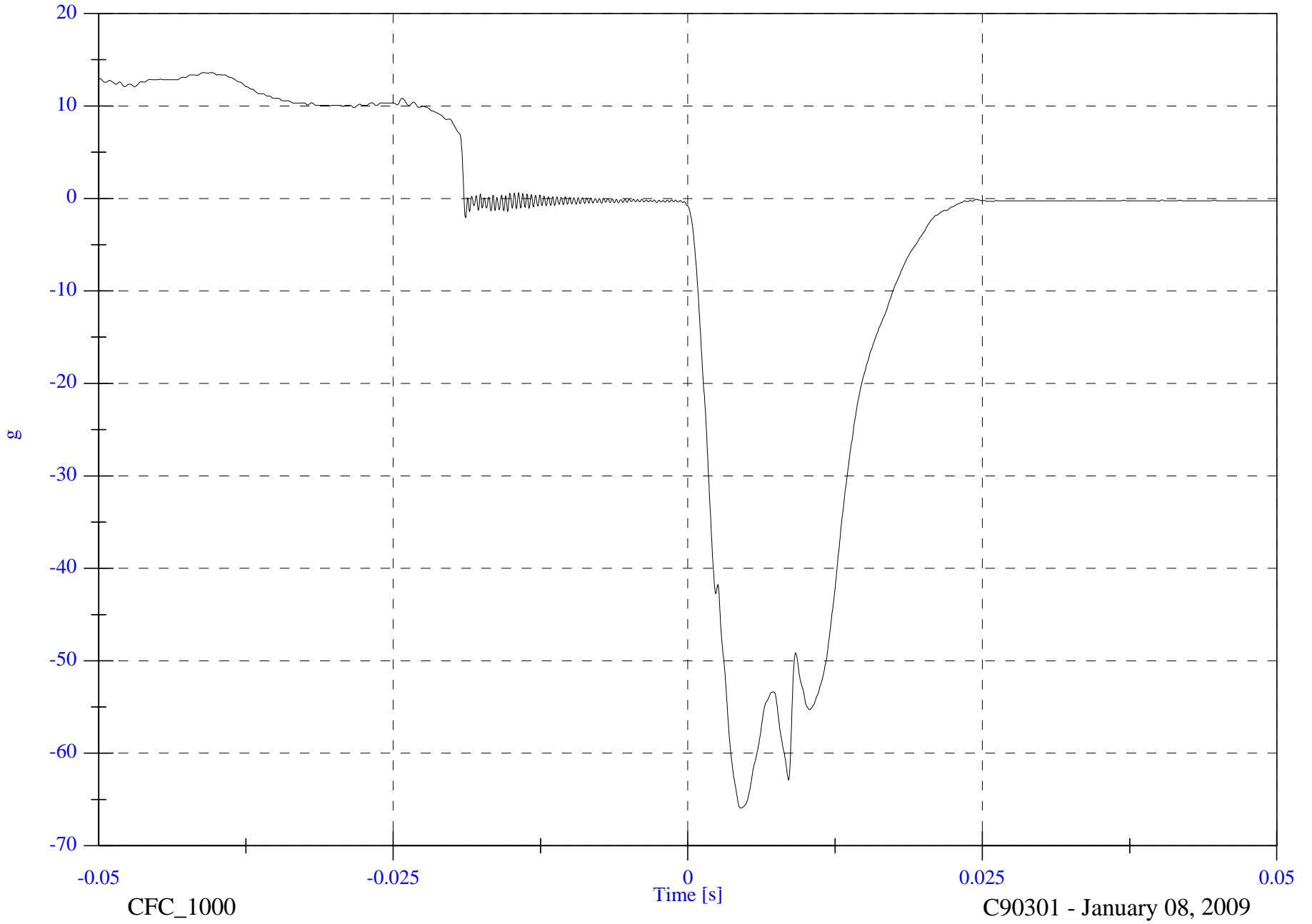
FMVSS 201U 09 Dodge Journey

Headform X Acceleration

Max: 13.6 [g] at -0.040 [s]

Min: -65.9 [g] at 0.004 [s]

C90301 PASSENGER SIDE BPI IMPACT PLOT #1



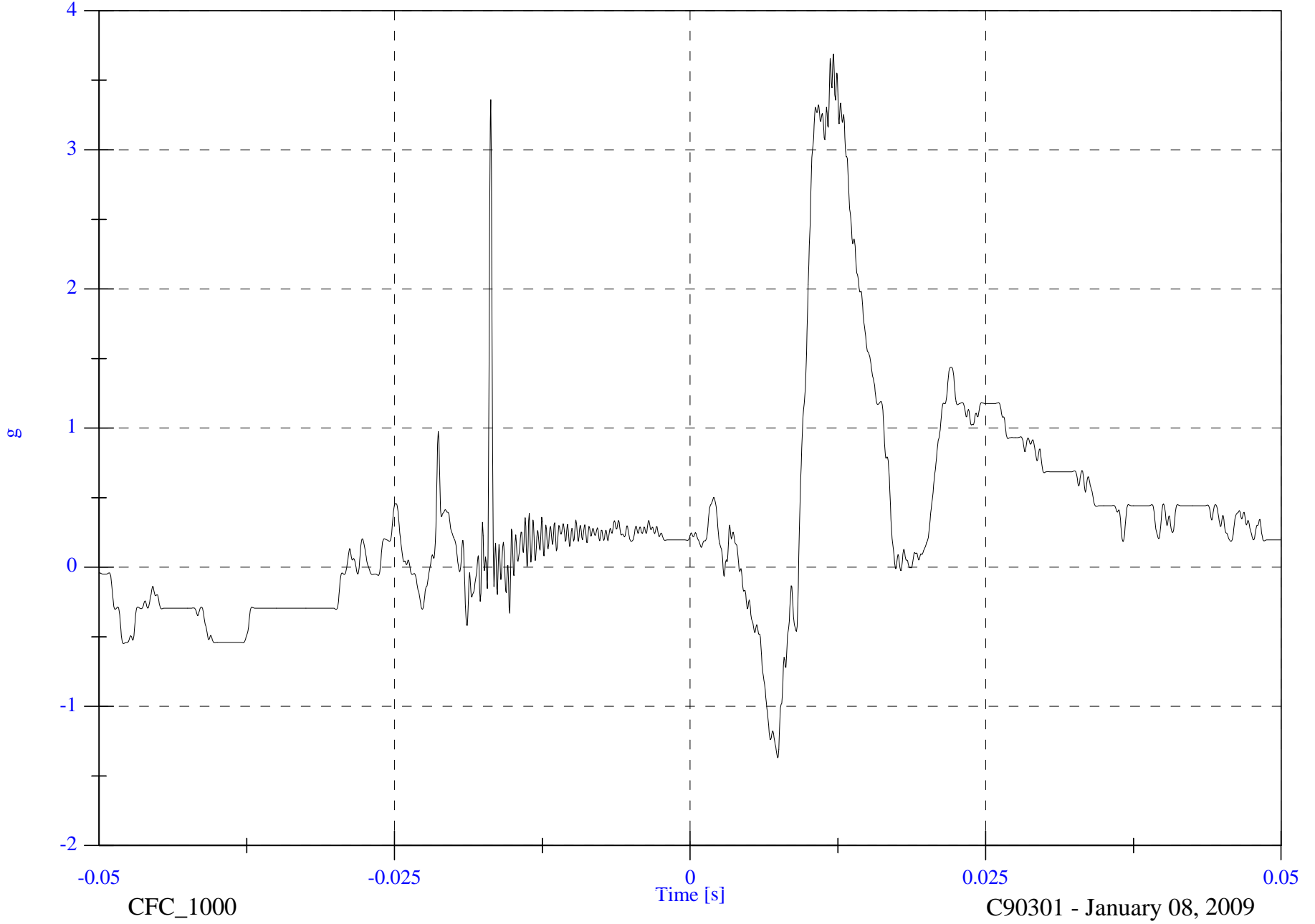
FMVSS 201U 09 Dodge Journey

Headform Y Acceleration

Max: 3.7 [g] at 0.012 [s]

Min: -1.4 [g] at 0.007 [s]

C90301 PASSENGER SIDE BP1 IMPACT PLOT #2



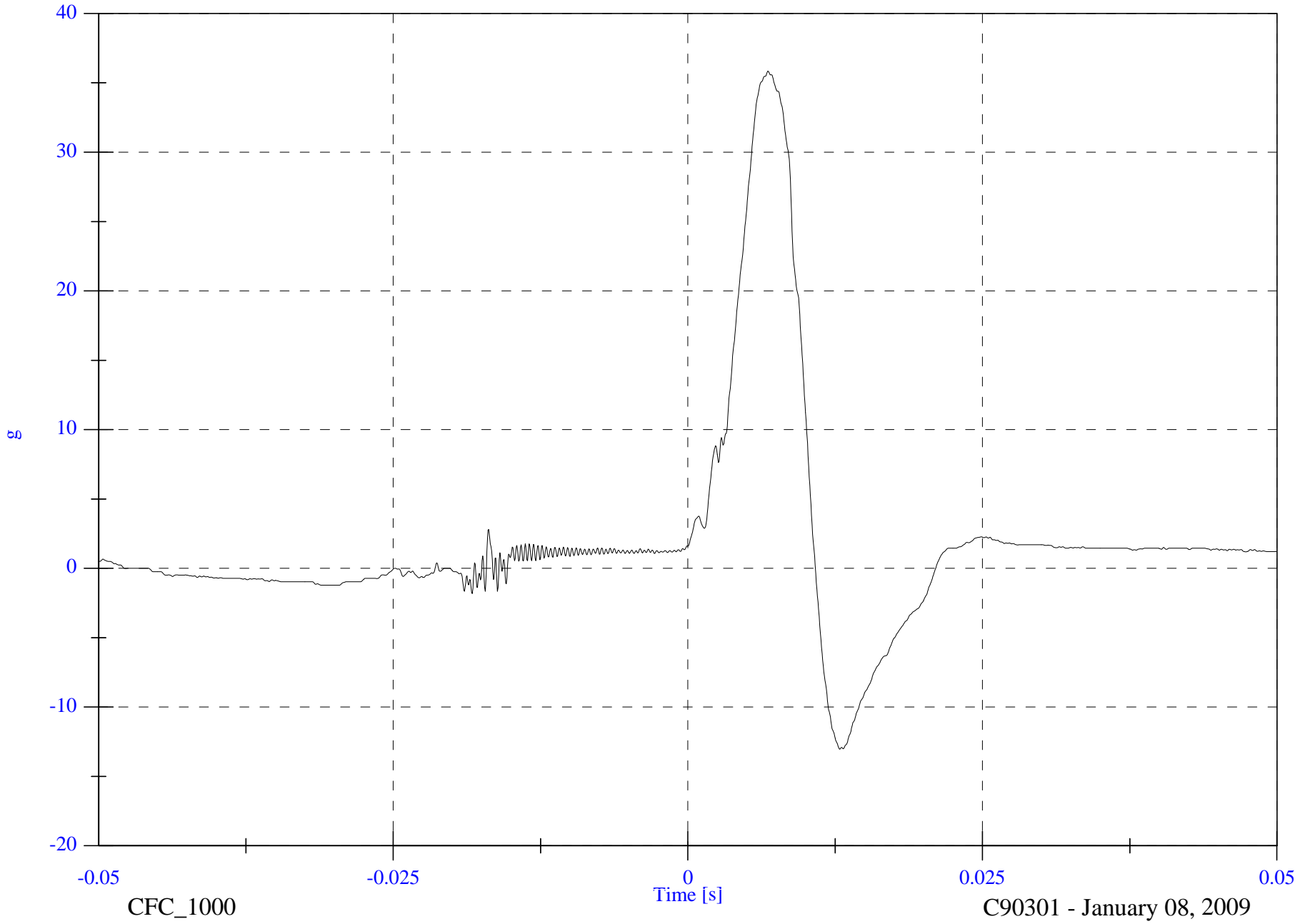
FMVSS 201U 09 Dodge Journey

Headform Z Acceleration

Max: 35.8 [g] at 0.007 [s]

Min: -13.0 [g] at 0.013 [s]

C90301 PASSENGER SIDE BPI IMPACT PLOT #3



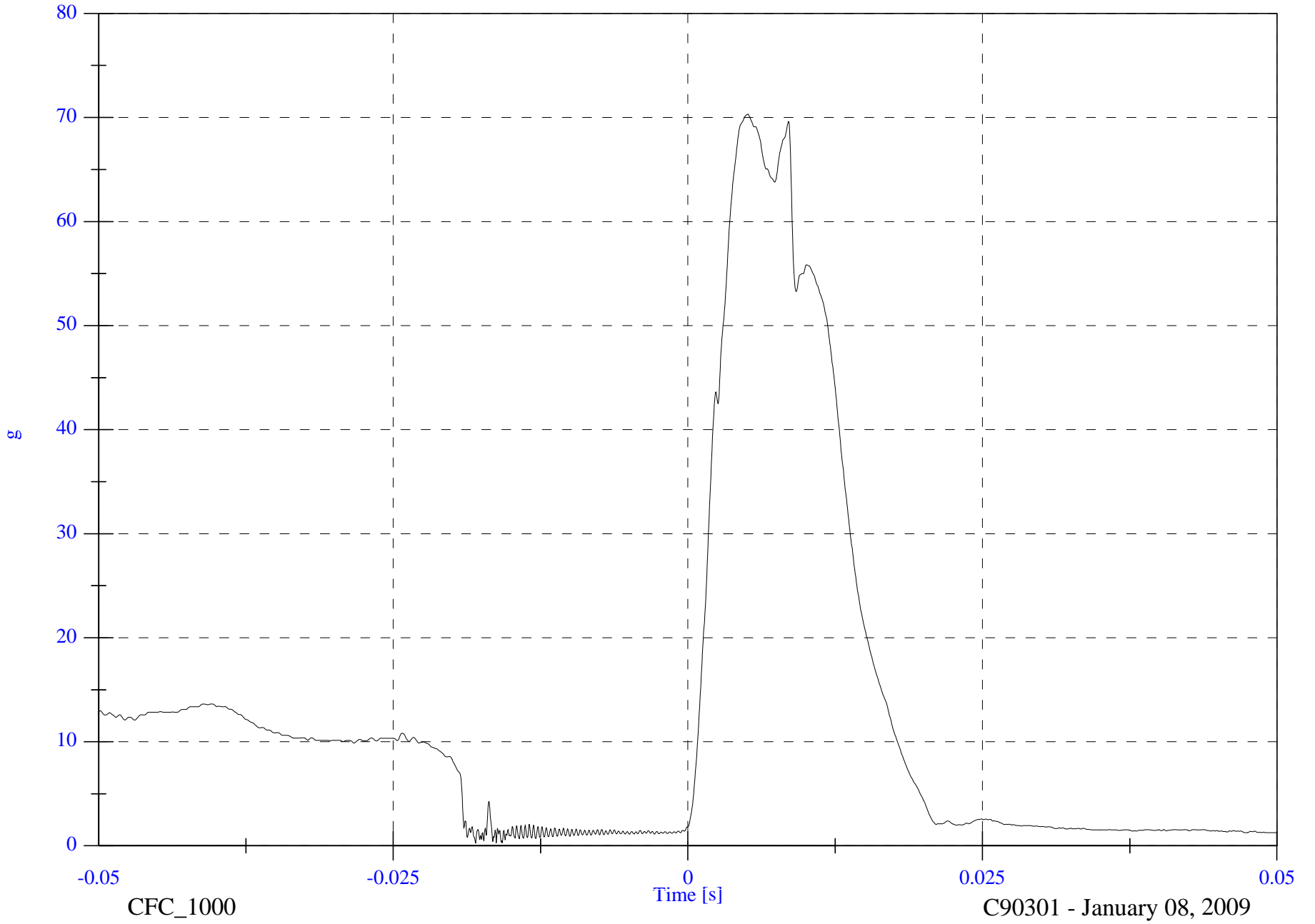
FMVSS 201U 09 Dodge Journey

Headform Resultant

Max: 70.3 [g] at 0.005 [s]

Min: 0.3 [g] at -0.018 [s]

C90301 PASSENGER SIDE BPI IMPACT PLOT #4





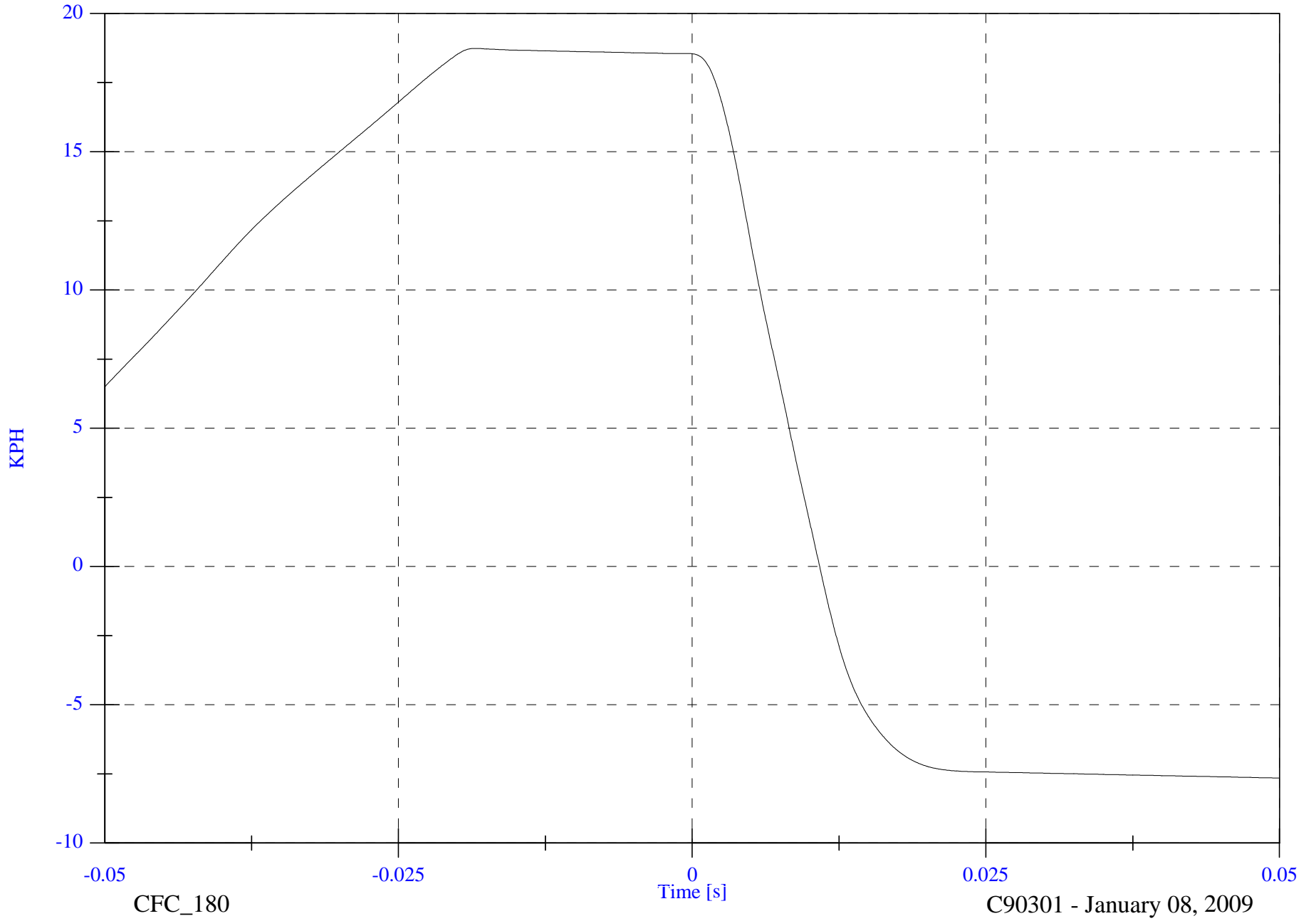
FMVSS 201U 09 Dodge Journey

### Headform Velocity

Max: 18.7 [KPH] at -0.018 [s]

Min: -7.6 [KPH] at 0.050 [s]

C90301 PASSENGER SIDE BPI IMPACT PLOT #5





PRE-IMPACT BP1



POST-IMPACT BP1

VEHICLE YEAR/MAKE/MODEL/STYLE:	2009 Dodge Journey
VIN:	3D4GG47B99T216926
DATE OF MANUFACTURE:	06/08(SEE CERTIFICATION LABEL)
COLOR:	Silver

Test Number:	7
Test Date:	Jan 08,2009
Target Location:	Side Rail
Target Code:	SR2A
Horizontal Impact Angle:	90°
Vertical Impact Angle:	27°
Ambient Temperature:	20°C
Relative Humidity:	23
Time of Impact:	13:15
Headform Number:	1140

Impact Point Description (from lower midpoint on midsagittal line)					
On Centerline	10	<input checked="" type="checkbox"/>	mm right	<input type="checkbox"/>	mm left
On Centerline	3				mm up



POST-IMPACT SR2A HEADFORM

Free Motion HIC	194.4
HIC(d)	313.8
Impact Velocity (kph)	18.48
HIC T1 (msec)	3.6
HIC T2 (msec)	14.7

# FMVSS 201U 09 Dodge Journey C90301 - SR2A

FMH Headform 0355

Location: SR2A

Test Date: January 08, 2009

Work File: SR2A

## -----TEST RESULTS-----

Lab Temperature: 20 C

HICd: 313.8

Lab Humidity: 23 %

HIC (36ms): 195.4

Velocity at Impact: 18.48 KPH

t1: 3.6 msec

t2: 14.7 msec

Free Flight Distance: 226.28 mm

Duration: 11.1 msec

Average Acceleration: 7.0 g

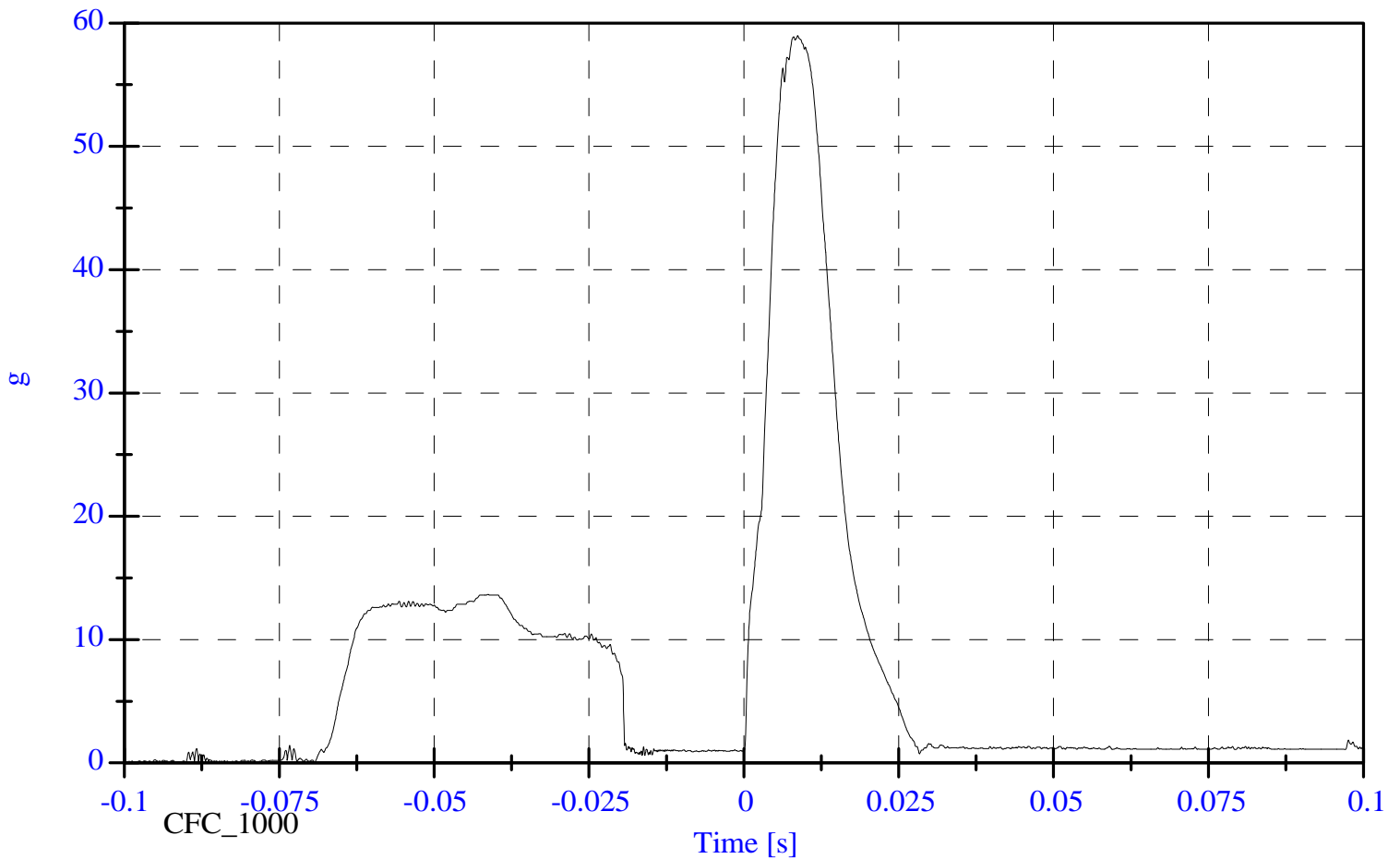
Maximum: 59.0 g

FMVSS 201U 09 Dodge Journey

Headform Resultant

Max: 59.0 [g] at 0.009 [s]

Min: 0.0 [g] at -0.082 [s]



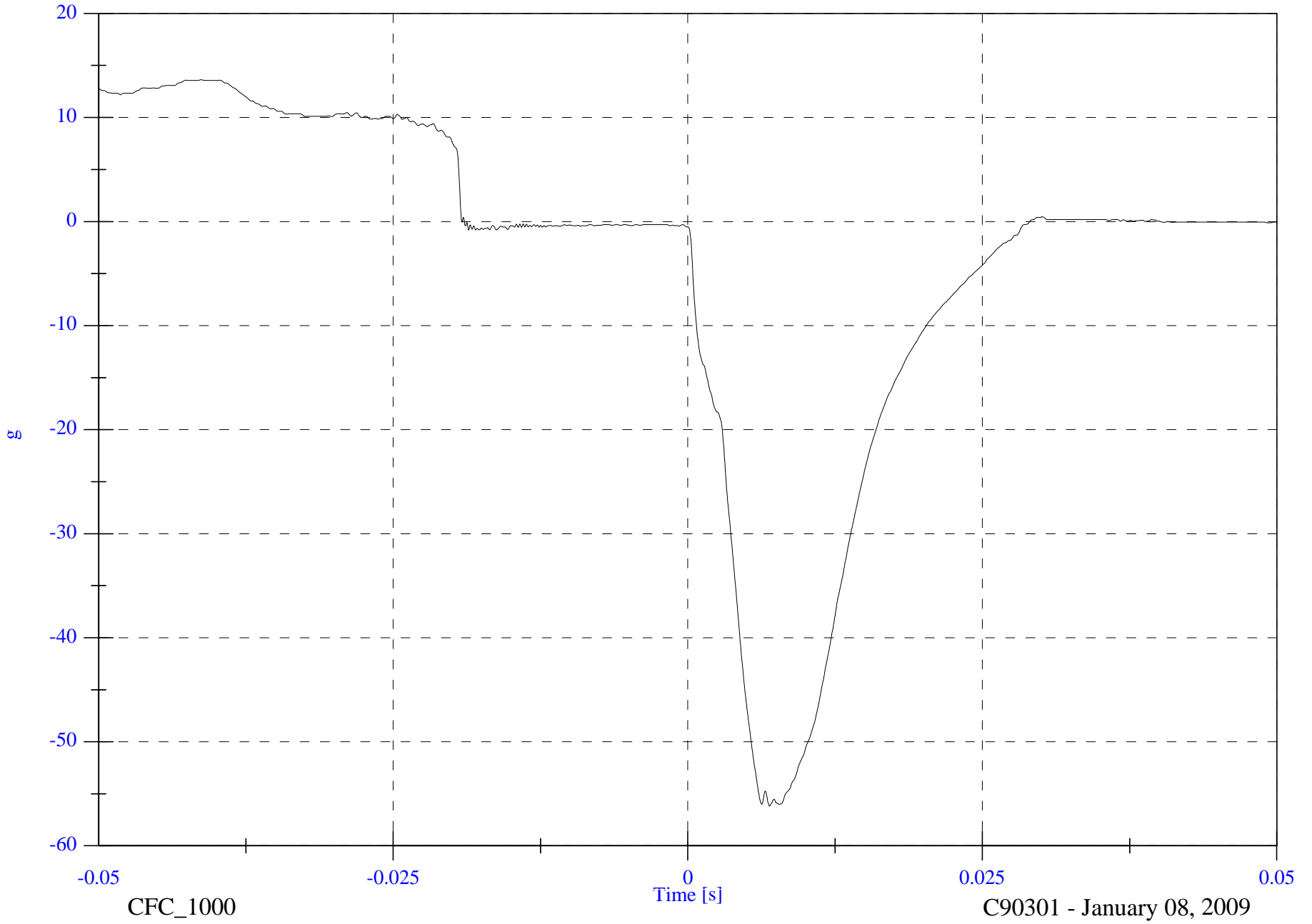
FMVSS 201U 09 Dodge Journey

Headform X Acceleration

Max: 13.6 [g] at -0.041 [s]

Min: -56.2 [g] at 0.007 [s]

C90301 PASSENGER SIDE SR2A IMPACT PLOT #1



CFC\_1000

C90301 - January 08, 2009

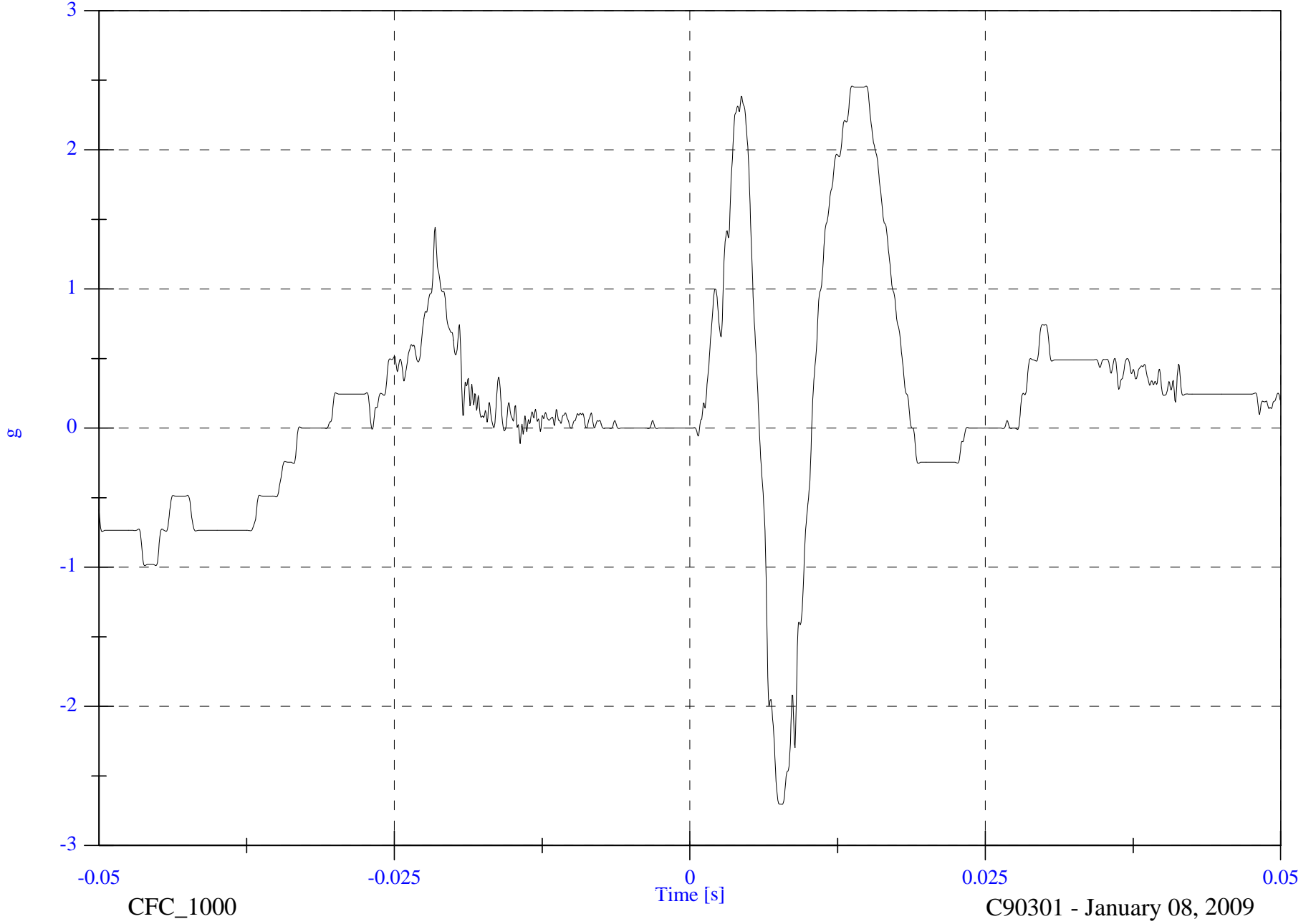
FMVSS 201U 09 Dodge Journey

Headform Y Acceleration

Max: 2.5 [g] at 0.014 [s]

Min: -2.7 [g] at 0.008 [s]

C90301 PASSENGER SIDE SR2A IMPACT PLOT #2



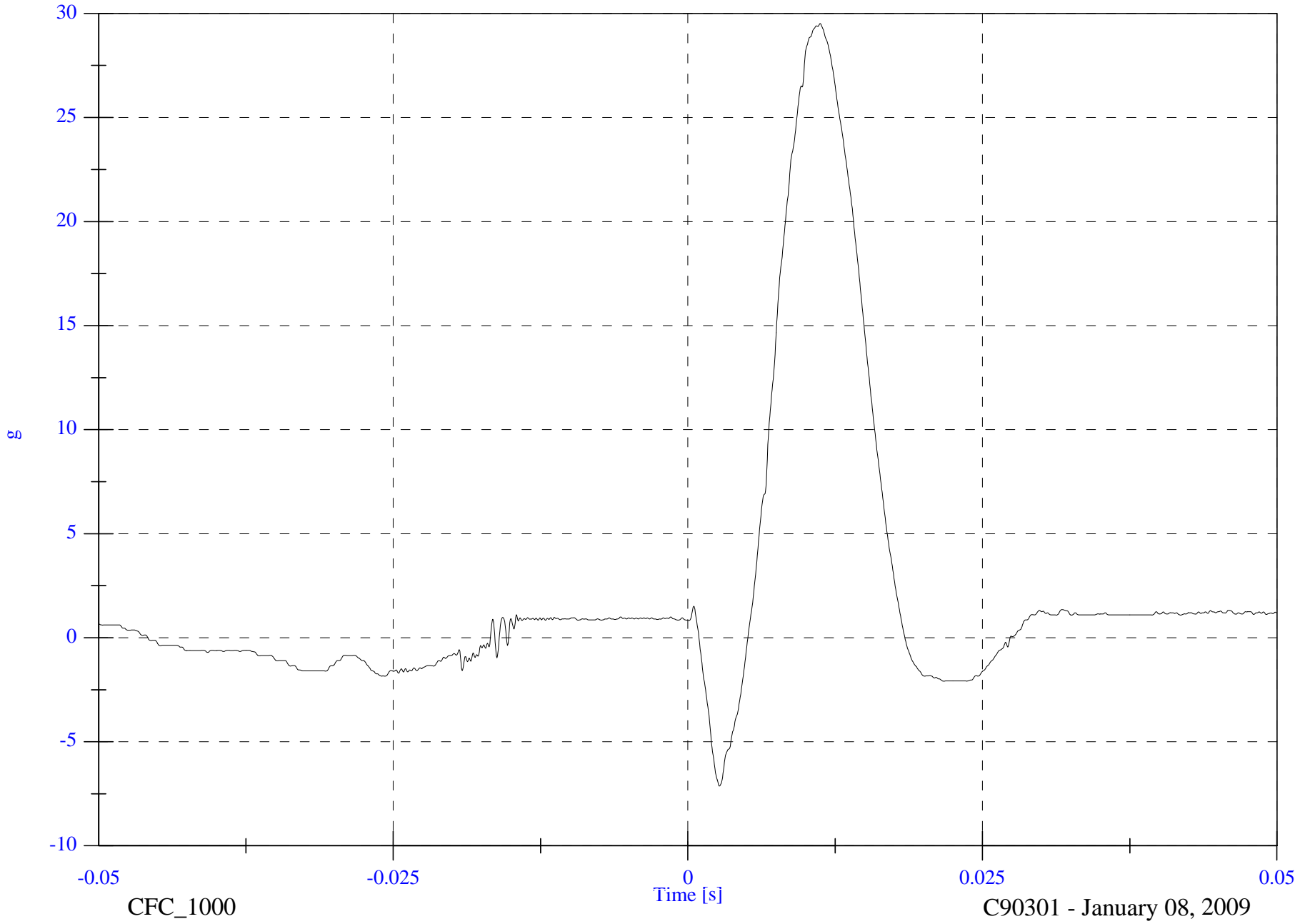
FMVSS 201U 09 Dodge Journey

Headform Z Acceleration

Max: 29.5 [g] at 0.011 [s]

Min: -7.1 [g] at 0.003 [s]

C90301 PASSENGER SIDE SR2A IMPACT PLOT #3





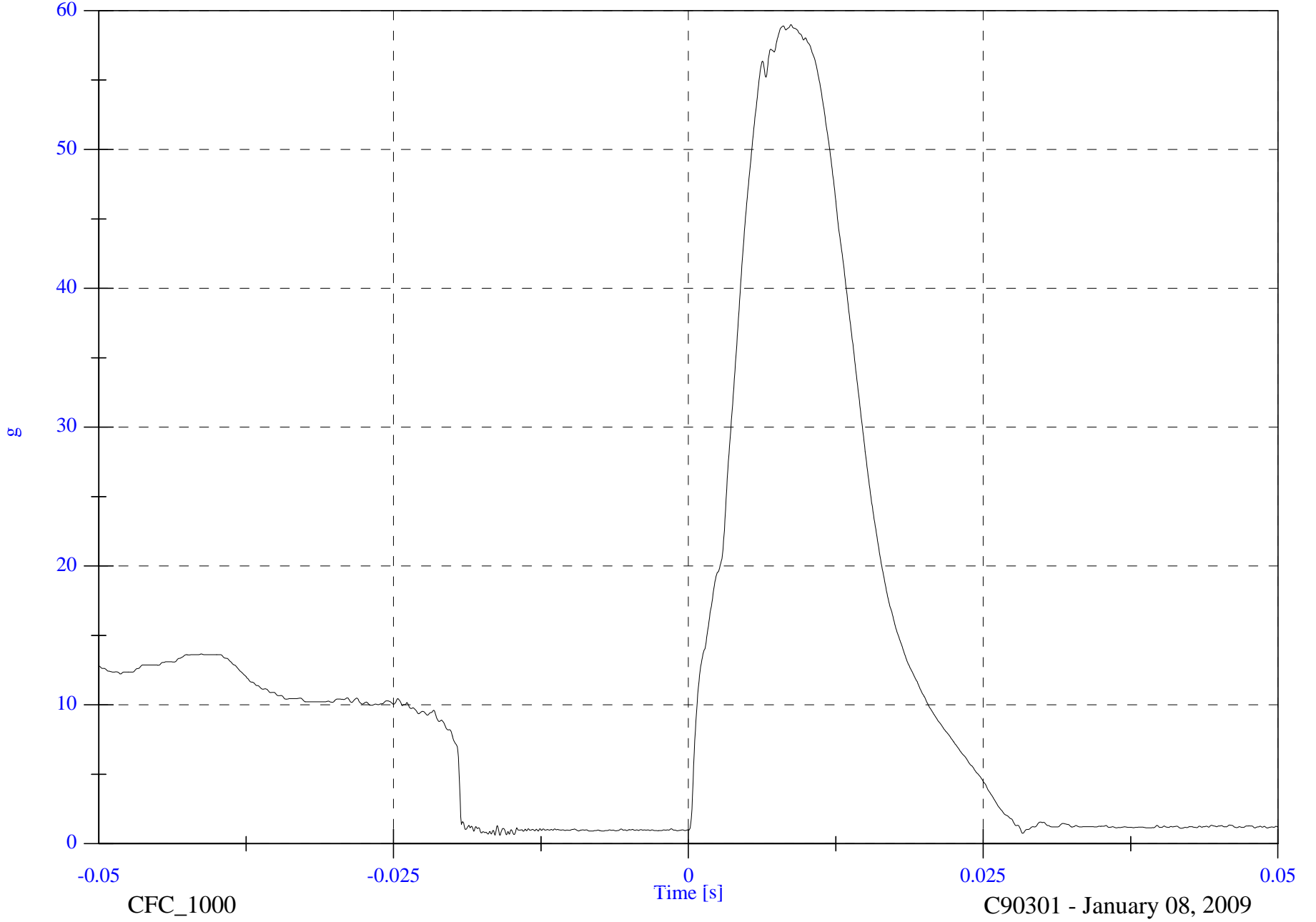
FMVSS 201U 09 Dodge Journey

Headform Resultant

Max: 59.0 [g] at 0.009 [s]

Min: 0.6 [g] at -0.016 [s]

C90301 PASSENGER SIDE SR2A IMPACT PLOT #4



CFC\_1000

C90301 - January 08, 2009

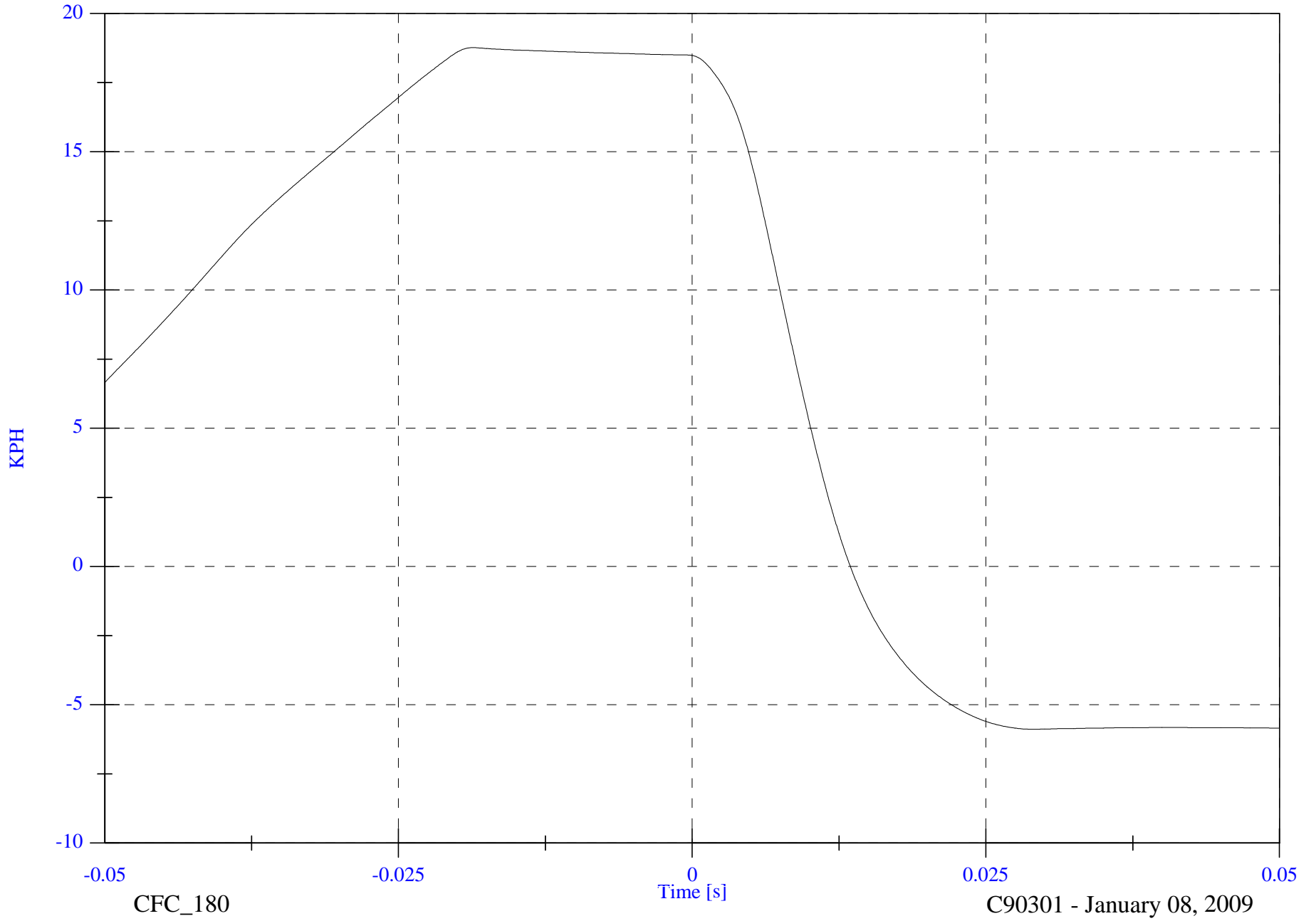
FMVSS 201U 09 Dodge Journey

### Headform Velocity

Max: 18.8 [KPH] at -0.019 [s]

Min: -5.9 [KPH] at 0.029 [s]

C90301 PASSENGER SIDE SR2A IMPACT PLOT #5



CFC\_180

C90301 - January 08, 2009



PRE-IMPACT SR2A

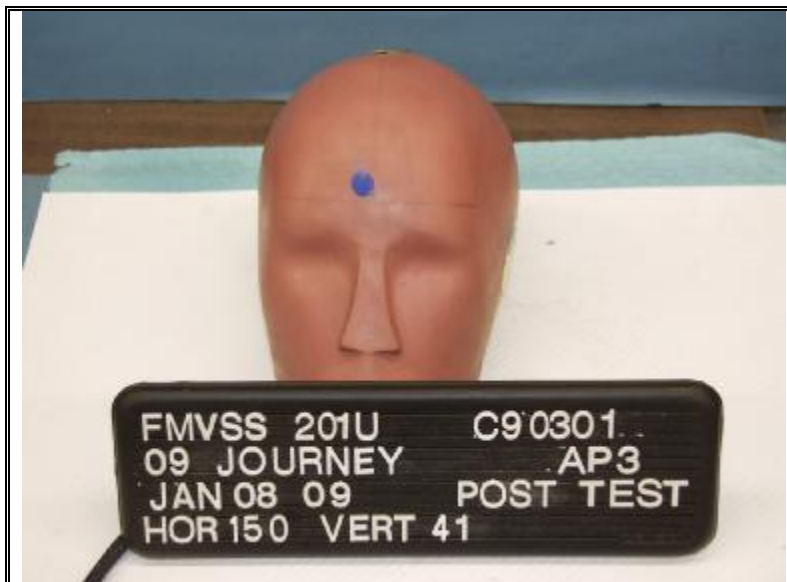


POST-IMPACT SR2A

VEHICLE YEAR/MAKE/MODEL/STYLE:	2009 Dodge Journey
VIN:	3D4GG47B99T216926
DATE OF MANUFACTURE:	06/08(SEE CERTIFICATION LABEL)
COLOR:	Silver

Test Number:	8
Test Date:	Jan 08,2009
Target Location:	A-Pillar
Target Code:	AP3
Horizontal Impact Angle:	150°
Vertical Impact Angle:	41°
Ambient Temperature:	20°C
Relative Humidity:	23
Time of Impact:	13:45
Headform Number:	1140

Impact Point Description (from lower midpoint on midsagittal line)				
On Centerline	5	x	mm right	mm left
On Centerline	8		mm up	



POST-IMPACT AP3 HEADFORM

Free Motion HIC	247.3
HIC(d)	353.0
Impact Velocity (kph)	18.45
HIC T1 (msec)	2.6
HIC T2 (msec)	14.6

# FMVSS 201U 09 Dodge Journey C90301 - AP3

FMH Headform 1140

Location: AP3

Test Date: January 08, 2009

Work File: AP3 trimmed

## -----TEST RESULTS-----

Lab Temperature: 20 C

HICd: 353.0

Lab Humidity: 23 %

HIC (36ms): 247.3

Velocity at Impact: 18.45 KPH

t1: 2.6 msec

t2: 14.6 msec

Free Flight Distance: 215.19 mm

Duration: 12.0 msec

Maximum: 63.9 g

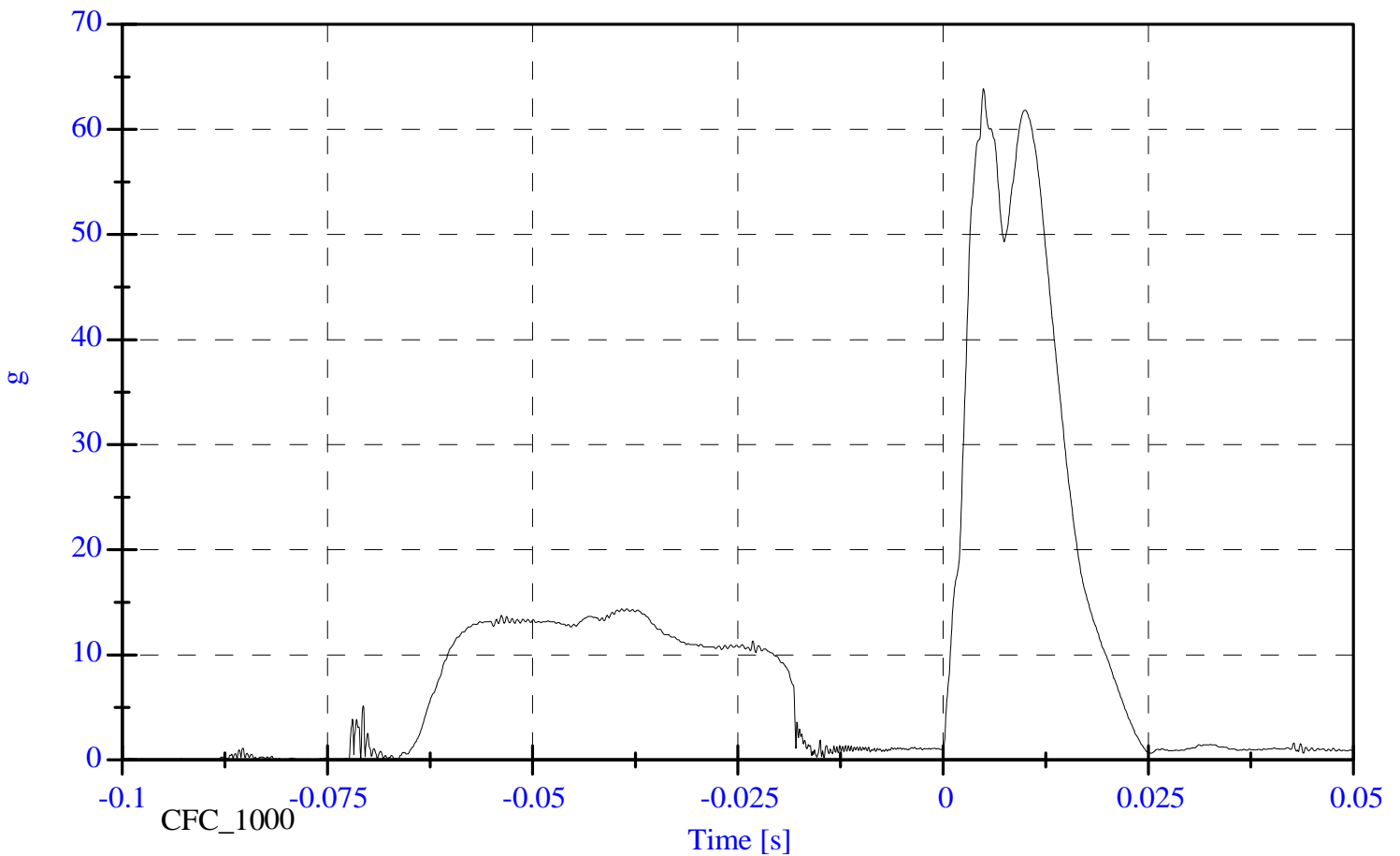
Average Acceleration: 9.3 g

FMVSS 201U 09 Dodge Journey

Headform Resultant

Max: 63.9 [g] at 0.005 [s]

Min: 0.0 [g] at -0.094 [s]



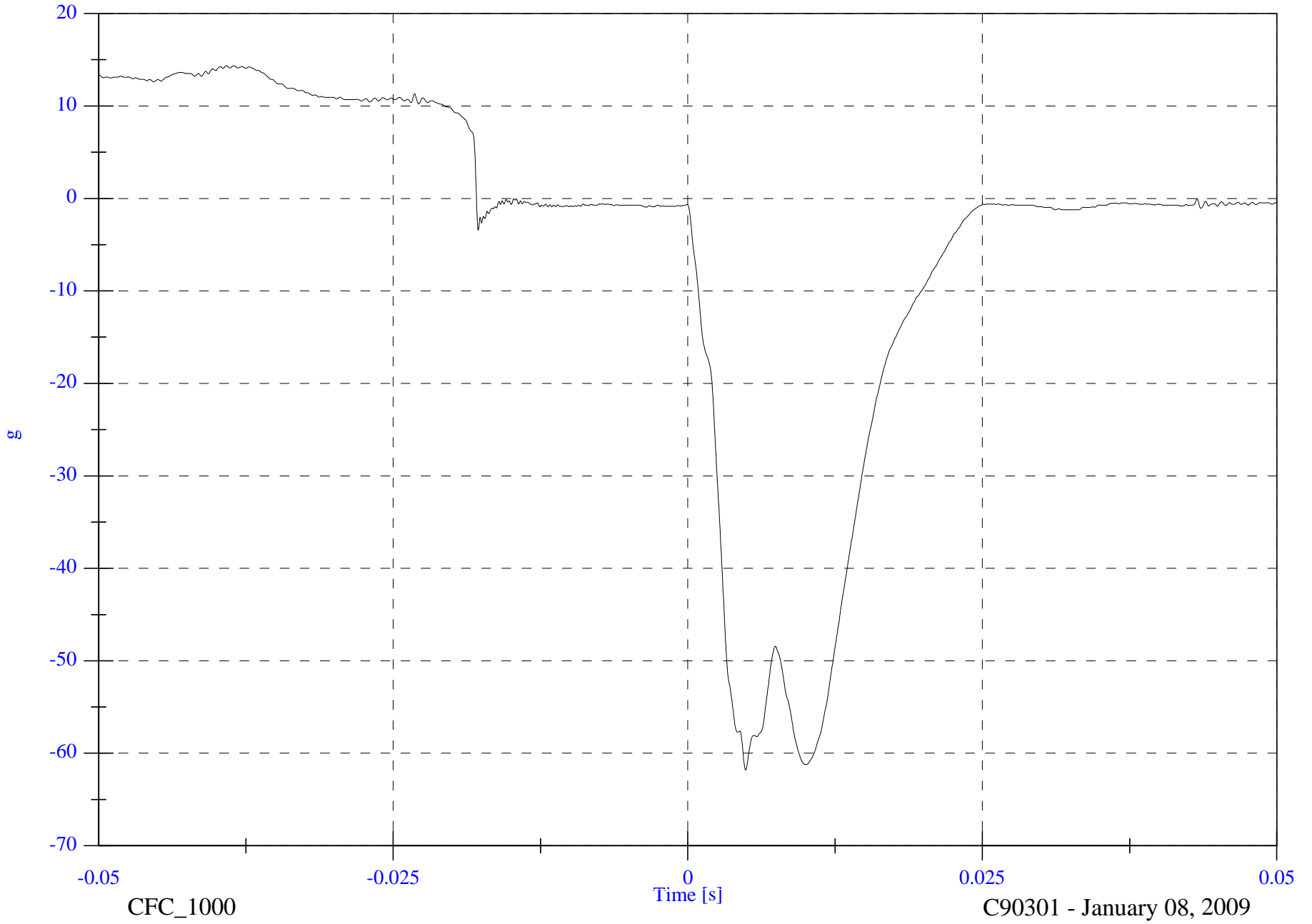
FMVSS 201U 09 Dodge Journey

Headform X Acceleration

Max: 14.3 [g] at -0.039 [s]

Min: -61.8 [g] at 0.005 [s]

C90301 PASSENGER SIDE AP3 IMPACT PLOT #1



CFC\_1000

C90301 - January 08, 2009

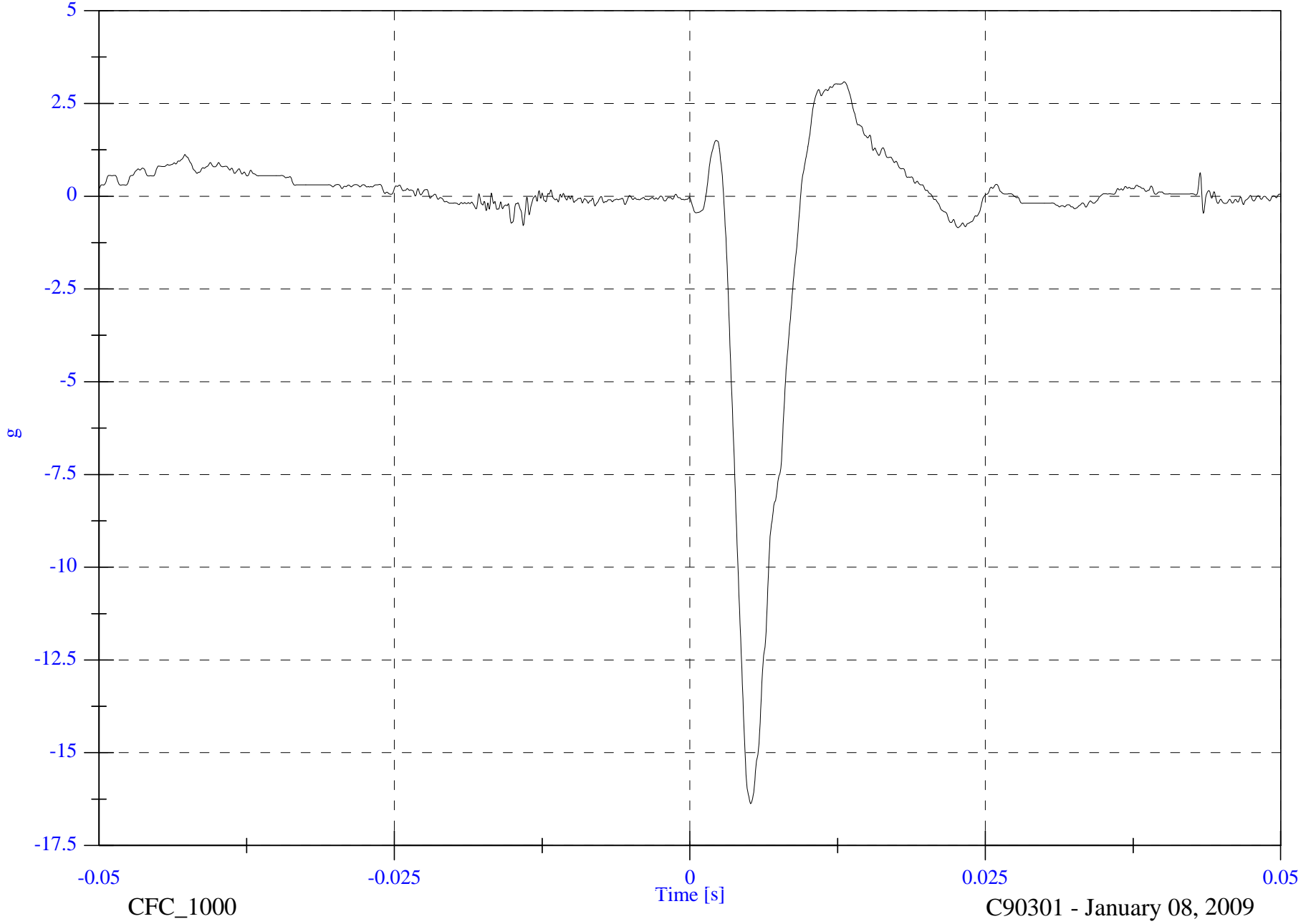
FMVSS 201U 09 Dodge Journey

Headform Y Acceleration

Max: 3.1 [g] at 0.013 [s]

Min: -16.4 [g] at 0.005 [s]

C90301 PASSENGER SIDE AP3 IMPACT PLOT #2





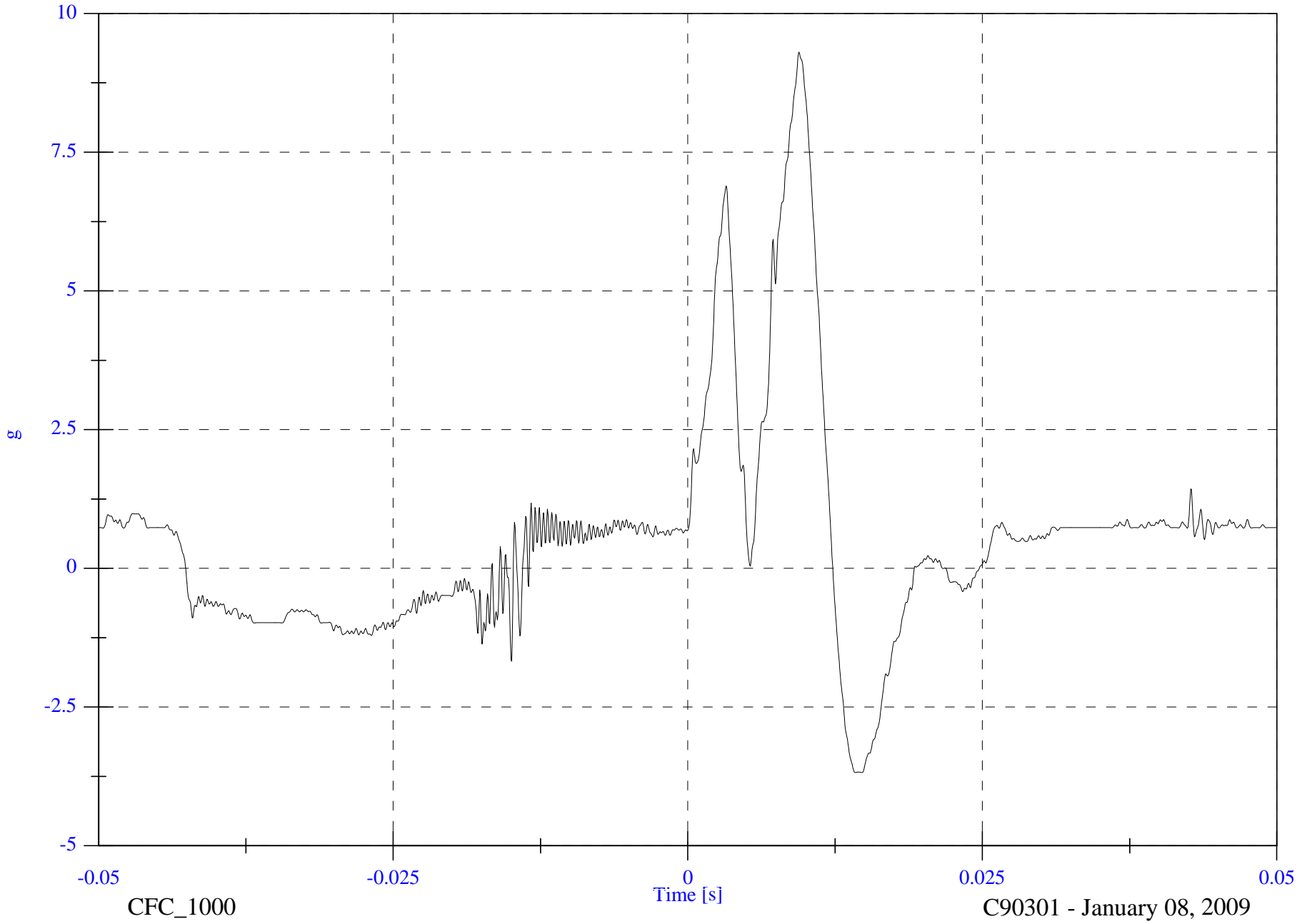
FMVSS 201U 09 Dodge Journey

Headform Z Acceleration

Max: 9.3 [g] at 0.009 [s]

Min: -3.7 [g] at 0.015 [s]

C90301 PASSENGER SIDE AP3 IMPACT PLOT #3



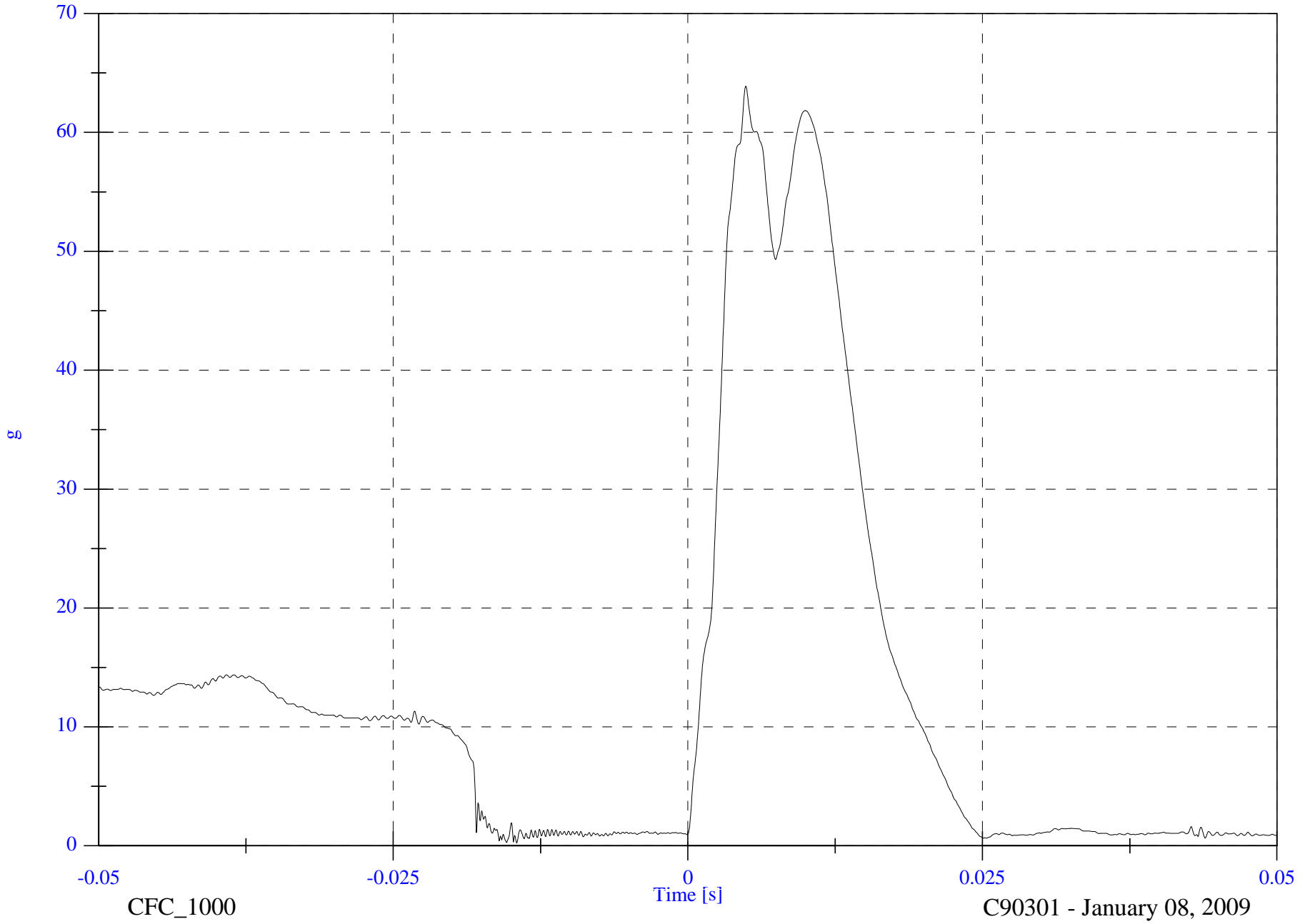
FMVSS 201U 09 Dodge Journey

Headform Resultant

Max: 63.9 [g] at 0.005 [s]

Min: 0.2 [g] at -0.015 [s]

C90301 PASSENGER SIDE AP3 IMPACT PLOT #4



CFC\_1000

C90301 - January 08, 2009

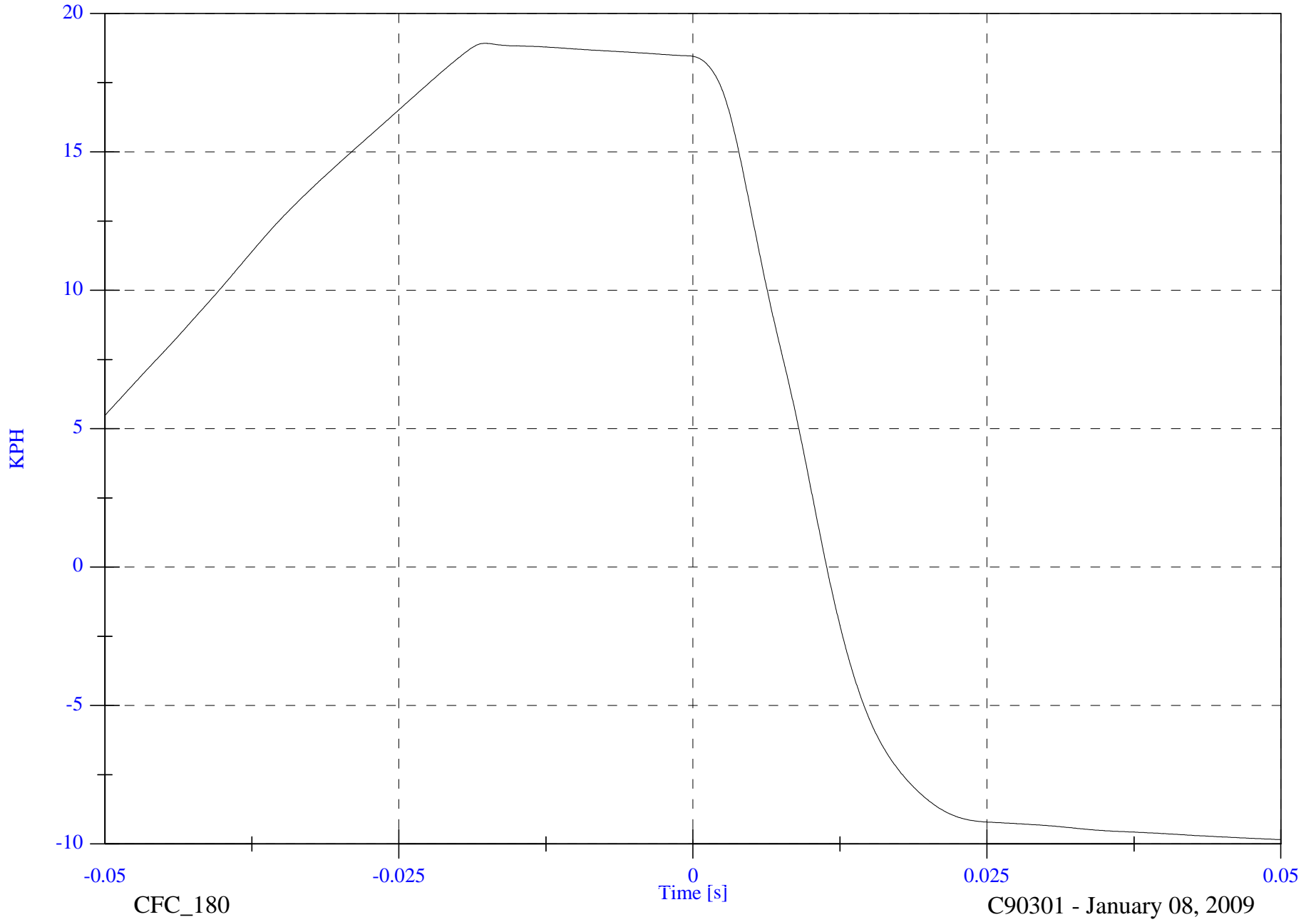
FMVSS 201U 09 Dodge Journey

### Headform Velocity

Max: 18.9 [KPH] at -0.018 [s]

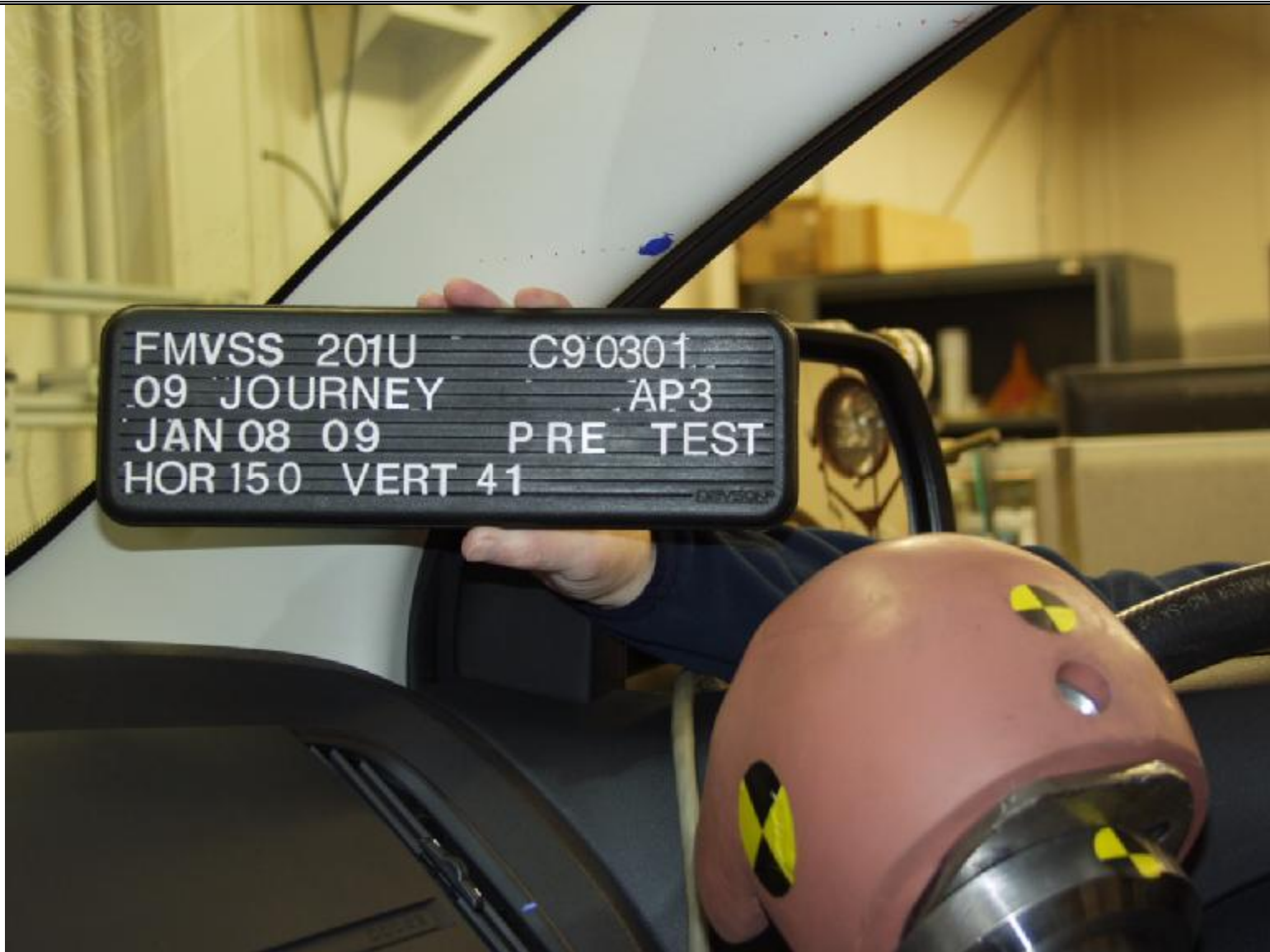
Min: -9.8 [KPH] at 0.050 [s]

C90301 PASSENGER SIDE AP3 IMPACT PLOT #5



CFC\_180

C90301 - January 08, 2009



PRE-IMPACT AP3

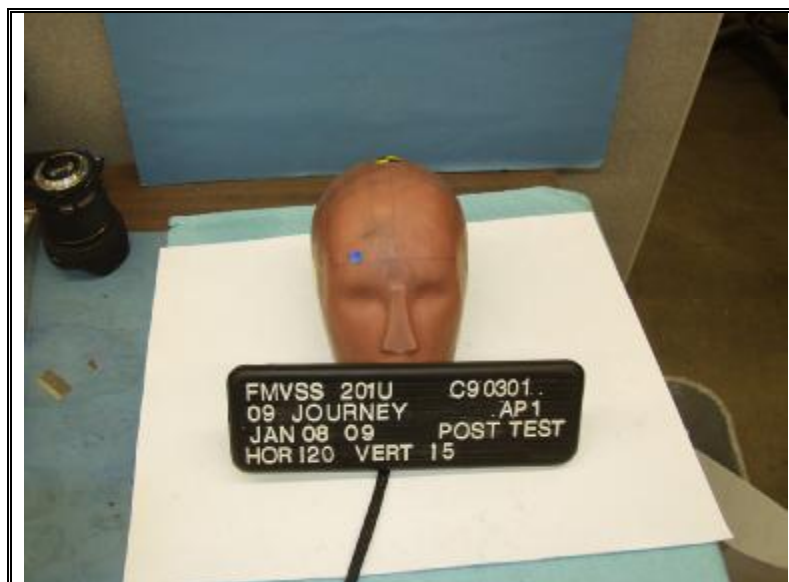


POST-IMPACT AP3

VEHICLE YEAR/MAKE/MODEL/STYLE:	2009 Dodge Journey
VIN:	3D4GG47B99T216926
DATE OF MANUFACTURE:	06/08(SEE CERTIFICATION LABEL)
COLOR:	Silver

Test Number:	9
Test Date:	Jan 08,2009
Target Location:	A-Pillar
Target Code:	AP1
Horizontal Impact Angle:	120°
Vertical Impact Angle:	15°
Ambient Temperature:	20°C
Relative Humidity:	23
Time of Impact:	14:30
Headform Number:	0805

Impact Point Description (from lower midpoint on midsagittal line)				
On Centerline	35	x	mm right	mm left
On Centerline	5		mm up	



POST-IMPACT AP1 HEADFORM

Free Motion HIC	105.6
HIC(d)	246.1
Impact Velocity (kph)	18.57
HIC T1 (msec)	3.7
HIC T2 (msec)	18.0

# FMVSS 201U 09 Dodge Journey C90301 - AP1

FMH Headform 805

Location: AP1

Test Date: January 08, 2009

Work File: AP1

## -----TEST RESULTS-----

Lab Temperature: 20 C

HICd: 246.1

Lab Humidity: 23 %

HIC (36ms): 105.6

Velocity at Impact: 18.57 KPH

t1: 3.7 msec

t2: 18.0 msec

Free Flight Distance: 220.06 mm

Duration: 14.3 msec

Average Acceleration: 6.6 g

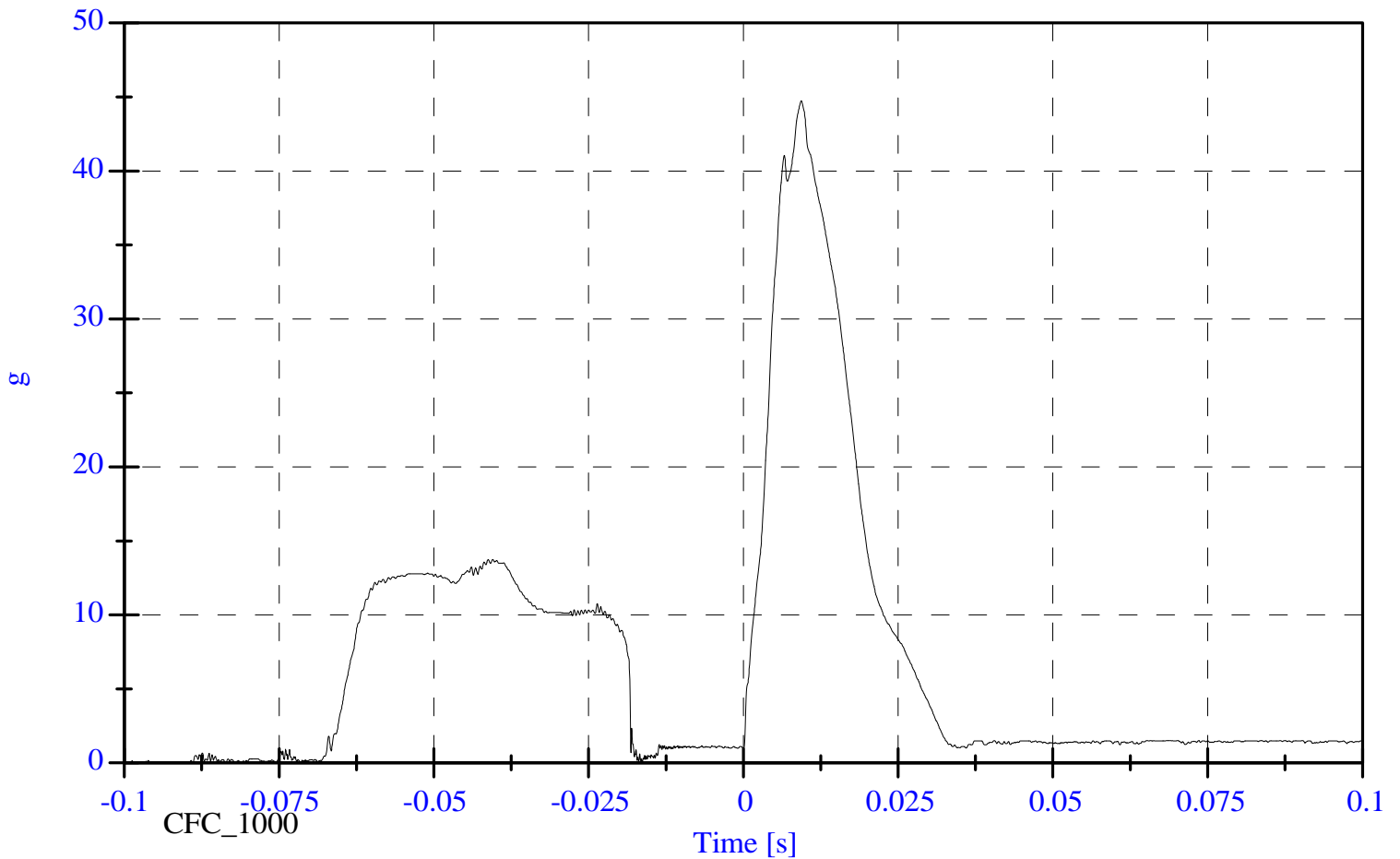
Maximum: 44.8 g

FMVSS 201U 09 Dodge Journey

Headform Resultant

Max: 44.8 [g] at 0.009 [s]

Min: 0.0 [g] at -0.096 [s]



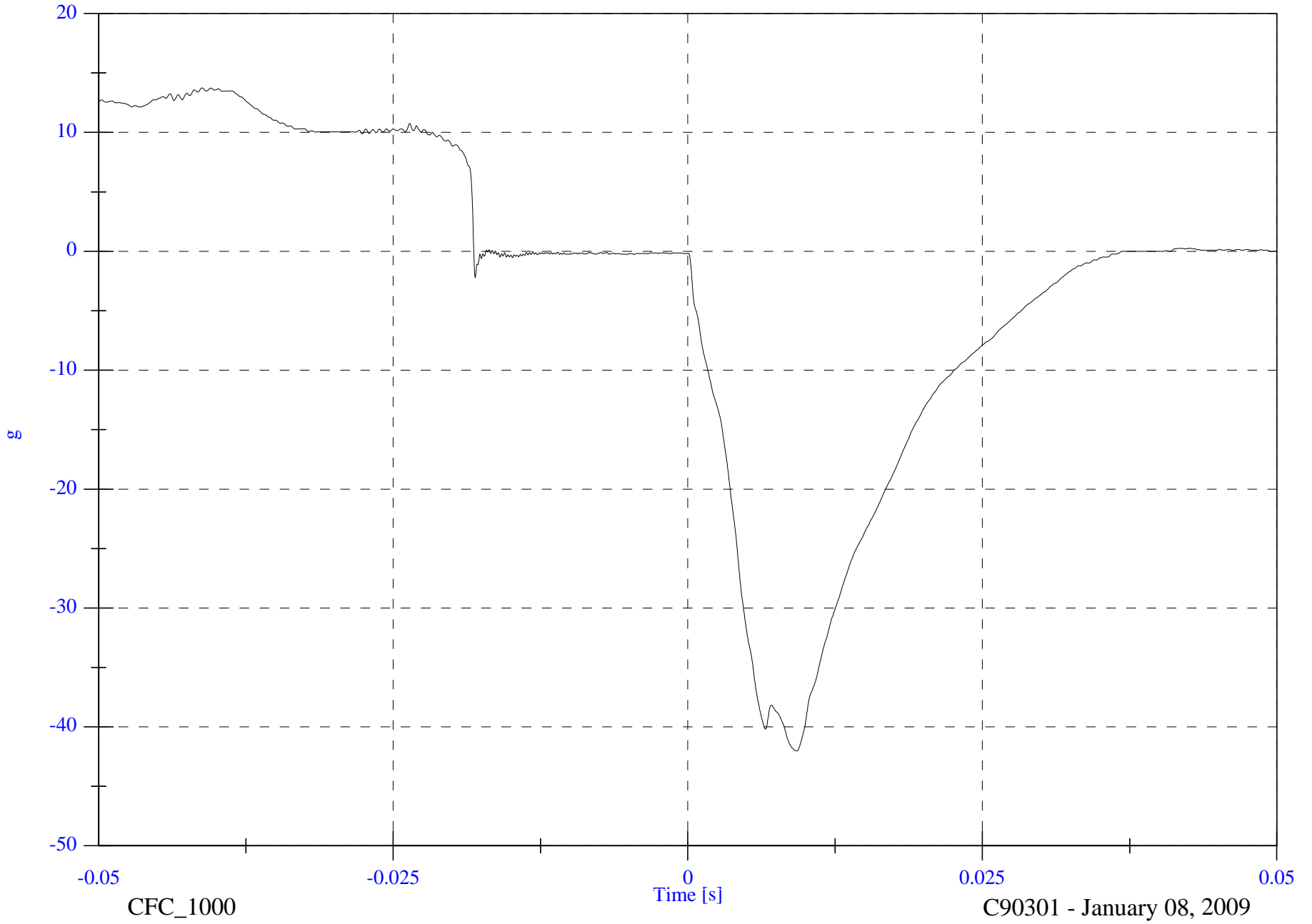
FMVSS 201U 09 Dodge Journey

Headform X Acceleration

Max: 13.7 [g] at -0.041 [s]

Min: -42.0 [g] at 0.009 [s]

C90301 PASSENGER SIDE AP1 IMPACT PLOT #1



CFC\_1000

C90301 - January 08, 2009



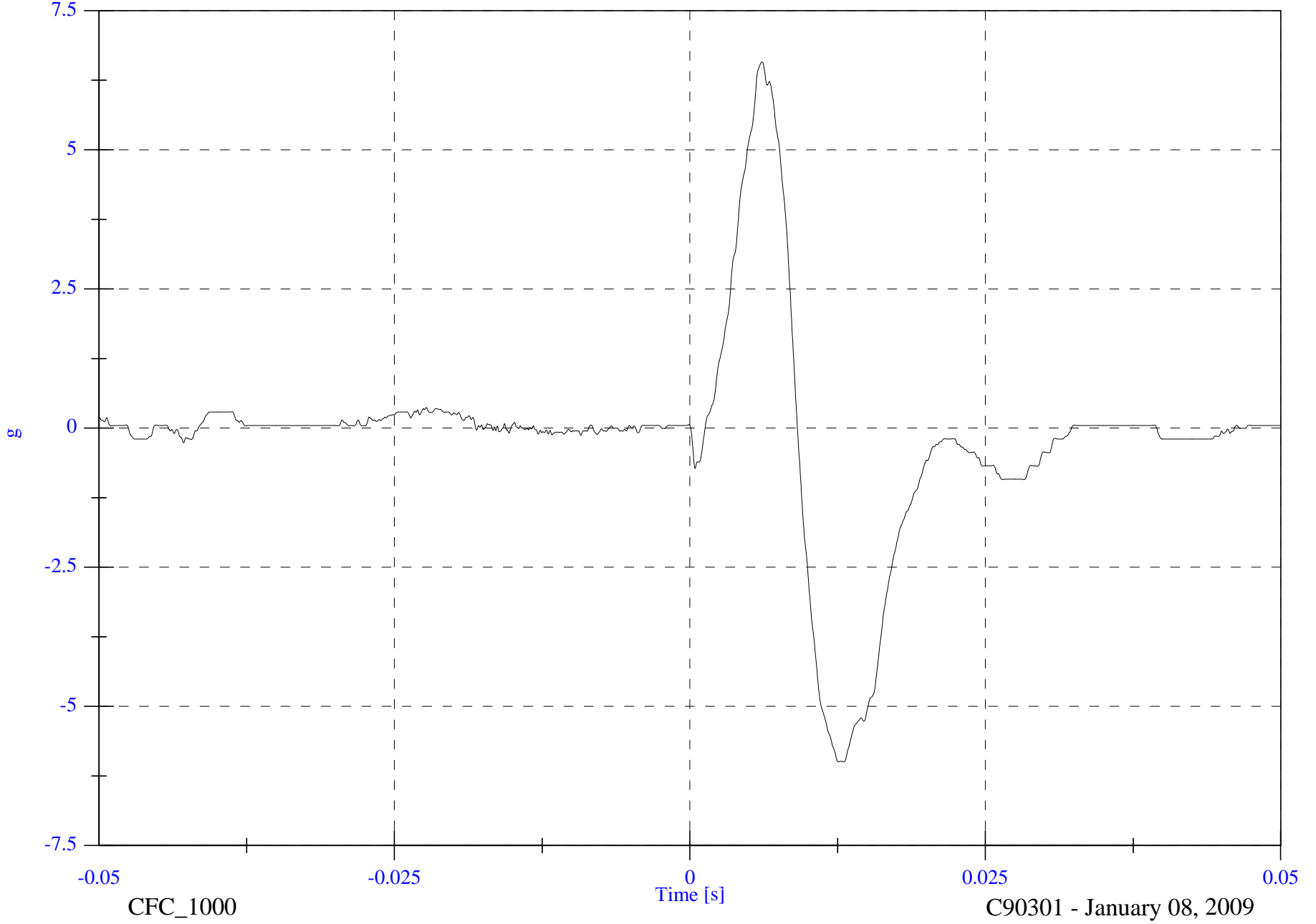
FMVSS 201U 09 Dodge Journey

Headform Y Acceleration

Max: 6.6 [g] at 0.006 [s]

Min: -6.0 [g] at 0.013 [s]

C90301 PASSENGER SIDE AP1 IMPACT PLOT #2



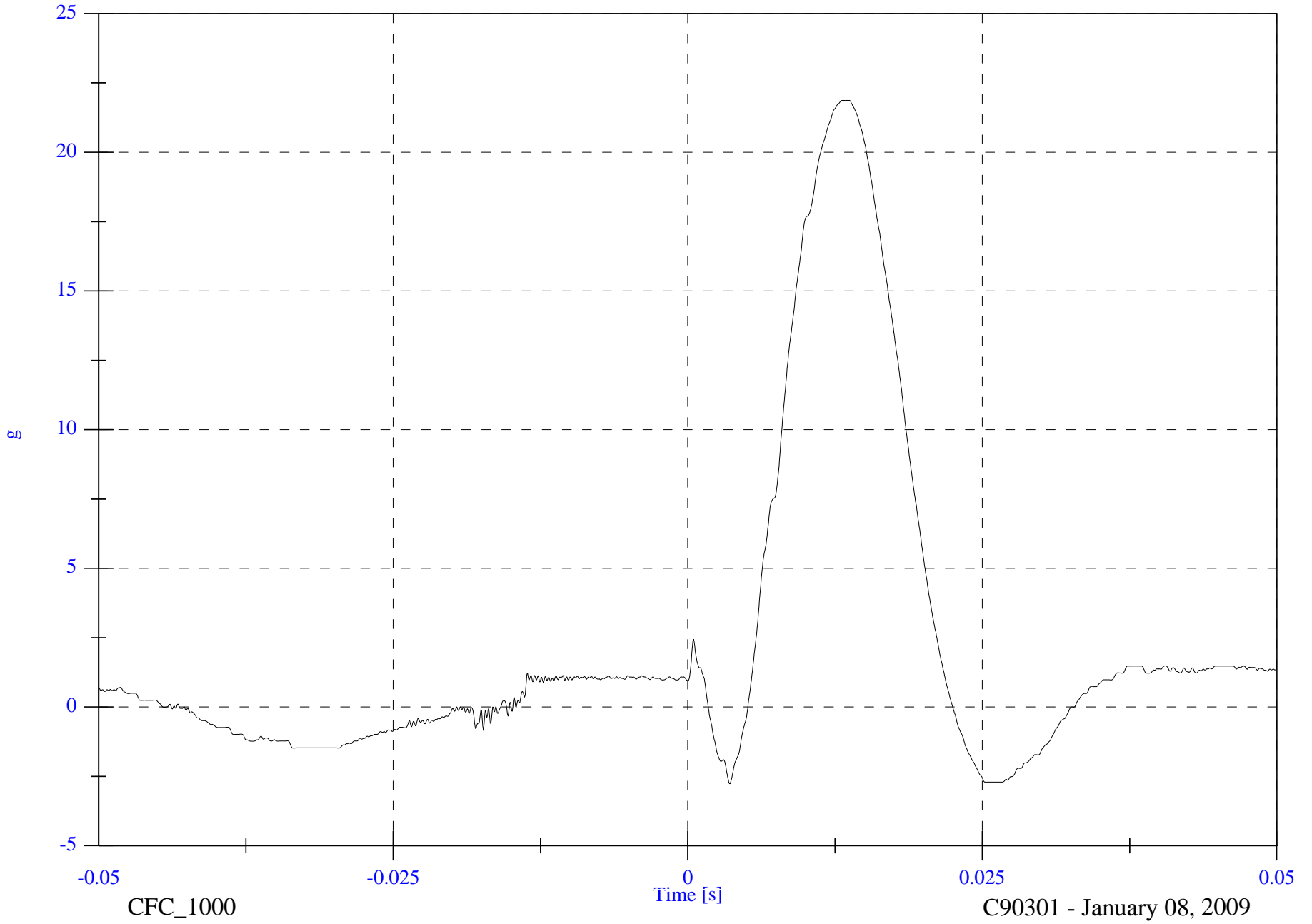
FMVSS 201U 09 Dodge Journey

Headform Z Acceleration

Max: 21.9 [g] at 0.014 [s]

Min: -2.8 [g] at 0.004 [s]

C90301 PASSENGER SIDE AP1 IMPACT PLOT #3



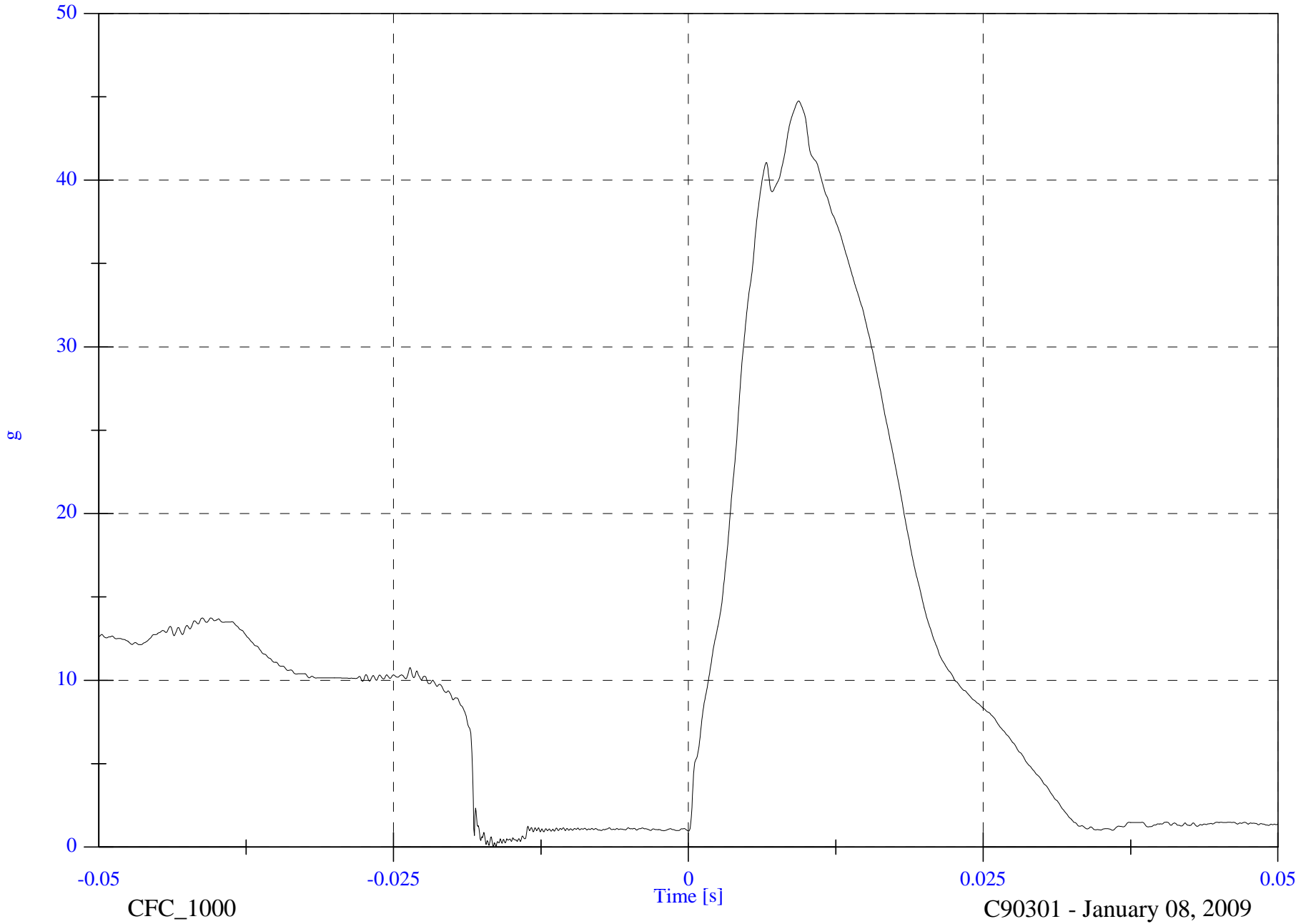
FMVSS 201U 09 Dodge Journey

Headform Resultant

Max: 44.8 [g] at 0.009 [s]

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

C90301 PASSENGER SIDE AP1 IMPACT PLOT #4



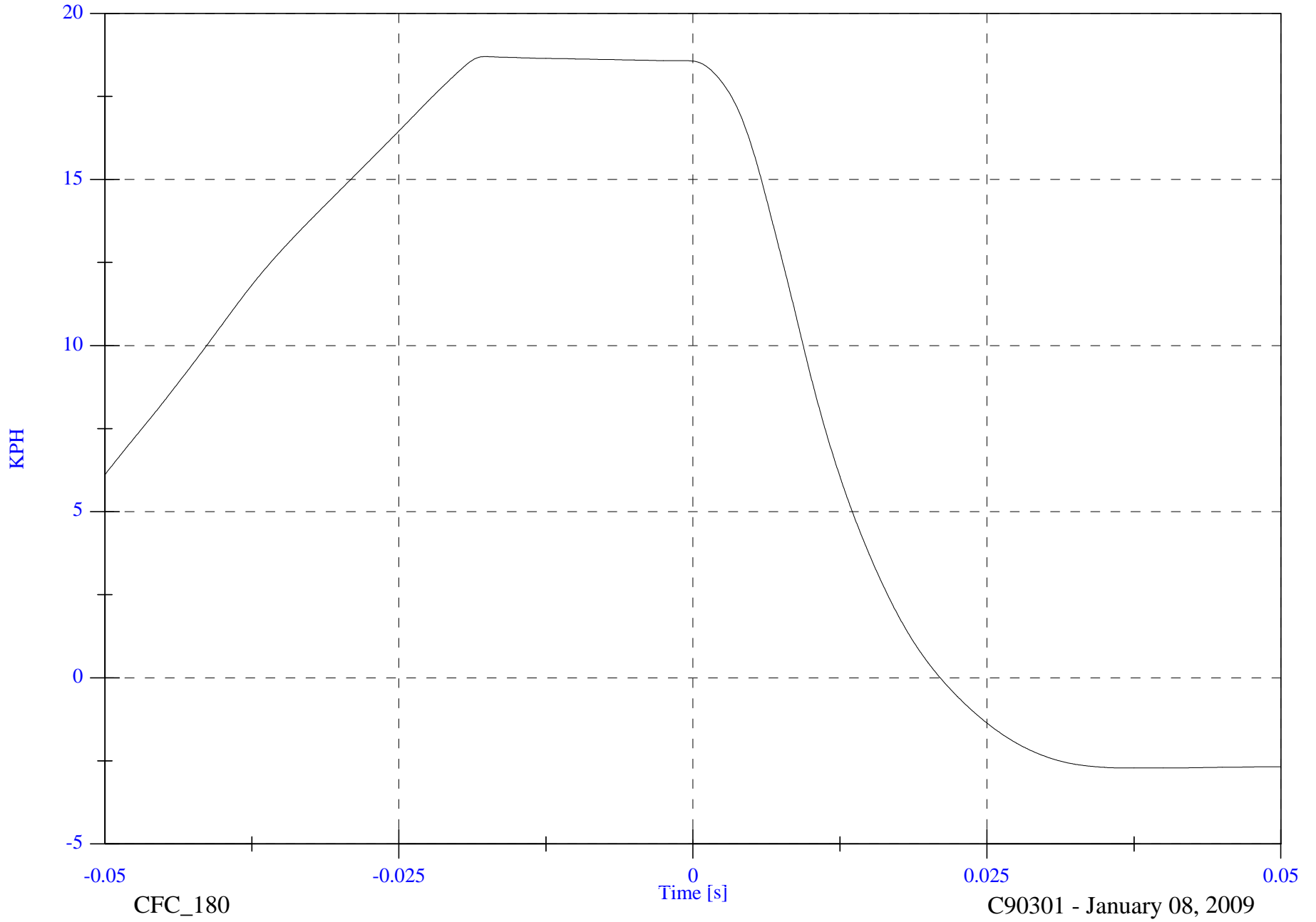
FMVSS 201U 09 Dodge Journey

Headform Velocity

Max: 18.7 [KPH] at -0.018 [s]

Min: -2.7 [KPH] at 0.037 [s]

C90301 PASSENGER SIDE AP1 IMPACT PLOT #5



CFC\_180

C90301 - January 08, 2009



PRE-IMPACT AP1

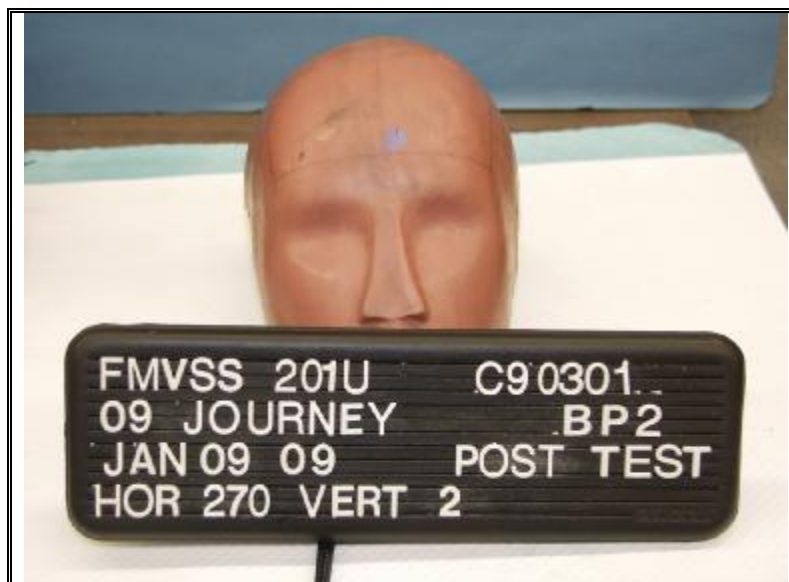


POST-IMPACT API

VEHICLE YEAR/MAKE/MODEL/STYLE:	2009 Dodge Journey
VIN:	3D4GG47B99T216926
DATE OF MANUFACTURE:	06/08(SEE CERTIFICATION LABEL)
COLOR:	Silver

Test Number:	<b>10</b>
Test Date:	<b>Jan 09,2009</b>
Target Location:	<b>B-Pillar</b>
Target Code:	<b>BP2</b>
Horizontal Impact Angle:	<b>270°</b>
Vertical Impact Angle:	<b>2°</b>
Ambient Temperature:	<b>20°C</b>
Relative Humidity:	<b>18</b>
Time of Impact:	<b>8:45</b>
Headform Number:	<b>0805</b>

Impact Point Description (from lower midpoint on midsagittal line)			
On Centerline	<b>4</b>	<input type="checkbox"/>	mm right <input checked="" type="checkbox"/> mm left
On Centerline	<b>10</b>		mm up



POST-IMPACT BP2 HEADFORM

Free Motion HIC	<b>623.8</b>
HIC(d)	<b>637.0</b>
Impact Velocity (kph)	<b>23.47</b>
HIC T1 (msec)	<b>2.1</b>
HIC T2 (msec)	<b>8.1</b>

# FMVSS 201U 09 Dodge Journey C90301 - BP2

FMH Headform 0805

Location: BP2

Test Date: January 09, 2009

Work File: BP2

## -----TEST RESULTS-----

Lab Temperature: 20 C

HICd: 637.0

Lab Humidity: 18 %

HIC (36ms): 623.8

Velocity at Impact: 23.47 KPH

t1: 2.1 msec

t2: 8.1 msec

Free Flight Distance: 220.91 mm

Duration: 6.1 msec

Average Acceleration: 8.3 g

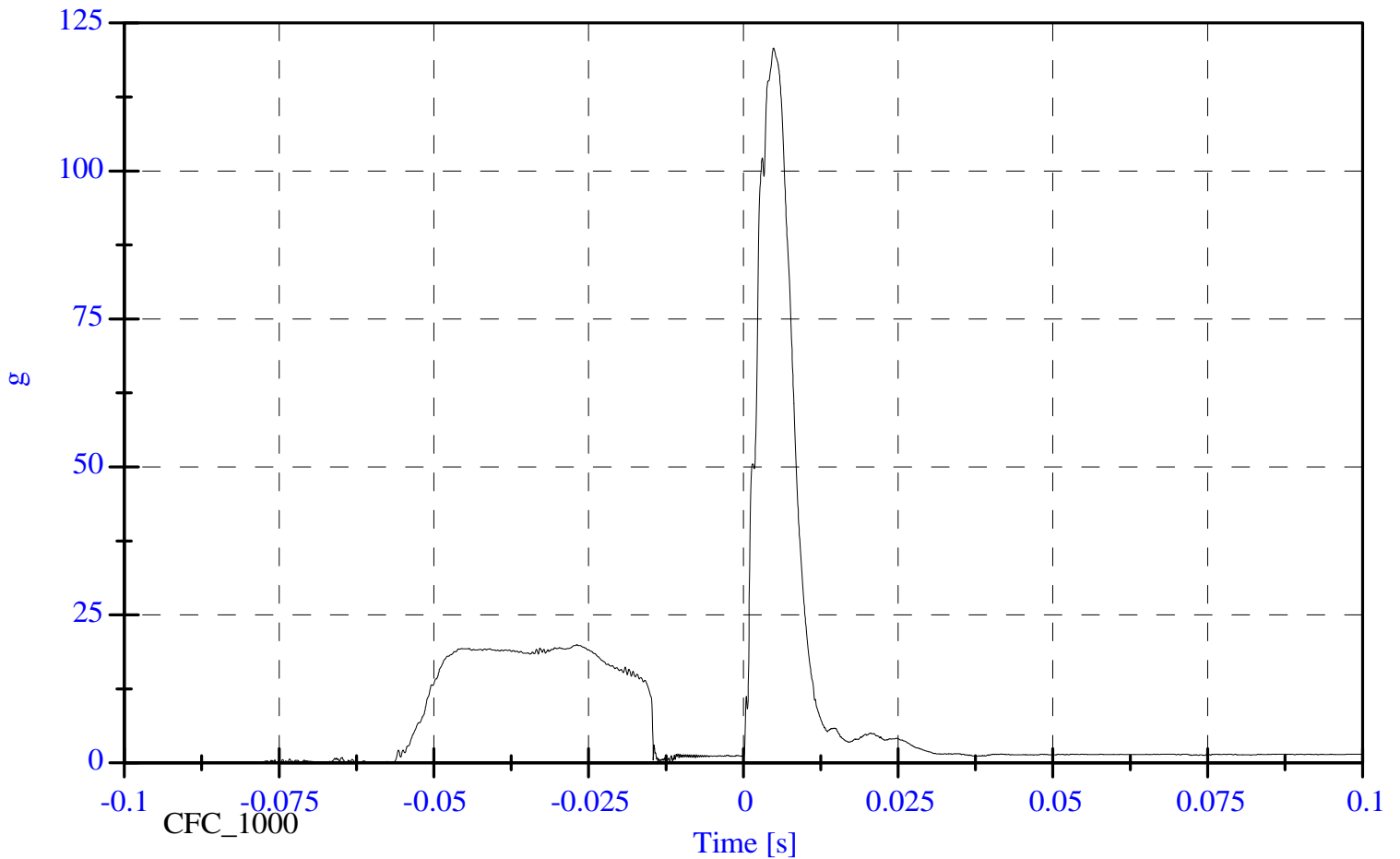
Maximum: 120.8 g

FMVSS 201U 09 Dodge Journey

Headform Resultant

Max: 120.8 [g] at 0.005 [s]

Min: 0.0 [g] at -0.089 [s]





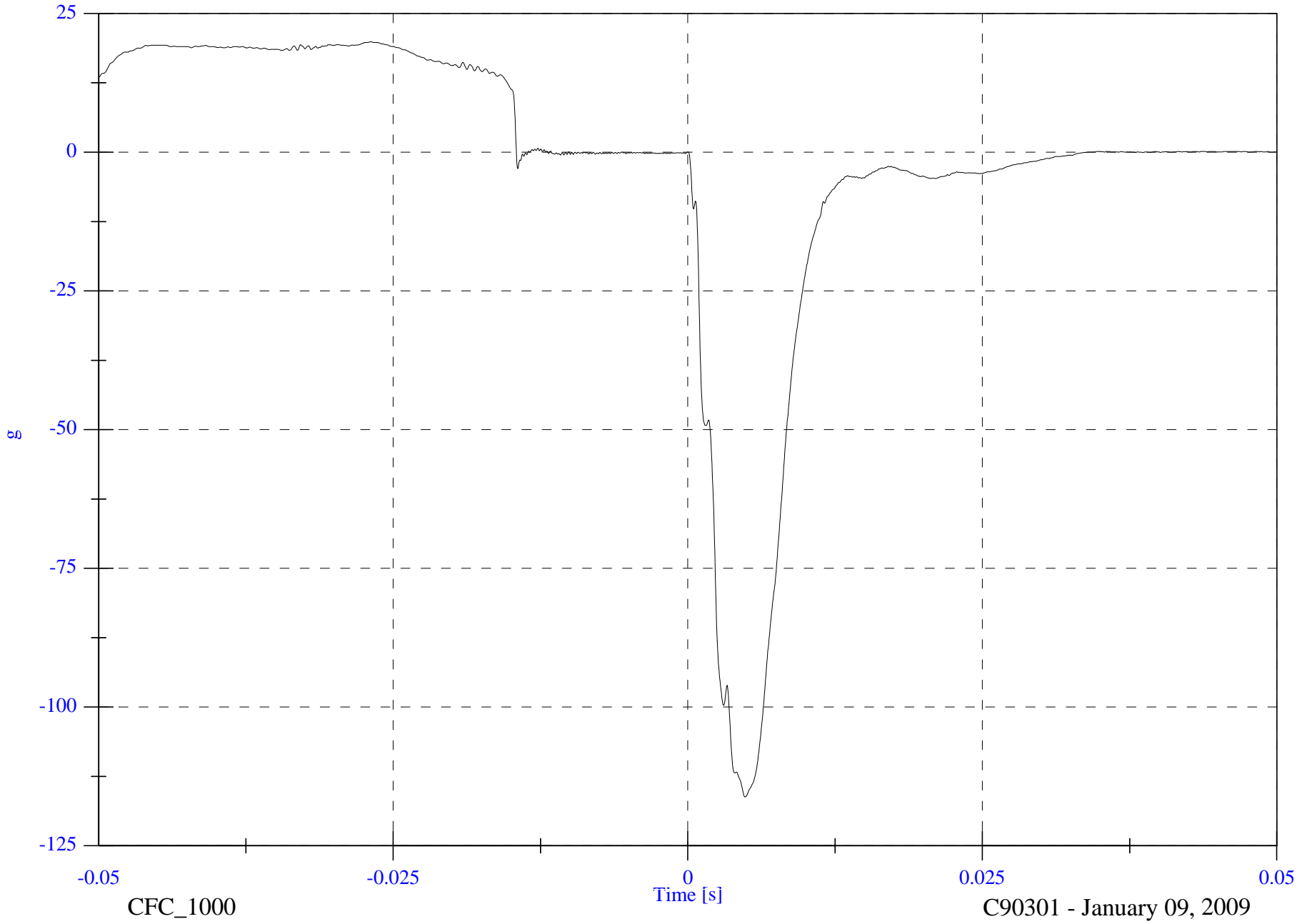
FMVSS 201U 09 Dodge Journey

Headform X Acceleration

Max: 19.9 [g] at -0.027 [s]

Min: -116.2 [g] at 0.005 [s]

C90301 DRIVER SIDE BP2 IMPACT PLOT #1



CFC\_1000

C90301 - January 09, 2009

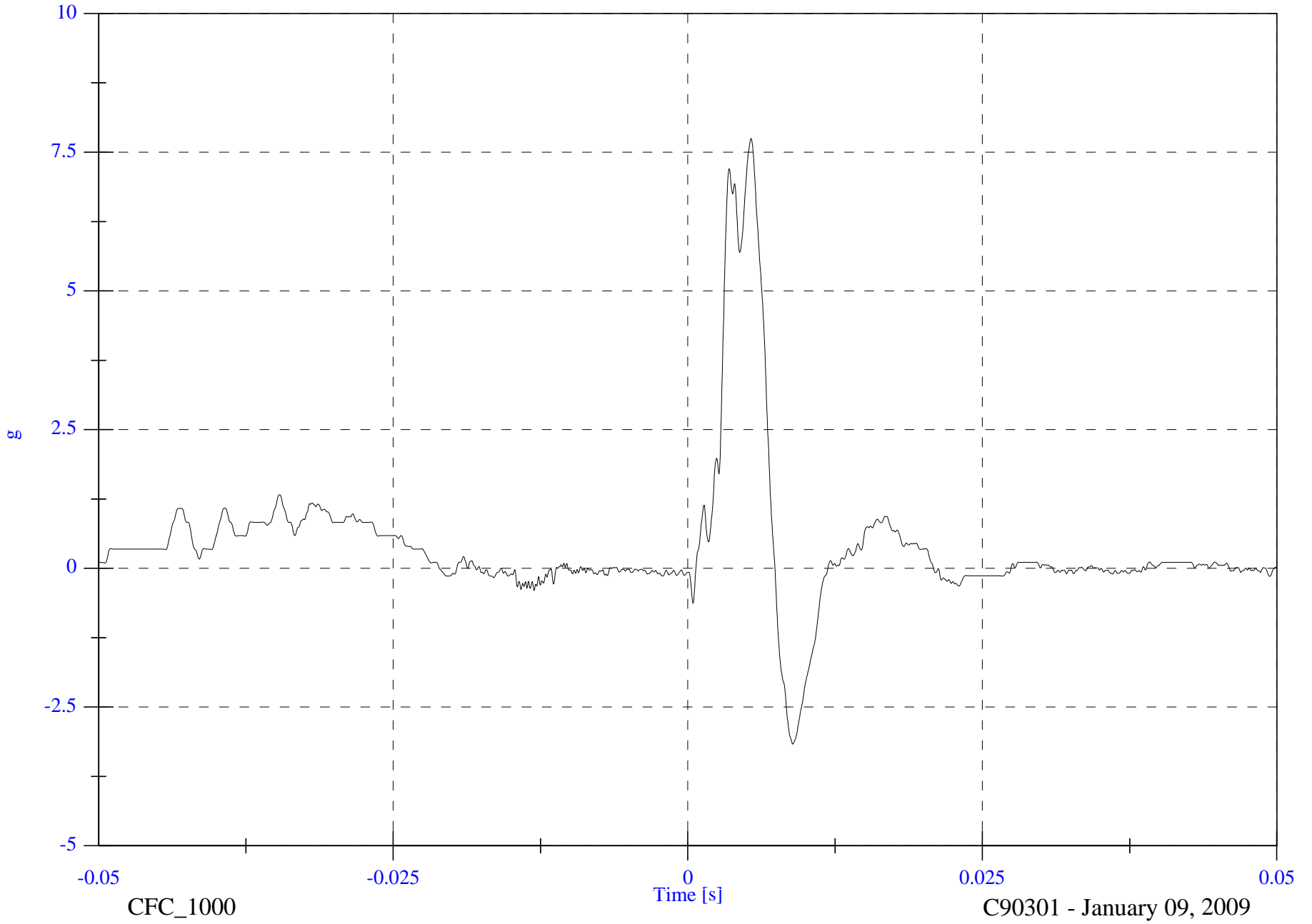
FMVSS 201U 09 Dodge Journey

Headform Y Acceleration

Max: 7.7 [g] at 0.005 [s]

Min: -3.2 [g] at 0.009 [s]

C90301 DRIVER SIDE BP2 IMPACT PLOT #2



CFC\_1000

C90301 - January 09, 2009

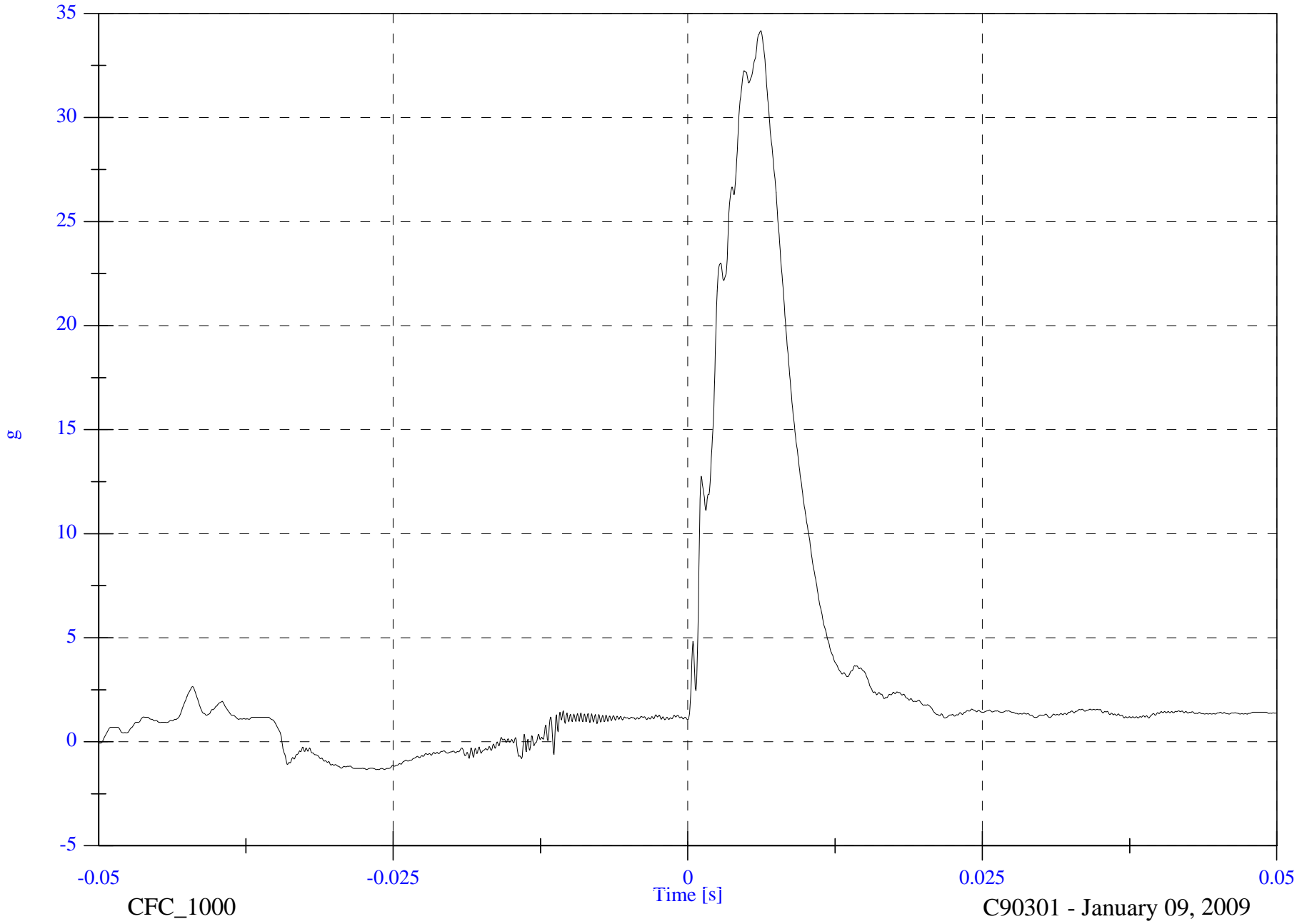
FMVSS 201U 09 Dodge Journey

Headform Z Acceleration

Max: 34.2 [g] at 0.006 [s]

Min: -1.3 [g] at -0.026 [s]

C90301 DRIVER SIDE BP2 IMPACT PLOT #3



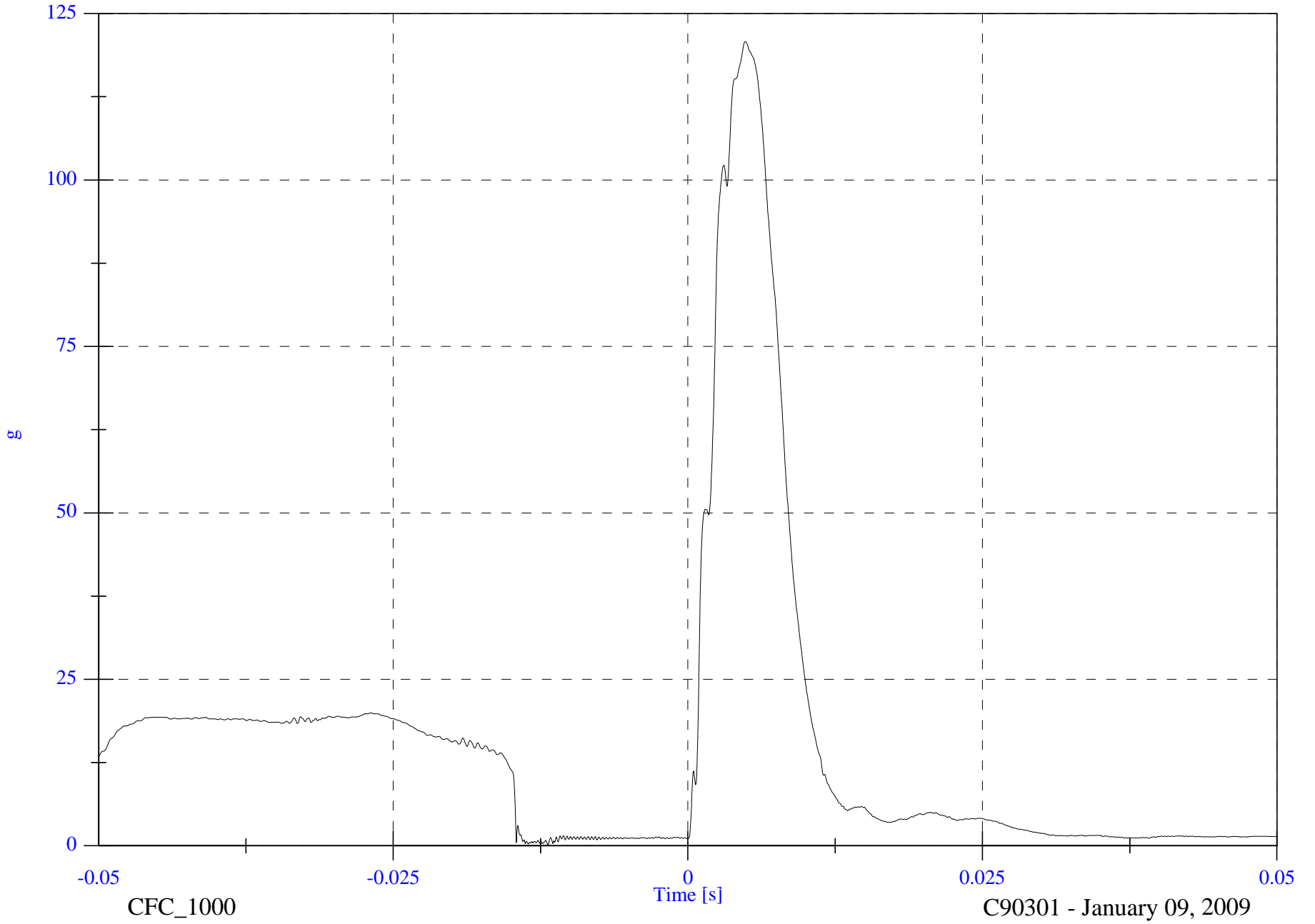
FMVSS 201U 09 Dodge Journey

Headform Resultant

Max: 120.8 [g] at 0.005 [s]

Min: 0.2 [g] at -0.012 [s]

C90301 DRIVER SIDE BP2 IMPACT PLOT #4



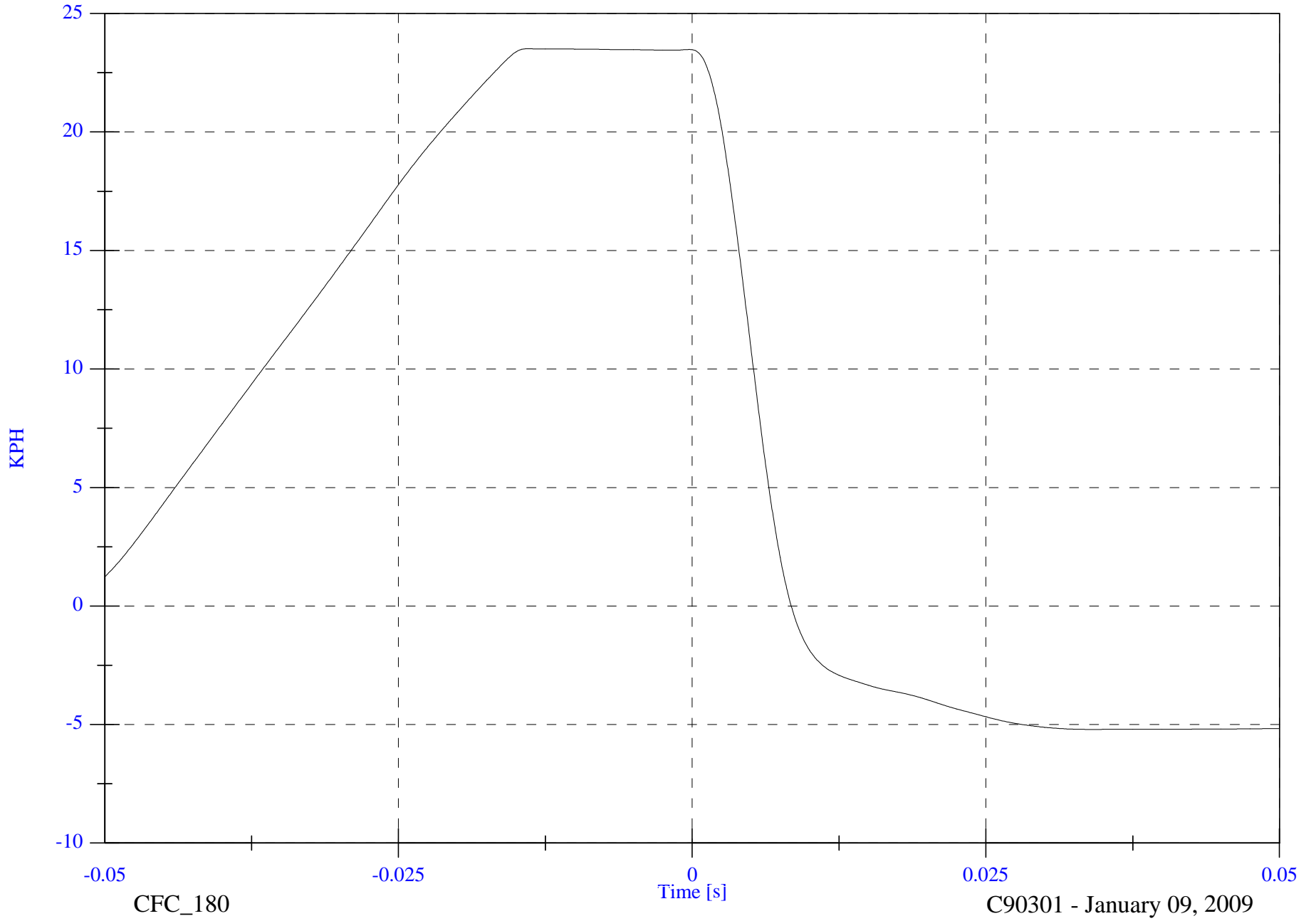
FMVSS 201U 09 Dodge Journey

Max: 23.5 [KPH] at -0.014 [s]

Min: -5.2 [KPH] at 0.034 [s]

### Headform Velocity

C90301 DRIVER SIDE BP2 IMPACT PLOT #5



CFC\_180

C90301 - January 09, 2009



PRE-IMPACT BP2



POST-IMPACT BP2

VEHICLE YEAR/MAKE/MODEL/STYLE:	2009 Dodge Journey
VIN:	3D4GG47B99T216926
DATE OF MANUFACTURE:	06/08(SEE CERTIFICATION LABEL)
COLOR:	Silver

Test Number:	11
Test Date:	Jan 09,2009
Target Location:	Upper Roof
Target Code:	URBP
Horizontal Impact Angle:	270°
Vertical Impact Angle:	47°
Ambient Temperature:	20°C
Relative Humidity:	18
Time of Impact:	9:15
Headform Number:	1142

Impact Point Description (from lower midpoint on midsagittal line)			
On Centerline	0	<input type="checkbox"/>	mm right <input type="checkbox"/> mm left
On Centerline	50		mm up



POST-IMPACT URBP HEADFORM

Free Motion HIC	683.5
HIC(d)	682.1
Impact Velocity (kph)	23.7
HIC T1 (msec)	3.2
HIC T2 (msec)	10.6



# FMVSS 201U 09 Dodge Journey C90301 - URBP

FMH Headform 1142

Location: URBP

Test Date: January 09, 2009

Work File: URBP

## -----TEST RESULTS-----

Lab Temperature: 20 C

HICd: 682.1

Lab Humidity: 18 %

HIC (36ms): 683.5

Velocity at Impact: 23.70 KPH

t1: 3.2 msec

t2: 10.6 msec

Free Flight Distance: 222.24 mm

Duration: 7.4 msec

Average Acceleration: 11.9 g

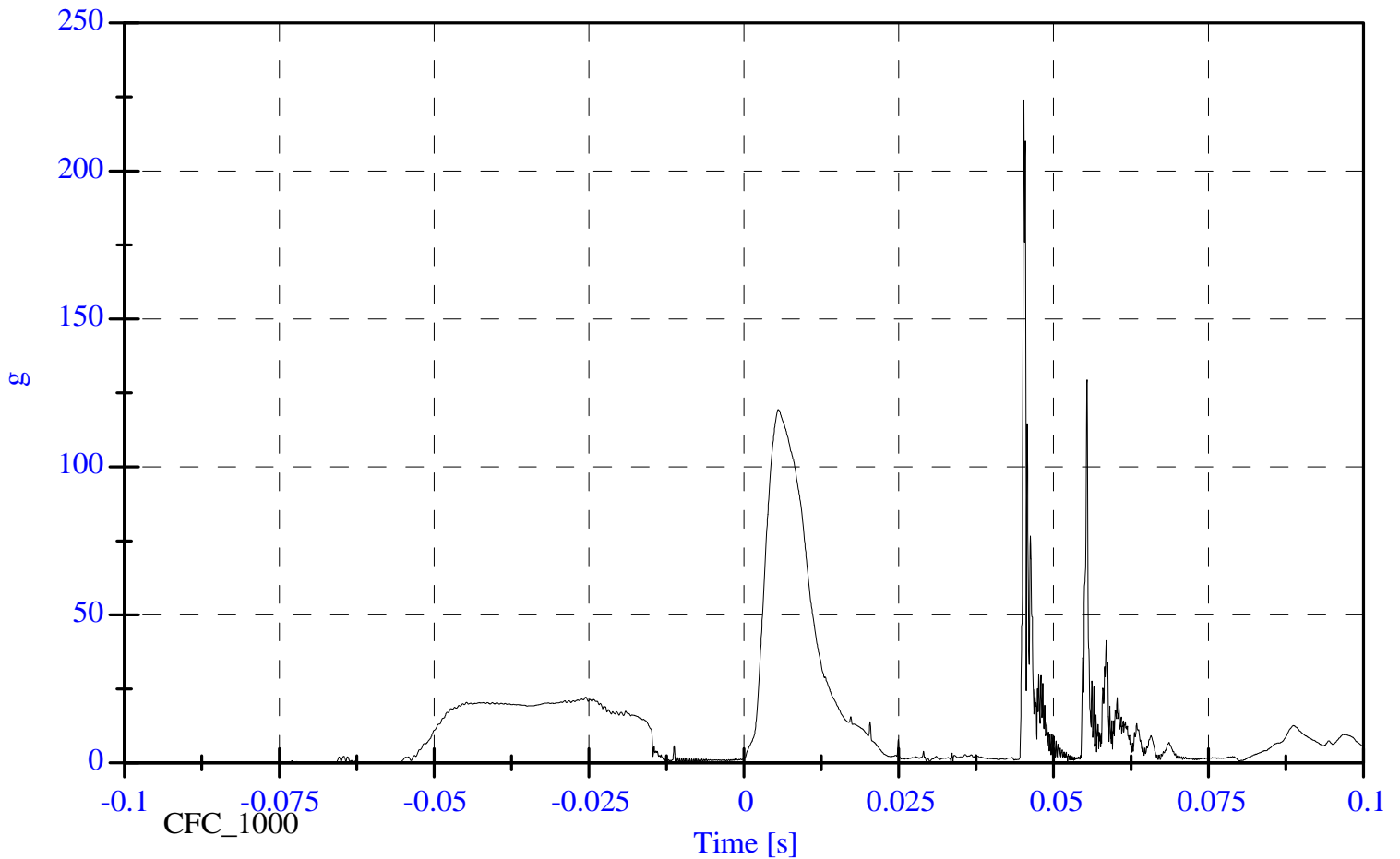
Maximum: 119.4 g

FMVSS 201U 09 Dodge Journey

Headform Resultant

Max: 119.4 [g] at 0.006 [s]

Min: 0.0 [g] at -0.081 [s]



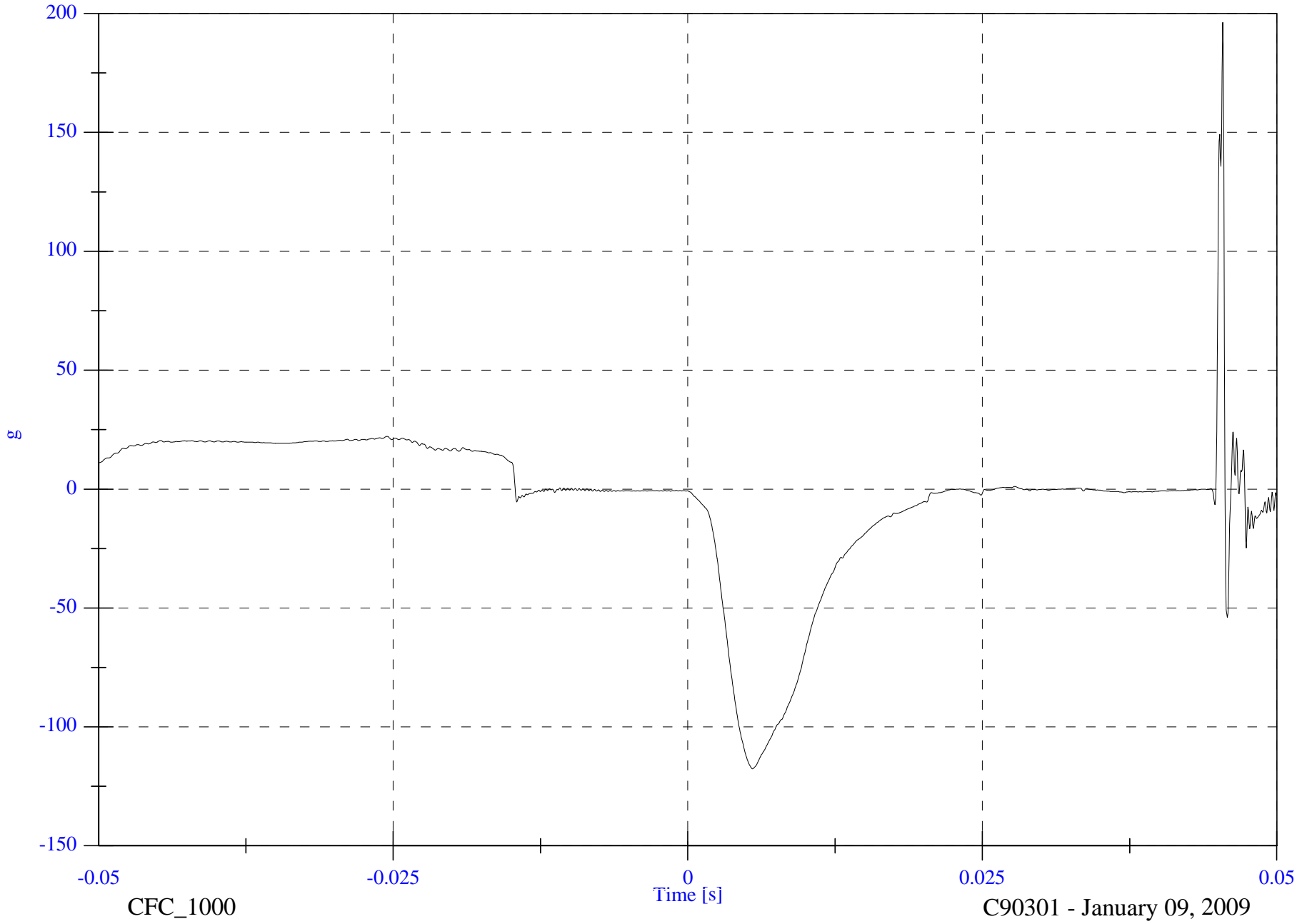
FMVSS 201U 09 Dodge Journey

Headform X Acceleration

Max: 196.3 [g] at 0.045 [s]

Min: -117.6 [g] at 0.006 [s]

C90301 DRIVER SIDE URBP IMPACT PLOT #1



CFC\_1000

C90301 - January 09, 2009

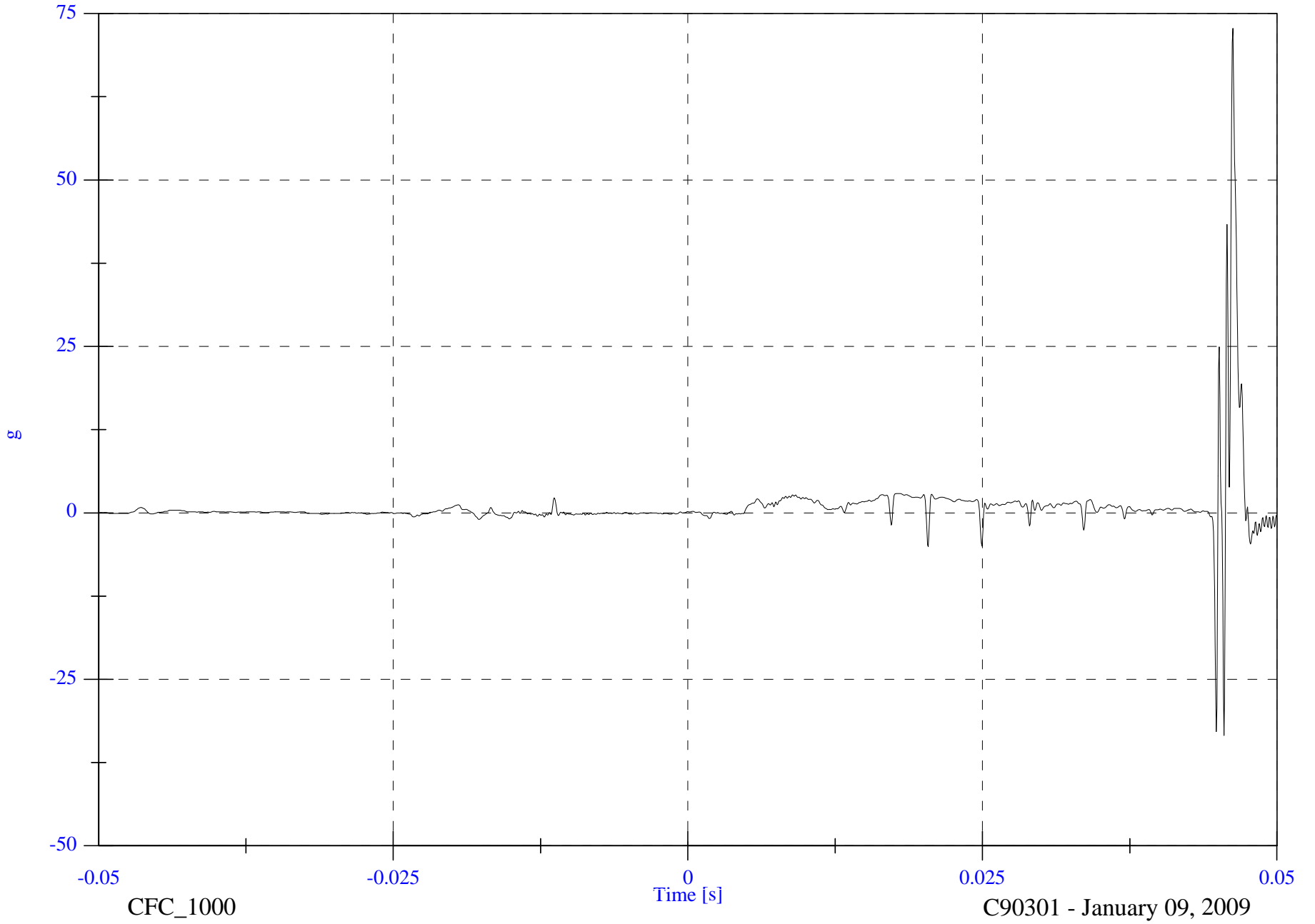
FMVSS 201U 09 Dodge Journey

Headform Y Acceleration

Max: 72.8 [g] at 0.046 [s]

Min: -33.4 [g] at 0.046 [s]

C90301 DRIVER SIDE URBP IMPACT PLOT #2



CFC\_1000

C90301 - January 09, 2009

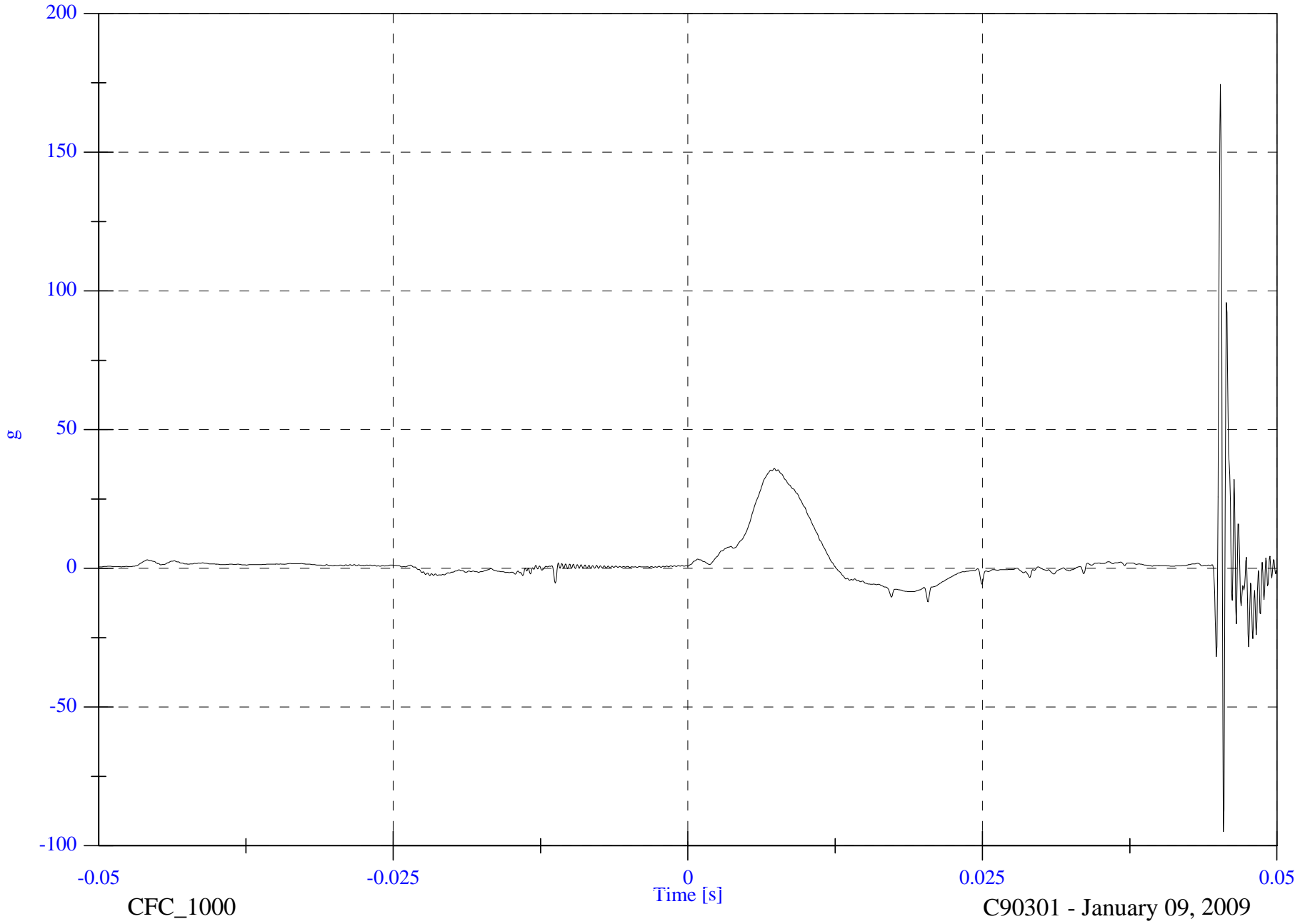
FMVSS 201U 09 Dodge Journey

Headform Z Acceleration

Max: 174.5 [g] at 0.045 [s]

Min: -94.9 [g] at 0.045 [s]

C90301 DRIVER SIDE URBP IMPACT PLOT #3



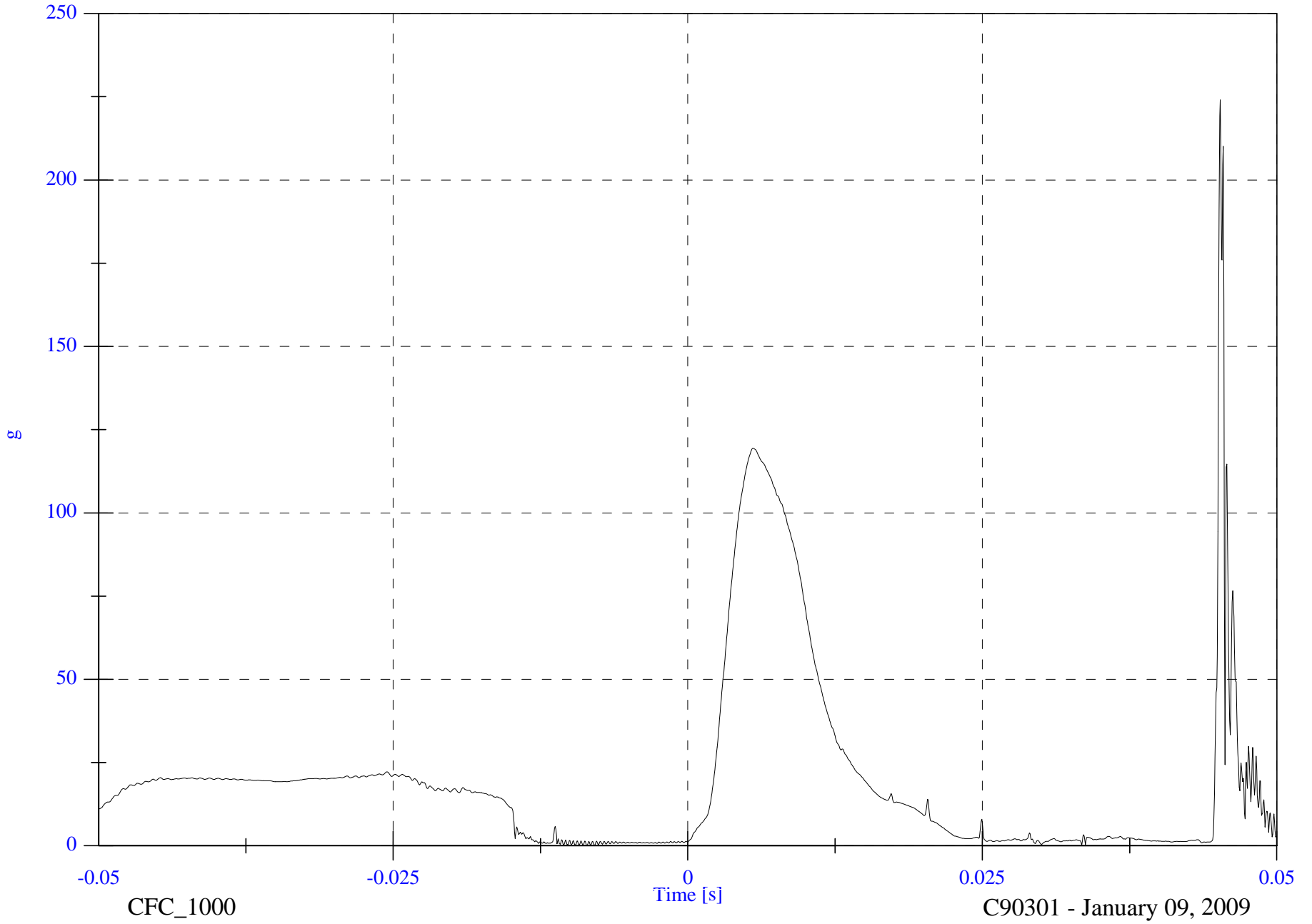
FMVSS 201U 09 Dodge Journey

Headform Resultant

Max: 224.1 [g] at 0.045 [s]

Min: 0.1 [g] at -0.008 [s]

C90301 DRIVER SIDE URBP IMPACT PLOT #4



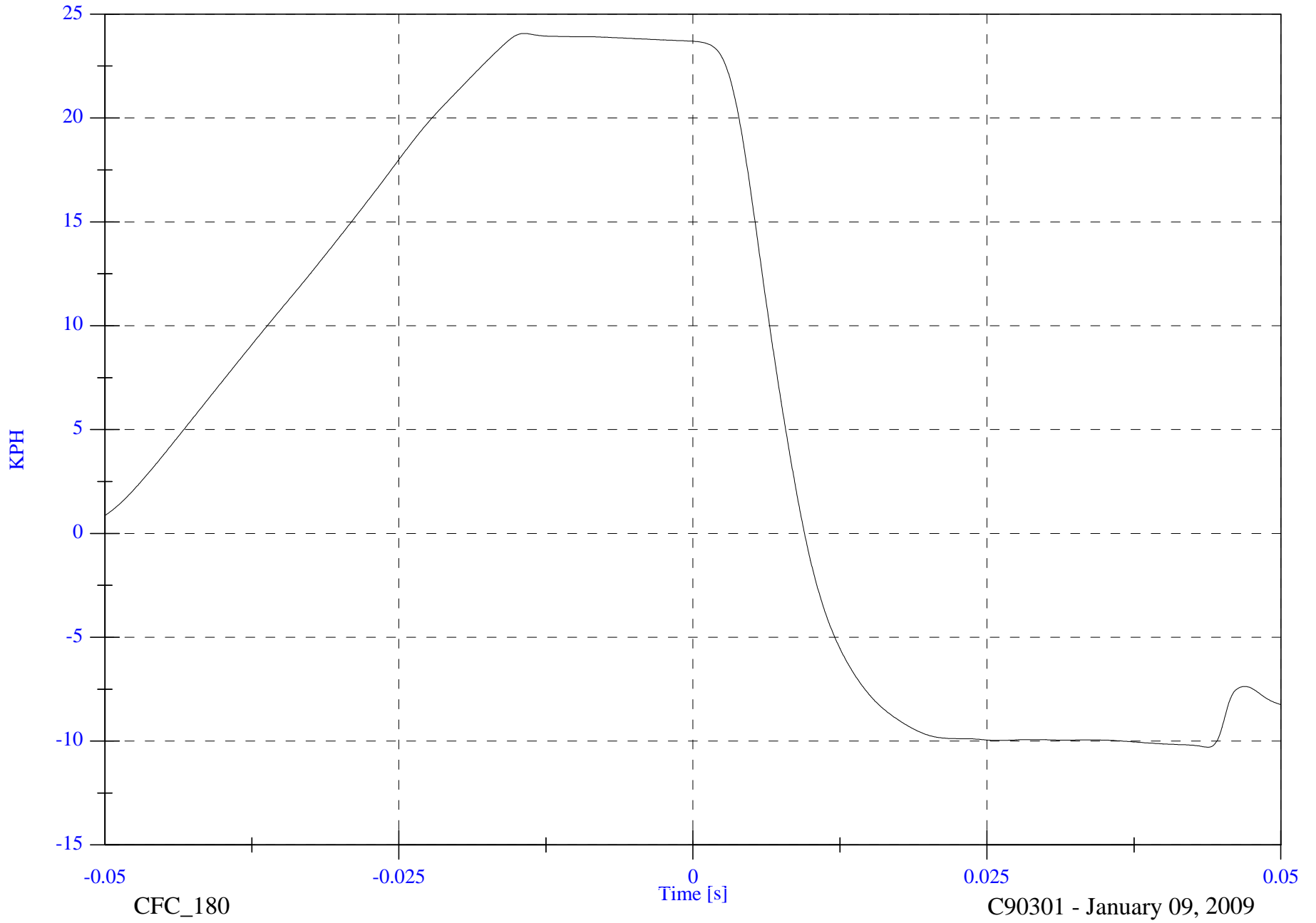
FMVSS 201U 09 Dodge Journey

### Headform Velocity

Max: 24.1 [KPH] at -0.014 [s]

Min: -10.3 [KPH] at 0.044 [s]

C90301 DRIVER SIDE URBP IMPACT PLOT #5



CFC\_180

C90301 - January 09, 2009



PRE-IMPACT URBP



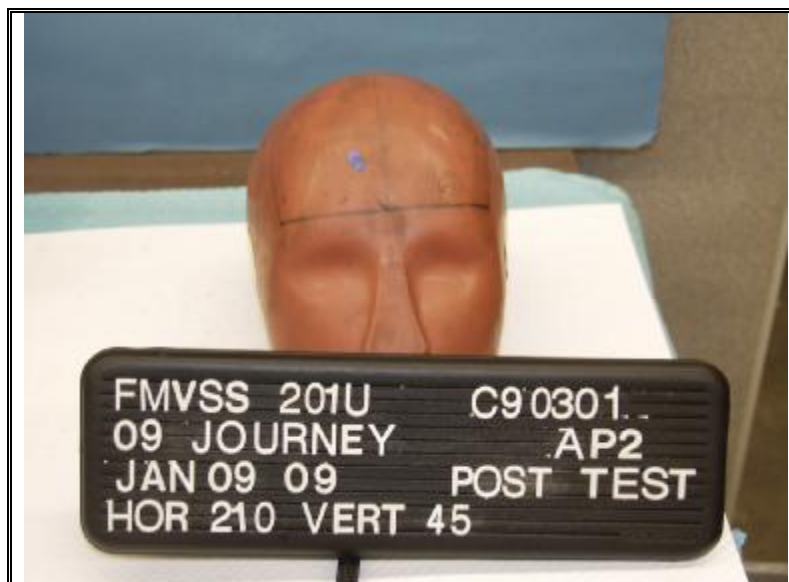
POST-IMPACT URBP



VEHICLE YEAR/MAKE/MODEL/STYLE:	2009 Dodge Journey
VIN:	3D4GG47B99T216926
DATE OF MANUFACTURE:	06/08(SEE CERTIFICATION LABEL)
COLOR:	Silver

Test Number:	12
Test Date:	Jan 09,2009
Target Location:	A-Pillar
Target Code:	AP2
Horizontal Impact Angle:	210°
Vertical Impact Angle:	45°
Ambient Temperature:	20°C
Relative Humidity:	18
Time of Impact:	10:00
Headform Number:	0062

Impact Point Description (from lower midpoint on midsagittal line)					
On Centerline	10	<input checked="" type="checkbox"/>	mm right	<input type="checkbox"/>	mm left
On Centerline	24				mm up



POST-IMPACT AP2 HEADFORM

Free Motion HIC	222.2
HIC(d)	334.0
Impact Velocity (kph)	23.7
HIC T1 (msec)	2.6
HIC T2 (msec)	13.2

# FMVSS 201U 09 Dodge Journey C90301 - AP2

FMH Headform 0062

Location: AP2

Test Date: January 09, 2009

Work File: AP2

## -----TEST RESULTS-----

Lab Temperature: 20 C

HICd: 334.0

Lab Humidity: 18 %

HIC (36ms): 222.2

Velocity at Impact: 18.71 KPH

t1: 2.6 msec

t2: 13.2 msec

Free Flight Distance: 218.38 mm

Duration: 10.6 msec

Average Acceleration: 9.3 g

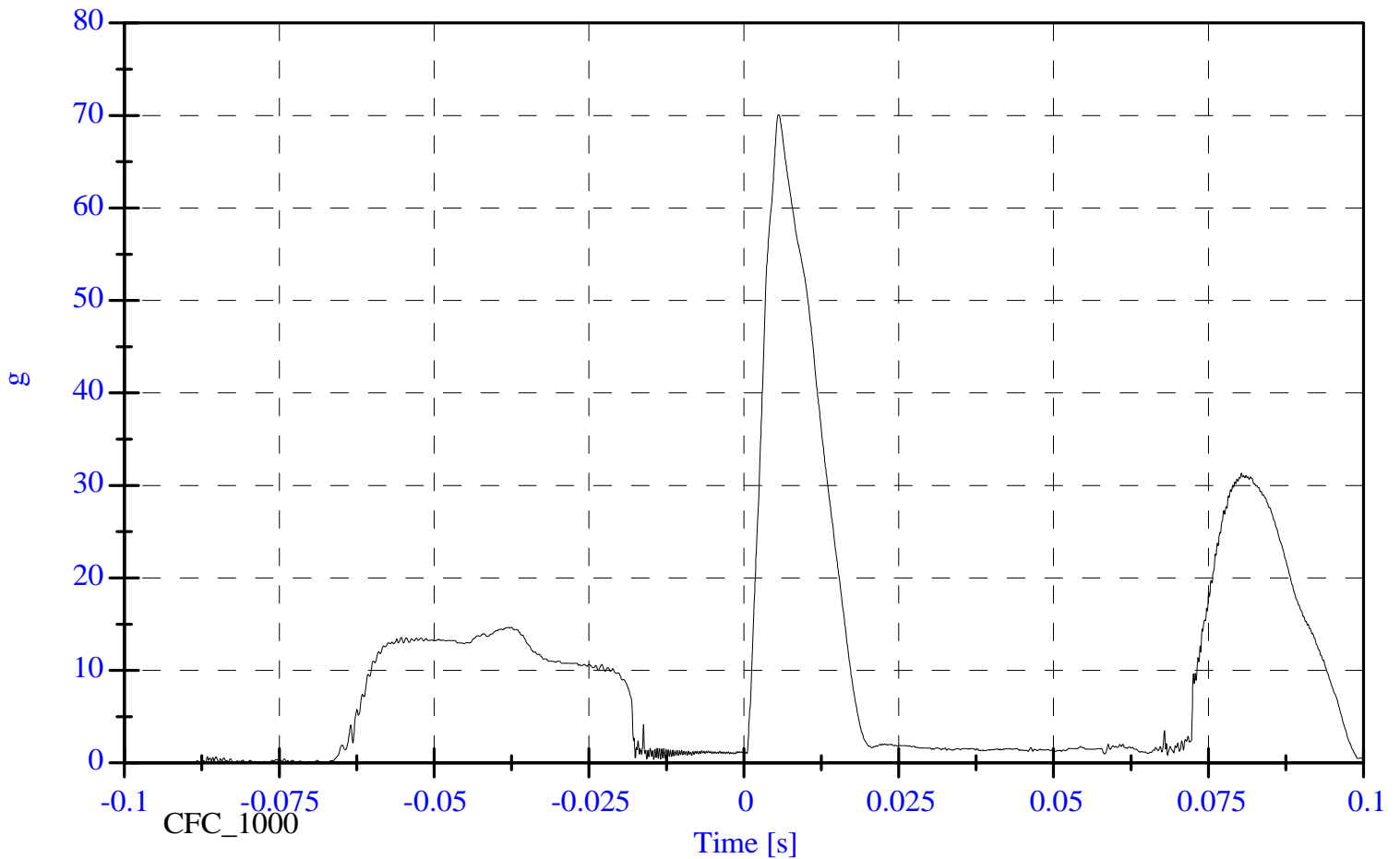
Maximum: 70.1 g

FMVSS 201U 09 Dodge Journey

Headform Resultant

Max: 70.1 [g] at 0.006 [s]

Min: 0.0 [g] at -0.090 [s]



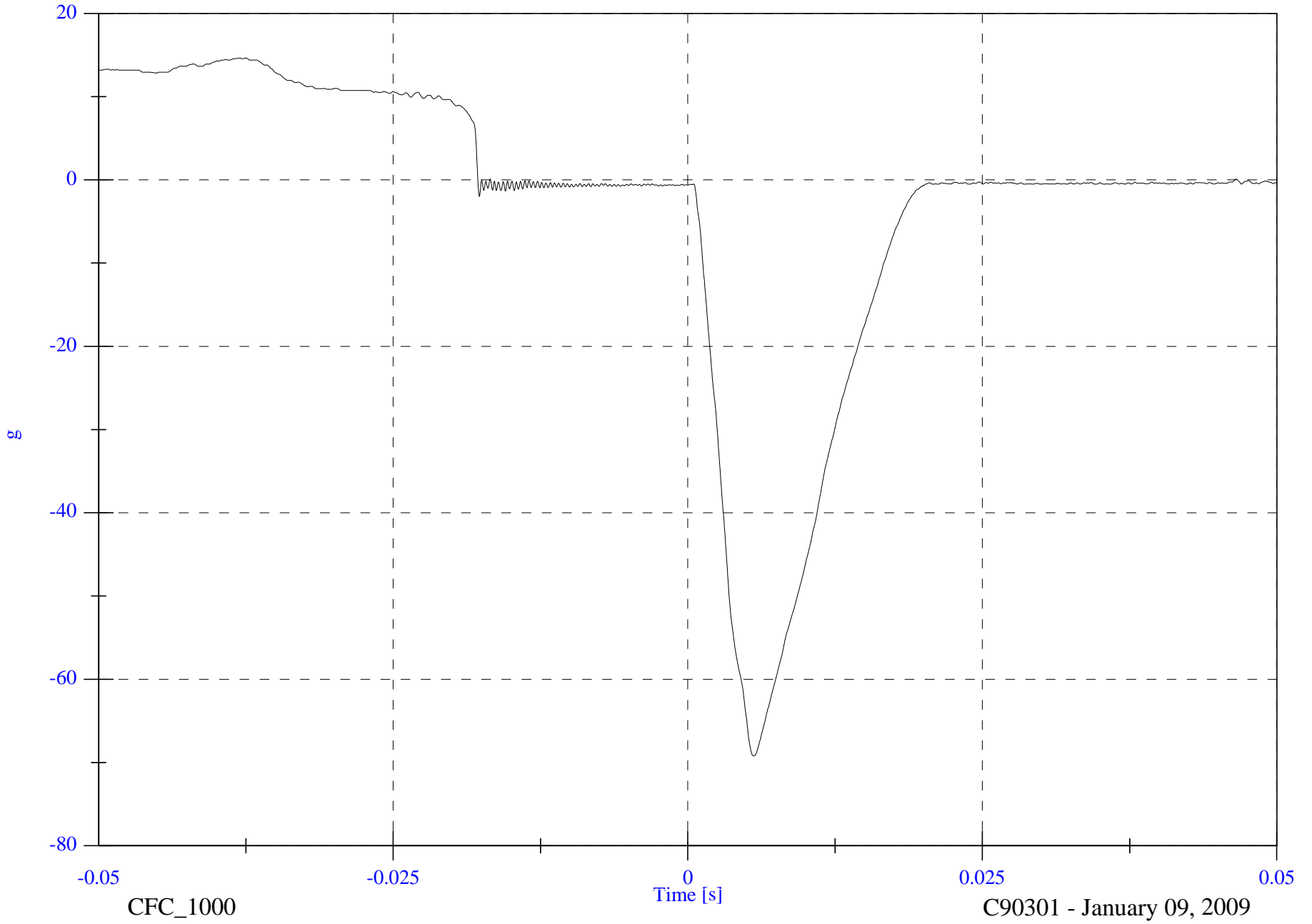
FMVSS 201U 09 Dodge Journey

Headform X Acceleration

Max: 14.7 [g] at -0.037 [s]

Min: -69.2 [g] at 0.006 [s]

C90301 DRIVER SIDE AP2 IMPACT PLOT #1



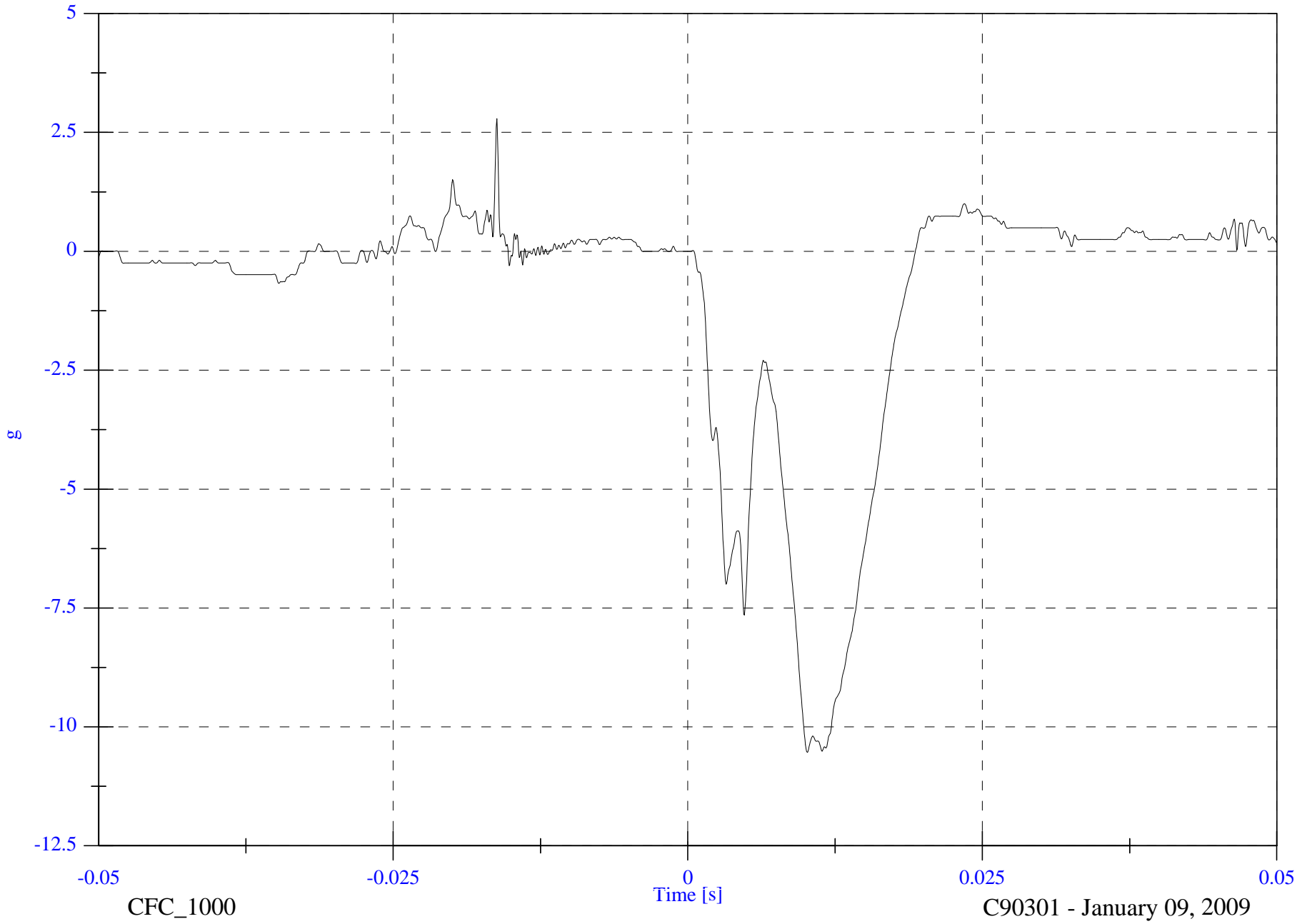
FMVSS 201U 09 Dodge Journey

Headform Y Acceleration

Max: 2.8 [g] at -0.016 [s]

Min: -10.5 [g] at 0.010 [s]

C90301 DRIVER SIDE AP2 IMPACT PLOT #2



CFC\_1000

C90301 - January 09, 2009

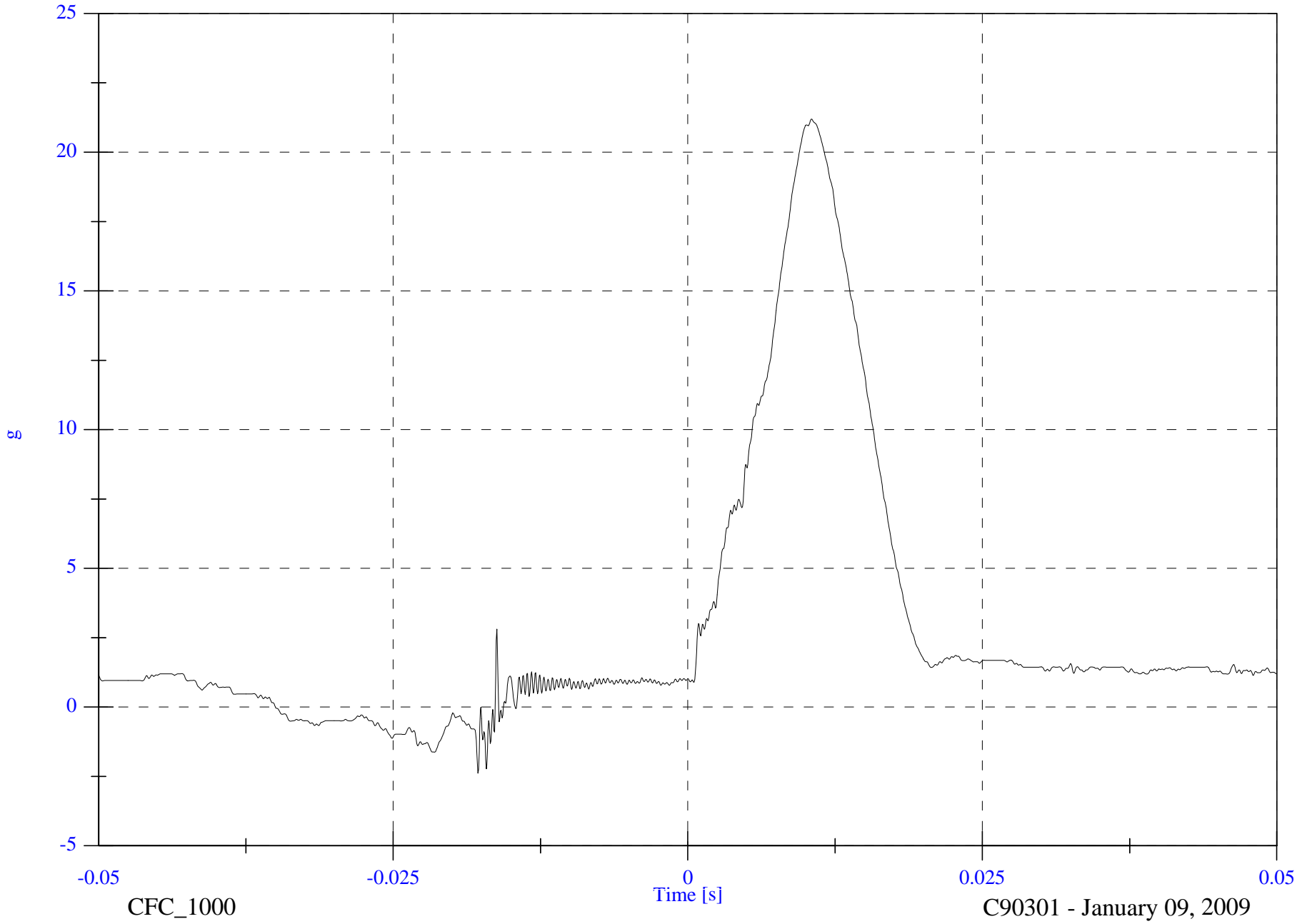
FMVSS 201U 09 Dodge Journey

Headform Z Acceleration

Max: 21.2 [g] at 0.011 [s]

Min: -2.4 [g] at -0.018 [s]

C90301 DRIVER SIDE AP2 IMPACT PLOT #3



CFC\_1000

C90301 - January 09, 2009

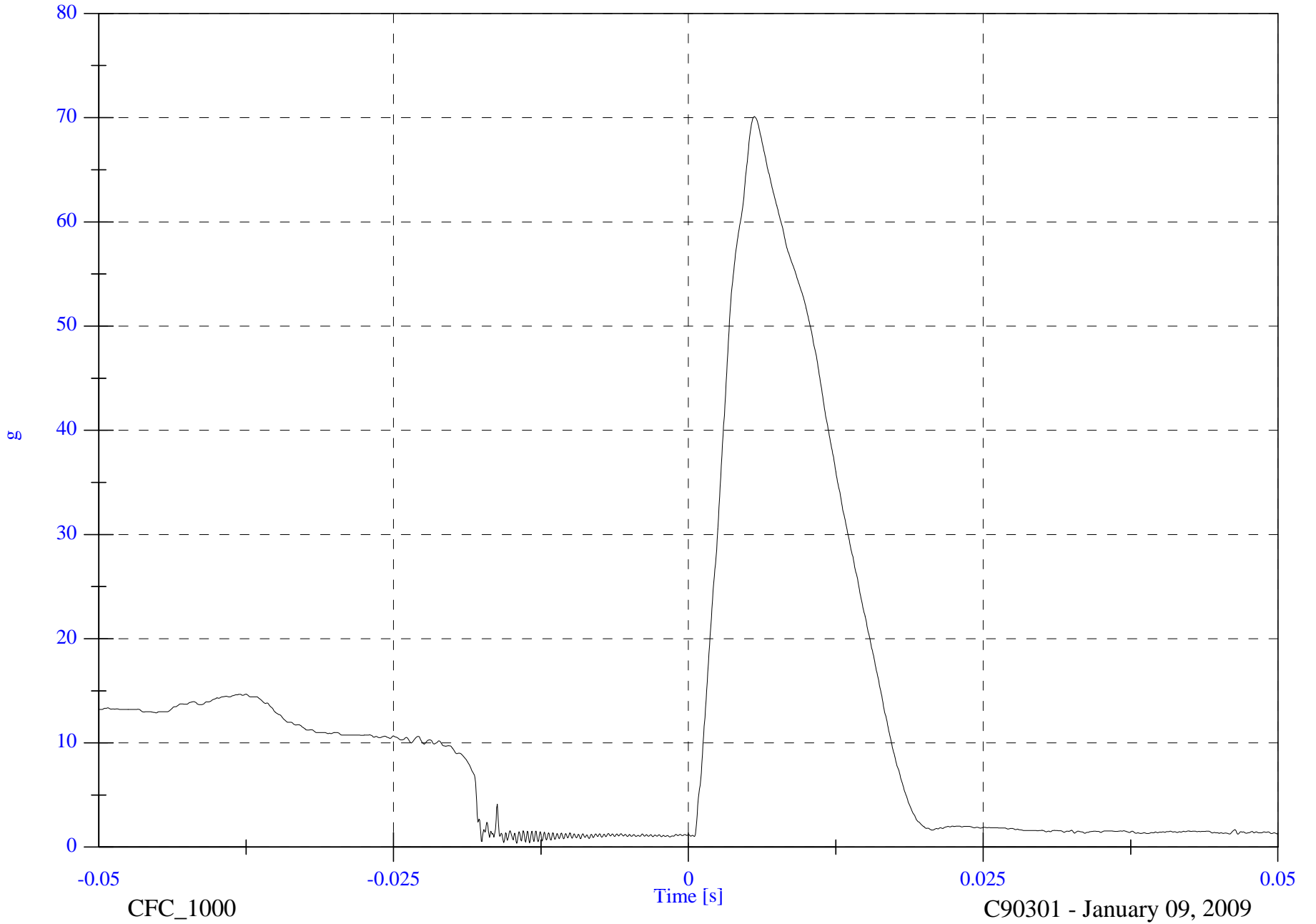
FMVSS 201U 09 Dodge Journey

Headform Resultant

Max: 70.1 [g] at 0.006 [s]

Min: 0.4 [g] at -0.015 [s]

C90301 DRIVER SIDE AP2 IMPACT PLOT #4



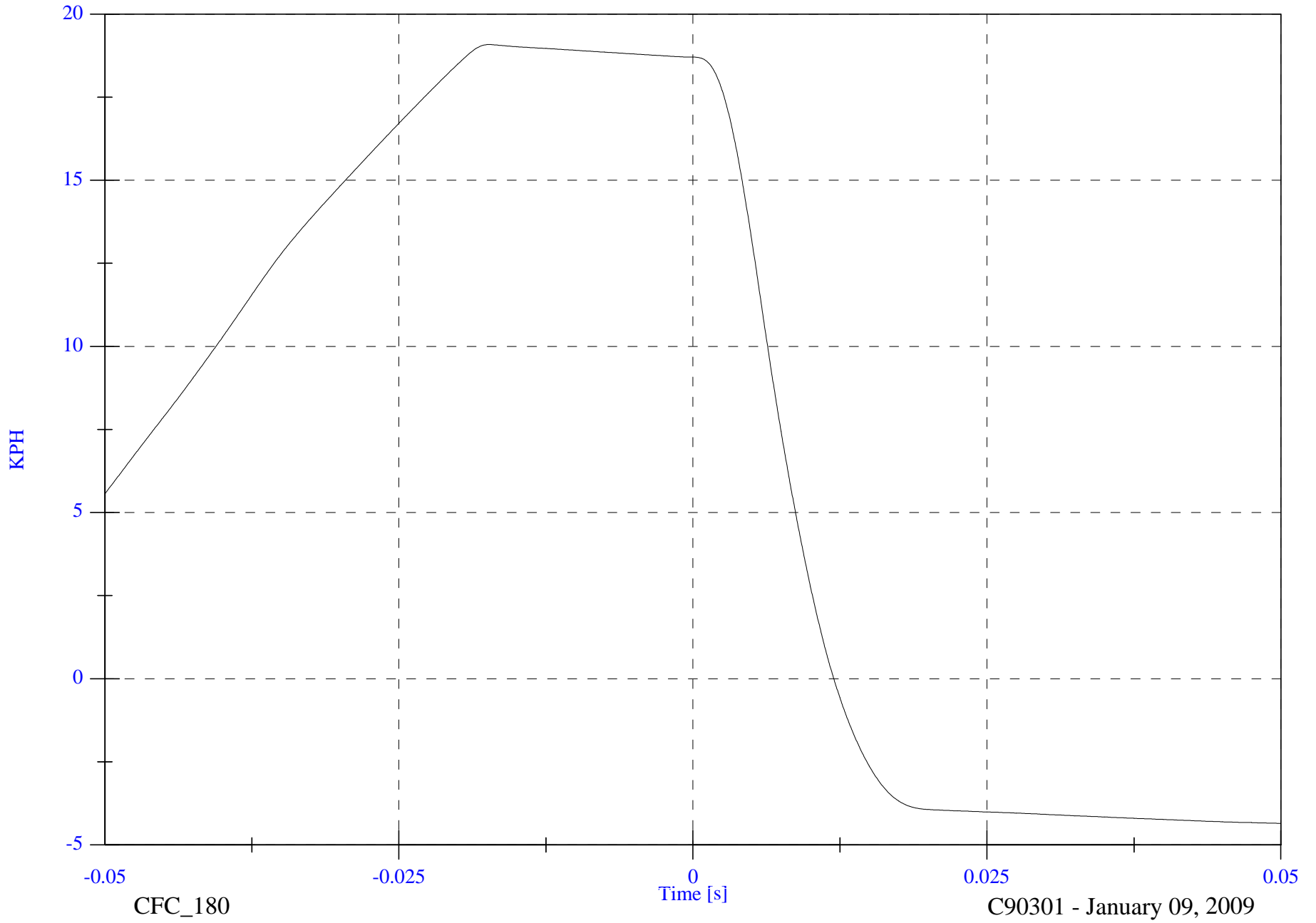
FMVSS 201U 09 Dodge Journey

### Headform Velocity

Max: 19.1 [KPH] at -0.017 [s]

Min: -4.4 [KPH] at 0.050 [s]

C90301 DRIVER SIDE AP2 IMPACT PLOT #5



CFC\_180

C90301 - January 09, 2009



PRE-IMPACT AP2





POST-IMPACT AP2

**APPENDIX A**

**PHOTOGRAPHS**

## PHOTOGRAPHS

<b>FIGURE</b>	<b>VIEW</b>	<b>PAGE</b>
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A-12	PRE-TEST PASSENGER SIDE A-PILLAR	A-14
A-13	PRE-TEST PASSENGER SIDE FRONT HEADER	A-15
A-14	PRE-TEST PASSENGER SIDE SIDE RAIL	A-16
A-15	PRE-TEST PASSENGER SIDE B-PILLAR	A-17
A-16	PRE-TEST PASSENGER SIDE OTHER PILLAR	A-18
A-17	POST-TEST DRIVER SIDE A-PILLAR	A-19
A-18	POST-TEST DRIVER SIDE FRONT HEADER	A-20
A-19	POST-TEST DRIVER SIDE SIDE RAIL	A-21
A-20	POST-TEST DRIVER SIDE B-PILLAR	A-22
A-21	POST-TEST DRIVER SIDE OTHER PILLAR	A-23
A-22	POST-TEST PASSENGER SIDE A-PILLAR	A-24
A-23	POST-TEST PASSENGER SIDE FRONT HEADER	A-25
A-24	POST-TEST PASSENGER SIDE SIDE RAIL	A-26
A-25	POST-TEST PASSENGER SIDE B-PILLAR	A-27
A-26	POST-TEST PASSENGER SIDE OTHER PILLAR	A-28



Figure A-1 : LEFT SIDE VIEW OF VEHICLE



A-4

8877-02

Figure A-2 : RIGHT SIDE VIEW OF VEHICLE



Figure A-3 : 3/4 FRONTAL VIEW FROM LEFT SIDE OF VEHICLE





Figure A-4 : 3/4 REAR VIEW FROM RIGHT SIDE OF VEHICLE



Figure A-5 : VEHICLE'S CERTIFICATION LABEL





Figure A-6 : VEHICLE'S TIRE INFORMATION LABEL



Figure A-7 : PRE-TEST DRIVER SIDE A-PILLAR



Figure A-8 : PRE-TEST DRIVER SIDE FRONT HEADER





Figure A-9 : PRE-TEST DRIVER SIDE SIDE RAIL



Figure A-10 : PRE-TEST DRIVER SIDE B-PILLAR



Figure A-11 : PRE-TEST DRIVER SIDE OTHER PILLAR



Figure A-12 : PRE-TEST PASSENGER SIDE A-PILLAR





Figure A-13 : PRE-TEST PASSENGER SIDE FRONT HEADER





Figure A-14 : PRE-TEST PASSENGER SIDE SIDE RAIL



Figure A-15 : PRE-TEST PASSENGER SIDE B-PILLAR



Figure A-16 : PRE-TEST PASSENGER SIDE OTHER PILLAR



Figure A-17 : POST-TEST DRIVER SIDE A-PILLAR





Figure A-18 : POST-TEST DRIVER SIDE FRONT HEADER



Figure A-19 : POST-TEST DRIVER SIDE SIDE RAIL



Figure A-20 : POST-TEST DRIVER SIDE B-PILLAR



Figure A-21 : POST-TEST DRIVER SIDE OTHER PILLAR





Figure A-22 : POST-TEST PASSENGER SIDE A-PILLAR



Figure A-23 : POST-TEST PASSENGER SIDE FRONT HEADER



Figure A-24 : POST-TEST PASSENGER SIDE SIDE RAIL



Figure A-25 : POST-TEST PASSENGER SIDE B-PILLAR





Figure A-26 : POST-TEST PASSENGER SIDE OTHER PILLAR

## **APPENDIX B**

### **PART 572L PERFORMANCE CALIBRATION IN SUPPORT OF VEHICLE SAFETY COMPLIANCE TESTING FOR OCCUPANT PROTECTION IN INTERIOR IMPACT**

Appendix B contains the results from certification tests performed on the Free Motion Headforms utilized in this test program. The results indicate that the headforms meet all of the performance specifications given in 49 CFR Part 572 Subpart L.

The tests were conducted at the Dummy Certification Test Facility of Calspan Corporation. A summary of the test results are included in this Appendix.

**PART 572L  
HEAD DROP PRE-TEST**

<b>MANUFACTURER:</b>		<b>FIRST TECHNOLOGY SAFETY SYSTEMS</b>	
<b>SERIAL NUMBER:</b>		1142	
<b>CALIBRATION DATE:</b>		December 23, 2008	
<b>TEST PARAMETER</b>	<b>SPECIFICATION</b>	<b>TEST RESULTS</b>	
<b>TEMPERATURE</b>	19°C to 26°C	20	
<b>RELATIVE HUMIDITY</b>	10% to 70%	17	
<b>PEAK RESULTANT ACCELERATION</b>	225 Gs to 275 Gs	256.5	
<b>PEAK LATERAL ACCELERATION</b>	15 Gs Maximum	8.1	
<b>IS ACCELERATION CURVE UNIMODAL?</b>	YES	YES	

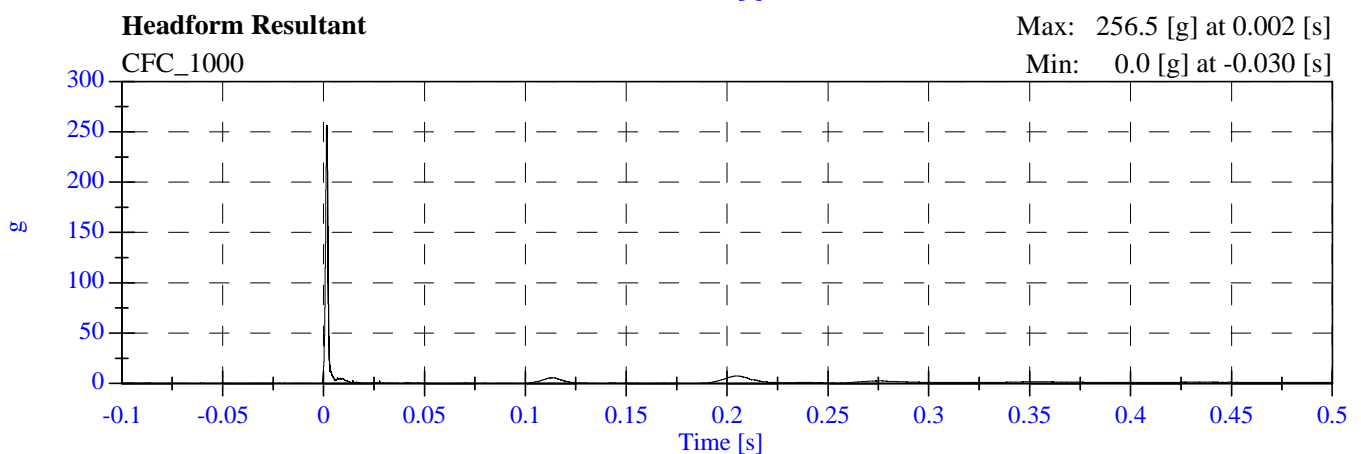
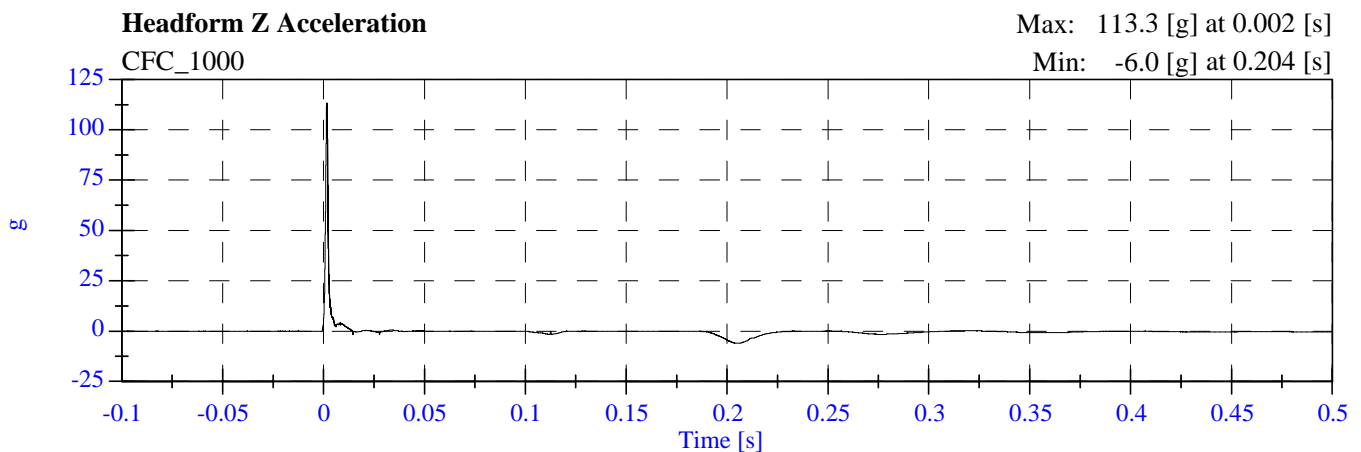
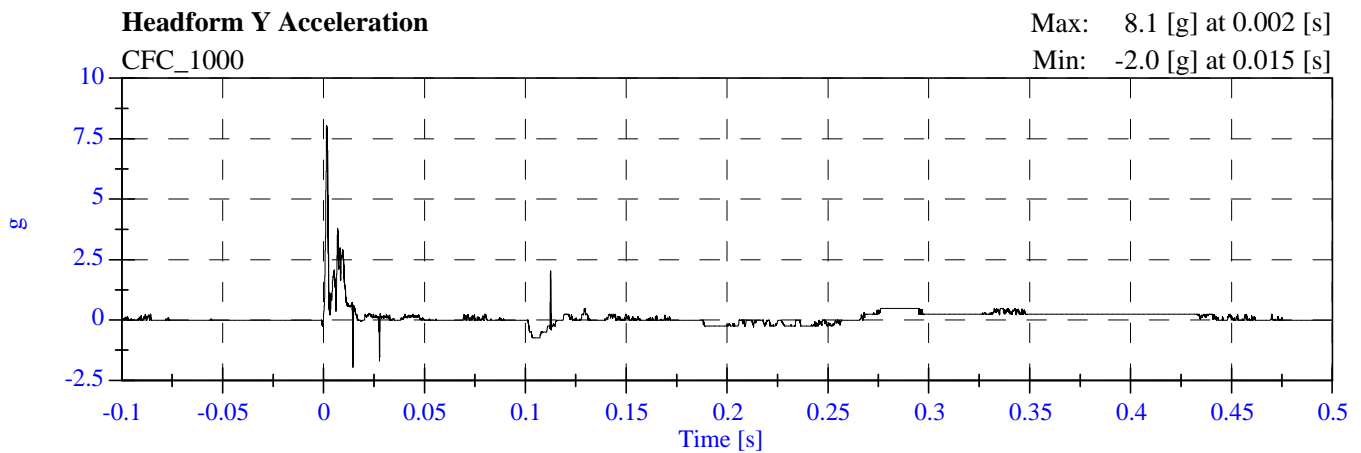
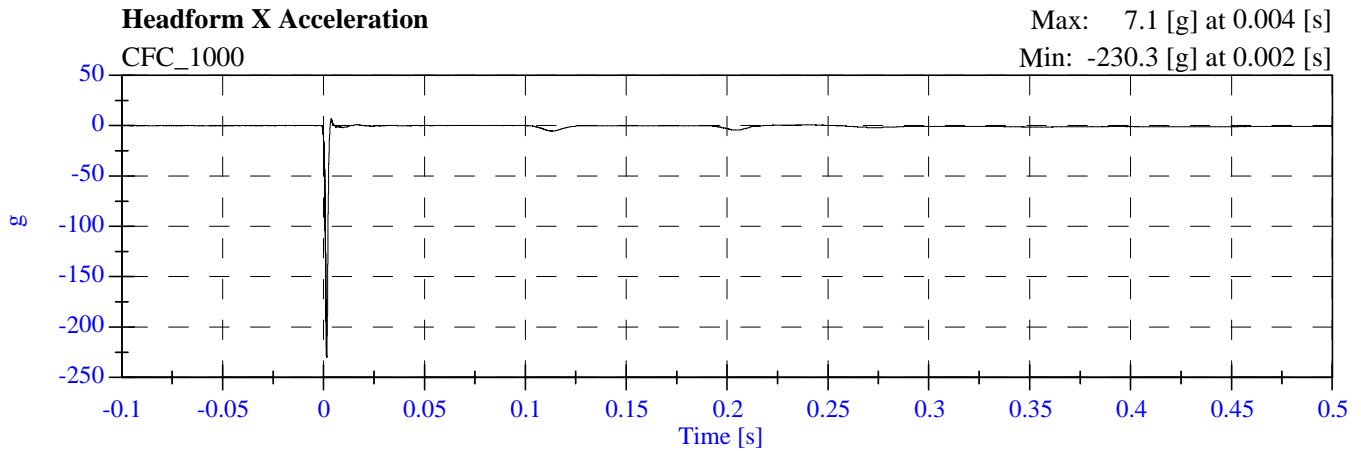
**HEAD ACCELEROMETER CALIBRATION INFORMATION**

<b>I.D. NUMBER</b>	<b>MANUFACTURER</b>	<b>MODEL NUMBER</b>	<b>SERIAL NUMBER</b>	<b>DATE OF LAST CALIBRATION</b>	<b>DATE OF NEXT CALIBRATION</b>
1 - LONGITUDINAL	ENDEVCO	7264-2000T	J24876	9/2/2008	3/2/2009
2 - LATERAL	ENDEVCO	7264-2000T	J33030	9/2/2008	3/2/2009
3 - VERTICAL	ENDEVCO	7264-2000T	J31009	9/2/2008	3/2/2009

**REMARKS:**

# FMVSS 201U - Headform Calibration Drops

## - December 23, 2008





**PART 572L  
HEAD DROP PRE-TEST**

<b>MANUFACTURER:</b>		<b>DENTON ATD INC.</b>	
<b>SERIAL NUMBER:</b>		<b>0062</b>	
<b>CALIBRATION DATE:</b>		<b>December 23, 2008</b>	
<b>TEST PARAMETER</b>	<b>SPECIFICATION</b>	<b>TEST RESULTS</b>	
<b>TEMPERATURE</b>	<b>19°C to 26°C</b>	<b>20</b>	
<b>RELATIVE HUMIDITY</b>	<b>10% to 70%</b>	<b>17</b>	
<b>PEAK RESULTANT ACCELERATION</b>	<b>225 Gs to 275 Gs</b>	<b>262.3</b>	
<b>PEAK LATERAL ACCELERATION</b>	<b>15 Gs Maximum</b>	<b>9.5</b>	
<b>IS ACCELERATION CURVE UNIMODAL?</b>	<b>YES</b>	<b>YES</b>	

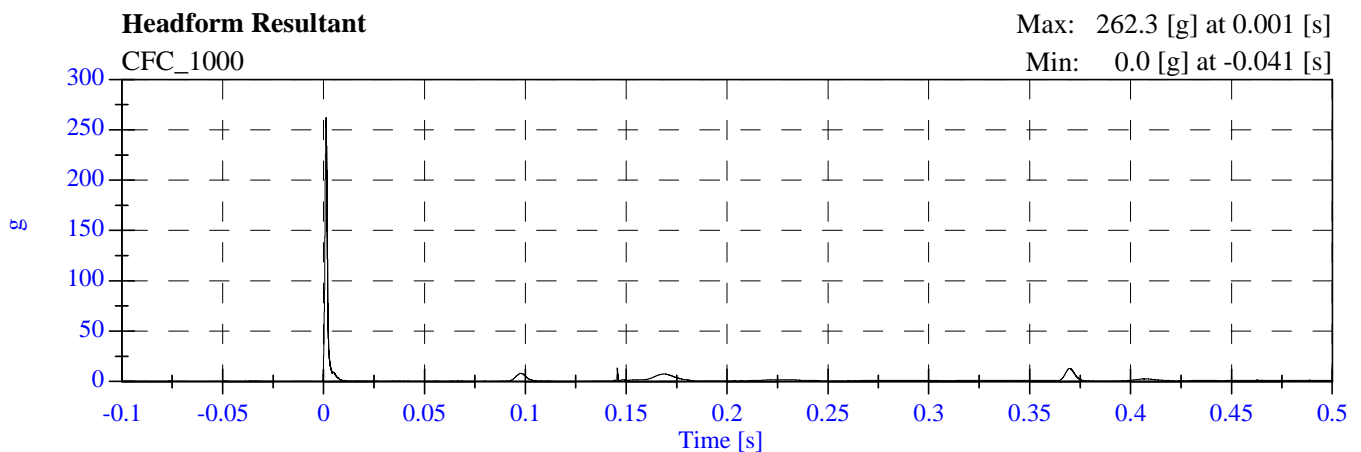
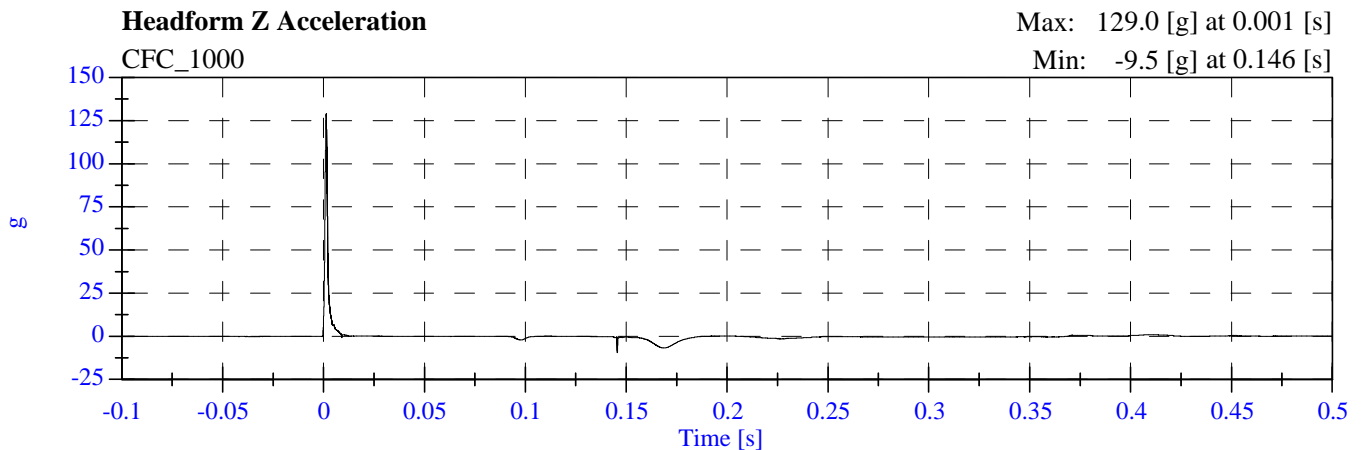
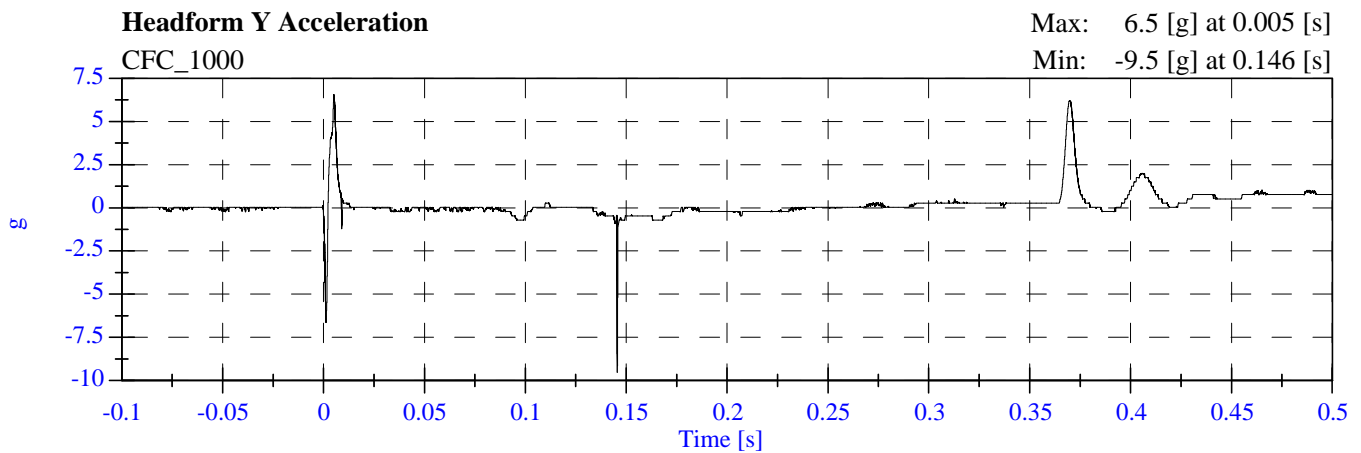
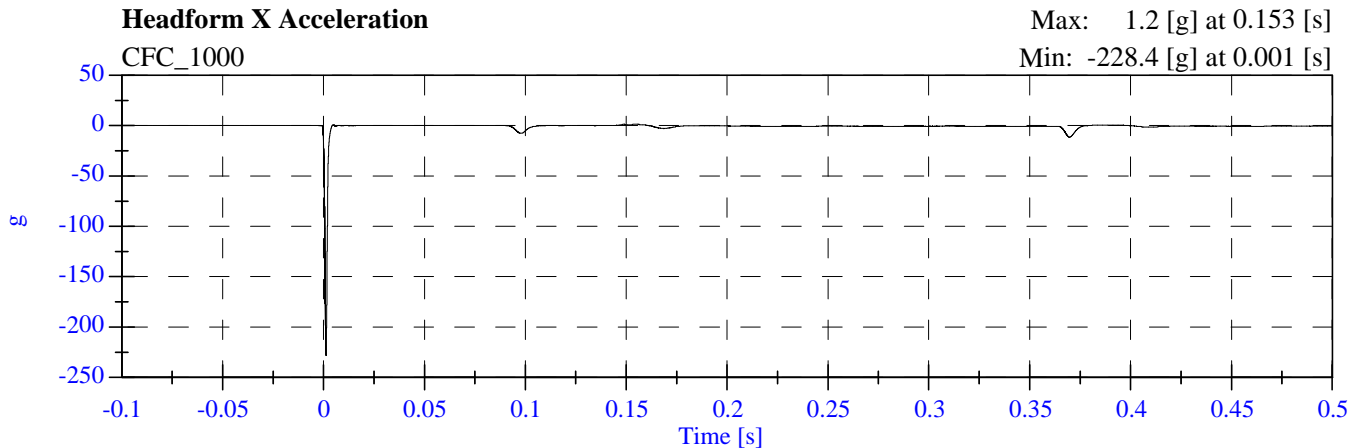
**HEAD ACCELEROMETER CALIBRATION INFORMATION**

<b>I.D. NUMBER</b>	<b>MANUFACTURER</b>	<b>MODEL NUMBER</b>	<b>SERIAL NUMBER</b>	<b>DATE OF LAST CALIBRATION</b>	<b>DATE OF NEXT CALIBRATION</b>
<b>1 - LONGITUDINAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J33127</b>	<b>9/2/2008</b>	<b>3/2/2009</b>
<b>2 - LATERAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J33019</b>	<b>9/2/2008</b>	<b>3/2/2009</b>
<b>3 - VERTICAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J32782</b>	<b>9/2/2008</b>	<b>3/2/2009</b>

**REMARKS:**

# FMVSS 201U - Headform Calibration Drops

## - December 23, 2008



**PART 572L  
HEAD DROP PRE-TEST**

<b>MANUFACTURER:</b>		<b>FIRST TECHNOLOGY SAFETY SYSTEMS</b>	
<b>SERIAL NUMBER:</b>		<b>805</b>	
<b>CALIBRATION DATE:</b>		<b>December 23, 2008</b>	
<b>TEST PARAMETER</b>	<b>SPECIFICATION</b>	<b>TEST RESULTS</b>	
<b>TEMPERATURE</b>	<b>19°C to 26°C</b>	<b>20</b>	
<b>RELATIVE HUMIDITY</b>	<b>10% to 70%</b>	<b>17</b>	
<b>PEAK RESULTANT ACCELERATION</b>	<b>225 Gs to 275 Gs</b>	<b>265.1</b>	
<b>PEAK LATERAL ACCELERATION</b>	<b>15 Gs Maximum</b>	<b>5.7</b>	
<b>IS ACCELERATION CURVE UNIMODAL?</b>	<b>YES</b>	<b>YES</b>	

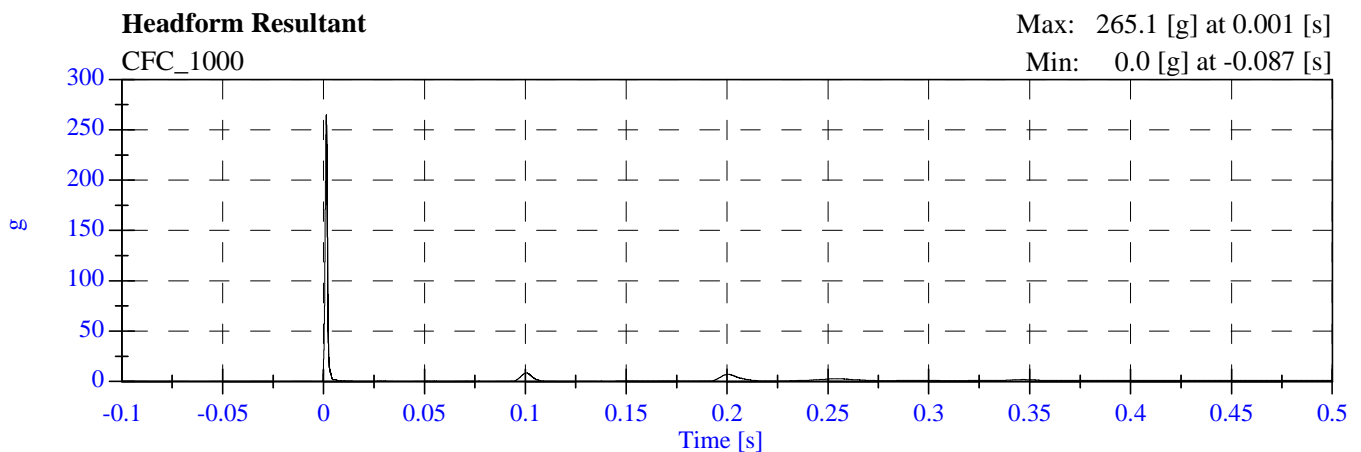
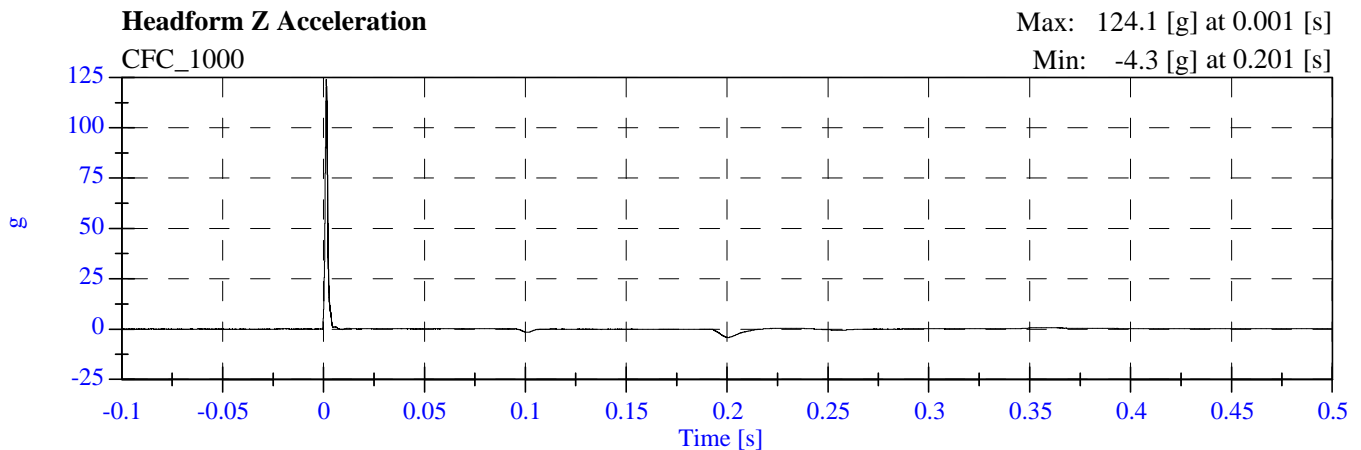
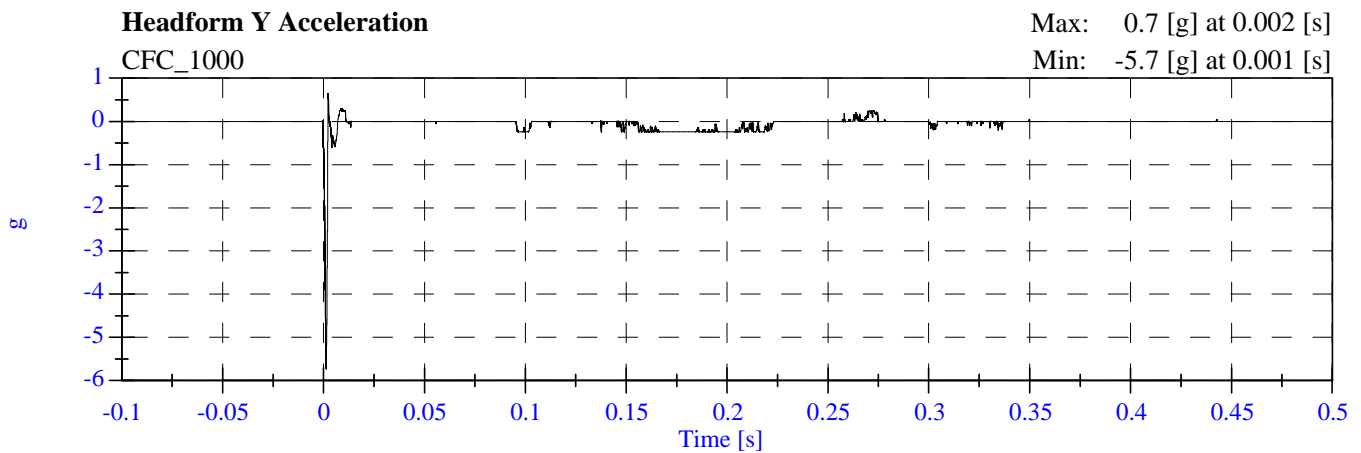
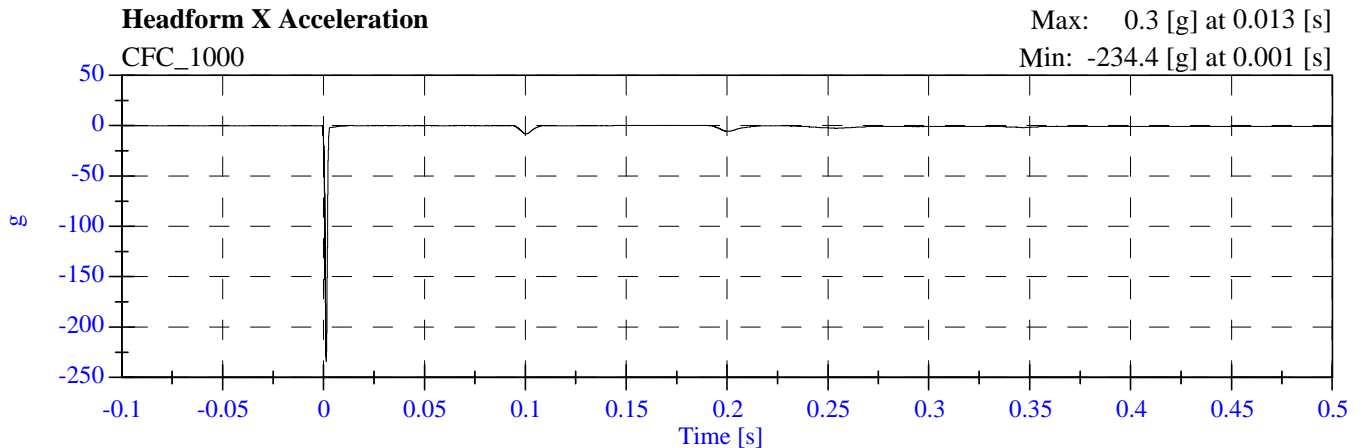
**HEAD ACCELEROMETER CALIBRATION INFORMATION**

<b>I.D. NUMBER</b>	<b>MANUFACTURER</b>	<b>MODEL NUMBER</b>	<b>SERIAL NUMBER</b>	<b>DATE OF LAST CALIBRATION</b>	<b>DATE OF NEXT CALIBRATION</b>
<b>1 - LONGITUDINAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J41004</b>	<b>9/2/2008</b>	<b>3/2/2009</b>
<b>2 - LATERAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J37496</b>	<b>9/2/2008</b>	<b>3/2/2009</b>
<b>3 - VERTICAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J41016</b>	<b>9/2/2008</b>	<b>3/2/2009</b>

**REMARKS:**

# FMVSS 201U - Headform Calibration Drops

## - December 23, 2008



**PART 572L  
HEAD DROP PRE-TEST**

<b>MANUFACTURER:</b>		<b>DENTON ATD INC.</b>	
<b>SERIAL NUMBER:</b>		<b>0355</b>	
<b>CALIBRATION DATE:</b>		<b>December 23, 2008</b>	
<b>TEST PARAMETER</b>	<b>SPECIFICATION</b>	<b>TEST RESULTS</b>	
<b>TEMPERATURE</b>	<b>19°C to 26°C</b>	<b>20</b>	
<b>RELATIVE HUMIDITY</b>	<b>10% to 70%</b>	<b>17</b>	
<b>PEAK RESULTANT ACCELERATION</b>	<b>225 Gs to 275 Gs</b>	<b>237.2</b>	
<b>PEAK LATERAL ACCELERATION</b>	<b>15 Gs Maximum</b>	<b>5.6</b>	
<b>IS ACCELERATION CURVE UNIMODAL?</b>	<b>YES</b>	<b>YES</b>	

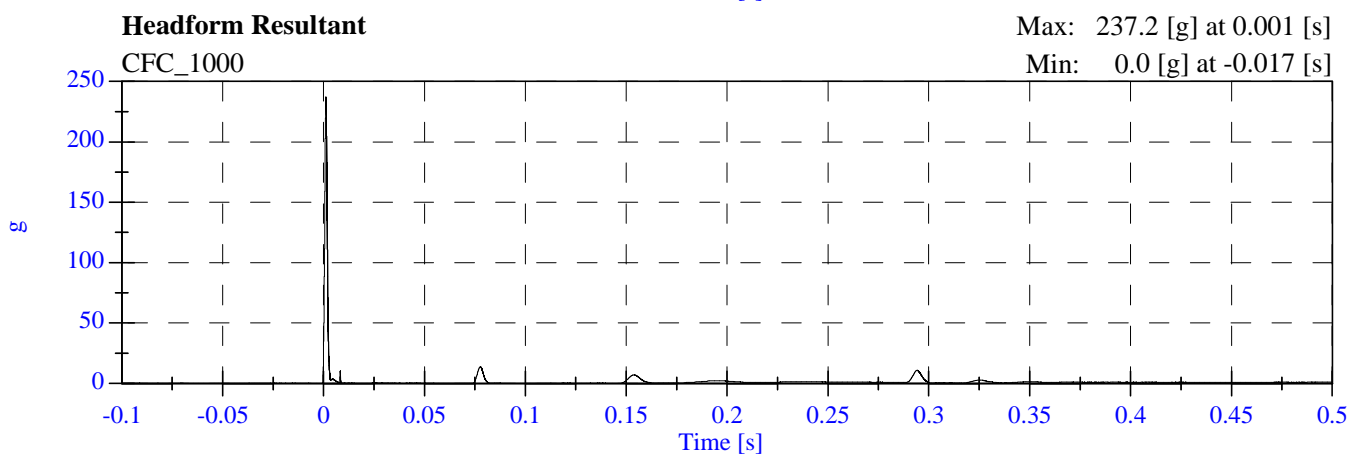
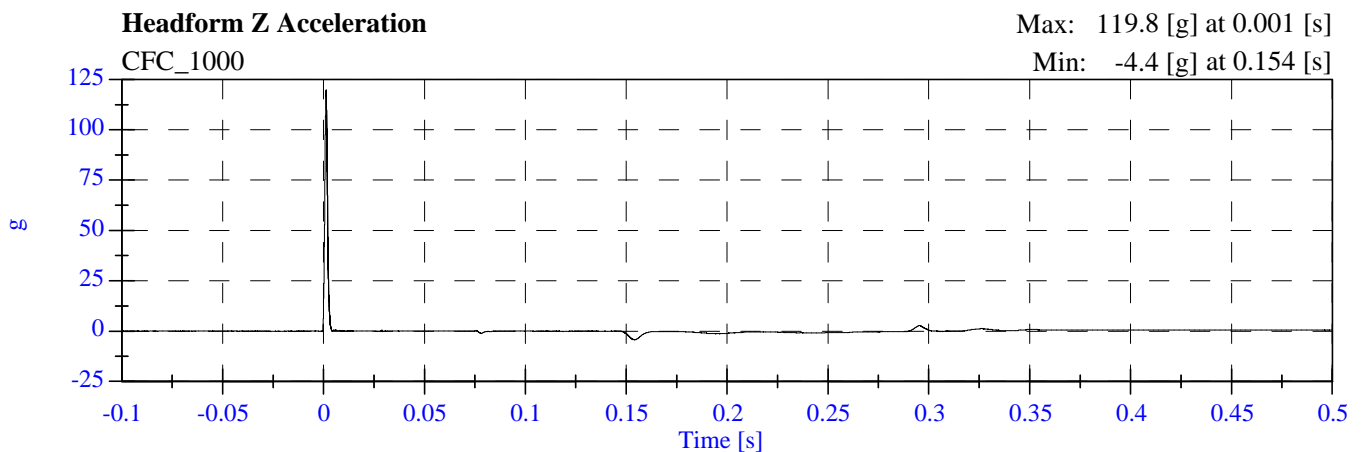
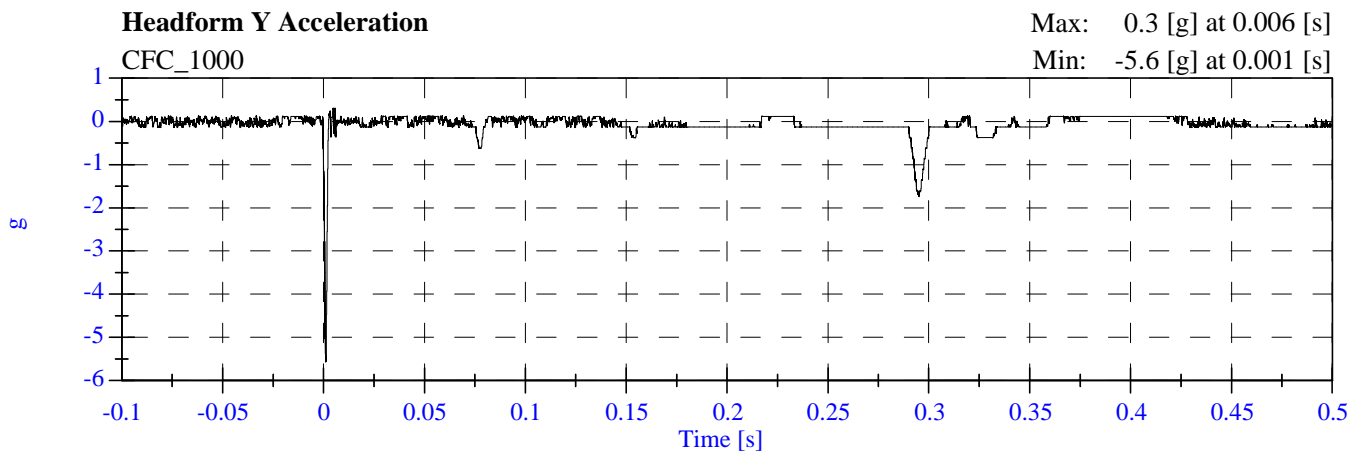
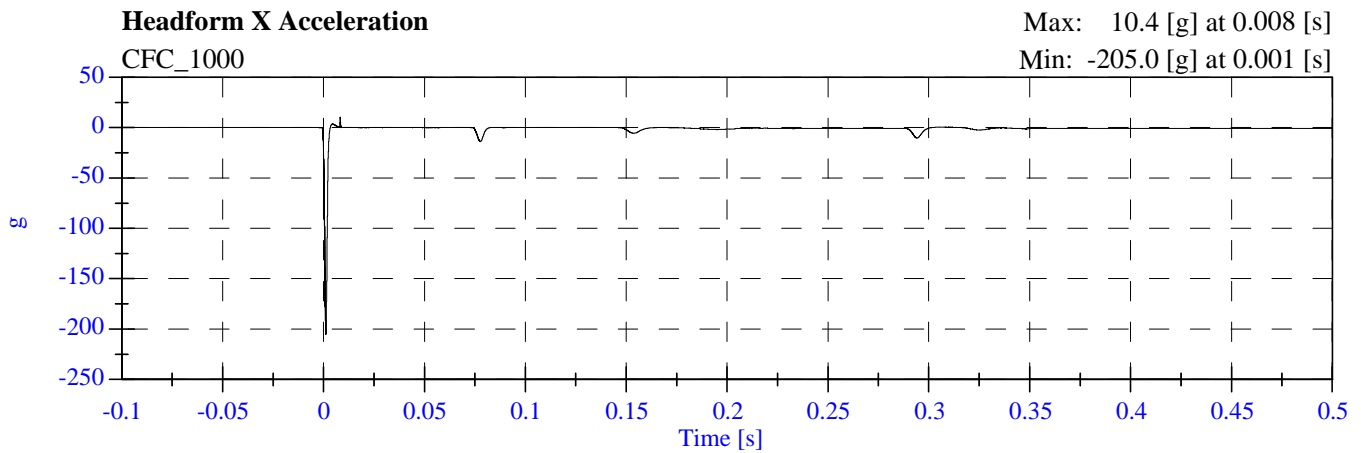
**HEAD ACCELEROMETER CALIBRATION INFORMATION**

<b>I.D. NUMBER</b>	<b>MANUFACTURER</b>	<b>MODEL NUMBER</b>	<b>SERIAL NUMBER</b>	<b>DATE OF LAST CALIBRATION</b>	<b>DATE OF NEXT CALIBRATION</b>
<b>1 - LONGITUDINAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J28671</b>	<b>9/2/2008</b>	<b>3/2/2009</b>
<b>2 - LATERAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J32779</b>	<b>9/2/2008</b>	<b>3/2/2009</b>
<b>3 - VERTICAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J25854</b>	<b>9/2/2008</b>	<b>3/2/2009</b>

**REMARKS:**

# FMVSS 201U - Headform Calibration Drops

## - December 23, 2008



**PART 572L  
HEAD DROP PRE-TEST**

<b>MANUFACTURER:</b>		<b>FIRST TECHNOLOGY SAFETY SYSTEMS</b>	
<b>SERIAL NUMBER:</b>		<b>1140</b>	
<b>CALIBRATION DATE:</b>		<b>December 23, 2008</b>	
<b>TEST PARAMETER</b>	<b>SPECIFICATION</b>	<b>TEST RESULTS</b>	
<b>TEMPERATURE</b>	<b>19°C to 26°C</b>	<b>20</b>	
<b>RELATIVE HUMIDITY</b>	<b>10% to 70%</b>	<b>17</b>	
<b>PEAK RESULTANT ACCELERATION</b>	<b>225 Gs to 275 Gs</b>	<b>264.1</b>	
<b>PEAK LATERAL ACCELERATION</b>	<b>15 Gs Maximum</b>	<b>4.0</b>	
<b>IS ACCELERATION CURVE UNIMODAL?</b>	<b>YES</b>	<b>YES</b>	

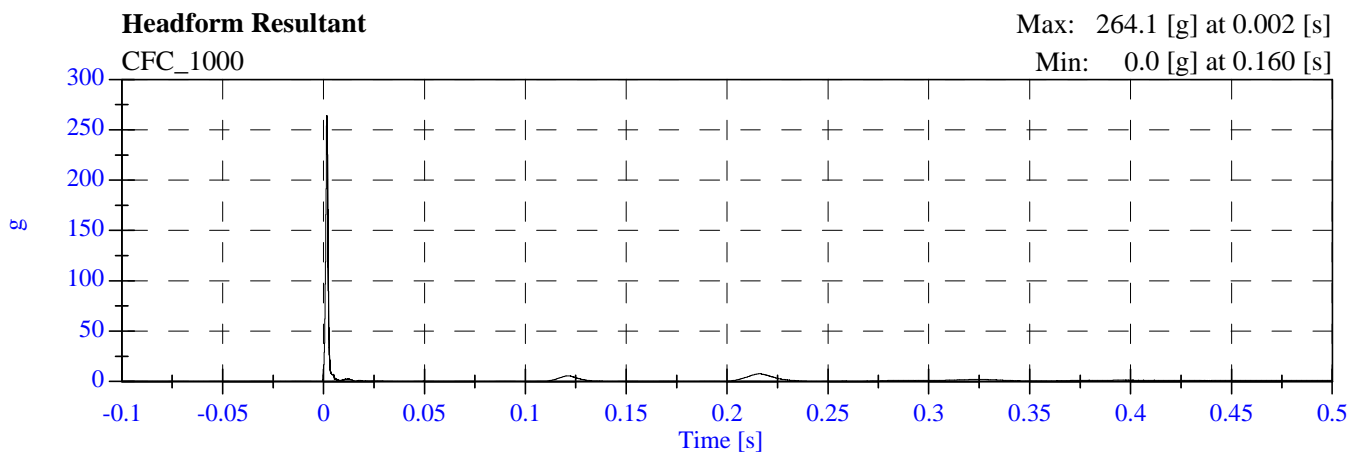
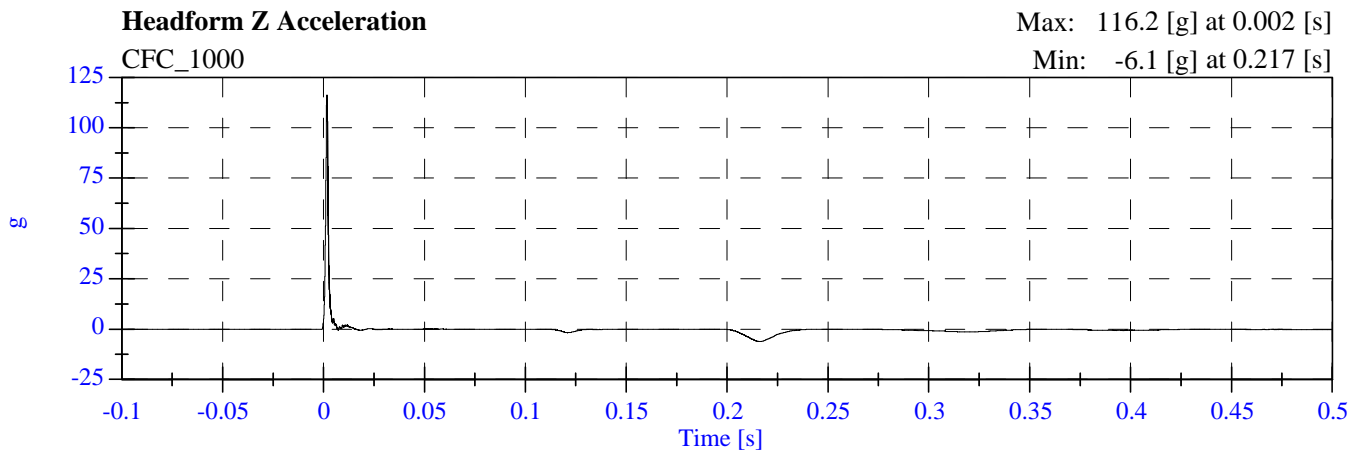
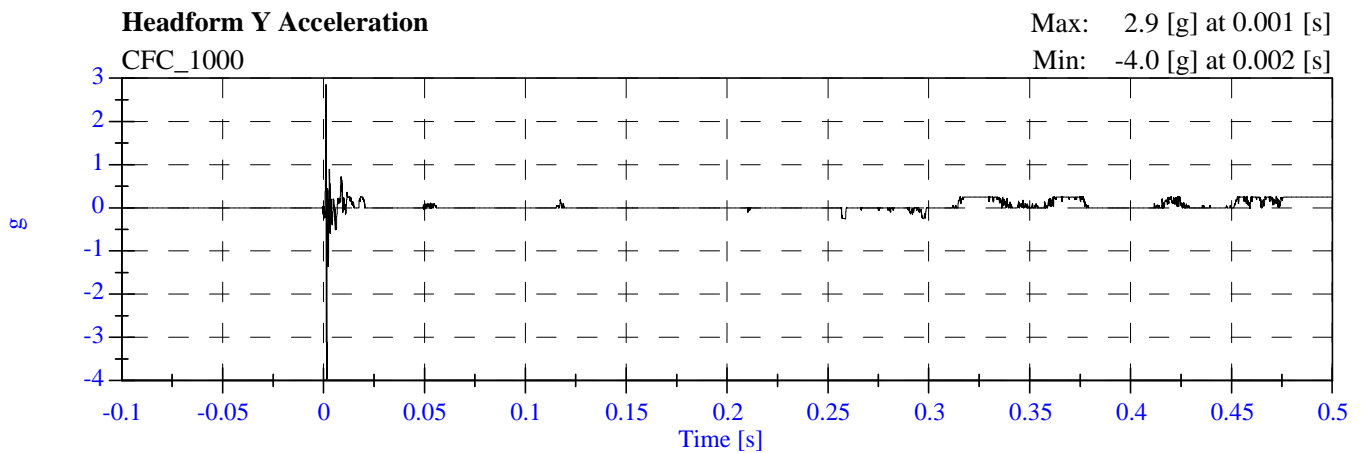
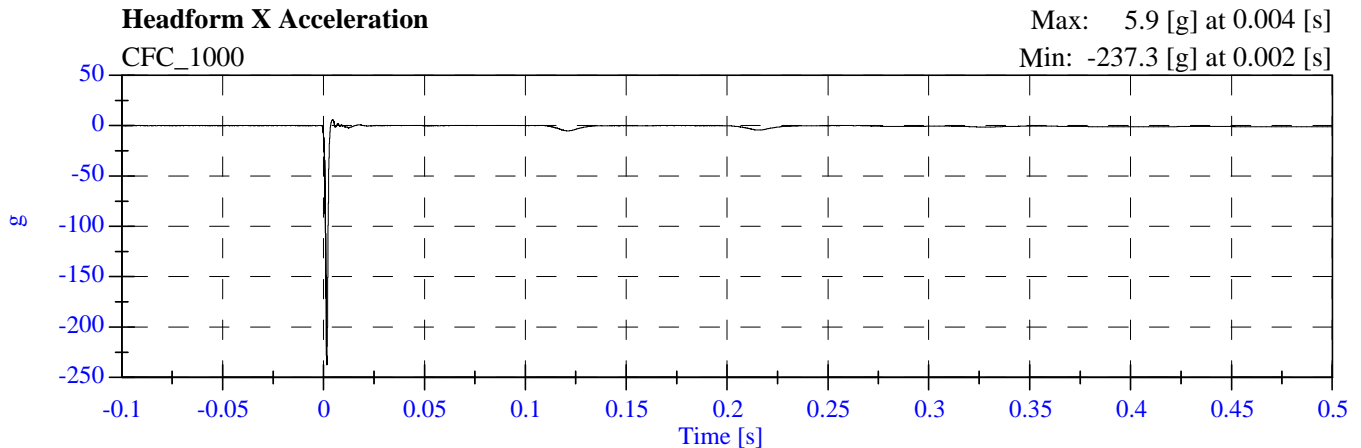
**HEAD ACCELEROMETER CALIBRATION INFORMATION**

<b>I.D. NUMBER</b>	<b>MANUFACTURER</b>	<b>MODEL NUMBER</b>	<b>SERIAL NUMBER</b>	<b>DATE OF LAST CALIBRATION</b>	<b>DATE OF NEXT CALIBRATION</b>
<b>1 - LONGITUDINAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J41006</b>	<b>9/2/2008</b>	<b>3/2/2009</b>
<b>2 - LATERAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J40994</b>	<b>9/2/2008</b>	<b>3/2/2009</b>
<b>3 - VERTICAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J41007</b>	<b>9/2/2008</b>	<b>3/2/2009</b>

**REMARKS:**

# FMVSS 201U - Headform Calibration Drops

## - December 23, 2008





**PART 572L  
HEAD DROP POST-TEST**

<b>MANUFACTURER:</b>		<b>FIRST TECHNOLOGY SAFETY SYSTEMS</b>	
<b>SERIAL NUMBER:</b>		1142	
<b>CALIBRATION DATE:</b>		January 12, 2009	
<b>TEST PARAMETER</b>	<b>SPECIFICATION</b>	<b>TEST RESULTS</b>	
<b>TEMPERATURE</b>	19°C to 26°C	20	
<b>RELATIVE HUMIDITY</b>	10% to 70%	14	
<b>PEAK RESULTANT ACCELERATION</b>	225 Gs to 275 Gs	256.1	
<b>PEAK LATERAL ACCELERATION</b>	15 Gs Maximum	4.4	
<b>IS ACCELERATION CURVE UNIMODAL?</b>	YES	YES	

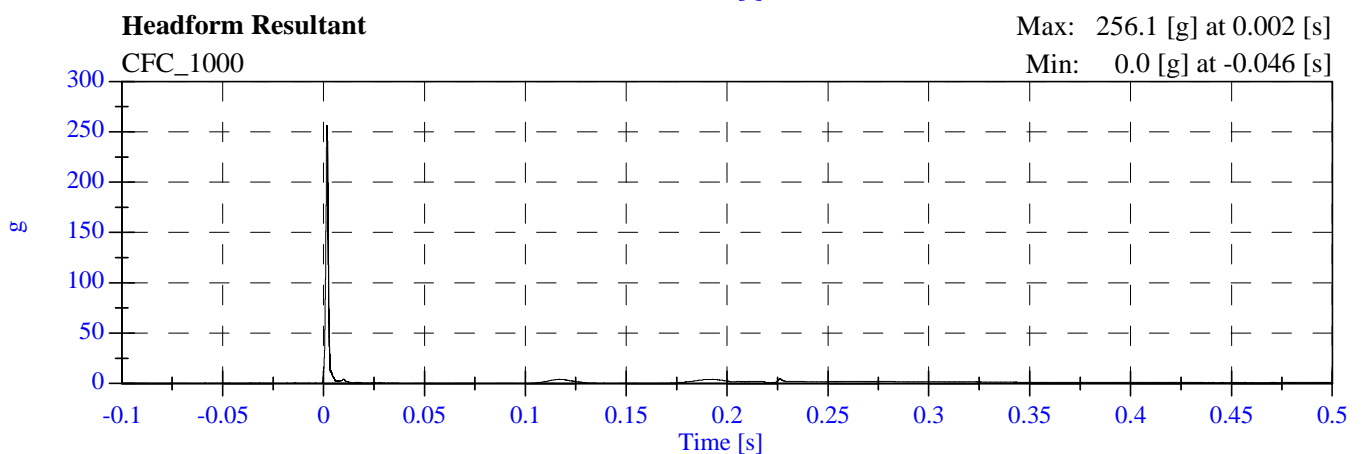
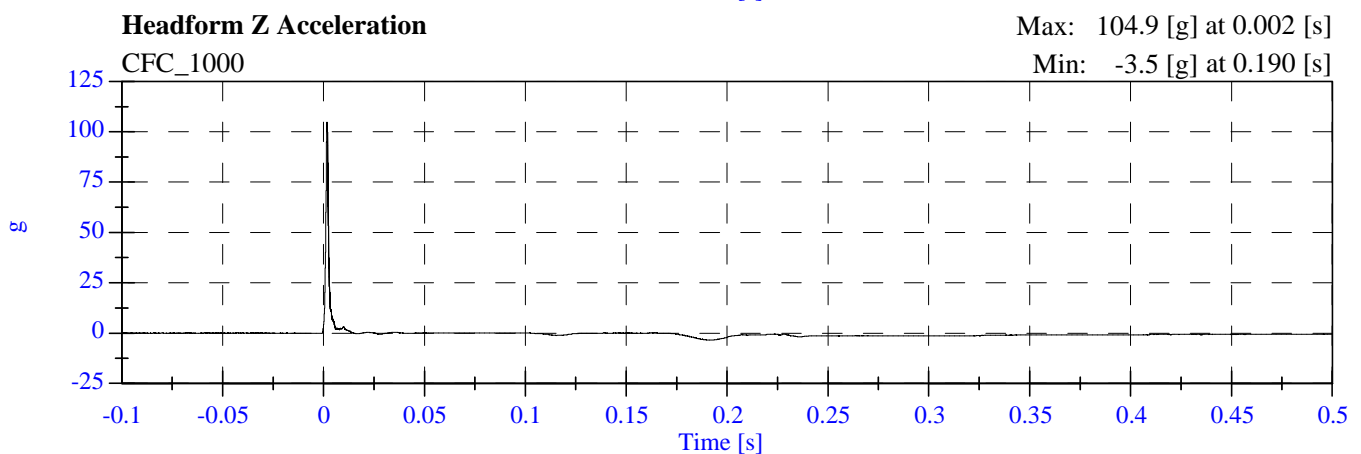
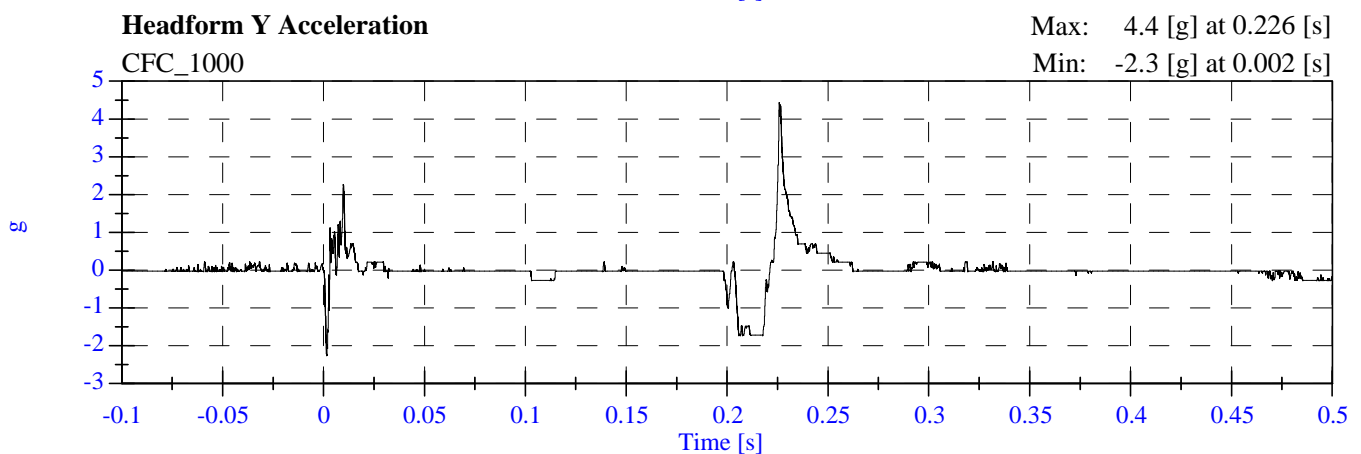
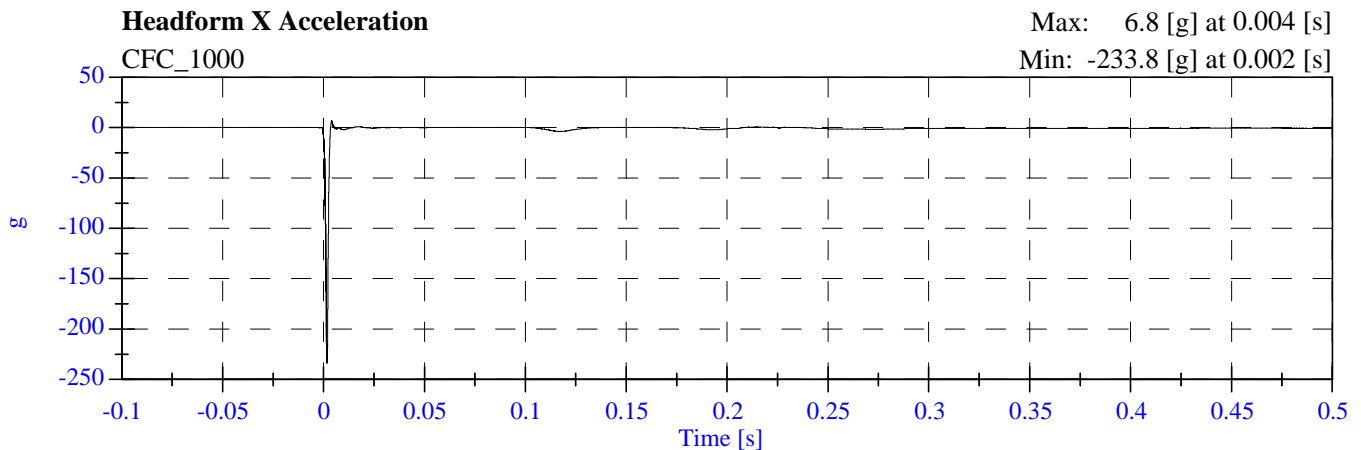
**HEAD ACCELEROMETER CALIBRATION INFORMATION**

<b>I.D. NUMBER</b>	<b>MANUFACTURER</b>	<b>MODEL NUMBER</b>	<b>SERIAL NUMBER</b>	<b>DATE OF LAST CALIBRATION</b>	<b>DATE OF NEXT CALIBRATION</b>
1 - LONGITUDINAL	ENDEVCO	7264-2000T	J24876	9/2/2008	3/2/2009
2 - LATERAL	ENDEVCO	7264-2000T	J33030	9/2/2008	3/2/2009
3 - VERTICAL	ENDEVCO	7264-2000T	J31009	9/2/2008	3/2/2009

**REMARKS:**

# FMVSS 201U - Headform Calibration Drops

## - January 12, 2009



**PART 572L  
HEAD DROP POST-TEST**

<b>MANUFACTURER:</b>		<b>DENTON ATD INC.</b>	
<b>SERIAL NUMBER:</b>		<b>0062</b>	
<b>CALIBRATION DATE:</b>		<b>January 12, 2009</b>	
<b>TEST PARAMETER</b>	<b>SPECIFICATION</b>	<b>TEST RESULTS</b>	
<b>TEMPERATURE</b>	<b>19°C to 26°C</b>	<b>20</b>	
<b>RELATIVE HUMIDITY</b>	<b>10% to 70%</b>	<b>14</b>	
<b>PEAK RESULTANT ACCELERATION</b>	<b>225 Gs to 275 Gs</b>	<b>240.1</b>	
<b>PEAK LATERAL ACCELERATION</b>	<b>15 Gs Maximum</b>	<b>14.1</b>	
<b>IS ACCELERATION CURVE UNIMODAL?</b>	<b>YES</b>	<b>YES</b>	

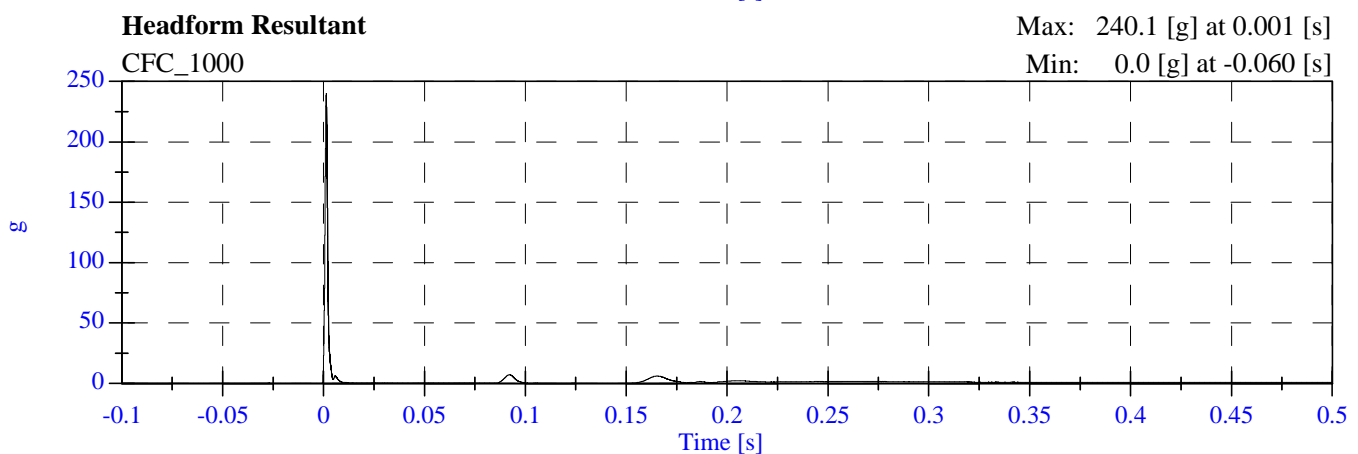
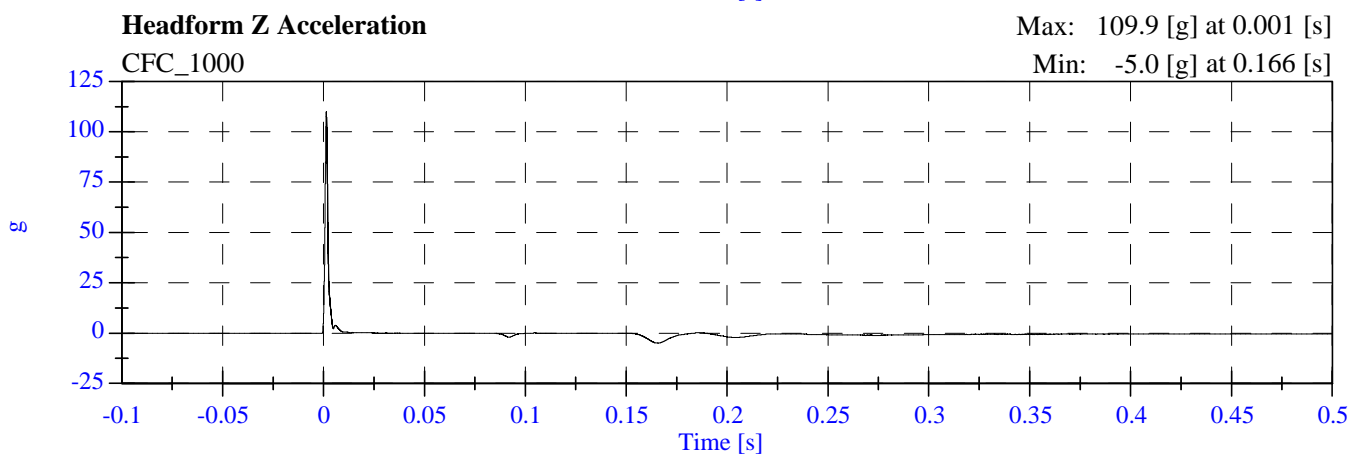
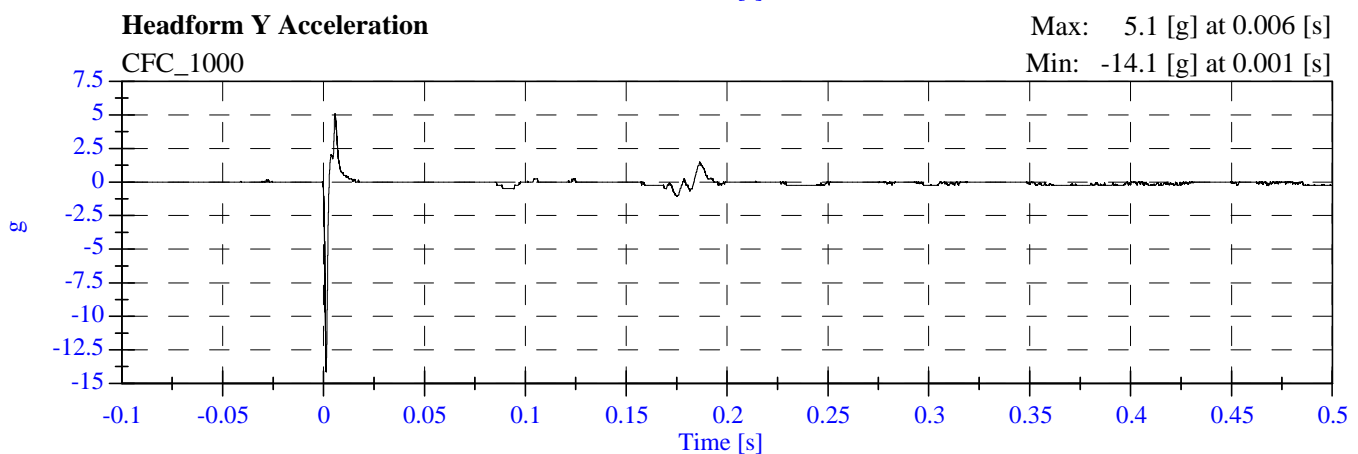
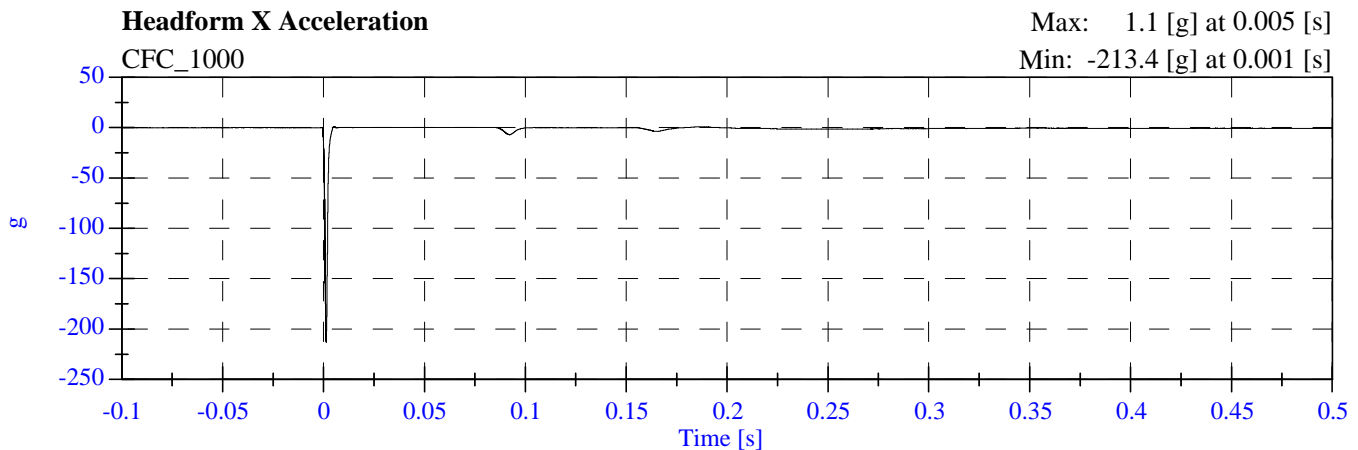
**HEAD ACCELEROMETER CALIBRATION INFORMATION**

<b>I.D. NUMBER</b>	<b>MANUFACTURER</b>	<b>MODEL NUMBER</b>	<b>SERIAL NUMBER</b>	<b>DATE OF LAST CALIBRATION</b>	<b>DATE OF NEXT CALIBRATION</b>
<b>1 - LONGITUDINAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J33127</b>	<b>9/2/2008</b>	<b>3/2/2009</b>
<b>2 - LATERAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J33019</b>	<b>9/2/2008</b>	<b>3/2/2009</b>
<b>3 - VERTICAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J32782</b>	<b>9/2/2008</b>	<b>3/2/2009</b>

**REMARKS:**

# FMVSS 201U - Headform Calibration Drops

## - January 12, 2009



**PART 572L  
HEAD DROP POST-TEST**

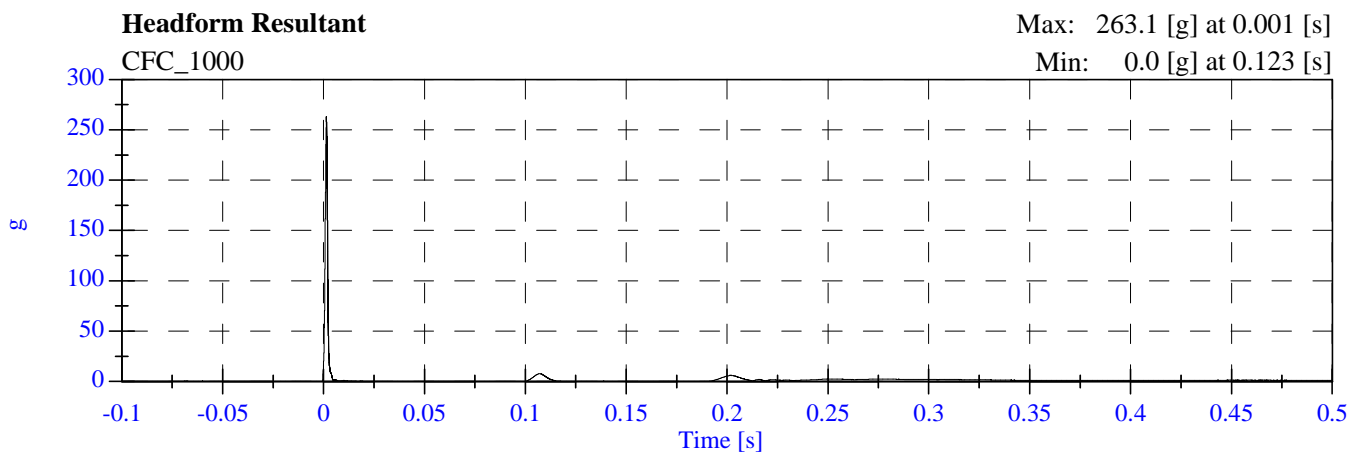
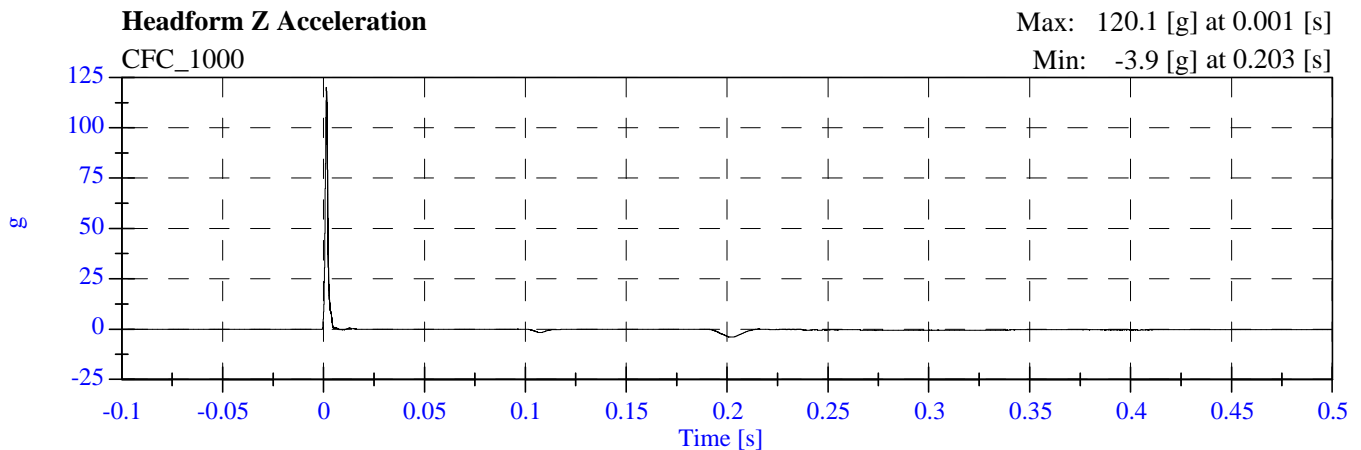
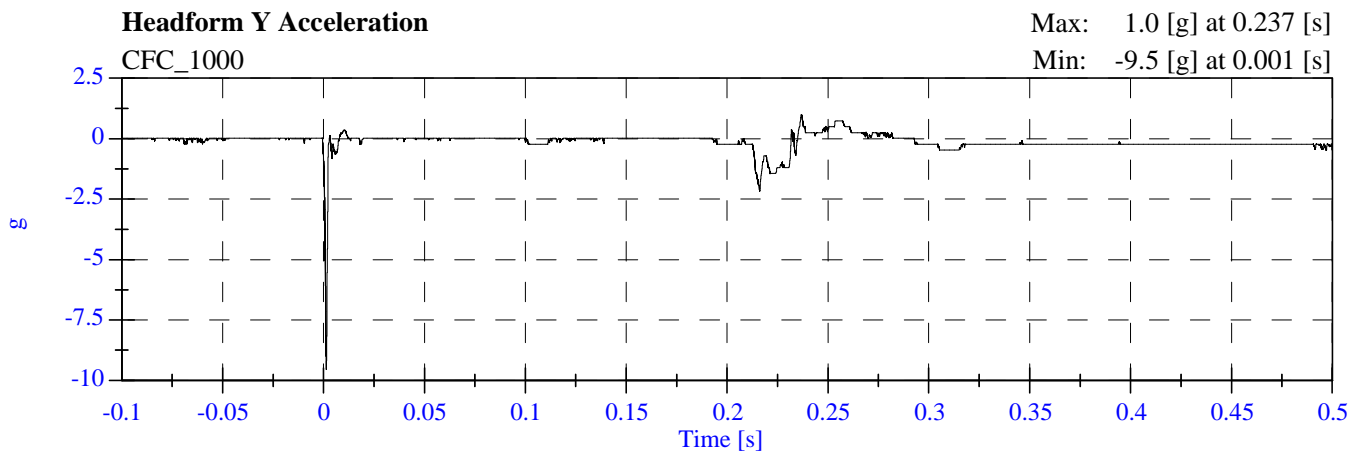
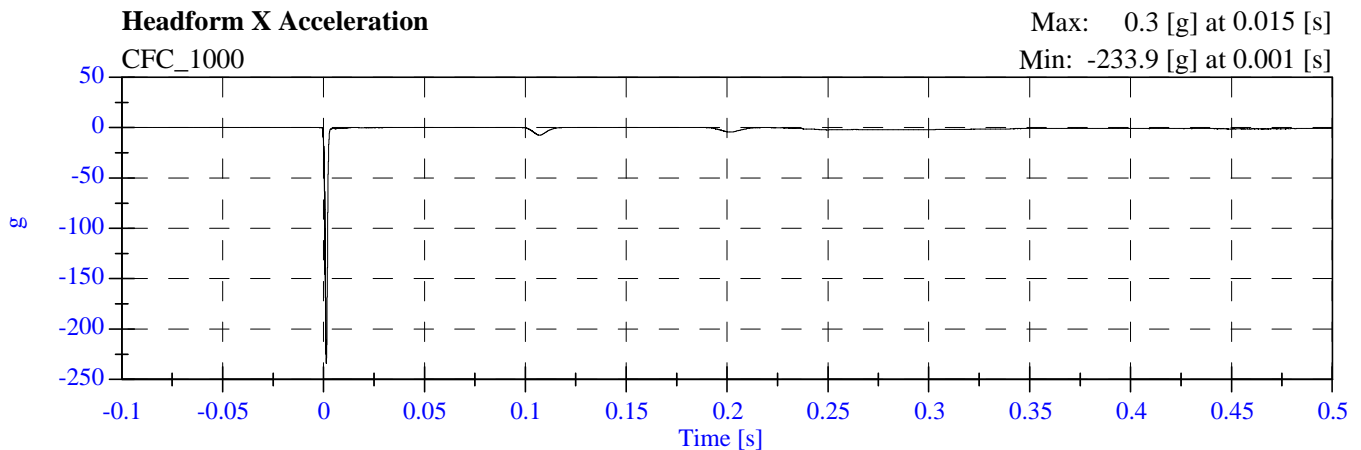
<b>MANUFACTURER:</b>		<b>FIRST TECHNOLOGY SAFETY SYSTEMS</b>	
<b>SERIAL NUMBER:</b>		<b>805</b>	
<b>CALIBRATION DATE:</b>		<b>January 12, 2009</b>	
<b>TEST PARAMETER</b>	<b>SPECIFICATION</b>	<b>TEST RESULTS</b>	
<b>TEMPERATURE</b>	<b>19°C to 26°C</b>	<b>20</b>	
<b>RELATIVE HUMIDITY</b>	<b>10% to 70%</b>	<b>14</b>	
<b>PEAK RESULTANT ACCELERATION</b>	<b>225 Gs to 275 Gs</b>	<b>263.1</b>	
<b>PEAK LATERAL ACCELERATION</b>	<b>15 Gs Maximum</b>	<b>9.5</b>	
<b>IS ACCELERATION CURVE UNIMODAL?</b>	<b>YES</b>	<b>YES</b>	

**HEAD ACCELEROMETER CALIBRATION INFORMATION**

<b>I.D. NUMBER</b>	<b>MANUFACTURER</b>	<b>MODEL NUMBER</b>	<b>SERIAL NUMBER</b>	<b>DATE OF LAST CALIBRATION</b>	<b>DATE OF NEXT CALIBRATION</b>
<b>1 - LONGITUDINAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J41004</b>	<b>9/2/2008</b>	<b>3/2/2009</b>
<b>2 - LATERAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J37496</b>	<b>9/2/2008</b>	<b>3/2/2009</b>
<b>3 - VERTICAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J41016</b>	<b>9/2/2008</b>	<b>3/2/2009</b>

**REMARKS:**

# FMVSS 201U - Headform Calibration Drops - January 12, 2009



**PART 572L  
HEAD DROP POST-TEST**

<b>MANUFACTURER:</b>		<b>DENTON ATD INC.</b>	
<b>SERIAL NUMBER:</b>		<b>0355</b>	
<b>CALIBRATION DATE:</b>		<b>January 12, 2009</b>	
<b>TEST PARAMETER</b>	<b>SPECIFICATION</b>	<b>TEST RESULTS</b>	
<b>TEMPERATURE</b>	<b>19°C to 26°C</b>	<b>20</b>	
<b>RELATIVE HUMIDITY</b>	<b>10% to 70%</b>	<b>14</b>	
<b>PEAK RESULTANT ACCELERATION</b>	<b>225 Gs to 275 Gs</b>	<b>263.2</b>	
<b>PEAK LATERAL ACCELERATION</b>	<b>15 Gs Maximum</b>	<b>13.7</b>	
<b>IS ACCELERATION CURVE UNIMODAL?</b>	<b>YES</b>	<b>YES</b>	

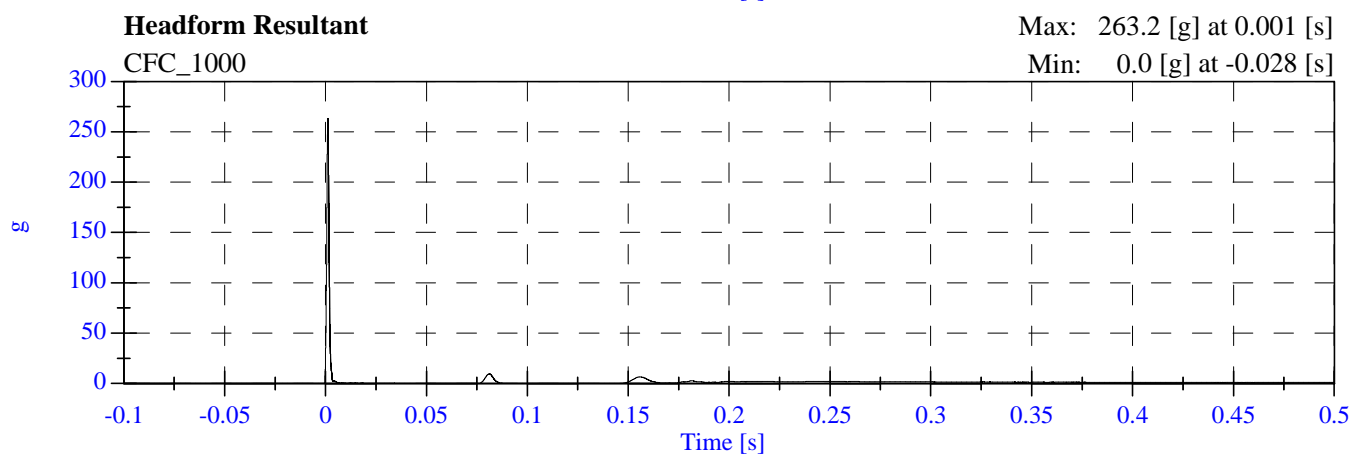
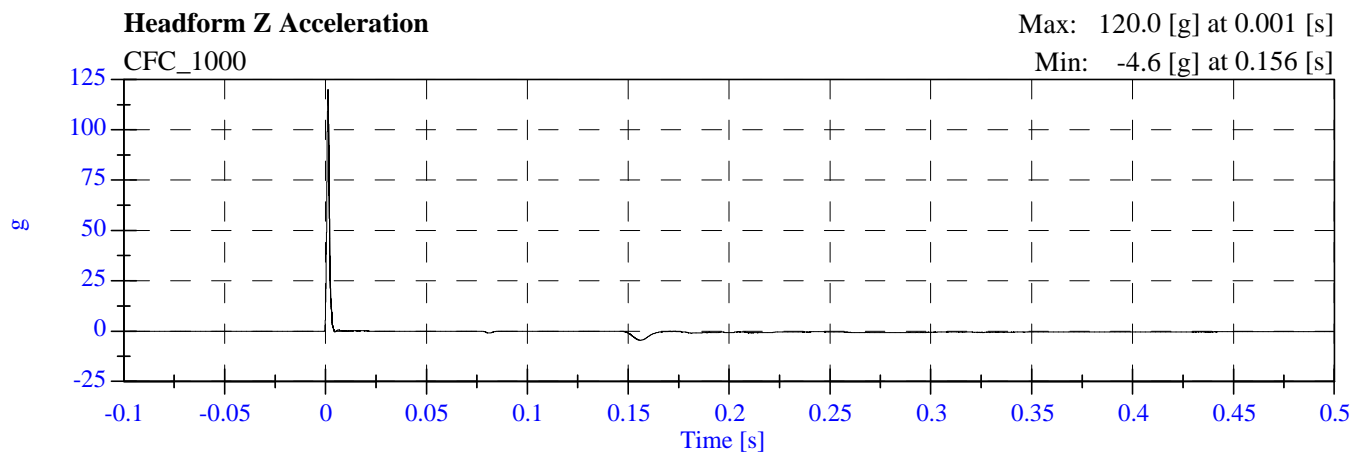
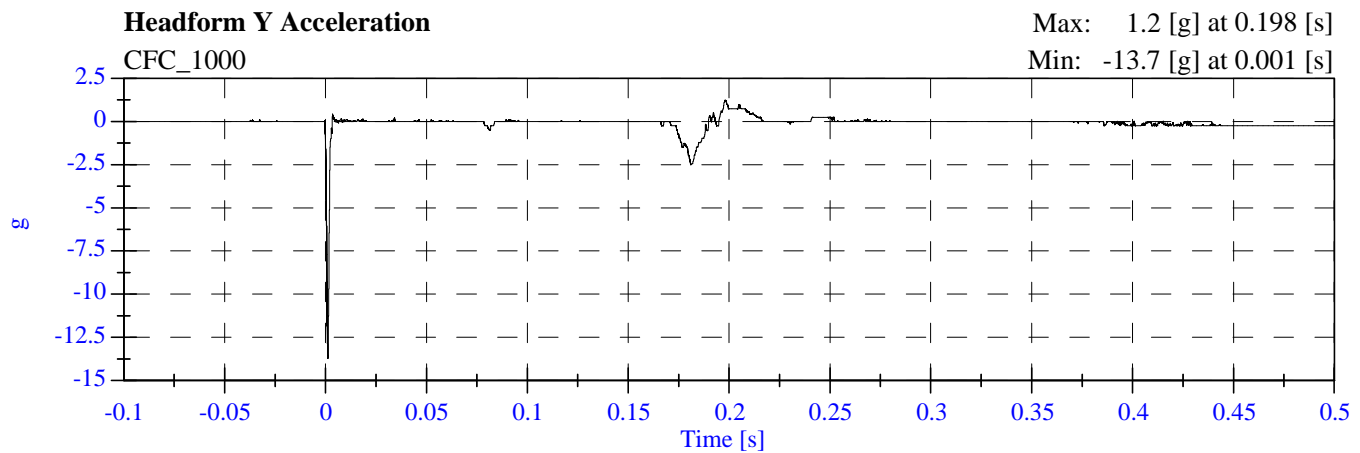
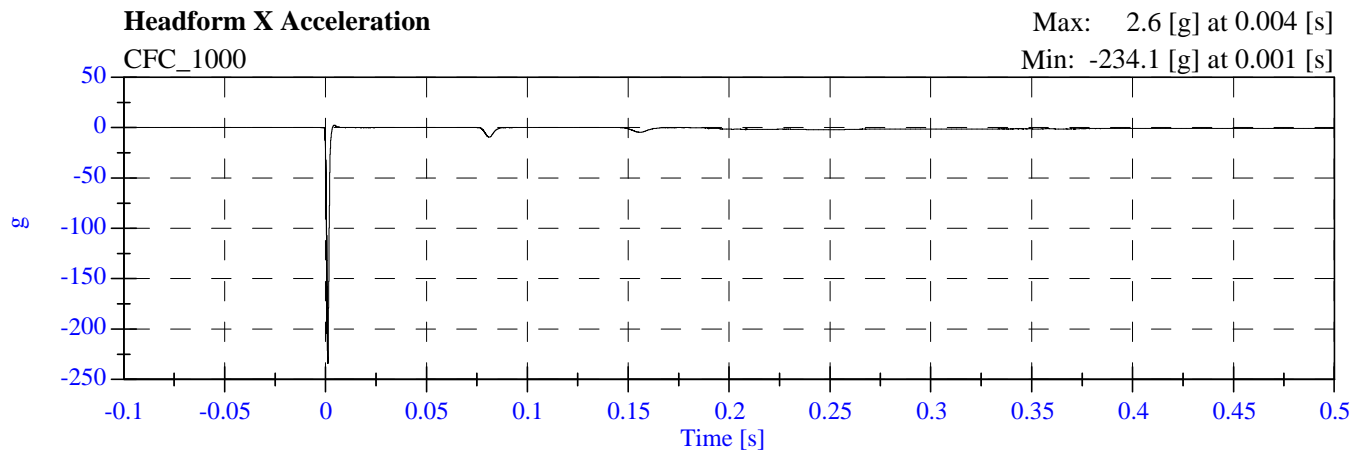
**HEAD ACCELEROMETER CALIBRATION INFORMATION**

<b>I.D. NUMBER</b>	<b>MANUFACTURER</b>	<b>MODEL NUMBER</b>	<b>SERIAL NUMBER</b>	<b>DATE OF LAST CALIBRATION</b>	<b>DATE OF NEXT CALIBRATION</b>
<b>1 - LONGITUDINAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J28671</b>	<b>9/2/2008</b>	<b>3/2/2009</b>
<b>2 - LATERAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J32779</b>	<b>9/2/2008</b>	<b>3/2/2009</b>
<b>3 - VERTICAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J25854</b>	<b>9/2/2008</b>	<b>3/2/2009</b>

**REMARKS:**

# FMVSS 201U - Headform Calibration Drops

## - January 12, 2009





**PART 572L  
HEAD DROP POST-TEST**

<b>MANUFACTURER:</b>		<b>FIRST TECHNOLOGY SAFETY SYSTEMS</b>	
<b>SERIAL NUMBER:</b>		<b>1140</b>	
<b>CALIBRATION DATE:</b>		<b>January 12, 2009</b>	
<b>TEST PARAMETER</b>	<b>SPECIFICATION</b>	<b>TEST RESULTS</b>	
<b>TEMPERATURE</b>	<b>19°C to 26°C</b>	<b>20</b>	
<b>RELATIVE HUMIDITY</b>	<b>10% to 70%</b>	<b>14</b>	
<b>PEAK RESULTANT ACCELERATION</b>	<b>225 Gs to 275 Gs</b>	<b>249.2</b>	
<b>PEAK LATERAL ACCELERATION</b>	<b>15 Gs Maximum</b>	<b>6.8</b>	
<b>IS ACCELERATION CURVE UNIMODAL?</b>	<b>YES</b>	<b>YES</b>	

**HEAD ACCELEROMETER CALIBRATION INFORMATION**

<b>I.D. NUMBER</b>	<b>MANUFACTURER</b>	<b>MODEL NUMBER</b>	<b>SERIAL NUMBER</b>	<b>DATE OF LAST CALIBRATION</b>	<b>DATE OF NEXT CALIBRATION</b>
<b>1 - LONGITUDINAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J41006</b>	<b>9/2/2008</b>	<b>3/2/2009</b>
<b>2 - LATERAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J40994</b>	<b>9/2/2008</b>	<b>3/2/2009</b>
<b>3 - VERTICAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J41007</b>	<b>9/2/2008</b>	<b>3/2/2009</b>

**REMARKS:**

# FMVSS 201U - Headform Calibration Drops - January 12, 2009

