

REPORT NUMBER: 201UI-CAL-08-07

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

**CHRYSLER LLC
2008 JEEP LIBERTY SPORT 4X4**

NHTSA NUMBER: C80304

CALSPAN TEST NUMBER: 8851-07

CALSPAN
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BUFFALO, NEW YORK 14225




Test Date: May 1, 2008

FINAL REPORT


PREPARED FOR:

U. S. DEPARTMENT OF TRANSPORTATION
National Highway Traffic Safety Administration
Enforcement
Office of Vehicle Safety Compliance
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Washington, DC 20590

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15. <i>Supplementary Notes</i>																							
16. <i>Abstract</i> Compliance tests were conducted on the subject vehicle, a 2008 Jeep Liberty Sport 4x4, 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 2008 Jeep Liberty Sport 4x4, NHTSA No. C80304, 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 2008 Jeep Liberty Sport 4x4, NHTSA No. C80304, was tested at various upper interior locations by a 4.54 kg 50th 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	SR3R	BP4	BP1
SR2A	AP3	AP1	URAP	AP2
BP2	URBP			

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 ± 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:	2008 Jeep Liberty Sport 4x4
VIN:	1J8GN28K18W119596
DATE OF MANUFACTURE:	08/07 (SEE CERTIFICATION LABEL)
COLOR:	Black

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	2869.048	-578.967	2198.420	2858.632	583.231	2201.165	121°	27°	18.78	212.3	326.6
AP2	2774.112	-627.583	2109.904	2773.229	633.639	2111.345	214°	31°	18.63	468.8	520.1
AP3	2694.141	-646.926	2035.912	2689.762	653.531	2035.017	150°	31°	18.48	218.7	331.4
BP1	3387.087	-544.144	2239.596	3381.525	547.571	2238.615	90°	11°	18.57	127.6	262.6
BP2	3375.140	-624.327	2045.348	3369.332	625.953	2047.623	270°	0°	23.7	523.6	561.5
BP3	3319.529	-647.526	2029.379	3316.889	648.508	2031.142	-	-	-	-	-
BP4	3423.832	-663.864	1924.868	3419.511	666.224	1928.566	142°	-10°	23.53	177.3	300.2
FH1	2781.927	-484.845	2258.048	2775.631	489.594	2257.876	Relocated 2 circles		-	-	-
FH1 R2	2781.165	-439.456	2239.181	2758.695	455.642	2234.891	-	-	-	-	-
FH2	2756.868	-340.460	2239.757	2749.481	344.681	2239.322	-	-	-	-	-
OP1	4255.097	-647.403	2055.056	4246.170	646.777	2054.697	90°	-10°	23.69	599.5	618.7
OP2	4258.969	-646.106	2060.746	4251.776	645.513	2059.833	-	-	-	-	-
RP1	4840.296	-569.510	2218.593	4831.387	562.480	2221.563	-	-	-	-	-
SR1	3017.964	-527.107	2238.211	3009.128	534.081	2236.652	-	-	-	-	-
SR2A	3168.486	-522.620	2244.011	3159.692	526.915	2242.943	90°	46°	18.69	277.2	375.6
SR2B	3086.777	-527.669	2237.408	3082.420	529.750	2238.405	-	-	-	-	-
SR3F	3656.909	-520.716	2235.994	3650.222	524.299	2234.873	-	-	-	-	-
SR3R	3819.675	-516.582	2241.240	3808.805	522.502	2238.635	90°	50°	18.46	356	435
URAP	3065.439	-431.868	2297.209	3046.157	430.695	2296.680	117°	36°	23.75	532.8	568.4
URBP	3379.219	-457.490	2296.722	3402.568	465.056	2293.193	270°	35°	23.74	312.5	402.2
UROP	4248.289	-389.881	2334.745	4236.426	459.495	2309.256	90°	35°	23.76	404.7	315.9
URRP	4608.457	-398.719	2319.391	4658.588	457.320	2295.176	-	-	-	-	-
URRSR	3869.614	-450.855	2319.694	3857.542	453.064	2317.803	-	-	-	-	-
URSR	3158.512	-452.176	2291.799	3179.856	454.850	2296.290	-	-	-	-	-

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

DATA SHEET 2-2

GENERAL TEST AND VEHICLE PARAMETER DATA

TEST VEHICLE INFORMATION:									
Year/Make/Model/Body Style:				2008 Jeep Liberty Sport 4x4					
VIN:				1J8GN28K18W119596					
Month & Year of Manufacture:				08/07 (SEE CERTIFICATION LABEL)					
Vehicle Body Color:				Black					
Engine Data:	6	Cylinders;	-	CID;	3.7	Liters;	-	cc	
Engine Placement:		x	Longitudinal;	or		-	Lateral		
Transmission:	4	Speed;	-	Manual;	x	Automatic;	-	Overdrive	
Final Drive:	-	Rear Wheel Drive;	-	Front Wheel Drive;	x	Four Wheel Drive			
Odometer Reading:	111		km						
Options:	x	A/C;	x	Power Steering;	x	Pwr.Brakes;	x	Pwr. Windows	
Interior Trim Information :									
1.									
2.									
3.									

DATA FROM TIRE PLACARD:									
Tire Pressure (at capacity);				228		kPa FRONT			
				228		kPa REAR			
Recommended Tire Size:				P225/75R16					
Tires on Test Vehicle:		P225/75R16		Manufacturer:			Goodyear		
Vehicle Capacity Data:									
Number of Occupants:	2	Front;	3	Rear;	0	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)=				430		kg (A)			
No. of Occupants x 68 kg. =				340		kg (B)			
Rated Cargo/Luggage Weight (RCLW) =				90		kg (A-B) Max. RCLW = 136 kg.			

DATA SHEET 2-2

GENERAL TEST AND VEHICLE PARAMETER DATA (cont.)

TEST VEHICLE DELIVERED WEIGHT WITH MAXIMUM FLUIDS:							
Left Front	=	504	kg	Left Rear	=	467	kg
Right Front	=	481	kg	Right Rear	=	435	kg
TOTAL FRONT	=	985.0	kg	TOTAL REAR	=	902.0	kg
% of Total Weight	=	52.2%	%	% of Total Weight	=	47.8%	%
TOTAL WEIGHT	=	1887.0				kg	

CALCULATION OF VEHICLE'S TARGET TEST WEIGHT:		
Total Test Vehicle Delivered Weight=	1887.0	kg (A)
+ Rated Cargo/Luggage Weight =	90	kg (B)
TEST VEHICLE TARGET WEIGHT =	1977.0	kg (A+B)

WEIGHT OF TEST VEHICLE (FULLY LOADED):							
Left Front	=	498.5	kg	Left Rear	=	517.5	kg
Right Front	=	472.5	kg	Right Rear	=	481.5	kg
TOTAL FRONT	=	971.0	kg	TOTAL REAR	=	999.0	kg
% of Total Weight	=	49.3%	%	% of Total Weight	=	50.7%	%
TOTAL TEST WEIGHT	=	1970.0					
Weight of vehicle secured in test vehicles cargo area	=	83.0				kg	

TEST VEHICLE ATTITUDE (all dimensions in millimeters):				
AS DELIVERED:	Left Front	827	Left Rear	843
	Right Front	833	Right Rear	853
FULLY LOADED:	Left Front	825	Left Rear	829
	Right Front	832	Right Rear	838
Test Vehicle Wheelbase:	2647		millimeters	

TEST VEHICLE PITCH AND ROLL ANGLES:				
AS DELIVERED:	PITCH ANGLES		ROLL ANGLES	
	Left Door Sill	↑0.7↓	Front Bumper	↓0.1↑
	Right Door Sill	↓0.6↑	Rear Bumper	↑0.3↓
FULLY LOADED:	PITCH ANGLES		ROLL ANGLES	
	Left Door Sill	↑0.4↓	Front Bumper	0.0
	Right Door Sill	↓0.3↑	Rear Bumper	0.0
AS TESTED:	PITCH ANGLES		ROLL ANGLES	
	Left Door Sill	↑0.7↓	Front Bumper	↓0.1↑
	Right Door Sill	↓0.6↑	Rear Bumper	↑0.1↓

DATA SHEET 2-3

APPROACH ANGLE LIMITS

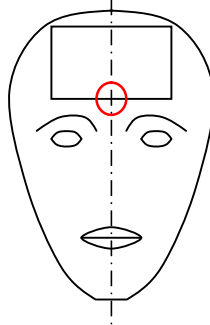
Target Code	Left Side				Target Code	Right Side			
	Horizontal Angles (deg.)		Vertical Angles (deg.)			Horizontal Angles (deg.)		Vertical Angles (deg.)	
	Minimum	Maximum	Minimum	Maximum		Minimum	Maximum	Minimum	Maximum
AP1	205	256	-5	27	AP1	104	155	-5	27
AP2	205	256	-5	31	AP2	104	155	-5	31
AP3	205	256	-5	31	AP3	104	155	-5	31
BP1	202	280	-10	11	BP1	80	158	-10	11
BP2	ANY		0	0	BP2	ANY		0	0
BP3	202	280	-10	-10	BP3	80	158	-10	-10
BP4	202	280	-10	-10	BP4	80	158	-10	-10
OP1	270		-10	-10	OP1	90		-10	-10
OP2	270		-10	-10	OP2	90		-10	-10
RP1	270	345	-10	-	RP1	15	90	-10	-
RP2	270	345	-10	-	RP2	15	90	-10	-
FH1	180		0	50	FH1	180		0	50
FH2	180		0	50	FH2	180		0	50
RH	360		0	-	RH	0		0	-
SR1	270		0	40	SR1	90		0	40
SR2A	270		0	46	SR2A	90		0	46
SR2B	270		0	43	SR2B	90		0	43
SR3F	270		0	50	SR3F	90		0	50
SR3R	270		0	50	SR3R	90		0	50
URAP	ANY		0	36	URAP	ANY		0	36
URBP	ANY		0	35	URBP	ANY		0	35
UROP	ANY		0	35	UROP	ANY		0	35
URRP	ANY		0	50	URRP	ANY		0	50

Note : BP2 and OP1 target location – Seat belt anchorage
 OP1 is treated as a pillar target

DATA SHEET 2-4

SUMMARY TARGET IMPACT LOCATION ON FMH

VEHICLE YEAR/MAKE/MODEL/STYLE:	2008 Jeep Liberty Sport 4x4
VIN:	1J8GN28K18W119596
DATE OF MANUFACTURE:	08/07(SEE CERTIFICATION LABEL)
COLOR:	Black



ã RIGHT SIDE OF FACE

TARGET	Distance Above Point 0 (mm)	Distance Over From Pt. O (mm)
OP1	14	3L
UROP	15	5L
SR3R	6	0
BP4	4	15R
BP1	23	6L
SR2A	3	5L
AP3	5	7L
AP1	12	25R
URAP	11	2L
AP2	3	0
BP2	5	5L
URBP	16	0

SECTION 3

SUMMARY OF TEST RESULTS AND DATA PLOTS

VEHICLE YEAR/MAKE/MODEL/STYLE:	2008 Jeep Liberty Sport 4x4
VIN:	1J8GN28K18W119596
DATE OF MANUFACTURE:	08/07(SEE CERTIFICATION LABEL)
COLOR:	Black

Test Number:	01
Test Date:	04/30/08
Target Location:	OTHER PILLAR
Target Code:	OP1
Horizontal Impact Angle:	90°
Vertical Impact Angle:	NEG10°
Ambient Temperature:	20.5° C
Relative Humidity:	23.6 %
Time of Impact:	9:25
Headform Number:	1142

Impact Point Description (from lower midpoint on midsagittal line)			
On Centerline	3	mm right	x mm left
On Centerline	14	mm up	



POST-IMPACT OP1 HEADFORM

Free Motion HIC	599.5
HIC(d)	618.7
Impact Velocity (kph)	23.69
HIC T1 (msec)	2.6
HIC T2 (msec)	12.2

FMVSS 201U 2008 JEEP LIBERTY C80304 - OP1

FMH Headform 1142

Location: OP1

Test Date: April 30, 2008

Work File: OP1

-----TEST RESULTS-----

Lab Temperature: 20.5 C

HICd: 618.7

Lab Humidity: 23.6 %

HIC (36ms): 599.5

Velocity at Impact: 23.69 KPH

t1: 2.6 msec

t2: 12.2 msec

Free Flight Distance: 217.65 mm

Duration: 9.5 msec

Average Acceleration: 11.8 g

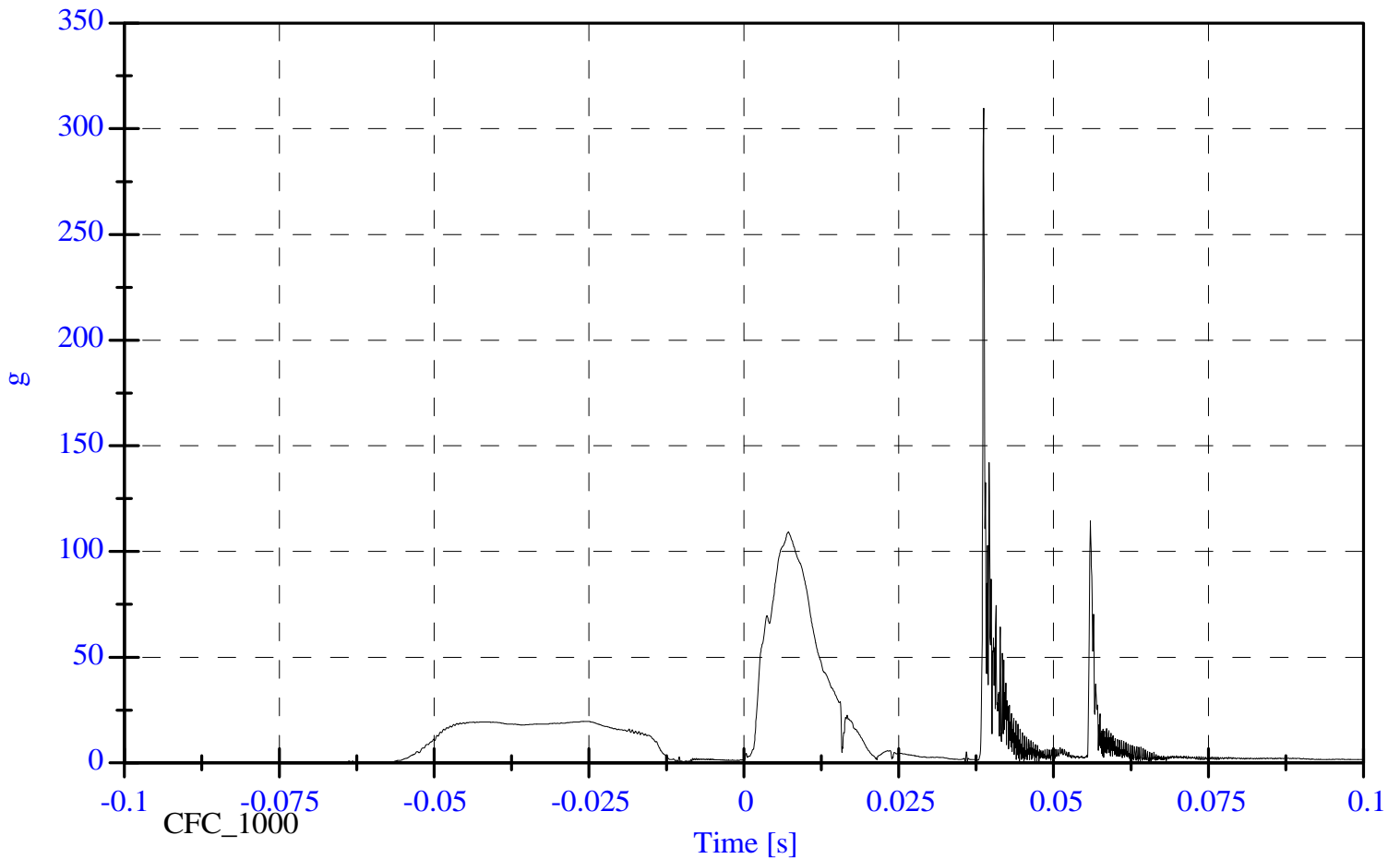
Maximum: 109.3 g

FMVSS 201U 2008 JEEP LIBERTY

Headform Resultant

Max: 109.3 [g] at 0.007 [s]

Min: 0.0 [g] at -0.097 [s]



FMVSS 201U 2008 JEEP LIBERTY

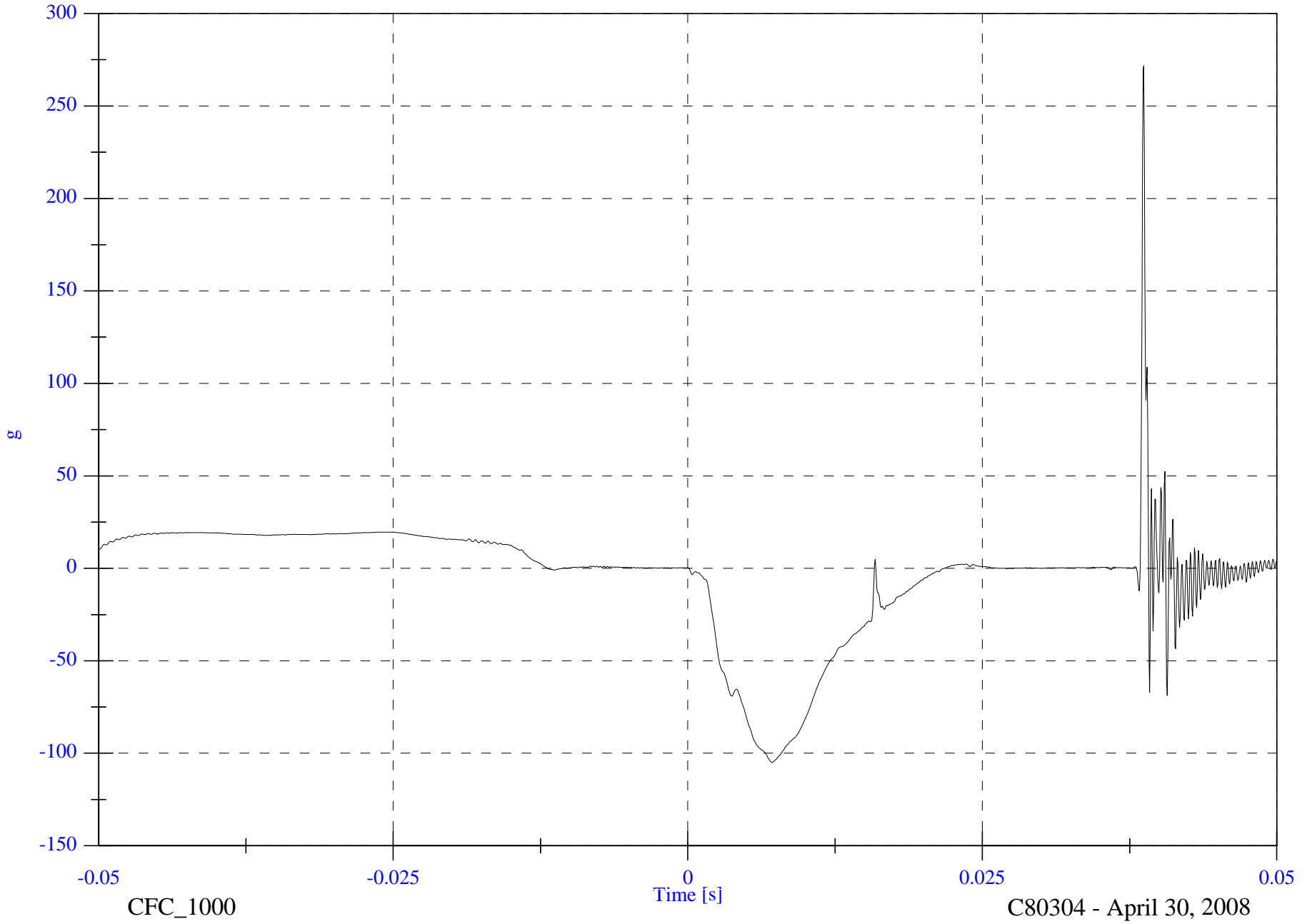
Headform X Acceleration

Max: 271.7 [g] at 0.039 [s]

Min: -104.9 [g] at 0.007 [s]

C80304 PASSENGER SIDE OP1 IMPACT PLOT #2

8851-07



CFC_1000

C80304 - April 30, 2008

FMVSS 201U 2008 JEEP LIBERTY

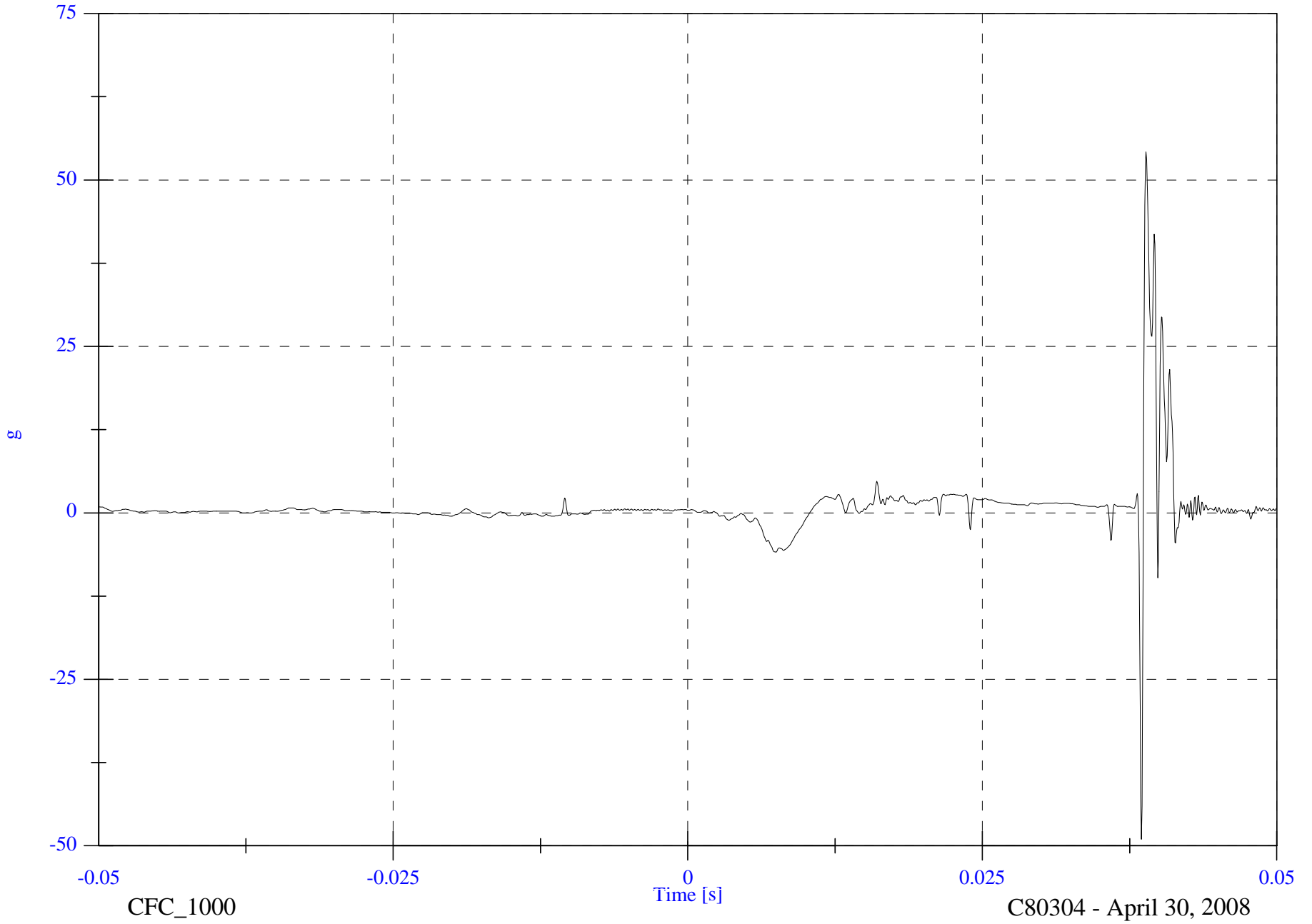
Headform Y Acceleration

Max: 54.2 [g] at 0.039 [s]

Min: -49.0 [g] at 0.038 [s]

C80304 PASSENGER SIDE OP1 IMPACT PLOT #3

8851-07



FMVSS 201U 2008 JEEP LIBERTY

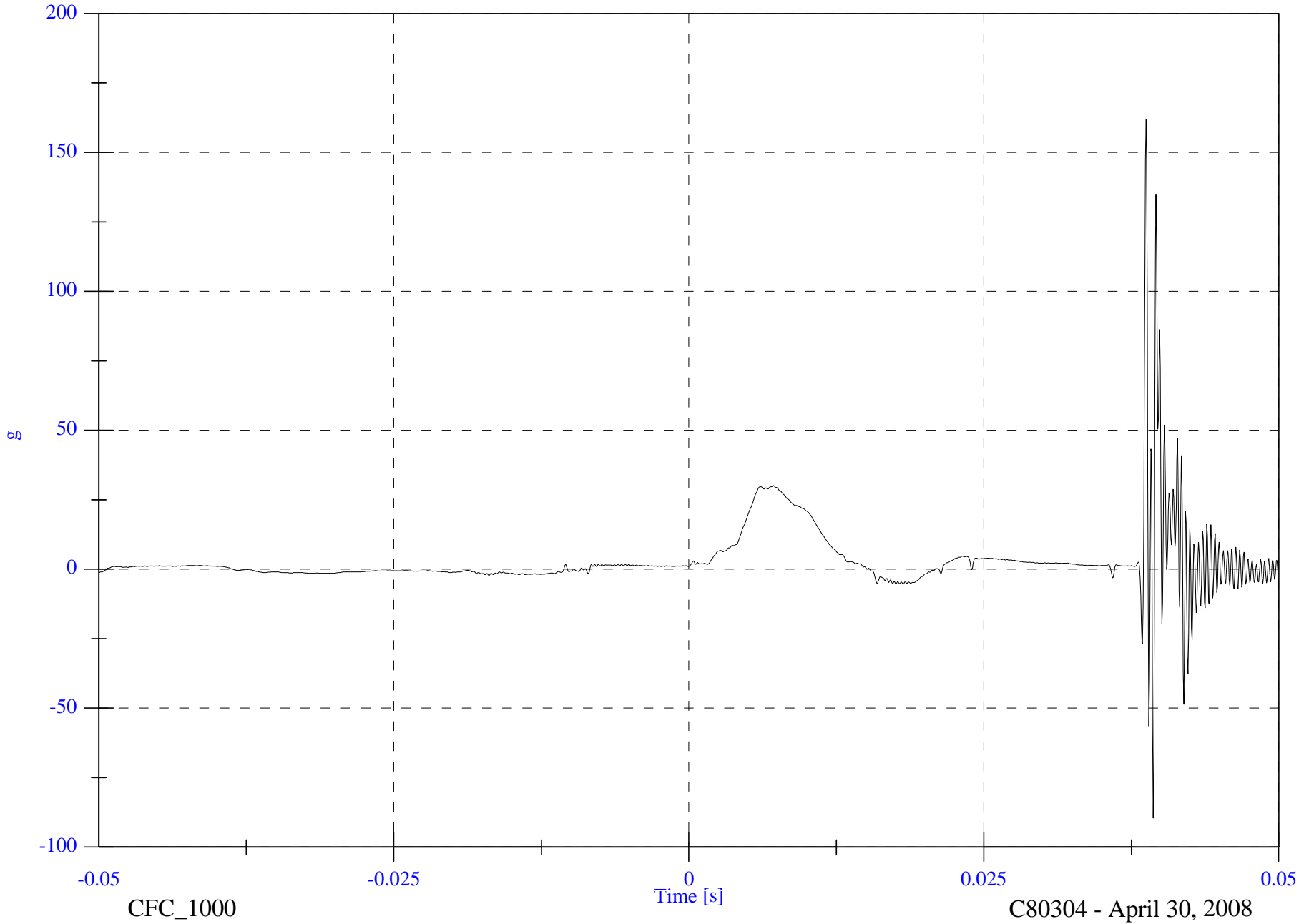
Headform Z Acceleration

Max: 161.9 [g] at 0.039 [s]

Min: -89.6 [g] at 0.039 [s]

C80304 PASSENGER SIDE OP1 IMPACT PLOT #4

8851-07



CFC_1000

C80304 - April 30, 2008

FMVSS 201U 2008 JEEP LIBERTY

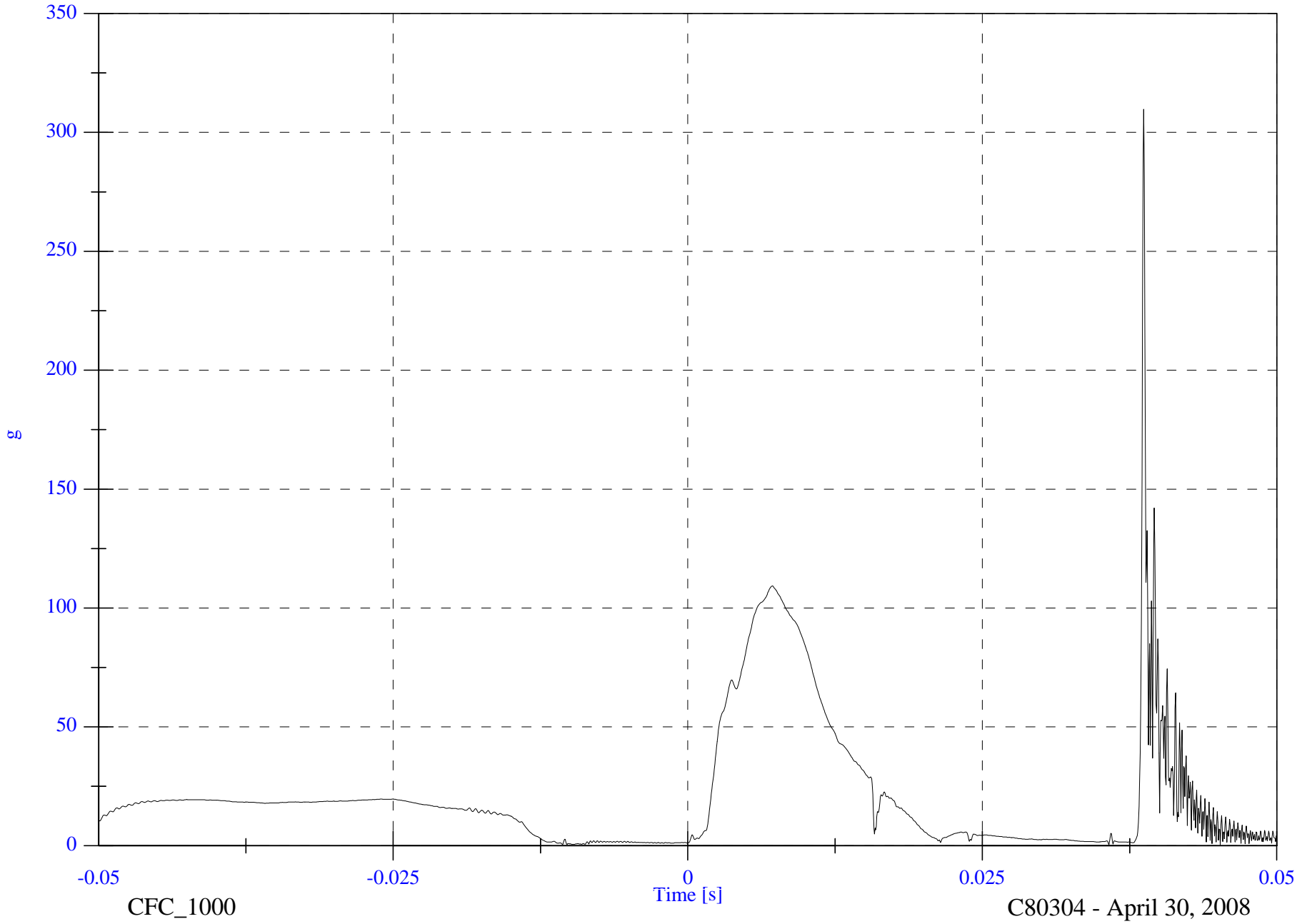
Headform Resultant

Max: 309.7 [g] at 0.039 [s]

Min: 0.3 [g] at 0.045 [s]

C80304 PASSENGER SIDE OP1 IMPACT PLOT #5

8851-07



CFC_1000

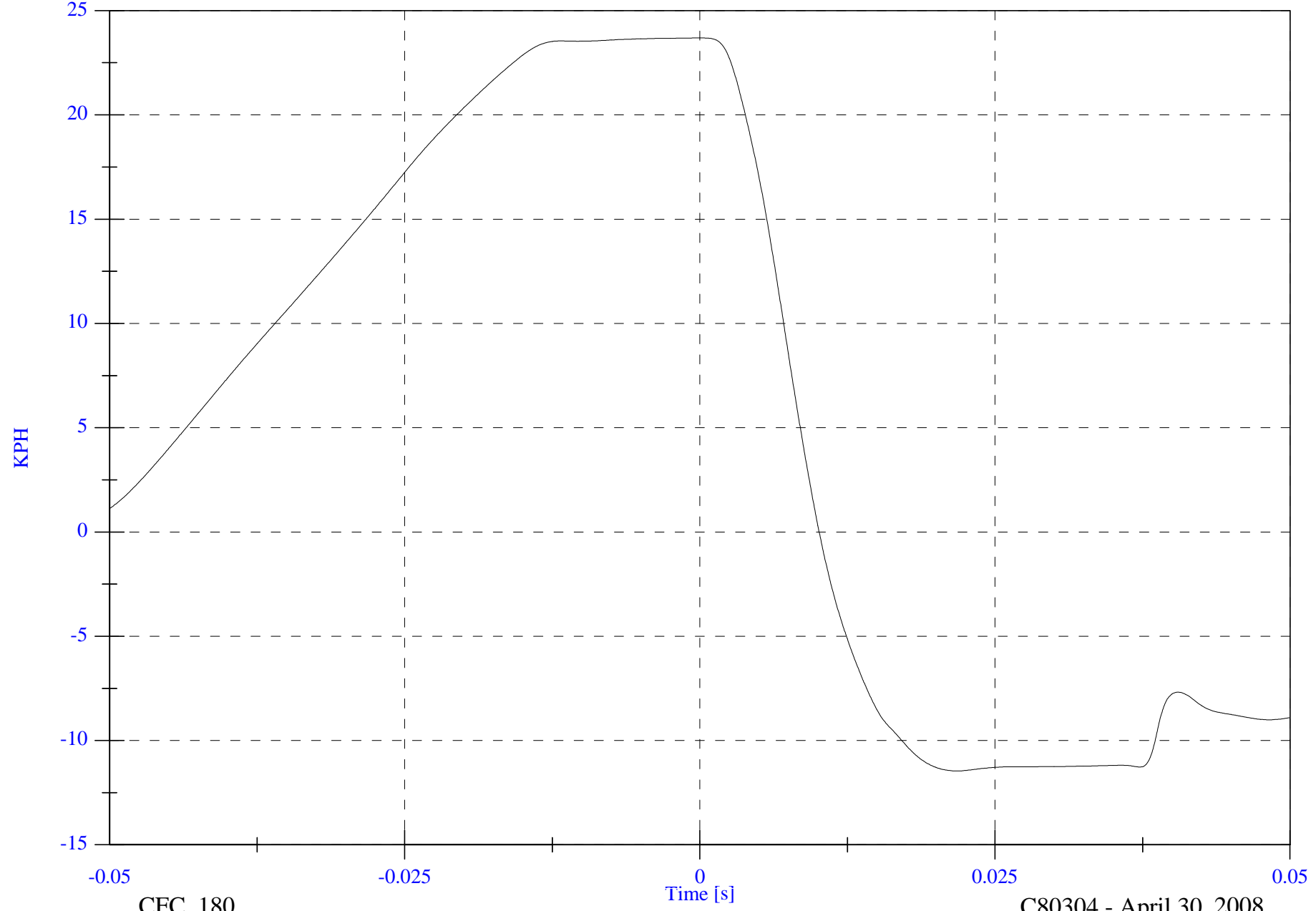
C80304 - April 30, 2008

FMVSS 201U 2008 JEEP LIBERTY

Max: 23.7 [KPH] at 0.000 [s]

Min: -11.5 [KPH] at 0.022 [s]

Headform Velocity



C80304 PASSENGER SIDE OP1 IMPACT PLOT #6

8851-07

CFC_180

C80304 - April 30, 2008



PRE-IMPACT OPI



POST-IMPACT OPI

VEHICLE YEAR/MAKE/MODEL/STYLE:	2008 Jeep Liberty Sport 4x4
VIN:	1J8GN28K18W119596
DATE OF MANUFACTURE:	08/07(SEE CERTIFICATION LABEL)
COLOR:	Black

Test Number:	02
Test Date:	04/30/08
Target Location:	UPPER ROOF
Target Code:	UROP
Horizontal Impact Angle:	90°
Vertical Impact Angle:	35°
Ambient Temperature:	20.5° C
Relative Humidity:	22.5%
Time of Impact:	9:59
Headform Number:	1140

Impact Point Description (from lower midpoint on midsagittal line)			
On Centerline	5	mm right	x mm left
On Centerline	15	mm up	



POST-IMPACT UROP HEADFORM

Free Motion HIC	404.7
HIC(d)	315.9
Impact Velocity (kph)	23.76
HIC T1 (msec)	2.4
HIC T2 (msec)	18.7

FMVSS 201U 2008 JEEP LIBERTY C80304 - UROP

FMH Headform 1140

Location: UROP

Test Date: April 30, 2008

Work File: UROP

-----TEST RESULTS-----

Lab Temperature: 20.5 C

HICd: 404.7

Lab Humidity: 22.5 %

HIC (36ms): 315.9

Velocity at Impact: 23.76 KPH

t1: 2.4 msec

t2: 18.7 msec

Free Flight Distance: 219.83 mm

Duration: 16.2 msec

Average Acceleration: 8.9 g

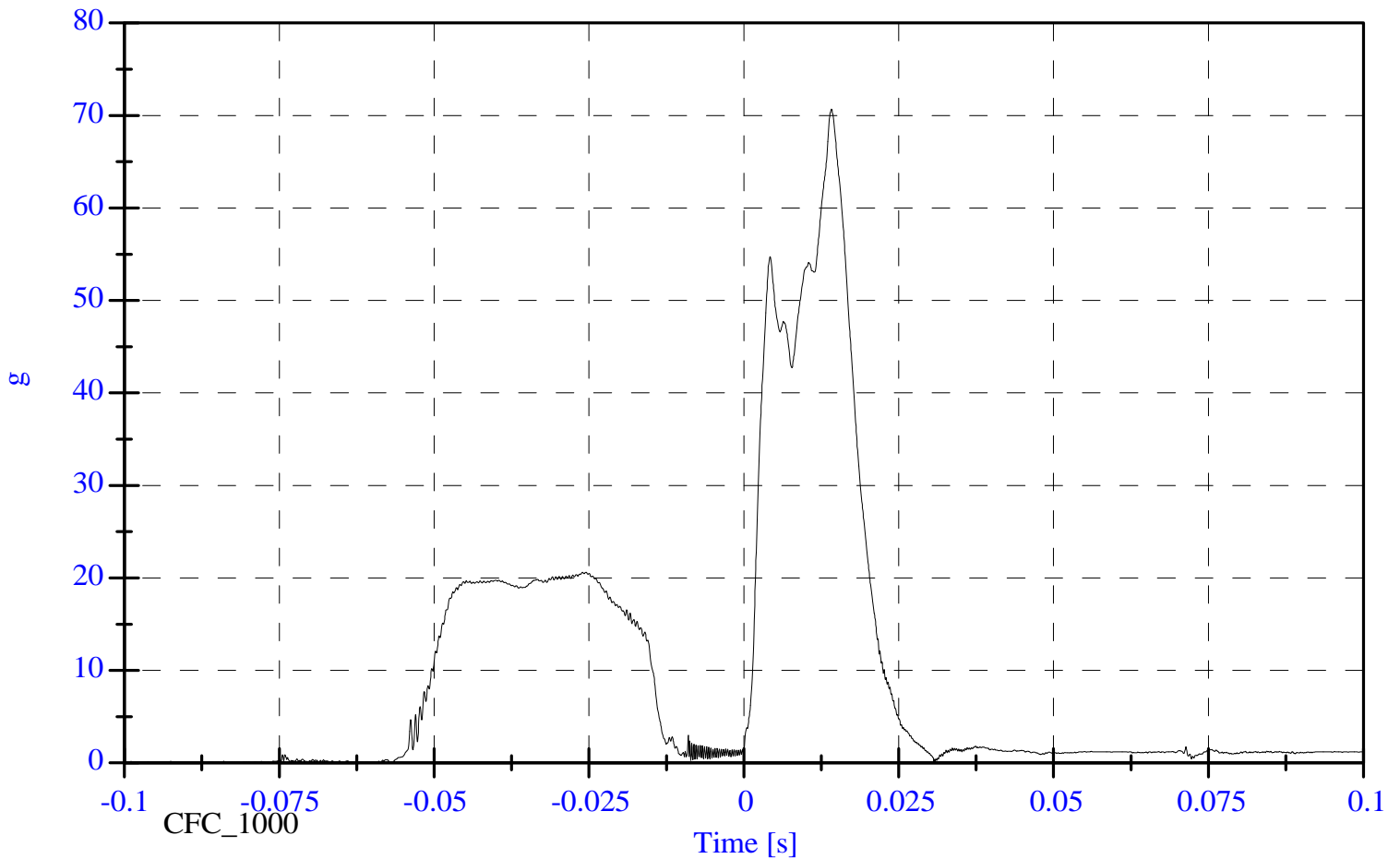
Maximum: 70.7 g

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Headform Resultant

Max: 70.7 [g] at 0.014 [s]

Min: 0.0 [g] at -0.083 [s]



FMVSS 201U 2008 JEEP LIBERTY

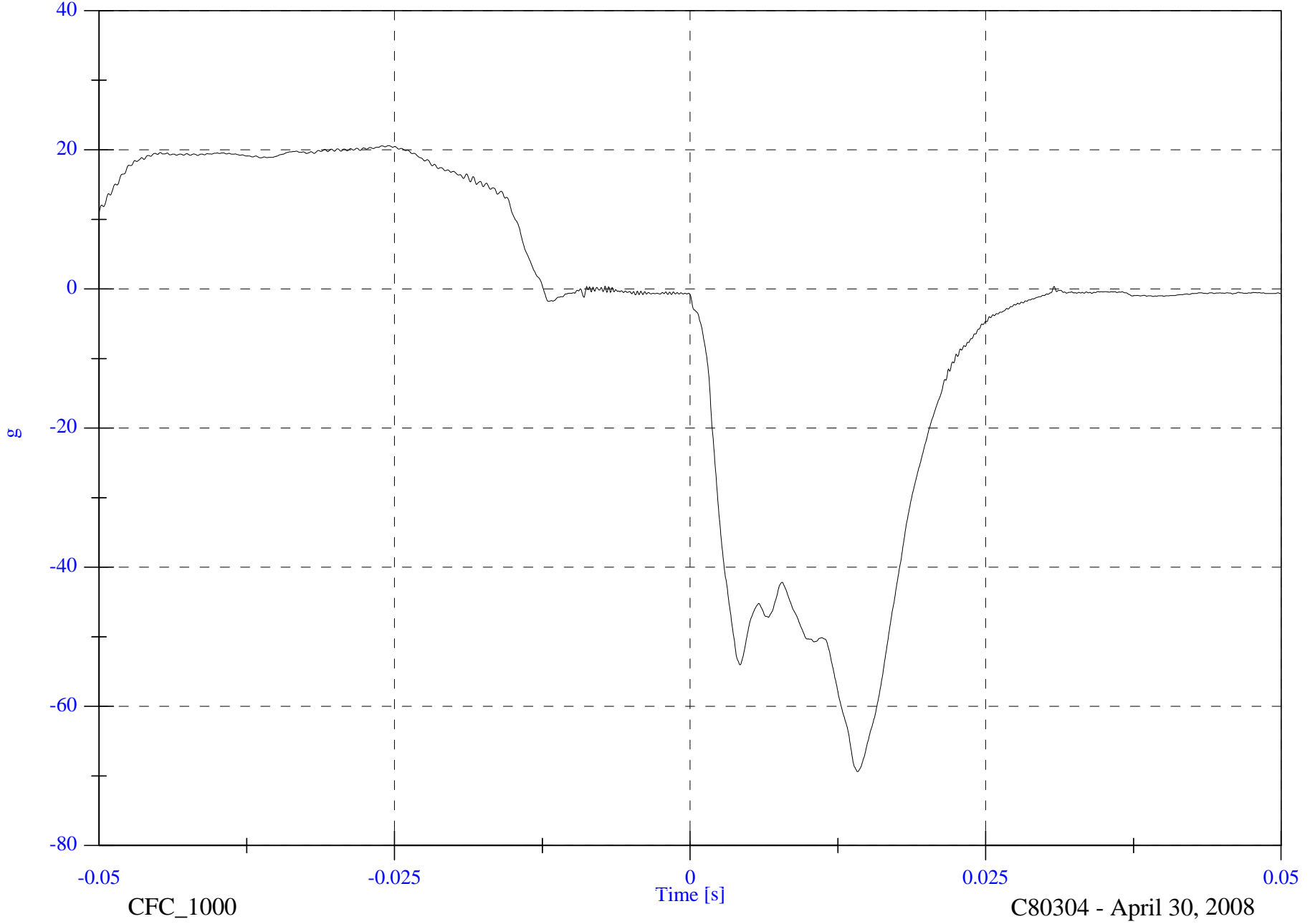
Headform X Acceleration

Max: 20.6 [g] at -0.025 [s]

Min: -69.4 [g] at 0.014 [s]

C80304 PASSENGER SIDE UROP IMPACT PLOT #2

8851-07



CFC_1000

C80304 - April 30, 2008

FMVSS 201U 2008 JEEP LIBERTY

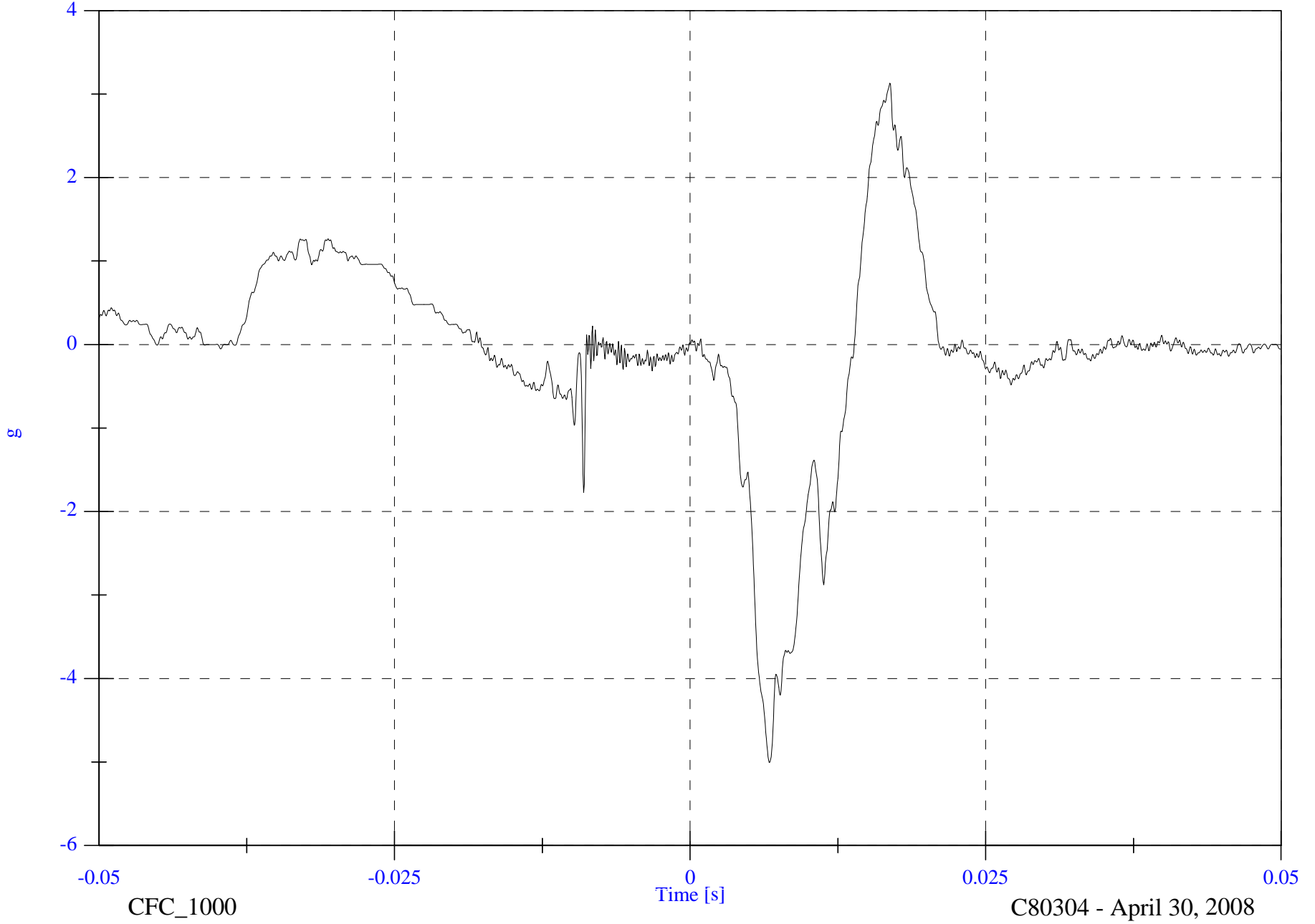
Headform Y Acceleration

Max: 3.1 [g] at 0.017 [s]

Min: -5.0 [g] at 0.007 [s]

C80304 PASSENGER SIDE UROP IMPACT PLOT #3

8851-07



CFC_1000

C80304 - April 30, 2008

FMVSS 201U 2008 JEEP LIBERTY

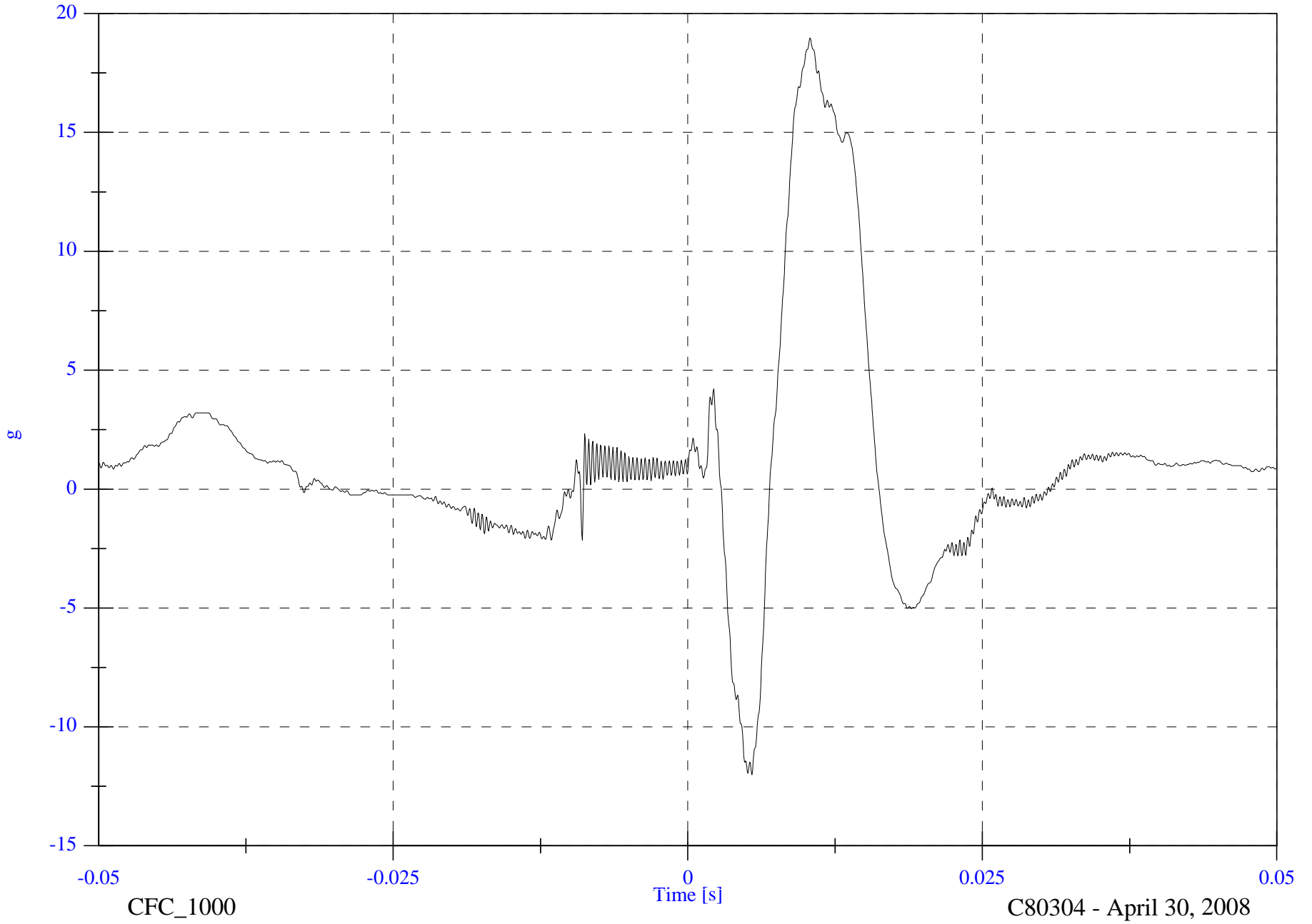
Headform Z Acceleration

Max: 19.0 [g] at 0.010 [s]

Min: -12.0 [g] at 0.005 [s]

C80304 PASSENGER SIDE UROP IMPACT PLOT #4

8851-07



CFC_1000

C80304 - April 30, 2008

FMVSS 201U 2008 JEEP LIBERTY

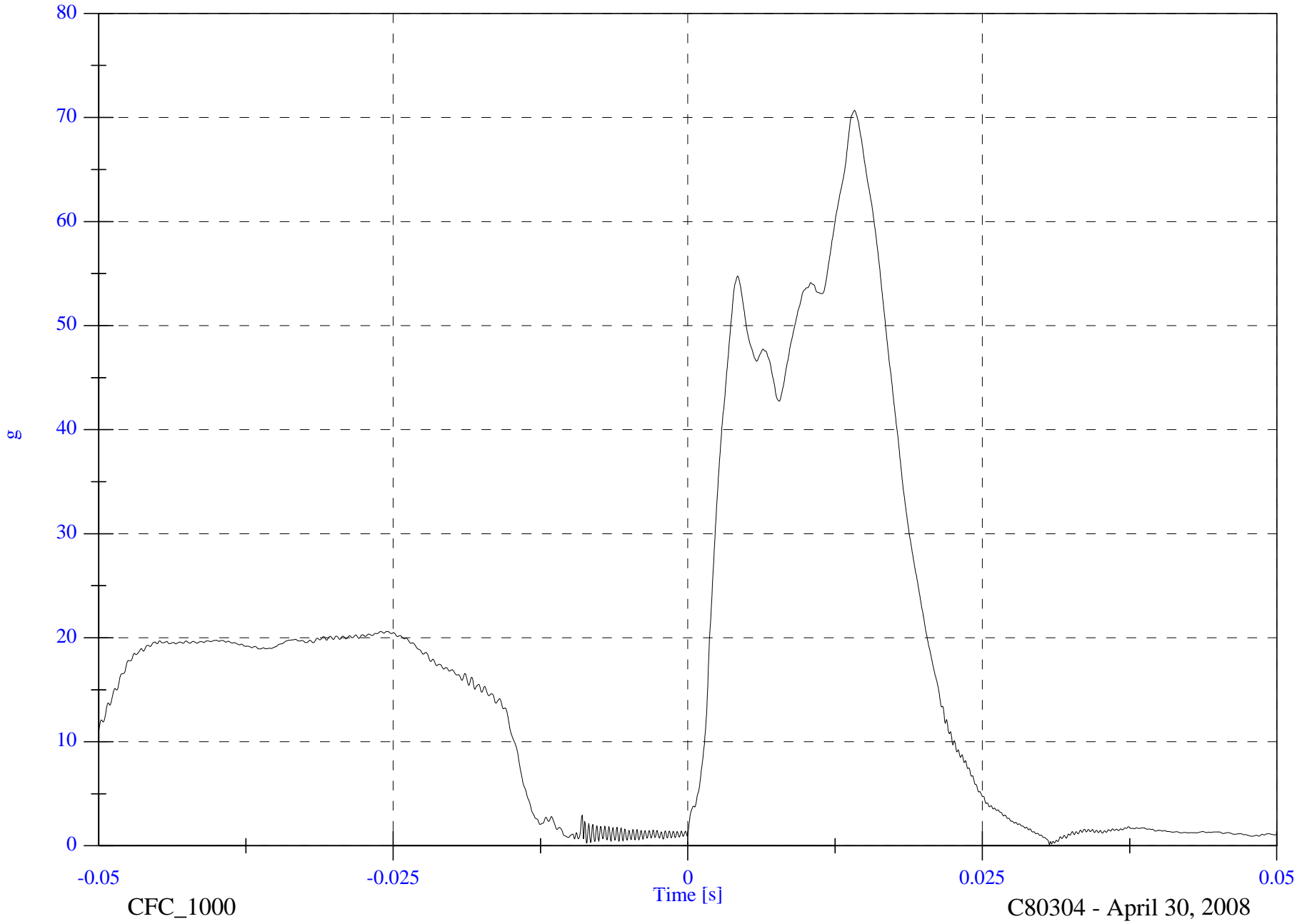
Headform Resultant

Max: 70.7 [g] at 0.014 [s]

Min: 0.1 [g] at 0.031 [s]

C80304 PASSENGER SIDE UROP IMPACT PLOT #5

8851-07



CFC_1000

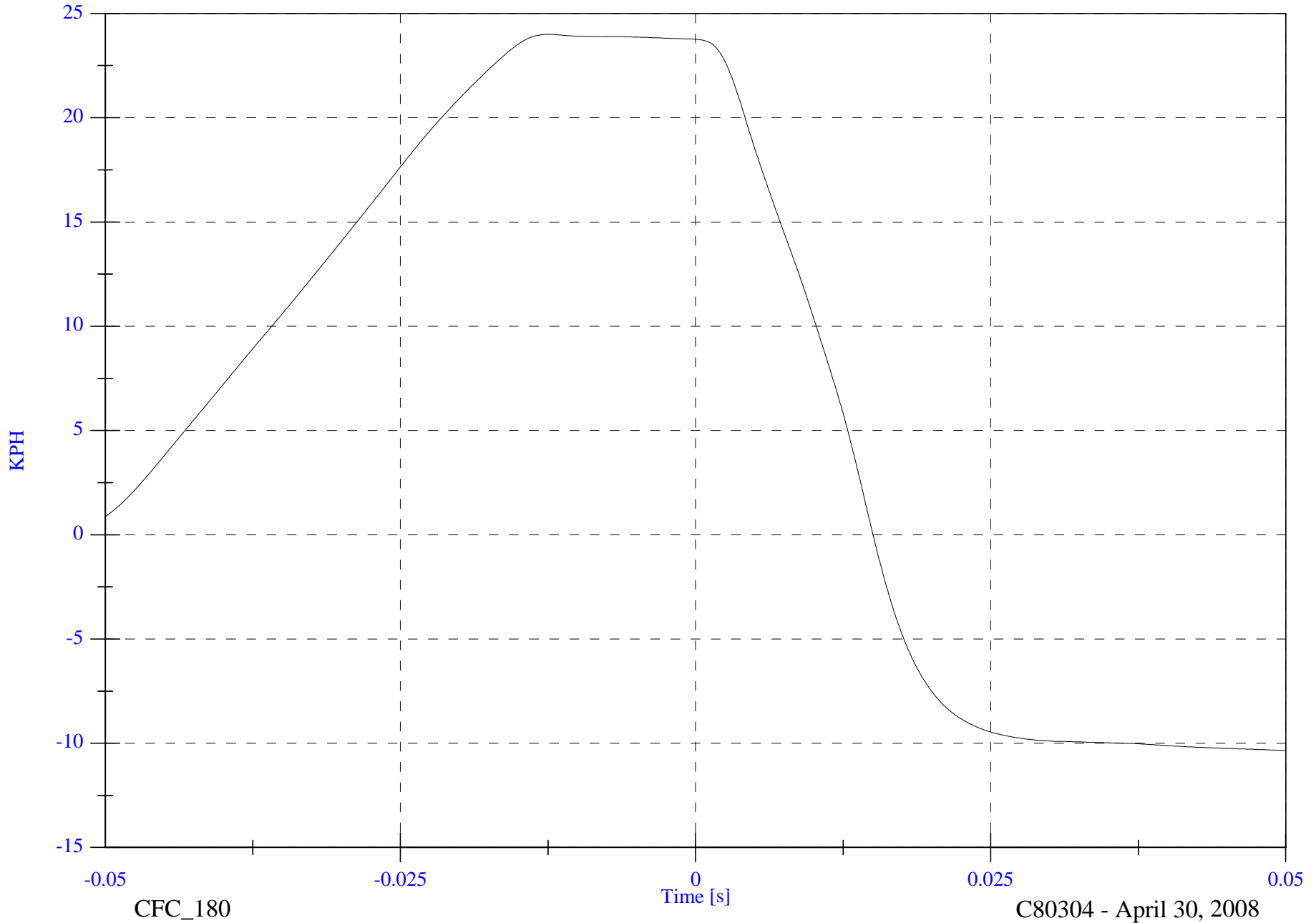
C80304 - April 30, 2008

FMVSS 201U 2008 JEEP LIBERTY

Max: 24.0 [KPH] at -0.012 [s]

Min: -10.4 [KPH] at 0.050 [s]

Headform Velocity



C80304 PASSENGER SIDE UROP IMPACT PLOT #6

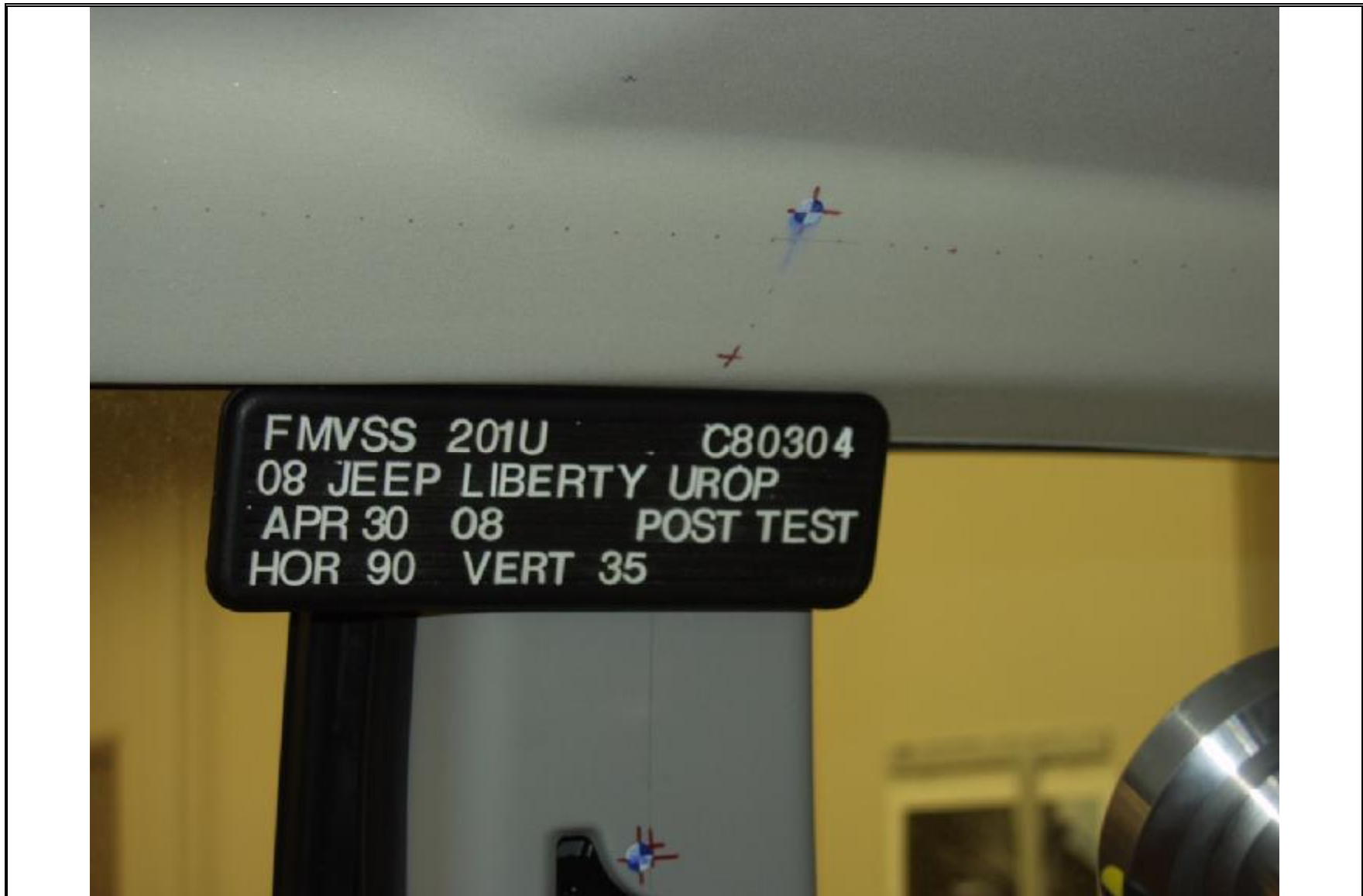
8851-07

CFC_180

C80304 - April 30, 2008



PRE-IMPACT UROP



POST-IMPACT UROP

VEHICLE YEAR/MAKE/MODEL/STYLE:	2008 Jeep Liberty Sport 4x4
VIN:	1J8GN28K18W119596
DATE OF MANUFACTURE:	08/07(SEE CERTIFICATION LABEL)
COLOR:	Black

Test Number:	03
Test Date:	04/30/08
Target Location:	SIDE RAIL
Target Code:	SR3R
Horizontal Impact Angle:	90°
Vertical Impact Angle:	50°
Ambient Temperature:	20.5° C
Relative Humidity:	22.6%
Time of Impact:	10:30
Headform Number:	0355

Impact Point Description (from lower midpoint on midsagittal line)					
On Centerline	0	<input type="checkbox"/>	mm right	<input type="checkbox"/>	mm left
On Centerline	6				mm up



POST-IMPACT SR3R HEADFORM

Free Motion HIC	356.0
HIC(d)	435.0
Impact Velocity (kph)	18.46
HIC T1 (msec)	3.0
HIC T2 (msec)	10.3

FMVSS 201U 2008 JEEP LIBERTY C80304 - SR3R

FMH Headform 0355

Location: SR3R

Test Date: April 30, 2008

Work File: SR3R

-----TEST RESULTS-----

Lab Temperature: 20.5 C

HICd: 435.0

Lab Humidity: 22.8 %

HIC (36ms): 356.0

Velocity at Impact: 18.46 KPH

t1: 3.0 msec

t2: 10.3 msec

Free Flight Distance: 220.13 mm

Duration: 7.3 msec

Average Acceleration: 6.8 g

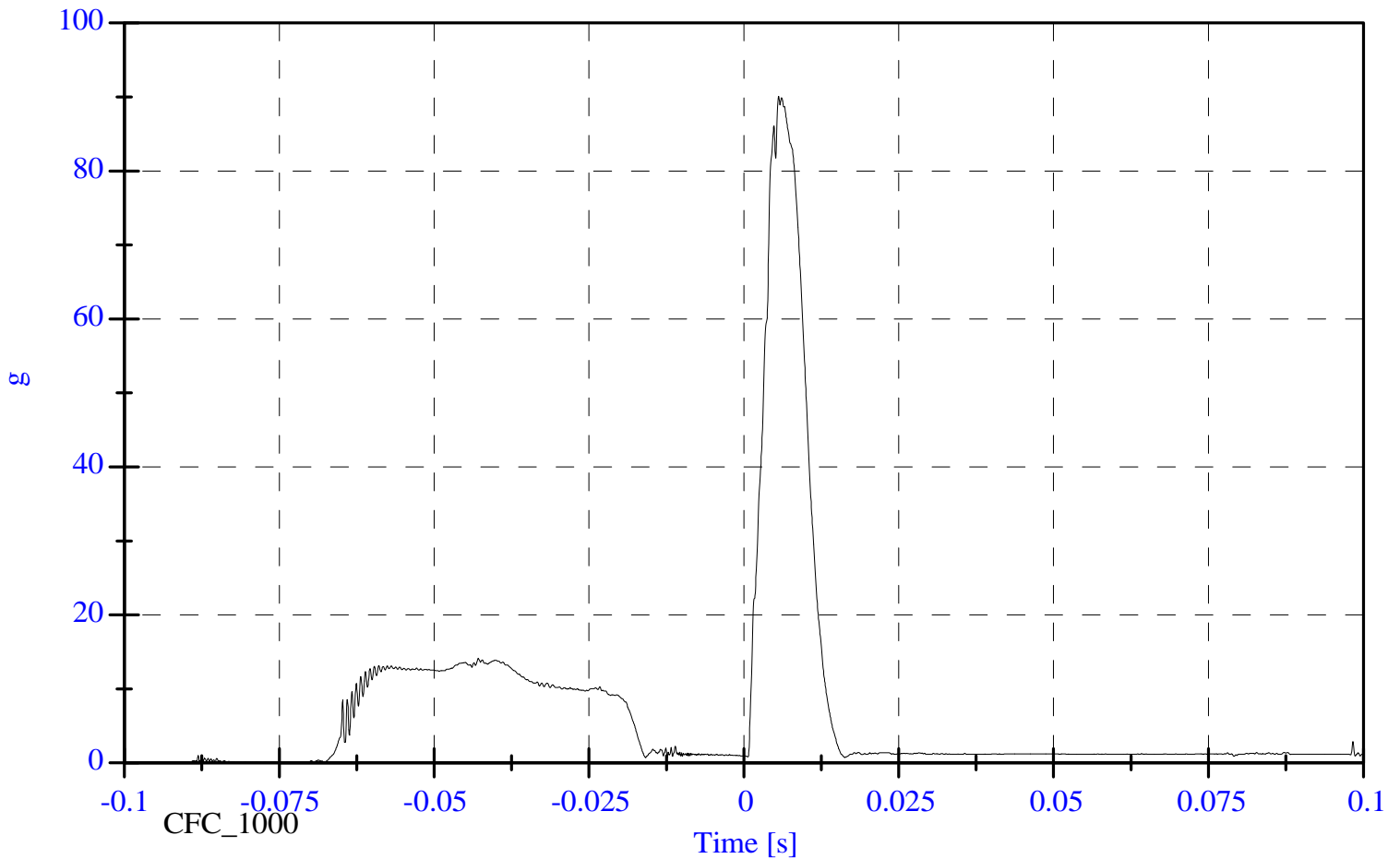
Maximum: 90.1 g

FMVSS 201U 2008 JEEP LIBERTY

Headform Resultant

Max: 90.1 [g] at 0.006 [s]

Min: 0.0 [g] at -0.071 [s]

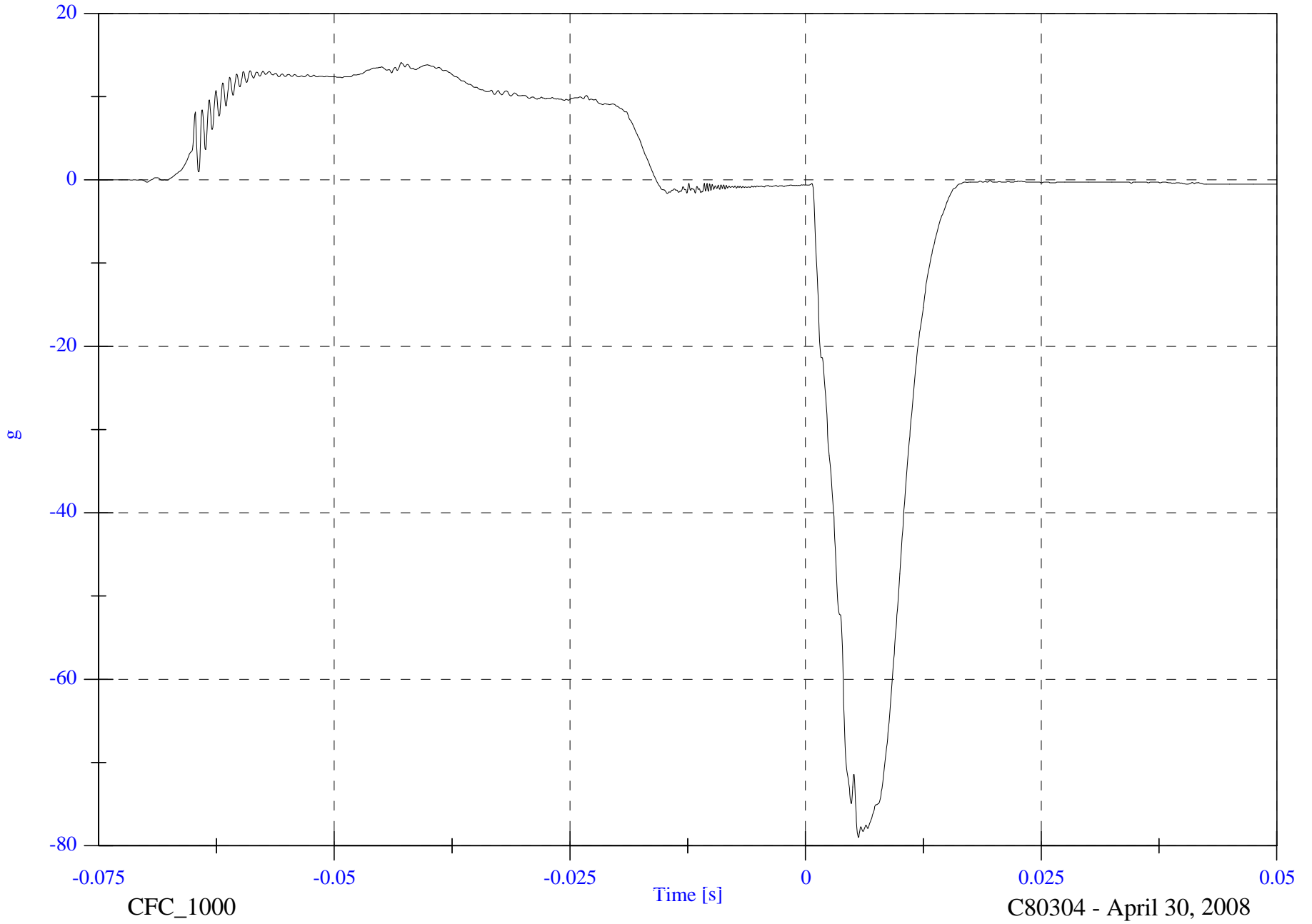


FMVSS 201U 2008 JEEP LIBERTY

Max: 14.1 [g] at -0.043 [s]

Min: -79.0 [g] at 0.006 [s]

Headform X Acceleration



C80304 PASSENGER SIDE SR3R IMPACT PLOT #2

8851-07

CFC_1000

C80304 - April 30, 2008

FMVSS 201U 2008 JEEP LIBERTY

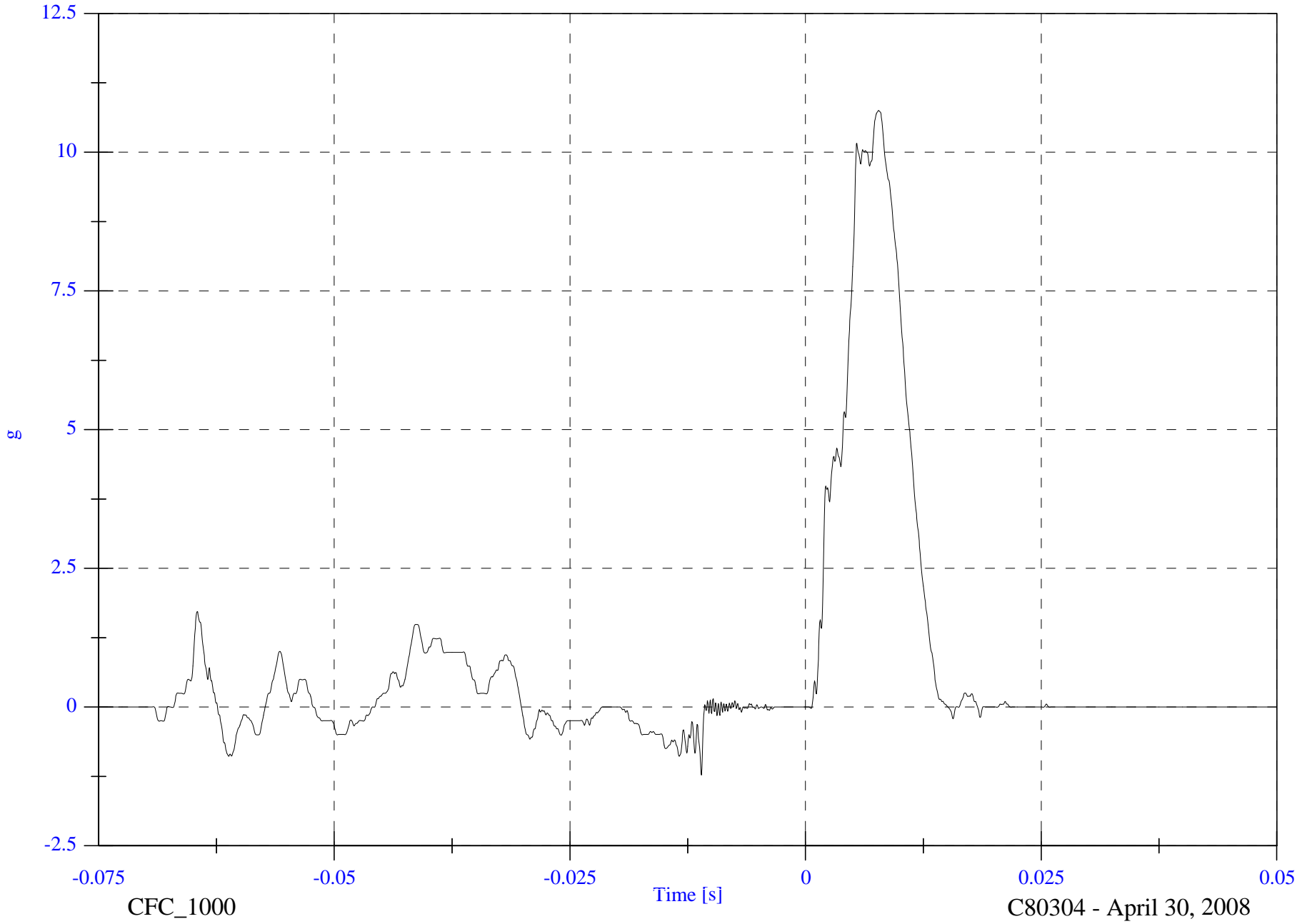
Headform Y Acceleration

Max: 10.8 [g] at 0.008 [s]

Min: -1.2 [g] at -0.011 [s]

C80304 PASSENGER SIDE SR3R IMPACT PLOT #3

8851-07



CFC_1000

C80304 - April 30, 2008

FMVSS 201U 2008 JEEP LIBERTY

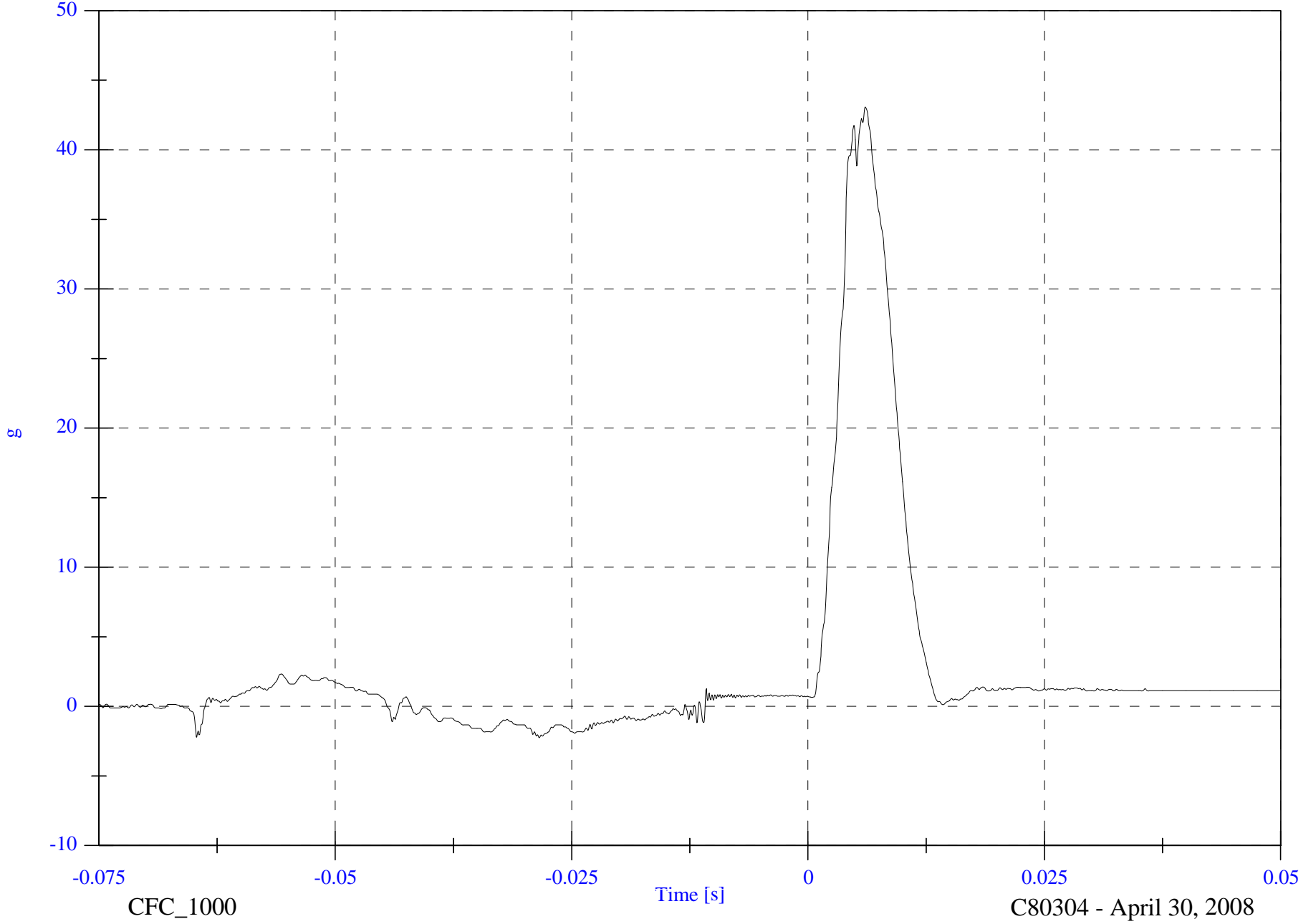
Headform Z Acceleration

Max: 43.1 [g] at 0.006 [s]

Min: -2.3 [g] at -0.028 [s]

C80304 PASSENGER SIDE SR3R IMPACT PLOT #4

8851-07



FMVSS 201U 2008 JEEP LIBERTY

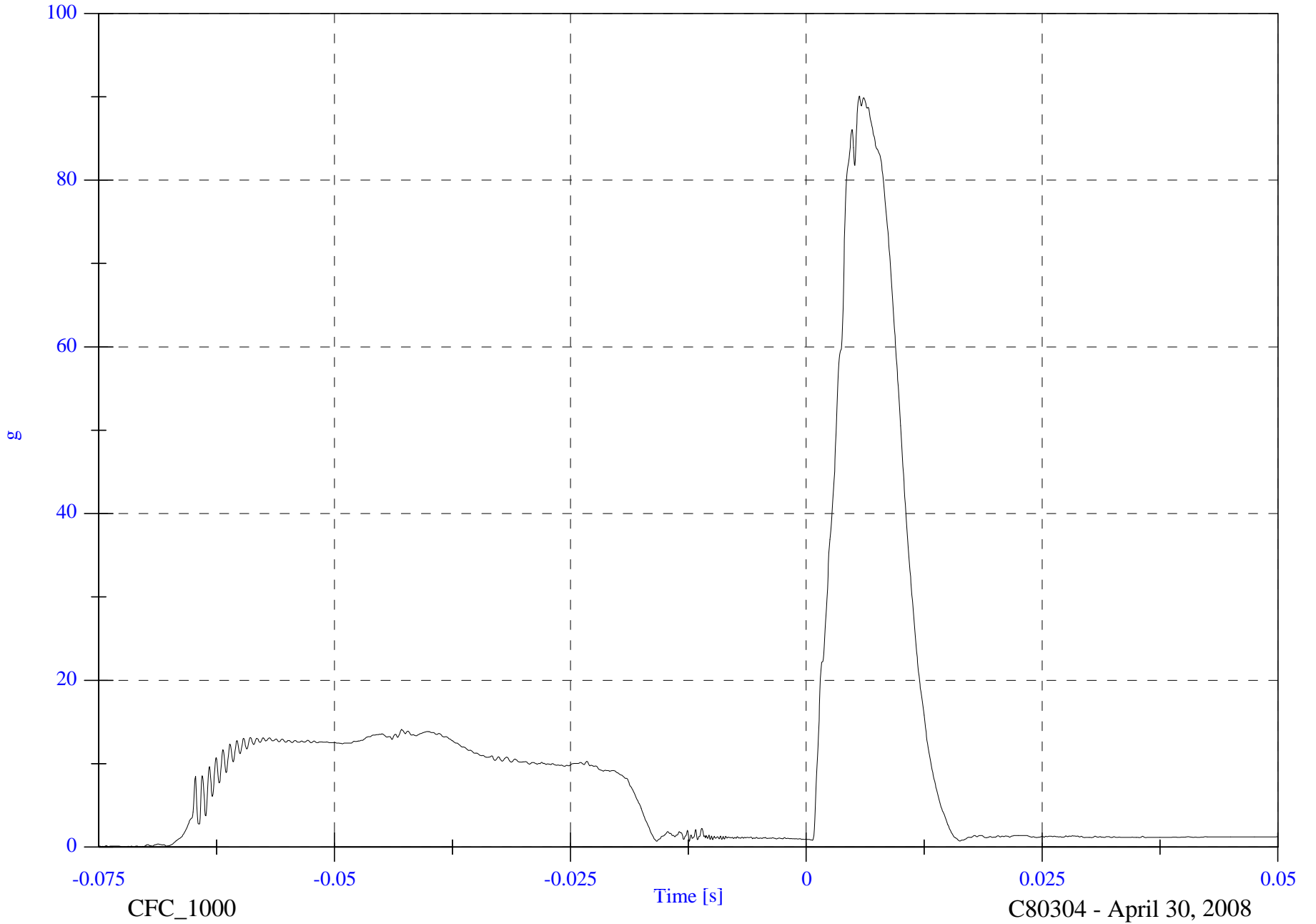
Headform Resultant

Max: 90.1 [g] at 0.006 [s]

Min: 0.0 [g] at -0.071 [s]

C80304 PASSENGER SIDE SR3R IMPACT PLOT #5

8851-07



CFC_1000

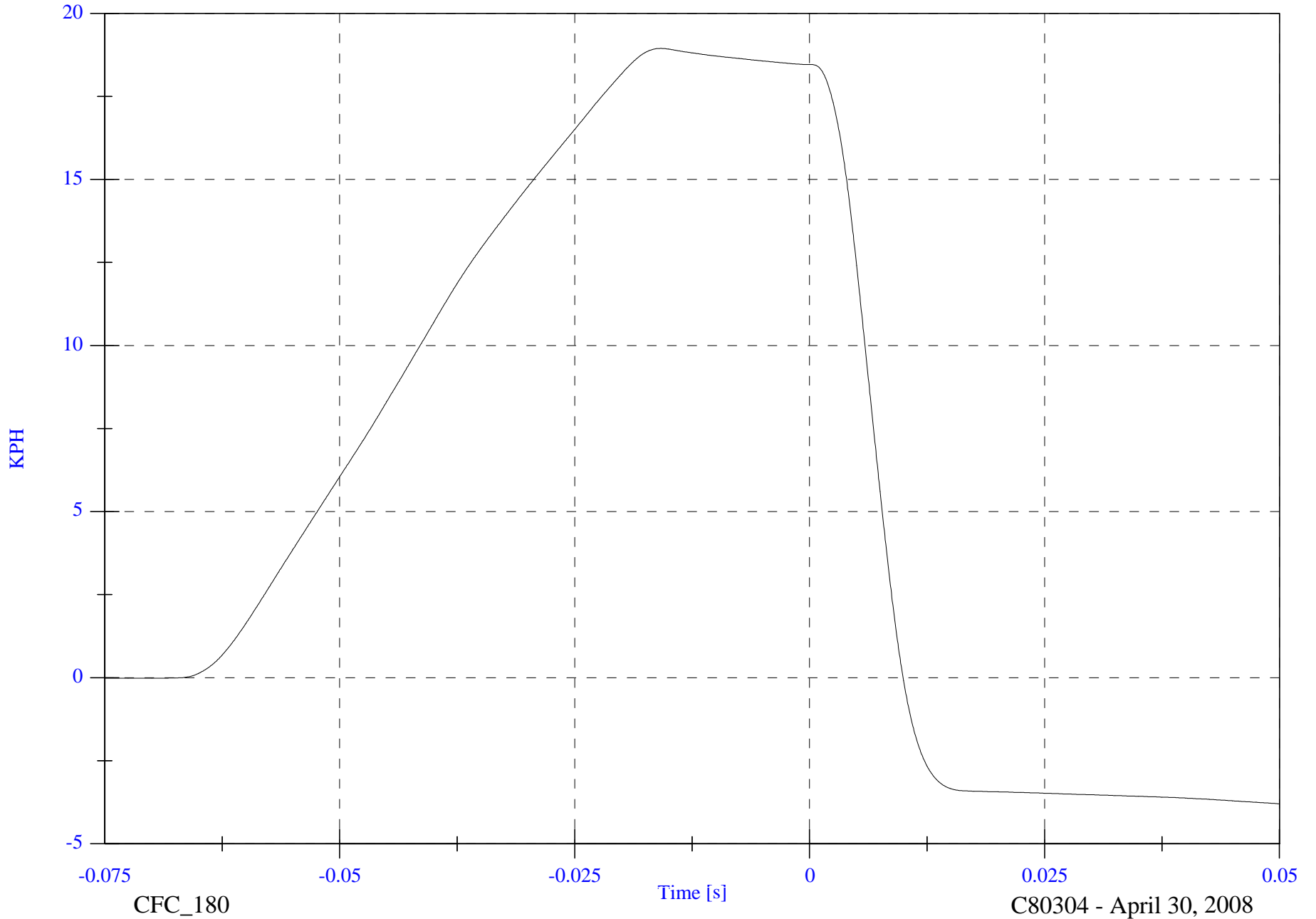
C80304 - April 30, 2008

FMVSS 201U 2008 JEEP LIBERTY

Max: 18.9 [KPH] at -0.016 [s]

Min: -3.8 [KPH] at 0.050 [s]

Headform Velocity



C80304 PASSENGER SIDE SR3R IMPACT PLOT #6

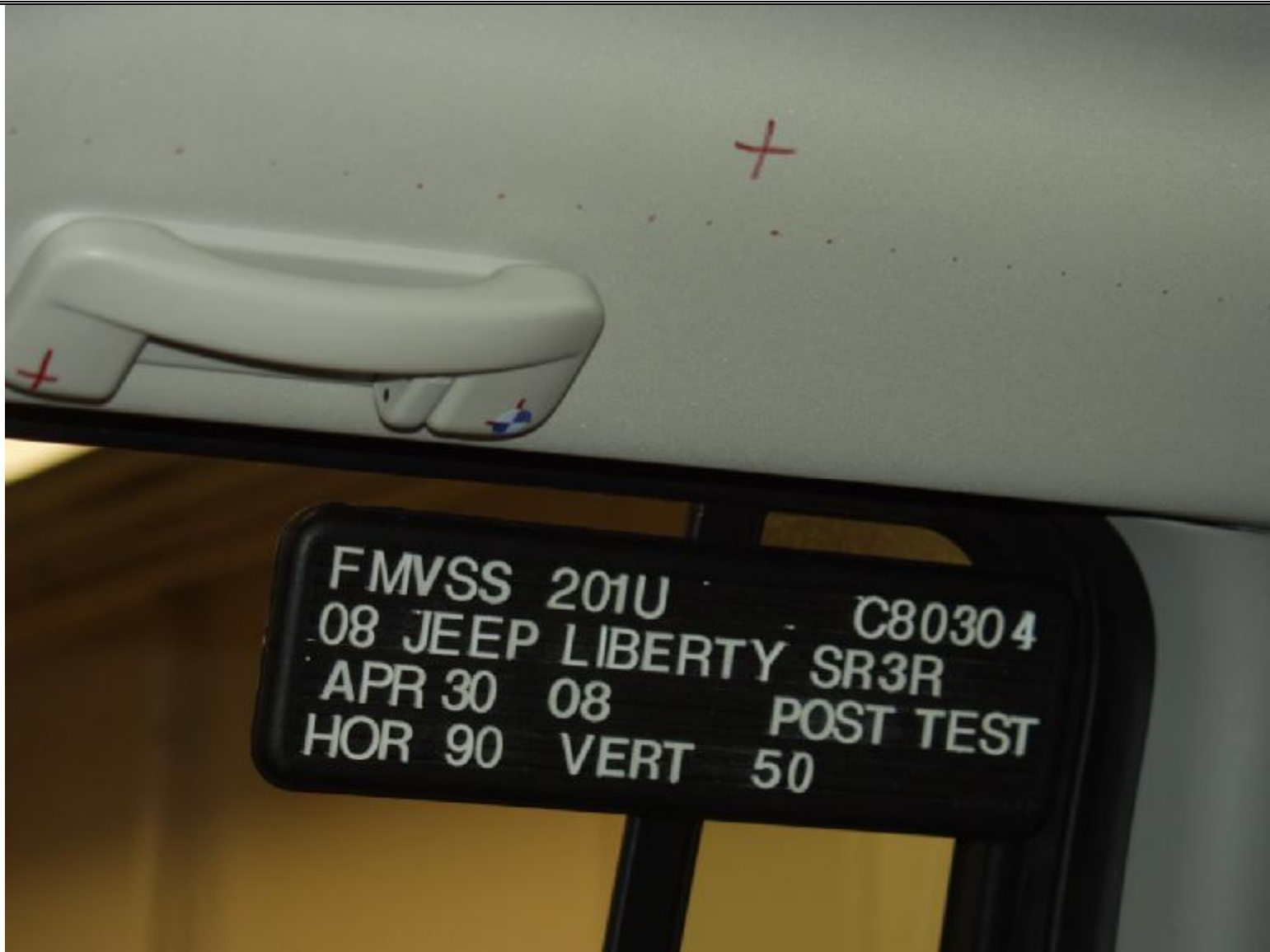
8851-07

CFC_180

C80304 - April 30, 2008



PRE-IMPACT SR3R



FMVSS 201U C80304
08 JEEP LIBERTY SR3R
APR 30 08 POST TEST
HOR 90 VERT 50

POST-IMPACT SR3R

VEHICLE YEAR/MAKE/MODEL/STYLE:	2008 Jeep Liberty Sport 4x4
VIN:	1J8GN28K18W119596
DATE OF MANUFACTURE:	08/07(SEE CERTIFICATION LABEL)
COLOR:	Black

Test Number:	04
Test Date:	04/30/08
Target Location:	B-PILLAR
Target Code:	BP4
Horizontal Impact Angle:	142°
Vertical Impact Angle:	-10°
Ambient Temperature:	20.5° C
Relative Humidity:	22.8%
Time of Impact:	11:20
Headform Number:	0805

Impact Point Description (from lower midpoint on midsagittal line)			
On Centerline	15	<input checked="" type="checkbox"/> mm right	<input type="checkbox"/> mm left
On Centerline	4	mm up	



POST-IMPACT BP4 HEADFORM

Free Motion HIC	177.3
HIC(d)	300.2
Impact Velocity (kph)	23.53
HIC T1 (msec)	4.3
HIC T2 (msec)	19.6

FMVSS 201U 2008 JEEP LIBERTY C80304 - BP4

FMH Headform 0805

Location: BP4

Test Date: April 30, 2008

Work File: BP4

-----TEST RESULTS-----

Lab Temperature: 20.5 C

HICd: 300.2

Lab Humidity: 22.8 %

HIC (36ms): 177.3

Velocity at Impact: 23.53 KPH

t1: 4.3 msec

t2: 19.6 msec

Free Flight Distance: 220.05 mm

Duration: 15.2 msec

Average Acceleration: 8.2 g

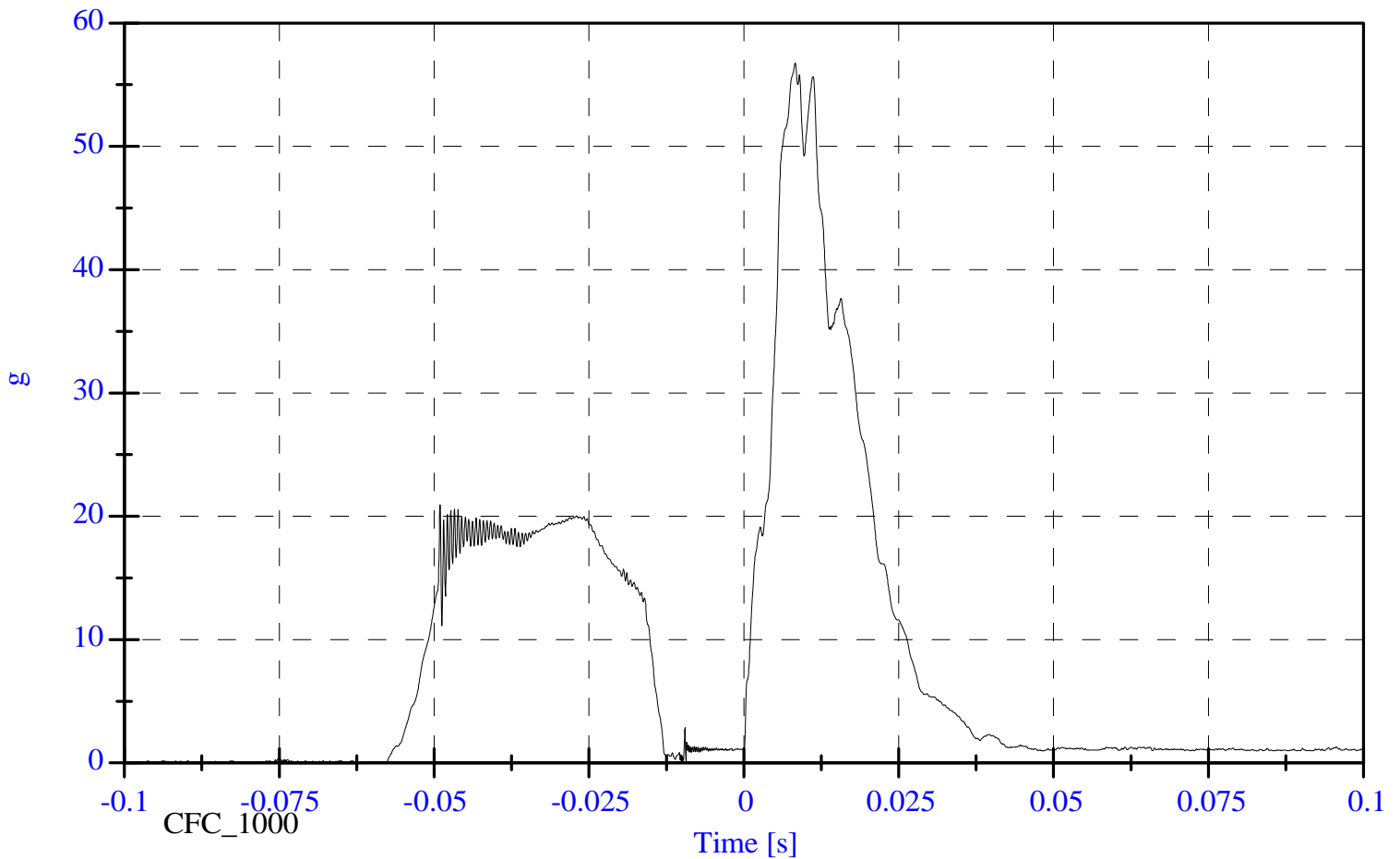
Maximum: 56.8 g

FMVSS 201U 2008 JEEP LIBERTY

Headform Resultant

Max: 56.8 [g] at 0.008 [s]

Min: 0.0 [g] at -0.061 [s]

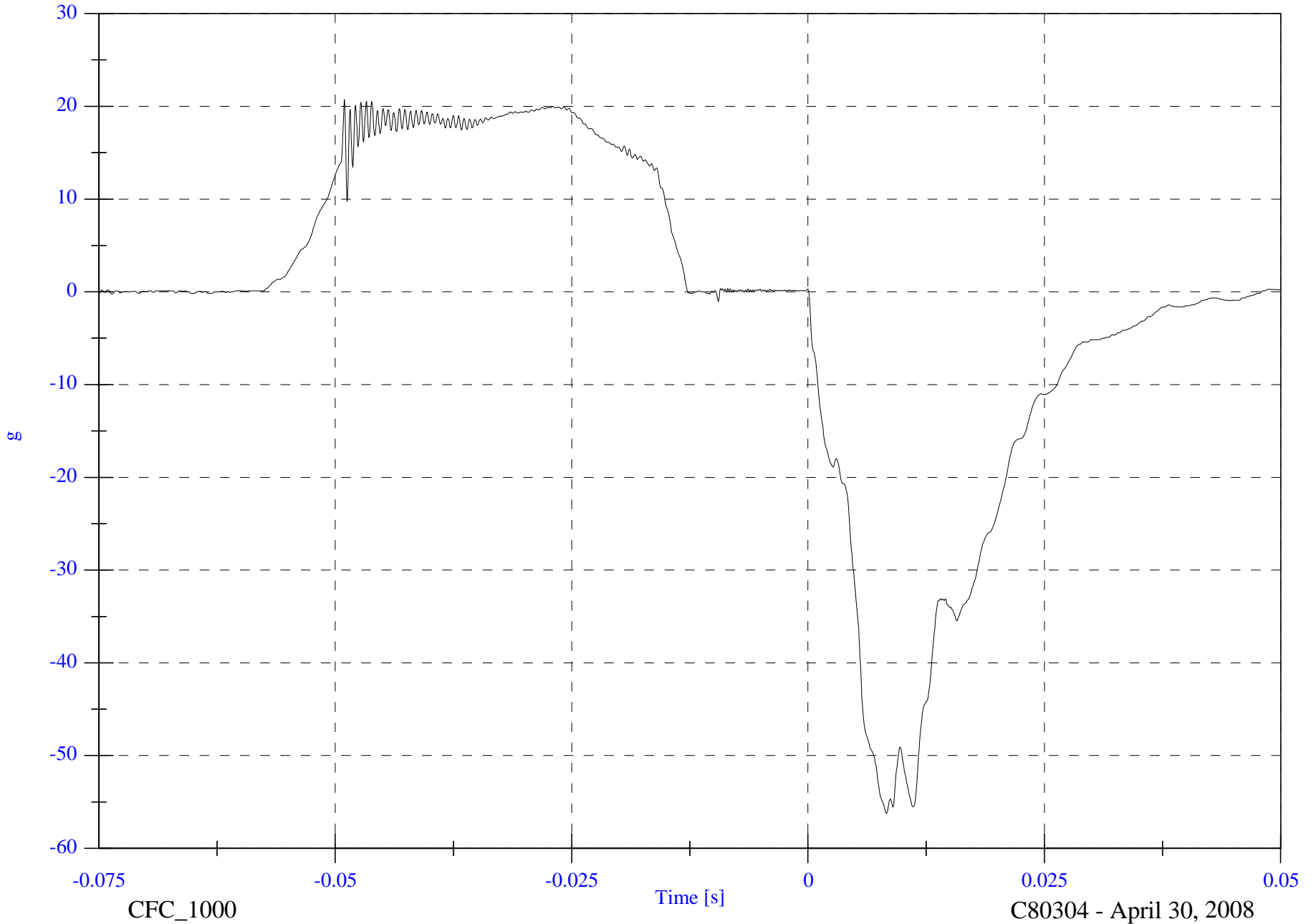


FMVSS 201U 2008 JEEP LIBERTY

Max: 20.7 [g] at -0.049 [s]

Min: -56.2 [g] at 0.008 [s]

Headform X Acceleration



C80304 PASSENGER SIDE BP4 IMPACT PLOT #2

8851-07

CFC_1000

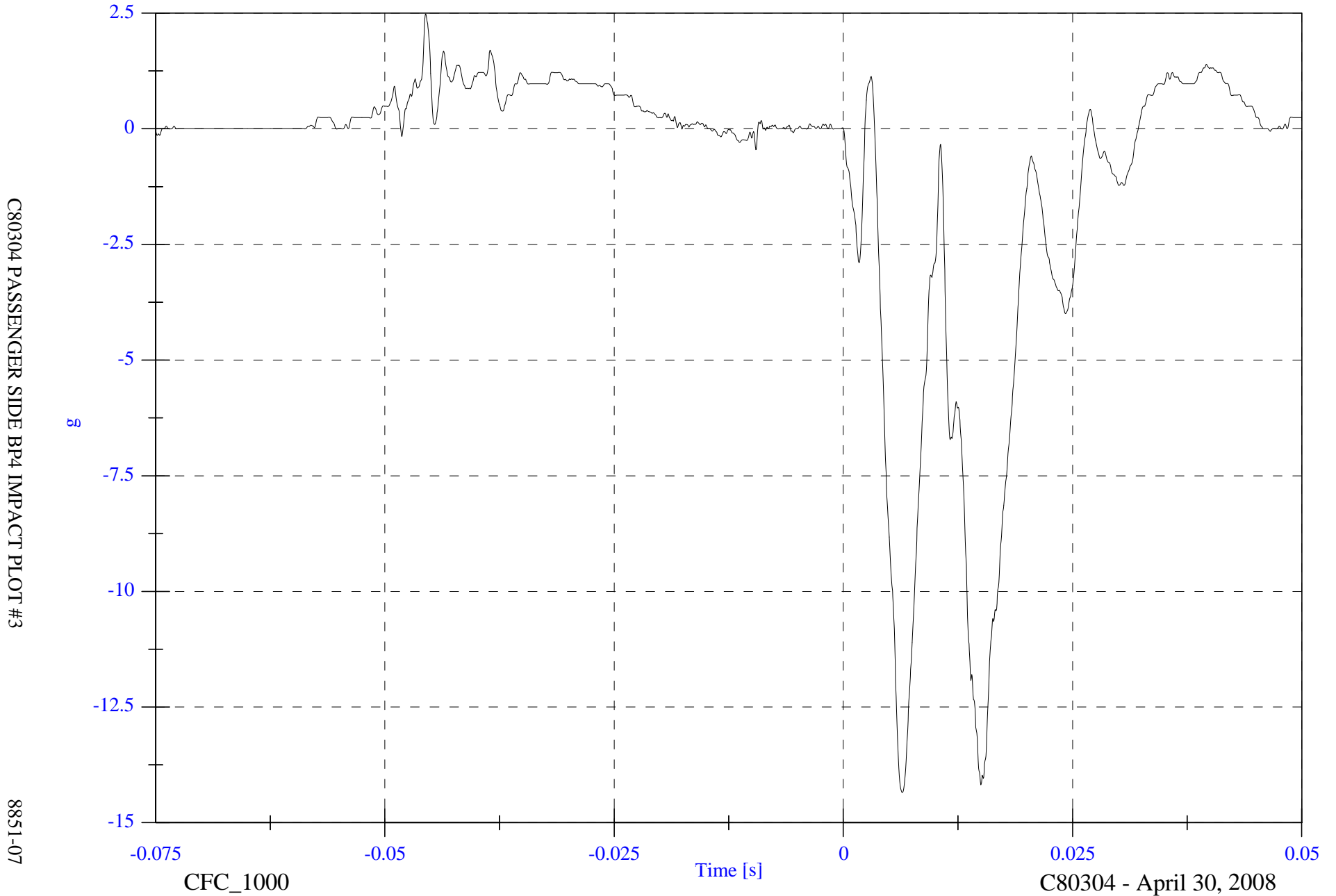
Time [s]

C80304 - April 30, 2008

FMVSS 201U 2008 JEEP LIBERTY

Max: 2.5 [g] at -0.046 [s]
Min: -14.3 [g] at 0.006 [s]

Headform Y Acceleration



C80304 PASSENGER SIDE BP4 IMPACT PLOT #3

8851-07

CFC_1000

Time [s]

C80304 - April 30, 2008

FMVSS 201U 2008 JEEP LIBERTY

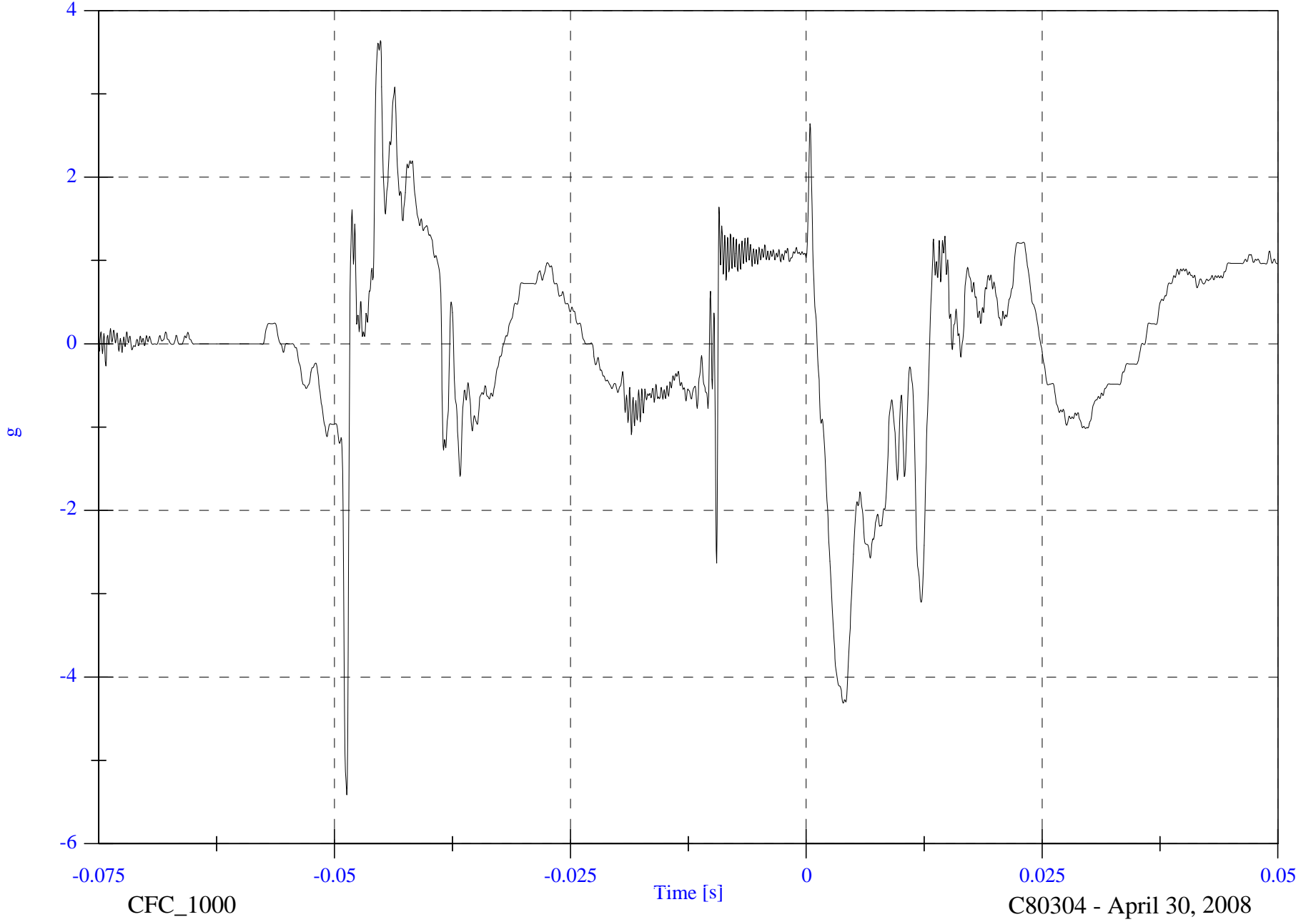
Max: 3.6 [g] at -0.045 [s]

Min: -5.4 [g] at -0.049 [s]

Headform Z Acceleration

C80304 PASSENGER SIDE BP4 IMPACT PLOT #4

8851-07

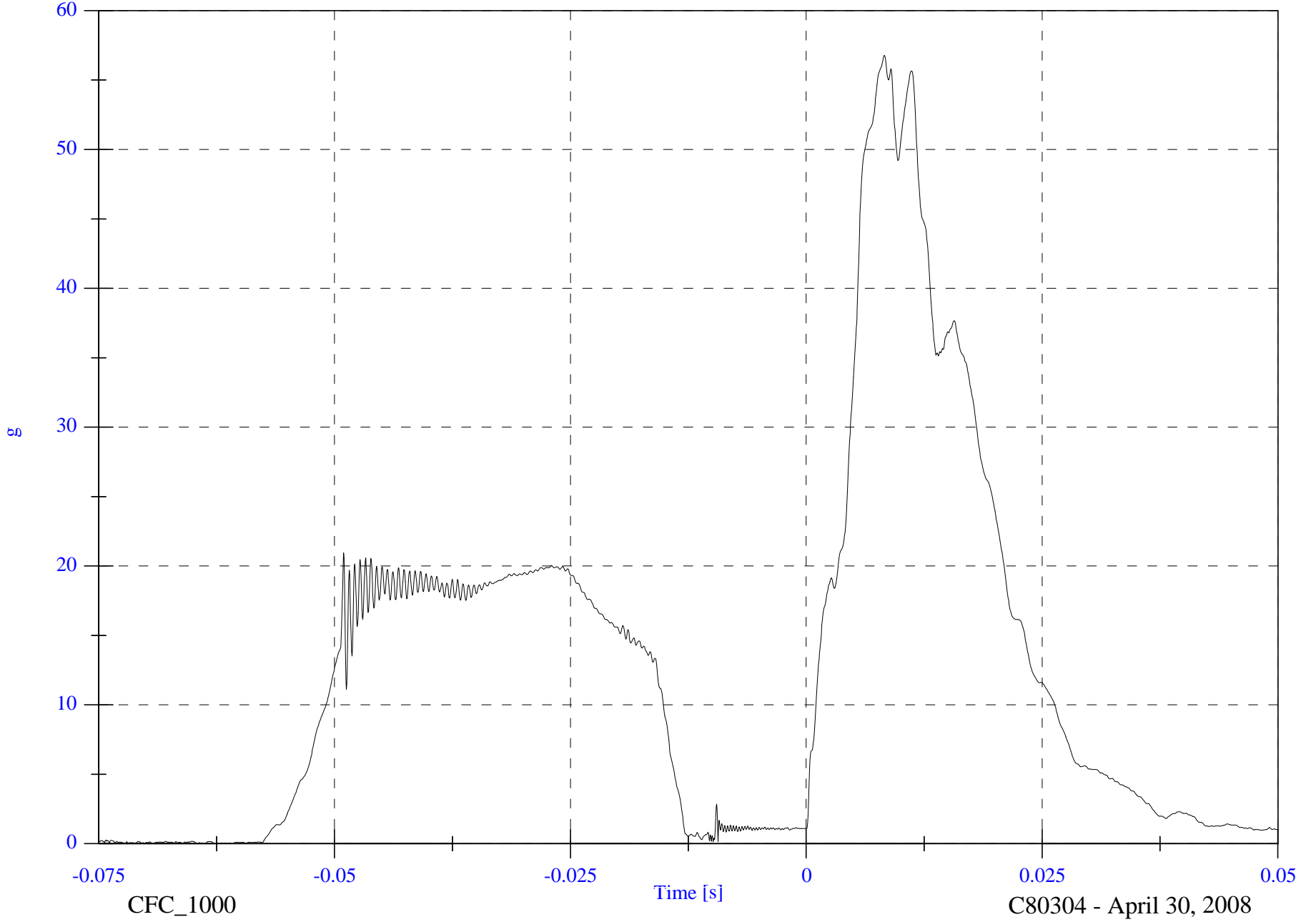


CFC_1000

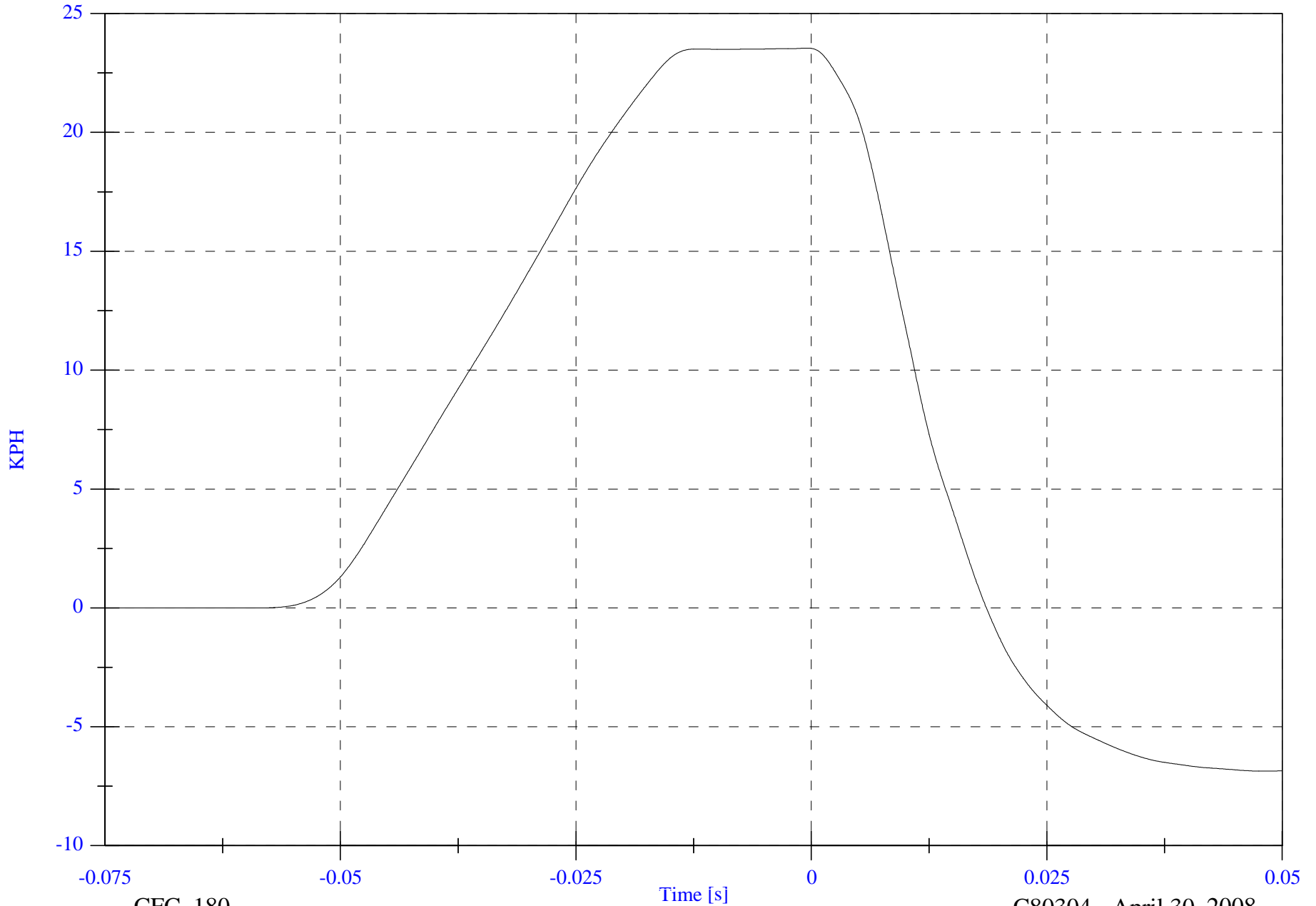
C80304 - April 30, 2008

C80304 PASSENGER SIDE BP4 IMPACT PLOT #5

8851-07



Headform Velocity



C80304 PASSENGER SIDE BP4 IMPACT PLOT #6

8851-07

CFC_180

C80304 - April 30, 2008



PRE-IMPACT BP4



POST-IMPACT BP4

VEHICLE YEAR/MAKE/MODEL/STYLE:	2008 Jeep Liberty Sport 4x4
VIN:	1J8GN28K18W119596
DATE OF MANUFACTURE:	08/07(SEE CERTIFICATION LABEL)
COLOR:	Black

Test Number:	05
Test Date:	04/30/08
Target Location:	B-PILLAR
Target Code:	BP1
Horizontal Impact Angle:	90°
Vertical Impact Angle:	11°
Ambient Temperature:	20.5° C
Relative Humidity:	22.6%
Time of Impact:	13:24
Headform Number:	0062

Impact Point Description (from lower midpoint on midsagittal line)			
On Centerline	6	mm right	x mm left
On Centerline	23	mm up	



POST-IMPACT BP1 HEADFORM

Free Motion HIC	127.6
HIC(d)	262.6
Impact Velocity (kph)	18.57
HIC T1 (msec)	7.2
HIC T2 (msec)	24.7

FMVSS 201U 2008 JEEP LIBERTY C80304 - BP1

FMH Headform 0062

Location: BP1

Test Date: April 30, 2008

Work File: BP1

-----TEST RESULTS-----

Lab Temperature: 20.5 C

HICd: 262.6

Lab Humidity: 22.6 %

HIC (36ms): 127.6

Velocity at Impact: 18.57 KPH

t1: 7.2 msec

t2: 24.7 msec

Free Flight Distance: 206.03 mm

Duration: 17.6 msec

Average Acceleration: 7.4 g

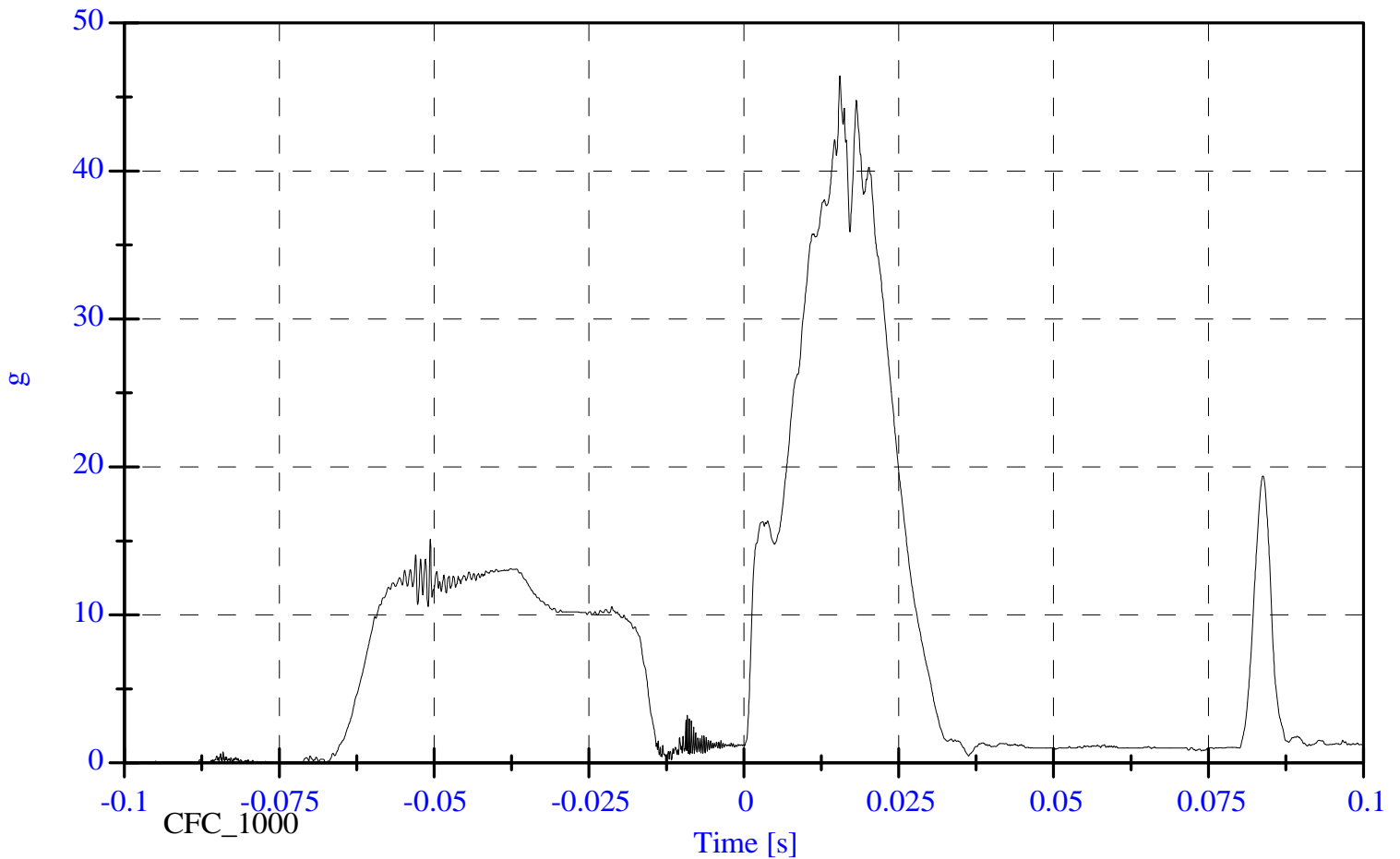
Maximum: 46.4 g

FMVSS 201U 2008 JEEP LIBERTY

Headform Resultant

Max: 46.4 [g] at 0.016 [s]

Min: 0.0 [g] at -0.088 [s]

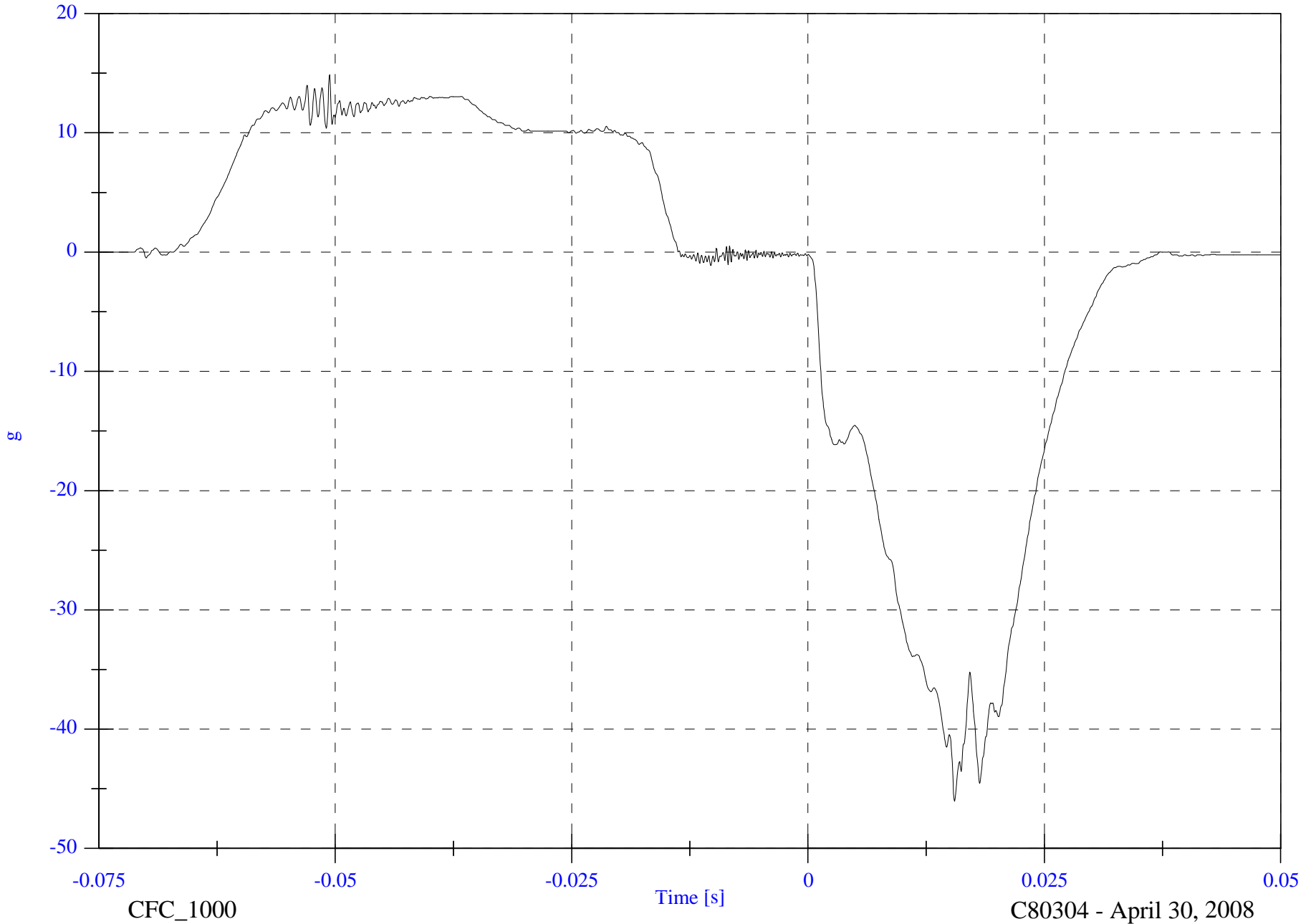


FMVSS 201U 2008 JEEP LIBERTY

Max: 14.9 [g] at -0.051 [s]

Min: -46.1 [g] at 0.016 [s]

Headform X Acceleration



C80304 PASSENGER SIDE BP1 IMPACT PLOT #2

8851-07

CFC_1000

C80304 - April 30, 2008

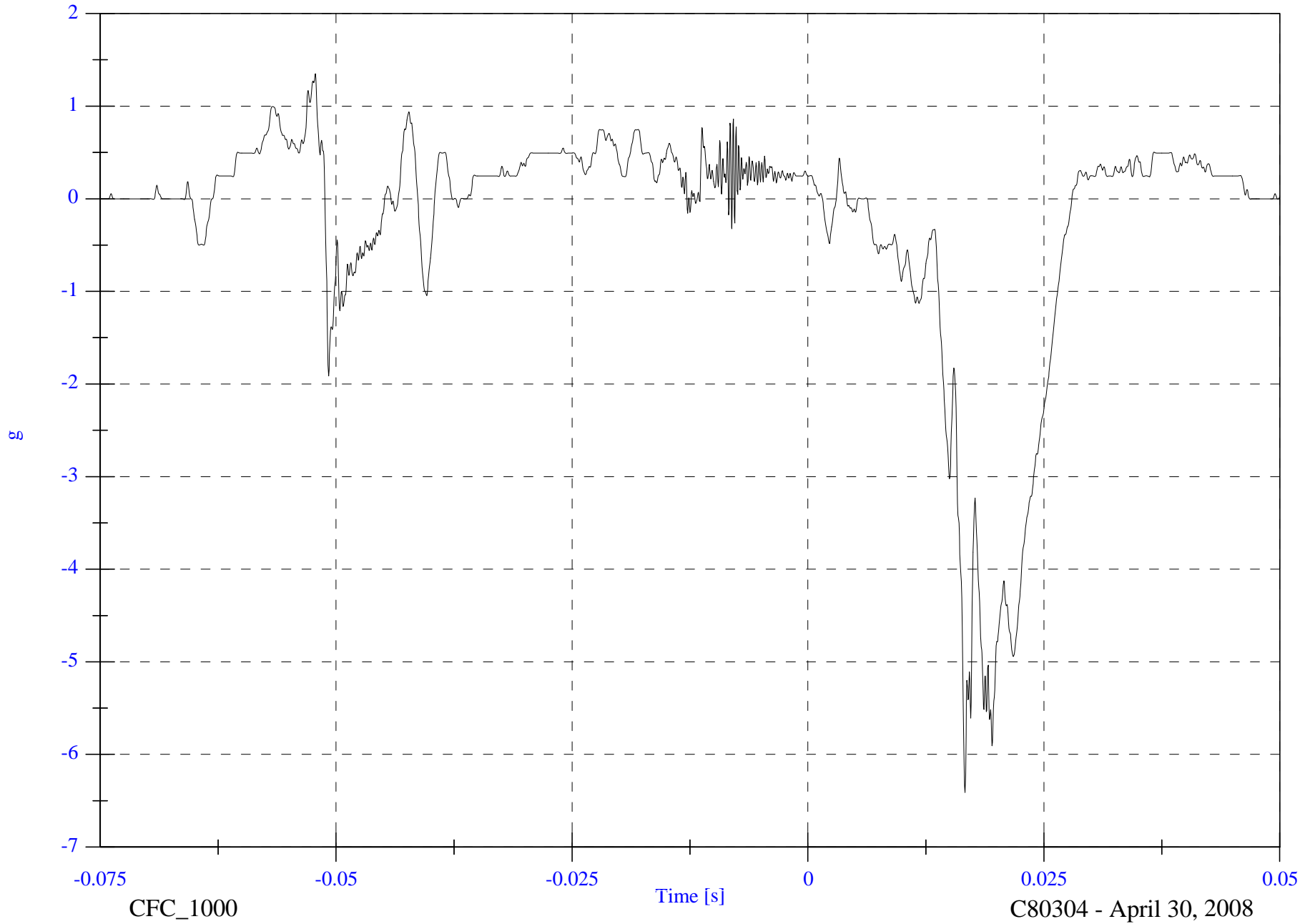
FMVSS 201U 2008 JEEP LIBERTY

Max: 1.4 [g] at -0.052 [s]
Min: -6.4 [g] at 0.017 [s]

Headform Y Acceleration

C80304 PASSENGER SIDE BP1 IMPACT PLOT #3

8851-07



CFC_1000

C80304 - April 30, 2008

FMVSS 201U 2008 JEEP LIBERTY

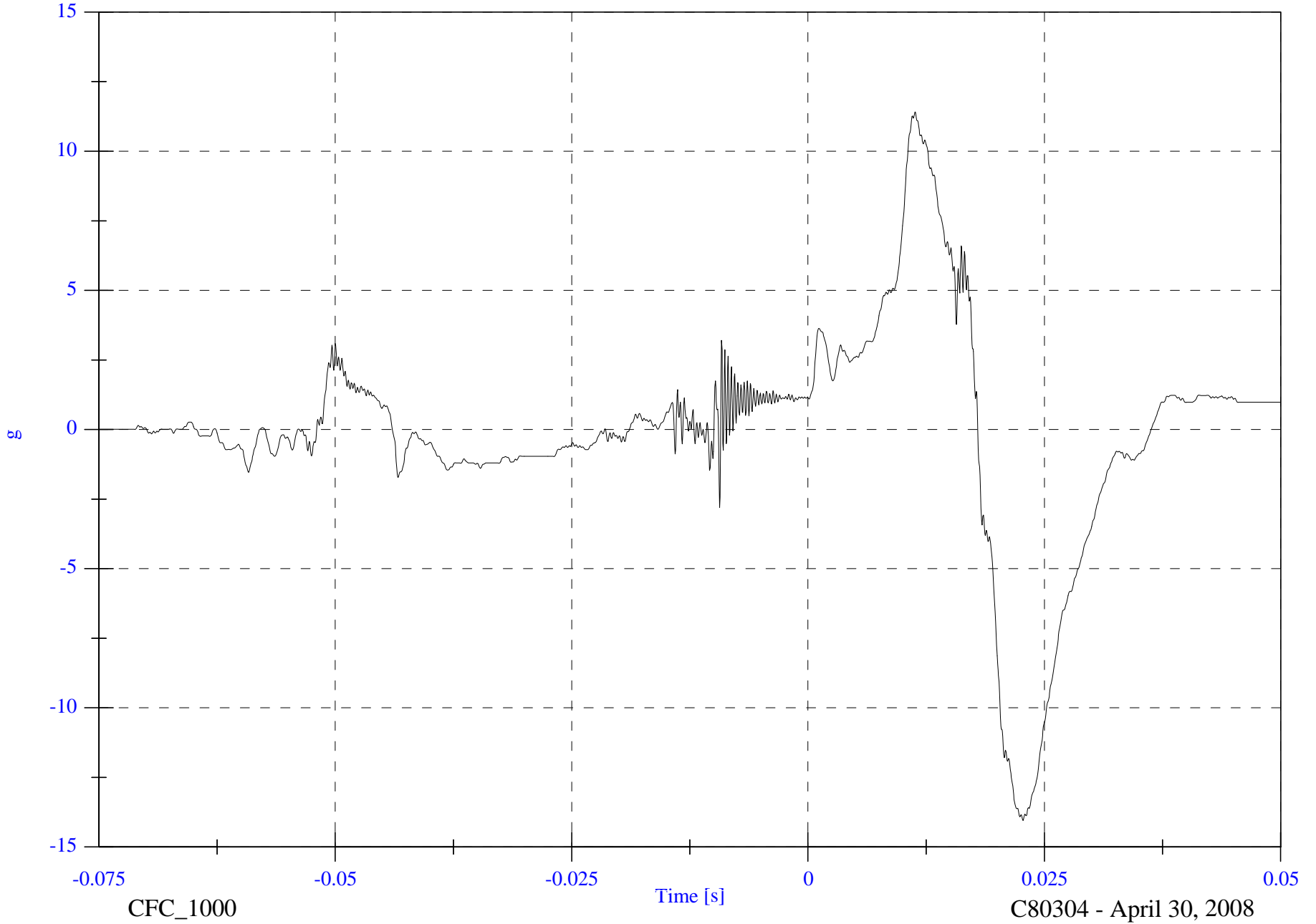
Headform Z Acceleration

Max: 11.4 [g] at 0.011 [s]

Min: -14.0 [g] at 0.023 [s]

C80304 PASSENGER SIDE BPI IMPACT PLOT #4

8851-07



CFC_1000

C80304 - April 30, 2008

FMVSS 201U 2008 JEEP LIBERTY

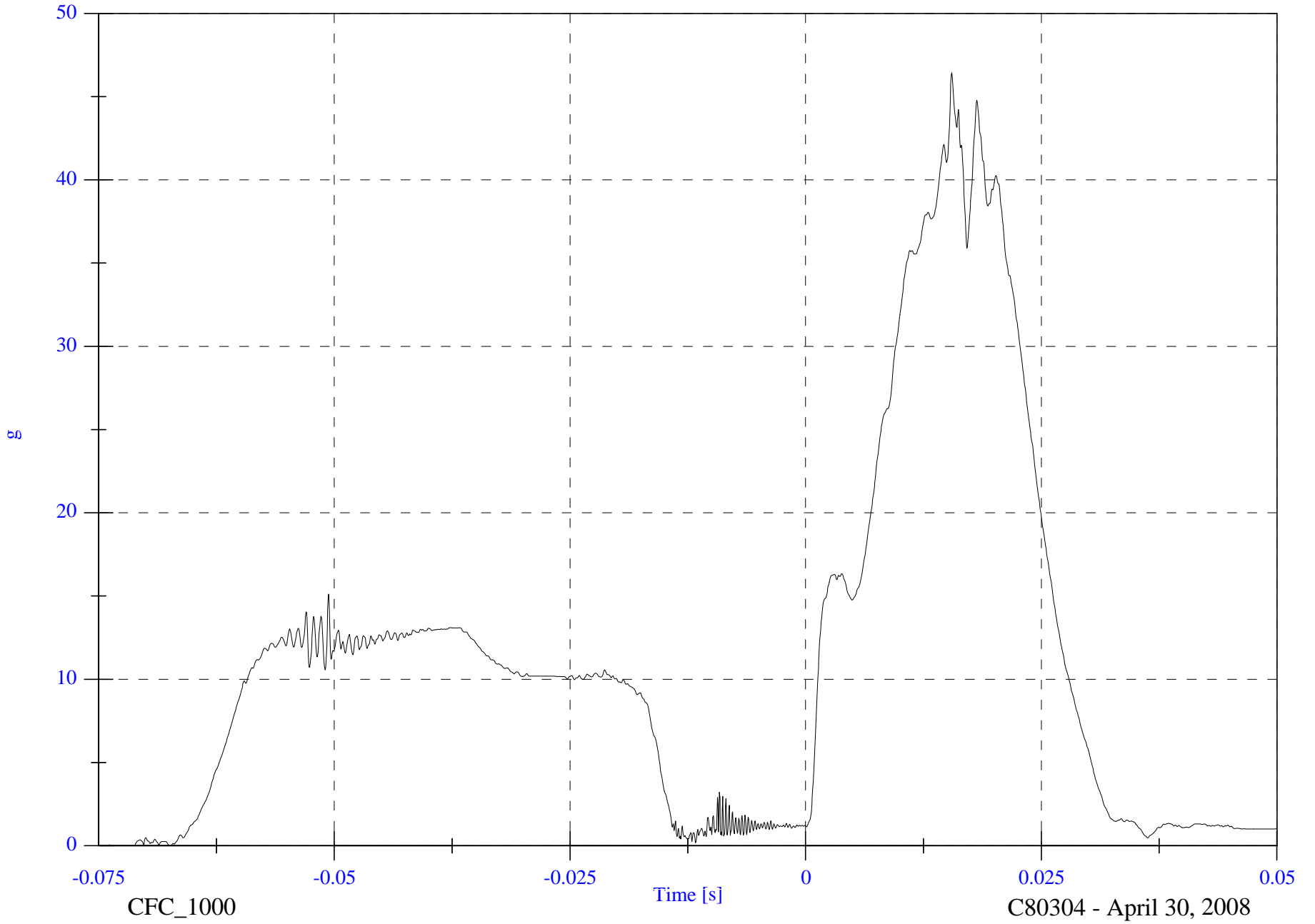
Headform Resultant

Max: 46.4 [g] at 0.016 [s]

Min: 0.0 [g] at -0.071 [s]

C80304 PASSENGER SIDE BPI IMPACT PLOT #5

8851-07



CFC_1000

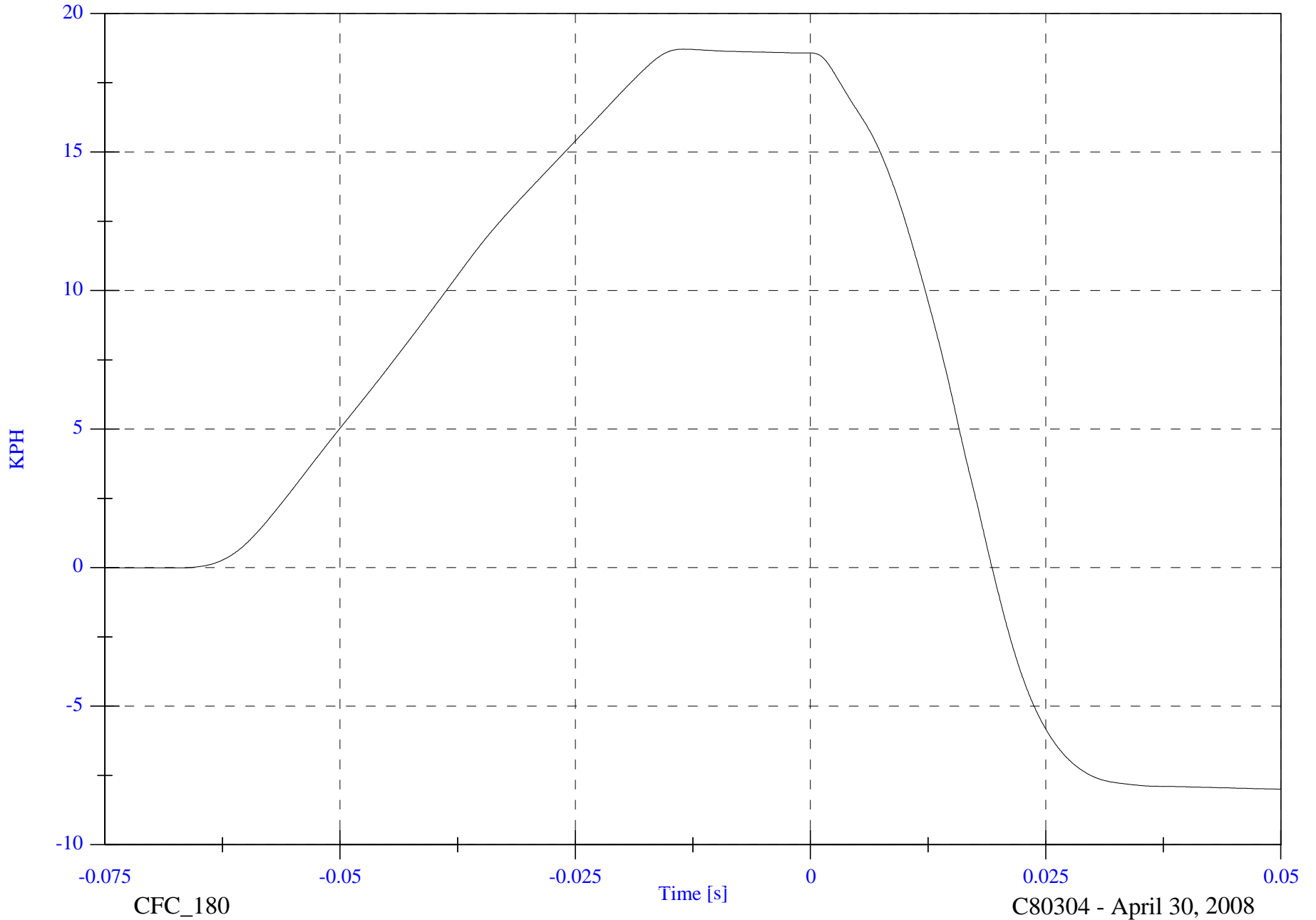
C80304 - April 30, 2008

FMVSS 201U 2008 JEEP LIBERTY

Max: 18.7 [KPH] at -0.013 [s]

Min: -8.0 [KPH] at 0.050 [s]

Headform Velocity



C80304 PASSENGER SIDE BP1 IMPACT PLOT #6

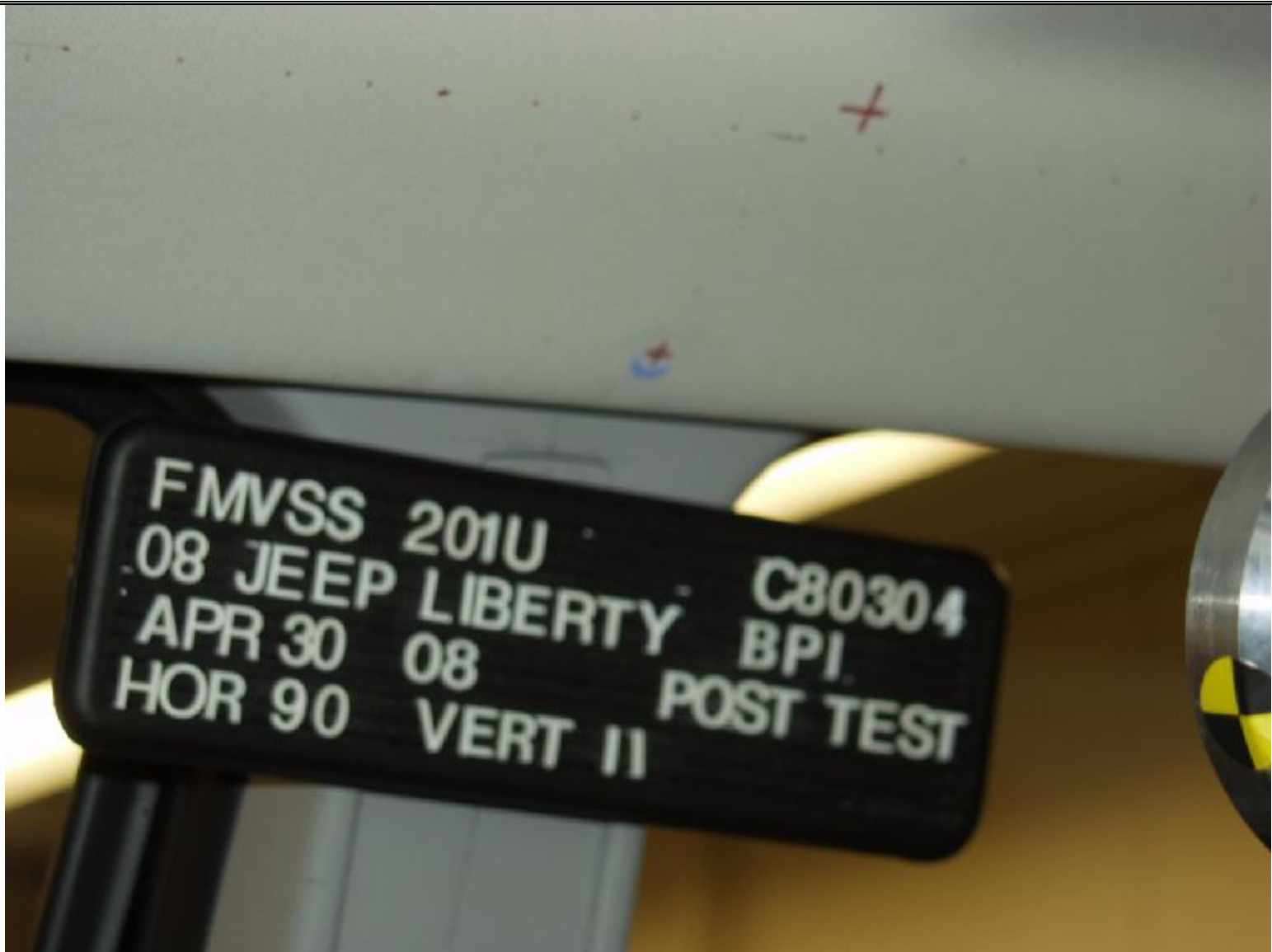
8851-07

CFC_180

C80304 - April 30, 2008



PRE-IMPACT BP1



POST-IMPACT BPI

VEHICLE YEAR/MAKE/MODEL/STYLE:	2008 Jeep Liberty Sport 4x4
VIN:	1J8GN28K18W119596
DATE OF MANUFACTURE:	08/07(SEE CERTIFICATION LABEL)
COLOR:	Black

Test Number:	06
Test Date:	04/30/08
Target Location:	SIDE RAIL
Target Code:	SR2A
Horizontal Impact Angle:	90°
Vertical Impact Angle:	46°
Ambient Temperature:	20.5° C
Relative Humidity:	22.1%
Time of Impact:	13:55
Headform Number:	1142

Impact Point Description (from lower midpoint on midsagittal line)			
On Centerline	5	mm right	x mm left
On Centerline	3	mm up	



POST-IMPACT SR2A HEADFORM

Free Motion HIC	277.2
HIC(d)	375.6
Impact Velocity (kph)	18.69
HIC T1 (msec)	3.3
HIC T2 (msec)	13.3

FMVSS 201U 2008 JEEP LIBERTY C80304 - SR2A

FMH Headform 1142

Location: SR2A

Test Date: April 30, 2008

Work File: SR2A

-----TEST RESULTS-----

Lab Temperature: 20.5 C

HICd: 375.6

Lab Humidity: 22.1 %

HIC (36ms): 277.2

Velocity at Impact: 18.69 KPH

t1: 3.3 msec

t2: 13.3 msec

Free Flight Distance: 218.50 mm

Duration: 10.0 msec

Average Acceleration: 7.7 g

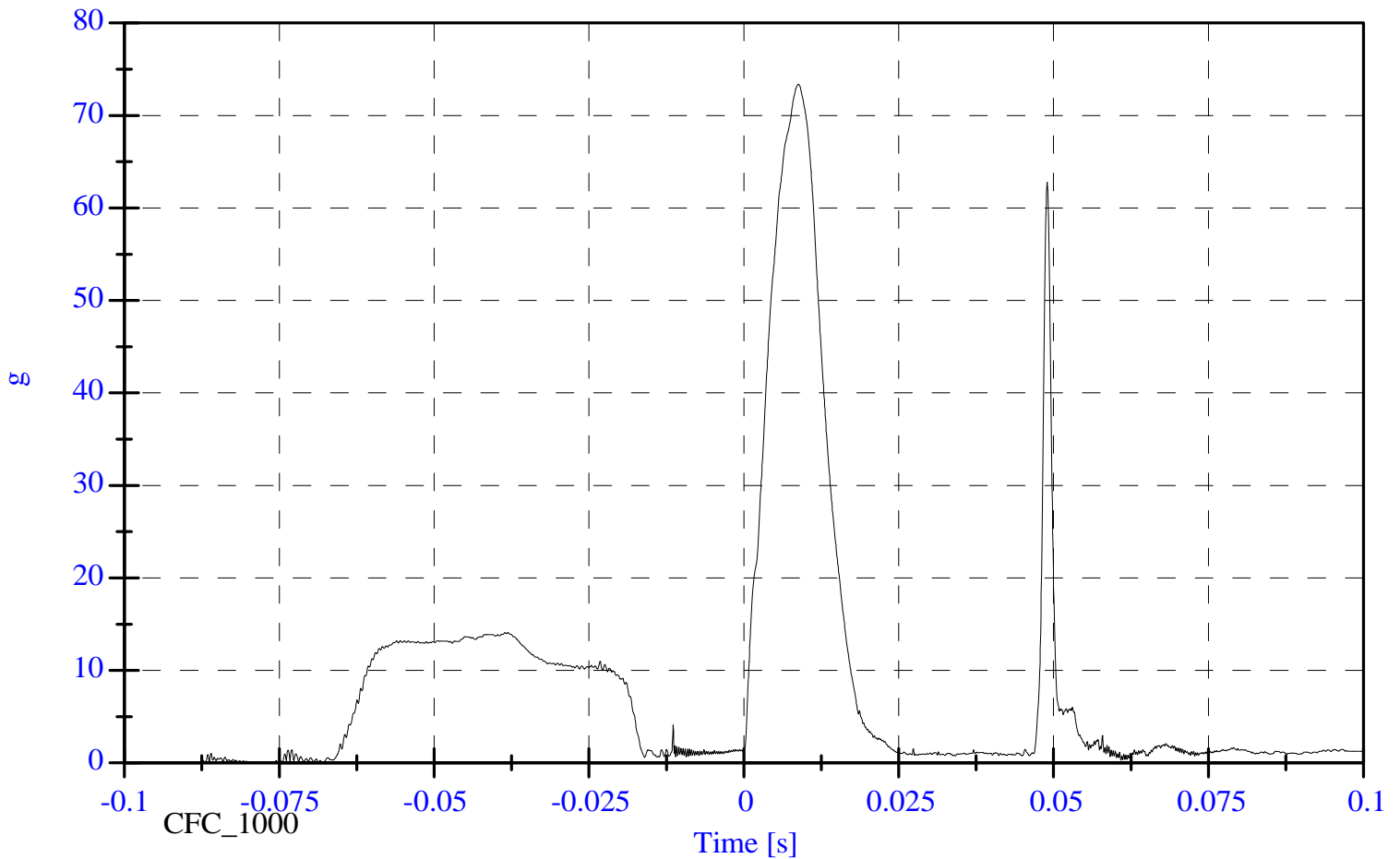
Maximum: 73.4 g

FMVSS 201U 2008 JEEP LIBERTY

Headform Resultant

Max: 73.4 [g] at 0.009 [s]

Min: 0.0 [g] at -0.076 [s]



FMVSS 201U 2008 JEEP LIBERTY

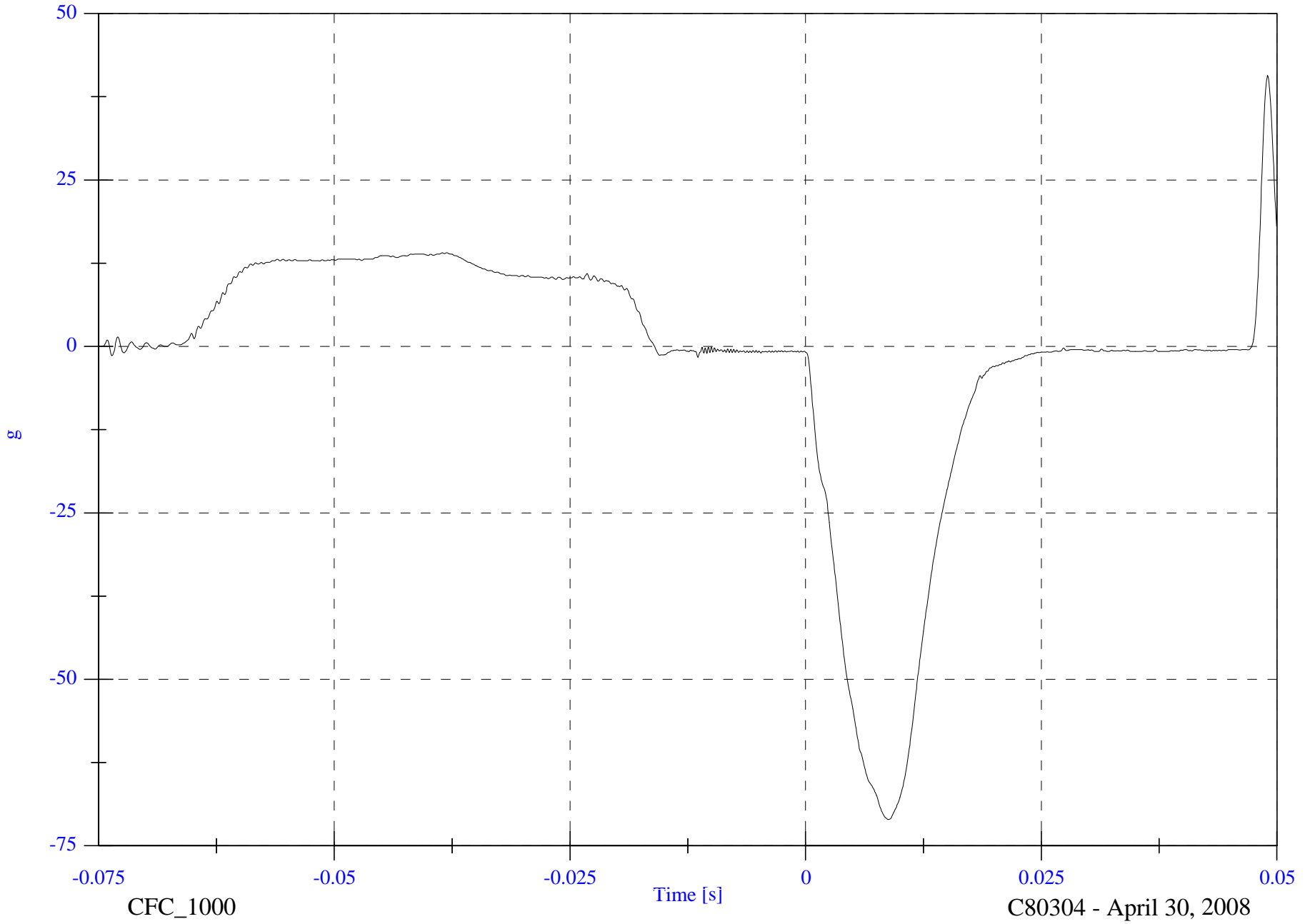
Headform X Acceleration

Max: 40.7 [g] at 0.049 [s]

Min: -71.1 [g] at 0.009 [s]

C80304 PASSENGER SIDE SR2A IMPACT PLOT #2

8851-07



CFC_1000

C80304 - April 30, 2008

FMVSS 201U 2008 JEEP LIBERTY

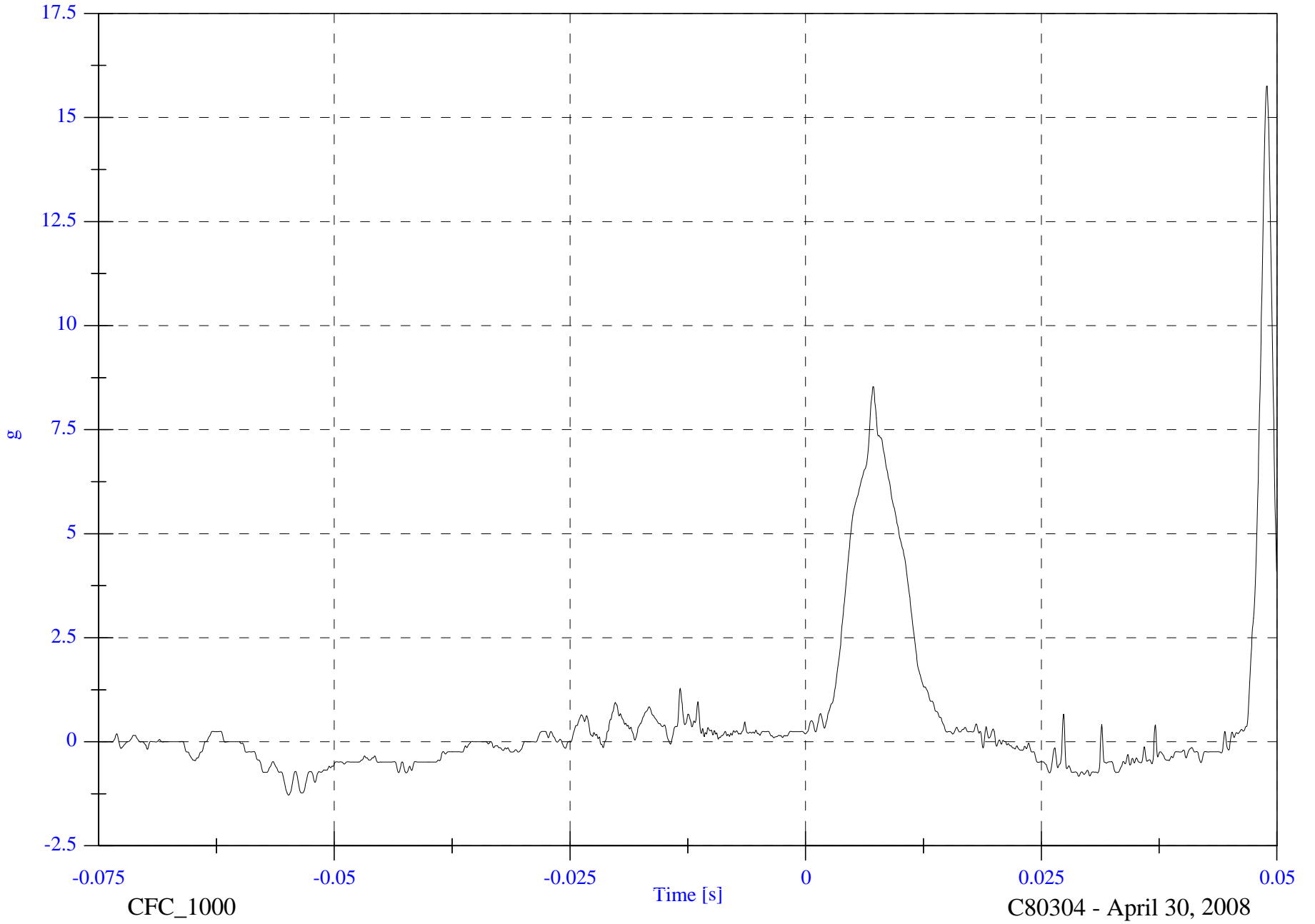
Max: 15.8 [g] at 0.049 [s]

Min: -1.3 [g] at -0.055 [s]

Headform Y Acceleration

C80304 PASSENGER SIDE SR2A IMPACT PLOT #3

8851-07



CFC_1000

C80304 - April 30, 2008

FMVSS 201U 2008 JEEP LIBERTY

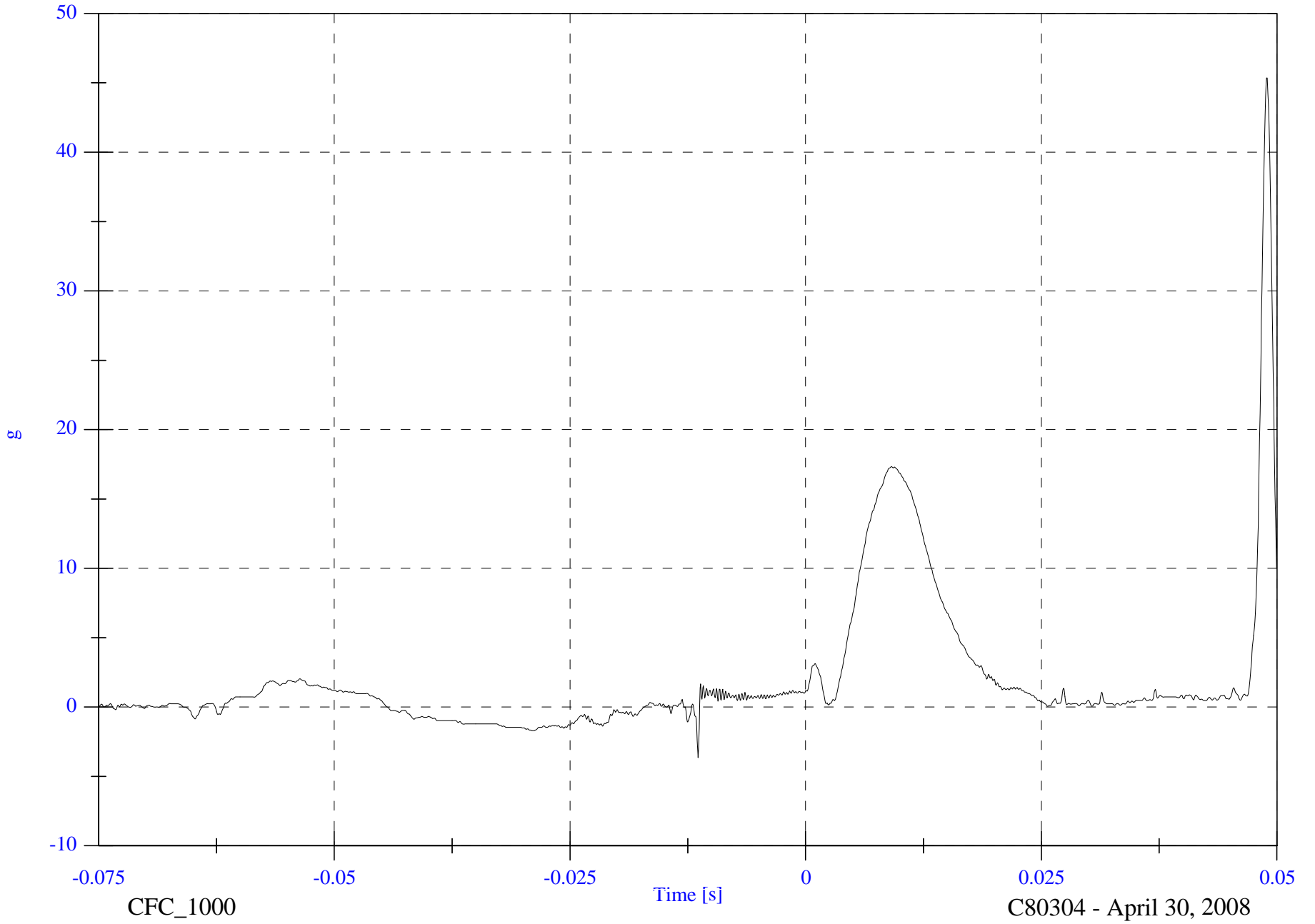
Headform Z Acceleration

Max: 45.4 [g] at 0.049 [s]

Min: -3.7 [g] at -0.011 [s]

C80304 PASSENGER SIDE SR2A IMPACT PLOT #4

8851-07



CFC_1000

C80304 - April 30, 2008

FMVSS 201U 2008 JEEP LIBERTY

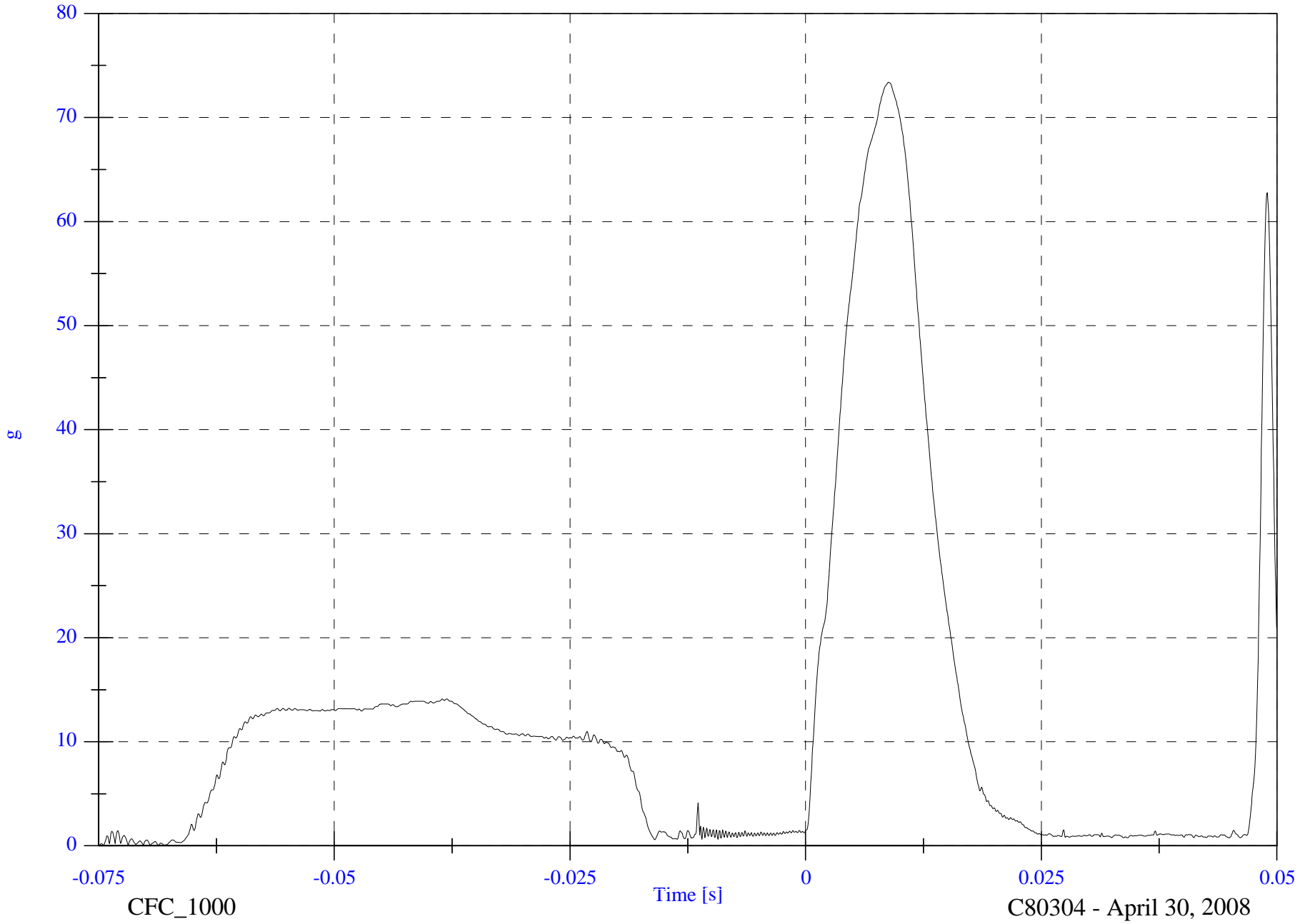
Headform Resultant

Max: 73.4 [g] at 0.009 [s]

Min: 0.0 [g] at -0.075 [s]

C80304 PASSENGER SIDE SR2A IMPACT PLOT #5

8851-07

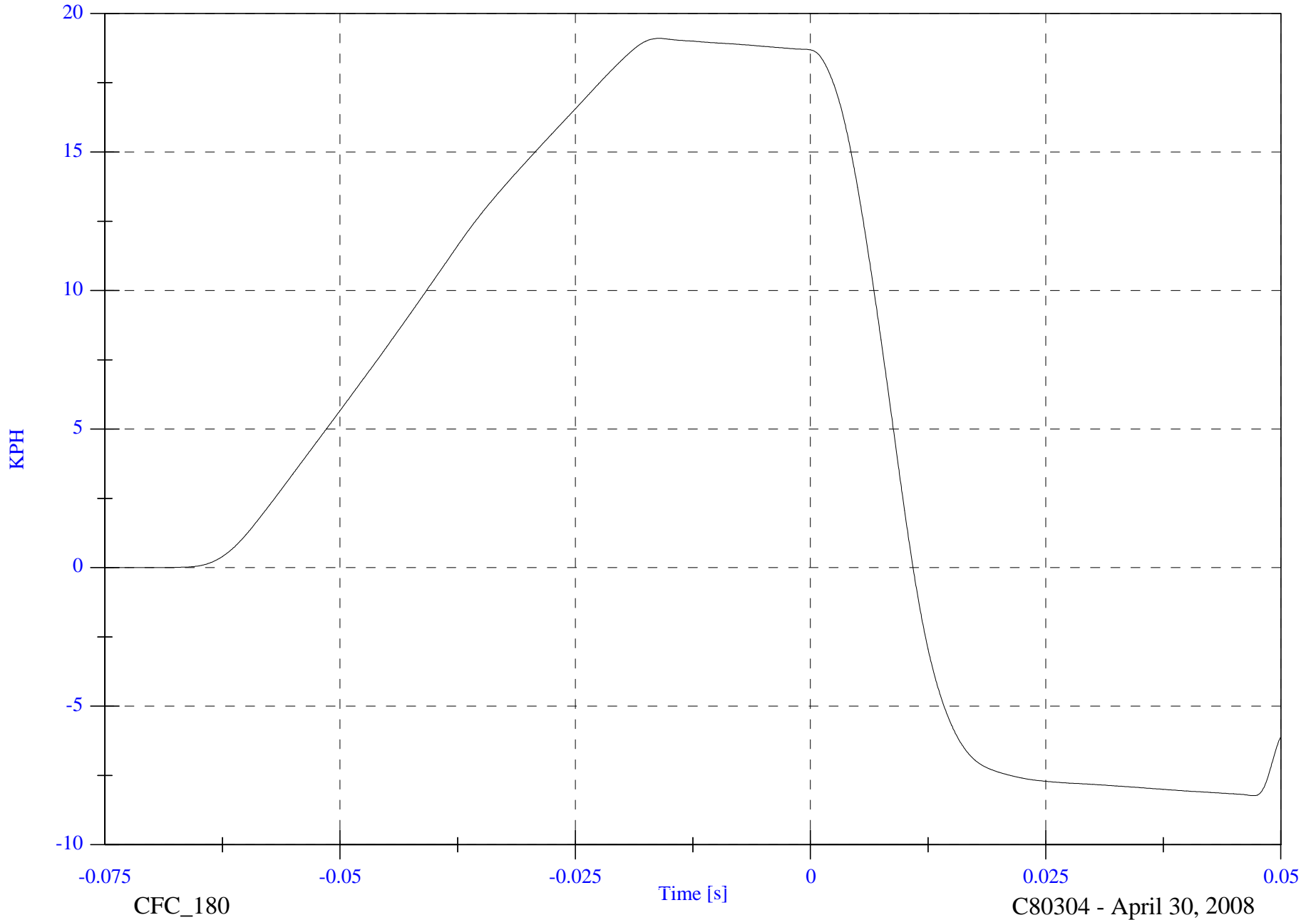


FMVSS 201U 2008 JEEP LIBERTY

Max: 19.1 [KPH] at -0.016 [s]

Min: -8.2 [KPH] at 0.047 [s]

Headform Velocity



C80304 PASSENGER SIDE SR2A IMPACT PLOT #6

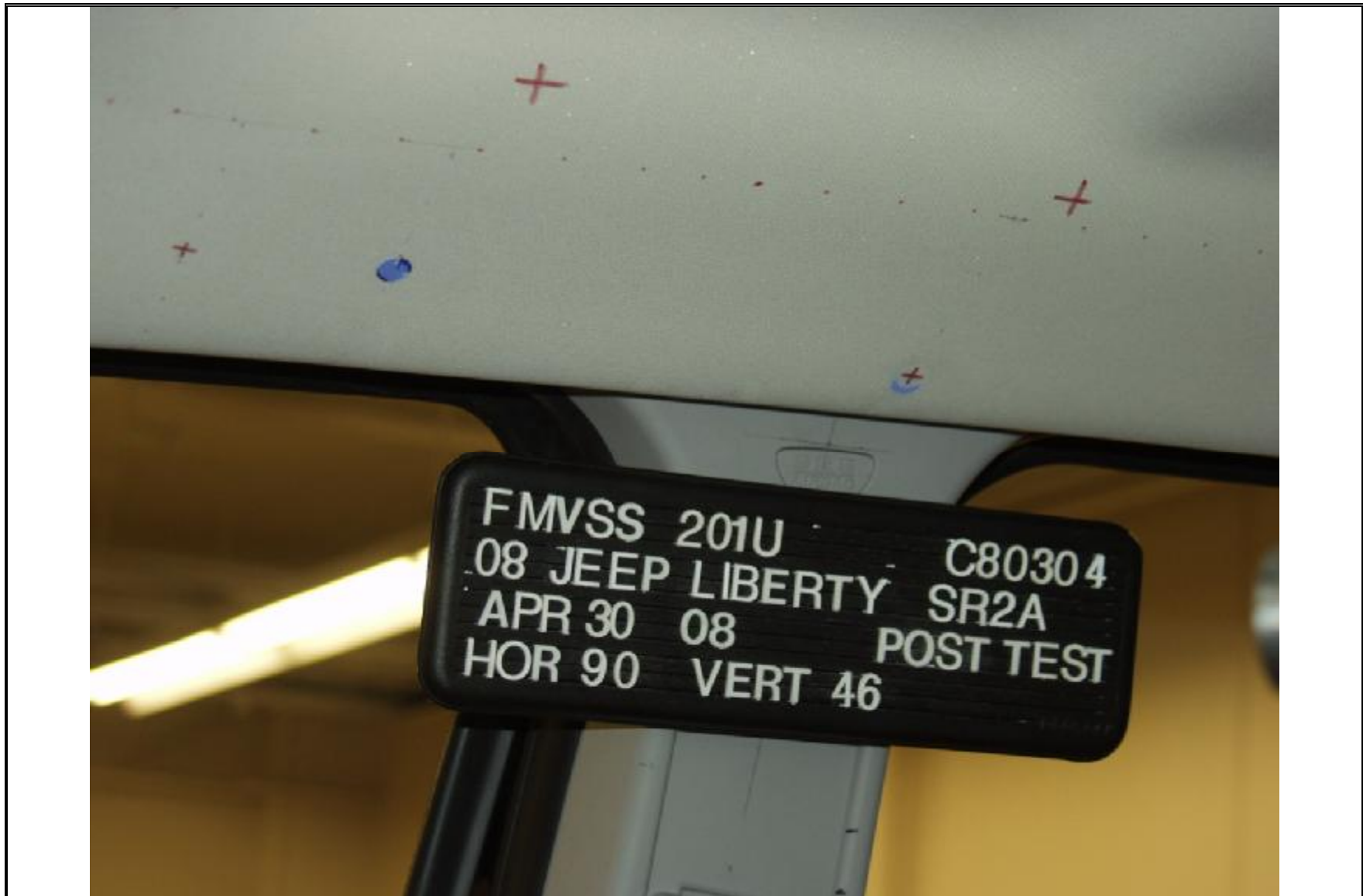
8851-07

CFC_180

C80304 - April 30, 2008



PRE-IMPACT SR2A



POST-IMPACT SR2A

VEHICLE YEAR/MAKE/MODEL/STYLE:	2008 Jeep Liberty Sport 4x4
VIN:	1J8GN28K18W119596
DATE OF MANUFACTURE:	08/07(SEE CERTIFICATION LABEL)
COLOR:	Black

Test Number:	07
Test Date:	04/30/08
Target Location:	A-PILLAR
Target Code:	AP3
Horizontal Impact Angle:	150°
Vertical Impact Angle:	31°
Ambient Temperature:	20.5° C
Relative Humidity:	21.3%
Time of Impact:	14:30
Headform Number:	1140

Impact Point Description (from lower midpoint on midsagittal line)			
On Centerline	7	mm right	x mm left
On Centerline	5	mm up	



POST-IMPACT AP3 HEADFORM

Free Motion HIC	218.7
HIC(d)	331.4
Impact Velocity (kph)	18.48
HIC T1 (msec)	2.2
HIC T2 (msec)	12.2

FMVSS 201U 2008 JEEP LIBERTY C80304 - AP3

FMH Headform 1140

Location: AP3

Test Date: April 30, 2008

Work File: AP3

-----TEST RESULTS-----

Lab Temperature: 20.5 C

HICd: 331.4

Lab Humidity: 21.3 %

HIC (36ms): 218.7

Velocity at Impact: 18.48 KPH

t1: 2.2 msec

t2: 12.2 msec

Free Flight Distance: 220.67 mm

Duration: 10.0 msec

Average Acceleration: 8.9 g

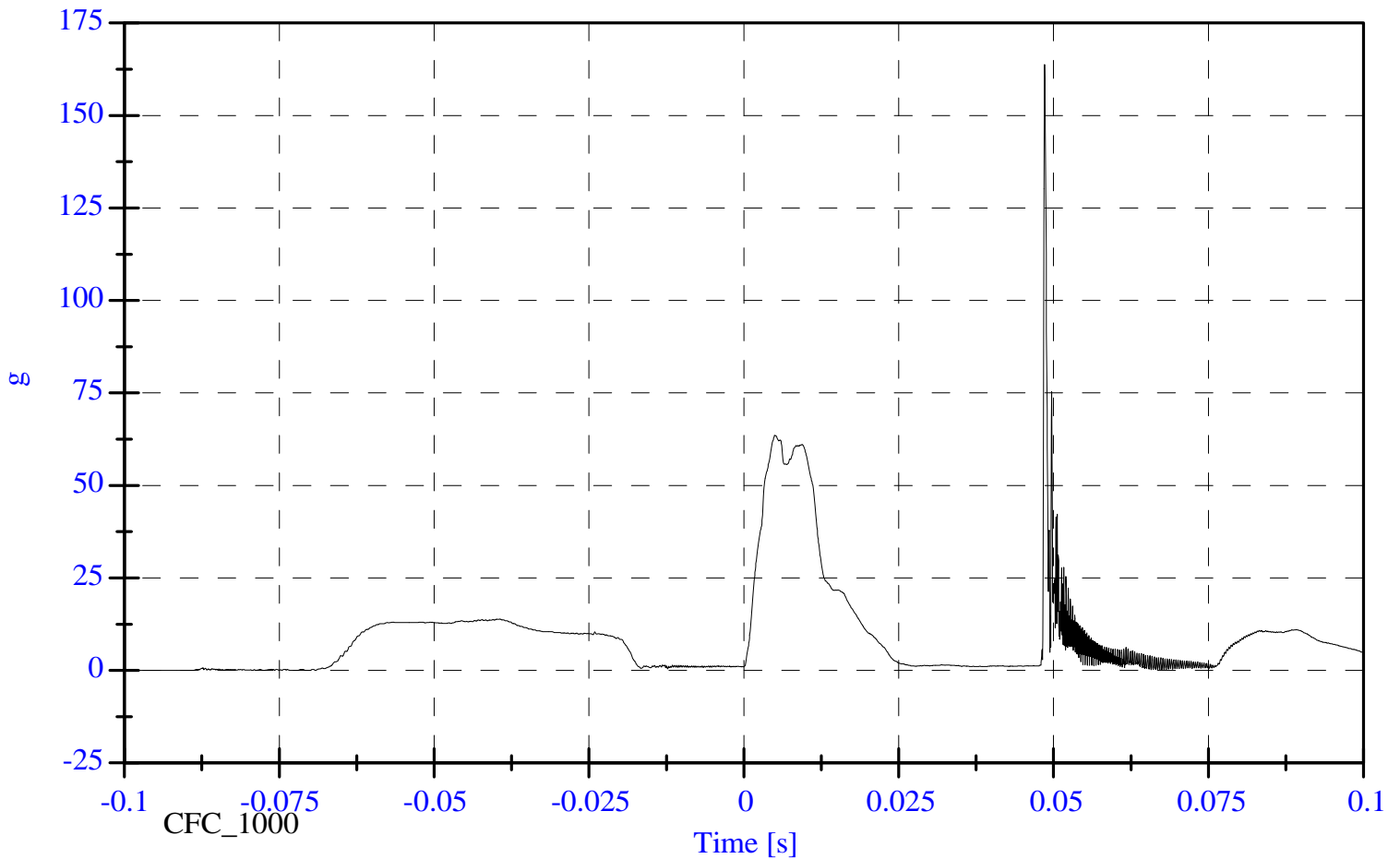
Maximum: 63.6 g

FMVSS 201U 2008 JEEP LIBERTY

Headform Resultant

Max: 63.6 [g] at 0.005 [s]

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

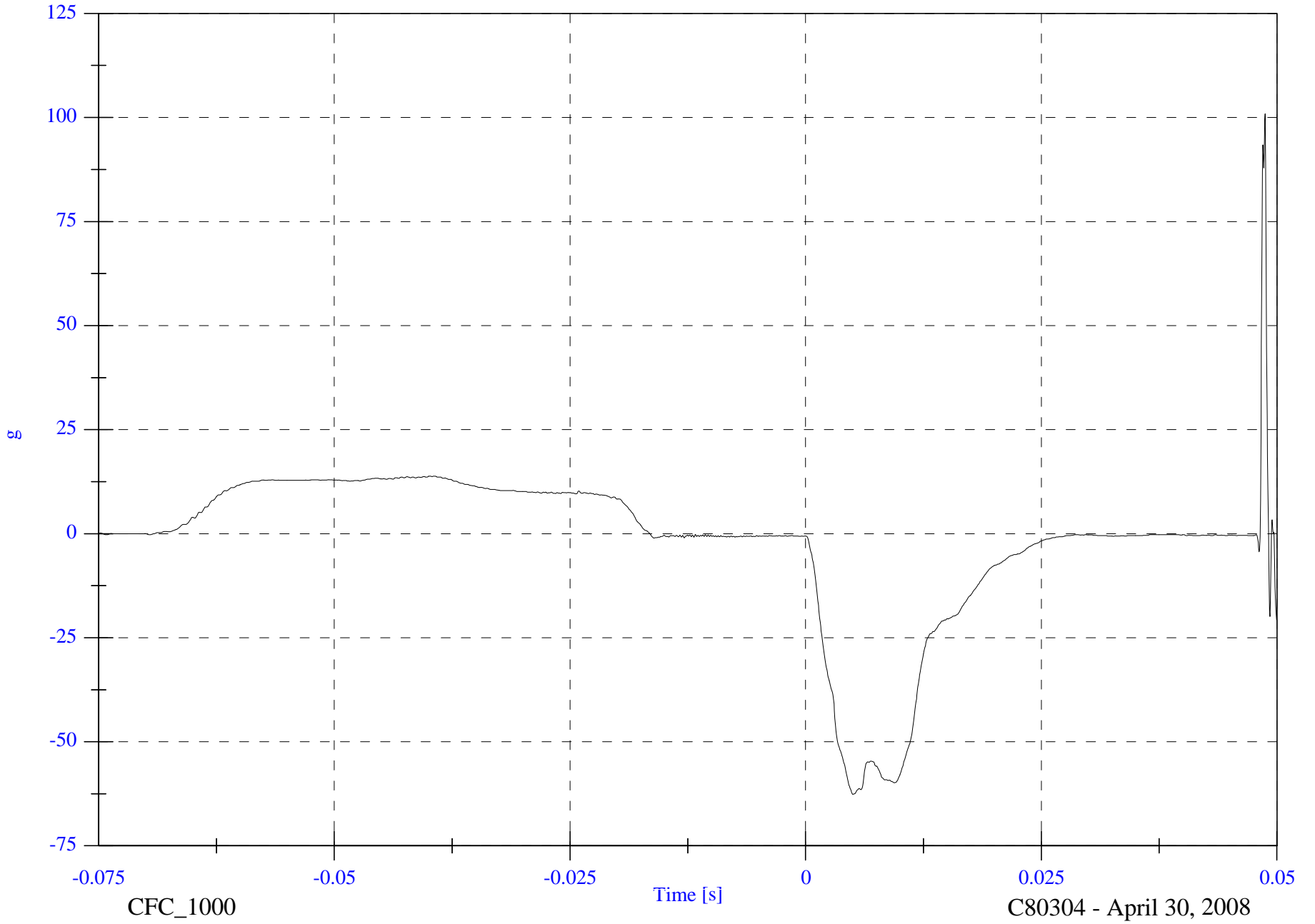


FMVSS 201U 2008 JEEP LIBERTY

Max: 100.9 [g] at 0.049 [s]

Min: -62.6 [g] at 0.005 [s]

Headform X Acceleration



C80304 PASSENGER SIDE AP3 IMPACT PLOT #2

8851-07

CFC_1000

C80304 - April 30, 2008

FMVSS 201U 2008 JEEP LIBERTY

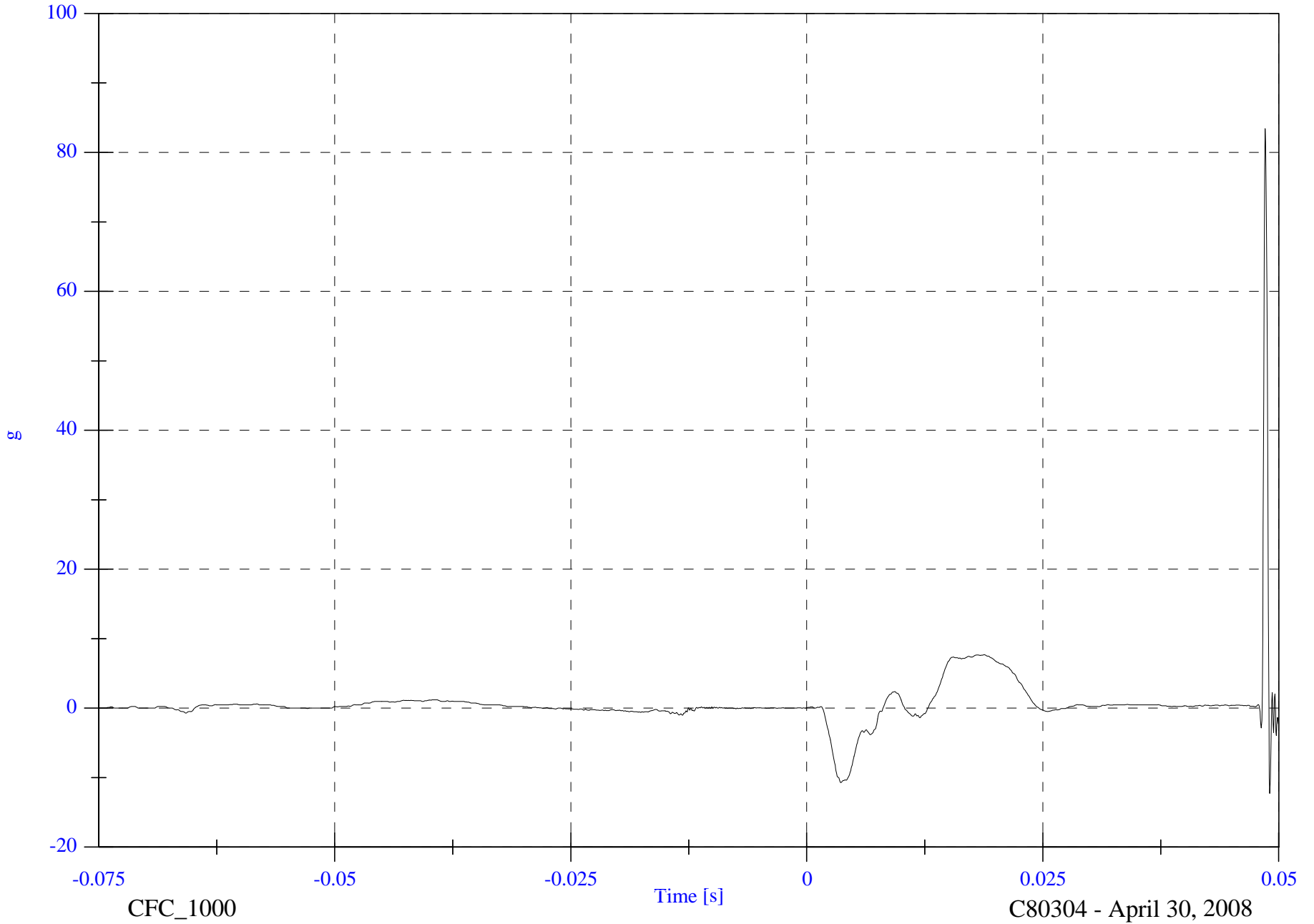
Max: 83.4 [g] at 0.049 [s]

Min: -12.3 [g] at 0.049 [s]

Headform Y Acceleration

C80304 PASSENGER SIDE AP3 IMPACT PLOT #3

8851-07



CFC_1000

C80304 - April 30, 2008

FMVSS 201U 2008 JEEP LIBERTY

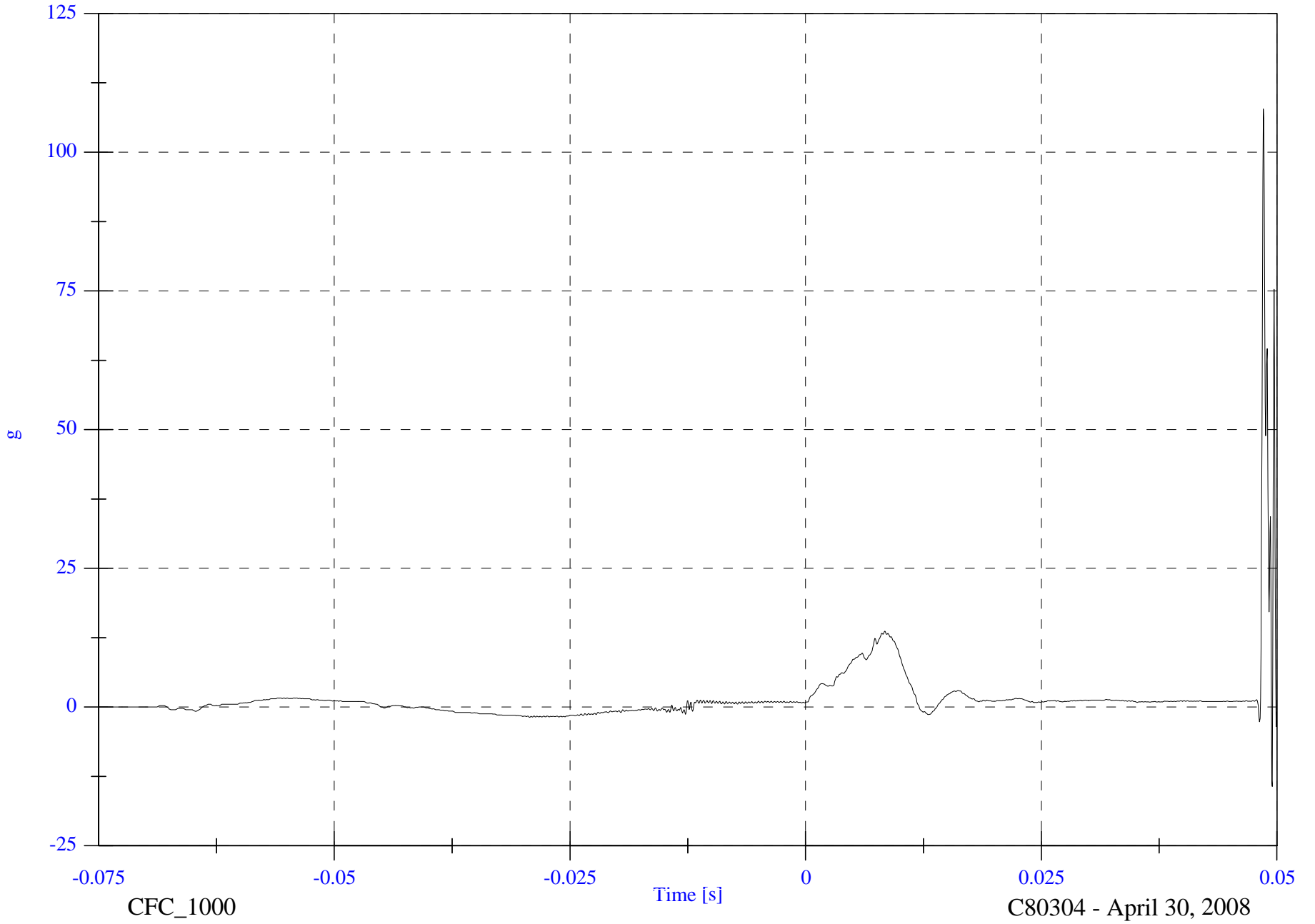
Max: 107.8 [g] at 0.049 [s]

Min: -14.3 [g] at 0.050 [s]

Headform Z Acceleration

C80304 PASSENGER SIDE AP3 IMPACT PLOT #4

8851-07



CFC_1000

C80304 - April 30, 2008

FMVSS 201U 2008 JEEP LIBERTY

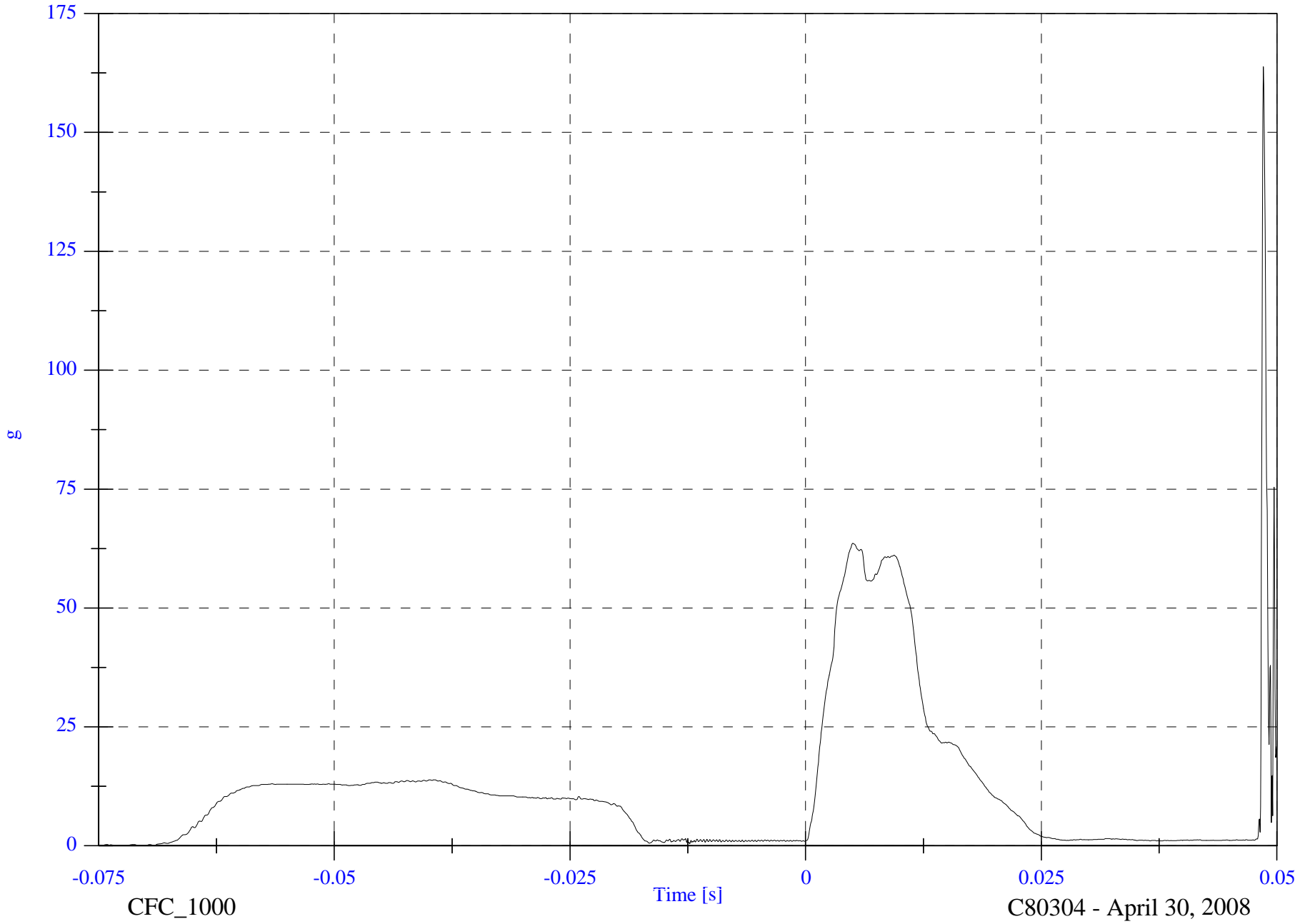
Headform Resultant

Max: 163.8 [g] at 0.049 [s]

Min: 0.0 [g] at -0.073 [s]

C80304 PASSENGER SIDE AP3 IMPACT PLOT #5

8851-07



CFC_1000

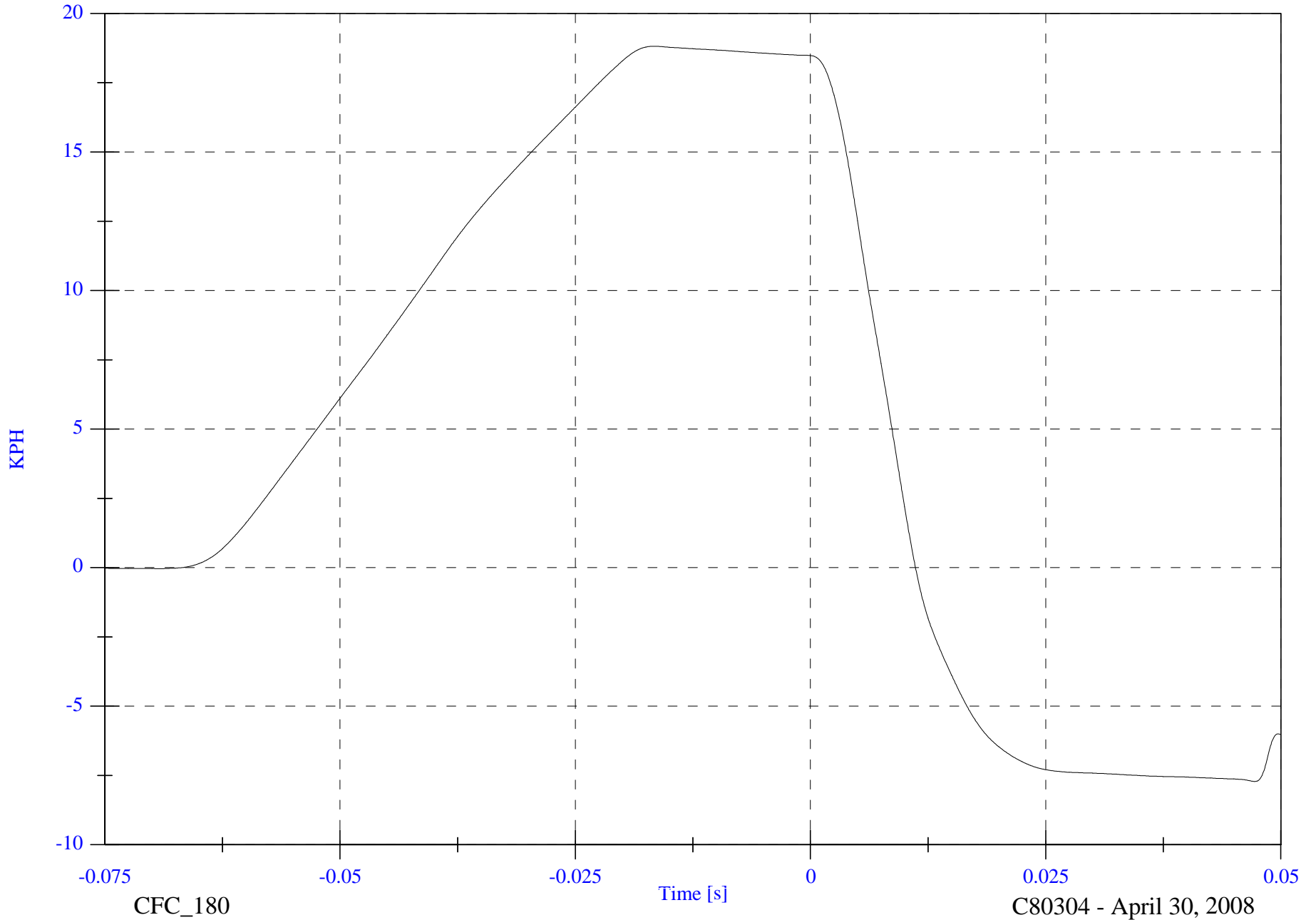
C80304 - April 30, 2008

FMVSS 201U 2008 JEEP LIBERTY

Max: 18.8 [KPH] at -0.017 [s]

Min: -7.7 [KPH] at 0.047 [s]

Headform Velocity



C80304 PASSENGER SIDE AP3 IMPACT PLOT #6

8851-07

CFC_180

C80304 - April 30, 2008



PRE-IMPACT AP3



POST-IMPACT AP3

VEHICLE YEAR/MAKE/MODEL/STYLE:	2008 Jeep Liberty Sport 4x4
VIN:	1J8GN28K18W119596
DATE OF MANUFACTURE:	08/07(SEE CERTIFICATION LABEL)
COLOR:	Black

Test Number:	08
Test Date:	04/30/08
Target Location:	A-PILLAR
Target Code:	AP1
Horizontal Impact Angle:	121°
Vertical Impact Angle:	27°
Ambient Temperature:	20.0° C
Relative Humidity:	21.1%
Time of Impact:	15:05
Headform Number:	355

Impact Point Description (from lower midpoint on midsagittal line)			
On Centerline	25	<input checked="" type="checkbox"/> mm right	<input type="checkbox"/> mm left
On Centerline	12	mm up	



POST-IMPACT AP1 HEADFORM

Free Motion HIC	212.3
HIC(d)	326.6
Impact Velocity (kph)	18.78
HIC T1 (msec)	3.7
HIC T2 (msec)	16.4

FMVSS 201U 2008 JEEP LIBERTY C80304 - AP1

FMH Headform 0355

Location: AP1

Test Date: April 30, 2008

Work File: AP1

-----TEST RESULTS-----

Lab Temperature: 20.0 C

HICd: 326.6

Lab Humidity: 21.1 %

HIC (36ms): 212.3

Velocity at Impact: 18.78 KPH

t1: 3.7 msec

t2: 16.4 msec

Free Flight Distance: 219.73 mm

Duration: 12.6 msec

Average Acceleration: 7.0 g

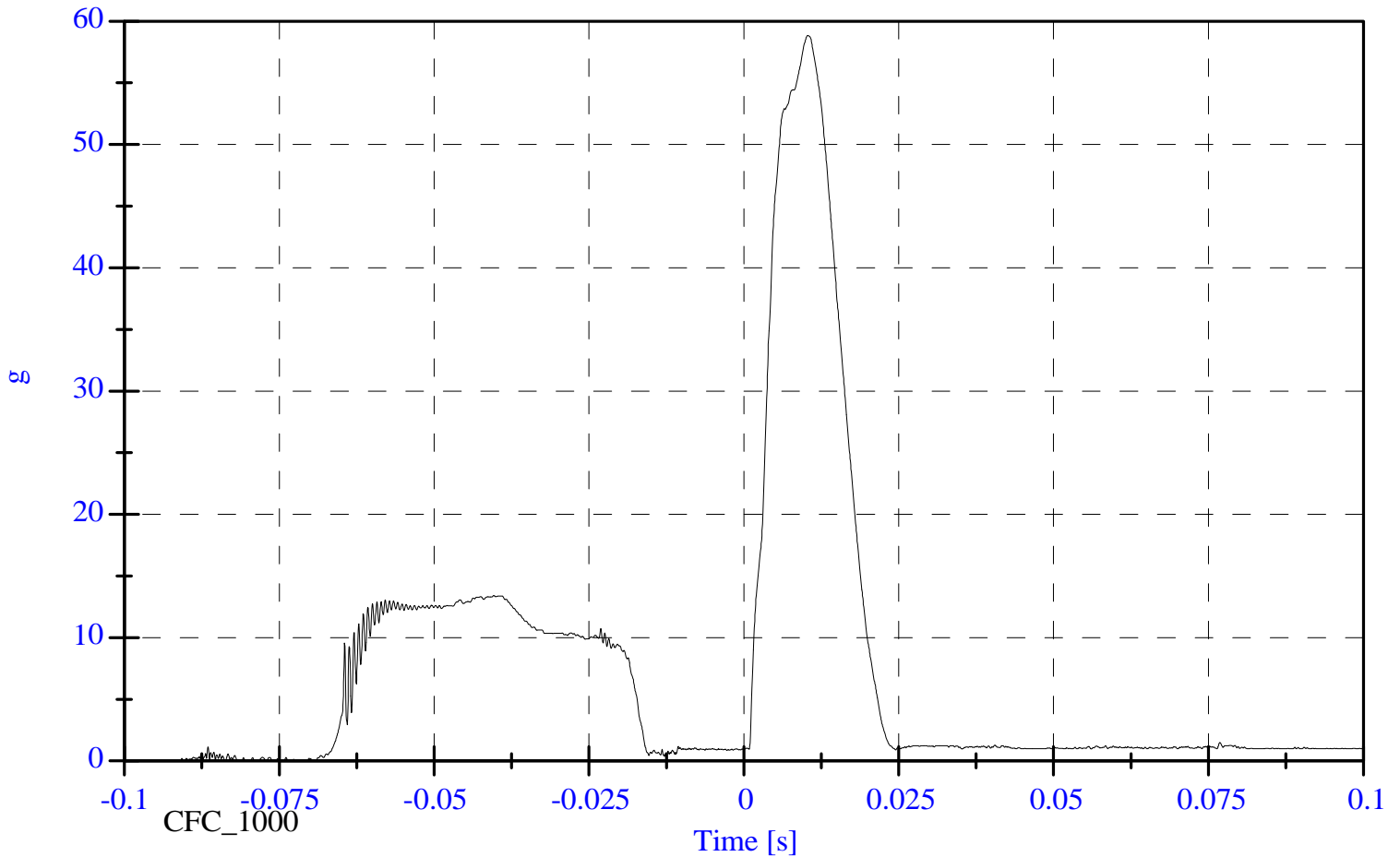
Maximum: 58.9 g

FMVSS 201U 2008 JEEP LIBERTY

Headform Resultant

Max: 58.9 [g] at 0.010 [s]

Min: 0.0 [g] at -0.078 [s]

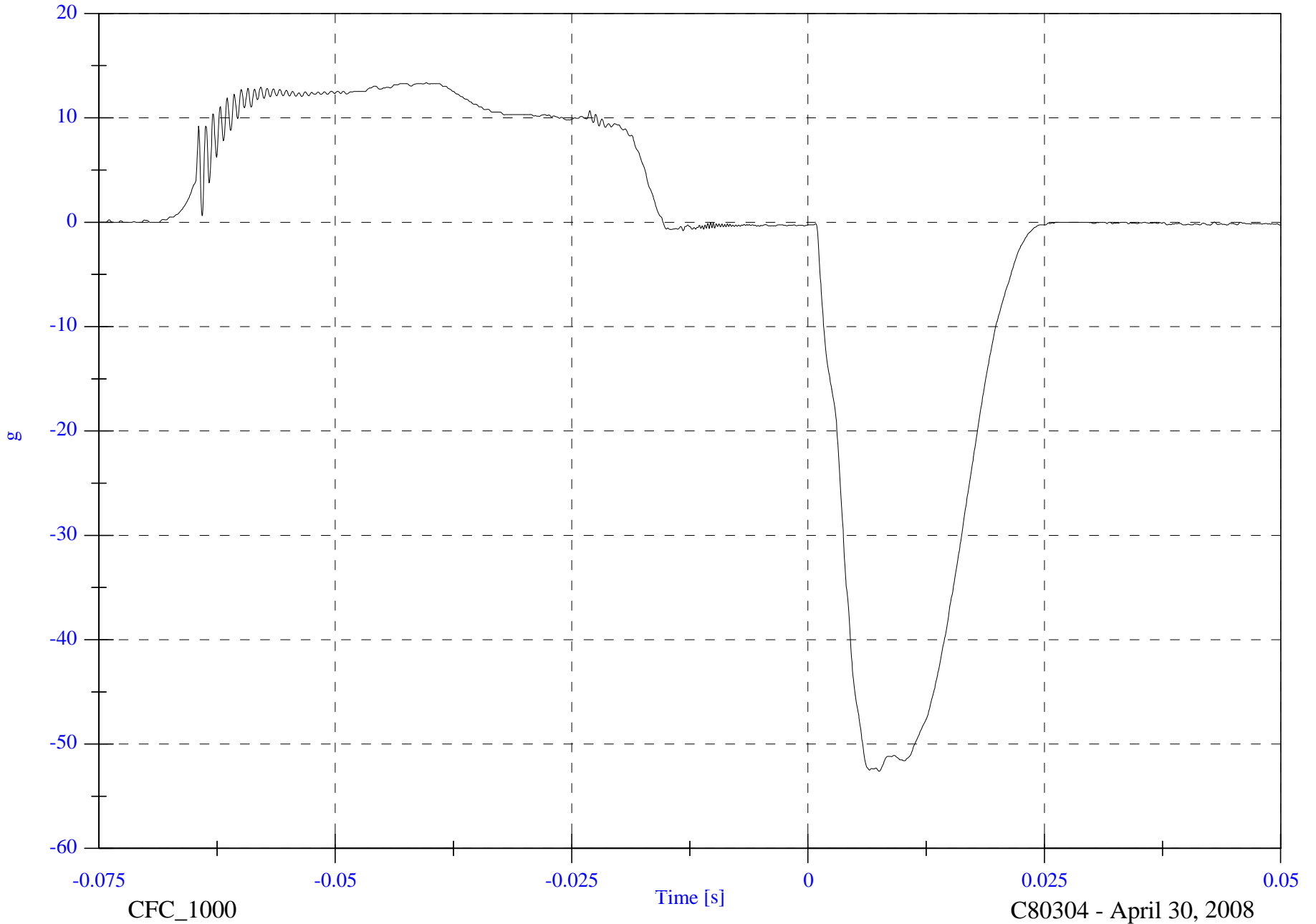


FMVSS 201U 2008 JEEP LIBERTY

Max: 13.4 [g] at -0.040 [s]

Min: -52.6 [g] at 0.008 [s]

Headform X Acceleration



C80304 PASSENGER SIDE AP1 IMPACT PLOT #2

8851-07

CFC_1000

C80304 - April 30, 2008

FMVSS 201U 2008 JEEP LIBERTY

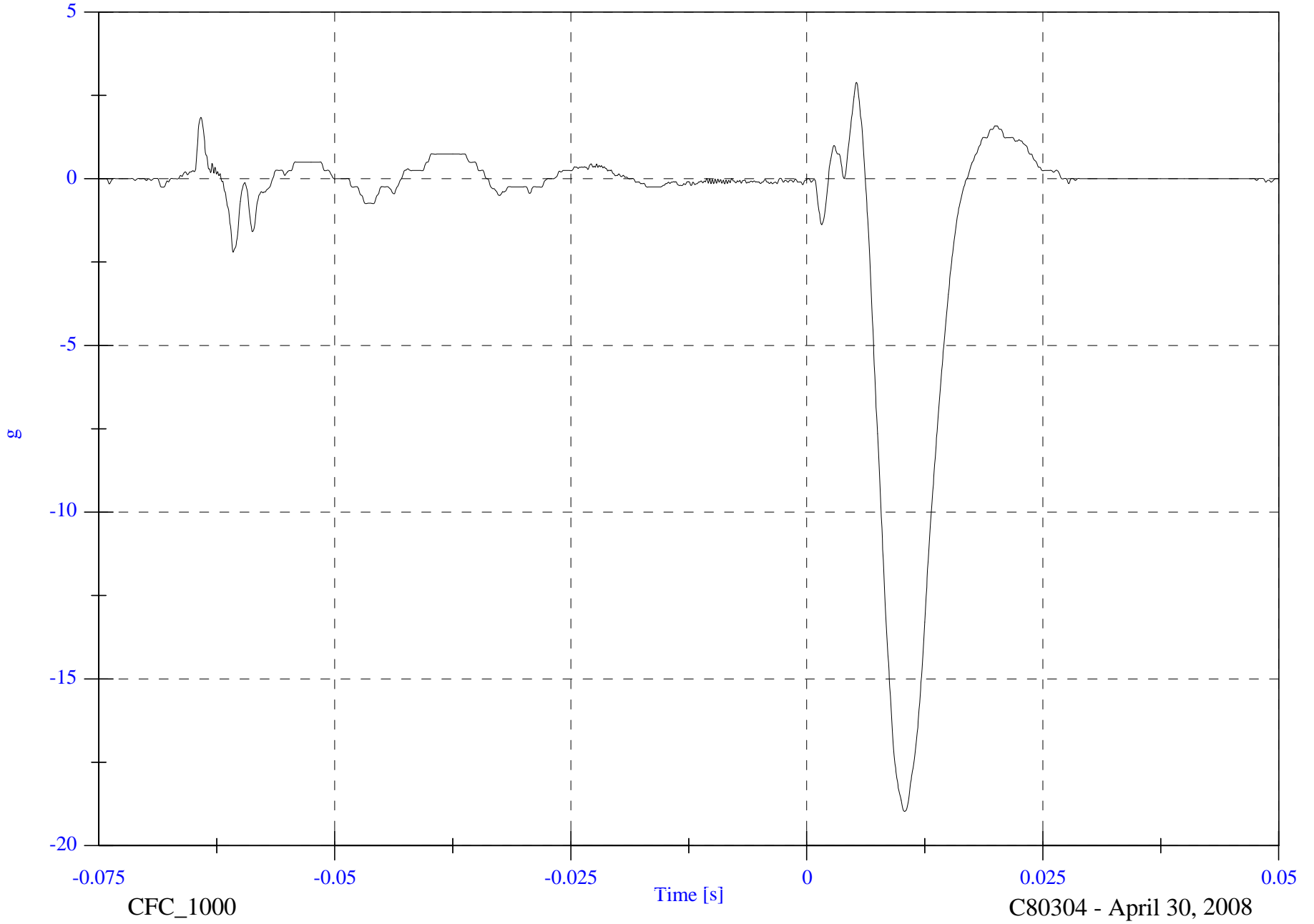
Max: 2.9 [g] at 0.005 [s]

Min: -19.0 [g] at 0.010 [s]

Headform Y Acceleration

C80304 PASSENGER SIDE AP1 IMPACT PLOT #3

8851-07



CFC_1000

C80304 - April 30, 2008

FMVSS 201U 2008 JEEP LIBERTY

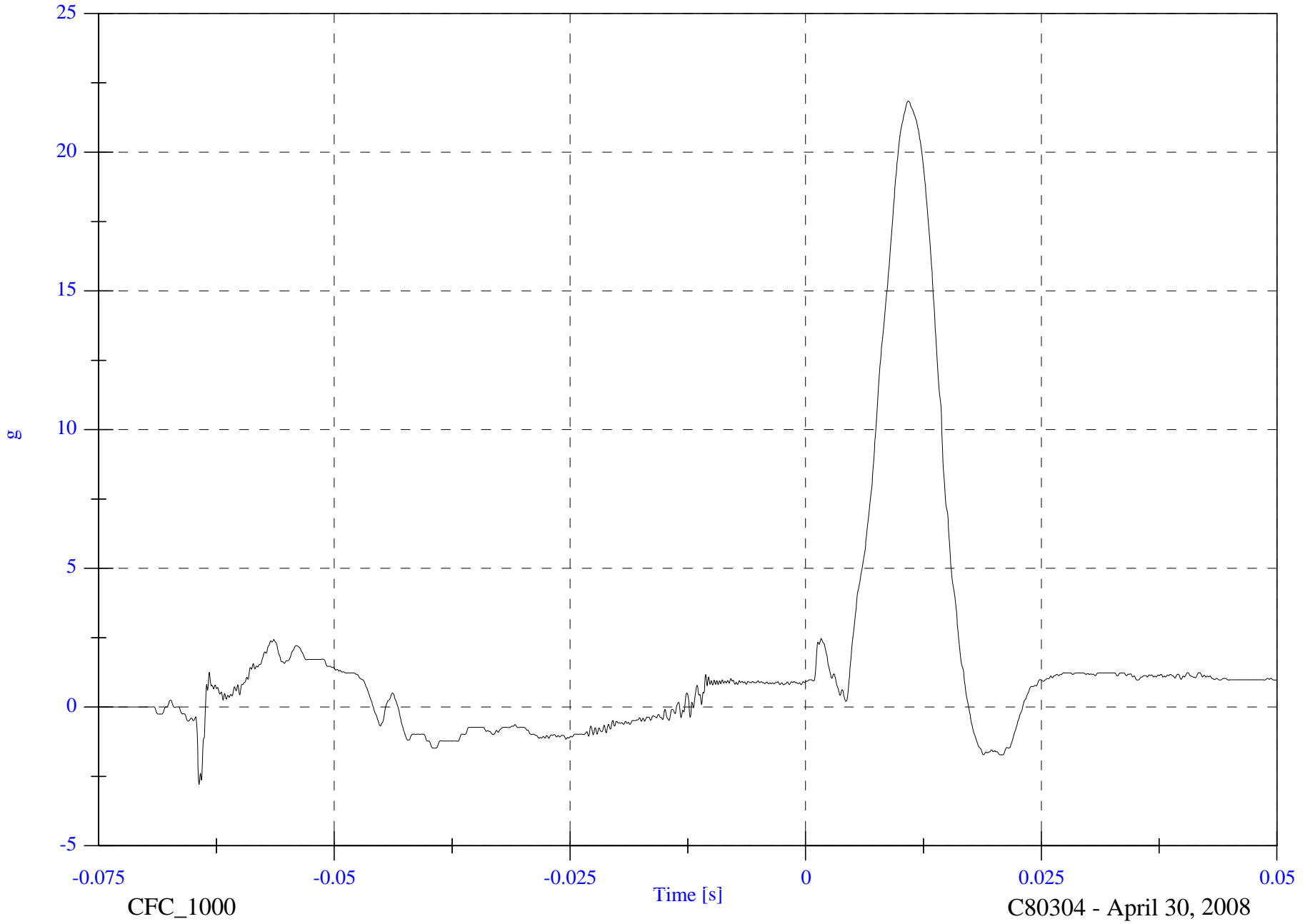
Headform Z Acceleration

Max: 21.8 [g] at 0.011 [s]

Min: -2.8 [g] at -0.064 [s]

C80304 PASSENGER SIDE AP1 IMPACT PLOT #4

8851-07



CFC_1000

C80304 - April 30, 2008

FMVSS 201U 2008 JEEP LIBERTY

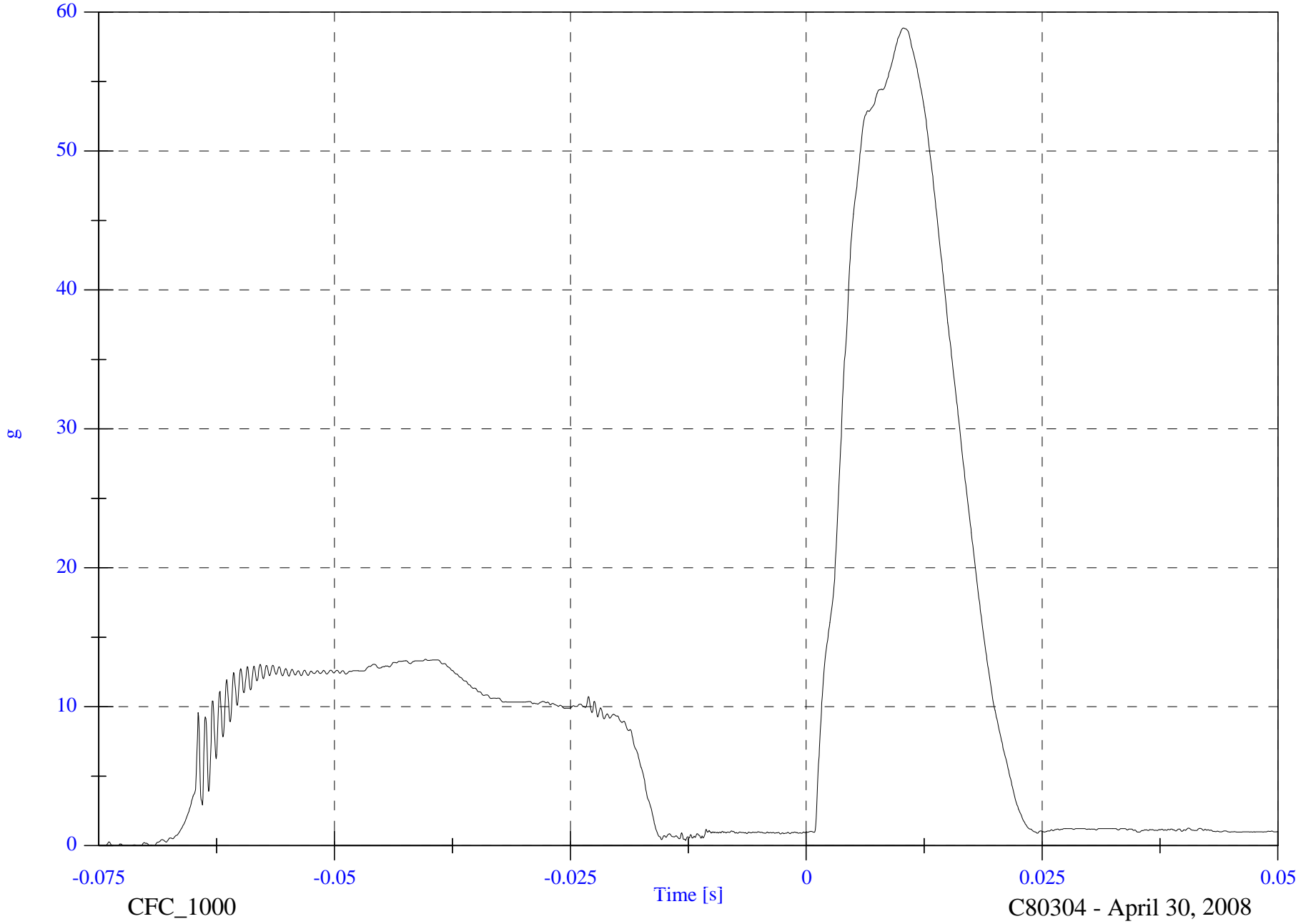
Headform Resultant

Max: 58.9 [g] at 0.010 [s]

Min: 0.0 [g] at -0.073 [s]

C80304 PASSENGER SIDE AP1 IMPACT PLOT #5

8851-07

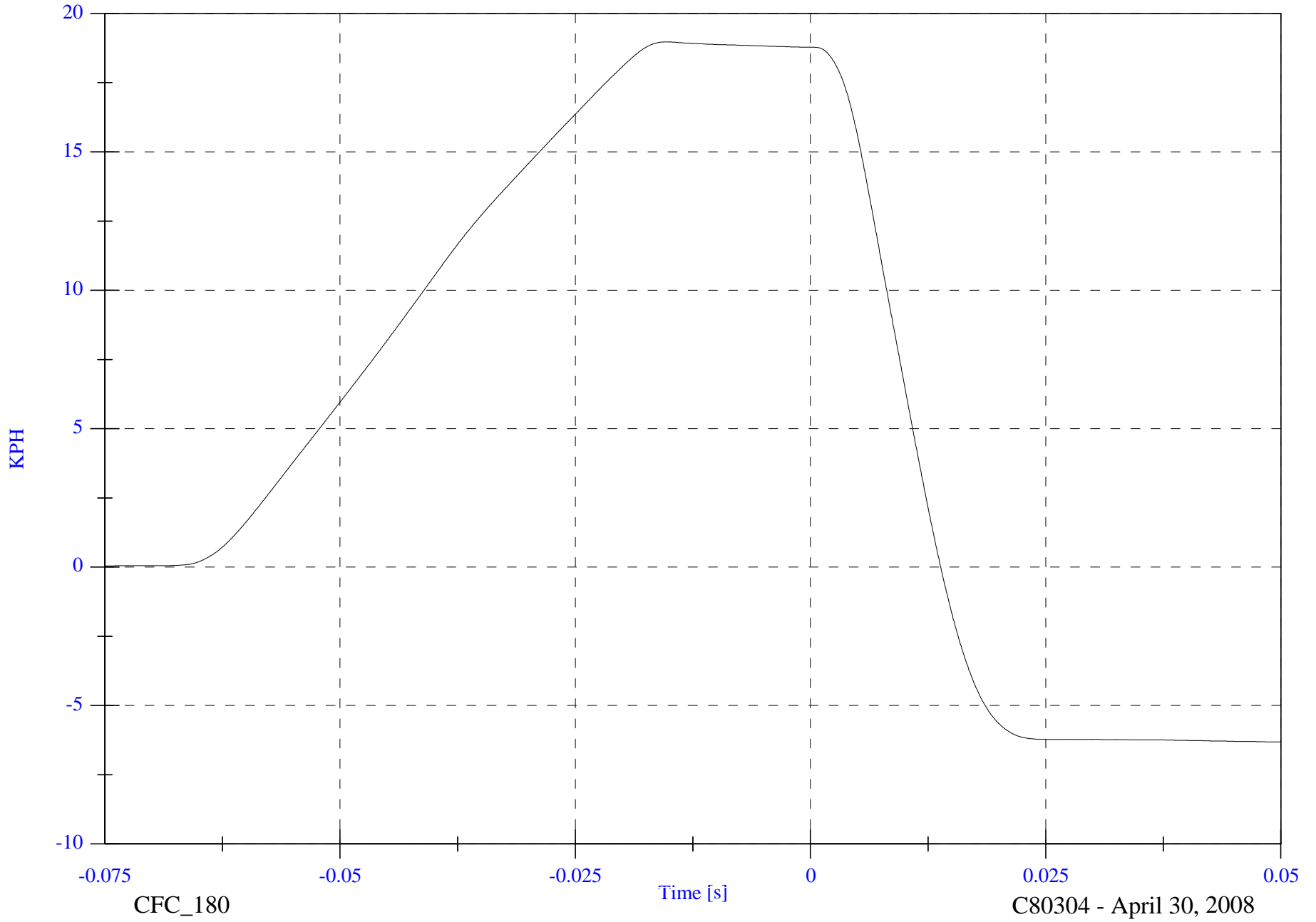


FMVSS 201U 2008 JEEP LIBERTY

Max: 19.0 [KPH] at -0.015 [s]

Min: -6.3 [KPH] at 0.050 [s]

Headform Velocity



C80304 PASSENGER SIDE AP1 IMPACT PLOT #6

8851-07

CFC_180

C80304 - April 30, 2008



PRE-IMPACT AP1 (Placard mislabeled : Vertical is 27 degrees)



POST-IMPACT API

VEHICLE YEAR/MAKE/MODEL/STYLE:	2008 Jeep Liberty Sport 4x4
VIN:	1J8GN28K18W119596
DATE OF MANUFACTURE:	08/07(SEE CERTIFICATION LABEL)
COLOR:	Black

Test Number:	09
Test Date:	04/30/08
Target Location:	UPPER ROOF
Target Code:	URAP
Horizontal Impact Angle:	117°
Vertical Impact Angle:	36°
Ambient Temperature:	20.0° C
Relative Humidity:	20.8%
Time of Impact:	15:40
Headform Number:	0805

Impact Point Description (from lower midpoint on midsagittal line)			
On Centerline	2	mm right	x mm left
On Centerline	11	mm up	



POST-IMPACT URAP HEADFORM

Free Motion HIC	532.8
HIC(d)	568.4
Impact Velocity (kph)	23.75
HIC T1 (msec)	2.1
HIC T2 (msec)	13.4

FMVSS 201U 2008 JEEP LIBERTY C80304 - URAP

FMH Headform 0805

Location: URAP

Test Date: April 30, 2008

Work File: URAP

-----TEST RESULTS-----

Lab Temperature: 20.0 C

HICd: 568.4

Lab Humidity: 20.8 %

HIC (36ms): 532.8

Velocity at Impact: 23.75 KPH

t1: 2.1 msec

t2: 13.4 msec

Free Flight Distance: 216.82 mm

Duration: 11.2 msec

Average Acceleration: 9.0 g

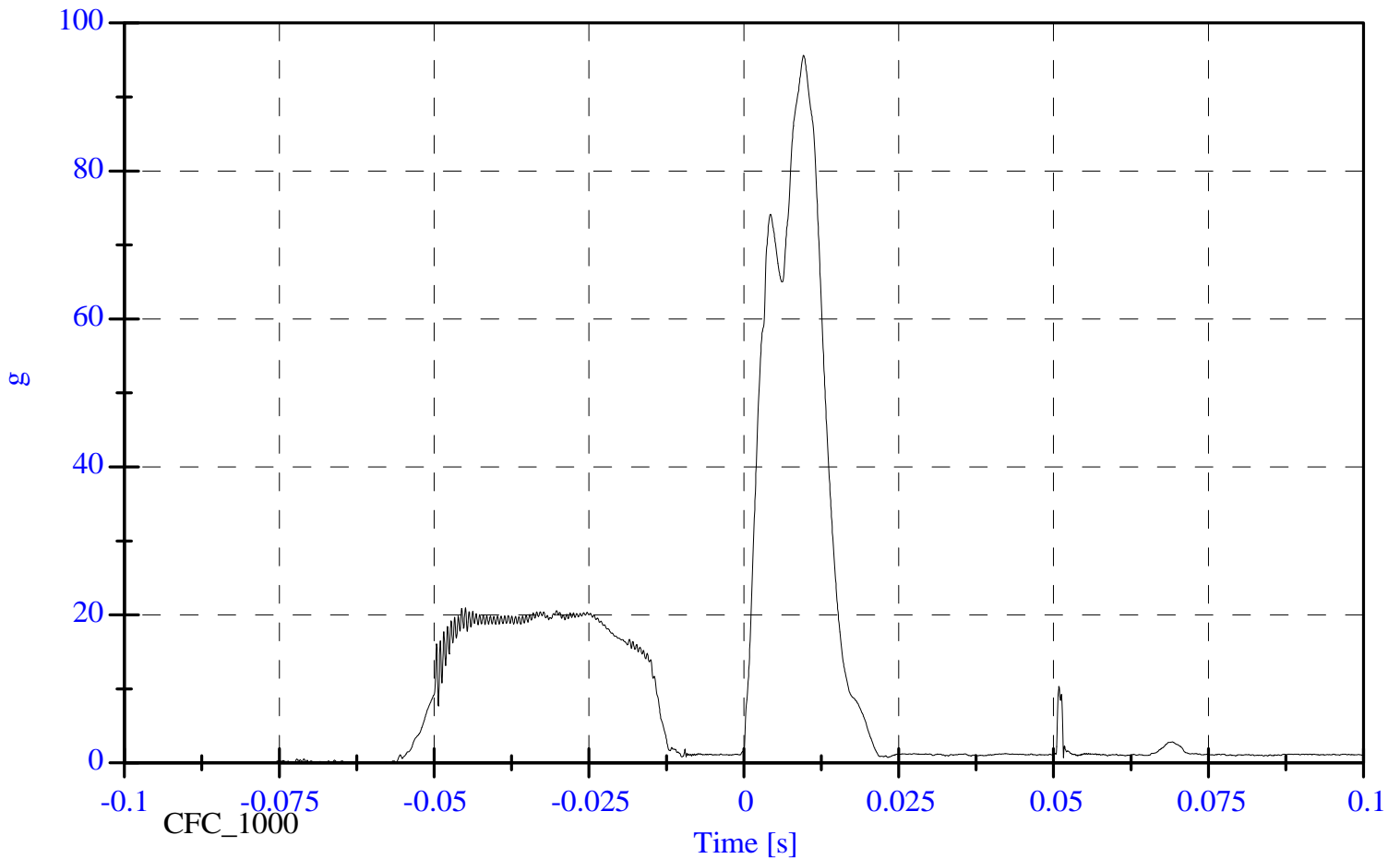
Maximum: 95.7 g

FMVSS 201U 2008 JEEP LIBERTY

Headform Resultant

Max: 95.7 [g] at 0.010 [s]

Min: 0.0 [g] at -0.087 [s]

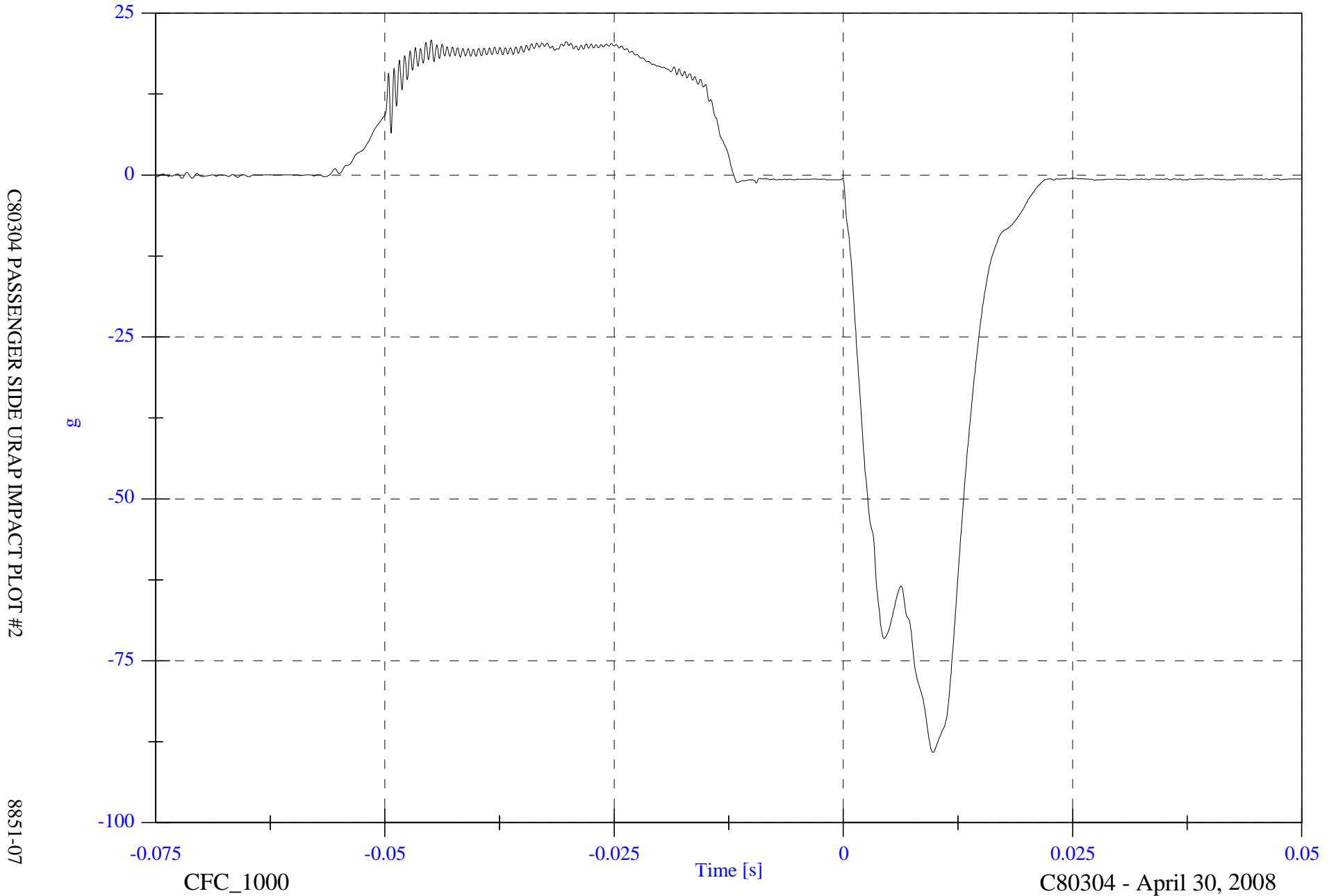


FMVSS 201U 2008 JEEP LIBERTY

Max: 20.9 [g] at -0.045 [s]

Min: -89.1 [g] at 0.010 [s]

Headform X Acceleration



C80304 PASSENGER SIDE URAP IMPACT PLOT #2

8851-07

CFC_1000

Time [s]

C80304 - April 30, 2008

FMVSS 201U 2008 JEEP LIBERTY

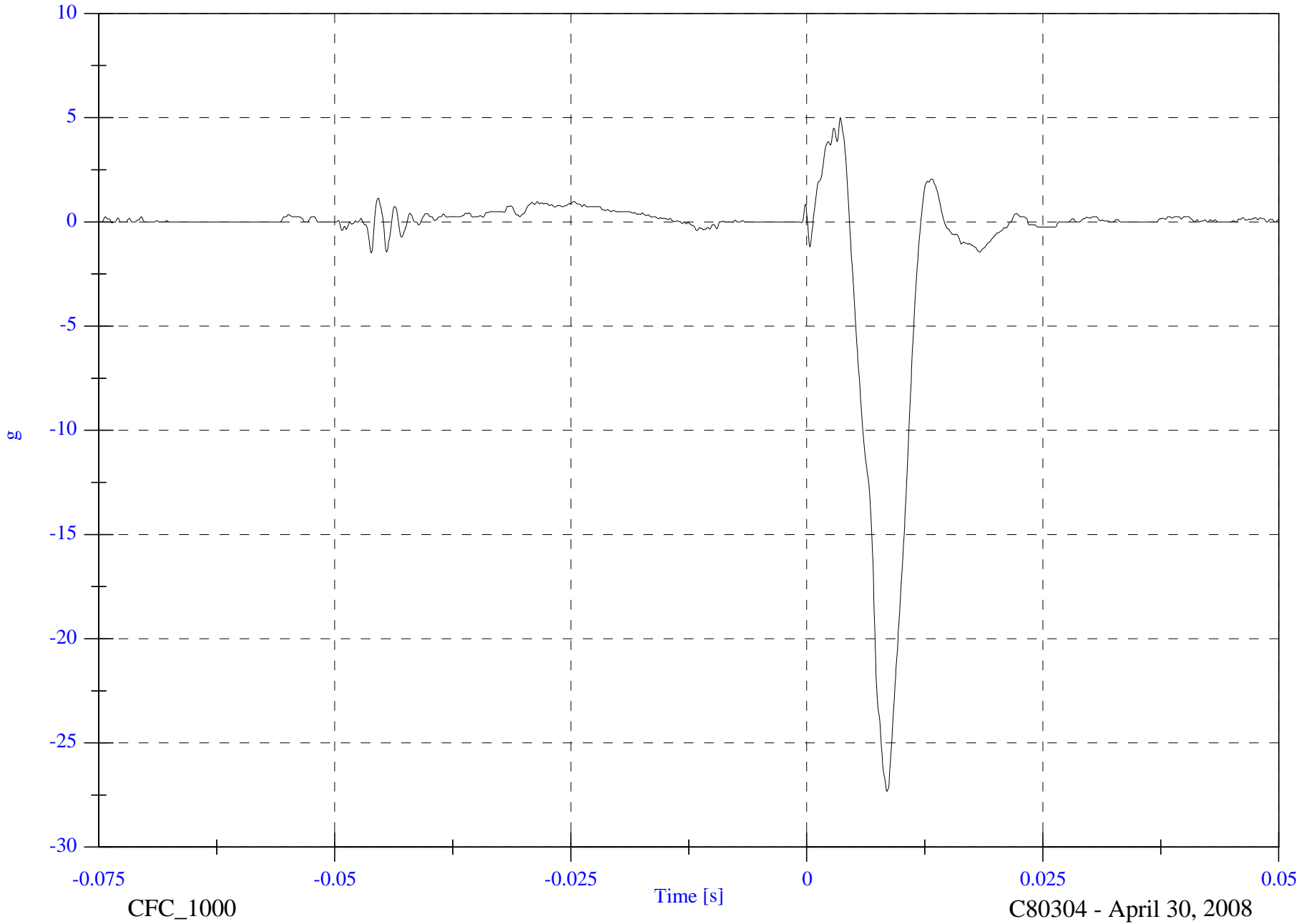
Headform Y Acceleration

Max: 5.0 [g] at 0.004 [s]

Min: -27.3 [g] at 0.009 [s]

C80304 PASSENGER SIDE URAP IMPACT PLOT #3

8851-07



CFC_1000

C80304 - April 30, 2008

FMVSS 201U 2008 JEEP LIBERTY

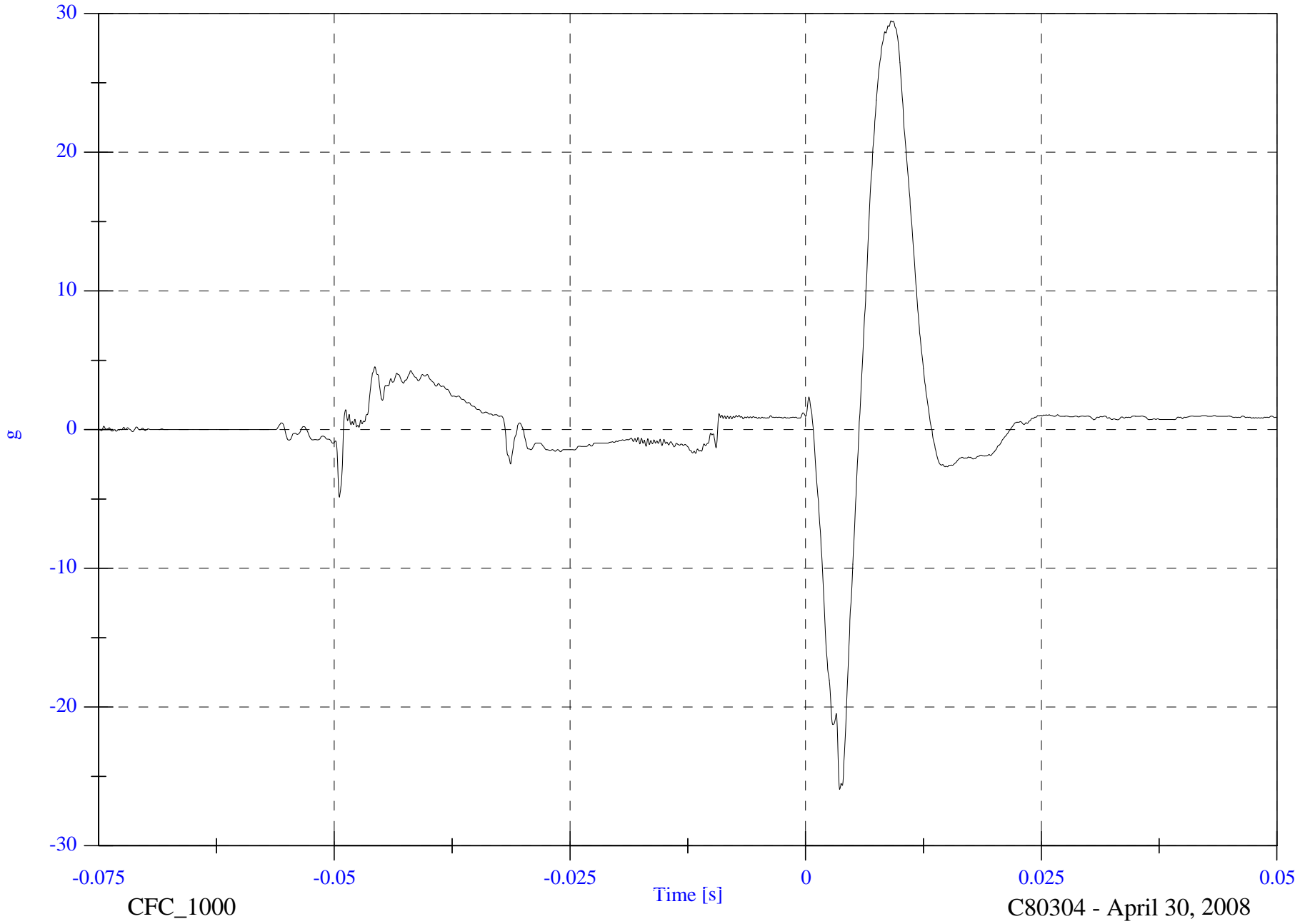
Headform Z Acceleration

Max: 29.5 [g] at 0.009 [s]

Min: -25.9 [g] at 0.004 [s]

C80304 PASSENGER SIDE URAP IMPACT PLOT #4

8851-07



CFC_1000

Time [s]

C80304 - April 30, 2008

FMVSS 201U 2008 JEEP LIBERTY

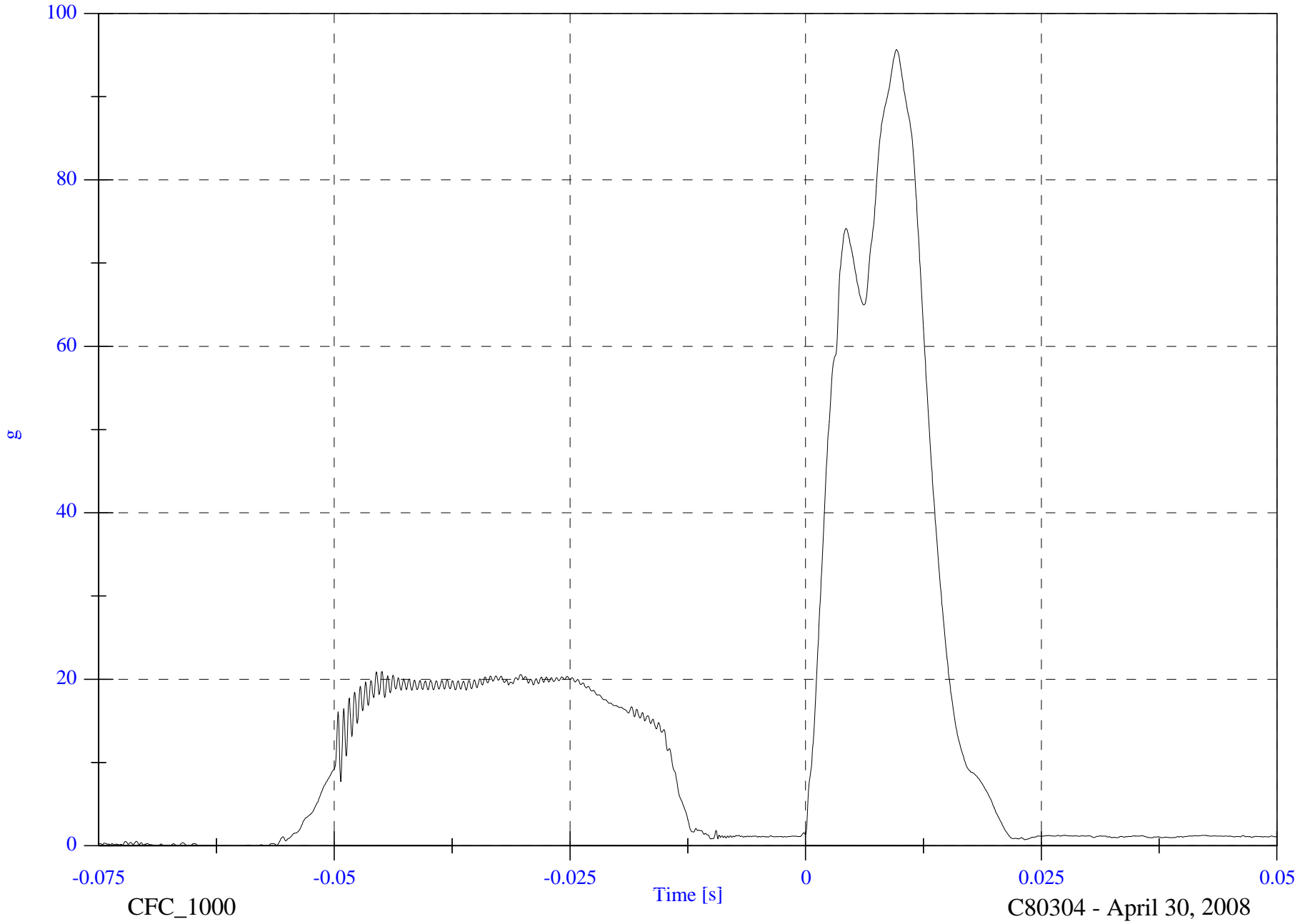
Headform Resultant

Max: 95.7 [g] at 0.010 [s]

Min: 0.0 [g] at -0.058 [s]

C80304 PASSENGER SIDE URAP IMPACT PLOT #5

8851-07

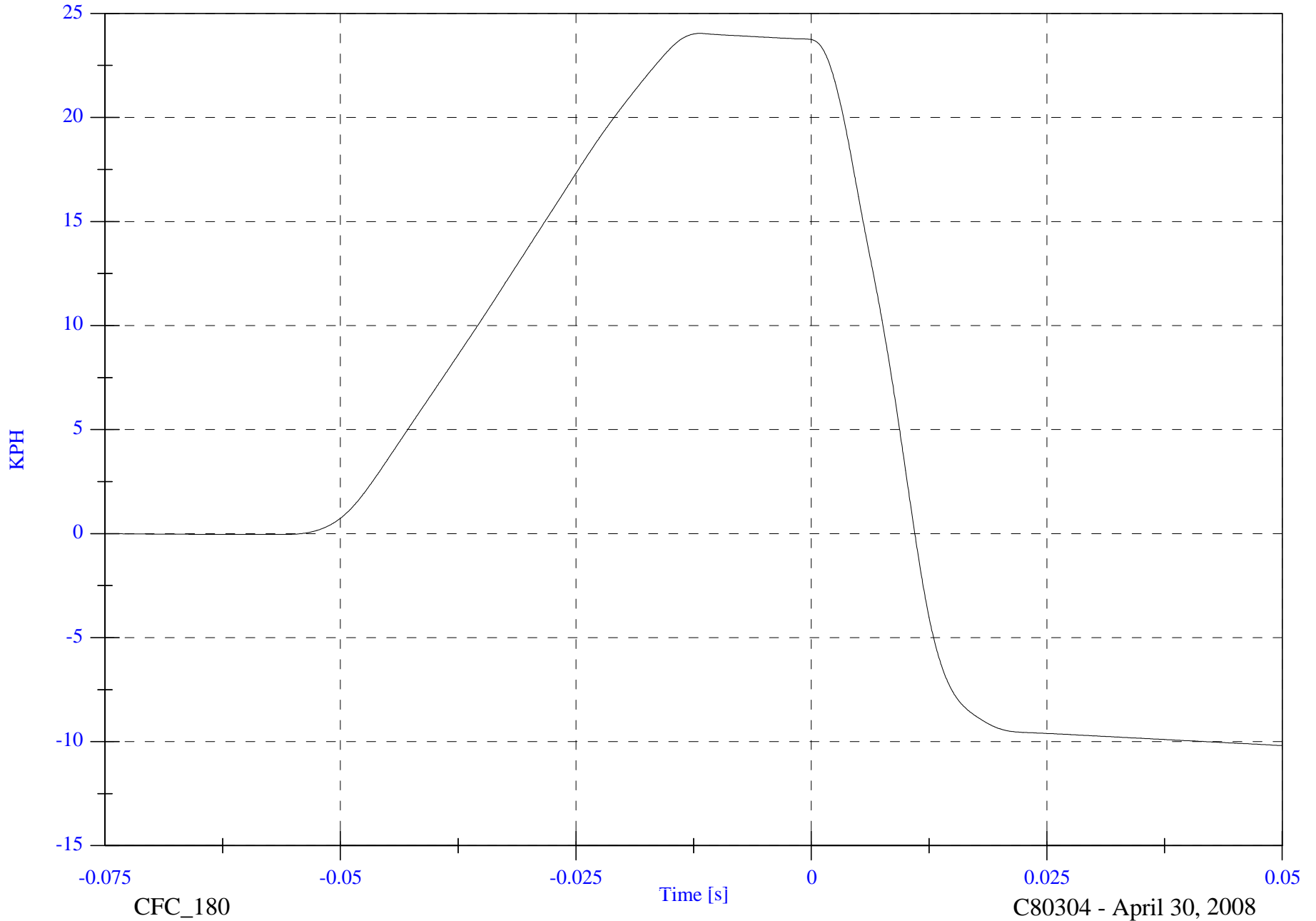


FMVSS 201U 2008 JEEP LIBERTY

Max: 24.0 [KPH] at -0.012 [s]

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

Headform Velocity



C80304 PASSENGER SIDE URAP IMPACT PLOT #6

8851-07

CFC_180

C80304 - April 30, 2008



PRE-IMPACT URAP

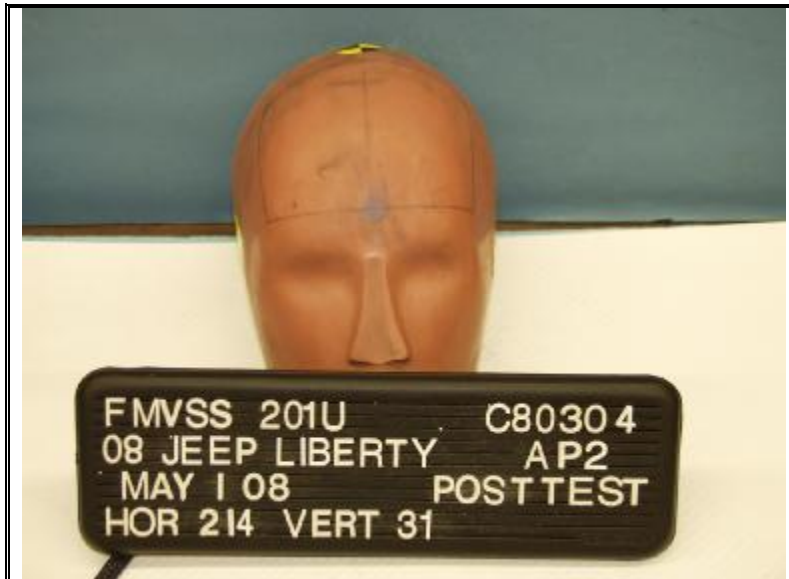
FMVSS 201U C80304
08 JEEP LIBERTY URAP
APR 30 08 POST TEST
HOR 117 VERT 36

POST-IMPACT URAP

VEHICLE YEAR/MAKE/MODEL/STYLE:	2008 Jeep Liberty Sport 4x4
VIN:	1J8GN28K18W119596
DATE OF MANUFACTURE:	08/07(SEE CERTIFICATION LABEL)
COLOR:	Black

Test Number:	10
Test Date:	05/01/08
Target Location:	A-PILLAR
Target Code:	AP2
Horizontal Impact Angle:	214°
Vertical Impact Angle:	31°
Ambient Temperature:	20.0° C
Relative Humidity:	19.7%
Time of Impact:	9:00
Headform Number:	0805

Impact Point Description (from lower midpoint on midsagittal line)					
On Centerline	0	<input type="checkbox"/>	mm right	<input type="checkbox"/>	mm left
On Centerline	3				mm up



POST-IMPACT AP2 HEADFORM

Free Motion HIC	468.8
HIC(d)	520.1
Impact Velocity (kph)	18.63
HIC T1 (msec)	2.2
HIC T2 (msec)	9.8

FMVSS 201U 2008 JEEP LIBERTY C80304 - AP2

FMH Headform 0805

Location: AP2

Test Date: May 01, 2008

Work File: AP2

-----TEST RESULTS-----

Lab Temperature: 20.0 C

HICd: 520.1

Lab Humidity: 19.7 %

HIC (36ms): 468.8

Velocity at Impact: 18.63 KPH

t1: 2.2 msec

t2: 9.8 msec

Free Flight Distance: 219.20 mm

Duration: 7.5 msec

Average Acceleration: 8.7 g

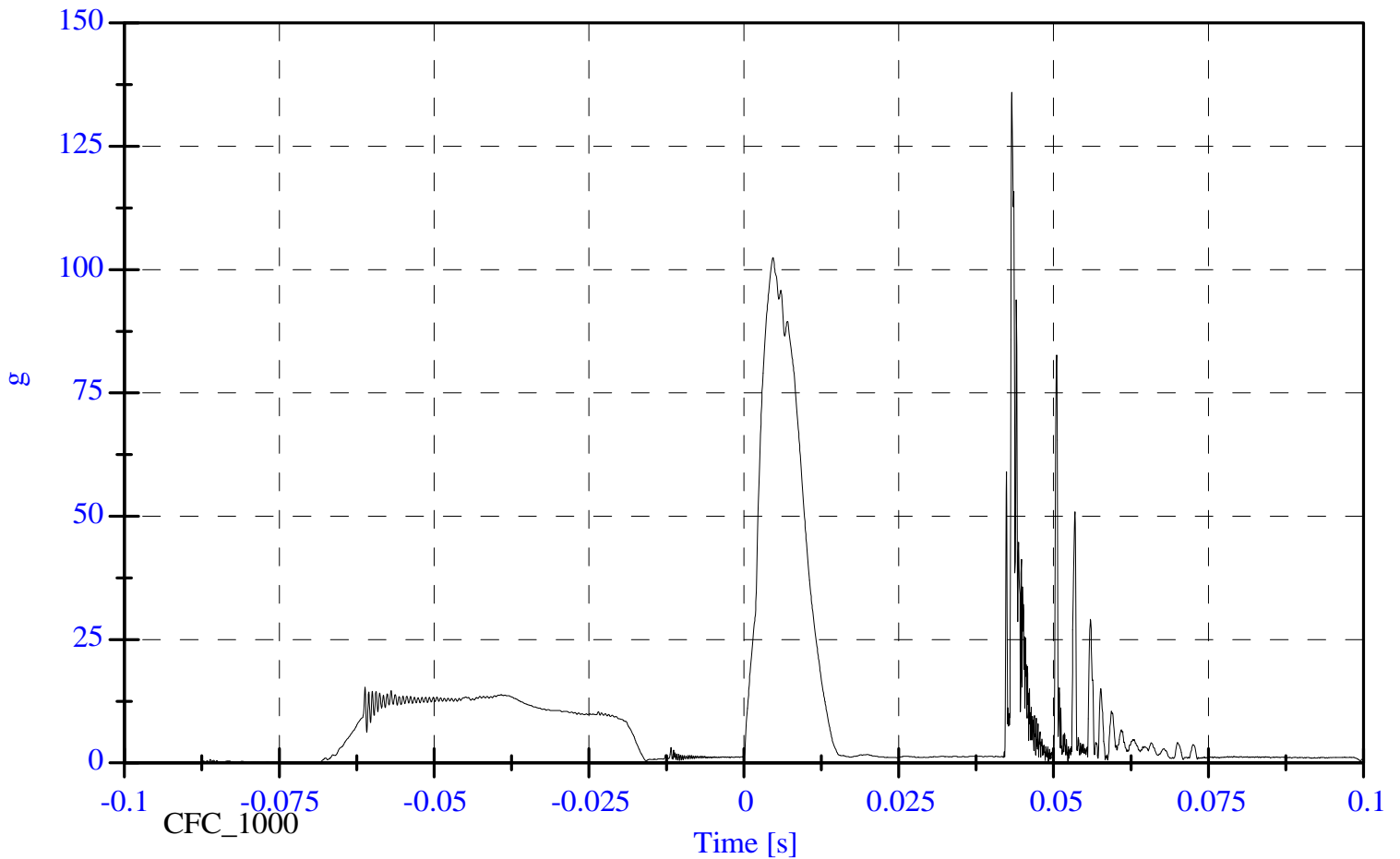
Maximum: 102.4 g

FMVSS 201U 2008 JEEP LIBERTY

Headform Resultant

Max: 102.4 [g] at 0.005 [s]

Min: 0.0 [g] at -0.092 [s]



FMVSS 201U 2008 JEEP LIBERTY

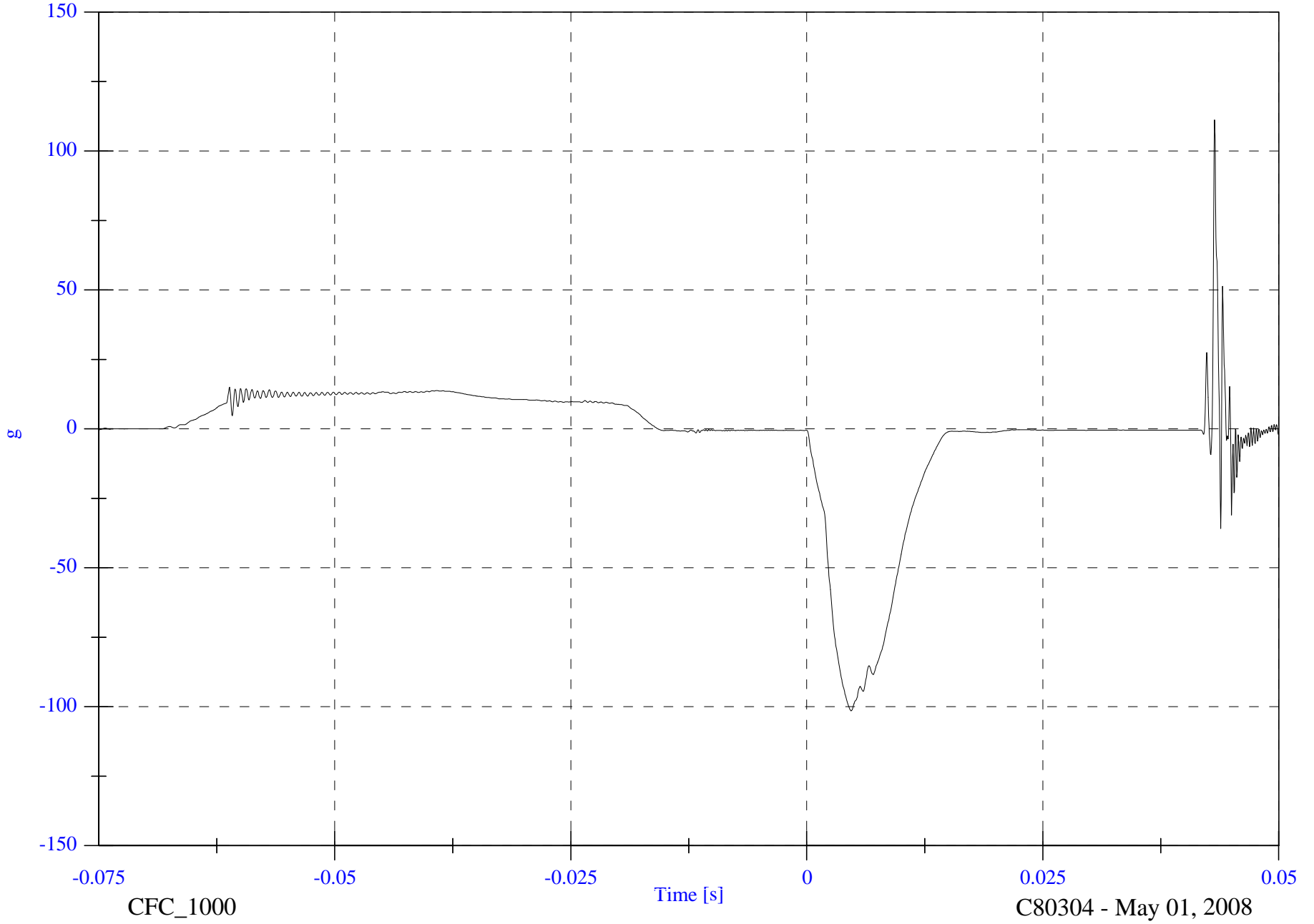
Headform X Acceleration

Max: 111.2 [g] at 0.043 [s]

Min: -101.5 [g] at 0.005 [s]

C80304 DRIVER SIDE AP2 IMPACT PLOT #2

8851-07



CFC_1000

C80304 - May 01, 2008

FMVSS 201U 2008 JEEP LIBERTY

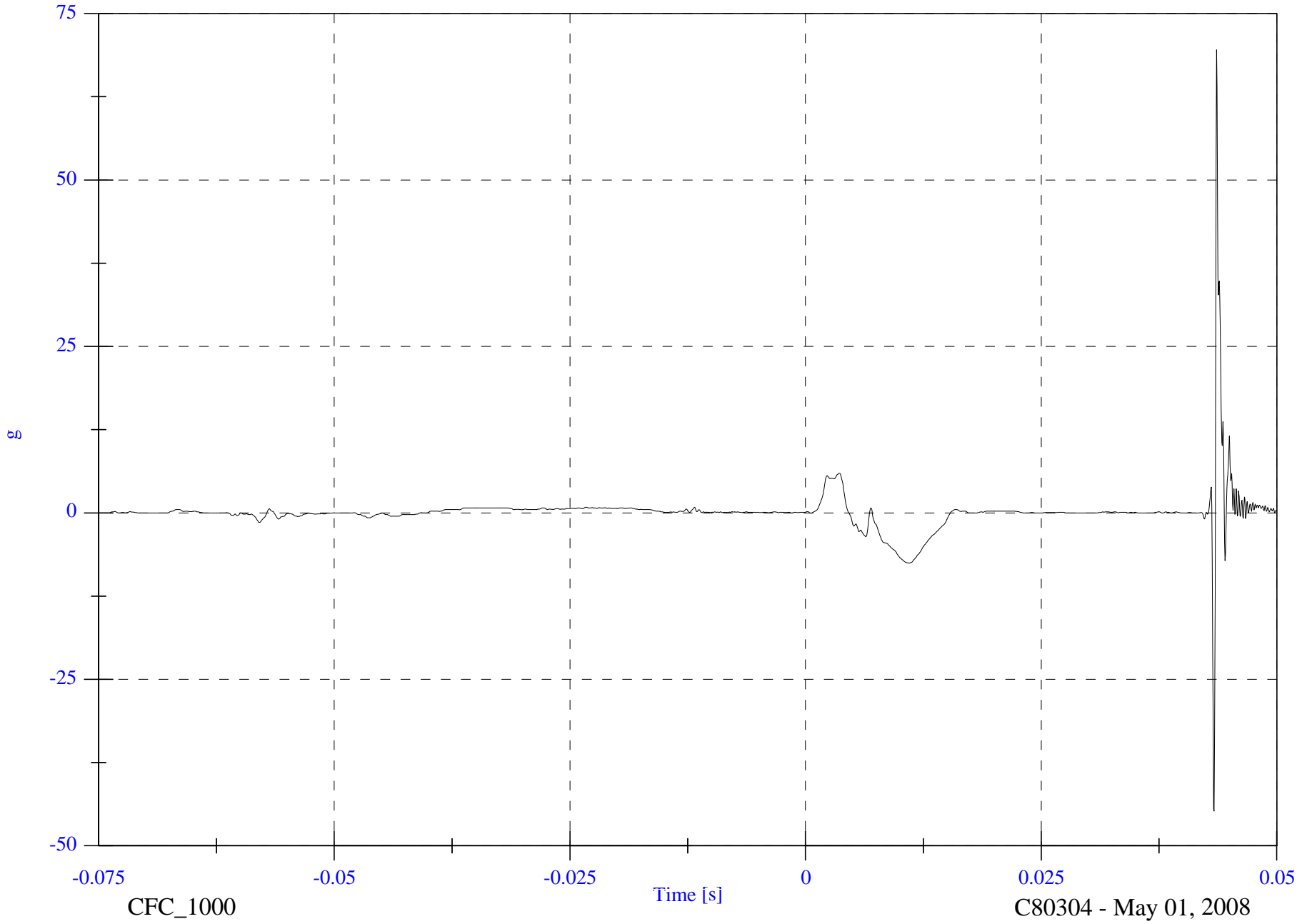
Headform Y Acceleration

Max: 69.6 [g] at 0.044 [s]

Min: -44.8 [g] at 0.043 [s]

C80304 DRIVER SIDE AP2 IMPACT PLOT #3

8851-07



CFC_1000

C80304 - May 01, 2008

FMVSS 201U 2008 JEEP LIBERTY

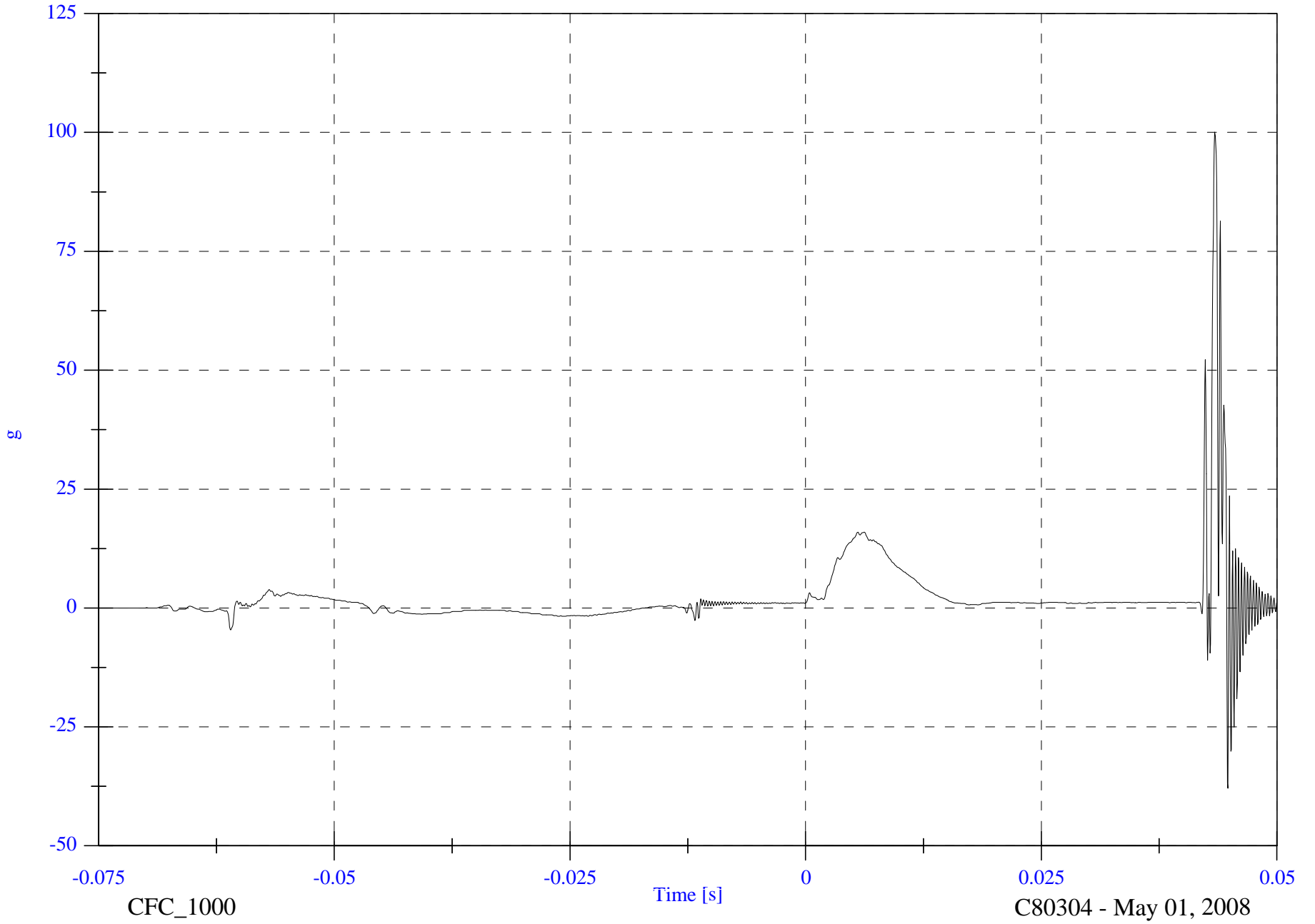
Headform Z Acceleration

Max: 100.1 [g] at 0.043 [s]

Min: -37.9 [g] at 0.045 [s]

C80304 DRIVER SIDE AP2 IMPACT PLOT #4

8851-07



CFC_1000

C80304 - May 01, 2008

FMVSS 201U 2008 JEEP LIBERTY

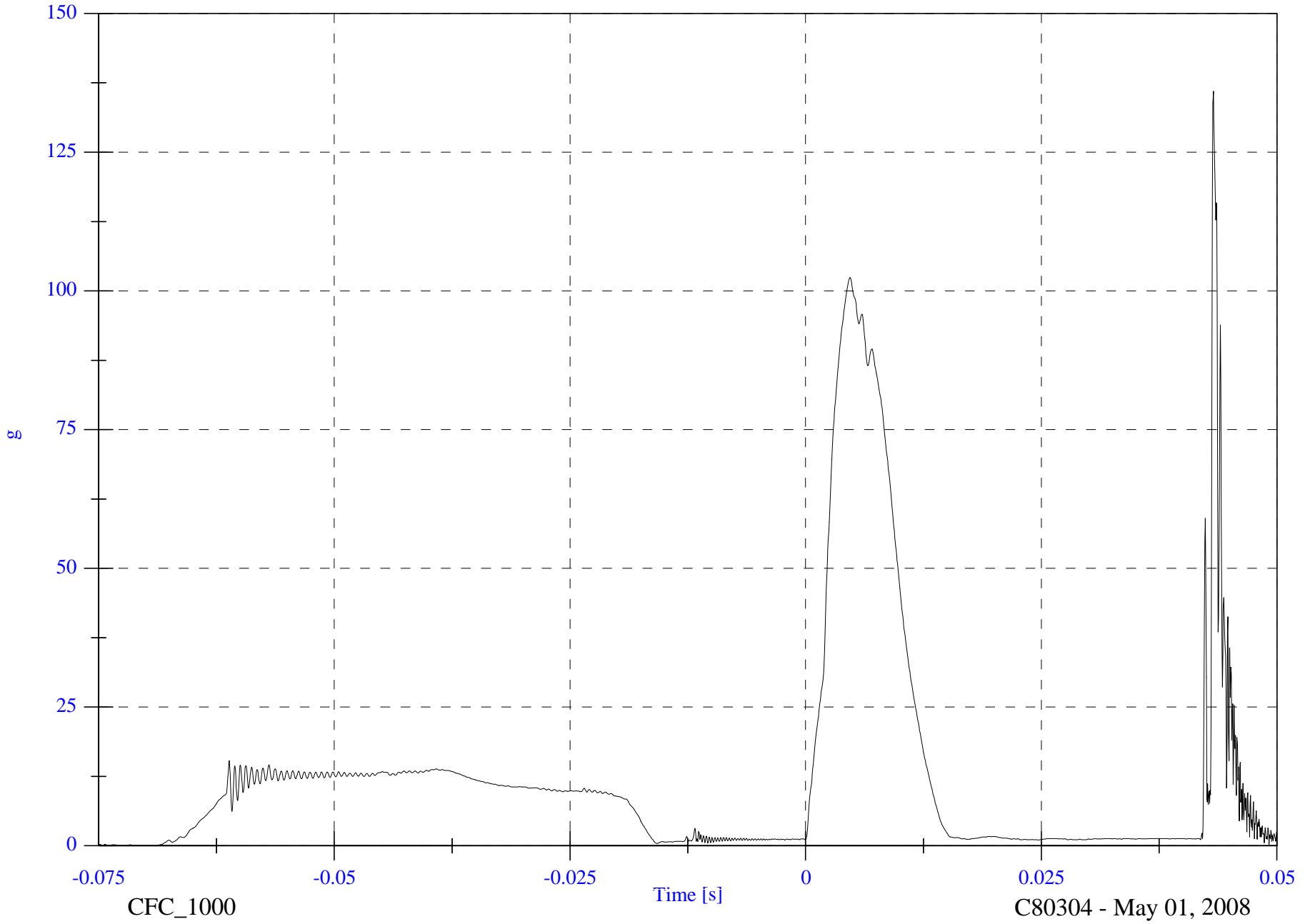
Headform Resultant

Max: 136.0 [g] at 0.043 [s]

Min: 0.0 [g] at -0.070 [s]

C80304 DRIVER SIDE AP2 IMPACT PLOT #5

8851-07



CFC_1000

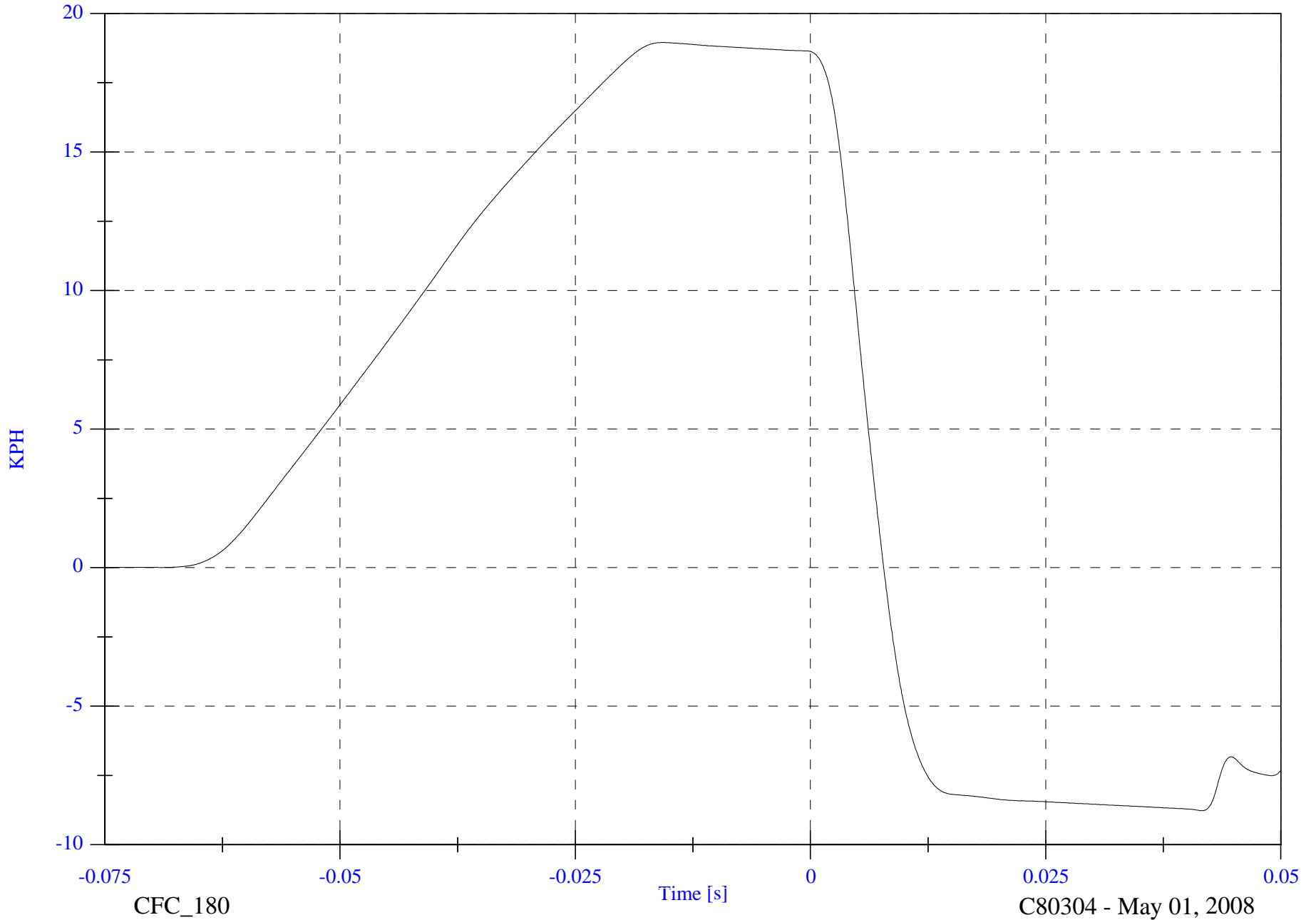
C80304 - May 01, 2008

FMVSS 201U 2008 JEEP LIBERTY

Max: 19.0 [KPH] at -0.016 [s]

Min: -8.8 [KPH] at 0.042 [s]

Headform Velocity



C80304 DRIVER SIDE AP2 IMPACT PLOT #6

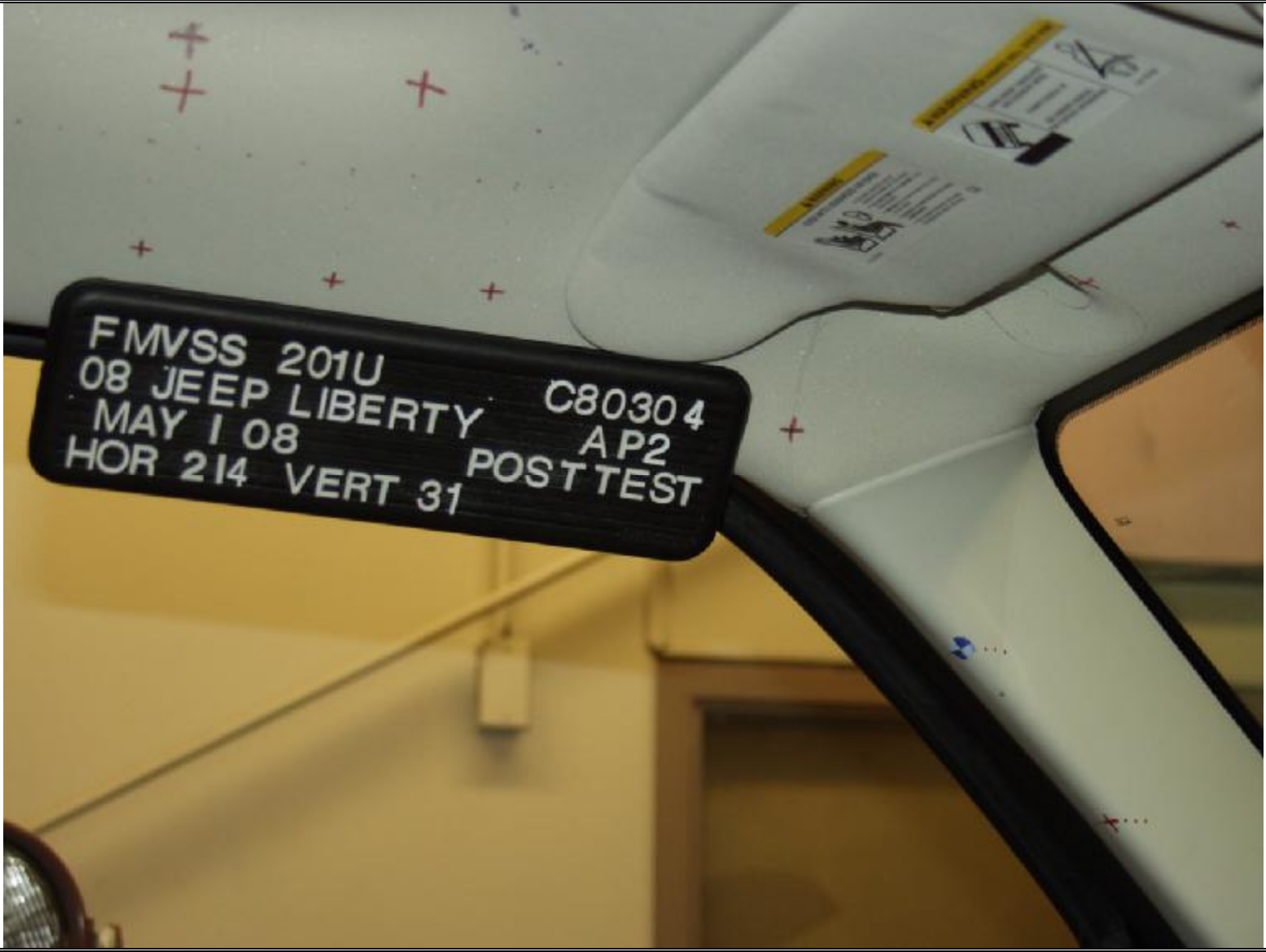
8851-07

CFC_180

C80304 - May 01, 2008



PRE-IMPACT AP2



POST-IMPACT AP2

VEHICLE YEAR/MAKE/MODEL/STYLE:	2008 Jeep Liberty Sport 4x4
VIN:	1J8GN28K18W119596
DATE OF MANUFACTURE:	08/07(SEE CERTIFICATION LABEL)
COLOR:	Black

Test Number:	11
Test Date:	05/01/08
Target Location:	B-PILLAR
Target Code:	BP2
Horizontal Impact Angle:	270°
Vertical Impact Angle:	0°
Ambient Temperature:	20.5° C
Relative Humidity:	19.5%
Time of Impact:	9:50
Headform Number:	0062

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



POST-IMPACT BP2HEADFORM

Free Motion HIC	523.6
HIC(d)	561.5
Impact Velocity (kph)	23.7
HIC T1 (msec)	5.5
HIC T2 (msec)	13.1

FMVSS 201U 2008 JEEP LIBERTY C80304 - BP2

FMH Headform 0062

Location: BP2

Test Date: May 01, 2008

Work File: BP2

-----TEST RESULTS-----

Lab Temperature: 20.5 C

HICd: 561.5

Lab Humidity: 19.5 %

HIC (36ms): 523.6

Velocity at Impact: 23.70 KPH

t1: 5.5 msec

t2: 13.0 msec

Free Flight Distance: 220.98 mm

Duration: 7.5 msec

Average Acceleration: 10.5 g

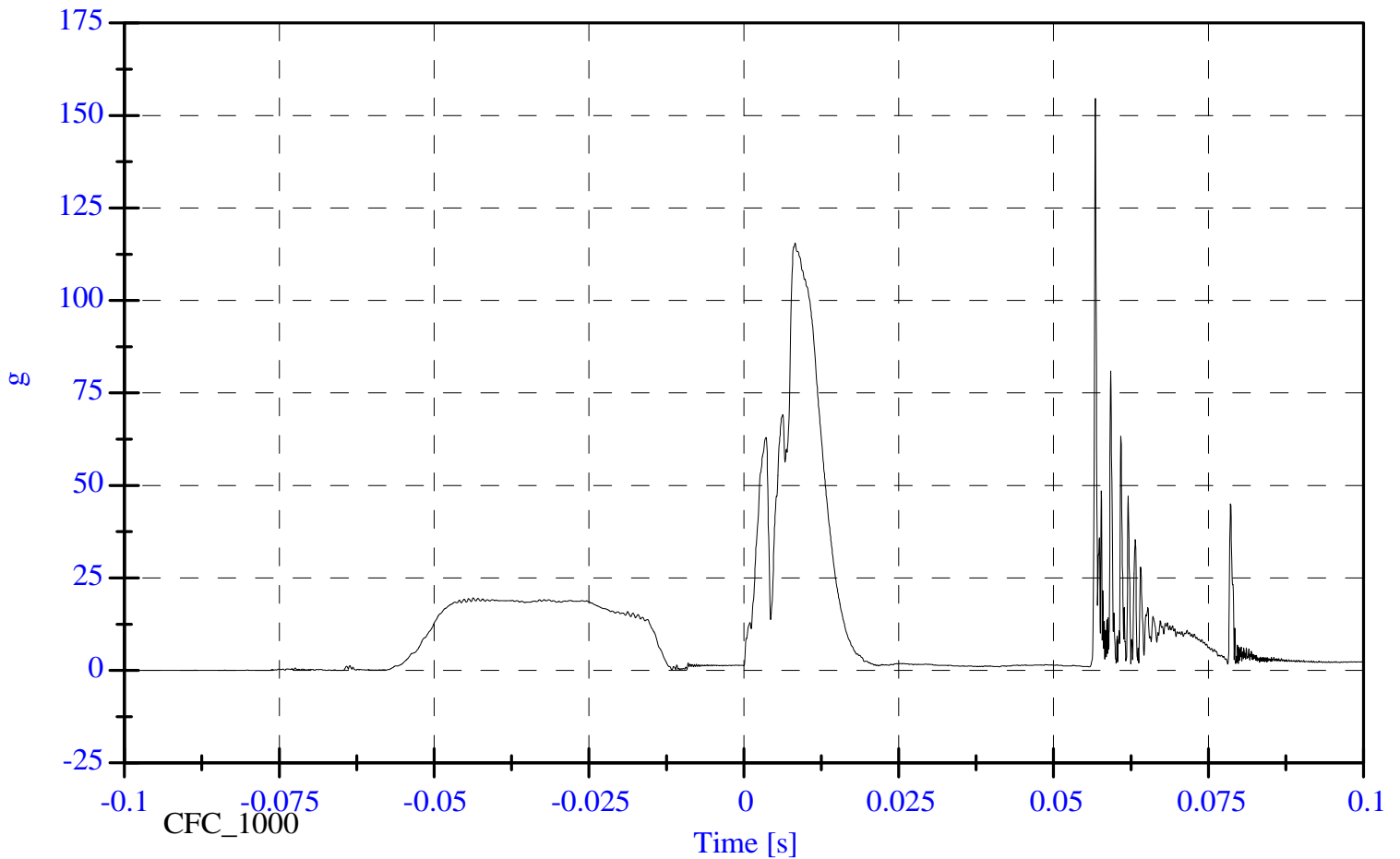
Maximum: 115.5 g

FMVSS 201U 2008 JEEP LIBERTY

Headform Resultant

Max: 115.5 [g] at 0.008 [s]

Min: -0.0 [g] at -0.100 [s]

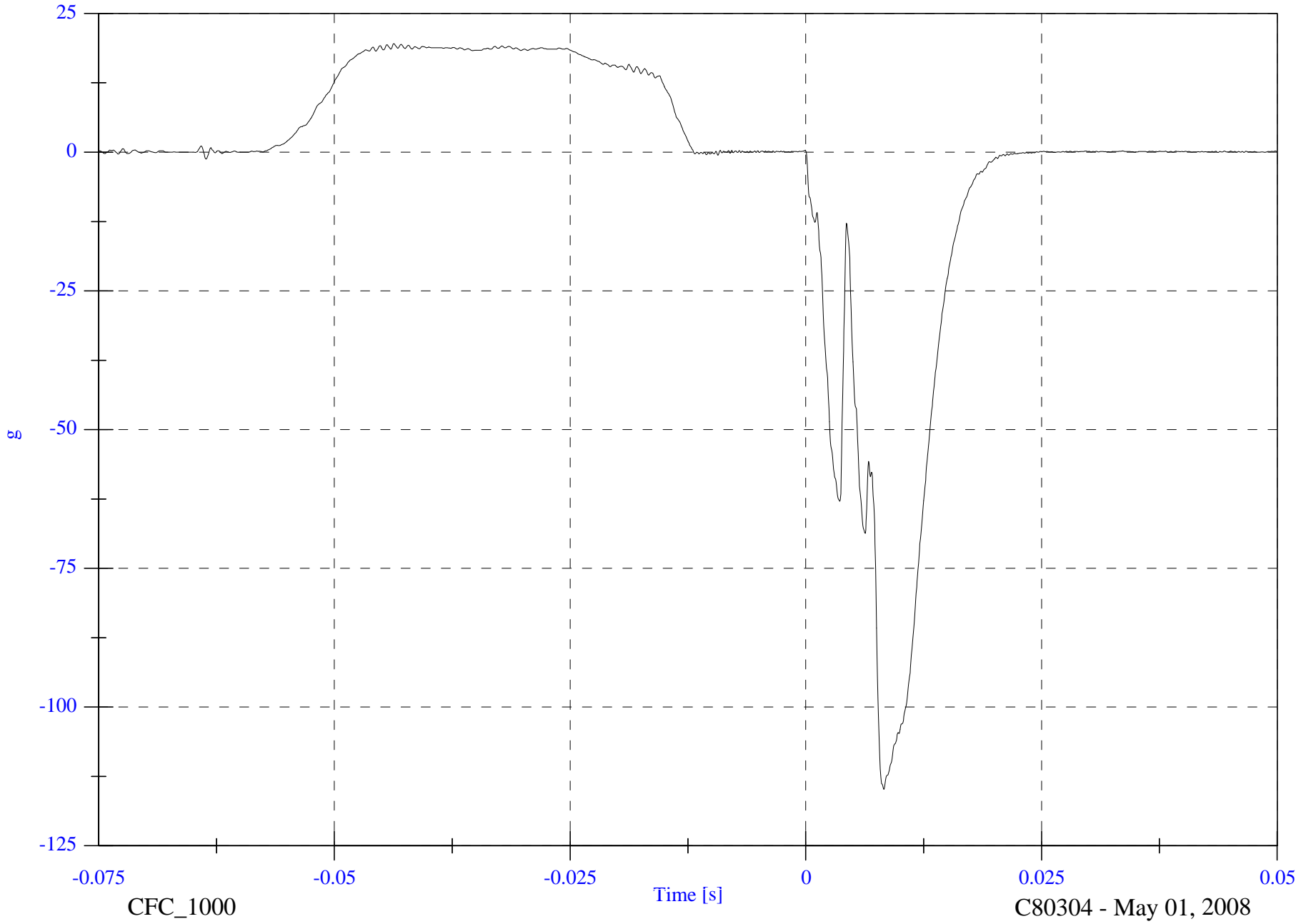


FMVSS 201U 2008 JEEP LIBERTY

Max: 19.6 [g] at -0.044 [s]

Min: -114.8 [g] at 0.008 [s]

Headform X Acceleration



C80304 DRIVER SIDE BP2 IMPACT PLOT #2

8851-07

CFC_1000

Time [s]

C80304 - May 01, 2008

FMVSS 201U 2008 JEEP LIBERTY

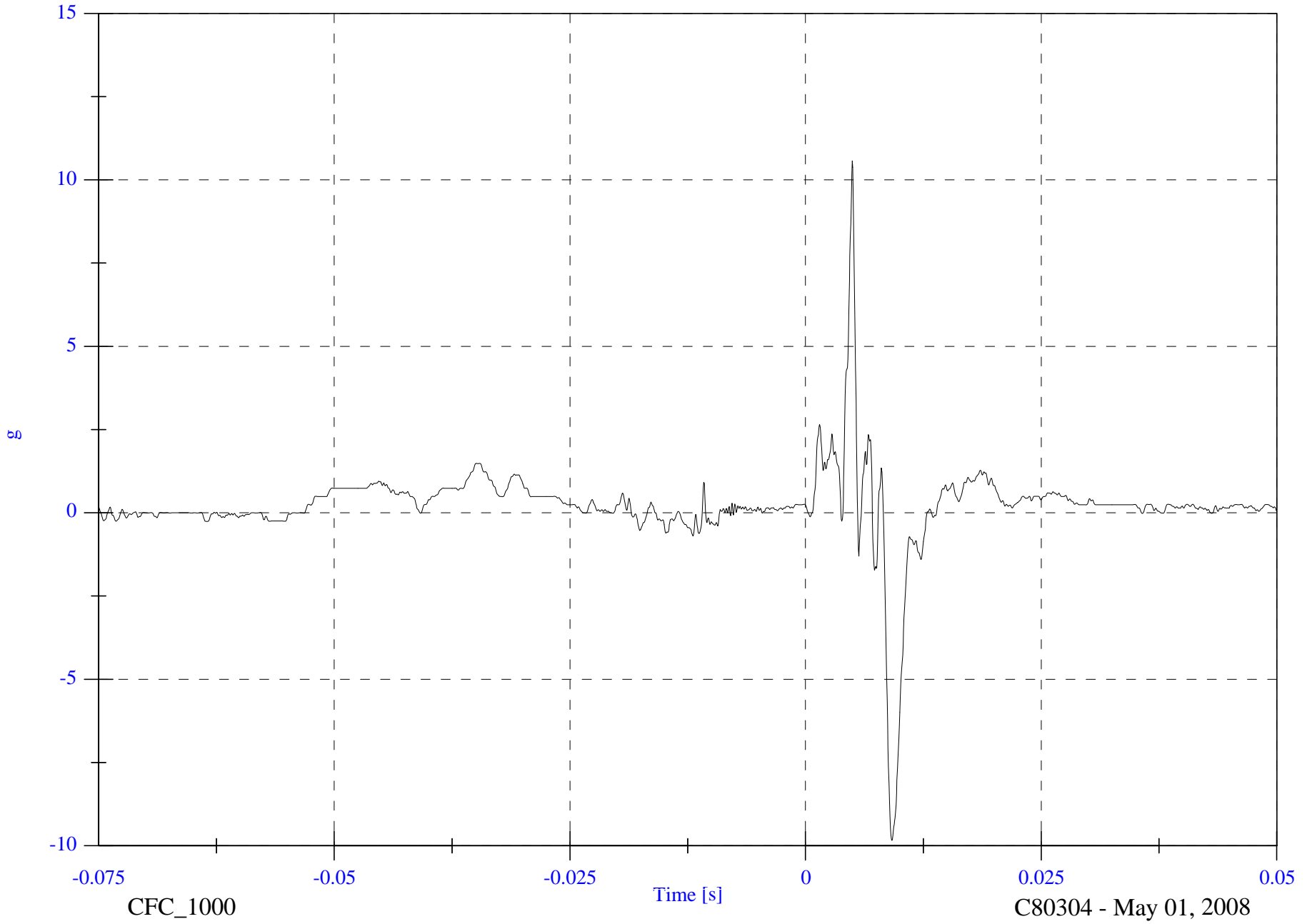
Headform Y Acceleration

Max: 10.6 [g] at 0.005 [s]

Min: -9.8 [g] at 0.009 [s]

C80304 DRIVER SIDE BP2 IMPACT PLOT #3

8851-07



FMVSS 201U 2008 JEEP LIBERTY

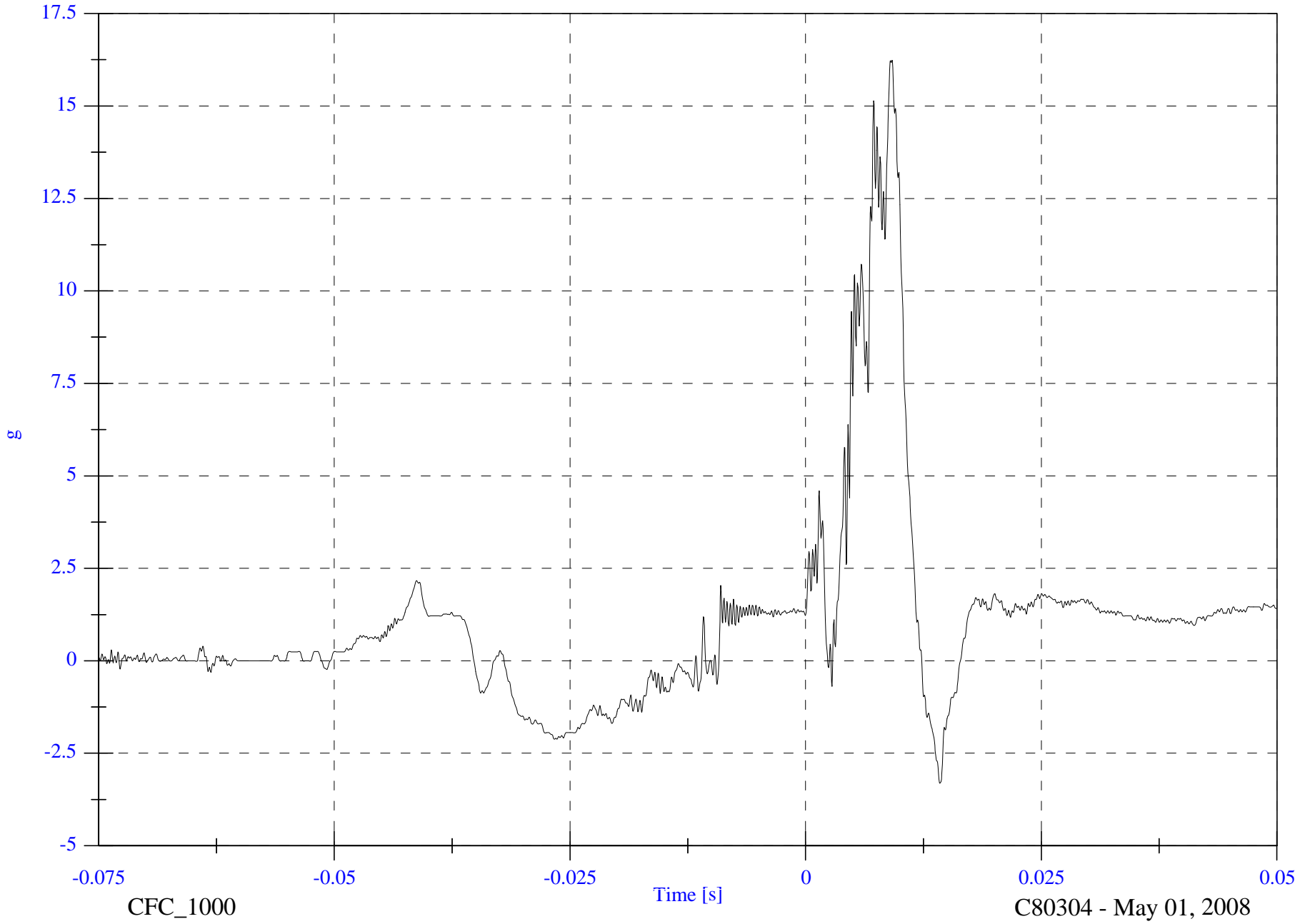
Headform Z Acceleration

Max: 16.2 [g] at 0.009 [s]

Min: -3.3 [g] at 0.014 [s]

C80304 DRIVER SIDE BP2 IMPACT PLOT #4

8851-07



FMVSS 201U 2008 JEEP LIBERTY

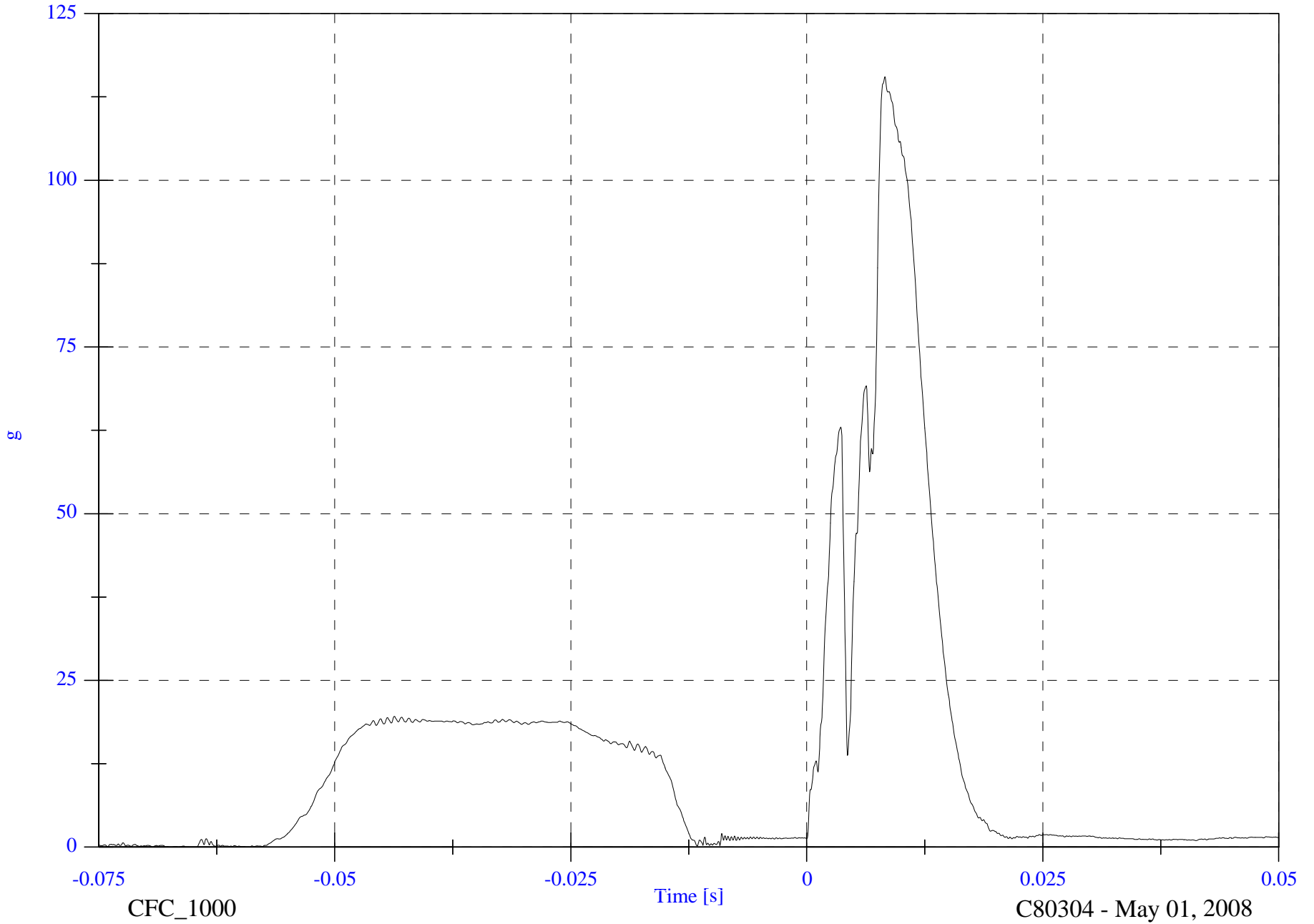
Headform Resultant

Max: 115.5 [g] at 0.008 [s]

Min: 0.0 [g] at -0.065 [s]

C80304 DRIVER SIDE BP2 IMPACT PLOT #5

8851-07



CFC_1000

C80304 - May 01, 2008

FMVSS 201U 2008 JEEP LIBERTY

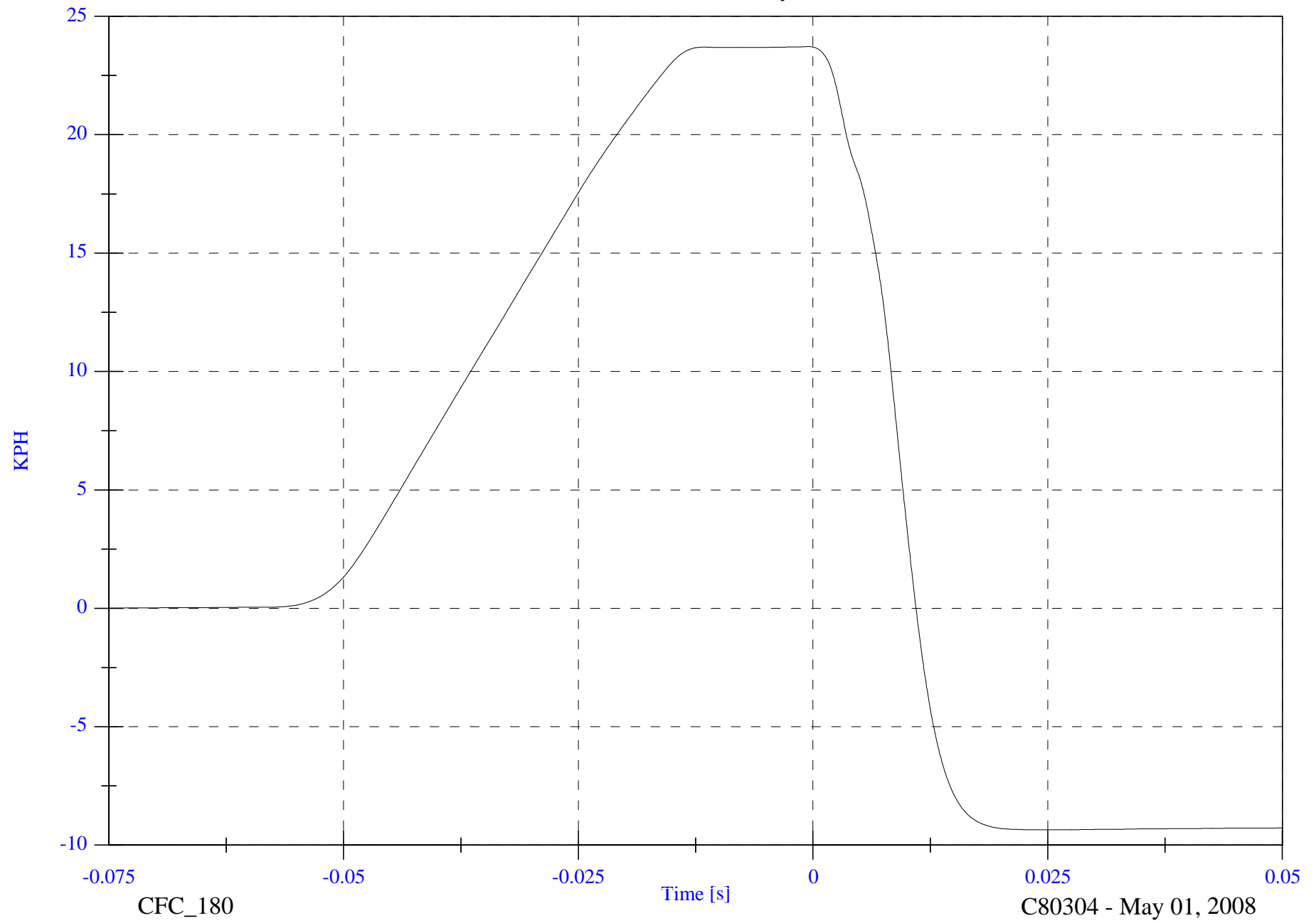
Max: 23.7 [KPH] at -0.001 [s]

Min: -9.4 [KPH] at 0.024 [s]

Headform Velocity

C80304 DRIVER SIDE BP2 IMPACT PLOT #6

8851-07



CFC_180

C80304 - May 01, 2008



PRE-IMPACT BP2



POST-IMPACT BP2

VEHICLE YEAR/MAKE/MODEL/STYLE:	2008 Jeep Liberty Sport 4x4
VIN:	1J8GN28K18W119596
DATE OF MANUFACTURE:	08/07(SEE CERTIFICATION LABEL)
COLOR:	Black

Test Number:	12
Test Date:	05/01/08
Target Location:	UPPER ROOF
Target Code:	URBP
Horizontal Impact Angle:	270°
Vertical Impact Angle:	35°
Ambient Temperature:	21.0° C
Relative Humidity:	19.7%
Time of Impact:	10:40
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	16				mm up



POST-IMPACT URBP HEADFORM

Free Motion HIC	312.5
HIC(d)	402.2
Impact Velocity (kph)	23.74
HIC T1 (msec)	3.0
HIC T2 (msec)	17.6

FMVSS 201U 2008 JEEP LIBERTY C80304 - URBP

FMH Headform 1142

Location: URBP

Test Date: May 01, 2008

Work File: URBP

-----TEST RESULTS-----

Lab Temperature: 21.0 C

HICd: 402.2

Lab Humidity: 19.7 %

HIC (36ms): 312.5

Velocity at Impact: 23.74 KPH

t1: 3.0 msec

t2: 17.6 msec

Free Flight Distance: 216.46 mm

Duration: 14.6 msec

Average Acceleration: 8.7 g

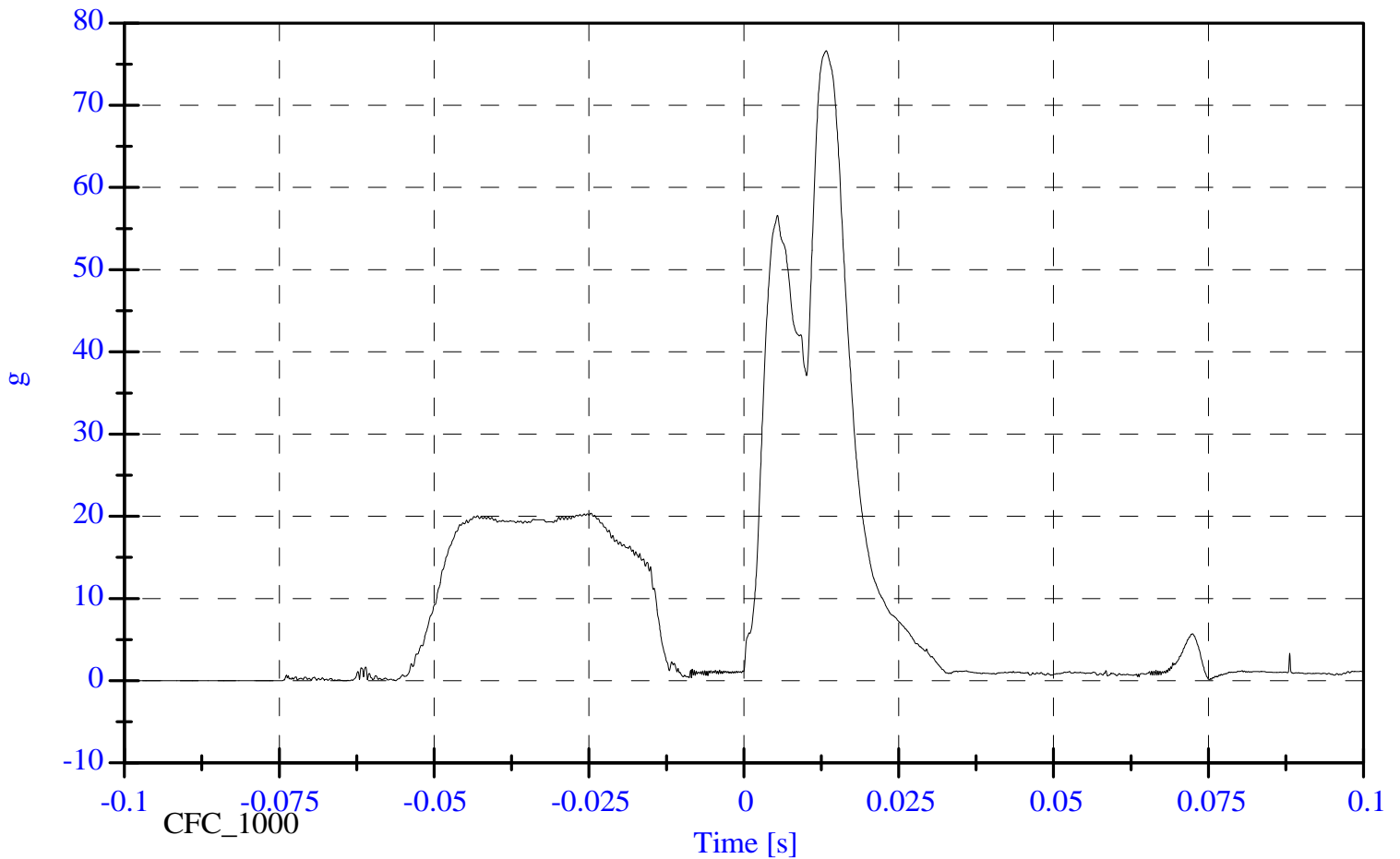
Maximum: 76.6 g

FMVSS 201U 2008 JEEP LIBERTY

Headform Resultant

Max: 76.6 [g] at 0.013 [s]

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

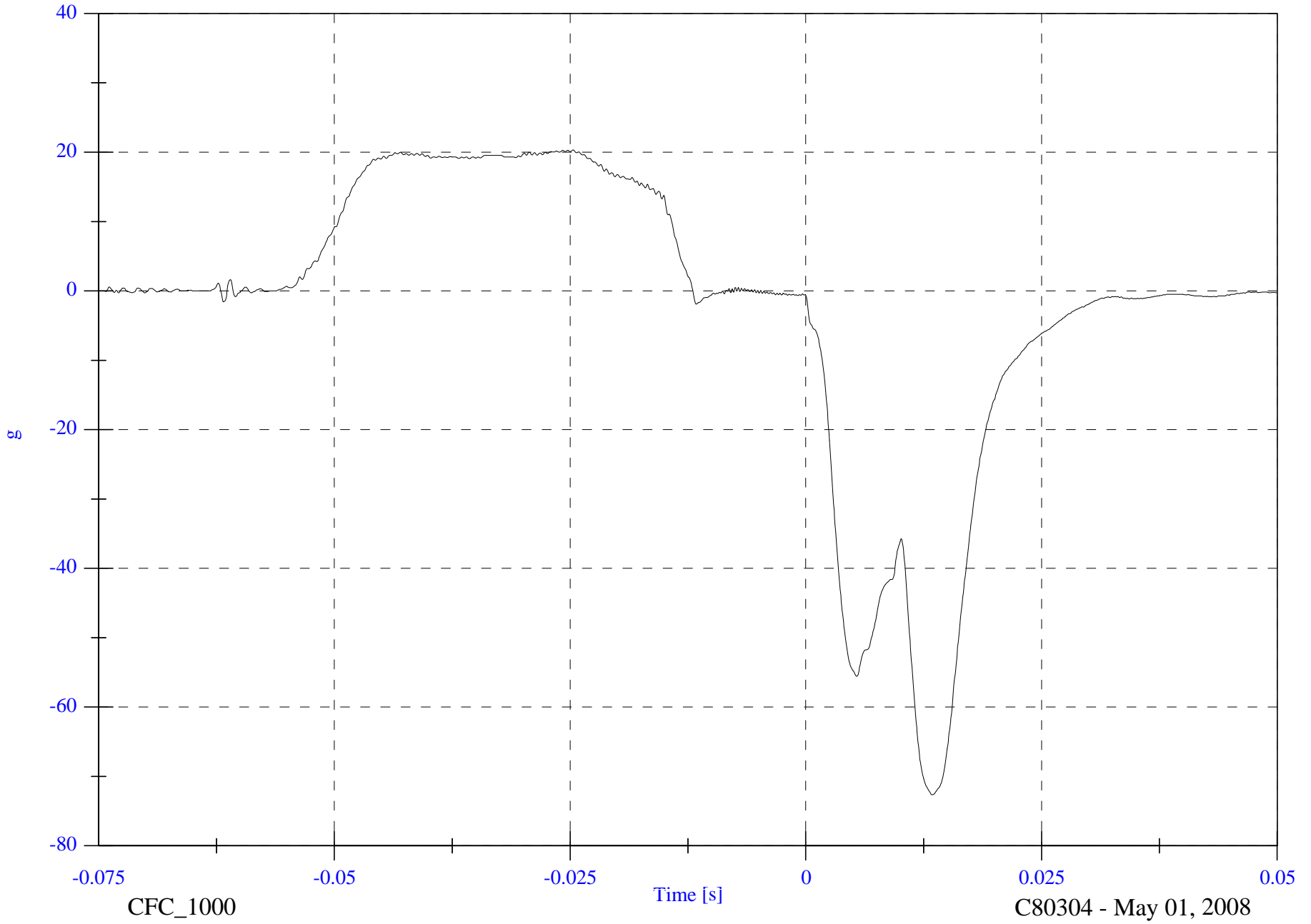


FMVSS 201U 2008 JEEP LIBERTY

Max: 20.3 [g] at -0.025 [s]

Min: -72.7 [g] at 0.013 [s]

Headform X Acceleration



C80304 DRIVER SIDE URBP IMPACT PLOT #2

8851-07

CFC_1000

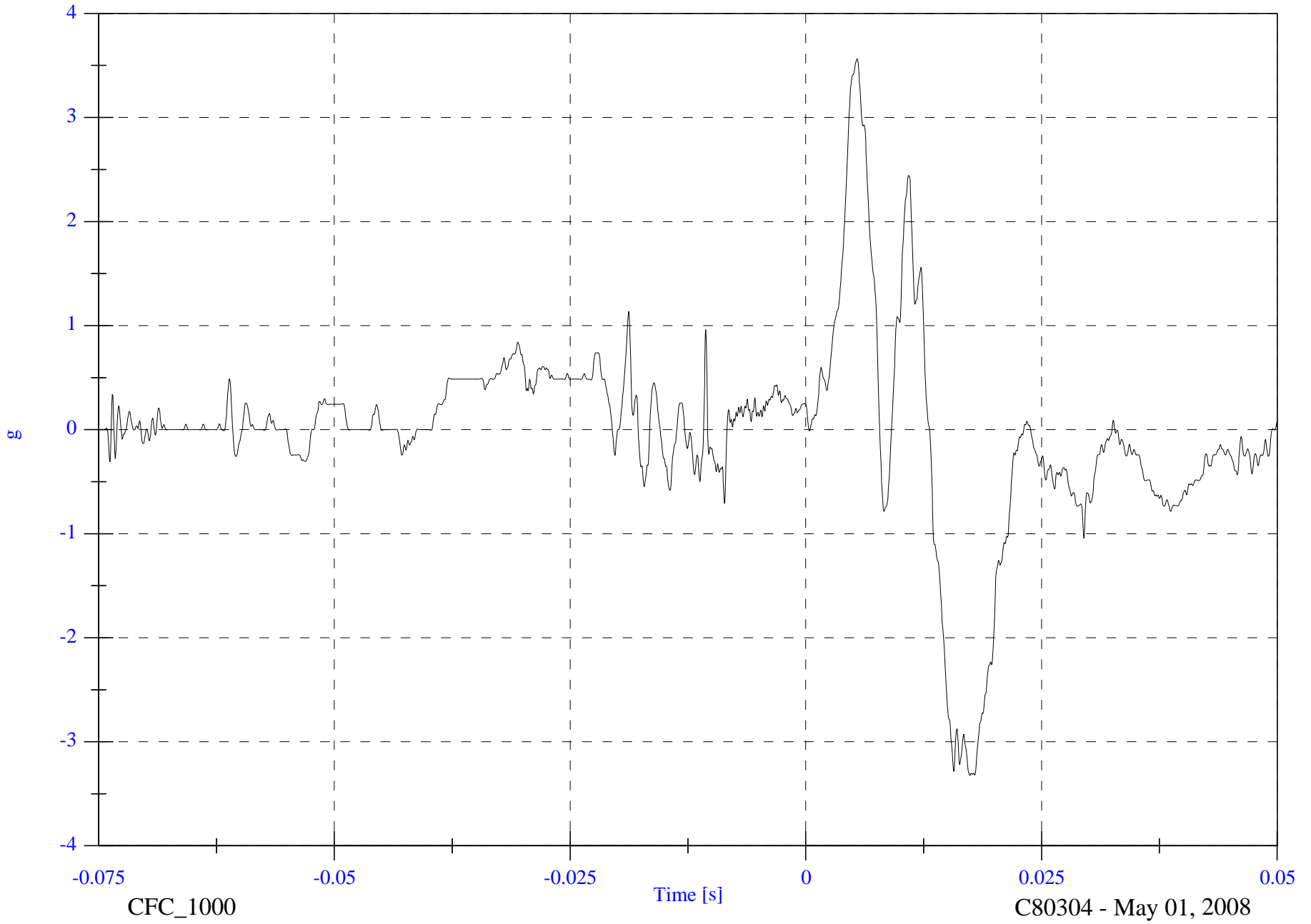
C80304 - May 01, 2008

FMVSS 201U 2008 JEEP LIBERTY

Max: 3.6 [g] at 0.005 [s]

Min: -3.3 [g] at 0.017 [s]

Headform Y Acceleration



C80304 DRIVER SIDE URBP IMPACT PLOT #3

8851-07

CFC_1000

C80304 - May 01, 2008

FMVSS 201U 2008 JEEP LIBERTY

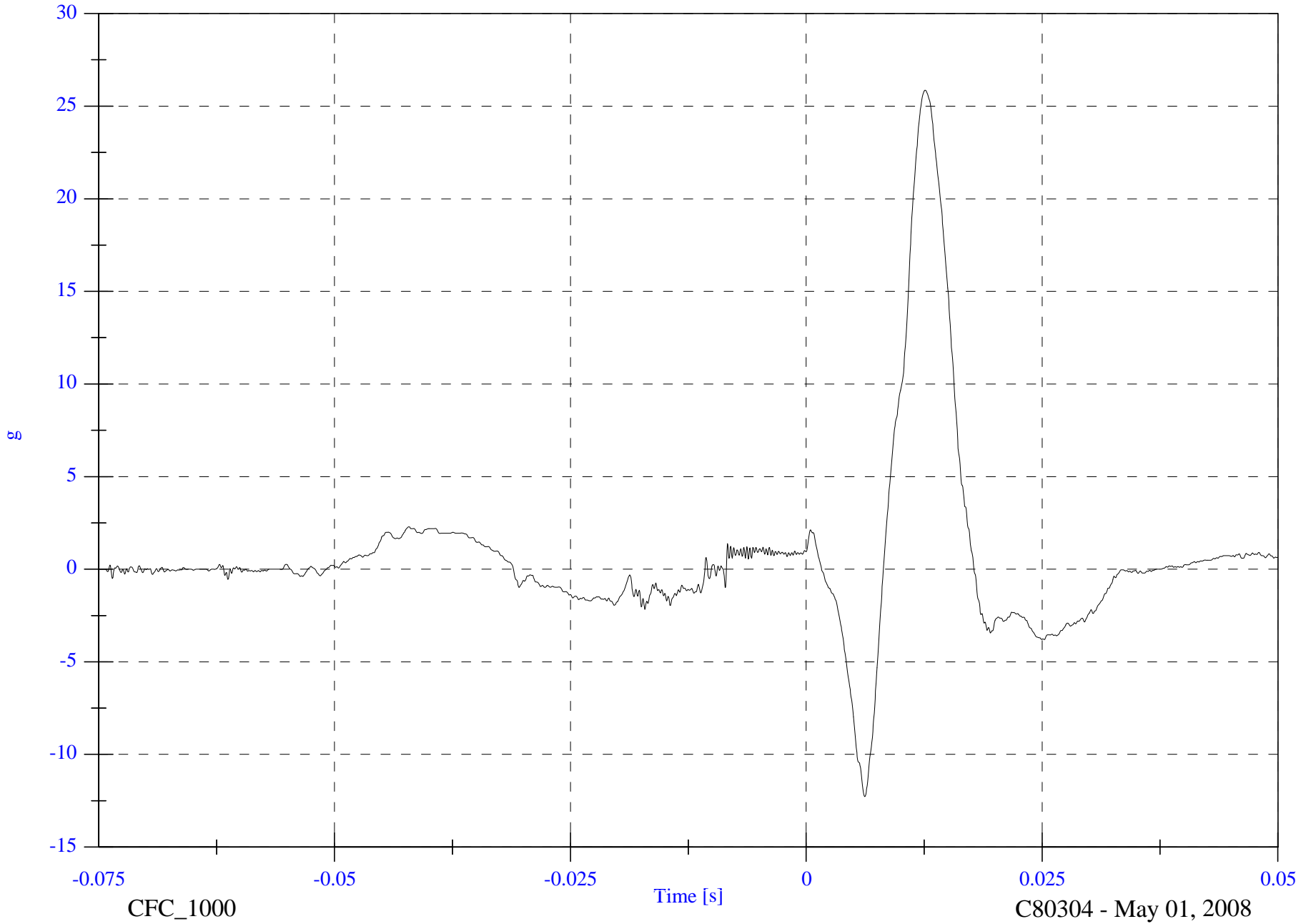
Headform Z Acceleration

Max: 25.9 [g] at 0.013 [s]

Min: -12.3 [g] at 0.006 [s]

C80304 DRIVER SIDE URBP IMPACT PLOT #4

8851-07



FMVSS 201U 2008 JEEP LIBERTY

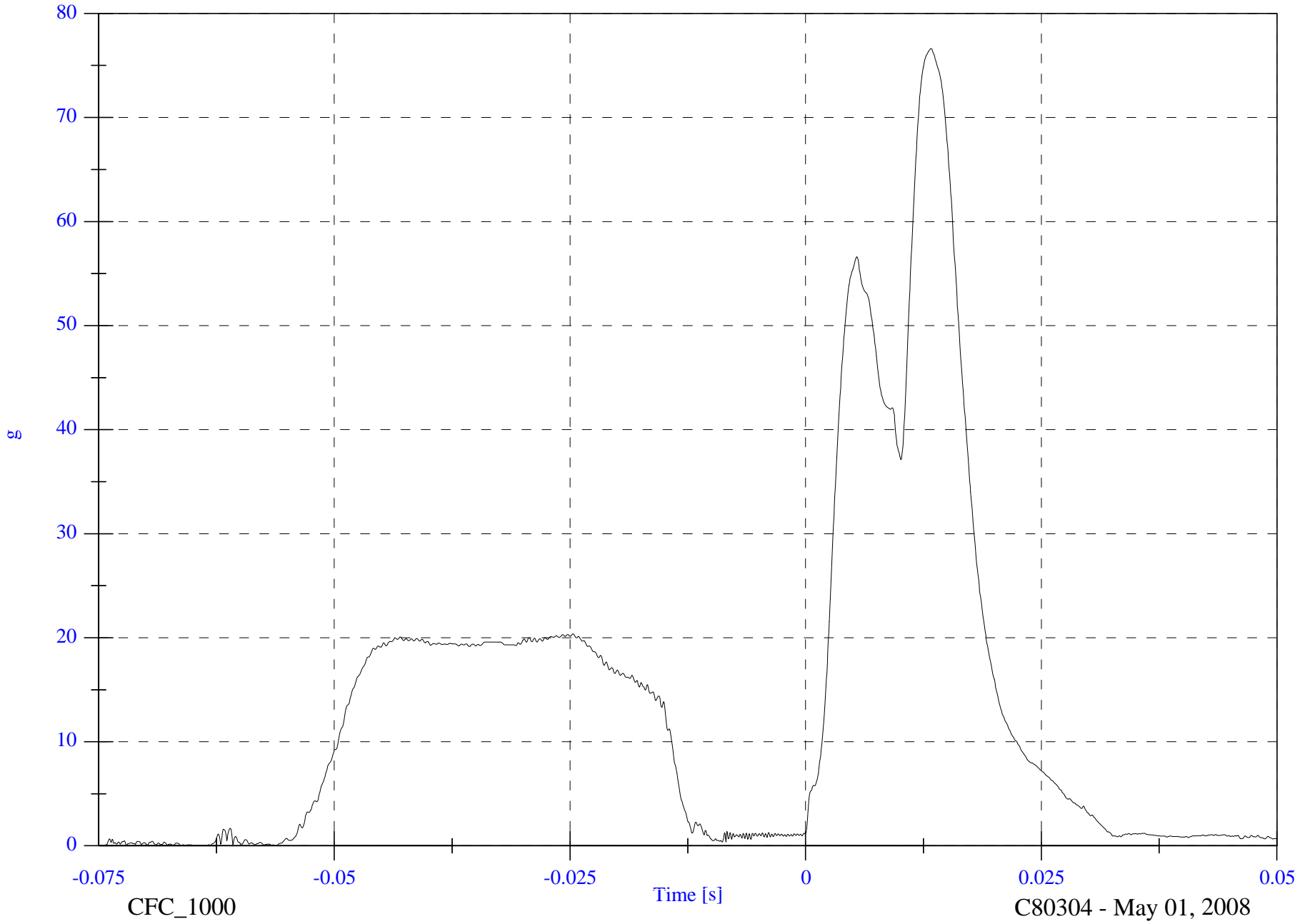
Headform Resultant

Max: 76.6 [g] at 0.013 [s]

Min: 0.0 [g] at -0.075 [s]

C80304 DRIVER SIDE URBP IMPACT PLOT #5

8851-07



CFC_1000

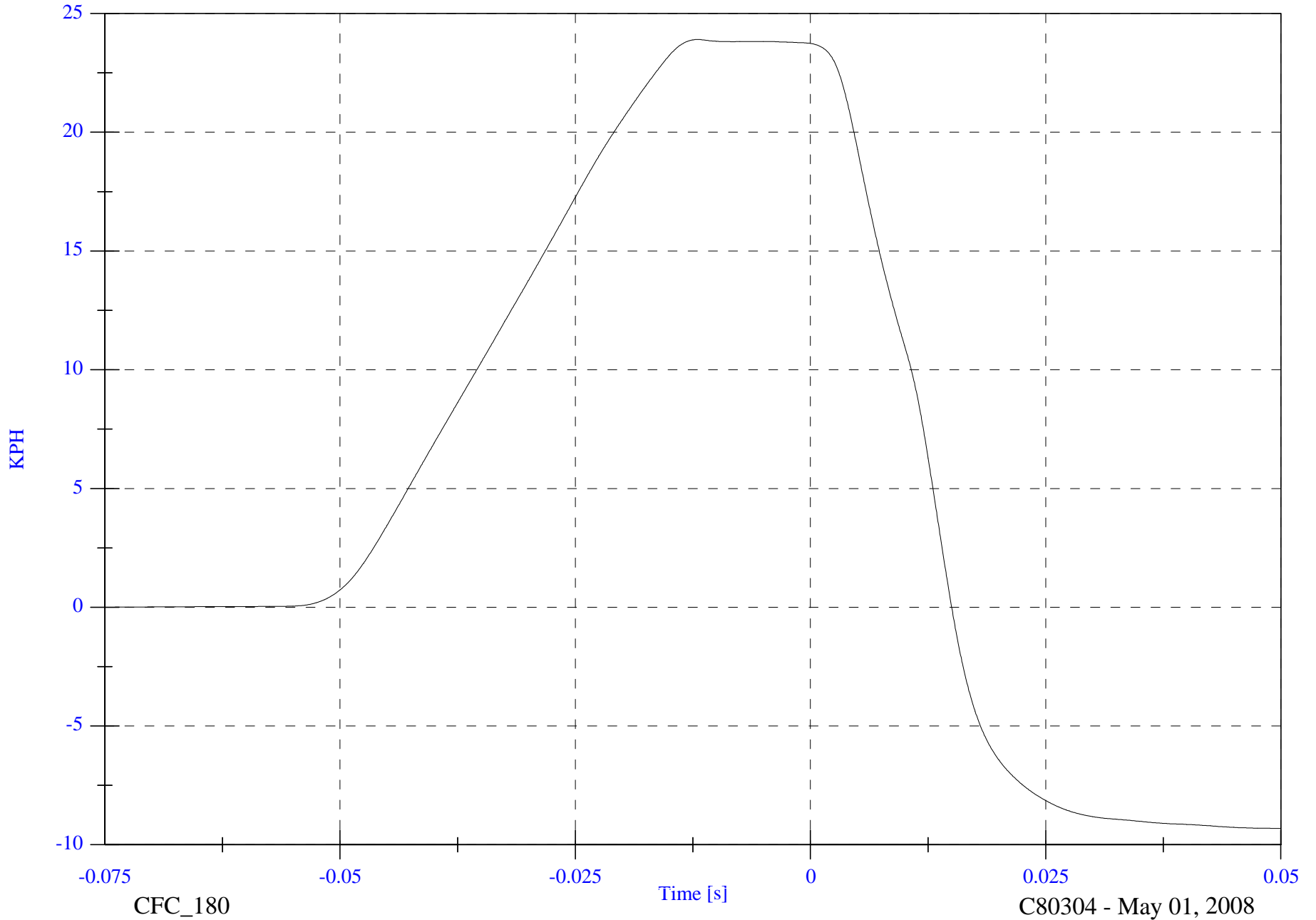
C80304 - May 01, 2008

FMVSS 201U 2008 JEEP LIBERTY

Max: 23.9 [KPH] at -0.012 [s]

Min: -9.3 [KPH] at 0.050 [s]

Headform Velocity



C80304 DRIVER SIDE URBP IMPACT PLOT #6

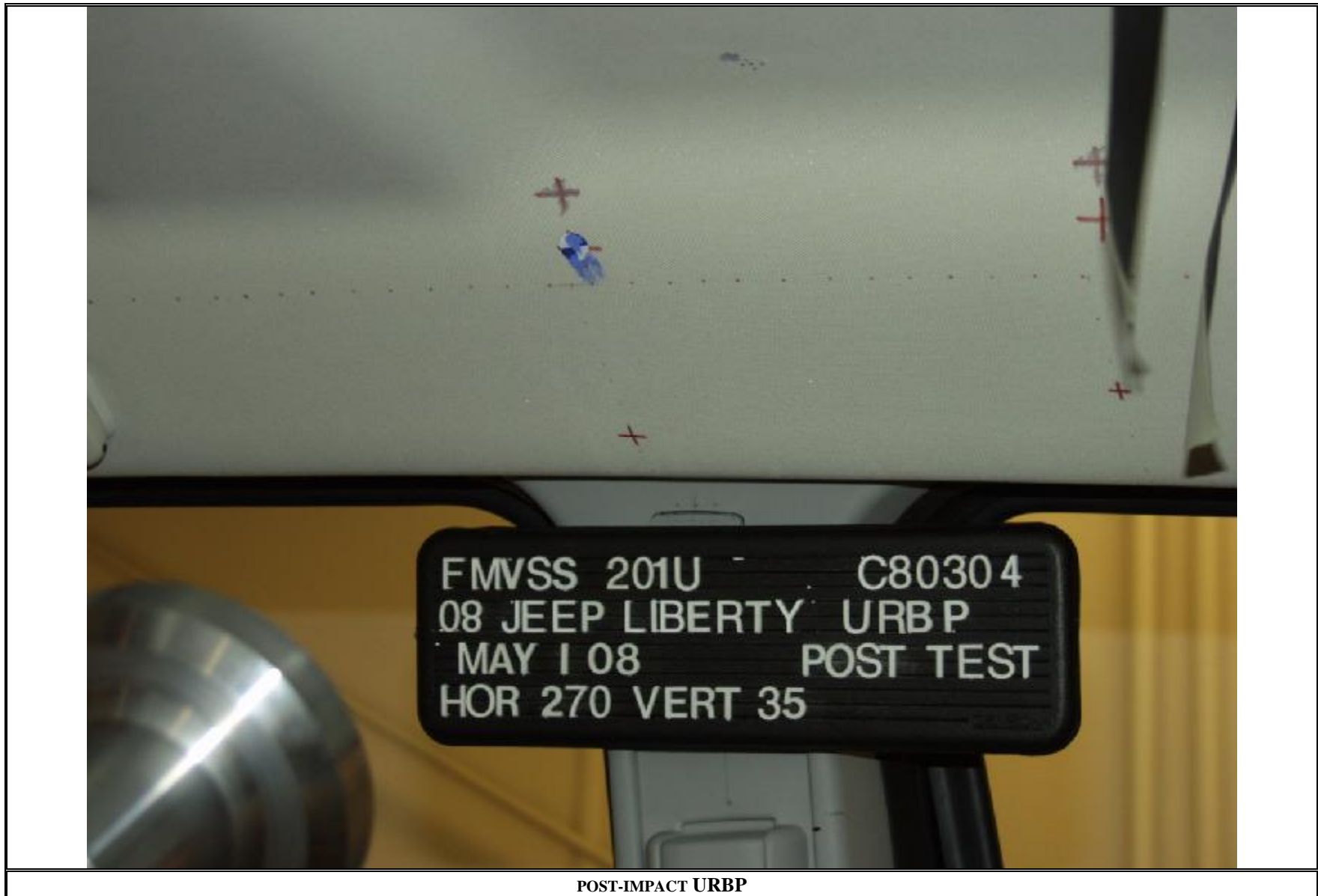
8851-07

CFC_180

C80304 - May 01, 2008



PRE-IMPACT URBP



POST-IMPACT URB P

APPENDIX A

PHOTOGRAPHS

PHOTOGRAPHS

FIGURE	VIEW	PAGE
A-1	LEFT SIDE VIEW OF VEHICLE	A-3
A-2	RIGHT SIDE VIEW OF VEHICLE	A-4
A-3	3/4 FRONTAL VIEW FROM RIGHT SIDE OF VEHICLE	A-5
A-4	3/4 REAR VIEW FROM LEFT SIDE OF VEHICLE	A-6
A-5	VEHICLE'S CERTIFICATION LABEL	A-7
A-6	VEHICLE'S TIRE INFORMATION LABEL	A-8
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A-13	PRE-TEST PASSENGER SIDE A-PILLAR	A-15
A-14	PRE-TEST PASSENGER SIDE FRONT HEADER	A-16
A-15	PRE-TEST PASSENGER SIDE SIDE RAIL	A-17
A-16	PRE-TEST PASSENGER SIDE B-PILLAR	A-18
A-17	PRE-TEST PASSENGER SIDE OTHER PILLAR	A-19
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A-25	POST-TEST PASSENGER SIDE A-PILLAR	A-27
A-26	POST-TEST PASSENGER SIDE FRONT HEADER	A-28
A-27	POST-TEST PASSENGER SIDE SIDE RAIL	A-29
A-28	POST-TEST PASSENGER SIDE B-PILLAR	A-30
A-29	POST-TEST PASSENGER SIDE OTHER PILLAR	A-31
A-30	POST-TEST PASSENGER SIDE REAR PILLAR	A-32



Figure A-1 : LEFT SIDE VIEW OF VEHICLE



Figure A-2 : RIGHT SIDE VIEW OF VEHICLE



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



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

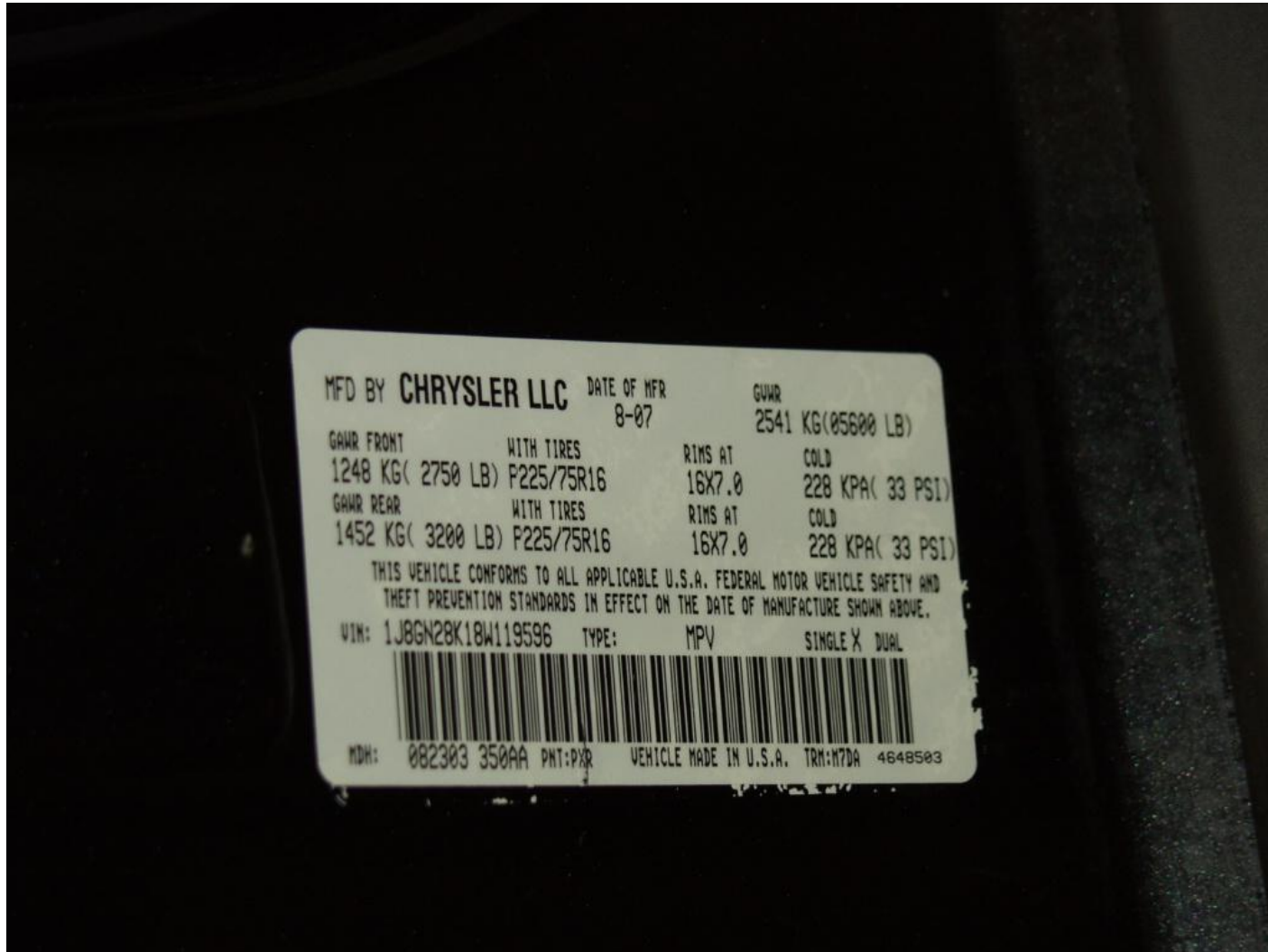


Figure A-5 : VEHICLE'S CERTIFICATION LABEL



Figure A-6 : VEHICLE'S TIRE INFORMATION LABEL



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

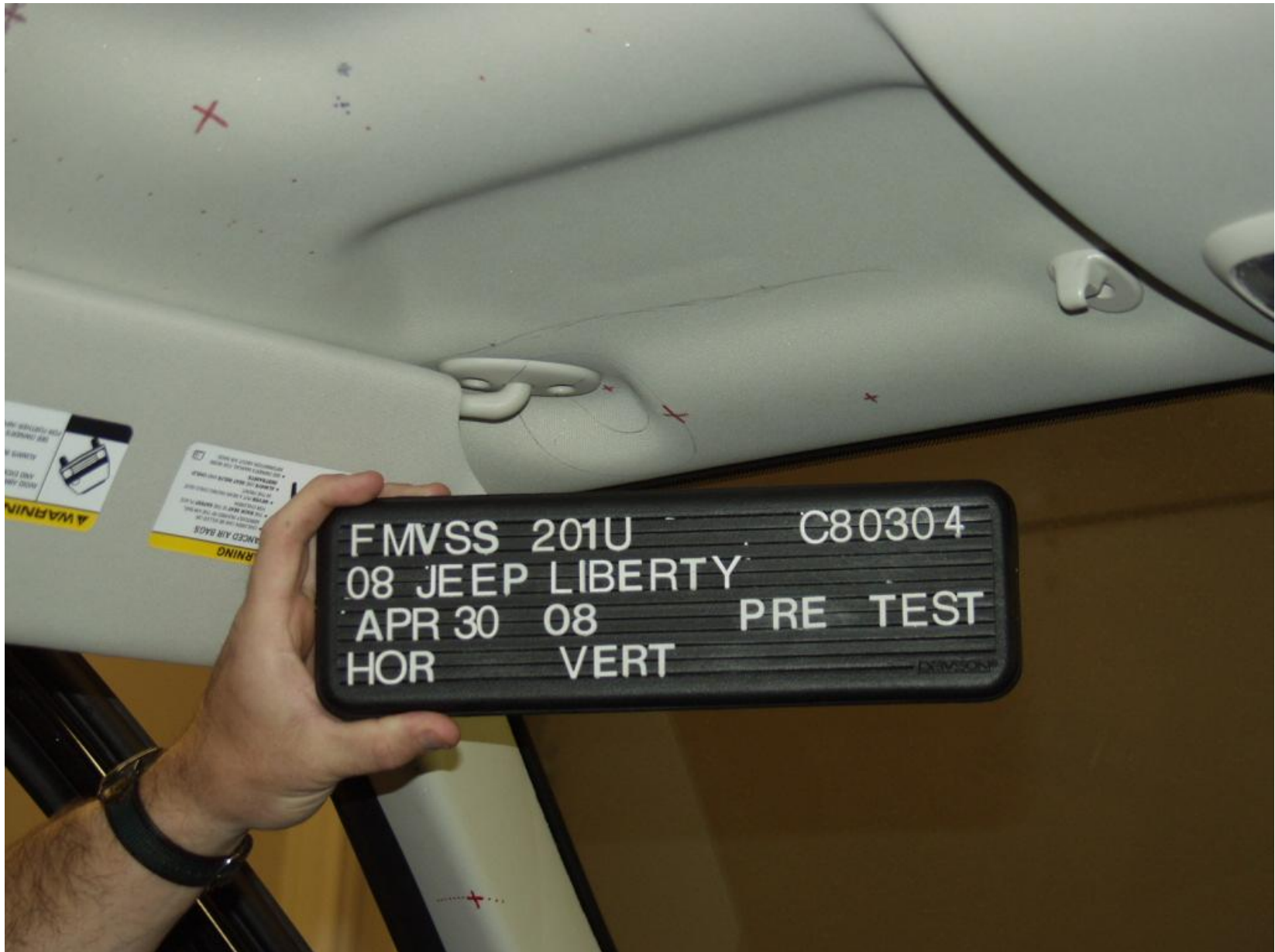


Figure A-8 : PRE-TEST DRIVER SIDE FRONT HEADER



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 DRIVER SIDE REAR PILLAR



Figure A-13 : PRE-TEST PASSENGER SIDE A-PILLAR



Figure A-14 : PRE-TEST PASSENGER SIDE FRONT HEADER



Figure A-15 : PRE-TEST PASSENGER SIDE SIDE RAIL



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



Figure A-17 : PRE-TEST PASSENGER SIDE OTHER PILLAR



Figure A-18 : PRE-TEST PASSENGER SIDE REAR PILLAR



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



Figure A-20 : POST-TEST DRIVER SIDE FRONT HEADER



Figure A-21 : POST-TEST DRIVER SIDE SIDE RAIL



Figure A-22 : POST-TEST DRIVER SIDE B-PILLAR



Figure A-23 : POST-TEST DRIVER SIDE OTHER PILLAR



Figure A-24 : POST-TEST DRIVER SIDE REAR PILLAR

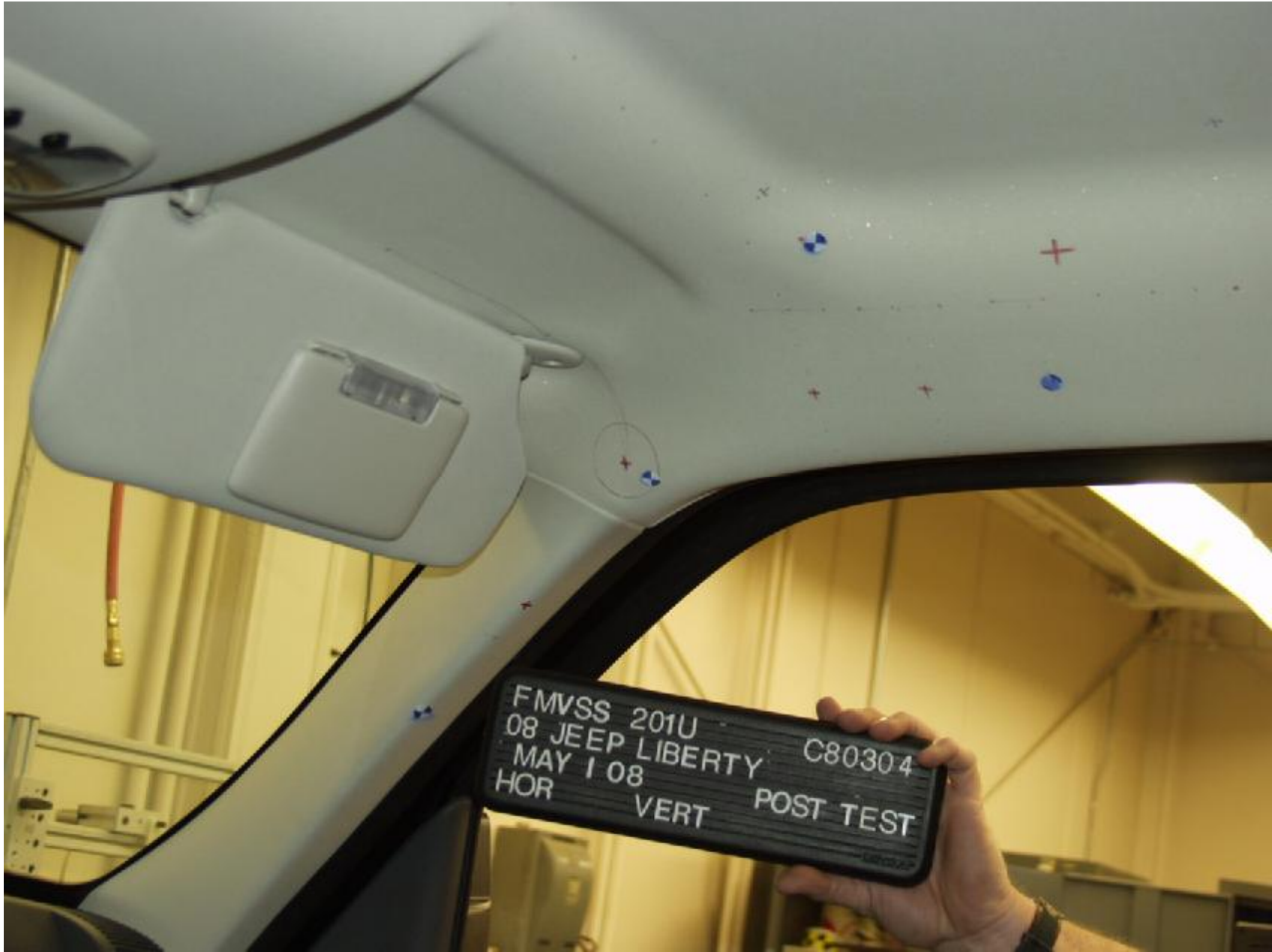


Figure A-25 : POST-TEST PASSENGER SIDE A-PILLAR



Figure A-26 : POST-TEST PASSENGER SIDE FRONT HEADER



Figure A-27 : POST-TEST PASSENGER SIDE SIDE RAIL



Figure A-28 : POST-TEST PASSENGER SIDE B-PILLAR



Figure A-29 : POST-TEST PASSENGER SIDE OTHER PILLAR



Figure A-30 : POST-TEST PASSENGER SIDE REAR 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**

MANUFACTURER:		FIRST TECHNOLOGY SAFETY SYSTEMS	
SERIAL NUMBER:		1140	
CALIBRATION DATE:		APRIL 28, 2008	
TEST PARAMETER	SPECIFICATION	TEST RESULTS	
TEMPERATURE	19°C to 26°C	21.1	
RELATIVE HUMIDITY	10% to 70%	25	
PEAK RESULTANT ACCELERATION	225 Gs to 275 Gs	254.3	
PEAK LATERAL ACCELERATION	15 Gs Maximum	7.1	
IS ACCELERATION CURVE UNIMODAL?	YES	YES	

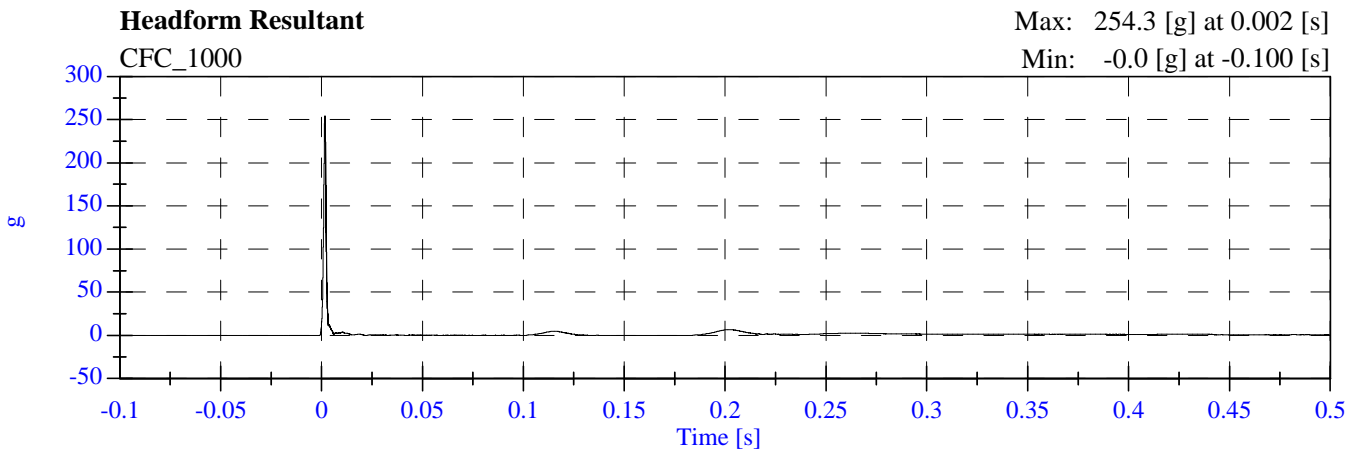
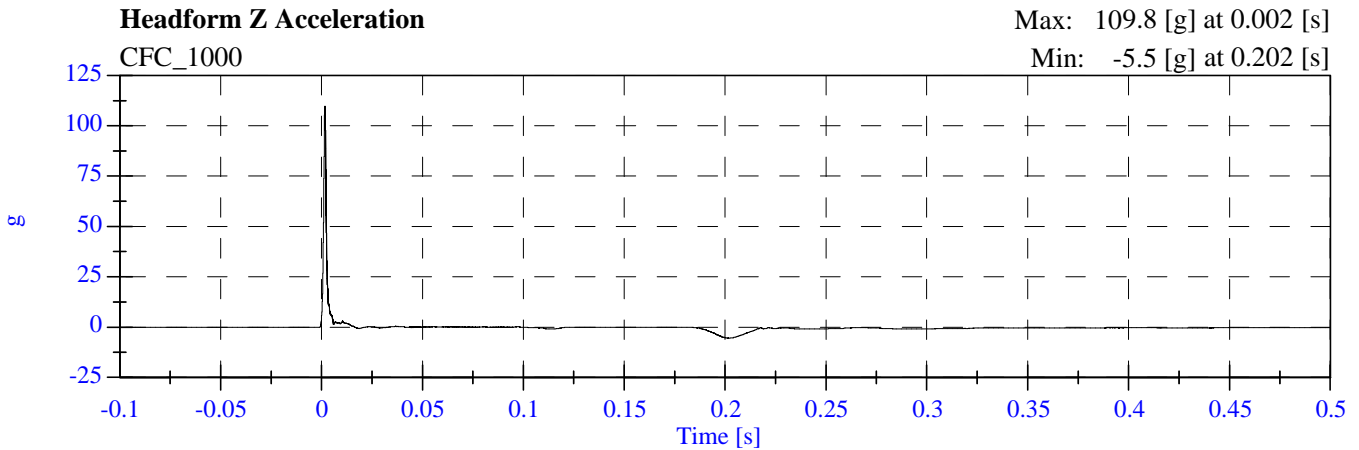
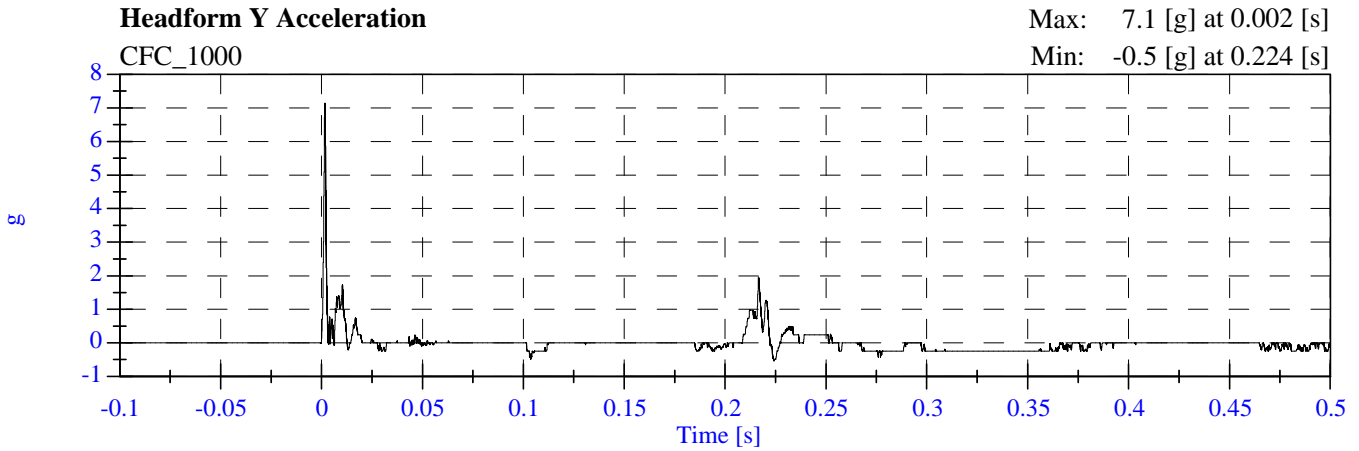
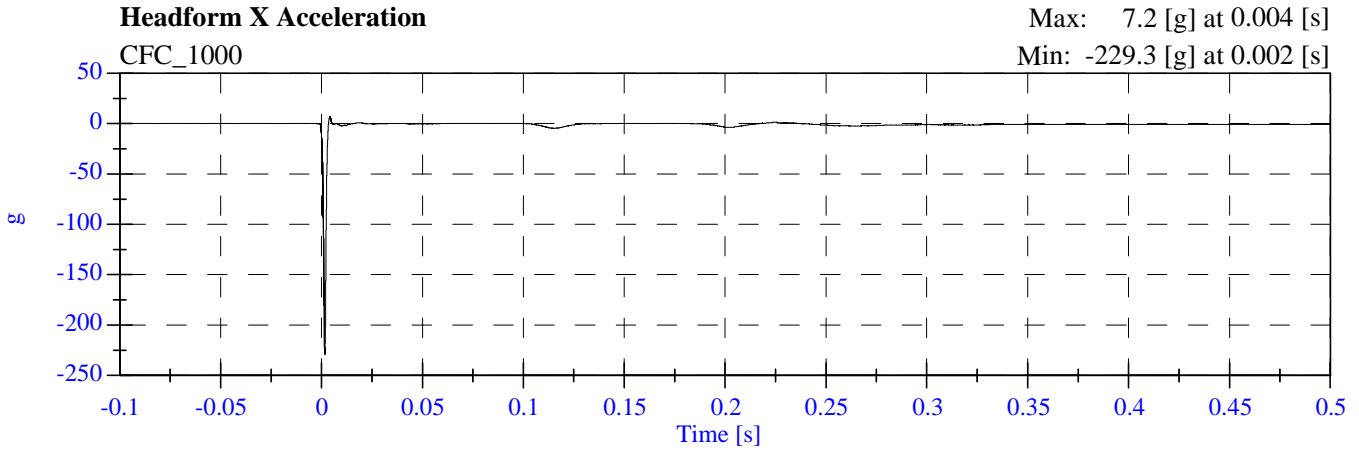
HEAD ACCELEROMETER CALIBRATION INFORMATION

I.D. NUMBER	MANUFACTURER	MODEL NUMBER	SERIAL NUMBER	DATE OF LAST CALIBRATION	DATE OF NEXT CALIBRATION
1 - LONGITUDINAL	ENDEVCO	7264-2000T	J24876	Jan. 18, 2008	June 18, 2008
2 - LATERAL	ENDEVCO	7264-2000T	J33030	Jan. 18, 2008	June 18, 2008
3 - VERTICAL	ENDEVCO	7264-2000T	J31009	Jan. 18, 2008	June 18, 2008

REMARKS:

FMVSS 201U - Headform Calibration Drops

C80305 - April 28, 2008



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

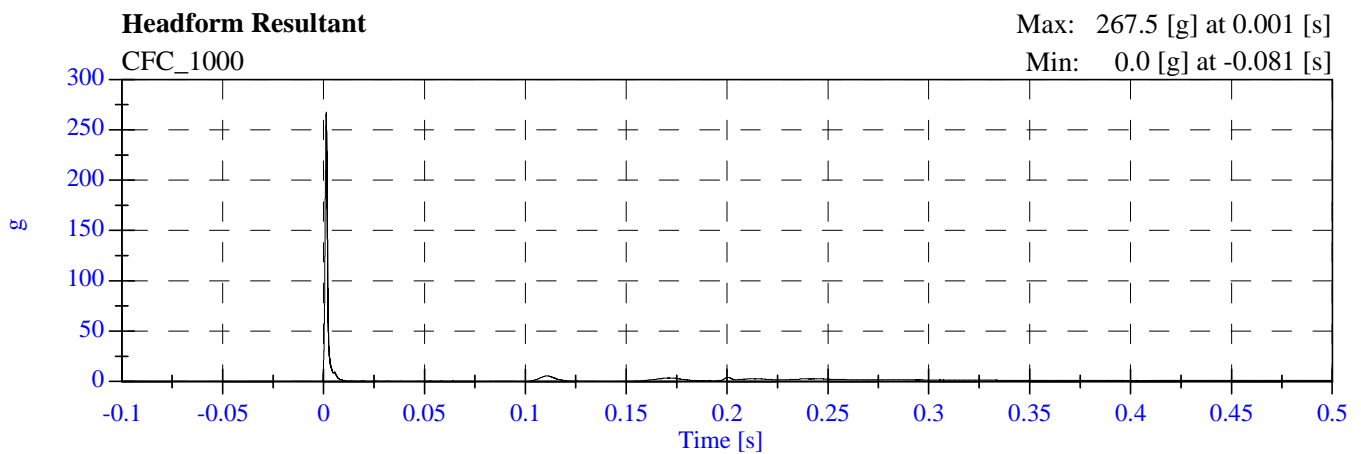
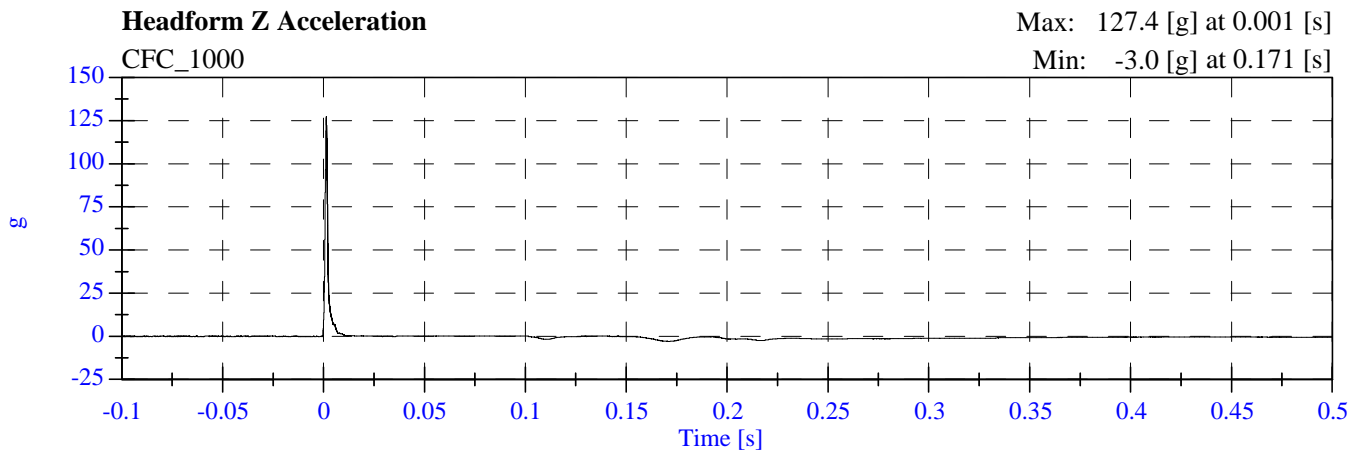
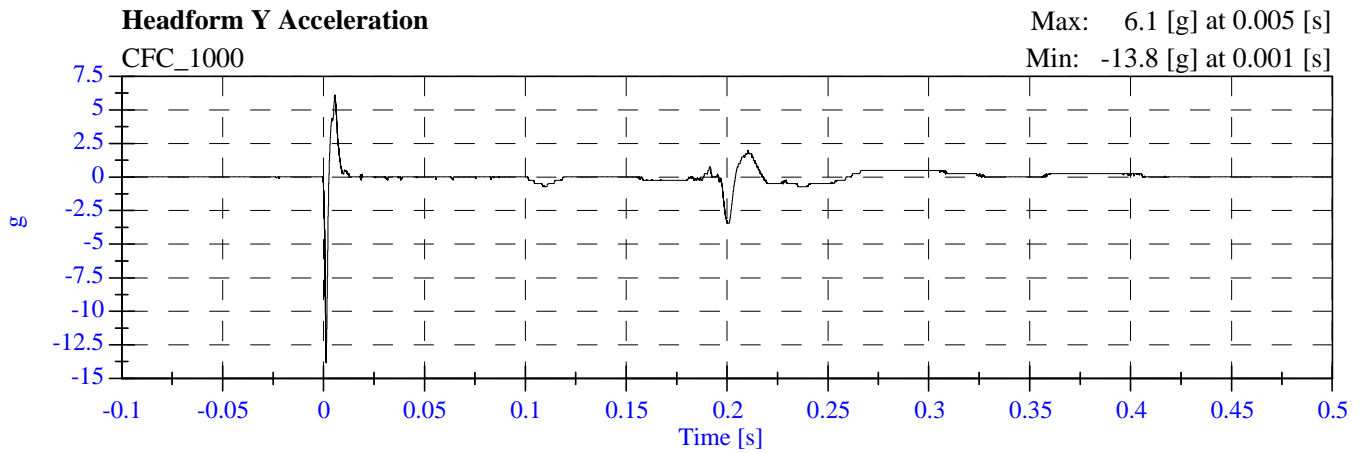
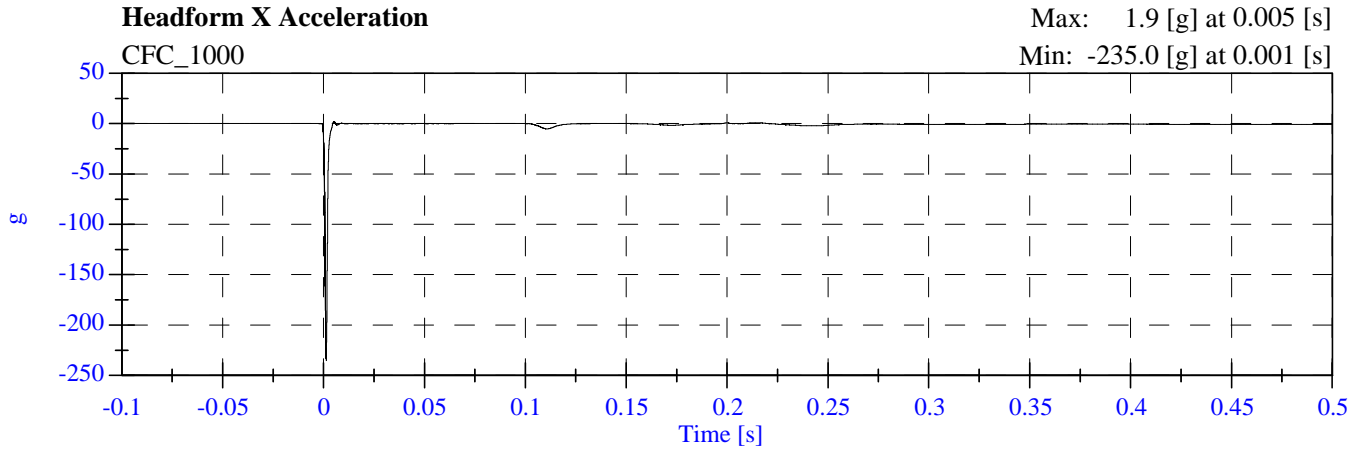
MANUFACTURER:		DENTON ATD INC.	
SERIAL NUMBER:		0062	
CALIBRATION DATE:		APRIL 28, 2008	
TEST PARAMETER	SPECIFICATION	TEST RESULTS	
TEMPERATURE	19°C to 26°C	21.1	
RELATIVE HUMIDITY	10% to 70%	25	
PEAK RESULTANT ACCELERATION	225 Gs to 275 Gs	267.5	
PEAK LATERAL ACCELERATION	15 Gs Maximum	13.8	
IS ACCELERATION CURVE UNIMODAL?	YES	YES	

HEAD ACCELEROMETER CALIBRATION INFORMATION

I.D. NUMBER	MANUFACTURER	MODEL NUMBER	SERIAL NUMBER	DATE OF LAST CALIBRATION	DATE OF NEXT CALIBRATION
1 - LONGITUDINAL	ENDEVCO	7264-2000T	J33127	Jan. 18, 2008	June 18, 2008
2 - LATERAL	ENDEVCO	7264-2000T	J33019	Jan. 18, 2008	June 18, 2008
3 - VERTICAL	ENDEVCO	7264-2000T	J32782	Jan. 18, 2008	June 18, 2008

REMARKS:

FMVSS 201U - Headform Calibration Drops C80305 - April 28, 2008



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

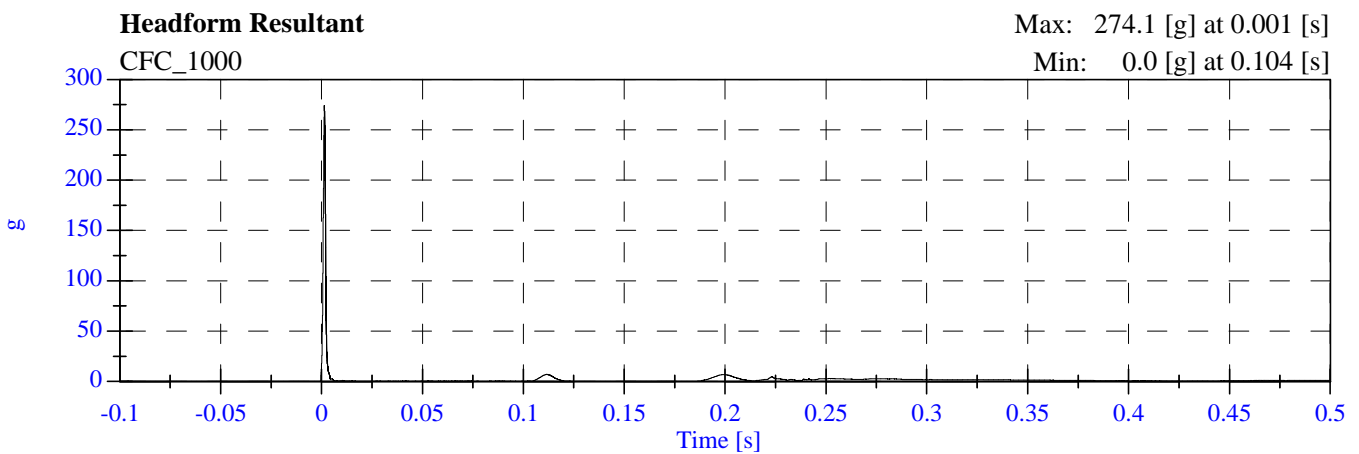
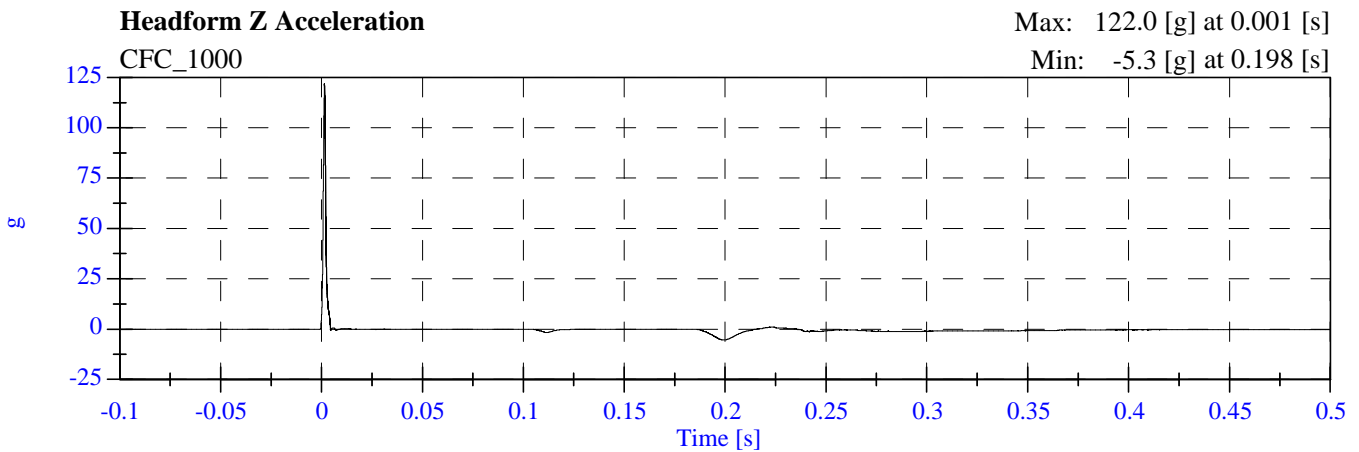
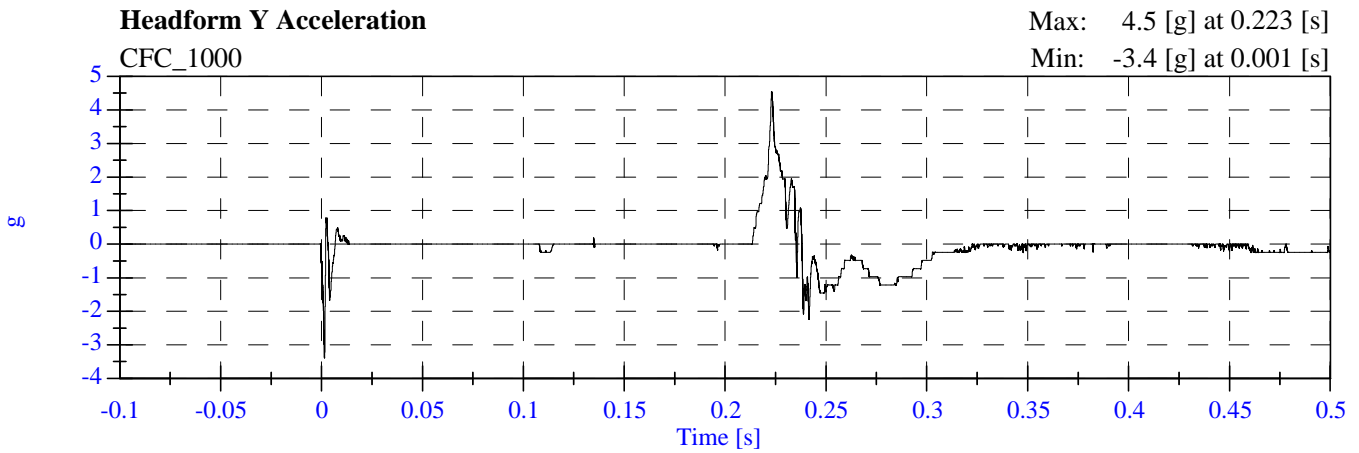
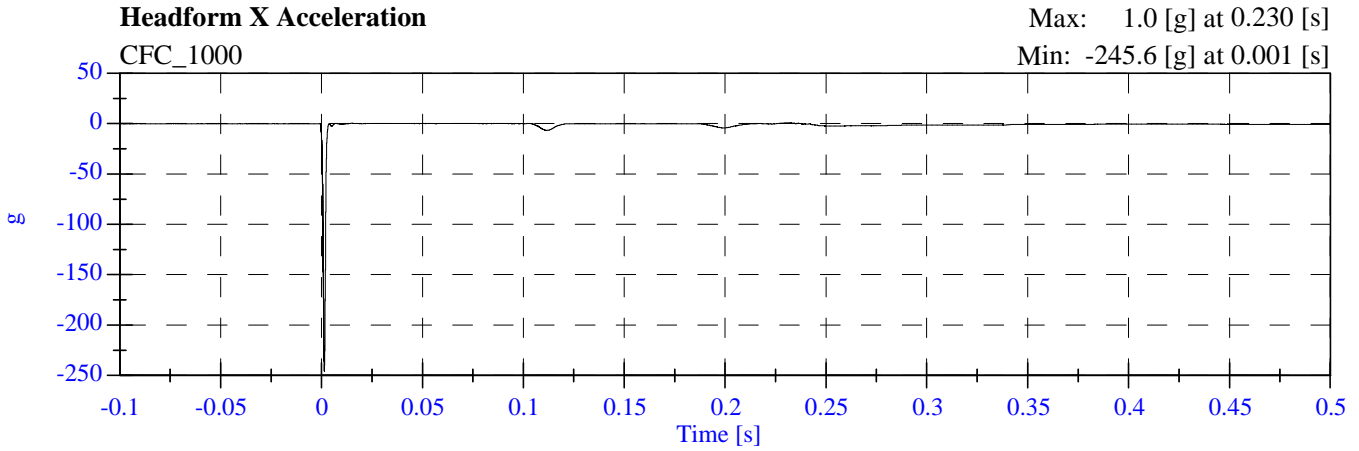
MANUFACTURER:		FIRST TECHNOLOGY SAFETY SYSTEMS	
SERIAL NUMBER:		805	
CALIBRATION DATE:		APRIL 28, 2008	
TEST PARAMETER	SPECIFICATION	TEST RESULTS	
TEMPERATURE	19°C to 26°C	21.1	
RELATIVE HUMIDITY	10% to 70%	25	
PEAK RESULTANT ACCELERATION	225 Gs to 275 Gs	274.1	
PEAK LATERAL ACCELERATION	15 Gs Maximum	4.5	
IS ACCELERATION CURVE UNIMODAL?	YES	YES	

HEAD ACCELEROMETER CALIBRATION INFORMATION

I.D. NUMBER	MANUFACTURER	MODEL NUMBER	SERIAL NUMBER	DATE OF LAST CALIBRATION	DATE OF NEXT CALIBRATION
1 - LONGITUDINAL	ENDEVCO	7264-2000T	J41004	Jan. 18, 2008	June 18, 2008
2 - LATERAL	ENDEVCO	7264-2000T	J37496	Jan. 18, 2008	June 18, 2008
3 - VERTICAL	ENDEVCO	7264-2000T	J41016	Jan. 18, 2008	June 18, 2008

REMARKS:

FMVSS 201U - Headform Calibration Drops C80305 - April 28, 2008



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

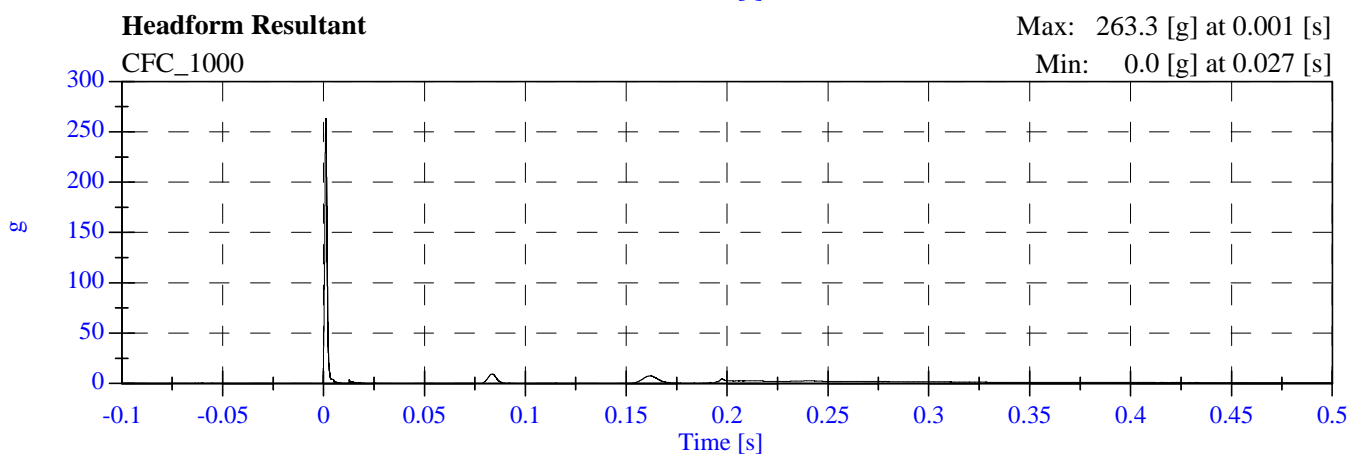
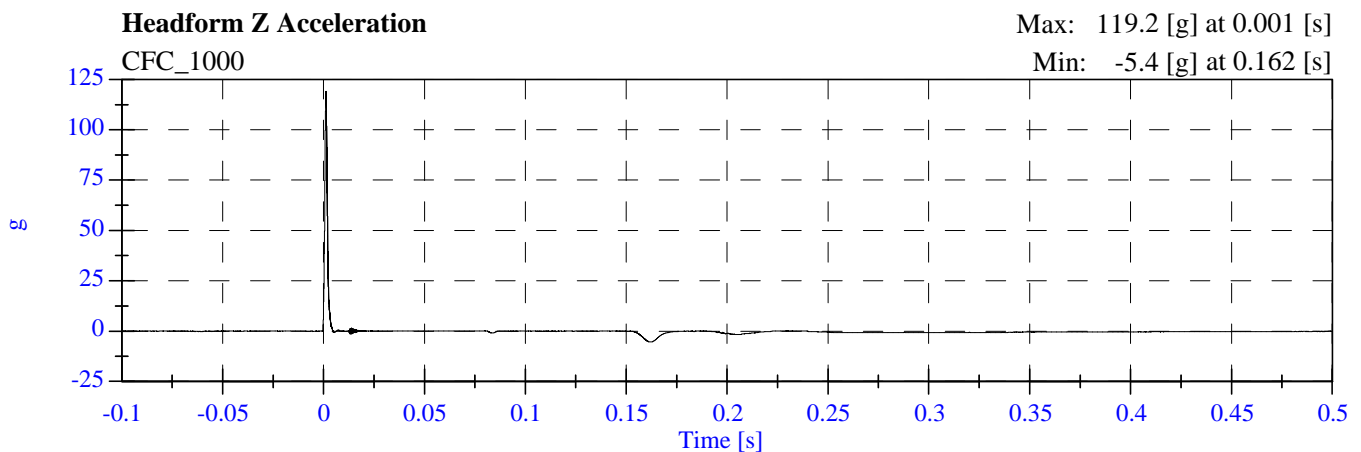
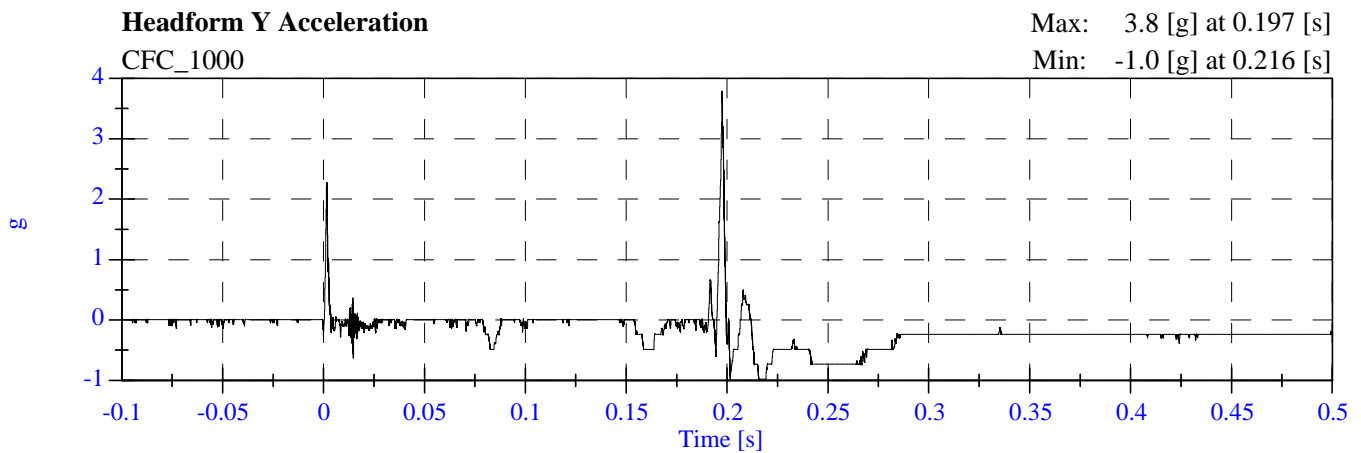
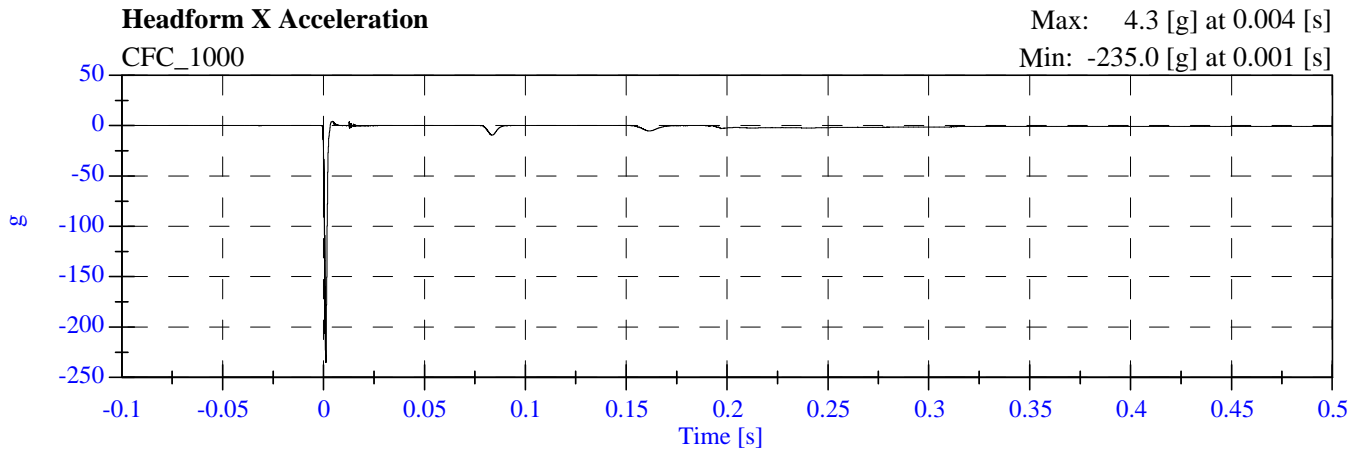
MANUFACTURER:		DENTON ATD INC.	
SERIAL NUMBER:		0355	
CALIBRATION DATE:		APRIL 28, 2008	
TEST PARAMETER	SPECIFICATION	TEST RESULTS	
TEMPERATURE	19°C to 26°C	21.1	
RELATIVE HUMIDITY	10% to 70%	25	
PEAK RESULTANT ACCELERATION	225 Gs to 275 Gs	263.3	
PEAK LATERAL ACCELERATION	15 Gs Maximum	3.8	
IS ACCELERATION CURVE UNIMODAL?	YES	YES	

HEAD ACCELEROMETER CALIBRATION INFORMATION

I.D. NUMBER	MANUFACTURER	MODEL NUMBER	SERIAL NUMBER	DATE OF LAST CALIBRATION	DATE OF NEXT CALIBRATION
1 - LONGITUDINAL	ENDEVCO	7264-2000T	J28671	Jan. 18, 2008	June 18, 2008
2 - LATERAL	ENDEVCO	7264-2000T	J32779	Jan. 18, 2008	June 18, 2008
3 - VERTICAL	ENDEVCO	7264-2000T	J25854	Jan. 18, 2008	June 18, 2008

REMARKS:

FMVSS 201U - Headform Calibration Drops C80305 - April 28, 2008



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

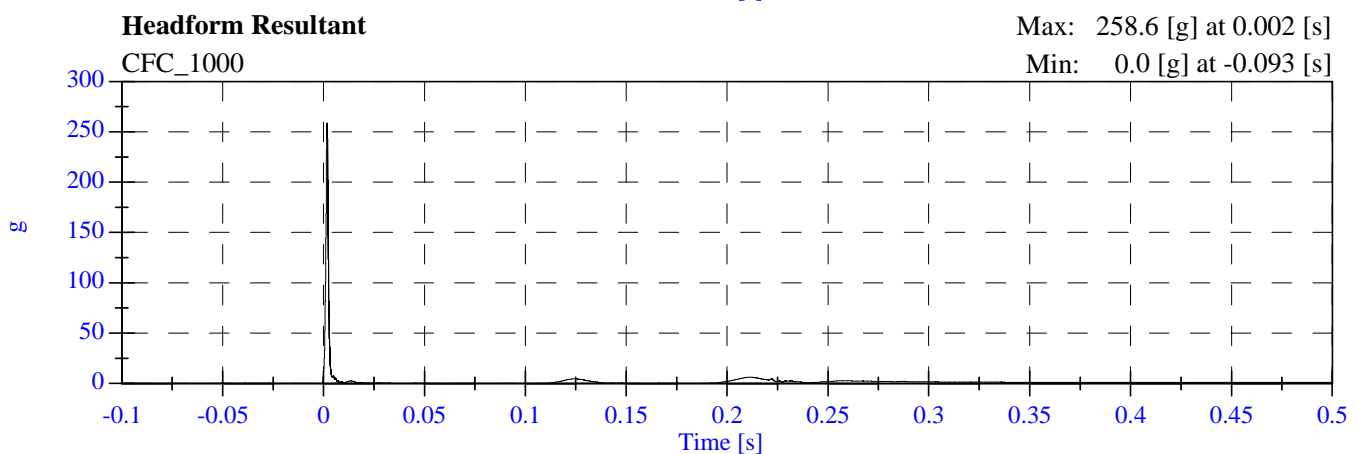
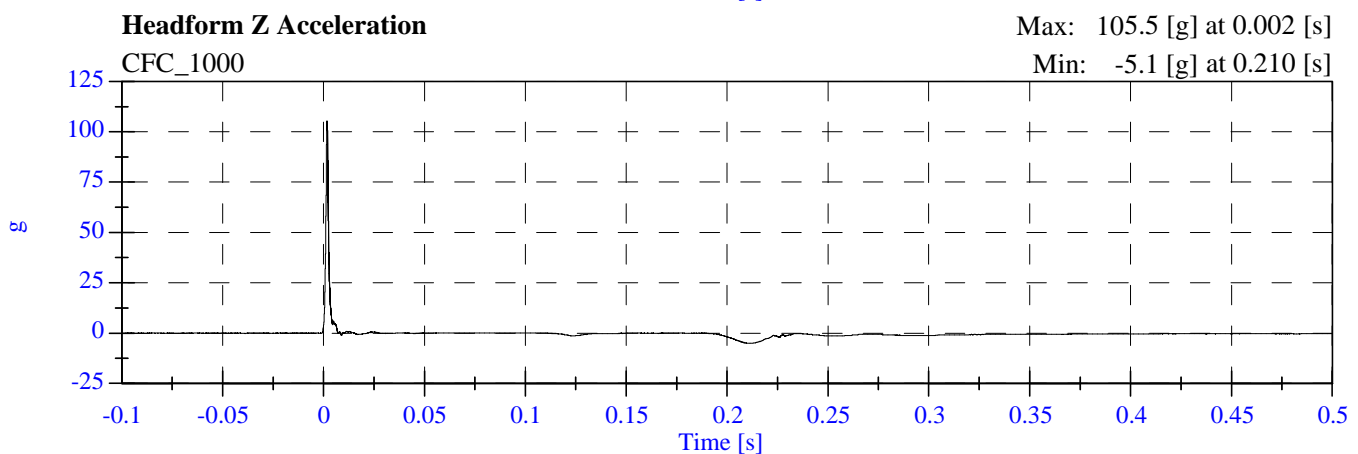
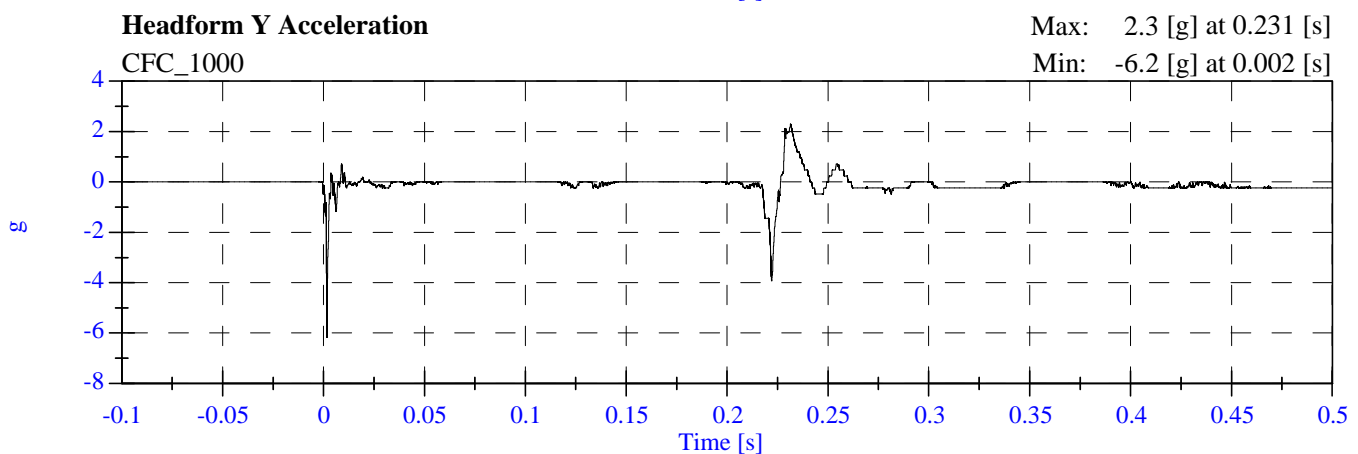
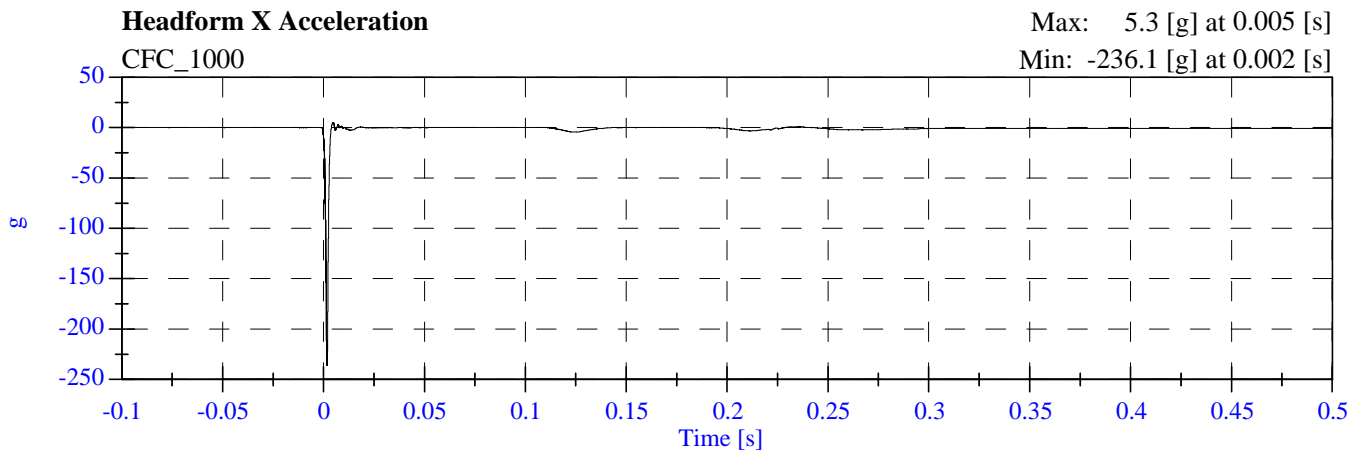
MANUFACTURER:		FIRST TECHNOLOGY SAFETY SYSTEMS	
SERIAL NUMBER:		1142	
CALIBRATION DATE:		APRIL 28, 2008	
TEST PARAMETER	SPECIFICATION	TEST RESULTS	
TEMPERATURE	19°C to 26°C	21.1	
RELATIVE HUMIDITY	10% to 70%	25	
PEAK RESULTANT ACCELERATION	225 Gs to 275 Gs	258.6	
PEAK LATERAL ACCELERATION	15 Gs Maximum	6.2	
IS ACCELERATION CURVE UNIMODAL?	YES	YES	

HEAD ACCELEROMETER CALIBRATION INFORMATION

I.D. NUMBER	MANUFACTURER	MODEL NUMBER	SERIAL NUMBER	DATE OF LAST CALIBRATION	DATE OF NEXT CALIBRATION
1 - LONGITUDINAL	ENDEVCO	7264-2000T	J41006	Jan. 18, 2008	June 18, 2008
2 - LATERAL	ENDEVCO	7264-2000T	J40994	Jan. 18, 2008	June 18, 2008
3 - VERTICAL	ENDEVCO	7264-2000T	J41007	Jan. 18, 2008	June 18, 2008

REMARKS:

FMVSS 201U - Headform Calibration Drops C80305 - April 28, 2008



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

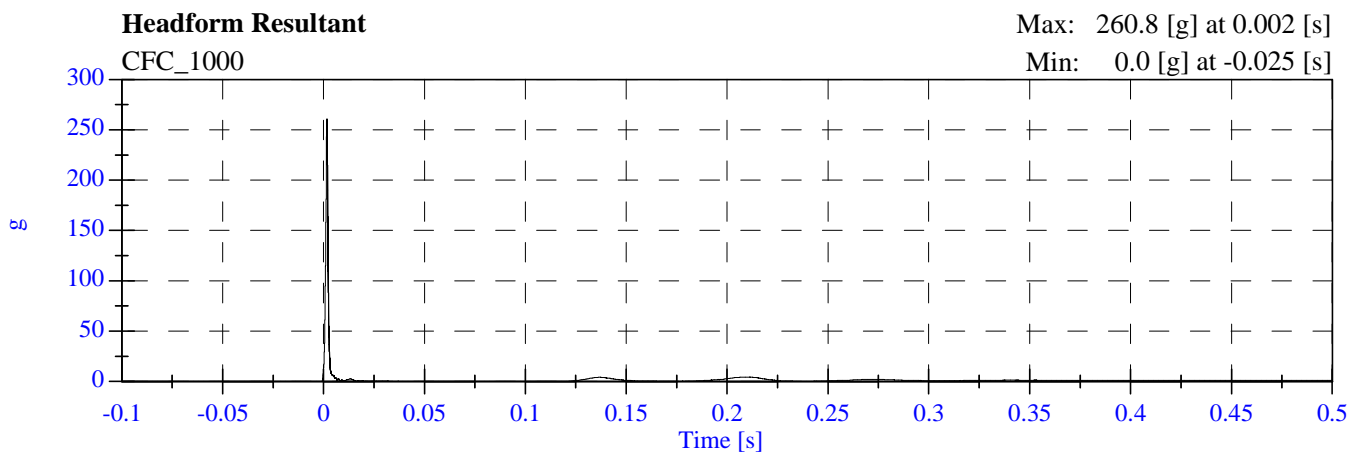
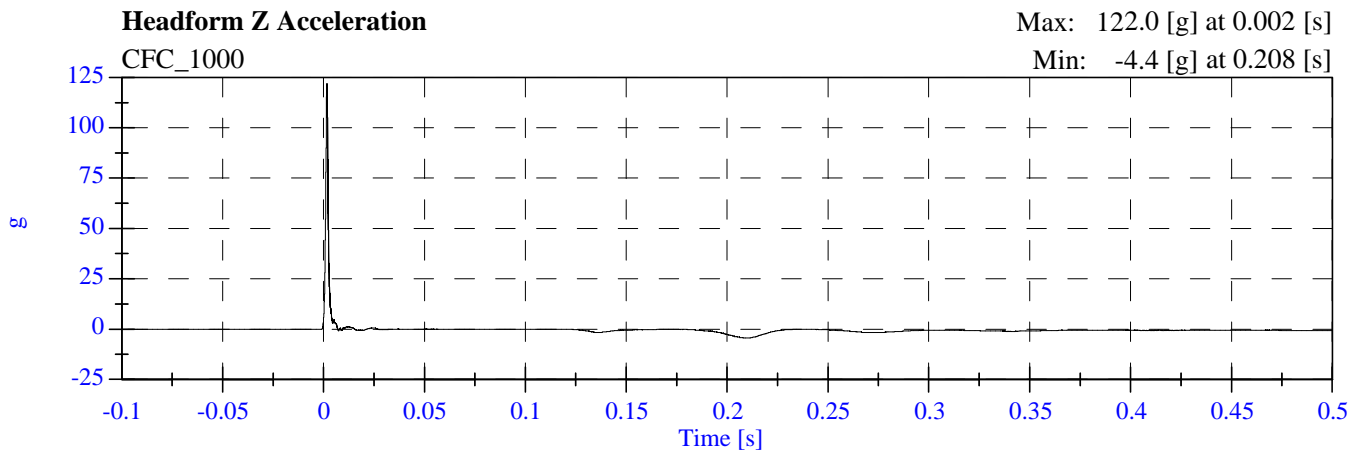
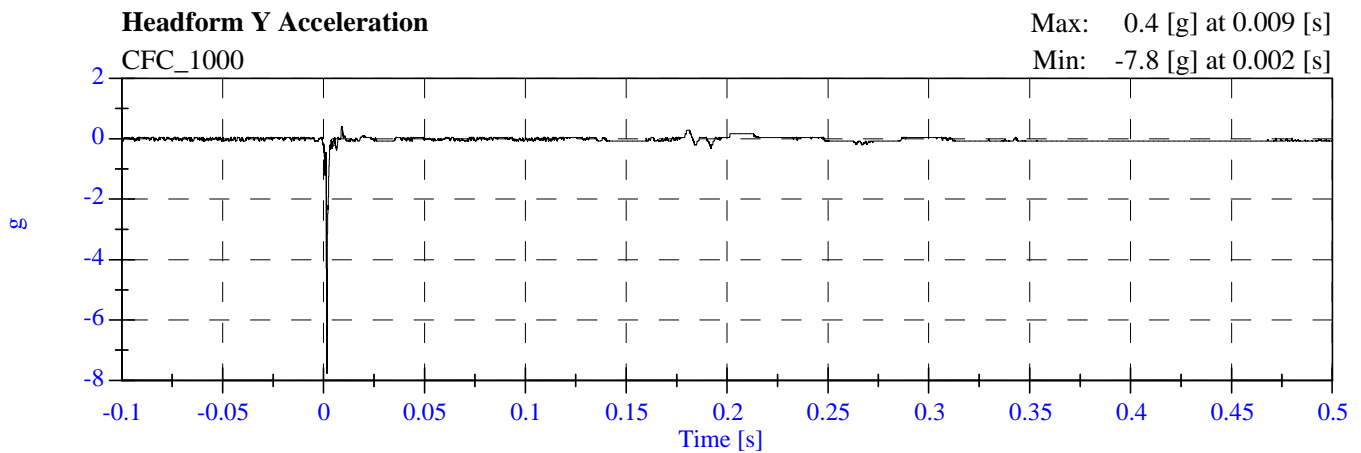
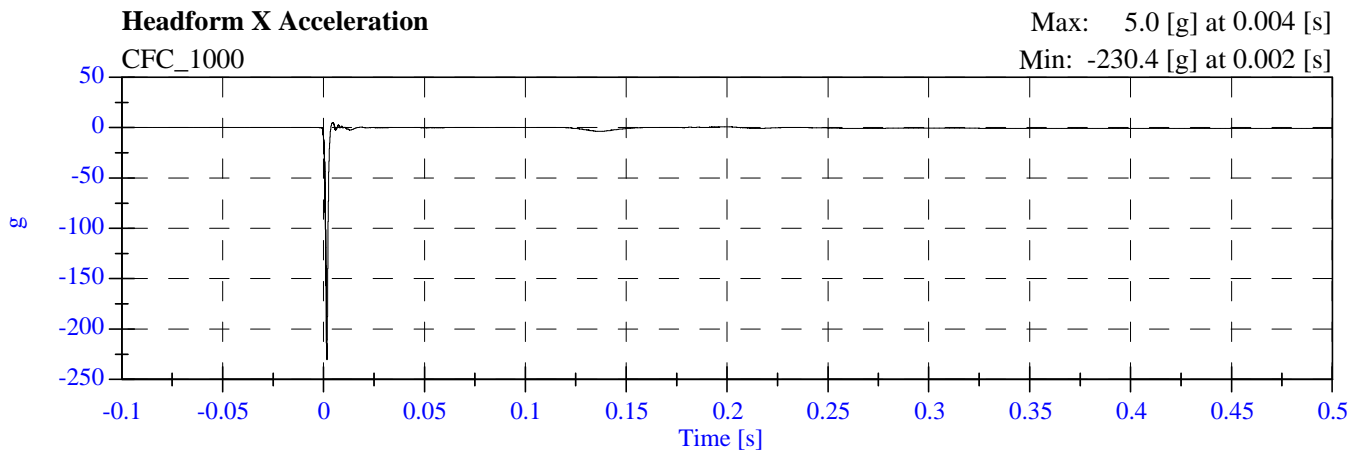
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SERIAL NUMBER:		1140	
CALIBRATION DATE:		MAY 7, 2008	
TEST PARAMETER	SPECIFICATION	TEST RESULTS	
TEMPERATURE	19°C to 26°C	20.0	
RELATIVE HUMIDITY	10% to 70%	34.3	
PEAK RESULTANT ACCELERATION	225 Gs to 275 Gs	260.8	
PEAK LATERAL ACCELERATION	15 Gs Maximum	7.8	
IS ACCELERATION CURVE UNIMODAL?	YES	YES	

HEAD ACCELEROMETER CALIBRATION INFORMATION

I.D. NUMBER	MANUFACTURER	MODEL NUMBER	SERIAL NUMBER	DATE OF LAST CALIBRATION	DATE OF NEXT CALIBRATION
1 - LONGITUDINAL	ENDEVCO	7264-2000T	J24876	Jan. 18, 2008	June 18, 2008
2 - LATERAL	ENDEVCO	7264-2000T	J33030	Jan. 18, 2008	June 18, 2008
3 - VERTICAL	ENDEVCO	7264-2000T	J31009	Jan. 18, 2008	June 18, 2008

REMARKS:

FMVSS 201U - Headform Calibration Drops C80304 - May 07, 2008



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

MANUFACTURER:		DENTON ATD INC.	
SERIAL NUMBER:		0062	
CALIBRATION DATE:		MAY 7, 2008	
TEST PARAMETER	SPECIFICATION	TEST RESULTS	
TEMPERATURE	19°C to 26°C	20.0	
RELATIVE HUMIDITY	10% to 70%	34.3	
PEAK RESULTANT ACCELERATION	225 Gs to 275 Gs	273.9	
PEAK LATERAL ACCELERATION	15 Gs Maximum	6.7	
IS ACCELERATION CURVE UNIMODAL?	YES	YES	

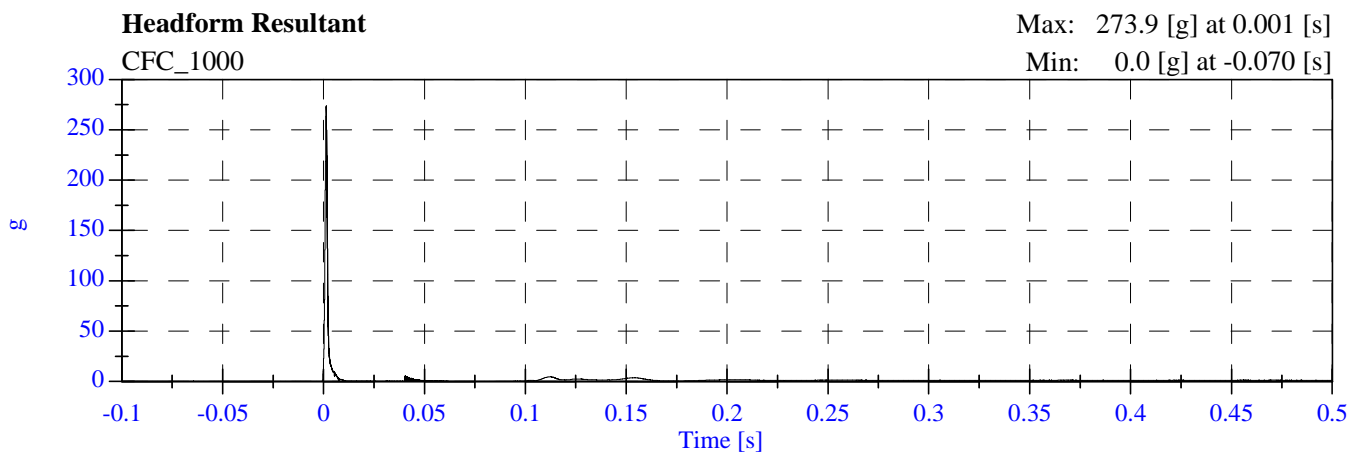
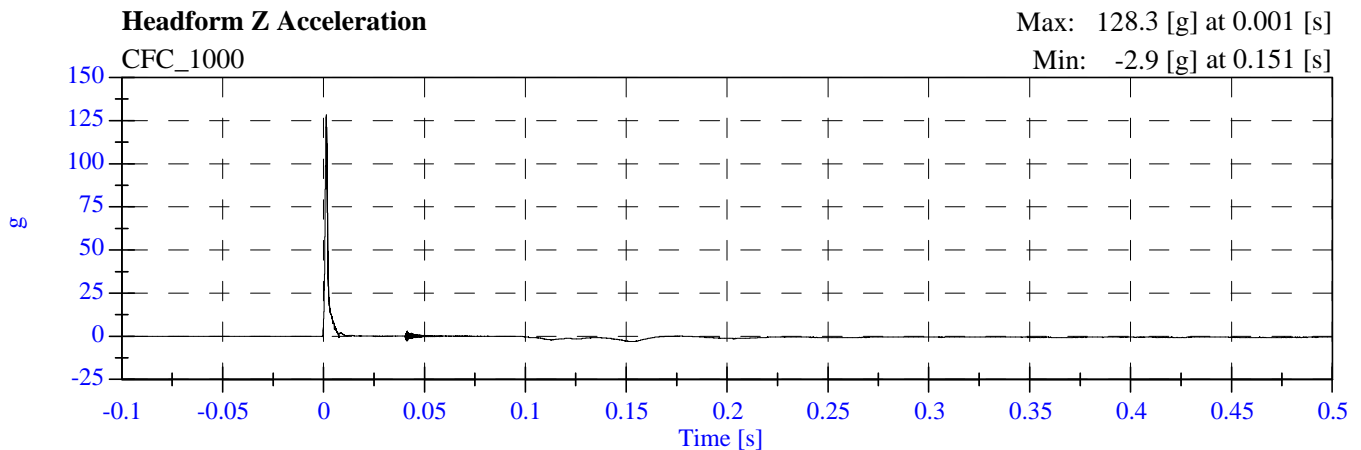
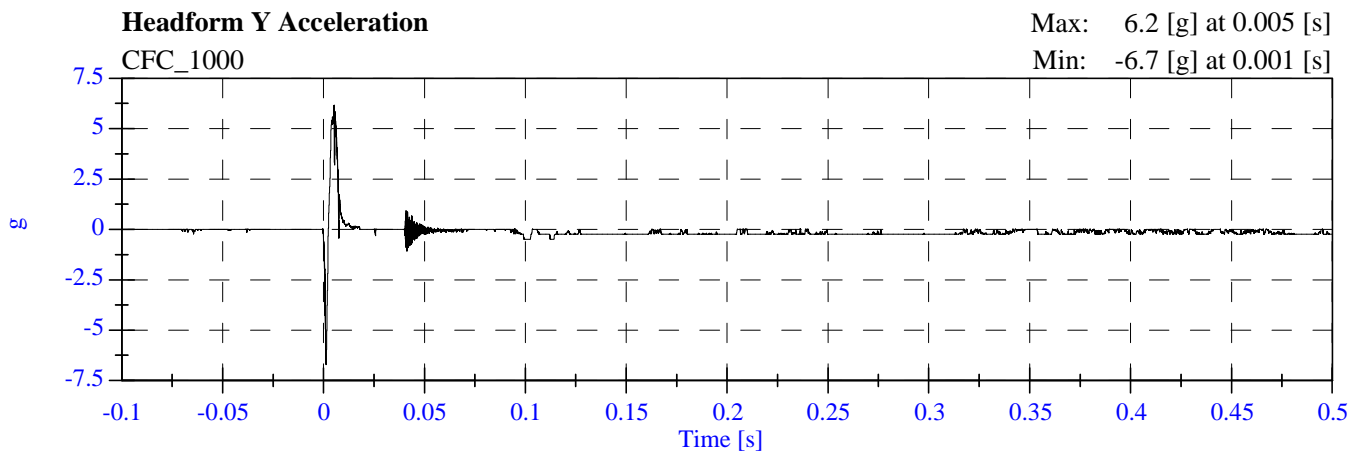
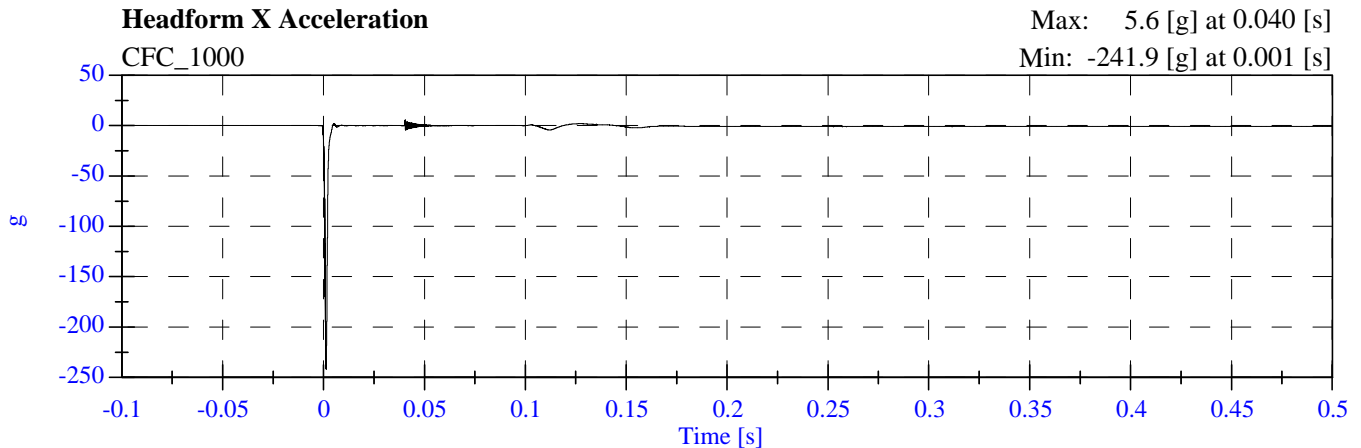
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I.D. NUMBER	MANUFACTURER	MODEL NUMBER	SERIAL NUMBER	DATE OF LAST CALIBRATION	DATE OF NEXT CALIBRATION
1 - LONGITUDINAL	ENDEVCO	7264-2000T	J33127	Jan. 18, 2008	June 18, 2008
2 - LATERAL	ENDEVCO	7264-2000T	J33019	Jan. 18, 2008	June 18, 2008
3 - VERTICAL	ENDEVCO	7264-2000T	J32782	Jan. 18, 2008	June 18, 2008

REMARKS:

FMVSS 201U - Headform Calibration Drops

C80304 - May 07, 2008



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

MANUFACTURER:		FIRST TECHNOLOGY SAFETY SYSTEMS	
SERIAL NUMBER:		805	
CALIBRATION DATE:		MAY 7, 2008	
TEST PARAMETER	SPECIFICATION	TEST RESULTS	
TEMPERATURE	19°C to 26°C	20.0	
RELATIVE HUMIDITY	10% to 70%	34.3	
PEAK RESULTANT ACCELERATION	225 Gs to 275 Gs	265.7	
PEAK LATERAL ACCELERATION	15 Gs Maximum	11.3	
IS ACCELERATION CURVE UNIMODAL?	YES	YES	

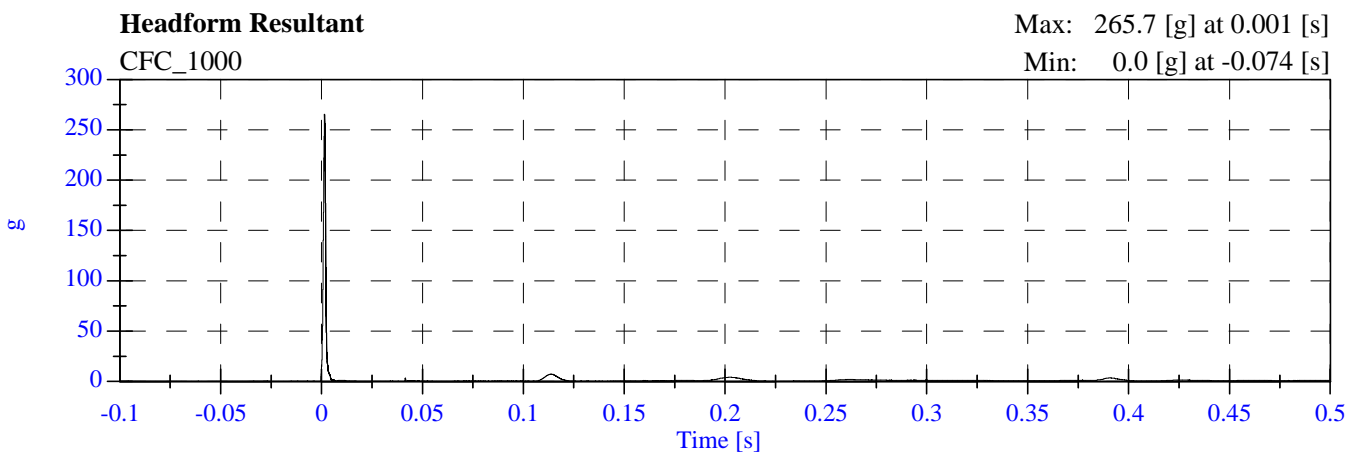
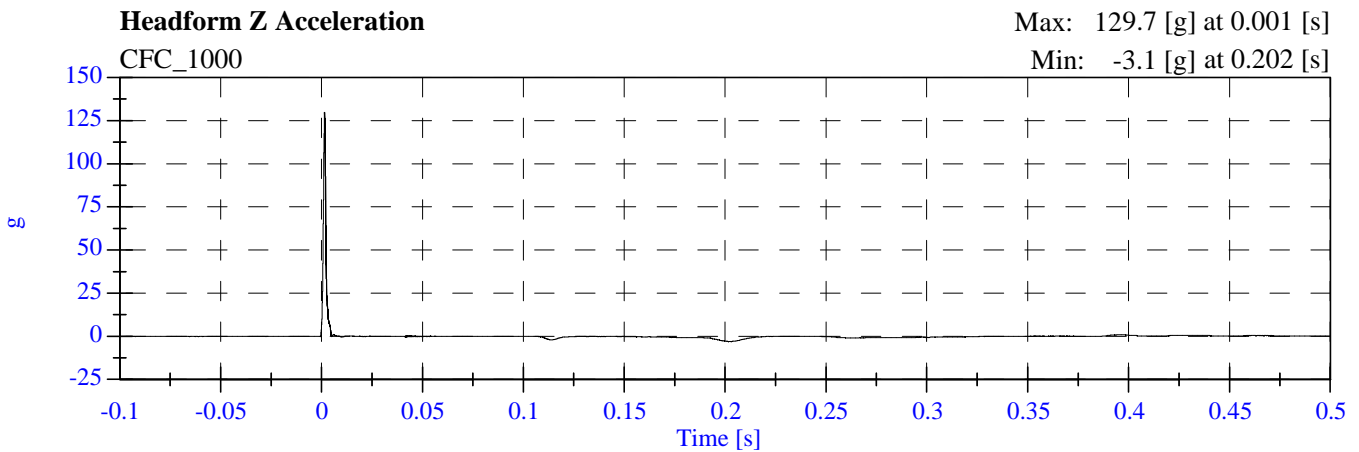
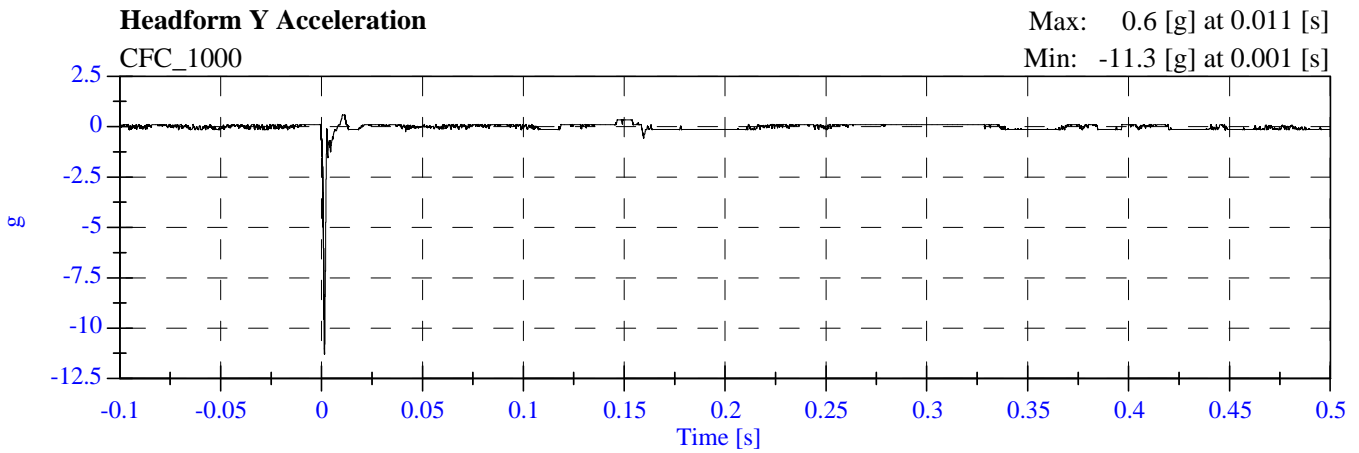
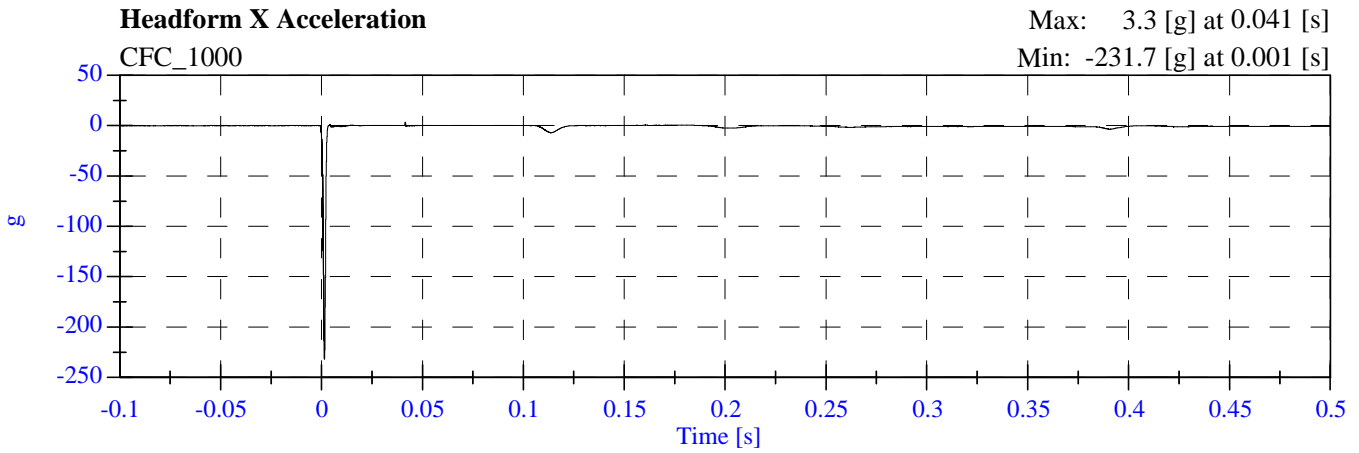
HEAD ACCELEROMETER CALIBRATION INFORMATION

I.D. NUMBER	MANUFACTURER	MODEL NUMBER	SERIAL NUMBER	DATE OF LAST CALIBRATION	DATE OF NEXT CALIBRATION
1 - LONGITUDINAL	ENDEVCO	7264-2000T	J41004	Jan. 18, 2008	June 18, 2008
2 - LATERAL	ENDEVCO	7264-2000T	J37496	Jan. 18, 2008	June 18, 2008
3 - VERTICAL	ENDEVCO	7264-2000T	J41016	Jan. 18, 2008	June 18, 2008

REMARKS:

FMVSS 201U - Headform Calibration Drops

C80304 - May 07, 2008



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

MANUFACTURER:		DENTON ATD INC.	
SERIAL NUMBER:		0355	
CALIBRATION DATE:		MAY 7, 2008	
TEST PARAMETER	SPECIFICATION	TEST RESULTS	
TEMPERATURE	19°C to 26°C	20.0	
RELATIVE HUMIDITY	10% to 70%	34.3	
PEAK RESULTANT ACCELERATION	225 Gs to 275 Gs	251.2	
PEAK LATERAL ACCELERATION	15 Gs Maximum	3.9	
IS ACCELERATION CURVE UNIMODAL?	YES	YES	

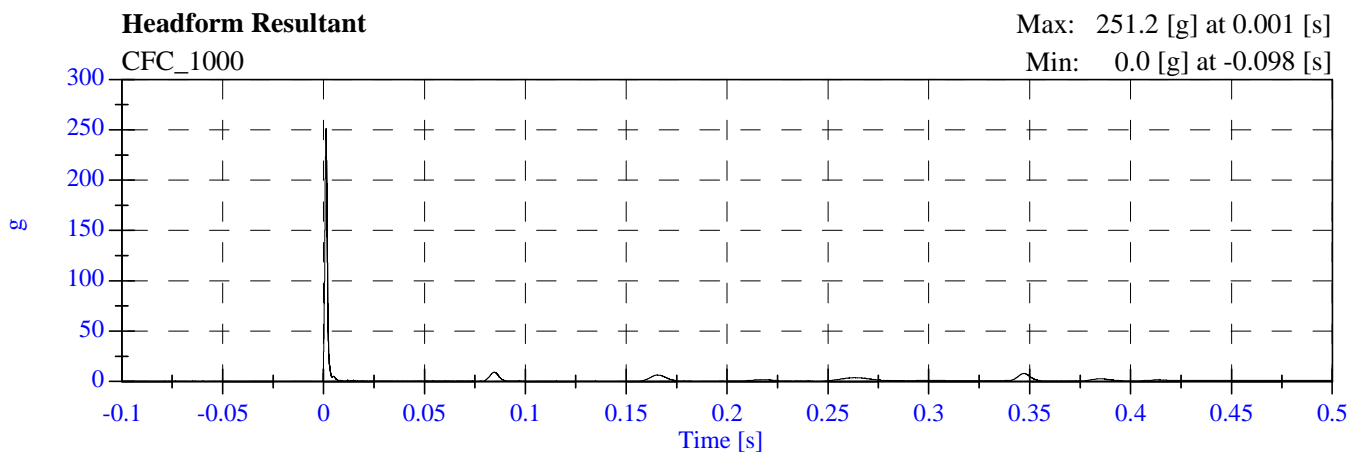
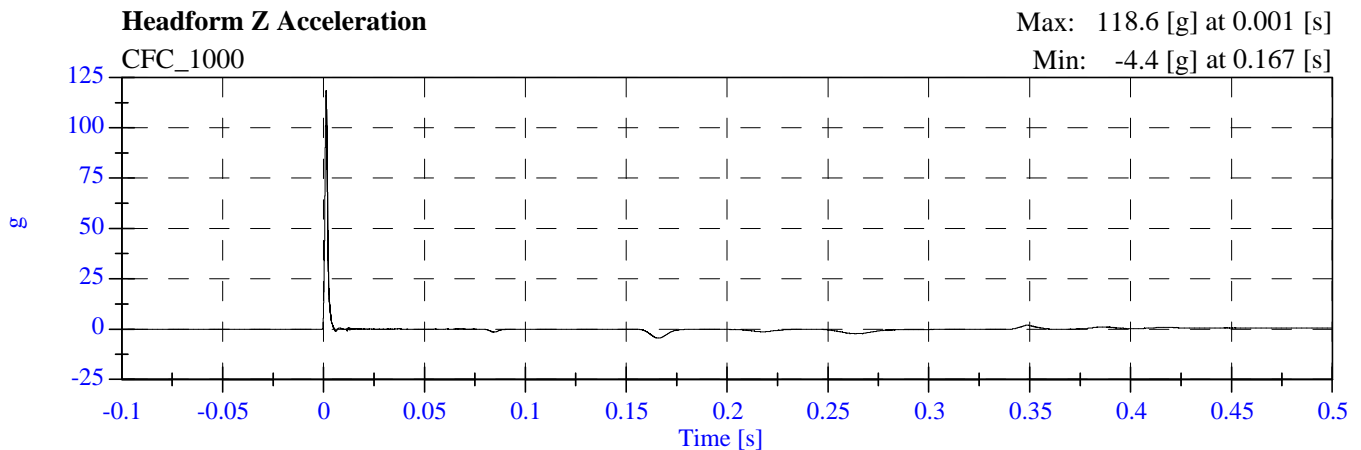
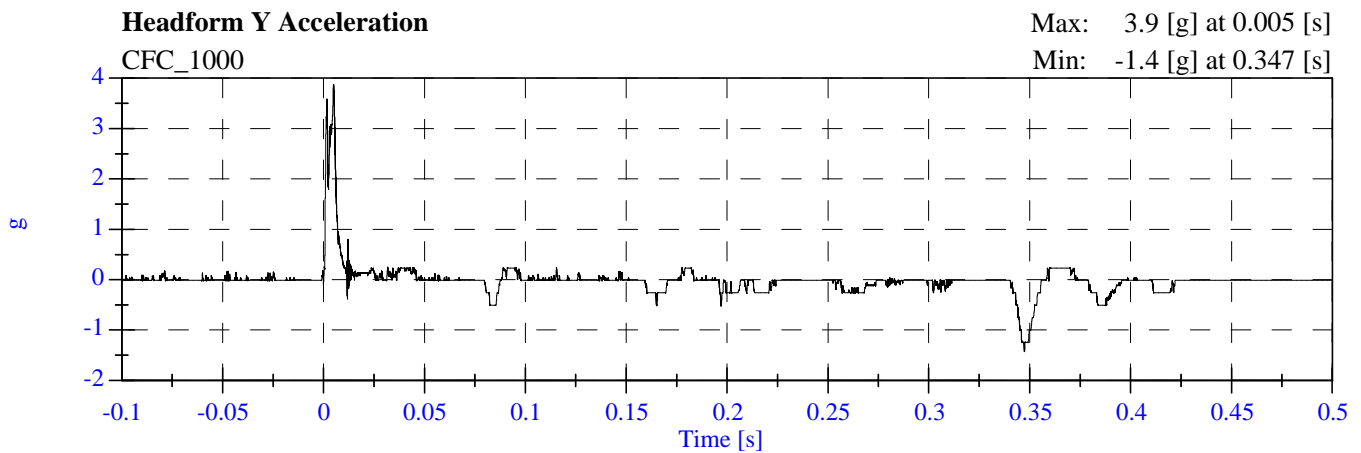
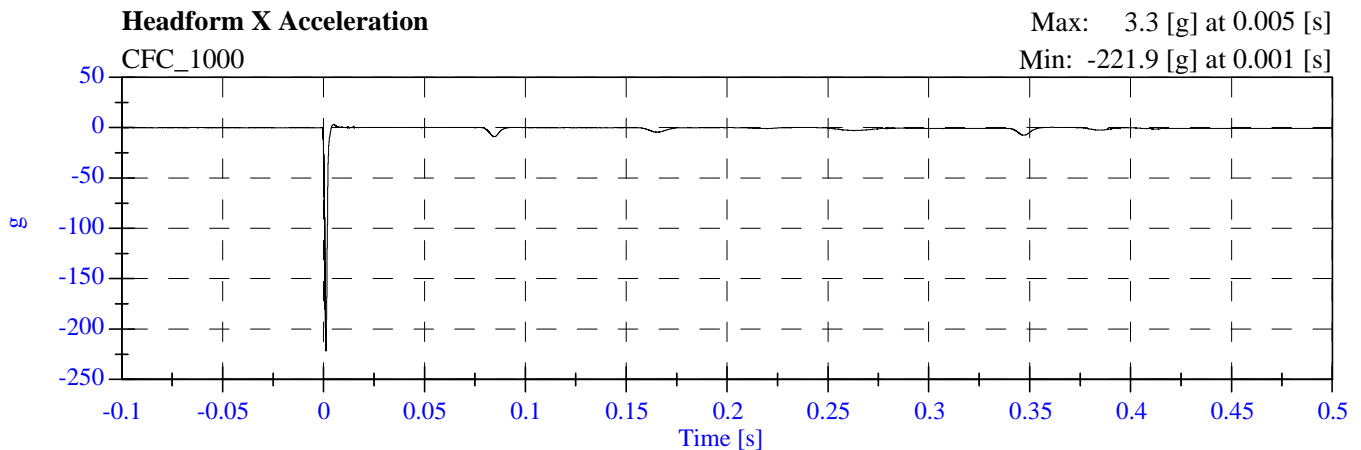
HEAD ACCELEROMETER CALIBRATION INFORMATION

I.D. NUMBER	MANUFACTURER	MODEL NUMBER	SERIAL NUMBER	DATE OF LAST CALIBRATION	DATE OF NEXT CALIBRATION
1 - LONGITUDINAL	ENDEVCO	7264-2000T	J28671	Jan. 18, 2008	June 18, 2008
2 - LATERAL	ENDEVCO	7264-2000T	J32779	Jan. 18, 2008	June 18, 2008
3 - VERTICAL	ENDEVCO	7264-2000T	J25854	Jan. 18, 2008	June 18, 2008

REMARKS:

FMVSS 201U - Headform Calibration Drops

C80304 - May 07, 2008



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

MANUFACTURER:		FIRST TECHNOLOGY SAFETY SYSTEMS	
SERIAL NUMBER:		1142	
CALIBRATION DATE:		MAY 7, 2008	
TEST PARAMETER	SPECIFICATION	TEST RESULTS	
TEMPERATURE	19°C to 26°C	20.0	
RELATIVE HUMIDITY	10% to 70%	34.3	
PEAK RESULTANT ACCELERATION	225 Gs to 275 Gs	256.5	
PEAK LATERAL ACCELERATION	15 Gs Maximum	3.5	
IS ACCELERATION CURVE UNIMODAL?	YES	YES	

HEAD ACCELEROMETER CALIBRATION INFORMATION

I.D. NUMBER	MANUFACTURER	MODEL NUMBER	SERIAL NUMBER	DATE OF LAST CALIBRATION	DATE OF NEXT CALIBRATION
1 - LONGITUDINAL	ENDEVCO	7264-2000T	J41006	Jan. 18, 2008	June 18, 2008
2 - LATERAL	ENDEVCO	7264-2000T	J40994	Jan. 18, 2008	June 18, 2008
3 - VERTICAL	ENDEVCO	7264-2000T	J41007	Jan. 18, 2008	June 18, 2008

REMARKS:

FMVSS 201U - Headform Calibration Drops

C80304 - May 07, 2008

