

REPORT NUMBER: 201U-CAL-06-06

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

**MITSUBISHI MOTORS NORTH AMERICA INC.  
2006 MITSUBISHI ECLIPSE GS, 2-DOOR SPORT COUPE**

NHTSA NUMBER: C65602

CALSPAN TEST NUMBER: 8754-FMH-13

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



Test Date: May 9, 2006

FINAL REPORT

PREPARED FOR:

U. S. DEPARTMENT OF TRANSPORTATION  
National Highway Traffic Safety Administration  
Enforcement  
Office of Vehicle Safety Compliance  
Mail Code: NVS-220, Room 6111  
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				14. <i>Sponsoring Agency Code</i> NVS-220																			
15. <i>Supplementary Notes</i>																							
16. <i>Abstract</i>  Compliance tests were conducted on the subject vehicle a 2006 Mitsubishi Eclipse GS 2-door Sport Coupe 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, 2006 Mitsubishi Eclipse GS, 2-door Sport Coupe, NHTSA No.C65602, met 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 2006 Mitsubishi Eclipse GS, 2-door Sport Coupe , NHTSA No.C65602 , 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 the test series with the target areas tested selected by the NHTSA Contracting Officers Technical Representative. A summary of test results can be found on Data Sheet 2-1, Summary of Upper Interior Head Impact Tests. The twelve (12) areas chosen for testing were:

RP1	RP2	BP2	BP1	AP3
AP1	SR2B	URAP	BP3	URRP
URSR	SR1			

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:	2006 Mitsubishi Eclipse GS 2-door Sport Coupe
VIN:	4A3AK24F06E036305
DATE OF MANUFACTURE:	OCT 2005 (SEE CERTIFICATION LABEL)
COLOR:	Titanium Pearl

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	1053.086	-544.450	935.986	1050.361	541.928	944.599	127°	29°	23.62	409.5	474.5
AP2	879.841	-610.358	848.742	895.096	602.003	856.374	-	-	-	-	-
AP3	798.154	-628.444	815.061	806.796	624.787	818.967	143°	50°	23.51	427.4	488.9
BP1	1739.886	-469.114	968.644	1740.498	473.730	971.939	90°	37°	23.67	597.5	617.2
BP2	1739.370	-609.813	771.974	1741.674	609.227	775.311	90°	10°	23.73	910.3	853.2
BP3	1697.784	-637.390	799.677	1696.384	638.622	802.295	297°	0°	23.87	948	881.6
BP4	1790.252	-664.869	717.771	1790.816	665.968	718.713	RELOCATED 1 CIRCLE		-	-	-
BP4_R1	1789.915	-656.591	740.501	1792.452	659.809	743.565	-	-	-	-	-
FH1	988.620	-439.025	972.641	985.203	431.563	973.227	RELOCATED 1 CIRCLE		-	-	-
FH1_R1	986.707	-419.552	974.540	981.235	408.627	974.164	-	-	-	-	-
FH2	965.244	-290.849	981.553	964.154	284.737	980.397	-	-	-	-	-
RH	1929.861	-289.419	977.045	1931.510	288.873	982.041	-	-	-	-	-
RP1	1926.808	-528.224	903.087	1928.864	532.954	907.378	42°	43°	23.47	568.9	595.6
RP2	2341.242	-550.253	756.097	2347.876	549.885	757.316	RELOCATED 5 CIRCLES		-	-	-
RP2_R5	2251.558	-539.793	838.197	2259.445	542.982	839.587	64°	(-10)°	23.86	335.2	419.3
SR1	1202.746	-503.479	974.005	1200.333	501.951	976.879	270°	41°	23.31	409.1	475
SR2A	1353.583	-497.521	983.482	1349.093	499.589	985.726	-	-	-	-	-
SR2B	1442.757	-495.222	984.331	1440.837	495.946	987.145	90°	41°	23.66	594.2	614.7
SR3	1891.140	-519.980	915.000	1891.760	520.180	914.690	-	-	-	-	-
URAP	1269.535	-392.314	1005.702	1262.957	408.076	1000.911	90°	50°	23.72	529	565.5
URBP	1717.029	-392.514	1020.870	1695.484	393.070	1031.427	-	-	-	-	-
URRP	1814.315	-405.257	989.314	1814.933	403.308	995.786	311°	47°	23.38	716.8	707.2
URSR	1449.087	-389.988	1052.936	1436.707	390.265	1053.577	270°	40°	23.75	452.5	507.8

\*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:				2006 Mitsubishi Eclipse GS 2-door Sport Coupe					
VIN:				4A3AK24F06E036305					
Month & Year of Manufacture:				OCT 2005 (SEE CERTIFICATION LABEL)					
Vehicle Body Color:				Titanium Pearl					
Engine Data:	-	Cylinders;	-	CID;	2.4	Liters;	-	cc	
Engine Placement:		x	Longitudinal;	or		-	Lateral		
Transmission:	5	Speed;	x	Manual;	-	Automatic;	-	Overdrive	
Final Drive:	-	Rear Wheel Drive;	x	Front Wheel Drive;	-	Four Wheel Drive			
Odometer Reading:		32	km						
Options:	x	A/C;	x	Power Steering;	x	Pwr.Brakes;	x	Pwr. Windows	
Interior Trim Information :									
1. Adjustable seat belt anchorages on both B-Pillars									
2. Non-sunroof									
3. No side rail grab handles									

<b>DATA FROM TIRE PLACARD:</b>									
Tire Pressure (at capacity);				220		kPa FRONT			
				220		kPa REAR			
Recommended Tire Size:				P225/50R17					
Tires on Test Vehicle:		P225/50R17		Manufacturer:			Bridgestone		
Vehicle Capacity Data:									
Number of Occupants:	2	Front;	2	Rear;	-	3rd Seat;	4	Total	
Type of Front Seats:	x	Bucket;	-	Bench;	-	Split Bench			
Type of Front Seat Back:	-	Fixed;	x	Adjustable with	x	Lever or	-	Knob	
Vehicle Capacity Weight (VCW)=				300		kg (A)			
No. of Occupants x 68 kg. =				272		kg (B)			
Rated Cargo/Luggage Weight (RCLW) =				28		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	=	<b>449</b>	<b>kg</b>	Left Rear	=	<b>304</b>	<b>kg</b>
Right Front	=	<b>439</b>	<b>kg</b>	Right Rear	=	<b>291</b>	<b>kg</b>
TOTAL FRONT	=	<b>888</b>	<b>kg</b>	TOTAL REAR	=	<b>595</b>	<b>kg</b>
% of Total Weight	=	<b>59.9</b>	<b>%</b>	% of Total Weight	=	<b>40.1</b>	<b>%</b>
TOTAL WEIGHT	=	<b>1483</b>				<b>kg</b>	

<b>CALCULATION OF VEHICLE'S TARGET TEST WEIGHT:</b>		
Total Test Vehicle Delivered Weight=	<b>1483</b>	<b>kg (A)</b>
+ Rated Cargo/Luggage Weight =	<b>28</b>	<b>kg (B)</b>
TEST VEHICLE TARGET WEIGHT =	<b>1511</b>	<b>kg (A+B)</b>

<b>WEIGHT OF TEST VEHICLE (FULLY LOADED):</b>							
Left Front	=	<b>436</b>	<b>kg</b>	Left Rear	=	<b>317</b>	<b>kg</b>
Right Front	=	<b>448</b>	<b>kg</b>	Right Rear	=	<b>304</b>	<b>kg</b>
TOTAL FRONT	=	<b>884</b>	<b>kg</b>	TOTAL REAR	=	<b>621</b>	<b>kg</b>
% of Total Weight	=	<b>58.7</b>	<b>%</b>	% of Total Weight	=	<b>41.3</b>	<b>%</b>
TOTAL TEST WEIGHT	=	<b>1505</b>					
Weight of vehicle secured in test vehicles cargo area	=	<b>22</b>				<b>kg</b>	

<b>TEST VEHICLE ATTITUDE (all dimensions in millimeters):</b>				
AS DELIVERED:	Left Front	<b>744</b>	Left Rear	<b>759</b>
	Right Front	<b>744</b>	Right Rear	<b>754</b>
FULLY LOADED:	Left Front	<b>743</b>	Left Rear	<b>759</b>
	Right Front	<b>743</b>	Right Rear	<b>754</b>
Test Vehicle Wheelbase:	<b>2575</b>		millimeters	

<b>TEST VEHICLE PITCH AND ROLL ANGLES:</b>				
AS DELIVERED:	PITCH ANGLES		ROLL ANGLES	
	Left Door Sill	<b>↑0.6↓</b>	Front Bumper	<b>↓0.1↑</b>
	Right Door Sill	<b>↓0.4↑</b>	Rear Bumper	<b>↑0.2↓</b>
FULLY LOADED:	PITCH ANGLES		ROLL ANGLES	
	Left Door Sill	<b>↑0.5↓</b>	Front Bumper	<b>0.0</b>
	Right Door Sill	<b>↓0.3↑</b>	Rear Bumper	<b>↑0.1↓</b>
AS TESTED:	PITCH ANGLES		ROLL ANGLES	
	Left Door Sill	<b>↑0.6↓</b>	Front Bumper	<b>↓0.1↑</b>
	Right Door Sill	<b>↓0.4↑</b>	Rear Bumper	<b>↑0.1↓</b>

DATA SHEET 2-3

APPROACH ANGLE LIMITS

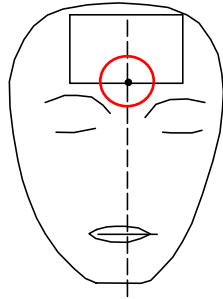
Target Code	Left Side				Target Code	Right Side			
	Horizontal Angles (deg.)		Vertical Angles (deg.)			Horizontal Angles (deg.)		Vertical Angles (deg.)	
	Minimum	Maximum	Minimum	Maximum		Minimum	Maximum	Minimum	Maximum
AP1	201	248	-5	29	AP1	112	159	-5	29
AP2	201	248	-5	50	AP2	112	159	-5	50
AP3	201	248	-5	50	AP3	112	159	-5	50
BP1	218	302	-10	37	BP1	58	141	-10	37
BP2	ANY		0	10	BP2	ANY		0	10
BP3	218	302	-10	0	BP3	58	141	-10	0
BP4	218	302	-10	8	BP4	58	141	-10	8
OP1	270		-10	-	OP1	90		-10	-
OP2	270		-10	-	OP2	90		-10	-
RP1	270	345	-10	43	RP1	15	90	-10	43
RP2	270	345	-10	-10	RP2	15	90	-10	-10
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	41	SR1	90		0	41
SR2A	270		0	40	SR2A	90		0	40
SR2B	270		0	41	SR2B	90		0	41
SR3	270		0	50	SR3	90		0	50
URAP	ANY		0	50	URAP	ANY		0	50
URBP	ANY		0	50	URBP	ANY		0	50
URSR	ANY		0	40	URSR	ANY		0	40
URRP	ANY		0	47	URRP	ANY		0	47

Note : BP2 target location – Seat belt anchorage

**DATA SHEET 2-4**

**SUMMARY TARGET IMPACT LOCATION ON FMH**

VEHICLE YEAR/MAKE/MODEL/STYLE:	2006 Mitsubishi Eclipse GS 2-door Sport Coupe
VIN:	4A3AK24F06E036305
DATE OF MANUFACTURE:	OCT 2005(SEE CERTIFICATION LABEL)
COLOR:	Titanium Pearl



ã RIGHT SIDE OF FACE

TARGET	Distance Above Point 0 (mm)	Distance Over From Pt. O (mm)
RP1	16	0
RP2	48	7L
BP2	7	5L
BP1	19	9L
AP3	16	4L
AP1	15	13R
SR2B	20	4L
URAP	35	18L
BP3	25	36L
URRP	25	8L
URSR	31	0
SR1	26	6L

**SECTION 3**

**SUMMARY OF TEST RESULTS AND DATA PLOTS**

VEHICLE YEAR/MAKE/MODEL/STYLE:	2006 Mitsubishi Eclipse GS, 2-door Sport Coupe
VIN:	4A3AK24F06E036305
DATE OF MANUFACTURE:	OCT 2005 (SEE CERTIFICATION LABEL)
COLOR:	Titanium Pearl

Test Number:	01
Test Date:	05/08/06
Target Location:	REAR PILLAR
Target Code:	RP1
Horizontal Impact Angle:	42°
Vertical Impact Angle:	43°
Ambient Temperature:	21°C
Relative Humidity:	29
Time of Impact:	10:30
Headform Number:	0805

Impact Point Description (from lower midpoint on midsagittal line)			
On Centerline	0	mm right	mm left
On Centerline	16	mm up	



POST-IMPACT RP1 HEADFORM

Free Motion HIC	568.9
HIC(d)	595.6
Impact Velocity (kph)	23.47
HIC T1 (msec)	2.5
HIC T2 (msec)	12.5

# FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE C65602 - RP1

FMH Headform 0805

Location: RP1

Test Date: May 08, 2006

Work File: RP1

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

Lab Temperature: 21 C

HICd: 595.6

Lab Humidity: 29 %

HIC (36ms): 568.9

Velocity at Impact: 23.47 KPH

t1: 2.5 msec

t2: 12.5 msec

Free Flight Distance: 224.73 mm

Duration: 9.9 msec

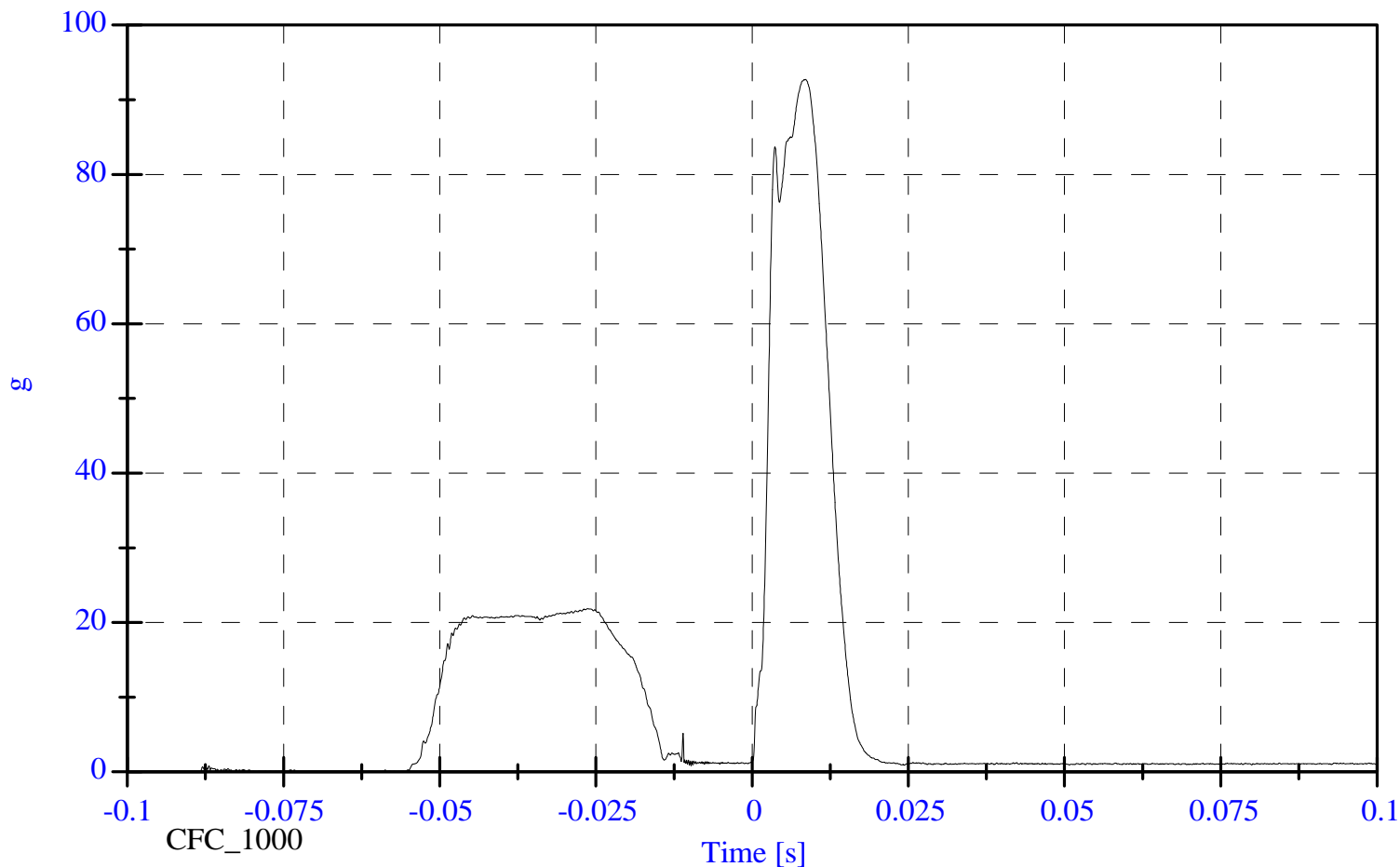
Maximum: 92.7 g

Average Acceleration: 8.7 g

FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE  
Headform Resultant

Max: 92.7 [g] at 0.009 [s]

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



FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE

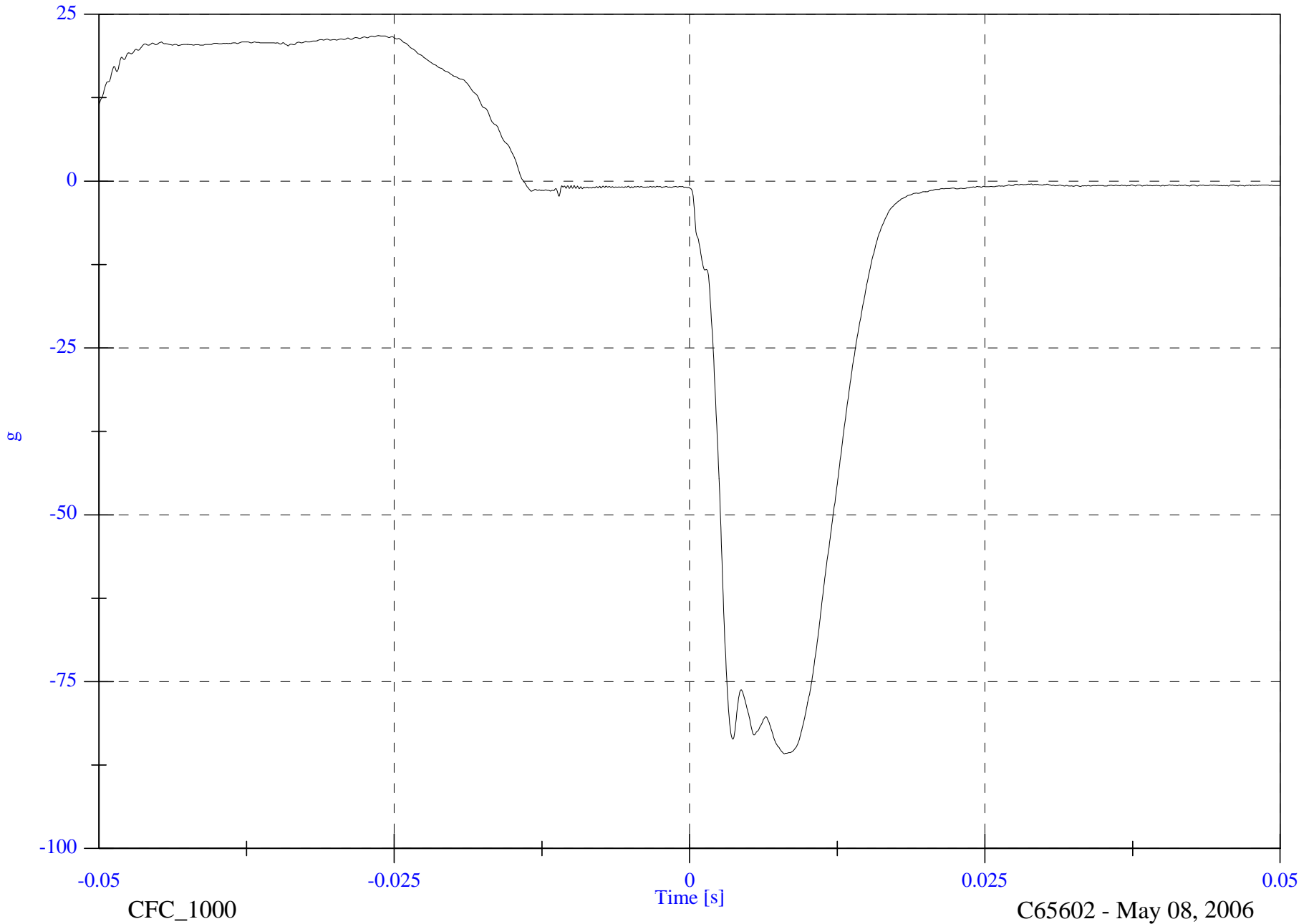
Headform X Acceleration

Max: 21.8 [g] at -0.026 [s]

Min: -85.8 [g] at 0.008 [s]

C65602 PASSENGER SIDE RP1 IMPACT PLOT #1

8754+FMH-13



CFC\_1000

C65602 - May 08, 2006

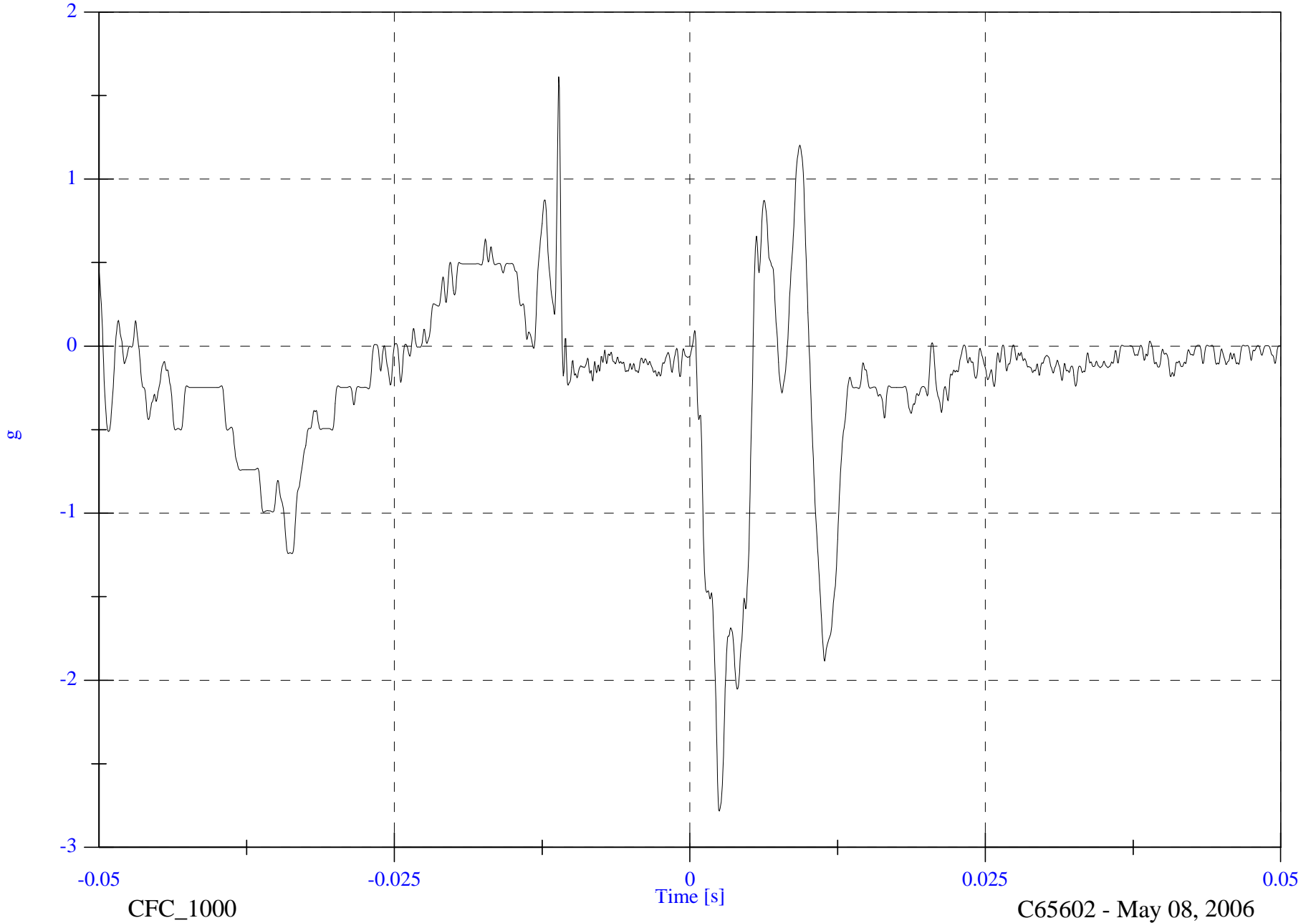


FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE

Headform Y Acceleration

Max: 1.6 [g] at -0.011 [s]

Min: -2.8 [g] at 0.003 [s]



C65602 PASSENGER SIDE RP1 IMPACT PLOT #2

8754+FMH-13

CFC\_1000

C65602 - May 08, 2006

FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE

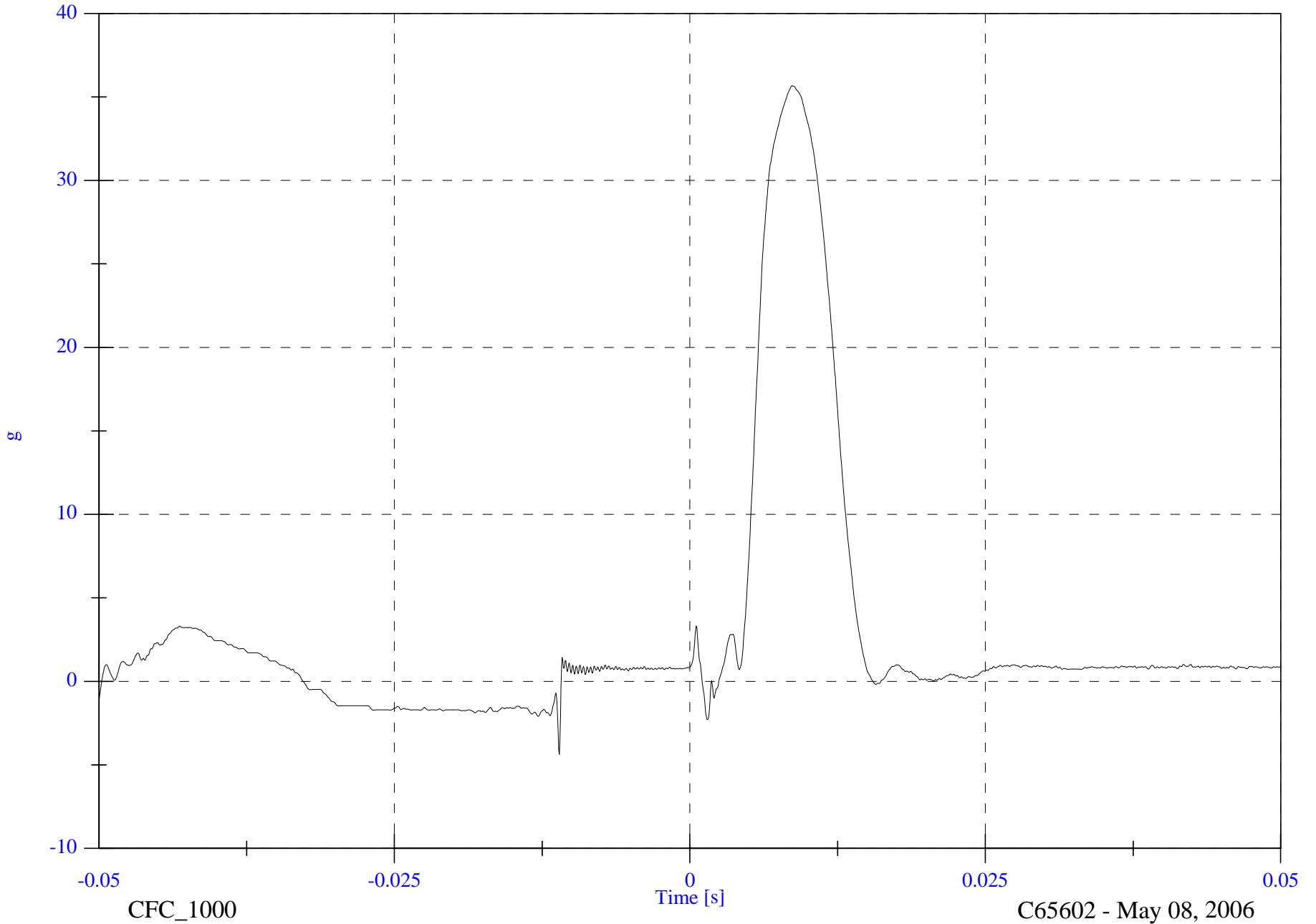
Headform Z Acceleration

Max: 35.7 [g] at 0.009 [s]

Min: -4.4 [g] at -0.011 [s]

C65602 PASSENGER SIDE RP1 IMPACT PLOT #3

8754+FMH-13



CFC\_1000

C65602 - May 08, 2006

FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE

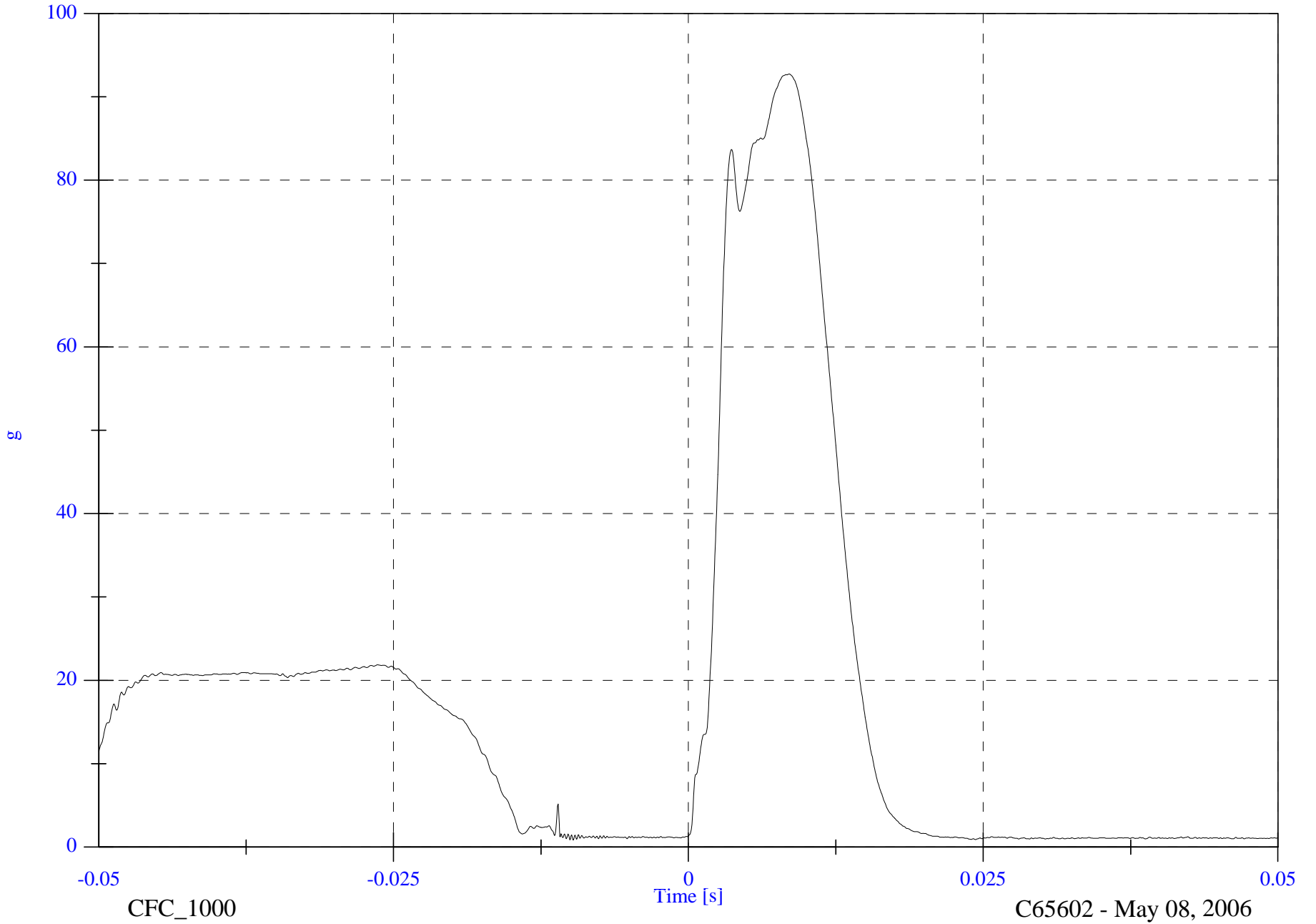
Headform Resultant

Max: 92.7 [g] at 0.009 [s]

Min: 0.8 [g] at -0.010 [s]

C65602 PASSENGER SIDE RP1 IMPACT PLOT #4

8754+FMH-13



CFC\_1000

C65602 - May 08, 2006

FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE

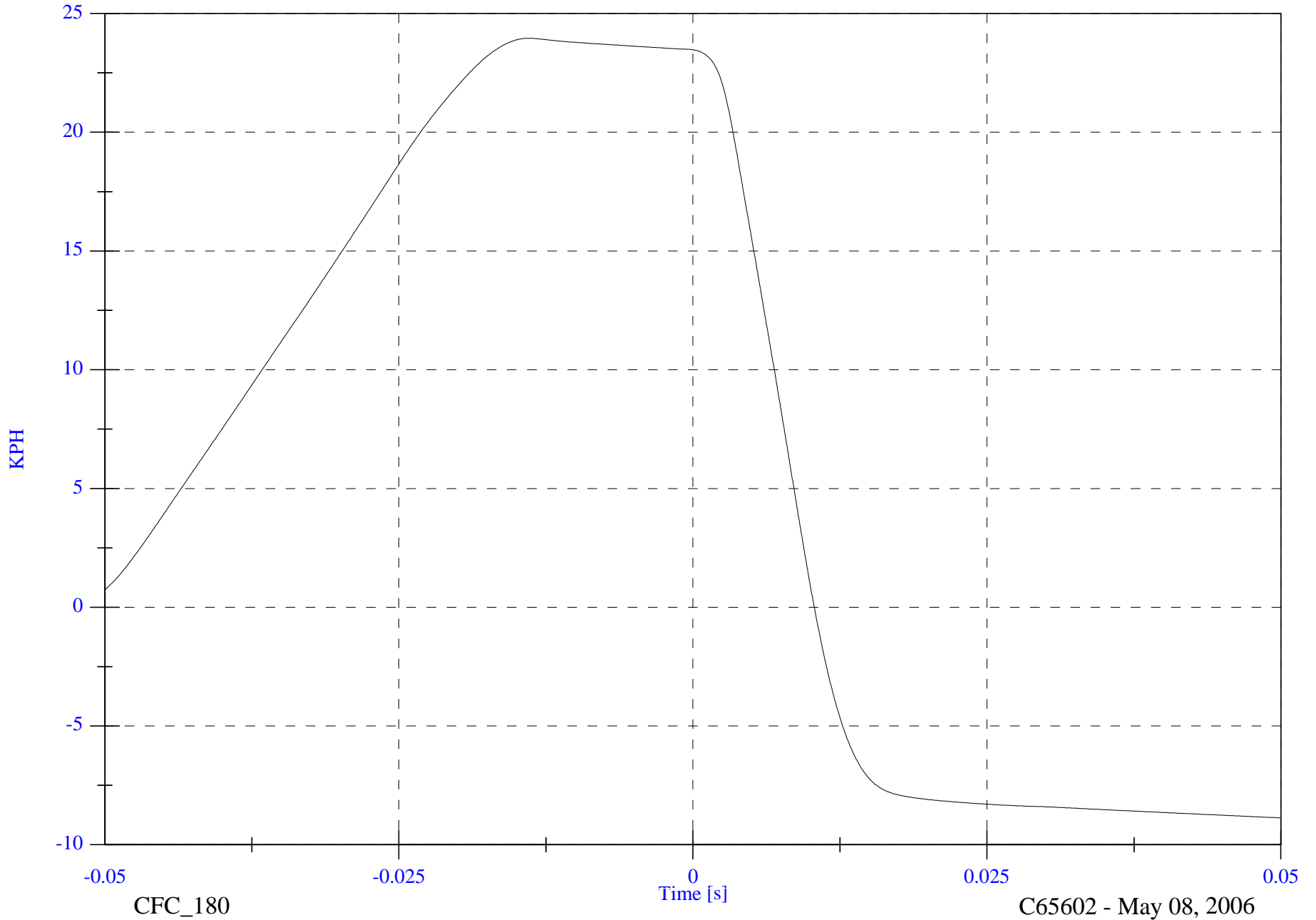
Headform Velocity

Max: 24.0 [KPH] at -0.014 [s]

Min: -8.9 [KPH] at 0.050 [s]

C65602 PASSENGER SIDE RP1 IMPACT PLOT #5

8754+FMH-13



CFC\_180

C65602 - May 08, 2006



PRE-IMPACT RP1



POST-IMPACT RP1

VEHICLE YEAR/MAKE/MODEL/STYLE:	2006 Mitsubishi Eclipse GS, 2-door Sport Coupe
VIN:	4A3AK24F06E036305
DATE OF MANUFACTURE:	OCT 2005 (SEE CERTIFICATION LABEL)
COLOR:	Titanium Pearl

Test Number:	02
Test Date:	<b>05/08/06</b>
Target Location:	REAR PILLAR
Target Code:	RP2
Horizontal Impact Angle:	<b>64°</b>
Vertical Impact Angle:	<b>(-10)°</b>
Ambient Temperature:	<b>21.4°C</b>
Relative Humidity:	<b>28.8</b>
Time of Impact:	<b>11:00</b>
Headform Number:	<b>1255</b>

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	48				mm up



POST-IMPACT RP2 HEADFORM

Free Motion HIC	<b>335.2</b>
HIC(d)	<b>419.3</b>
Impact Velocity (kph)	<b>23.86</b>
HIC T1 (msec)	<b>2.7</b>
HIC T2 (msec)	<b>15.7</b>

# FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE C65602 - RP2

FMH Headform 1255

Location: RP2

Test Date: May 08, 2006

Work File: RP2

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

Lab Temperature: 21.4 C

HICd: 419.3

Lab Humidity: 28.8 %

HIC (36ms): 335.2

Velocity at Impact: 23.86 KPH

t1: 2.7 msec

t2: 15.7 msec

Free Flight Distance: 213.03 mm

Duration: 13.0 msec

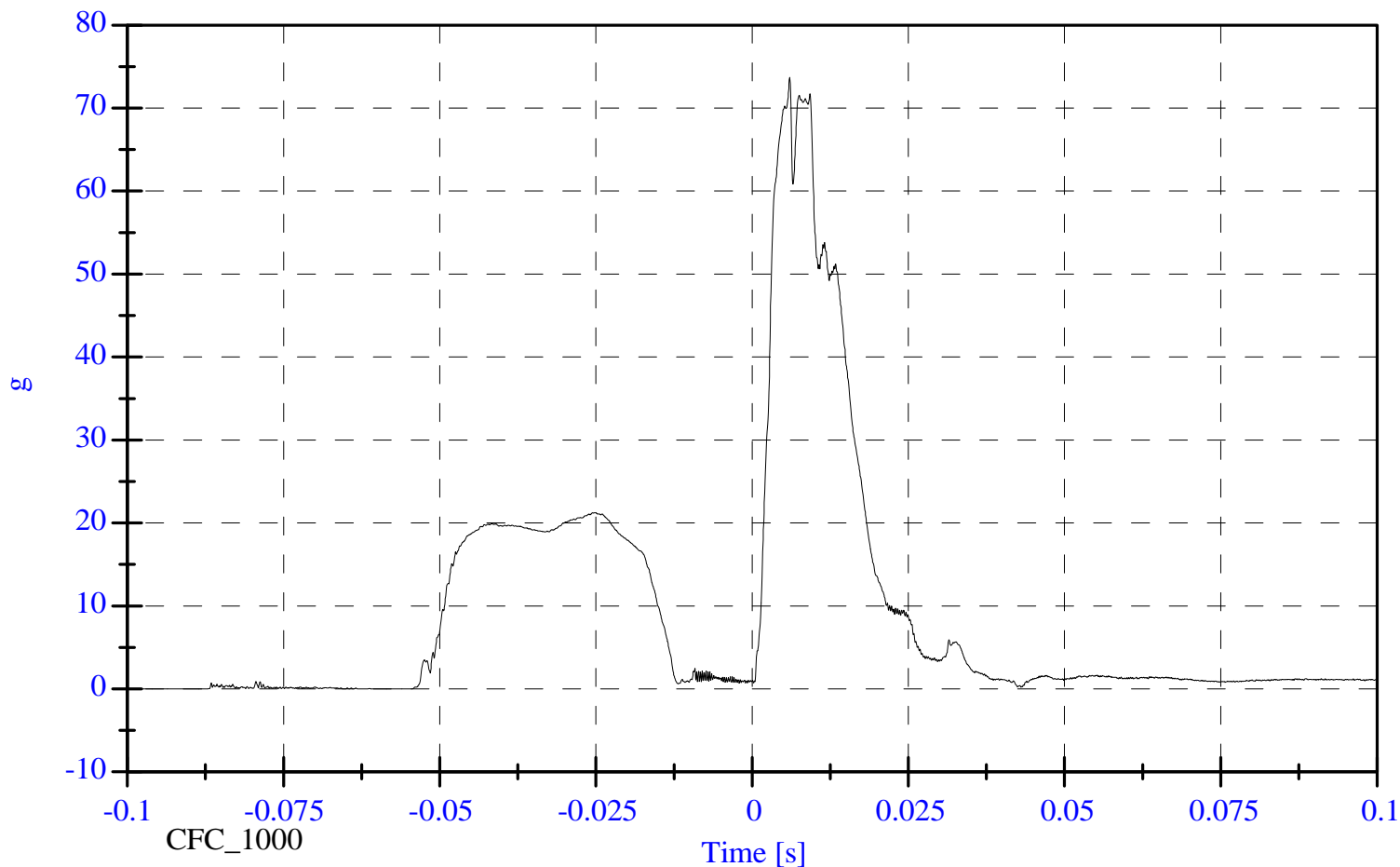
Maximum: 73.7 g

Average Acceleration: 8.8 g

FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE  
Headform Resultant

Max: 73.7 [g] at 0.006 [s]

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





FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE

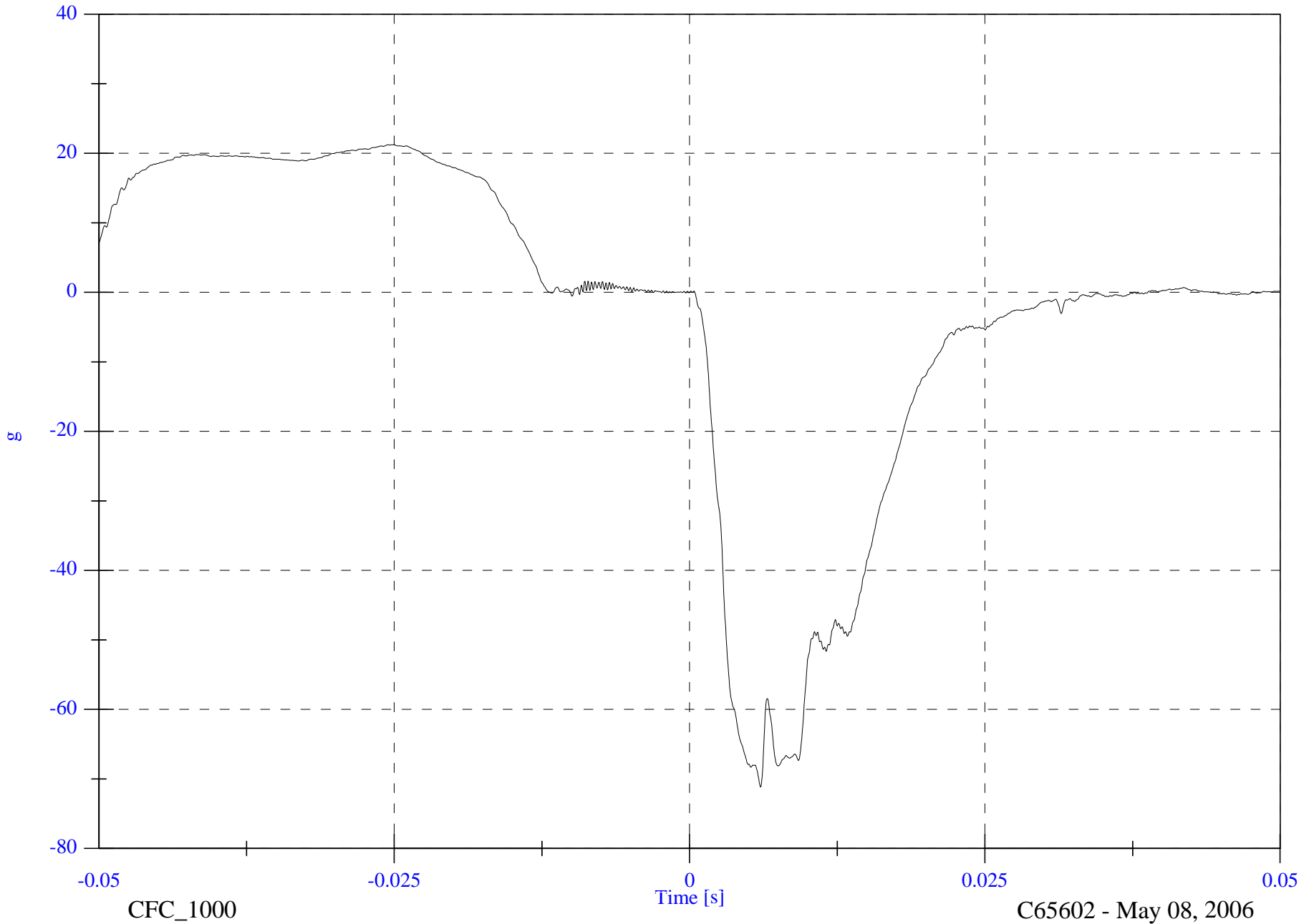
Headform X Acceleration

Max: 21.2 [g] at -0.025 [s]

Min: -71.2 [g] at 0.006 [s]

C65602 PASSENGER SIDE RP2 IMPACT PLOT #1

8754+FMH-13



CFC\_1000

C65602 - May 08, 2006

FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE

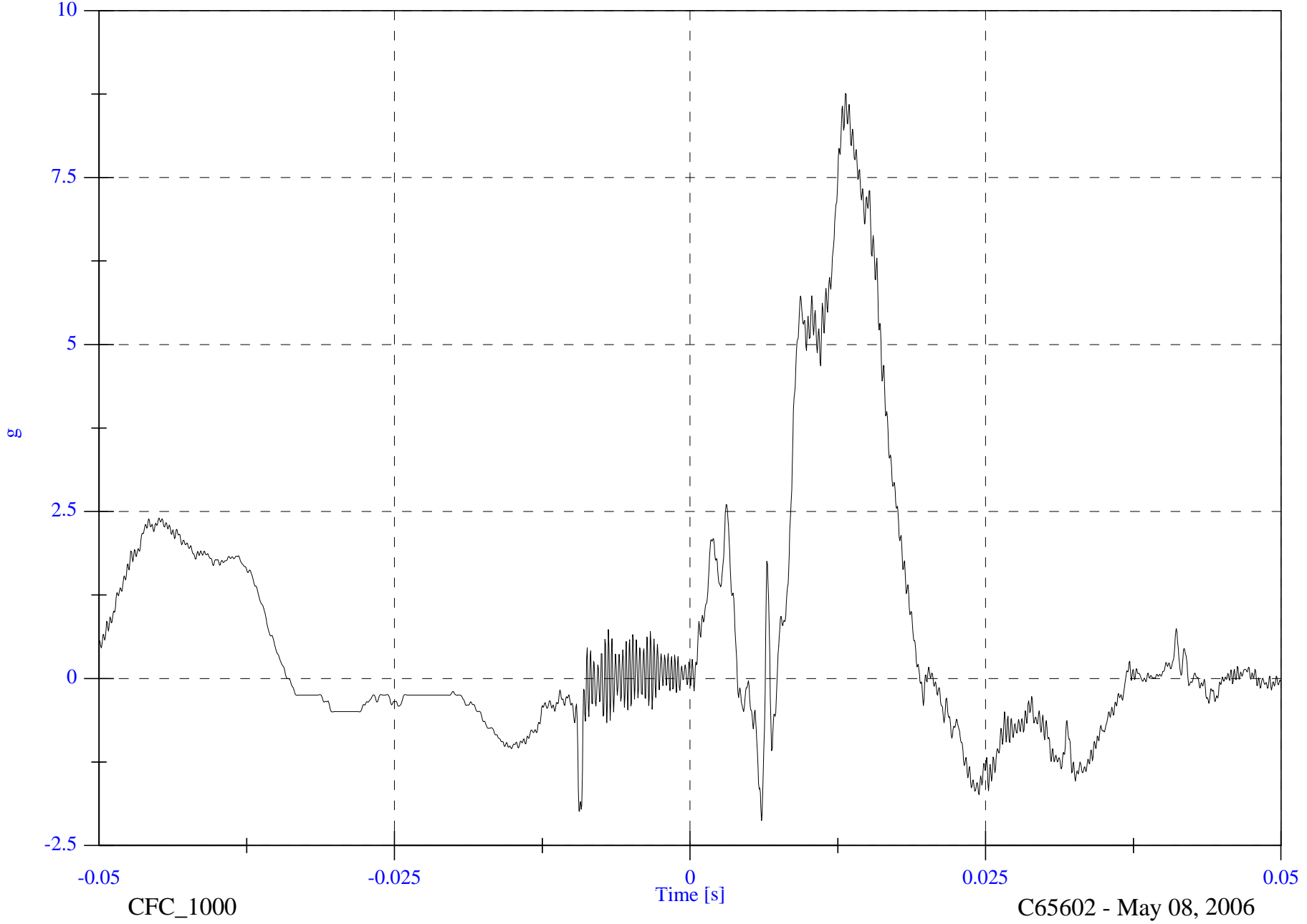
Headform Y Acceleration

Max: 8.8 [g] at 0.013 [s]

Min: -2.1 [g] at 0.006 [s]

C65602 PASSENGER SIDE RP2 IMPACT PLOT #2

8754-FMH-13



CFC\_1000

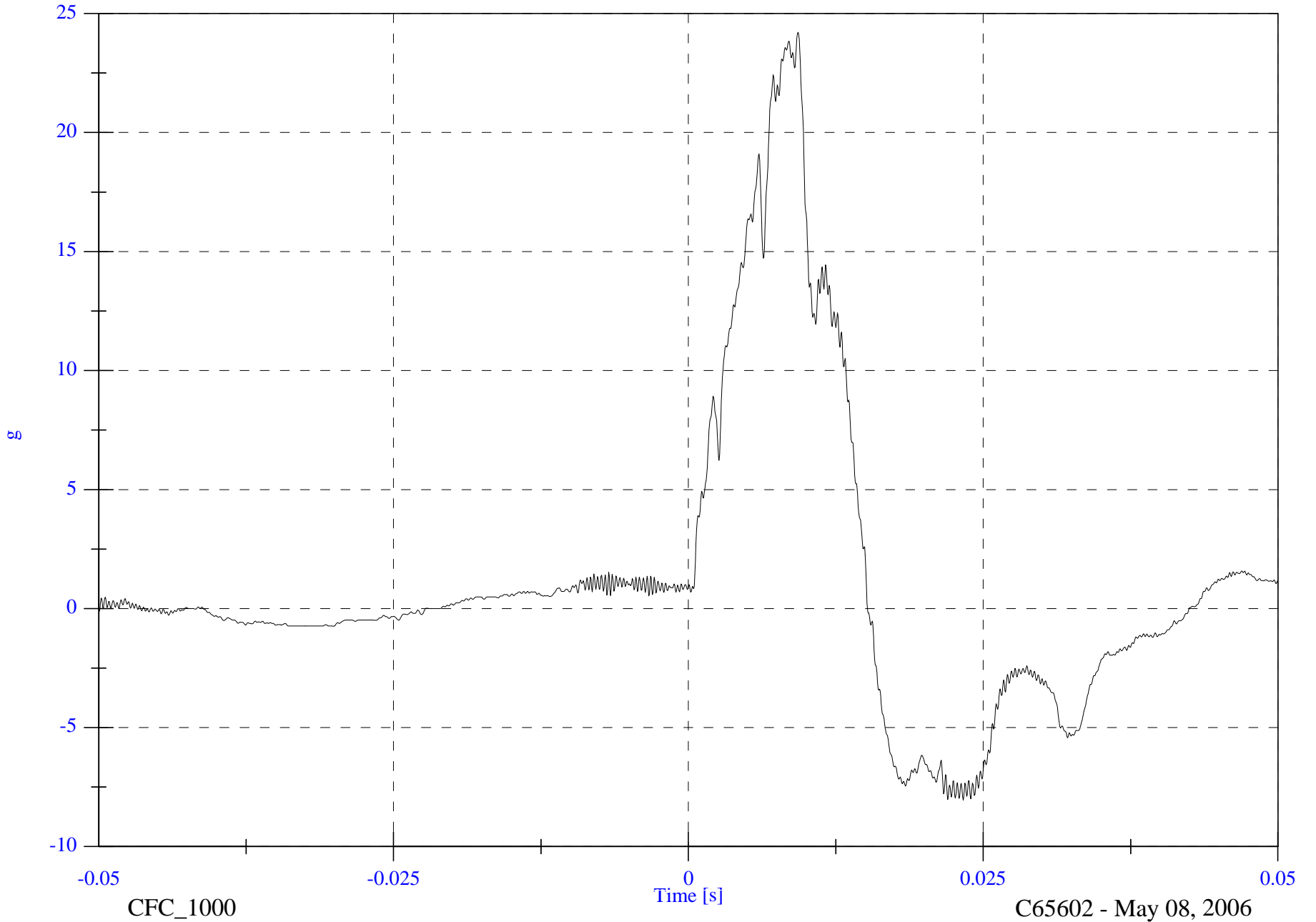
C65602 - May 08, 2006

FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE

Headform Z Acceleration

Max: 24.2 [g] at 0.009 [s]

Min: -8.1 [g] at 0.023 [s]



C65602 PASSENGER SIDE RP2 IMPACT PLOT #3

8754+FMH-13

CFC\_1000

C65602 - May 08, 2006

FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE

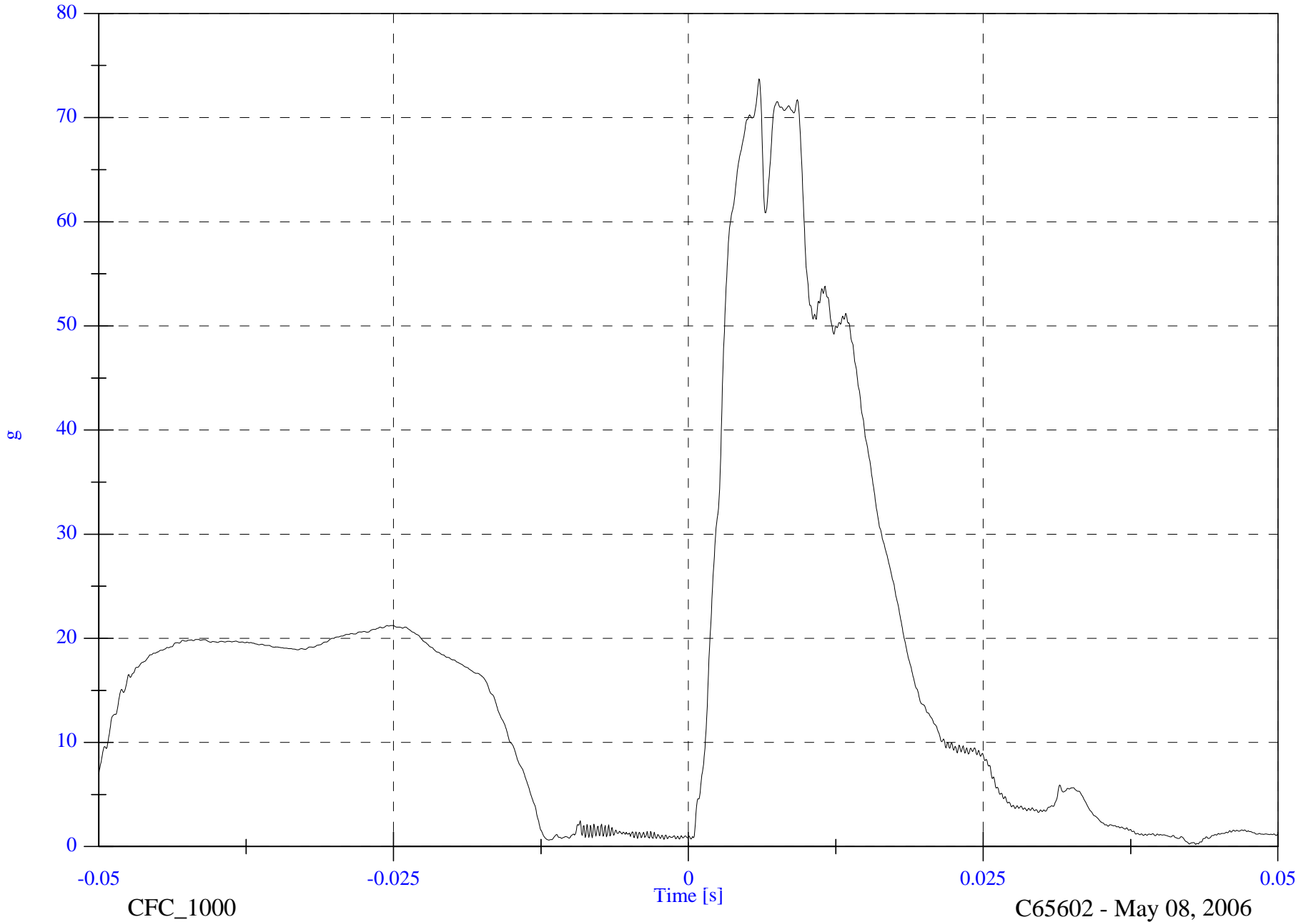
Headform Resultant

Max: 73.7 [g] at 0.006 [s]

Min: 0.2 [g] at 0.043 [s]

C65602 PASSENGER SIDE RP2 IMPACT PLOT #4

8754+FMH-13



FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE

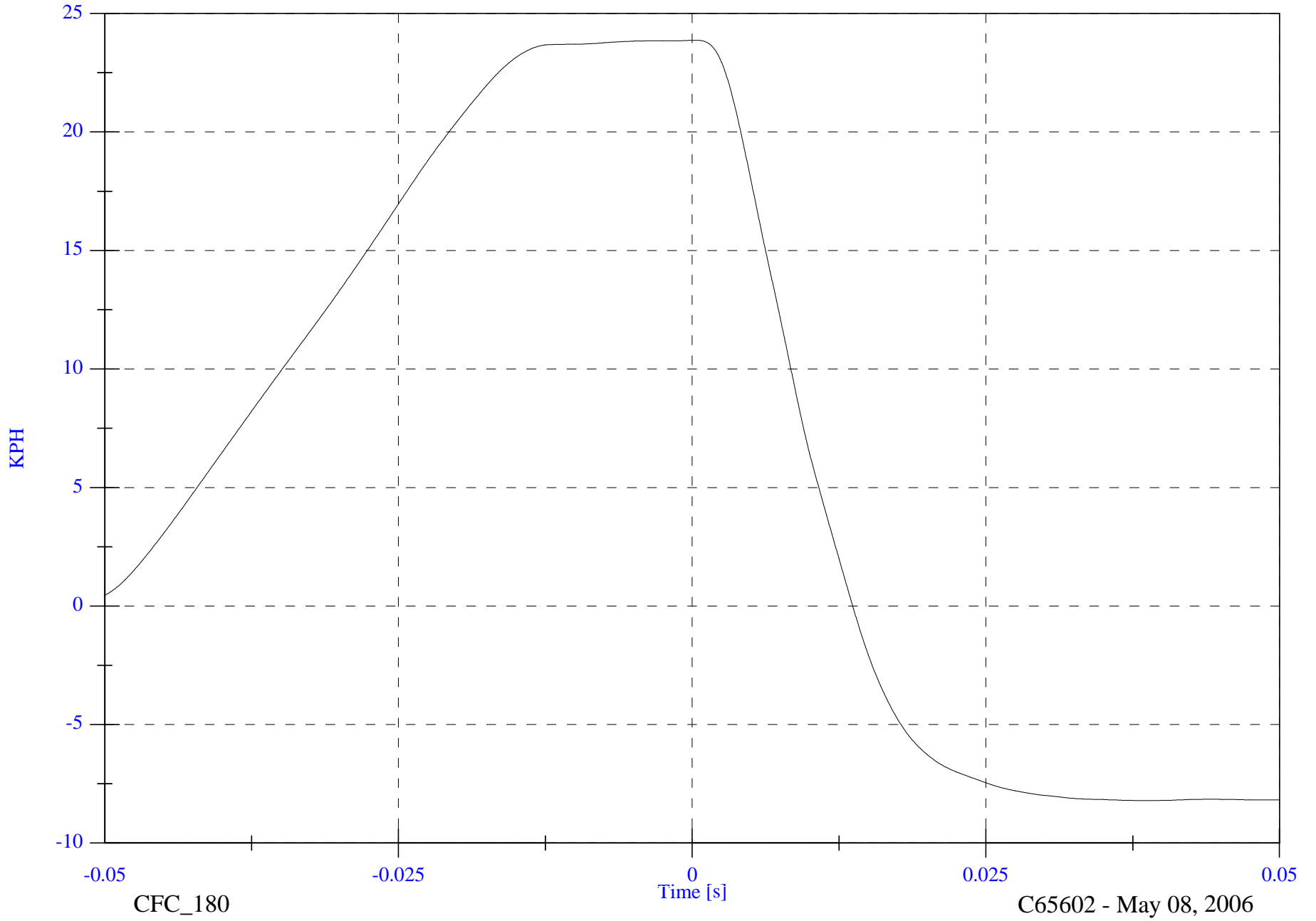
Headform Velocity

Max: 23.9 [KPH] at 0.000 [s]

Min: -8.2 [KPH] at 0.039 [s]

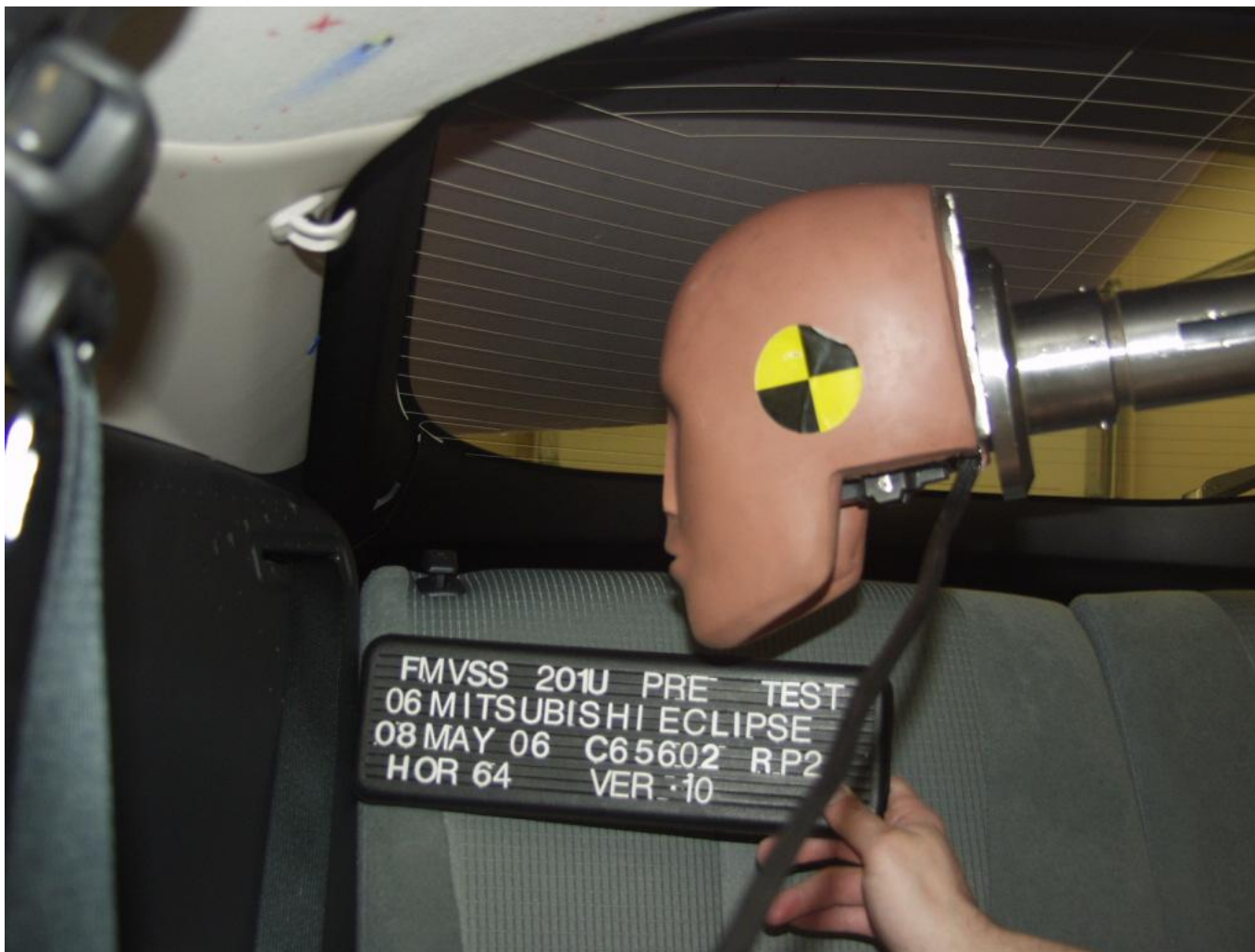
C65602 PASSENGER SIDE RP2 IMPACT PLOT #5

8754+FMH-13

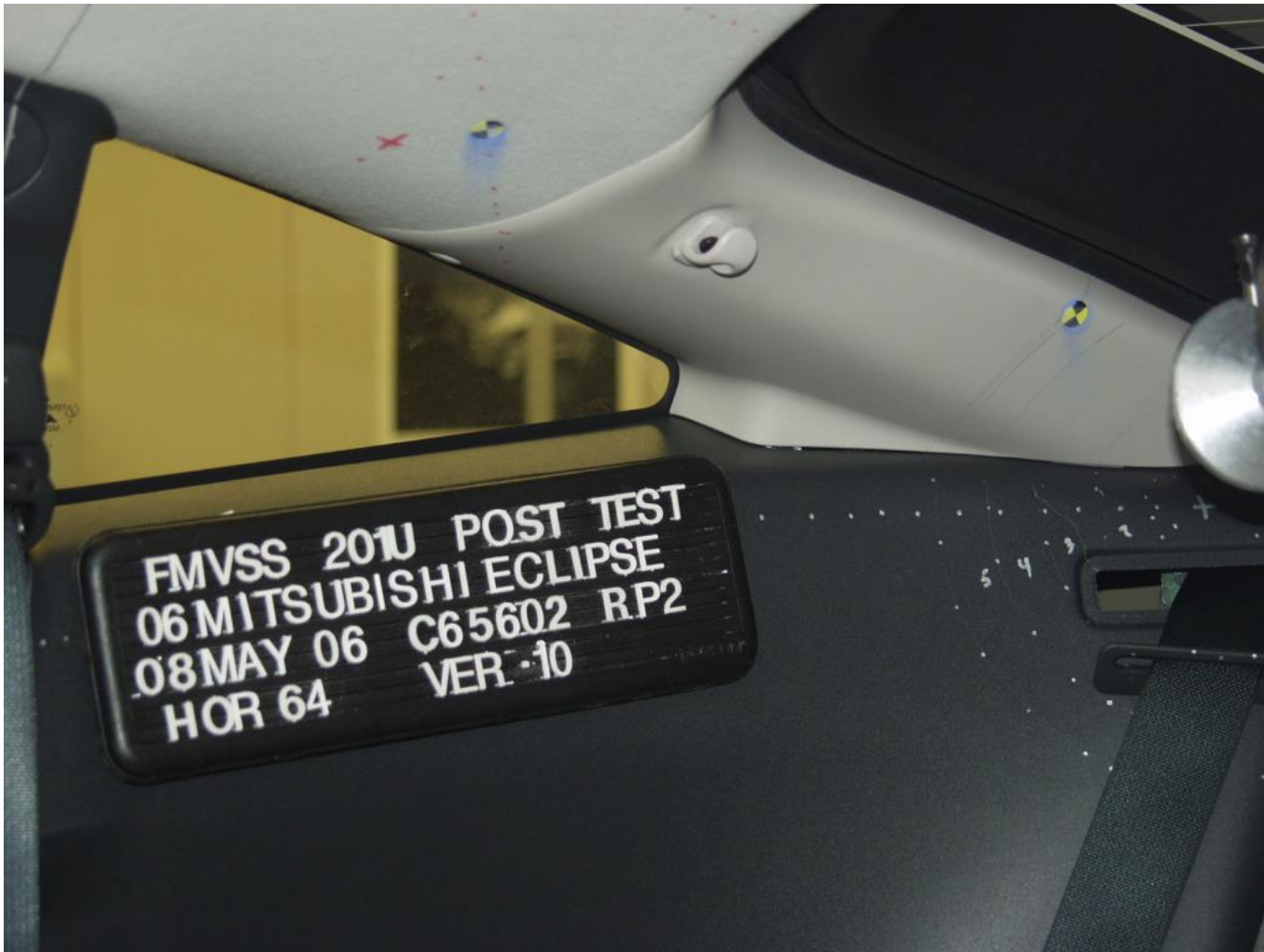


CFC\_180

C65602 - May 08, 2006



PRE-IMPACT RP2



POST-IMPACT RP2

VEHICLE YEAR/MAKE/MODEL/STYLE:	2006 Mitsubishi Eclipse GS, 2-door Sport Coupe
VIN:	4A3AK24F06E036305
DATE OF MANUFACTURE:	OCT 2005 (SEE CERTIFICATION LABEL)
COLOR:	Titanium Pearl

Test Number:	03
Test Date:	<b>05/08/06</b>
Target Location:	B-PILLAR
Target Code:	BP2
Horizontal Impact Angle:	<b>90°</b>
Vertical Impact Angle:	<b>10°</b>
Ambient Temperature:	<b>21.4°C</b>
Relative Humidity:	<b>27.8</b>
Time of Impact:	<b>11:45</b>
Headform Number:	<b>0062</b>

Impact Point Description (from lower midpoint on midsagittal line)					
On Centerline	5	<input type="checkbox"/>	mm right	<input checked="" type="checkbox"/>	mm left
On Centerline	7				mm up



POST-IMPACT BP2 HEADFORM

Free Motion HIC	<b>910.3</b>
HIC(d)	<b>853.2</b>
Impact Velocity (kph)	<b>23.73</b>
HIC T1 (msec)	<b>1.0</b>
HIC T2 (msec)	<b>7.8</b>



# FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE C65602 - BP2

FMH Headform 0062

Location: BP2

Test Date: May 08, 2006

Work File: BP2

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

Lab Temperature: 21.4 C

HICd: 853.2

Lab Humidity: 27.8 %

HIC (36ms): 910.3

Velocity at Impact: 23.73 KPH

t1: 1.0 msec

t2: 7.8 msec

Free Flight Distance: 220.30 mm

Duration: 6.8 msec

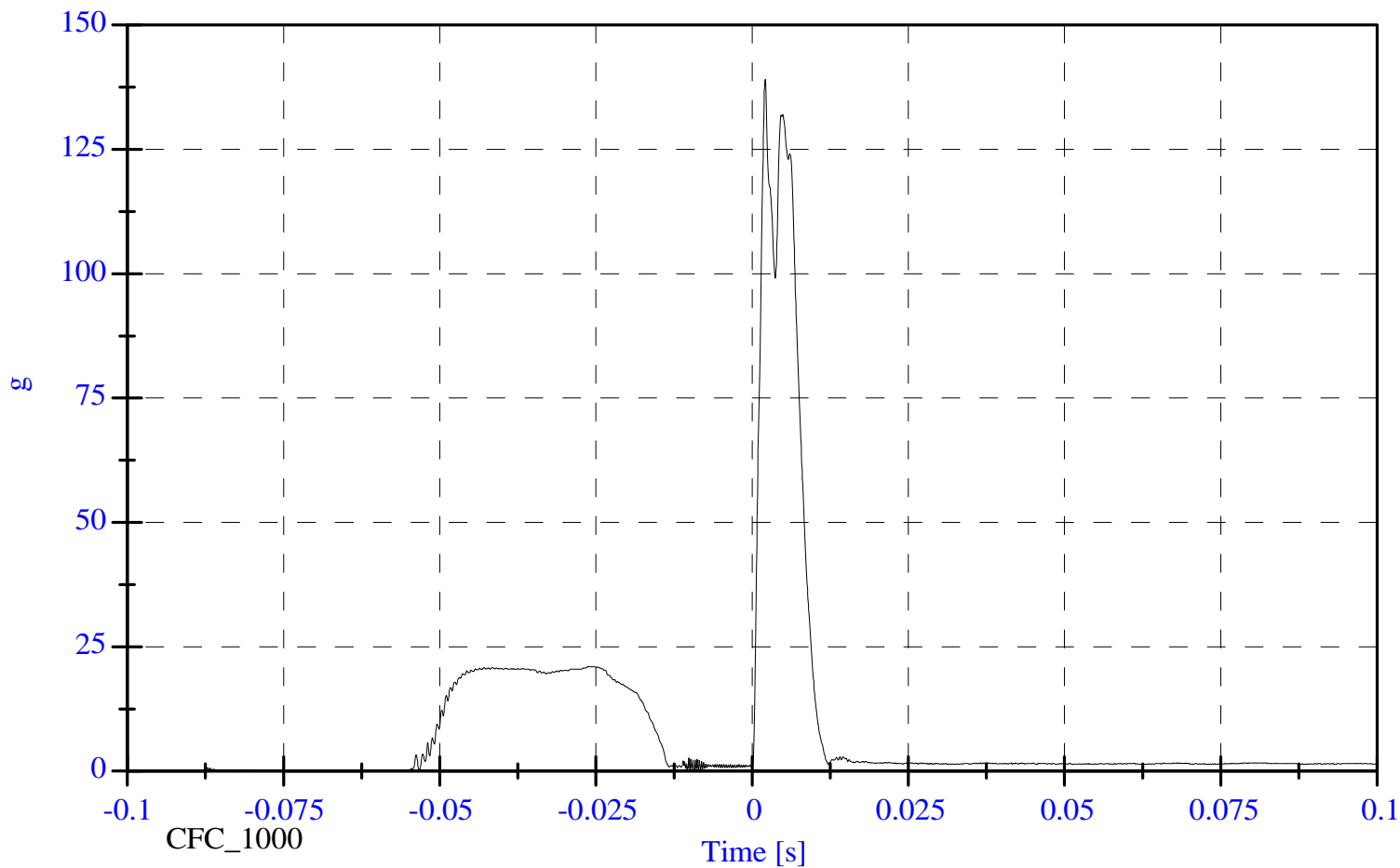
Maximum: 139.1 g

Average Acceleration: 8.6 g

FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE  
Headform Resultant

Max: 139.1 [g] at 0.002 [s]

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



FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE

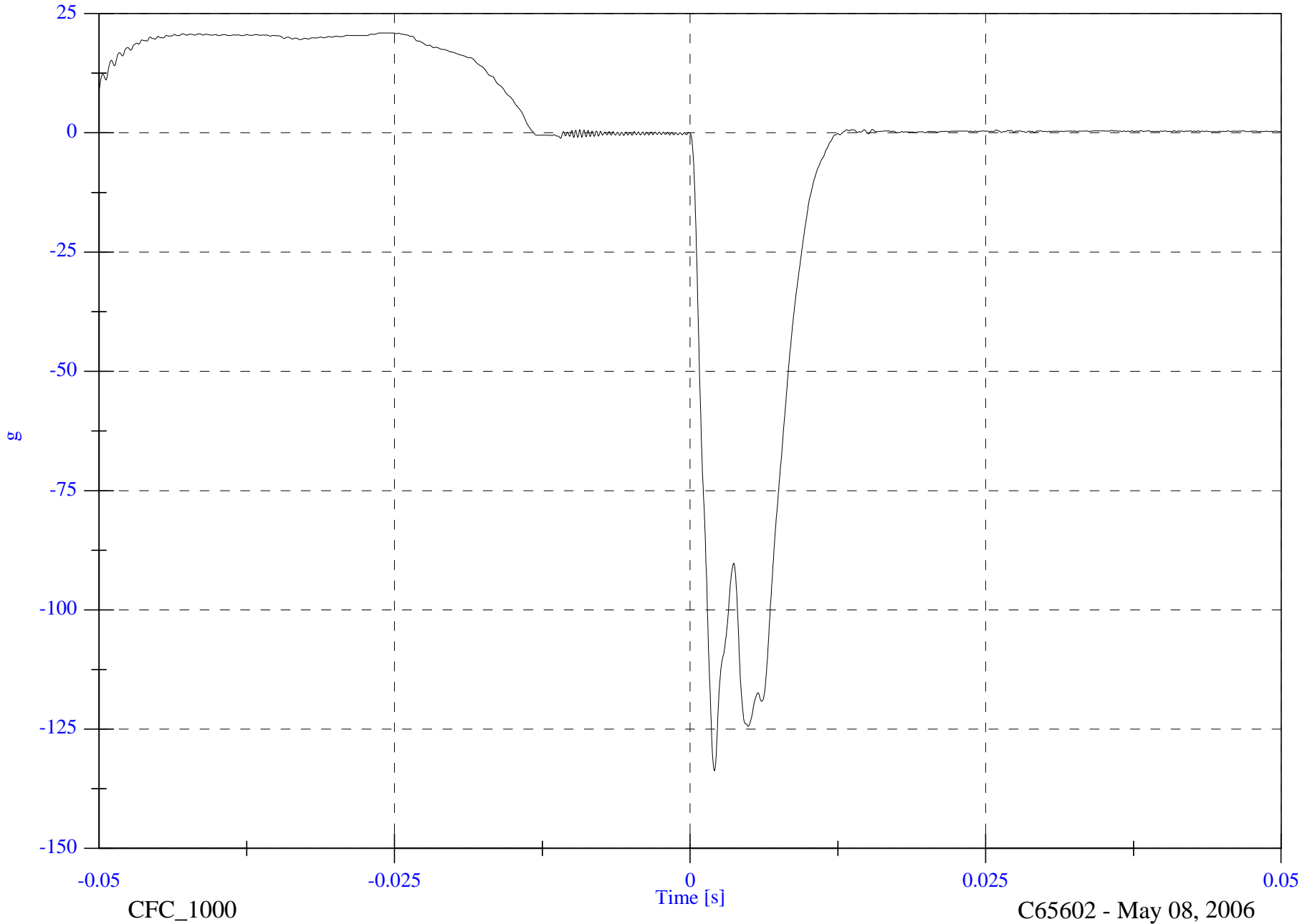
Headform X Acceleration

Max: 20.9 [g] at -0.026 [s]

Min: -133.8 [g] at 0.002 [s]

C65602 PASSENGER SIDE BP2 IMPACT PLOT #1

8754+FMH-13



C65602 - May 08, 2006

FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE

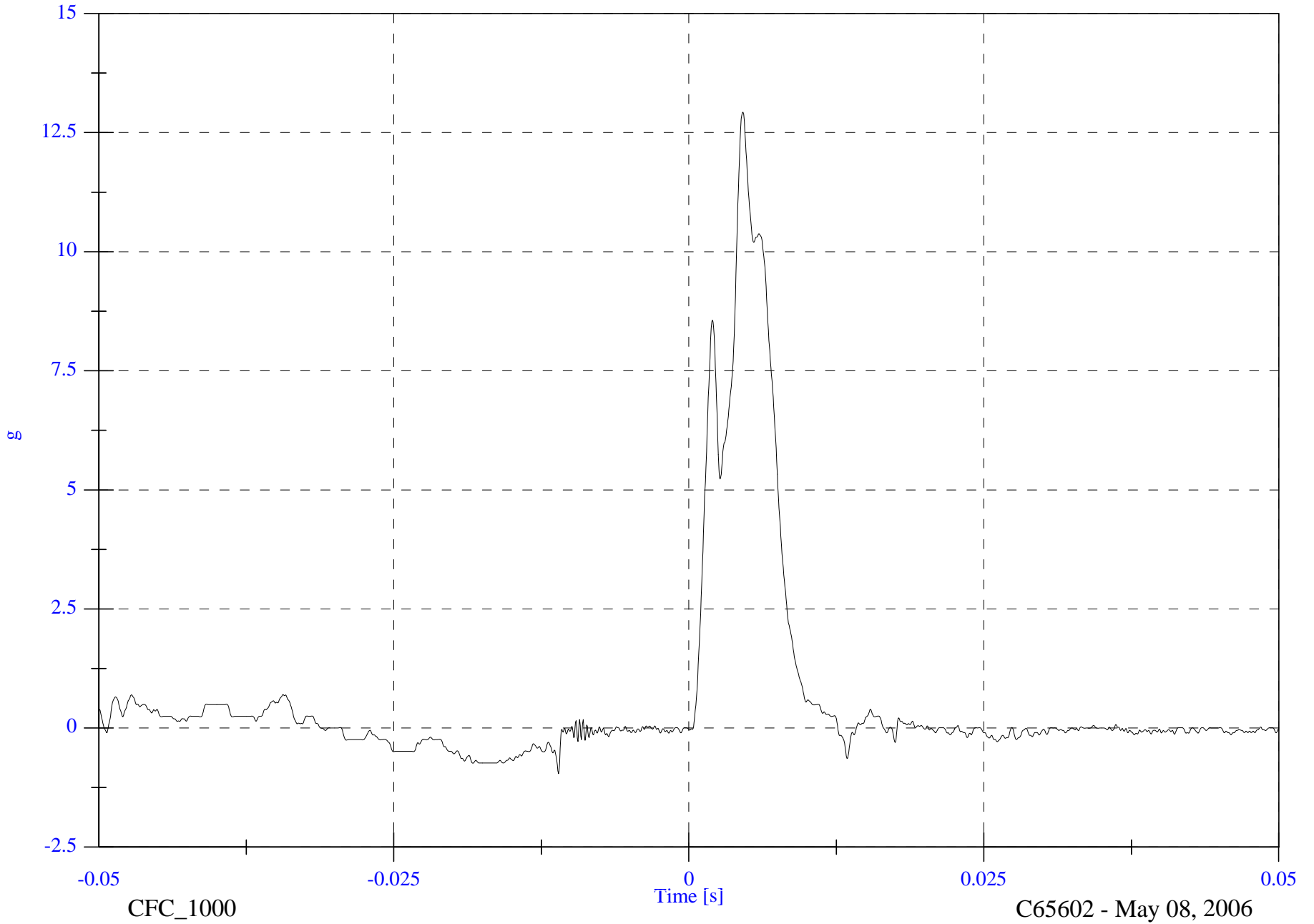
Headform Y Acceleration

Max: 12.9 [g] at 0.005 [s]

Min: -1.0 [g] at -0.011 [s]

C65602 PASSENGER SIDE BP2 IMPACT PLOT #2

8754+FMH-13



CFC\_1000

C65602 - May 08, 2006

FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE

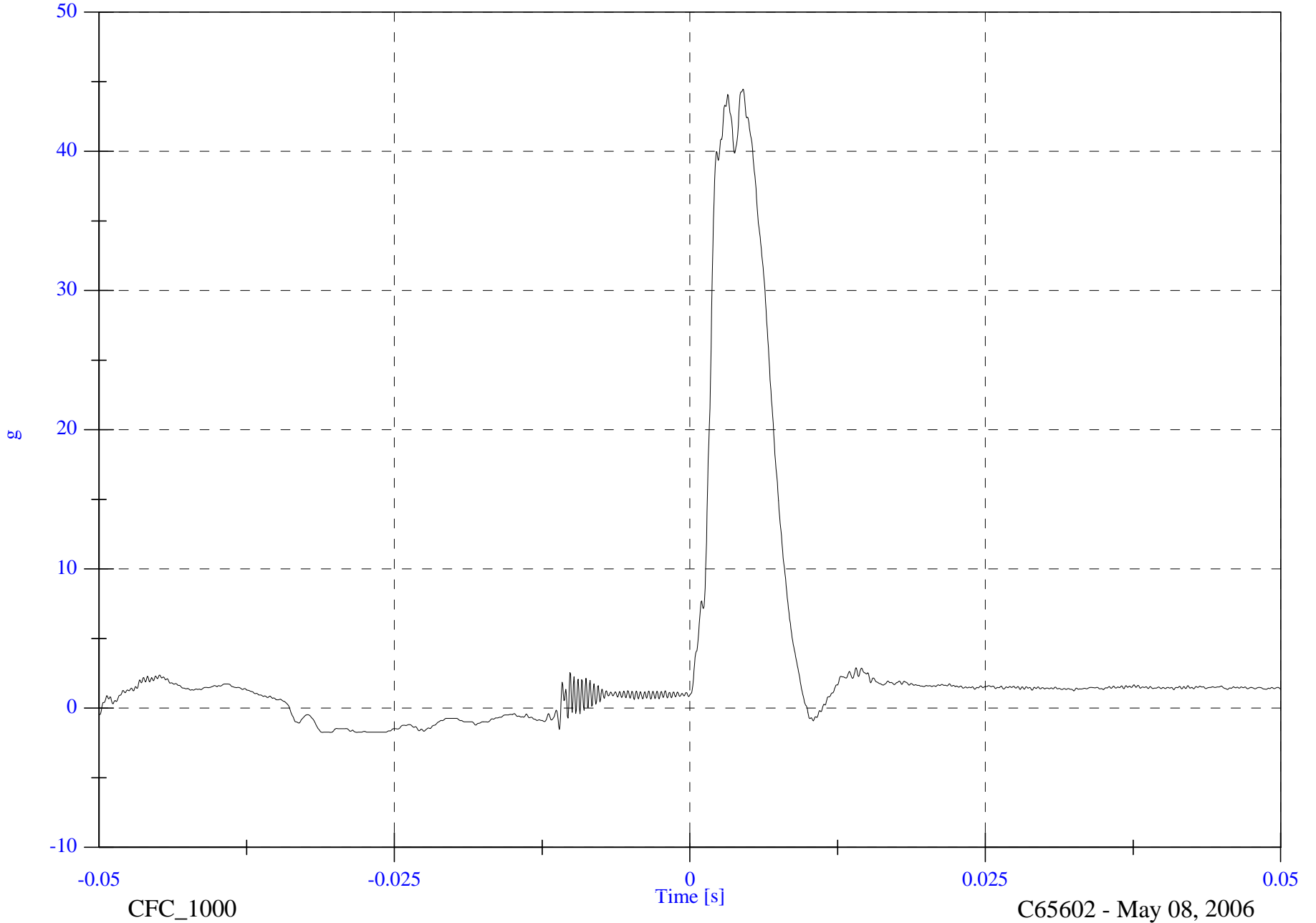
Headform Z Acceleration

Max: 44.5 [g] at 0.004 [s]

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

C65602 PASSENGER SIDE BP2 IMPACT PLOT #3

8754+FMH-13



CFC\_1000

C65602 - May 08, 2006

FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE

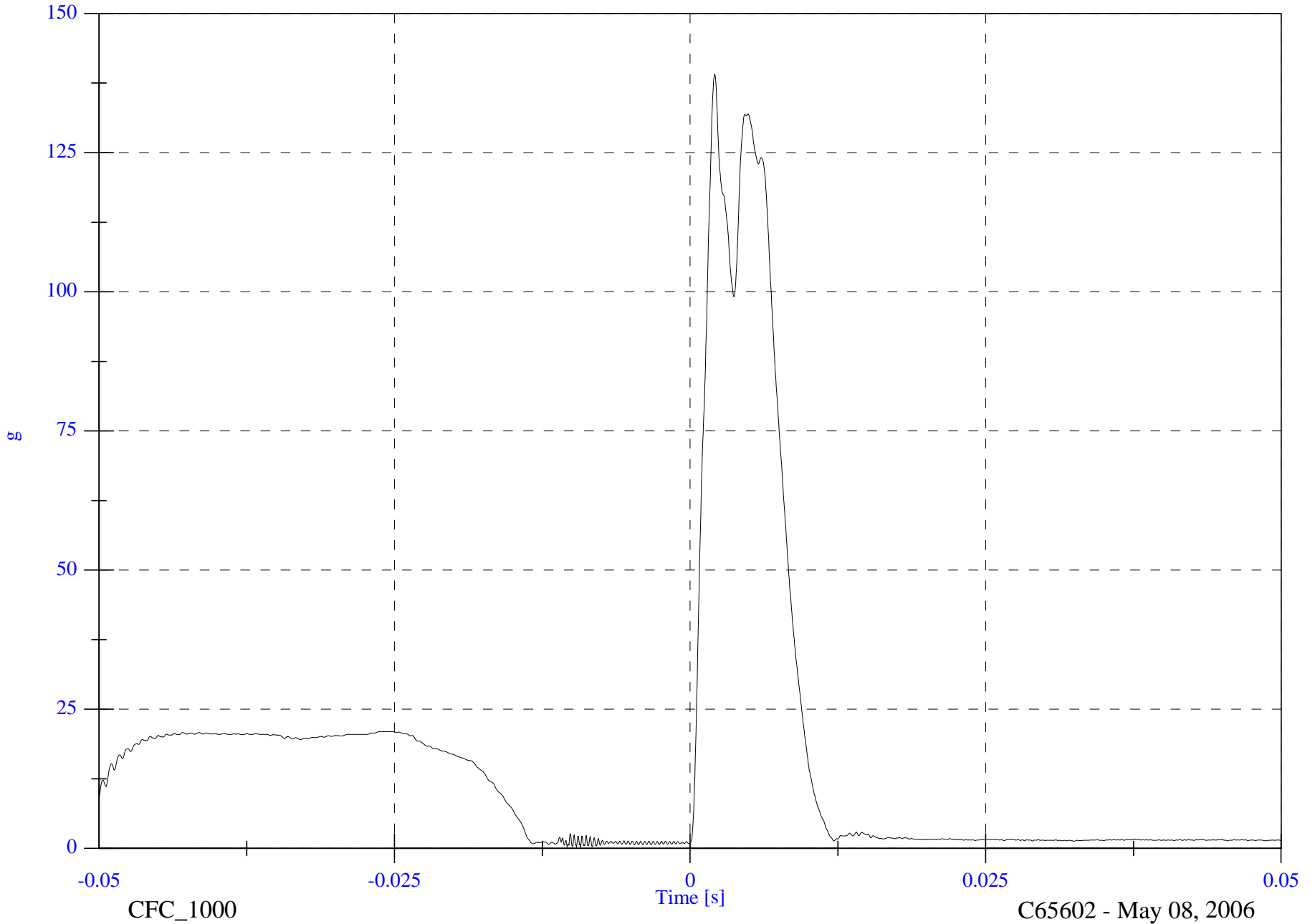
Headform Resultant

Max: 139.1 [g] at 0.002 [s]

Min: 0.2 [g] at -0.010 [s]

C65602 PASSENGER SIDE BP2 IMPACT PLOT #4

8754+FMH-13

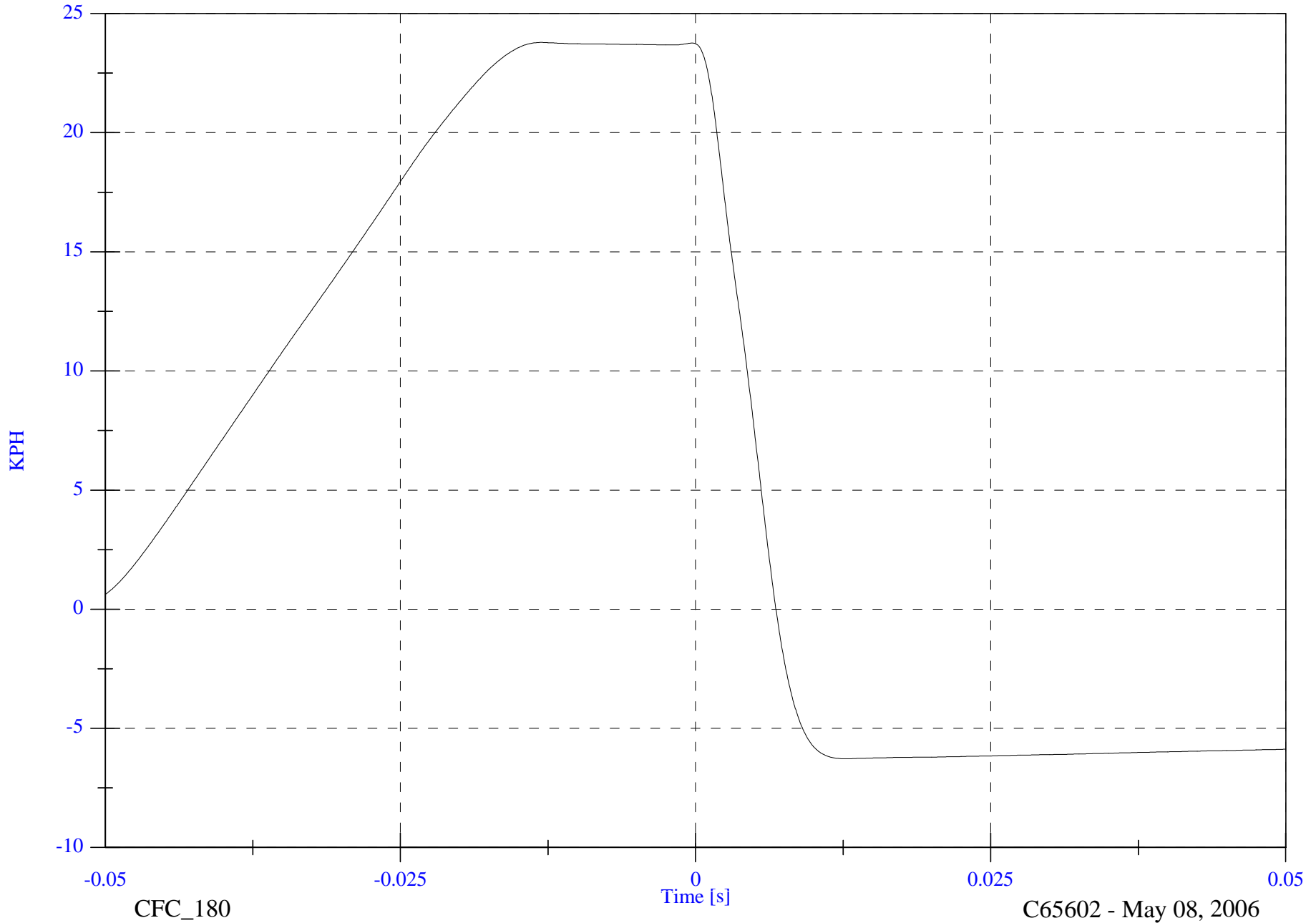


FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE

Headform Velocity

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

Min: -6.3 [KPH] at 0.013 [s]



C65602 PASSENGER SIDE BP2 IMPACT PLOT #5

8754+FMH-13

CFC\_180

C65602 - May 08, 2006



PRE-IMPACT BP2



POST-IMPACT BP2



VEHICLE YEAR/MAKE/MODEL/STYLE:	2006 Mitsubishi Eclipse GS, 2-door Sport Coupe
VIN:	4A3AK24F06E036305
DATE OF MANUFACTURE:	OCT 2005 (SEE CERTIFICATION LABEL)
COLOR:	Titanium Pearl

Test Number:	04
Test Date:	<b>05/08/06</b>
Target Location:	B-PILLAR
Target Code:	BP1
Horizontal Impact Angle:	<b>90°</b>
Vertical Impact Angle:	<b>37°</b>
Ambient Temperature:	<b>22.0°C</b>
Relative Humidity:	<b>26.8</b>
Time of Impact:	<b>12:50</b>
Headform Number:	<b>0355</b>

Impact Point Description (from lower midpoint on midsagittal line)					
On Centerline	<b>9</b>	<input type="checkbox"/>	mm right	<input checked="" type="checkbox"/>	mm left
On Centerline	<b>19</b>				mm up



POST-IMPACT BP1 HEADFORM

Free Motion HIC	<b>597.5</b>
HIC(d)	<b>617.2</b>
Impact Velocity (kph)	<b>23.67</b>
HIC T1 (msec)	<b>4.1</b>
HIC T2 (msec)	<b>13.4</b>

# FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE C65602 - BP1

FMH Headform 0355

Location: BP1

Test Date: May 08, 2006

Work File: BP1

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

Lab Temperature: 22.0 C

HICd: 617.2

Lab Humidity: 26.8 %

HIC (36ms): 597.5

Velocity at Impact: 23.67 KPH

t1: 4.1 msec

t2: 13.4 msec

Free Flight Distance: 223.22 mm

Duration: 9.2 msec

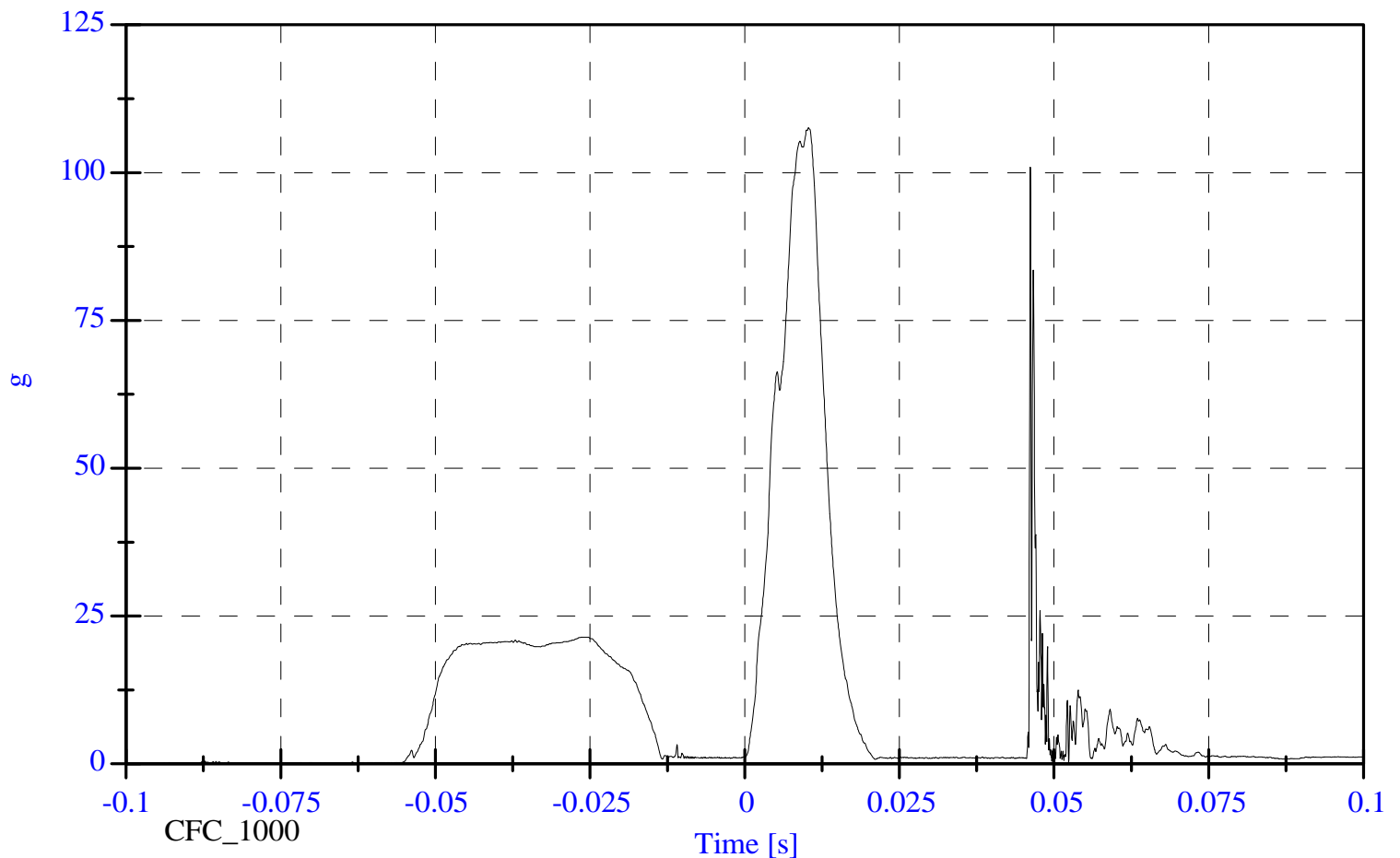
Maximum: 107.6 g

Average Acceleration: 9.7 g

FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE  
Headform Resultant

Max: 107.6 [g] at 0.010 [s]

Min: 0.0 [g] at -0.095 [s]

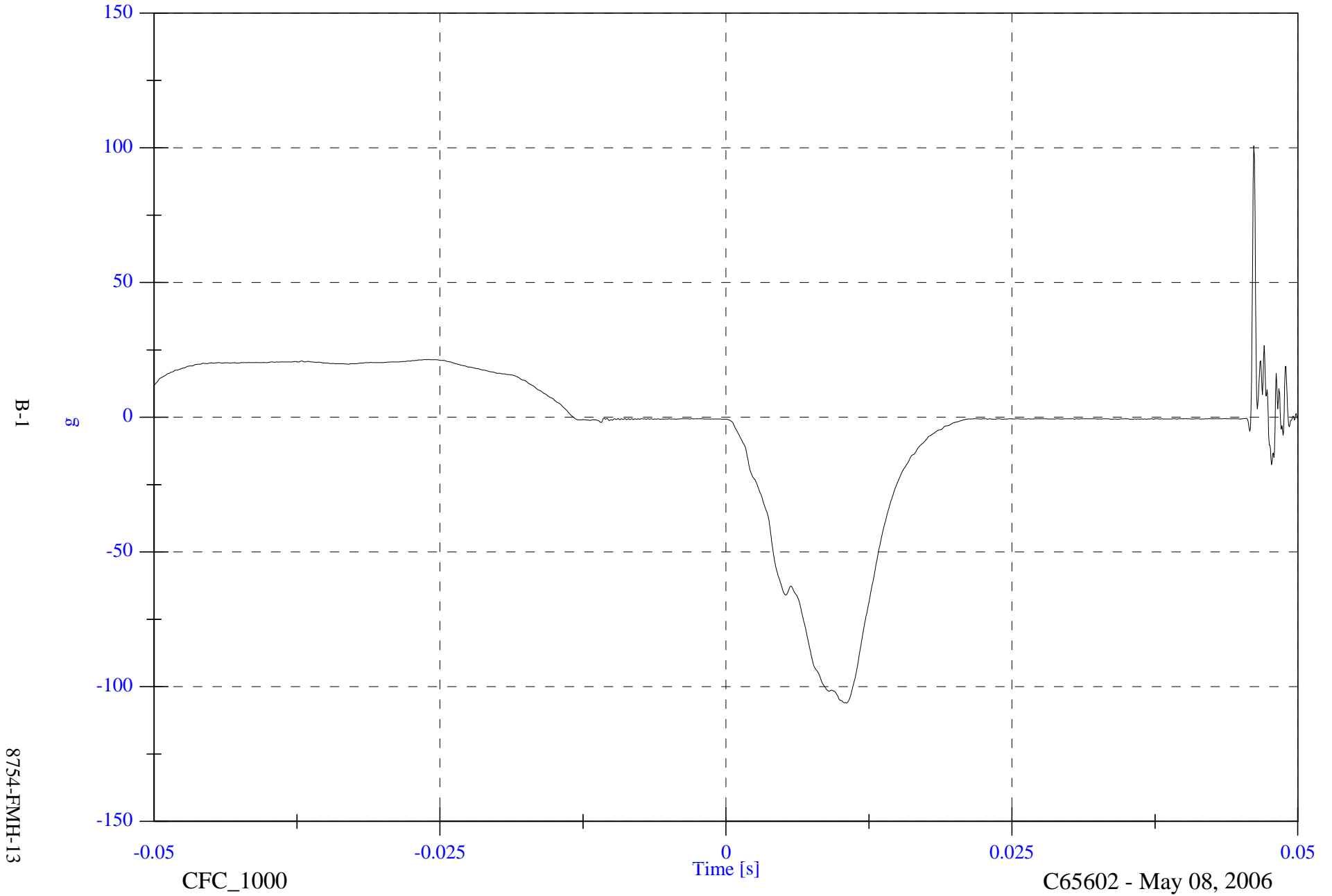


FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE

Headform X Acceleration

Max: 100.7 [g] at 0.046 [s]

Min: -106.0 [g] at 0.011 [s]



B-1

8754+FMH-13

CFC\_1000

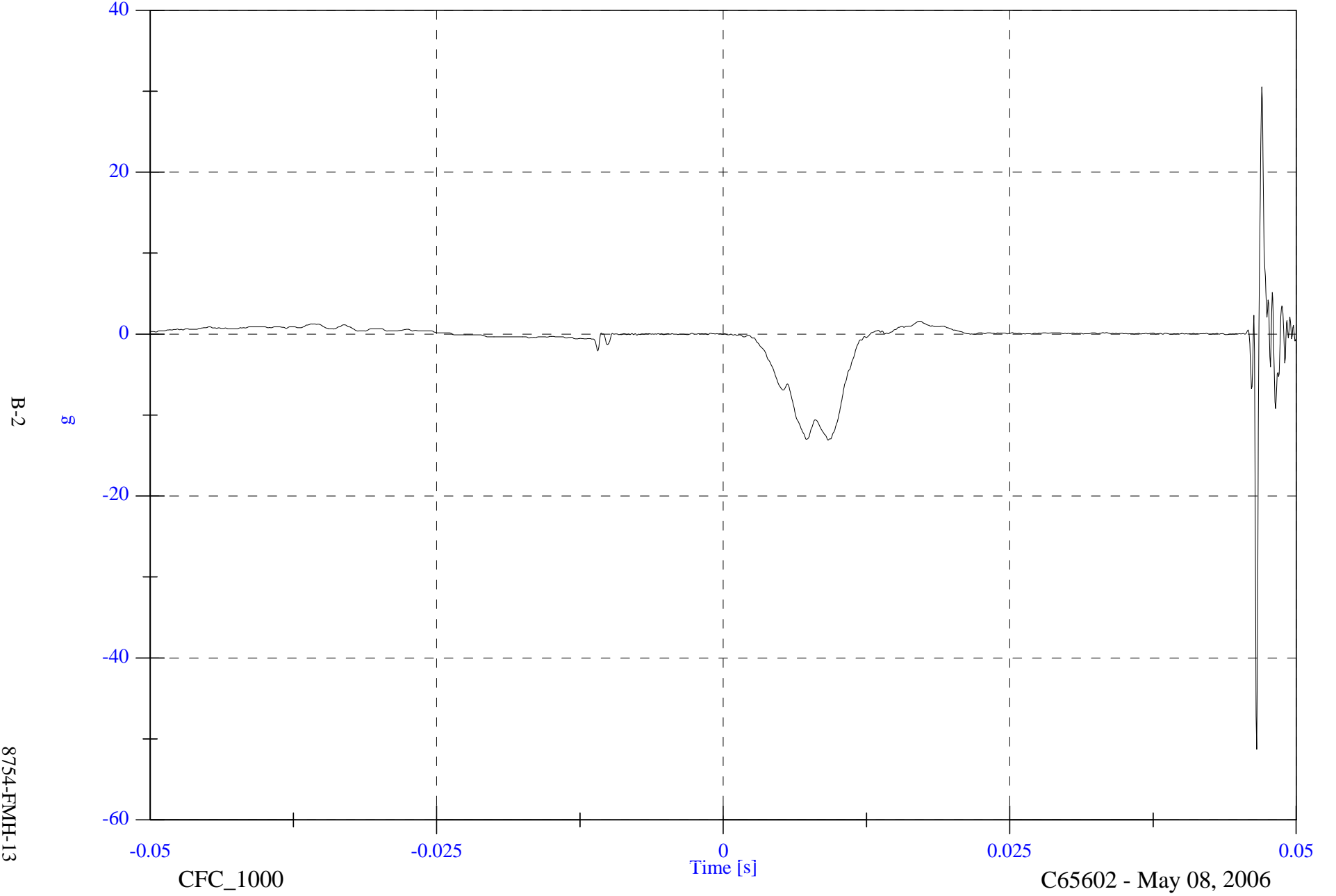
C65602 - May 08, 2006

FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE

Headform Y Acceleration

Max: 30.6 [g] at 0.047 [s]

Min: -51.3 [g] at 0.047 [s]



B-2

g

8754+FMH-13

CFC\_1000

Time [s]

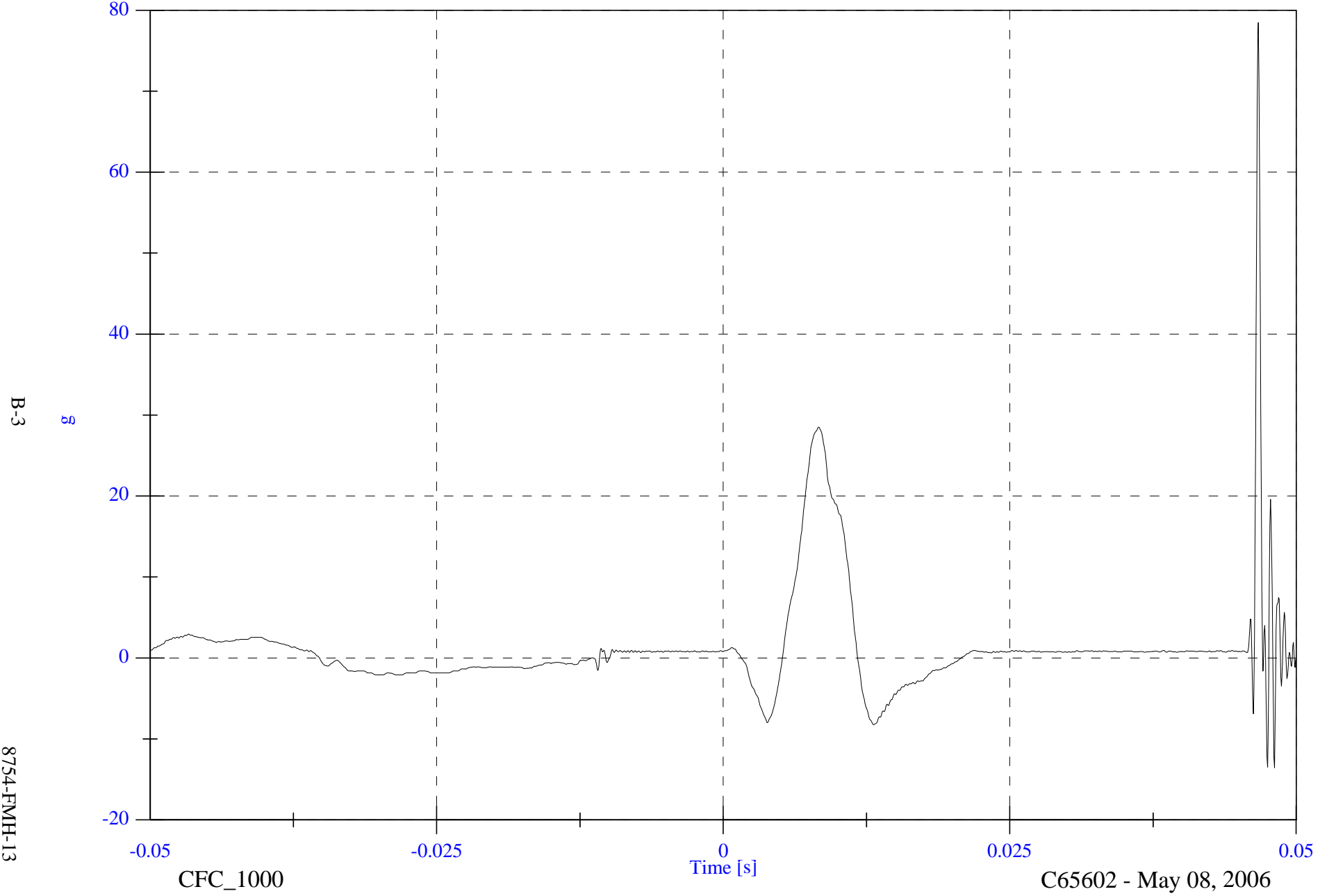
C65602 - May 08, 2006

FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE

Headform Z Acceleration

Max: 78.5 [g] at 0.047 [s]

Min: -13.6 [g] at 0.048 [s]



B-3

8754+FMH-13

CFC\_1000

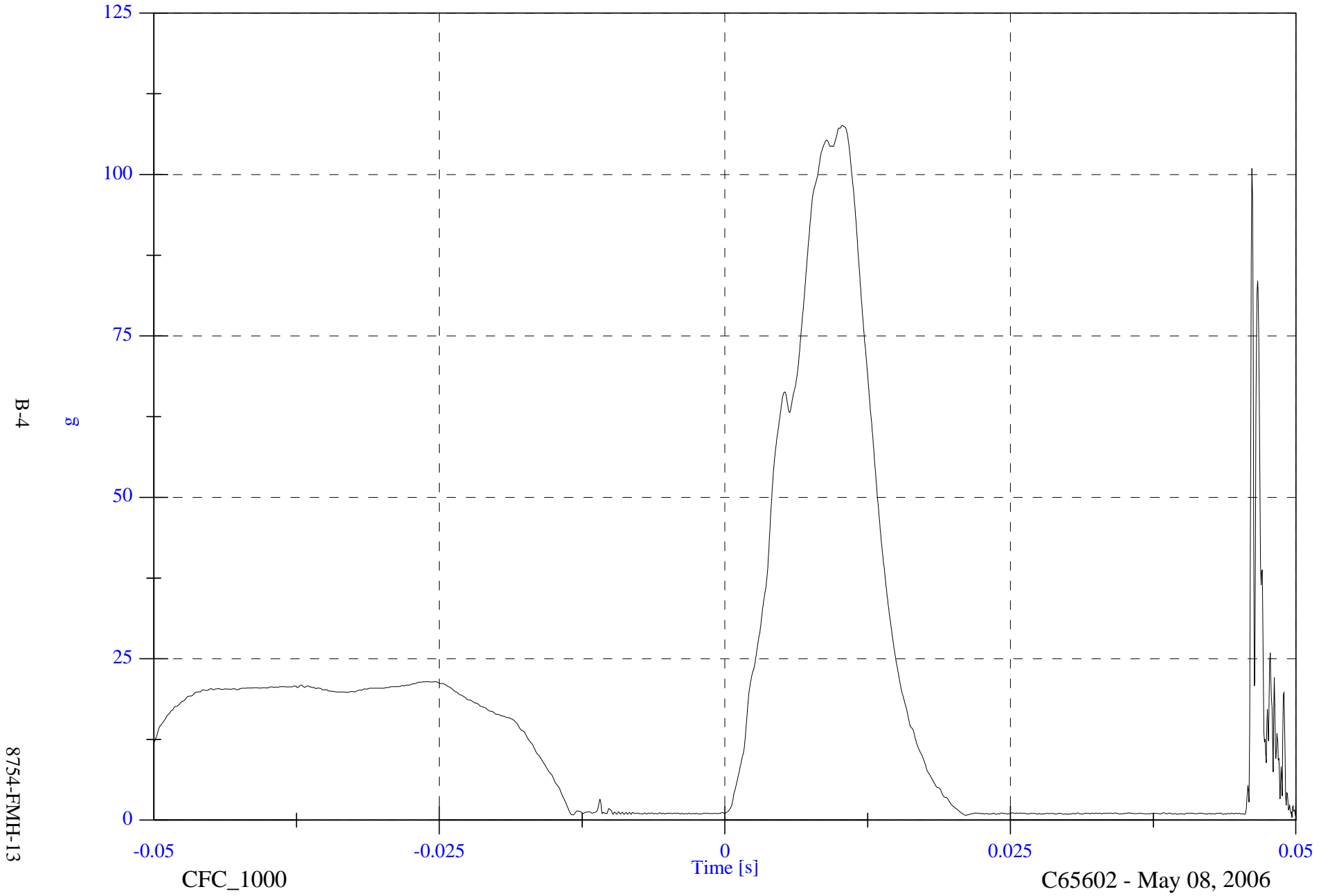
C65602 - May 08, 2006

FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE

Headform Resultant

Max: 107.6 [g] at 0.010 [s]

Min: 0.4 [g] at 0.050 [s]



B-4

8754+FMH-13

CFC\_1000

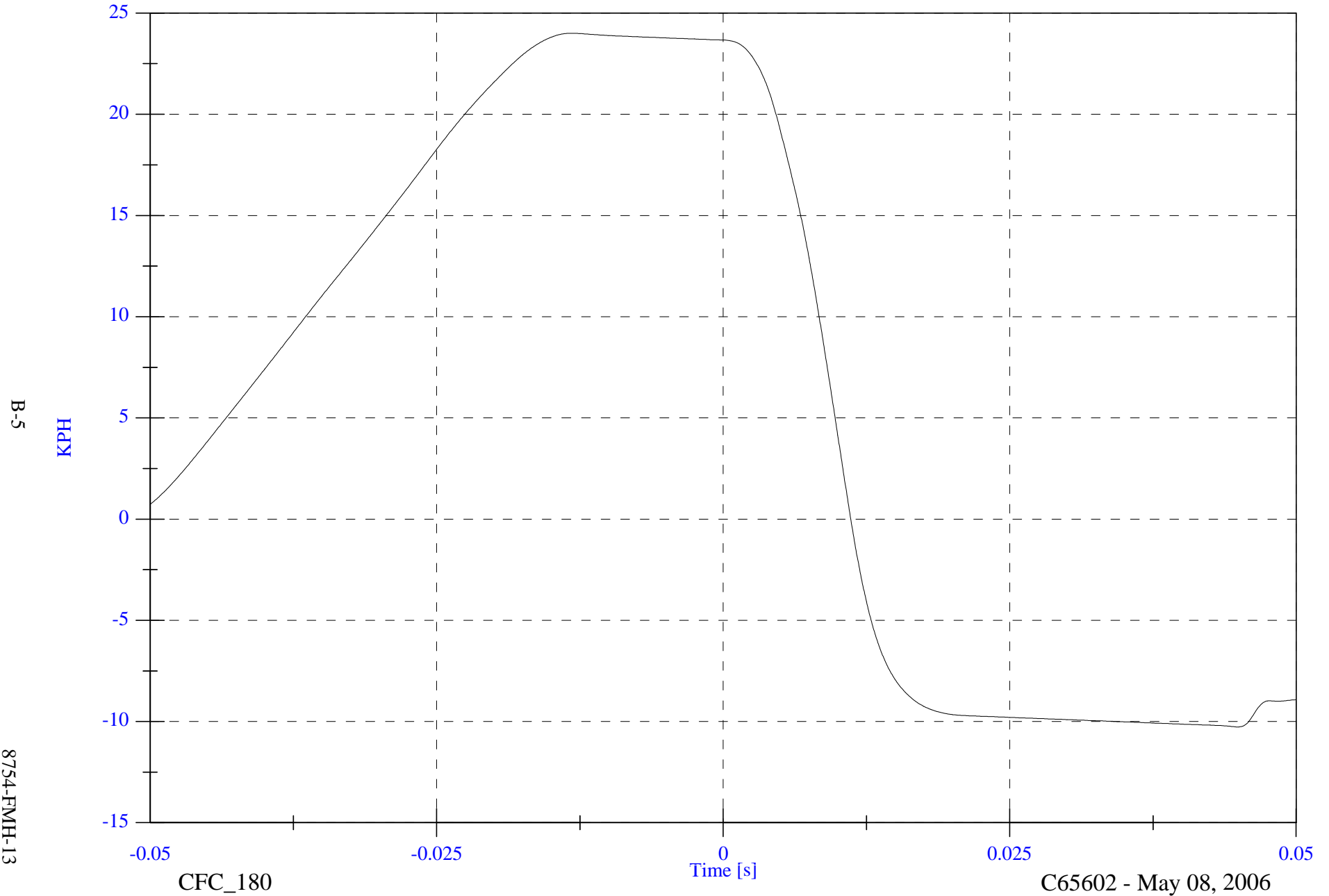
C65602 - May 08, 2006

FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE

Headform Velocity

Max: 24.0 [KPH] at -0.013 [s]

Min: -10.3 [KPH] at 0.045 [s]





PRE-IMPACT BP1





POST-IMPACT BP1

VEHICLE YEAR/MAKE/MODEL/STYLE:	2006 Mitsubishi Eclipse GS, 2-door Sport Coupe
VIN:	4A3AK24F06E036305
DATE OF MANUFACTURE:	OCT 2005 (SEE CERTIFICATION LABEL)
COLOR:	Titanium Pearl

Test Number:	05
Test Date:	05/08/06
Target Location:	A-PILLAR
Target Code:	AP3
Horizontal Impact Angle:	143°
Vertical Impact Angle:	50°
Ambient Temperature:	22.5°C
Relative Humidity:	26.9
Time of Impact:	13:45
Headform Number:	0642

Impact Point Description (from lower midpoint on midsagittal line)					
On Centerline	4	<input type="checkbox"/>	mm right	<input checked="" type="checkbox"/>	mm left
On Centerline	16				mm up



POST-IMPACT AP3 HEADFORM

Free Motion HIC	427.4
HIC(d)	488.9
Impact Velocity (kph)	23.51
HIC T1 (msec)	2.1
HIC T2 (msec)	13.2

# FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE C65602 - AP3

FMH Headform 0642

Location: AP3

Test Date: May 08, 2006

Work File: AP3

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

Lab Temperature: 22.5 C

HICd: 488.9

Lab Humidity: 26.9 %

HIC (36ms): 427.4

Velocity at Impact: 23.51 KPH

t1: 2.1 msec

t2: 13.2 msec

Free Flight Distance: 220.31 mm

Duration: 11.1 msec

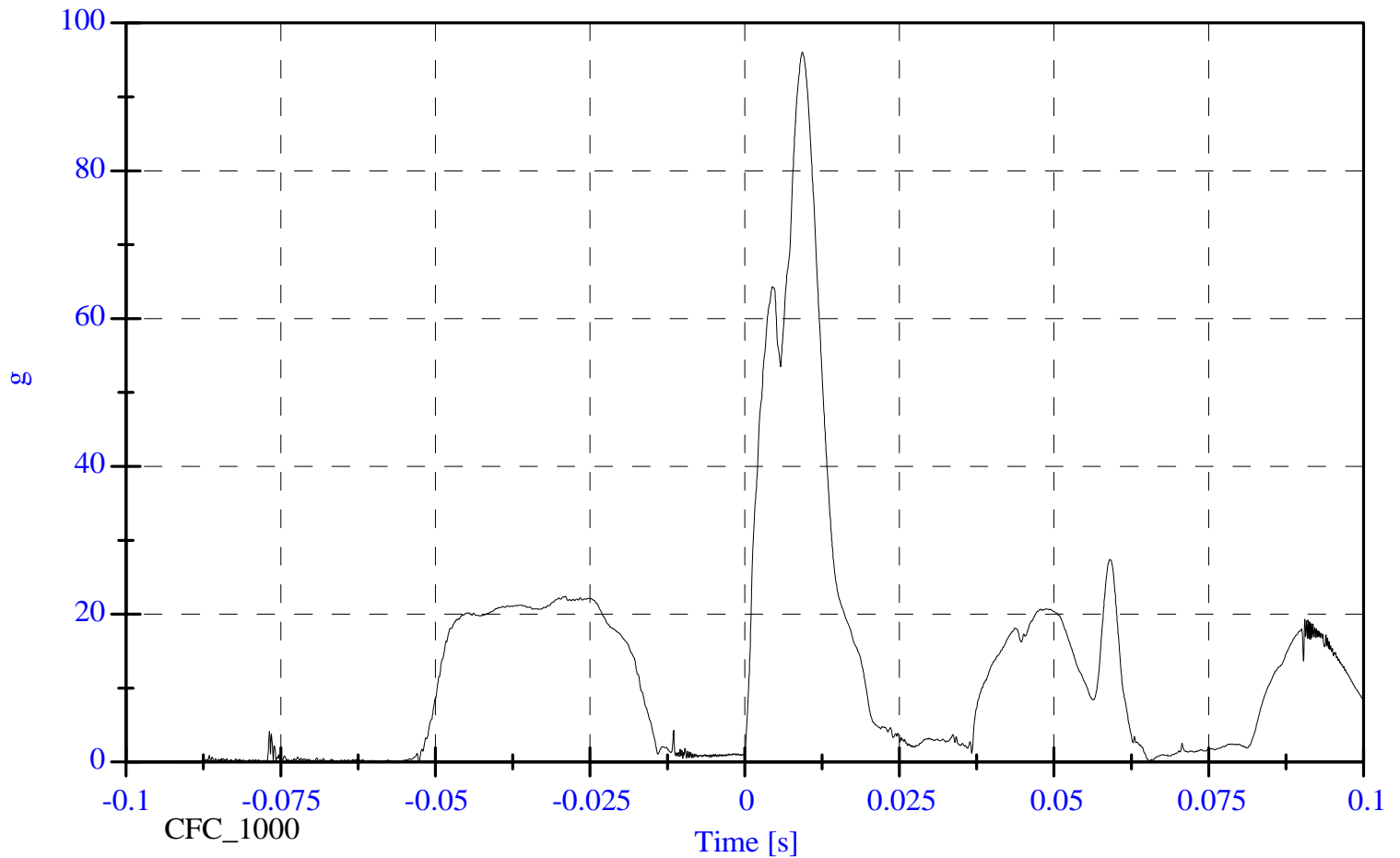
Maximum: 96.1 g

Average Acceleration: 11.9 g

FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE  
Headform Resultant

Max: 96.1 [g] at 0.009 [s]

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



FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE

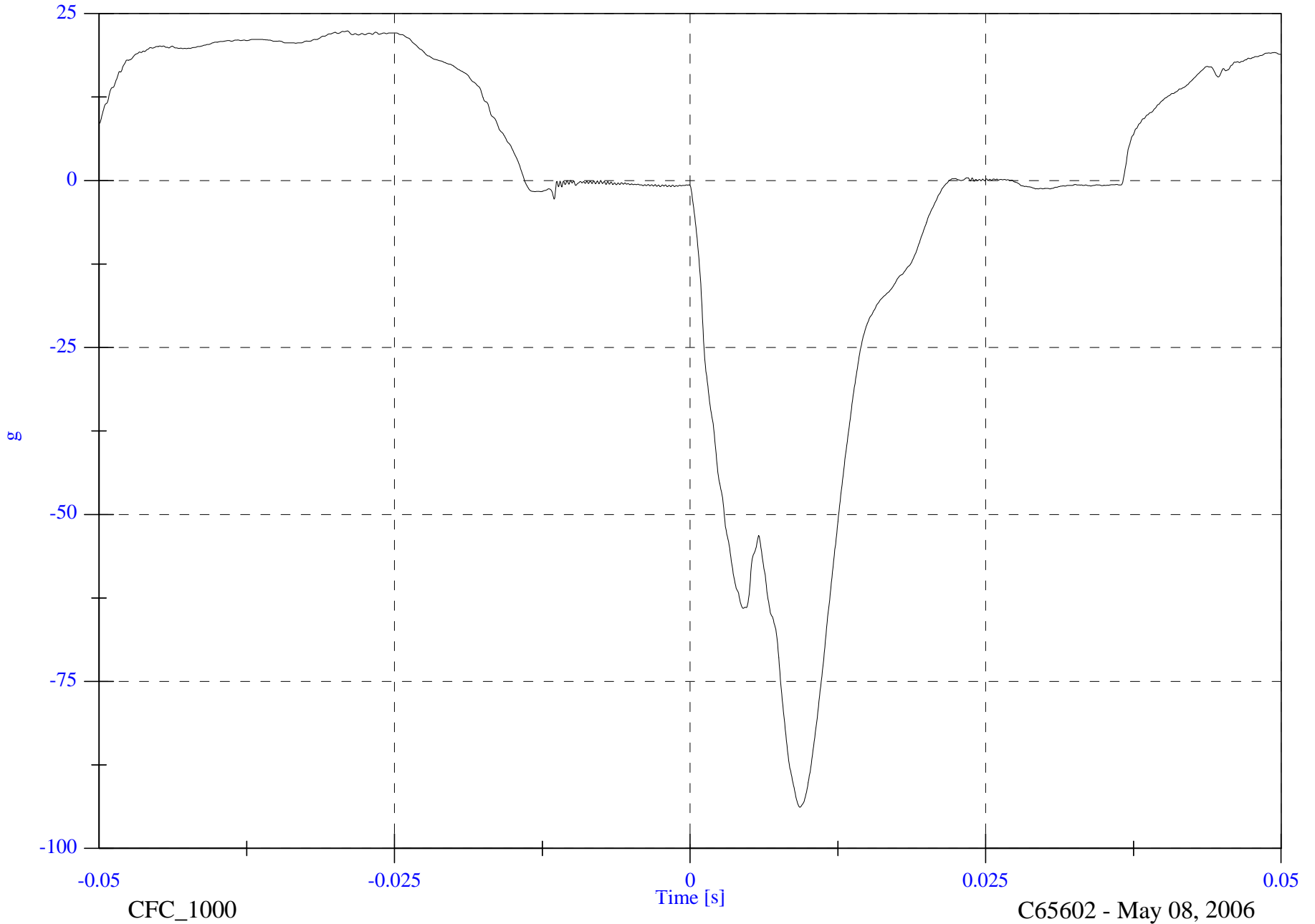
Headform X Acceleration

Max: 22.4 [g] at -0.029 [s]

Min: -93.8 [g] at 0.009 [s]

C65602 PASSENGER SIDE AP3 IMPACT PLOT #1

8754+FMH-13



CFC\_1000

C65602 - May 08, 2006

FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE

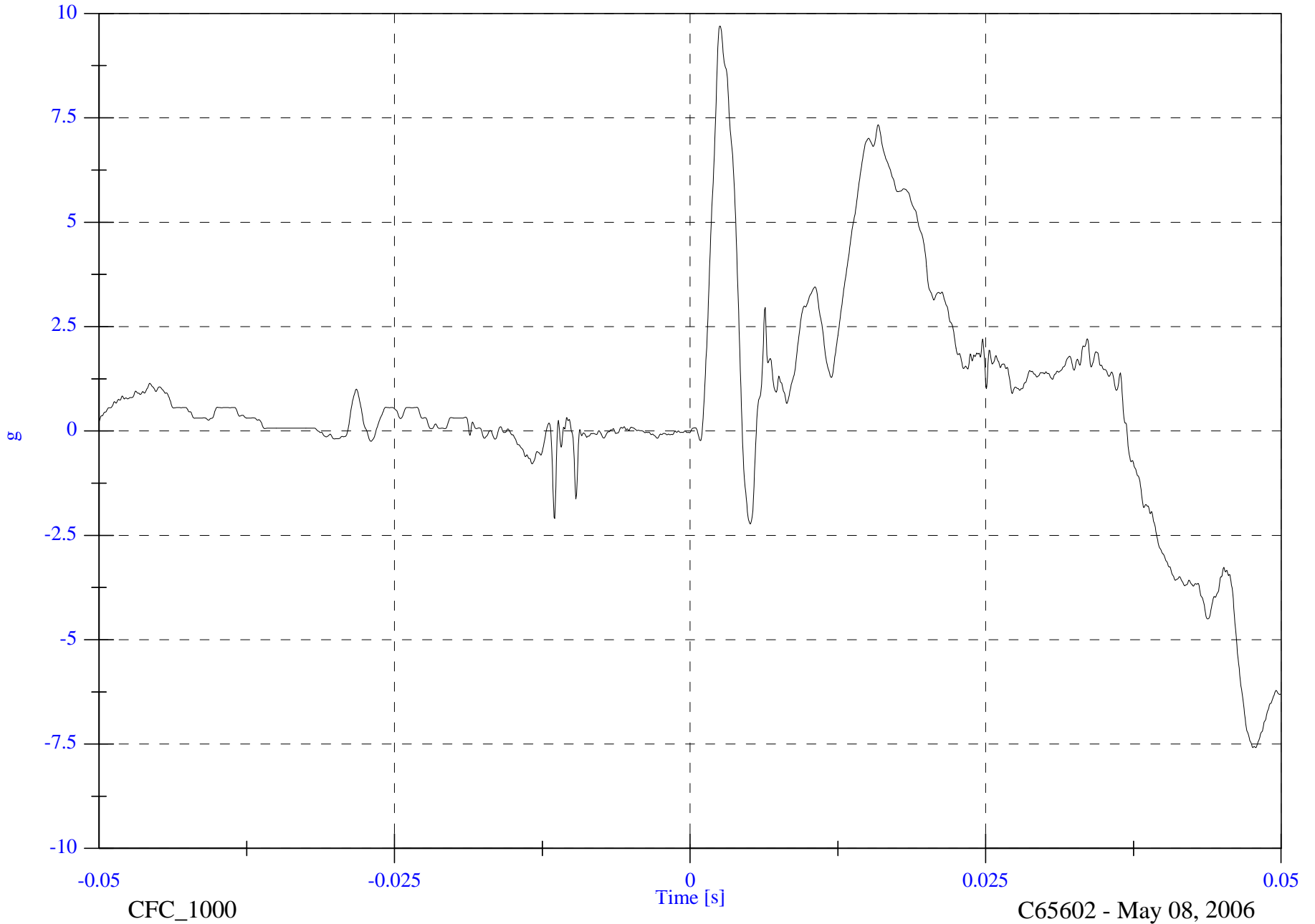
Headform Y Acceleration

Max: 9.7 [g] at 0.003 [s]

Min: -7.6 [g] at 0.048 [s]

C65602 PASSENGER SIDE AP3 IMPACT PLOT #2

8754+FMH-13



CFC\_1000

C65602 - May 08, 2006

FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE

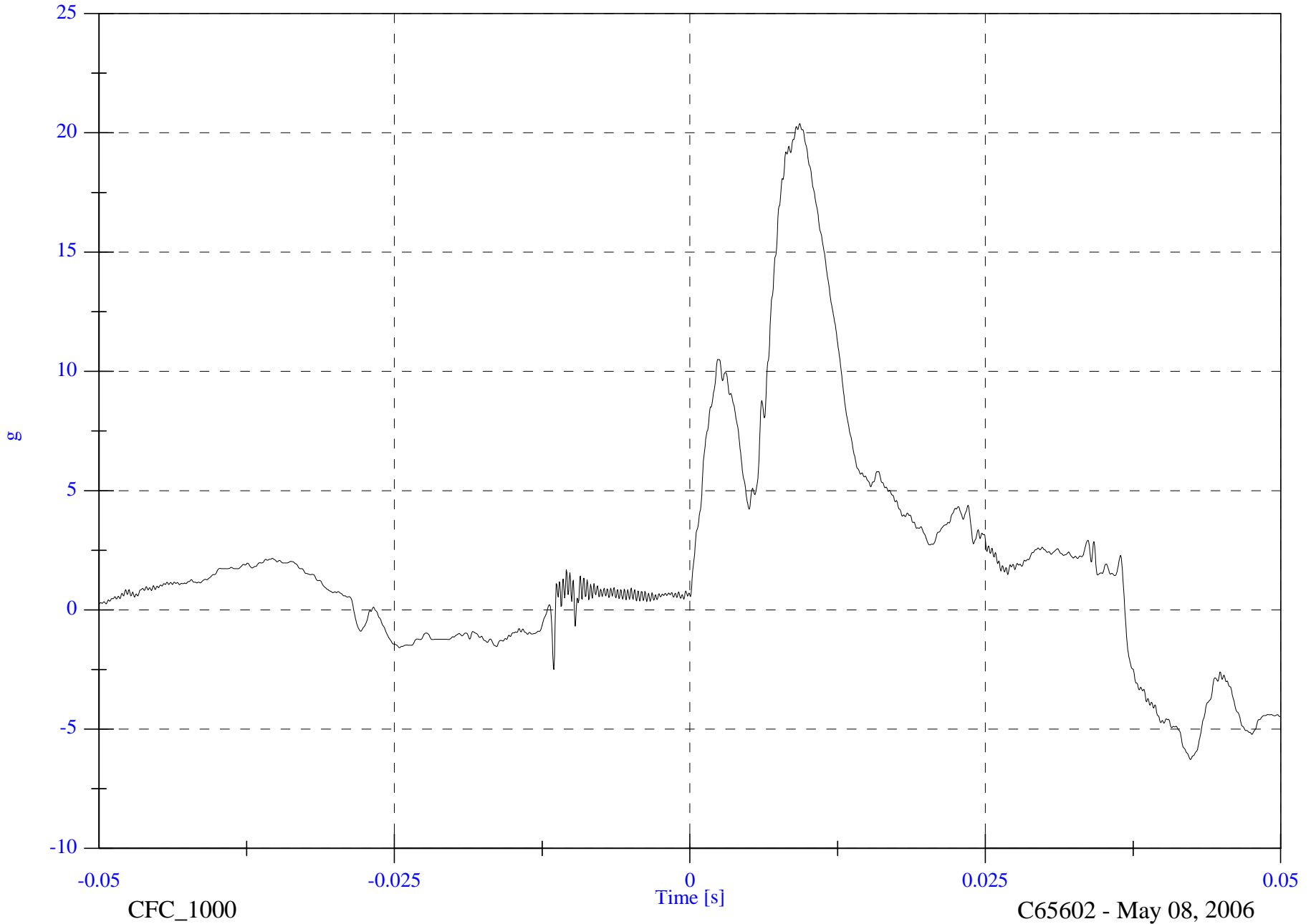
Headform Z Acceleration

Max: 20.4 [g] at 0.009 [s]

Min: -6.3 [g] at 0.042 [s]

C65602 PASSENGER SIDE AP3 IMPACT PLOT #3

8754+FMH-13



CFC\_1000

C65602 - May 08, 2006

FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE

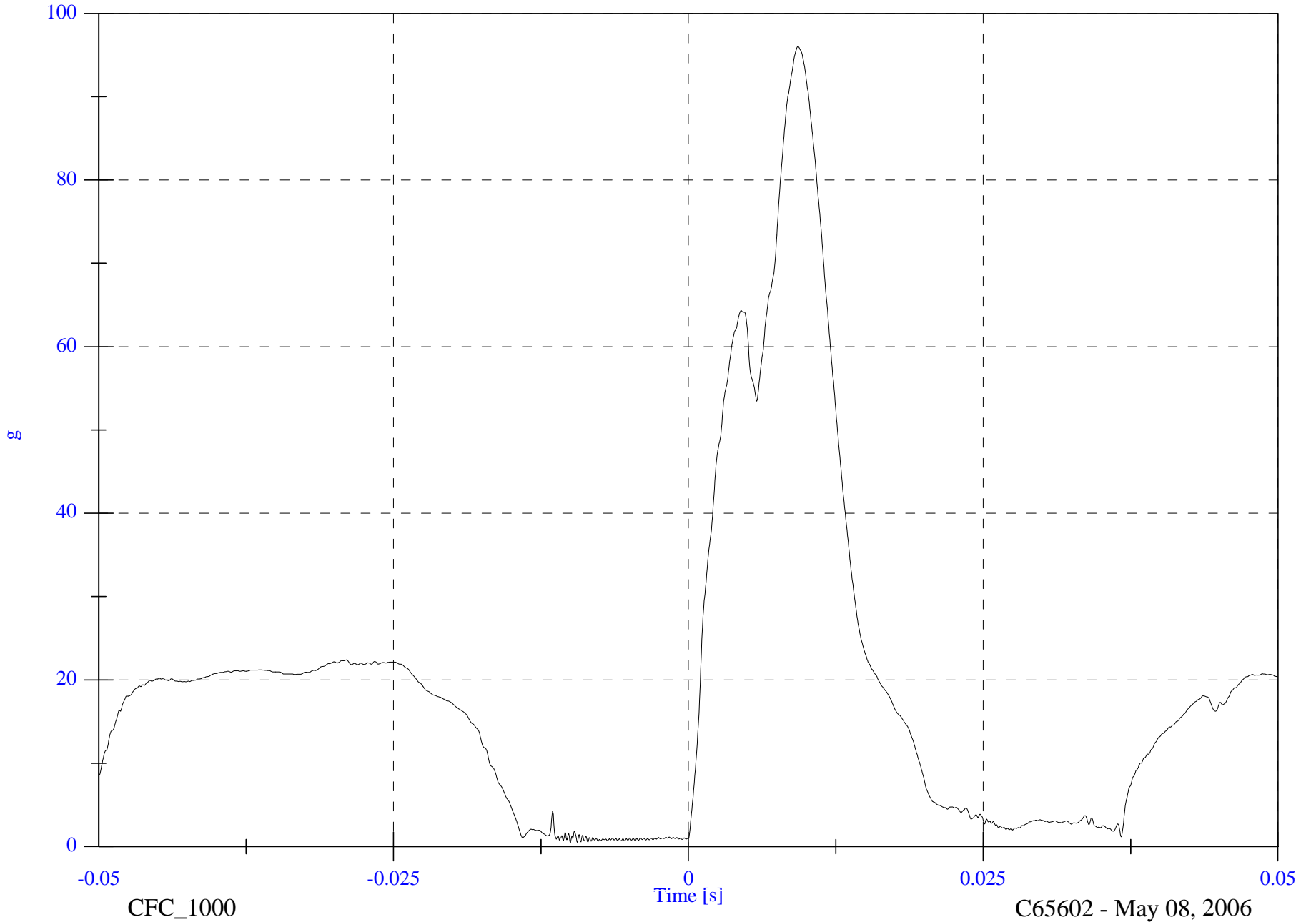
Headform Resultant

Max: 96.1 [g] at 0.009 [s]

Min: 0.5 [g] at -0.010 [s]

C65602 PASSENGER SIDE AP3 IMPACT PLOT #4

8754+FMH-13



FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE

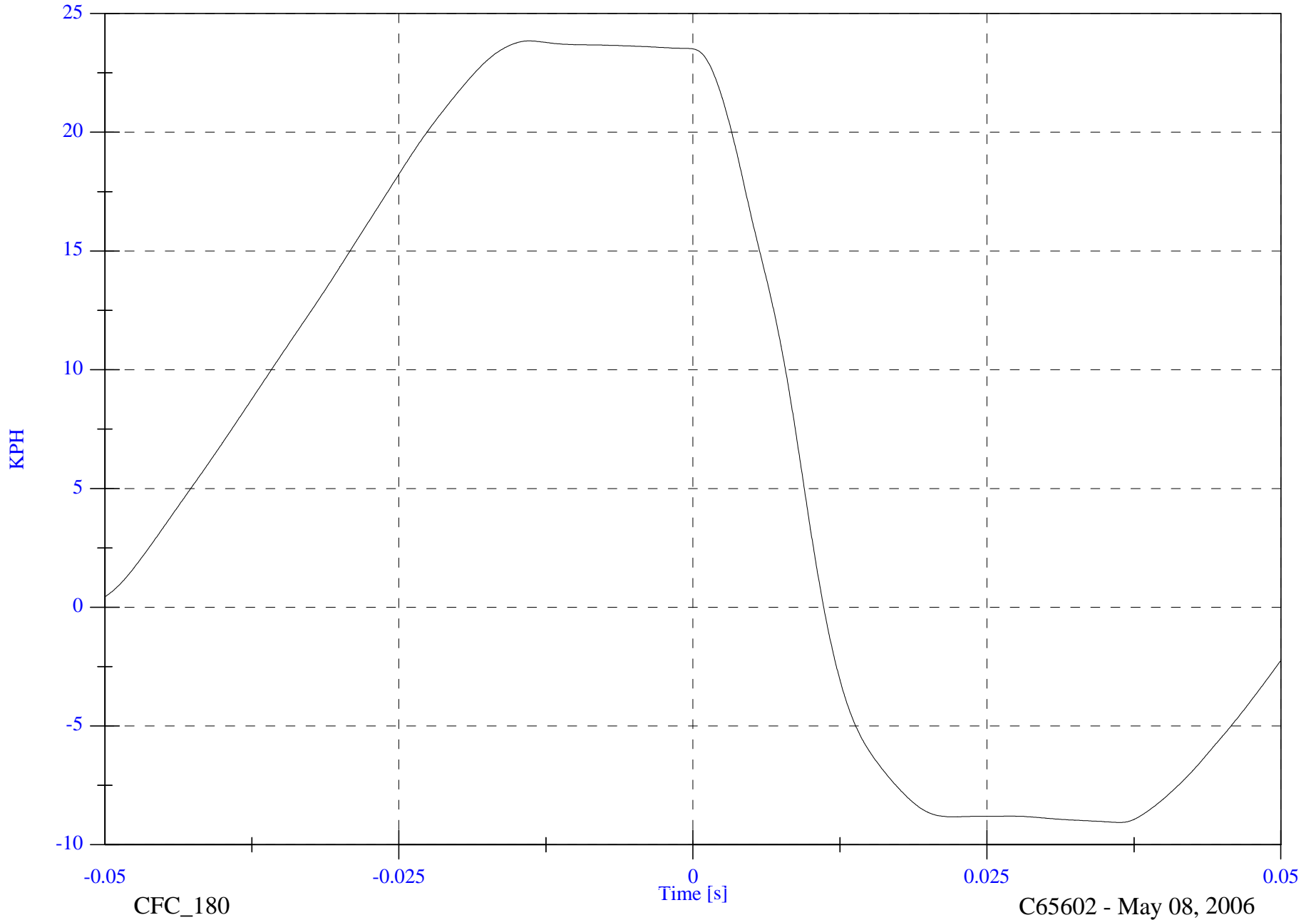
Headform Velocity

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

Min: -9.1 [KPH] at 0.036 [s]

C65602 PASSENGER SIDE AP3 IMPACT PLOT #5

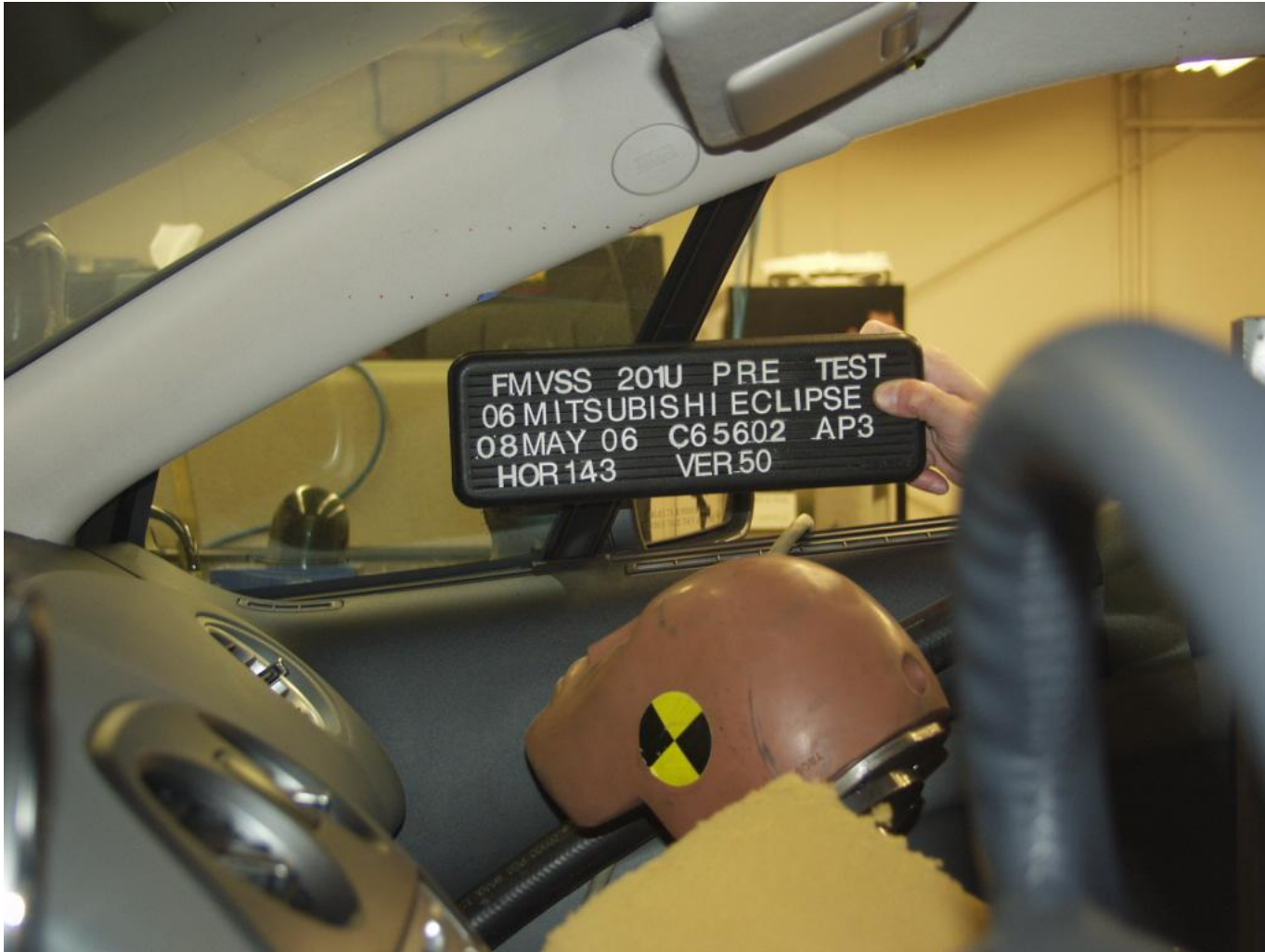
8754+FMH-13



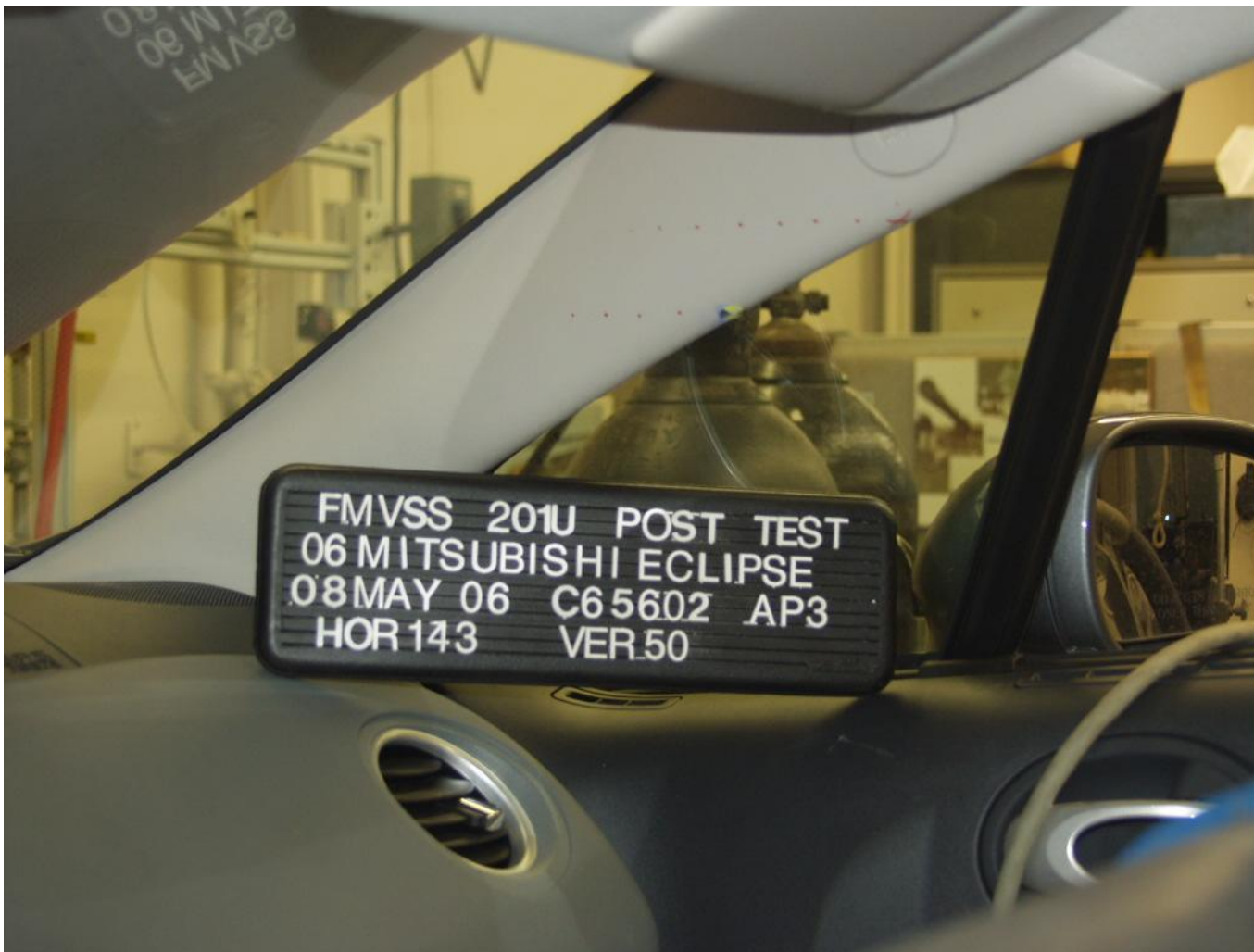
CFC\_180

C65602 - May 08, 2006





PRE-IMPACT AP3



POST-IMPACT AP3

VEHICLE YEAR/MAKE/MODEL/STYLE:	2006 Mitsubishi Eclipse GS, 2-door Sport Coupe
VIN:	4A3AK24F06E036305
DATE OF MANUFACTURE:	OCT 2005 (SEE CERTIFICATION LABEL)
COLOR:	Titanium Pearl

Test Number:	06
Test Date:	05/08/06
Target Location:	A-PILLAR
Target Code:	AP1
Horizontal Impact Angle:	127°
Vertical Impact Angle:	29°
Ambient Temperature:	22.7°C
Relative Humidity:	29
Time of Impact:	14:40
Headform Number:	0805

Impact Point Description (from lower midpoint on midsagittal line)					
On Centerline	13	<input checked="" type="checkbox"/>	mm right	<input type="checkbox"/>	mm left
On Centerline	15				mm up



POST-IMPACT AP1 HEADFORM

Free Motion HIC	409.5
HIC(d)	475.4
Impact Velocity (kph)	23.62
HIC T1 (msec)	2.9
HIC T2 (msec)	13.4

# FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE C65602 - AP1

FMH Headform 0805

Location: AP1

Test Date: May 08, 2006

Work File: AP1

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

Lab Temperature: 22.7 C

HICd: 475.4

Lab Humidity: 29 %

HIC (36ms): 409.5

Velocity at Impact: 23.62 KPH

t1: 2.9 msec

t2: 13.4 msec

Free Flight Distance: 221.80 mm

Duration: 10.5 msec

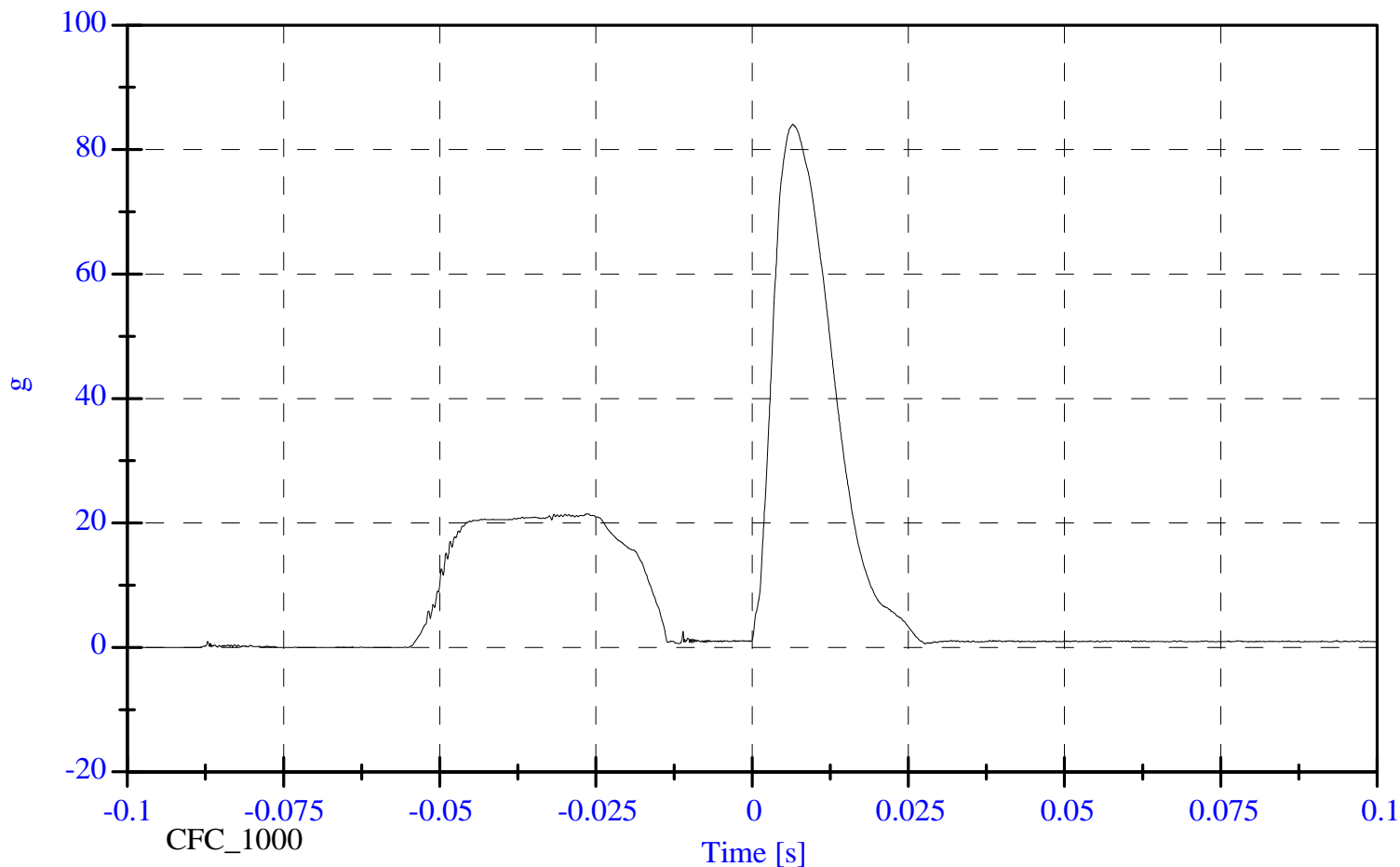
Maximum: 84.1 g

Average Acceleration: 8.5 g

FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE  
Headform Resultant

Max: 84.1 [g] at 0.007 [s]

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



FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE

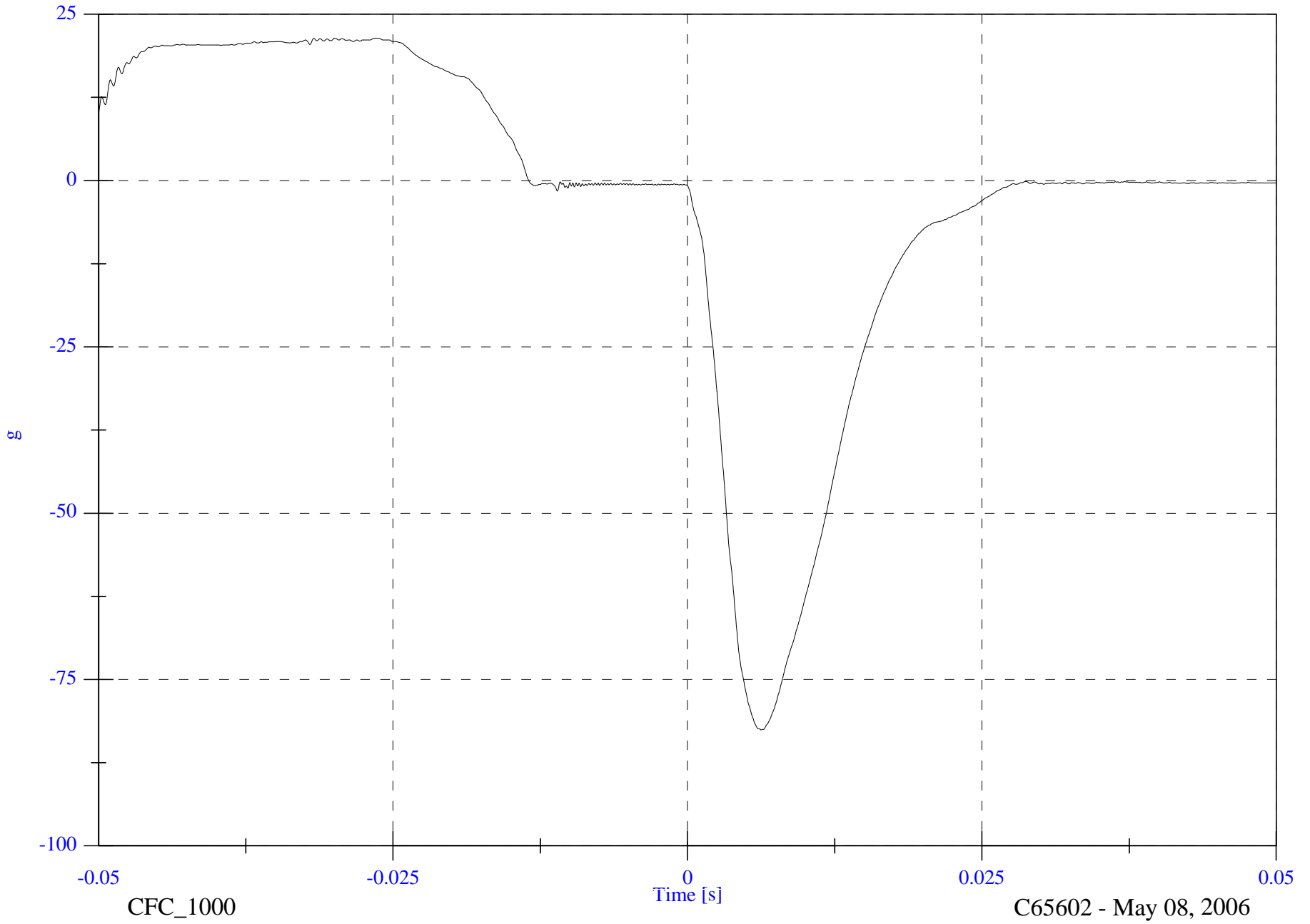
Headform X Acceleration

Max: 21.4 [g] at -0.026 [s]

Min: -82.6 [g] at 0.006 [s]

C65602 PASSENGER SIDE AP1 IMPACT PLOT #1

8754+FMH-13



CFC\_1000

C65602 - May 08, 2006

FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE

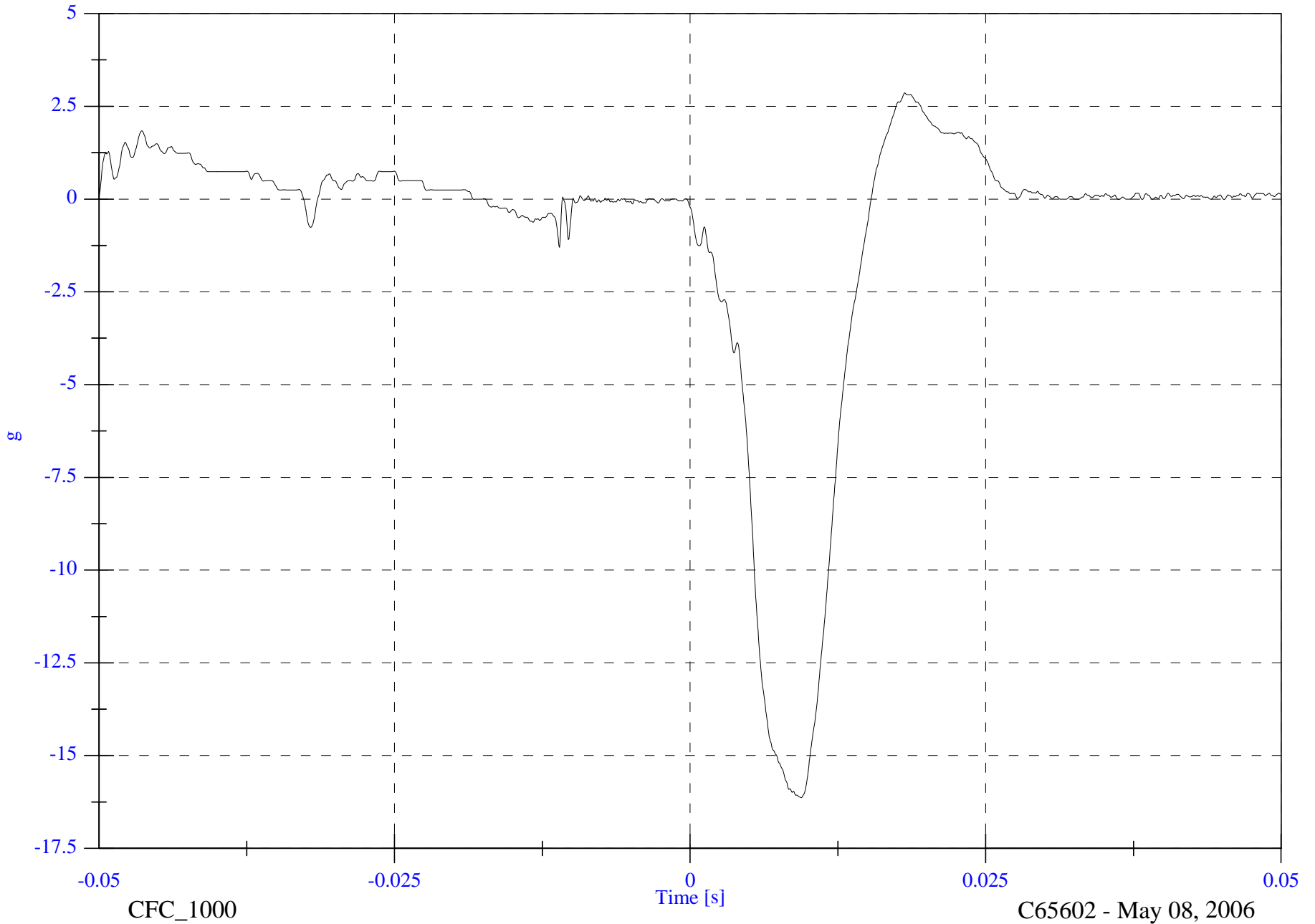
Headform Y Acceleration

Max: 2.9 [g] at 0.018 [s]

Min: -16.1 [g] at 0.009 [s]

C65602 PASSENGER SIDE AP1 IMPACT PLOT #2

8754+FMH-13



C65602 - May 08, 2006

FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE

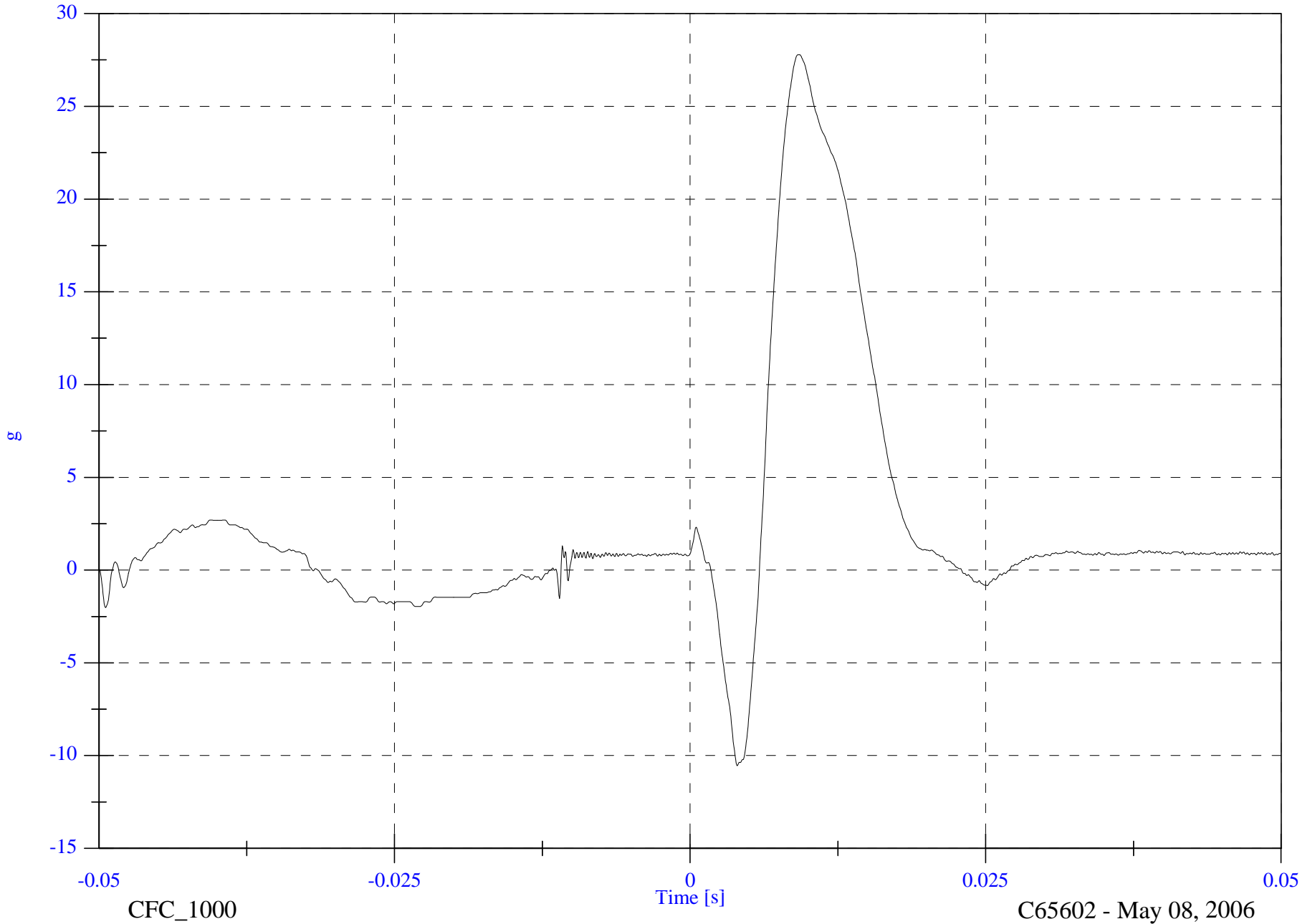
Headform Z Acceleration

Max: 27.8 [g] at 0.009 [s]

Min: -10.5 [g] at 0.004 [s]

C65602 PASSENGER SIDE AP1 IMPACT PLOT #3

8754+FMH-13



CFC\_1000

C65602 - May 08, 2006

FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE

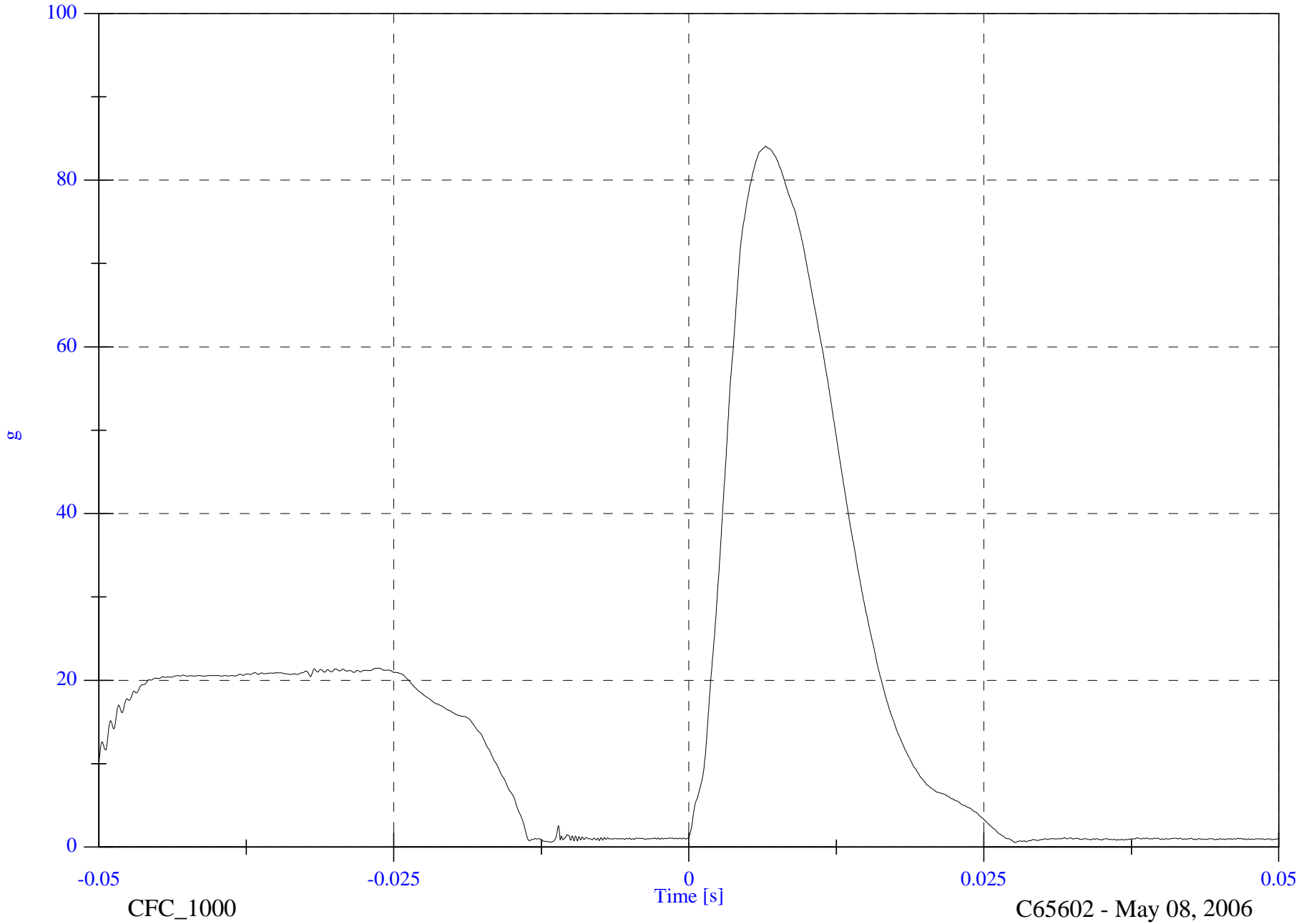
Headform Resultant

Max: 84.1 [g] at 0.007 [s]

Min: 0.6 [g] at 0.028 [s]

C65602 PASSENGER SIDE AP1 IMPACT PLOT #4

8754+FMH-13



CFC\_1000

C65602 - May 08, 2006



FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE

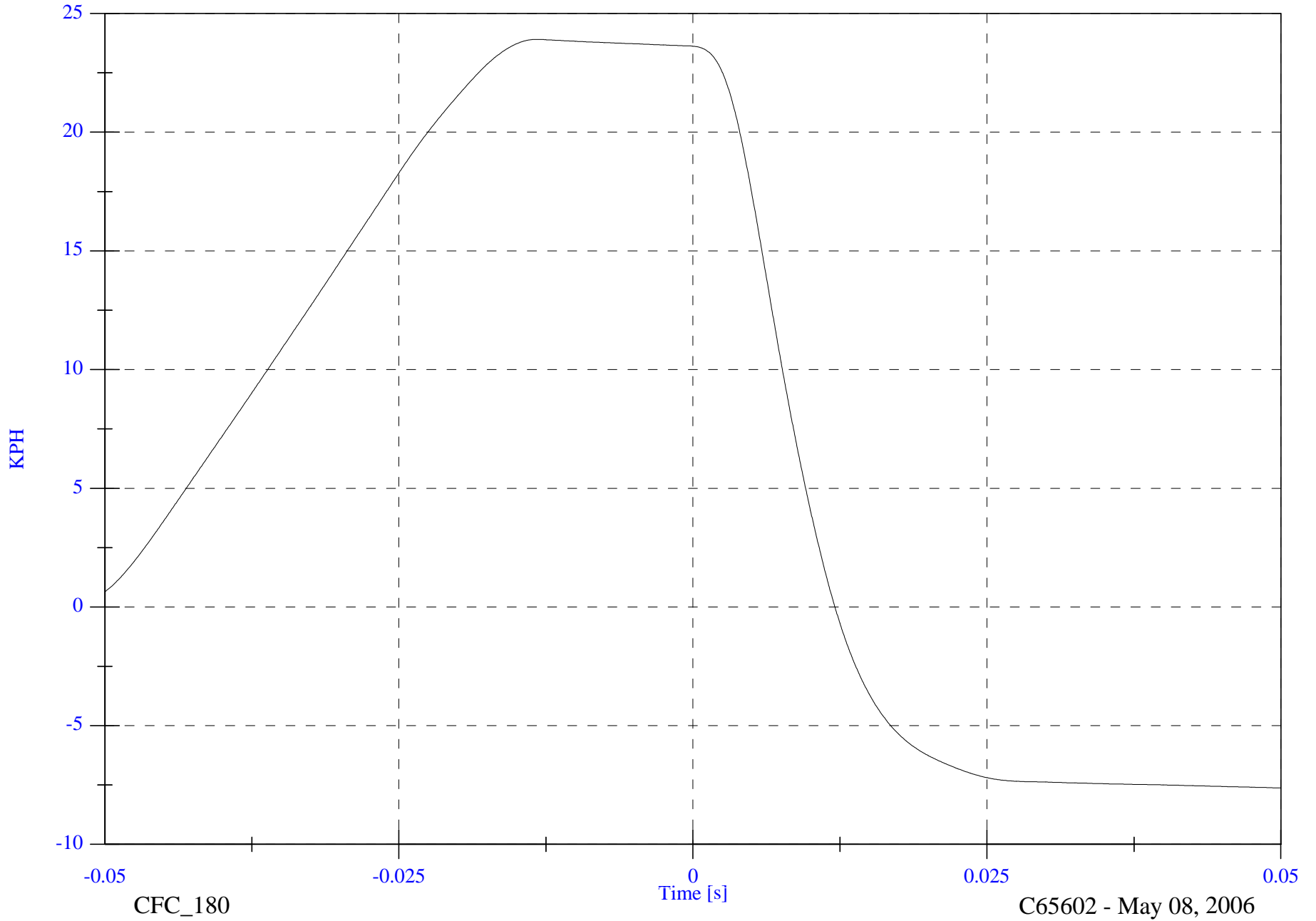
Headform Velocity

Max: 23.9 [KPH] at -0.013 [s]

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

C65602 PASSENGER SIDE AP1 IMPACT PLOT #5

8754+FMH-13



CFC\_180

C65602 - May 08, 2006



PRE-IMPACT AP1



POST-IMPACT AP1

VEHICLE YEAR/MAKE/MODEL/STYLE:	2006 Mitsubishi Eclipse GS, 2-door Sport Coupe
VIN:	4A3AK24F06E036305
DATE OF MANUFACTURE:	OCT 2005 (SEE CERTIFICATION LABEL)
COLOR:	Titanium Pearl

Test Number:	07
Test Date:	05/08/06
Target Location:	SIDE RAIL
Target Code:	SR2B
Horizontal Impact Angle:	90°
Vertical Impact Angle:	41°
Ambient Temperature:	23.0°C
Relative Humidity:	26.3
Time of Impact:	14:55
Headform Number:	1255

Impact Point Description (from lower midpoint on midsagittal line)			
On Centerline	4	<input type="checkbox"/>	mm right <input checked="" type="checkbox"/> mm left
On Centerline	20		mm up



POST-IMPACT SR2B HEADFORM

Free Motion HIC	594.2
HIC(d)	614.7
Impact Velocity (kph)	23.66
HIC T1 (msec)	2.6
HIC T2 (msec)	12.0

# FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE C65602 - SR2B

FMH Headform 1255

Location: SR2B

Test Date: May 08, 2006

Work File: SR2B

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

Lab Temperature: 23.0 C

HICd: 614.7

Lab Humidity: 26.3 %

HIC (36ms): 594.2

Velocity at Impact: 23.66 KPH

t1: 2.6 msec

t2: 12.0 msec

Free Flight Distance: 220.67 mm

Duration: 9.4 msec

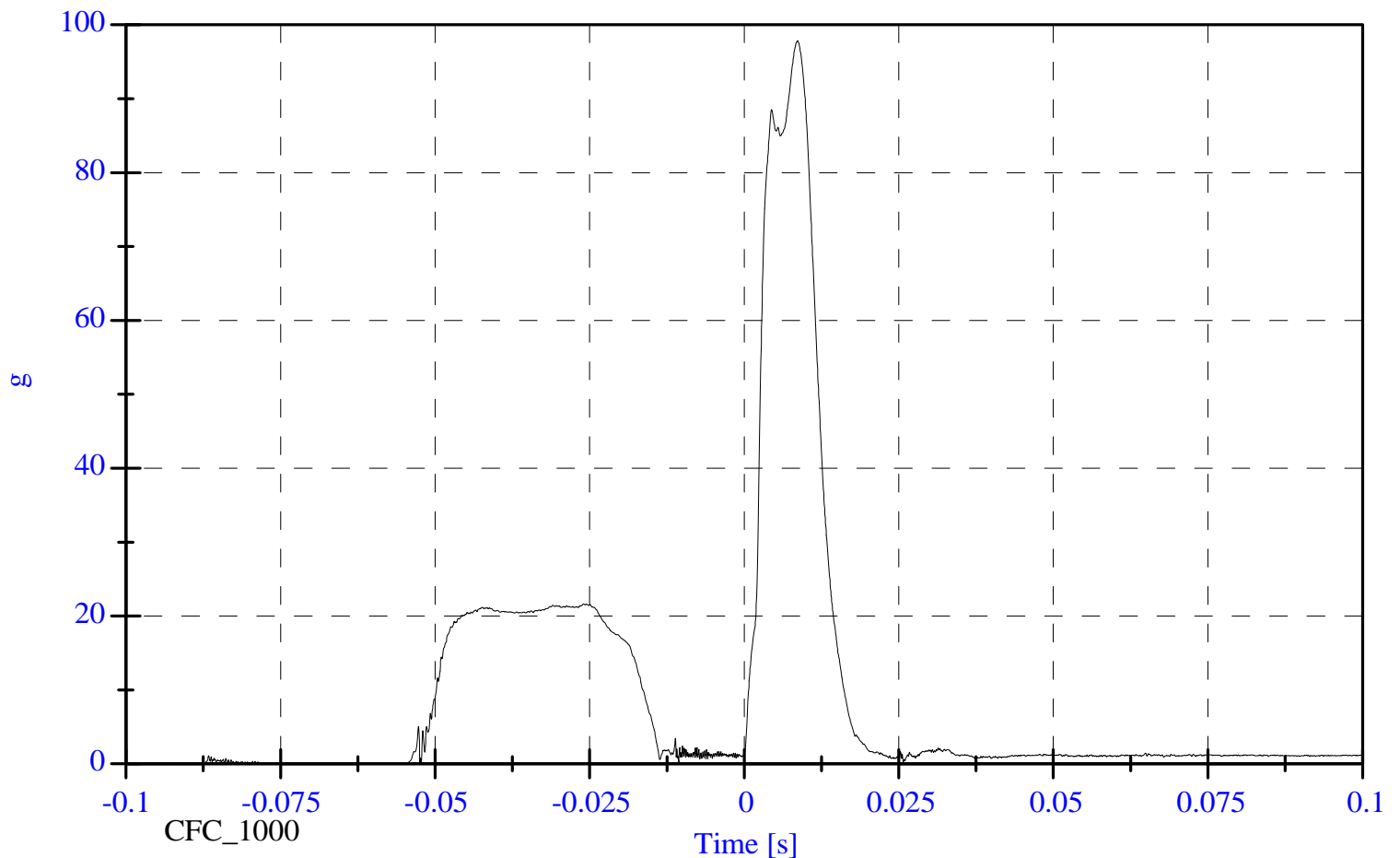
Maximum: 97.9 g

Average Acceleration: 8.8 g

FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE  
Headform Resultant

Max: 97.9 [g] at 0.009 [s]

Min: 0.0 [g] at -0.060 [s]



FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE

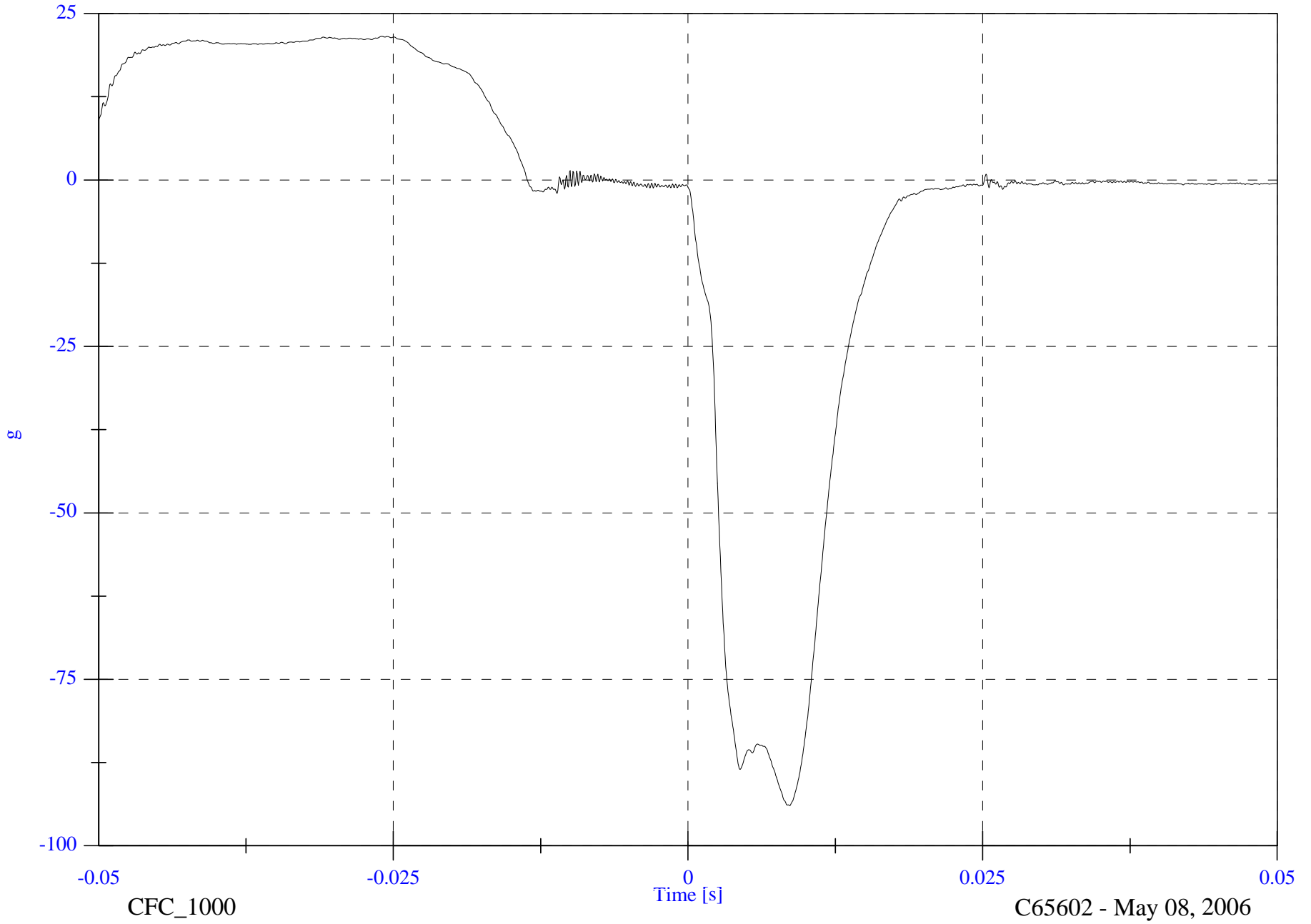
Headform X Acceleration

Max: 21.6 [g] at -0.026 [s]

Min: -94.0 [g] at 0.009 [s]

C65602 PASSENGER SIDE SR2B IMPACT PLOT #1

8754+FMH-13



CFC\_1000

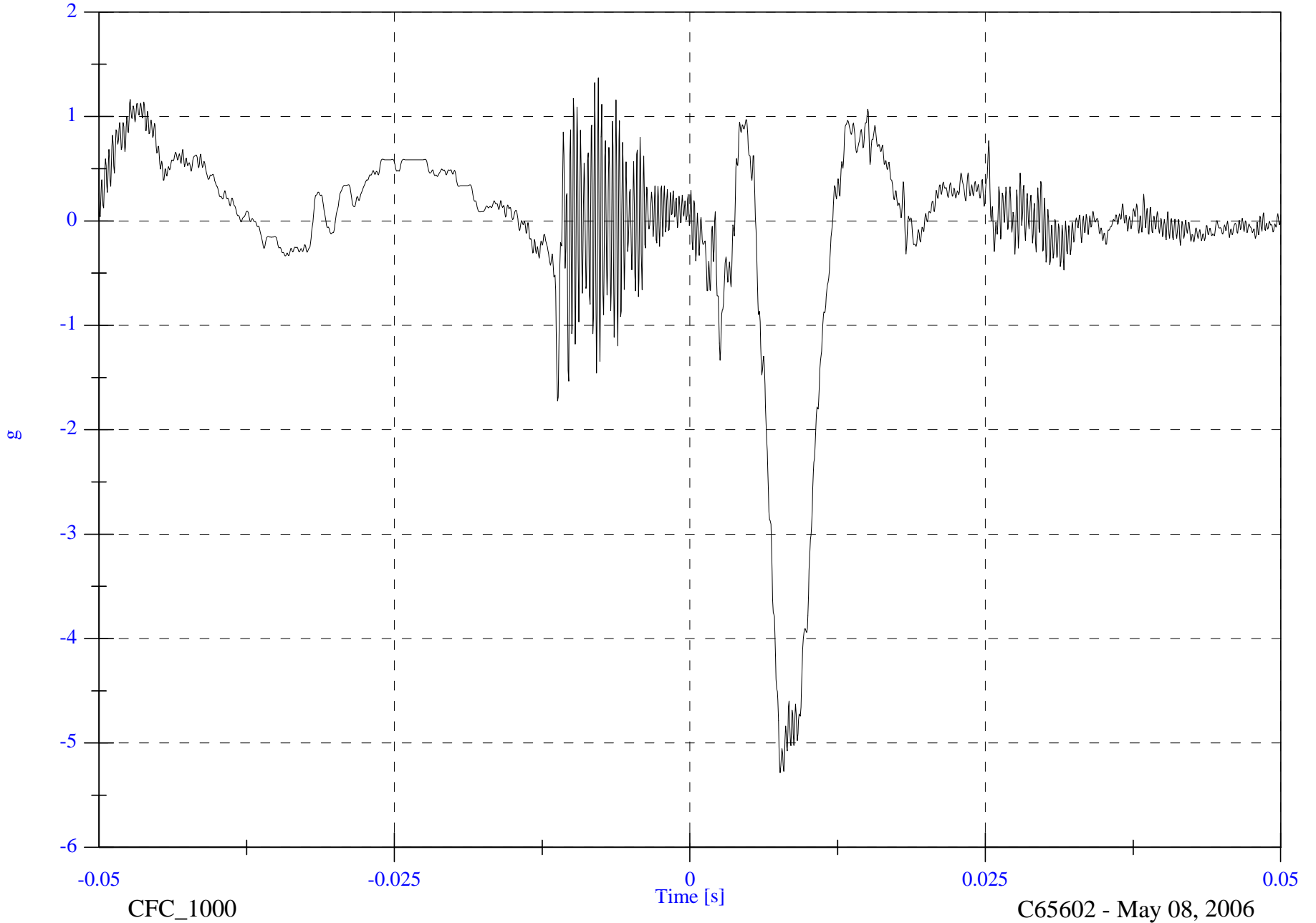
C65602 - May 08, 2006

FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE

Headform Y Acceleration

Max: 1.4 [g] at -0.008 [s]

Min: -5.3 [g] at 0.008 [s]



C65602 PASSENGER SIDE SR2B IMPACT PLOT #2

8754+FMH-13

CFC\_1000

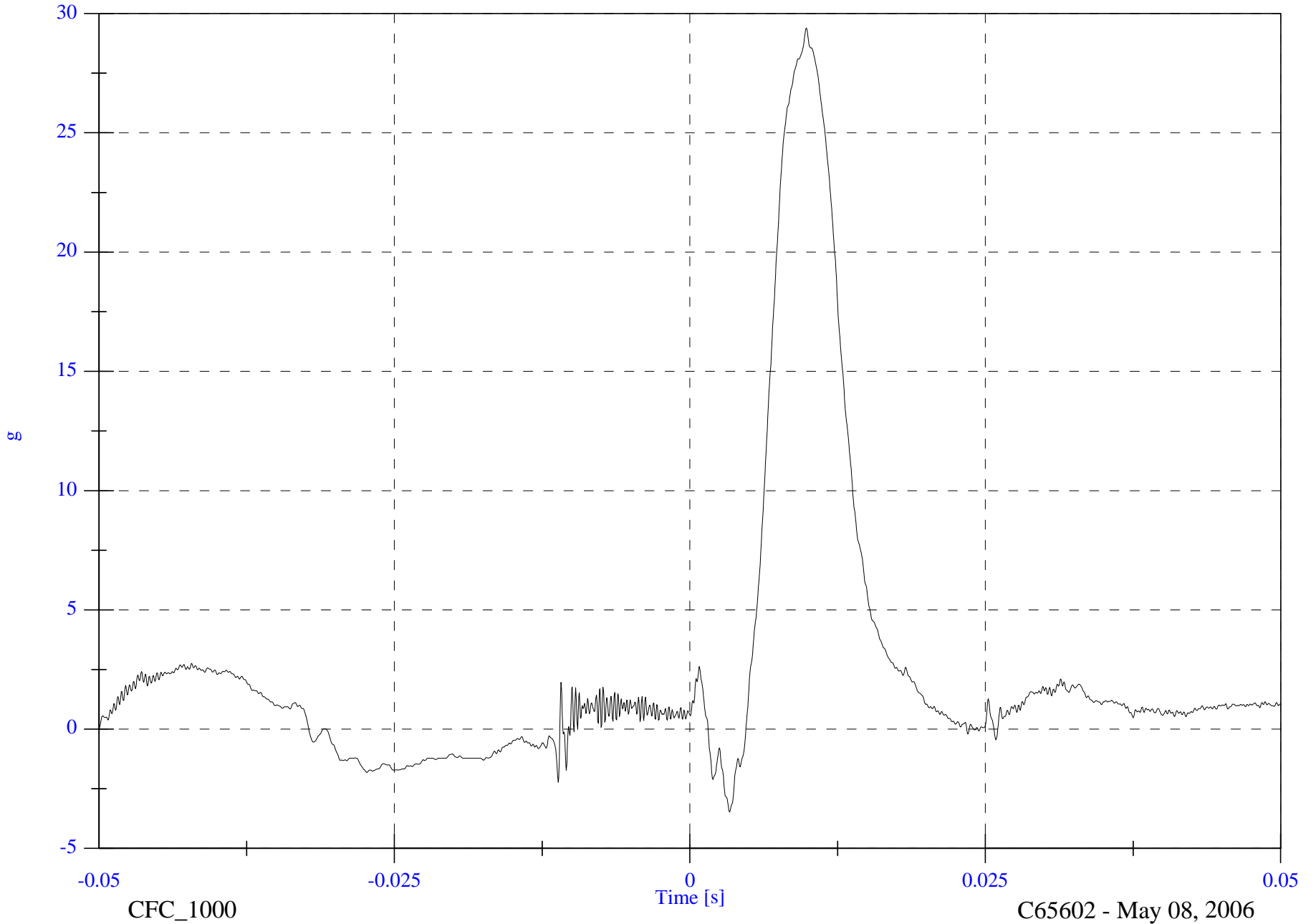
C65602 - May 08, 2006

FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE

Headform Z Acceleration

Max: 29.4 [g] at 0.010 [s]

Min: -3.5 [g] at 0.003 [s]



C65602 PASSENGER SIDE SR2B IMPACT PLOT #3

8754-FMH-13

CFC\_1000

C65602 - May 08, 2006



FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE

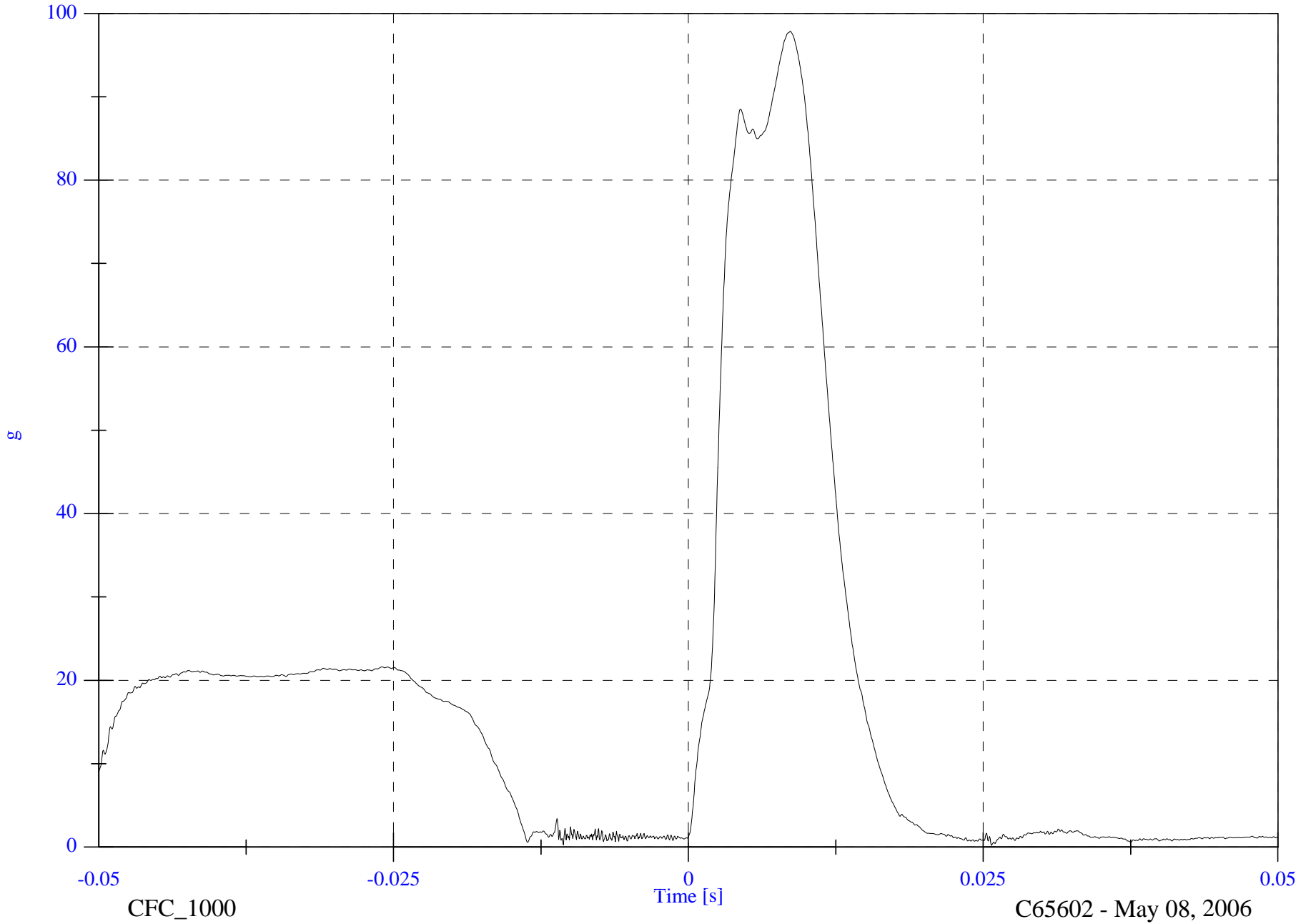
Headform Resultant

Max: 97.9 [g] at 0.009 [s]

Min: 0.2 [g] at 0.026 [s]

C65602 PASSENGER SIDE SR2B IMPACT PLOT #4

8754+FMH-13



CFC\_1000

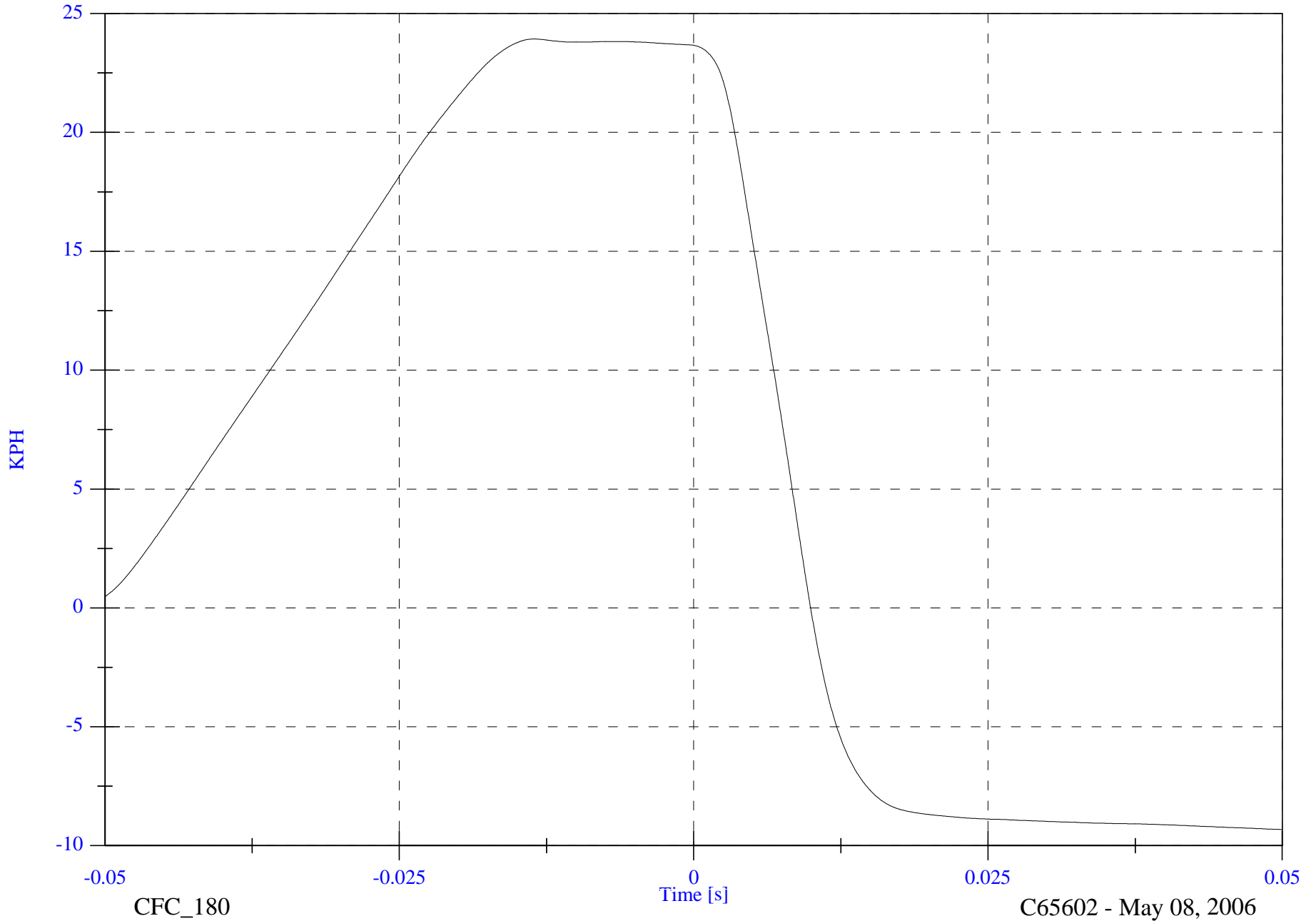
C65602 - May 08, 2006

FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE

Headform Velocity

Max: 23.9 [KPH] at -0.014 [s]

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



C65602 PASSENGER SIDE SR2B IMPACT PLOT #5

8754+FMH-13

CFC\_180

C65602 - May 08, 2006



**PRE-IMPACT SR2B**



POST-IMPACT SR2B

VEHICLE YEAR/MAKE/MODEL/STYLE:	2006 Mitsubishi Eclipse GS, 2-door Sport Coupe
VIN:	4A3AK24F06E036305
DATE OF MANUFACTURE:	OCT 2005 (SEE CERTIFICATION LABEL)
COLOR:	Titanium Pearl

Test Number:	08
Test Date:	05/08/06
Target Location:	UPPER ROOF
Target Code:	URAP
Horizontal Impact Angle:	90°
Vertical Impact Angle:	50°
Ambient Temperature:	23.3°C
Relative Humidity:	25.1
Time of Impact:	15:30
Headform Number:	0062

Impact Point Description (from lower midpoint on midsagittal line)					
On Centerline	18	<input type="checkbox"/>	mm right	<input checked="" type="checkbox"/>	mm left
On Centerline	35				mm up



POST-IMPACT URAP HEADFORM

Free Motion HIC	529.0
HIC(d)	565.5
Impact Velocity (kph)	23.72
HIC T1 (msec)	6.4
HIC T2 (msec)	16.1

# FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE C65602 - URAP

FMH Headform 0062

Location: URAP

Test Date: May 08, 2006

Work File: URAP

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

Lab Temperature: 23.3 C

HICd: 565.5

Lab Humidity: 25.1 %

HIC (36ms): 529.0

Velocity at Impact: 23.72 KPH

t1: 6.4 msec

t2: 16.1 msec

Free Flight Distance: 214.67 mm

Duration: 9.7 msec

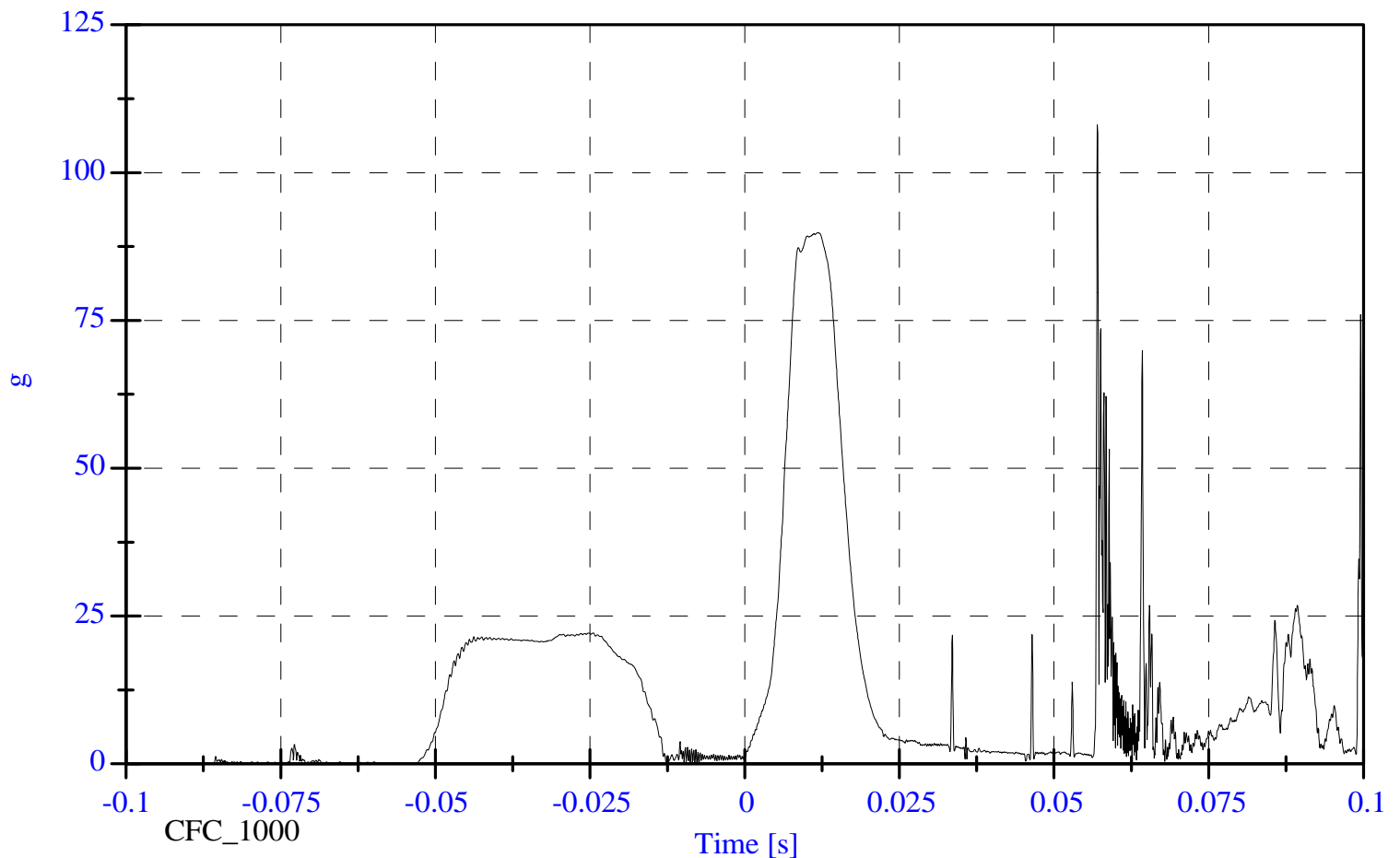
Maximum: 89.8 g

Average Acceleration: 11.5 g

FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE  
Headform Resultant

Max: 89.8 [g] at 0.012 [s]

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



FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE

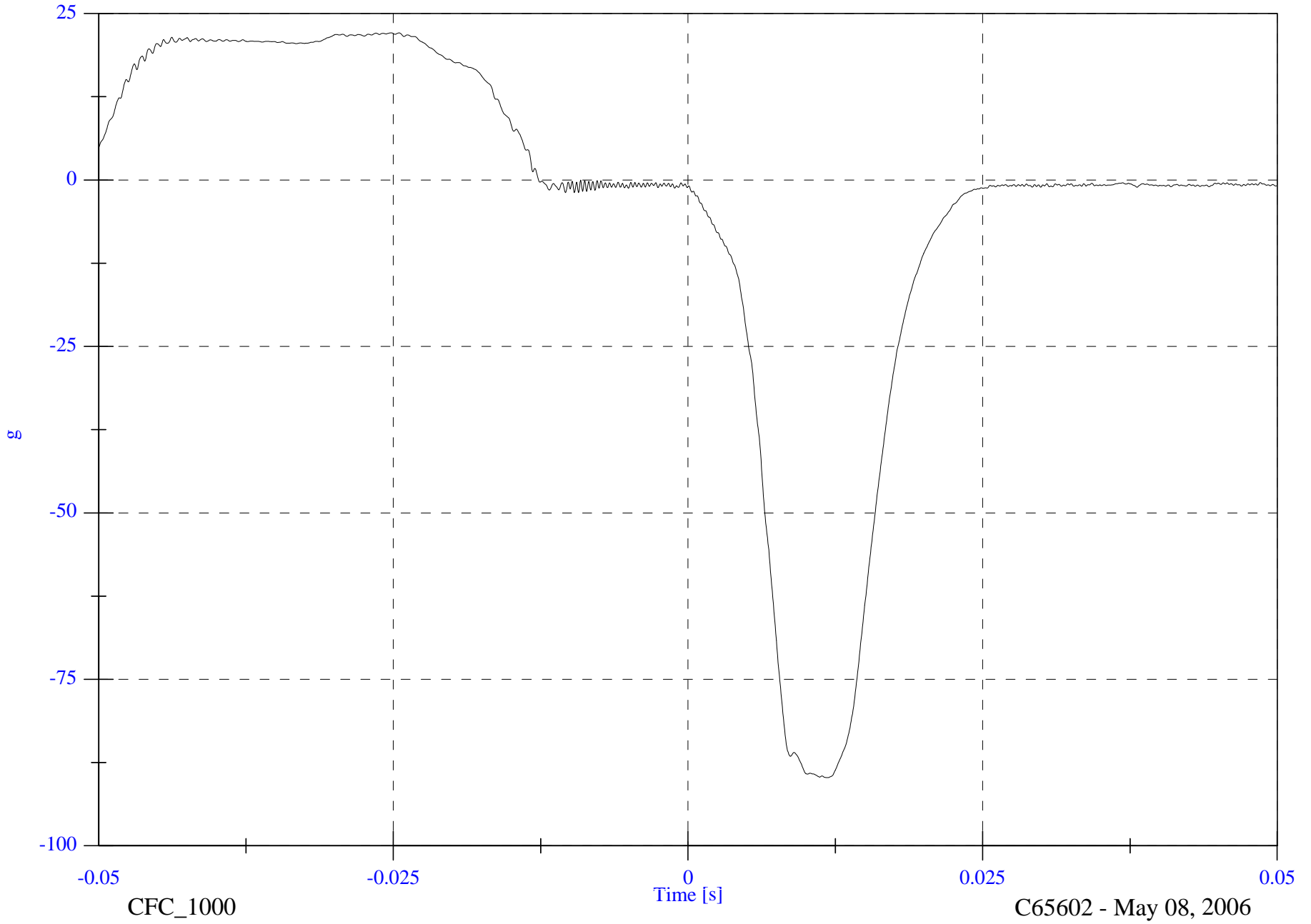
Headform X Acceleration

Max: 22.1 [g] at -0.024 [s]

Min: -89.8 [g] at 0.012 [s]

C65602 PASSENGER SIDE URAP IMPACT PLOT #1

8754-FMH-13



CFC\_1000

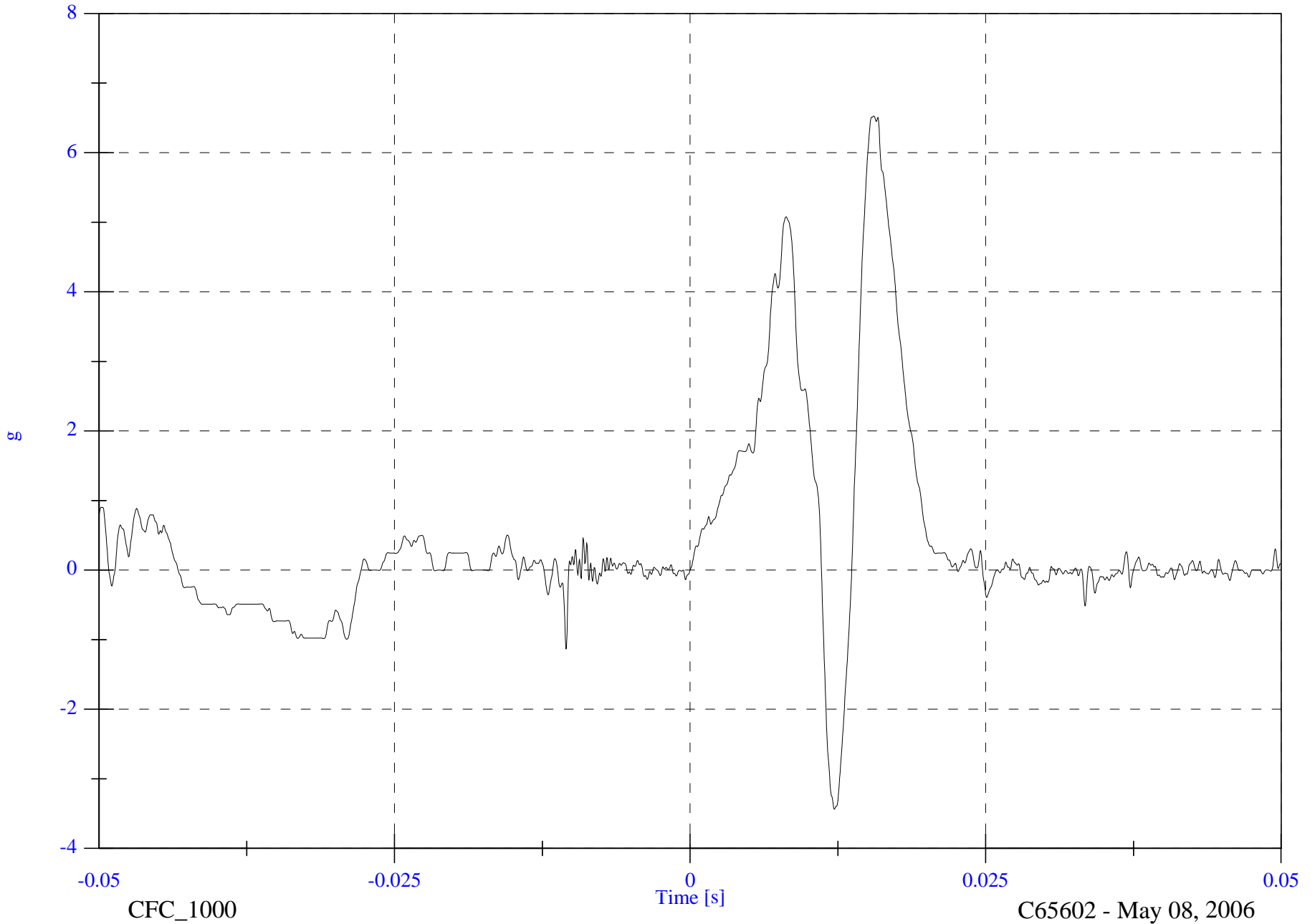
C65602 - May 08, 2006

FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE

Headform Y Acceleration

Max: 6.5 [g] at 0.016 [s]

Min: -3.4 [g] at 0.012 [s]



C65602 PASSENGER SIDE URAP IMPACT PLOT #2

8754-FMH-13

CFC\_1000

C65602 - May 08, 2006



FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE

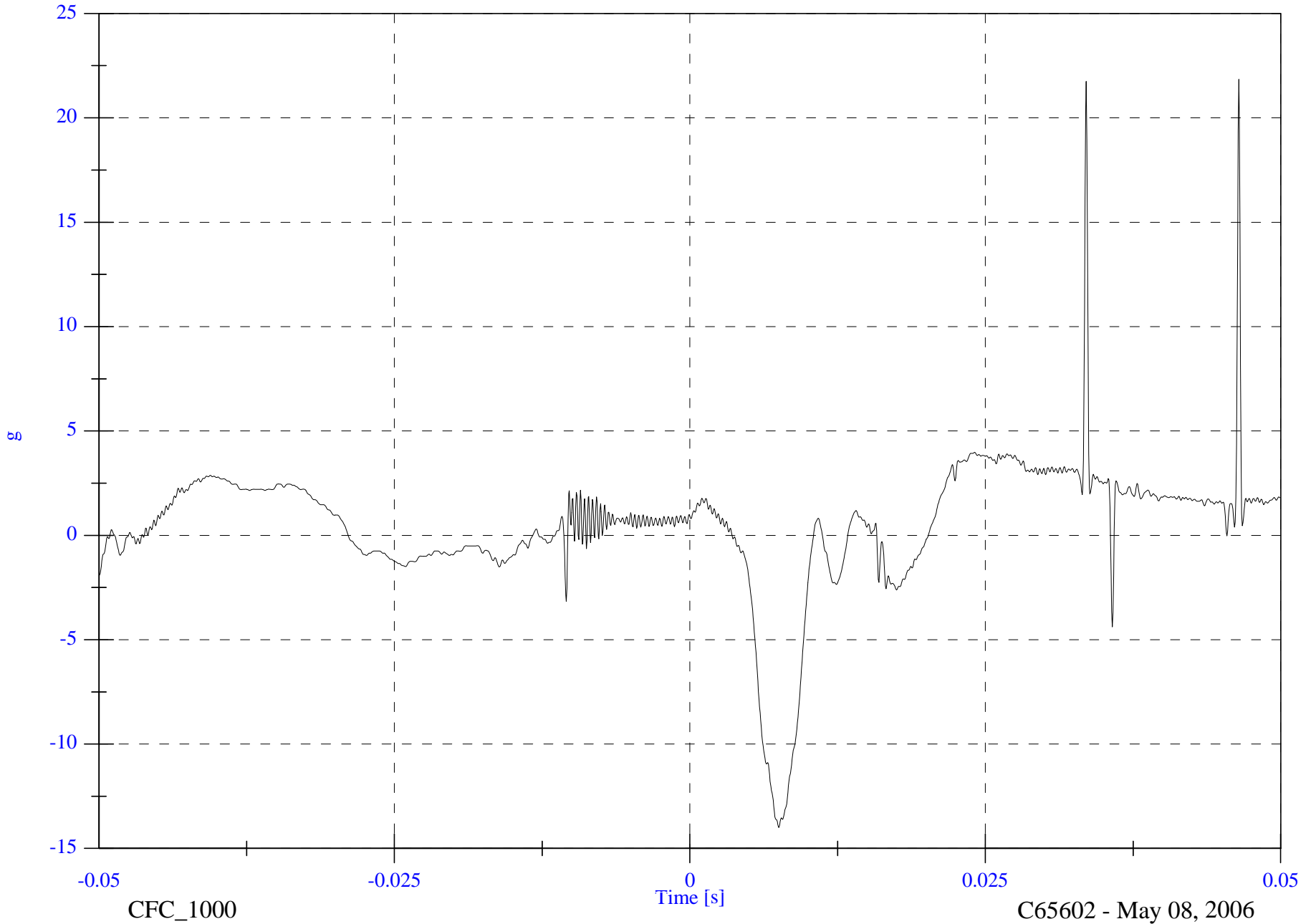
Headform Z Acceleration

Max: 21.9 [g] at 0.046 [s]

Min: -14.0 [g] at 0.008 [s]

C65602 PASSENGER SIDE URAP IMPACT PLOT #3

8754-FMH-13



CFC\_1000

C65602 - May 08, 2006

FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE

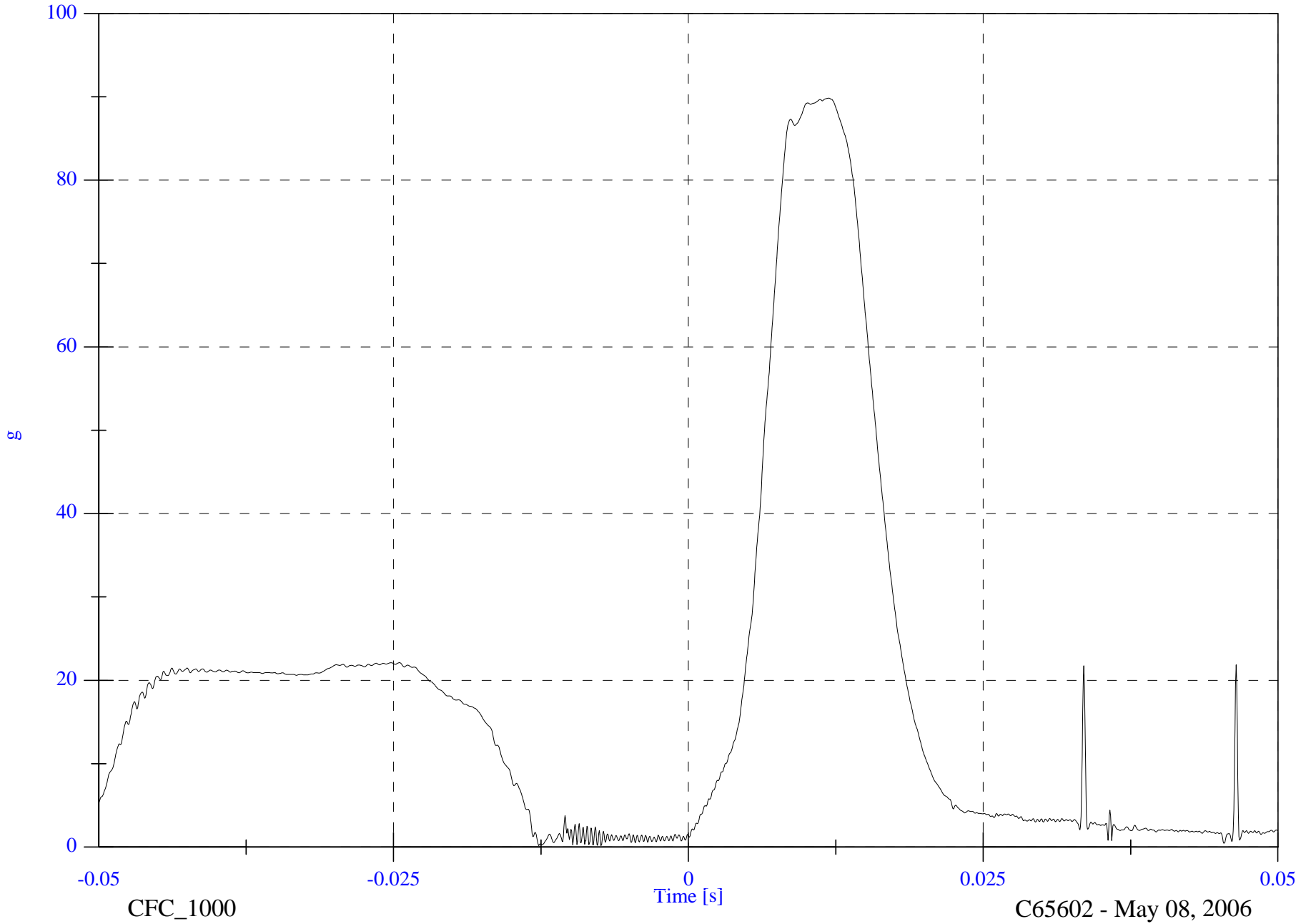
Headform Resultant

Max: 89.8 [g] at 0.012 [s]

Min: 0.2 [g] at -0.007 [s]

C65602 PASSENGER SIDE URAP IMPACT PLOT #4

8754+FMH-13



CFC\_1000

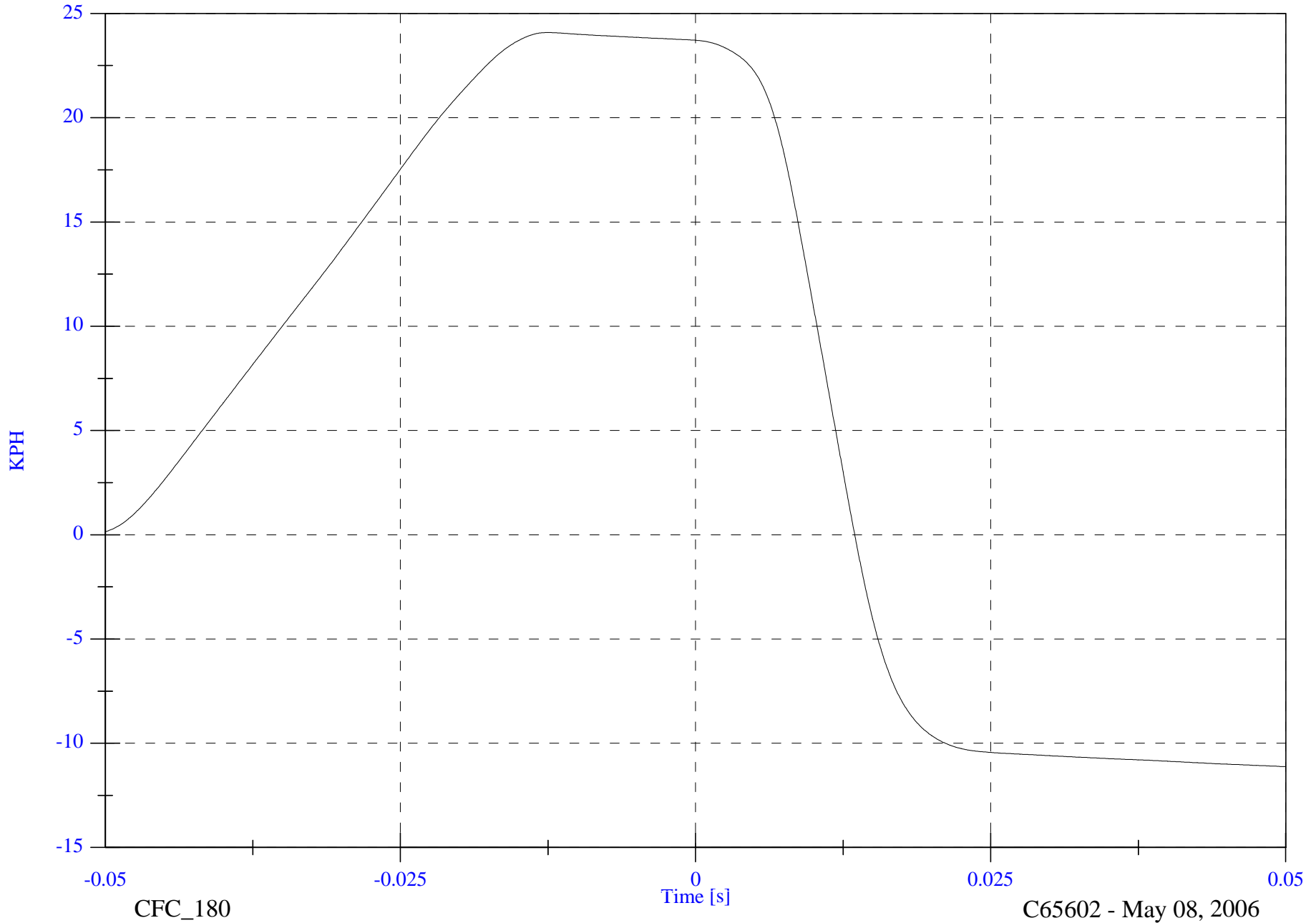
C65602 - May 08, 2006

FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE

Headform Velocity

Max: 24.1 [KPH] at -0.012 [s]

Min: -11.1 [KPH] at 0.050 [s]



C65602 PASSENGER SIDE URAP IMPACT PLOT #5

8754-FMH-13

CFC\_180

C65602 - May 08, 2006



PRE-IMPACT URAP



POST-IMPACT URAP

VEHICLE YEAR/MAKE/MODEL/STYLE:	2006 Mitsubishi Eclipse GS, 2-door Sport Coupe
VIN:	4A3AK24F06E036305
DATE OF MANUFACTURE:	OCT 2005 (SEE CERTIFICATION LABEL)
COLOR:	Titanium Pearl

Test Number:	09
Test Date:	05/09/06
Target Location:	B-PILLAR
Target Code:	BP3
Horizontal Impact Angle:	297°
Vertical Impact Angle:	0°
Ambient Temperature:	21.5°C
Relative Humidity:	30.1
Time of Impact:	9:00
Headform Number:	0062

Impact Point Description (from lower midpoint on midsagittal line)					
On Centerline	36	<input type="checkbox"/>	mm right	<input checked="" type="checkbox"/>	mm left
On Centerline	25				mm up



POST-IMPACT BP3 HEADFORM

Free Motion HIC	948.0
HIC(d)	881.6
Impact Velocity (kph)	23.87
HIC T1 (msec)	4.7
HIC T2 (msec)	8.3

# FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE C65602 - BP3

FMH Headform 0062

Location: BP3

Test Date: May 09, 2006

Work File: BP3

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

Lab Temperature: 21.5 C

HICd: 881.6

Lab Humidity: 30.1 %

HIC (36ms): 948.0

Velocity at Impact: 23.87 KPH

t1: 4.7 msec

t2: 8.3 msec

Free Flight Distance: 222.00 mm

Duration: 3.7 msec

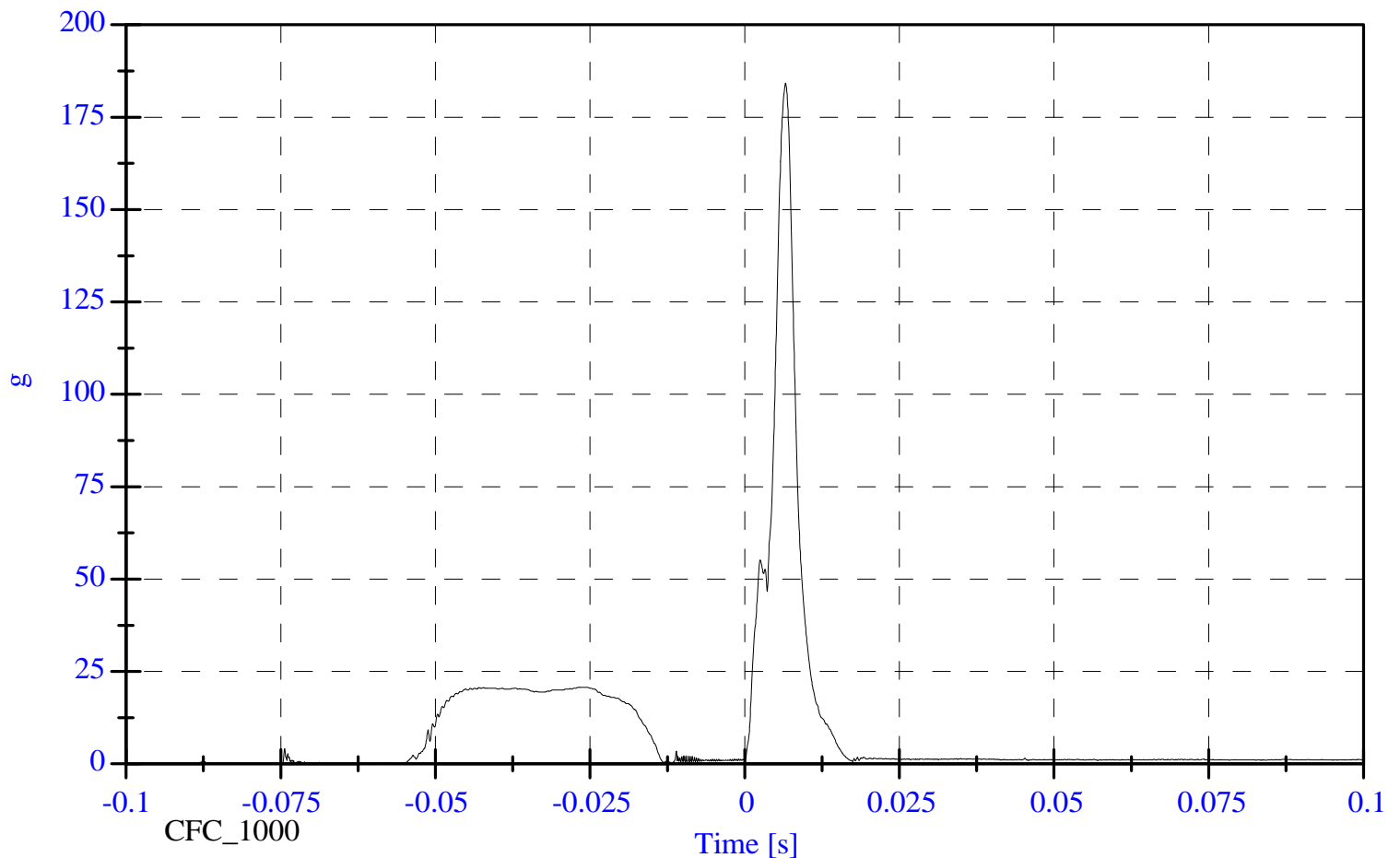
Maximum: 184.3 g

Average Acceleration: 8.5 g

FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE  
Headform Resultant

Max: 184.3 [g] at 0.007 [s]

Min: 0.0 [g] at -0.095 [s]

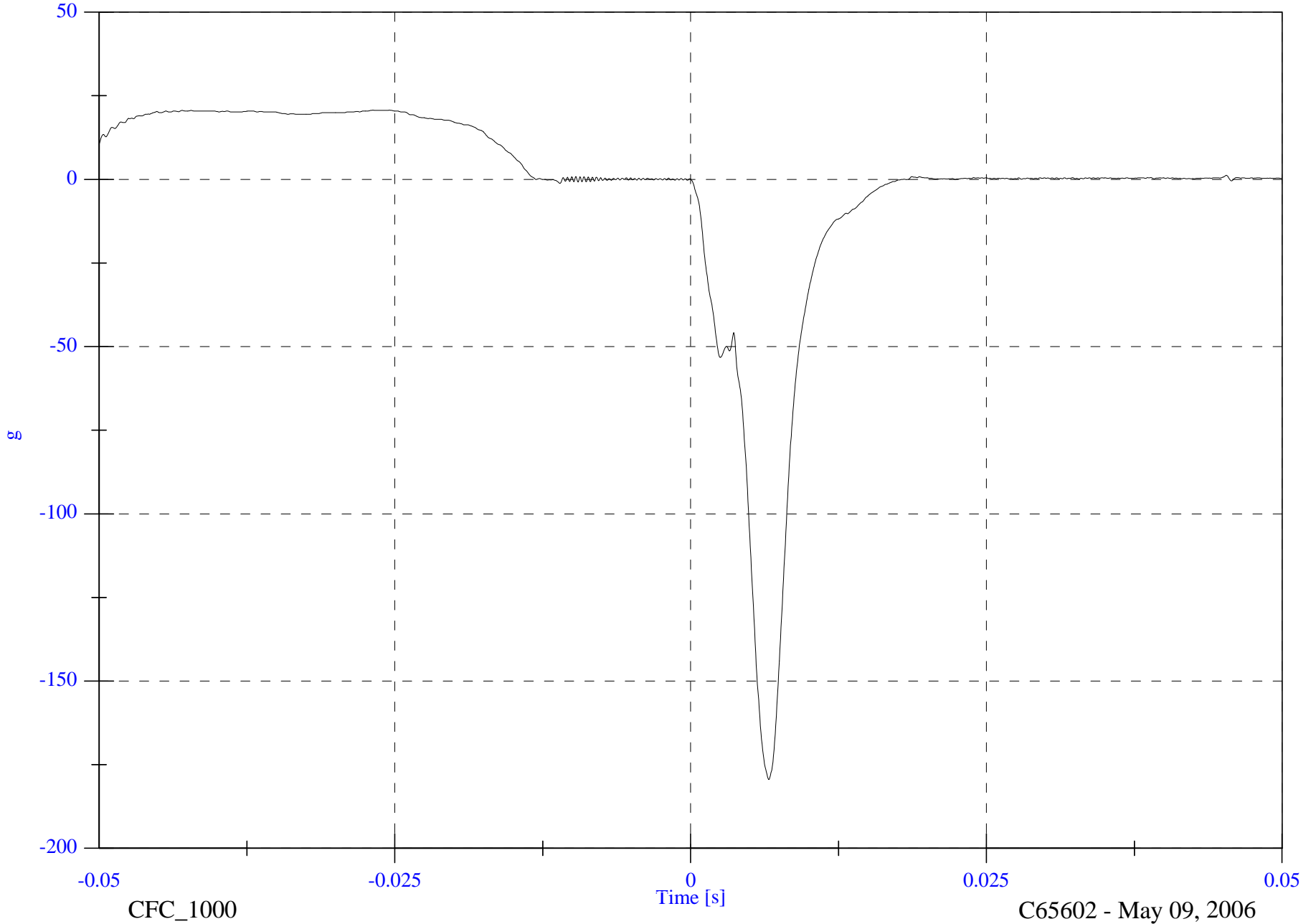


FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE

Headform X Acceleration

Max: 20.7 [g] at -0.027 [s]

Min: -179.4 [g] at 0.007 [s]



C65602 DRIVER SIDE BP3 IMPACT PLOT #1

8754+FMH-13

CFC\_1000

C65602 - May 09, 2006

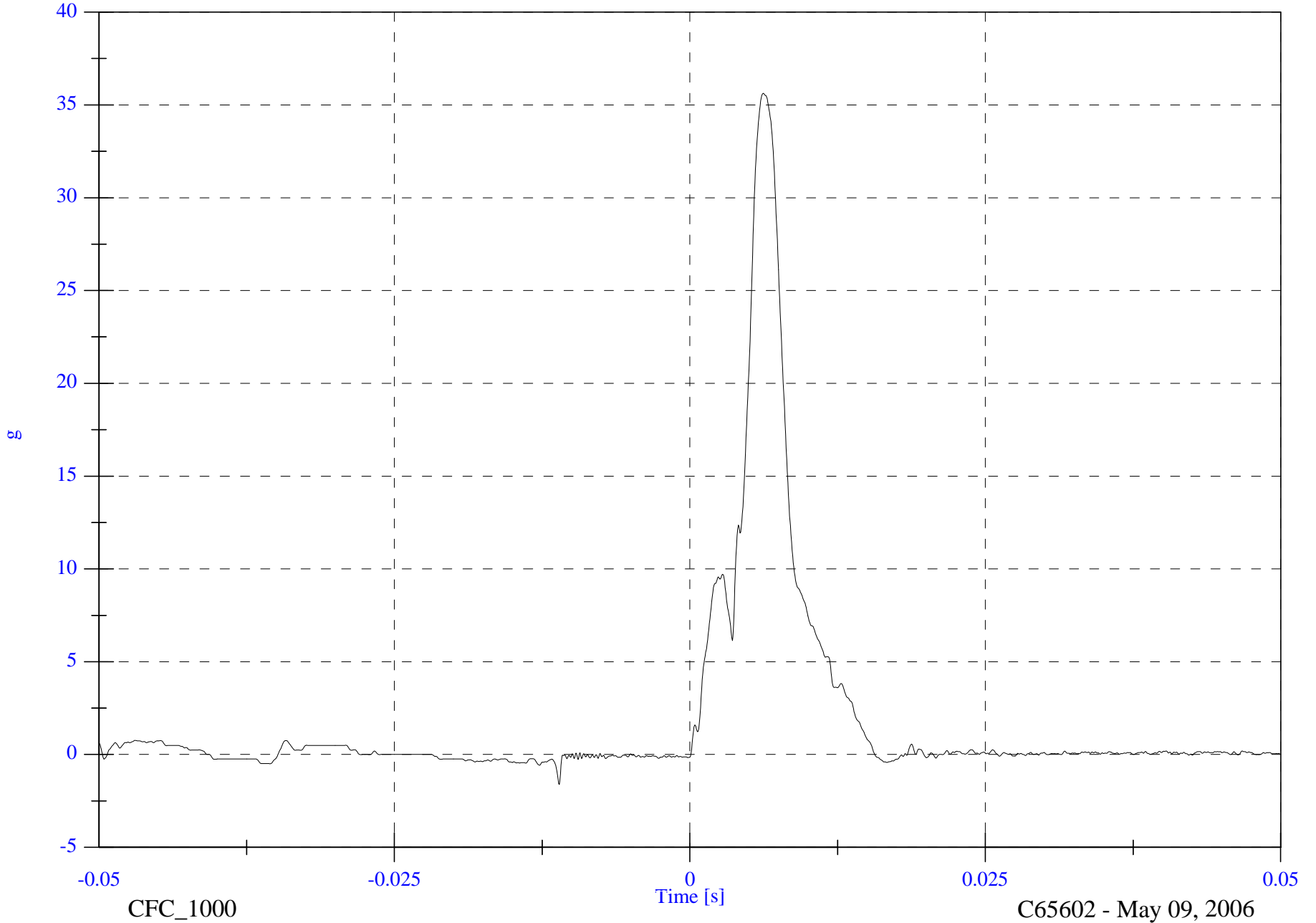


FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE

Headform Y Acceleration

Max: 35.6 [g] at 0.006 [s]

Min: -1.6 [g] at -0.011 [s]



C65602 DRIVER SIDE BP3 IMPACT PLOT #2

8754+FMH-13

CFC\_1000

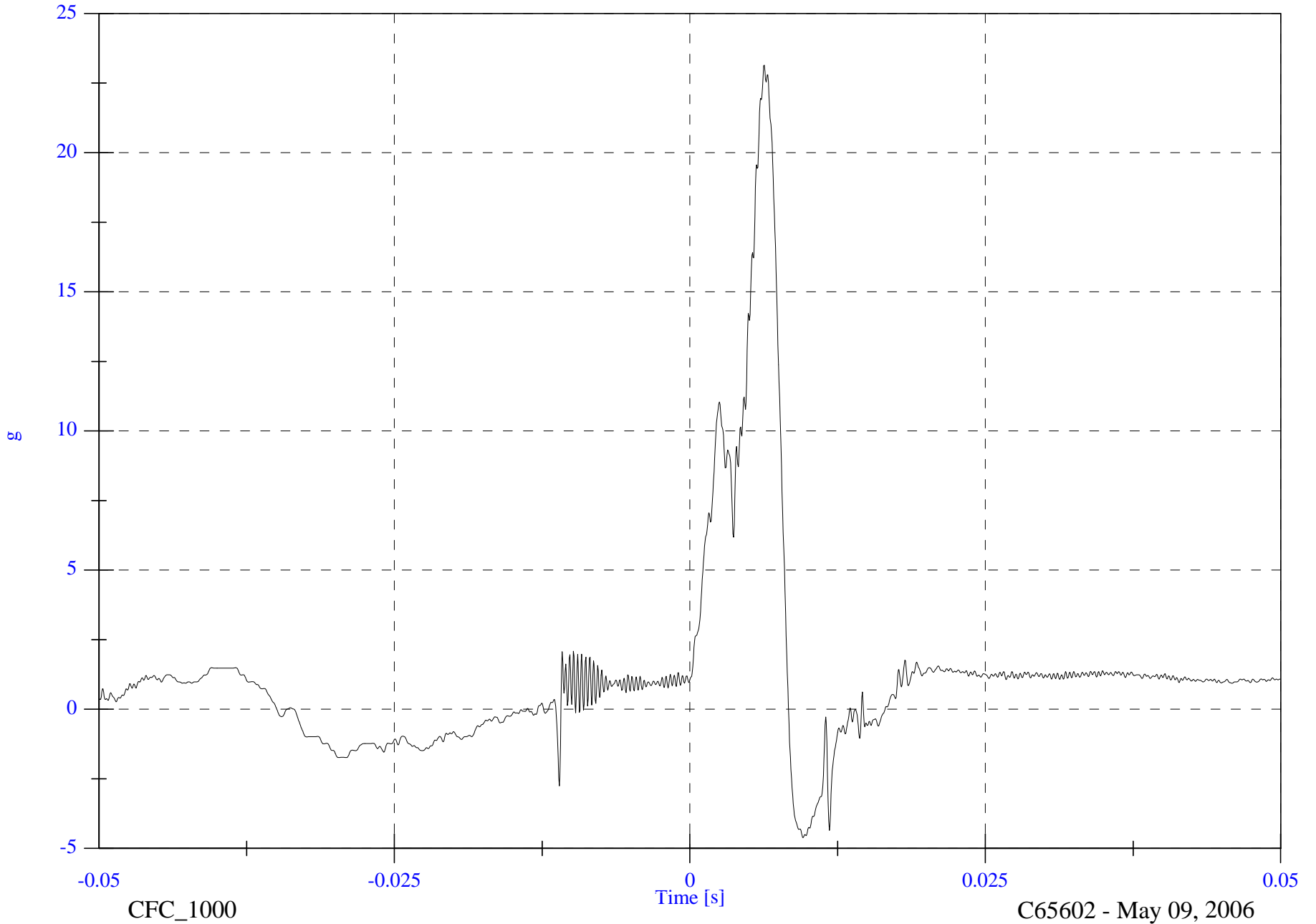
C65602 - May 09, 2006

FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE

Headform Z Acceleration

Max: 23.1 [g] at 0.006 [s]

Min: -4.6 [g] at 0.010 [s]



C65602 DRIVER SIDE BP3 IMPACT PLOT #3

8754+FMH-13

CFC\_1000

C65602 - May 09, 2006

FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE

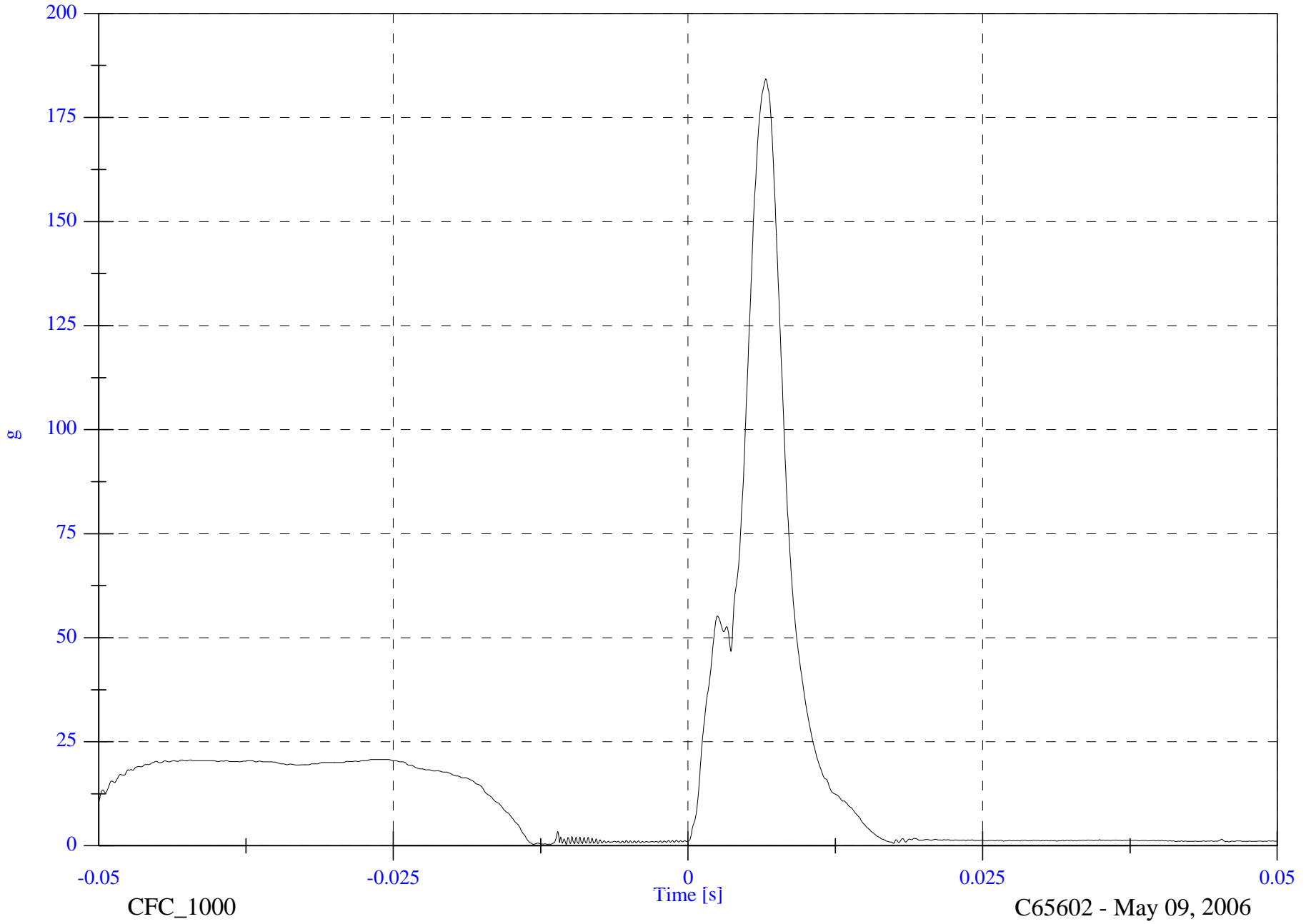
Headform Resultant

Max: 184.3 [g] at 0.007 [s]

Min: 0.3 [g] at -0.013 [s]

C65602 DRIVER SIDE BP3 IMPACT PLOT #4

8754+FMH-13



CFC\_1000

C65602 - May 09, 2006

FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE

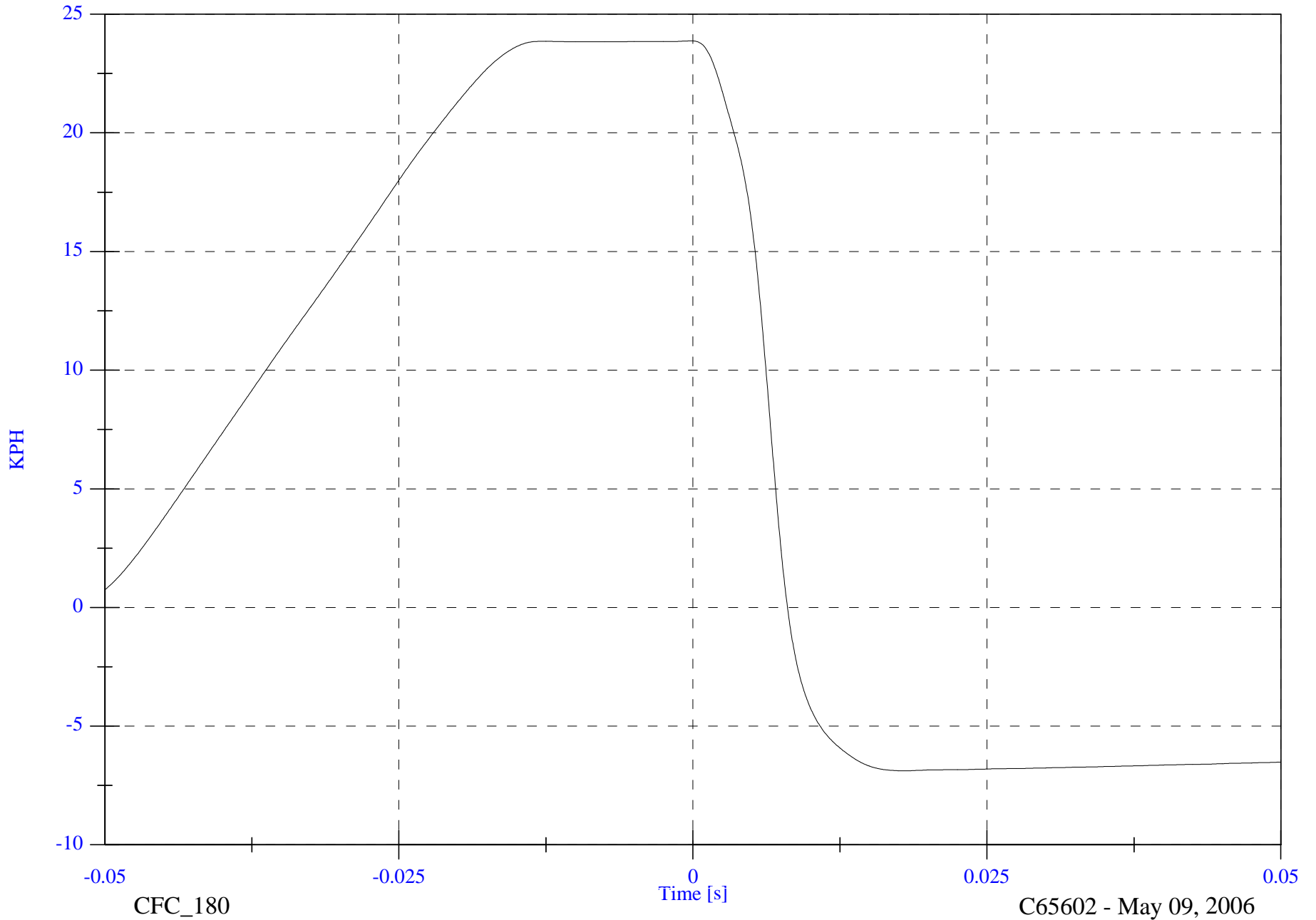
Headform Velocity

Max: 23.9 [KPH] at -0.000 [s]

Min: -6.9 [KPH] at 0.018 [s]

C65602 DRIVER SIDE BP3 IMPACT PLOT #5

8754+FMH-13

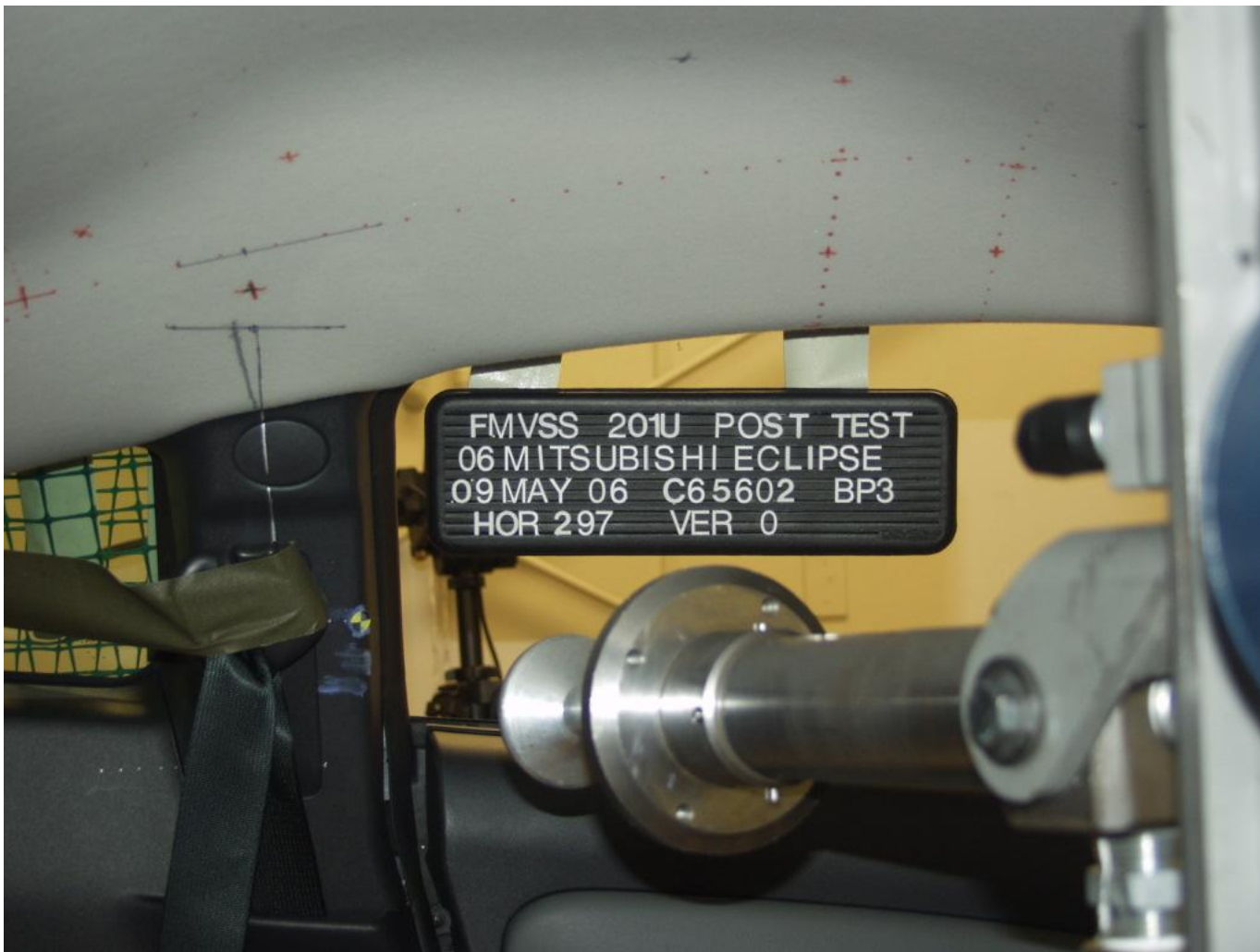


CFC\_180

C65602 - May 09, 2006



PRE-IMPACT BP3

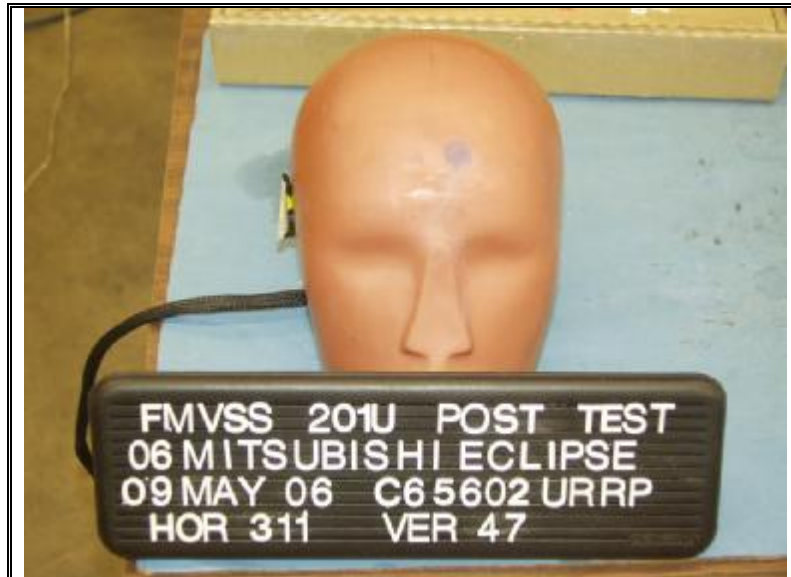


POST-IMPACT BP3

VEHICLE YEAR/MAKE/MODEL/STYLE:	2006 Mitsubishi Eclipse GS, 2-door Sport Coupe
VIN:	4A3AK24F06E036305
DATE OF MANUFACTURE:	OCT 2005 (SEE CERTIFICATION LABEL)
COLOR:	Titanium Pearl

Test Number:	10
Test Date:	05/09/06
Target Location:	UPPER ROOF
Target Code:	URRP
Horizontal Impact Angle:	311°
Vertical Impact Angle:	47°
Ambient Temperature:	21.6°C
Relative Humidity:	29.6
Time of Impact:	9:30
Headform Number:	0355

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	25				mm up



POST-IMPACT URRP HEADFORM

Free Motion HIC	716.8
HIC(d)	707.2
Impact Velocity (kph)	23.38
HIC T1 (msec)	3.2
HIC T2 (msec)	10.2

# FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE C65602 - URRP

FMH Headform 0355

Location: URRP

Test Date: May 09, 2006

Work File: URRP

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

Lab Temperature: 21.6 C

HICd: 707.2

Lab Humidity: 29.6 %

HIC (36ms): 716.8

Velocity at Impact: 23.38 KPH

t1: 3.2 msec

t2: 10.2 msec

Free Flight Distance: 224.40 mm

Duration: 7.0 msec

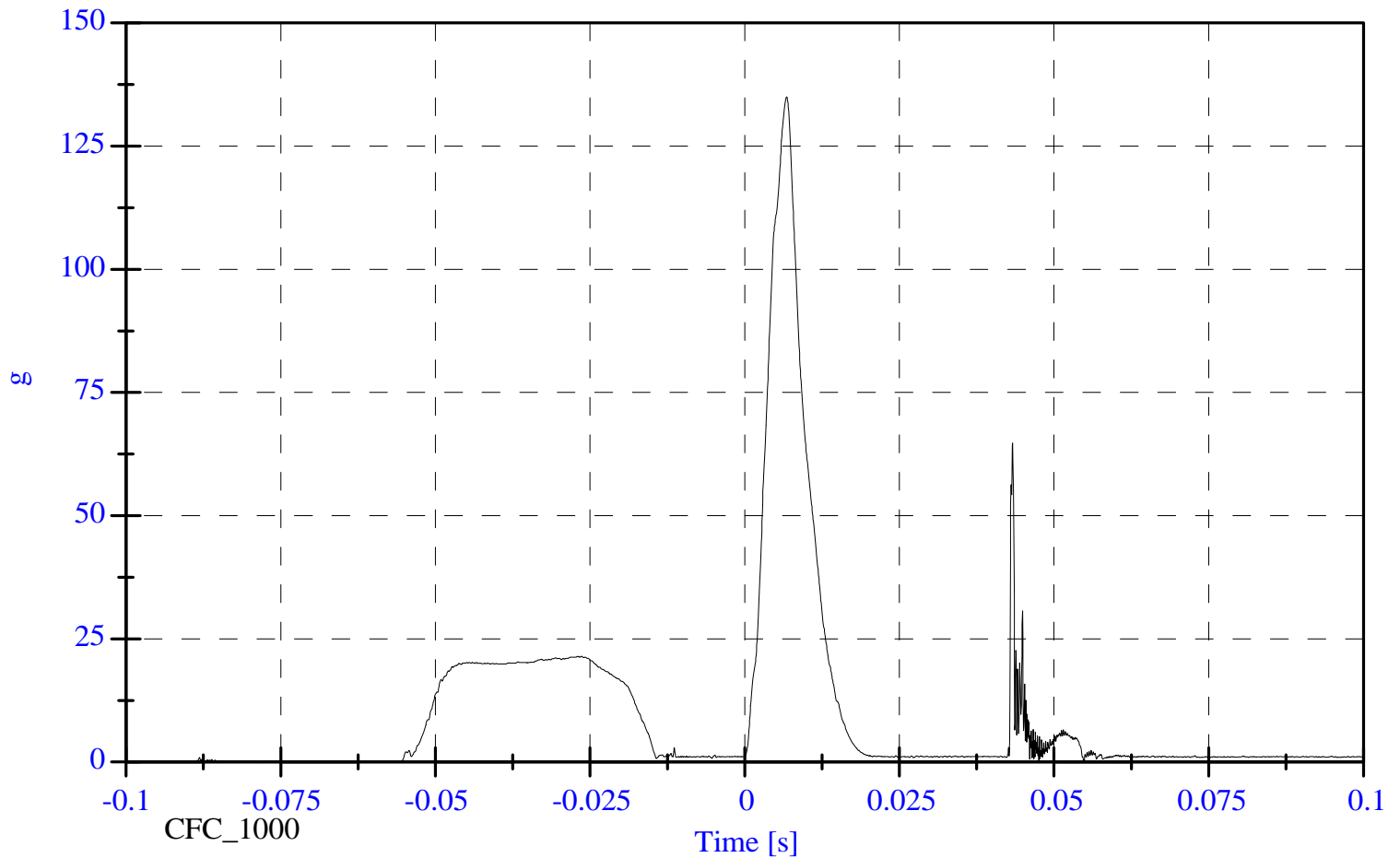
Maximum: 135.0 g

Average Acceleration: 9.2 g

FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE  
Headform Resultant

Max: 135.0 [g] at 0.007 [s]

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



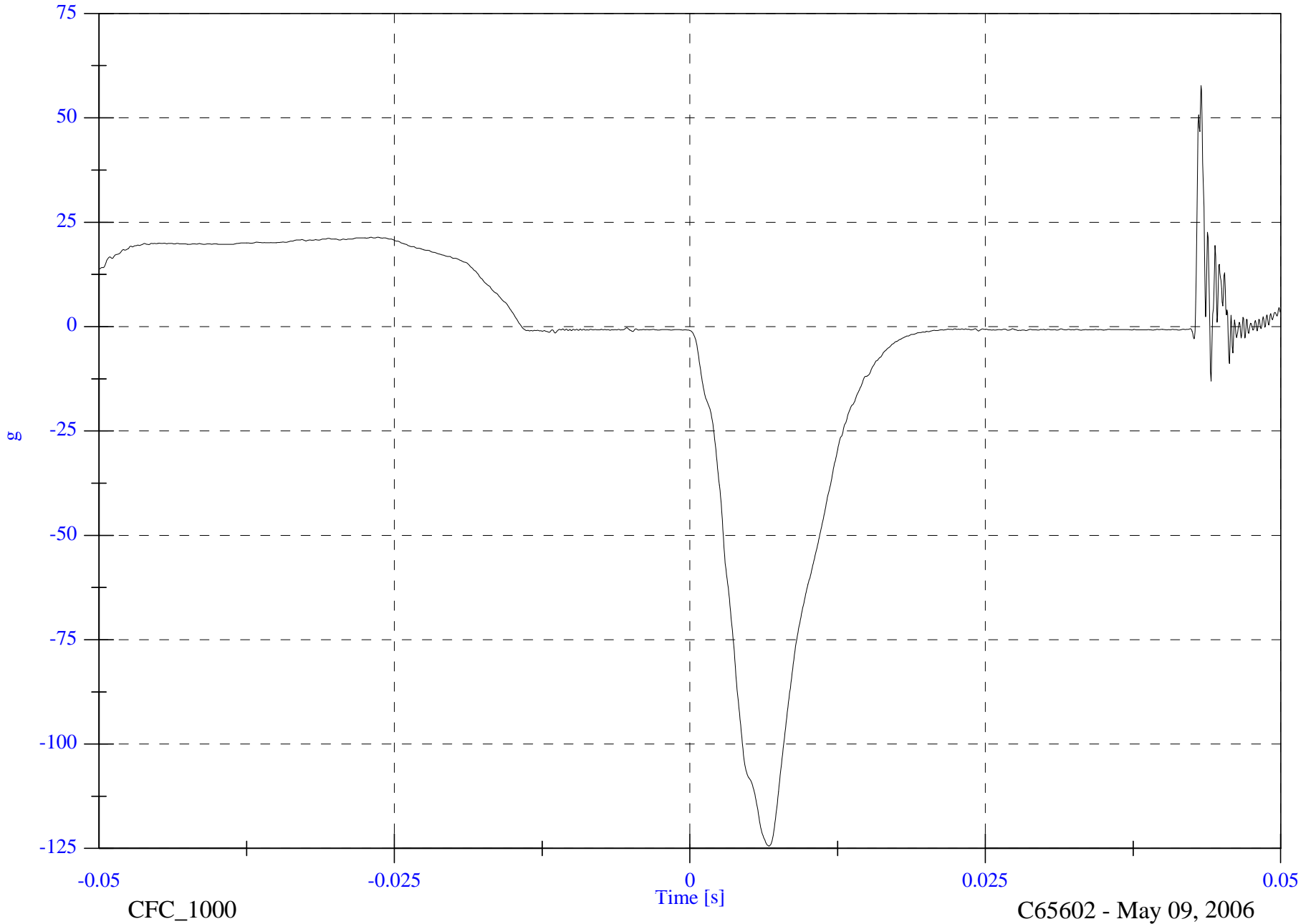


FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE

Headform X Acceleration

Max: 57.7 [g] at 0.043 [s]

Min: -124.4 [g] at 0.007 [s]



C65602 DRIVER SIDE URRP IMPACT PLOT #1

8754+FMH-13

CFC\_1000

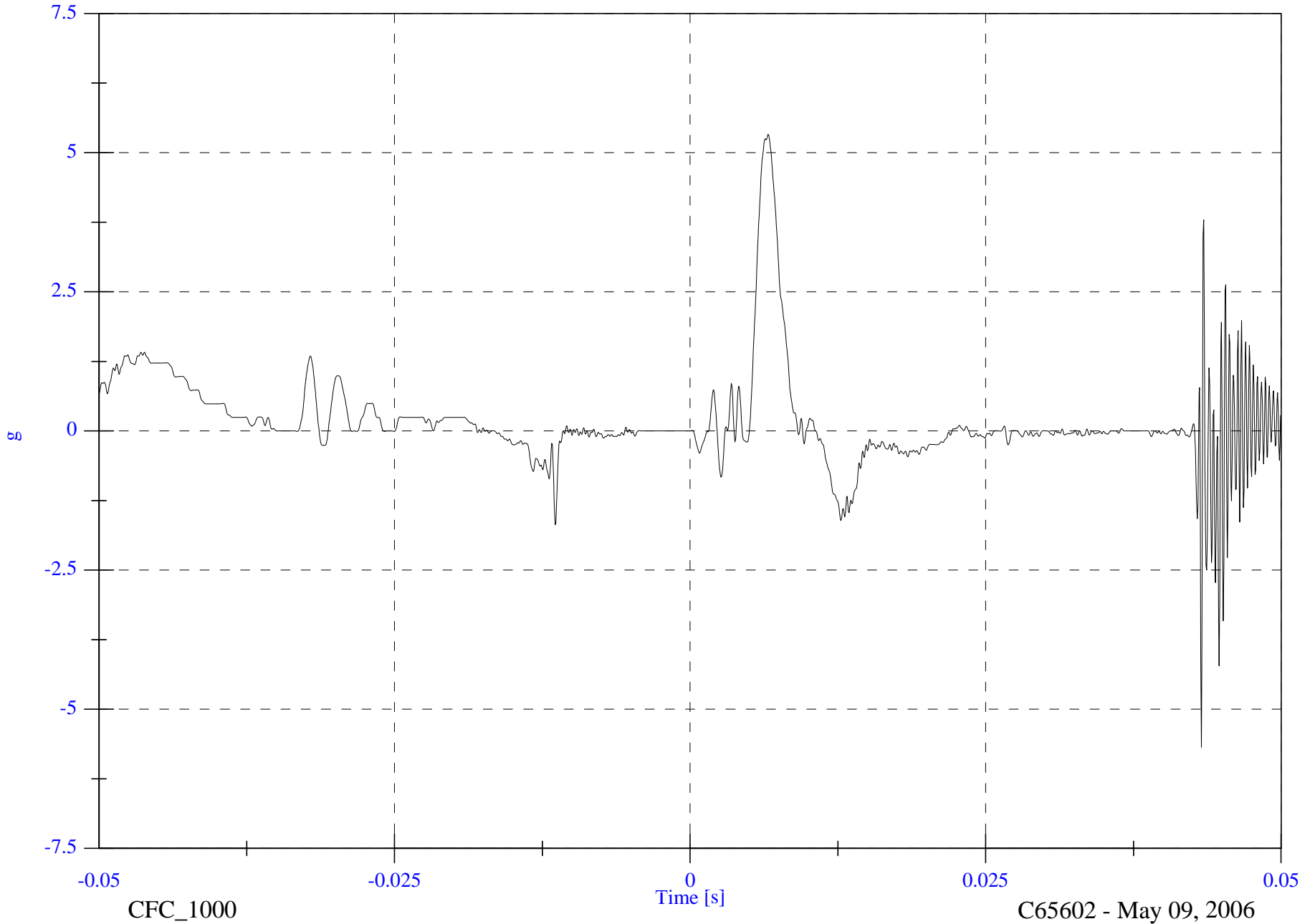
C65602 - May 09, 2006

FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE

Headform Y Acceleration

Max: 5.3 [g] at 0.007 [s]

Min: -5.7 [g] at 0.043 [s]



C65602 DRIVER SIDE URRP IMPACT PLOT #2

8754+FMH-13

CFC\_1000

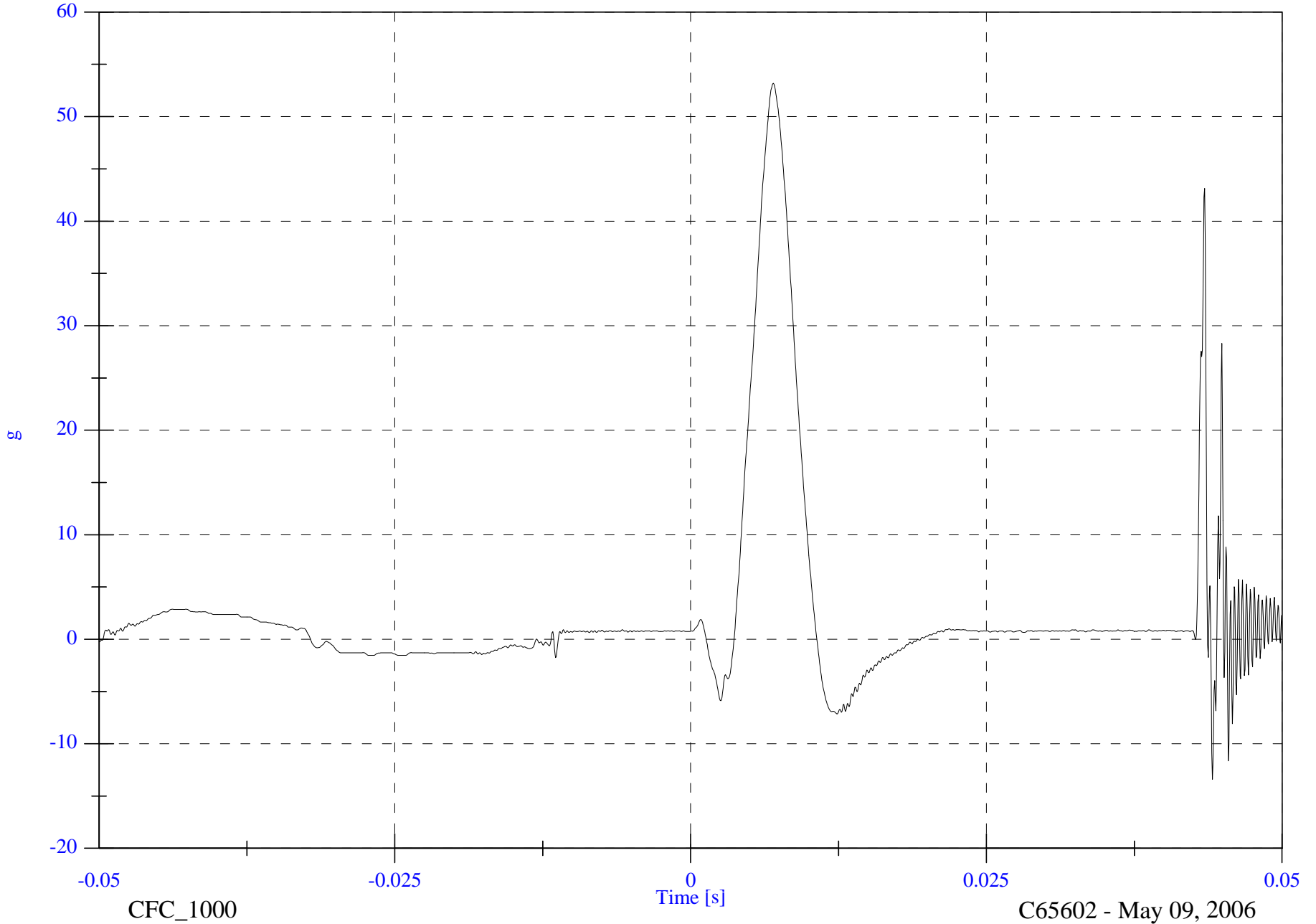
C65602 - May 09, 2006

FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE

Headform Z Acceleration

Max: 53.2 [g] at 0.007 [s]

Min: -13.4 [g] at 0.044 [s]



C65602 DRIVER SIDE URRP IMPACT PLOT #3

8754+FMH-13

CFC\_1000

C65602 - May 09, 2006

FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE

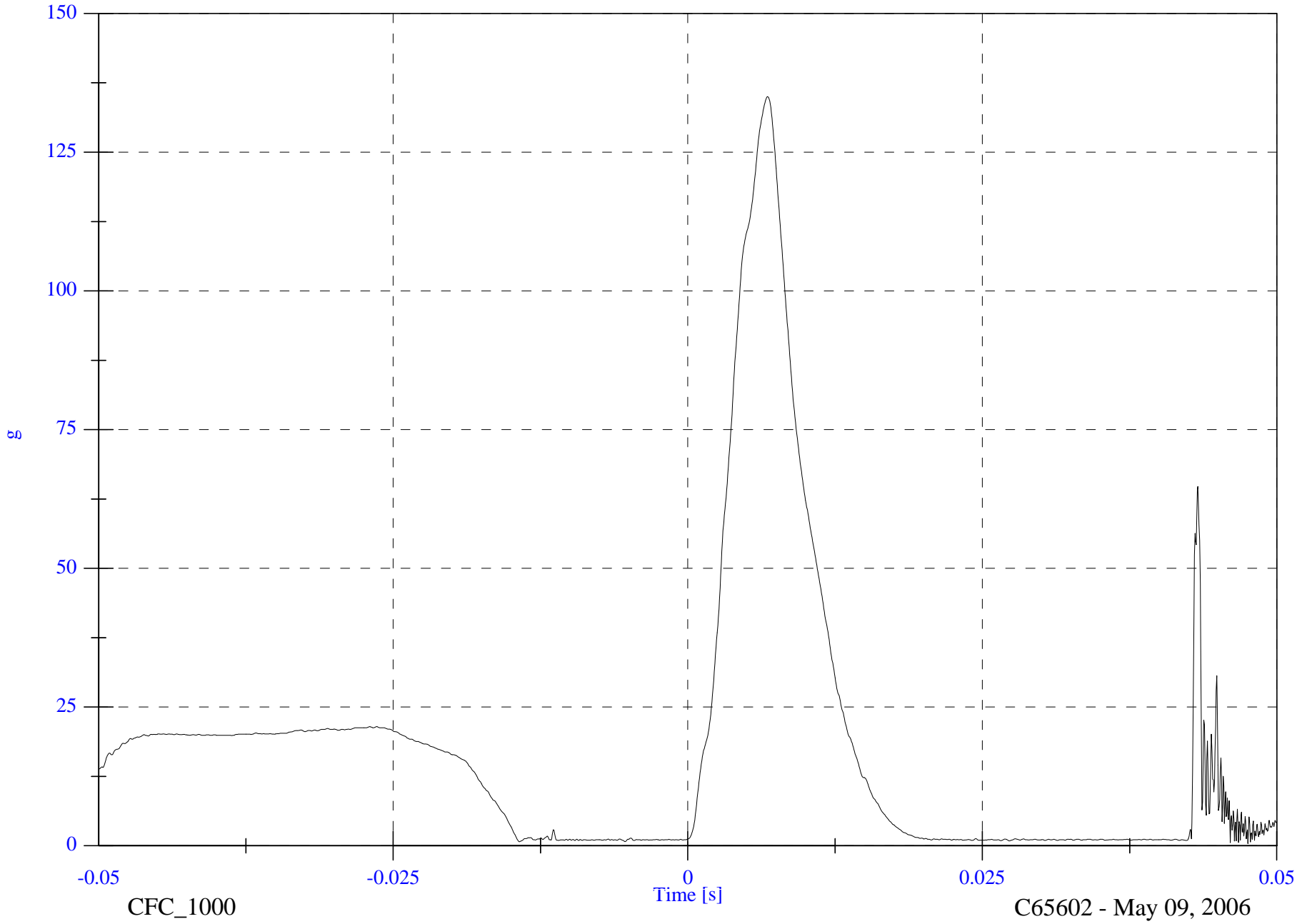
Headform Resultant

Max: 135.0 [g] at 0.007 [s]

Min: 0.4 [g] at 0.048 [s]

C65602 DRIVER SIDE URRP IMPACT PLOT #4

8754-FMH-13



CFC\_1000

C65602 - May 09, 2006

FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE

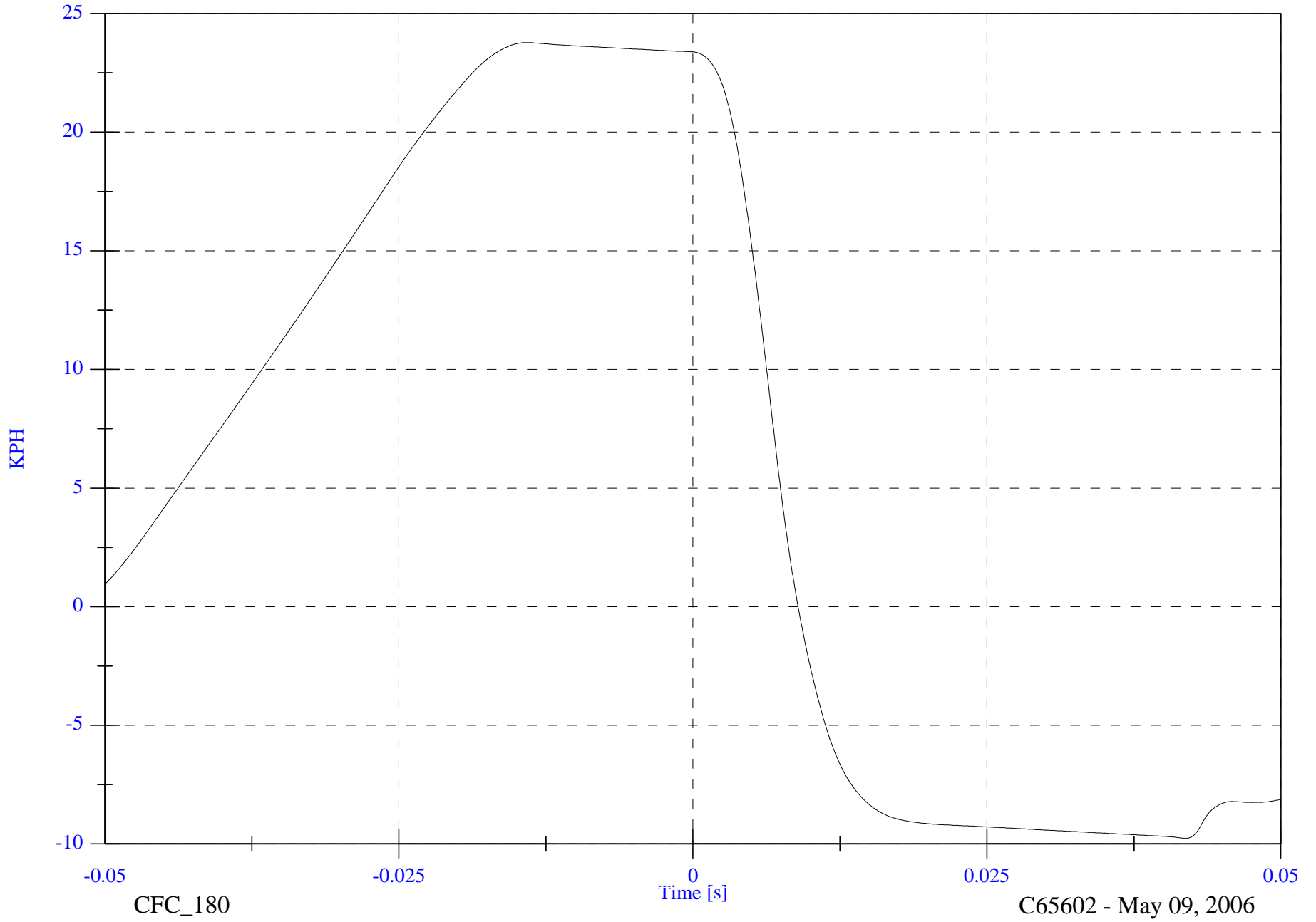
Headform Velocity

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

Min: -9.8 [KPH] at 0.042 [s]

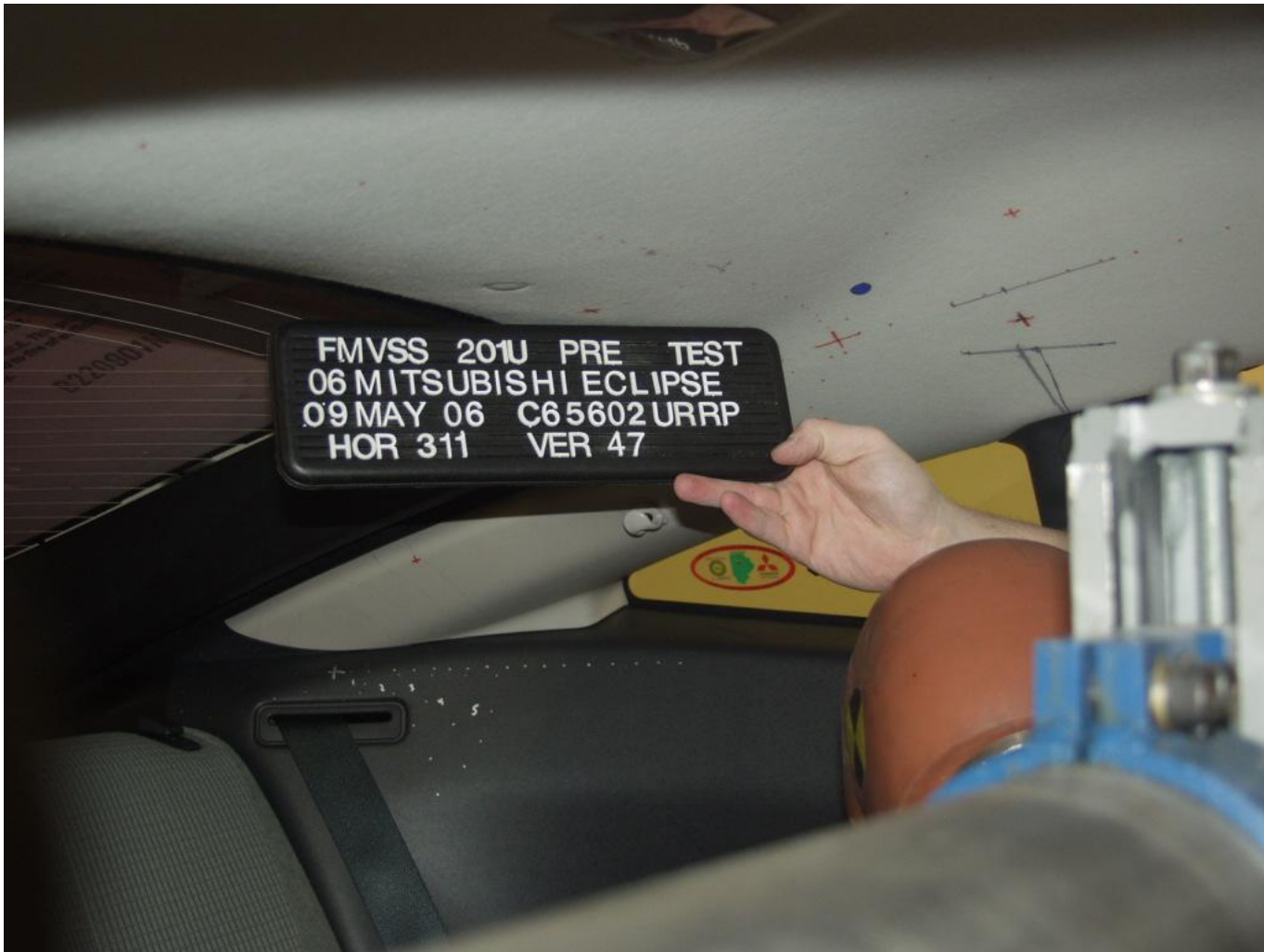
C65602 DRIVER SIDE URRP IMPACT PLOT #5

8754+FMH-13



CFC\_180

C65602 - May 09, 2006



**PRE-IMPACT URRP**



POST-IMPACT URRP

VEHICLE YEAR/MAKE/MODEL/STYLE:	2006 Mitsubishi Eclipse GS, 2-door Sport Coupe
VIN:	4A3AK24F06E036305
DATE OF MANUFACTURE:	OCT 2005 (SEE CERTIFICATION LABEL)
COLOR:	Titanium Pearl

Test Number:	11
Test Date:	05/09/06
Target Location:	UPPER ROOF
Target Code:	URSR
Horizontal Impact Angle:	270°
Vertical Impact Angle:	40°
Ambient Temperature:	21.7°C
Relative Humidity:	28.9
Time of Impact:	10:05
Headform Number:	0642

Impact Point Description (from lower midpoint on midsagittal line)					
On Centerline	0	<input type="checkbox"/>	mm right	<input type="checkbox"/>	mm left
On Centerline	31				mm up



POST-IMPACT URSR HEADFORM

Free Motion HIC	452.5
HIC(d)	507.8
Impact Velocity (kph)	23.75
HIC T1 (msec)	3.4
HIC T2 (msec)	5.1



# FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE C65602 - URSR

FMH Headform 0642

Location: URSR

Test Date: May 09, 2006

Work File: URSR

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

Lab Temperature: 21.7 C

HICd: 507.8

Lab Humidity: 28.9 %

HIC (36ms): 452.5

Velocity at Impact: 23.75 KPH

t1: 3.3 msec

t2: 15.1 msec

Free Flight Distance: 222.50 mm

Duration: 11.7 msec

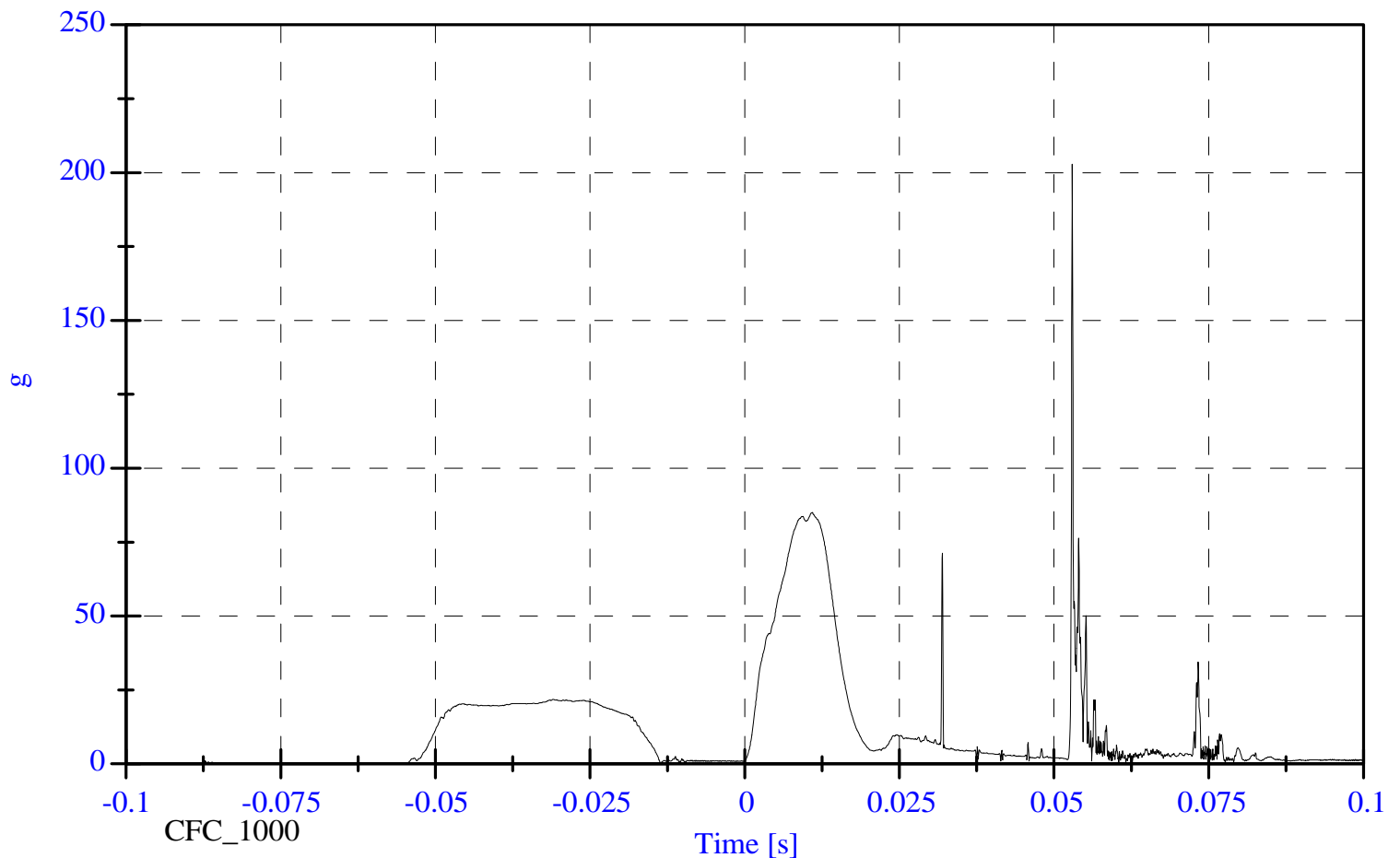
Maximum: 85.0 g

Average Acceleration: 10.6 g

FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE  
Headform Resultant

Max: 85.0 [g] at 0.011 [s]

Min: 0.0 [g] at -0.074 [s]

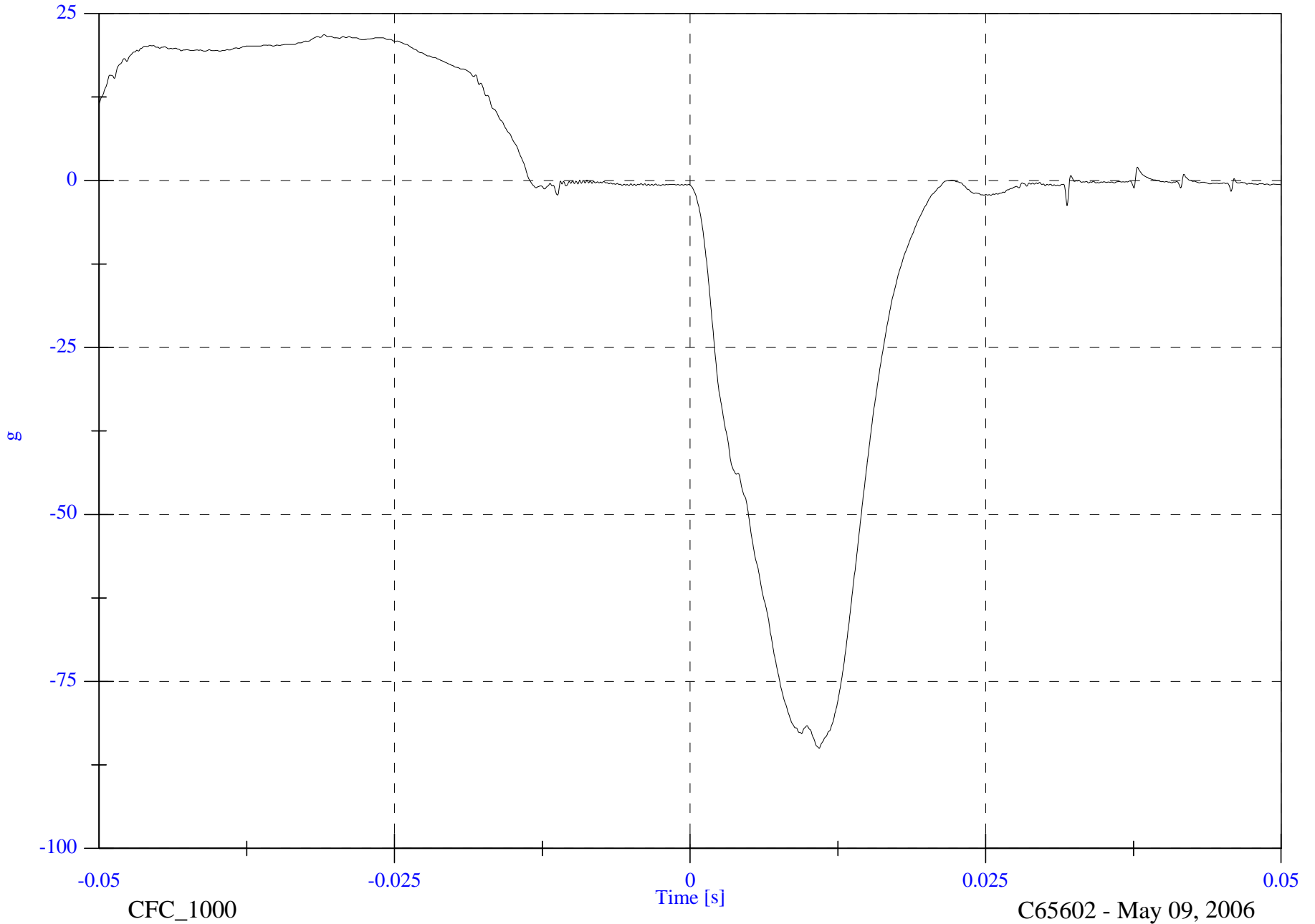


FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE

Headform X Acceleration

Max: 21.8 [g] at -0.031 [s]

Min: -85.0 [g] at 0.011 [s]



C65602 DRIVER SIDE URSR IMPACT PLOT #1

8754+FMH-13

CFC\_1000

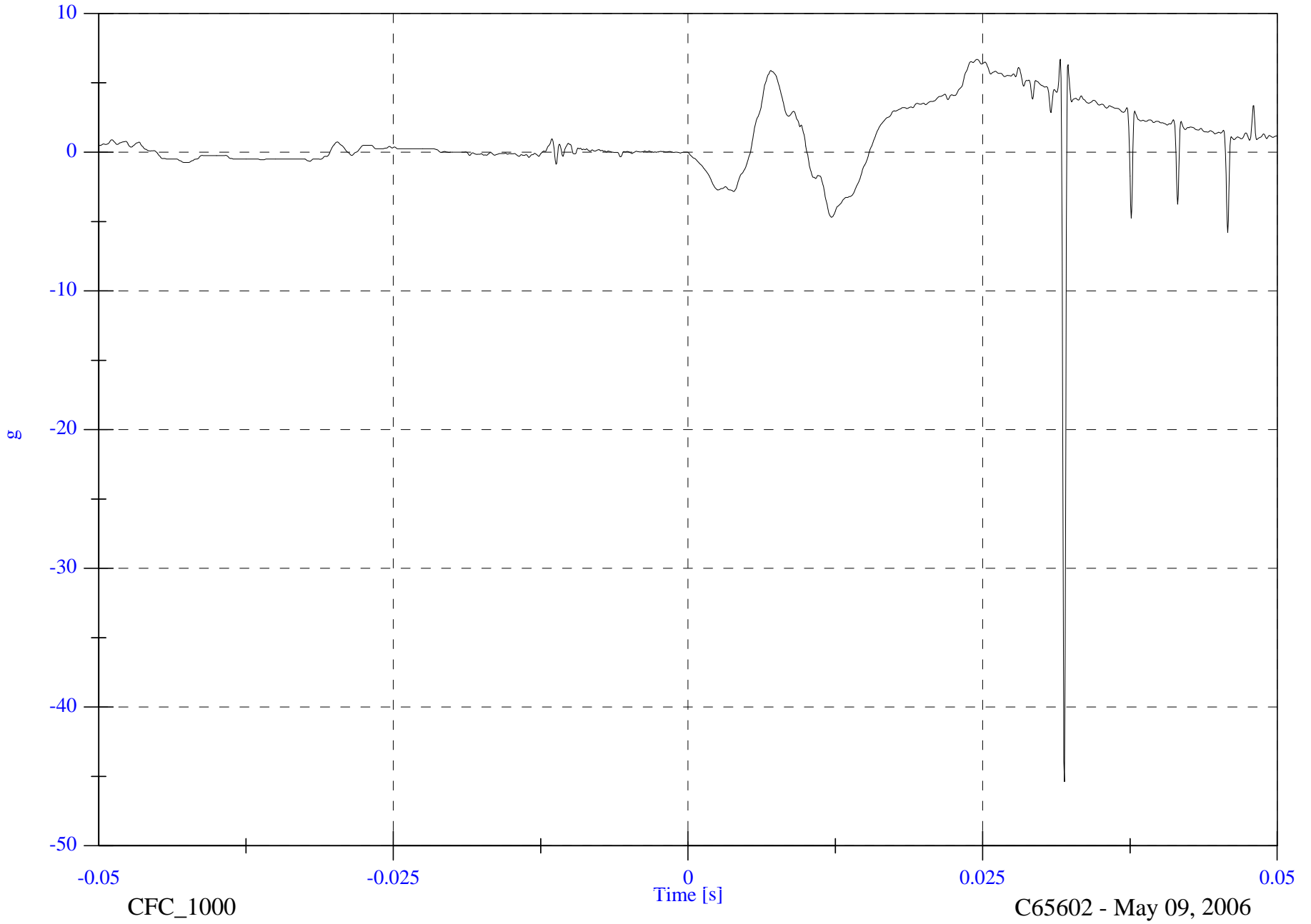
C65602 - May 09, 2006

FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE

Headform Y Acceleration

Max: 6.7 [g] at 0.032 [s]

Min: -45.4 [g] at 0.032 [s]



C65602 DRIVER SIDE URSR IMPACT PLOT #2

8754+FMH-13

CFC\_1000

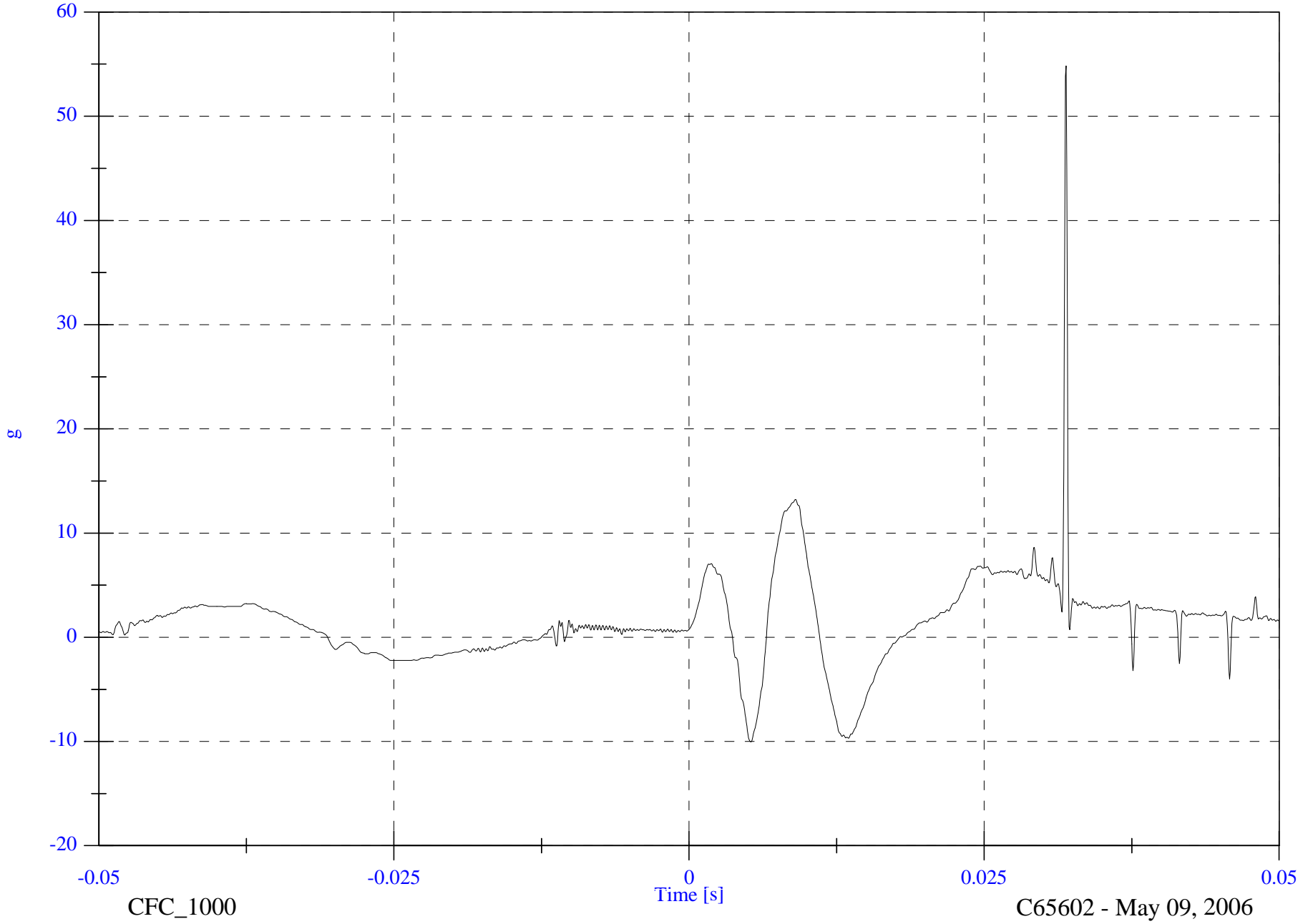
C65602 - May 09, 2006

FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE

Headform Z Acceleration

Max: 54.8 [g] at 0.032 [s]

Min: -10.0 [g] at 0.005 [s]



C65602 DRIVER SIDE URSR IMPACT PLOT #3

8754+FMH-13

CFC\_1000

C65602 - May 09, 2006

FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE

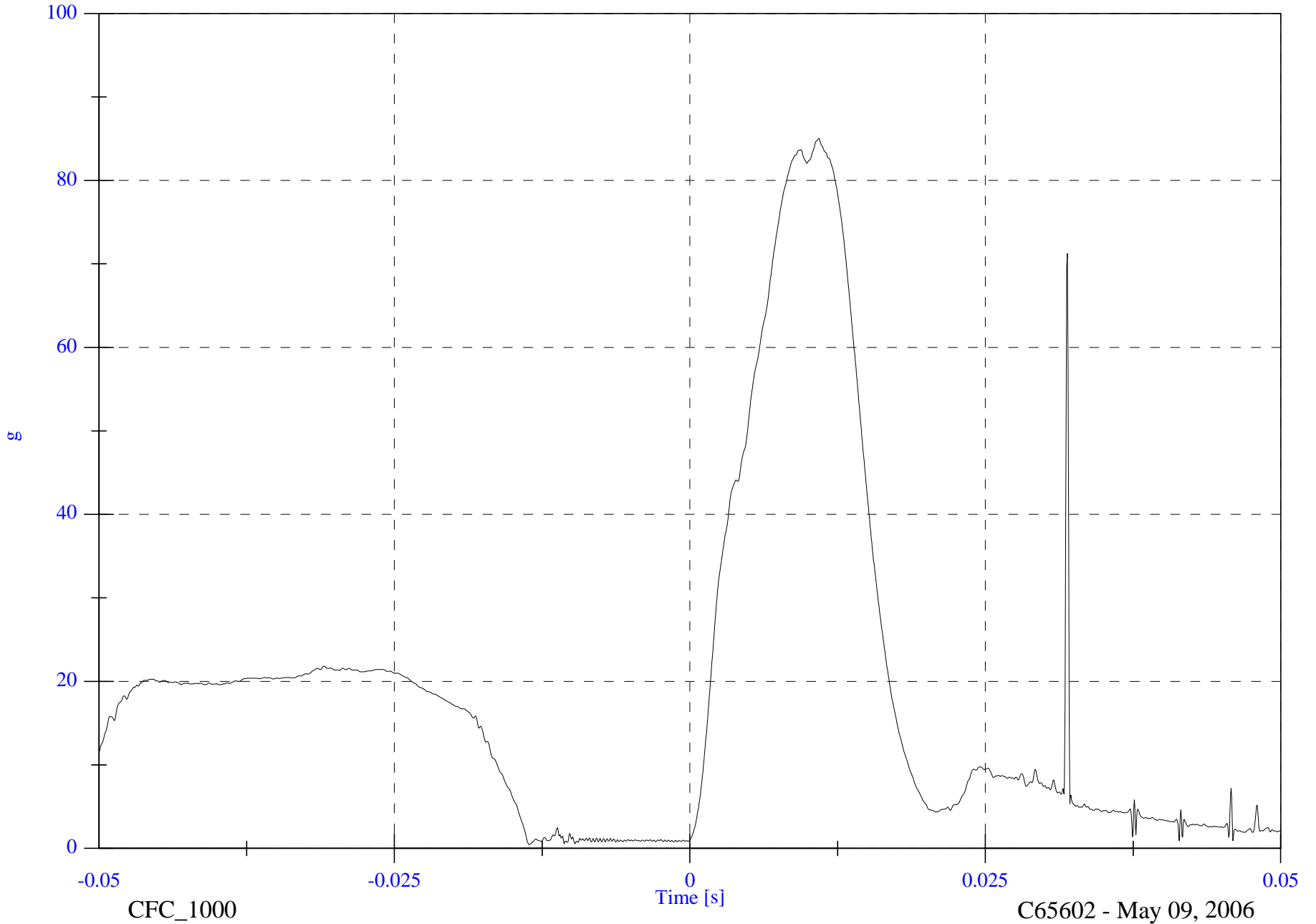
Headform Resultant

Max: 85.0 [g] at 0.011 [s]

Min: 0.4 [g] at -0.014 [s]

C65602 DRIVER SIDE URSR IMPACT PLOT #4

8754+FMH-13



CFC\_1000

C65602 - May 09, 2006

FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE

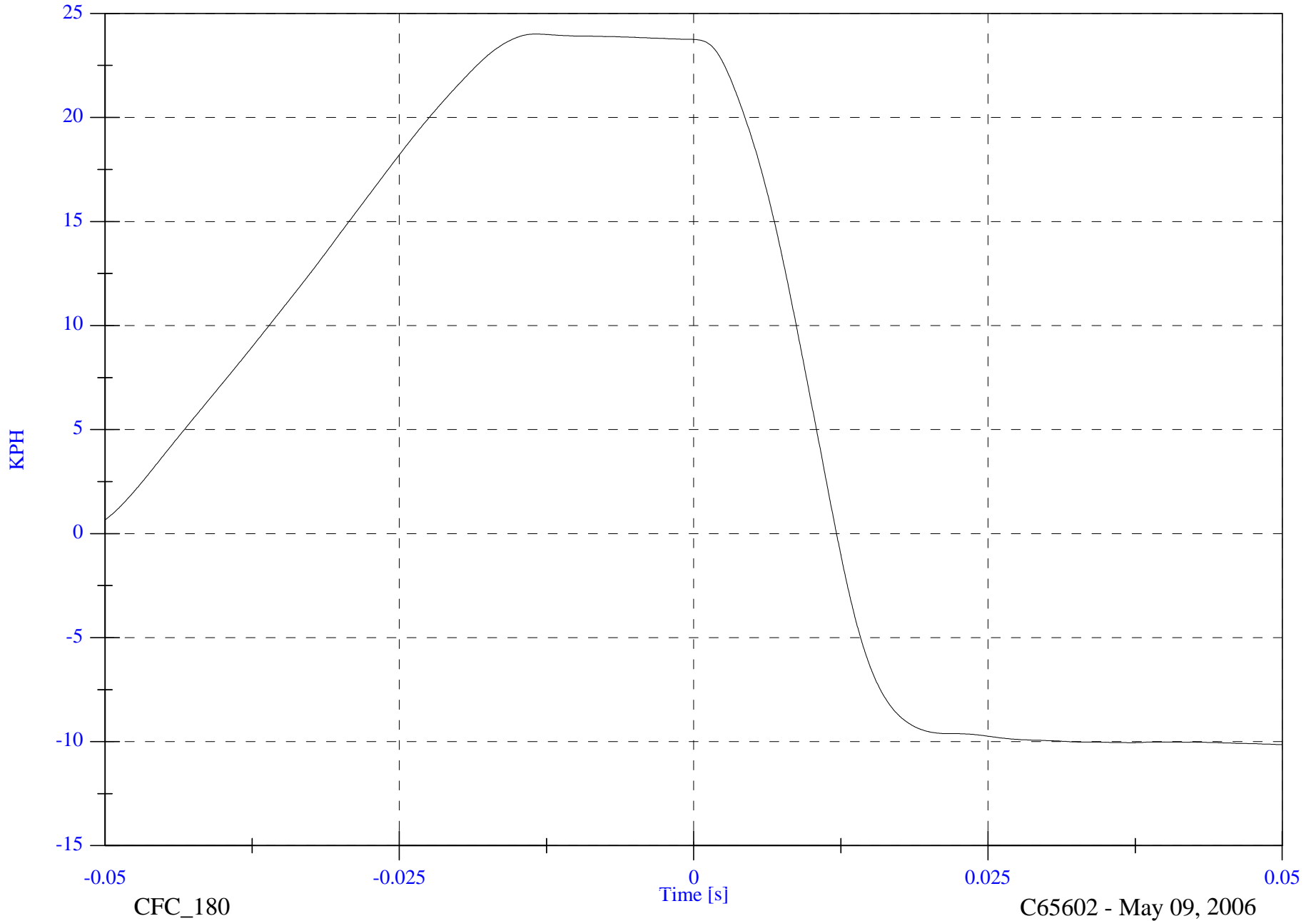
Headform Velocity

Max: 24.0 [KPH] at -0.013 [s]

Min: -10.1 [KPH] at 0.050 [s]

C65602 DRIVER SIDE URSR IMPACT PLOT #5

8754+FMH-13

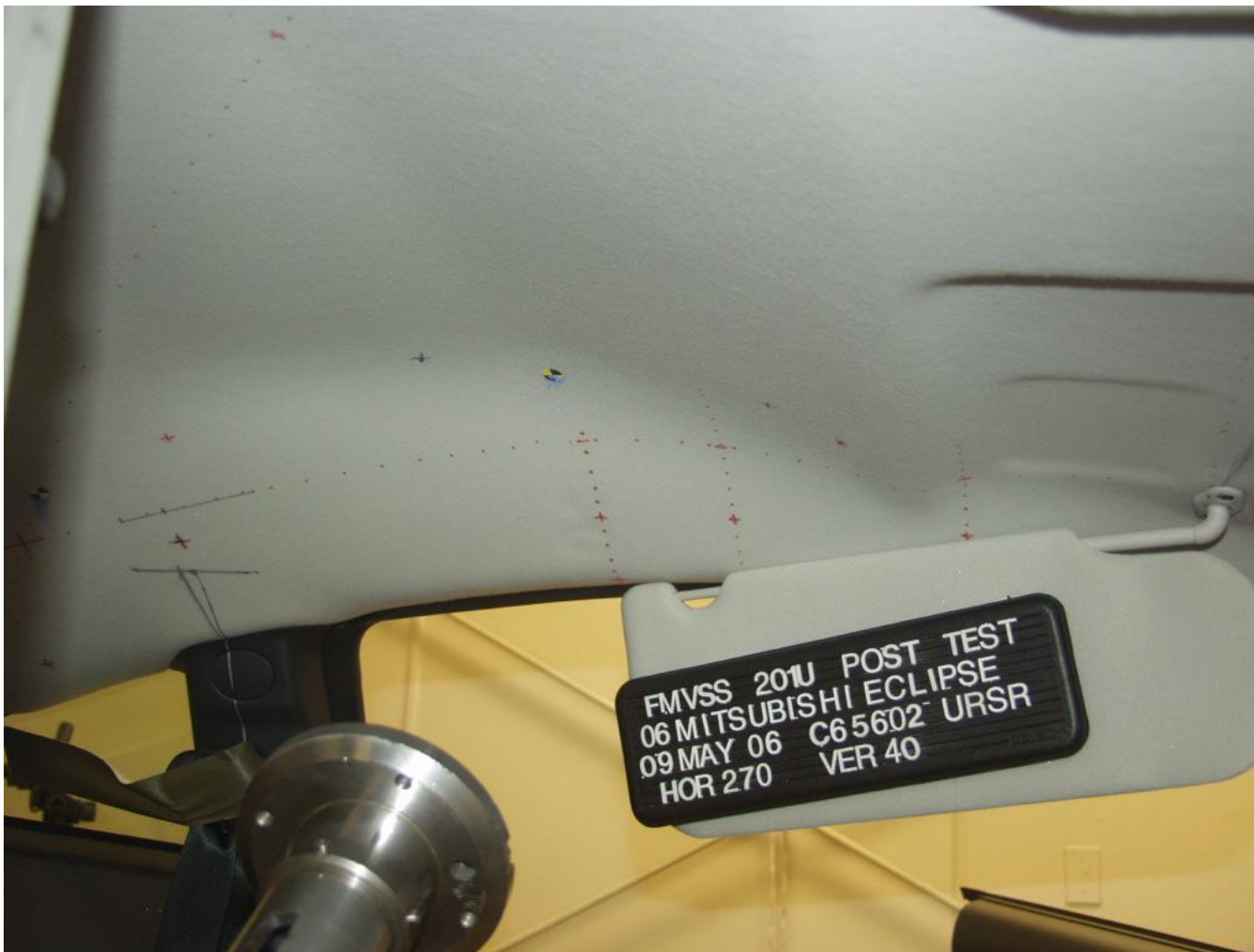


CFC\_180

C65602 - May 09, 2006



PRE-IMPACT URSR



POST-IMPACT URSR



VEHICLE YEAR/MAKE/MODEL/STYLE:	2006 Mitsubishi Eclipse GS, 2-door Sport Coupe
VIN:	4A3AK24F06E036305
DATE OF MANUFACTURE:	OCT 2005 (SEE CERTIFICATION LABEL)
COLOR:	Titanium Pearl

Test Number:	12
Test Date:	05/09/06
Target Location:	SIDE RAIL
Target Code:	SR1
Horizontal Impact Angle:	270°
Vertical Impact Angle:	41°
Ambient Temperature:	21.8°C
Relative Humidity:	28.5
Time of Impact:	10:40
Headform Number:	0805

Impact Point Description (from lower midpoint on midsagittal line)					
On Centerline	6	<input type="checkbox"/>	mm right	<input checked="" type="checkbox"/>	mm left
On Centerline	26				mm up



POST-IMPACT SR1 HEADFORM

Free Motion HIC	409.1
HIC(d)	475.0
Impact Velocity (kph)	23.31
HIC T1 (msec)	3.2
HIC T2 (msec)	14.2

# FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE C65602 - SR1

FMH Headform 0805

Location: SR1

Test Date: May 09, 2006

Work File: SR1

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

Lab Temperature: 21.8 C

HICd: 475.0

Lab Humidity: 28.5 %

HIC (36ms): 409.1

Velocity at Impact: 23.31 KPH

t1: 3.2 msec

t2: 14.2 msec

Free Flight Distance: 219.49 mm

Duration: 11.0 msec

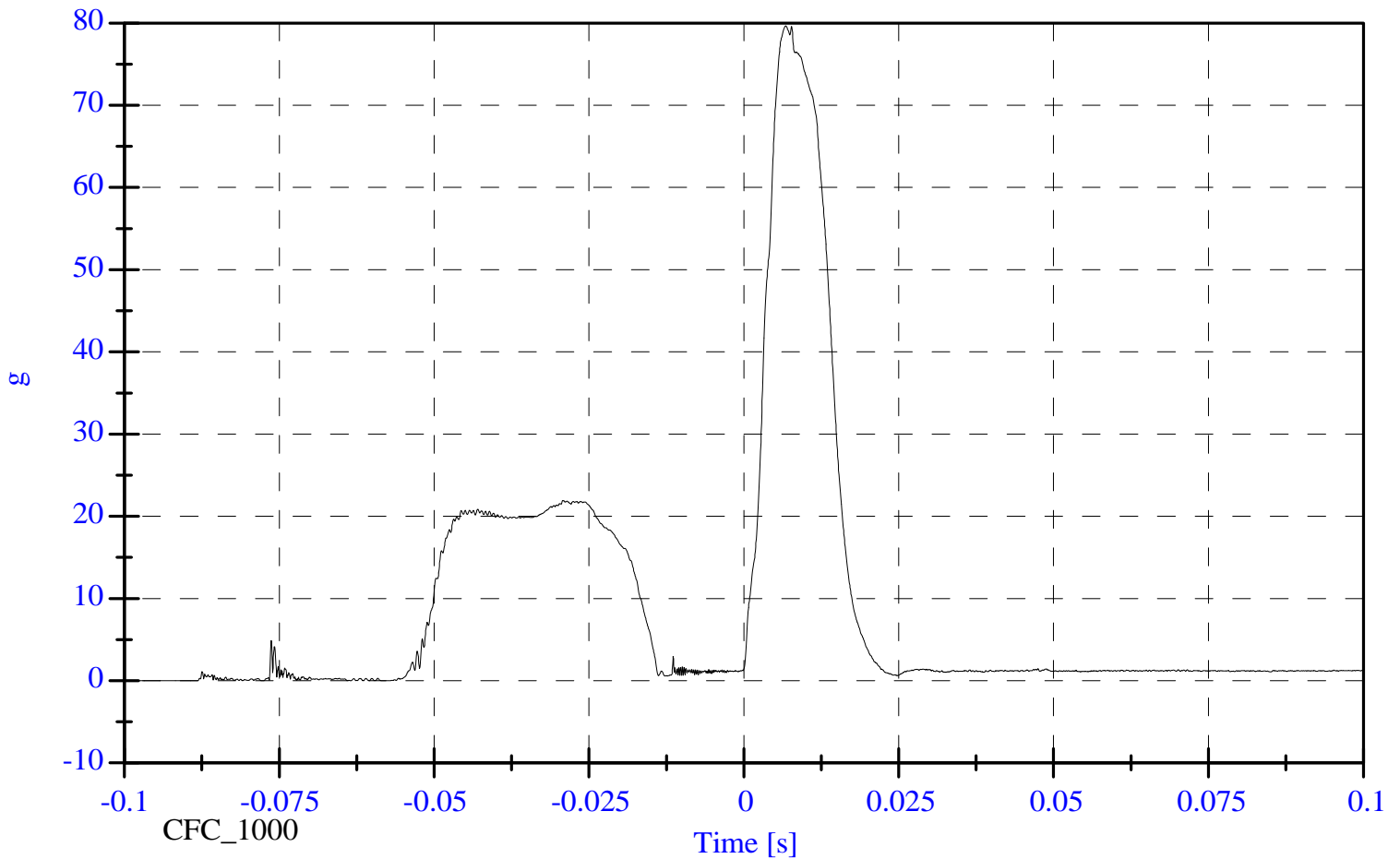
Maximum: 79.7 g

Average Acceleration: 8.4 g

FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE  
Headform Resultant

Max: 79.7 [g] at 0.007 [s]

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



FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE

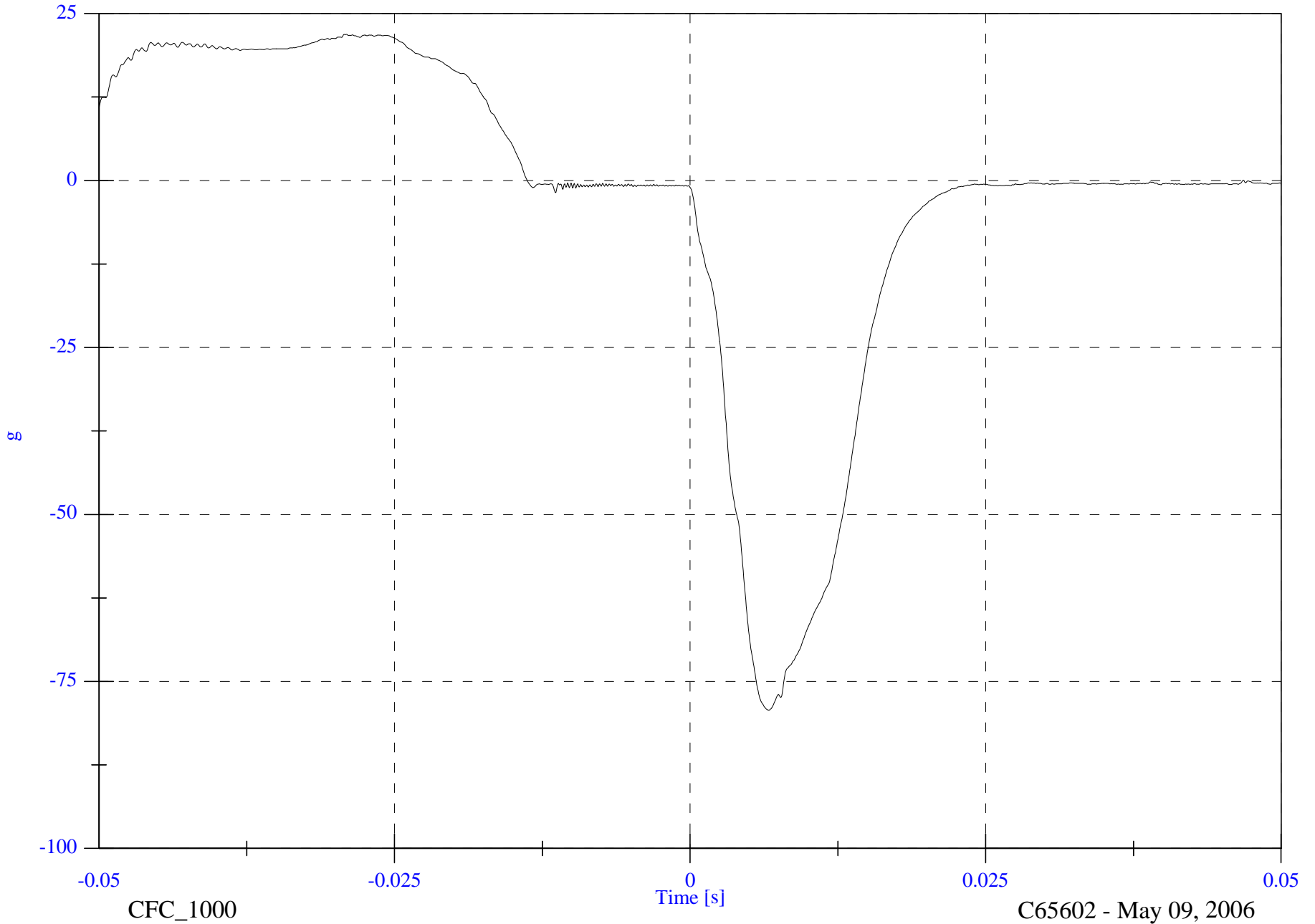
Headform X Acceleration

Max: 21.9 [g] at -0.029 [s]

Min: -79.3 [g] at 0.007 [s]

C65602 DRIVER SIDE SR1 IMPACT PLOT #1

8754+FMH-13



CFC\_1000

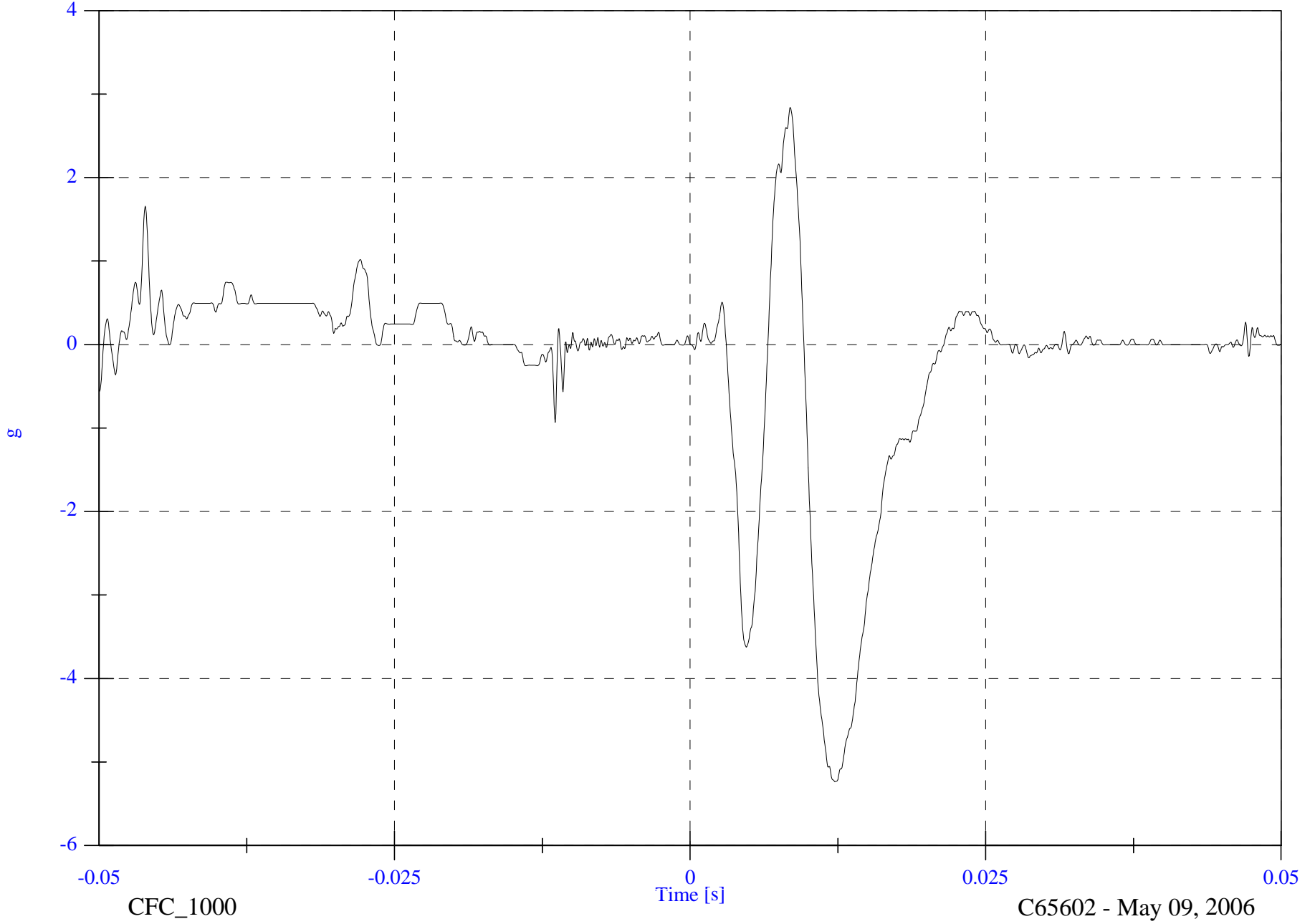
C65602 - May 09, 2006

FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE

Headform Y Acceleration

Max: 2.8 [g] at 0.008 [s]

Min: -5.2 [g] at 0.012 [s]



C65602 DRIVER SIDE SR1 IMPACT PLOT #2

8754+FMH-13

FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE

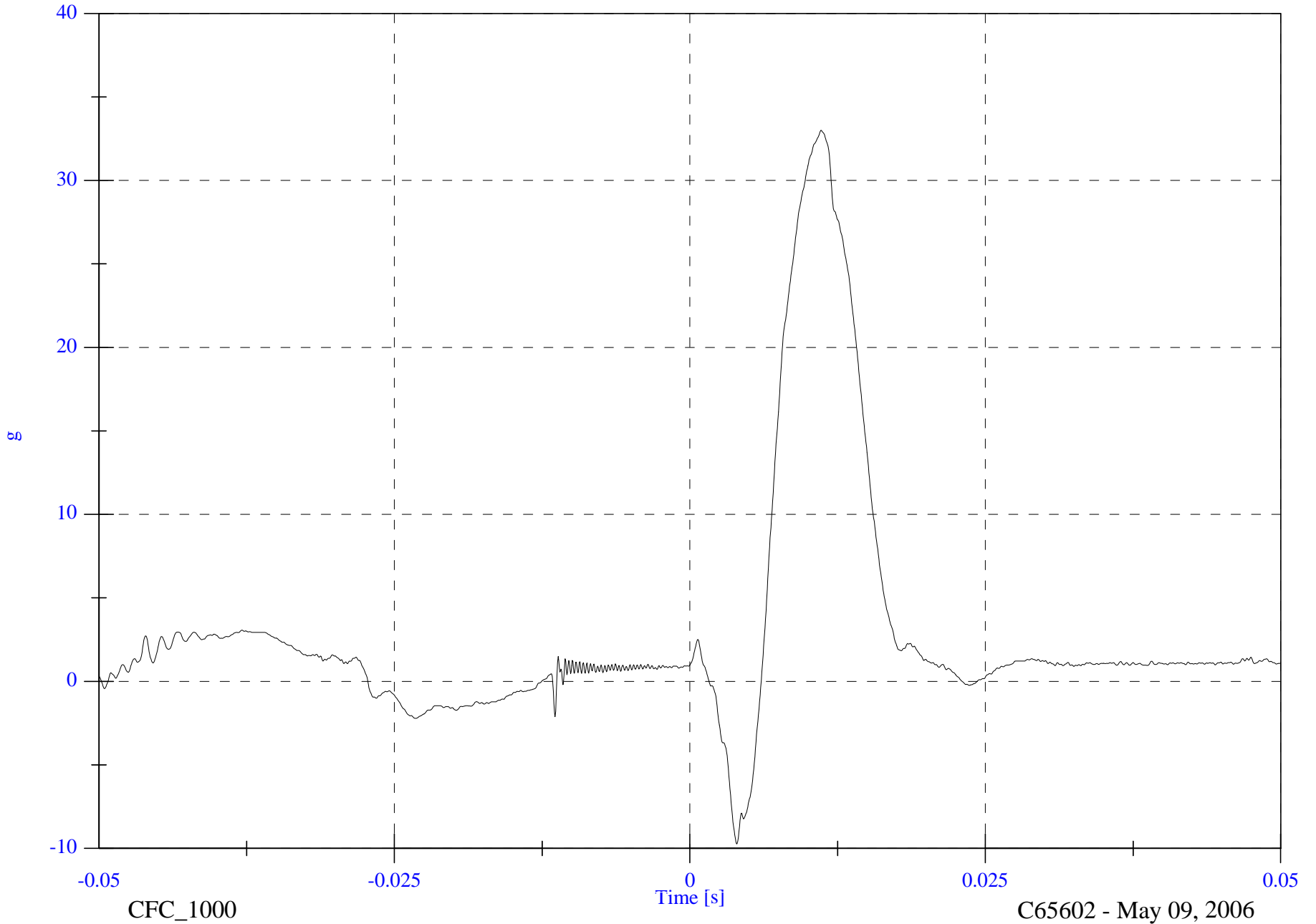
Headform Z Acceleration

Max: 33.0 [g] at 0.011 [s]

Min: -9.7 [g] at 0.004 [s]

C65602 DRIVER SIDE SR1 IMPACT PLOT #3

8754+FMH-13



CFC\_1000

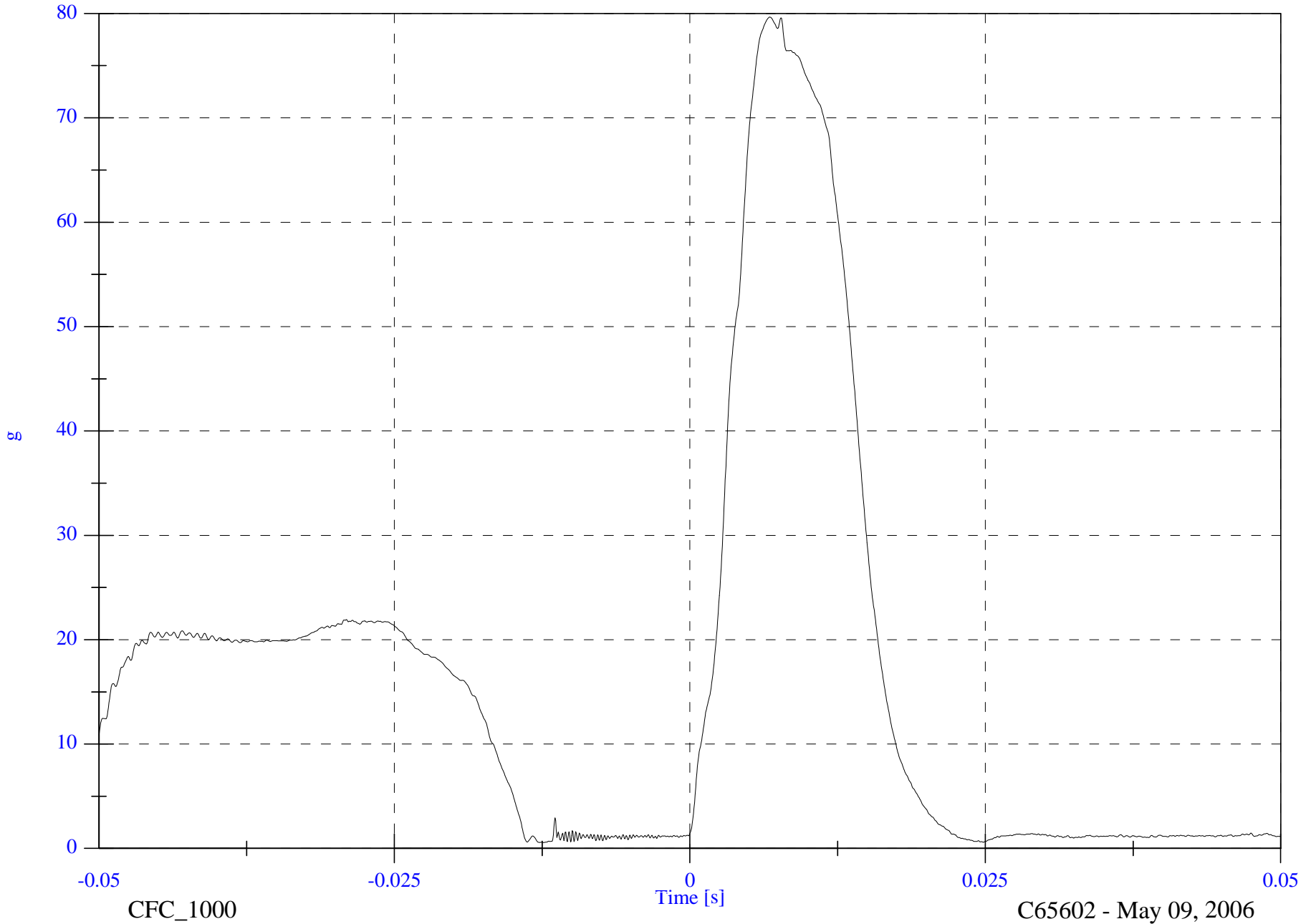
C65602 - May 09, 2006

FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE

Headform Resultant

Max: 79.7 [g] at 0.007 [s]

Min: 0.6 [g] at -0.012 [s]



C65602 DRIVER SIDE SR1 IMPACT PLOT #4

8754+FMH-13

CFC\_1000

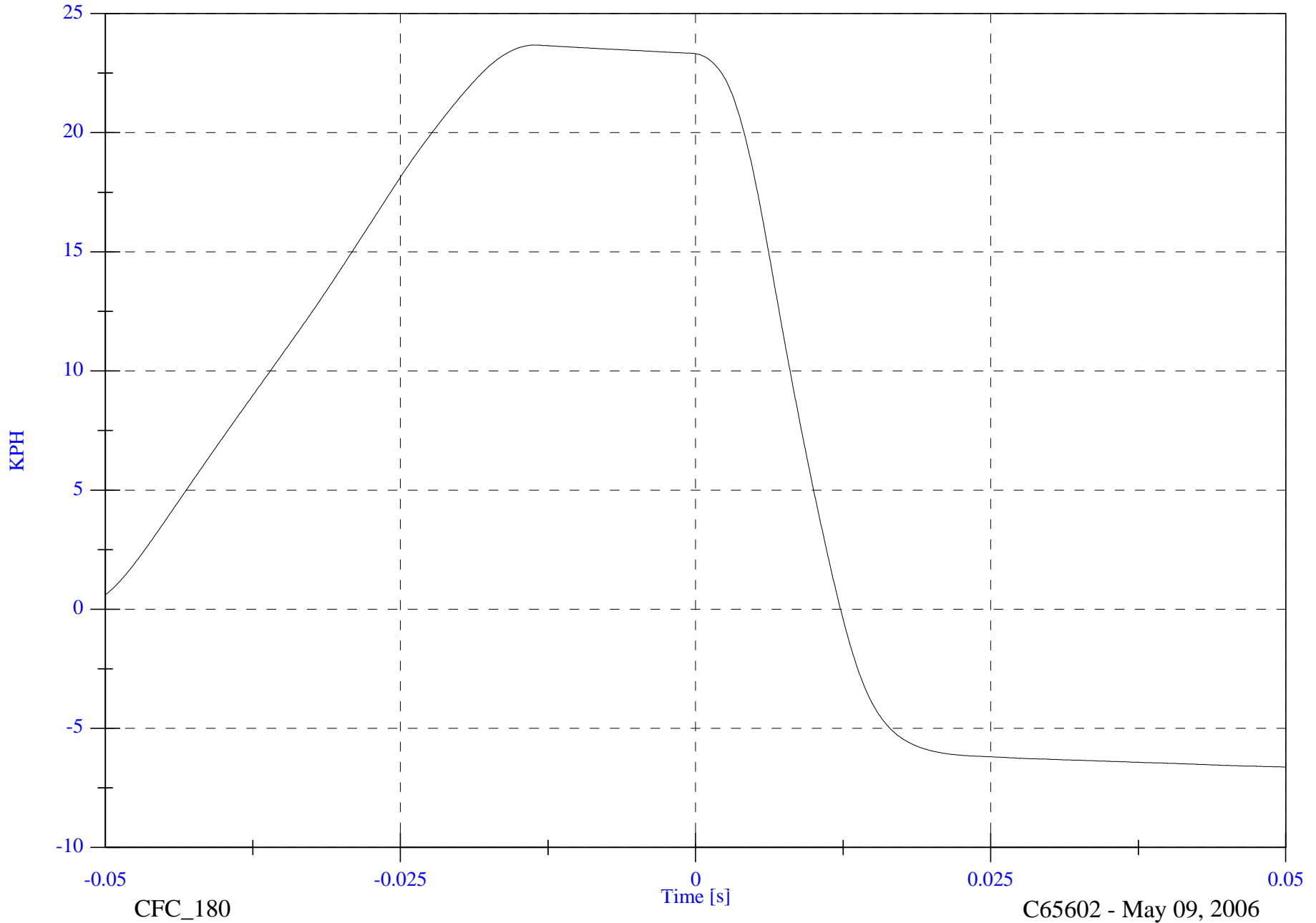
C65602 - May 09, 2006

FMVSS 201U IMPACT TEST - 2006 MITSUBISHI ECLIPSE

Headform Velocity

Max: 23.7 [KPH] at -0.014 [s]

Min: -6.6 [KPH] at 0.050 [s]



C65602 DRIVER SIDE SR1 IMPACT PLOT #5

8754+FMH-13

CFC\_180

C65602 - May 09, 2006



PRE-IMPACT SR1





POST-IMPACT SR1

**APPENDIX A**

**PHOTOGRAPHS**

## PHOTOGRAPHS

<b>FIGURE</b>	<b>VIEW</b>
A-1	LEFT SIDE VIEW OF VEHICLE
A-2	RIGHT SIDE VIEW OF VEHICLE
A-3	3/4 FRONTAL VIEW FROM RIGHT SIDE OF VEHICLE
A-4	3/4 REAR VIEW FROM LEFT SIDE OF VEHICLE
A-5	VEHICLE'S CERTIFICATION LABEL
A-6	VEHICLE'S TIRE INFORMATION LABEL
A-7	PRE-TEST DRIVER SIDE A-PILLAR
A-8	PRE-TEST DRIVER SIDE FRONT HEADER
A-9	PRE-TEST DRIVER SIDE SIDE RAIL
A-10	PRE-TEST DRIVER SIDE B-PILLAR
A-11	PRE-TEST DRIVER SIDE REAR PILLAR
A-12	PRE-TEST PASSENGER SIDE A-PILLAR
A-13	PRE-TEST PASSENGER SIDE FRONT HEADER
A-14	PRE-TEST PASSENGER SIDE SIDE RAIL
A-15	PRE-TEST PASSENGER SIDE B-PILLAR
A-16	PRE-TEST PASSENGER SIDE REAR PILLAR
A-17	POST-TEST DRIVER SIDE A-PILLAR
A-18	POST-TEST DRIVER FRONT HEADER
A-19	POST-TEST DRIVER SIDE SIDE RAIL
A-20	POST-TEST DRIVER SIDE B-PILLAR
A-21	POST-TEST DRIVER SIDE REAR PILLAR
A-22	POST-TEST PASSENGER SIDE A-PILLAR
A-23	POST-TEST PASSENGER FRONT HEADER
A-24	POST-TEST PASSENGER SIDE SIDE RAIL
A-25	POST-TEST PASSENGER SIDE B-PILLAR
A-26	POST-TEST PASSENGER SIDE REAR PILLAR



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 REAR 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 REAR 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 REAR 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 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**

<b>MANUFACTURER:</b>		<b>FIRST TECHNOLOGY SAFETY SYSTEMS</b>	
<b>SERIAL NUMBER:</b>		<b>0642</b>	
<b>CALIBRATION DATE:</b>		<b>May 2, 2006</b>	
<b>TEST PARAMETER</b>	<b>SPECIFICATION</b>	<b>TEST RESULTS</b>	
<b>TEMPERATURE</b>	<b>19°C to 26°C</b>	<b>23</b>	
<b>RELATIVE HUMIDITY</b>	<b>10% to 70%</b>	<b>24</b>	
<b>PEAK RESULTANT ACCELERATION</b>	<b>225 Gs to 275 Gs</b>	<b>269.2</b>	
<b>PEAK LATERAL ACCELERATION</b>	<b>15 Gs Maximum</b>	<b>8.8</b>	
<b>IS ACCELERATION CURVE UNIMODAL?</b>	<b>YES</b>	<b>YES</b>	

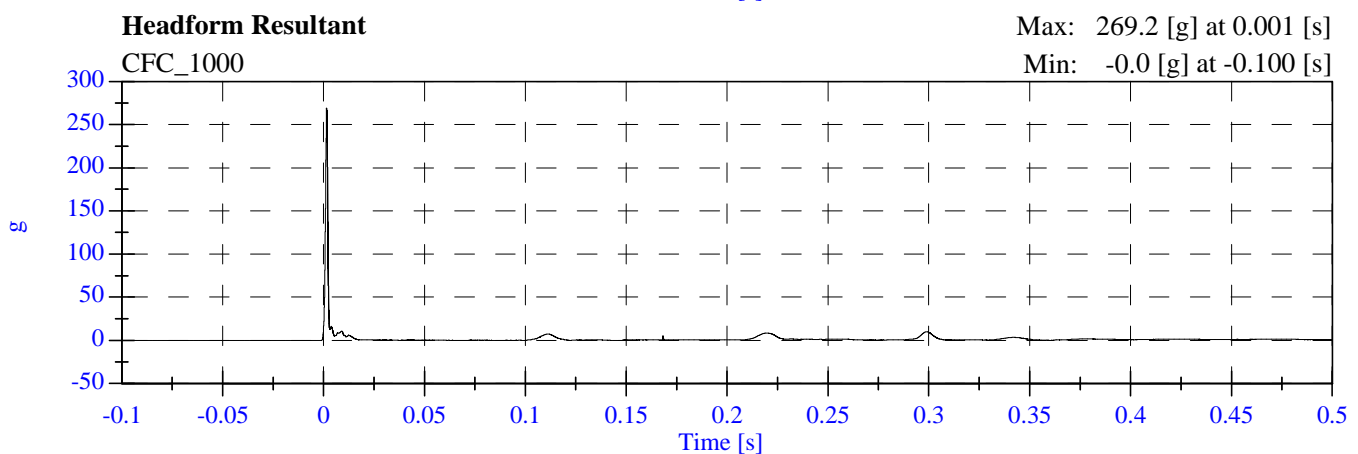
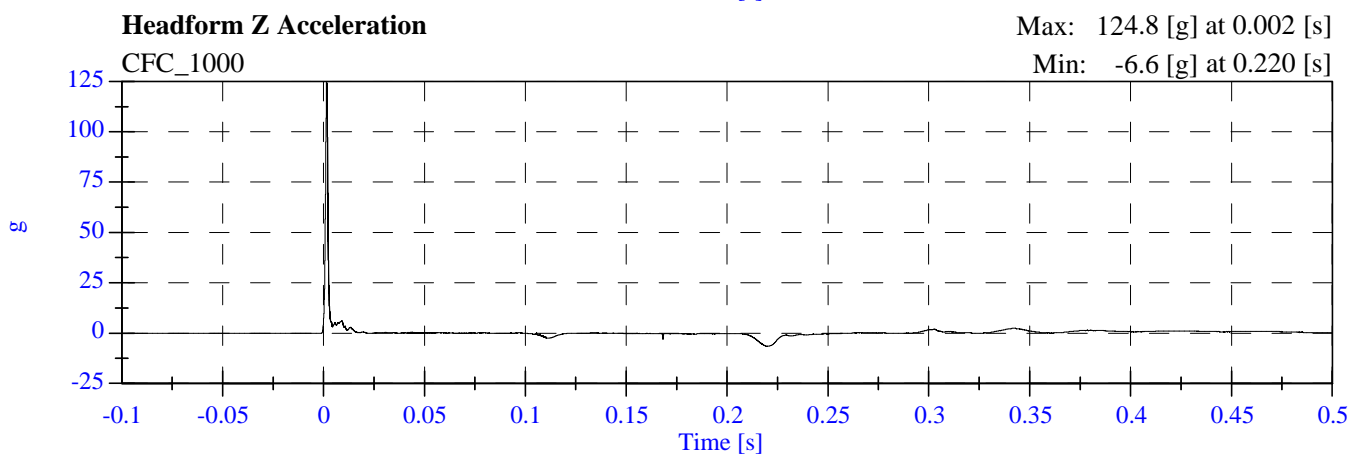
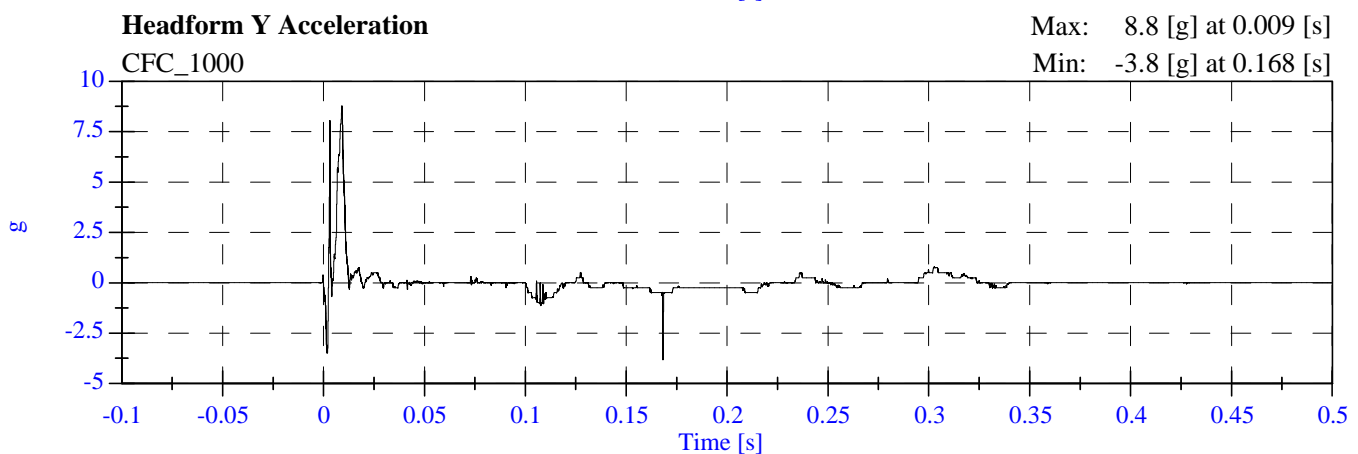
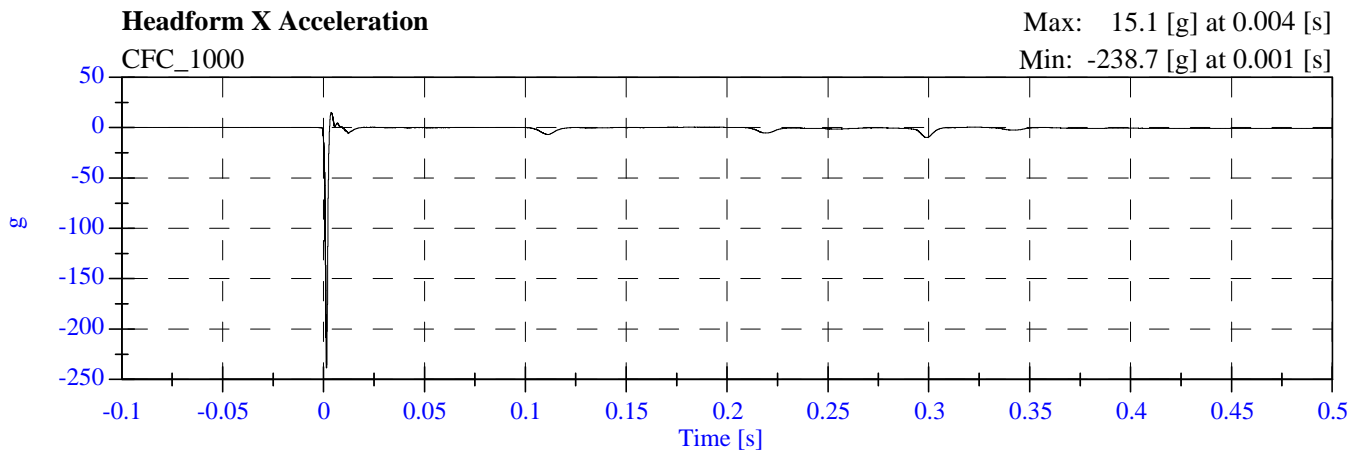
**HEAD ACCELEROMETER CALIBRATION INFORMATION**

<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>J24876</b>	<b>3/9/2006</b>	<b>9/9/2006</b>
<b>2 - LATERAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J33030</b>	<b>3/9/2006</b>	<b>9/9/2006</b>
<b>3 - VERTICAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J31009</b>	<b>3/9/2006</b>	<b>9/9/2006</b>

**REMARKS:**

# FMVSS 201U - Headform Calibration Drops

## FMH 0642 - May 02, 2006





**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>May 2, 2006</b>	
<b>TEST PARAMETER</b>	<b>SPECIFICATION</b>	<b>TEST RESULTS</b>	
<b>TEMPERATURE</b>	<b>19°C to 26°C</b>	<b>23</b>	
<b>RELATIVE HUMIDITY</b>	<b>10% to 70%</b>	<b>24</b>	
<b>PEAK RESULTANT ACCELERATION</b>	<b>225 Gs to 275 Gs</b>	<b>266.8</b>	
<b>PEAK LATERAL ACCELERATION</b>	<b>15 Gs Maximum</b>	<b>2.0</b>	
<b>IS ACCELERATION CURVE UNIMODAL?</b>	<b>YES</b>	<b>YES</b>	

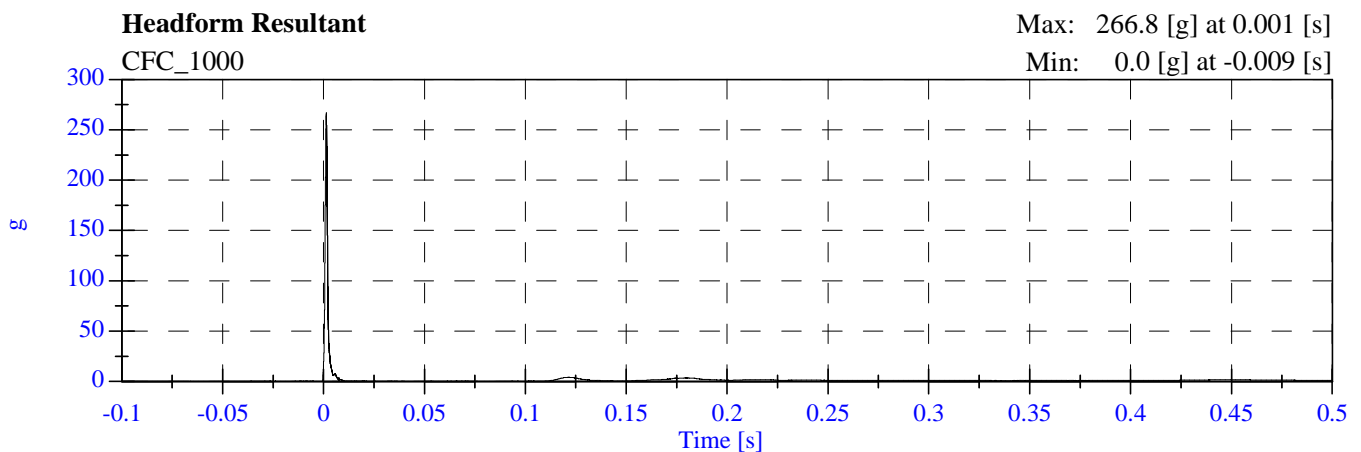
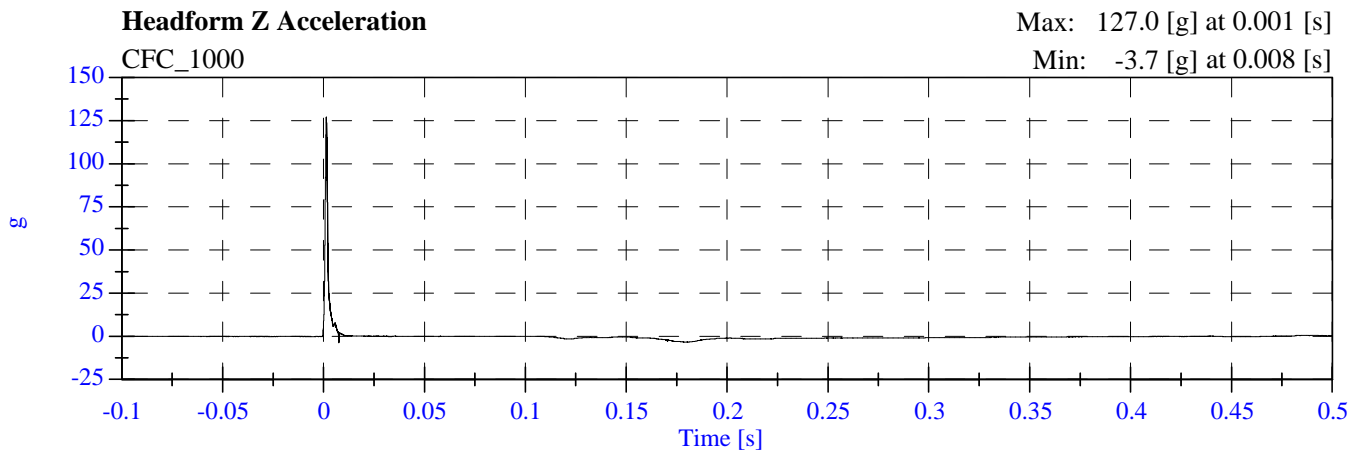
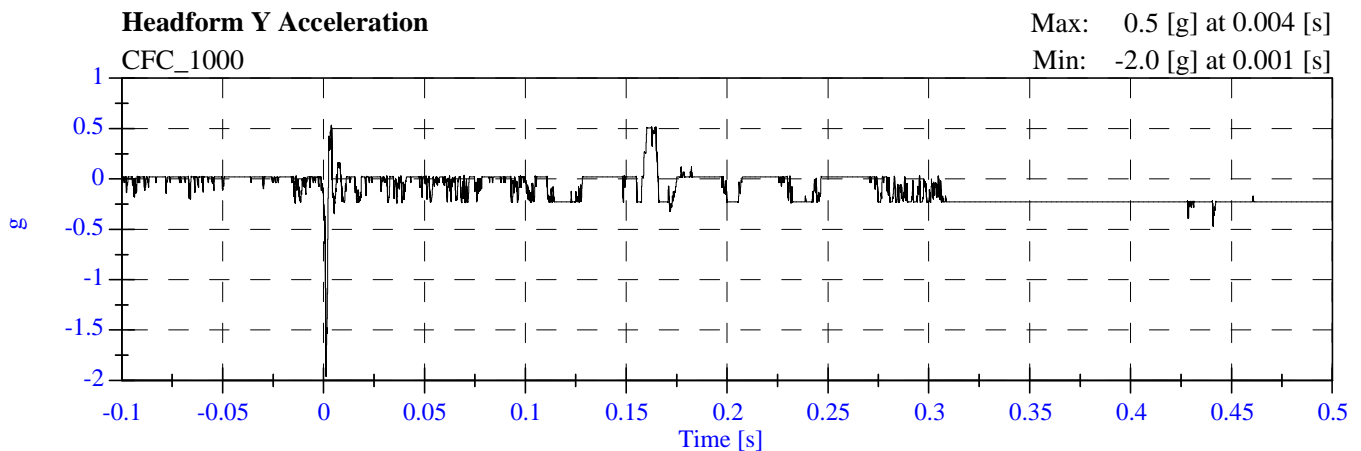
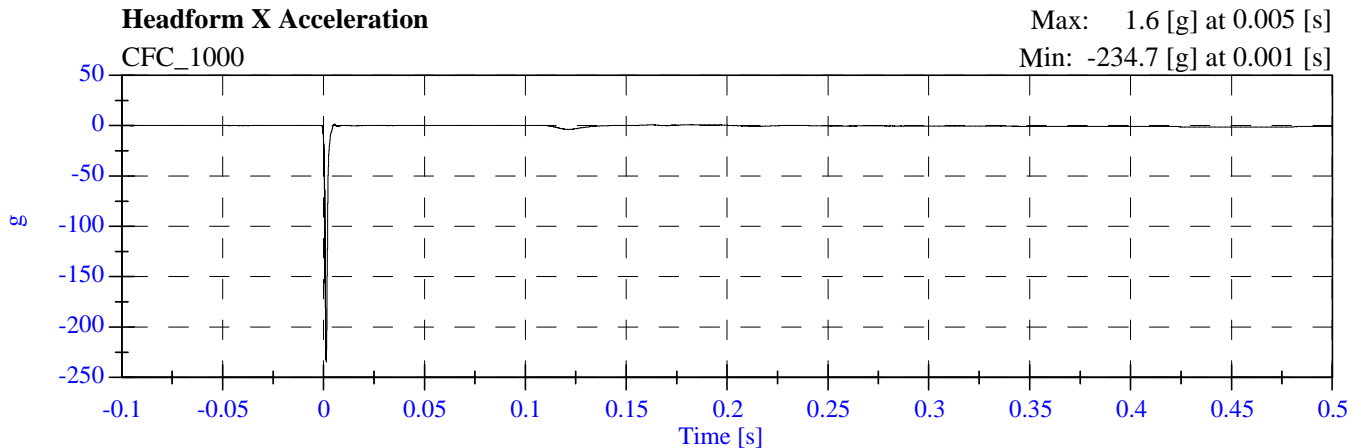
**HEAD ACCELEROMETER CALIBRATION INFORMATION**

<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>J33127</b>	<b>3/9/2006</b>	<b>9/9/2006</b>
<b>2 - LATERAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J33019</b>	<b>3/9/2006</b>	<b>9/9/2006</b>
<b>3 - VERTICAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J32782</b>	<b>3/9/2006</b>	<b>9/9/2006</b>

**REMARKS:**

# FMVSS 201U - Headform Calibration Drops

## FMH 0062 - May 02, 2006



**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>May 2, 2006</b>	
<b>TEST PARAMETER</b>	<b>SPECIFICATION</b>	<b>TEST RESULTS</b>	
<b>TEMPERATURE</b>	<b>19°C to 26°C</b>	<b>23</b>	
<b>RELATIVE HUMIDITY</b>	<b>10% to 70%</b>	<b>24</b>	
<b>PEAK RESULTANT ACCELERATION</b>	<b>225 Gs to 275 Gs</b>	<b>265.6</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>	

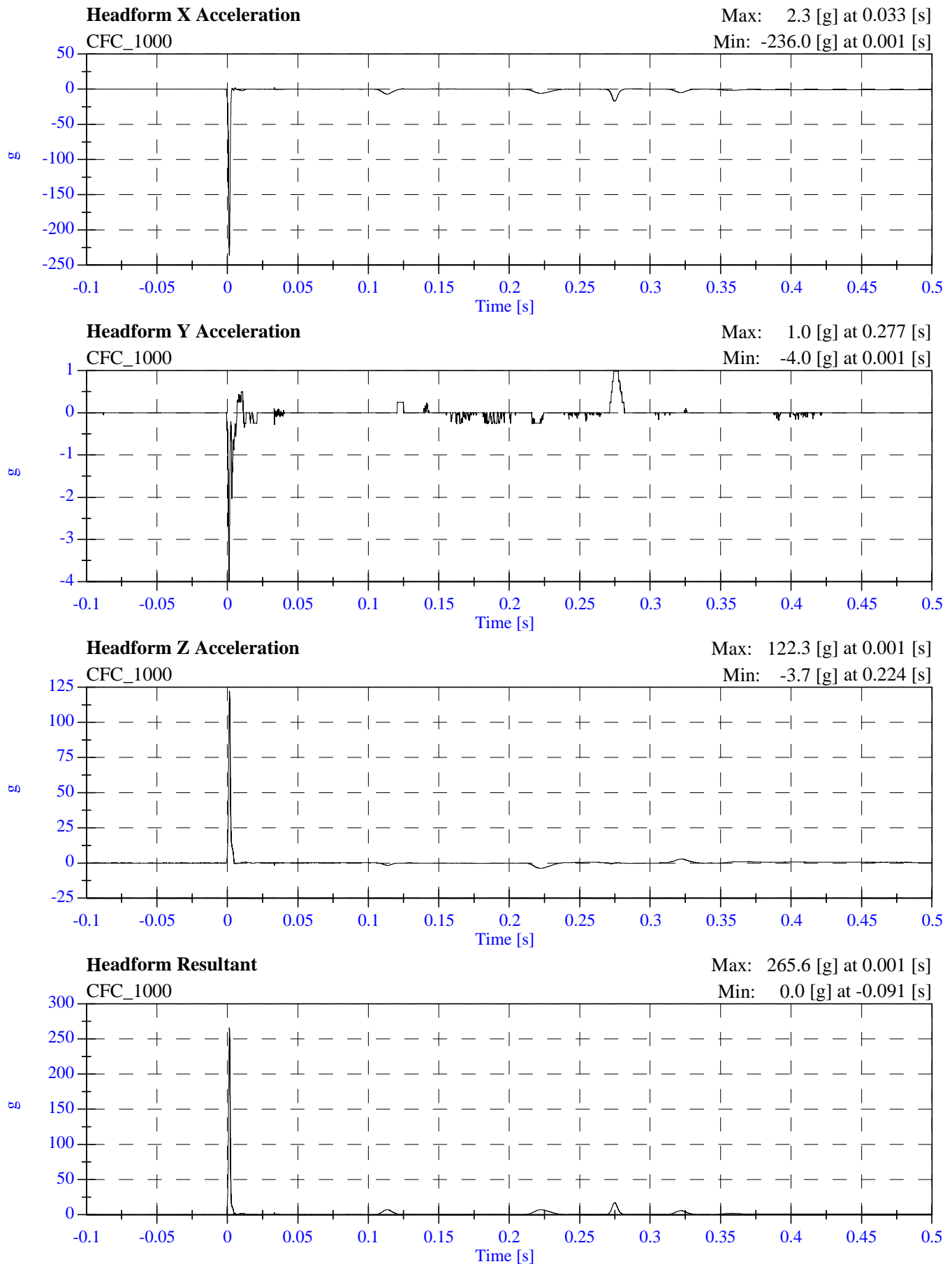
**HEAD ACCELEROMETER CALIBRATION INFORMATION**

<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>J38127</b>	<b>3/9/2006</b>	<b>9/9/2006</b>
<b>2 - LATERAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J37980</b>	<b>3/9/2006</b>	<b>9/9/2006</b>
<b>3 - VERTICAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J37854</b>	<b>3/9/2006</b>	<b>9/9/2006</b>

**REMARKS:**

# FMVSS 201U - Headform Calibration Drops

## FMH 0805 - May 02, 2006



**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>May 2, 2006</b>	
<b>TEST PARAMETER</b>	<b>SPECIFICATION</b>	<b>TEST RESULTS</b>	
<b>TEMPERATURE</b>	<b>19°C to 26°C</b>	<b>23</b>	
<b>RELATIVE HUMIDITY</b>	<b>10% to 70%</b>	<b>24</b>	
<b>PEAK RESULTANT ACCELERATION</b>	<b>225 Gs to 275 Gs</b>	<b>251.9</b>	
<b>PEAK LATERAL ACCELERATION</b>	<b>15 Gs Maximum</b>	<b>10.5</b>	
<b>IS ACCELERATION CURVE UNIMODAL?</b>	<b>YES</b>	<b>YES</b>	

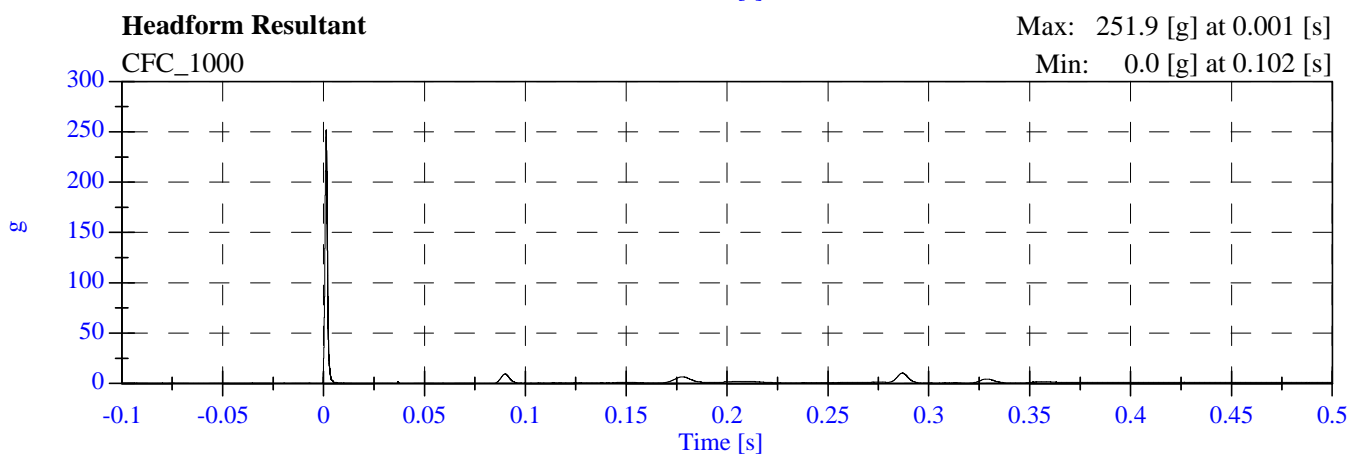
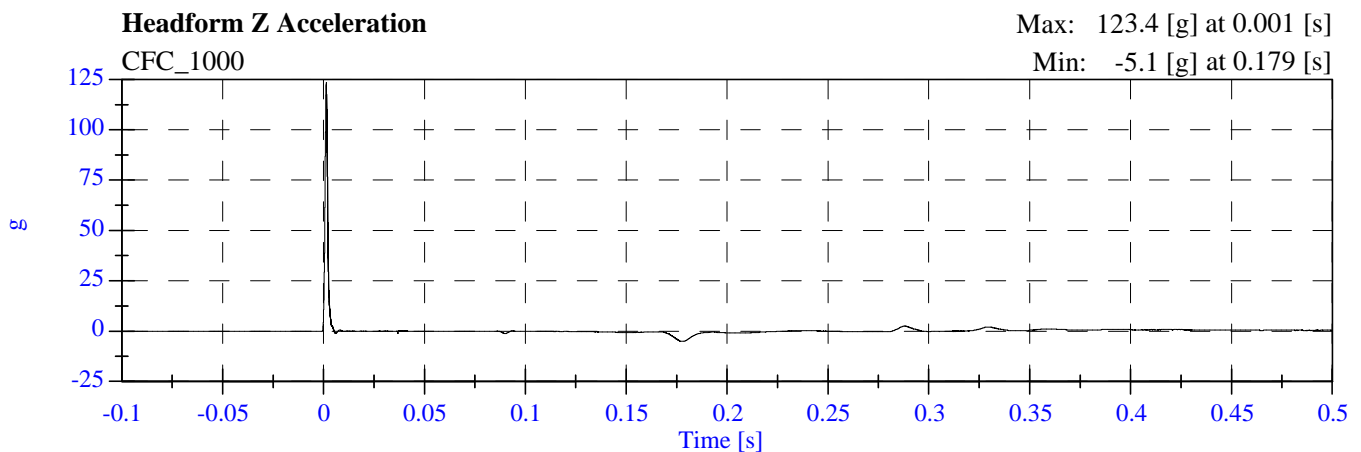
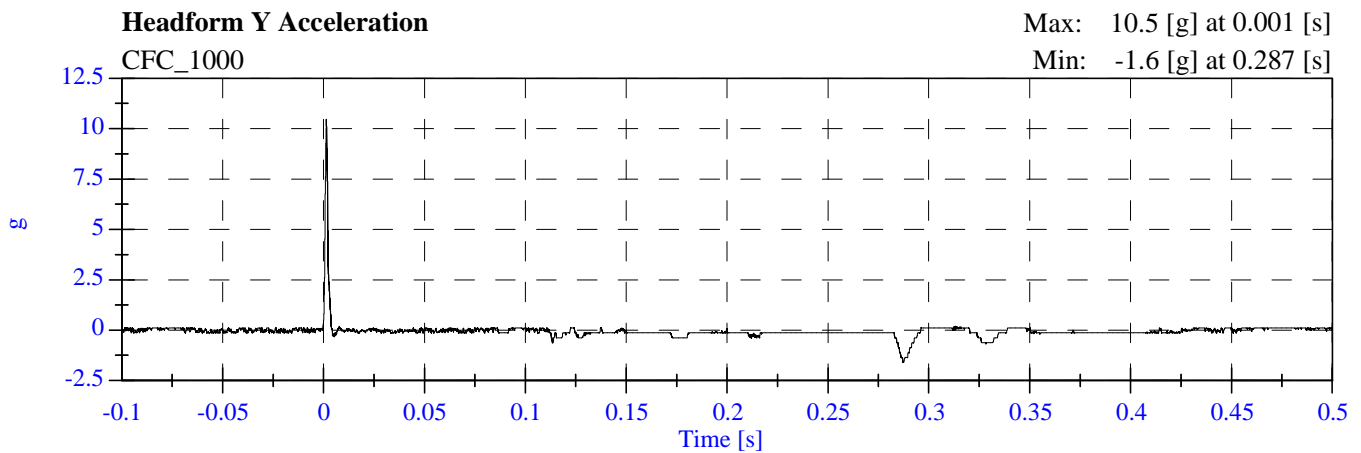
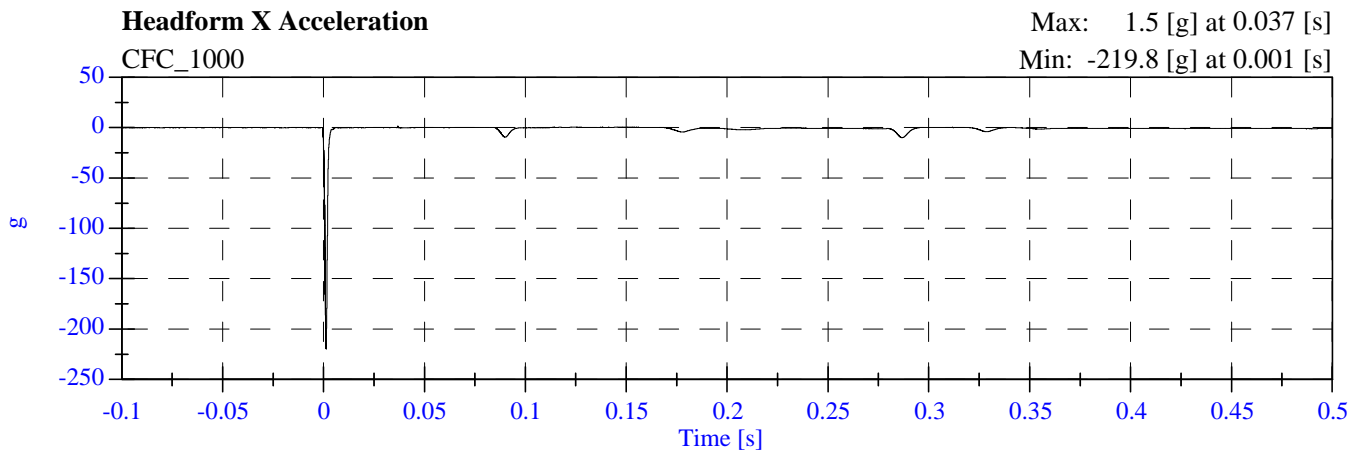
**HEAD ACCELEROMETER CALIBRATION INFORMATION**

<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>J28671</b>	<b>3/9/2006</b>	<b>9/9/2006</b>
<b>2 - LATERAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J32779</b>	<b>3/9/2006</b>	<b>9/9/2006</b>
<b>3 - VERTICAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J25854</b>	<b>3/9/2006</b>	<b>9/9/2006</b>

**REMARKS:**

# FMVSS 201U - Headform Calibration Drops

## FMH 0355 - May 02, 2006



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

<b>MANUFACTURER:</b>		<b>FIRST TECHNOLOGY SAFETY SYSTEMS</b>	
<b>SERIAL NUMBER:</b>		1255	
<b>CALIBRATION DATE:</b>		May 2, 2006	
<b>TEST PARAMETER</b>	<b>SPECIFICATION</b>	<b>TEST RESULTS</b>	
<b>TEMPERATURE</b>	19°C to 26°C	23	
<b>RELATIVE HUMIDITY</b>	10% to 70%	24	
<b>PEAK RESULTANT ACCELERATION</b>	225 Gs to 275 Gs	272.8	
<b>PEAK LATERAL ACCELERATION</b>	15 Gs Maximum	10.9	
<b>IS ACCELERATION CURVE UNIMODAL?</b>	YES	YES	

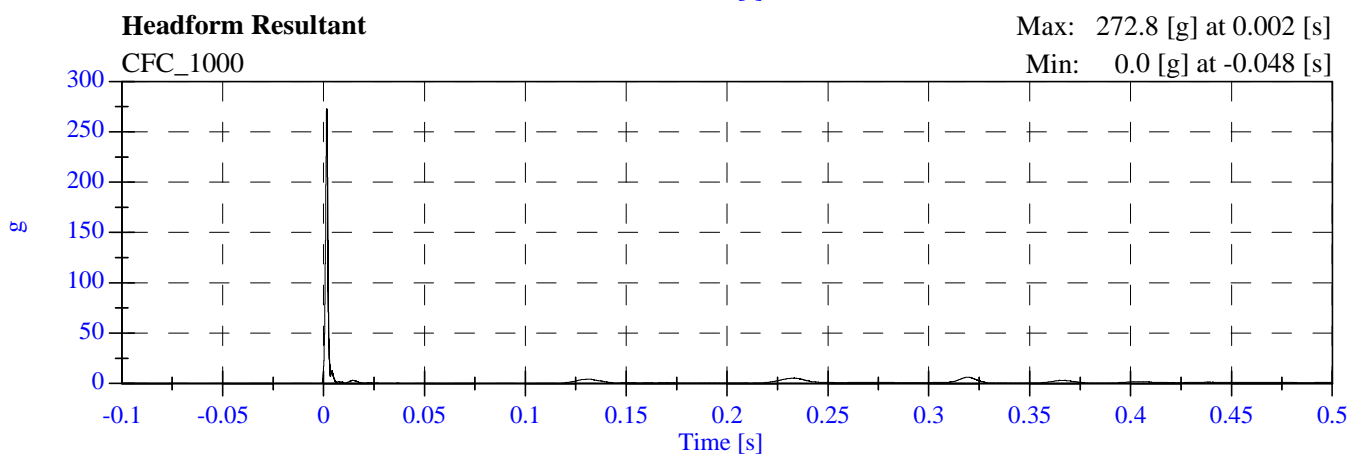
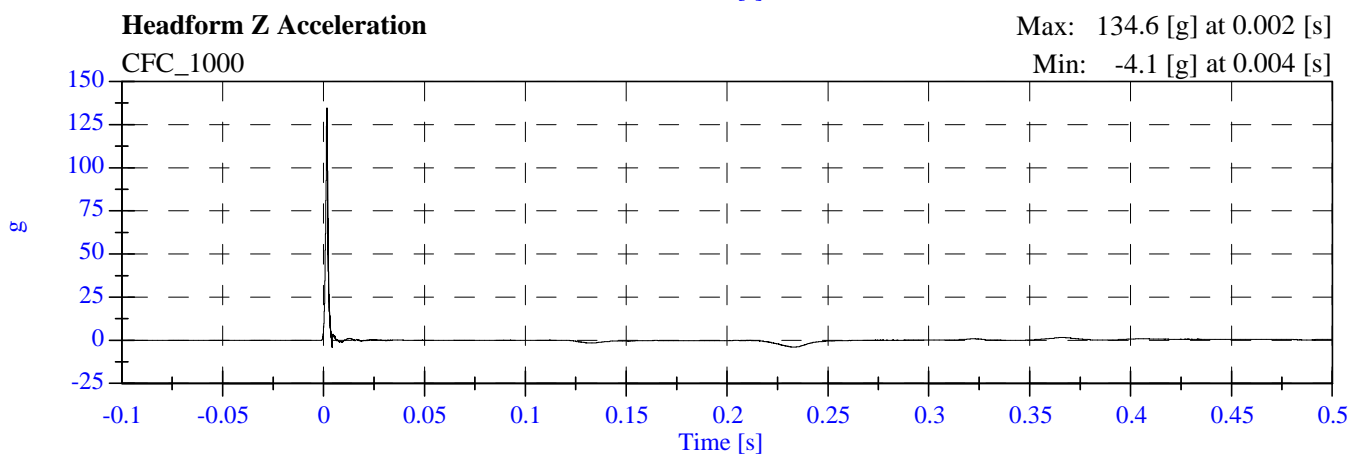
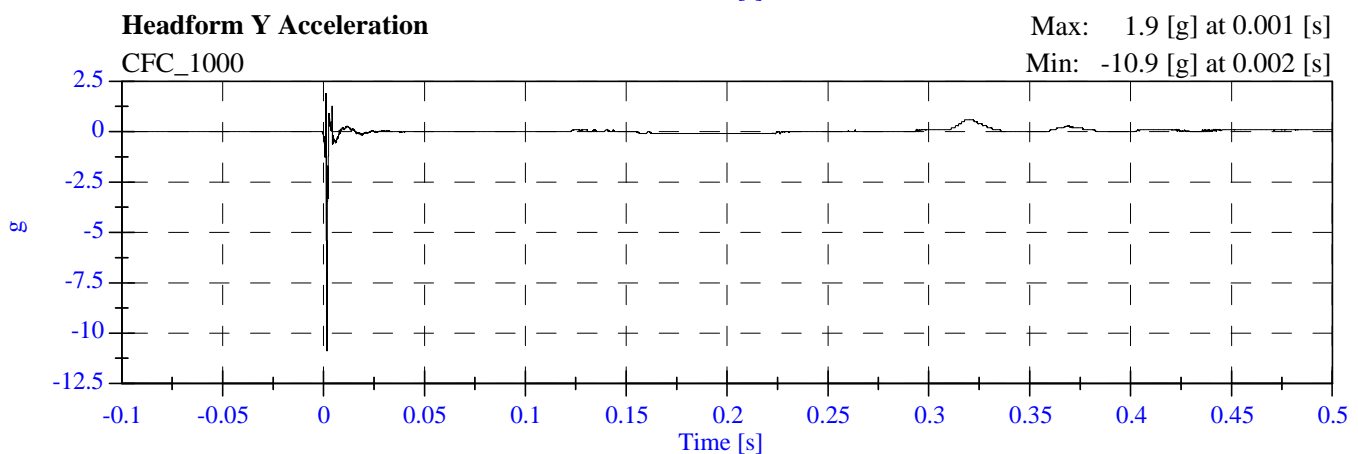
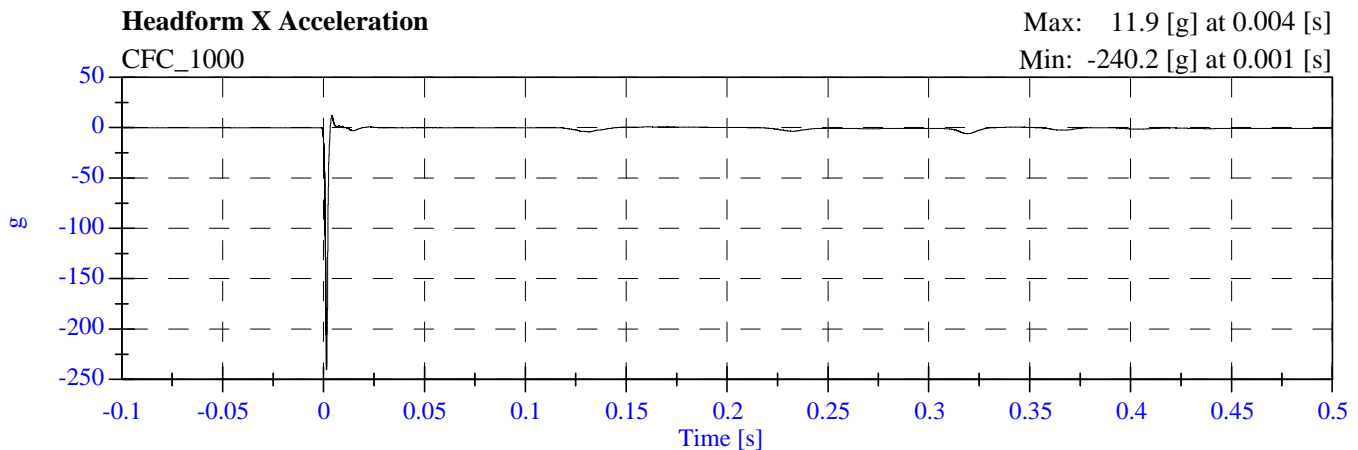
**HEAD ACCELEROMETER CALIBRATION INFORMATION**

<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>
<b>1 - LONGITUDINAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J41006</b>	<b>3/9/2006</b>	<b>9/9/2006</b>
<b>2 - LATERAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J40994</b>	<b>3/9/2006</b>	<b>9/9/2006</b>
<b>3 - VERTICAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J41007</b>	<b>3/9/2006</b>	<b>9/9/2006</b>

**REMARKS:**

# FMVSS 201U - Headform Calibration Drops

## FMH 1255 - May 02, 2006





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

<b>MANUFACTURER:</b>		<b>FIRST TECHNOLOGY SAFETY SYSTEMS</b>	
<b>SERIAL NUMBER:</b>		<b>0642</b>	
<b>CALIBRATION DATE:</b>		<b>MAY 9, 2006</b>	
<b>TEST PARAMETER</b>	<b>SPECIFICATION</b>	<b>TEST RESULTS</b>	
<b>TEMPERATURE</b>	<b>19°C to 26°C</b>	<b>23</b>	
<b>RELATIVE HUMIDITY</b>	<b>10% to 70%</b>	<b>27</b>	
<b>PEAK RESULTANT ACCELERATION</b>	<b>225 Gs to 275 Gs</b>	<b>270.5</b>	
<b>PEAK LATERAL ACCELERATION</b>	<b>15 Gs Maximum</b>	<b>9.1</b>	
<b>IS ACCELERATION CURVE UNIMODAL?</b>	<b>YES</b>	<b>YES</b>	

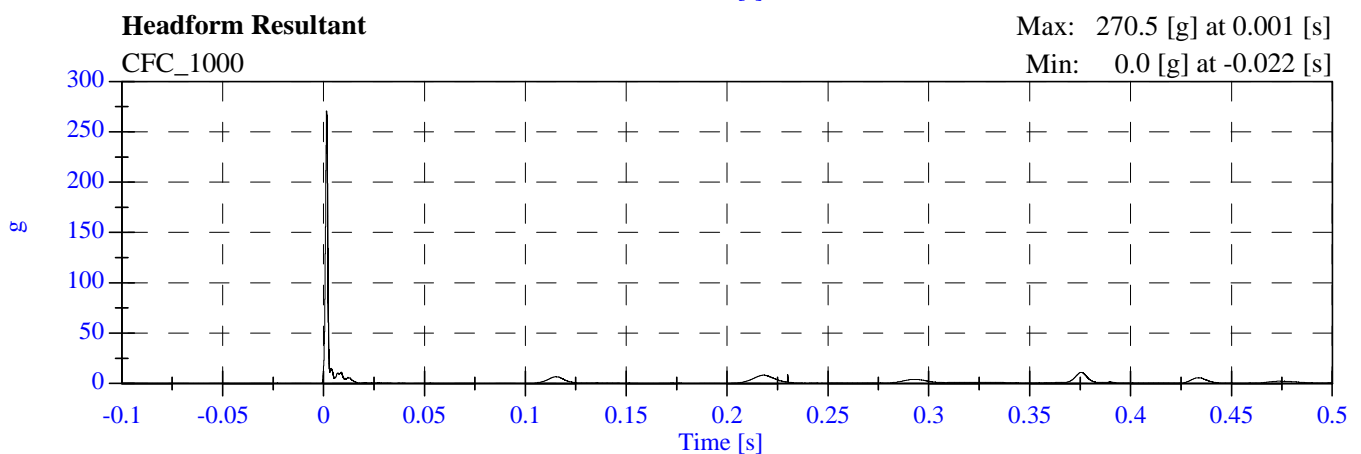
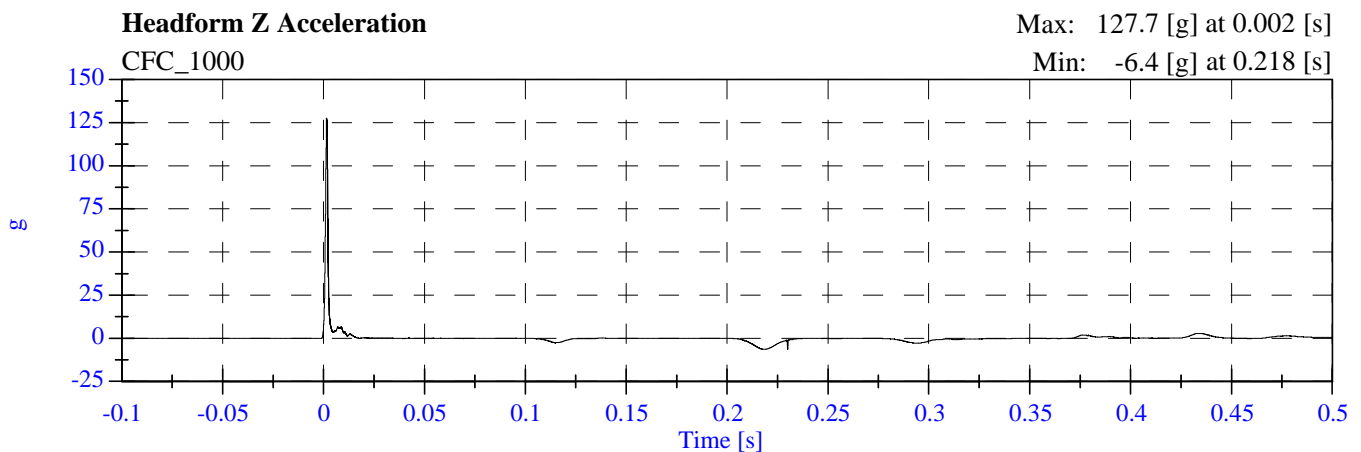
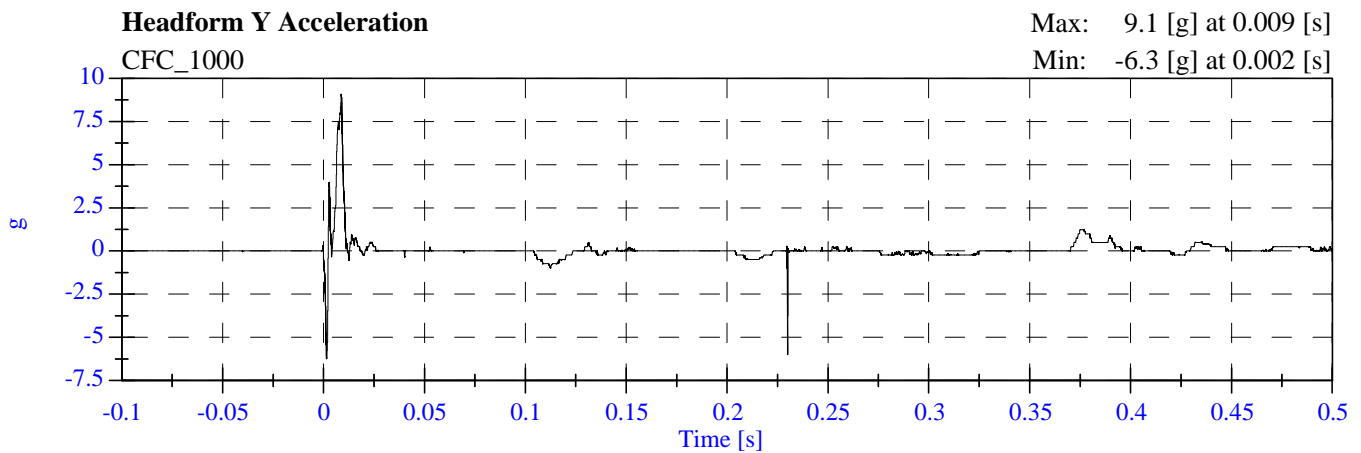
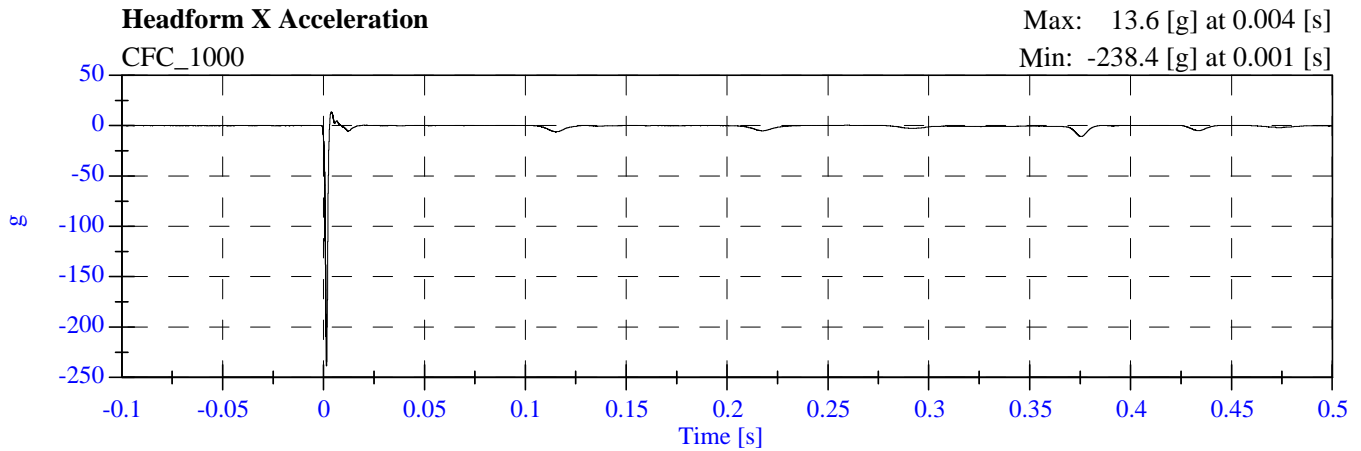
**HEAD ACCELEROMETER CALIBRATION INFORMATION**

<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>J24876</b>	<b>3/9/2006</b>	<b>9/9/2006</b>
<b>2 - LATERAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J33030</b>	<b>3/9/2006</b>	<b>9/9/2006</b>
<b>3 - VERTICAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J31009</b>	<b>3/9/2006</b>	<b>9/9/2006</b>

**REMARKS:**

# FMVSS 201U - Headform Calibration Drops

## FMH 0642 - May 09, 2006



**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>MAY 9, 2006</b>	
<b>TEST PARAMETER</b>	<b>SPECIFICATION</b>	<b>TEST RESULTS</b>	
<b>TEMPERATURE</b>	<b>19°C to 26°C</b>	<b>23</b>	
<b>RELATIVE HUMIDITY</b>	<b>10% to 70%</b>	<b>27</b>	
<b>PEAK RESULTANT ACCELERATION</b>	<b>225 Gs to 275 Gs</b>	<b>262.6</b>	
<b>PEAK LATERAL ACCELERATION</b>	<b>15 Gs Maximum</b>	<b>5.4</b>	
<b>IS ACCELERATION CURVE UNIMODAL?</b>	<b>YES</b>	<b>YES</b>	

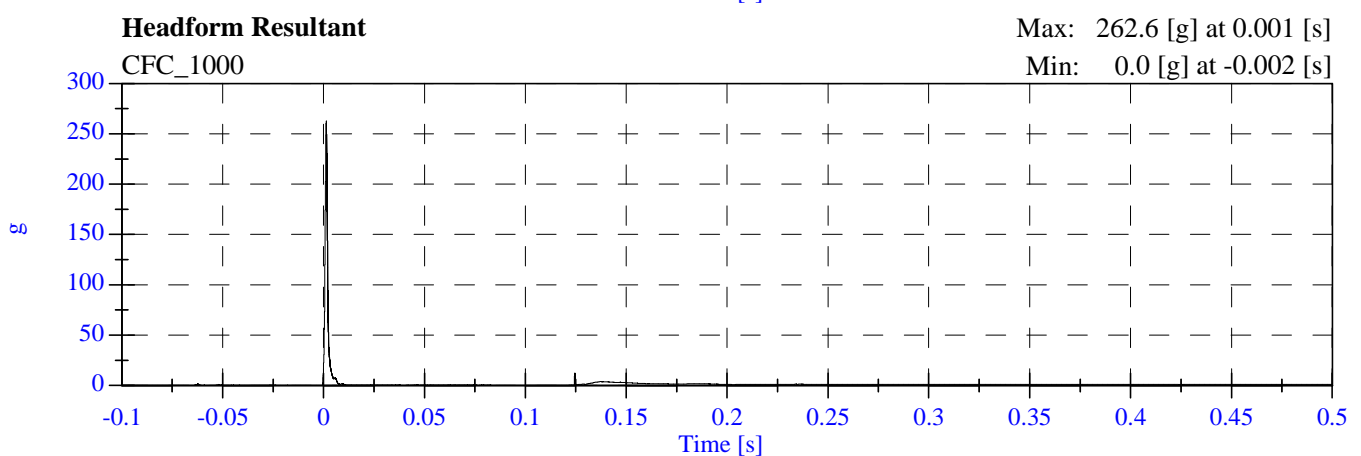
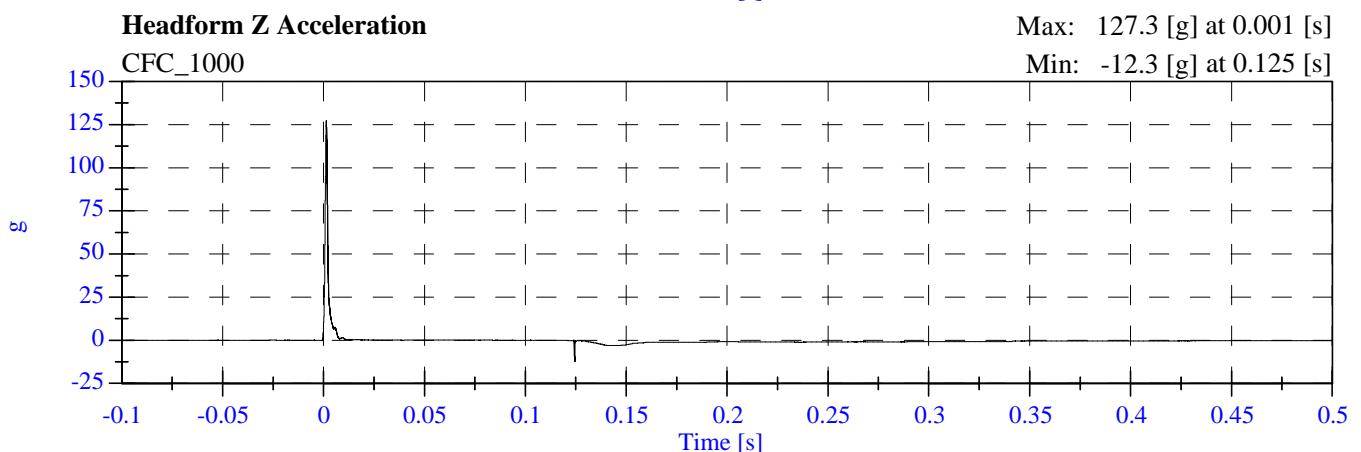
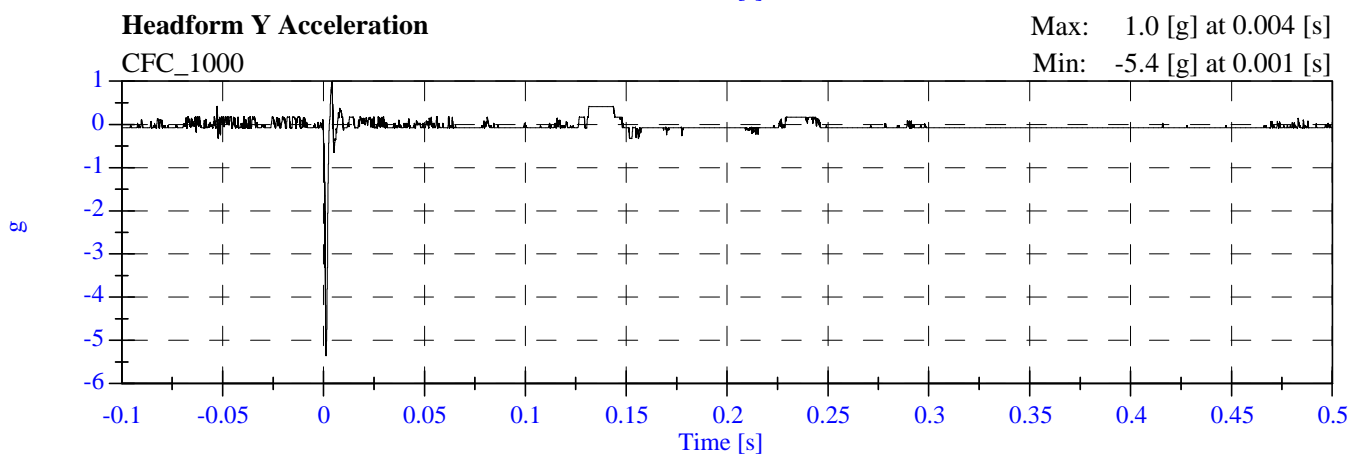
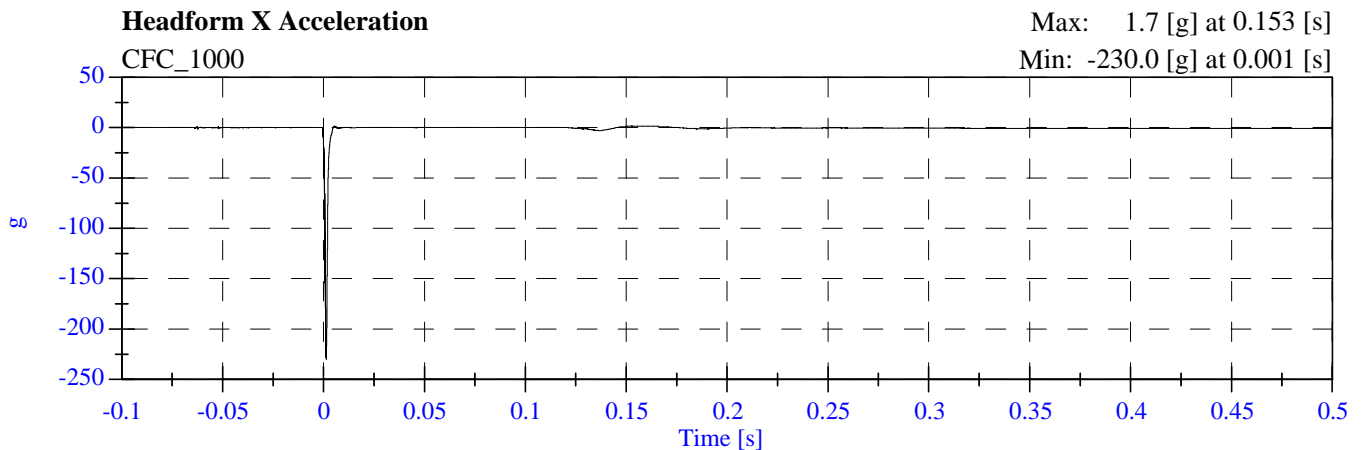
**HEAD ACCELEROMETER CALIBRATION INFORMATION**

<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>3/9/2006</b>	<b>9/9/2006</b>
<b>2 - LATERAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J33019</b>	<b>3/9/2006</b>	<b>9/9/2006</b>
<b>3 - VERTICAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J32782</b>	<b>3/9/2006</b>	<b>9/9/2006</b>

**REMARKS:**

# FMVSS 201U - Headform Calibration Drops

## FMH 0062 - May 09, 2006



**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>MAY 9, 2006</b>	
<b>TEST PARAMETER</b>	<b>SPECIFICATION</b>	<b>TEST RESULTS</b>	
<b>TEMPERATURE</b>	<b>19°C to 26°C</b>	<b>23</b>	
<b>RELATIVE HUMIDITY</b>	<b>10% to 70%</b>	<b>27</b>	
<b>PEAK RESULTANT ACCELERATION</b>	<b>225 Gs to 275 Gs</b>	<b>269.2</b>	
<b>PEAK LATERAL ACCELERATION</b>	<b>15 Gs Maximum</b>	<b>6.2</b>	
<b>IS ACCELERATION CURVE UNIMODAL?</b>	<b>YES</b>	<b>YES</b>	

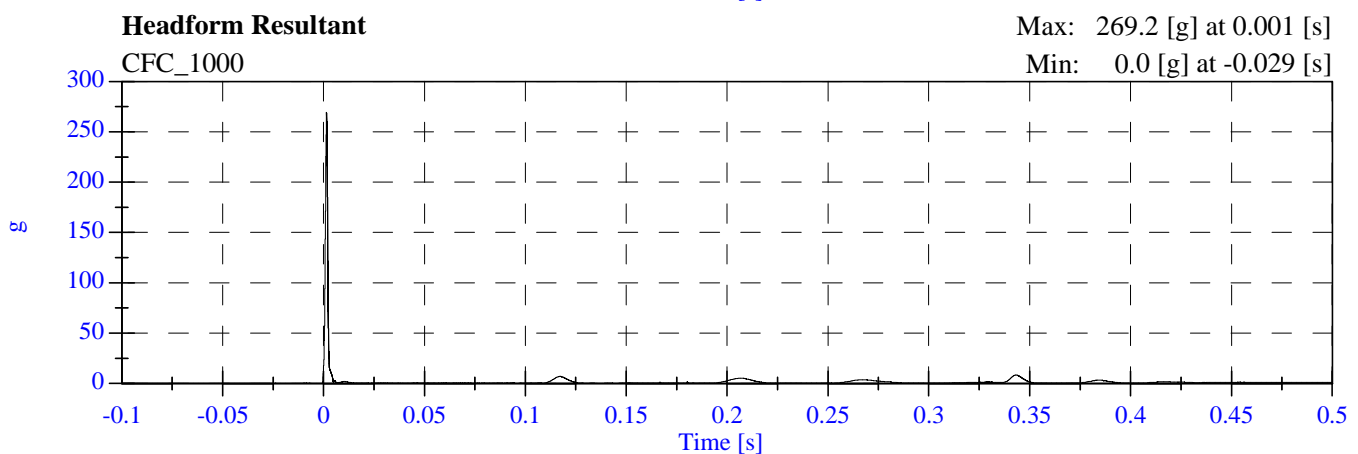
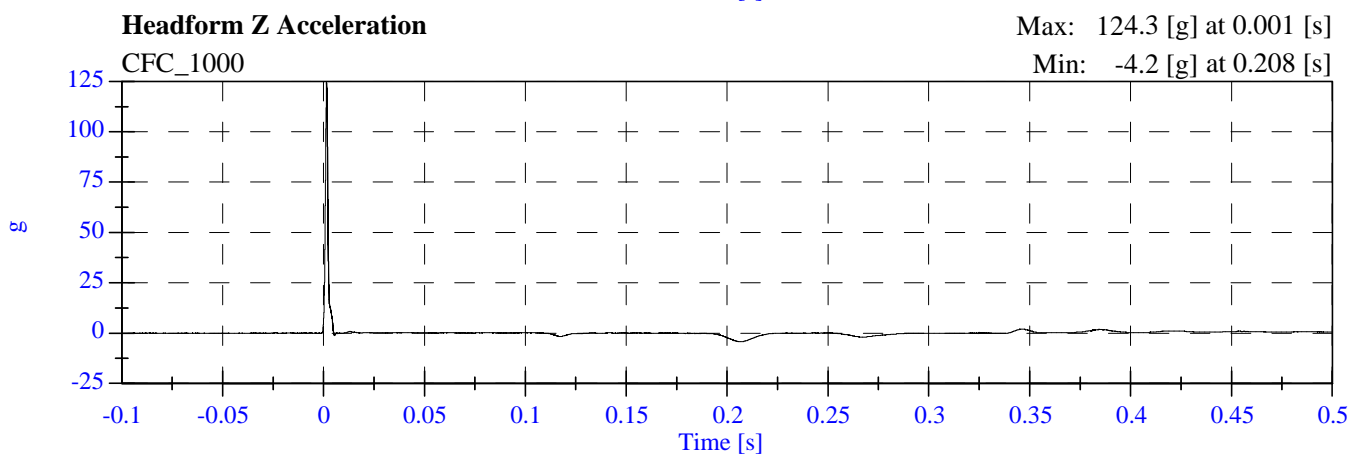
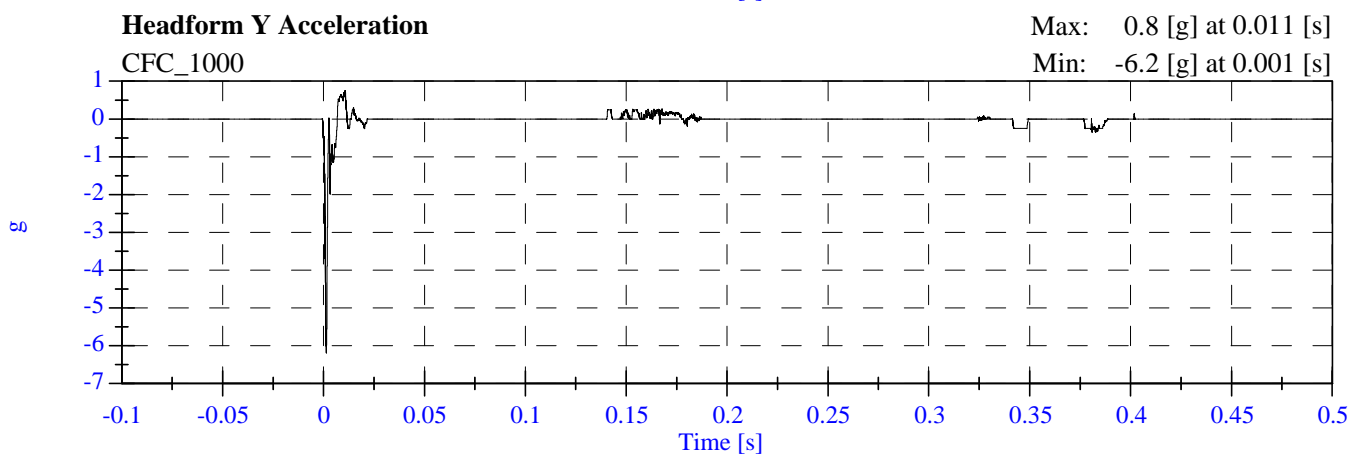
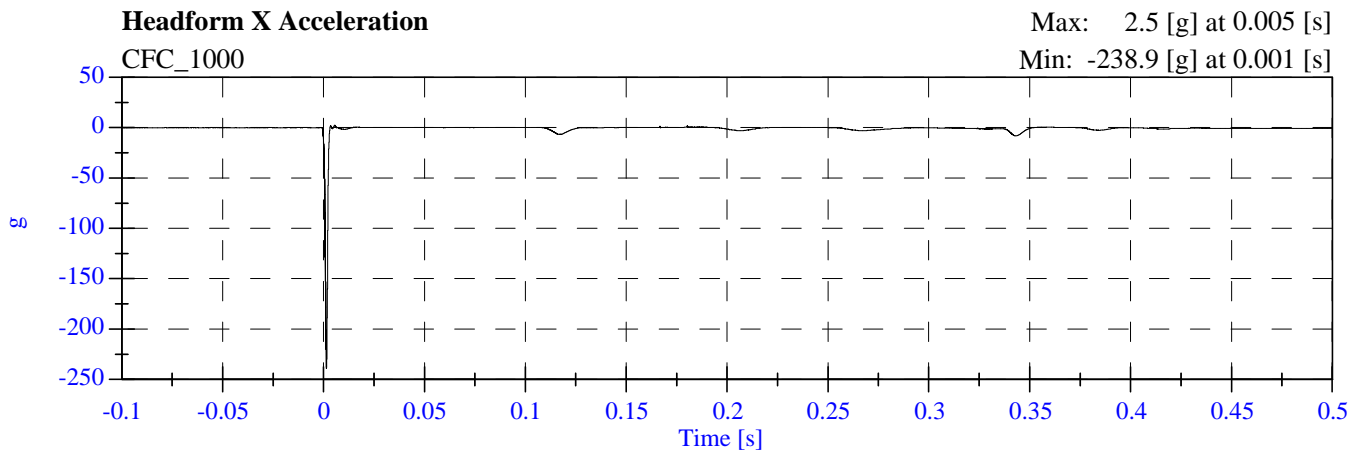
**HEAD ACCELEROMETER CALIBRATION INFORMATION**

<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>J38127</b>	<b>3/9/2006</b>	<b>9/9/2006</b>
<b>2 - LATERAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J37980</b>	<b>3/9/2006</b>	<b>9/9/2006</b>
<b>3 - VERTICAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J37854</b>	<b>3/9/2006</b>	<b>9/9/2006</b>

**REMARKS:**

# FMVSS 201U - Headform Calibration Drops

## FMH 0805 - May 09, 2006



**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>MAY 9, 2006</b>	
<b>TEST PARAMETER</b>	<b>SPECIFICATION</b>	<b>TEST RESULTS</b>	
<b>TEMPERATURE</b>	<b>19°C to 26°C</b>	<b>23</b>	
<b>RELATIVE HUMIDITY</b>	<b>10% to 70%</b>	<b>27</b>	
<b>PEAK RESULTANT ACCELERATION</b>	<b>225 Gs to 275 Gs</b>	<b>266.6</b>	
<b>PEAK LATERAL ACCELERATION</b>	<b>15 Gs Maximum</b>	<b>4.2</b>	
<b>IS ACCELERATION CURVE UNIMODAL?</b>	<b>YES</b>	<b>YES</b>	

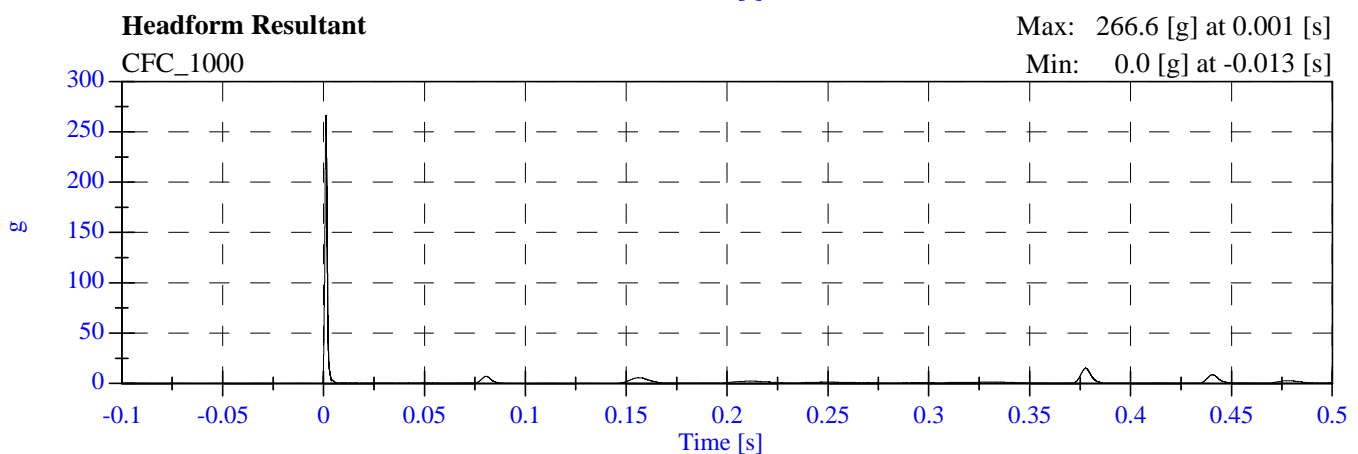
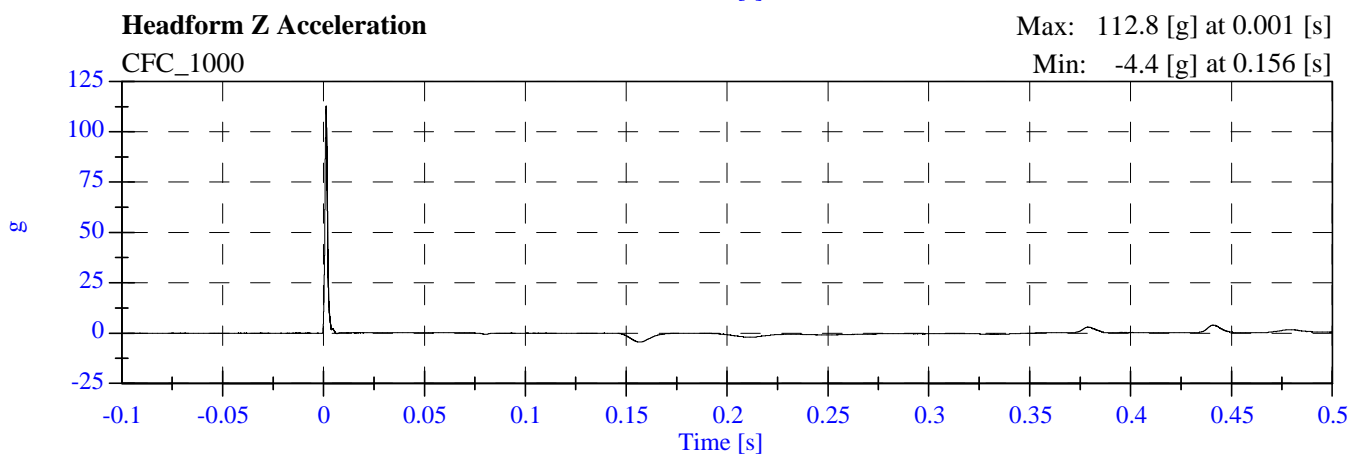
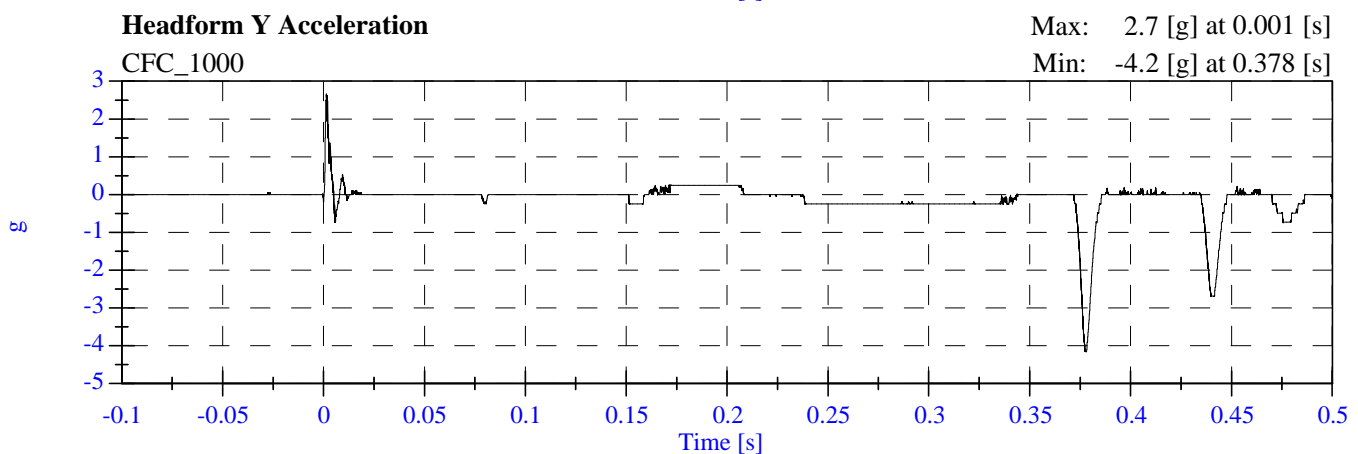
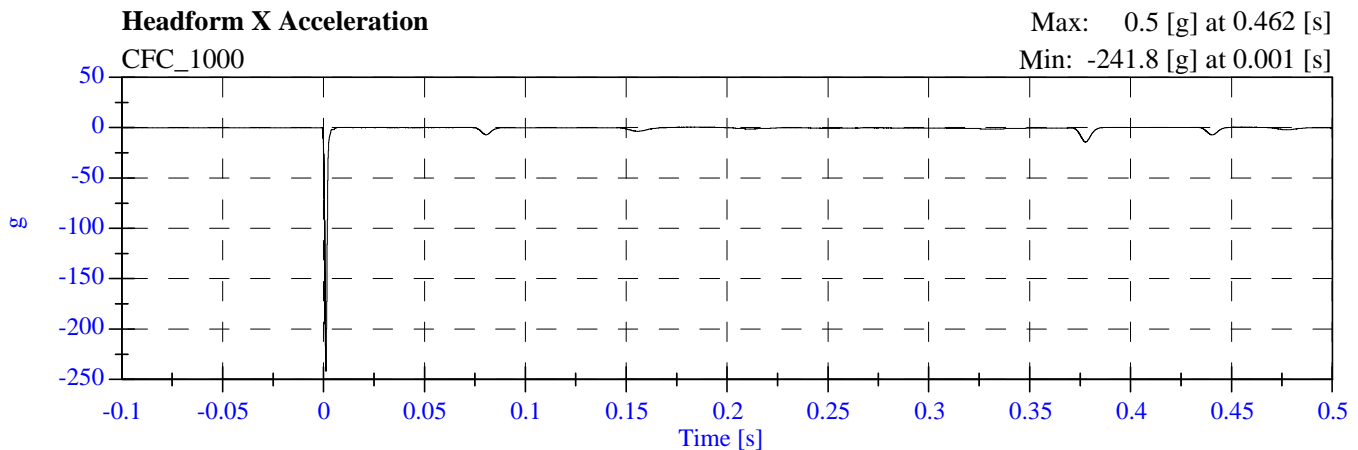
**HEAD ACCELEROMETER CALIBRATION INFORMATION**

<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>3/9/2006</b>	<b>9/9/2006</b>
<b>2 - LATERAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J32779</b>	<b>3/9/2006</b>	<b>9/9/2006</b>
<b>3 - VERTICAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J25854</b>	<b>3/9/2006</b>	<b>9/9/2006</b>

**REMARKS:**

# FMVSS 201U - Headform Calibration Drops

## FMH 0355 - May 09, 2006





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

<b>MANUFACTURER:</b>		<b>FIRST TECHNOLOGY SAFETY SYSTEMS</b>	
<b>SERIAL NUMBER:</b>		<b>1255</b>	
<b>CALIBRATION DATE:</b>		<b>MAY 9, 2006</b>	
<b>TEST PARAMETER</b>	<b>SPECIFICATION</b>	<b>TEST RESULTS</b>	
<b>TEMPERATURE</b>	<b>19°C to 26°C</b>	<b>23</b>	
<b>RELATIVE HUMIDITY</b>	<b>10% to 70%</b>	<b>27</b>	
<b>PEAK RESULTANT ACCELERATION</b>	<b>225 Gs to 275 Gs</b>	<b>270.5</b>	
<b>PEAK LATERAL ACCELERATION</b>	<b>15 Gs Maximum</b>	<b>7.9</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>3/9/2006</b>	<b>9/9/2006</b>
<b>2 - LATERAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J40994</b>	<b>3/9/2006</b>	<b>9/9/2006</b>
<b>3 - VERTICAL</b>	<b>ENDEVCO</b>	<b>7264-2000T</b>	<b>J41007</b>	<b>3/9/2006</b>	<b>9/9/2006</b>

**REMARKS:**

# FMVSS 201U - Headform Calibration Drops

## FMH 1255 - May 09, 2006

