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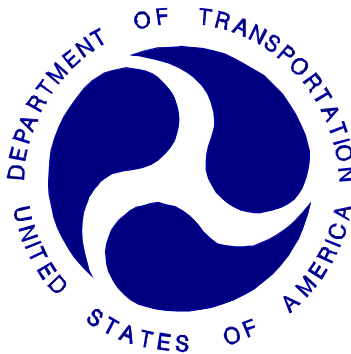
**NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
FRONTAL BARRIER 40% OFFSET IMPACT TEST**

MITSUBISHI MOTORS CORPORATION
2003 MITSUBISHI MONTERO SPORT LS
MPV

NHTSA NUMBER: R35606

VERIDIAN TEST NUMBER: 8710-OFST-05

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



November 13, 2003

FINAL REPORT

PREPARED FOR:

U.S. DEPARTMENT OF TRANSPORTATION
National Highway Traffic Safety Administration
Applied Research
Office of Vehicle Safety Research
Mail Code: NVS-321
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Contracting Officer's Technical Representative (COTR),
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15. <i>Supplementary Notes</i>					
16. <i>Abstract</i> This test is to evaluate the use of the Thor Advanced Female Lower Extremity (Thor-FLx) in the frontal 40% offset deformable barrier test. A frontal 40% offset barrier impact test of a 2003 Mitsubishi Montero Sport LS MPV was performed at the General Dynamics crash test facility in Buffalo, New York, on November 13, 2003. The impact velocity was 56.33 kph and the temperature at the barrier face was 21.0°C. The maximum post-test vehicle crush was 556 mm. The test vehicle was equipped with 3-point restraint systems, knee bolsters, and airbags at both the driver and right outboard passenger seating positions. With respect to FMVSS 208 "Occupant Crash Protection - Injury Criteria" both the driver and passenger appeared to comply with head, neck, chest, and femur requirements.					
ATD Position	HIC (15 ms)	Clip (g's)	Chest Disp (mm)	Left Femur (N)	Right Femur (N)
Driver (324FLX103/104)	62.0	48.4	-24.8	-2062.1	-1894.2
Passenger (505FLX108/107)	159.8	40.4	-18.8	-3353.4	-1497.9
17. <i>Key Words</i> Frontal 40% Offset Barrier Impact test Thor-FLx/HIIIr				18. <i>Distribution Statement</i> <u>Copies of this report are available from:</u> NHTSA Technical Reference Division National Highway Traffic Safety Admin. 400 Seventh St., SW, Room 5108 Washington, DC 20590	
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SECTION 1

PURPOSE AND SUMMARY OF TEST

PURPOSE

This 56.33 kph frontal 40% offset barrier impact test is part of the Test Procedure Development Program sponsored by the National Highway Traffic Safety Administration (NHTSA). The purpose of this test was to evaluate the performance of Thor-Lx 5th percentile adult female- Hybrid III retrofit (Thor-FLx/HIIIr) version lower legs and obtain vehicle crashworthiness and occupant and restraint system performance data.

The frontal 40% offset barrier impact test was conducted in accordance with the Office of Crashworthiness Standards Laboratory Indicant Test procedure.

SUMMARY

A deformable honeycomb barrier mounted to a load cell barrier consisting of 30 load cells was impacted by a 2003 Mitsubishi Montero Sport LS MPV at 40% overlap at a velocity of 56.33 kph. The test was performed at General Dynamics on November 13, 2003. Pre- and post-test photographs of the vehicle and dummies can be found in Appendix A.

One real-time camera and 16 high-speed cameras documented the offset frontal barrier impact event. Camera locations and other pertinent camera information can be found in this report.

Two Part 5720, 5th percentile female anthropomorphic test devices (ATDs), were placed in the driver and right-front passenger seating positions according to dummy placement instructions specified in the FMVSS 208-12 Laboratory Indicant Test Procedure.

Both ATDs were fully instrumented with 9 axis array head, head, chest, and pelvis triaxial accelerometers, chest displacement potentiometers, upper neck transducers, right/left femur load cells, knee sliders and Thor-FLx/HIIIr lower leg instrumentation. The driver (position 1) ATD (Serial No. 324FLX103/104) and the right-front passenger (position 2) ATD (Serial No. 505FLX108/107) were calibrated previous to this test. Certification details, along with instrumentation calibration data, are found in Appendix C.

The 204 channels of data were recorded on an on-board data acquisition system. Appendix B contains the vehicle, load cell barrier and dummy response data traces.

The occupant injury data is summarized below.

		Driver	Passenger	Limits
HIC15		62.0	159.8	700
HIC36		89.1	276.8	1000
Upper Neck Force (N)	Tension	1267.2	851.3	2620 N
	Compression	-108.8	-24.2	-2520 N
Neck Injury (Nij)	Ntf	0.16	0.26	1.0
	Nte	0.78	0.46	1.0
	Ncf	0.16	0.01	1.0
	Nce	0.23	0.04	1.0
Clip (g) 3 ms		48.4	40.4	60 g
Chest Displacement (mm)		-24.8	-18.8	52 mm
Femur Force (N)	Left	-2062.1	-3353.4	-6510 N
	Right	-1894.2	-1497.9	-6510 N
RTI Upper	Left	0.43	0.31	0.91
	Right	0.45	0.38	0.91
RTI Lower	Left	0.32	0.31	0.91
	Right	0.31	0.19	0.91
Upper Tibia Force (N)	Left	-2380.4	-456.6	-4000 N
	Right	-391.7	-1064.0	-4000 N
Lower Tibia Force (N)	Left	-2954.7	-1009.3	-3750 N
	Right	-996.7	-1410.7	-3750 N
Dorsiflexion (deg)	Left	7.8	-2.4	35 deg
	Right	21.0	-15.1	35 deg
Plantarflexion (deg)	Left	-27.7	-39.8	-
	Right	-13.1	-35.3	-
Inversion (deg)	Left	6.1	-24.2	-35 deg
	Right	27.2	9.3	35 deg
Eversion (deg)	Left	†	6.7	35 deg
	Right	-19.5	-8.3	-35 deg
Internal Rotation (deg)	Left	28.4‡	16.6‡	-
	Right	-17.7	-10.1	-
External Rotation (deg)	Left	2.4‡	-30.7‡	-
	Right	14.7	4.4	-

† Transducer opened, data is invalid before 60 ms

‡ Data is questionable

SECTION 2

GENERAL TEST AND VEHICLE PARAMETER DATA

DATA SHEET NO. 1 CRASH TEST SUMMARY

Vehicle NHTSA No.:	R35606	Test Mode:	56 kph Offset Frontal Barrier
Test Date:	November 13, 2003	Time:	14:01
		Temperature:	21.0 °C
Vehicle Make/Model/Body Style:	2003 Mitsubishi Montero Sport LS MPV		
Vehicle Test Weight:	2145.0	kg	
Vehicle/Barrier Impact Angle:	0	°	
Impact Velocity:	56.33	kph	
Maximum Static Crush:	556	mm	
Actual Vehicle Offset:	40.0	%	

DUMMIES:

DRIVER

PASSENGER

Type:

5720

5720

Restraint System:

Seatbelts and airbag

Seatbelts and airbag

Lower Leg:

Thor-Flx/HIIIr

Thor-Flx/HIIIr

Number of Data Channels: 204

Number of Cameras: 1 Real Time

16

High Speed

DOOR OPENING DATA:

Closed / Operable - Left Front

Closed / Operable - Left Rear

Closed / Operable - Right Front

Closed / Operable - Right Rear

Closed / Operable - Hatch/Other

Front Seat(s) Data:

DRIVER

PASSENGER

Seat Track Failure:(mm of shift)

0

0

Seat Back Failure:

None

None

VISIBLE DUMMY CONTACT POINTS:

DRIVER

PASSENGER

Head:

Right side of face to airbag upper right quadrant; Back of head to outboard half of head restraint

Face to left half of airbag; Back of head to inboard half of head restraint

Abdomen:

None

None

Chest:

Airbag

Knees:

Middle of knee bolster

Glove compartment door

Tibias:

Lower half of knee bolster

Lower half of glove compartment door and kick panel

DATA SHEET NO. 2 GENERAL TEST AND VEHICLE PARAMETER DATA

TEST VEHICLE INFORMATION:

Year/Make/Model/Body Style: 2003 Mitsubishi Montero Sport LS MPV

NHTSA No. : R35606 ; VIN: JA4MT21H23J033700 ; Color: Green

Engine Data: 6 cylinders; - CID; 3.0 Liters; - cc

Placement: X Longitudinal or In-Line; - Transverse or Lateral

Transmission Data: 4 speeds; - Manual; X Automatic; X Overdrive

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

Safety Belt Features – Driver X Pretensioner (Shoulder); X Load Limiter; X Adj. Anchorage

Safety Belt Features - Passenger X Pretensioner (Shoulder); X Load Limiter; X Adj. Anchorage

Major Options: X A/C; X Pwr.Strg.; X Pwr. Brakes

X Pwr. Windows; X Pwr. Door Locks; X Tilt Wheel

Date Received: 9/12/03 ; Odometer Reading 95 km

Selling Dealer: West-Herr Mitsubishi

& Address: 5410 Camp Road, Hamburg, NY

DATA FROM TIRE VEHICLE'S CERTIFICATION LABEL:

Vehicle Manufactured by: Mitsubishi Motors Corporation

Date of Manufacture NOV 2002

GVWR: 2430 kg; GAWR: 1200 kg FRONT; 1600 kg REAR

DATA FROM TIRE PLACARD:

Recommended Tire Size: P255/70R16 109S

* Recommended Cold Tire Pressure: 180 kpa FRONT; 180 kpa REAR

DATA FROM TIRE SIDEWALL:

Size of Tires on Test Vehicle: P255/70R16 109S ; Manufacturer: Yokohama

Tire Pressure with Maximum Capacity Vehicle Load: Front: 240 kPa; Rear: 240 kPa

Treadwear: 200 ; Traction: B ; Temperature: B

VEHICLE CAPACITY DATA:

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

Number of Occupants: 2 Front; 3 Rear; 5 Total

Vehicle Capacity Weight (VCW) = 519.0 kg

No. of Occupants x 68.04 kg = 340.2 kg

Rated Cargo/Luggage Weight (RCLW) = 178.8 kg **

* Tire pressure used for test

** RCLW maximum of 136.1 kg used in target weight calculation.

DATA SHEET NO. 2 GENERAL TEST AND VEHICLE PARAMETER DATA (cont.)

WEIGHT OF TEST VEHICLE AS RECEIVED FROM DEALER (with maximum fluids)= UDW:

Right Front	=	<u>512.5</u>	kg	Right Rear	=	<u>418.5</u>	kg
Left Front	=	<u>535.0</u>	kg	Left Rear	=	<u>445.0</u>	kg
TOTAL FRONT	=	<u>1047.5</u>	kg	TOTAL REAR	=	<u>863.5</u>	kg
TOTAL DELIVERED WEIGHT	=	<u>1911.0</u>	kg				
% of Total Front of Vehicle Weight	=	<u>54.8%</u>		% of Total Rear Weight	=	<u>45.2%</u>	%

CALCULATION OF VEHICLE'S TARGET TEST WEIGHT:

Total Delivered Weight (UDW)	=	<u>1911</u>	kg
Rated Cargo/Luggage Weight (RCLW)	=	<u>136.1</u>	kg
Weight of 2 p.572 Dummies @ 49 each	=	<u>98</u>	kg
TARGET TEST WEIGHT	=	<u>2145.1</u>	kg

WEIGHT OF TEST VEHICLE WITH TWO DUMMIES AND 136 KG OF CARGO WEIGHT:

Right Front	=	<u>532.0</u>	kg	Right Rear	=	<u>514.0</u>	kg
Left Front	=	<u>544.0</u>	kg	Left Rear	=	<u>555.0</u>	kg
TOTAL FRONT	=	<u>1076</u>	kg	TOTAL REAR	=	<u>1069</u>	kg
TOTAL TEST WEIGHT	=	<u>2145</u>	kg				
% of Total Front Weight	=	<u>50.2%</u>	%	% of Total Rear Weight	=	<u>49.8%</u>	%
Weight of Ballast Secured in Vehicle Trunk Area	=	<u>56.7</u>	kg				
Vehicle Components Removed for Weight Reduction:		<u>None</u>					

VEHICLE ATTITUDE (all dimension in millimeters):

AS DELIVERED:	RF	<u>880</u>	LF	<u>878</u>	RR	<u>913</u>	LR	<u>905</u>
FULLY LOADED:	RF	<u>856</u>	LF	<u>866</u>	RR	<u>867</u>	LR	<u>848</u>
AS TESTED:	RF	<u>856</u>	LF	<u>868</u>	RR	<u>868</u>	LR	<u>850</u>
Vehicle's Wheel Base:		<u>2728</u>	mm					
Location of Vehicle's C.G.:		<u>1359.55</u>	mm rearward of front wheel center.					

FUEL SYSTEM DATA:

Fuel System Capacity From Owner's Manual	=	<u>73.8</u>	liters
Usable Capacity Figure Furnished by COTR	=	<u>73.8</u>	liters
Test Volume Range (92 to 94% of Usable Capacity)	=	<u>67.9</u>	to <u>69.37</u> liters
ACTUAL TEST VOLUME	=	<u>68.1</u>	liters (with entire fuel system filled)
Test Fluid Type:	<u>Stoddard Solution</u>	; Spec. Grav. =	<u>0.764</u>
	Kinematic Viscosity =	<u>0.96</u>	centistokes; Color = <u>Orange</u>
Type of Fuel Pump:	Electric- <u>X</u>	; Mechanical- <u>-</u>	
Does Electric Pump operate with ignition switch "ON" & engine "OFF"		Yes- <u>X</u>	No- <u>-</u>
Details of Fuel System: <u>Fuel tank on the left of the vehicle underbody forward of the rear axle; Fuel filler is located on the left rear quarter panel above the left rear wheel; Fuel lines are routed along the vehicle underbody inboard of the left frame rail.</u>			

DATA SHEET NO. 3 POST IMPACT DATA

TYPE OF TEST:

Type of Test: Offset Frontal Barrier Impact Angle: 0°
Test Date: November 13, 2003 Time: 14:01 Temperature: 21.0 °C
Vehicle NHTSA No.: R35606
Required Impact Velocity Range: 54.5 to 57.5 kph

BARRIER IMPACT VELOCITY: (Speed traps within 5 feet of impact plane.)

Trap No. 1 = 56.33 kph; Trap No. 2 = 56.33 kph
Distance from vehicle to barrier: (1) entering trap = 813 mm
(2) exiting trap = 305 mm

VEHICLE STATIC CRUSH: (mm)

Vehicle Length:

Pre-Test	Left =	<u>4573</u>	; C/L =	<u>4612</u>	; Right =	<u>4575</u>
Post-Test	Left =	<u>4043</u>	; C/L =	<u>4268</u>	; Right =	<u>4542</u>
Crush	Left =	<u>530</u>	; C/L =	<u>344</u>	; Right =	<u>33</u>
AVERAGE	=	<u>302</u>	mm			

VEHICLE OFFSET DATA: (mm)

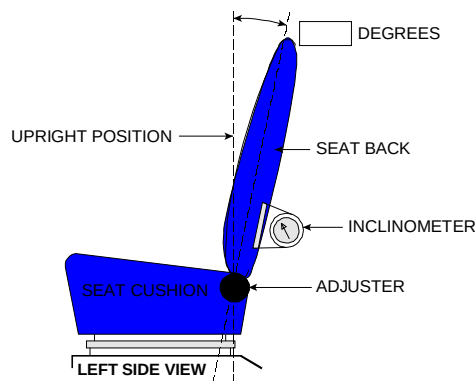
Vehicle Width	=	<u>1750</u>	mm
Desired Vehicle Offset	=	<u>700</u>	mm
Actual Vehicle Offset	=	<u>706</u>	mm (from film analysis)
Offset Difference	=	<u>-6</u>	mm
Actual Percent Offset	=	<u>40.3</u>	%

DATA SHEET NO. 4 TEST VEHICLE INFORMATION

VEHICLE IDENTIFICATION:

Model Year: 2003 Vehicle Model: Mitsubishi Montero Sport LS Body Style: MPV

1. Nominal Design Riding Position for adjustable driver and passenger seat backs. Please describe how to position the inclinometer to measure the seat back angle. Include description of the location of the adjustment latch detent, if applicable.



Seat back angle for driver's seat: 16.4 degrees (1.4 degrees on head restraint post)

Measurement instructions: Seat back was positioned following TP208-12. The seat back angle was measured on the seat frame approximately 330 mm above the seat back pivot point.

Seat back angle for passenger's seat: 17.0 degrees (3.8 degrees on head restraint post)

Measurement instructions: Seat back was positioned following TP208-12. The seat back angle was measured on the seat frame approximately 330 mm above the seat back pivot point.

2. Seat Fore and Aft Positioning

Positioning of the driver's seat: Seat test position following TP208-12 was mid-height and full forward.

Positioning of the passenger's seat: Seat test position following TP208-12 was full forward.

3. Fuel Tank Capacity Data

3.1 A. "Usable Capacity" of the standard equipment fuel tank is 73.8 liters

B. "Usable Capacity" of the optional equipment fuel tank is - liters

C. "Usable Capacity" of the vehicle(s) used for certification testing to requirements of FMVSS 301 = 73.8 liters

3.2 Amount of Stoddard solvent added to vehicle(s) used for certification test(s) = 68.1 liters

3.3 Is vehicle equipped with electric fuel pump? Yes- X ; No- -

If YES, explain the vehicle operating conditions under which the fuel pump will pump fuel.

Fuel pump operates briefly when the ignition is placed in the 'on' position and operates continuously while the engine is running.

DATA SHEET NO. 4 TEST VEHICLE INFORMATION (cont.)

4. STEERING COLUMN ADJUSTMENTS:

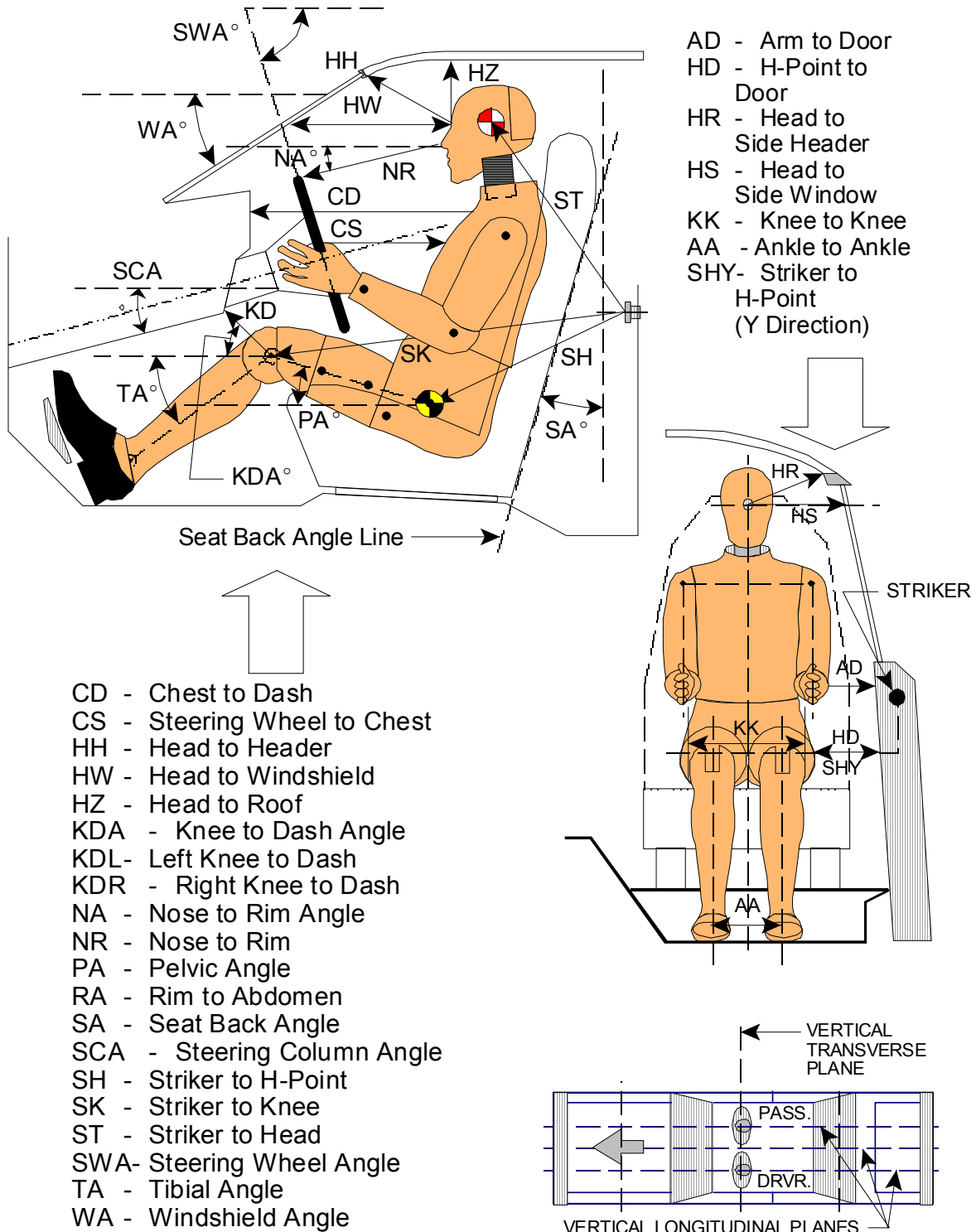
Steering wheel and column adjustments are made so that the steering wheel hub is at the geometric center of the locus it describes when it is moved through its full range of driving positions. If the tested vehicle has any of these adjustments, does your company use any specific procedures to determine the geometric center.

Operational Instructions: Mid-position.

5. SEAT BELT UPPER ANCHORAGE

Nominal design riding position: Placed in mid-height position for best fit over the occupant's shoulder.

DUMMY MEASUREMENT FOR FRONT SEAT PASSENGERS

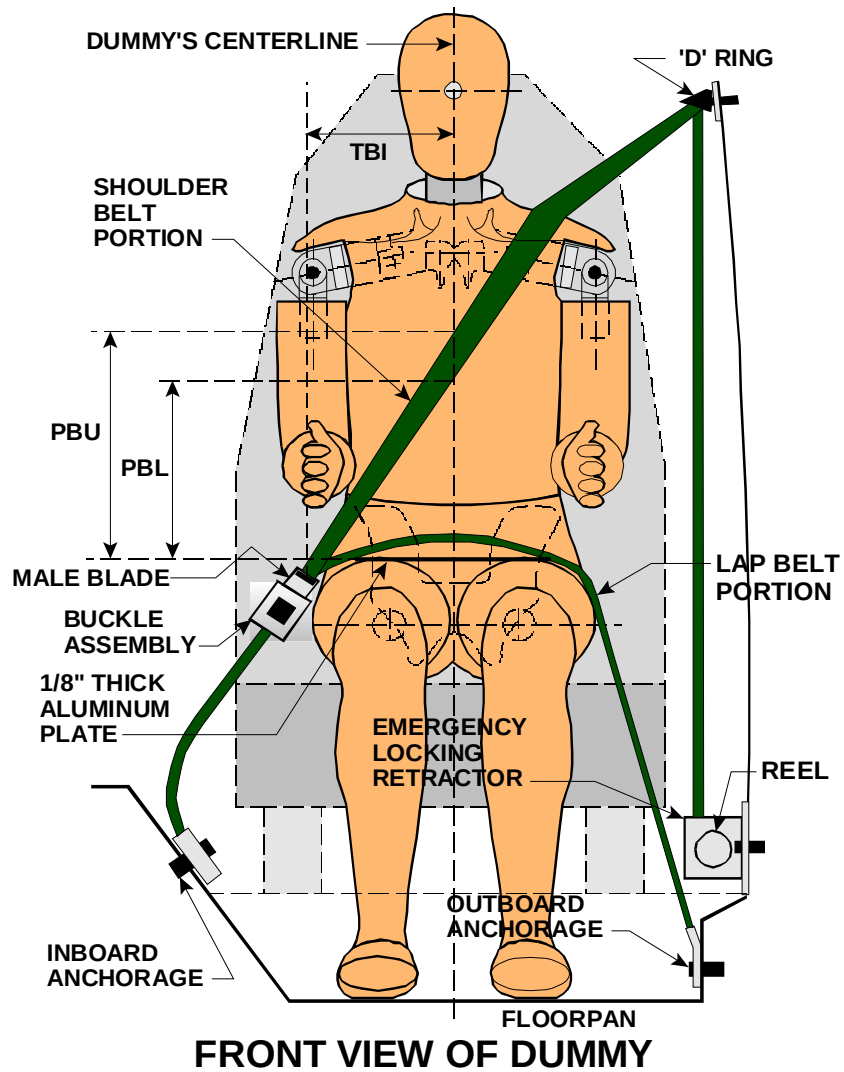


DATA SHEET NO. 5 FRONT SEAT DUMMY POSITIONING MEASUREMENTS IN VEHICLE (cont.)

	DRIVER (Serial #324FLX103/104)			PASS. (Serial #505FLX108/107)		
WA ⁰	35.0 deg.			N/A		
SWA ⁰	59.5 deg.			N/A		
SCA ⁰	30.5 deg.			N/A		
SA ⁰	16.4 deg.			17.0 deg.		
HZ	272			258		
HH	378			347		
HW	628			604		
HR	251			365		
NR	302	Angle	7 deg.	N/A		
CD	499			427		
CS	230			N/A		
RA	91			N/A		
KDL	122	Angle (KDA)	20 deg.	80		
KDR	118			81	Angle (KDA)	22 deg.
PA ⁰	22.0 deg.			20.9 deg.		
TA ⁰	43.8 deg.			43.6 deg.		
KK	238			165		
AA	269			167		
ST	505	Angle	20 deg.	518	Angle	24 deg.
SK	614	Angle	92 deg.	670	Angle	93 deg.
SH	285	Angle	108 deg.	342	Angle	104 deg.
SHY	253			250		
HS	345			355		
HD	203			219		
AD	156			173		

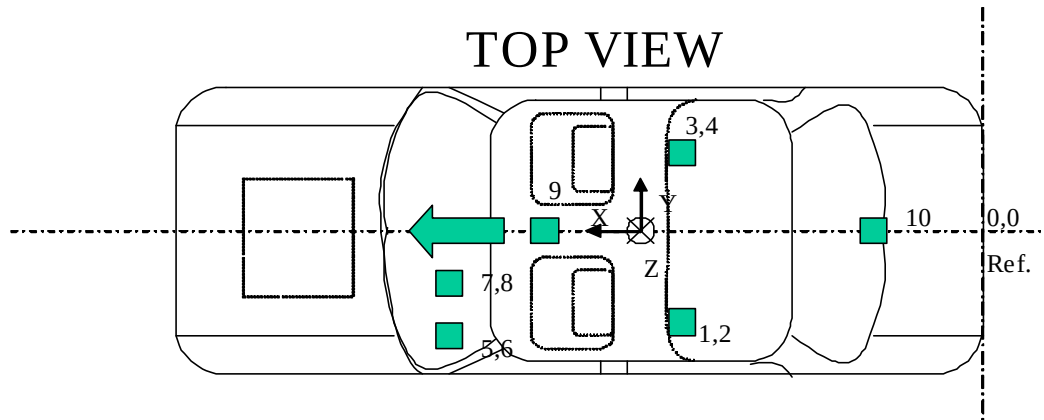
Dimensions in millimeters

SEAT BELT POSITIONING DATA



	DRIVER DUMMY (mm)	PASSENGER DUMMY (mm)
PBU -- Top surface of alum. plate to upper edge	274	275
PBL-- Top surface of alum. plate to belt lower edge	188	188
<u>LAP BELT TENSION</u>	10 N	10 N
<u>SHOULDER BELT TENSION</u>	Retractor	Retractor

DATA SHEET NO. 7 VEHICLE ACCELEROMETER LOCATIONS AND DATA SUMMARY



Accelerometer	X-Direction (mm)	Y-Direction (mm)	Z-Direction (mm)
Left Rear Seat Crossmember	1719	-585	-510
Right Rear Seat Crossmember	1731	562	-536
Driver Left Side Toepan	3401	-464	-580
Driver Right Side Toepan	3411	-292	-577
Vehicle CG	2424	0	-625
Rear Deck	1056	0	-605

X-Direction is referenced from vehicle rear bumper (positive forward)

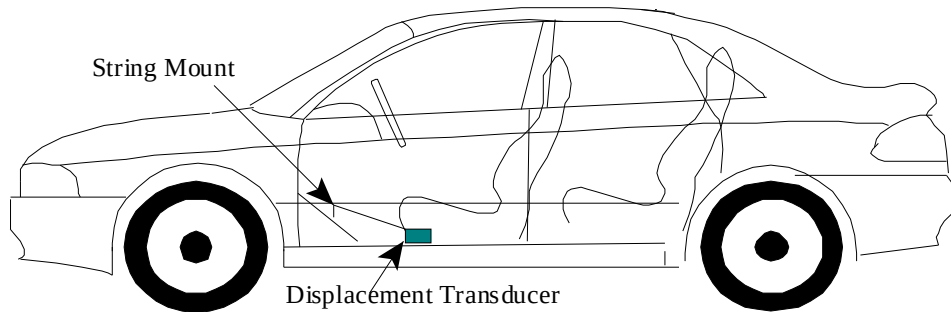
Y-Direction is referenced from vehicle centerline (positive to right)

Z-Direction is referenced from ground plane (positive down)

LOCATION NUMBER	DESCRIPTION	MAXIMUM VALUE (g's)			
		Pos.	msec.	Neg.	msec.
1	Rear Seat X-Member @ Left Side X	1.6	182.0	-42.1	80.8
2	Rear Seat X-Member @ Left Side Y	15.9	64.1	-8.3	87.4
3	Rear Seat X-Member @ Right Side X	2.0	186.8	-34.7	83.0
4	Rear Seat X-Member @ Right Side Y	16.4	65.6	-5.0	113.7
5	Driver Toe Pan @ Left Side X	14.0	74.8	-94.8	67.3
6	Driver Toe Pan @ Left Side Z	48.8	75.1	-63.3	67.9
7	Driver Toe Pan @ Right Side X	1.9	185.3	-72.7	67.7
8	Driver Toe Pan @ Right Side Z	22.1	74.6	-35.5	79.9
9	Vehicle CG X	7.0†	141.0	-112.1†	80.5
9	Vehicle CG Y	49.9†	80.9	-18.9†	118.2
9	Vehicle CG Z	54.3†	117.8	-29.0†	67.4
9	Vehicle CG R	123.1†	80.6	-	-
10	Rear Deck Z	7.9	99.2	-9.6	64.6

† Transducer Mount Broke at 70 ms

SIDE VIEW



Driver Toe Pan Displacement

P1 Toe Pan Spoolout**	X-Direction (mm)	Y-Direction (mm)	Z-Direction (mm)	Vertical Angle* (Deg)
Pre-Test	626	22	-31	2.8
Post-Test	504	86	-14	1.6
Difference	122	-64	17	-1.2

** Measurements taken from string pot mounting base.

*Referenced from horizontal (0 degrees)

SENSOR NAME	MAXIMUM VALUE (mm)			
	Pos.	msec.	Neg.	msec.
P1 Toe Pan Movement	81.6	341.9	-8.4	82.4

DATA SHEET NO. 8 DUMMY INJURY CRITERIA VALUES

Vehicle Year/Make/Model/Body Style: 2003 Mitsubishi Montero Sport LS MPV

NHTSA Test No.: R35606 Test Date: November 13, 2003

		MAXIMUM VALUE							
		Driver				Passenger			
DESCRIPTION	Unit	Pos	msec	Neg	msec	Pos	msec	Neg	msec
Head 9 Array X Arm Y	g	5.1	203.2	-37.6	62.2	14.1	116.9	-10.4	65.9
Head 9 Array X Arm Z	g	14.9	42.2	-18.5	55.4	37.4	106.2	-10.2	51.4
Head 9 Array Y Arm X	g	6.8	300.8	-39.9	62.2	†	-	†	-
Head 9 Array Y Arm Z	g	16.2	43.5	-19.2	97.2	43.1	106.3	-7.3	57.9
Head 9 Array Z Arm X	g	8.7	304.6	-35.5	58.2	5.0	374.6	-19.4	115.6
Head 9 Array Z Arm Y	g	14.3	170.3	-16.6	64.9	24.0	140.1	-7.5	94.4
Head X	g	6.8	300.7	-28.9	64.8	3.6	376.9	-27.0	105.4
Head Y	g	8.5	173.4	-22.6	62.2	14.7	138.0	-5.1	59.9
Head Z	g	12.0	42.0	-15.4	103.9	35.0	111.5	-6.6	57.8
Head Resultant	g	35.2	62.0	-	-	44.4	106.3	-	-
Redundant Head X	g	6.8	300.8	-26.6	42.4	†	-	†	-
Redundant Head Y	g	8.4	155.6	-22.3	62.0	15.1	122.6	-5.2	59.9
Redundant Head Z	g	12.1	42.0	-15.2	103.9	35.8	111.3	-6.6	57.7
Redundant Head Resultant	g	33.5	62.0	-	-	†	-	-	-
Upper Neck Fx	N	36.3	253.0	-643.2	69.9	299.6	84.3	-375.9	106.3
Upper Neck Fy	N	227.2	162.4	-88.8	111.9	376.4	139.2	-106.9	92.2
Upper Neck Fz	N	1267.2	70.0	-108.8	310.1	851.3	106.5	-24.2	35.7
Upper Neck F Resultant	N	1422.9	69.9	-	-	936.7	106.4	-	-
Upper Neck Mx	N-m	22.3	99.9	-19.6	46.3	25.1	141.2	-14.3	102.7
Upper Neck My	N-m	21.6	146.7	-44.6	71.3	17.1	154.3	-24.4	105.4
Upper Neck Mz	N-m	28.6	91.8	-16.8	155.5	7.7	202.7	-12.5	131.4
Upper Neck M Resultant	N-m	53.7	100.5	-	-	30.3	141.5	-	-
Lower Neck Fx	N	397.9	83.1	-142.6	61.5	382.5	79.8	-498.1	127.0
Lower Neck Fy	N	300.1	79.1	-131.0	55.9	244.4	123.5	-351.8	90.6
Lower Neck Fz	N	1420.6	69.8	-127.7	159.2	1859.5	106.4	-273.6	151.9
Lower Neck F Resultant	N	1443.6	69.8	-	-	1883.4	106.4	-	-
Lower Neck Mx	N-m	46.2	161.3	-10.2	111.9	62.4	137.3	-30.8	90.7
Lower Neck My	N-m	57.4	162.1	-82.4	83.4	81.5	150.4	-67.3	91.0
Lower Neck Mz	N-m	-	-	-	-	16.1	66.0	-22.0	99.7
Lower Neck M Resultant	N-m	-	-	-	-	96.1	141.5	-	-

† Transducer failed.

DATA SHEET NO. 8 DUMMY INJURY CRITERIA VALUES (cont.)

Vehicle Year/Make/Model/Body Style: 2003 Mitsubishi Montero Sport LS MPV

NHTSA Test No.: R35606 Test Date: November 13, 2003

		MAXIMUM VALUE							
		Driver				Passenger			
		Pos	msec	Neg	msec	Pos	msec	Neg	msec
DESCRIPTION	Unit	Pos	msec	Neg	msec	Pos	msec	Neg	msec
Chest X	g	7.0	147.1	-56.7	91.8	2.3	276.0	-39.3	92.2
Chest Y	g	12.4	112.6	-4.8	43.7	19.9	102.8	-5.2	71.1
Chest Z	g	9.1	99.0	-5.4	139.1	16.1	107.1	-4.0	178.2
Chest Resultant	g	56.8	91.8	-	-	41.8	92.3	-	-
Redundant Chest X	g	6.8	147.1	-55.4	91.8	2.4	276.0	-38.6	92.2
Redundant Chest Y	g	12.6	113.9	-4.9	43.7	19.4	102.8	-5.0	71.1
Redundant Chest Z	g	8.7	98.9	-5.4	141.5	16.0	107.1	-4.0	190.7
Redundant Chest Resultant	g	55.5	91.8	-	-	41.2	92.3	-	-
Chest Displacement	mm	0.0	33.5	-24.8	100.5	0.0	38.2	-18.8	113.9
Left Femur Fz	N	314.4	57.3	-2062.1	79.6	210.0	137.5	-3353.4	87.0
Right Femur Fz	N	473.6	65.5	-1894.2	86.3	579.5	117.5	-1497.9	69.8
Left Knee Shear Dx	mm	0.3	62.3	-5.2	71.8	0.2	70.6	-0.5	93.8
Right Knee Shear Dx	mm	0.7	69.6	-2.3	97.5	0.5	95.6	-0.2	211.1

DATA SHEET NO. 8 DUMMY INJURY CRITERIA VALUES (cont.)

Vehicle Year/Make/Model/Body Style: 2003 Mitsubishi Montero Sport LS MPV

NHTSA Test No.: R35606 Test Date: November 13, 2003

		MAXIMUM VALUE							
		Driver				Passenger			
		Pos	msec	Neg	msec	Pos	msec	Neg	msec
DESCRIPTION	Unit	Pos	msec	Neg	msec	Pos	msec	Neg	msec
Left Upper Tibia Fx	N	341.5	85.1	-13.3	200.0	422.7	77.8	-66.8	152.8
Left Upper Tibia Fz	N	213.9	51.6	-2380.4	80.7	482.7	112.0	-456.6	80.9
Left Upper Tibia Mx	N-m	25.5	91.3	-53.3	76.4	22.2	100.3	-25.3	145.3
Left Upper Tibia My	N-m	41.2	82.3	-17.5	61.3	31.4	104.4	-17.7	82.5
Left Lower Tibia Fx	N	148.0	72.7	-140.0	62.4	110.6	104.4	-263.8	81.4
Left Lower Tibia Fy	N	289.6	76.1	-270.0	90.6	97.8	143.0	-87.1	94.2
Left Lower Tibia Fz	N	153.3	53.6	-2954.7	79.7	287.3	108.8	-1064.0	80.9
Left Lower Tibia FR	N	2962.0	79.7	-	-	1094.3	80.9	-	-
Left Lower Tibia Mx	N-m	29.2	89.9	-43.2	78.1	13.3	113.7	-17.8	80.7
Left Lower Tibia My	N-m	12.7	87.2	-22.5	60.7	8.9	103.4	-36.8	78.0
Right Upper Tibia Fx	N	376.0	73.8	-90.4	134.2	245.4	72.3	-71.2	192.1
Right Upper Tibia Fz	N	672.6	79.2	-391.7	97.8	249.5	116.7	-1009.3	93.8
Right Upper Tibia Mx	N-m	47.7	81.8	-8.6	166.7	48.8	122.5	-26.6	98.9
Right Upper Tibia My	N-m	26.8	81.6	-6.5	88.4	16.4	124.9	-28.6	66.7
Right Lower Tibia Fx	N	40.2	176.7	-474.5	88.0	63.6	129.2	-208.9	79.2
Right Lower Tibia Fy	N	41.4	166.8	-246.2	88.3	149.1	99.0	-179.2	123.6
Right Lower Tibia Fz	N	256.2	76.5	-996.7	87.9	138.4	136.3	-1410.7	93.6
Right Lower Tibia FR	N	1124.0	88.0	-	-	1417.9	93.6	-	-
Right Lower Tibia Mx	N-m	26.0	125.8	-13.8	86.1	25.5	123.1	-21.0	98.0
Right Lower Tibia My	N-m	6.9	124.5	-41.5	87.9	9.8	101.2	-21.7	72.0

DATA SHEET NO. 8 DUMMY INJURY CRITERIA VALUES (cont.)

2003 Mitsubishi Montero Sport LS MPV

November 13, 2003

		MAXIMUM VALUE							
		Driver				Passenger			
		Pos	msec	Neg	msec	Pos	msec	Neg	msec
DESCRIPTION	Unit								
Left Tibia Ax	g	2.7	43.5	-59.6	79.0	5.2	140.5	-56.0	78.0
Left Tibia Ay	g	42.8	69.6	-50.9	90.4	22.2	87.9	-9.2	115.3
Right Tibia Ax	g	8.3	134.8	-63.8	88.1	5.3	191.0	-35.6	79.3
Right Tibia Ay	g	69.9	87.6	-25.1	125.4	15.1	102.5	-8.1	64.9
Left Ankle Rotation X	Deg	158.9†	58.3	6.1†	486.0	6.7	171.1	-24.2	89.1
Left Ankle Rotation Y	Deg	7.8	177.8	-27.7	62.6	-2.4	161.6	-39.8	29.1
Left Ankle Rotation Z	Deg	28.4‡	142.0	2.4‡	-74.9	16.6‡	165.0	-30.7‡	81.4
Right Ankle Rotation X	Deg	27.2	186.6	-19.5	90.6	9.3	166.4	-8.3	108.6
Right Ankle Rotation Y	Deg	21.0	149.8	-13.1	59.6	-15.1	183.7	-35.3	55.7
Right Ankle Rotation Z	Deg	14.7	184.3	-17.7	86.5	4.4	126.0	-10.1	167.0
Left Foot Ax	g	10.1	96.5	-168.0	77.8	3.7	148.4	-87.0	76.3
Left Foot Ay	g	94.2	80.7	-60.9	83.9	40.7	85.2	-10.3	116.5
Left Foot Az	g	62.3	75.0	-100.5	81.9	8.2	76.0	-29.8	107.7
Left Foot A Resultant	g	176.4	77.8	-	-	87.7	77.5	-	-
Right Foot Ax	g	13.9	122.4	-82.0	83.8	6.1	156.2	-49.8	91.5
Right Foot Ay	g	71.7	83.7	-52.1	122.9	22.3	88.9	-8.3	58.9
Right Foot Az	g	29.7	80.4	-88.8	75.8	7.2	89.7	-27.7	90.2
Right Foot A Resultant	g	125.3	84.5	-	-	55.0	92.0	-	-

† Data Invalid Before 60 ms

‡ Data Questionable

DATA SHEET NO. 8 DUMMY INJURY CRITERIA VALUES (cont.)

Vehicle Year/Make/Model/Body Style:

2003 Mitsubishi Montero Sport LS MPV

NHTSA Test No.:

R35606

Test Date:

November 13, 2003

	HEAD INJURY CRITERIA (HIC)							
	HIC15				HIC36			
	HIC	t ₁ (msec)	t ₂ (msec)	Average Acceleration t ₁ to t ₂	HIC	t ₁ (msec)	t ₂ (msec)	Average Acceleration t ₁ to t ₂
Position #1 - Driver	62.0	60.0	75.0	28.0	89.1	55.2	91.2	22.8
Position #2 - Passenger	159.8	102.7	117.7	40.8	276.8	94.1	130.1	35.8

** HIC is as defined in FMVSS 208.

	CLIP SUMMARY*			
	CLIP (g's)	t ₁ (msec)	t ₂ (msec)	CSI
Position #1 - Driver	48.4	90.1	93.1	364.4
Position #2 - Passenger	40.4	87.1	90.1	298.8

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

Position 1 Neck Injury Summary (HIII 5th Female)

Nij V10	Nij	Time (ms)	Z Force (N)	X Force (N)	Y Moment (N-m)
Ntf	0.16	145.4	16.3	-126.6	23.6
Nte	0.78	70.2	1255.8	-639.4	-32.8
Ncf	0.16	147.4	-24.1	-131.3	23.7
Nce	0.23	310.5	-107.2	-72.1	-13.7

Peak Tension (CFC1000) 1267.2 N

Peak Compression (CFC1000) -108.8 N

Position 2 Neck Injury Summary (HIII 5thFemale)

Nij V10	Nij	Time (ms)	Z Force (N)	X Force (N)	Y Moment (N-m)
Ntf	0.26	120.7	719.7	-176.0	14.5
Nte	0.46	105.6	826.3	361.8	-18.0
Ncf	0.01	34.4	-20.2	7.3	0.0
Nce	0.04	50.6	-6.9	-5.1	-2.8

Peak Tension (CFC1000) 851.3 N

Peak Compression (CFC1000) -24.2 N

Critical Values

Nij Intercepts				Peak Limits	
Tension (CVt)	4287 N	Extension (mCVe)	155 N-m	Tension	2620 N
Compression (CVc)	3880 N	Flexion (mCVf)	67 N-m	Compression	2520 N

Condyle Offset 0.01778

DATA SHEET NO. 8 DUMMY INJURY CRITERIA VALUES (cont.)
REDUNDANT DATA

Vehicle Year/Make/Model/Body Style: 2003 Mitsubishi Montero Sport LS MPV

NHTSA Test No.: R35606 Test Date: November 13, 2003

HEAD INJURY CRITERIA (HIC) (REDUNDANT)								
HIC15					HIC36			
	HIC	t ₁ (msec)	t ₂ (msec)	Average Acceleration t ₁ to t ₂		HIC	t ₁ (msec)	t ₂ (msec)
Position #1 - Driver	46.9	59.7	74.7	25.0		68.7	55.2	91.2
Position #2 - Passenger	160.0†	102.6	117.6	40.9		274.5†	94.1	130.1

** HIC is as defined in FMVSS 208.

† Primary Head Ax accelerometer failed, redundant Head Ax data was used for the HIC calculation.

CLIP SUMMARY (REDUNDANT)*				
	CLIP (g's)	t ₁ (msec)	t ₂ (msec)	CSI
Position #1 - Driver	47.3	90.1	93.1	343.0
Position #2 - Passenger	39.6	86.9	89.9	286.8

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

DATA SHEET NO. 9 SEAT BELT PERFORMANCE ASSESSMENT TEST DATA

BELT LENGTH DATA:

	<u>Driver</u>	<u>Passenger</u>
Belt length from trim panel exit to bolt hole anchor point for continuous webbing systems.	<u>2010</u>	<u>2063</u>
Shoulder belt length as measured on Part 572 Dummy.	<u>858</u>	<u>889</u>
Lap belt length as measured on Part 572 Dummy.	<u>940</u>	<u>962</u>

SHOULDER BELT SPOOL-OFF DATA:

As determined by film analysis.	<u>**</u>	<u>**</u>
As determined mechanically.	<u>3</u>	<u>43</u>
As determined electronically.	<u>**</u>	<u>**</u>

BELT STRETCH DATA:

Measured electronically between shoulder belt load cell and the "D" ring.	<u>**</u>	<u>**</u>
Measured mechanically.	<u>0 mm/m</u>	<u>4 mm/m</u>

** Sensors and cameras were not used.

Dimensions in millimeters

DATA SHEET NO.10 SUMMARY OF FMVSS 212 DATA

FMVSS NO. 212 - "WINDSHIELD MOUNTING" DATA

DETAILS OF WINDSHIELD MOUNTING SUCH AS RETENTION METHOD, TRIM TYPE, ETC.:

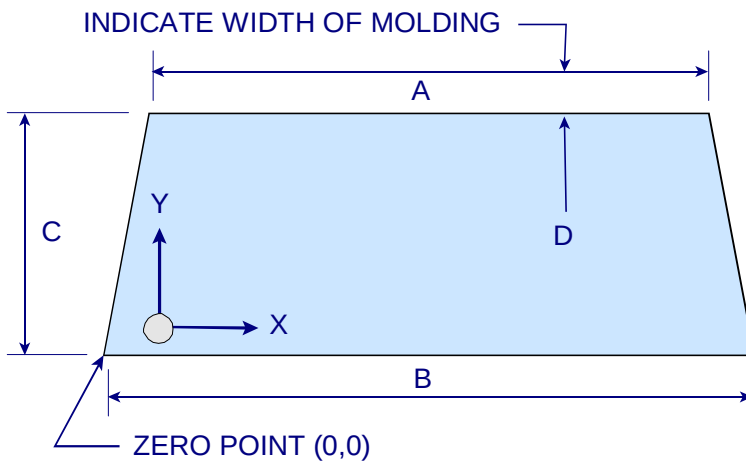
Windshield is bonded in place and covered with a 18 mm molding.

FMVSS 212 REQUIREMENTS:

The Post-Test periphery retention amount must be at least 75% of the Pre-Test periphery measurement for vehicles NOT equipped with automatic restraints, and 50% for each side of the windshield for vehicles equipped with automatic restraint systems for front occupants,

FMVSS 212 TEST DATA WINDSHIELD PERIPHERY			
	PRE-TEST (mm)	POST-TEST (mm)	% OF RETENTION
RIGHT SIDE	1905	1905	100.0%
LEFT SIDE	1905	1905	100.0%
TOTAL	3810	3810	100.0%

AREA OF RETENTION FAILURE: None



DIMENSIONS (mm)	
A	1150
B	1460
C	600
D	18

FRONT VIEW OF WINDSHIELD

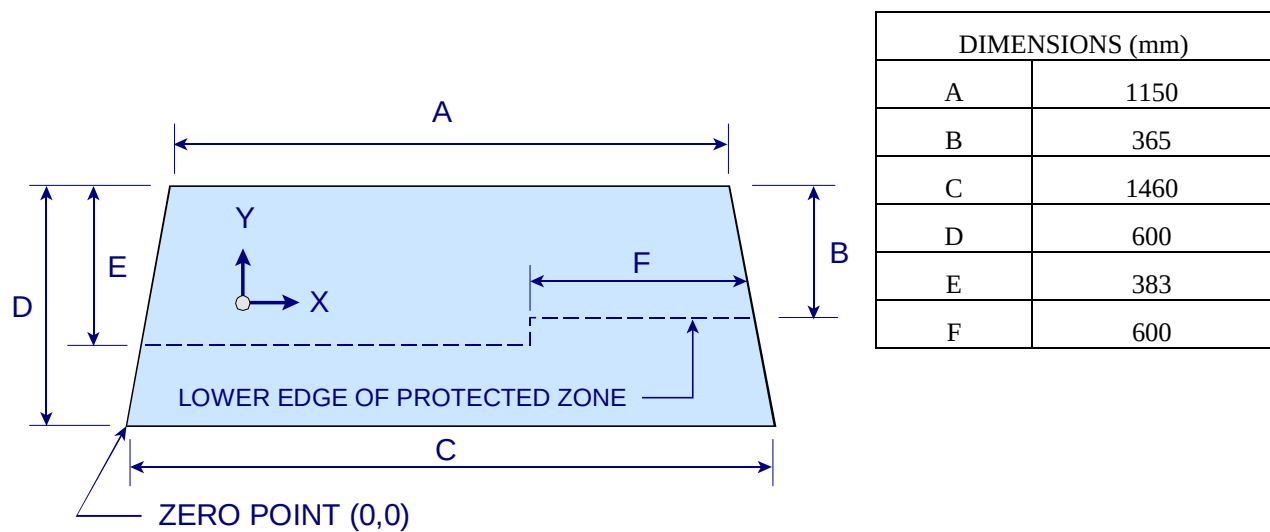
FAILURE DETAILS: None

DATA SHEET NO. 11 FMVSS NO. 219 (PARTIAL) - "WINDSHIELD ZONE INTRUSION" DATA

PROTECTED ZONE LOWER EDGE REQUIREMENT:

The lower edge of the protected zone is determined by placing a 165 mm diameter rigid sphere weighing 6.8 kg in a position such that it simultaneously contacts the inner surface of the windshield and the top surface of the instrument panel including padding. The locus of points is drawn on the inner surface of the windshield contacted by the sphere across the width of the instrument panel. From the outermost contactable points extend the locus line horizontally to the edges of the windshield, then draw a line on the inner surface of the windshield below and 13 mm distant from the locus line. The LOWER EDGE OF THE PROTECTED ZONE is the longitudinal projection of this line onto the outer surface of the windshield.

FMVSS 219 TEST DATA:



FRONT VIEW OF WINDSHIELD

DETAILS OF WINDSHIELD GLASS PENETRATION GREATER THAN 6 mm: None

(Show location of penetration on the above sketch)

COORDINATES		
	X	Y
1.	-	-
2.	-	-
3.	-	-
4.	-	-

DATA SHEET NO. 12 FMVSS NO. 301-75 "FUEL SYSTEM INTEGRITY" POST IMPACT TEST DATA

NHTSA TEST No.: R35606 TEST DATE: November 13, 2003

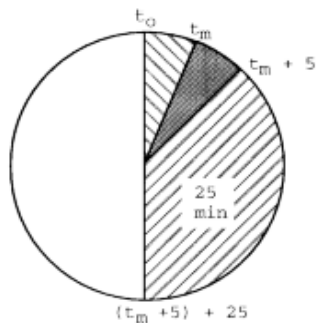
VEHICLE MAKE/MODEL: 2003 Mitsubishi Montero Sport LS MPV

The test vehicle was filled from 92% to 94% of the manufacture's "usable" capacity. The electric fuel pump was operating if it will operate without engine operation. Two Part 572 anthropomorphic test devices were located at each of the front designated seating positions.

=====

TEST VEHICLE IMPACT TYPE:	
X	Offset Frontal (56 kph)
	Oblique (48 kph) with _____ deg. barrier face first contacting _____
-	(driver/passenger) side
-	Rear Moving Barrier (48 kph)
-	Lateral Moving Barrier (32 kph)

FUEL SPILLAGE MEASUREMENT:



1. From impact until vehicle motion ceases
2. For 5 minute period after vehicle motion ceases
3. For next 25 minutes

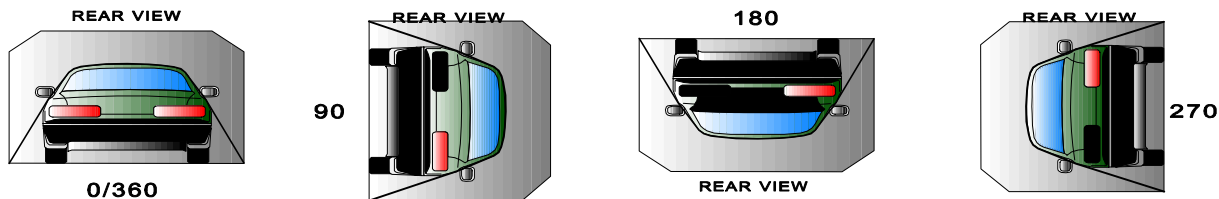
ACTUAL	MAX ALLOWED
0	28 g
0	141 g
0	28 g/min.

SOLVENT SPILLAGE DETAILS: None

DATA SHEET NO. 13 - ROLLOVER DATA

Vehicle: 2003 Mitsubishi Montero Sport LS MPV

NHTSA No.: R35606



I. DETERMINATION OF SOLVENT COLLECTION TIME PERIOD:

Rollover Stage	Rotation Time (spec. 1 -3 min)				FMVSS 301 Hold Time		Total Time				Next Whole Minute Interval	
0° - 90°	1	minutes	4	seconds	5	minutes	6	minutes	4	seconds	7	minutes
90° - 180°	1	minutes	6	seconds	5	minutes	6	minutes	6	seconds	7	minutes
180°-270°	1	minutes	12	seconds	5	minutes	6	minutes	12	seconds	7	minutes
270°-360°	1	minutes	8	seconds	5	minutes	6	minutes	8	seconds	7	minutes

II. FMVSS 301 REQUIREMENTS: (Maximum allowable solvent spillage):

First 5 minutes from onset of rotation	6th min.	7th min.	8th min. (if required)
142 g	28 g	28 g	28 g

III. ACTUAL TEST VEHICLE SOLVENT SPILLAGE:

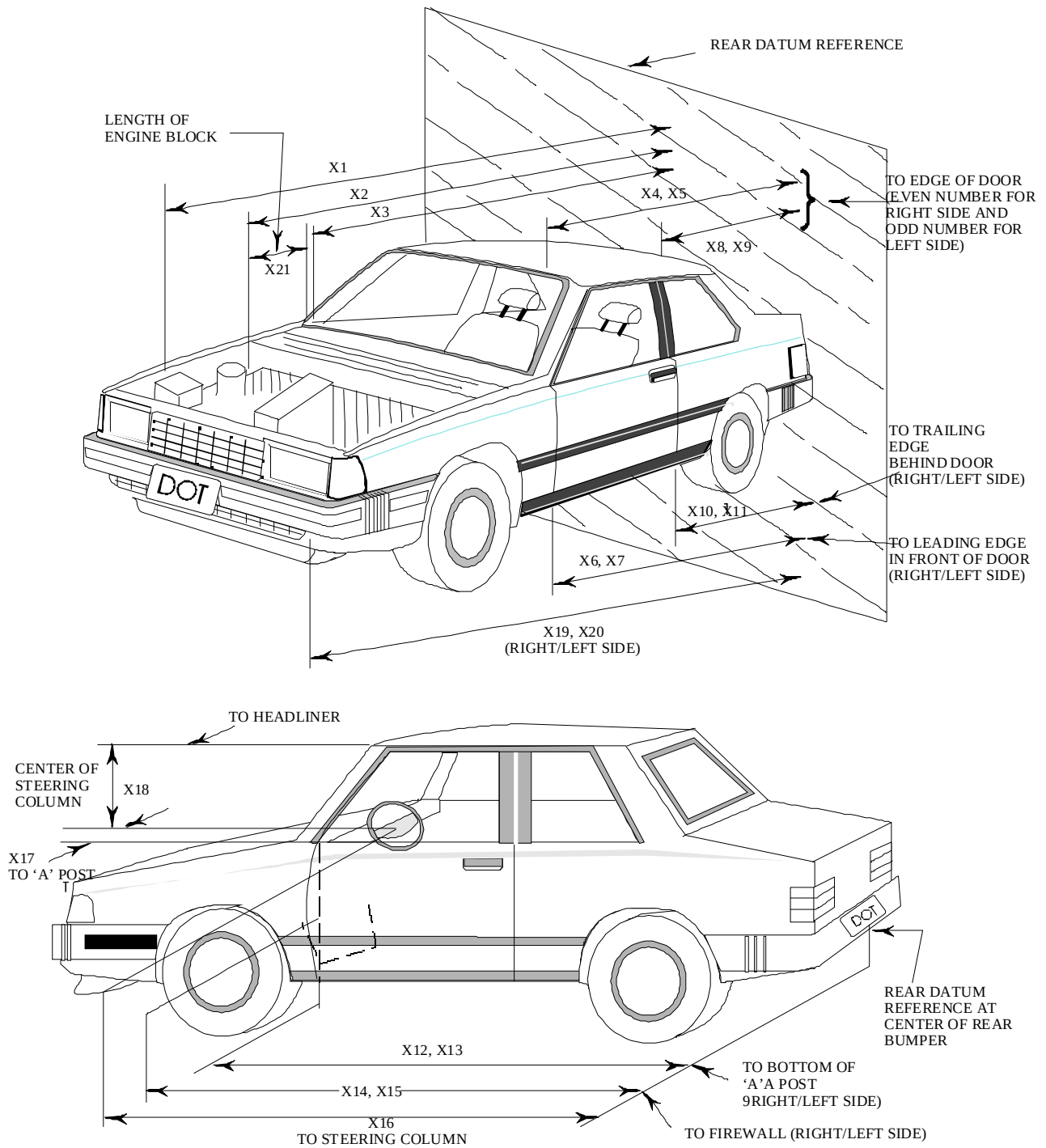
Rollover Stage	First 5 minutes from onset of rotation (g)	6th min. (g)	7th min. (g)	8th min. (if required) (g)
0° - 90°	0	0	0	N/A
90° - 180°	0	0	0	N/A
180°-270°	0	0	0	N/A
270°-360°	0	0	0	N/A

Note: Record spillage for whole minute intervals only as determined above.

IV. SOLVENT SPILLAGE LOCATION(S):

Rollover Stage	Spillage Location
0° - 90°	None
90° - 180°	None
180°-270°	None
270°-360°	None

DATA SHEET NO. 14 TEST VEHICLE MEASUREMENTS



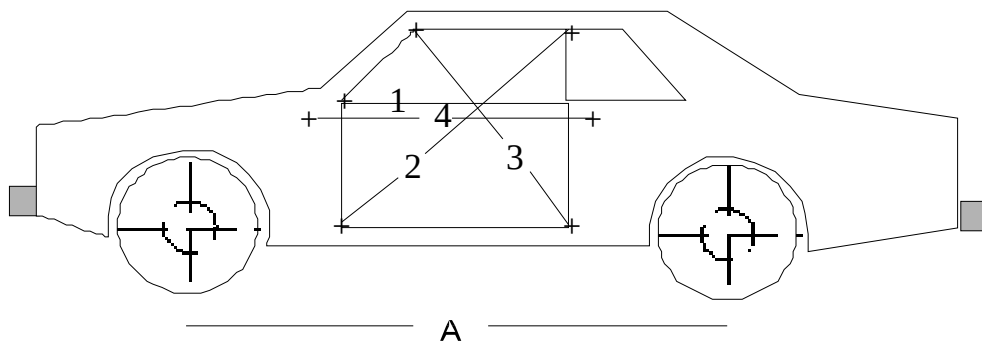
DATA SHEET NO.14 VEHICLE MEASUREMENTS (cont.)

No.		Pre-Test	Post-Test	Difference
X1	Total Length of Vehicle at Centerline	4612	4268	344
X2	Rear Surface of Vehicle to Front of Engine	4076	4002	74
X3	Rear Surface of Vehicle to Firewall	3557	3510	47
X4	Rear Surface of Vehicle to Upper Leading Edge of Right Door	3214	3218	-4
X5	Rear Surface of Vehicle to Upper Leading Edge of Left Door	3215	3187	28
X6	Rear Surface of Vehicle to Lower Leading Edge of Right Door	3232	3242	-10
X7	Rear Surface of Vehicle to Lower Leading Edge of Left Door	3230	3200	30
X8	Rear Surface of Vehicle to Upper Trailing Edge of Right Door	2231	2234	-3
X9	Rear Surface of Vehicle to Upper Trailing Edge of Left Door	2233	2204	29
X10	Rear Surface of Vehicle to Lower Trailing Edge of Right Door	2229	2238	-9
X11	Rear Surface of Vehicle to Lower Trailing Edge of Left Door	2230	2194	36
X12	Rear Surface of Vehicle to Bottom of "A" Post of Right Side	3230	3231	-1
X13	Rear Surface of Vehicle to Bottom of "A" Post of Left Side	3231	3204	27
X14	Rear Surface of Vehicle to Firewall, Right Side	3504	3506	-2
X15	Rear Surface of Vehicle to Firewall, Left Side	3504	3458	46
X16	Rear Surface of Vehicle to Steering Column	2791	2778	13
X17	Center of Steering Column to "A" Post	311	306	5
X18	Center of Steering Column to Headliner	427	415	12
X19	Rear Surface of Vehicle to Right Side of Front Bumper	4575	4542	33
X20	Rear Surface of Vehicle to Left Side of Front Bumper	4573	4043	530
X21	Length of Engine Block	560	560	0
RD	Rear Surface of Vehicle to Right Side of Dash Panel	3027	3033	-6
CD	Rear Surface of Vehicle to Center of Dash Panel	3073	3057	16
LD	Rear Surface of Vehicle to Left Side of Dash Panel	2998	2959	39

All Dimensions in mm

All measurements taken forward from a lateral plane located at the rearmost point of the vehicle.

DATA SHEET NO.14 VEHICLE MEASUREMENTS (cont.)
 VEHICLE INTRUSION MEASUREMENTS
 DOOR OPENING WIDTH

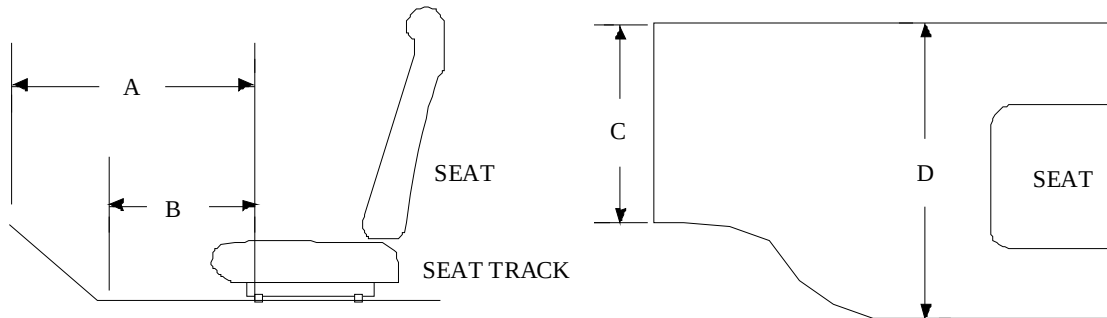


UNITS (mm)	LEFT				RIGHT		
MEASUREMENT	1	2	3	4*	1	2	3
BEFORE TEST	945	1383	1075	949	951	1384	1073
AFTER TEST	926	1372	1113	945	953	1379	1090
DIFFERENCE	19	11	-38	4	-2	5	-17

* Insurance Institute for Highway Safety (IIHS) measurement for driver's side only

UNITS (mm)	A = WHEELBASE LEFT	A = WHEELBASE RIGHT
BEFORE TEST	2728	2728
AFTER TEST	2512	2811
DIFFERENCE	216	-83

DATA SHEET NO.14 VEHICLE MEASUREMENTS (cont.)
 VEHICLE INTRUSION MEASUREMENTS
 STATIC FOOTWELL DEFORMATION



DRIVER

Measurement	Pre-Test	Post-Test	Difference
A	-2760	-2729	-31
B	-2760	-2729	-31
C	487	459	28
D	479	485	-6

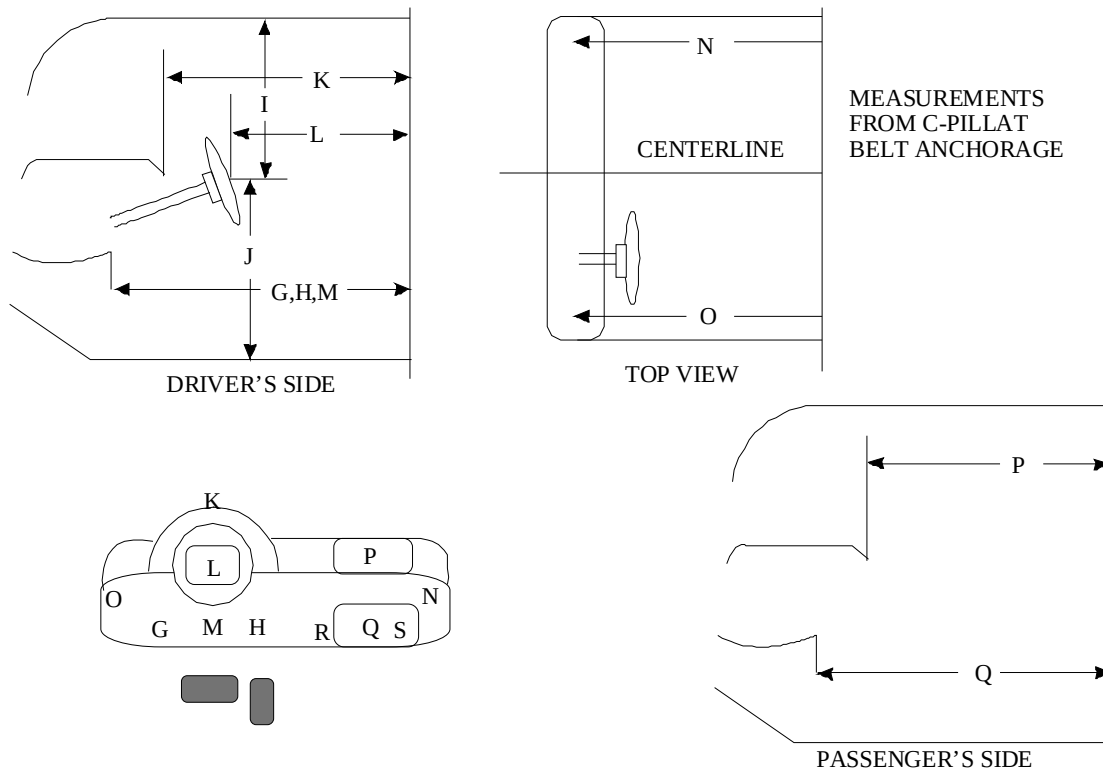
PASSENGER

Measurement	Pre-Test	Post-Test	Difference
A	-2758	-2761	3
B	-2758	-2761	3
C	474	480	-6
D	476	468	8

Units = mm

DATA SHEET NO.14 VEHICLE MEASUREMENTS (cont.)

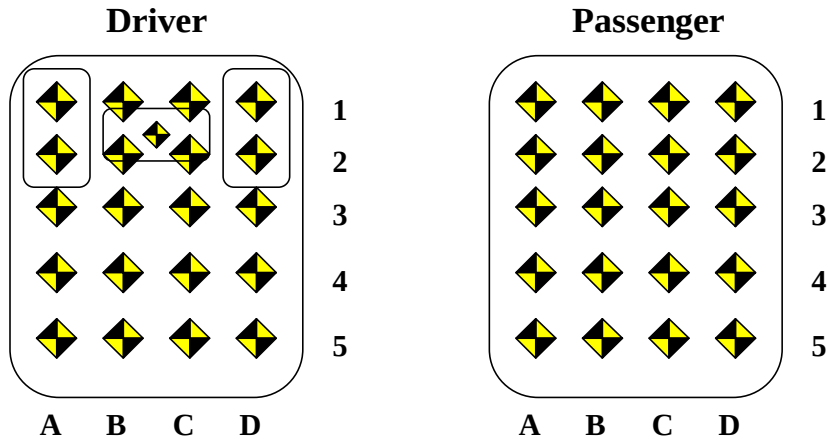
VEHICLE INTRUSION MEASUREMENTS
STATIC PASSENGER COMPARTMENT INTRUSION



Measurement	Pre-Test	Post-Test	Difference
G	1963	1919	44
H	1957	1941	16
I	427	415	12
J	631	679	-48
K	1985	1961	24
L	1729	1712	17
M	2032	1987	45
N	1967	1968	-1
O	1936	1894	42
P = K (PASS.)	1975	1918	57
Q = M (PASS.)	1958	1949	9
R	1961	1940	21
S	1961	1948	13

Units = mm

DATA SHEET NO.14 VEHICLE MEASUREMENTS (cont.)
DRIVER SIDE INTRUSION MEASUREMENTS

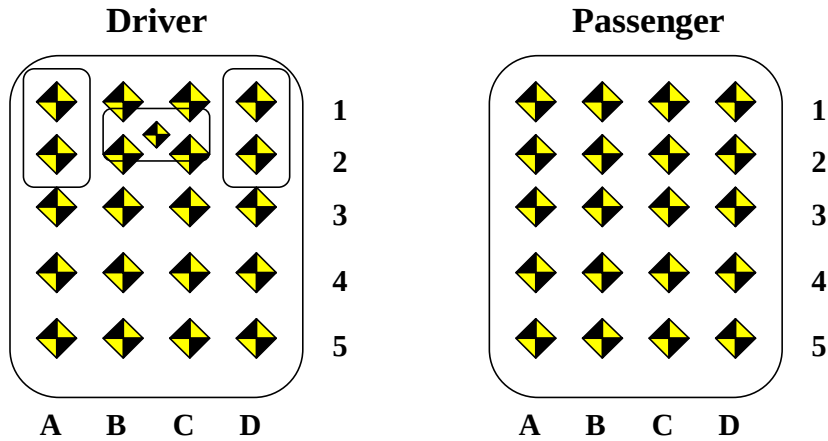


Driver Side Intrusion Measurements

Intrusion Location	PRE-TEST (mm)			POST-TEST (mm)			CHANGE (mm)		
	X	Y	Z	X	Y	Z	X	Y	Z
A1	3339	-587	-666	3227	-539	-662	112	-48	-4
B1	3468	-467	-618	3328	-412	-616	140	-55	-2
C1	3445	-349	-607	3384	-316	-608	61	-33	1
D1	3475	-222	-613	3421	-185	-613	54	-37	0
A2	3297	-580	-620	3193	-547	-608	104	-33	-12
B2	3361	-451	-549	3270	-403	-545	91	-48	-4
C2	3367	-337	-551	3306	-290	-527	61	-47	-24
D2	3391	-224	-548	3375	-191	-539	16	-33	-9
A3	3249	-572	-513	3236	-540	-480	13	-32	-33
B3	3258	-457	-509	3242	-416	-459	16	-41	-50
C3	3256	-341	-506	3237	-299	-471	19	-42	-35
D3	3261	-216	-515	3227	-171	-500	34	-45	-15
A4	3158	-580	-512	3138	-537	-474	20	-43	-38
B4	3159	-458	-508	3138	-415	-464	21	-43	-44
C4	3156	-345	-501	3136	-300	-475	20	-45	-26
D4	3156	-222	-491	3134	-175	-484	22	-47	-7
A5	3060	-583	-521	3041	-543	-487	19	-40	-34
B5	3059	-472	-515	3038	-422	-480	21	-50	-35
C5	3066	-355	-502	3039	-304	-481	27	-51	-21
D5	3069	-232	-493	3039	-182	-486	30	-50	-7
BP	3276	-368	-699	3183	-336	-686	93	-32	-13
G	3024	-493	-980	2984	-477	-980	40	-16	0
H	3019	-202	-971	3007	-184	-981	12	-18	10
L	2791	-356	-1158	2778	-365	-1197	13	9	39
AB	1062	-786	-1152	1066	-785	-1154	-4	-1	2

BP=Brake Pedal, G=Left side of bolster, H=Right side of bolster, L=Steering wheel center;
AB = Front outboard seat anchor bolt

DATA SHEET NO.14 VEHICLE MEASUREMENTS (cont.)
PASSENGER SIDE INTRUSION MEASUREMENTS



Passenger Side Intrusion Measurements

Intrusion Location	PRE-TEST (mm)			POST-TEST (mm)			CHANGE (mm)		
	X	Y	Z	X	Y	Z	X	Y	Z
A1	3430	195	-621	3405	205	-665	25	-10	44
B1	3442	305	-612	3430	338	-640	12	-33	28
C1	3441	437	-613	3436	457	-641	5	-20	28
D1	3365	555	-617	3359	587	-639	6	-32	22
A2	3375	194	-550	3365	212	-562	10	-18	12
B2	3362	326	-550	3368	346	-567	-6	-20	17
C2	3370	453	-555	3375	468	-574	-5	-15	19
D2	3341	575	-555	3343	589	-577	-2	-14	22
A3	3273	218	-513	3263	230	-539	10	-12	26
B3	3271	341	-515	3265	339	-530	6	2	15
C3	3268	455	-517	3268	464	-536	0	-9	19
D3	3282	573	-528	3277	587	-544	5	-14	16
A4	3170	222	-509	3163	252	-536	7	-30	27
B4	3170	331	-519	3172	352	-536	-2	-21	17
C4	3166	457	-518	3172	468	-537	-6	-11	19
D4	3175	567	-524	3177	587	-537	-2	-20	13
A5	3061	220	-507	3056	251	-535	5	-31	28
B5	3065	334	-519	3064	350	-535	1	-16	16
C5	3065	459	-521	3069	477	-537	-4	-18	16
D5	3069	582	-524	3072	592	-544	-3	-10	20
R	3020	169	-972	3005	209	-990	15	-40	18
S	3021	463	-997	3013	507	-998	8	-44	1
AB	1059	788	-1159	1065	790	-1162	-6	-2	3

R=Left side of bolster, S=Right side of bolster, L=Steering wheel center;
AB = Front outboard seat anchor bolt

DATA SHEET NO.14 VEHICLE MEASUREMENTS (cont.)
TEST VEHICLE FRONTAL PROFILE DATA

		PRE-TEST PROFILE					
		Vehicle Left			Vehicle Right		
		Pt 1	Pt 2	Pt 3	Pt 4	Pt5	Pt 6
Bottom of Front Bumper	X	4490.7	4553.9	4598.6	4599.3	4560.0	4489.5
	Y	-680.4	-416.8	-140.9	146.4	424.5	687.9
	Z	-565.1	-567.7	-565.7	-564.6	-565.5	-567.3
Top of Front Bumper	X	4511.3	4583.6	4606.4	4609.1	4588.5	4515.2
	Y	-684.6	-421.0	-142.1	143.2	424.8	691.0
	Z	-734.9	-738.1	-738.4	-735.3	-737.5	-737.0
Center of Grille	X	4412.9	4503.7	4486.5	4486.3	4501.0	4412.0
	Y	-688.4	-415.8	-141.1	143.1	418.2	690.1
	Z	-888.1	-891.9	-890.0	-890.8	-889.3	-895.0
Front of Hood	X	4334.4	4410.3	4441.3	4441.8	4412.6	4335.8
	Y	-688.0	-417.9	-139.6	142.2	423.8	691.4
	Z	-1014.6	-1022.4	-1022.7	-1025.1	-1023.1	-1018.1

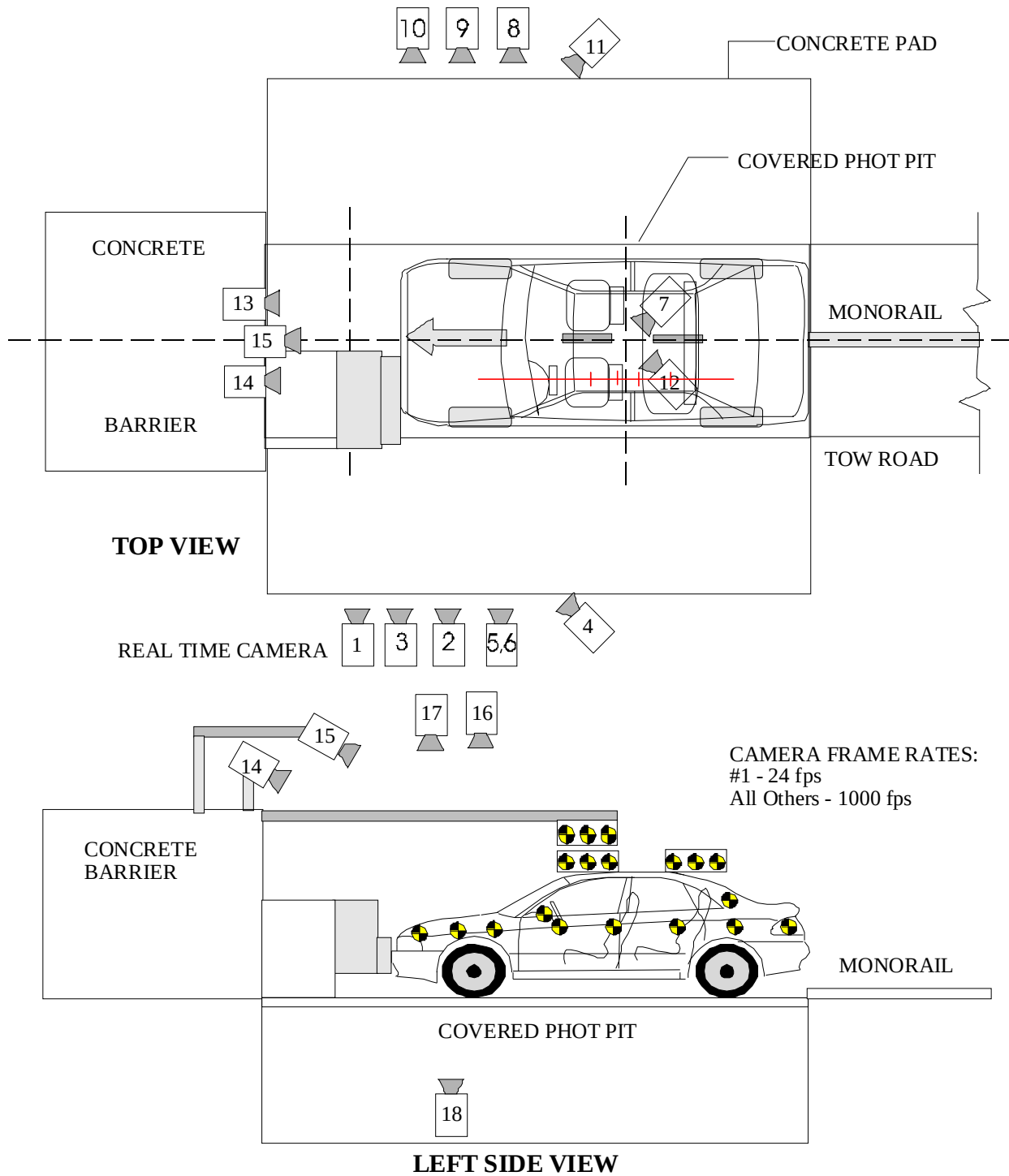
		POST-TEST PROFILE					
		Vehicle Left			Vehicle Right		
		Pt 1	Pt 2	Pt 3	Pt 4	Pt5	Pt 6
Bottom of Front Bumper	X	4000.5	4081.1	4285.8	4412.0	4522.0	4563.5
	Y	-701.7	-521.0	-328.1	-84.8	173.9	448.1
	Z	-581.0	-644.1	-631.4	-695.9	-674.3	-651.2
Top of Front Bumper	X	3955.2	4040.9	4144.5	4356.6	4514.4	4578.9
	Y	-646.6	-478.1	-168.2	-43.7	189.0	452.3
	Z	-710.4	-826.1	-797.3	-853.7	-850.5	-824.7
Center of Grille	X	†	†	†	†	†	4495.3
	Y	†	†	†	†	†	329.0
	Z	†	†	†	†	†	-996.1
Front of Hood	X	4068.5	4100.8	4101.4	4268.4	4376.0	4348.3
	Y	-716.7	-446.5	-163.8	47.1	301.3	578.1
	Z	-1156.4	-1091.8	-1065.6	-1110.3	-1151.7	-1127.3

		CHANGE					
		Vehicle Left			Vehicle Right		
		Pt 1	Pt 2	Pt 3	Pt 4	Pt5	Pt 6
Bottom of Front Bumper	X	490.2	472.8	312.8	187.3	38.0	-74.0
	Y	21.3	104.2	187.2	231.2	250.6	239.8
	Z	15.9	76.4	65.7	131.3	108.8	83.9
Top of Front Bumper	X	556.1	542.7	461.9	252.5	74.1	-63.7
	Y	-38.0	57.1	26.1	186.9	235.8	238.7
	Z	-24.5	88.0	58.9	118.4	113.0	87.7
Center of Grille	X	4412.9	4503.7	4486.5	4486.3	4501.0	-83.3
	Y	-688.4	-415.8	-141.1	143.1	418.2	361.1
	Z	-888.1	-891.9	-890.0	-890.8	-889.3	101.1
Front of Hood	X	265.9	309.5	339.9	173.4	36.6	-12.5
	Y	28.7	28.6	24.2	95.1	122.5	113.3
	Z	141.8	69.4	42.9	85.2	128.6	109.2

† Vehicle grill shattered during the impact, post-test point was not measurable.
All dimensions are in mm.

DATA SHEET NO.15 HIGH-SPEED CAMERA LOCATIONS

NOTE: Camera information shown in DATA SHEET NO. 15.



DATA SHEET NO.15 HIGH-SPEED CAMERA LOCATIONS (cont.)

NHTSA Test No.: R35606 Vehicle: 2003 Mitsubishi Montero Sport LS MPV

CAMERA NO.	VIEW	CAMERA POSITIONS (mm)*			ANGLE (deg)**	FILM PLANE TO HEAD TARGET	LENS (mm)	SPEED (fps)
		X	Y	Z				
1	Real-Time Camera	-	-	-	-	-	-	24
2	Overall Left Side	8165	1026	1090	-4.4	7762	28	1000
3	Left Side View	8740	671	1095	-1.0	8337	25	1010
4	Driver and Interior View	7431	2266	2008	-9.0	-	24-70	1000
5	Steering Column (Bottom)	8680	1471	1176	-2.4	8277	28-70	1000
6	Steering Column (Top)	8680	1471	1795	-7.2	8277	25	1010
7	Interior Driver View	-	-	-	-	-	-	-
8	Overall Right Side View	7311	1401	1114	-4.4	7557	12.5	1015
9	Right Side View	9704	661	1050	-1.7	9950	25	1010
10	Right Passenger View	8730	1361	1328	-1.2	8976	35	1010
11	Passenger and Interior View	7965	2451	1992	-7.4	-	50	1000
12	Interior Passenger View	-	-	-	-	-	-	-
13	Passenger Front View	610	-1720	2010	-27.0	-	13	1005
14	Driver Front View	610	-1720	3374	-35.0	-	25	1015
15	Windshield View	0	-1720	3374	-40.0	-	13	1060
16	Overhead Overall View	0	0	4880	-90.0	-	13	1005
17	Overhead Close-Up View	0	0	4880	-90.0	-	25	1020
18	Pit View of Engine	0	610	-3048	90.0	-	13	1005

*X = film plane to monorail centerline

** = referenced to horizontal plane

Y = film plane to impact location

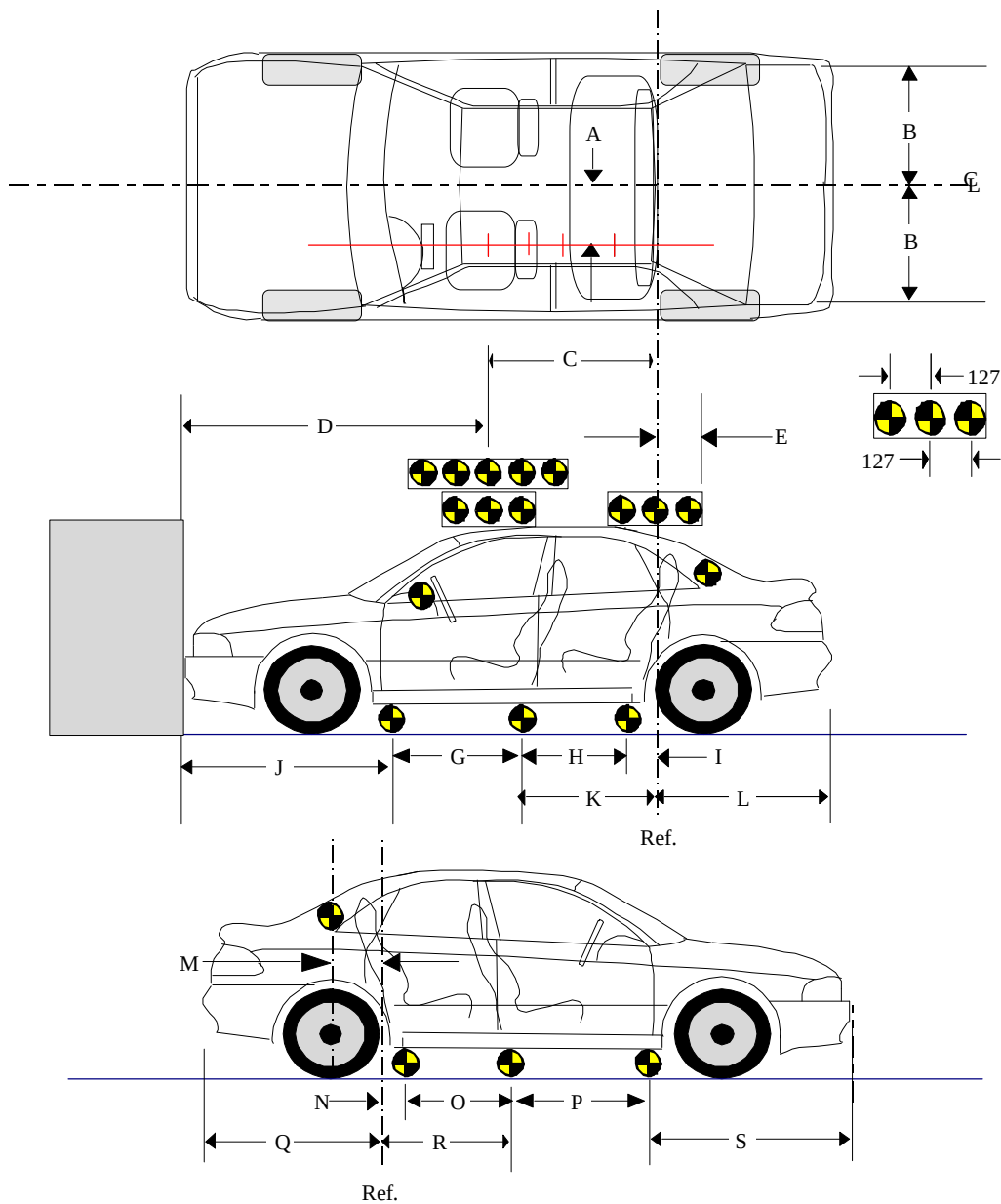
N.T. indicates No Timing

Z = film plane to ground

DATA SHEET NO. 16 VEHICLE REFERENCE PHOTO TARGET LOCATIONS

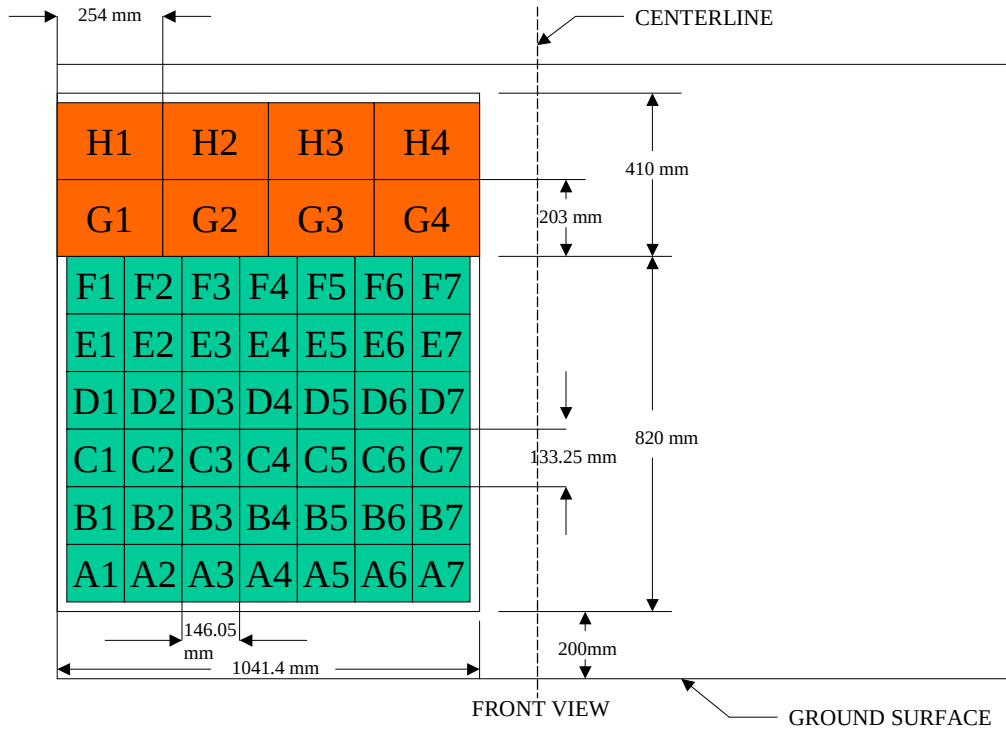
(Dimensions in millimeters)

A	322
B	649
C	1222
D	1965
E	365
F	1555
G	774
H	777
I	203
J	1414
K	980
L	1443
M	364
N	204
O	775
P	773
Q	1443
R	979
S	1417



DATA SHEET NO. 17 LOAD CELL LOCATIONS RELATIVE TO FIXED BARRIER AND
DEFORMABLE BARRIER FACE

50 Load Cells



	Bottom Array	Top Array
Load cell width	146 mm	254 mm
Load cell height	133 mm	203 mm
Vertical gap between load cells	6 mm	6 mm
Horizontal gap between load cells	6 mm	6 mm
Vertical filler block width	55 mm	55 mm

The following data is presented in Appendix B:

- (1)X Direction Data from load cells A1 through F7
- (2)X Direction Data from load cells G1 through H4

DATA SHEET NO. 18 POST TEST AIR BAG DATA

NHTSA No.: R35606; Test Date: November 13, 2003; Technician: Lawrence Q. Valvo

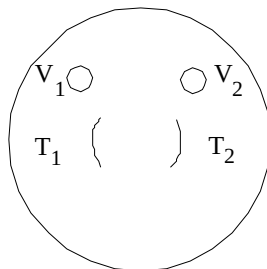
Vehicle Model Year/Make/Model: 2003 Mitsubishi Montero Sport LS MPV

- A. No. of vent holes: 2 -Driver 2 -Passenger
- B. Size of vent holes: (mm²) 707 -Driver 2827 -Passenger
- C. Total vent area: (mm²) 1414 -Driver 5654 -Passenger
- D. Deflated air bag length and width dimensions or, if round, diameter. (mm)
- Driver: 580 -Height; 580 -Width; 300 -Depth
- Passenger: 680 -Height; 495 -Width; 440 -Depth
- E. Is the air bag tethered?
- Driver: X -Yes; - -No; If yes, record length of tether- 325
- Passenger: - -Yes; X -No; If yes, record length of tether- -

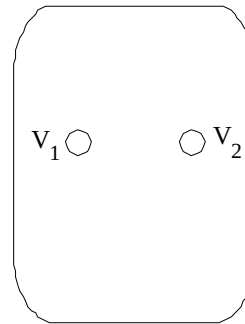
Sketch the air bag showing the location of the vent holes, how the bag is tethered, and where the bag is tethered. Also describe how the tethers are attached to the bag and the steering wheel.

(Note: Not to scale; V_n = Vent hole_n, T_n = Tether_n).

Driver



Passenger



- F. Record part numbers and manufacturer name of the air bag and gas generator.

Driver: Air bag: 66280-53350; YB2529946

Generator: N/A

Passenger: Air bag: 76284-41140

Generator: N/A

DATA SHEET NO. 19 ACCIDENT INVESTIGATION DIVISION DATA

FOR 56.3 KPH OFFSET FRONTAL BARRIER IMPACT

Vehicle Make/Model/Body Style: Mitsubishi Montero Sport LS MPV

NHTSA Test No.: R35606 VIN: JA4MT21H23J033700

Model Year: 2003 Build Date: NOV 2002 Test Date: November 13, 2003

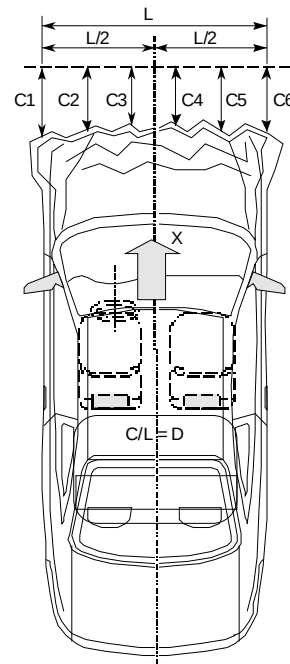
Vehicle Size Category: _____ Test Weight: 2145.0 kg

Vehicle Wheelbase: 2728 mm; Front Overhang: 829 mm; Overall Width: 1750 mm

Collision Deformation Classification (CDC) Code: 12FDEW3

Crush Depth Dimensions

	PRE	POST	DIFF	
C1 =	4511	3955	556	mm
C2 =	4584	4041	543	mm
C3 =	4606	4144	462	mm
C4 =	4609	4357	252	mm
C5 =	4588	4514	74	mm
C6 =	4515	4579	-64	mm



Midpoint of Damage: D = Vehicle Centerline (Longitudinal)

Length of Damaged Region:

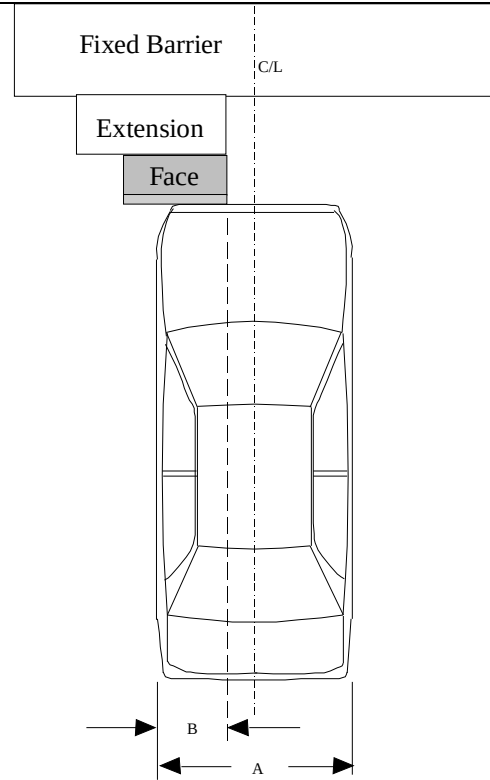
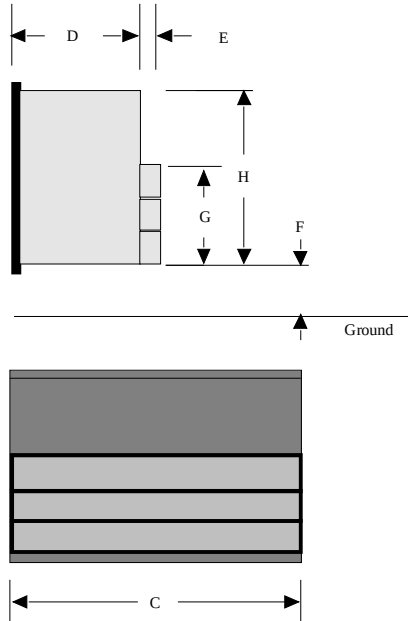
L1=	<u>1376</u>	mm
L2=	<u>688</u>	mm
L5=	<u>275</u>	mm

DATA SHEET NO. 20 OFFSET BARRIER AND VEHICLE ORIENTATION

NHTSA Test No.: R35606

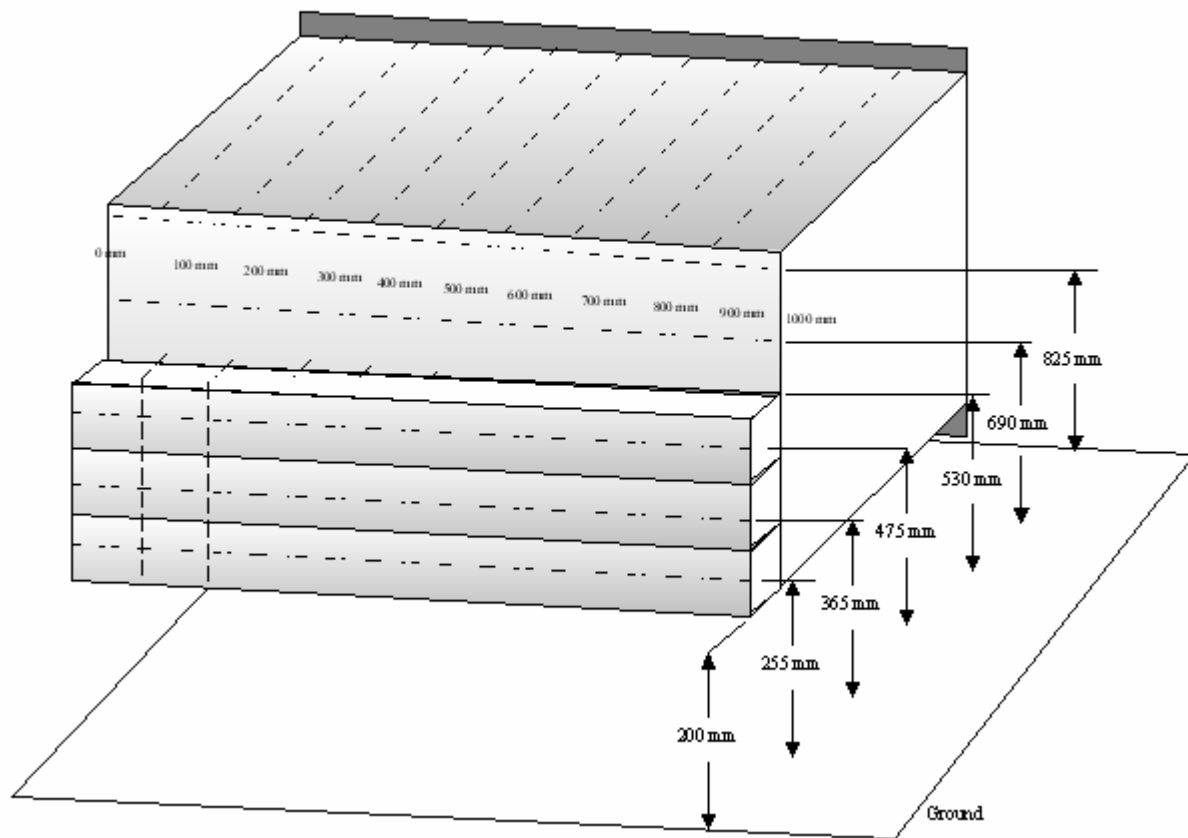
Vehicle: 2003 Mitsubishi Montero Sport LS MPV

Barrier Manufacturer and Serial Number:



A	Total Vehicle Width	<u>1750</u>	mm
B	40% Overlap Distance	<u>700.0</u>	mm
C	Deformable Face Width	<u>1000</u>	mm
D	Single Stage Honeycomb Depth	<u>450</u>	mm
E	Bumper Element Depth	<u>90</u>	mm
F	Lower Edge Height From Ground	<u>200</u>	mm
G*	Bumper Element Height	<u>330</u>	mm
H	Deformable Barrier Honeycomb Height	<u>650</u>	mm
* The bumper element consists of three 110 mm height blocks of 1.723 MPa honeycomb			

Offset Barrier Measurement Locations



DATA SHEET NO. 21 OFFSET BARRIER DEFORMATION (continued)

EXTERIOR STATIC CRUSH FOR BARRIER FACE
(Grid as looking at barrier from front)

Vehicle: _ 2003 Mitsubishi Montero Sport LS MPV

NHTSA No. R35606

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

LEVEL	HEIGHT AT CL (mm)*		DISTANCE RIGHT OF CENTER (mm)					0	DISTANCE LEFT OF CENTER (mm)				
			500	400	300	200	100		100	200	300	400	500
LEVEL 6 TOP STACK	825	PRE	546	546	546	546	546	546	546	546	546	546	546
		POST	516	532	551	576	628	714	743	786	827	861	930
		CRUSH	-30	-14	5	30	82	168	197	240	281	315	384
LEVEL 5 MID STACK	687	PRE	546	546	546	546	546	546	546	546	546	546	546
		POST	503	518	532	570	612	654	615	858	865	906	948
		CRUSH	-43	-28	-14	24	66	108	69	312	319	360	402
LEVEL 4 TOP BUMPER	530	PRE	546	546	546	546	546	546	546	546	546	546	546
		POST	501	547	587	630	666	681	645	586	1000	1000	1000
		CRUSH	-45	1	41	84	120	135	99	40	454	454	454
LEVEL 3 BUMPER TOP	475	PRE	456	456	456	456	456	456	456	456	456	456	456
		POST	425	470	515	566	585	603	555	519	1000	1000	1000
		CRUSH	-31	14	59	110	129	147	99	63	544	544	544
LEVEL 2 BUMPER MID	365	PRE	456	456	456	456	456	456	456	456	456	456	456
		POST	437	477	520	570	585	617	572	536	1000	1000	1000
		CRUSH	-19	21	64	114	129	161	116	80	544	544	544
LEVEL 1 BUMPER LOW	255	PRE	456	456	456	456	456	456	456	456	456	456	456
		POST	440	481	524	560	593	598	597	584	598	610	616
		CRUSH	-16	25	68	104	137	142	141	128	142	154	160

*Heights measured above ground level.

2-39

8710-OFST-05

APPENDIX A

PHOTOGRAPHS

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Figure A-1 PRE-TEST FRONT VIEW



Figure A-2 POST-TEST FRONT VIEW



Figure A-3 PRE-TEST LEFT SIDE VIEW



Figure A-4 POST-TEST LEFT SIDE VIEW



Figure A-5 PRE-TEST RIGHT SIDE VIEW



Figure A-6 POST-TEST RIGHT SIDE VIEW



Figure A-7 PRE-TEST RIGHT FRONT THREE-QUARTER VIEW



Figure A-8 POST-TEST RIGHT FRONT THREE-QUARTER VIEW



Figure A-9 PRE-TEST LEFT REAR THREE-QUARTER VIEW



Figure A-10 POST-TEST LEFT REAR THREE-QUARTER VIEW



Figure A-11 PRE-TEST WINDSHIELD VIEW



Figure A-12 POST-TEST WINDSHIELD VIEW



Figure A-13 PRE-TEST ENGINE COMPARTMENT VIEW

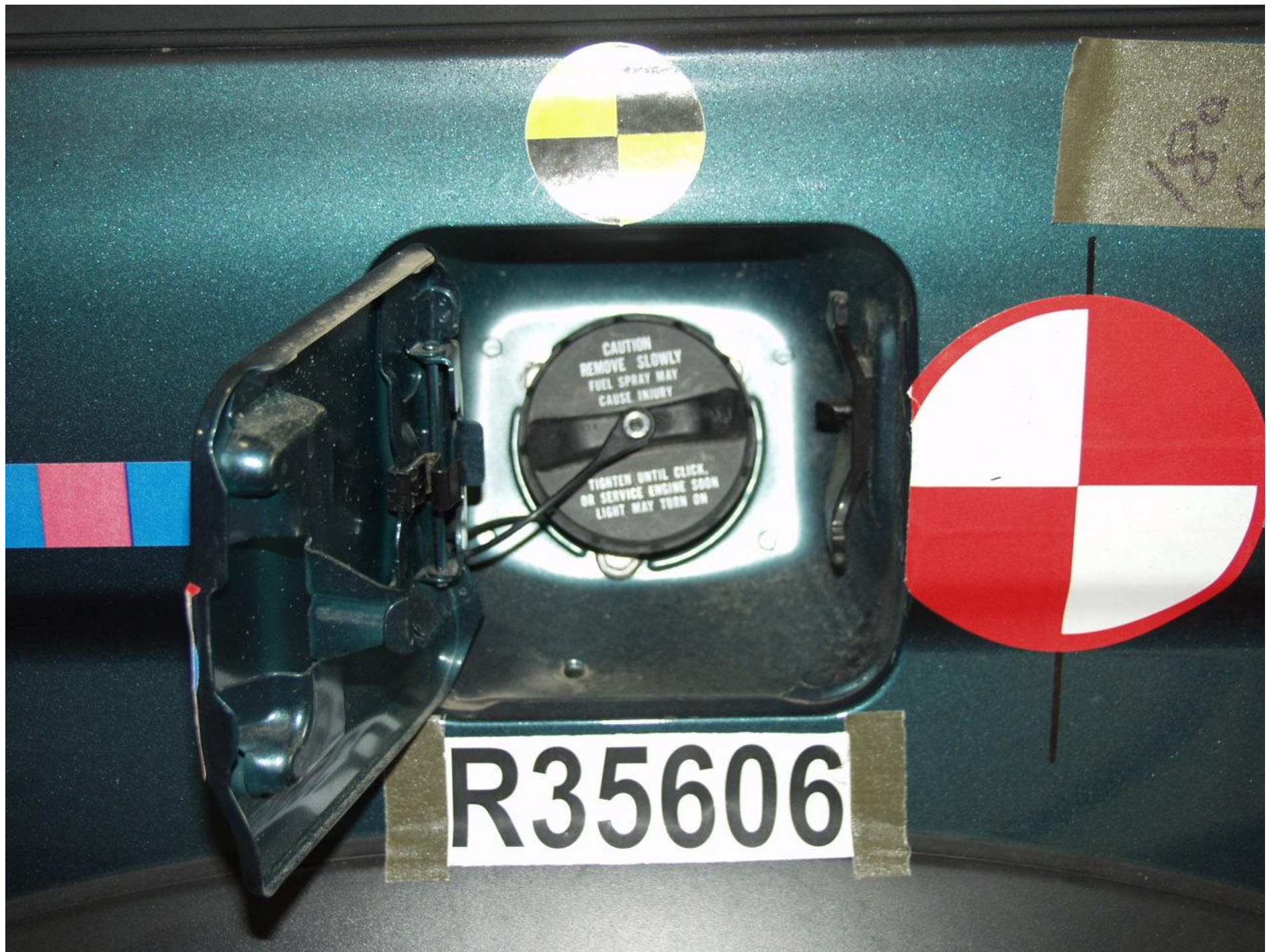


Figure A-14 FUEL CAP VIEW



Figure A-15 PRE-TEST FRONT UNDERBODY VIEW

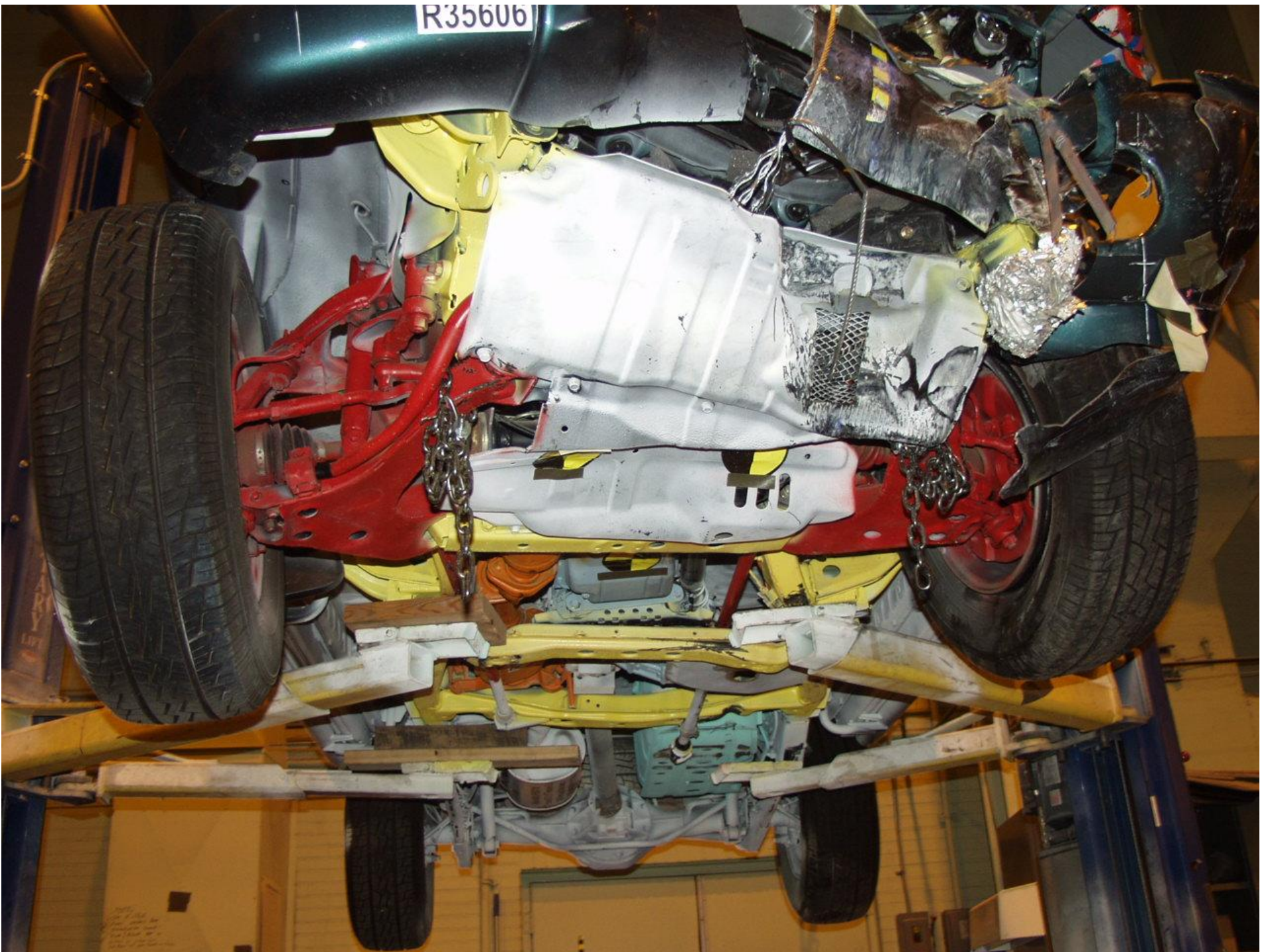


Figure A-16 POST-TEST FRONT UNDERBODY VIEW



Figure A-17 PRE-TEST FRONT SIDE UNDERBODY VIEW



Figure A-18 POST-TEST FRONT SIDE UNDERBODY VIEW



Figure A-19 PRE-TEST REAR UNDERBODY VIEW



Figure A-20 POST-TEST REAR UNDERBODY VIEW



Figure A-21 PRE-TEST DRIVER POSITION VIEW



Figure A-22 POST-TEST DRIVER POSITION VIEW



A-25

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Figure A-23 PRE-TEST PASSENGER POSITION VIEW



Figure A-24 POST-TEST PASSENGER POSITION VIEW



Figure A-25 PRE-TEST DRIVER AND INTERIOR VIEW



Figure A-26 POST-TEST DRIVER AND INTERIOR VIEW



Figure A-27 PRE-TEST PASSENGER AND INTERIOR VIEW



Figure A-28 POST-TEST PASSENGER AND INTERIOR VIEW



Figure A-29 PRE-TEST DRIVER HEAD LOCATION



Figure A-30 POST-TEST DRIVER HEAD LOCATION



Figure A-31 PRE-TEST PASSENGER HEAD LOCATION



Figure A-32 POST-TEST PASSENGER HEAD LOCATION



Figure A-33 PRE-TEST DRIVER FLOOR PAN VIEW



Figure A-34 POST-TEST DRIVER FLOOR PAN VIEW



Figure A-35 PRE-TEST PASSENGER FLOOR PAN VIEW



Figure A-36 POST-TEST PASSENGER FLOOR PAN VIEW

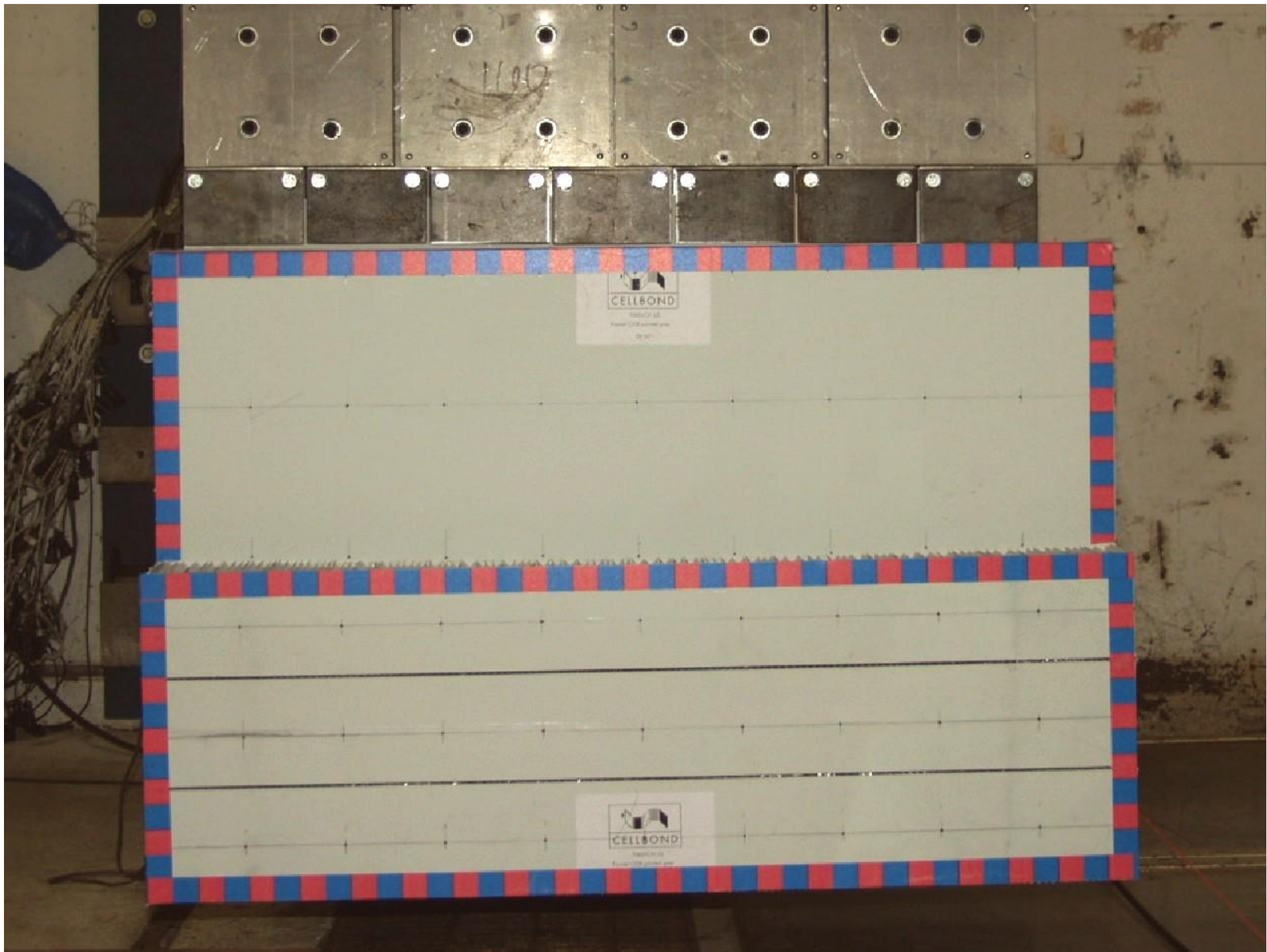


Figure A-37 PRE-TEST BARRIER FRONT VIEW



Figure A-38 POST-TEST BARRIER FRONT VIEW

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Figure A-39 PRE-TEST BARRIER LEFT SIDE VIEW

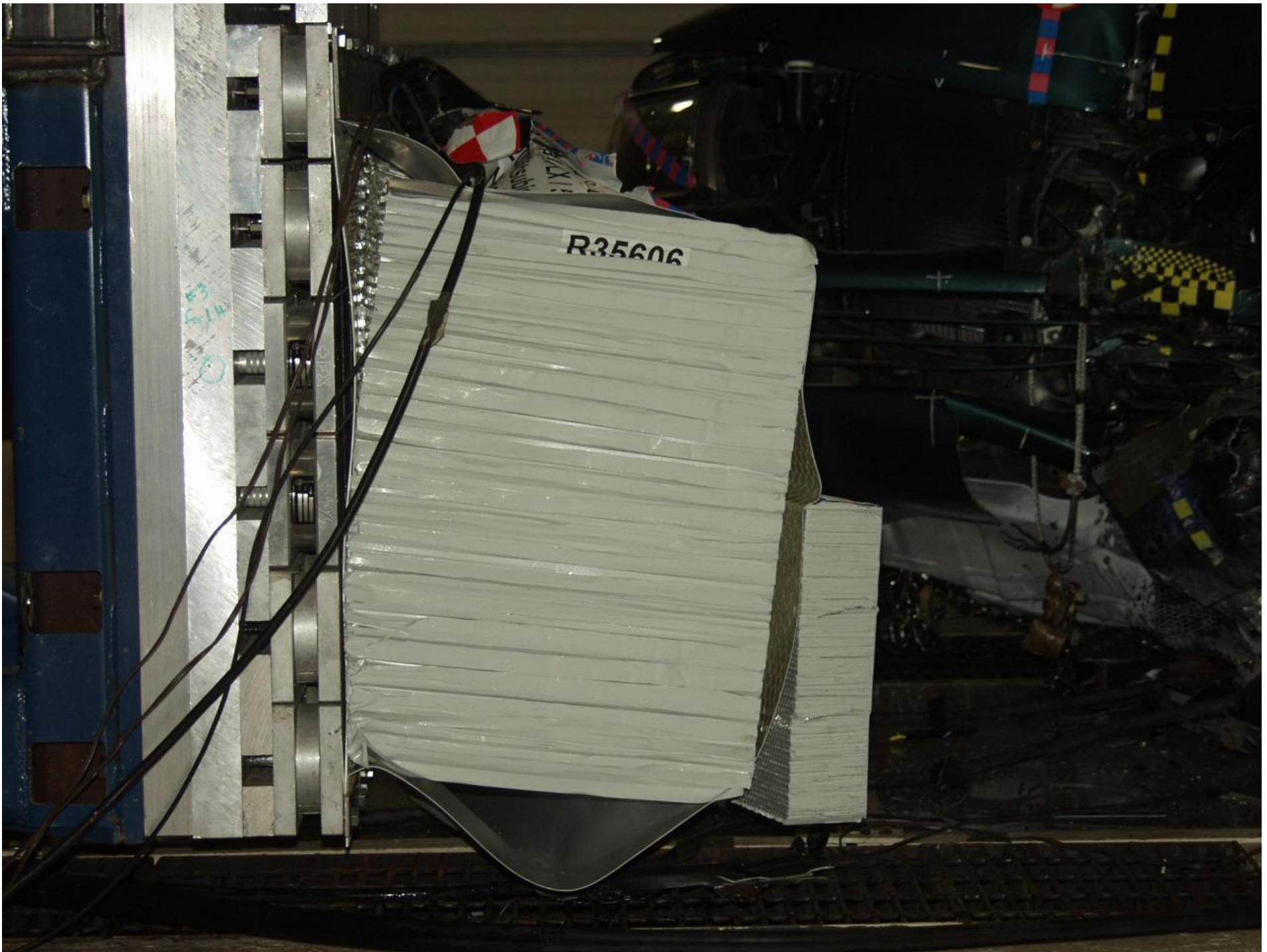


Figure A-40 POST-TEST BARRIER LEFTSIDE VIEW



Figure A-41 PRE-TEST BARRIER RIGHT SIDE VIEW



Figure A-42 POST-TEST BARRIER RIGHT SIDE VIEW

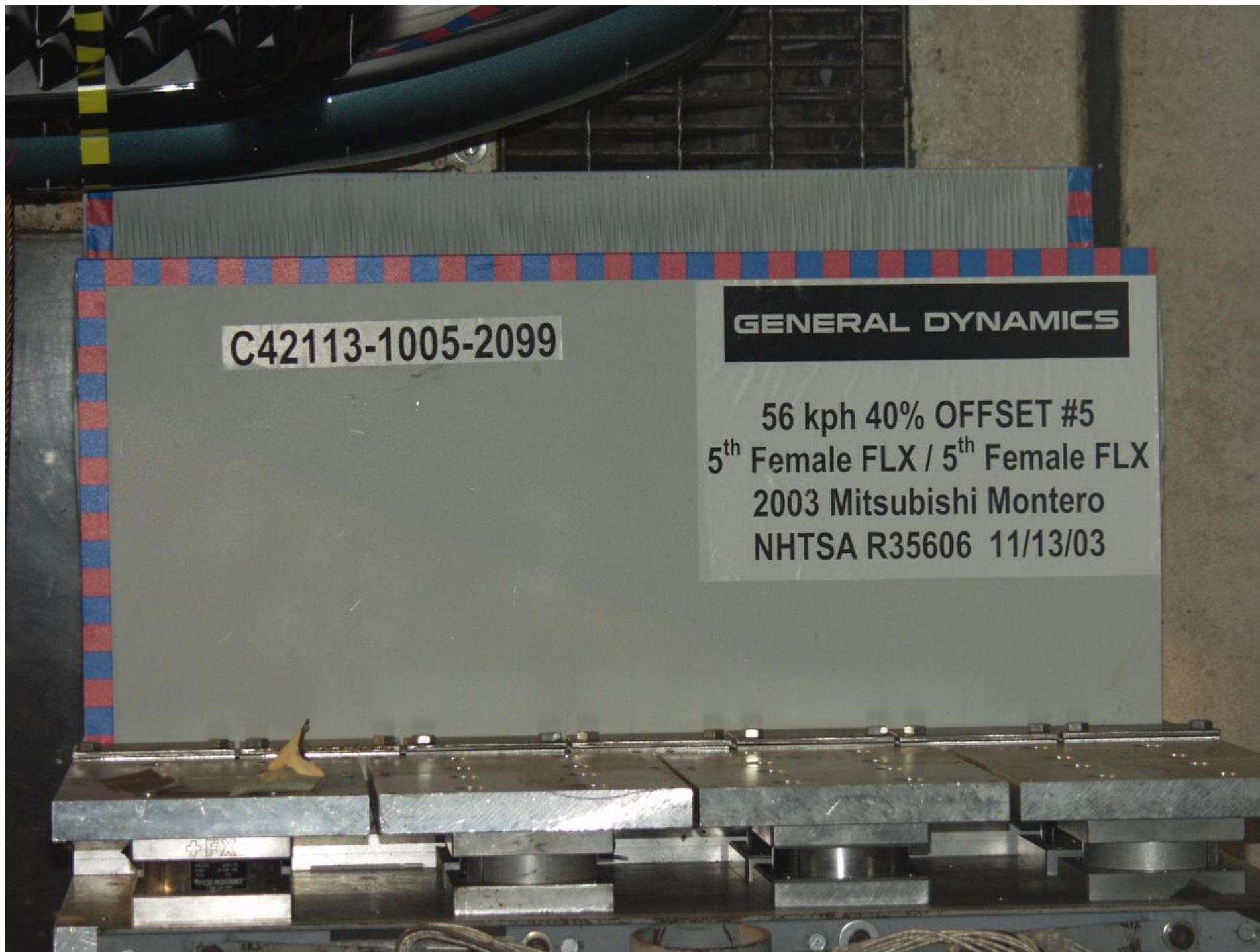


Figure A-43 PRE-TEST BARRIER TOP VIEW



Figure A-44 POST-TEST BARRIER TOP VIEW

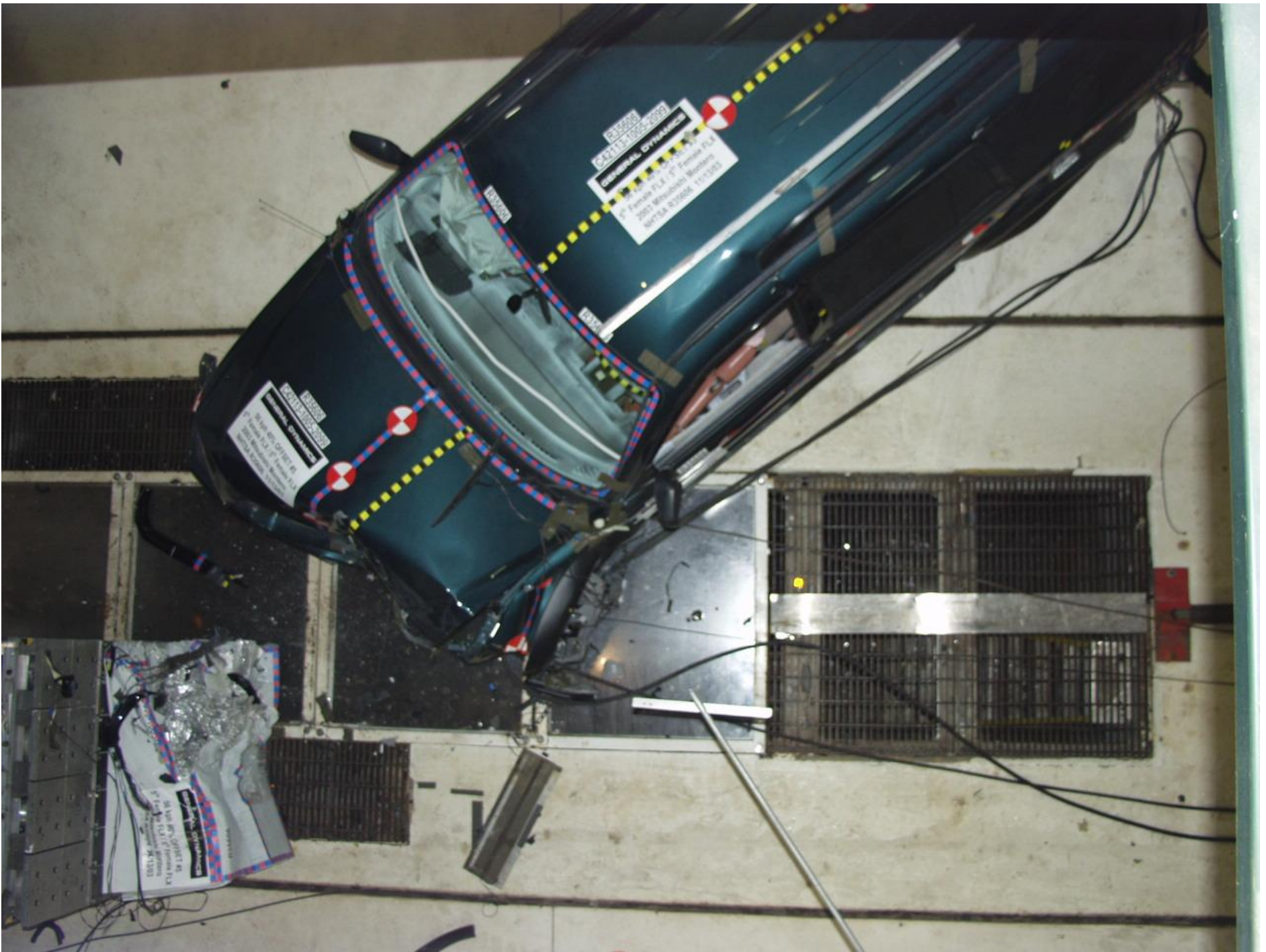


Figure A-45 POST-TEST OVERHEADVIEW



Figure A-46 ROLLOVER VIEW



Figure A-47 IMPACT VIEW



Figure A-48 PRE-TEST DRIVER LOWER LEG VIEW



Figure A-49 POST-TEST DRIVER LOWER LEG VIEW



Figure A-50 PRE-TEST PASSENGER LOWER LEG VIEW

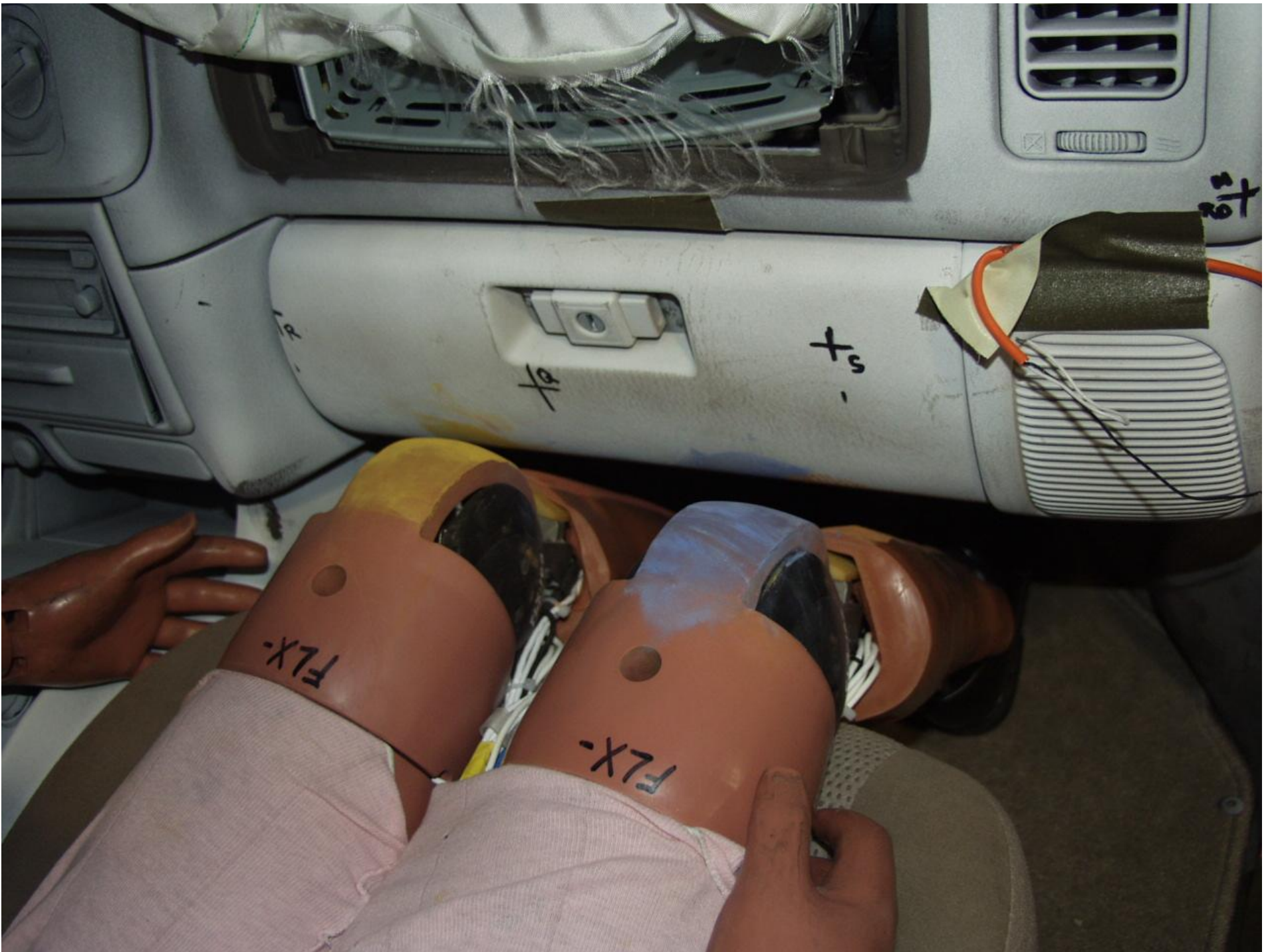


Figure A-51 POST-TEST PASSENGER LOWER LEG VIEW



Figure A-52 PRE-TEST DRIVER FEET VIEW



Figure A-53 POST-TEST DRIVER FEET VIEW



Figure A-54 PRE-TEST PASSENGER FEET VIEW



Figure A-55 POST-TEST PASSENGER FEET VIEW



Figure A-56 PRE-TEST DRIVER ABDOMEN VIEW



Figure A-57 POST-TEST DRIVER ABDOMEN VIEW



Figure A-58 PRE-TEST LEFT FRONT WHEEL WELL VIEW



Figure A-59 POST-TEST LEFT FRONT WHEEL WELL VIEW



Figure A-60 PRE-TEST LEFT FRONT (SHOTGUN) VIEW



Figure A-61 POST-TEST LEFT FRONT (SHOTGUN) VIEW



Figure A-62 PRE-TEST LEFT SIDE A-PILLAR VIEW



Figure A-63 POST-TEST LEFT SIDE A-PILLAR VIEW



Figure A-64 PRE-TEST LEFT SIDE WHEEL/TIRE/ROCKER



Figure A-65 POST-TEST LEFT SIDE WHEEL/TIRE/ROCKER



Figure A-66 PRE-TEST FRONT SUBFRAME VIEW



Figure A-67 POST-TEST FRONT SUBFRAME VIEW



Figure A-68 PRE-TEST STEERING ARM VIEW



Figure A-69 POST-TEST STEERING ARM VIEW



Figure A-70 PRE-TEST UNDERBODY OVERALL VIEW



Figure A-71 POST-TEST UNDERBODY OVERALL VIEW

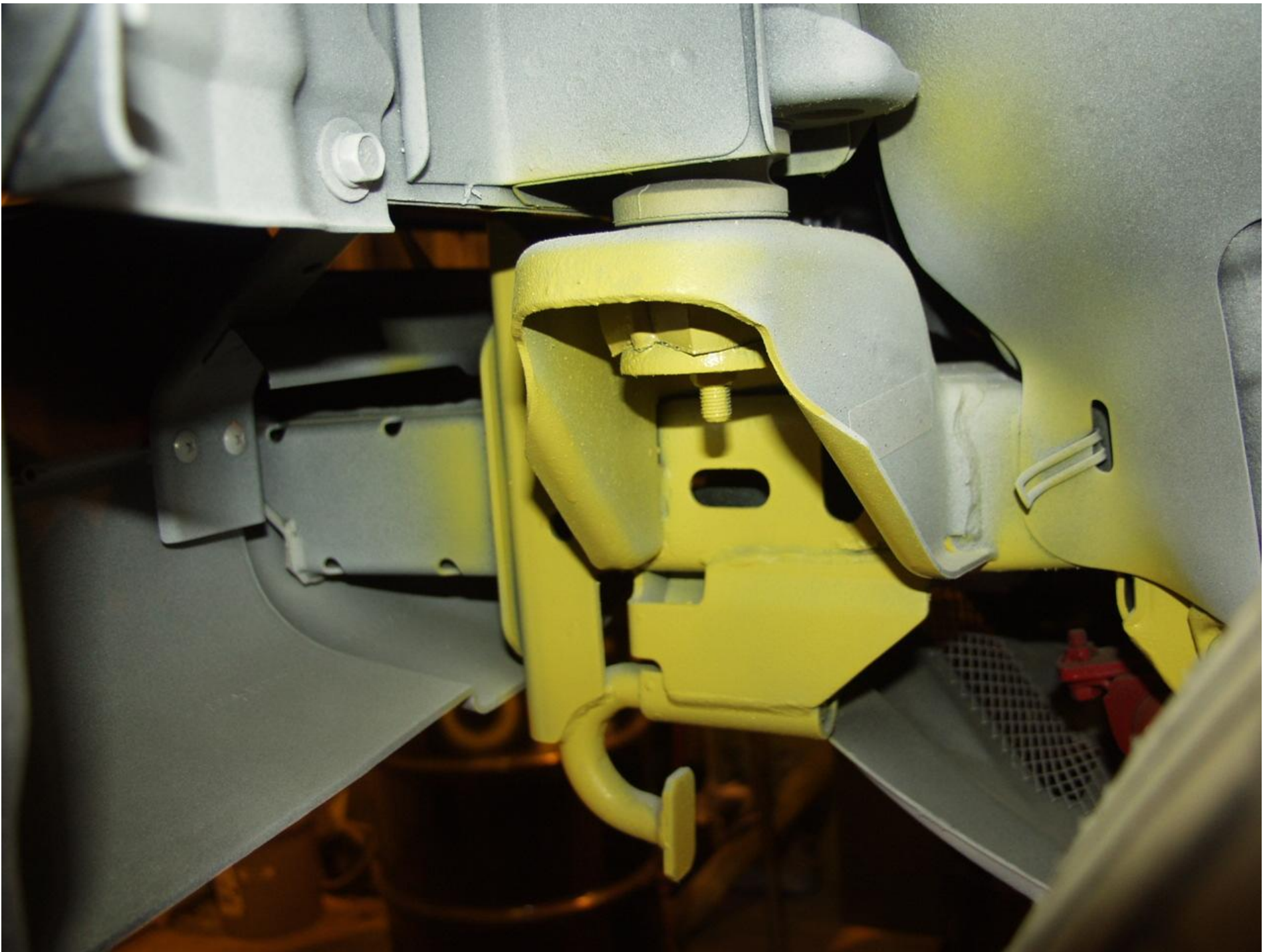


Figure A-72 PRE-TEST BUMPER TO RAIL ATTACHMENT

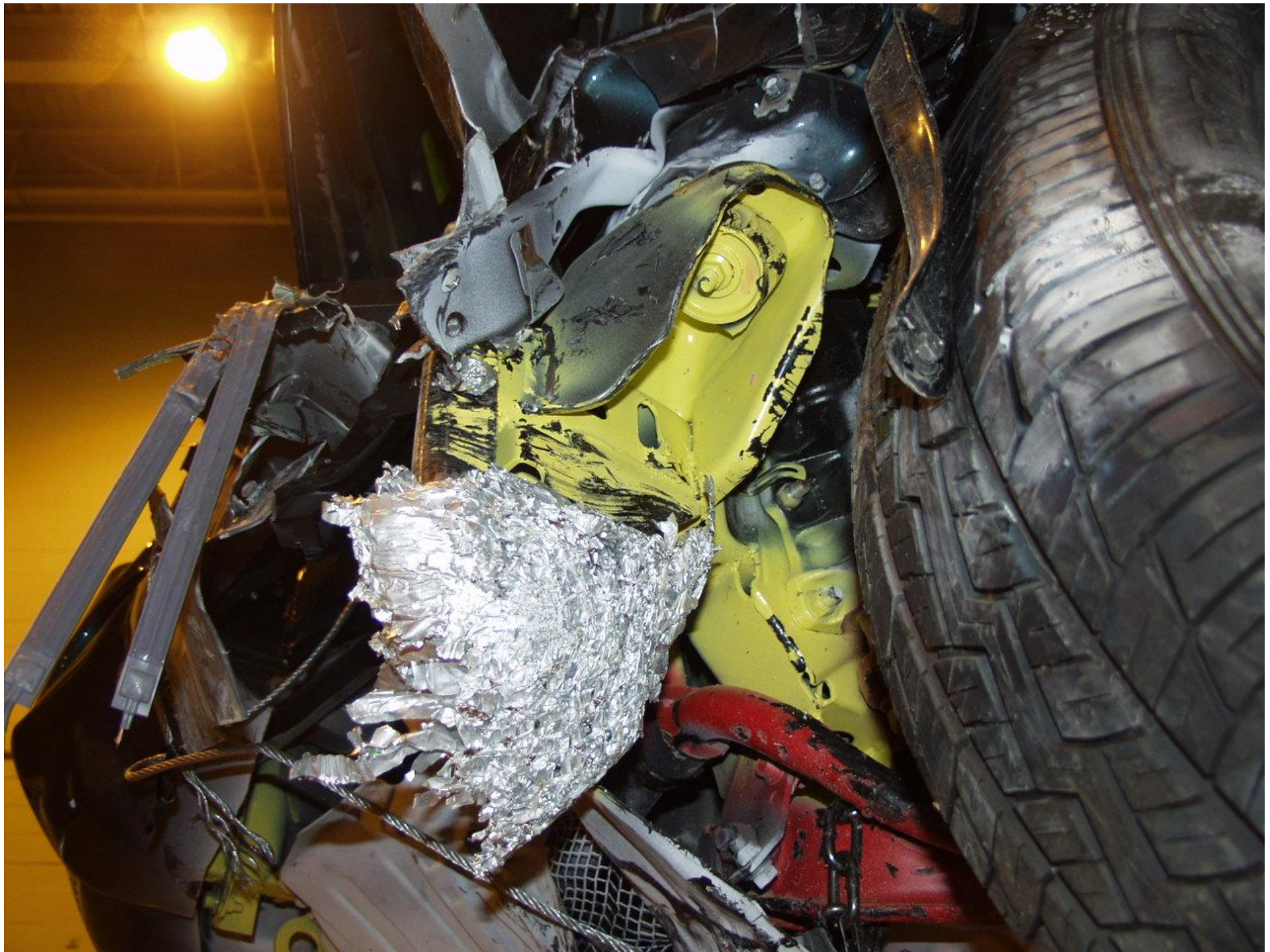


Figure A-73 POST-TEST BUMPER TO RAIL ATTACHMENT

APPENDIX B

DUMMY, VEHICLE AND LOAD CELL BARRIER RESPONSE DATA

**Hybrid III Dummy Sign Conventions
Load Cells and Special Transducers**

Transducer	SAE Sign Convention (positive unless noted)
Upper Neck Load Cell	Fx Head rearward, Chest Forward Fy Head leftward, Chest rightward Fz Head Upward, Chest Downward Mx Left ear toward left shoulder My Chin toward sternum (flexion) Mz Chin toward left shoulder (look left)
Chest Displacement Potentiometer	Compression is negative
Pelvic Load Cell (Lower Lumbar)	Fx Chest rearward Fy Chest left Fz Spine in tension
Femur Load Cell (right and left leg)	Fx Knee Upward, Upper Femur Downward Fy Knee Rightward, Upper Femur Leftward Fz Knee Forward, Pelvis Rearward Mx Knee Leftward, Hold Upper Femur in Place My Knee Upward, Hold Upper Femur in Place Mz Tibia Leftward, Hold Pelvis in Place
Upper Tibia Load Cell (right and left leg)	Fx Ankle Forward, Knee Rearward Fy Ankle Rightward, Knee Leftward Fz Tibia Downward, Femur Upward Mx Ankle Leftward, Hold Knee in Place My Ankle Forward, Bottom of Knee Clevis Rearward
Lower Tibia Load Cell (right and left leg)	Fx Ankle Forward, Knee Rearward Fy Ankle Rightward, Knee Leftward Fz Tibia Downward, Femur Upward Mx Ankle Leftward, Hold Knee in Place My Ankle Forward, Bottom of Knee Clevis Rearward
Knee Shear Displacement	X Hold Femur Move Tibia Forward
Tibia Mid-Shaft Accelerometer	X Forward Y To the Right
Foot Rotations (left foot)	X Eversion Y Dorsi Flexion Z Internal Rotation
Foot Rotations (right foot)	X Inversion Y Dorsi Flexion Z External Rotation
Foot Accelerometer (right and left foot)	X Forward Y To the Right Z Down

DATA CHANNEL FILTER CLASS SUMMARY

NHTSA TEST NO. R35606

DATA TYPE	SAE FILTER CLASS (Hz)
Dummy Head Accelerations	1000
Dummy Neck Forces	1000
Dummy Neck Moments	600
Dummy Chest Accelerations	180
Dummy Chest Displacements	600
Dummy Femur Forces	600
Dummy Femur Moments	600
Dummy Knee Displacement	180
Dummy Tibia Accelerations	600
Dummy Tibia Forces	600
Dummy Tibia Moments	600
Dummy Ankle Rotations	180
Dummy Foot Accelerations	600
Dummy Belt Displacements	180
Dummy Belt Loads	60
Vehicle Accelerations	60
Vehicle Velocity Integrations	180
Vehicle Displacement Integrations	180
Load Cell Barrier Forces	60

PLOT	PLOT NAME[UNITS, CHANNEL FILTER CLASS]	PAGE
1	V1P1 Head 9 Array X Arm Ay [g, CFC_1000]	B-10
2	V1P1 Head 9 Array X Arm Az [g, CFC_1000]	B-11
3	V1P1 Head 9 Array Y Arm Ax [g, CFC_1000]	B-12
4	V1P1 Head 9 Array Y Arm Az [g, CFC_1000]	B-13
5	V1P1 Head 9 Array Z Arm Ax [g, CFC_1000]	B-14
6	V1P1 Head 9 Array Z Arm Ay [g, CFC_1000]	B-15
7	V1P1 Head x [g, CFC_1000]	B-16
8	V1P1 Head y [g, CFC_1000]	B-17
9	V1P1 Head z [g, CFC_1000]	B-18
10	V1P1 Head Resultant [g, CFC_1000]	B-19
11	V1P1 Head Red x [g, CFC_1000]	B-20
12	V1P1 Head Red y [g, CFC_1000]	B-21
13	V1P1 Head Red z [g, CFC_1000]	B-22
14	V1P1 Head Red Resultant [g, CFC_1000]	B-23
15	V1P1 Upper Neck Fx [N, CFC_1000]	B-24
16	V1P1 Upper Neck Fy [N, CFC_1000]	B-25
17	V1P1 Upper Neck Fz [N, CFC_1000]	B-26
18	V1P1 Upper Neck F Resultant [N, CFC_1000]	B-27
19	V1P1 Upper Neck Mx [N-m, CFC_600]	B-28
20	V1P1 Upper Neck My [N-m, CFC_600]	B-29
21	V1P1 Upper Neck Mz [N-m, CFC_600]	B-30
22	V1P1 Upper Neck M Resultant [N-m, CFC_600]	B-31
23	V1P1 Lower Neck Fx [N, CFC_1000]	B-32
24	V1P1 Lower Neck Fy [N, CFC_1000]	B-33
25	V1P1 Lower Neck Fz [N, CFC_1000]	B-34
26	V1P1 Lower Neck F Resultant [N, CFC_1000]	B-35
27	V1P1 Lower Neck Mx [N-m, CFC_600]	B-36
28	V1P1 Lower Neck My [N-m, CFC_600]	B-37
29	V1P1 Chest x [g, CFC_180]	B-38
30	V1P1 Chest y [g, CFC_180]	B-39
31	V1P1 Chest z [g, CFC_180]	B-40
32	V1P1 Chest Resultant [g, CFC_180]	B-41
33	V1P1 Chest Red x [g, CFC_180]	B-42
34	V1P1 Chest Red y [g, CFC_180]	B-43
35	V1P1 Chest Red z [g, CFC_180]	B-44
36	V1P1 Chest Red Resultant [g, CFC_180]	B-45
37	V1P1 Chest Displacement [mm, CFC_600]	B-46
38	V1P1 Left Femur [N, CFC_600]	B-47
39	V1P1 Right Femur [N, CFC_600]	B-48
40	V1P1 Left Knee Deflection [mm, CFC_180]	B-49
41	V1P1 Right Knee Deflection [mm, CFC_180]	B-50
42	V1P1 Left Upper Tibia Fx [N, CFC_600]	B-51
43	V1P1 Left Upper Tibia Fz [N, CFC_600]	B-52
44	V1P1 Left Upper Tibia Mx [N-m, CFC_600]	B-53
45	V1P1 Left Upper Tibia My [N-m, CFC_600]	B-54
46	V1P1 Left Lower Tibia Fx [N, CFC_600]	B-55

47	V1P1 Left Lower Tibia Fy [N, CFC_600]	B-56
48	V1P1 Left Lower Tibia Fz [N, CFC_600]	B-57
49	V1P1 Left Lower Tibia F Resultant [N, CFC_600]	B-58
50	V1P1 Left Lower Tibia Mx [N-m, CFC_600]	B-59
51	V1P1 Left Lower Tibia My [N-m, CFC_600]	B-60
52	V1P1 Right Upper Tibia Fx [N, CFC_600]	B-61
53	V1P1 Right Upper Tibia Fz [N, CFC_600]	B-62
54	V1P1 Right Upper Tibia Mx [N-m, CFC_600]	B-63
55	V1P1 Right Upper Tibia My [N-m, CFC_600]	B-64
56	V1P1 Right Lower Tibia Fx [N, CFC_600]	B-65
57	V1P1 Right Lower Tibia Fy [N, CFC_600]	B-66
58	V1P1 Right Lower Tibia Fz [N, CFC_600]	B-67
59	V1P1 Right Lower Tibia F Resultant [N, CFC_600]	B-68
60	V1P1 Right Lower Tibia Mx [N-m, CFC_600]	B-69
61	V1P1 Right Lower Tibia My [N-m, CFC_600]	B-70
62	V1P1 Left Tibia x [g, CFC_600]	B-71
63	V1P1 Left Tibia y [g, CFC_600]	B-72
64	V1P1 Right Tibia x [g, CFC_600]	B-73
65	V1P1 Right Tibia y [g, CFC_600]	B-74
66	V1P1 Left Ankle Rotation x [deg, CFC_180]	B-75
67	V1P1 Left Ankle Rotation y [deg, CFC_180]	B-76
68	V1P1 Left Ankle Rotation z [deg, CFC_180]	B-77
69	V1P1 Right Ankle Rotation x [deg, CFC_180]	B-78
70	V1P1 Right Ankle Rotation y [deg, CFC_180]	B-79
71	V1P1 Right Ankle Rotation z [deg, CFC_180]	B-80
72	V1P1 Left Foot x [g, CFC_600]	B-81
73	V1P1 Left Foot y [g, CFC_600]	B-82
74	V1P1 Left Foot z [g, CFC_600]	B-83
75	V1P1 Left Foot Resultant [g, CFC_600]	B-84
76	V1P1 Right Foot x [g, CFC_600]	B-85
77	V1P1 Right Foot y [g, CFC_600]	B-86
78	V1P1 Right Foot z [g, CFC_600]	B-87
79	V1P1 Right Foot Resultant [g, CFC_600]	B-88
80	V1P1 Lap Belt Load [N, CFC_60]	B-89
81	V1P1 Toe Pan Deflection [mm, CFC_1000]	B-90
82	V1P1 Air Bag T/E	B-91
83	V1P2 Head 9 Array X Arm Ay [g, CFC_1000]	B-92
84	V1P2 Head 9 Array X Arm Az [g, CFC_1000]	B-93
85	V1P2 Head 9 Array Y Arm Ax [g, CFC_1000]	B-94
86	V1P2 Head 9 Array Y Arm Az [g, CFC_1000]	B-95
87	V1P2 Head 9 Array Z Arm Ax [g, CFC_1000]	B-96
88	V1P2 Head 9 Array Z Arm Ay [g, CFC_1000]	B-97
89	V1P2 Head x [g, CFC_1000]	B-98
90	V1P2 Head y [g, CFC_1000]	B-99
91	V1P2 Head z [g, CFC_1000]	B-100
92	V1P2 Head Resultant [g, CFC_1000]	B-101
93	V1P2 Head Red x [g, CFC_1000]	B-102

94	V1P2 Head Red y [g, CFC_1000]	B-103
95	V1P2 Head Red z [g, CFC_1000]	B-104
96	V1P2 Head Red Resultant [g, CFC_1000]	B-105
97	V1P2 Upper Neck Fx [N, CFC_1000]	B-106
98	V1P2 Upper Neck Fy [N, CFC_1000]	B-107
99	V1P2 Upper Neck Fz [N, CFC_1000]	B-108
100	V1P2 Upper Neck F Resultant [N, CFC_1000]	B-109
101	V1P2 Upper Neck Mx [N-m, CFC_600]	B-110
102	V1P2 Upper Neck My [N-m, CFC_600]	B-111
103	V1P2 Upper Neck Mz [N-m, CFC_600]	B-112
104	V1P2 Upper Neck M Resultant [N-m, CFC_600]	B-113
105	V1P2 Lower Neck Fx [N, CFC_1000]	B-114
106	V1P2 Lower Neck Fy [N, CFC_1000]	B-115
107	V1P2 Lower Neck Fz [N, CFC_1000]	B-116
108	V1P2 Lower Neck F Resultant [N, CFC_1000]	B-117
109	V1P2 Lower Neck Mx [N-m, CFC_600]	B-118
110	V1P2 Lower Neck My [N-m, CFC_600]	B-119
111	V1P2 Lower Neck Mz [N-m, CFC_600]	B-120
112	V1P2 Lower Neck M Resultant [N-m, CFC_600]	B-121
113	V1P2 Chest x [g, CFC_180]	B-122
114	V1P2 Chest y [g, CFC_180]	B-123
115	V1P2 Chest z [g, CFC_180]	B-124
116	V1P2 Chest Resultant [g, CFC_180]	B-125
117	V1P2 Chest Red x [g, CFC_180]	B-126
118	V1P2 Chest Red y [g, CFC_180]	B-127
119	V1P2 Chest Red z [g, CFC_180]	B-128
120	V1P2 Chest Red Resultant [g, CFC_180]	B-129
121	V1P2 Chest Displacement [mm, CFC_600]	B-130
122	V1P2 Left Femur [N, CFC_600]	B-131
123	V1P2 Right Femur [N, CFC_600]	B-132
124	V1P2 Left Knee Deflection [mm, CFC_180]	B-133
125	V1P2 Right Knee Deflection [mm, CFC_180]	B-134
126	V1P2 Left Upper Tibia Fx [N, CFC_600]	B-135
127	V1P2 Left Upper Tibia Fz [N, CFC_600]	B-136
128	V1P2 Left Upper Tibia Mx [N-m, CFC_600]	B-137
129	V1P2 Left Upper Tibia My [N-m, CFC_600]	B-138
130	V1P2 Left Lower Tibia Fx [N, CFC_600]	B-139
131	V1P2 Left Lower Tibia Fy [N, CFC_600]	B-140
132	V1P2 Left Lower Tibia Fz [N, CFC_600]	B-141
133	V1P2 Left Lower Tibia F Resultant [N, CFC_600]	B-142
134	V1P2 Left Lower Tibia Mx [N-m, CFC_600]	B-143
135	V1P2 Left Lower Tibia My [N-m, CFC_600]	B-144
136	V1P2 Right Upper Tibia Fx [N, CFC_600]	B-145
137	V1P2 Right Upper Tibia Fz [N, CFC_600]	B-146
138	V1P2 Right Upper Tibia Mx [N-m, CFC_600]	B-147
139	V1P2 Right Upper Tibia My [N-m, CFC_600]	B-148
140	V1P2 Right Lower Tibia Fx [N, CFC_600]	B-149

141	V1P2 Right Lower Tibia Fy [N, CFC_600]	B-150
142	V1P2 Right Lower Tibia Fz [N, CFC_600]	B-151
143	V1P2 Right Lower Tibia F Resultant [N, CFC_600]	B-152
144	V1P2 Right Lower Tibia Mx [N-m, CFC_600]	B-153
145	V1P2 Right Lower Tibia My [N-m, CFC_600]	B-154
146	V1P2 Left Tibia x [g, CFC_600]	B-155
147	V1P2 Left Tibia y [g, CFC_600]	B-156
148	V1P2 Right Tibia x [g, CFC_600]	B-157
149	V1P2 Right Tibia y [g, CFC_600]	B-158
150	V1P2 Left Ankle Rotation x [deg, CFC_180]	B-159
151	V1P2 Left Ankle Rotation y [deg, CFC_180]	B-160
152	V1P2 Left Ankle Rotation z [deg, CFC_180]	B-161
153	V1P2 Right Ankle Rotation x [deg, CFC_180]	B-162
154	V1P2 Right Ankle Rotation y [deg, CFC_180]	B-163
155	V1P2 Right Ankle Rotation z [deg, CFC_180]	B-164
156	V1P2 Left Foot x [g, CFC_600]	B-165
157	V1P2 Left Foot y [g, CFC_600]	B-166
158	V1P2 Left Foot z [g, CFC_600]	B-167
159	V1P2 Left Foot Resultant [g, CFC_600]	B-168
160	V1P2 Right Foot x [g, CFC_600]	B-169
161	V1P2 Right Foot y [g, CFC_600]	B-170
162	V1P2 Right Footz [g, CFC_600]	B-171
163	V1P2 Right Foot Resultant [g, CFC_600]	B-172
164	V1P2 Lap Belt Load [N, CFC_60]	B-173
165	V1P2 Air Bag T/E	B-174
166	V1 LR Seat Xmember x [g, CFC_60]	B-175
167	V1 LR Seat Xmember x Velocity [kph, CFC_180]	B-176
168	V1 LR Seat Xmember x Displacement [mm, CFC_180]	B-177
169	V1 LR Seat Xmember y [g, CFC_60]	B-178
170	V1 LR Seat Xmember y Velocity [kph, CFC_180]	B-179
171	V1 LR Seat Xmember y Displacement [mm, CFC_180]	B-180
172	V1 RR Seat Xmember x [g, CFC_60]	B-181
173	V1 RR Seat Xmember x Velocity [kph, CFC_180]	B-182
174	V1 RR Seat Xmember x Displacement [mm, CFC_180]	B-183
175	V1 RR Seat Xmember y [g, CFC_60]	B-184
176	V1 RR Seat Xmember y Velocity [kph, CFC_180]	B-185
177	V1 RR Seat Xmember y Displacement [mm, CFC_180]	B-186
178	V1P1 Left Toepan x [g, CFC_60]	B-187
179	V1P1 Left Toepan x Velocity [kph, CFC_180]	B-188
180	V1P1 Left Toepan x Displacement [mm, CFC_180]	B-189
181	V1P1 Left Toepan z [g, CFC_60]	B-190
182	V1P1 Left Toepan z Velocity [kph, CFC_180]	B-191
183	V1P1 Left Toepan z Displacement [mm, CFC_180]	B-192
184	V1P1 Right Toepan x [g, CFC_60]	B-193
185	V1P1 Right Toepan x Velocity [kph, CFC_180]	B-194
186	V1P1 Right Toepan x Displacement [mm, CFC_180]	B-195
187	V1P1 Right Toepan z [g, CFC_60]	B-196

188	V1P1 Right Toepan z Velocity [kph, CFC_180]	B-197
189	V1P1 Right Toepan z Displacement [mm, CFC_180]	B-198
190	V1 Rear Deck z [g, CFC_60]	B-199
191	V1 Rear Deck z Velocity [kph, CFC_180]	B-200
192	V1 Rear Deck z Displacement [mm, CFC_180]	B-201
193	V1 Vehicle CG x [g, CFC_60]	B-202
194	V1 Vehicle CG x Velocity [kph, CFC_180]	B-203
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233	Barrier Load Cell C2 FX [N, CFC_60]	B-242
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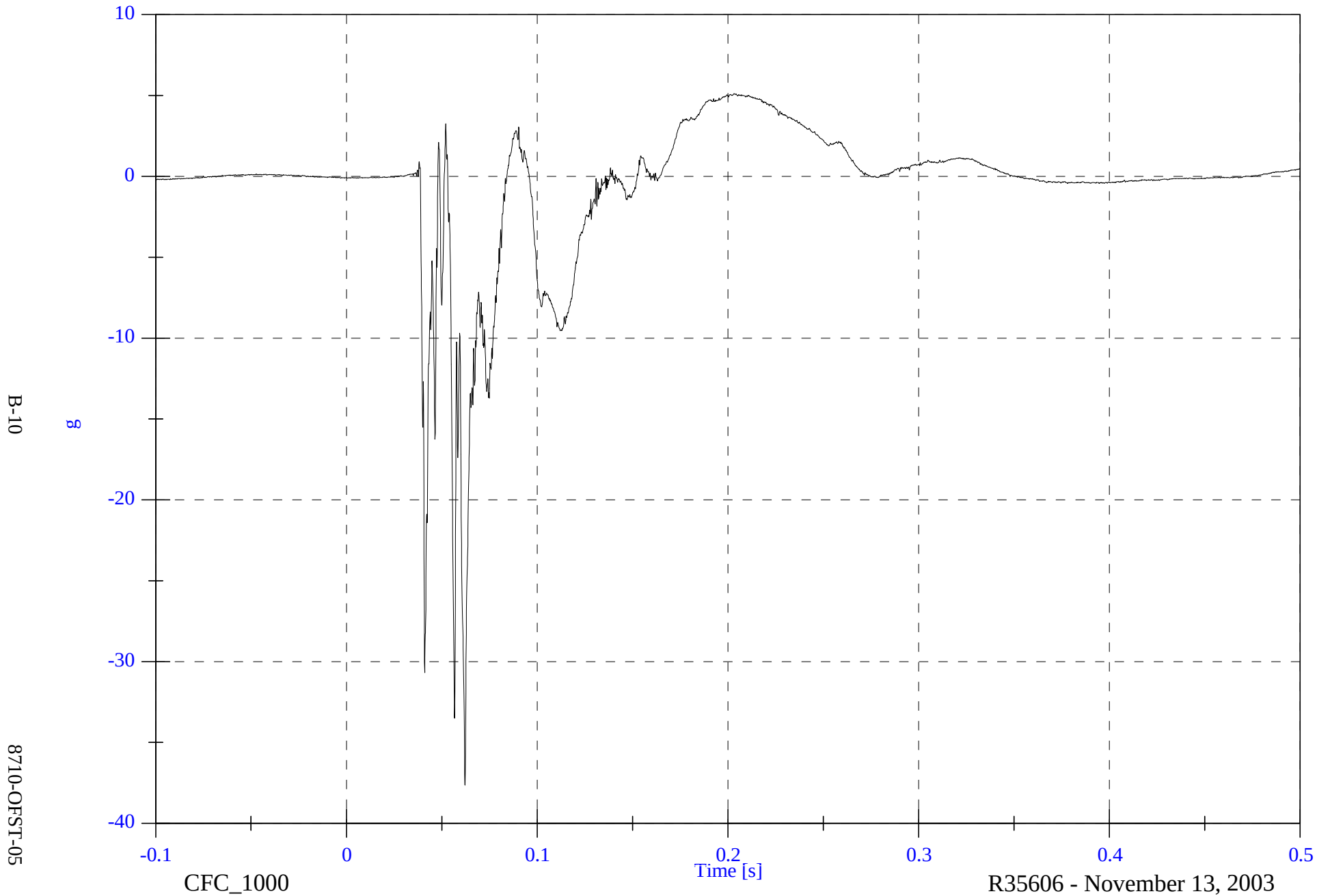
235	Barrier Load Cell C4 FX [N, CFC_60]	B-244
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40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Head 9 Array X Arm Ay

Max: 5.1 [g] at 0.203 [s]

Min: -37.6 [g] at 0.062 [s]

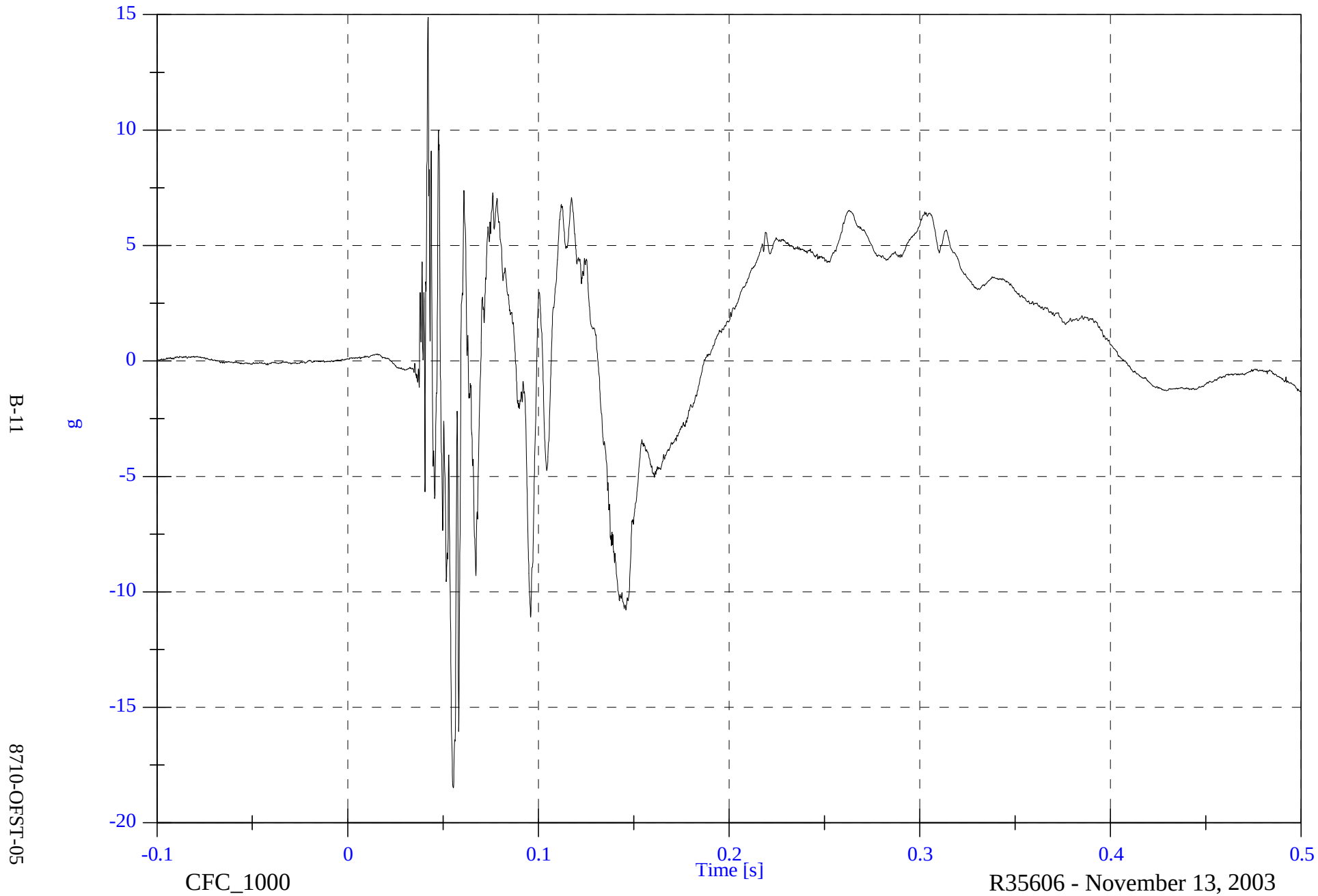


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Head 9 Array X Arm Az

Max: 14.9 [g] at 0.042 [s]

Min: -18.5 [g] at 0.055 [s]

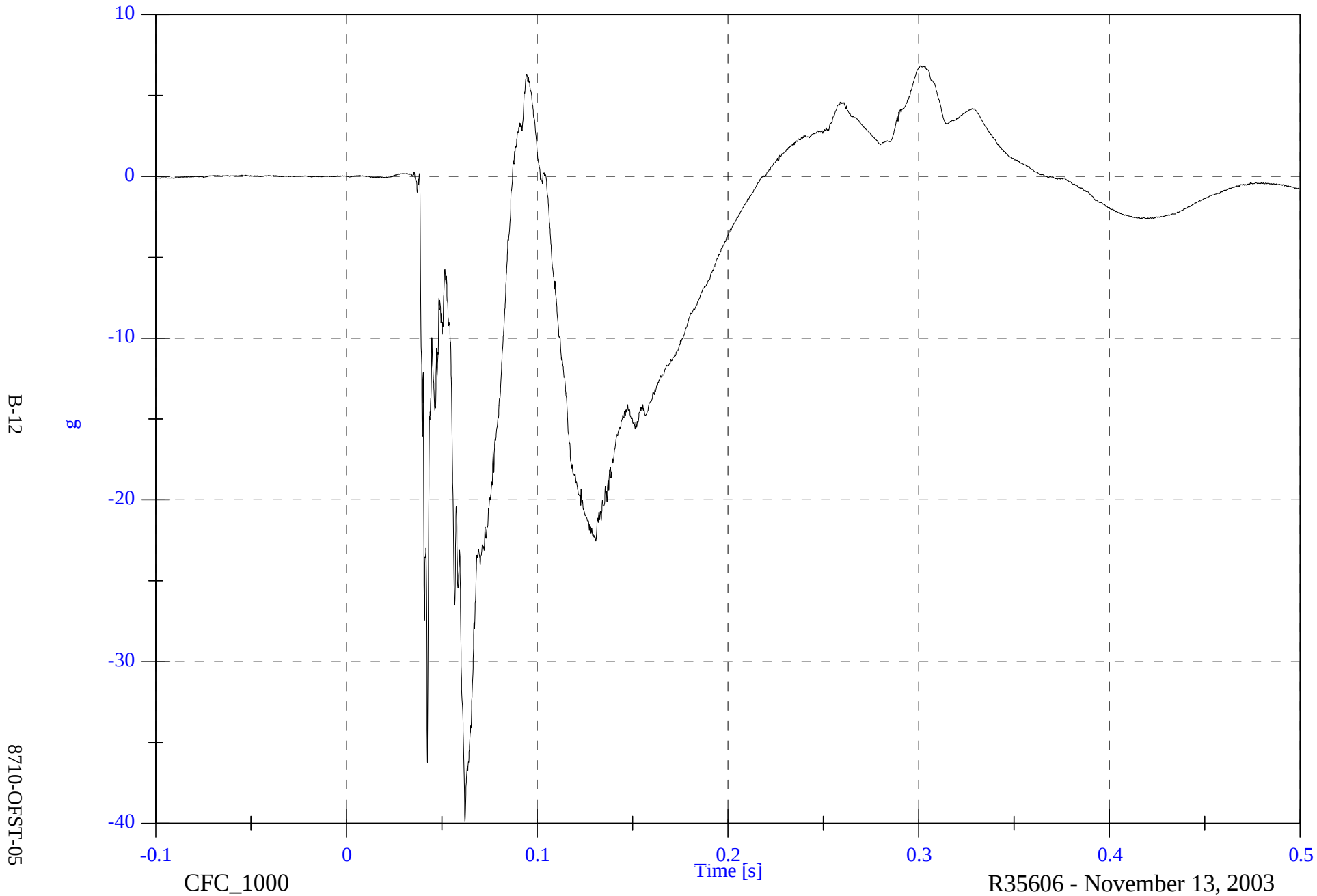


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Head 9 Array Y Arm Ax

Max: 6.8 [g] at 0.301 [s]

Min: -39.9 [g] at 0.062 [s]



40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

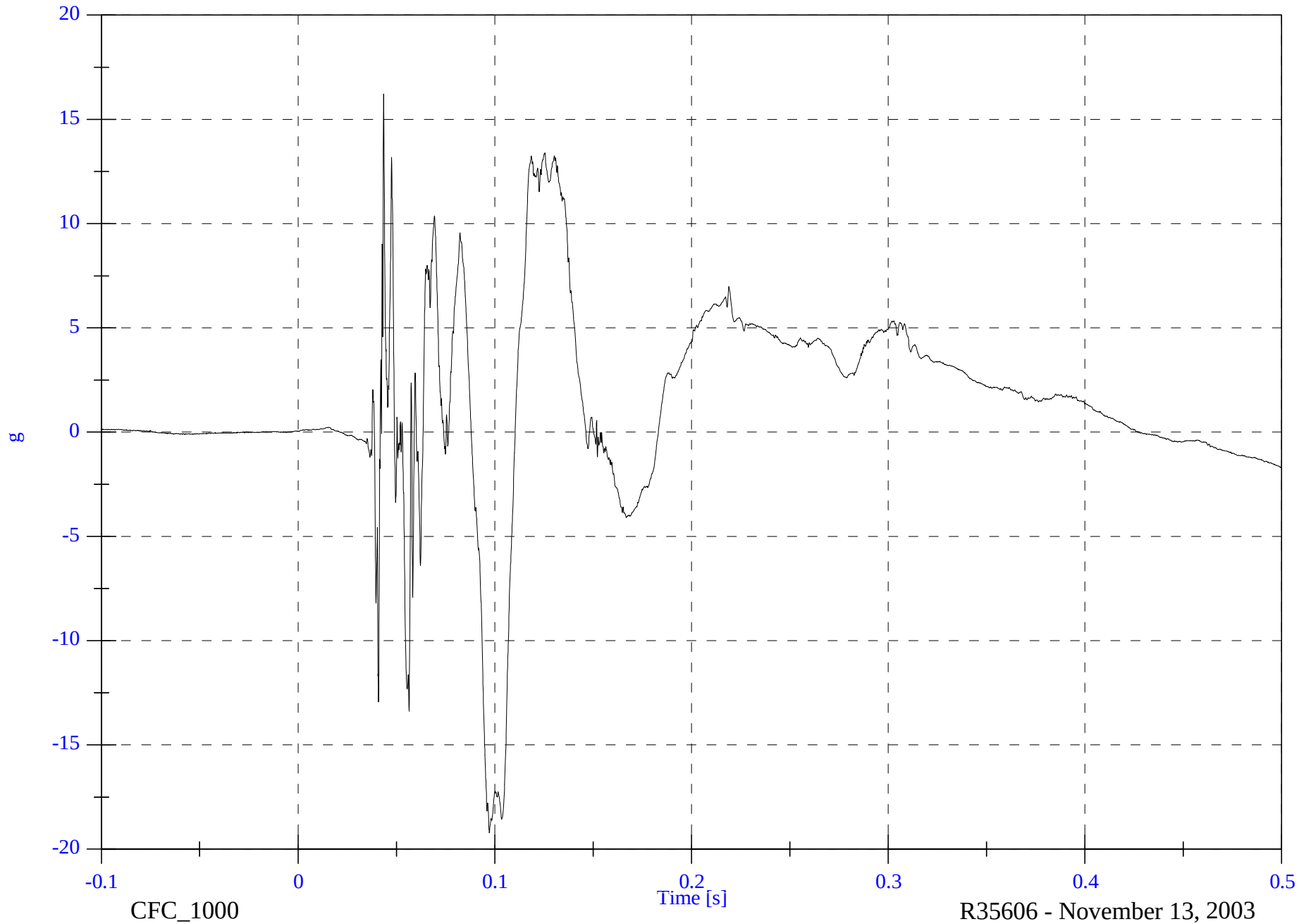
V1P1 Head 9 Array Y Arm Az

Max: 16.2 [g] at 0.043 [s]

Min: -19.2 [g] at 0.097 [s]

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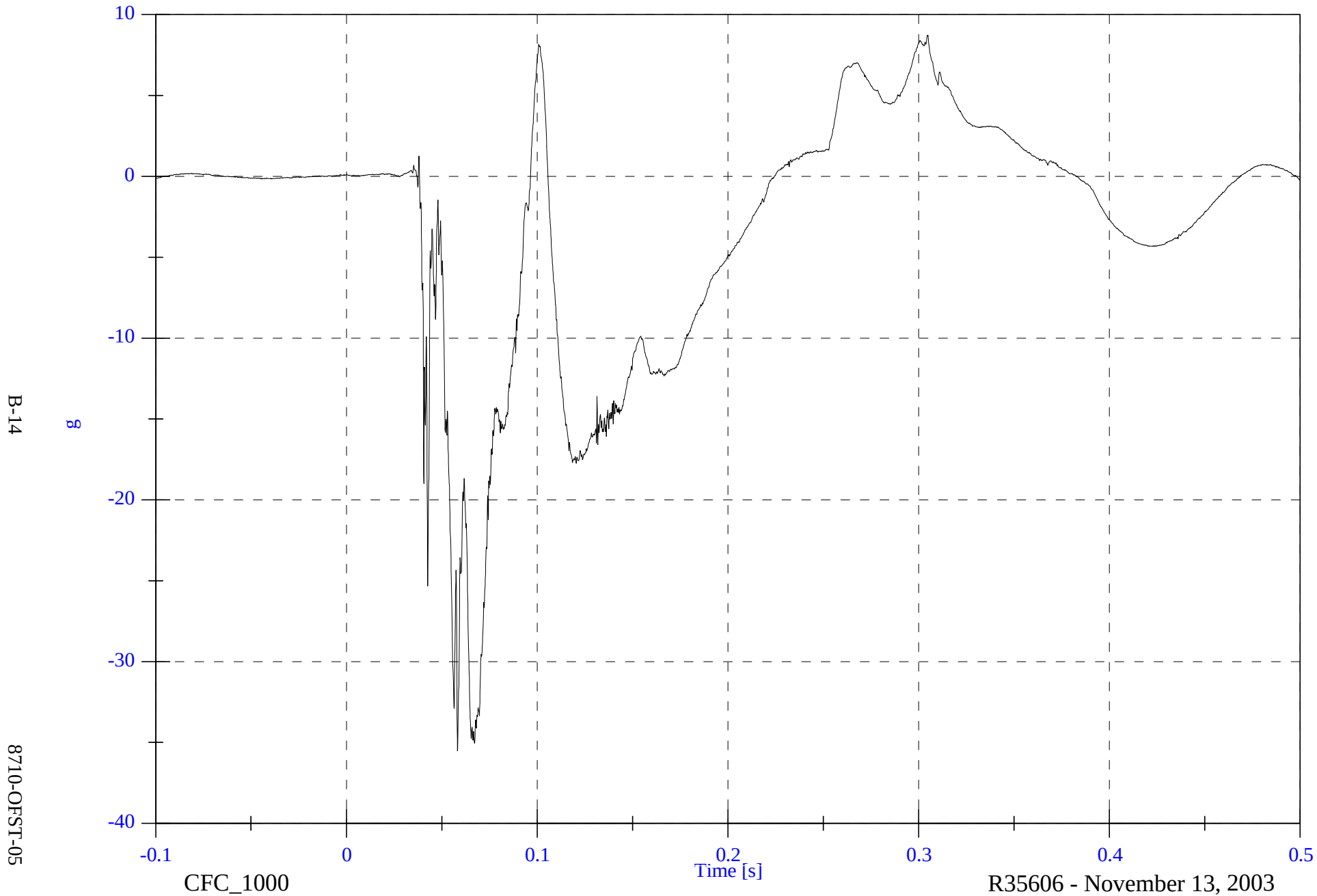


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Head 9 Array Z Arm Ax

Max: 8.7 [g] at 0.305 [s]

Min: -35.5 [g] at 0.058 [s]

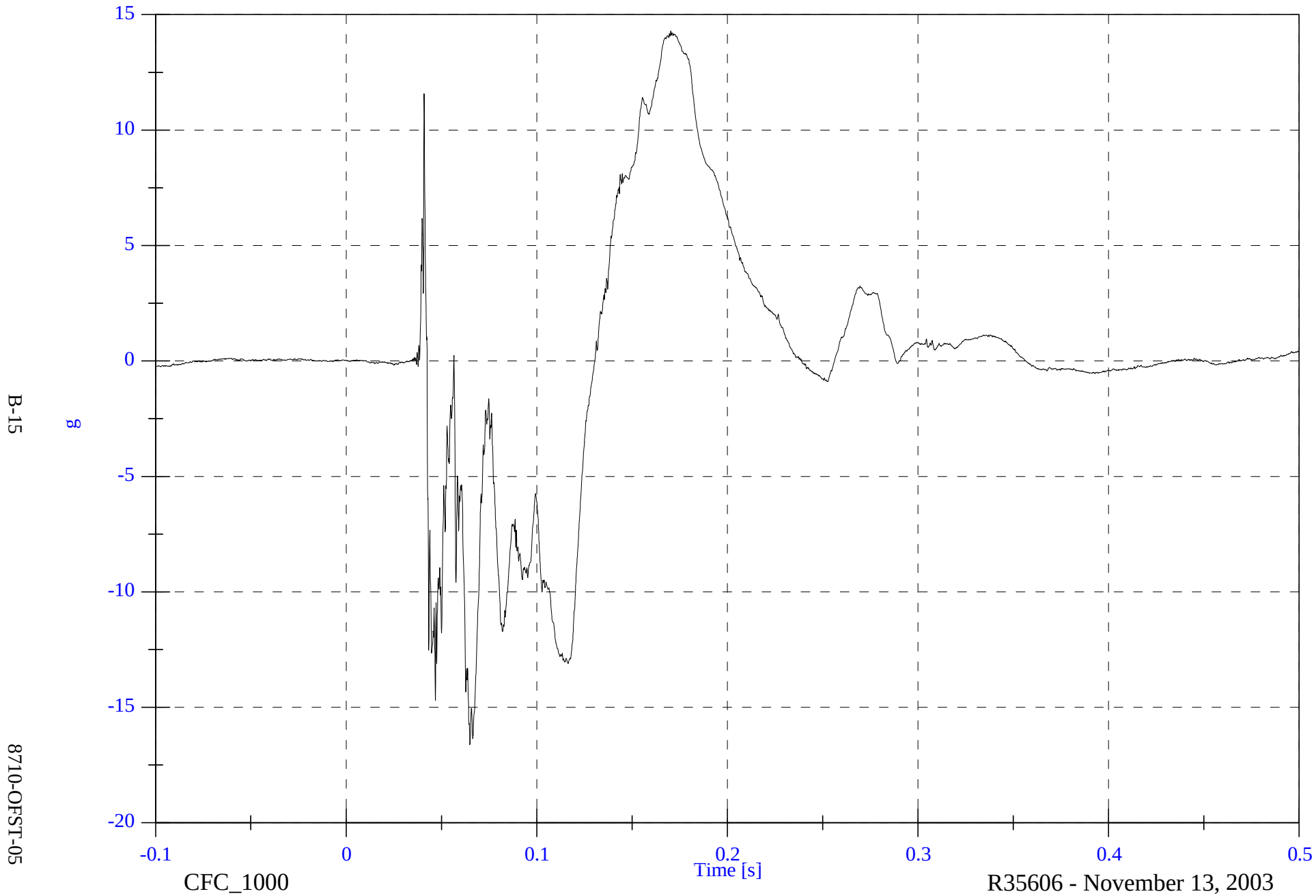


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Head 9 Array Z Arm Ay

Max: 14.3 [g] at 0.170 [s]

Min: -16.6 [g] at 0.065 [s]

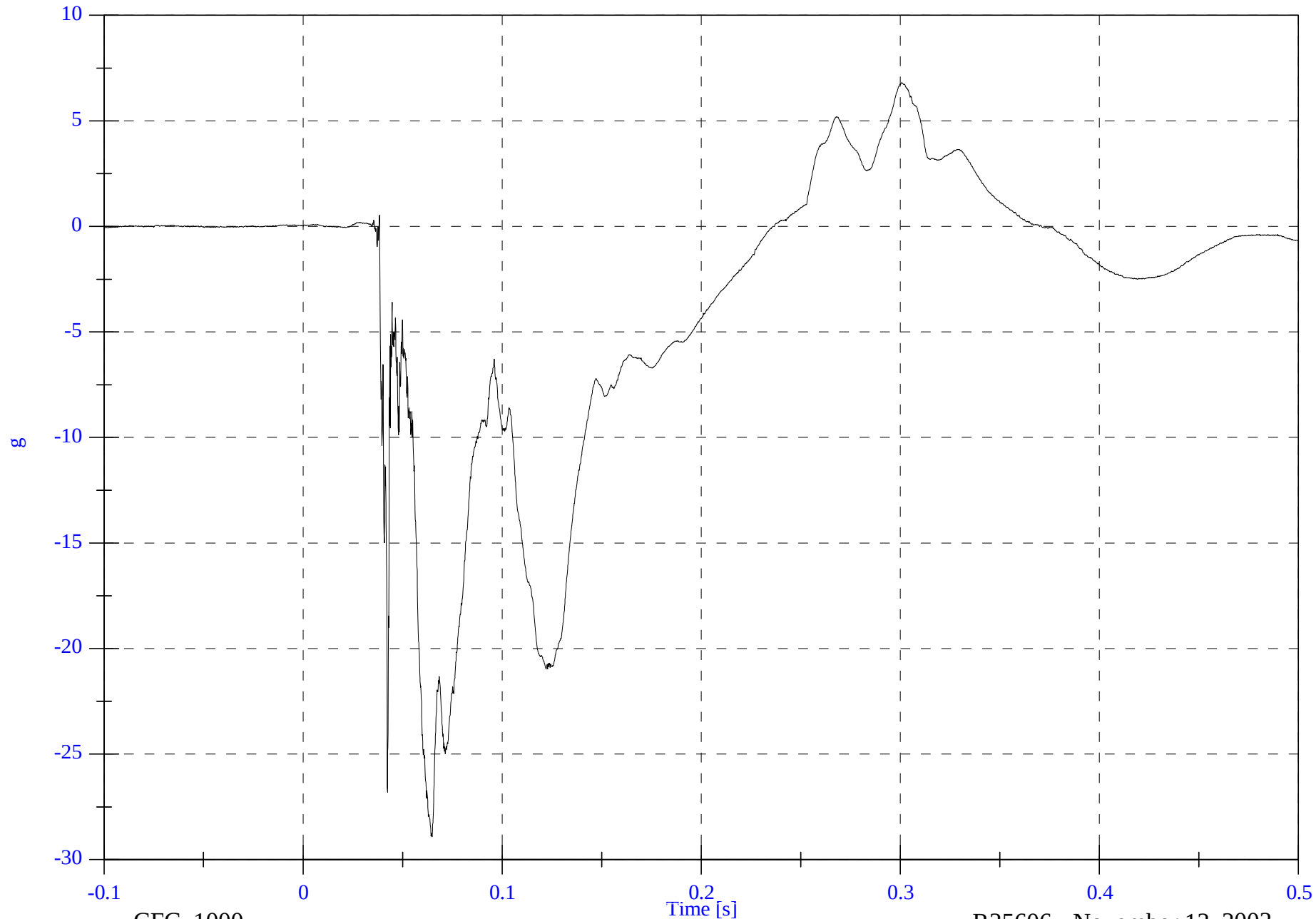


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Head x

Max: 6.8 [g] at 0.301 [s]

Min: -28.9 [g] at 0.065 [s]



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CFC_1000

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40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

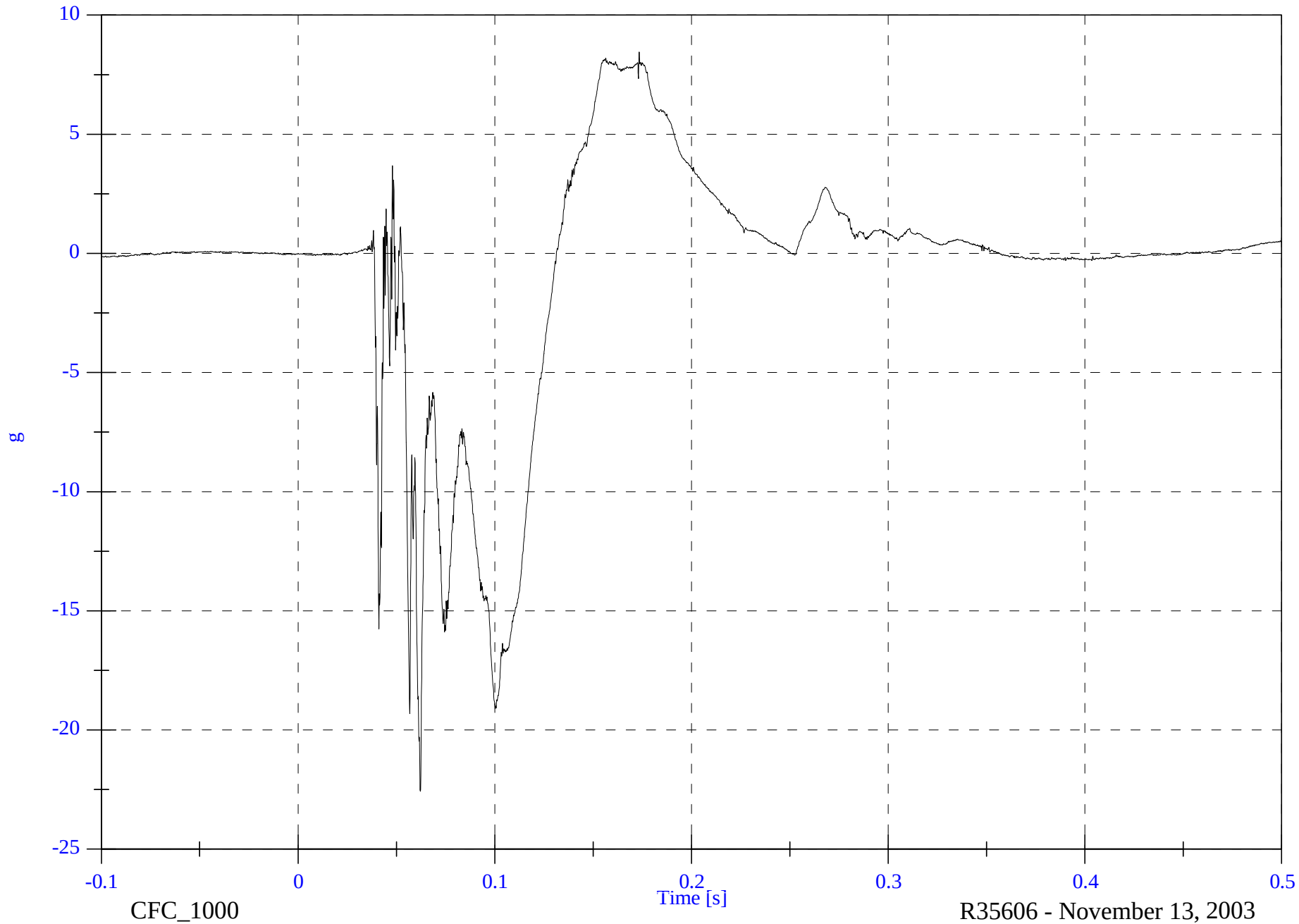
V1P1 Head y

Max: 8.5 [g] at 0.173 [s]

Min: -22.6 [g] at 0.062 [s]

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8710-OFST-05

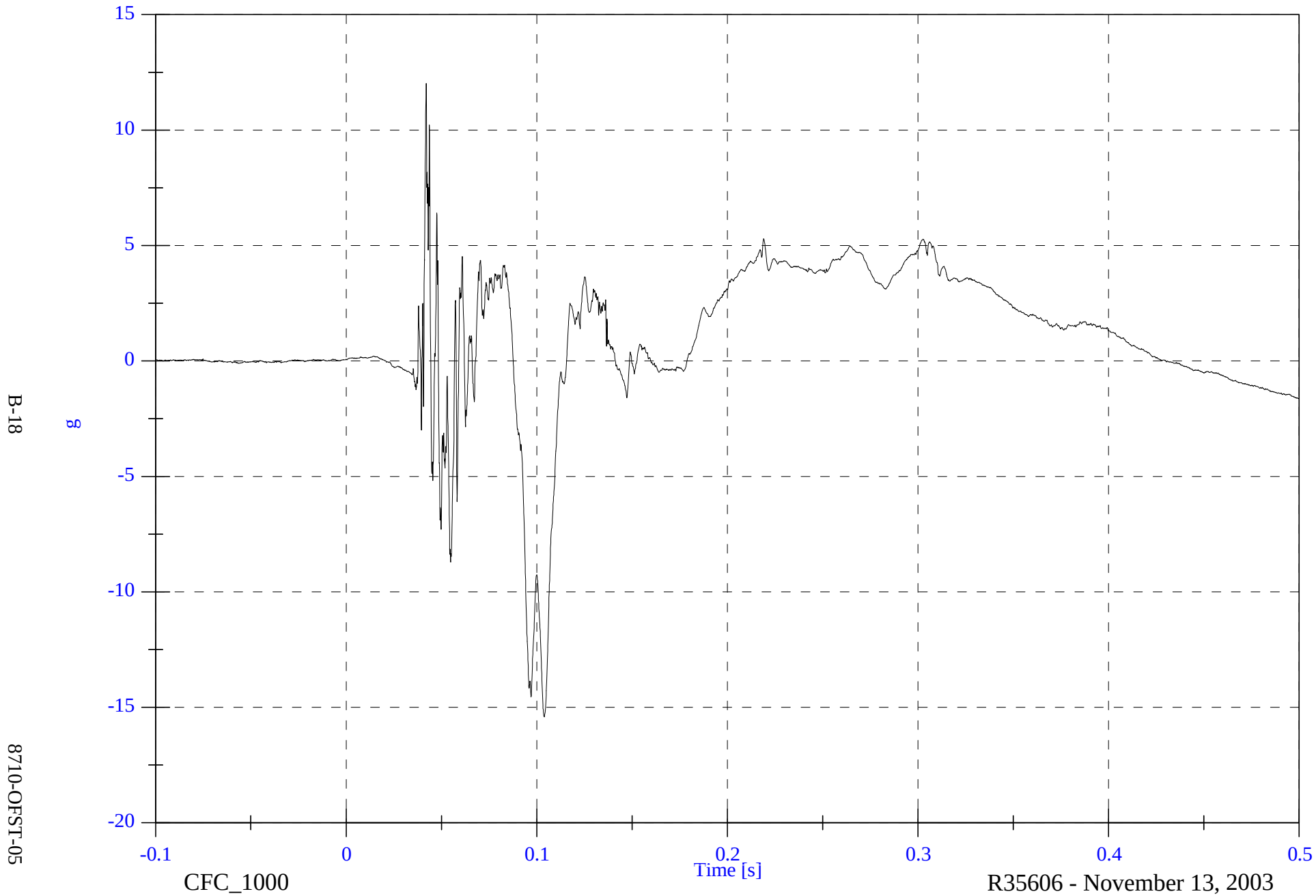


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Head z

Max: 12.0 [g] at 0.042 [s]

Min: -15.4 [g] at 0.104 [s]

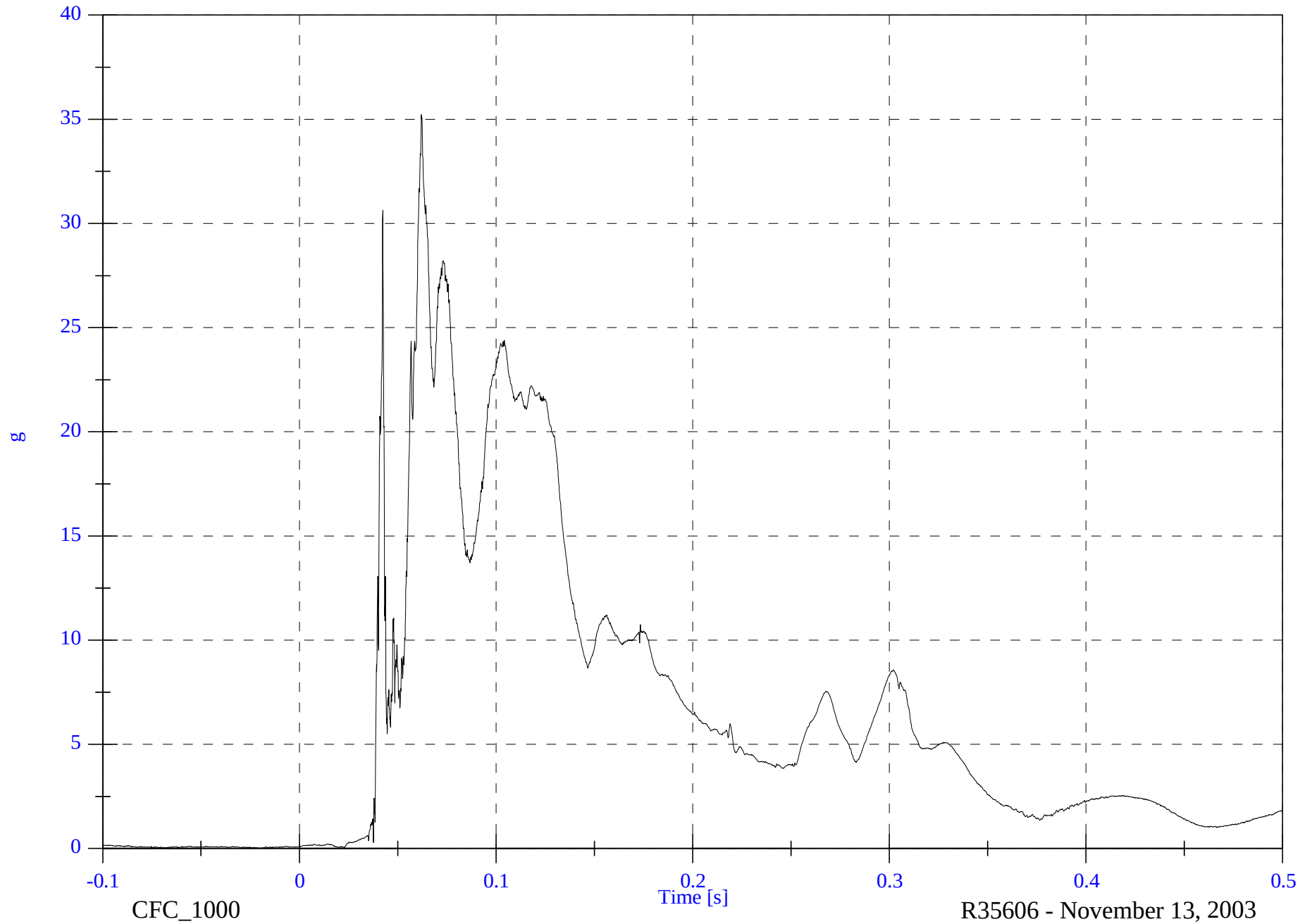


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Head Resultant

Max: 35.2 [g] at 0.062 [s]

Min: 0.0 [g] at -0.021 [s]



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8710-OFST-05

CFC_1000

Time [s]

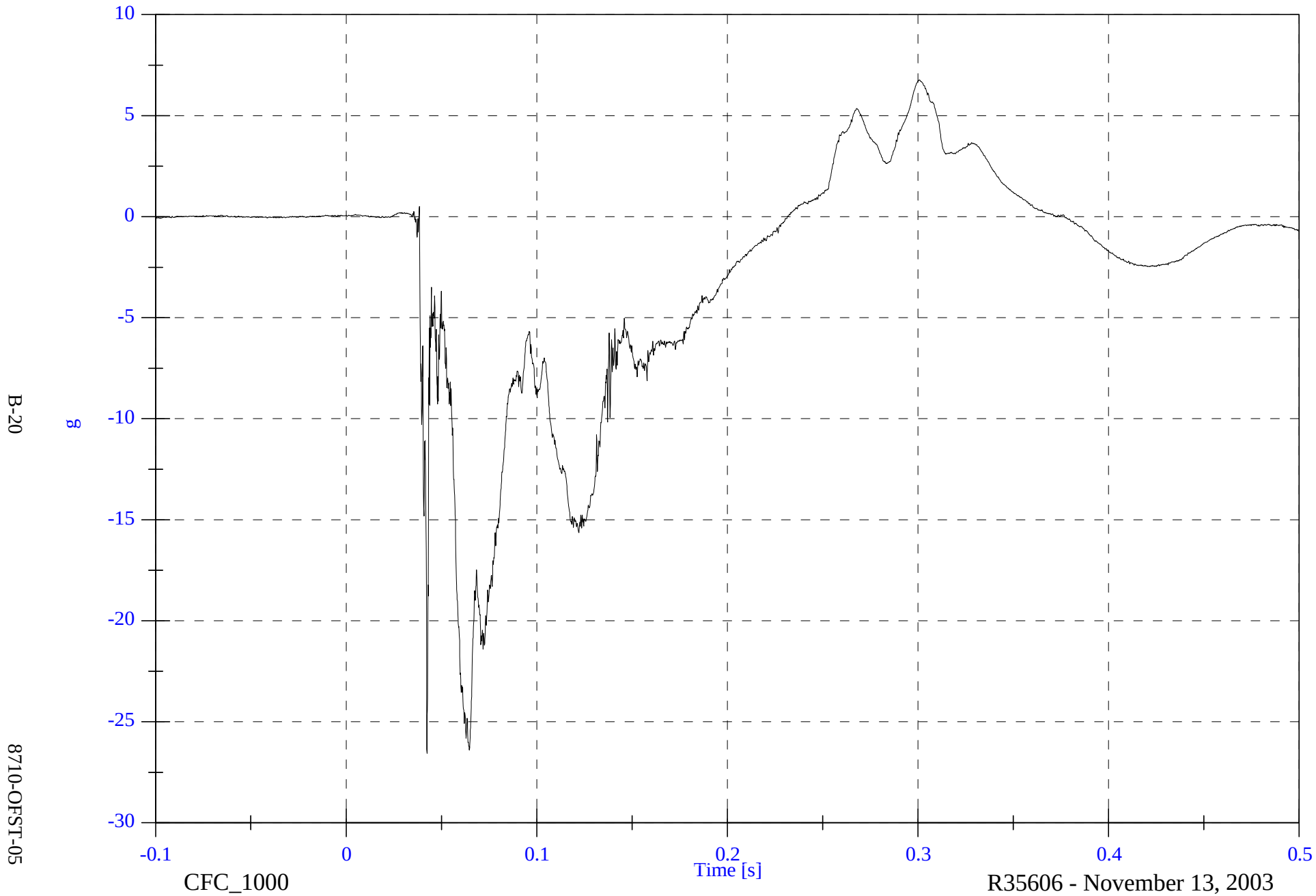
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Head Red x

Max: 6.8 [g] at 0.301 [s]

Min: -26.6 [g] at 0.042 [s]

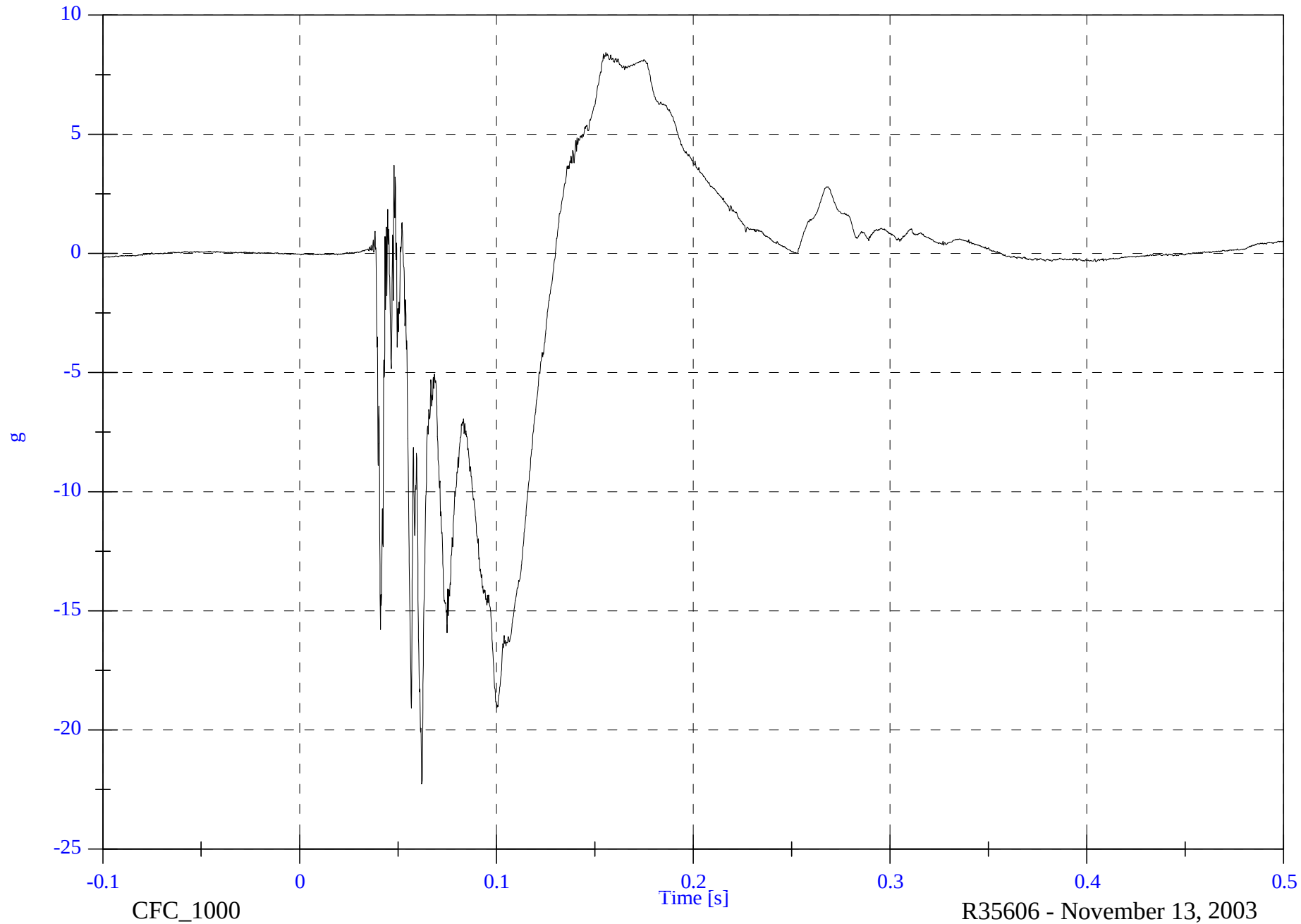


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Head Red y

Max: 8.4 [g] at 0.156 [s]

Min: -22.3 [g] at 0.062 [s]

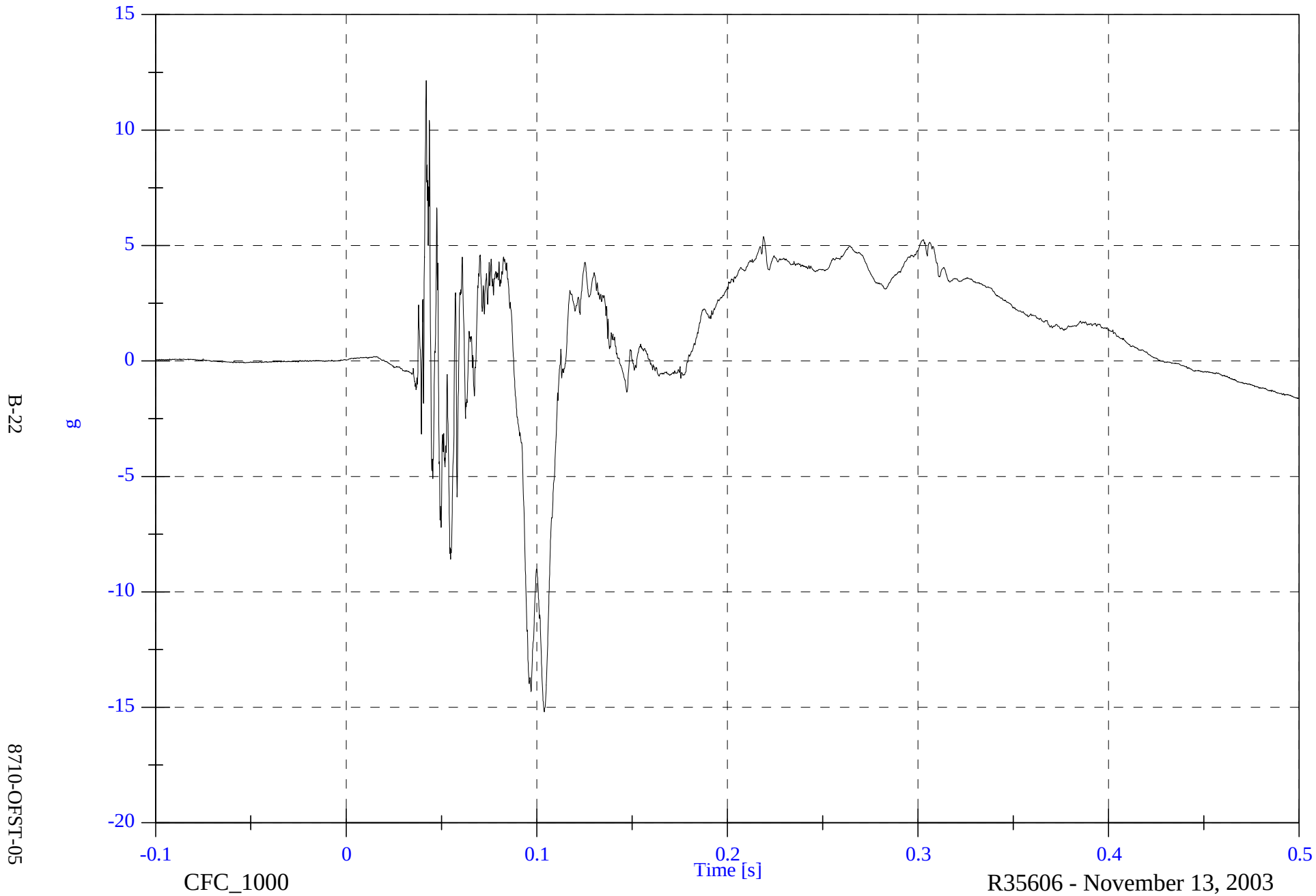


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Head Red z

Max: 12.1 [g] at 0.042 [s]

Min: -15.2 [g] at 0.104 [s]

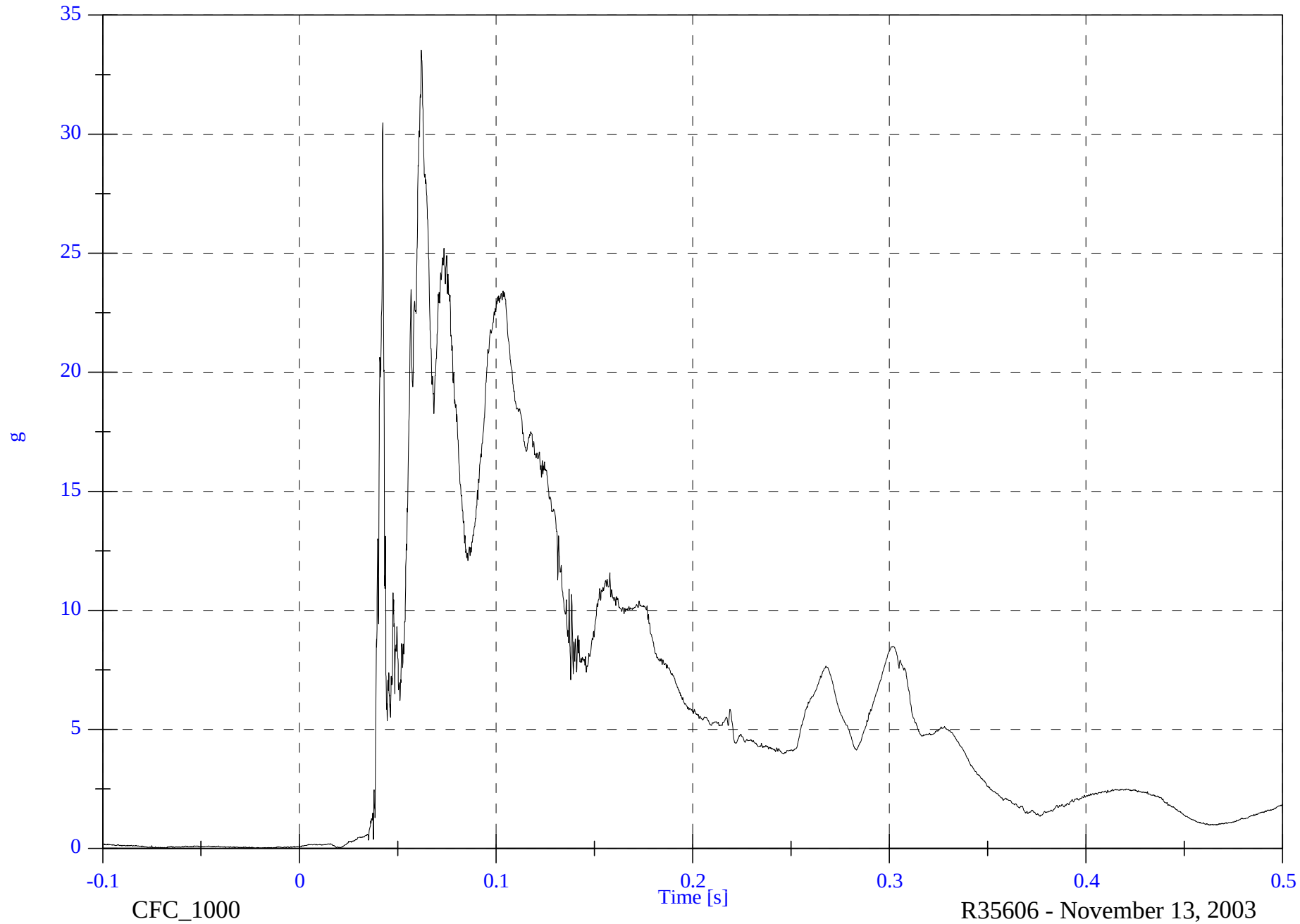


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Head Red Resultant

Max: 33.5 [g] at 0.062 [s]

Min: 0.0 [g] at -0.022 [s]

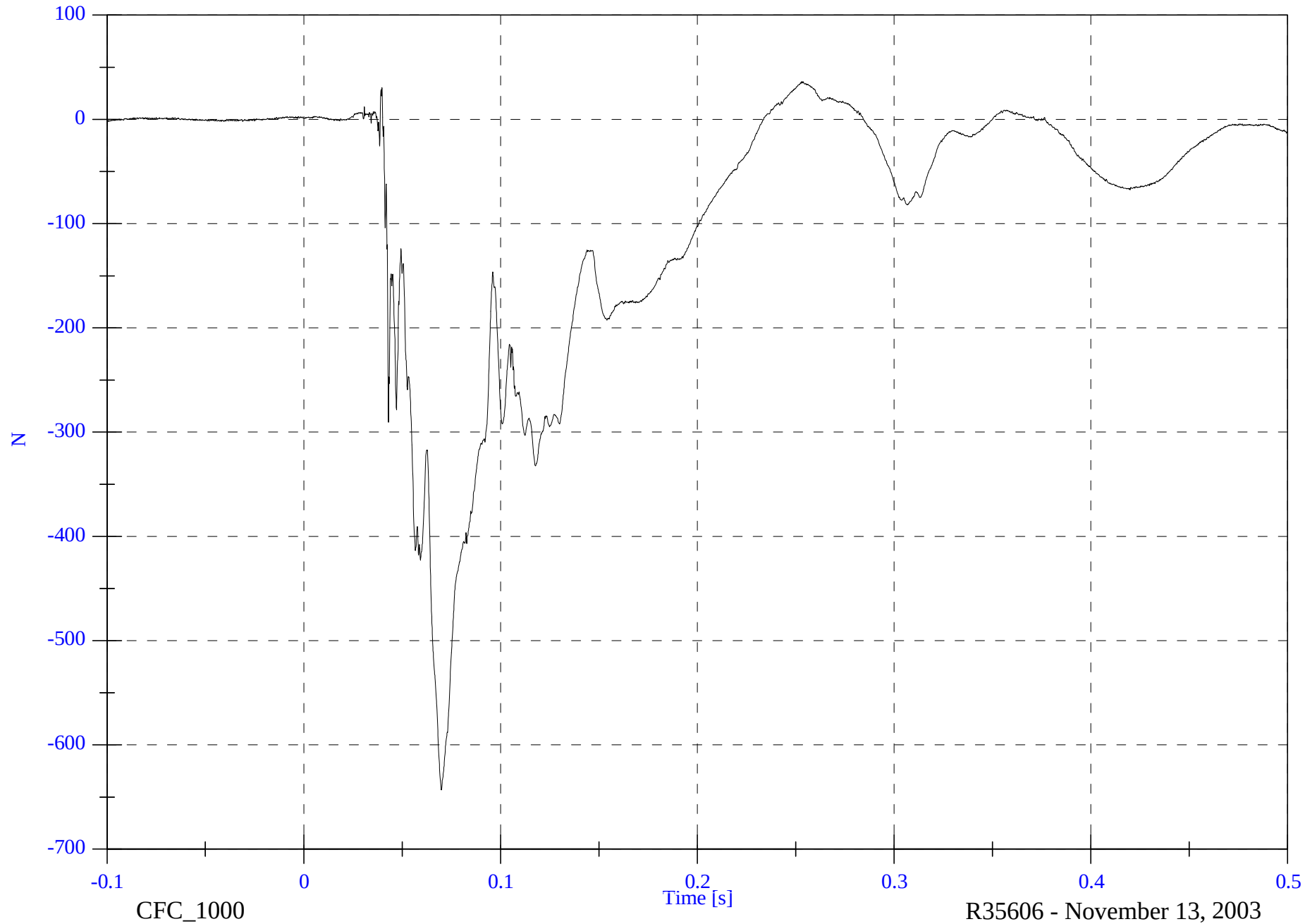


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Upper Neck Fx

Max: 36.3 [N] at 0.253 [s]

Min: -643.2 [N] at 0.070 [s]

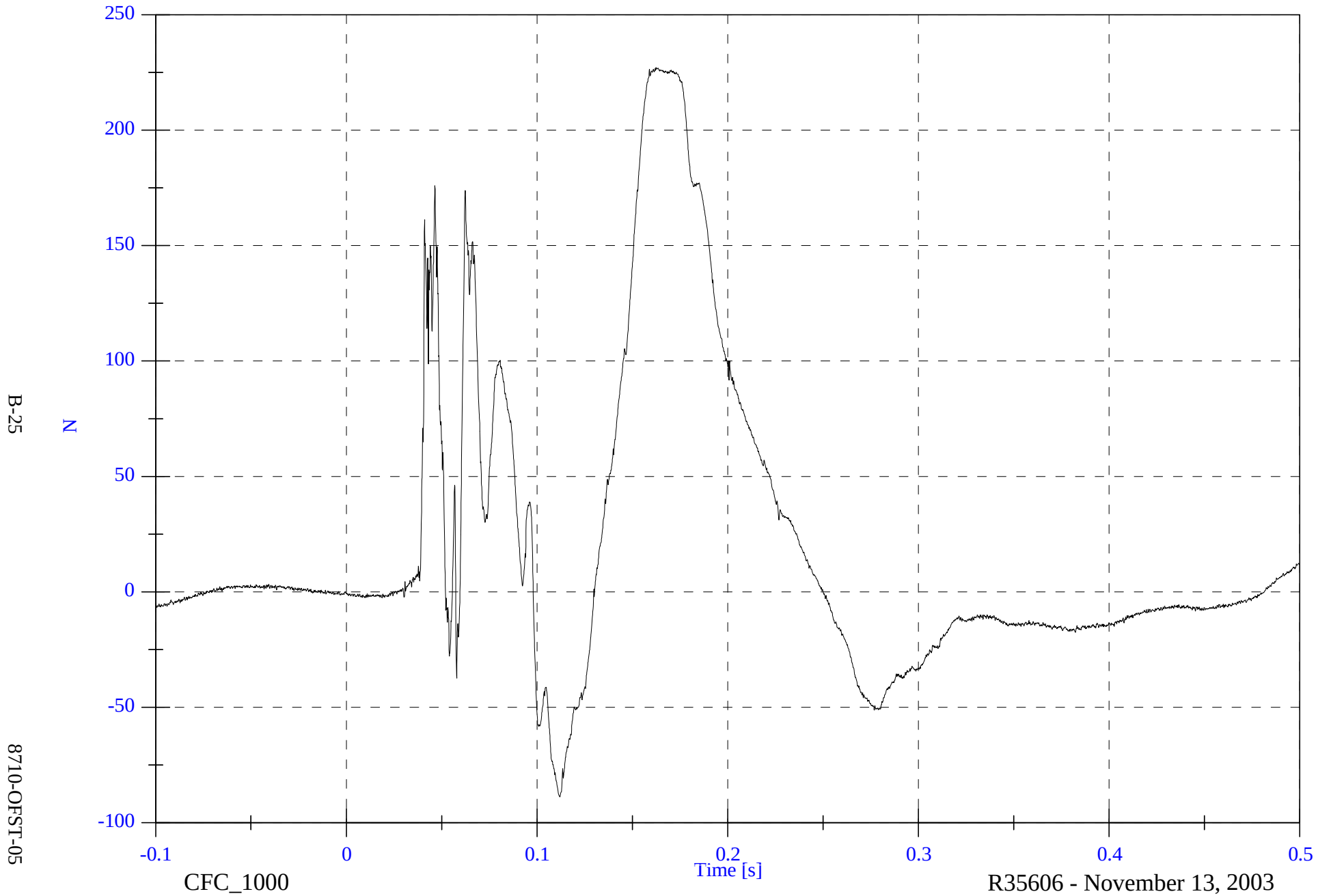


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Upper Neck Fy

Max: 227.2 [N] at 0.162 [s]

Min: -88.8 [N] at 0.112 [s]

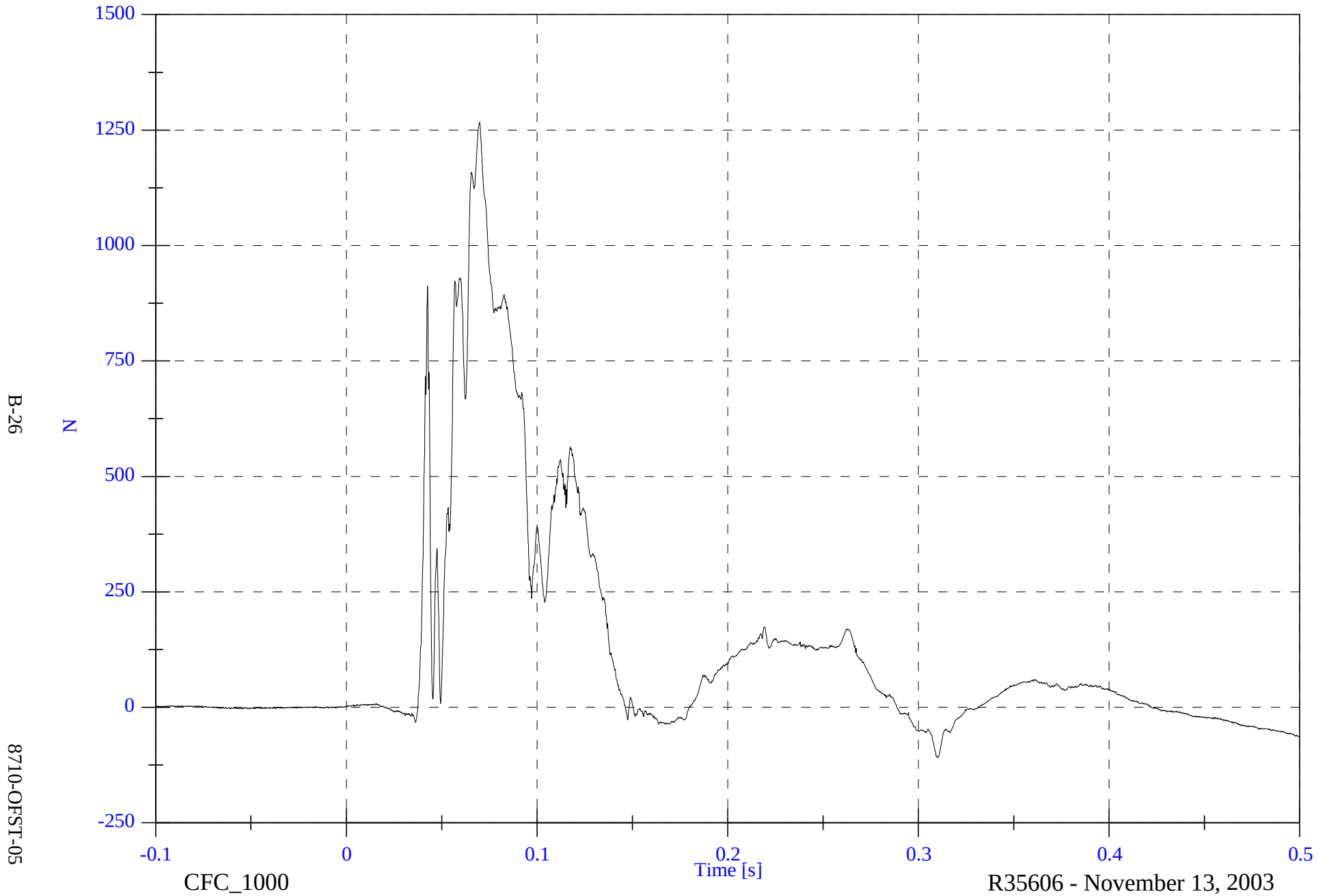


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Upper Neck Fz

Max: 1267.2 [N] at 0.070 [s]

Min: -108.8 [N] at 0.310 [s]

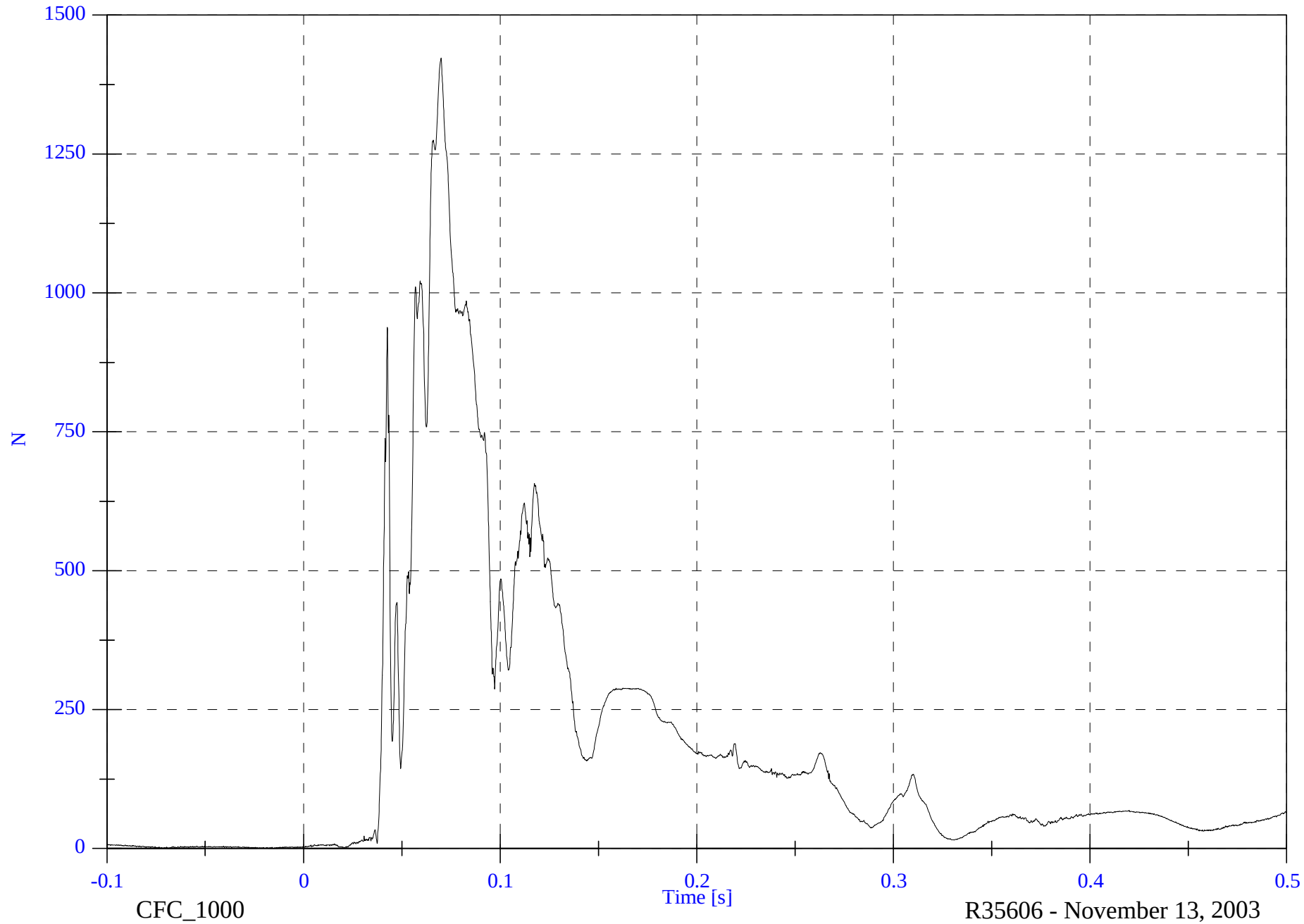


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Upper Neck F Resultant

Max: 1422.9 [N] at 0.070 [s]

Min: 0.2 [N] at -0.020 [s]

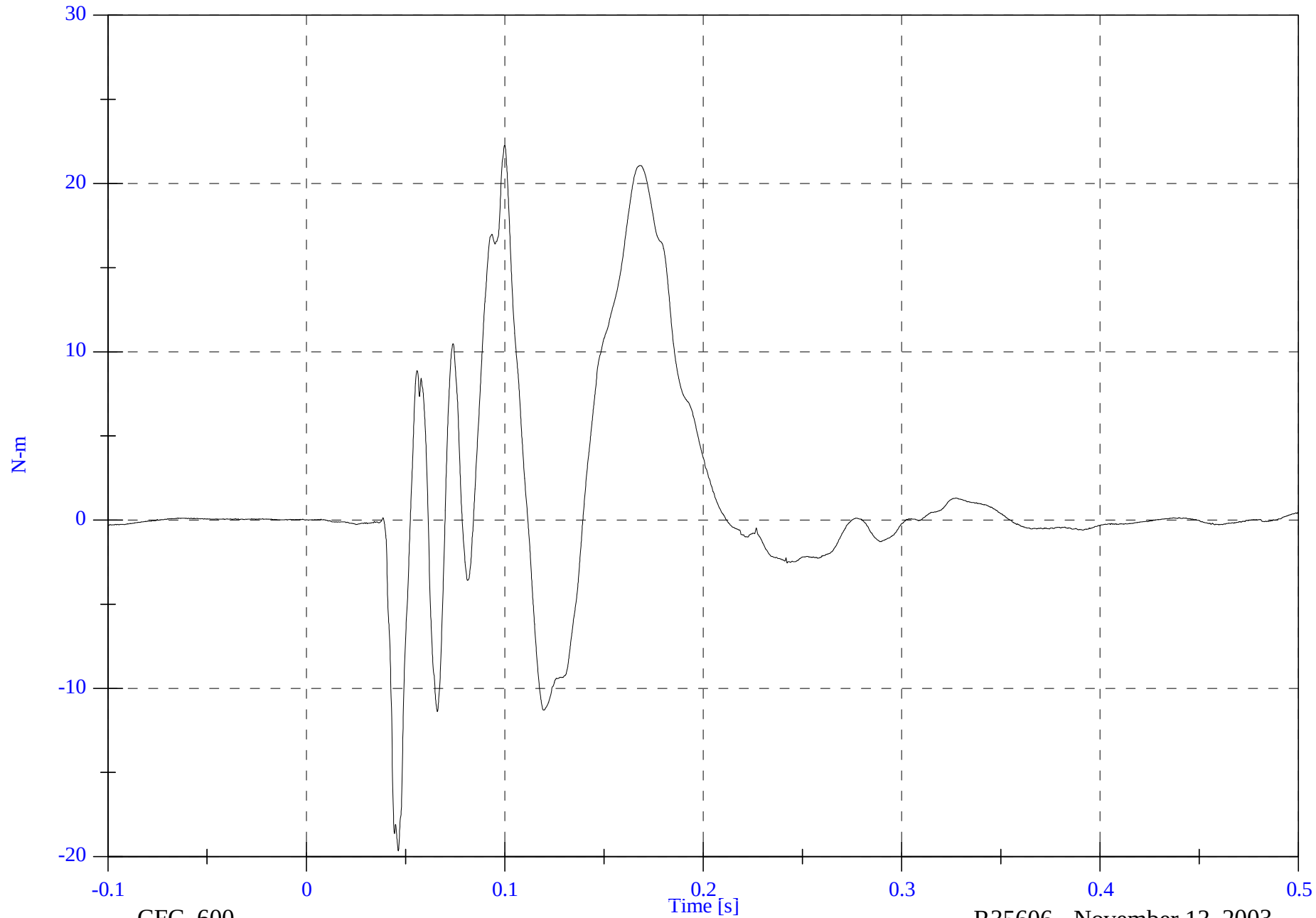


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Upper Neck Mx

Max: 22.3 [N-m] at 0.100 [s]

Min: -19.6 [N-m] at 0.046 [s]



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CFC_600

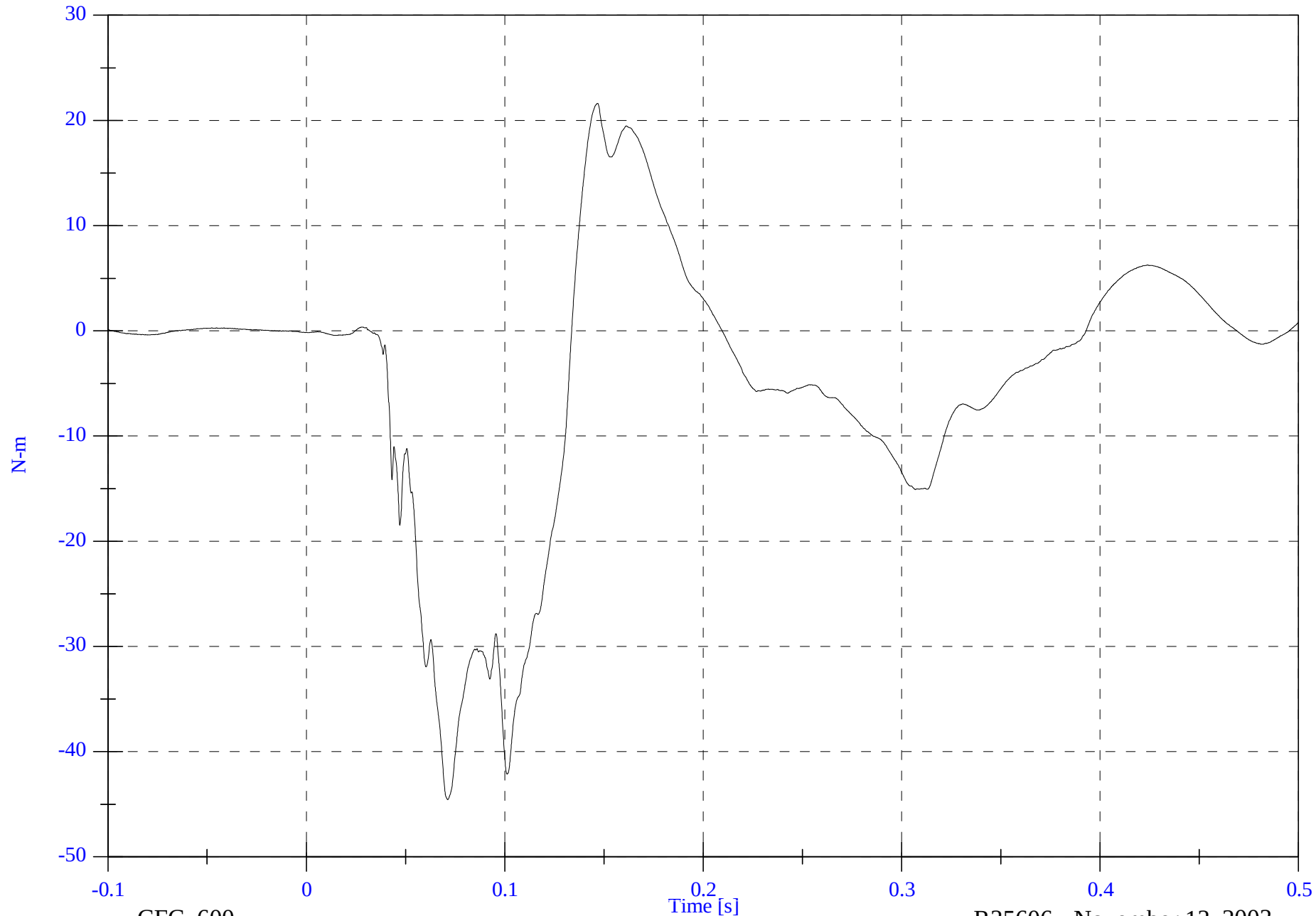
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Upper Neck My

Max: 21.6 [N-m] at 0.147 [s]

Min: -44.6 [N-m] at 0.071 [s]



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8710-OFST-05

CFC_600

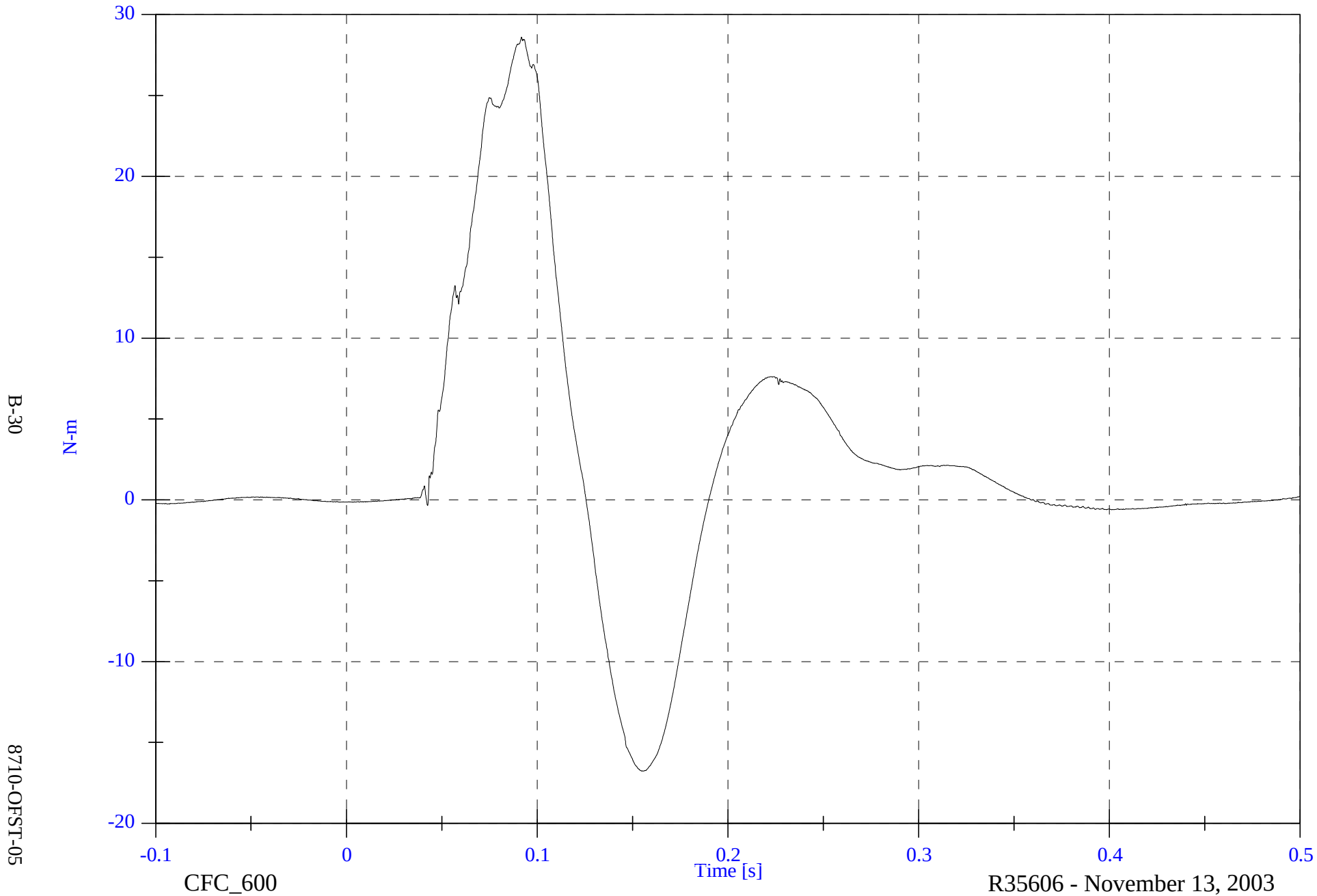
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Upper Neck Mz

Max: 28.6 [N-m] at 0.092 [s]

Min: -16.8 [N-m] at 0.156 [s]

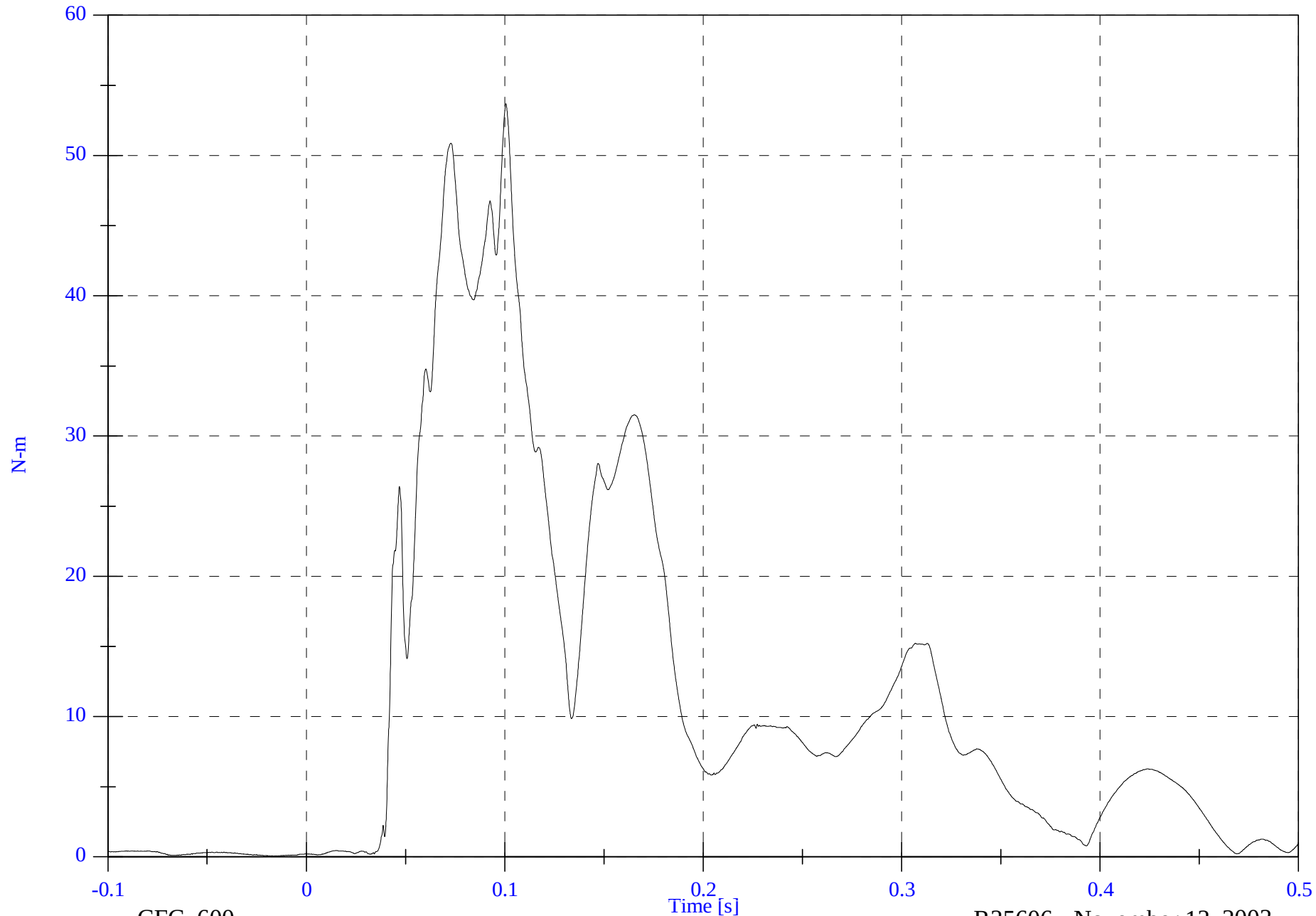


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Upper Neck M Resultant

Max: 53.7 [N-m] at 0.100 [s]

Min: 0.1 [N-m] at -0.018 [s]



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8710-OFST-05

CFC_600

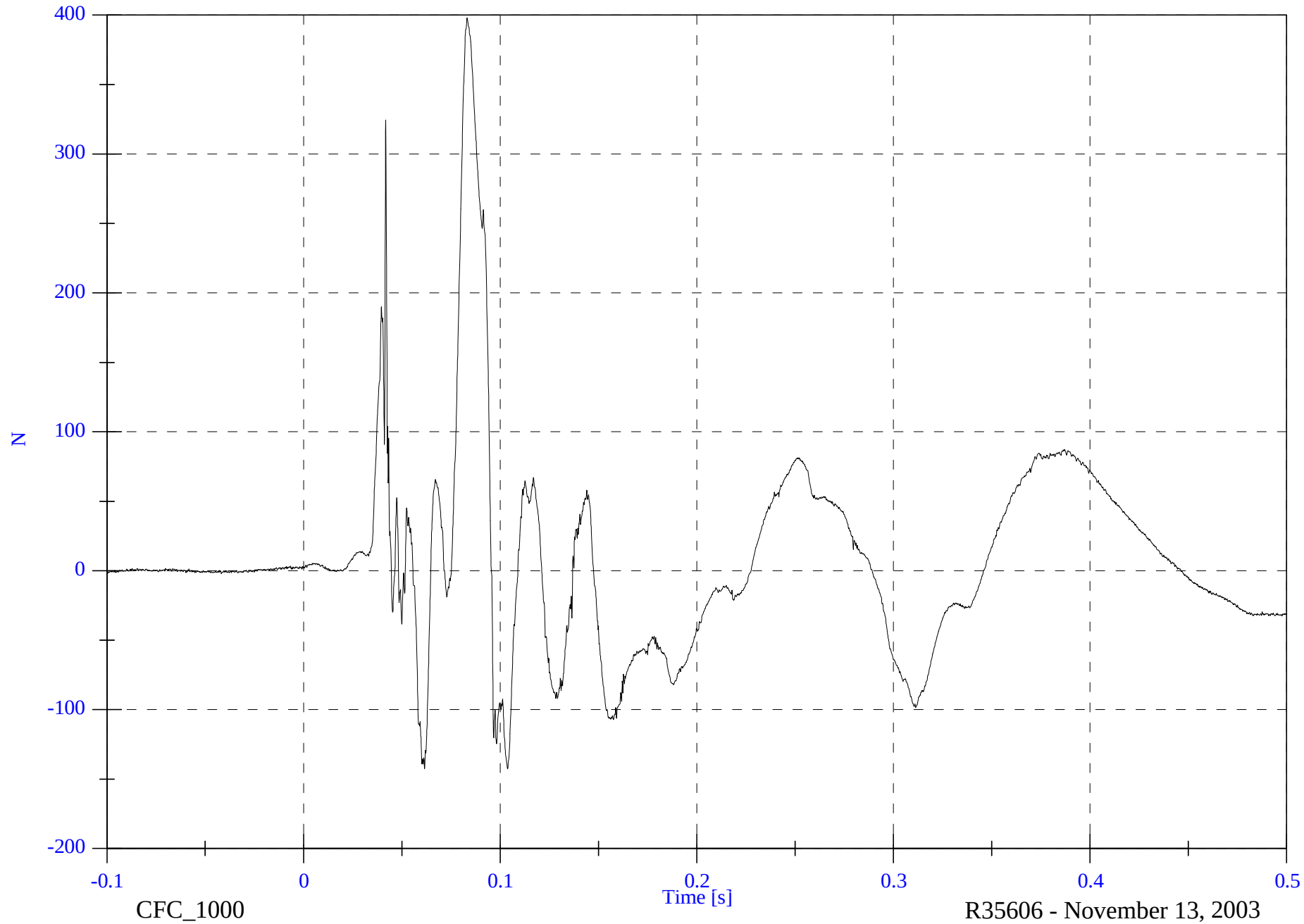
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Lower Neck Fx

Max: 397.9 [N] at 0.083 [s]

Min: -142.6 [N] at 0.062 [s]



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8710-OFST-05

CFC_1000

Time [s]

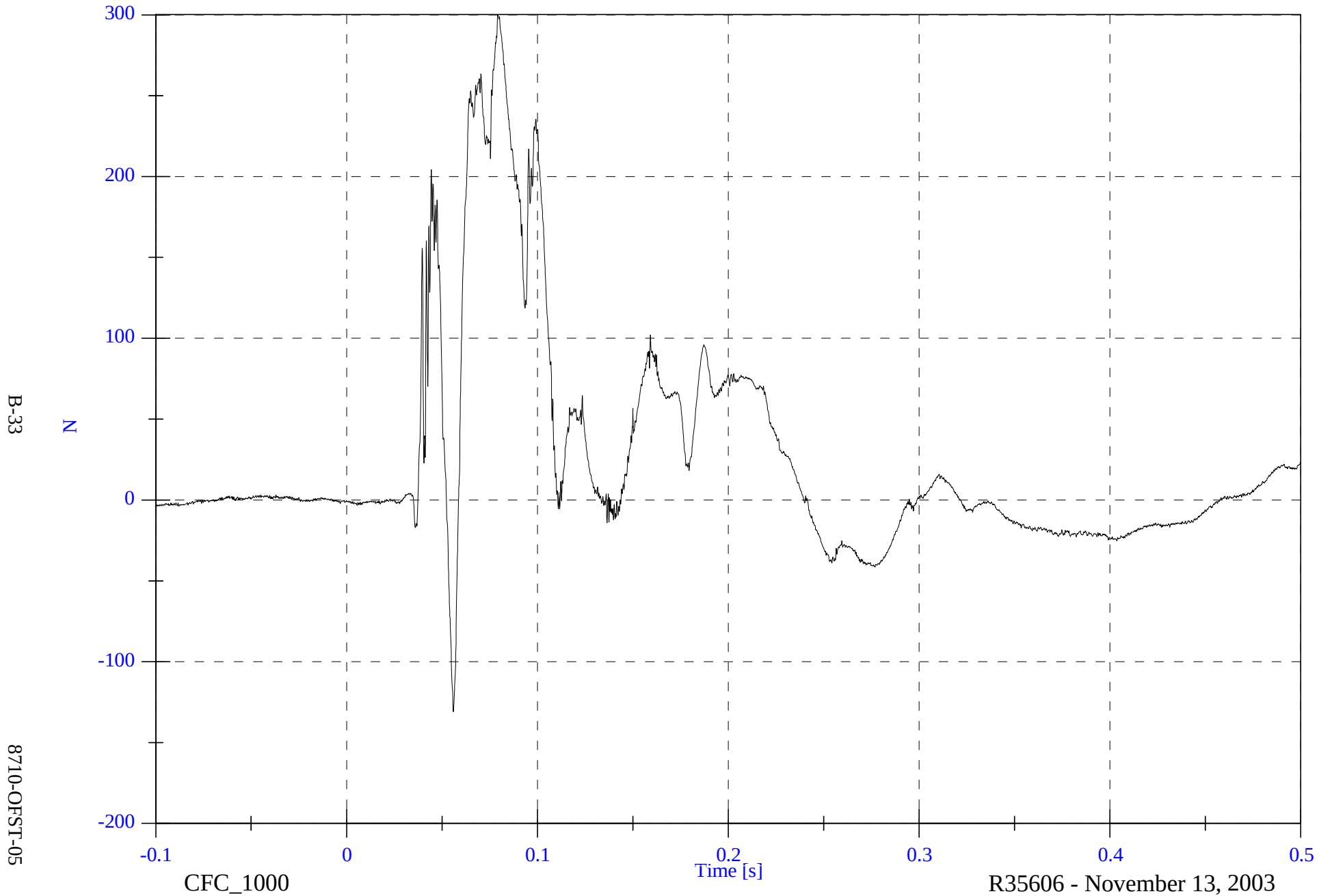
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Lower Neck Fy

Max: 300.1 [N] at 0.079 [s]

Min: -131.0 [N] at 0.056 [s]

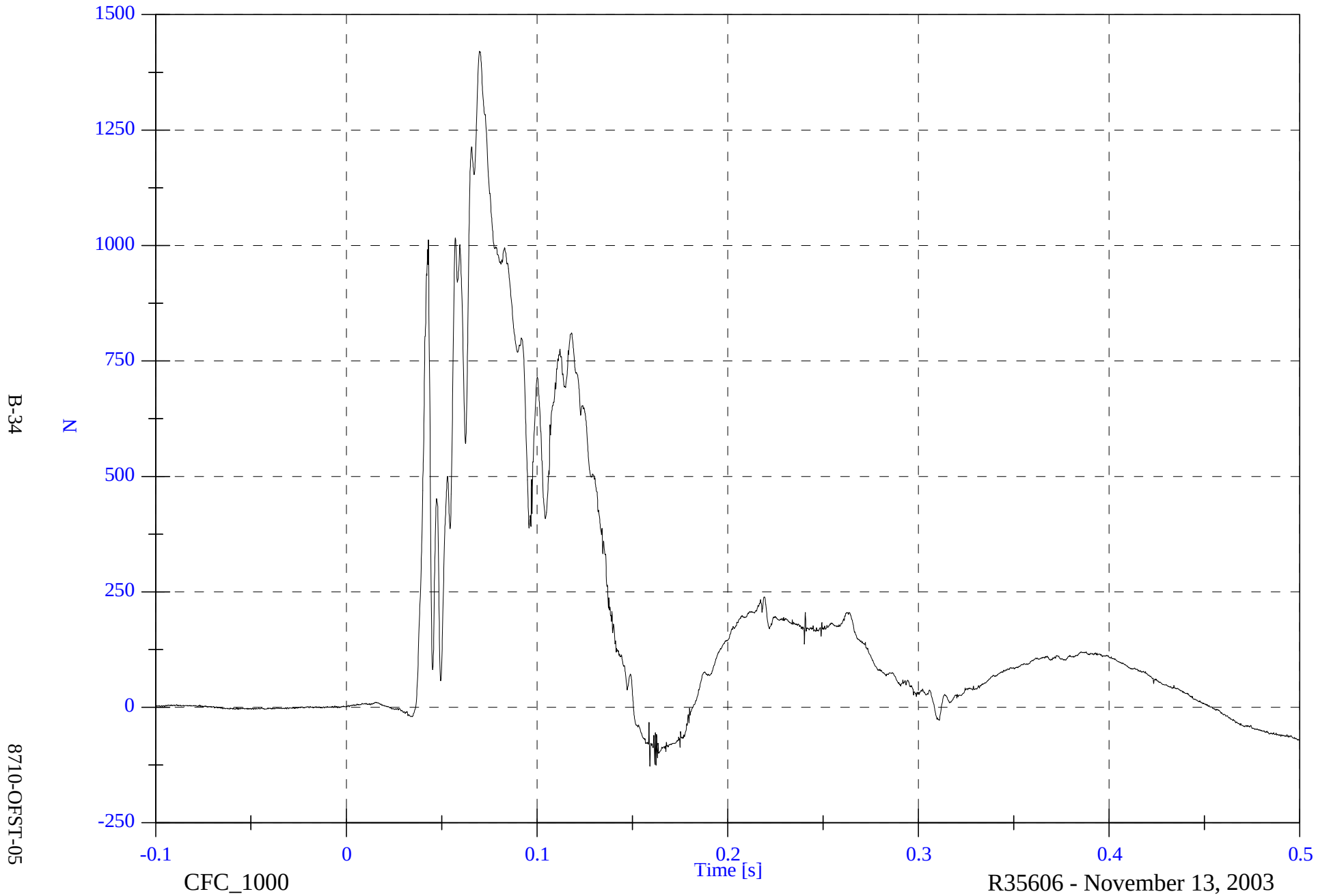


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Lower Neck Fz

Max: 1420.6 [N] at 0.070 [s]

Min: -127.7 [N] at 0.159 [s]

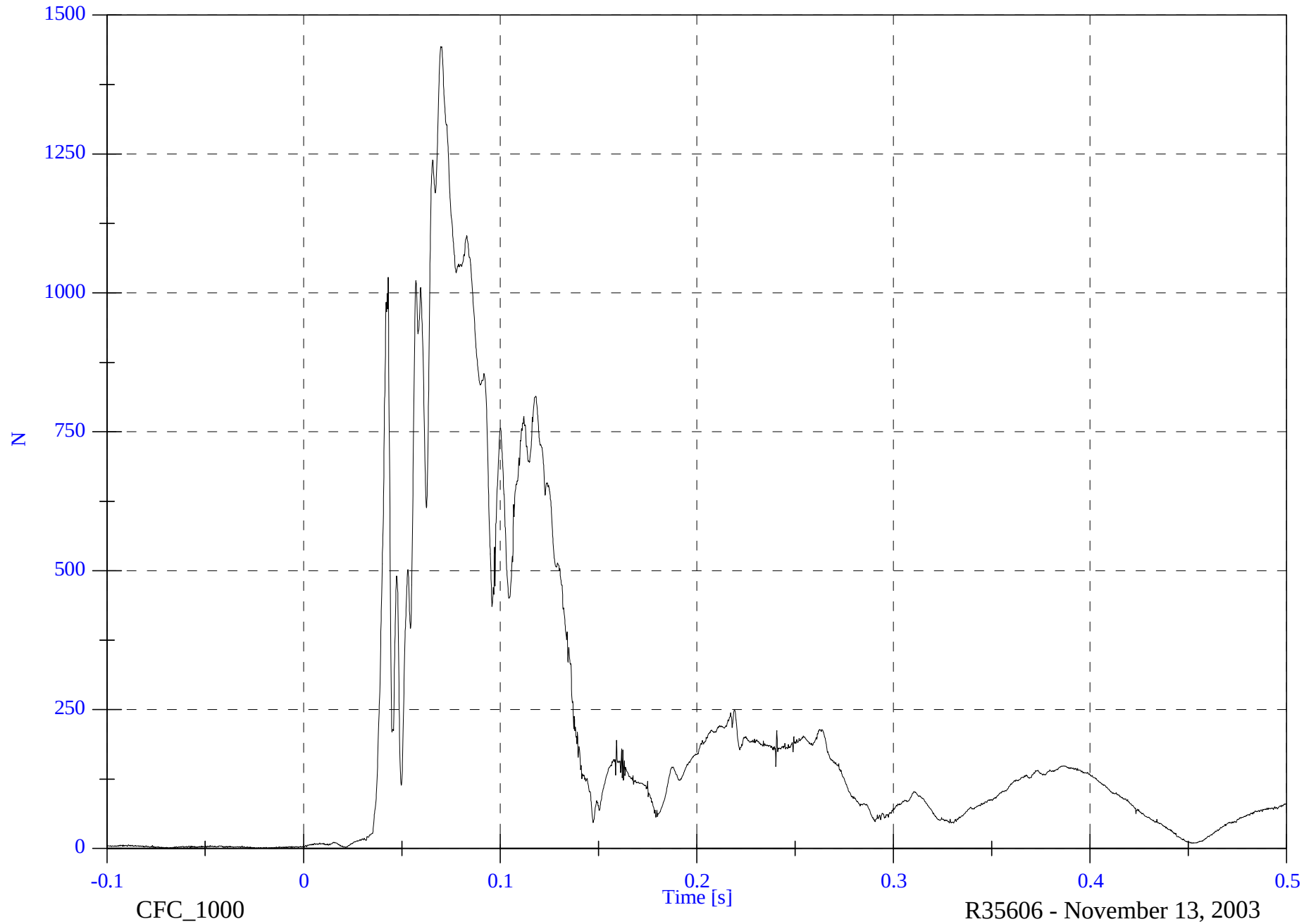


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Lower Neck F Resultant

Max: 1443.6 [N] at 0.070 [s]

Min: 0.2 [N] at -0.073 [s]

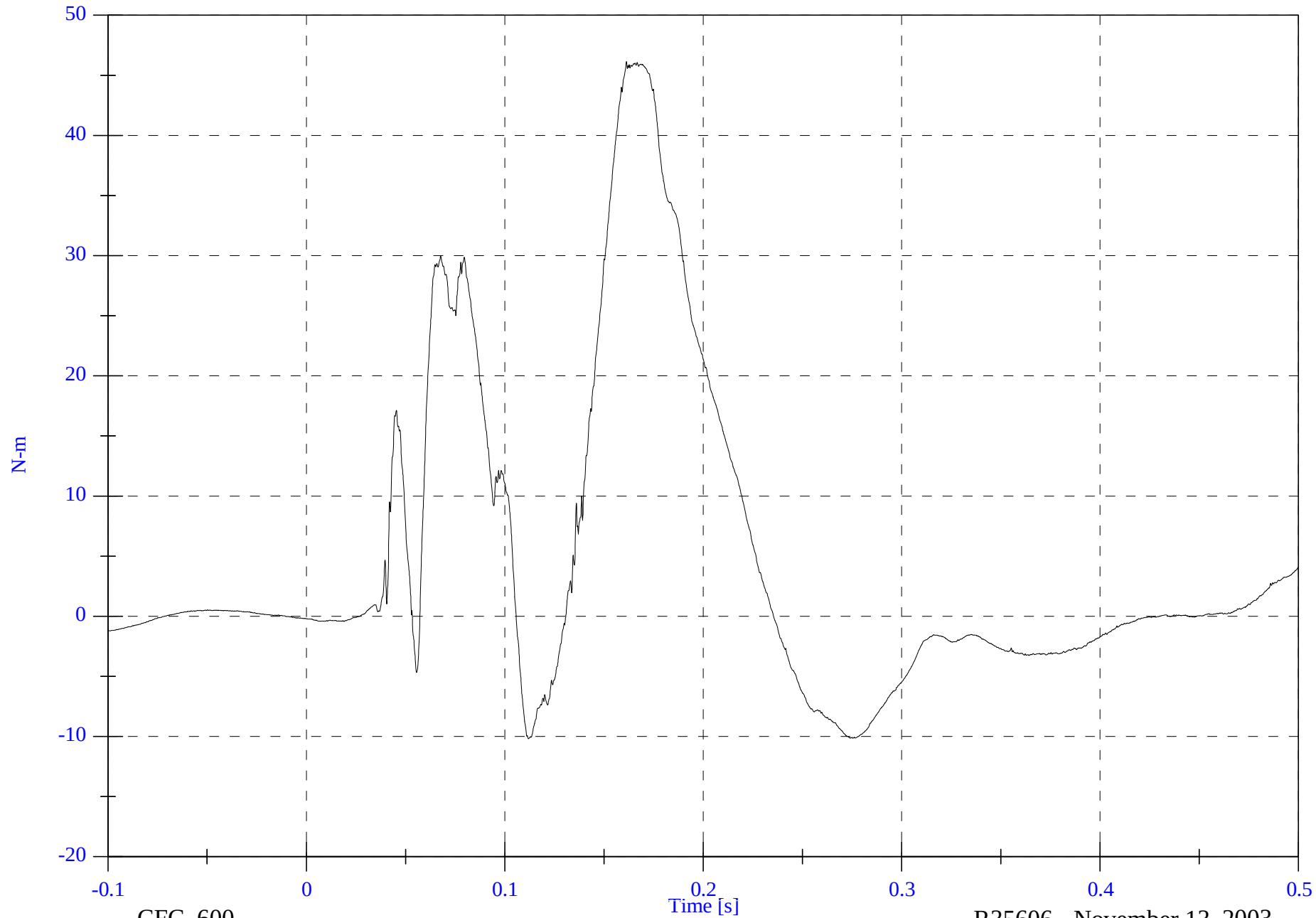


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Lower Neck Mx

Max: 46.2 [N-m] at 0.161 [s]

Min: -10.2 [N-m] at 0.112 [s]



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8710-OFST-05

CFC_600

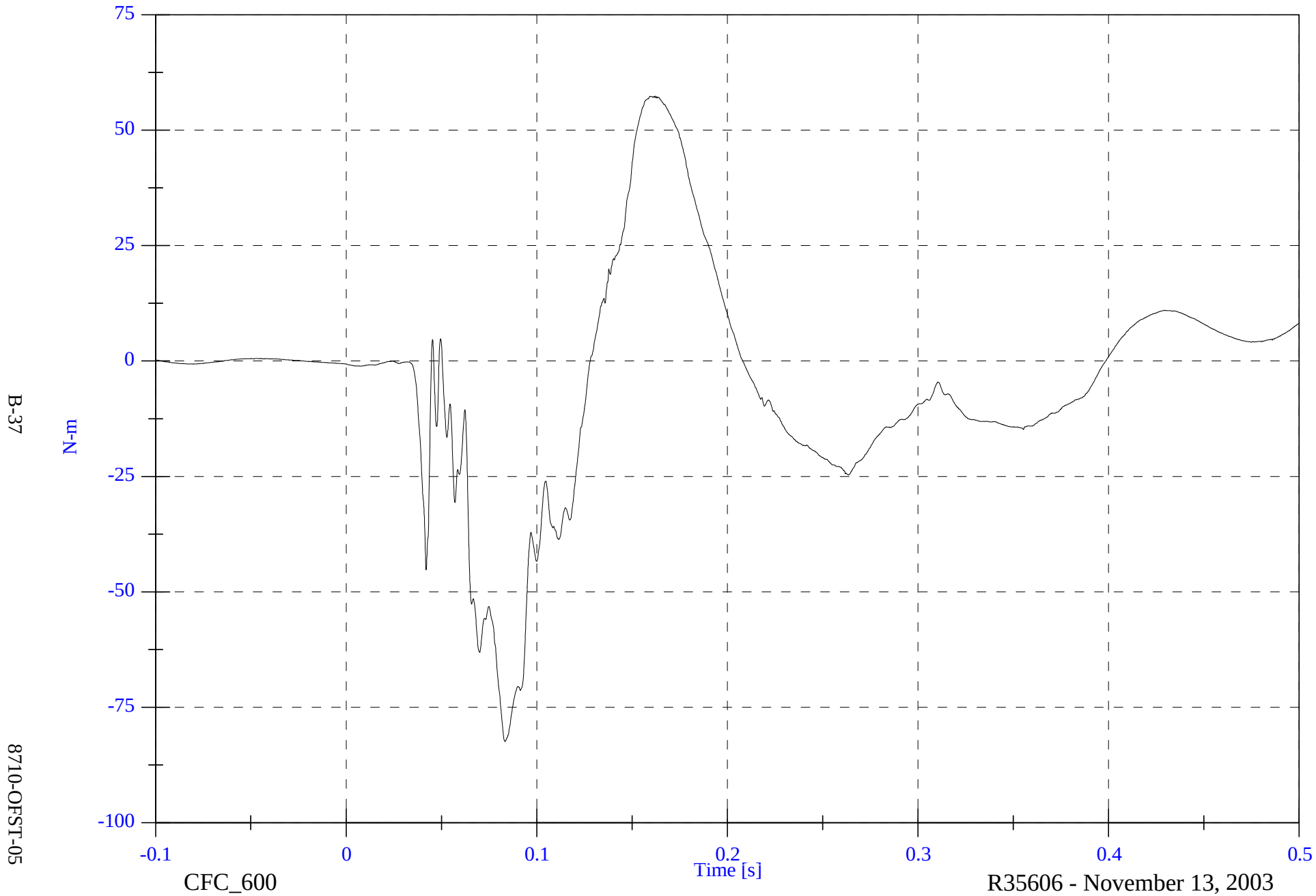
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Lower Neck My

Max: 57.4 [N-m] at 0.162 [s]

Min: -82.4 [N-m] at 0.083 [s]

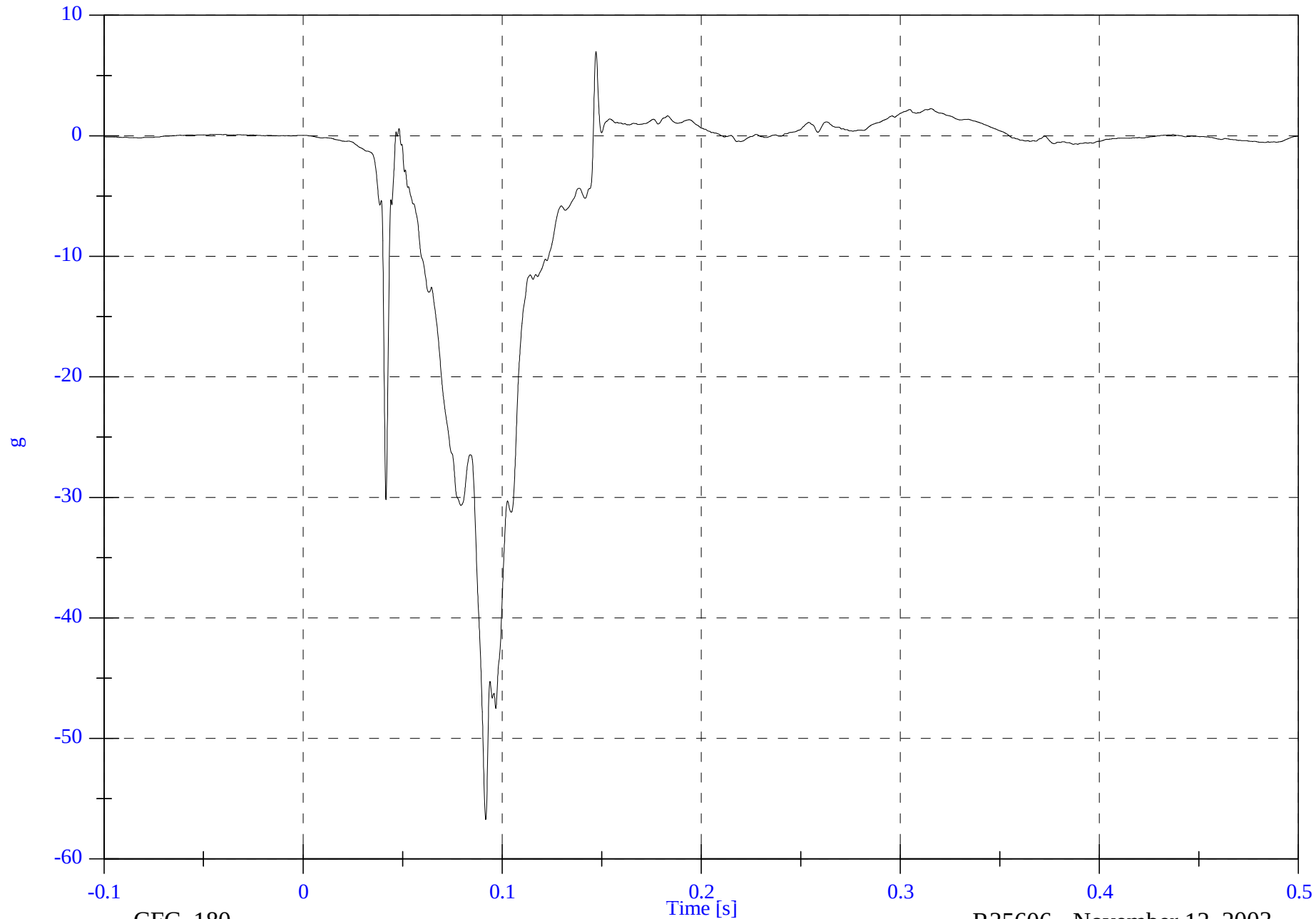


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Chest x

Max: 7.0 [g] at 0.147 [s]

Min: -56.7 [g] at 0.092 [s]

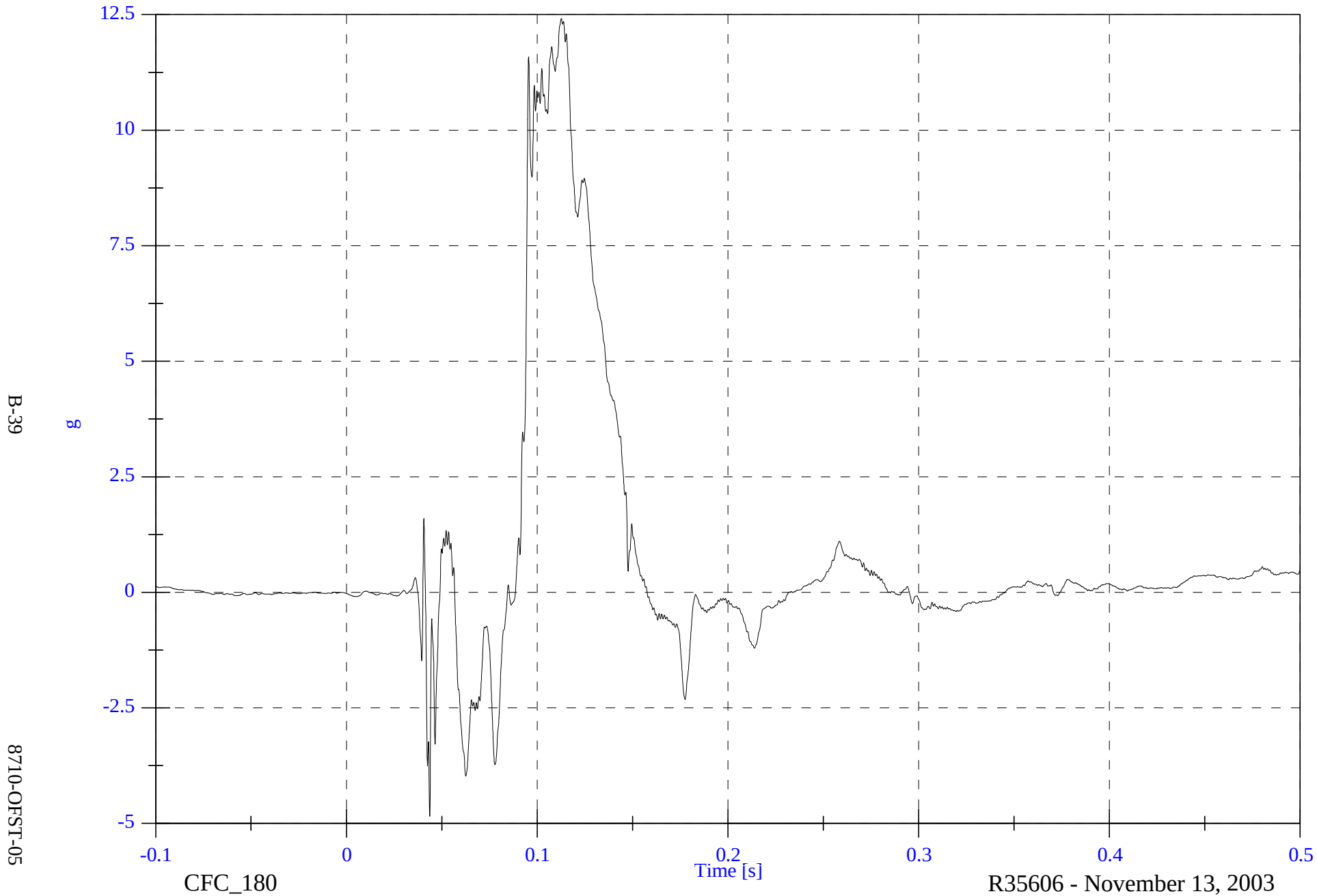


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Chest y

Max: 12.4 [g] at 0.113 [s]

Min: -4.8 [g] at 0.044 [s]

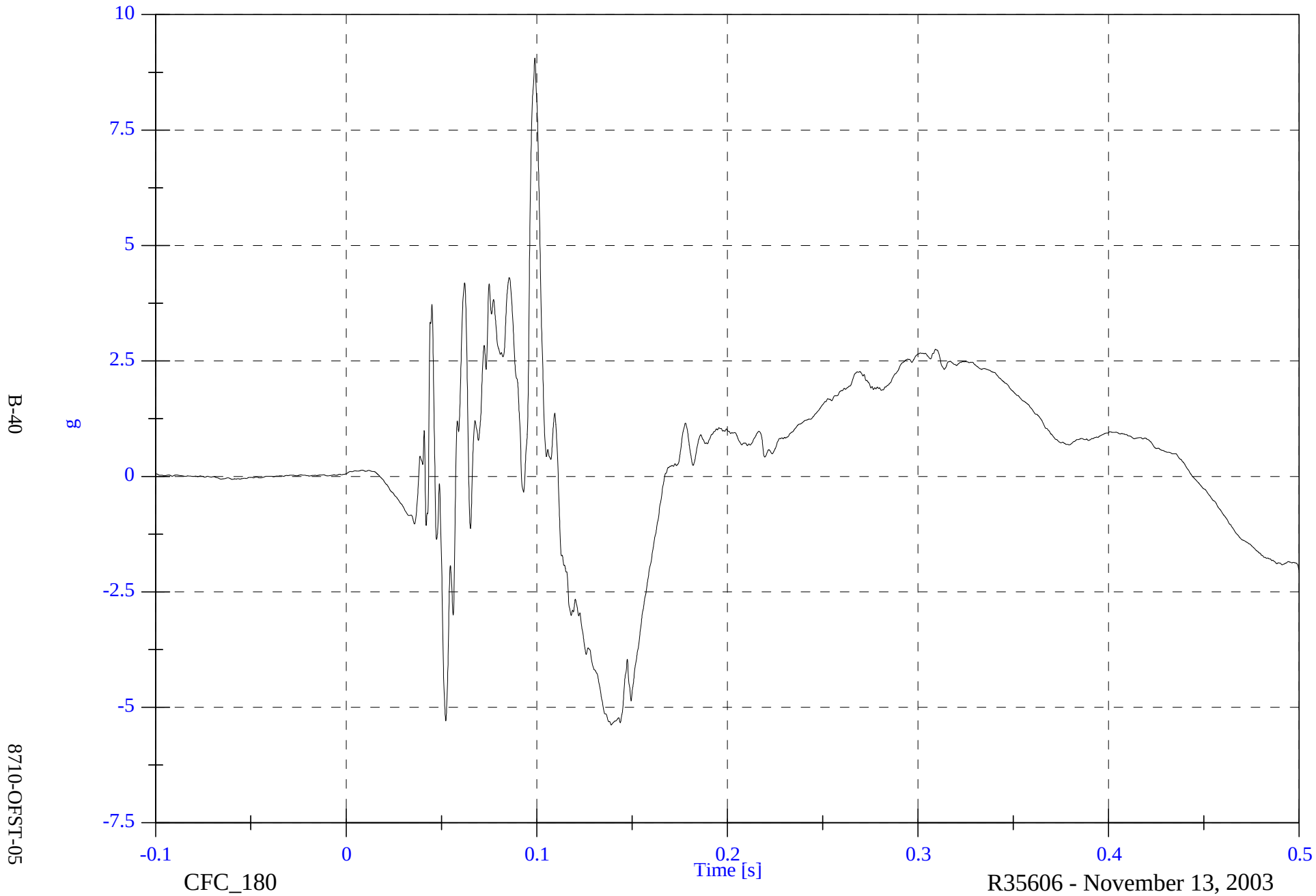


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Chest z

Max: 9.1 [g] at 0.099 [s]

Min: -5.4 [g] at 0.139 [s]

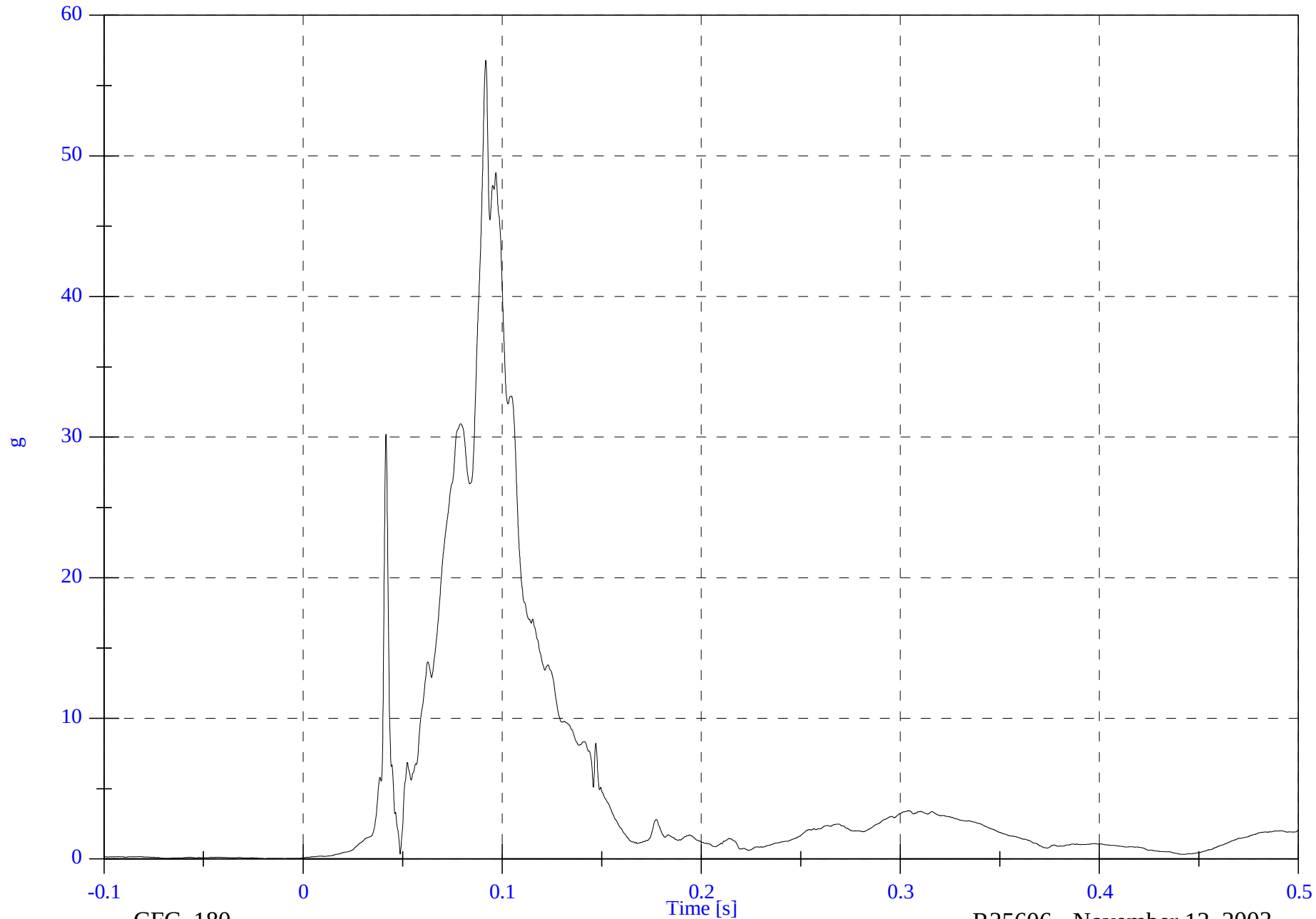


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Chest Resultant

Max: 56.8 [g] at 0.092 [s]

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



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8710-OFST-05

CFC_180

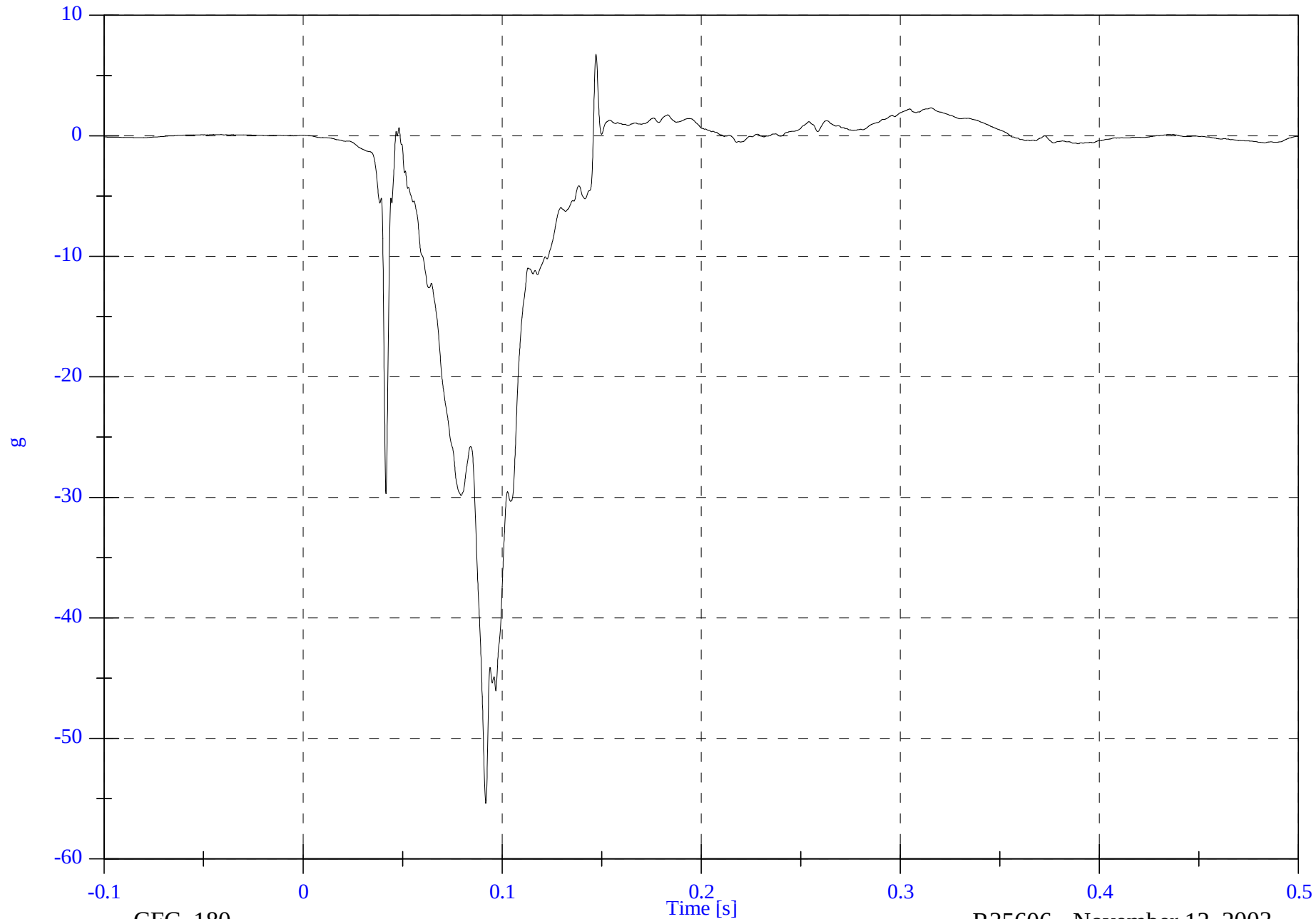
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Chest Red x

Max: 6.8 [g] at 0.147 [s]

Min: -55.4 [g] at 0.092 [s]



40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Chest Red y

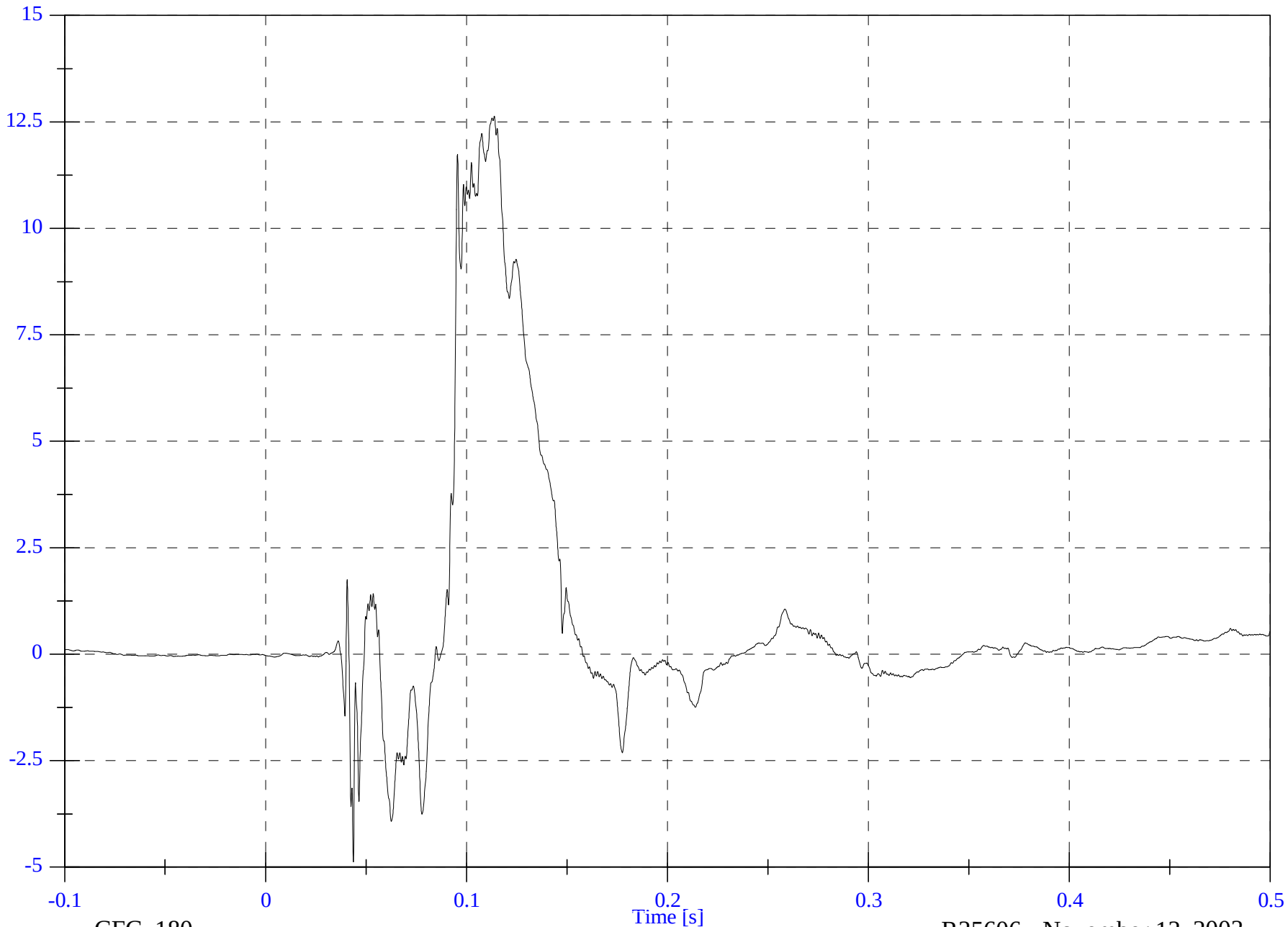
Max: 12.6 [g] at 0.114 [s]

Min: -4.9 [g] at 0.044 [s]

B-43

g

8710-OFST-05



CFC_180

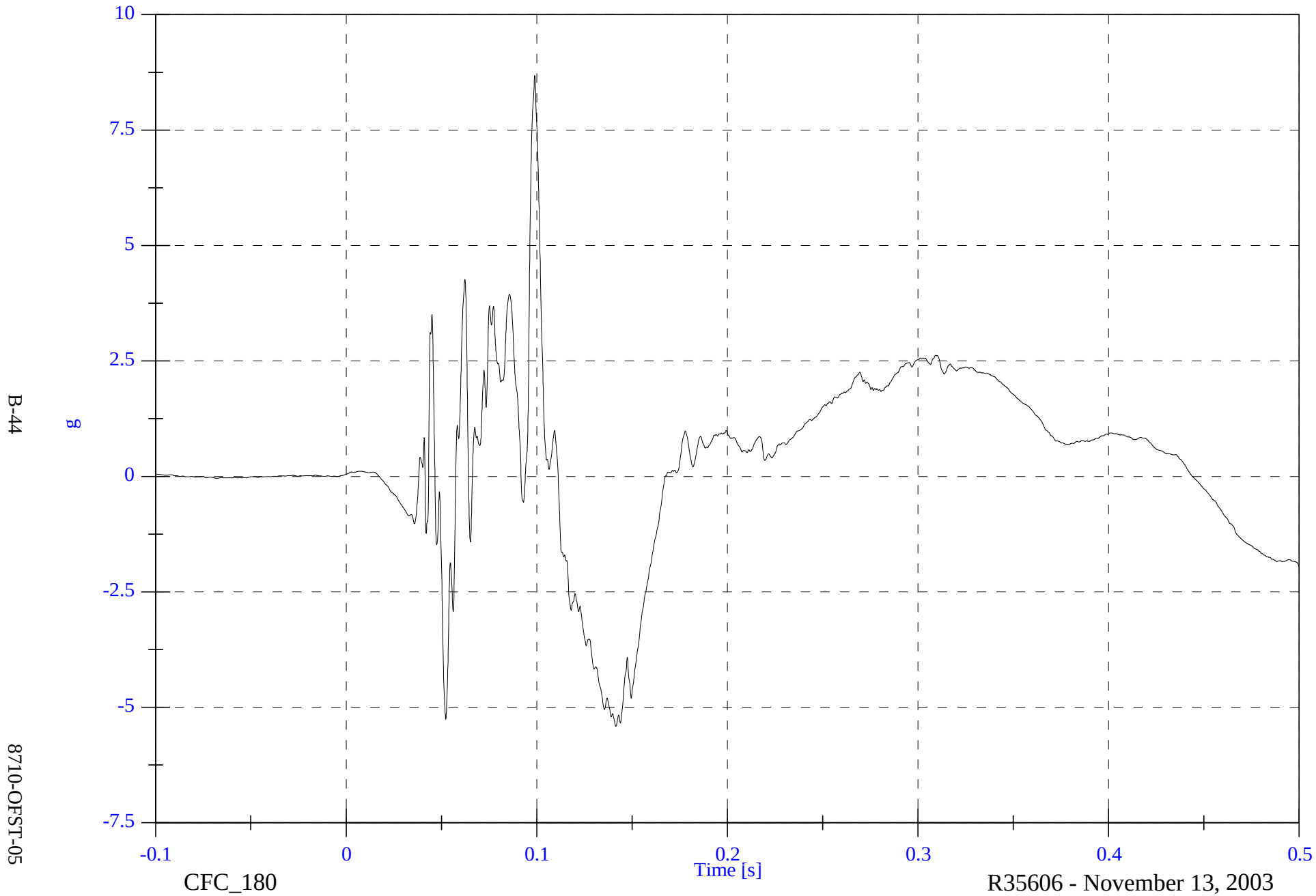
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Chest Red z

Max: 8.7 [g] at 0.099 [s]

Min: -5.4 [g] at 0.141 [s]

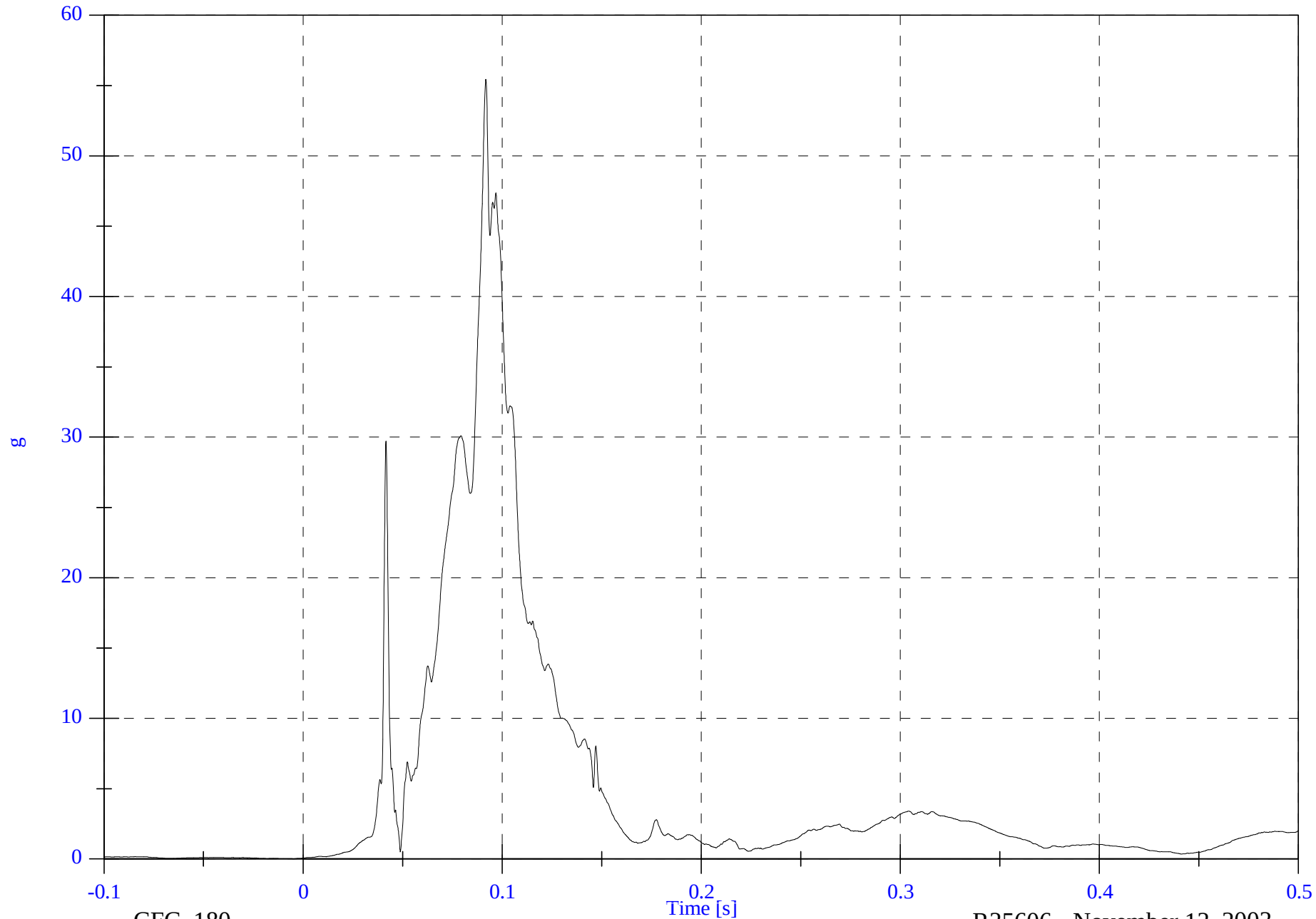


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Chest Red Resultant

Max: 55.5 [g] at 0.092 [s]

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



B-45

8710-OFST-05

CFC_180

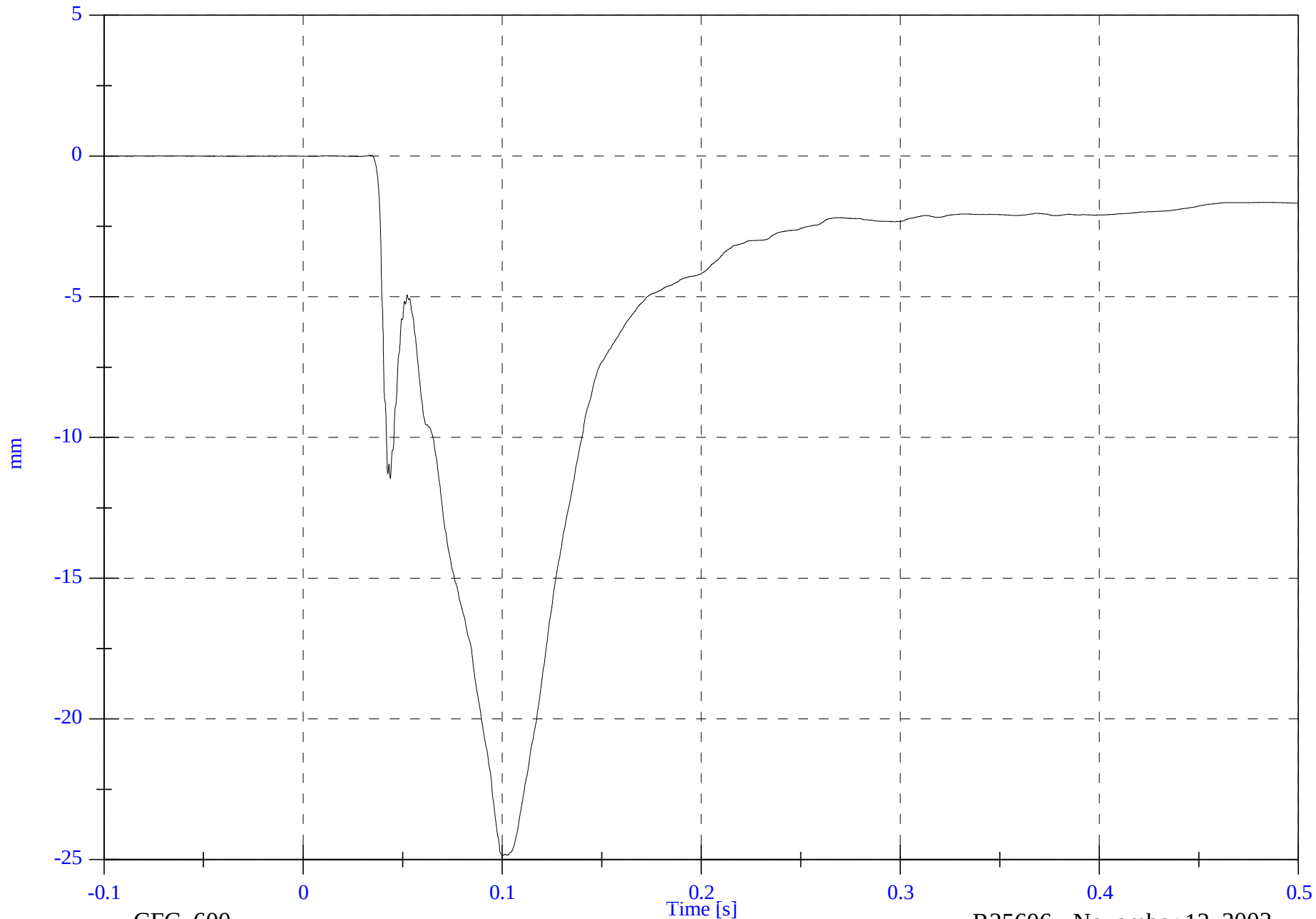
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Chest Displacement

Max: 0.0 [mm] at 0.034 [s]

Min: -24.8 [mm] at 0.100 [s]



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8710-OFST-05

CFC_600

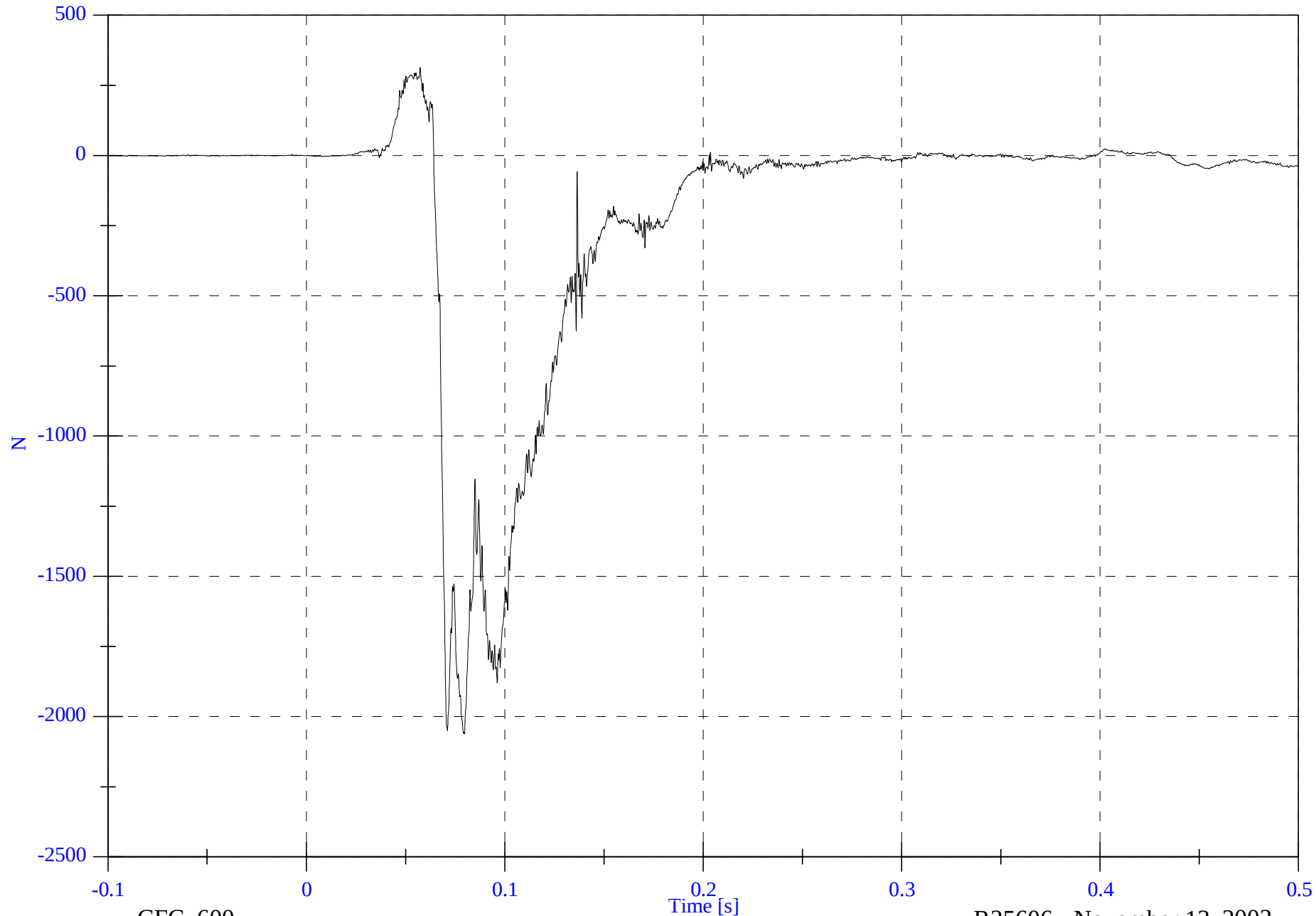
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Left Femur

Max: 314.4 [N] at 0.057 [s]

Min: -2062.1 [N] at 0.080 [s]



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8710-OFST-05

CFC_600

Time [s]

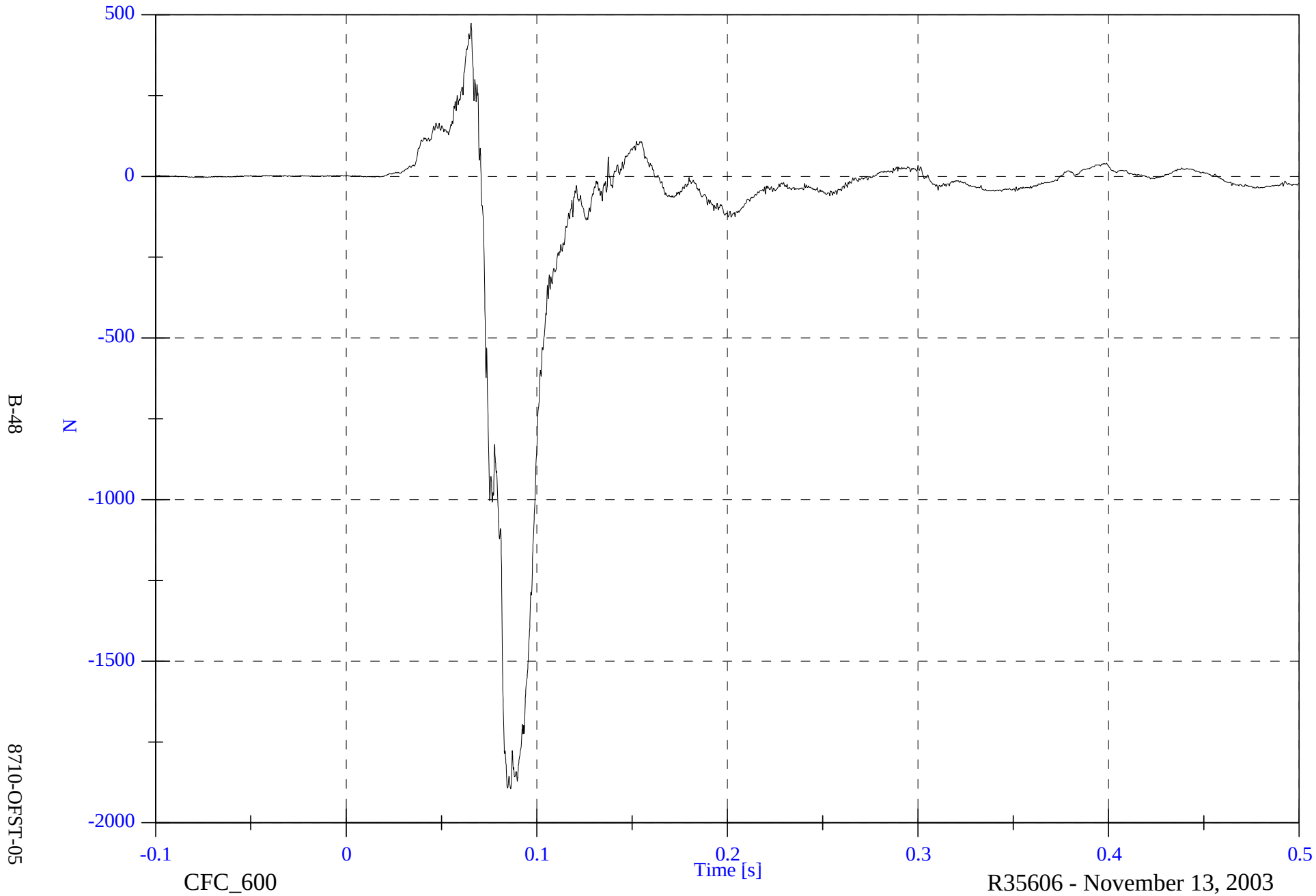
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Right Femur

Max: 473.6 [N] at 0.065 [s]

Min: -1894.2 [N] at 0.086 [s]



40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Left Knee Deflection

Max: 0.3 [mm] at 0.062 [s]

Min: -5.2 [mm] at 0.072 [s]



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CFC_180

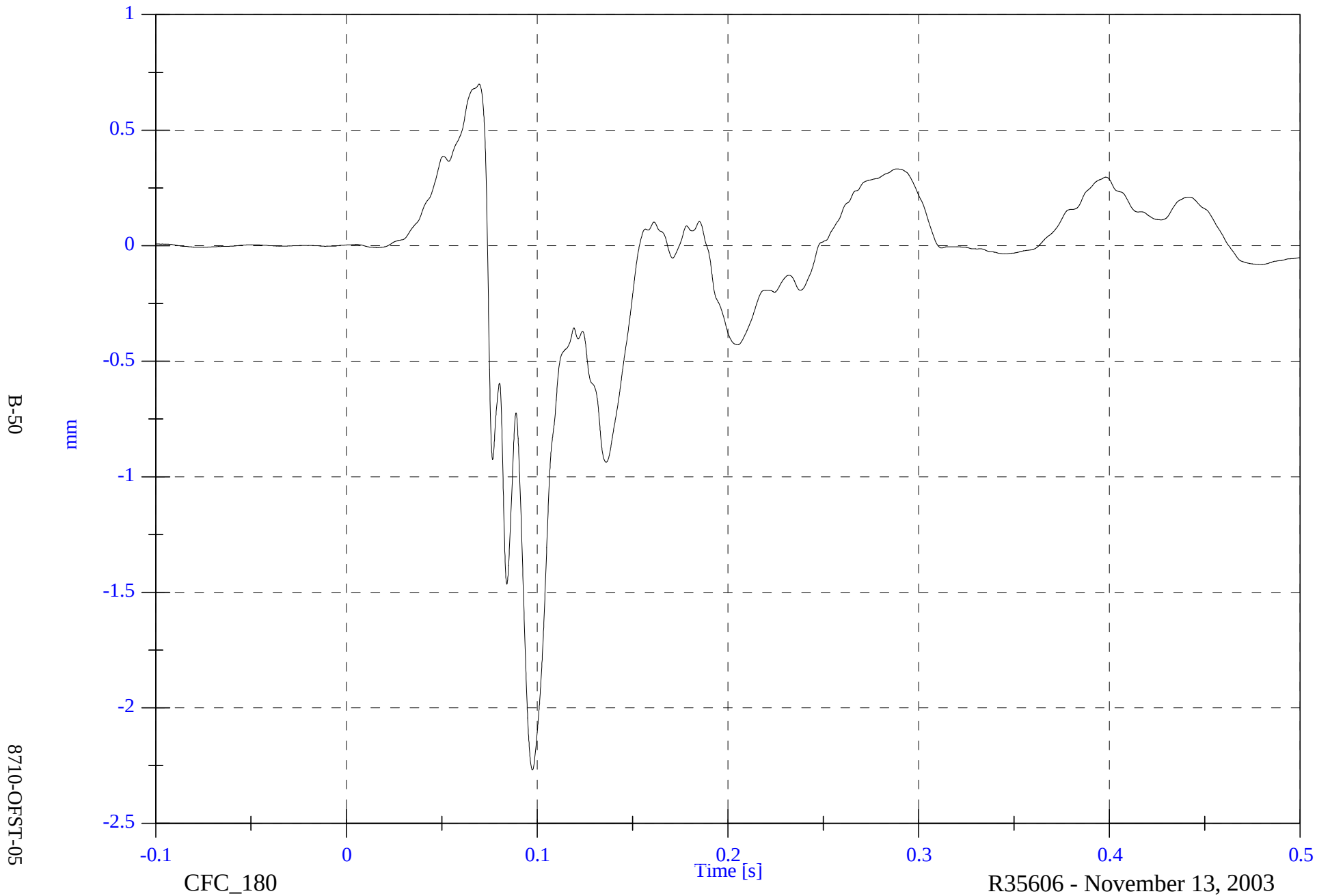
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Right Knee Deflection

Max: 0.7 [mm] at 0.070 [s]

Min: -2.3 [mm] at 0.097 [s]

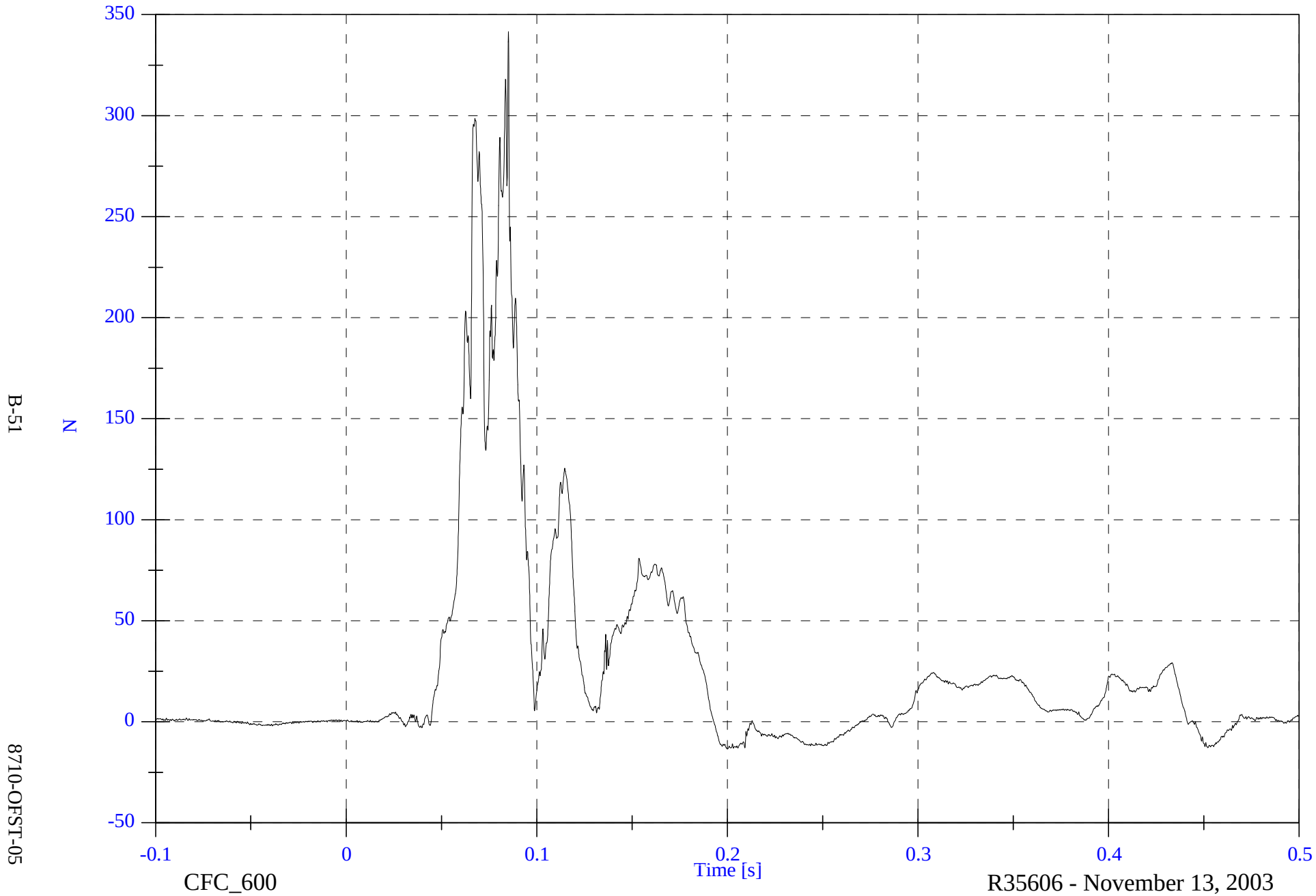


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Left Upper Tibia Fx

Max: 341.5 [N] at 0.085 [s]

Min: -13.3 [N] at 0.200 [s]

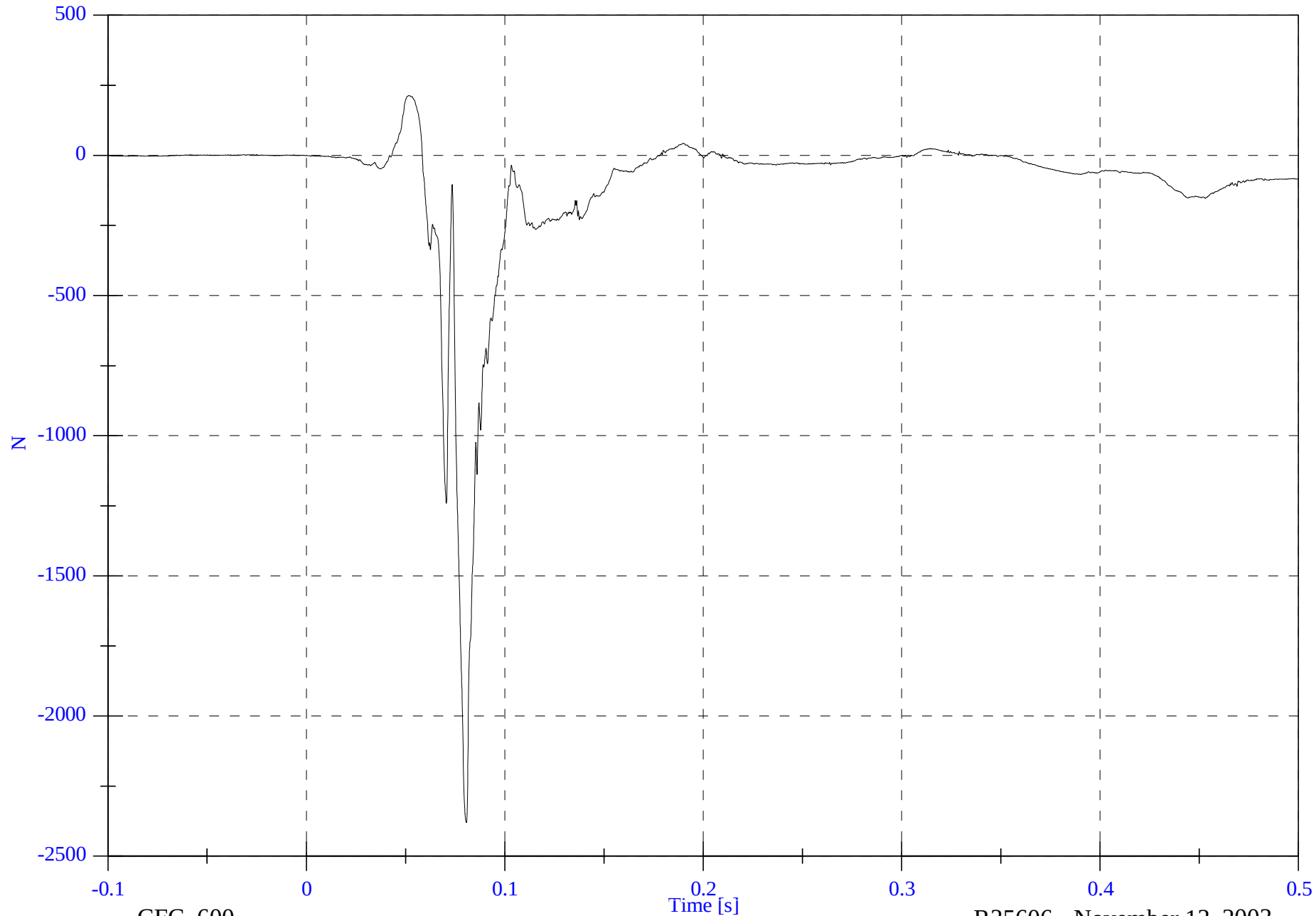


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Left Upper Tibia Fz

Max: 213.9 [N] at 0.052 [s]

Min: -2380.4 [N] at 0.081 [s]



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8710-OFST-05

CFC_600

Time [s]

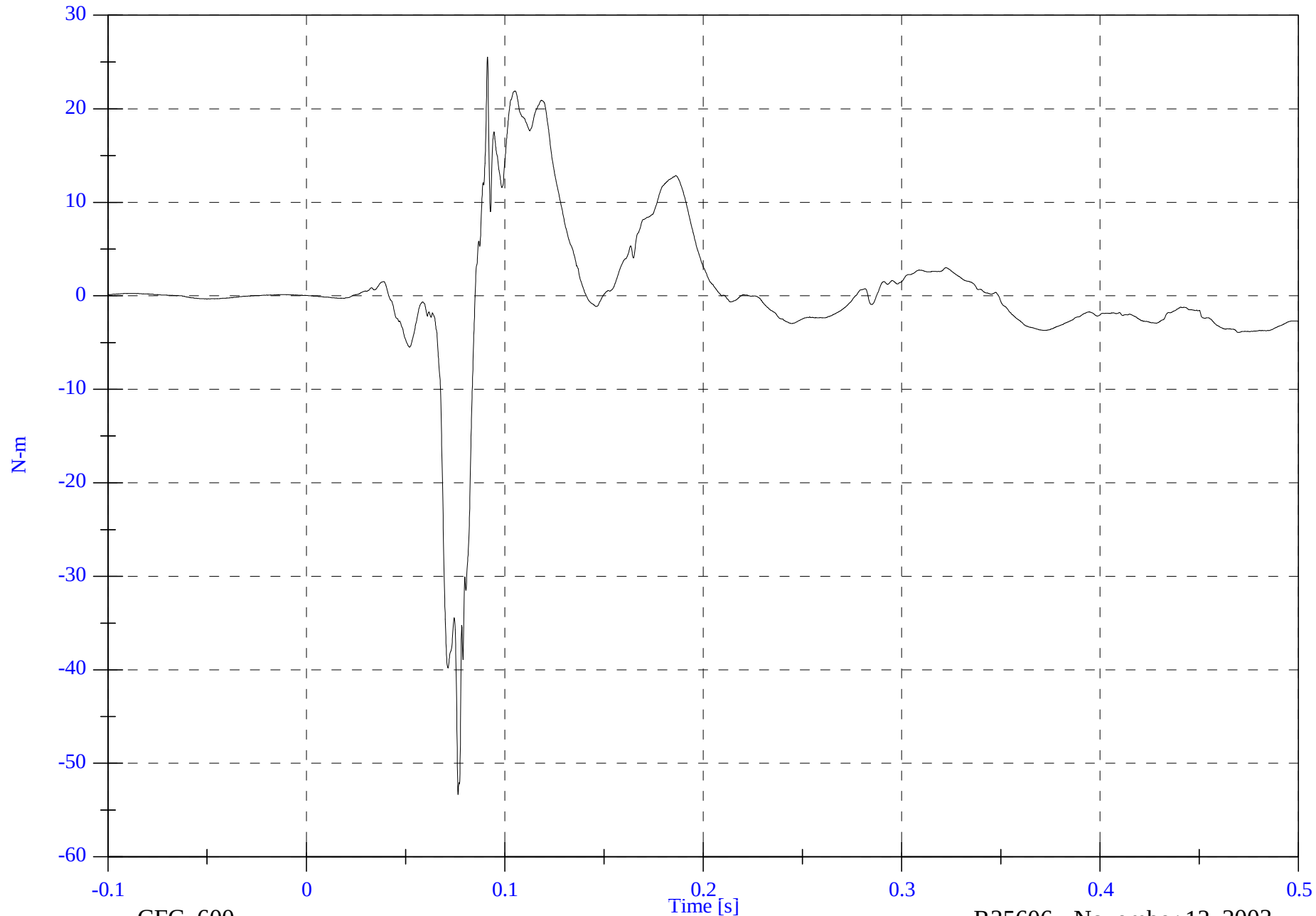
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Left Upper Tibia Mx

Max: 25.5 [N-m] at 0.091 [s]

Min: -53.3 [N-m] at 0.076 [s]



B-53

8710-OFST-05

CFC_600

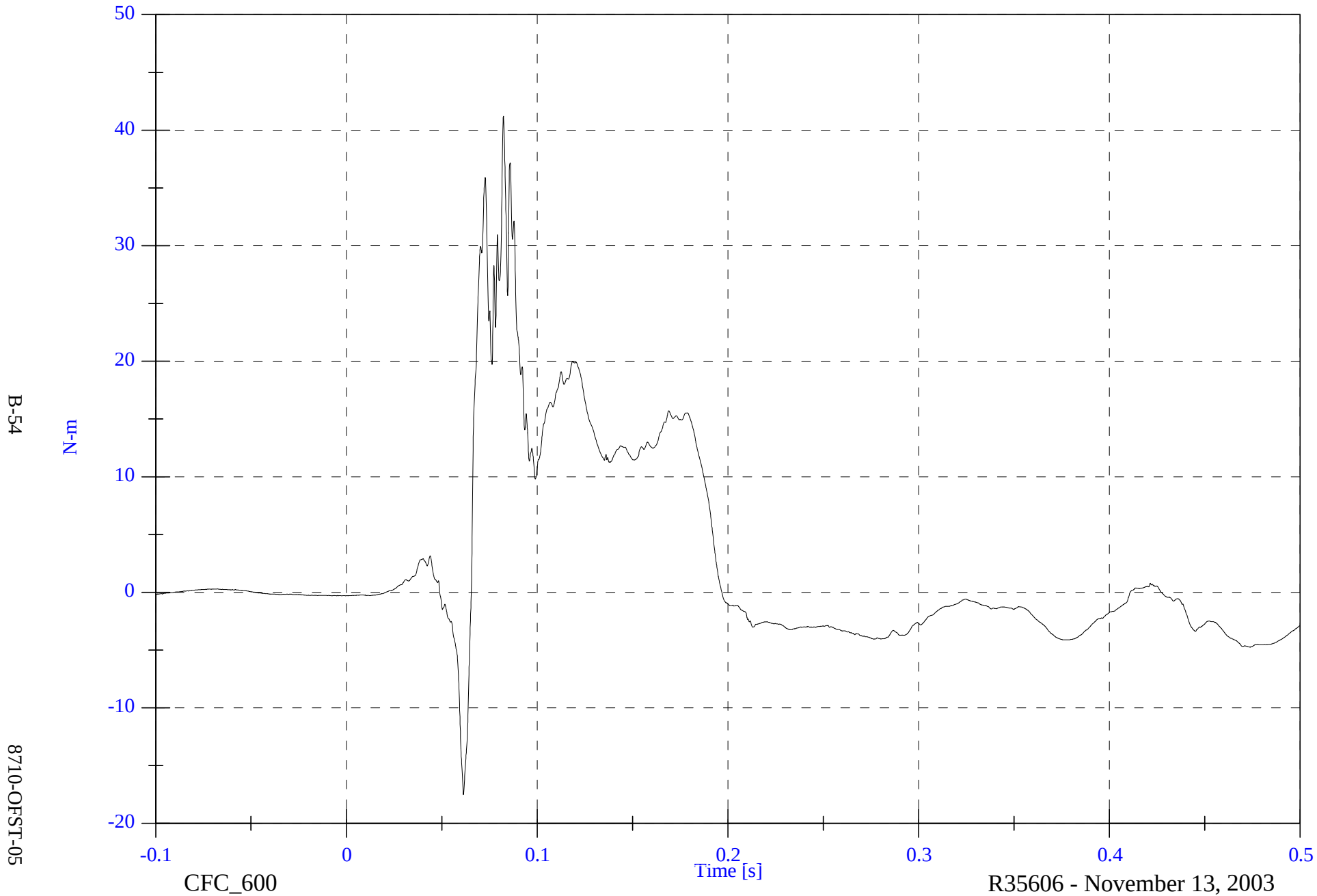
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Left Upper Tibia My

Max: 41.2 [N-m] at 0.082 [s]

Min: -17.5 [N-m] at 0.061 [s]

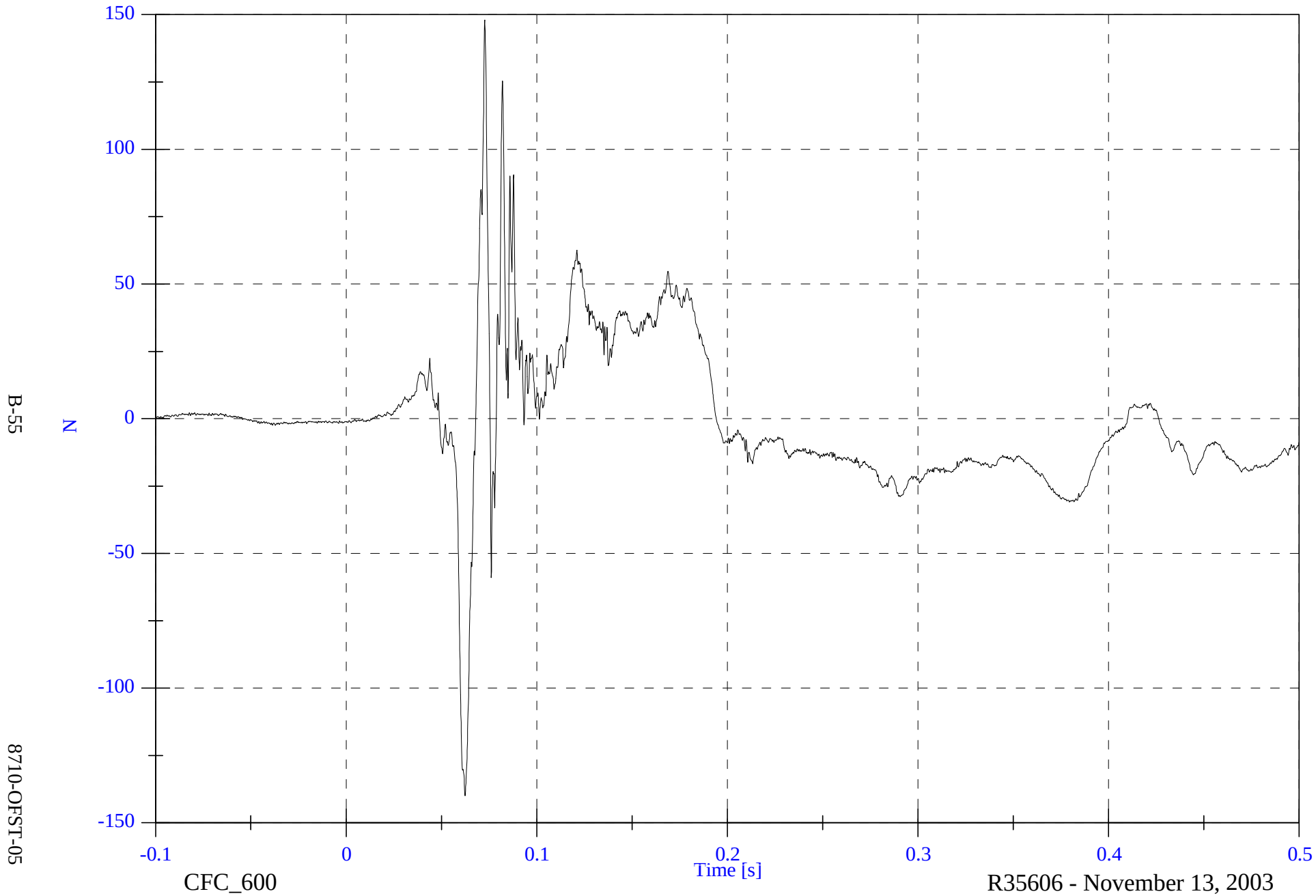


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Left Lower Tibia Fx

Max: 148.0 [N] at 0.073 [s]

Min: -140.0 [N] at 0.062 [s]

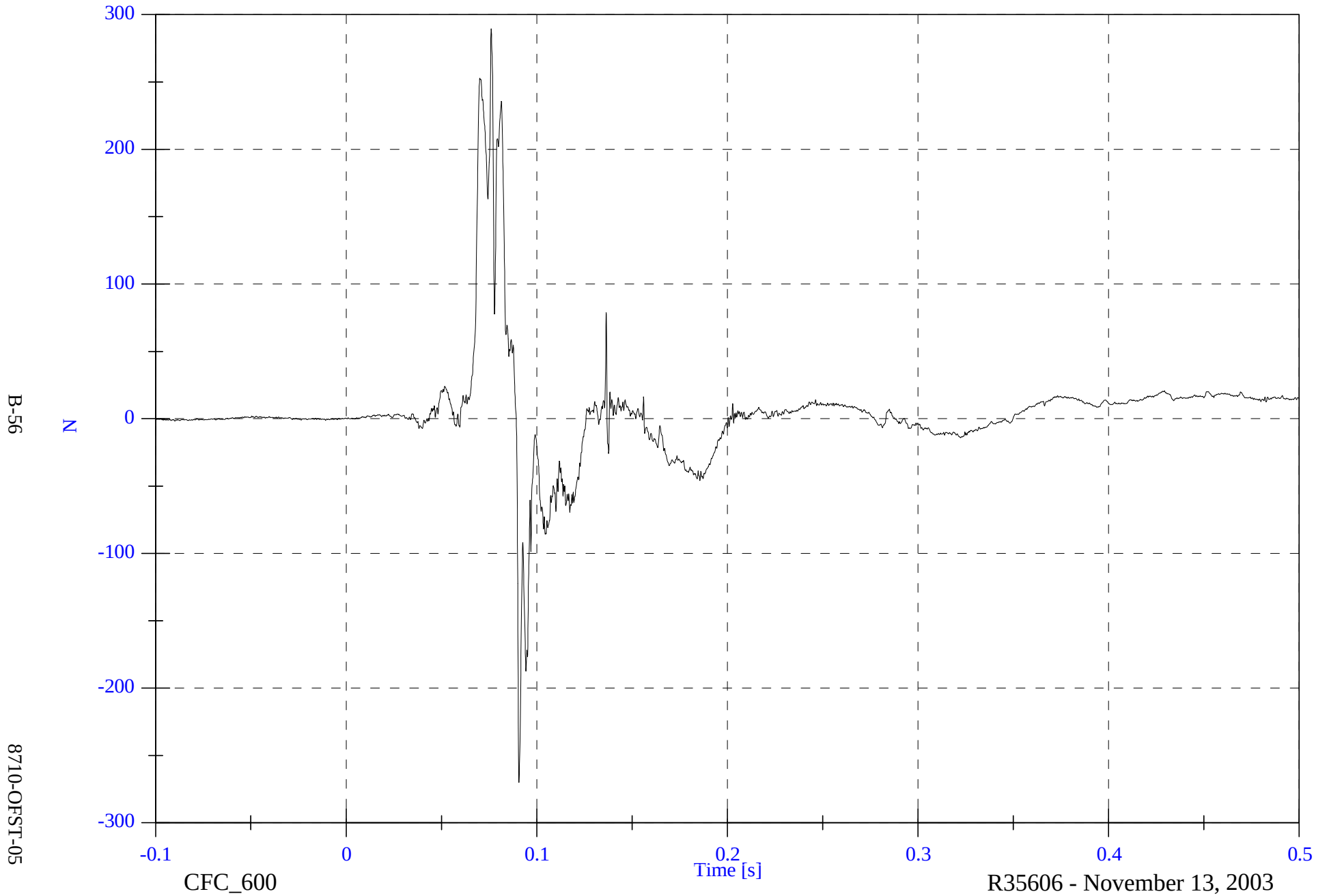


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Left Lower Tibia Fy

Max: 289.6 [N] at 0.076 [s]

Min: -270.0 [N] at 0.091 [s]

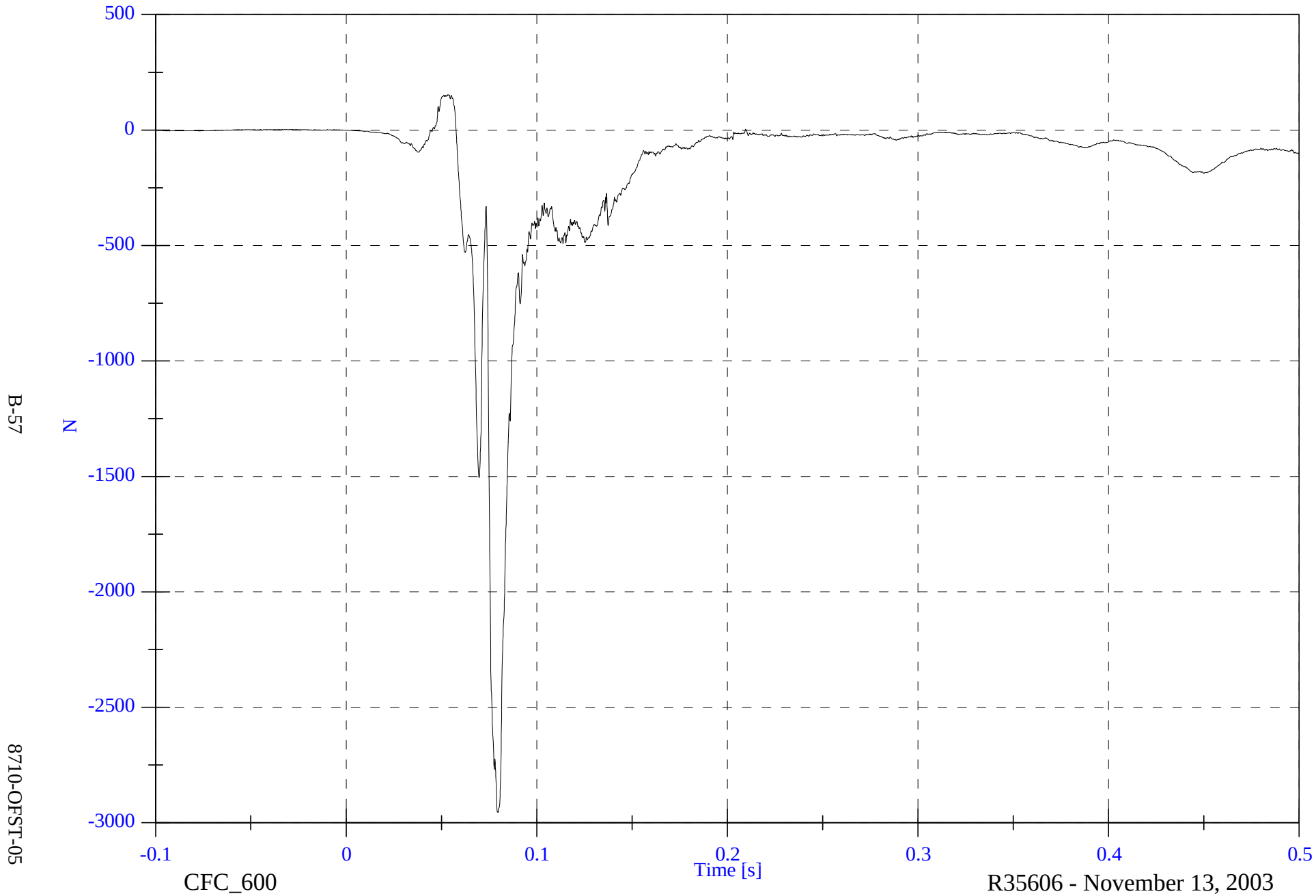


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Left Lower Tibia Fz

Max: 153.3 [N] at 0.054 [s]

Min: -2954.7 [N] at 0.080 [s]

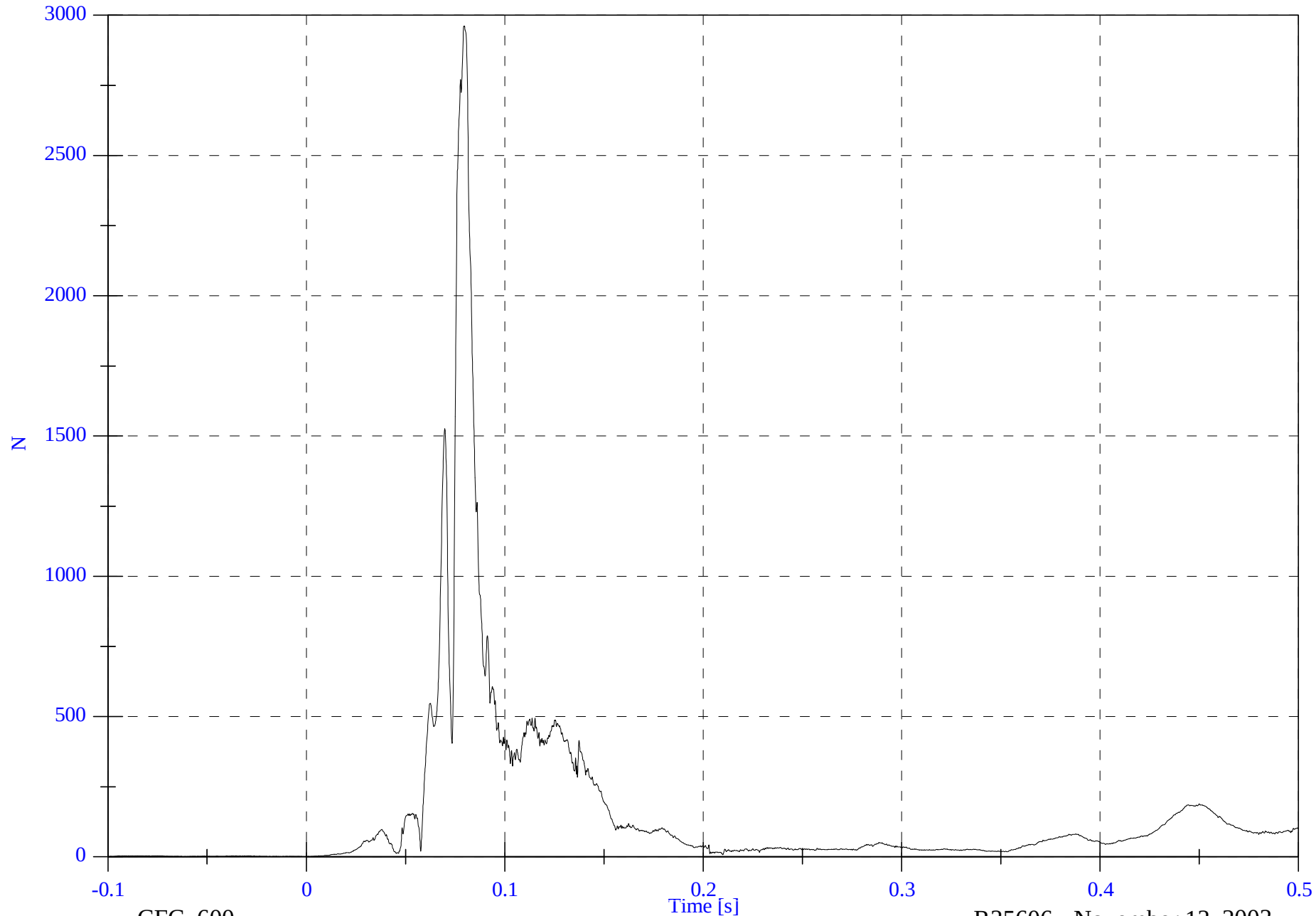


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Left Lower Tibia F Resultant

Max: 2962.0 [N] at 0.080 [s]

Min: 0.7 [N] at -0.100 [s]



B-58

8710-OFST-05

CFC_600

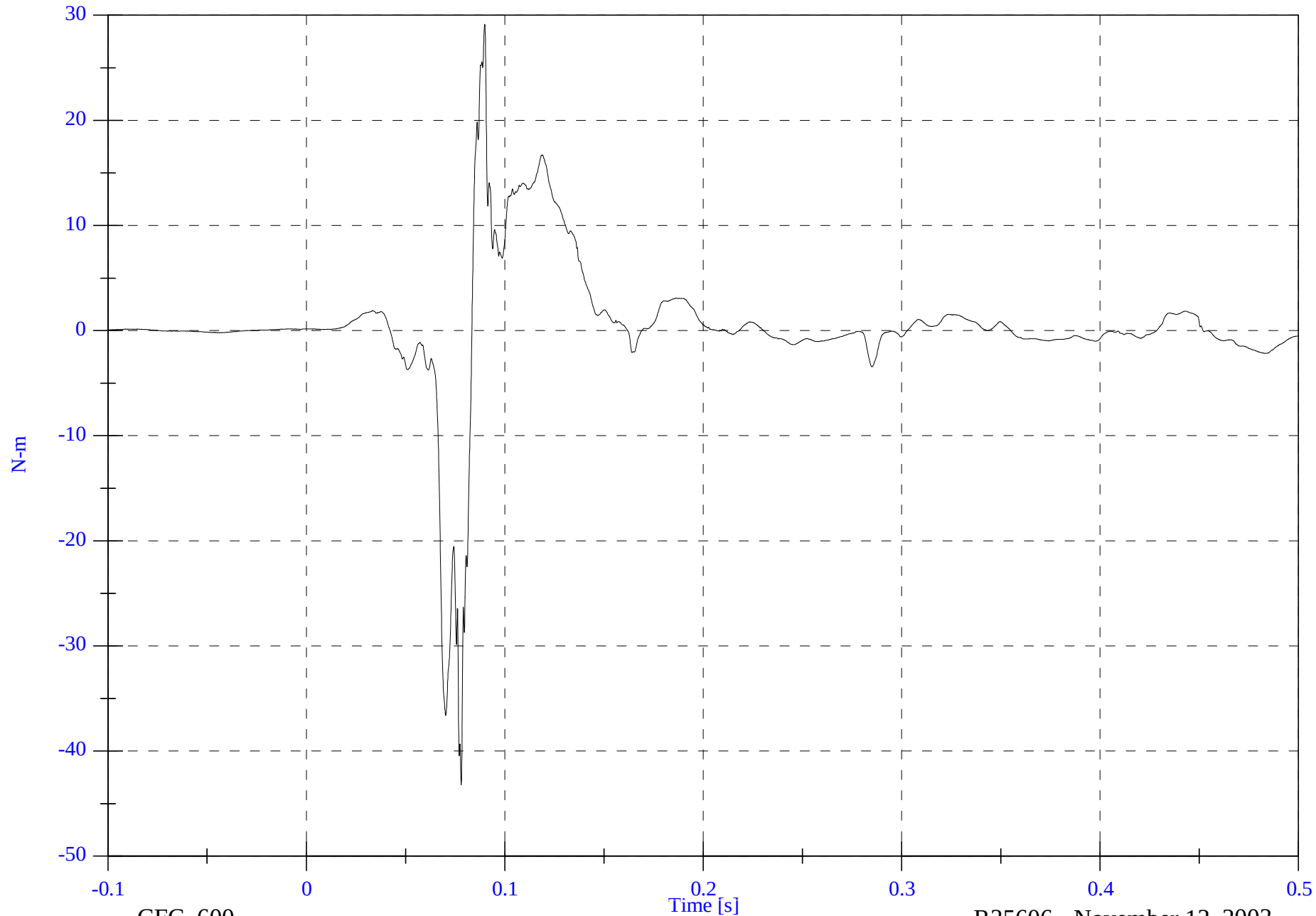
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Left Lower Tibia Mx

Max: 29.2 [N-m] at 0.090 [s]

Min: -43.2 [N-m] at 0.078 [s]



B-59

8710-OFST-05

CFC_600

Time [s]

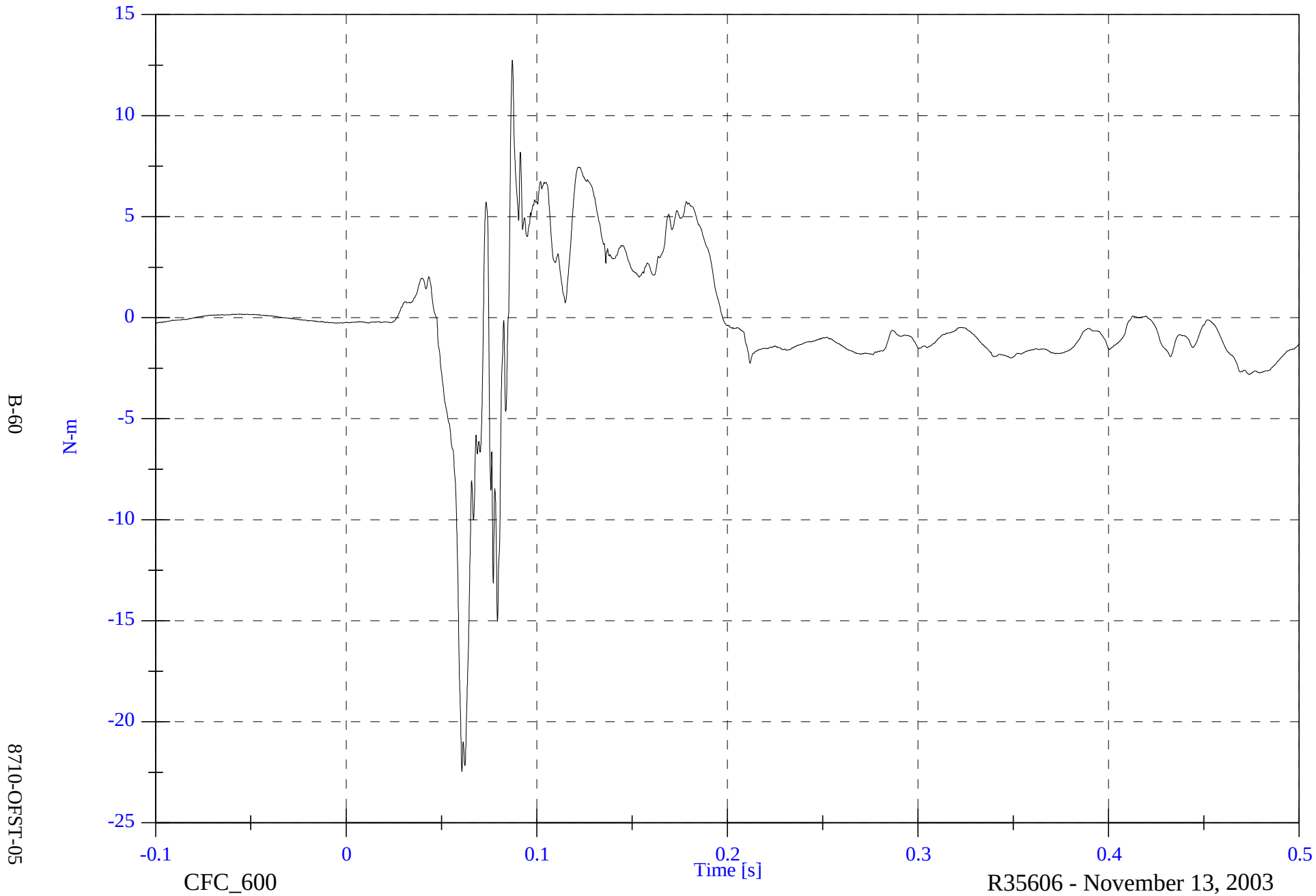
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Left Lower Tibia My

Max: 12.7 [N-m] at 0.087 [s]

Min: -22.5 [N-m] at 0.061 [s]

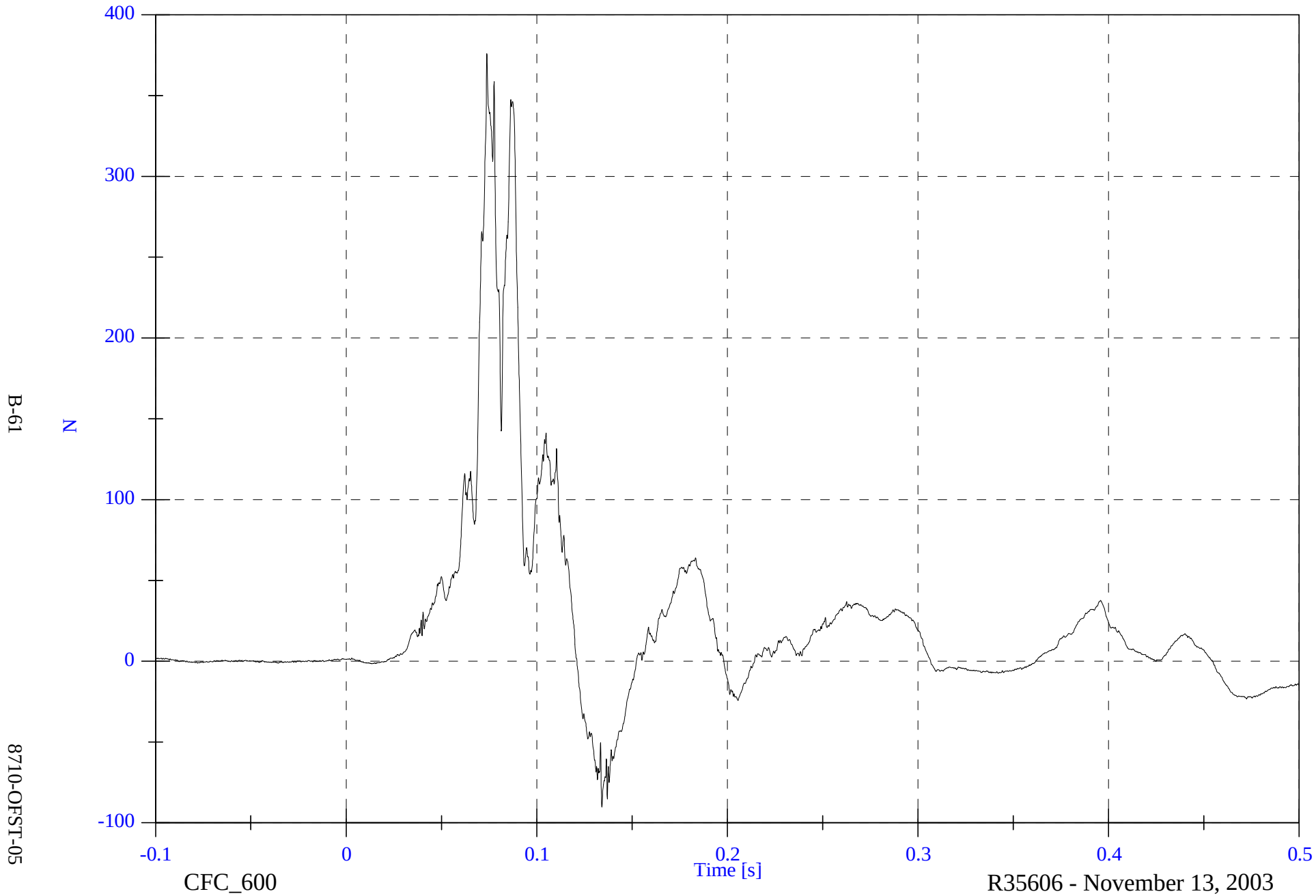


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Right Upper Tibia Fx

Max: 376.0 [N] at 0.074 [s]

Min: -90.4 [N] at 0.134 [s]

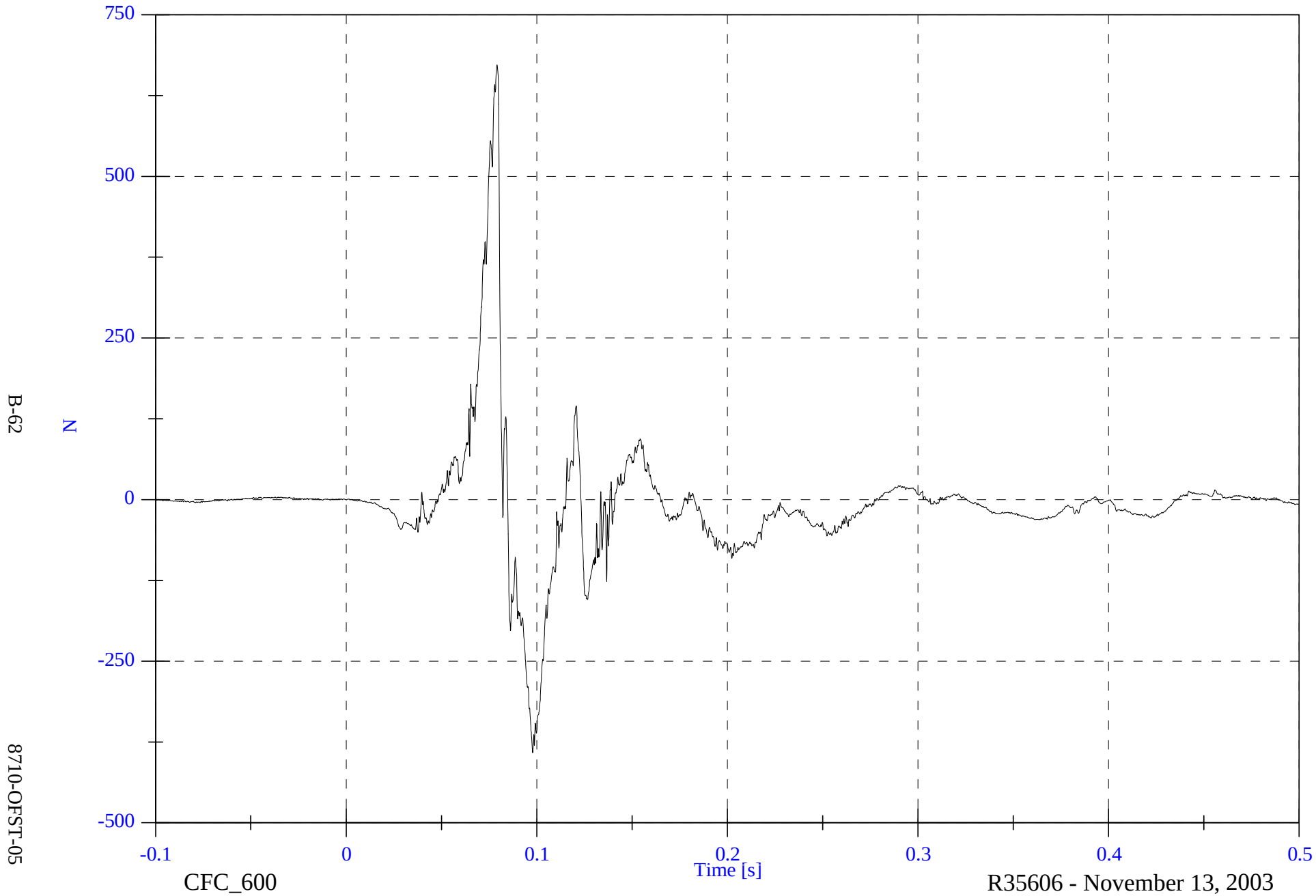


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Right Upper Tibia Fz

Max: 672.6 [N] at 0.079 [s]

Min: -391.7 [N] at 0.098 [s]

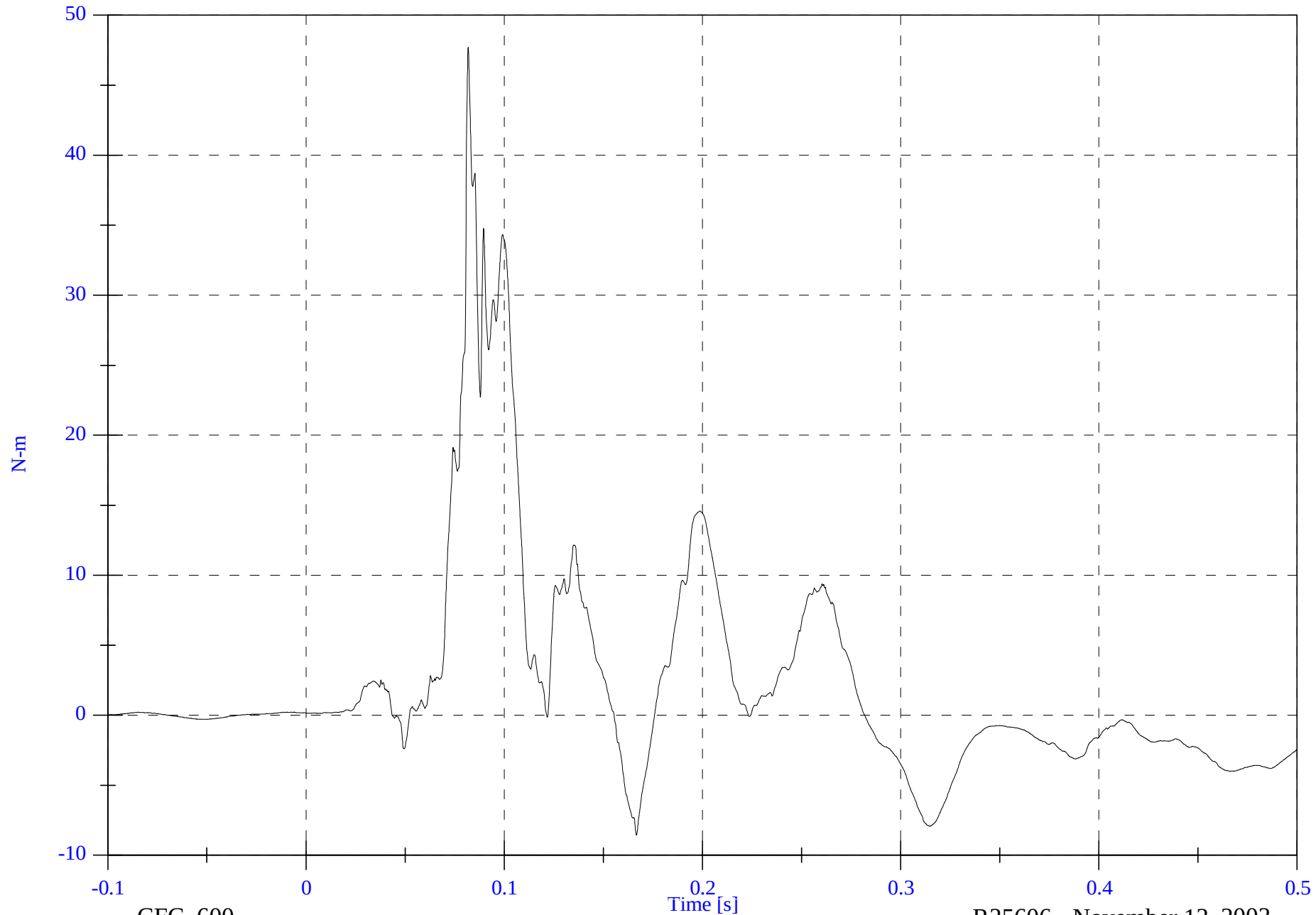


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Right Upper Tibia Mx

Max: 47.7 [N-m] at 0.082 [s]

Min: -8.6 [N-m] at 0.167 [s]



B-63

8710-OFST-05

CFC_600

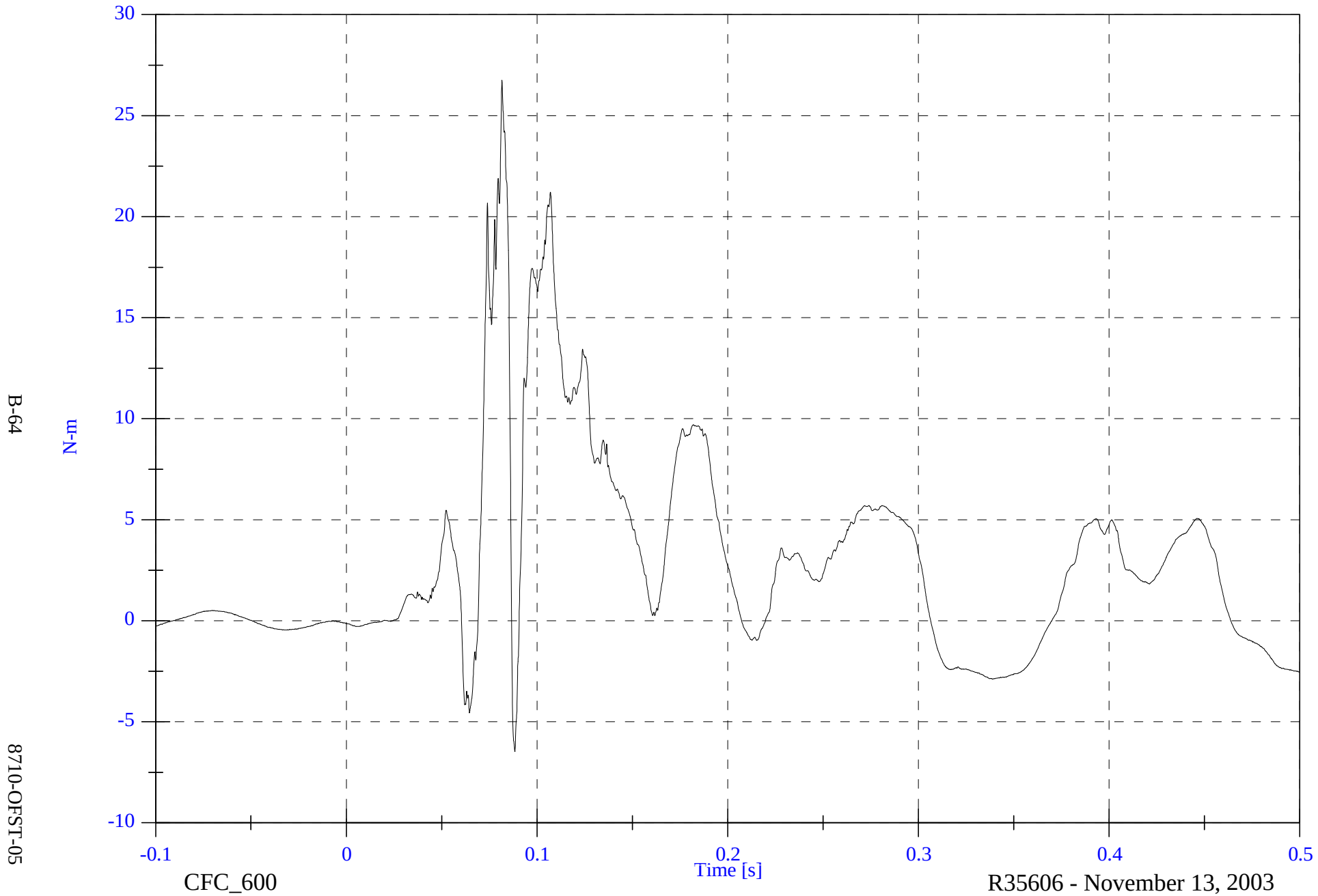
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Right Upper Tibia My

Max: 26.8 [N-m] at 0.082 [s]

Min: -6.5 [N-m] at 0.088 [s]

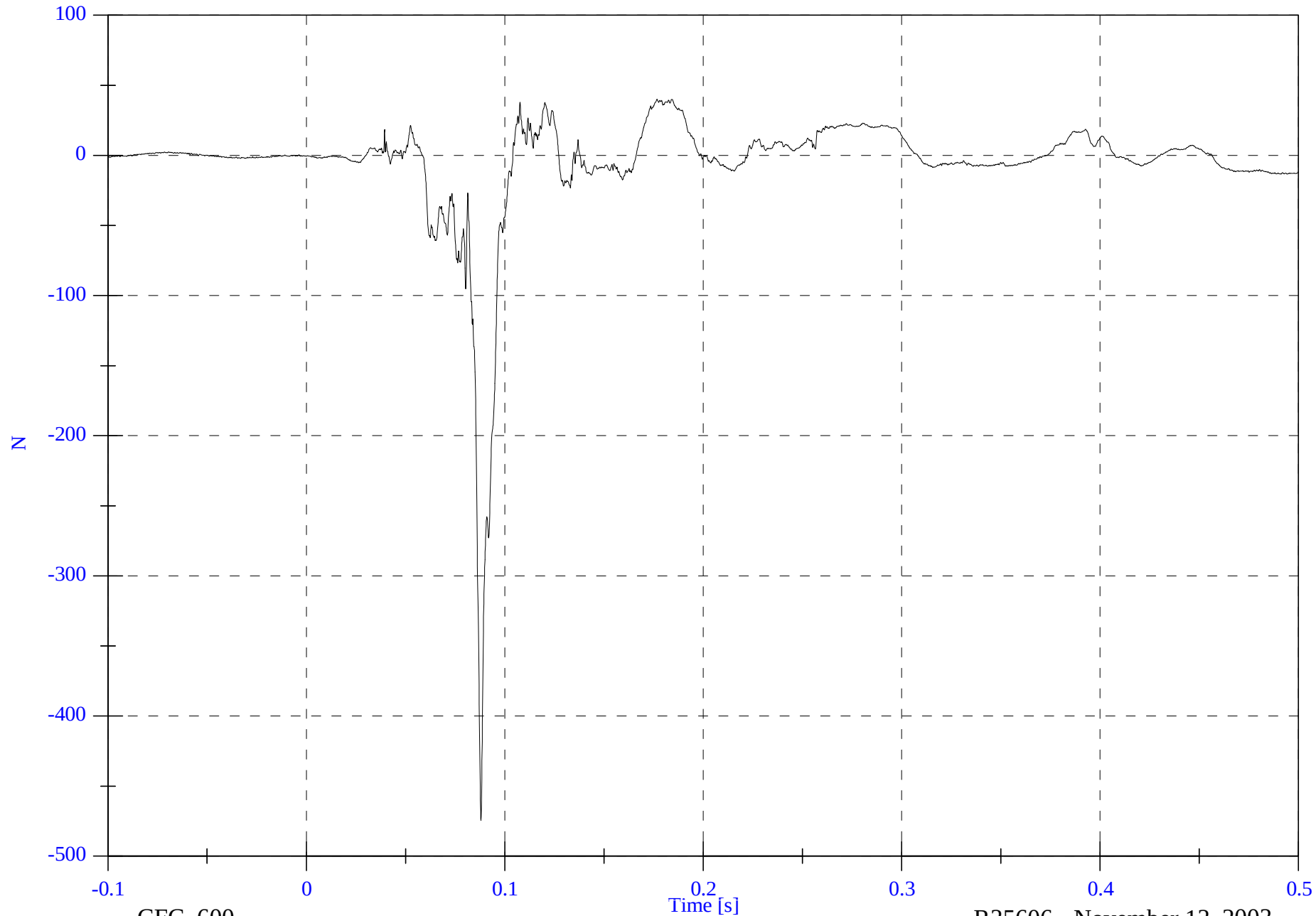


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Right Lower Tibia Fx

Max: 40.2 [N] at 0.177 [s]

Min: -474.5 [N] at 0.088 [s]



B-65

8710-OFST-05

CFC_600

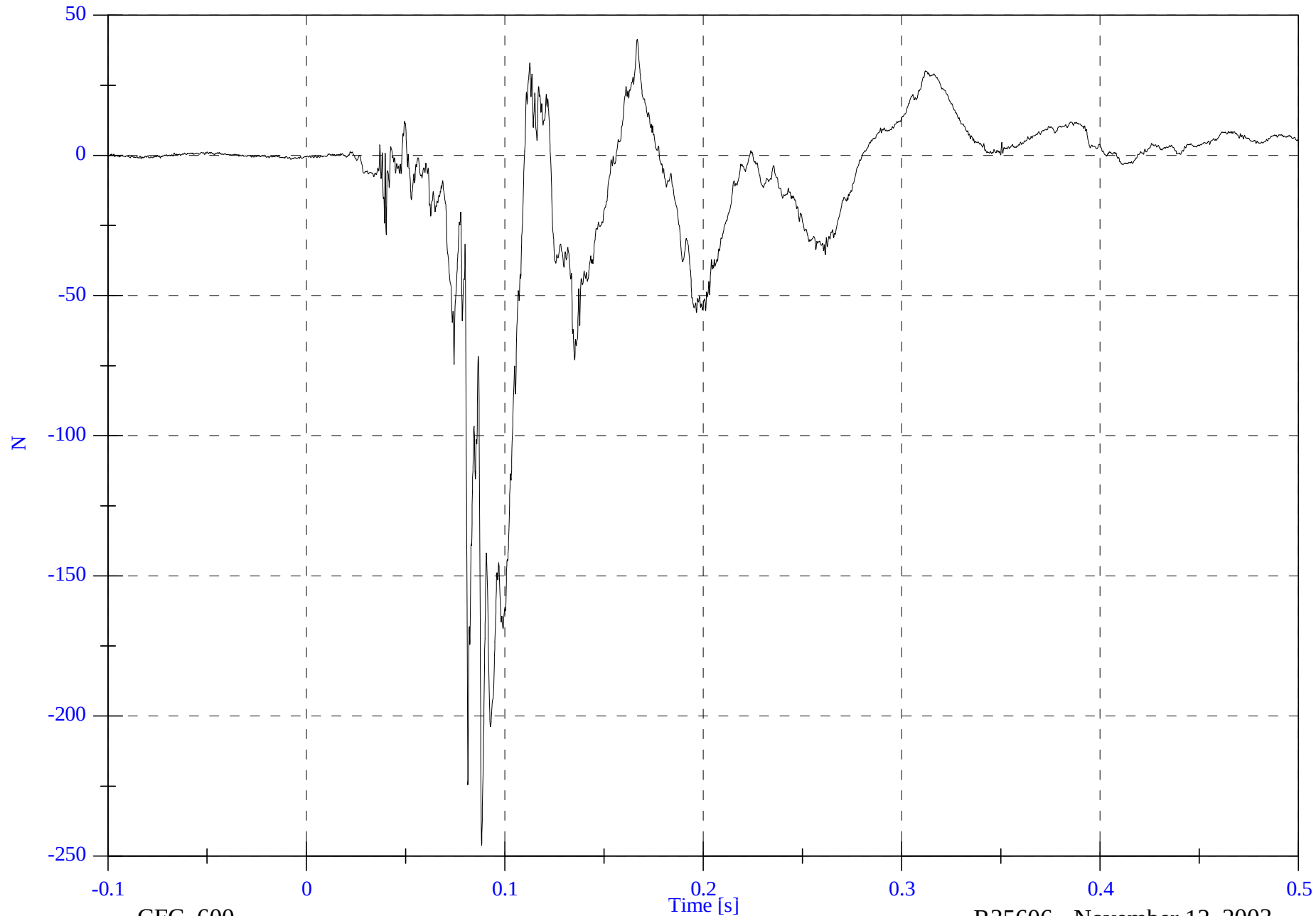
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Right Lower Tibia Fy

Max: 41.4 [N] at 0.167 [s]

Min: -246.2 [N] at 0.088 [s]



B-66

8710-OFST-05

CFC_600

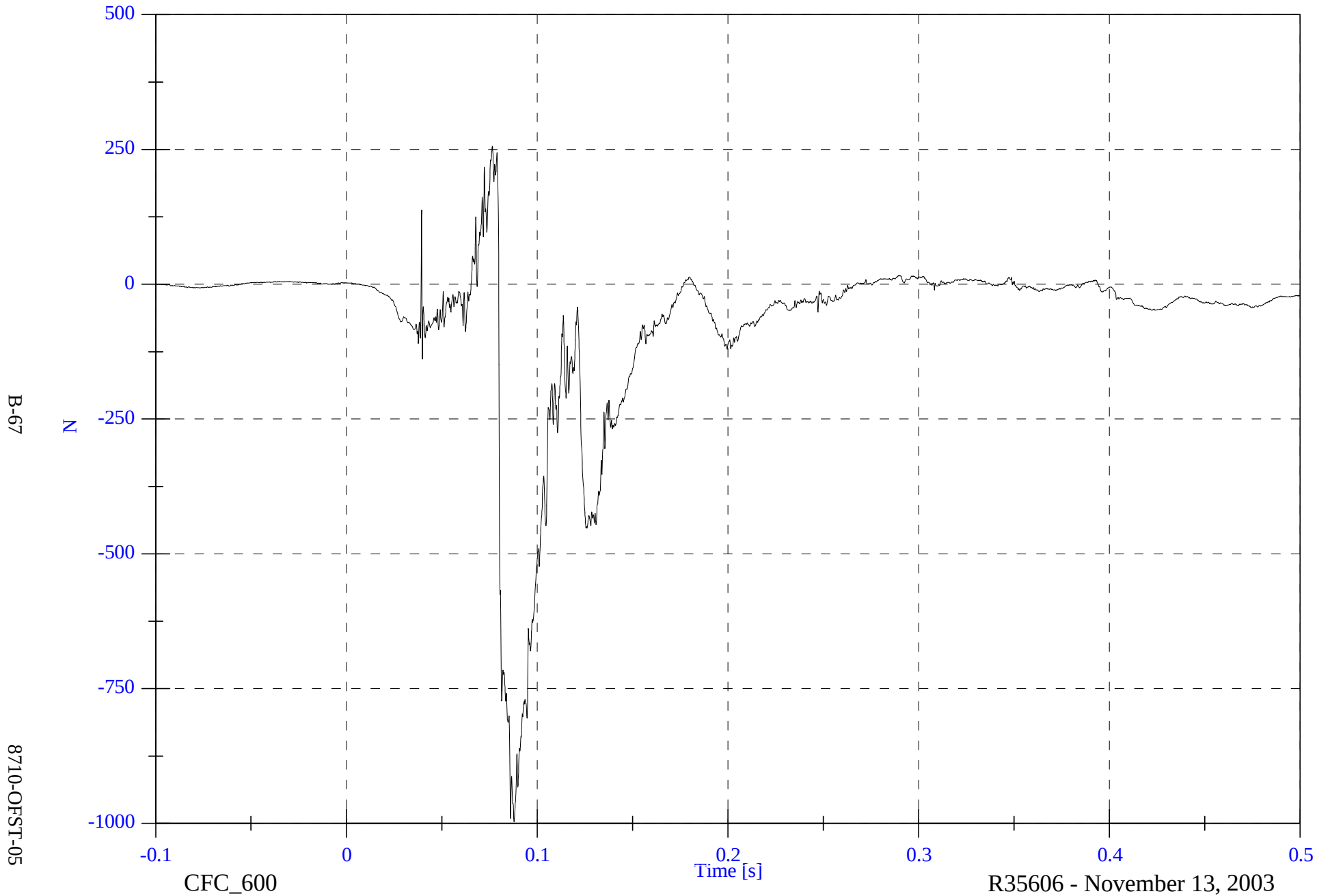
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Right Lower Tibia Fz

Max: 256.2 [N] at 0.076 [s]

Min: -996.7 [N] at 0.088 [s]

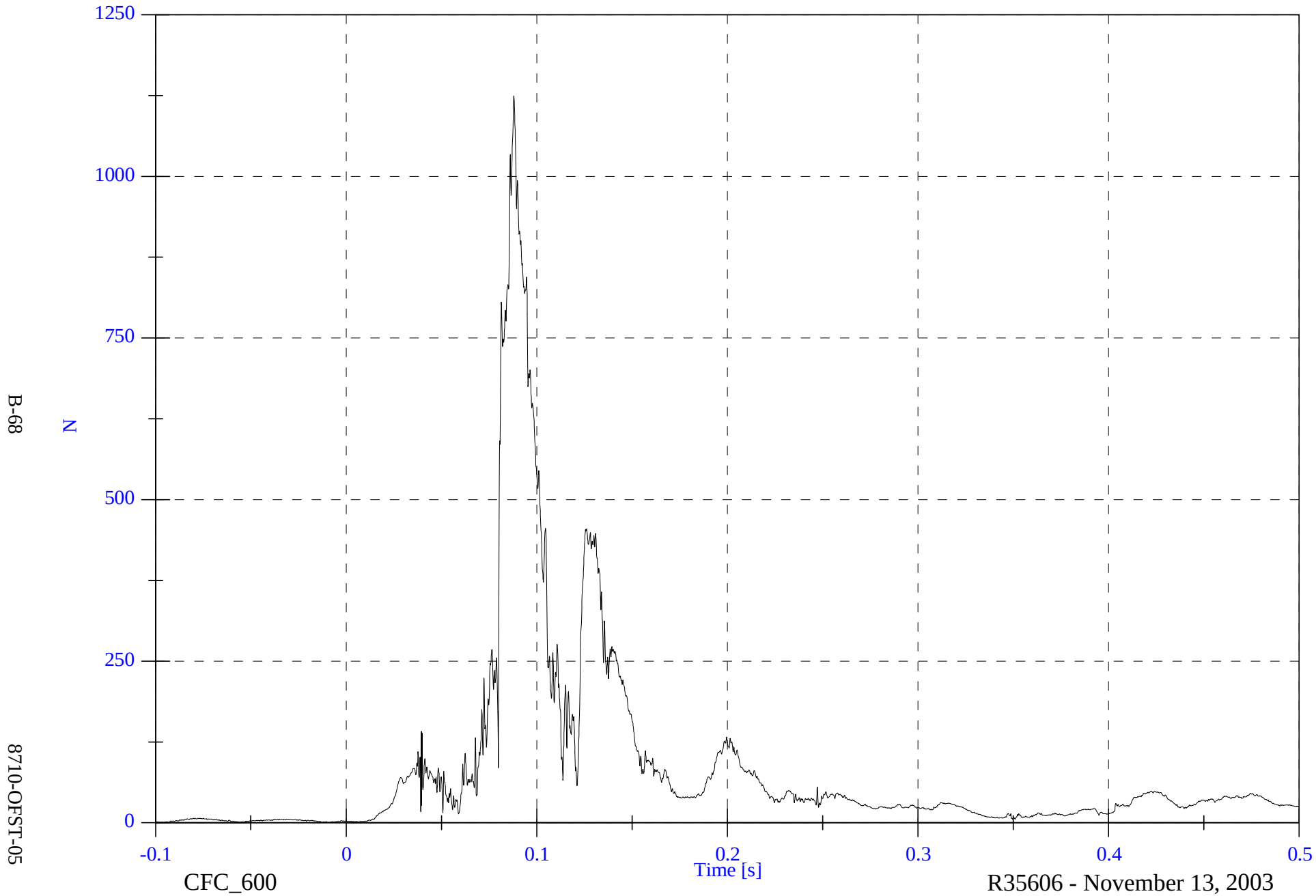


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Right Lower Tibia F Resultant

Max: 1124.0 [N] at 0.088 [s]

Min: 0.3 [N] at -0.093 [s]

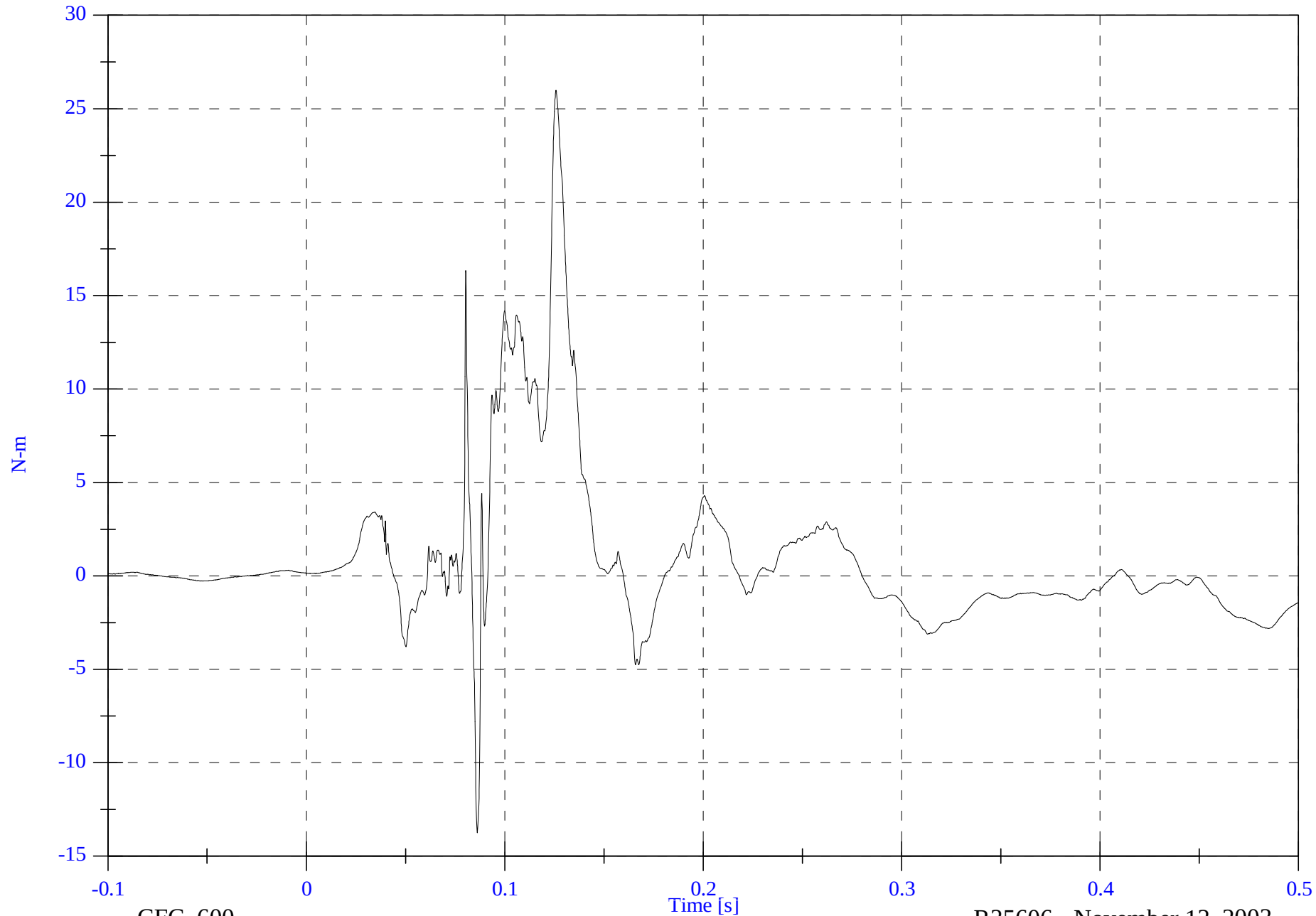


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Right Lower Tibia Mx

Max: 26.0 [N-m] at 0.126 [s]

Min: -13.8 [N-m] at 0.086 [s]



B-69

8710-OFST-05

CFC_600

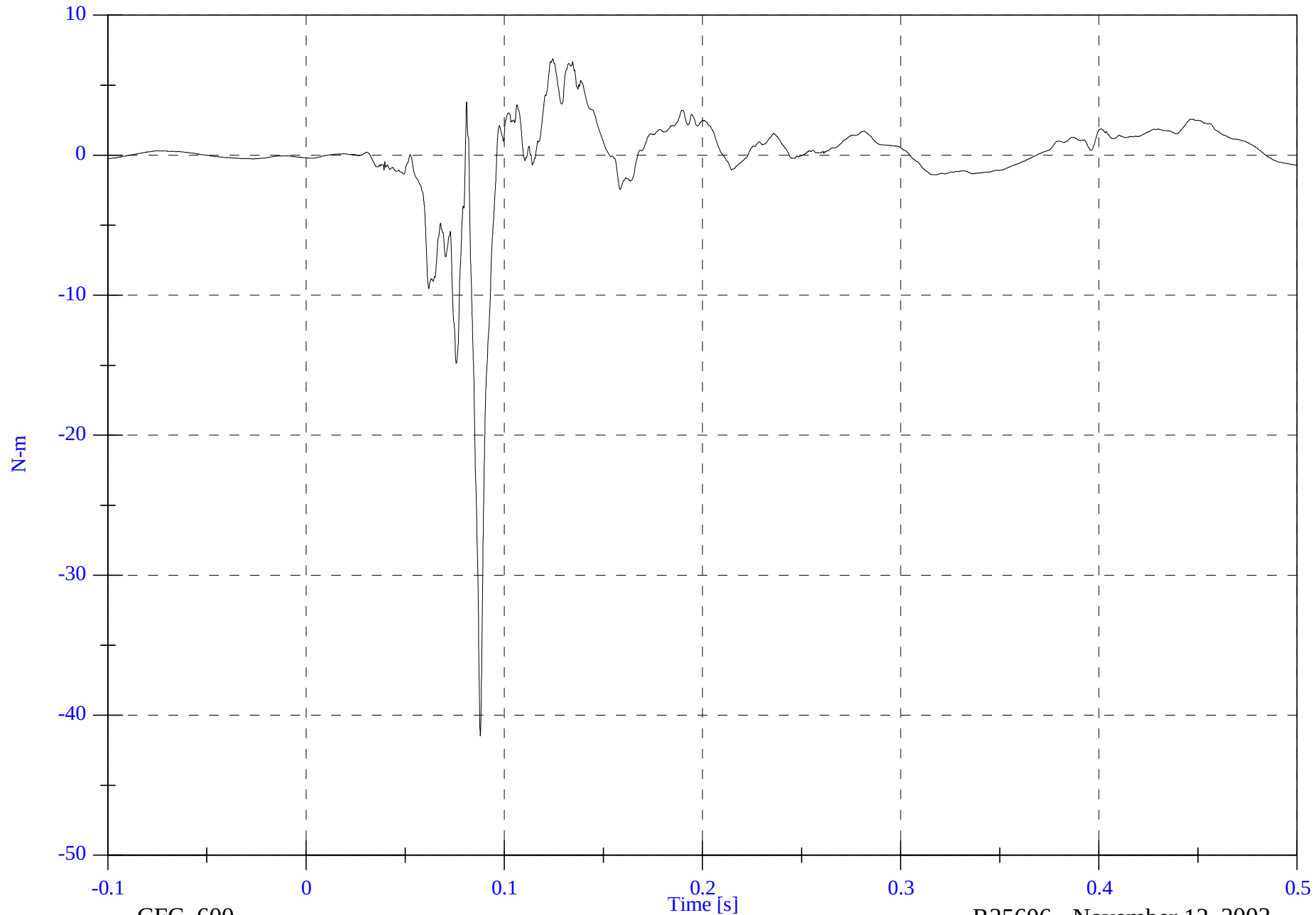
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Right Lower Tibia My

Max: 6.9 [N-m] at 0.124 [s]

Min: -41.5 [N-m] at 0.088 [s]



B-70

8710-OFST-05

CFC_600

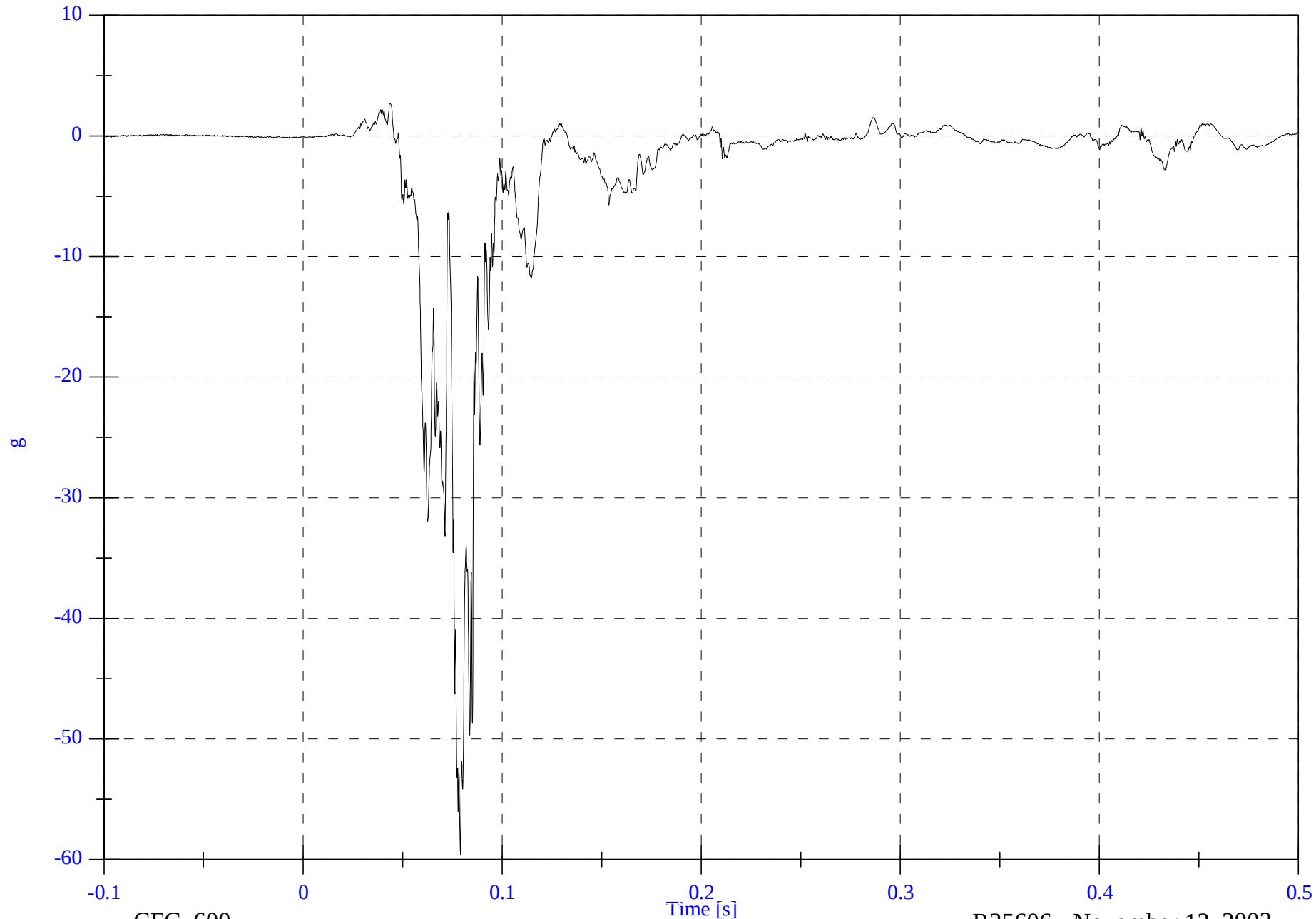
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Left Tibia x

Max: 2.7 [g] at 0.043 [s]

Min: -59.6 [g] at 0.079 [s]



CFC_600

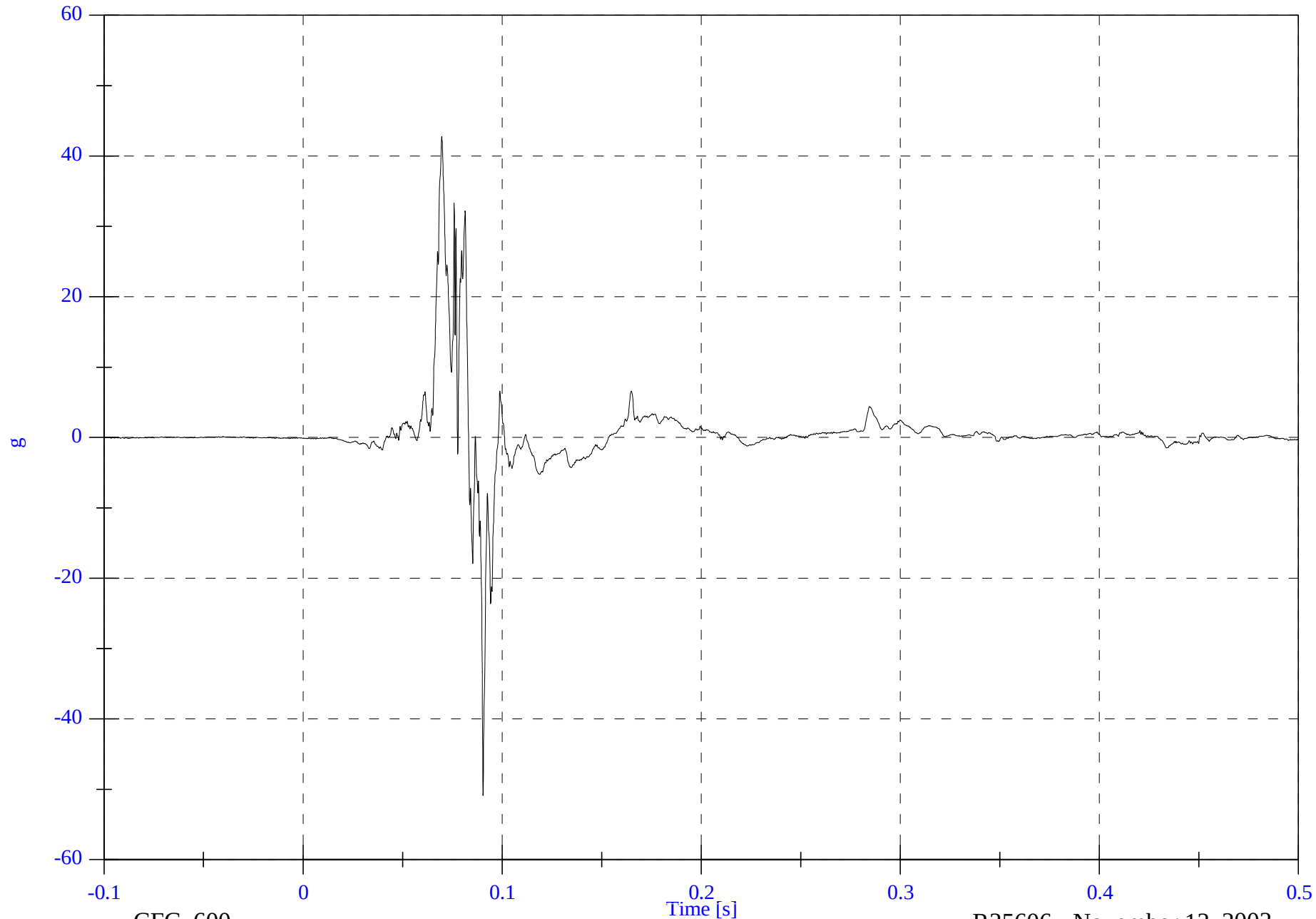
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Left Tibia y

Max: 42.8 [g] at 0.070 [s]

Min: -50.9 [g] at 0.090 [s]



B-72

8710-OFST-05

CFC_600

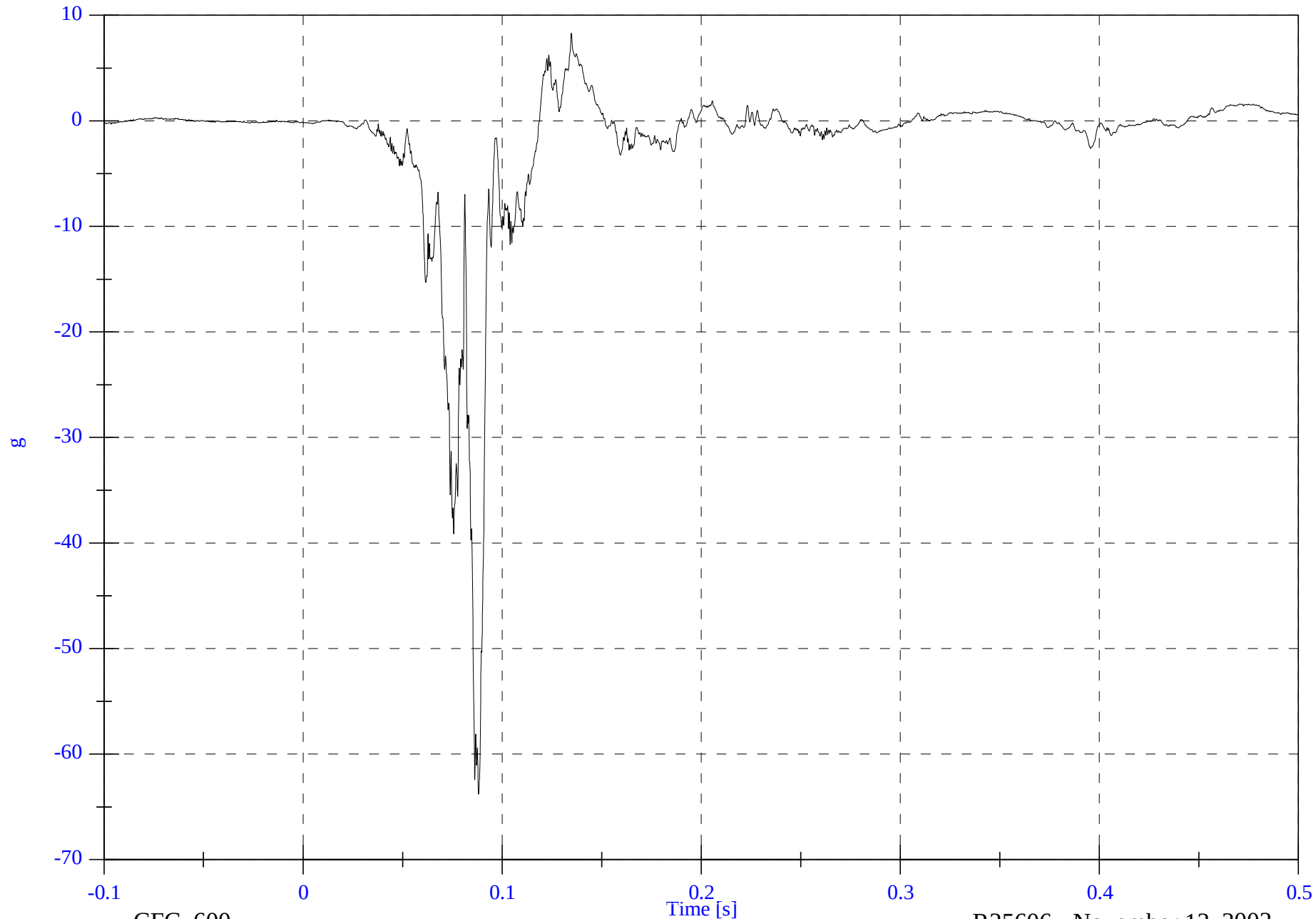
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Right Tibia x

Max: 8.3 [g] at 0.135 [s]

Min: -63.8 [g] at 0.088 [s]



B-73

8710-OFST-05

CFC_600

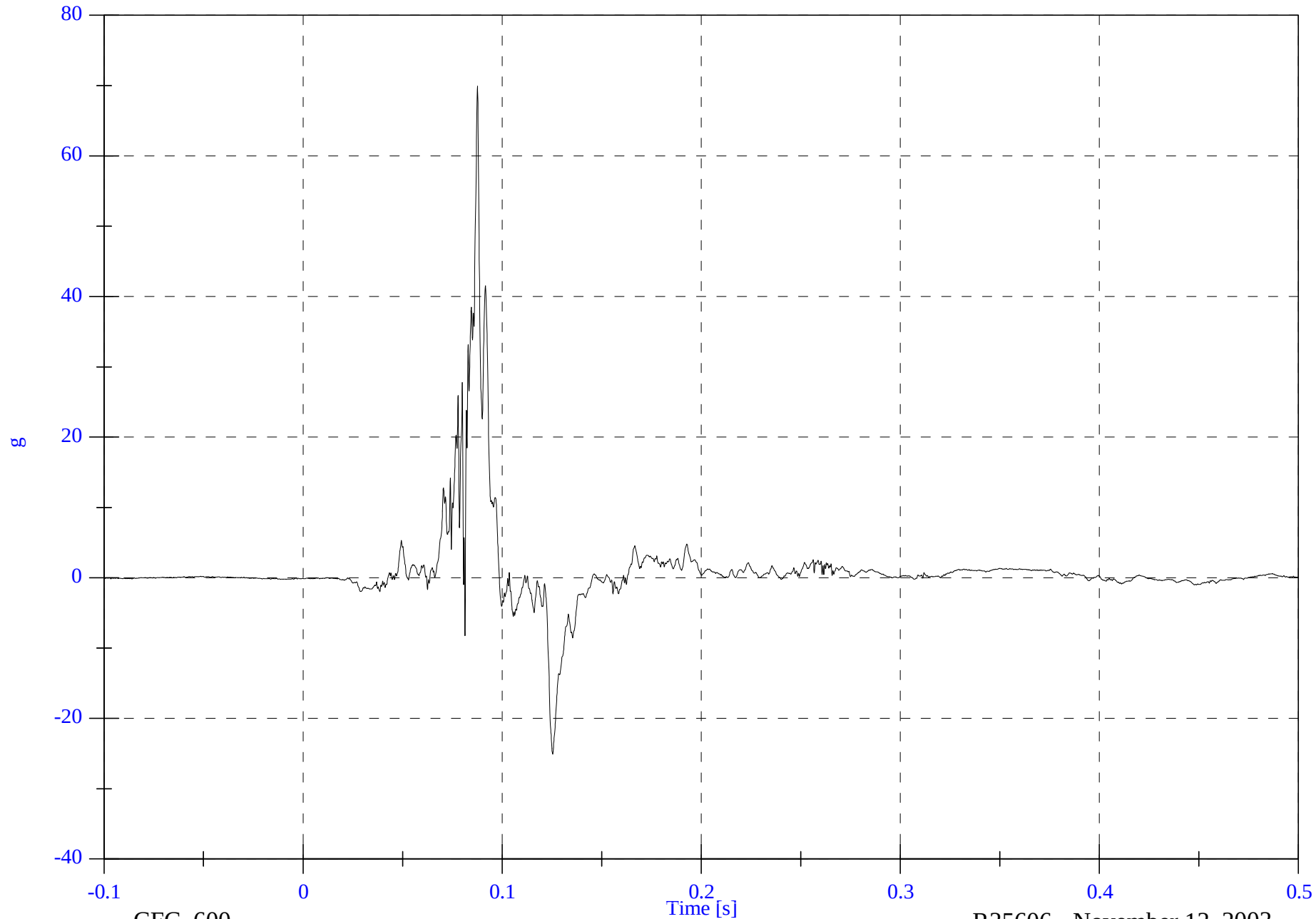
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Right Tibia y

Max: 69.9 [g] at 0.088 [s]

Min: -25.1 [g] at 0.125 [s]



B-74

8710-OFST-05

CFC_600

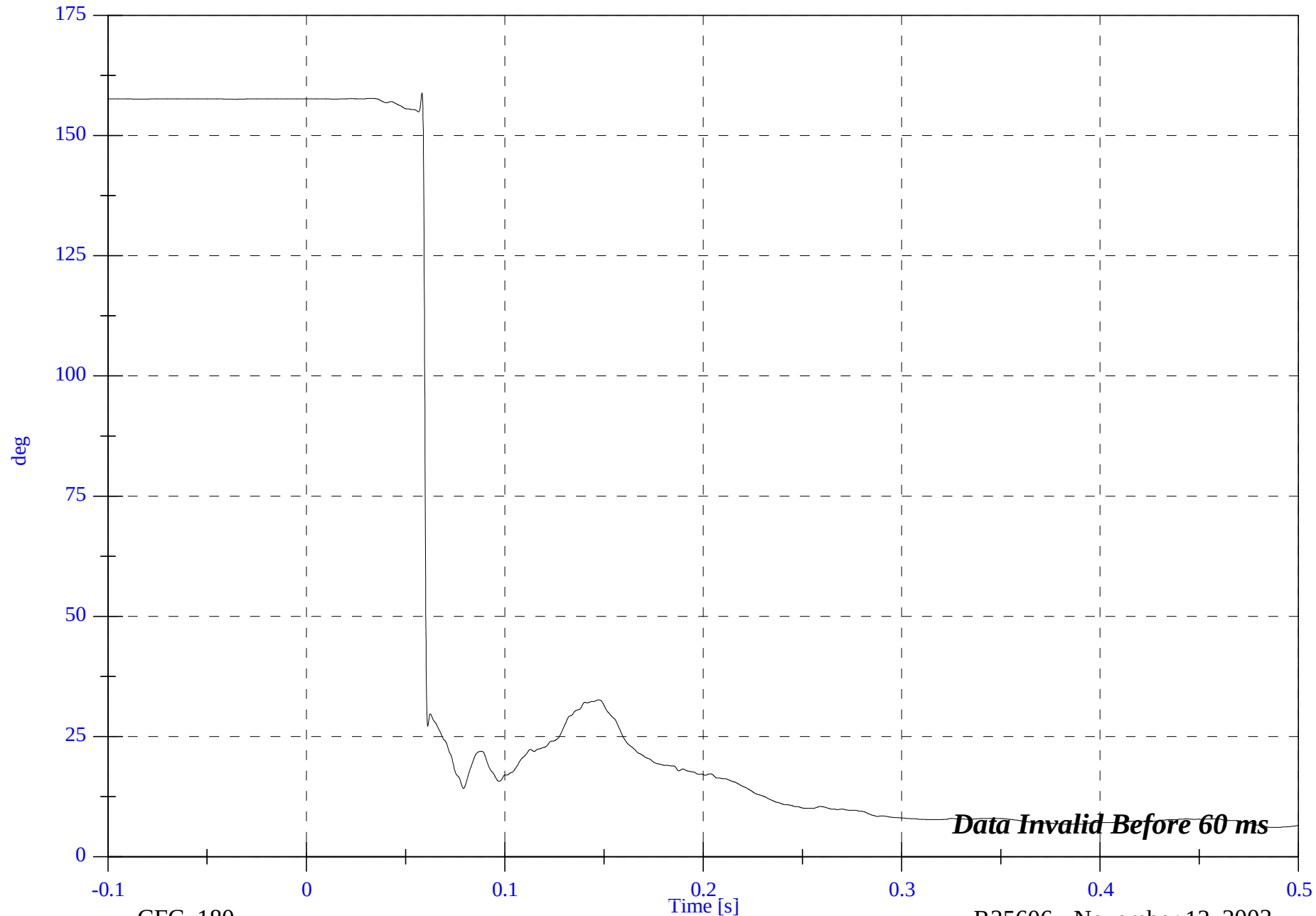
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Left Ankle Rotation x

Max: 158.9 [deg] at 0.058 [s]

Min: 6.1 [deg] at 0.486 [s]



B-75

8710-OFST-05

CFC_180

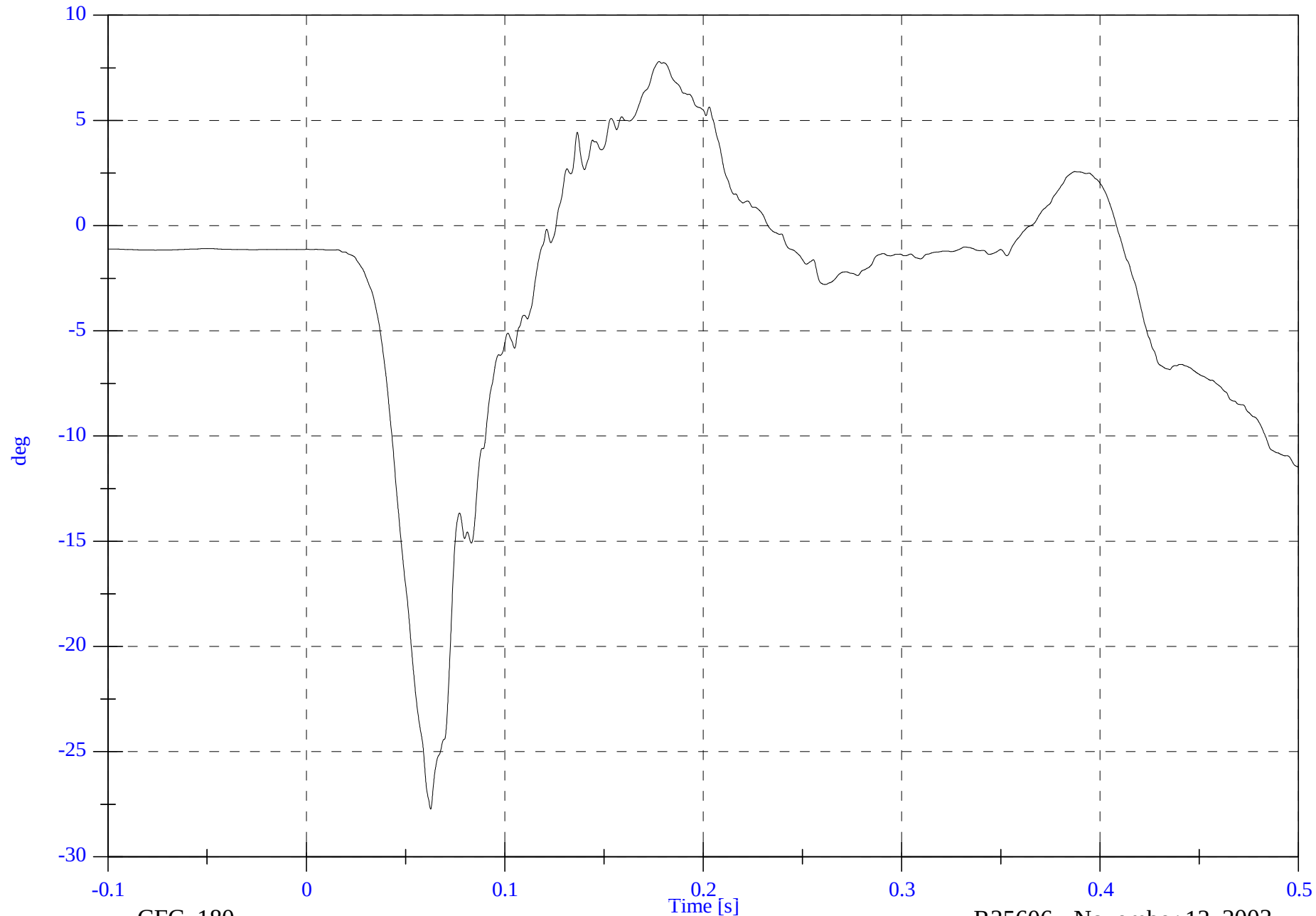
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Left Ankle Rotation y

Max: 7.8 [deg] at 0.178 [s]

Min: -27.7 [deg] at 0.063 [s]



B-76

8710-OFST-05

CFC_180

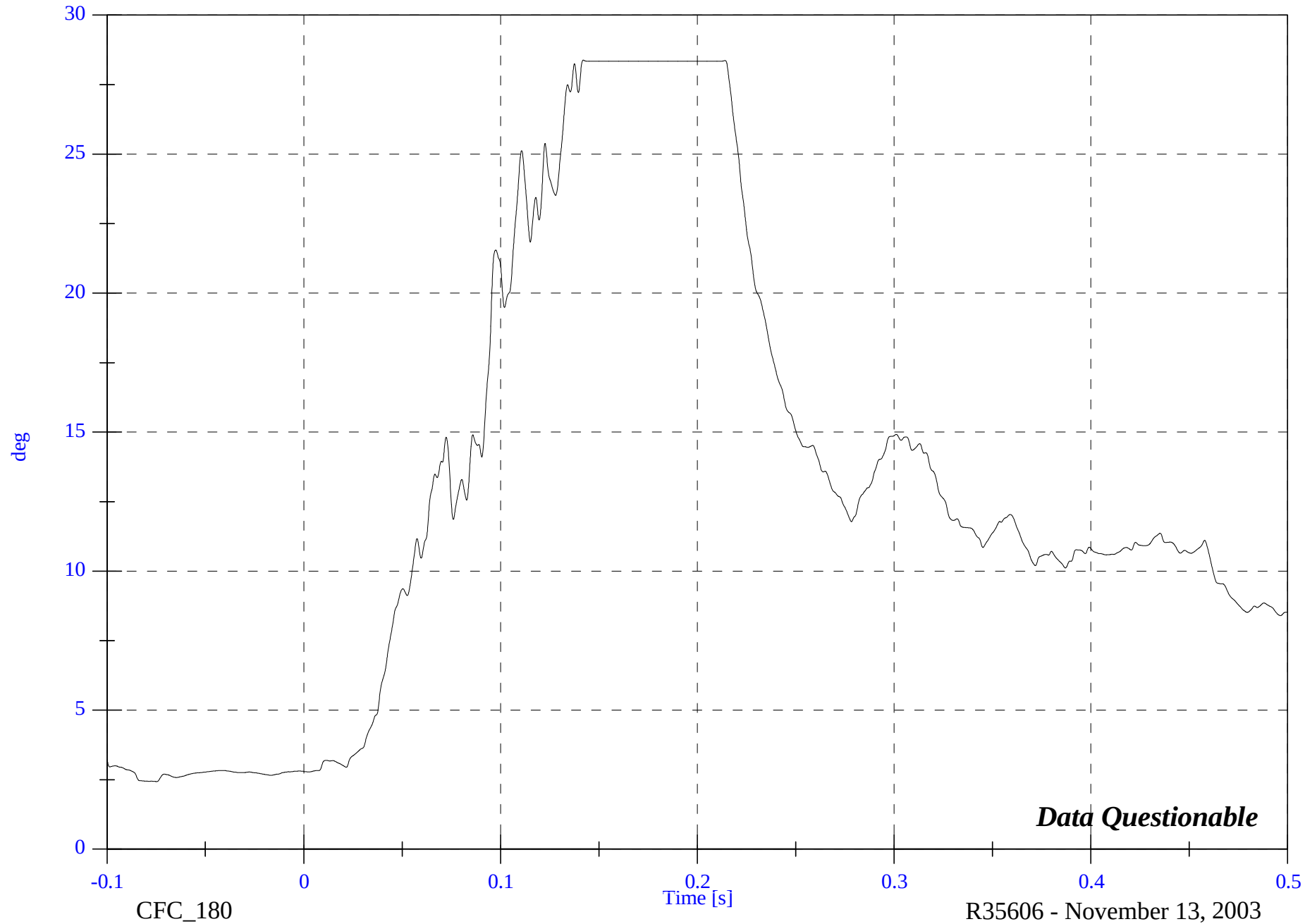
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Left Ankle Rotation z

Max: 28.4 [deg] at 0.142 [s]

Min: 2.4 [deg] at -0.075 [s]



B-77

8710-OFST-05

CFC_180

Time [s]

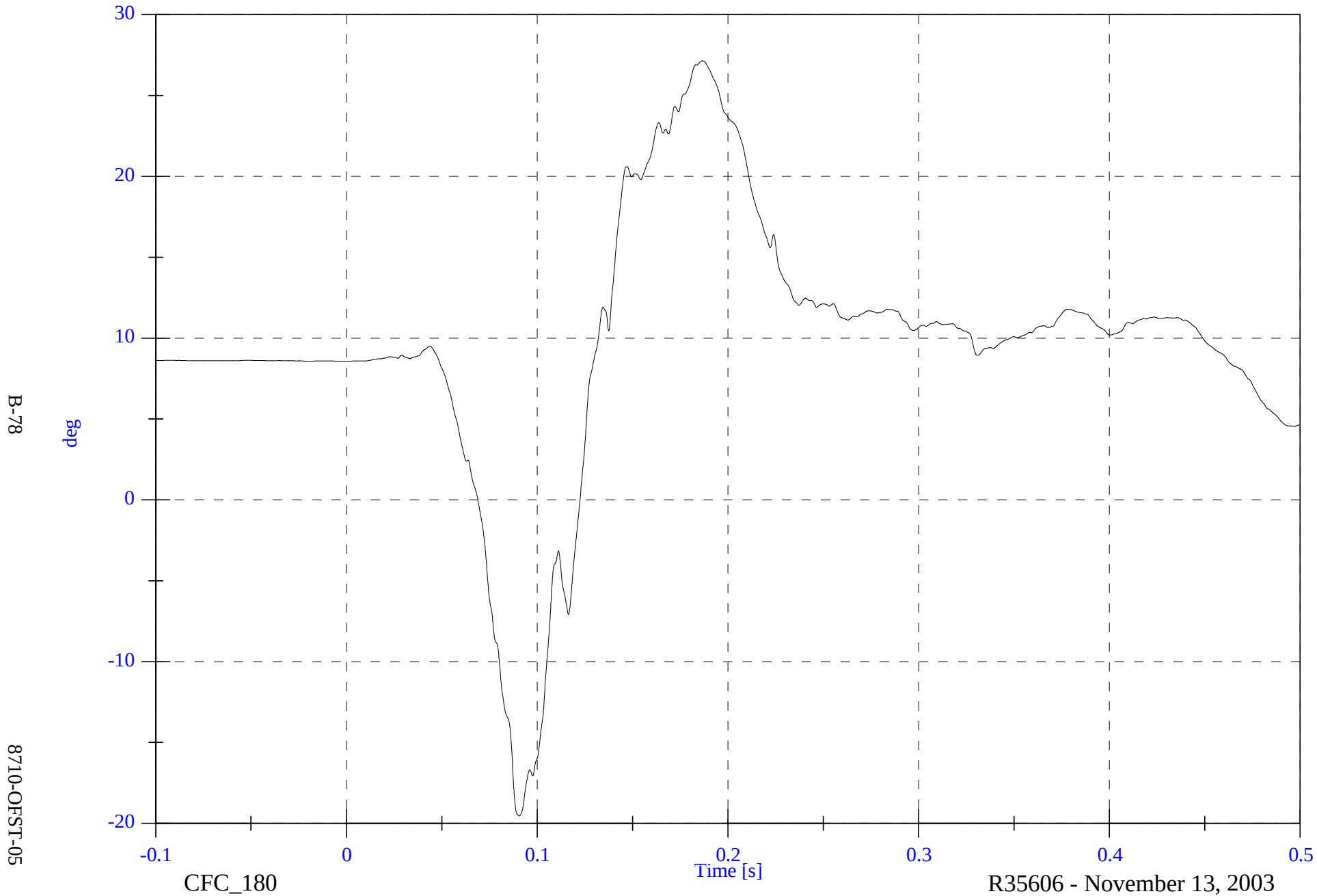
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Right Ankle Rotation x

Max: 27.2 [deg] at 0.187 [s]

Min: -19.5 [deg] at 0.091 [s]

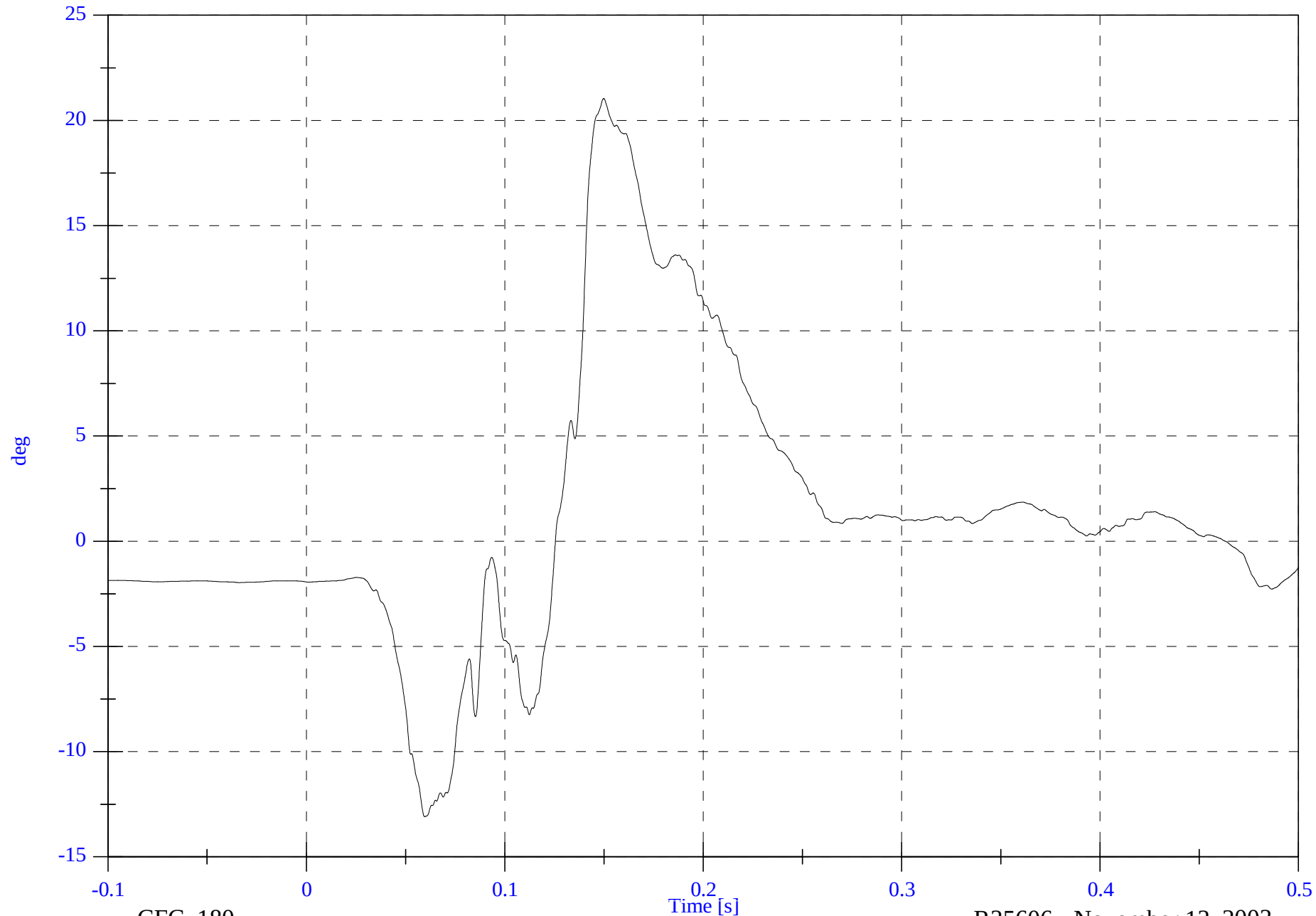


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Right Ankle Rotation y

Max: 21.0 [deg] at 0.150 [s]

Min: -13.1 [deg] at 0.060 [s]



B-79

8710-OFST-05

CFC_180

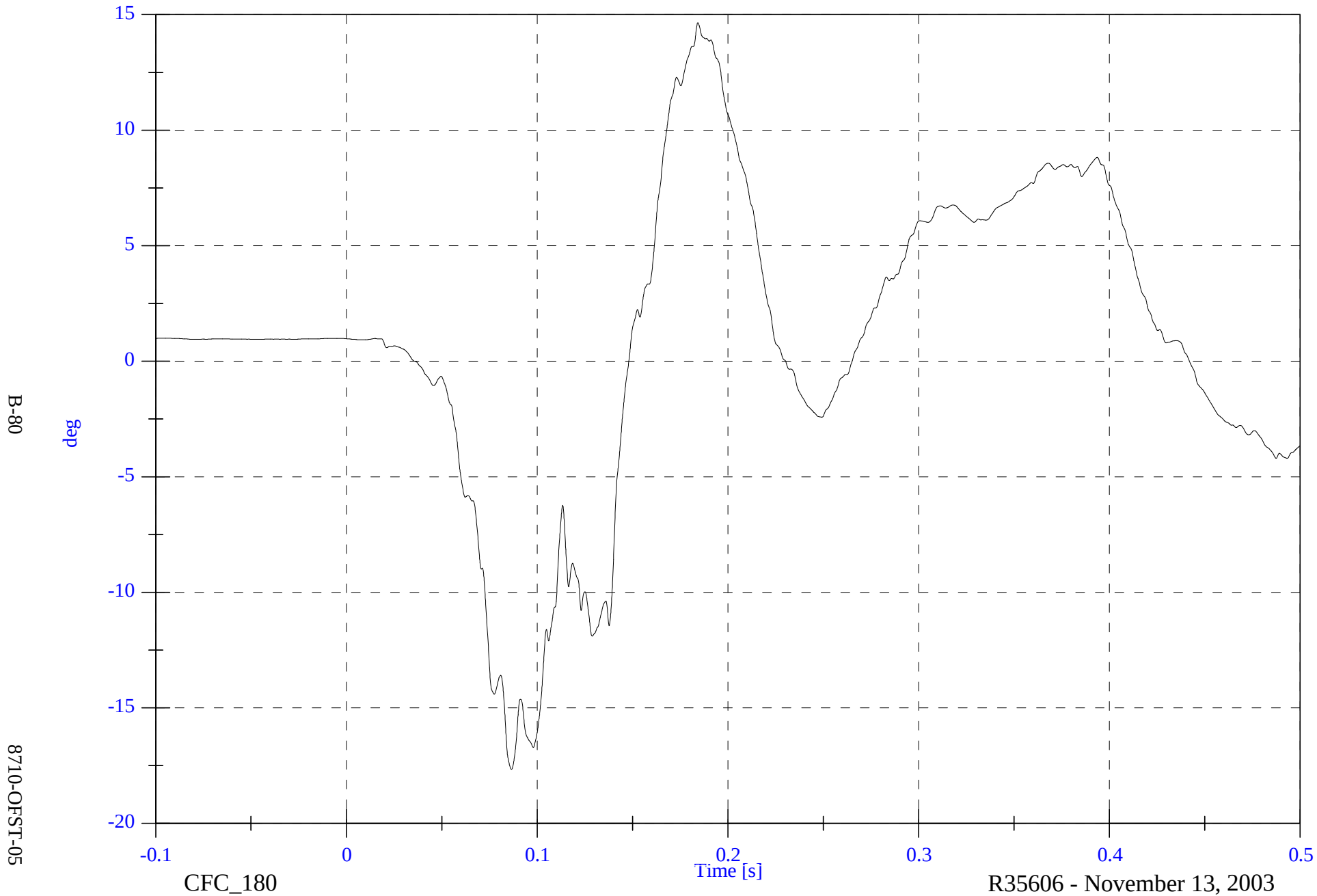
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Right Ankle Rotation z

Max: 14.7 [deg] at 0.184 [s]

Min: -17.7 [deg] at 0.086 [s]

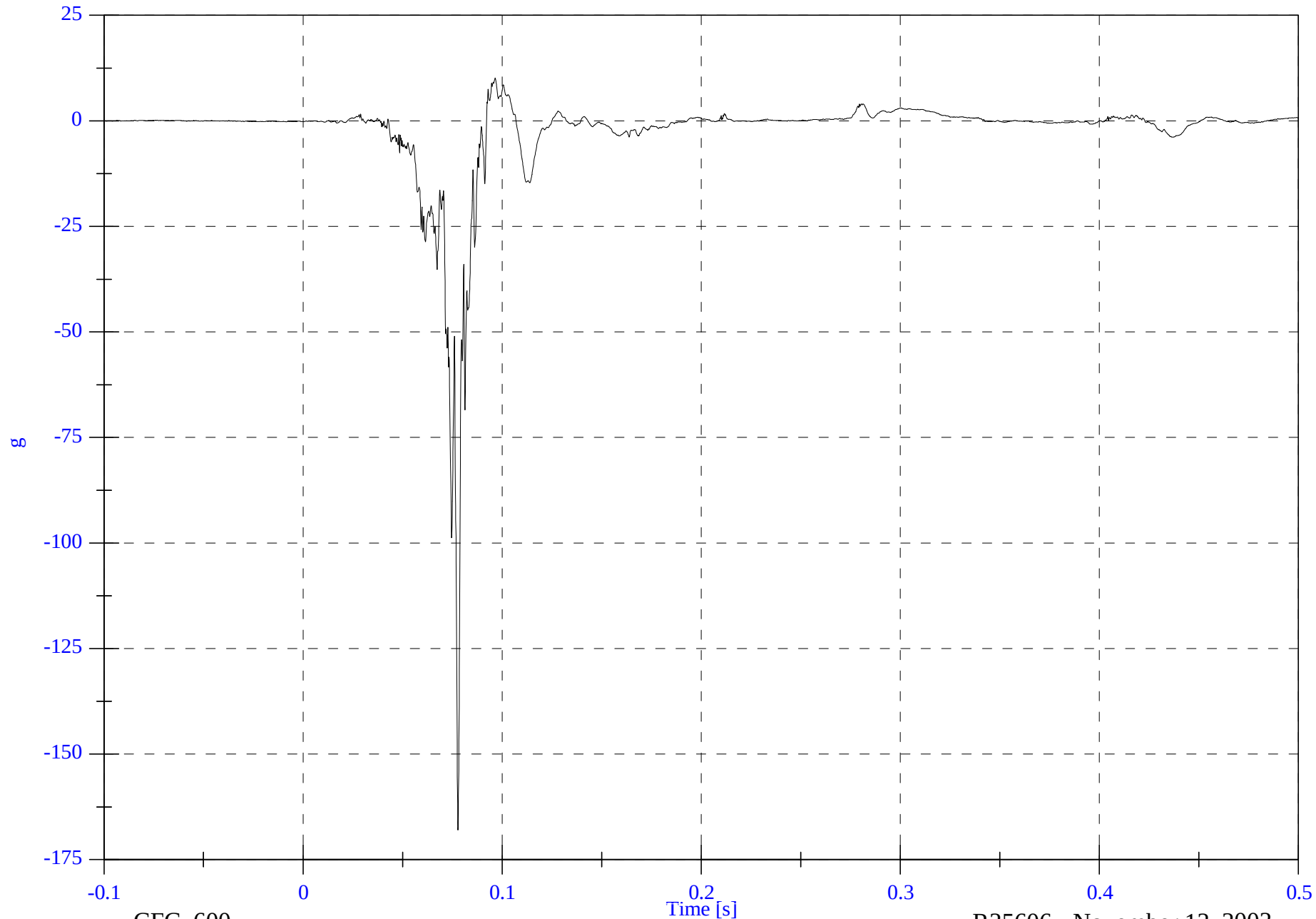


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Left Foot x

Max: 10.1 [g] at 0.096 [s]

Min: -168.0 [g] at 0.078 [s]



B-81

8710-OFST-05

CFC_600

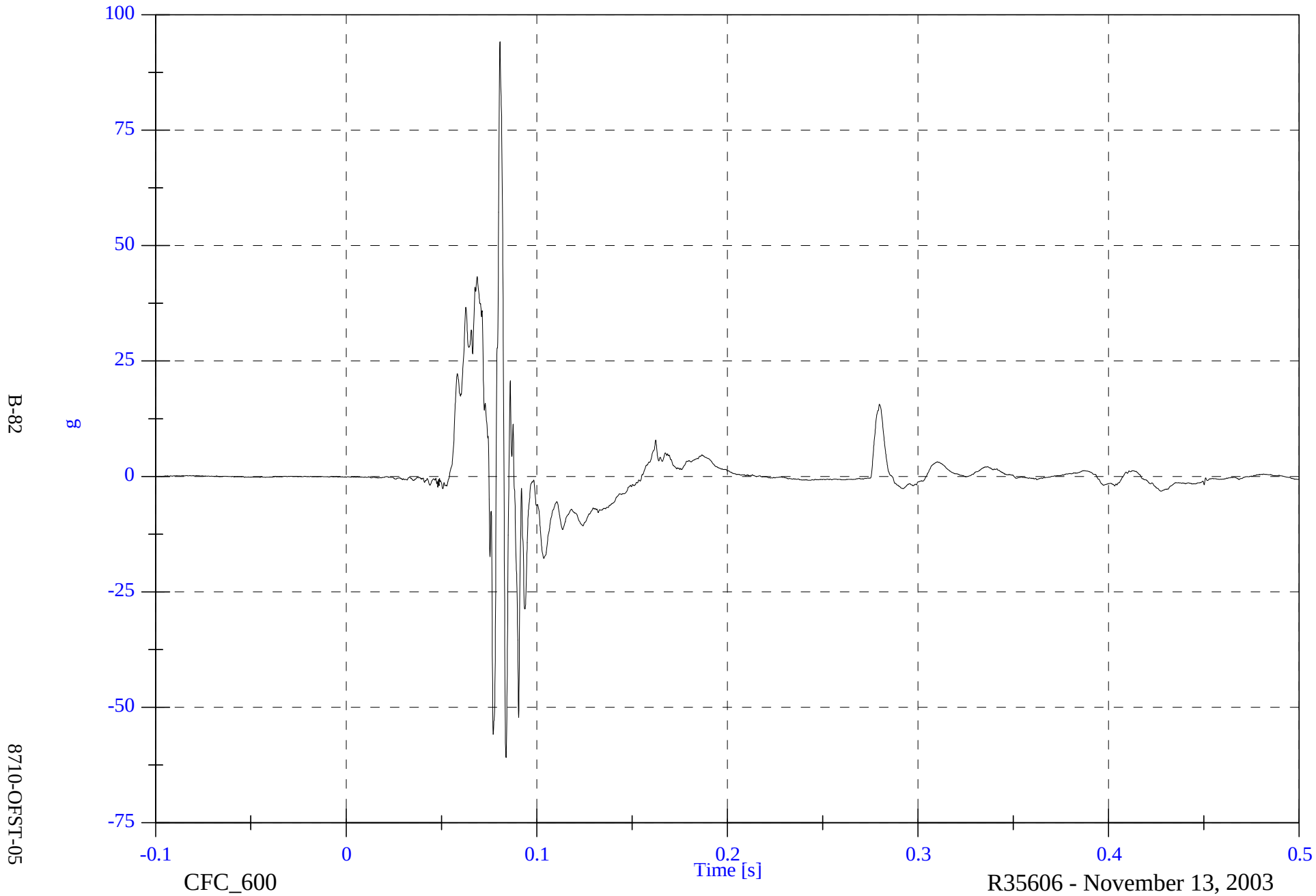
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Left Foot y

Max: 94.2 [g] at 0.081 [s]

Min: -60.9 [g] at 0.084 [s]

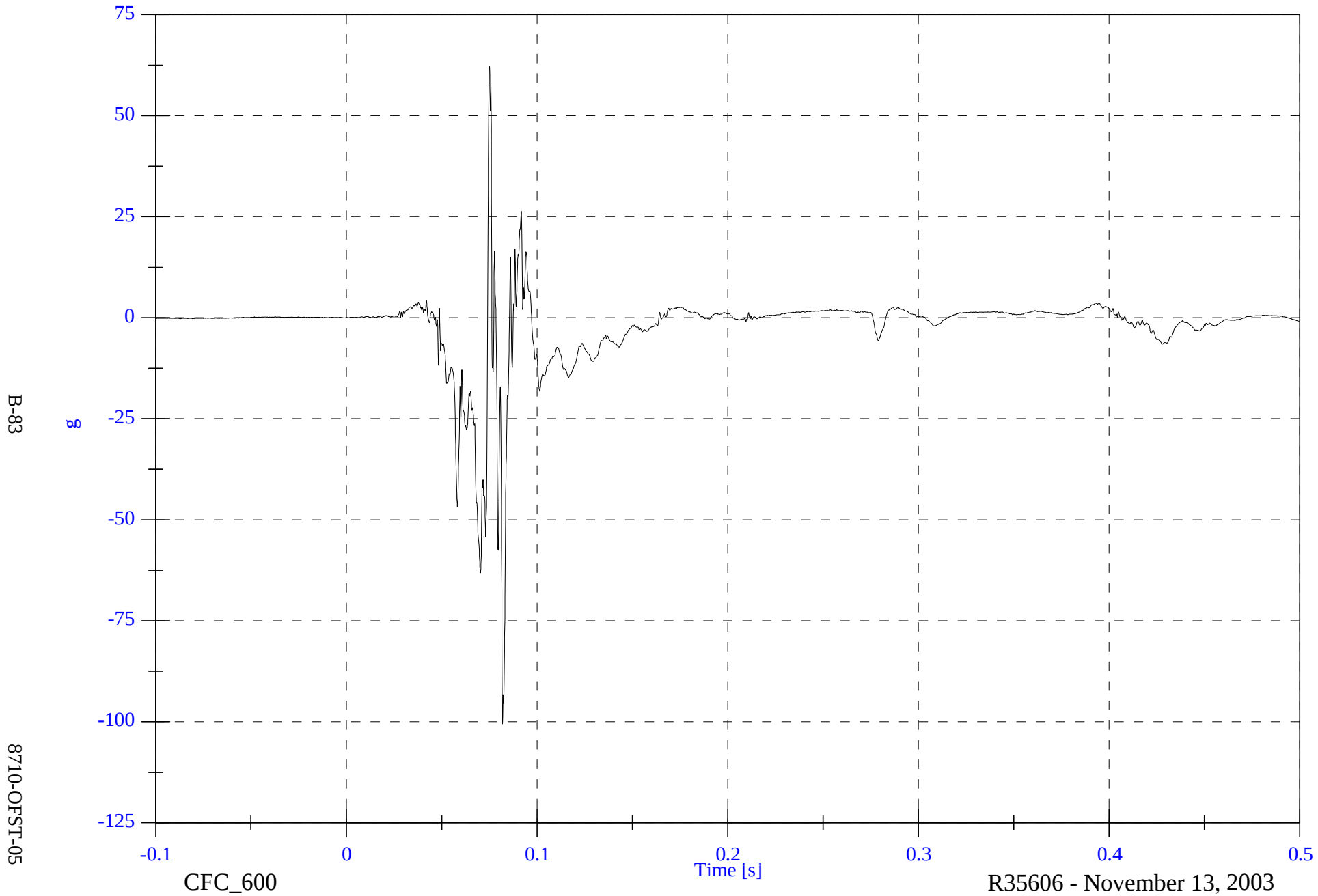


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Left Foot z

Max: 62.3 [g] at 0.075 [s]

Min: -100.5 [g] at 0.082 [s]

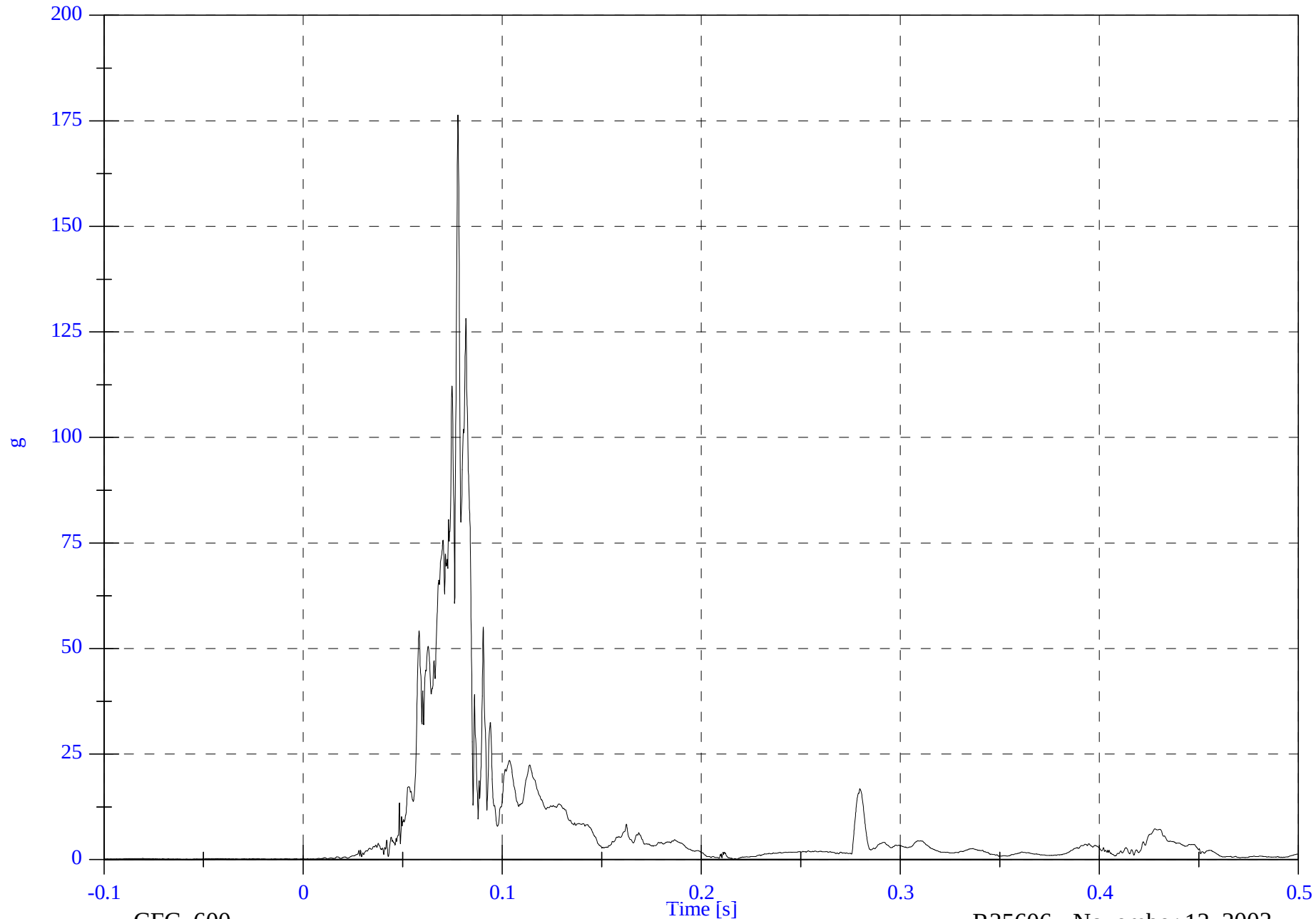


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Left Foot Resultant

Max: 176.4 [g] at 0.078 [s]

Min: 0.0 [g] at -0.057 [s]



B-84

8710-OFST-05

CFC_600

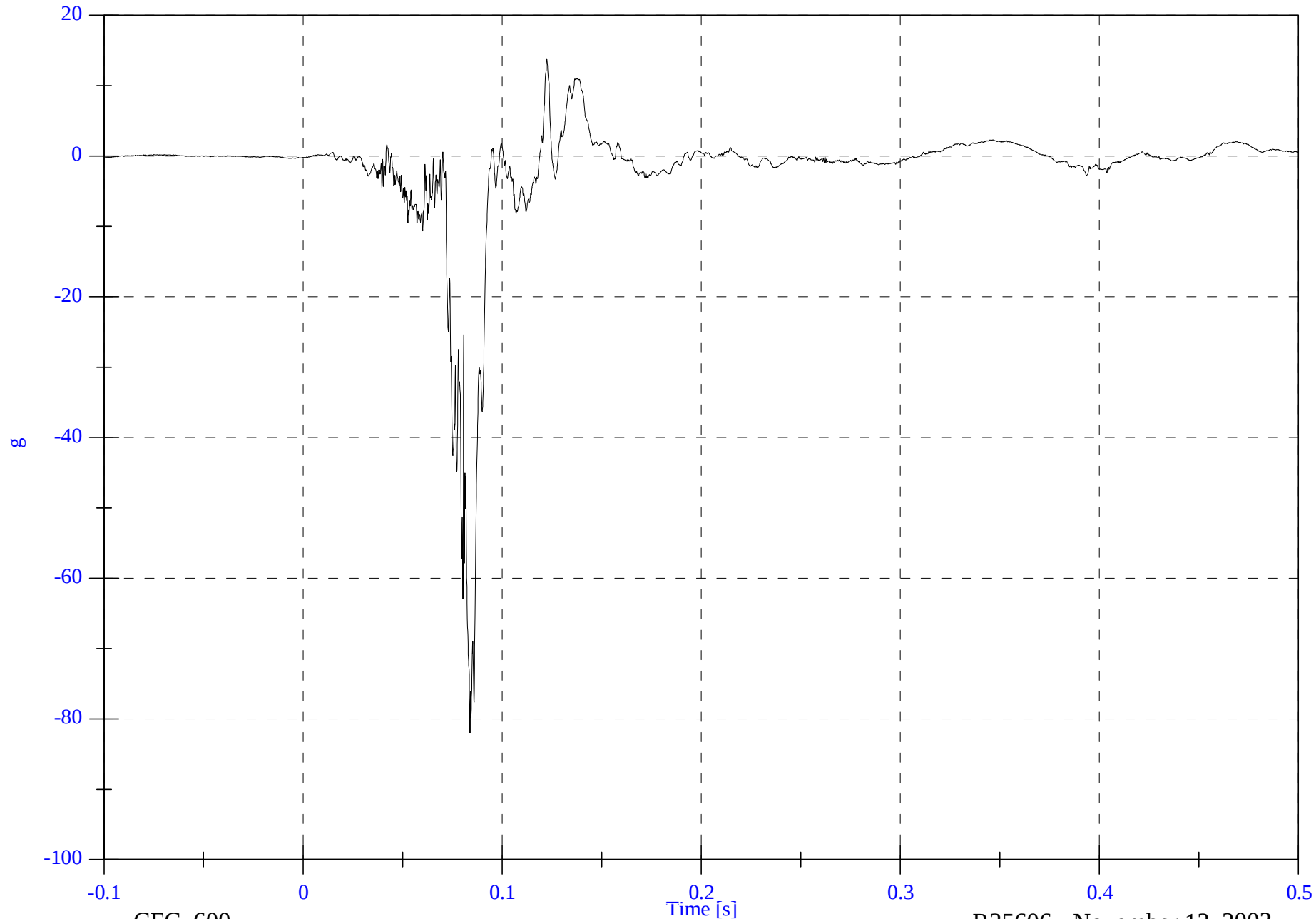
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Right Foot x

Max: 13.9 [g] at 0.122 [s]

Min: -82.0 [g] at 0.084 [s]



B-85

8710-OFST-05

CFC_600

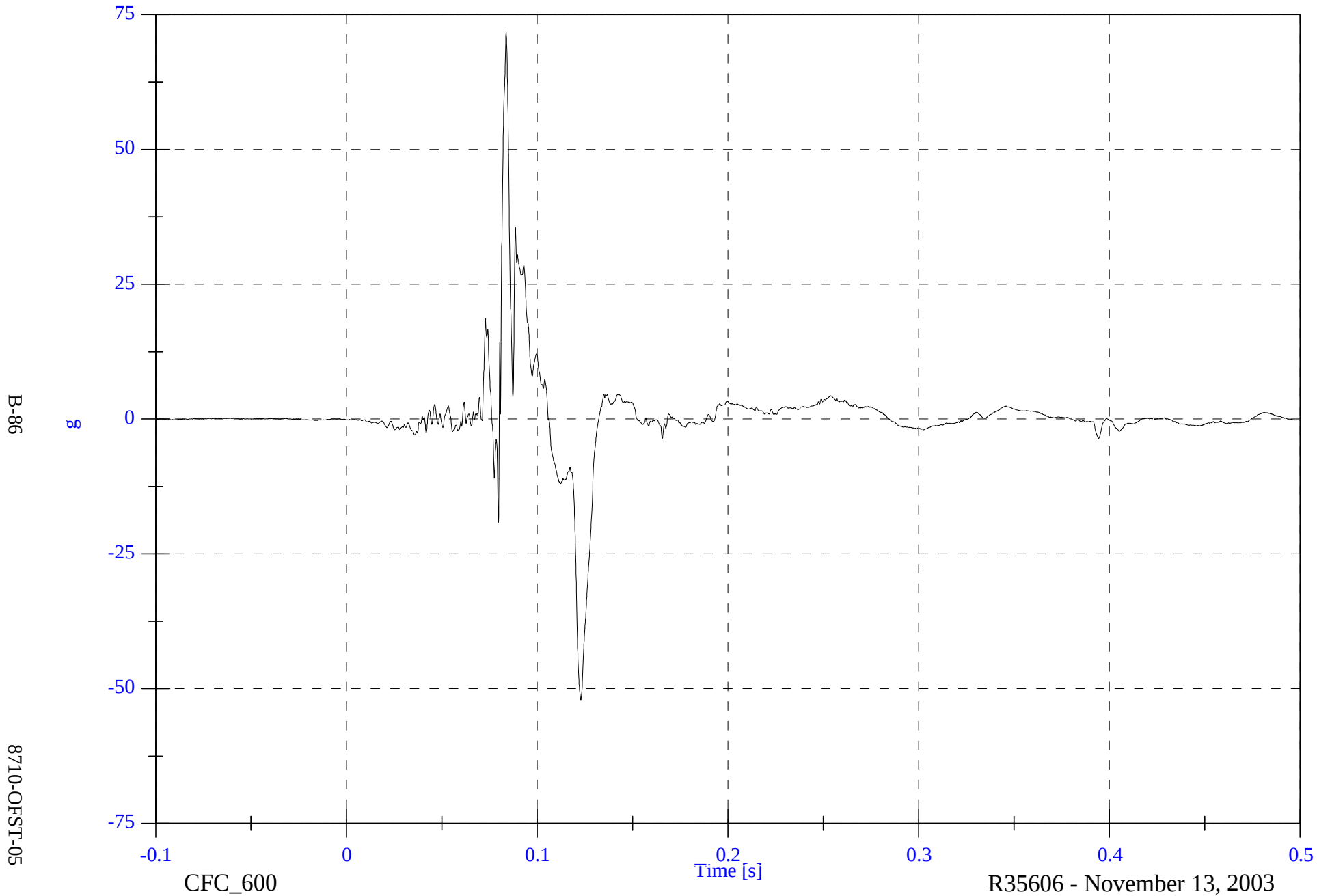
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Right Foot y

Max: 71.7 [g] at 0.084 [s]

Min: -52.1 [g] at 0.123 [s]

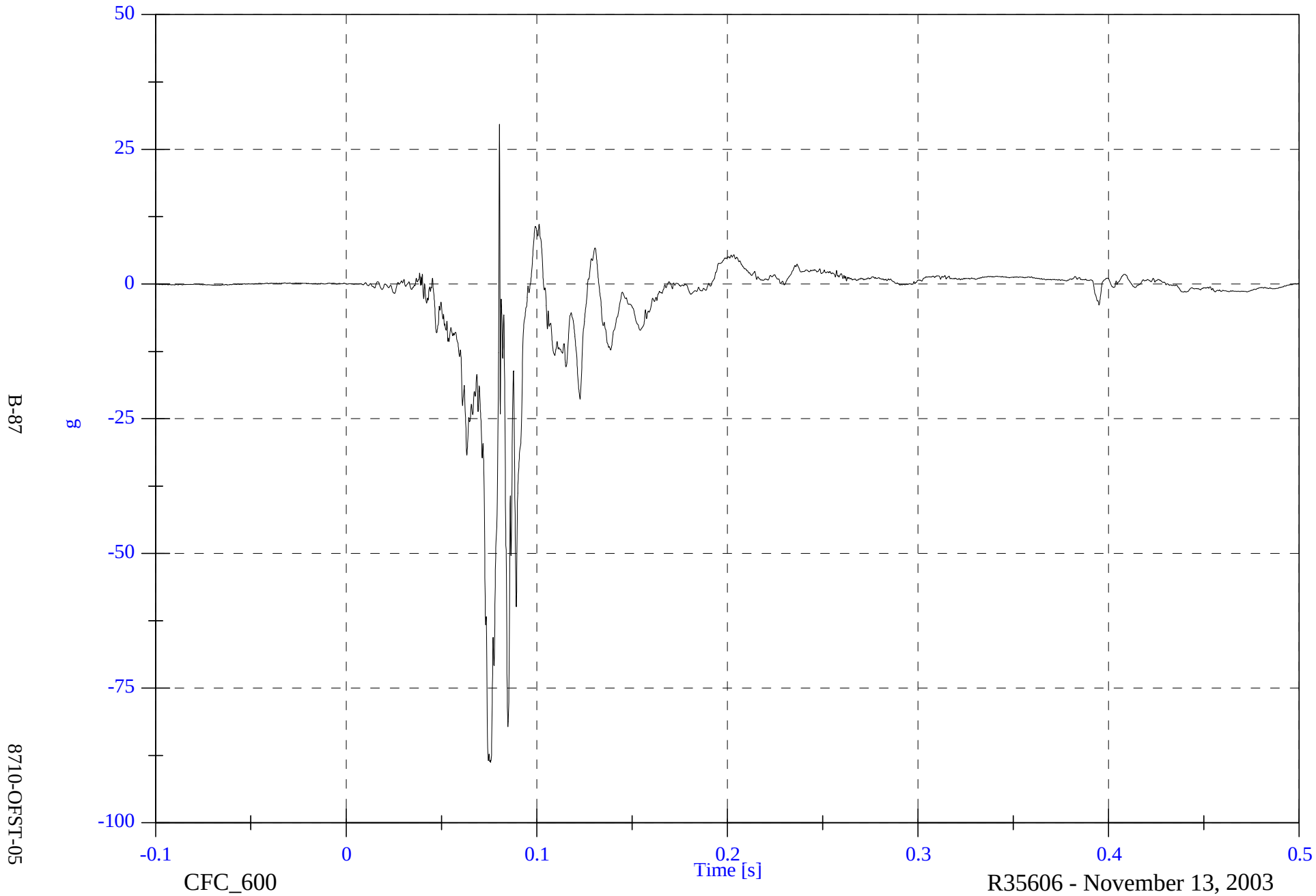


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Right Foot z

Max: 29.7 [g] at 0.080 [s]

Min: -88.8 [g] at 0.076 [s]

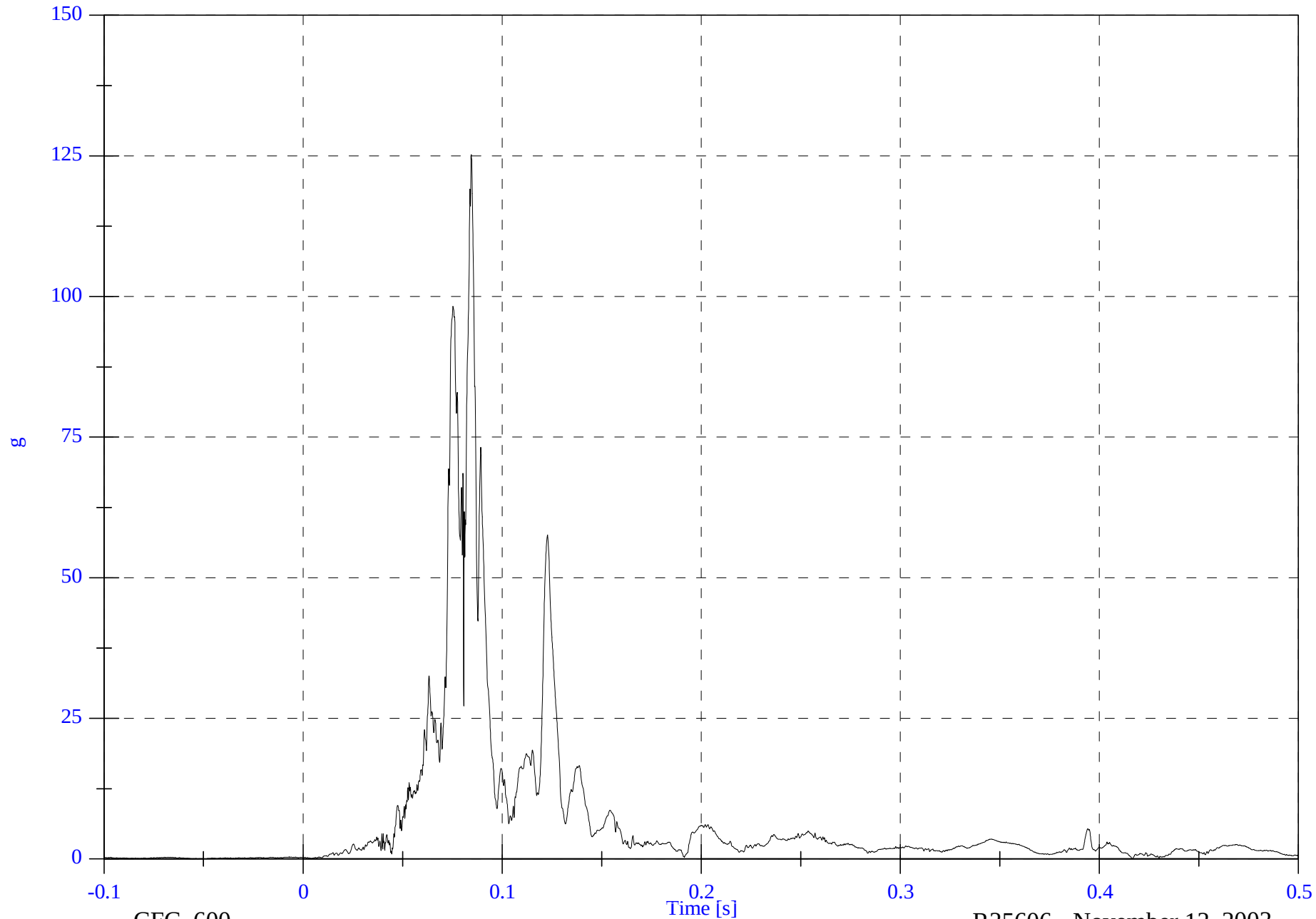


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Right Foot Resultant

Max: 125.3 [g] at 0.084 [s]

Min: 0.0 [g] at -0.053 [s]



B-88

8710-OFST-05

CFC_600

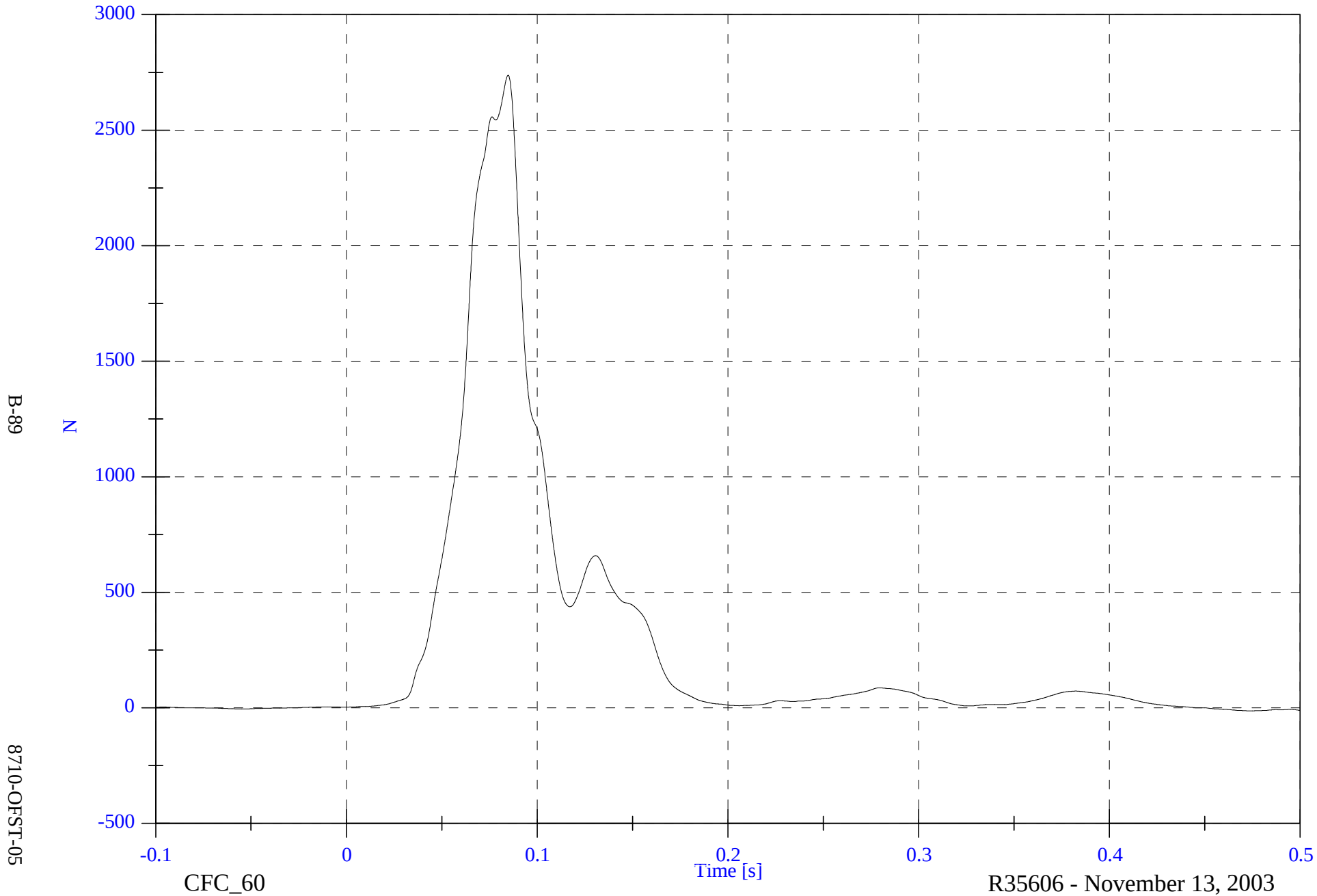
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Lap Belt Load

Max: 2738.0 [N] at 0.085 [s]

Min: -12.7 [N] at 0.474 [s]

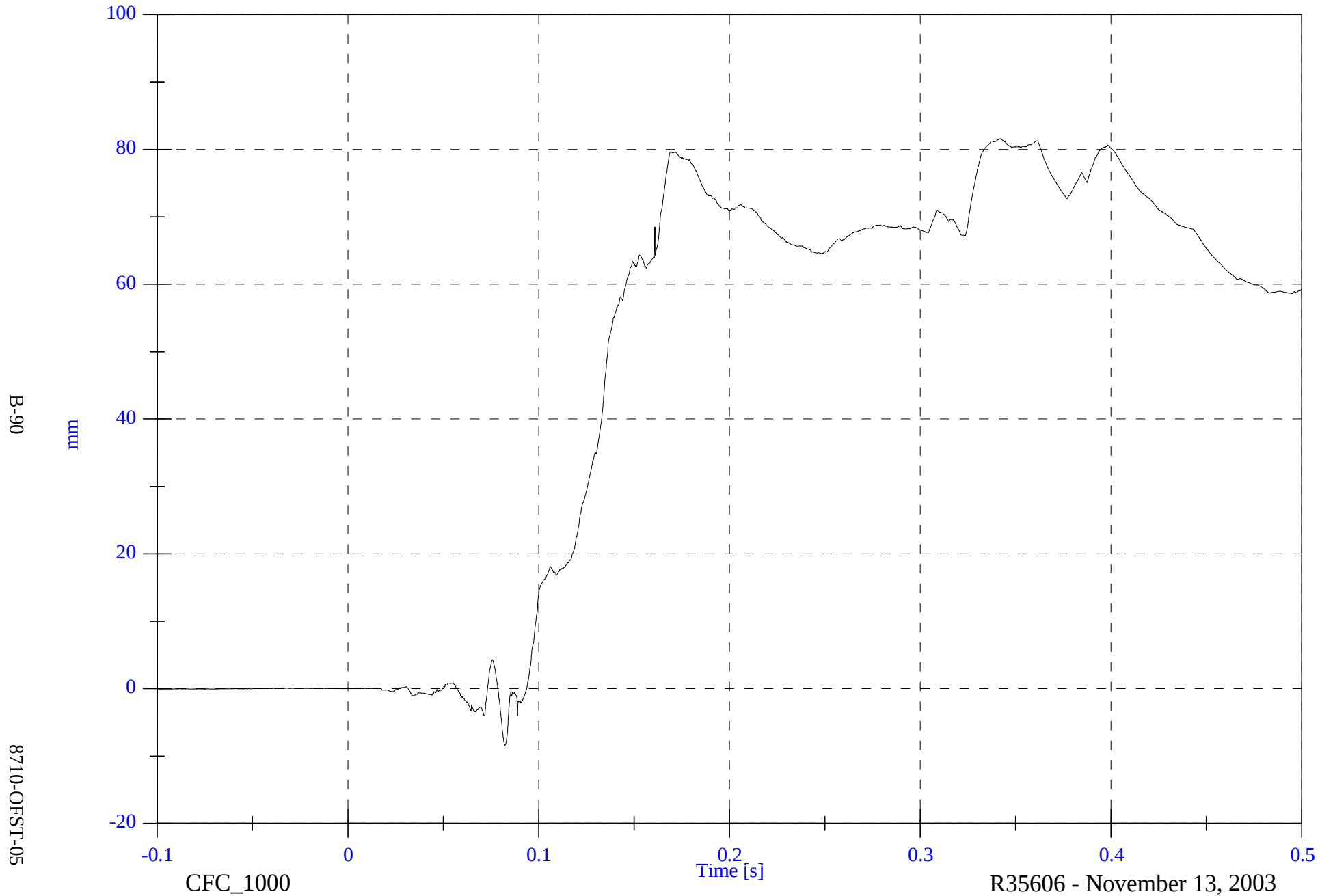


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Toe Pan Deflection

Max: 81.6 [mm] at 0.342 [s]

Min: -8.4 [mm] at 0.082 [s]

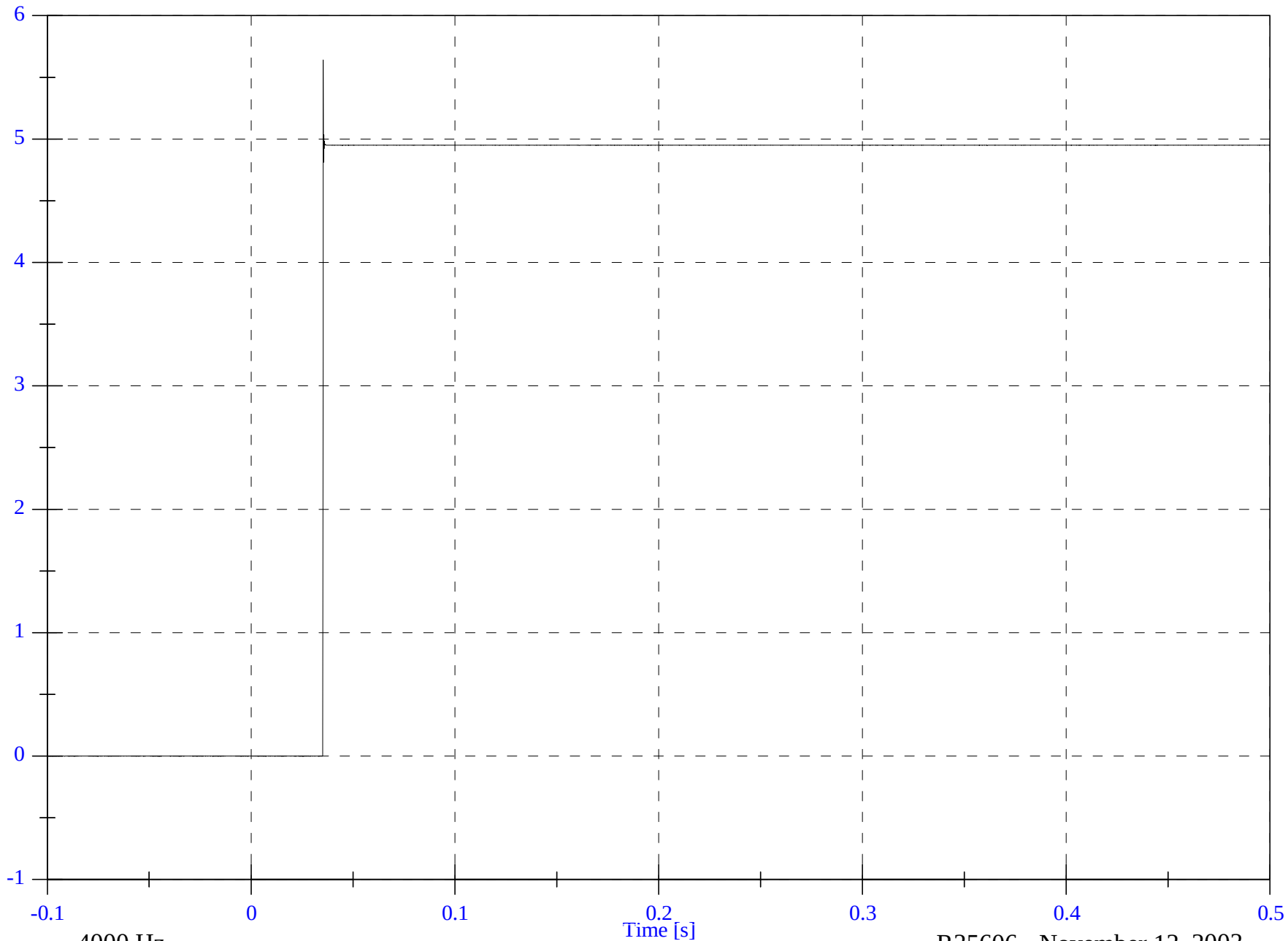


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Air Bag T/E

Max: 5.6 [V] at 0.035 [s]

Min: -0.0 [V] at -0.053 [s]



B-91

8710-OFST-05

4000 Hz

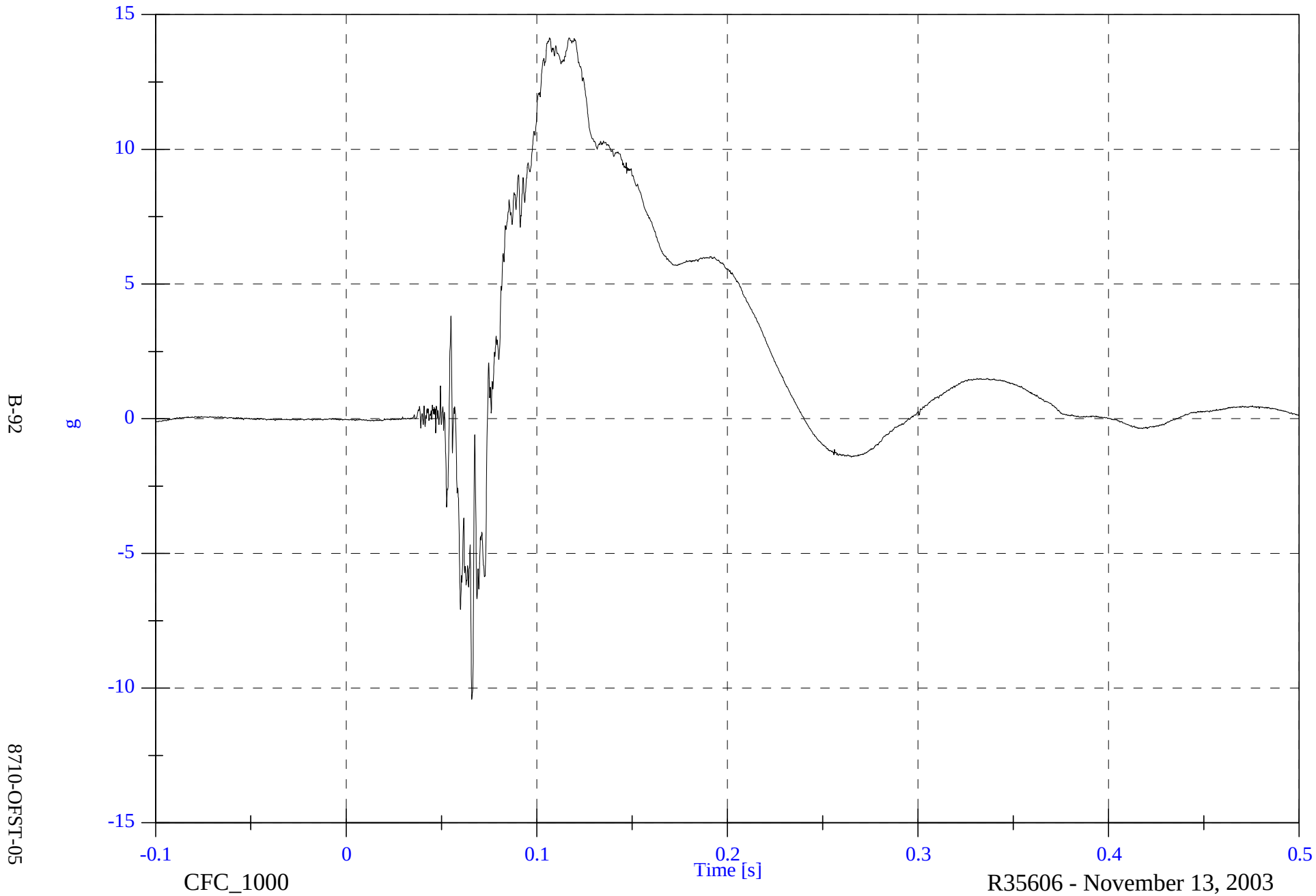
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Head 9 Array X Arm Ay

Max: 14.1 [g] at 0.117 [s]

Min: -10.4 [g] at 0.066 [s]



40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Head 9 Array X Arm Az

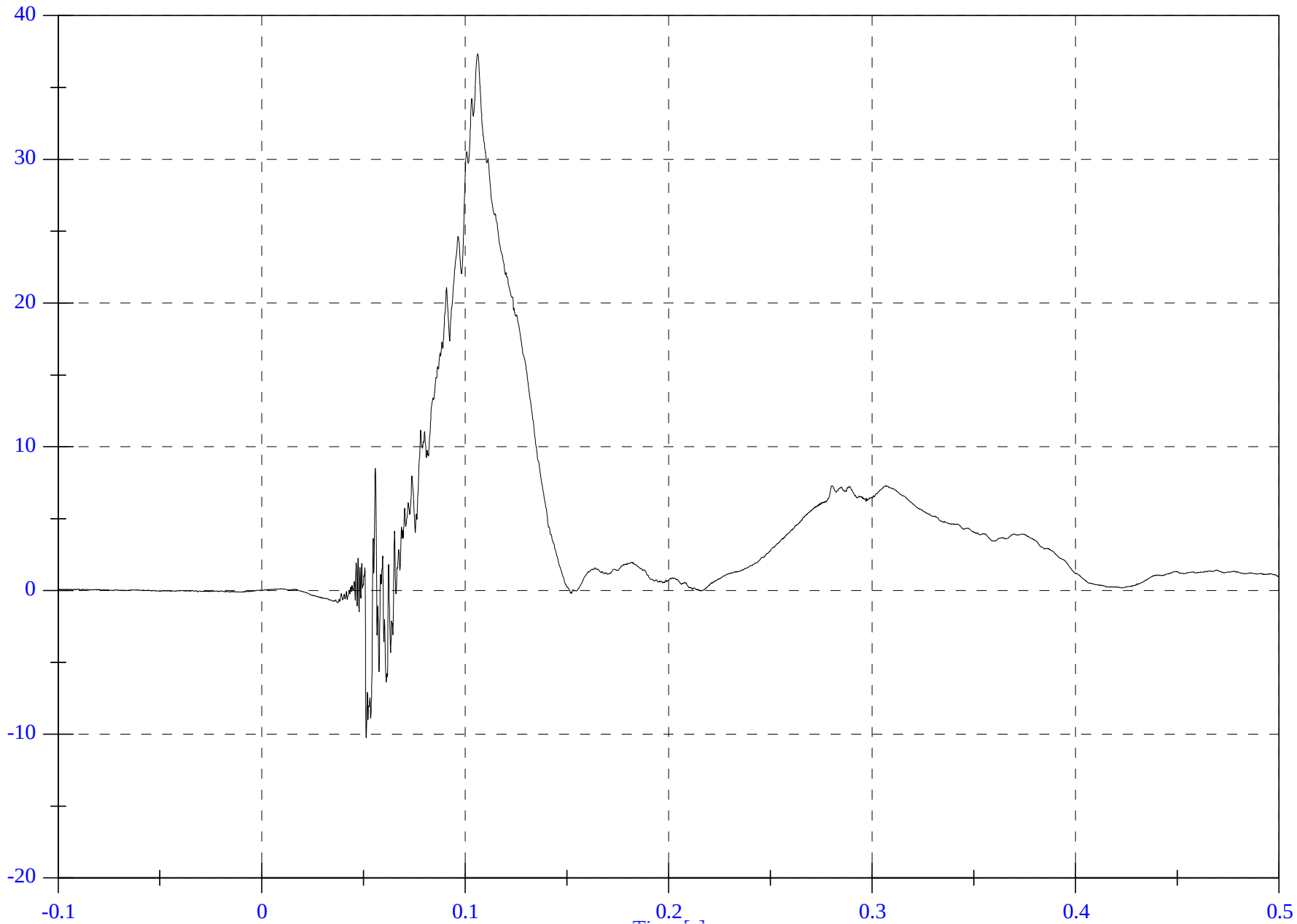
Max: 37.4 [g] at 0.106 [s]

Min: -10.2 [g] at 0.051 [s]

B-93

g

8710-OFST-05



CFC_1000

Time [s]

R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

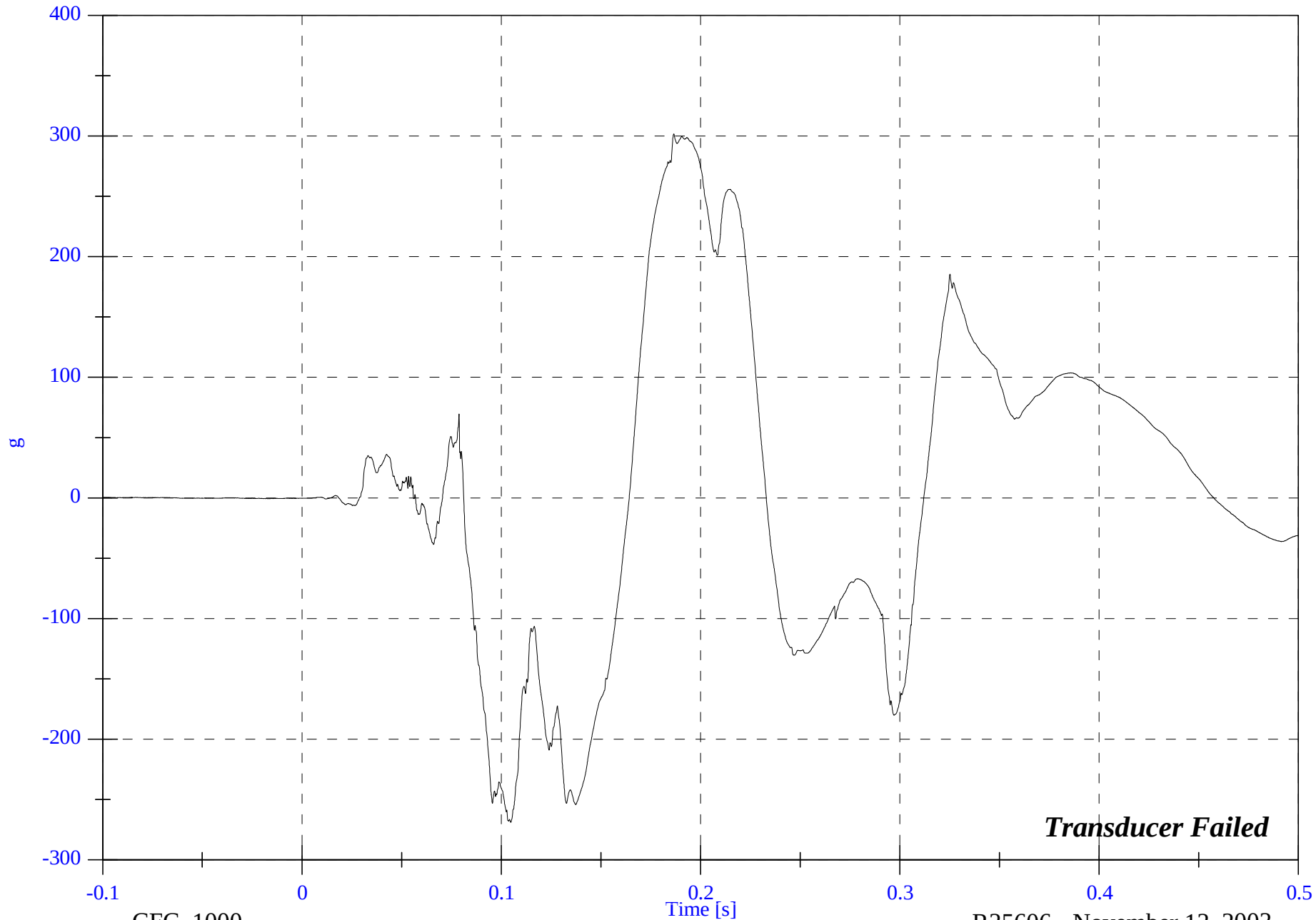
V1P2 Head 9 Array Y Arm Ax

Max: 301.8 [g] at 0.187 [s]

Min: -268.9 [g] at 0.105 [s]

B-94

8710-OFST-05



Transducer Failed

CFC_1000

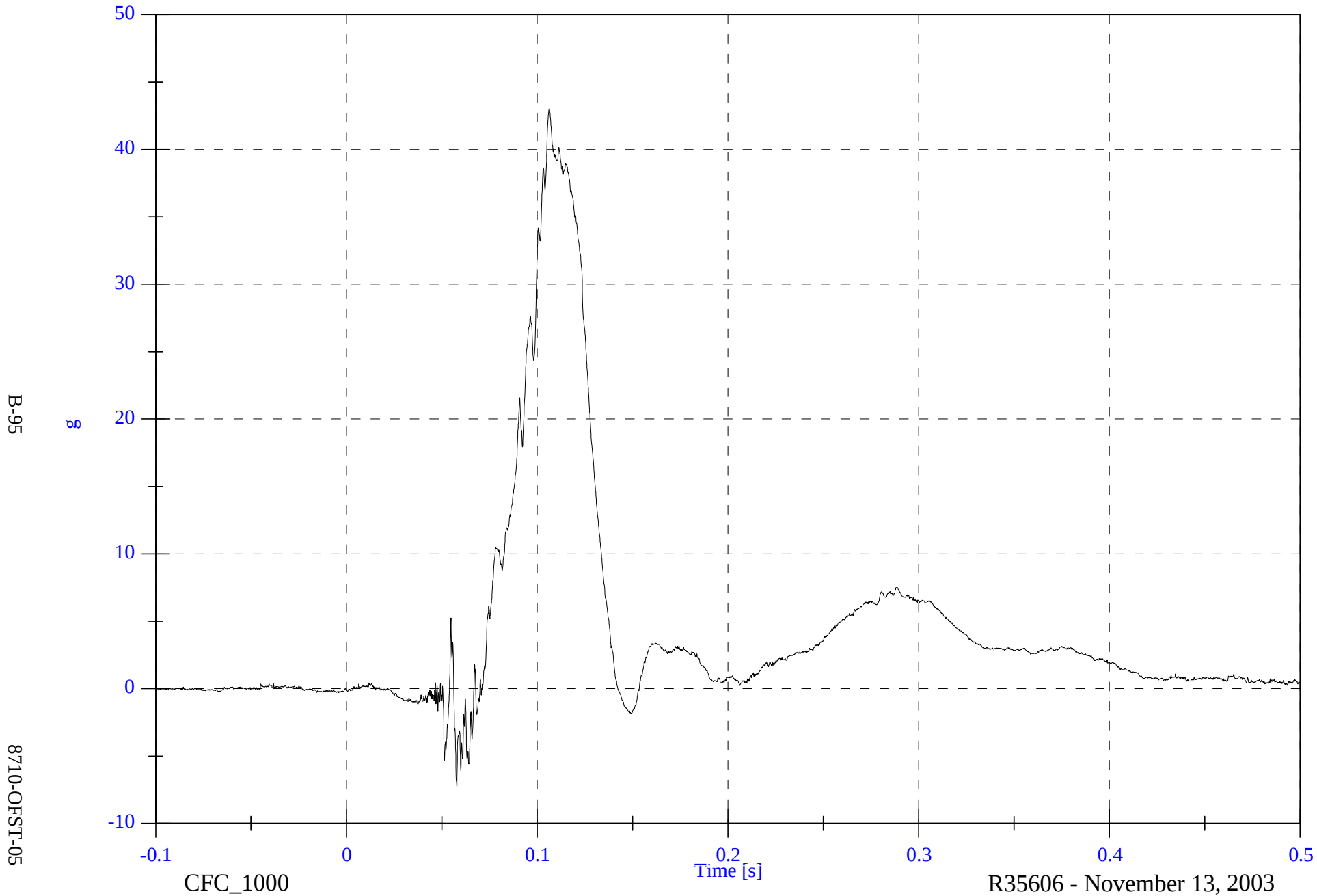
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Head 9 Array Y Arm Az

Max: 43.1 [g] at 0.106 [s]

Min: -7.3 [g] at 0.058 [s]



40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

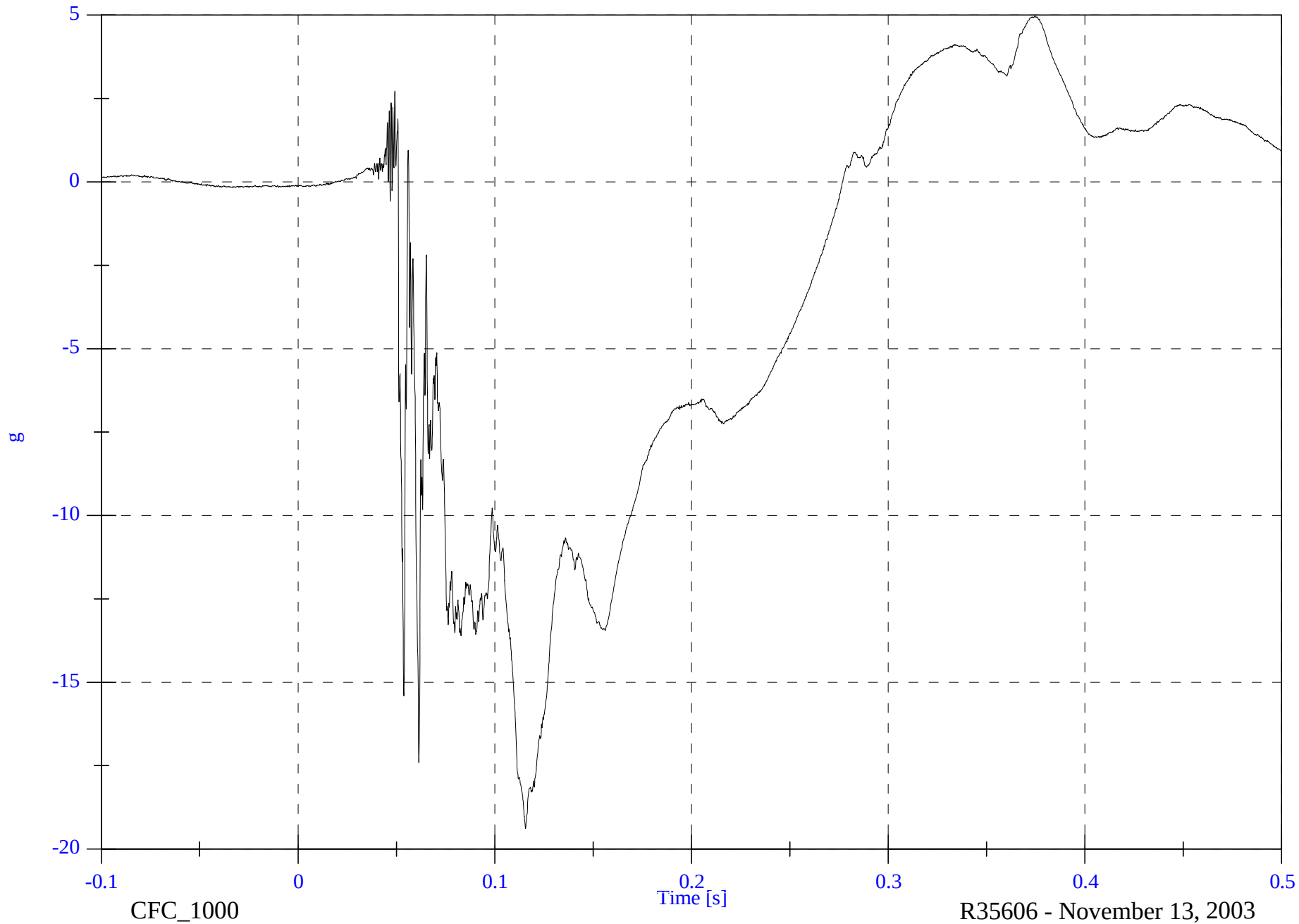
V1P2 Head 9 Array Z Arm Ax

Max: 5.0 [g] at 0.375 [s]

Min: -19.4 [g] at 0.116 [s]

B-96

8710-OFST-05

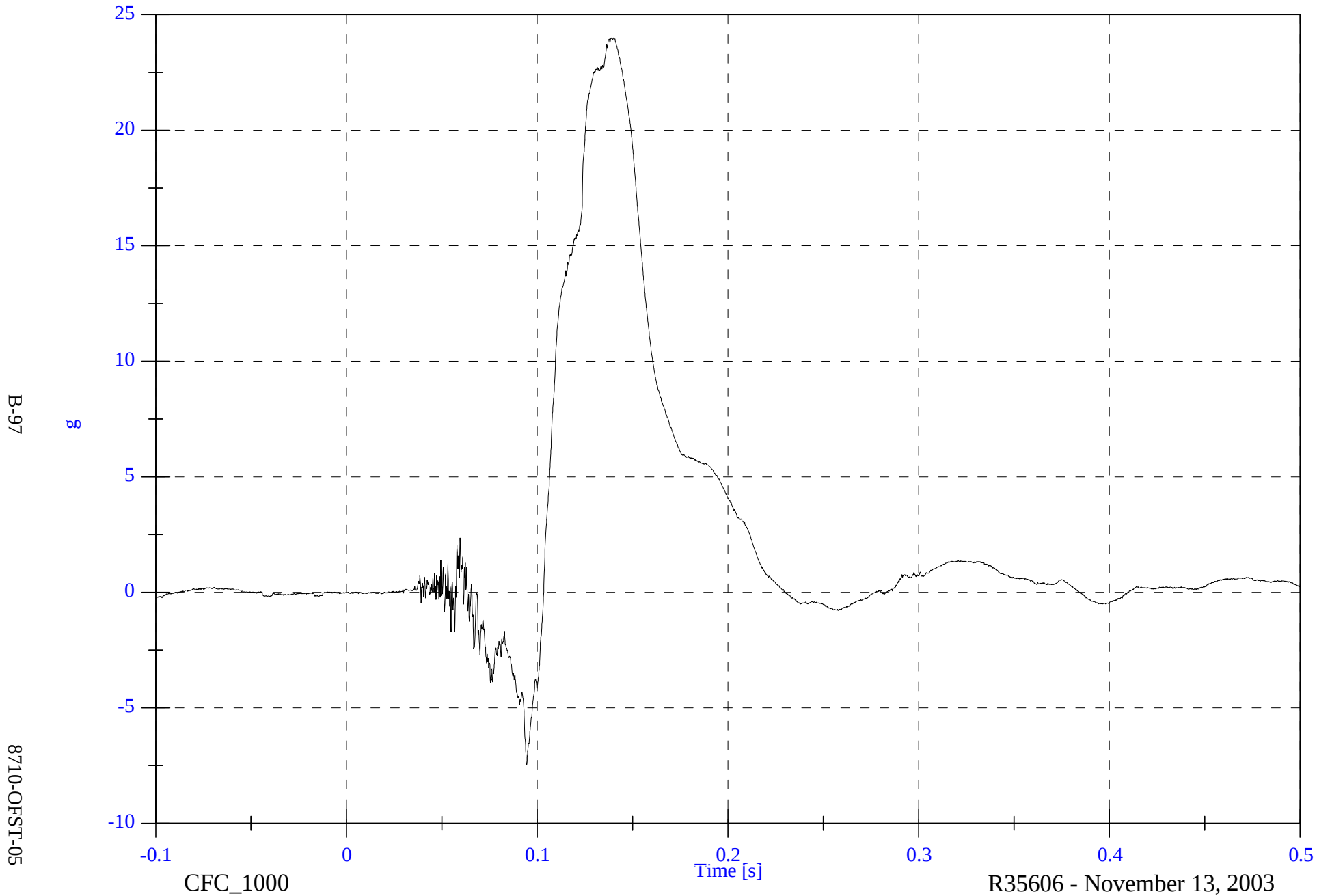


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Head 9 Array Z Arm Ay

Max: 24.0 [g] at 0.140 [s]

Min: -7.5 [g] at 0.094 [s]

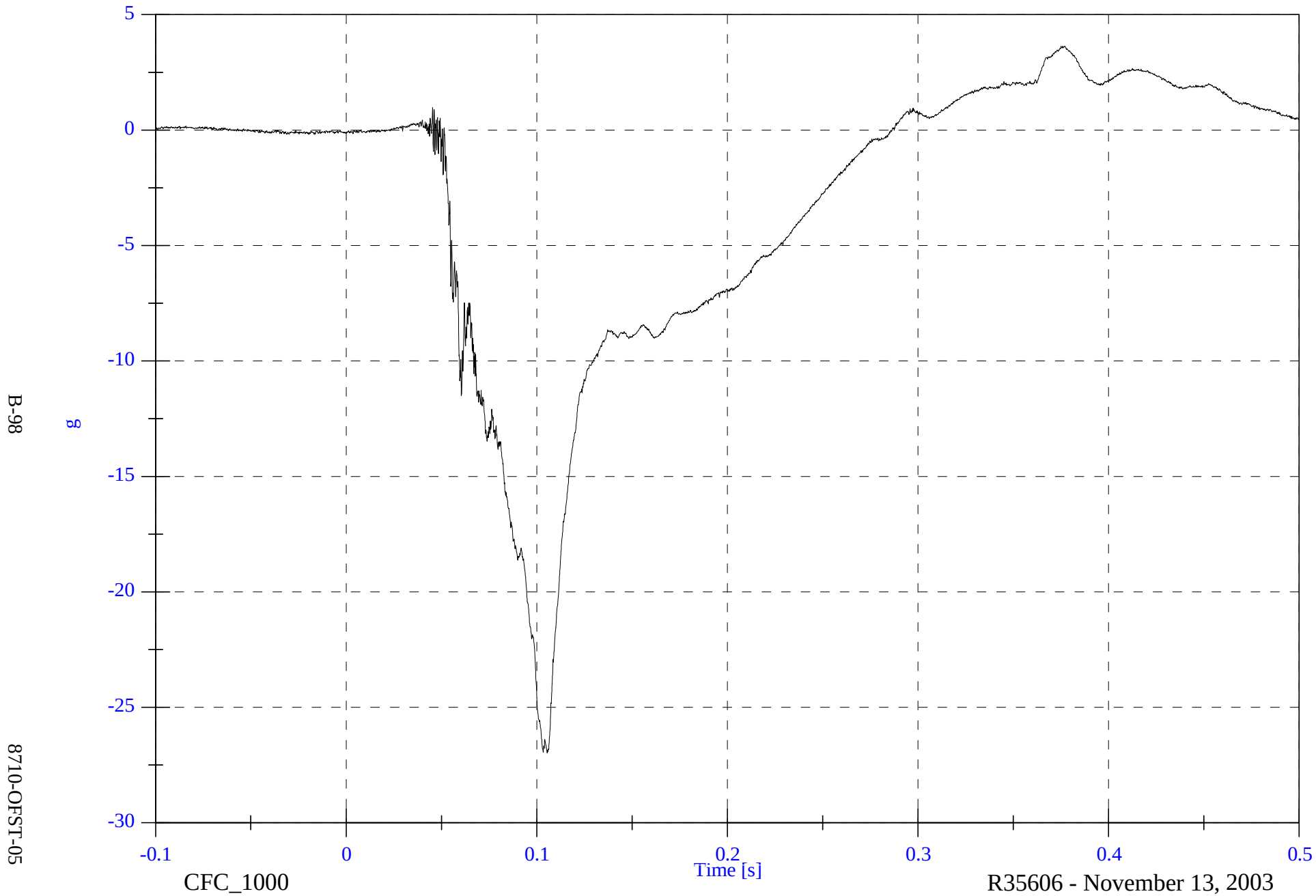


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Head x

Max: 3.6 [g] at 0.377 [s]

Min: -27.0 [g] at 0.105 [s]

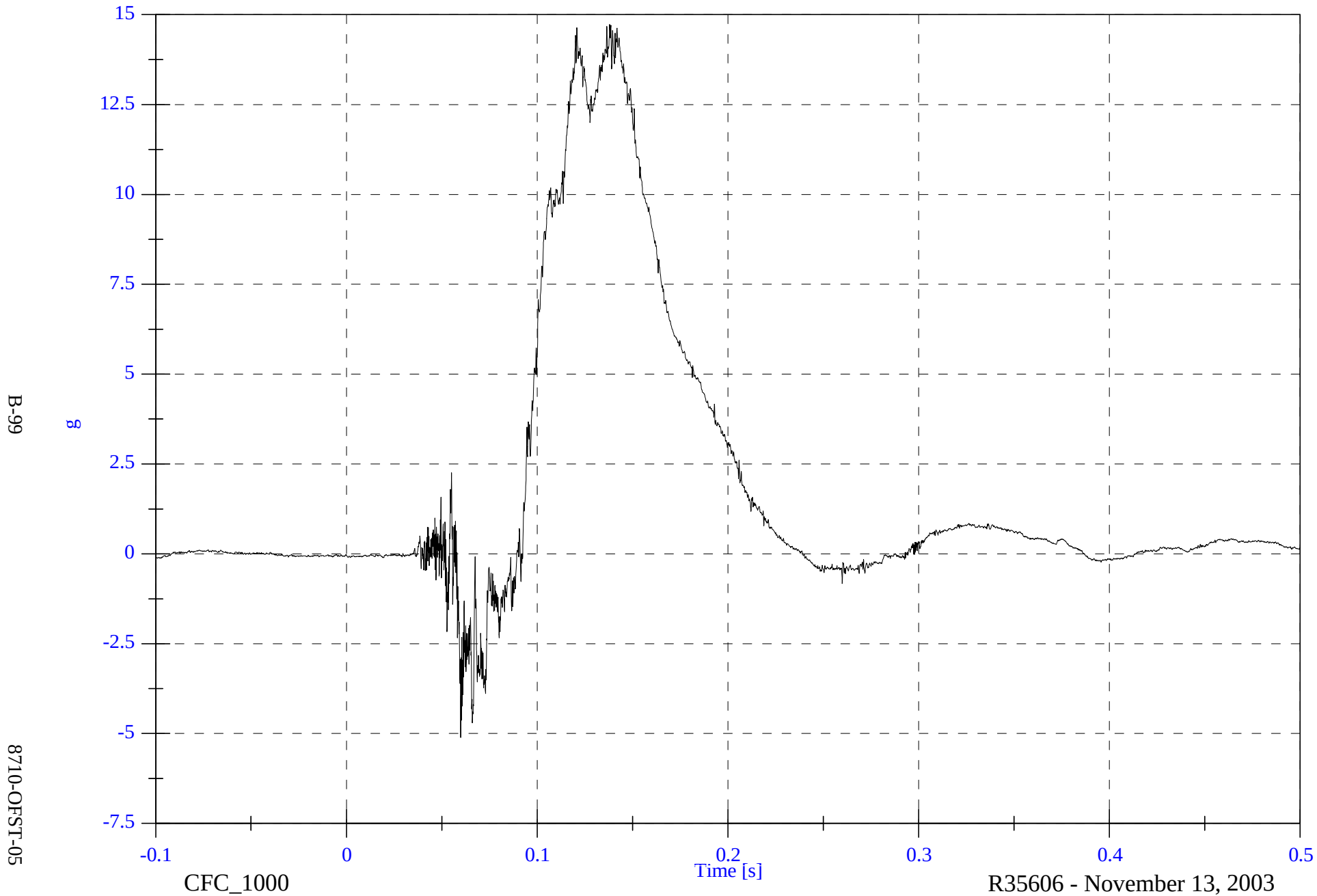


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Head y

Max: 14.7 [g] at 0.138 [s]

Min: -5.1 [g] at 0.060 [s]

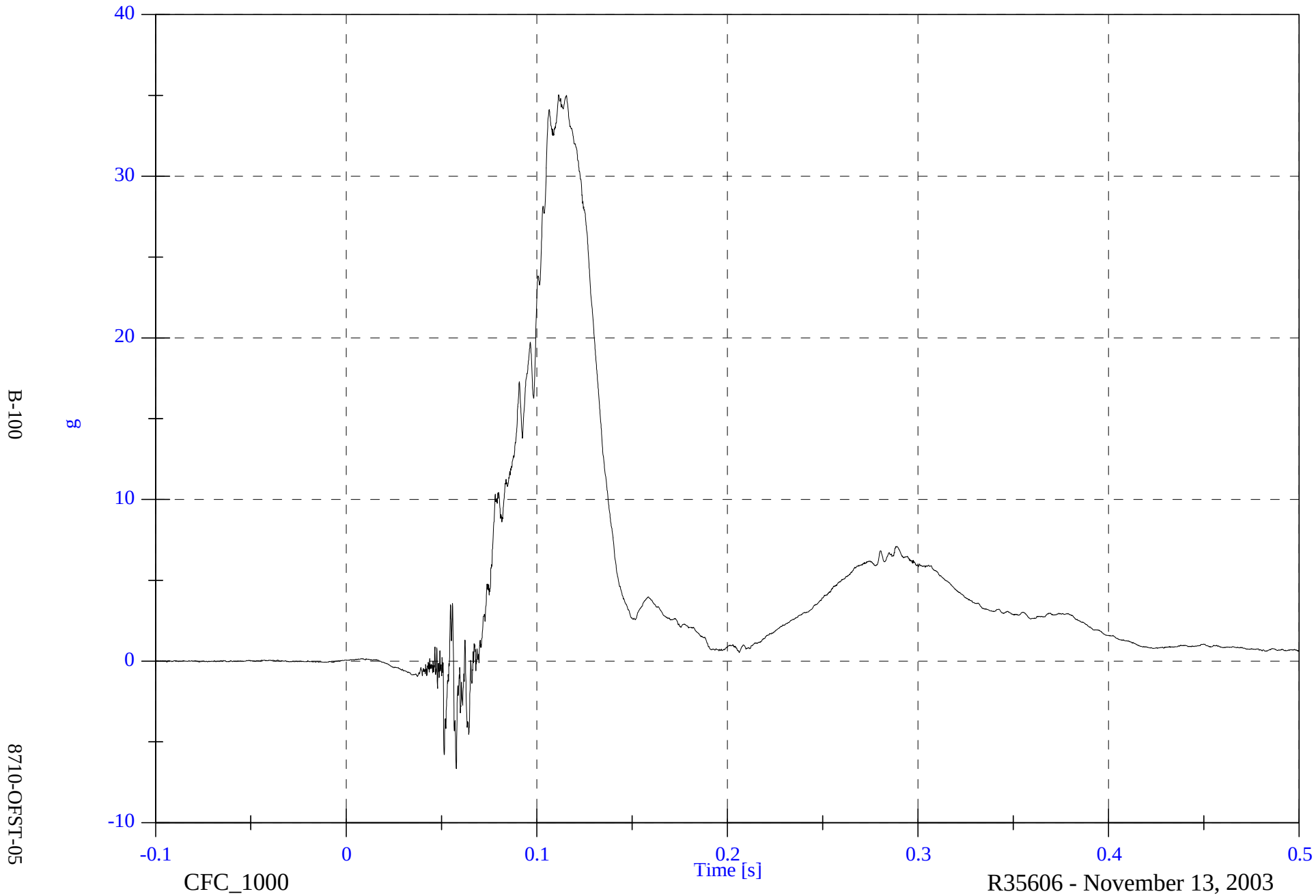


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Head z

Max: 35.0 [g] at 0.111 [s]

Min: -6.6 [g] at 0.058 [s]

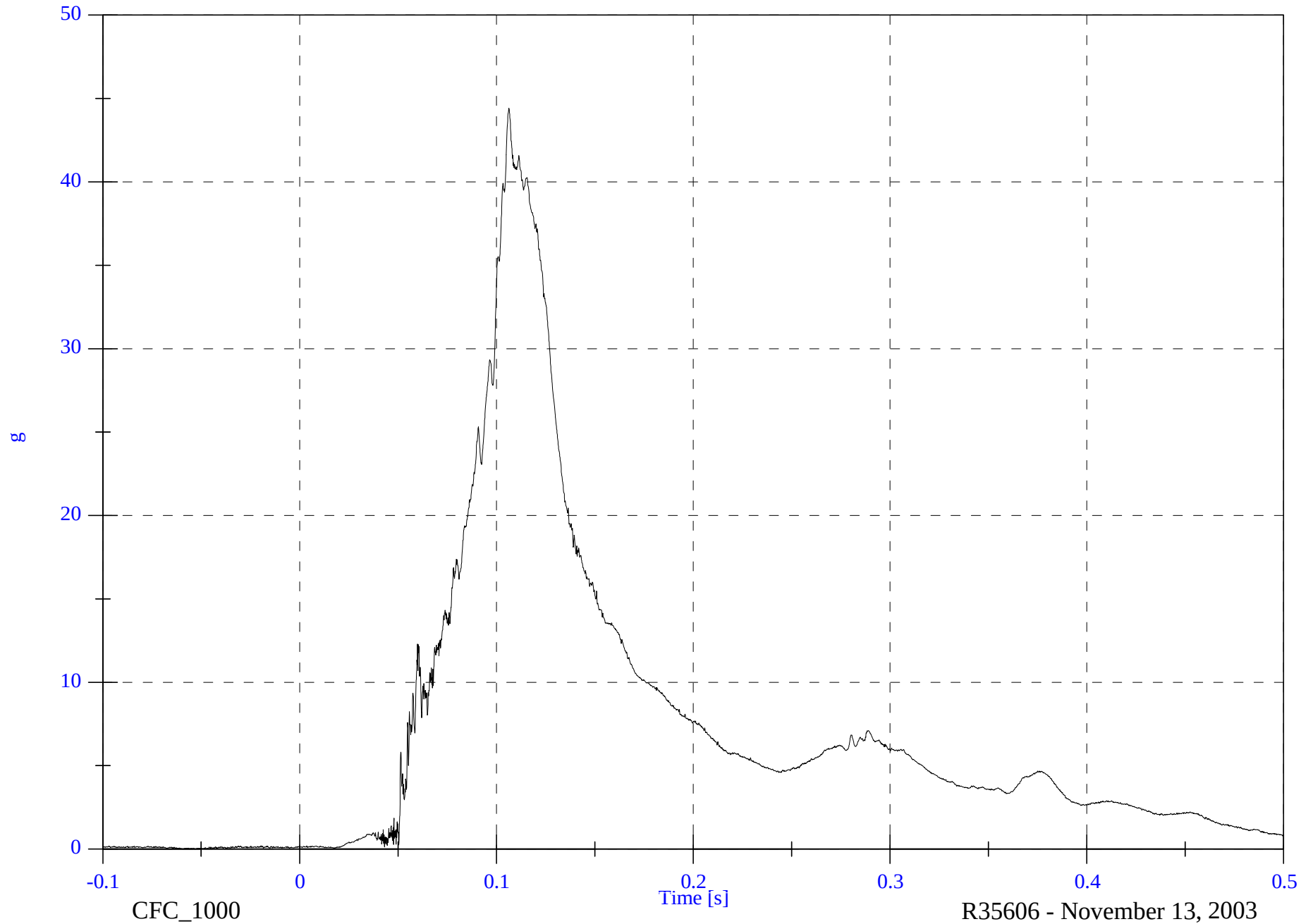


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Head Resultant

Max: 44.4 [g] at 0.106 [s]

Min: 0.0 [g] at -0.047 [s]



B-101

8710-OFST-05

CFC_1000

R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

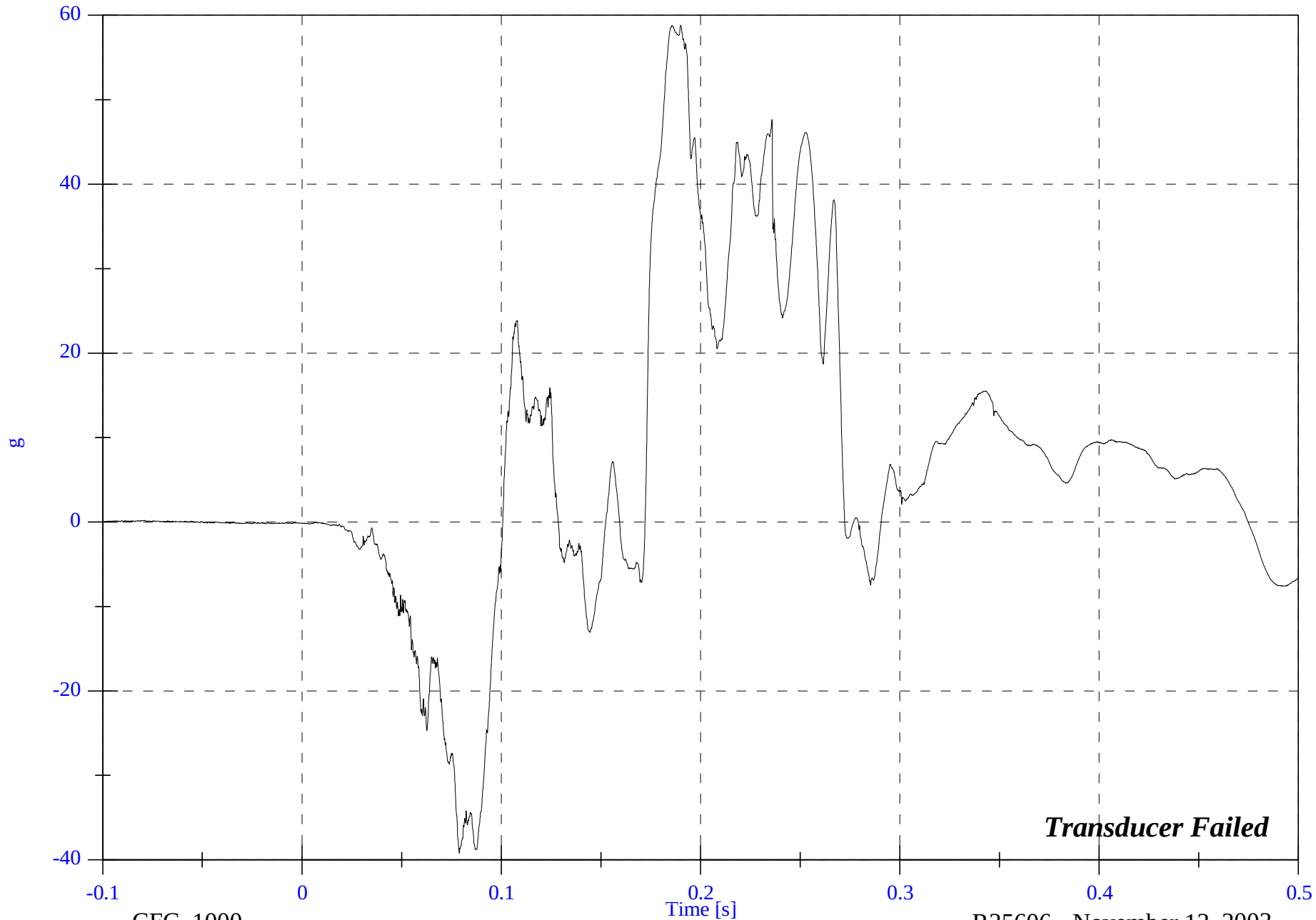
V1P2 Head Red x

Max: 58.8 [g] at 0.190 [s]

Min: -39.2 [g] at 0.079 [s]

B-102

8710-OFST-05



Transducer Failed

CFC_1000

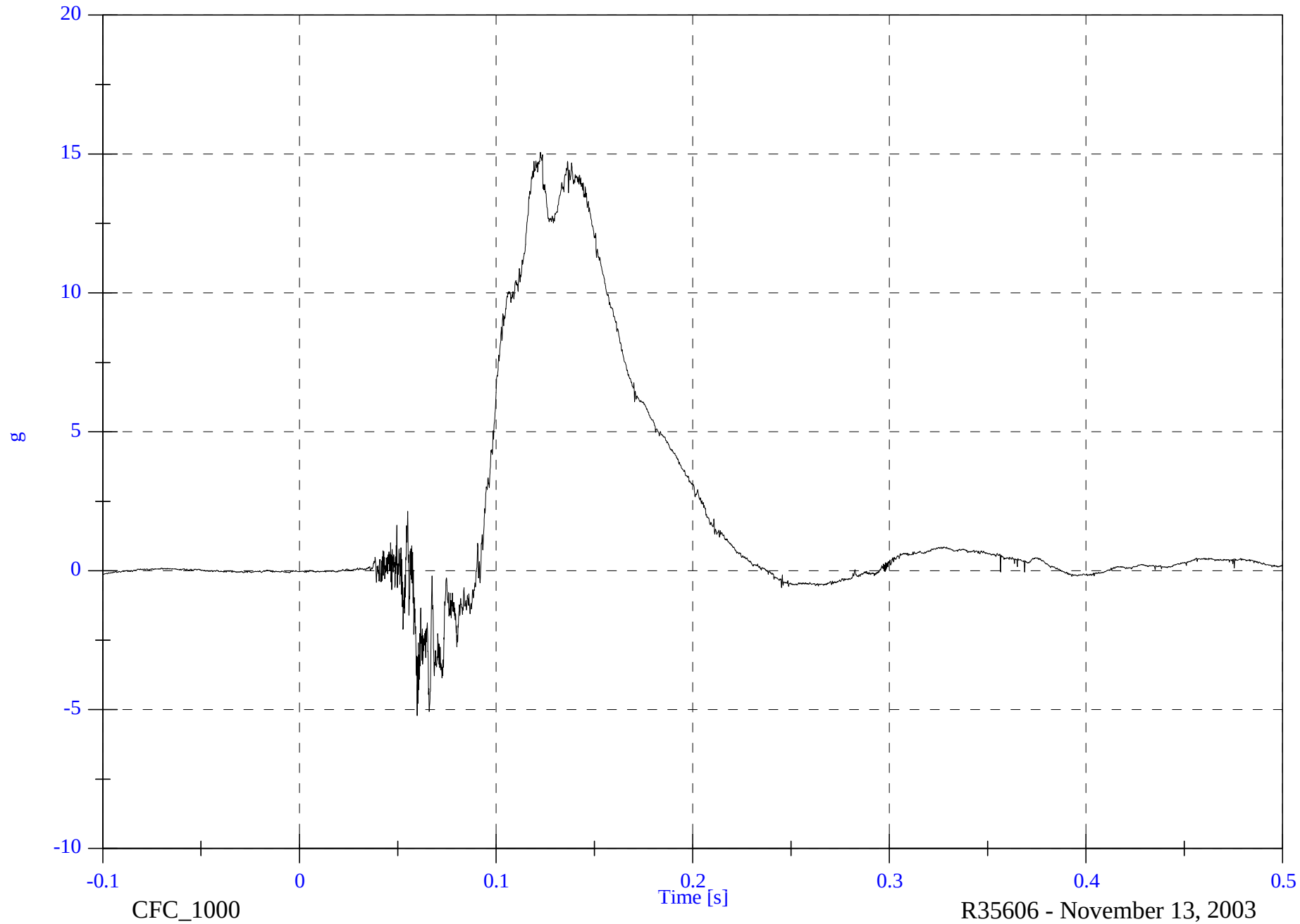
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Head Red y

Max: 15.1 [g] at 0.123 [s]

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



B-103

8710-OFST-05

CFC_1000

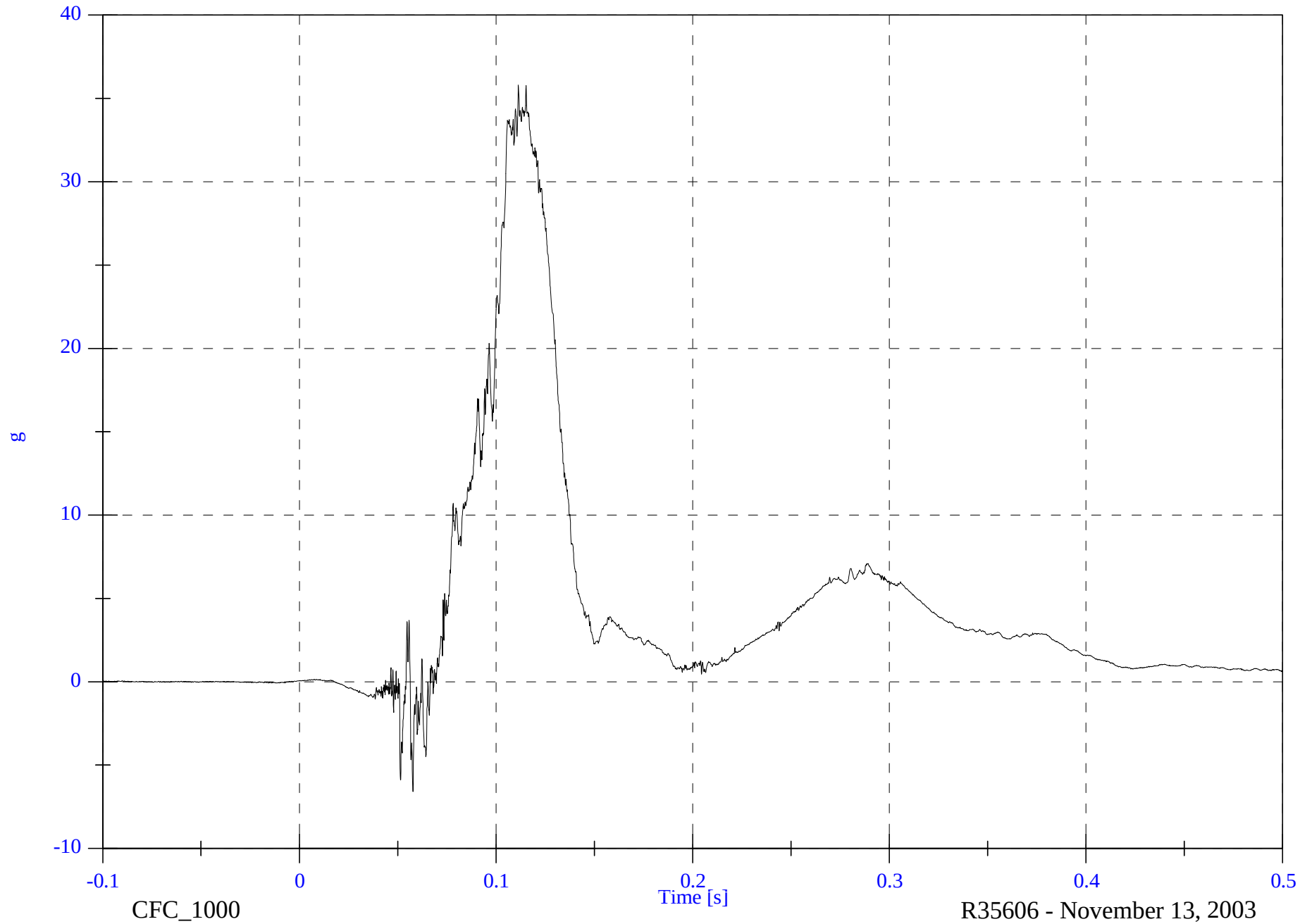
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Head Red z

Max: 35.8 [g] at 0.111 [s]

Min: -6.6 [g] at 0.058 [s]

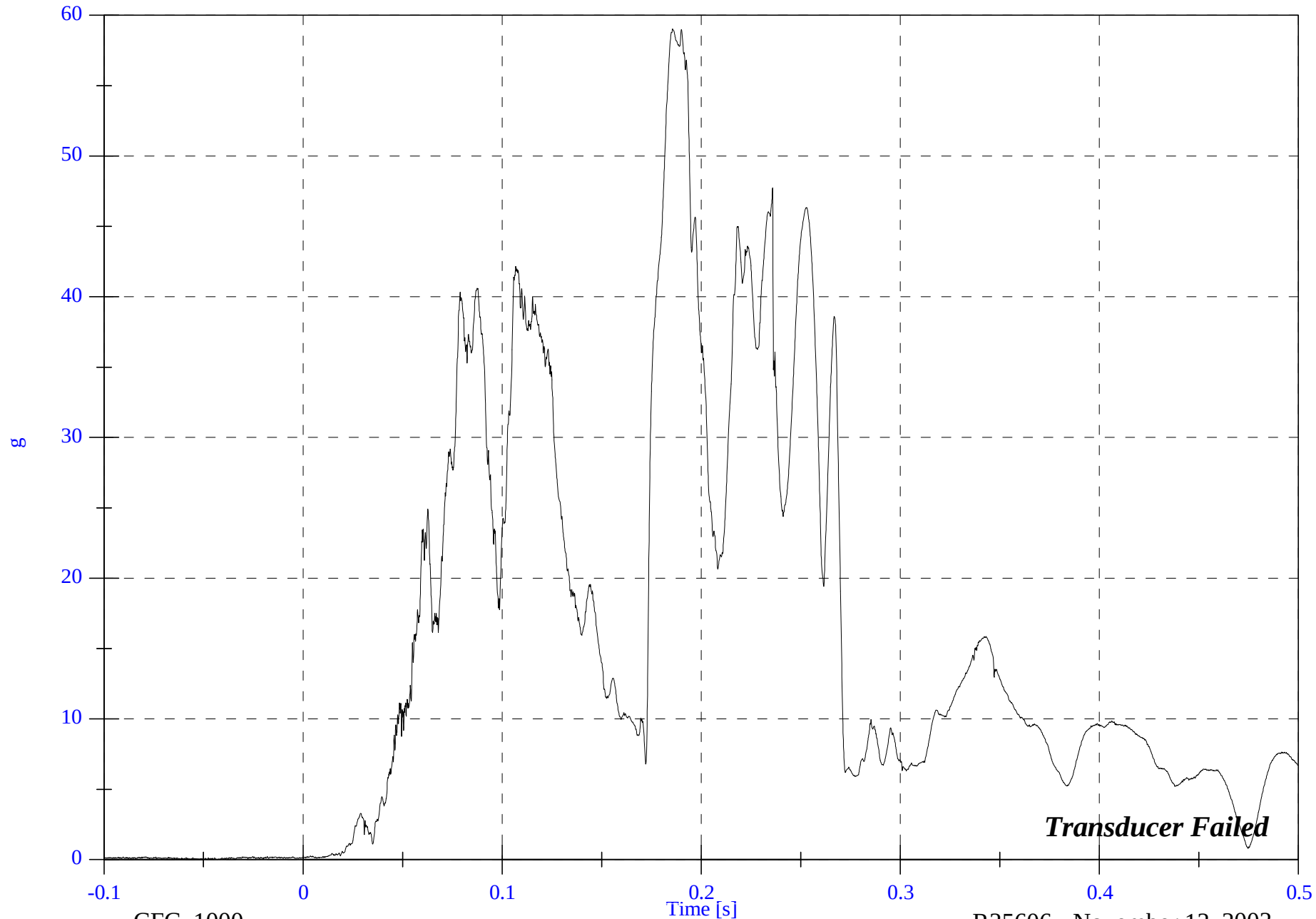


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Head Red Resultant

Max: 59.0 [g] at 0.186 [s]

Min: 0.0 [g] at -0.043 [s]



B-105

8710-OFST-05

CFC_1000

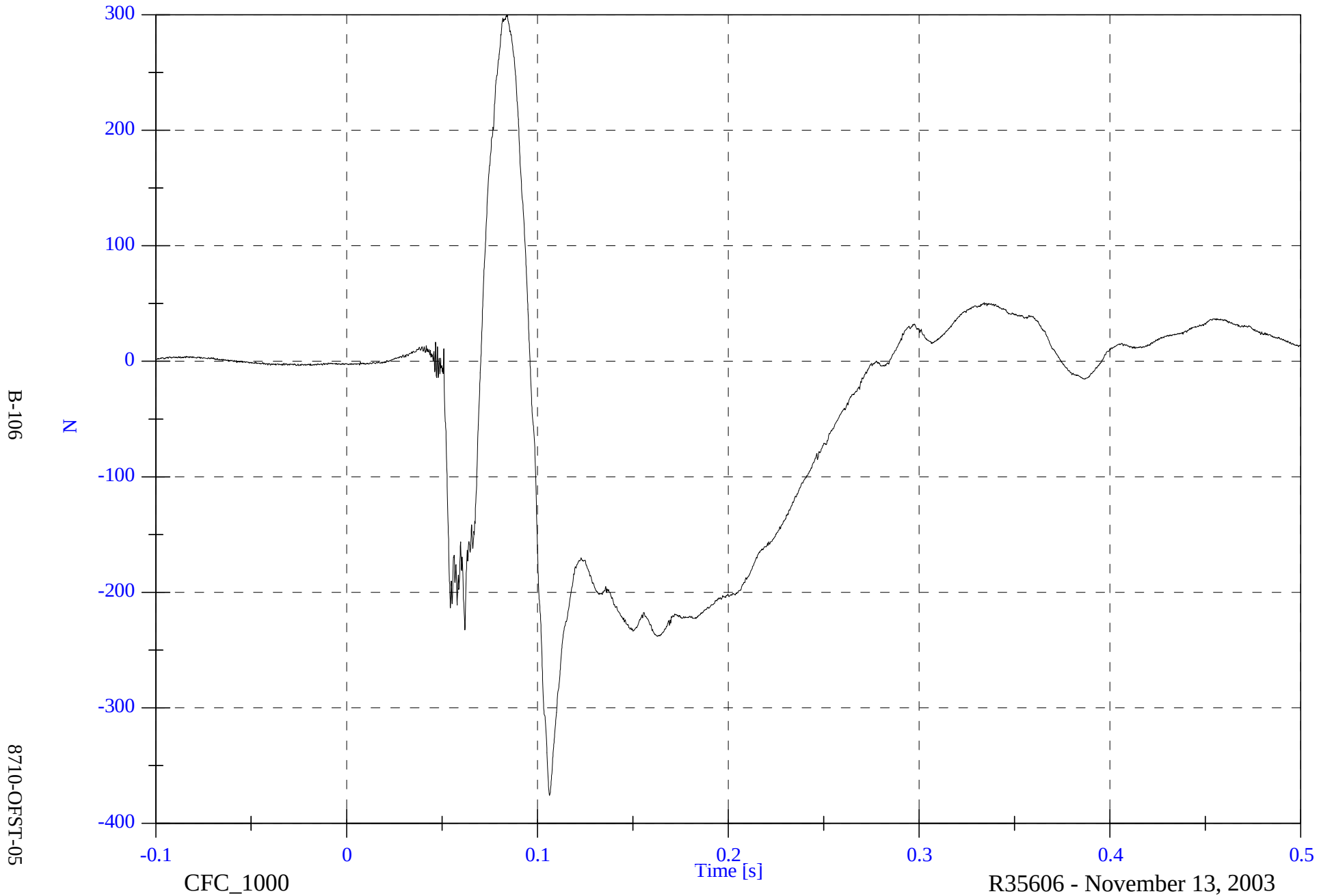
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Upper Neck Fx

Max: 299.6 [N] at 0.084 [s]

Min: -375.9 [N] at 0.106 [s]

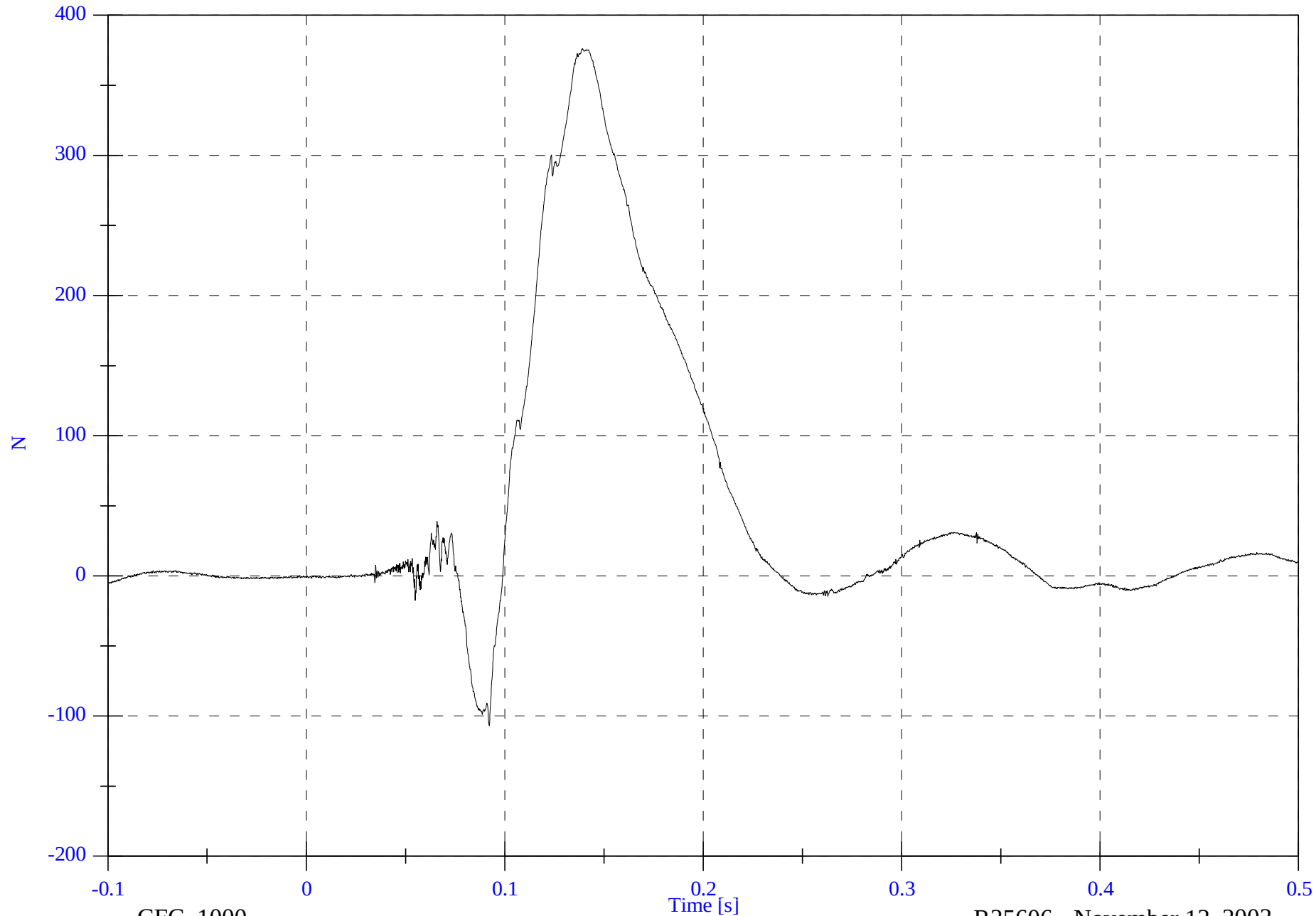


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Upper Neck Fy

Max: 376.4 [N] at 0.139 [s]

Min: -106.9 [N] at 0.092 [s]



B-107

8710-OFST-05

CFC_1000

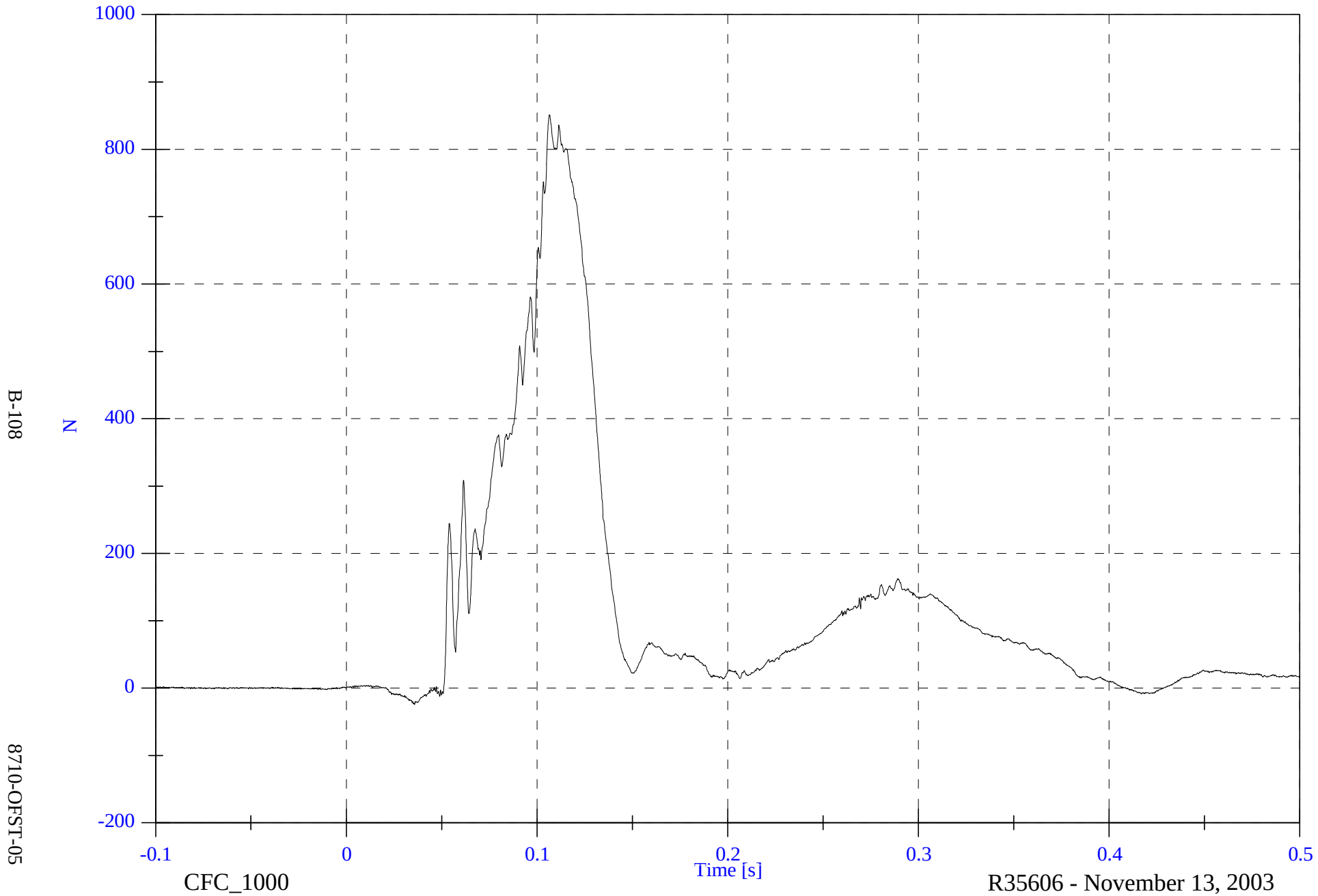
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Upper Neck Fz

Max: 851.3 [N] at 0.106 [s]

Min: -24.2 [N] at 0.036 [s]

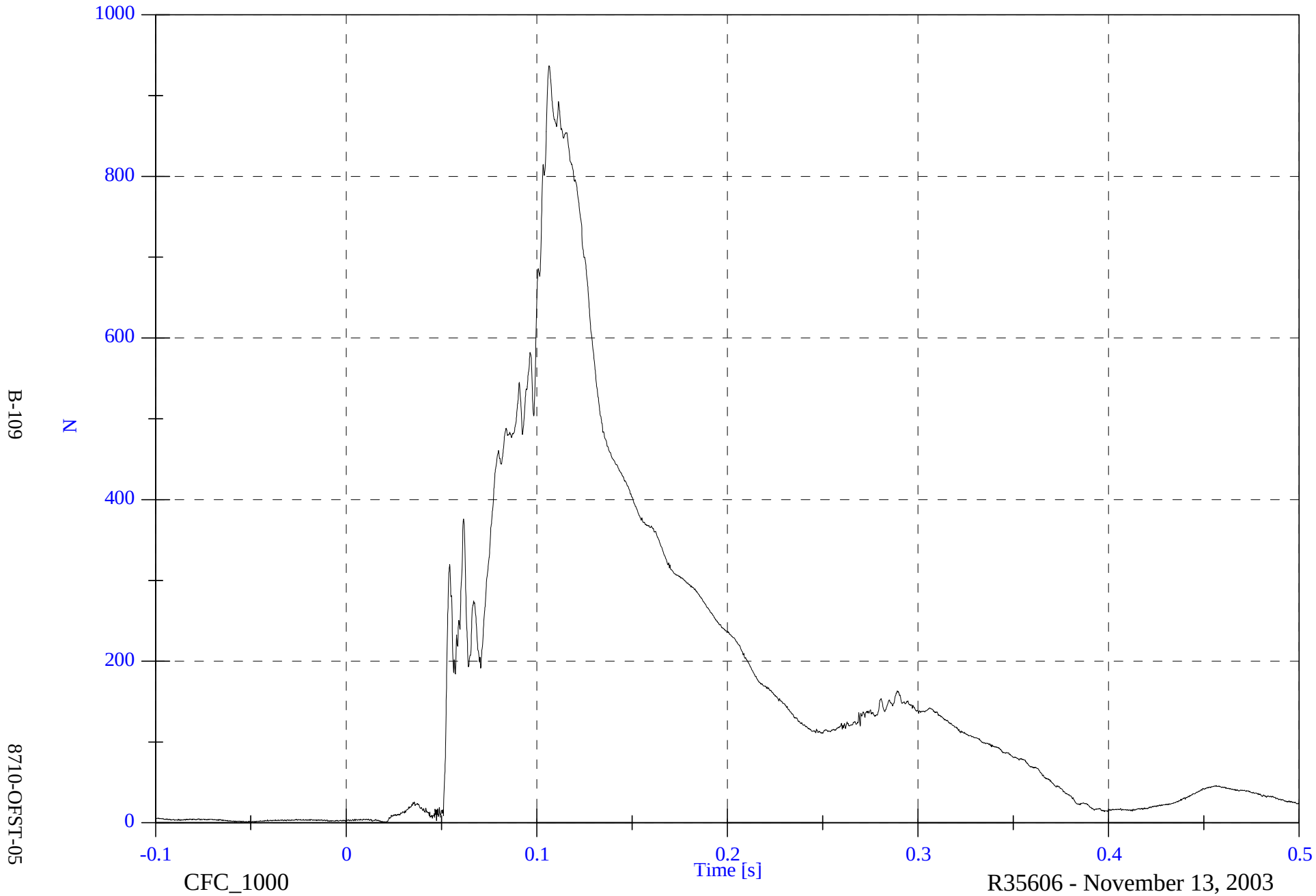


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Upper Neck F Resultant

Max: 936.7 [N] at 0.106 [s]

Min: 0.3 [N] at 0.020 [s]

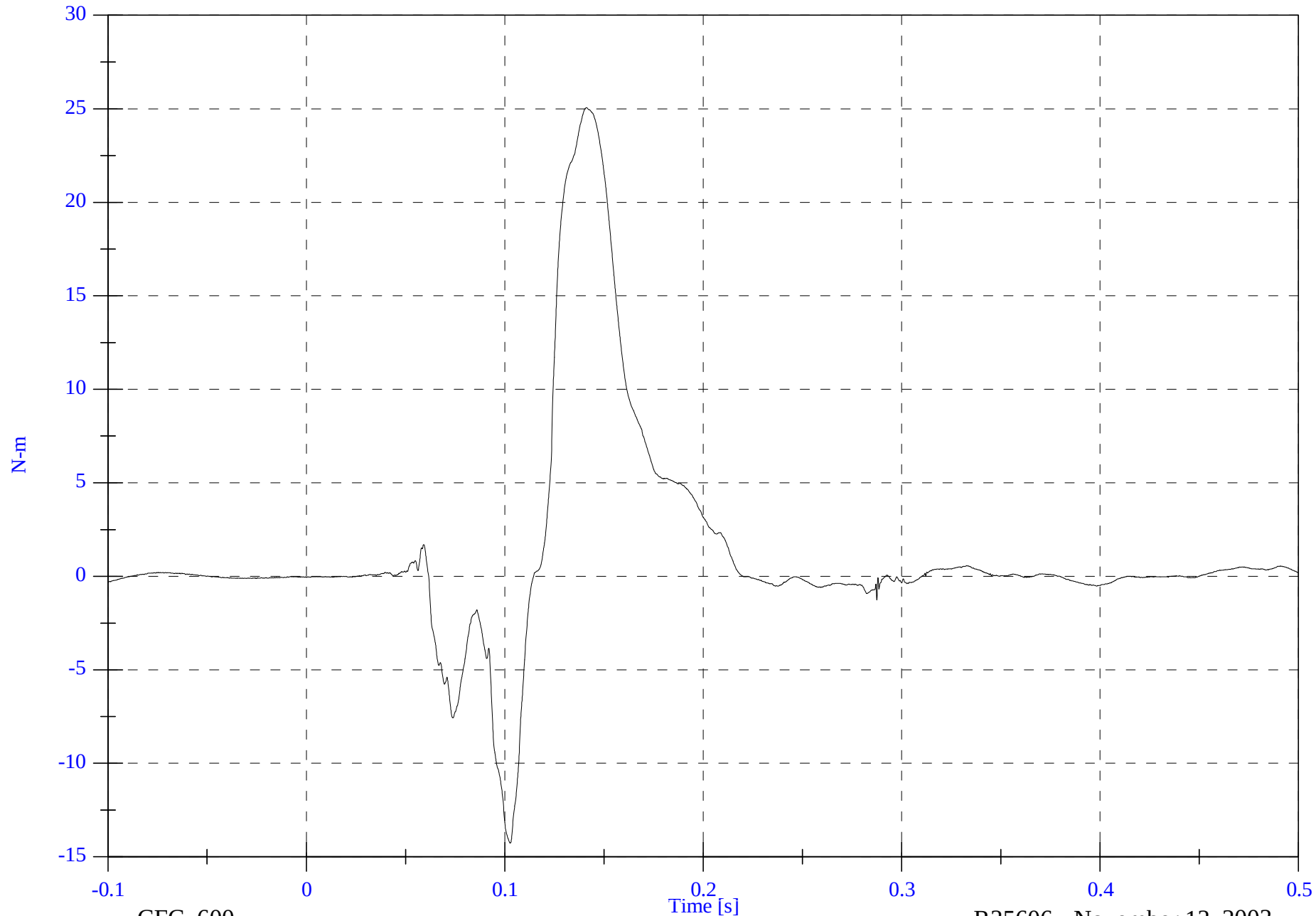


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Upper Neck Mx

Max: 25.1 [N-m] at 0.141 [s]

Min: -14.3 [N-m] at 0.103 [s]



B-110

8710-OFST-05

CFC_600

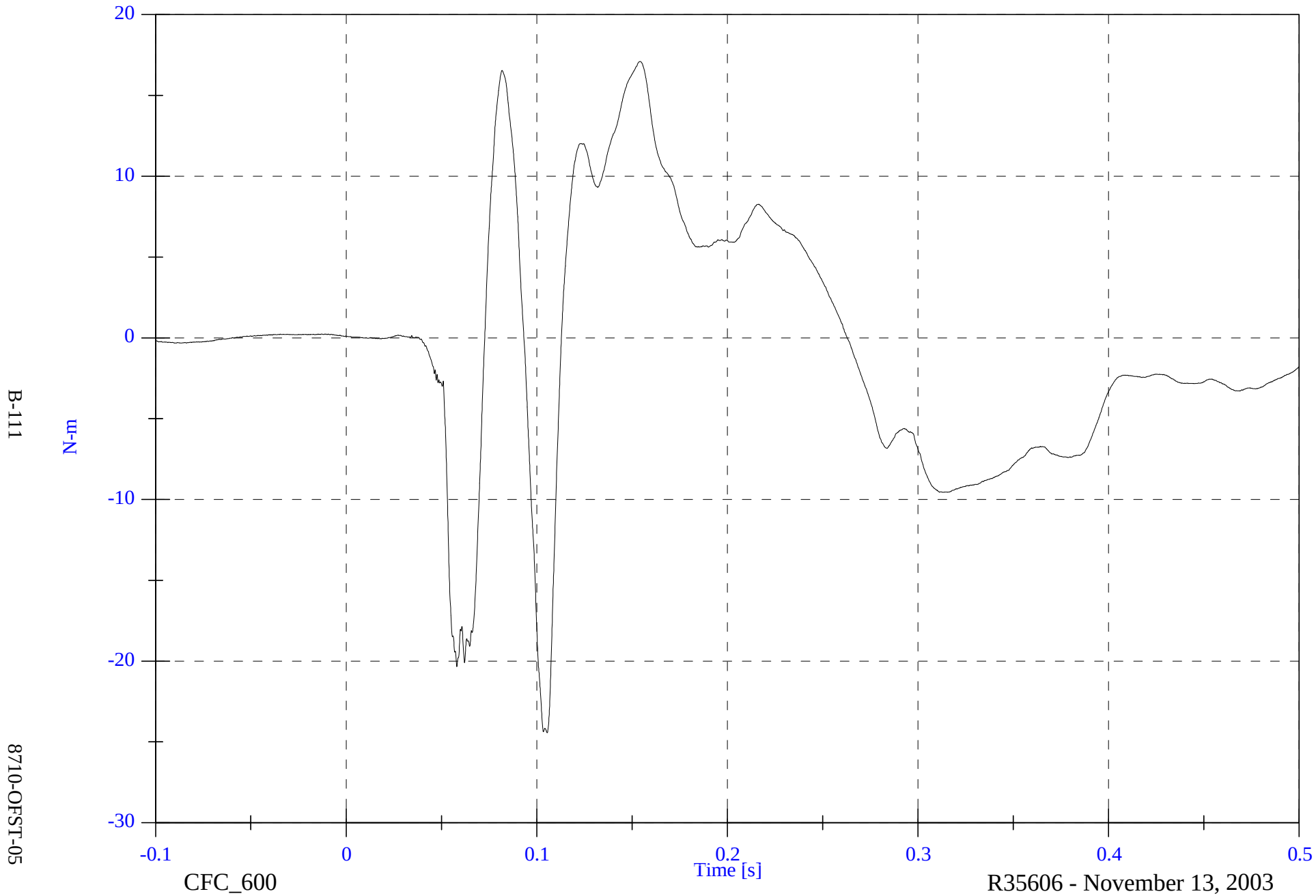
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Upper Neck My

Max: 17.1 [N-m] at 0.154 [s]

Min: -24.4 [N-m] at 0.105 [s]

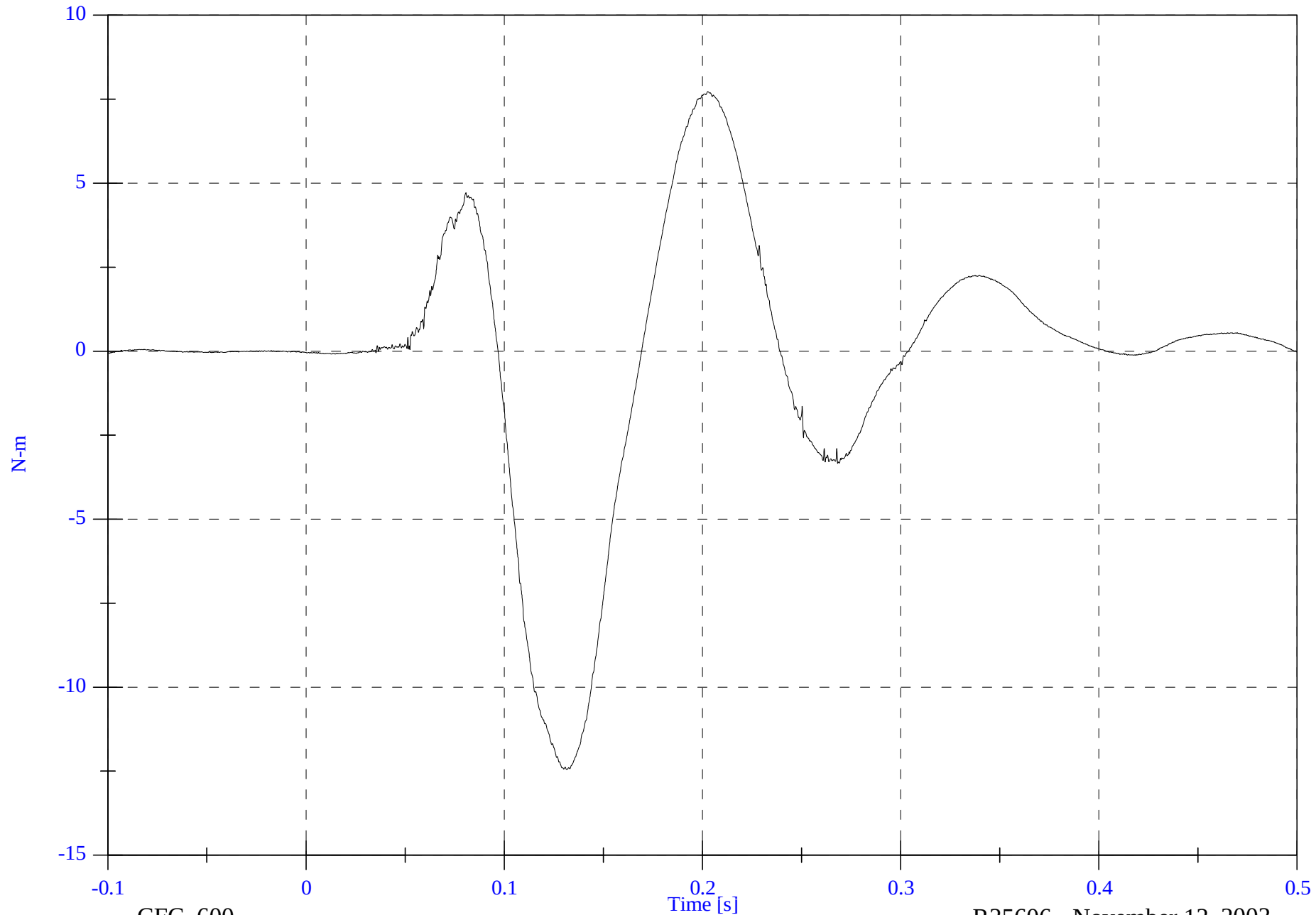


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Upper Neck Mz

Max: 7.7 [N-m] at 0.203 [s]

Min: -12.5 [N-m] at 0.131 [s]



B-112

8710-OFST-05

CFC_600

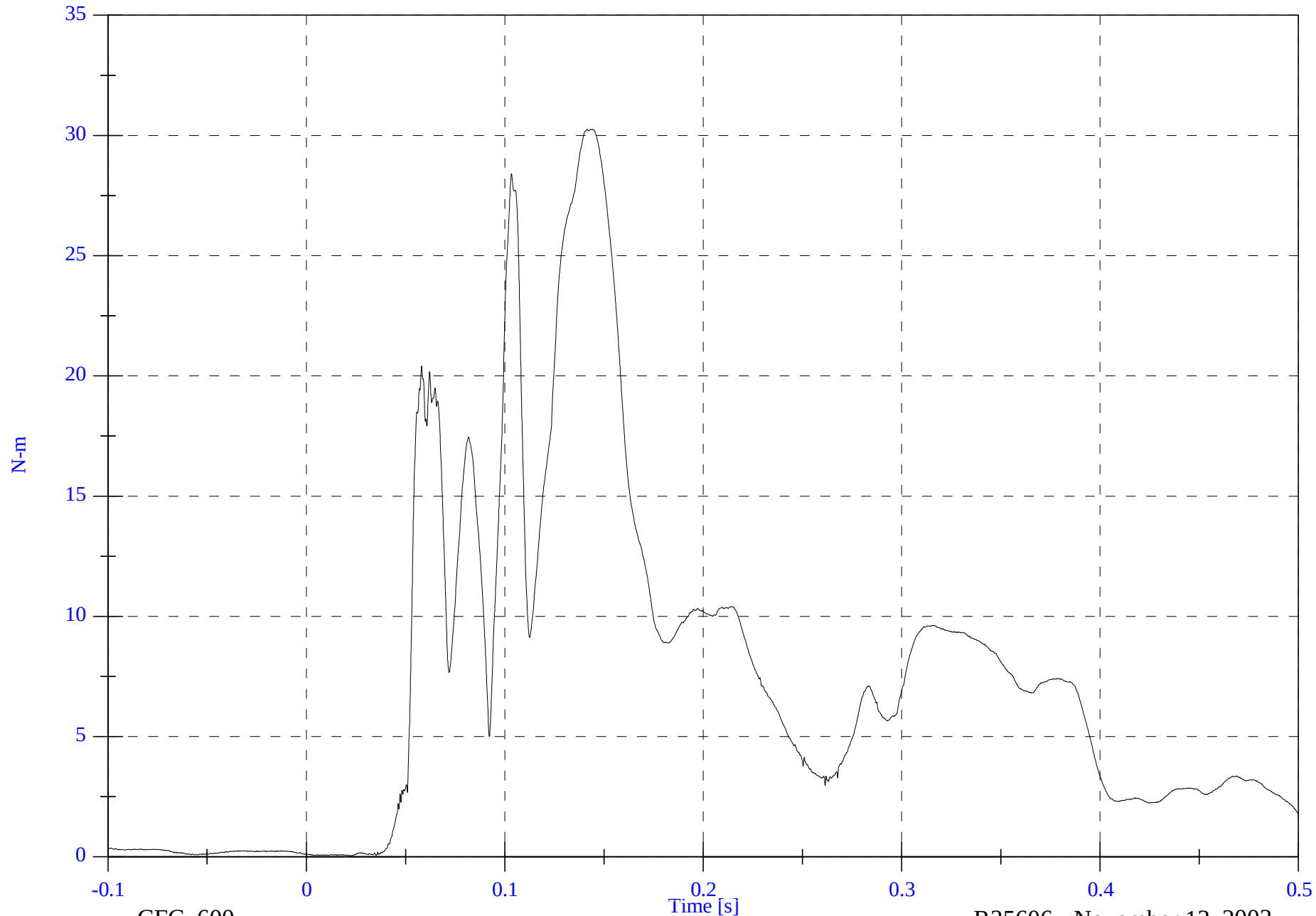
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Upper Neck M Resultant

Max: 30.3 [N-m] at 0.141 [s]

Min: 0.0 [N-m] at 0.023 [s]



B-113

8710-OFST-05

CFC_600

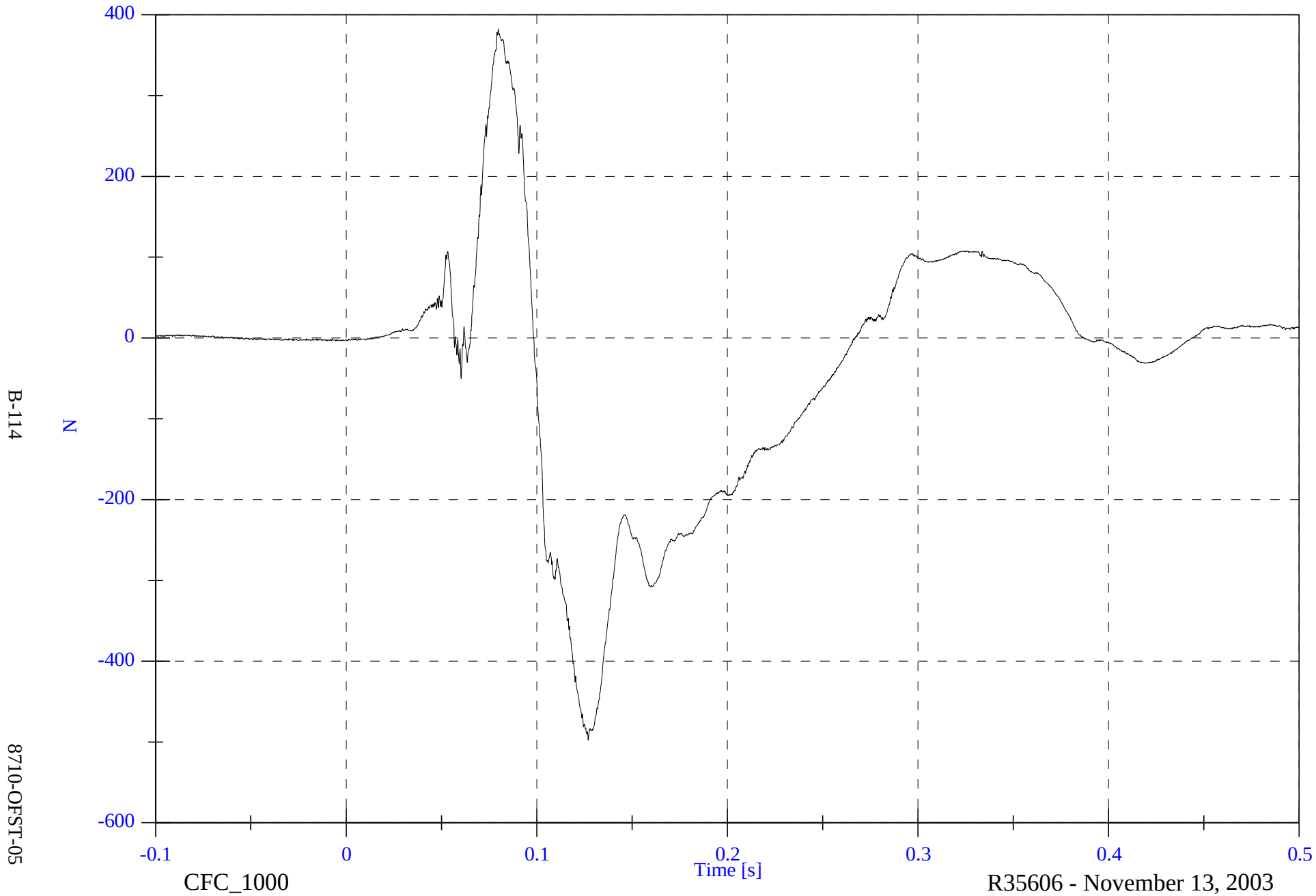
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Lower Neck Fx

Max: 382.5 [N] at 0.080 [s]

Min: -498.1 [N] at 0.127 [s]

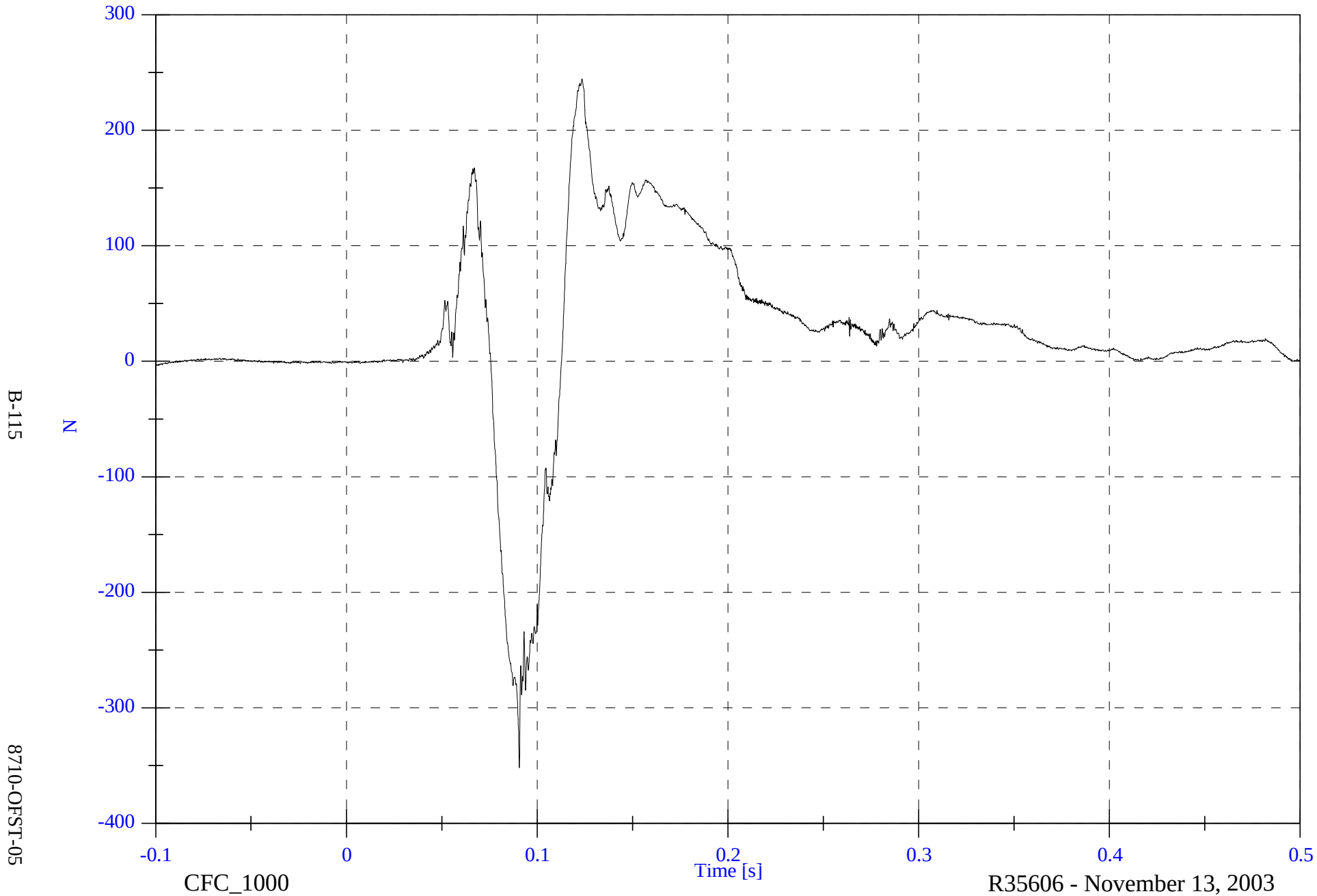


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Lower Neck Fy

Max: 244.4 [N] at 0.123 [s]

Min: -351.8 [N] at 0.091 [s]

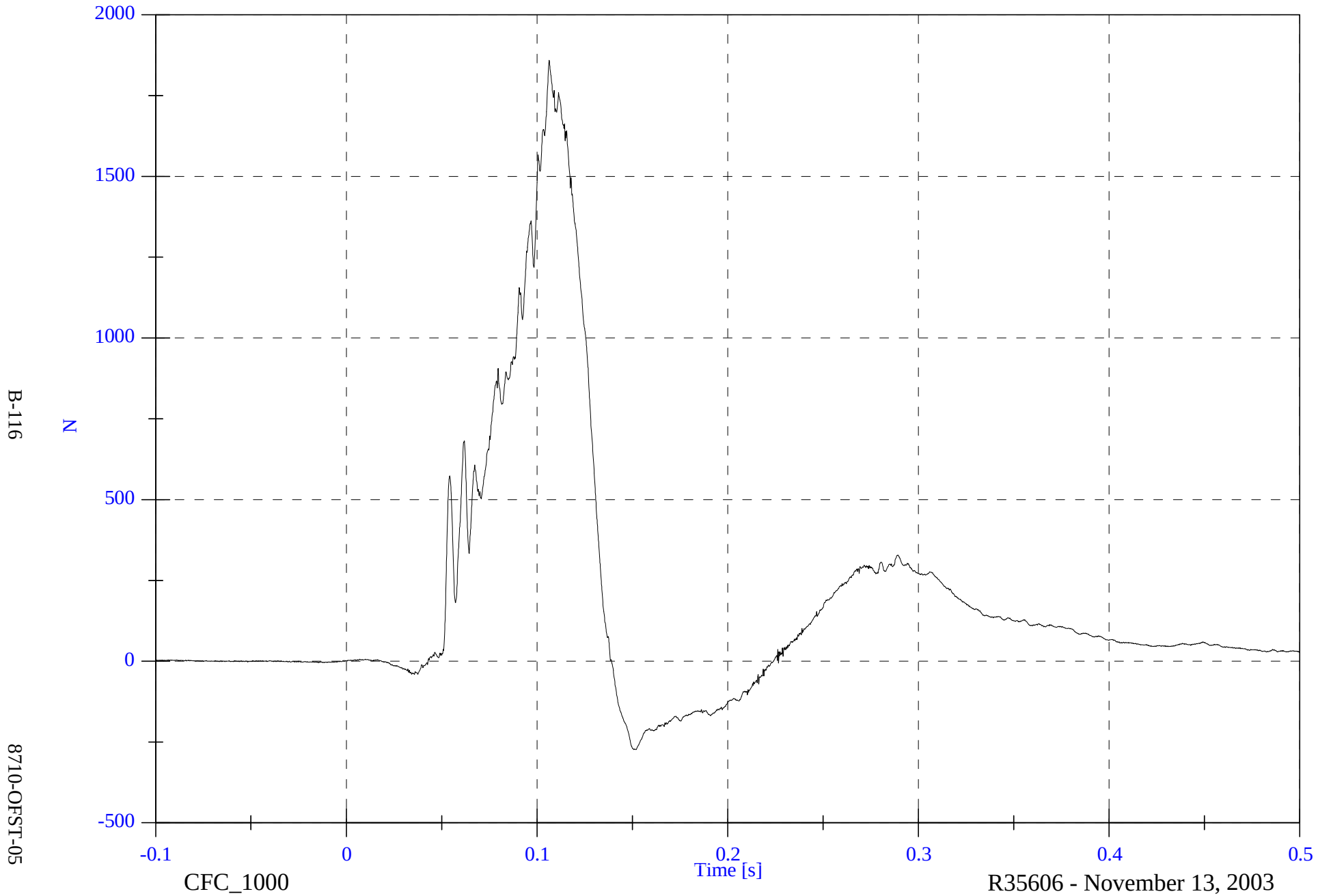


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Lower Neck Fz

Max: 1859.5 [N] at 0.106 [s]

Min: -273.6 [N] at 0.152 [s]

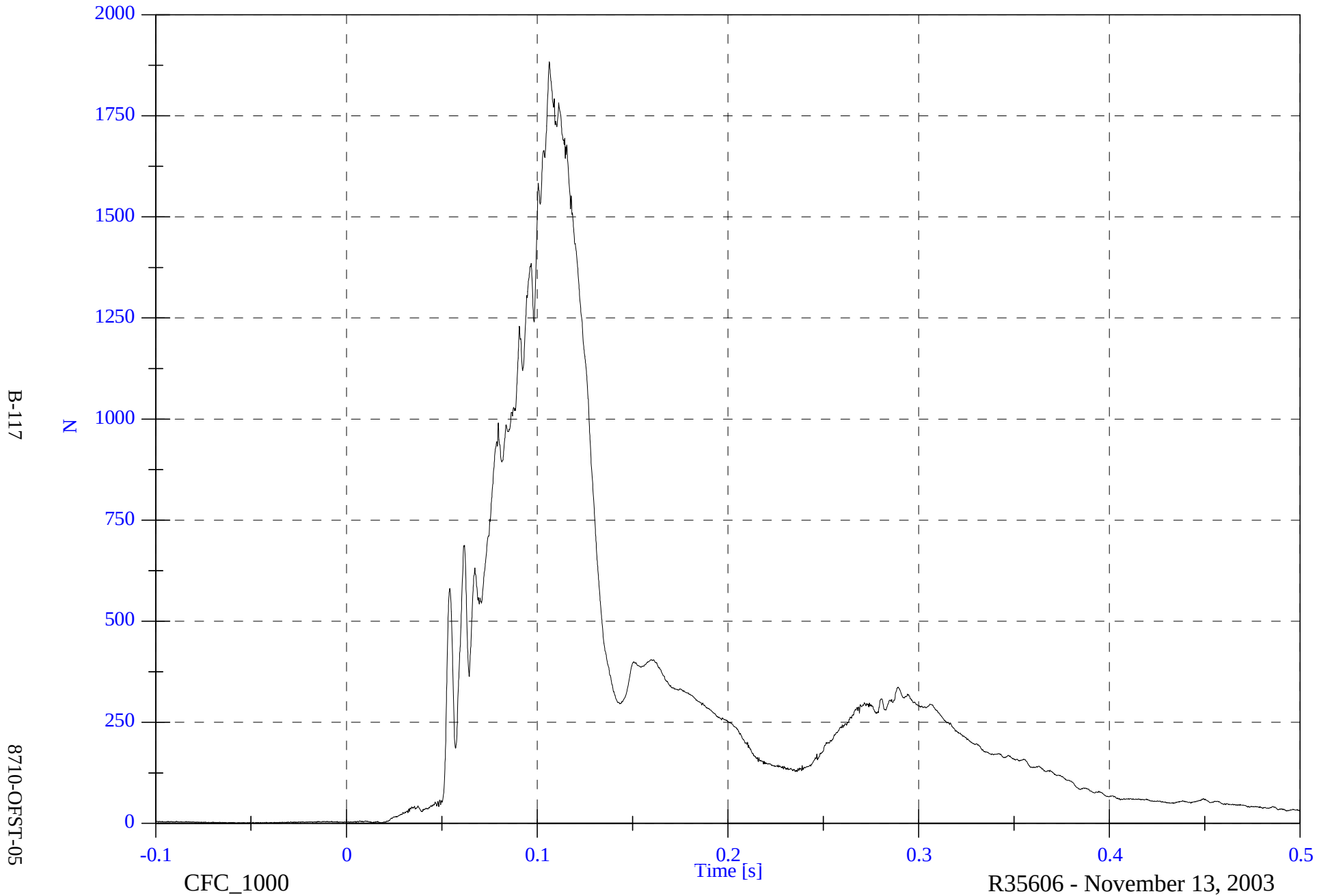


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Lower Neck F Resultant

Max: 1883.4 [N] at 0.106 [s]

Min: 0.5 [N] at -0.056 [s]

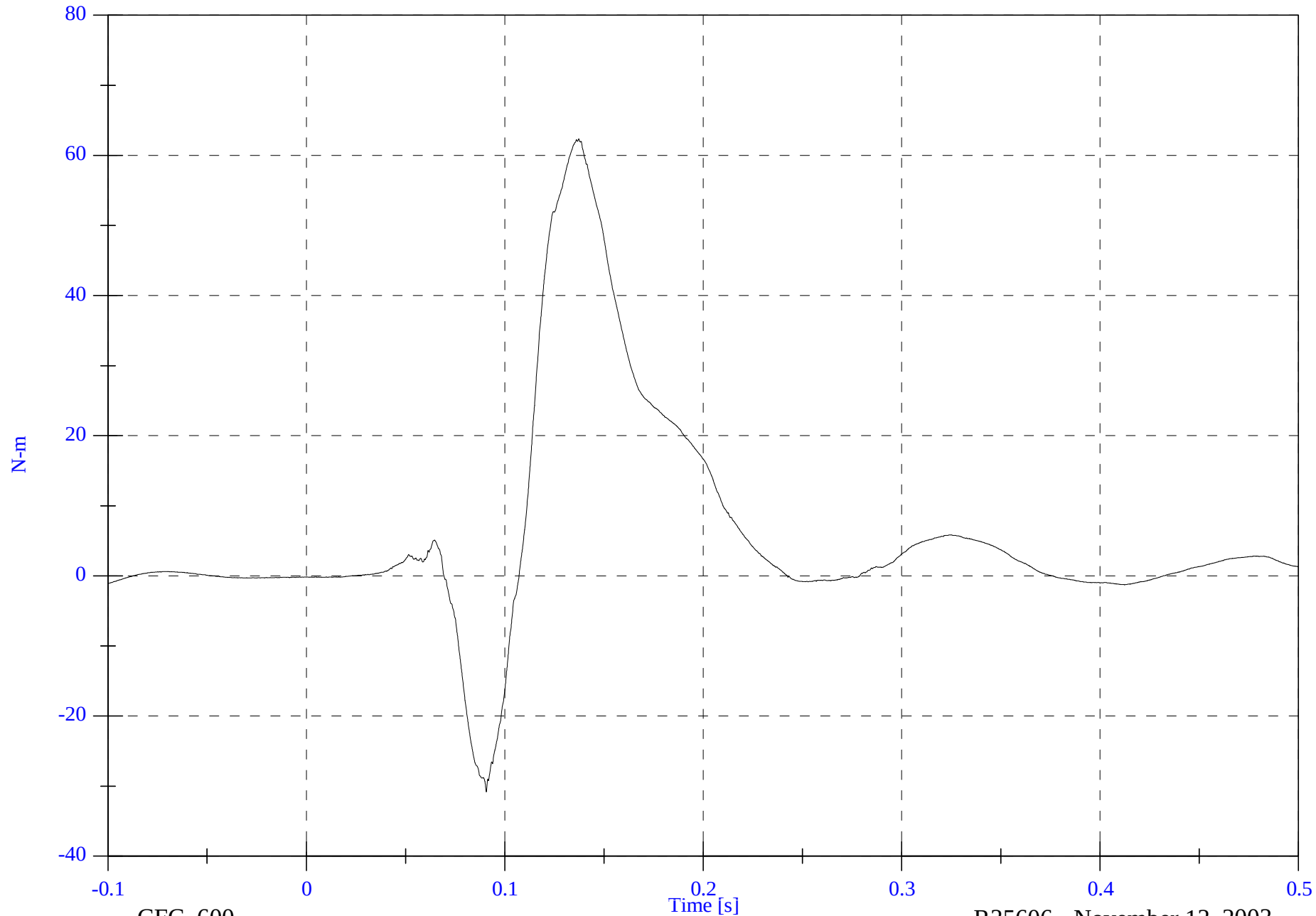


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Lower Neck Mx

Max: 62.4 [N-m] at 0.137 [s]

Min: -30.8 [N-m] at 0.091 [s]



B-118

8710-OFST-05

CFC_600

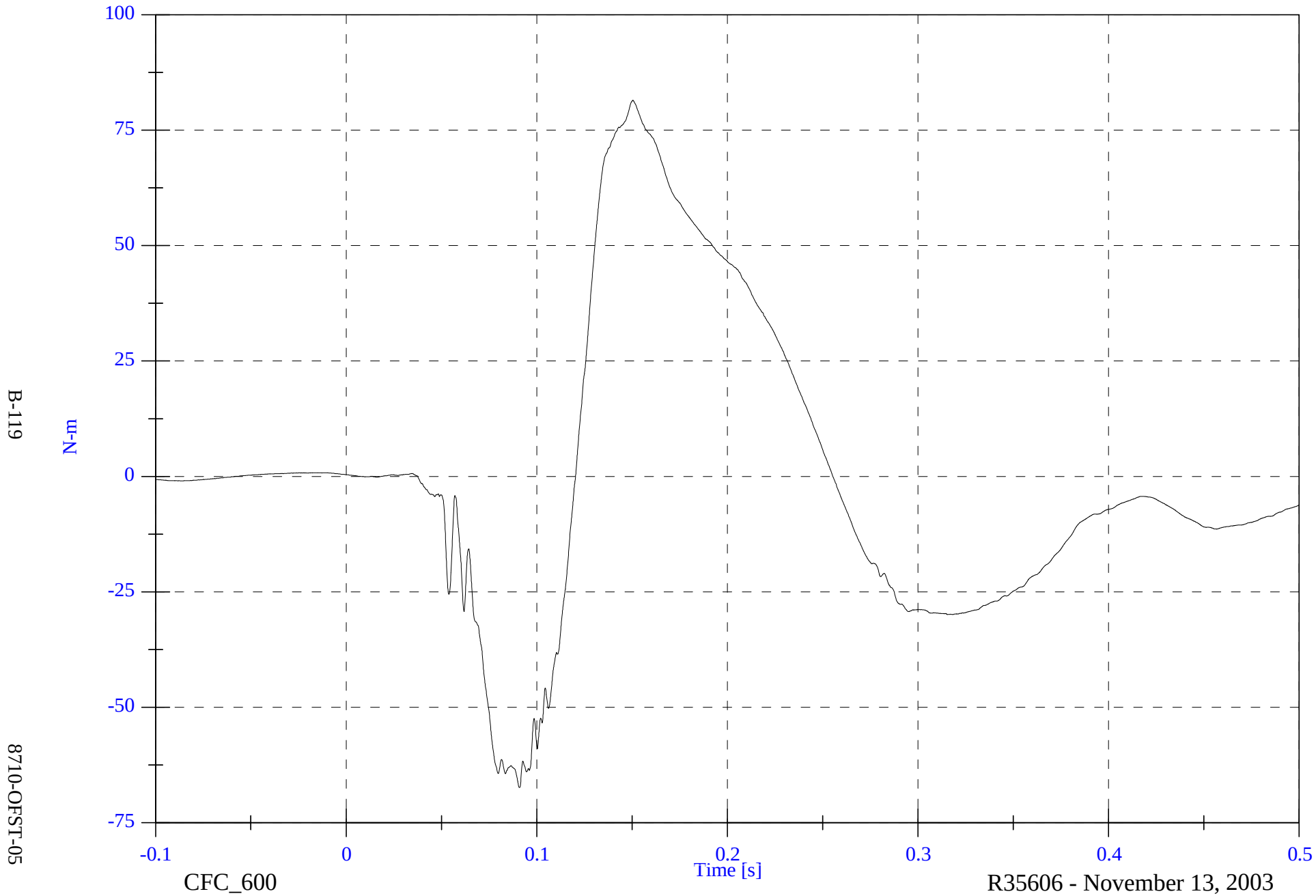
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Lower Neck My

Max: 81.5 [N-m] at 0.150 [s]

Min: -67.3 [N-m] at 0.091 [s]

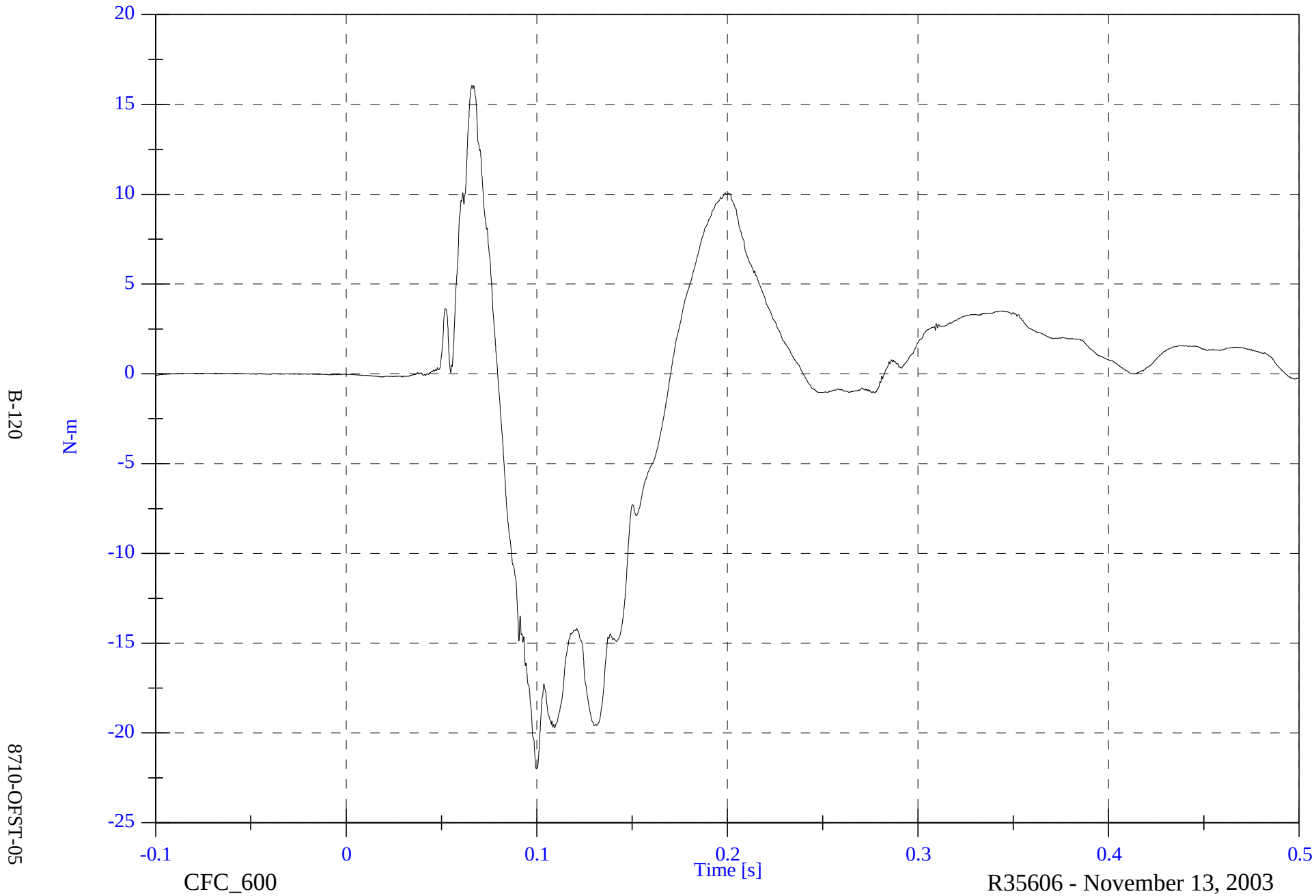


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Lower Neck Mz

Max: 16.1 [N-m] at 0.066 [s]

Min: -22.0 [N-m] at 0.100 [s]

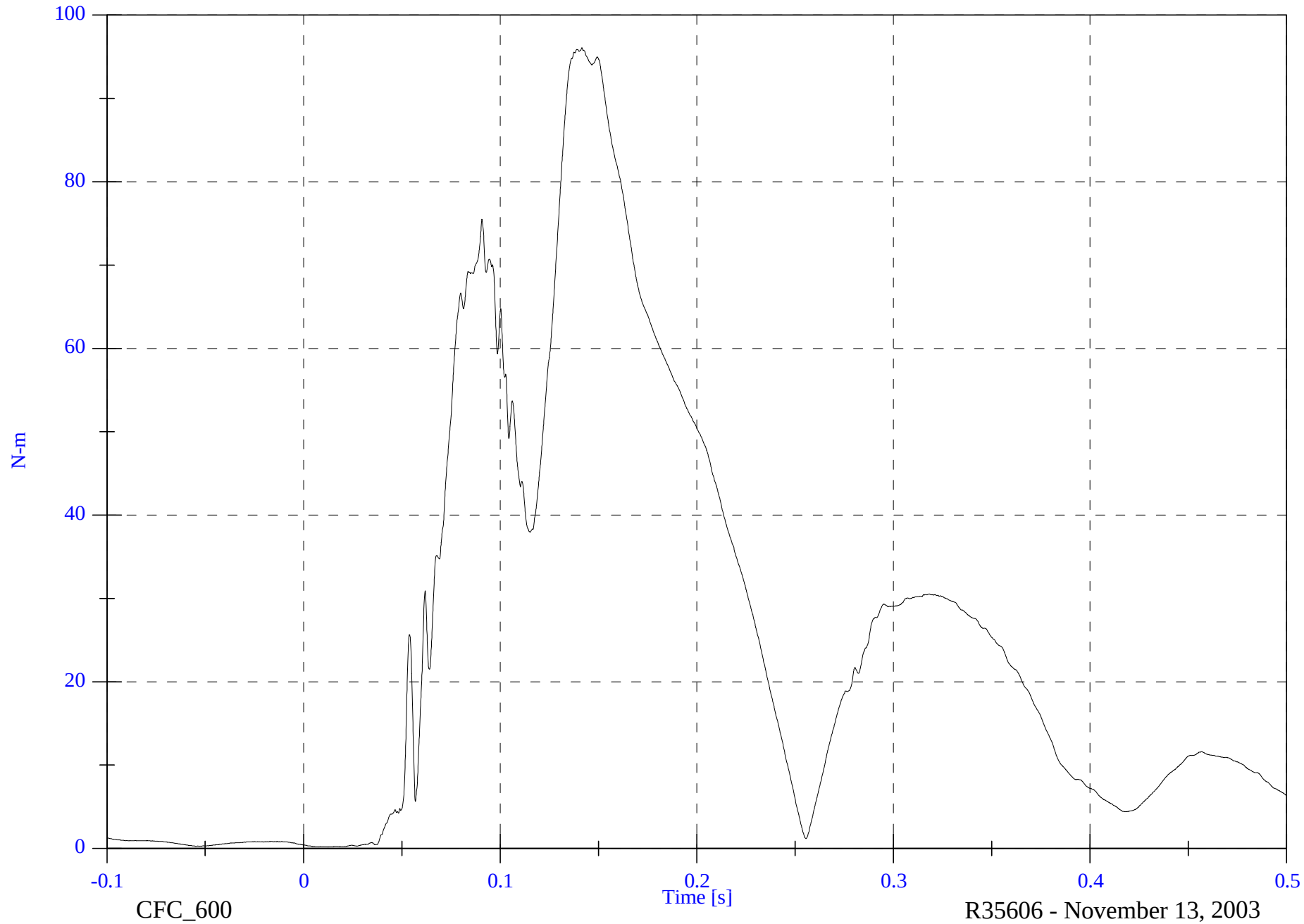


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Lower Neck M Resultant

Max: 96.1 [N-m] at 0.141 [s]

Min: 0.2 [N-m] at 0.008 [s]



B-121

8710-OFST-05

CFC_600

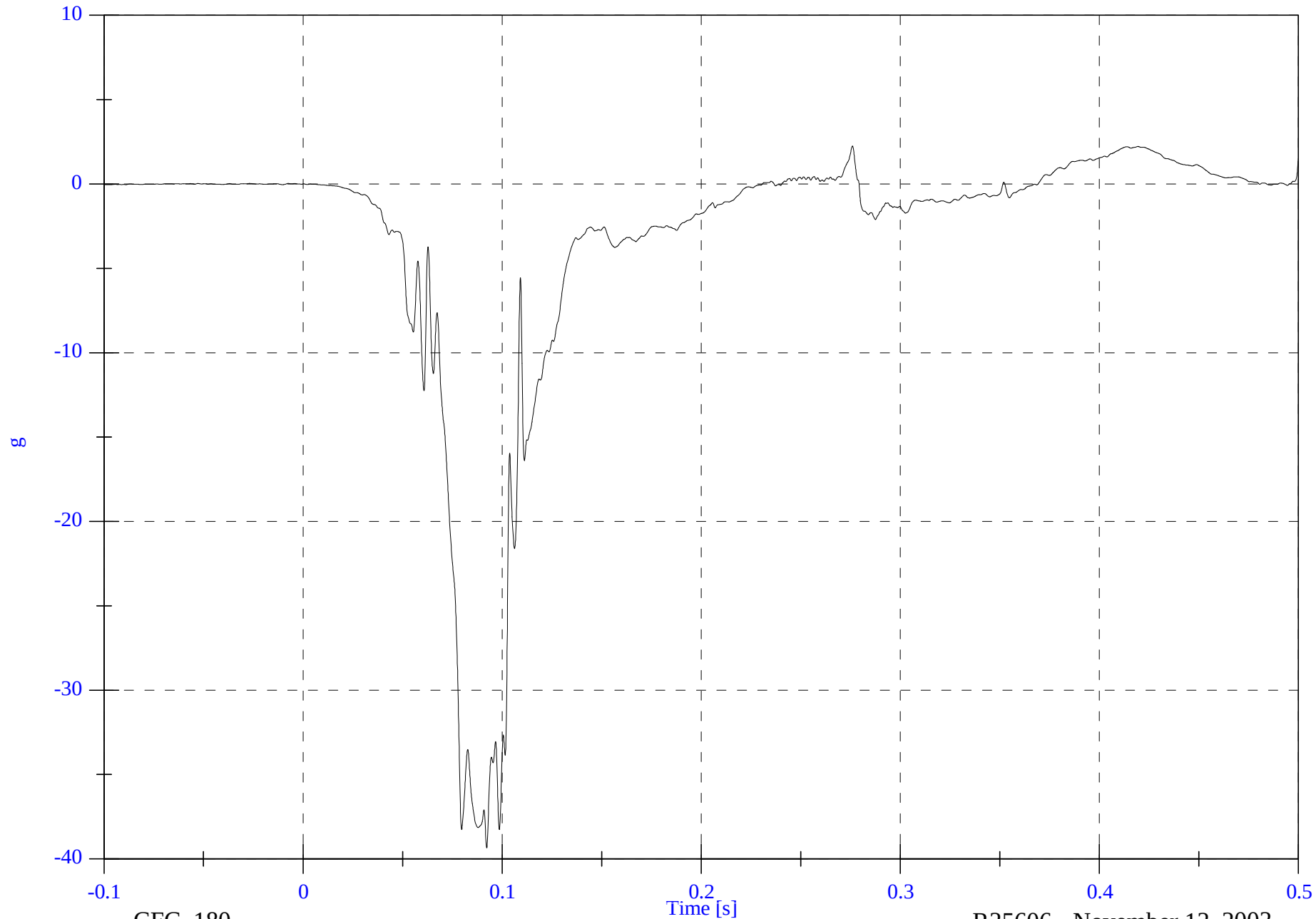
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Chest x

Max: 2.3 [g] at 0.276 [s]

Min: -39.3 [g] at 0.092 [s]



B-122

8710-OFST-05

CFC_180

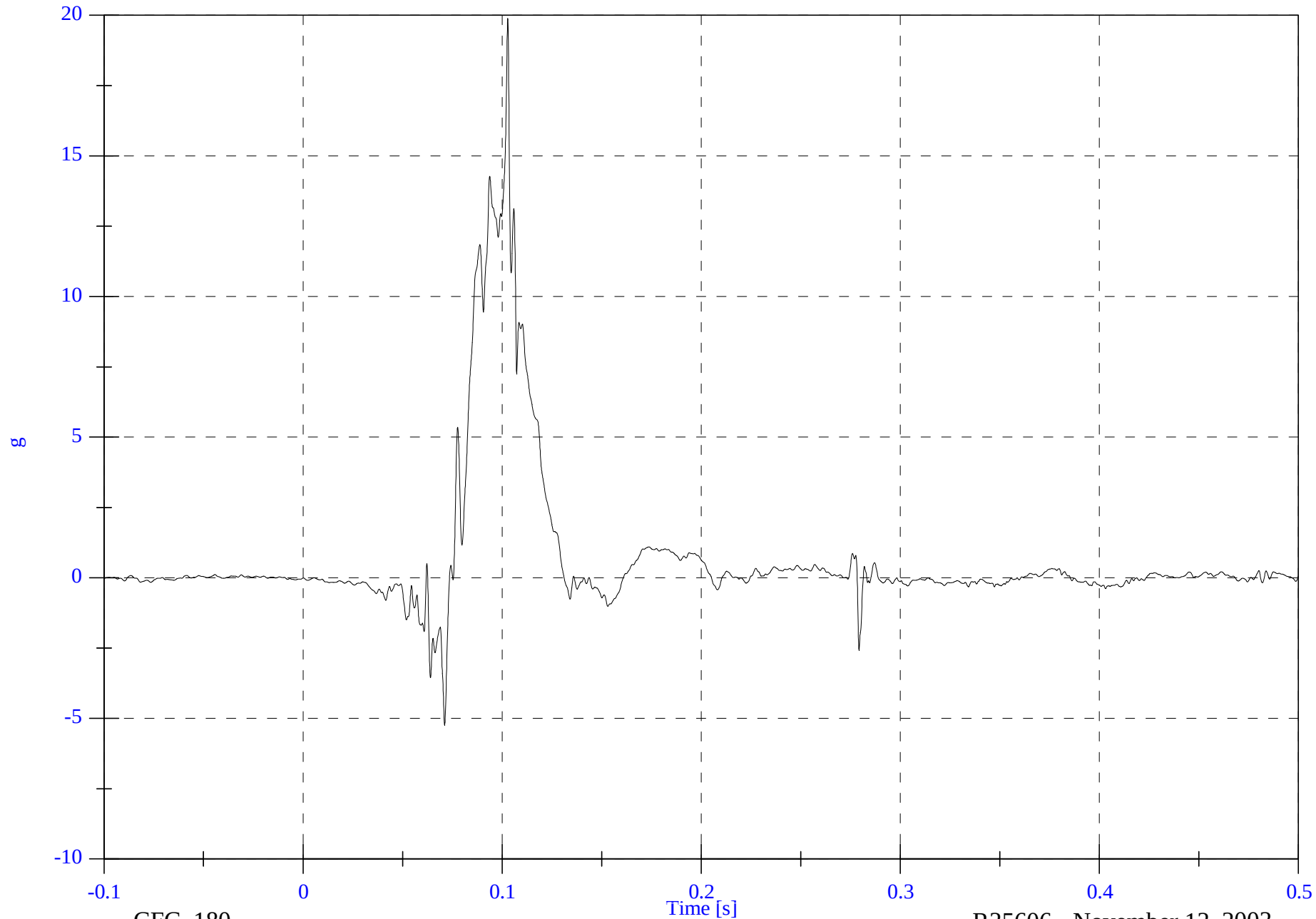
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Chest y

Max: 19.9 [g] at 0.103 [s]

Min: -5.2 [g] at 0.071 [s]



B-123

8710-OFST-05

CFC_180

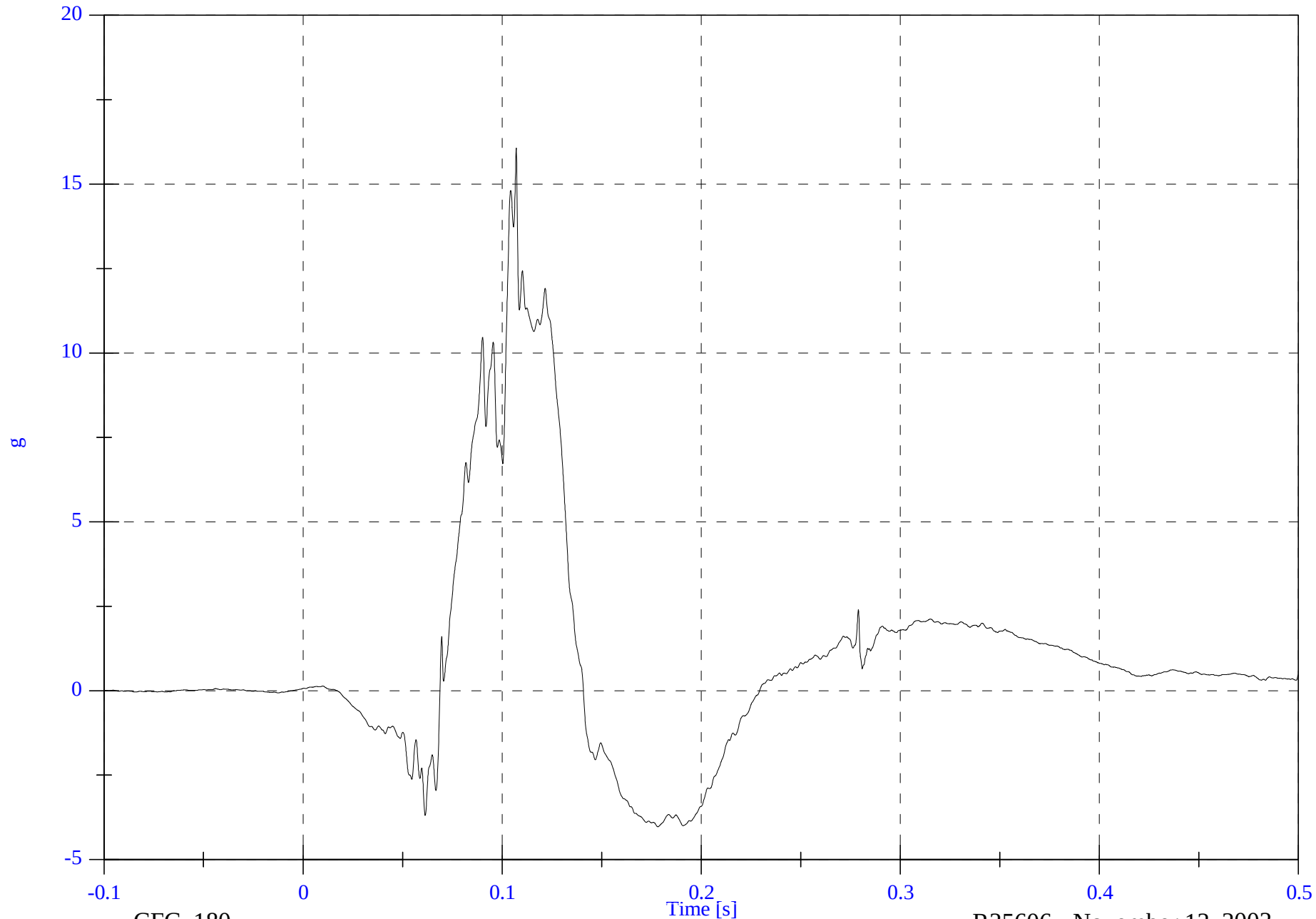
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Chest z

Max: 16.1 [g] at 0.107 [s]

Min: -4.0 [g] at 0.178 [s]



B-124

8710-OFST-05

CFC_180

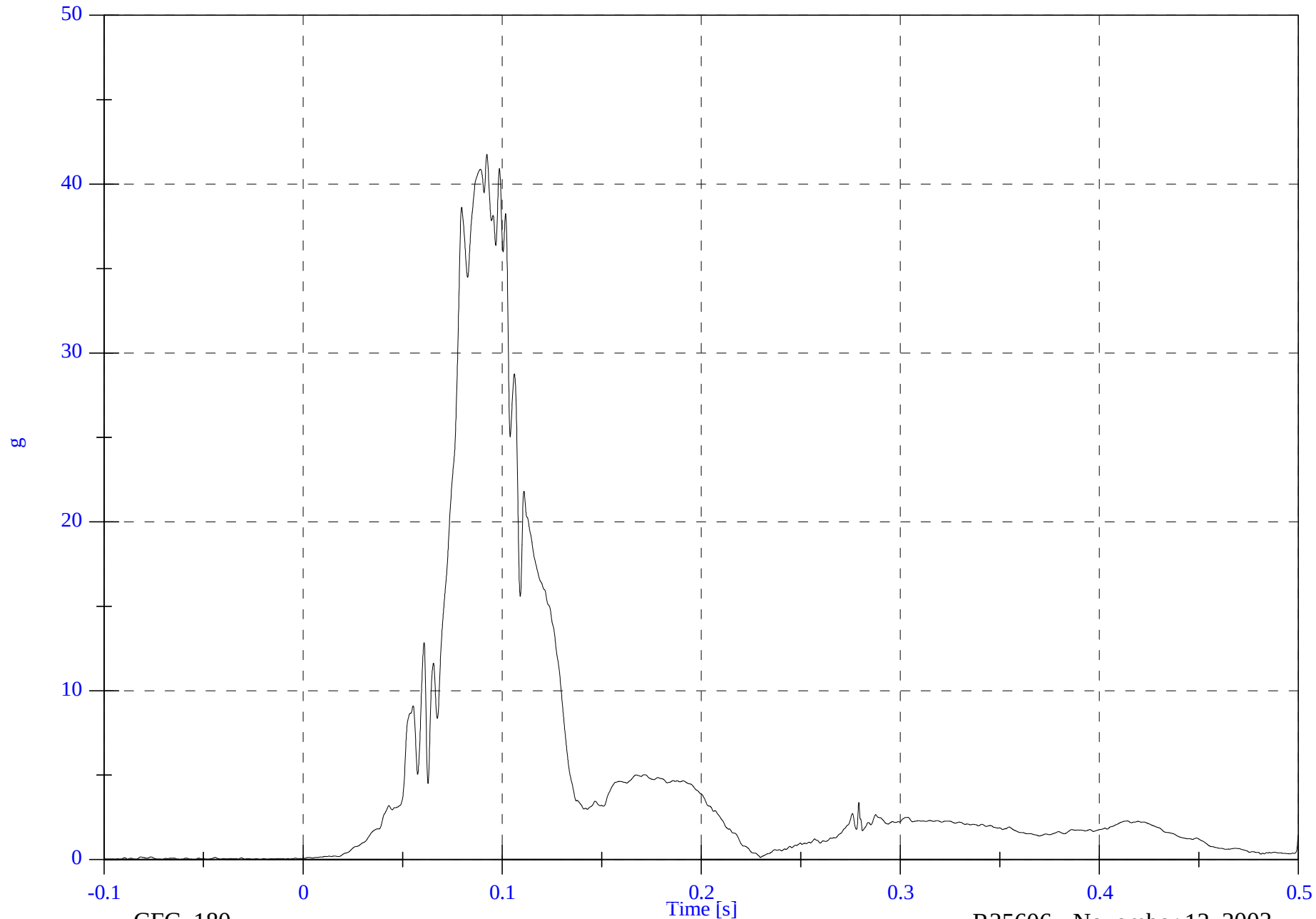
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Chest Resultant

Max: 41.8 [g] at 0.092 [s]

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



B-125

8710-OFST-05

CFC_180

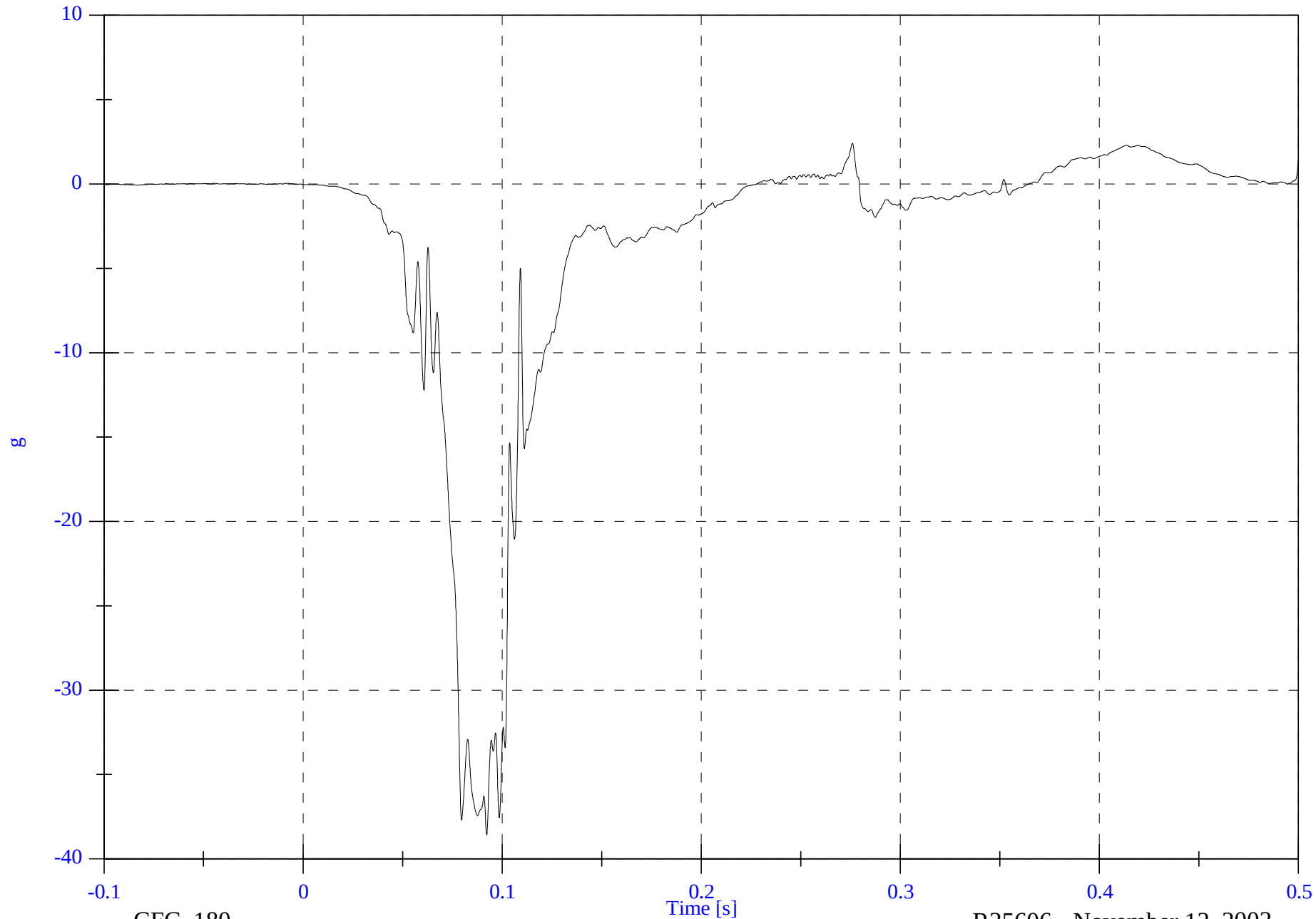
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Chest Red x

Max: 2.4 [g] at 0.276 [s]

Min: -38.6 [g] at 0.092 [s]



B-126

8710-OFST-05

CFC_180

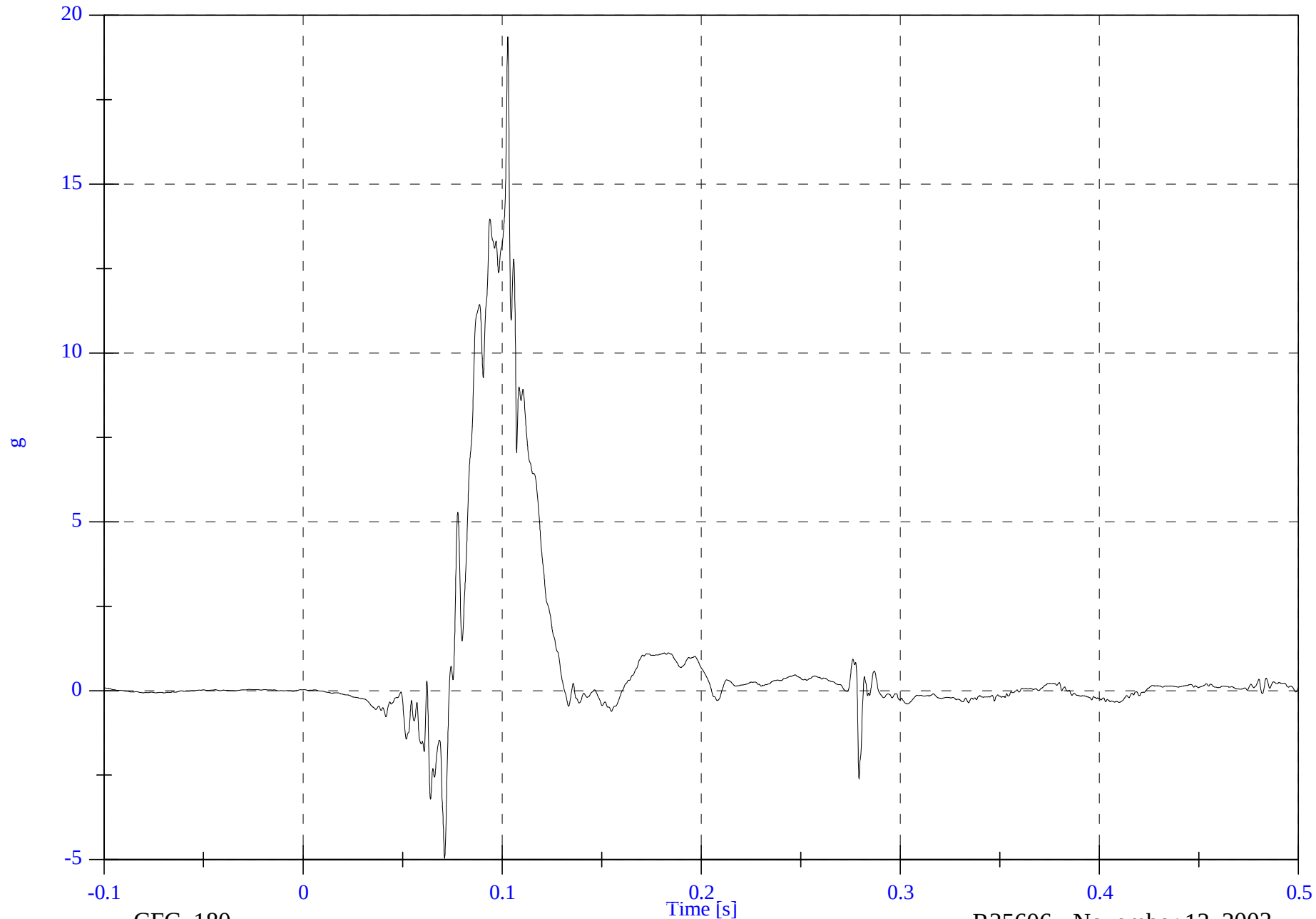
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Chest Red y

Max: 19.4 [g] at 0.103 [s]

Min: -5.0 [g] at 0.071 [s]



B-127

8710-OFST-05

CFC_180

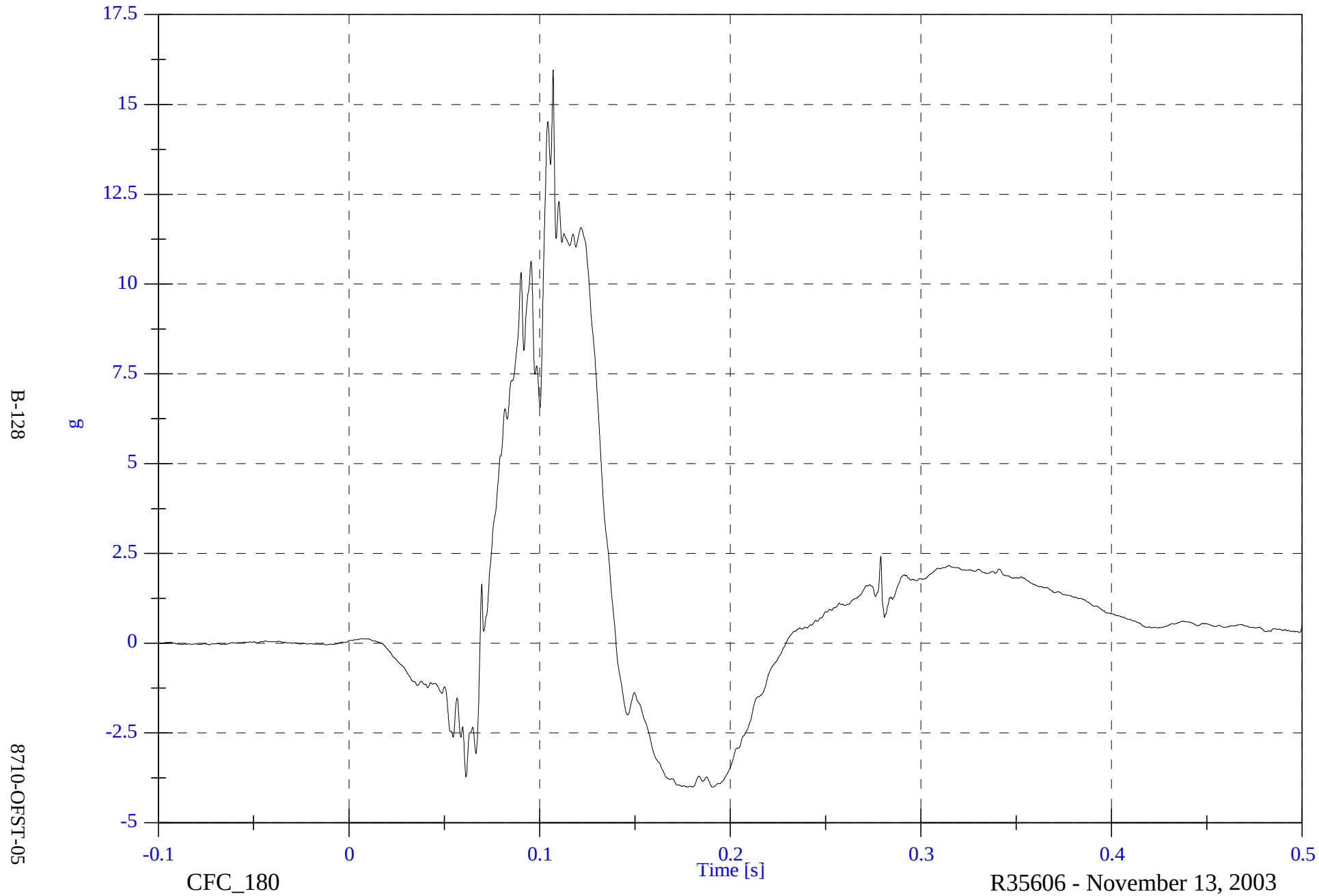
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Chest Red z

Max: 16.0 [g] at 0.107 [s]

Min: -4.0 [g] at 0.191 [s]

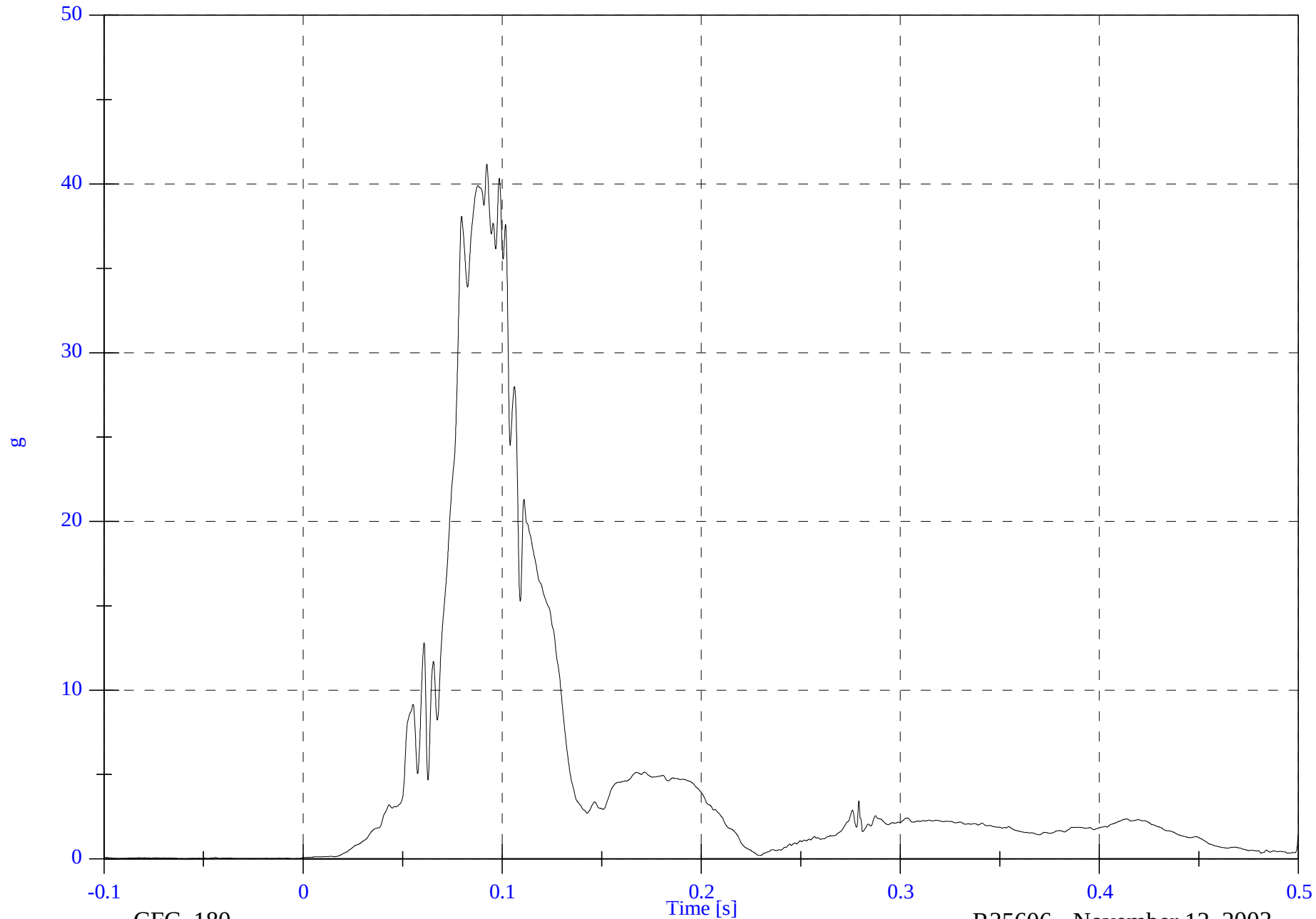


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Chest Red Resultant

Max: 41.2 [g] at 0.092 [s]

Min: 0.0 [g] at -0.062 [s]



B-129

8710-OFST-05

CFC_180

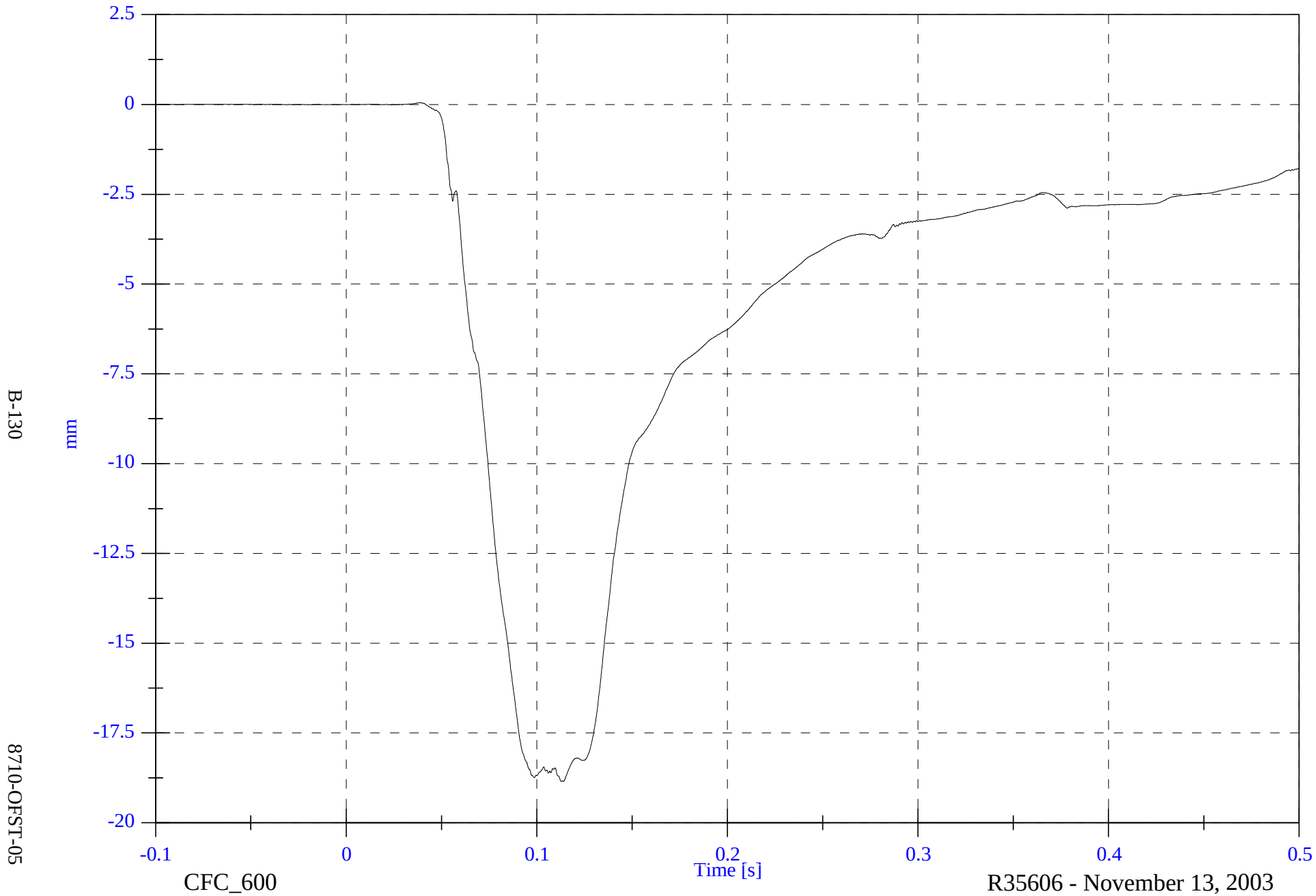
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Chest Displacement

Max: 0.0 [mm] at 0.038 [s]

Min: -18.8 [mm] at 0.114 [s]

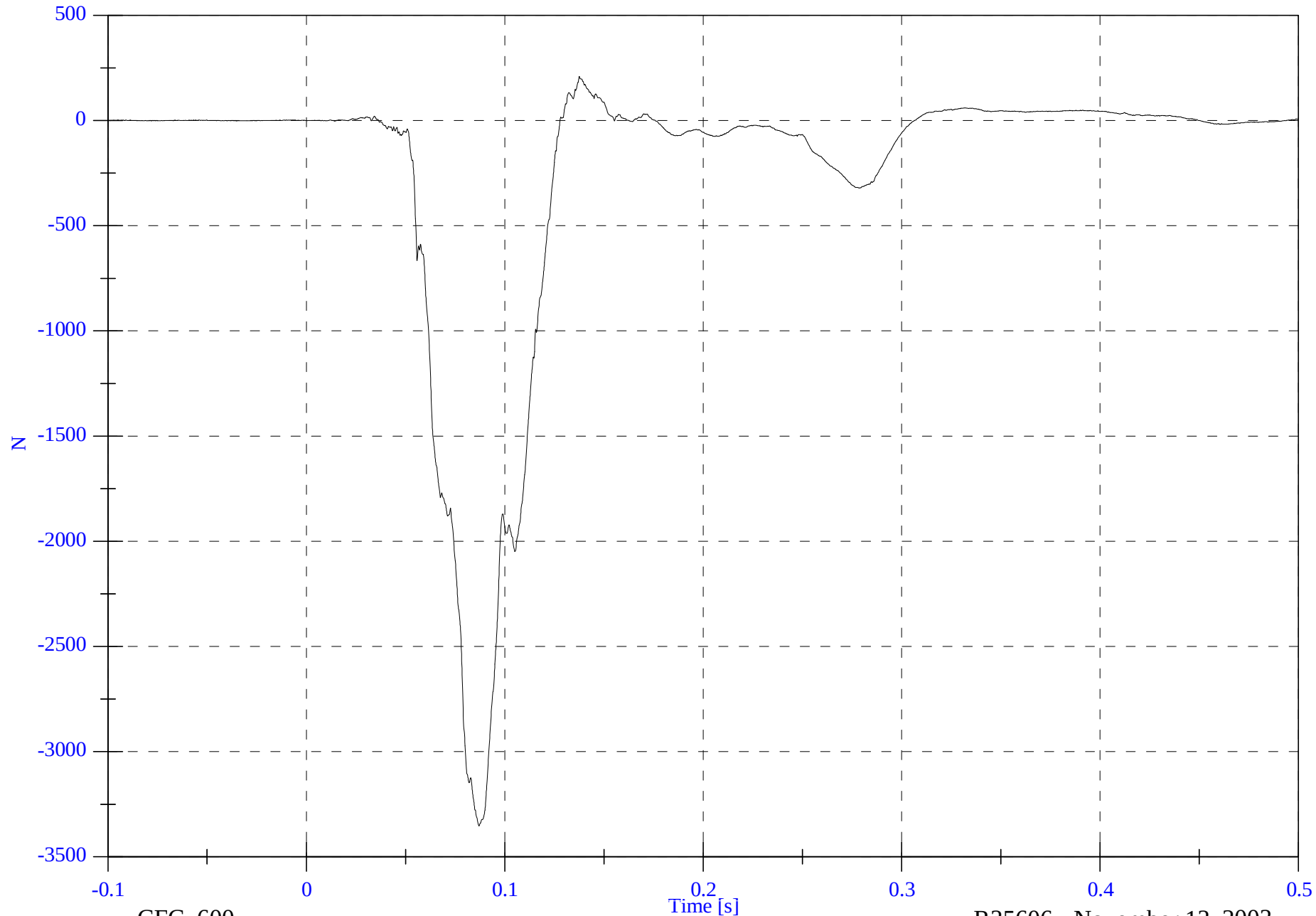


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Left Femur

Max: 210.0 [N] at 0.137 [s]

Min: -3353.4 [N] at 0.087 [s]



B-131

8710-OFST-05

CFC_600

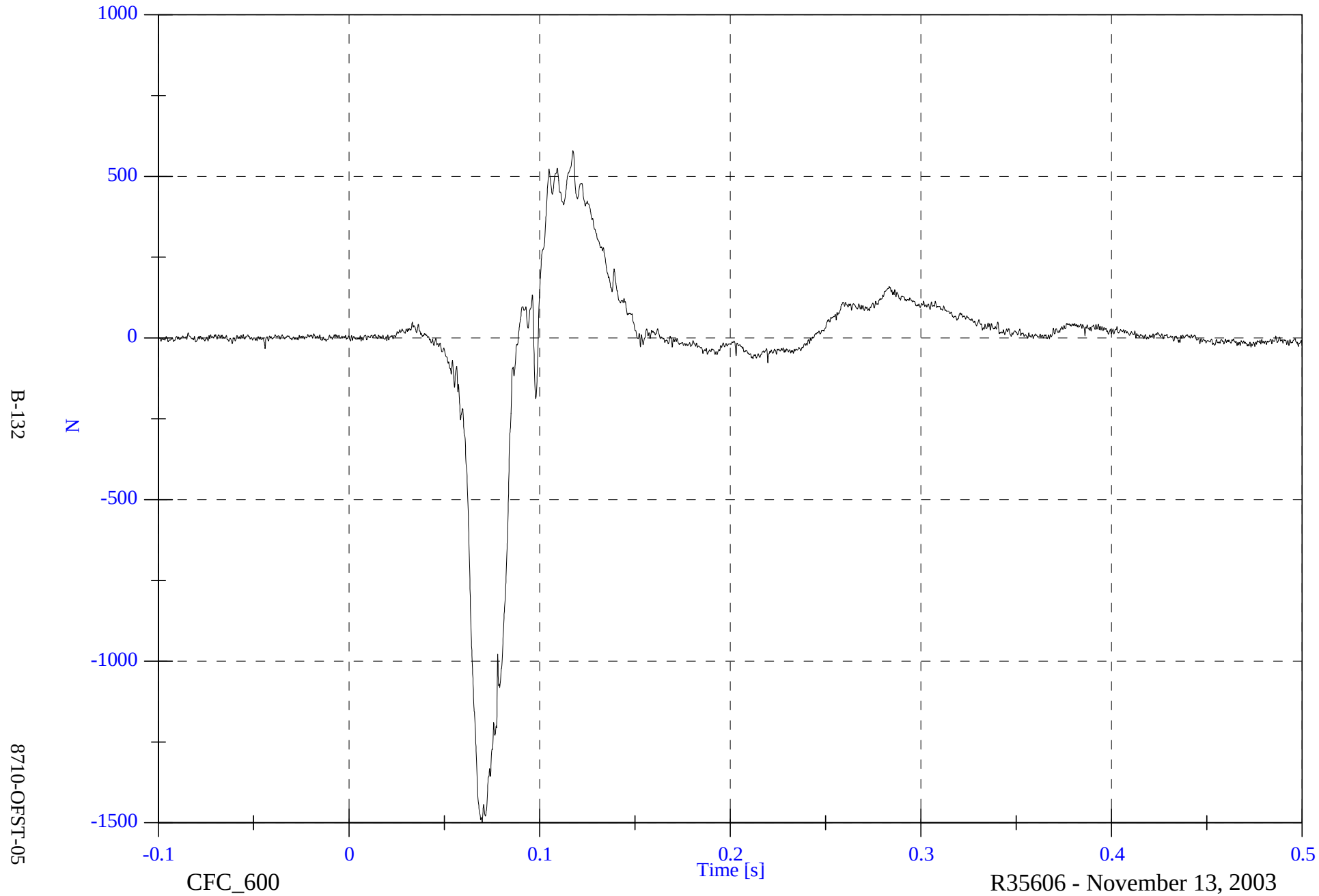
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Right Femur

Max: 579.5 [N] at 0.117 [s]

Min: -1497.9 [N] at 0.070 [s]

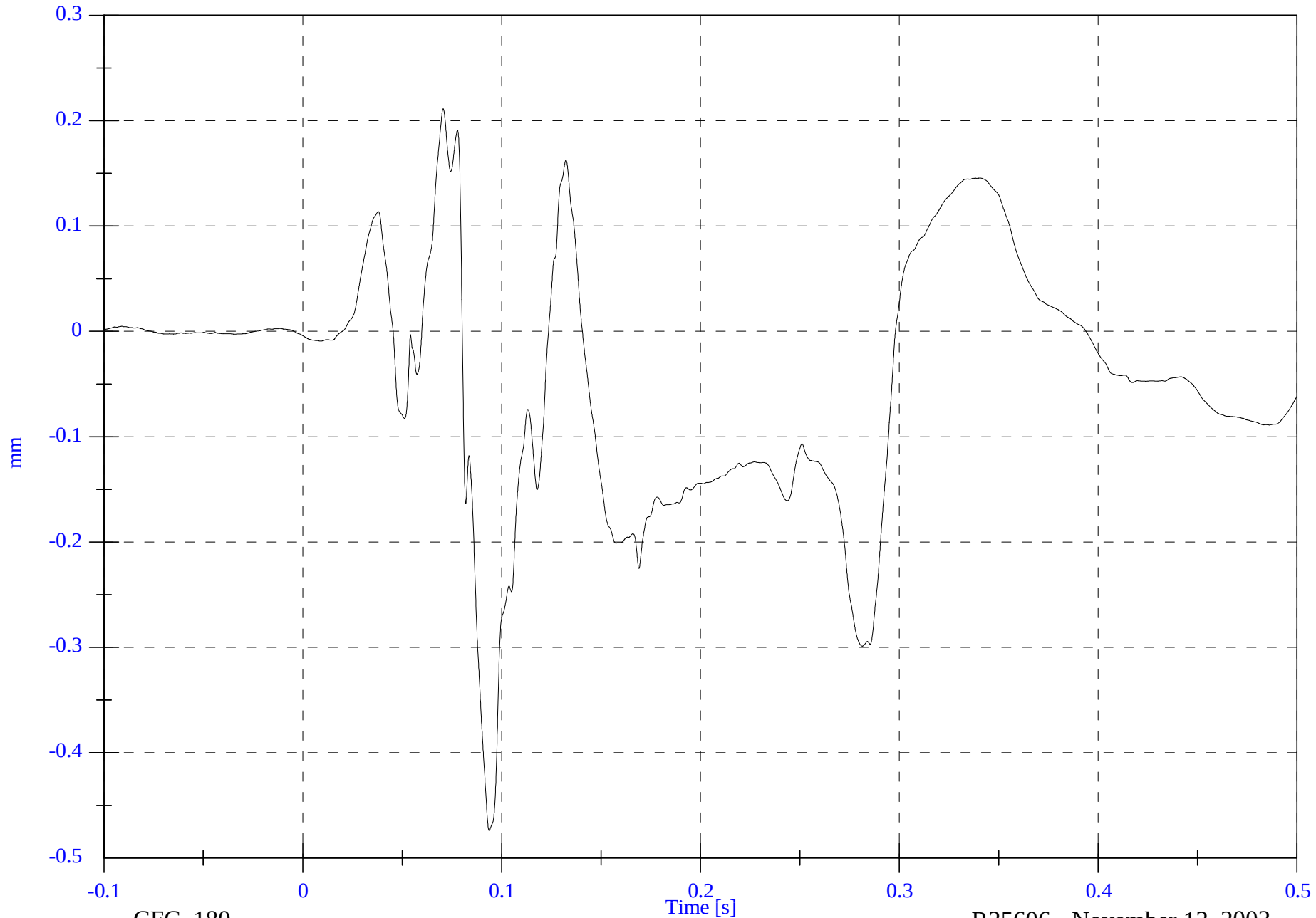


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Left Knee Deflection

Max: 0.2 [mm] at 0.071 [s]

Min: -0.5 [mm] at 0.094 [s]



B-133

8710-OFST-05

CFC_180

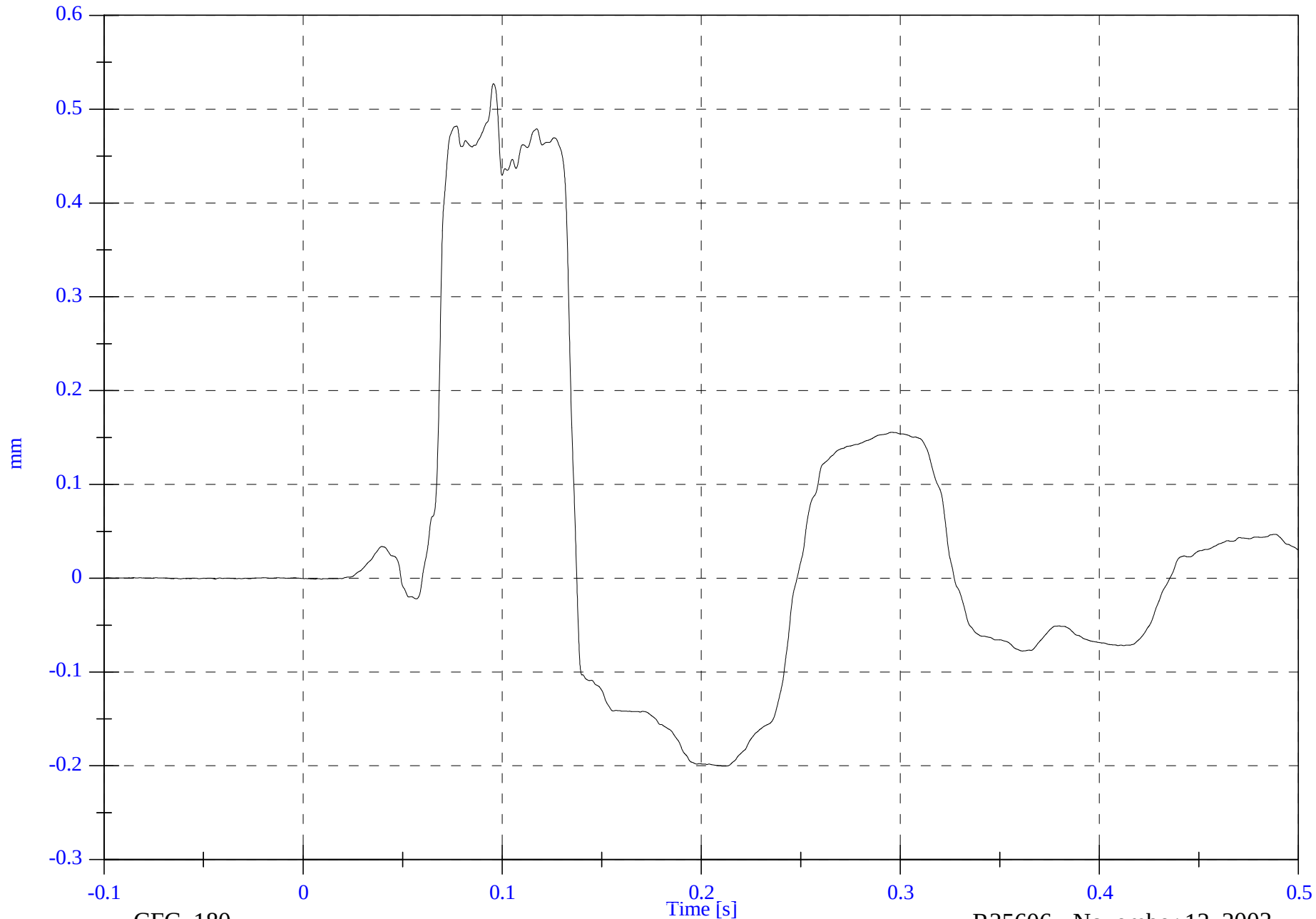
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Right Knee Deflection

Max: 0.5 [mm] at 0.096 [s]

Min: -0.2 [mm] at 0.211 [s]



B-134

8710-OFST-05

CFC_180

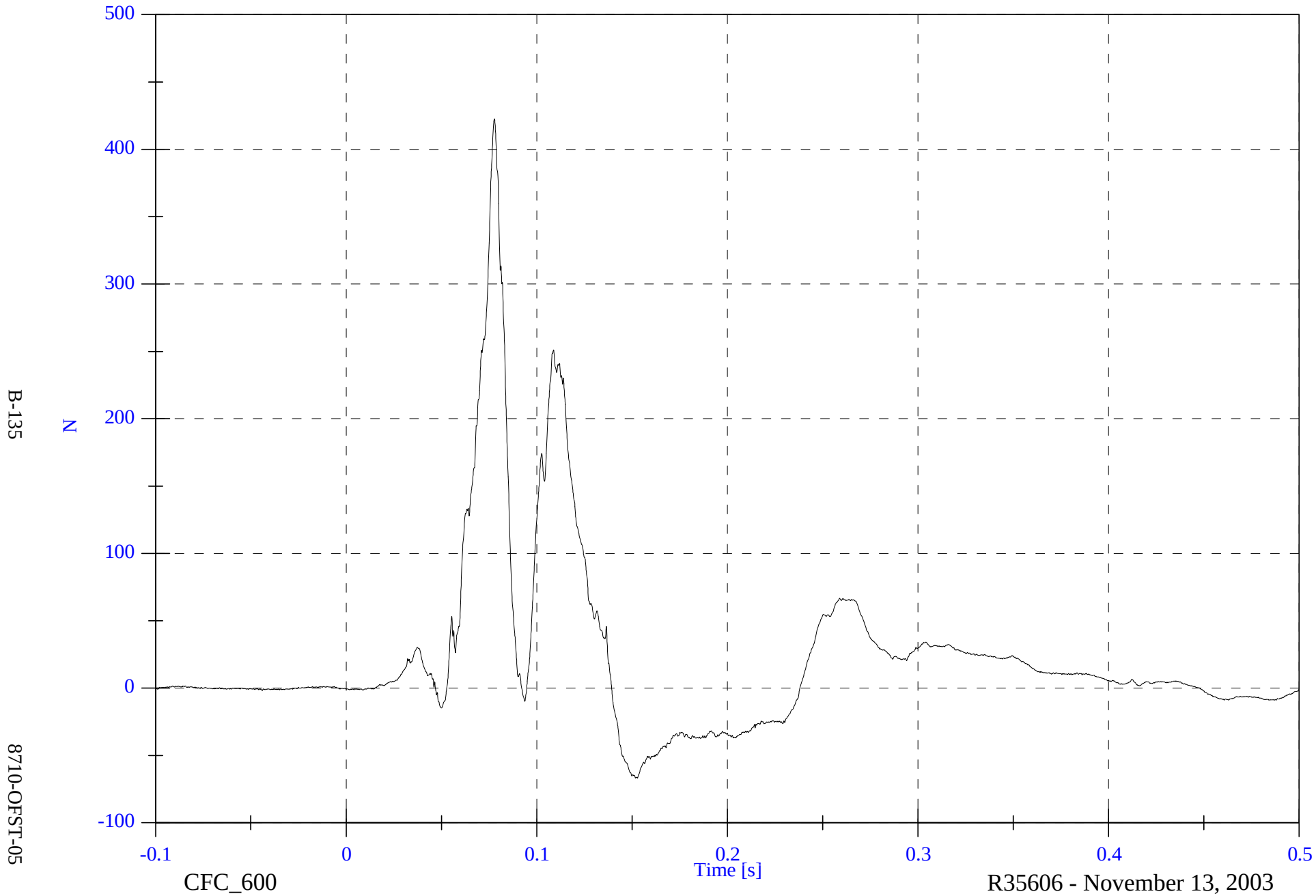
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Left Upper Tibia Fx

Max: 422.7 [N] at 0.078 [s]

Min: -66.8 [N] at 0.153 [s]

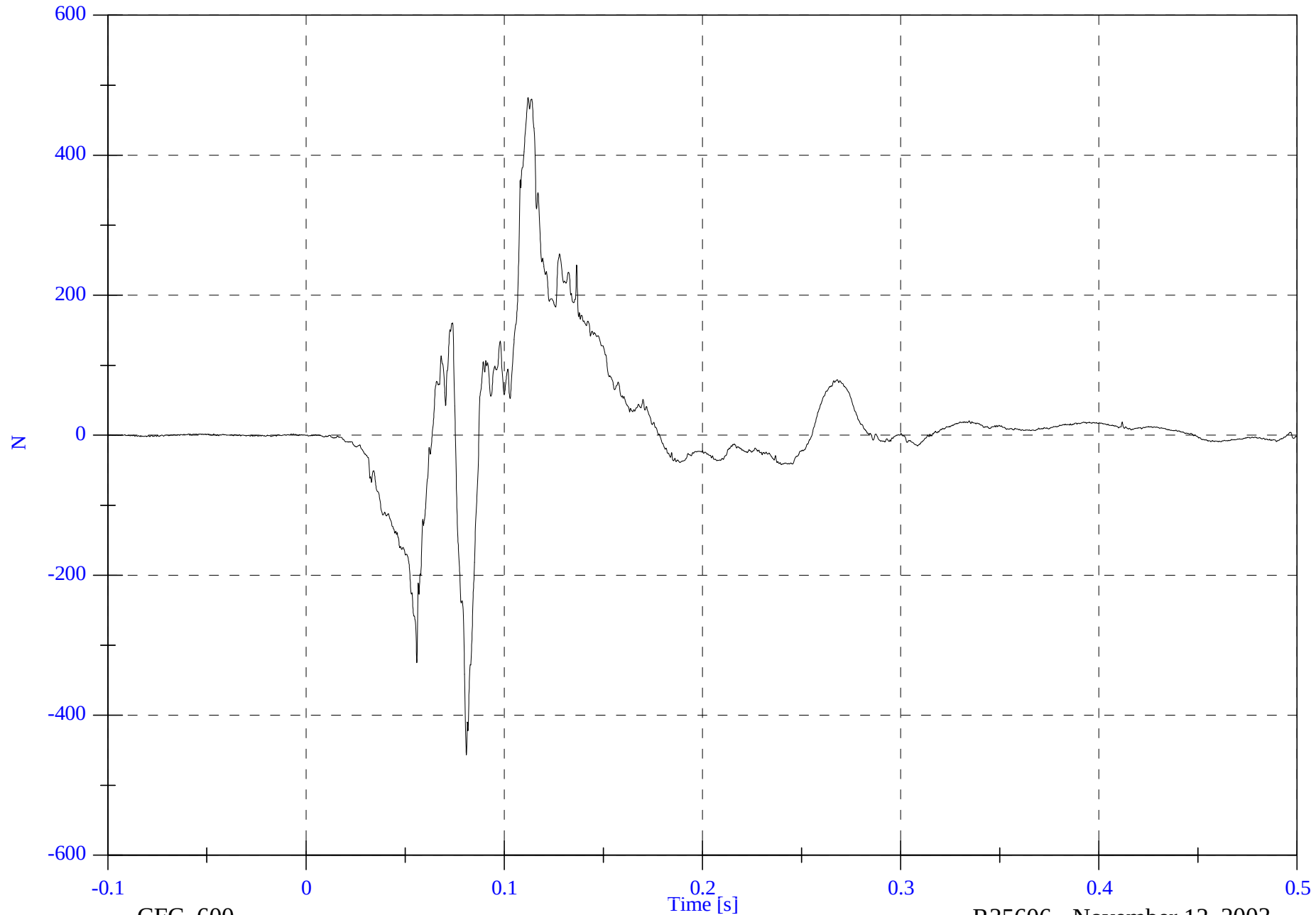


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Left Upper Tibia Fz

Max: 482.7 [N] at 0.112 [s]

Min: -456.6 [N] at 0.081 [s]



B-136

8710-OFST-05

CFC_600

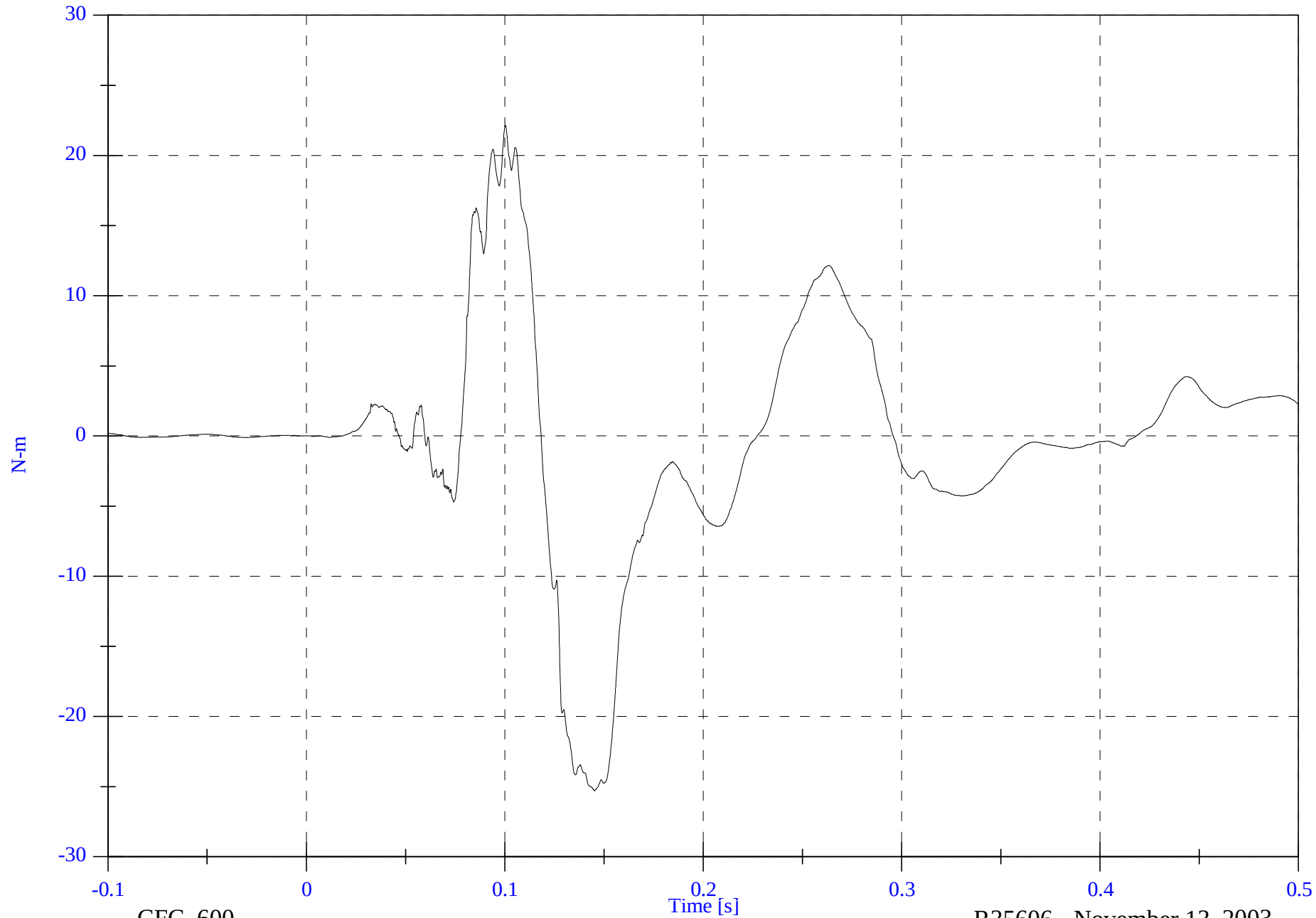
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Left Upper Tibia Mx

Max: 22.2 [N-m] at 0.100 [s]

Min: -25.3 [N-m] at 0.145 [s]



B-137

8710-OFST-05

CFC_600

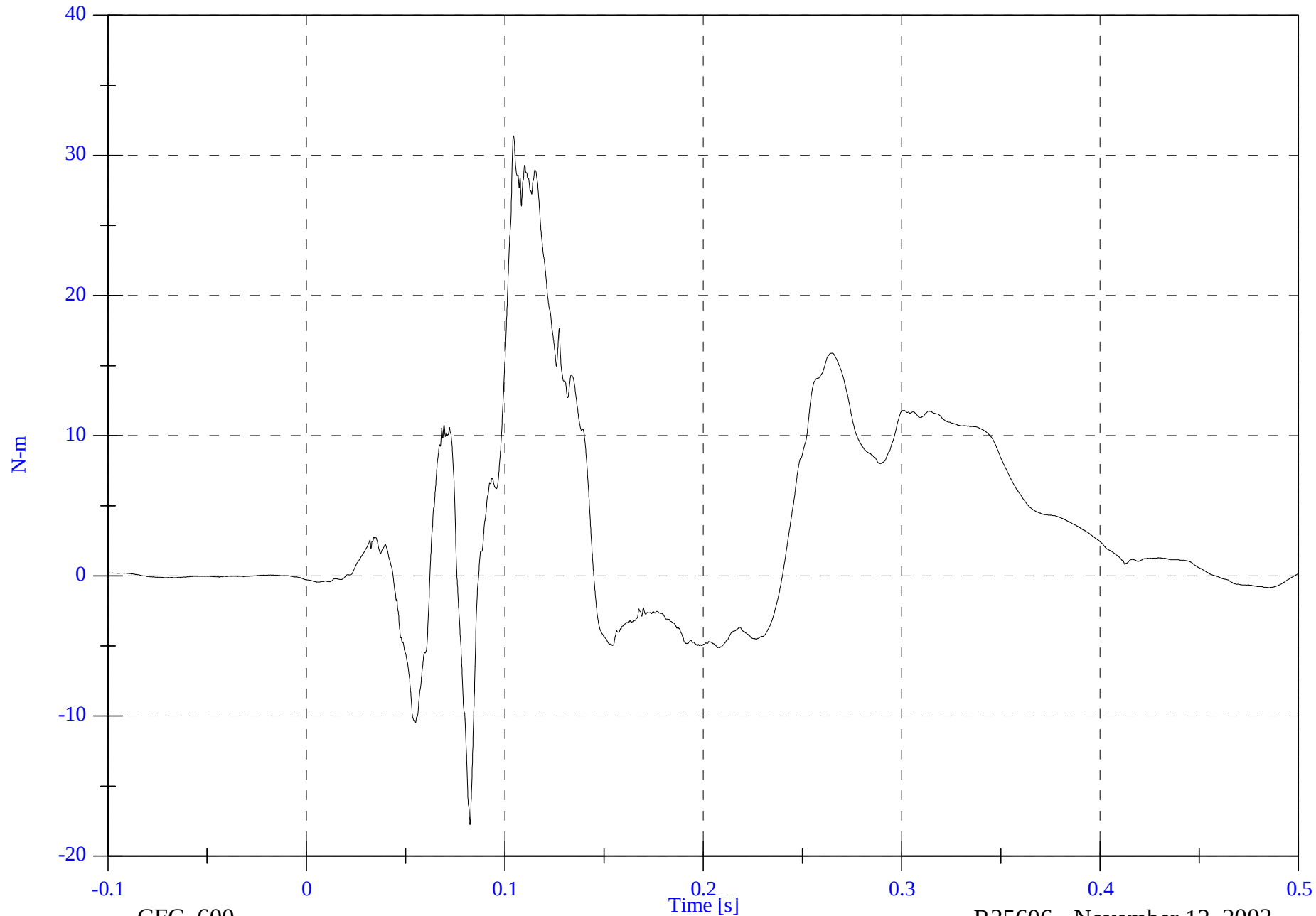
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Left Upper Tibia My

Max: 31.4 [N-m] at 0.104 [s]

Min: -17.7 [N-m] at 0.082 [s]



B-138

8710-OFST-05

CFC_600

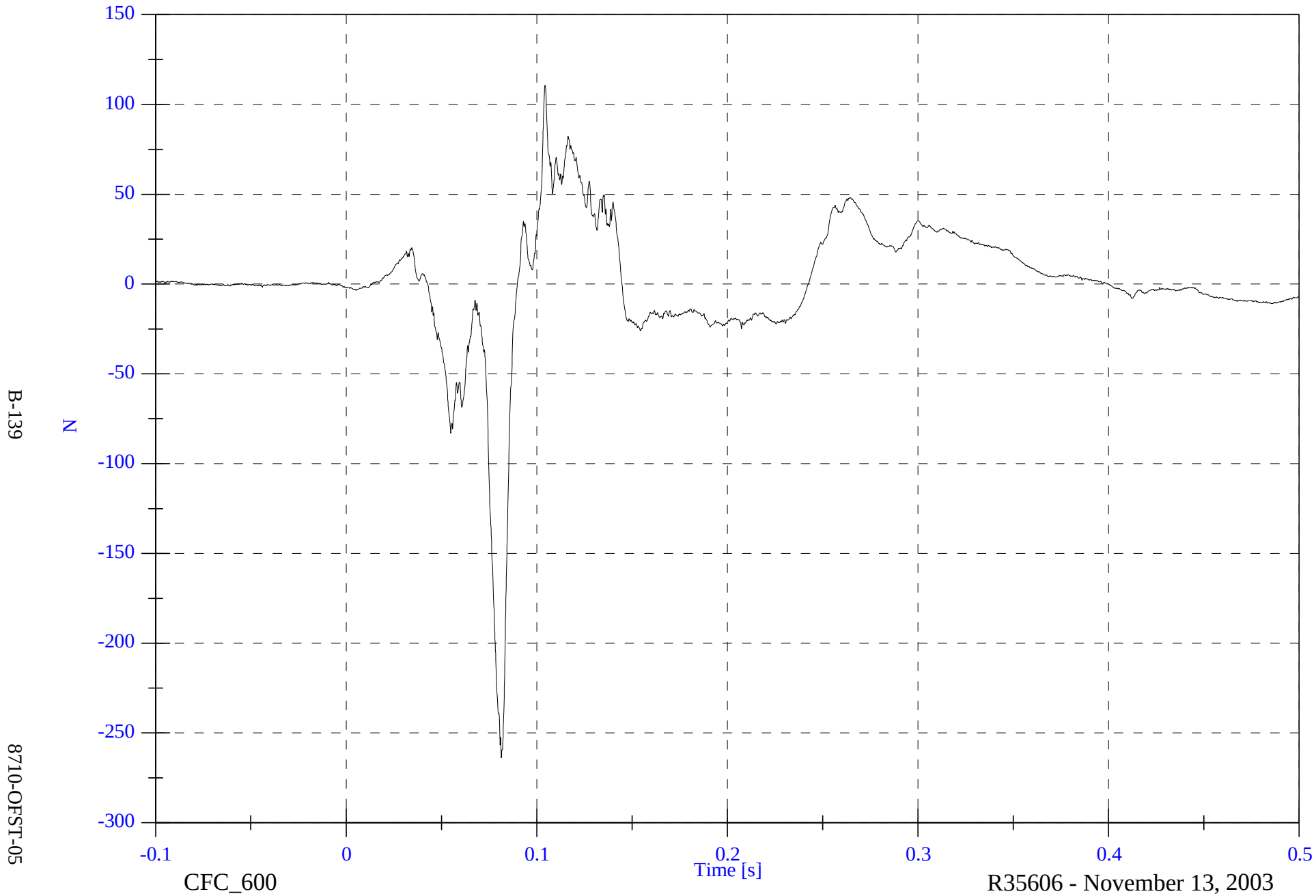
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Left Lower Tibia Fx

Max: 110.6 [N] at 0.104 [s]

Min: -263.8 [N] at 0.081 [s]

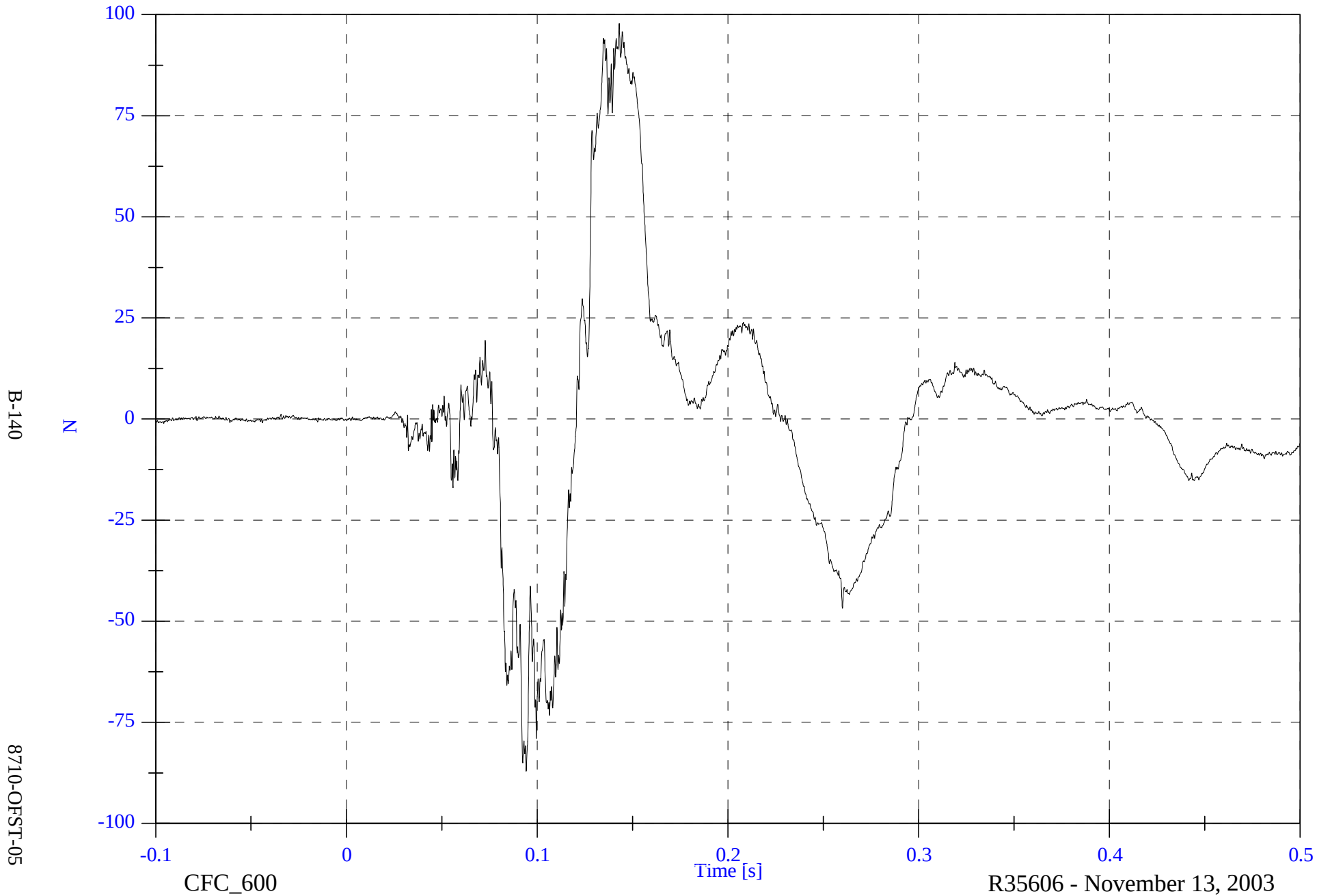


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Left Lower Tibia Fy

Max: 97.8 [N] at 0.143 [s]

Min: -87.1 [N] at 0.094 [s]

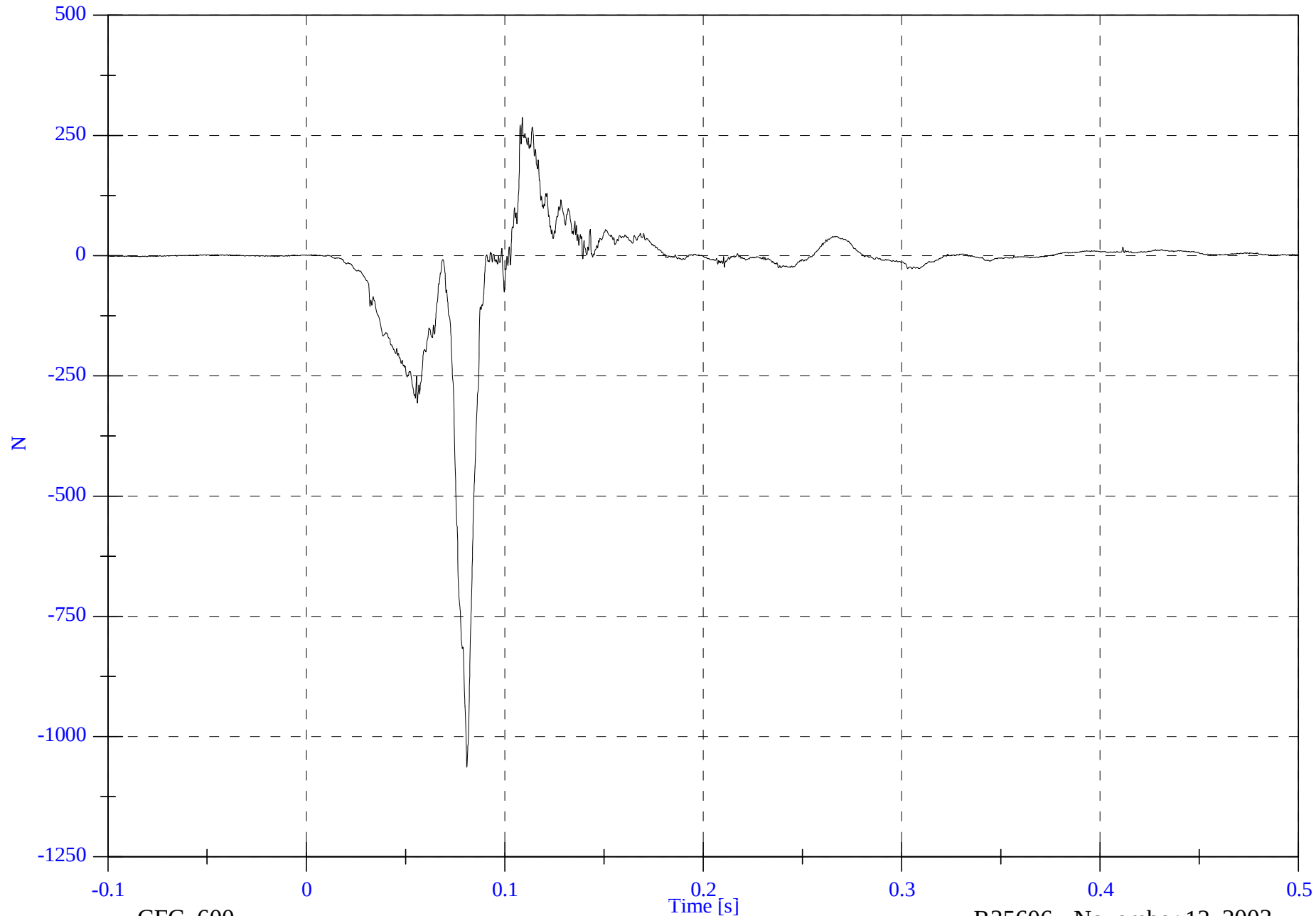


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Left Lower Tibia Fz

Max: 287.3 [N] at 0.109 [s]

Min: -1064.0 [N] at 0.081 [s]



B-141

8710-OFST-05

CFC_600

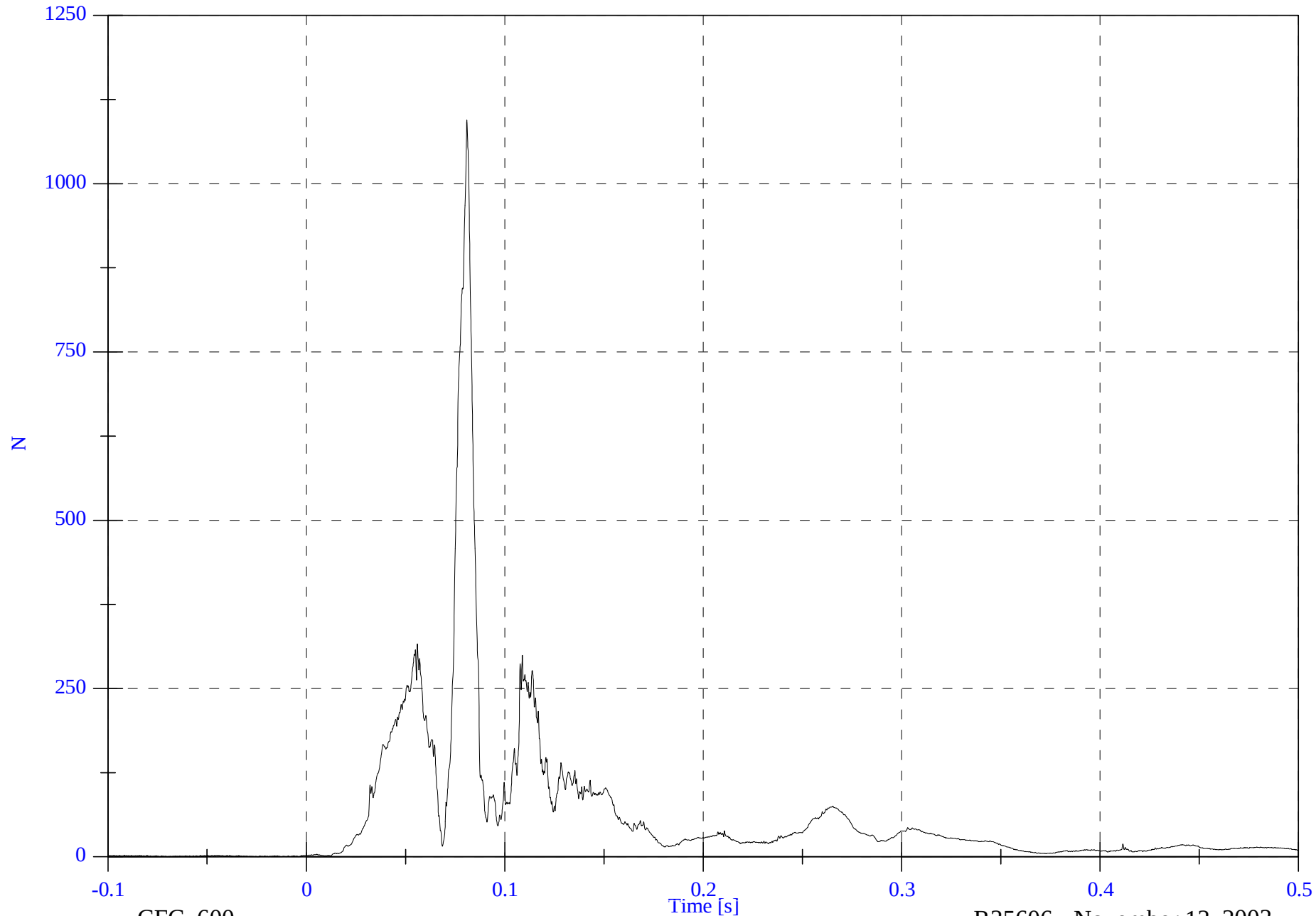
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Left Lower Tibia F Resultant

Max: 1094.3 [N] at 0.081 [s]

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



B-142

8710-OFST-05

CFC_600

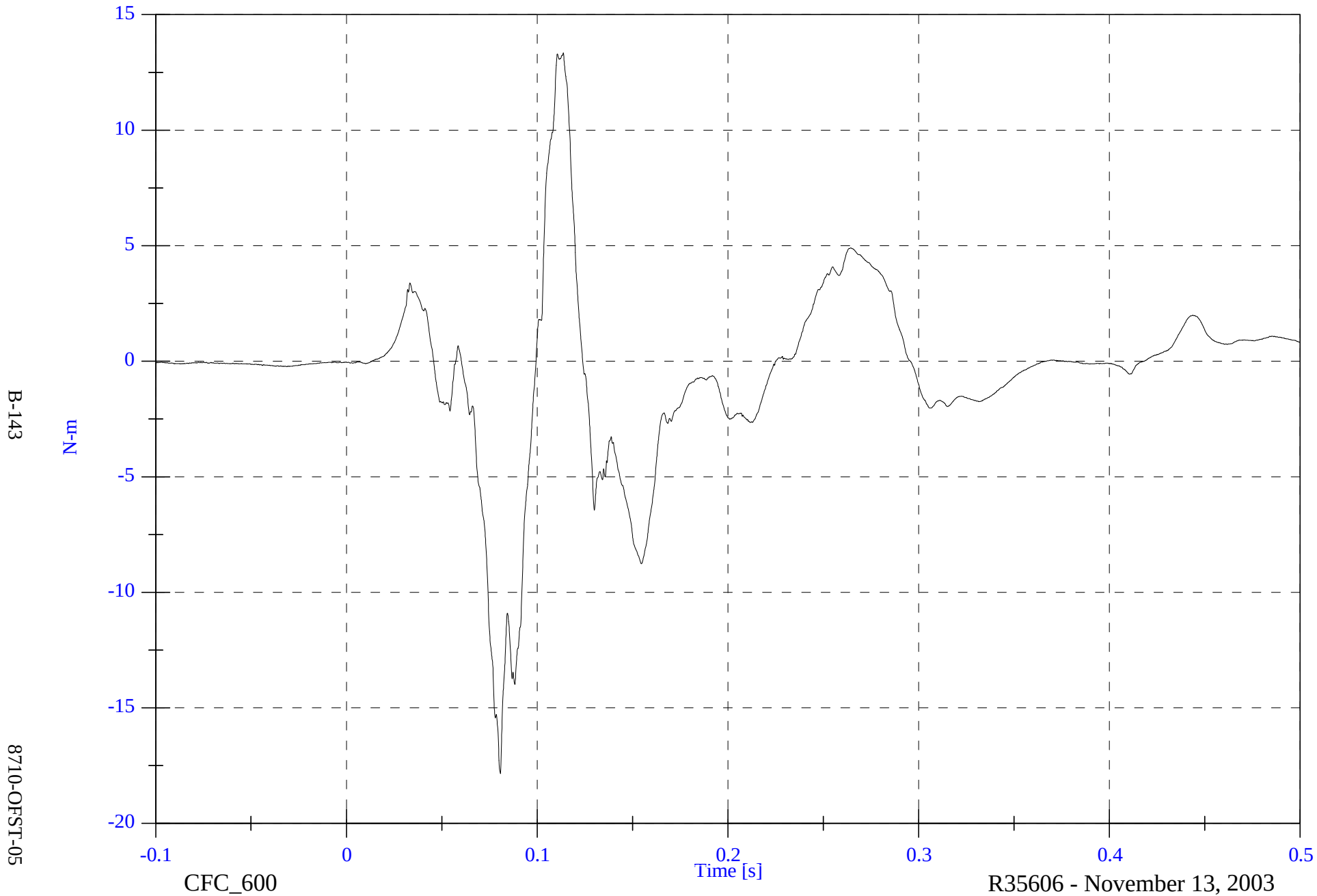
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Left Lower Tibia Mx

Max: 13.3 [N-m] at 0.114 [s]

Min: -17.8 [N-m] at 0.081 [s]

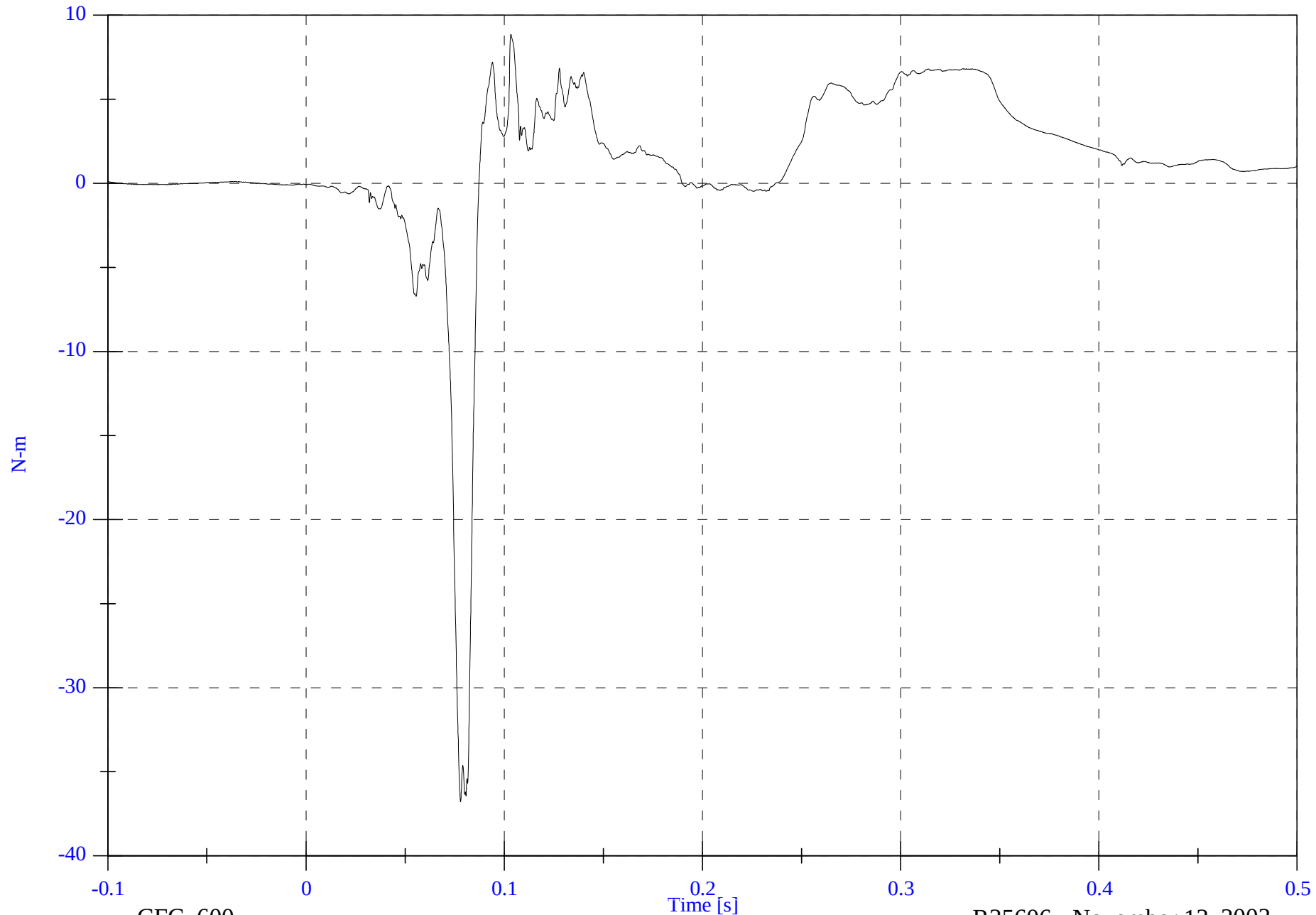


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Left Lower Tibia My

Max: 8.9 [N-m] at 0.103 [s]

Min: -36.8 [N-m] at 0.078 [s]



B-144

8710-OFST-05

CFC_600

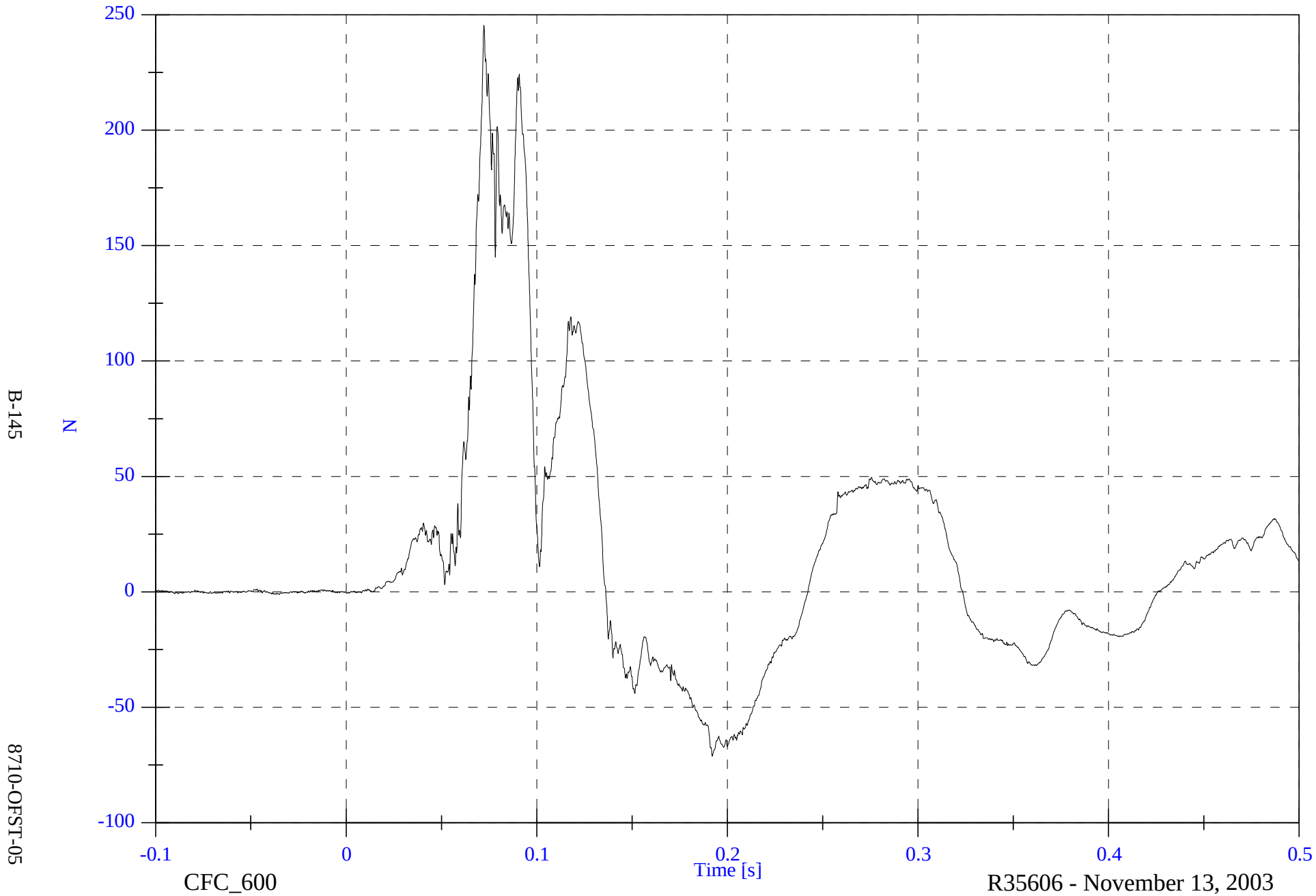
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Right Upper Tibia Fx

Max: 245.4 [N] at 0.072 [s]

Min: -71.2 [N] at 0.192 [s]

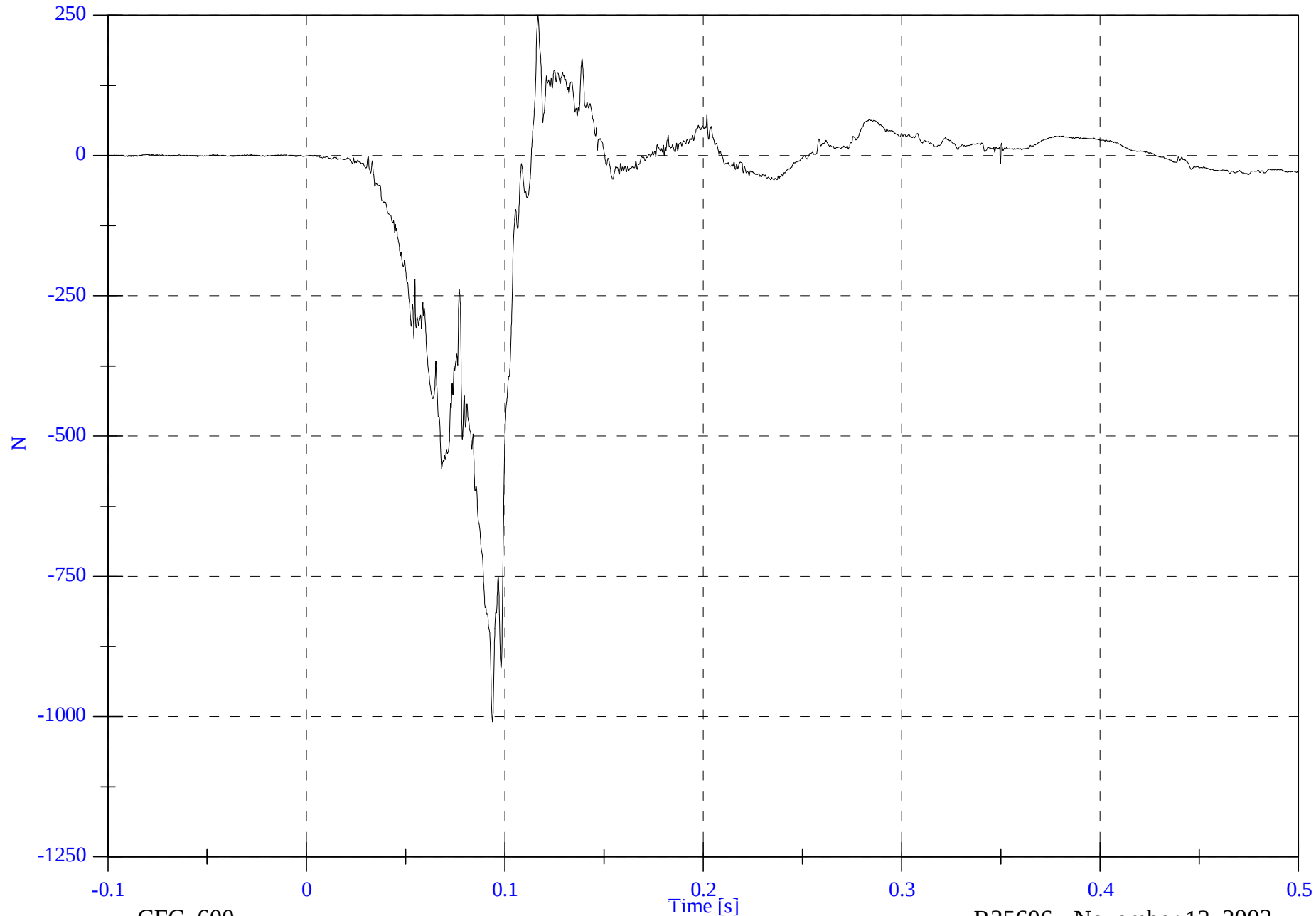


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Right Upper Tibia Fz

Max: 249.5 [N] at 0.117 [s]

Min: -1009.3 [N] at 0.094 [s]



B-146

8710-OFST-05

CFC_600

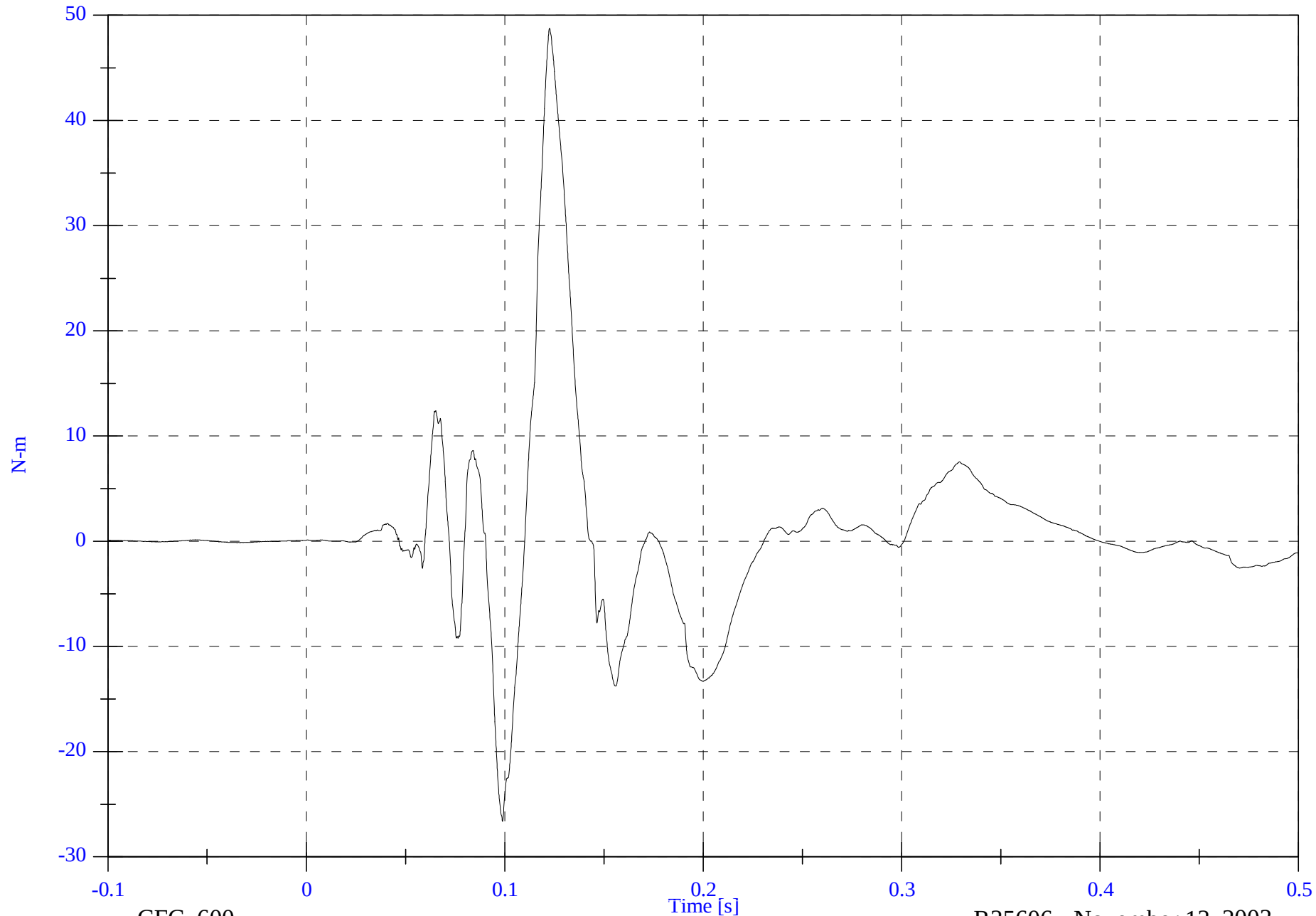
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Right Upper Tibia Mx

Max: 48.8 [N-m] at 0.123 [s]

Min: -26.6 [N-m] at 0.099 [s]



B-147

8710-OFST-05

CFC_600

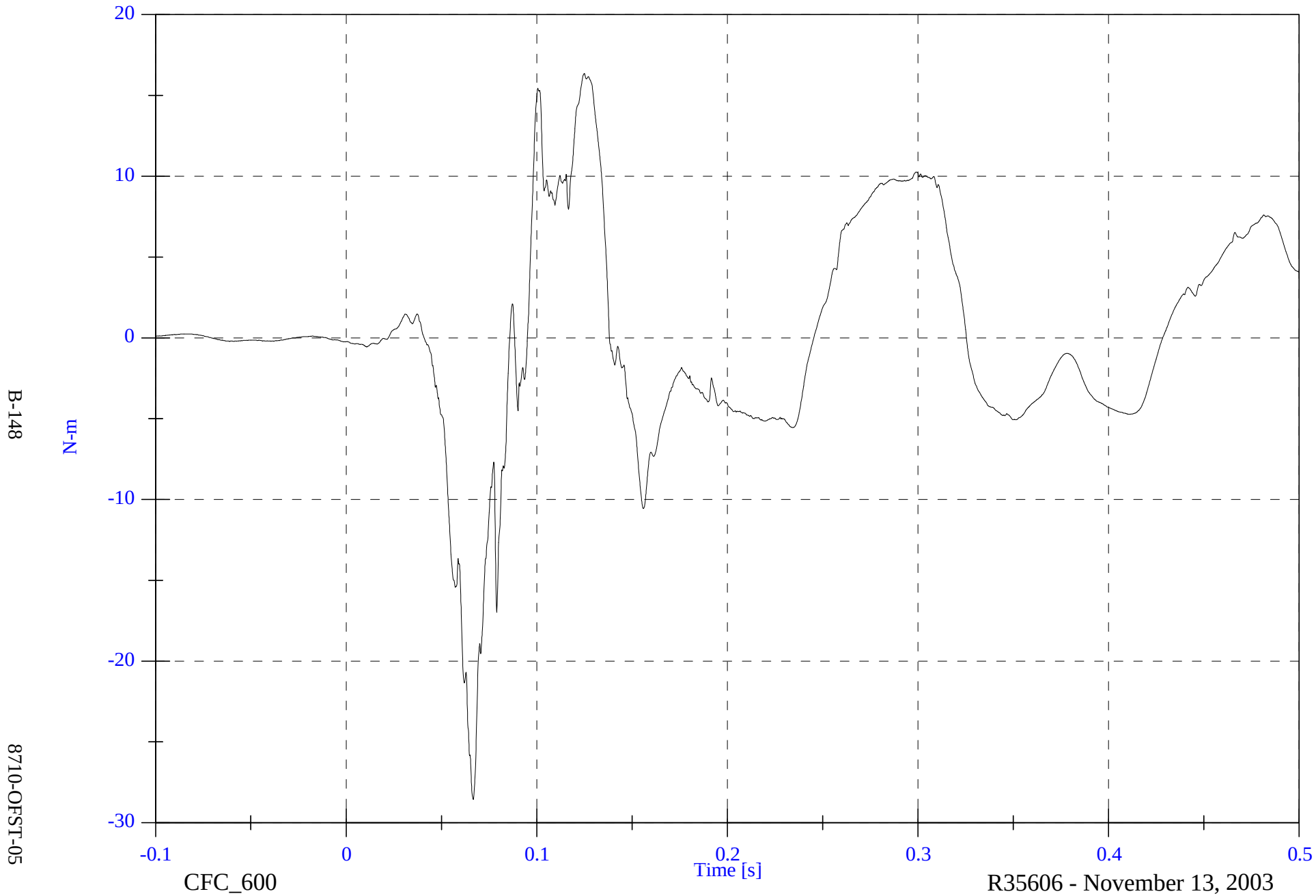
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Right Upper Tibia My

Max: 16.4 [N-m] at 0.125 [s]

Min: -28.6 [N-m] at 0.067 [s]

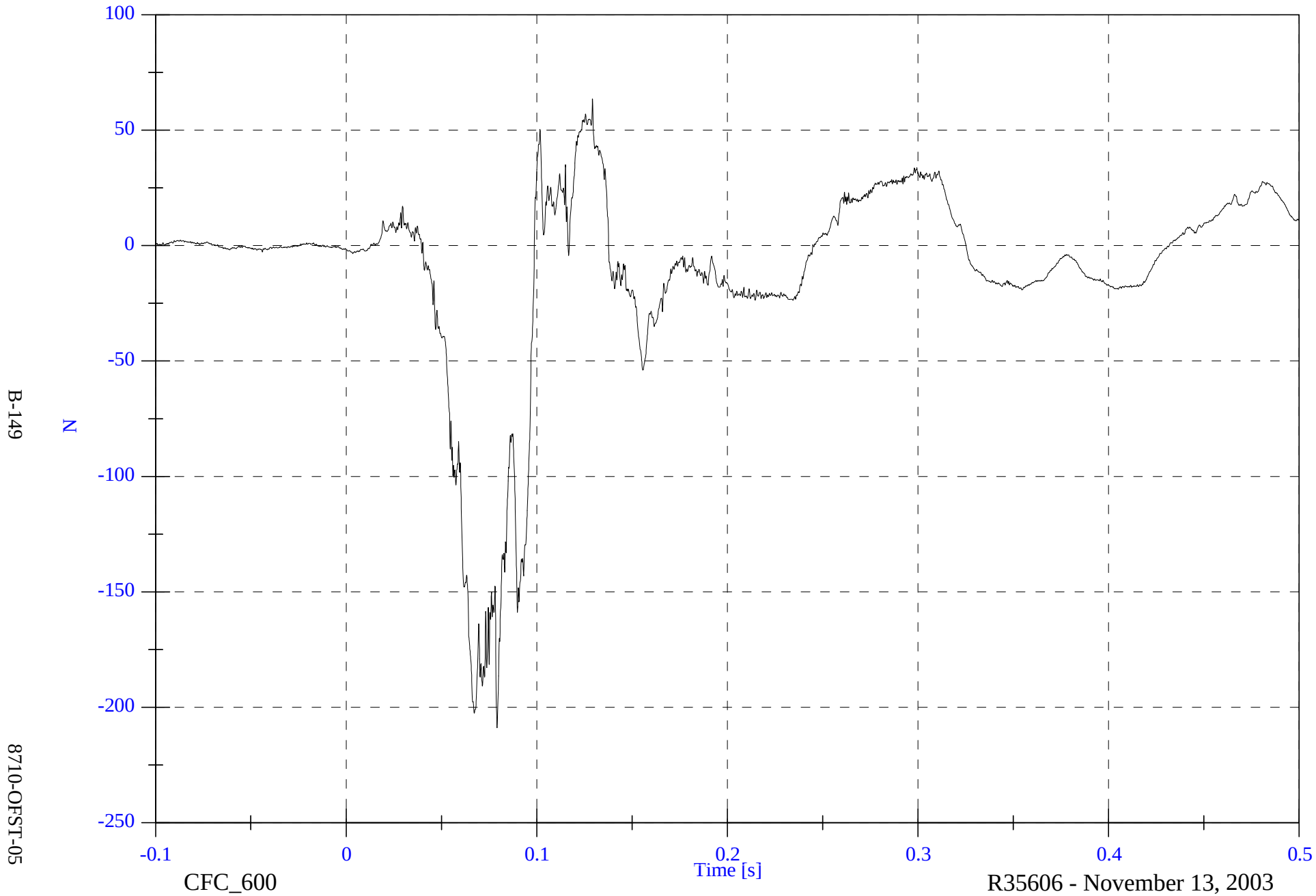


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Right Lower Tibia Fx

Max: 63.6 [N] at 0.129 [s]

Min: -208.9 [N] at 0.079 [s]

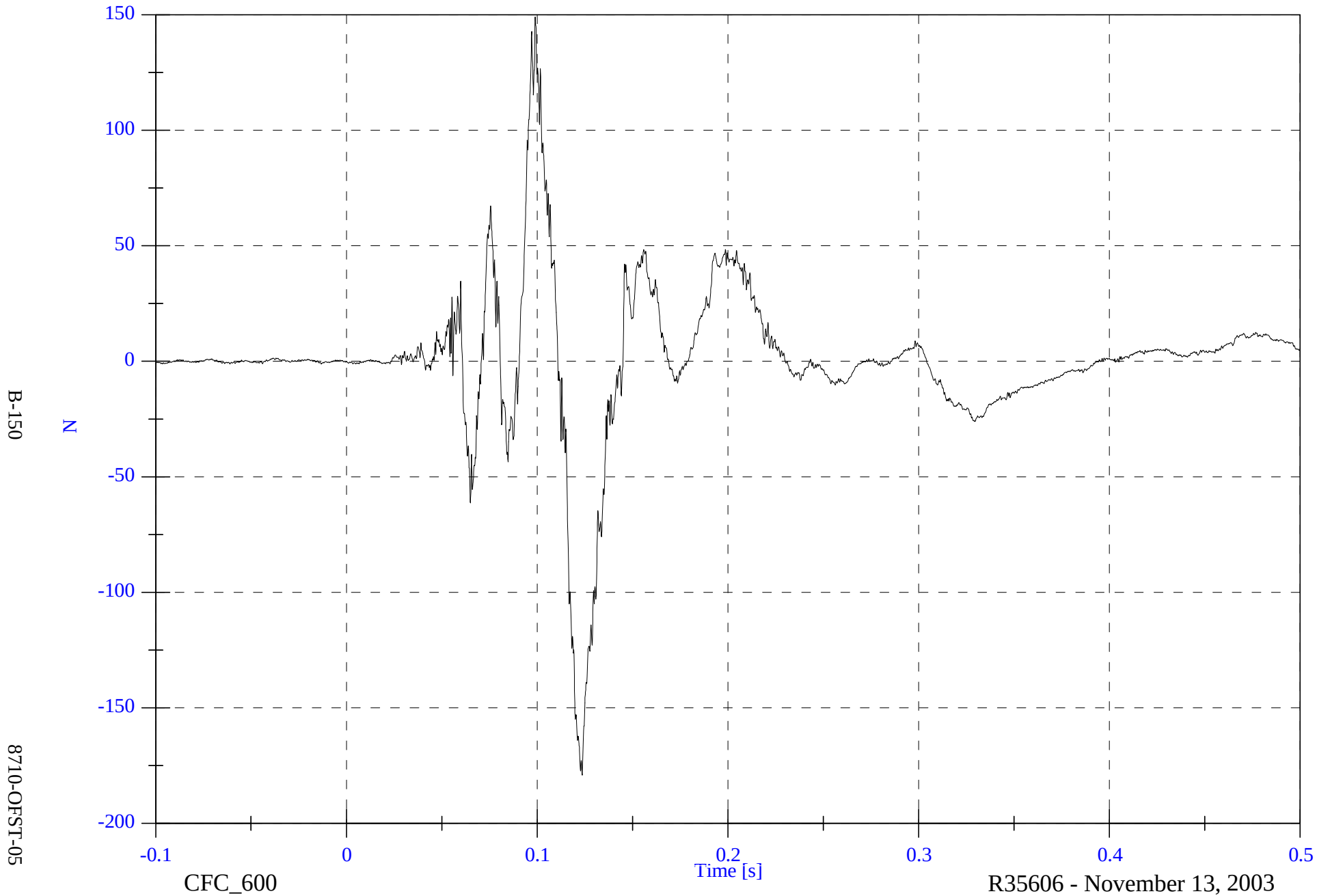


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Right Lower Tibia Fy

Max: 149.1 [N] at 0.099 [s]

Min: -179.2 [N] at 0.124 [s]

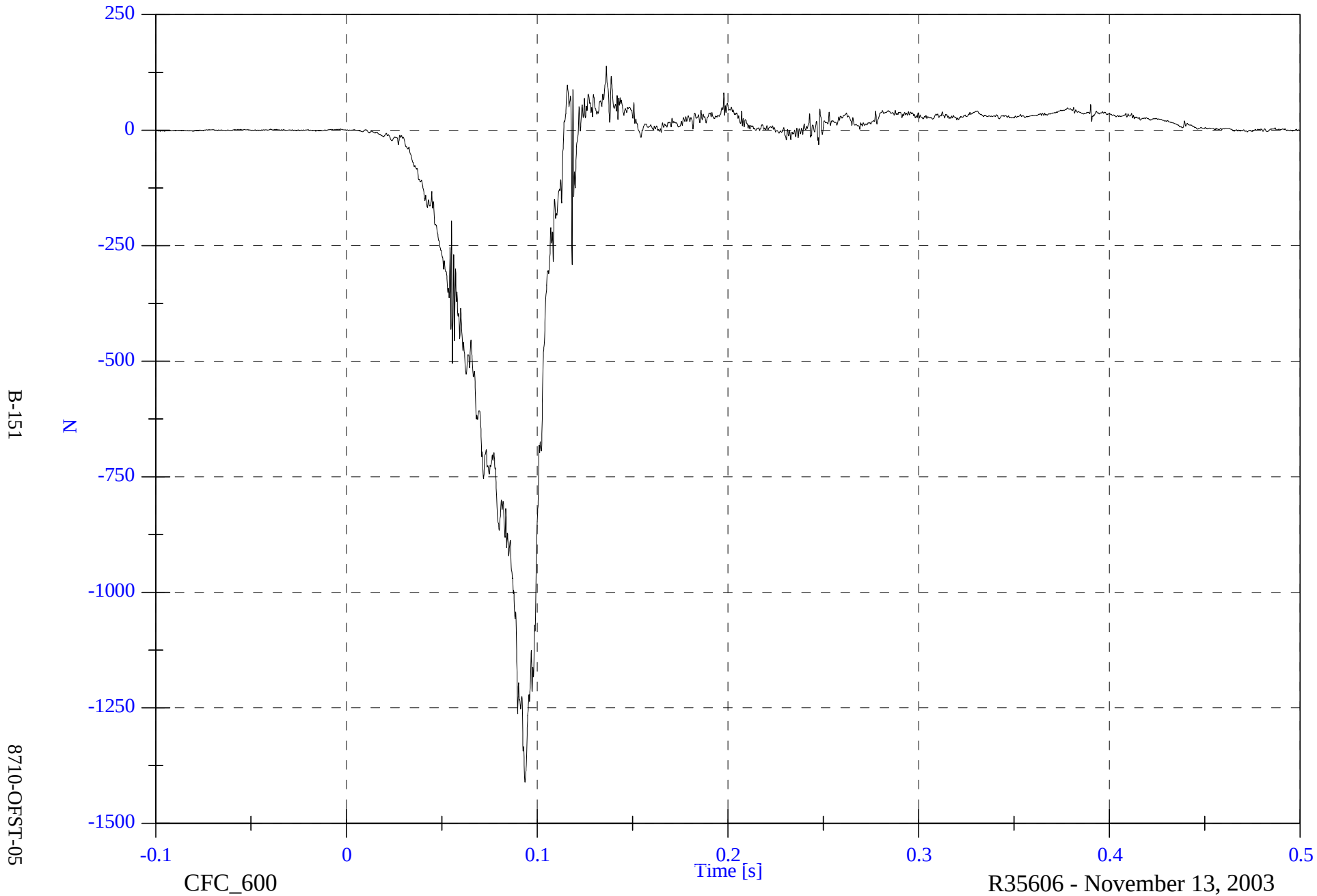


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Right Lower Tibia Fz

Max: 138.4 [N] at 0.136 [s]

Min: -1410.7 [N] at 0.094 [s]

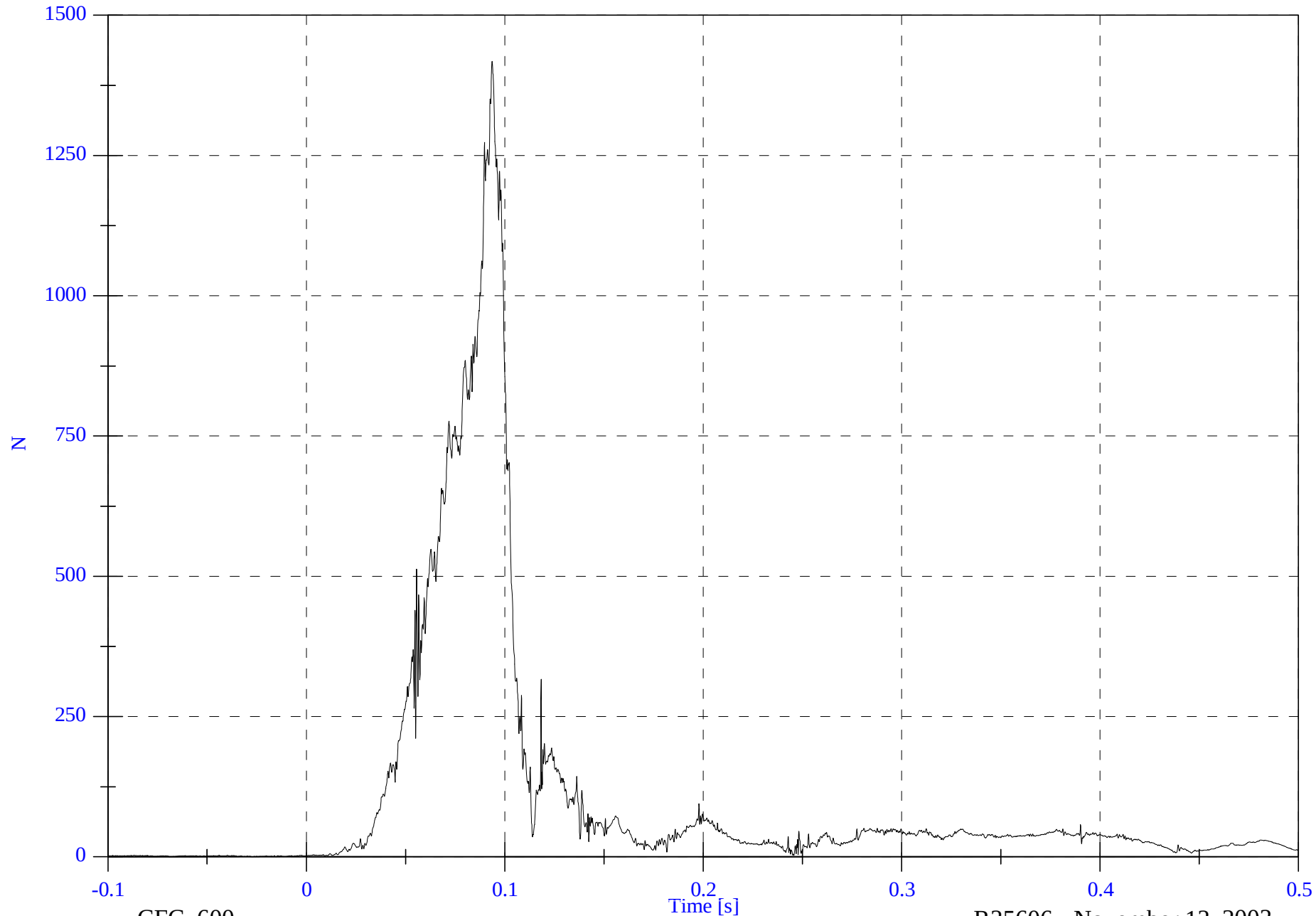


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Right Lower Tibia F Resultant

Max: 1417.9 [N] at 0.094 [s]

Min: 0.2 [N] at -0.027 [s]



B-152

8710-OFST-05

CFC_600

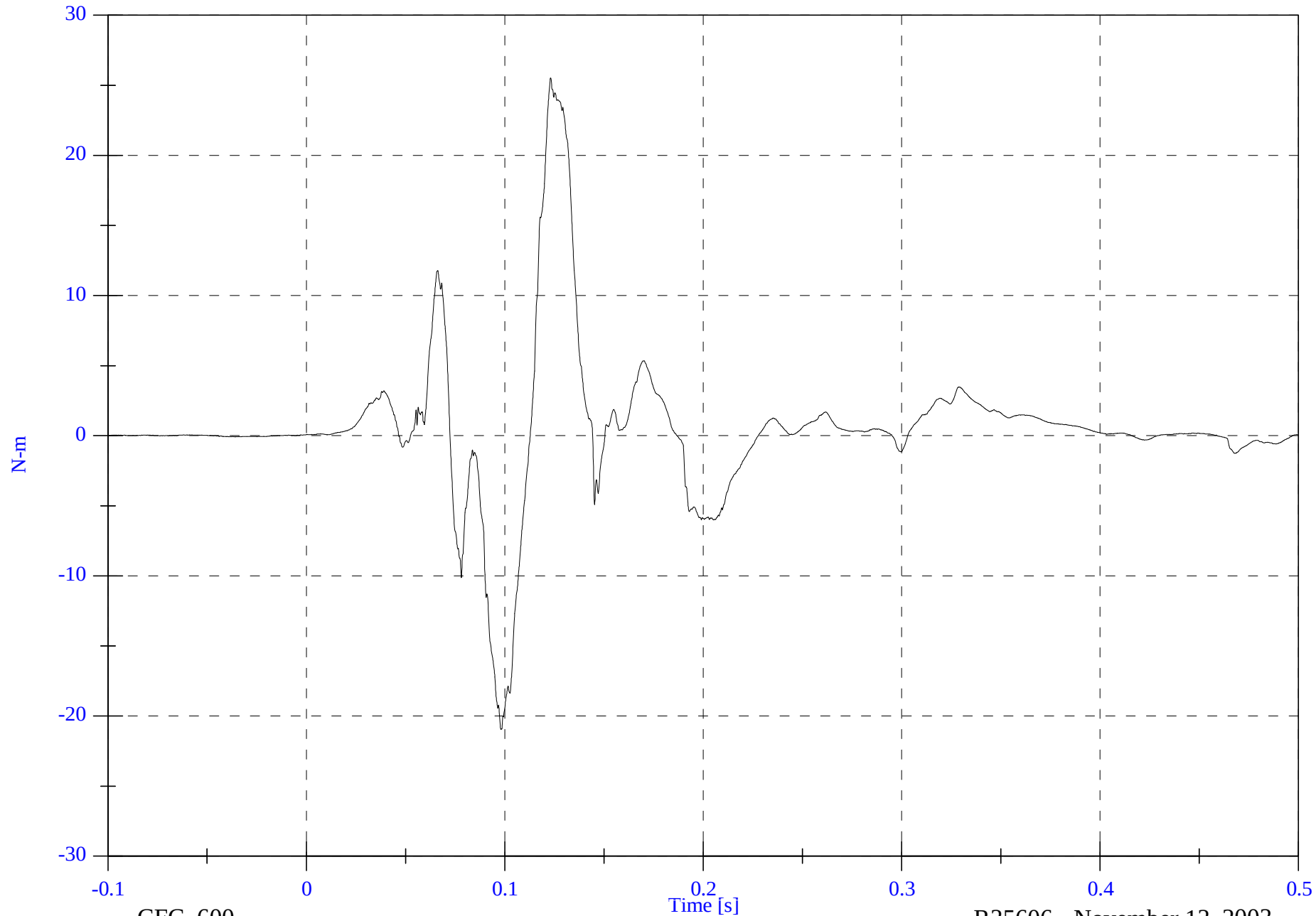
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Right Lower Tibia Mx

Max: 25.5 [N-m] at 0.123 [s]

Min: -21.0 [N-m] at 0.098 [s]



B-153

8710-OFST-05

CFC_600

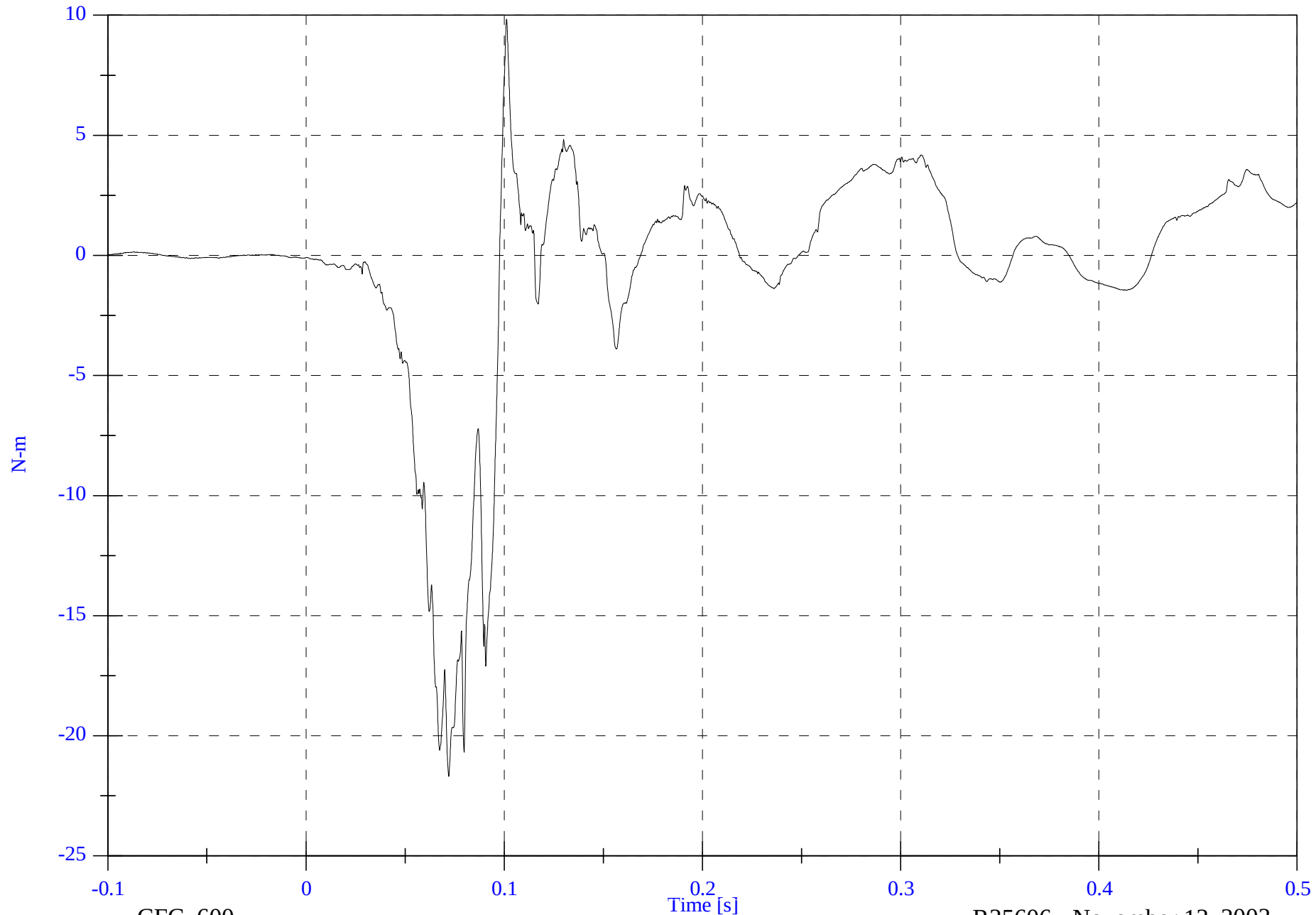
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Right Lower Tibia My

Max: 9.8 [N-m] at 0.101 [s]

Min: -21.7 [N-m] at 0.072 [s]



B-154

8710-OFST-05

CFC_600

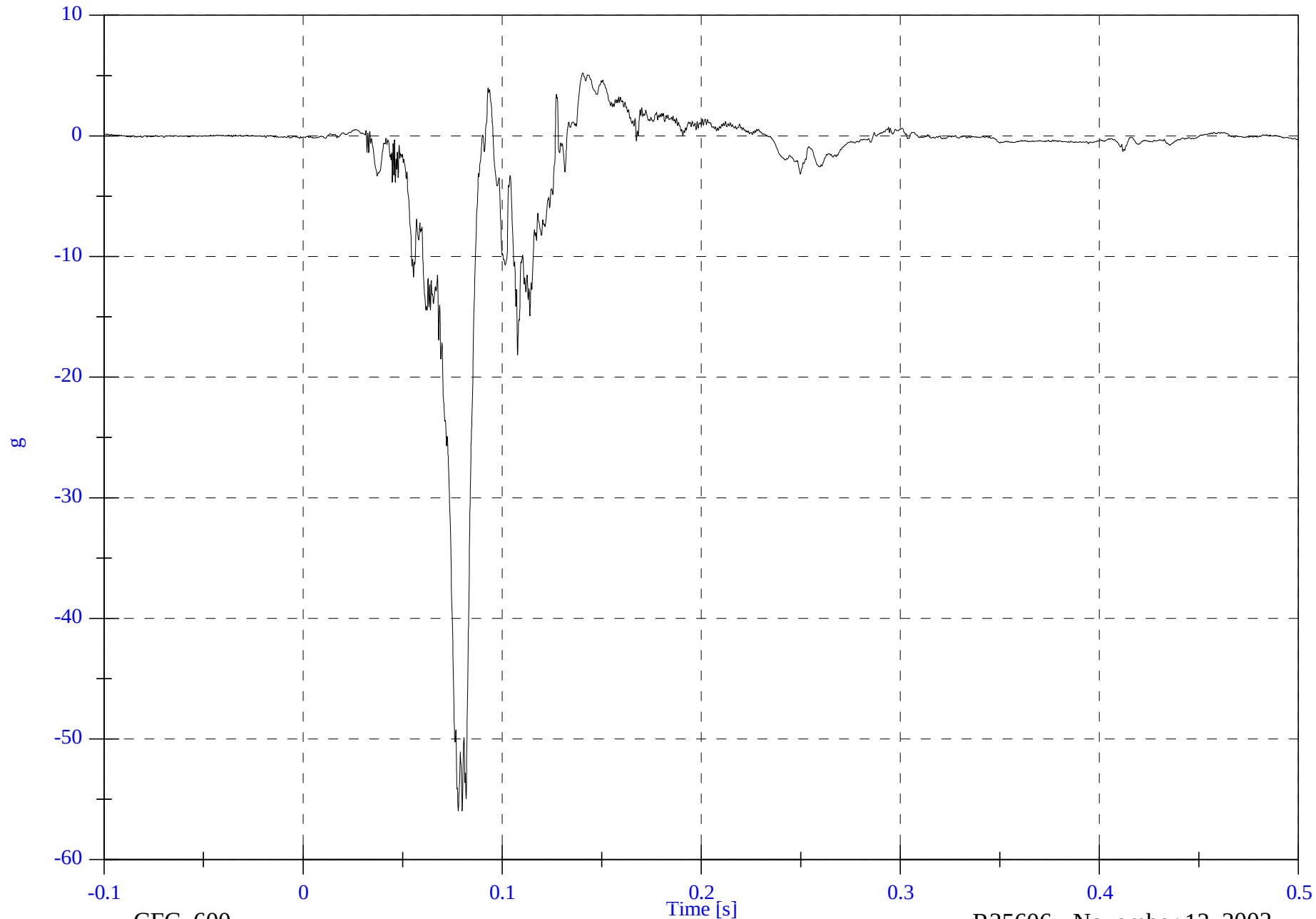
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Left Tibia x

Max: 5.2 [g] at 0.140 [s]

Min: -56.0 [g] at 0.078 [s]



B-155

8710-OFST-05

CFC_600

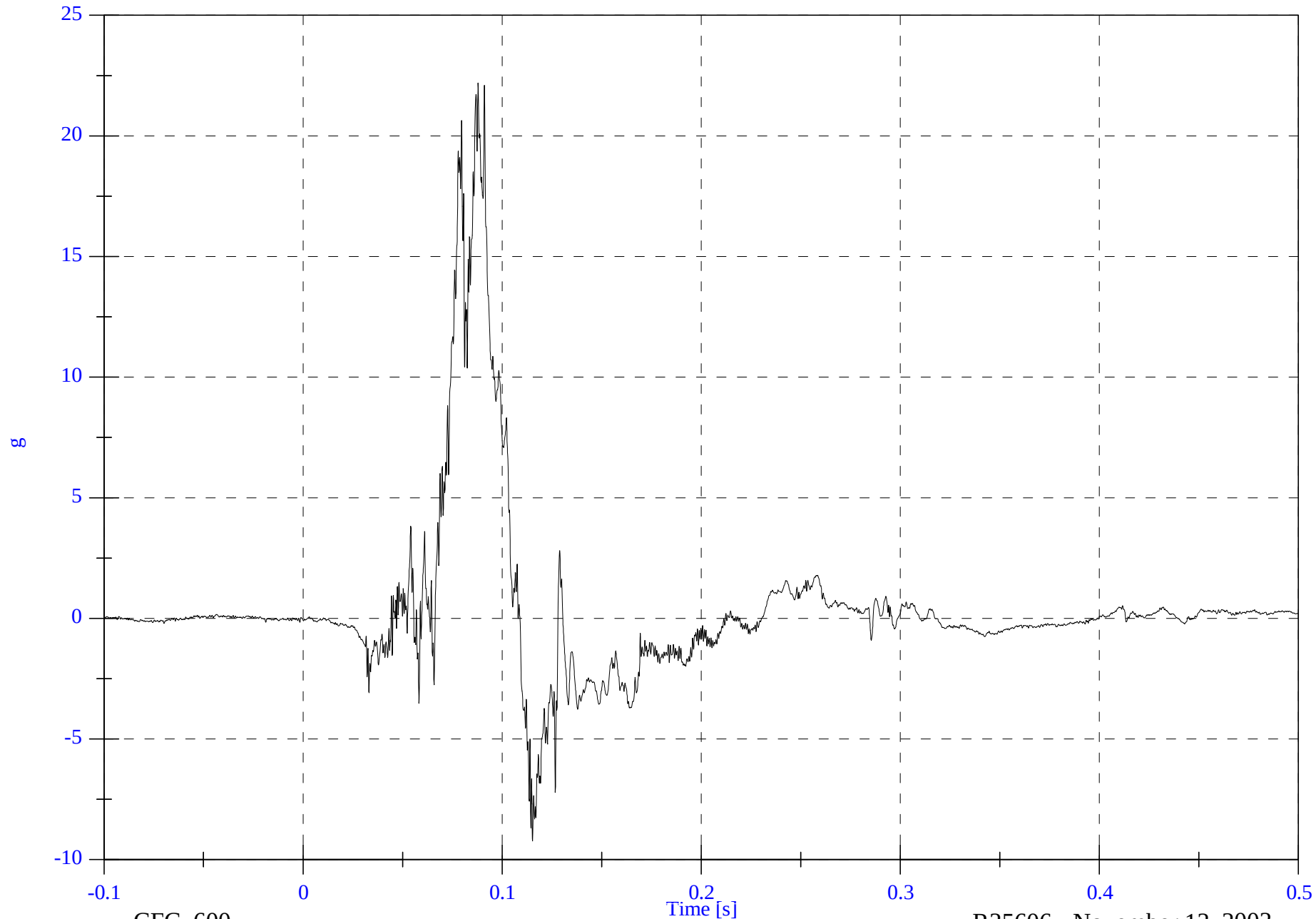
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Left Tibia y

Max: 22.2 [g] at 0.088 [s]

Min: -9.2 [g] at 0.115 [s]

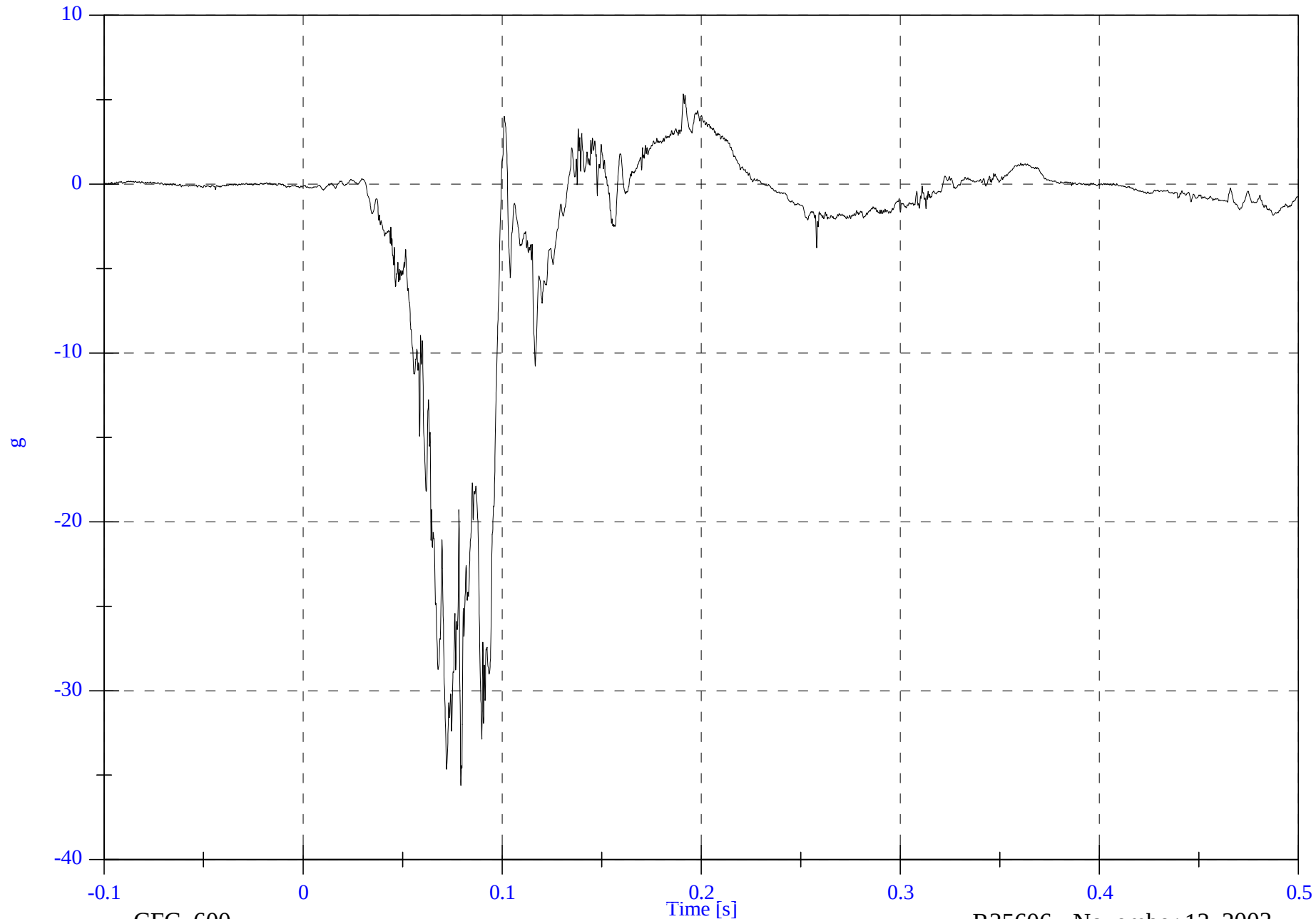


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Right Tibia x

Max: 5.3 [g] at 0.191 [s]

Min: -35.6 [g] at 0.079 [s]



B-157

8710-OFST-05

CFC_600

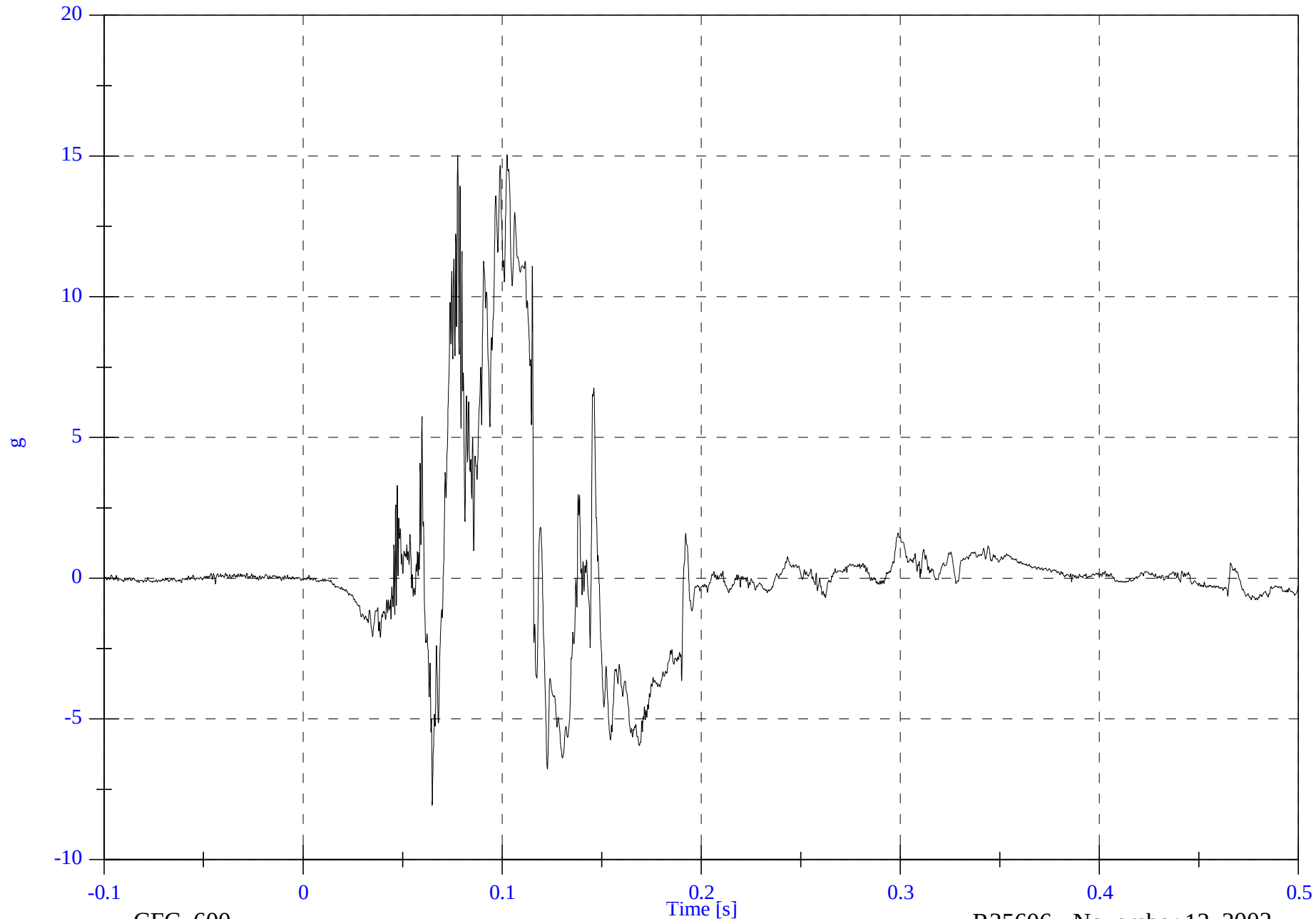
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Right Tibia y

Max: 15.1 [g] at 0.102 [s]

Min: -8.1 [g] at 0.065 [s]



B-158

8710-OFST-05

CFC_600

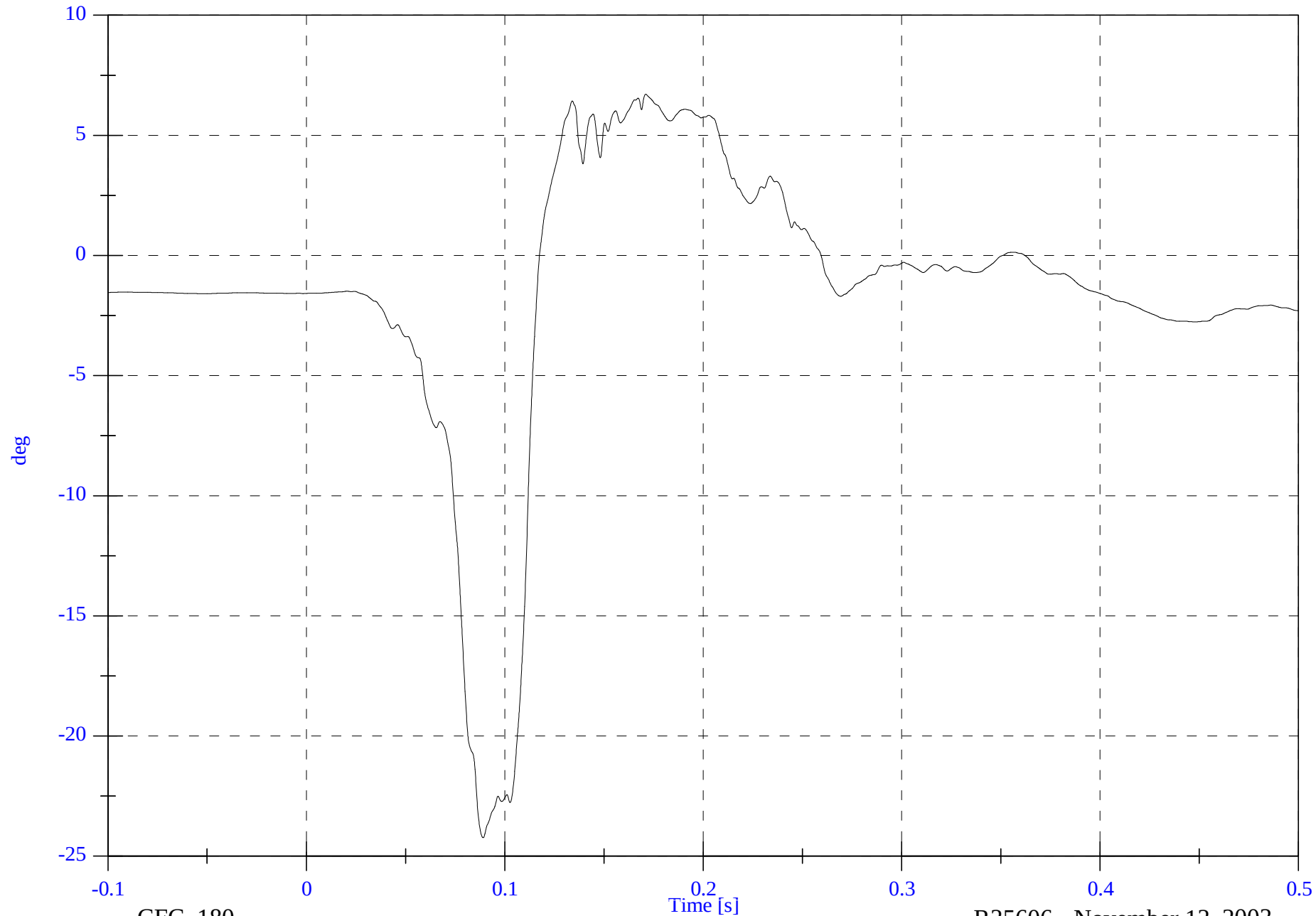
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Left Ankle Rotation x

Max: 6.7 [deg] at 0.171 [s]

Min: -24.2 [deg] at 0.089 [s]



B-159

8710-OFST-05

CFC_180

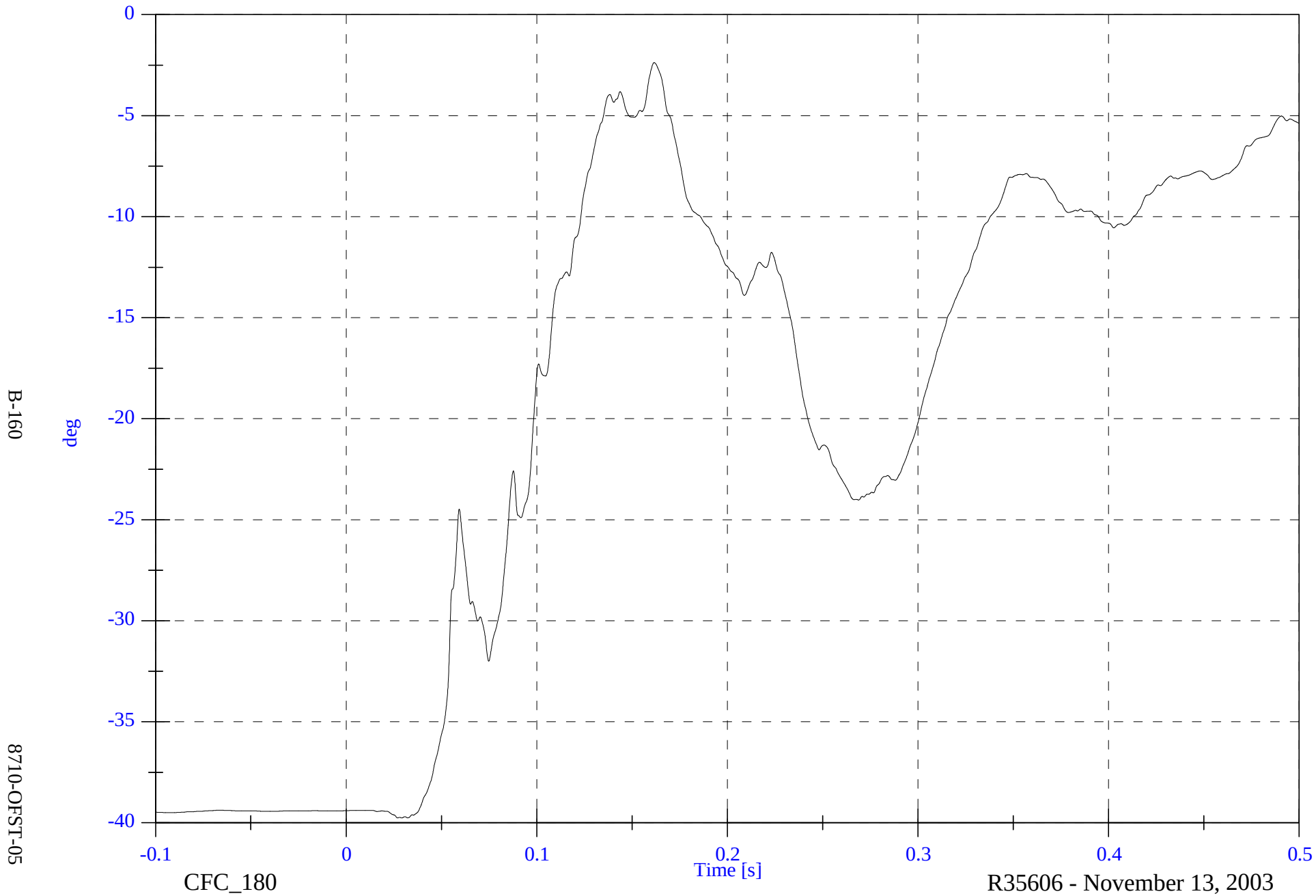
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Left Ankle Rotation y

Max: -2.4 [deg] at 0.162 [s]

Min: -39.8 [deg] at 0.029 [s]

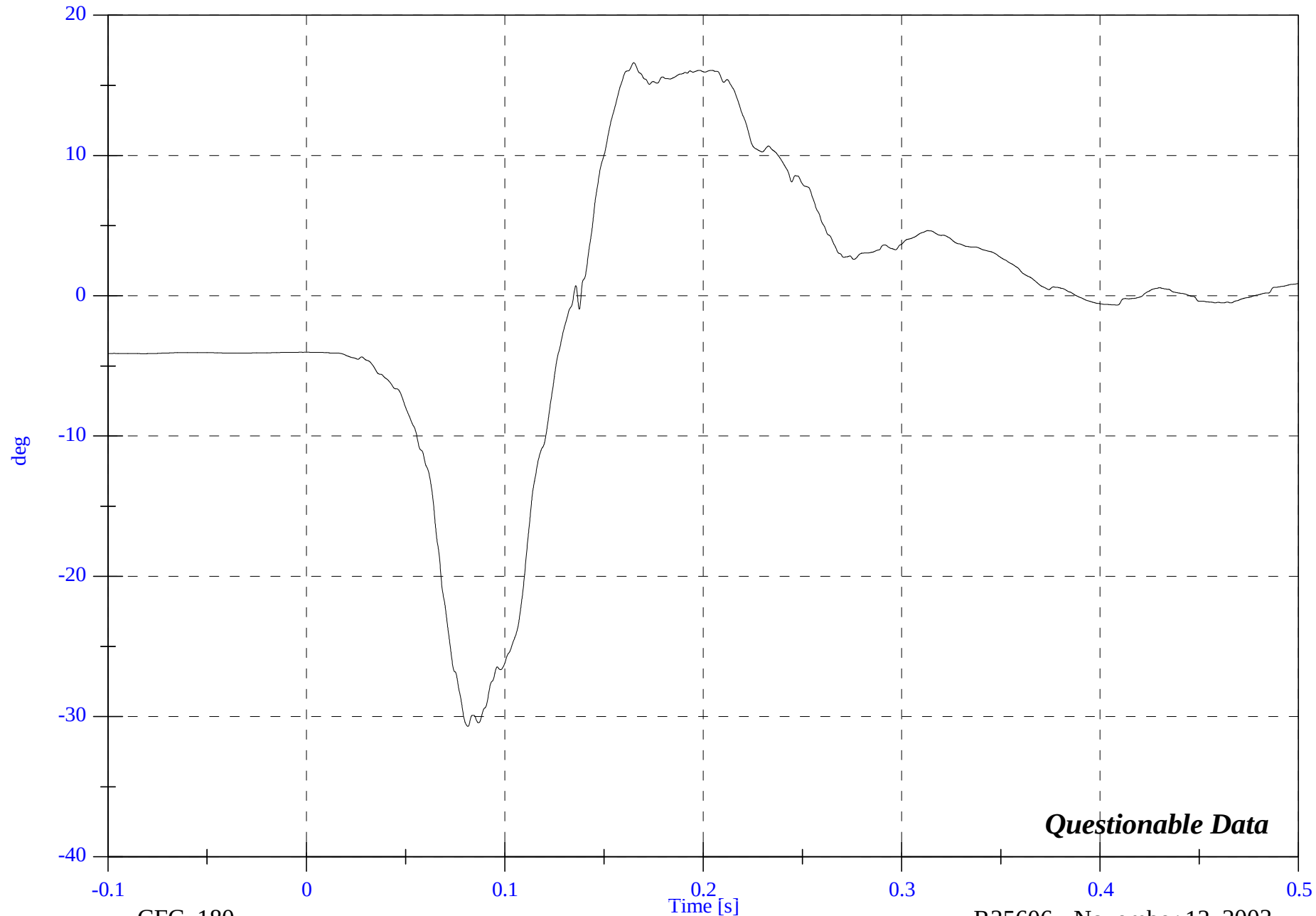


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Left Ankle Rotation z

Max: 16.6 [deg] at 0.165 [s]

Min: -30.7 [deg] at 0.081 [s]



Questionable Data

B-161

8710-OFST-05

CFC_180

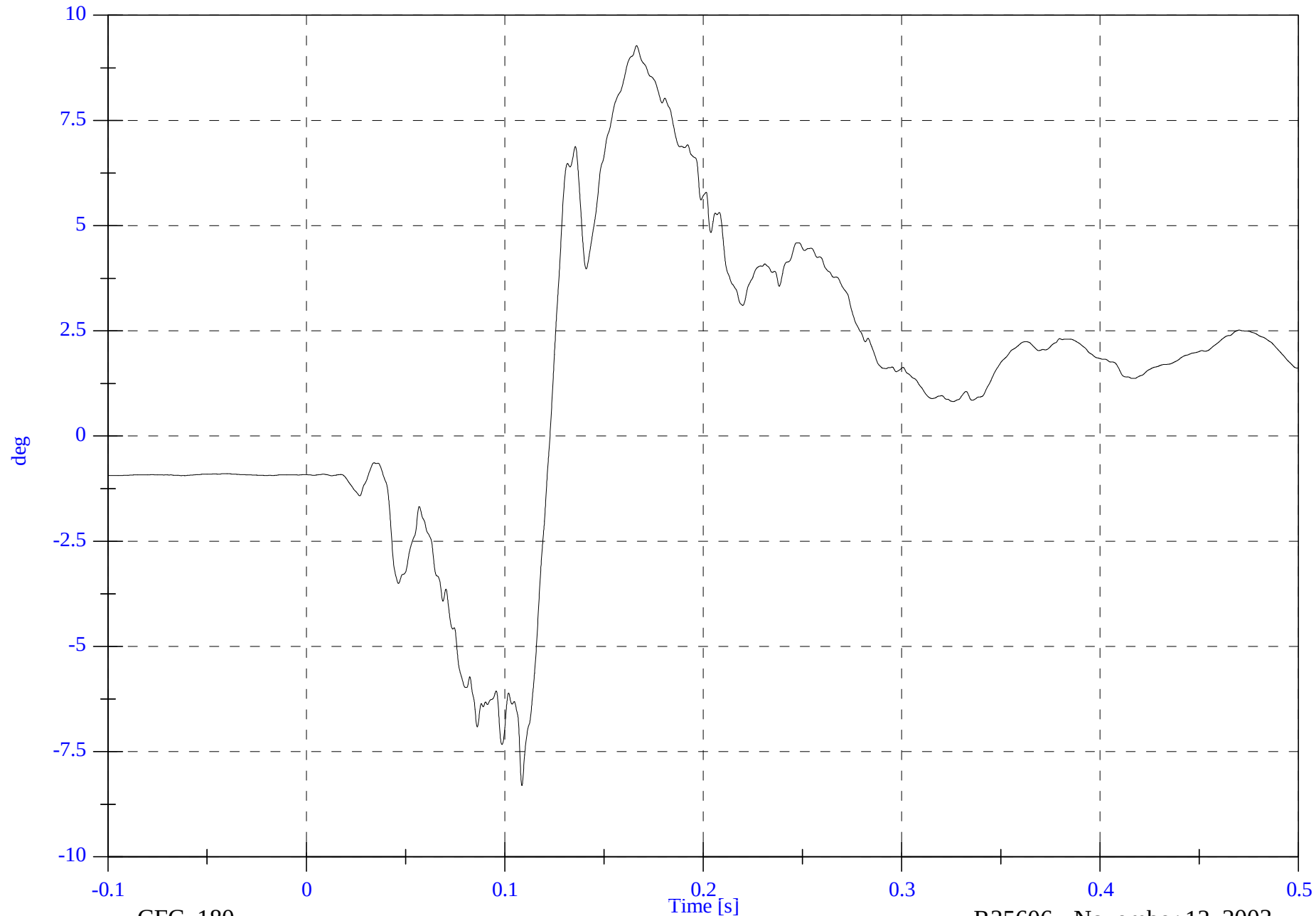
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Right Ankle Rotation x

Max: 9.3 [deg] at 0.166 [s]

Min: -8.3 [deg] at 0.109 [s]



B-162

8710-OFST-05

CFC_180

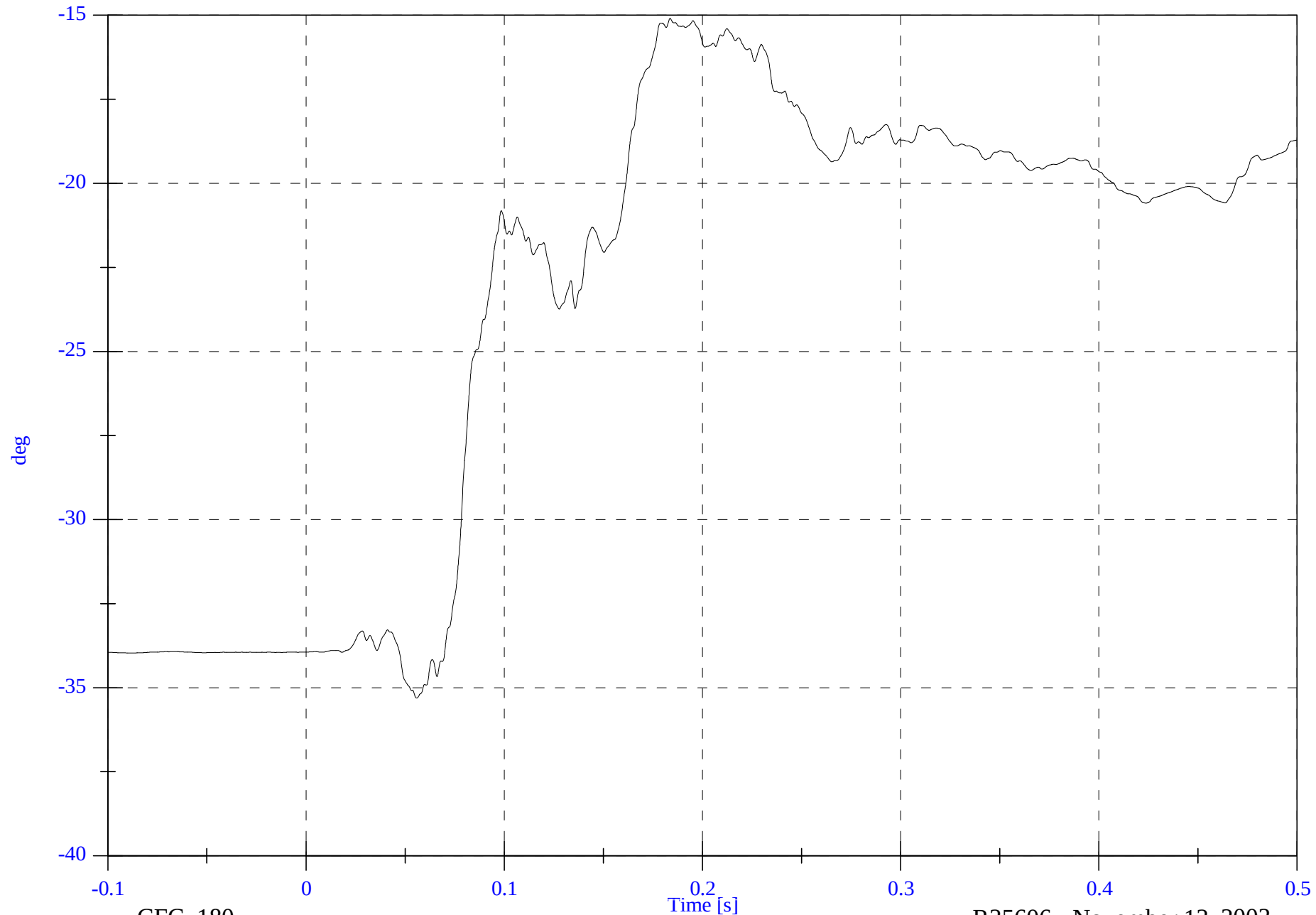
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Right Ankle Rotation y

Max: -15.1 [deg] at 0.184 [s]

Min: -35.3 [deg] at 0.056 [s]



B-163

8710-OFST-05

CFC_180

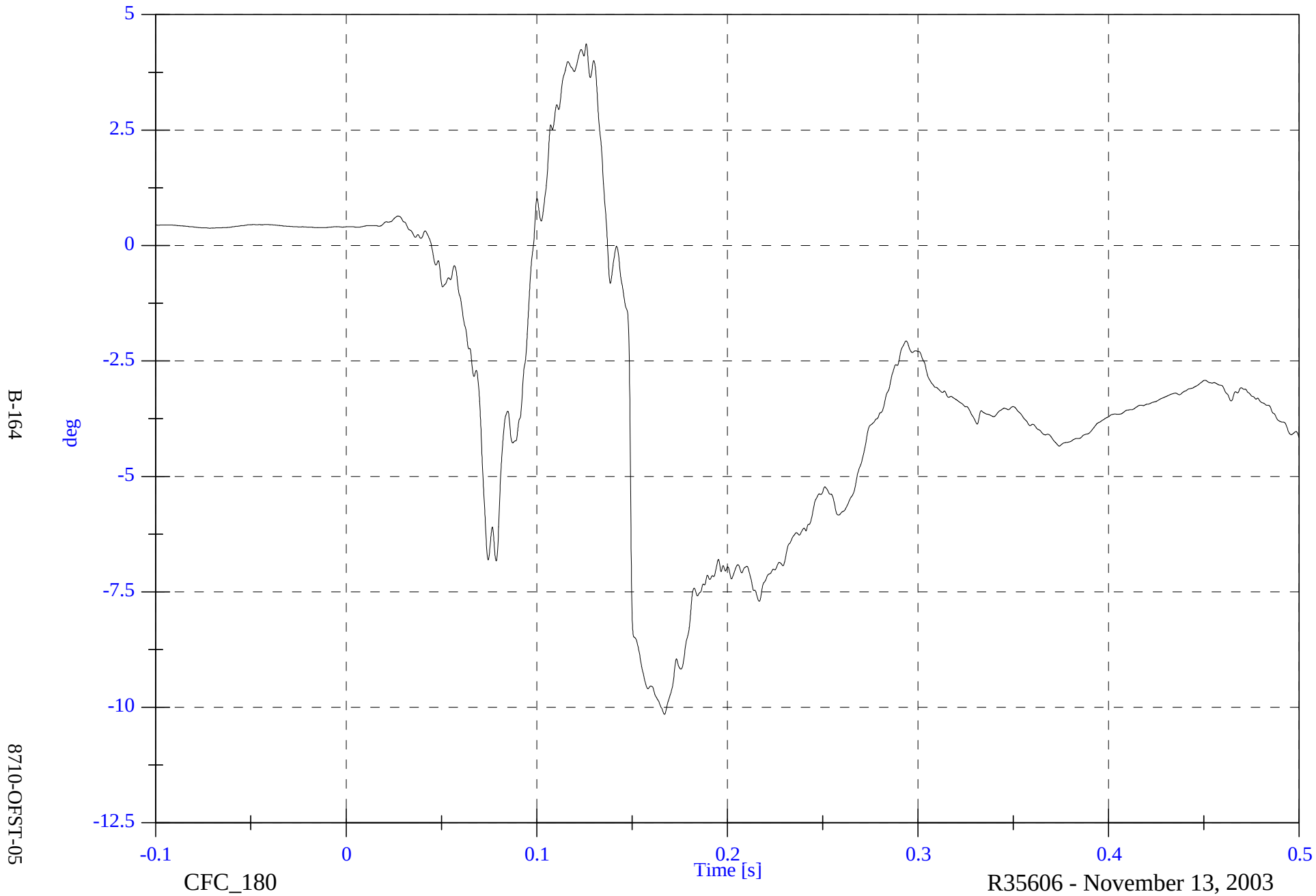
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Right Ankle Rotation z

Max: 4.4 [deg] at 0.126 [s]

Min: -10.1 [deg] at 0.167 [s]

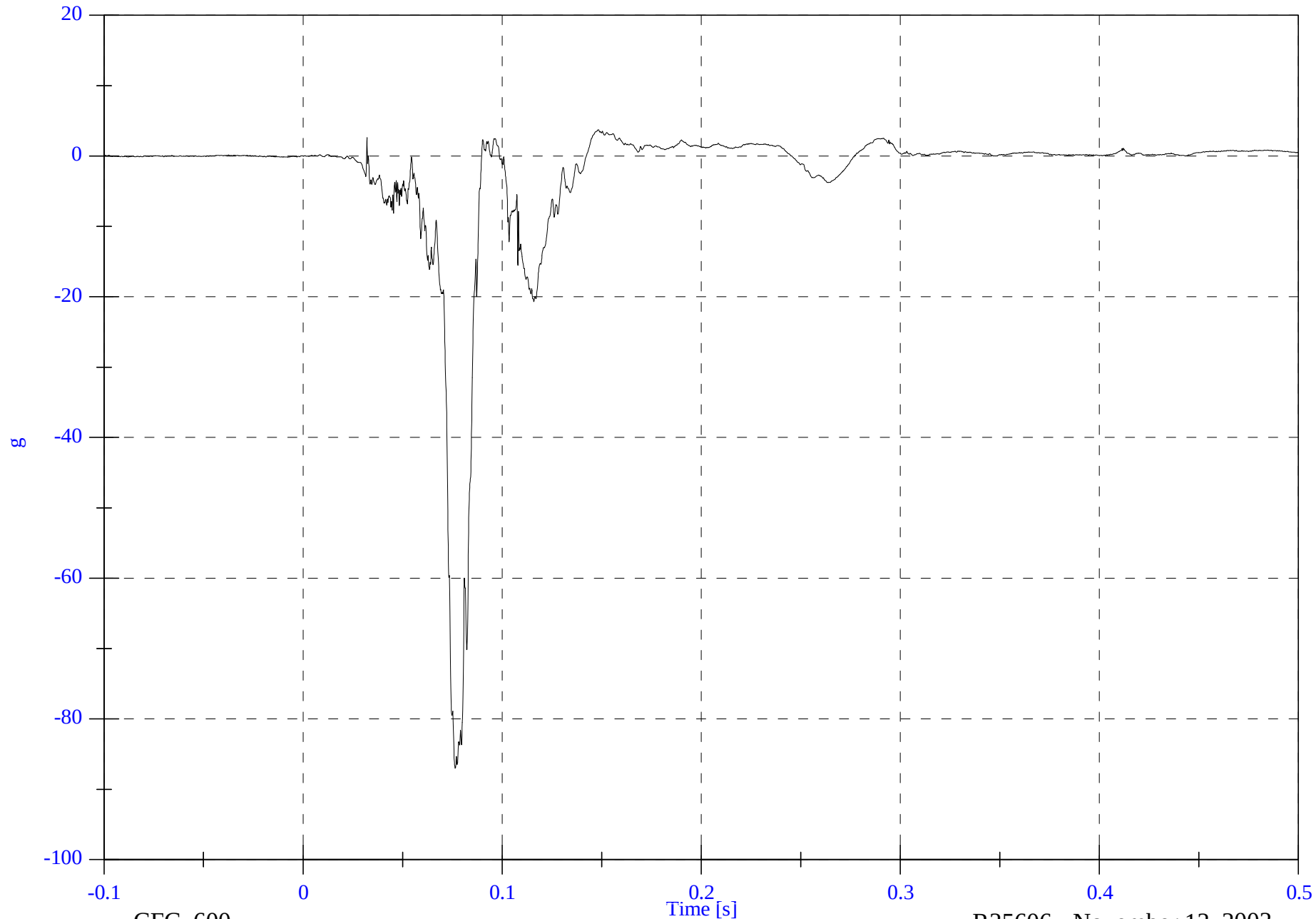


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Left Foot x

Max: 3.7 [g] at 0.148 [s]

Min: -87.0 [g] at 0.076 [s]



B-165

8710-OFST-05

CFC_600

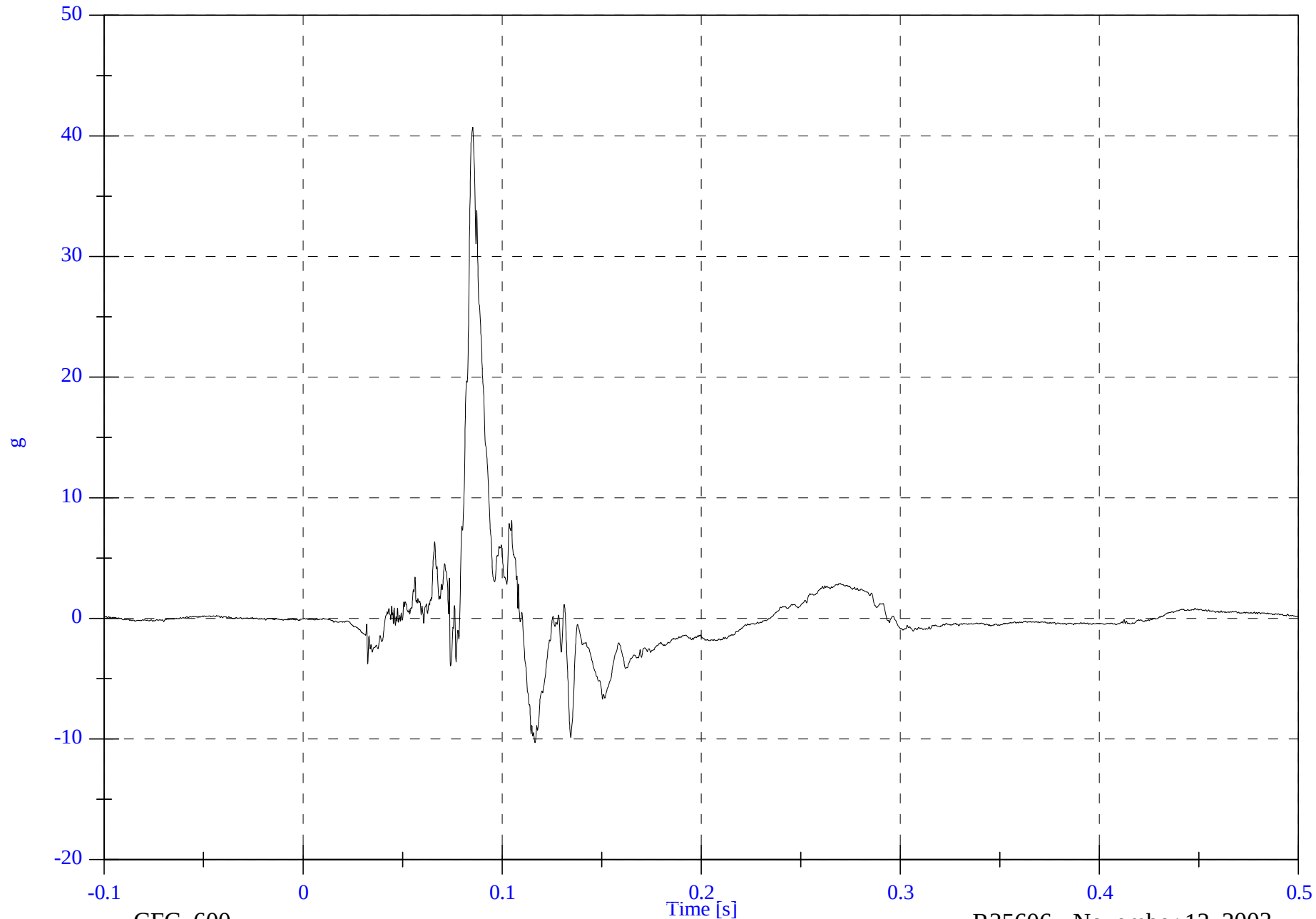
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Left Foot y

Max: 40.7 [g] at 0.085 [s]

Min: -10.3 [g] at 0.116 [s]



B-166

8710-OFST-05

CFC_600

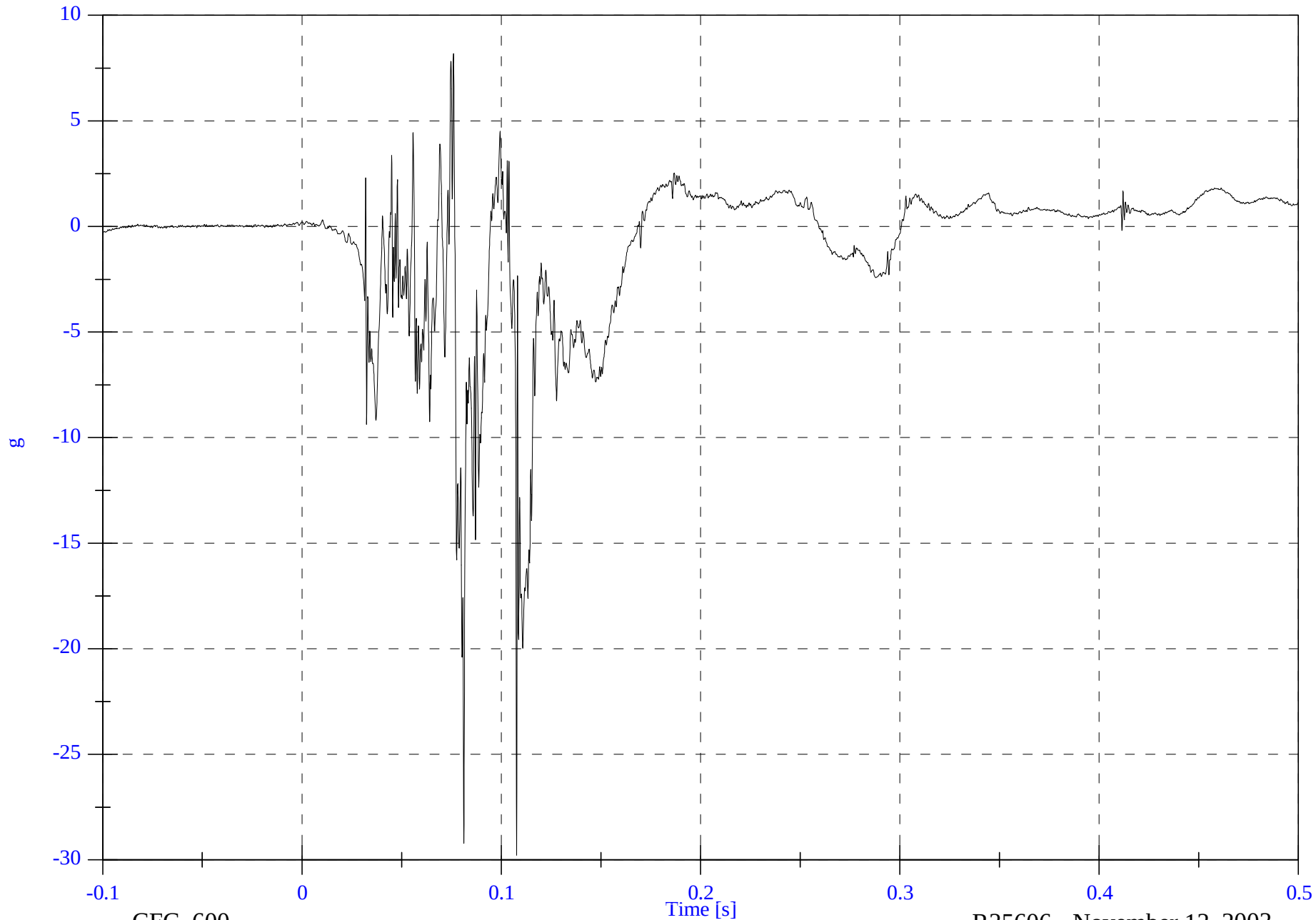
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Left Foot z

Max: 8.2 [g] at 0.076 [s]

Min: -29.8 [g] at 0.108 [s]



B-167

8710-OFST-05

CFC_600

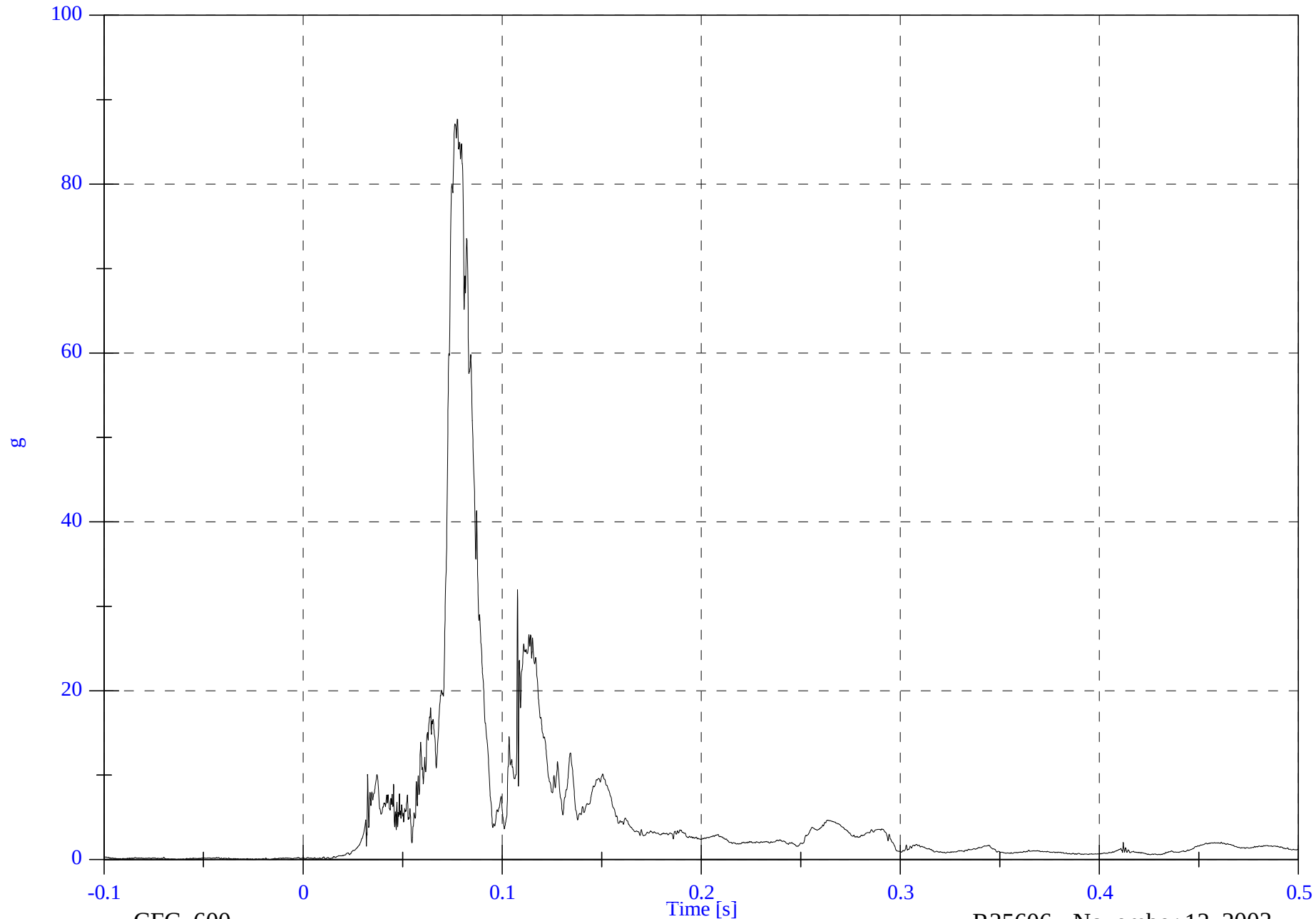
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Left Foot Resultant

Max: 87.7 [g] at 0.077 [s]

Min: 0.0 [g] at -0.064 [s]



B-168

8710-OFST-05

CFC_600

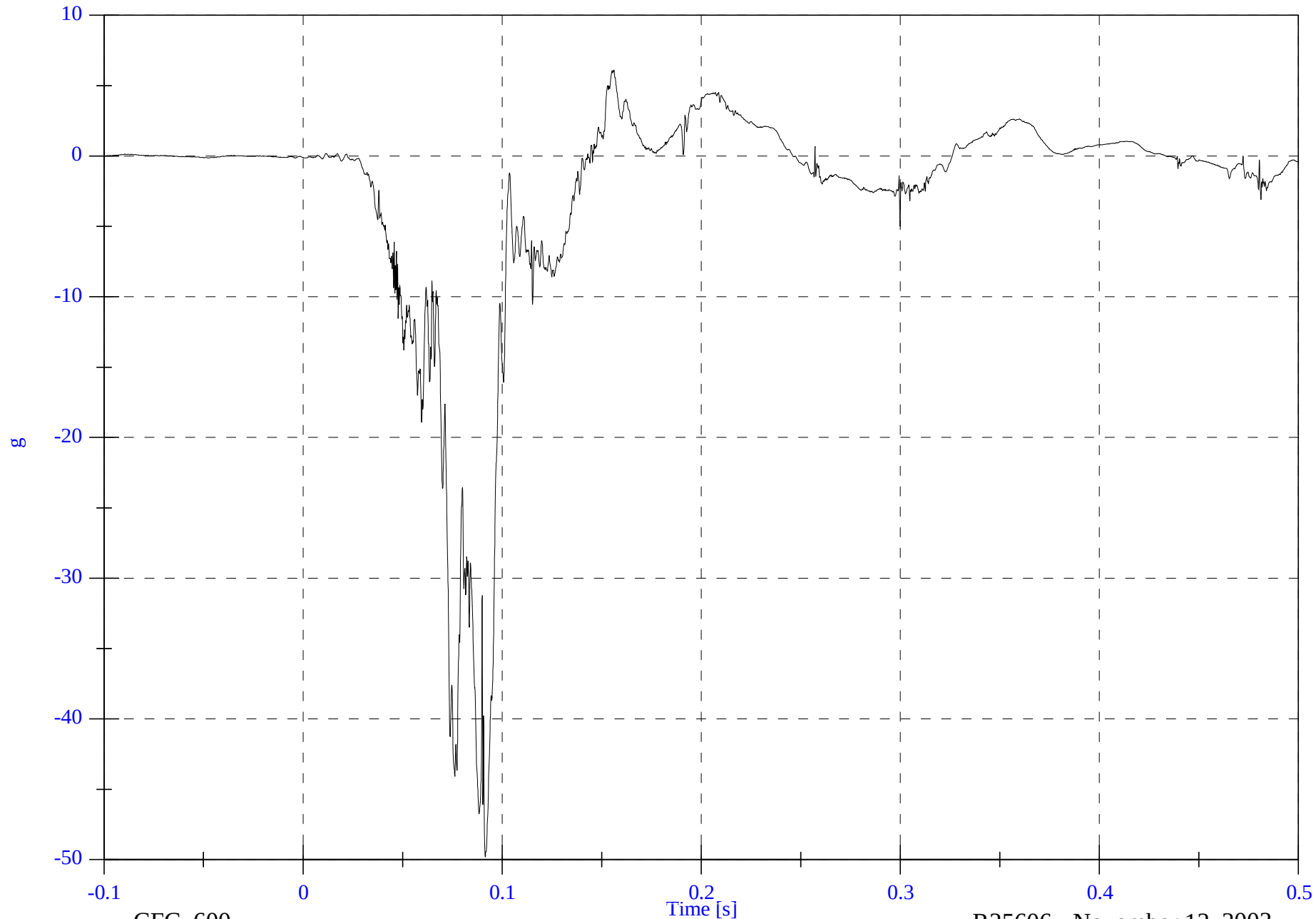
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Right Foot x

Max: 6.1 [g] at 0.156 [s]

Min: -49.8 [g] at 0.091 [s]



B-169

8710-OFST-05

CFC_600

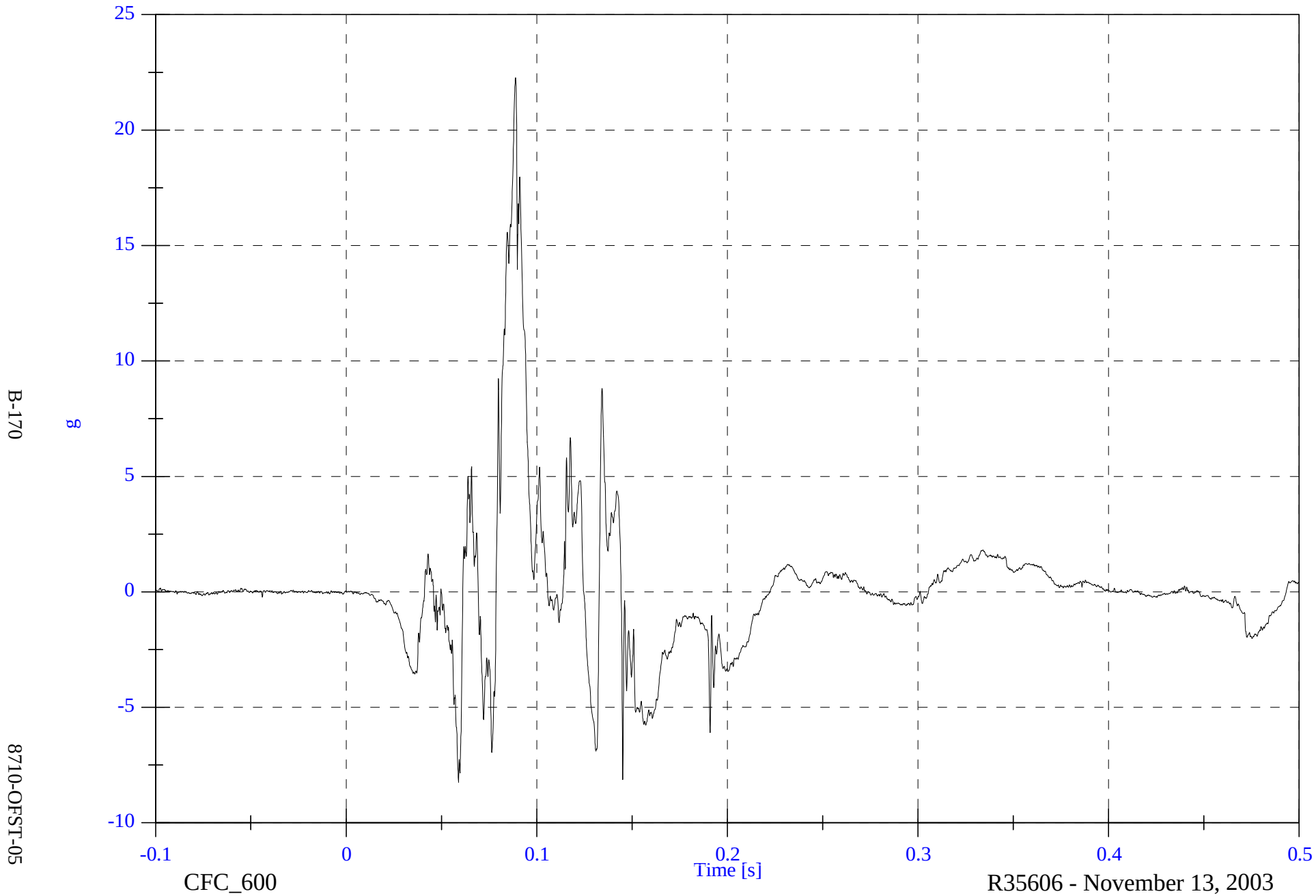
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Right Foot y

Max: 22.3 [g] at 0.089 [s]

Min: -8.3 [g] at 0.059 [s]

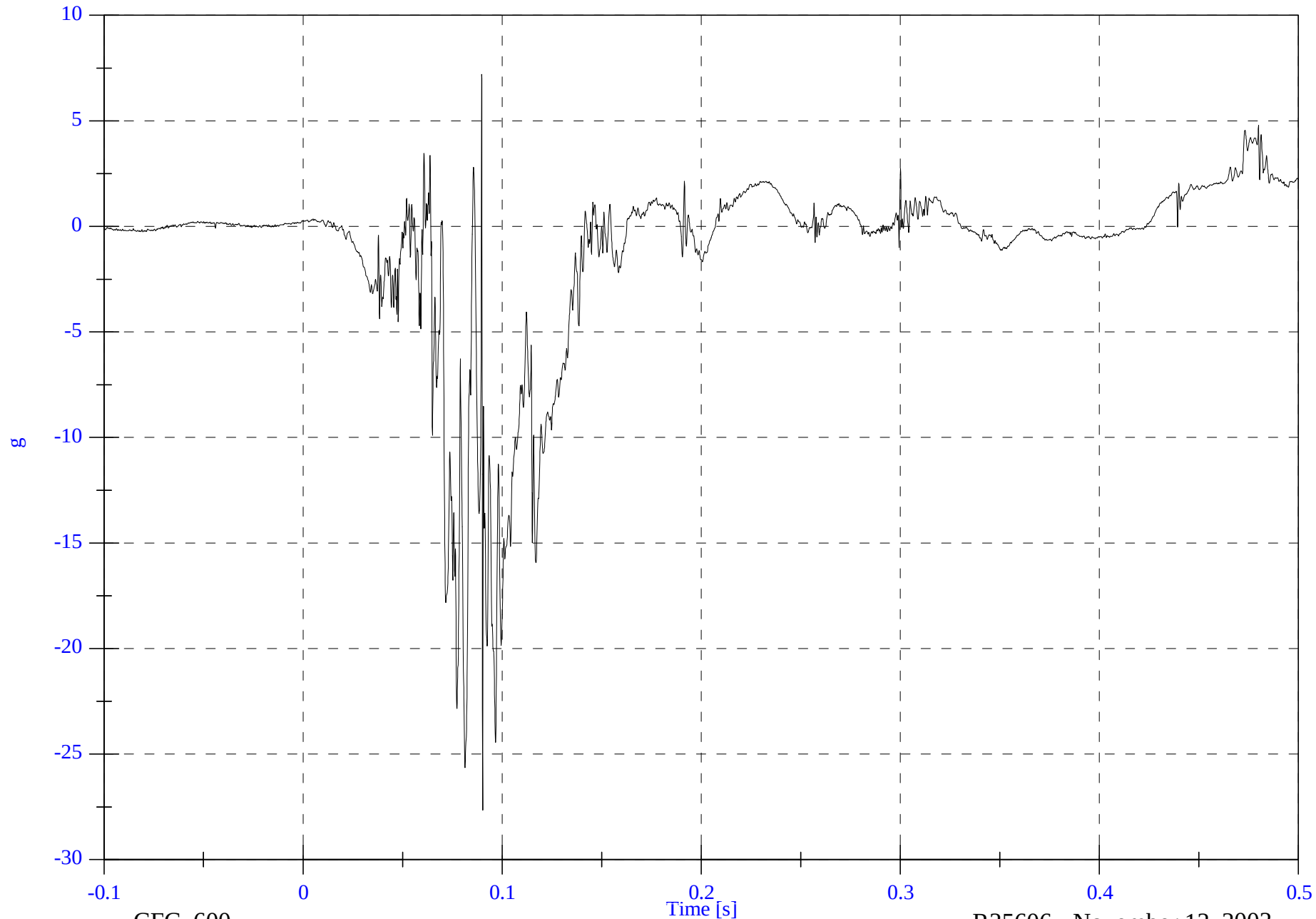


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Right Footz

Max: 7.2 [g] at 0.090 [s]

Min: -27.7 [g] at 0.090 [s]



B-171

8710-OFST-05

CFC_600

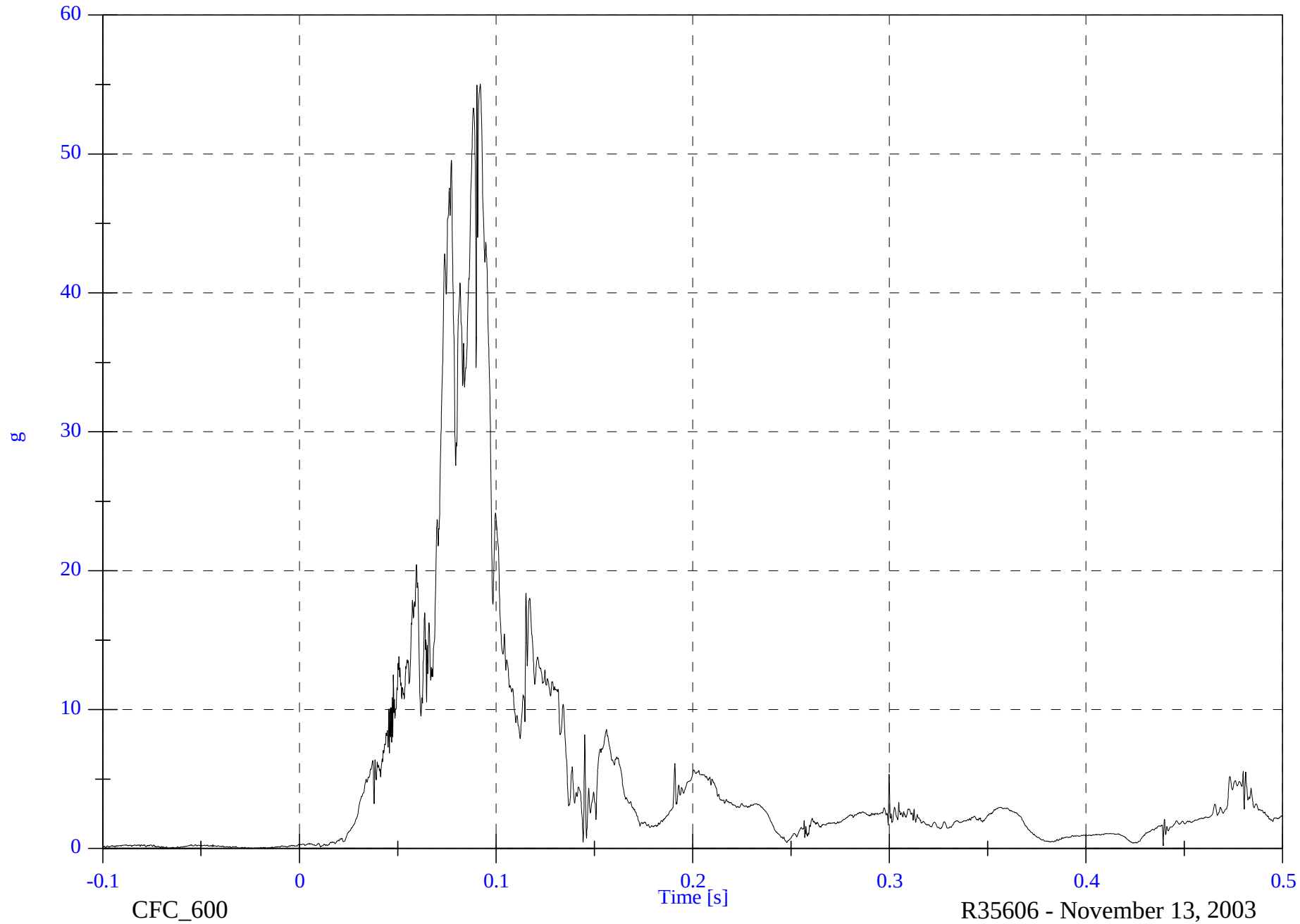
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Right Foot Resultant

Max: 55.0 [g] at 0.092 [s]

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



B-172

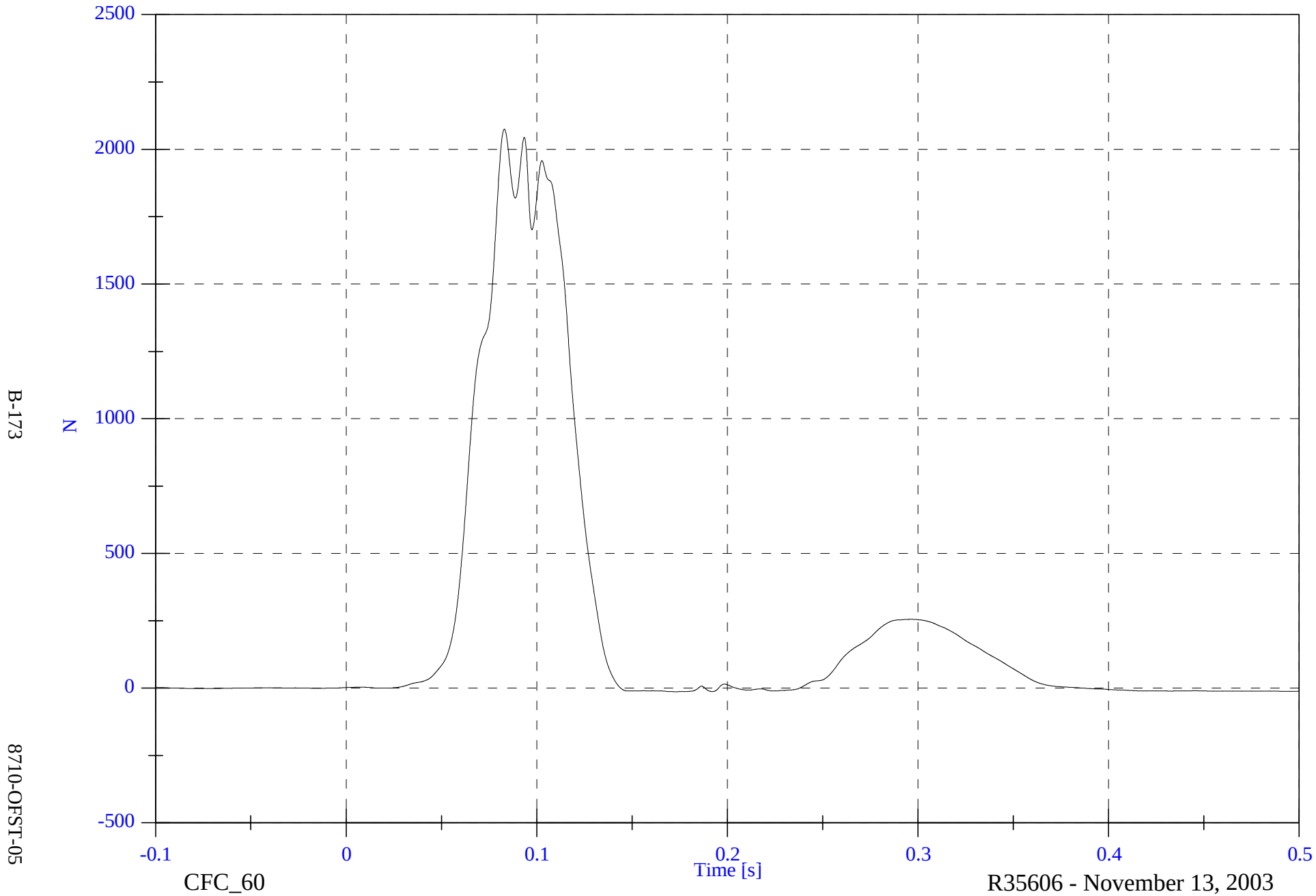
8710-OFST-05

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Lap Belt Load

Max: 2075.3 [N] at 0.083 [s]

Min: -13.4 [N] at 0.173 [s]

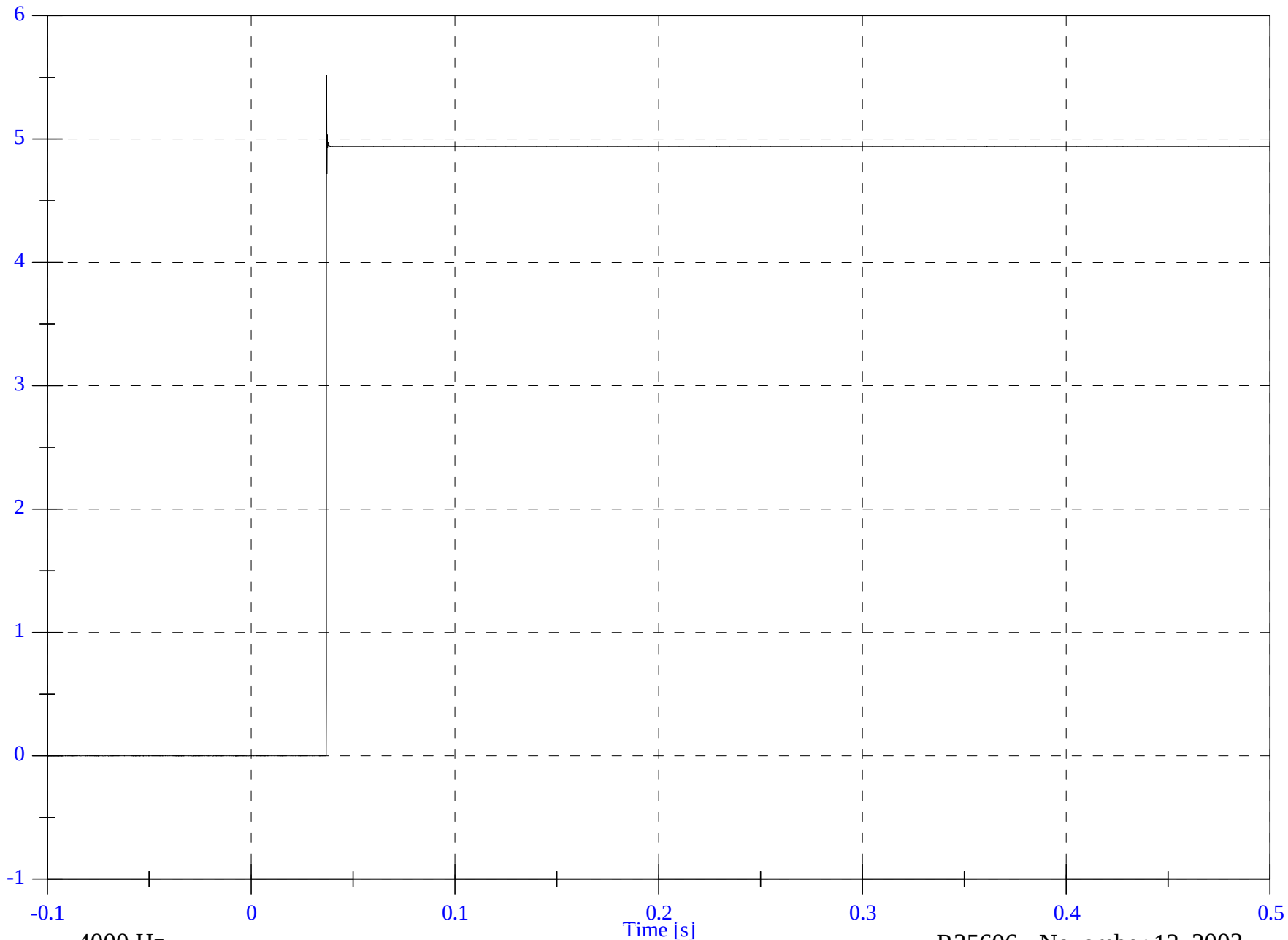


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P2 Air Bag T/E

Max: 5.5 [V] at 0.037 [s]

Min: -0.0 [V] at -0.053 [s]



B-174

8710-OFST-05

4000 Hz

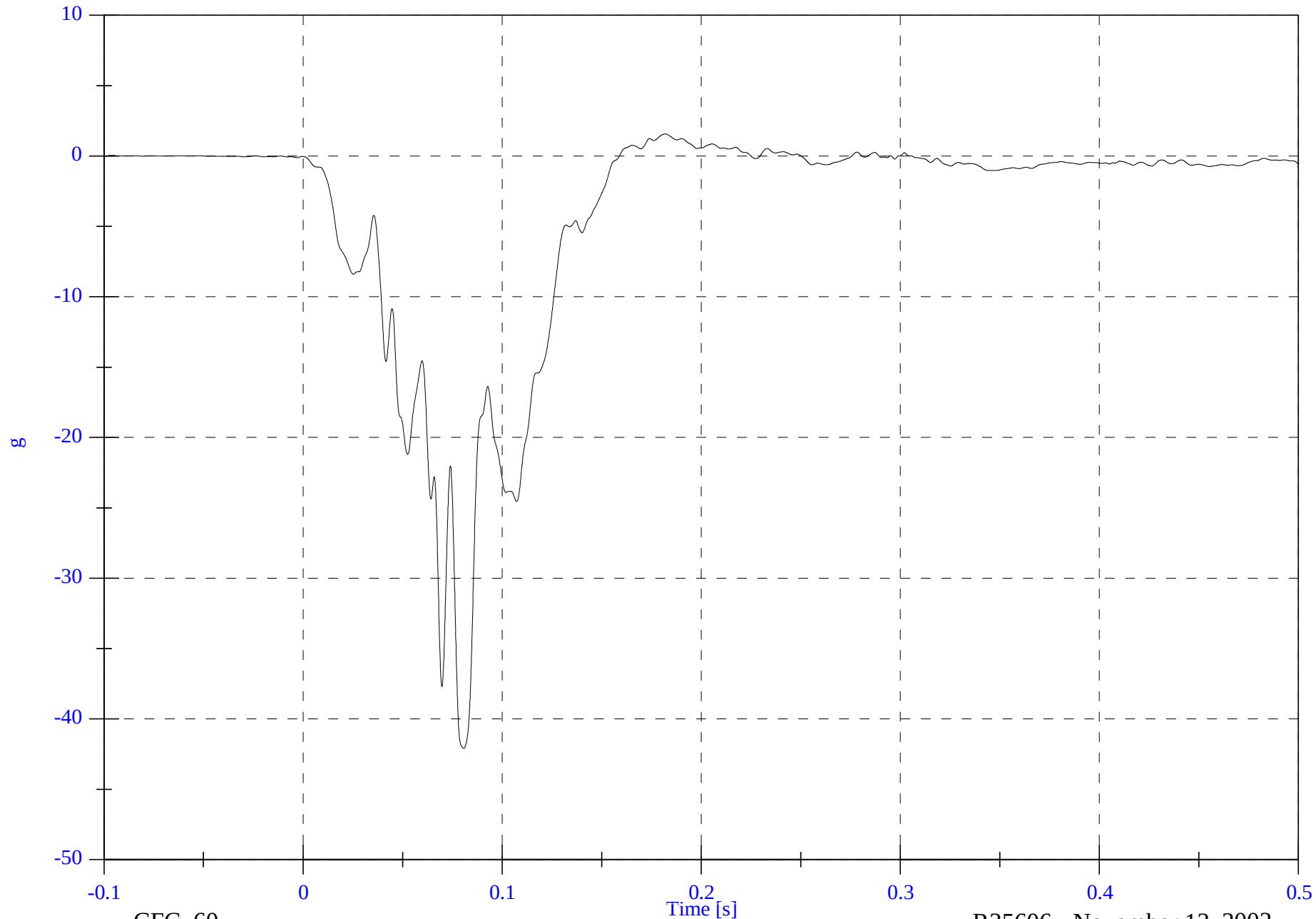
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1 LR Seat Xmember x

Max: 1.6 [g] at 0.182 [s]

Min: -42.1 [g] at 0.081 [s]



B-175

8710-OFST-05

CFC_60

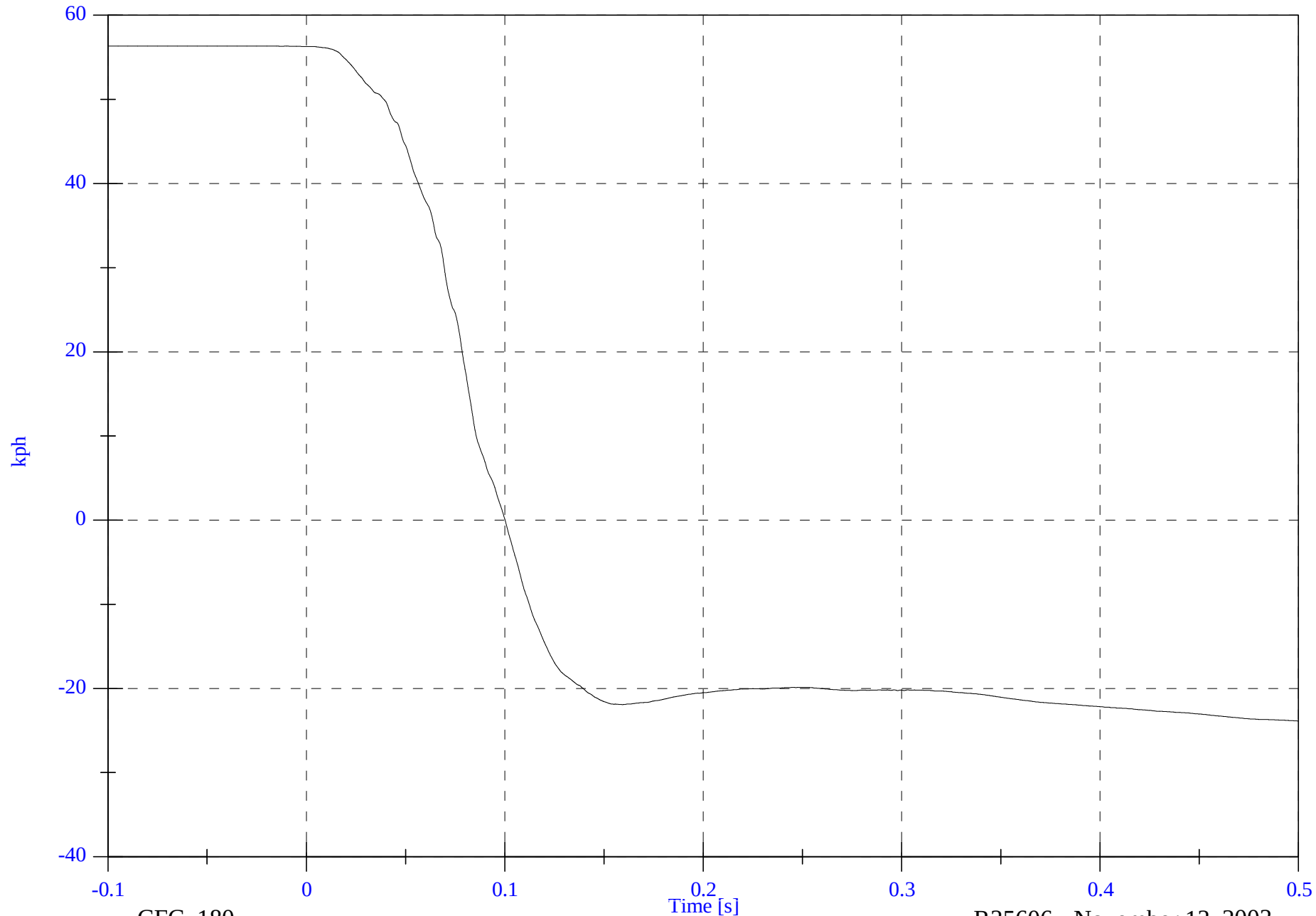
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

Max: 56.4 [kph] at -0.049 [s]

V1 LR Seat Xmember x Velocity

Min: -23.9 [kph] at 0.500 [s]



B-176

8710-OFST-05

CFC_180

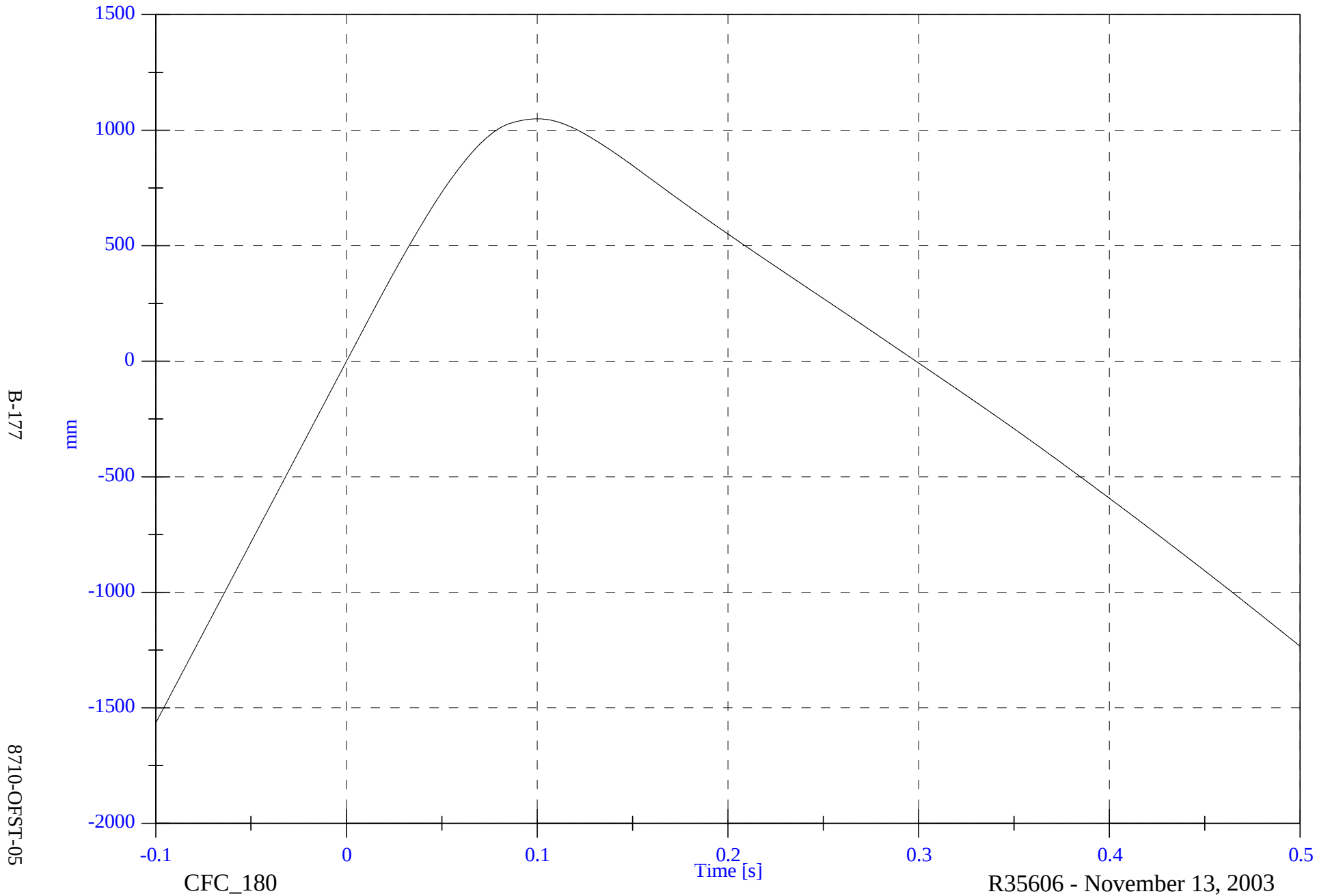
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1 LR Seat Xmember x Displacement

Max: 1049.4 [mm] at 0.100 [s]

Min: -1565.0 [mm] at -0.100 [s]



40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

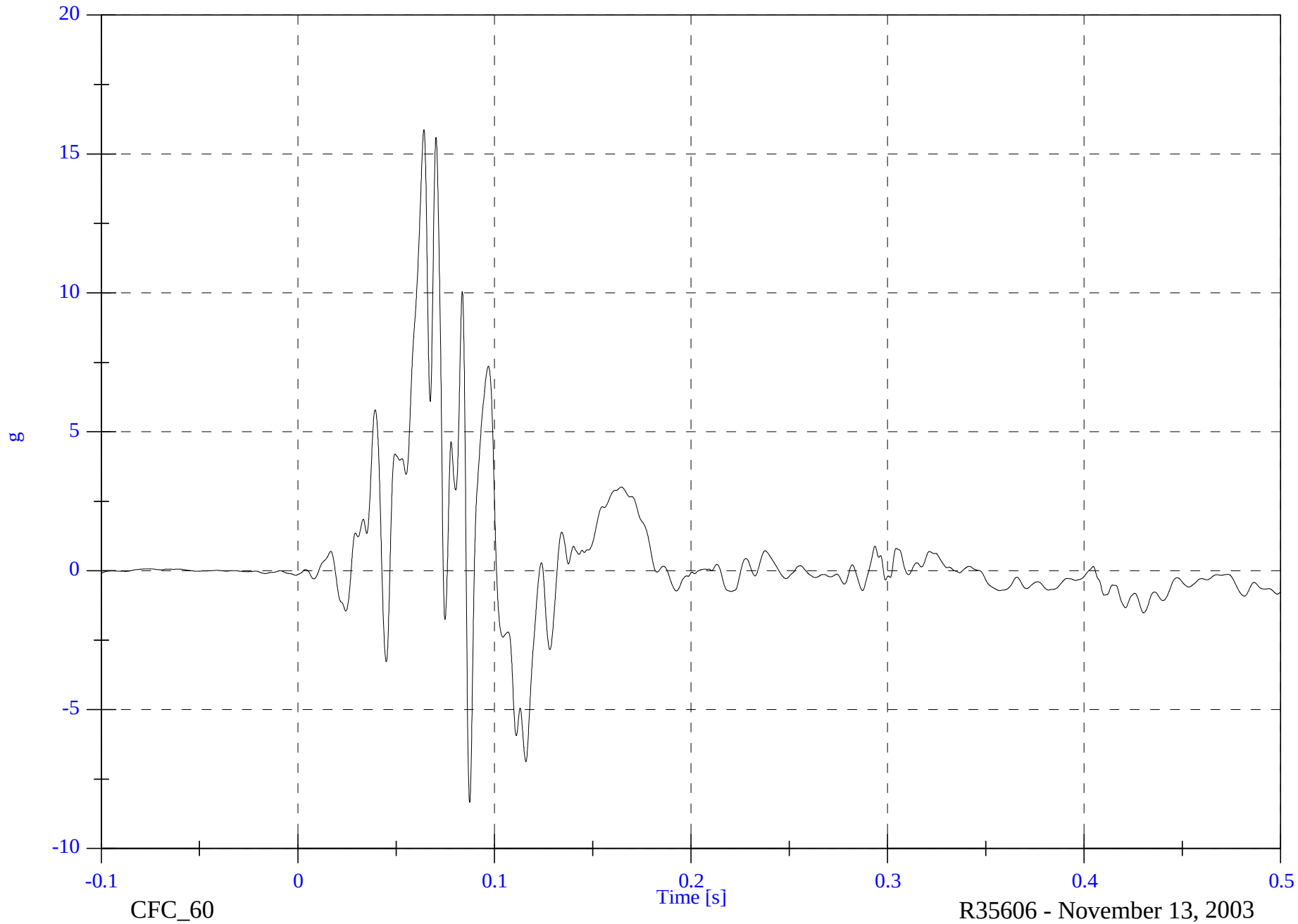
V1 LR Seat Xmember y

Max: 15.9 [g] at 0.064 [s]

Min: -8.3 [g] at 0.087 [s]

B-178

8710-OFST-05

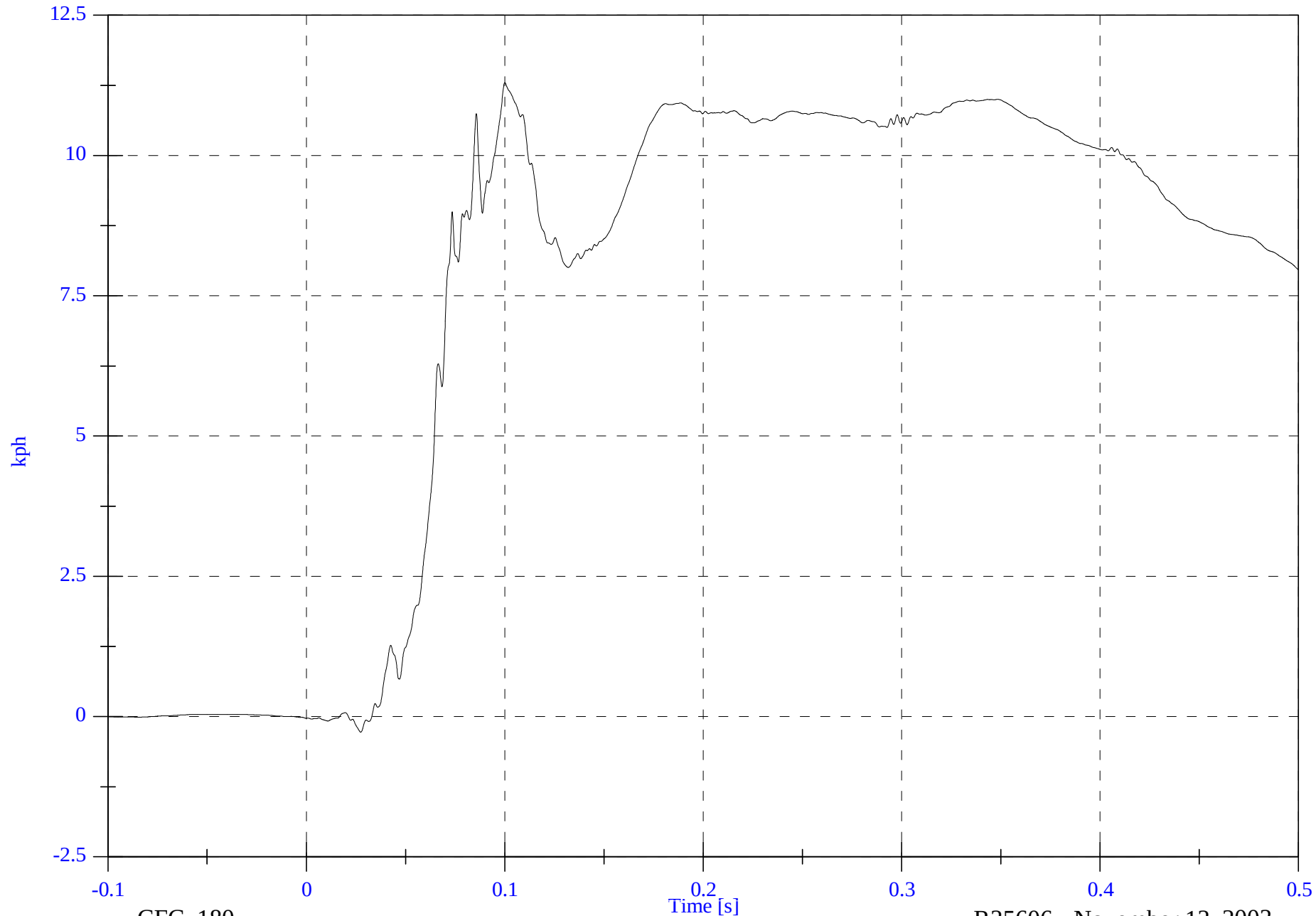


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1 LR Seat Xmember y Velocity

Max: 11.3 [kph] at 0.100 [s]

Min: -0.3 [kph] at 0.027 [s]



B-179

8710-OFST-05

CFC_180

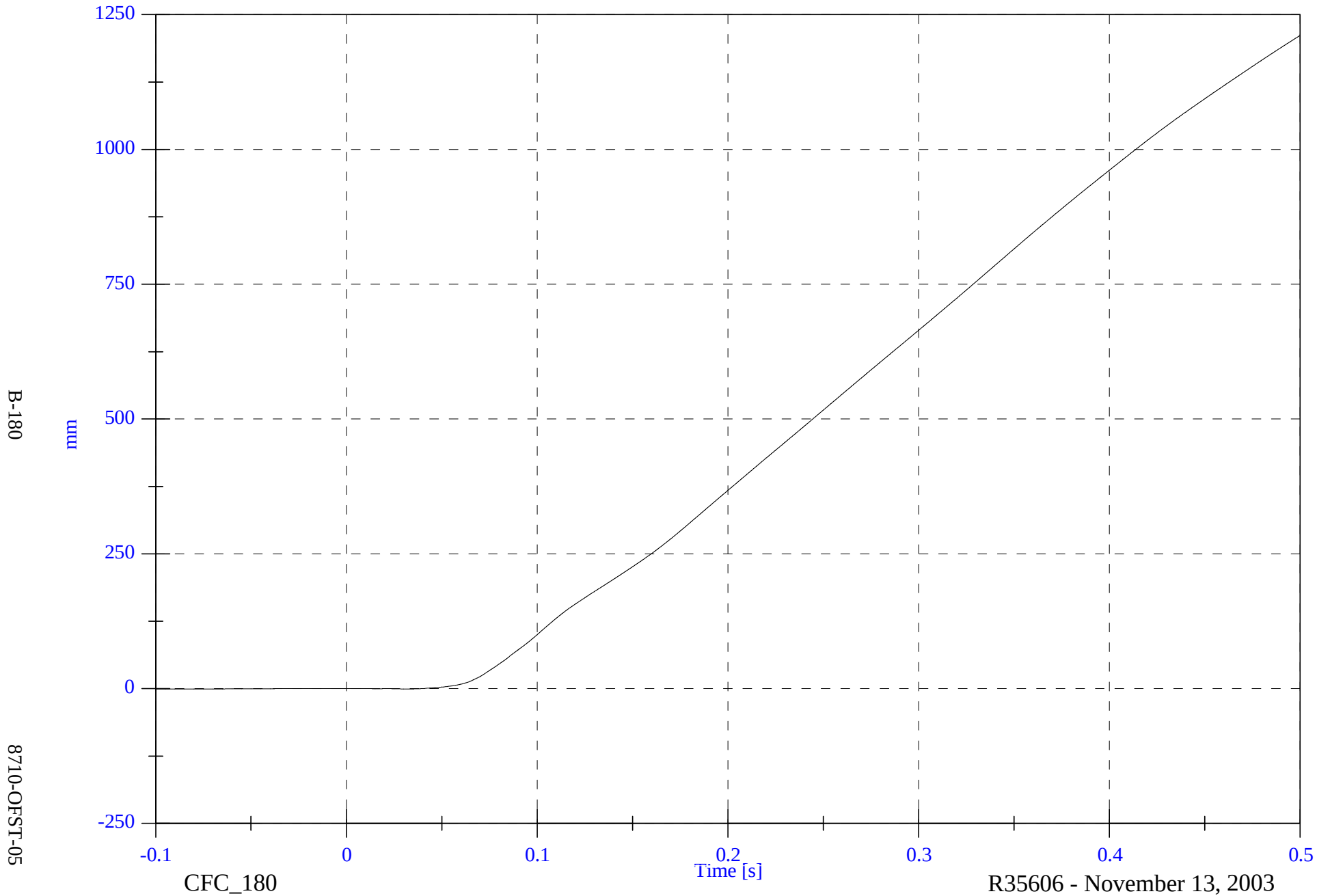
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1 LR Seat Xmember y Displacement

Max: 1211.3 [mm] at 0.500 [s]

Min: -0.5 [mm] at 0.033 [s]

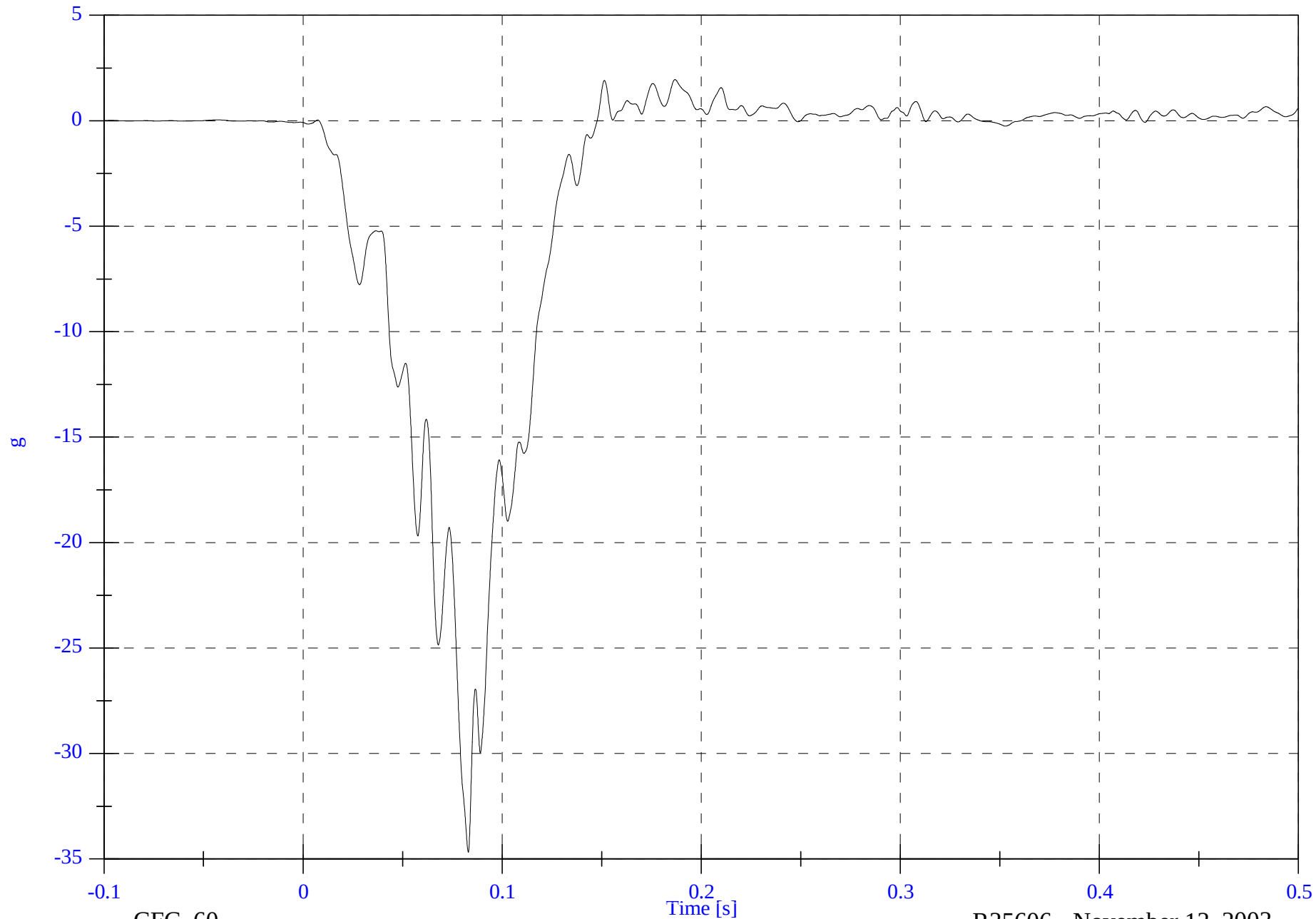


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1 RR Seat Xmember x

Max: 2.0 [g] at 0.187 [s]

Min: -34.7 [g] at 0.083 [s]



B-181

8710-OFST-05

CFC_60

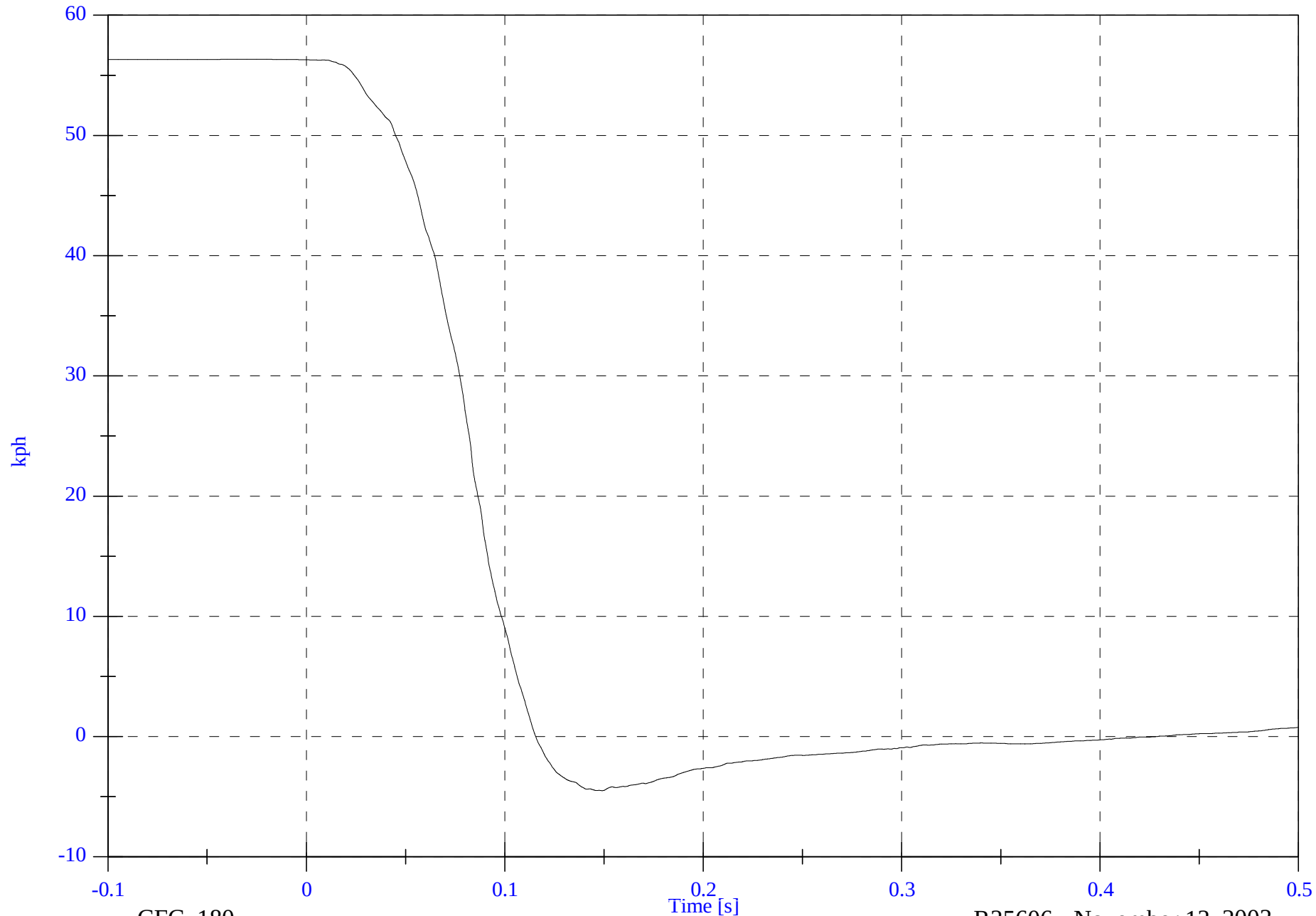
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

Max: 56.3 [kph] at -0.037 [s]

V1 RR Seat Xmember x Velocity

Min: -4.5 [kph] at 0.149 [s]



B-182

8710-OFST-05

CFC_180

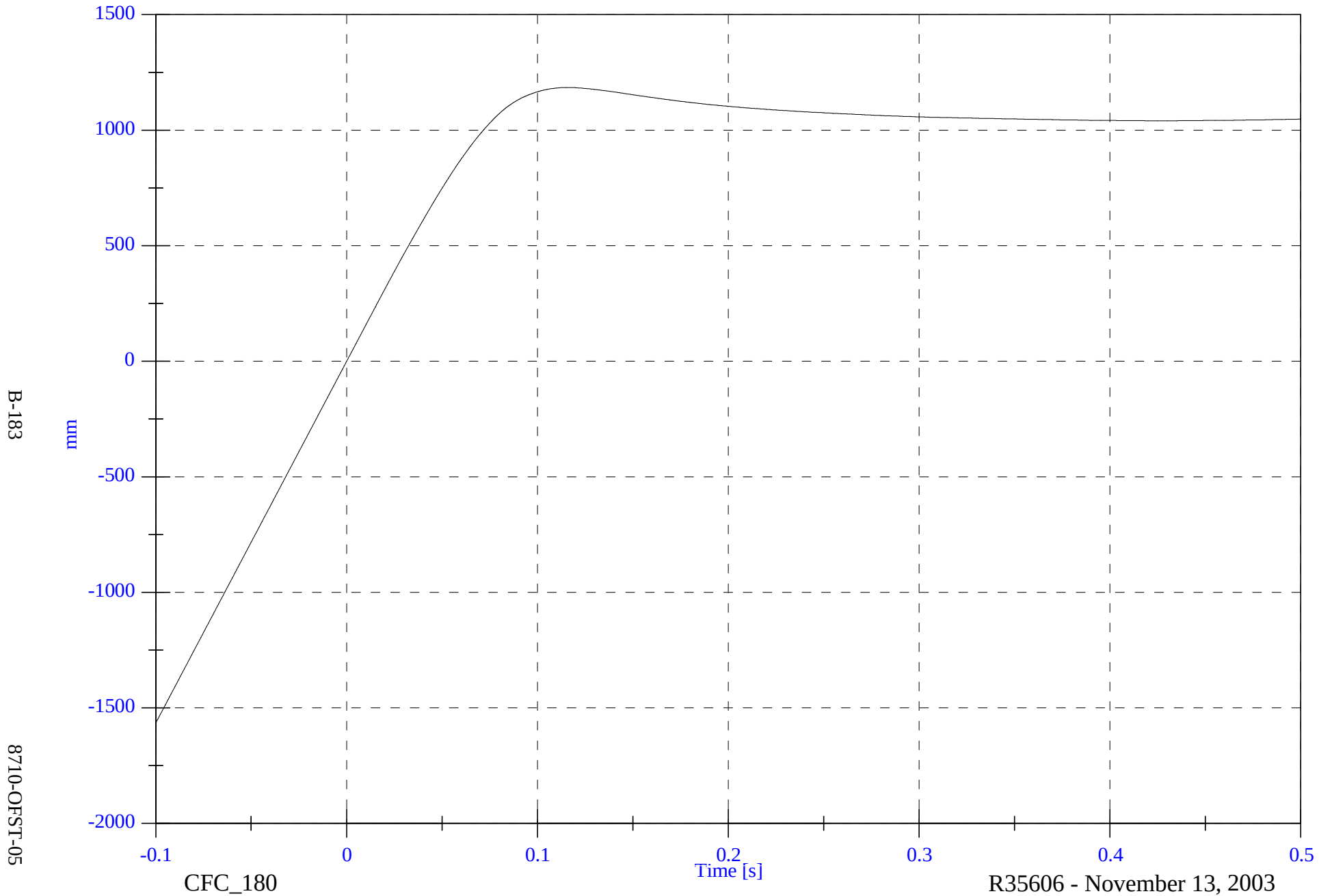
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1 RR Seat Xmember x Displacement

Max: 1184.9 [mm] at 0.116 [s]

Min: -1564.8 [mm] at -0.100 [s]



B-183

8710-OFST-05

CFC_180

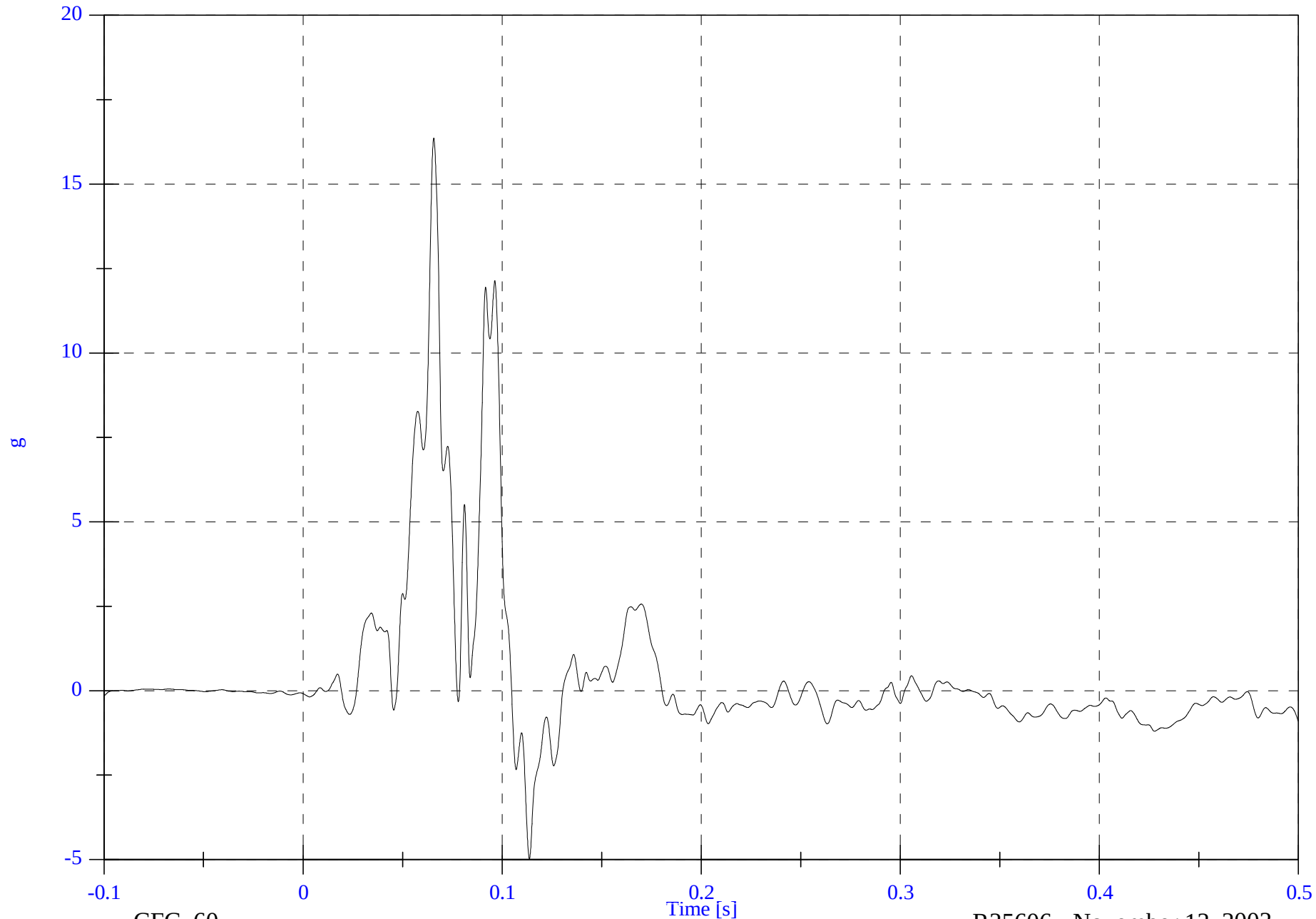
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1 RR Seat Xmember y

Max: 16.4 [g] at 0.066 [s]

Min: -5.0 [g] at 0.114 [s]



B-184

8710-OFST-05

CFC_60

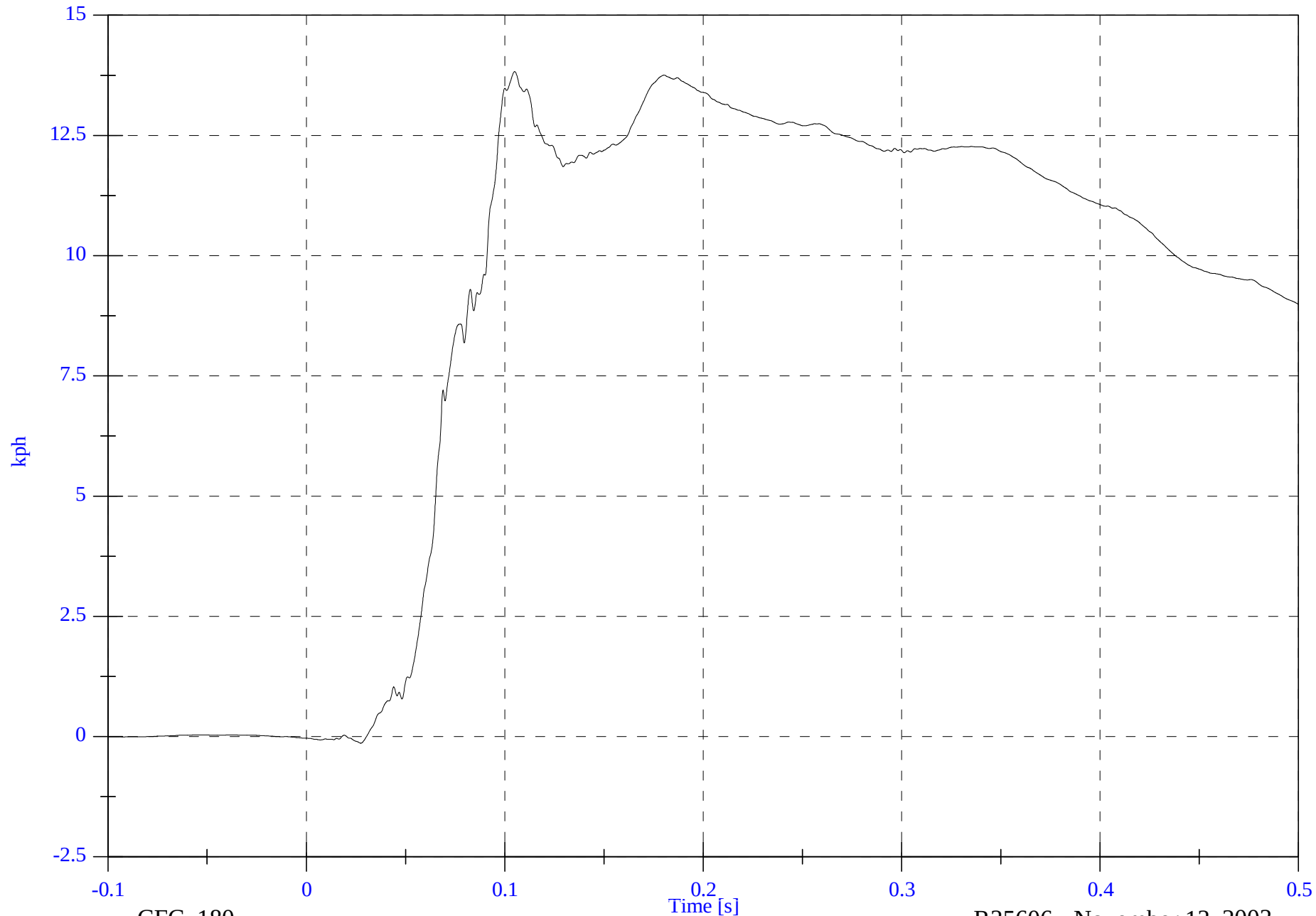
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1 RR Seat Xmember y Velocity

Max: 13.8 [kph] at 0.105 [s]

Min: -0.1 [kph] at 0.027 [s]



B-185

8710-OFST-05

CFC_180

R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

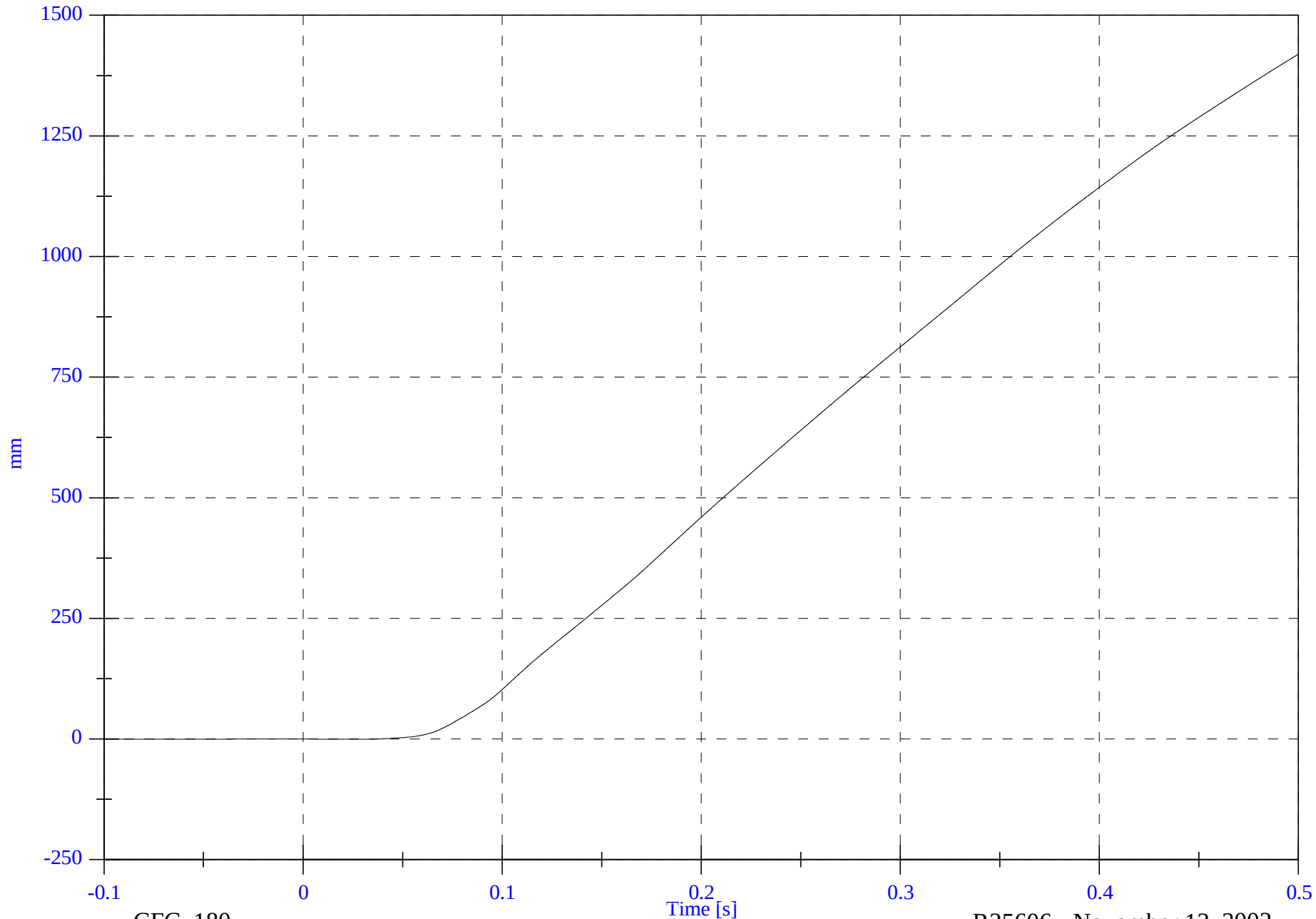
V1 RR Seat Xmember y Displacement

Max: 1419.2 [mm] at 0.500 [s]

Min: -0.4 [mm] at 0.030 [s]

B-186

8710-OFST-05



CFC_180

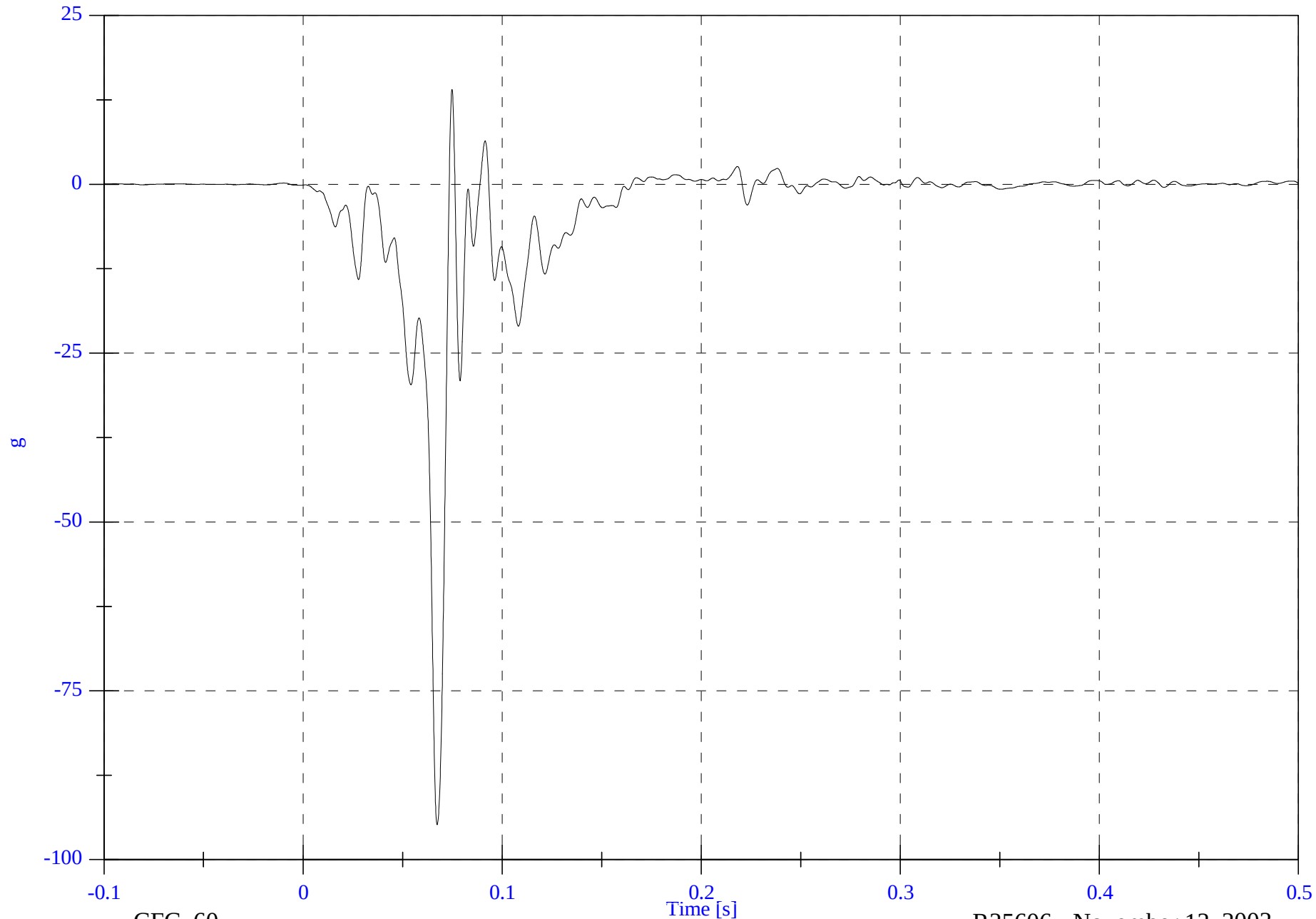
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Left Toepan x

Max: 14.0 [g] at 0.075 [s]

Min: -94.8 [g] at 0.067 [s]



B-187

8710-OFST-05

CFC_60

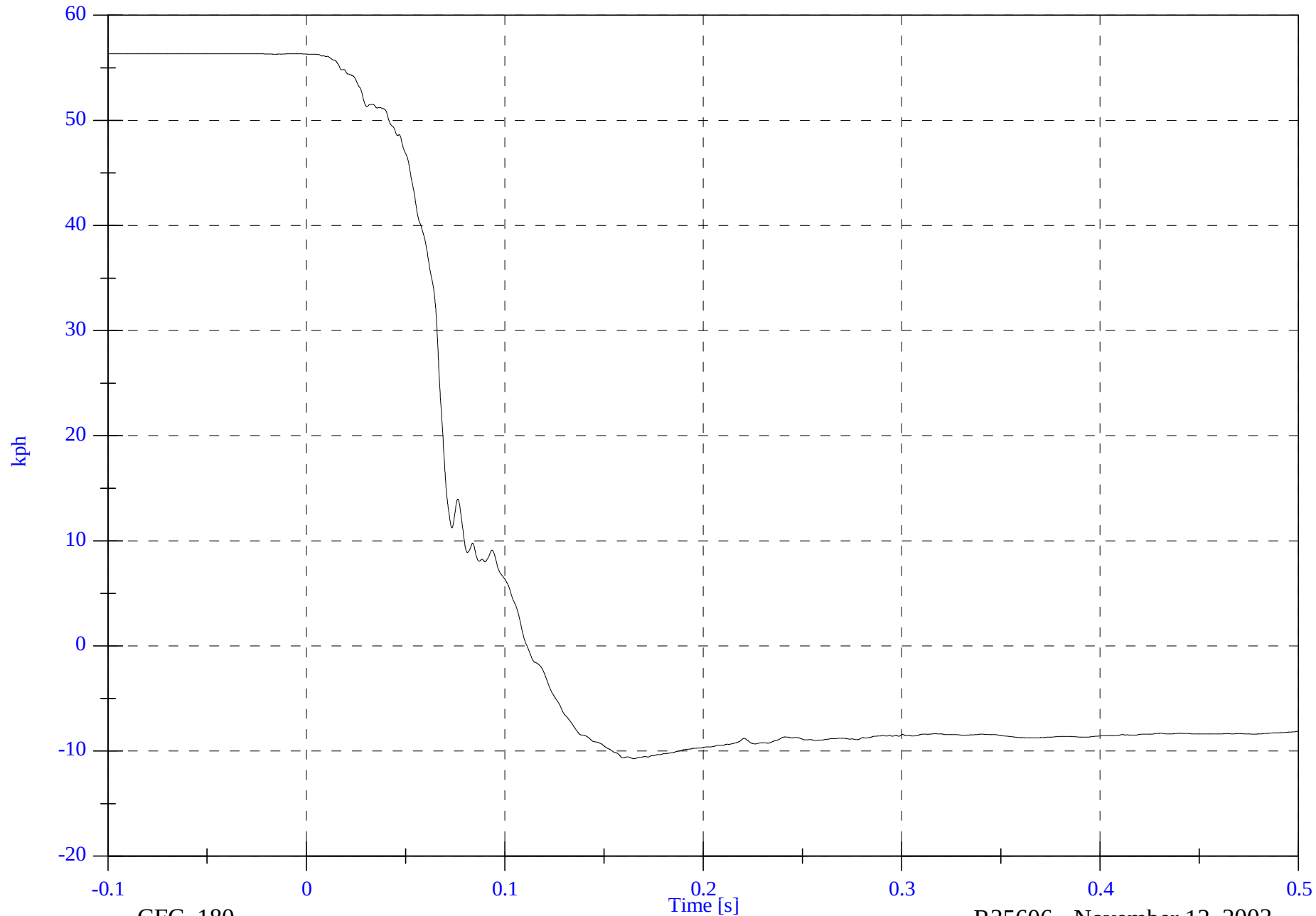
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Left Toepan x Velocity

Max: 56.4 [kph] at -0.007 [s]

Min: -10.7 [kph] at 0.165 [s]



B-188

8710-OFST-05

CFC_180

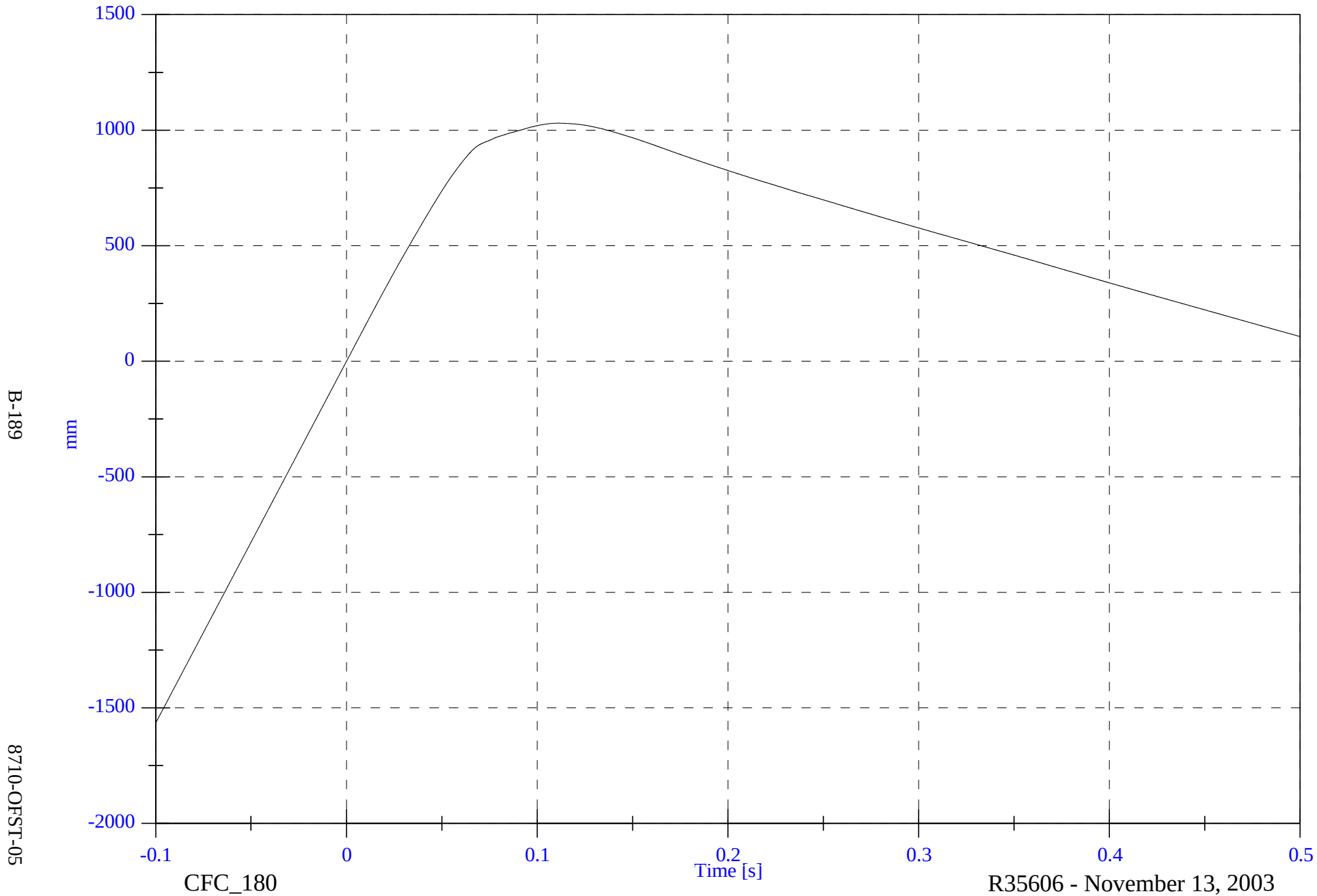
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Left Toepan x Displacement

Max: 1030.5 [mm] at 0.111 [s]

Min: -1564.9 [mm] at -0.100 [s]

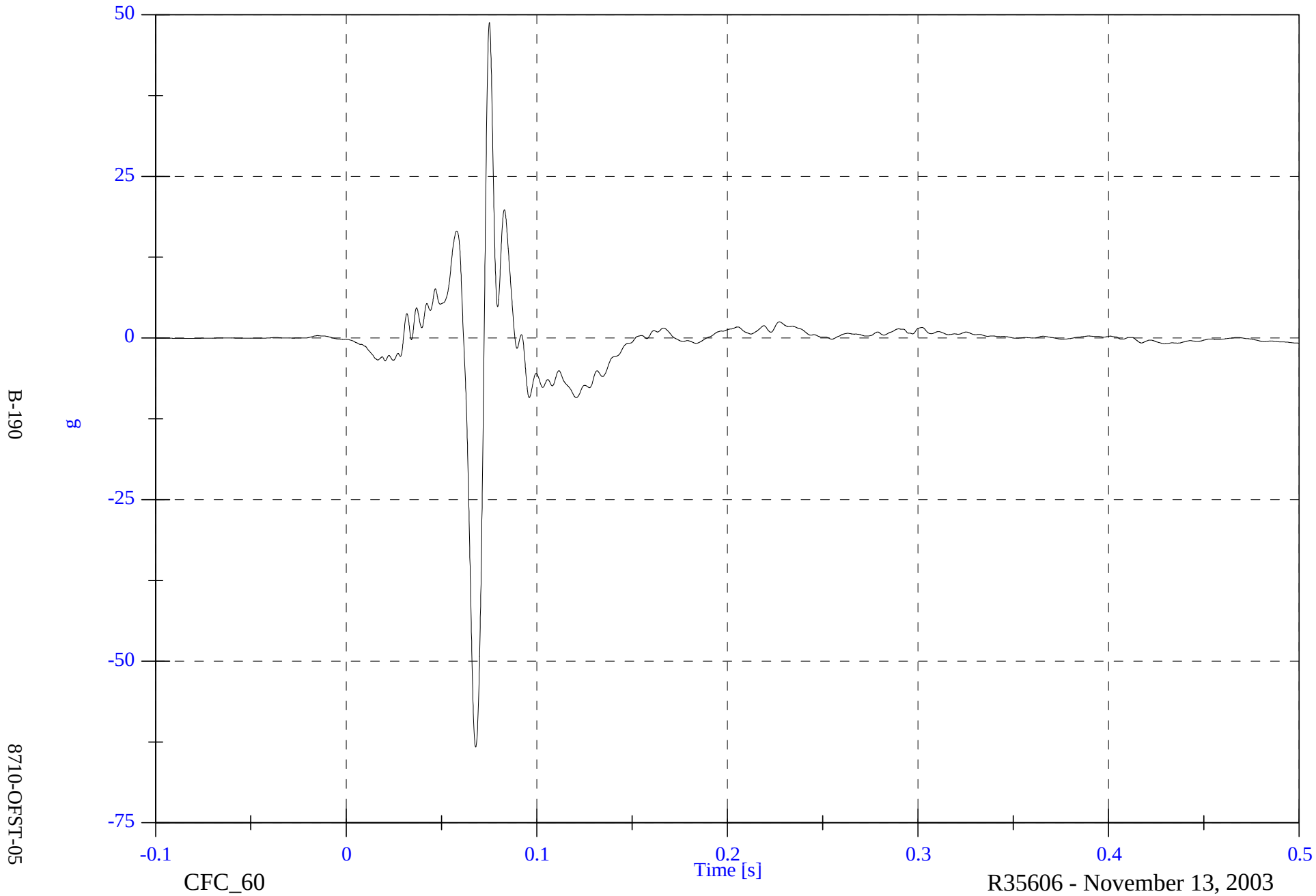


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Left Toepan z

Max: 48.8 [g] at 0.075 [s]

Min: -63.3 [g] at 0.068 [s]

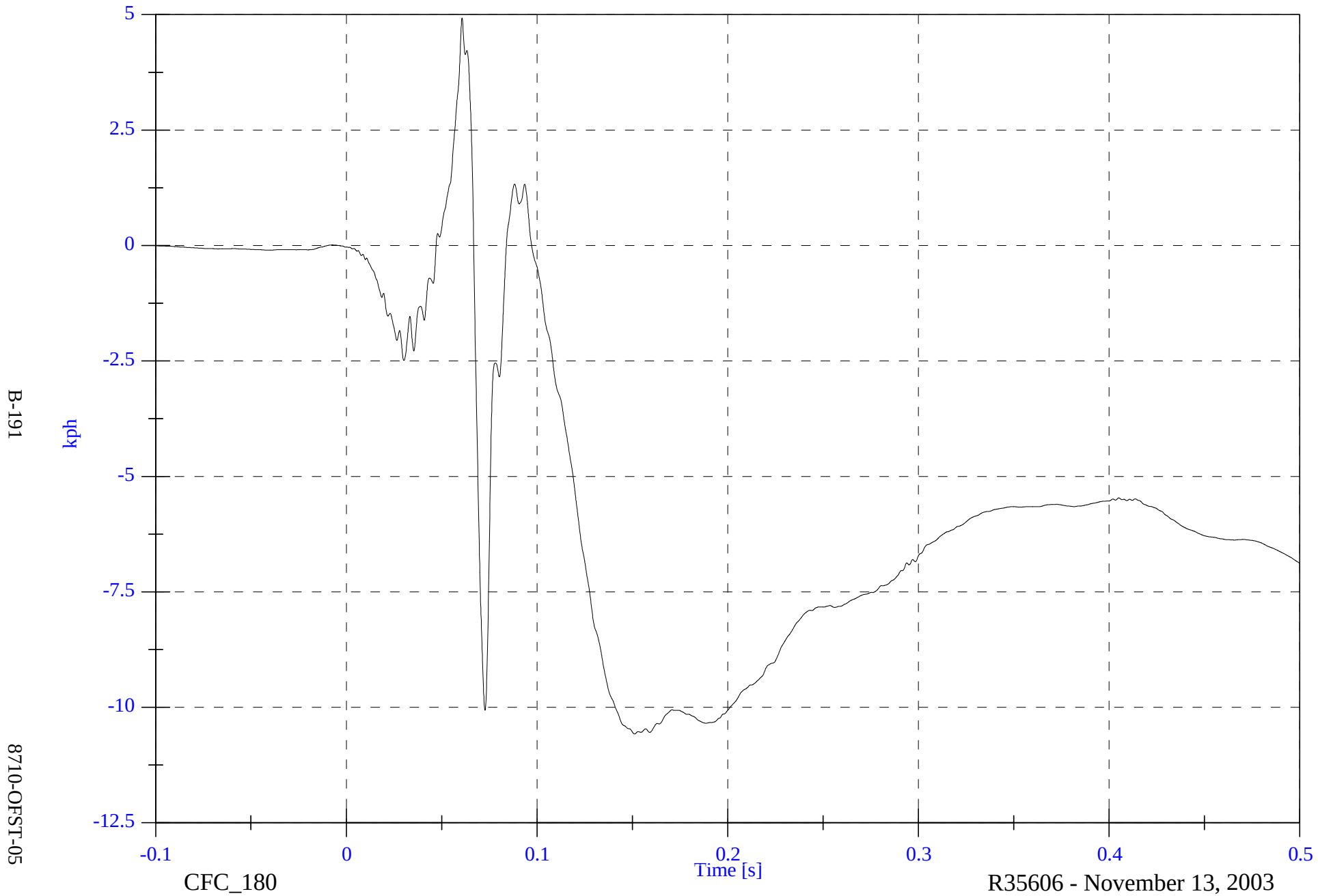


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Left Toepan z Velocity

Max: 4.9 [kph] at 0.061 [s]

Min: -10.6 [kph] at 0.151 [s]

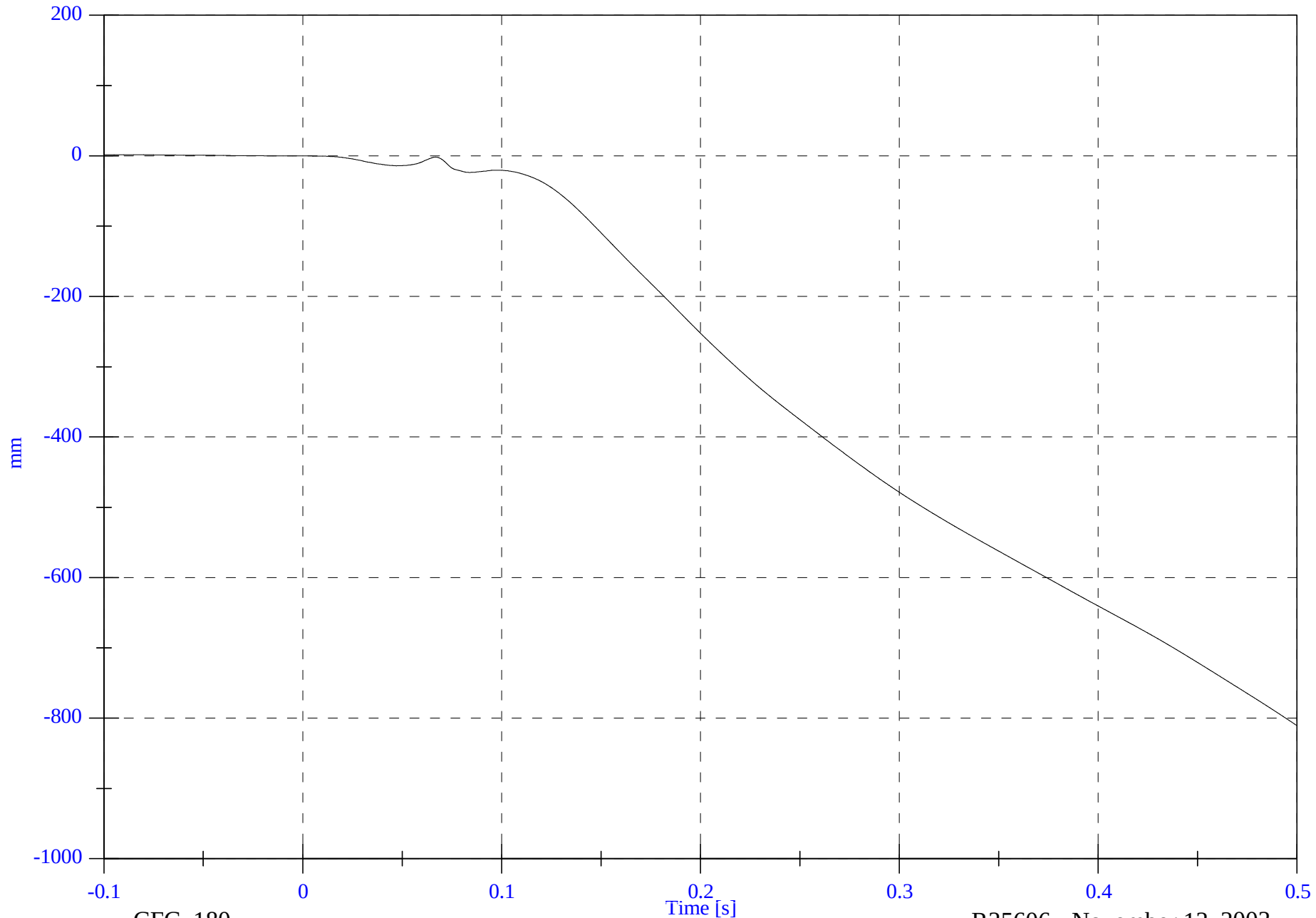


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Left Toepan z Displacement

Max: 1.6 [mm] at -0.100 [s]

Min: -810.4 [mm] at 0.500 [s]



B-192

8710-OFST-05

CFC_180

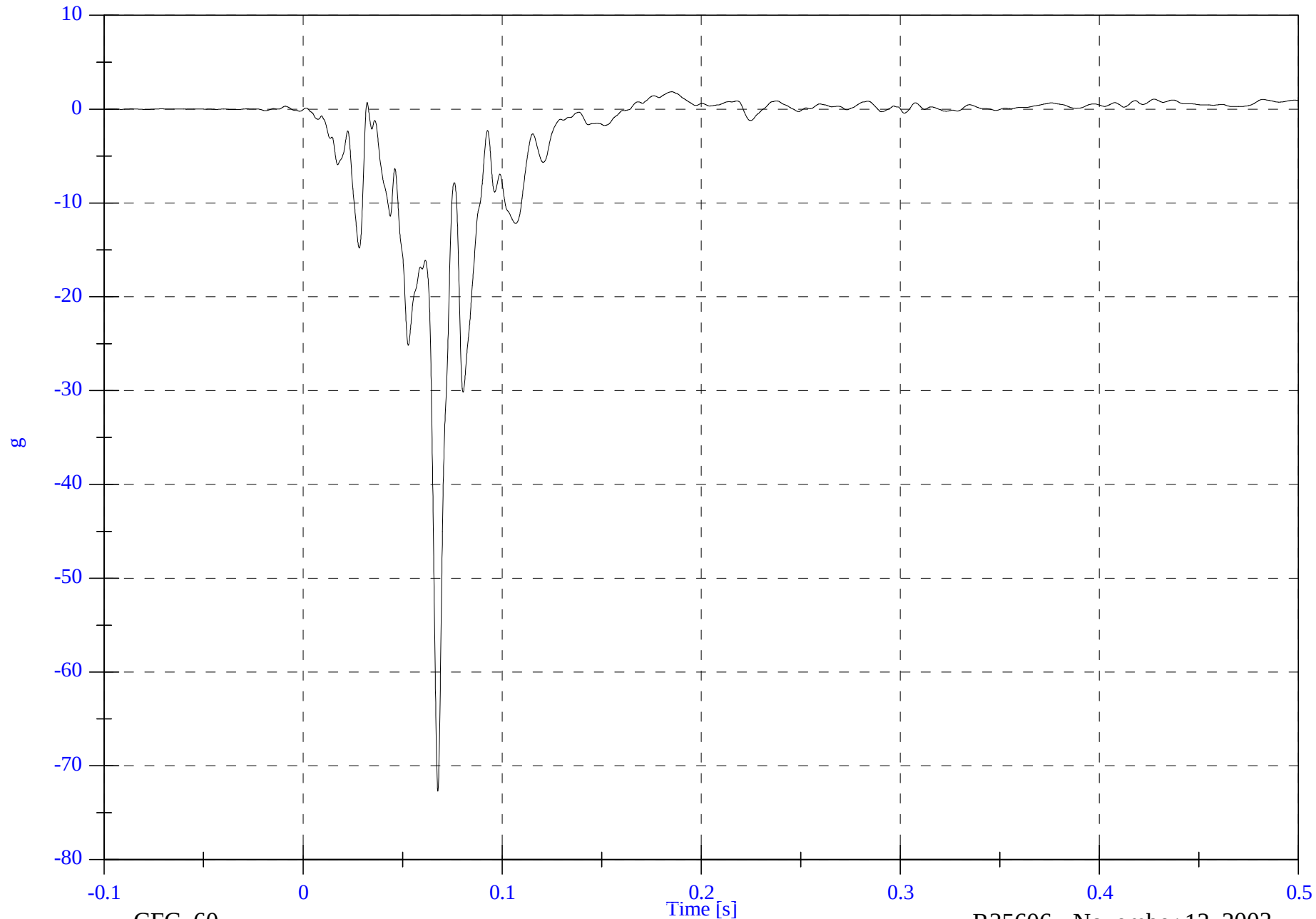
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Right Toepan x

Max: 1.9 [g] at 0.185 [s]

Min: -72.7 [g] at 0.068 [s]



B-193

8710-OFST-05

CFC_60

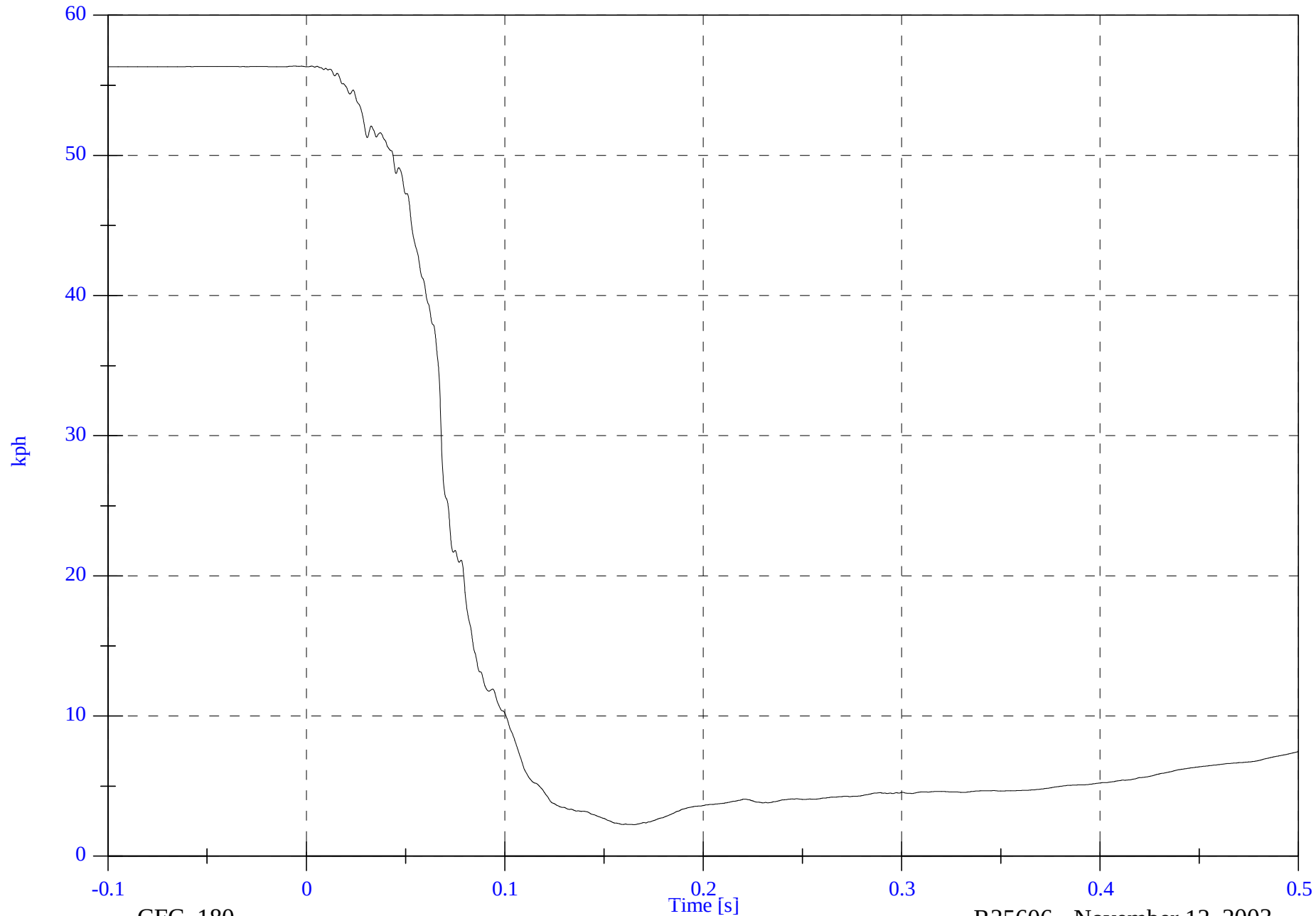
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Right Toepan x Velocity

Max: 56.4 [kph] at -0.006 [s]

Min: 2.2 [kph] at 0.165 [s]



B-194

8710-OFST-05

CFC_180

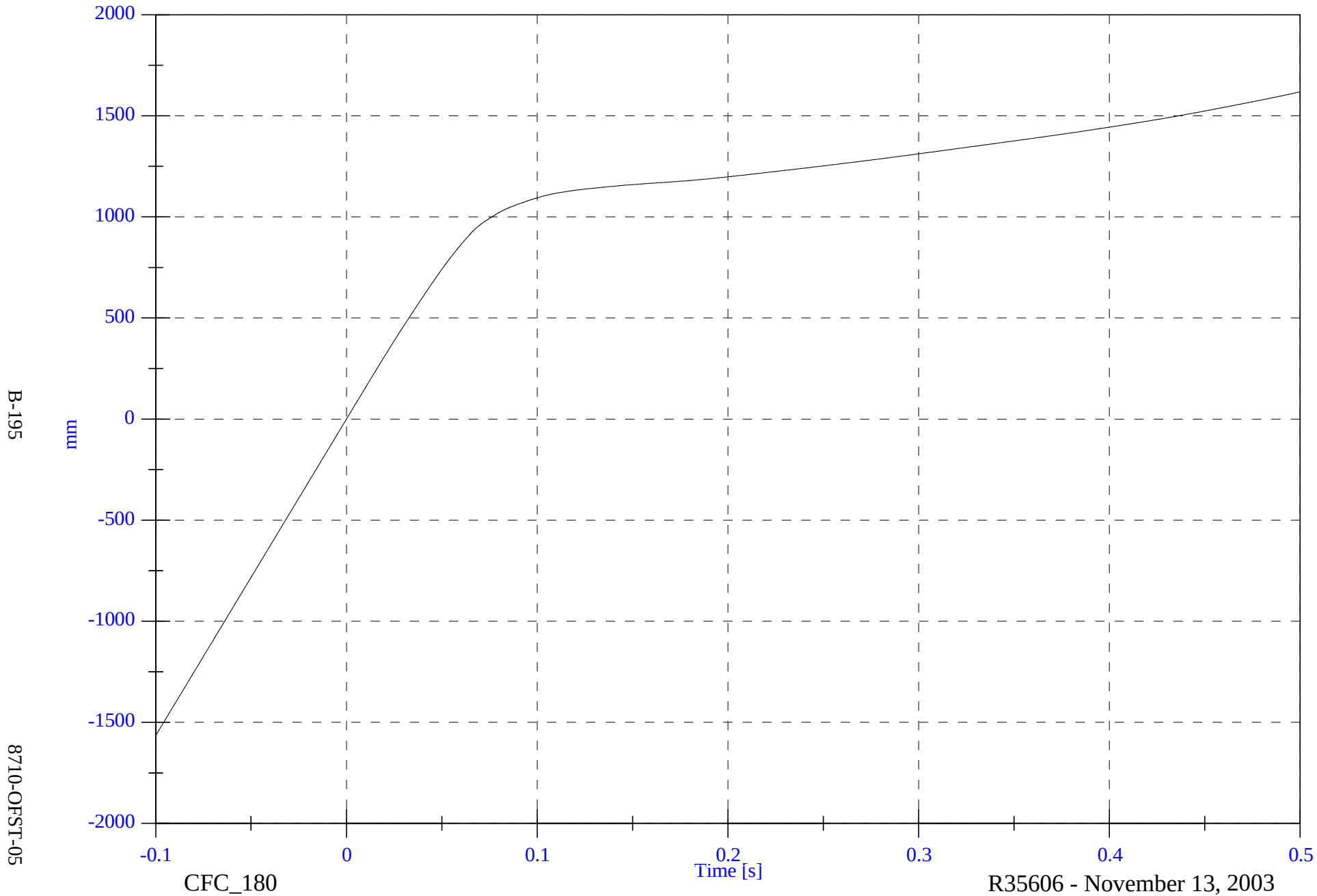
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Right Toepan x Displacement

Max: 1618.1 [mm] at 0.500 [s]

Min: -1565.0 [mm] at -0.100 [s]

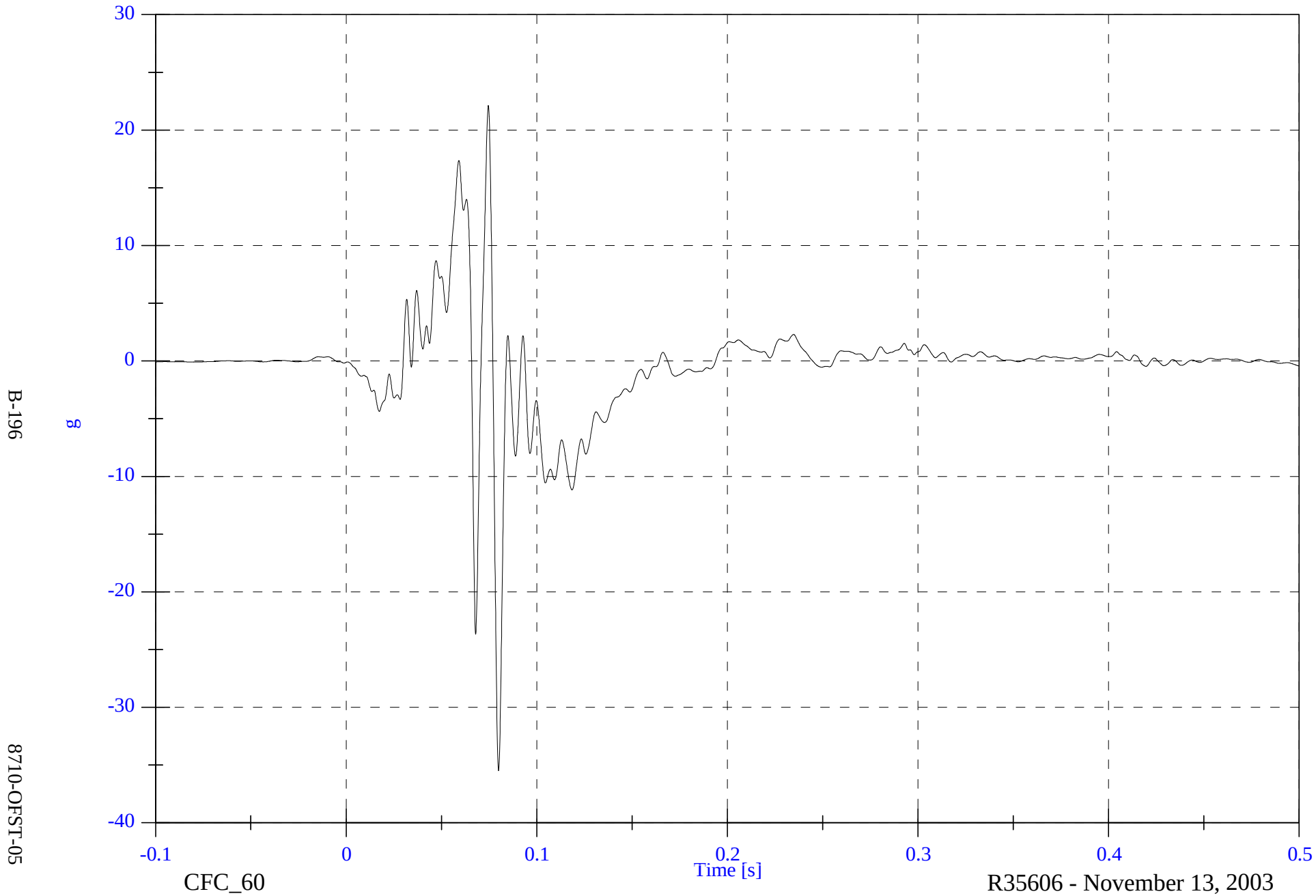


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Right Toepan z

Max: 22.1 [g] at 0.075 [s]

Min: -35.5 [g] at 0.080 [s]

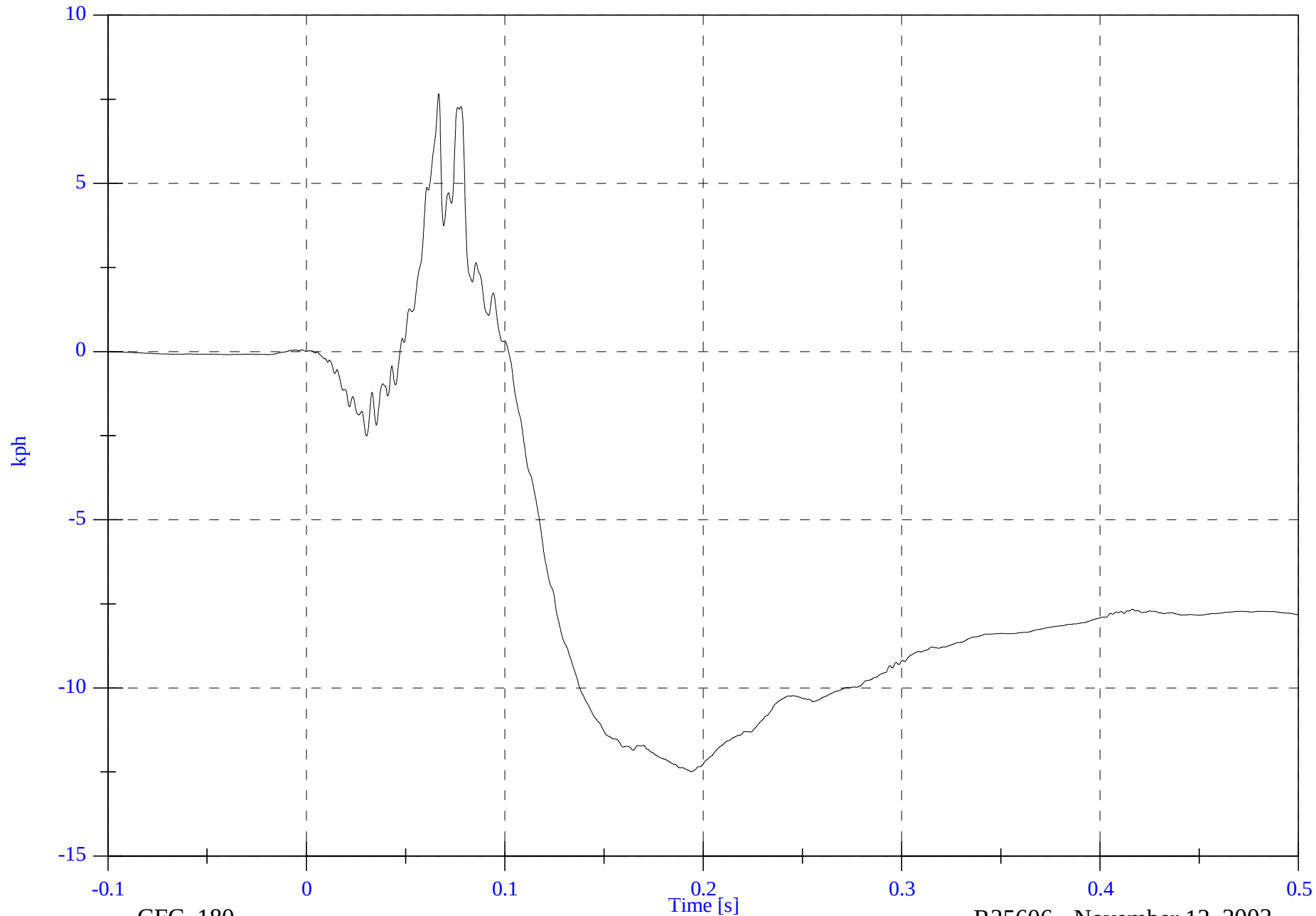


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Right Toepan z Velocity

Max: 7.7 [kph] at 0.067 [s]

Min: -12.5 [kph] at 0.194 [s]



B-197

8710-OFST-05

CFC_180

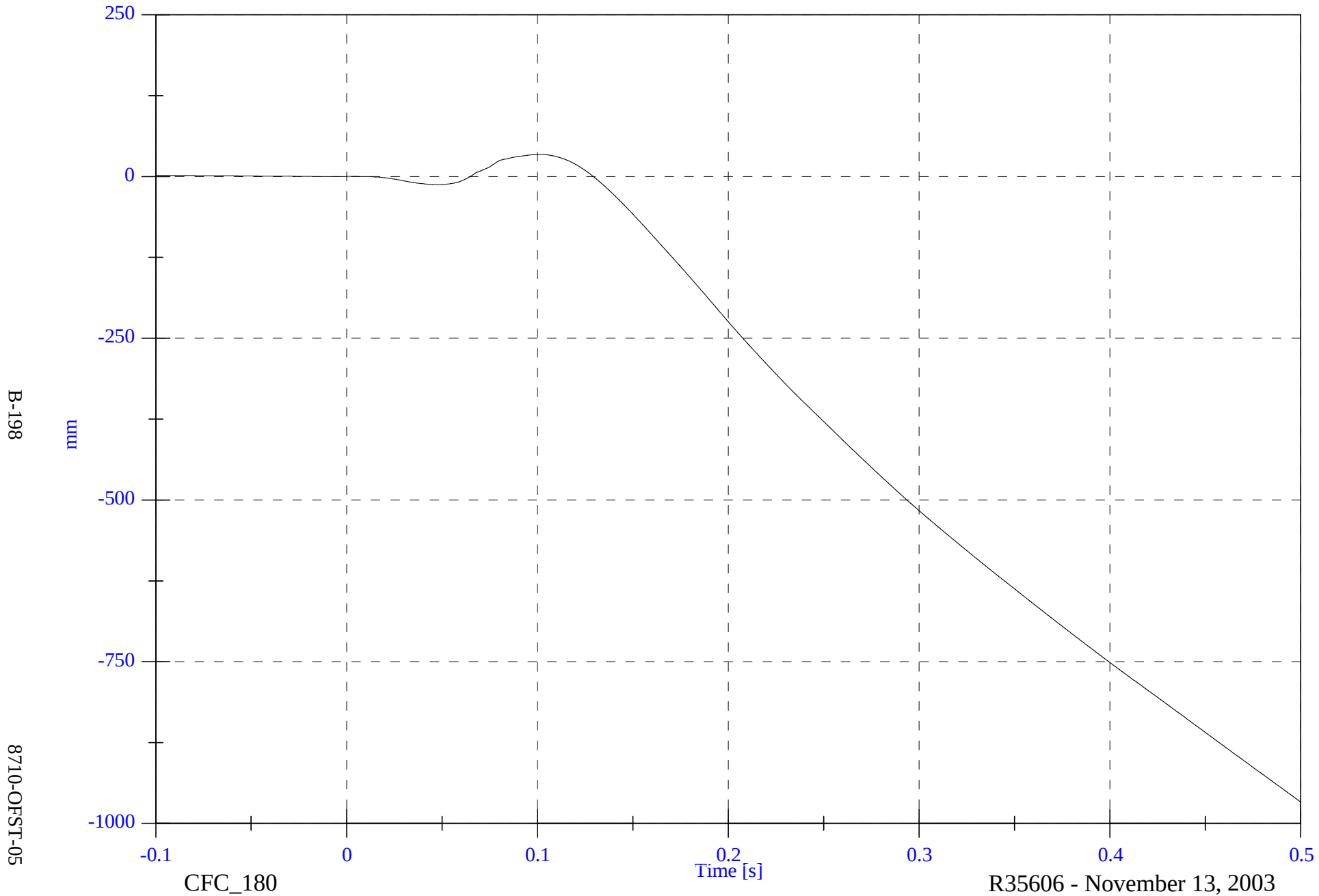
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1P1 Right Toepan z Displacement

Max: 33.9 [mm] at 0.102 [s]

Min: -966.8 [mm] at 0.500 [s]



B-198

8710-OFST-05

CFC_180

Time [s]

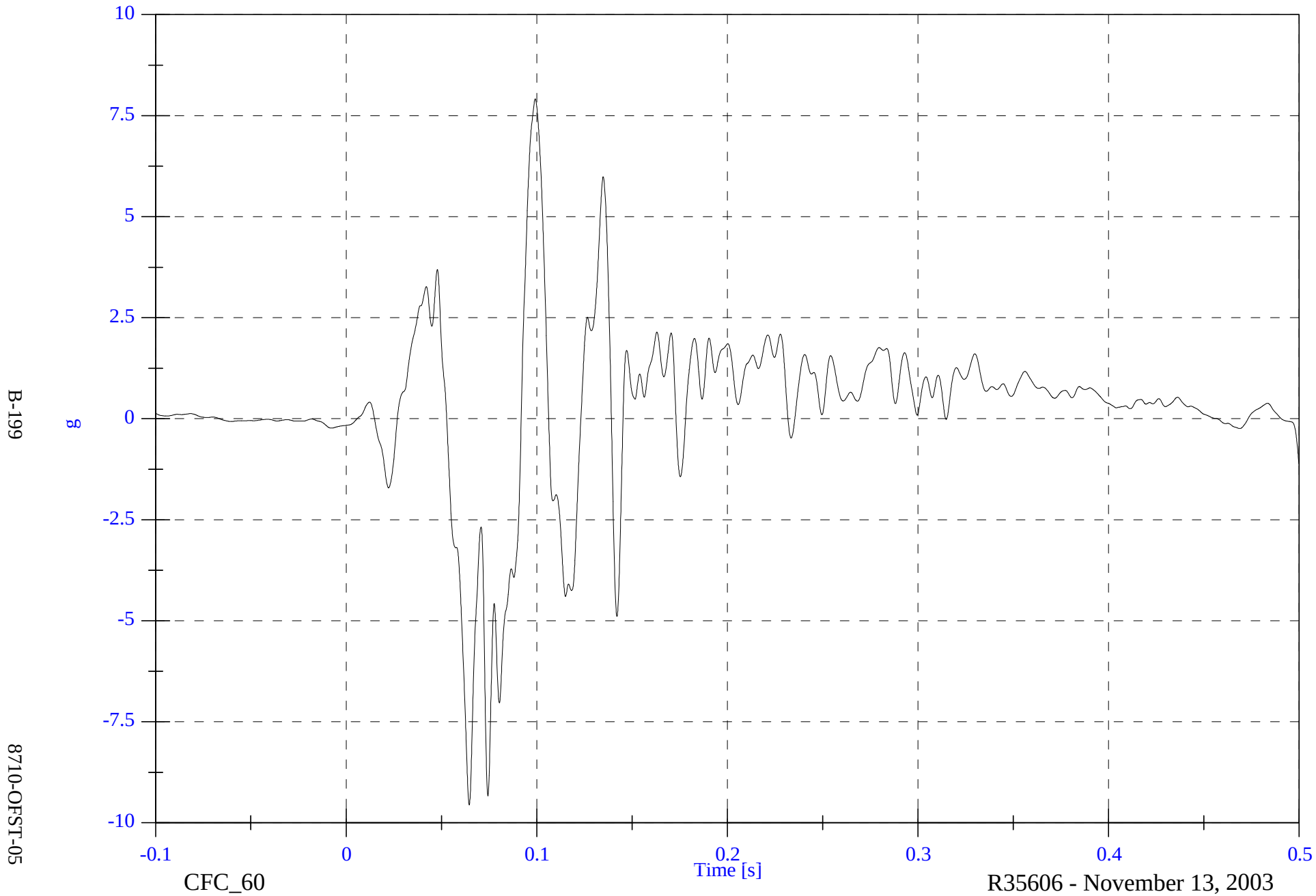
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1 Rear Deck z

Max: 7.9 [g] at 0.099 [s]

Min: -9.6 [g] at 0.065 [s]

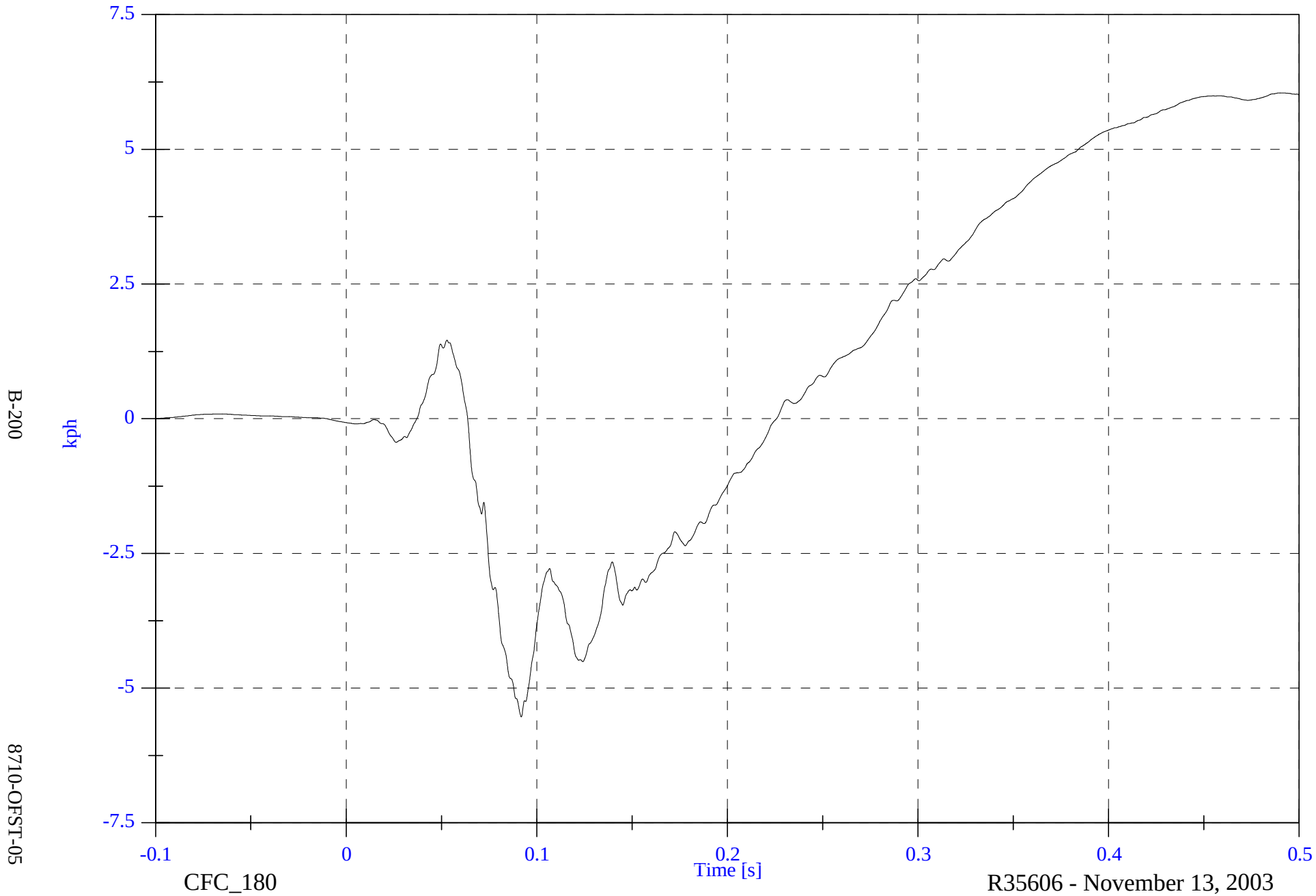


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1 Rear Deck z Velocity

Max: 6.0 [kph] at 0.490 [s]

Min: -5.5 [kph] at 0.092 [s]



40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

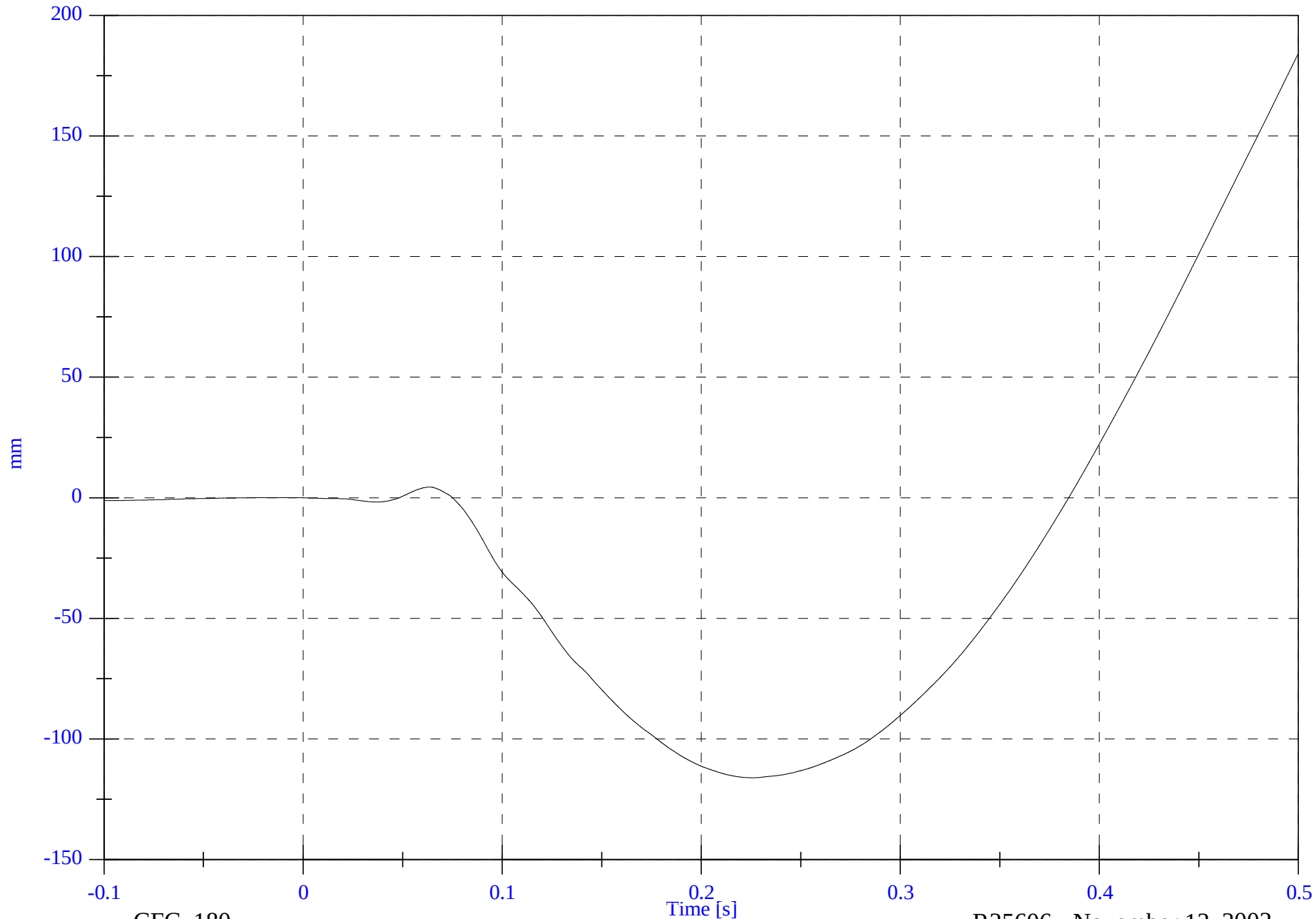
V1 Rear Deck z Displacement

Max: 184.0 [mm] at 0.500 [s]

Min: -116.1 [mm] at 0.226 [s]

B-201

8710-OFST-05



CFC_180

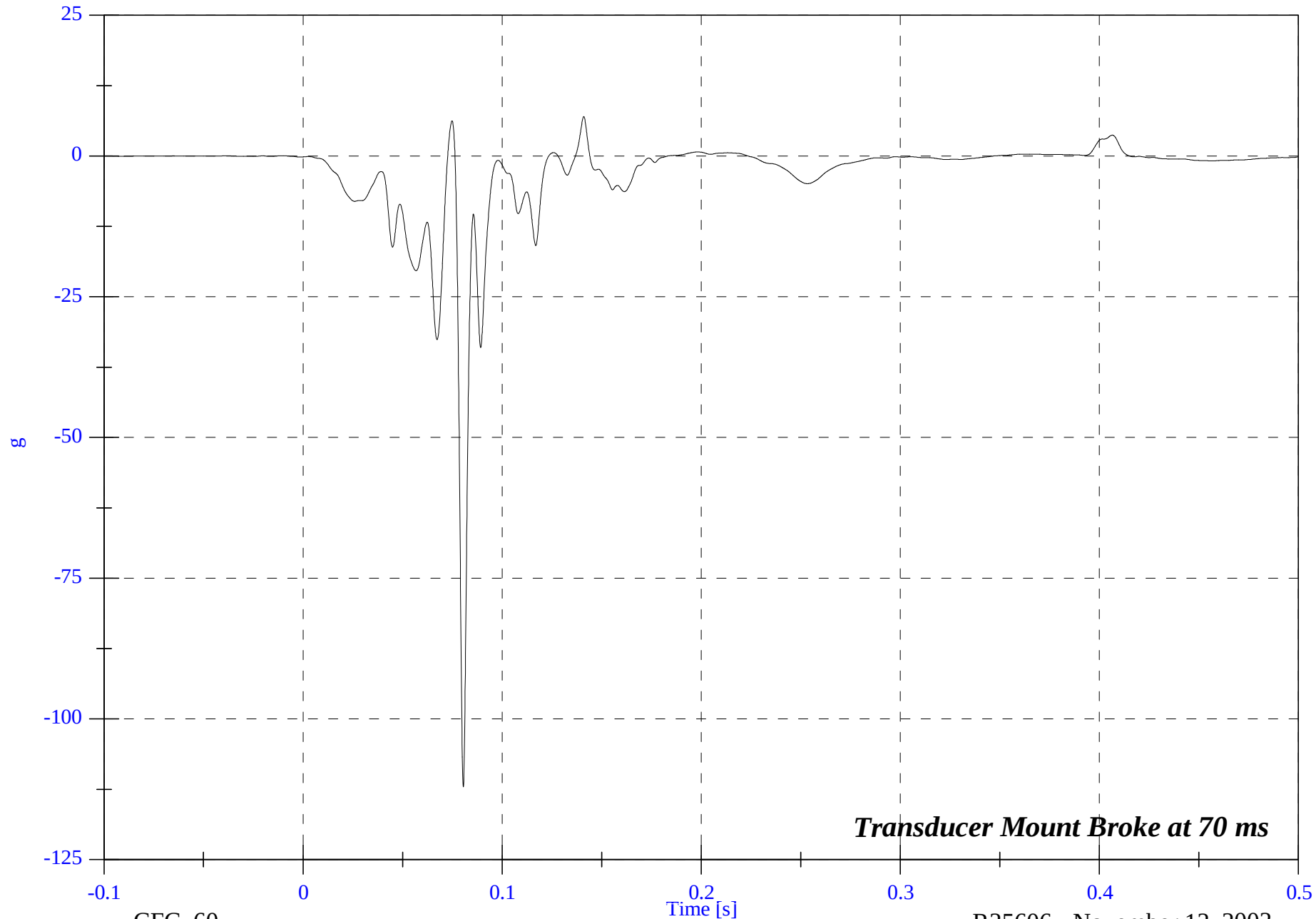
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1 Vehicle CG x

Max: 7.0 [g] at 0.141 [s]

Min: -112.1 [g] at 0.081 [s]



Transducer Mount Broke at 70 ms

B-202

8710-OFST-05

CFC_60

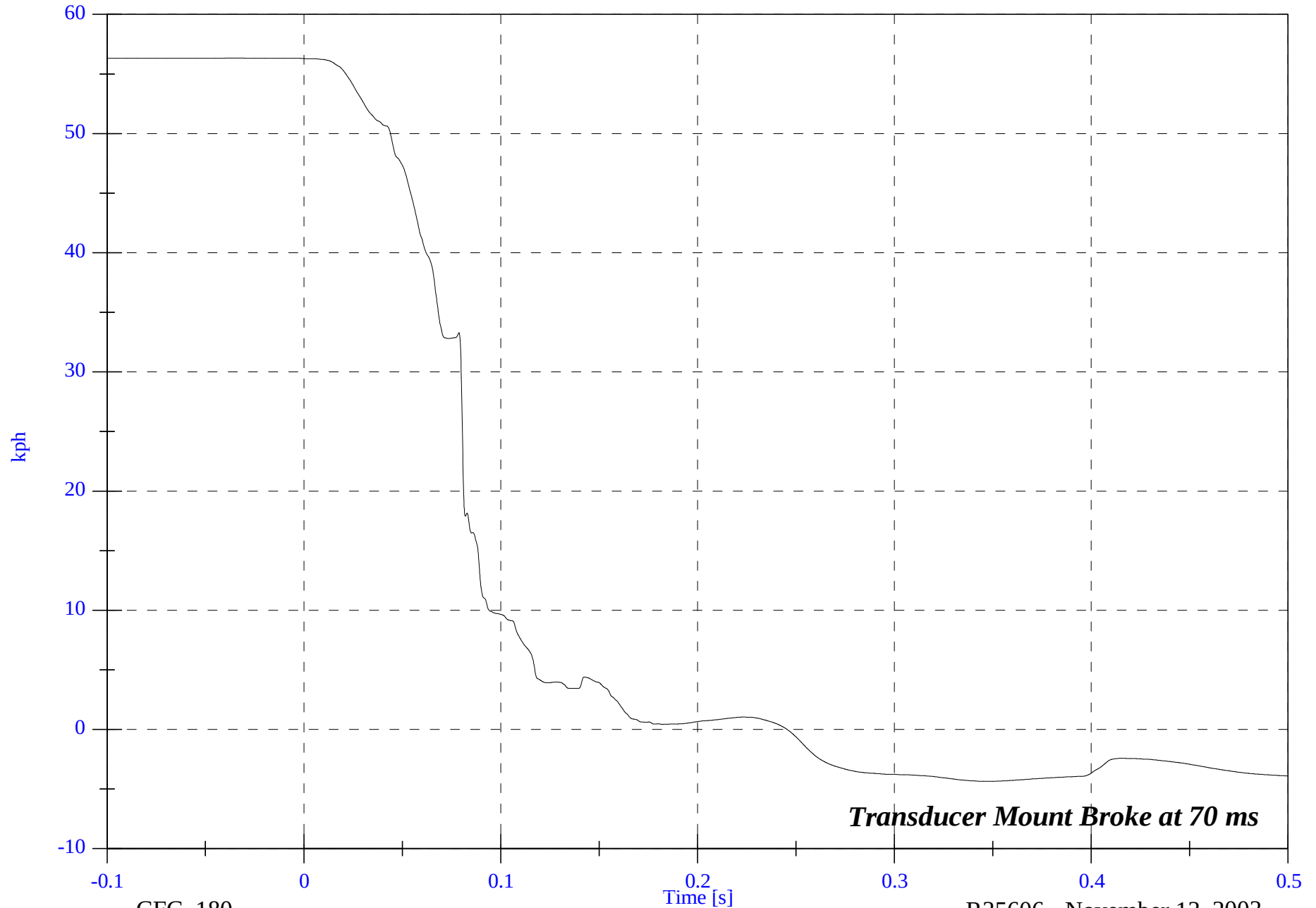
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1 Vehicle CG x Velocity

Max: 56.3 [kph] at -0.033 [s]

Min: -4.3 [kph] at 0.347 [s]



Transducer Mount Broke at 70 ms

B-203

8710-OFST-05

CFC_180

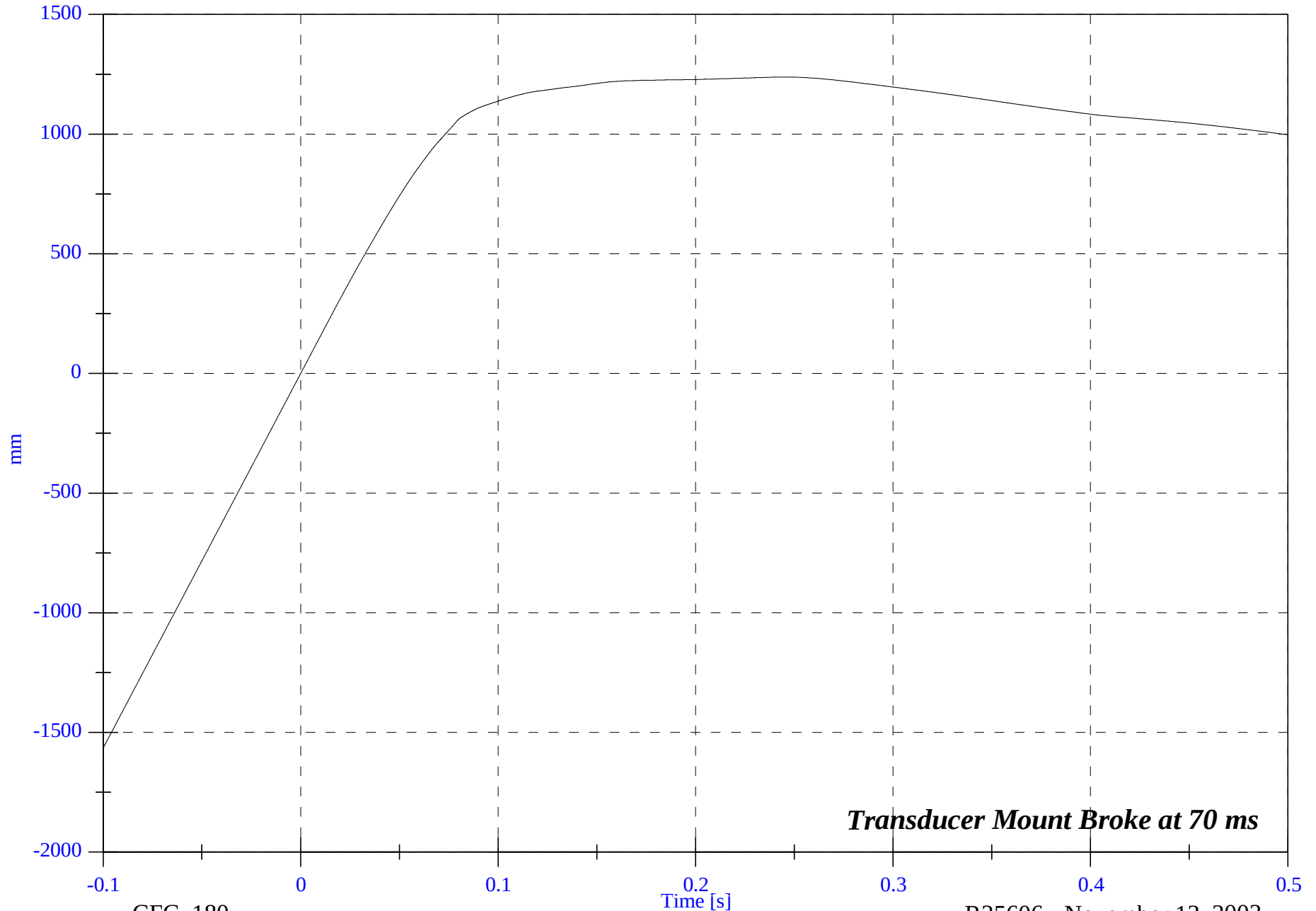
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1 Vehicle CG x Displacement

Max: 1238.6 [mm] at 0.246 [s]

Min: -1564.7 [mm] at -0.100 [s]



Transducer Mount Broke at 70 ms

B-204

8710-OFST-05

CFC_180

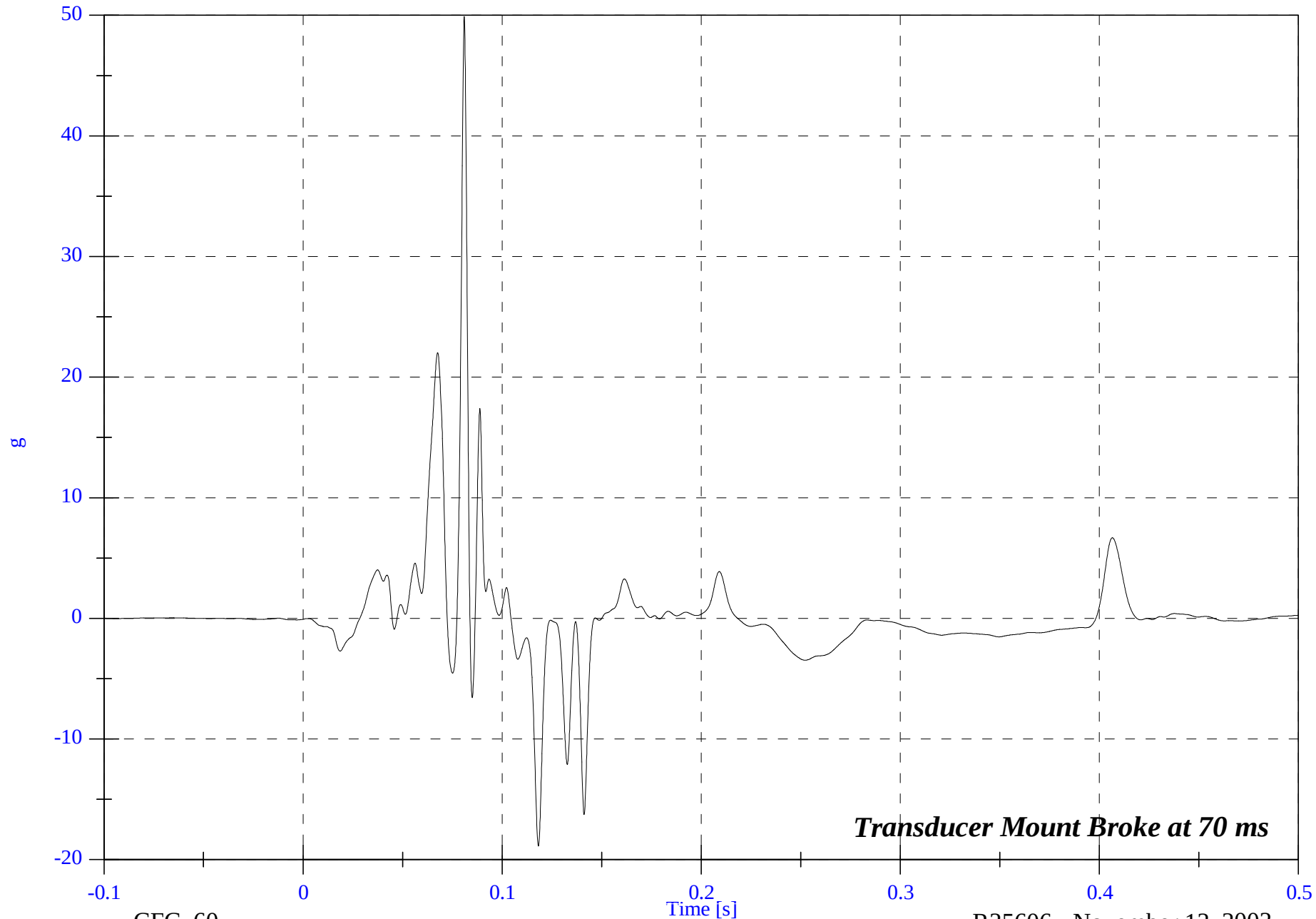
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1 Vehicle CG y

Max: 49.9 [g] at 0.081 [s]

Min: -18.9 [g] at 0.118 [s]



B-205

8710-OFST-05

CFC_60

R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1 Vehicle CG y Velocity

Max: 14.3 [kph] at 0.090 [s]

Min: -1.0 [kph] at 0.027 [s]



Transducer Mount Broke at 70 ms

B-206

8710-OFST-05

CFC_180

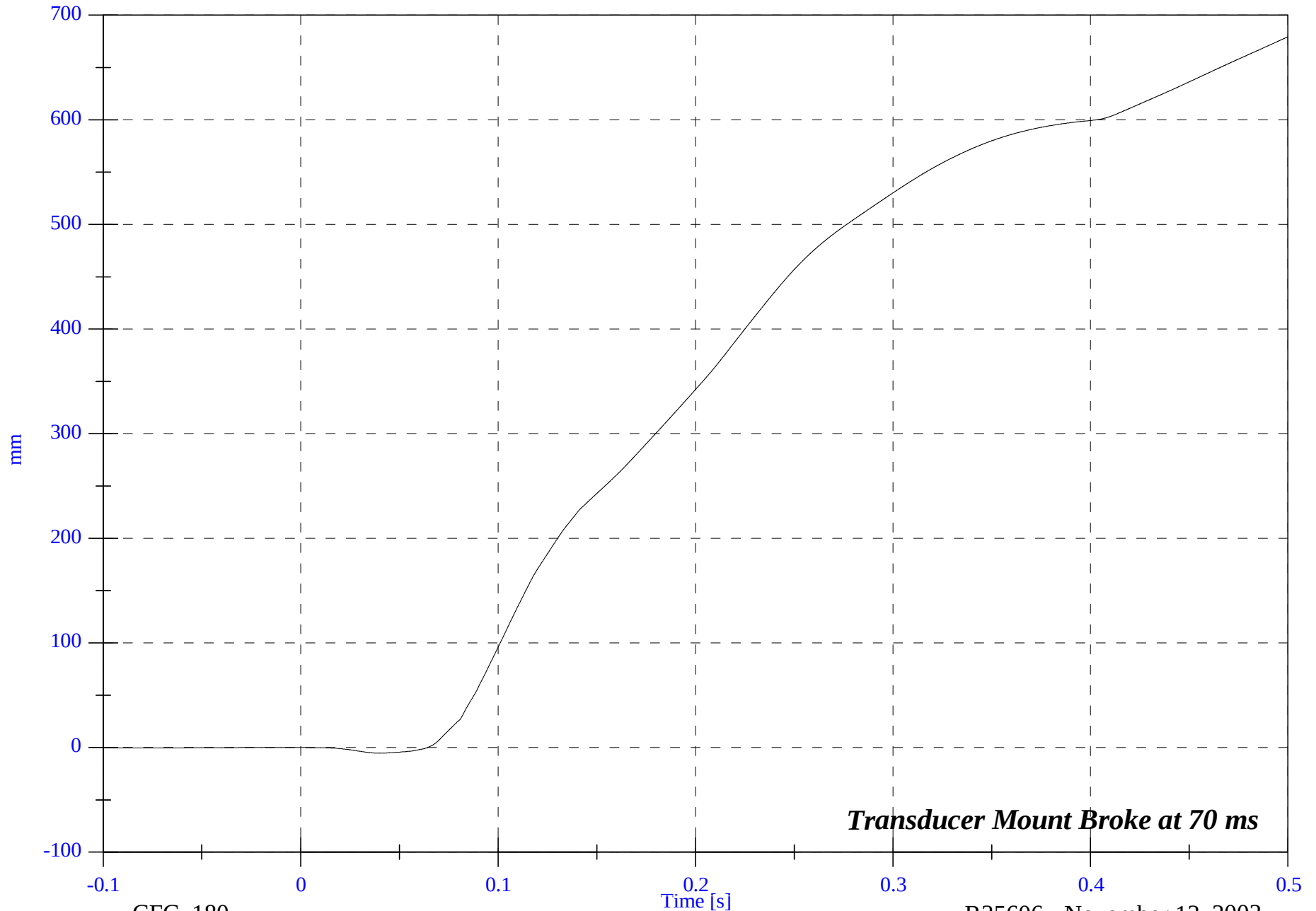
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1 Vehicle CG y Displacement

Max: 679.3 [mm] at 0.500 [s]

Min: -5.3 [mm] at 0.040 [s]



Transducer Mount Broke at 70 ms

B-207

8710-OFST-05

CFC_180

R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

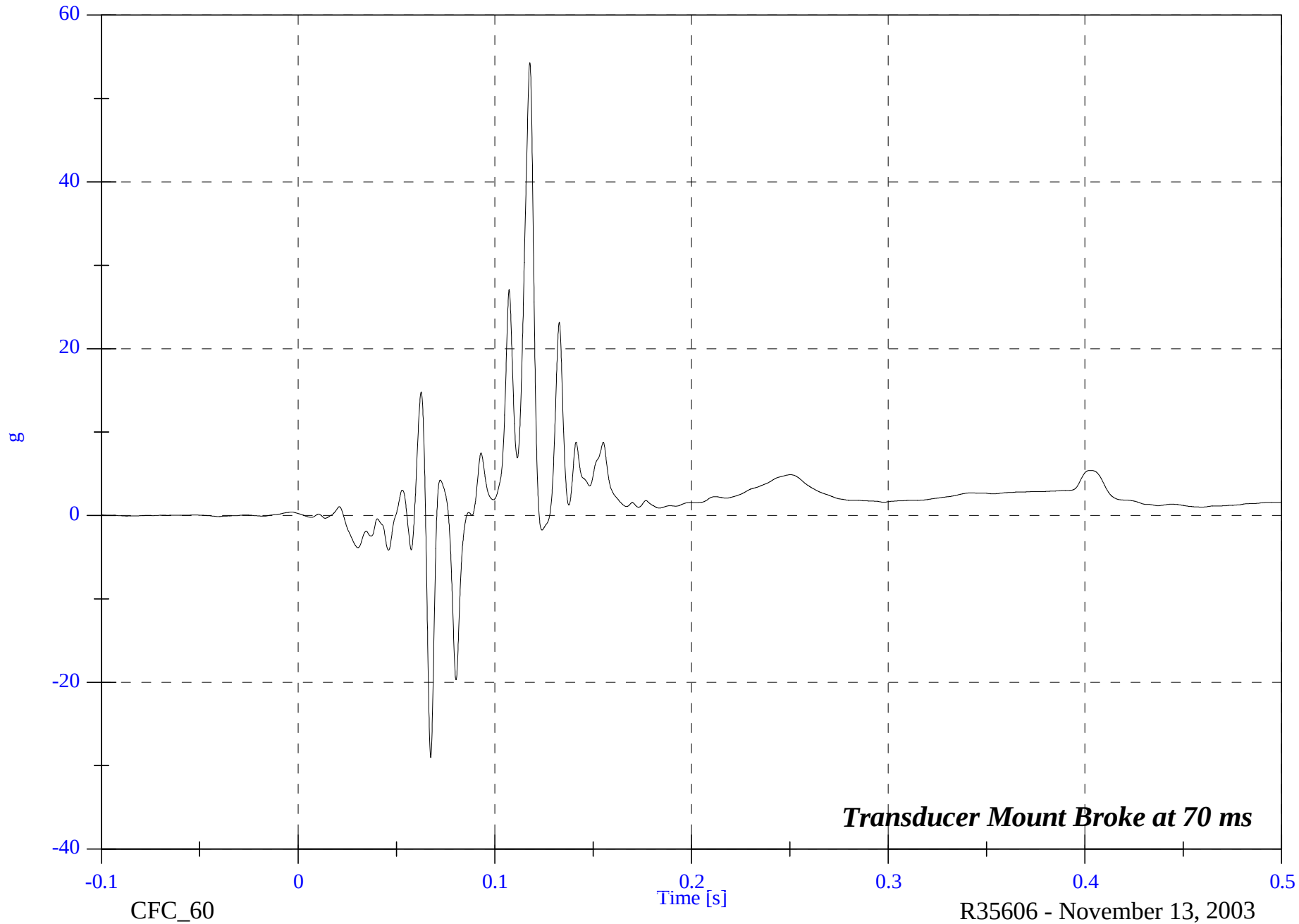
V1 Vehicle CG z

Max: 54.3 [g] at 0.118 [s]

Min: -29.0 [g] at 0.067 [s]

B-208

8710-OFST-05

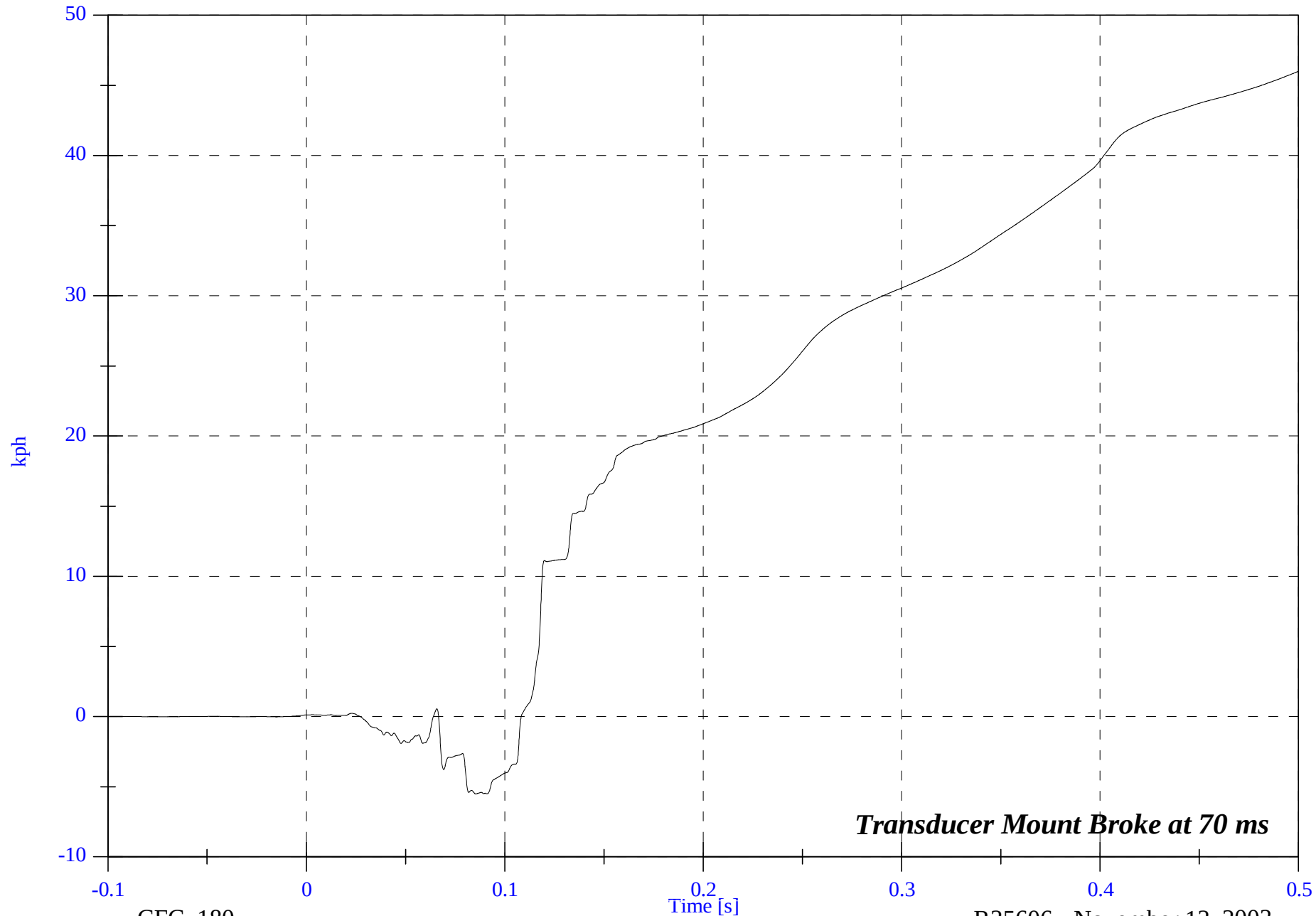


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1 Vehicle CG z Velocity

Max: 46.0 [kph] at 0.500 [s]

Min: -5.5 [kph] at 0.085 [s]



Transducer Mount Broke at 70 ms

B-209

8710-OFST-05

CFC_180

R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1 Vehicle CG z Displacement

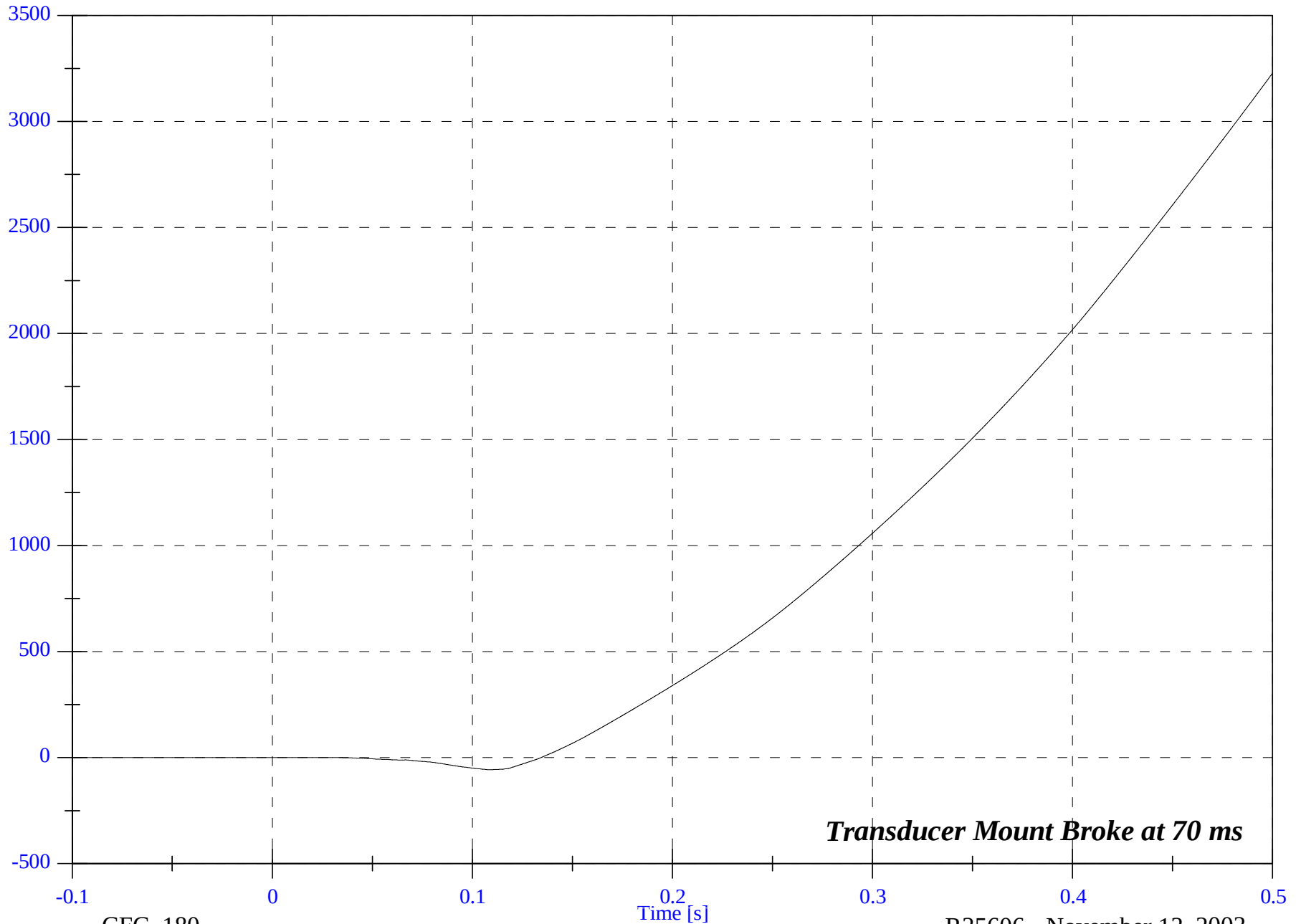
Max: 3226.0 [mm] at 0.500 [s]

Min: -56.5 [mm] at 0.108 [s]

B-210

mm

8710-OFST-05



Transducer Mount Broke at 70 ms

CFC_180

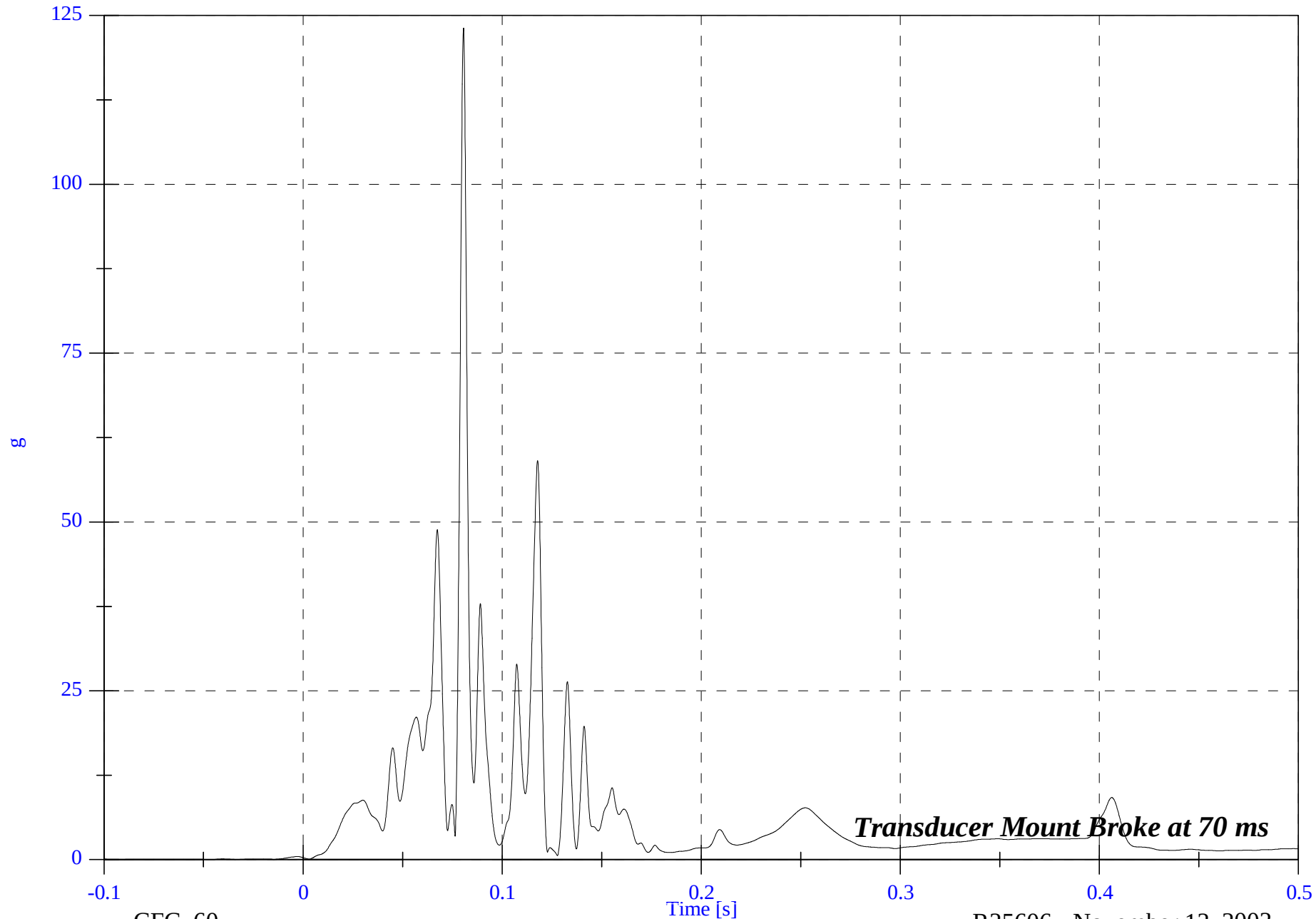
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

V1 Vehicle CG Resultant

Max: 123.1 [g] at 0.081 [s]

Min: 0.0 [g] at -0.046 [s]



B-211

8710-OFST-05

CFC_60

R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

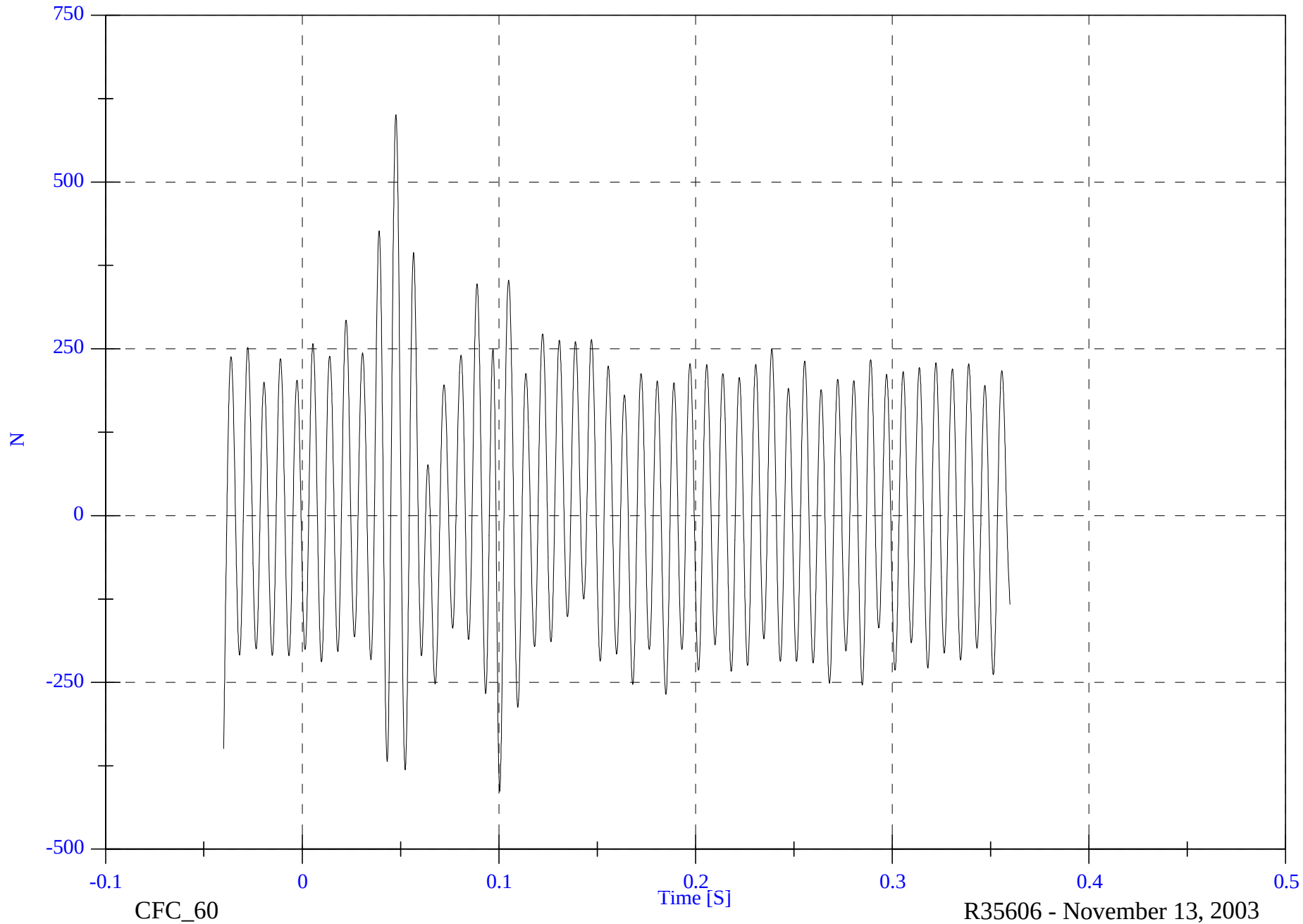
Barrier Load Cell H1 FX

Max: 600.9 [N] at 0.048 [S]

Min: -413.2 [N] at 0.100 [S]

B-212

8710-OFST-05

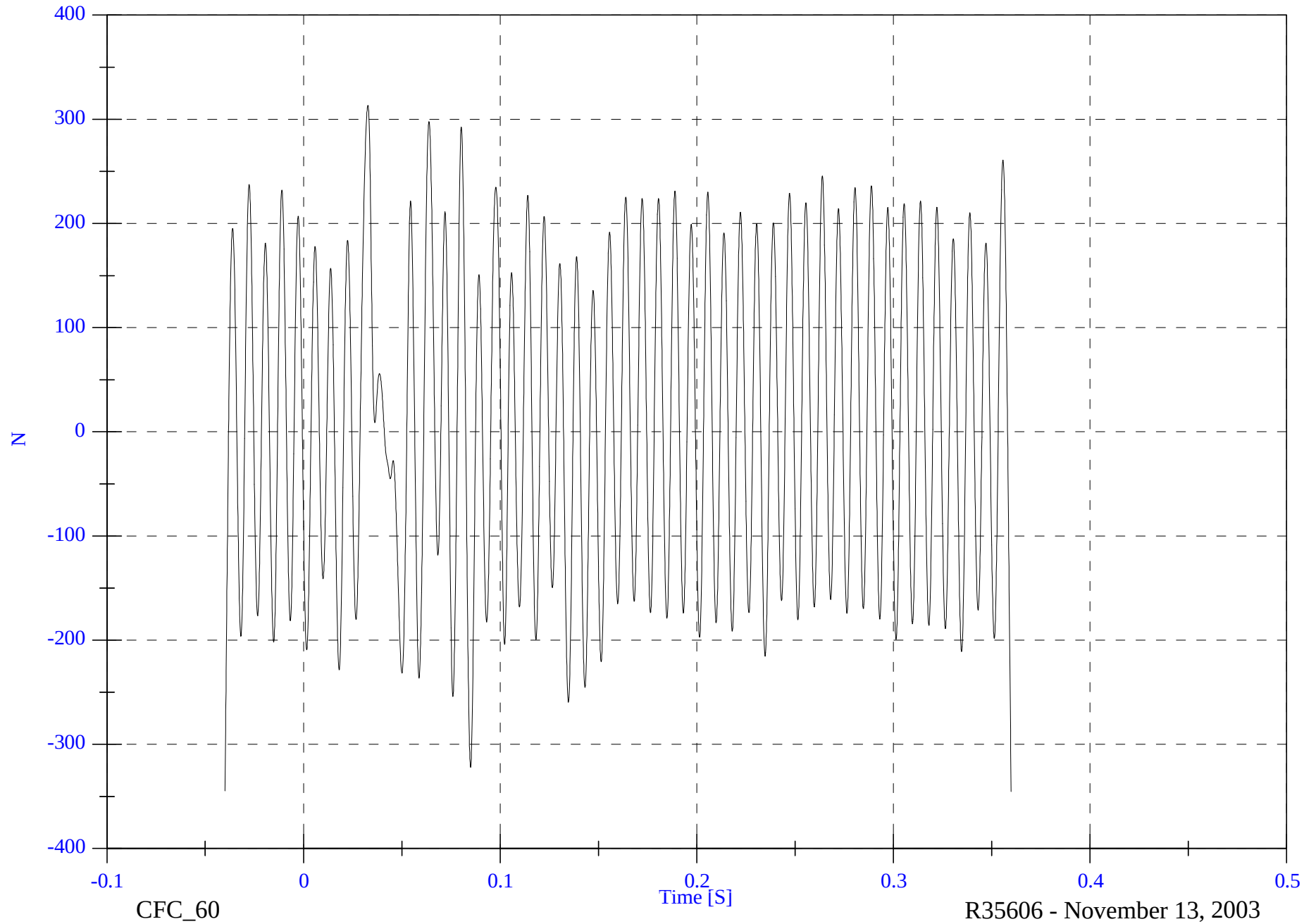


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

Barrier Load Cell H2 FX

Max: 313.4 [N] at 0.033 [S]

Min: -345.4 [N] at 0.360 [S]



B-213

8710-OFST-05

CFC_60

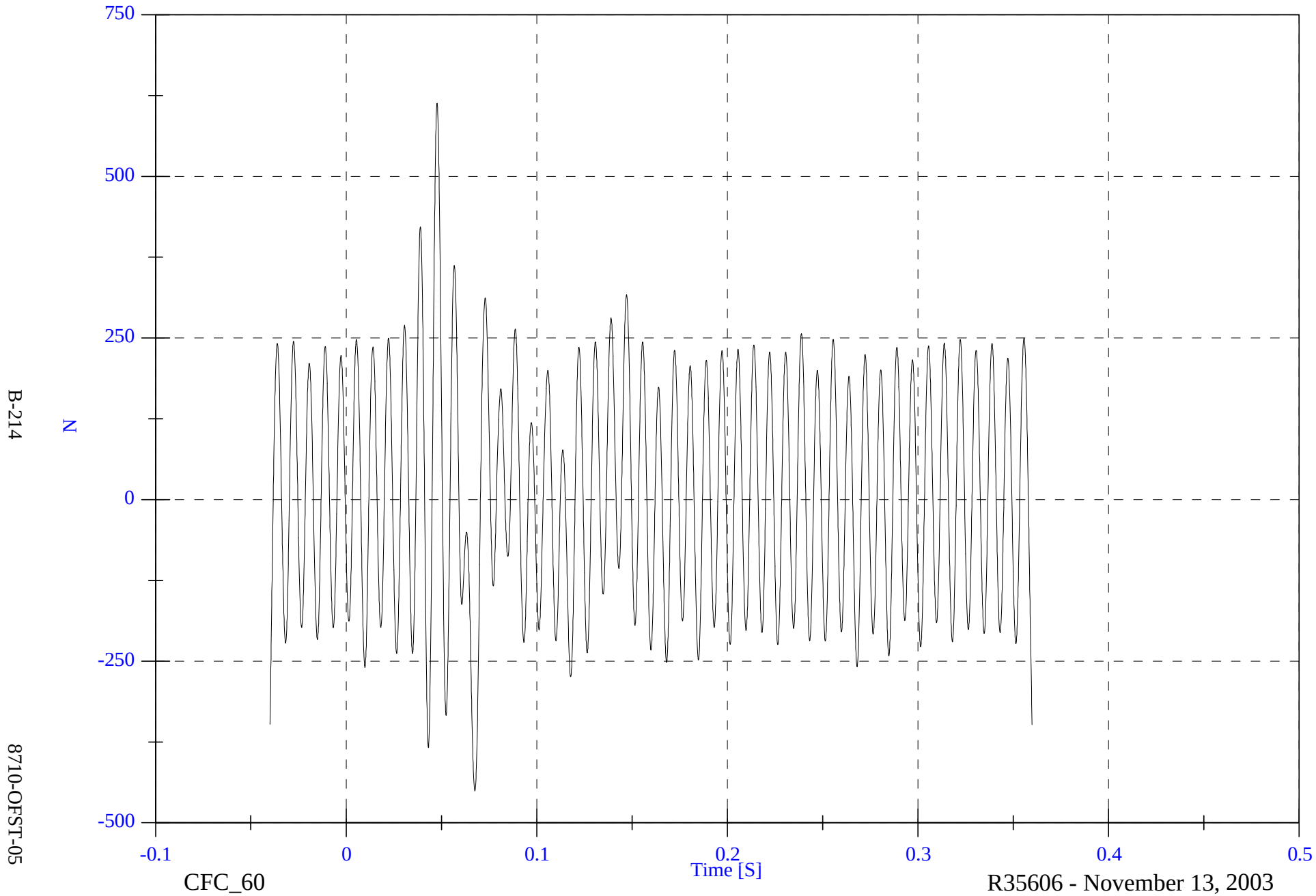
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

Barrier Load Cell H3 FX

Max: 613.0 [N] at 0.048 [S]

Min: -450.8 [N] at 0.067 [S]

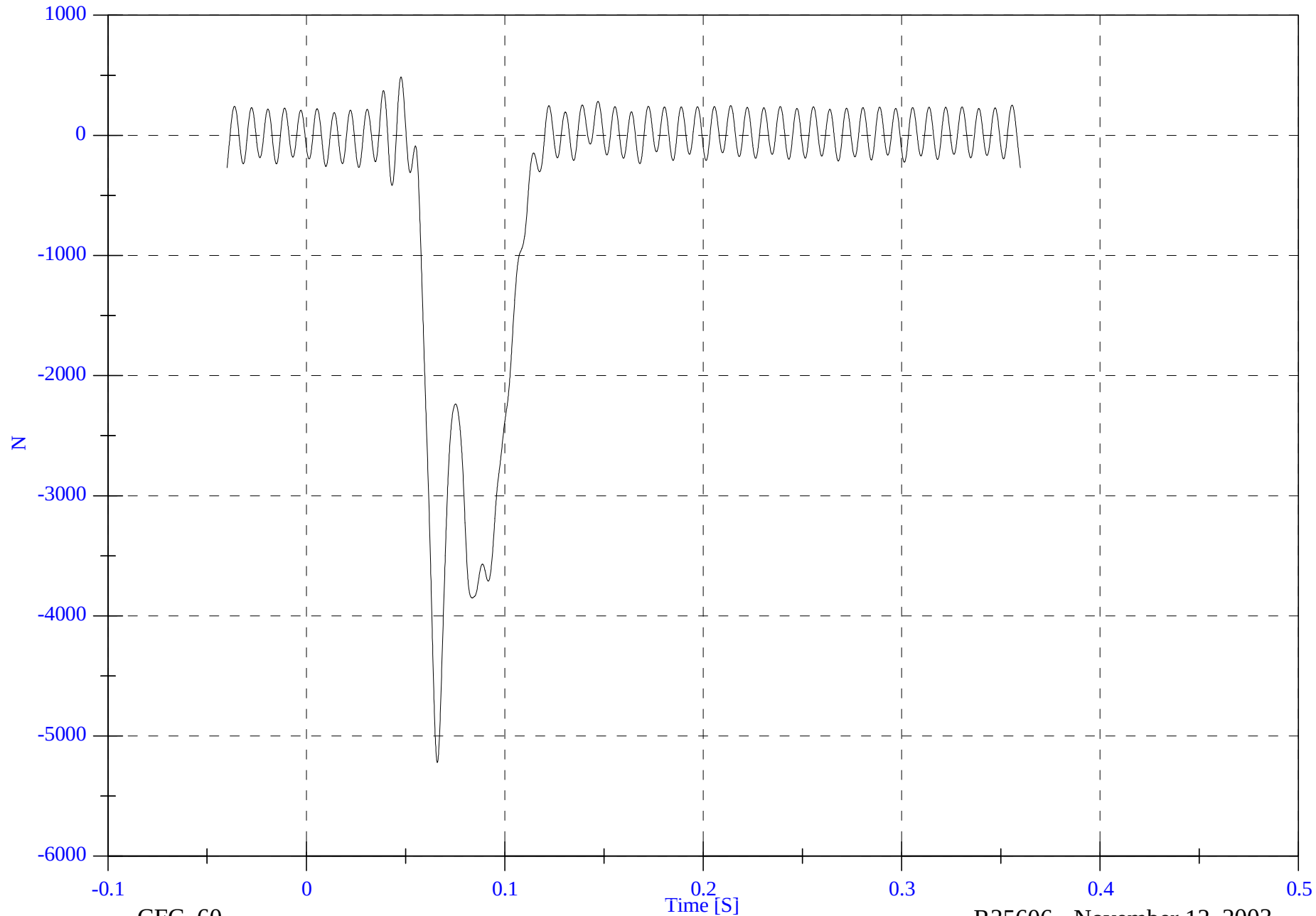


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

Barrier Load Cell H4 FX

Max: 487.1 [N] at 0.048 [S]

Min: -5221.3 [N] at 0.066 [S]



B-215

8710-OFST-05

CFC_60

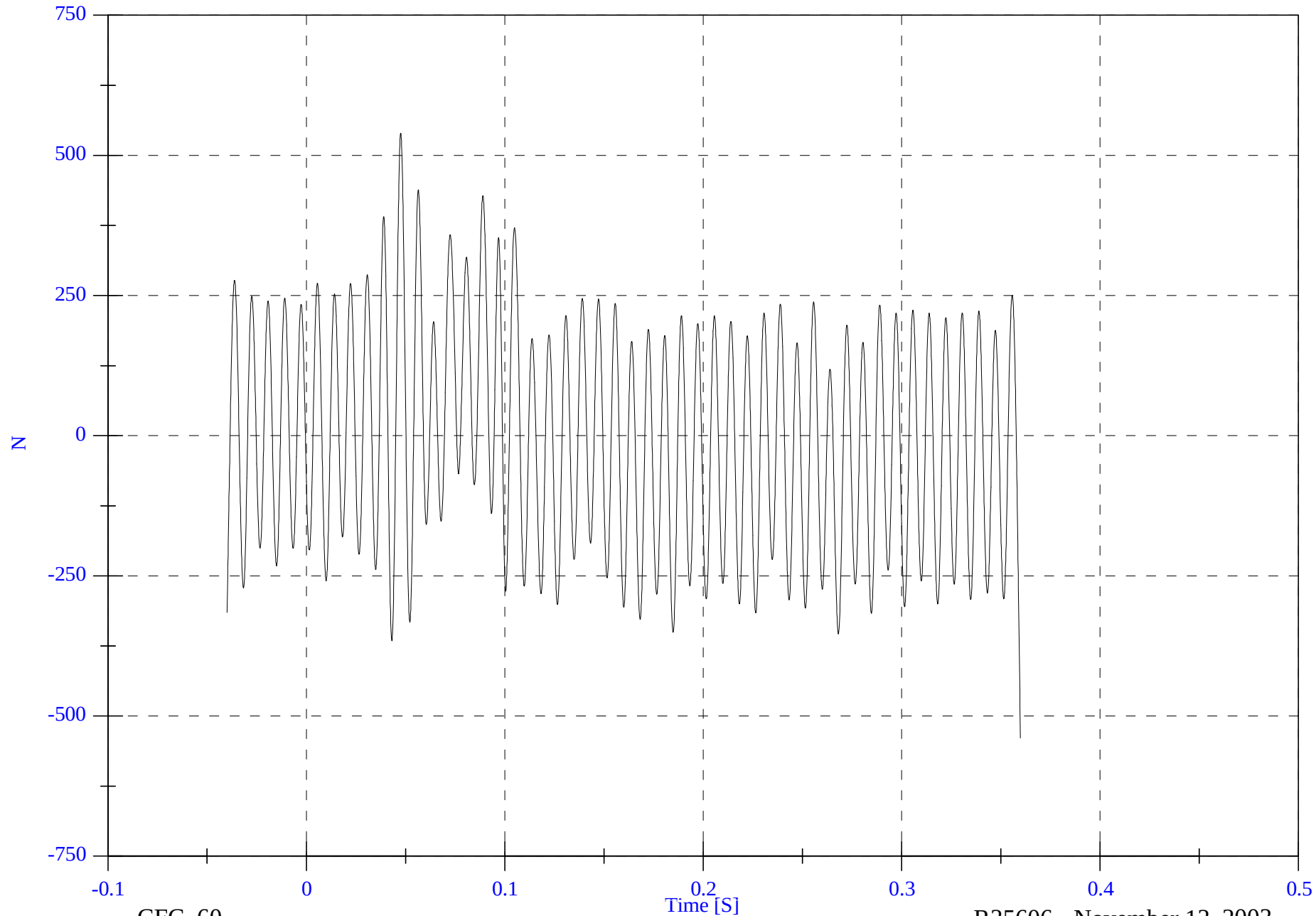
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

Barrier Load Cell G1 FX

Max: 539.9 [N] at 0.047 [S]

Min: -539.4 [N] at 0.360 [S]



B-216

8710-OFST-05

CFC_60

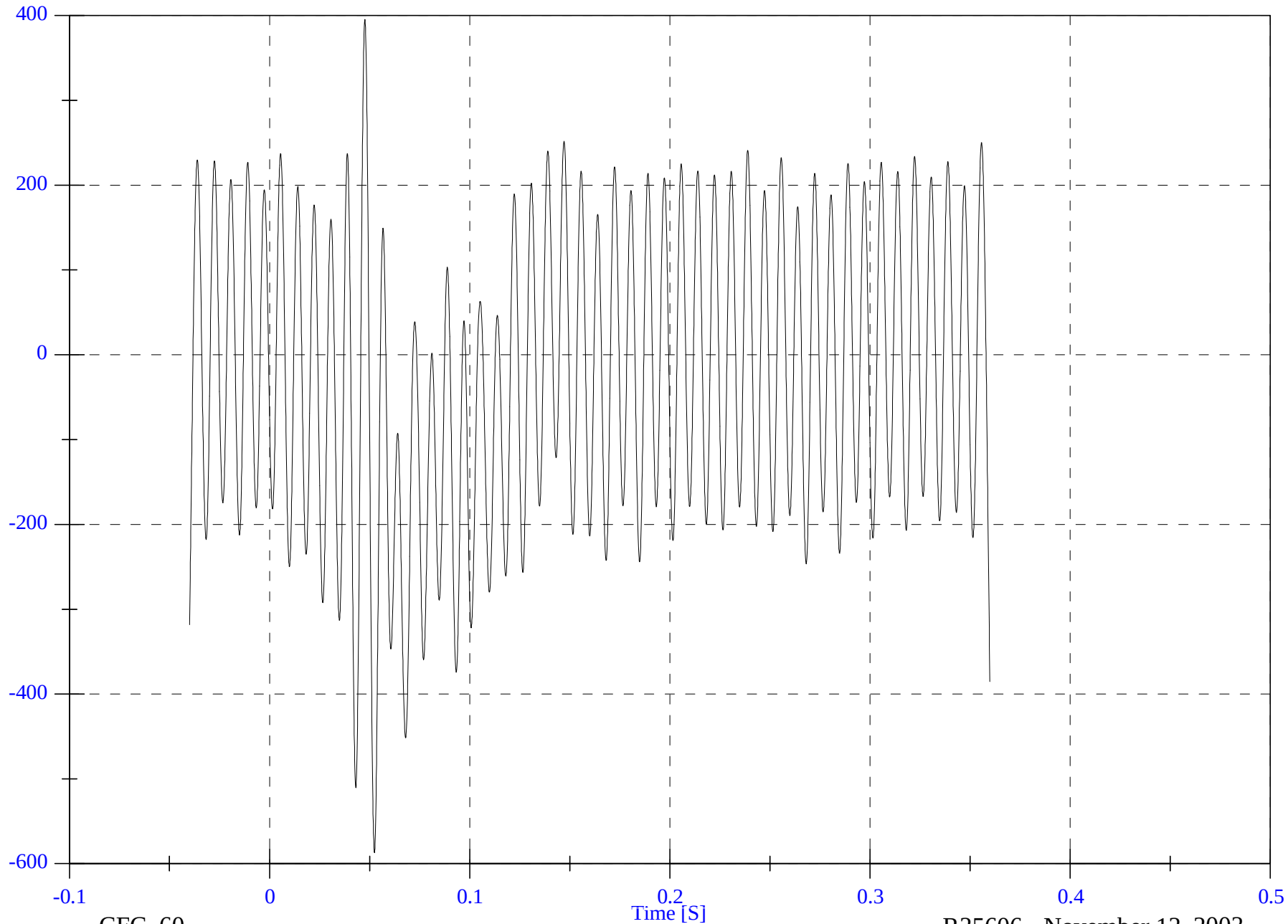
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

Barrier Load Cell G2 FX

Max: 395.2 [N] at 0.048 [S]

Min: -587.3 [N] at 0.052 [S]



B-217

8710-OFST-05

CFC_60

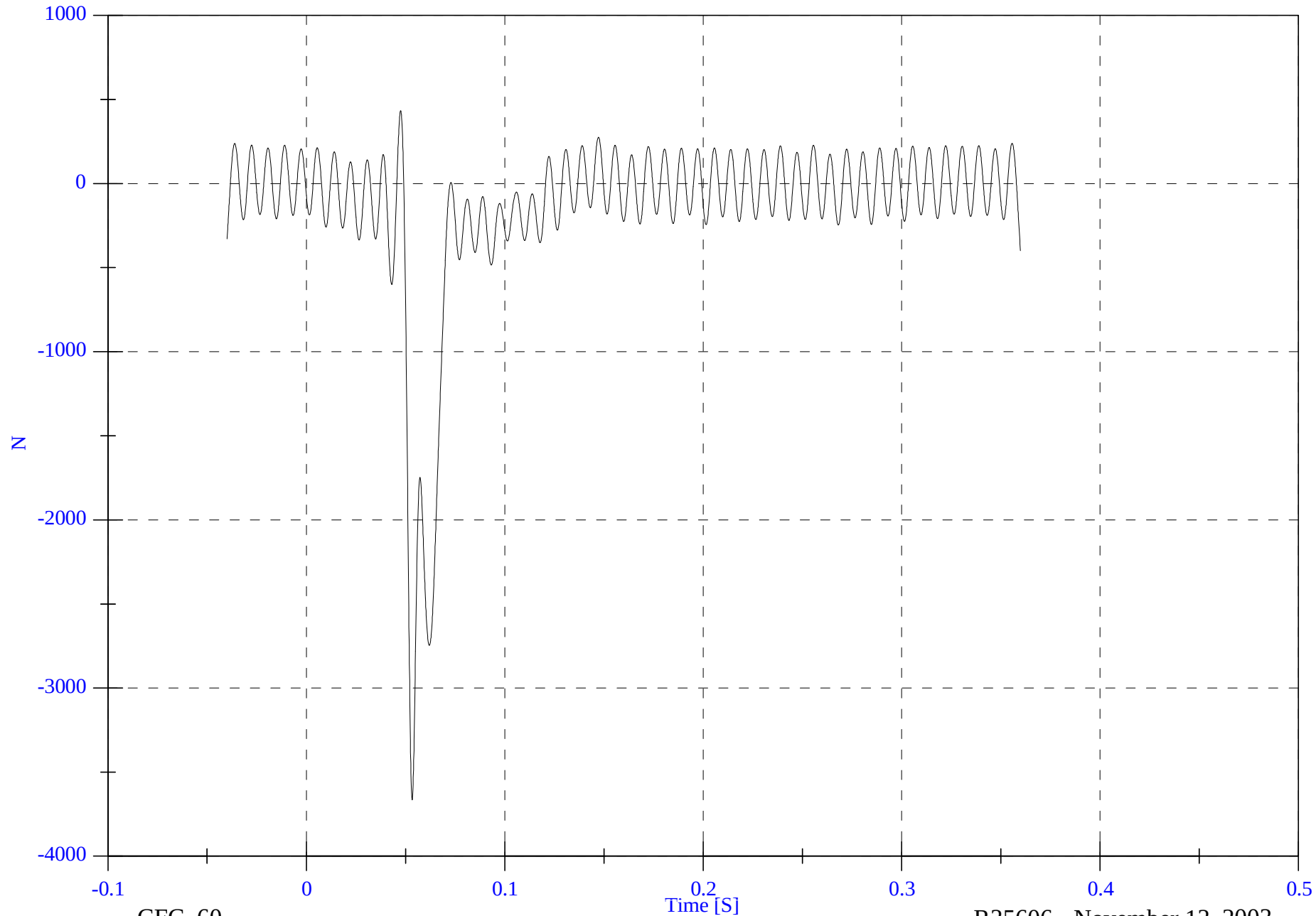
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

Barrier Load Cell G3 FX

Max: 433.5 [N] at 0.047 [S]

Min: -3666.0 [N] at 0.053 [S]



B-218

8710-OFST-05

CFC_60

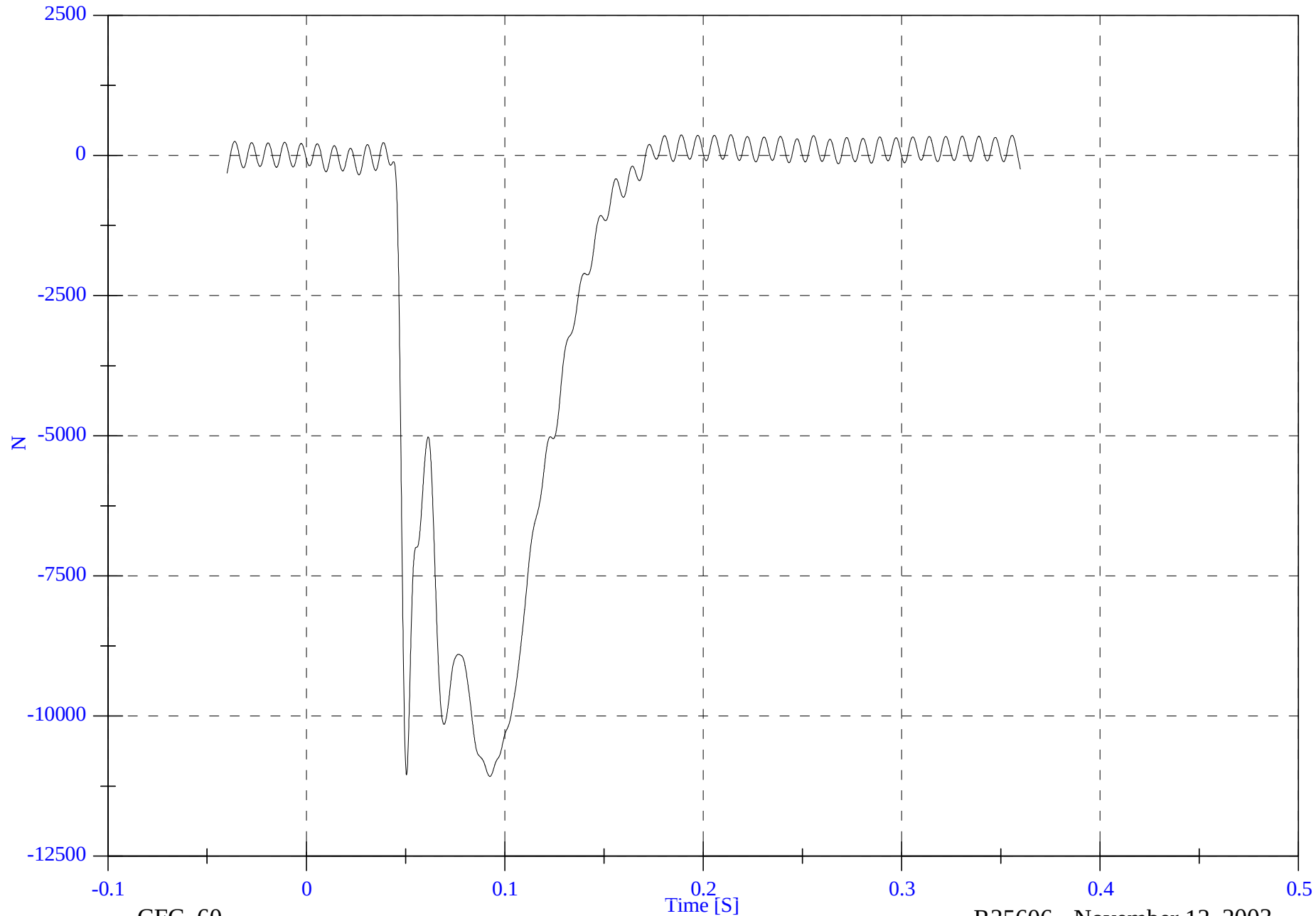
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

Barrier Load Cell G4 FX

Max: 369.7 [N] at 0.214 [S]

Min: -11077.4 [N] at 0.092 [S]



B-219

8710-OFST-05

CFC_60

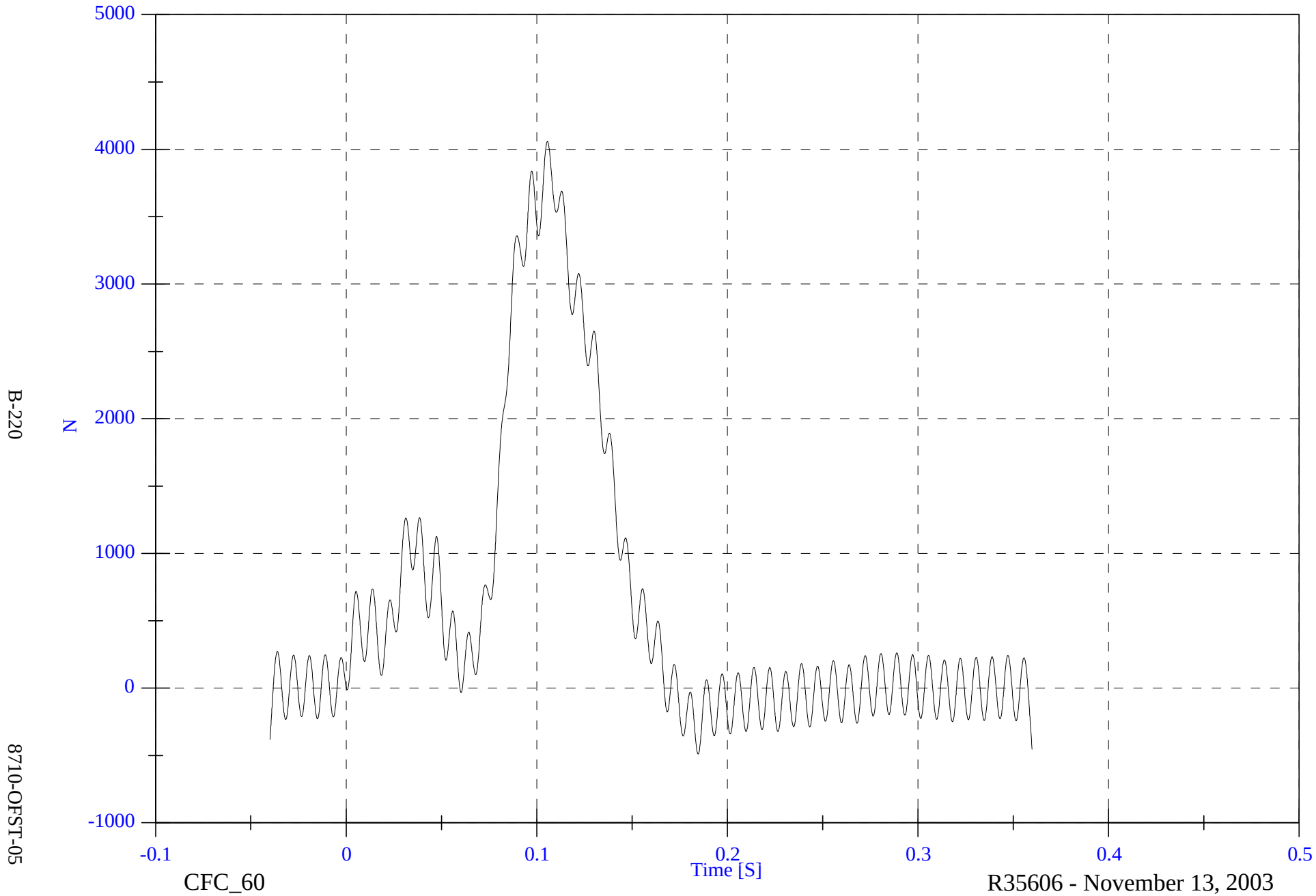
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

Barrier Load Cell F1 FX

Max: 4059.6 [N] at 0.106 [S]

Min: -490.0 [N] at 0.185 [S]



40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

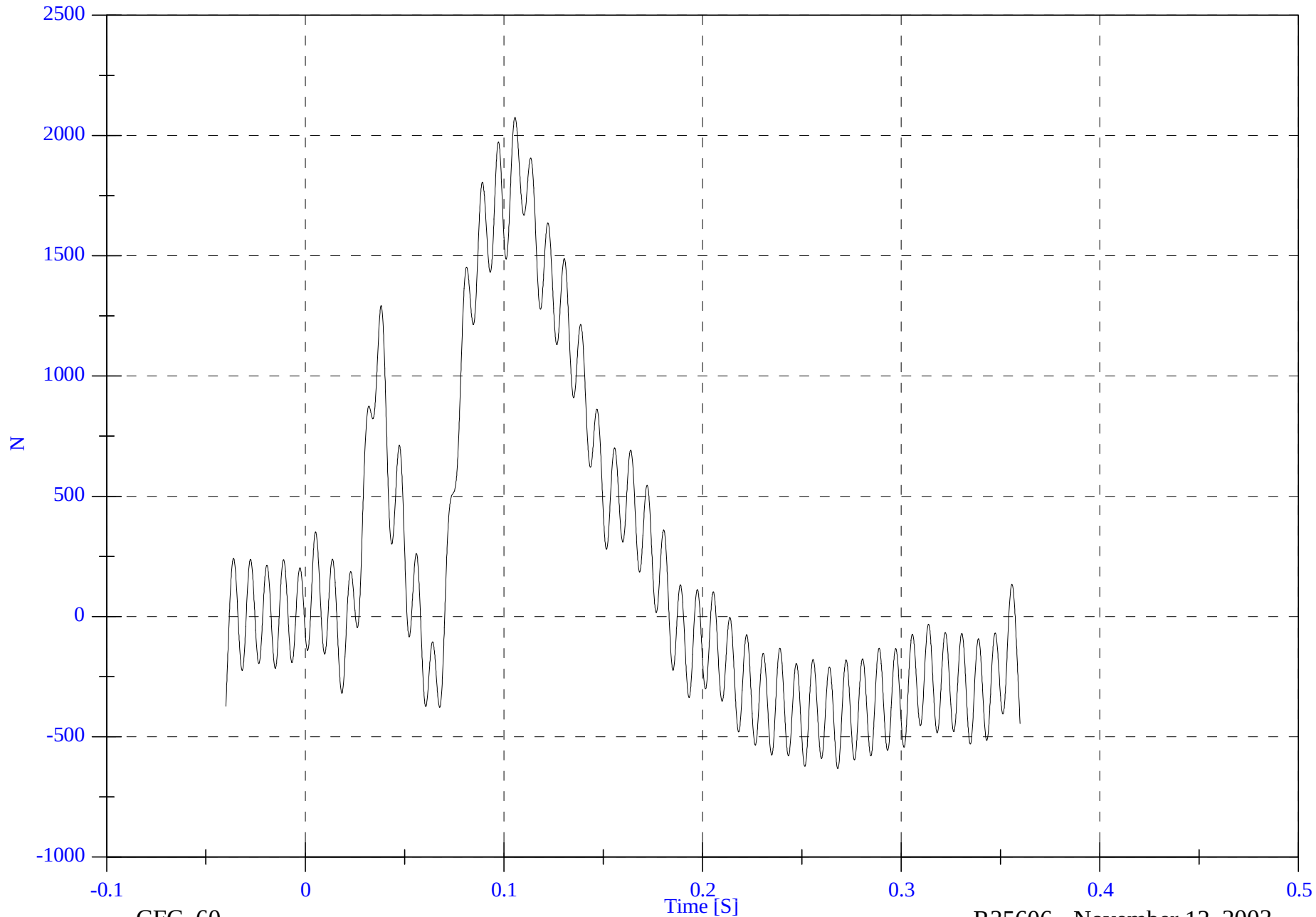
Barrier Load Cell F2 FX

Max: 2075.6 [N] at 0.106 [S]

Min: -632.8 [N] at 0.268 [S]

B-221

8710-OFST-05



CFC_60

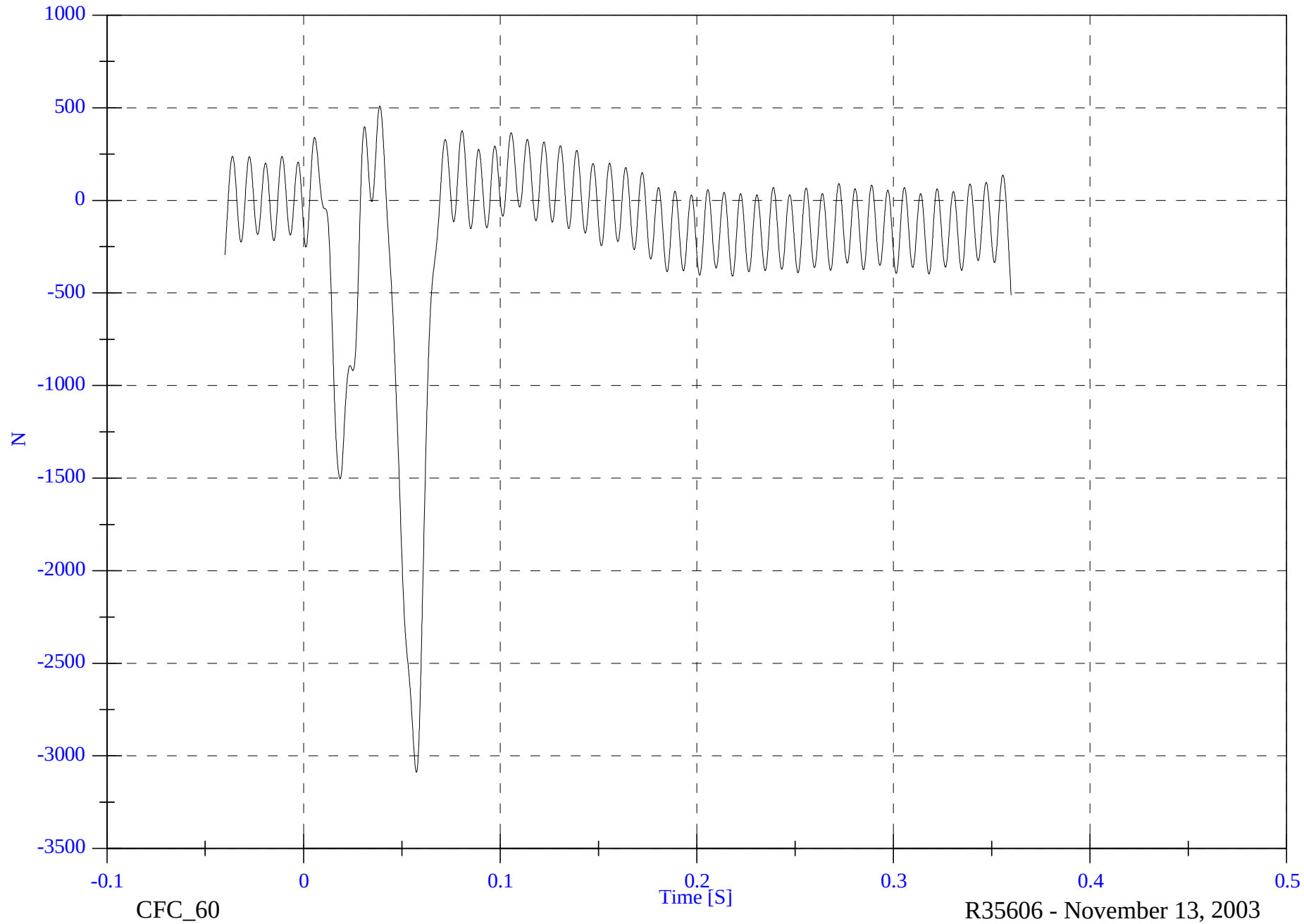
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

Barrier Load Cell F3 FX

Max: 509.3 [N] at 0.039 [S]

Min: -3089.0 [N] at 0.057 [S]



B-222

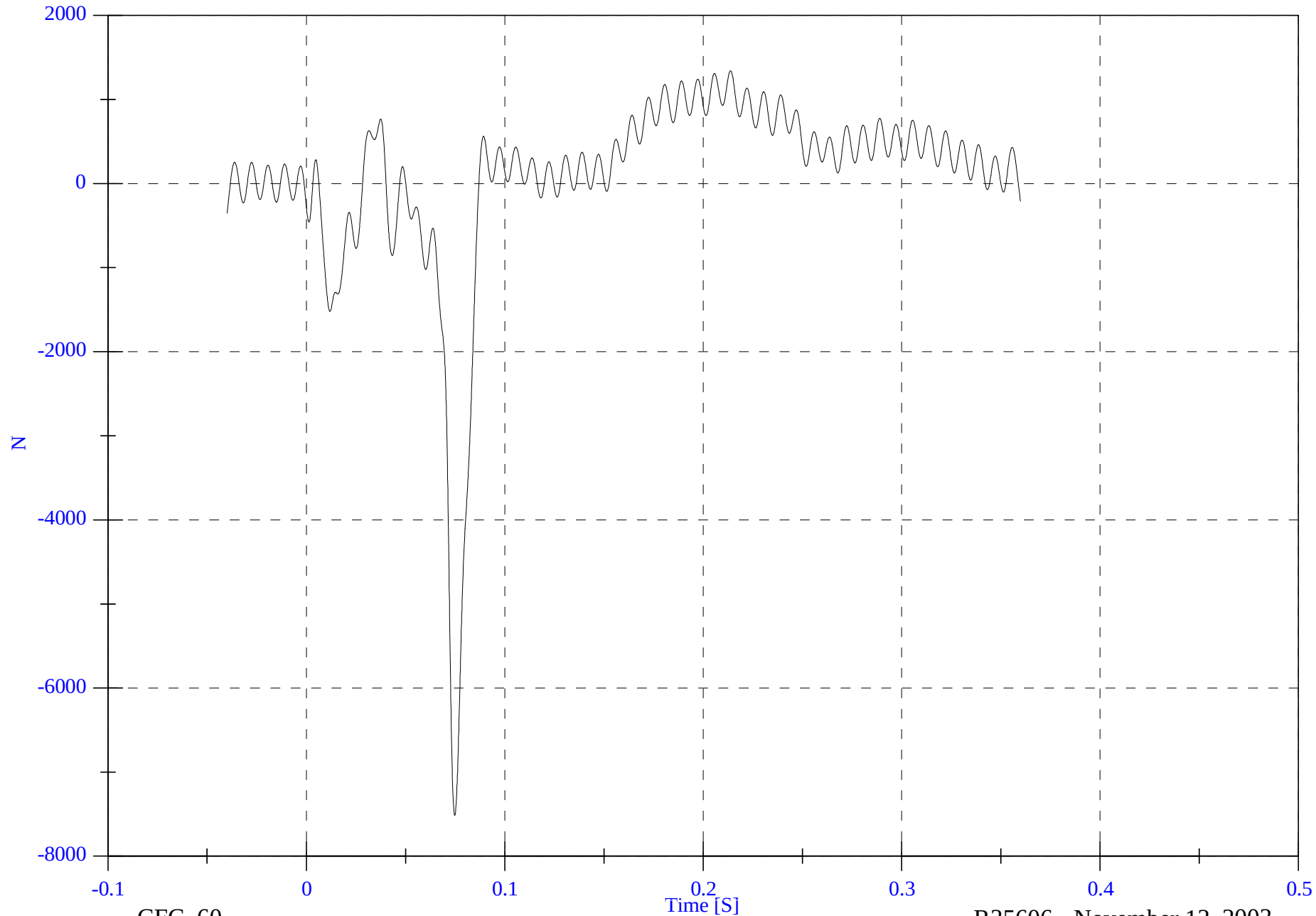
8710-OFST-05

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

Barrier Load Cell F4 FX

Max: 1339.4 [N] at 0.214 [S]

Min: -7514.9 [N] at 0.075 [S]



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8710-OFST-05

CFC_60

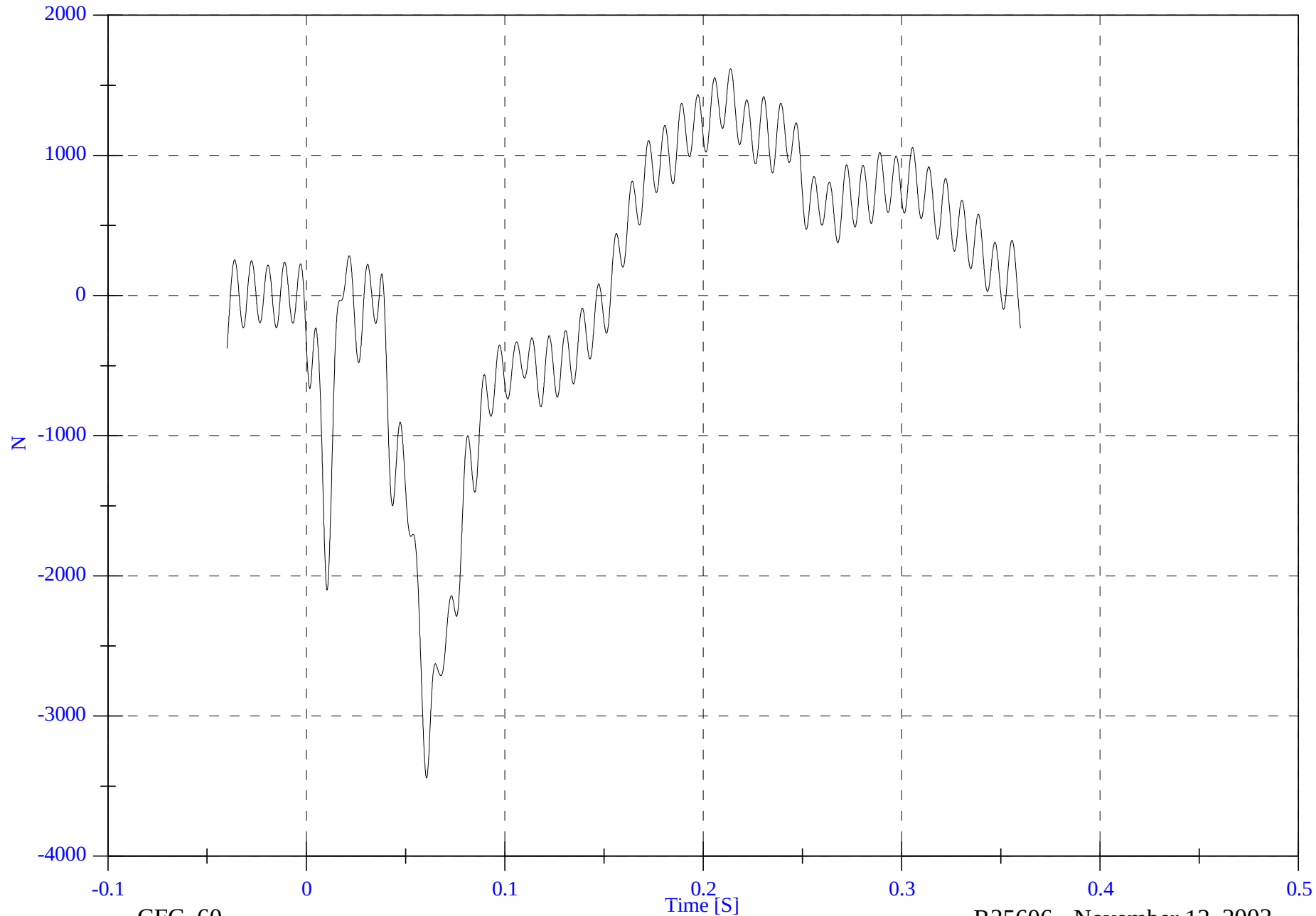
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

Barrier Load Cell F5 FX

Max: 1619.0 [N] at 0.214 [S]

Min: -3442.0 [N] at 0.061 [S]



B-224

8710-OFST-05

CFC_60

Time [S]

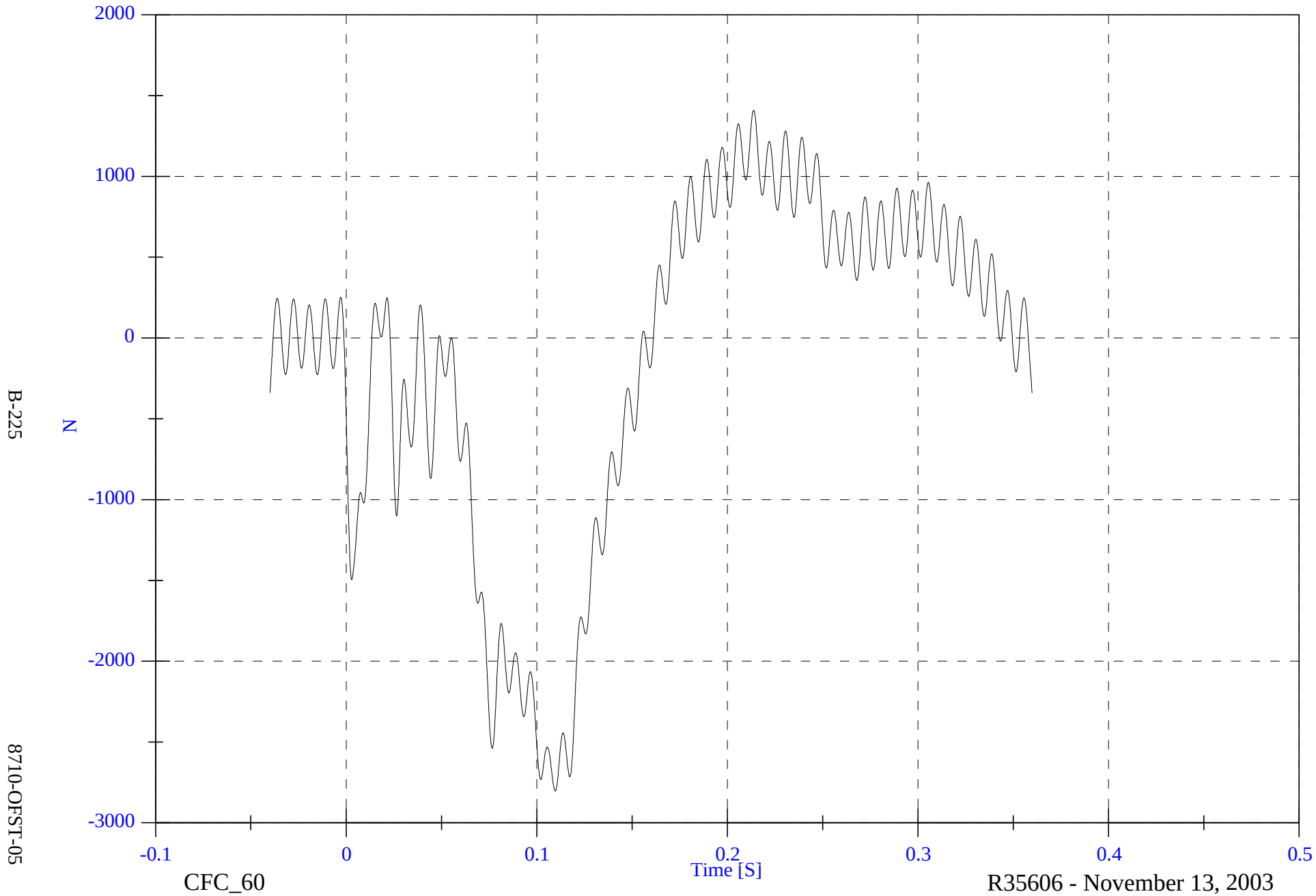
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

Barrier Load Cell F6 FX

Max: 1408.5 [N] at 0.214 [S]

Min: -2802.9 [N] at 0.110 [S]

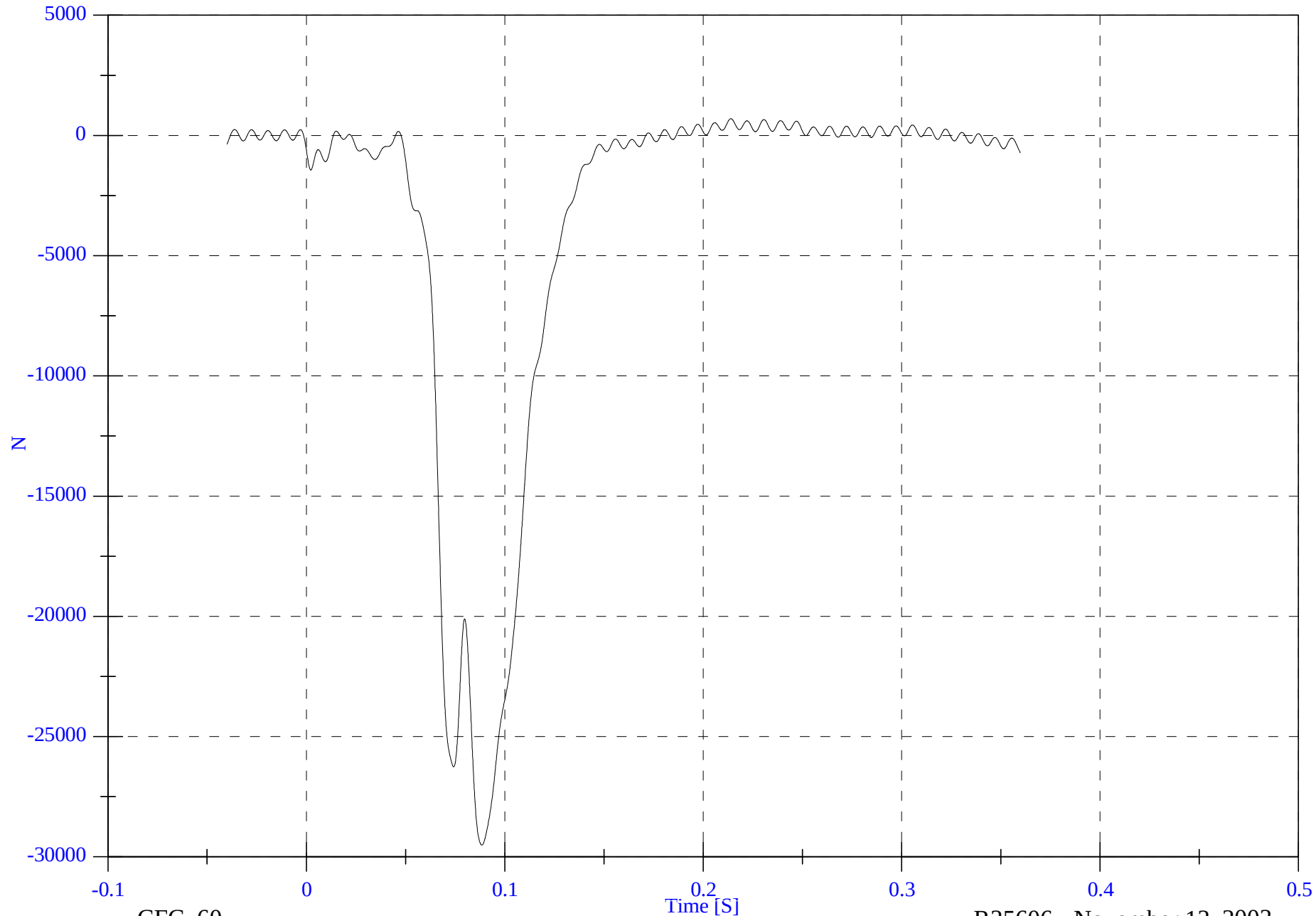


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

Barrier Load Cell F7 FX

Max: 697.8 [N] at 0.214 [S]

Min: -29511.0 [N] at 0.088 [S]



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8710-OFST-05

CFC_60

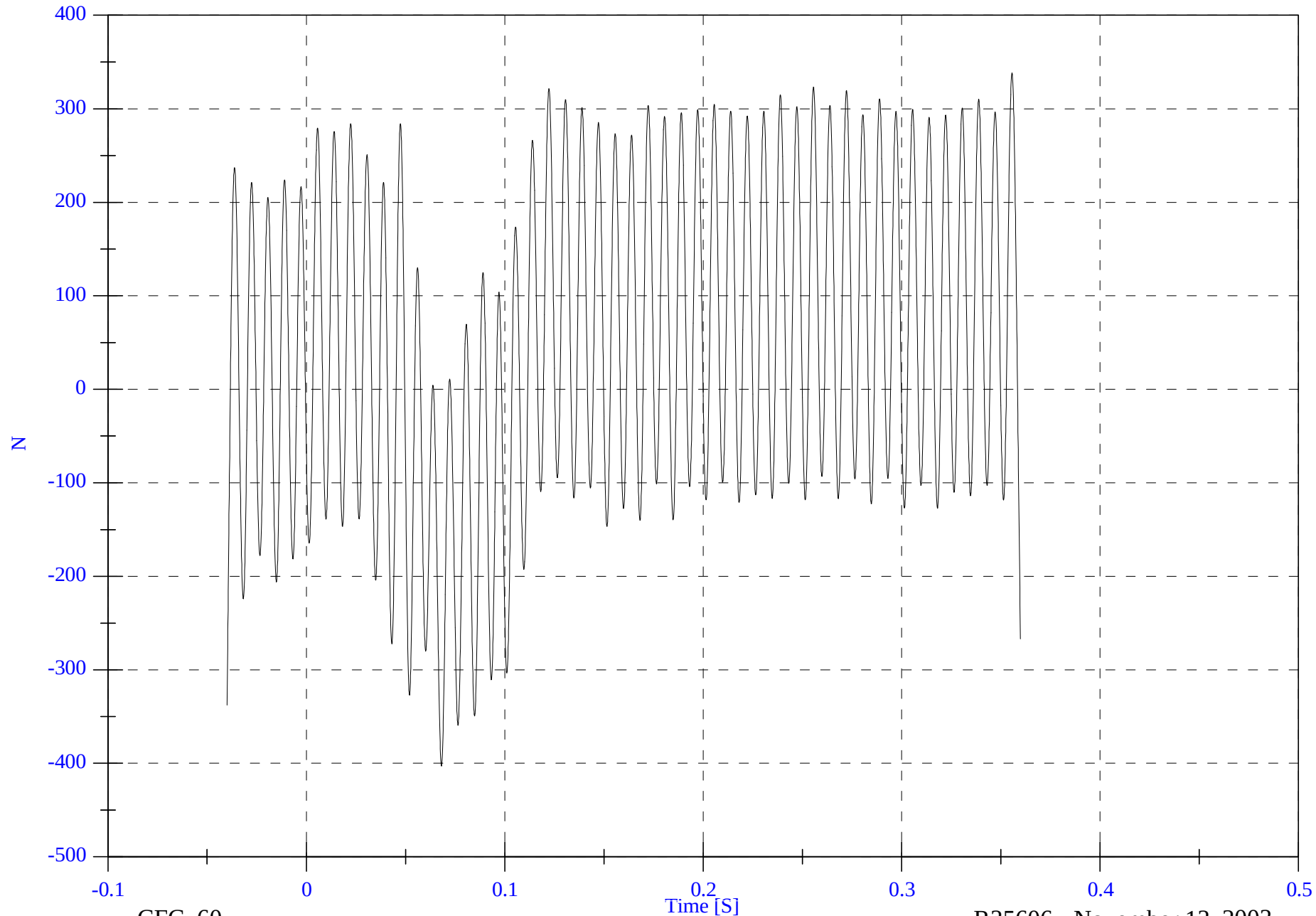
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

Barrier Load Cell E1 FX

Max: 338.3 [N] at 0.356 [S]

Min: -403.1 [N] at 0.068 [S]



B-227

8710-OFST-05

CFC_60

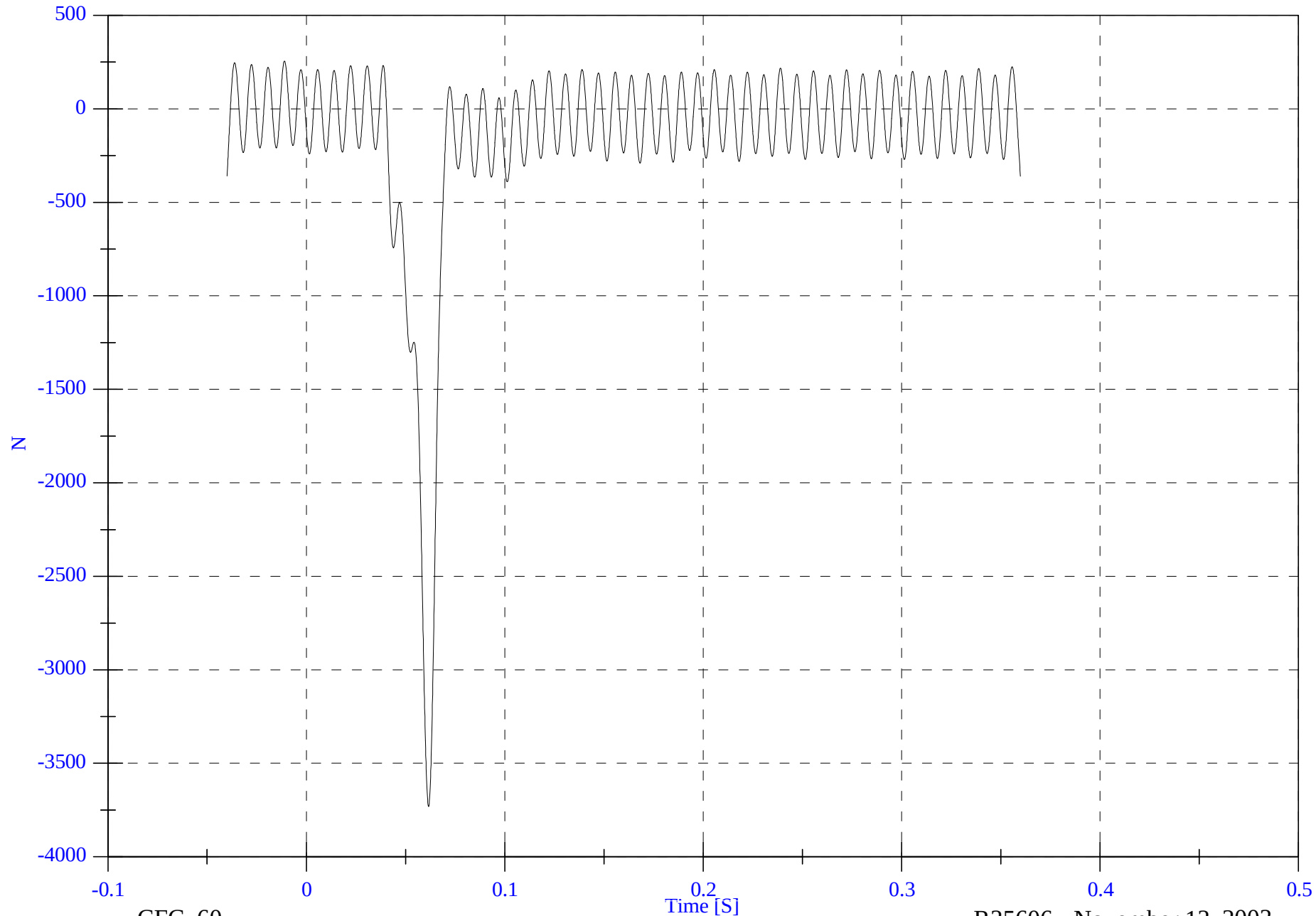
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

Barrier Load Cell E2 FX

Max: 255.5 [N] at -0.011 [S]

Min: -3731.1 [N] at 0.062 [S]



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8710-OFST-05

CFC_60

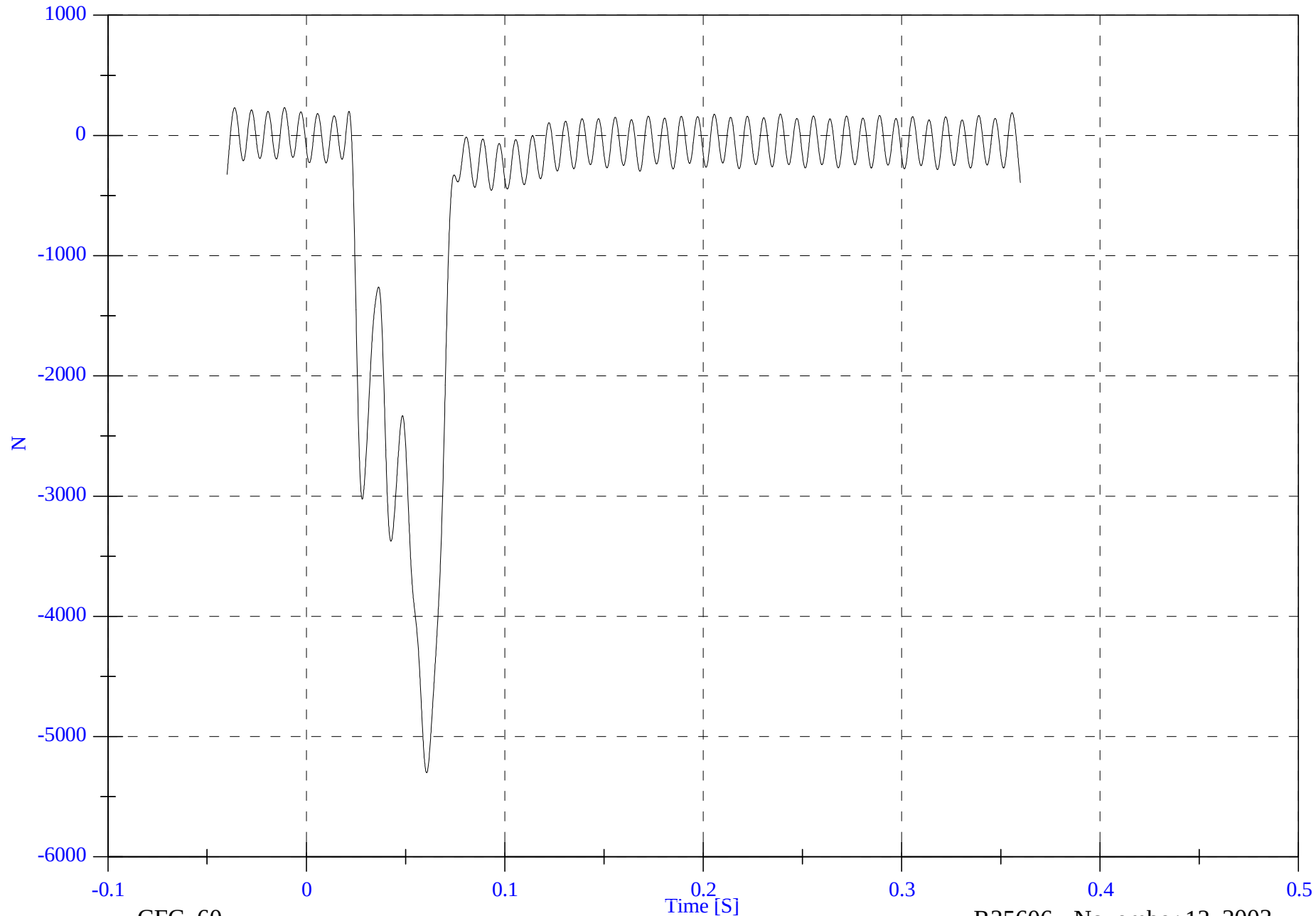
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

Barrier Load Cell E3 FX

Max: 232.4 [N] at -0.011 [S]

Min: -5301.1 [N] at 0.061 [S]



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8710-OFST-05

CFC_60

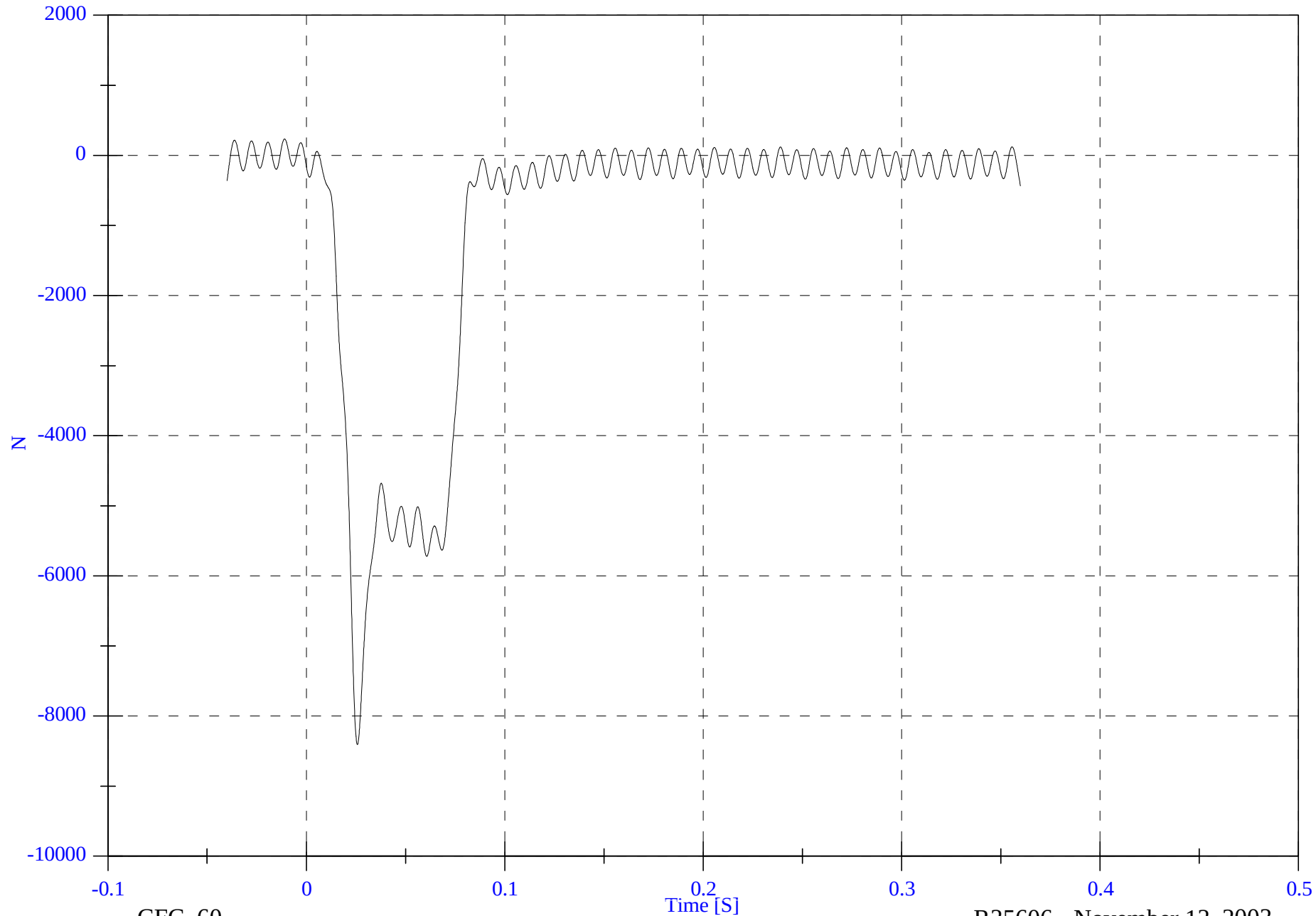
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

Barrier Load Cell E4 FX

Max: 234.6 [N] at -0.011 [S]

Min: -8408.8 [N] at 0.026 [S]



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8710-OFST-05

CFC_60

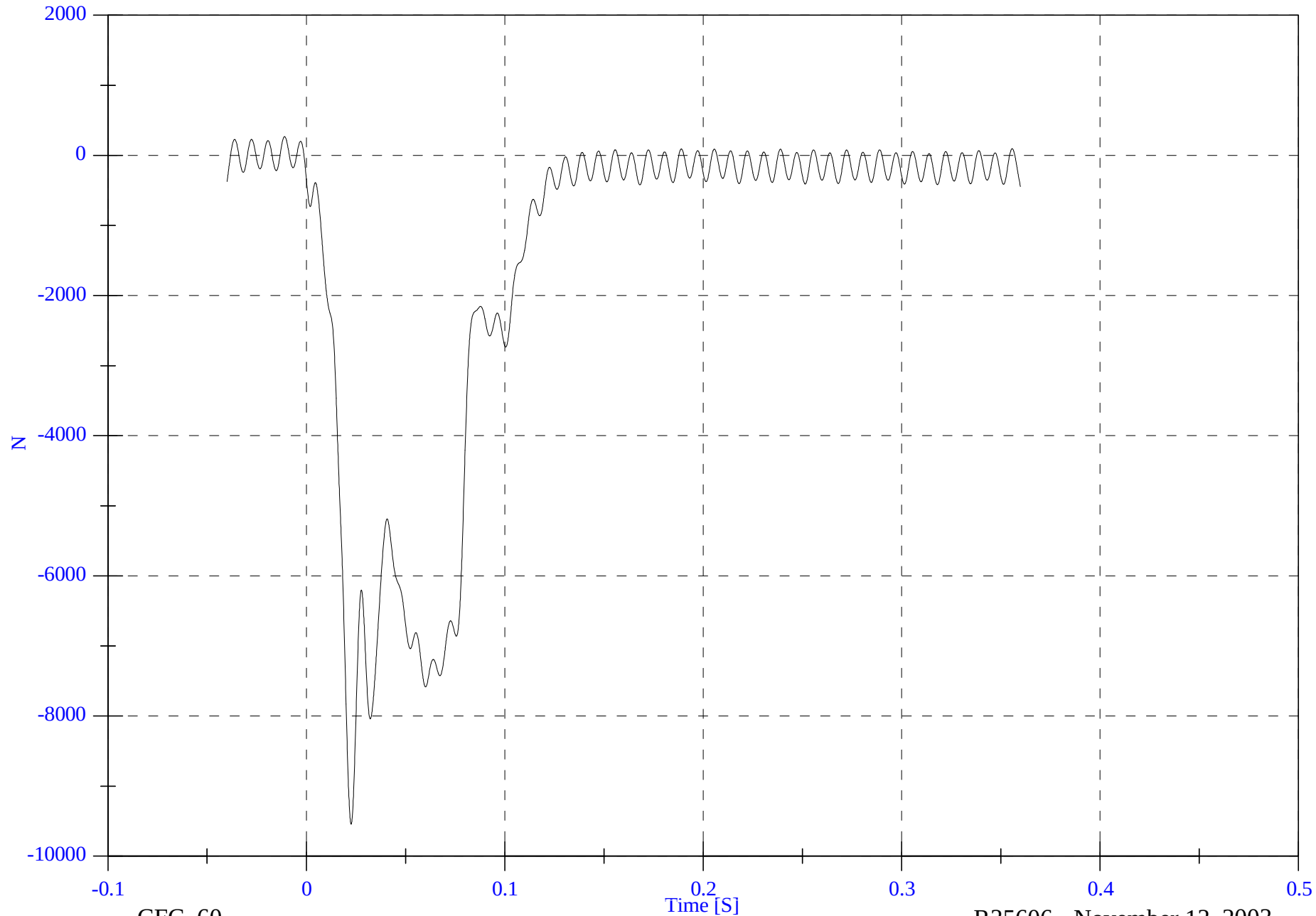
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

Barrier Load Cell E5 FX

Max: 268.9 [N] at -0.011 [S]

Min: -9543.4 [N] at 0.023 [S]



B-231

8710-OFST-05

CFC_60

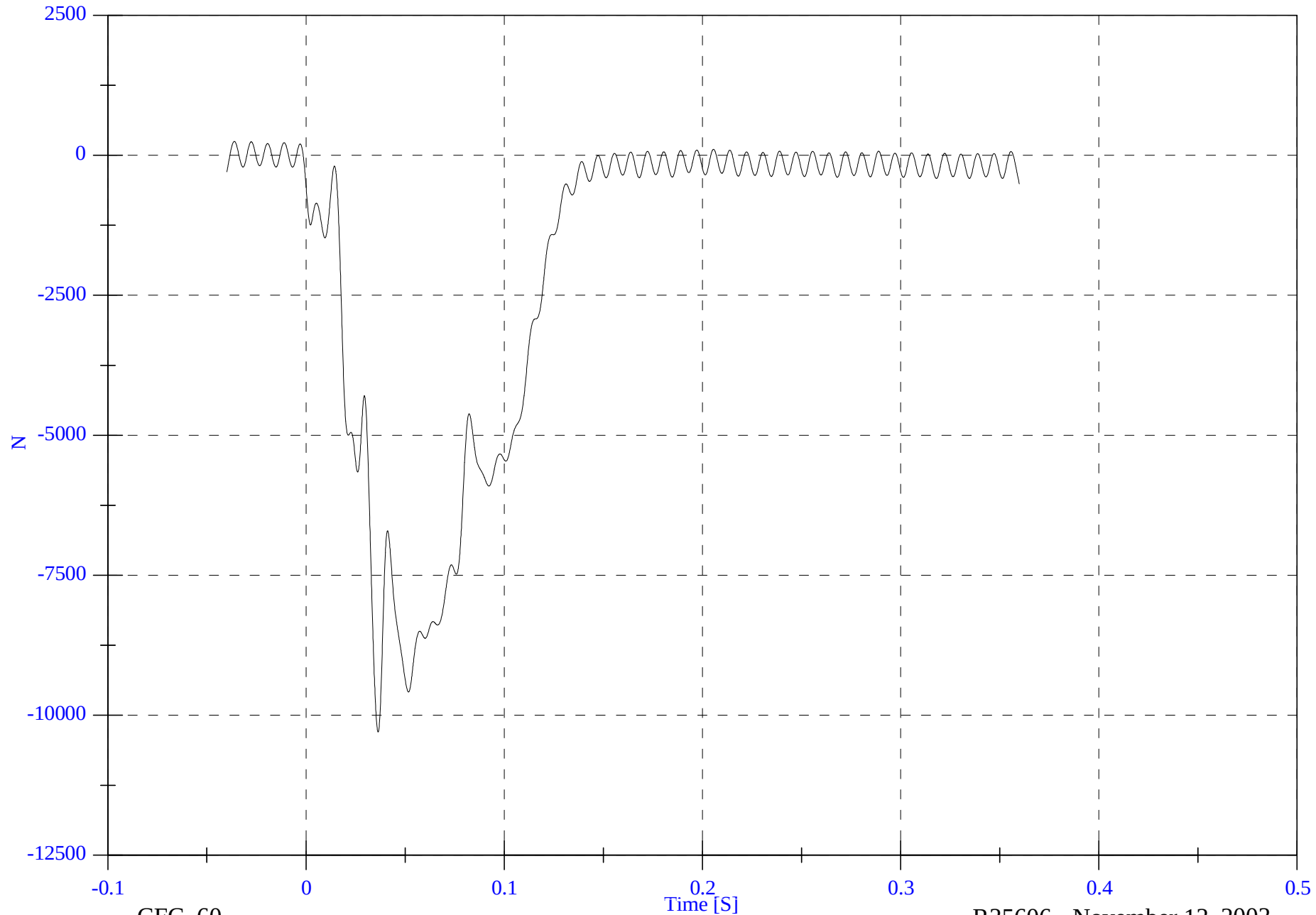
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

Barrier Load Cell E6 FX

Max: 247.0 [N] at -0.036 [S]

Min: -10300.3 [N] at 0.036 [S]



B-232

8710-OFST-05

CFC_60

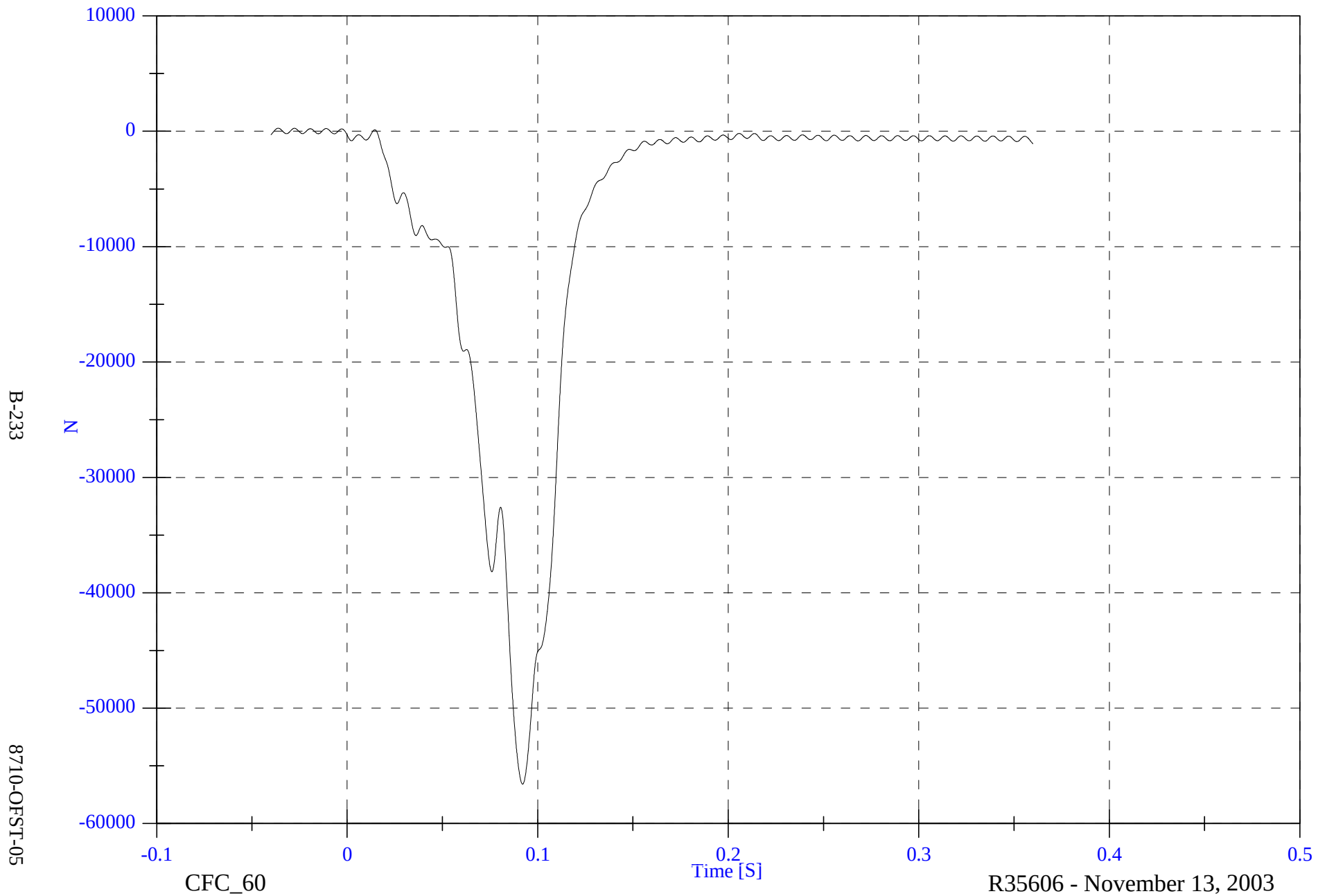
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

Barrier Load Cell E7 FX

Max: 259.0 [N] at -0.036 [S]

Min: -56584.7 [N] at 0.092 [S]

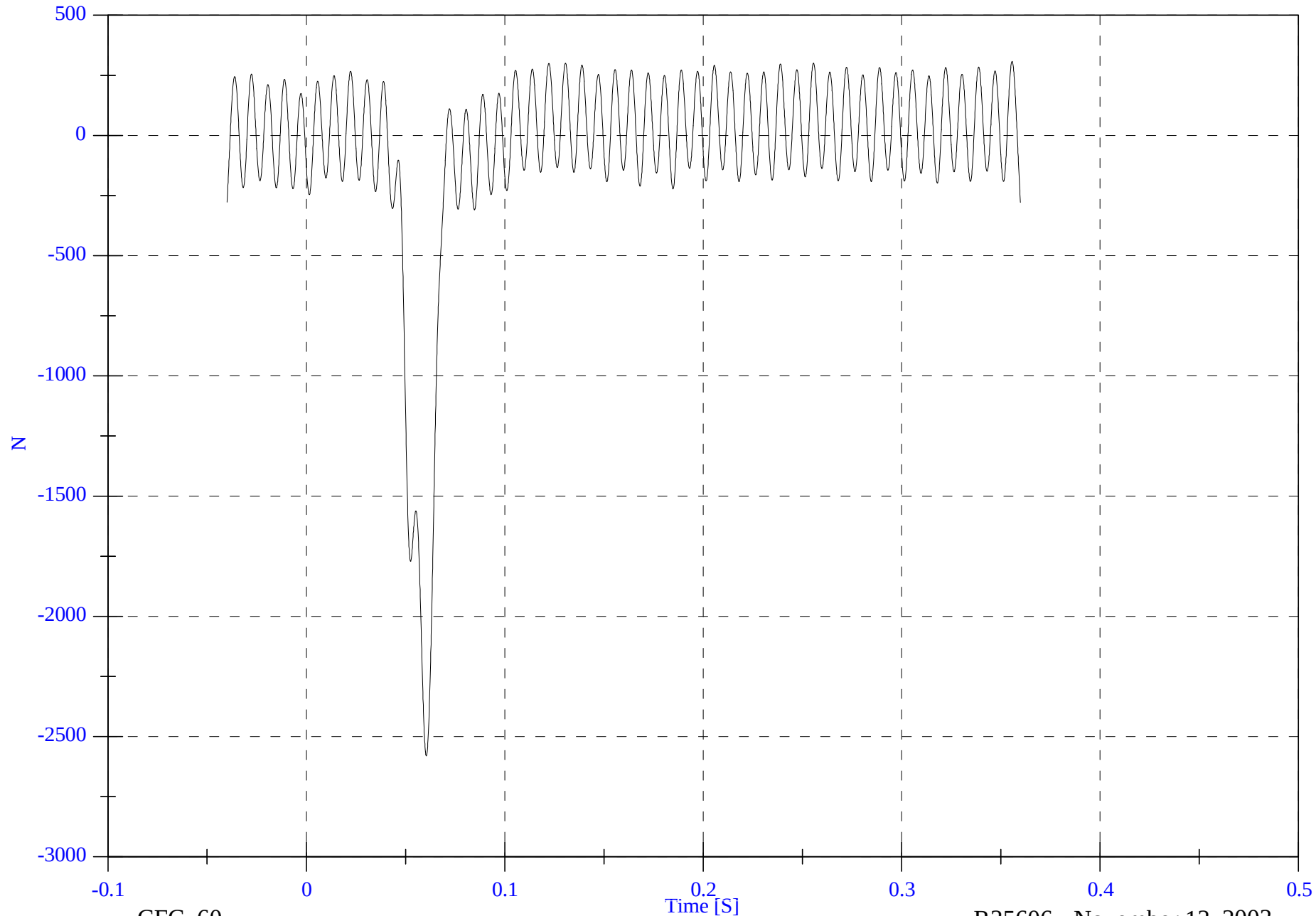


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

Barrier Load Cell D1 FX

Max: 308.4 [N] at 0.356 [S]

Min: -2580.6 [N] at 0.060 [S]



B-234

8710-OFST-05

CFC_60

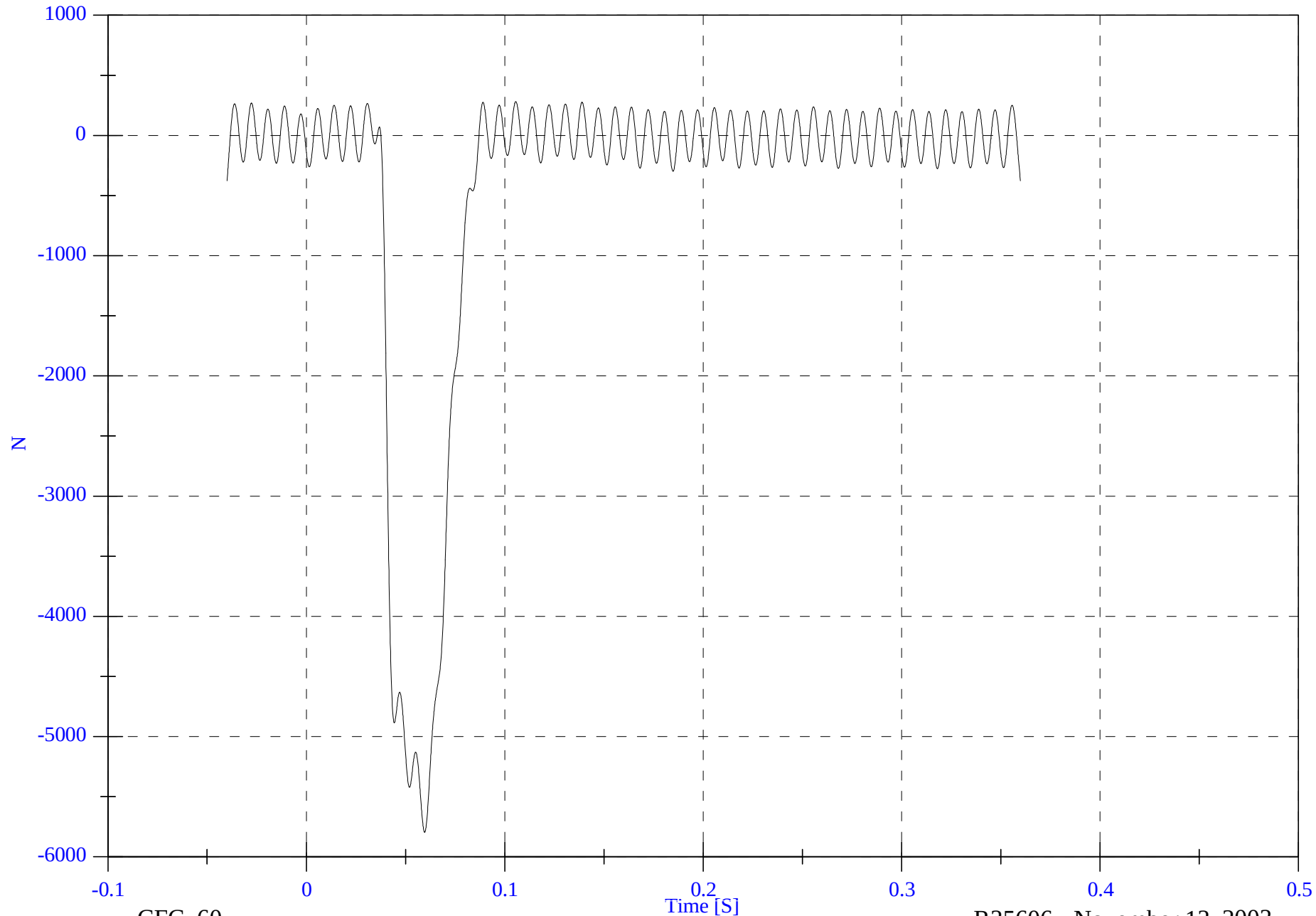
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

Barrier Load Cell D2 FX

Max: 282.3 [N] at 0.105 [S]

Min: -5795.5 [N] at 0.060 [S]



B-235

8710-OFST-05

CFC_60

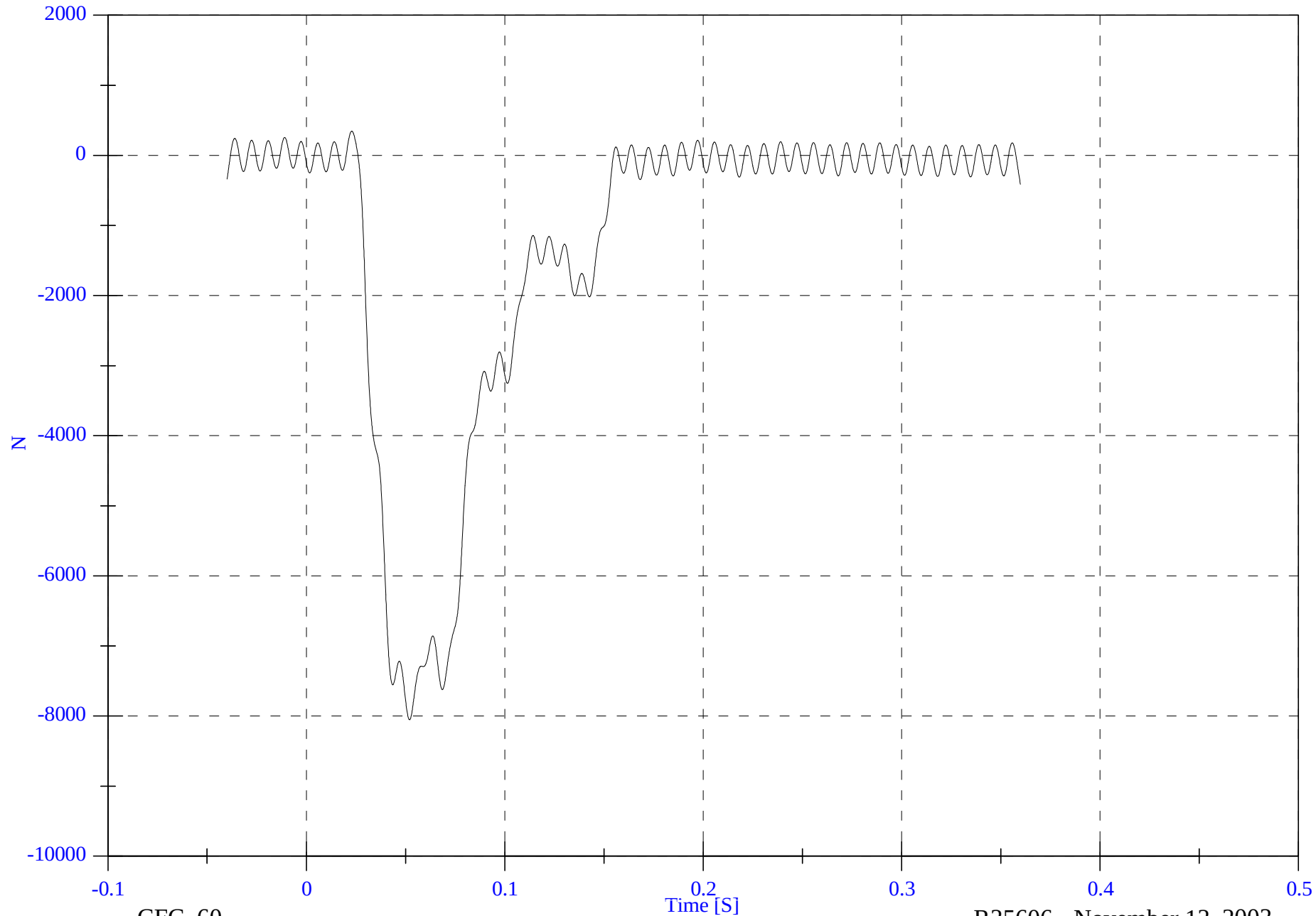
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

Barrier Load Cell D3 FX

Max: 347.0 [N] at 0.023 [S]

Min: -8053.6 [N] at 0.052 [S]



B-236

8710-OFST-05

CFC_60

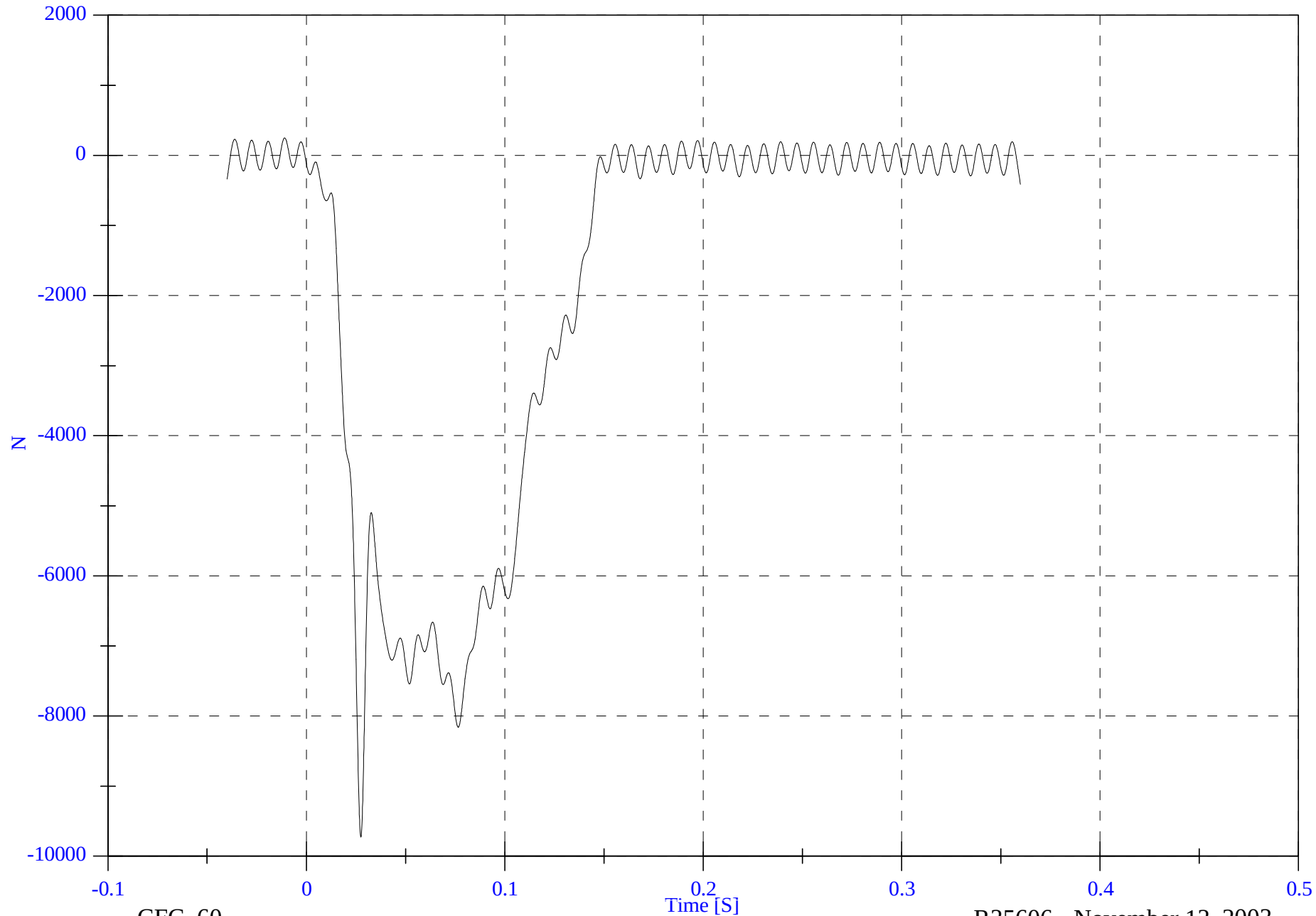
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

Barrier Load Cell D4 FX

Max: 250.1 [N] at -0.011 [S]

Min: -9728.9 [N] at 0.027 [S]



B-237

8710-OFST-05

CFC_60

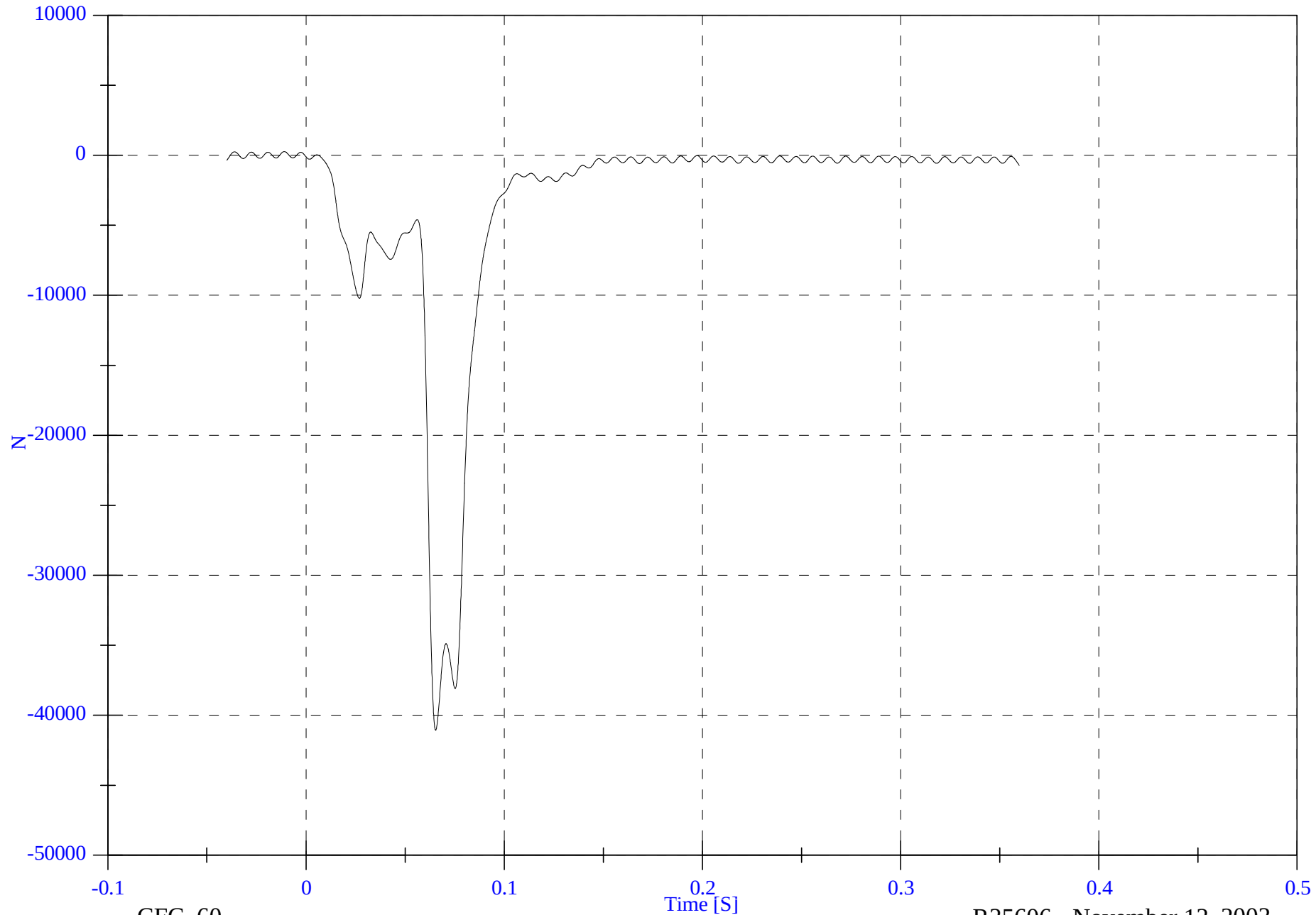
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

Barrier Load Cell D5 FX

Max: 265.0 [N] at -0.011 [S]

Min: -41083.0 [N] at 0.065 [S]



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8710-OFST-05

CFC_60

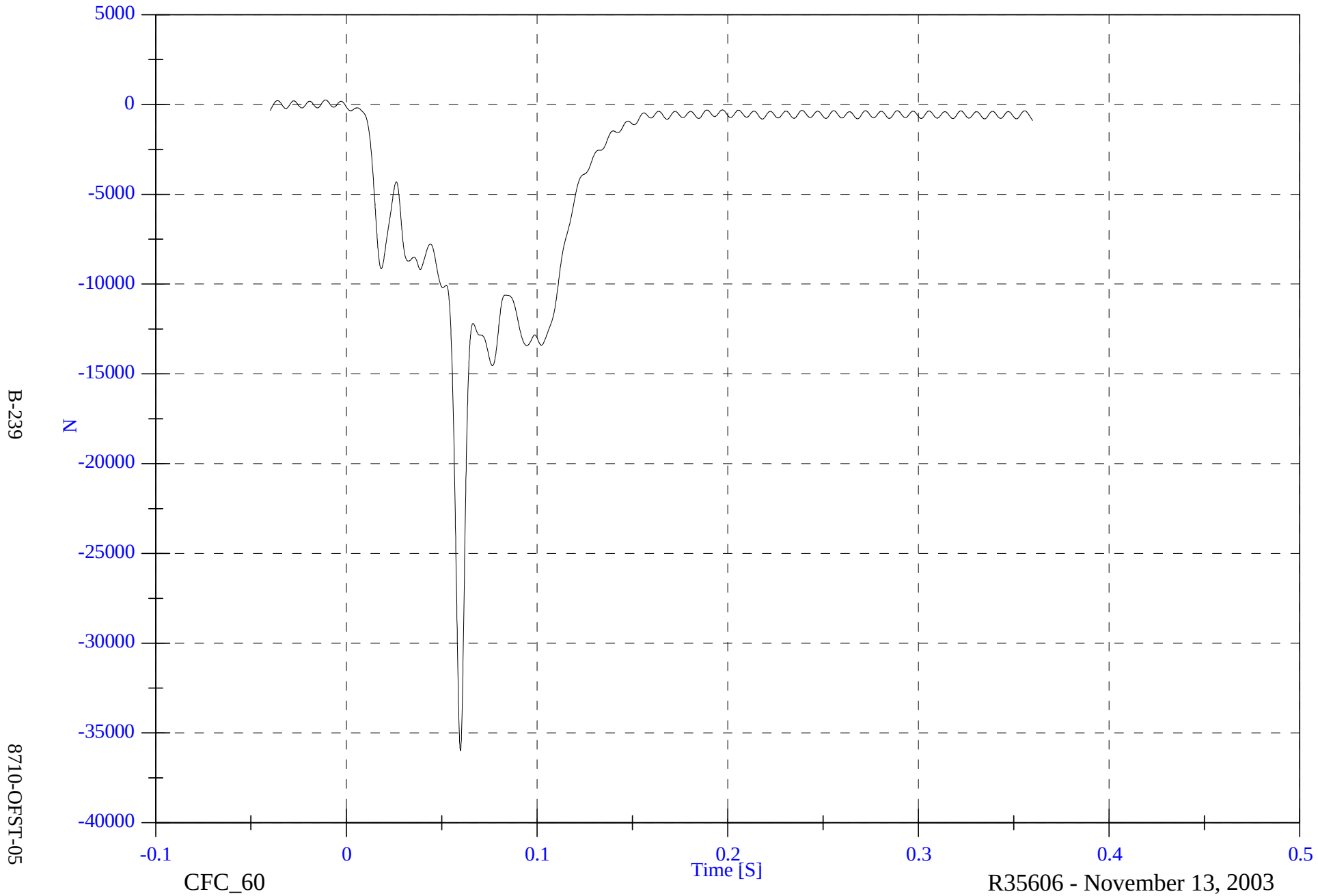
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

Barrier Load Cell D6 FX

Max: 252.0 [N] at -0.011 [S]

Min: -35988.5 [N] at 0.060 [S]

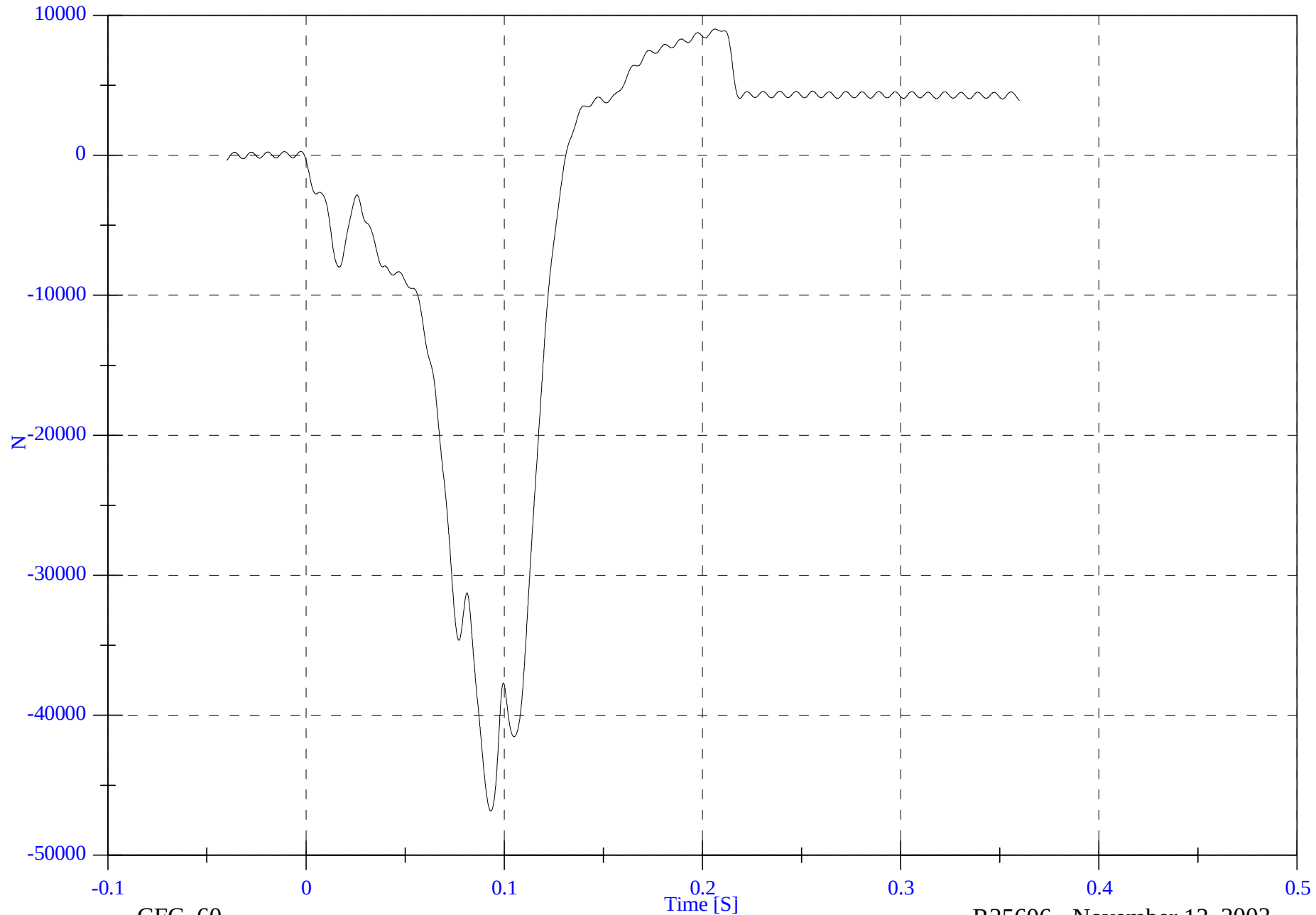


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

Barrier Load Cell D7 FX

Max: 9014.8 [N] at 0.206 [S]

Min: -46842.8 [N] at 0.093 [S]



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8710-OFST-05

CFC_60

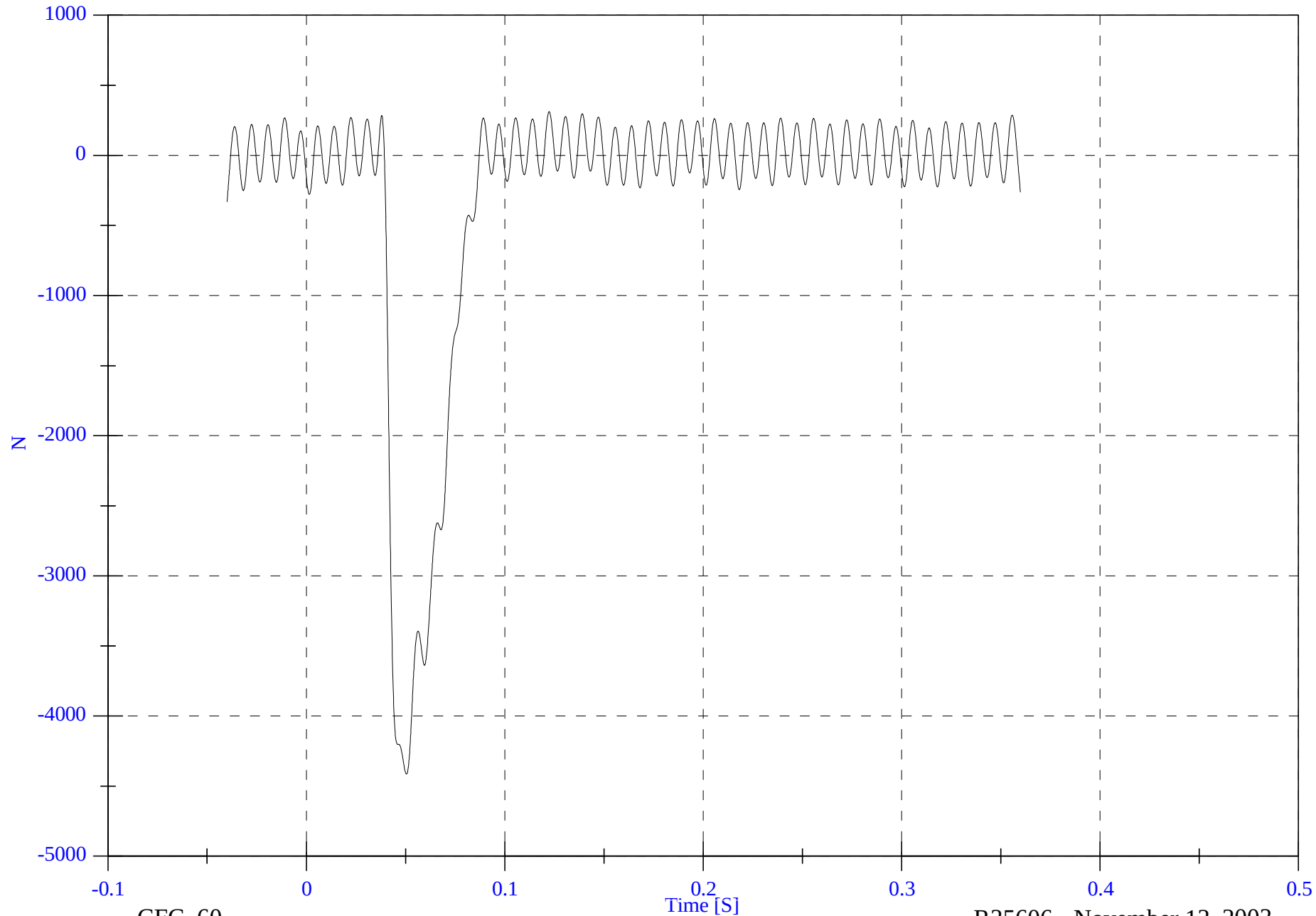
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

Barrier Load Cell C1 FX

Max: 312.7 [N] at 0.122 [S]

Min: -4414.3 [N] at 0.050 [S]



B-241

8710-OFST-05

CFC_60

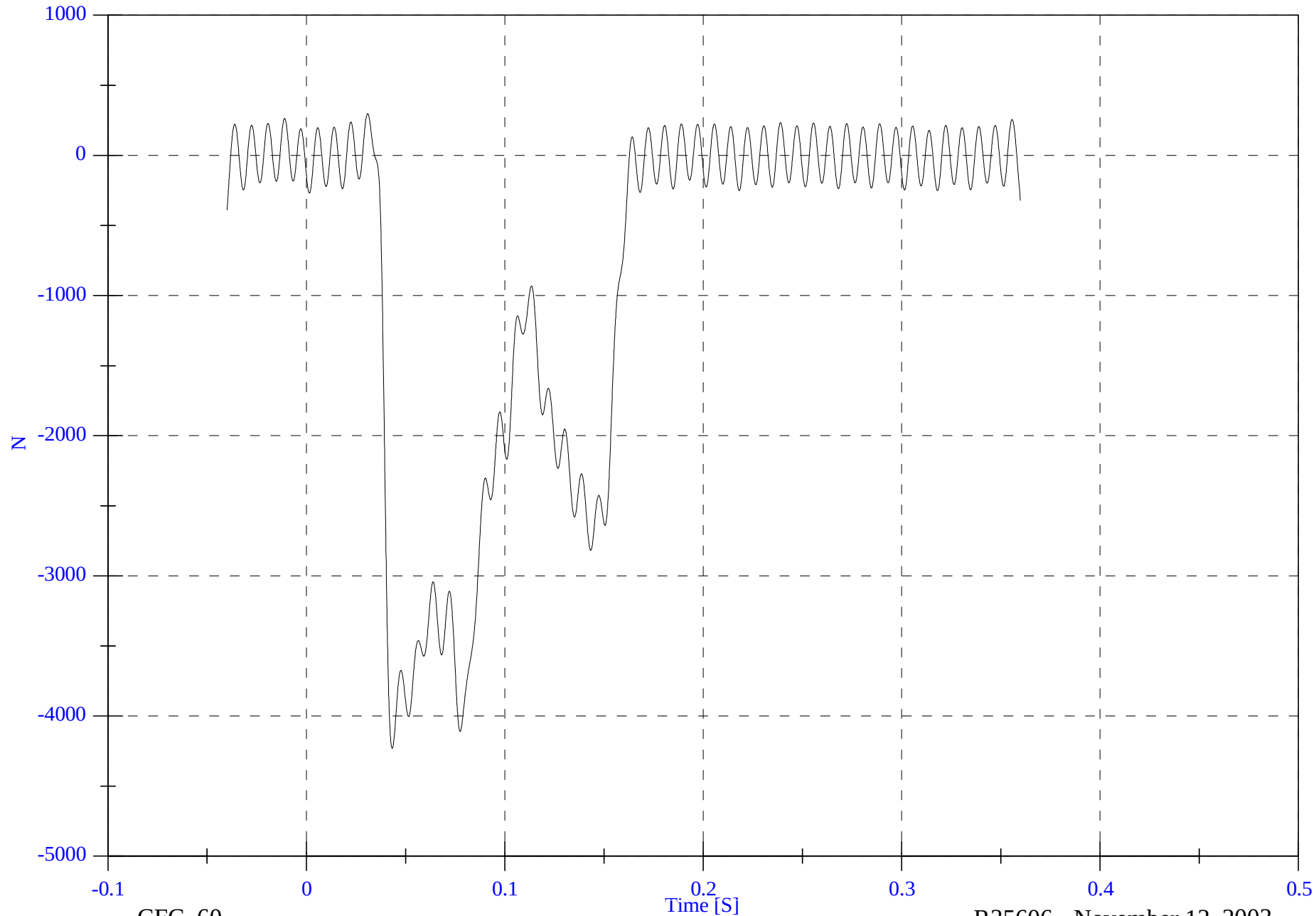
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

Barrier Load Cell C2 FX

Max: 298.1 [N] at 0.031 [S]

Min: -4230.8 [N] at 0.043 [S]



B-242

8710-OFST-05

CFC_60

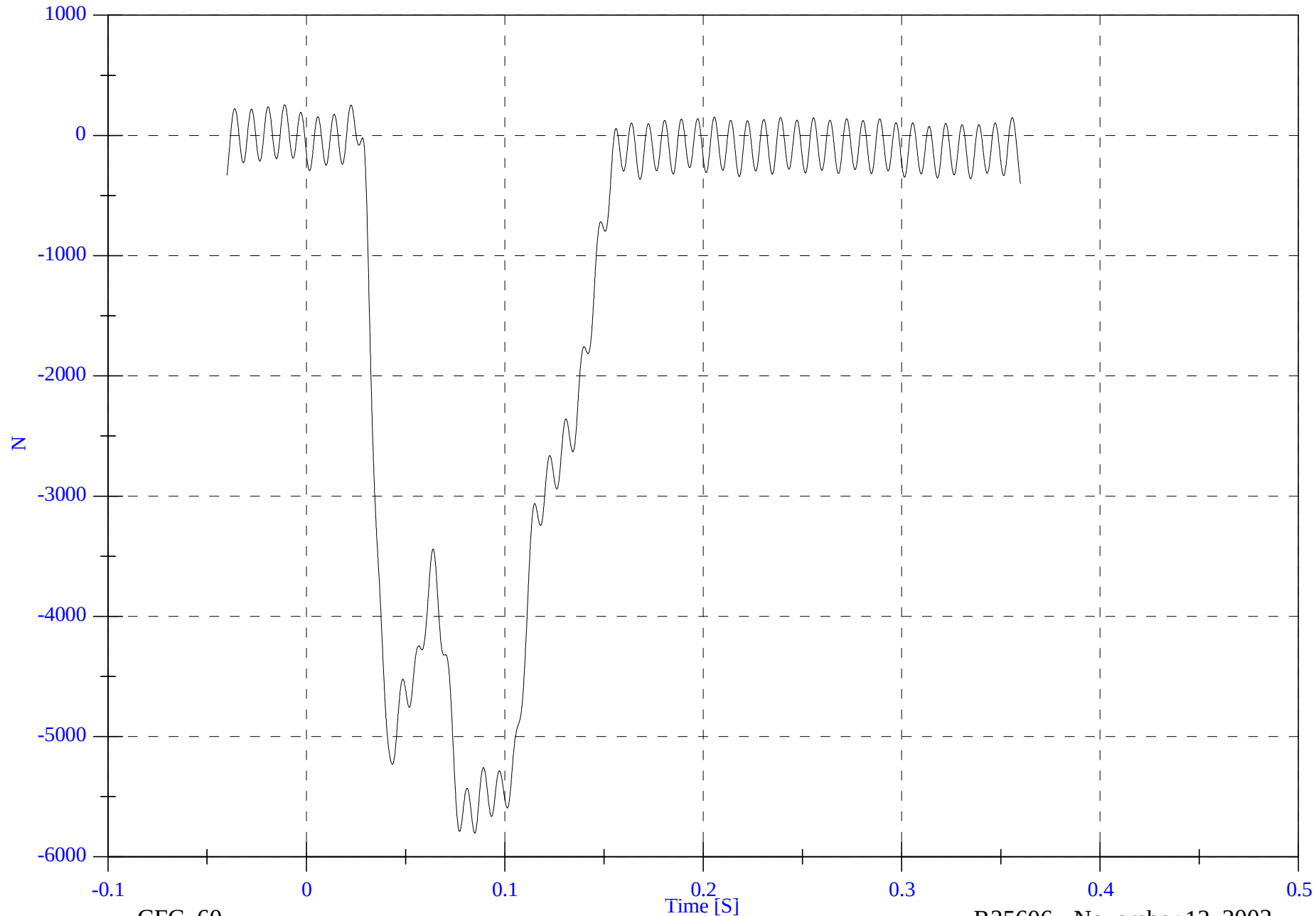
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

Barrier Load Cell C3 FX

Max: 256.1 [N] at -0.011 [S]

Min: -5802.5 [N] at 0.085 [S]



B-243

8710-OFST-05

CFC_60

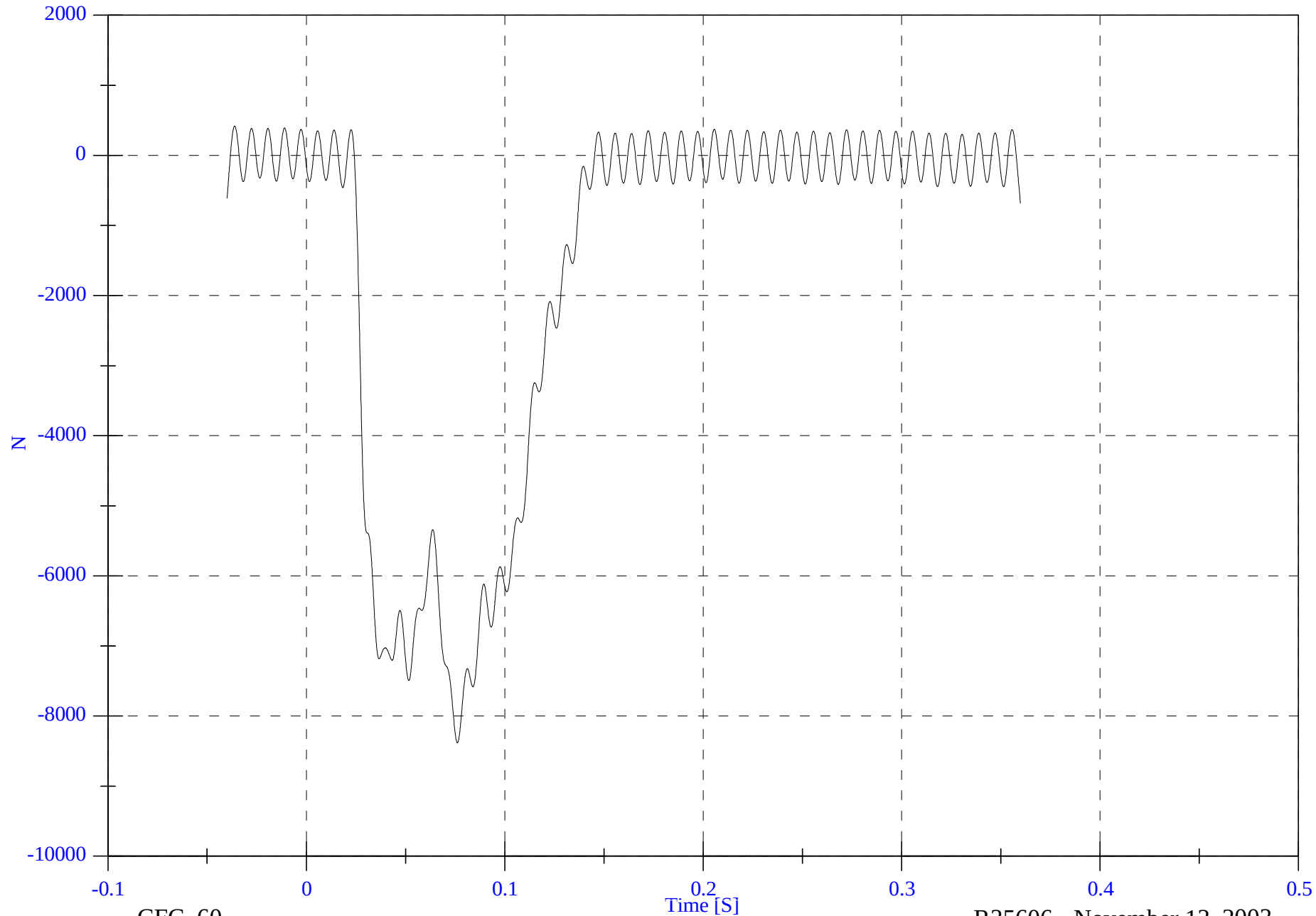
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

Barrier Load Cell C4 FX

Max: 419.1 [N] at -0.036 [S]

Min: -8382.8 [N] at 0.076 [S]



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8710-OFST-05

CFC_60

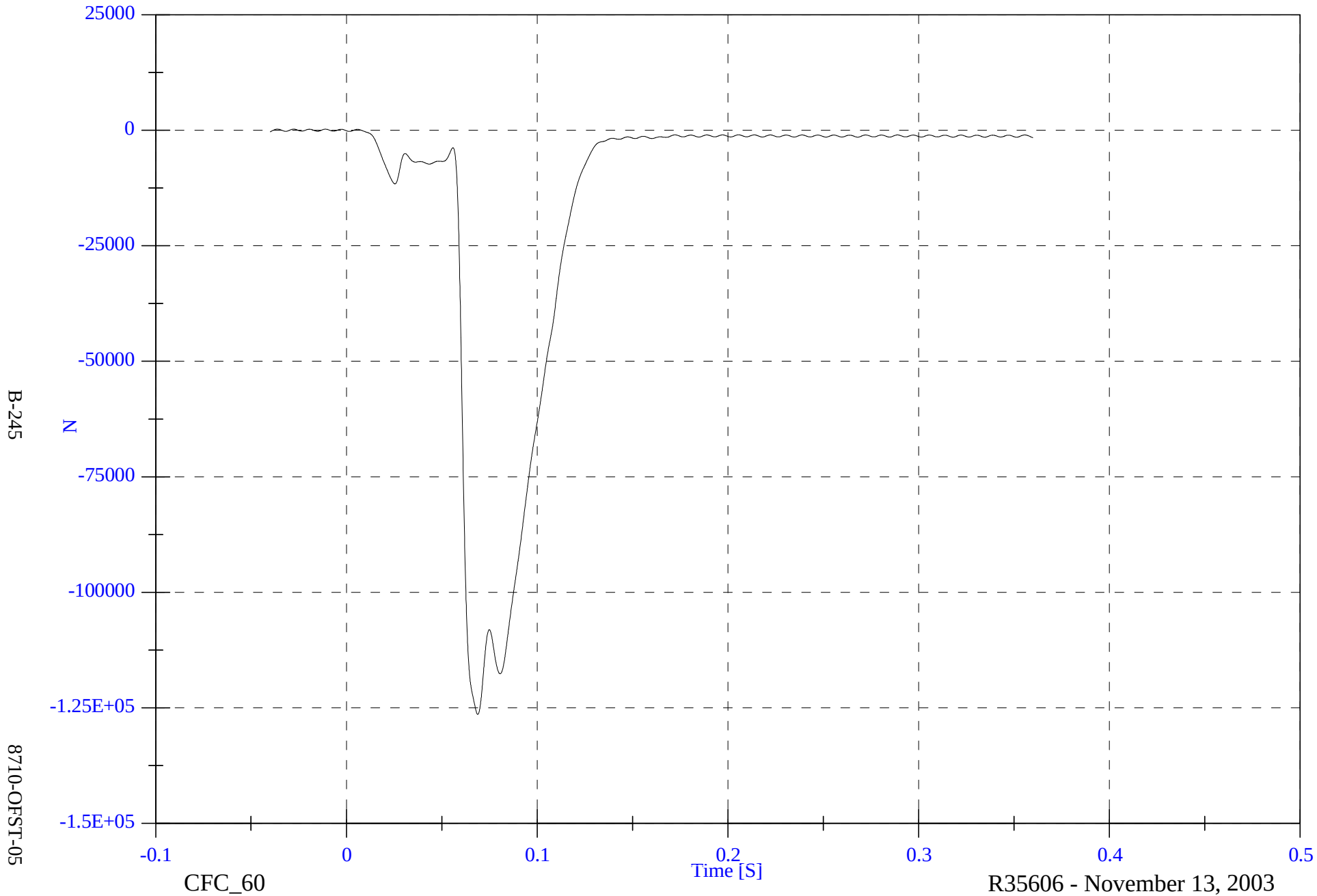
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

Barrier Load Cell C5 FX

Max: 241.1 [N] at -0.028 [S]

Min: -126404.5 [N] at 0.069 [S]

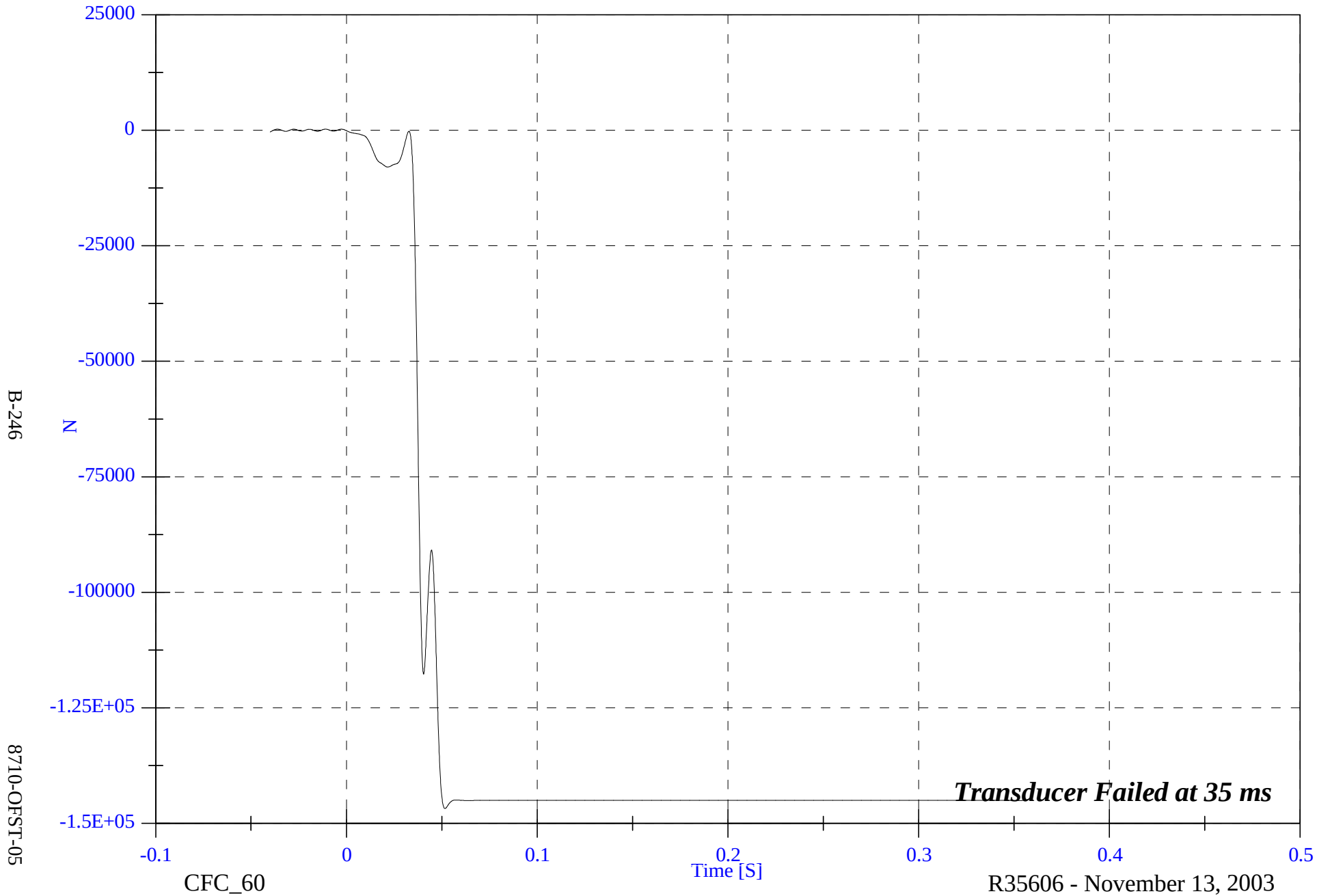


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

Barrier Load Cell C6 FX

Max: 238.1 [N] at -0.011 [S]

Min: -146777.9 [N] at 0.052 [S]

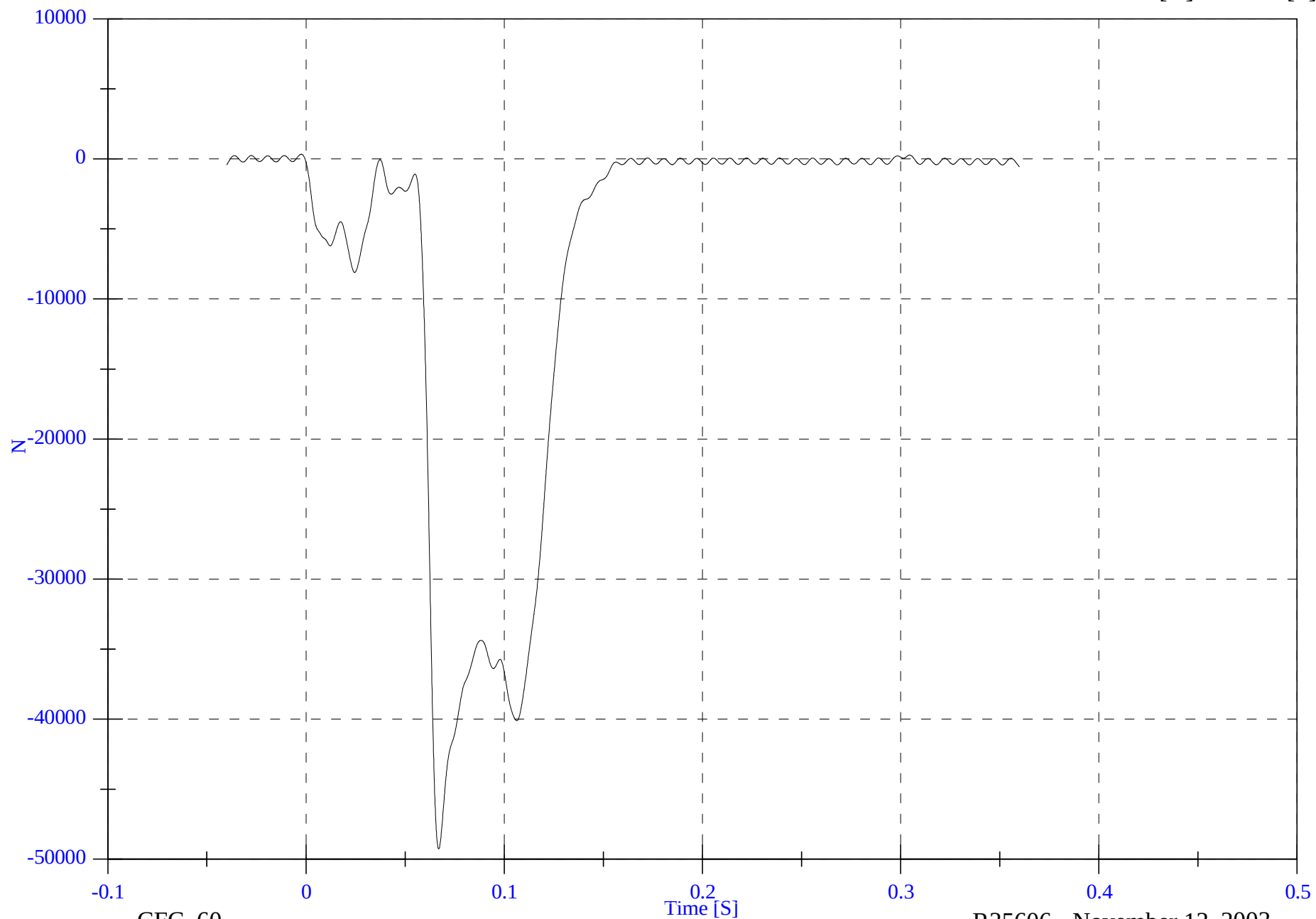


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

Barrier Load Cell C7 FX

Max: 331.3 [N] at -0.002 [S]

Min: -49266.4 [N] at 0.067 [S]



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8710-OFST-05

CFC_60

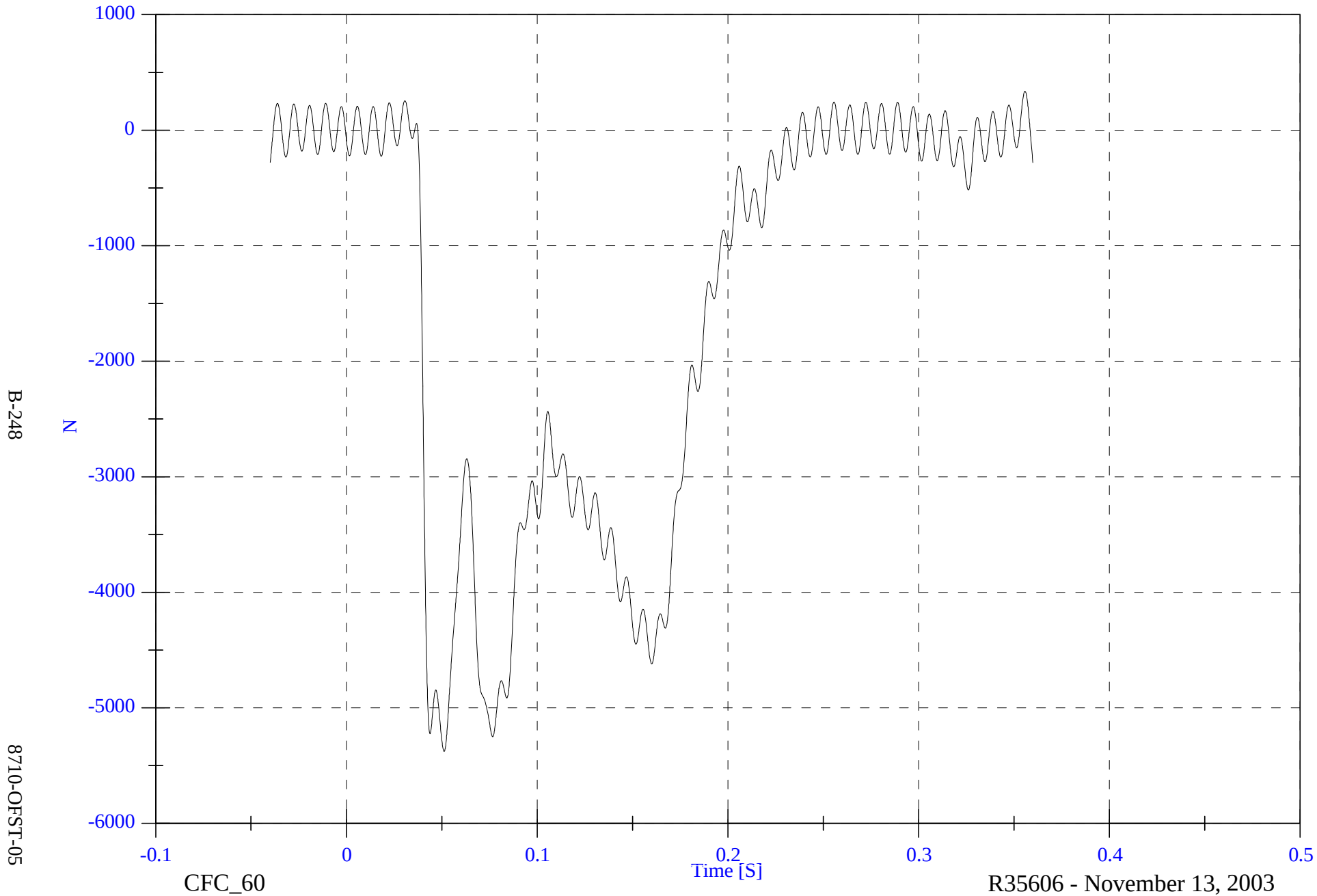
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

Barrier Load Cell B1 FX

Max: 336.8 [N] at 0.356 [S]

Min: -5376.4 [N] at 0.051 [S]

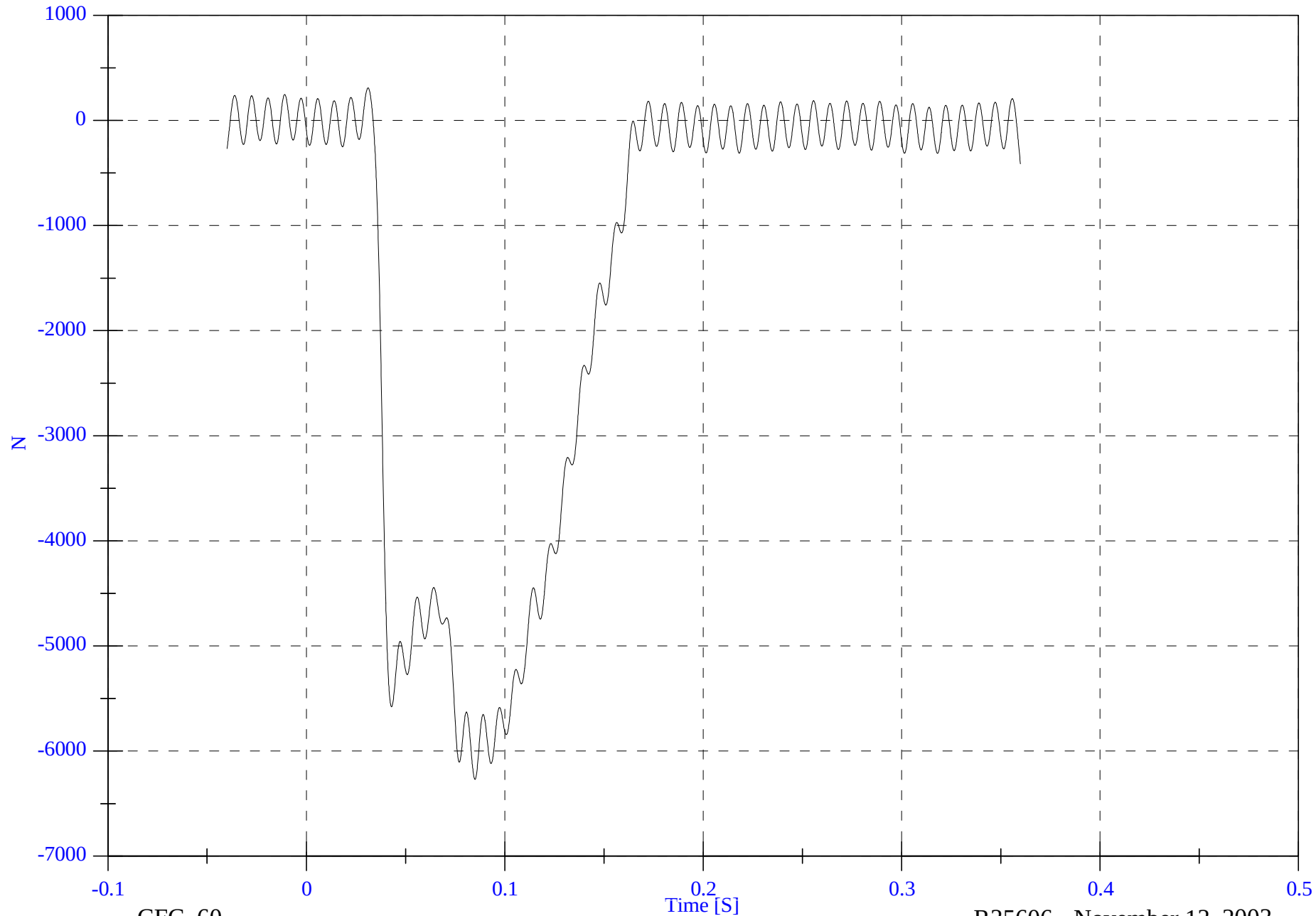


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

Barrier Load Cell B2 FX

Max: 309.4 [N] at 0.031 [S]

Min: -6269.8 [N] at 0.085 [S]



B-249

8710-OFST-05

CFC_60

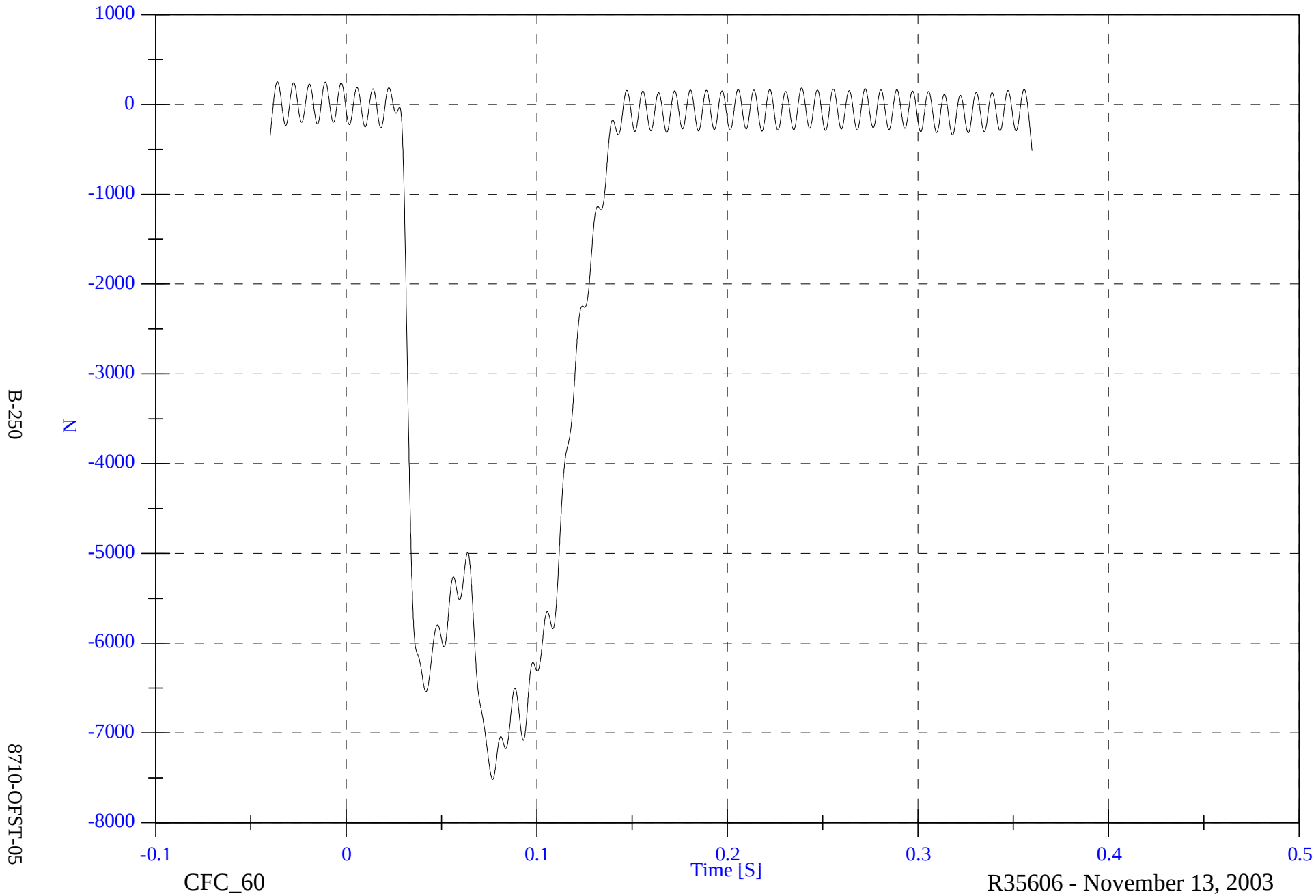
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

Barrier Load Cell B3 FX

Max: 252.5 [N] at -0.036 [S]

Min: -7516.4 [N] at 0.077 [S]

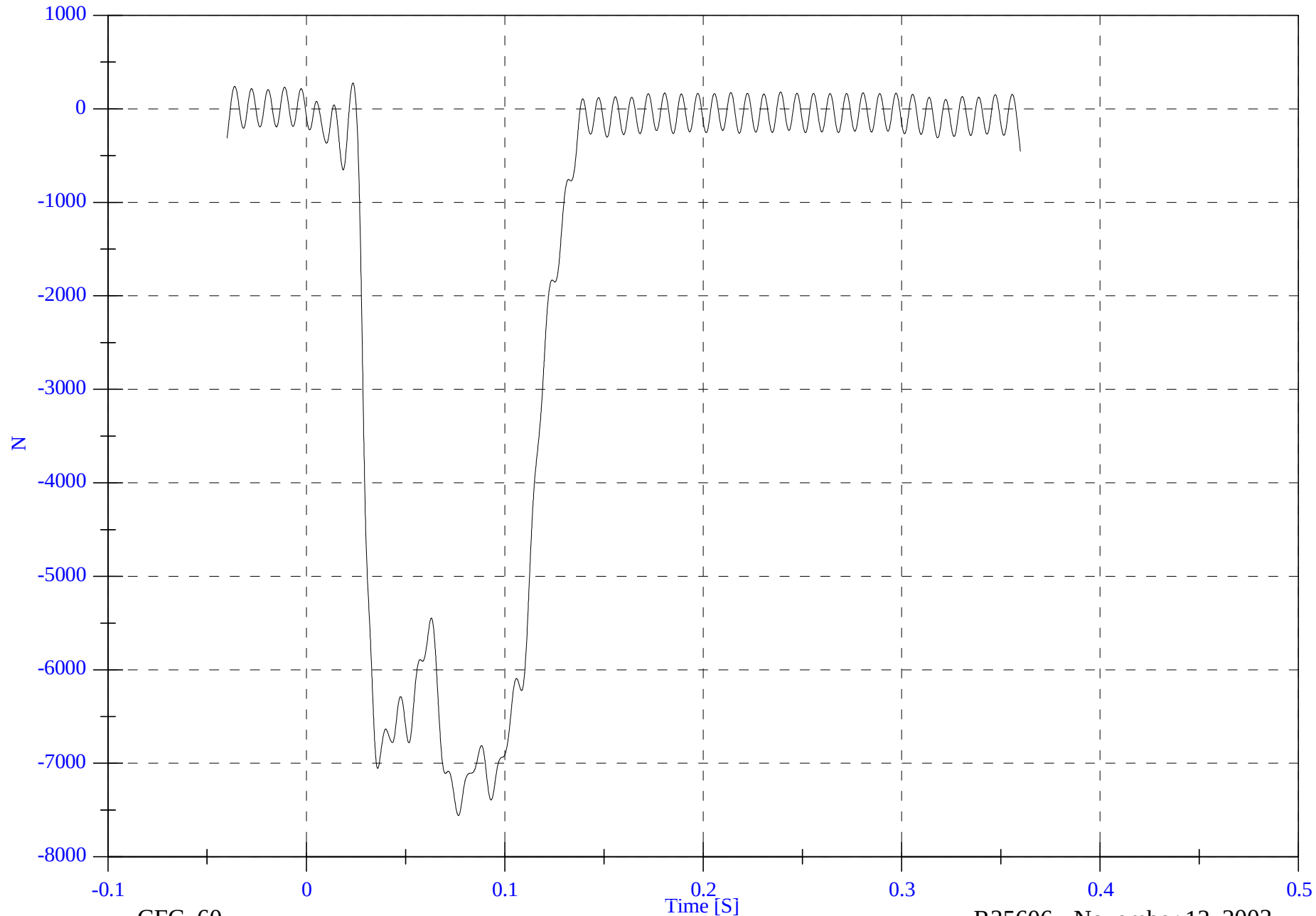


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

Barrier Load Cell B4 FX

Max: 276.0 [N] at 0.023 [S]

Min: -7558.9 [N] at 0.077 [S]



B-251

8710-OFST-05

CFC_60

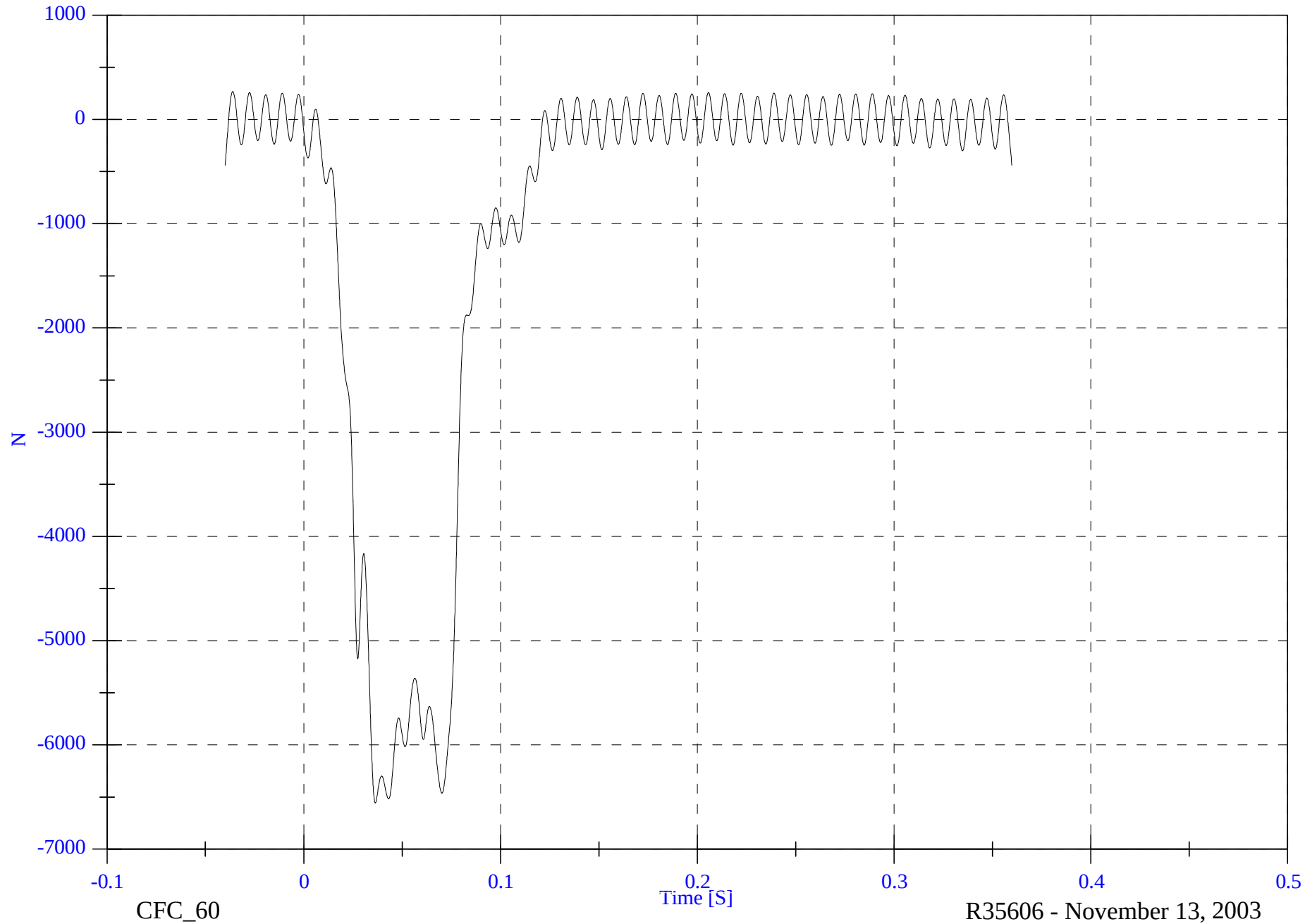
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

Barrier Load Cell B5 FX

Max: 267.2 [N] at -0.036 [S]

Min: -6557.3 [N] at 0.036 [S]



B-252

8710-OFST-05

CFC_60

Time [S]

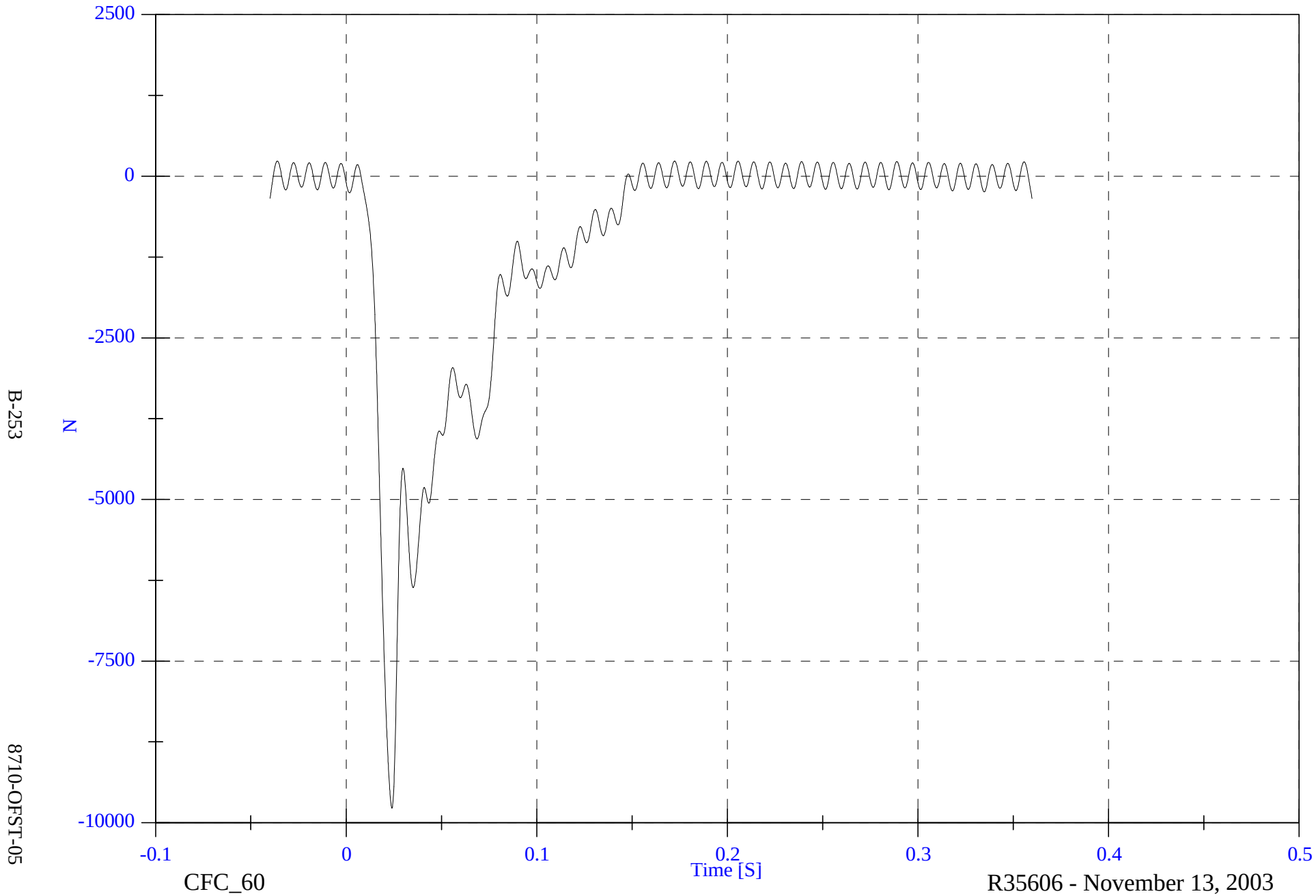
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

Barrier Load Cell B6 FX

Max: 236.2 [N] at 0.172 [S]

Min: -9774.7 [N] at 0.024 [S]

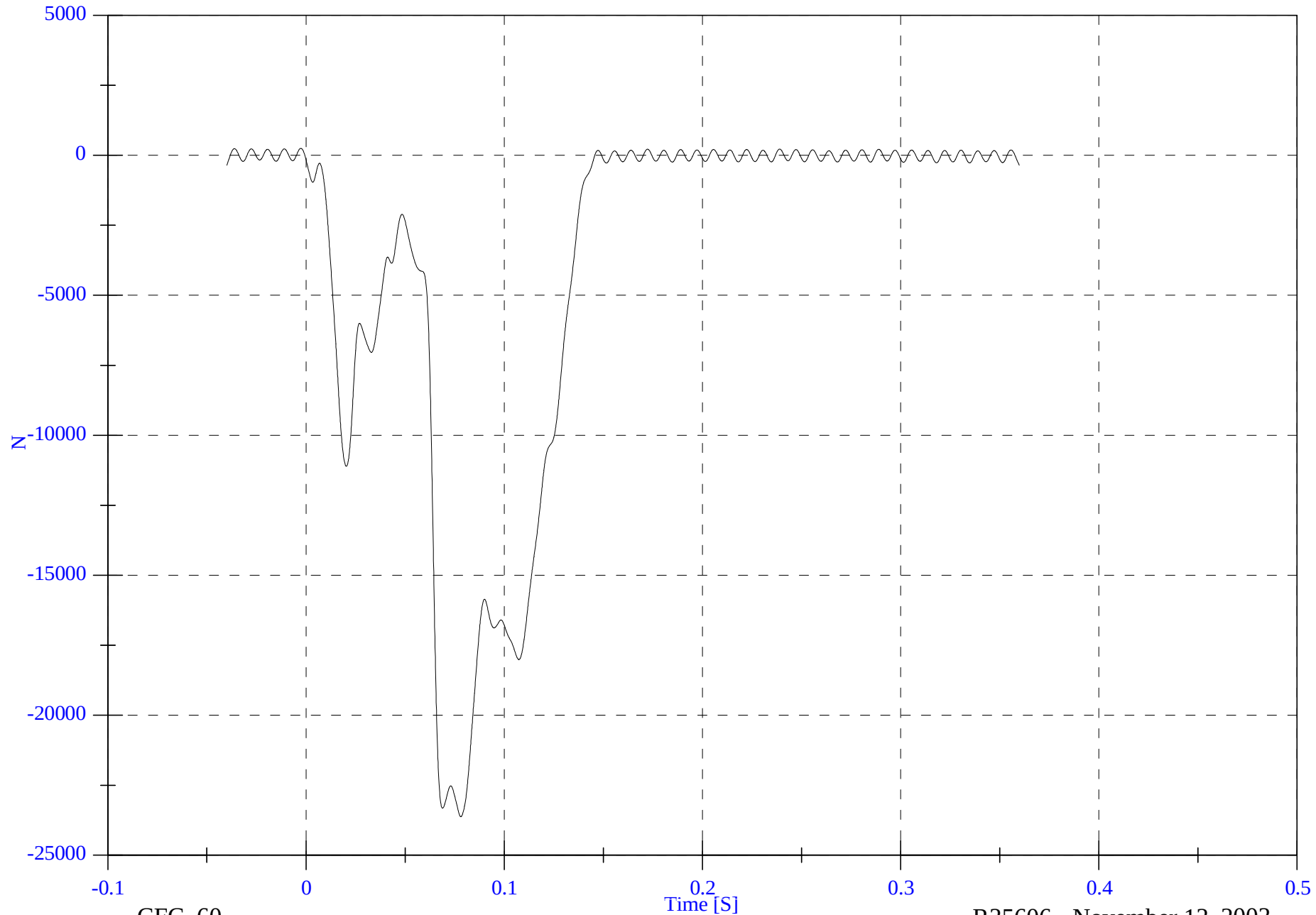


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

Barrier Load Cell B7 FX

Max: 247.6 [N] at -0.003 [S]

Min: -23626.1 [N] at 0.078 [S]



B-254

8710-OFST-05

CFC_60

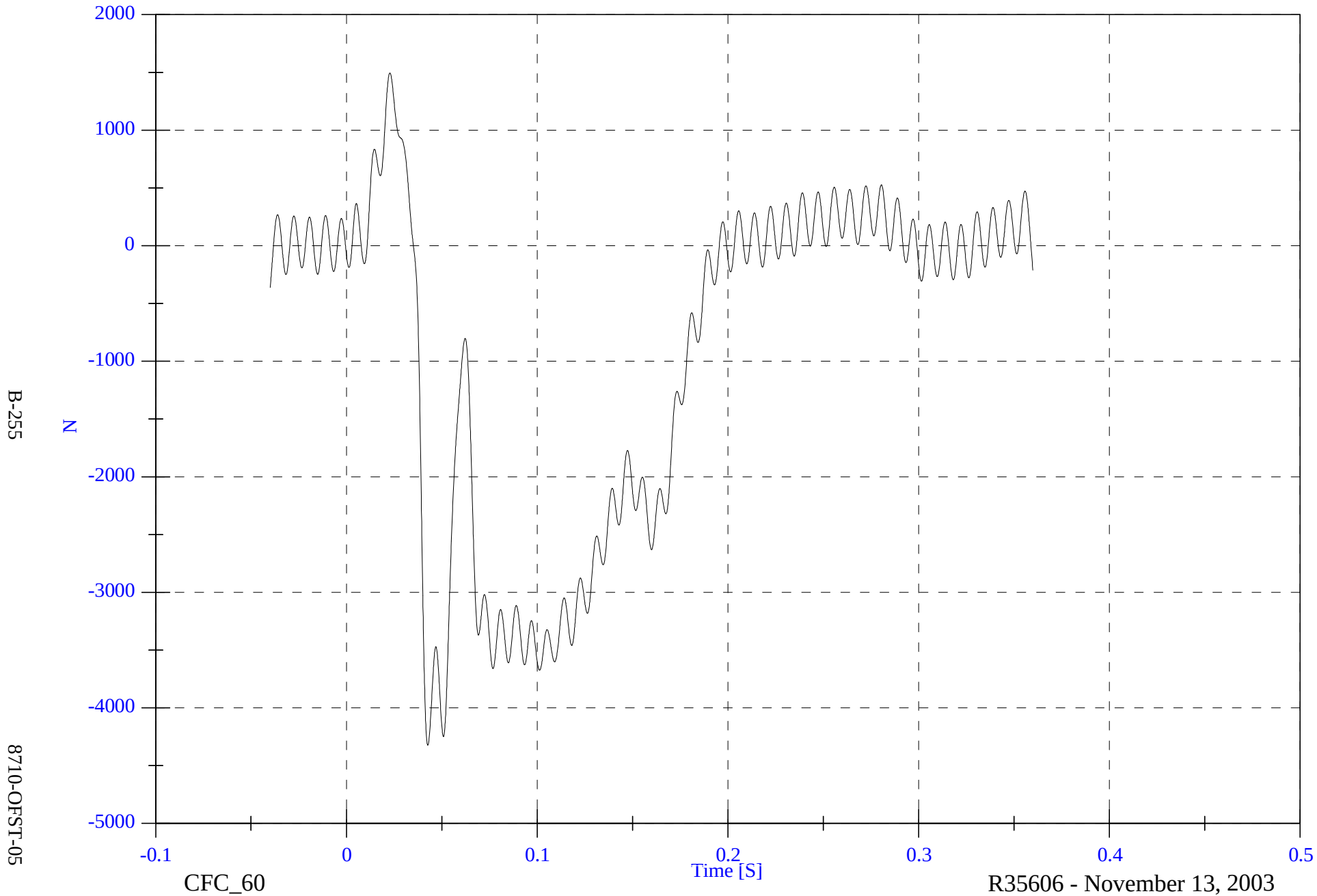
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

Barrier Load Cell A1 FX

Max: 1496.1 [N] at 0.023 [S]

Min: -4323.5 [N] at 0.043 [S]

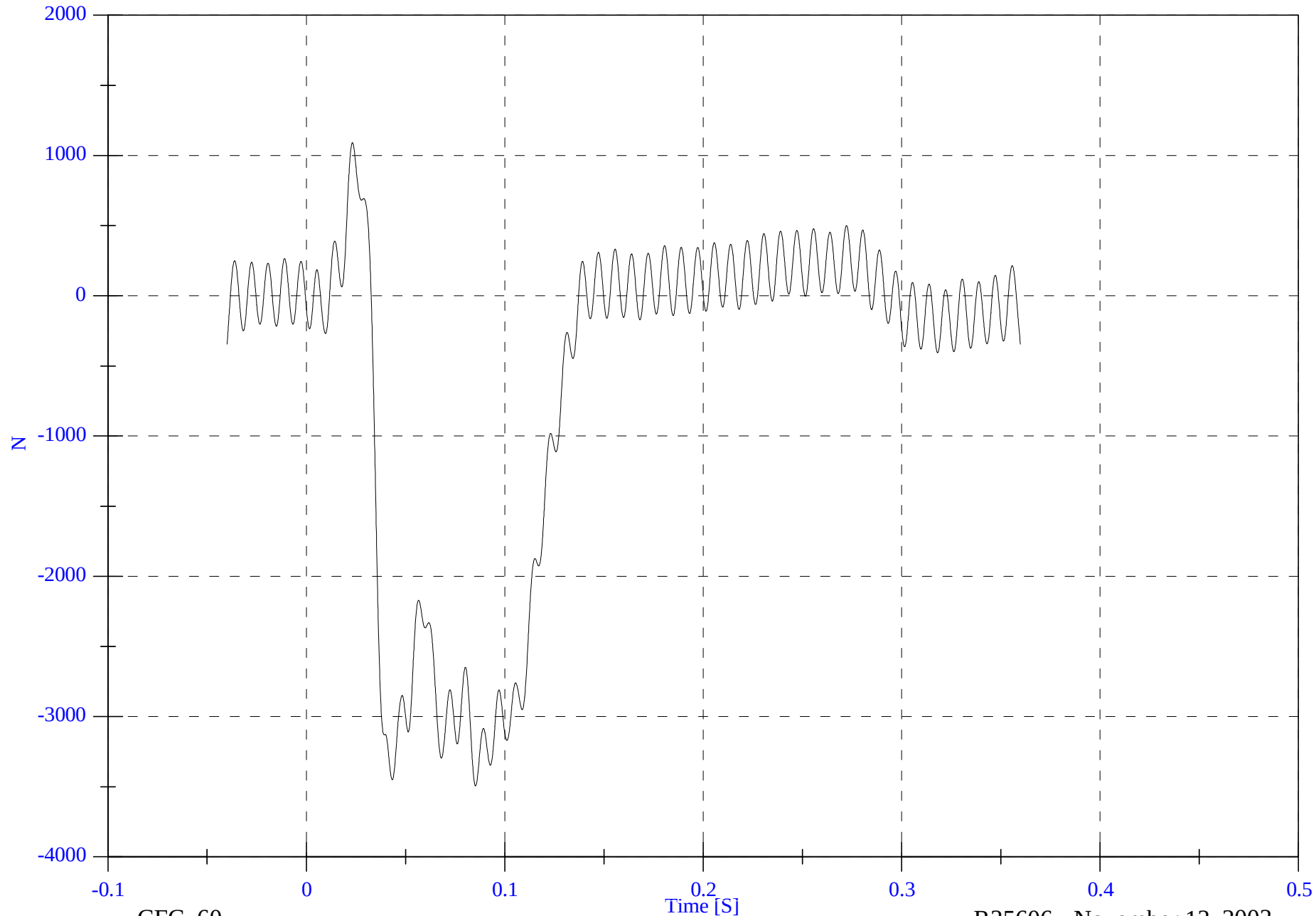


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

Barrier Load Cell A2 FX

Max: 1092.3 [N] at 0.023 [S]

Min: -3494.8 [N] at 0.085 [S]



B-256

8710-OFST-05

CFC_60

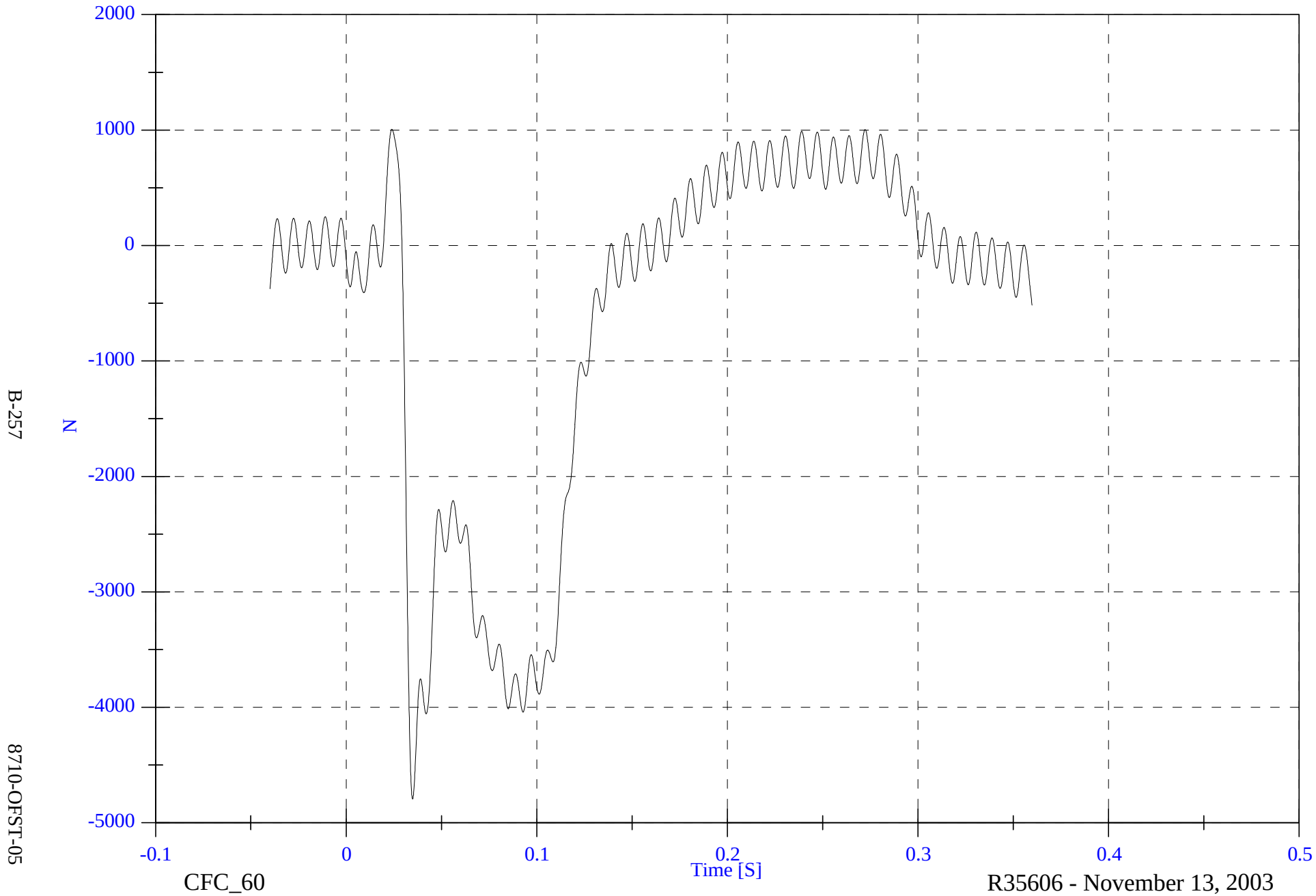
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

Barrier Load Cell A3 FX

Max: 1007.2 [N] at 0.024 [S]

Min: -4794.9 [N] at 0.035 [S]

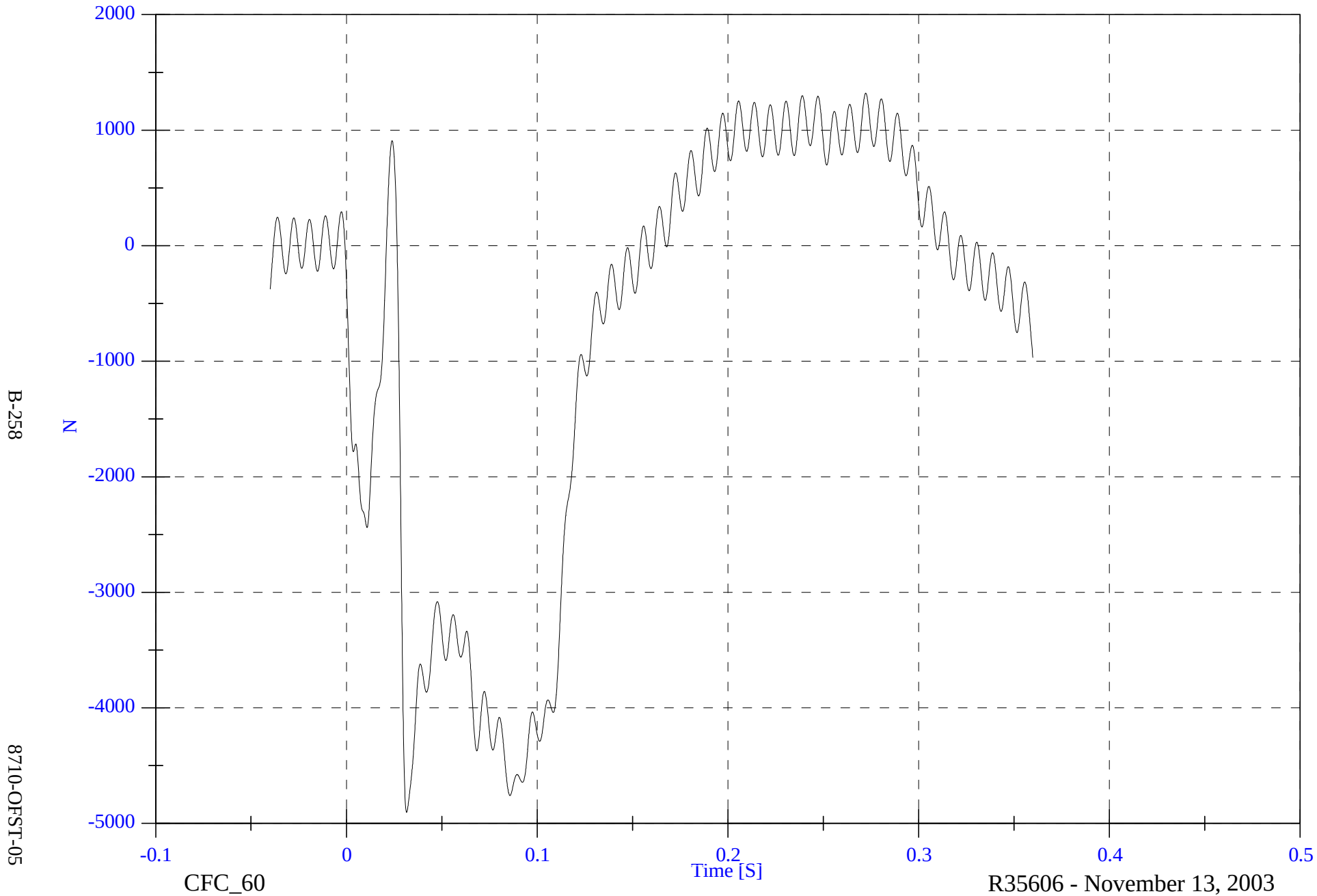


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

Barrier Load Cell A4 FX

Max: 1320.7 [N] at 0.272 [S]

Min: -4905.2 [N] at 0.031 [S]

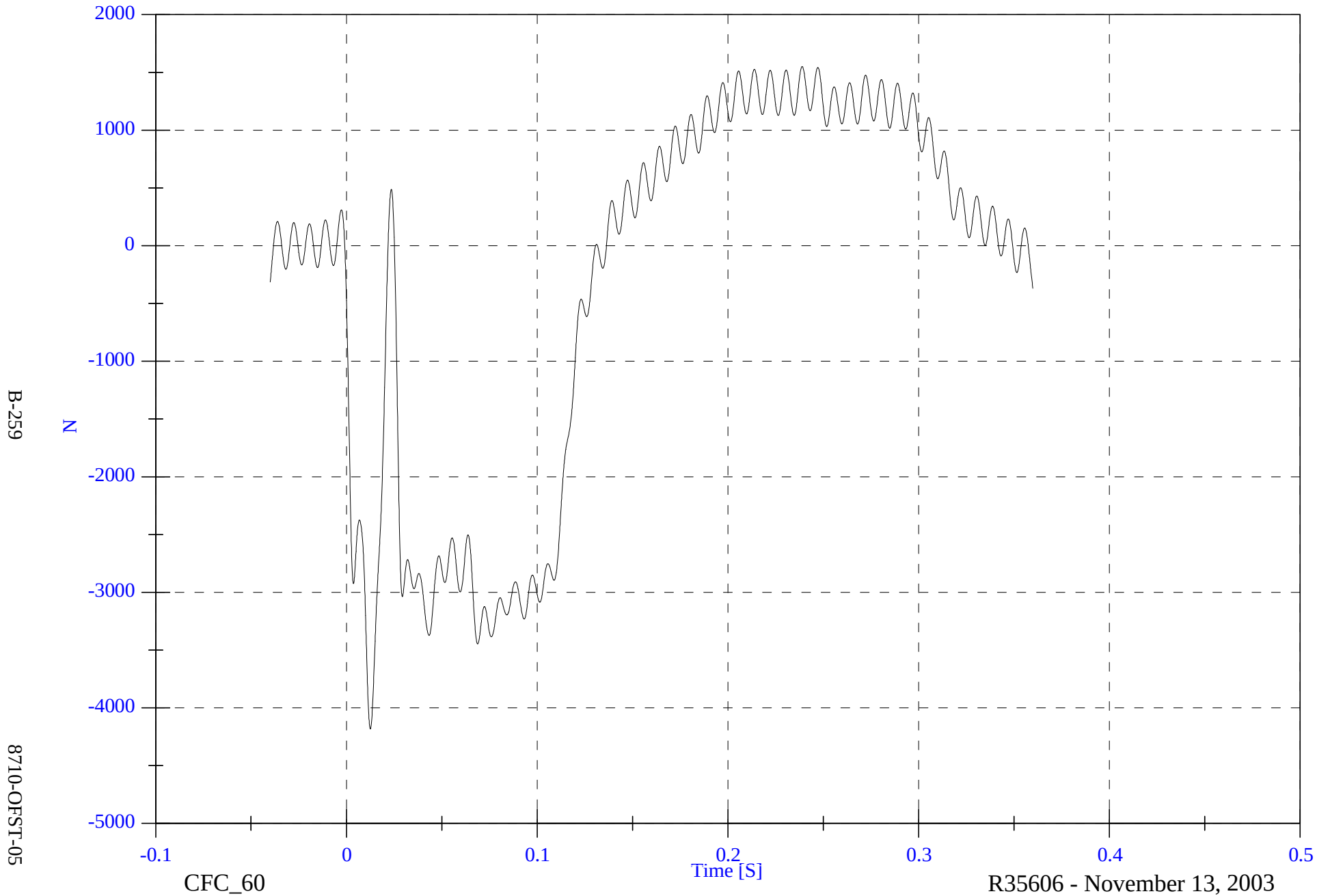


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

Barrier Load Cell A5 FX

Max: 1551.8 [N] at 0.239 [S]

Min: -4182.5 [N] at 0.012 [S]

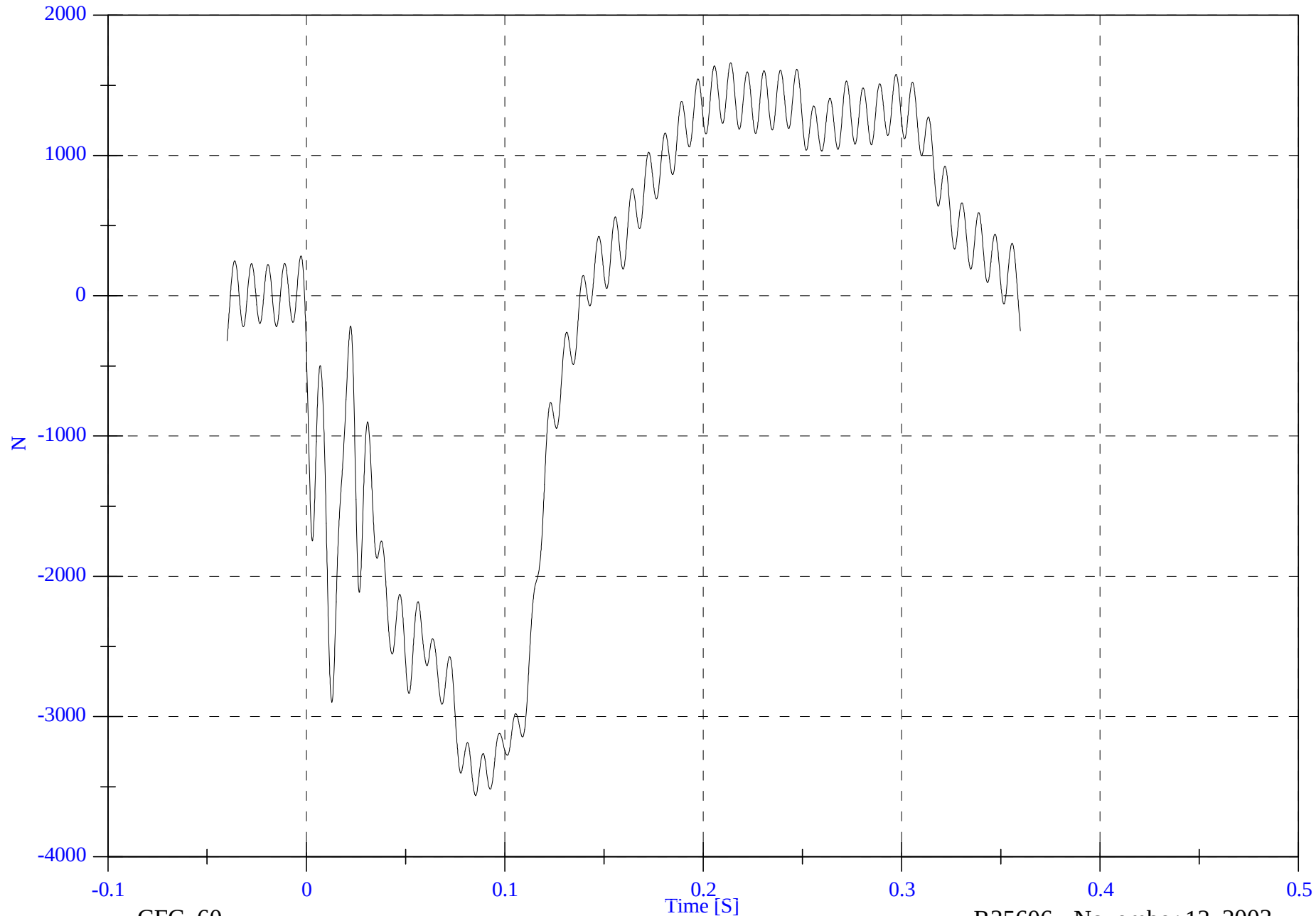


40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

Barrier Load Cell A6 FX

Max: 1661.0 [N] at 0.214 [S]

Min: -3564.1 [N] at 0.085 [S]



B-260

8710-OFST-05

CFC_60

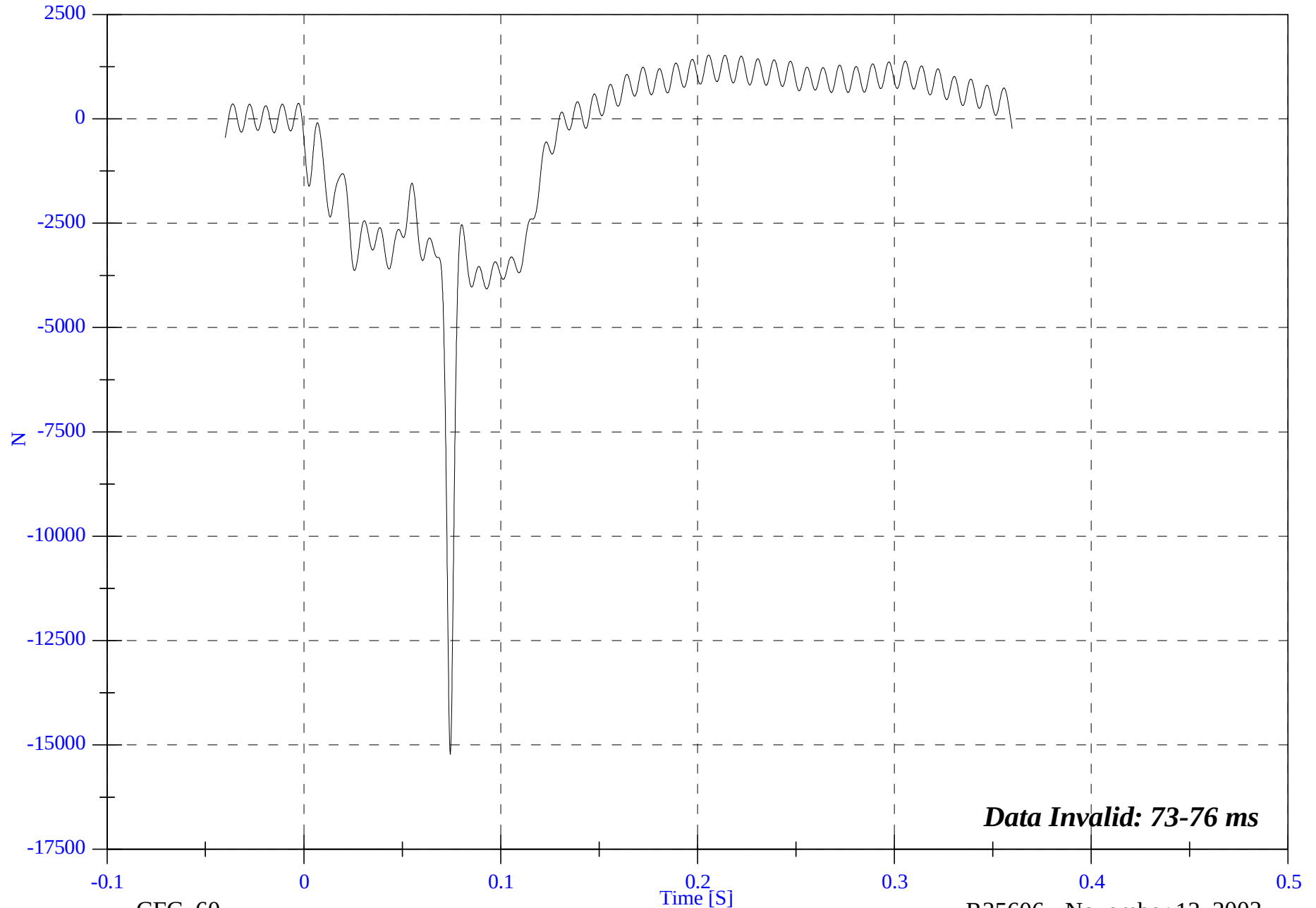
R35606 - November 13, 2003

40% Offset Barrier Test #5 - 2003 Mitsubishi Montero

Barrier Load Cell A7 FX

Max: 1529.4 [N] at 0.206 [S]

Min: -15229.5 [N] at 0.074 [S]



Data Invalid: 73-76 ms

B-261

8710-OFST-05

CFC_60

R35606 - November 13, 2003

APPENDIX C

PART 5720 DUMMY CONFIGURATION AND PERFORMANCE VERIFICATION DATA SHEETS

Appendix C contains the results from certification tests performed on the 5th percentile female anthropomorphic test devices utilized for this crash test. The results indicate that the dummies meet all of the performance requirements of the six standard tests as specified in 49 CFR Part 572.

The tests were conducted at the Dummy Certification Test Facility of Veridian Engineering. A summary of the test results, and Part 572 specifications are included in this Appendix.

Dummy serial numbers and certification dates are:

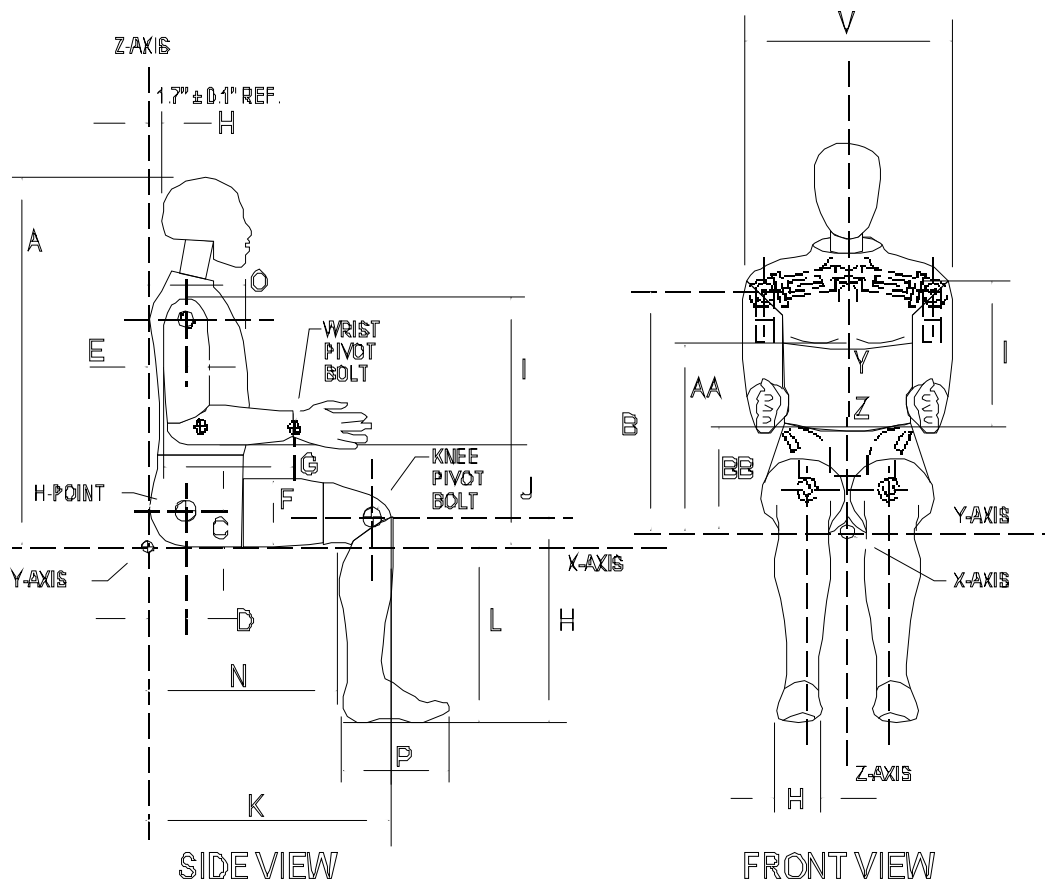
<u>Position No./Location</u>	<u>Serial No.</u>	<u>Completion Date</u> <u>Pre-Test</u>	<u>Completion Date</u> <u>Post-Test</u>
#1/Driver	324FLX103/104	October 10, 2003	December 10, 2003
#2/Right Front Passenger	505FLX108/107	October 10, 2003	December 10, 2003

Electronic Test Equipment

The complement of signal conditioning, recording and display equipment, in conjunction with dummy certification testing, can be found in New Car Assessment and Standards Inducant Testing Final Report No. 6525-V-1.

DUMMY CONFIGURATION DIMENSIONS

EXTERNAL DIMENSIONS SPECIFICATIONS



NOTE: Figure is referenced to the erect seated position. The curved lumbar does not allow the Hybrid III to be positioned in a perfect erect attitude.
(REF: S572.31(A)(6))

PRE-TEST CERTIFICATIONS

PART 572O
HEAD DROP TEST

Dummy Serial Number 324FLX103/104

Sequential Test Number 324-01

Date 10/08/03

Workfile 324H 10-08-03

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature	18.9-25.6 Deg C	21
Relative Humidity	10% - 70%	25
Peak Resultant Acceleration	250-300 G's	258.89
Peak Lateral Acceleration	15 G's Max	8.70
Is Acceleration Curve Unimodal?	YES	YES

Remarks:

Laboratory Technician: B. Swiecicki

PART 572O
NECK FLEXION TEST

Dummy Serial Number	324FLX103/104	
Sequential Test Number	324-01	
Date	10/09/03	6 Axis Neck Transducer
Workfile	324NF 10-09-03	

TEST PARAMETER		SPECIFICATION	TEST RESULTS
Temperature		20.6-22.2 Deg C	21
Relative Humidity		10% - 70%	33
Impact Velocity		6.89 - 7.13 m/s	7.10
Integrated	10 ms	2.0 – 2.5 m/s	1.87
Pendulum	20 ms	4.0 – 5.0 m/s	3.79
Velocity	30 ms	5.8 – 7.0 m/s	5.47
Peak D-Plane Rotation		77 – 91 Deg	79.50
Peak Moment During Rotation Interval		69 – 83 Nm	77.06
Positive Moment Decay Time to 10 Nm Level		80- 100 ms	89.30

Remarks:

Laboratory Technician:	B. Swiecicki
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PART 572O
NECK EXTENSION TEST

Dummy Serial Number	324FLX103/104	
Sequential Test Number	324-01	
Date	10/08/03	6 Axis Neck Transducer
Workfile	324NE 10-08-03	

TEST PARAMETER		SPECIFICATION	TEST RESULTS
Temperature		20.6-22.2 Deg C	21
Relative Humidity		10% - 70%	29
Impact Velocity		5.95 – 6.19 m/s	6.13
Integrated	10 ms	1.5 – 1.9 m/s	2.13
Pendulum	20 ms	3.1 – 3.9 m/s	4.30
Velocity	30 ms	4.6 – 5.6 m/s	6.13
Peak D-Plane Rotation		99 – 114 Deg	106.43
Peak Moment During Rotation Interval		-53 - -65 Nm	-64.43
Positive Moment Decay Time to -10 Nm Level		94 - 114 ms	101.0

Remarks:

Laboratory Technician: B. Swiecicki

PART 572O
THORAX IMPACT TEST

Dummy Serial Number 324FLX103/104

Sequential Test Number 324-01

Date 10/09/03

Workfile 324TH 10-09-03

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature	20.6 – 22.2 Deg C	21
Relative Humidity	10% - 70%	33
Pendulum Velocity	6.59 – 6.83 m/s	6.69
Maximum Deflection	50 – 58 mm	55.6
Maximum Resistive Force	3900 – 4400 N	3938.86
Internal Hysteresis	69 - 85 %	72.28
Peak Force During 18 to 50 mm Deflection	≤ 105%	100.0

Remarks:

Laboratory Technician: B. Swiecicki

PART 572O
KNEE IMPACT TEST

Dummy Serial Number	<u>324FLX103/104</u>
Sequential Test Number	<u>324-01</u>
Date	<u>10/10/03</u>
Workfile	<u>324FM 10-10-03</u>

TEST PARAMETER	SPECIFICATION	TEST RESULTS
LEFT KNEE		
Temperature	18.9 – 25.6 Deg C	21
Relative Humidity	10% - 70%	31
Probe Velocity	2.07 – 2.13 m/s	2.13
Peak Knee Impact Force	3450 – 4060 N	3769.1
RIGHT KNEE		
Temperature	18.9 – 25.6 Deg C	21
Relative Humidity	10% - 70%	31
Probe Velocity	2.07 – 2.13 m/s	2.13
Peak Knee Impact Force	3450 – 4060 N	3713.2

Remarks:

Laboratory Technician:	<u>B. Swiecicki</u>
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PART 572O
EXTERNAL DIMENSIONS

Dummy Serial Number 324FLX103/104
Sequential Test Number 1
Date 10-10-2003

TEST PARAMETER		SPECIFICATION	TEST RESULTS
Total Sitting Height	A	774.7 – 800.1 mm	785
Shoulder Pivot Height	B	431.8 – 457.2 mm	434
H-Point Height	C	81.3 – 86.3 mm	83.8
H-Point from Backline	D	144.8 – 149.8 mm	147.3
Shoulder Pivot from Backline	E	68.6 – 83.8 mm	75
Thigh Clearance	F	119.4 – 134.6 mm	125
Back of Elbow to Wrist Pivot	G	243.9 – 259.1 mm	250
Skull Cap to Backline	H	40.7 – 45.7 mm	45.5
Shoulder - Elbow Length	I	276.8 – 297.2 mm	288
Elbow Rest Height	J	182.8 – 203.2 mm	192
Buttock Knee Length	K	520.7 – 546.1 mm	540
Popliteal Height	L	355.6 – 376 mm	368
Knee Pivot Height	M	393.7 – 419.1 mm	410
Buttock Popliteal Length	N	414 – 439.4 mm	431
Chest Depth	O	175.3 – 190.5 mm	186
Foot Length	P	218.5 – 233.7 mm	226
Buttock to Knee Pivot Length	R	457.2 – 482.6 mm	470
Head Breadth	S	137.1 – 147.3 mm	142
Head Depth	T	177.8 – 188 mm	181
Hip Breadth	U	299.7 – 314.9 mm	311
Shoulder Breadth	V	350.5 – 365.7 mm	359
Foot Breadth	W	78.8 – 94 mm	86
Head Circumference	X	528.3 – 548.7 mm	539
Chest Circumference (With Jacket)	Y	850.9 – 881.3 mm	868
Waist Circumference	Z	759.5 – 789.9 mm	777
Location for Chest Circumference	AA	299.7 – 309.9 mm	345
Location for Waist Circumference	BB	160 – 170.2 mm	165

Remarks:

Laboratory Technician:

B. Swiecicki

PART 572O
HEAD DROP TEST

Dummy Serial Number 505FLX108/107

Sequential Test Number 505-01

Date 10/08/03

Workfile 505H 10-08-03

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature	18.9-25.6 Deg C	21
Relative Humidity	10% - 70%	25
Peak Resultant Acceleration	250-300 G's	252.77
Peak Lateral Acceleration	15 G's Max	12.93
Is Acceleration Curve Unimodal?	YES	YES

Remarks:

Laboratory Technician: B. Swiecicki

PART 572O
NECK FLEXION TEST

Dummy Serial Number	505FLX108/107	
Sequential Test Number	505-01	
Date	10/09/03	6 Axis Neck Transducer
Workfile	505NF 10-09-03	

TEST PARAMETER		SPECIFICATION	TEST RESULTS
Temperature		20.6-22.2 Deg C	21
Relative Humidity		10% - 70%	33
Impact Velocity		6.89 - 7.13 m/s	7.04
Integrated	10 ms	2.0 – 2.5 m/s	1.87
Pendulum	20 ms	4.0 – 5.0 m/s	3.76
Velocity	30 ms	5.8 – 7.0 m/s	5.44
Peak D-Plane Rotation		77 – 91 Deg	77.54
Peak Moment During Rotation Interval		69 – 83 Nm	81.07
Positive Moment Decay Time to 10 Nm Level		80- 100 ms	85.00

Remarks:

Laboratory Technician: B. Swiecicki

PART 572O
NECK EXTENSION TEST

Dummy Serial Number	505FLX108/107	
Sequential Test Number	505-01	
Date	10/09/03	6 Axis Neck Transducer
Workfile	505NE 10-09-03	

TEST PARAMETER		SPECIFICATION	TEST RESULTS
Temperature		20.6-22.2 Deg C	21
Relative Humidity		10% - 70%	33
Impact Velocity		5.95 – 6.19 m/s	6.12
Integrated	10 ms	1.5 – 1.9 m/s	2.22
Pendulum	20 ms	3.1 – 3.9 m/s	4.52
Velocity	30 ms	4.6 – 5.6 m/s	6.18
Peak D-Plane Rotation		99 – 114 Deg	99.23
Peak Moment During Rotation Interval		-53 - -65 Nm	-53.25
Positive Moment Decay Time to -10 Nm Level		94 - 114 ms	94.40

Remarks:

Laboratory Technician: B. Swiecicki

PART 572O
THORAX IMPACT TEST

Dummy Serial Number 505FLX108/107

Sequential Test Number 505-01

Date 10/09/03

Workfile 505TH 10-09-03

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature	20.6 – 22.2 Deg C	21
Relative Humidity	10% - 70%	33
Pendulum Velocity	6.59 – 6.83 m/s	6.69
Maximum Deflection	50 – 58 mm	53.9
Maximum Resistive Force	3900 – 4400 N	4116.3
Internal Hysteresis	69 - 85 %	74.69
Peak Force During 18 to 50 mm Deflection	≤ 105%	100

Remarks:

Laboratory Technician: B. Swiecicki

PART 572O
KNEE IMPACT TEST

Dummy Serial Number 505FLX108/107

Sequential Test Number 505-01

Date 10/10/03

Workfile 505FM 10-10-03

TEST PARAMETER	SPECIFICATION	TEST RESULTS
LEFT KNEE		
Temperature	18.9 – 25.6 Deg C	21
Relative Humidity	10% - 70%	31
Probe Velocity	2.07 – 2.13 m/s	2.13
Peak Knee Impact Force	3450 – 4060 N	3661.9
RIGHT KNEE		
Temperature	18.9 – 25.6 Deg C	21
Relative Humidity	10% - 70%	31
Probe Velocity	2.07 – 2.13 m/s	2.13
Peak Knee Impact Force	3450 – 4060 N	3546.0

Remarks:

Laboratory Technician: B. Swiecicki

PART 572O
EXTERNAL DIMENSIONS

Dummy Serial Number 505FLX108/107
Sequential Test Number 1
Date 10-10-2003

TEST PARAMETER		SPECIFICATION	TEST RESULTS
Total Sitting Height	A	774.7 – 800.1 mm	789
Shoulder Pivot Height	B	431.8 – 457.2 mm	441
H-Point Height	C	81.3 – 86.3 mm	83.8
H-Point from Backline	D	144.8 – 149.8 mm	147.3
Shoulder Pivot from Backline	E	68.6 – 83.8 mm	76
Thigh Clearance	F	119.4 – 134.6 mm	129
Back of Elbow to Wrist Pivot	G	243.9 – 259.1 mm	249
Skull Cap to Backline	H	40.7 – 45.7 mm	44
Shoulder - Elbow Length	I	276.8 – 297.2 mm	289
Elbow Rest Height	J	182.8 – 203.2 mm	191
Buttock Knee Length	K	520.7 – 546.1 mm	539
Popliteal Height	L	355.6 – 376 mm	370
Knee Pivot Height	M	393.7 – 419.1 mm	410
Buttock Popliteal Length	N	414 – 439.4 mm	430
Chest Depth	O	175.3 – 190.5 mm	184
Foot Length	P	218.5 – 233.7 mm	226
Buttock to Knee Pivot Length	R	457.2 – 482.6 mm	472
Head Breadth	S	137.1 – 147.3 mm	142
Head Depth	T	177.8 – 188 mm	181
Hip Breadth	U	299.7 – 314.9 mm	309
Shoulder Breadth	V	350.5 – 365.7 mm	360
Foot Breadth	W	78.8 – 94 mm	86
Head Circumference	X	528.3 – 548.7 mm	540
Chest Circumference (With Jacket)	Y	850.9 – 881.3 mm	865
Waist Circumference	Z	759.5 – 789.9 mm	780
Location for Chest Circumference	AA	299.7 – 309.9 mm	345.4
Location for Waist Circumference	BB	160 – 170.2 mm	165

Remarks:

Laboratory Technician:

B. Swiecicki

POST-TEST CERTIFICATIONS

PART 572O
HEAD DROP TEST

Dummy Serial Number 324FLX103/104

Sequential Test Number 1

Date 12-02-03

Workfile 324H 12-02-03

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature	18.9-25.6 Deg C	21.1
Relative Humidity	10% - 70%	37.00
Peak Resultant Acceleration	250-300 G's	252.84
Peak Lateral Acceleration	15 G's Max	2.47
Is Acceleration Curve Unimodal?	YES	YES

Remarks:

Laboratory Technician: B. Swiecicki

PART 572O
NECK FLEXION TEST

Dummy Serial Number	<u>324FLX103/104</u>	
Sequential Test Number	<u>1</u>	
Date	<u>12-05-03</u>	6 Axis Neck Transducer
Workfile	<u>325NF1 12-05-03</u>	

TEST PARAMETER		SPECIFICATION	TEST RESULTS
Temperature		20.6-22.2 Deg C	21.1
Relative Humidity		10% - 70%	34.0
Impact Velocity		6.89 - 7.13 m/s	7.06
Integrated	10 ms	1.86	
Pendulum	20 ms	3.76	
Velocity	30 ms	5.44	
Peak D-Plane Rotation		77 – 91 Deg	81.17
Peak Moment During Rotation Interval		69 – 83 Nm	72.69
Positive Moment Decay Time to 10 Nm Level		80- 100 ms	82.90

Remarks:

Laboratory Technician: B. Swiecicki

PART 572O
NECK EXTENSION TEST

Dummy Serial Number	324FLX103/104	
Sequential Test Number	3	
Date	12-05-2003	6 Axis Neck Transducer
Workfile	324NE3 12-05-03	

TEST PARAMETER		SPECIFICATION	TEST RESULTS
Temperature		20.6-22.2 Deg C	21.1
Relative Humidity		10% - 70%	34.00
Impact Velocity		5.95 – 6.19 m/s	6.07
Integrated	10 ms	1.5 – 1.9 m/s	2.13
Pendulum	20 ms	3.1 – 3.9 m/s	4.33
Velocity	30 ms	4.6 – 5.6 m/s	6.15
Peak D-Plane Rotation		99 – 114 Deg	104.96
Peak Moment During Rotation Interval		-53 - -65 Nm	-54.55
Positive Moment Decay Time to -10 Nm Level		94 - 114 ms	103.00

Remarks:

Laboratory Technician: B. Swiecicki

PART 572O
THORAX IMPACT TEST

Dummy Serial Number	<u>324FLX103/104</u>
Sequential Test Number	<u>1</u>
Date	<u>12-08-2003</u>
Workfile	<u>324T 12-08-03</u>

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature	20.6 – 22.2 Deg C	21.1
Relative Humidity	10% - 70%	26.0
Pendulum Velocity	6.59 – 6.83 m/s	6.72
Maximum Deflection	50 – 58 mm	54
Maximum Resistive Force	3900 – 4400 N	4024.88
Internal Hysteresis	69 - 85 %	74.74
Peak Force During 18 to 50 mm Deflection	≤ 105%	100

Remarks:

Laboratory Technician:	<u>B. Swiecicki</u>
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PART 572O
KNEE IMPACT TEST

Dummy Serial Number 324FLX103/104

Sequential Test Number 1

Date 12-10-2003

Workfile 324LF 12-10-03/324RF 12-10-03

TEST PARAMETER	SPECIFICATION	TEST RESULTS
LEFT KNEE		
Temperature	18.9 – 25.6 Deg C	21.1
Relative Humidity	10% - 70%	37.0
Probe Velocity	2.07 – 2.13 m/s	2.13
Peak Knee Impact Force	3450 – 4060 N	3558.42
RIGHT KNEE		
Temperature	18.9 – 25.6 Deg C	21.1
Relative Humidity	10% - 70%	37.0
Probe Velocity	2.07 – 2.13 m/s	2.13
Peak Knee Impact Force	3450 – 4060 N	3598.67

Remarks:

Laboratory Technician: B. Swiecicki

PART 572O
EXTERNAL DIMENSIONS

Dummy Serial Number 324FLX103/104
Sequential Test Number 1
Date 12-10-2003

TEST PARAMETER		SPECIFICATION	TEST RESULTS
Total Sitting Height	A	774.7 – 800.1 mm	789
Shoulder Pivot Height	B	431.8 – 457.2 mm	441
H-Point Height	C	81.3 – 86.3 mm	83.8
H-Point from Backline	D	144.8 – 149.8 mm	147.3
Shoulder Pivot from Backline	E	68.6 – 83.8 mm	76
Thigh Clearance	F	119.4 – 134.6 mm	129
Back of Elbow to Wrist Pivot	G	243.9 – 259.1 mm	249
Skull Cap to Backline	H	40.7 – 45.7 mm	44
Shoulder - Elbow Length	I	276.8 – 297.2 mm	289
Elbow Rest Height	J	182.8 – 203.2 mm	191
Buttock Knee Length	K	520.7 – 546.1 mm	539
Popliteal Height	L	355.6 – 376 mm	370
Knee Pivot Height	M	393.7 – 419.1 mm	410
Buttock Popliteal Length	N	414 – 439.4 mm	430
Chest Depth	O	175.3 – 190.5 mm	184
Foot Length	P	218.5 – 233.7 mm	226
Buttock to Knee Pivot Length	R	457.2 – 482.6 mm	472
Head Breadth	S	137.1 – 147.3 mm	142
Head Depth	T	177.8 – 188 mm	181
Hip Breadth	U	299.7 – 314.9 mm	309
Shoulder Breadth	V	350.5 – 365.7 mm	360
Foot Breadth	W	78.8 – 94 mm	86
Head Circumference	X	528.3 – 548.7 mm	540
Chest Circumference (With Jacket)	Y	850.9 – 881.3 mm	865
Waist Circumference	Z	759.5 – 789.9 mm	780
Location for Chest Circumference	AA	299.7 – 309.9 mm	345.4
Location for Waist Circumference	BB	160 – 170.2 mm	165

Remarks:

Laboratory Technician:

B. Swiecicki

PART 572O
HEAD DROP TEST

Dummy Serial Number 505FLX108/107

Sequential Test Number 1

Date 12-02-2003

Workfile 505H 12-02-03

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature	18.9-25.6 Deg C	21.1
Relative Humidity	10% - 70%	37.0
Peak Resultant Acceleration	250-300 G's	284.58
Peak Lateral Acceleration	15 G's Max	2.12
Is Acceleration Curve Unimodal?	YES	YES

Remarks:

Laboratory Technician: B. Swiecicki

PART 572O
NECK FLEXION TEST

Dummy Serial Number	<u>505FLX108/107</u>	
Sequential Test Number	<u>1</u>	
Date	<u>12-05-2003</u>	6 Axis Neck Transducer
Workfile	<u>505NF 12-05-03</u>	

TEST PARAMETER		SPECIFICATION	TEST RESULTS
Temperature		20.6-22.2 Deg C	21.1
Relative Humidity		10% - 70%	34.00
Impact Velocity		6.89 - 7.13 m/s	6.18
Integrated	10 ms	2.0 – 2.5 m/s	1.83
Pendulum	20 ms	4.0 – 5.0 m/s	3.75
Velocity	30 ms	5.8 – 7.0 m/s	5.36
Peak D-Plane Rotation		77 – 91 Deg	80.80
Peak Moment During Rotation Interval		69 – 83 Nm	70.67
Positive Moment Decay Time to 10 Nm Level		80- 100 ms	84.20

Remarks:

Laboratory Technician: B. Swiecicki

PART 572O
NECK EXTENSION TEST

Dummy Serial Number	505FLX108/107	
Sequential Test Number	1	
Date	12-05-2003	6 Axis Neck Transducer
Workfile	505NE 12-05-03	

TEST PARAMETER		SPECIFICATION	TEST RESULTS
Temperature		20.6-22.2 Deg C	21.1
Relative Humidity		10% - 70%	37.0
Impact Velocity		5.95 – 6.19 m/s	6.03
Integrated	10 ms	1.5 – 1.9 m/s	2.14
Pendulum	20 ms	3.1 – 3.9 m/s	4.27
Velocity	30 ms	4.6 – 5.6 m/s	6.13
Peak D-Plane Rotation		99 – 114 Deg	103.95
Peak Moment During Rotation Interval		-53 - -65 Nm	-54.43
Positive Moment Decay Time to -10 Nm Level		94 - 114 ms	102.40

Remarks:

Laboratory Technician: B. Swiecicki

PART 572O
THORAX IMPACT TEST

Dummy Serial Number	<u>505FLX108/107</u>
Sequential Test Number	<u>1</u>
Date	<u>12-10-2003</u>
Workfile	<u>505T 12-10-03</u>

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature	20.6 – 22.2 Deg C	21.1
Relative Humidity	10% - 70%	37.0
Pendulum Velocity	6.59 – 6.83 m/s	6.71
Maximum Deflection	50 – 58 mm	52
Maximum Resistive Force	3900 – 4400 N	4633
Internal Hysteresis	69 - 85 %	75.93
Peak Force During 18 to 50 mm Deflection	≤ 105%	100.0

Remarks:

Laboratory Technician:	<u>B. Swiecicki</u>
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PART 572O
KNEE IMPACT TEST

Dummy Serial Number 505FLX108/107

Sequential Test Number 1

Date 12-10-2003

Workfile 505LF 12-10-03/505RF 12-10-03

TEST PARAMETER	SPECIFICATION	TEST RESULTS
LEFT KNEE		
Temperature	18.9 – 25.6 Deg C	21.1
Relative Humidity	10% - 70%	37.0
Probe Velocity	2.07 – 2.13 m/s	2.13
Peak Knee Impact Force	3450 – 4060 N	3550
RIGHT KNEE		
Temperature	18.9 – 25.6 Deg C	21.1
Relative Humidity	10% - 70%	37.0
Probe Velocity	2.07 – 2.13 m/s	2.13
Peak Knee Impact Force	3450 – 4060 N	3657.15

Remarks:

Laboratory Technician: B. Swiecicki

PART 572O
EXTERNAL DIMENSIONS

Dummy Serial Number 505FLX108/107
Sequential Test Number 1
Date 12-10-2003

TEST PARAMETER		SPECIFICATION	TEST RESULTS
Total Sitting Height	A	774.7 – 800.1 mm	785
Shoulder Pivot Height	B	431.8 – 457.2 mm	434
H-Point Height	C	81.3 – 86.3 mm	83.8
H-Point from Backline	D	144.8 – 149.8 mm	147.3
Shoulder Pivot from Backline	E	68.6 – 83.8 mm	75
Thigh Clearance	F	119.4 – 134.6 mm	125
Back of Elbow to Wrist Pivot	G	243.9 – 259.1 mm	250
Skull Cap to Backline	H	40.7 – 45.7 mm	45.5
Shoulder - Elbow Length	I	276.8 – 297.2 mm	288
Elbow Rest Height	J	182.8 – 203.2 mm	192
Buttock Knee Length	K	520.7 – 546.1 mm	540
Popliteal Height	L	355.6 – 376 mm	368
Knee Pivot Height	M	393.7 – 419.1 mm	410
Buttock Popliteal Length	N	414 – 439.4 mm	431
Chest Depth	O	175.3 – 190.5 mm	186
Foot Length	P	218.5 – 233.7 mm	226
Buttock to Knee Pivot Length	R	457.2 – 482.6 mm	470
Head Breadth	S	137.1 – 147.3 mm	142
Head Depth	T	177.8 – 188 mm	181
Hip Breadth	U	299.7 – 314.9 mm	311
Shoulder Breadth	V	350.5 – 365.7 mm	359
Foot Breadth	W	78.8 – 94 mm	86
Head Circumference	X	528.3 – 548.7 mm	539
Chest Circumference (With Jacket)	Y	850.9 – 881.3 mm	868
Waist Circumference	Z	759.5 – 789.9 mm	777
Location for Chest Circumference	AA	299.7 – 309.9 mm	345
Location for Waist Circumference	BB	160 – 170.2 mm	165

Remarks:

Laboratory Technician:

B. Swiecicki

APPENDIX D

DUMMY, VEHICLE AND LABORATORY INSTRUMENT CALIBRATION

INSTRUMENT CALIBRATION FOR DRIVER DUMMY
(6 Month Calibration Minimum)

DRIVER DUMMY (S/N 324FLX103/104)		Manufacturer	Serial #	Calibration
Head X Arm	Y	ENDEVCO	AC-J21985	9/10/2003
	Z	ENDEVCO	AC-J27464	9/10/2003
Head Y Arm	X	ENDEVCO	AC-J23944	9/10/2003
	Z	ENDEVCO	AC-J14232	9/10/2003
Head Z Arm	X	ENDEVCO	AC-J23759	9/10/2003
	Y	ENDEVCO	AC-AAKD0	9/10/2003
Head CG	X	ENDEVCO	AC-J18733	9/10/2003
	Y	ENDEVCO	AC-J19338	9/10/2003
	Z	ENDEVCO	AC-ACB45	9/10/2003
Head CG	X (R)	ENDEVCO	AC-J23805	9/10/2003
	Y (R)	ENDEVCO	AC-J14667	9/10/2003
	Z (R)	ENDEVCO	AC-ACC82	9/10/2003
Upper Neck Load Cell	X	DENTON	LC-280FX	9/10/2003
	Y	DENTON	LC-280FY	9/10/2003
	Z	DENTON	LC-280FZ	9/10/2003
Upper Neck Moment	X	DENTON	LC-280MX	9/10/2003
	Y	DENTON	LC-280MY	9/10/2003
	Z	DENTON	LC-280MZ	9/10/2003
Lower Neck Load Cell	X	DENTON	LC-086FX	9/10/2003
	Y	DENTON	LC-086FY	9/10/2003
	Z	DENTON	LC-086FZ	9/10/2003
Lower Neck Moment	X	DENTON	LC-086MX	9/10/2003
	Y	DENTON	LC-086MY	9/10/2003
	Z	-	-	-

INSTRUMENT CALIBRATION FOR DRIVER DUMMY
(6 Month Calibration Minimum)

DRIVER DUMMY (S/N 324FLX103/104)		Manufacturer	Serial #	Calibration
Chest	X	ENTRAN	AC-02I02I10-N12	9/10/2003
	Y	ENTRAN	AC-02I02I10-N14	9/10/2003
	Z	ENTRAN	AC-02I02I10-N24	9/10/2003
Chest	X (R)	ENDEVCO	AC-J27525	9/10/2003
	Y (R)	ENDEVCO	AC-J18742	9/10/2003
	Z (R)	ENDEVCO	AC-ACCT5	9/10/2003
Chest Deflection Gauge	Dx	SERVO	DS-324	9/12/2003
Left Femur Load	Z	DENTON	LC-633	9/10/2003
Right Femur Load	Z	DENTON	LC-721	9/10/2003
Left Knee Shear Dx		SPACEAGE CONTROL	DS-15021	10/21/2003
Right Knee Shear Dx		SPACEAGE CONTROL	DS-14949	10/22/2003
Left Upper Tibia	Fx	DENTON	LC-076FX[4825]	8/21/2003
	Fz	DENTON	LC-076FZ[4825]	8/21/2003
	Mx	DENTON	LC-076MX[4825]]	8/21/2003
	My	DENTON	LC-076MY[4825]	8/21/2003
Left Lower Tibia	Fx	DENTON	LC-076FX[4826]	8/21/2003
	Fy	DENTON	LC-076FY[4826]	8/21/2003
	Fz	DENTON	LC-076FZ[4826]	8/21/2003
	Mx	DENTON	LC-076MX[4826]	8/21/2003
	My	DENTON	LC-076MY[4826]	8/21/2003
Right Upper Tibia	Fx	DENTON	LC-079FX[4825]	8/22/2003
	Fz	DENTON	LC-079FZ[4825]]	8/22/2003
	Mx	DENTON	LC-079MX[4825]	8/22/2003
	My	DENTON	LC-079MY[4825]	8/22/2003

INSTRUMENT CALIBRATION FOR DRIVER DUMMY
(6 Month Calibration Minimum)

DRIVER DUMMY (S/N 324FLX103/104)		Manufacturer	Serial #	Calibration
Right Lower Tibia	Fx	DENTON	LC-077FX	8/21/2003
	Fy	DENTON	LC-077FY	8/21/2003
	Fz	DENTON	LC-077FZ	8/21/2003
	Mx	DENTON	LC-077MX	8/21/2003
	My	DENTON	LC-077MY	8/21/2003
Left Tibia	X	ENTRAN	AC-03E03E18-F22	7/21/2003
	Y	ENTRAN	AC-03E03E21-M06	7/21/2003
Right Tibia	X	ENTRAN	AC-03F03F09-N03	7/22/2003
	Y	ENTRAN	AC-03F03F09-N04	7/22/2003
Left Ankle	Rx	CONTELEC	FLX-103X	10/17/2003
	Ry	CONTELEC	FLX-103Y	10/17/2003
	Rz	CONTELEC	FLX-103Z	10/17/2003
Right Ankle	Rx	CONTELEC	FLX-104X	10/17/2003
	Ry	CONTELEC	FLX-104Y	10/17/2003
	Rz	CONTELEC	FLX-104Z	10/17/2003
Left Foot	Ax	ENTRAN	AC-03E03E20-N06	7/22/2003
	Ay	ENTRAN	AC-03E03E18-F03	7/21/2003
	Az	ENTRAN	AC-03E03E18-F19	7/21/2003
Right Foot	Ax	ENTRAN	AC-03E03E21-M08	7/21/2003
	Ay	ENTRAN	AC-03E03E20-N01	7/22/2003
	Az	ENTRAN	AC-03E03E20-N03	7/21/2003
Lap Belt Force	F	LEBOW	LC-706	10/8/2003
Shoulder Belt Force	F	-	-	-
Toepan Spoolout	D	PATRIOT	DS-M11	9/2/2003

INSTRUMENT CALIBRATION FOR PASSENGER DUMMY
(6 Month Calibration Minimum)

PASSENGER DUMMY (S/N 505FLX108/107)		Manufacturer	Serial #	Calibration
Head X Arm	Y	ENTRAN	AC-02I02I10-N20	9/12/2003
	Z	ENTRAN	AC-02I02I05-F05	9/12/2003
Head Y Arm	X	ENDEVCO	AC-AGAG0	9/12/2003
	Z	ENTRAN	AC-02I02I05-F02	9/12/2003
Head Z Arm	X	ENTRAN	AC-02I02I05-F18	9/12/2003
	Y	ENTRAN	AC-02I02I05-F15	9/12/2003
Head CG	X	ENTRAN	AC-02I02I10-N18	9/12/2003
	Y	ENDEVCO	AC-AAKA1	9/11/2003
	Z	ENTRAN	AC-02I02I05-F13	9/12/2003
Head CG	X (R)	ENDEVCO	AC-AAKB3	9/12/2003
	Y (R)	ENDEVCO	AC-J23772	9/12/2003
	Z (R)	ENDEVCO	AC-ALAB9	9/12/2003
Upper Neck Load Cell	X	DENTON	LC-287FX	4/28/2003
	Y	DENTON	LC-287FY	4/28/2003
	Z	DENTON	LC-287FZ	4/28/2003
Upper Neck Moment	X	DENTON	LC-287MX	4/28/2003
	Y	DENTON	LC-287MY	4/28/2003
	Z	DENTON	LC-287MZ	4/28/2003
Lower Neck Load Cell	X	DENTON	LC-099FX	2/13/2003
	Y	DENTON	LC-099FY	2/13/2003
	Z	DENTON	LC-099FZ	2/13/2003
Lower Neck Moment	X	DENTON	LC-099MX	2/13/2003
	Y	DENTON	LC-099MY	2/18/2003
	Z	DENTON	LC-099MZ	2/13/2003

INSTRUMENT CALIBRATION FOR PASSENGER DUMMY
(6 Month Calibration Minimum)

PASSENGER DUMMY (S/N 505FLX108/107)		Manufacturer	Serial #	Calibration
Chest	X	ENTRAN	AC-02I02I16-A20	9/12/2003
	Y	ENDEVCO	AC-AGT82	9/11/2003
	Z	ENDEVCO	AC-AGN47	9/11/2003
Chest	X (R)	ENTRAN	AC-02I02I10-N28	9/12/2003
	Y (R)	ENDEVCO	AC-J14688	9/11/2003
	Z (R)	ENDEVCO	AC-J19501	9/12/2003
Chest Deflection Gauge	Dx	SERVO	DS-505	9/17/2003
Left Femur Load	Z	DENTON	LC-258	4/28/2003
Right Femur Load	Z	DENTON	LC-257	4/28/2003
Left Knee Shear Dx		SPACEAGE CONTROL	DS-5092	10/22/2003
Right Knee Shear Dx		SPACEAGE CONTROL	DS-5482	10/28/2003
Left Upper Tibia	Fx	DENTON	LC-082FX[4825]	8/22/2003
	Fz	DENTON	LC-082FZ[4825]	8/22/2003
	Mx	DENTON	LC-082MX[4825]	8/22/2003
	My	DENTON	LC-082MY[4825]	8/22/2003
Left Lower Tibia	Fx	DENTON	LC-082FX[4826]	8/21/2003
	Fy	DENTON	LC-082FY[4826]	8/21/2003
	Fz	DENTON	LC-082FZ[4826]	8/21/2003
	Mx	DENTON	LC-082MX[4826]	8/21/2003
	My	DENTON	LC-082MY[4826]	8/21/2003
Right Upper Tibia	Fx	DENTON	LC-080FX	8/22/2003
	Fz	DENTON	LC-080FZ	8/22/2003
	Mx	DENTON	LC-080MX	8/22/2003
	My	DENTON	LC-080MY	8/22/2003

INSTRUMENT CALIBRATION FOR PASSENGER DUMMY
(6 Month Calibration Minimum)

PASSENGER DUMMY (S/N 505FLX108/107)		Manufacturer	Serial #	Calibration
Right Lower Tibia	Fx	DENTON	LC-078FX	8/21/2003
	Fy	DENTON	LC-078FY	8/21/2003
	Fz	DENTON	LC-078FZ	8/21/2003
	Mx	DENTON	LC-078MX	8/21/2003
	My	DENTON	LC-078MY	8/21/2003
Left Tibia	X	ENTRAN	AC-03F03F09-N22	7/22/2003
	Y	ENTRAN	AC-03F03F17-N32	7/21/2003
Right Tibia	X	ENTRAN	AC-03E03E20-N08	7/22/2003
	Y	ENTRAN	AC-03F03E29-N09	7/21/2003
Left Ankle	Rx	CONTELEC	FLX-108X	10/22/2003
	Ry	CONTELEC	FLX-108Y	10/22/2003
	Rz	CONTELEC	FLX-108Z	10/22/2003
Right Ankle	Rx	CONTELEC	FLX-107X	10/22/2003
	Ry	CONTELEC	FLX-107Y	10/22/2003
	Rz	CONTELEC	FLX-107Z	10/22/2003
Left Foot	Ax	ENTRAN	AC-03E03E20-N10	7/22/2003
	Ay	ENTRAN	AC-03E03E20-N12	7/22/2003
	Az	ENTRAN	AC-03E03E20-N14	7/21/2003
Right Foot	Ax	DENTON	LC-257	4/28/2003
	Ay	ENTRAN	AC-03F03F09-N06	7/22/2003
	Az	ENTRAN	AC-03E03E20-N07	7/21/2003
Lap Belt Force	F	LEBOW	LC-711	10/8/2003
Shoulder Belt Force	F	-	-	-

INSTRUMENT CALIBRATION FOR VEHICLE ACCELEROMETERS

(6 Month Calibration Minimum)

	Manufacturer	Serial #	Calibration
Left Seat Rear Crossmember X	ENDEVCO	AC-P18578	9/10/2003
Left Seat Rear Crossmember Y	ENDEVCO	AC-P19227	9/10/2003
Right Seat Rear Crossmember X	ENDEVCO	AC-P21392	9/10/2003
Right Rear Seat Crossmember Y	ENDEVCO	AC-P19253	9/10/2003
Driver Left Side Toepan X	ENDEVCO	AC-BB14	6/25/2003
Driver Left Side Toepan Z	ENDEVCO	AC-J33843	6/25/2003
Driver Right Side Toepan X	ENDEVCO	AC-J33071	9/24/2003
Driver Right Side Toepan Z	ENDEVCO	AC-J32787	9/24/2003
Vehicle CG X	ENDEVCO	AC-P15747	9/24/2003
Vehicle CG Y	ENDEVCO	AC-P16585	9/24/2003
Vehicle CG Z	ENDEVCO	AC-P14438	9/24/2003
Trunk Z	ICS	AC-8084-020	5/23/2003