

REPORT NUMBER: CAL-02-13

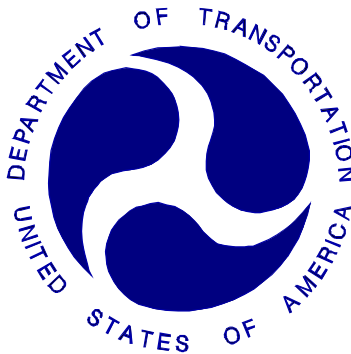
**NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
FRONTAL BARRIER 40% OFFSET IMPACT TEST**

FORD MOTOR CO
2000 FORD EXPLORER
MPV

NHTSA NUMBER: MY0220

VERIDIAN TEST NUMBER: 8413-69

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



November 16, 2001

FINAL REPORT

PREPARED FOR:

U.S. DEPARTMENT OF TRANSPORTATION
National Highway Traffic Safety Administration
Research and Development
Crashworthiness Research Division
Mail Code: NRD-11
400 Seventh Street, SW, Room No. 6226
Washington, DC 20590

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

Prepared by:

Patrick G. MacDiarmid, Jr., Project Engineer

Approved by:

David J. Travale, Program Manager
Transportation Science Center

Approval Date:

FINAL REPORT ACCEPTANCE BY OCS:

Contracting Officer's Technical Representative (COTR),
NHTSA, Office of Crashworthiness Standards

Date of Report Acceptance

Project Engineer
NHTSA, Research and Development

Date of Report Acceptance

TECHNICAL REPORT STANDARD TITLE PAGE

1. Report No. CAL-02-13		2. Government Accession No.		3. Recipient's Catalog No.	
4. Title and Subtitle Final Report of Frontal Barrier 40% Offset Testing of a 2000 Ford Explorer MPV NHTSA No. MY0220				5. Report Date November 16, 2001	
				6. Performing Organization Code CAL	
7. Author(s) David J. Travale, Program Manager Patrick G. MacDiarmid, Jr., Project Engineer				8. Performing Organization Report No. 8413-69	
9. Performing Organization Name and Address Veridian Engineering 4455 Genesee Street Buffalo, New York 14225				10. Work Unit No.	
				11. Contract or Grant No. DTNH22-01-D-32005	
12. Sponsoring Agency Name and Address U.S. DEPARTMENT OF TRANSPORTATION National Highway Traffic Safety Administration Research and Development Crashworthiness Research Division Mail Code: NRD-11 400 Seventh Street, SW, Room No. 6226 Washington, DC 20590				13. Type of Report and Period Covered Final Report January 2002	
				14. Sponsoring Agency Code NRD-11	
15. Supplementary Notes					
16. Abstract This test is to evaluate the use of the Thor Advanced Lower Extremity (Thor-FLx) in the frontal 40% offset deformable barrier test. A frontal 40% offset barrier impact test of a 2000 Ford Explorer MPV was performed at Veridian Engineering crash test facility in Buffalo, New York, on November 16, 2001. The impact velocity was 59.86 kph and the temperature at the barrier face was 21°C. The maximum post-test vehicle crush was 842 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, chest, and femur requirements.					
ATD Position	HIC	Clip (g's)	Chest Disp (mm)	Left Femur (N)	Right Femur (N)
Driver (421)	218.4	31.8	31.0	3700.8	2152.2
Passenger (416)	450.2	36.7	20.7	2925.4	1761.3
17. Key Words Frontal 40% Offset Barrier Impact test Thor-FLx/HIIIR				18. Distribution Statement Copies of this report are available from: NHTSA Technical Reference Division National Highway Traffic Safety Admin. 400 Seventh St., SW, Room 5108 Washington, DC 20590	
19. Security Classif. (of this report) UNCLASSIFIED		20. Security Classif. (of this page) UNCLASSIFIED		21. No. of Pages 385	22. Price

Form DOT F1700.7 (8-69)

TABLE OF CONTENTS

<u>Section</u>		<u>Page No.</u>
1	PURPOSE AND SUMMARY OF TEST	1-1
2	OCCUPANT AND VEHICLE INFORMATION	2-1
<u>Data Sheet</u>	<u>Description</u>	
1.	CRASH TEST SUMMARY	2-1
2.	GENERAL TEST AND VEHICLE PARAMETER DATA	2-2
3.	POST IMPACT DATA	2-4
4.	TEST VEHICLE INFORMATION	2-5
5.	DUMMY POSITIONING IN VEHICLE	2-7
6.	SEAT BELT POSITIONING DATA	2-9
7.	VEHICLE ACCELEROMETER LOCATION AND DATA SUMMARY	2-10
8.	DUMMY INJURY CRITERIA VALUES	2-12
9.	SEAT BELT PERFORMANCE DATA	2-18
10.	SUMMARY OF FMVSS 212 DATA	2-19
11.	WINDSHIELD ZONE INTRUSION FMVSS 219 DATA	2-20
12.	FMVSS 301 FUEL SYSTEM INTEGRITY DATA	2-21
13.	FMVSS 310 ROLLOVER DATA	2-22
14.	TEST VEHICLE MEASUREMENTS	2-23
15.	HIGH SPEED CAMERA LOCATIONS	2-30
16.	VEHICLE REFERENCE PHOTO TARGET LOCATIONS	2-31
17.	LOAD CELL LOCATIONS RELATIVE TO FIXED BARRIER AND DEFORMABLE BARRIER FACE	2-33
18.	POST TEST AIR BAG DATA	2-34
19.	ACCIDENT INVESTIGATION DIVISION DATA	2-35
20.	OFFSET BARRIER AND VEHICLE ORIENTATION	2-36
21.	OFFSET BARRIER DEFORMATION	2-37
APPENDIX A	PHOTOGRAPHS	A-1
APPENDIX B	VEHICLE, LOAD CELL BARRIER AND DUMMY RESPONSE DATA	B-1
APPENDIX C	PART 572 DUMMY CONFIGURATION AND PERFORMANCE VERIFICATION TESTS	C-1
APPENDIX D	DUMMY, VEHICLE AND LABORATORY INSTRUMENT CALIBRATION	D-1

SECTION 1

PURPOSE AND SUMMARY OF TEST

PURPOSE

This 59.86 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 a 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 and a load cell plate above the barrier was impacted by a 2000 Ford Explorer MPV at 40% overlap at a velocity of 59.86 kph. The test was performed at Veridian Engineering on November 16, 2001. 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 572O, 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 Laboratory Indicant Test Procedure.

Both ATDs were fully instrumented with 9 axis head array, 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. 421) and the right-front passenger (position 2) ATD (Serial No. 416) were calibrated previous to this test. Certification details, along with instrumentation calibration data, are found in Appendix C.

The 215 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 driver's HIC was 218.4. The maximum chest deceleration over 3 milliseconds was 31.8 g's and maximum chest deflection was 31.0 mm. Compressive femur loads were 3700.8 Newtons on the left and 2152.2 Newtons on the right.

The right front passenger's HIC was 450.2. Maximum chest deceleration over 3 milliseconds was 36.7 g's and maximum chest deflection was 20.7 mm. Compressive femur loads were 2925.4 Newtons on the left and 1761.3 Newtons on the right.

SECTION 2

GENERAL TEST AND VEHICLE PARAMETER DATA

DATA SHEET NO. 1 CRASH TEST SUMMARY

Vehicle NHTSA No.:	<u>MY0220</u>	Test Mode:	<u>60.3 kph Offset Frontal Barrier</u>
Test Date:	<u>November 16, 2001</u>	Time:	<u>13:45</u> Temperature: <u>21</u> °C
Vehicle Make/Model/Body Style:	<u>2000 Ford Explorer MPV</u>		
Vehicle Test Weight:	<u>2159.0</u>	kg	
Vehicle/Barrier Impact Angle:	<u>0</u>	°	
Impact Velocity:	<u>59.86</u>	kph	
Maximum Static Crush:	<u>842</u>	mm	
Actual Vehicle Offset:	<u>41.0</u>	%	
<u>DUMMIES:</u>	<u>DRIVER</u>	<u>PASSENGER</u>	
Type:	<u>5720</u>	<u>5720</u>	
Restraint System:	<u>3-Point Safety Belt, Airbag</u>	<u>3-Point Safety Belt, Airbag</u>	
Lower Leg:	<u>Thor-FLx/HIIr</u>	<u>Thor-FLx/HIIr</u>	
Number of Data Channels:	<u>215</u>		
Number of Cameras:	<u>1</u>	Real Time	
	<u>16</u>	High Speed	
<u>DOOR OPENING DATA:</u>	<u>Opened/Inoperable</u>	- Left Front	
	<u>Closed/Operable</u>	- Right Front	
Front Seat(s) Data:	<u>DRIVER</u>	<u>PASSENGER</u>	
Seat Track Failure:(mm of shift)	<u>0</u>	<u>0</u>	
Seat Back Failure:	<u>None</u>	<u>None</u>	
<u>VISIBLE DUMMY CONTACT POINTS:</u>	<u>DRIVER</u>	<u>PASSENGER</u>	
Head:	Face to the top of the airbag; Chin to the top of the airbag; The back of the head to the center of the headrest	Face to the center of the airbag; The back of the head to the center of the headrest	
Abdomen:	<u>None</u>	<u>None</u>	
Chest	<u>Lower Steering Wheel Rim</u>	<u>Airbag</u>	
Knees	<u>Knee Bolster</u>	<u>Knee Bolster</u>	

DATA SHEET NO. 2 GENERAL TEST AND VEHICLE PARAMETER DATA

TEST VEHICLE INFORMATION:

Year/Make/Model/Body Style: 2000 Ford Explorer MPV

NHTSA No. : MY0220 ; VIN: 1FMZU72X8YZB59978 ; Color: Black

Engine Data: 6 cylinders; - CID; 4.0 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

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

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

Date Received: 5/29/01 ; Odometer Reading 37911 km

Selling Dealer: -

& Address: -

DATA FROM TIRE VEHICLE'S CERTIFICATION LABEL:

Vehicle Manufactured by: Ford Motor Co

Date of Manufacture 2/00

GVWR: 2422 kg; GAWR: 1299 kg FRONT; 1338 kg REAR

DATA FROM TIRE PLACARD:

Tire Pressure with Maximum Capacity Vehicle Load: 300 kpa FRONT

300 kpa REAR

Recommended Tire Size: 235/75R15

* Recommended Cold Tire Pressure: 207 kpa FRONT; 207 kpa REAR

Size of Tires on Test Vehicle: 235/75R15 ; Manufacturer: Goodyear

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) = 490 kg

No. of Occupants x 68.04 kg = 340.2 kg

Rated Cargo/Luggage Weight (RCLW) = 149.8 kg (136.1 kg maximum)

*Tire pressure used for test

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>494.0</u>	kg	Right Rear =	<u>440.0</u>	kg
Left Front =	<u>548.0</u>	kg	Left Rear =	<u>450.0</u>	kg
TOTAL FRONT =	<u>1042.0</u>	kg	TOTAL REAR =	<u>890.0</u>	kg
TOTAL DELIVERED WEIGHT =	<u>1932.0</u>	kg			
% of Total Front of Vehicle Weight =	<u>53.9%</u>		% of Total Rear Weight =	<u>46.1%</u>	%

CALCULATION OF VEHICLE'S TARGET TEST WEIGHT:

Total Delivered Weight (UDW) =	<u>1932</u>	kg
Rated Cargo/Luggage Weight (RCLW) =	<u>136.1</u>	kg (136.1 kg maximum)
Weight of 2 p.572 Dummies @ 49 each =	<u>98</u>	kg
TARGET TEST WEIGHT =	<u>2166.1</u>	kg

WEIGHT OF TEST VEHICLE WITH TWO DUMMIES AND 129 KG OF CARGO WEIGHT:

Right Front =	<u>512.0</u>	kg	Right Rear =	<u>529.5</u>	kg
Left Front =	<u>574.0</u>	kg	Left Rear =	<u>543.5</u>	kg
TOTAL FRONT =	<u>1086.0</u>	kg	TOTAL REAR =	<u>1073.0</u>	kg
TOTAL TEST WEIGHT =	<u>2159.0</u>	kg			
% of Total Front Weight =	<u>50.3%</u>	%	% of Total Rear Weight =	<u>49.7%</u>	%
Weight of Ballast Secured in Vehicle Trunk Area =	<u>45</u>	kg			
Vehicle Components Removed for Weight Reduction:	<u>None</u>				

VEHICLE ATTITUDE (all dimension in millimeters):

AS DELIVERED:	RF	<u>848</u>	LF	<u>838</u>	RR	<u>844</u>	LR	<u>835</u>
FULLY LOADED:	RF	<u>840</u>	LF	<u>830</u>	RR	<u>813</u>	LR	<u>804</u>
AS TESTED:	RF	<u>841</u>	LF	<u>831</u>	RR	<u>816</u>	LR	<u>811</u>
Vehicle's Wheel Base:	<u>2855</u>	mm						
Location of Vehicle's C.G.:	<u>1418.9</u>	mm rearward of front wheel center.						

FUEL SYSTEM DATA:

Fuel System Capacity From Owner's Manual =	<u>79.5</u>	liters
Usable Capacity Figure Furnished by COTR =	<u>79.5</u>	liters
Test Volume Range (92 to 94% of Usable Capacity) =	<u>73.14</u>	to <u>74.73</u> liters
ACTUAL TEST VOLUME=	<u>73.9</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: Tank – left of center ahead of rear axle, lines – inside left frame rail; filler – left side Behind rear axle.		

DATA SHEET NO. 3 POST IMPACT DATA

TYPE OF TEST:

Type of Test: Offset Frontal Barrier Impact Angle: 0°
Test Date: November 16, 2001 Time: 13:45 Temperature: 21 °C
Vehicle NHTSA No.: MY0220
Required Impact Velocity Range: 59.8 to 60.8 kph

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

Trap No. 1 = 59.86 kph; Trap No. 2 = 59.86 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>4821</u>	; C/L =	<u>4863</u>	; Right =	<u>4808</u>
Post-Test	Left =	<u>3979</u>	; C/L =	<u>4394</u>	; Right =	<u>4690</u>
Crush	Left =	<u>842</u>	; C/L =	<u>469</u>	; Right =	<u>118</u>
AVERAGE	=	<u>476.3</u>	mm			

VEHICLE OFFSET DATA: (mm)

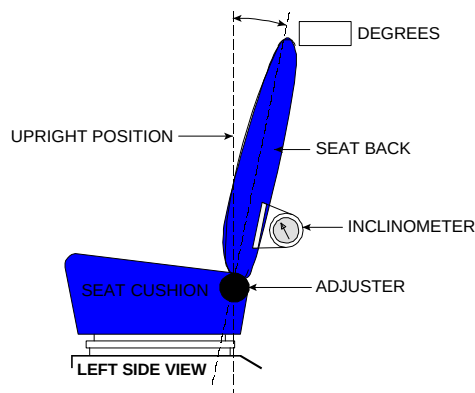
Vehicle Width	=	<u>1820</u>	mm
Desired Vehicle Offset	=	<u>728</u>	mm
Actual Vehicle Offset	=	<u>747</u>	mm (from film analysis)
Offset Difference	=	<u>-19</u>	mm
Actual Percent Offset	=	<u>41.0</u>	%

DATA SHEET NO. 4 TEST VEHICLE INFORMATION

VEHICLE IDENTIFICATION:

Model Year: 2000 Vehicle Model: Ford Explorer 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.



FRONT SEAT ASSEMBLY

Seat back angle for driver's seat: 14.6

Measurement instructions: Adjust to head level and pelvic angle criteria met for 5th percentile female.

Seat back angle for passenger's seat: 14.5

Measurement instructions: Same as the driver's seat

2. Seat Fore and Aft Positioning

Positioning of the driver's seat: Seat placed in forwardmost position

Positioning of the passenger's seat: Seat placed in forwardmost position

3. Fuel Tank Capacity Data

3.1 A. "Usable Capacity" of the standard equipment fuel tank is 79.5 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 = 79.5 liters

3.2 Amount of Stoddard solvent added to vehicle(s) used for certification test(s) = 73.9 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.

When ignition is turned to the ON position

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

4. STEERING COLUMN ADJUSTMENTS:

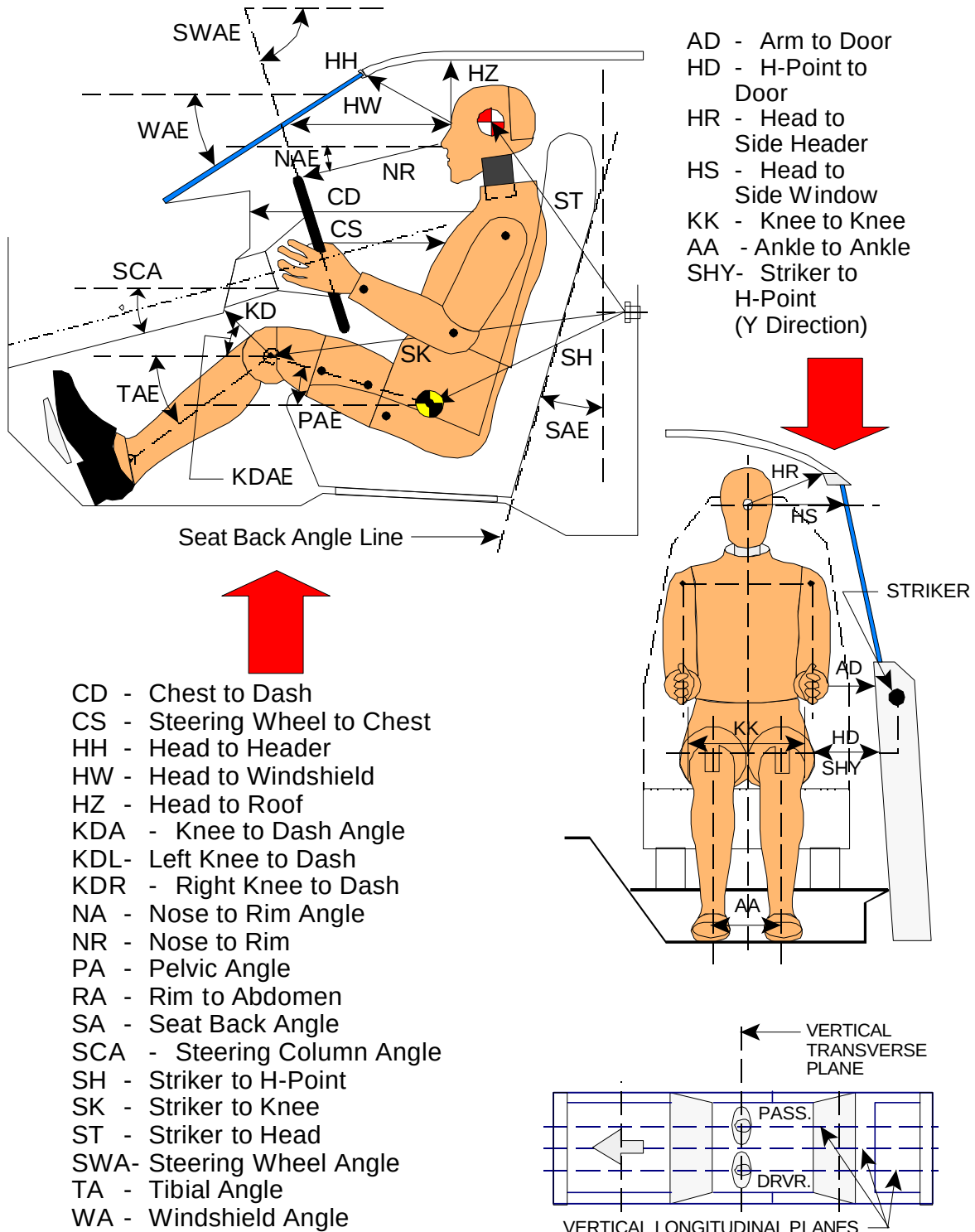
Steering wheel and column adjustments are made so that the steering wheel hub is at the geometric center of the locus it describes when it is moved through its full range of driving positions. If the tested vehicle has any of these adjustments, does your company use any specific procedures to determine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

Operational Instructions: Mid-position (20.3°)

5. SEAT BELT UPPER ANCHORAGE

Nominal design riding position: Placed in lowermost position

DUMMY MEASUREMENT FOR FRONT SEAT PASSENGERS

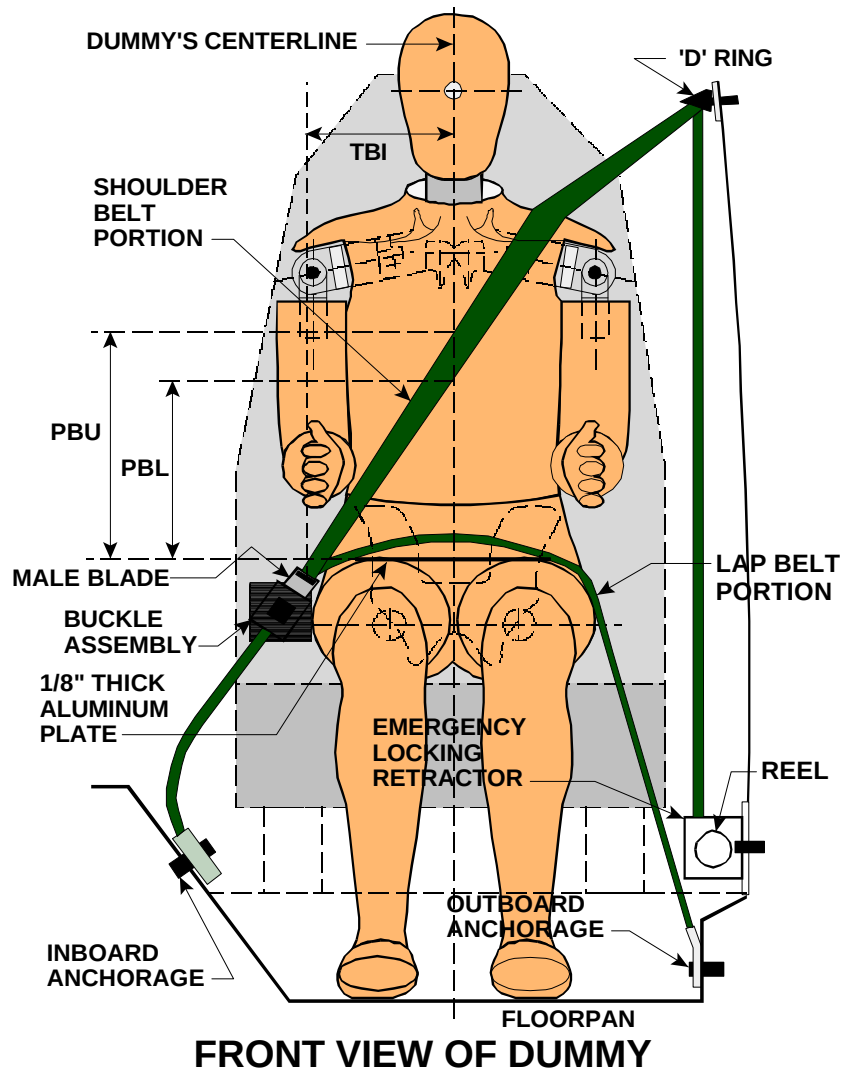


DATA SHEET NO. 5 FRONT SEAT DUMMY POSITIONING MEASUREMENTS IN VEHICLE (cont.)

	DRIVER (Serial #421)			PASS. (Serial #416)		
WA ^o	37.8 deg.			N/A		
SWA ^o	69.7 deg.			N/A		
SCA ^o	20.3 deg.			N/A		
SA ^o	14.6 deg.			14.5	deg.	
HZ	248			239		
HH	319			309		
HW	498			485		
HR	278			267		
NR	194	Angle	-1 deg.	N/A		
CD	401			372		
CS	168			N/A		
RA	57			N/A		
KDL	90	Angle (KDA)	53 deg.	60		
KDR	77			70	Angle (KDA)	50 deg.
PA ^o	22.3 deg.			21.4 deg.		
TA ^o	45.6 deg.			45.1 deg.		
KK	210			176		
AA	260			160		
ST	549	Angle	29 deg.	550	Angle	28 deg.
SK	695	Angle	90 deg.	705	Angle	90 deg.
SH	410	Angle	109 deg.	410	Angle	105 deg.
SHY	265			265		
HS	361			345		
HD	173			174		
AD	152			140		

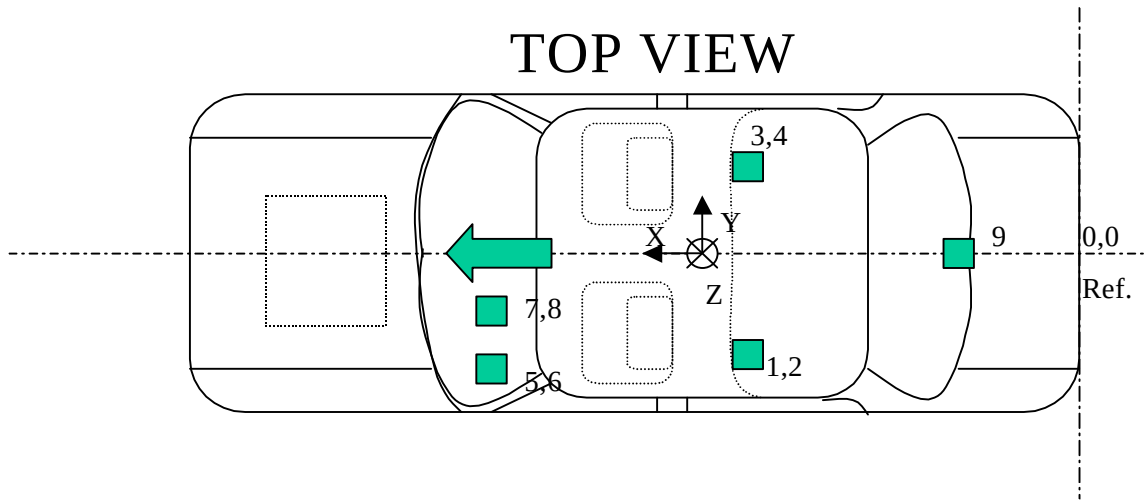
Dimensions in millimeters

SEAT BELT POSITIONING DATA



	DRIVER DUMMY (mm)	PASSENGER DUMMY (mm)
PBU -- Top surface of alum. plate to upper edge	265	245
PBL-- Top surface of alum. plate to belt lower edge	175	165
<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	2080	-540	-496
Right Rear Seat Crossmember	2036	555	-486
Driver Left Side Toe Pan	3556	-441	-633
Driver Right Side Toe Pan	3588	-342	-644

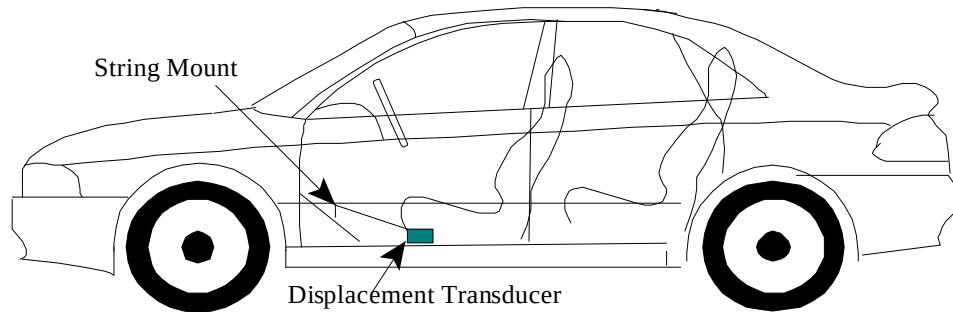
X-Direction is referenced from vehicle rear bumper (positive forward)

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	1.7	225.1	-26.8	110.0
2	Rear Seat X-Member @ Left Side Y	11.0	107.7	-4.4	121.3
3	Rear Seat X-Member @ Right Side X	1.6	214.0	-31.6	107.3
4	Rear Seat X-Member @ Right Side Y	19.7	121.7	-20.0	118.3
6	Driver Toe Pan @ Left Side Z	21.9	57.7	-19.7	65.8
7	Driver Toe Pan @ Right Side X	90.5	71.9	-114.4	67.4
8	Driver Toe Pan @ Right Side Z	26.4	73.0	-23.6	68.0

SIDE VIEW



Driver Toe Pan Displacement

P1 Toe Pan Spoolout**	X-Direction (mm)	Y-Direction (mm)	Z-Direction (mm)	Vertical Angle* (Deg)
Pre-Test	645.21	57.61	-73.71	6.52
Post-Test	529.94	100.07	-113.70	12.11
Difference	115.27	-42.46	-39.99	5.59

** 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	2.2	53.0	-93.6	131.8

DATA SHEET NO. 8 DUMMY INJURY CRITERIA VALUES

Vehicle Year/Make/Model/Body Style: 2000 Ford Explorer MPV

NHTSA Test No.: MY0220 Test Date: November 16, 2001

		MAXIMUM VALUE							
		Driver				Passenger			
DESCRIPTION	Unit	Pos	msec	Neg	msec	Pos	msec	Neg	msec
Head 9 Array X Arm Y	g	14.0	116.4	-10.7	60.3	24.8	98.4	-11.9	166.7
Head 9 Array X Arm Z	g	17.3	69.8	-18.7	62.5	31.0	111.9	-15.3	85.1
Head 9 Array Y Arm X	g	3.4	184.1	-47.9	70.2	5.1	313.2	-49.2	106.6
Head 9 Array Y Arm Z	g	11.9	69.8	-13.5	62.8	21.7	115.9	-13.1	167.1
Head 9 Array Z Arm X	g	6.8	215.1	-37.9	64.9	8.9	309.9	-66.3	109.4
Head 9 Array Z Arm Y	g	16.2	121.9	-10.3	58.9	28.0	111.9	-9.4	73.8
Head X	g	3.5	191.6	-43.0	70.2	4.4	314.0	-50.8	105.5
Head Y	g	11.7	121.3	-8.3	60.4	24.4	111.9	-6.6	85.1
Head Z	g	14.6	113.4	-12.9	181.5	22.6	116.0	-13.5	167.1
Head Resultant	g	43.7	70.2	0.0	-50.1	54.7	108.7	0.0	-46.7
Redundant Head X	g	3.7	191.6	-42.1	70.2	4.5	311.5	-50.8	105.5
Redundant Head Y	g	12.0	121.2	-8.5	60.4	25.3	111.9	-6.6	85.1
Redundant Head Z	g	12.6	113.7	-13.0	181.4	23.1	116.0	-13.9	167.1
Redundant Head Resultant	g	43.0	69.9	0.0	-47.8	55.1	111.9	0.0	-50.7
Upper Neck Fx	N	119.2	191.2	-1590.4	72.8	475.3	108.7	-166.8	213.1
Upper Neck Fy	N	117.6	59.7	-89.9	60.3	65.5	229.7	-190.0	67.3
Upper Neck Fz	N	1741.8	69.4	-444.9	181.6	865.9	90.1	-447.7	167.1
Upper Neck F Resultant	N	2308.8	69.4	1.6	-47.2	866.0	90.1	0.6	-47.3
Upper Neck Mx	N-m	15.1	120.5	-7.8	70.4	17.0	67.3	-8.0	177.1
Upper Neck My	N-m	15.5	164.2	-90.7	71.0	26.5	109.1	-11.1	134.6
Upper Neck Mz	N-m	4.3	113.8	-8.0	60.3	4.7	226.0	-10.6	134.8
Upper Neck M Resultant	N-m	91.0	70.9	0.1	-76.9	27.3	109.0	0.0	-87.5
Chest X	g	6.0	176.4	-33.9	93.4	2.4	197.7	-35.4	110.2
Chest Y	g	11.1	127.0	-5.5	73.9	NA	NA	NA	NA
Chest Z	g	7.3	112.5	-11.2	179.7	17.2	115.2	-13.5	164.3
Chest Resultant	g	34.2	93.4	0.0	5.3	430.7	271.6	0.0	-54.2

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

Vehicle Year/Make/Model/Body Style: 2000 Ford Explorer MPV

NHTSA Test No.: MY0220 Test Date: November 16, 2001

		MAXIMUM VALUE							
		Driver				Passenger			
DESCRIPTION	Unit	Pos	msec	Neg	msec	Pos	msec	Neg	msec
Redundant Chest X	g	5.8	176.3	-34.2	93.4	2.4	197.6	-35.5	110.3
Redundant Chest Y	g	11.0	127.1	-5.7	73.8	6.8	123.0	-0.9	367.8
Redundant Chest Z	g	7.8	112.5	-10.9	180.0	17.7	115.2	-13.3	164.2
Redundant Chest Resultant	g	34.4	93.4	0.0	-53.5	38.0	110.8	0.0	-53.0
Chest Displacement	mm	0.0	-6.1	-31.0	116.3	0.1	46.7	-20.7	120.4
Pelvic X	g	2.7	222.6	-26.5	57.0	4.7	186.2	-32.8	119.5
Pelvic Y	g	11.3	135.1	-7.3	84.8	5.3	126.8	-5.6	116.5
Pelvic Z	g	8.8	111.3	-9.9	181.4	29.7	88.1	-12.8	160.5
Pelvic Resultant	g	27.0	57.0	0.0	-52.1	38.4	88.1	0.0	426.7
Left Femur Fx	N	505.6	122.8	-98.1	54.9	494.7	122.4	-83.5	176.7
Left Femur Fy	N	736.0	124.2	-111.0	55.0	426.6	119.4	-16.4	316.0
Left Femur Fz	N	53.2	36.7	-3700.8	116.1	45.6	172.7	-2925.4	87.0
Left Femur Force Resultant	N	3763.7	116.1	0.1	-76.7	2939.1	87.1	0.1	-56.7
Left Femur Mx	N-m	30.1	82.2	-61.9	128.0	6.4	67.1	-27.0	109.5
Left Femur My	N-m	107.3	97.8	-6.2	292.9	89.3	92.4	-0.3	12.6
Left Femur Mz	N-m	10.5	78.4	-35.0	126.9	29.6	136.9	-3.7	499.9
Left Femur Moment Res.	N-m	109.3	97.8	0.1	6.2	90.5	92.4	0.1	-90.7
Right Femur Fx	N	388.3	123.7	-155.2	56.8	270.7	102.4	-163.3	171.0
Right Femur Fy	N	323.5	81.7	-74.2	184.1	242.2	119.8	-28.5	290.3
Right Femur Fz	N	232.4	127.6	-2152.2	85.0	67.1	244.8	-1761.3	118.8
Right Femur Force Resultant	N	2174.9	84.9	0.1	-90.0	1792.6	118.8	0.3	-51.7
Right Femur Mx	N-m	10.0	83.5	-48.6	113.2	4.1	285.1	-84.6	117.6
Right Femur My	N-m	74.4	81.6	-0.4	288.6	68.3	117.8	-10.6	206.0
Right Femur Mz	N-m	17.3	200.0	-6.3	163.9	30.1	128.5	-9.4	167.5
Right Femur Moment Res.	N-m	74.6	81.6	0.0	-99.4	109.6	117.8	0.0	-63.3

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

Vehicle Year/Make/Model/Body Style: 2000 Ford Explorer MPV

NHTSA Test No.: MY0220 Test Date: November 16, 2001

		MAXIMUM VALUE							
		Driver				Passenger			
DESCRIPTION	Unit	Pos	msec	Neg	msec	Pos	msec	Neg	msec
Left Knee Shear Dx	mm	0.8	127.7	-0.6	113.6	3.4	98.9	-0.3	274.5
Right Knee Shear Dx	mm	0.4	406.9	-0.4	63.5	0.5	122.4	-0.2	337.8
Left Upper Tibia Fx	N	243.9	55.5	-86.8	127.0	127.4	81.1	-726.0	96.7
Left Upper Tibia Fz	N	189.0	144.0	-1519.4	72.0	220.7	140.3	-958.9	75.7
Left Upper Tibia Mx	N-m	28.8	81.1	-34.9	113.3	21.9	97.1	-1.6	499.9
Left Upper Tibia My	N-m	14.0	194.6	-35.4	55.3	54.5	96.4	-15.4	77.0
Left Lower Tibia Fx	N	31.7	127.5	-295.3	95.1	541.6	110.1	-209.7	80.6
Left Lower Tibia Fy	N	239.5	111.8	-90.1	81.1	14.3	50.7	-320.4	109.7
Left Lower Tibia Fz	N	78.6	143.8	-1746.0	70.7	28.2	159.8	-1241.5	76.9
Left Lower Tibia FR	N	1763.3	70.7	0.1	-5.5	1255.5	76.9	0.5	-52.4
Left Lower Tibia Mx	N-m	22.8	80.5	-14.6	95.0	DNR	DNR	DNR	DNR
Left Lower Tibia My	N-m	9.1	193.9	-32.3	55.8	44.2	96.5	-15.3	80.6
Right Upper Tibia Fx	N	169.3	84.2	-73.8	120.8	195.8	111.0	-47.1	208.7
Right Upper Tibia Fz	N	5.0	-30.9	-1405.7	84.0	121.9	120.7	-691.8	75.6
Right Upper Tibia Mx	N-m	13.8	153.9	-27.8	84.1	18.6	130.9	-5.2	168.3
Right Upper Tibia My	N-m	12.5	205.8	-18.6	93.4	13.3	157.3	-20.6	62.0
Right Lower Tibia Fx	N	8.6	167.3	-279.9	84.3	80.8	156.9	-176.7	110.4
Right Lower Tibia Fy	N	104.8	93.7	-78.7	81.5	31.2	94.8	-89.8	124.7
Right Lower Tibia Fz	N	7.4	-32.1	-1908.3	84.5	103.4	109.5	-829.7	76.4
Right Lower Tibia FR	N	1928.6	84.5	0.1	-8.7	844.9	75.8	0.3	-53.0
Right Lower Tibia Mx	N-m	16.2	80.4	-17.4	112.9	15.0	146.8	-4.9	111.8
Right Lower Tibia My	N-m	6.2	133.4	-27.6	83.6	6.6	313.4	-23.6	101.1

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

Vehicle Year/Make/Model/Body Style: 2000 Ford Explorer MPV

NHTSA Test No.: MY0220 Test Date: November 16, 2001

		MAXIMUM VALUE							
		Driver				Passenger			
DESCRIPTION	Unit	Pos	msec	Neg	msec	Pos	msec	Neg	msec
Left Tibia Ax	g	9.5	127.7	-53.6	55.6	22.8	90.4	-55.4	84.6
Left Tibia Ay	g	27.0	111.8	-17.2	74.5	28.2	106.8	-9.0	111.8
Right Tibia Ax	g	4.7	153.5	-36.6	83.4	6.4	157.0	-30.5	100.4
Right Tibia Ay	g	18.2	112.3	-16.4	80.9	23.4	119.0	-9.0	142.3
Left Ankle Rotation X	Deg	16.6	112.9	-1.9	9.8	6.6	197.3	2.2	49.5
Left Ankle Rotation Y	Deg	NA	NA	NA	NA	14.1	126.8	-2.8	30.2
Left Ankle Rotation Z	Deg	2.1	74.3	-9.4	125.7	0.1	378.6	-13.0	145.1
Right Ankle Rotation X	Deg	18.7	170.9	3.2	119.1	9.6	154.0	-1.5	126.4
Right Ankle Rotation Y	Deg	22.4	126.1	-3.8	42.9	14.7	126.9	0.2	25.7
Right Ankle Rotation Z	Deg	-0.7	32.4	-10.3	119.1	4.0	463.0	-6.0	153.2
Left Foot Ax	g	21.9	54.6	-57.8	66.7	8.7	118.1	-58.1	89.5
Left Foot Ay	g	32.8	110.6	-47.7	150.1	16.6	93.8	-18.1	187.6
Left Foot Az	g	50.7	54.4	-51.6	68.5	6.6	112.3	-21.7	88.4
Left Foot A Resultant	g	73.5	66.8	0.0	-69.9	59.8	89.5	0.0	-1.0
Right Foot Ax	g	6.0	29.6	-45.5	107.2	22.8	151.1	-57.0	82.0
Right Foot Ay	g	17.5	117.8	-42.5	78.5	16.6	107.1	-9.9	154.9
Right Foot Az	g	19.8	72.1	-71.1	79.5	7.5	68.5	-30.1	90.8
Right Foot A Resultant	g	76.6	78.7	0.0	-15.0	59.8	82.0	0.0	-60.5

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

Vehicle Year/Make/Model/Body Style: 2000 Ford Explorer MPV

NHTSA Test No.: MY0220 Test Date: November 16, 2001

HEAD INJURY CRITERIA (HIC)				
	HIC**	t ₁ (msec)	t ₂ (msec)	Average Acceleration t ₁ to t ₂
Position #1 - Driver	218.4	68.0	103.9	32.6
Position #2 - Passenger	450.2	90.2	126.2	43.5

** HIC is as defined in FMVSS 208. The maximum time interval from t₁ to t₂ is 36 milliseconds.

CLIP SUMMARY*				
	CLIP (g's)	t ₁ (msec)	t ₂ (msec)	CSI
Position #1 - Driver	31.8	92.4	95.4	249.6
Position #2 - Passenger	36.7**	109.2	112.2	275.5

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

** Calculated using the X and Y channels only.

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

Vehicle Year/Make/Model/Body Style: 2000 Ford Explorer MPV

NHTSA Test No.: MY0220 Test Date: November 16, 2001

HEAD INJURY CRITERIA (HIC) REDUNDANT				
	HIC**	t ₁ (msec)	t ₂ (msec)	Average Acceleration t ₁ to t ₂
Position #1 - Driver	213.5	68.0	103.9	32.3
Position #2 - Passenger	456.9	90.2	126.2	43.8

** HIC is as defined in FMVSS 208. The maximum time interval from t₁ to t₂ is 36 milliseconds.

CLIP SUMMARY* REDUNDANT				
	CLIP (g's)	t ₁ (msec)	t ₂ (msec)	CSI
Position #1 - Driver	31.9	92.3	95.3	250.1
Position #2 - Passenger	36.9	109.3	112.3	279.0

* 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>2470</u>	<u>2515</u>
Shoulder belt length as measured on Part 572 Dummy.	<u>930</u>	<u>945</u>
Lap belt length as measured on Part 572 Dummy.	<u>985</u>	<u>1015</u>

SHOULDER BELT SPOOL-OFF DATA:

As determined by film analysis.	<u>-</u>	<u>-</u>
As determined mechanically.	<u>18</u>	<u>41</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>0 mm/M</u>

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.:

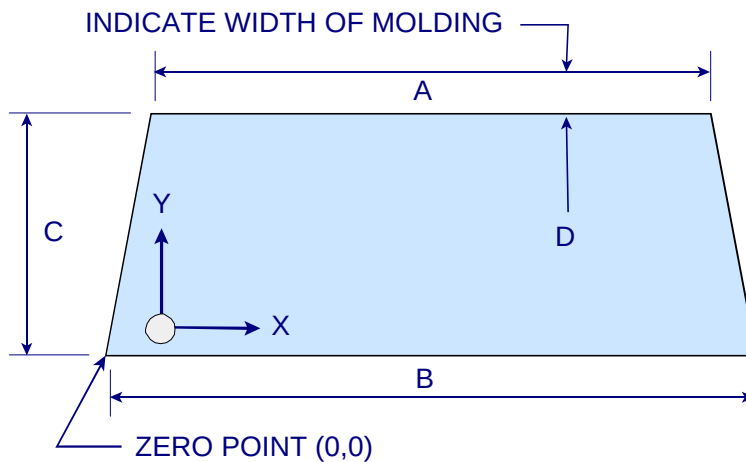
Windshield is bonded in place and covered with a 18 mm molding.

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	2040	2040	100.0%
LEFT SIDE	2040	2040	100.0%
TOTAL	4080	4080	100.0%

AREA OF RETENTION FAILURE:



DIMENSIONS (mm)	
A	1260
B	1540
C	640
D	18

FRONT VIEW OF WINDSHIELD

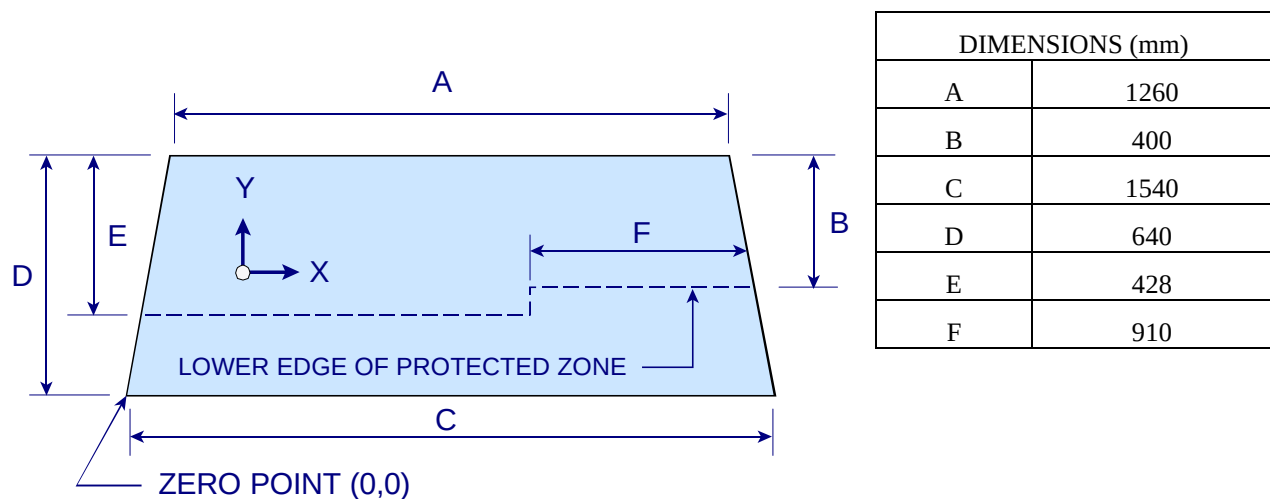
FAILURE DETAILS: None

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

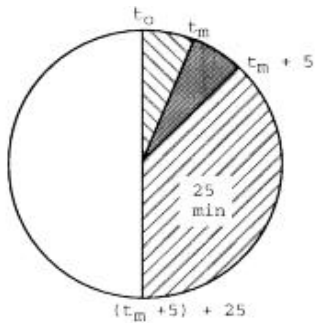
NHTSA TEST No.: MY0220 TEST DATE: November 16, 2001
VEHICLE MAKE/MODEL: 2000 Ford Explorer MPV

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 (60.3 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

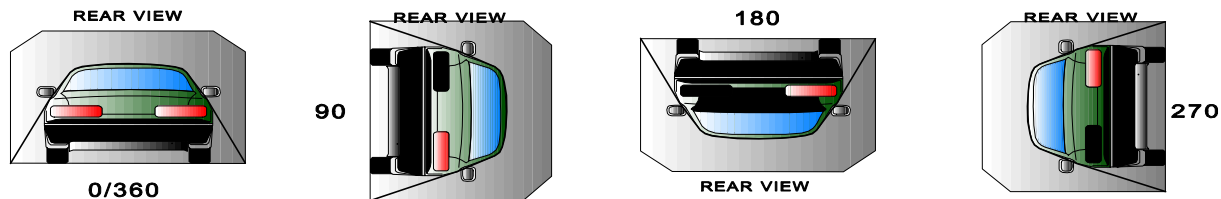
ACTUAL	MAX ALLOWED
0	28 g
0	141 g
0	28 g/min.

SOLVENT SPILLAGE DETAILS: None

DATA SHEET NO. 13 - ROLLOVER DATA

Vehicle: 2000 Ford Explorer MPV

NHTSA No.: MY0220



I. DETERMINATION OF SOLVENT COLLECTION TIME PERIOD:

Rollover Stage	Rotation Time (spec. 1 -3 min)				FMVSS 301 Hold Time		Total Time				Next Whole Minute Interval	
0° - 90°	1	minutes	15	seconds	5	minutes	6	minutes	15	seconds	7	minutes
90° - 180°	1	minutes	03	seconds	5	minutes	6	minutes	3	seconds	7	minutes
180°-270°	1	minutes	01	seconds	5	minutes	6	minutes	1	seconds	7	minutes
270°-360°	1	minutes	11	seconds	5	minutes	6	minutes	11	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:

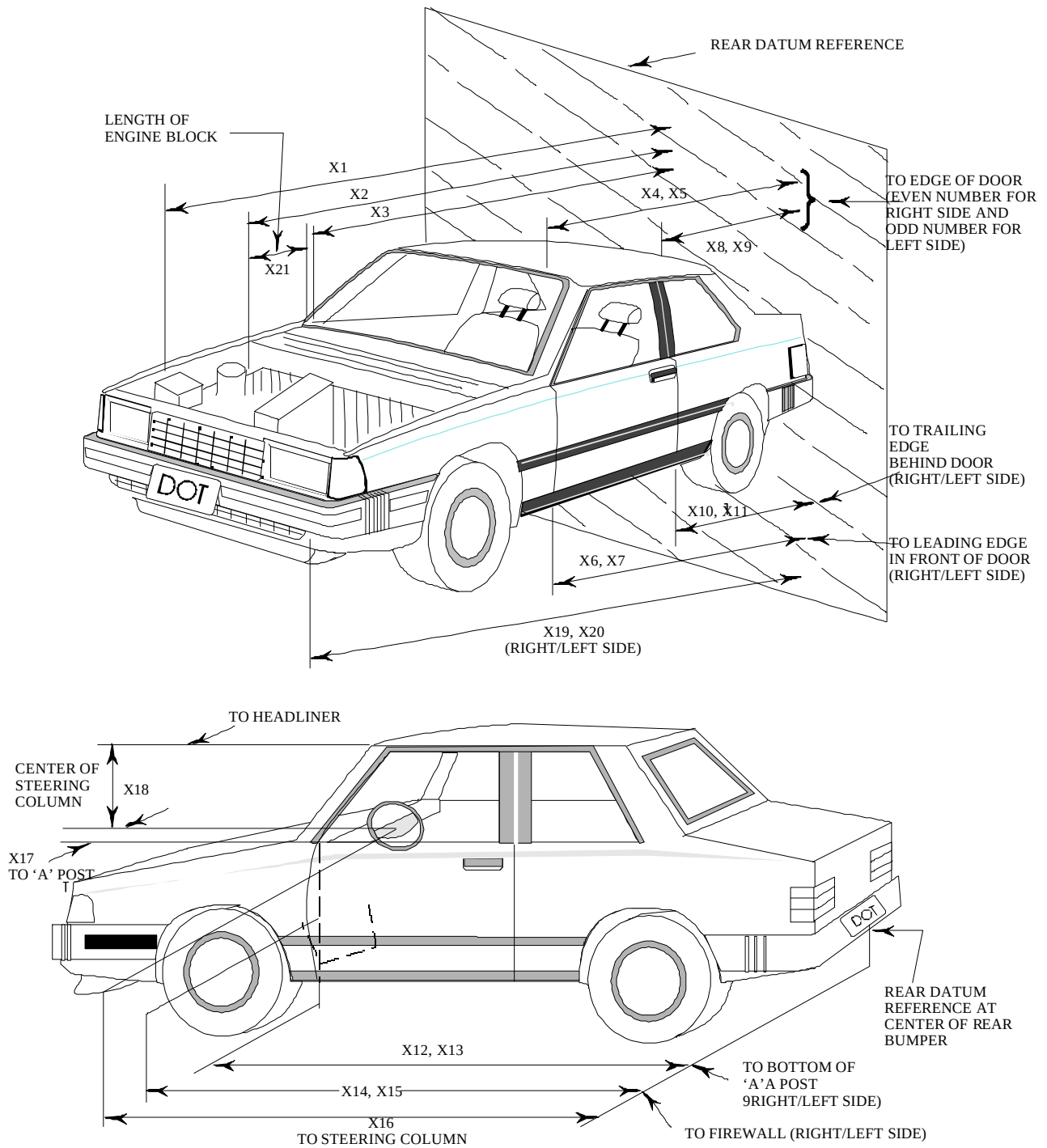
Rollover Stage	First 5 minutes from onset of rotation (g)	6th min. (g)	7th min. (g)	8th min. (if required) (g)
0° - 90°	0	0	0	N/A
90° - 180°	0	0	0	N/A
180°-270°	0	0	0	N/A
270°-360°	0	0	0	N/A

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



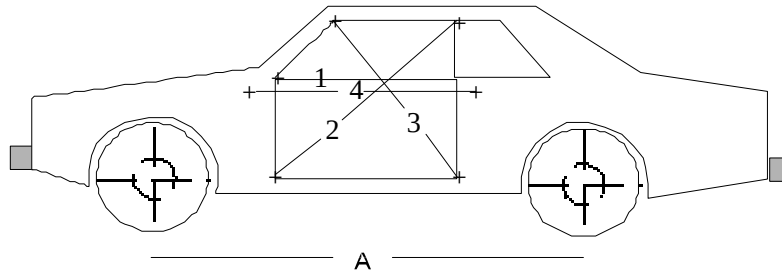
DATA SHEET NO.14 VEHICLE MEASUREMENTS (cont.)

No.		Pre-Test	Post-Test	Difference
X1	Total Length of Vehicle at Centerline	4863	4394	469
X2	Rear Surface of Vehicle to Front of Engine	4177	3849	328
X3	Rear Surface of Vehicle to Firewall	3670	3421	249
X4	Rear Surface of Vehicle to Upper Leading Edge of Right Door	3362	3294	68
X5	Rear Surface of Vehicle to Upper Leading Edge of Left Door	3356	3112	244
X6	Rear Surface of Vehicle to Lower Leading Edge of Right Door	3325	3204	121
X7	Rear Surface of Vehicle to Lower Leading Edge of Left Door	3324	2979	345
X8	Rear Surface of Vehicle to Upper Trailing Edge of Right Door	2330	2262	68
X9	Rear Surface of Vehicle to Upper Trailing Edge of Left Door	2324	2122	202
X10	Rear Surface of Vehicle to Lower Trailing Edge of Right Door	2353	2230	123
X11	Rear Surface of Vehicle to Lower Trailing Edge of Left Door	2323	2040	283
X12	Rear Surface of Vehicle to Bottom of "A" Post of Right Side	3334	3268	66
X13	Rear Surface of Vehicle to Bottom of "A" Post of Left Side	3337	3103	234
X14	Rear Surface of Vehicle to Firewall, Right Side	3604	3495	109
X15	Rear Surface of Vehicle to Firewall, Left Side	3627	3410	217
X16	Rear Surface of Vehicle to Steering Column	2906	2735	171
X17	Center of Steering Column to "A" Post	308	325	-17
X18	Center of Steering Column to Headliner	420	427	-7
X19	Rear Surface of Vehicle to Right Side of Front Bumper	4808	4690	118
X20	Rear Surface of Vehicle to Left Side of Front Bumper	4821	3979	842
X21	Length of Engine Block	456	456	0
RD	Rear Surface of Vehicle to Right Side of Dash Panel	3130	3049	81
CD	Rear Surface of Vehicle to Center of Dash Panel	3132	2951	181
LD	Rear Surface of Vehicle to Left Side of Dash Panel	3144	2904	240

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

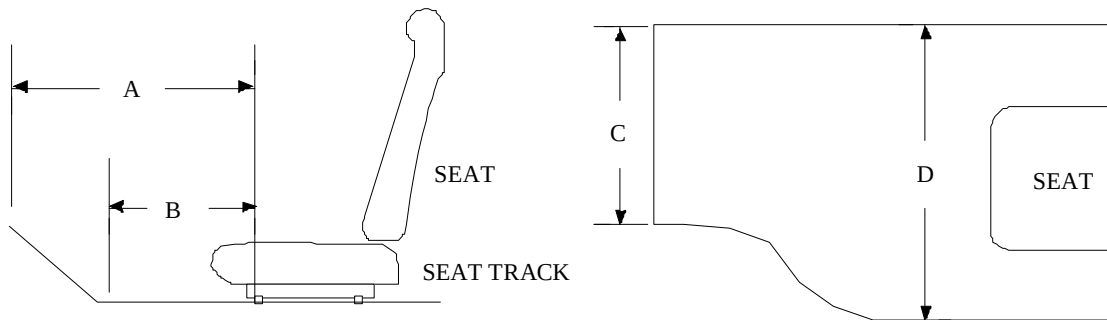


UNITS (mm)	LEFT				RIGHT		
MEASUREMENT	1	2	3	4*	1	2	3
BEFORE TEST	928	1448	1087	1014	937	1446	1093
AFTER TEST	801	1275	1242	887	891	1435	1123
DIFFERENCE	127	173	-155	127	46	11	-30

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

UNITS (mm)	A = WHEELBASE LEFT	A = WHEELBASE RIGHT
BEFORE TEST	2855	2855
AFTER TEST	2485	2921
DIFFERENCE	370	-66

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



DRIVER

Measurement	Pre-Test	Post-Test	Difference
A	700	629	71
B	581	501	80
C	385	328	57
D	382	366	16

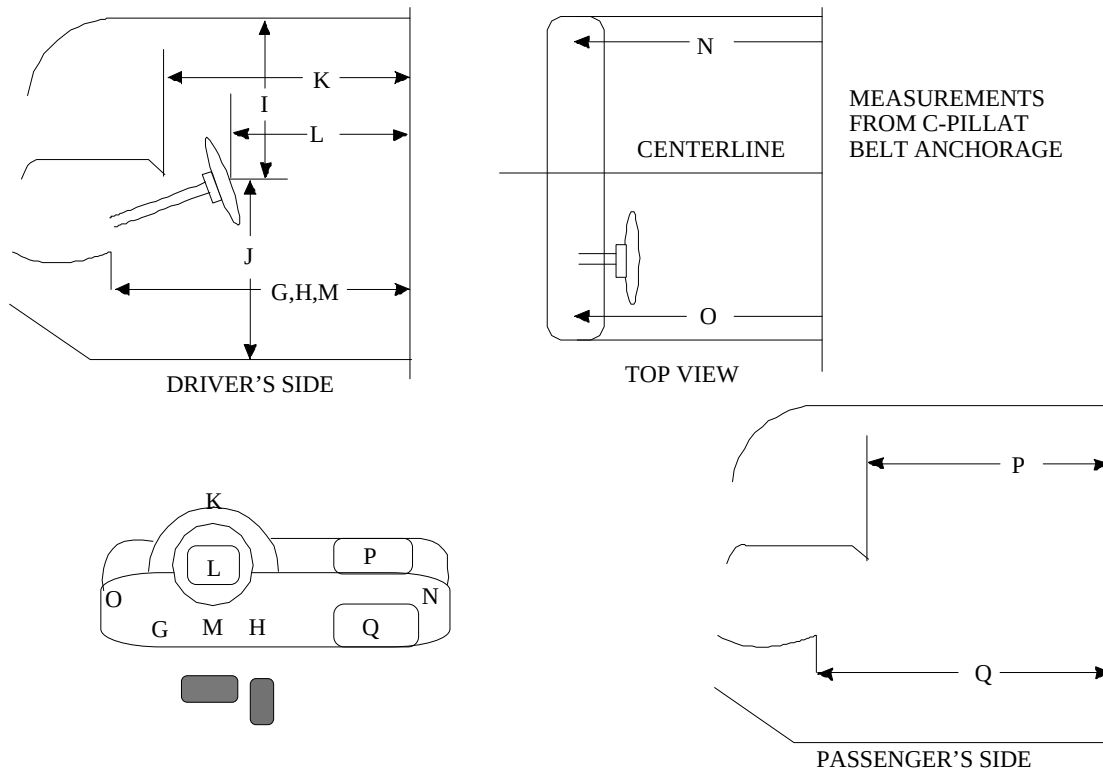
PASSENGER

Measurement	Pre-Test	Post-Test	Difference
A	654	646	8
B	522	524	-2
C	349	344	5
D	362	357	5

Units = mm

DATA SHEET NO.14 VEHICLE MEASUREMENTS (cont.)

VEHICLE INTRUSION MEASUREMENTS
STATIC PASSENGER COMPARTMENT INTRUSION

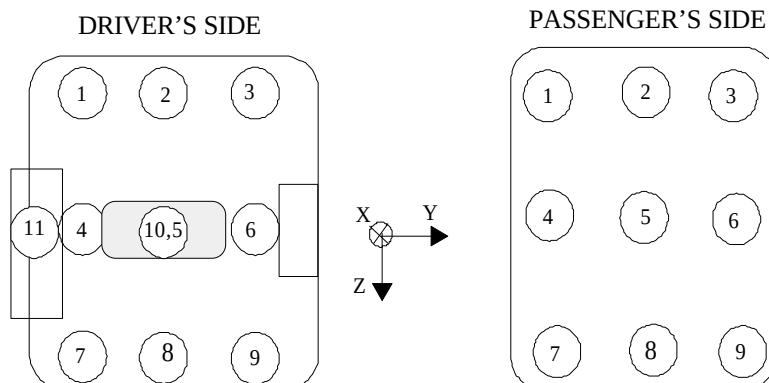


Measurement	Pre-Test	Post-Test	Difference
G*	1754	1517	237
H*	1756	1550	206
I	420	427	-7
J	649	769	-120
K	1733	1555	178
L	1515	1364	151
M	1740	1508	232
N	1705	1634	71
O	1753	1533	220
P = K (PASS.)	1738	1595	143
Q = M (PASS.)	1777	1673	104

* IHS measurement locations; 15 cm left and right of steering wheel center 45 cm from floor.

Units = mm

DATA SHEET NO.14 VEHICLE MEASUREMENTS (cont.)
TOE-PAN INTRUSION



Driver Side Toe-pan Measurements

Toe-pan Location	X Deformation (mm)			Y Deformation (mm)			Z Deformation (mm)		
	Pre	Post	?	Pre	Post	?	Pre	Post	?
1	3602	3281	321	-520	-732	212	-767	-525	-242
2	3611	3306	305	-394	-599	205	-781	-535	-246
3	3623	3306	317	-284	-494	210	-800	-503	-297
4*	3558	3226	332	-542	-755	213	-687	-472	-215
5* ^A	3606	3282	324	-398	-631	233	-667	-419	-248
6*	3558	3258	300	-228	-457	229	-675	-402	-273
7	3475	3143	332	-562	-750	188	-575	-356	-219
8	3492	3178	314	-400	-643	243	-567	-297	-270
9	3485	3183	302	-253	-506	253	-566	-295	-271
10	3432	3121	311	-387	-617	230	-719	-474	-245
11*	3543	3172	371	-638	-754	116	-709	-519	-190

Passenger Side Toe-pan Measurements

Toe-pan Location	X Deformation (mm)			Y Deformation (mm)			Z Deformation (mm)		
	Pre	Post	?	Pre	Post	?	Pre	Post	?
1	3571	3411	160	297	364	-67	-695	-539	-156
2	3562	3425	137	429	498	-69	-728	-549	-179
3	3585	3458	127	552	616	-64	-716	-560	-156
4	3504	3348	156	291	325	-34	-616	-431	-185
5	3514	3390	124	437	516	-79	-625	-432	-193
6	3518	3402	116	586	664	-78	-624	-453	-171
7	3431	3308	123	298	372	-74	-535	-343	-192
8	3430	3303	127	438	524	-86	-538	-351	-187
9	3428	3303	125	590	684	-94	-534	-367	-167

Reference: (SAE) X = Rear Bumper (pos: forward); Y = Vehicle Centerline (pos: right); Z = Ground (pos: down)

* IIHS measurement locations

*^A IIHS measurement located directly behind 10 (brake pedal center) on the vehicle floorpan in same vertical plane.

DATA SHEET NO.14 VEHICLE MEASUREMENTS (cont.)
INSURANCE INSTITUTE MEASUREMENT LOCATION AND FLOOR PAN DEFORMATION DATA

IIHS Measurement Location Data

Meas. Loc*	X Measurement (mm)			Y Measurement (mm)			Z Measurement (mm)		
	Pre	Post	?	Pre	Post	?	Pre	Post	?
1	2906	2735	171	-364	-450	86	-1175	-1015	-160
2	3145	2888	257	-507	-650	143	-997	-835	-162
3	3146	2921	225	-217	-376	159	-977	-749	-228
4	3432	3121	311	-387	-617	230	-719	-474	-245
5	3558	3226	332	-542	-755	213	-687	-472	-215
6	3606	3282	324	-398	-631	233	-667	-419	-248
7	3558	3258	300	-228	-457	229	-675	-402	-273
8	3543	3172	371	-638	-754	116	-709	-519	-190
17	3334	3091	243	-766	-890	124	-1195	-1039	-156
18	2322	2204	118	-769	-899	130	-1123	-1025	-98

Floor Pan Deformation Measurement Data

Meas. Loc**	X Measurement (mm)			Y Measurement (mm)			Z Measurement (mm)		
	Pre	Post	?	Pre	Post	?	Pre	Post	?
P0	2911	2677	234	-499	-780	281	-559	-270	-289
P1	3394	3097	297	-549	-767	218	-549	-406	-143
P2	3394	3129	265	-400	-645	245	-553	-314	-239
P3	3387	3118	269	-252	-498	246	-551	-261	-290
P4	3255	2996	259	-562	-796	234	-526	-310	-216
P5	3249	2989	260	-397	-661	264	-529	-240	-289
P6	3241	2989	252	-254	-527	273	-532	-235	-297
P7	3102	2842	260	-557	-801	244	-517	-300	-217
P8	3109	2857	252	-403	-683	280	-522	-221	-301
P9	3105	2846	259	-249	-545	296	-529	-261	-268

Reference: (SAE) X = Rear Bumper (pos: forward); Y = Vehicle Centerline (pos: right); Z = Ground (pos: down)

Measurement Location Descriptions*

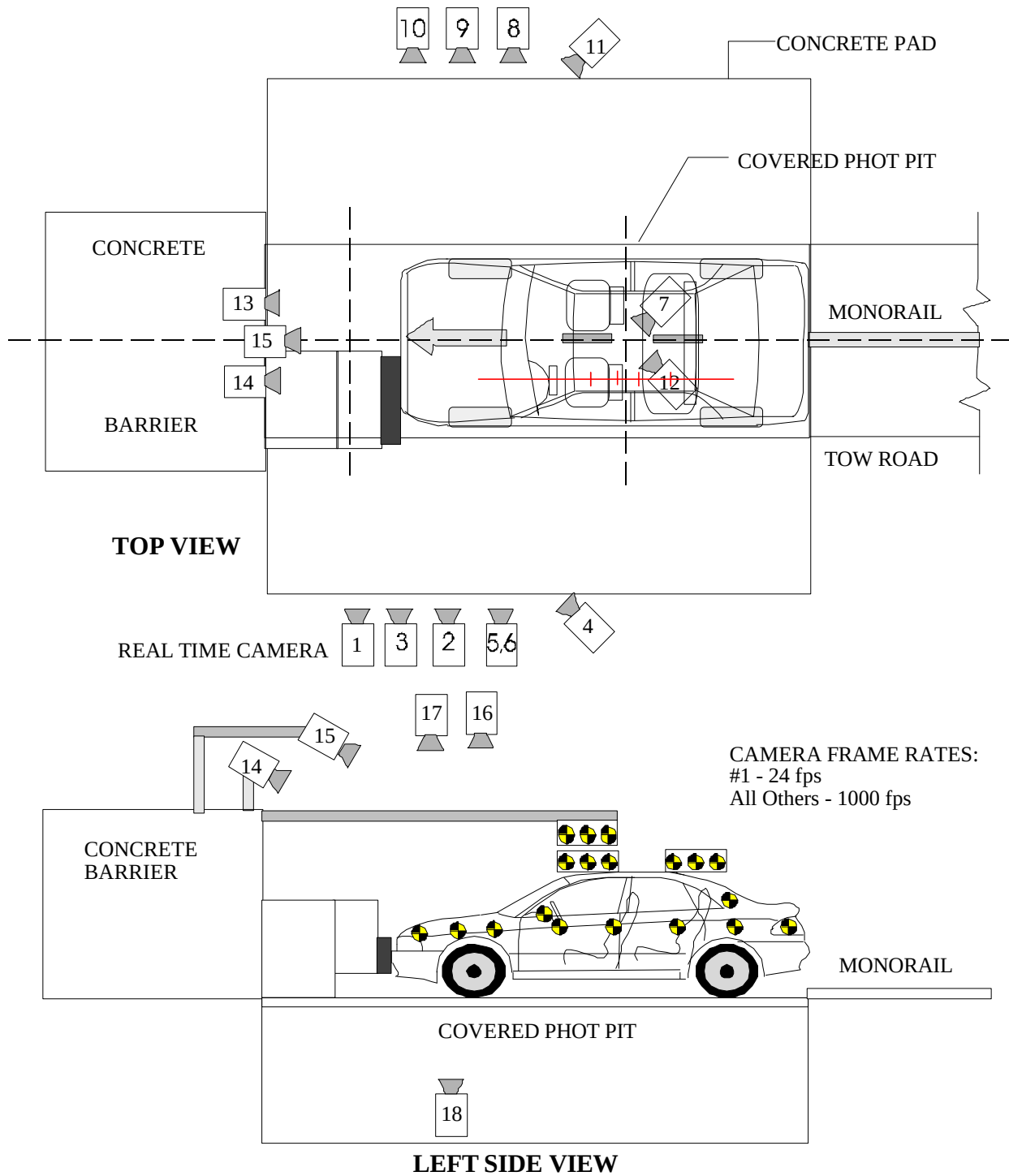
P0. Front Outside Seat Anchor Bolt

1. Steering Column - Geometric center of the steering wheel on airbag door.
2. Lower Instrument Panel Left - Taken 45 cm above floorpan and 15 cm to the left of the steering wheel center.
3. Lower Instrument Panel Right - Taken 45 cm above floorpan and 15 cm to the right of the steering wheel center.
4. Brake Pedal - Geometric center of the brake pedal.
5. Toepan Left - Taken 15 cm to the left of the brake pedal center on the same vertical plane on the vehicle toepan.
6. Toepan Center - Taken directly behind the brake pedal center on the same vertical plane on the vehicle toepan.
7. Toepan Right - Taken 15 cm to the right of the brake pedal center on the same vertical plane on the vehicle toepan.
8. Left Footrest - Taken 25 cm to the left of the brake pedal center on the same vertical plane on the vehicle toepan.
17. A-pillar - Taken on the vehicle exterior at the same vertical coordinate as the base on the left front window.
18. B-pillar - Taken on the vehicle exterior at the same vertical coordinate as the lower A-pillar mark.

** There is an equal spaced 3 x 3 floor pan matrix. Position 1 if floor pan left side forwardmost position; Position 9 is located on the right side rearmost position of the 3 x 3 grid.

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.:

MY0220

Vehicle:

2000 Ford Explorer 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	7280	1005	1071	-2	6997	12.5	1005
3	Left Side View	8954	170	1219	-3	8671	25	1000
4	Driver and Interior View	9159	1645	2005	-9	-	25	1005
5	Steering Column (Bottom)	9359	1115	1177	-4	9076	25	1010
6	Steering Column (Top)	9359	1115	1777	-7	9076	25	1005
7	Interior Driver View	-	-	-	-	-	-	-
8	Overall Right Side View	7620	570	1144	-1	7937	13.5	1000
9	Right Side View	9909	20	1255	-2	10226	25	1055
10	Right Passenger View	9359	605	1425	-3	9676	35	1000
11	Passenger and Interior View	8579	1450	1985	-12	-	25	1010
12	Interior Passenger View	-	-	-	-	-	-	-
13	Passenger Front View	-520	-2050	1987	-25	-	13	1005
14	Driver Front View	-520	-2050	3488	-44	-	13	1005
15	Windshield View	0	-2050	3048	-46	-	13	1000
16	Overhead Overall View	0	156	4880	-90	-	13	855
17	Overhead Close-Up View	0	323	4880	-90	-	35	1005
18	Pit View of Engine	0	1060	-3048	90	-	13	1050

*X = film plane to monorail centerline

** = referenced to horizontal plane

Y = film plane to impact location

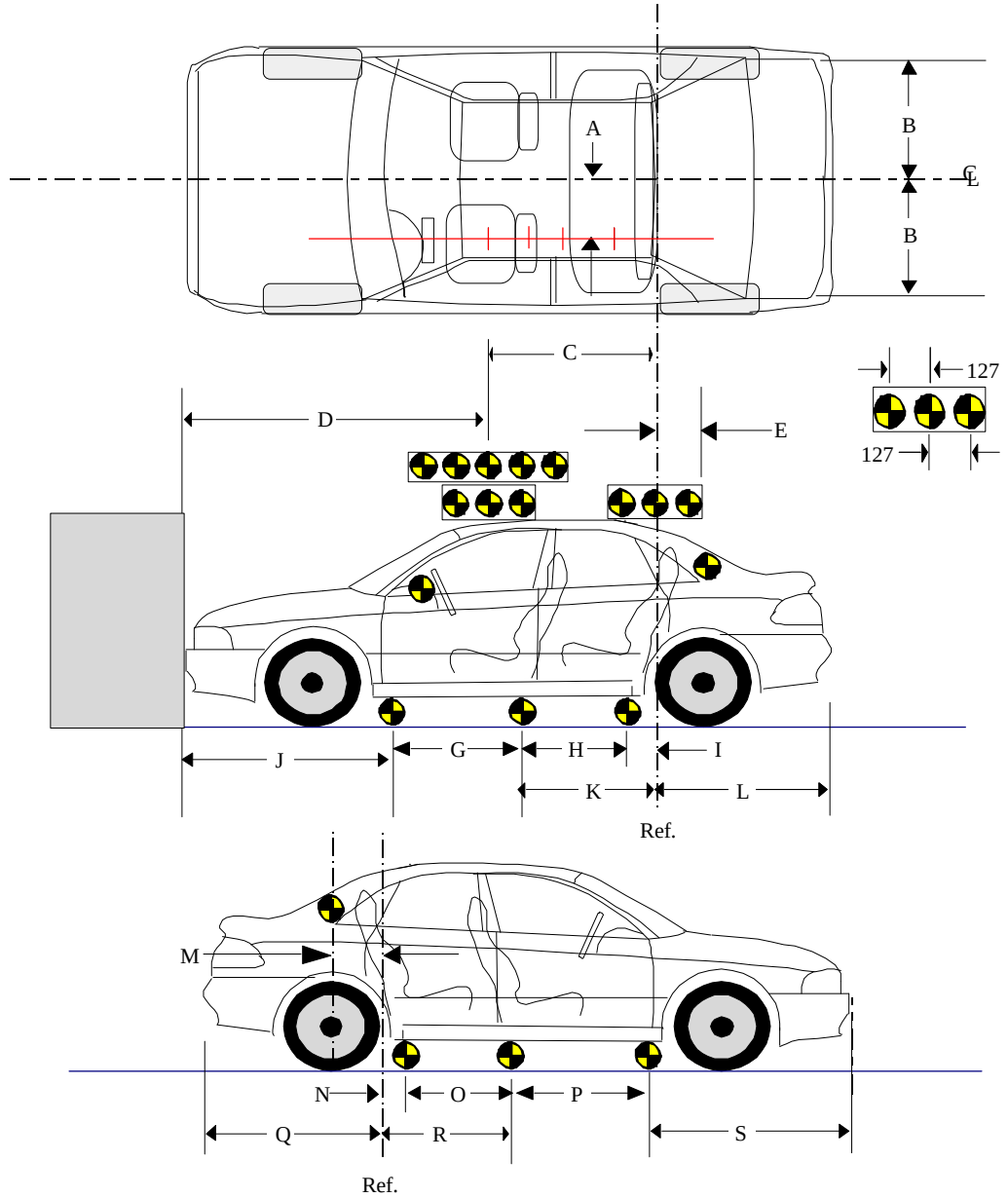
N.T. indicates No Timing

Z = film plane to ground

DATA SHEET NO. 16 VEHICLE REFERENCE PHOTO TARGET LOCATIONS

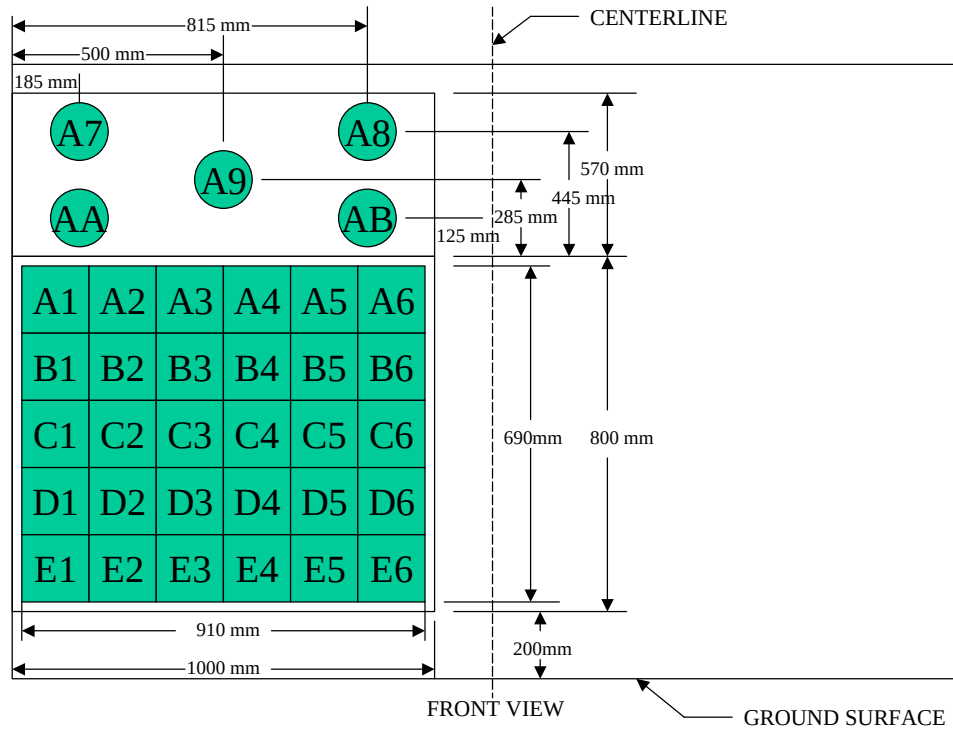
(Dimensions in millimeters)

A	393
B	600
C	1218
D	2154
E	115
F	1544
G	946
H	925
I	132
J	1373
K	1057
L	1487
M	124
N	127
O	930
P	942
Q	1490
R	1057
S	1320



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

35 Load Cells



Load cell width	146 mm
Load cell height	133 mm
Vertical gap between load cells	6 mm
Horizontal gap between load cells	6 mm
Vertical filler block width	55 mm

The following data is presented in Appendix B:

- (1)X Direction Data from load cells A1 through A6
- (2)X and Y Direction Data from load cells B1 through E6

DATA SHEET NO. 18 POST TEST AIR BAG DATA

NHTSA No.: MY0220; Test Date: November 16, 2001; Technician: Patrick G. MacDiarmid, Jr.

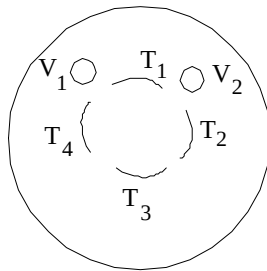
Vehicle Model Year/Make/Model: 2000 Ford Explorer MPV

- A. No. of vent holes: 2 -Driver 2 -Passenger
- B. Size of vent holes: (mm²) 491 -Driver 707 -Passenger
- C. Total vent area: (mm²) 982 -Driver 1414 -Passenger
- D. Deflated air bag length and width dimensions or, if round, diameter. (mm)
- Driver: 470 -Height; 600 -Width; 370 -Depth
- Passenger: 620 -Height; 630 -Width; 610 -Depth
- E. Is the air bag tethered?
- Driver: X -Yes; - -No; If yes, record length of tether- 250
- Passenger: - -Yes; X -No; If yes, record length of tether- -

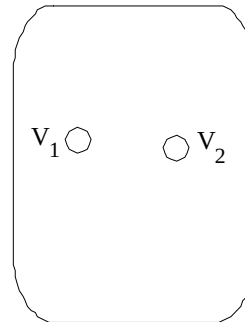
Sketch the air bag showing the location of the vent holes, how the bag is tethered, and where the bag is tethered. Also describe how the tethers are attached to the bag and the steering wheel.

(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: -

Generator: T3LI048N20013 30318367A XL2A78043BJAF8 Herst 2000 DP 4AFQ056N30255

Passenger: Air bag: -

Generator: XL2A78044A74 DA2UEN DP YA0541080

DATA SHEET NO. 19 ACCIDENT INVESTIGATION DIVISION DATA

FOR 56.3 KPH OFFSET FRONTAL BARRIER IMPACT

Vehicle Make/Model/Body Style: Ford Explorer MPV

NHTSA Test No.: MY0220 VIN: 1FMZU72X8YZB59978

Model Year: 2000 Build Date: 2/00 Test Date: November 16, 2001

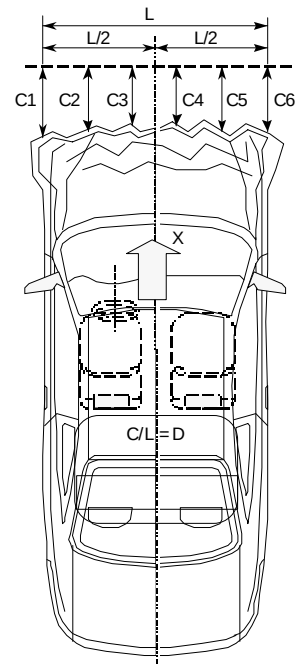
Vehicle Size Category: _____ Test Weight: 2159.0 kg

Vehicle Wheelbase: 2855 mm; Front Overhang: 896 mm; Overall Width: 1820 mm

Collision Deformation Classification (CDC) Code: 12FDEW4

Crush Depth Dimensions

	PRE	POST	DIFF	
C1 =	4736	3956	780	mm
C2 =	4844	4014	830	mm
C3 =	4859	4270	589	mm
C4 =	4857	4504	353	mm
C5 =	4835	4694	141	mm
C6 =	4721	4711	10	mm



Midpoint of Damage: D = Vehicle Centerline (Longitudinal)

Length of Damaged Region:

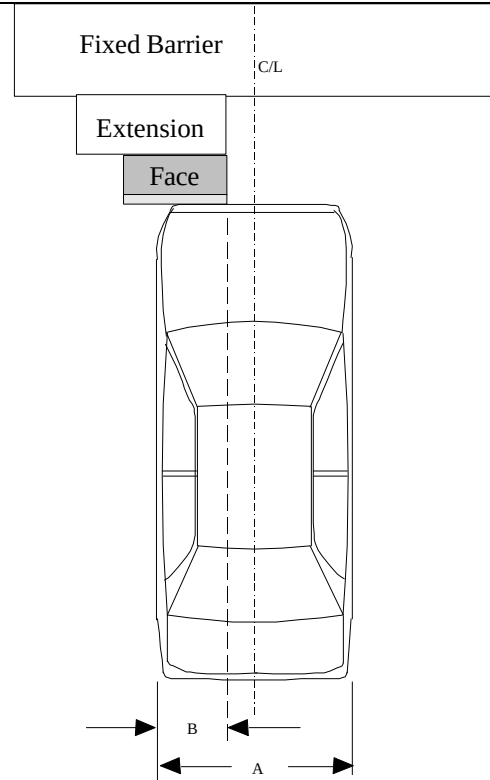
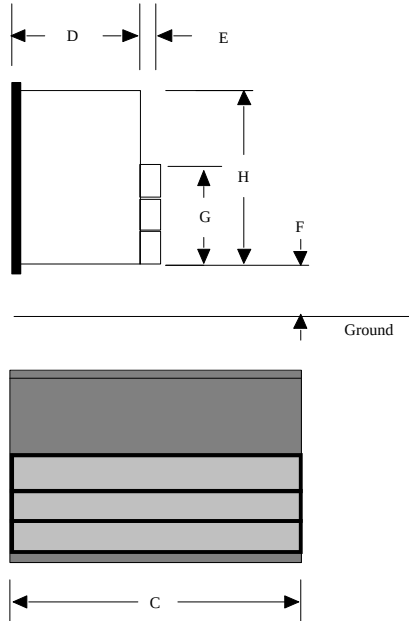
L1=	<u>1457</u>	mm
L2=	<u>728.5</u>	mm
L5=	<u>291.4</u>	mm

DATA SHEET NO. 20 OFFSET BARRIER AND VEHICLE ORIENTATION

NHTSA Test No.: MY0220

Vehicle: 2000 Ford Explorer MPV

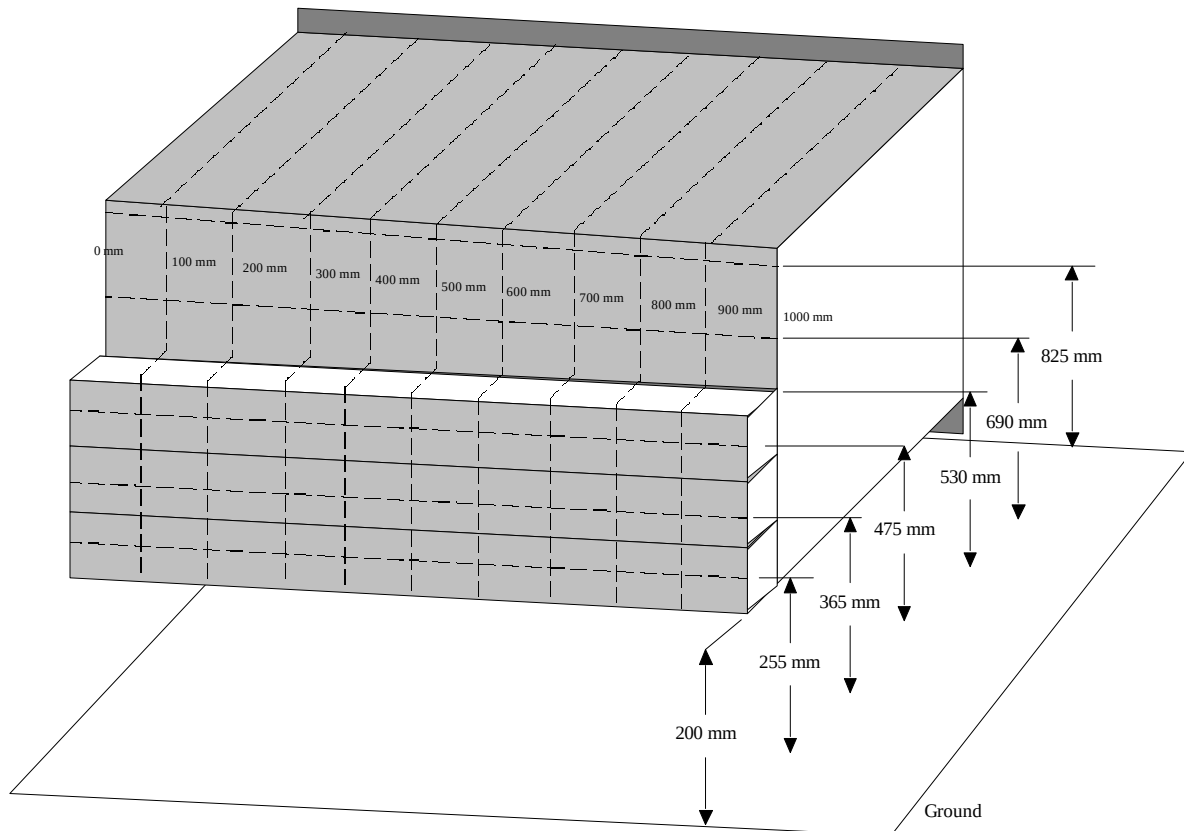
Barrier Manufacturer and Serial Number:



A	Total Vehicle Width	1820	mm
B	40% Overlap Distance	728.0	mm
C	Deformable Face Width	1000	mm
D	Single Stage Honeycomb Depth	450	mm
E	Bumper Element Depth	90	mm
F	Lower Edge Height From Ground	200	mm
G*	Bumper Element Height	330	mm
H	Deformable Barrier Honeycomb Height	650	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: _ 2000 Ford Explorer MPV

NHTSA No. MY0220

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	533	553	576	603	655	721	749	817	892	967	995
		CRUSH	-13	7	30	57	109	175	203	271	346	421	449
LEVEL 5 MID STACK	687	PRE	546	546	546	546	546	546	546	546	546	546	546
		POST	536	550	571	645	701	732	769	857	955	976	989
		CRUSH	-10	4	25	99	155	186	223	311	409	430	443
LEVEL 4 TOP BUMPER	530	PRE	546	546	546	546	546	546	546	546	546	546	546
		POST	539	586	638	710	737	779	801	890	925	944	962
		CRUSH	-7	40	92	164	191	233	255	344	379	398	416
LEVEL 3 BUMPER TOP	475	PRE	456	456	456	456	456	456	456	456	456	456	456
		POST	494	522	567	621	656	701	738	800	852	883	924
		CRUSH	38	66	111	165	200	245	282	344	396	427	468
LEVEL 2 BUMPER MID	365	PRE	456	456	456	456	456	456	456	456	456	456	456
		POST	471	513	564	607	649	684	706	741	797	887	920
		CRUSH	15	57	108	151	193	228	250	285	341	431	464
LEVEL 1 BUMPER LOW	255	PRE	456	456	456	456	456	456	456	456	456	456	456
		POST	521	555	568	599	636	669	683	697	717	737	757
		CRUSH	65	99	112	143	180	213	227	241	261	281	301

*Heights measured above ground level.

APPENDIX A
PHOTOGRAPHS

TABLE OF PHOTOGRAPHS

<u>Figure</u>	<u>Title</u>	<u>Page</u>
A-1	PRE-TEST FRONT VIEW	A-3
A-2	POST-TEST FRONT VIEW	A-4
A-3	PRE-TEST LEFT SIDE VIEW	A-5
A-4	POST-TEST LEFT SIDE VIEW	A-6
A-5	PRE-TEST RIGHT SIDE VIEW	A-7
A-6	POST-TEST RIGHT SIDE VIEW	A-8
A-7	PRE-TEST RIGHT FRONT THREE-QUARTER VIEW	A-9
A-8	POST-TEST RIGHT FRONT THREE-QUARTER VIEW	A-10
A-9	PRE-TEST LEFT REAR THREE-QUARTER VIEW	A-11
A-10	POST-TEST LEFT REAR THREE-QUARTER VIEW	A-12
A-11	PRE-TEST WINDSHIELD VIEW	A-13
A-12	POST-TEST WINDSHIELD VIEW	A-14
A-13	PRE-TEST ENGINE COMPARTMENT VIEW	A-15
A-14	FUEL CAP VIEW	A-16
A-15	PRE-TEST FRONT UNDERBODY VIEW	A-17
A-16	POST-TEST FRONT UNDERBODY VIEW	A-18
A-17	PRE-TEST FRONT SIDE UNDERBODY VIEW	A-19
A-18	POST-TEST FRONT SIDE UNDERBODY VIEW	A-20
A-19	PRE-TEST REAR UNDERBODY VIEW	A-21
A-20	POST-TEST REAR UNDERBODY VIEW	A-22
A-21	PRE-TEST DRIVER POSITION VIEW	A-23
A-22	POST-TEST DRIVER POSITION VIEW	A-24
A-23	PRE-TEST PASSENGER POSITION VIEW	A-25
A-24	POST-TEST PASSENGER POSITION VIEW	A-26
A-25	PRE-TEST DRIVER AND INTERIOR VIEW	A-27
A-26	POST-TEST DRIVER AND INTERIOR VIEW	A-28
A-27	PRE-TEST PASSENGER AND INTERIOR VIEW	A-29
A-28	POST-TEST PASSENGER AND INTERIOR VIEW	A-30
A-29	PRE-TEST DRIVER HEAD LOCATION	A-31
A-30	POST-TEST DRIVER HEAD LOCATION	A-32
A-31	PRE-TEST PASSENGER HEAD LOCATION	A-33
A-32	POST-TEST PASSENGER HEAD LOCATION	A-34
A-33	PRE-TEST DRIVER FLOOR PAN VIEW	A-35
A-34	POST-TEST DRIVER FLOOR PAN VIEW	A-36
A-35	PRE-TEST PASSENGER FLOOR PAN VIEW	A-37
A-36	POST-TEST PASSENGER FLOOR PAN VIEW	A-38
A-37	PRE-TEST BARRIER FRONT VIEW	A-39
A-38	POST-TEST BARRIER FRONT VIEW	A-40
A-39	PRE-TEST BARRIER LEFT SIDE VIEW	A-41
A-40	POST-TEST BARRIER LEFT SIDE VIEW	A-42
A-41	PRE-TEST BARRIER RIGHT SIDE VIEW	A-43
A-42	POST-TEST BARRIER RIGHT SIDE VIEW	A-44
A-43	PRE-TEST BARRIER TOP VIEW	A-45
A-44	POST-TEST BARRIER TOP VIEW	A-46
A-45	POST-TEST OVERHEAD VIEW	A-47
A-46	ROLLOVER VIEW	A-48
A-47	IMPACT VIEW	A-49



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

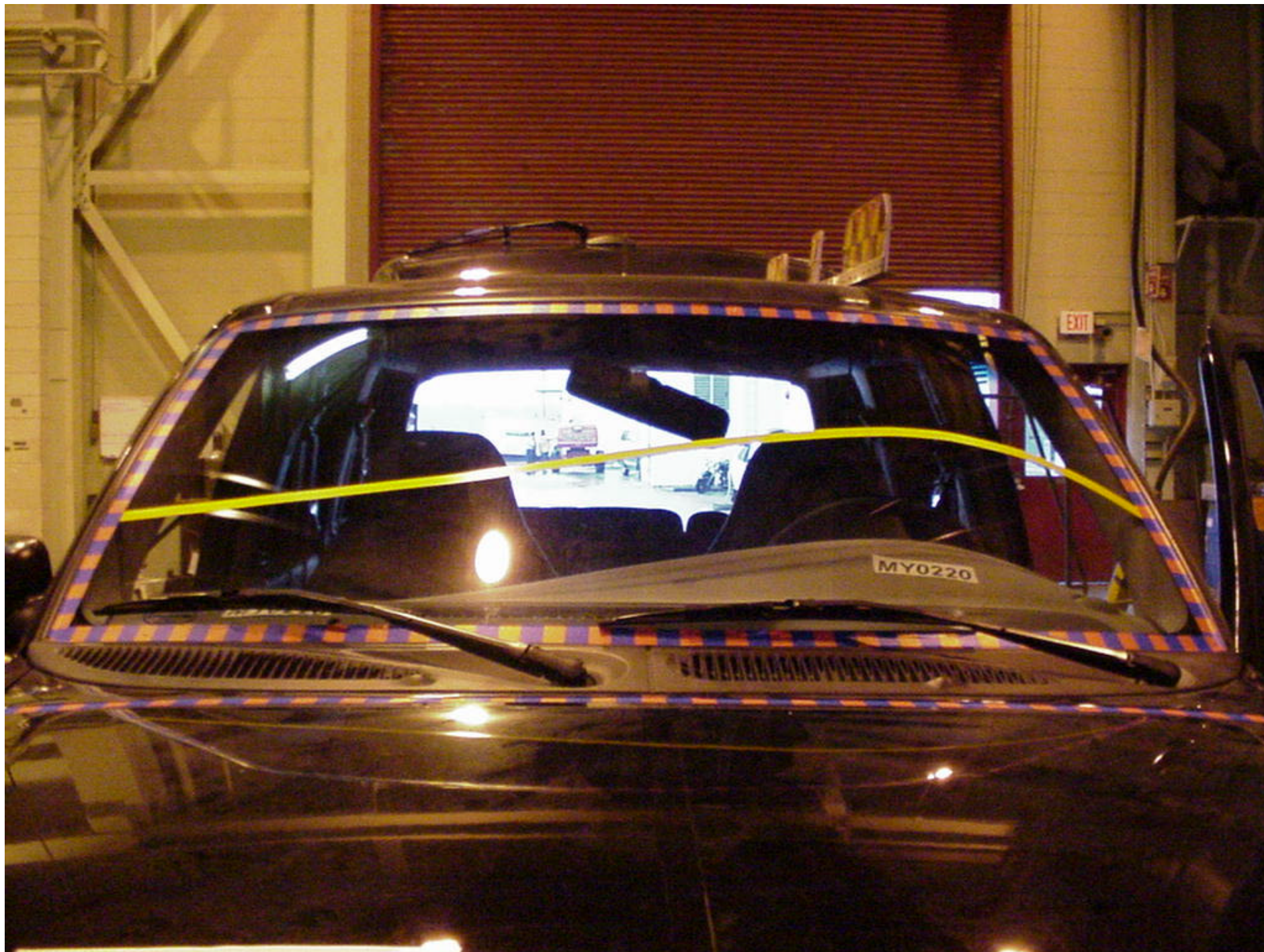


Figure A-11 PRE-TEST WINDSHIELD VIEW



Figure A-12 POST-TEST WINDSHIELD VIEW

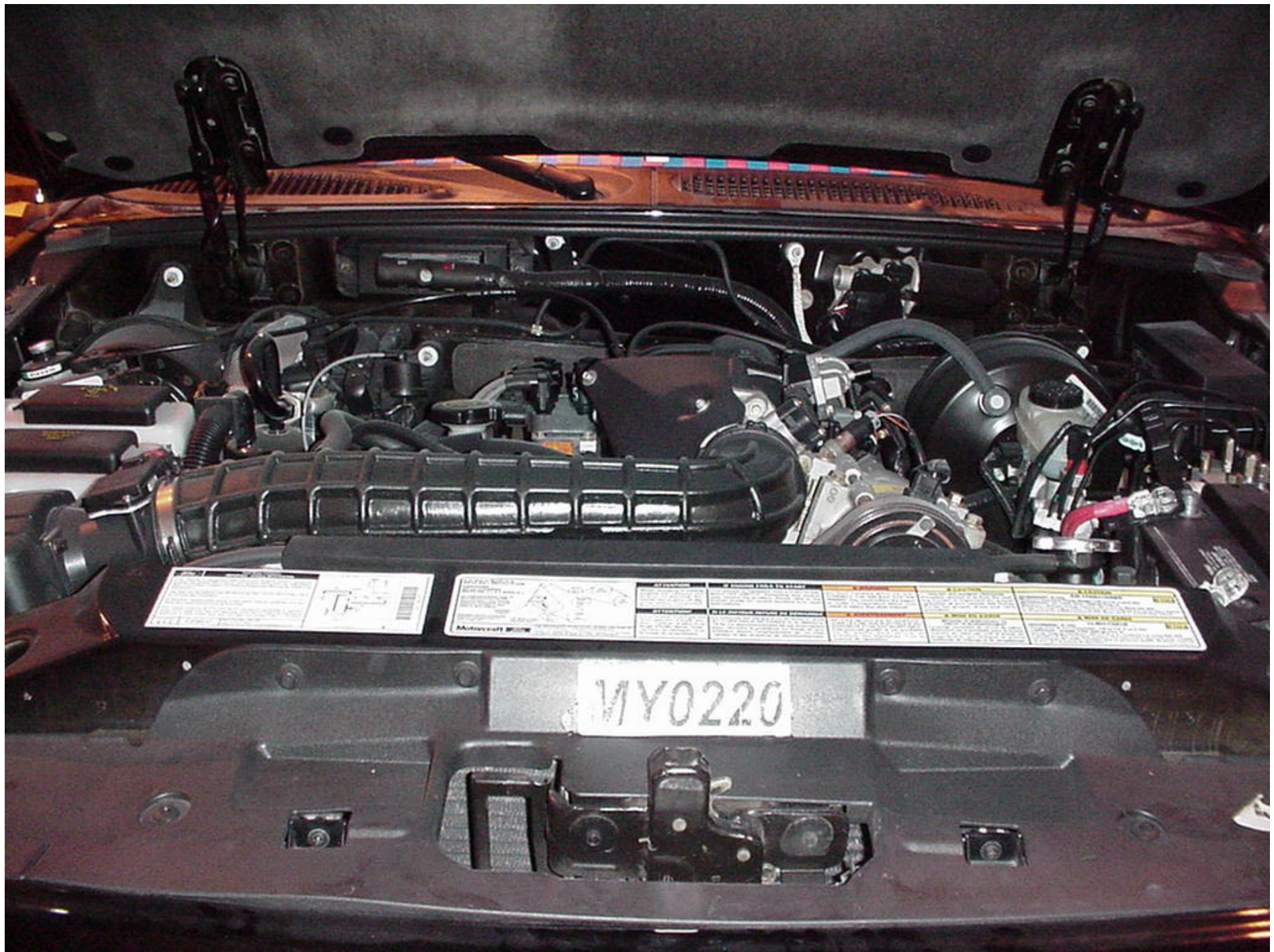


Figure A-13 PRE-TEST ENGINE COMPARTMENT VIEW



Figure A-14 FUEL CAP VIEW

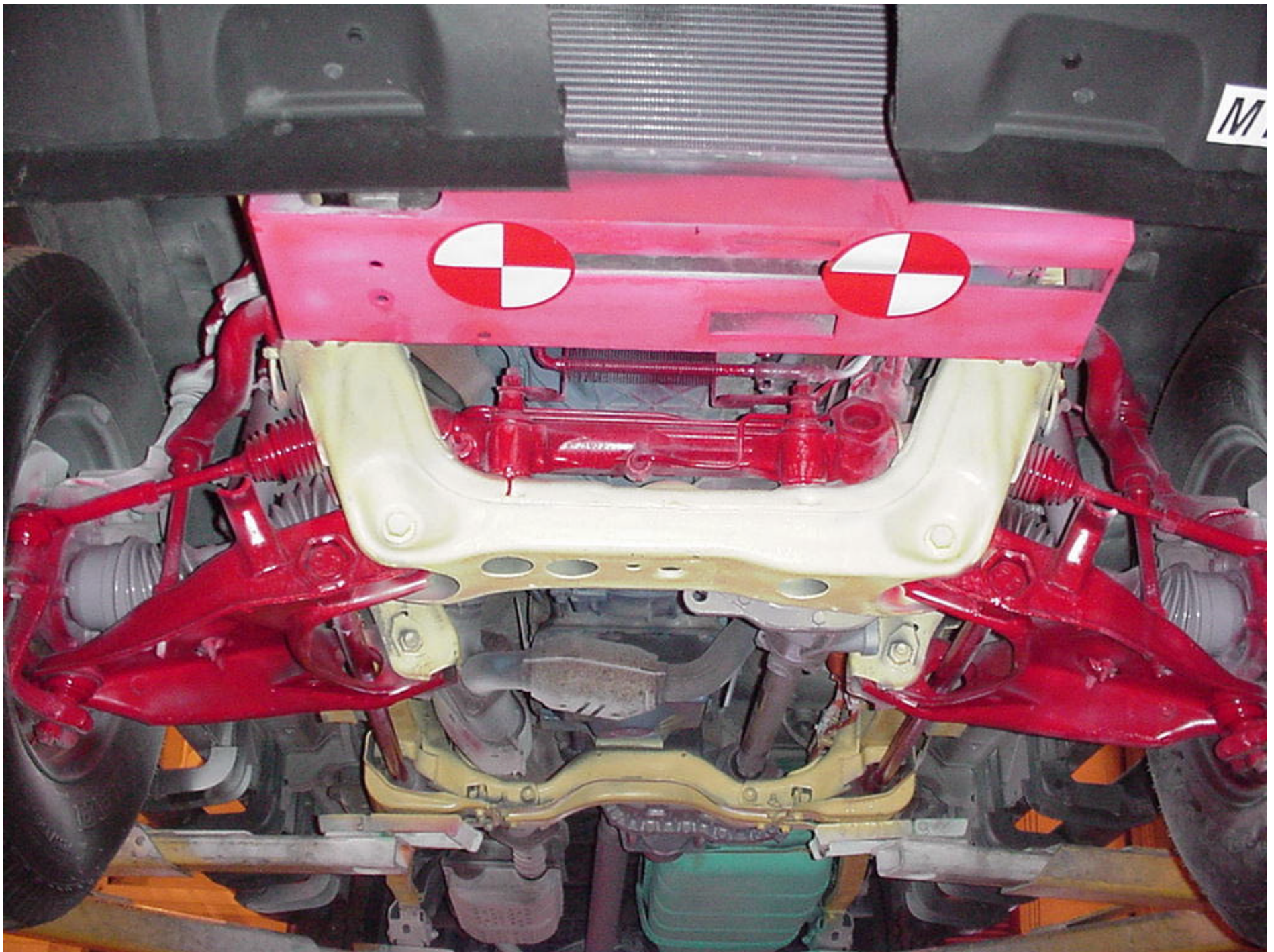


Figure A-15 PRE-TEST FRONT UNDERBODY VIEW



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



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

PHOTOGRAPH NOT AVAILABLE

Figure A-33 PRE-TEST DRIVER FLOOR PAN VIEW

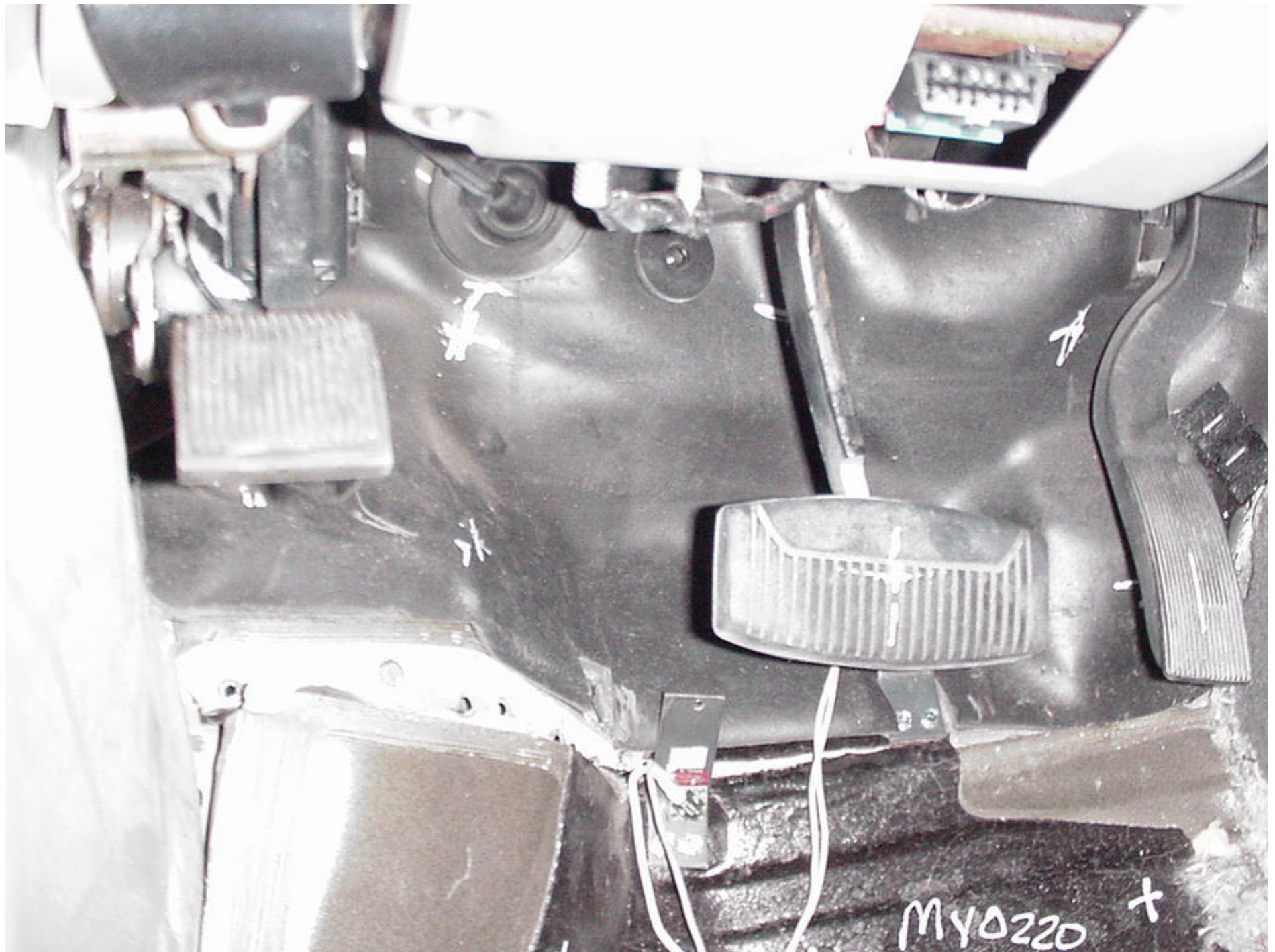


Figure A-34 POST-TEST DRIVER FLOOR PAN VIEW



Figure A-35 PRE-TEST PASSENGER FLOOR PAN VIEW

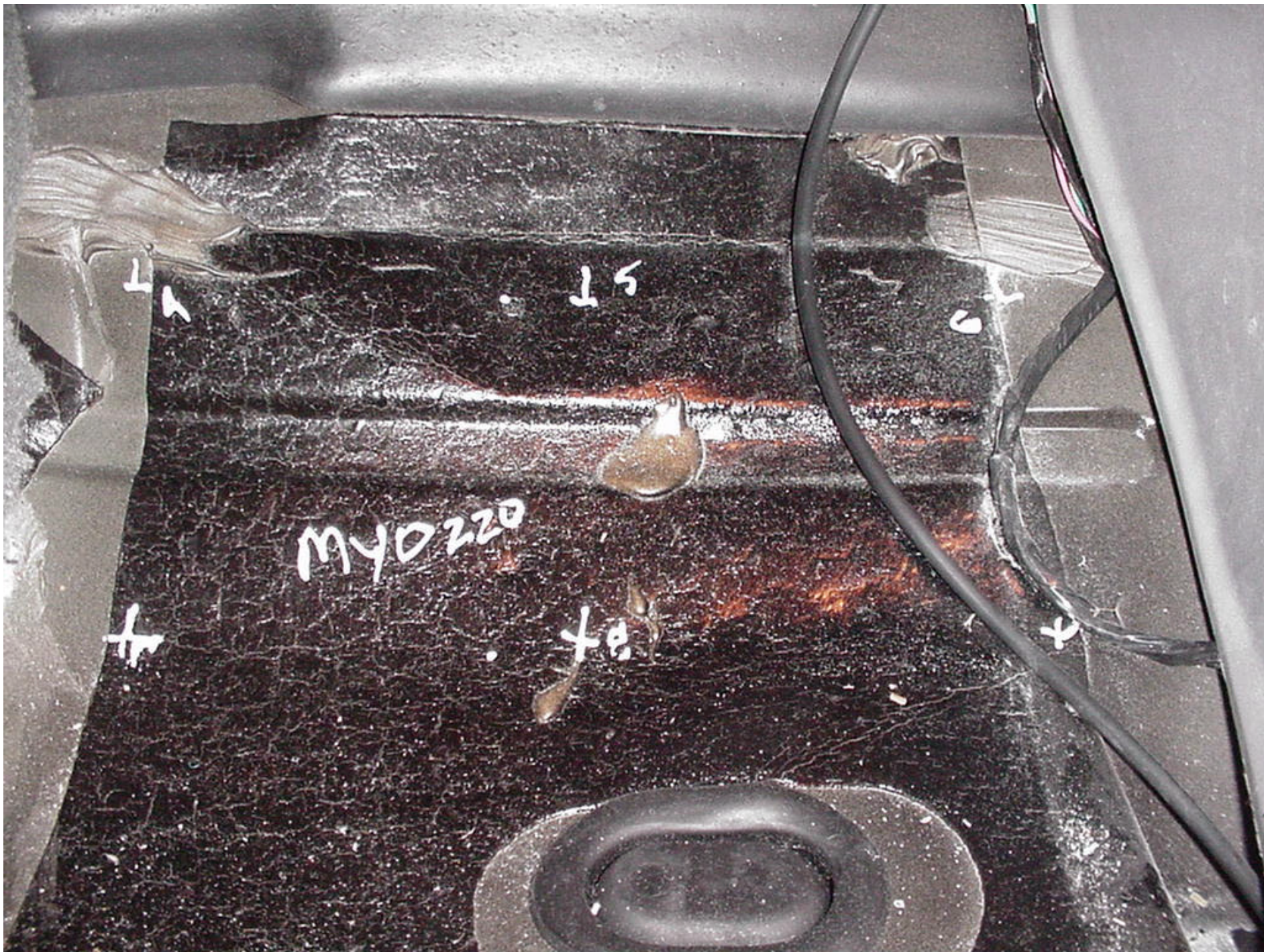


Figure A-36 POST-TEST PASSENGER FLOOR PAN VIEW



Figure A-37 PRE-TEST BARRIER FRONT VIEW

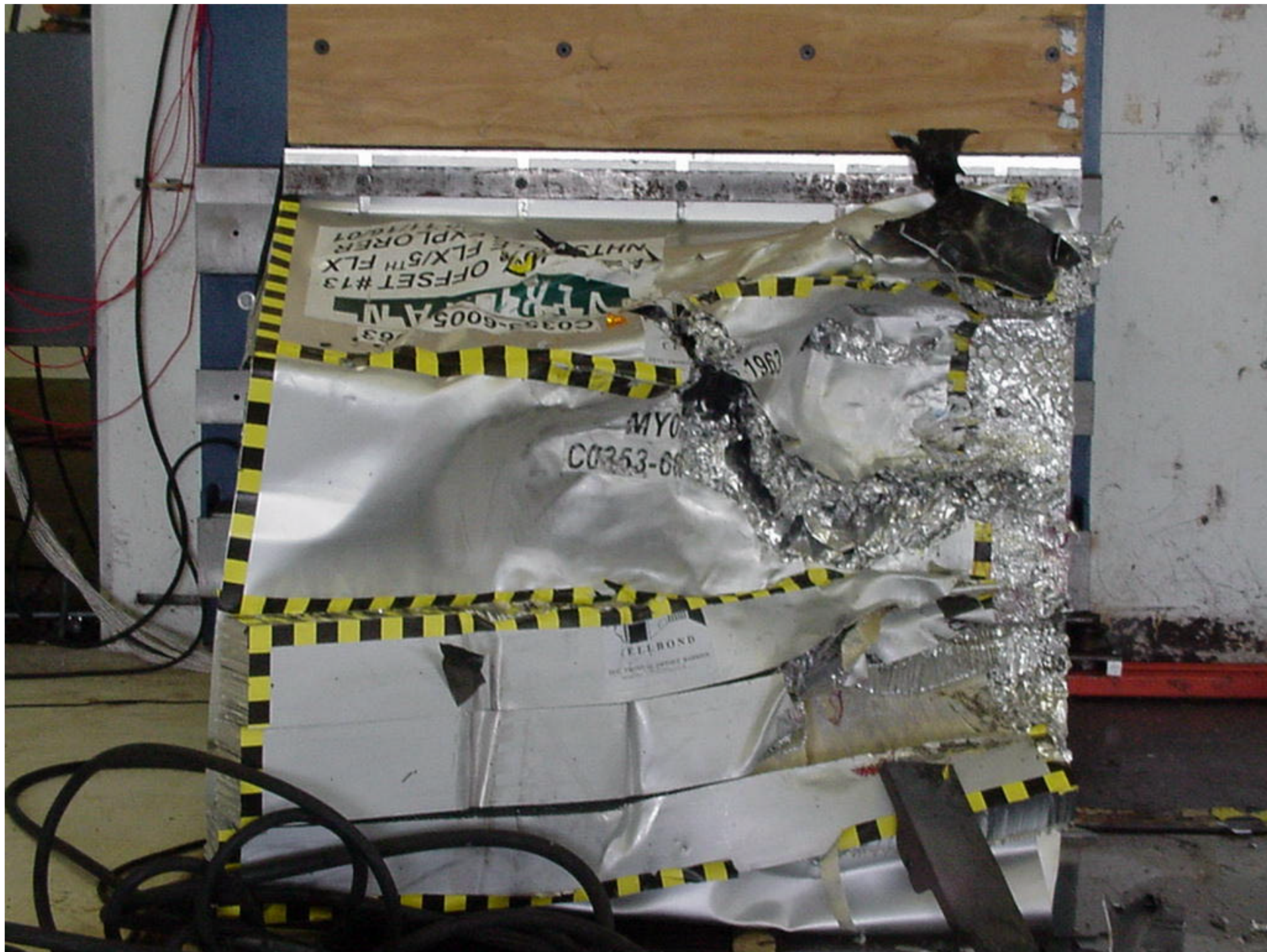


Figure A-38 POST-TEST BARRIER FRONT VIEW

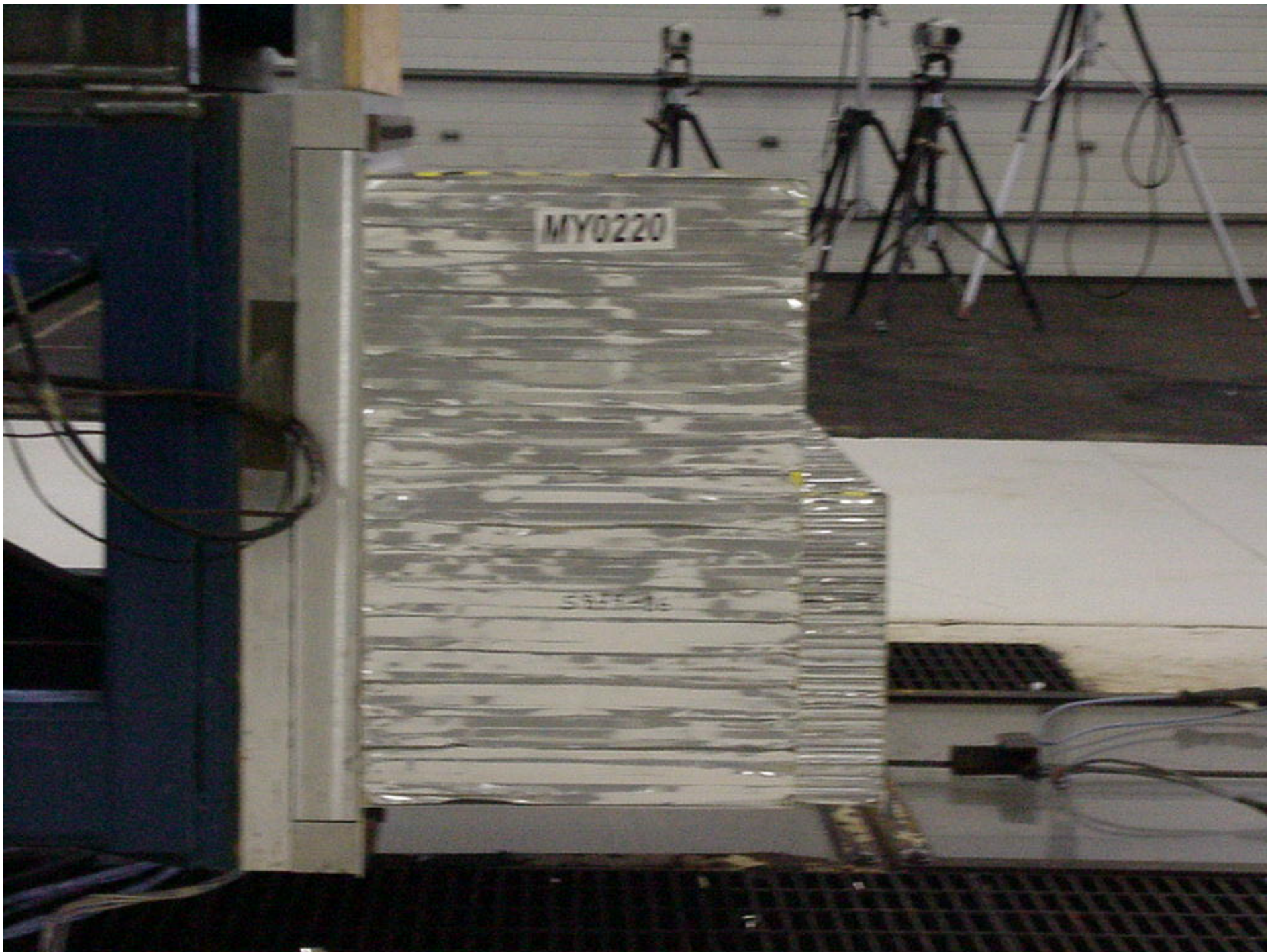


Figure A-39 PRE-TEST BARRIER LEFT SIDE VIEW



Figure A-40 POST-TEST BARRIER LEFTSIDE VIEW

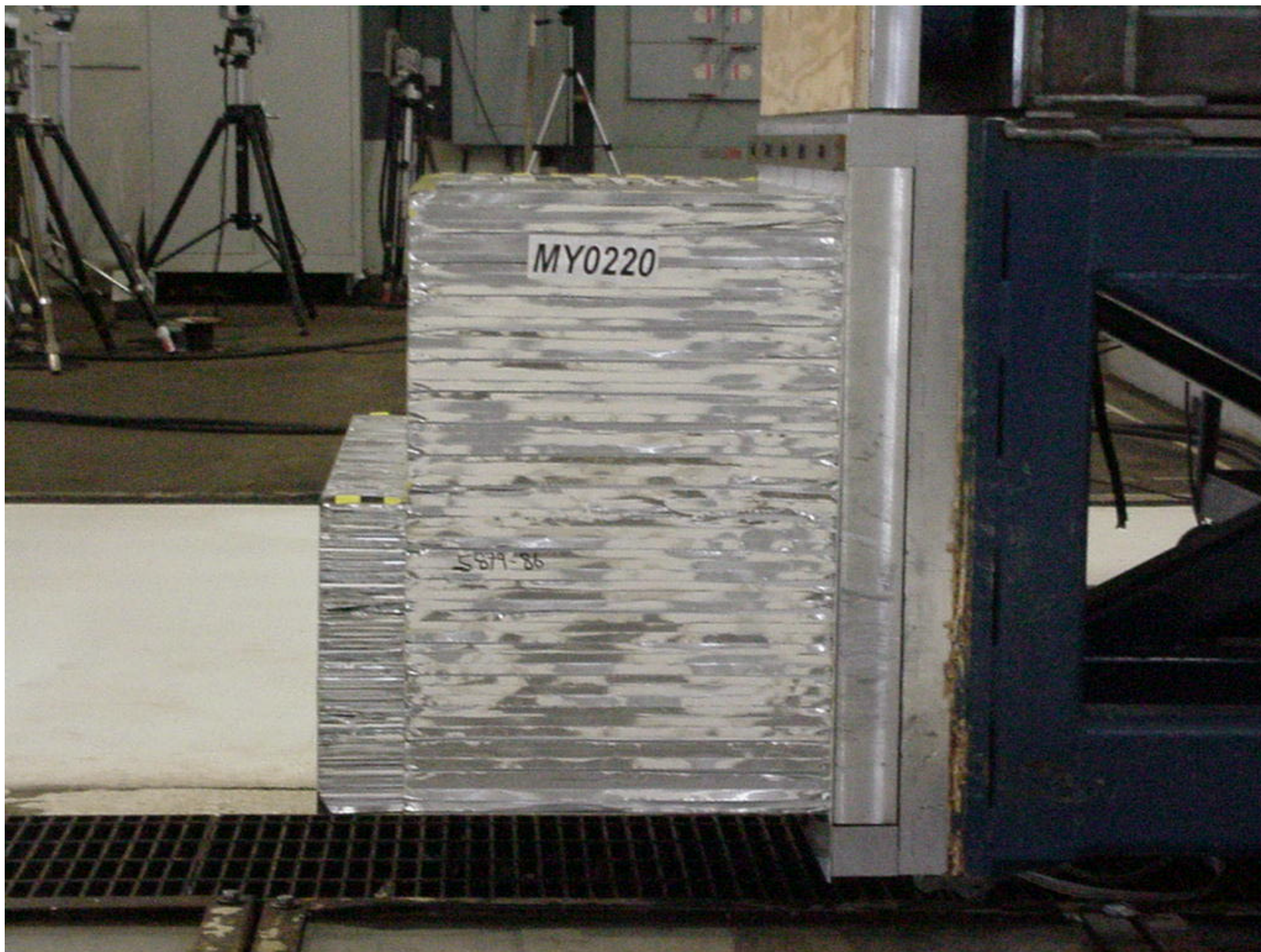


Figure A-41 PRE-TEST BARRIER RIGHT SIDE VIEW



Figure A-42 POST-TEST BARRIER RIGHT SIDE VIEW



Figure A-43 PRE-TEST BARRIER TOP VIEW



Figure A-44 POST-TESTBARRIER TOP VIEW

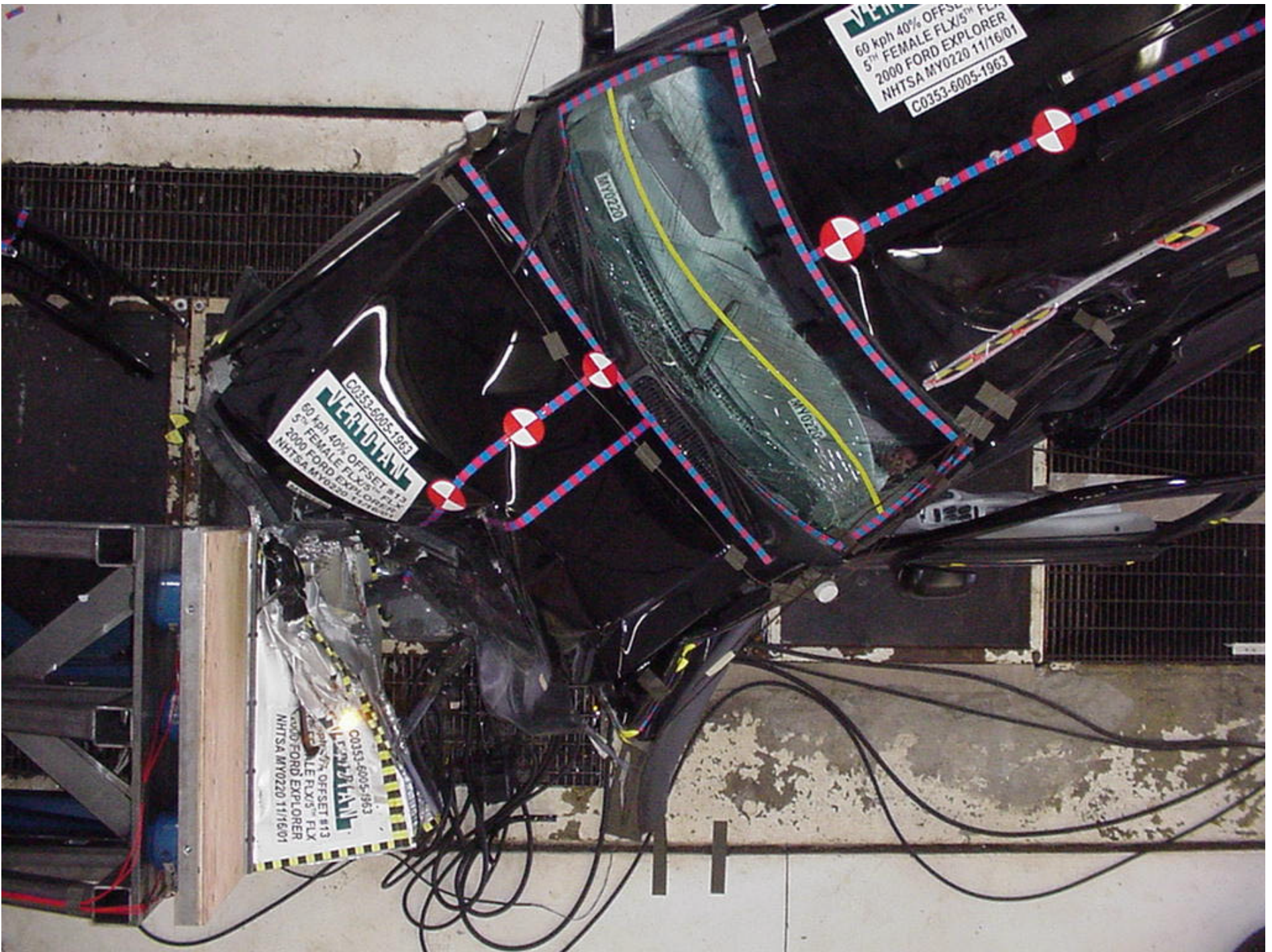


Figure A-45 POST-TEST OVERHEADVIEW



Figure A-46 ROLLOVER VIEW



Figure A-47 IMPACT VIEW

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. MY0220

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	60
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	P1 Head 9 Array X Arm Ay [g, CFC_1000]	B-10
2	P1 Head 9 Array X Arm Az [g, CFC_1000]	B-11
3	P1 Head 9 Array Y Arm Ax [g, CFC_1000]	B-12
4	P1 Head 9 Array Y Arm Az [g, CFC_1000]	B-13
5	P1 Head 9 Array Z Arm Ax [g, CFC_1000]	B-14
6	P1 Head 9 Array Z Arm Ay [g, CFC_1000]	B-15
7	P1 Head CG x [g, CFC_1000]	B-16
8	P1 Head CG y [g, CFC_1000]	B-17
9	P1 Head CG z [g, CFC_1000]	B-18
10	P1 Head CG Resultant [g, CFC_1000]	B-19
11	P1 Head CG Red x [g, CFC_1000]	B-20
12	P1 Head CG Red y [g, CFC_1000]	B-21
13	P1 Head CG Red z [g, CFC_1000]	B-22
14	P1 Head CG Red Resultant [g, CFC_1000]	B-23
15	P1 Upper Neck Fx [N, CFC_1000]	B-24
16	P1 Upper Neck Fy [N, CFC_1000]	B-25
17	P1 Upper Neck Fz [N, CFC_1000]	B-26
18	P1 Upper Neck F Resultant [N, CFC_1000]	B-27
19	P1 Upper Neck Mx [N-m, CFC_600]	B-28
20	P1 Upper Neck My [N-m, CFC_600]	B-29
21	P1 Upper Neck Mz [N-m, CFC_600]	B-30
22	P1 Upper Neck M Resultant [N-m, CFC_600]	B-31
23	P1 Chest x [g, CFC_180]	B-32
24	P1 Chest y [g, CFC_180]	B-33
25	P1 Chest z [g, CFC_180]	B-34
26	P1 Chest Resultant [g, CFC_180]	B-35
27	P1 Chest Red x [g, CFC_180]	B-36
28	P1 Chest Red y [g, CFC_180]	B-37
29	P1 Chest Red z [g, CFC_180]	B-38
30	P1 Chest Red Resultant [g, CFC_180]	B-39
31	P1 Chest Compression [mm, CFC_600]	B-40
32	P1 Pelvic x [g, CFC_1000]	B-41
33	P1 Pelvic y [g, CFC_1000]	B-42
34	P1 Pelvic z [g, CFC_1000]	B-43
35	P1 Pelvic Resultant [g, CFC_1000]	B-44
36	P1 Left Femur Fx [N, CFC_600]	B-45
37	P1 Left Femur Fy [N, CFC_600]	B-46
38	P1 Left Femur Fz [N, CFC_600]	B-47
39	P1 Left Femur F Resultant [N, CFC_600]	B-48
40	P1 Left Femur Mx [Nm, CFC_600]	B-49
41	P1 Left Femur My [Nm, CFC_600]	B-50
42	P1 Left Femur Mz [Nm, CFC_600]	B-51
43	P1 Left Femur M Resultant [Nm, CFC_600]	B-52
44	P1 Right Femur Fx [N, CFC_600]	B-53
45	P1 Right Femur Fy [N, CFC_600]	B-54

46	P1 Right Femur Fz [N, CFC_600]	B-55
47	P1 Right Femur F Resultant [N, CFC_600]	B-56
48	P1 Right Femur Mx [Nm, CFC_600]	B-57
49	P1 Right Femur My [Nm, CFC_600]	B-58
50	P1 Right Femur Mz [Nm, CFC_600]	B-59
51	P1 Right Femur M Resultant [Nm, CFC_600]	B-60
52	P1 Left Knee Shear Dx [mm, CFC_180]	B-61
53	P1 Right Knee Shear Dx [mm, CFC_180]	B-62
54	P1 Left Upper Tibia Fx [N, CFC_600]	B-63
55	P1 Left Upper Tibia Fz [N, CFC_600]	B-64
56	P1 Left Upper Tibia Mx [Nm, CFC_600]	B-65
57	P1 Left Upper Tibia My [Nm, CFC_600]	B-66
58	P1 Left Lower Tibia Fx [N, CFC_600]	B-67
59	P1 Left Lower Tibia Fy [N, CFC_600]	B-68
60	P1 Left Lower Tibia Fz [N, CFC_600]	B-69
61	P1 Left Lower Tibia F Resultant [N, CFC_600]	B-70
62	P1 Left Lower Tibia Mx [Nm, CFC_600]	B-71
63	P1 Left Lower Tibia My [Nm, CFC_600]	B-72
64	P1 Right Upper Tibia Fx [N, CFC_600]	B-73
65	P1 Right Upper Tibia Fz [N, CFC_600]	B-74
66	P1 Right Upper Tibia Mx [Nm, CFC_600]	B-75
67	P1 Right Upper Tibia My [Nm, CFC_600]	B-76
68	P1 Right Lower Tibia Fx [N, CFC_600]	B-77
69	P1 Right Lower Tibia Fy [N, CFC_600]	B-78
70	P1 Right Lower Tibia Fz [N, CFC_600]	B-79
71	P1 Right Lower Tibia F Resultant [N, CFC_600]	B-80
72	P1 Right Lower Tibia Mx [Nm, CFC_600]	B-81
73	P1 Right Lower Tibia My [Nm, CFC_600]	B-82
74	P1 Left Tibia Ax [g, CFC_600]	B-83
75	P1 Left Tibia Ay [g, CFC_600]	B-84
76	P1 Right Tibia Ax [g, CFC_600]	B-85
77	P1 Right Tibia Ay [g, CFC_600]	B-86
78	P1 Left Ankle Rotation x [Deg, CFC_180]	B-87
79	P1 Left Ankle Rotation y [Deg, CFC_180]	B-88
80	P1 Left Ankle Rotation z [Deg, CFC_180]	B-89
81	P1 Right Ankle Rotation x [Deg, CFC_180]	B-90
82	P1 Right Ankle Rotation y [Deg, CFC_180]	B-91
83	P1 Right Ankle Rotation z [Deg, CFC_180]	B-92
84	P1 Left Foot Ax [g, CFC_600]	B-93
85	P1 Left Foot Ay [g, CFC_600]	B-94
86	P1 Left Foot Az [g, CFC_600]	B-95
87	P1 Left Foot A Resultant [g, CFC_600]	B-96
88	P1 Right Foot Ax [g, CFC_600]	B-97
89	P1 Right Foot Ay [g, CFC_600]	B-98
90	P1 Right Foot Az [g, CFC_600]	B-99
91	P1 Right Foot A Resultant [g, CFC_600]	B-100
92	P2 Head 9 Array X Arm Ay [g, CFC_1000]	B-101

93	P2 Head 9 Array X Arm Az [g, CFC_1000]	B-102
94	P2 Head 9 Array Y Arm Ax [g, CFC_1000]	B-103
95	P2 Head 9 Array Y Arm Az [g, CFC_1000]	B-104
96	P2 Head 9 Array Z Arm Ax [g, CFC_1000]	B-105
97	P2 Head 9 Array Z Arm Ay [g, CFC_1000]	B-106
98	P2 Head CG x [g, CFC_1000]	B-107
99	P2 Head CG y [g, CFC_1000]	B-108
100	P2 Head CG z [g, CFC_1000]	B-109
101	P2 Head CG Resultant [g, CFC_1000]	B-110
102	P2 Head CG Red x [g, CFC_1000]	B-111
103	P2 Head CG Red y [g, CFC_1000]	B-112
104	P2 Head CG Red z [g, CFC_1000]	B-113
105	P2 Head CG Red Resultant [g, CFC_1000]	B-114
106	P2 Upper Neck Fx [N, CFC_1000]	B-115
107	P2 Upper Neck Fy [N, CFC_1000]	B-116
108	P2 Upper Neck Fz [N, CFC_1000]	B-117
109	P2 Upper Neck F Resultant [N, CFC_1000]	B-118
110	P2 Upper Neck Mx [N-m, CFC_600]	B-119
111	P2 Upper Neck My [N-m, CFC_600]	B-120
112	P2 Upper Neck Mz [N-m, CFC_600]	B-121
113	P2 Upper Neck M Resultant [N-m, CFC_600]	B-122
114	P2 Chest x [g, CFC_180]	B-123
115	P2 Chest y [g, CFC_180]	B-124
116	P2 Chest z [g, CFC_180]	B-125
117	P2 Chest Resultant [g, CFC_180]	B-126
118	P2 Chest Red x [g, CFC_180]	B-127
119	P2 Chest Red y [g, CFC_180]	B-128
120	P2 Chest Red z [g, CFC_180]	B-129
121	P2 Chest Red Resultant [g, CFC_180]	B-130
122	P2 Chest Compression [mm, CFC_600]	B-131
123	P2 Pelvic x [g, CFC_1000]	B-132
124	P2 Pelvic y [g, CFC_1000]	B-133
125	P2 Pelvic z [g, CFC_1000]	B-134
126	P2 Pelvic Resultant [g, CFC_1000]	B-135
127	P2 Left Femur Fx [N, CFC_600]	B-136
128	P2 Left Femur Fy [N, CFC_600]	B-137
129	P2 Left Femur Fz [N, CFC_600]	B-138
130	P2 Left Femur F Resultant [N, CFC_600]	B-139
131	P2 Left Femur Mx [Nm, CFC_600]	B-140
132	P2 Left Femur My [Nm, CFC_600]	B-141
133	P2 Left Femur Mz [Nm, CFC_600]	B-142
134	P2 Left Femur M Resultant [Nm, CFC_600]	B-143
135	P2 Right Femur Fx [N, CFC_600]	B-144
136	P2 Right Femur Fy [N, CFC_600]	B-145
137	P2 Right Femur Fz [N, CFC_600]	B-146
138	P2 Right Femur F Resultant [N, CFC_600]	B-147
139	P2 Right Femur Mx [Nm, CFC_600]	B-148

140	P2 Right Femur My [Nm, CFC_600]	B-149
141	P2 Right Femur Mz [Nm, CFC_600]	B-150
142	P2 Right Femur M Resultant [Nm, CFC_600]	B-151
143	P2 Left Knee Shear Dx [mm, CFC_180]	B-152
144	P2 Right Knee Shear Dx [mm, CFC_180]	B-153
145	P2 Left Upper Tibia Fx [N, CFC_600]	B-154
146	P2 Left Upper tibia Fz [N, CFC_600]	B-155
147	P2 Left Upper Tibia Mx [Nm, CFC_600]	B-156
148	P2 Left Upper tibia My [Nm, CFC_600]	B-157
149	P2 Left Lower Tibia Fx [N, CFC_600]	B-158
150	P2 Left Lower Tibia Fy [N, CFC_600]	B-159
151	P2 Left Lower Tibia Fz [N, CFC_600]	B-160
152	P2 Left Lower Tibia F Resultant [N, CFC_600]	B-161
153	P2 Left Lower Tibia My [Nm, CFC_600]	B-162
154	P2 Right Upper Tibia Fx [N, CFC_600]	B-163
155	P2 Right Upper Tibia Fz [N, CFC_600]	B-164
156	P2 Right Upper Tibia Mx [Nm, CFC_600]	B-165
157	P2 Right Upper Tibia My [Nm, CFC_600]	B-166
158	P2 Right Lower Tibia Fx [N, CFC_600]	B-167
159	P2 Right Lower Tibia Fy [N, CFC_600]	B-168
160	P2 Right Lower Tibia Fz [N, CFC_600]	B-169
161	P2 Right Lower Tibia F Resultant [N, CFC_600]	B-170
162	P2 Right Lower Tibia Mx [Nm, CFC_600]	B-171
163	P2 Right Lower Tibia My [Nm, CFC_600]	B-172
164	P2 Left Tibia Ax [g, CFC_600]	B-173
165	P2 Left Tibia Ay [g, CFC_600]	B-174
166	P2 Right Tibia Ax [g, CFC_600]	B-175
167	P2 Right Tibia Ay [g, CFC_600]	B-176
168	P2 Left Ankle Rotation x [Deg, CFC_180]	B-177
169	P2 Left Ankle Rotation y [Deg, CFC_180]	B-178
170	P2 Left Ankle Rotation z [Deg, CFC_180]	B-179
171	P2 Right Ankle Rotation x [Deg, CFC_180]	B-180
172	P2 Right Ankle Rotation y [Deg, CFC_180]	B-181
173	P2 Right Ankle Rotation z [Deg, CFC_180]	B-182
174	P2 Left Foot Ax [g, CFC_600]	B-183
175	P2 Left Foot Ay [g, CFC_600]	B-184
176	P2 Left Foot Az [g, CFC_600]	B-185
177	P2 Left Foot A Resultant [g, CFC_600]	B-186
178	P2 Right Foot Ax [g, CFC_600]	B-187
179	P2 Right Foot Ay [g, CFC_600]	B-188
180	P2 Right Foot Az [g, CFC_600]	B-189
181	P2 Right Foot A Resultant [g, CFC_600]	B-190
182	Acc 1 Rear XMBR Left X [g, CFC_60]	B-191
183	Acc 1 Rear XMBR Left X Velocity [kph, CFC_180]	B-192
184	Acc 1 Rear XMBR Left X Displacement [mm, CFC_180]	B-193
185	Acc 2 Rear XMBR Left Y [g, CFC_60]	B-194
186	Acc 2 Rear XMBR Left Y Velocity [kph, CFC_180]	B-195

187	Acc 2 Rear XMBR Left Y Displacement [mm, CFC_180]	B-196
188	Acc 3 Rear XMBR Right X [g, CFC_60]	B-197
189	Acc 3 Rear XMBR Right X Velocity [kph, CFC_180]	B-198
190	Acc 3 Rear XMBR Right X Displacement [mm, CFC_180]	B-199
191	Acc 4 Rear XMBR Right Y [g, CFC_60]	B-200
192	Acc 4 Rear XMBR Right Y Velocity [kph, CFC_180]	B-201
193	Acc 4 Rear XMBR Right Y Displacement [mm, CFC_180]	B-202
194	Acc 6 P1 Toepan Left Z [g, CFC_60]	B-203
195	Acc 6 P1 Toepan Left Z Velocity [kph, CFC_180]	B-204
196	Acc 6 P1 Toepan Left Z Displacement [mm, CFC_180]	B-205
197	Acc 7 P1 Toepan Right X [g, CFC_60]	B-206
198	Acc 7 P1 Toepan Right X Velocity [kph, CFC_180]	B-207
199	Acc 7 P1 Toepan Right X Displacement [mm, CFC_180]	B-208
200	Acc 8 P1 Toepan Right Z [g, CFC_60]	B-209
201	Acc 8 P1 Toepan Right Z Velocity [kph, CFC_180]	B-210
202	Acc 8 P1 Toepan Right Z Displacement [mm, CFC_180]	B-211
203	Toe Pan Movement [mm, CFC_60]	B-212
204	Barrier Load Cell E2 FY [N, CFC_60]	B-213
205	Barrier Load Cell E3 FY [N, CFC_60]	B-214
206	Barrier Load Cell E4 FY [N, CFC_60]	B-215
207	Barrier Load Cell E5 FY [N, CFC_60]	B-216
208	Barrier Load Cell E6 FY [N, CFC_60]	B-217
209	Barrier Load Cell E1 FX [N, CFC_60]	B-218
210	Barrier Load Cell E2 FX [N, CFC_60]	B-219
211	Barrier Load Cell E3 FX [N, CFC_60]	B-220
212	Barrier Load Cell E4 FX [N, CFC_60]	B-221
213	Barrier Load Cell E5 FX [N, CFC_60]	B-222
214	Barrier Load Cell E6 FX [N, CFC_60]	B-223
215	Barrier Load Cell D2 FY [N, CFC_60]	B-224
216	Barrier Load Cell D3 FY [N, CFC_60]	B-225
217	Barrier Load Cell D4 FY [N, CFC_60]	B-226
218	Barrier Load Cell D5 FY [N, CFC_60]	B-227
219	Barrier Load Cell D6 FY [N, CFC_60]	B-228
220	Barrier Load Cell D1 FX [N, CFC_60]	B-229
221	Barrier Load Cell D2 FX [N, CFC_60]	B-230
222	Barrier Load Cell D3 FX [N, CFC_60]	B-231
223	Barrier Load Cell D4 FX [N, CFC_60]	B-232
226	Barrier Load Cell D5 FX [N, CFC_60]	B-233
227	Barrier Load Cell D6 FX [N, CFC_60]	B-234
228	Barrier Load Cell C2 FY [N, CFC_60]	B-235
229	Barrier Load Cell C3 FY [N, CFC_60]	B-236
230	Barrier Load Cell C4 FY [N, CFC_60]	B-237
231	Barrier Load Cell C5 FY [N, CFC_60]	B-238
232	Barrier Load Cell C6 FY [N, CFC_60]	B-239
233	Barrier Load Cell C1 FX [N, CFC_60]	B-240
234	Barrier Load Cell C2 FX [N, CFC_60]	B-241
235	Barrier Load Cell C3 FX [N, CFC_60]	B-242

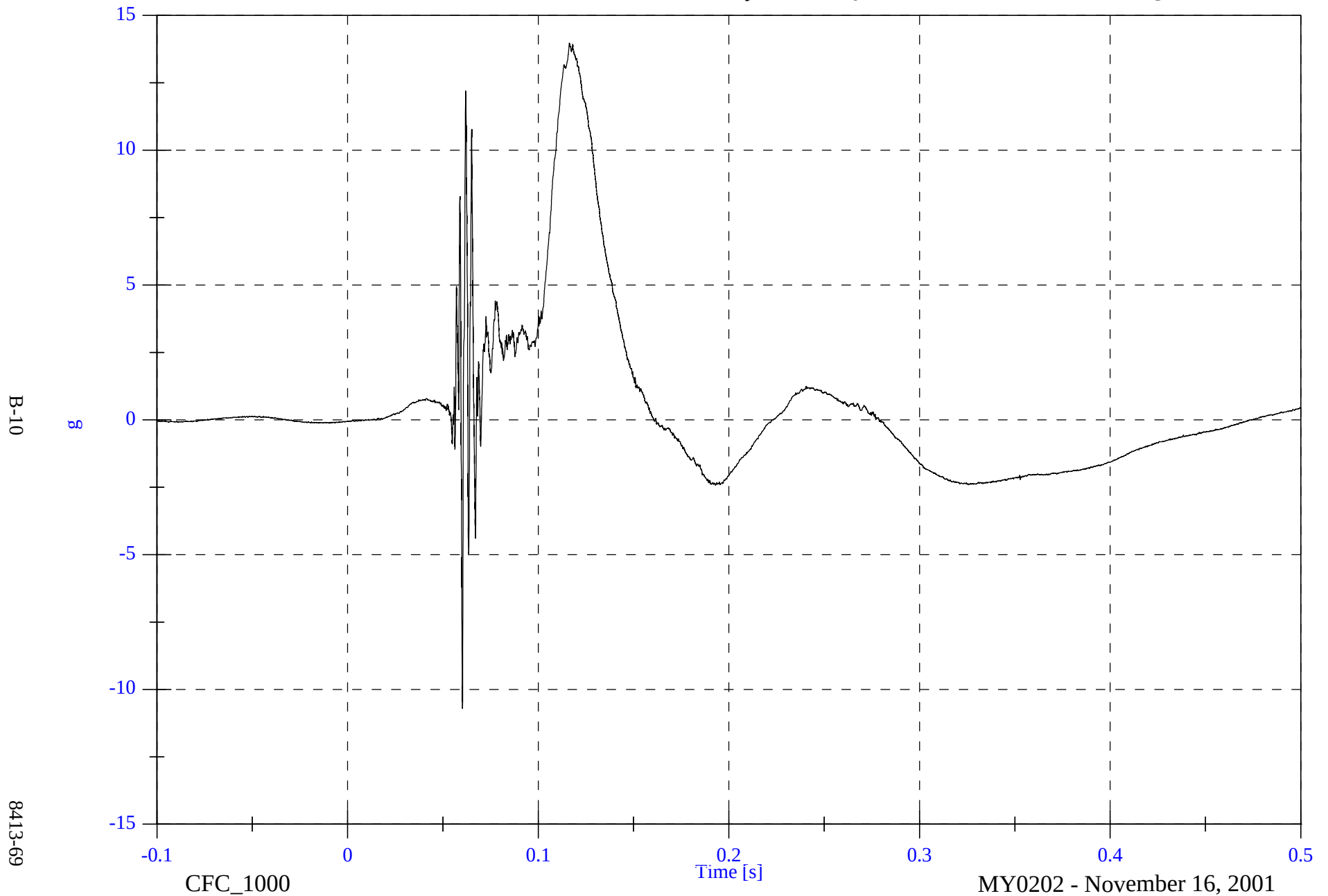
236	Barrier Load Cell C4 FX [N, CFC_60]	B-243
237	Barrier Load Cell C5 FX [N, CFC_60]	B-244
238	Barrier Load Cell C6 FX [N, CFC_60]	B-245
239	Barrier Load Cell B3 FY [N, CFC_60]	B-246
240	Barrier Load Cell B4 FY [N, CFC_60]	B-247
241	Barrier Load Cell B5 FY [N, CFC_60]	B-248
242	Barrier Load Cell B6 FY [N, CFC_60]	B-249
243	Barrier Load Cell B1 FX [N, CFC_60]	B-250
244	Barrier Load Cell B2 FX [N, CFC_60]	B-251
245	Barrier Load Cell B3 FX [N, CFC_60]	B-252
246	Barrier Load Cell B4 FX [N, CFC_60]	B-253
247	Barrier Load Cell B5 FX [N, CFC_60]	B-254
248	Barrier Load Cell B6 FX [N, CFC_60]	B-255
249	Barrier Load Cell A1 FX [N, CFC_60]	B-256
250	Barrier Load Cell A2 FX [N, CFC_60]	B-257
251	Barrier Load Cell A3 FX [N, CFC_60]	B-258
252	Barrier Load Cell A4 FX [N, CFC_60]	B-259
253	Barrier Load Cell A5 FX [N, CFC_60]	B-260
254	Barrier Load Cell A6 FX [N, CFC_60]	B-261
255	Barrier Load Cell A7 TL FX [N, CFC_60]	B-262
256	Barrier Load Cell A8 TR FX [N, CFC_60]	B-263
257	Barrier Load Cell A9 CL FX [N, CFC_60]	B-264
258	Barrier Load Cell AA BL FX [N, CFC_60]	B-265
259	Barrier Load Cell AB BR FX [N, CFC_60]	B-266

40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Head 9 Array X Arm Ay

Max: 14.0 [g] at 0.116 [s]

Min: -10.7 [g] at 0.060 [s]

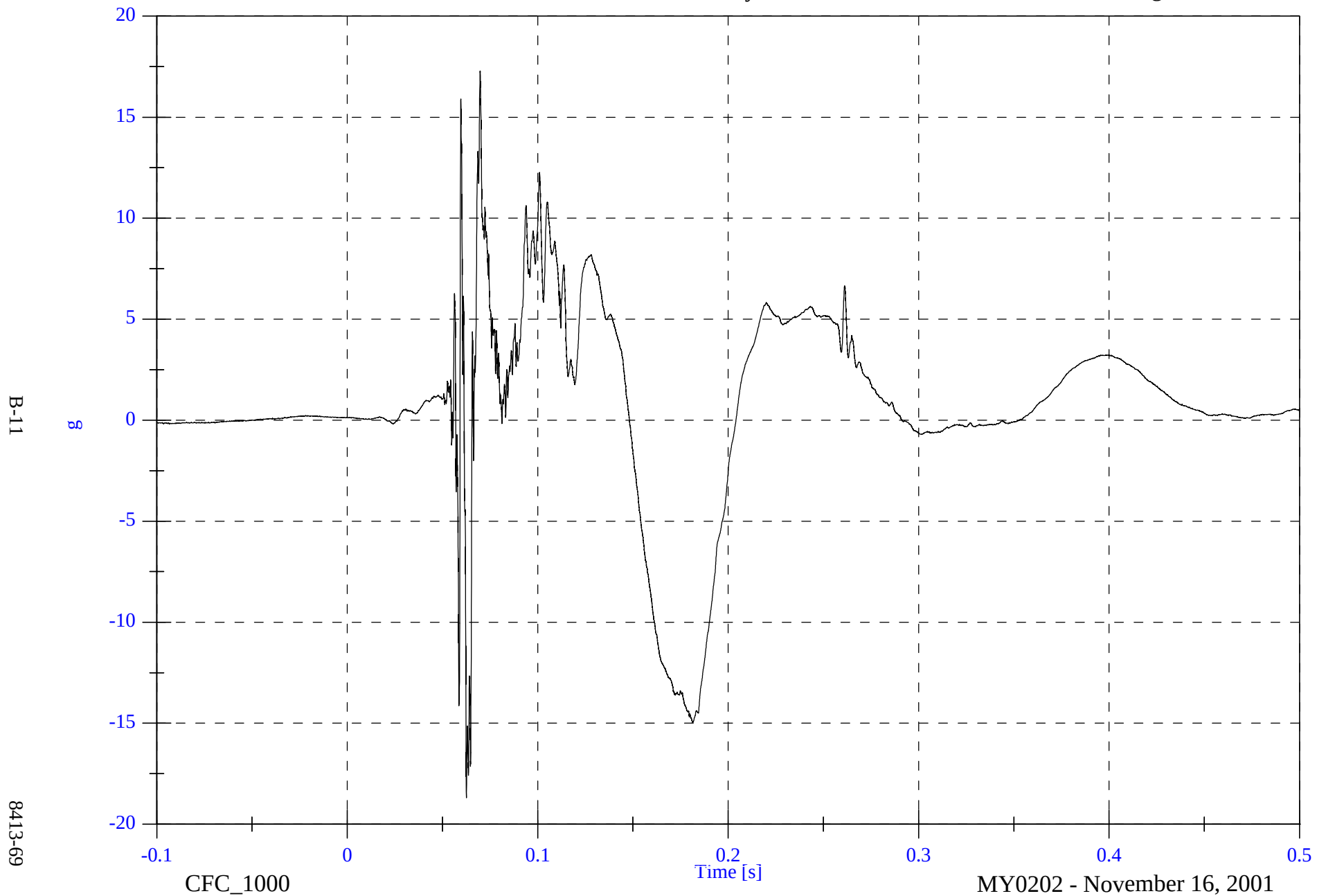


40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Head 9 Array X Arm Az

Max: 17.3 [g] at 0.070 [s]

Min: -18.7 [g] at 0.063 [s]



40% Frontal Offset Test #13 - 2000 Ford Explorer

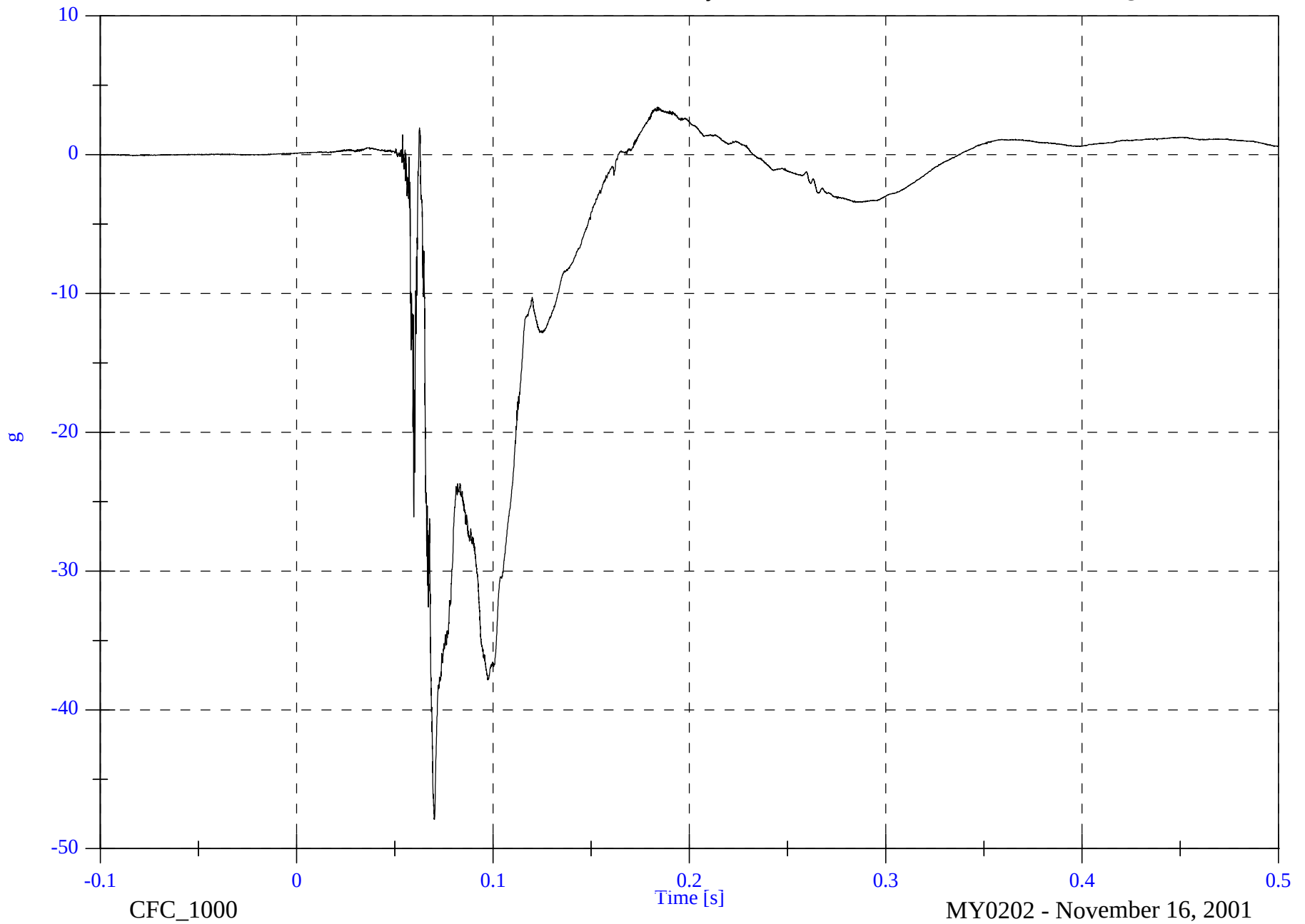
P1 Head 9 Array Y Arm Ax

Max: 3.4 [g] at 0.184 [s]

Min: -47.9 [g] at 0.070 [s]

B-12

8413-69

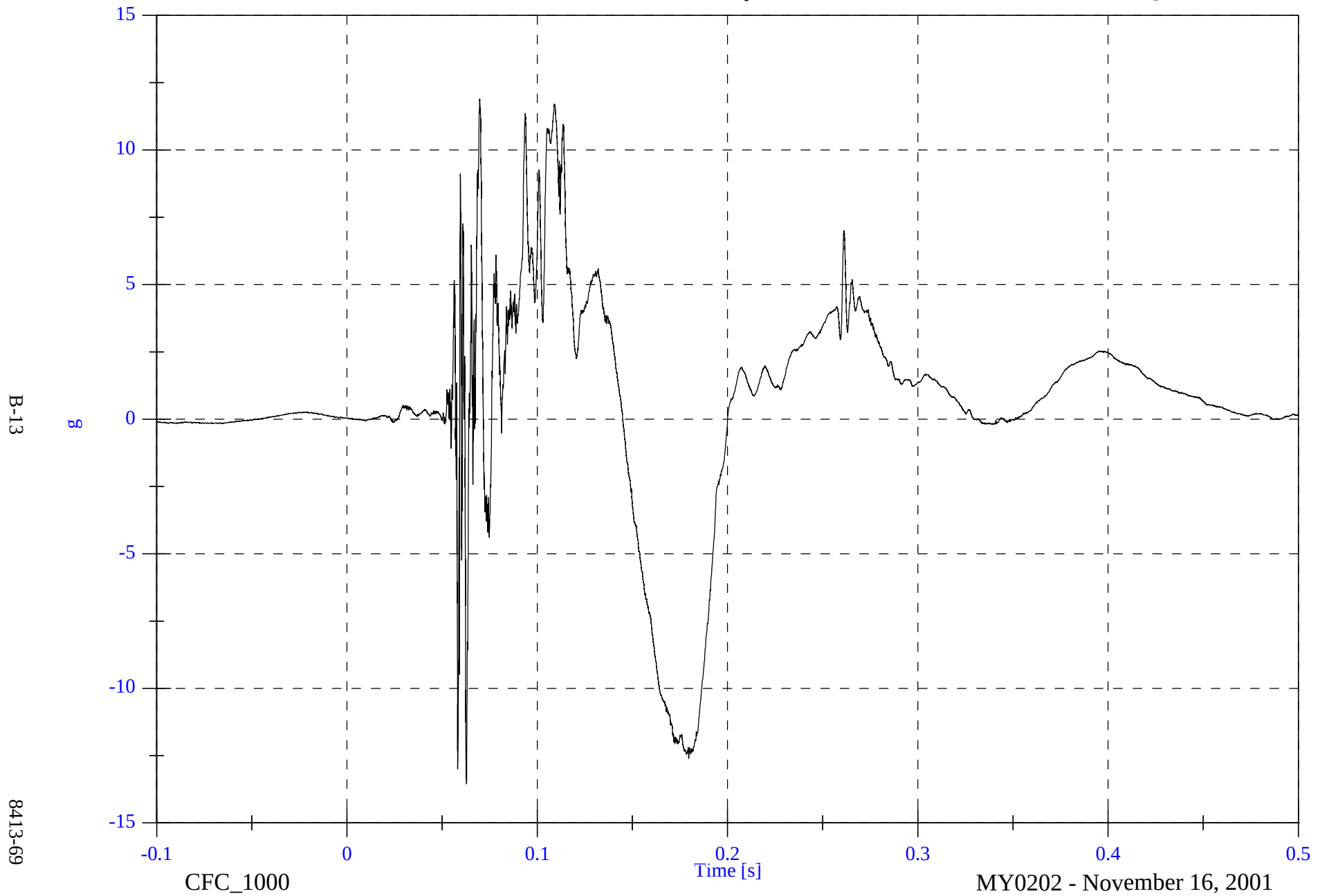


40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Head 9 Array Y Arm Az

Max: 11.9 [g] at 0.070 [s]

Min: -13.5 [g] at 0.063 [s]



40% Frontal Offset Test #13 - 2000 Ford Explorer

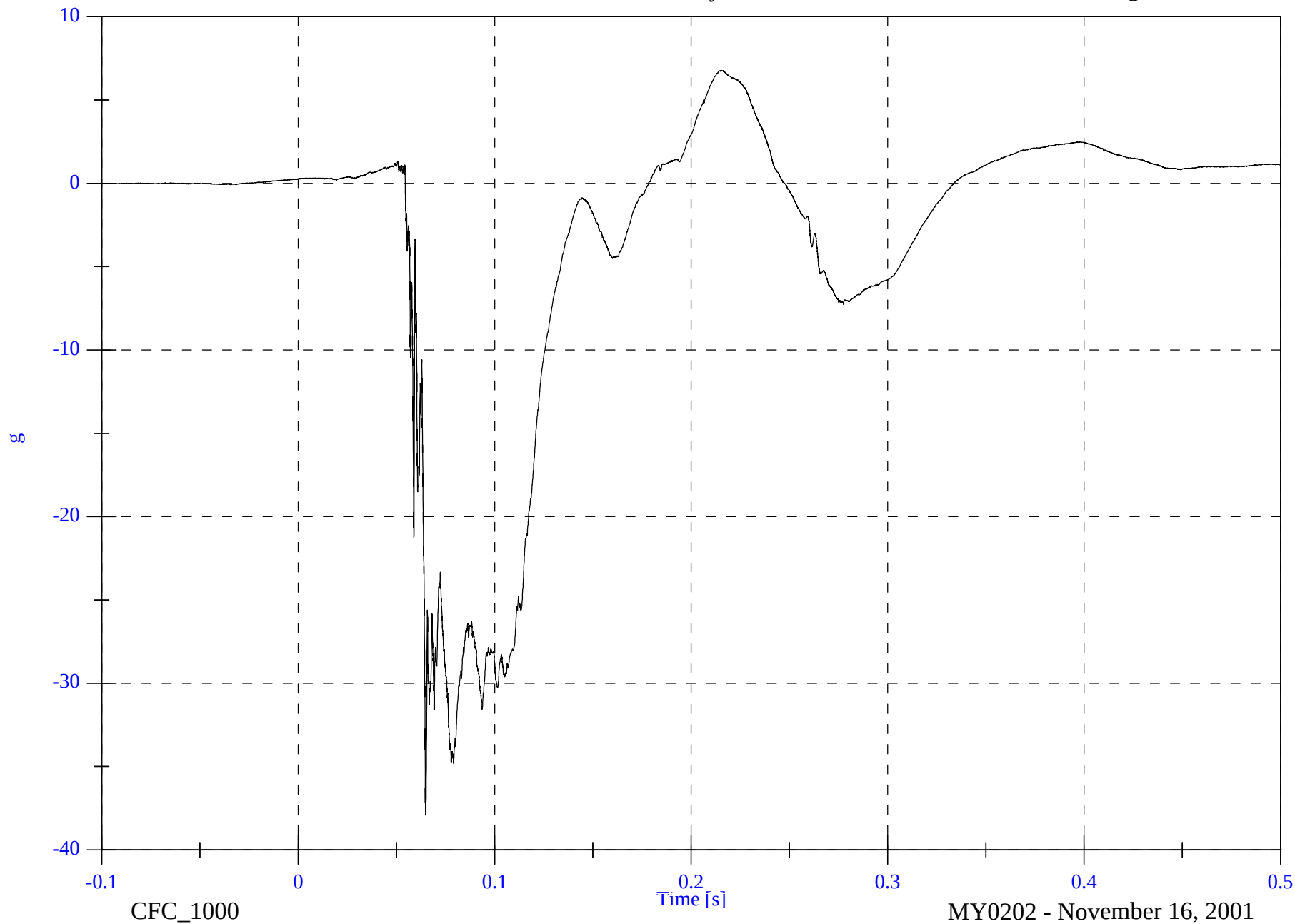
P1 Head 9 Array Z Arm Ax

Max: 6.8 [g] at 0.215 [s]

Min: -37.9 [g] at 0.065 [s]

B-14

8413-69

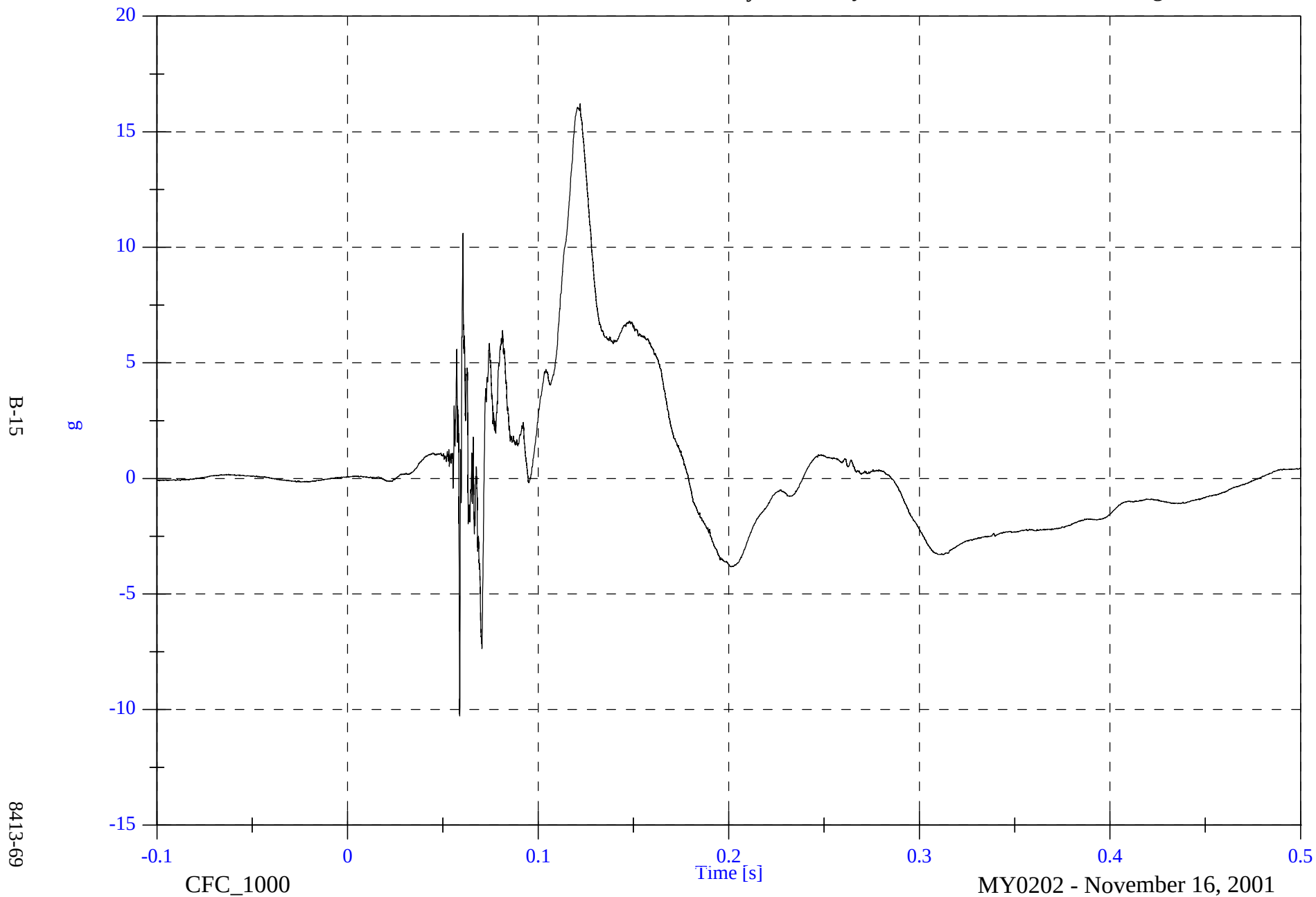


40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Head 9 Array Z Arm Ay

Max: 16.2 [g] at 0.122 [s]

Min: -10.3 [g] at 0.059 [s]

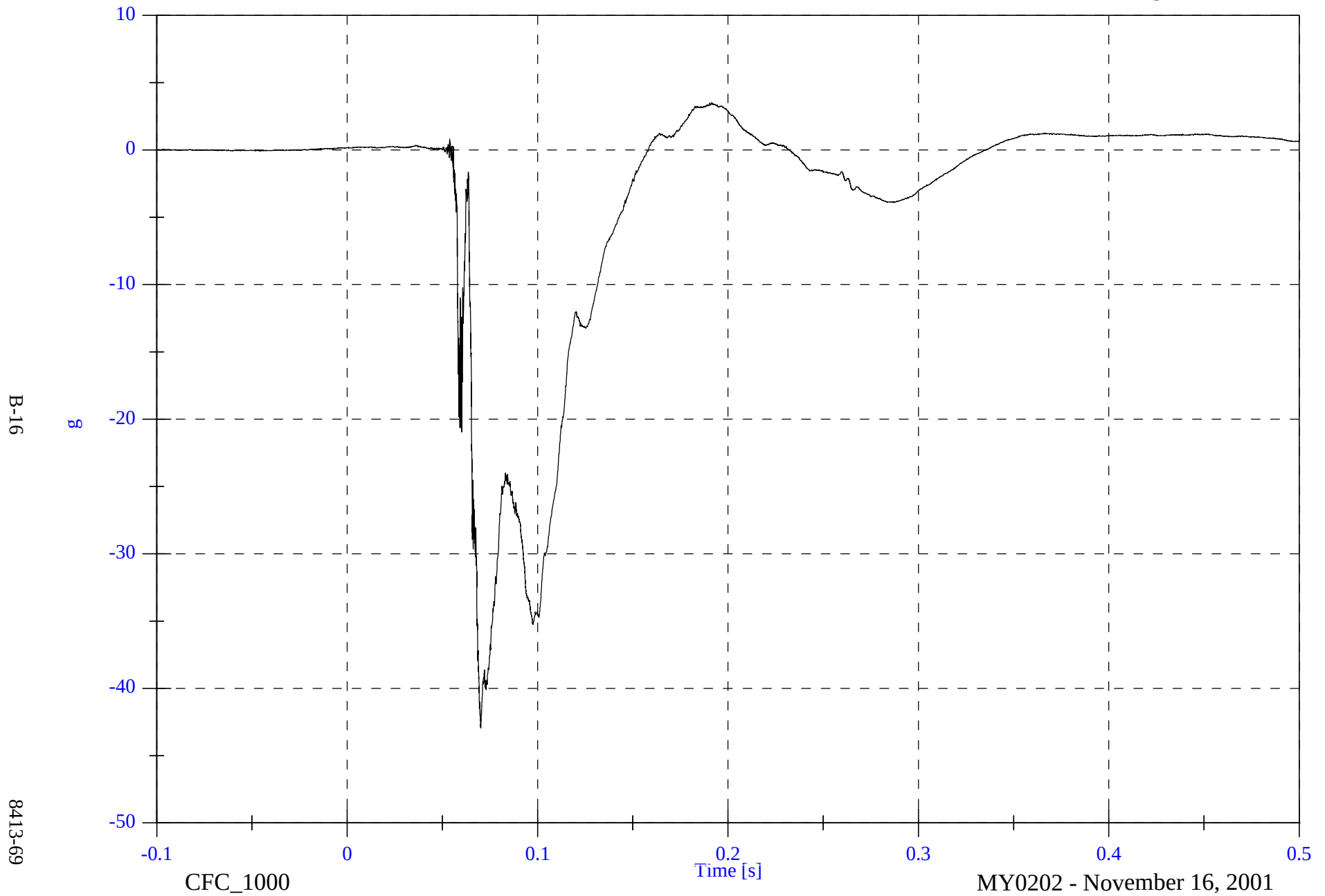


40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Head CG Ax

Max: 3.5 [g] at 0.192 [s]

Min: -43.0 [g] at 0.070 [s]

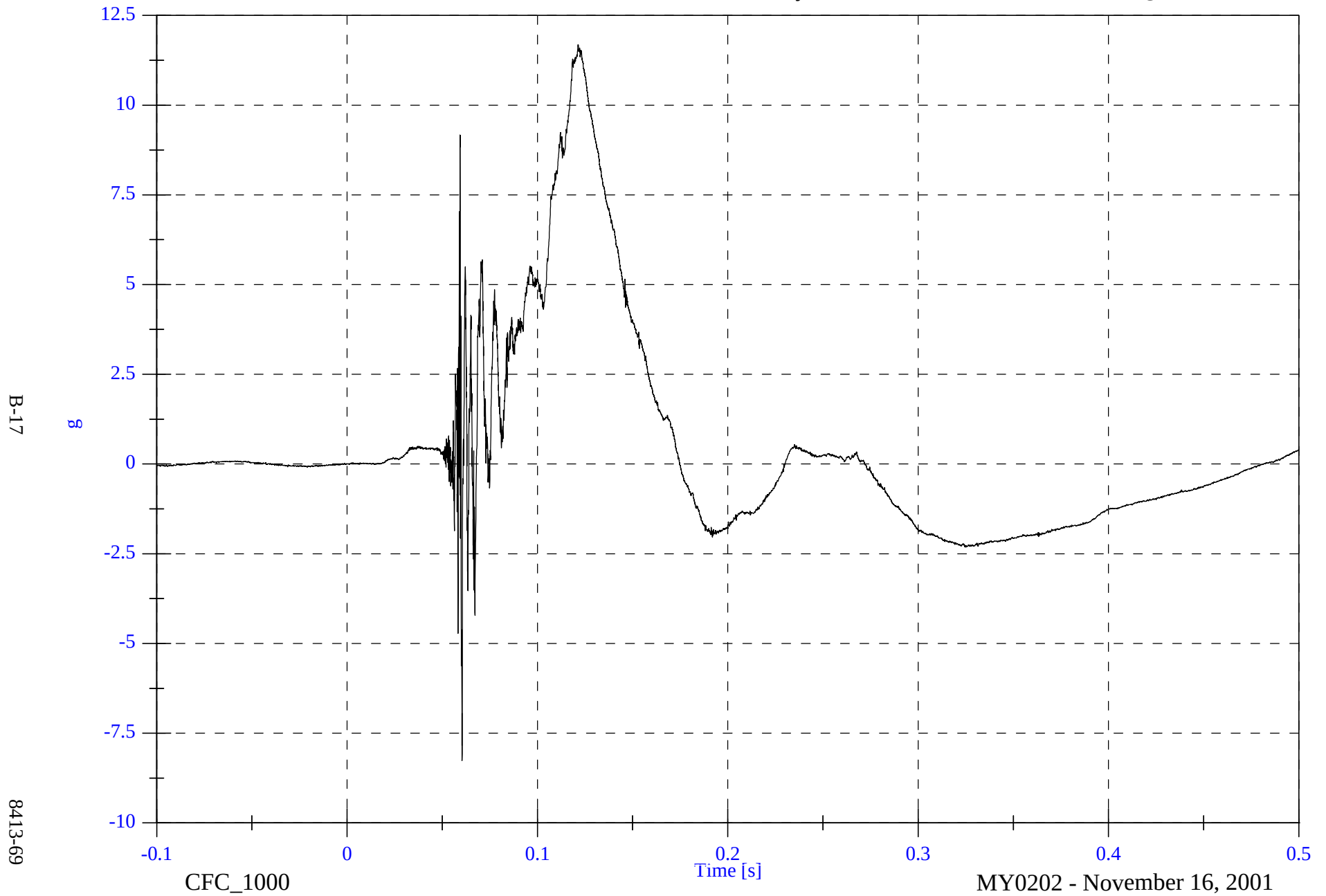


40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Head CG Ay

Max: 11.7 [g] at 0.121 [s]

Min: -8.3 [g] at 0.060 [s]

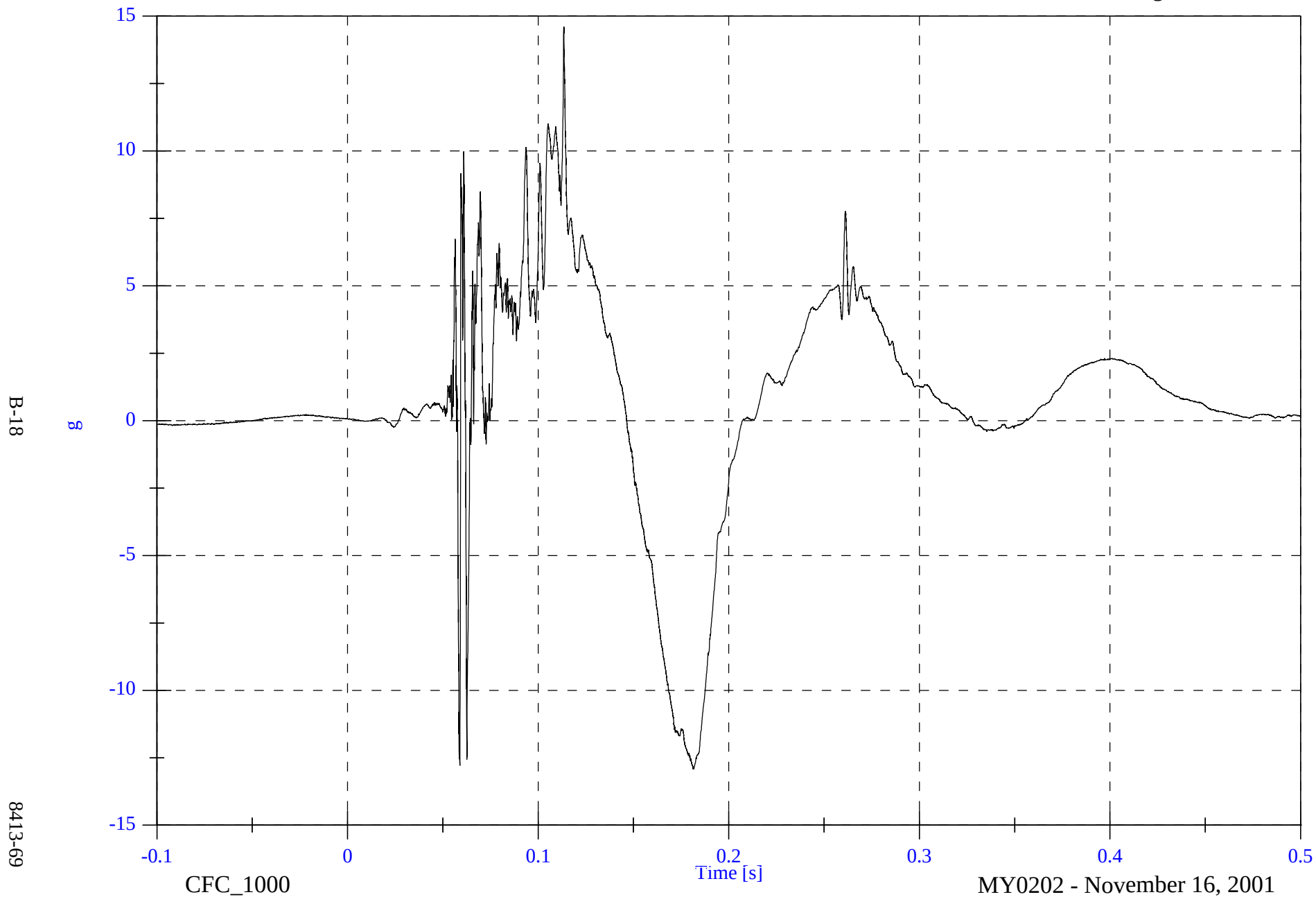


40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Head CG Az

Max: 14.6 [g] at 0.113 [s]

Min: -12.9 [g] at 0.181 [s]

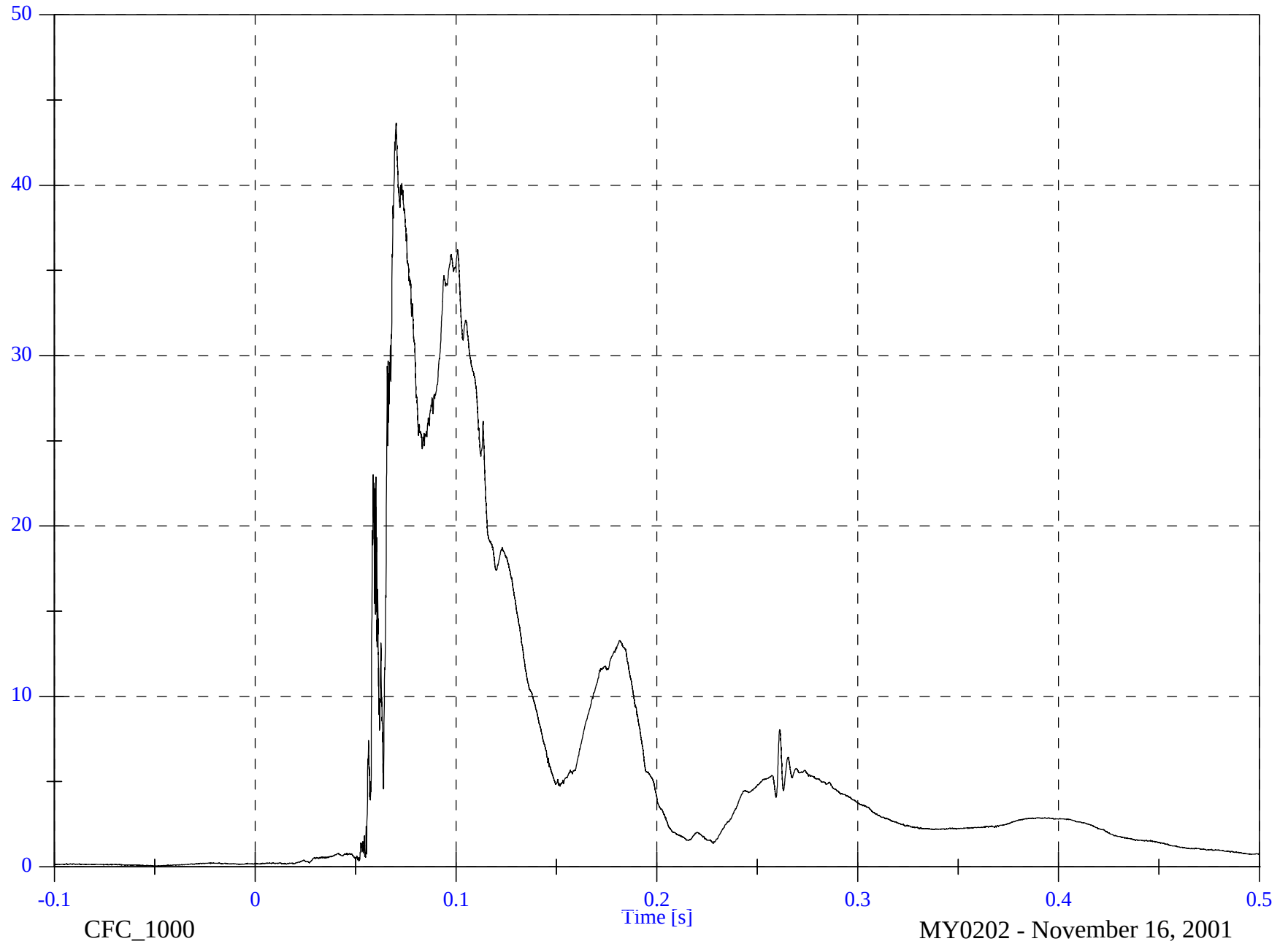


40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Head CG A Resultant

Max: 43.7 [g] at 0.070 [s]

Min: 0.0 [g] at -0.050 [s]

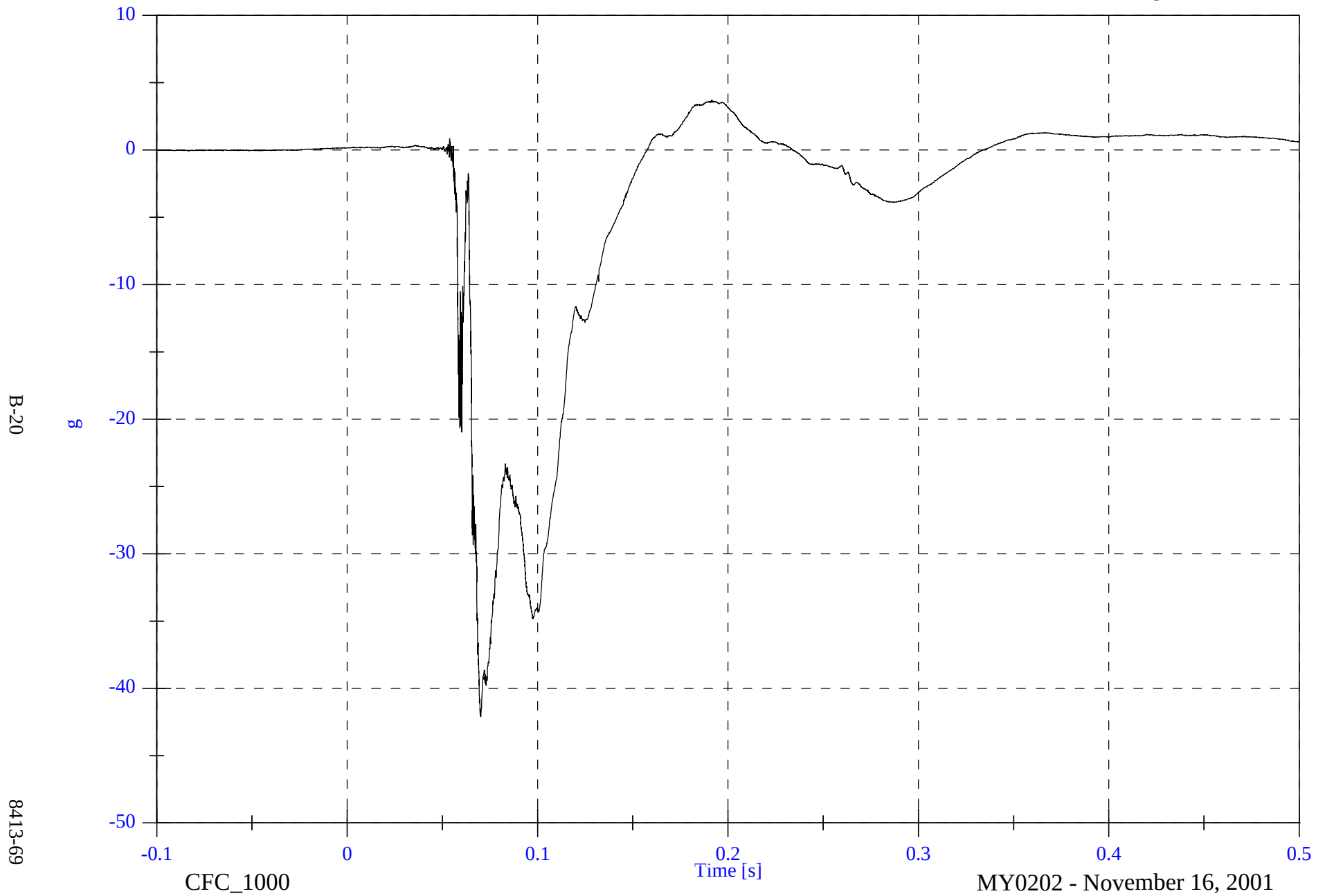


40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Head CG Red Ax

Max: 3.7 [g] at 0.192 [s]

Min: -42.1 [g] at 0.070 [s]

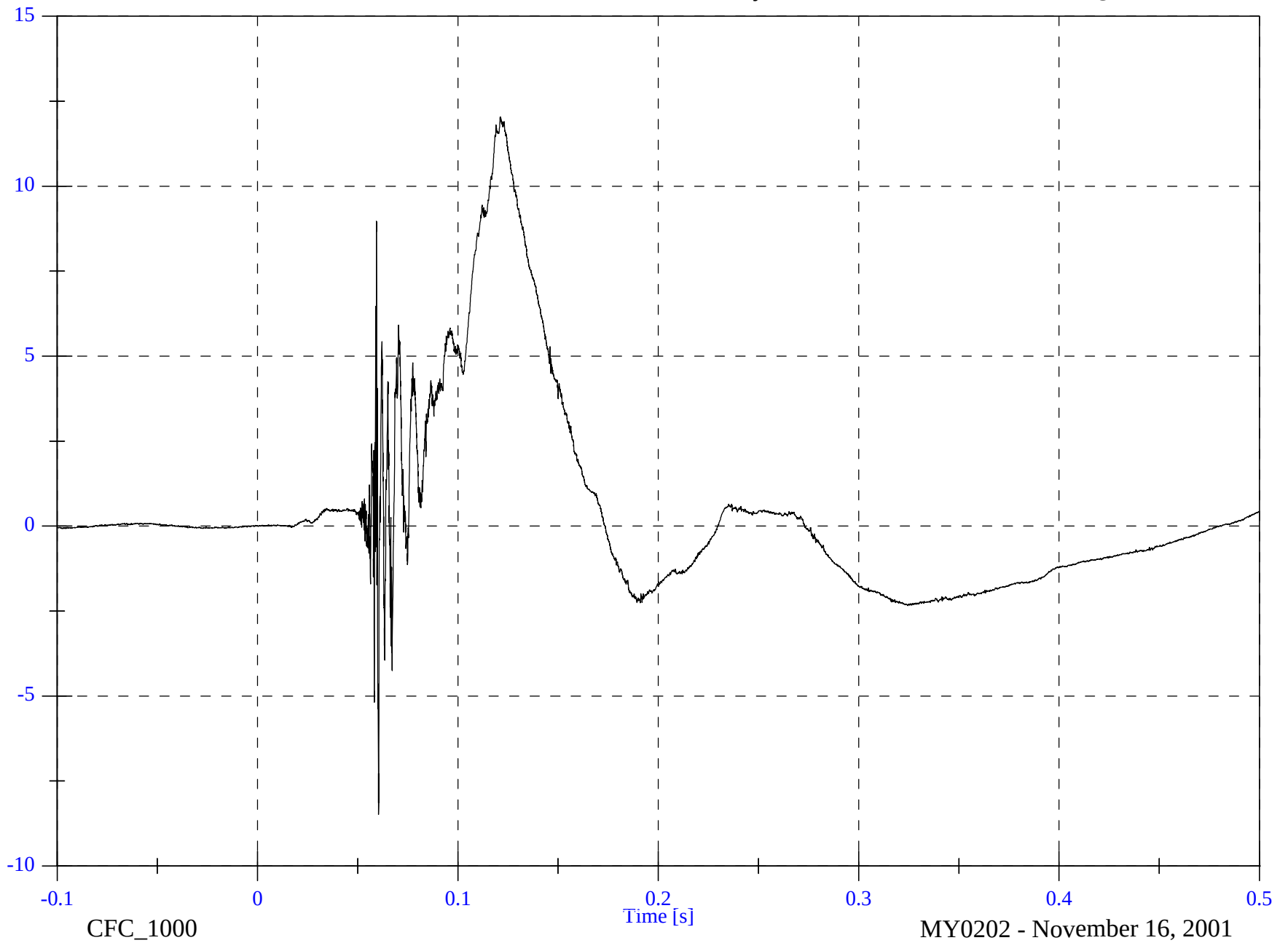


40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Head CG Red Ay

Max: 12.0 [g] at 0.121 [s]

Min: -8.5 [g] at 0.060 [s]



B-21

8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

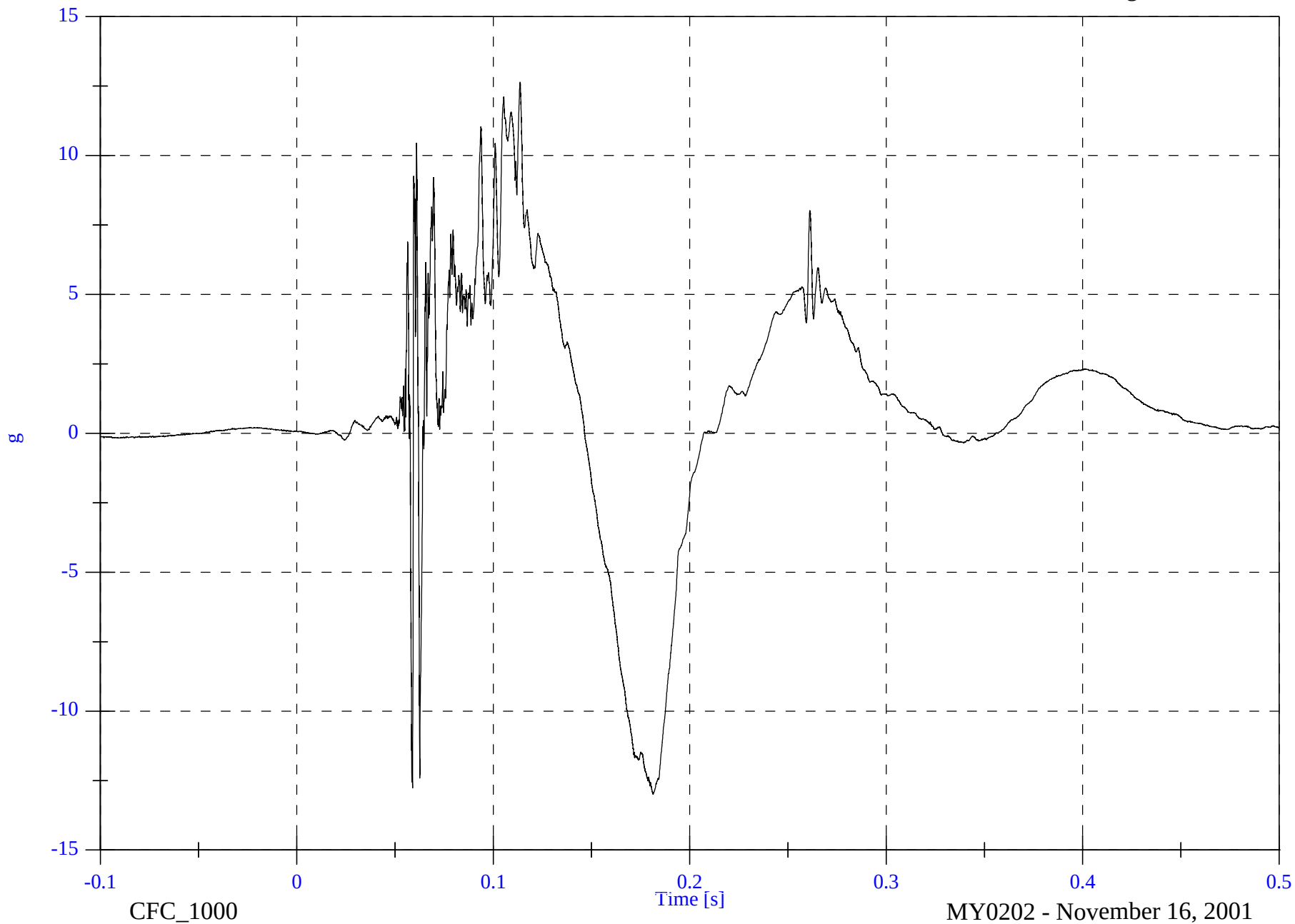
P1 Head CG Red Az

Max: 12.6 [g] at 0.114 [s]

Min: -13.0 [g] at 0.181 [s]

B-22

8413-69

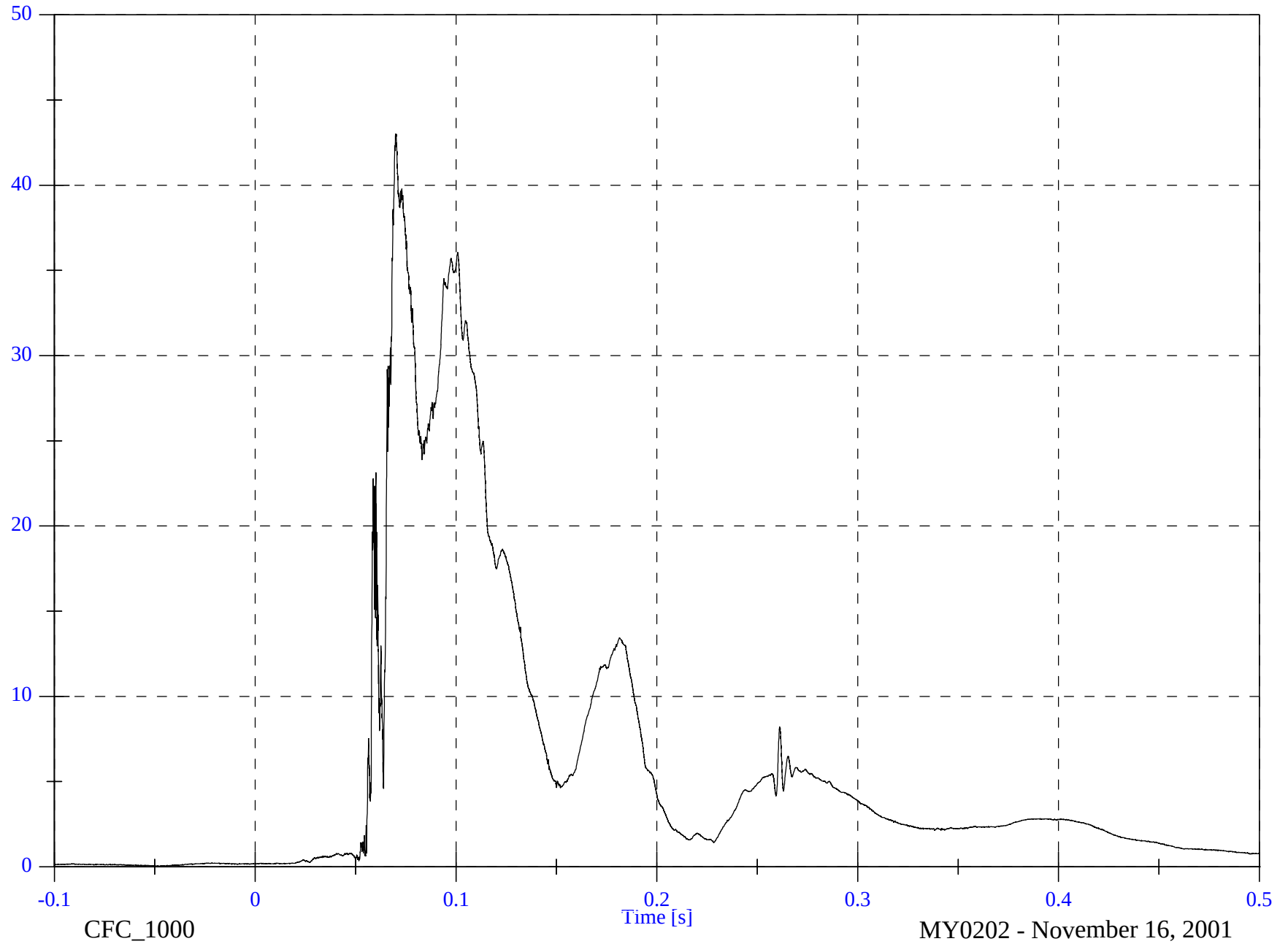


40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Head CG Red A Resultant

Max: 43.0 [g] at 0.070 [s]

Min: 0.0 [g] at -0.048 [s]



B-23

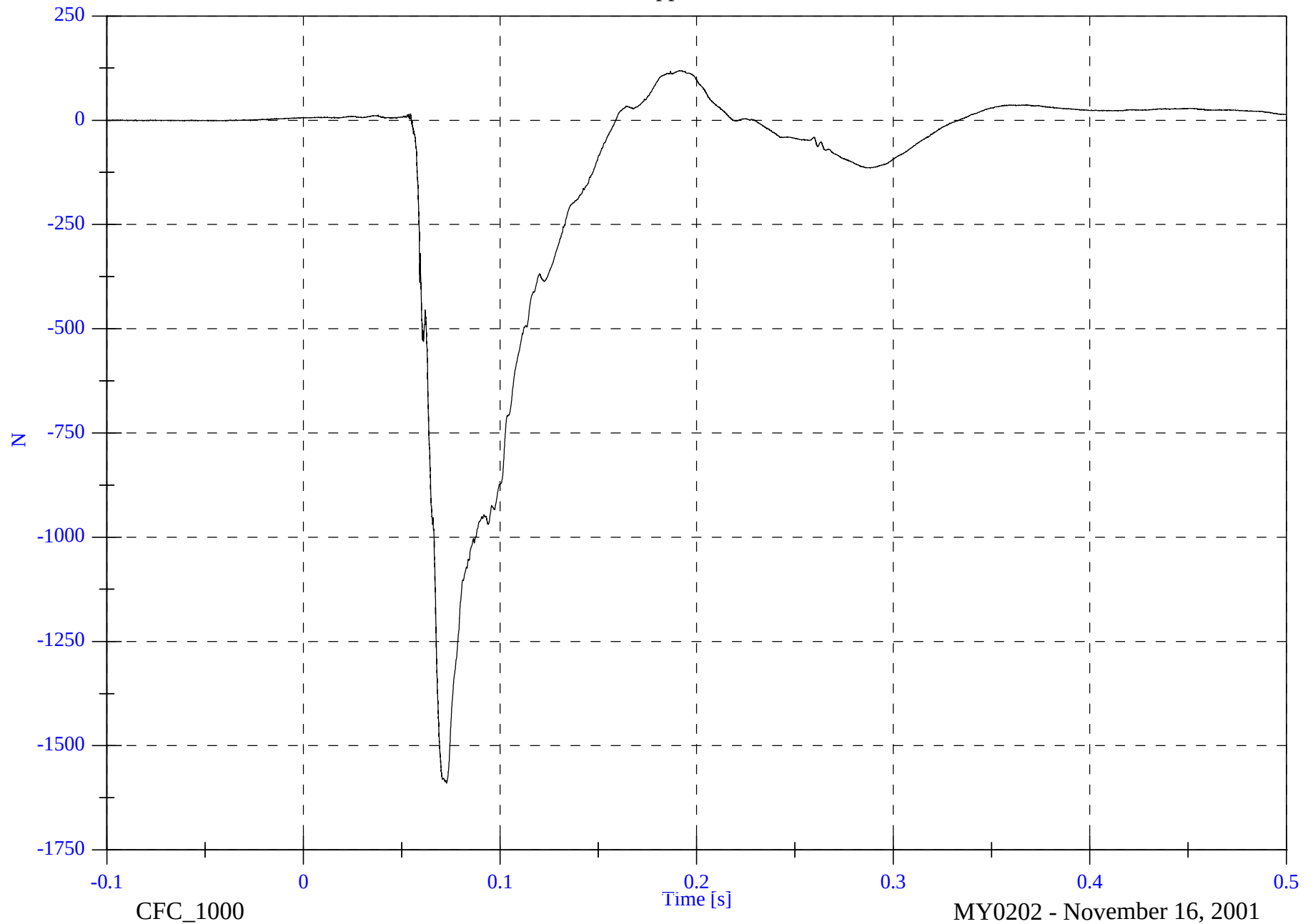
8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Upper Neck Fx

Max: 119.2 [N] at 0.191 [s]

Min: -1590.4 [N] at 0.073 [s]



B-24

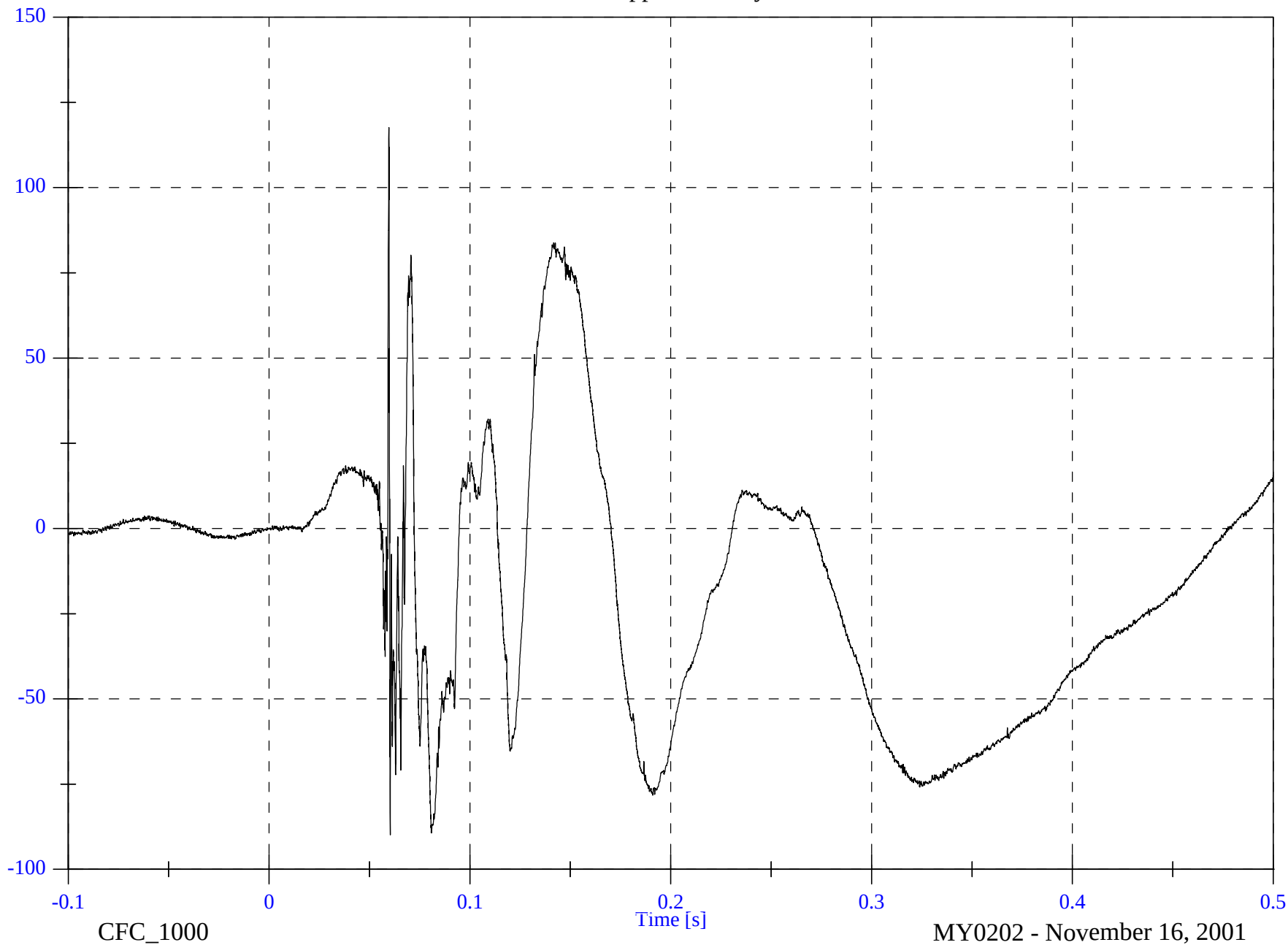
8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Upper Neck Fy

Max: 117.6 [N] at 0.060 [s]

Min: -89.9 [N] at 0.060 [s]



B-25

8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Upper Neck Fz

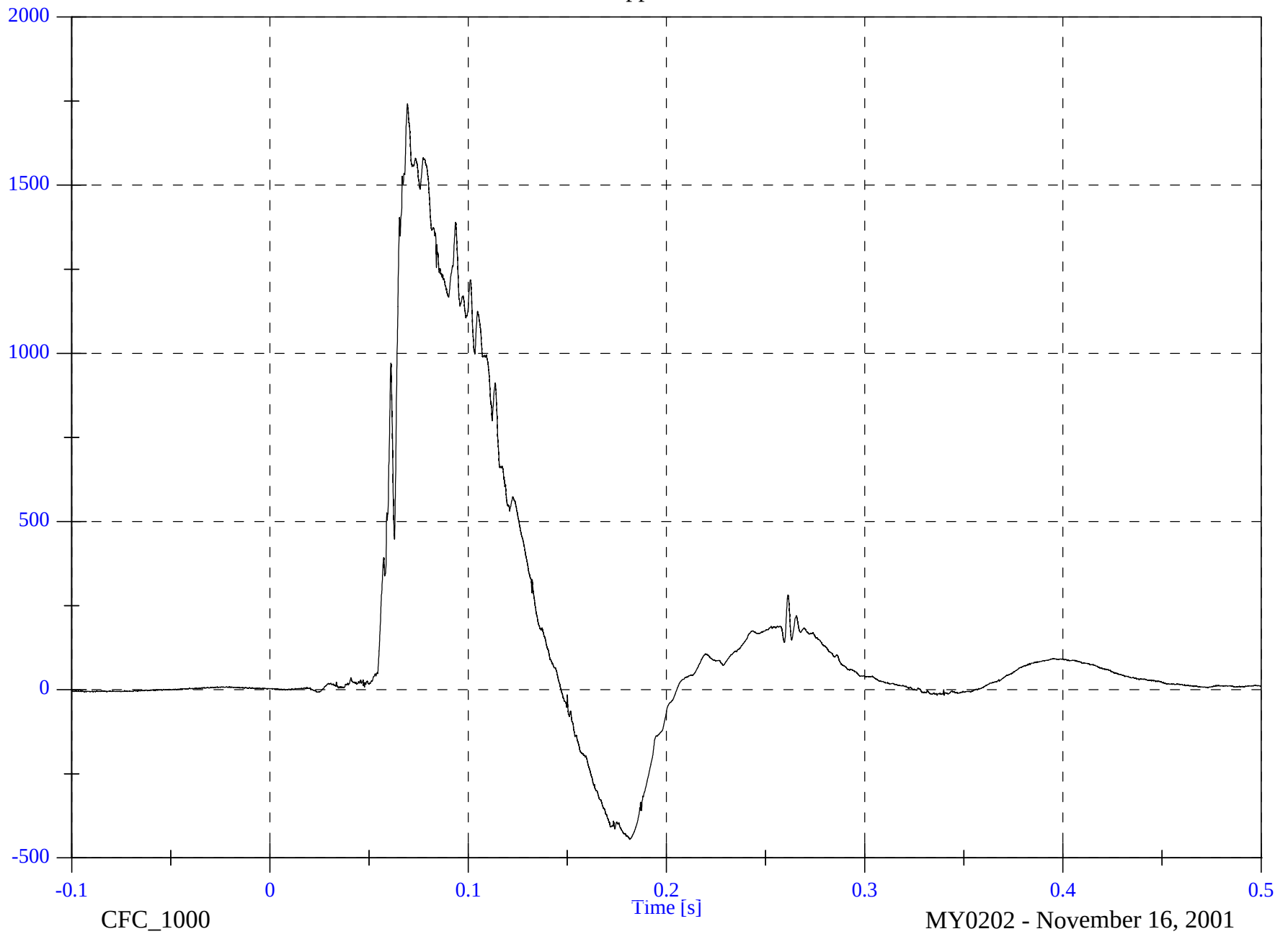
Max: 1741.8 [N] at 0.069 [s]

Min: -444.9 [N] at 0.182 [s]

B-26

N

8413-69



40% Frontal Offset Test #13 - 2000 Ford Explorer

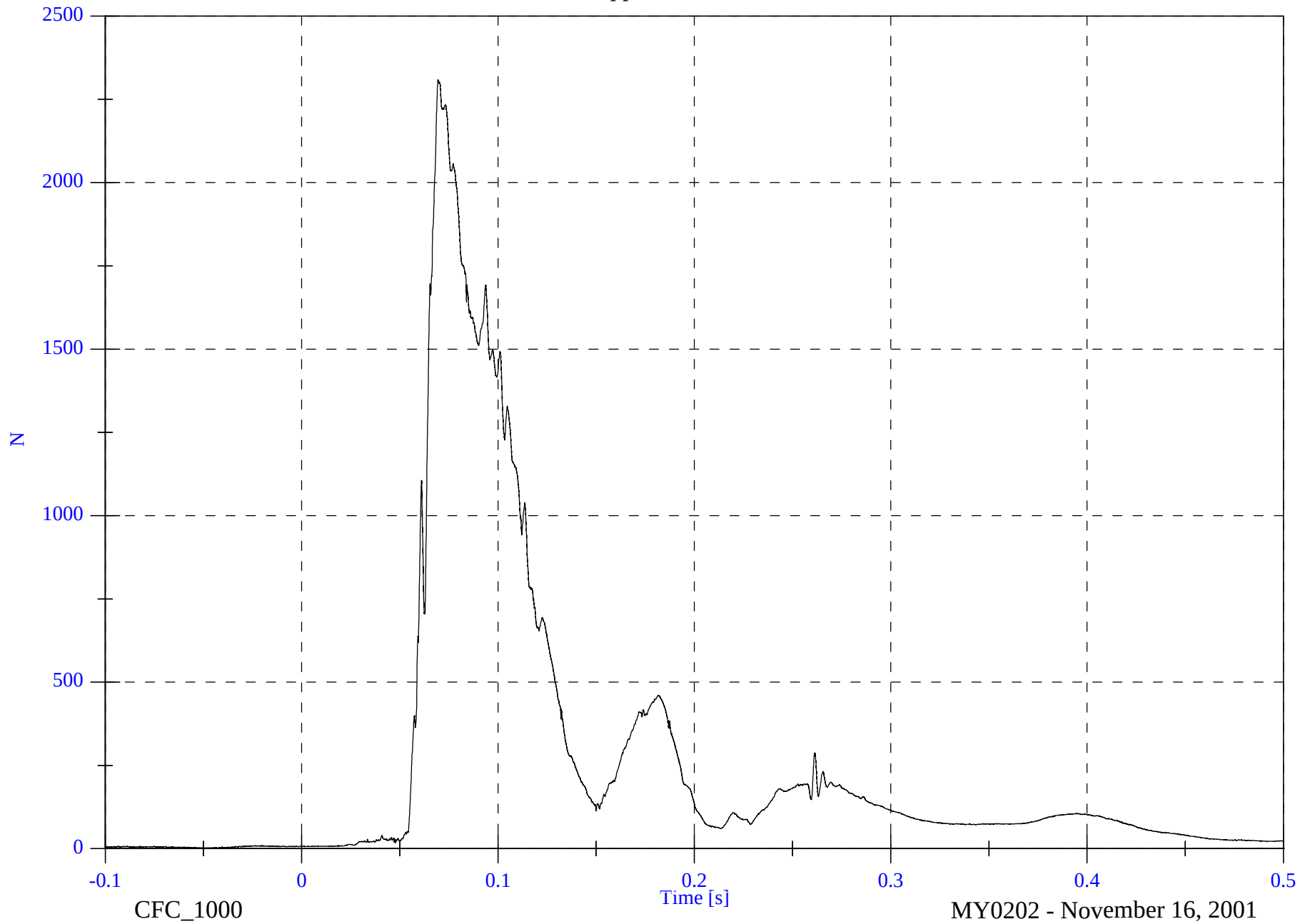
P1 Upper Neck F Resultant

Max: 2308.8 [N] at 0.069 [s]

Min: 1.6 [N] at -0.047 [s]

B-27

8413-69

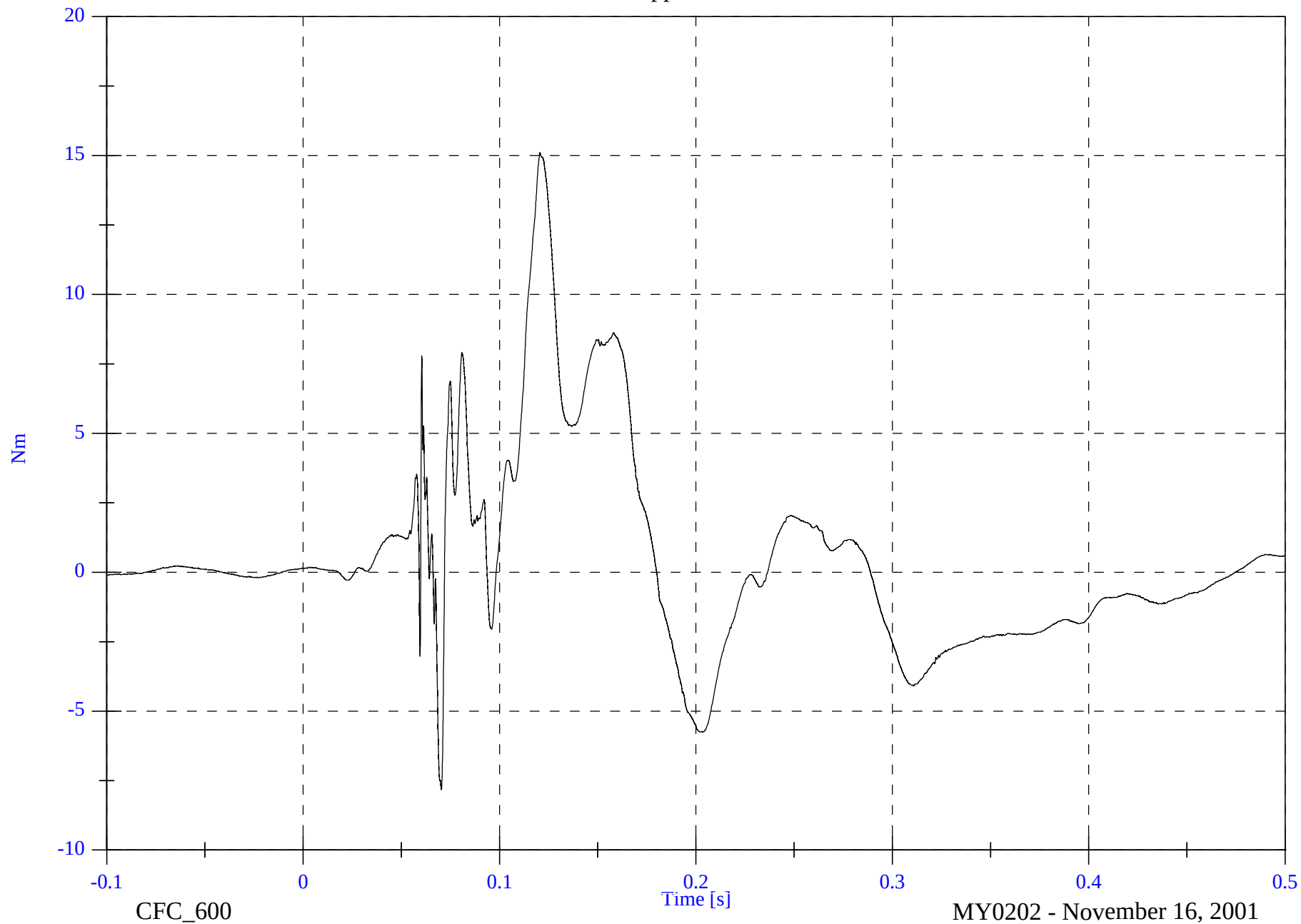


40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Upper Neck Mx

Max: 15.1 [Nm] at 0.121 [s]

Min: -7.8 [Nm] at 0.070 [s]



B-28

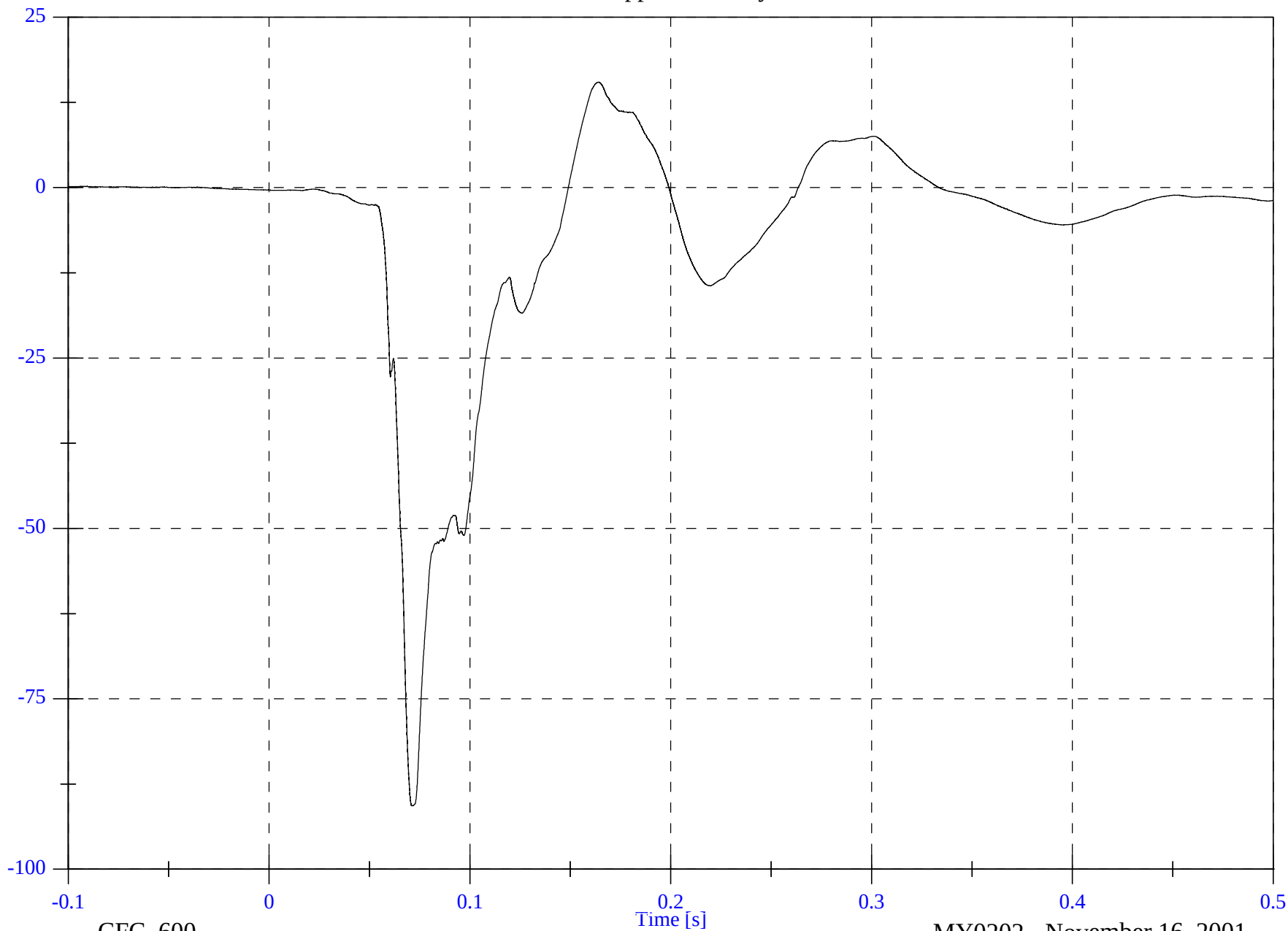
8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Upper Neck My

Max: 15.5 [Nm] at 0.164 [s]

Min: -90.7 [Nm] at 0.071 [s]



B-29

8413-69

CFC_600

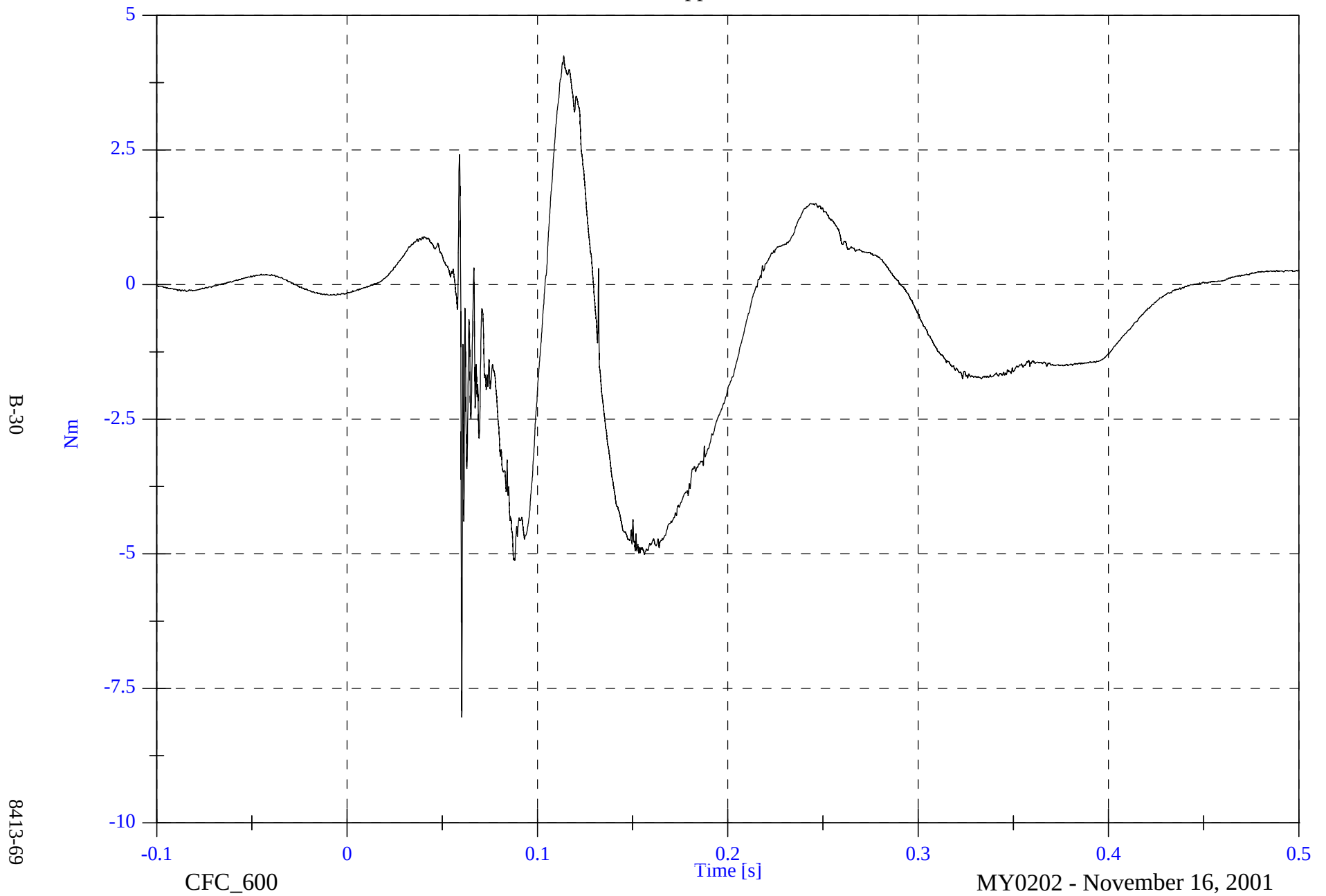
MY0202 - November 16, 2001

40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Upper Neck Mz

Max: 4.3 [Nm] at 0.114 [s]

Min: -8.0 [Nm] at 0.060 [s]

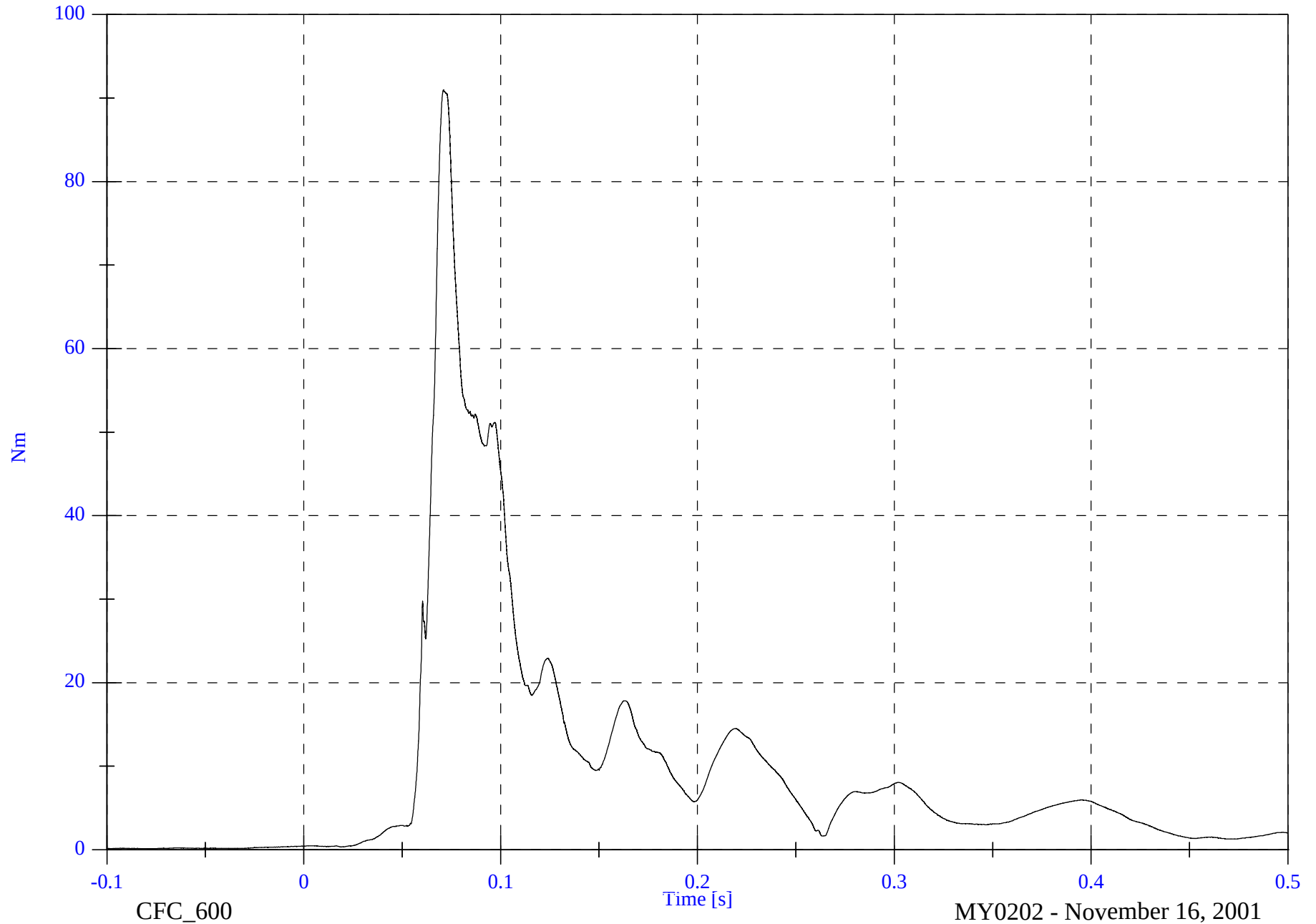


40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Upper Neck M Resultant

Max: 91.0 [Nm] at 0.071 [s]

Min: 0.1 [Nm] at -0.077 [s]



40% Frontal Offset Test #13 - 2000 Ford Explorer

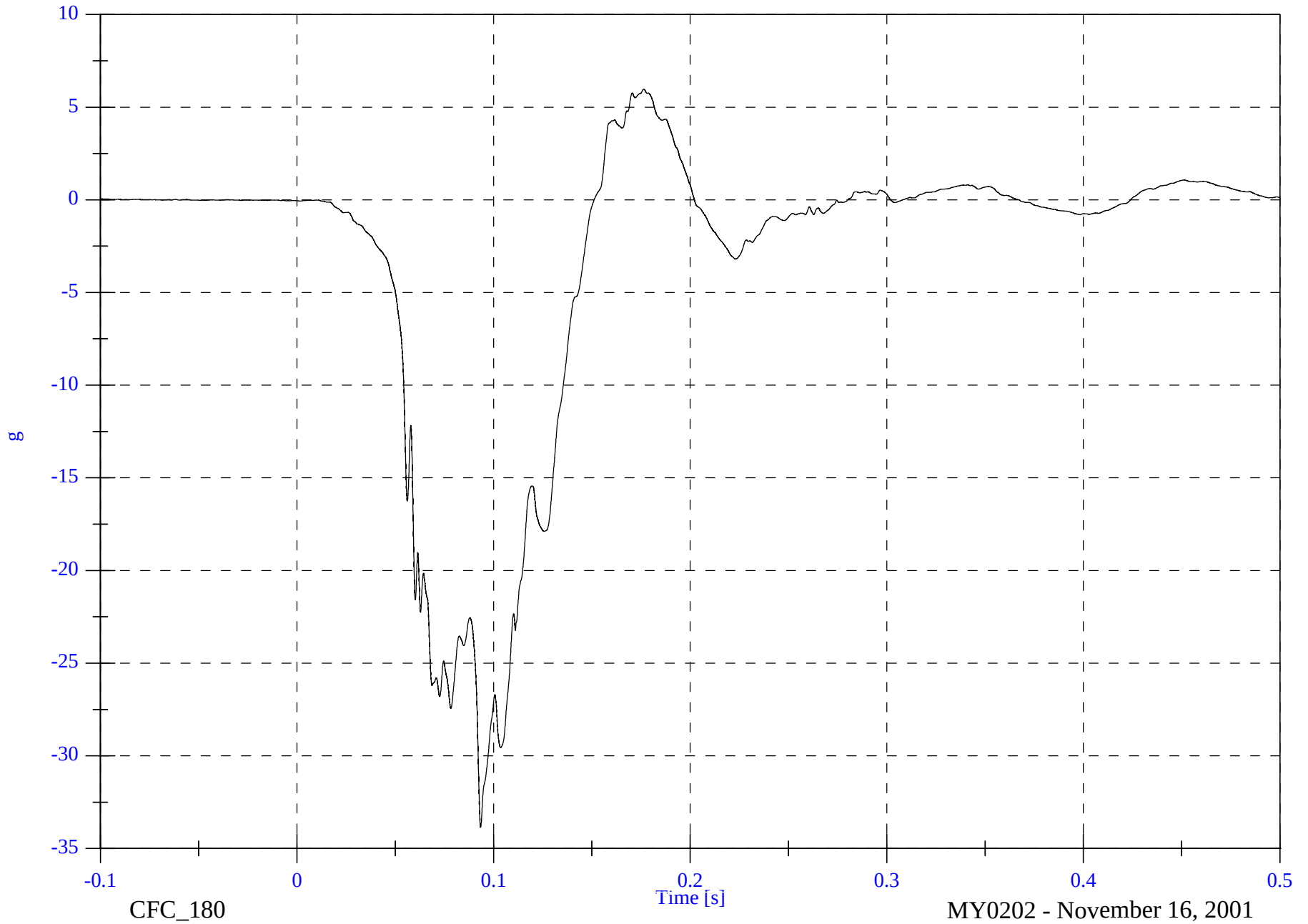
P1 Chest Ax

Max: 6.0 [g] at 0.176 [s]

Min: -33.9 [g] at 0.093 [s]

B-32

8413-69



40% Frontal Offset Test #13 - 2000 Ford Explorer

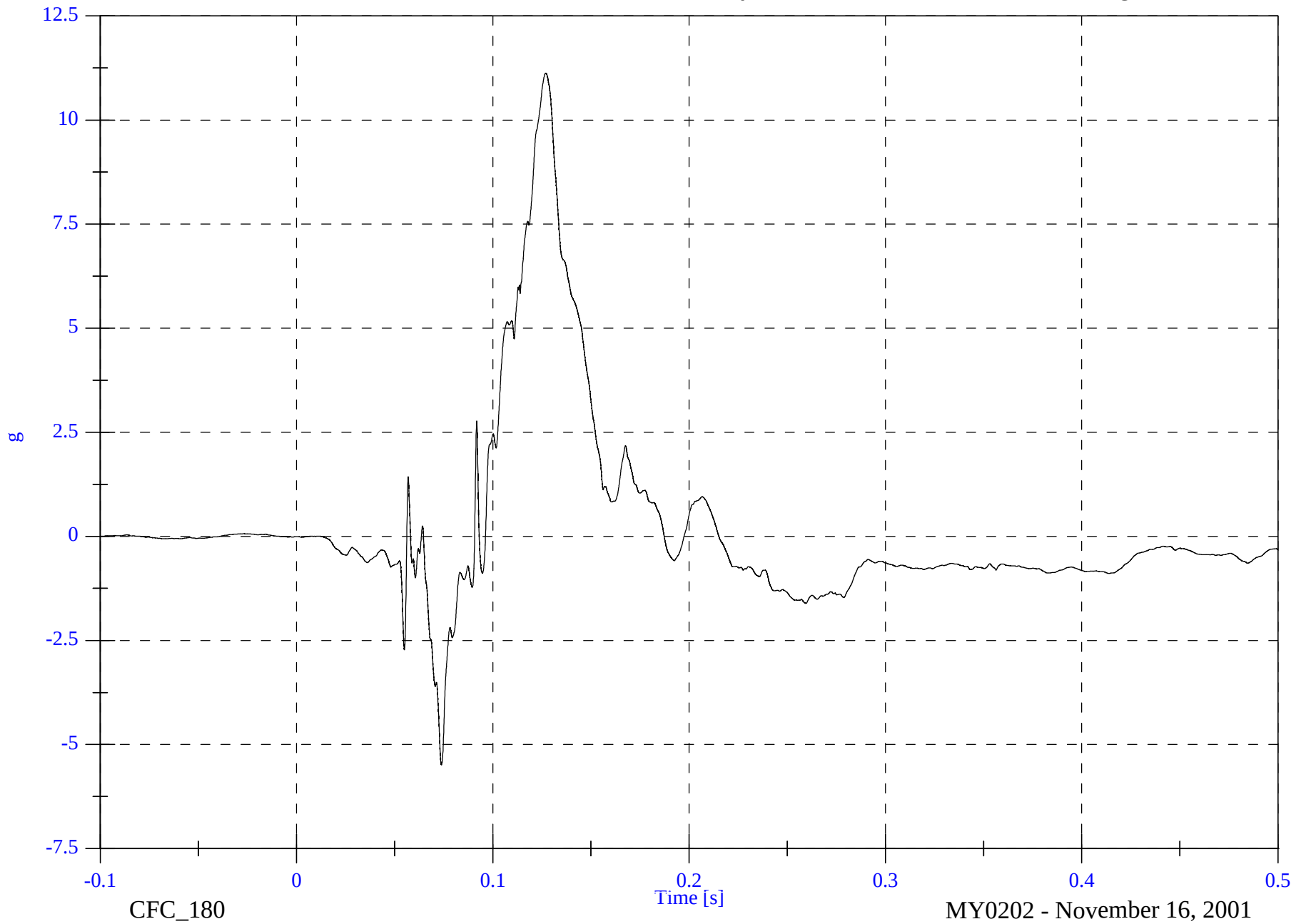
P1 Chest Ay

Max: 11.1 [g] at 0.127 [s]

Min: -5.5 [g] at 0.074 [s]

B-33

8413-69



40% Frontal Offset Test #13 - 2000 Ford Explorer

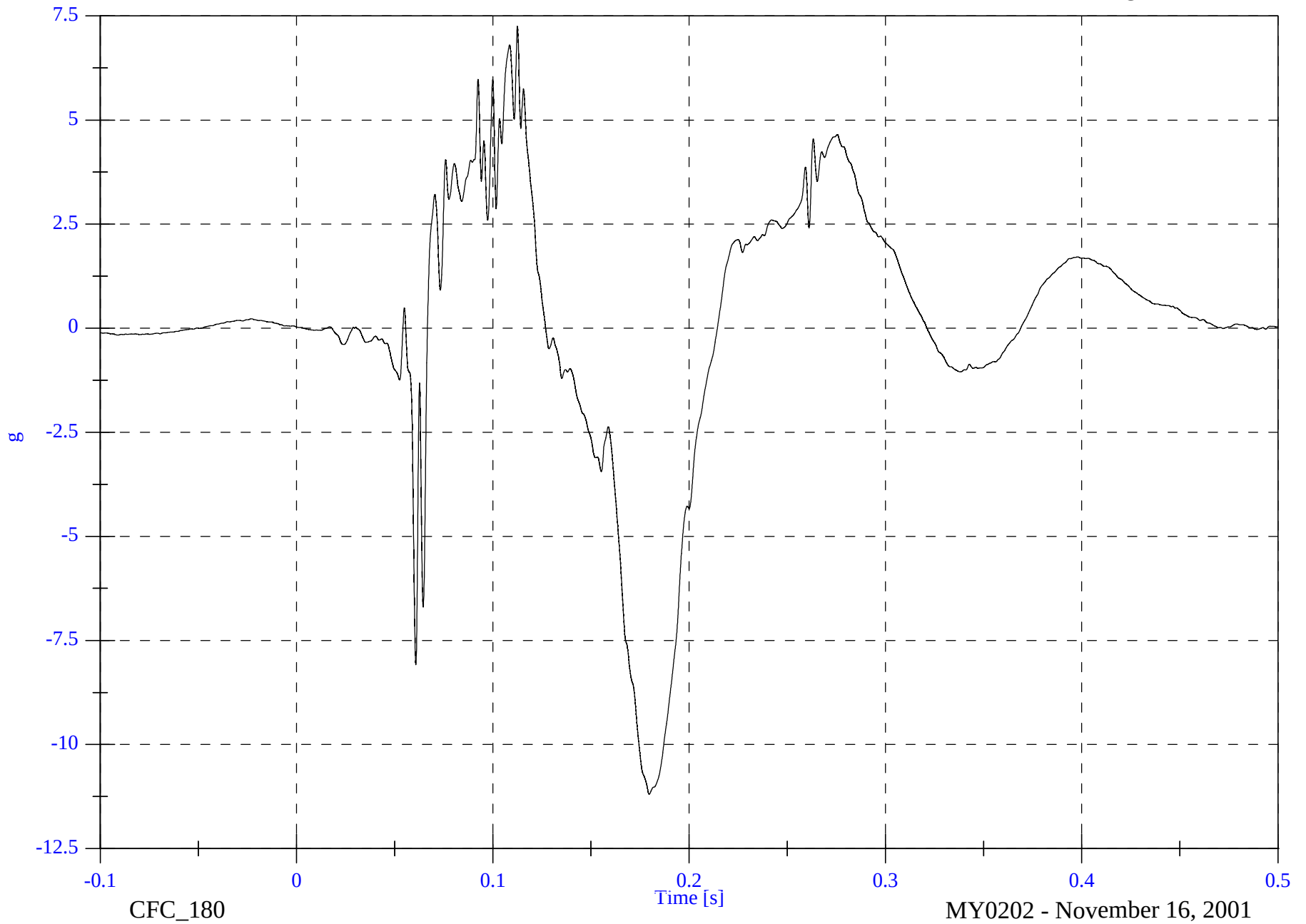
P1 Chest Az

Max: 7.3 [g] at 0.112 [s]

Min: -11.2 [g] at 0.180 [s]

B-34

8413-69

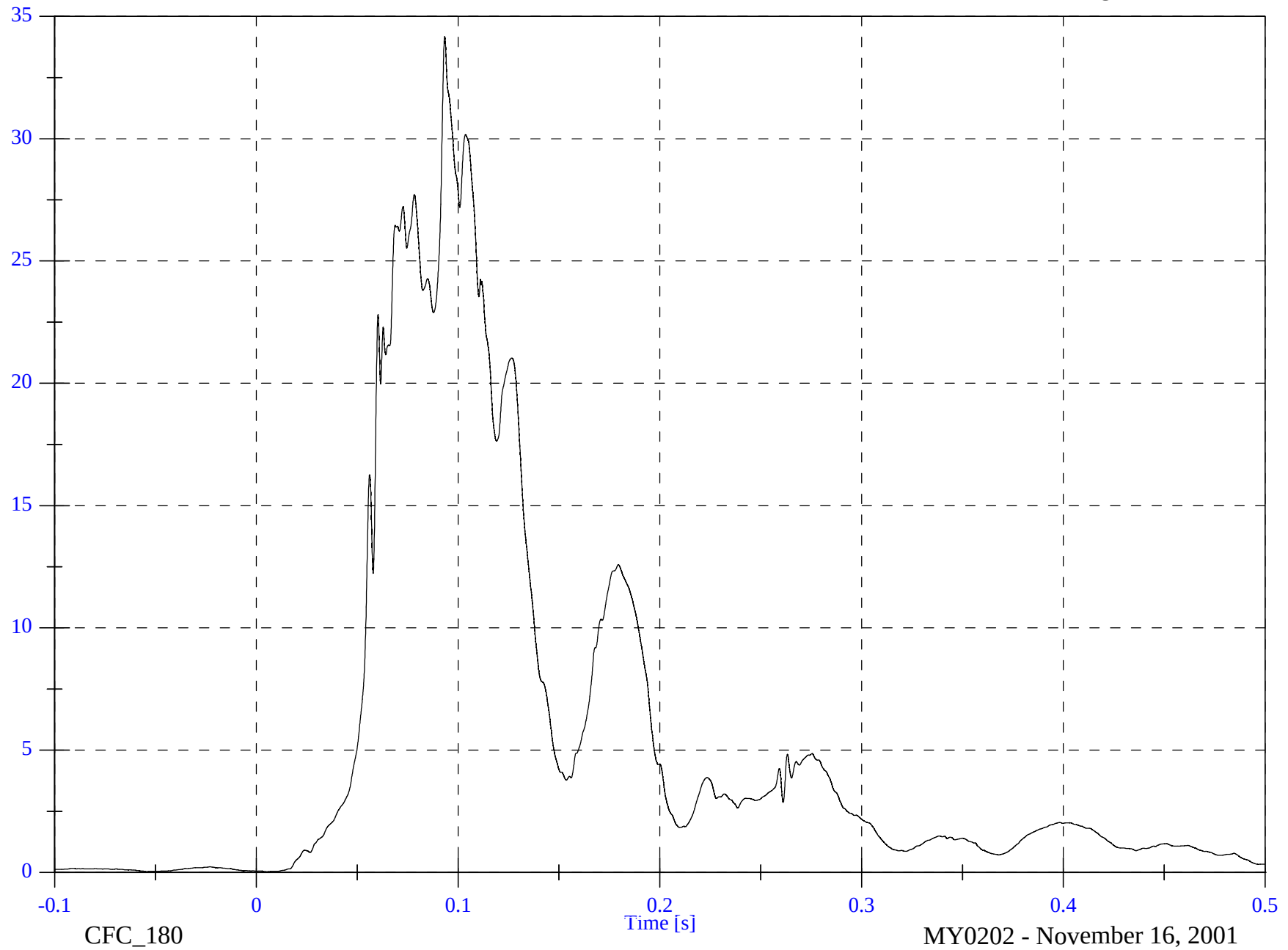


40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Chest A Resultant

Max: 34.2 [g] at 0.093 [s]

Min: 0.0 [g] at 0.005 [s]



B-35

8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

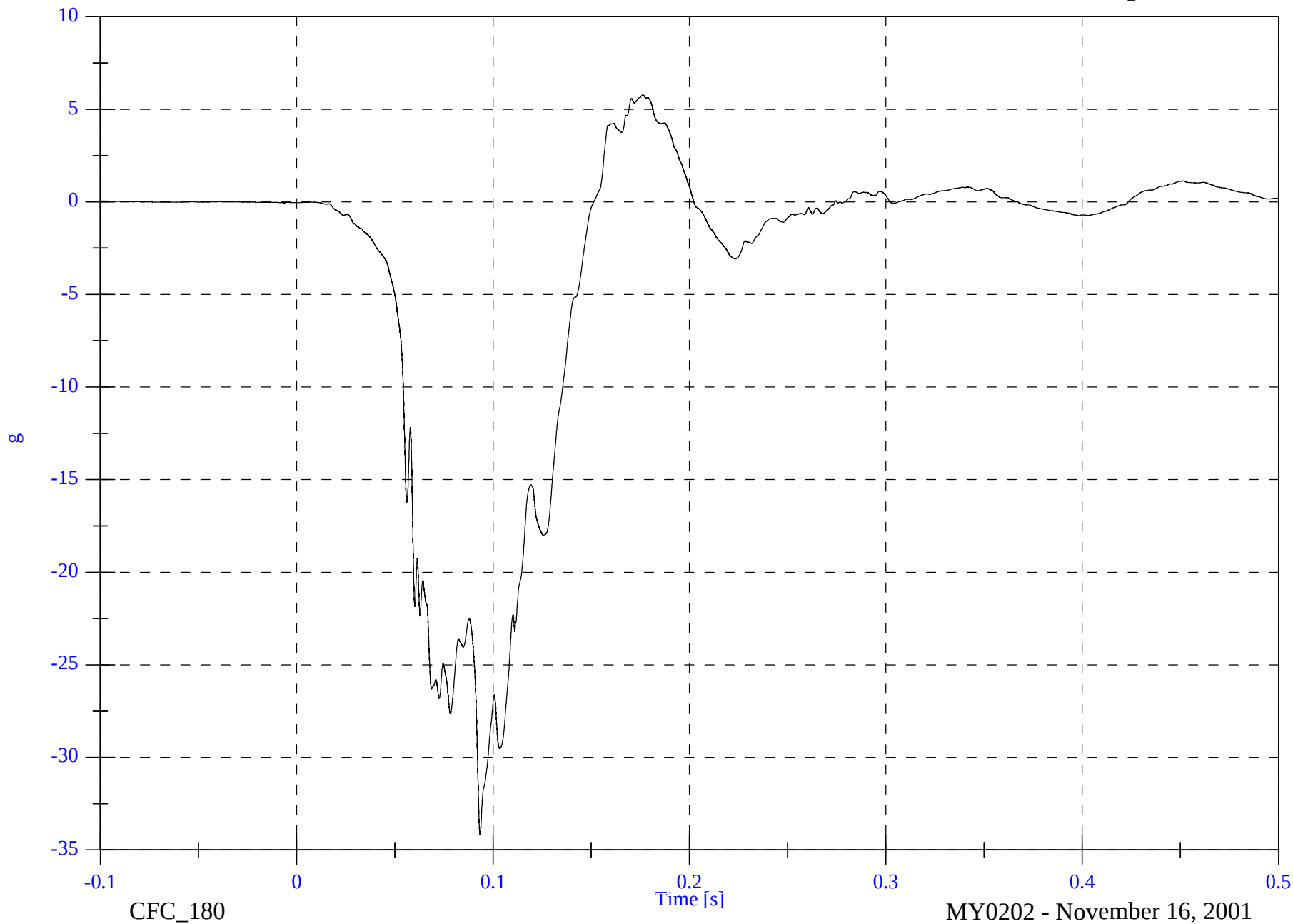
P1 Chest Red Ax

Max: 5.8 [g] at 0.176 [s]

Min: -34.2 [g] at 0.093 [s]

B-36

8413-69



40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Chest Red Ay

Max: 11.0 [g] at 0.127 [s]

Min: -5.7 [g] at 0.074 [s]

B-37

8413-69

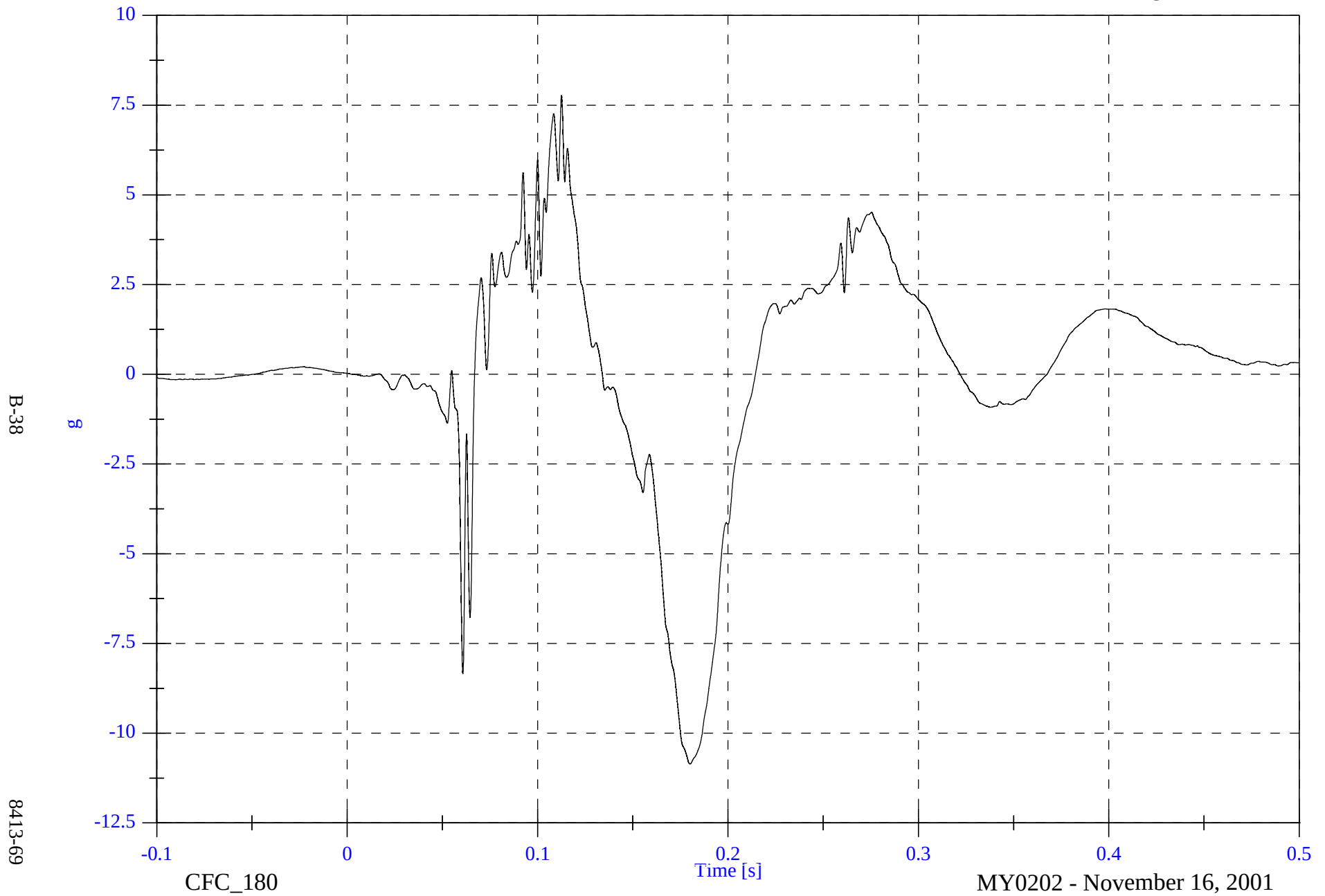


40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Chest Red Az

Max: 7.8 [g] at 0.112 [s]

Min: -10.9 [g] at 0.180 [s]

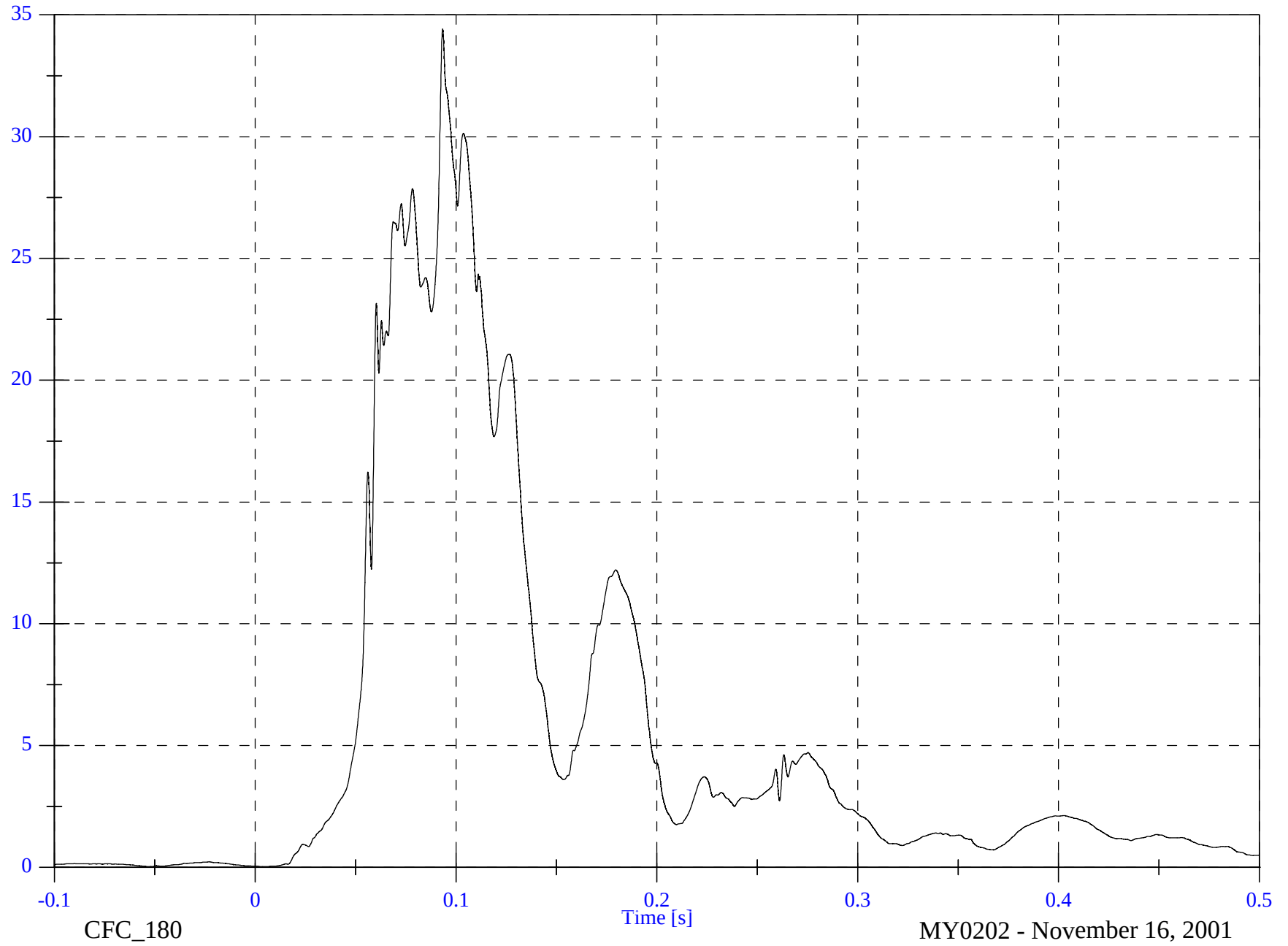


40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Chest Red A Resultant

Max: 34.4 [g] at 0.093 [s]

Min: 0.0 [g] at -0.054 [s]

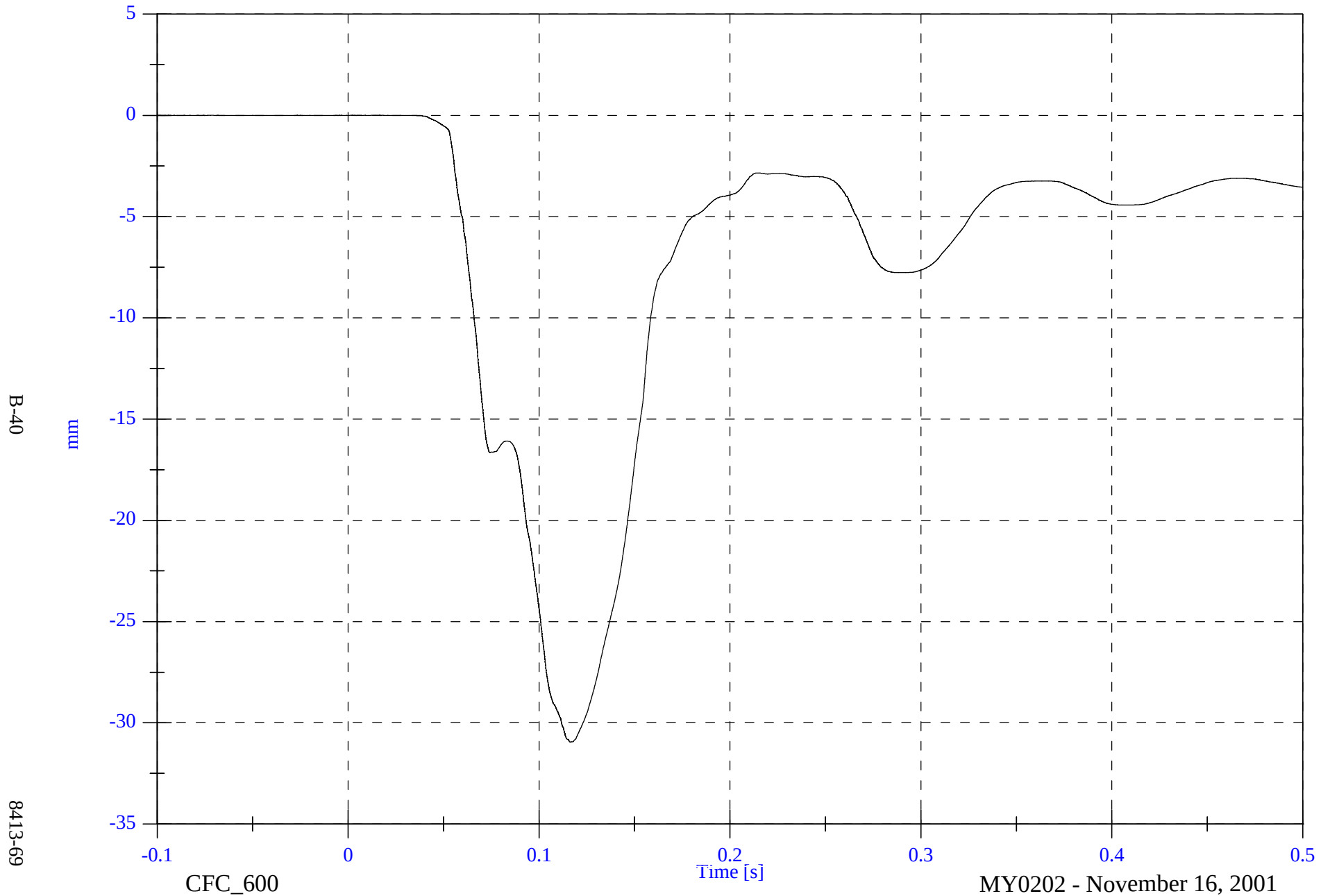


40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Chest Displacement

Max: 0.0 [mm] at -0.006 [s]

Min: -31.0 [mm] at 0.116 [s]



40% Frontal Offset Test #13 - 2000 Ford Explorer

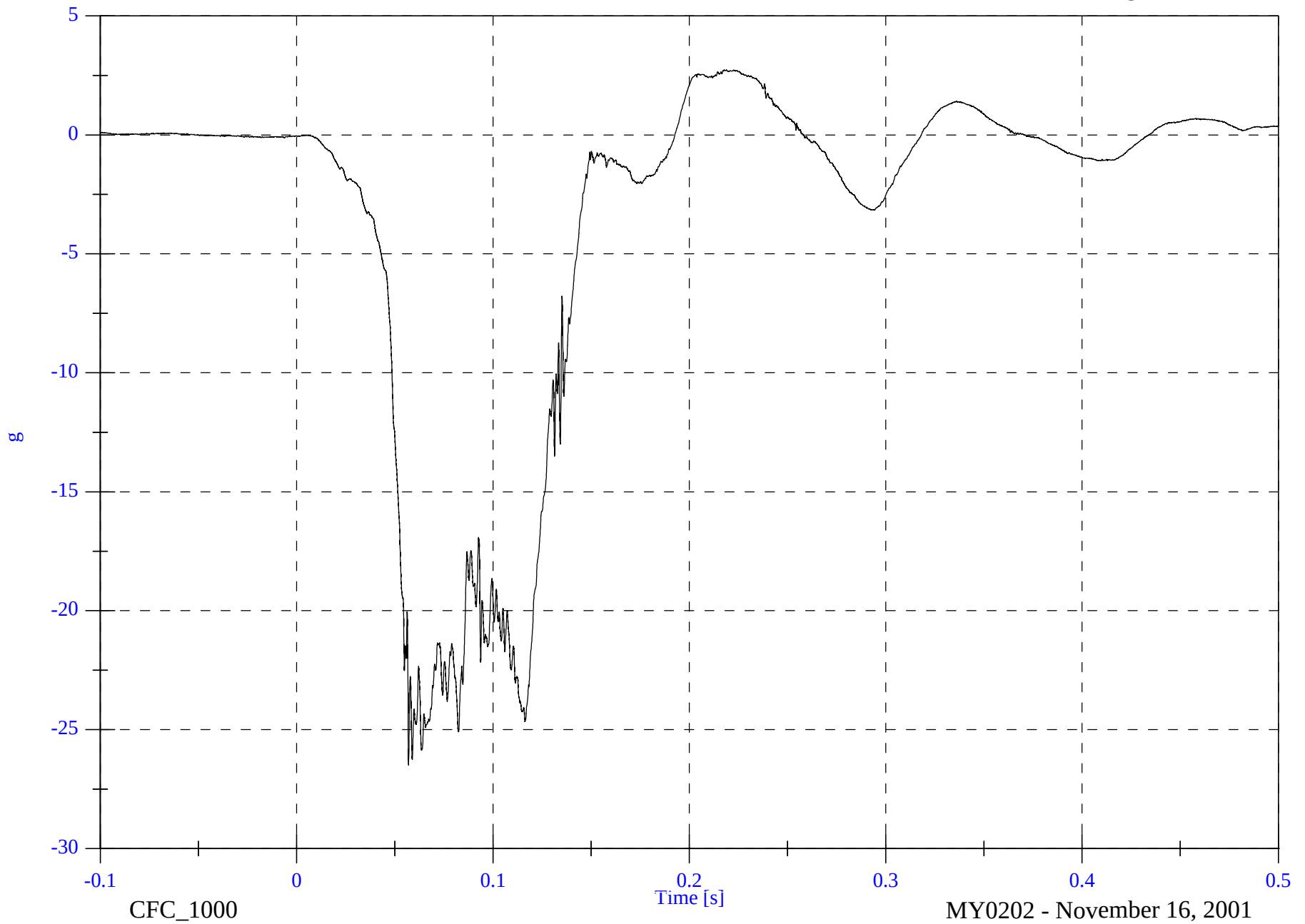
P1 Pelvic Ax

Max: 2.7 [g] at 0.223 [s]

Min: -26.5 [g] at 0.057 [s]

B-41

8413-69

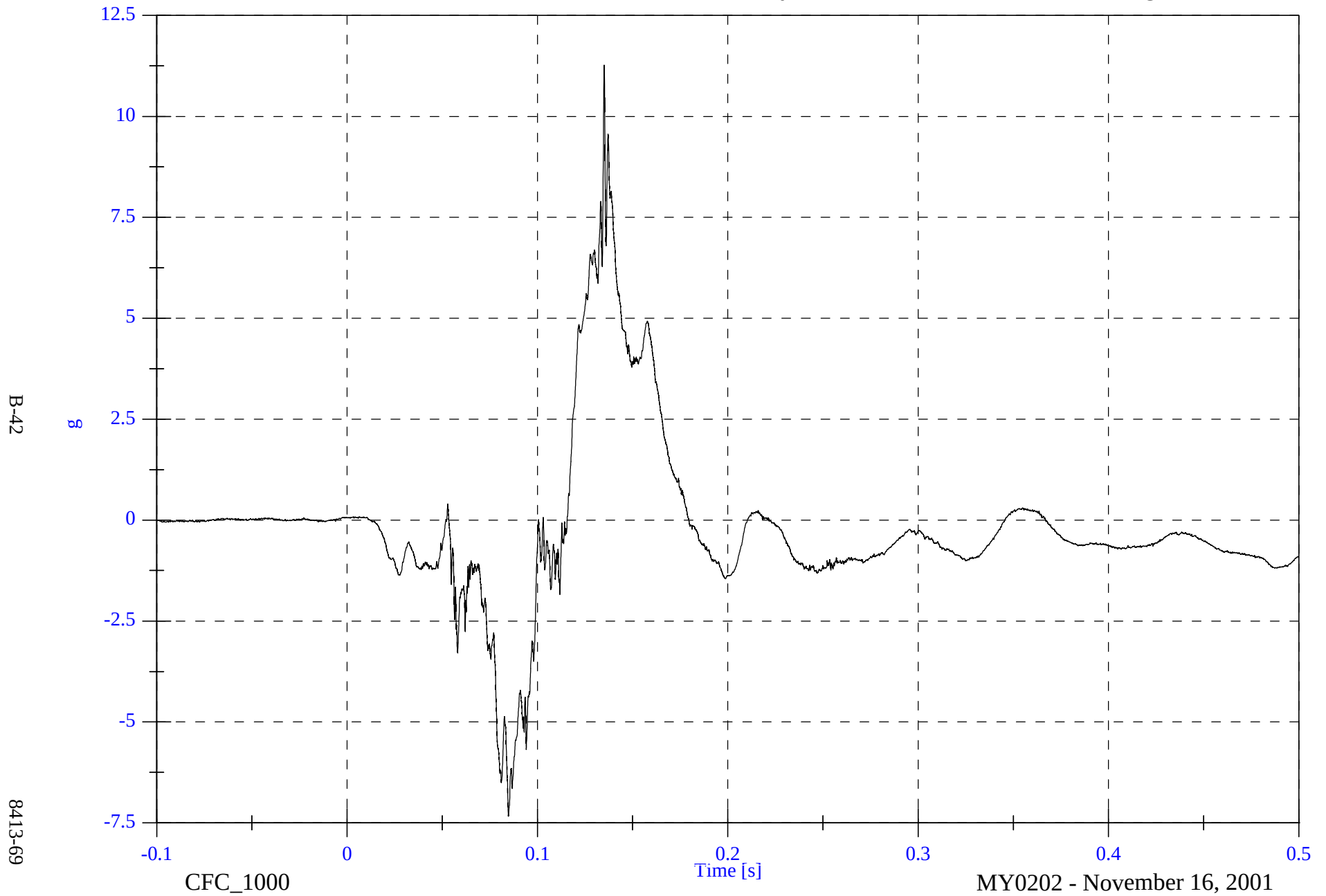


40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Pelvic Ay

Max: 11.3 [g] at 0.135 [s]

Min: -7.3 [g] at 0.085 [s]

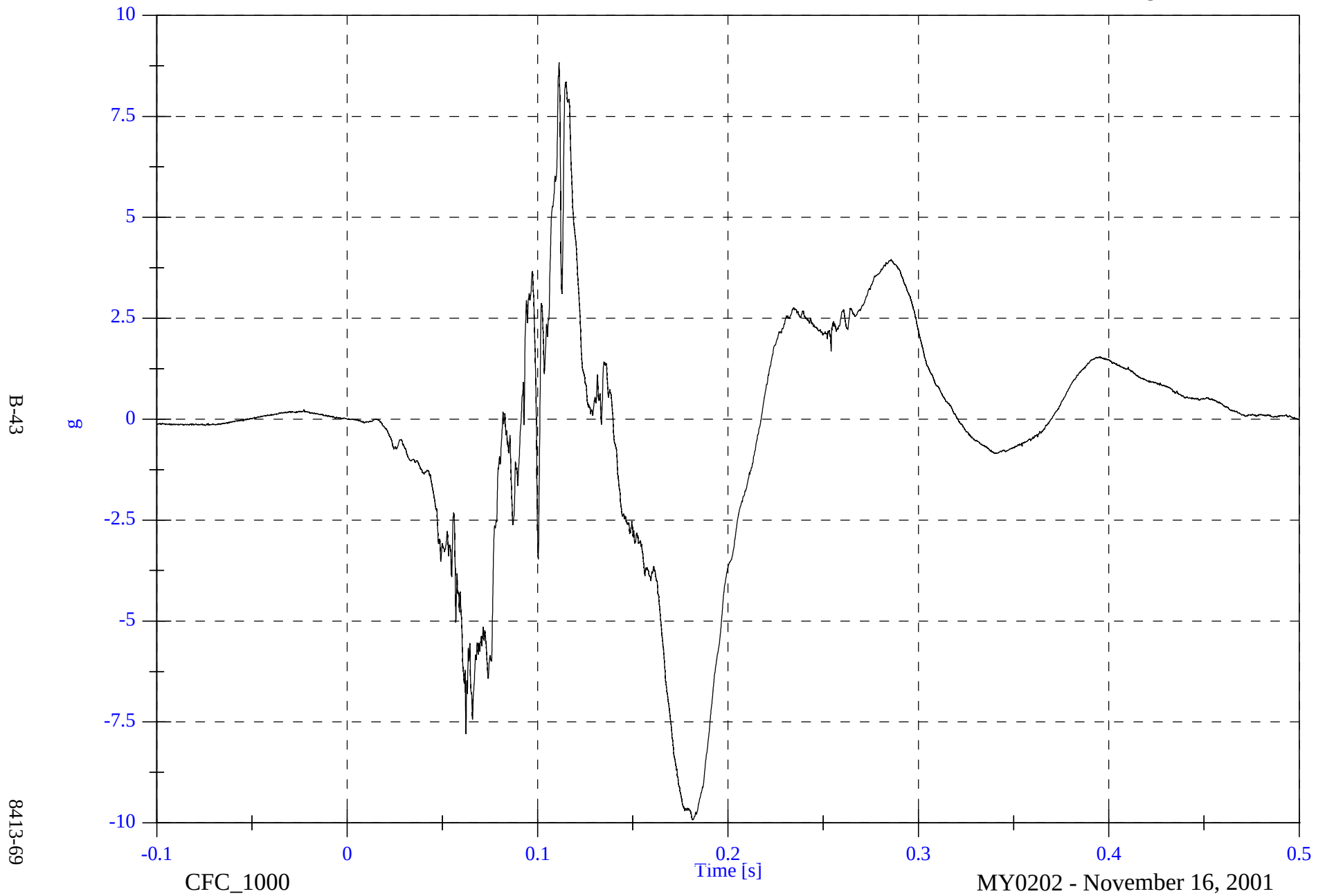


40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Pelvic Az

Max: 8.8 [g] at 0.111 [s]

Min: -9.9 [g] at 0.181 [s]

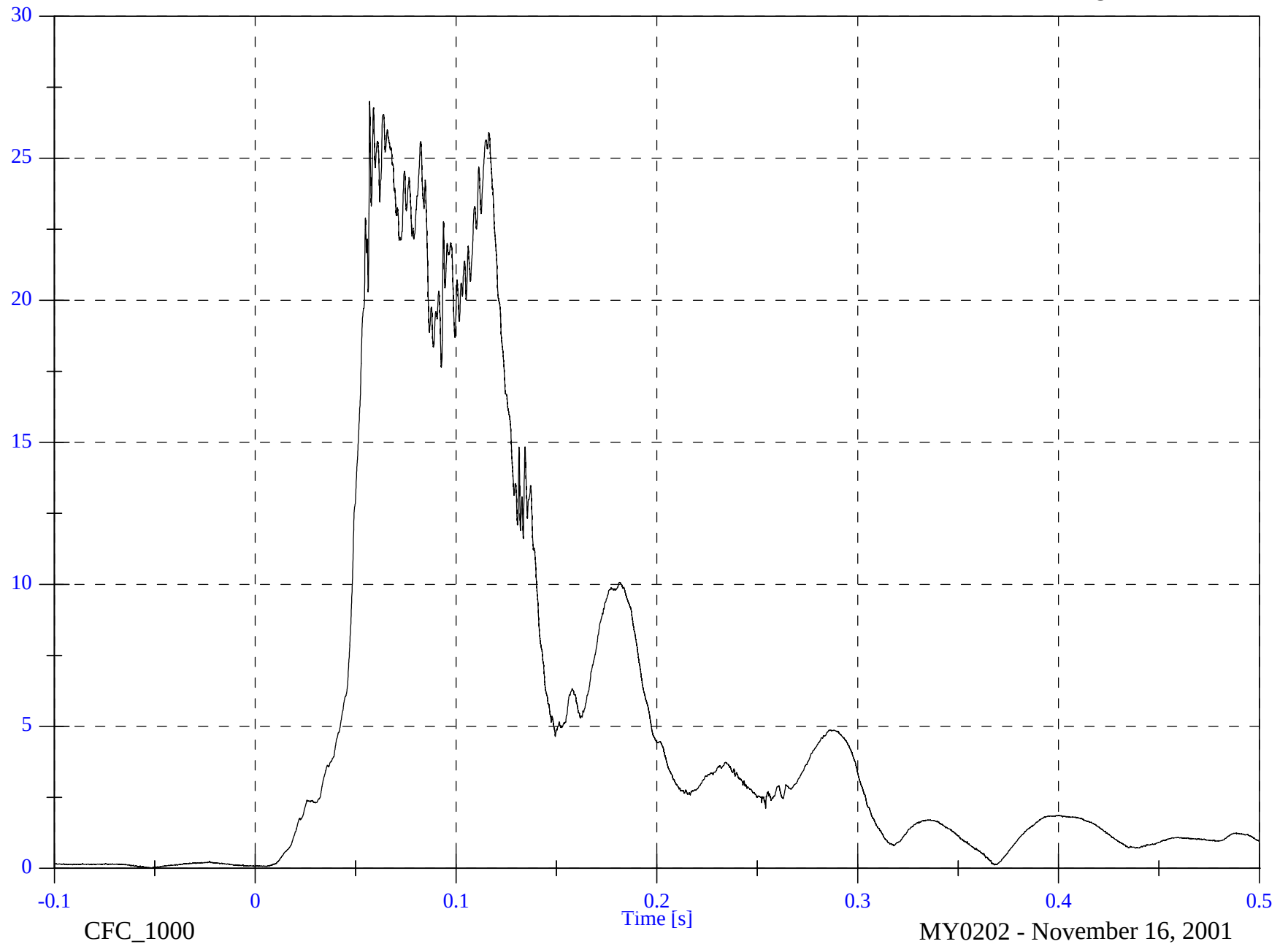


40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Pelvic A Resultant

Max: 27.0 [g] at 0.057 [s]

Min: 0.0 [g] at -0.052 [s]



B-44

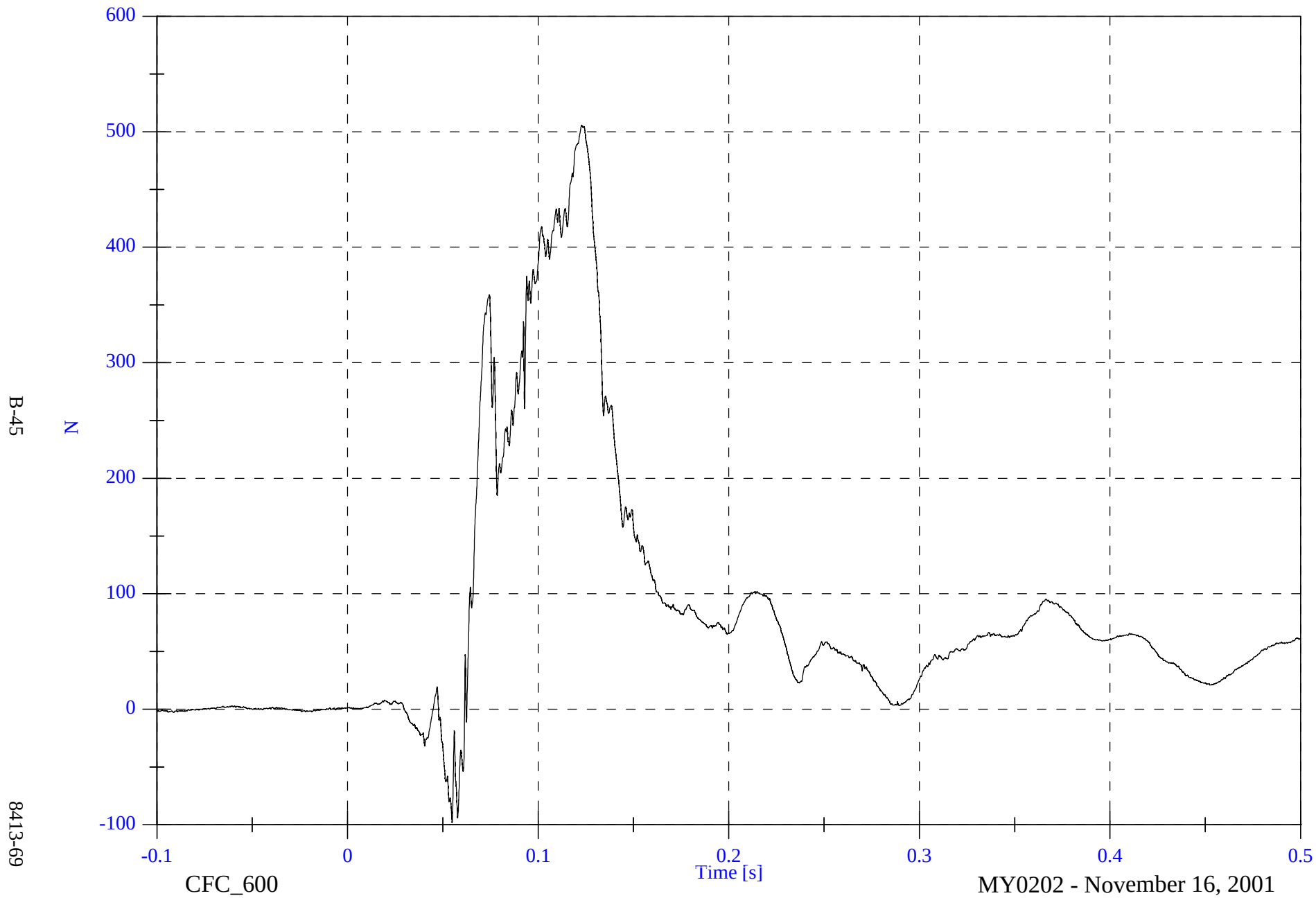
8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Left Femur Fx

Max: 505.6 [N] at 0.123 [s]

Min: -98.1 [N] at 0.055 [s]

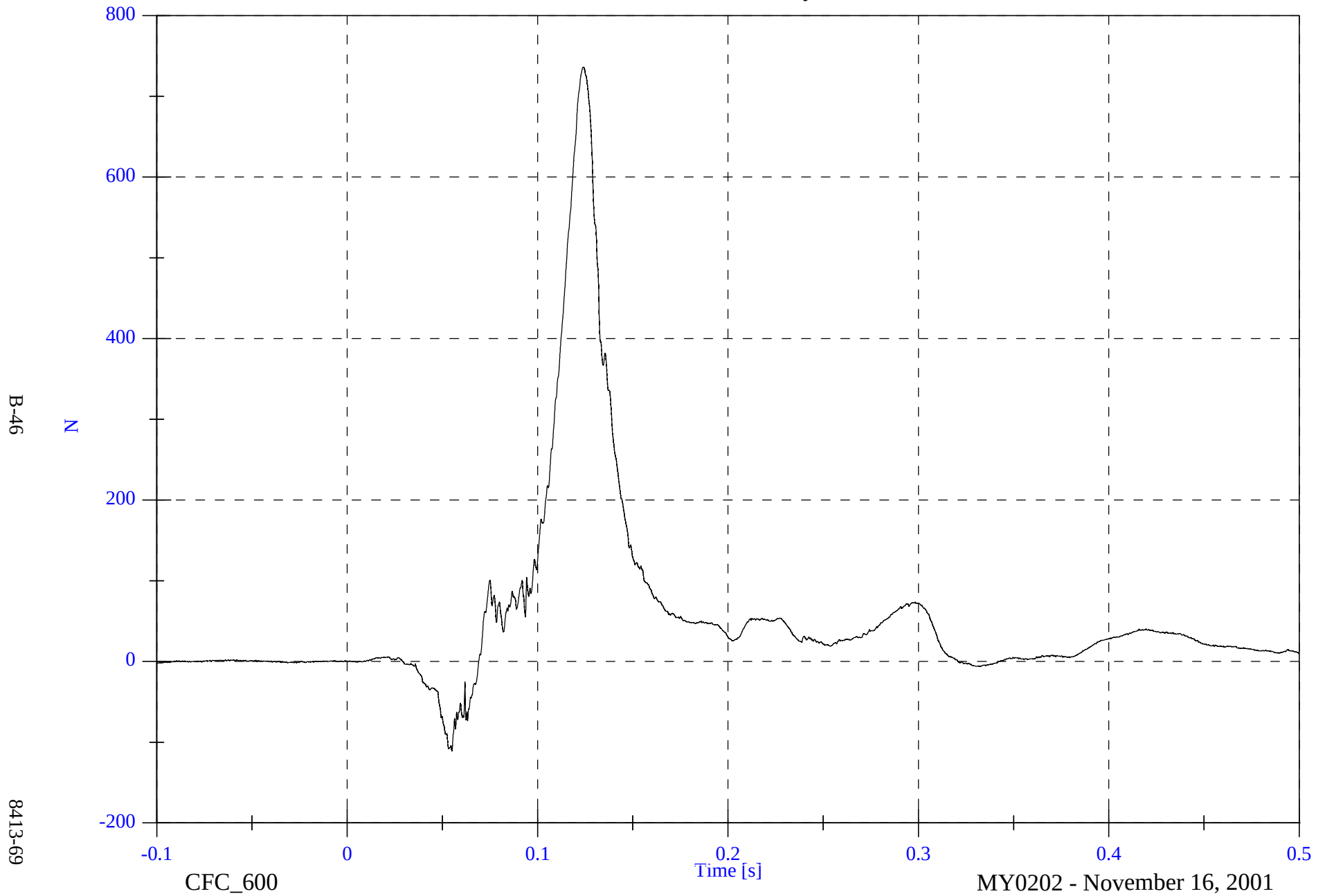


40% Frontal Offset Test #13 - 2000 Ford Explorer

Max: 736.0 [N] at 0.124 [s]

P1 Left Femur Fy

Min: -111.0 [N] at 0.055 [s]

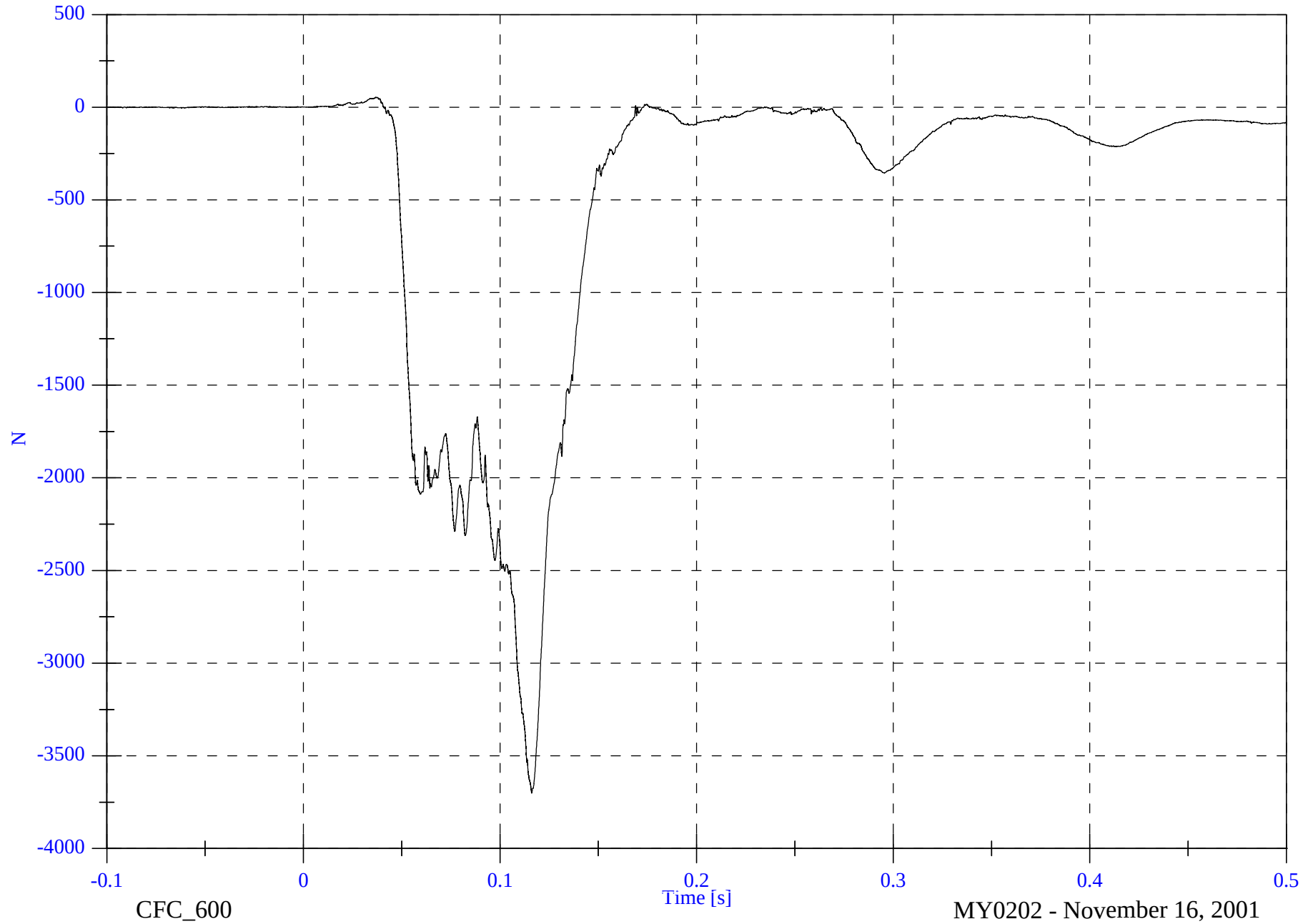


40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Left Femur Fz

Max: 53.2 [N] at 0.037 [s]

Min: -3700.8 [N] at 0.116 [s]



B-47

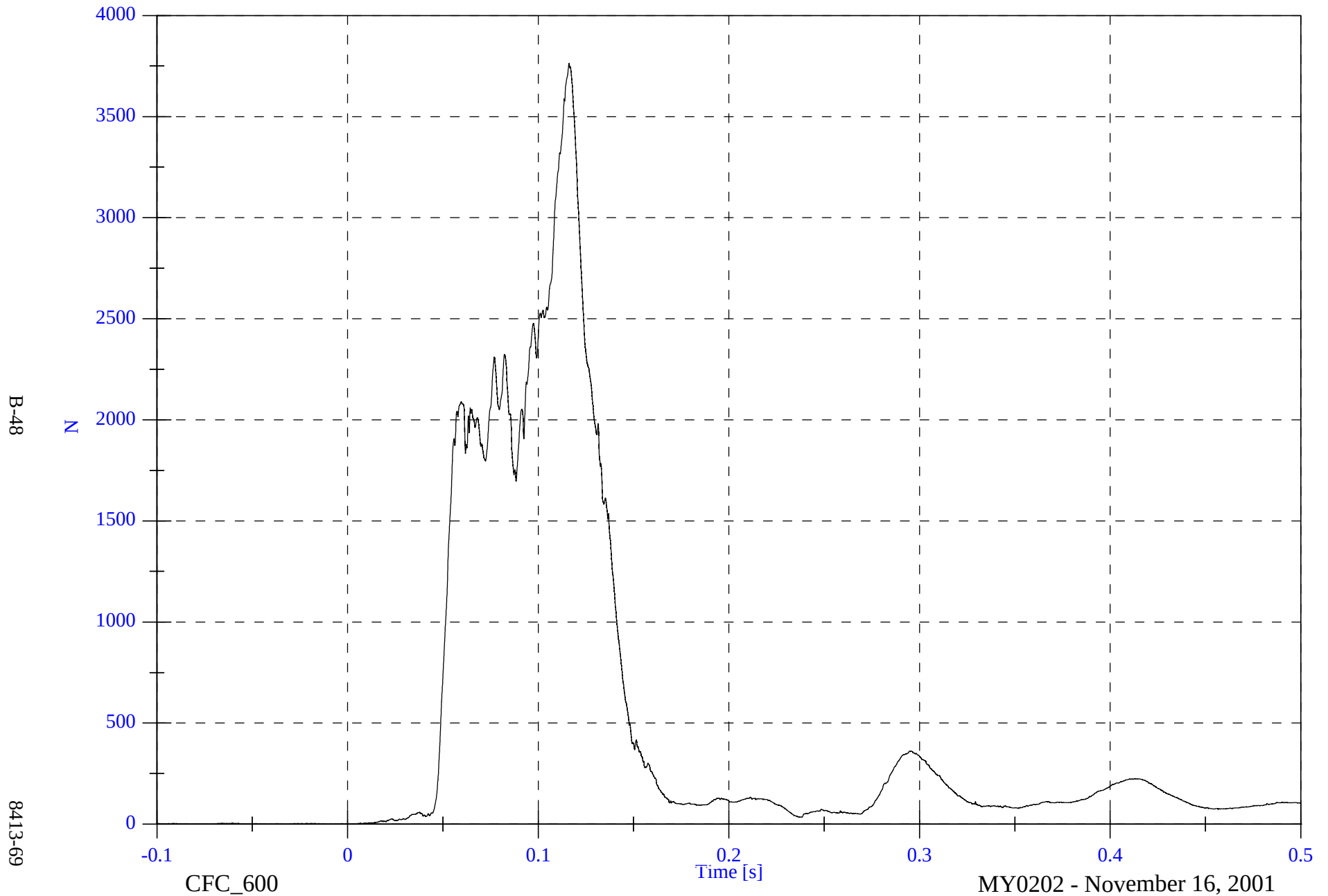
8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Left Femur F Resultant

Max: 3763.7 [N] at 0.116 [s]

Min: 0.1 [N] at -0.077 [s]

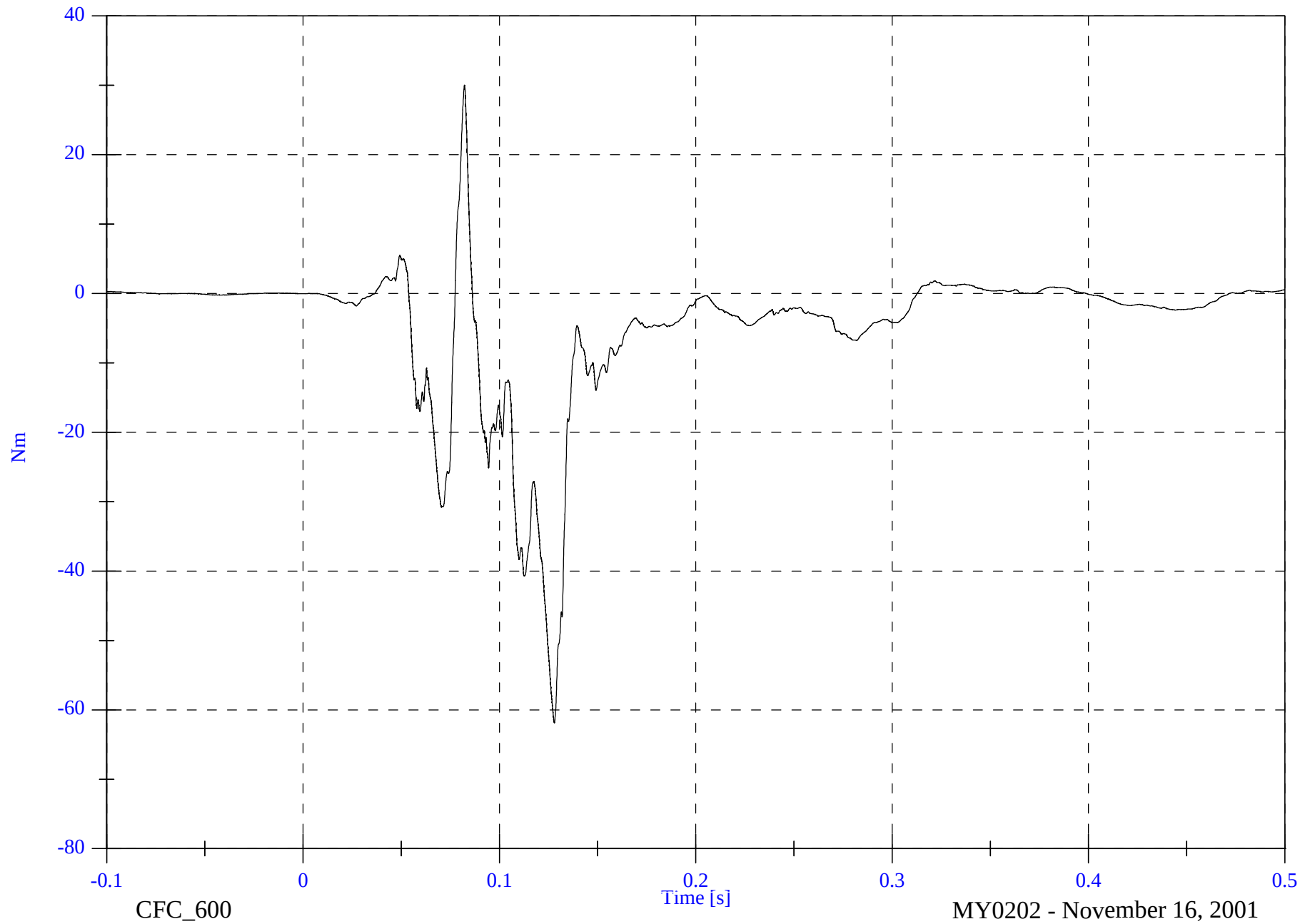


40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Left Femur Mx

Max: 30.1 [Nm] at 0.082 [s]

Min: -61.9 [Nm] at 0.128 [s]



B-49

8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

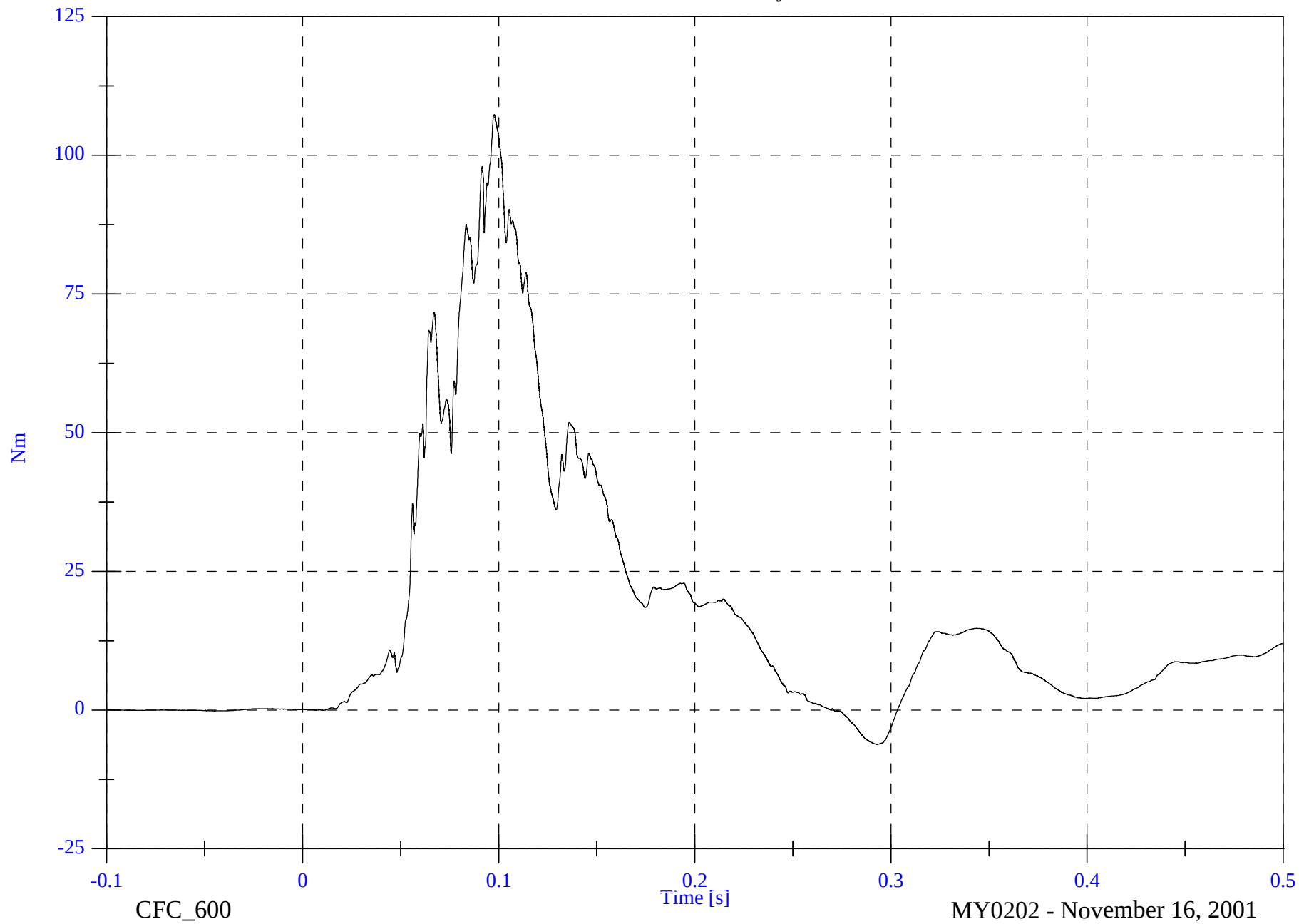
P1 Left Femur My

Max: 107.3 [Nm] at 0.098 [s]

Min: -6.2 [Nm] at 0.293 [s]

B-50

8413-69

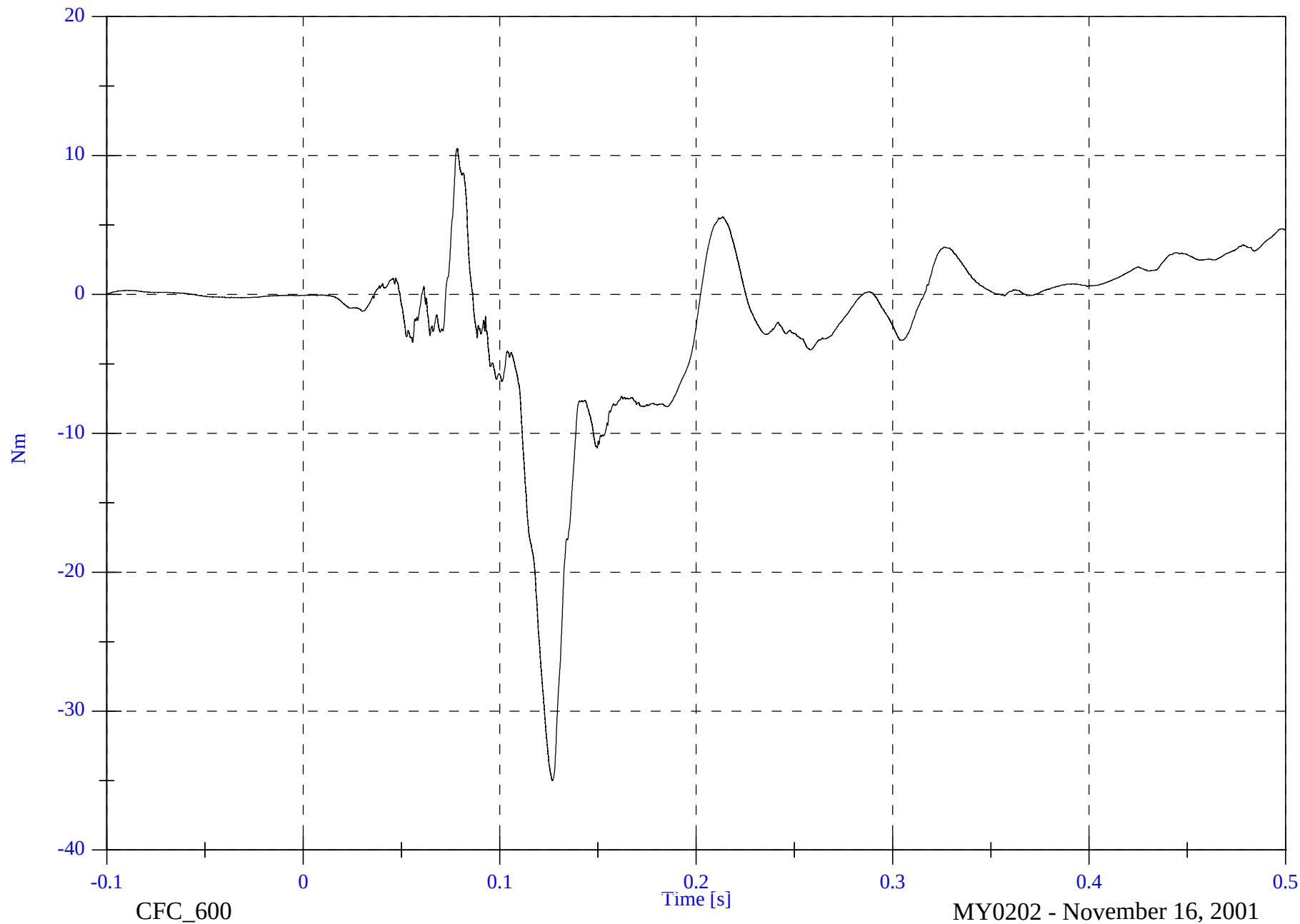


40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Left Femur Mz

Max: 10.5 [Nm] at 0.078 [s]

Min: -35.0 [Nm] at 0.127 [s]



B-51

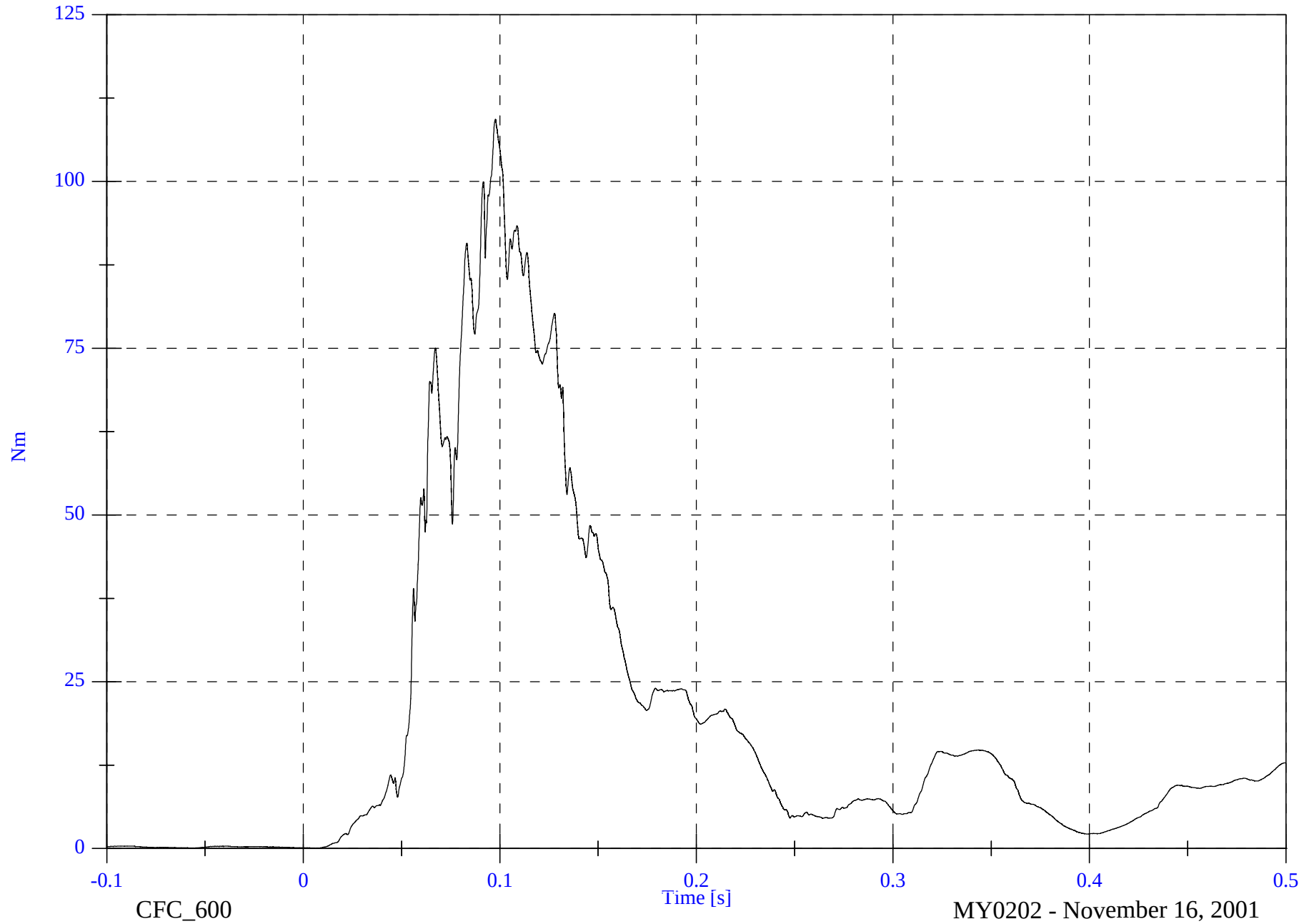
8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Left Femur M Resultant

Max: 109.3 [Nm] at 0.098 [s]

Min: 0.1 [Nm] at 0.006 [s]

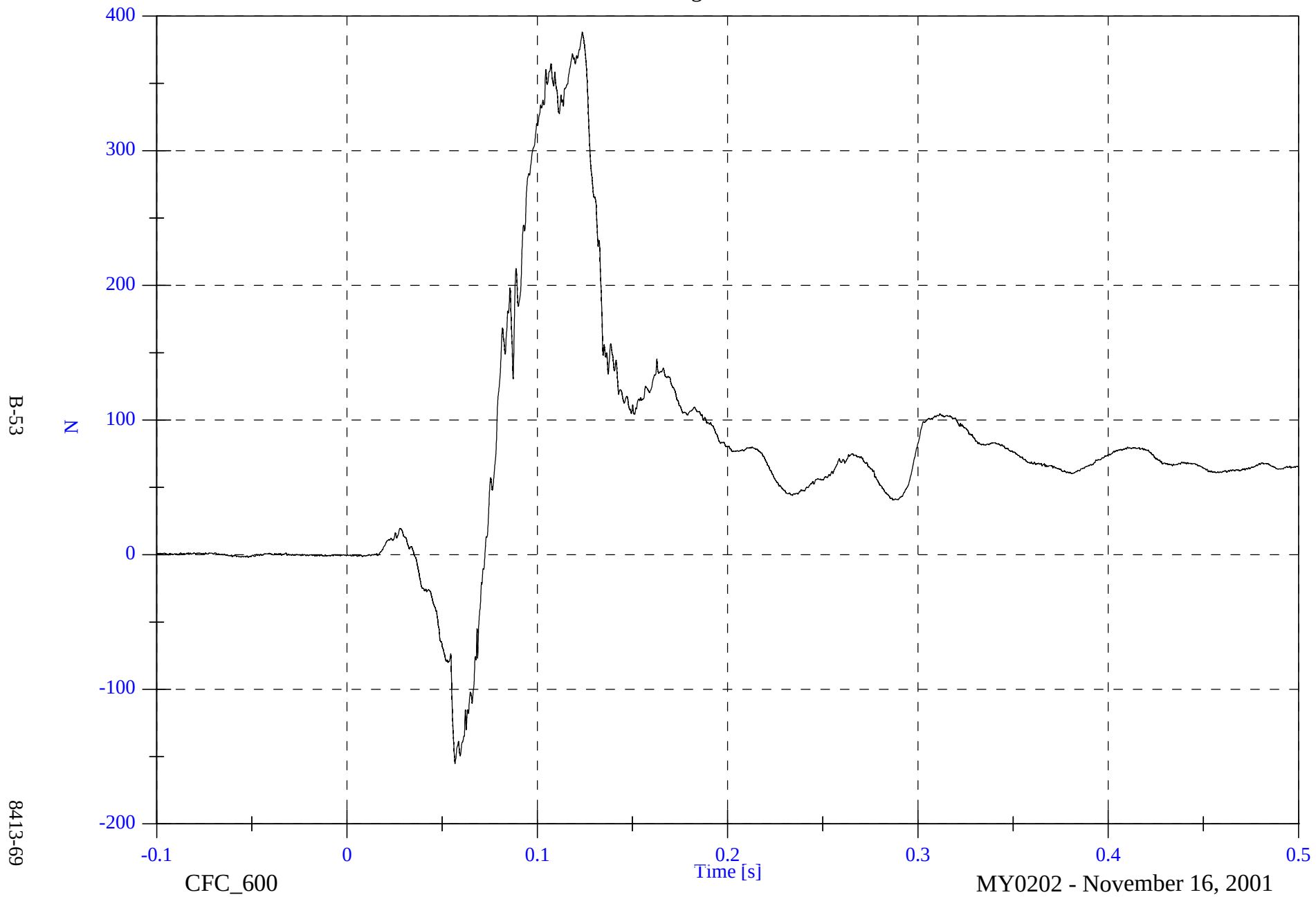


40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Right Femur Fx

Max: 388.3 [N] at 0.124 [s]

Min: -155.2 [N] at 0.057 [s]

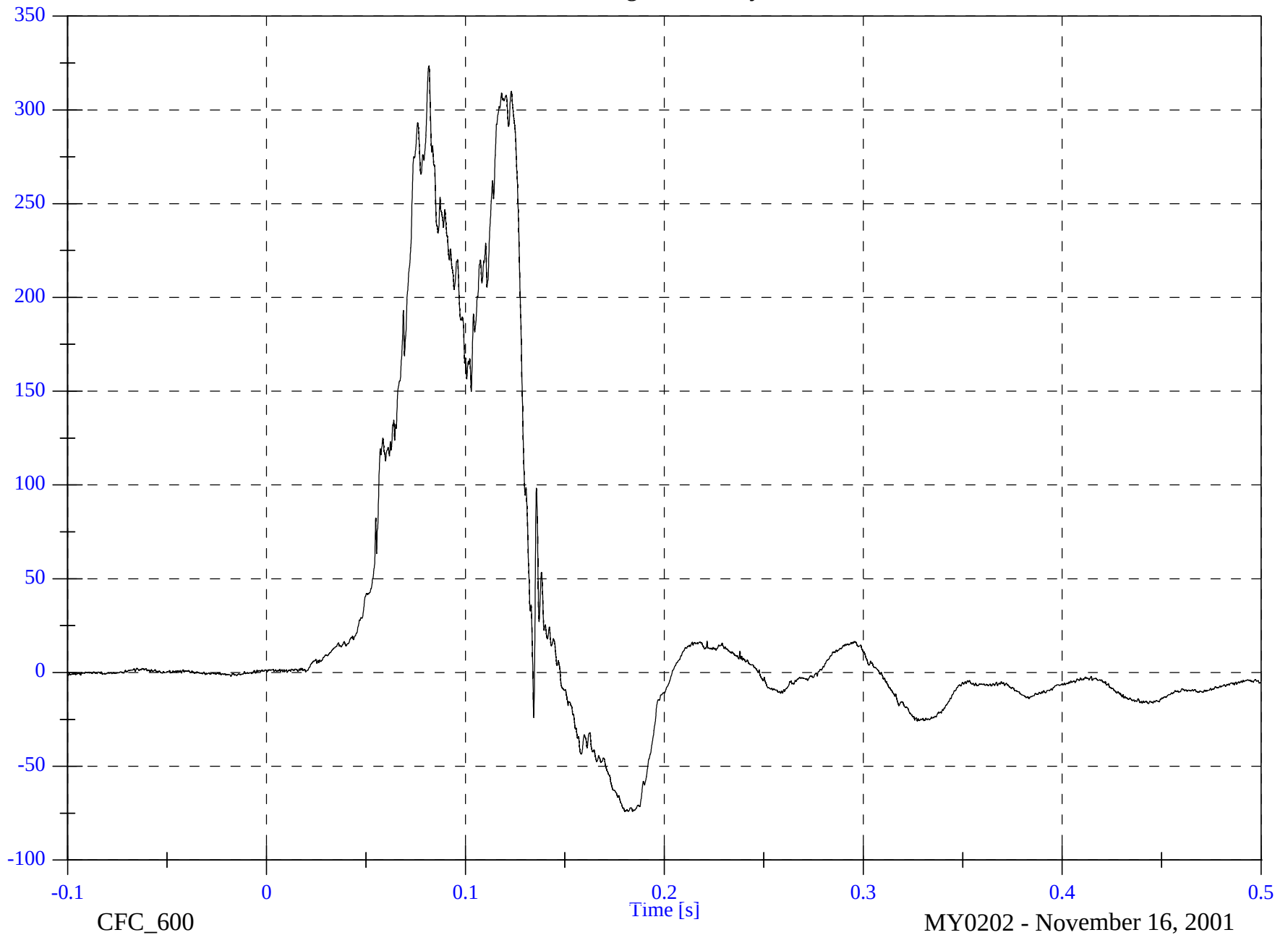


40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Right Femur Fy

Max: 323.5 [N] at 0.082 [s]

Min: -74.2 [N] at 0.184 [s]



B-54

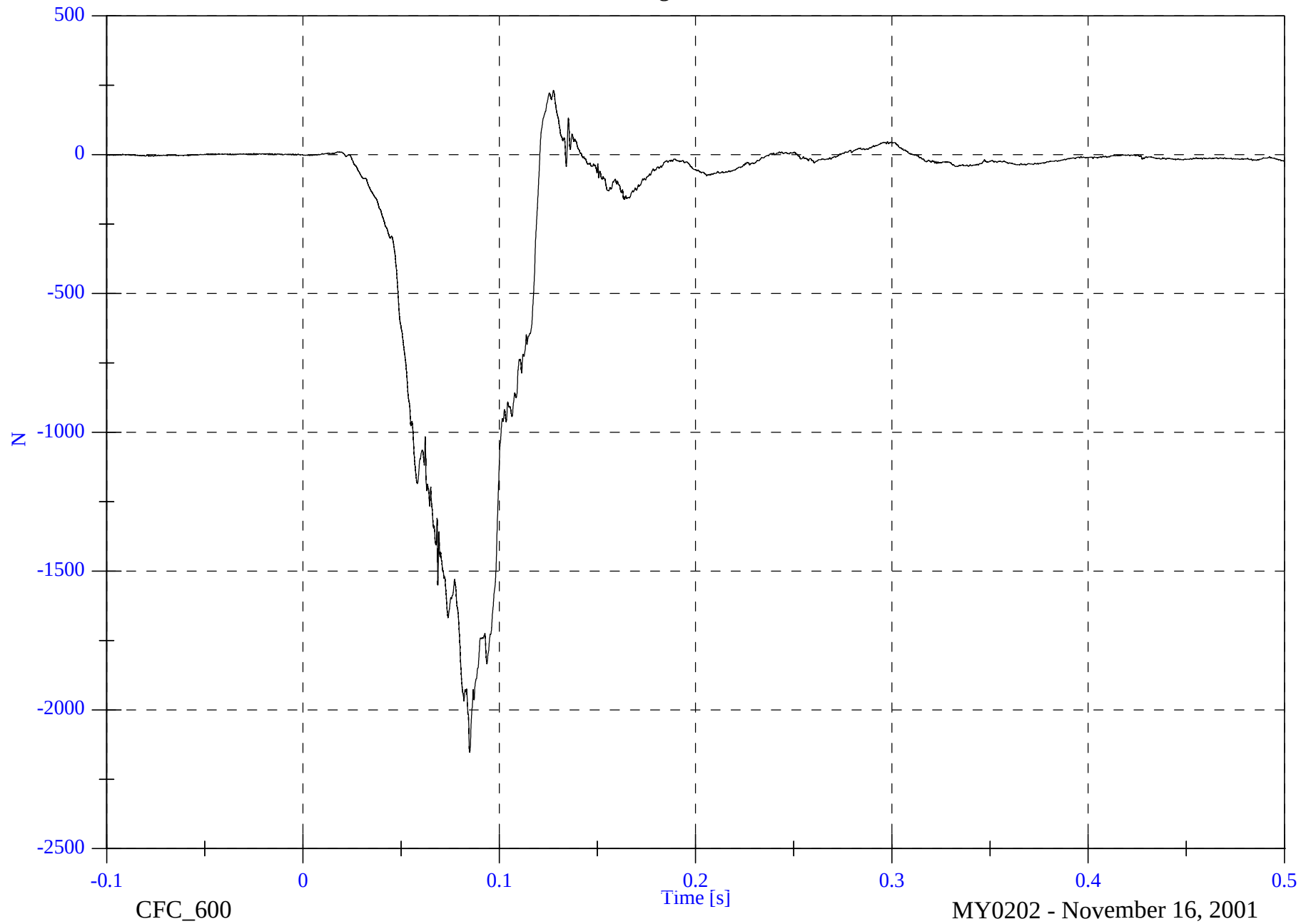
8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Right Femur Fz

Max: 232.4 [N] at 0.128 [s]

Min: -2152.2 [N] at 0.085 [s]



B-55

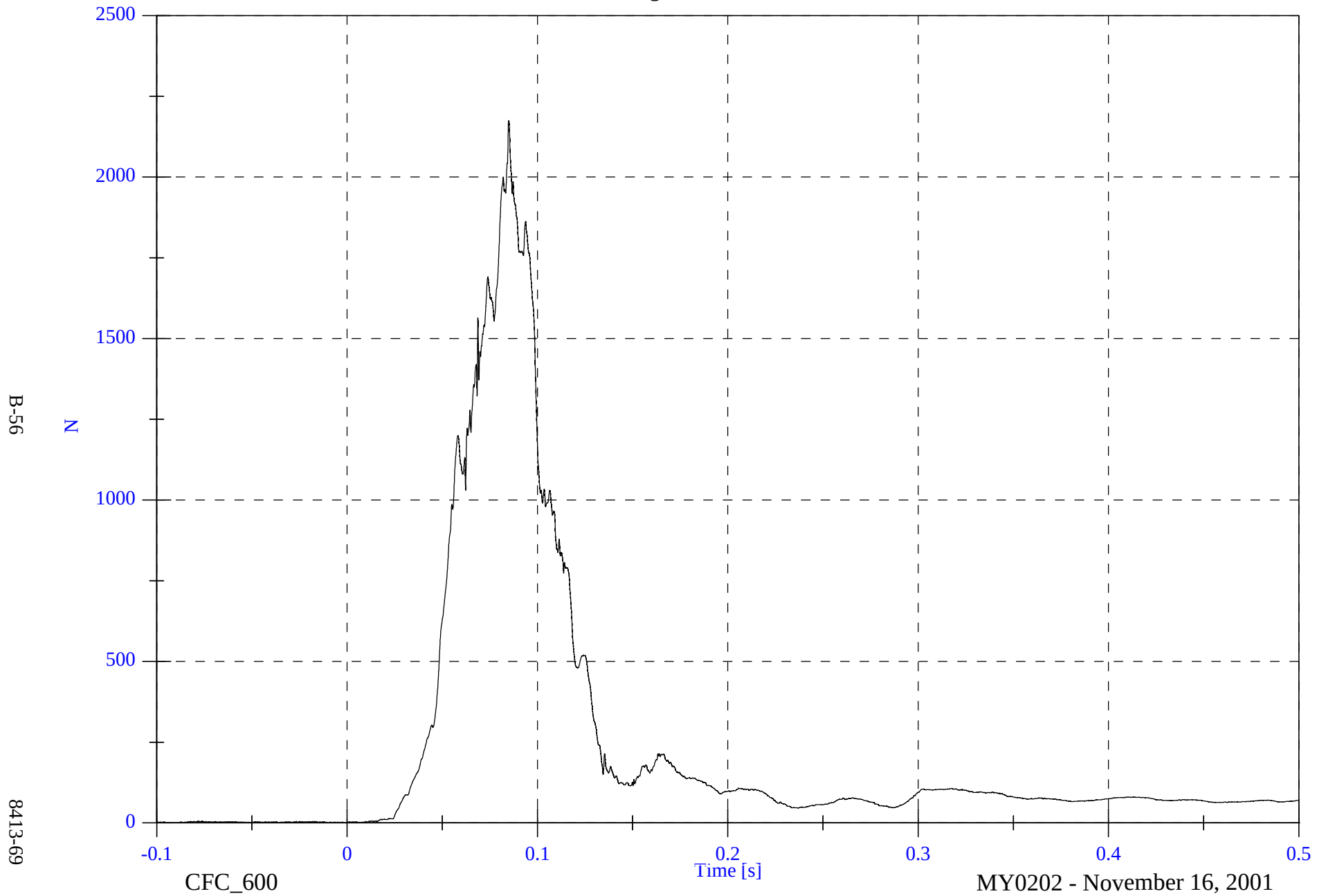
8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Right Femur F Resultant

Max: 2174.9 [N] at 0.085 [s]

Min: 0.1 [N] at -0.090 [s]

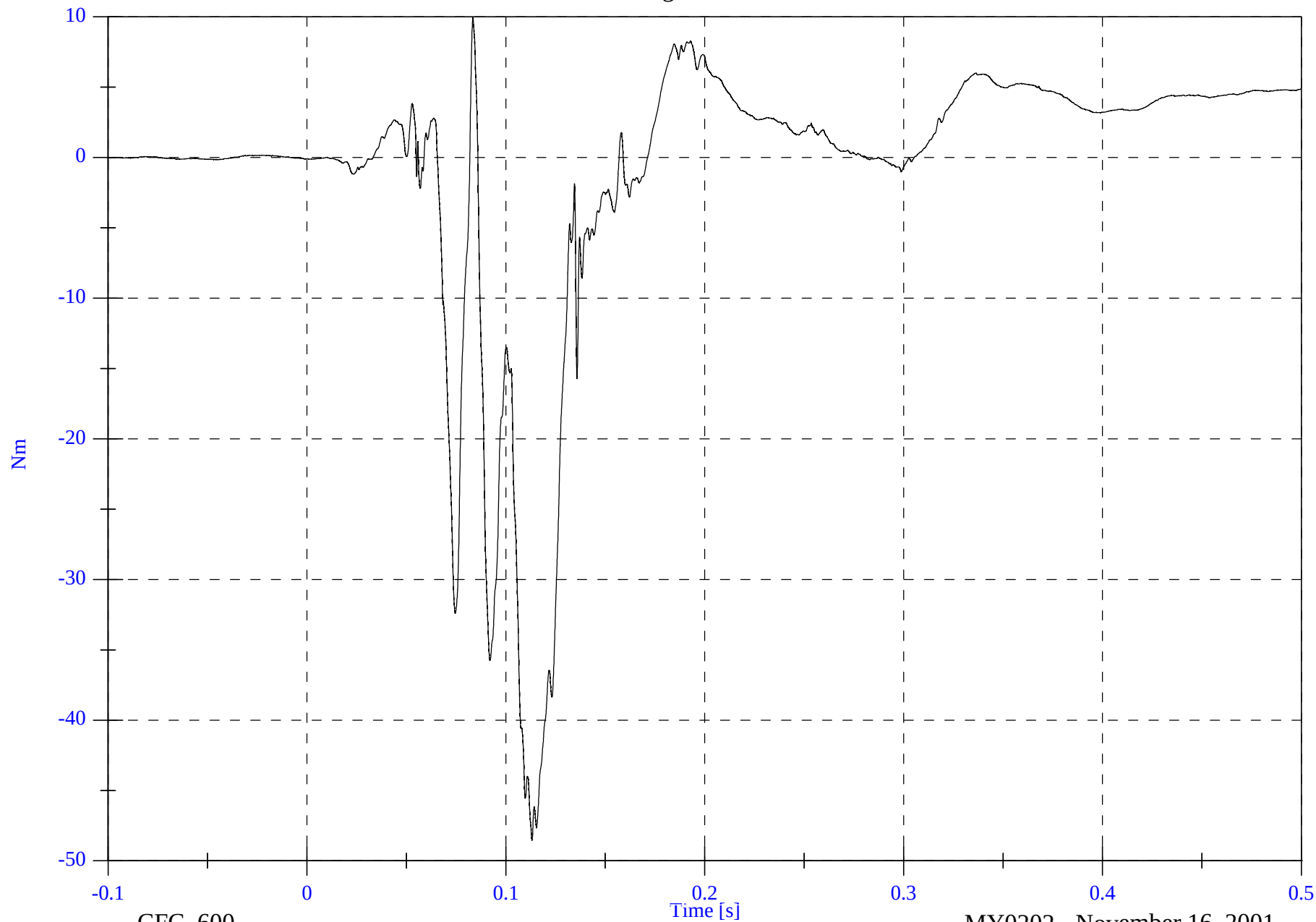


40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Right Femur Mx

Max: 10.0 [Nm] at 0.083 [s]

Min: -48.6 [Nm] at 0.113 [s]



B-57

8413-69

CFC_600

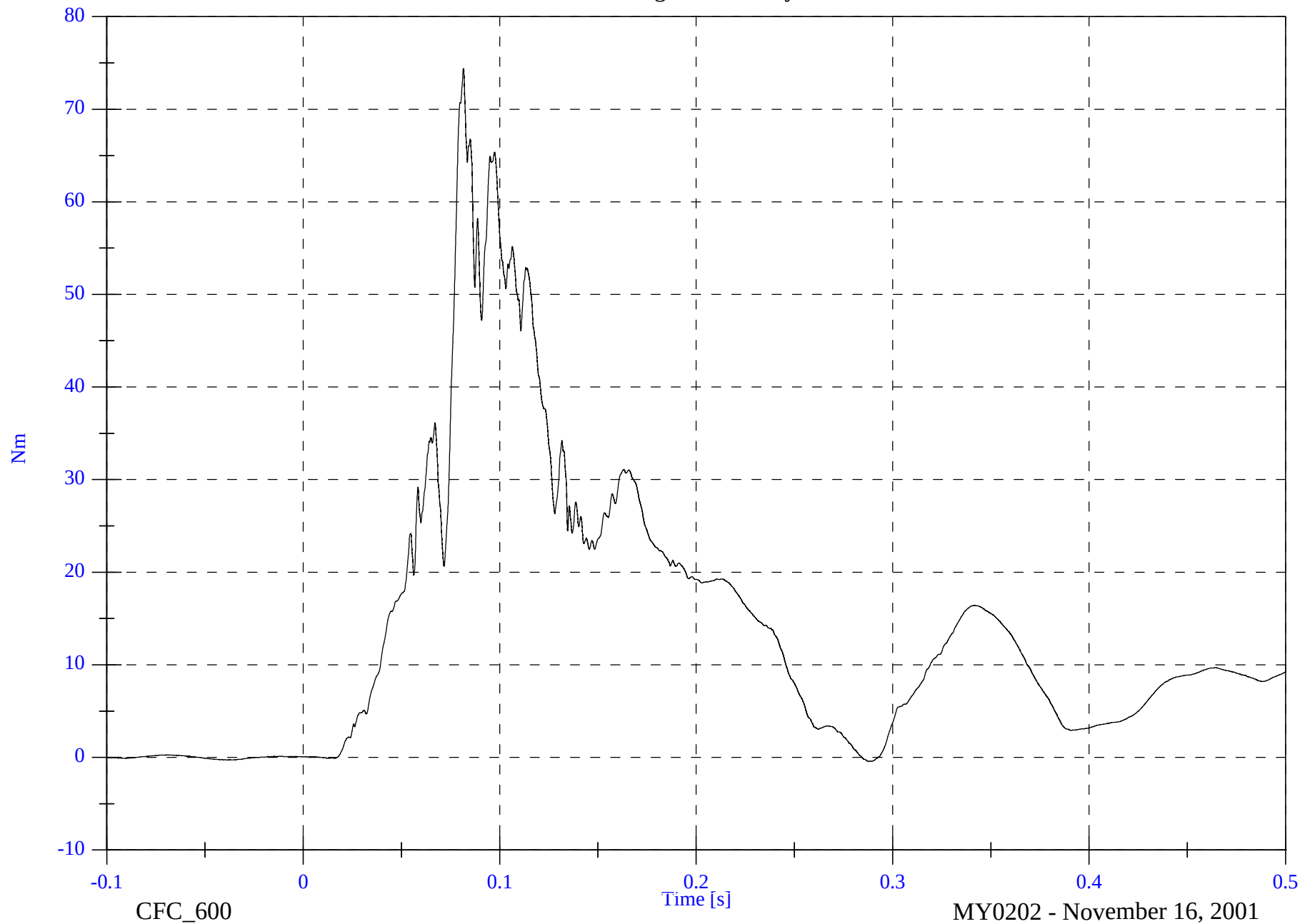
MY0202 - November 16, 2001

40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Right Femur My

Max: 74.4 [Nm] at 0.082 [s]

Min: -0.4 [Nm] at 0.289 [s]



B-58

8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

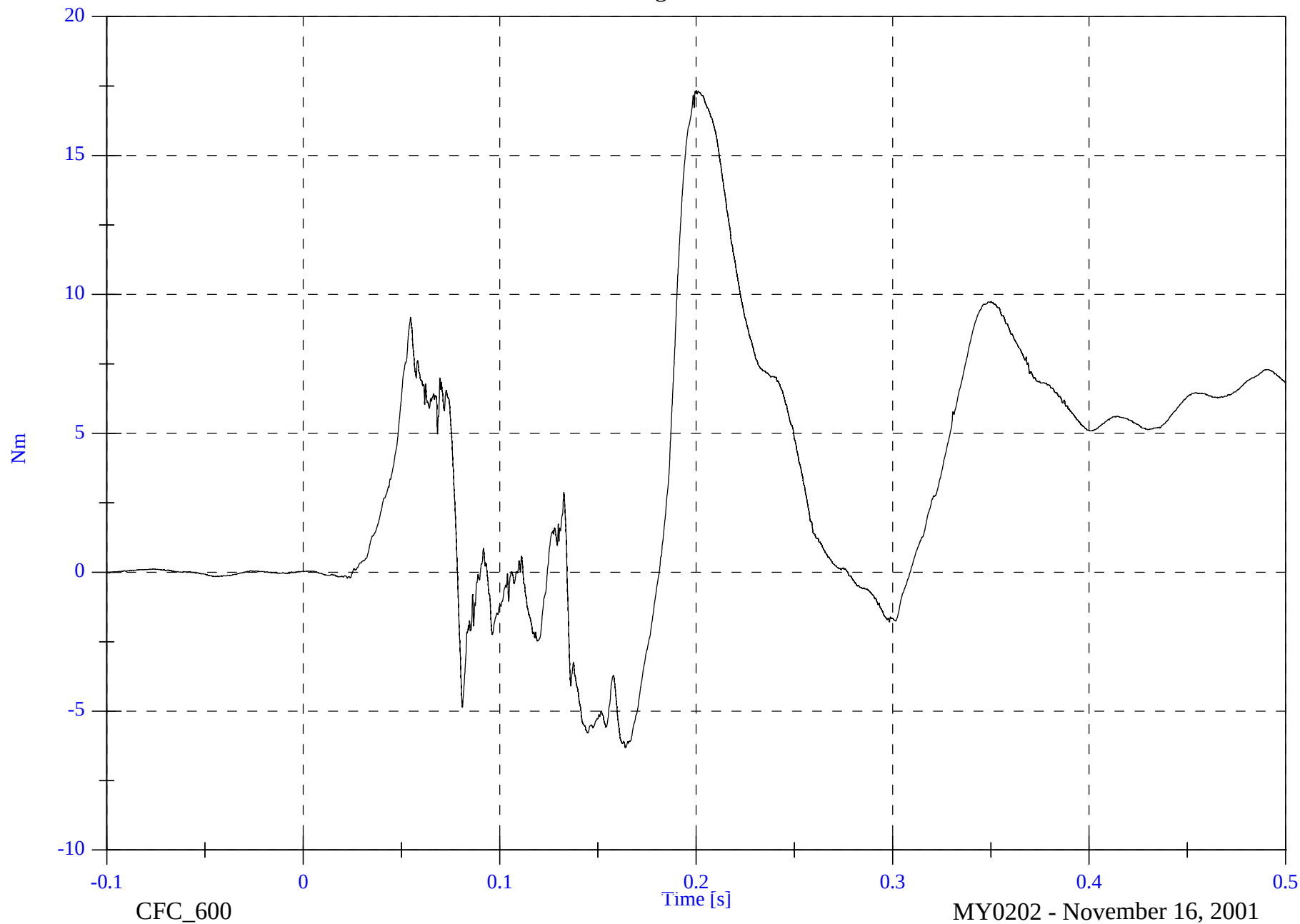
P1 Right Femur Mz

Max: 17.3 [Nm] at 0.200 [s]

Min: -6.3 [Nm] at 0.164 [s]

B-59

8413-69

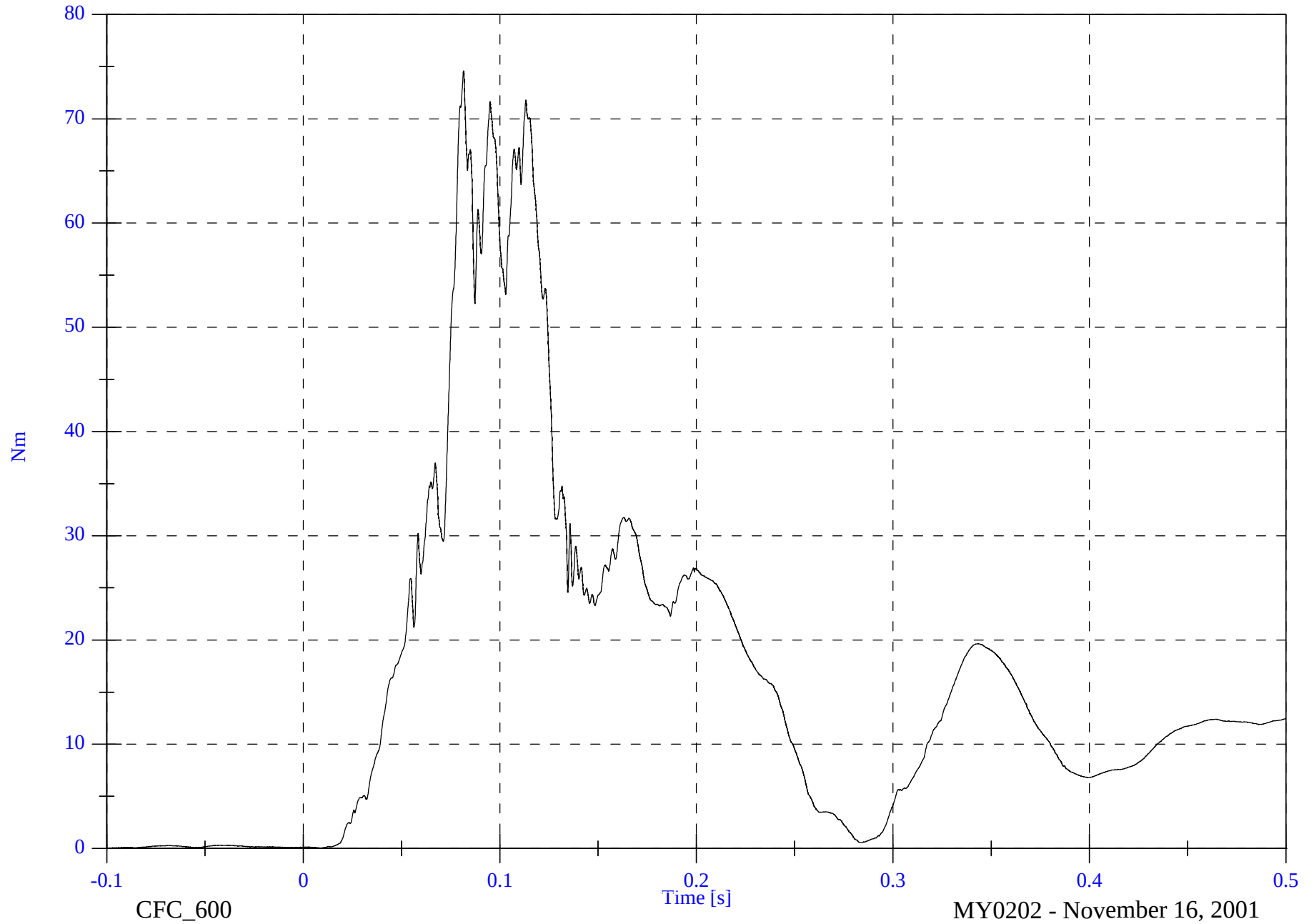


40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Right Femur M Resultant

Max: 74.6 [Nm] at 0.082 [s]

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



B-60

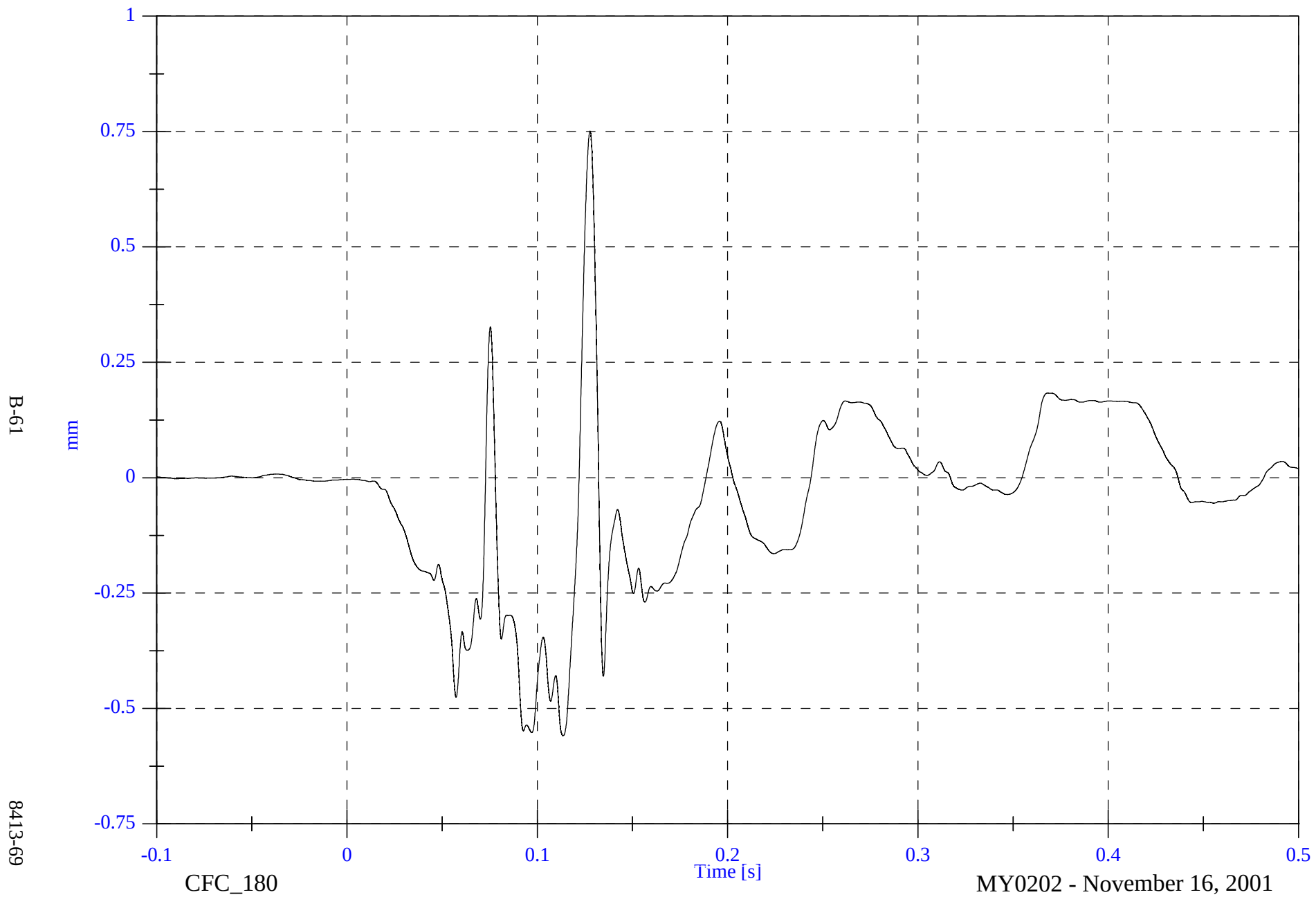
8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Left Knee Shear Dx

Max: 0.8 [mm] at 0.128 [s]

Min: -0.6 [mm] at 0.114 [s]

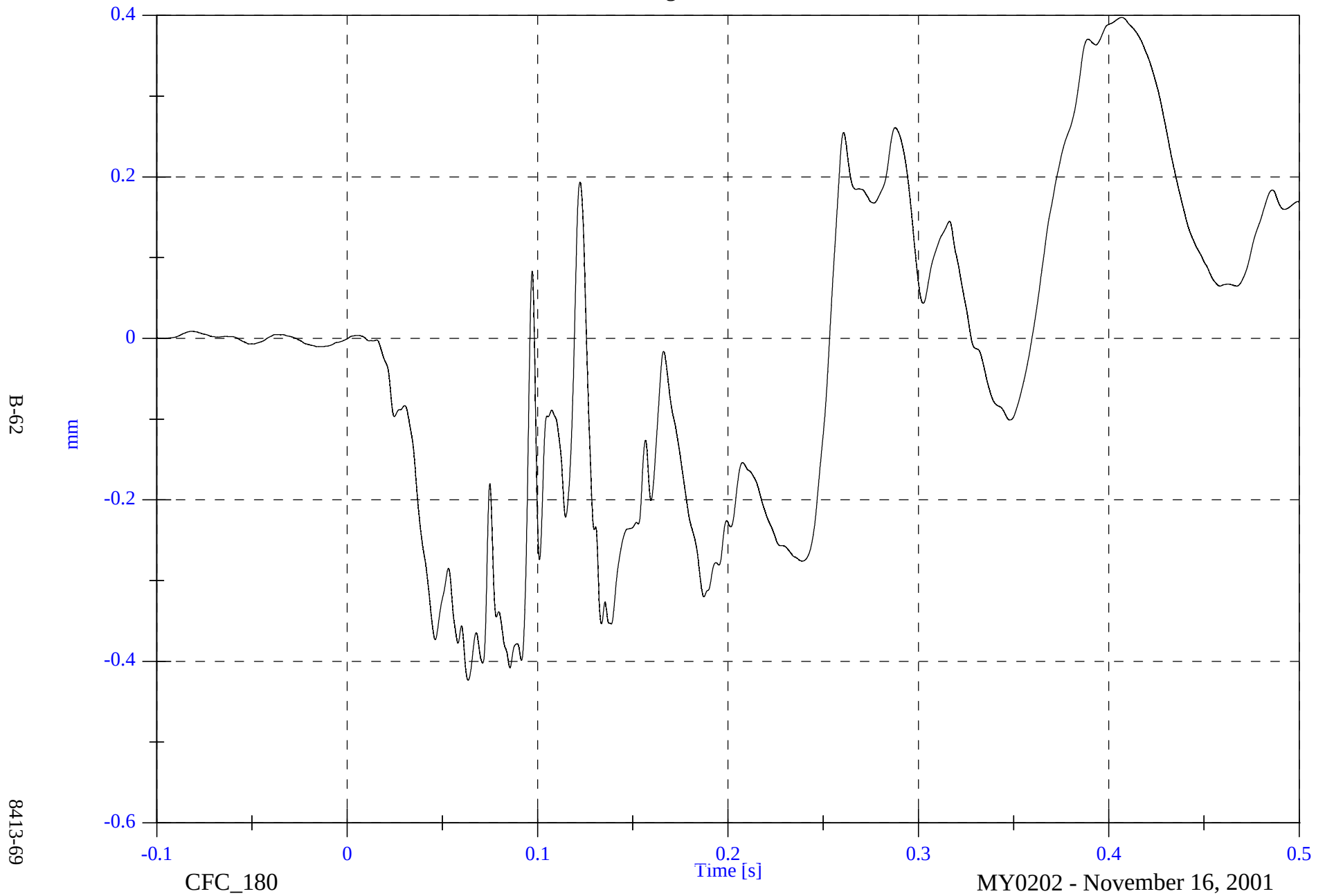


40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Right Knee Shear Dx

Max: 0.4 [mm] at 0.407 [s]

Min: -0.4 [mm] at 0.064 [s]

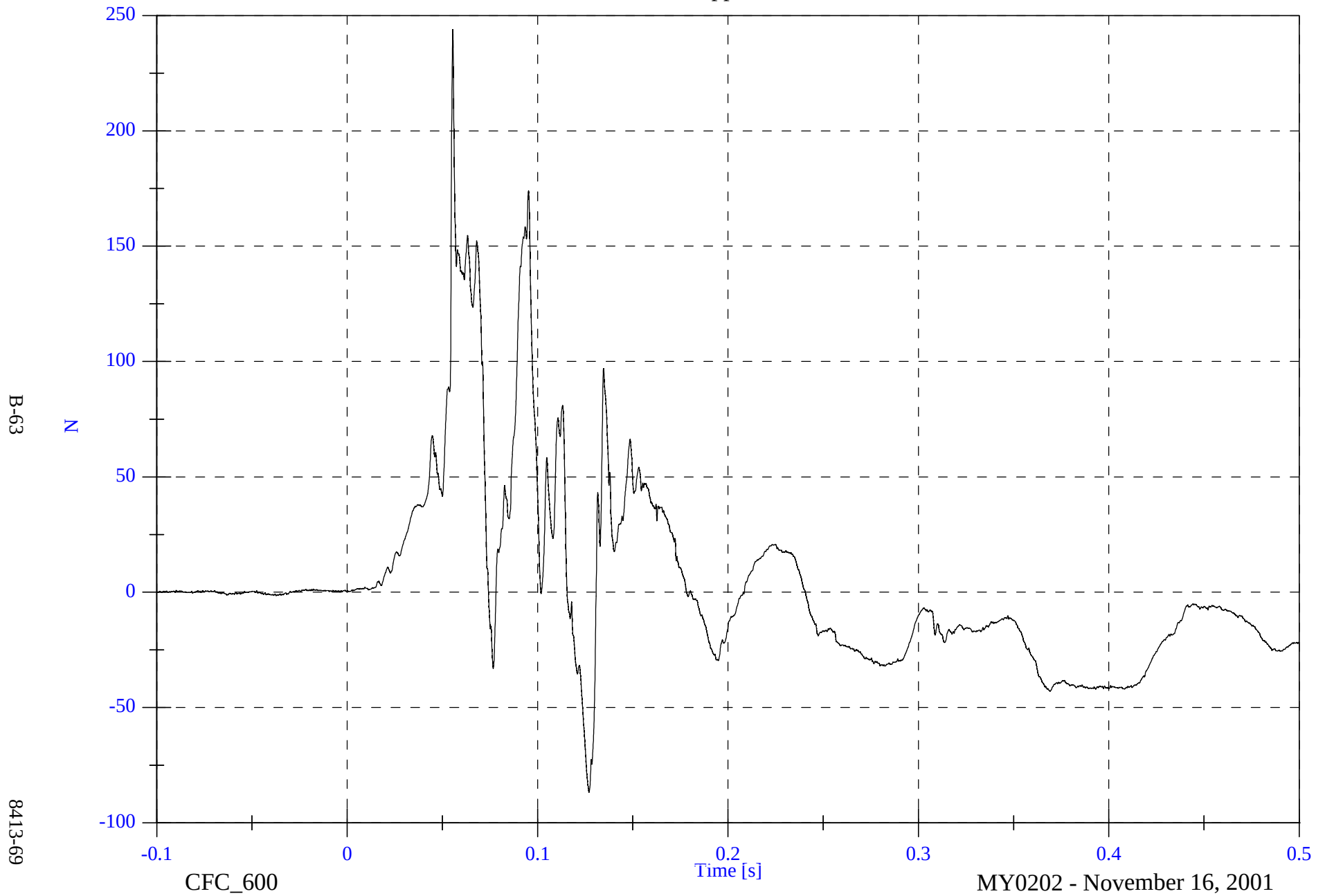


40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Left Upper Tibia Fx

Max: 243.9 [N] at 0.055 [s]

Min: -86.8 [N] at 0.127 [s]

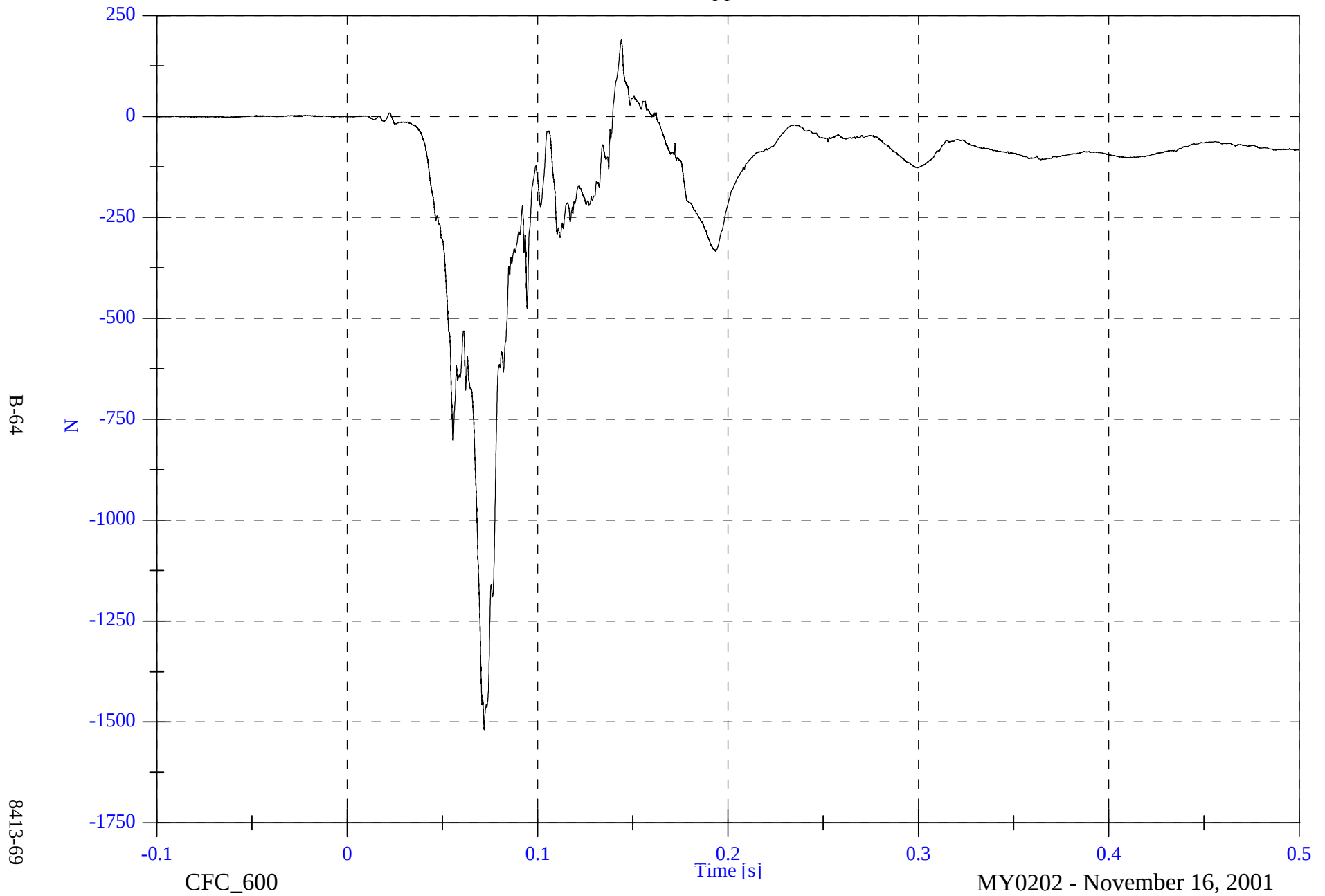


40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Left Upper Tibia Fz

Max: 189.0 [N] at 0.144 [s]

Min: -1519.4 [N] at 0.072 [s]

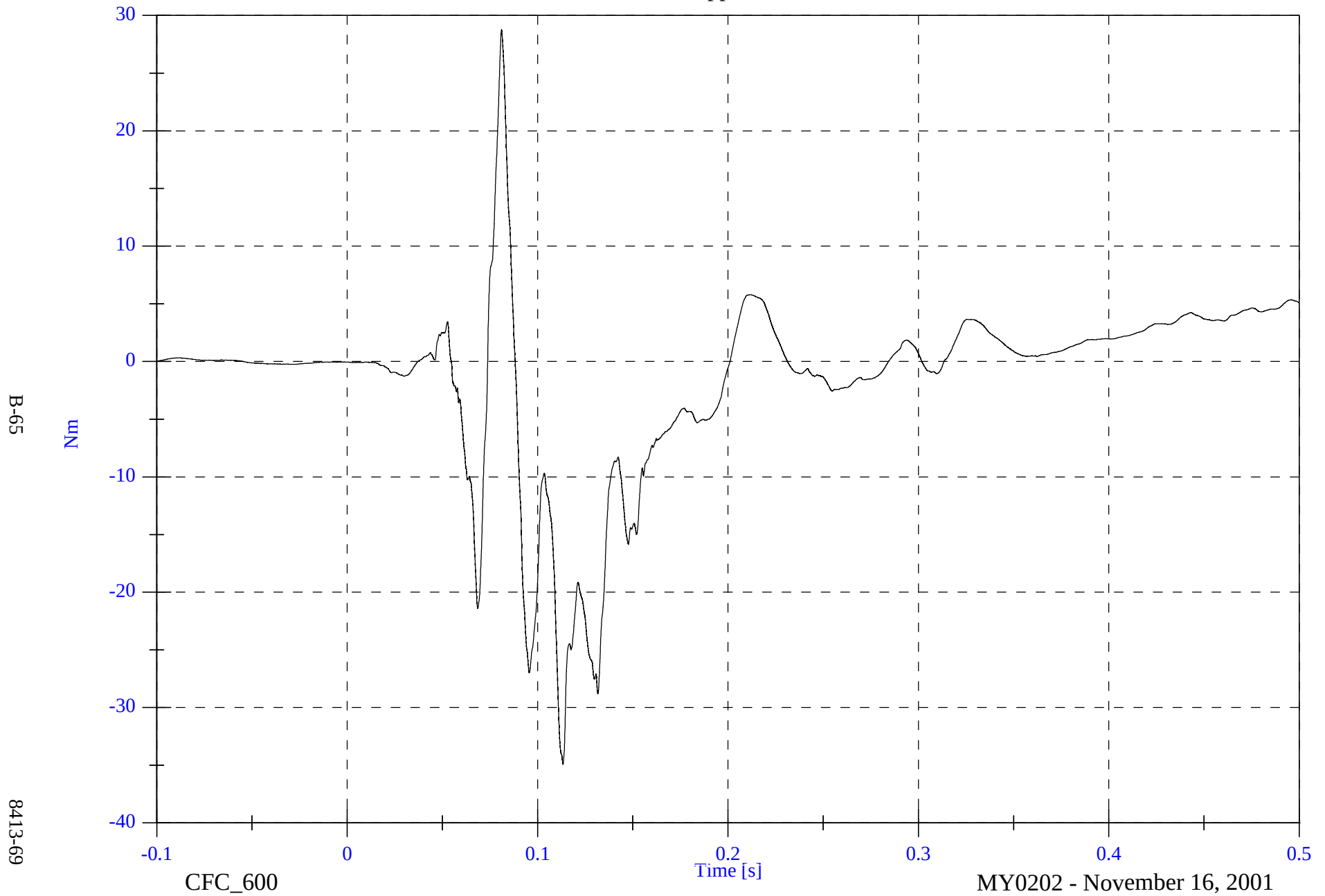


40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Left Upper Tibia Mx

Max: 28.8 [Nm] at 0.081 [s]

Min: -34.9 [Nm] at 0.113 [s]



40% Frontal Offset Test #13 - 2000 Ford Explorer

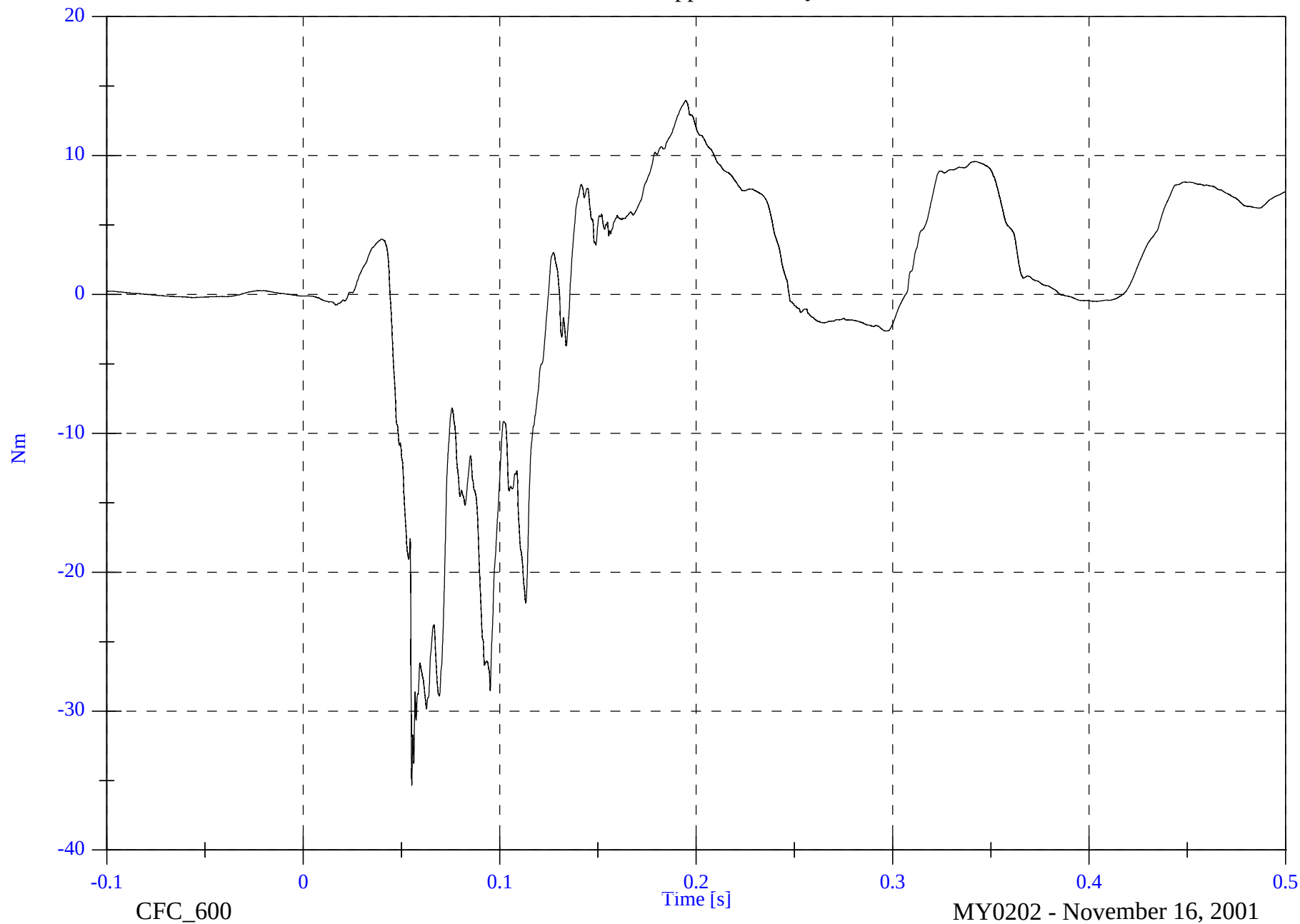
P1 Left Upper Tibia My

Max: 14.0 [Nm] at 0.195 [s]

Min: -35.4 [Nm] at 0.055 [s]

B-66

8413-69

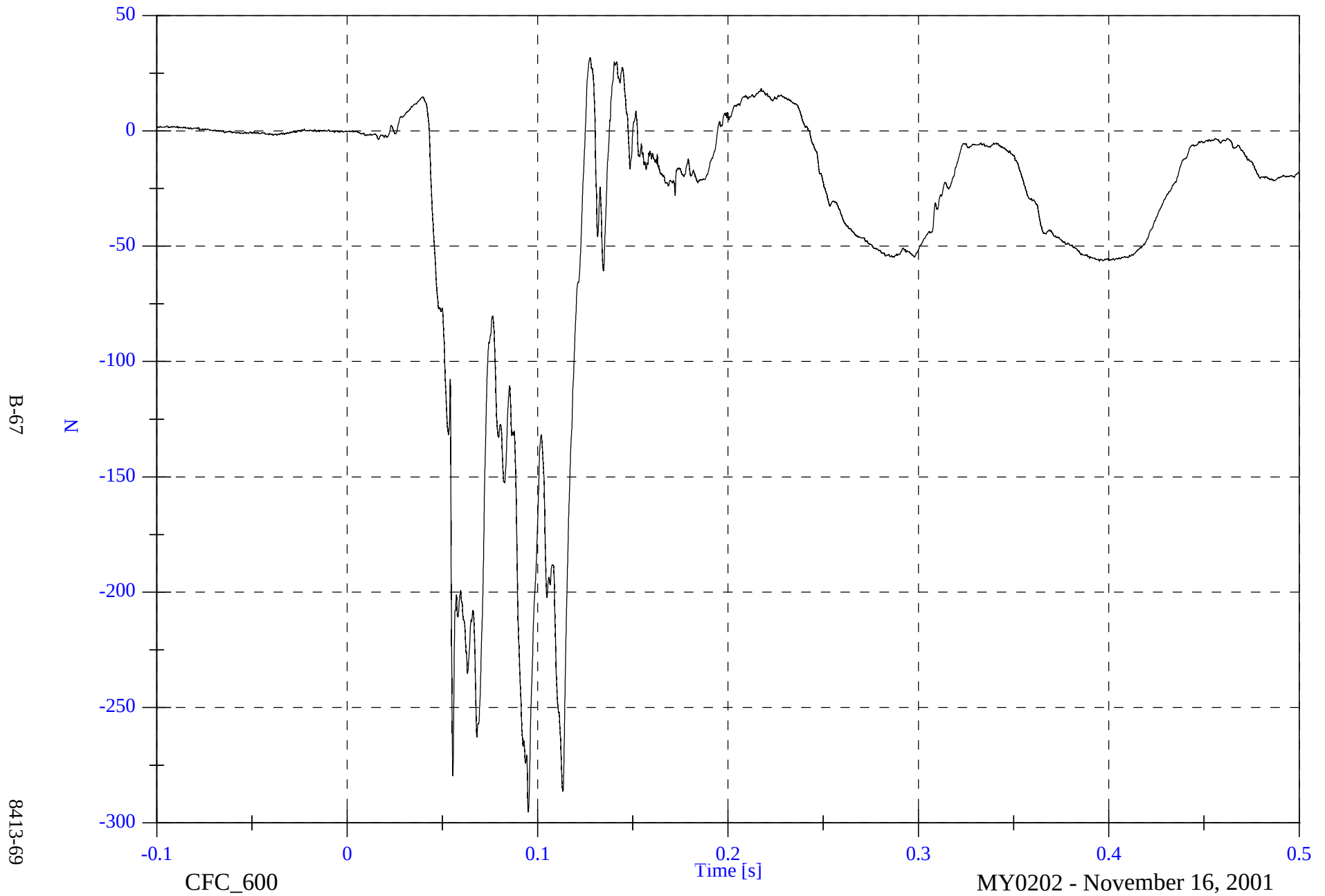


40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Left Lower Tibia Fx

Max: 31.7 [N] at 0.128 [s]

Min: -295.3 [N] at 0.095 [s]

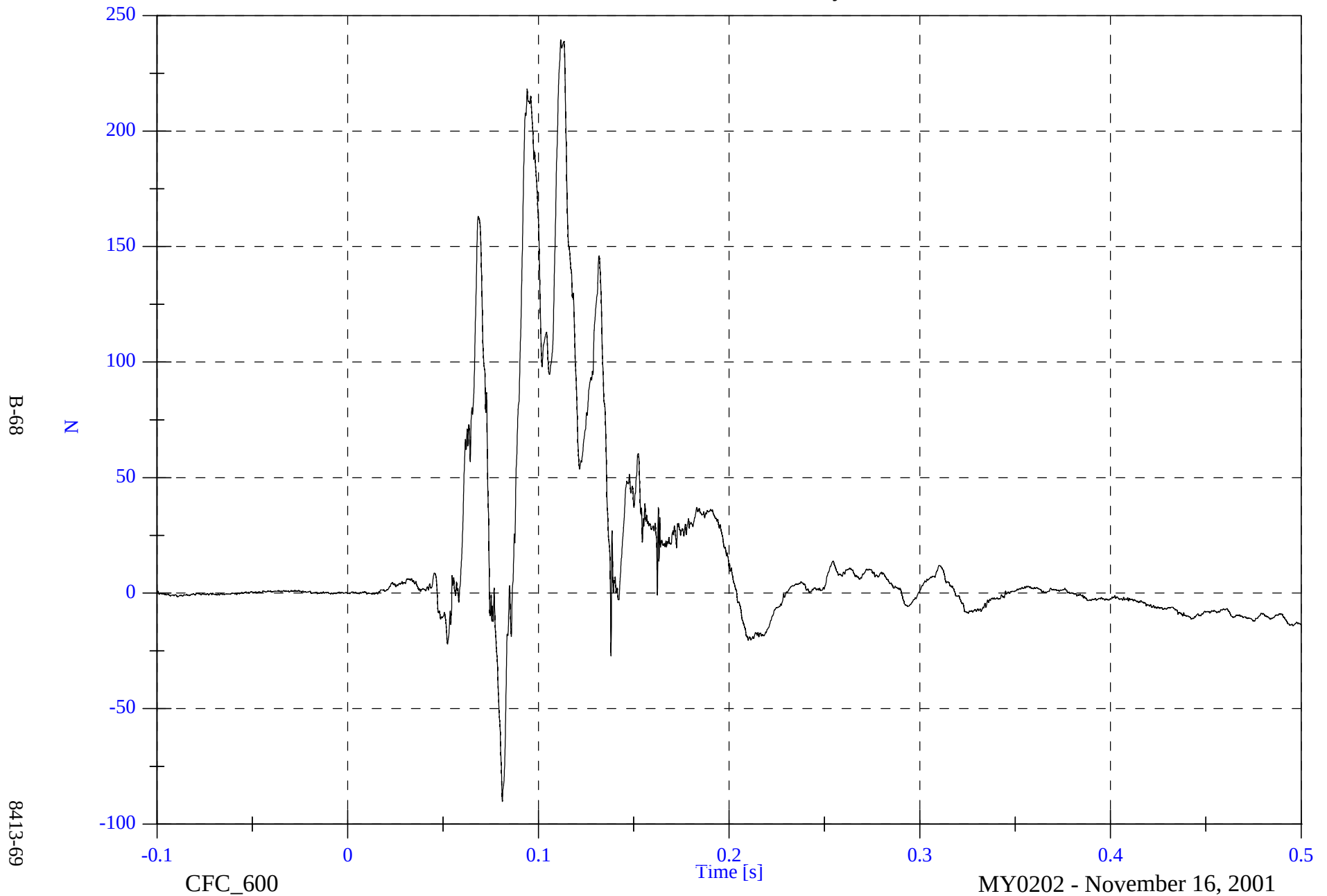


40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Left Lower Tibia Fy

Max: 239.5 [N] at 0.112 [s]

Min: -90.1 [N] at 0.081 [s]

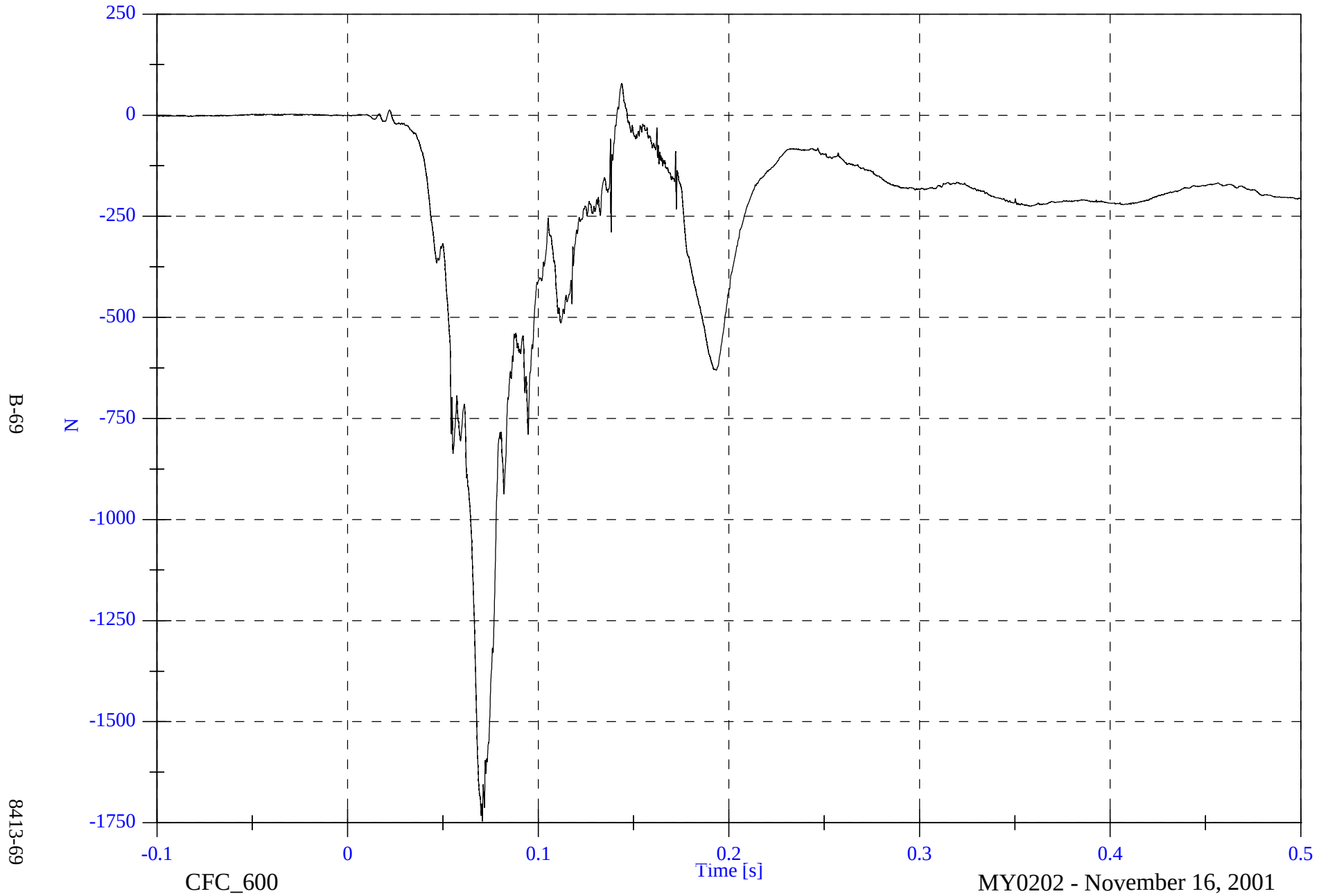


40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Left Lower Tibia Fz

Max: 78.6 [N] at 0.144 [s]

Min: -1746.0 [N] at 0.071 [s]

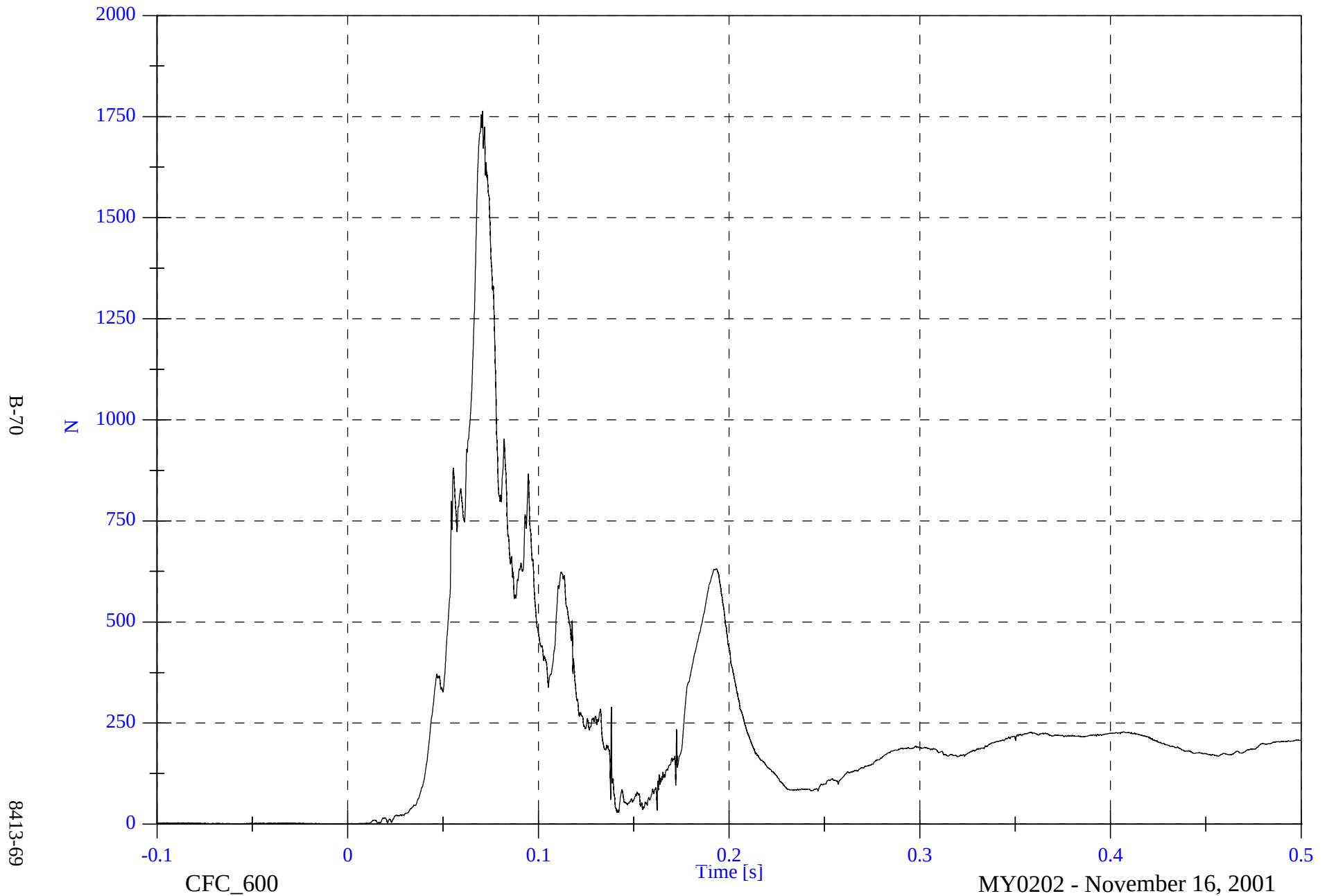


40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Left Lower Tibia F Resultant

Max: 1763.3 [N] at 0.071 [s]

Min: 0.1 [N] at -0.006 [s]

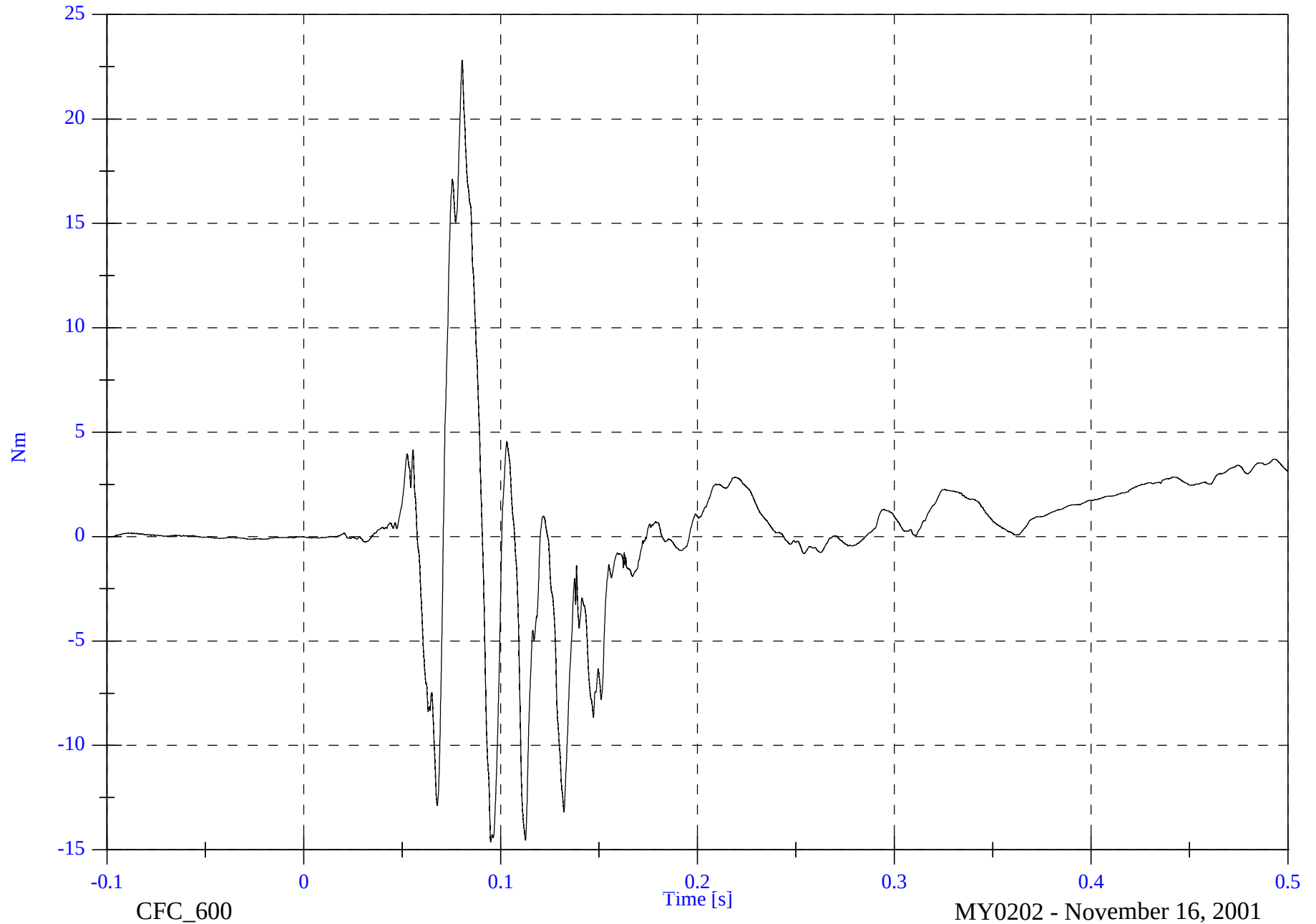


40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Left Lower Tibia Mx

Max: 22.8 [Nm] at 0.081 [s]

Min: -14.6 [Nm] at 0.095 [s]



B-71

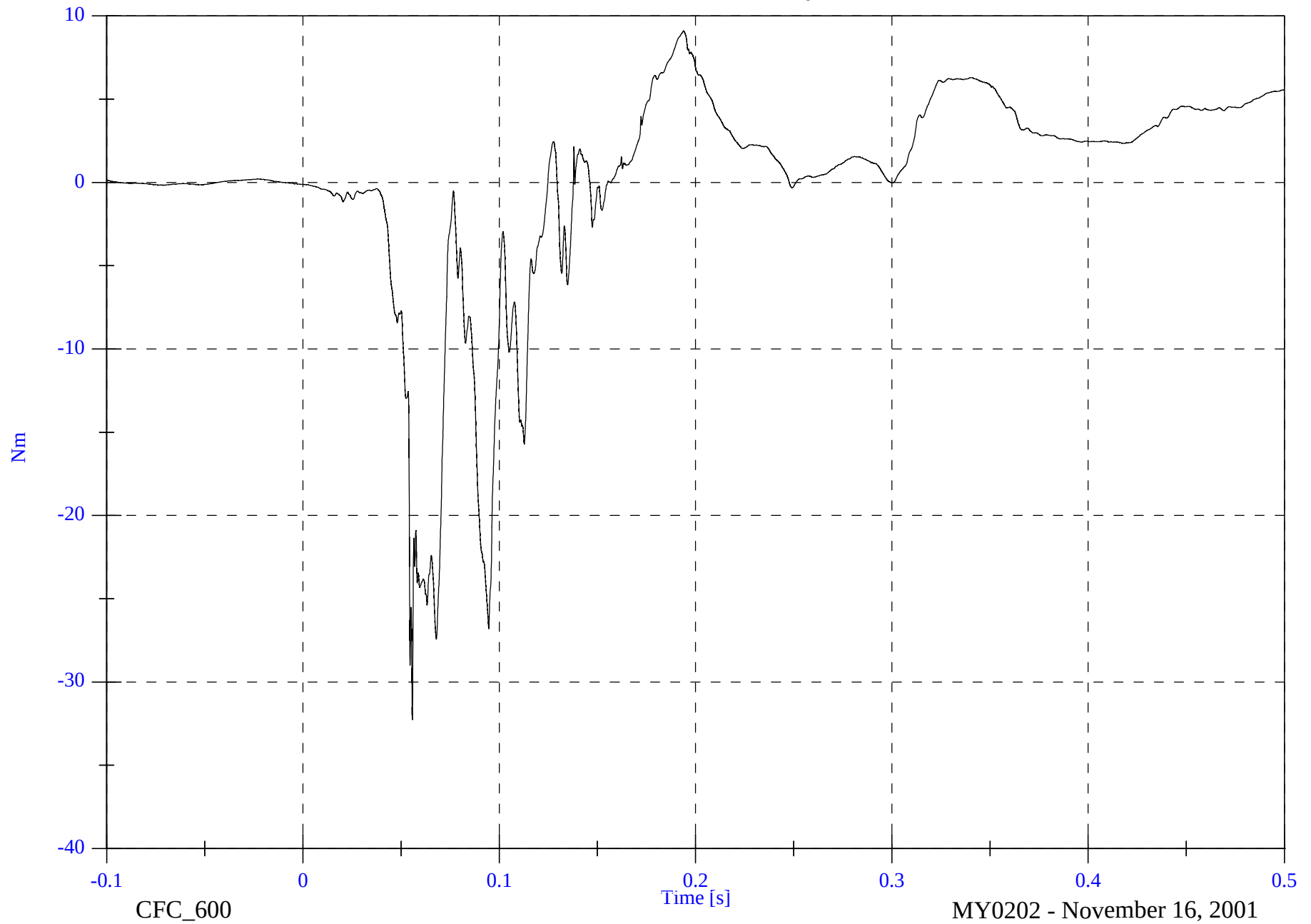
8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Left Lower Tibia My

Max: 9.1 [Nm] at 0.194 [s]

Min: -32.3 [Nm] at 0.056 [s]

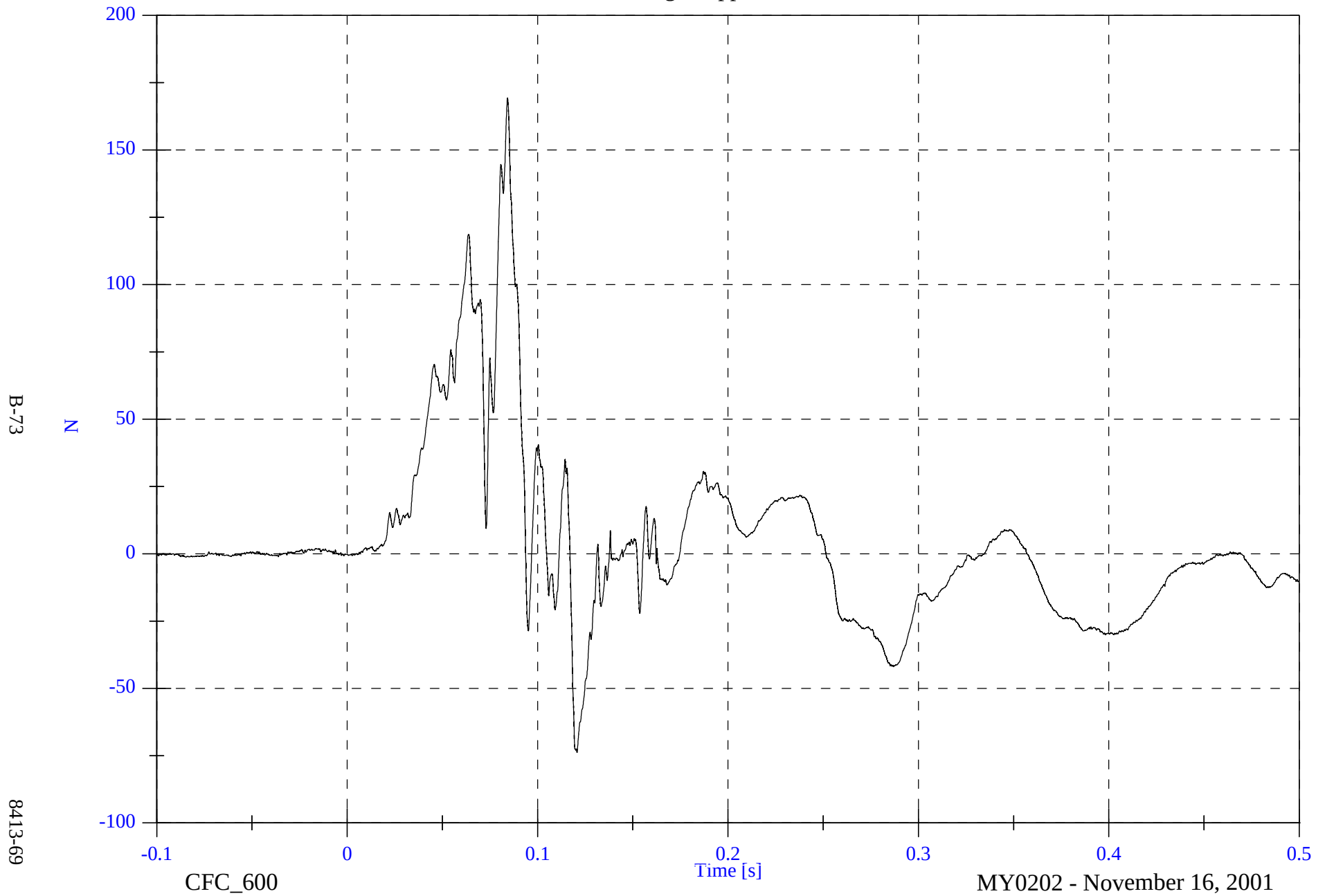


40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Right Upper Tibia Fx

Max: 169.3 [N] at 0.084 [s]

Min: -73.8 [N] at 0.121 [s]

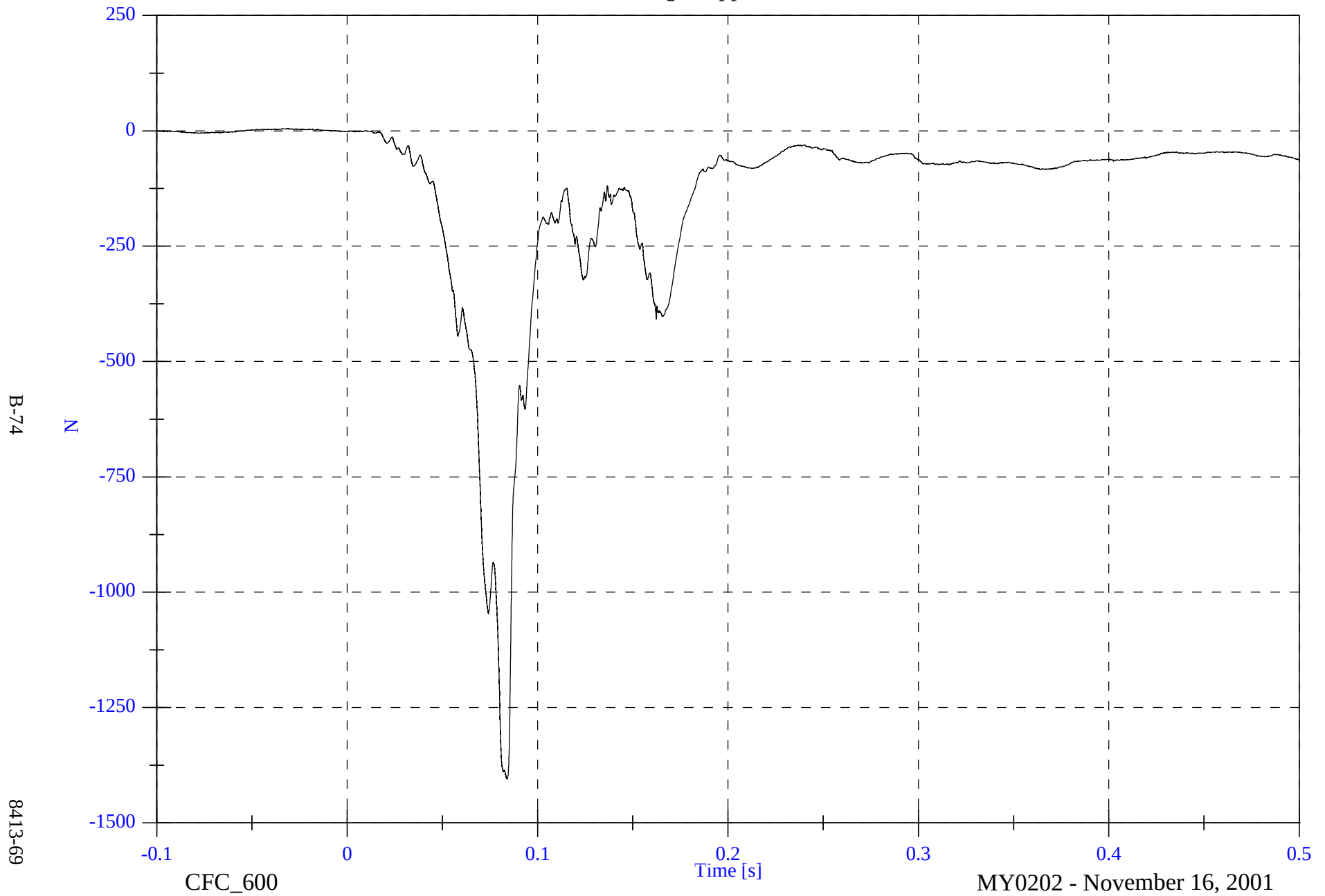


40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Right Upper Tibia Fz

Max: 5.0 [N] at -0.031 [s]

Min: -1405.7 [N] at 0.084 [s]

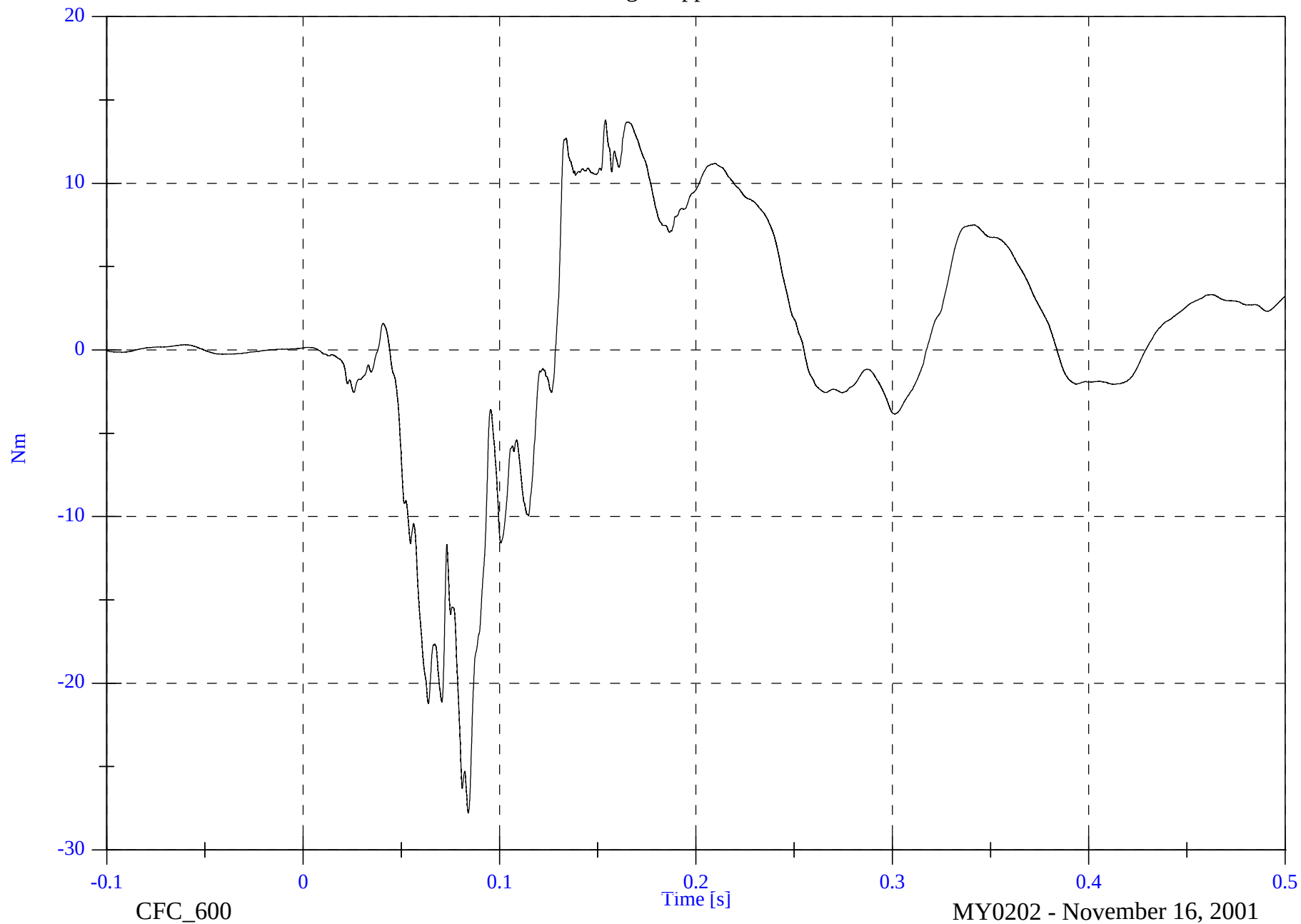


40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Right Upper Tibia Mx

Max: 13.8 [Nm] at 0.154 [s]

Min: -27.8 [Nm] at 0.084 [s]



B-75

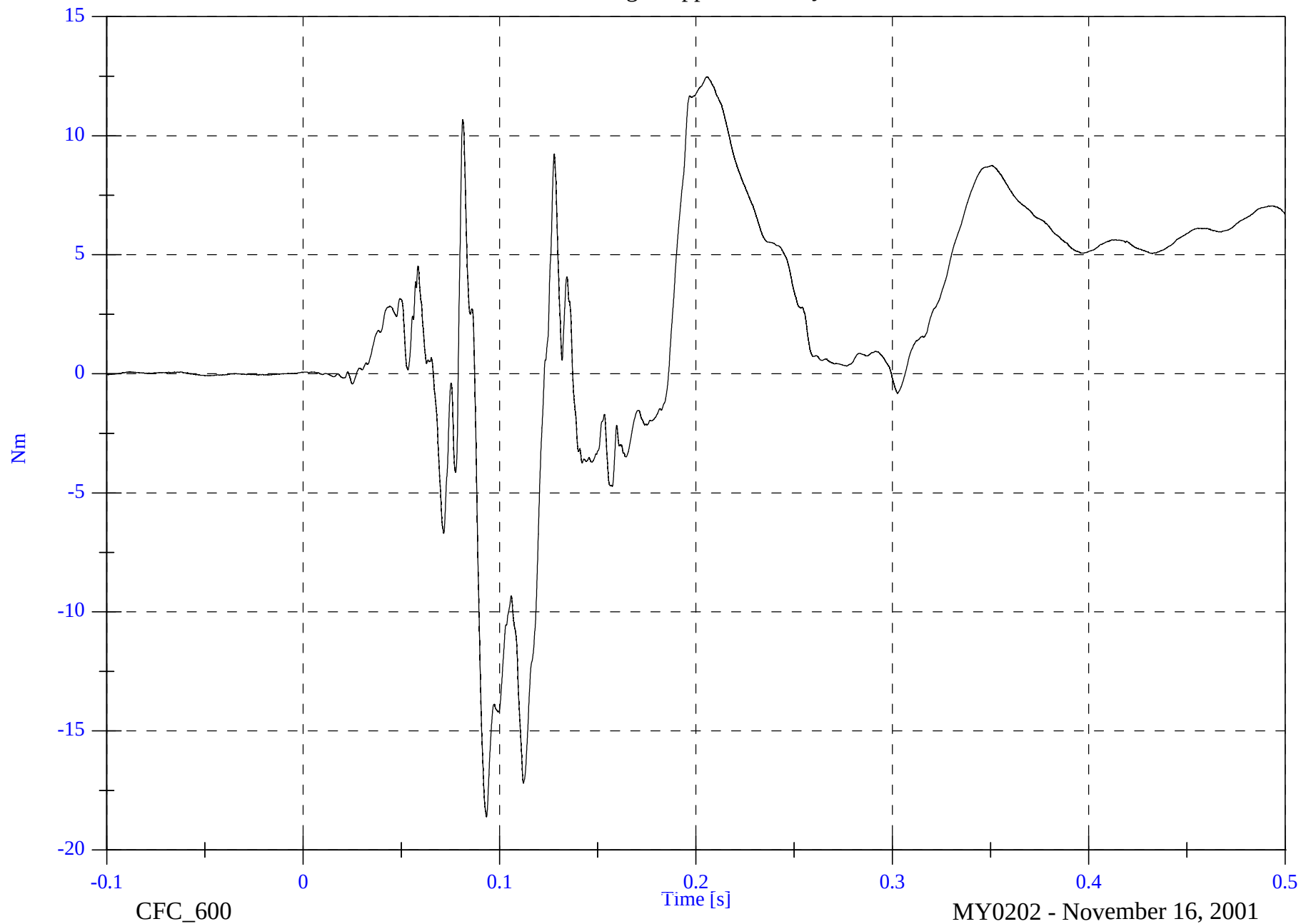
8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Right Upper Tibia My

Max: 12.5 [Nm] at 0.206 [s]

Min: -18.6 [Nm] at 0.093 [s]

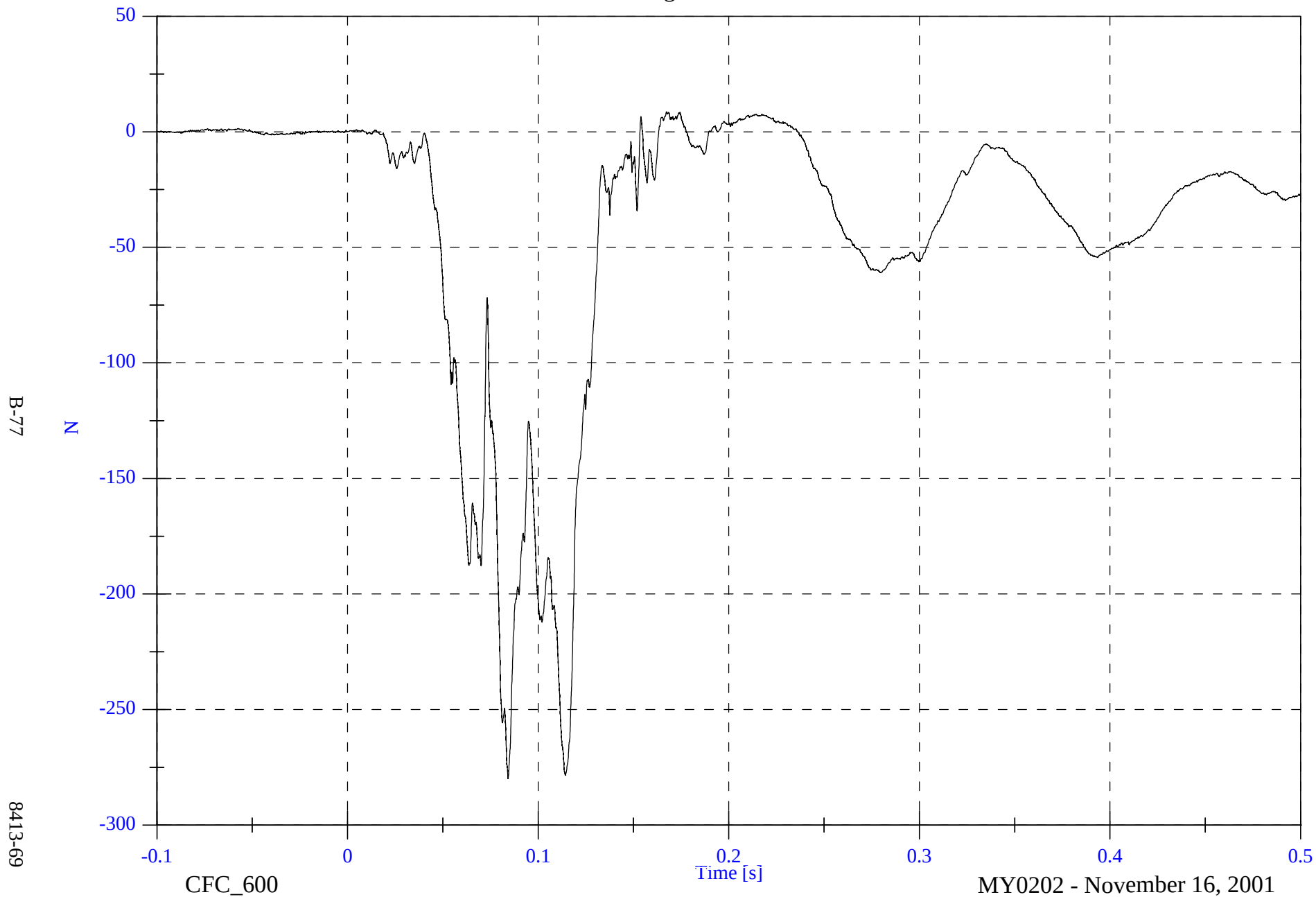


40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Right Lower Tibia Fx

Max: 8.6 [N] at 0.167 [s]

Min: -279.9 [N] at 0.084 [s]

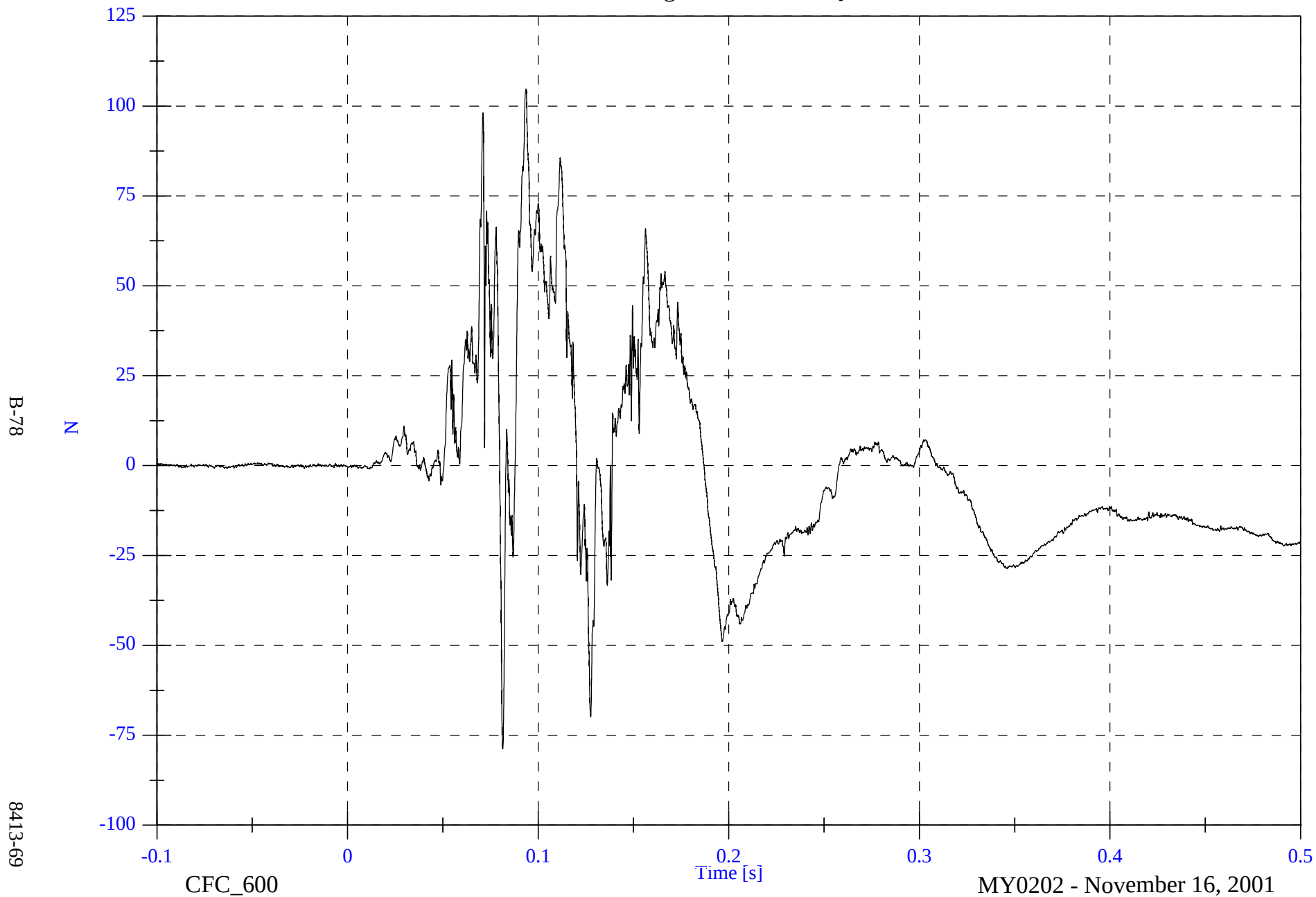


40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Right Lower Tibia Fy

Max: 104.8 [N] at 0.094 [s]

Min: -78.7 [N] at 0.081 [s]

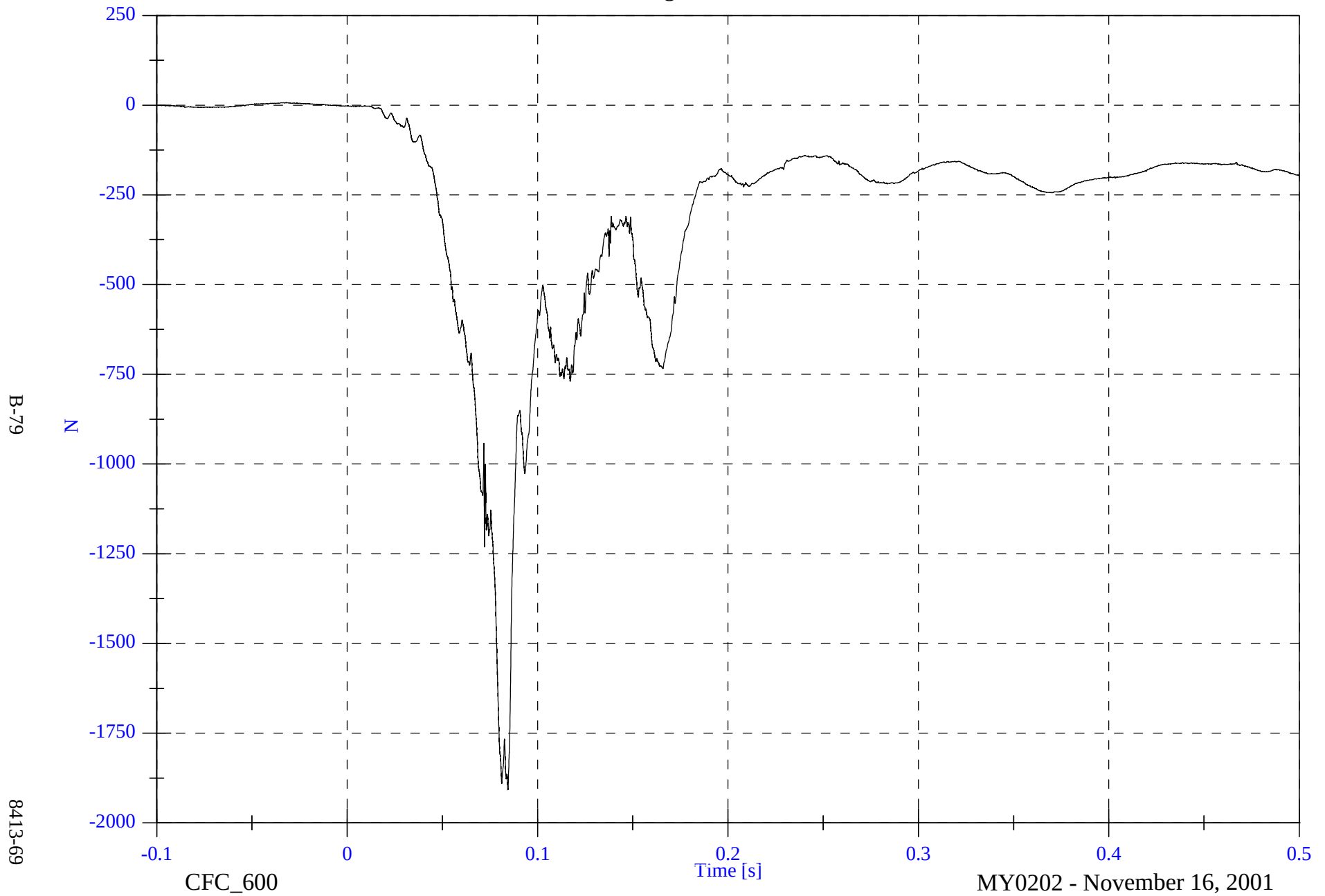


40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Right Lower Tibia Fz

Max: 7.4 [N] at -0.032 [s]

Min: -1908.3 [N] at 0.084 [s]

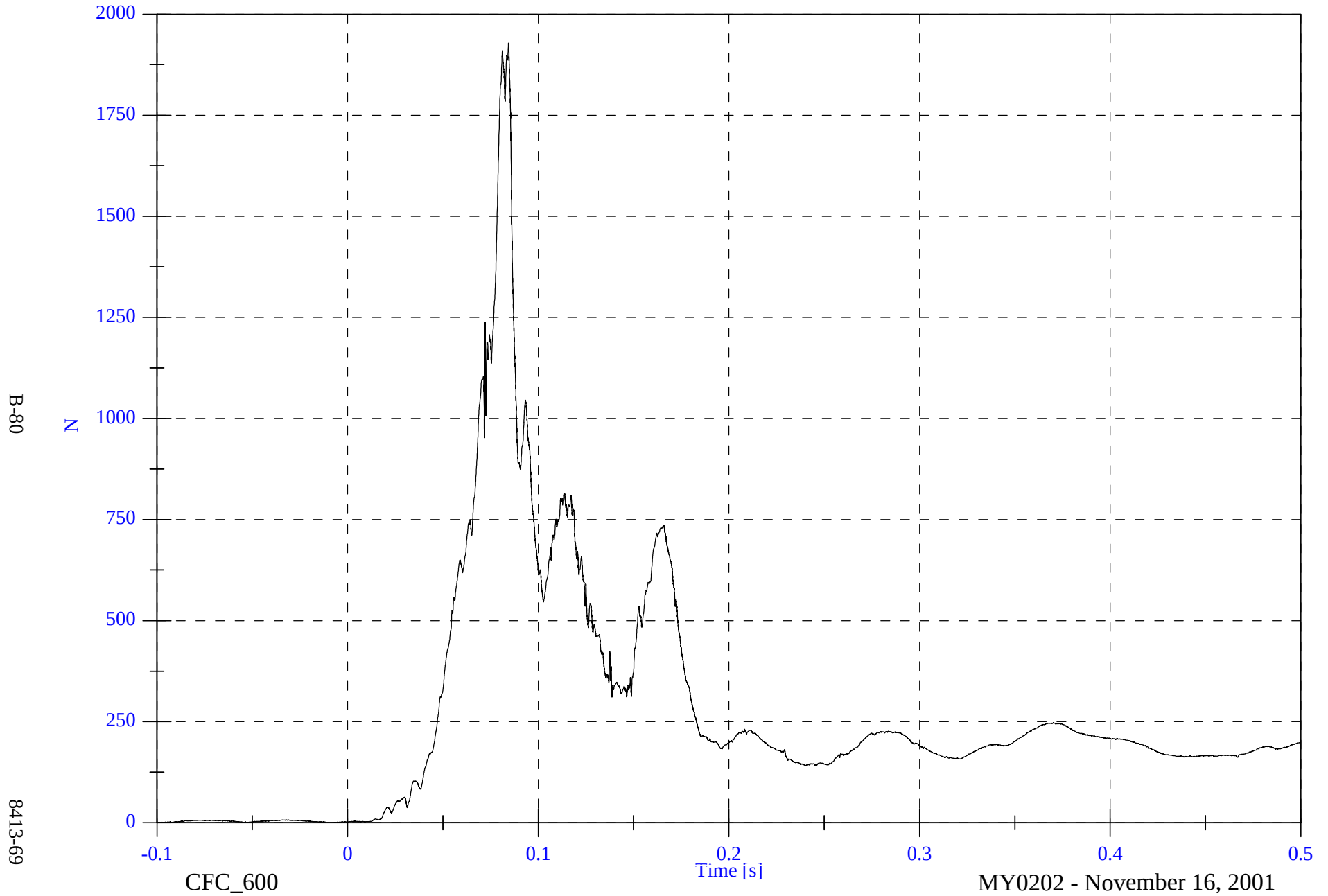


40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Right Lower Tibia F Resultant

Max: 1928.6 [N] at 0.084 [s]

Min: 0.1 [N] at -0.009 [s]



40% Frontal Offset Test #13 - 2000 Ford Explorer

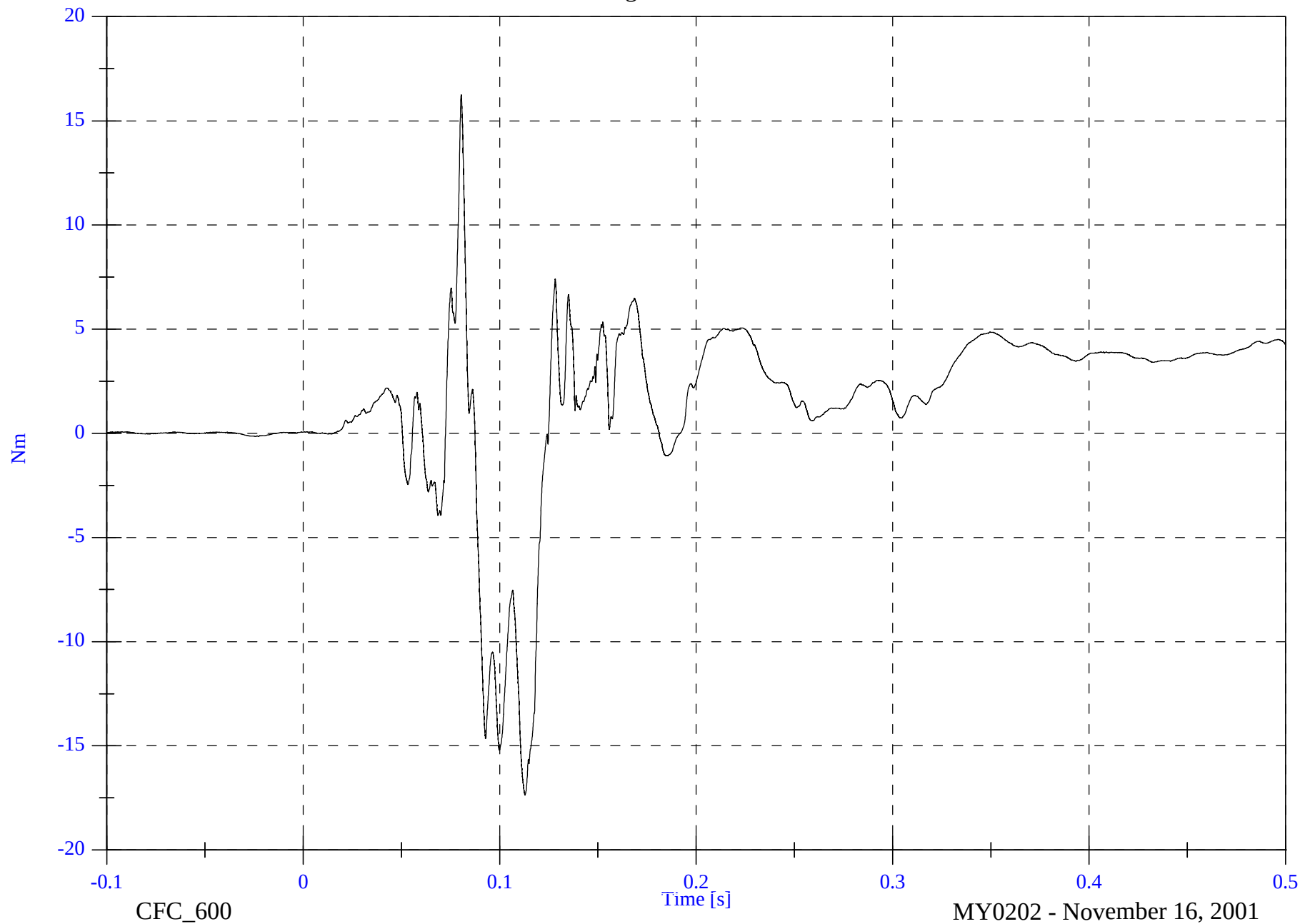
P1 Right Lower Tibia Mx

Max: 16.2 [Nm] at 0.080 [s]

Min: -17.4 [Nm] at 0.113 [s]

B-81

8413-69

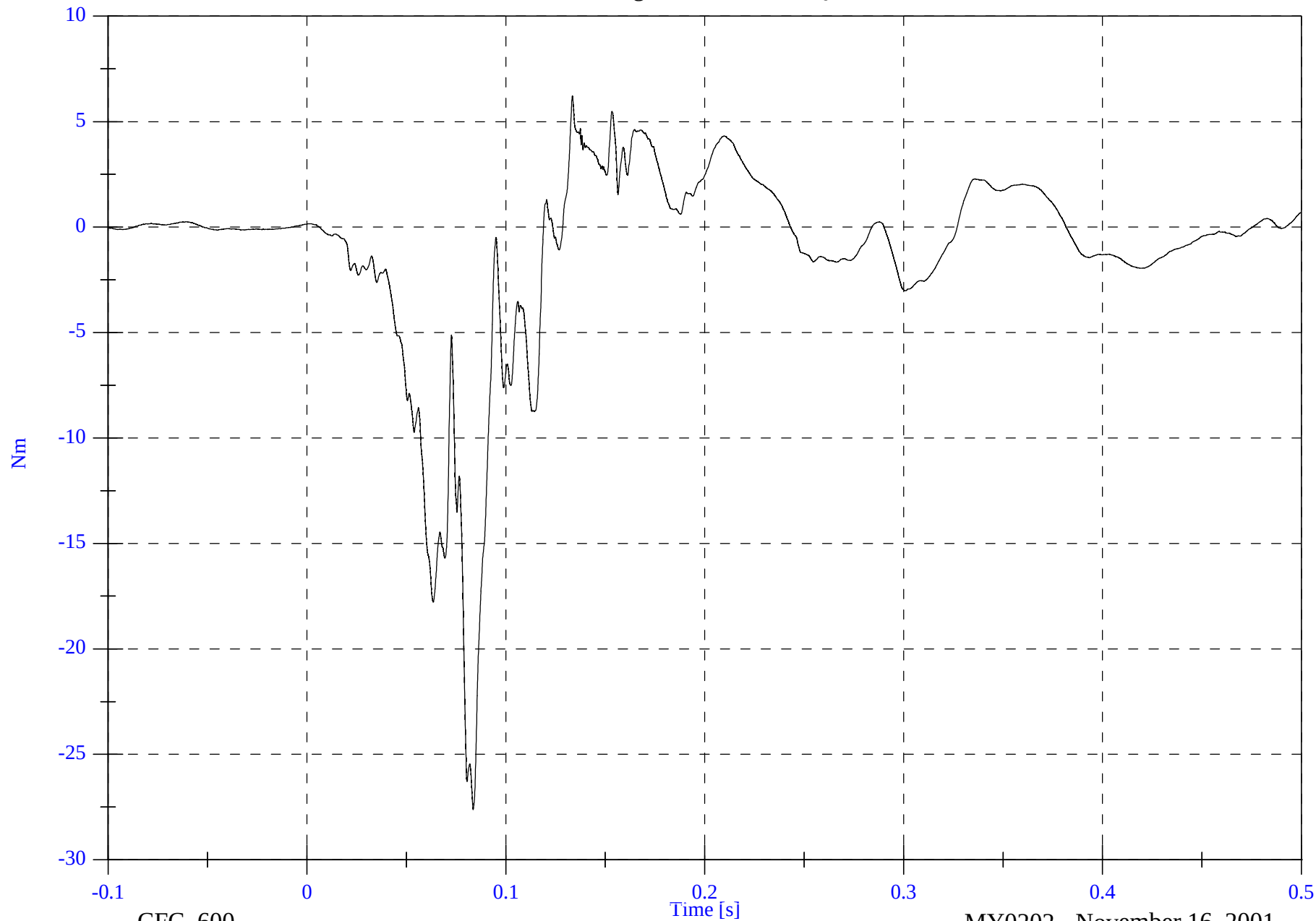


40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Right Lower Tibia My

Max: 6.2 [Nm] at 0.133 [s]

Min: -27.6 [Nm] at 0.084 [s]



B-82

8413-69

CFC_600

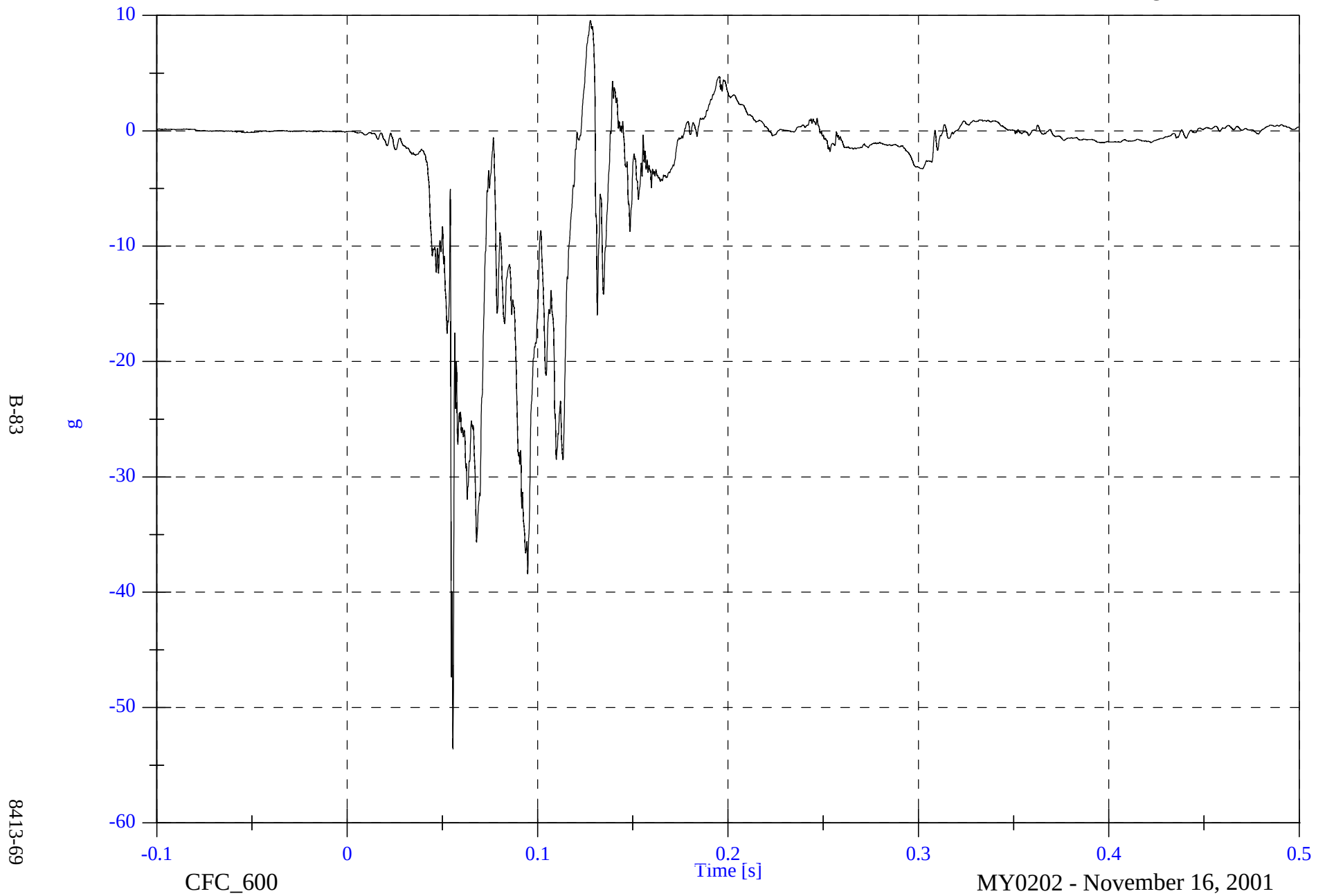
MY0202 - November 16, 2001

40% Frontal Offset Test #13 - 2000 Ford Explorer

Max: 9.5 [g] at 0.128 [s]

P1 Left Tibia Ax

Min: -53.6 [g] at 0.056 [s]



40% Frontal Offset Test #13 - 2000 Ford Explorer

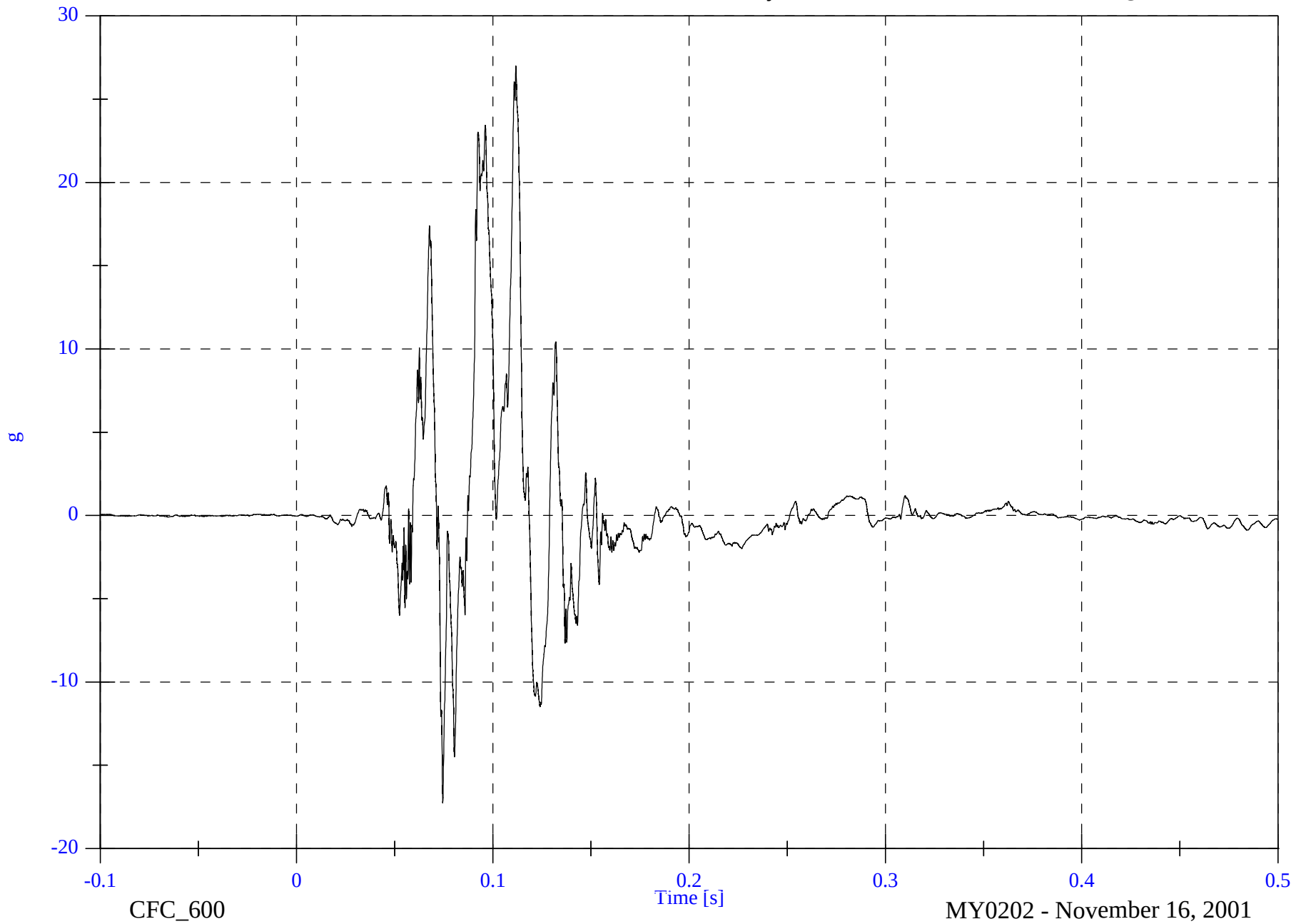
P1 Left Tibia Ay

Max: 27.0 [g] at 0.112 [s]

Min: -17.2 [g] at 0.075 [s]

B-84

8413-69

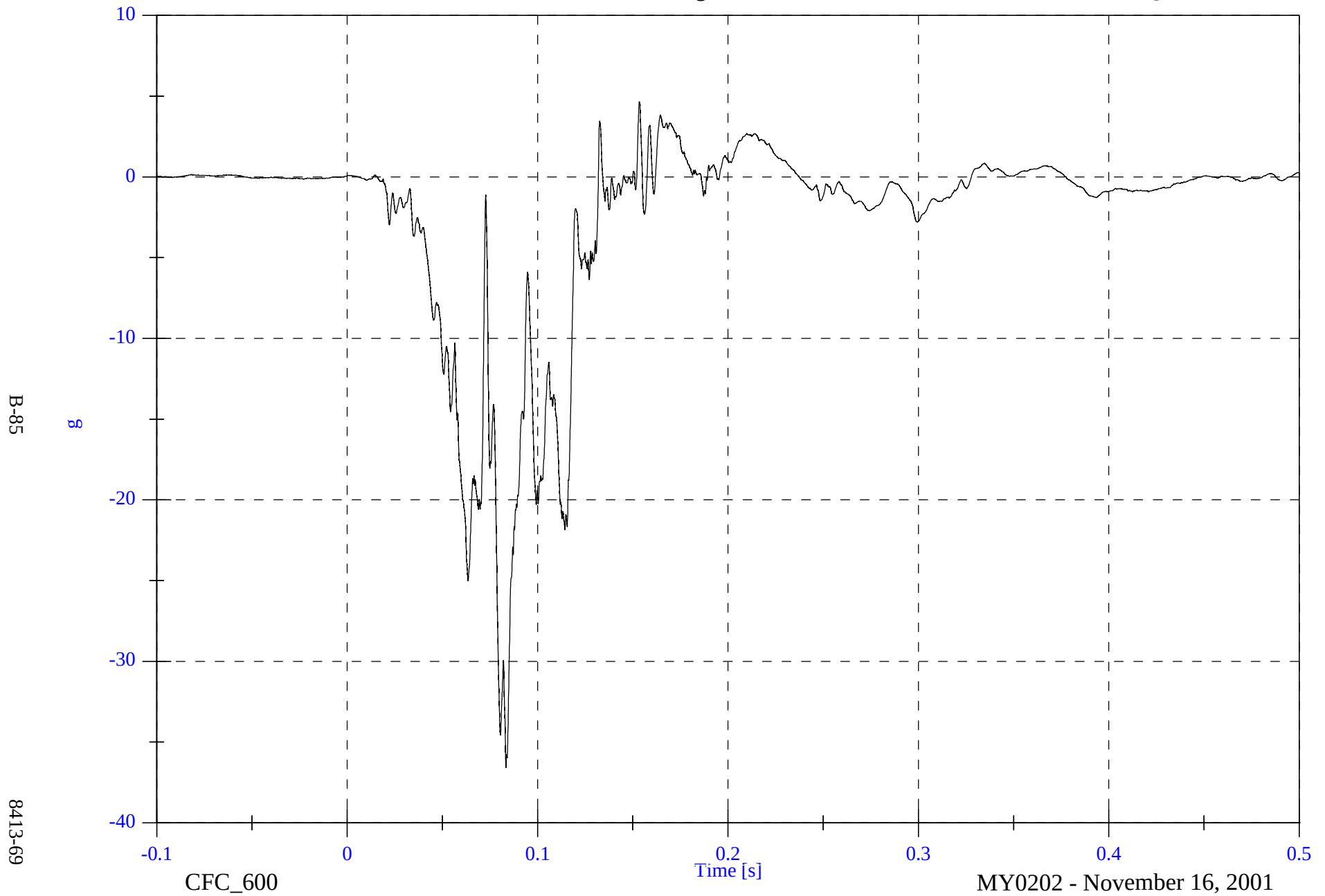


40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Right Tibia Ax

Max: 4.7 [g] at 0.153 [s]

Min: -36.6 [g] at 0.083 [s]

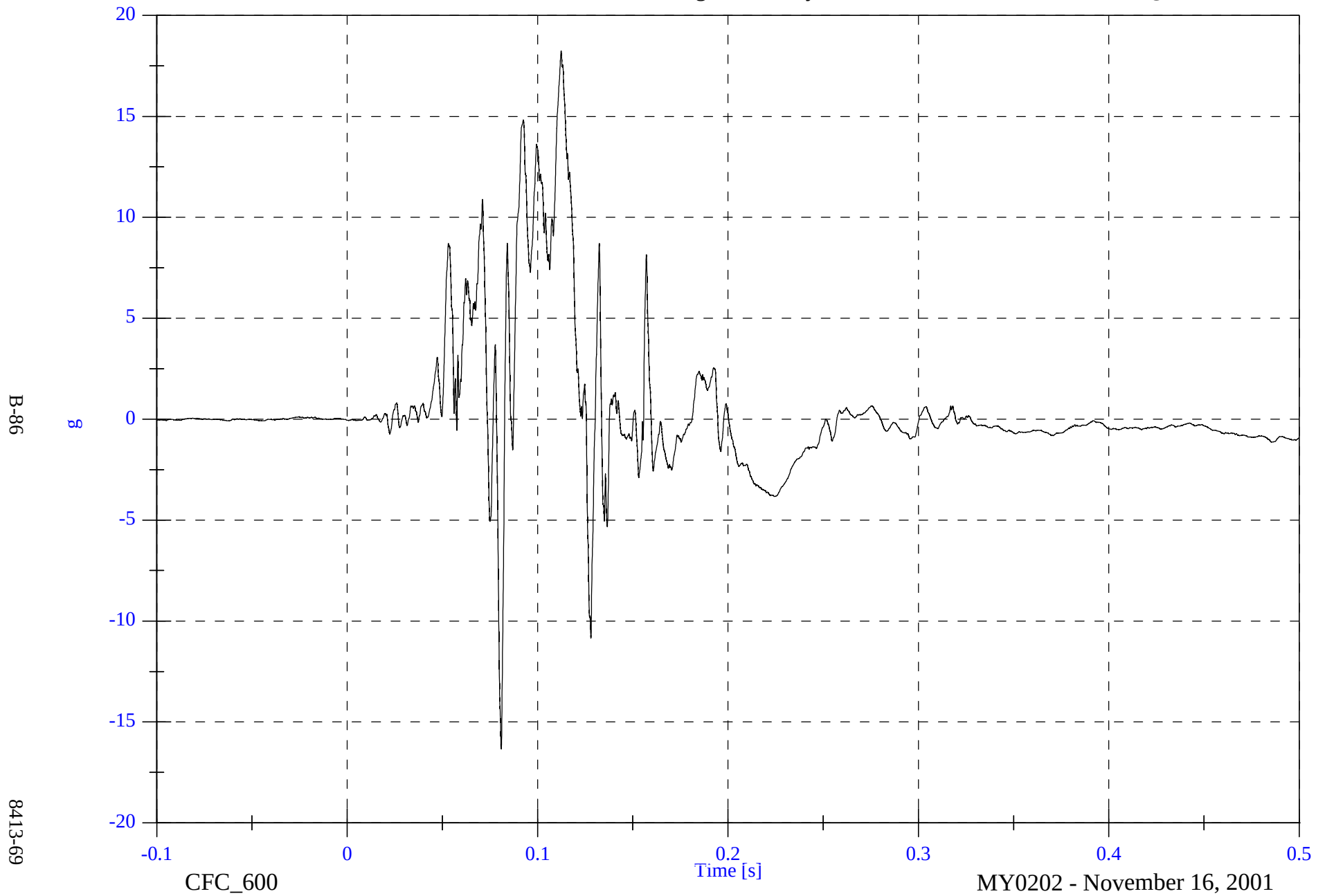


40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Right Tibia Ay

Max: 18.2 [g] at 0.112 [s]

Min: -16.4 [g] at 0.081 [s]



40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Left Ankle Rotation x

Max: 16.6 [Deg] at 0.113 [s]

Min: -1.9 [Deg] at 0.010 [s]



B-87

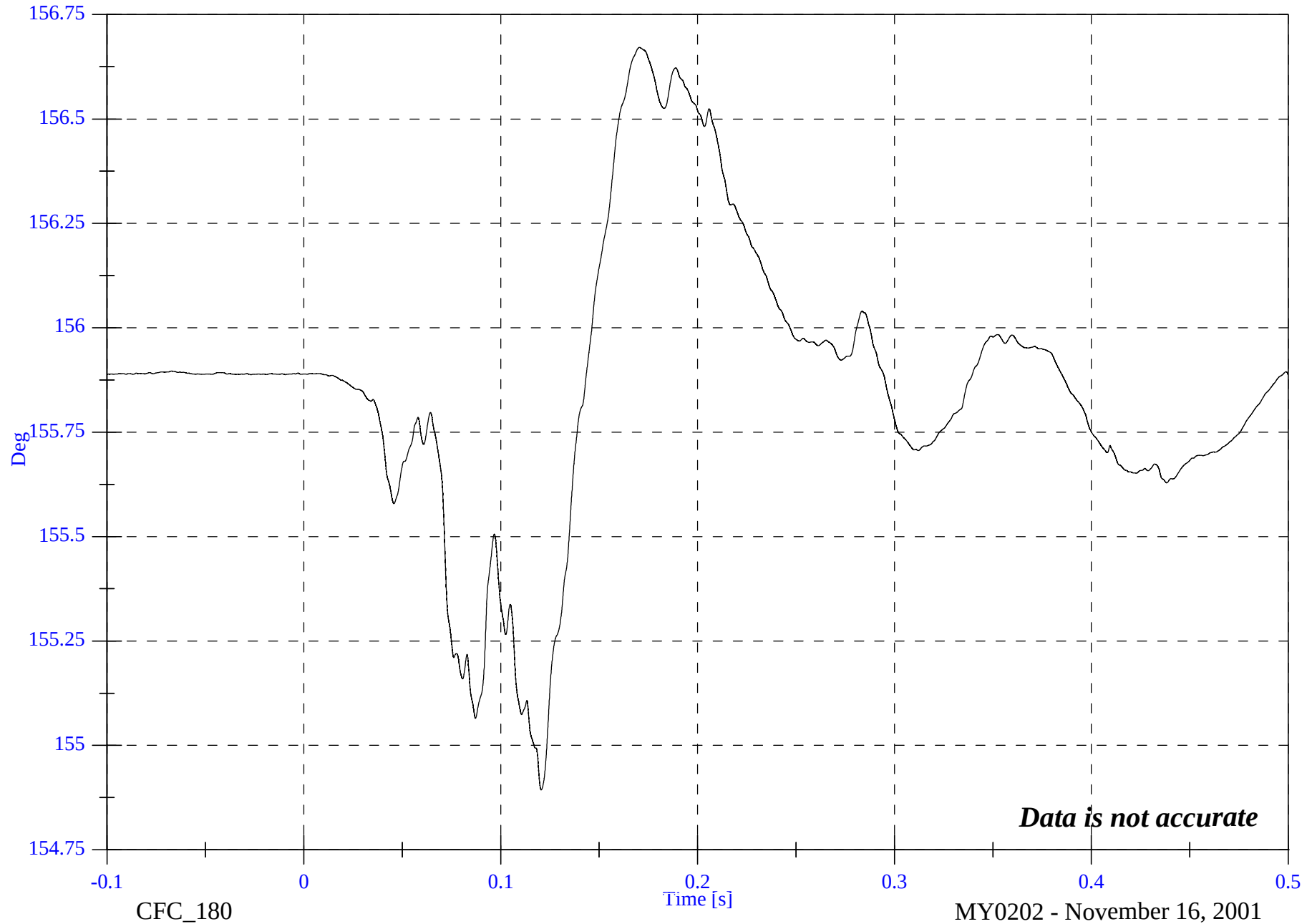
8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Left Ankle Rotation y

Max: 156.7 [Deg] at 0.170 [s]

Min: 154.9 [Deg] at 0.121 [s]

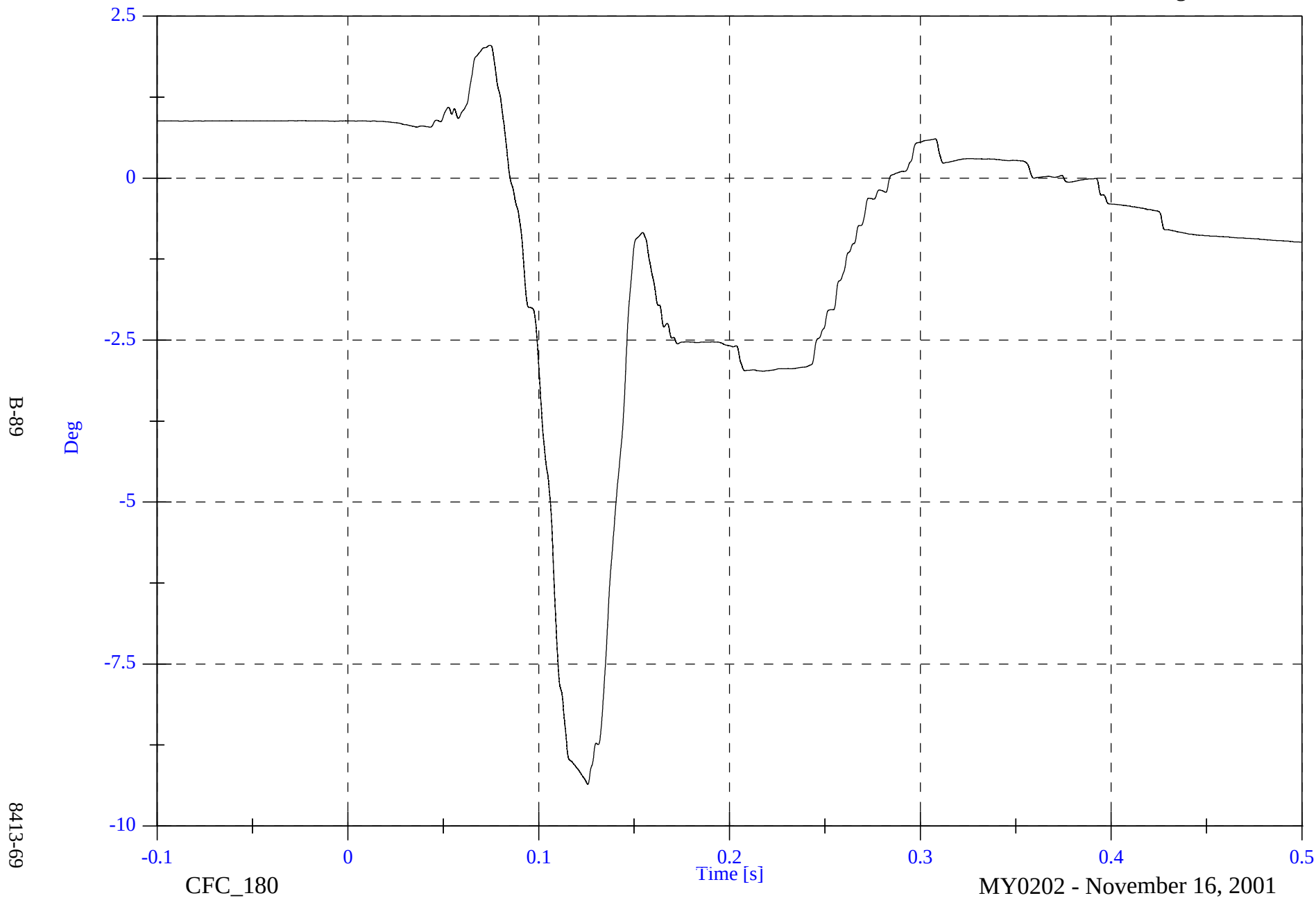


40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Left ankle Rotation z

Max: 2.1 [Deg] at 0.074 [s]

Min: -9.4 [Deg] at 0.126 [s]

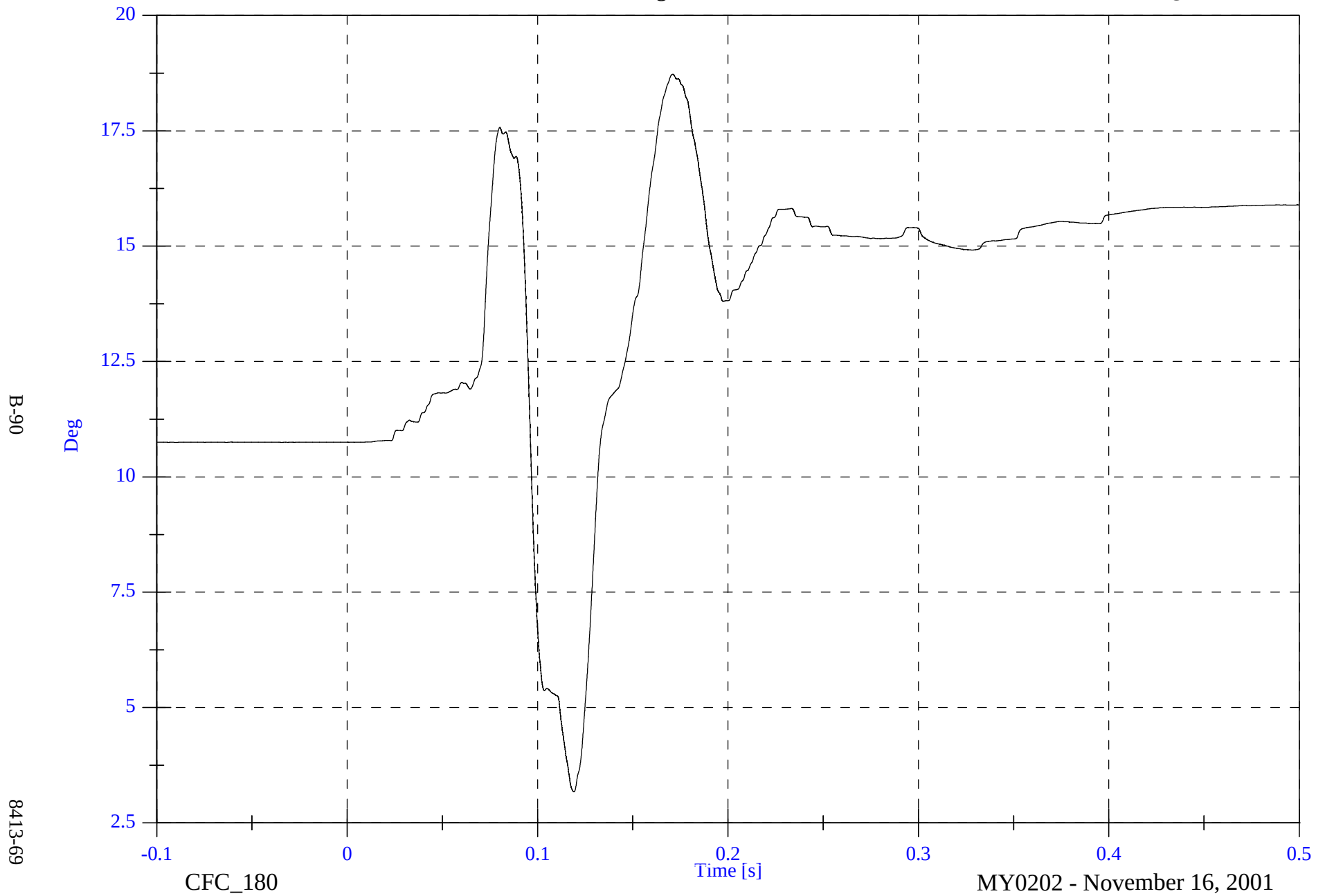


40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Right Ankle Rotation x

Max: 18.7 [Deg] at 0.171 [s]

Min: 3.2 [Deg] at 0.119 [s]



40% Frontal Offset Test #13 - 2000 Ford Explorer

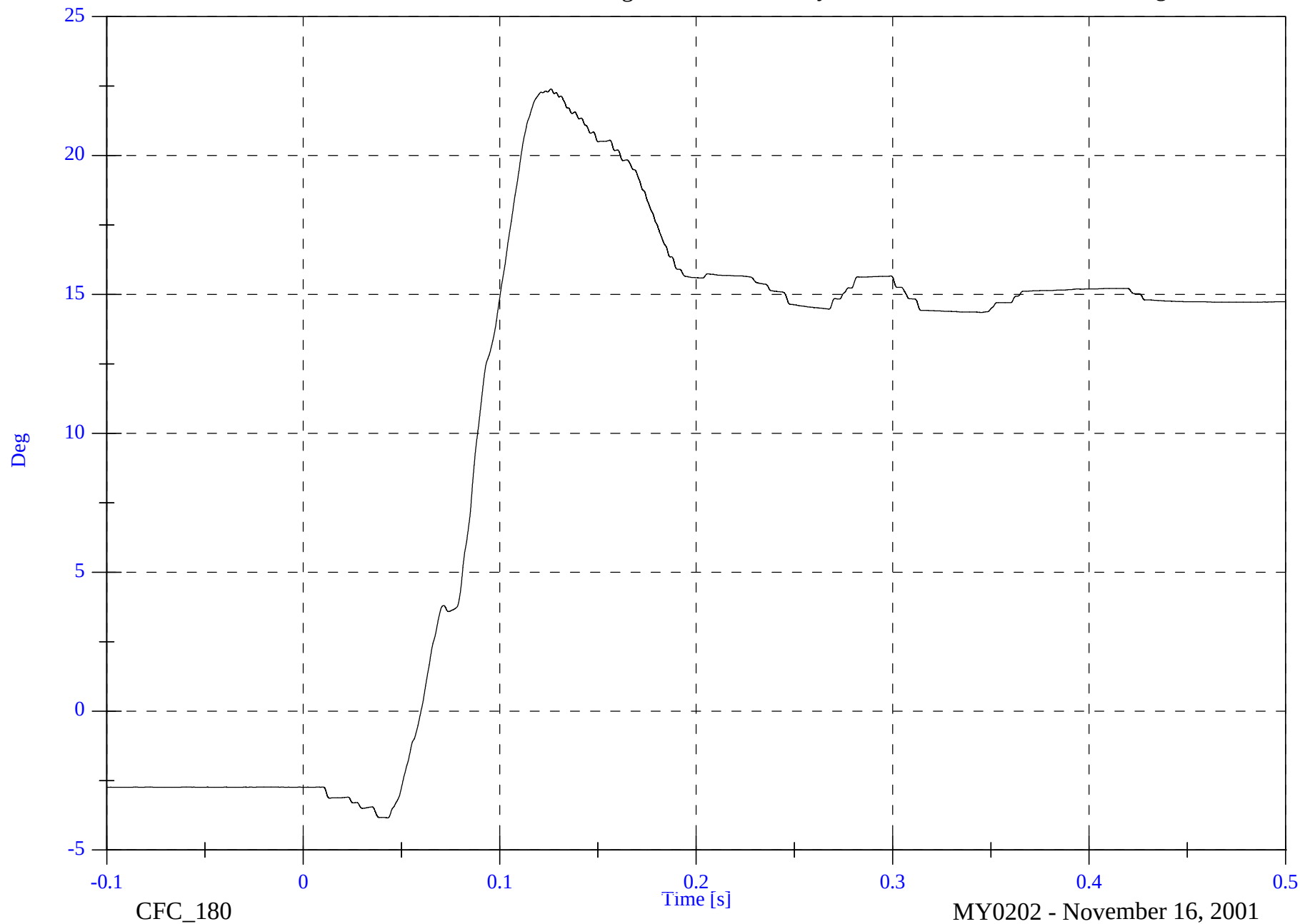
P1 Right Ankle Rotation y

Max: 22.4 [Deg] at 0.126 [s]

Min: -3.8 [Deg] at 0.043 [s]

B-91

8413-69

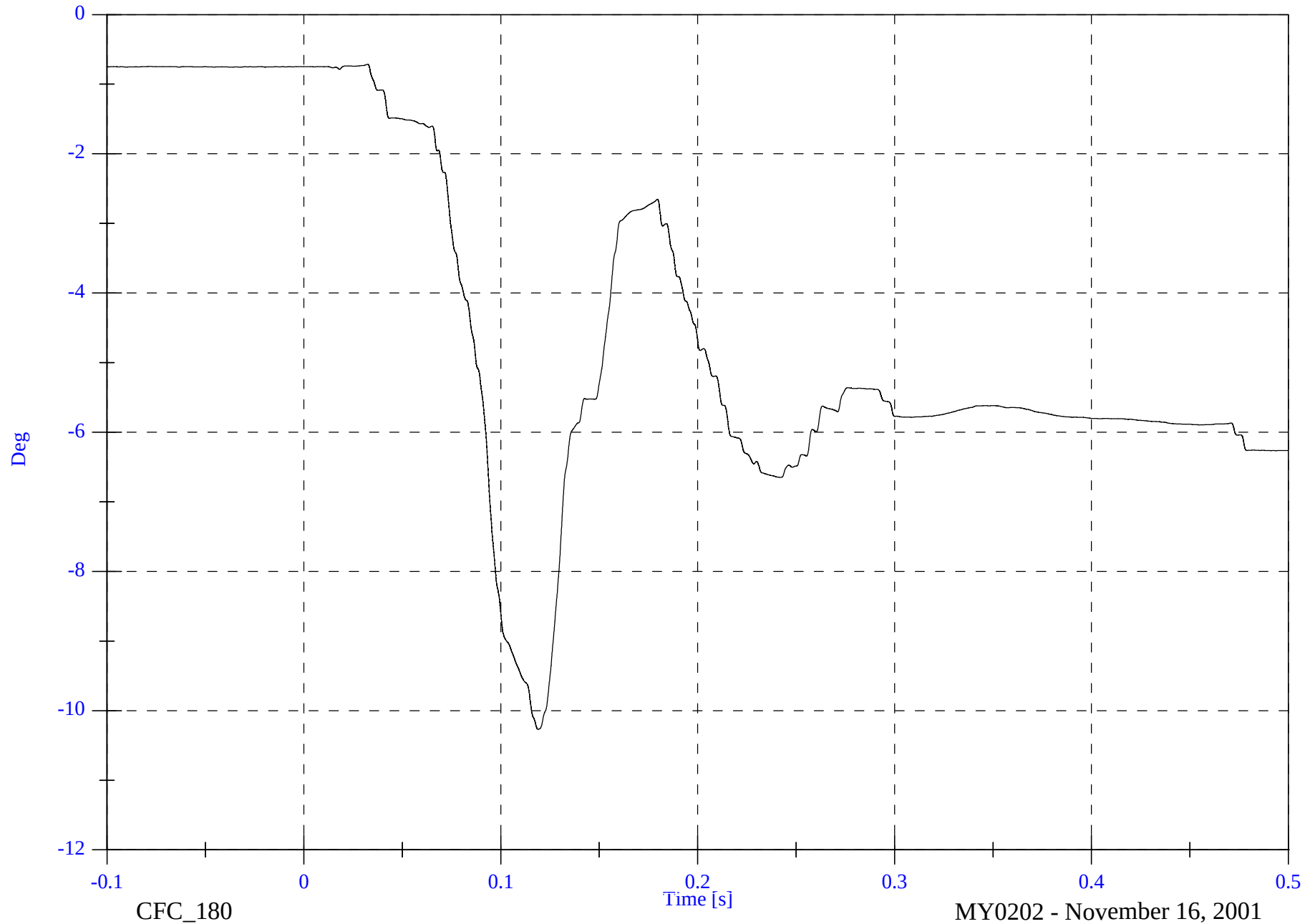


40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Right Ankle Rotation z

Max: -0.7 [Deg] at 0.032 [s]

Min: -10.3 [Deg] at 0.119 [s]



B-92

8413-69

CFC_180

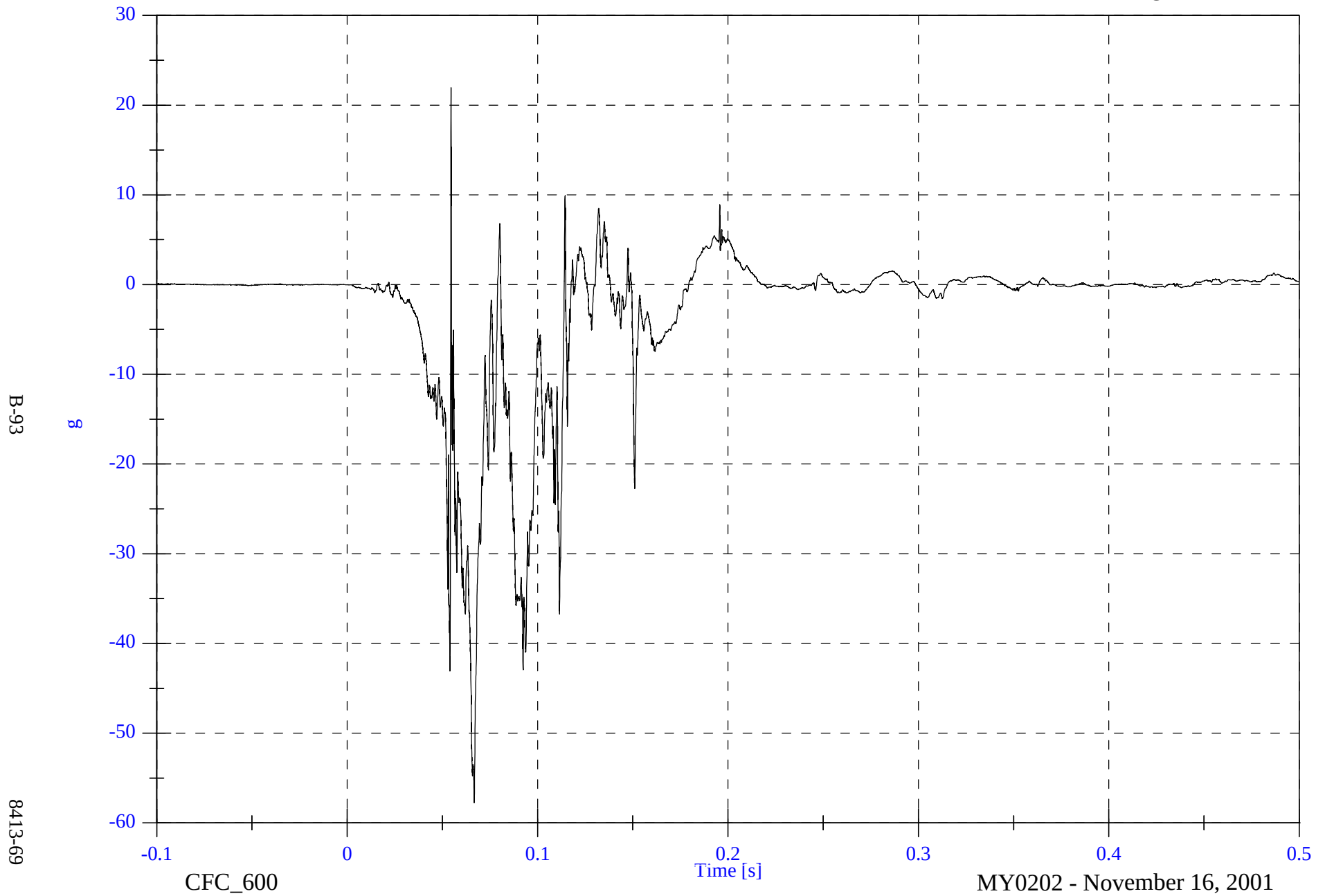
MY0202 - November 16, 2001

40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Left Foot Ax

Max: 21.9 [g] at 0.055 [s]

Min: -57.8 [g] at 0.067 [s]

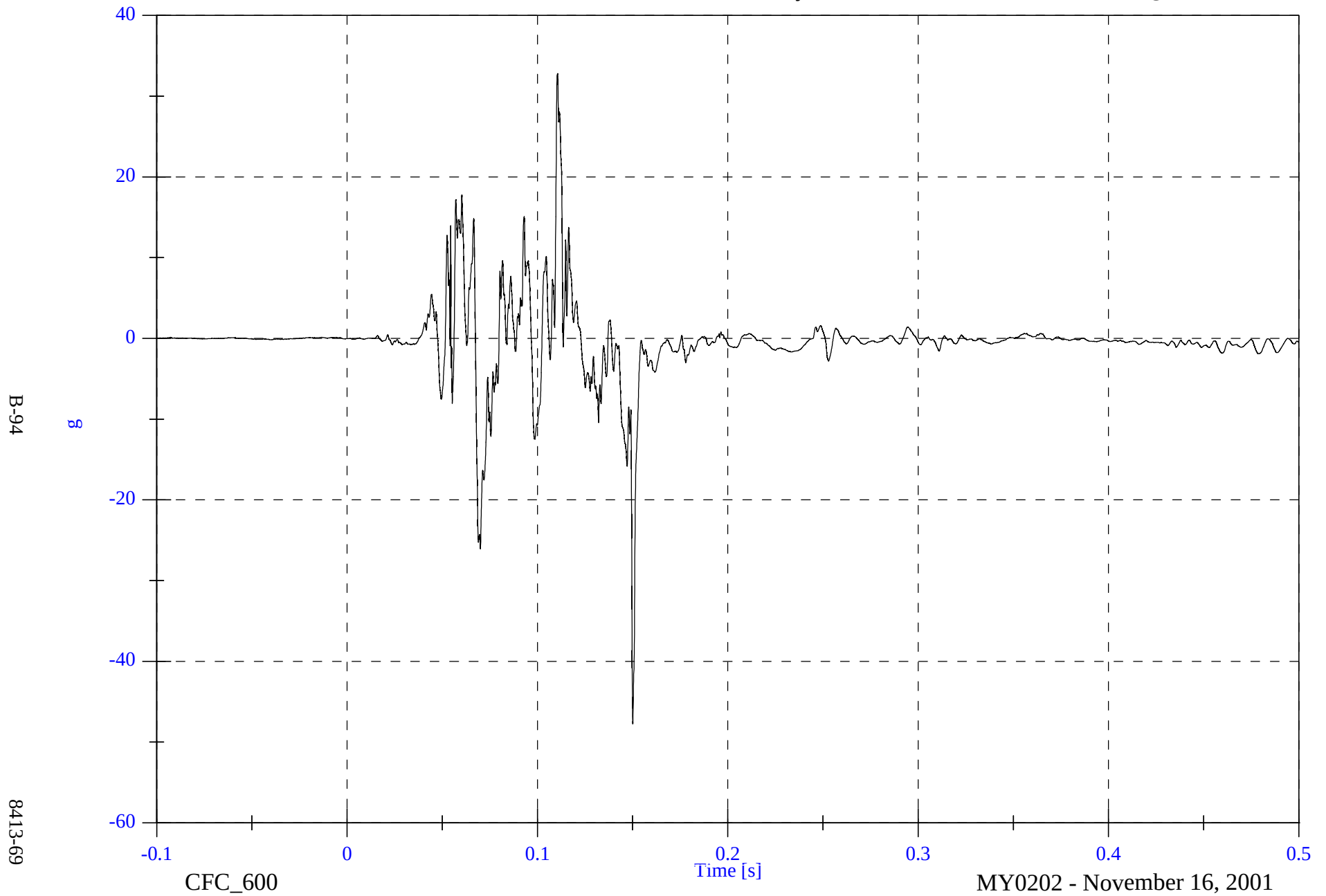


40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Left Foot Ay

Max: 32.8 [g] at 0.111 [s]

Min: -47.7 [g] at 0.150 [s]

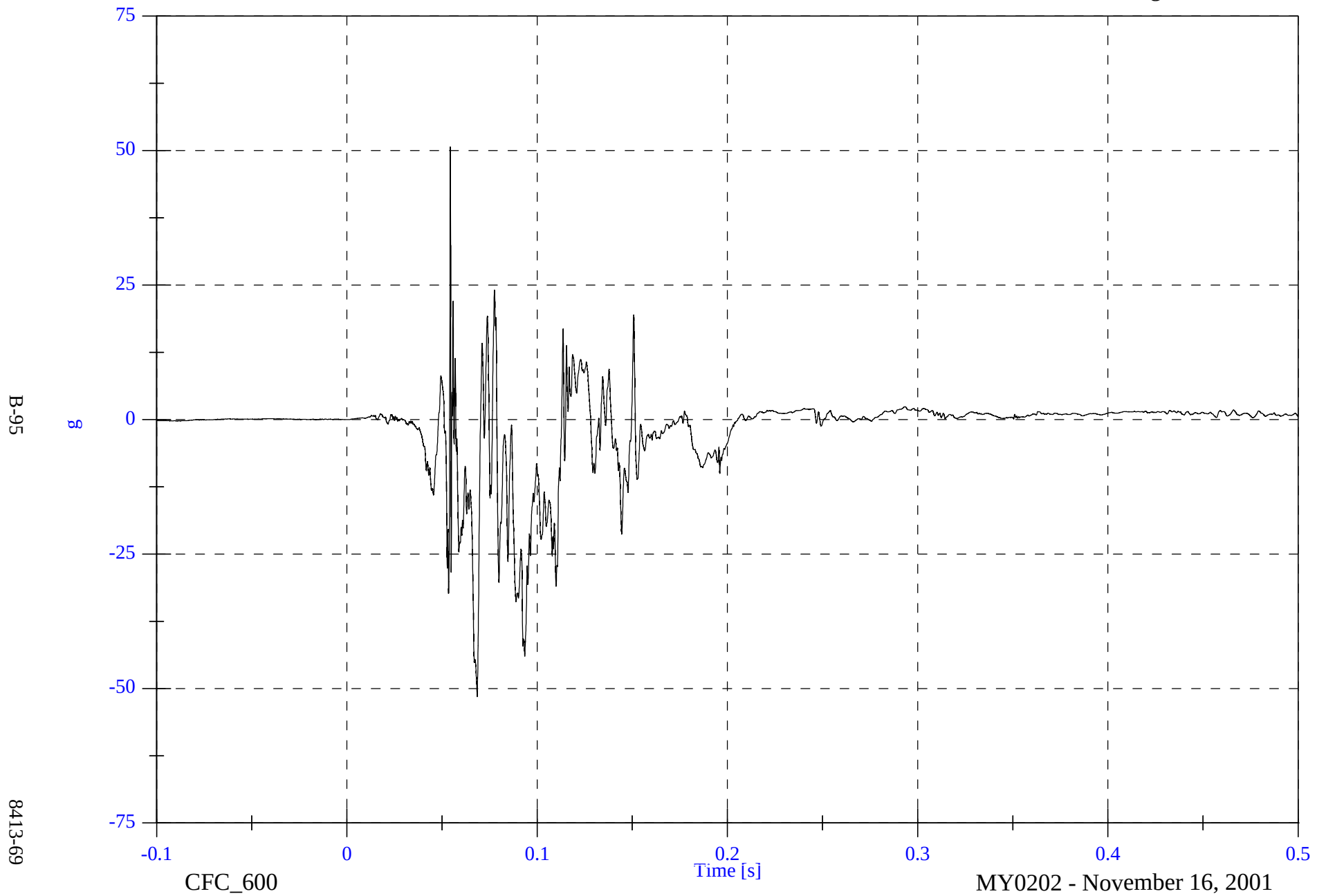


40% Frontal Offset Test #13 - 2000 Ford Explorer

Max: 50.7 [g] at 0.054 [s]

P1 Left Foot Az

Min: -51.6 [g] at 0.069 [s]

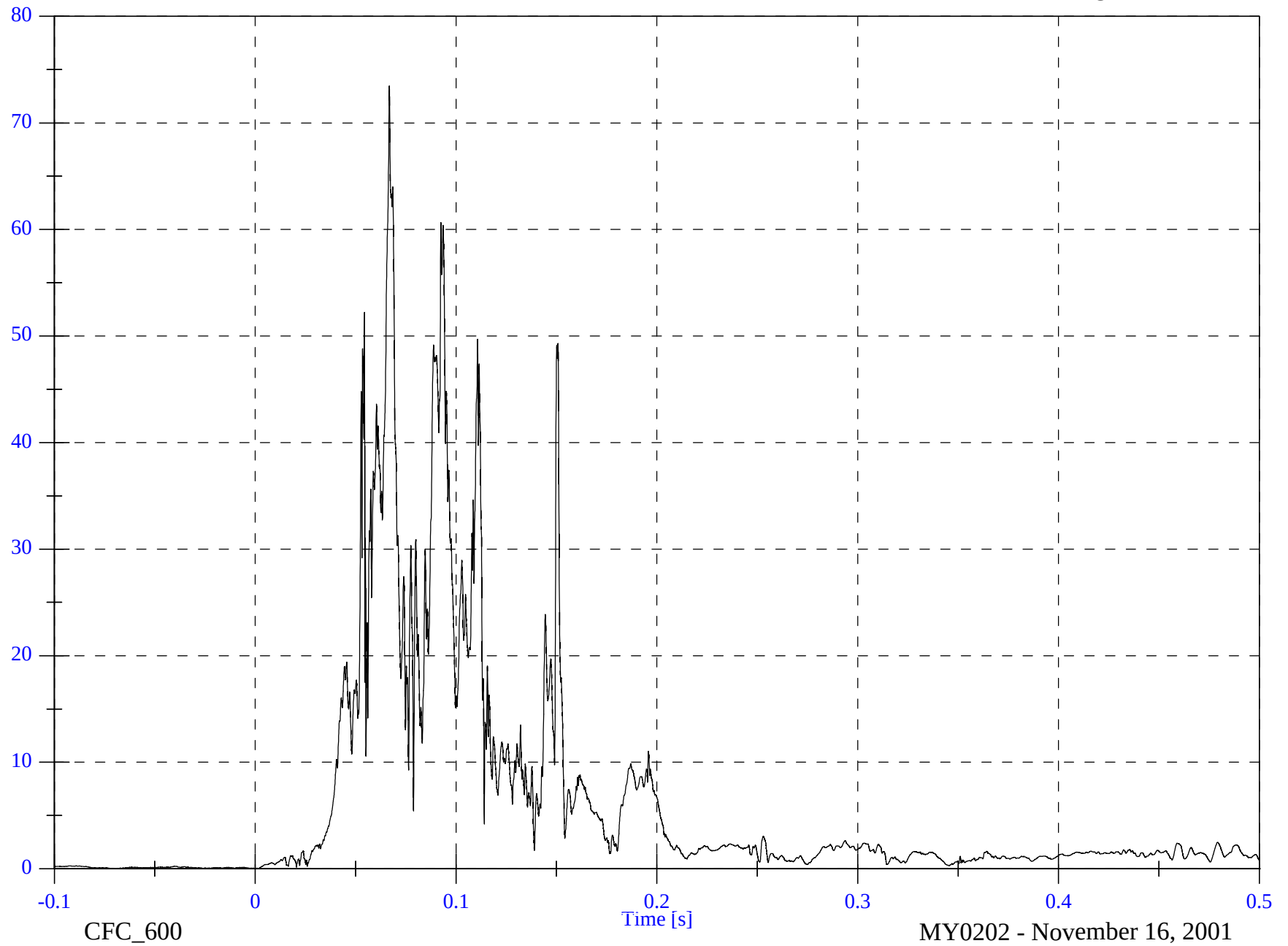


40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Left Foot A Resultant

Max: 73.5 [g] at 0.067 [s]

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

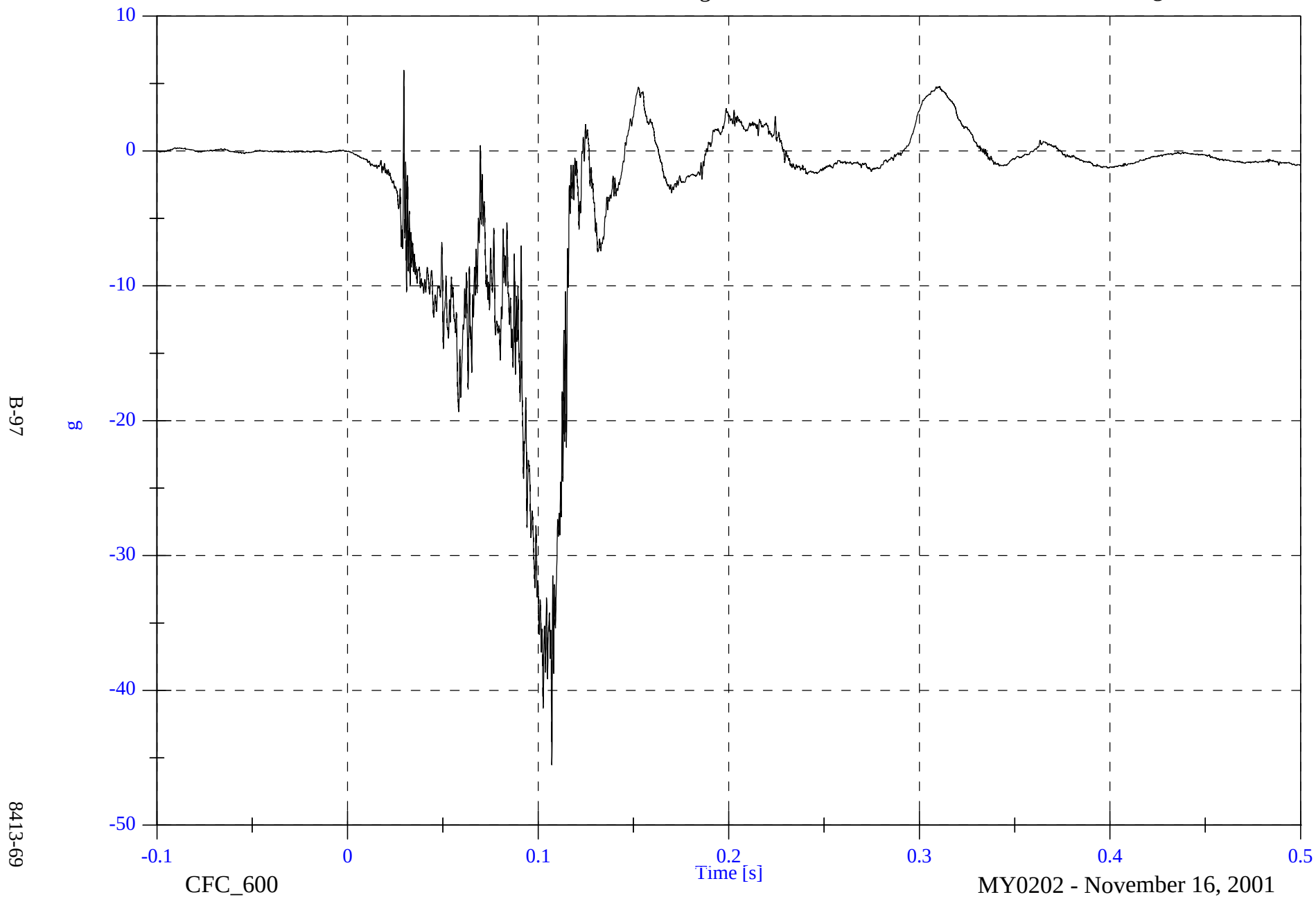


40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Right Foot Ax

Max: 6.0 [g] at 0.030 [s]

Min: -45.5 [g] at 0.107 [s]

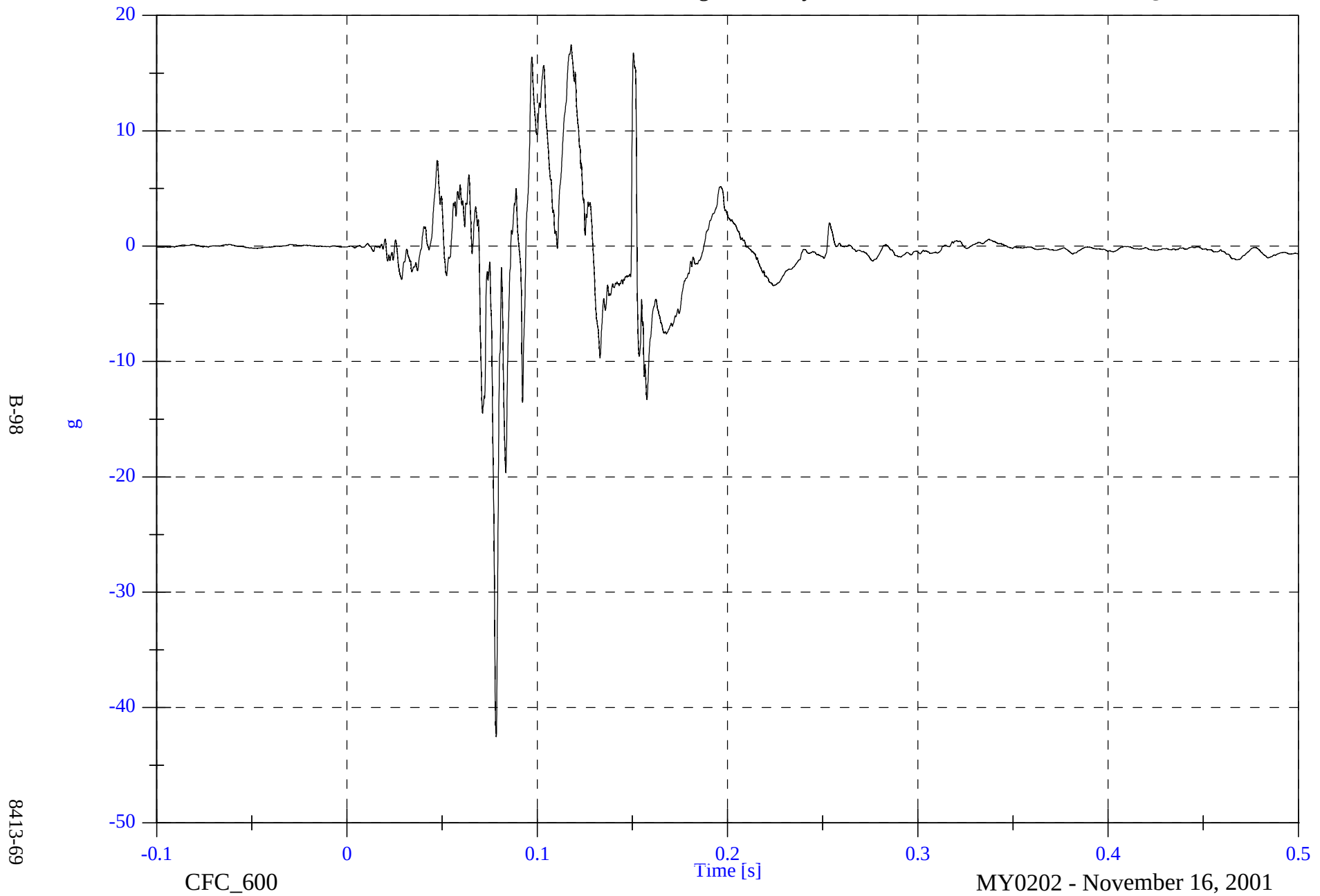


40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Right Foot Ay

Max: 17.5 [g] at 0.118 [s]

Min: -42.5 [g] at 0.078 [s]

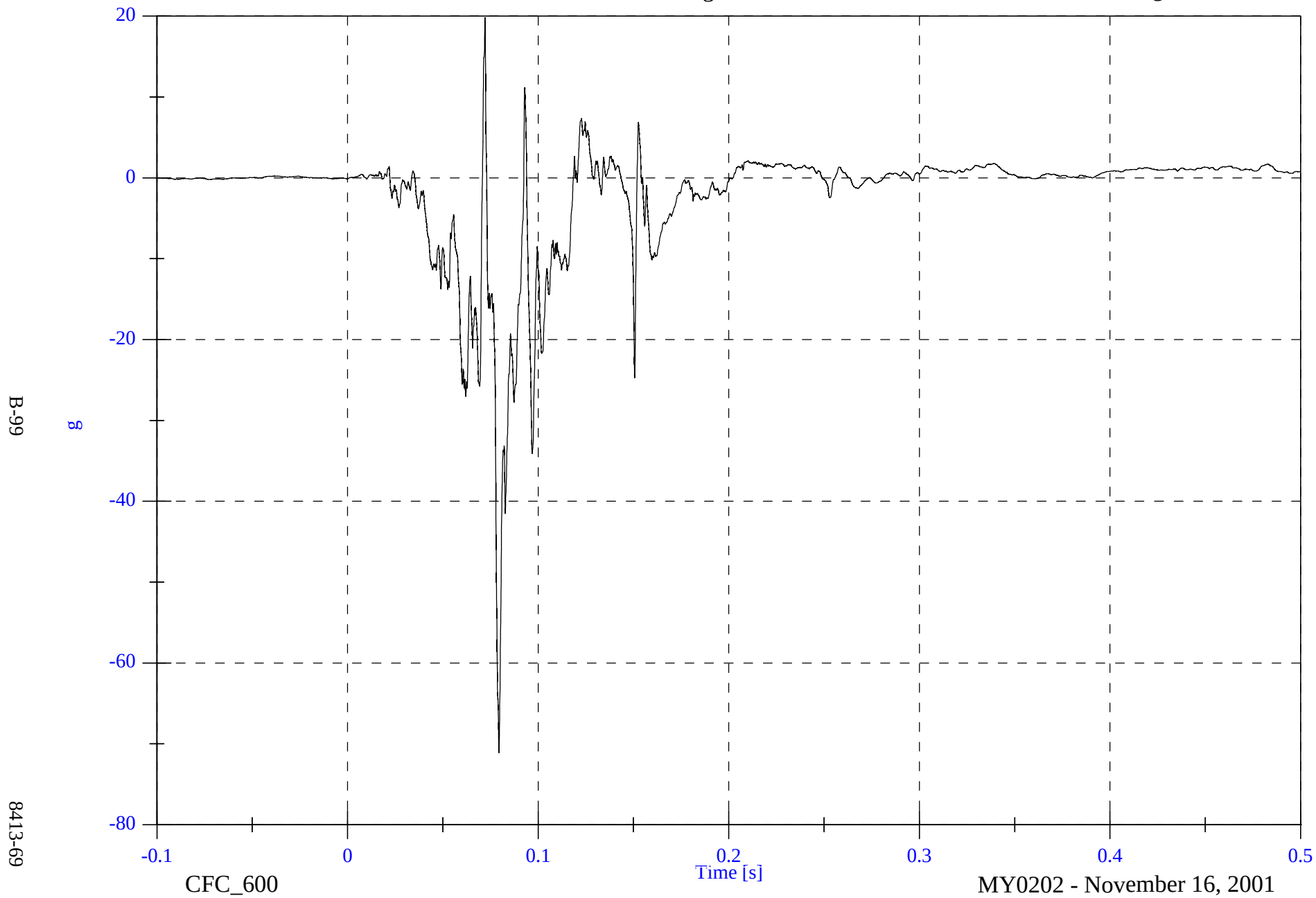


40% Frontal Offset Test #13 - 2000 Ford Explorer

P1 Right foot Az

Max: 19.8 [g] at 0.072 [s]

Min: -71.1 [g] at 0.079 [s]



40% Frontal Offset Test #13 - 2000 Ford Explorer

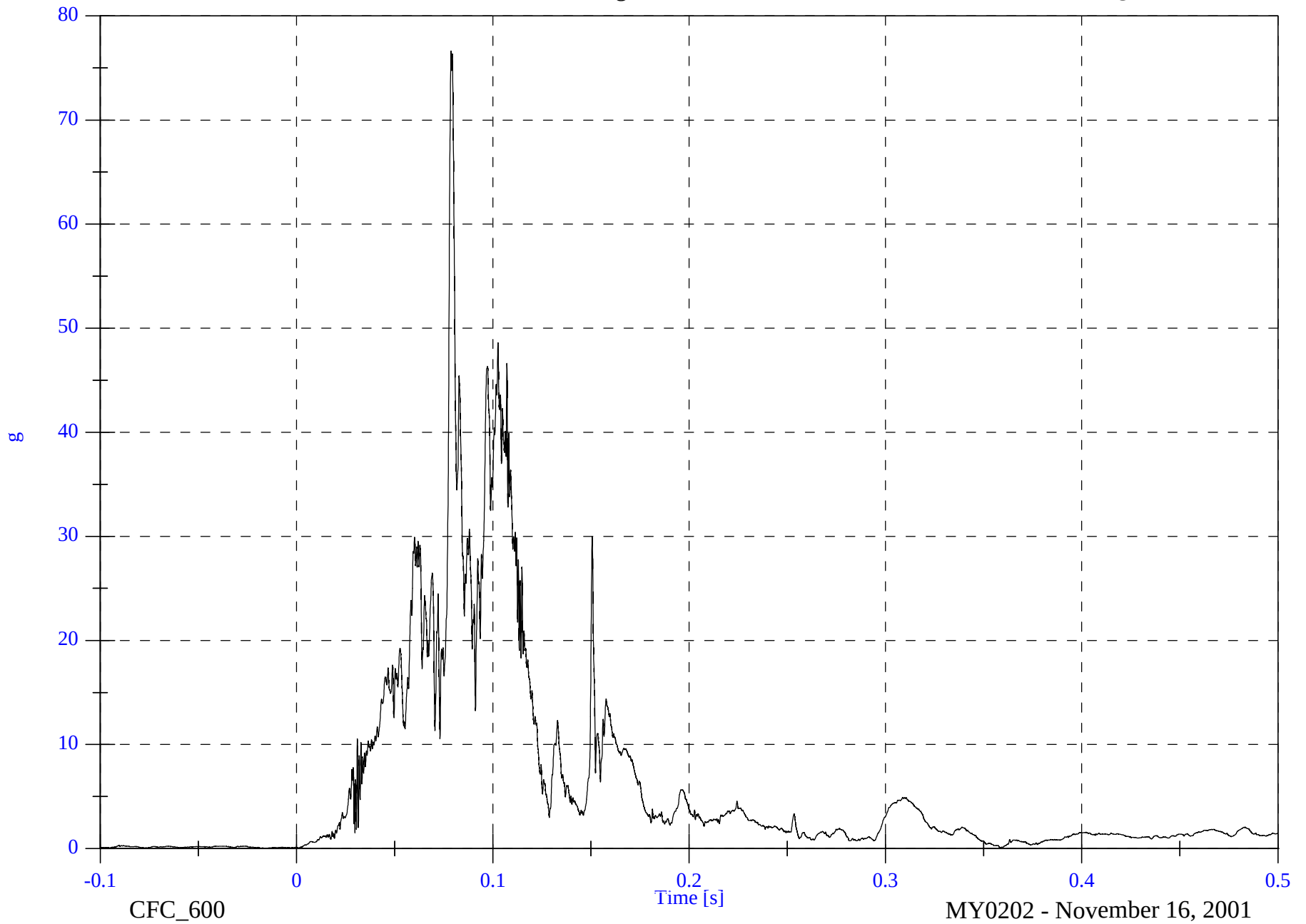
P1 Right Foot A Resultant

Max: 76.6 [g] at 0.079 [s]

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

B-100

8413-69



40% Frontal Offset Test #13 - 2000 Ford Explorer

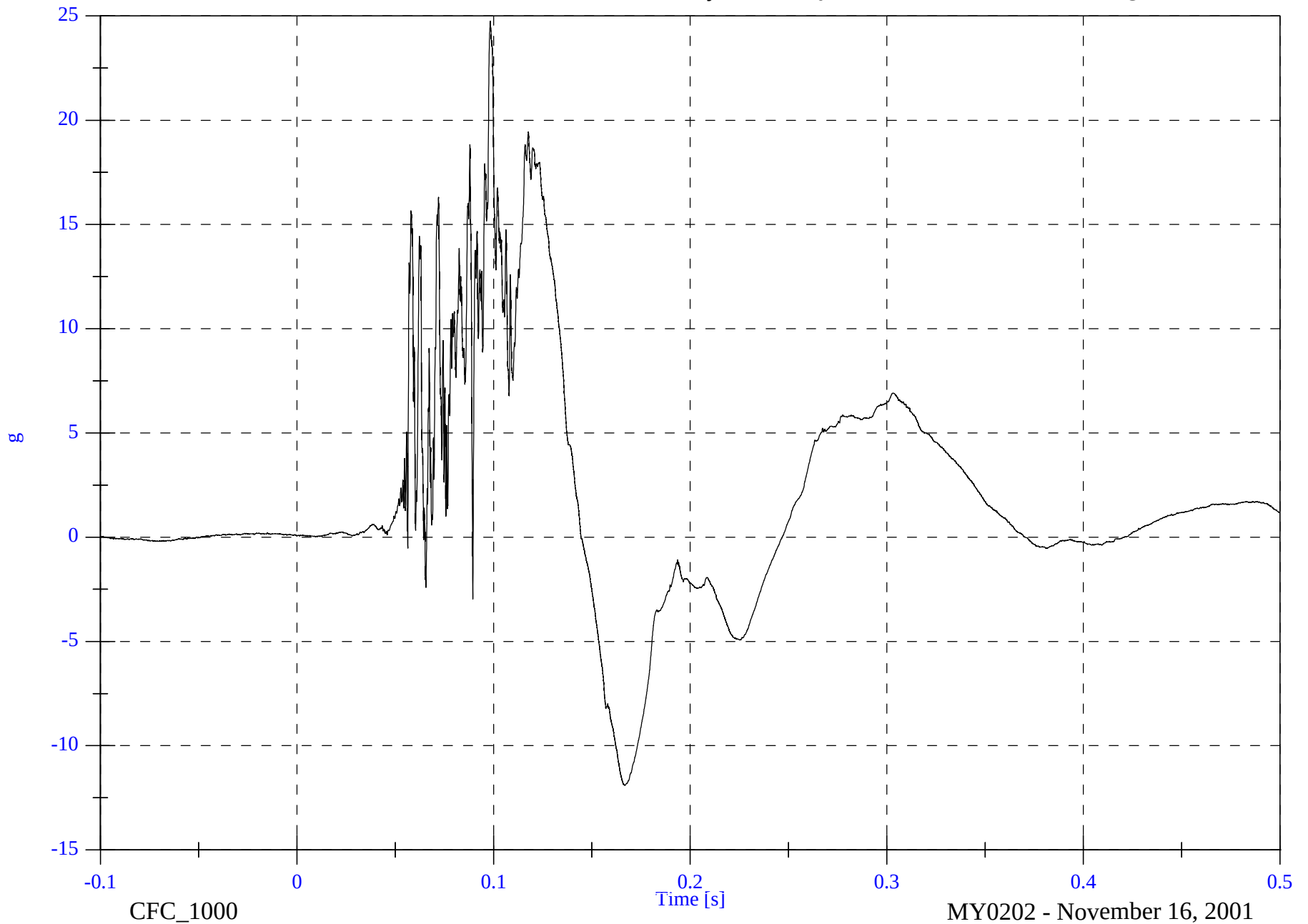
P2 Head 9 Array X Arm Ay

Max: 24.8 [g] at 0.098 [s]

Min: -11.9 [g] at 0.167 [s]

B-101

8413-69



40% Frontal Offset Test #13 - 2000 Ford Explorer

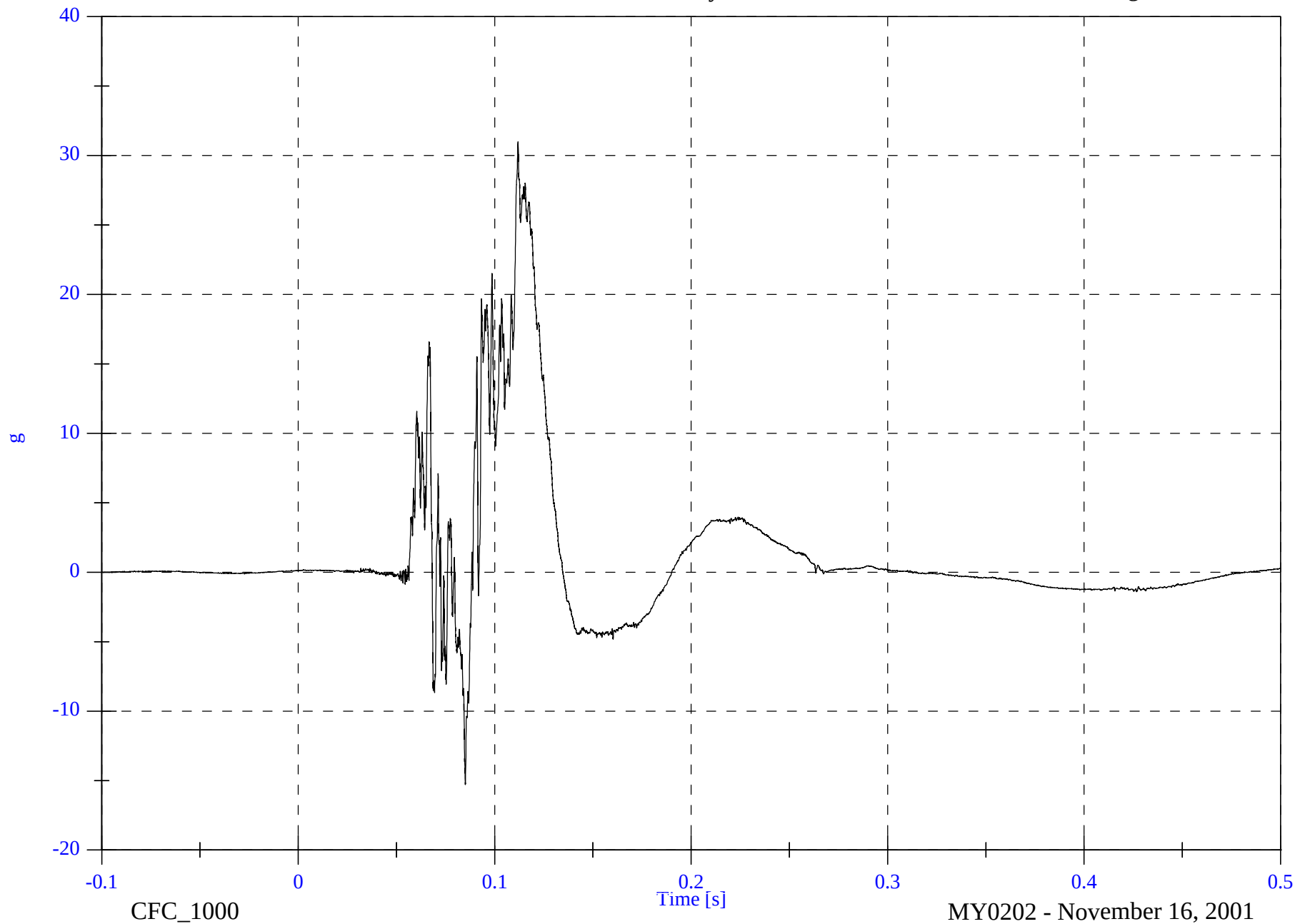
P2 Head 9 Array X Arm Az

Max: 31.0 [g] at 0.112 [s]

Min: -15.3 [g] at 0.085 [s]

B-102

8413-69

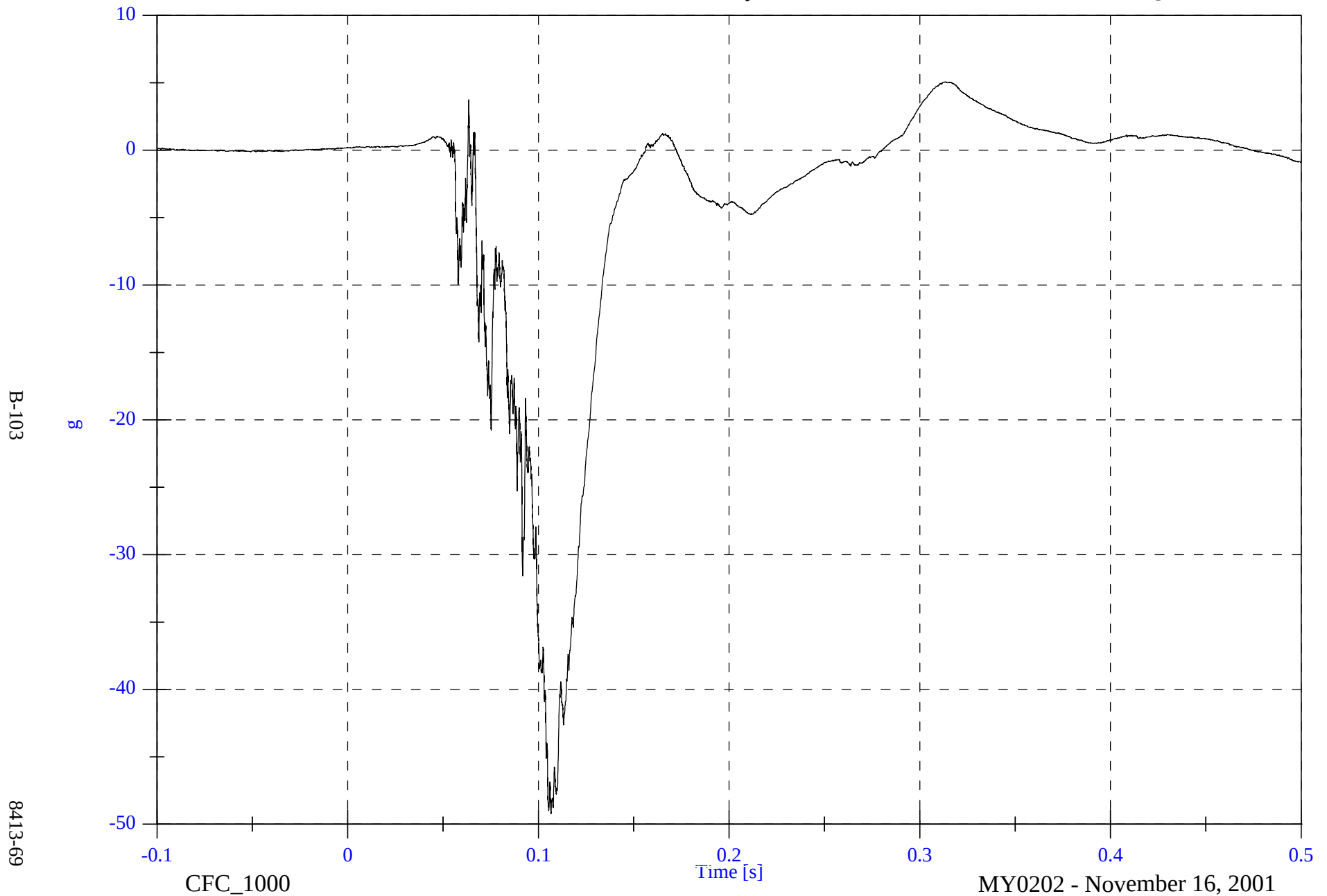


40% Frontal Offset Test #13 - 2000 Ford Explorer

P2 Head 9 Array Y Arm Ax

Max: 5.1 [g] at 0.313 [s]

Min: -49.2 [g] at 0.107 [s]



40% Frontal Offset Test #13 - 2000 Ford Explorer

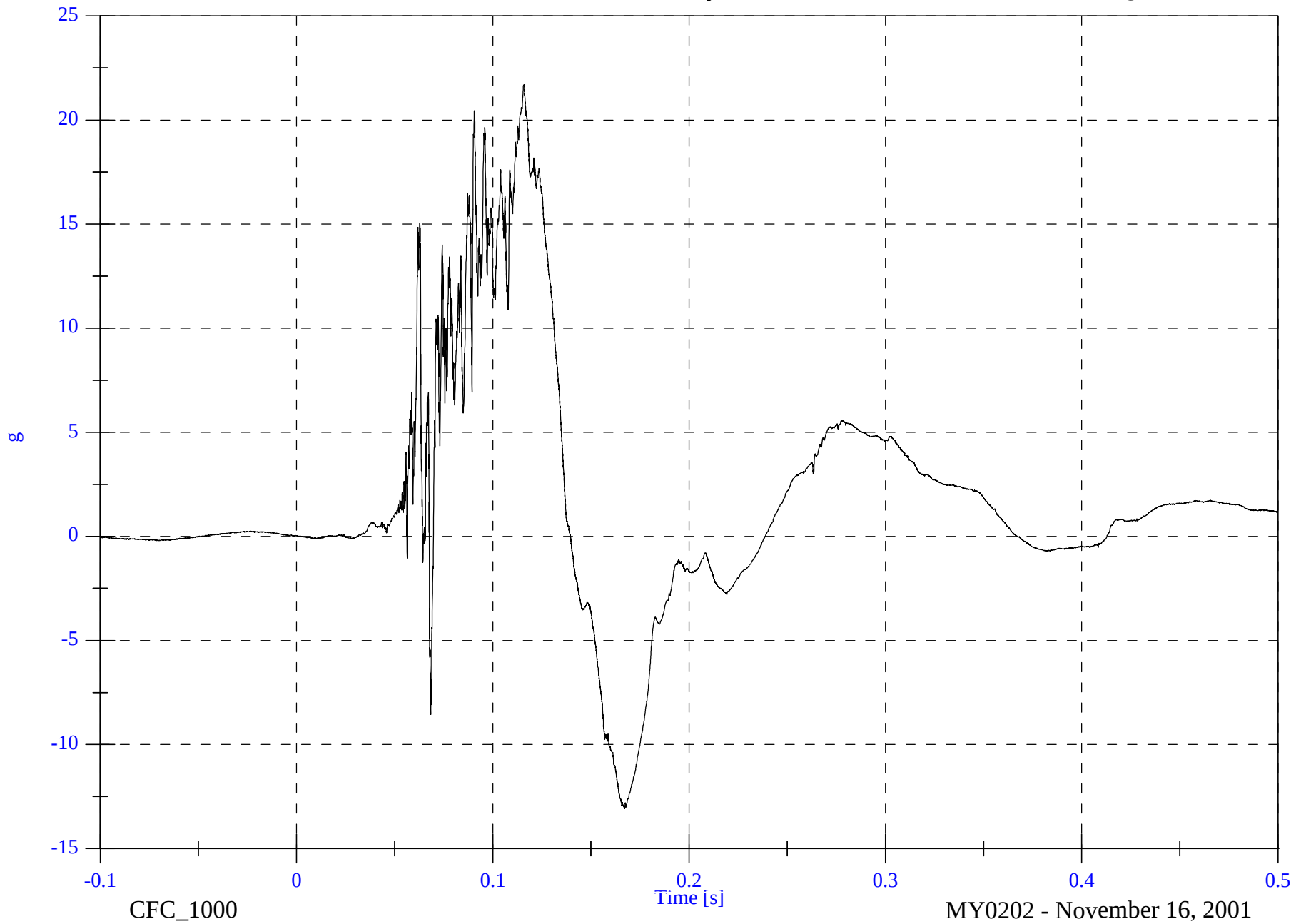
P2 Head 9 Array Y Arm Az

Max: 21.7 [g] at 0.116 [s]

Min: -13.1 [g] at 0.167 [s]

B-104

8413-69



40% Frontal Offset Test #13 - 2000 Ford Explorer

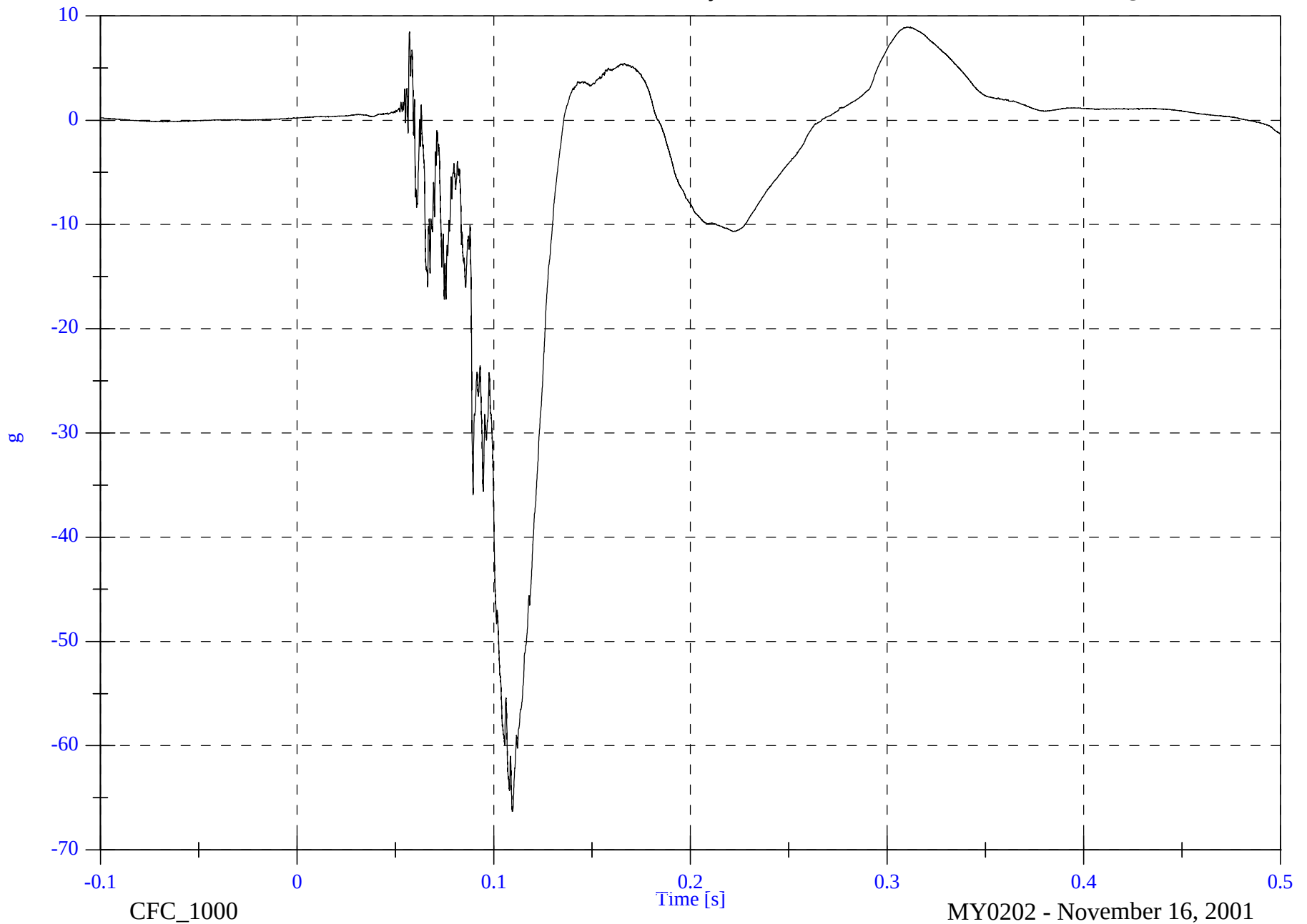
P2 Head 9 Array Z Arm Ax

Max: 8.9 [g] at 0.310 [s]

Min: -66.3 [g] at 0.109 [s]

B-105

8413-69

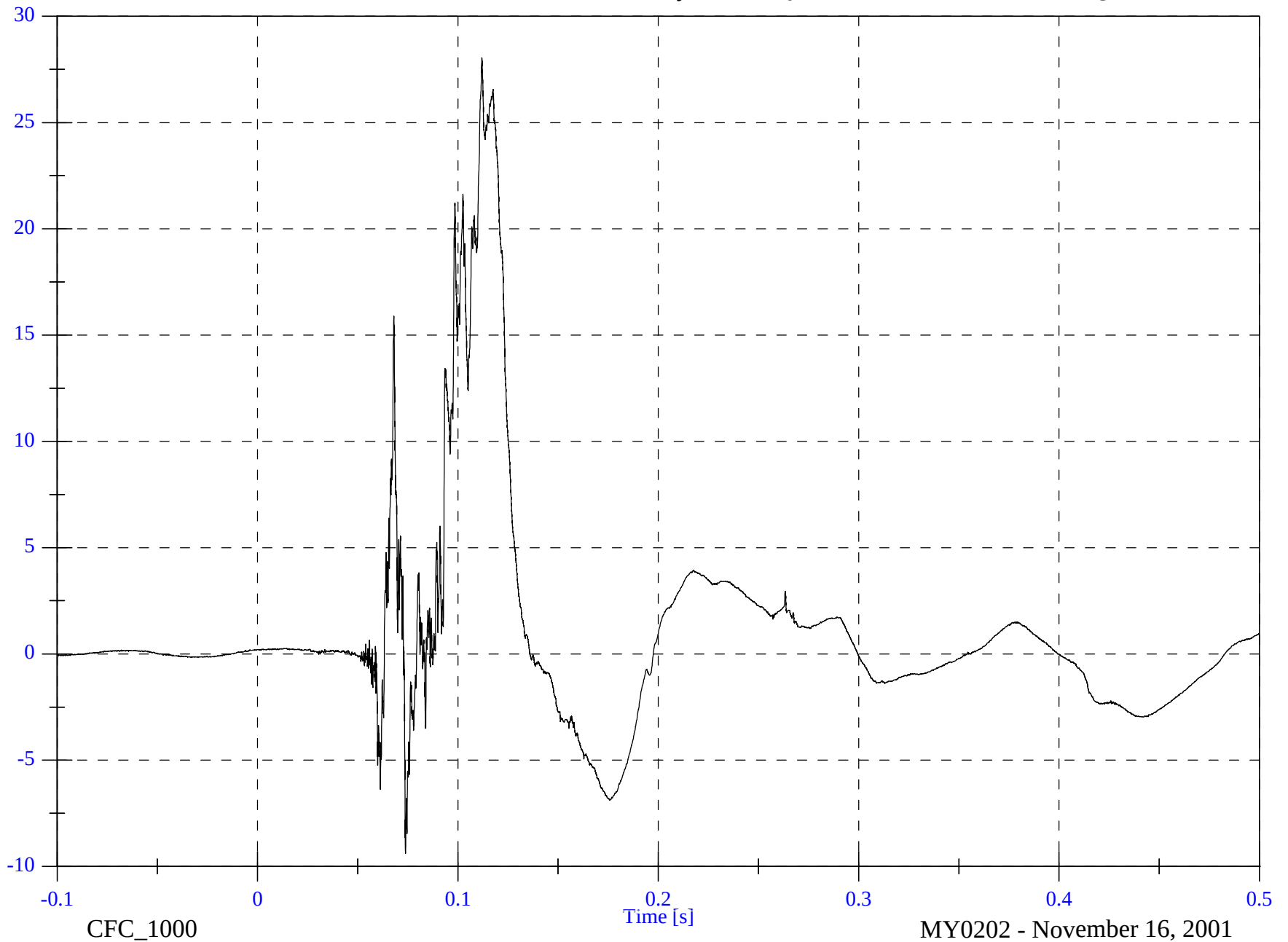


40% Frontal Offset Test #13 - 2000 Ford Explorer

P2 Head 9 Array Z Arm Ay

Max: 28.0 [g] at 0.112 [s]

Min: -9.4 [g] at 0.074 [s]



B-106

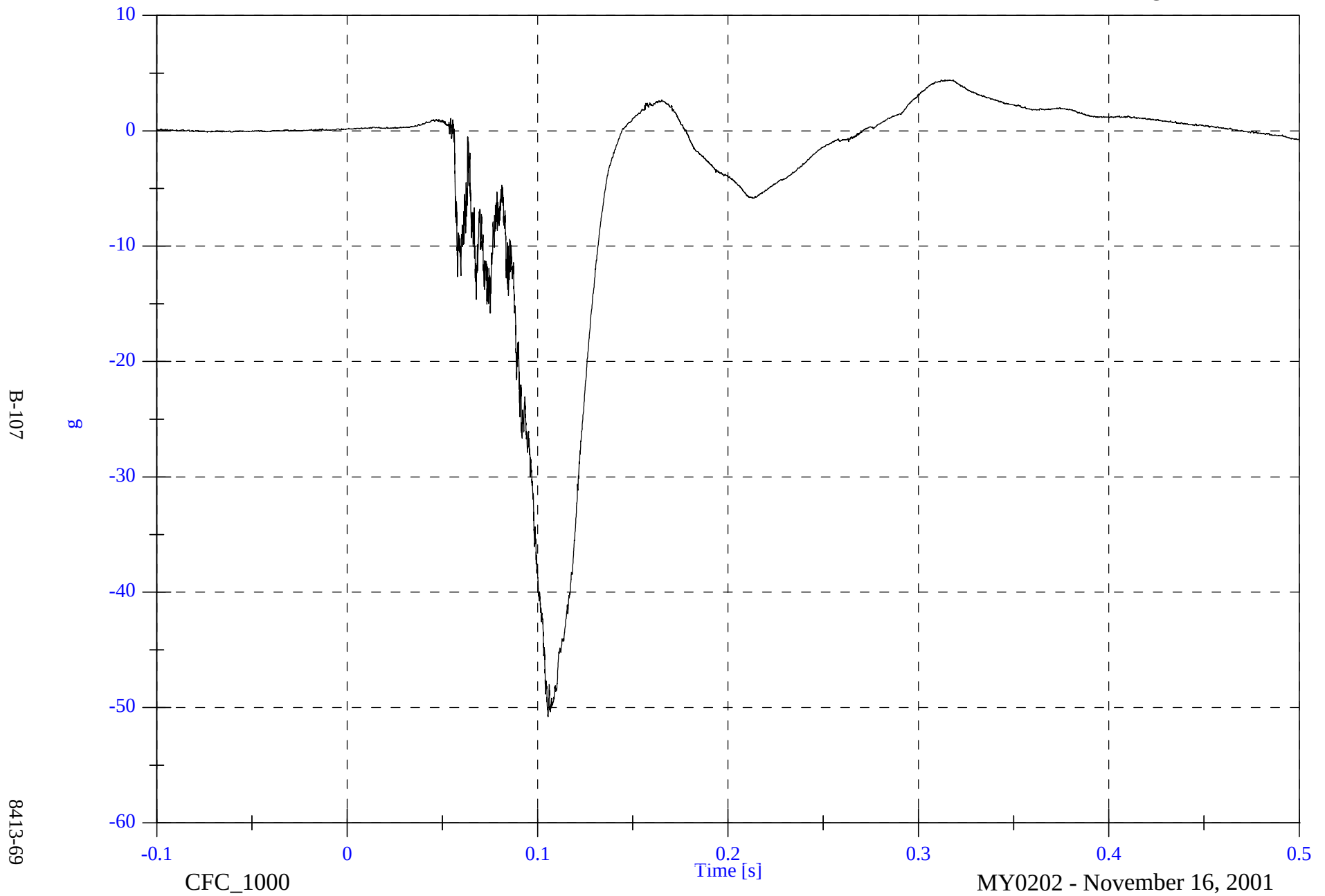
8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

P2 Head CG Ax

Max: 4.4 [g] at 0.314 [s]

Min: -50.8 [g] at 0.106 [s]



40% Frontal Offset Test #13 - 2000 Ford Explorer

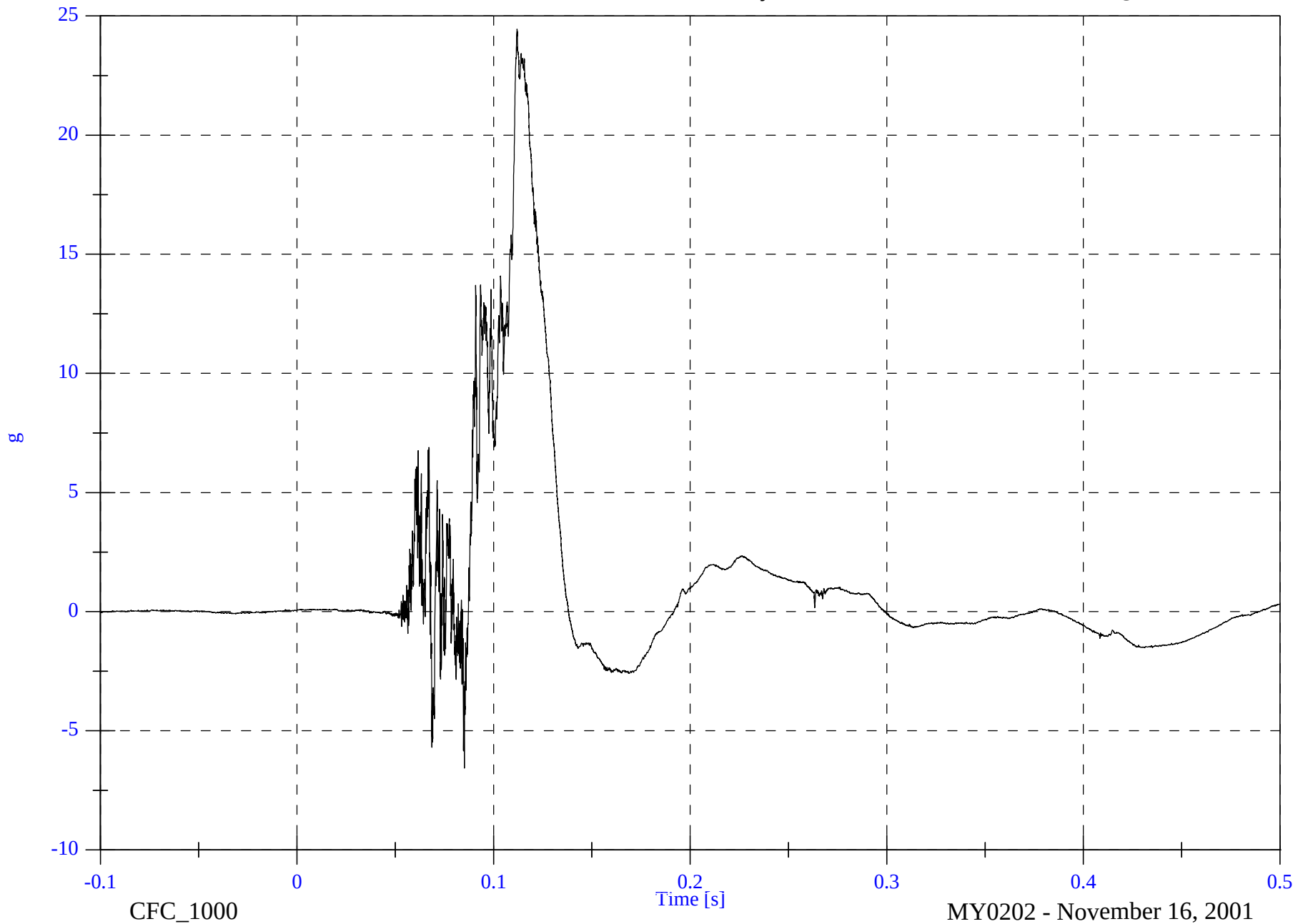
P2 Head CG Ay

Max: 24.4 [g] at 0.112 [s]

Min: -6.6 [g] at 0.085 [s]

B-108

8413-69



40% Frontal Offset Test #13 - 2000 Ford Explorer

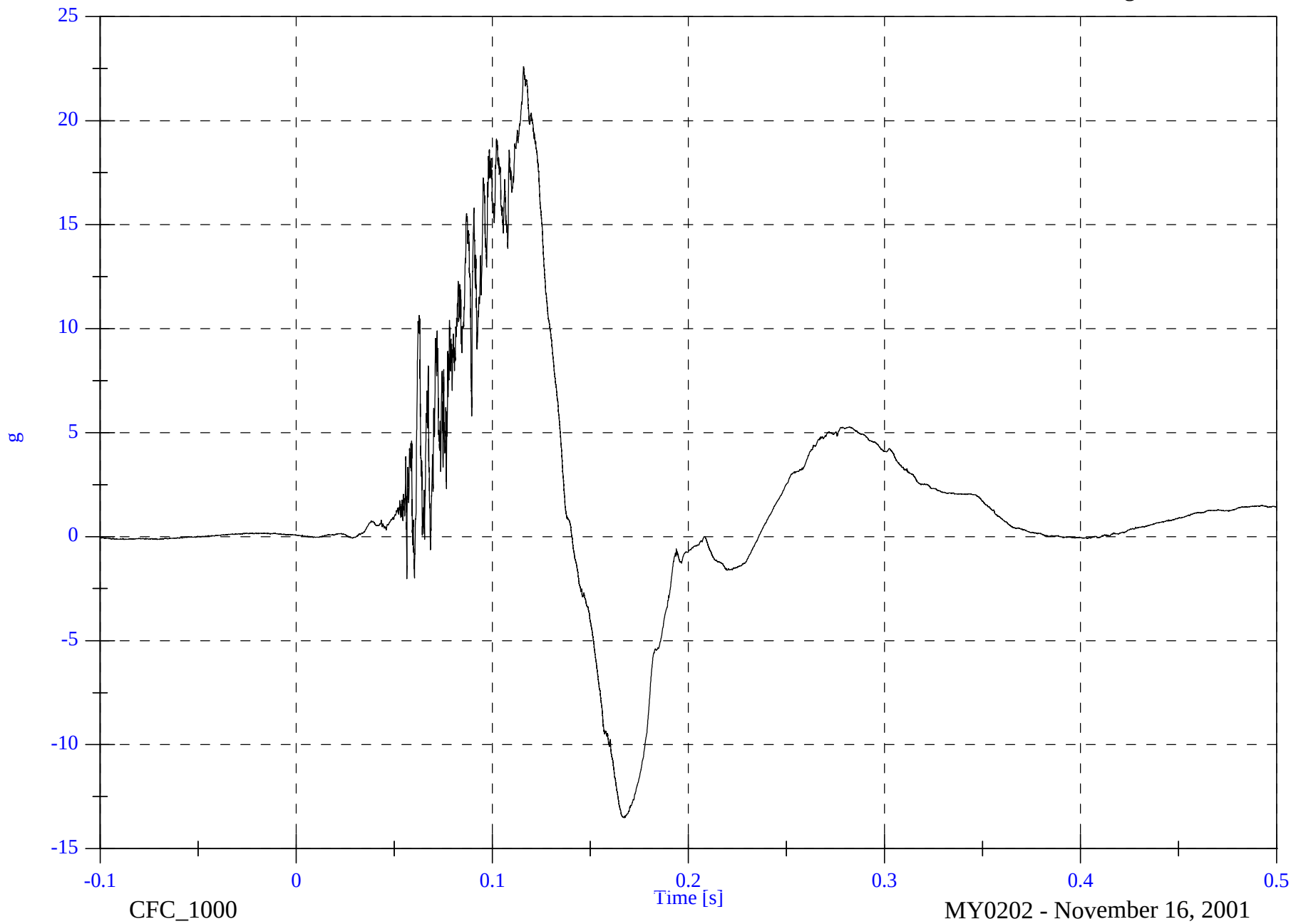
P2 Head CG Az

Max: 22.6 [g] at 0.116 [s]

Min: -13.5 [g] at 0.167 [s]

B-109

8413-69



40% Frontal Offset Test #13 - 2000 Ford Explorer

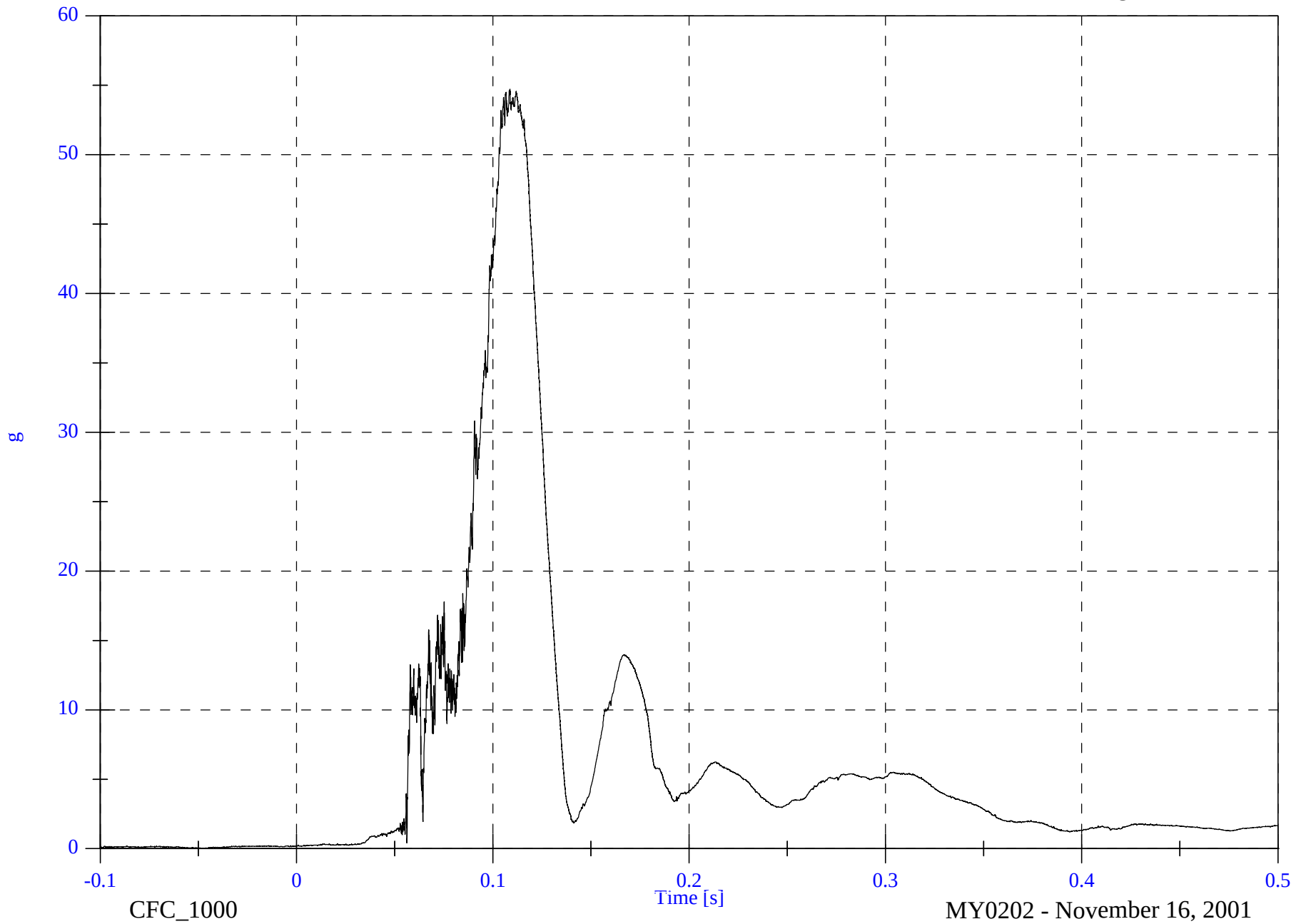
P2 Head CG A Resultant

Max: 54.7 [g] at 0.109 [s]

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

B-110

8413-69

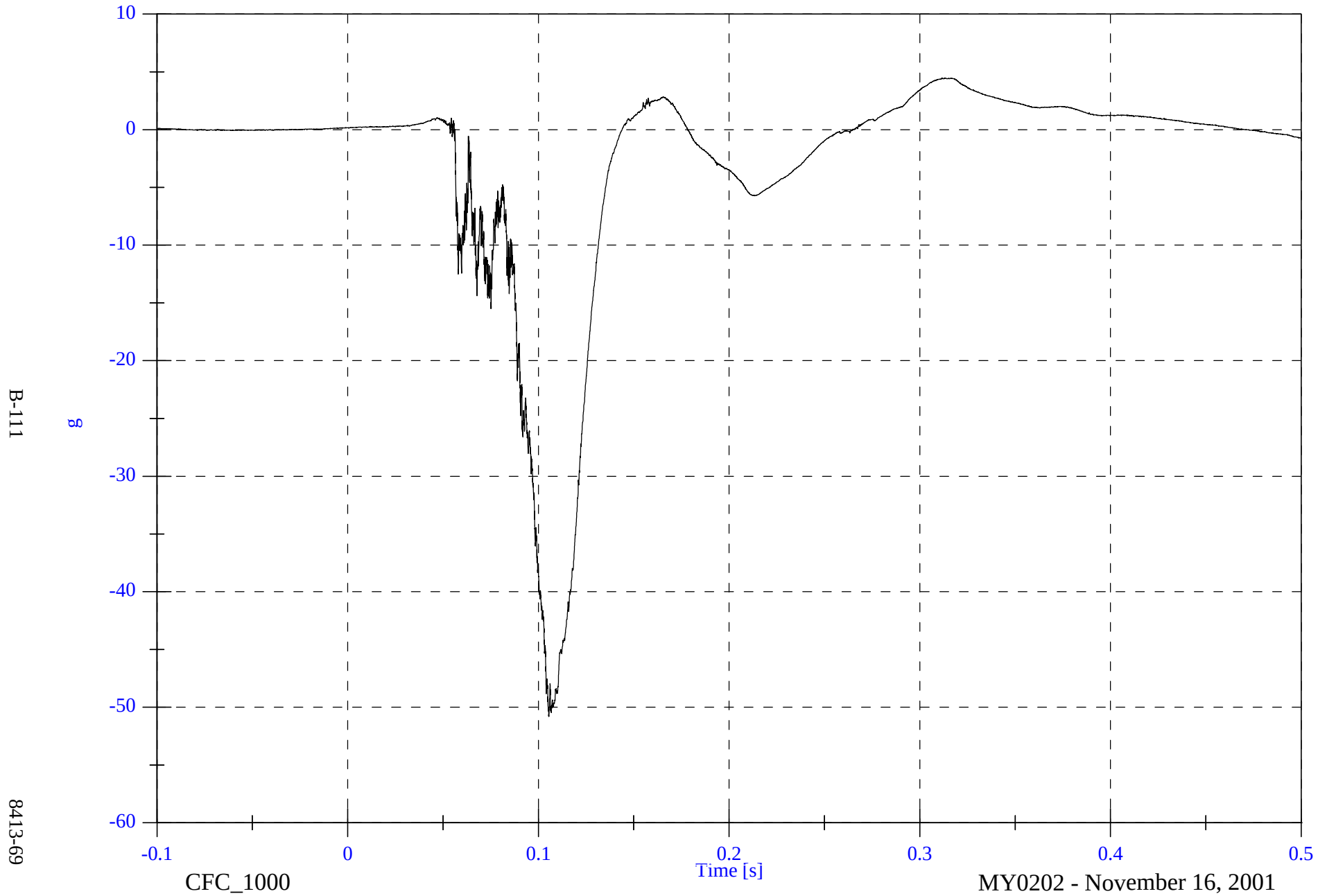


40% Frontal Offset Test #13 - 2000 Ford Explorer

P2 Head CG Red Ax

Max: 4.5 [g] at 0.312 [s]

Min: -50.8 [g] at 0.106 [s]



40% Frontal Offset Test #13 - 2000 Ford Explorer

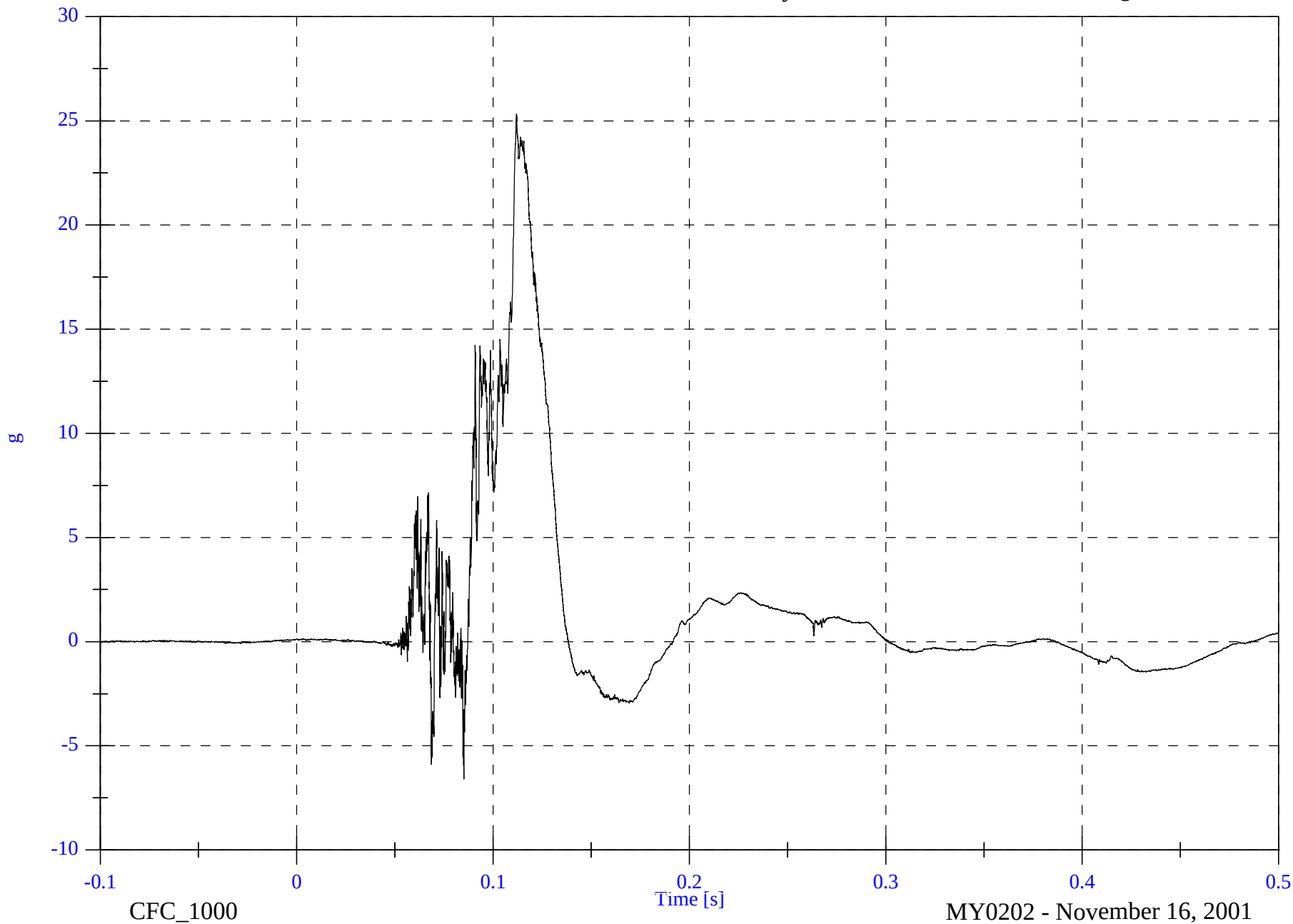
P2 Head CG Red Ay

Max: 25.3 [g] at 0.112 [s]

Min: -6.6 [g] at 0.085 [s]

B-112

8413-69



40% Frontal Offset Test #13 - 2000 Ford Explorer

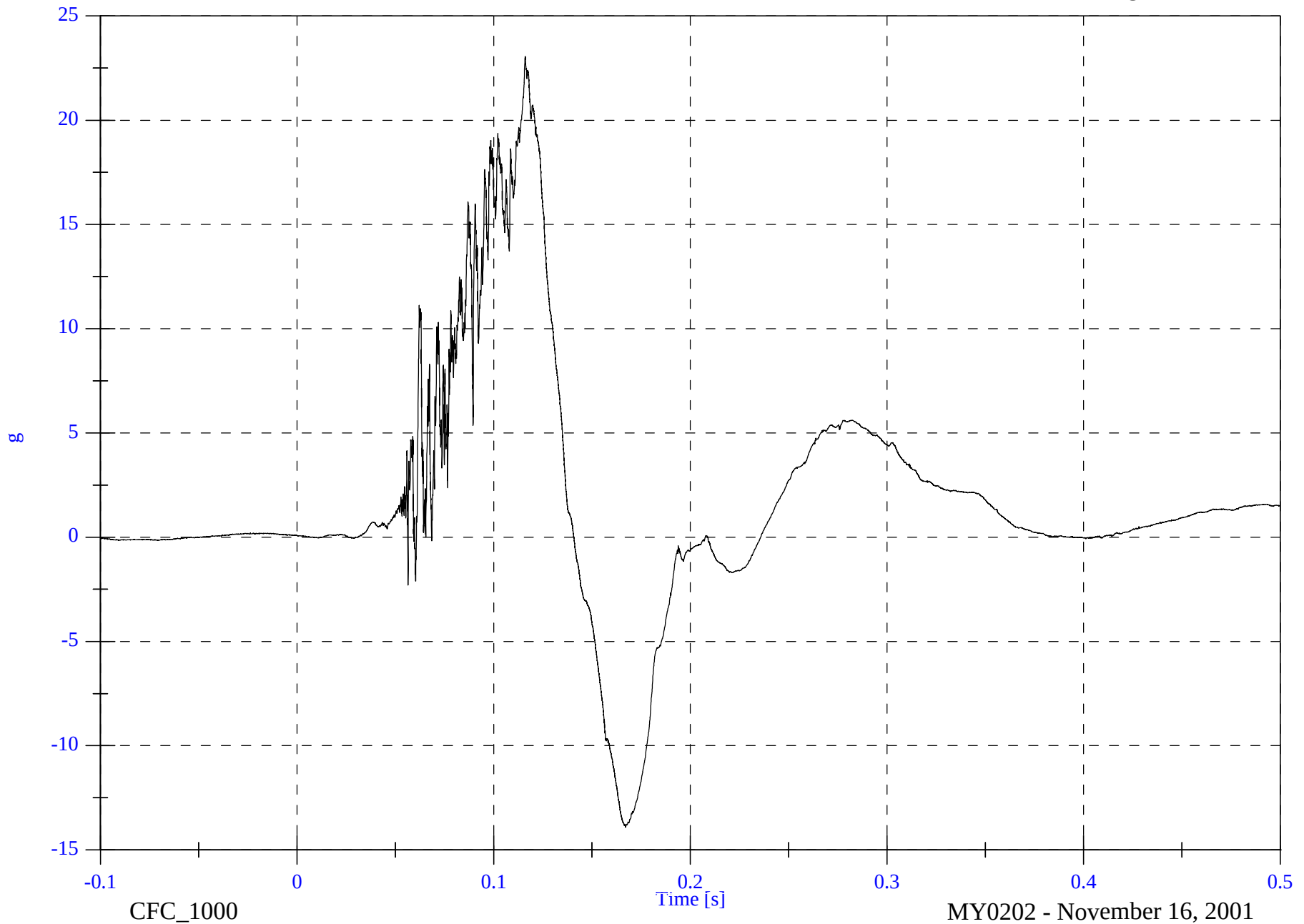
P2 Head CG Red Az

Max: 23.1 [g] at 0.116 [s]

Min: -13.9 [g] at 0.167 [s]

B-113

8413-69



40% Frontal Offset Test #13 - 2000 Ford Explorer

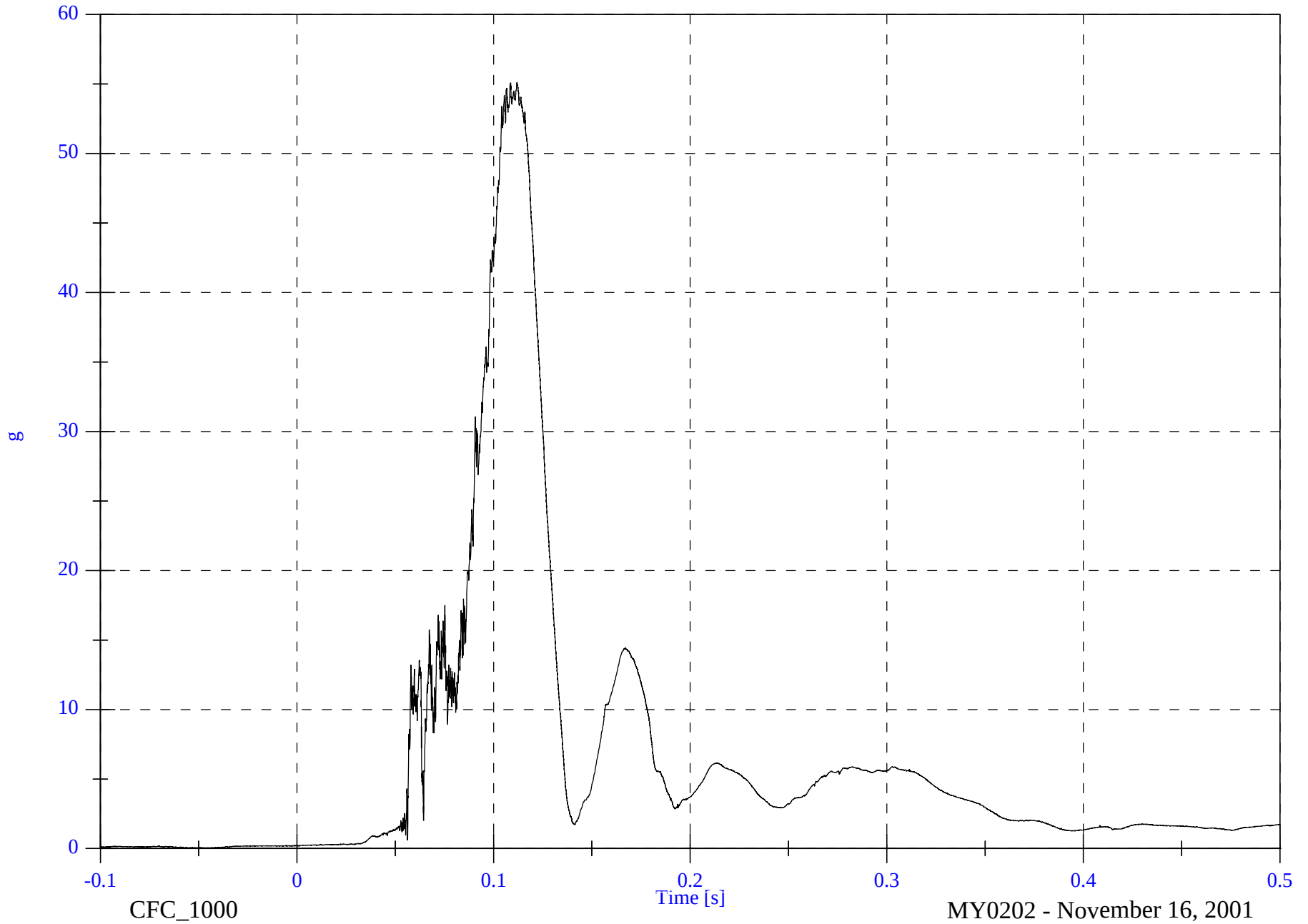
P2 Head CG Red A Resultant

Max: 55.1 [g] at 0.112 [s]

Min: 0.0 [g] at -0.051 [s]

B-114

8413-69

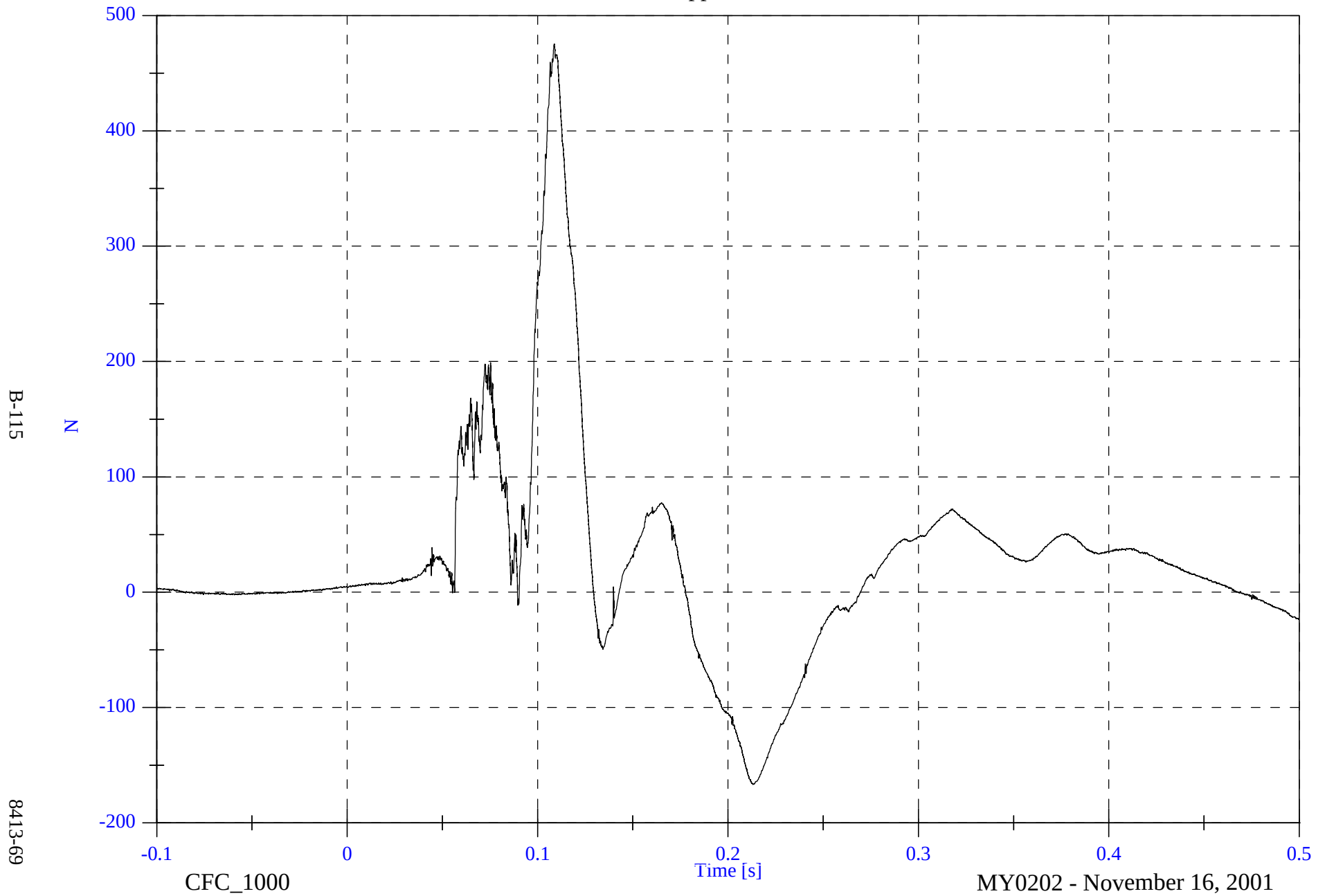


40% Frontal Offset Test #13 - 2000 Ford Explorer

P2 Upper Neck Fx

Max: 475.3 [N] at 0.109 [s]

Min: -166.8 [N] at 0.213 [s]

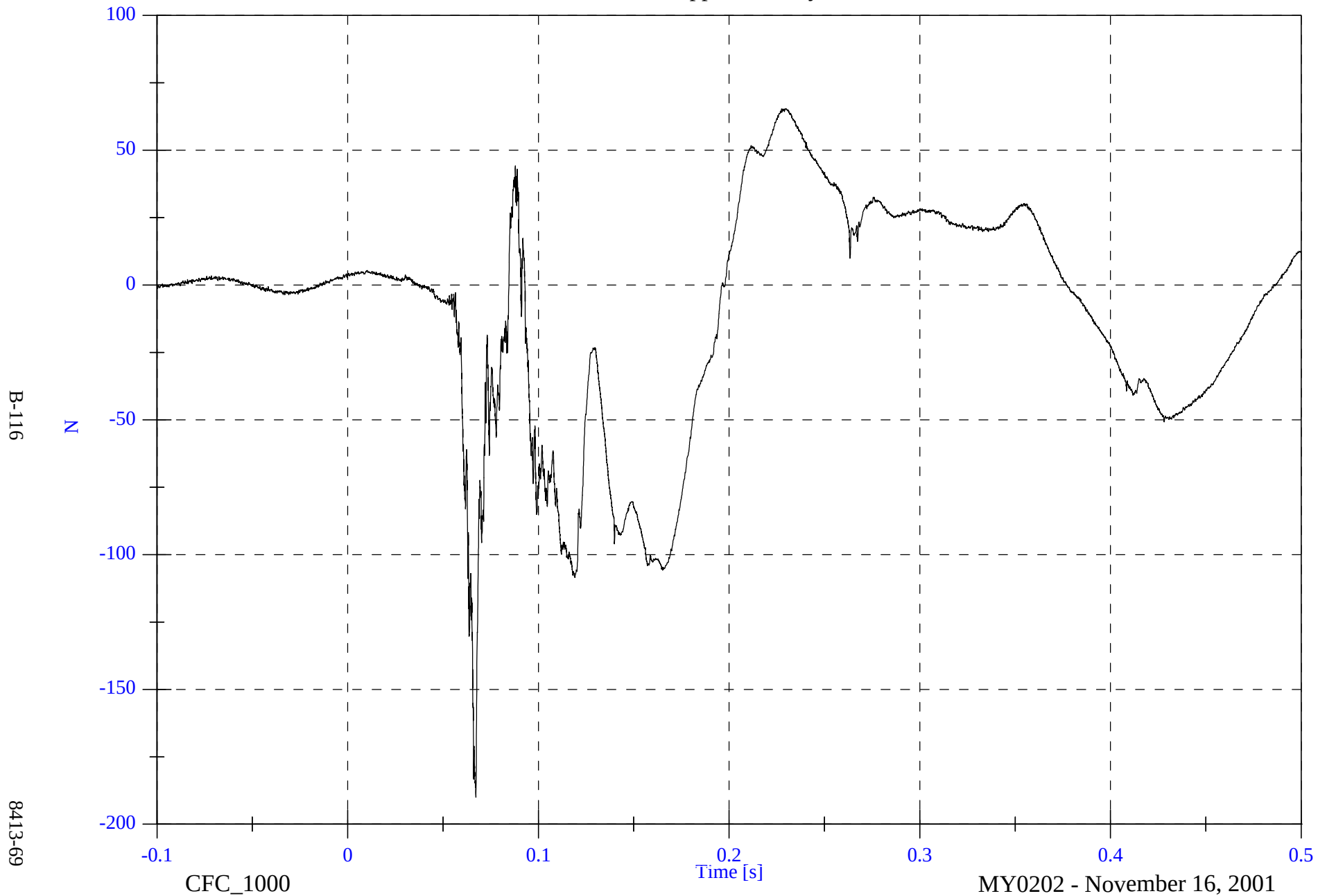


40% Frontal Offset Test #13 - 2000 Ford Explorer

P2 Upper Neck Fy

Max: 65.5 [N] at 0.230 [s]

Min: -190.0 [N] at 0.067 [s]

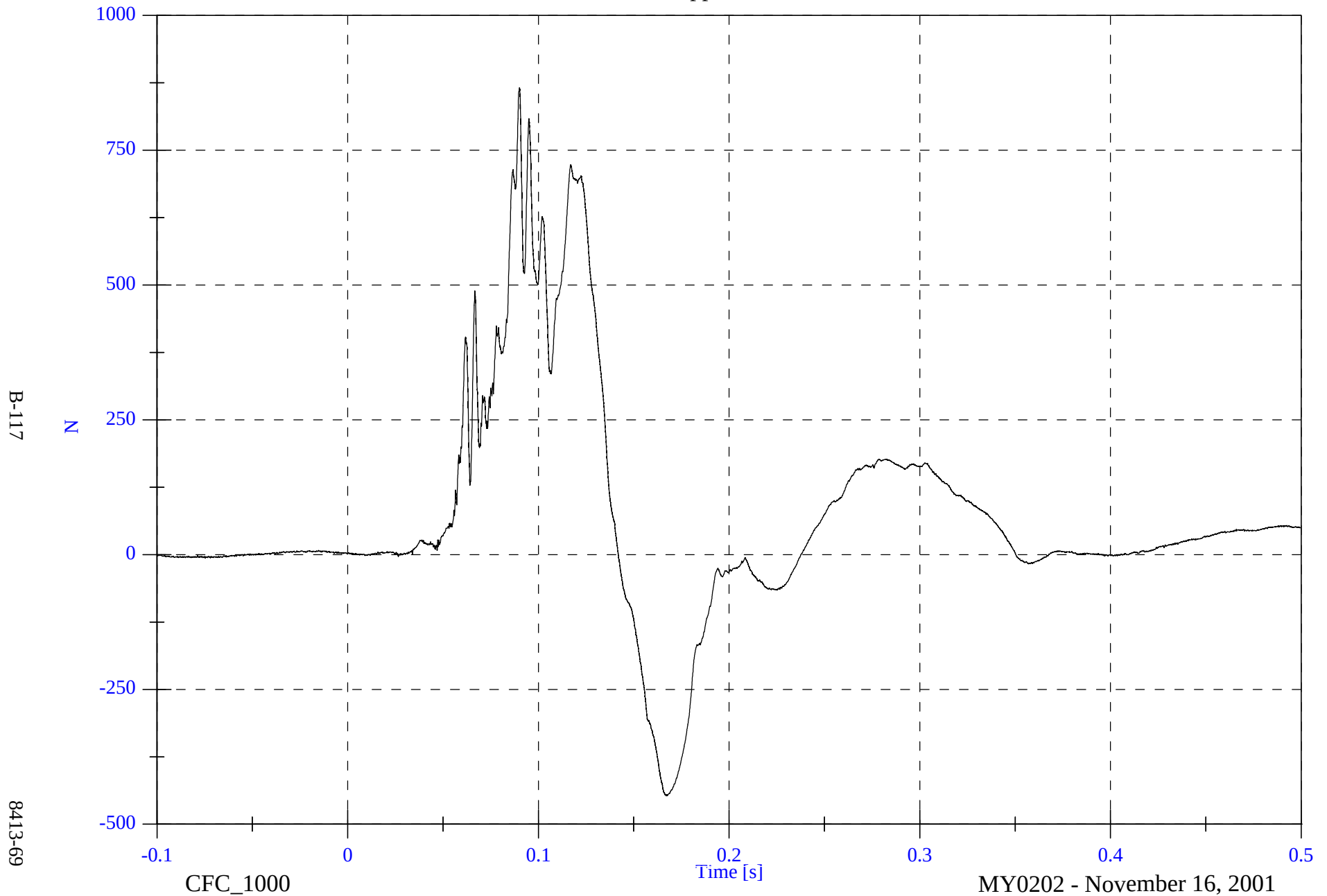


40% Frontal Offset Test #13 - 2000 Ford Explorer

P2 Upper Neck Fz

Max: 865.9 [N] at 0.090 [s]

Min: -447.7 [N] at 0.167 [s]



40% Frontal Offset Test #13 - 2000 Ford Explorer

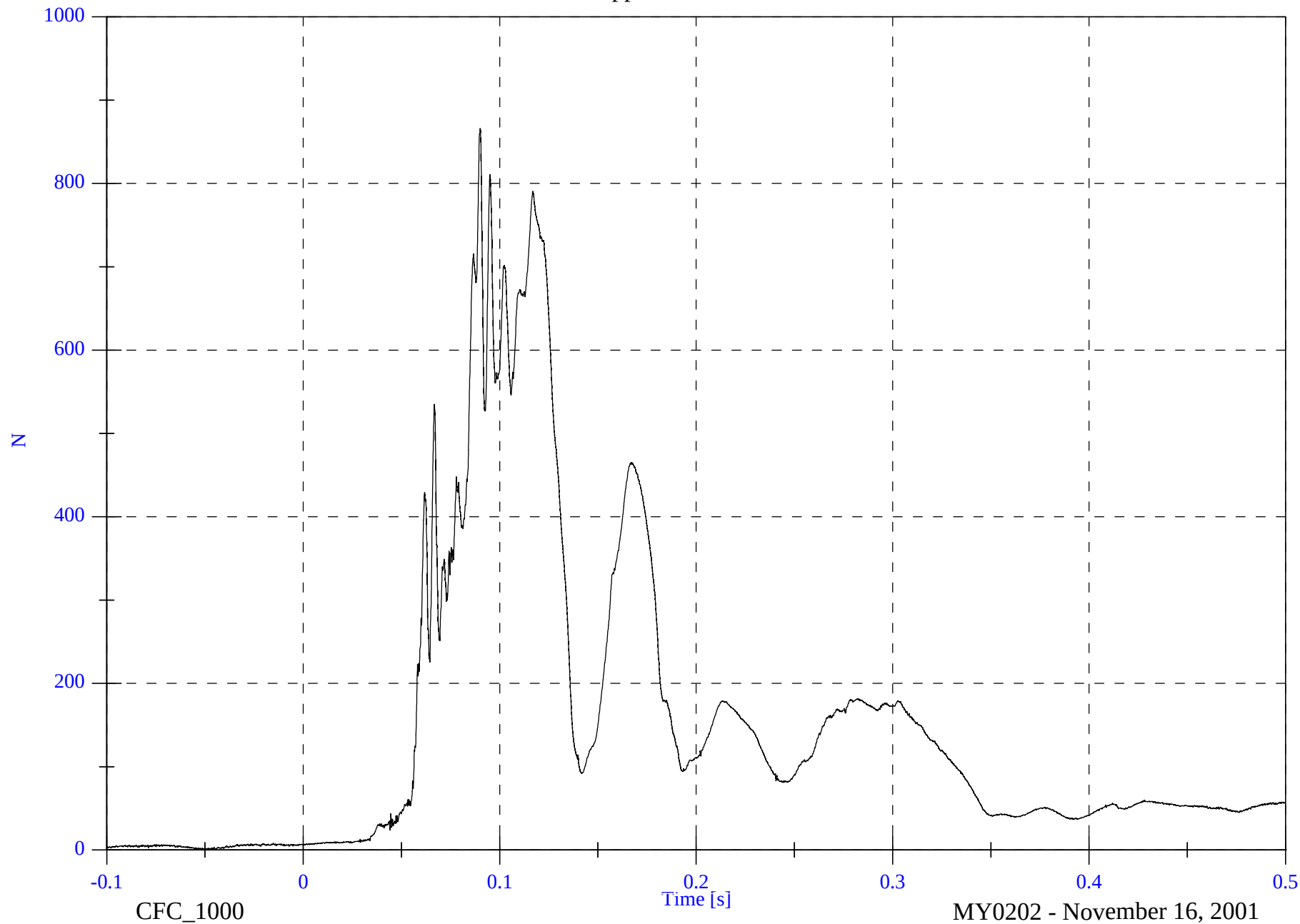
P2 Upper Neck F Resultant

Max: 866.0 [N] at 0.090 [s]

Min: 0.6 [N] at -0.047 [s]

B-118

8413-69



40% Frontal Offset Test #13 - 2000 Ford Explorer

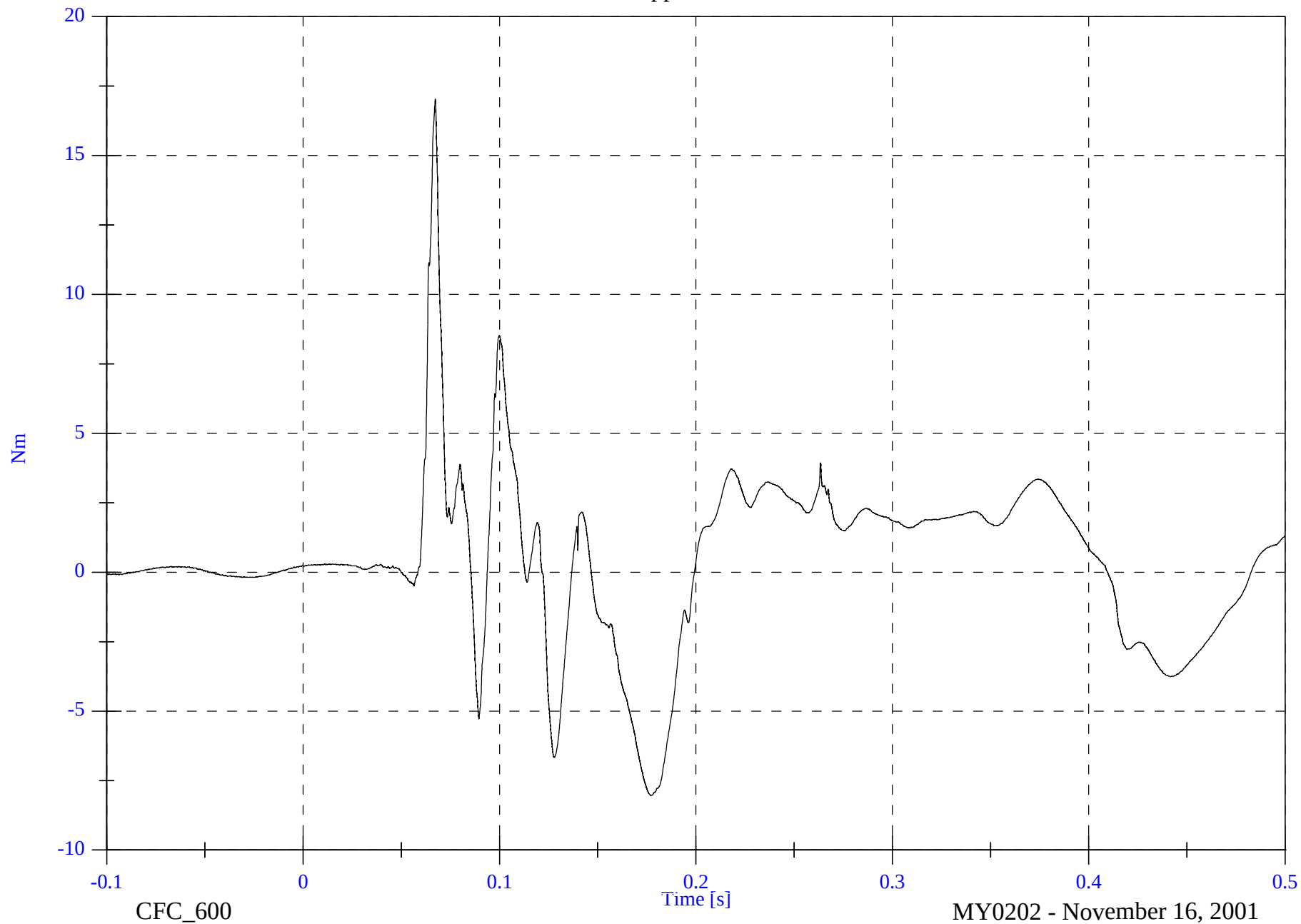
P2 Upper Neck Mx

Max: 17.0 [Nm] at 0.067 [s]

Min: -8.0 [Nm] at 0.177 [s]

B-119

8413-69

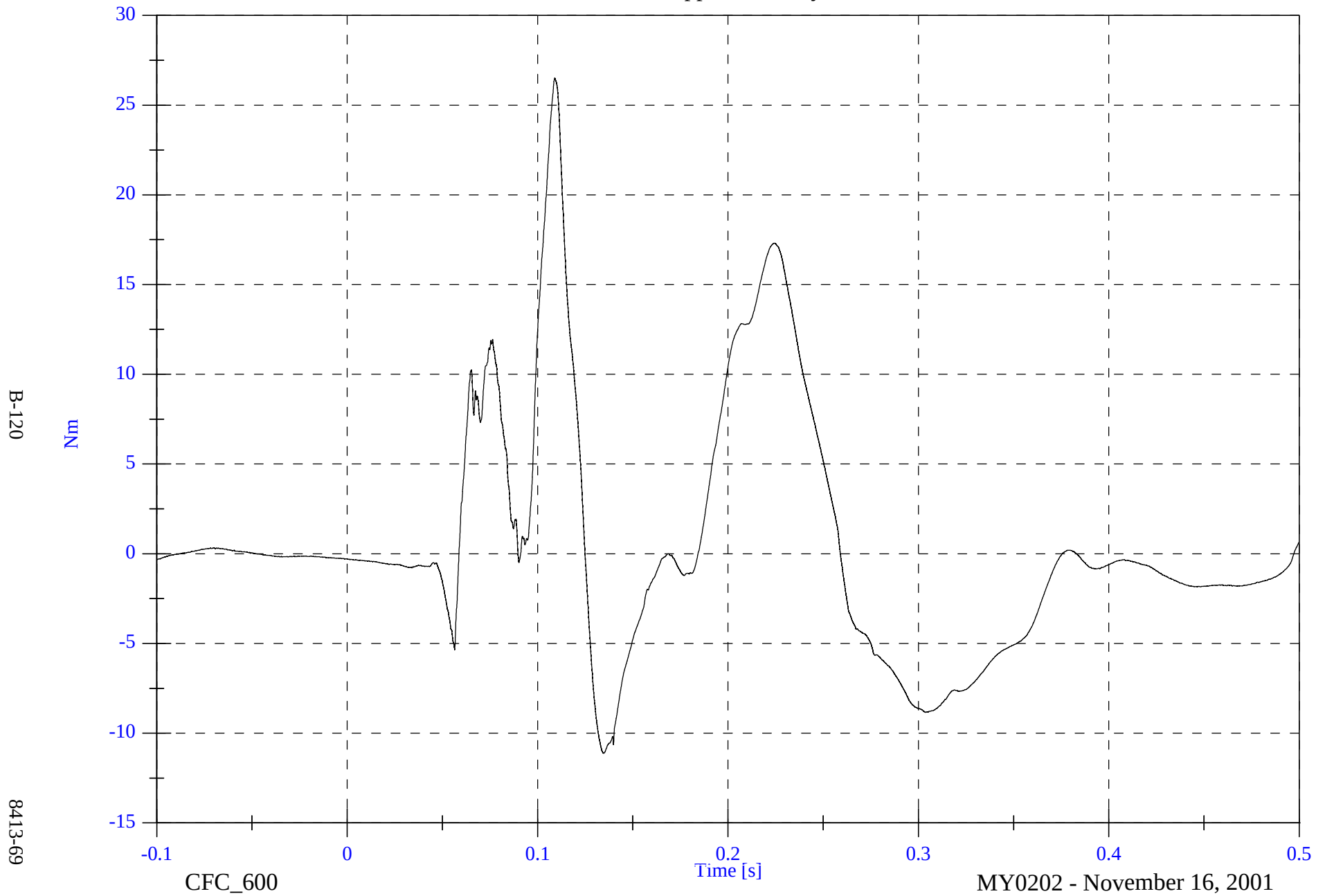


40% Frontal Offset Test #13 - 2000 Ford Explorer

P2 Upper Neck My

Max: 26.5 [Nm] at 0.109 [s]

Min: -11.1 [Nm] at 0.135 [s]

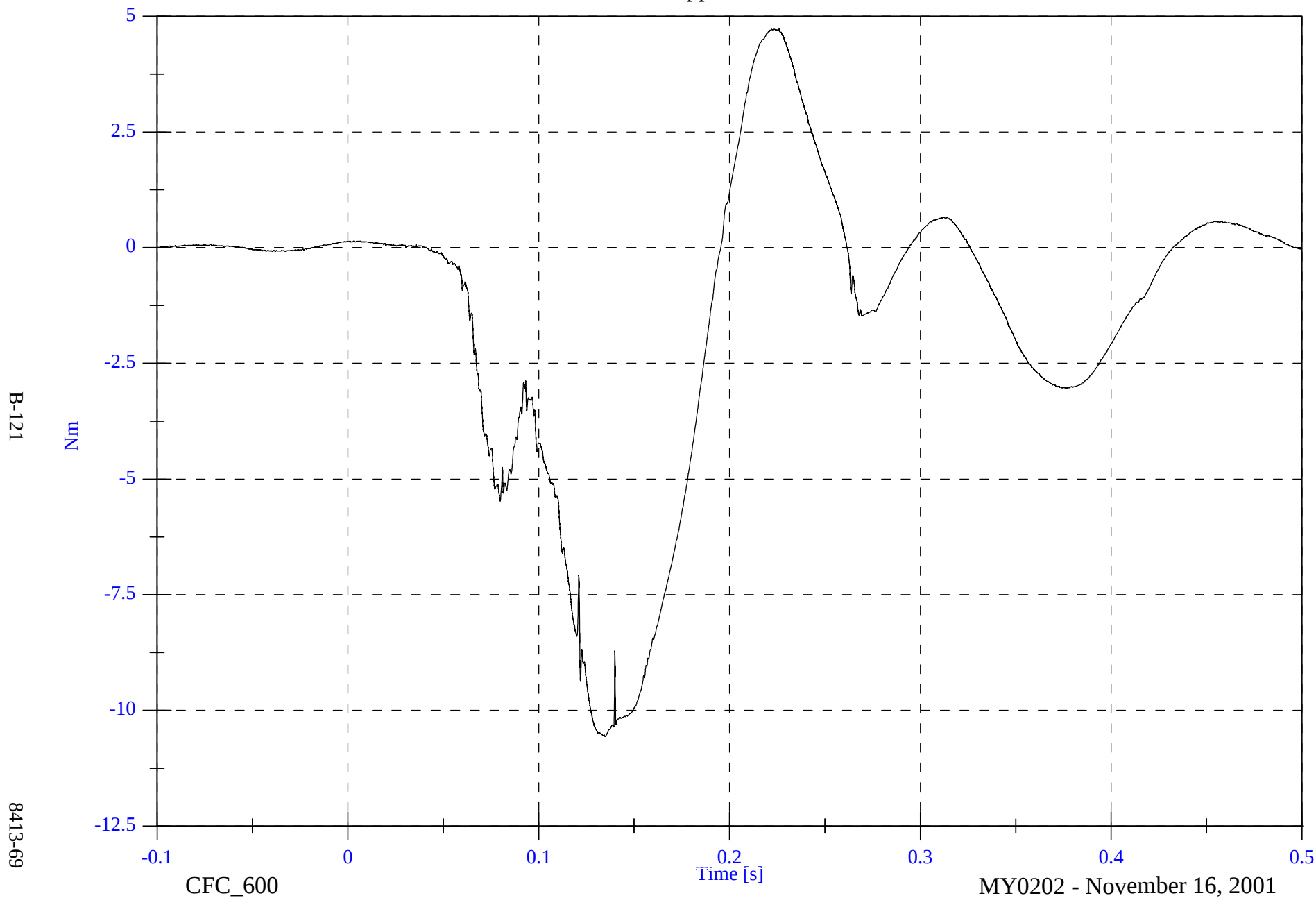


40% Frontal Offset Test #13 - 2000 Ford Explorer

P2 Upper Neck Mz

Max: 4.7 [Nm] at 0.226 [s]

Min: -10.6 [Nm] at 0.135 [s]

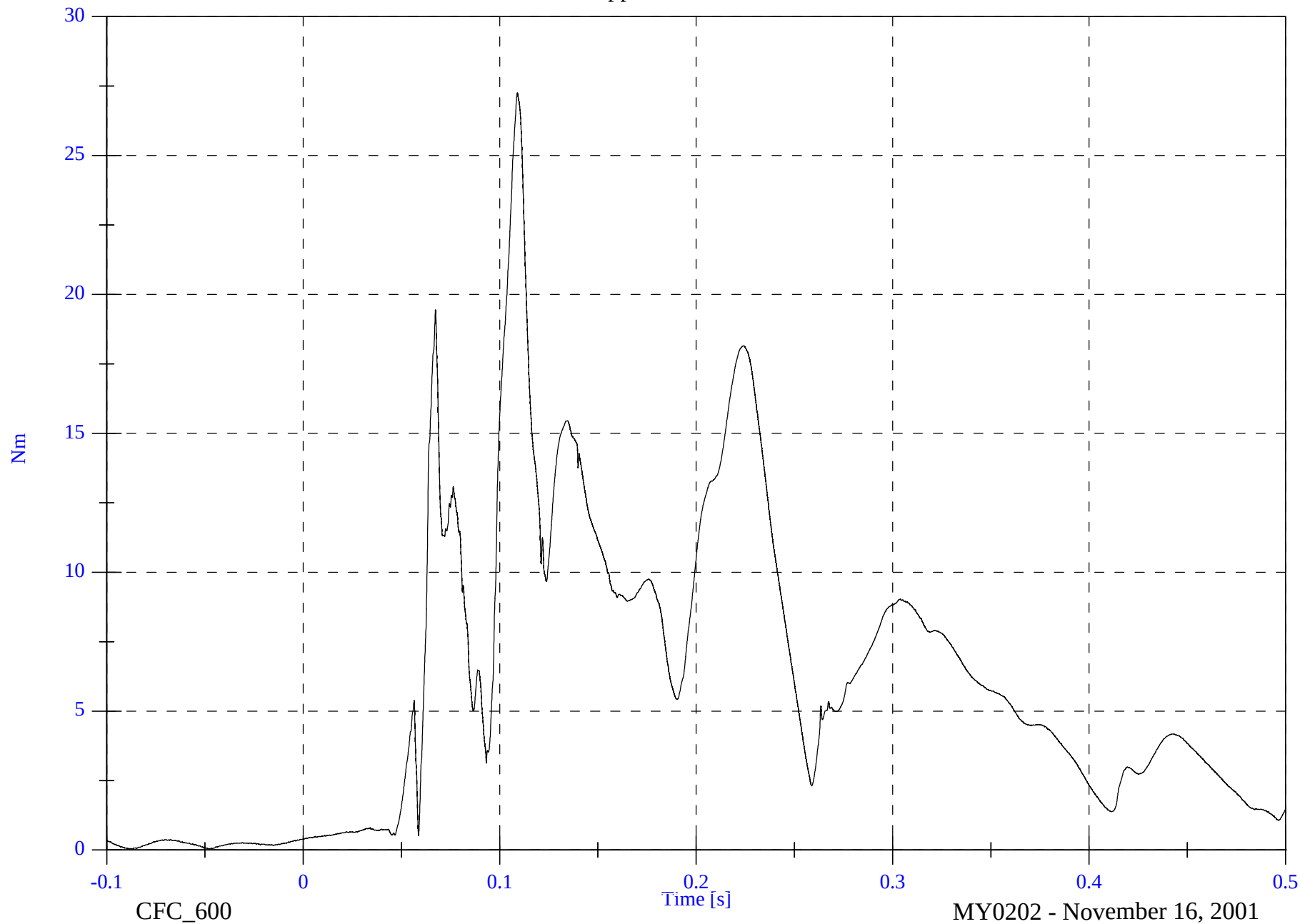


40% Frontal Offset Test #13 - 2000 Ford Explorer

P2 Upper Neck M Resultant

Max: 27.3 [Nm] at 0.109 [s]

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



B-122

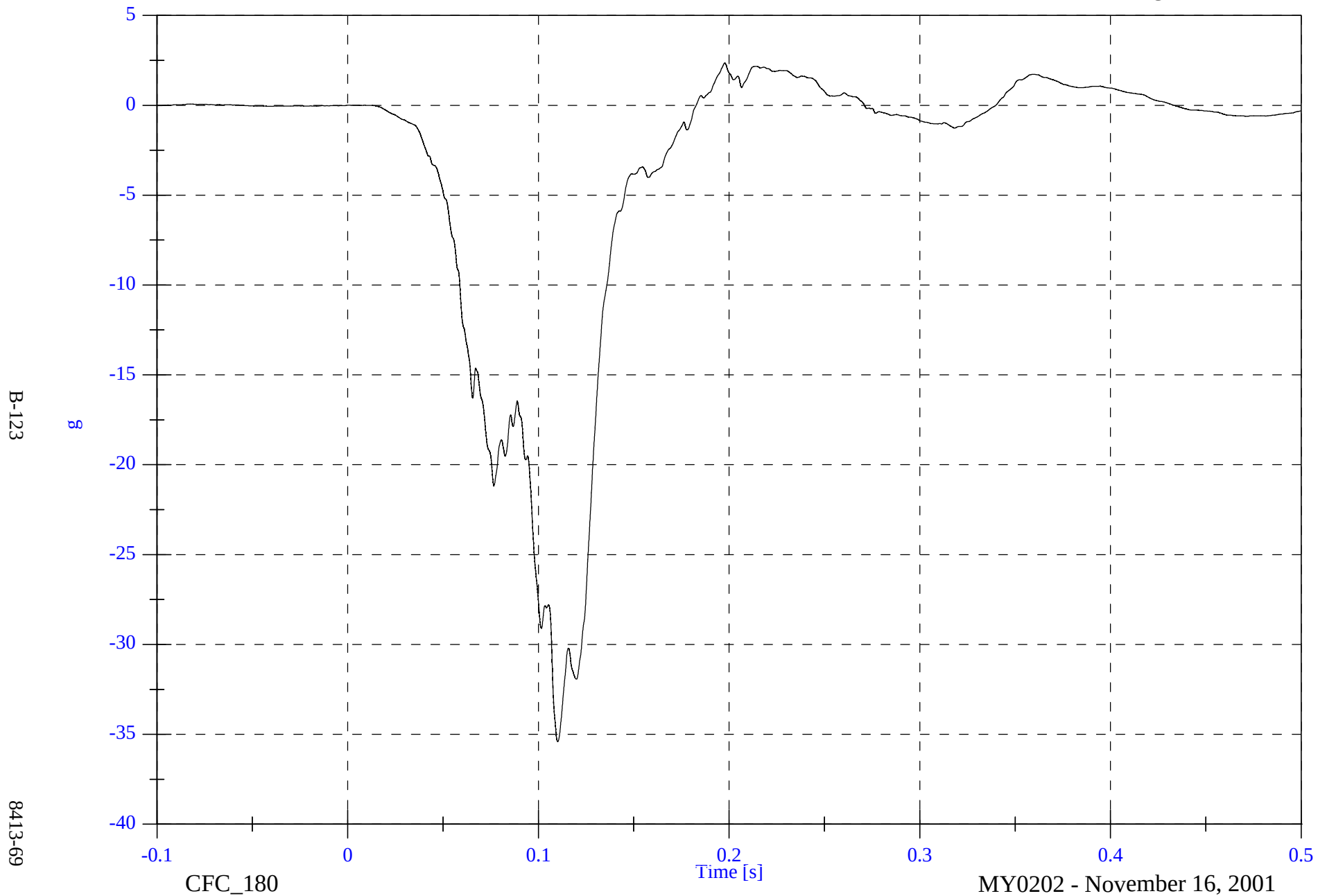
8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

P2 Chest Ax

Max: 2.4 [g] at 0.198 [s]

Min: -35.4 [g] at 0.110 [s]



40% Frontal Offset Test #13 - 2000 Ford Explorer

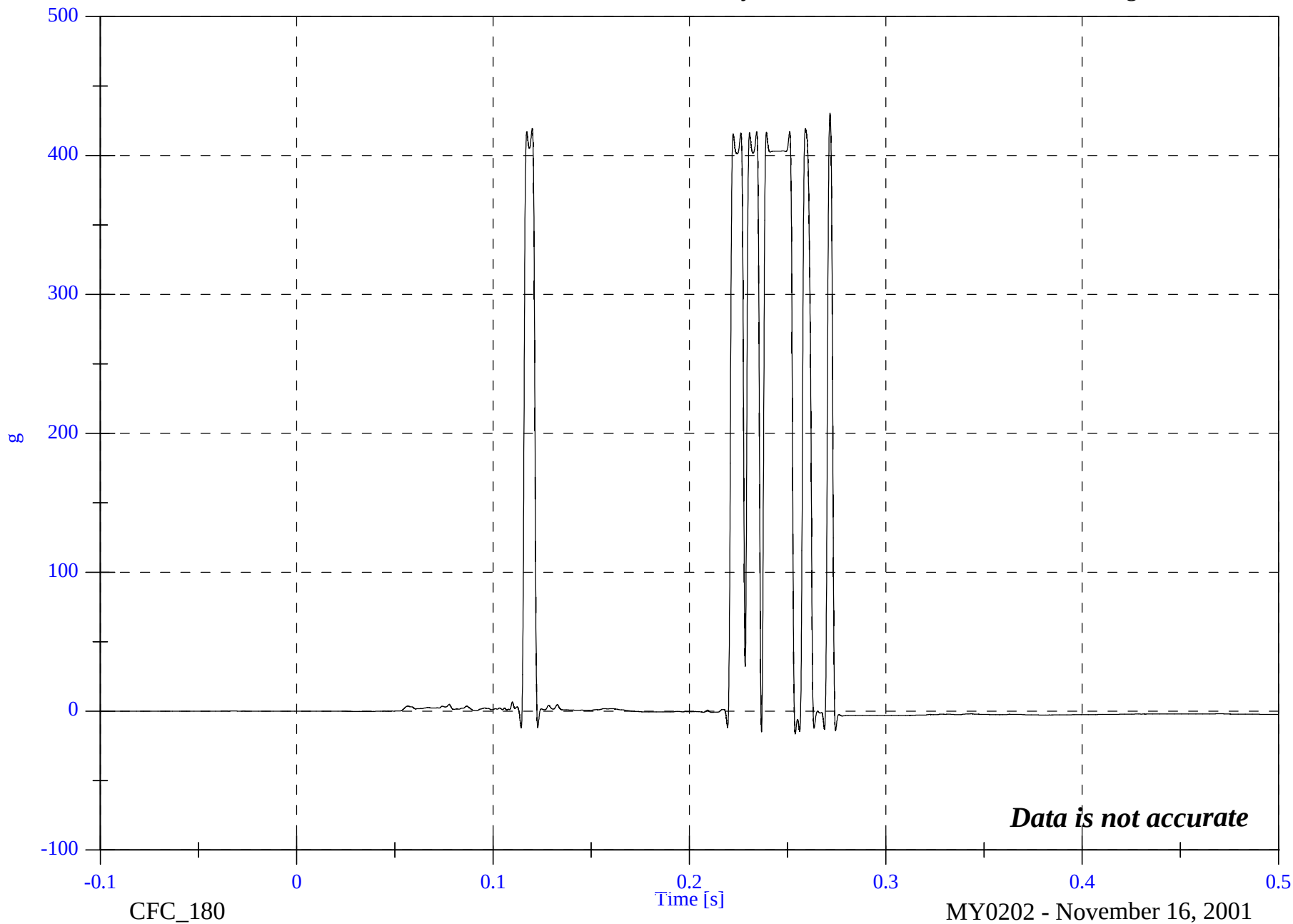
P2 Chest Ay

Max: 430.7 [g] at 0.272 [s]

Min: -16.5 [g] at 0.254 [s]

B-124

8413-69

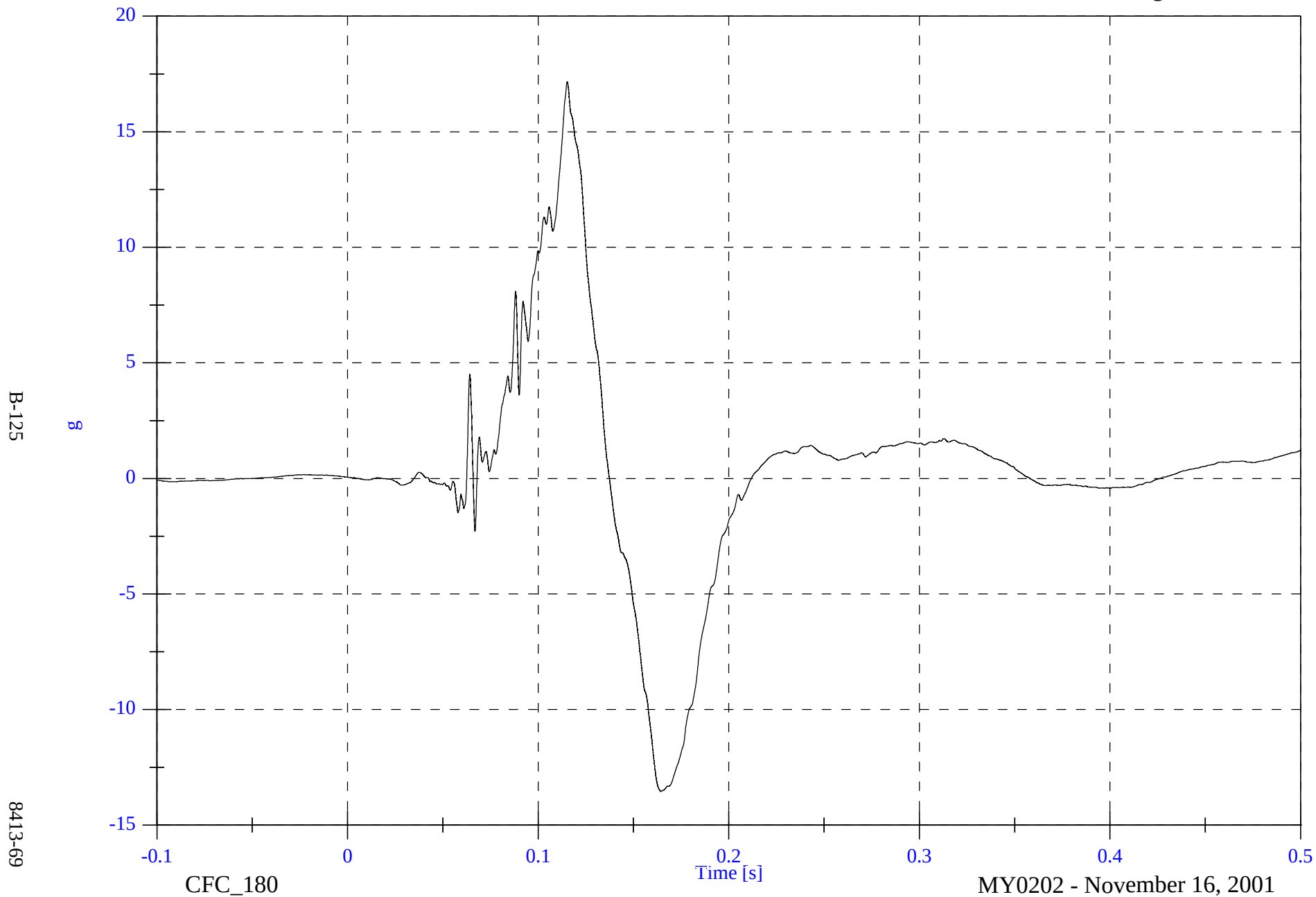


40% Frontal Offset Test #13 - 2000 Ford Explorer

P2 Chest Az

Max: 17.2 [g] at 0.115 [s]

Min: -13.5 [g] at 0.164 [s]

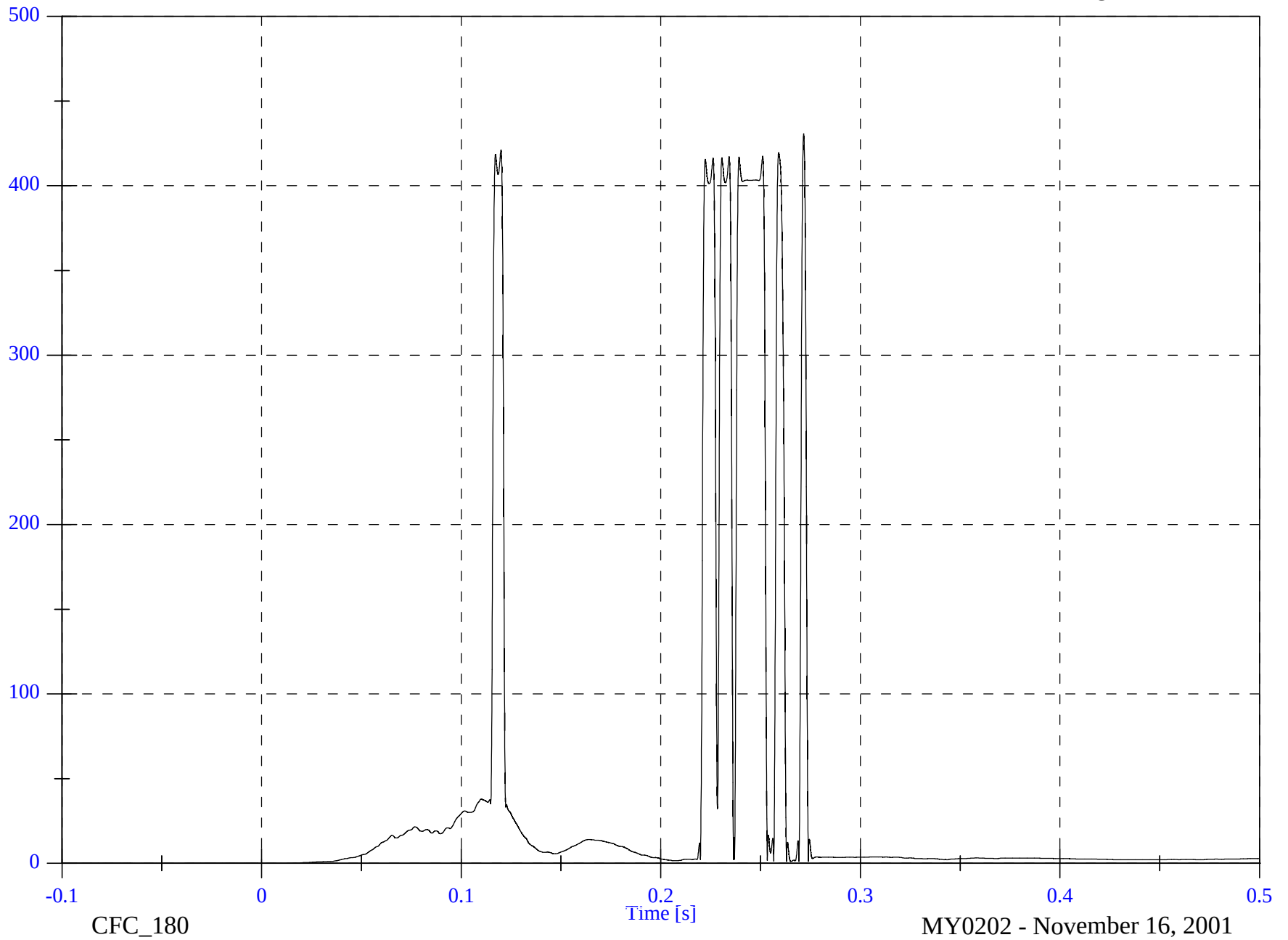


40% Frontal Offset Test #13 - 2000 Ford Explorer

P2 Chest A Resultant

Max: 430.7 [g] at 0.272 [s]

Min: 0.0 [g] at -0.054 [s]



B-126

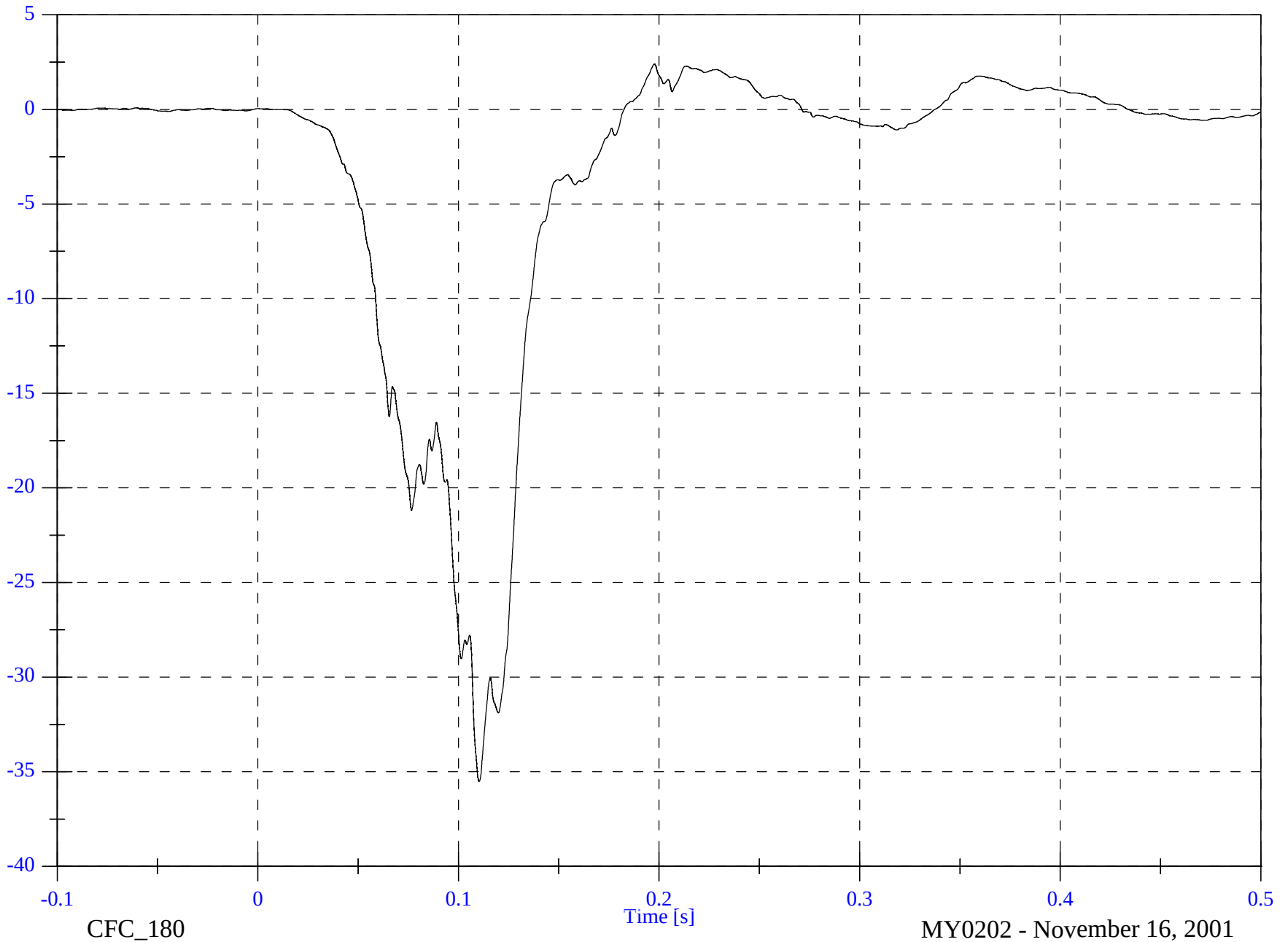
8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

P2 Chest Red Ax

Max: 2.4 [g] at 0.198 [s]

Min: -35.5 [g] at 0.110 [s]



B-127

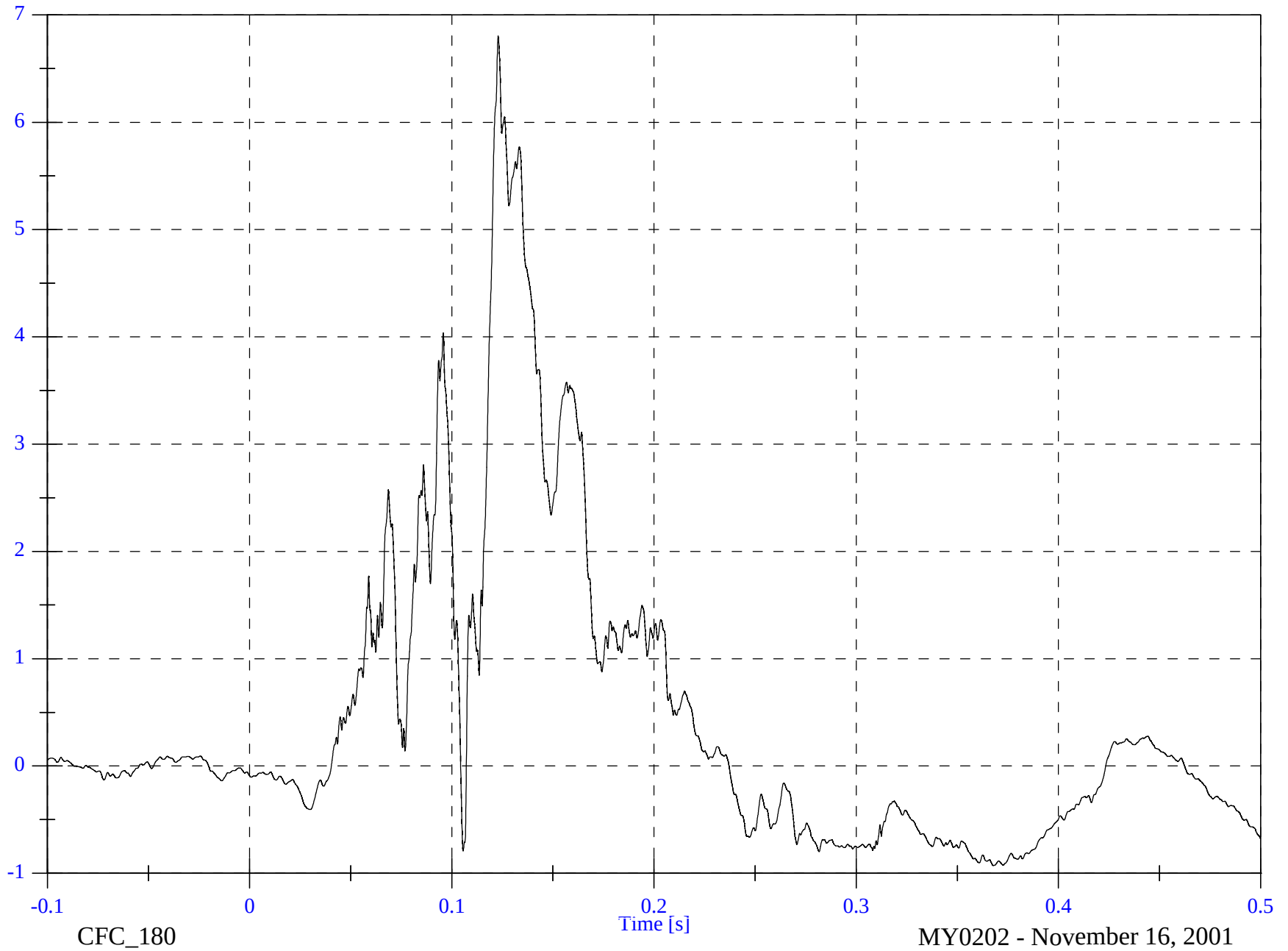
8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

P2 Chest Red Ay

Max: 6.8 [g] at 0.123 [s]

Min: -0.9 [g] at 0.368 [s]



B-128

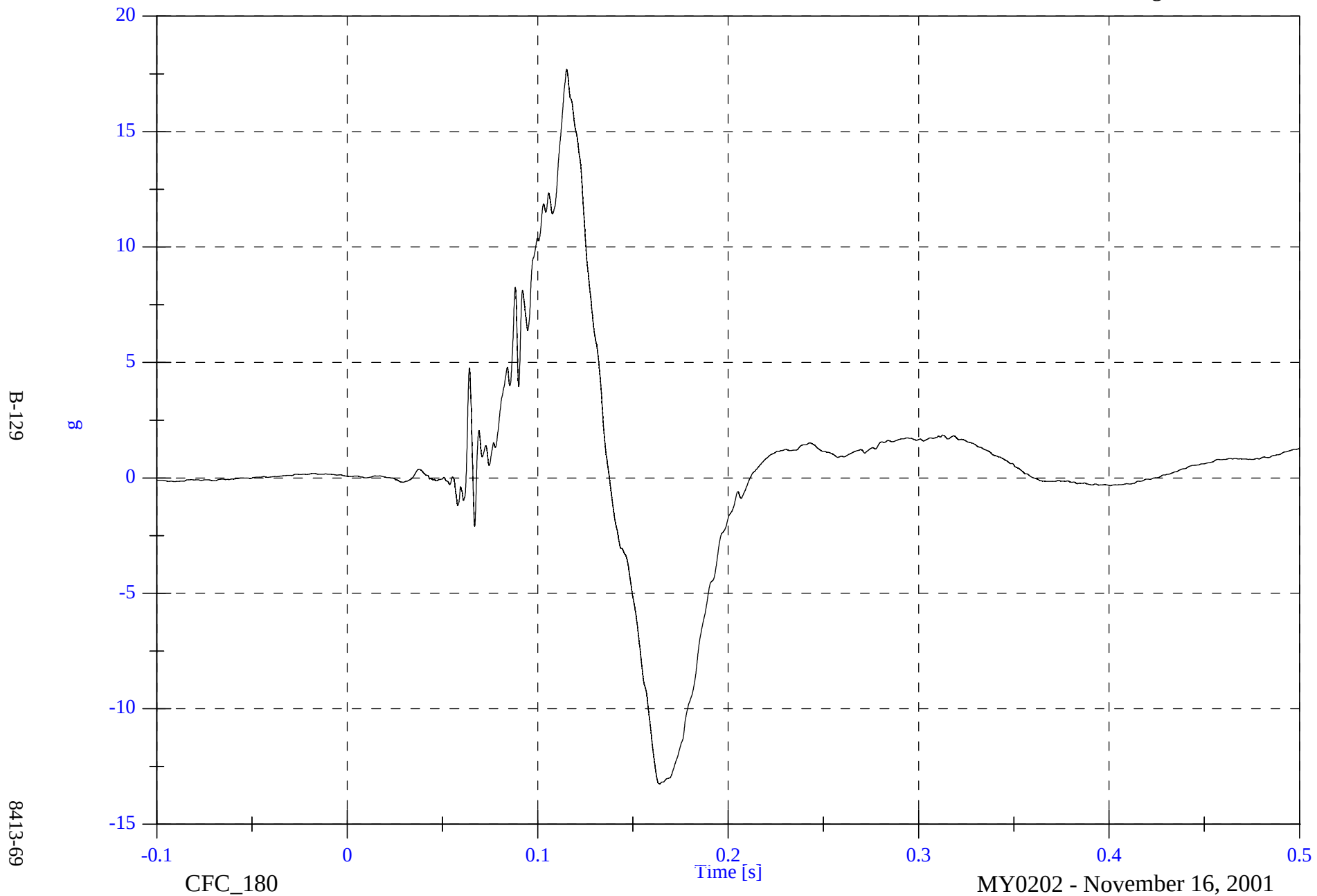
8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

P2 Chest Red Az

Max: 17.7 [g] at 0.115 [s]

Min: -13.3 [g] at 0.164 [s]



40% Frontal Offset Test #13 - 2000 Ford Explorer

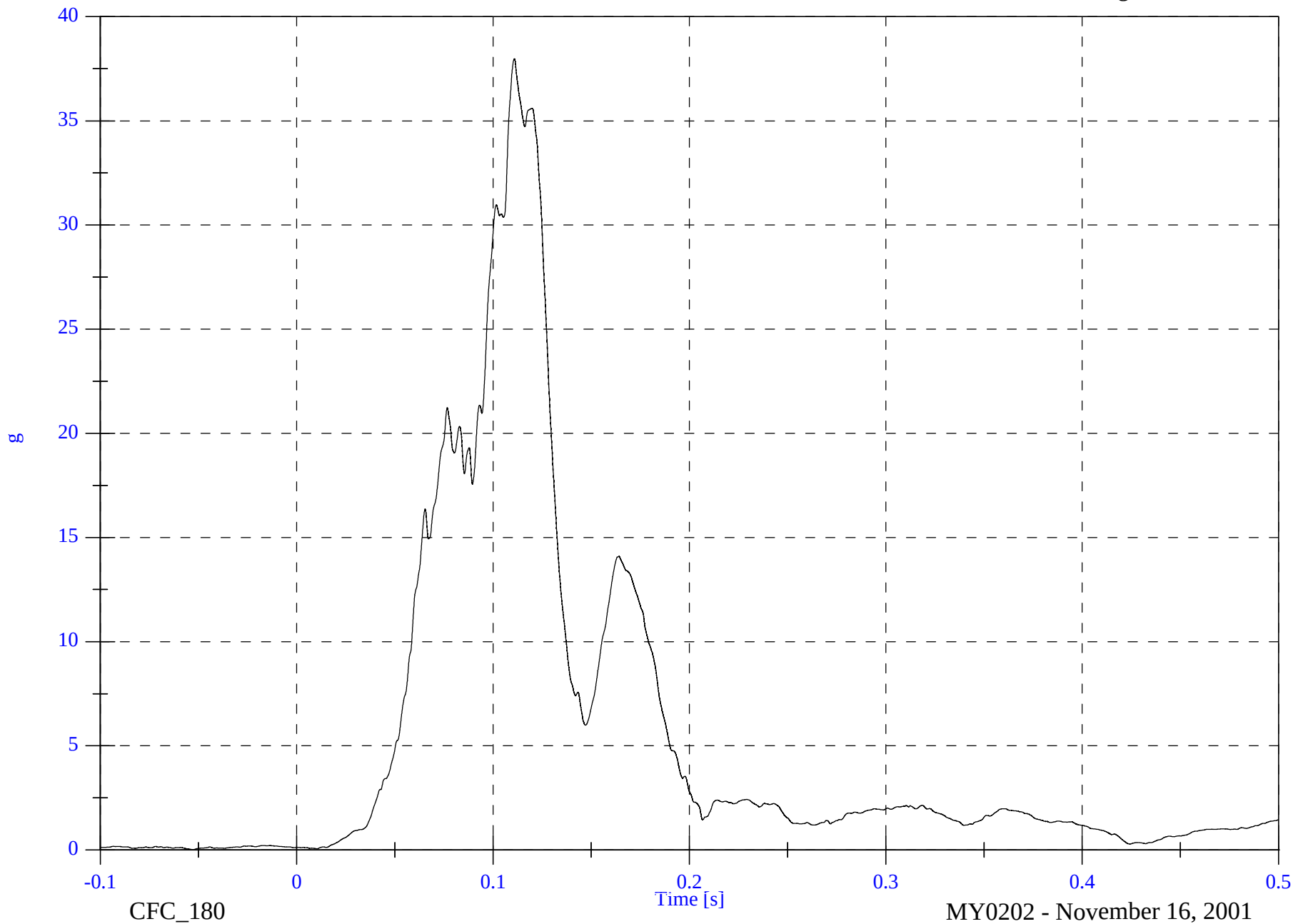
P2 Chest Red A Resultant

Max: 38.0 [g] at 0.111 [s]

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

B-130

8413-69



40% Frontal Offset Test #13 - 2000 Ford Explorer

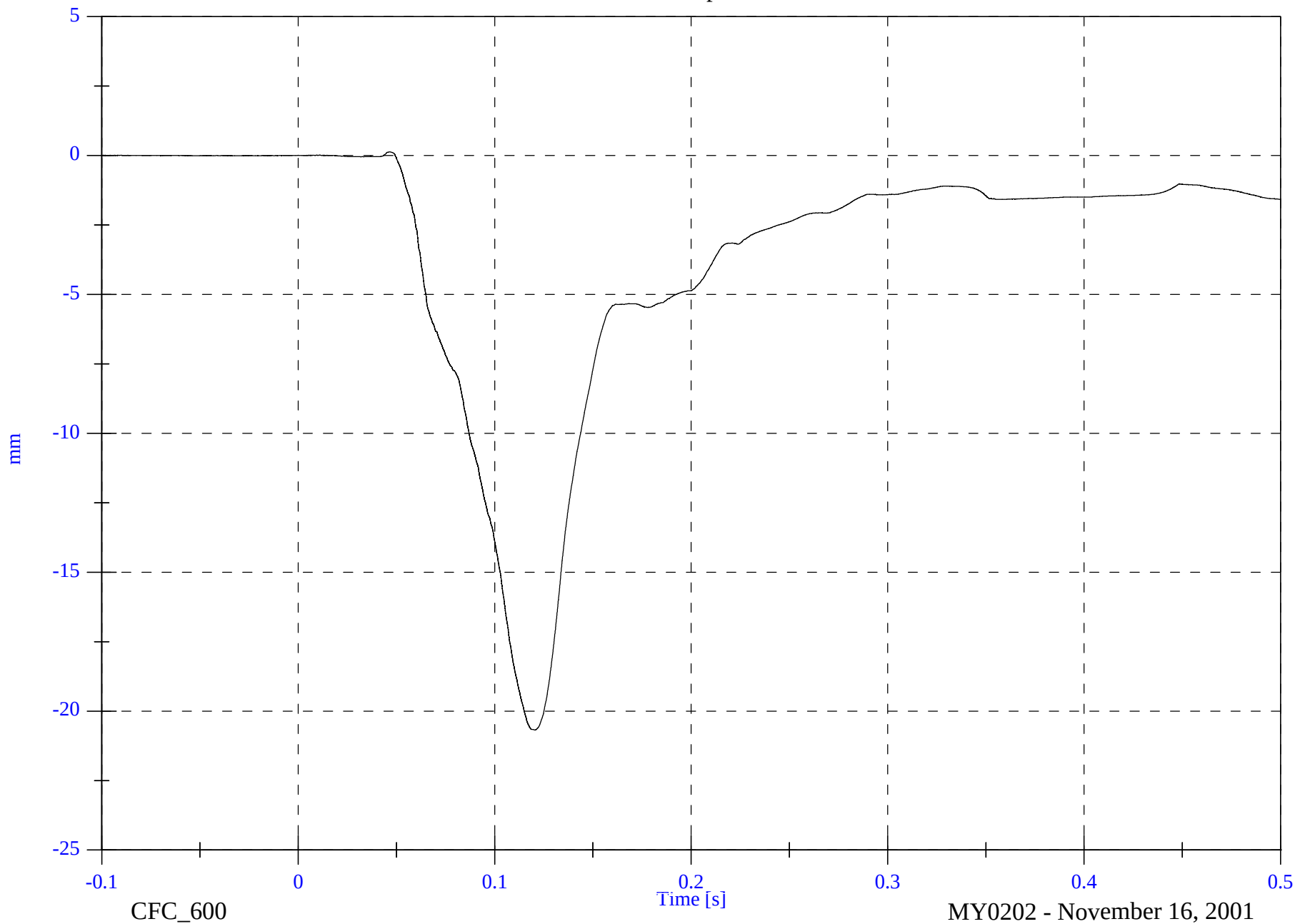
P2 Chest Displacement

Max: 0.1 [mm] at 0.047 [s]

Min: -20.7 [mm] at 0.120 [s]

B-131

8413-69

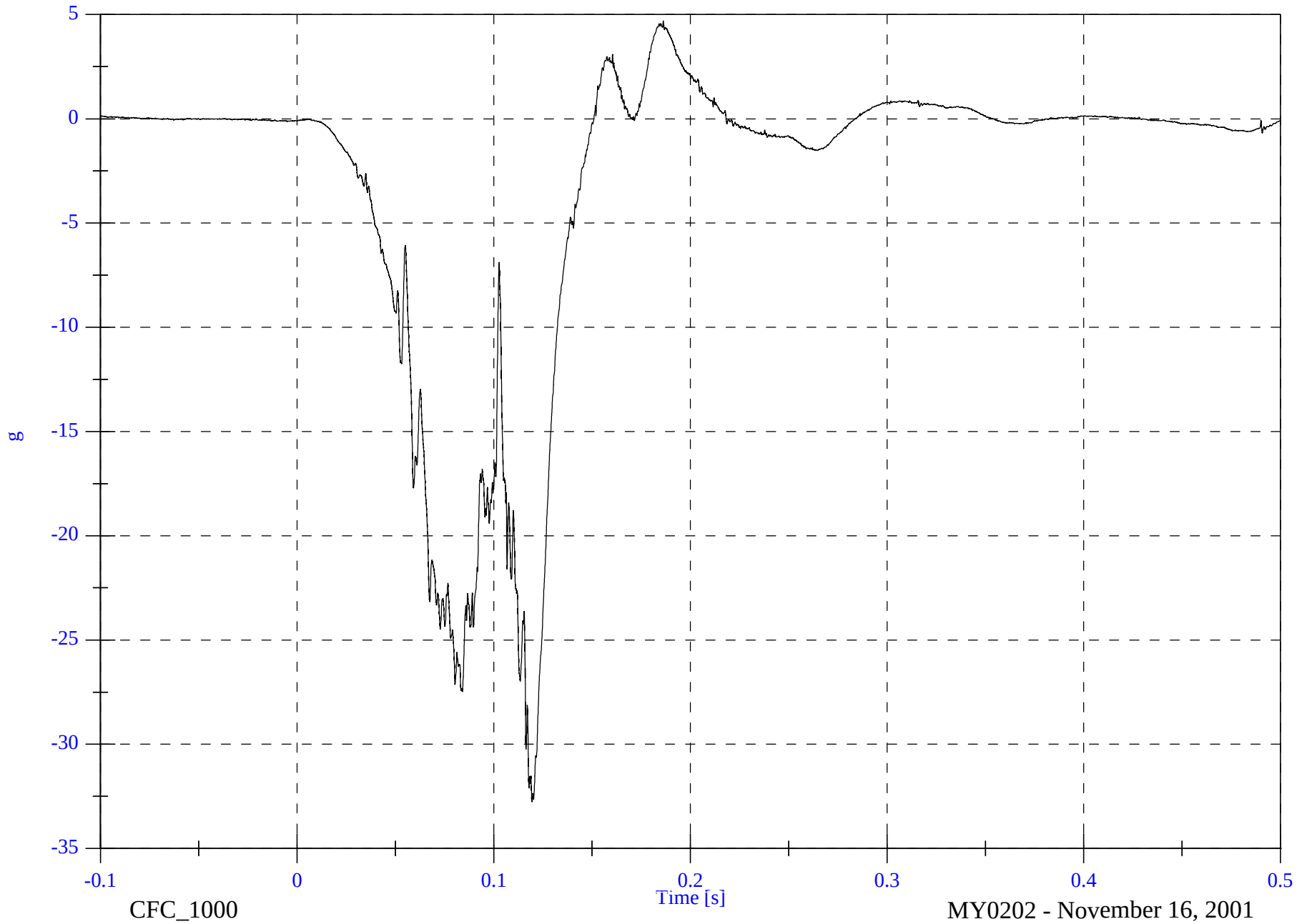


40% Frontal Offset Test #13 - 2000 Ford Explorer

P2 Pelvic Ax

Max: 4.7 [g] at 0.186 [s]

Min: -32.8 [g] at 0.119 [s]



B-132

8413-69

CFC_1000

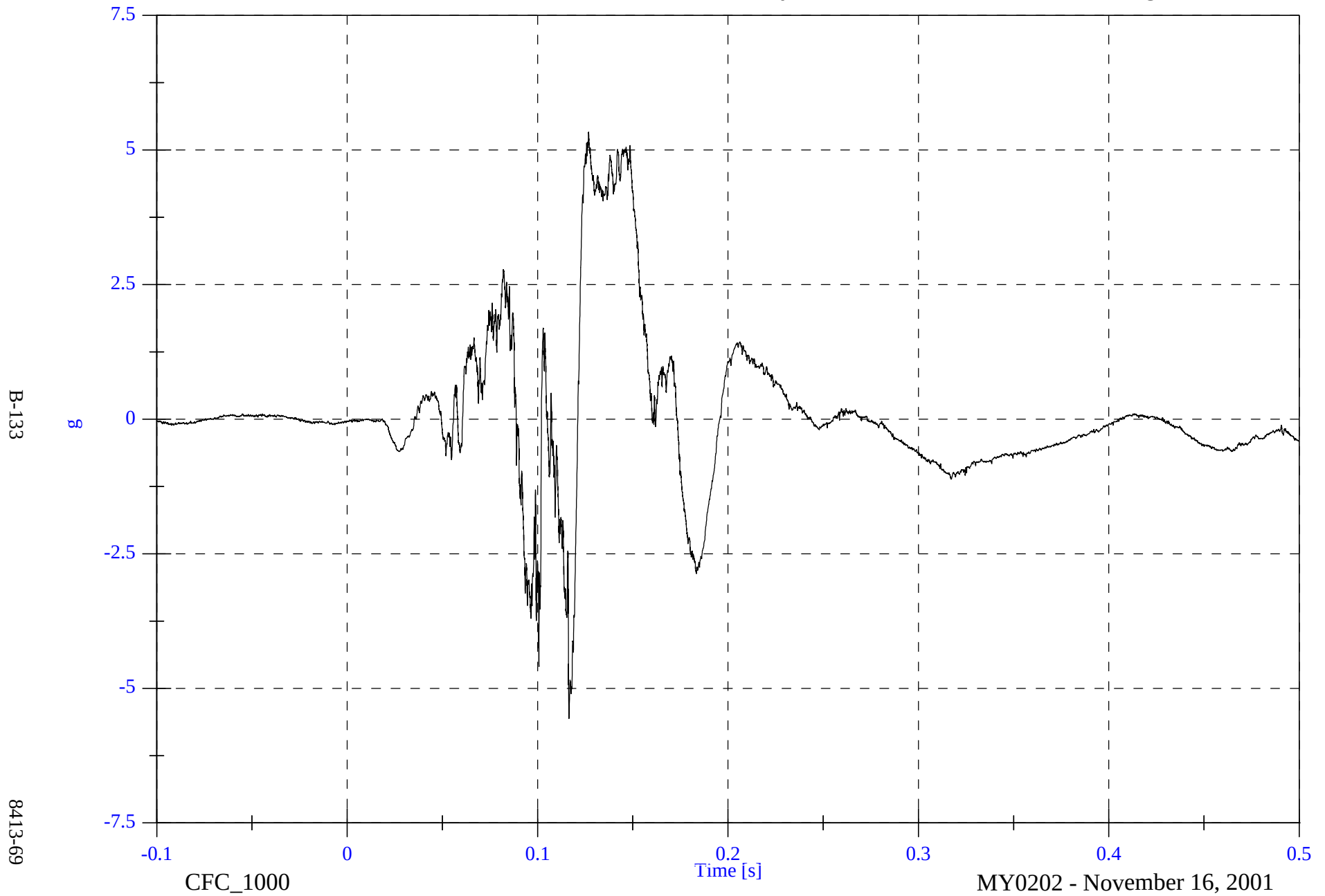
MY0202 - November 16, 2001

40% Frontal Offset Test #13 - 2000 Ford Explorer

P2 Pelvic Ay

Max: 5.3 [g] at 0.127 [s]

Min: -5.6 [g] at 0.117 [s]



40% Frontal Offset Test #13 - 2000 Ford Explorer

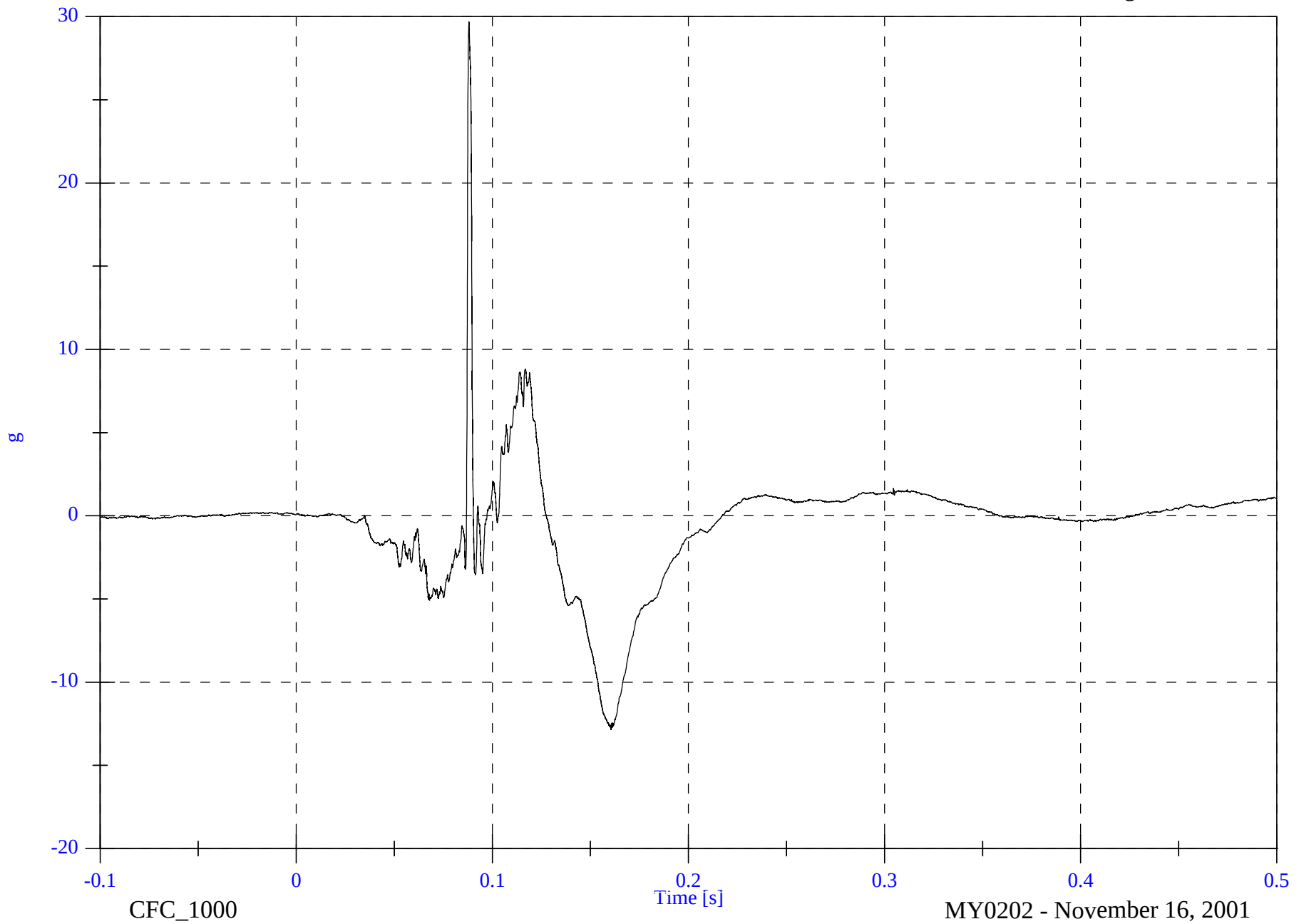
P2 Pelvic Az

Max: 29.7 [g] at 0.088 [s]

Min: -12.8 [g] at 0.161 [s]

B-134

8413-69



40% Frontal Offset Test #13 - 2000 Ford Explorer

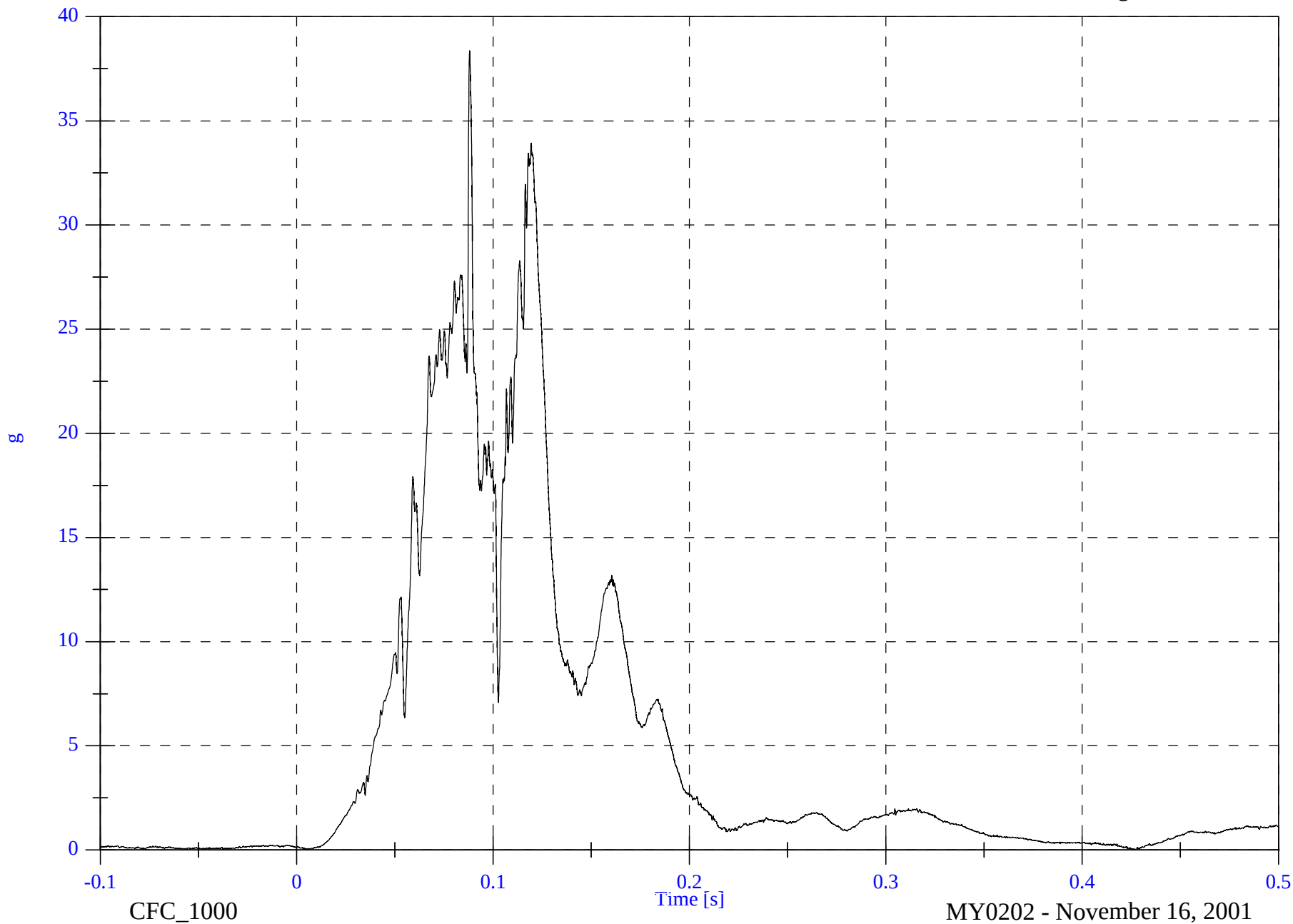
P2 Pelvic A Resultant

Max: 38.4 [g] at 0.088 [s]

Min: 0.0 [g] at 0.427 [s]

B-135

8413-69

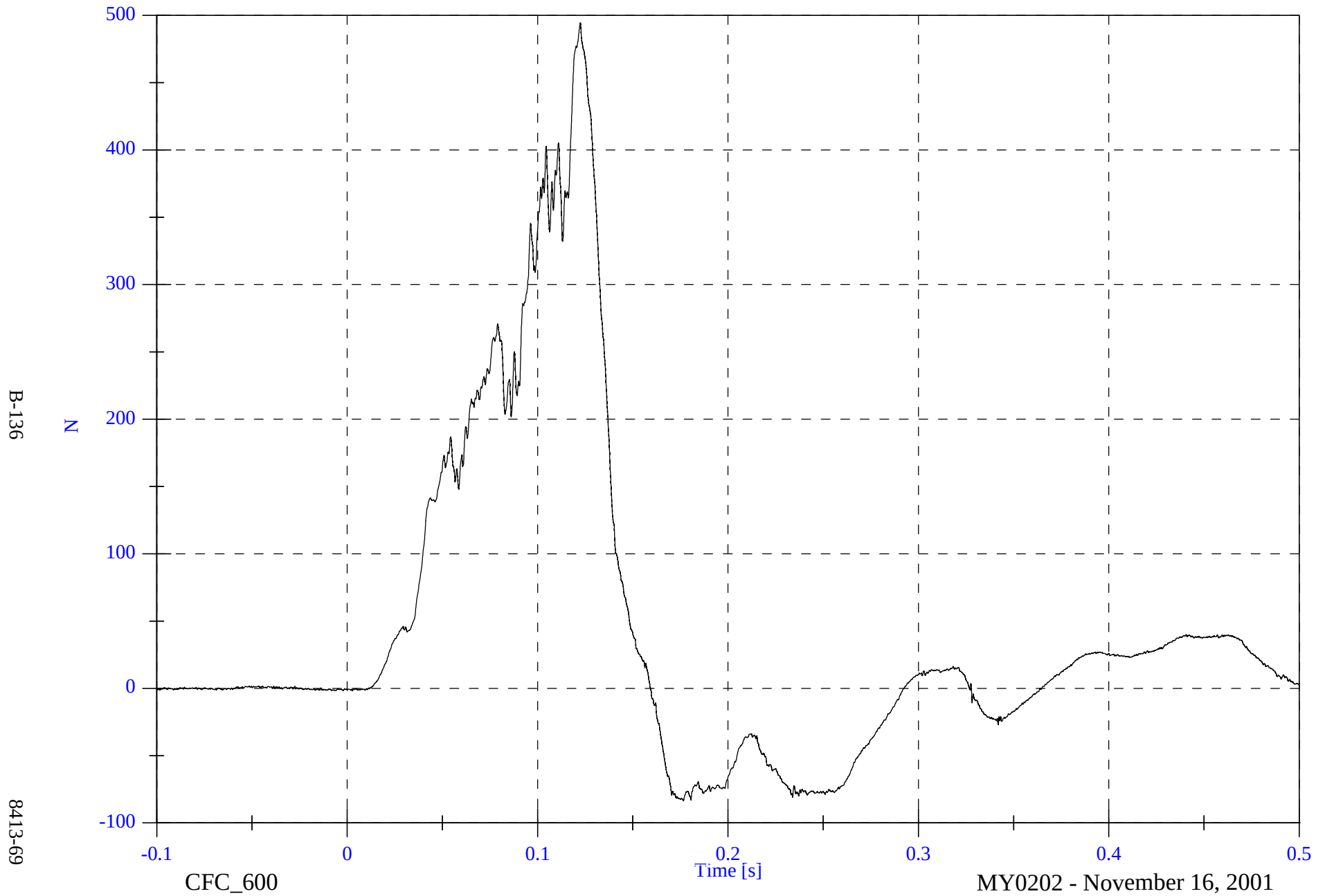


40% Frontal Offset Test #13 - 2000 Ford Explorer

P2 Left Femur Fx

Max: 494.7 [N] at 0.122 [s]

Min: -83.5 [N] at 0.177 [s]

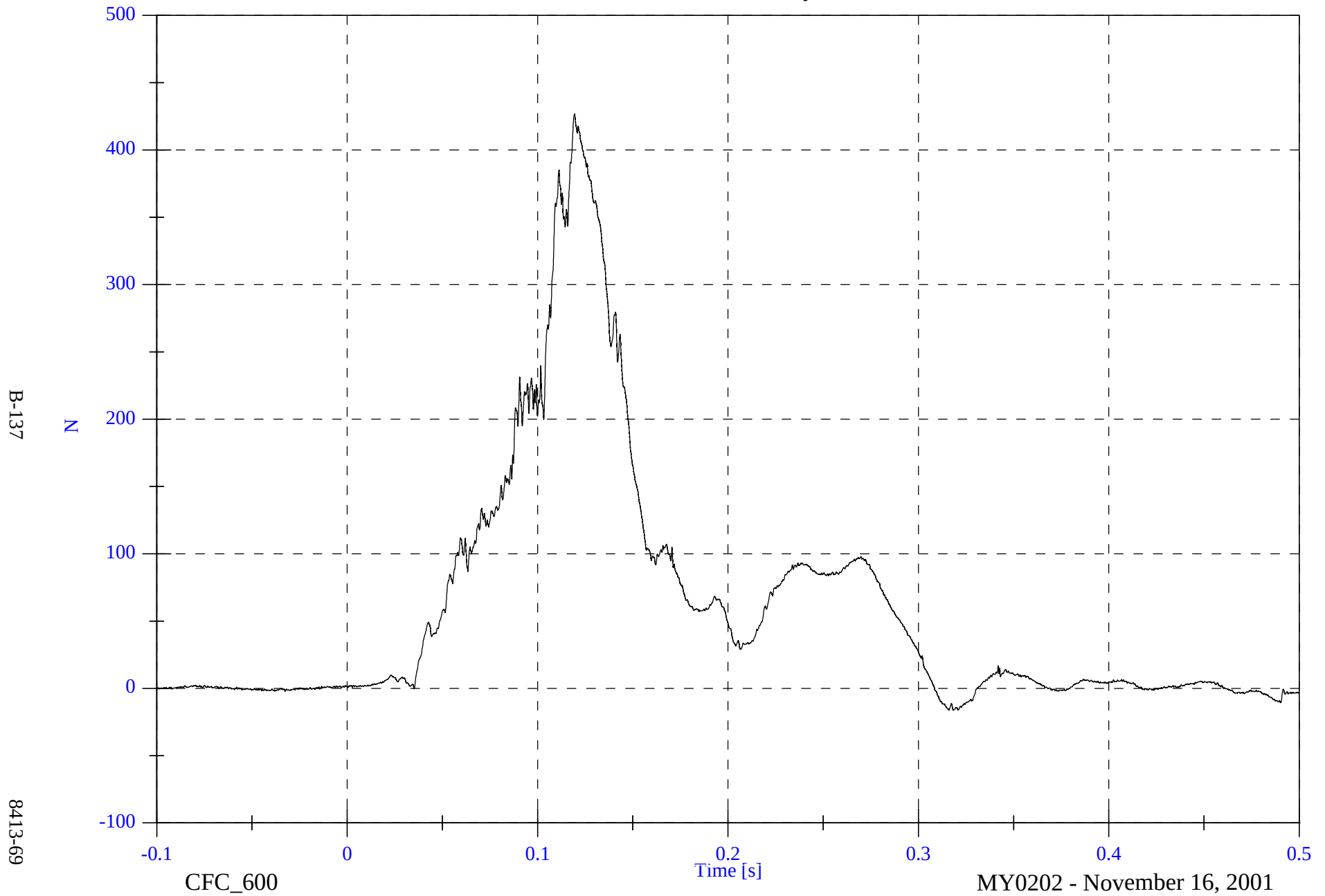


40% Frontal Offset Test #13 - 2000 Ford Explorer

Max: 426.6 [N] at 0.119 [s]

P2 Left Femur Fy

Min: -16.4 [N] at 0.316 [s]

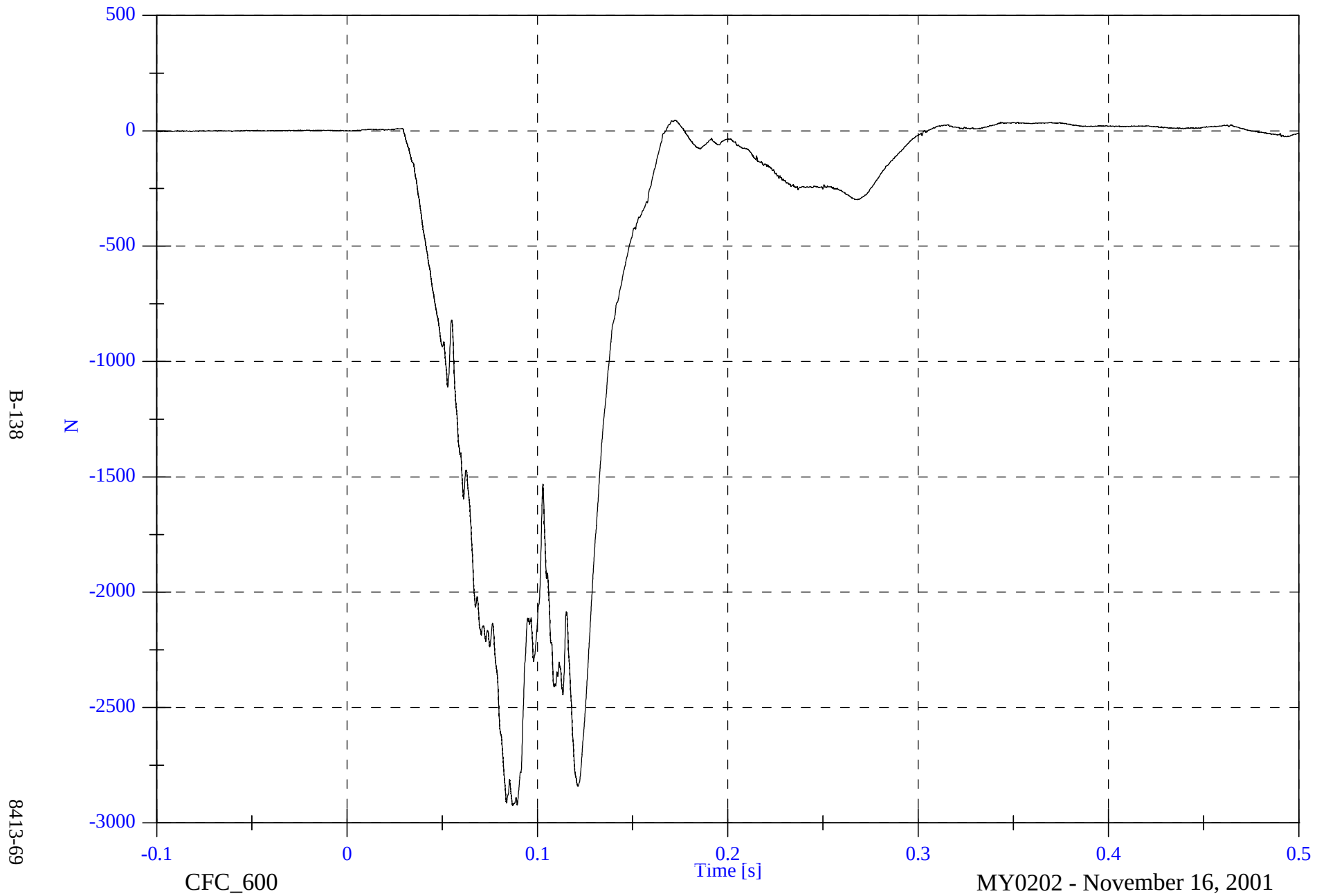


40% Frontal Offset Test #13 - 2000 Ford Explorer

P2 Left Femur Fz

Max: 45.6 [N] at 0.173 [s]

Min: -2925.4 [N] at 0.087 [s]

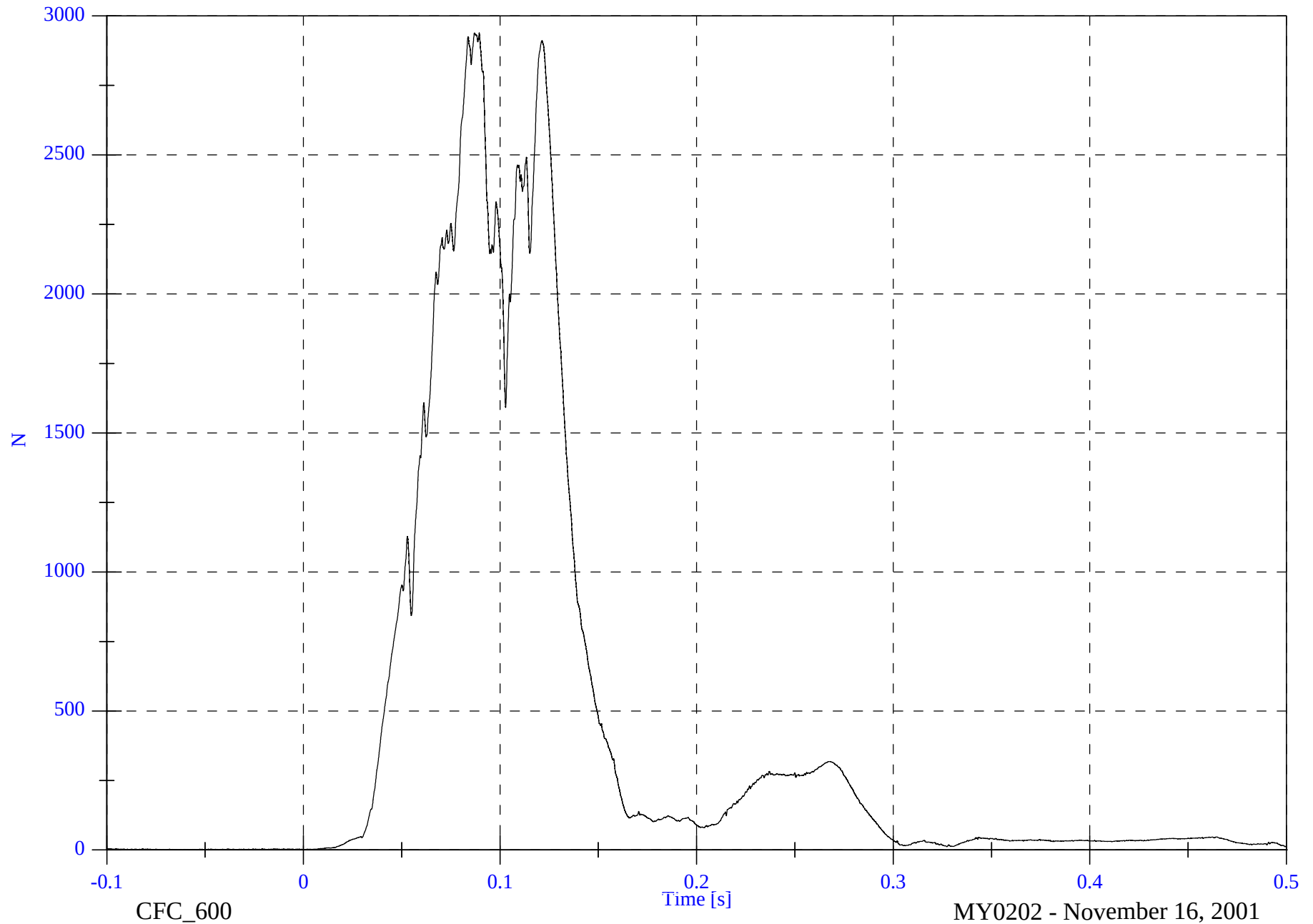


40% Frontal Offset Test #13 - 2000 Ford Explorer

P2 Left Femur F Resultant

Max: 2939.1 [N] at 0.087 [s]

Min: 0.1 [N] at -0.057 [s]

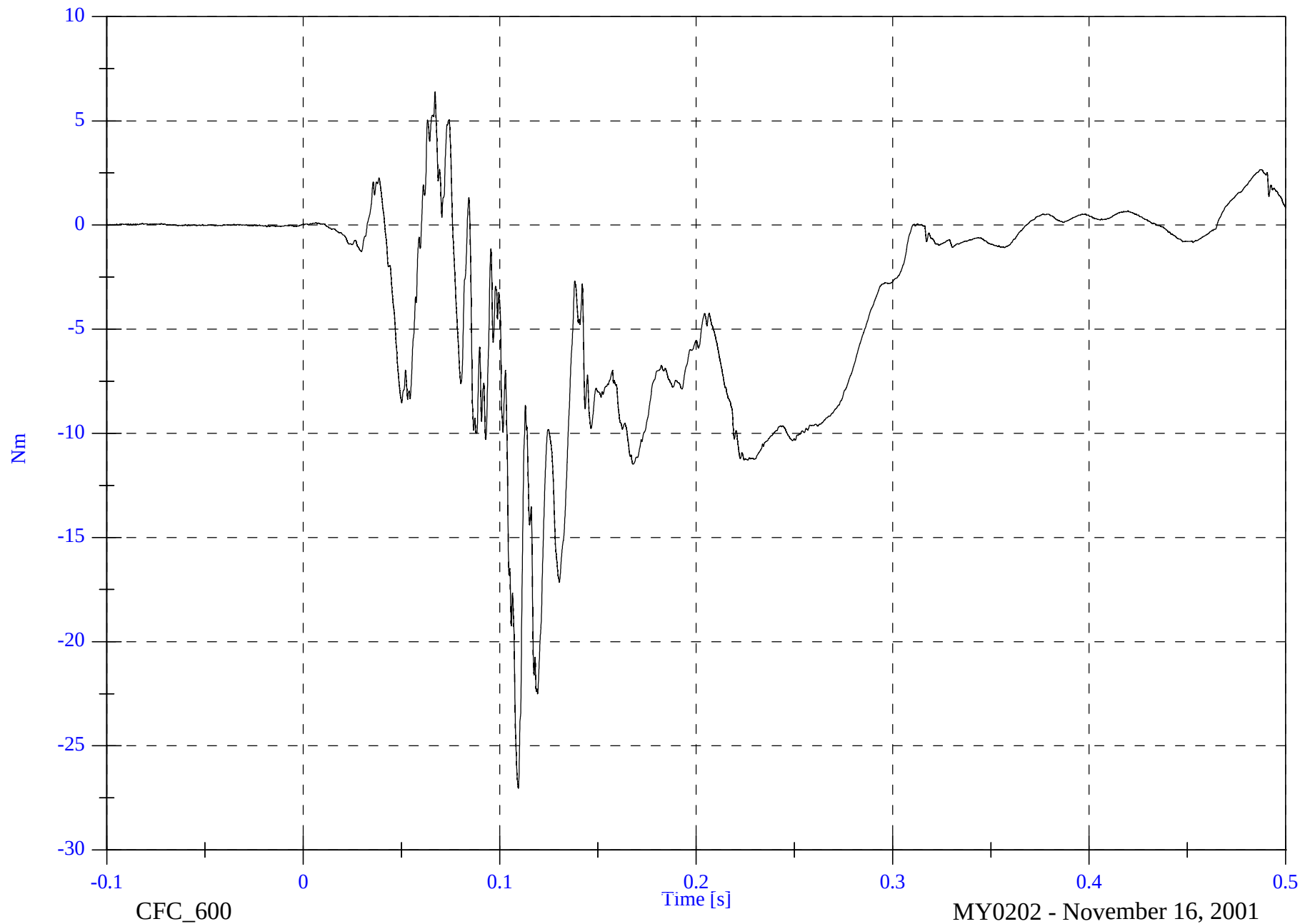


40% Frontal Offset Test #13 - 2000 Ford Explorer

P2 Left Femur Mx

Max: 6.4 [Nm] at 0.067 [s]

Min: -27.0 [Nm] at 0.110 [s]



B-140

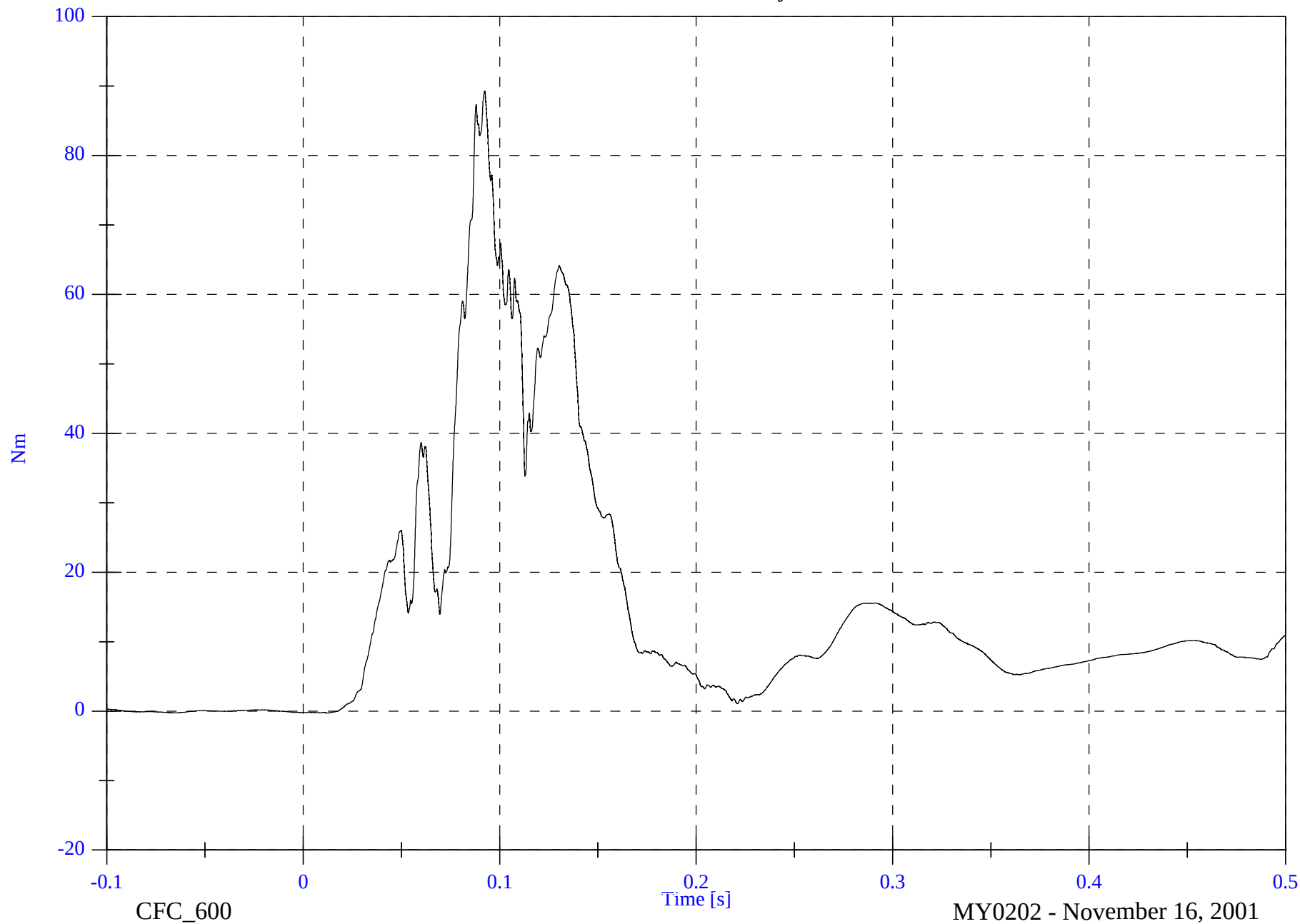
8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

P2 Left Femur My

Max: 89.3 [Nm] at 0.092 [s]

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



B-141

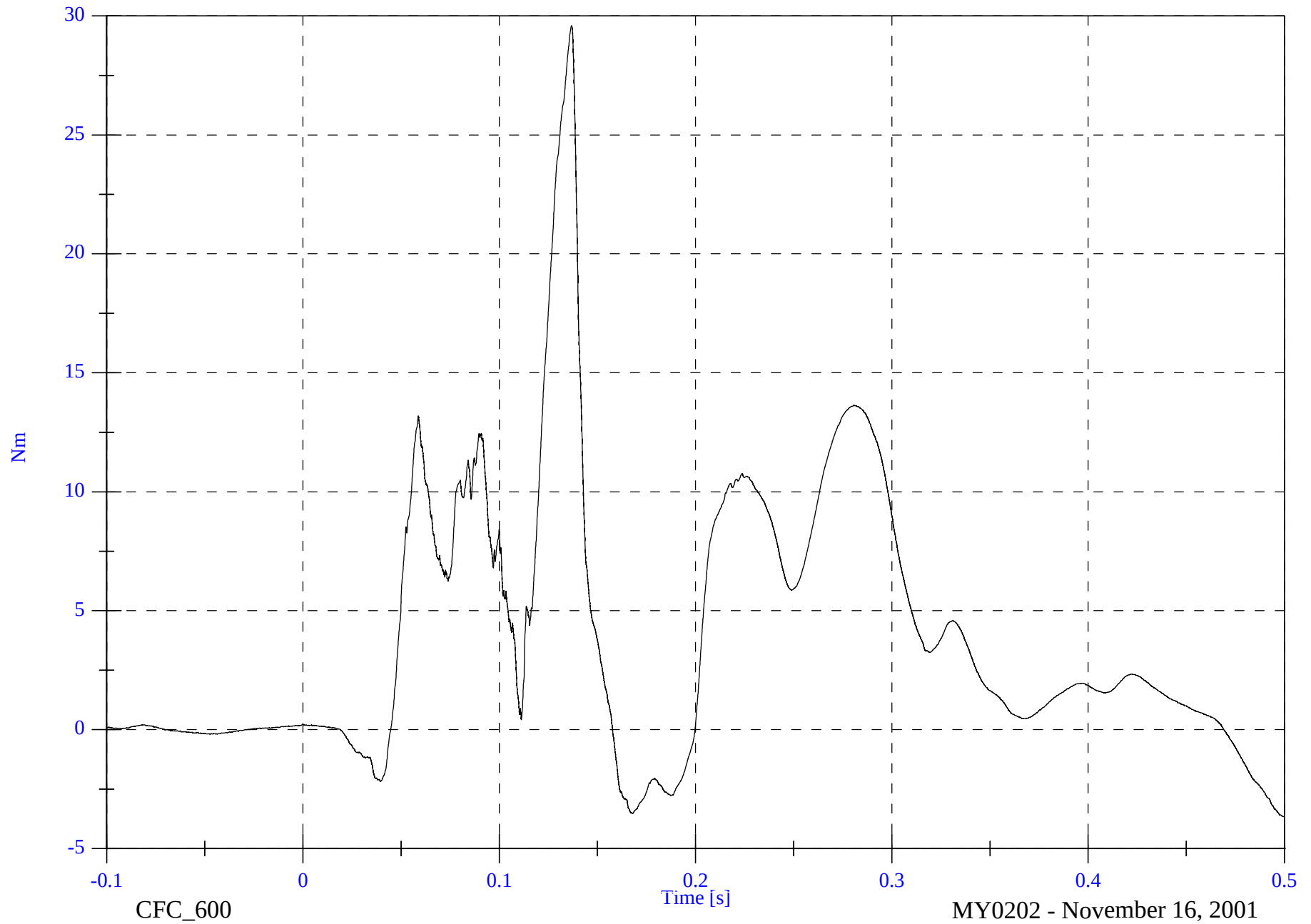
8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

P2 Left Femur Mz

Max: 29.6 [Nm] at 0.137 [s]

Min: -3.7 [Nm] at 0.500 [s]



B-142

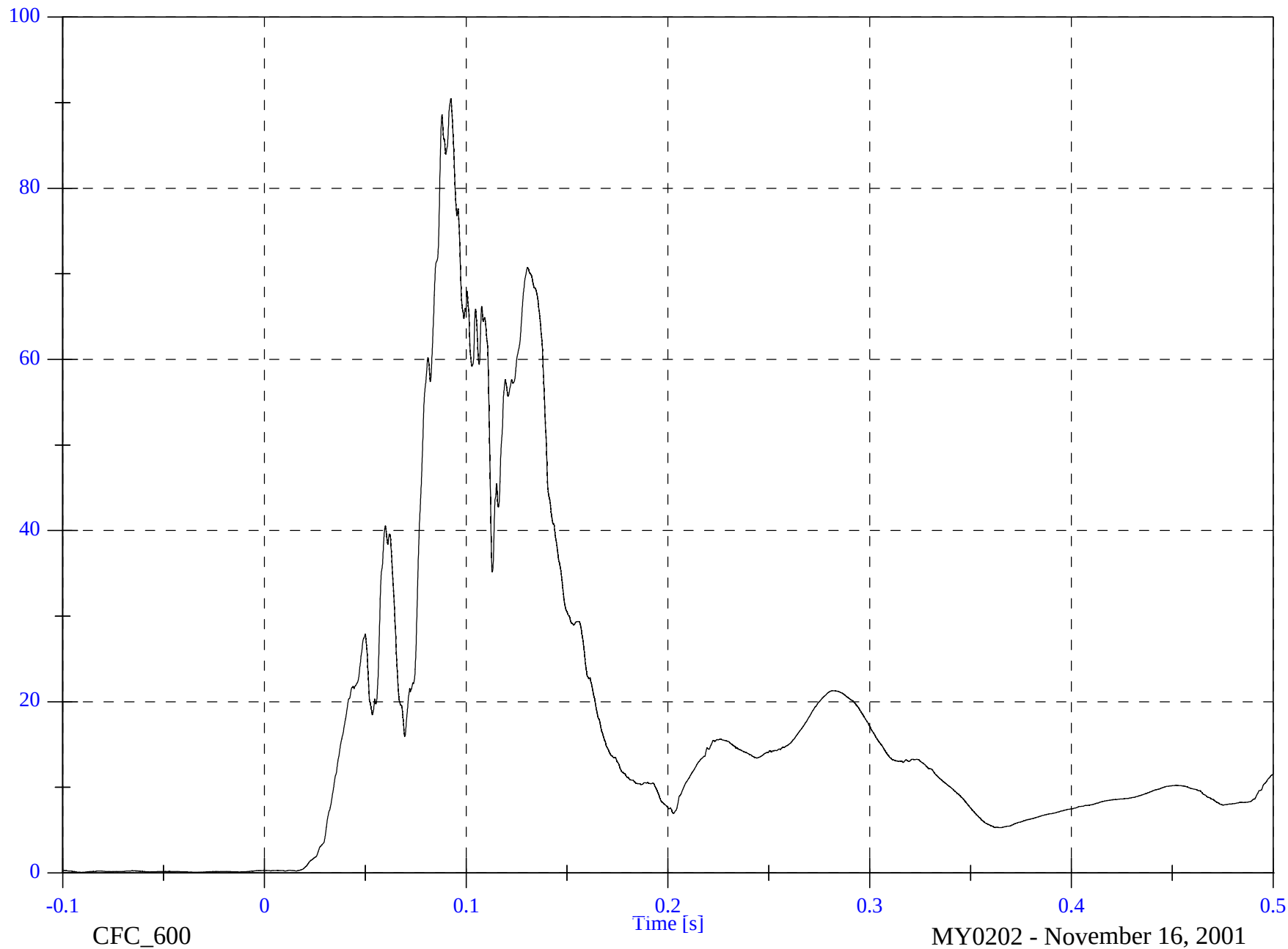
8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

P2 Left Femur M Resultant

Max: 90.5 [Nm] at 0.092 [s]

Min: 0.1 [Nm] at -0.091 [s]



B-143

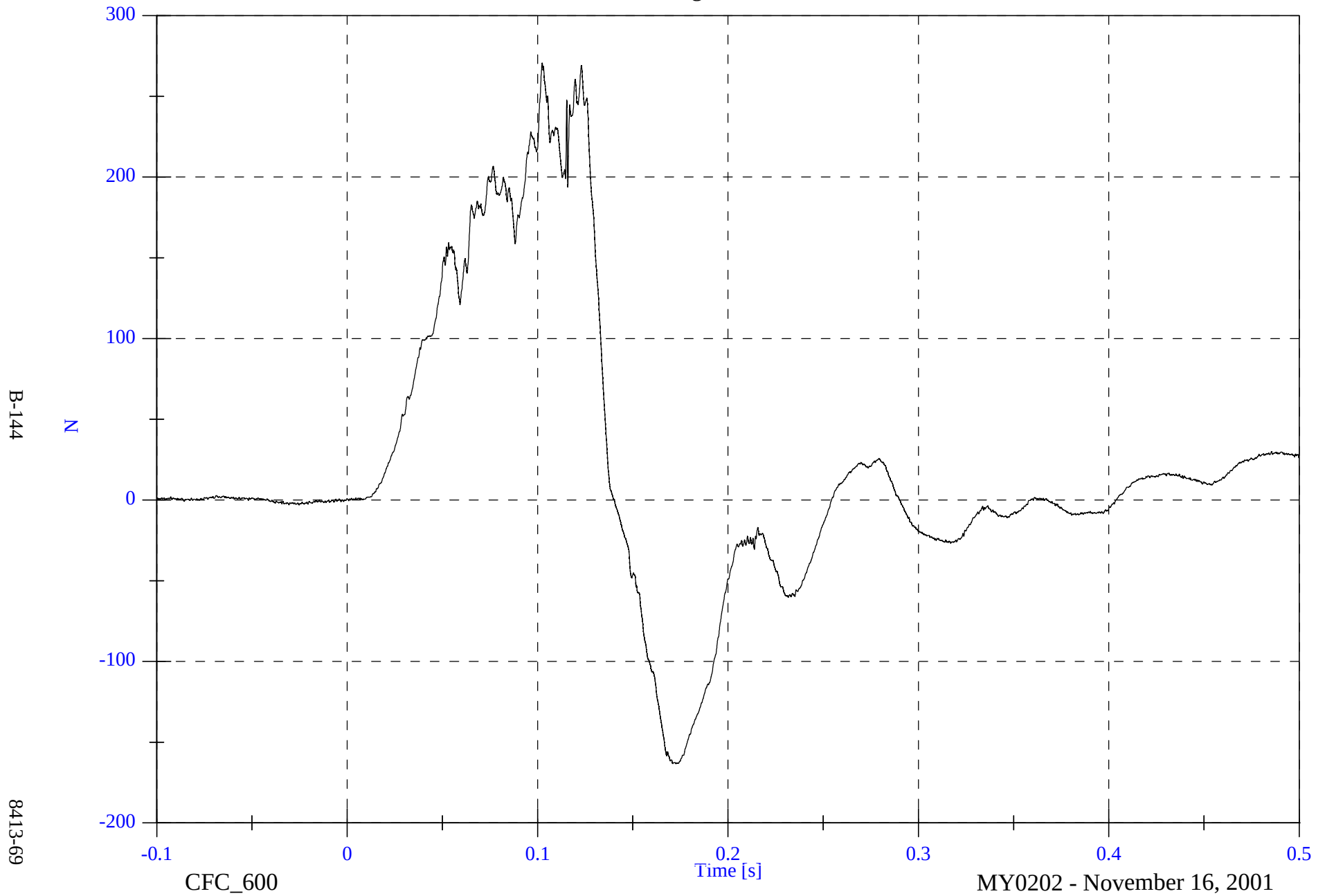
8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

P2 Right Femur Fx

Max: 270.7 [N] at 0.102 [s]

Min: -163.3 [N] at 0.171 [s]

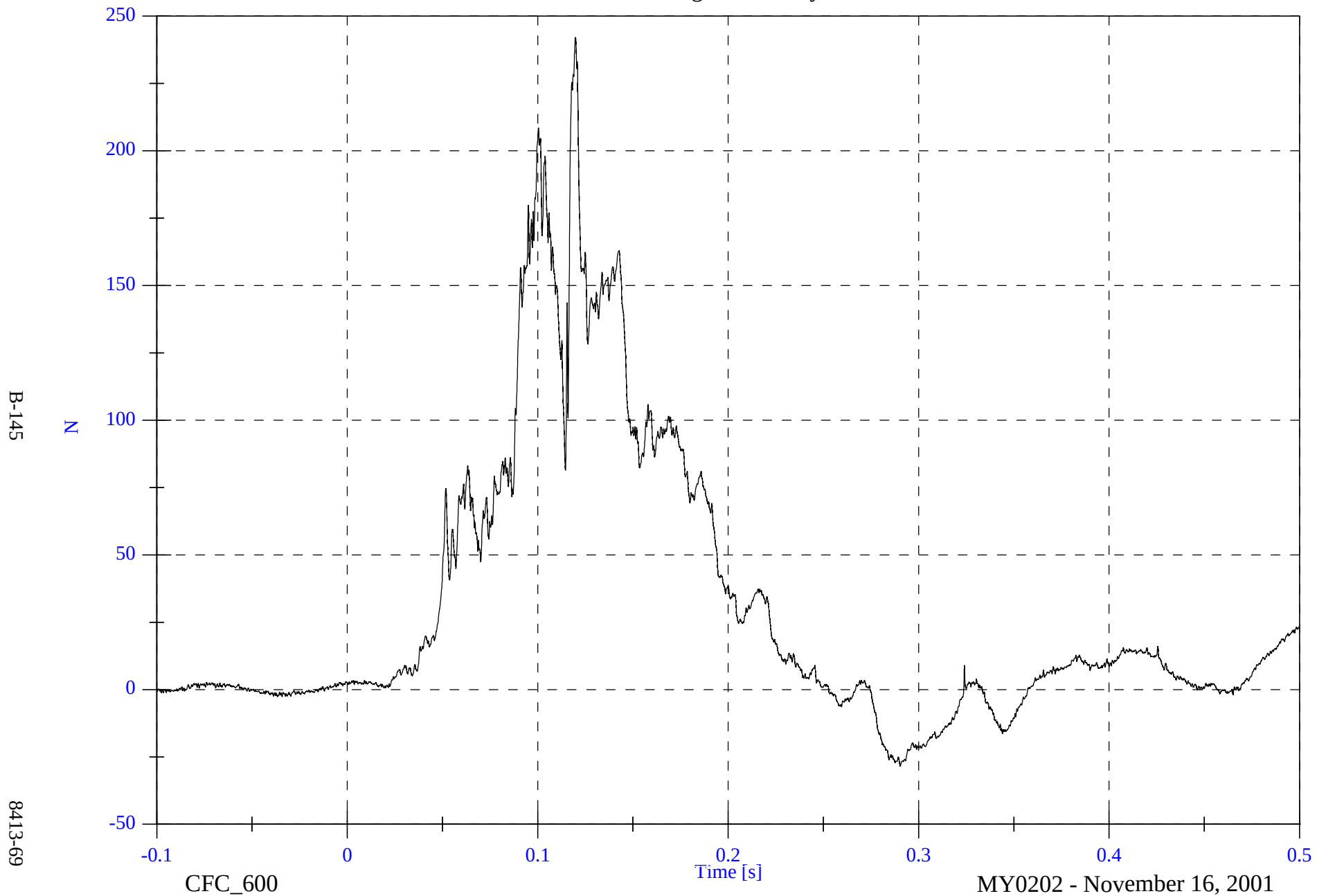


40% Frontal Offset Test #13 - 2000 Ford Explorer

P2 Right Femur Fy

Max: 242.2 [N] at 0.120 [s]

Min: -28.5 [N] at 0.290 [s]

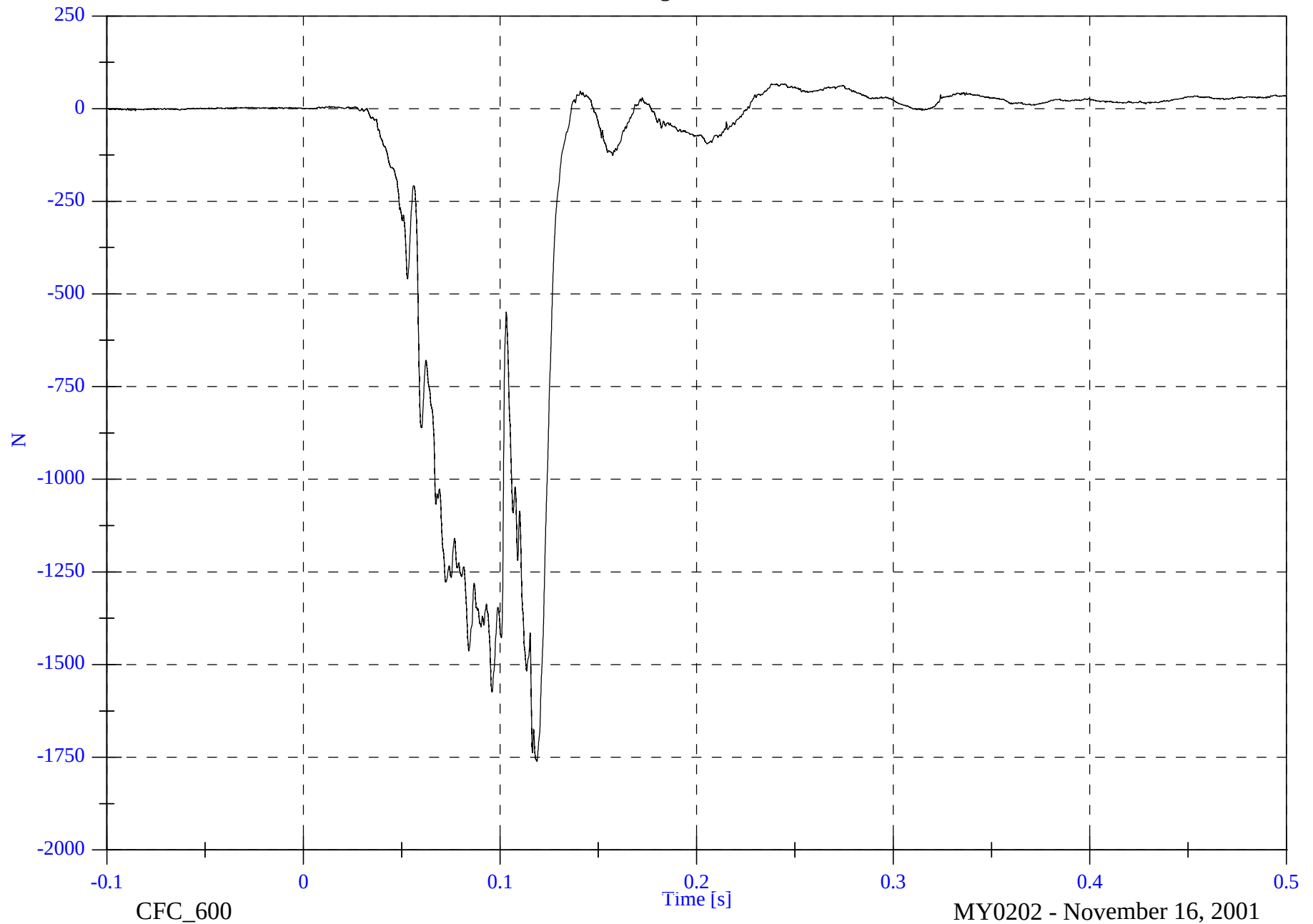


40% Frontal Offset Test #13 - 2000 Ford Explorer

P2 Right Femur Fz

Max: 67.1 [N] at 0.245 [s]

Min: -1761.3 [N] at 0.119 [s]



B-146

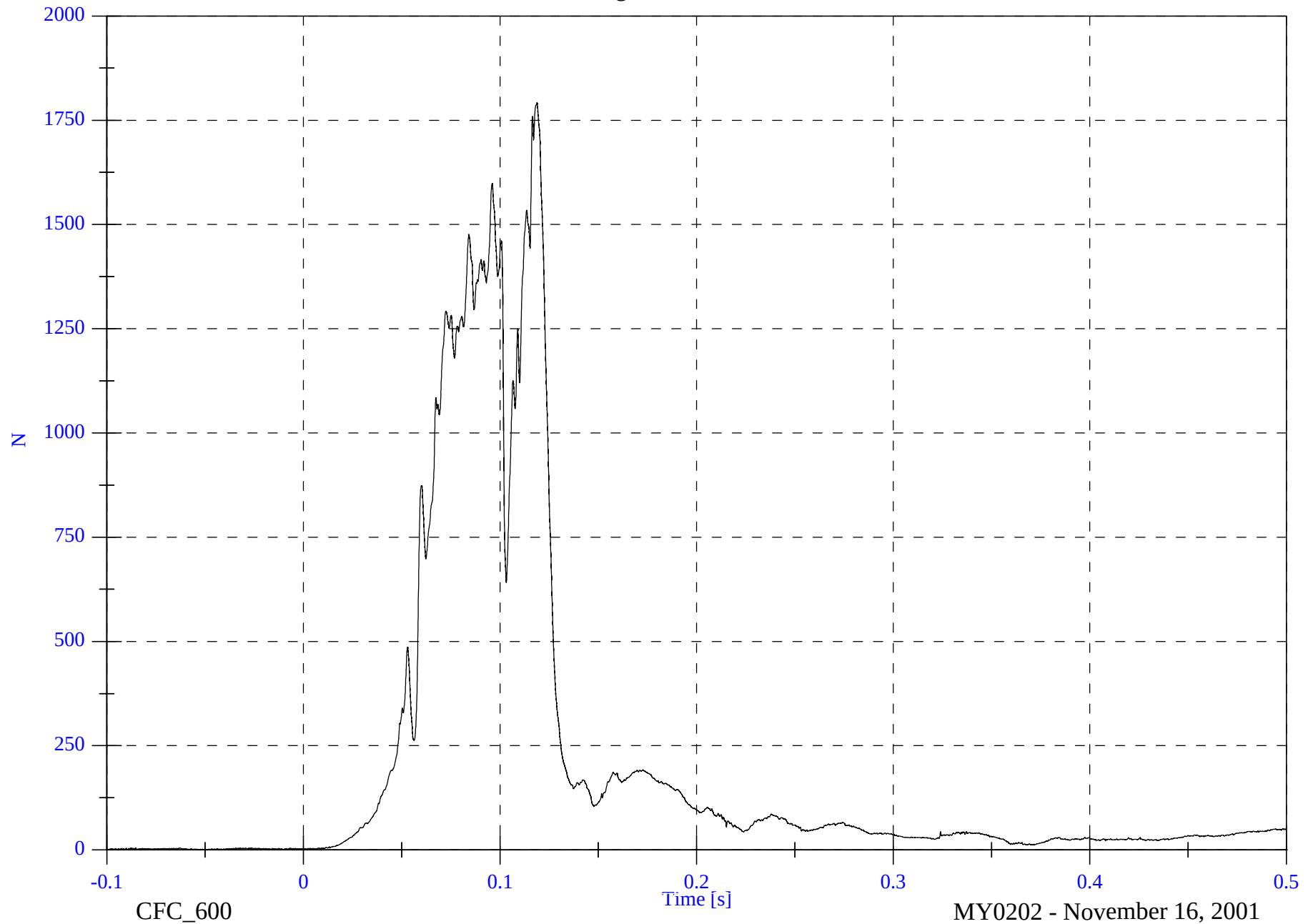
8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

P2 Right Femur F Resultant

Max: 1792.6 [N] at 0.119 [s]

Min: 0.3 [N] at -0.052 [s]



B-147

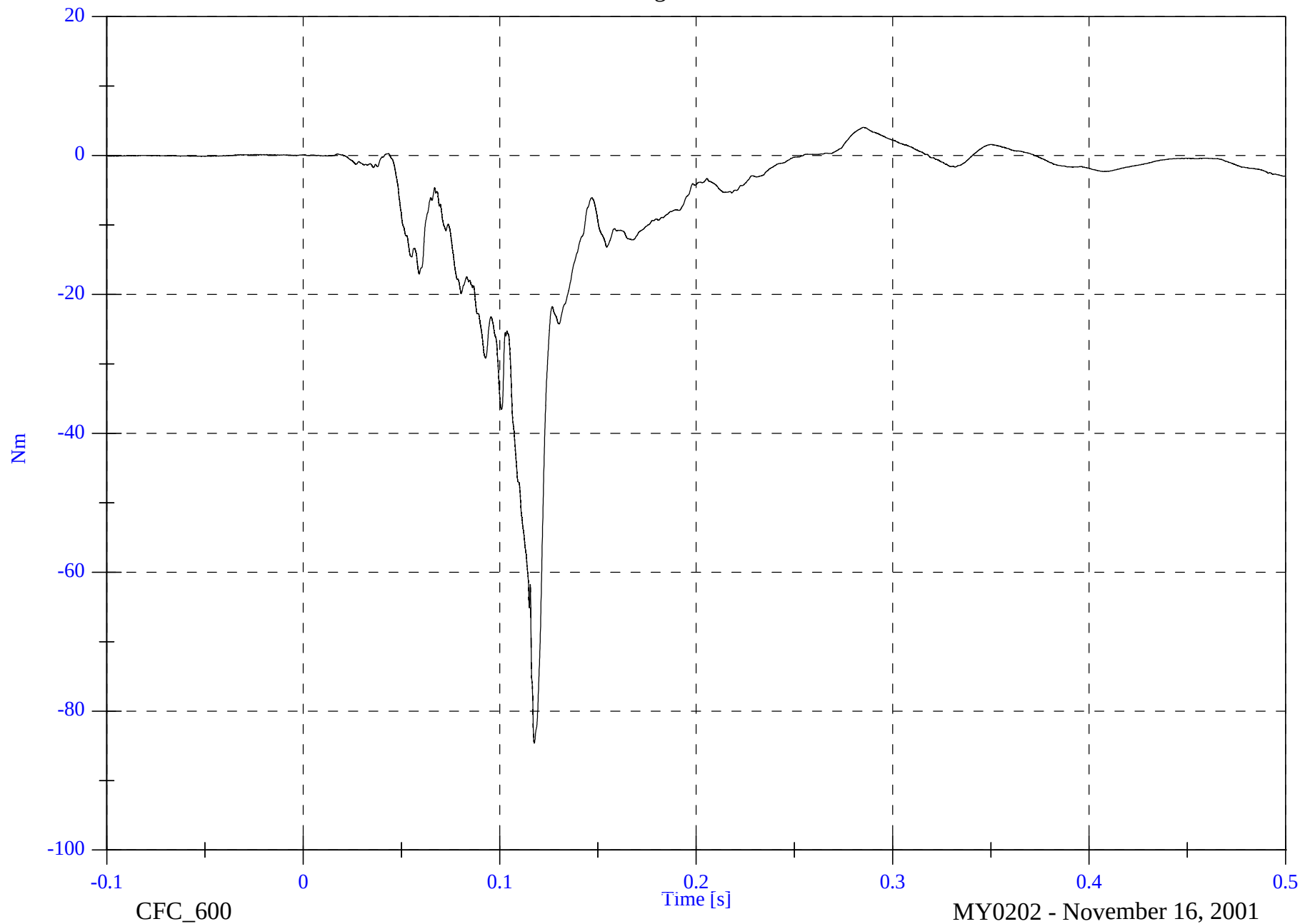
8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

P2 Right Femur Mx

Max: 4.1 [Nm] at 0.285 [s]

Min: -84.6 [Nm] at 0.118 [s]



B-148

8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

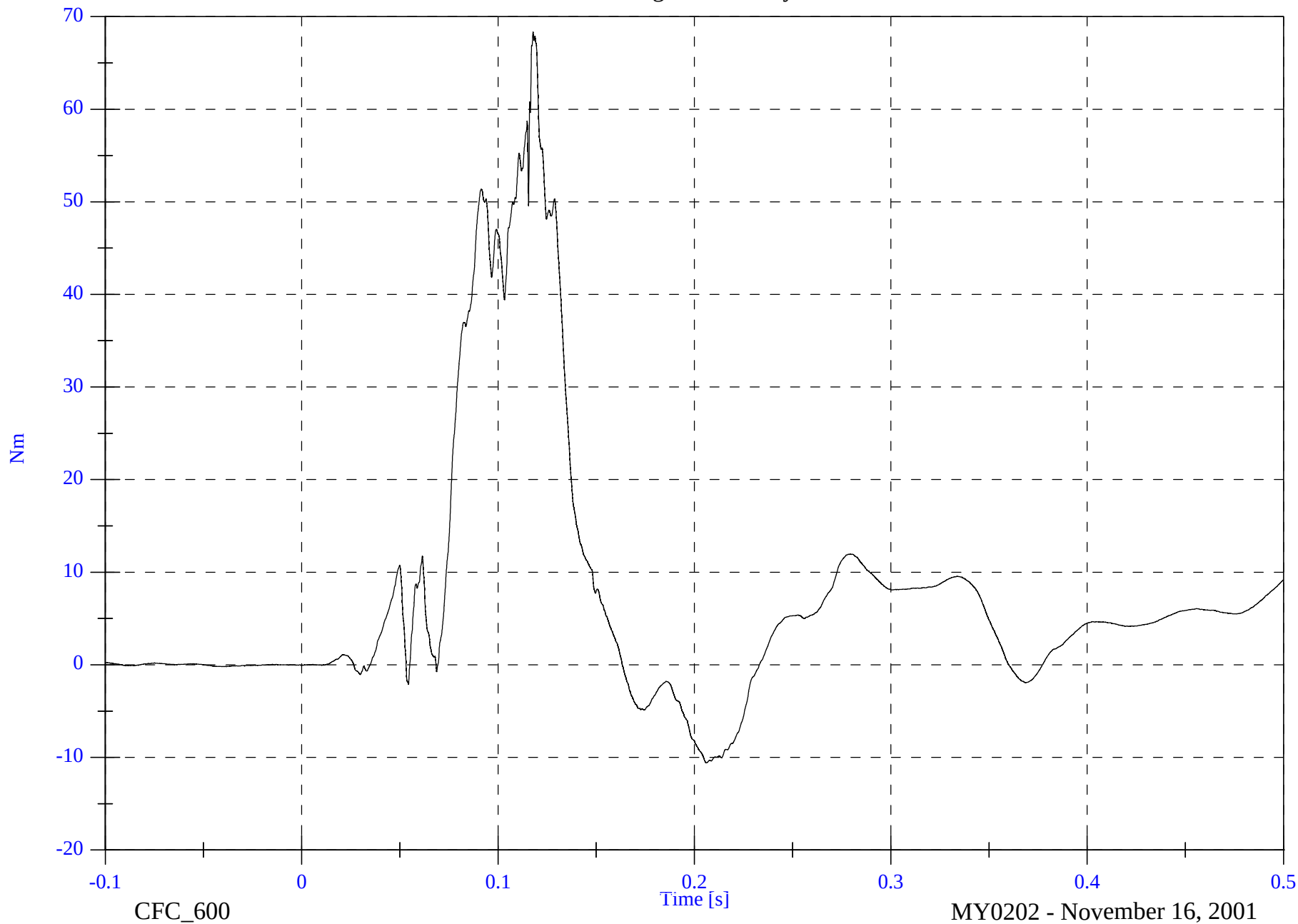
P2 Right Femur My

Max: 68.3 [Nm] at 0.118 [s]

Min: -10.6 [Nm] at 0.206 [s]

B-149

8413-69

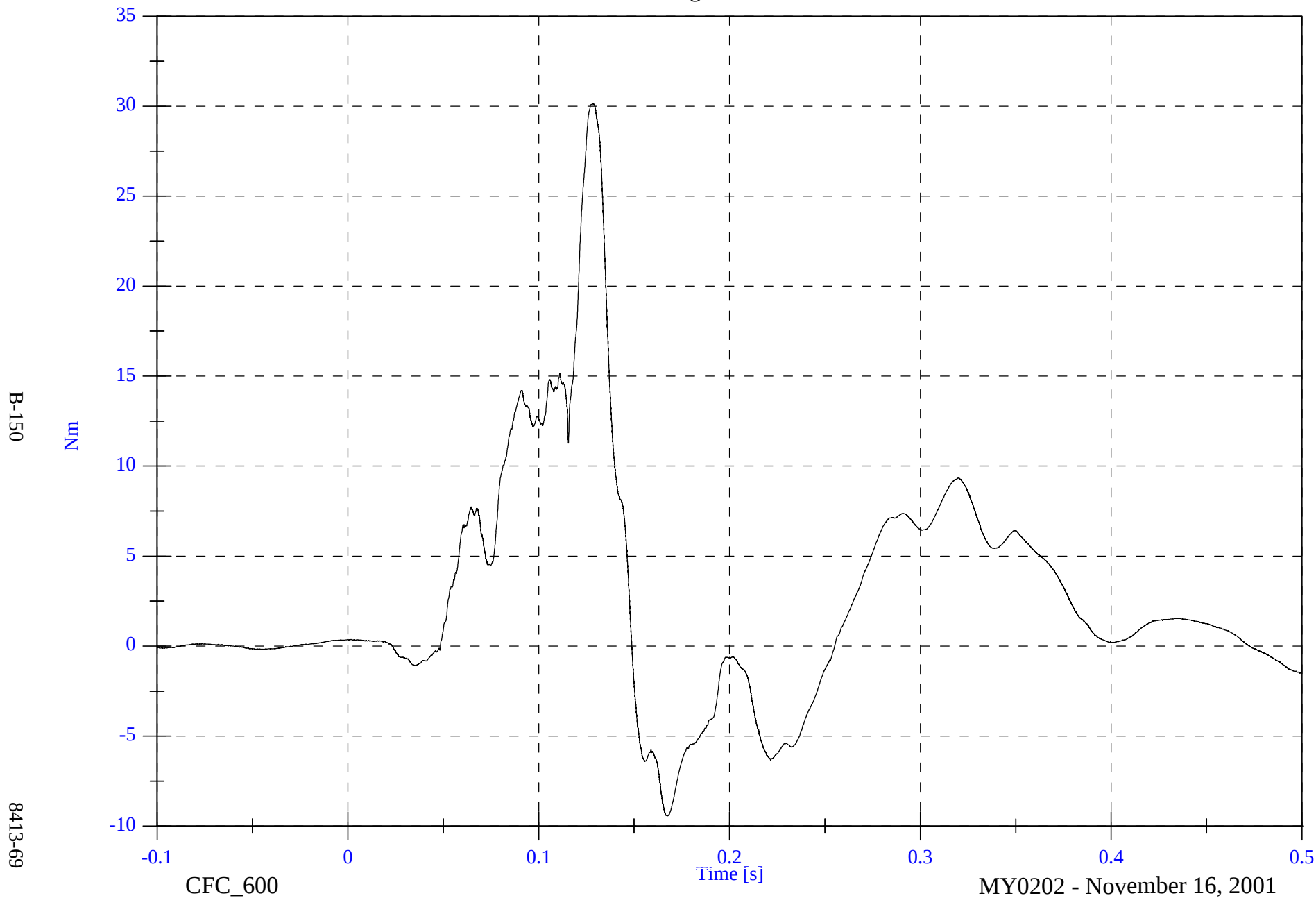


40% Frontal Offset Test #13 - 2000 Ford Explorer

P2 Right Femur Mz

Max: 30.1 [Nm] at 0.129 [s]

Min: -9.4 [Nm] at 0.168 [s]

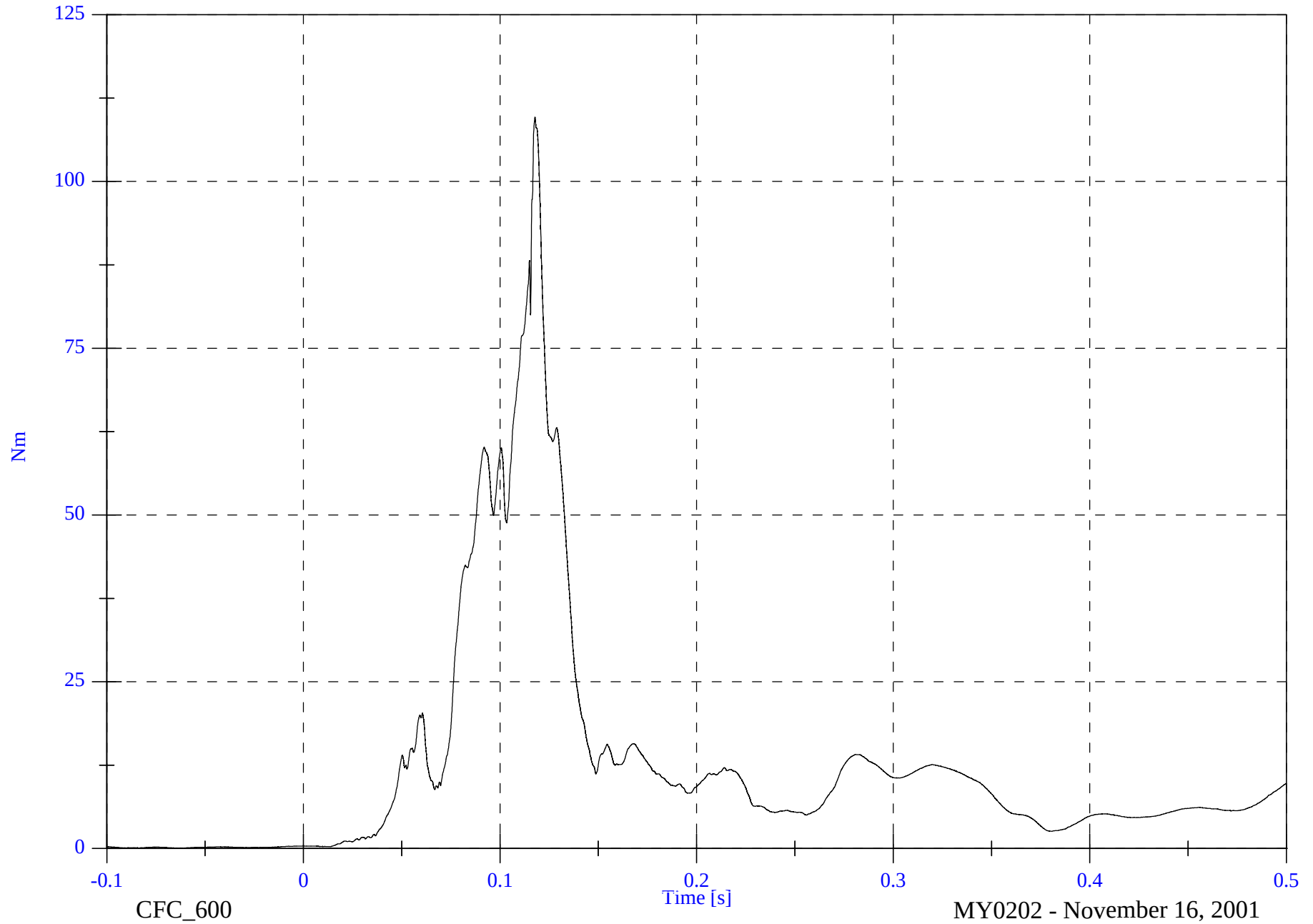


40% Frontal Offset Test #13 - 2000 Ford Explorer

P2 Right Femur M Resultant

Max: 109.6 [Nm] at 0.118 [s]

Min: 0.0 [Nm] at -0.063 [s]



B-151

8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

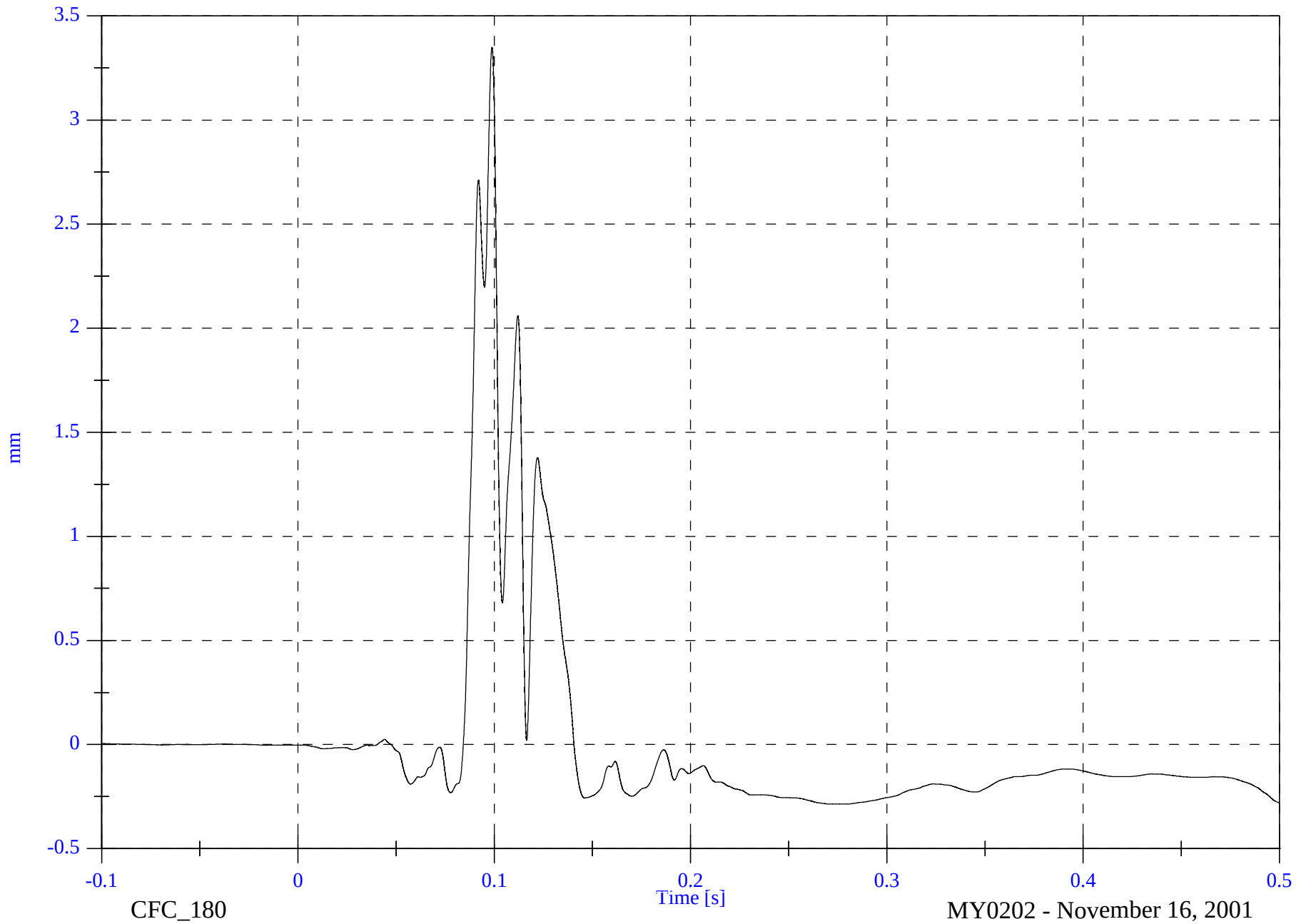
P2 Left Knee Shear Dx

Max: 3.4 [mm] at 0.099 [s]

Min: -0.3 [mm] at 0.275 [s]

B-152

8413-69



40% Frontal Offset Test #13 - 2000 Ford Explorer

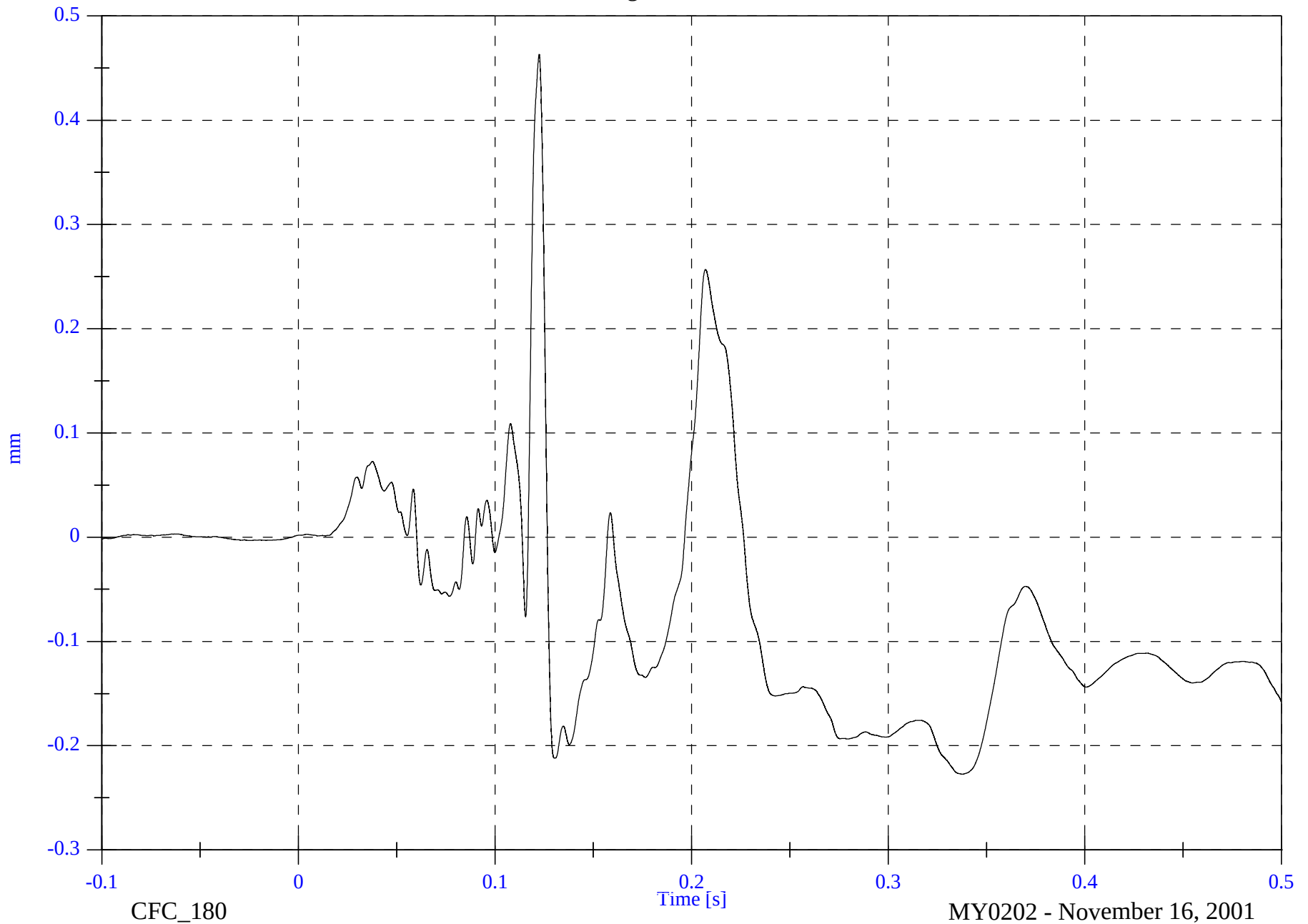
P2 Right Knee Shear Dx

Max: 0.5 [mm] at 0.122 [s]

Min: -0.2 [mm] at 0.338 [s]

B-153

8413-69

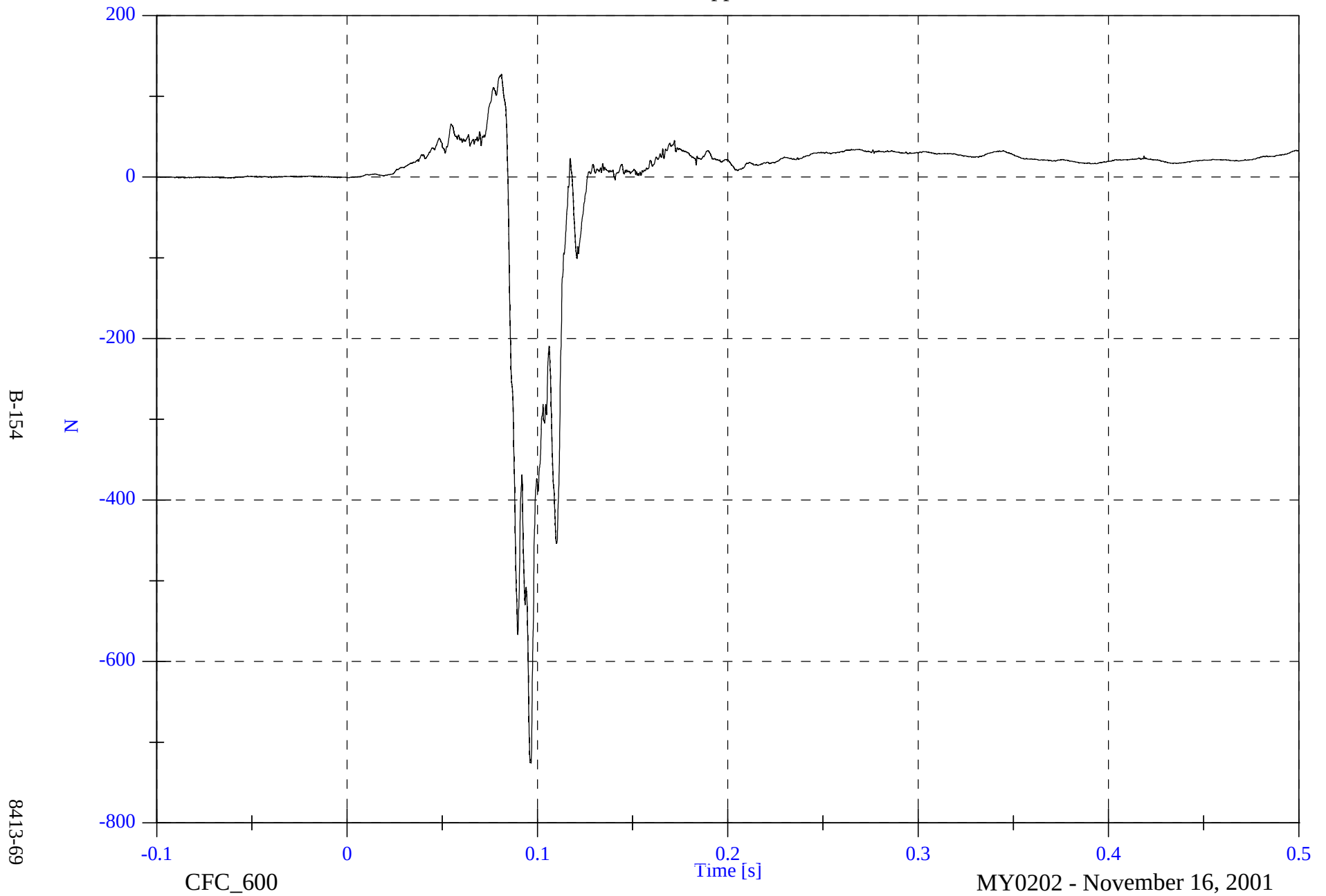


40% Frontal Offset Test #13 - 2000 Ford Explorer

P2 Left Upper Tibia Fx

Max: 127.4 [N] at 0.081 [s]

Min: -726.0 [N] at 0.097 [s]

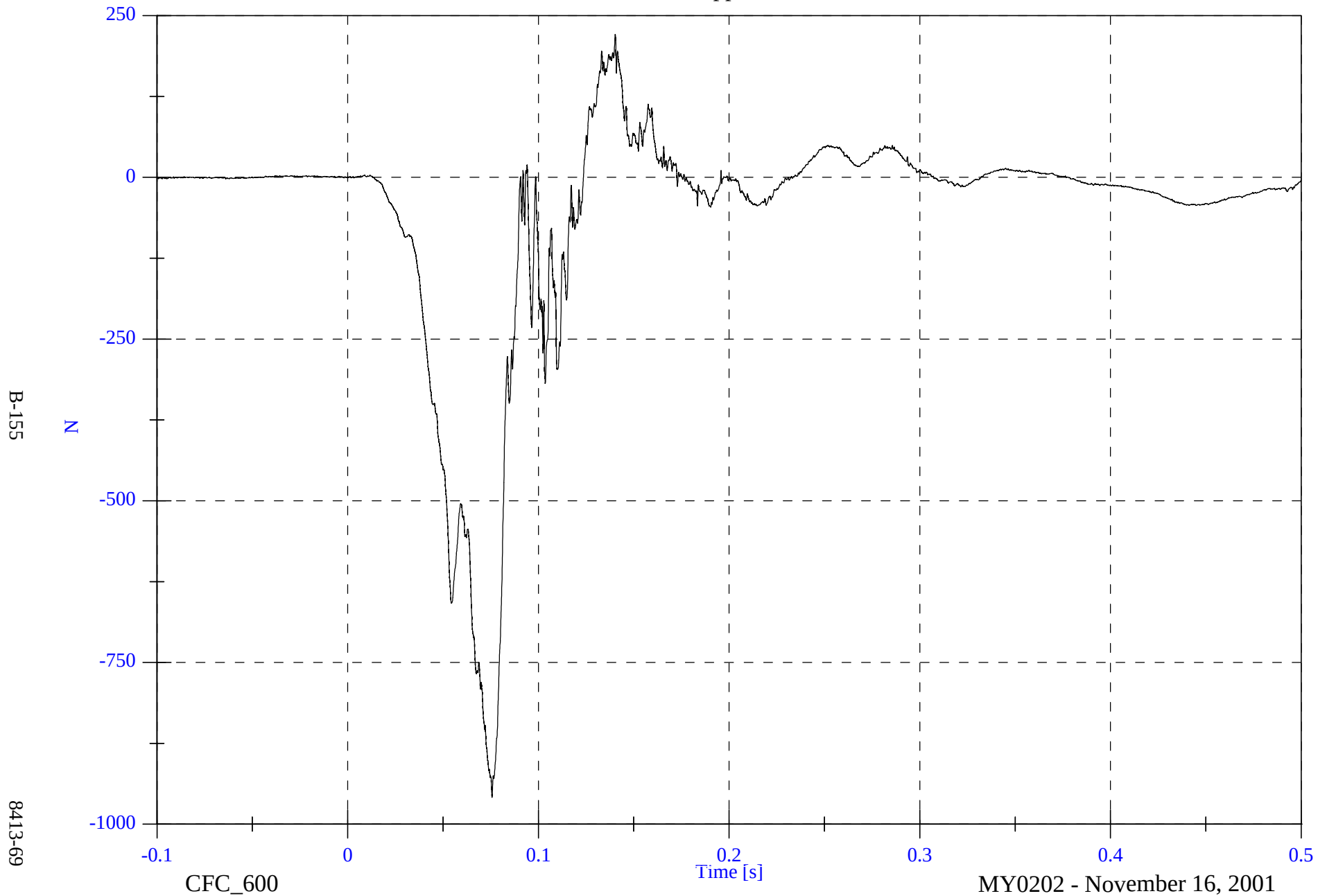


40% Frontal Offset Test #13 - 2000 Ford Explorer

P2 Left Upper Tibia Fz

Max: 220.7 [N] at 0.140 [s]

Min: -958.9 [N] at 0.076 [s]

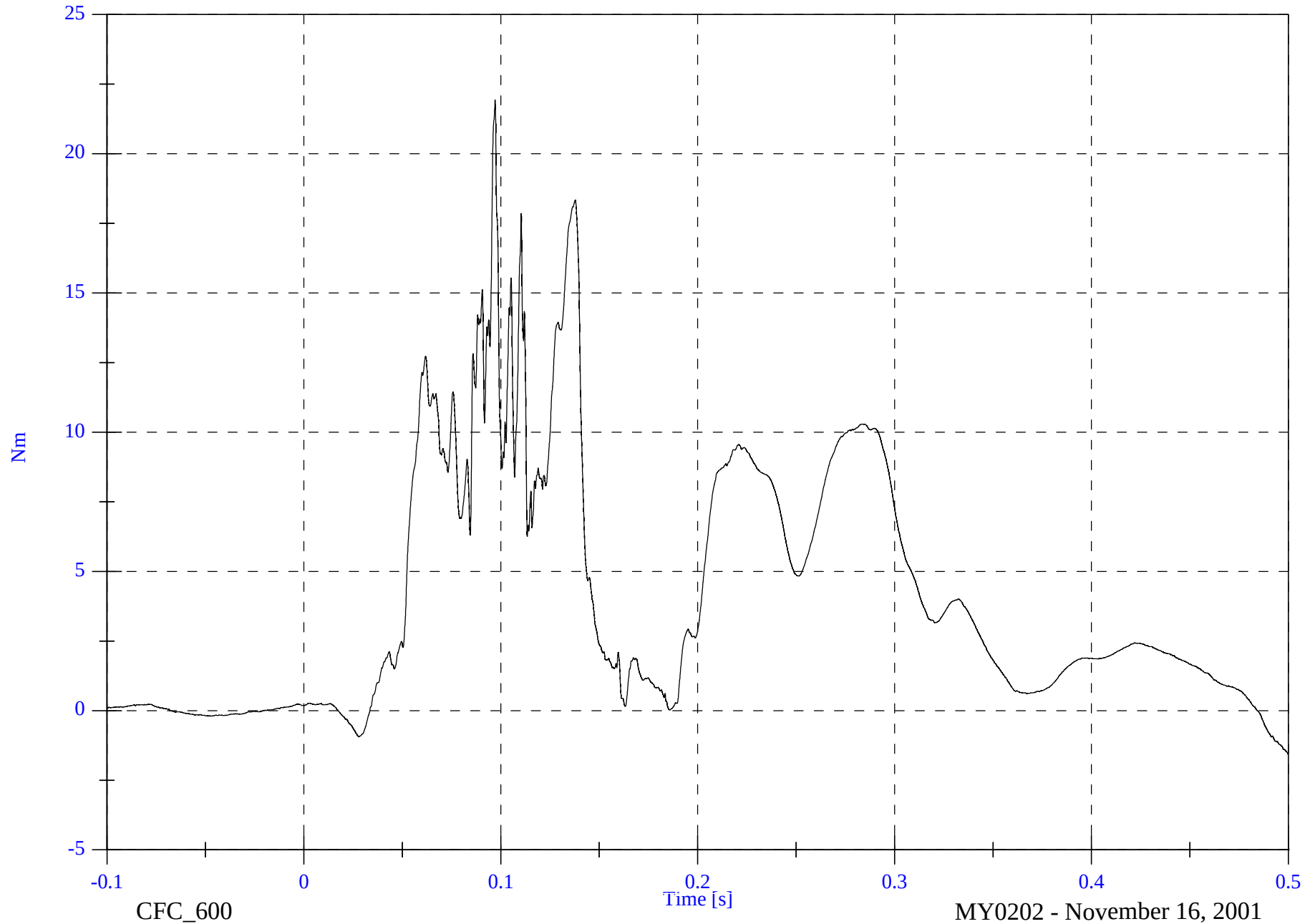


40% Frontal Offset Test #13 - 2000 Ford Explorer

P2 Left Upper Tibia Mx

Max: 21.9 [Nm] at 0.097 [s]

Min: -1.6 [Nm] at 0.500 [s]



B-156

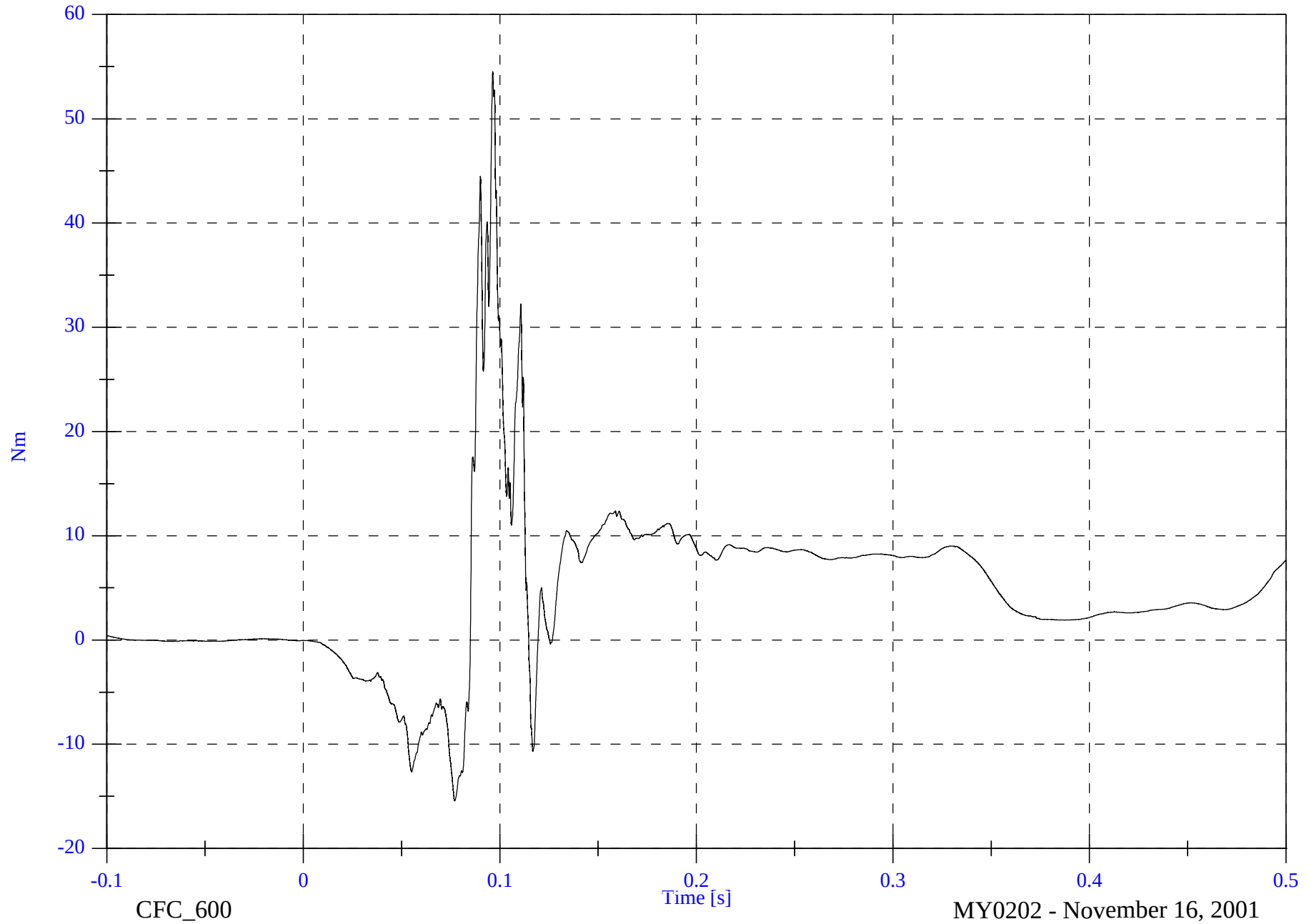
8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

P2 Left Upper Tibia My

Max: 54.5 [Nm] at 0.096 [s]

Min: -15.4 [Nm] at 0.077 [s]



B-157

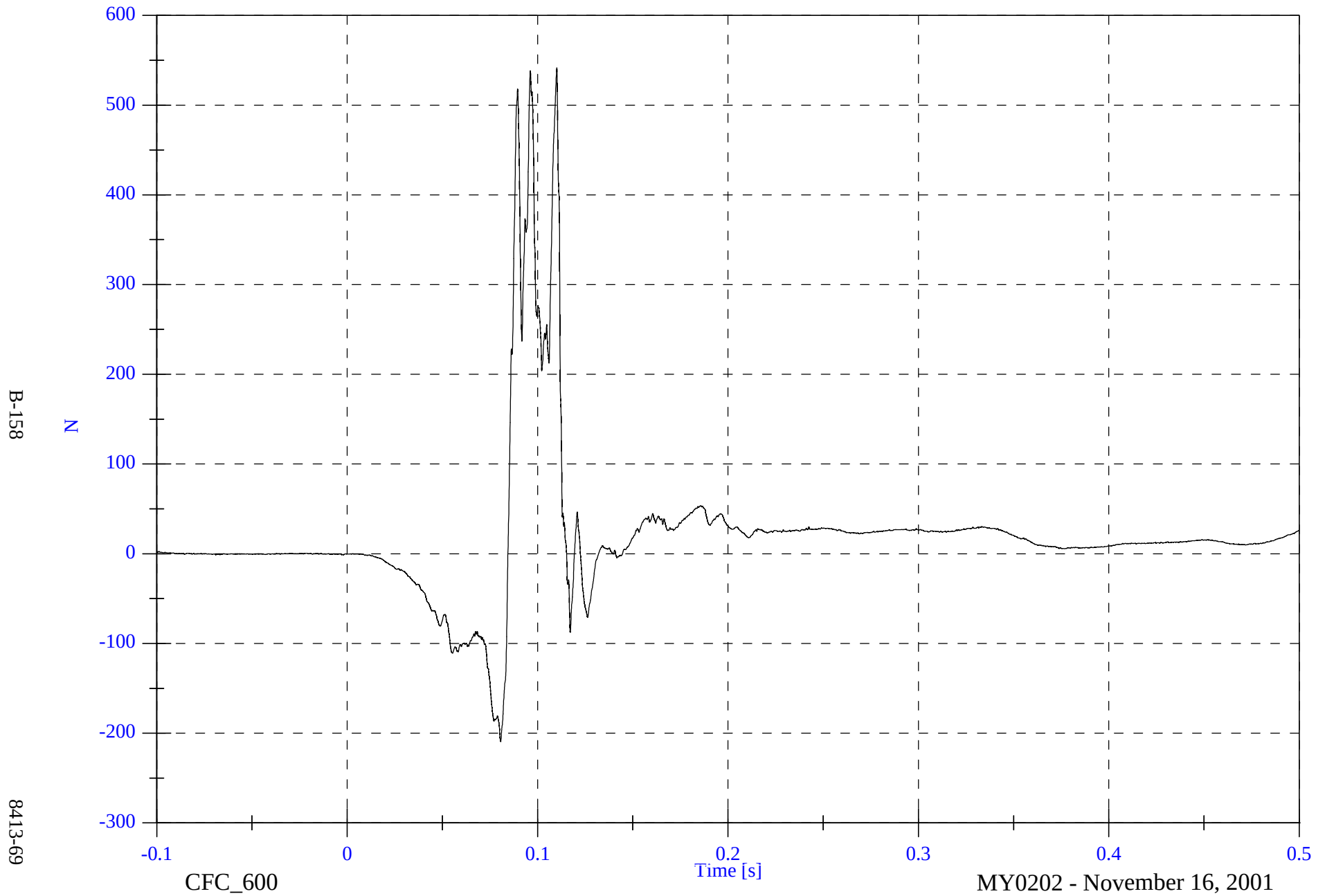
8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

P2 Left Lower Tibia Fx

Max: 541.6 [N] at 0.110 [s]

Min: -209.7 [N] at 0.081 [s]

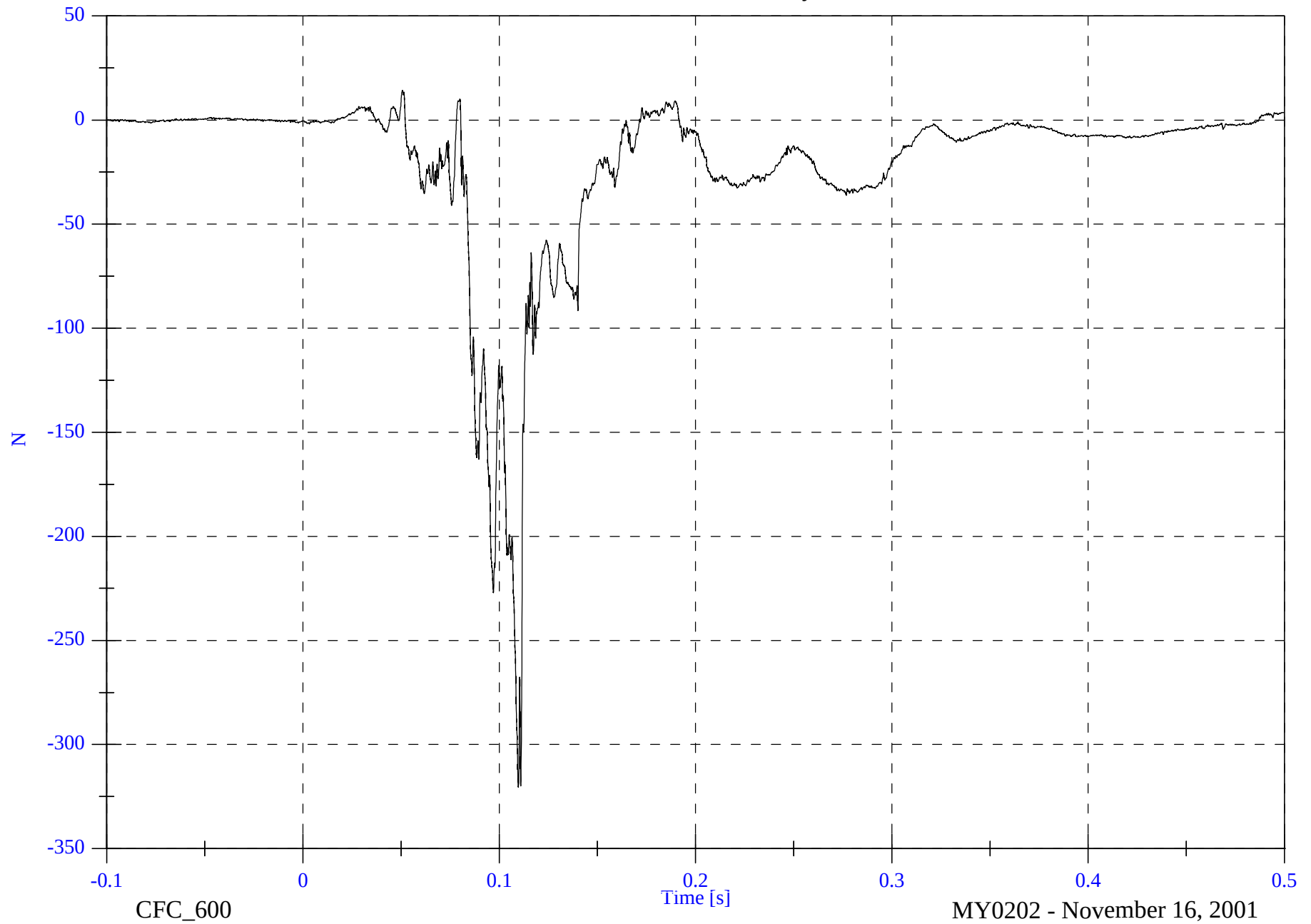


40% Frontal Offset Test #13 - 2000 Ford Explorer

P2 Left Lower Tibia Fy

Max: 14.3 [N] at 0.051 [s]

Min: -320.4 [N] at 0.110 [s]



B-159

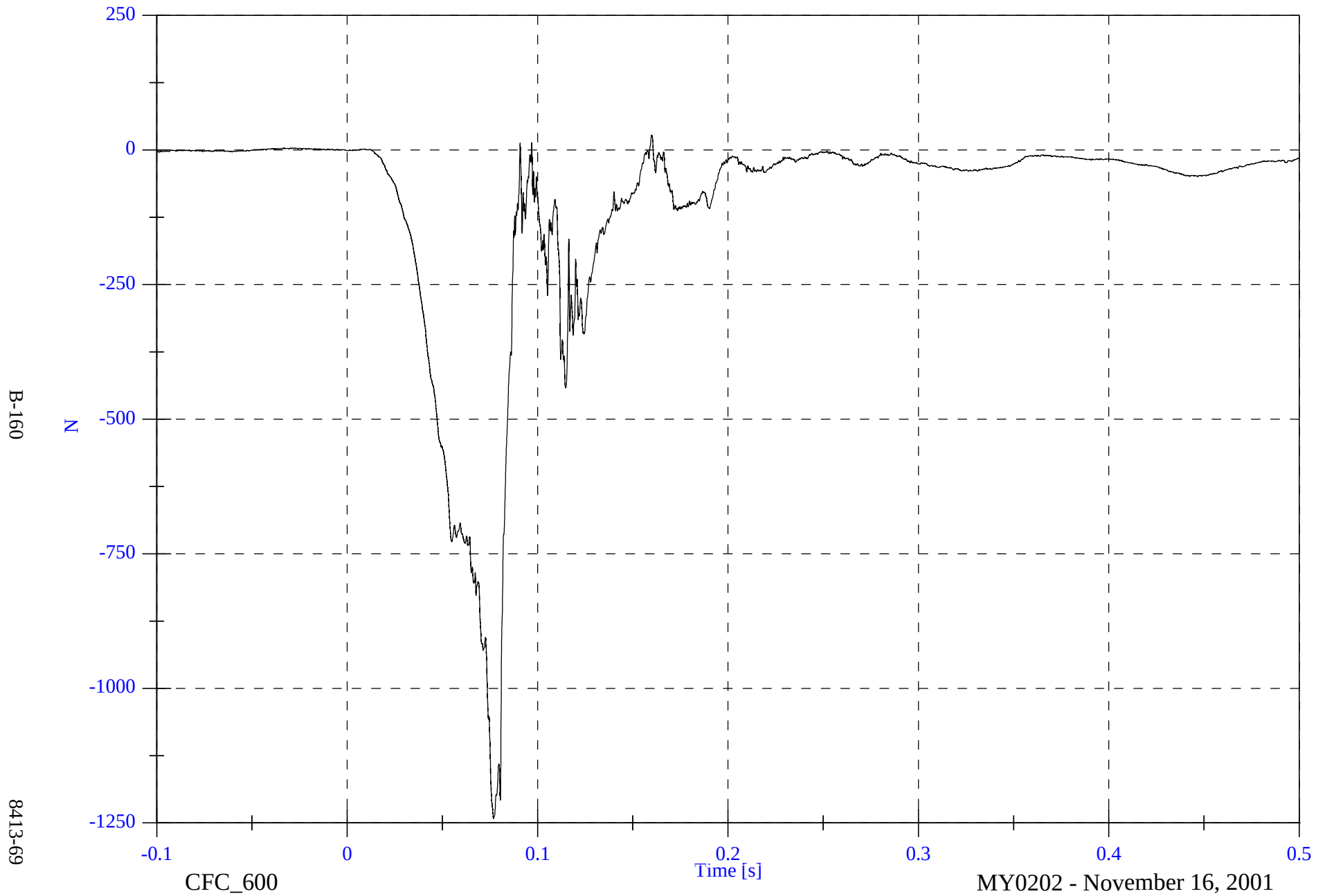
8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

P2 Left Lower Tibia Fz

Max: 28.2 [N] at 0.160 [s]

Min: -1241.5 [N] at 0.077 [s]



40% Frontal Offset Test #13 - 2000 Ford Explorer

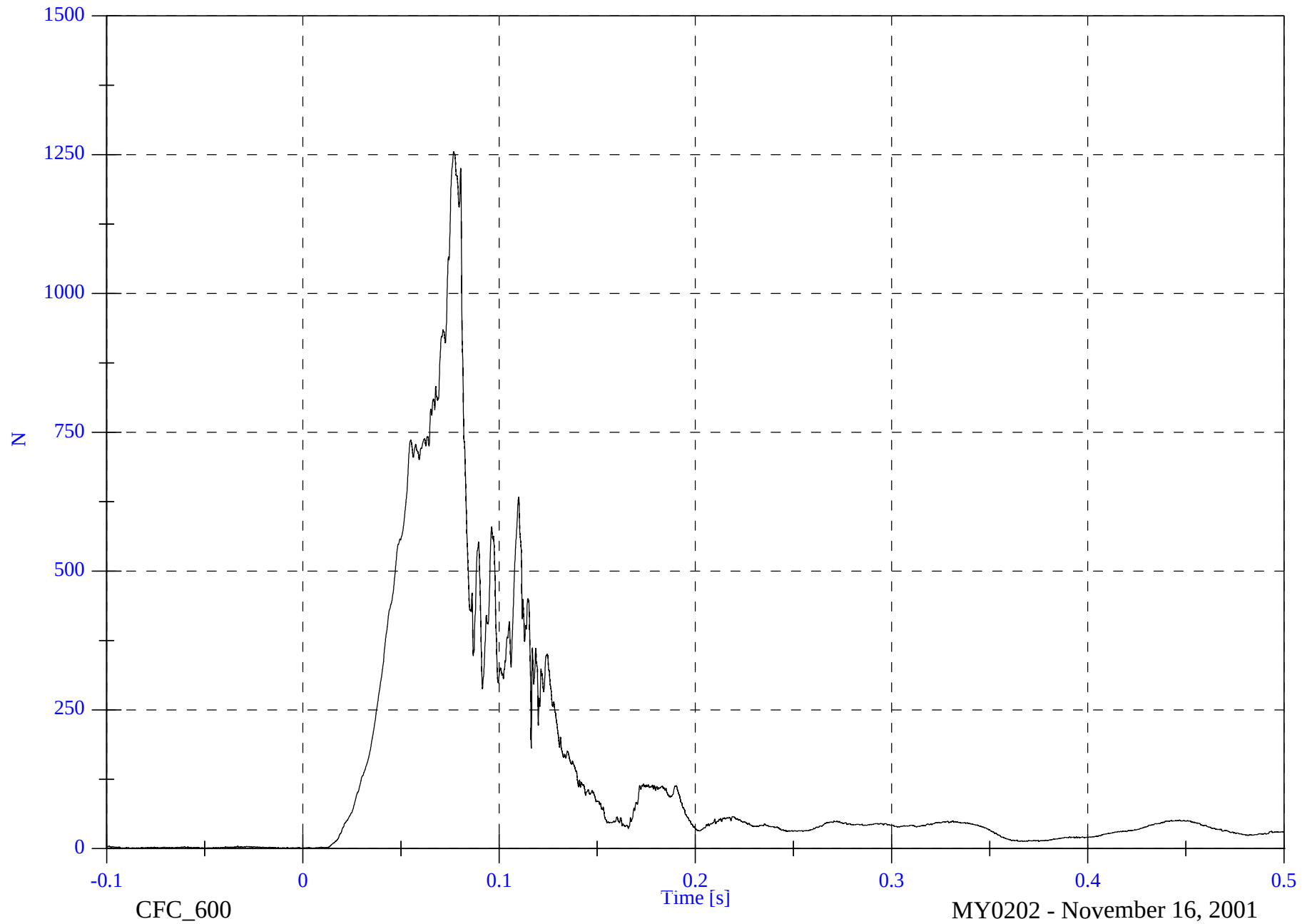
P2 Left Lower Tibia F Resultant

Max: 1255.5 [N] at 0.077 [s]

Min: 0.5 [N] at -0.052 [s]

B-161

8413-69

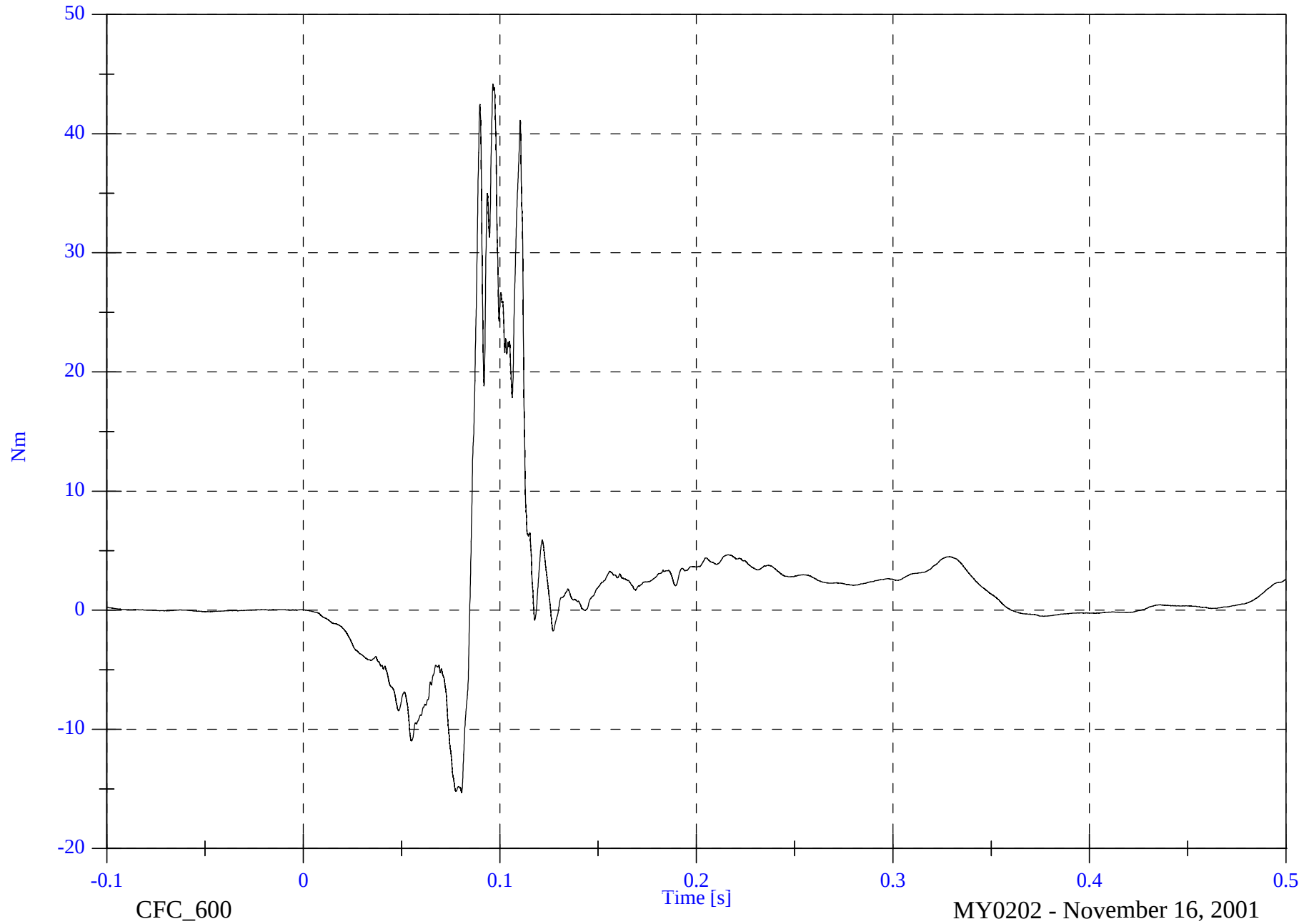


40% Frontal Offset Test #13 - 2000 Ford Explorer

P2 Left Lower Tibia My

Max: 44.2 [Nm] at 0.097 [s]

Min: -15.3 [Nm] at 0.081 [s]



B-162

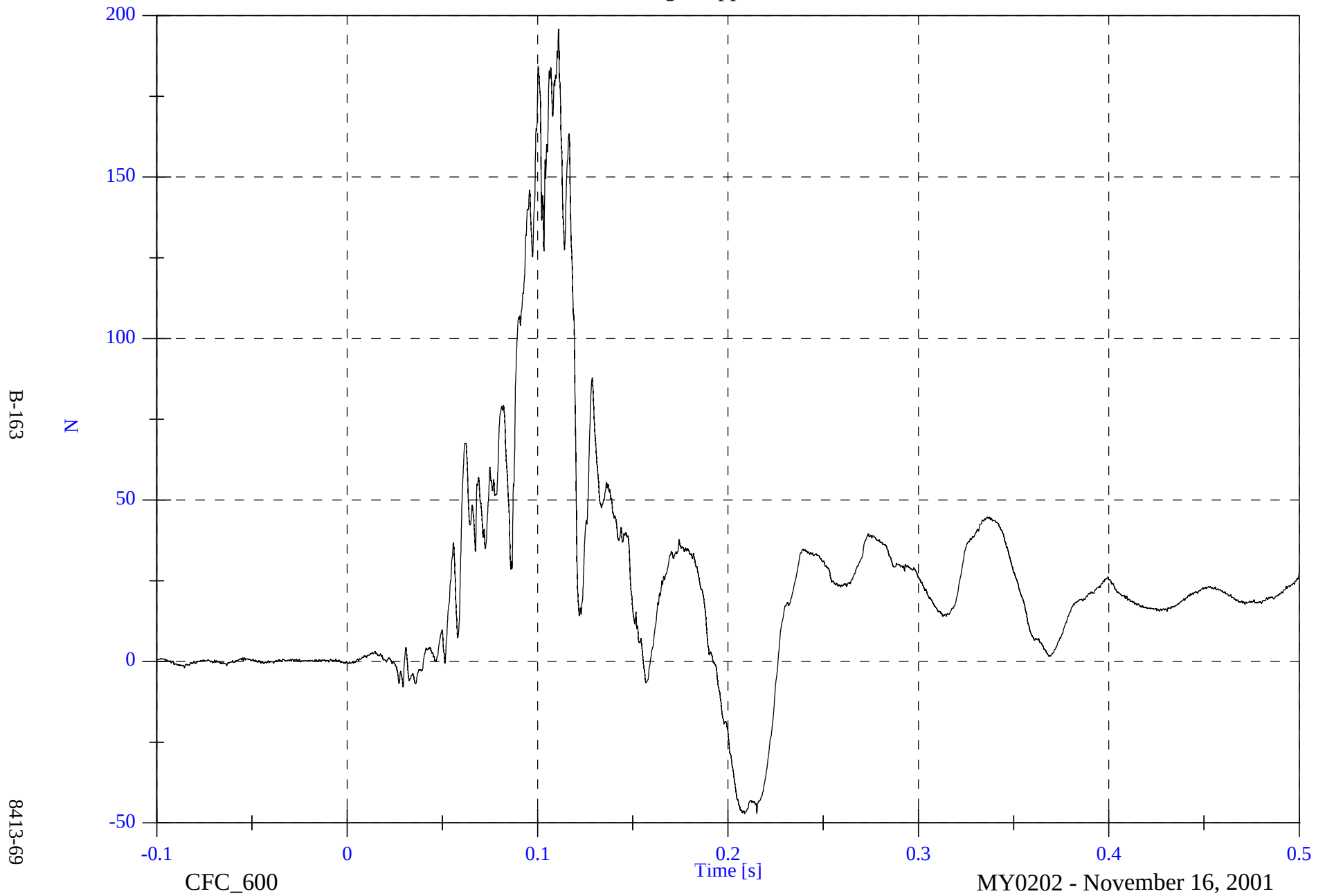
8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

P2 Right Upper Tibia Fx

Max: 195.8 [N] at 0.111 [s]

Min: -47.1 [N] at 0.209 [s]

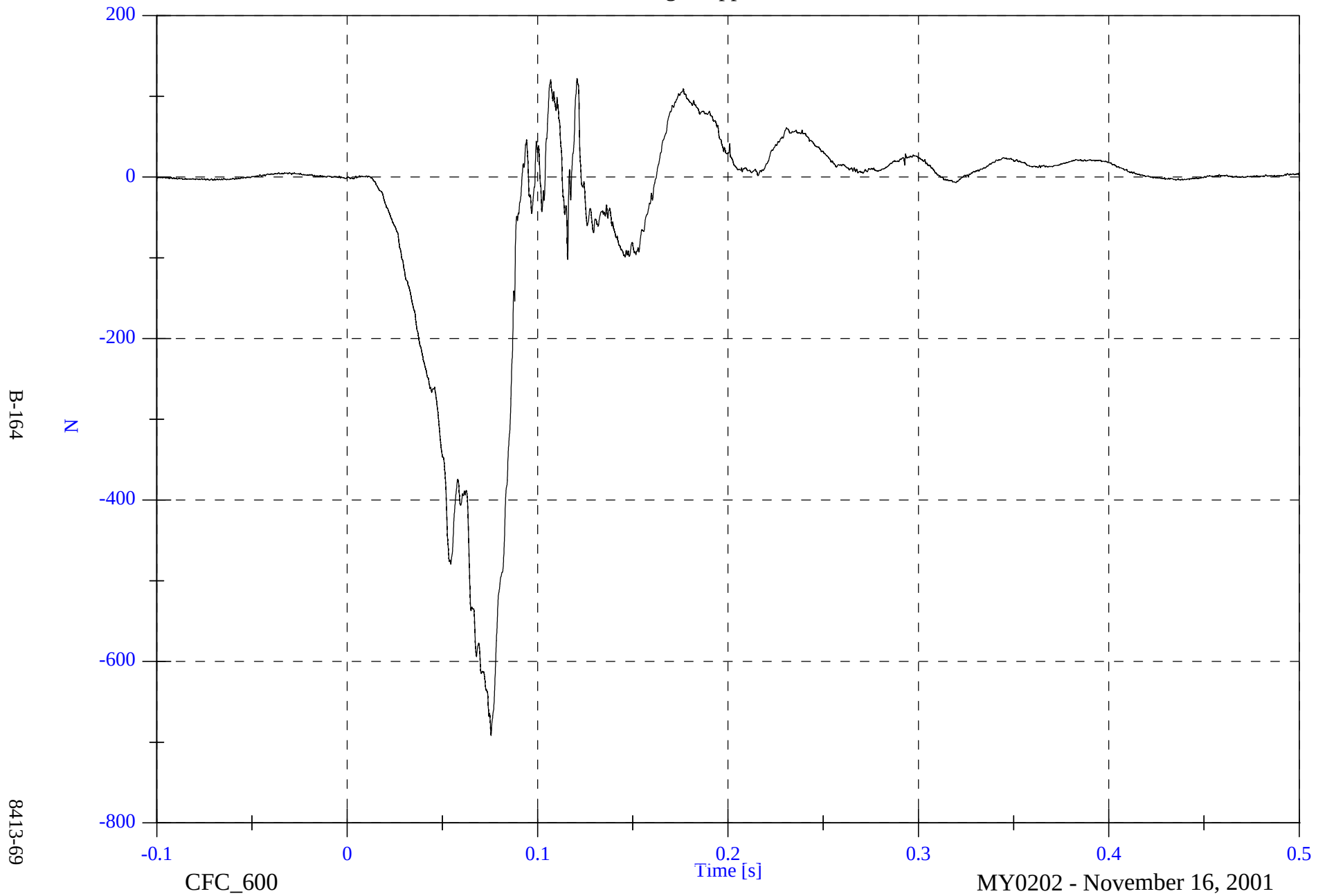


40% Frontal Offset Test #13 - 2000 Ford Explorer

Max: 121.9 [N] at 0.121 [s]

P2 Right Upper Tibia Fz

Min: -691.8 [N] at 0.076 [s]

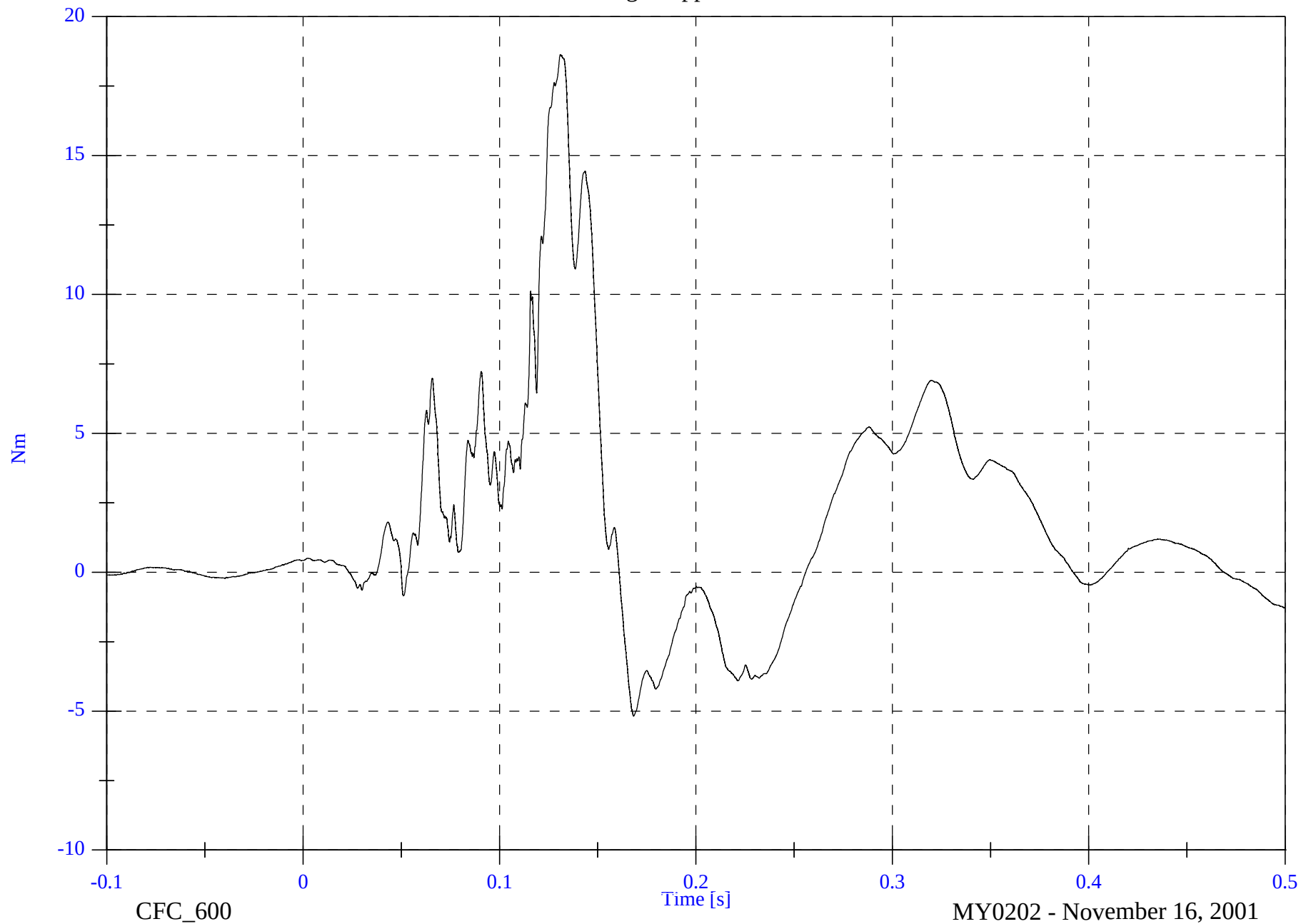


40% Frontal Offset Test #13 - 2000 Ford Explorer

P2 Right Upper Tibia Mx

Max: 18.6 [Nm] at 0.131 [s]

Min: -5.2 [Nm] at 0.168 [s]



B-165

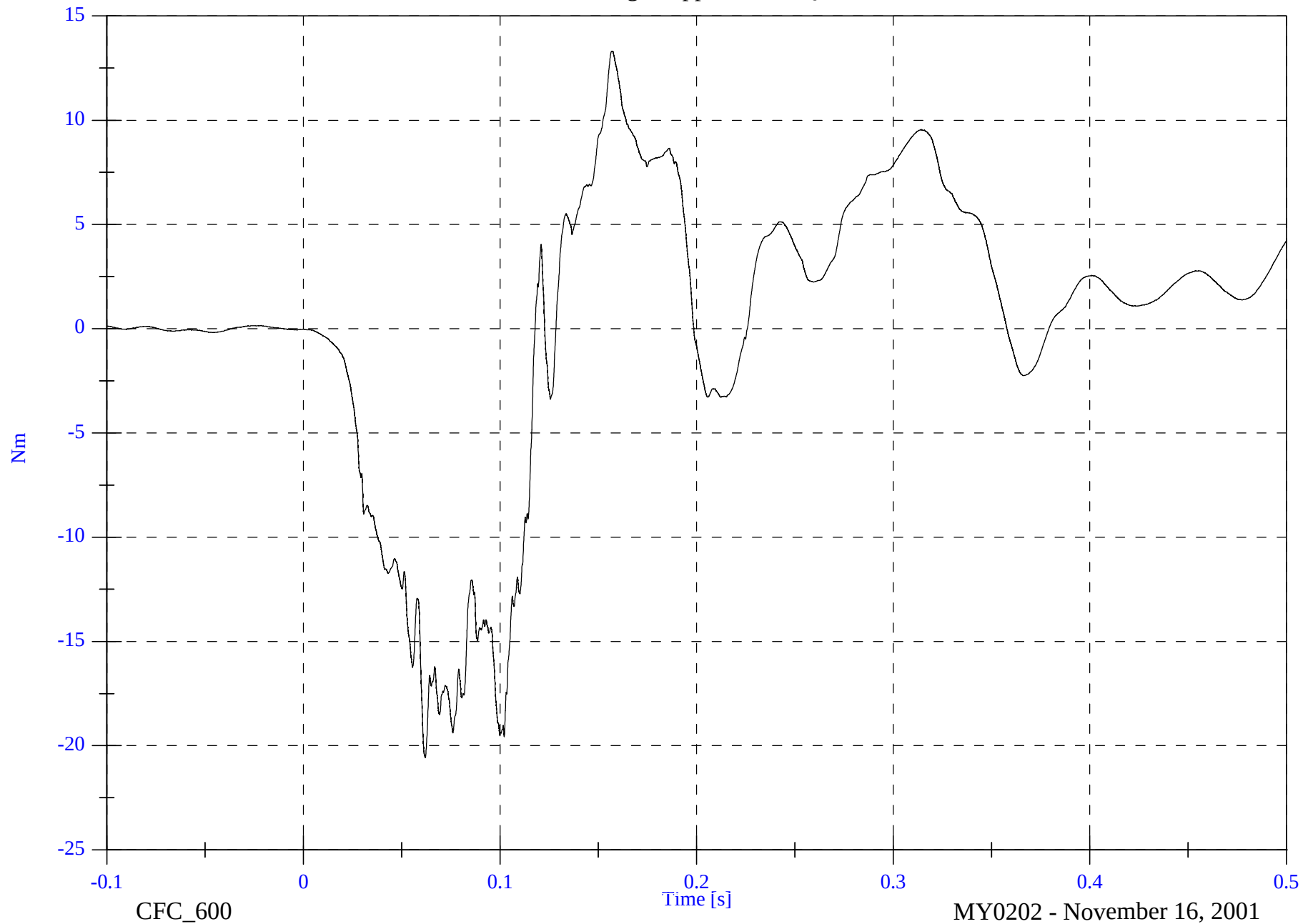
8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

P2 Right Upper Tibia My

Max: 13.3 [Nm] at 0.157 [s]

Min: -20.6 [Nm] at 0.062 [s]



B-166

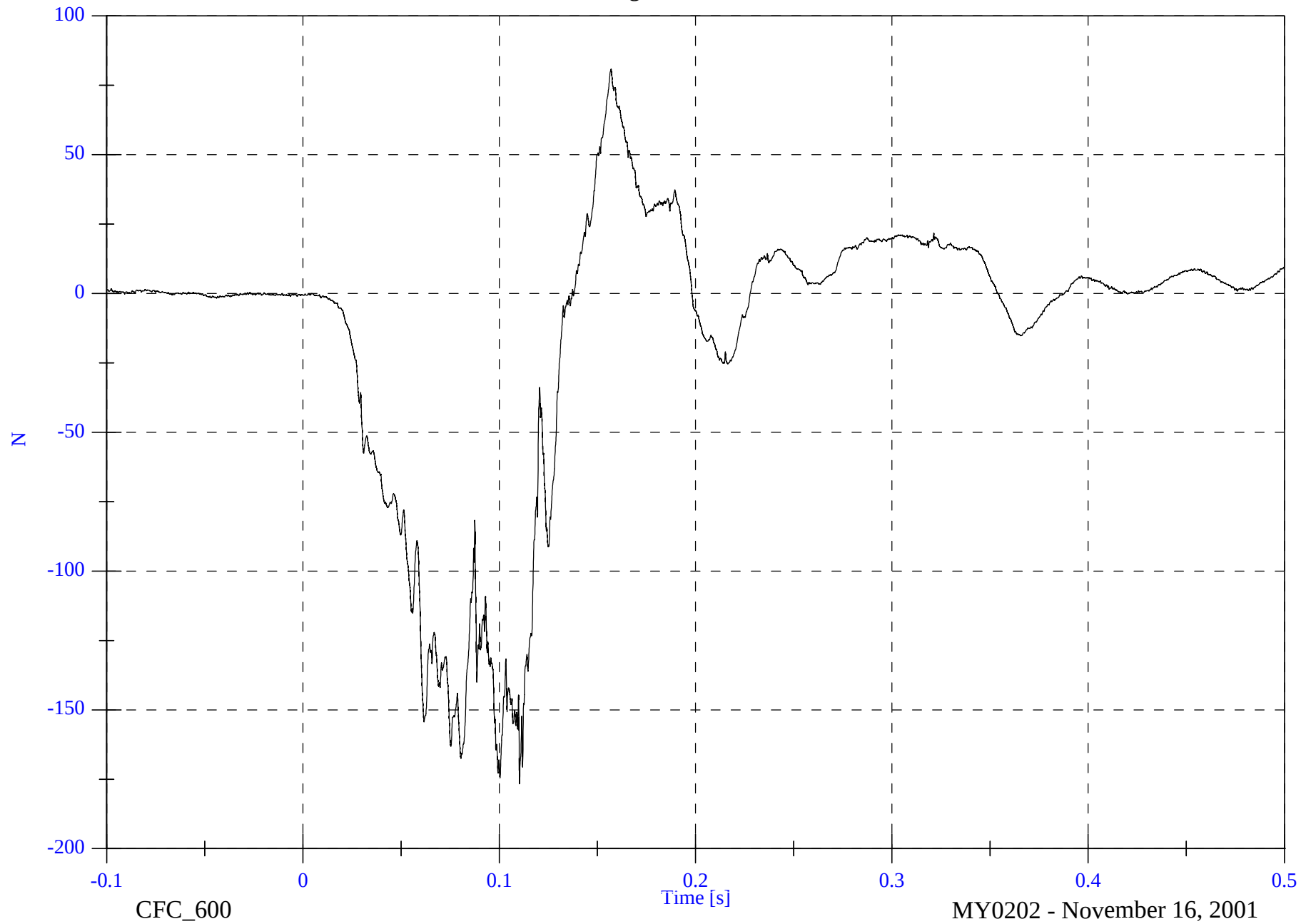
8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

P2 Right Lower Tibia Fx

Max: 80.8 [N] at 0.157 [s]

Min: -176.7 [N] at 0.110 [s]



B-167

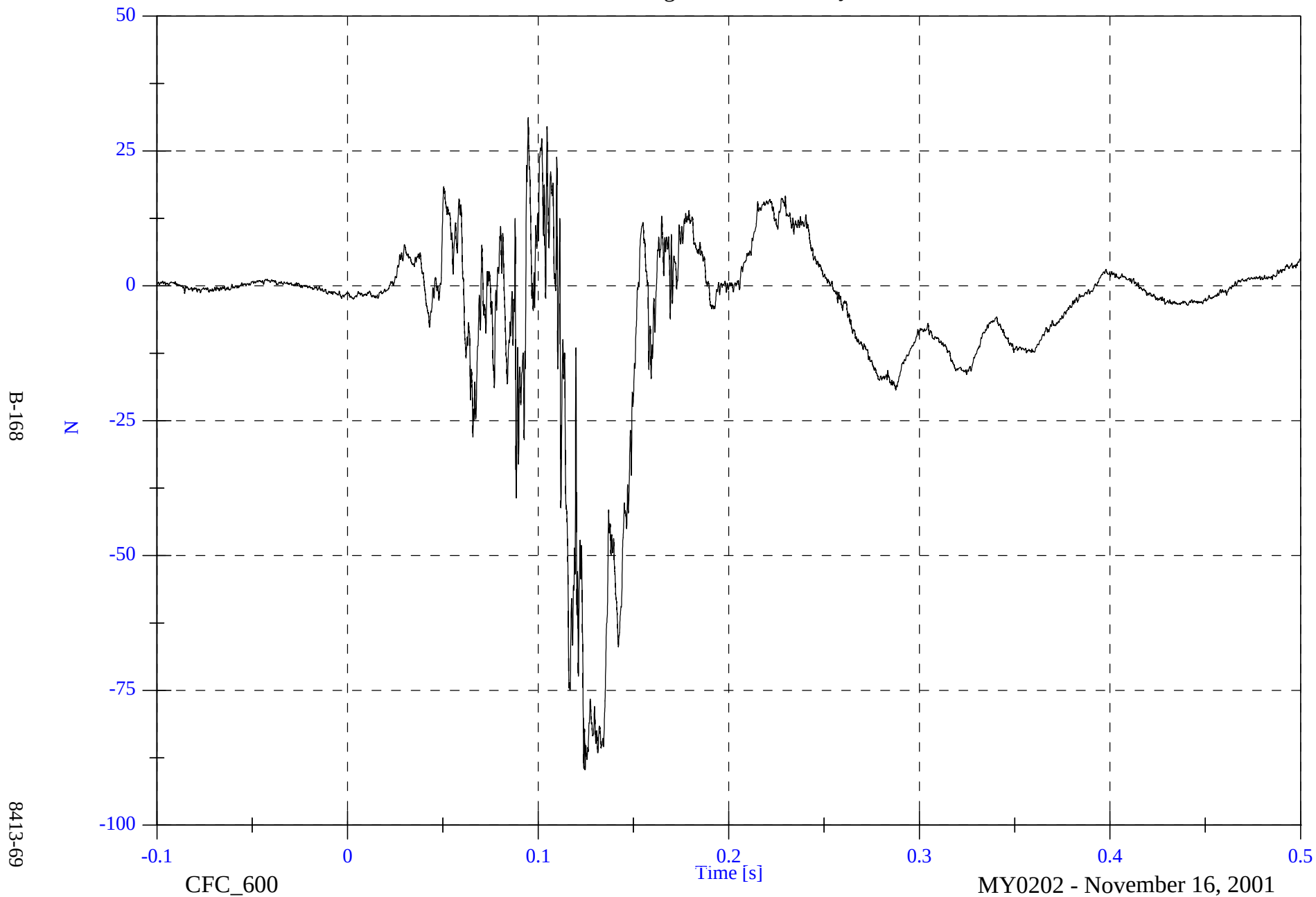
8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

P2 Right Lower Tibia Fy

Max: 31.2 [N] at 0.095 [s]

Min: -89.8 [N] at 0.125 [s]

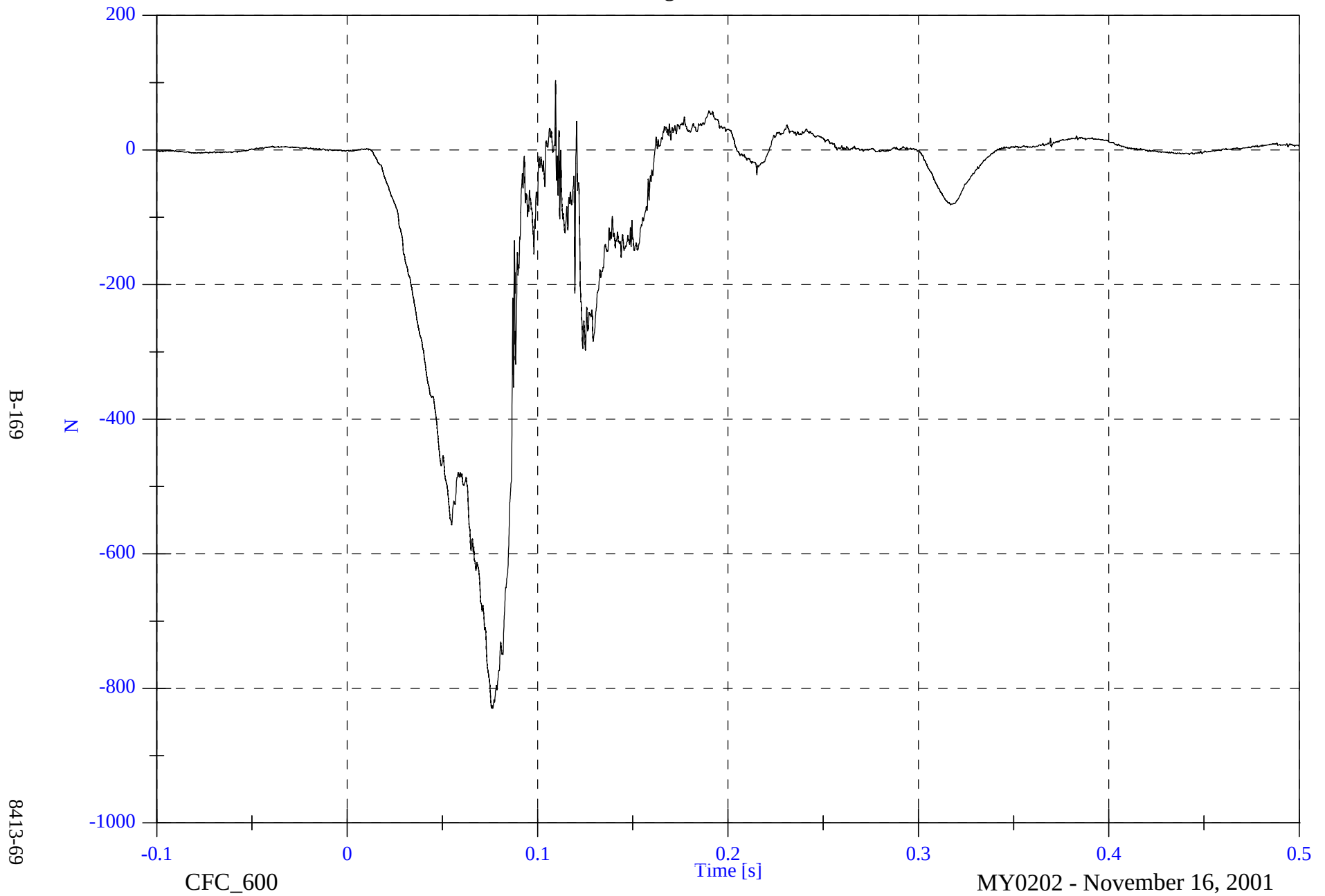


40% Frontal Offset Test #13 - 2000 Ford Explorer

Max: 103.4 [N] at 0.109 [s]

P2 Right Lower Tibia Fz

Min: -829.7 [N] at 0.076 [s]

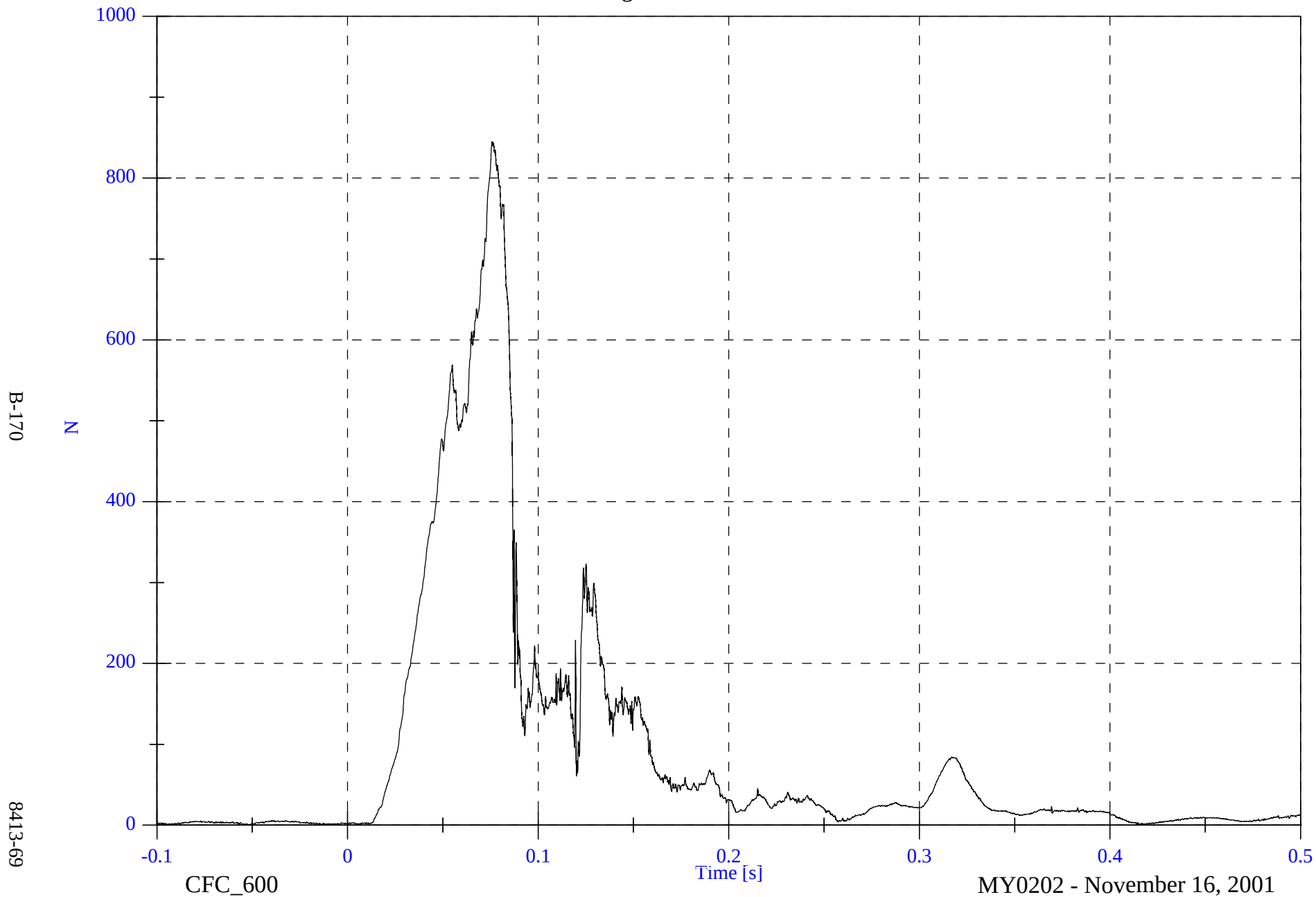


40% Frontal Offset Test #13 - 2000 Ford Explorer

P2 Right Lower Tibia F Resultant

Max: 844.9 [N] at 0.076 [s]

Min: 0.3 [N] at -0.053 [s]

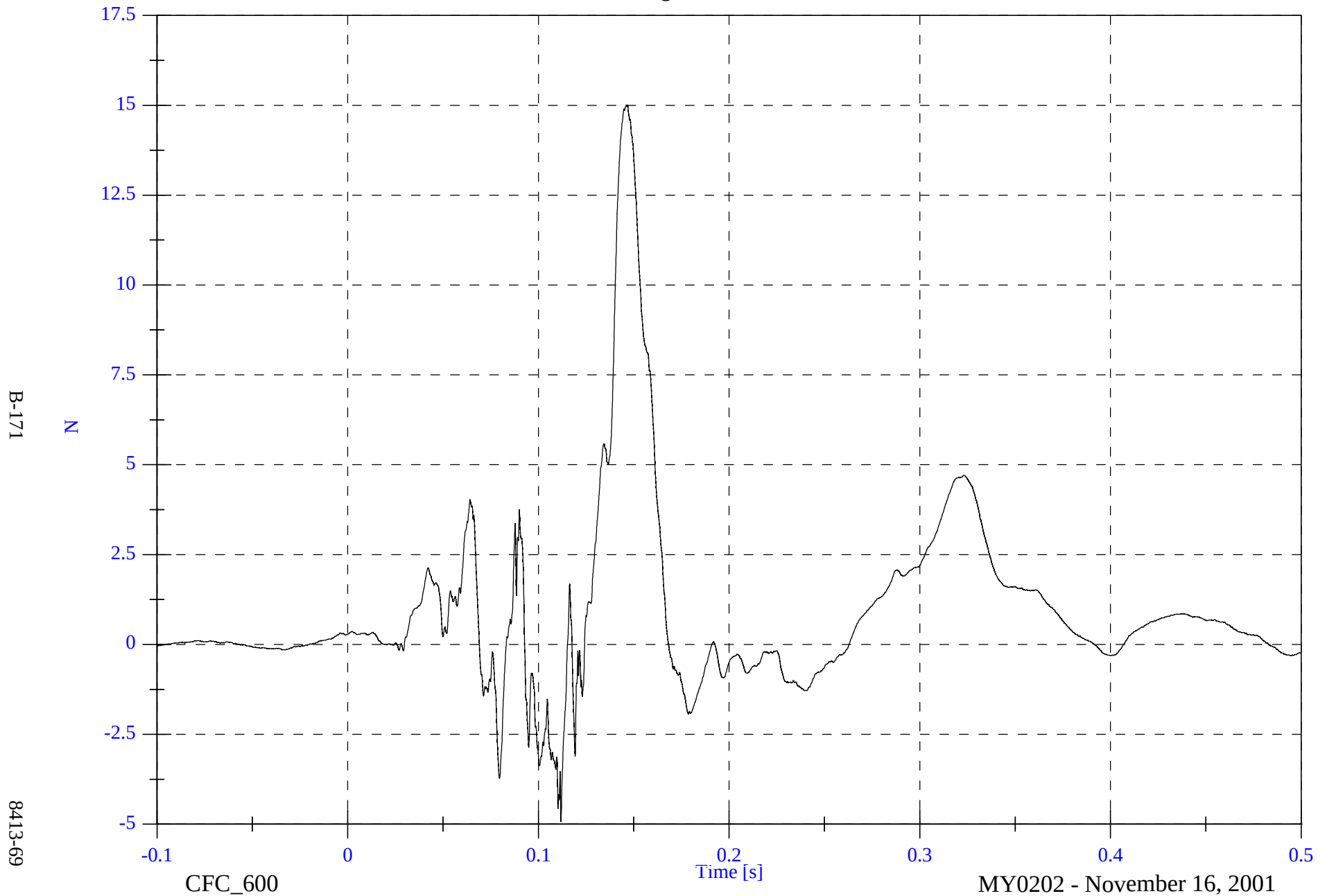


40% Frontal Offset Test #13 - 2000 Ford Explorer

P2 Right Lower Tibia Mx

Max: 15.0 [N] at 0.147 [s]

Min: -4.9 [N] at 0.112 [s]

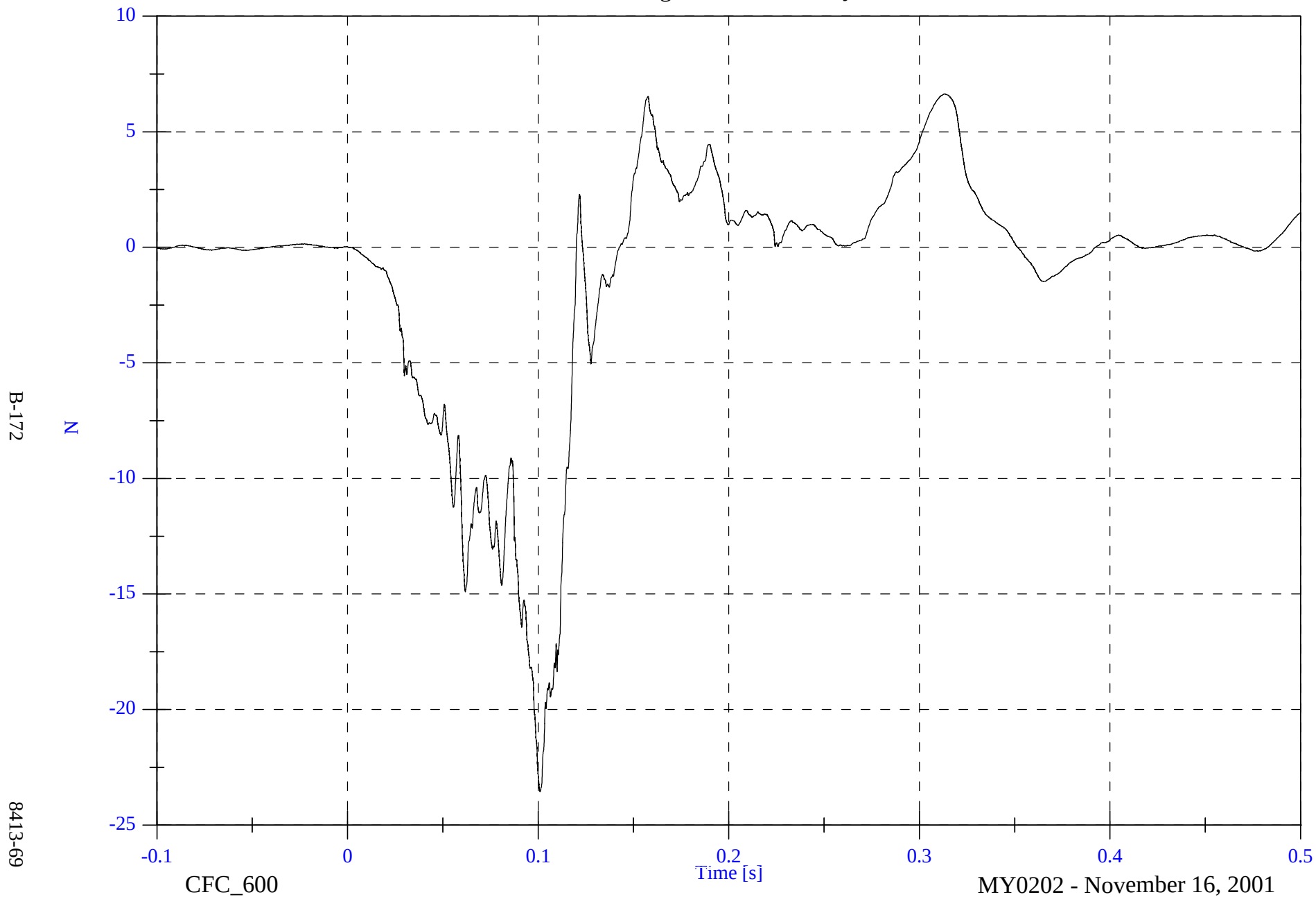


40% Frontal Offset Test #13 - 2000 Ford Explorer

P2 Right Lower Tibia My

Max: 6.6 [N] at 0.313 [s]

Min: -23.6 [N] at 0.101 [s]

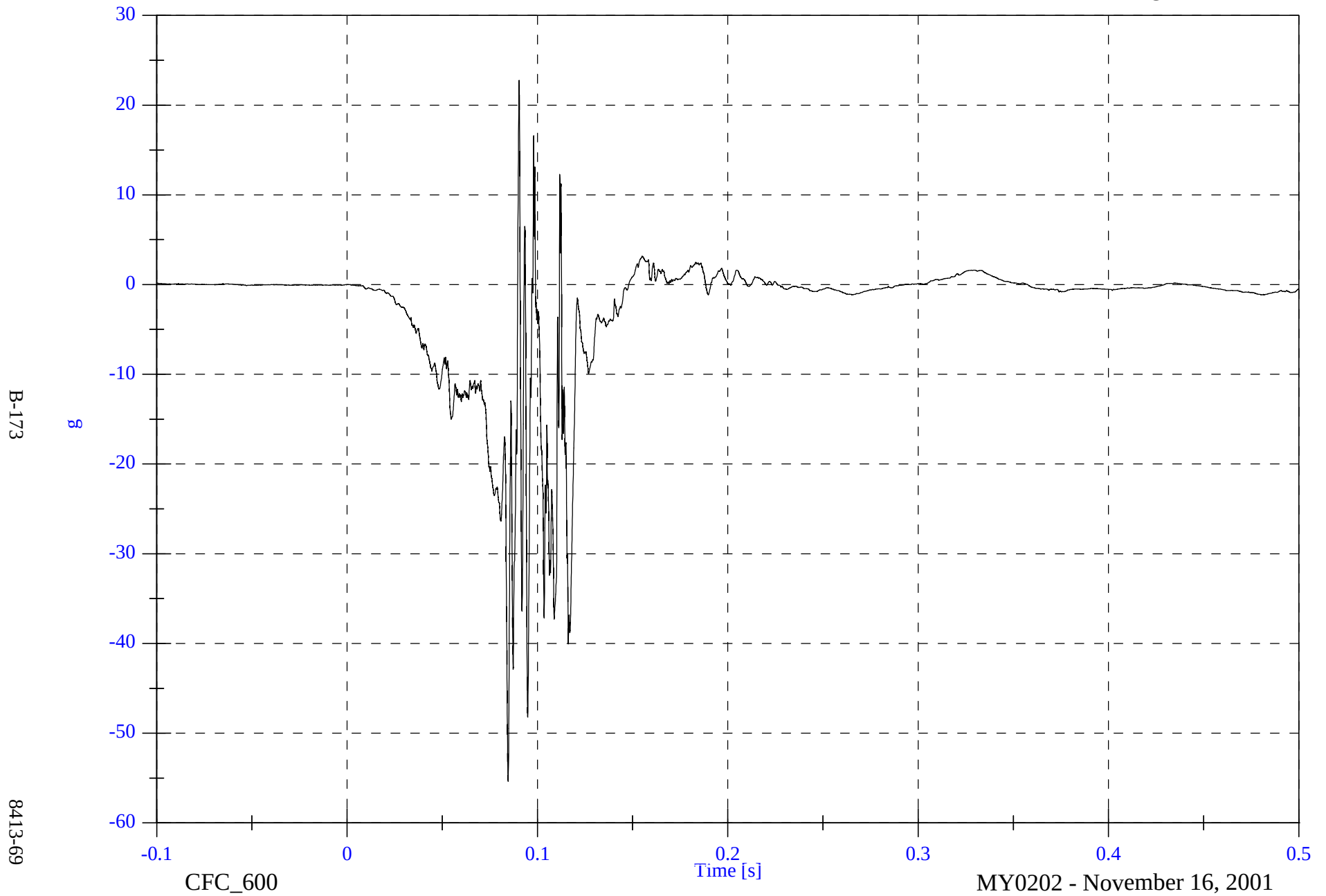


40% Frontal Offset Test #13 - 2000 Ford Explorer

P2 Left Tibia Ax

Max: 22.8 [g] at 0.090 [s]

Min: -55.4 [g] at 0.085 [s]



40% Frontal Offset Test #13 - 2000 Ford Explorer

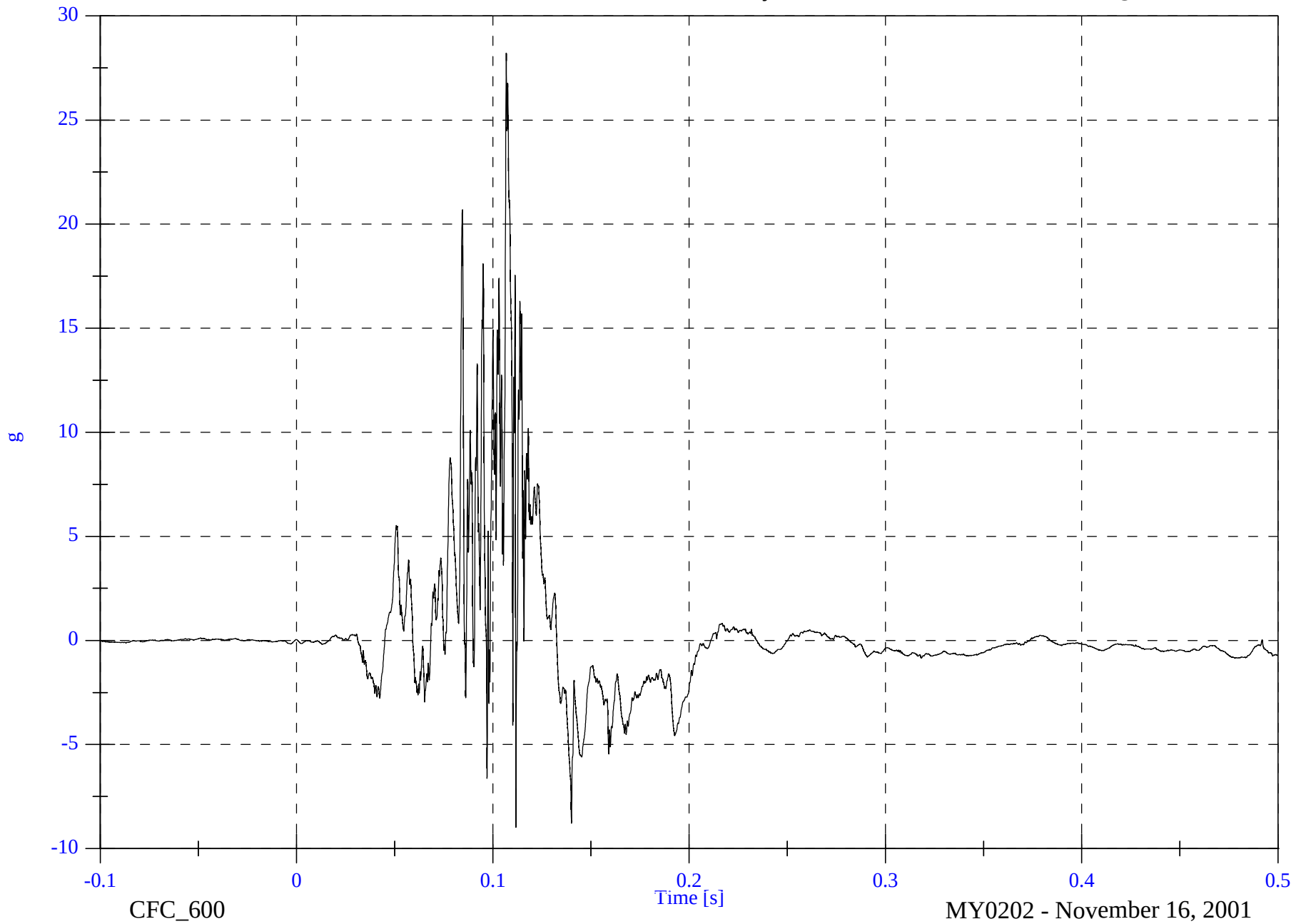
P2 Left Tibia Ay

Max: 28.2 [g] at 0.107 [s]

Min: -9.0 [g] at 0.112 [s]

B-174

8413-69

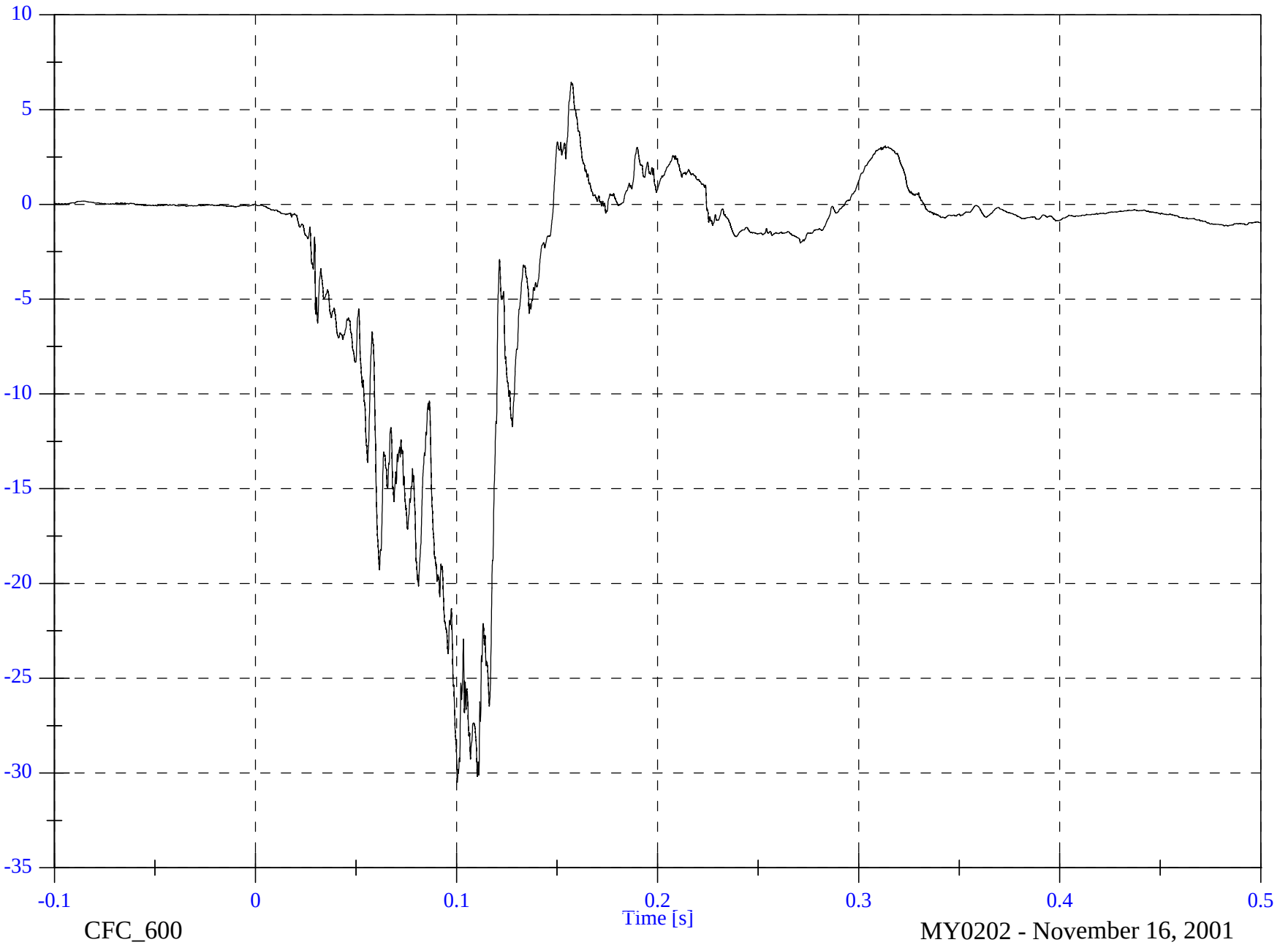


40% Frontal Offset Test #13 - 2000 Ford Explorer

P2 Right Tibia Ax

Max: 6.4 [g] at 0.157 [s]

Min: -30.5 [g] at 0.100 [s]



B-175

8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

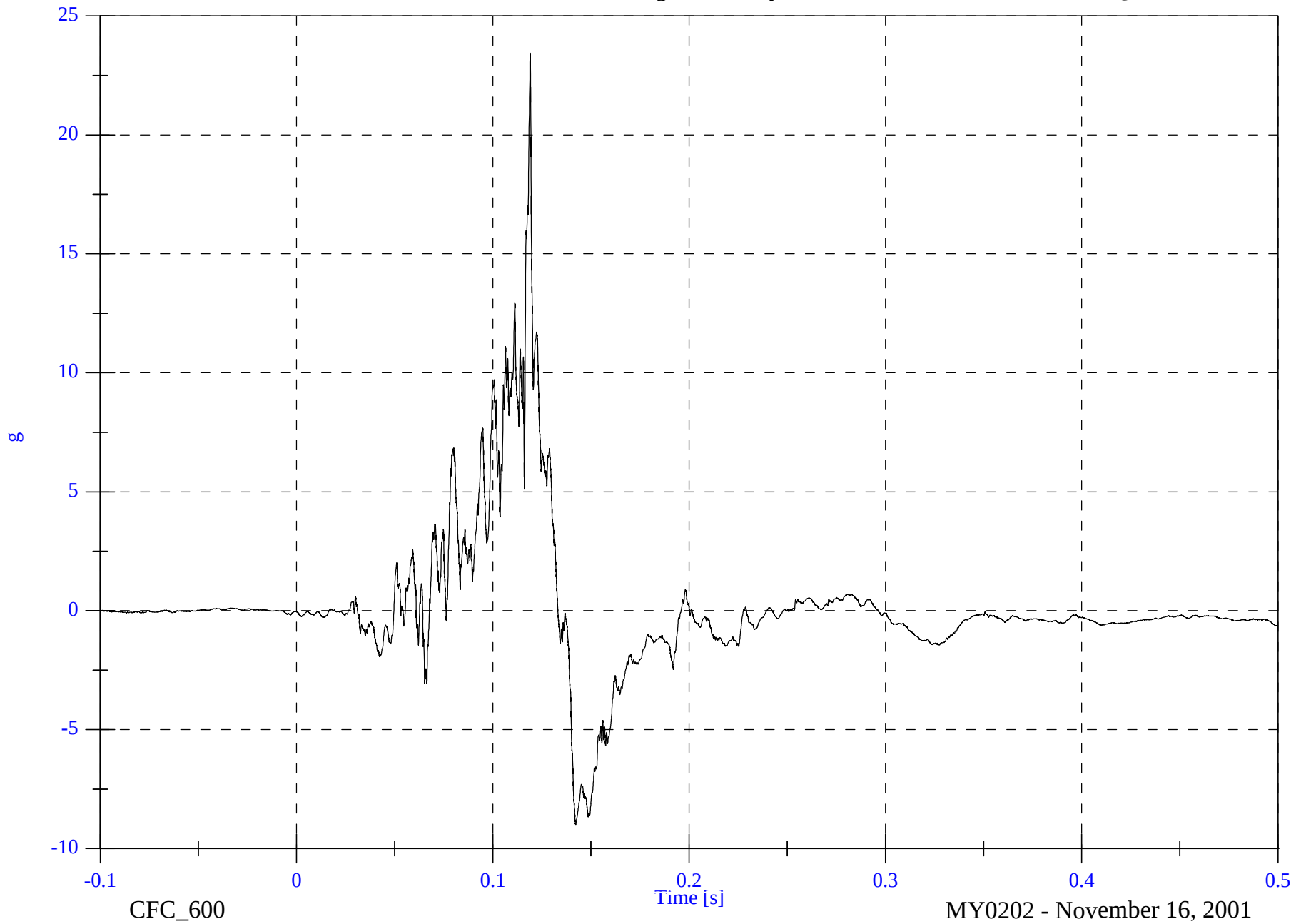
P2 Right Tibia Ay

Max: 23.4 [g] at 0.119 [s]

Min: -9.0 [g] at 0.142 [s]

B-176

8413-69

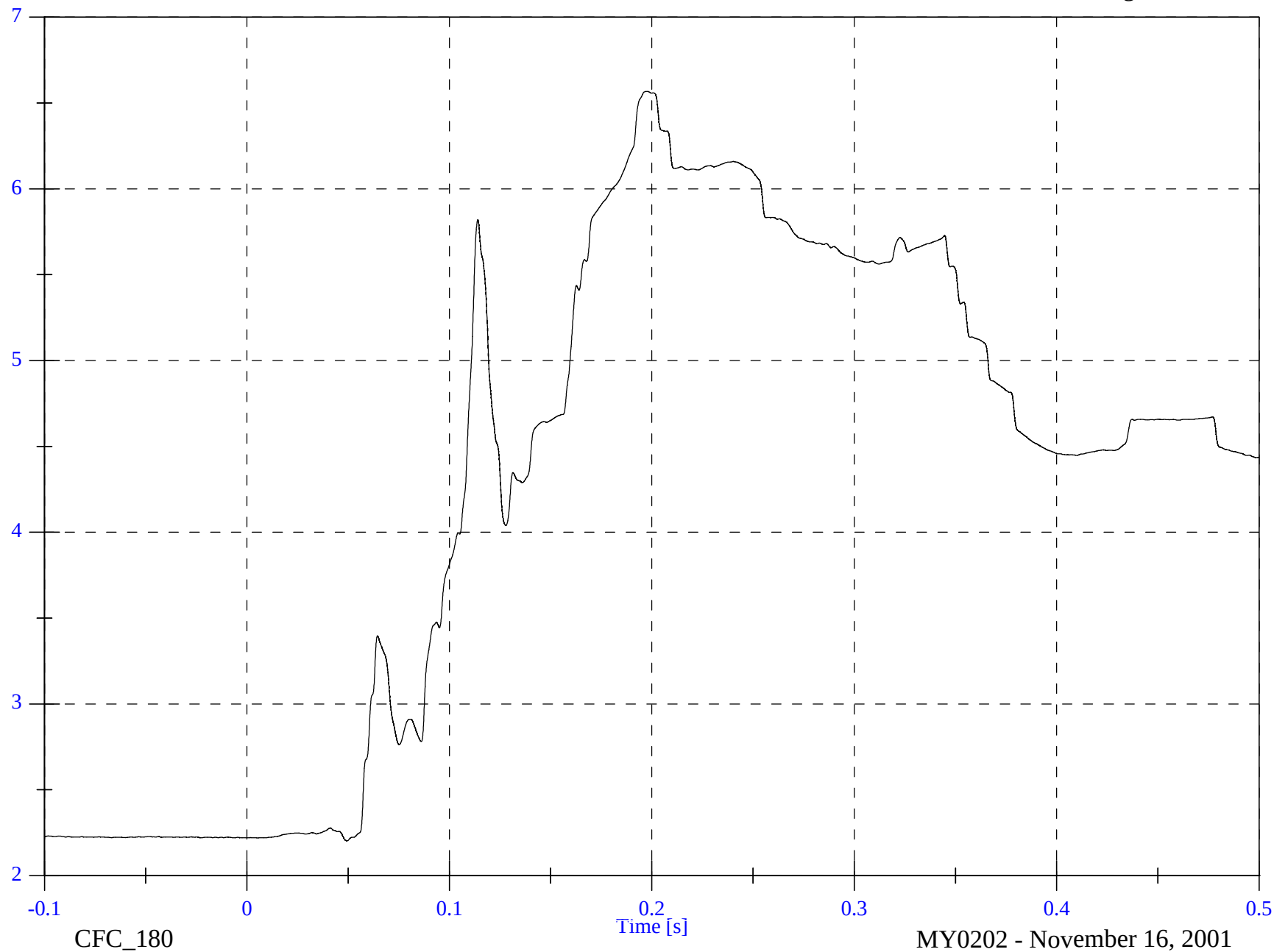


40% Frontal Offset Test #13 - 2000 Ford Explorer

P2 Left Ankle Rotation x

Max: 6.6 [Deg] at 0.197 [s]

Min: 2.2 [Deg] at 0.050 [s]



B-177

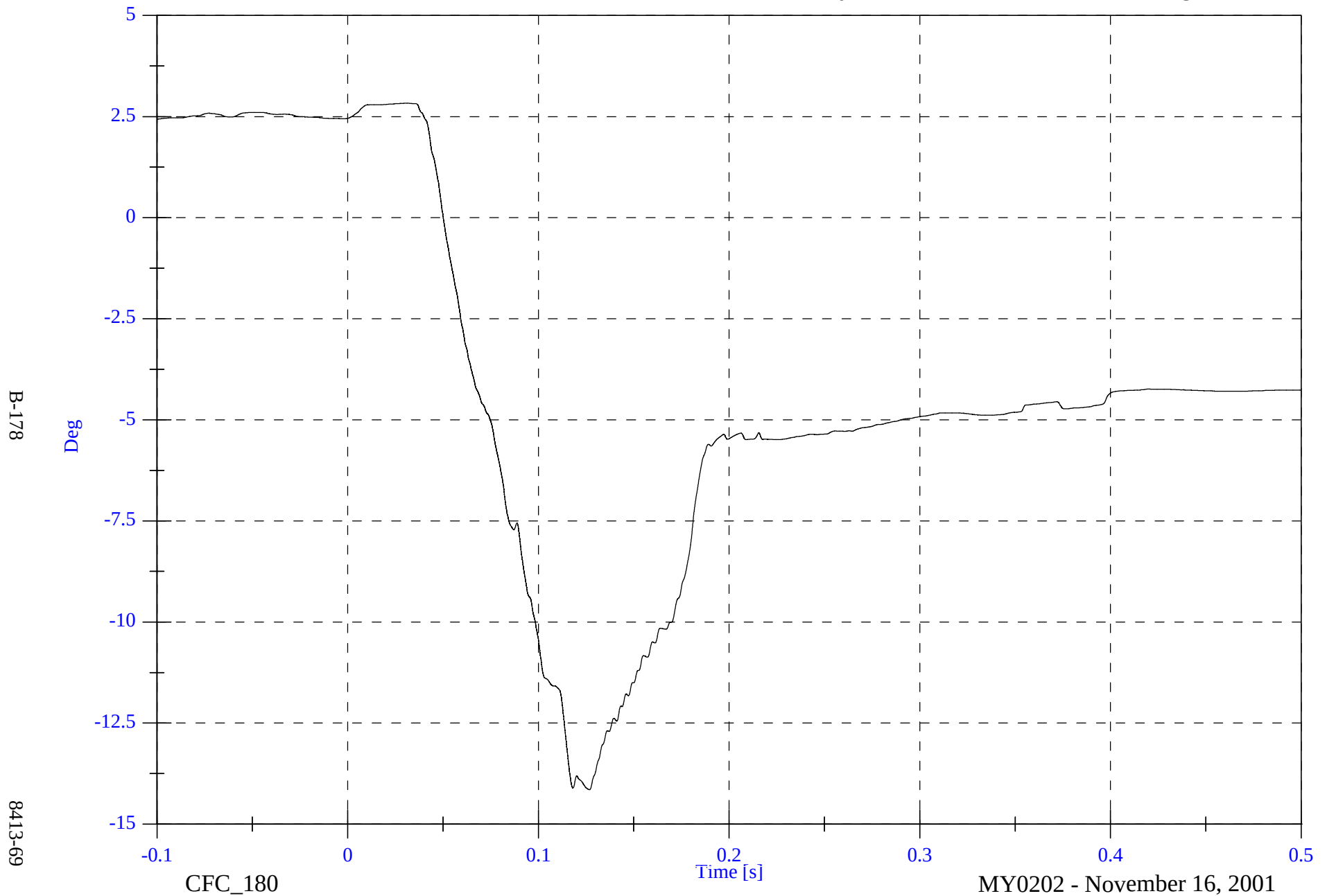
8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

P2 Left Ankle Rotation y

Max: 2.8 [Deg] at 0.030 [s]

Min: -14.1 [Deg] at 0.127 [s]

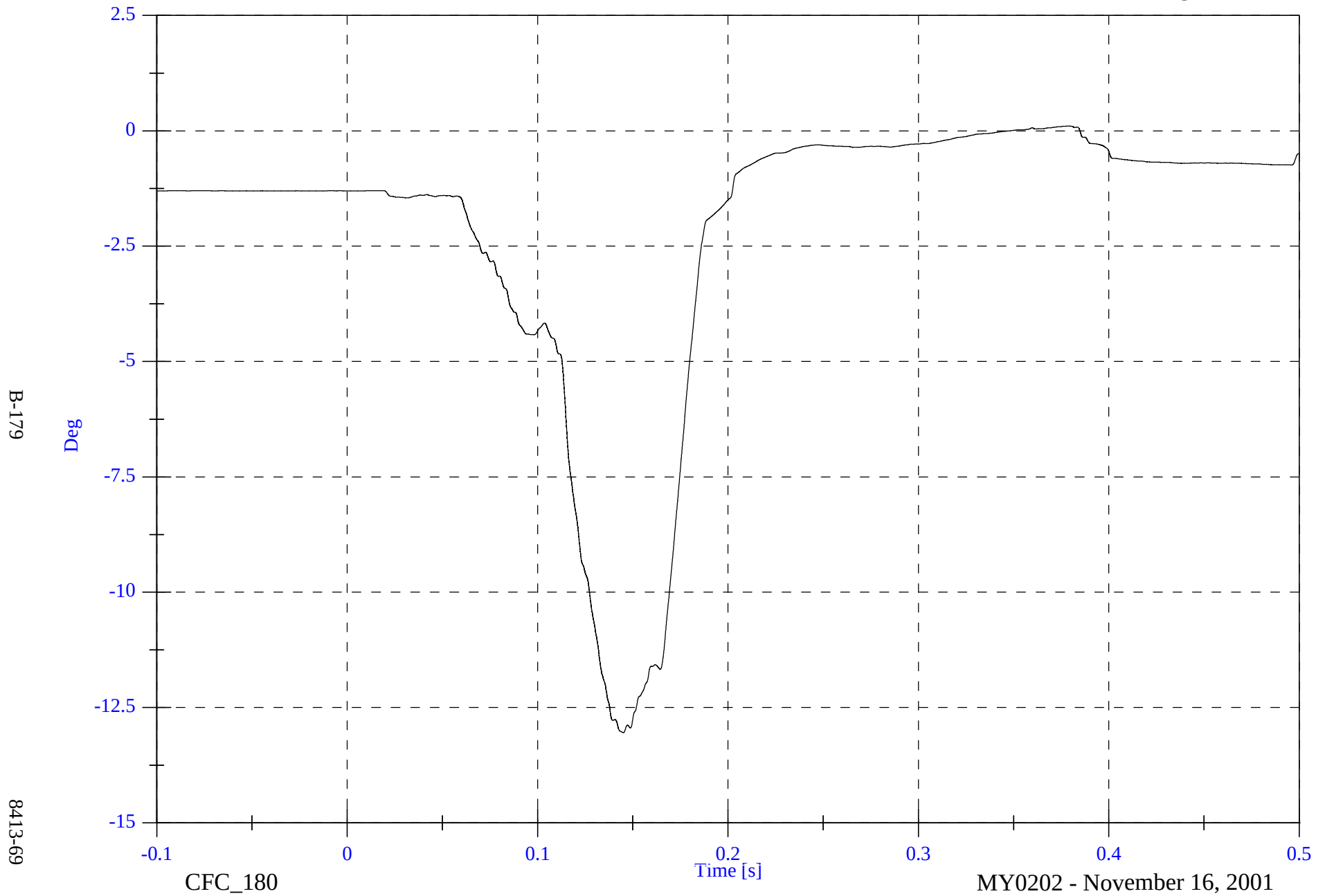


40% Frontal Offset Test #13 - 2000 Ford Explorer

P2 Left Ankle Rotation z

Max: 0.1 [Deg] at 0.379 [s]

Min: -13.0 [Deg] at 0.145 [s]

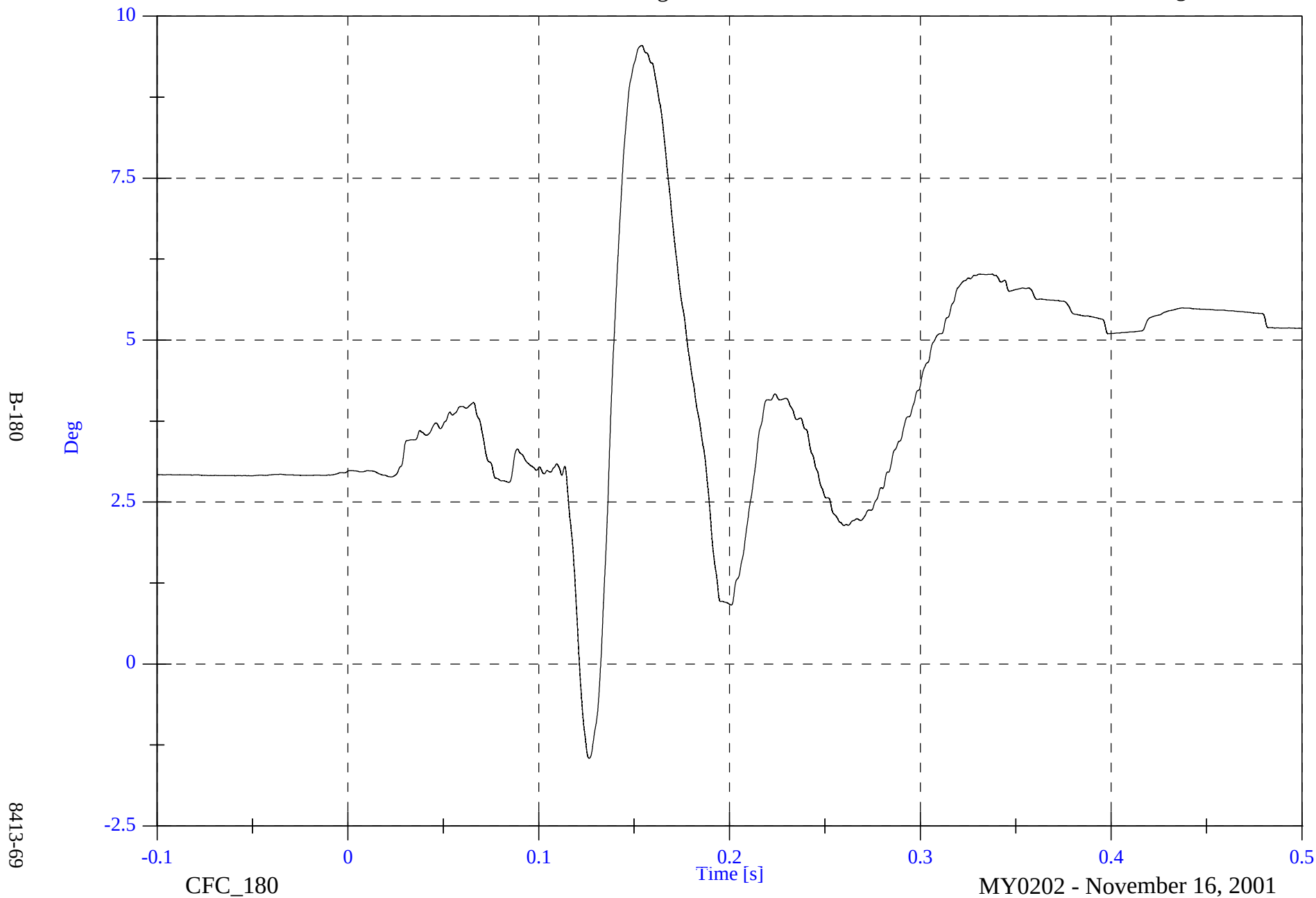


40% Frontal Offset Test #13 - 2000 Ford Explorer

P2 Right Ankle Rotation x

Max: 9.6 [Deg] at 0.154 [s]

Min: -1.5 [Deg] at 0.126 [s]

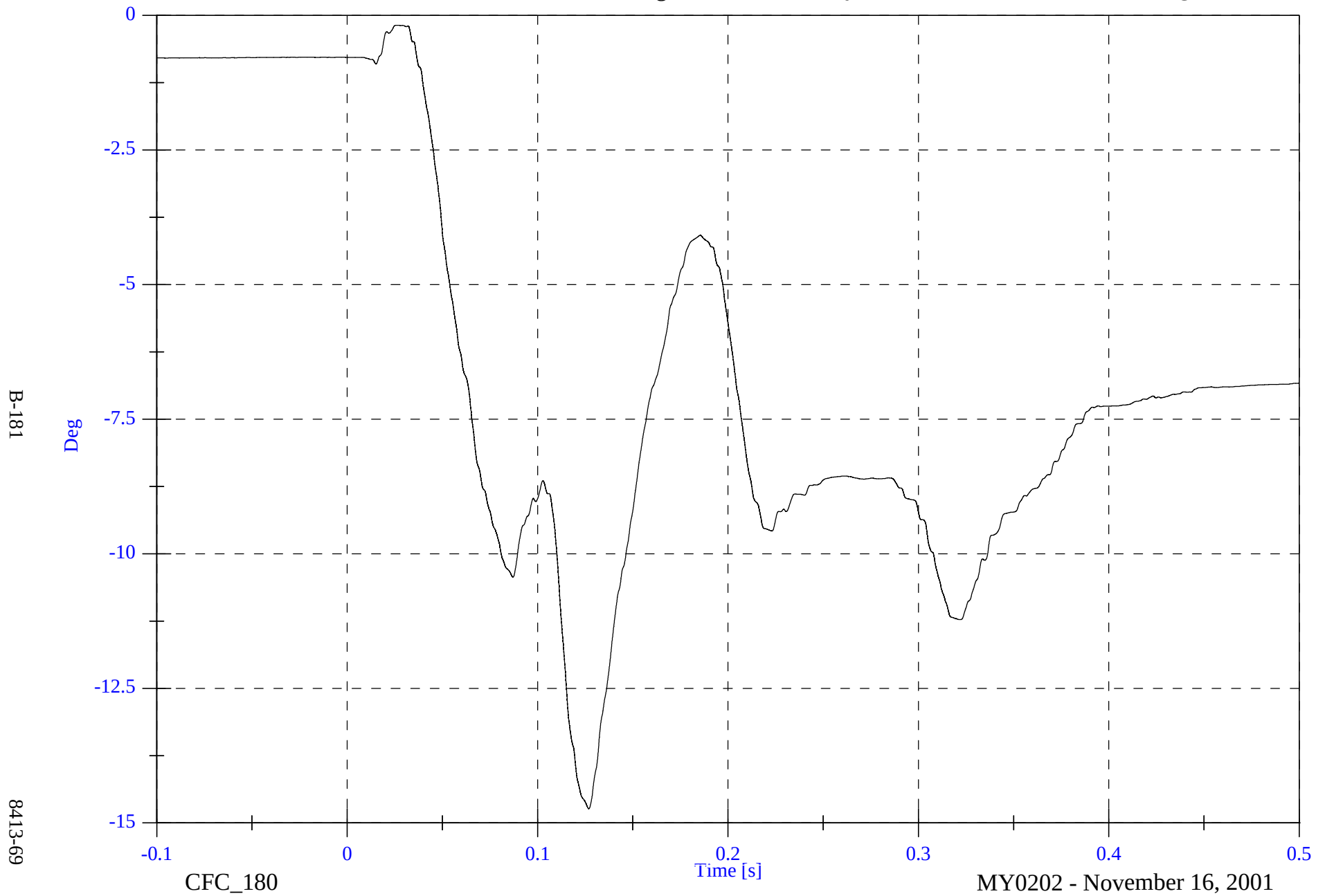


40% Frontal Offset Test #13 - 2000 Ford Explorer

P2 Right Ankle Rotation y

Max: -0.2 [Deg] at 0.026 [s]

Min: -14.7 [Deg] at 0.127 [s]

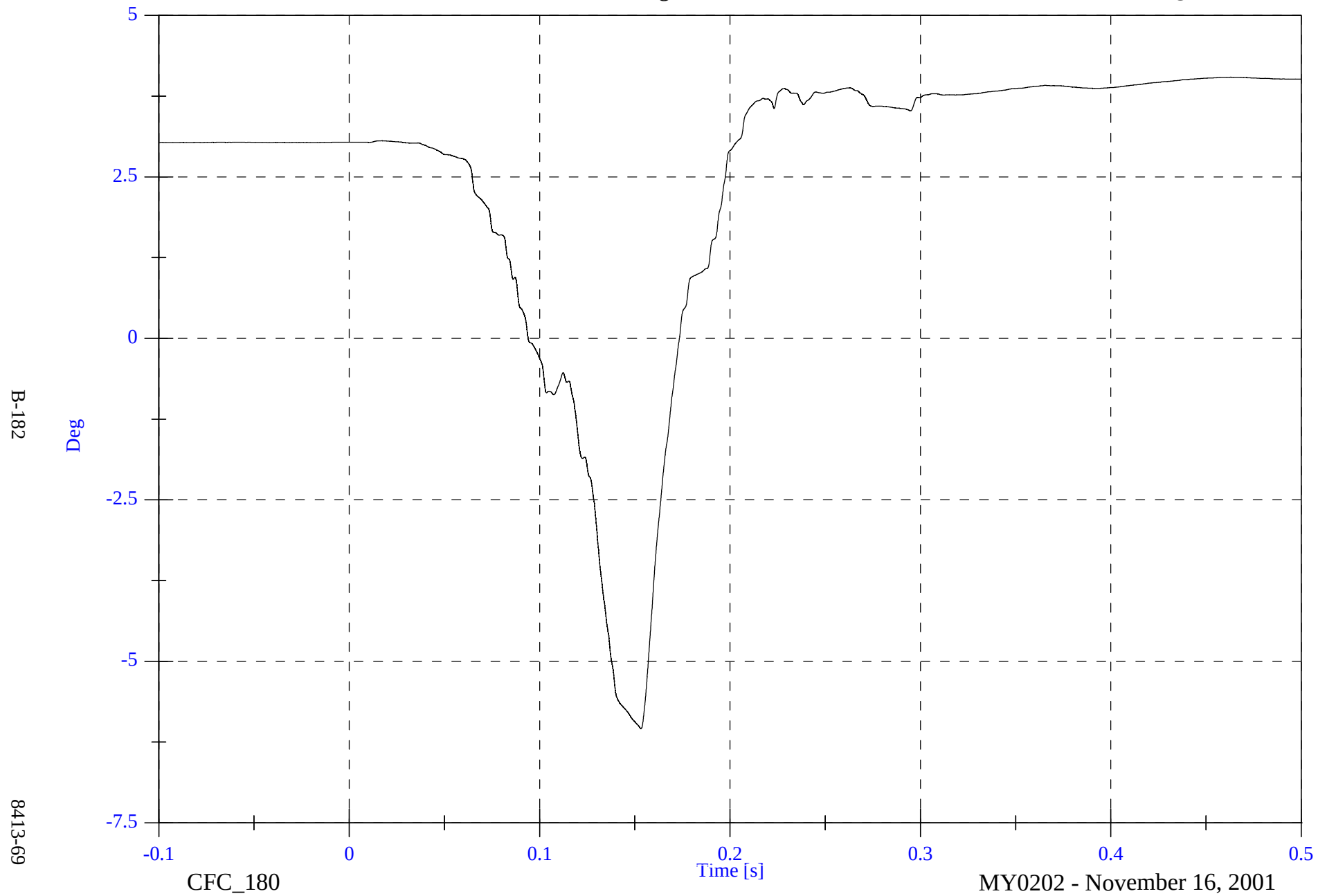


40% Frontal Offset Test #13 - 2000 Ford Explorer

P2 Right Ankle Rotation z

Max: 4.0 [Deg] at 0.463 [s]

Min: -6.0 [Deg] at 0.153 [s]

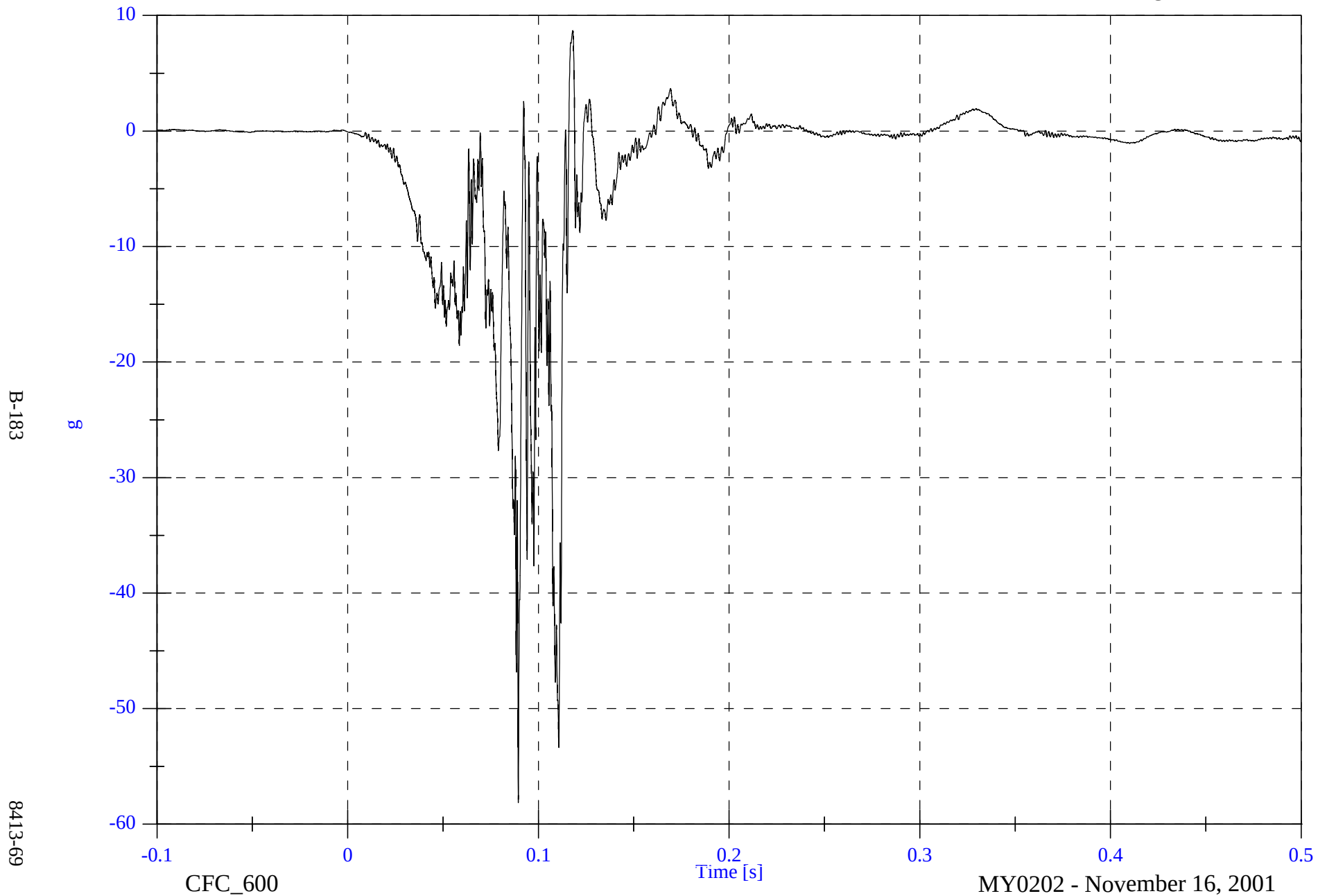


40% Frontal Offset Test #13 - 2000 Ford Explorer

P2 Left Foot Ax

Max: 8.7 [g] at 0.118 [s]

Min: -58.1 [g] at 0.089 [s]



40% Frontal Offset Test #13 - 2000 Ford Explorer

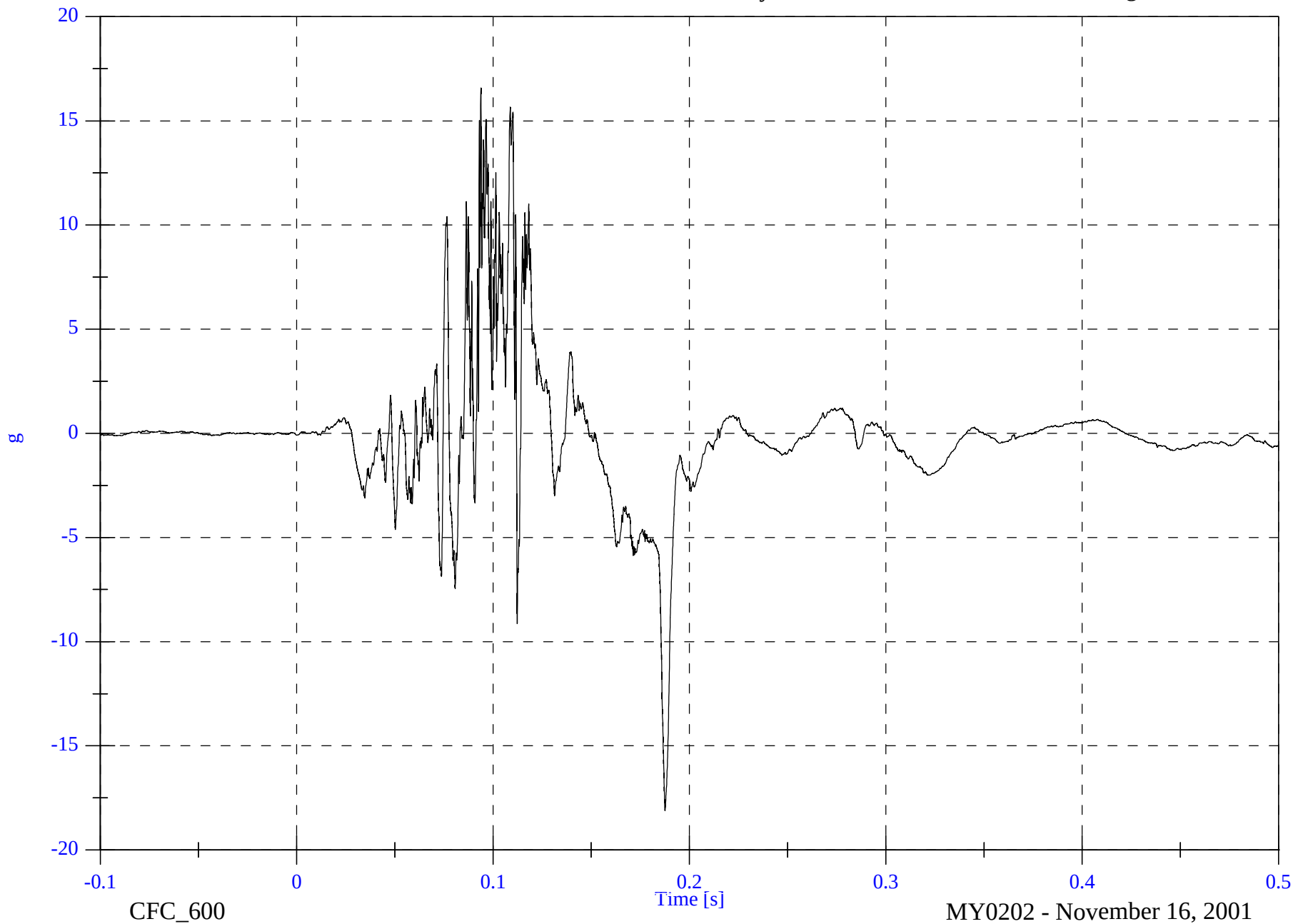
P2 Left Foot Ay

Max: 16.6 [g] at 0.094 [s]

Min: -18.1 [g] at 0.188 [s]

B-184

8413-69



40% Frontal Offset Test #13 - 2000 Ford Explorer

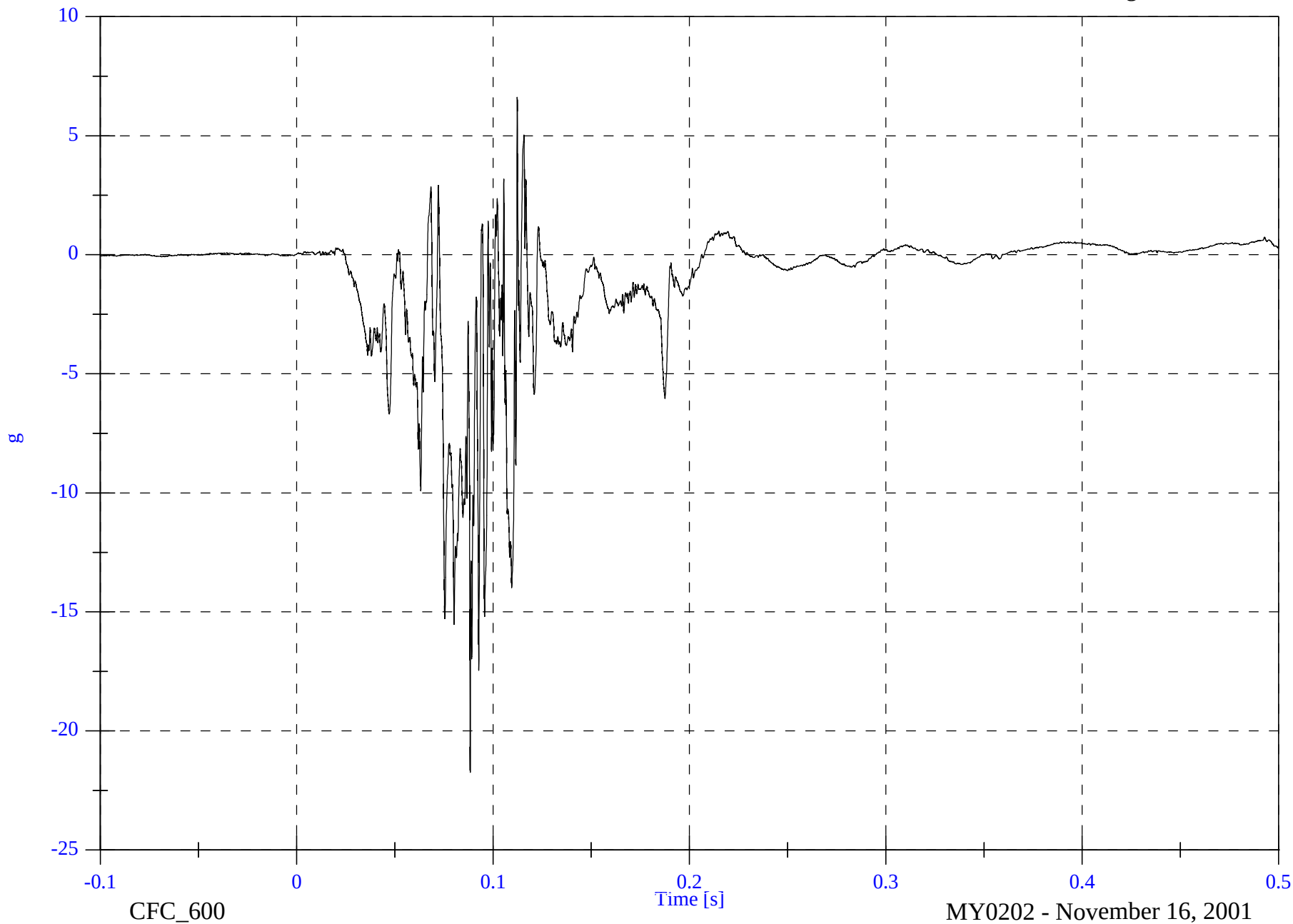
P2 Left Foot Az

Max: 6.6 [g] at 0.112 [s]

Min: -21.7 [g] at 0.088 [s]

B-185

8413-69

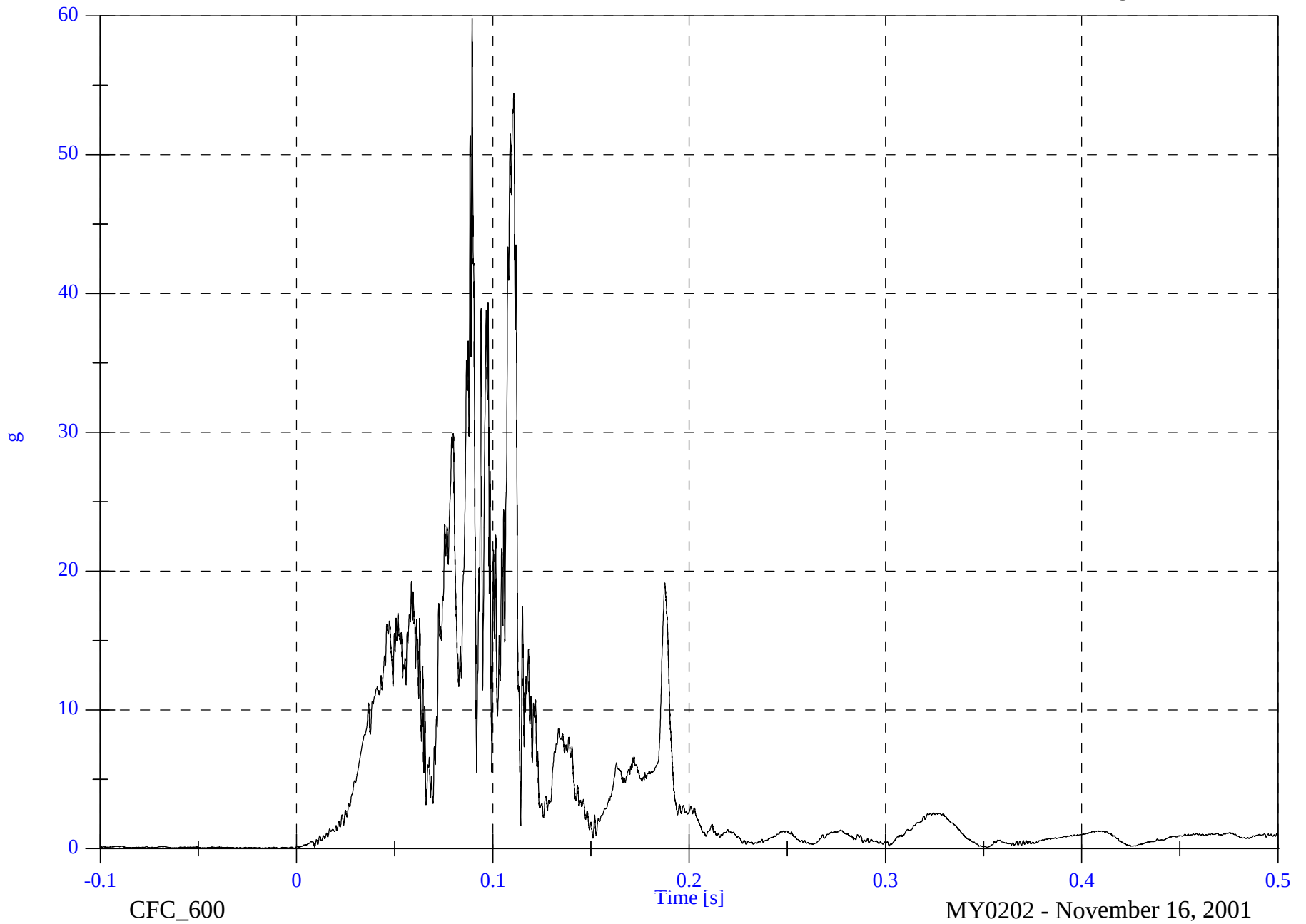


40% Frontal Offset Test #13 - 2000 Ford Explorer

P2 Left Foot A Resultant

Max: 59.8 [g] at 0.089 [s]

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



B-186

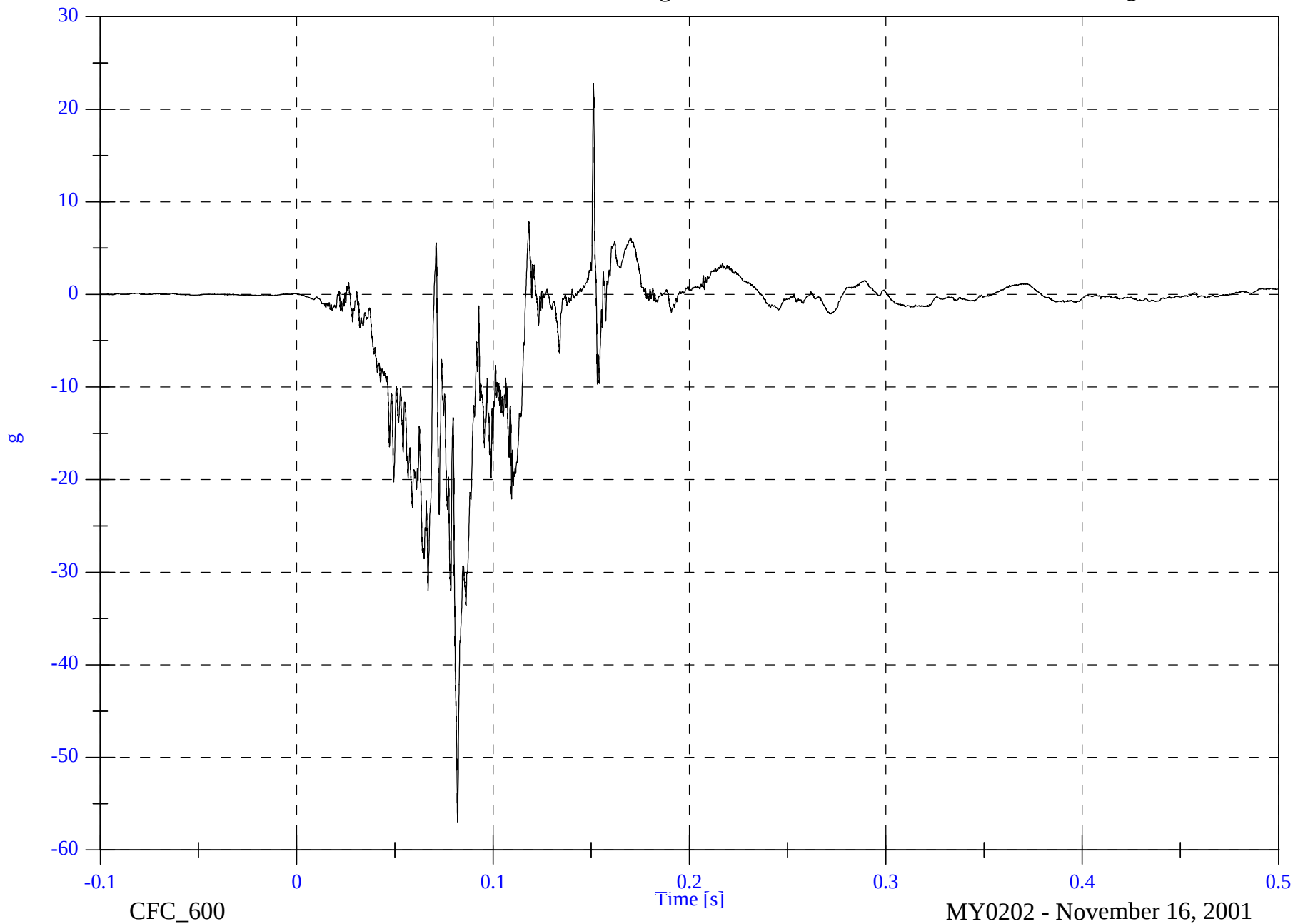
8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

P2 Right Foot Ax

Max: 22.8 [g] at 0.151 [s]

Min: -57.0 [g] at 0.082 [s]



B-187

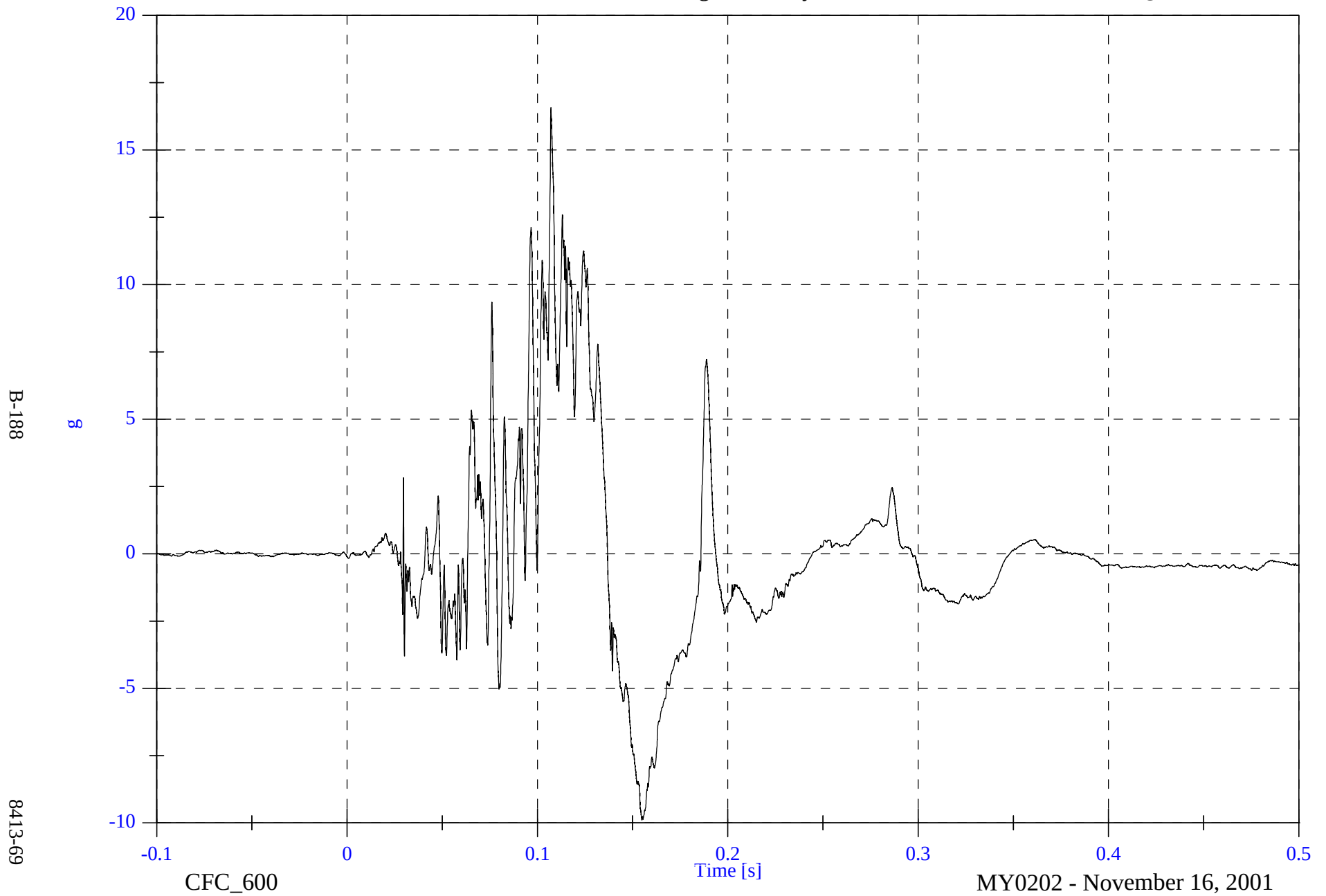
8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

P2 Right Foot Ay

Max: 16.6 [g] at 0.107 [s]

Min: -9.9 [g] at 0.155 [s]

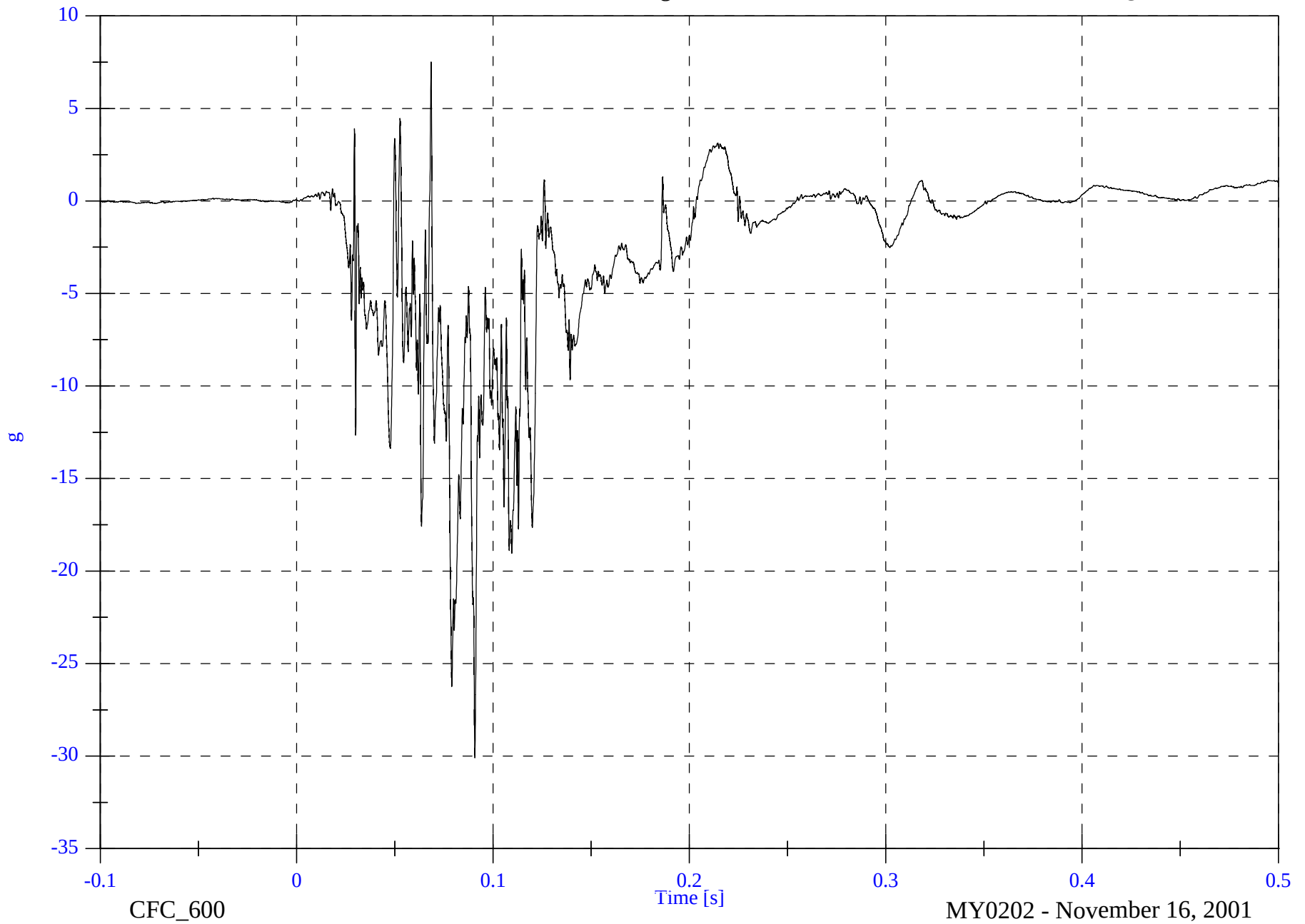


40% Frontal Offset Test #13 - 2000 Ford Explorer

P2 Right Foot Az

Max: 7.5 [g] at 0.069 [s]

Min: -30.1 [g] at 0.091 [s]



B-189

8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

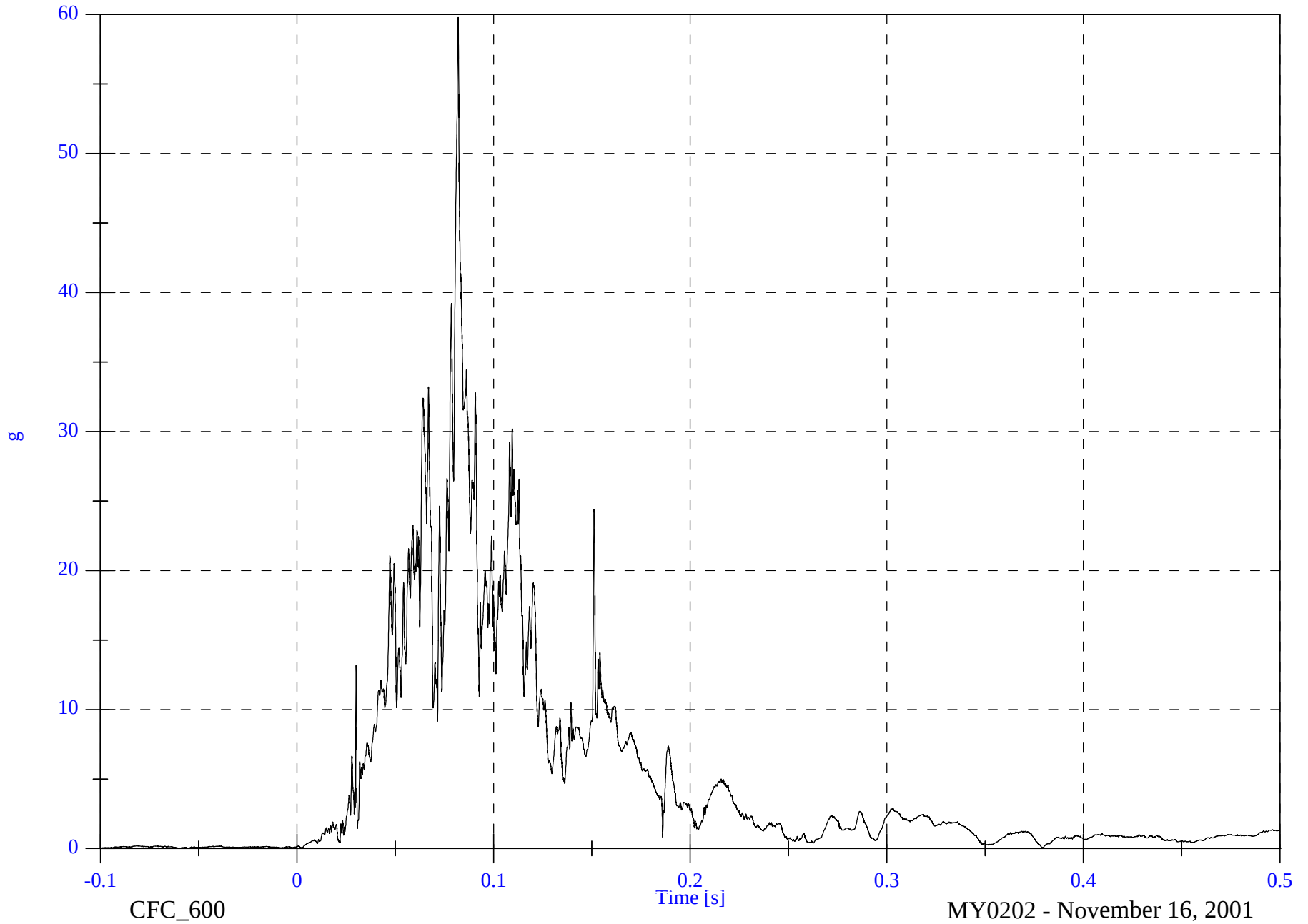
P2 Right Foot A Resultant

Max: 59.8 [g] at 0.082 [s]

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

B-190

8413-69

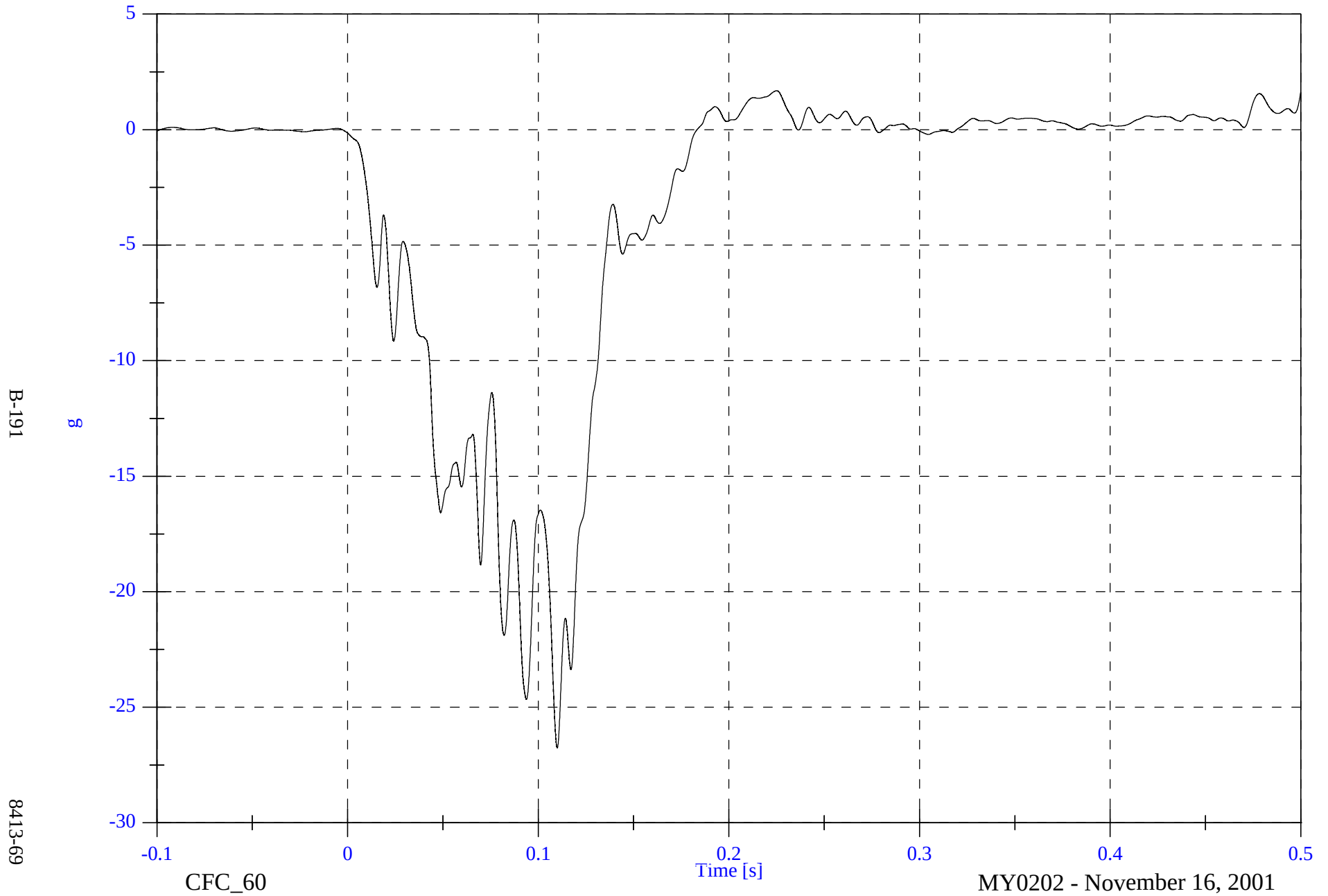


40% Frontal Offset Test #13 - 2000 Ford Explorer

Acc 1 Rear XMBR Left Ax

Max: 1.7 [g] at 0.225 [s]

Min: -26.8 [g] at 0.110 [s]

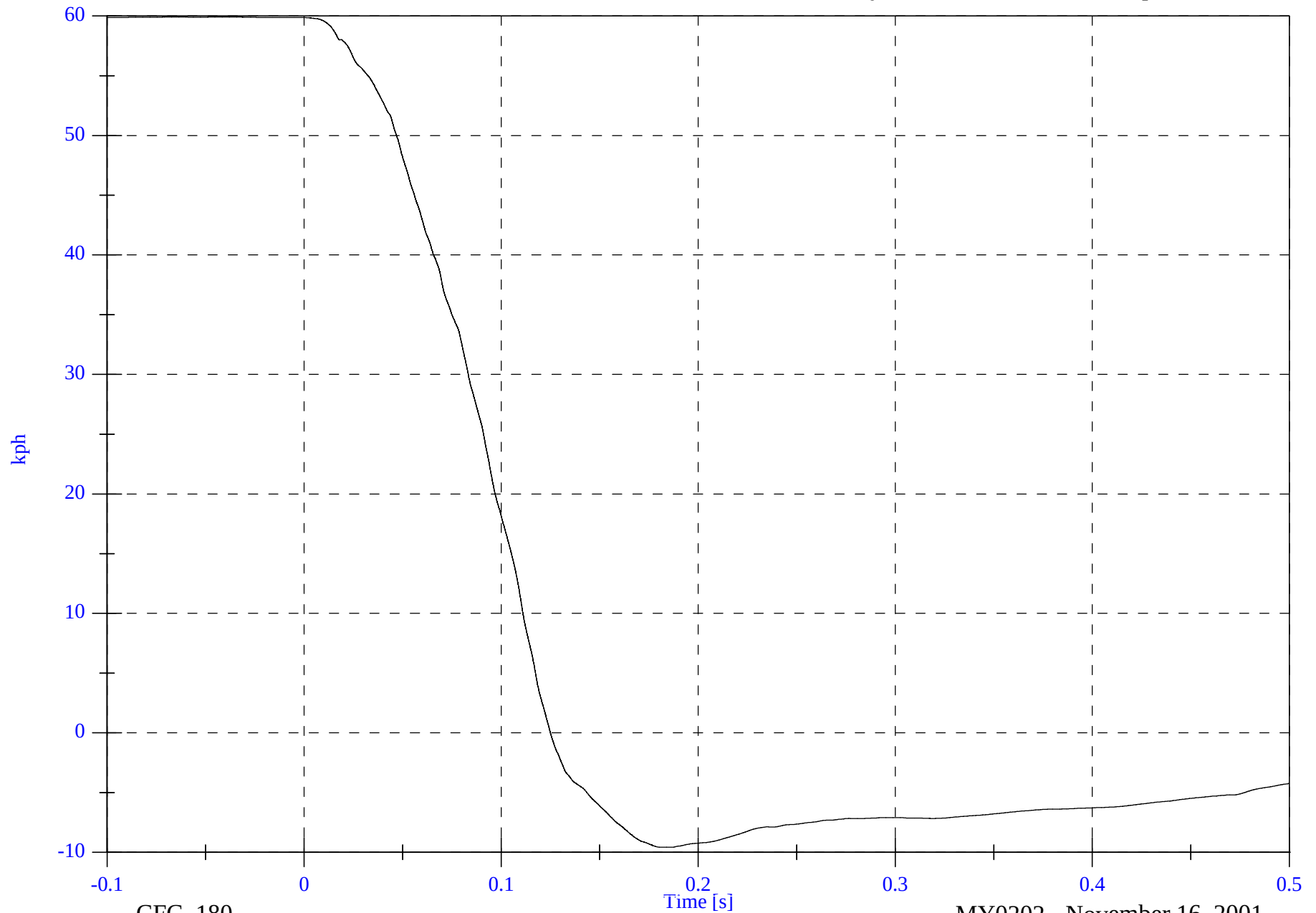


40% Frontal Offset Test #13 - 2000 Ford Explorer

Acc 1 Rear XMBR Left Ax Velocity

Max: 59.9 [kph] at -0.066 [s]

Min: -9.6 [kph] at 0.184 [s]



B-192

8413-69

CFC_180

MY0202 - November 16, 2001

40% Frontal Offset Test #13 - 2000 Ford Explorer

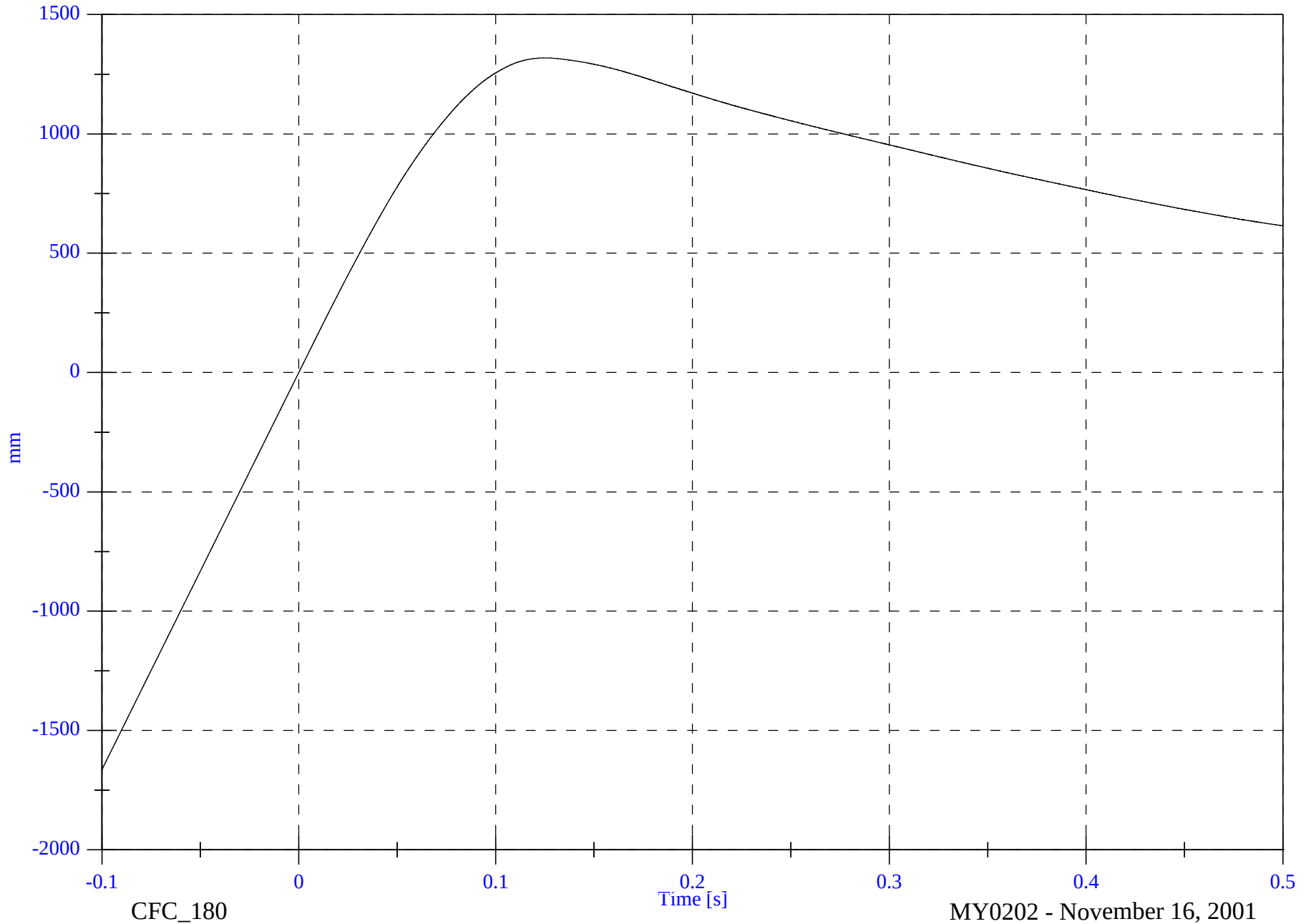
Acc 1 Rear XMBR Left Ax Displacement

Max: 1318.2 [mm] at 0.125 [s]

Min: -1663.7 [mm] at -0.100 [s]

B-193

8413-69



CFC_180

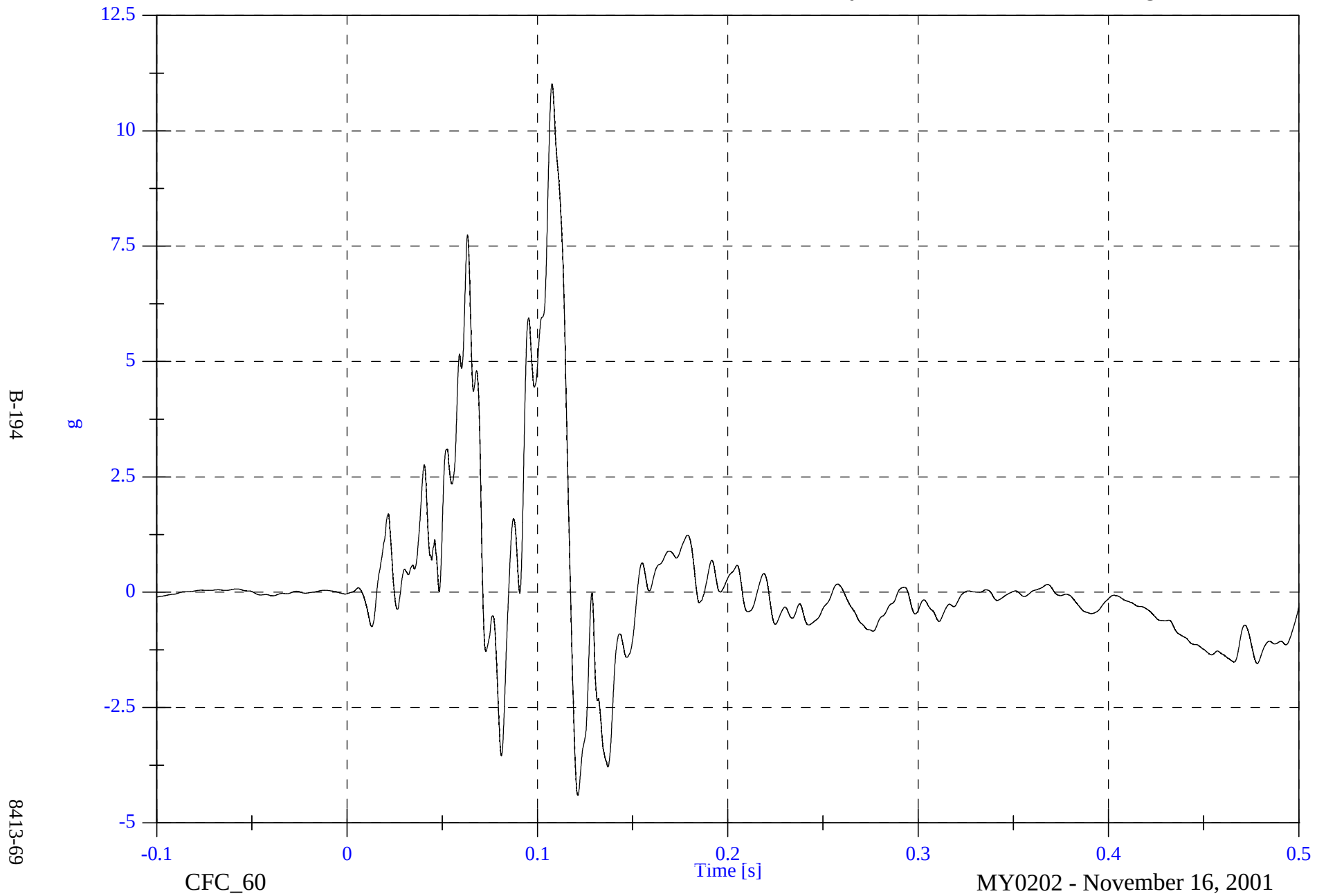
MY0202 - November 16, 2001

40% Frontal Offset Test #13 - 2000 Ford Explorer

Acc 2 Rear XMBR Left Ay

Max: 11.0 [g] at 0.108 [s]

Min: -4.4 [g] at 0.121 [s]

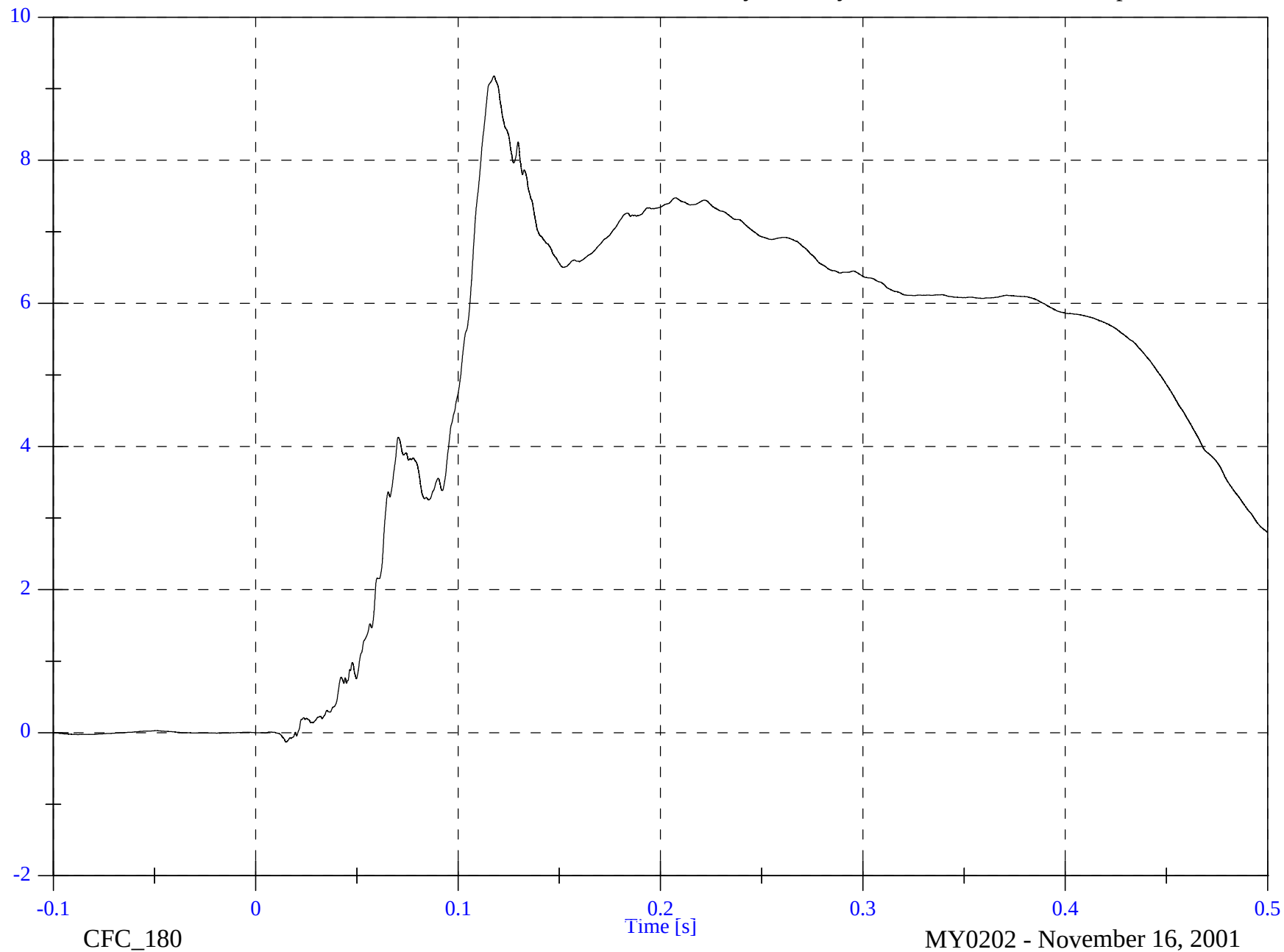


40% Frontal Offset Test #13 - 2000 Ford Explorer

Acc 2 Rear XMBR Left Ay Velocity

Max: 9.2 [kph] at 0.118 [s]

Min: -0.1 [kph] at 0.015 [s]



B-195

8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

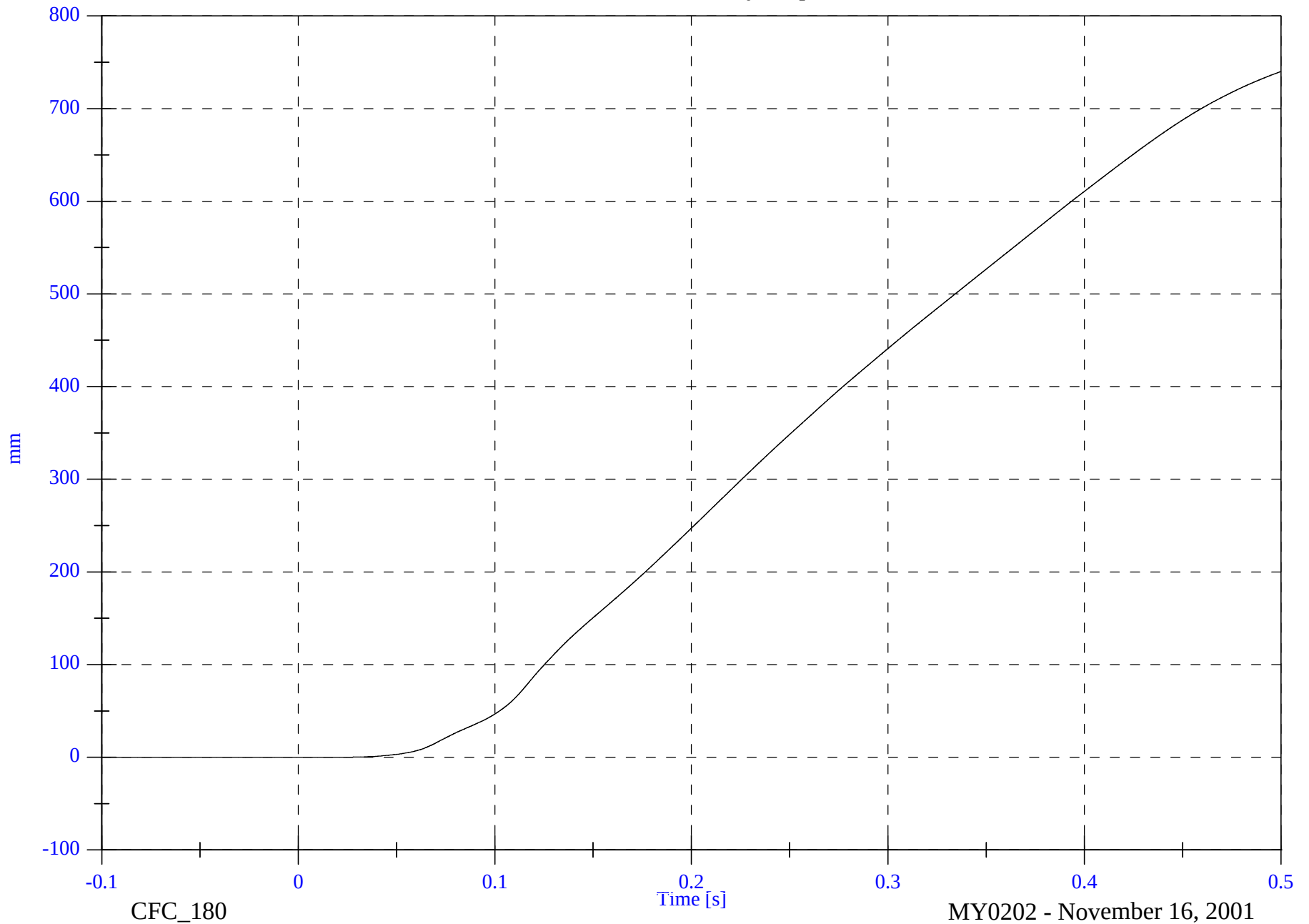
Acc 2 Rear XMBR Left Ay Displacement

Max: 740.0 [mm] at 0.500 [s]

Min: -0.2 [mm] at 0.021 [s]

B-196

8413-69

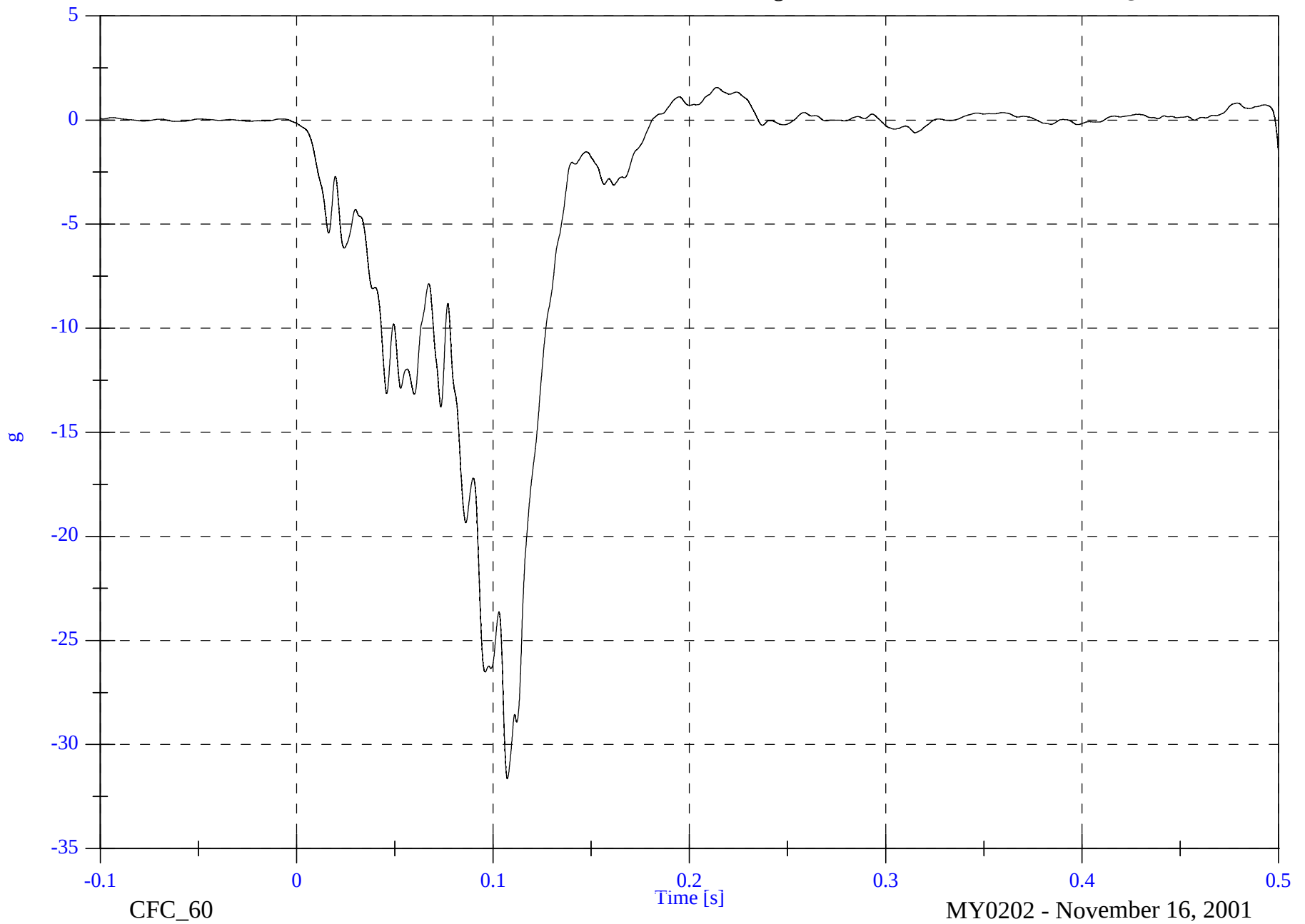


40% Frontal Offset Test #13 - 2000 Ford Explorer

Acc 3 Rear XMBR Right X

Max: 1.6 [g] at 0.214 [s]

Min: -31.6 [g] at 0.107 [s]



B-197

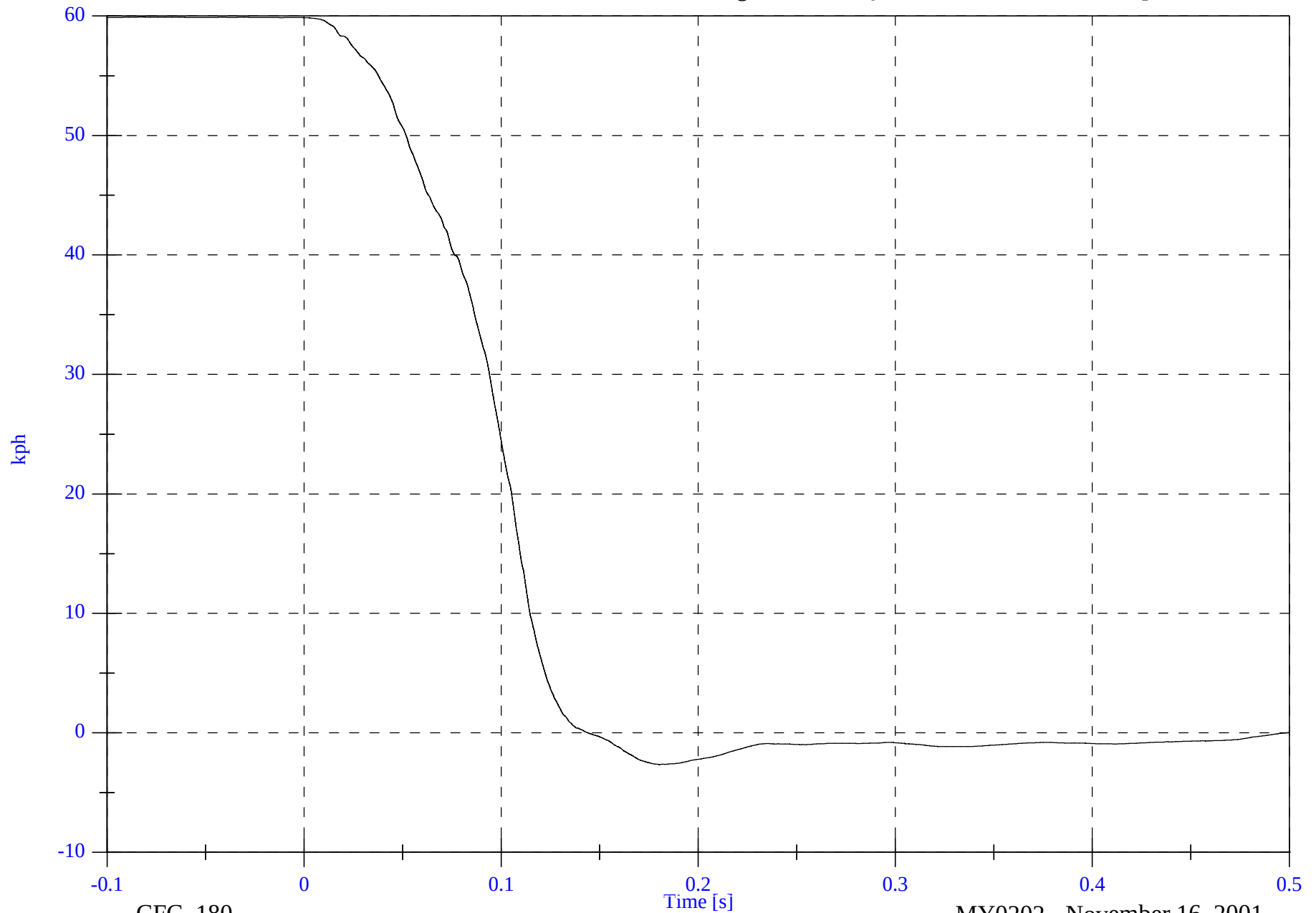
8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

Acc 3 Rear XMBR Right X Velocity

Max: 59.9 [kph] at -0.082 [s]

Min: -2.7 [kph] at 0.180 [s]



B-198

8413-69

CFC_180

MY0202 - November 16, 2001

40% Frontal Offset Test #13 - 2000 Ford Explorer

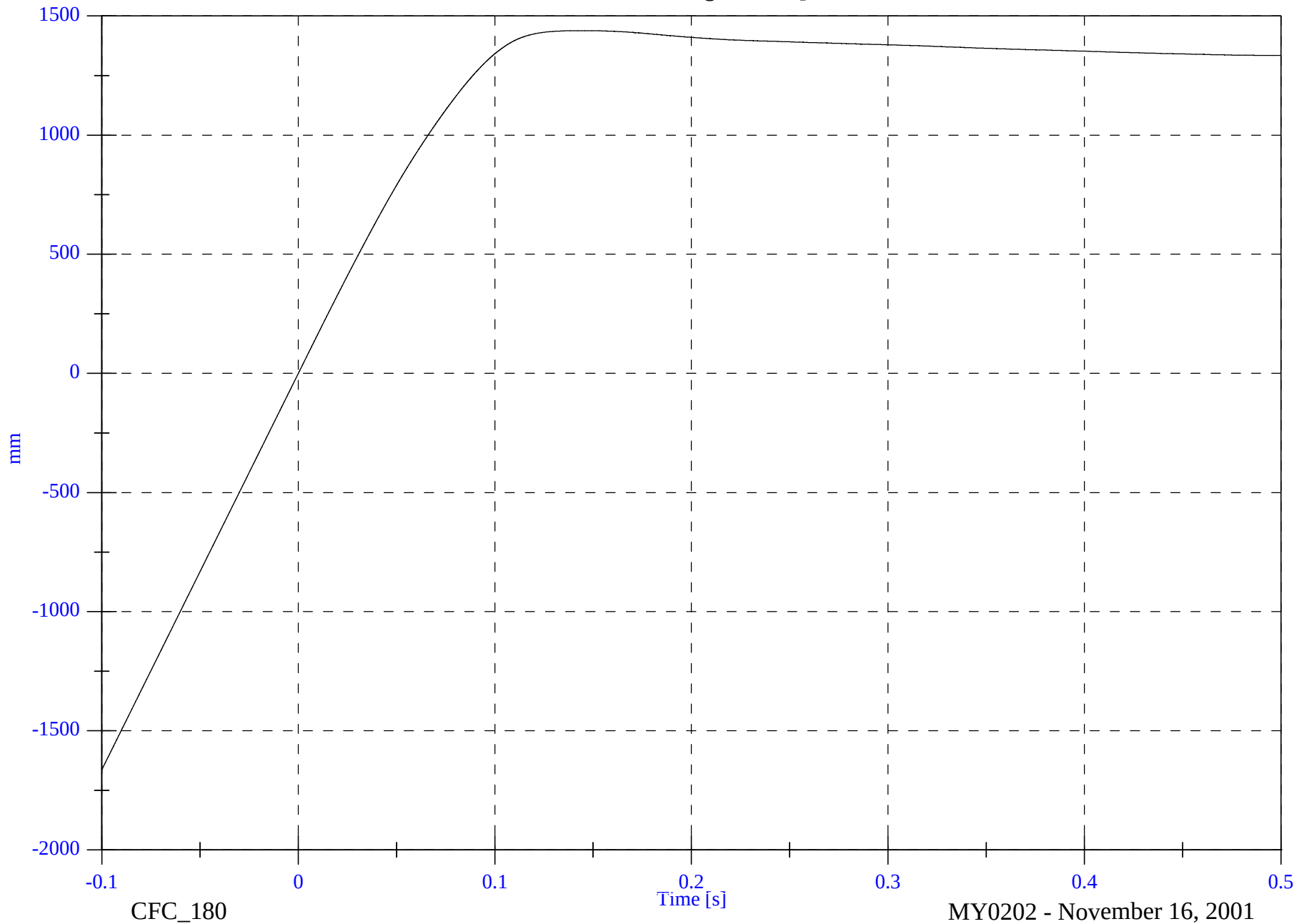
Acc 3 Rear XMBR Right X Displacement

Max: 1438.3 [mm] at 0.144 [s]

Min: -1663.5 [mm] at -0.100 [s]

B-199

8413-69



40% Frontal Offset Test #13 - 2000 Ford Explorer

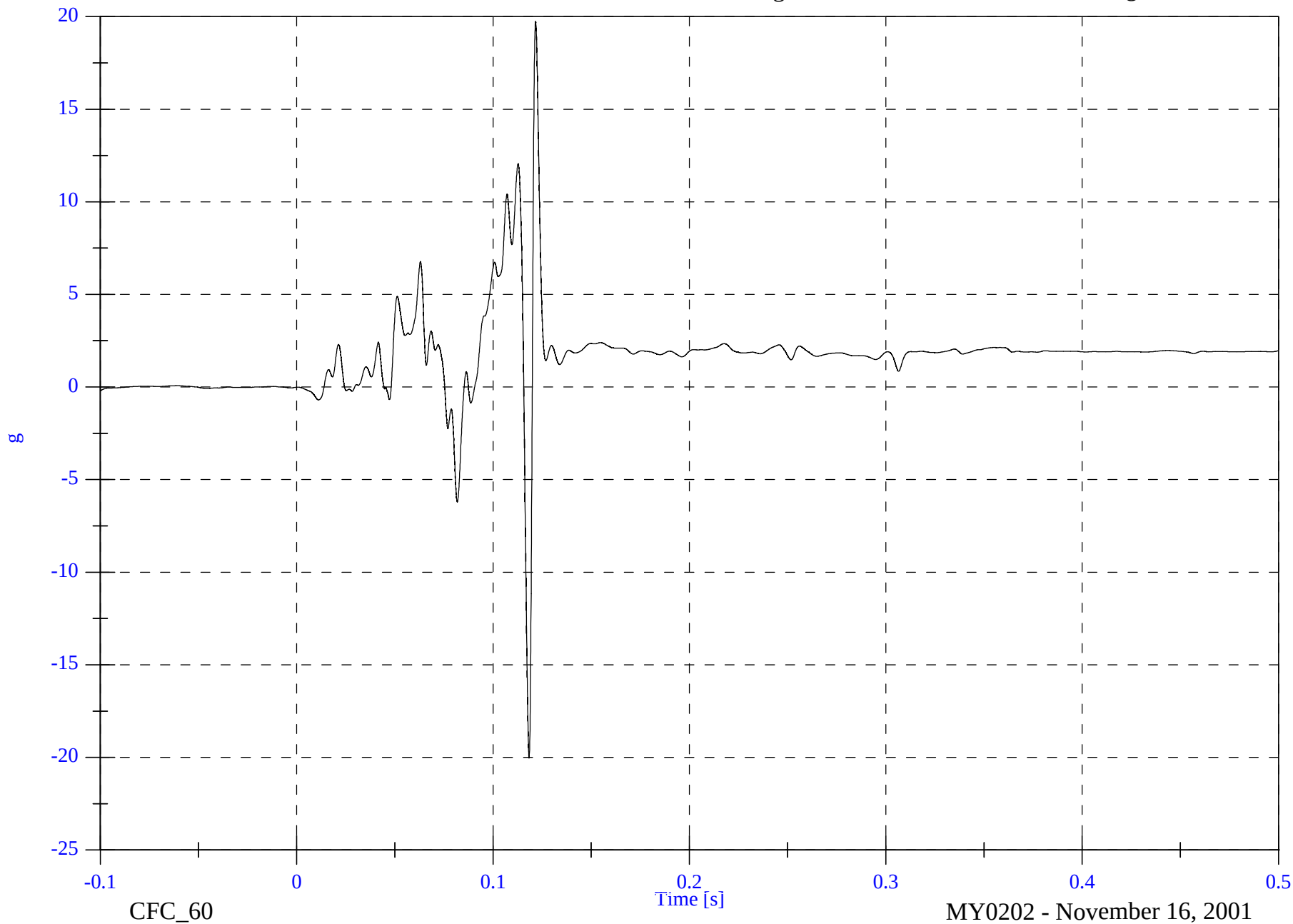
Acc 4 Rear XMBR Right Y

Max: 19.7 [g] at 0.122 [s]

Min: -20.0 [g] at 0.118 [s]

B-200

8413-69



40% Frontal Offset Test #13 - 2000 Ford Explorer

Acc 4 Rear XMBR Right Y Velocity

Max: 33.9 [kph] at 0.500 [s]

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



B-201

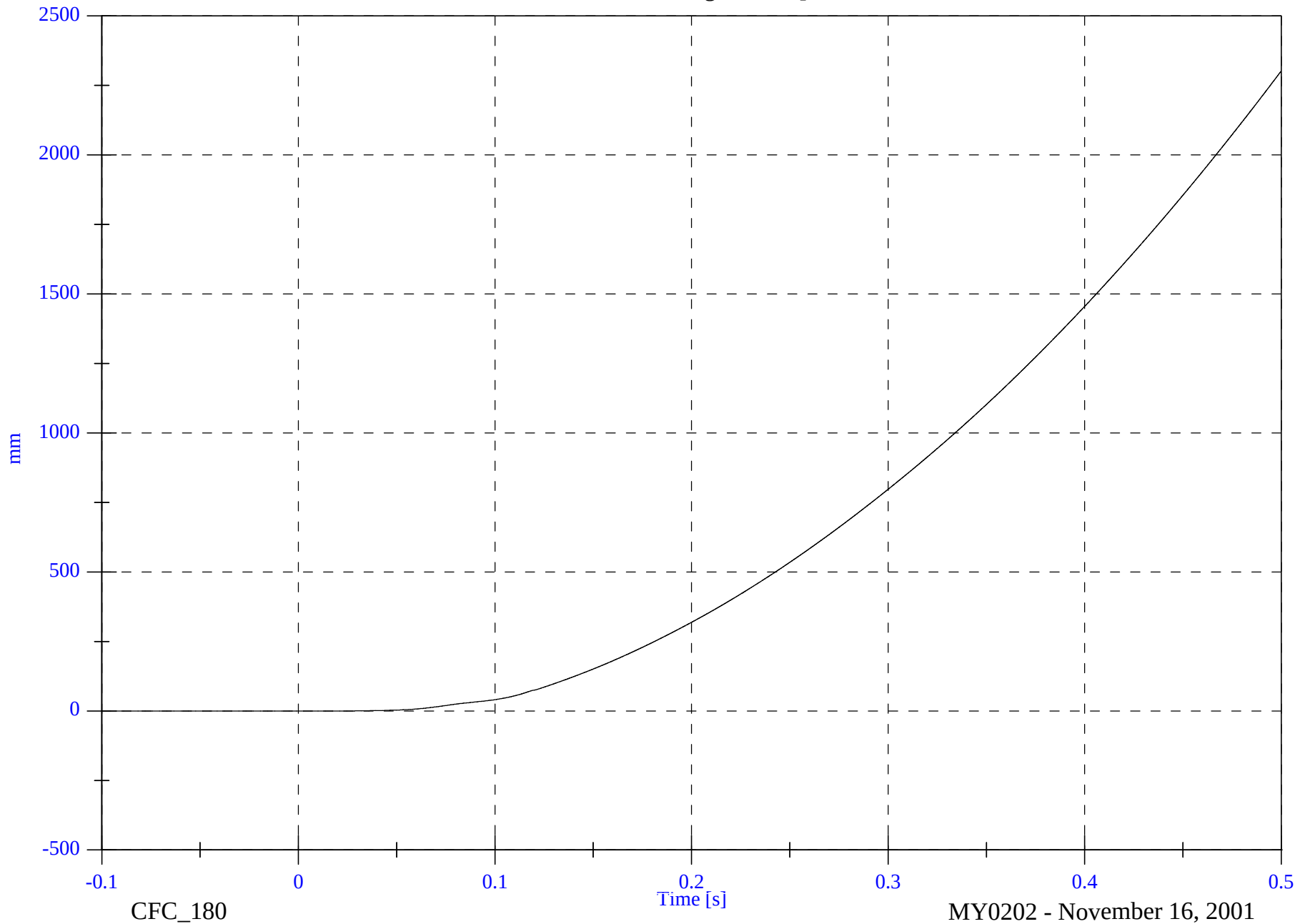
8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

Acc 4 Rear XMBR Right Y Displacement

Max: 2301.8 [mm] at 0.500 [s]

Min: -0.3 [mm] at 0.021 [s]



B-202

8413-69

CFC_180

MY0202 - November 16, 2001

40% Frontal Offset Test #13 - 2000 Ford Explorer

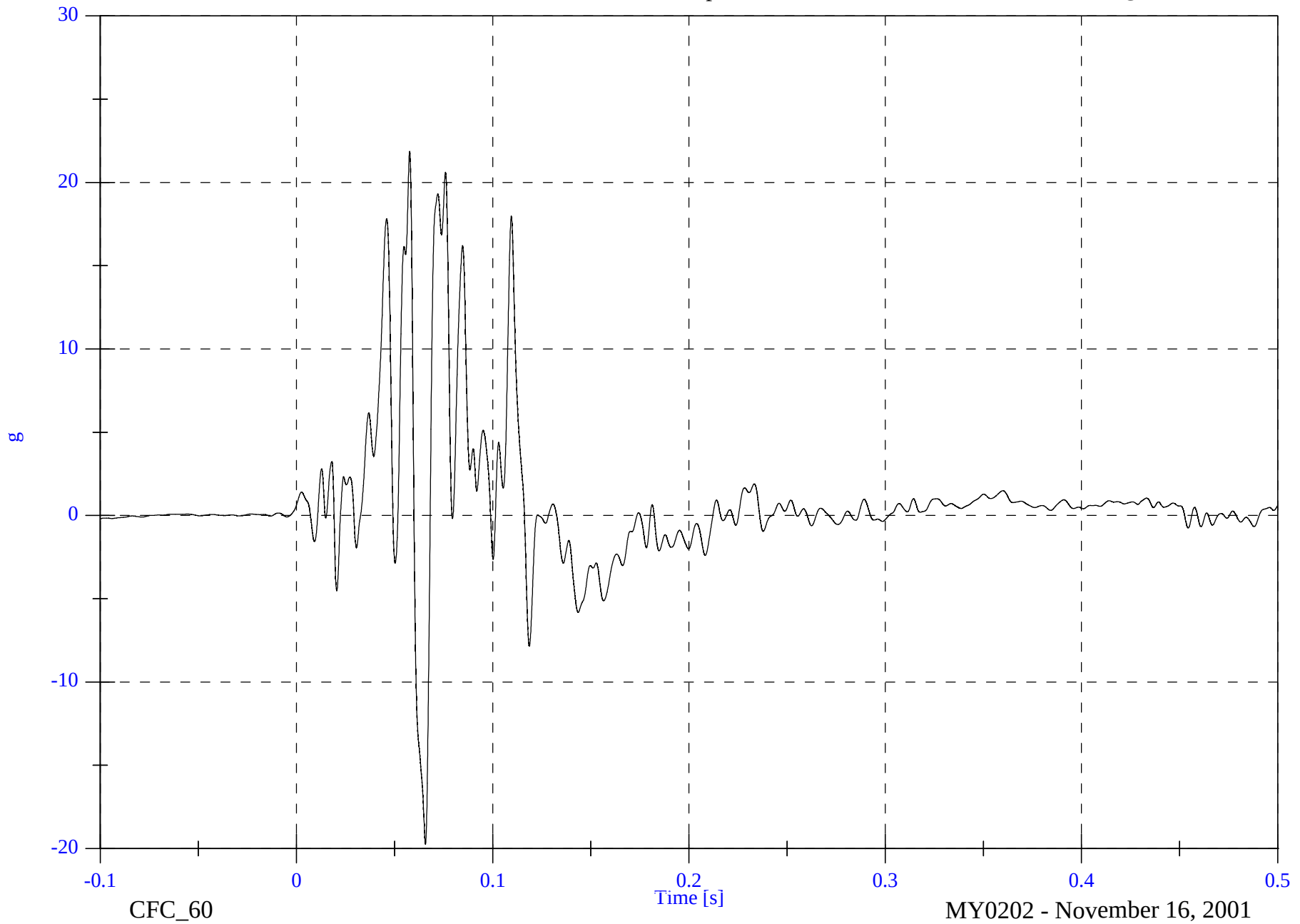
Acc 6 P1 Toepan Left Z

Max: 21.9 [g] at 0.058 [s]

Min: -19.7 [g] at 0.066 [s]

B-203

8413-69



40% Frontal Offset Test #13 - 2000 Ford Explorer

Acc 6 P1 Toe pan Left Z Velocity

Max: 18.4 [kph] at 0.117 [s]

Min: -0.1 [kph] at -0.075 [s]



B-204

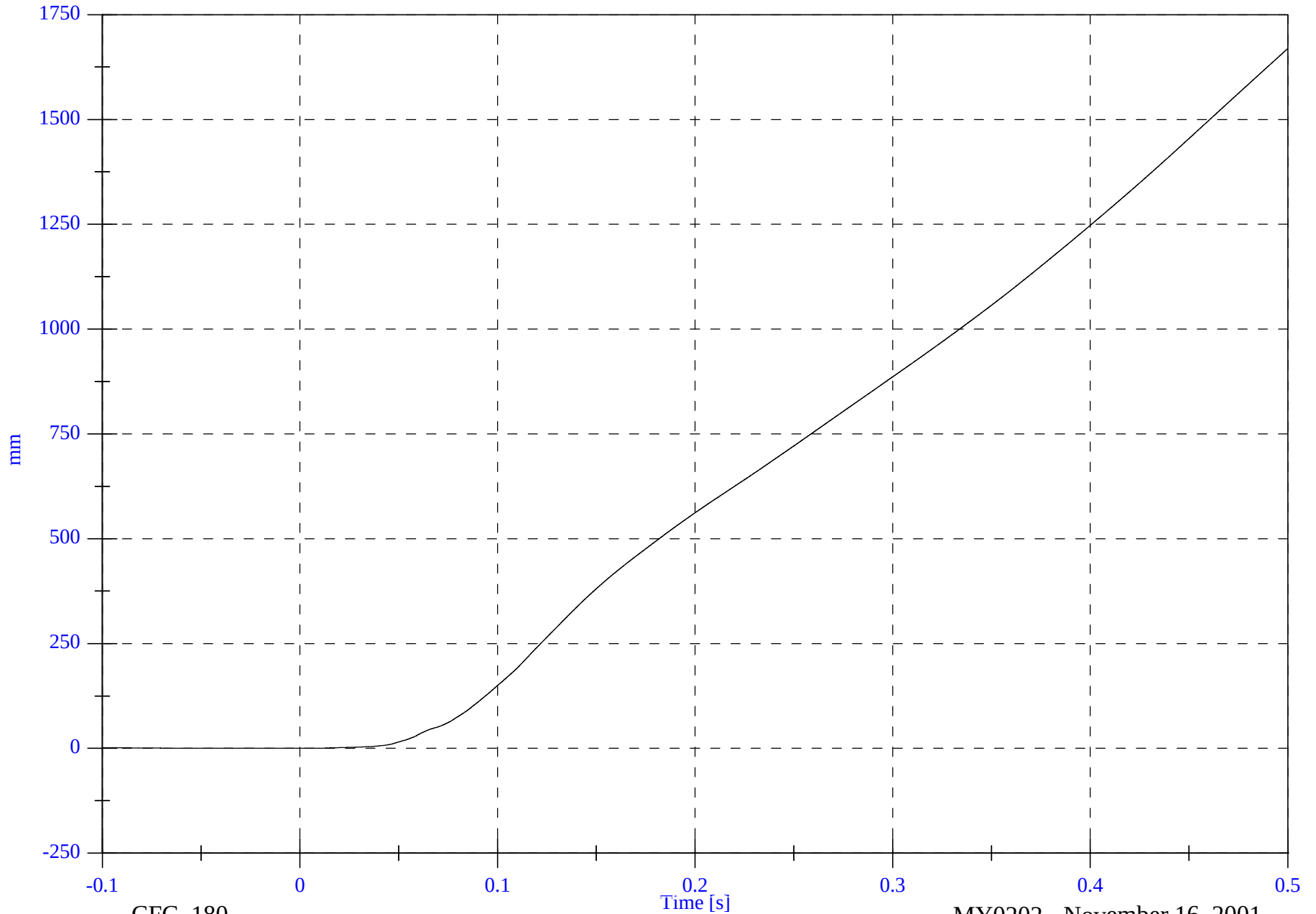
8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

Acc 6 P1 Toe pan Left Z Displacement

Max: 1669.0 [mm] at 0.500 [s]

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



B-205

8413-69

CFC_180

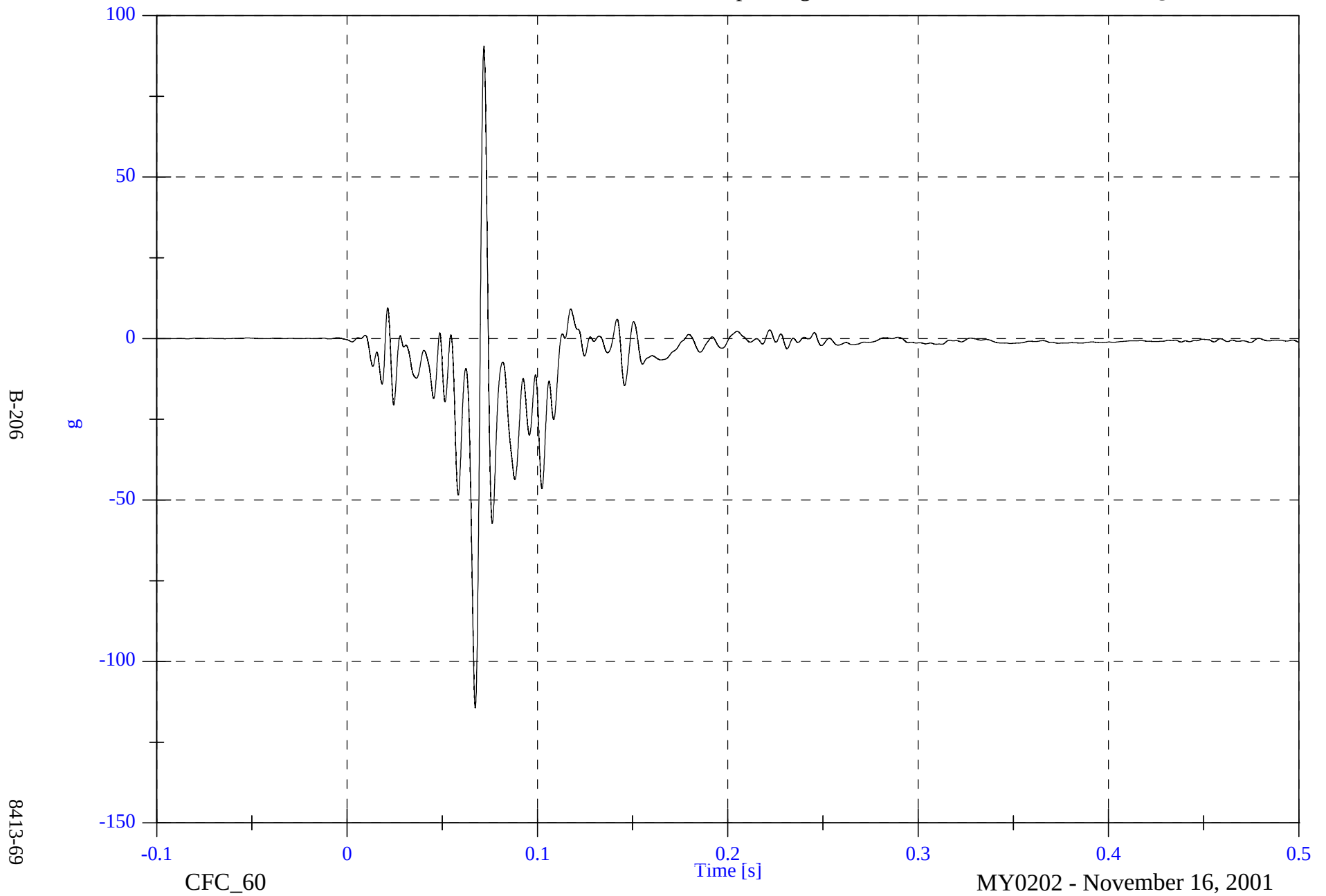
MY0202 - November 16, 2001

40% Frontal Offset Test #13 - 2000 Ford Explorer

Acc 7 P1 Toepan Right X

Max: 90.5 [g] at 0.072 [s]

Min: -114.4 [g] at 0.067 [s]



40% Frontal Offset Test #13 - 2000 Ford Explorer

Acc 7 P1 Toepan Right X Velocity

Max: 60.0 [kph] at 0.012 [s]

Min: -13.9 [kph] at 0.500 [s]



B-207

8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

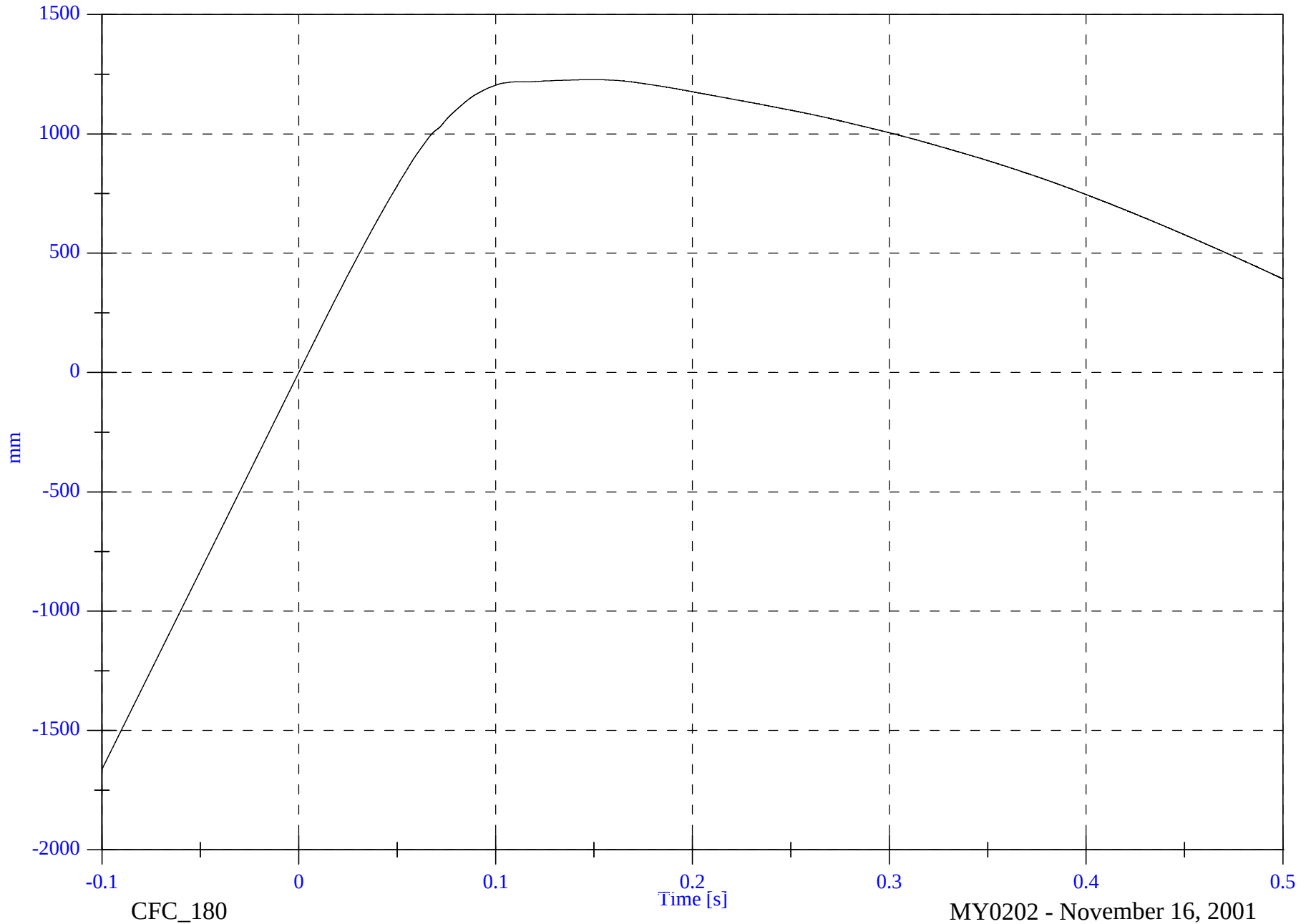
Acc 7 P1 Toepan Right X Displacement

Max: 1227.6 [mm] at 0.146 [s]

Min: -1662.5 [mm] at -0.100 [s]

B-208

8413-69



CFC_180

MY0202 - November 16, 2001

40% Frontal Offset Test #13 - 2000 Ford Explorer

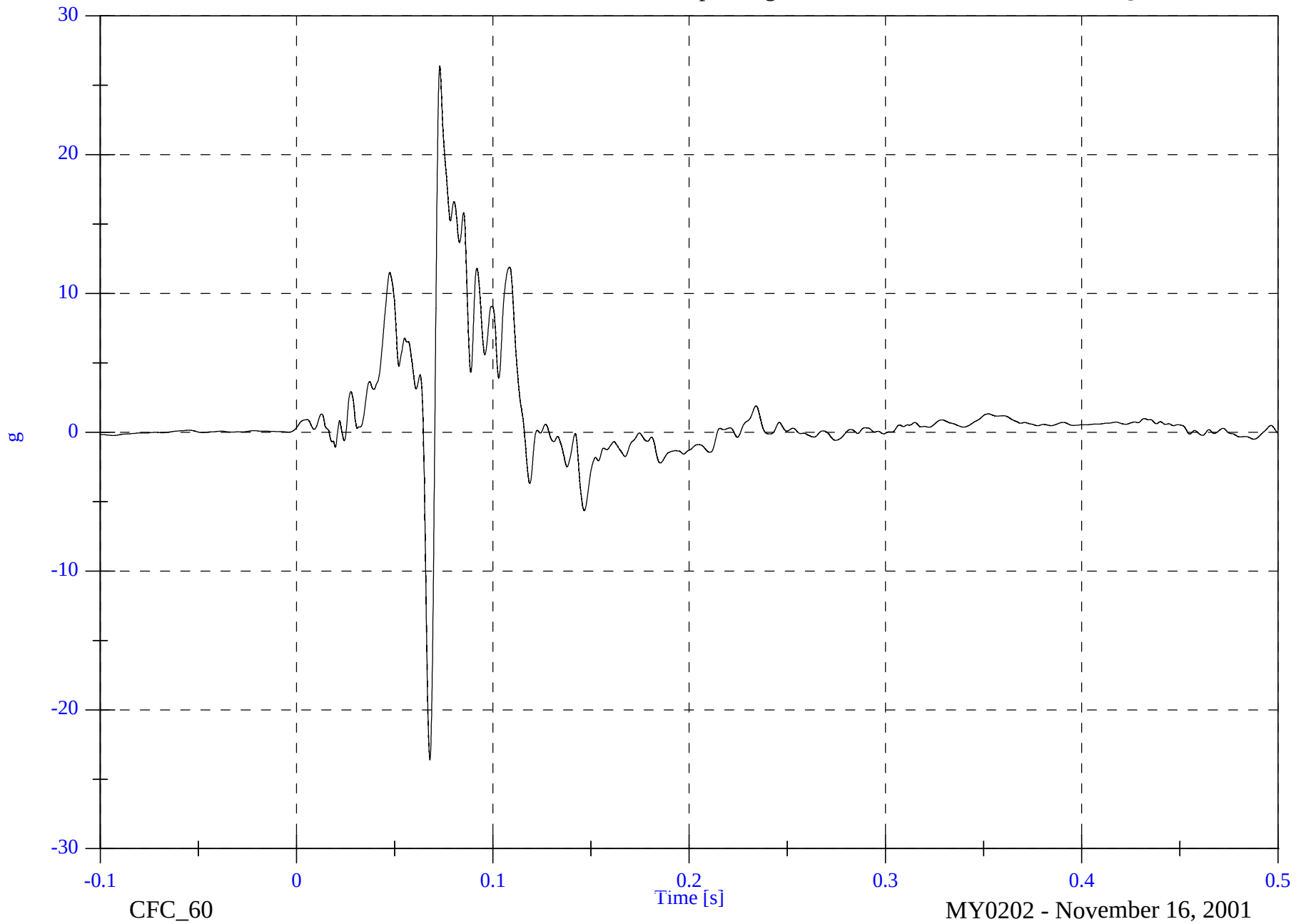
Acc 8 P1 Toepan Right Z

Max: 26.4 [g] at 0.073 [s]

Min: -23.6 [g] at 0.068 [s]

B-209

8413-69

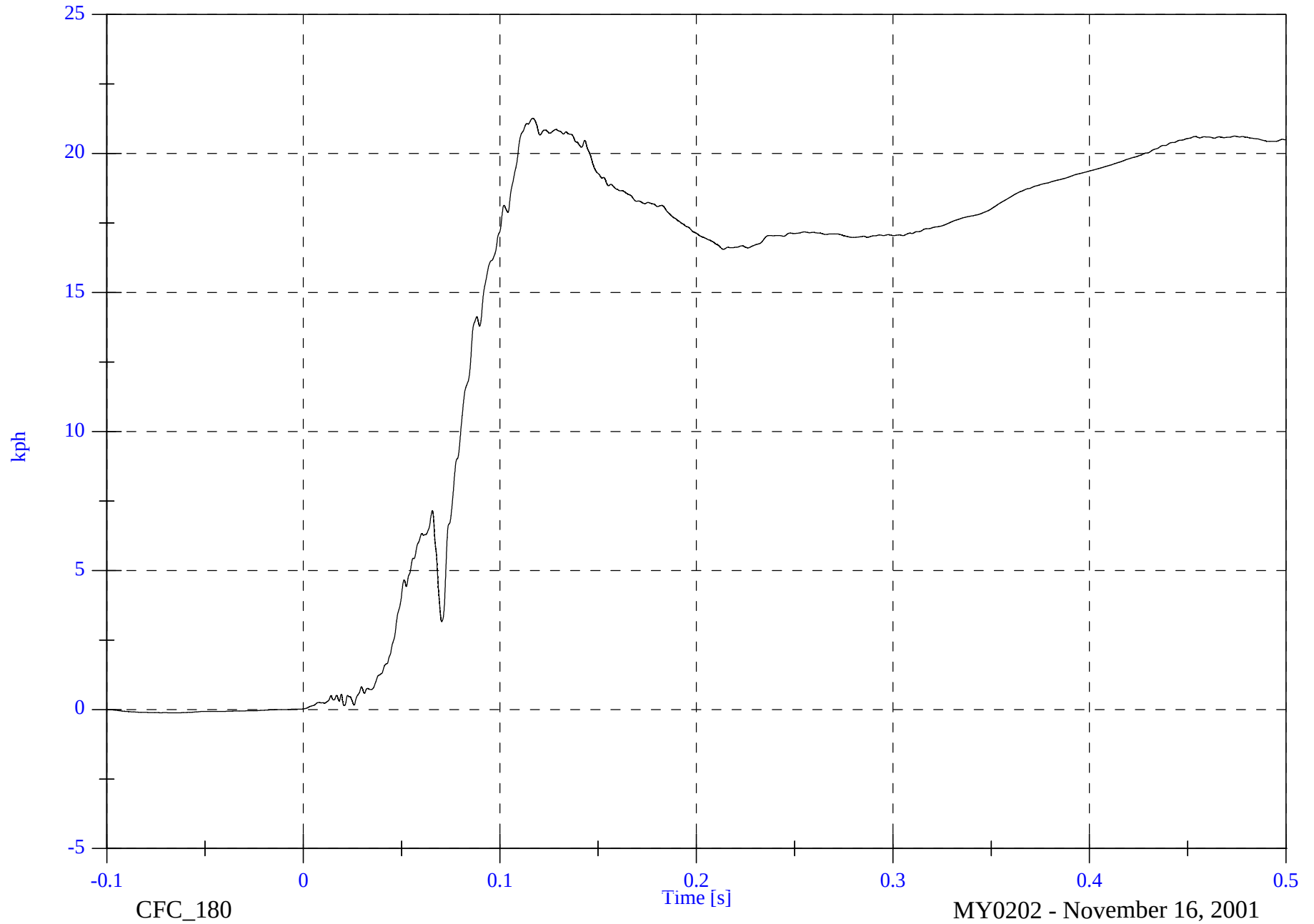


40% Frontal Offset Test #13 - 2000 Ford Explorer

Acc 8 P1 Toe pan Right Z Velocity

Max: 21.3 [kph] at 0.117 [s]

Min: -0.1 [kph] at -0.066 [s]



B-210

8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

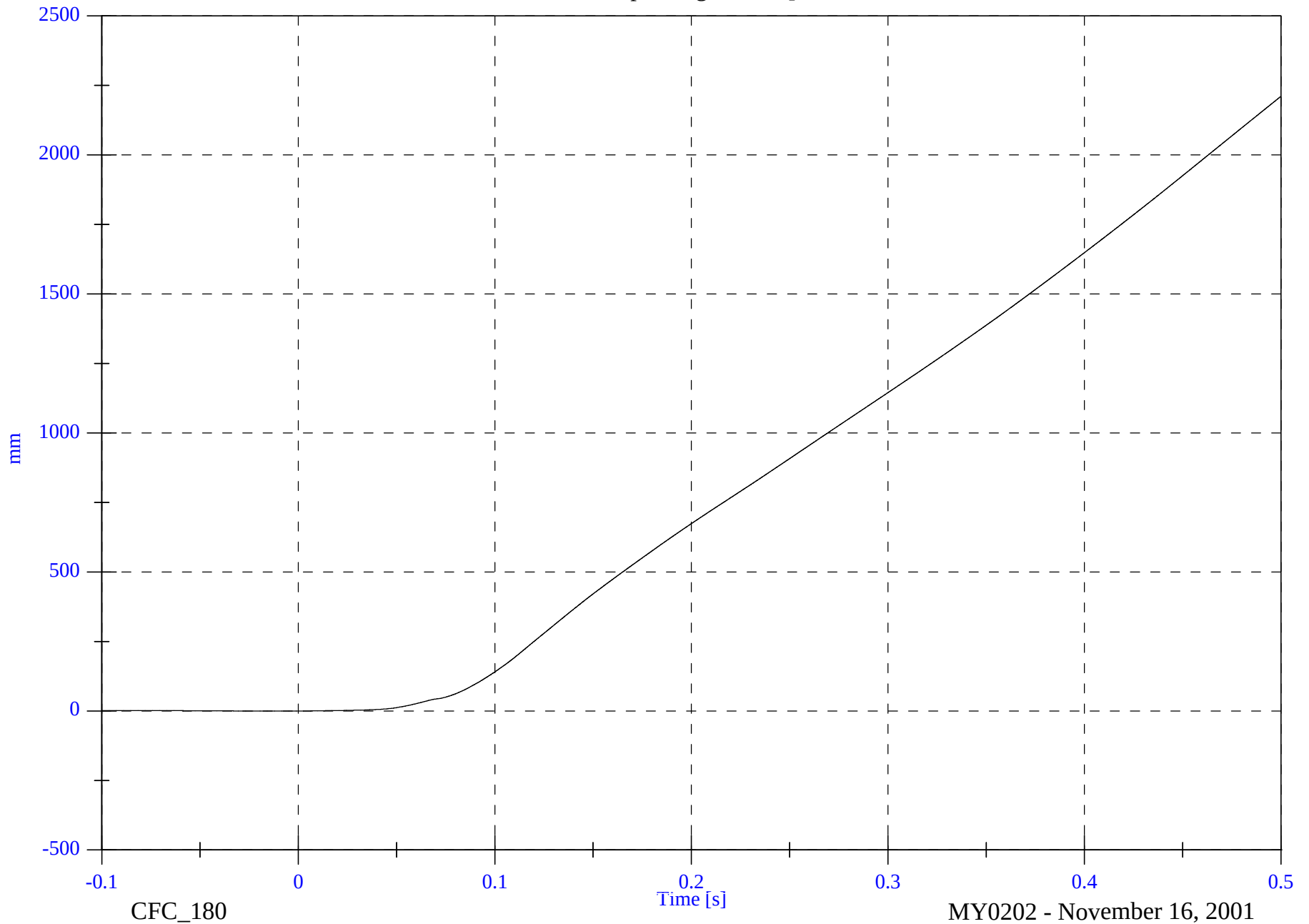
Acc 8 P1 Toepan Right Z Displacement

Max: 2210.7 [mm] at 0.500 [s]

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

B-211

8413-69

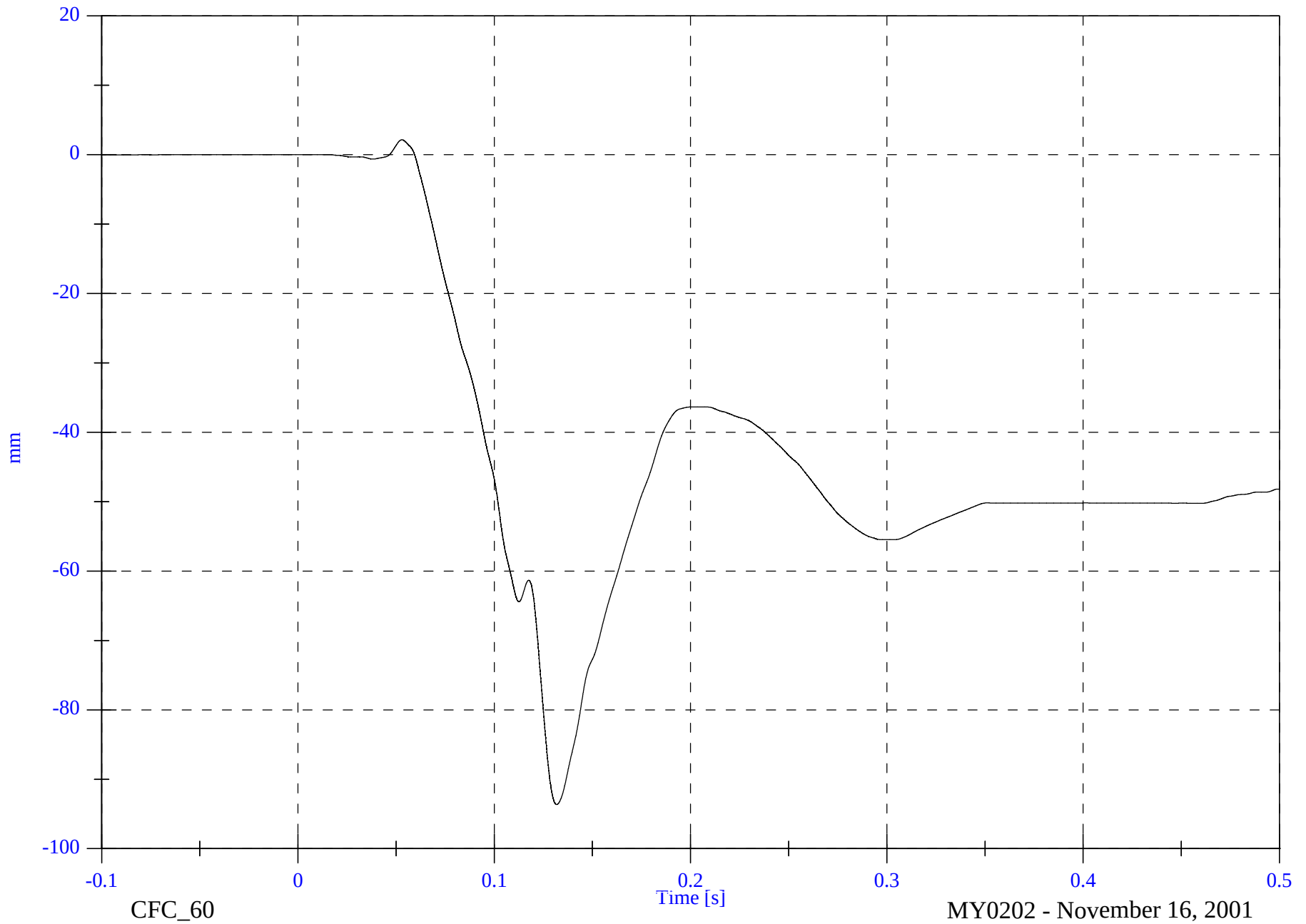


40% Frontal Offset Test #13 - 2000 Ford Explorer

Toe Pan Movement

Max: 2.2 [mm] at 0.053 [s]

Min: -93.6 [mm] at 0.132 [s]



B-212

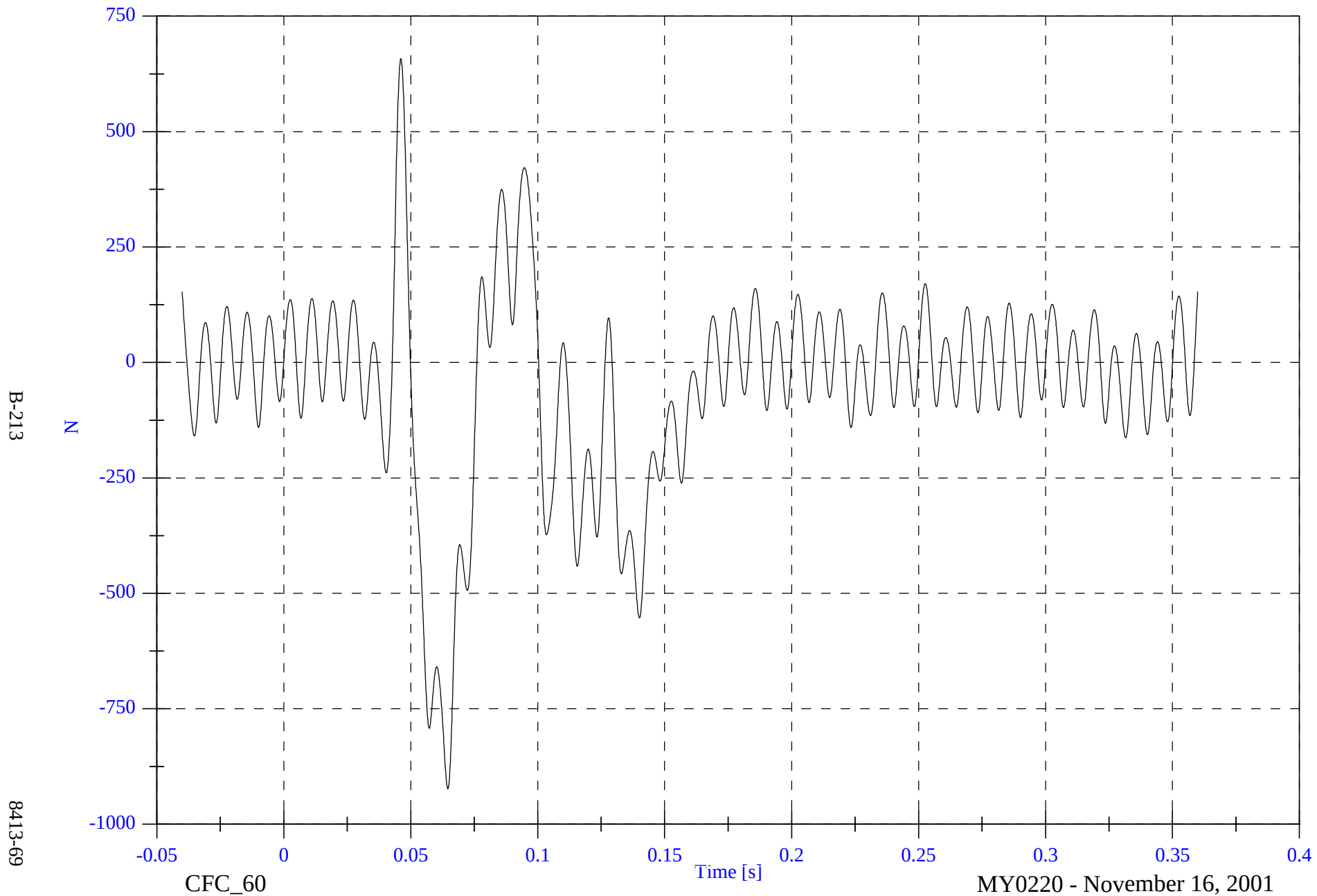
8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

Barrier Load Cell E2 FY

Max: 658.3 [N] at 0.046 [s]

Min: -923.5 [N] at 0.065 [s]

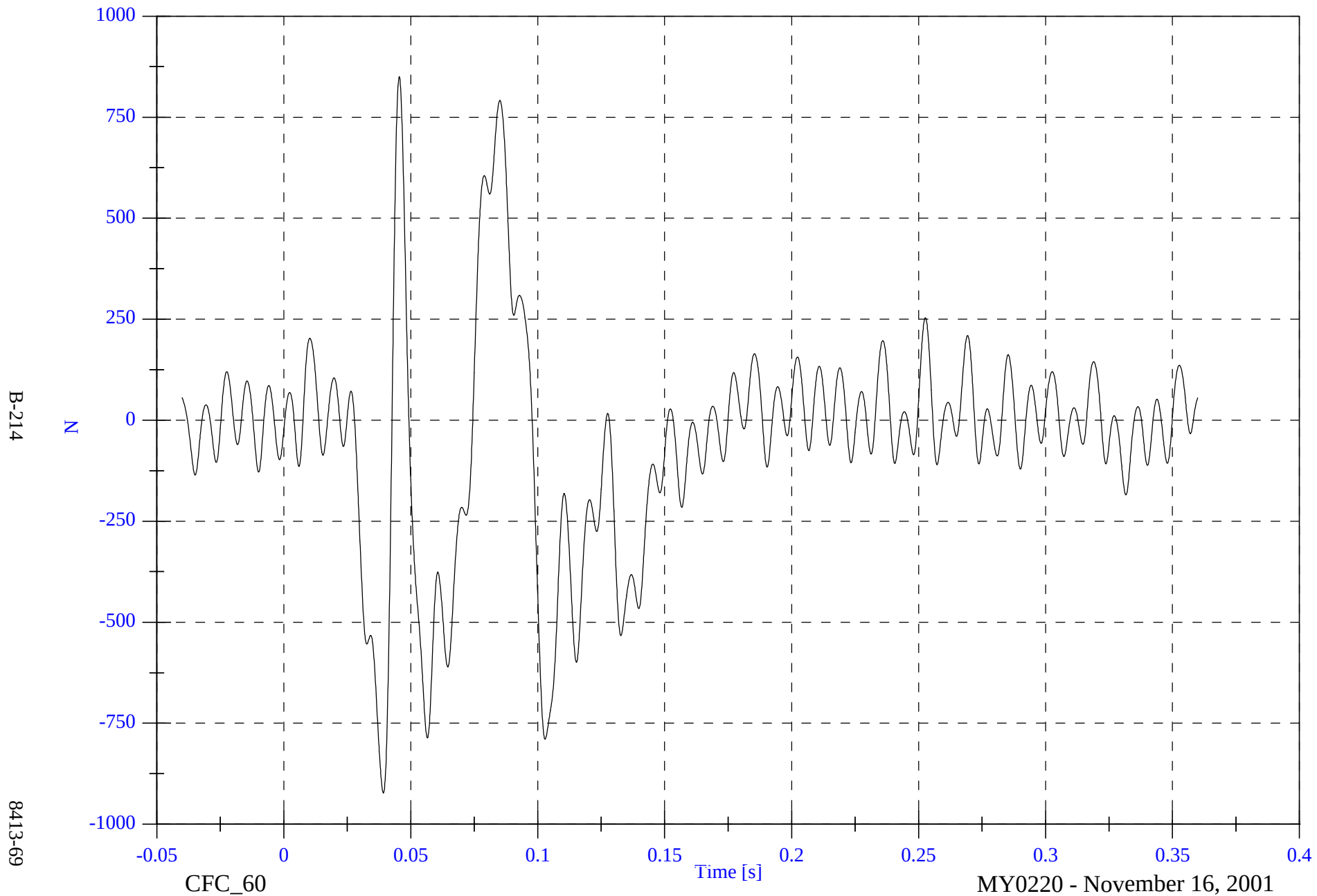


40% Frontal Offset Test #13 - 2000 Ford Explorer

Barrier Load Cell E3 FY

Max: 850.3 [N] at 0.045 [s]

Min: -923.0 [N] at 0.039 [s]

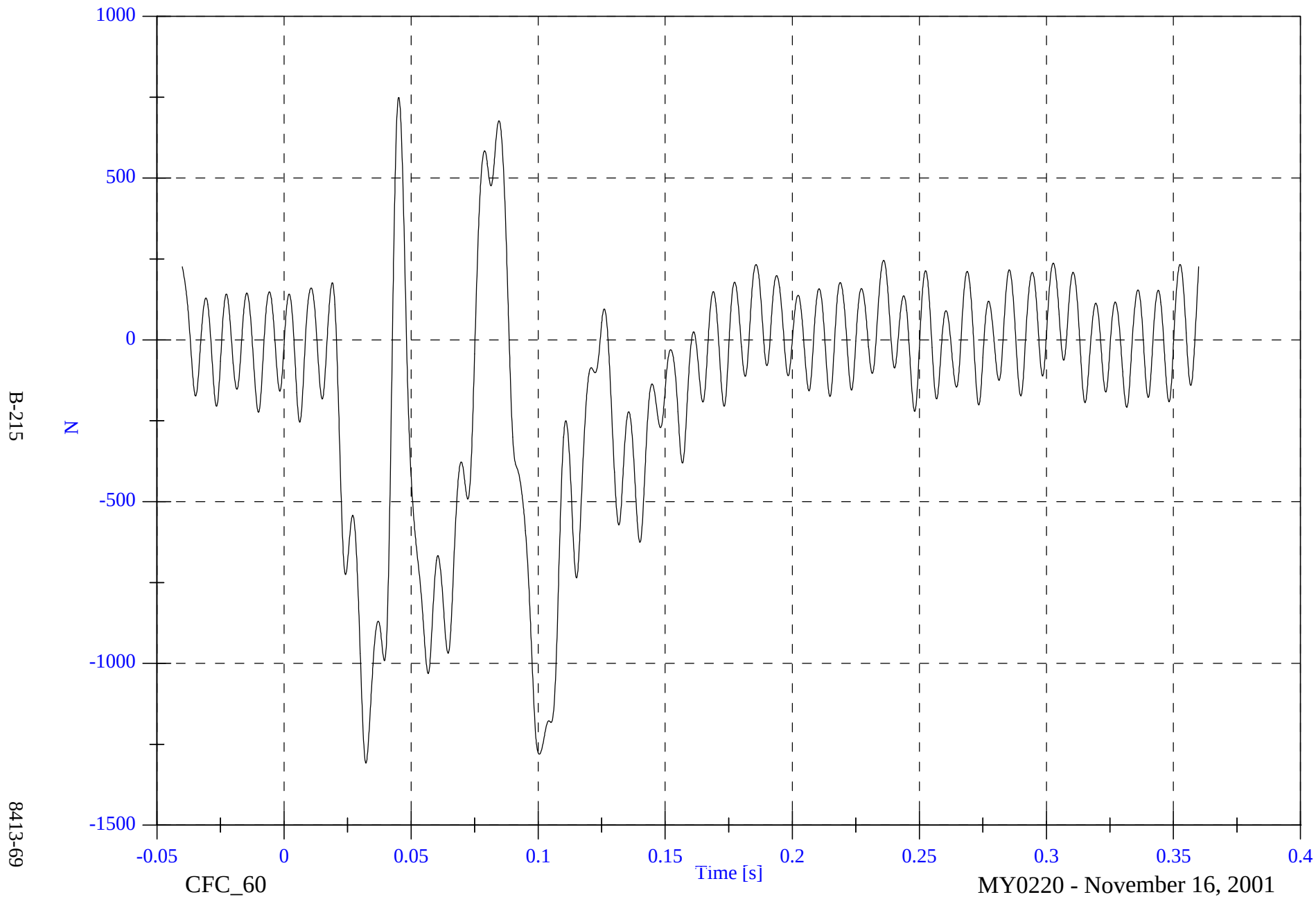


40% Frontal Offset Test #13 - 2000 Ford Explorer

Barrier Load Cell E4 FY

Max: 749.0 [N] at 0.045 [s]

Min: -1308.3 [N] at 0.032 [s]

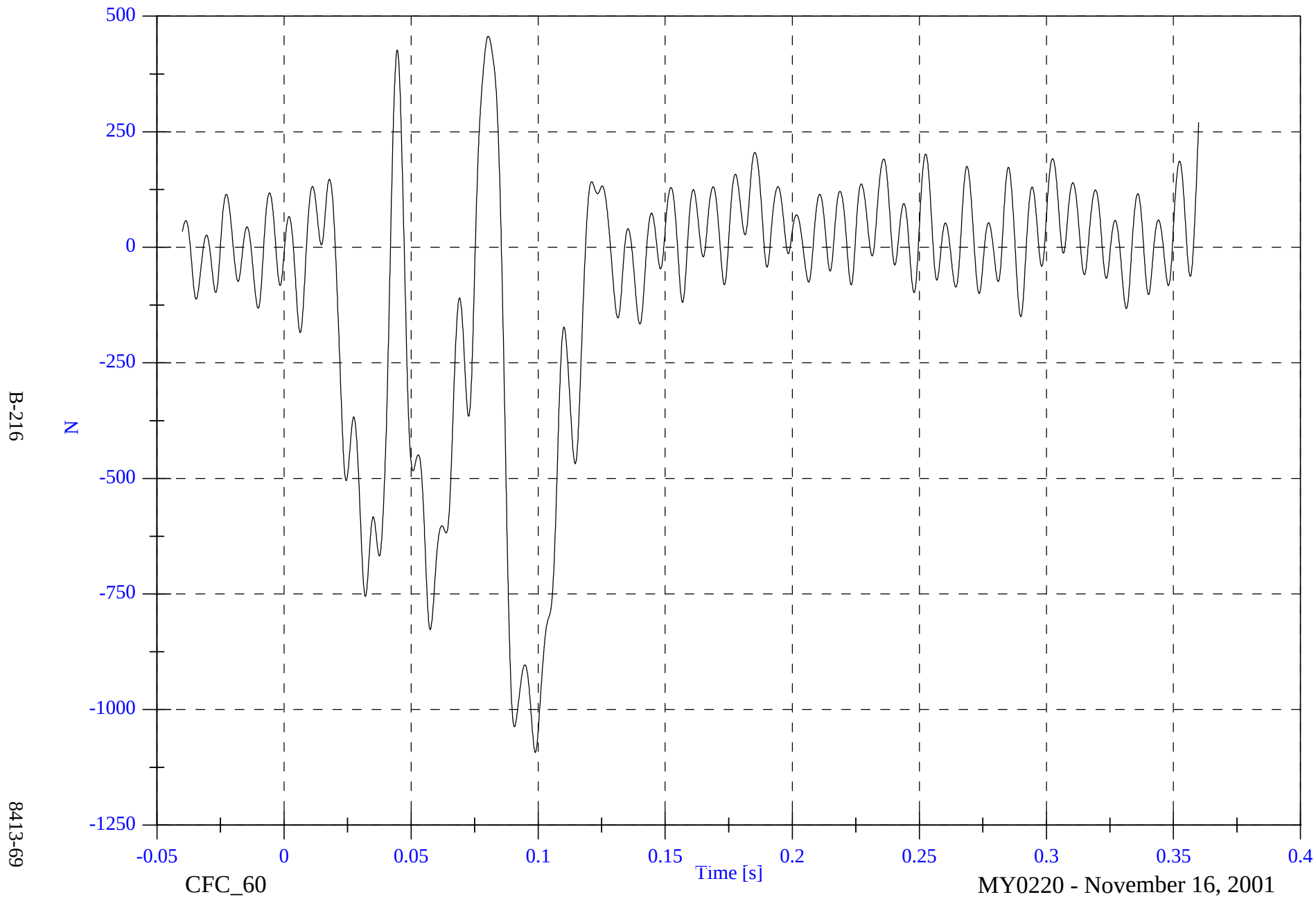


40% Frontal Offset Test #13 - 2000 Ford Explorer

Barrier Load Cell E5 FY

Max: 456.8 [N] at 0.080 [s]

Min: -1093.0 [N] at 0.099 [s]

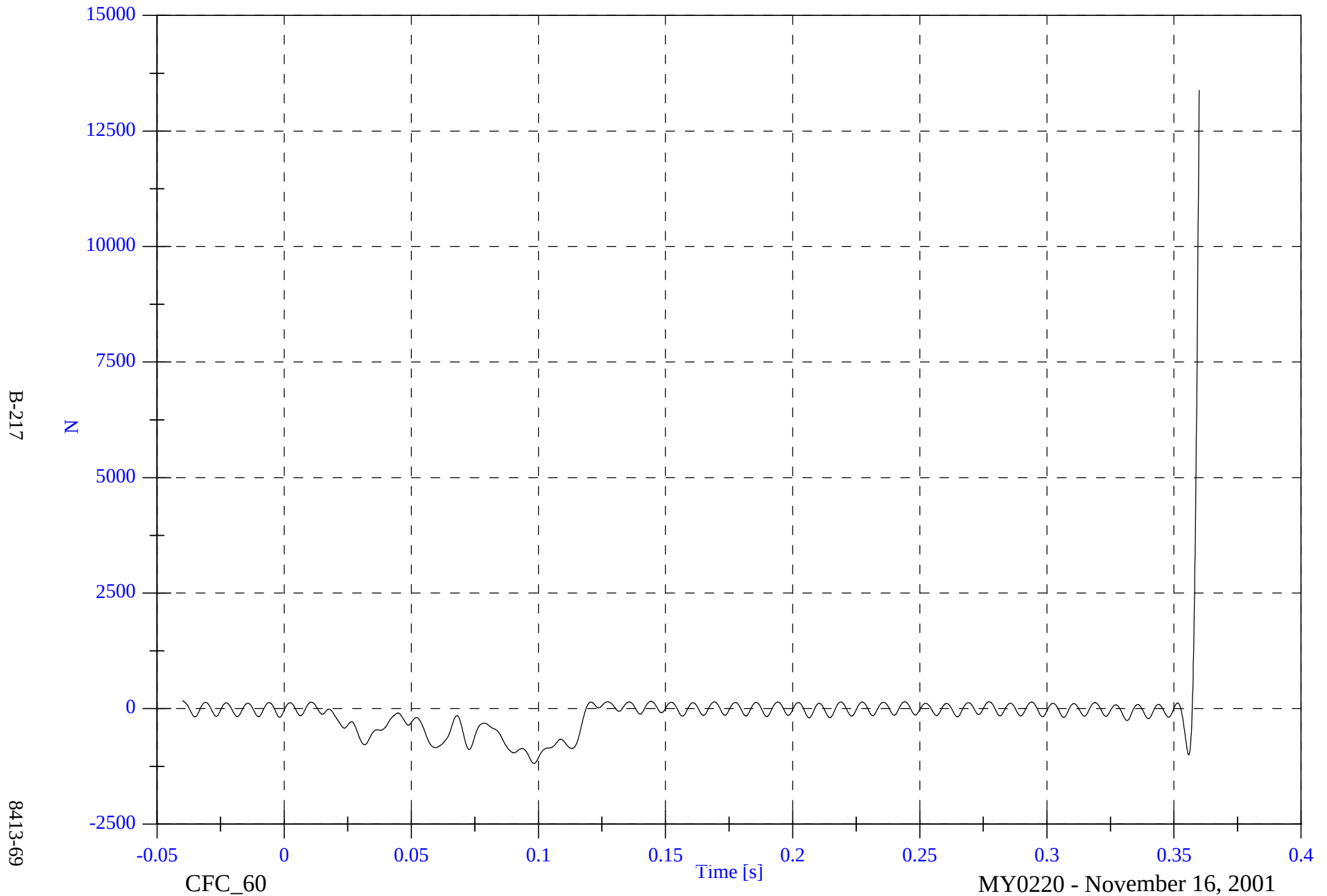


40% Frontal Offset Test #13 - 2000 Ford Explorer

Barrier Load Cell E6 FY

Max: 13380.8 [N] at 0.360 [s]

Min: -1186.6 [N] at 0.098 [s]

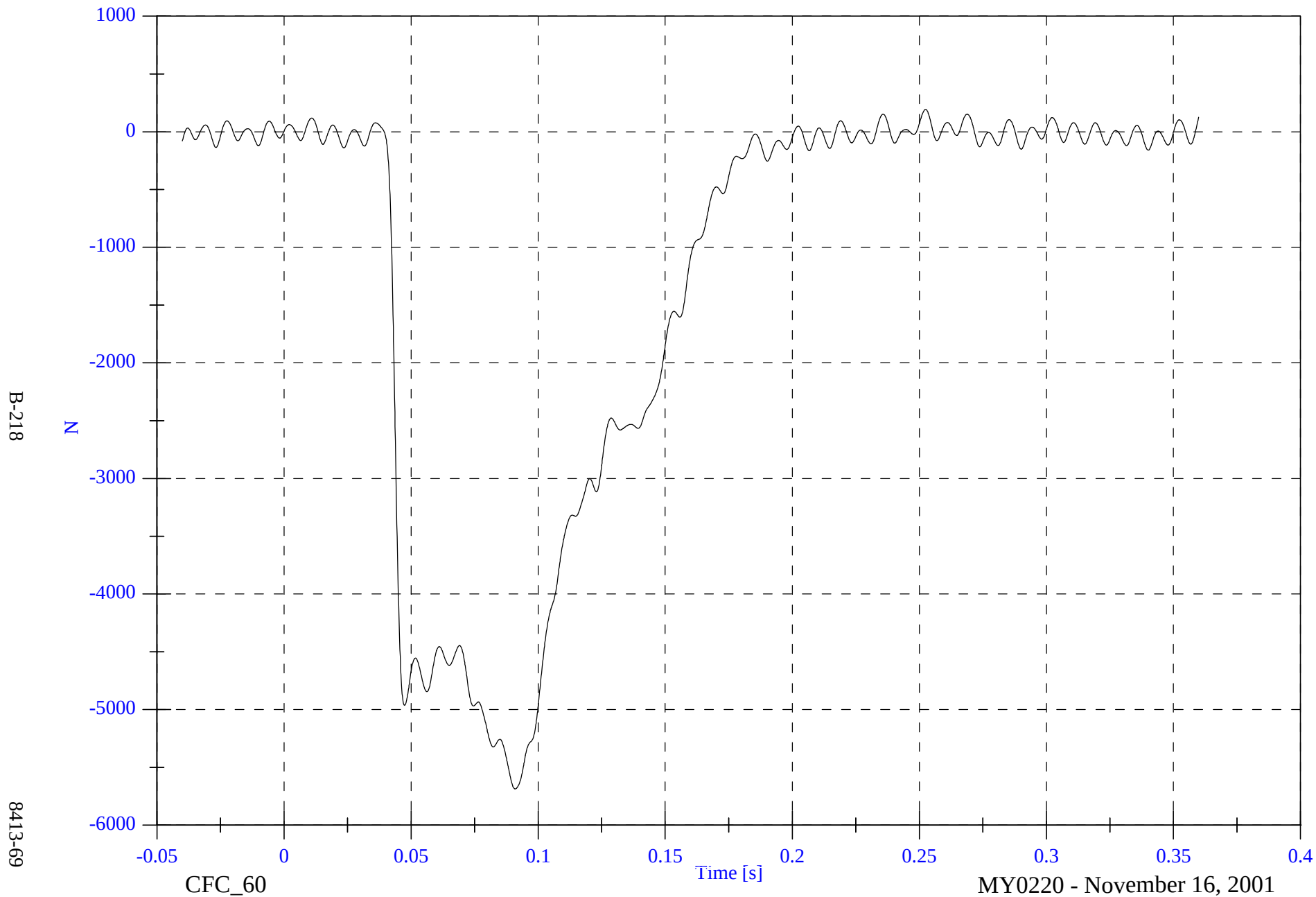


40% Frontal Offset Test #13 - 2000 Ford Explorer

Barrier Load Cell E1 FX

Max: 193.2 [N] at 0.252 [s]

Min: -5686.8 [N] at 0.091 [s]

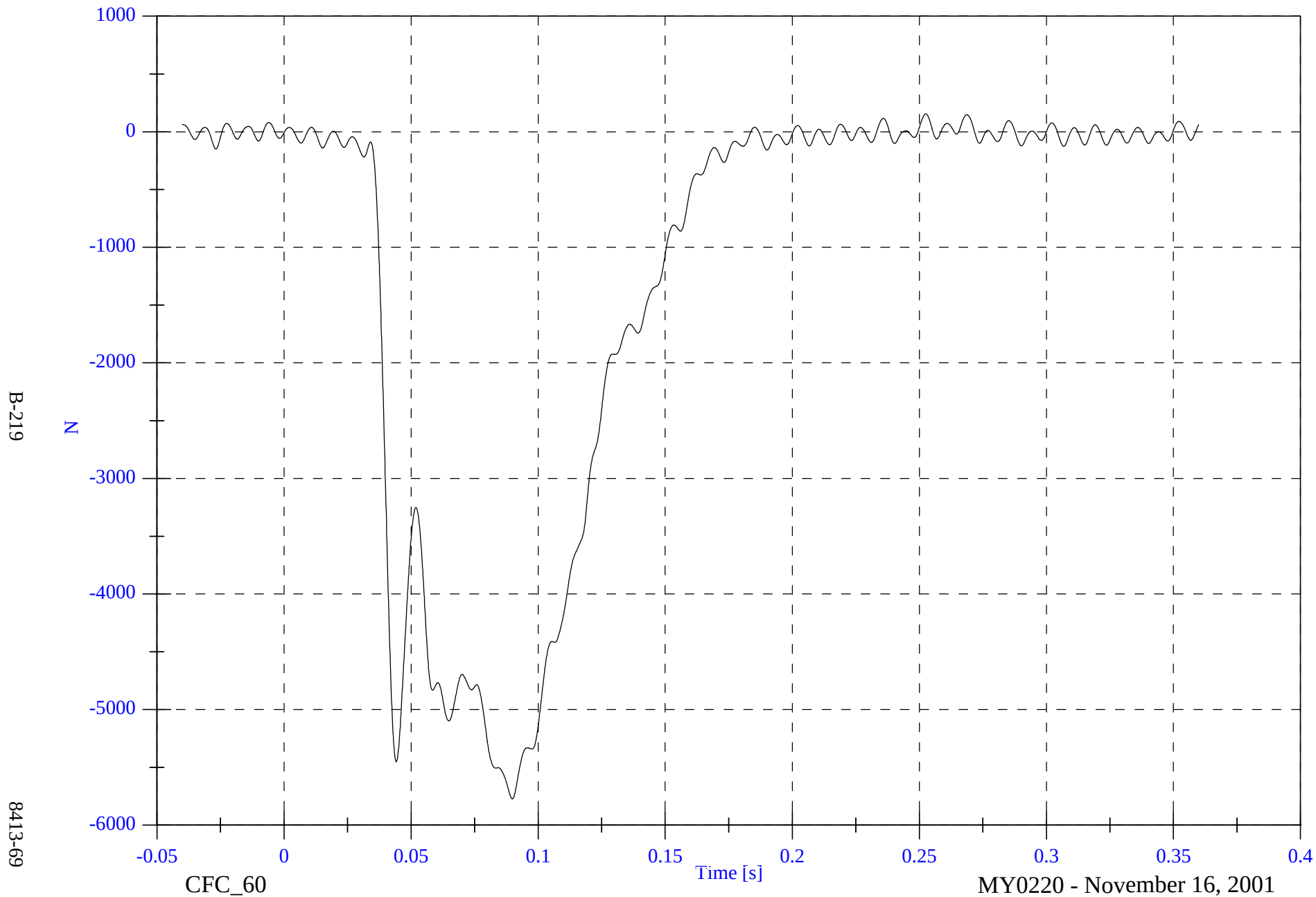


40% Frontal Offset Test #13 - 2000 Ford Explorer

Barrier Load Cell E2 FX

Max: 154.8 [N] at 0.252 [s]

Min: -5772.8 [N] at 0.090 [s]

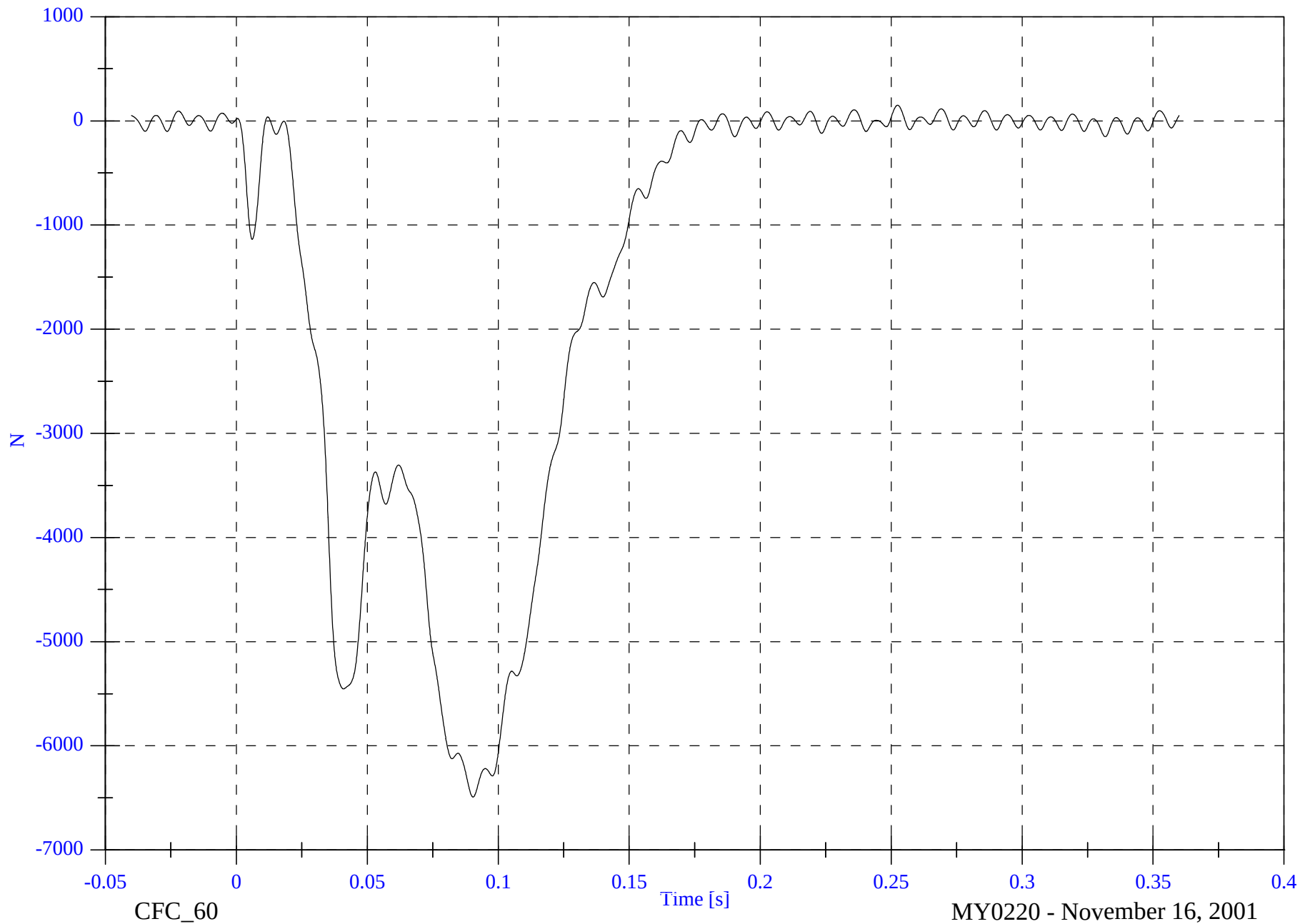


40% Frontal Offset Test #13 - 2000 Ford Explorer

Barrier Load Cell E3 FX

Max: 150.1 [N] at 0.252 [s]

Min: -6491.7 [N] at 0.090 [s]



B-220

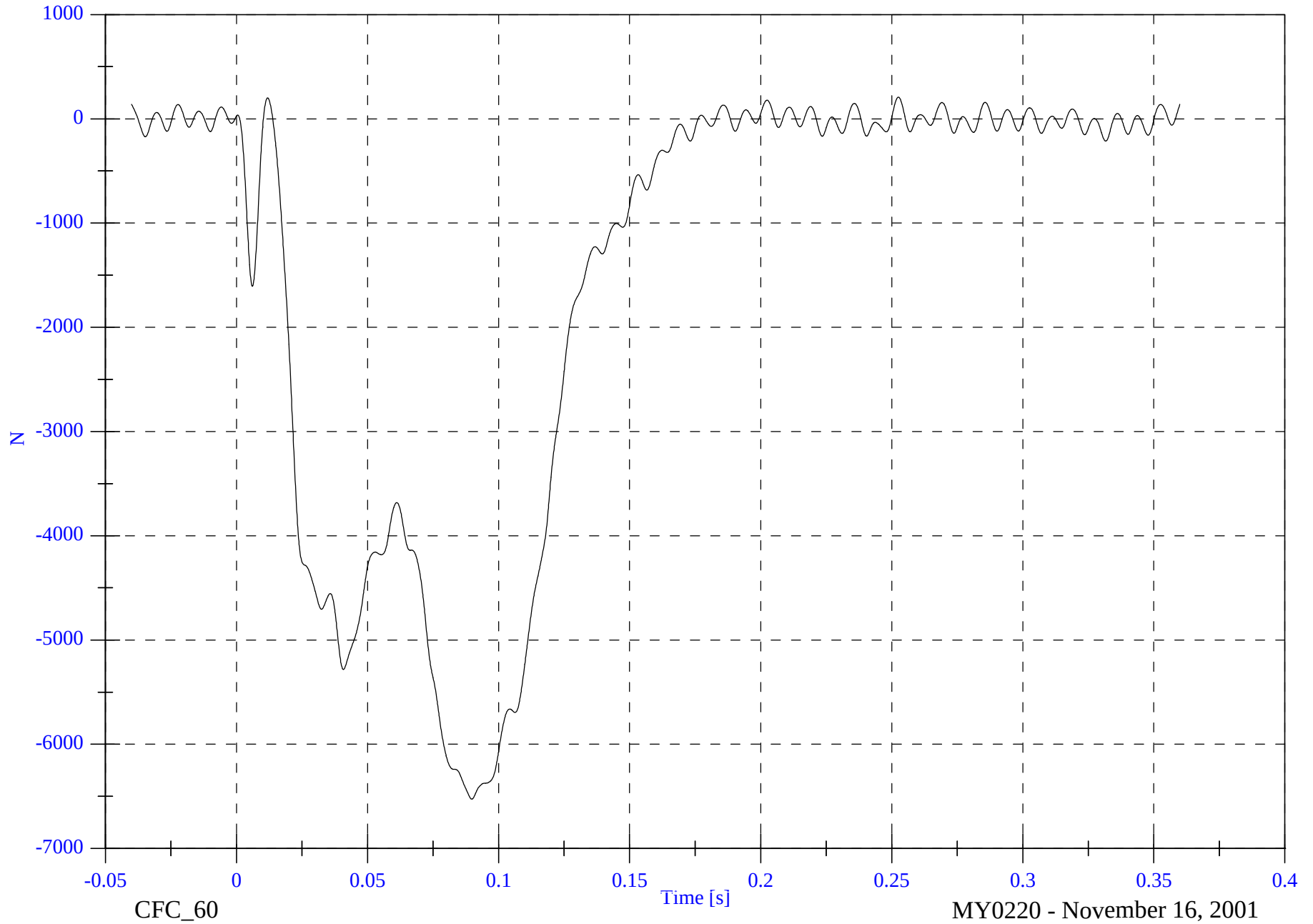
8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

Barrier Load Cell E4 FX

Max: 207.7 [N] at 0.252 [s]

Min: -6526.9 [N] at 0.090 [s]



B-221

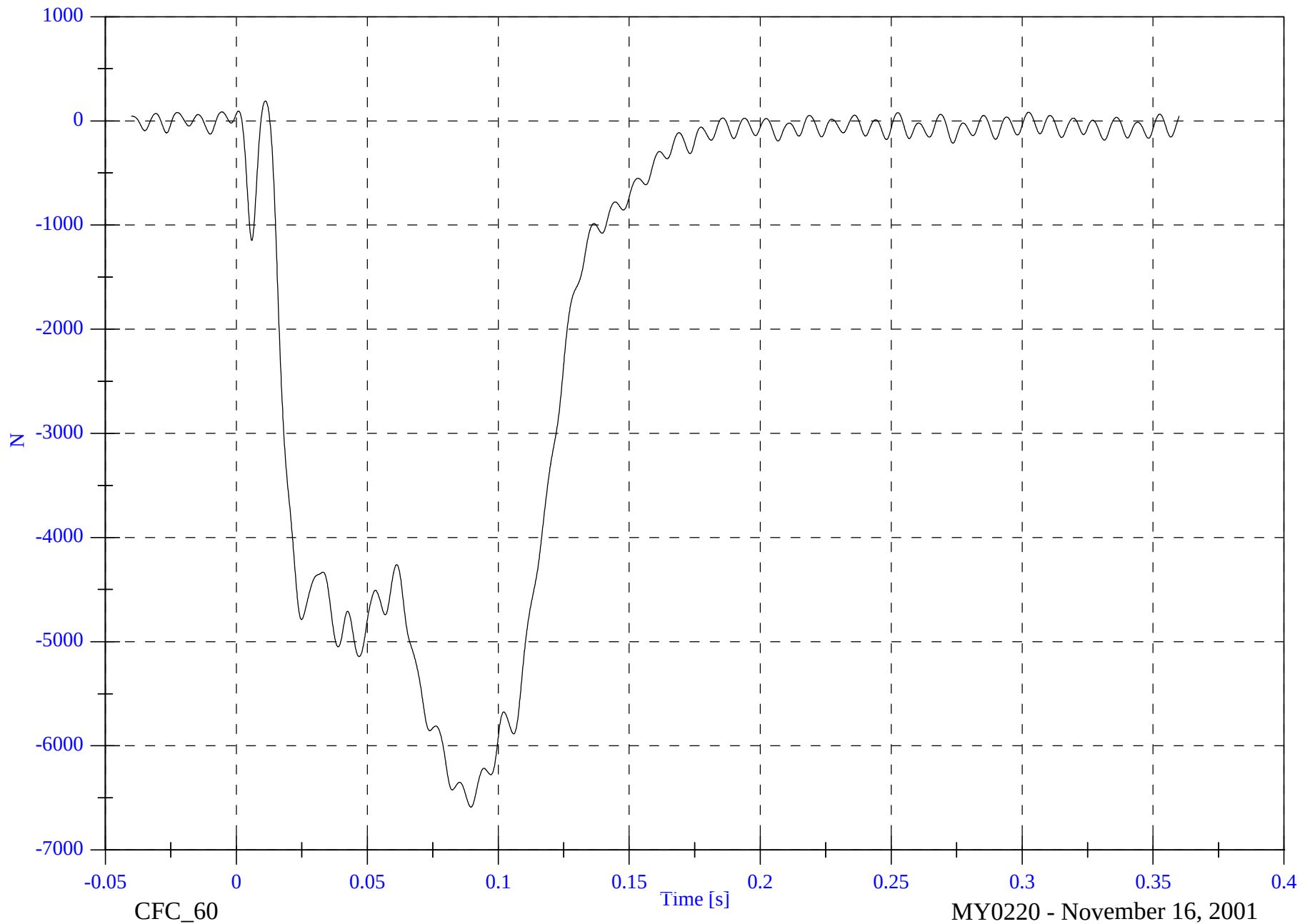
8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

Barrier Load Cell E5 FX

Max: 190.9 [N] at 0.011 [s]

Min: -6588.6 [N] at 0.090 [s]



B-222

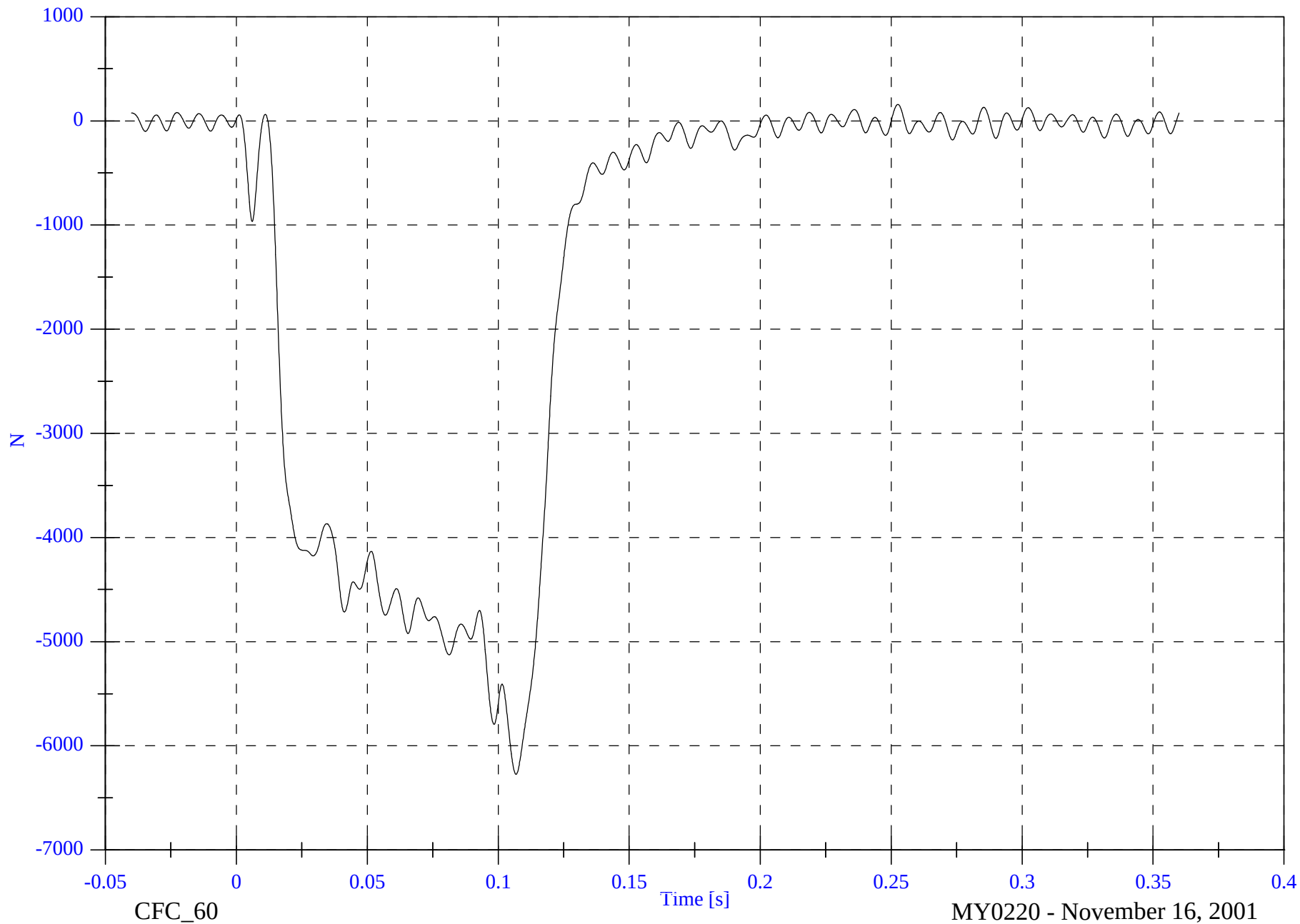
8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

Barrier Load Cell E6 FX

Max: 157.6 [N] at 0.253 [s]

Min: -6273.9 [N] at 0.107 [s]



B-223

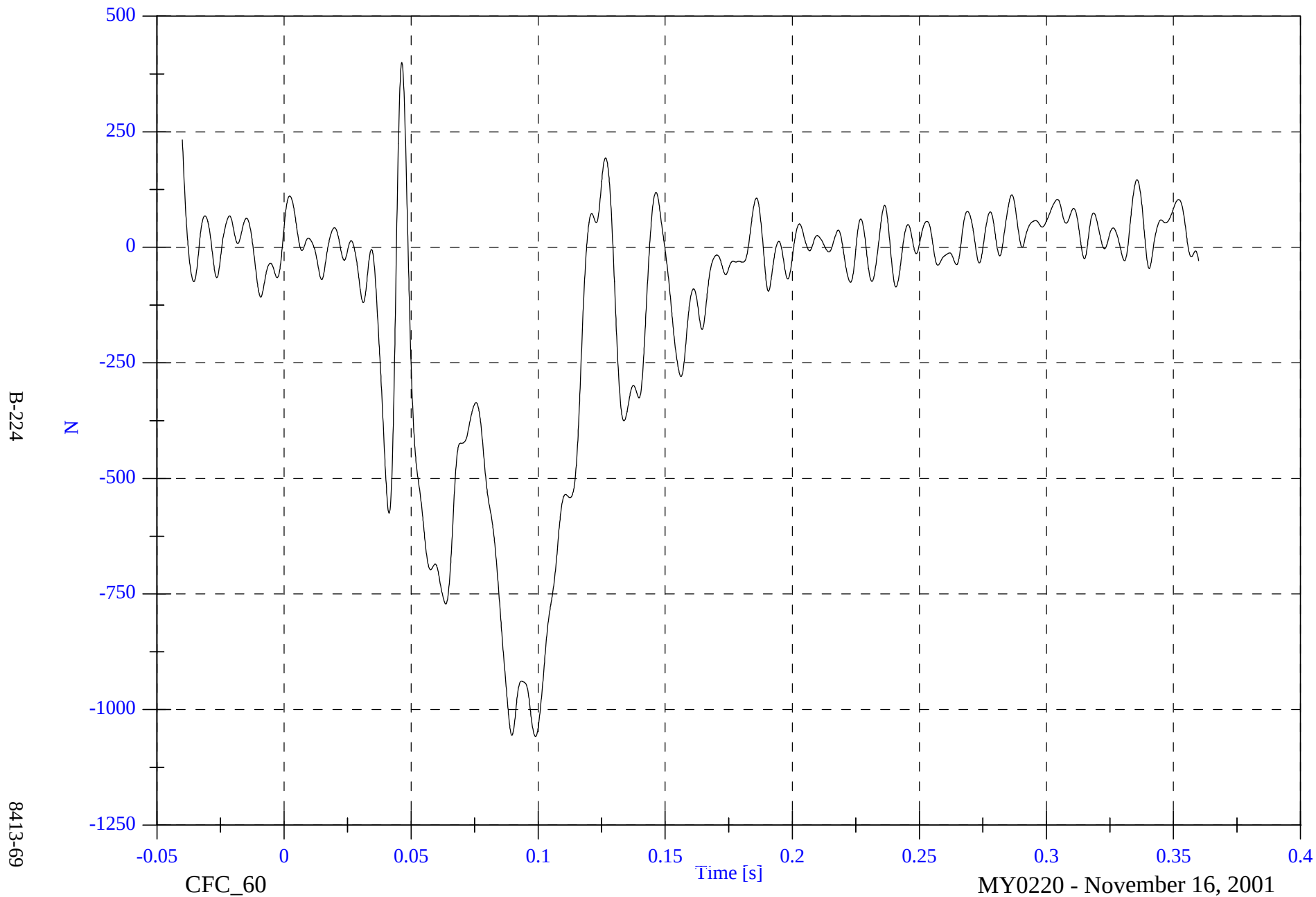
8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

Barrier Load Cell D2 FY

Max: 400.0 [N] at 0.046 [s]

Min: -1058.5 [N] at 0.099 [s]

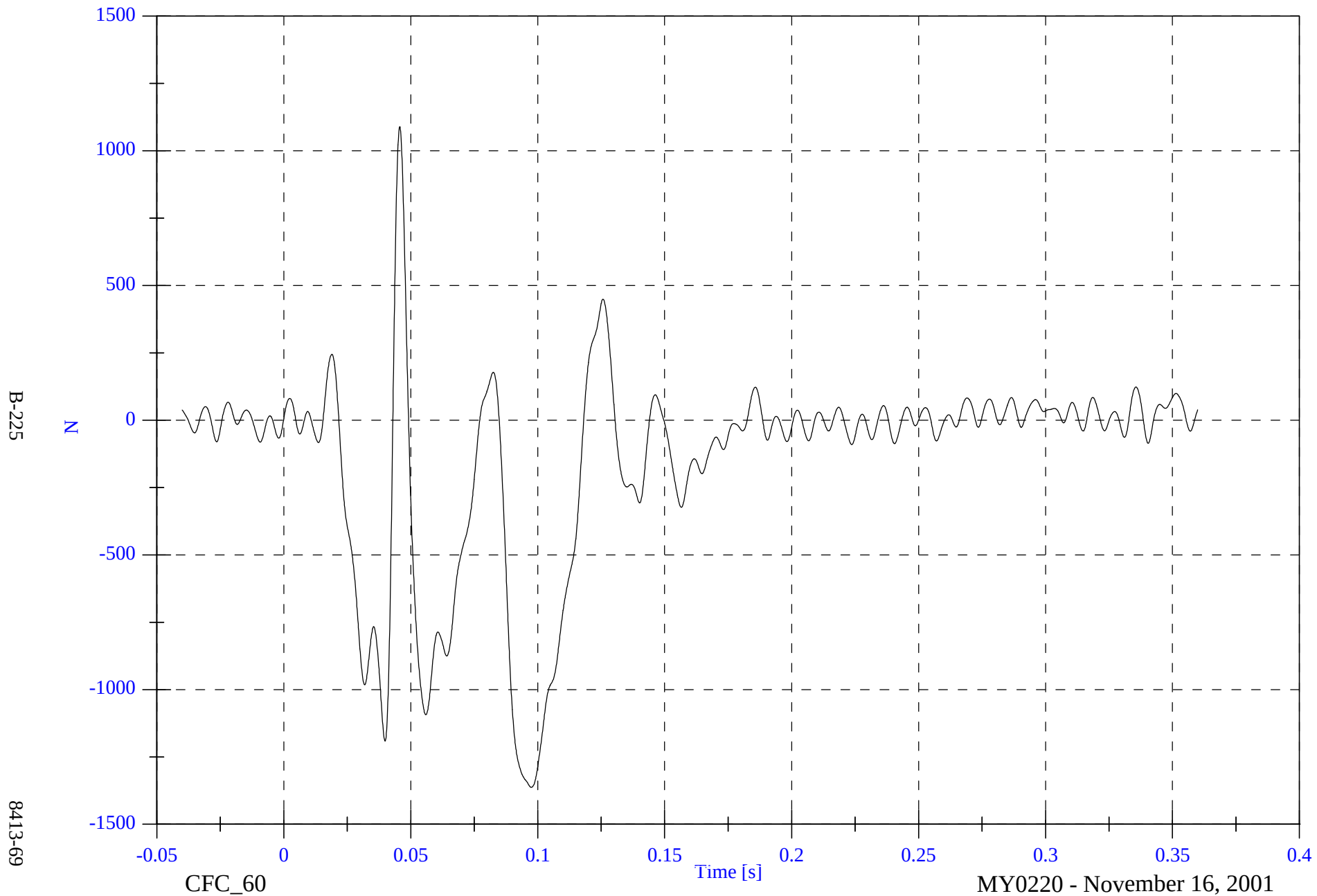


40% Frontal Offset Test #13 - 2000 Ford Explorer

Barrier Load Cell D3 FY

Max: 1089.9 [N] at 0.046 [s]

Min: -1363.2 [N] at 0.097 [s]

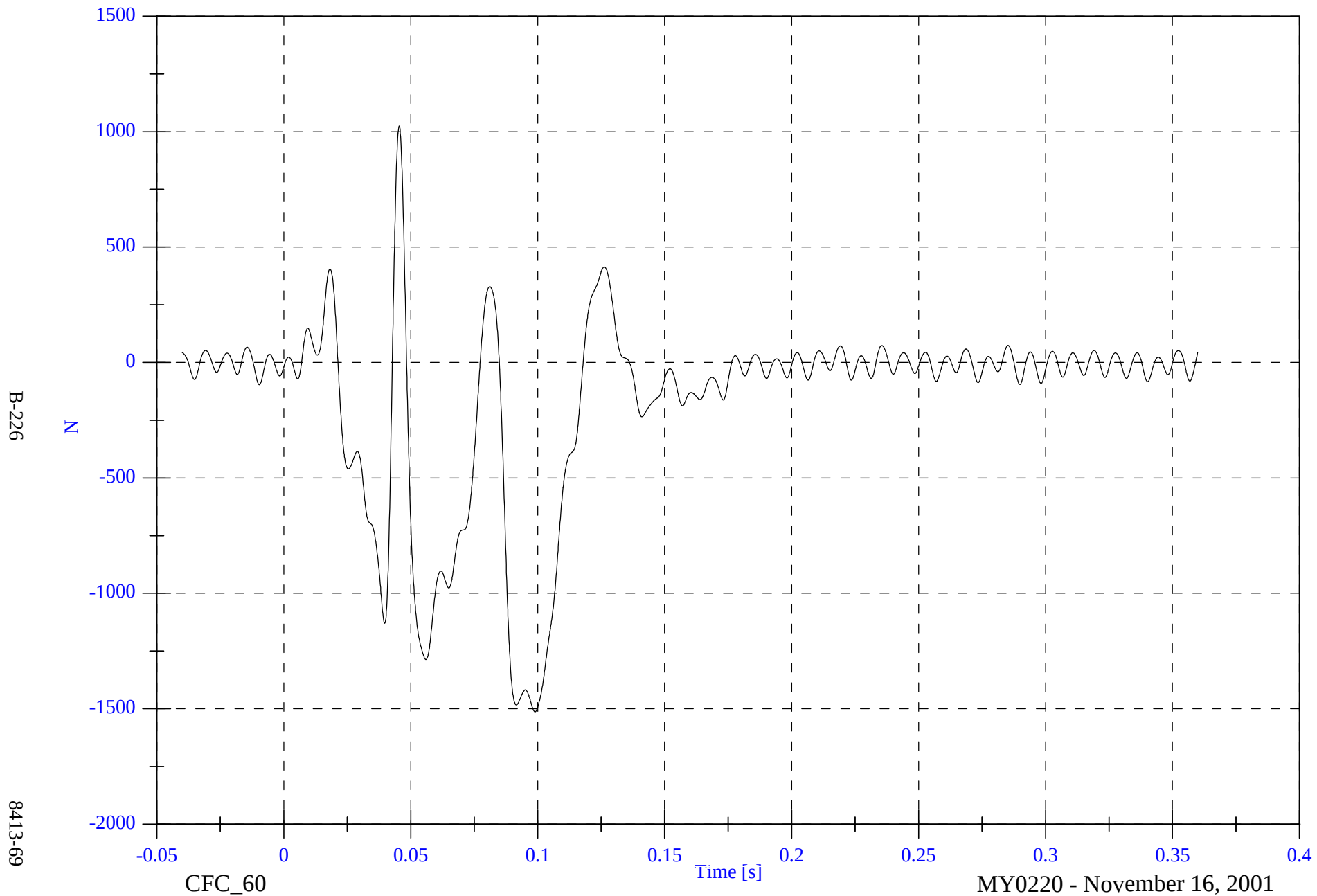


40% Frontal Offset Test #13 - 2000 Ford Explorer

Barrier Load Cell D4 FY

Max: 1024.2 [N] at 0.045 [s]

Min: -1513.6 [N] at 0.099 [s]

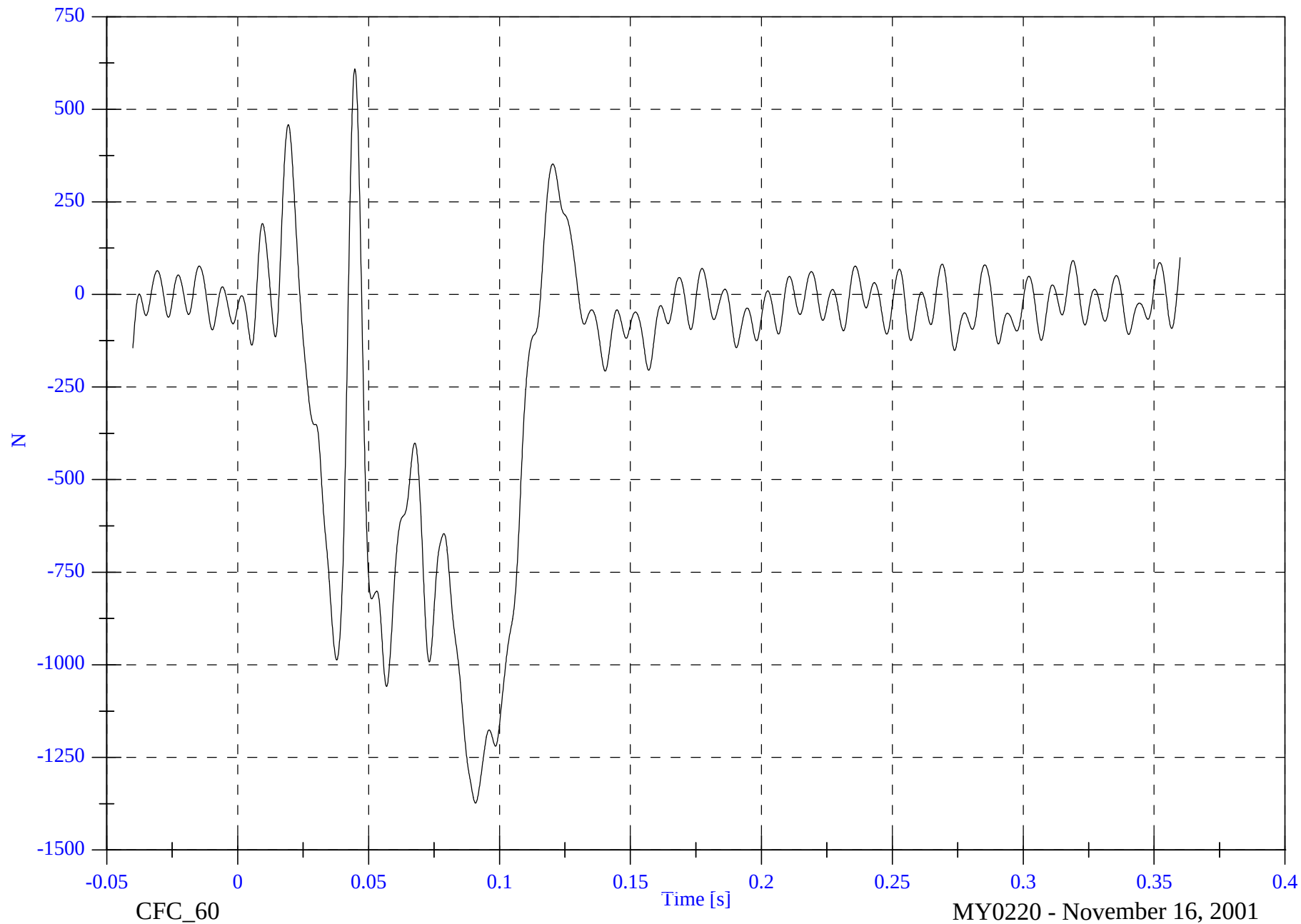


40% Frontal Offset Test #13 - 2000 Ford Explorer

Barrier Load Cell D5 FY

Max: 608.9 [N] at 0.045 [s]

Min: -1373.3 [N] at 0.091 [s]



B-227

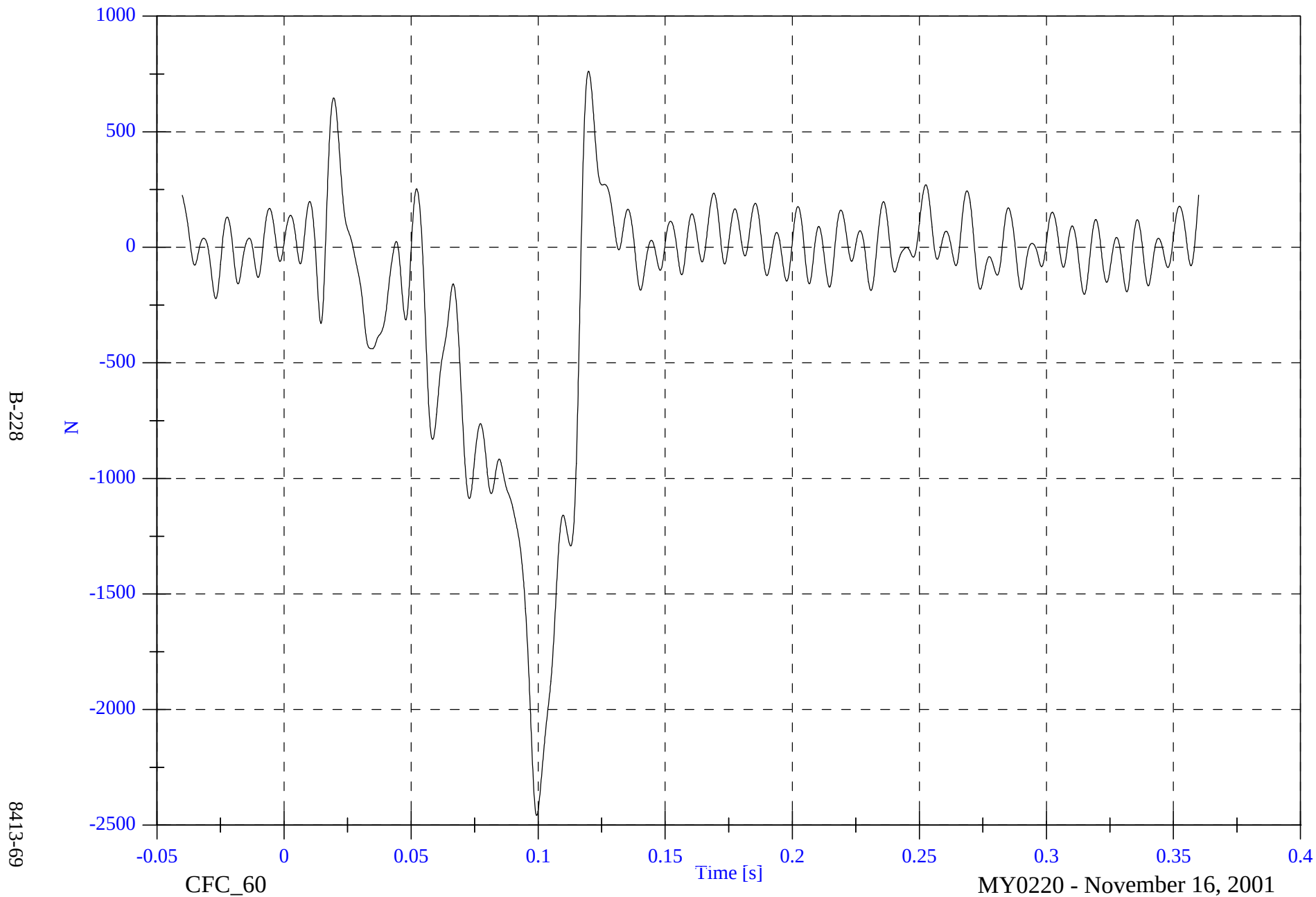
8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

Barrier Load Cell D6 FY

Max: 761.9 [N] at 0.120 [s]

Min: -2458.1 [N] at 0.099 [s]

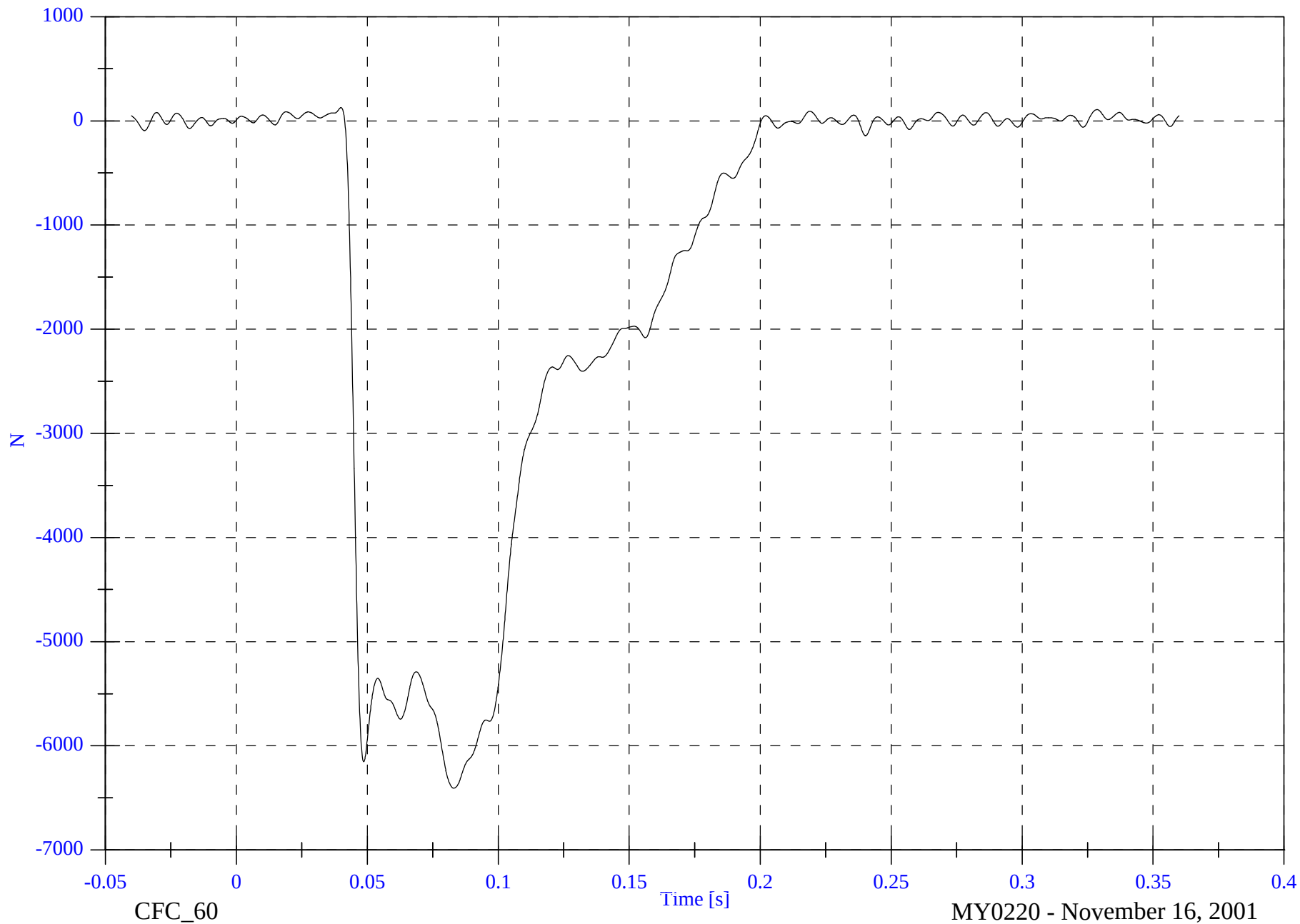


40% Frontal Offset Test #13 - 2000 Ford Explorer

Barrier Load Cell D1 FX

Max: 126.6 [N] at 0.040 [s]

Min: -6406.9 [N] at 0.083 [s]



B-229

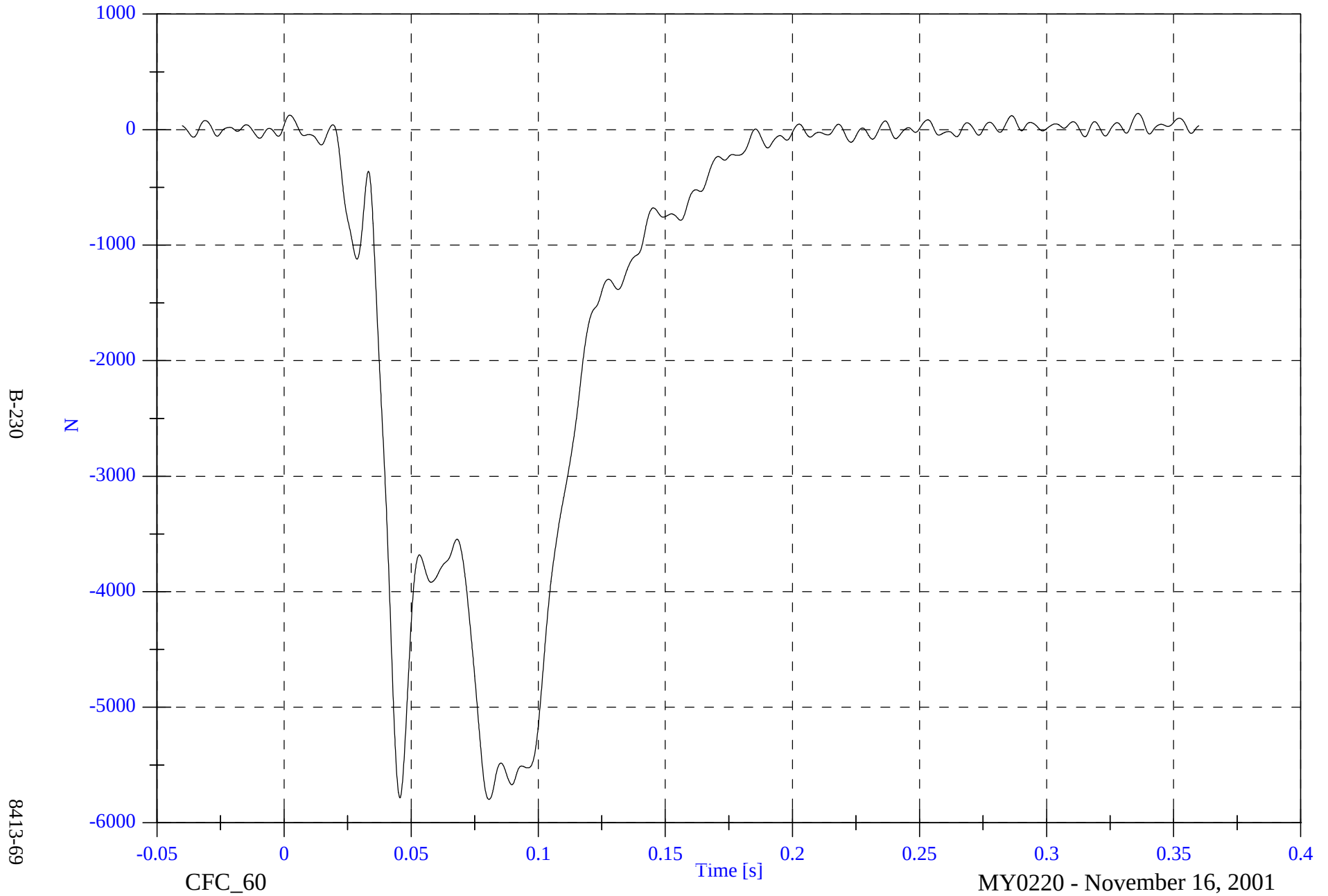
8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

Barrier Load Cell D2 FX

Max: 140.2 [N] at 0.336 [s]

Min: -5797.8 [N] at 0.081 [s]

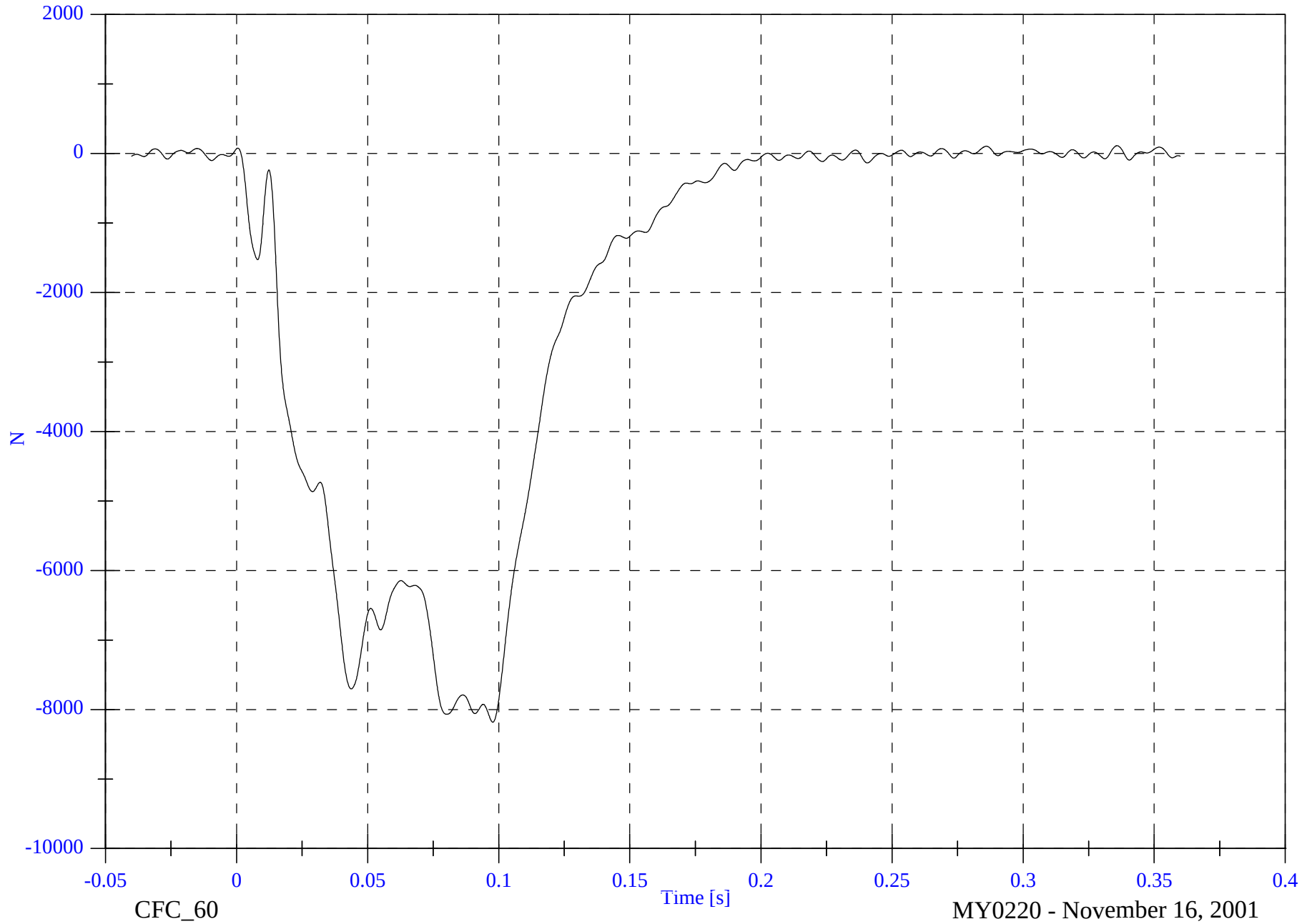


40% Frontal Offset Test #13 - 2000 Ford Explorer

Barrier Load Cell D3 FX

Max: 112.6 [N] at 0.336 [s]

Min: -8182.4 [N] at 0.098 [s]



B-231

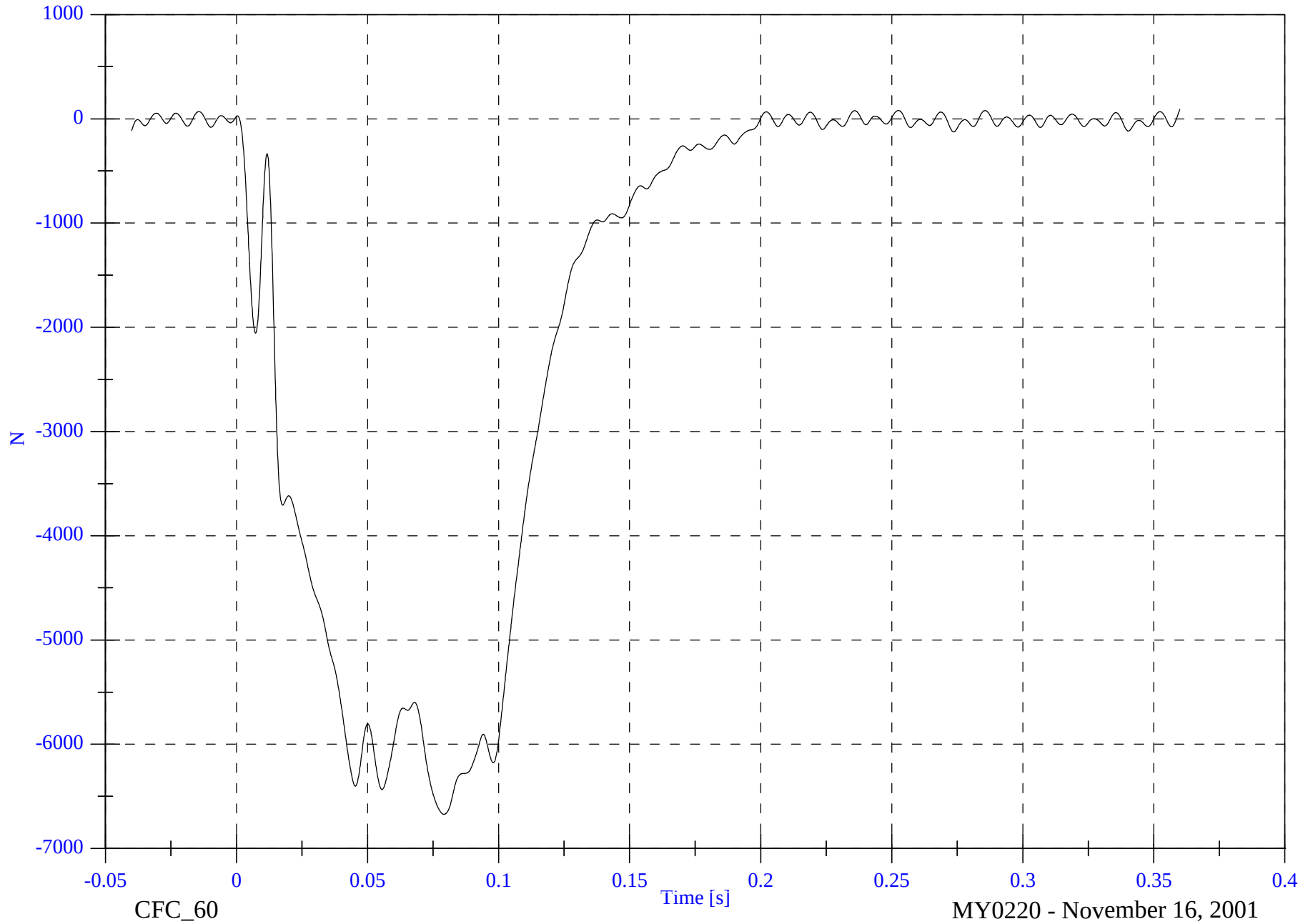
8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

Barrier Load Cell D4 FX

Max: 91.2 [N] at 0.360 [s]

Min: -6673.1 [N] at 0.079 [s]



B-232

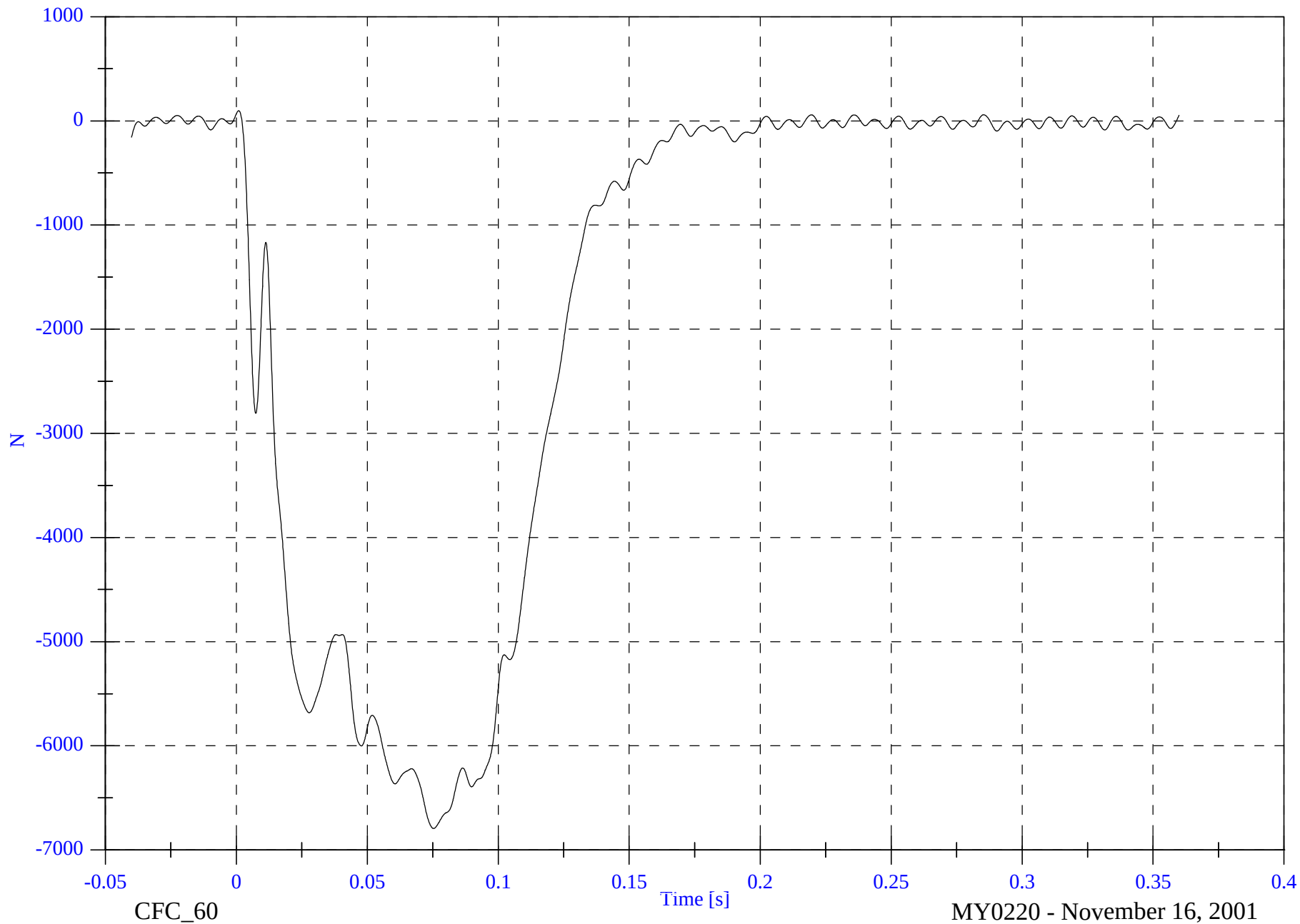
8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

Barrier Load Cell D5 FX

Max: 97.8 [N] at 0.001 [s]

Min: -6794.2 [N] at 0.075 [s]



B-233

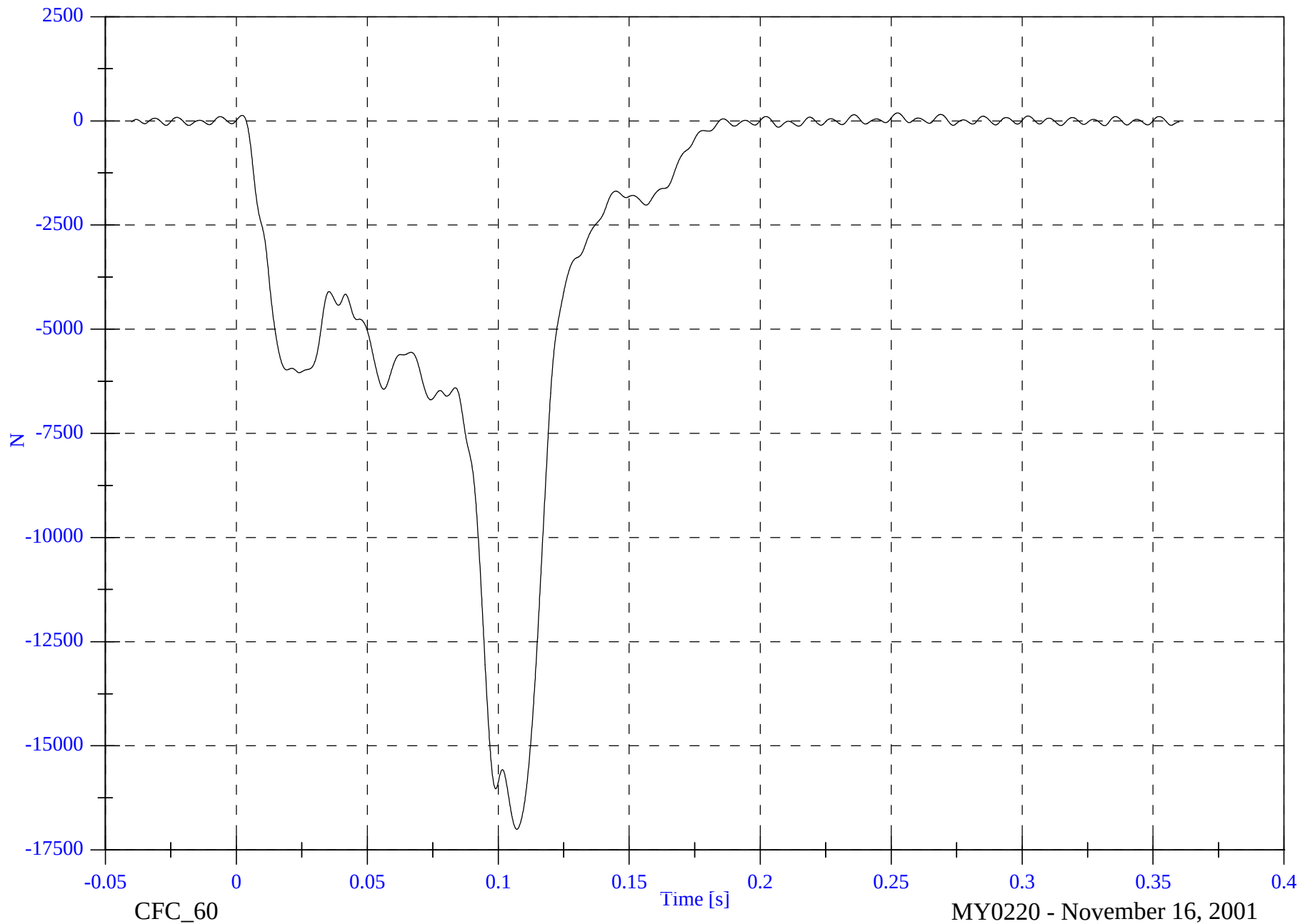
8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

Barrier Load Cell D6 FX

Max: 188.6 [N] at 0.252 [s]

Min: -17004.3 [N] at 0.107 [s]



B-234

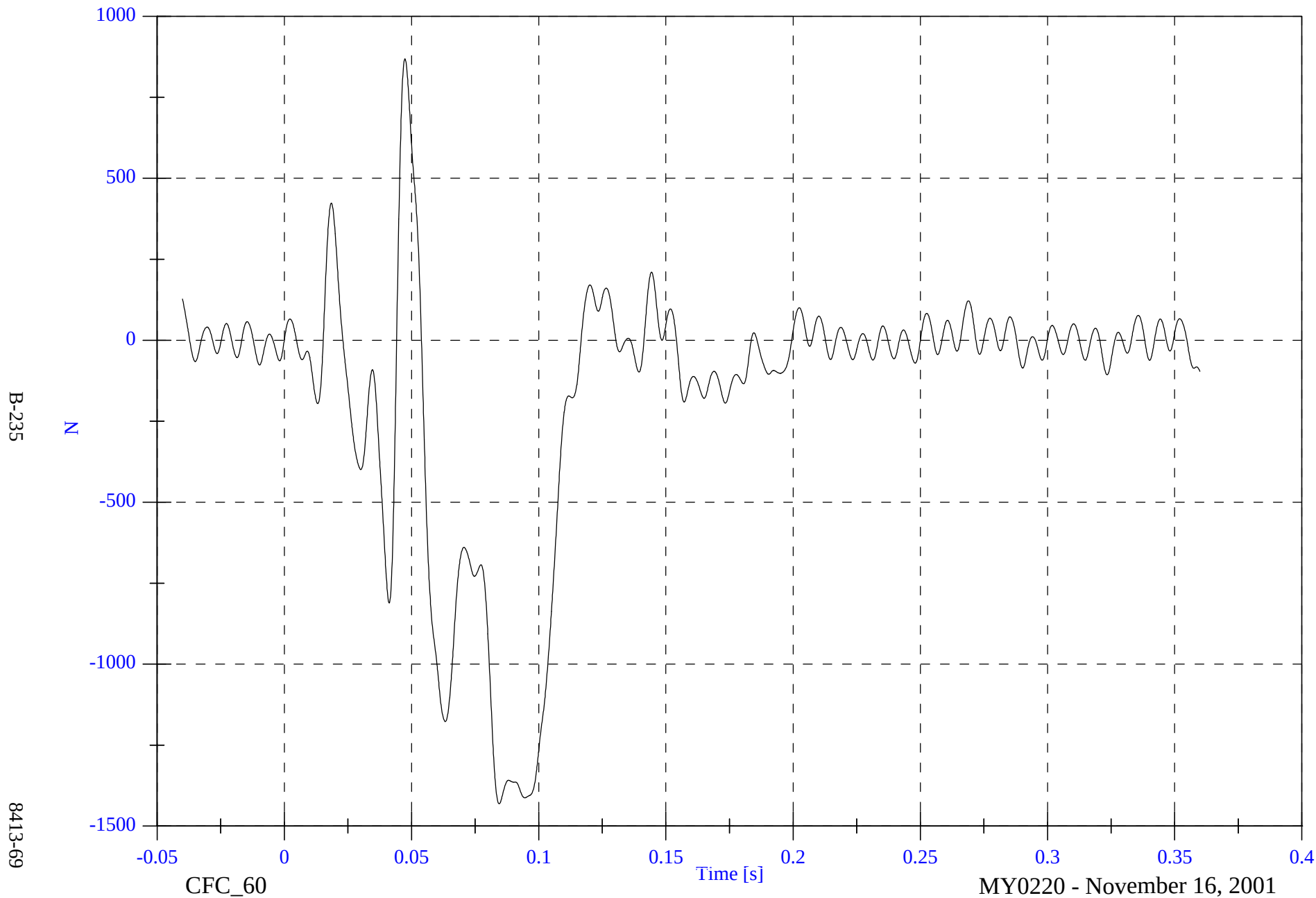
8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

Barrier Load Cell C2 FY

Max: 868.3 [N] at 0.047 [s]

Min: -1431.2 [N] at 0.084 [s]

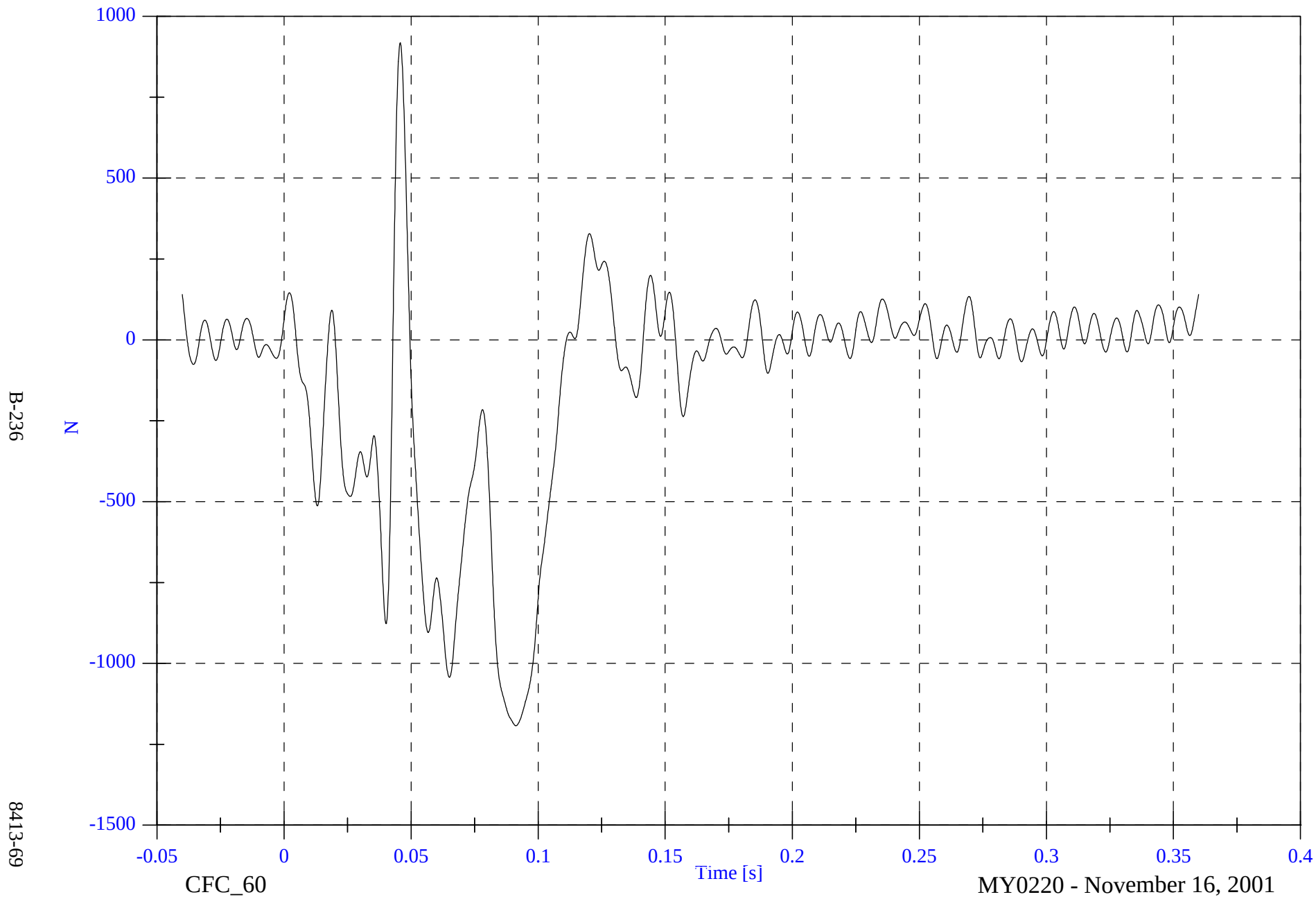


40% Frontal Offset Test #13 - 2000 Ford Explorer

Barrier Load Cell C3 FY

Max: 917.7 [N] at 0.046 [s]

Min: -1192.7 [N] at 0.091 [s]

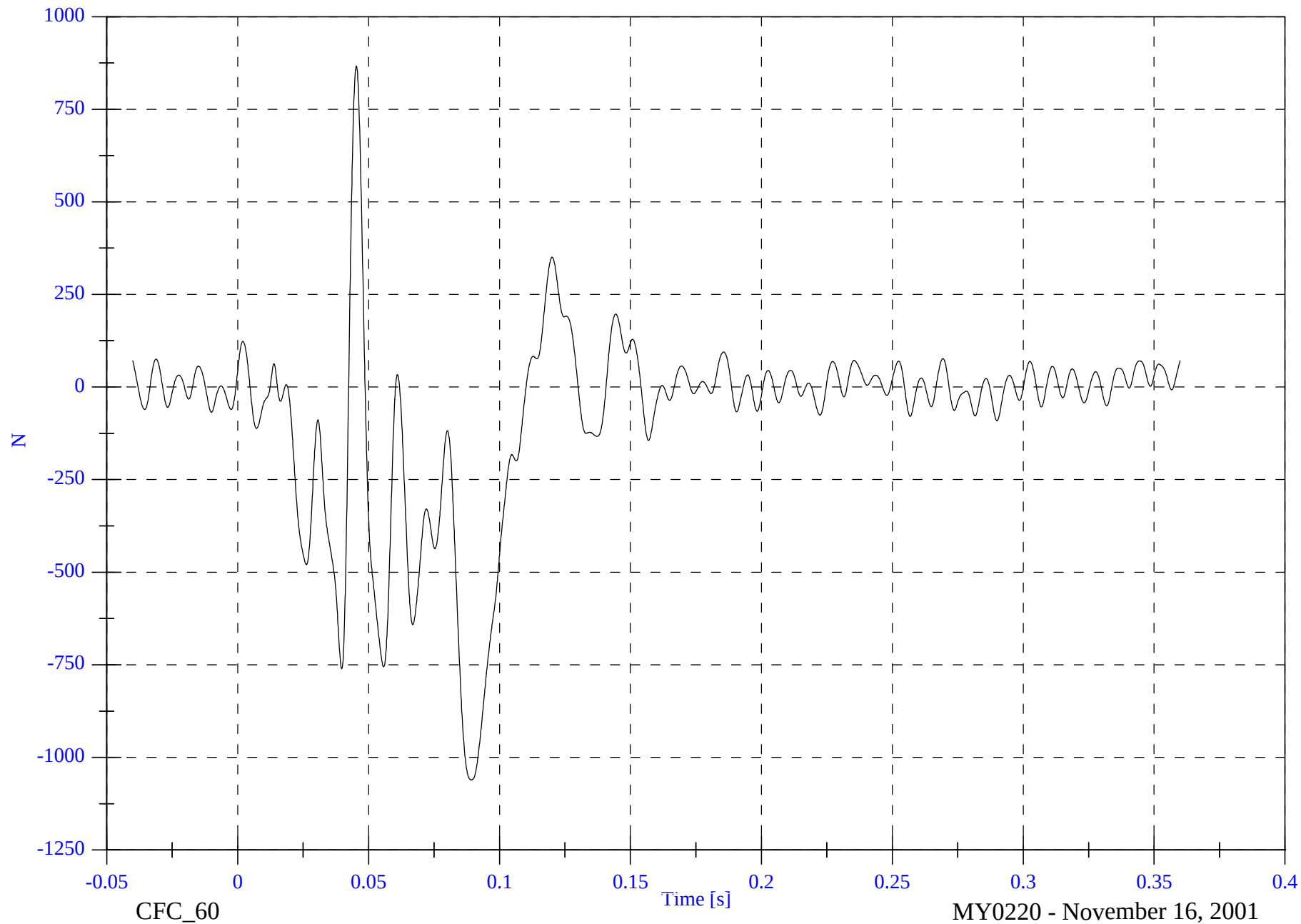


40% Frontal Offset Test #13 - 2000 Ford Explorer

Barrier Load Cell C4 FY

Max: 867.0 [N] at 0.045 [s]

Min: -1061.0 [N] at 0.089 [s]



B-237

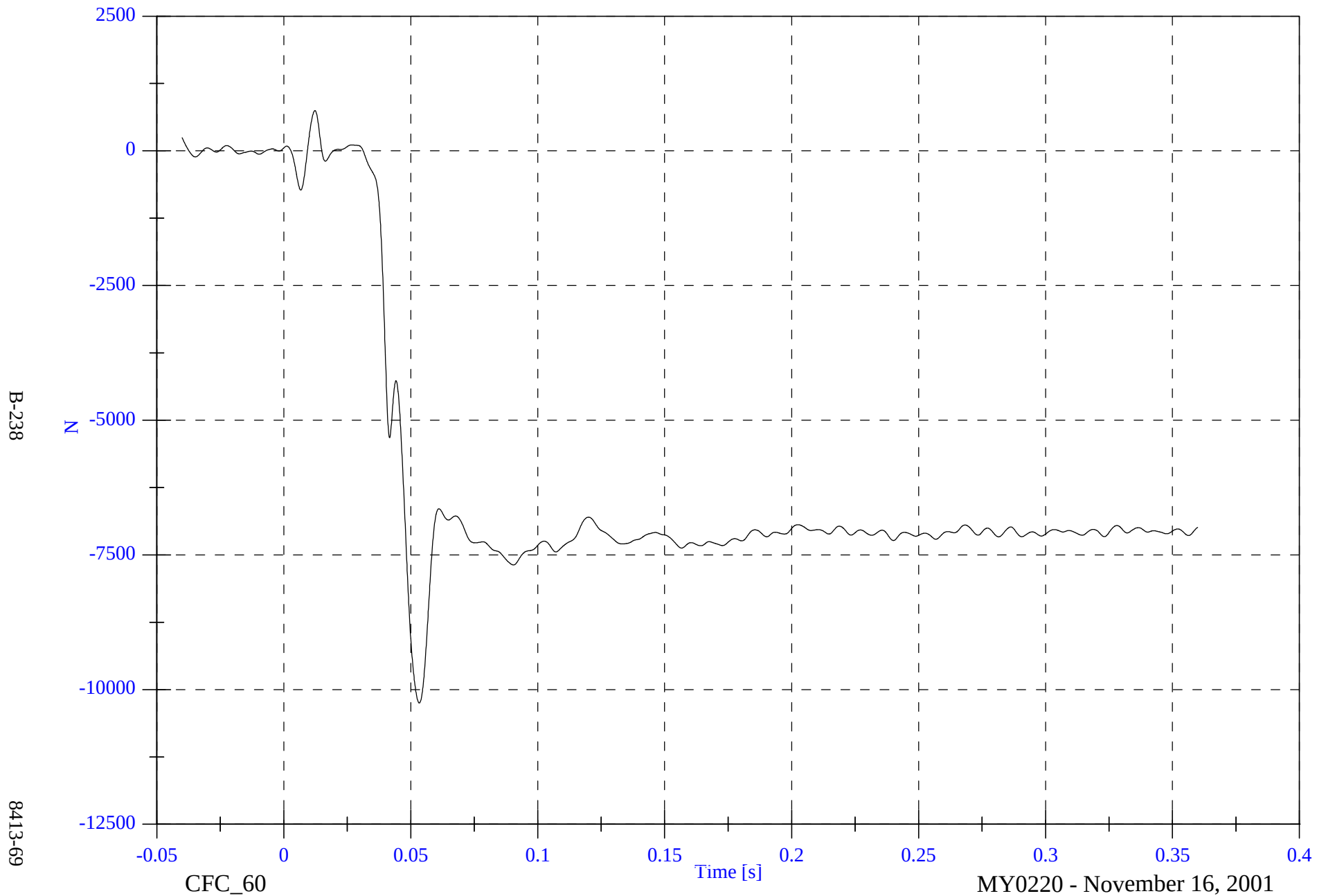
8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

Barrier Load Cell C5 FY

Max: 748.8 [N] at 0.012 [s]

Min: -10251.2 [N] at 0.053 [s]

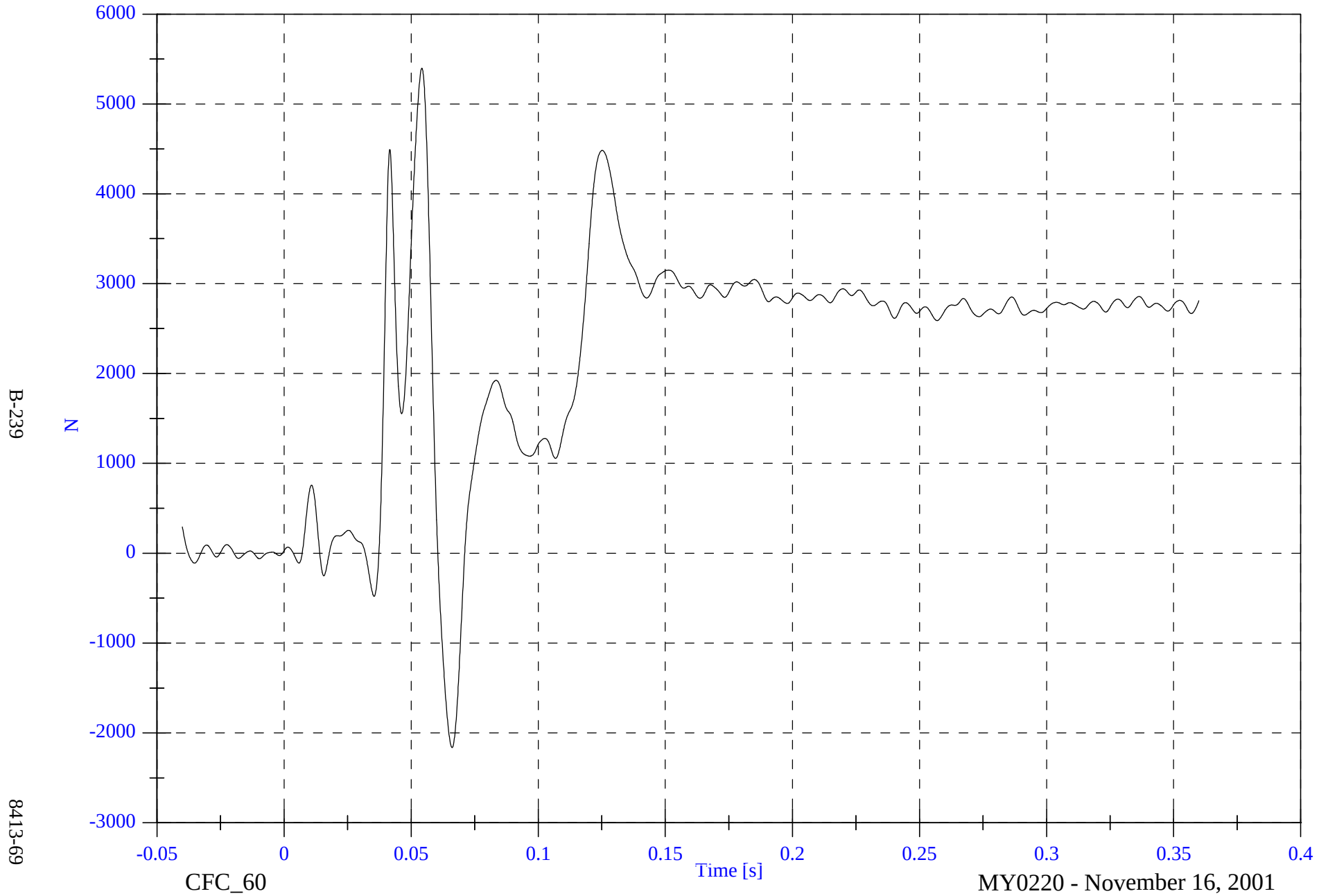


40% Frontal Offset Test #13 - 2000 Ford Explorer

Barrier Load Cell C6 FY

Max: 5398.9 [N] at 0.054 [s]

Min: -2163.7 [N] at 0.066 [s]

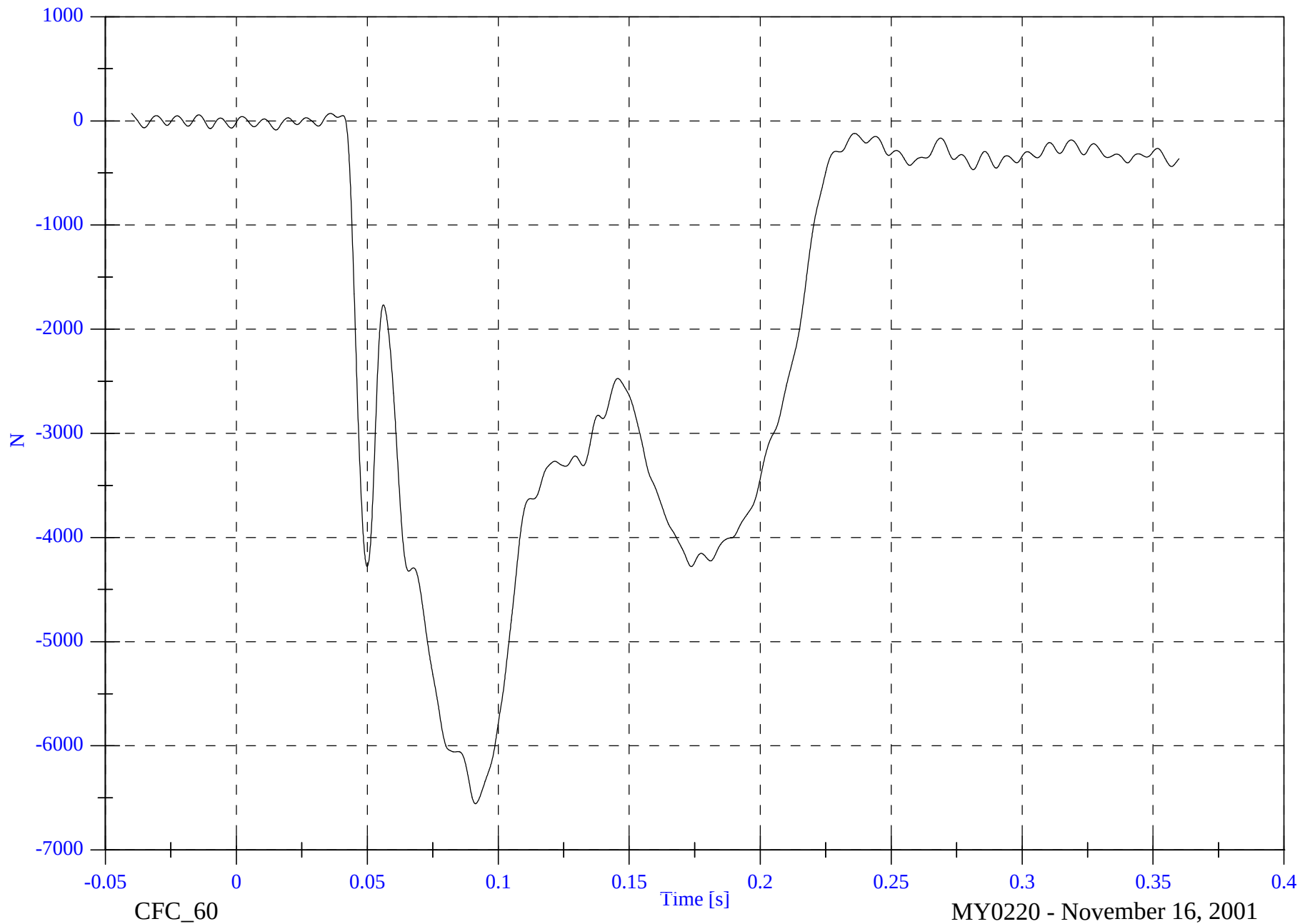


40% Frontal Offset Test #13 - 2000 Ford Explorer

Barrier Load Cell C1 FX

Max: 72.4 [N] at -0.040 [s]

Min: -6555.4 [N] at 0.091 [s]



B-240

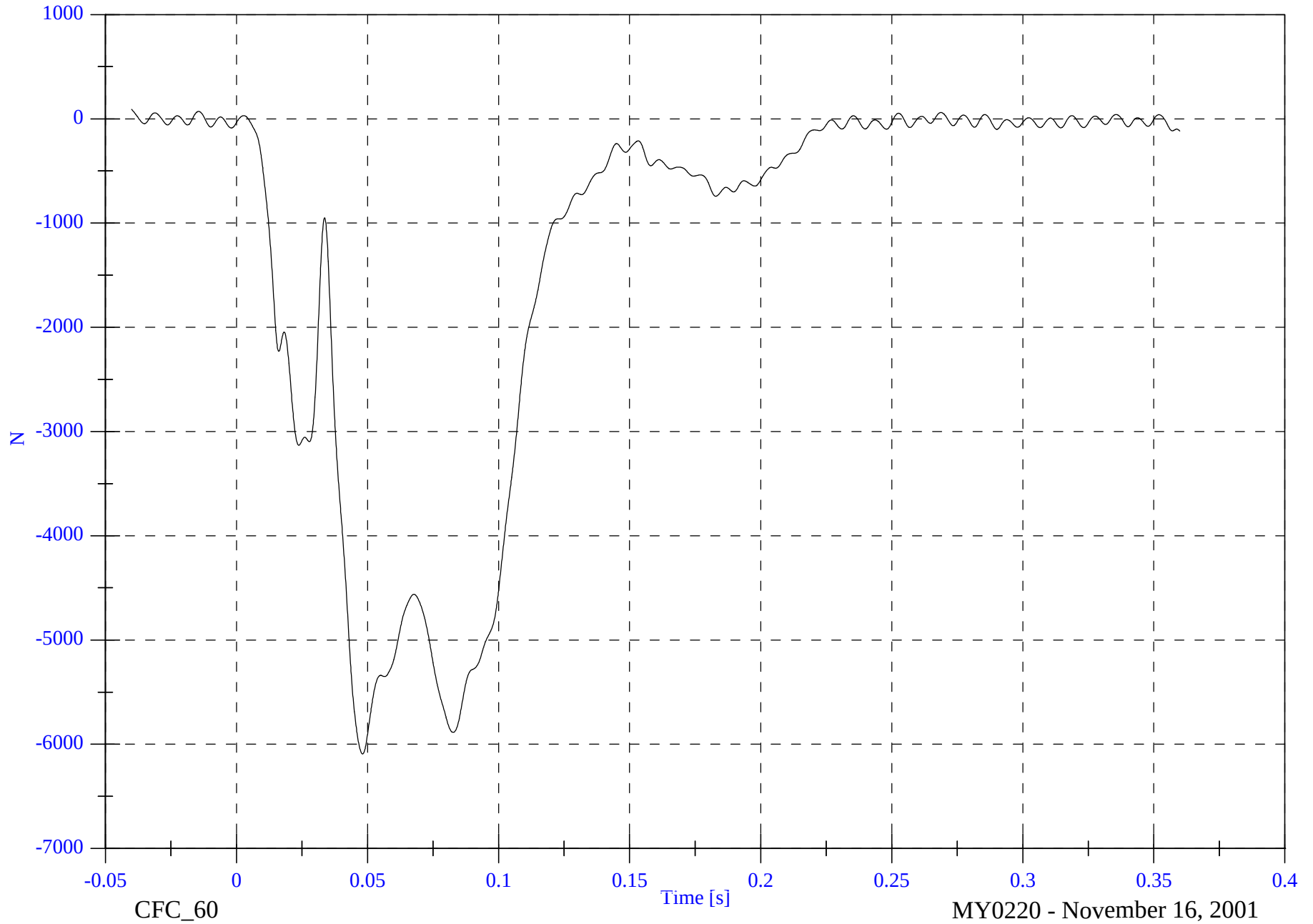
8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

Barrier Load Cell C2 FX

Max: 90.9 [N] at -0.040 [s]

Min: -6093.7 [N] at 0.048 [s]



B-241

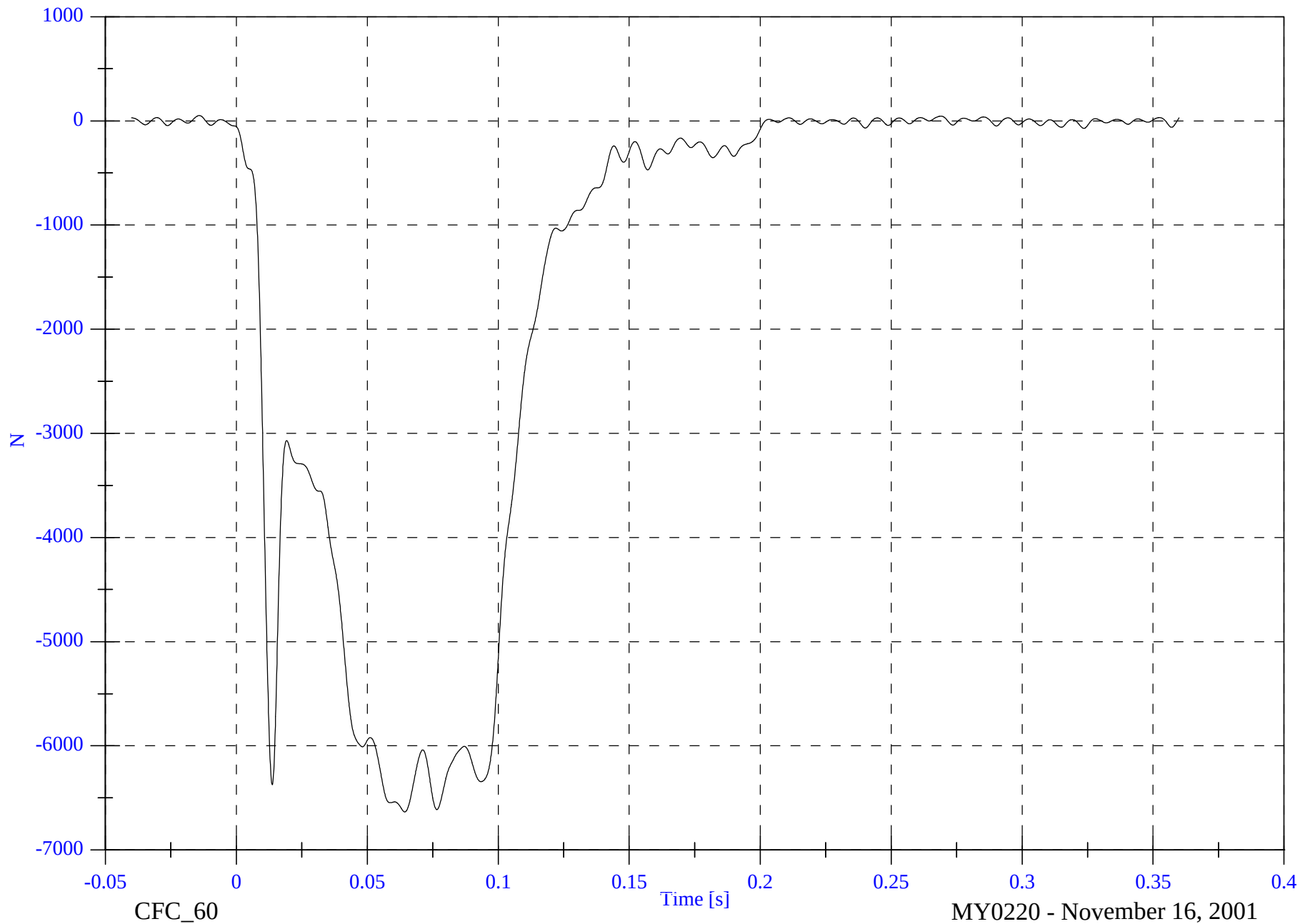
8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

Barrier Load Cell C3 FX

Max: 50.8 [N] at -0.014 [s]

Min: -6634.6 [N] at 0.064 [s]



B-242

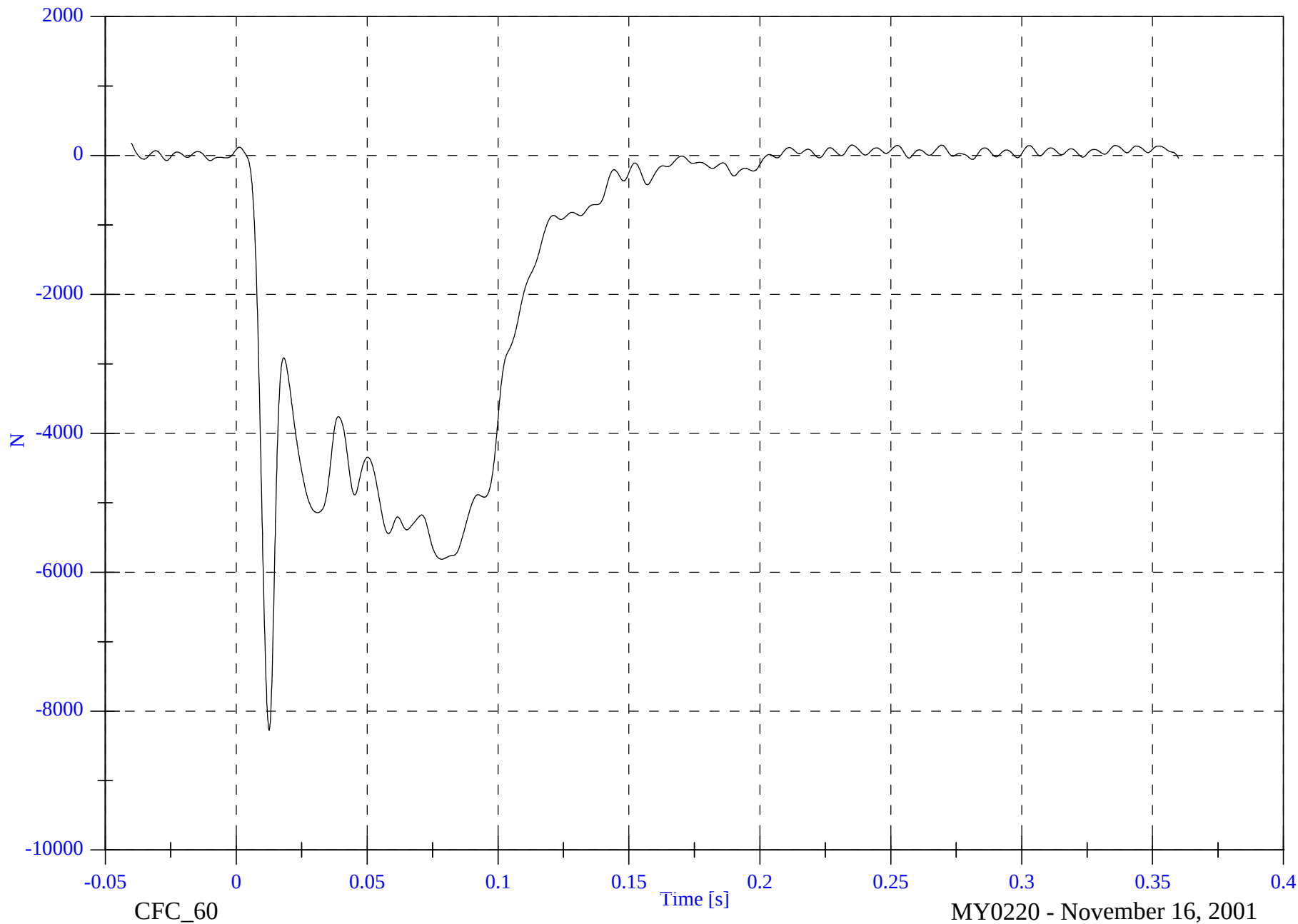
8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

Barrier Load Cell C4 FX

Max: 179.8 [N] at -0.040 [s]

Min: -8277.5 [N] at 0.013 [s]



B-243

8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

Barrier Load Cell C5 FX

Max: 156.8 [N] at -0.001 [s]

Min: -60511.2 [N] at 0.043 [s]



40% Frontal Offset Test #13 - 2000 Ford Explorer

Barrier Load Cell C6 FX

Max: 349.2 [N] at 0.002 [s]

Min: -59683.2 [N] at 0.042 [s]

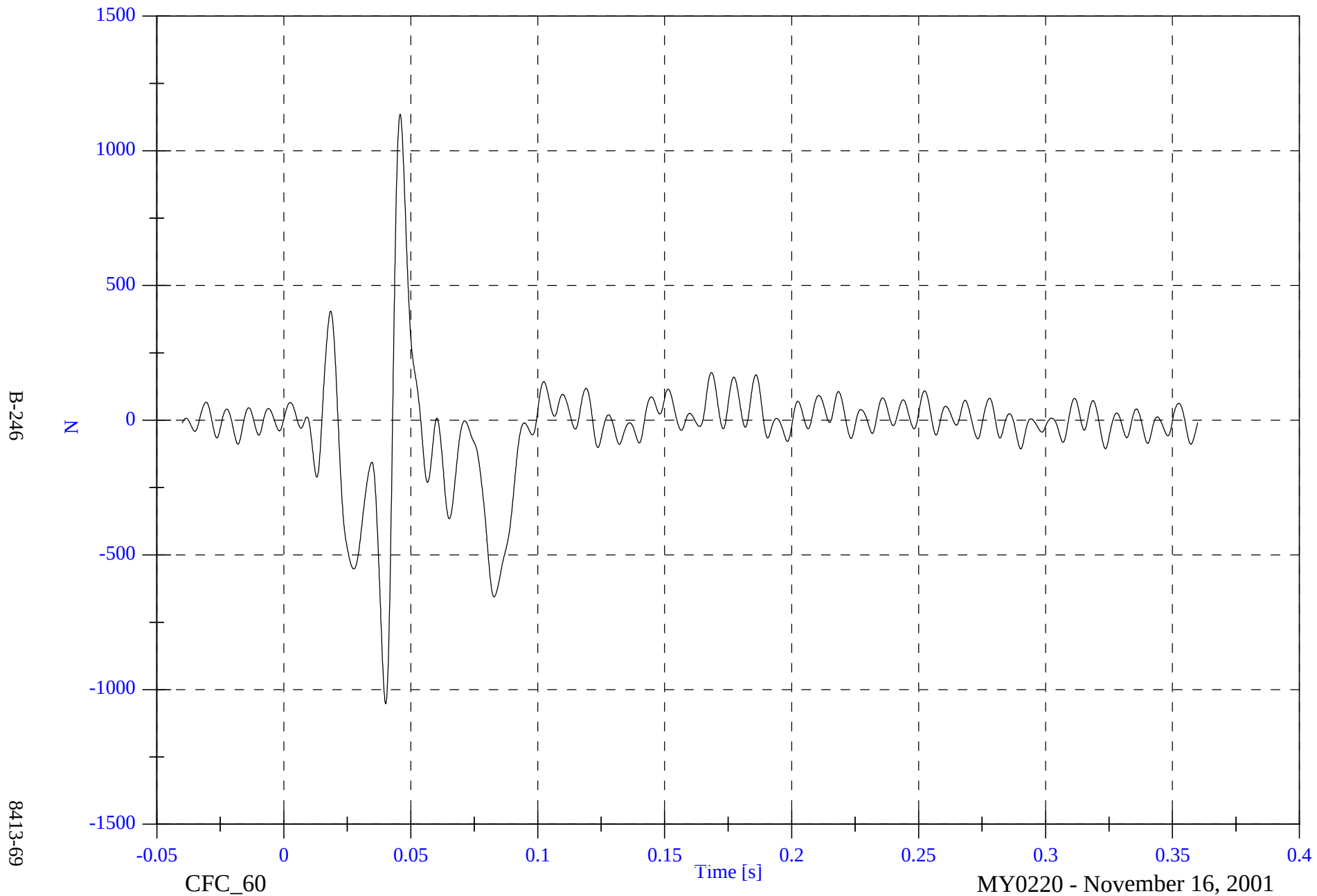


40% Frontal Offset Test #13 - 2000 Ford Explorer

Barrier Load Cell B3 FY

Max: 1136.2 [N] at 0.046 [s]

Min: -1053.2 [N] at 0.040 [s]

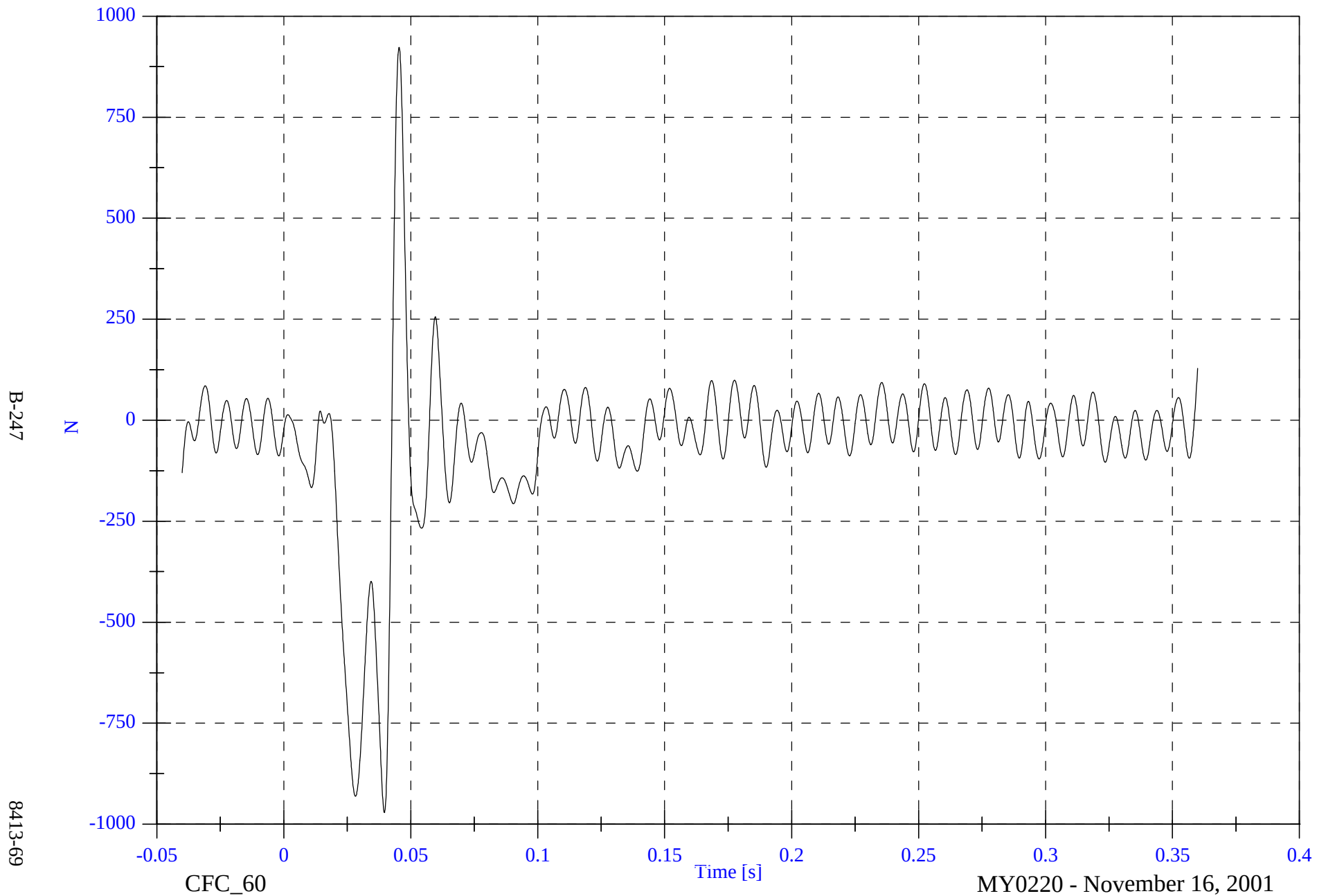


40% Frontal Offset Test #13 - 2000 Ford Explorer

Barrier Load Cell B4 FY

Max: 923.4 [N] at 0.045 [s]

Min: -971.4 [N] at 0.040 [s]

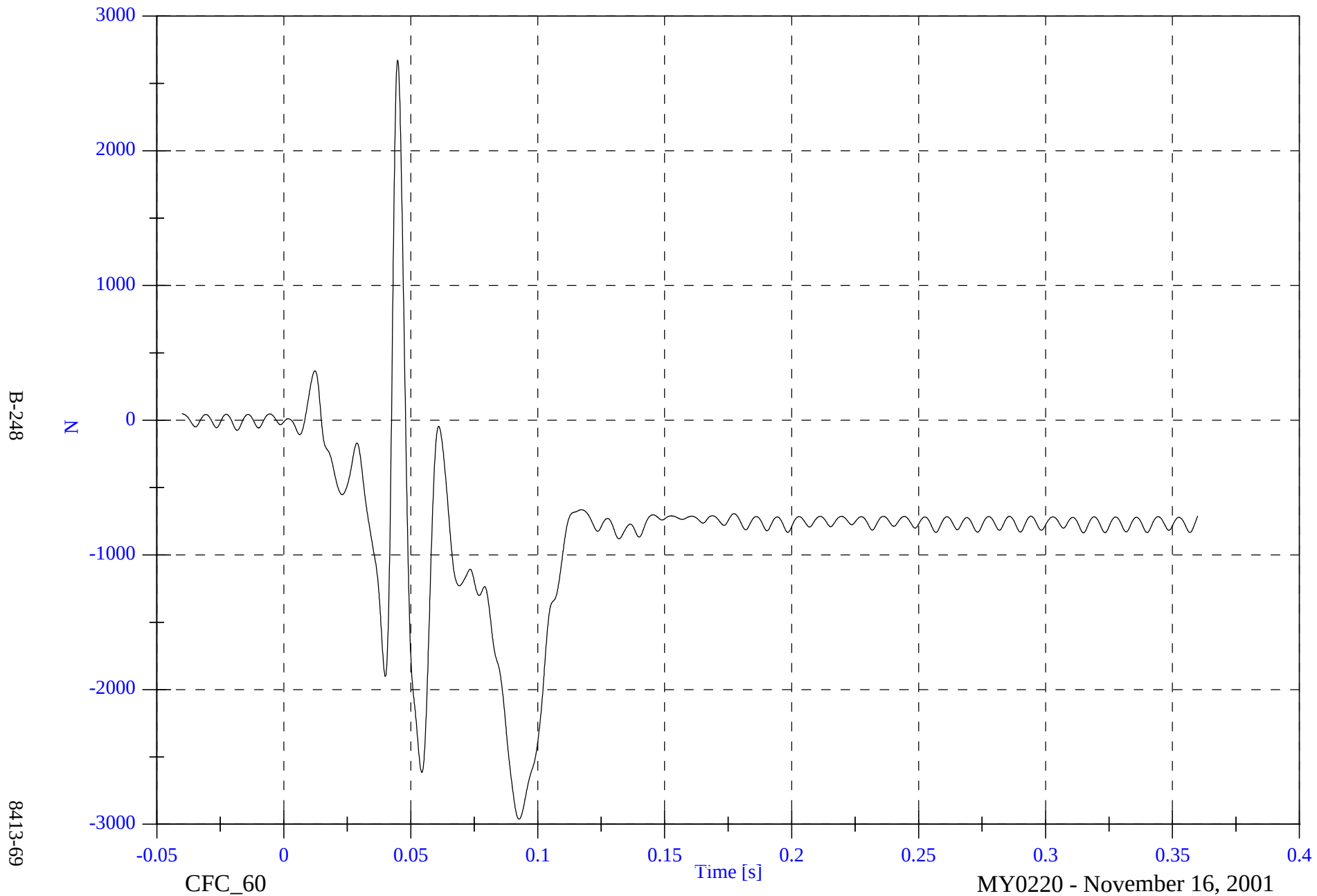


40% Frontal Offset Test #13 - 2000 Ford Explorer

Barrier Load Cell B5 FY

Max: 2674.4 [N] at 0.045 [s]

Min: -2962.4 [N] at 0.093 [s]

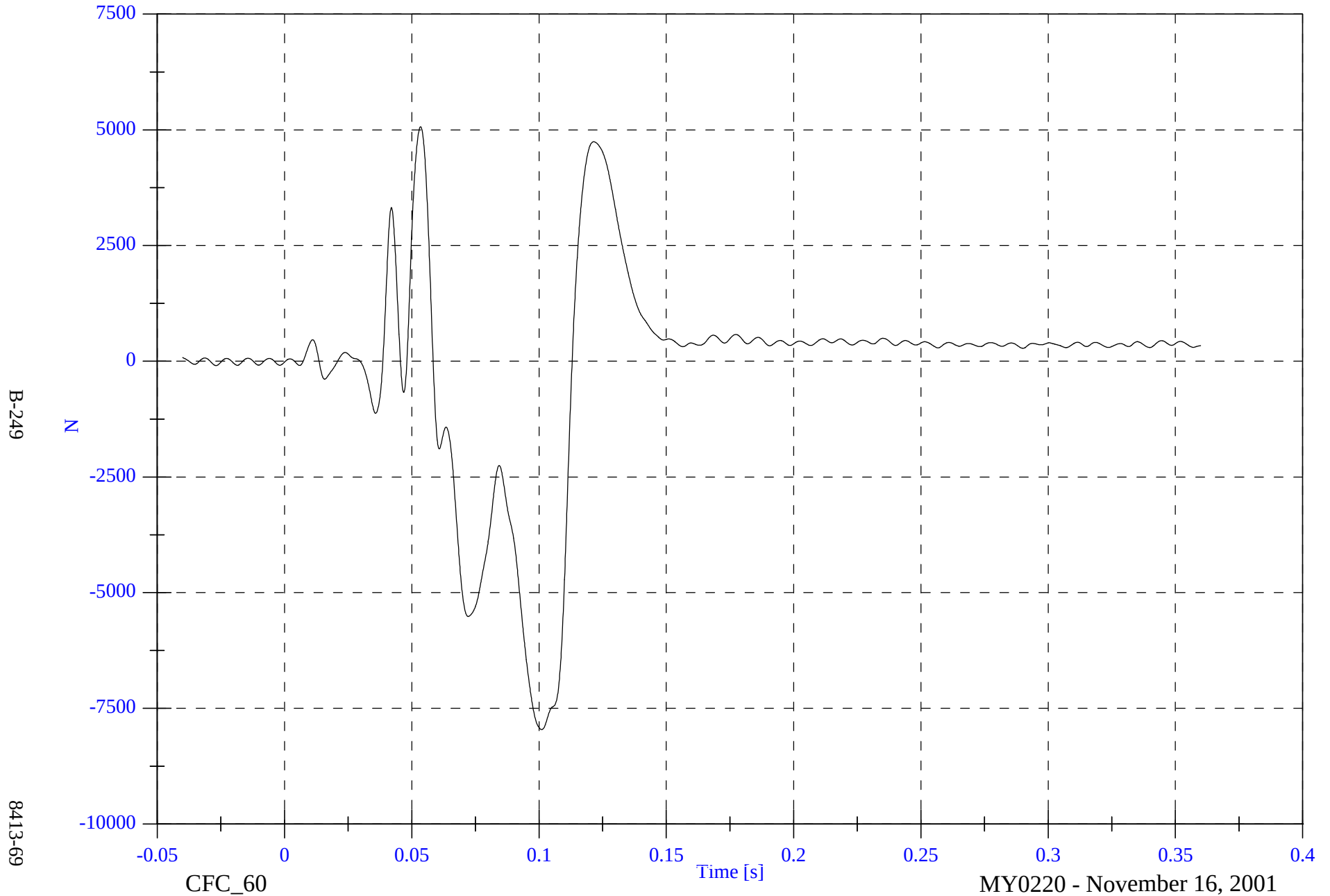


40% Frontal Offset Test #13 - 2000 Ford Explorer

Barrier Load Cell B6 FY

Max: 5067.2 [N] at 0.053 [s]

Min: -7958.2 [N] at 0.101 [s]

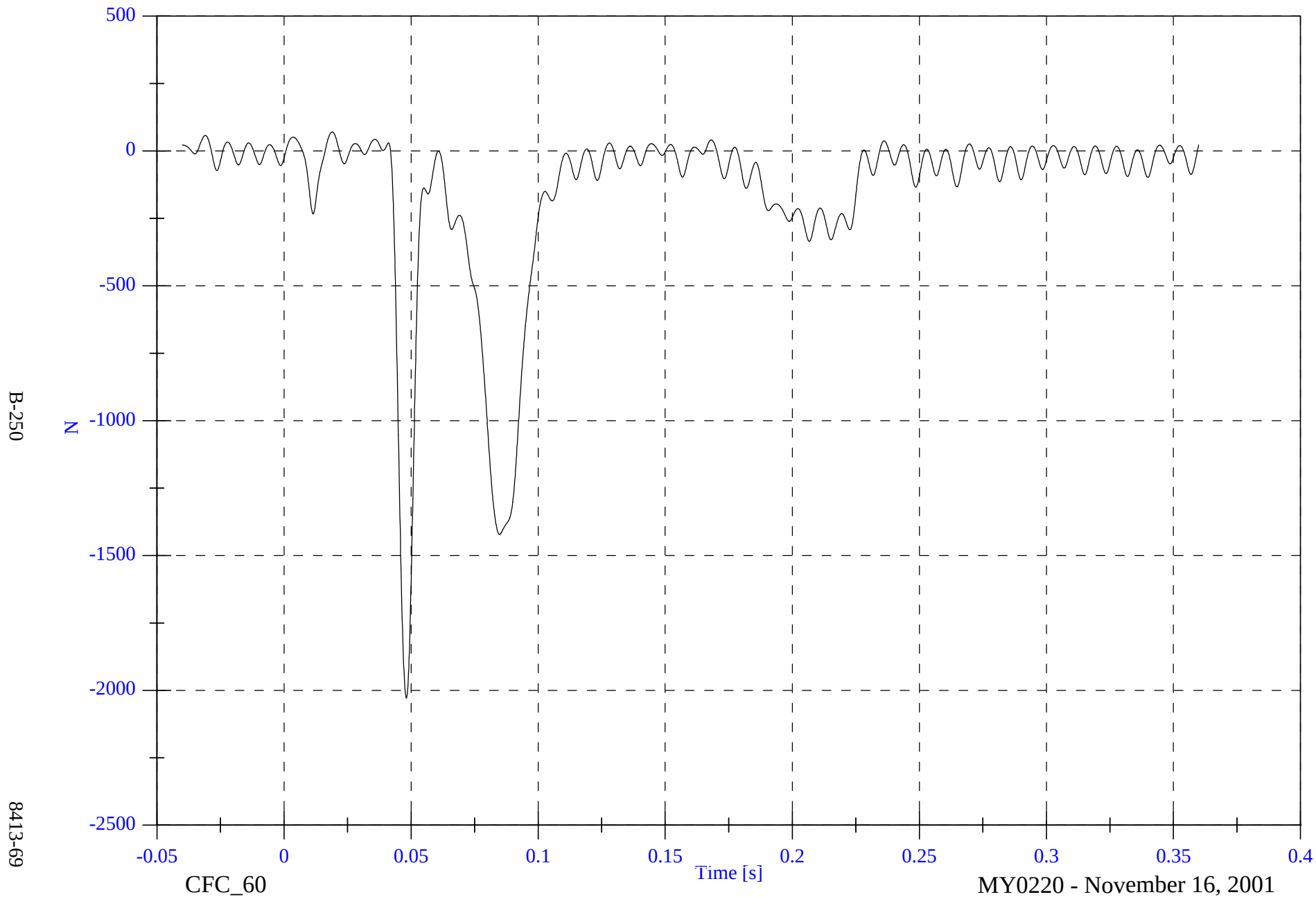


40% Frontal Offset Test #13 - 2000 Ford Explorer

Barrier Load Cell B1 FX

Max: 70.7 [N] at 0.019 [s]

Min: -2029.1 [N] at 0.048 [s]

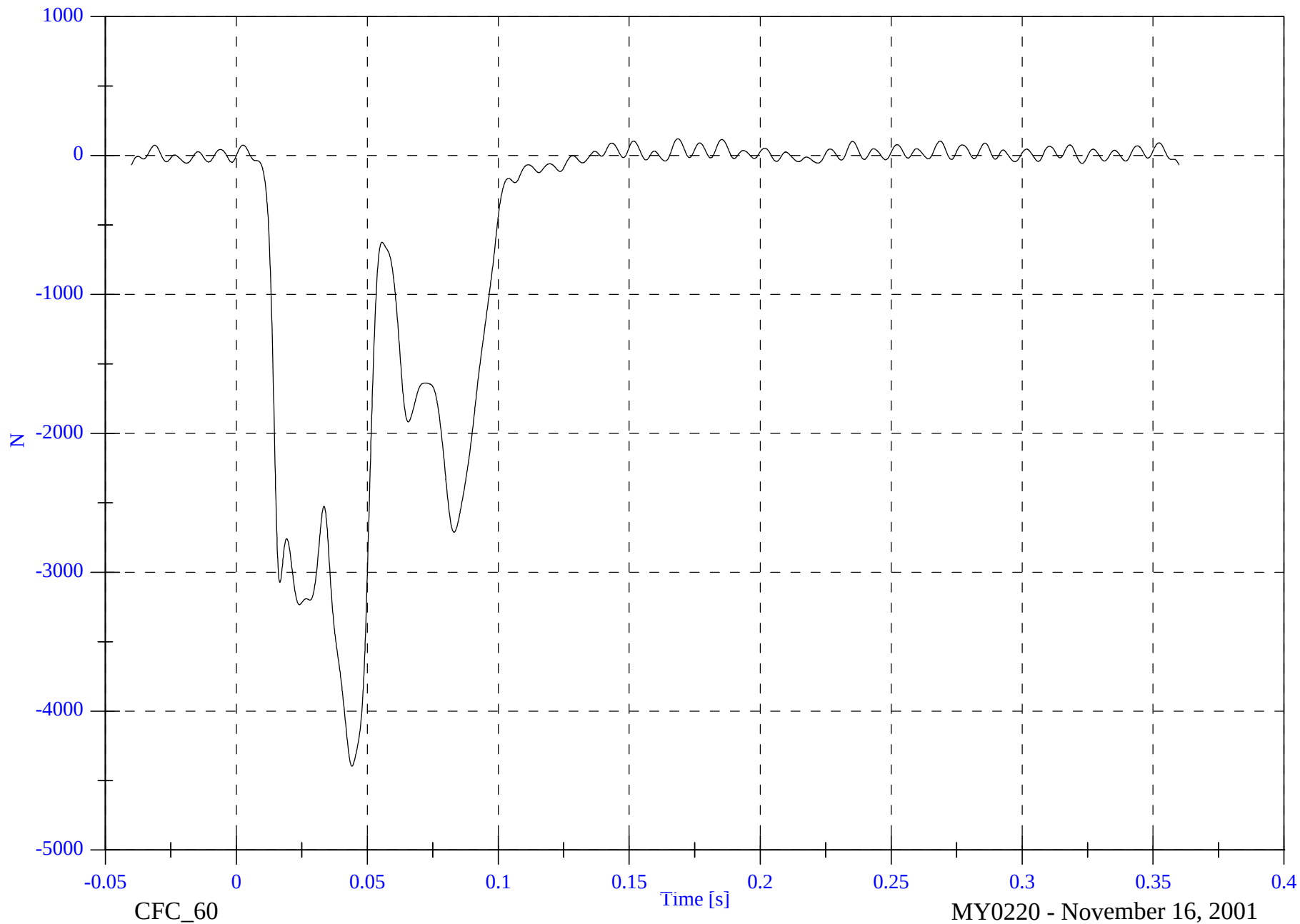


40% Frontal Offset Test #13 - 2000 Ford Explorer

Barrier Load Cell B2 FX

Max: 121.1 [N] at 0.169 [s]

Min: -4397.2 [N] at 0.044 [s]



B-251

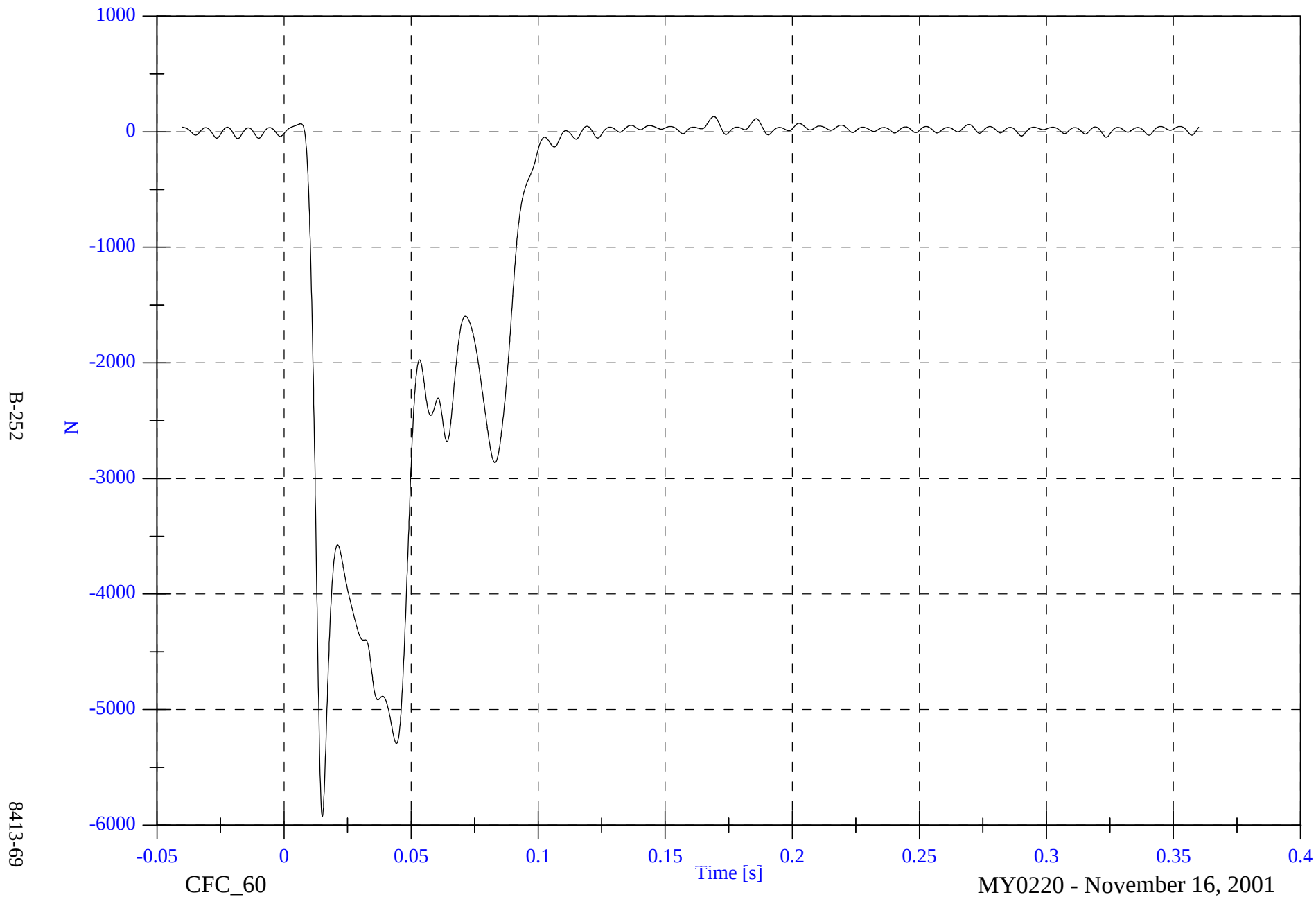
8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

Barrier Load Cell B3 FX

Max: 131.6 [N] at 0.169 [s]

Min: -5925.6 [N] at 0.015 [s]

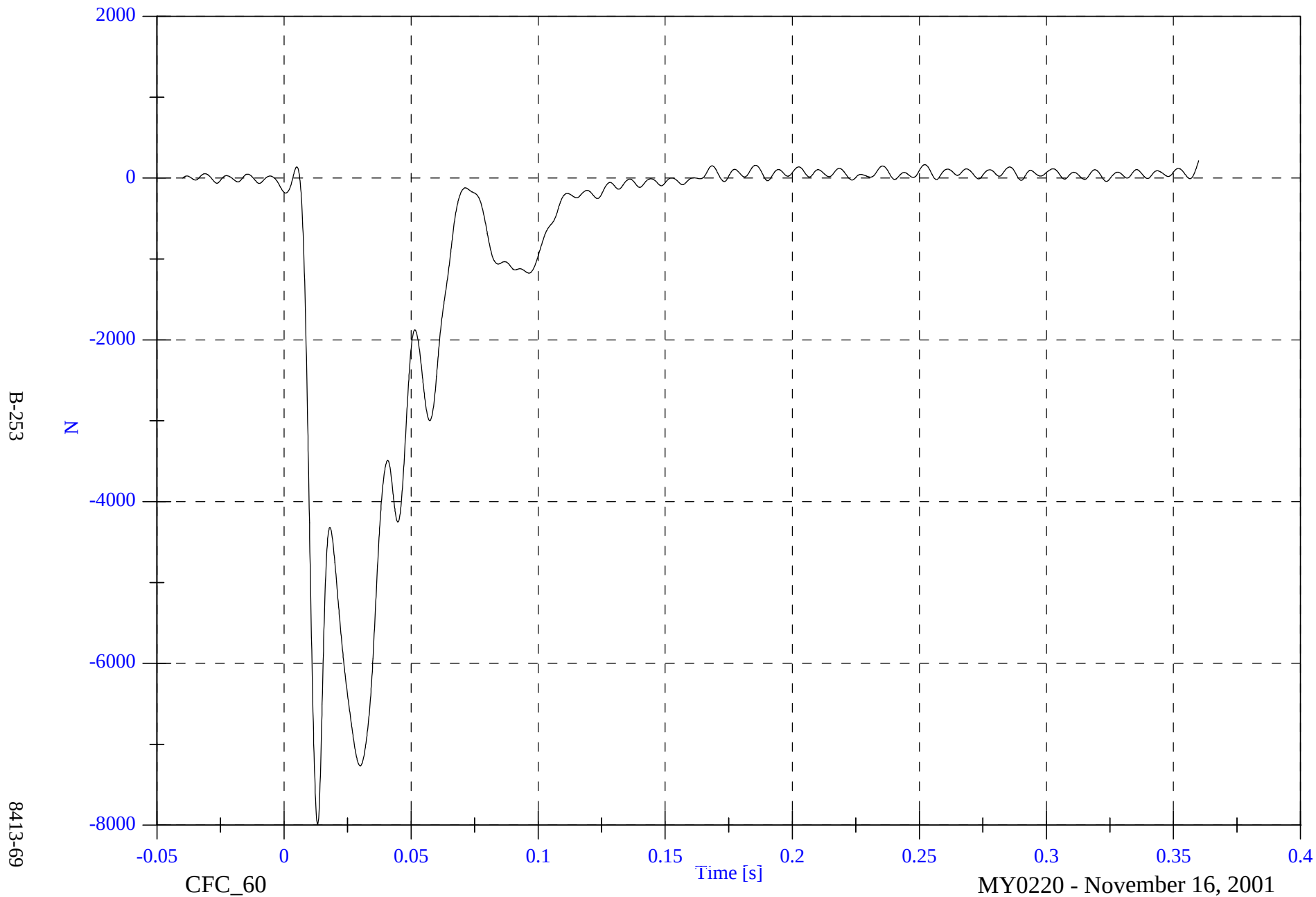


40% Frontal Offset Test #13 - 2000 Ford Explorer

Barrier Load Cell B4 FX

Max: 214.2 [N] at 0.360 [s]

Min: -7992.1 [N] at 0.013 [s]

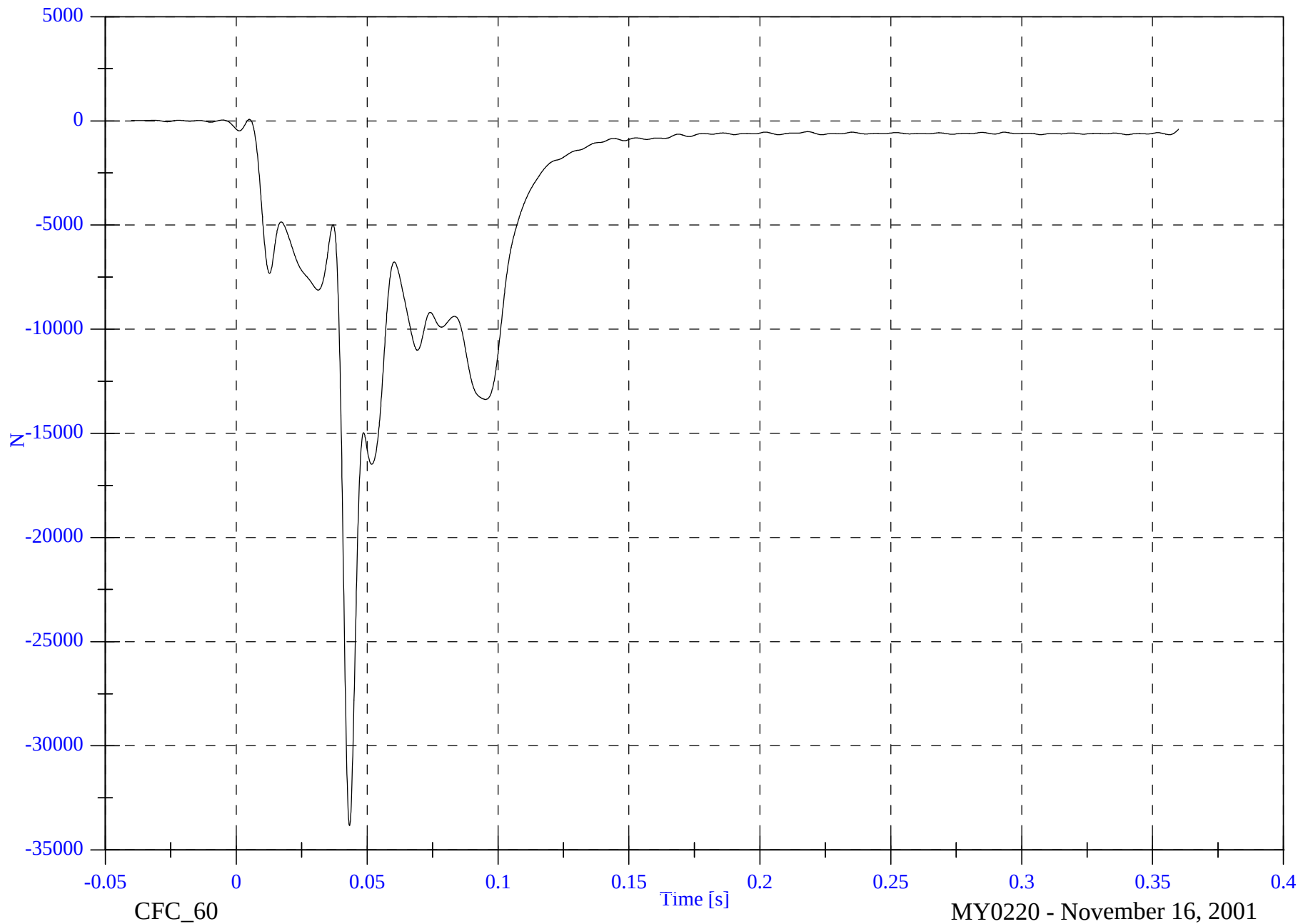


40% Frontal Offset Test #13 - 2000 Ford Explorer

Barrier Load Cell B5 FX

Max: 73.0 [N] at 0.005 [s]

Min: -33837.8 [N] at 0.043 [s]



B-254

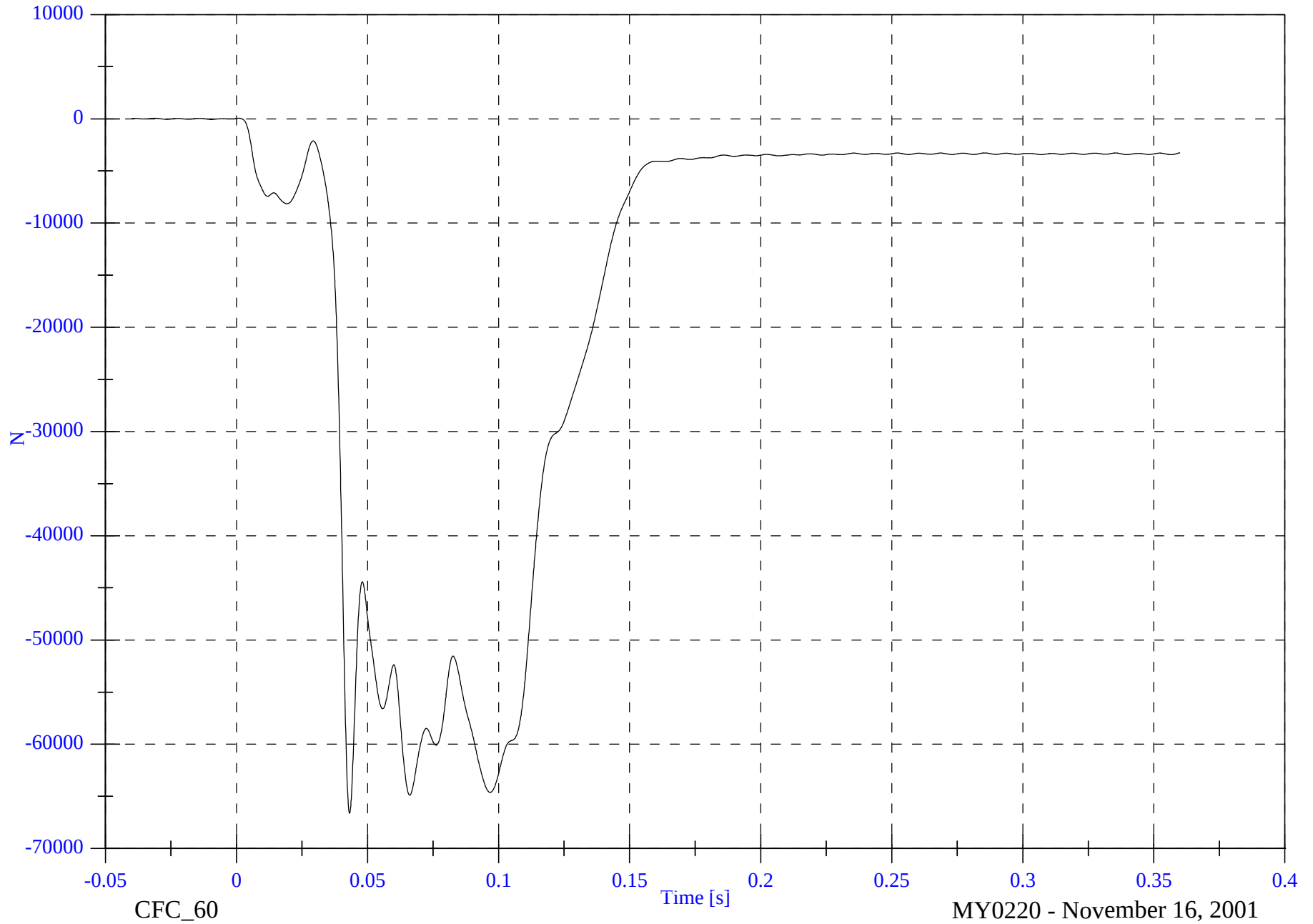
8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

Barrier Load Cell B6 FX

Max: 53.7 [N] at 0.001 [s]

Min: -66614.0 [N] at 0.043 [s]



B-255

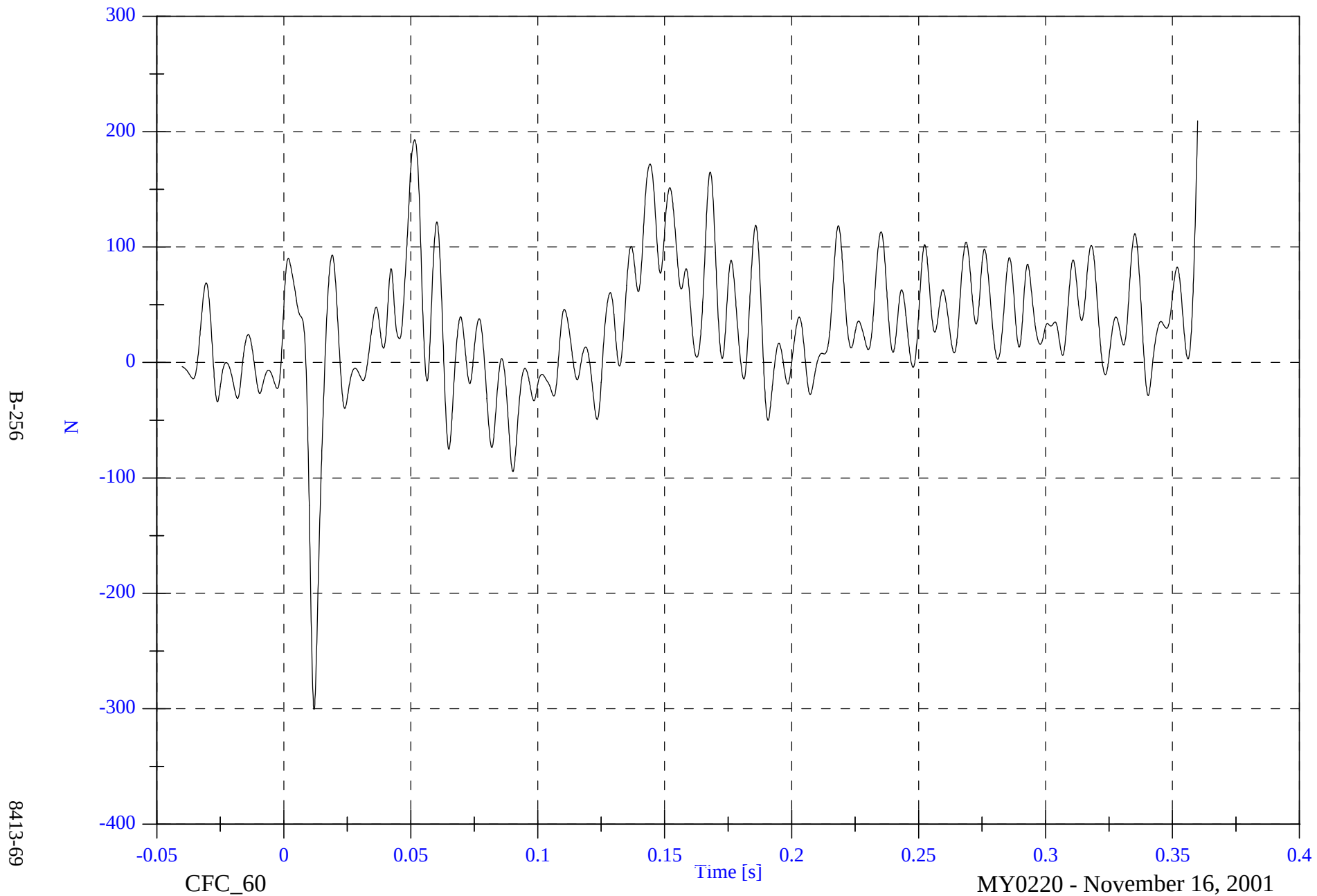
8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

Barrier Load Cell A1 FX

Max: 209.3 [N] at 0.360 [s]

Min: -300.5 [N] at 0.012 [s]

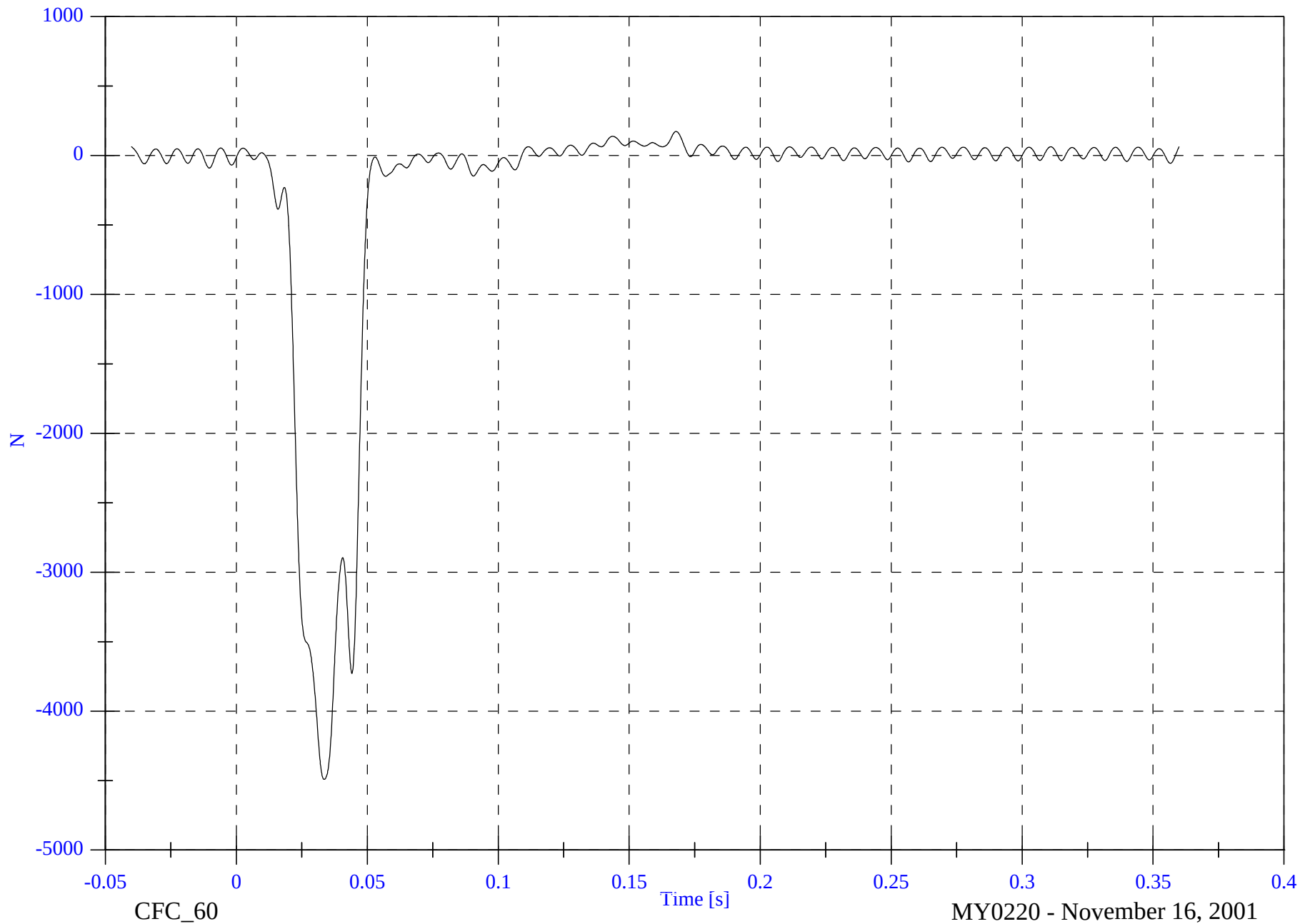


40% Frontal Offset Test #13 - 2000 Ford Explorer

Barrier Load Cell A2 FX

Max: 173.4 [N] at 0.168 [s]

Min: -4492.5 [N] at 0.033 [s]



B-257

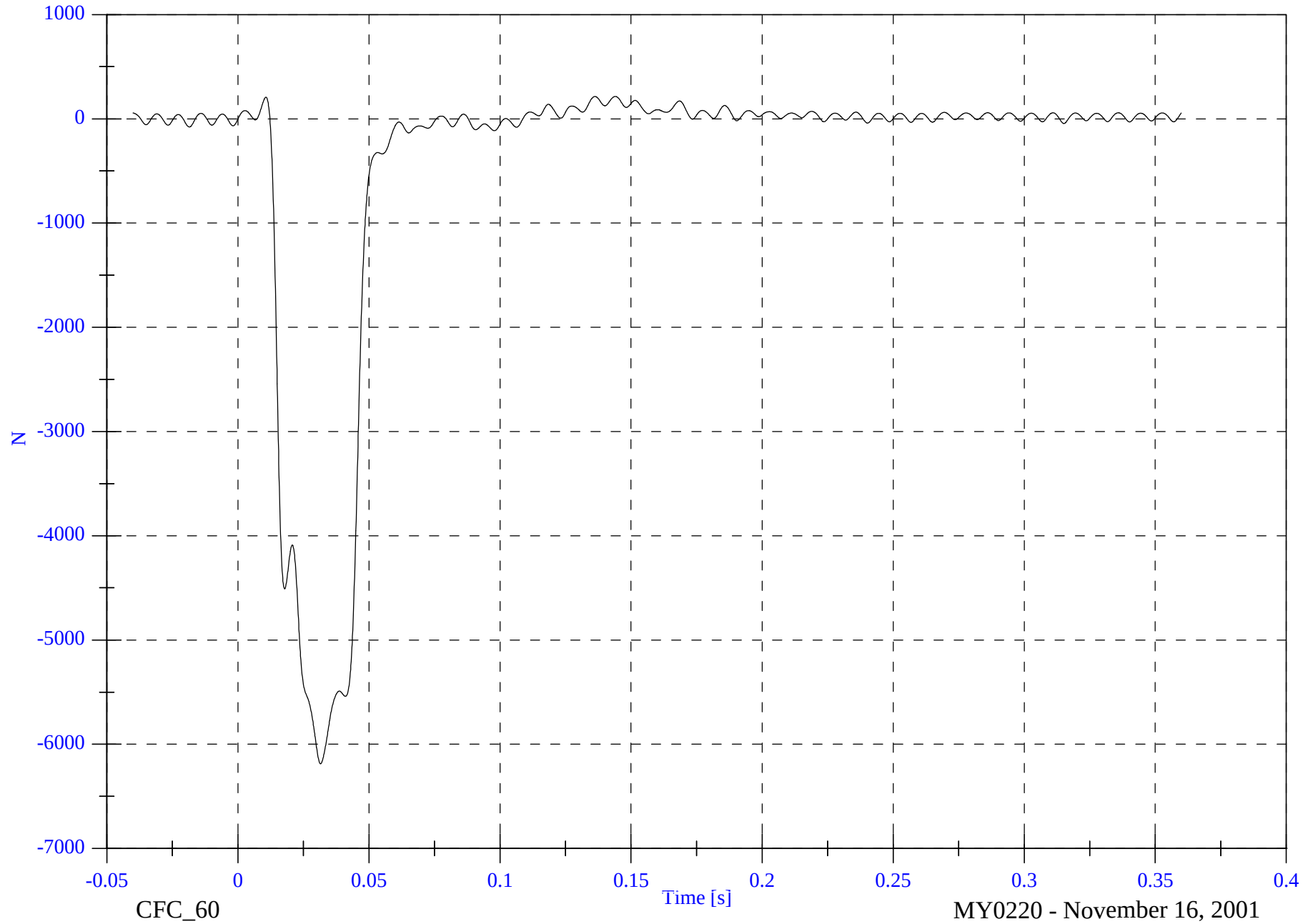
8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

Barrier Load Cell A3 FX

Max: 214.9 [N] at 0.144 [s]

Min: -6187.3 [N] at 0.031 [s]



B-258

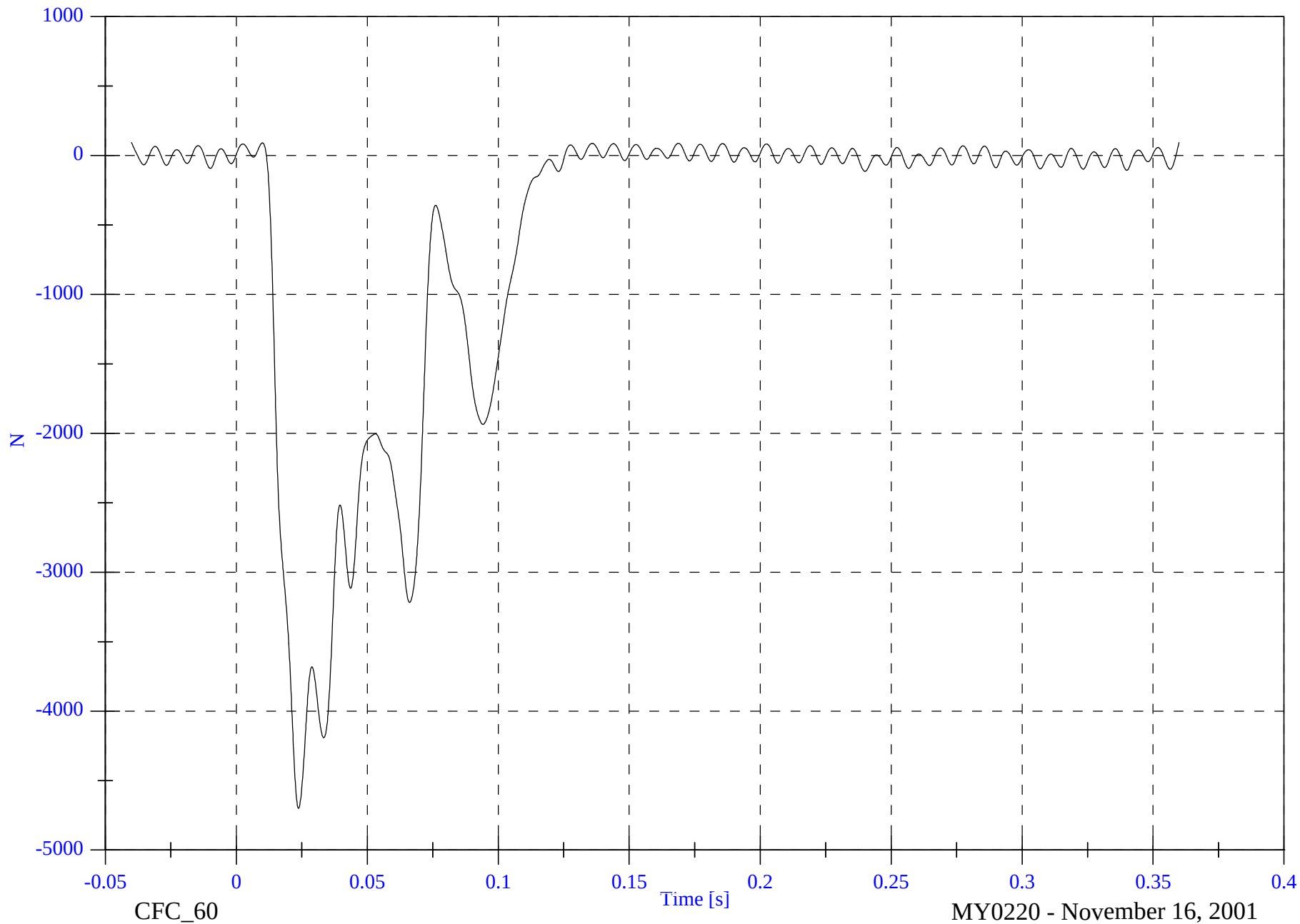
8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

Barrier Load Cell A4 FX

Max: 94.2 [N] at 0.360 [s]

Min: -4700.2 [N] at 0.024 [s]



B-259

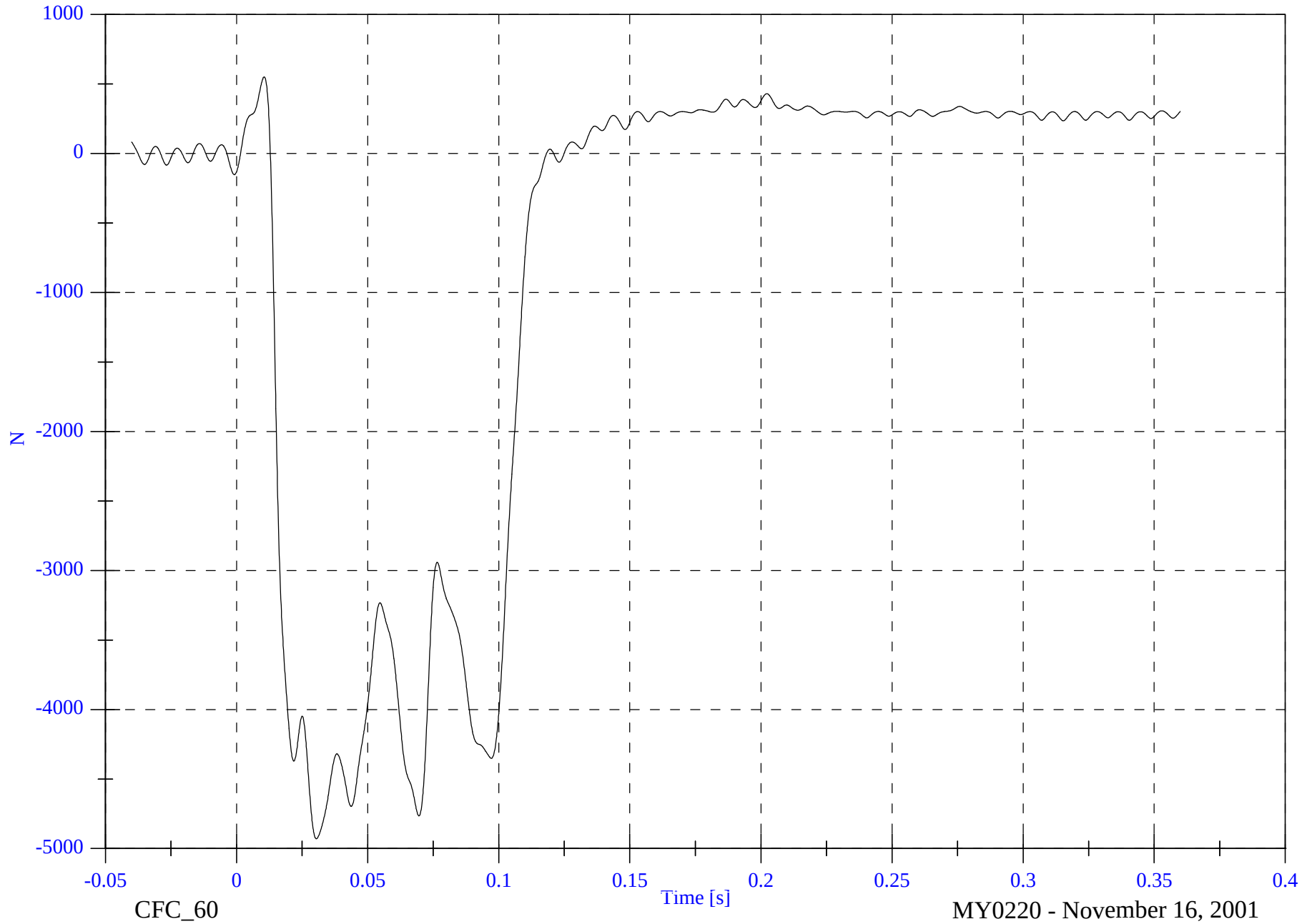
8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

Barrier Load Cell A5 FX

Max: 551.5 [N] at 0.010 [s]

Min: -4930.2 [N] at 0.030 [s]



B-260

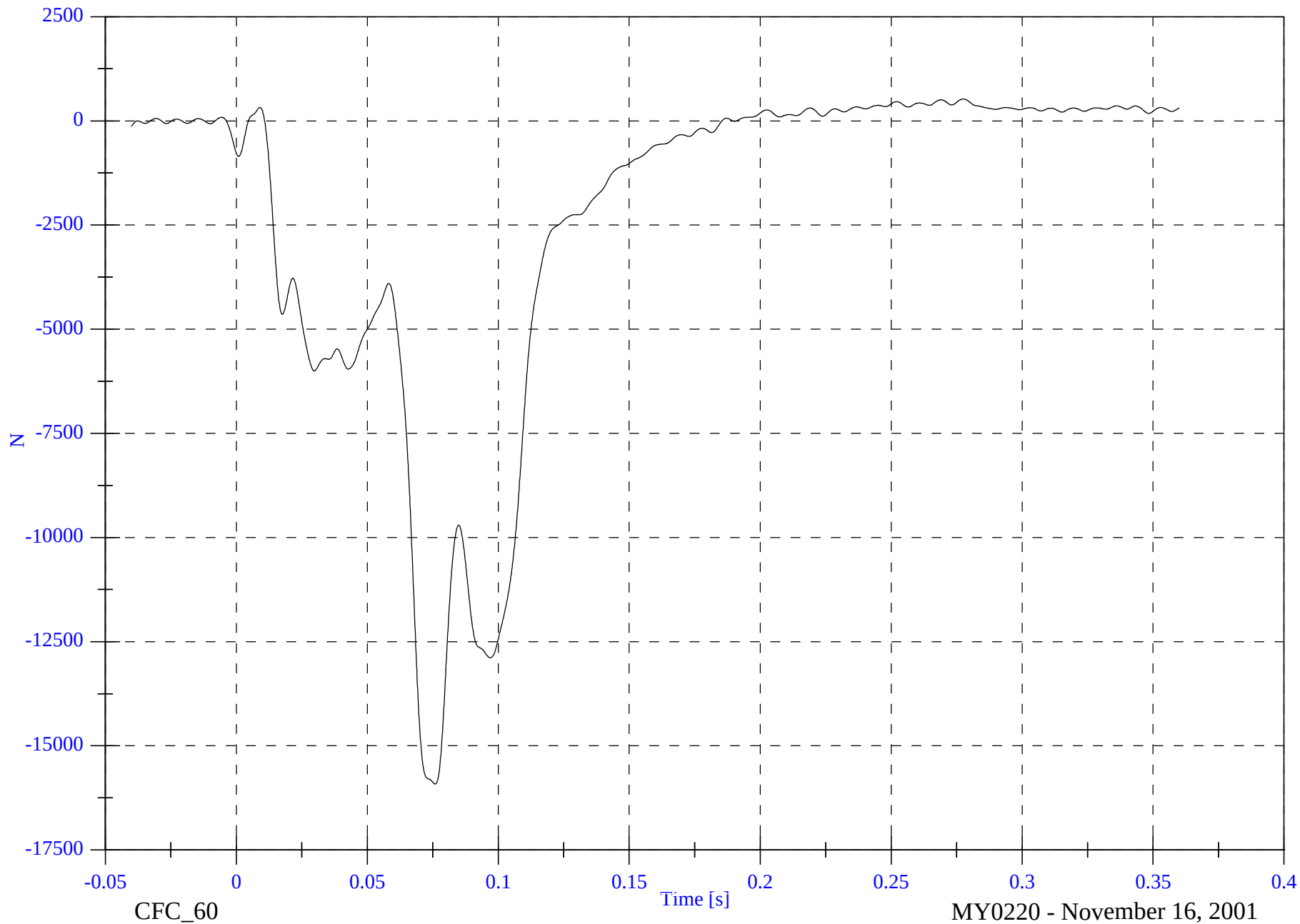
8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

Barrier Load Cell A6 FX

Max: 523.6 [N] at 0.277 [s]

Min: -15916.7 [N] at 0.076 [s]



B-261

8413-69

40% Frontal Offset Test #13 - 2000 Ford Explorer

Barrier Load Cell A7 TL FX

Max: 15438.4 [N] at 0.360 [s]

Min: -1282.5 [N] at 0.057 [s]

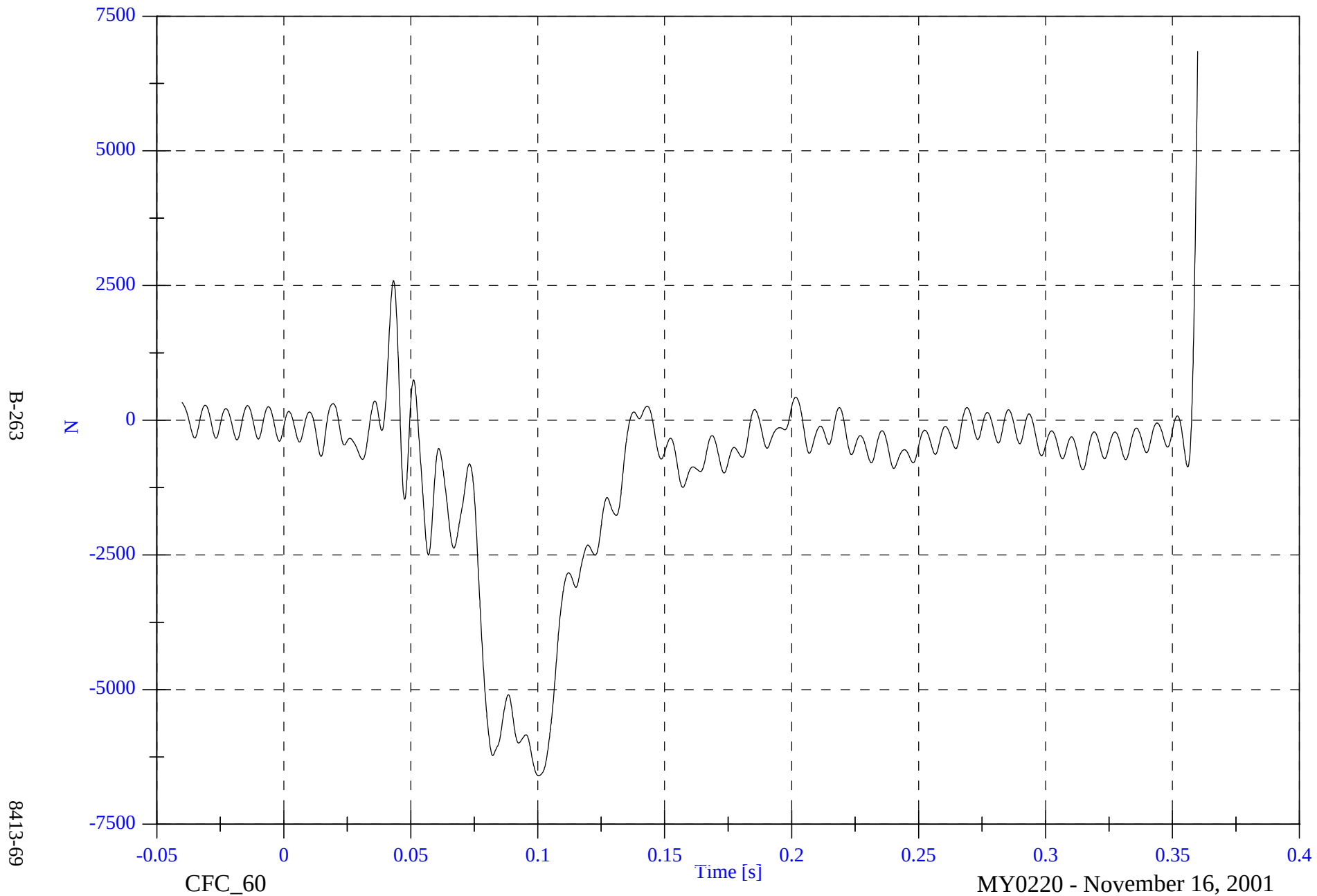


40% Frontal Offset Test #13 - 2000 Ford Explorer

Barrier Load Cell A8 TR FX

Max: 6845.3 [N] at 0.360 [s]

Min: -6600.9 [N] at 0.100 [s]

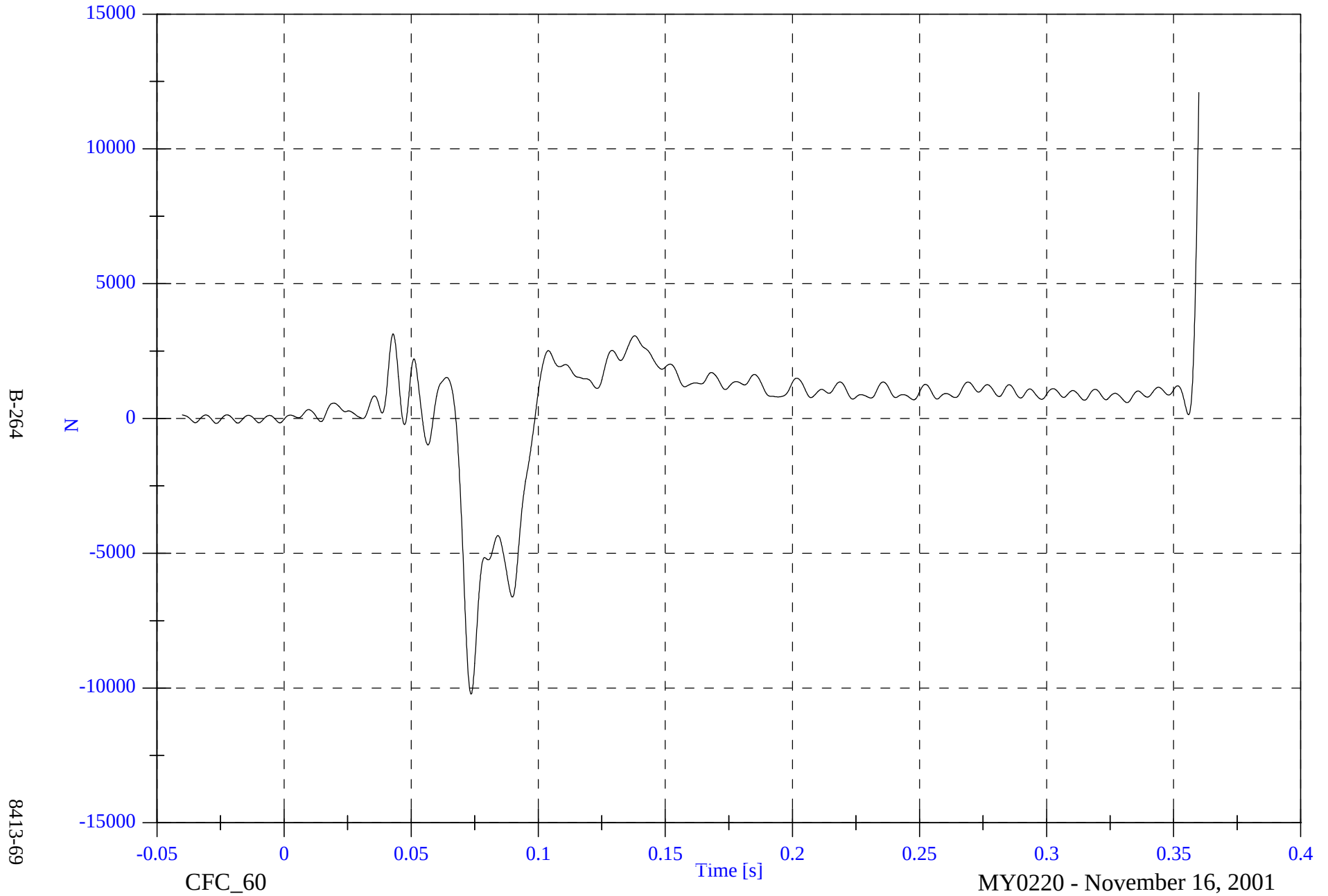


40% Frontal Offset Test #13 - 2000 Ford Explorer

Barrier Load Cell A9 CL FX

Max: 12098.2 [N] at 0.360 [s]

Min: -10227.6 [N] at 0.074 [s]

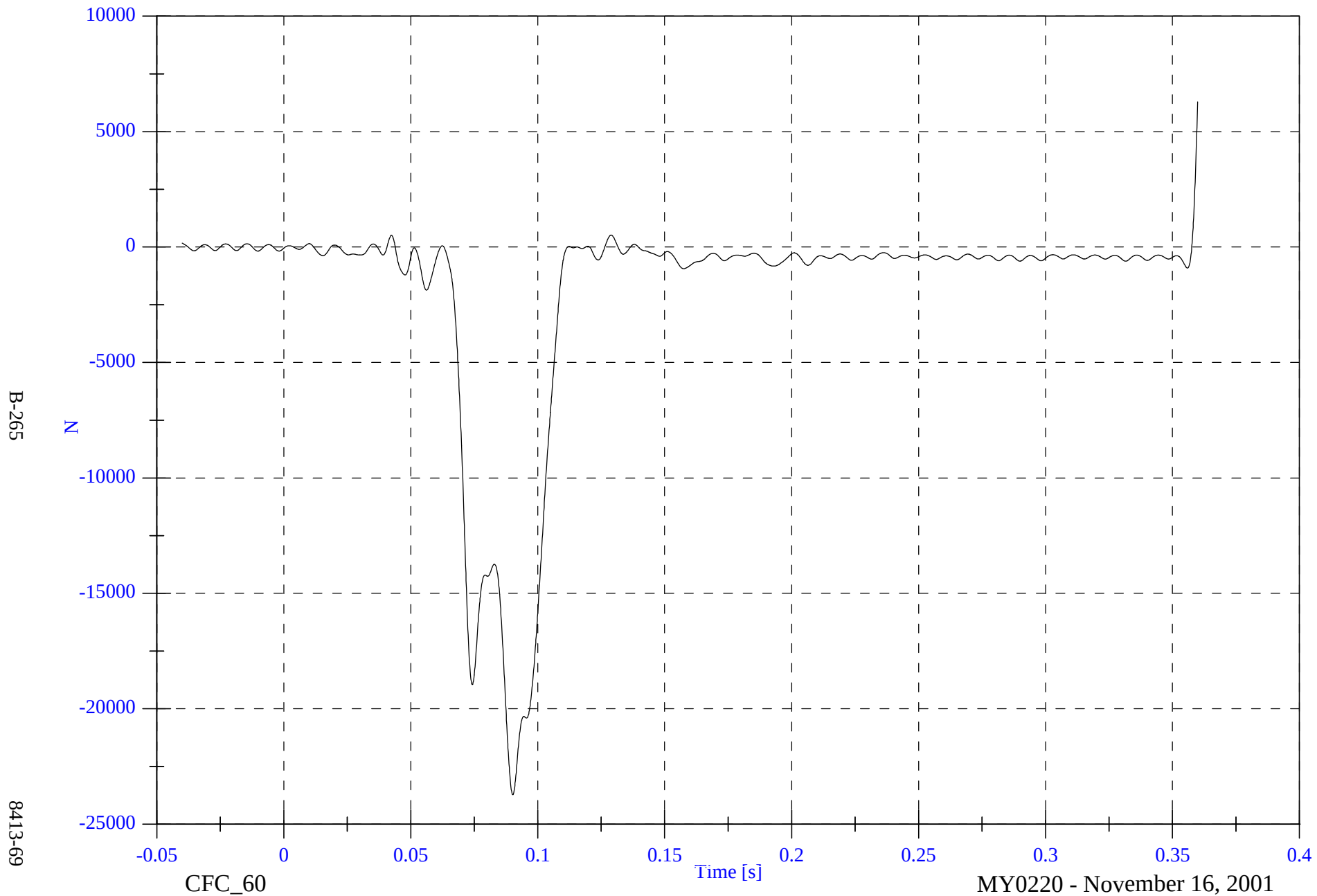


40% Frontal Offset Test #13 - 2000 Ford Explorer

Barrier Load Cell AA BL FX

Max: 6290.3 [N] at 0.360 [s]

Min: -23723.3 [N] at 0.090 [s]

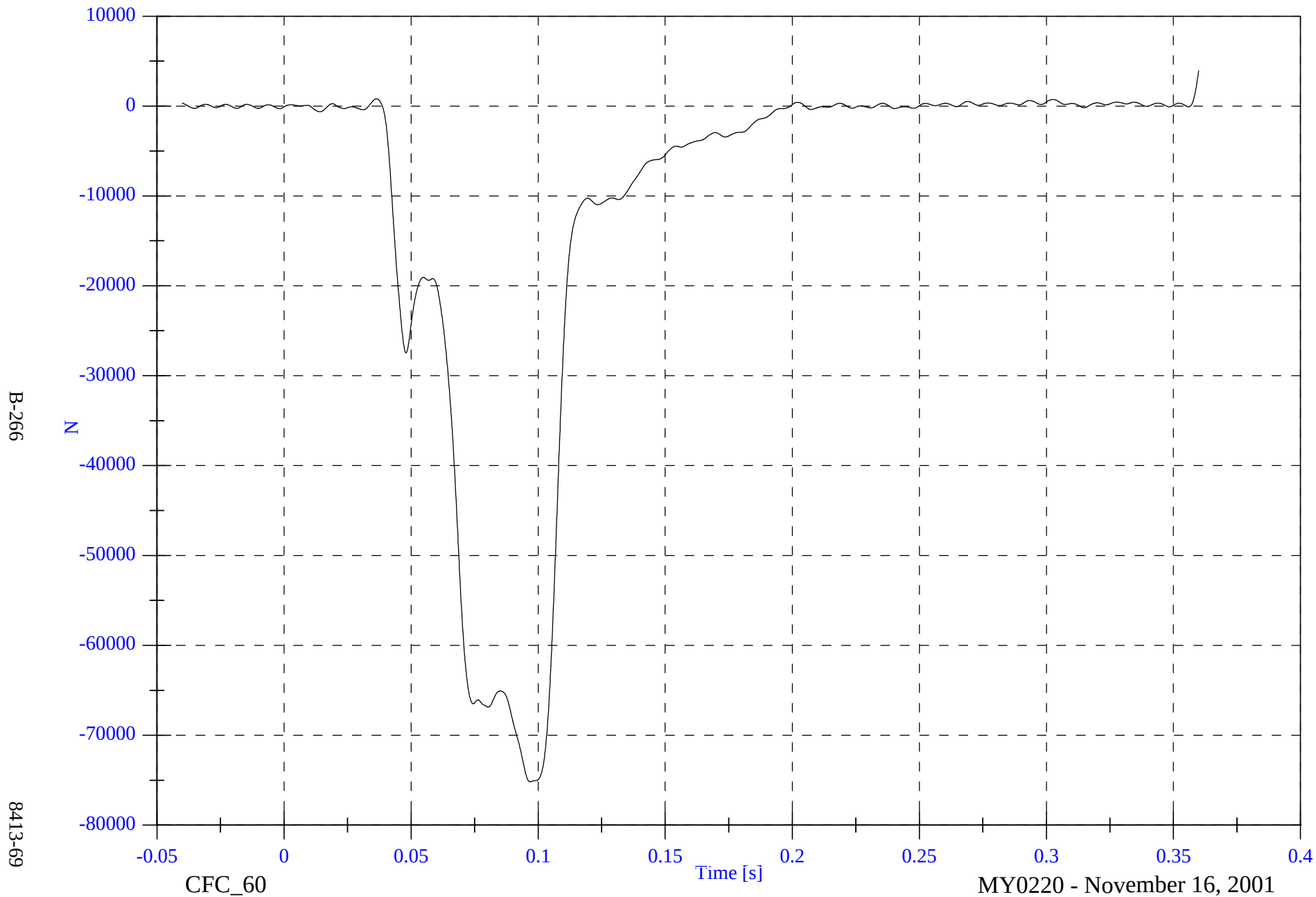


40% Frontal Offset Test #13 - 2000 Ford Explorer

Barrier Load Cell AB BR FX

Max: 3933.9 [N] at 0.360 [s]

Min: -75189.9 [N] at 0.097 [s]



APPENDIX C

PART 572B/E DUMMY CONFIGURATION AND PERFORMANCE VERIFICATION DATA SHEETS

Appendix C contains the results from certification tests performed on the 50th percentile male 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, Federal Register, Volume 42, No. 25, dated February 7, 1977.

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:

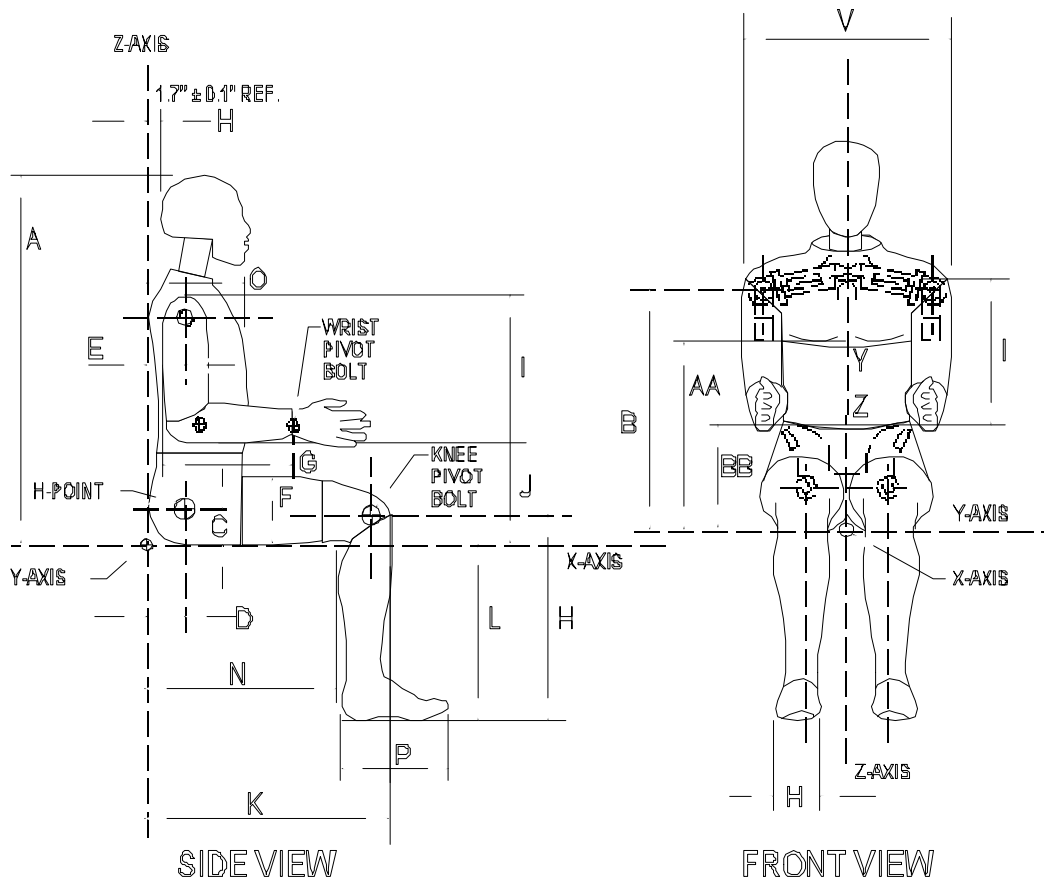
<u>Position No./Location</u>	<u>Serial No.</u>	<u>Completion Date</u>
#1/Driver	421	October 13, 2001
#2/Right Front Passenger	416	October 15, 2001

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))

PART 5720

HEAD DROP TEST

Dummy Serial Number	421
Sequential Test Number	1
Date	October 12, 2001
Workfile	421C05HD1

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature	18.9-25.6 Deg C	21.7
Relative Humidity	10% - 70%	64.0
Peak Resultant Acceleration	250-300 G's	264.91
Peak Lateral Acceleration	15 G's Max	6.46
Is Acceleration Curve Unimodal?	YES	YES

Remarks:

Laboratory Technician: B. Swiecicki

PART 572O
NECK FLEXION TEST

Dummy Serial Number	<u>421</u>	
Sequential Test Number	<u>1</u>	
Date	<u>October 12, 2001</u>	6 Axis Neck Transducer
Workfile	<u>421C05NF2</u>	

TEST PARAMETER		SPECIFICATION	TEST RESULTS
Temperature		20.6-22.2 Deg C	21.7
Relative Humidity		10% - 70%	64.0
Impact Velocity		6.89 - 7.13 m/s	7.12
Integrated	10 ms	2.0 – 2.5 m/s	2.30
Pendulum	20 ms	4.0 – 5.0 m/s	4.63
Velocity	30 ms	5.8 – 7.0 m/s	6.85
Peak D-Plane Rotation		77 – 91 Deg	85.82
Peak Moment During Rotation Interval		69 – 83 Nm	78.19
Positive Moment Decay Time to 10 Nm Level		80- 100 ms	89.92

Remarks:

Laboratory Technician: B. Swiecicki

PART 572O
NECK EXTENSION TEST

Dummy Serial Number	<u>421</u>	
Sequential Test Number	<u>1</u>	
Date	<u>October 13, 2001</u>	6 Axis Neck Transducer
Workfile	<u>421C05NE3</u>	

TEST PARAMETER		SPECIFICATION	TEST RESULTS
Temperature		20.6-22.2 Deg C	21.7
Relative Humidity		10% - 70%	65.0
Impact Velocity		5.95 – 6.19 m/s	6.16
Integrated	10 ms	1.5 – 1.9 m/s	1.71
Pendulum	20 ms	3.1 – 3.9 m/s	3.48
Velocity	30 ms	4.6 – 5.6 m/s	5.21
Peak D-Plane Rotation		99 – 114 Deg	107.28
Peak Moment During Rotation Interval		-53 - -65 Nm	-62.12
Positive Moment Decay Time to -10 Nm Level		94 - 114 ms	103.36

Remarks:

Laboratory Technician: B. Swiecicki

PART 5720
THORAX IMPACT TEST

Dummy Serial Number	<u>421</u>
Sequential Test Number	<u>1</u>
Date	<u>October 15, 2001</u>
Workfile	<u>421C05TH2</u>

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature	20.6 – 22.2 Deg C	21.7
Relative Humidity	10% - 70%	41.0
Pendulum Velocity	6.59 – 6.83 m/s	6.80
Maximum Deflection	50 – 58 mm	51.3
Maximum Resistive Force	3900 – 4400 N	4179
Internal Hysteresis	69 - 85 %	73.1
Peak Force During 18 to 50 mm Deflection	= 105%	102

Remarks:

Laboratory Technician:	<u>B. Swiecicki</u>
------------------------	---------------------

PART 572O
KNEE IMPACT TEST

Dummy Serial Number 421

Sequential Test Number 1

Date October 12, 2001

Workfile 421C05LK1/421C05RK1

TEST PARAMETER	SPECIFICATION	TEST RESULTS
LEFT KNEE		
Temperature	18.9 – 25.6 Deg C	21.7
Relative Humidity	10% - 70%	62.0
Probe Velocity	2.07 – 2.13 m/s	2.09
Peak Knee Impact Force	3450 – 4060 N	4052.6
RIGHT KNEE		
Temperature	18.9 – 25.6 Deg C	21.7
Relative Humidity	10% - 70%	61.0
Probe Velocity	2.07 – 2.13 m/s	2.13
Peak Knee Impact Force	3450 – 4060 N	4057.2

Remarks:

Laboratory Technician: B. Swiecicki

PART 572O
KNEE SLIDER TEST

Dummy Serial Number	<u>421</u>
Sequential Test Number	<u>1</u>
Date	<u>October 12, 2001</u>
Workfile	<u>421C05LS1/421C05RS1</u>

TEST PARAMETER	SPECIFICATION	TEST RESULTS
LEFT KNEE		
Temperature	18.9 – 25.6 Deg C	21.7
Relative Humidity	10% - 70%	65.0
Pendulum Velocity	2.70 – 2.80 m/s	2.70
Peak Displacement	12.7 – 15.5 mm	14.4
RIGHT KNEE		
Temperature	18.9 – 25.6 Deg C	21.7
Relative Humidity	10% - 70%	68.0
Probe Velocity	2.70 – 2.80 m/s	2.70
Peak Knee Impact Force	12.7 – 15.5 mm	14.5

Remarks:

Laboratory Technician:	<u>B. Swiecicki</u>
------------------------	---------------------

PART 572O
EXTERNAL DIMENSIONS

Dummy Serial Number 421
Sequential Test Number 1
Date October 13, 2001

TEST PARAMETER		SPECIFICATION	TEST RESULTS
Total Sitting Height	A	774.7 – 800.1 mm	784.86
Shoulder Pivot Height	B	431.8 – 457.2 mm	447.04
H-Point Height	C	81.3 – 86.3 mm	83.82
H-Point from Backline	D	144.8 – 149.8 mm	144.78
Shoulder Pivot from Backline	E	68.6 – 83.8 mm	73.66
Thigh Clearance	F	119.4 – 134.6 mm	134.62
Back of Elbow to Wrist Pivot	G	243.9 – 259.1 mm	256.54
Skull Cap to Backline	H	40.7 – 45.7 mm	45.72
Shoulder - Elbow Length	I	276.8 – 297.2 mm	281.94
Elbow Rest Height	J	182.8 – 203.2 mm	185.42
Buttock Knee Length	K	520.7 – 546.1 mm	535.94
Popliteal Height	L	355.6 – 376 mm	373.38
Knee Pivot Height	M	393.7 – 419.1 mm	408.94
Buttock Popliteal Length	N	414 – 439.4 mm	429.26
Chest Depth	O	175.3 – 190.5 mm	180.34
Foot Length	P	218.5 – 233.7 mm	228.6
Buttock to Knee Pivot Length	R	457.2 – 482.6 mm	469.9
Head Breadth	S	137.1 – 147.3 mm	142.24
Head Depth	T	177.8 – 188 mm	185.42
Hip Breadth	U	299.7 – 314.9 mm	307.34
Shoulder Breadth	V	350.5 – 365.7 mm	353.06
Foot Breadth	W	78.8 – 94 mm	88.9
Head Circumference	X	528.3 – 548.7 mm	546.1
Chest Circumference (With Jacket)	Y	850.9 – 881.3 mm	871.22
Waist Circumference	Z	759.5 – 789.9 mm	764.54
Location for Chest Circumference	AA	299.7 – 309.9 mm	304.8
Location for Waist Circumference	BB	160 – 170.2 mm	165.1

Remarks:

Laboratory Technician:

B. Swiecicki

PART 572O
HEAD DROP TEST

Dummy Serial Number 416

Sequential Test Number 1

Date October 12, 2001

Workfile 416C12HD1

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature	18.9-25.6 Deg C	21.7
Relative Humidity	10% - 70%	60.0
Peak Resultant Acceleration	250-300 G's	274.54
Peak Lateral Acceleration	15 G's Max	0.95
Is Acceleration Curve Unimodal?	YES	YES

Remarks:

Laboratory Technician: B. Swiecicki

PART 572O
NECK FLEXION TEST

Dummy Serial Number	<u>416</u>	
Sequential Test Number	<u>1</u>	
Date	<u>October 13, 2001</u>	6 Axis Neck Transducer
Workfile	<u>416C12NF3</u>	

TEST PARAMETER		SPECIFICATION	TEST RESULTS
Temperature		20.6-22.2 Deg C	21.7
Relative Humidity		10% - 70%	61.0
Impact Velocity		6.89 - 7.13 m/s	6.99
Integrated	10 ms	2.0 – 2.5 m/s	2.34
Pendulum	20 ms	4.0 – 5.0 m/s	4.82
Velocity	30 ms	5.8 – 7.0 m/s	6.98
Peak D-Plane Rotation		77 – 91 Deg	83.34
Peak Moment During Rotation Interval		69 – 83 Nm	80.17
Positive Moment Decay Time to 10 Nm Level		80- 100 ms	87.20

Remarks:

Laboratory Technician: B. Swiecicki

PART 572O
NECK EXTENSION TEST

Dummy Serial Number	<u>416</u>	
Sequential Test Number	<u>1</u>	
Date	<u>October 15, 2001</u>	6 Axis Neck Transducer
Workfile	<u>416C12NE2</u>	

TEST PARAMETER		SPECIFICATION	TEST RESULTS
Temperature		20.6-22.2 Deg C	21.7
Relative Humidity		10% - 70%	41.0
Impact Velocity		5.95 – 6.19 m/s	6.14
Integrated	10 ms	1.5 – 1.9 m/s	1.77
Pendulum	20 ms	3.1 – 3.9 m/s	3.52
Velocity	30 ms	4.6 – 5.6 m/s	5.18
Peak D-Plane Rotation		99 – 114 Deg	105.74
Peak Moment During Rotation Interval		-53 - -65 Nm	-59.35
Positive Moment Decay Time to -10 Nm Level		94 - 114 ms	103.36

Remarks:

Laboratory Technician: B. Swiecicki

PART 572O
THORAX IMPACT TEST

Dummy Serial Number	<u>416</u>
Sequential Test Number	<u>1</u>
Date	<u>October 15, 2001</u>
Workfile	<u>416C12TH1</u>

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature	20.6 – 22.2 Deg C	21.7
Relative Humidity	10% - 70%	41.0
Pendulum Velocity	6.59 – 6.83 m/s	6.65
Maximum Deflection	50 – 58 mm	56.6
Maximum Resistive Force	3900 – 4400 N	4380.0
Internal Hysteresis	69 - 85 %	73.9
Peak Force During 18 to 50 mm Deflection	= 105%	94

Remarks:

Laboratory Technician:	<u>B. Swiecicki</u>
------------------------	---------------------

PART 5720
KNEE IMPACT TEST

Dummy Serial Number 416

Sequential Test Number 1

Date October 12, 2001

Workfile 416C12LK1/416C12RK1

TEST PARAMETER	SPECIFICATION	TEST RESULTS
LEFT KNEE		
Temperature	18.9 – 25.6 Deg C	21.7
Relative Humidity	10% - 70%	63.0
Probe Velocity	2.07 – 2.13 m/s	2.10
Peak Knee Impact Force	3450 – 4060 N	3984.3
RIGHT KNEE		
Temperature	18.9 – 25.6 Deg C	21.7
Relative Humidity	10% - 70%	62.0
Probe Velocity	2.07 – 2.13 m/s	2.10
Peak Knee Impact Force	3450 – 4060 N	3784.0

Remarks:

Laboratory Technician: B. Swiecicki

PART 572O
KNEE SLIDER TEST

Dummy Serial Number	<u>416</u>
Sequential Test Number	<u>1</u>
Date	<u>October 12, 2001</u>
Workfile	<u>416C12LS1/416C12RS1</u>

TEST PARAMETER	SPECIFICATION	TEST RESULTS
LEFT KNEE		
Temperature	18.9 – 25.6 Deg C	21.7
Relative Humidity	10% - 70%	60.0
Pendulum Velocity	2.70 – 2.80 m/s	2.70
Peak Displacement	12.7 – 15.5 mm	14.3
RIGHT KNEE		
Temperature	18.9 – 25.6 Deg C	21.7
Relative Humidity	10% - 70%	65.0
Probe Velocity	2.70 – 2.80 m/s	2.70
Peak Knee Impact Force	12.7 – 15.5 mm	14.3

Remarks:

Laboratory Technician:	<u>B. Swiecicki</u>
------------------------	---------------------

PART 572O
EXTERNAL DIMENSIONS

Dummy Serial Number 416
Sequential Test Number 1
Date October 15, 2001

TEST PARAMETER		SPECIFICATION	TEST RESULTS
Total Sitting Height	A	774.7 – 800.1 mm	782.32
Shoulder Pivot Height	B	431.8 – 457.2 mm	447.04
H-Point Height	C	81.3 – 86.3 mm	83.82
H-Point from Backline	D	144.8 – 149.8 mm	149.86
Shoulder Pivot from Backline	E	68.6 – 83.8 mm	73.66
Thigh Clearance	F	119.4 – 134.6 mm	129.54
Back of Elbow to Wrist Pivot	G	243.9 – 259.1 mm	256.54
Skull Cap to Backline	H	40.7 – 45.7 mm	45.72
Shoulder - Elbow Length	I	276.8 – 297.2 mm	294.64
Elbow Rest Height	J	182.8 – 203.2 mm	190.5
Buttock Knee Length	K	520.7 – 546.1 mm	546.1
Popliteal Height	L	355.6 – 376 mm	373.38
Knee Pivot Height	M	393.7 – 419.1 mm	403.86
Buttock Popliteal Length	N	414 – 439.4 mm	419.1
Chest Depth	O	175.3 – 190.5 mm	185.42
Foot Length	P	218.5 – 233.7 mm	228.6
Buttock to Knee Pivot Length	R	457.2 – 482.6 mm	467.36
Head Breadth	S	137.1 – 147.3 mm	142.24
Head Depth	T	177.8 – 188 mm	185.42
Hip Breadth	U	299.7 – 314.9 mm	307.34
Shoulder Breadth	V	350.5 – 365.7 mm	353.06
Foot Breadth	W	78.8 – 94 mm	88.9
Head Circumference	X	528.3 – 548.7 mm	538.48
Chest Circumference (With Jacket)	Y	850.9 – 881.3 mm	863.6
Waist Circumference	Z	759.5 – 789.9 mm	777.24
Location for Chest Circumference	AA	299.7 – 309.9 mm	304.8
Location for Waist Circumference	BB	160 – 170.2 mm	165.1

Remarks:

Laboratory Technician:

B. Swiecicki

APPENDIX D

DUMMY, VEHICLE AND LABORATORY INSTRUMENT CALIBRATION

INSTRUMENT CALIBRATION FOR PASSENGER DUMMY
(6 Month Calibration Minimum)

DRIVER DUMMY (S/N 421)		Manufacturer	Serial #	Calibration	
				Last	Next
Head X Arm	Y	ENTRAN	AC-99102-F15	05-Oct-01	05-Apr-02
	Z	ENTRAN	AC-99108-F29	05-Oct-01	05-Apr-02
Head Y Arm	X	ENTRAN	AC-99102-F12	05-Oct-01	05-Apr-02
	Z	ENTRAN	AC-99102-F06	05-Oct-01	05-Apr-02
Head Z Arm	X	ENTRAN	AC-99H30-Z03	05-Oct-01	05-Apr-02
	Y	ENTRAN	AC-99108-F28	05-Oct-01	05-Apr-02
Head CG	X	ENTRAN	AC-98G18-F18	05-Oct-01	05-Apr-02
	Y	ENTRAN	AC-99H30-Z05	05-Oct-01	05-Apr-02
	Z	ENTRAN	AC-99102-F09	05-Oct-01	05-Apr-02
Head CG	X (R)	ENTRAN	AC-00L13-F03	05-Oct-01	05-Apr-02
	Y (R)	ENTRAN	AC-99H30-Z08	05-Oct-01	05-Apr-02
	Z (R)	ENTRAN	AC-99H30-Z04	05-Oct-01	05-Apr-02
Neck Load Cell	X	DENTON	LC-852FX	05-Oct-01	05-Apr-02
	Y	DENTON	LC-852FY	05-Oct-01	05-Apr-02
	Z	DENTON	LC-852FZ	05-Oct-01	05-Apr-02
Neck Moment	X	DENTON	LC-852MX	05-Oct-01	05-Apr-02
	Y	DENTON	LC-852MY	05-Oct-01	05-Apr-02
	Z	DENTON	LC-852MZ	05-Oct-01	05-Apr-02
Chest	X	ENTRAN	AC-01G19-F01	08-Oct-01	08-Apr-02
	Y	ENDEVCO	AC-P15321	05-Oct-01	05-Apr-02
	Z	ENDEVCO	AC-P17743	05-Oct-01	05-Apr-02
Chest	X (R)	ENTRAN	AC-99H30-Z07	05-Oct-01	05-Apr-02
	Y (R)	ENDEVCO	AC-P15334	05-Oct-01	05-Apr-02
	Z (R)	ENTRAN	AC-99G29-Q13	05-Oct-01	05-Apr-02
Chest Deflection Gauge		SERVO	DS-421	10-Oct-01	08-Apr-02
Pelvic	X	ENTRAN	AC-99108-F26	05-Oct-01	05-Apr-02
	Y	ENTRAN	AC-99H30-Z02	05-Oct-01	05-Apr-02
	Z	ENTRAN	AC-99108-F30	12-Apr-01	12-Oct-01

INSTRUMENT CALIBRATION FOR PASSENGER DUMMY
(6 Month Calibration Minimum)

DRIVER DUMMY (S/N 421)		Manufacturer	Serial #	Calibration	
				Last	Next
Left Femur Load	X	DENTON	LC-383Fx	24-May-01	24-Nov-01
	Y	DENTON	LC-383Fy	24-May-01	24-Nov-01
	Z	DENTON	LC-383Fz	24-May-01	24-Nov-01
Left Femur Moment	X	DENTON	LC-383Mx	24-May-01	24-Nov-01
	Y	DENTON	LC-383My	24-May-01	24-Nov-01
	Z	DENTON	LC-383Mz	24-May-01	24-Nov-01
Right Femur Load	X	DENTON	LC-376Fx	24-May-01	24-Nov-01
	Y	DENTON	LC-376Fy	24-May-01	24-Nov-01
	Z	DENTON	LC-376Fz	24-May-01	24-Nov-01
Right Femur Moment	X	DENTON	LC-376Mx	24-May-01	24-Nov-01
	Y	DENTON	LC-376My	24-May-01	24-Nov-01
	Z	DENTON	LC-376Mz	24-May-01	24-Nov-01
Left Knee Shear Dx		DENTON	DS-15021	09-Oct-01	09-Apr-02
Right Knee Shear Dx		DENTON	DS-14949	11-Oct-01	11-Apr-02
Left Upper Tibia	Fx	DENTON	FLX-103-UTLFX	29-Nov-00	29-May-01
	Fz	DENTON	FLX-103-UTLFZ	29-Nov-00	29-May-01
	Mx	DENTON	FLX-103-UTLMX`	29-Nov-00	29-May-01
	My	DENTON	FLX-103-UTLMY	29-Nov-00	29-May-01
Left Lower Tibia	Fx	DENTON	FLX-103-LTLFX	09-Nov-00	09-May-01
	Fy	DENTON	FLX-103-LTLFY	09-Nov-00	09-May-01
	Fz	DENTON	FLX-103-LTLFZ	09-Nov-00	09-May-01
	Mx	DENTON	FLX-103-LTLMX	09-Nov-00	09-May-01
	My	DENTON	FLX-103-LTLMY	09-Nov-00	09-May-01
Right Upper Tibia	Fx	DENTON	FLX-104-UTRFX	08-Nov-00	08-May-01
	Fz	DENTON	FLX-104-UTRFZ	08-Nov-00	08-May-01
	Mx	DENTON	FLX-104-UTRMX	08-Nov-00	08-May-01
	My	DENTON	FLX-104-UTRMY	08-Nov-00	08-May-01

INSTRUMENT CALIBRATION FOR PASSENGER DUMMY
(6 Month Calibration Minimum)

DRIVER DUMMY (S/N 421)		Manufacturer	Serial #	Calibration	
				Last	Next
Right Lower Tibia	Fx	DENTON	FLX-104-LTRFX	09-Nov-00	09-May-01
	Fy	DENTON	FLX-104-LTRFY	09-Nov-00	09-May-01
	Fz	DENTON	FLX-104-LTRFZ	09-Nov-00	09-May-01
	Mx	DENTON	FLX-104-LTRMX	09-Nov-00	09-May-01
	My	DENTON	FLX-104-LTRMY	09-Nov-00	09-May-01
Left Tibia	X	ENTRAN	AC-00L20-A08	11-Oct-01	11-Apr-02
	Y	ENTRAN	AC-98H13-F15	10-Oct-01	08-Apr-02
Right Tibia	X	ENTRAN	AC-98H10-F18	10-Oct-01	08-Apr-02
	Y	ENTRAN	AC-00L20-A12	10-Oct-01	08-Apr-02
Left Ankle	Rx	Contelec	FLX-103-AXRRP	26-Sep-00	26-Mar-01
	Ry	Contelec	FLX-103-AYRRP	26-Sep-00	26-Mar-01
	Rz	Contelec	FLX-103-AZRRP	26-Sep-00	26-Mar-01
Right Ankle	Rx	Contelec	FLX-104-AXRRP	26-Sep-00	26-Mar-01
	Ry	Contelec	FLX-104-AYRRP	26-Sep-00	26-Mar-01
	Rz	Contelec	FLX-104-AZRRP	26-Sep-00	26-Mar-01
Left Foot	Ax	ENTRAN	AC-00L13-F39	10-Oct-01	08-Apr-02
	Ay	ENTRAN	AC-00L20-A15	10-Oct-01	08-Apr-02
	Az	ENTRAN	AC-00L13-F14	11-Oct-01	11-Apr-02
Right Foot	Ax	ENDEVCO	AC-P19227	04-Sep-01	04-Mar-02
	Ay	ENTRAN	AC-01G25-N11	10-Oct-01	08-Apr-02
	Az	ENTRAN	AC-00L13-F72	10-Oct-01	08-Apr-02

INSTRUMENT CALIBRATION FOR PASSENGER DUMMY
(6 Month Calibration Minimum)

PASSENGER DUMMY (S/N 416)		Manufacturer	Serial #	Calibration	
				Last	Next
Head X Arm	Y	ENTRAN	AC-98H14-K20	05-Oct-01	05-Apr-02
	Z	ENDEVCO	AC-P23142	24-Sep-01	24-Mar-02
Head Y Arm	X	ENTRAN	AC-98H10-F10	08-Oct-01	08-Apr-02
	Z	ENDEVCO	AC-P23303	05-Oct-01	05-Apr-02
Head Z Arm	X	ENDEVCO	AC-P23340	01-Oct-01	01-May-02
	Y	ENDEVCO	AC-P19216	04-Sep-01	04-Mar-02
Head CG	X	ENTRAN	AC-98H13-F01	08-Oct-01	08-Apr-02
	Y	ENTRAN	AC-98H10-F12	08-Oct-01	08-Apr-02
	Z	ENTRAN	AC-99H12-F30	08-Oct-01	08-Apr-02
Head CG	X (R)	ENTRAN	AC-99H12-F06	08-Oct-01	08-Apr-02
	Y (R)	ENTRAN	AC-98H13-F04	08-Oct-01	08-Apr-02
	Z (R)	ENDEVCO	AC-P17535	04-Sep-01	04-Mar-02
Neck Load Cell	X	DENTON	LC-1039Fx	24-May-01	24-Nov-01
	Y	DENTON	LC-1039Fy	24-May-01	24-Nov-01
	Z	DENTON	LC-1039Fz	24-May-01	24-Nov-01
Neck Moment	X	DENTON	LC-1039Mx	24-May-01	24-Nov-01
	Y	DENTON	LC-1039My	24-May-01	24-Nov-01
	Z	DENTON	LC-1039Mz	24-May-01	24-Nov-01
Chest	X	ENTRAN	AC-99H12-F15	05-Oct-01	05-Apr-02
	Y	ENDEVCO	AC-AAMD5	05-Oct-01	05-Apr-02
	Z	ENTRAN	AC-99H12-F08	05-Oct-01	05-Apr-02
Chest	X (R)	ENDEVCO	AC-J19868	05-Oct-01	05-Apr-02
	Y (R)	ENDEVCO	AC-AJ7R1	05-Oct-01	05-Apr-02
	Z (R)	ENDEVCO	AC-DC33J	05-Oct-01	05-Apr-02
Chest Deflection Gauge		SERVO	DS-416	12-Oct-01	12-Apr-02
Pelvic	X	ENDEVCO	AC-J19547	05-Oct-01	05-Apr-02
	Y	ENDEVCO	AC-J27079	12-Sep-00	12-Mar-01
	Z	ENDEVCO	AC-ADAT0	05-Oct-01	05-Apr-02

INSTRUMENT CALIBRATION FOR PASSENGER DUMMY
(6 Month Calibration Minimum)

PASSENGER DUMMY (S/N 416)		Manufacturer	Serial #	Calibration	
				Last	Next
Left Femur Load	X	FTSS	LC-111Fx	06-Feb-01	06-Aug-01
	Y	FTSS	LC-111Fy	06-Feb-01	06-Aug-01
	Z	FTSS	LC-111Fz	06-Feb-01	06-Aug-01
L. Femur Moment	X	FTSS	LC-111Mx	06-Feb-01	06-Aug-01
	Y	FTSS	LC-111My	06-Feb-01	06-Aug-01
	Z	FTSS	LC-111Mz	06-Feb-01	06-Aug-01
Right Femur Load	X	FTSS	LC-112Fx	06-Feb-01	06-Aug-01
	Y	FTSS	LC-112Fy	06-Feb-01	06-Aug-01
	Z	FTSS	LC-112Fz	06-Feb-01	06-Aug-01
R. Femur Moment	X	FTSS	LC-112Mx	06-Feb-01	06-Aug-01
	Y	FTSS	LC-112My	06-Feb-01	06-Aug-01
	Z	FTSS	LC-112Mz	06-Feb-01	06-Aug-01
Left Knee Shear Dx		SpaceAge Control	DS-13742	09-Oct-01	09-Apr-02
Right Knee Shear Dx		SpaceAge Control	DS-18127	10-Oct-01	08-Apr-02
Left Upper Tibia	Fx	DENTON	FLX-102-UTLFX	08-Nov-00	08-May-01
	Fz	DENTON	FLX-102-UTLFZ	08-Nov-00	08-May-01
	Mx	DENTON	FLX-102-UTLMX	08-Nov-00	08-May-01
	My	DENTON	FLX-102-UTLMY	08-Nov-00	08-May-01
Left Lower Tibia	Fx	DENTON	FLX-102-LTLFX	15-Nov-00	15-May-01
	Fy	DENTON	FLX-102-LTLFY	15-Nov-00	15-May-01
	Fz	DENTON	FLX-102-LTLFZ	15-Nov-00	15-May-01
	Mx	-	-	-	-
	My	DENTON	FLX-102-LTLMY	15-Nov-00	15-May-01
Right Upper Tibia	Fx	DENTON	FLX-101-UTRFX	08-Nov-00	08-May-01
	Fz	DENTON	FLX-101-UTRFZ	08-Nov-00	08-May-01
	Mx	DENTON	FLX-101-UTRMX	08-Nov-00	08-May-01
	My	DENTON	FLX-101-UTRMY	08-Nov-00	08-May-01

INSTRUMENT CALIBRATION FOR PASSENGER DUMMY
(6 Month Calibration Minimum)

PASSENGER DUMMY (S/N 416)		Manufacturer	Serial #	Calibration	
				Last	Next
Right Lower Tibia	Fx	DENTON	FLX-101-LTRFX	09-Nov-00	09-May-01
	Fy	DENTON	FLX-101-LTRFY	09-Nov-00	09-May-01
	Fz	DENTON	FLX-101-LTRFZ	09-Nov-00	09-May-01
	Mx	DENTON	FLX-101-LTRMX	09-Nov-00	09-May-01
	My	DENTON	FLX-101-LTRMY	09-Nov-00	09-May-01
Left Tibia	X	ENTRAN	AC-00L13-F04	11-Oct-01	11-Apr-02
	Y	ENTRAN	AC-00L13-F16	10-Oct-01	08-Apr-02
Right Tibia	X	ENTRAN	AC-98H10-F01	10-Oct-01	08-Apr-02
	Y	ENTRAN	AC-00L20-A14	10-Oct-01	08-Apr-02
Left Ankle	Rx	Contelec	FLX-102-AXLRP	26-Sep-00	26-Mar-01
	Ry	Contelec	FLX-102-AYLRP	26-Sep-00	26-Mar-01
	Rz	Contelec	FLX-102-AZLRP	26-Sep-00	26-Mar-01
Right Ankle	Rx	Contelec	FLX-101-AXRRP	26-Sep-00	26-Mar-01
	Ry	Contelec	FLX-101-AYRRP	26-Sep-00	26-Mar-01
	Rz	Contelec	FLX-101-AZRRP	26-Sep-00	26-Mar-01
Left Foot	Ax	ENTRAN	AC-00L13-F33	10-Oct-01	08-Apr-02
	Ay	ENTRAN	AC-00L13-F35	10-Oct-01	08-Apr-02
	Az	ENTRAN	AC-01G18-F03	11-Oct-01	11-Apr-02
Right Foot	Ax	ENDEVCO	AC-P18578	04-Sep-01	04-Mar-02
	Ay	ENTRAN	AC-00L20-A13	10-Oct-01	08-Apr-02
	Az	ENTRAN	AC-01G18-F20	11-Oct-01	11-Apr-02

INSTRUMENT CALIBRATION FOR VEHICLE ACCELEROMETERS

(6 Month Calibration Minimum)

	Manufacturer	Serial #	Calibration	
			Last	Next
Left Seat Rear Crossmember X	ICS	AC-X86	30-Oct-01	30-Apr-02
Left Seat Rear Crossmember Y	ICS	AC-D41	25-Sep-01	25-Sep-01
Right Seat Rear Crossmember X	ICS	AC-D61	30-Oct-01	30-Apr-02
Right Rear Seat Crossmember Y	ICS	AC-D31	25-Sep-01	25-Mar-02
Driver Left Side Toepan Z	ENDEVCO	AC-A13513	29-Aug-01	28-Feb-02
Driver Right Side Toepan X	ENDEVCO	AC-ACC06	25-Sep-01	25-Mar-02
Driver Right Side Toepan Z	ENDEVCO	AC-J32176	21-Sep-01	21-Mar-02
Driver Toepan X	PATRIOT	DS-M97	22-Jun-01	22-Dec-01