V3032

REPORT NUMBER: CAL-99-07

NEW CAR ASSESSMENT PROGRAM (NCAP)
FRONTAL BARRIER IMPACT TEST

GENERAL MOTORS CORPORATION
1999 CHEVROLET BLAZER
4-DOOR MPV

NHTSA NUMBER: MX0101

CALSPAN TEST NUMBER: 8413-31

CALSPAN CORPORATION
TRANSPORTATION SCIENCE CENTER
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BUFFALO, NEW YORK 14225

January 18, 1999

FINAL REPORT

PREPARED FOR:

U. S. DEPARTMENT OF TRANSPORTATION
National Highway Traffic Safety Administration
Safety Performance Standards
Office of Crashworthiness Standards
Mail Code: NPS-10
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3032

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FINAL REPORT ACCEPTANCE BY OCS:

_____

Manager, New Car Assessment Program (NCAP)
NHTSA, Office of Crashworthiness Standards

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15. *Supplementary Notes*		

16. *Abstract*

A frontal load cell barrier test of a 1999 Chevrolet Blazer 4-Door MPV was performed at Calspan Corporation crash test facility in Buffalo, New York, on January 18, 1999.

The impact velocity was 56.5 kph and the temperature at the barrier face was 21.7°C. The maximum post-test vehicle crush was 651 mm. The test vehicle was equipped with a 3-point belt system and supplemental Next Generation frontal airbag at both front outboard seating positions.

With respect to FMVSS 208 "Occupant Crash Protection - Injury Criteria," the driver appeared to exceed the chest acceleration requirements and comply with the head, chest displacement, and femur requirements. The passenger appeared to comply with the head, chest, and femur requirements.

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Section 1

PURPOSE AND SUMMARY OF TEST MX0101

PURPOSE

This 56.5 kph frontal barrier impact test is part of the Vehicle Barrier Impact Testing Program sponsored by the National Highway Traffic Safety Administration (NHTSA) under Contract No. DTNH22-96-D-02010. The purpose of this test was to obtain vehicle crashworthiness and occupant restraint system performance data for an impact speed in excess of the current 48.3 kph requirements.

The 56.5 kph frontal barrier impact test was conducted in accordance with the Office of Crashworthiness Standards Laboratory Indicant Test procedure.

SUMMARY

A load cell barrier consisting of 36 load cells was impacted by a 1999 Chevrolet Blazer 4-Door MPV at a velocity of 56.5 kph. The test was performed at the Calspan Corporation on January 18, 1999. Pre- and post-test photographs of the vehicle and dummies can be found in Appendix A.

The frontal barrier impact event was documented by 1 real-time camera and 16 high-speed cameras. Camera locations and other pertinent camera information can be found in this report.

Two Part 572E, 50th percentile male 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 head, chest, and pelvis triaxial accelerometers, chest displacement potentiometers, upper neck transducers, right/left femur load cells, and lower leg instrumentation. Seat belt load cells were also on the driver's and passenger's lap and shoulder belts to measure dummy torso and pelvic section loading. The driver (position 1) ATD (Serial No. 150) and the right-front passenger (position 2) ATD (Serial No. 245) were calibrated previous to this test. Certification details, along with instrumentation calibration data, are found in Appendix C.

The 132 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 799.9. The maximum chest deceleration over 3 milliseconds was 64.5 g's and maximum chest deflection was 38.9 mm. Femur loads were 7004.8 Newtons on the left and 5880.3 Newtons on the right.

The right front passenger's HIC was 406.1. Maximum chest deceleration over 3 milliseconds was 57.1 g's and maximum chest deflection was 26.2 mm. Femur loads were 5403.9 Newtons on the left and 4875.5 Newtons on the right.

SECTION 2

GENERAL TEST AND VEHICLE PARAMETER DATA

DATA SHEET NO. 1 CRASH TEST SUMMARY

Vehicle NHTSA No. : MX0101 Test Mode : 56.3 kph Frontal Barrier

Test Date : January 18, 1999 Time: 11:53 Temperature : 21.7 °C

Vehicle Make/Model/Body Style : 1999 Chevrolet Blazer 4-Door MPV

Vehicle Test Weight : 2171.5 kg

Vehicle/Barrier Impact Angle : 0 °

Impact Velocity : 56.5 kph

Maximum Static Crush : 651 mm

Vehicle Rebound : 717 mm

DUMMIES:	DRIVER	PASSENGER
Type :	572E	572E
Restraint System :	Next Generation frontal airbag/3-point belt system	Next Generation frontal airbag/3-point belt system

Number of Data Channels : 132

Number of Cameras : 1 Real Time

16 High Speed

DOOR OPENING DATA : Closed / Inoperable - Left Front

Closed / Inoperable - Right Front

Front Seat(s) Data :	DRIVER	PASSENGER
Seat Track Failure :(mm of shift)	0	0
Seat Back Failure :	None	None

VISIBLE DUMMY CONTACT POINTS :	DRIVER	PASSENGER
Head :	Face to upper one-third of airbag, back of head to center of head restraint	Face to center of airbag, back of head to center of head restraint
Abdomen :	None	None
Chest	Airbag	Airbag
Knees	Left knee to bolster left of steering column, right knee to bolster right of steering column	Left knee to left edge of glove compartment, right knee to right edge of glove compartment

DATA SHEET NO. 2 GENERAL TEST AND VEHICLE PARAMETER DATA

TEST VEHICLE INFORMATION :

Year/Make/Model/Body Style : 1999 Chevrolet Blazer 4-Door MPV

NHTSA No. : MX0101 ; VIN: 1GNDT13W7X2144083 ; Color : Red

Engine Data: 6 cylinders; - CID; 4.3 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 : 12/22/98 ; Odometer Reading 49.9 km

Selling Dealer : West-Herr Chevrolet Inc.

& Address: PO Box 158, Eden NY 14057

DATA FROM TIRE VEHICLE'S CERTIFICATION LABEL:

Vehicle Manufactured by : General Motors Corporation

Date of Manufacture 12/98

GVWR : 2427 kg; GAWR: 1270 kg FRONT; 1225 kg REAR

DATA FROM TIRE PLACARD:

Tire Pressure with Maximum Capacity Vehicle Load : 240 kpa FRONT

240 kpa REAR

Recommended Tire Size : P235/70 R15

* Recommended Cold Tire Pressure : 220 kpa FRONT; 220 kpa REAR

Size of Tires on Test Vehicle: 235/70 R15 ; Manufacturer: Uniroyal

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) = 538.5 kg

No. of Occupants x 68 kg = 340.2 kg

** Rated Cargo/Luggage Weight (RCLW) = 198.3 kg

*Tire pressure used for test.

** Maximum RCLW of 136.1 kg was used in the target weight calculation.

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

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

Right Front =	551.0	kg	Right Rear =	411.5	kg
Left Front =	504.0	kg	Left Rear =	422.0	kg
TOTAL FRONT =	1,055.0	kg	TOTAL REAR =	833.5	kg

TOTAL DELIVERED WEIGHT = 1,888.5 kg

% of Total Front of Vehicle Weight = 55.9 % of Total Rear Weight = 44.1 %

CALCULATION OF VEHICLE'S TARGET TEST WEIGHT :

Total Delivered Weight (UDW) =	1888.5	kg
Rated Cargo/Luggage Weight (RCLW) =	136.1	kg
Weight of 2 p.572 Dummies @ 76 each =	152.0	kg
TARGET TEST WEIGHT =	2176.6	kg

WEIGHT OF TEST VEHICLE WITH TWO DUMMIES AND 131.0 KG OF CARGO WEIGHT:

Right Front =	541.5	kg	Right Rear =	526.5	kg
Left Front =	570.0	kg	Left Rear =	533.5	kg
TOTAL FRONT =	1111.5	kg	TOTAL REAR =	1060.0	kg

TOTAL TEST WEIGHT = 2171.5 kg

% of Total Front Weight = 51.2 % % of Total Rear Weight = 48.8 %

Weight of Ballast Secured in Vehicle Trunk Area = 55.0 kg

Vehicle Components Removed for Weight Reduction: None

VEHICLE ATTITUDE (all dimension in millimeters):

AS DELIVERED :	RF	821	LF	805	RR	862	LR 853
FULLY LOADED :	RF	803	LF	790	RR	819	LR 814
AS TESTED :	RF	805	LF	795	RR	820	LR 815

Vehicle's Wheel Base : 2722 mm

Location of Vehicle's C.G. : 1329 mm rearward of front wheel center.

FUEL SYSTEM DATA :

Fuel System Capacity From Owner's Manual = 68.1 liters

Usable Capacity Figure Furnished by COTR = 69.1 liters

Test Volume Range (92 to 94% of Usable Capacity) = 63.6 to 65.0 liters

ACTUAL TEST VOLUME= 64.4 liters (with entire fuel system filled)

Test Fluid Type: Stoddard Solution ; Spec. Grav. = 0.764

Kinematic Viscosity = 0.96 centistokes; Color = Orange

Type of Fuel Pump: Electric- X ; Mechanical- -

Does Electric Pump operate with ignition switch "ON" & engine "OFF" Yes- X No- -

Details of Fuel System Fuel filler - aft of rear axle on left quarter panel; Fuel tank - fore of rear axle on left side of vehicle underbody; Fuel lines - run along left frame rail

DATA SHEET NO. 3 POST IMPACT DATA

TYPE OF TEST:

Type of Test : Frontal Barrier Impact Angle : 0°

Test Date : January 18, 1999 Time: 11:53 Temperature: 21.7 °C

Vehicle NHTSA No. : MX0101

Required Impact Velocity Range : 55.5 to 57.1 kph

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

Trap No. 1 = 56.5 kph; Trap No. 2 = 56.5 kph

Distance from vehicle to barrier : (1) entering trap = 813 mm

(2) exiting trap = 305 mm

VEHICLE STATIC CRUSH: (mm) (For frontal and rear impacts only.)

Vehicle Length:

Pre-Test	Right =	4602	; C/L =	4697	; Left =	4602
Post-Test	Right =	4041	; C/L =	4046	; Left =	4058
Crush	Right =	561	; C/L =	651	; Left =	544
AVERAGE	=	585	mm			

VEHICLE REBOUND: (From rigid barrier only.)

Distance from front of test vehicle to impact point :

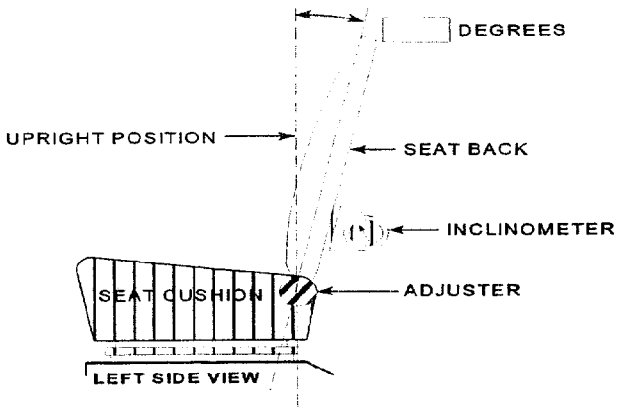
	Right =	680	; C/L =	726	; Left =	745
AVERAGE	=	717	mm			

DATA SHEET NO. 4 TEST VEHICLE INFORMATION

VEHICLE IDENTIFICATION:

Model Year : 1999 Vehicle Model: Chevrolet Blazer Body Style : 4-Door 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 : 23°

Measurement instructions : Measure with an inclinometer on the seat back frame approximately 229 mm above the seat hinge point.

Seat back angle for passenger's seat : 23°

Measurement instructions : Measure with an inclinometer on the seat back frame approximately 229 mm above the seat hinge point.

2. Seat Fore and Aft Positioning

Positioning of the driver's seat : Adjust seat to measured fore/aft travel mid-position.

Positioning of the passenger's seat (if applicable) : Adjust seat to measured fore/aft travel mid-position.

3. Fuel Tank Capacity Data

3.1

A. "Usable Capacity" of the standard equipment fuel tank is 18.25 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 = 64.4 liters

3.2 Amount of Stoddard solvent added to vehicle(s) used for certification test(s) = 69.1 liters

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

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

When ignition switch is turned on, pump will run while engine is cranking or running. Pump will shut off within 2 seconds after ignition is turned to "on" position or after engine stops.

4. STEERING COLUMN ADJUSTMENTS :

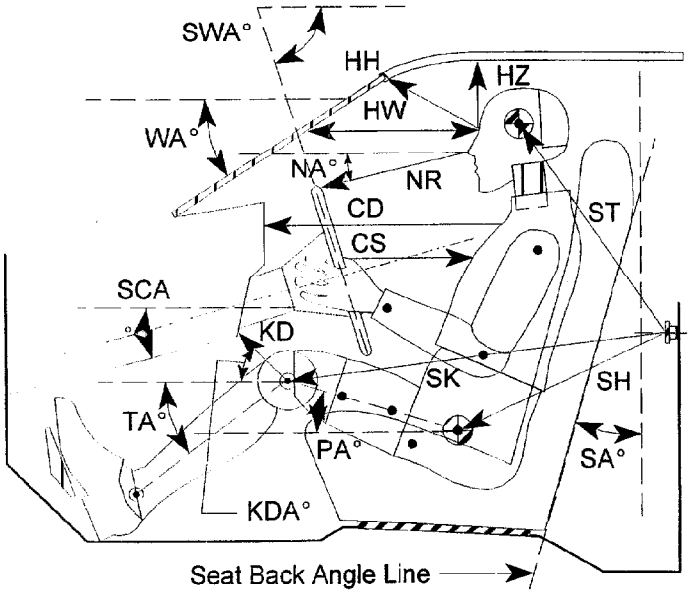
Steering wheel and column adjustments are made so that the steering wheel hub is at the geometric center of the locus it describes when it is moved through its full range of driving positions. If the tested vehicle has any of these adjustments, does your company use any specific procedures to determine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

Operational Instructions: Place column in position #4 from the full up position (position #1).

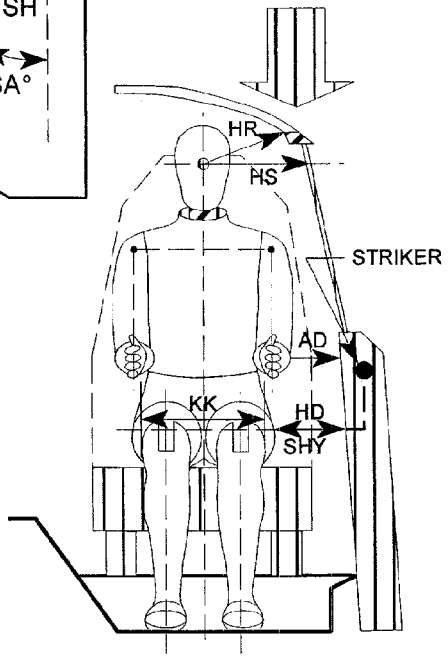
5. SEAT BELT UPPER ANCHORAGE

Nominal design riding position: Position is fixed.

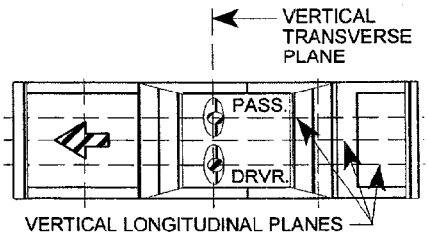
DUMMY MEASUREMENT FOR FRONT SEAT PASSENGERS



AD - Arm to Door
HD - H-Point to Door
HR - Head to Side Header
HS - Head to Side Window
KK - Knee to Knee
SHY- Striker to H-Point (Y Direction)



CD - Chest to Dash
CS - Steering Wheel to Chest
HH - Head to Header
HW - Head to Windshield
HZ - Head to Roof
KDA- Knee to Dash Angle
KDL - Left Knee to Dash
KDR- Right Knee to Dash
NA - Nose to Rim Angle
NR - Nose to Rim
PA - Pelvic Angle
RA - Rim to Abdomen
SA - Seat Back Angle
SCA- Steering Column Angle
SH - Striker to H-Point
SK - Striker to Knee
ST - Striker to Head
SWA- Steering Wheel Angle
TA - Tibial Angle
WA - Windshield Angle



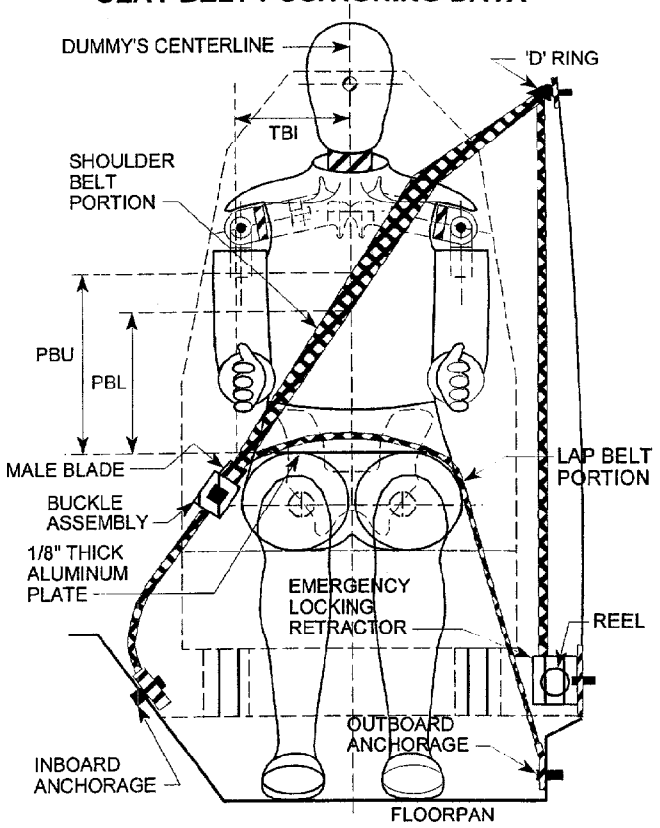
DATA SHEET NO. 5 FRONT SEAT DUMMY POSITIONING MEASUREMENTS IN VEHICLE

	DRIVER (Serial #150)			PASS. (Serial # 245)		
WA°	36 deg.			N/A		
SWA°	69 deg.			N/A		
SCA°	21 deg.			N/A		
SA°	23 deg.			23 deg.		
HZ	205			206		
HH	465			457		
HW	611			599		
HR	257			254		
NR	363	Angle	21 deg.	N/A		
CD	539			432		
CS	281			N/A		
RA	172			N/A		
KDL	168	Angle (KDA)	36 deg.	170		
KDR	161			168	Angle (KDA)	34 deg.
PA°	24 deg.			24 deg.		
TA°	42 deg.			43 deg.		
KK	304			266		
ST	592	Angle	14 deg.	587	Angle	15 deg.
SK	687	Angle	87 deg.	686	Angle	88 deg.
SH	315	Angle	102 deg.	309	Angle	103 deg.
SHY	235			215		
HS	353			350		
HD	174			160		
AD	125			126		

Dimensions in millimeters

DATA SHEET NO. 6 SEAT BELT POSITIONING DATA

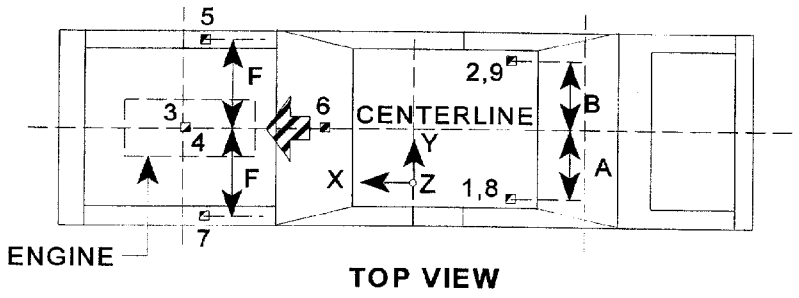
SEAT BELT POSITIONING DATA



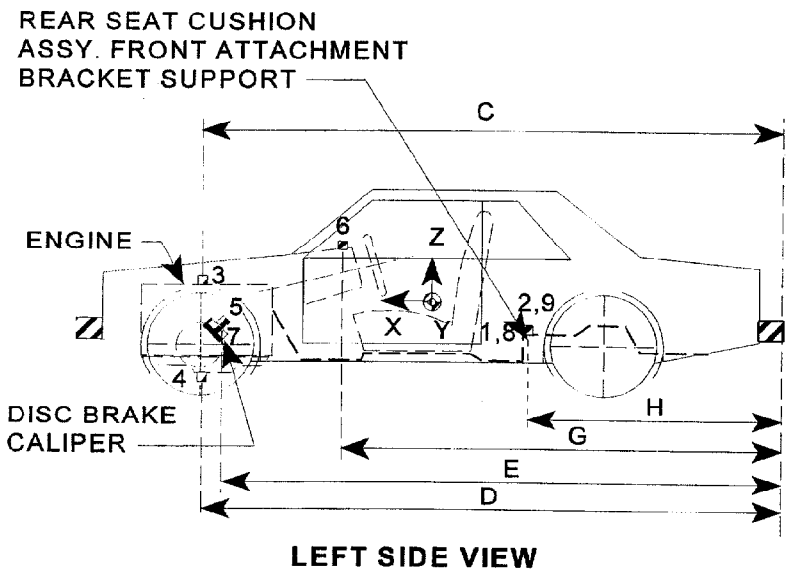
FRONT VIEW OF DUMMY

	DRIVER DUMMY (mm)	PASSENGER DUMMY (mm)
PBU -- Top surface of alum. plate to upper edge	320	322
PBL-- Top surface of alum. plate to belt lower edge	238	240
LAP BELT TENSION	10 N	10 N
SHOULDER BELT TENSION	Retractor	Retractor

VEHICLE ACCELEROMETER LOCATION AND DATA SUMMARY



TOP VIEW



LEFT SIDE VIEW

Note: Vehicle accelerometer location and data summary shown in DATA SHEET NO. 7

DATA SHEET NO. 7 VEHICLE ACCELEROMETER LOCATIONS AND DATA SUMMARY

DIMENSION	LENGTH (mm)
	PRE-TEST VALUES
A Left Rear Seat Crossmember Y	510
B Right Rear Seat Crossmember Y	510
C Top of Engine X	3866
D Bottom of Engine X	3568
E Disc Brake Calipers X	3614
F Disc Brake Calipers Y	301
G Instrument Panel X	2987
H Rear Seat Crossmembers X	1993

LOCATION NUMBER	DESCRIPTION	MAXIMUM VALUE (g's)			
		Pos.	msec.	Neg.	msec.
1	Rear Seat X-Member @ Left Side	2.3	164.1	-44.4	59.3
2	Rear Seat X-Member @ Right Side	8.6	23.7	-42.4	65.6
3	Top of Engine Block	33.2	49.5	-113.4	40.1
4 †	Bottom of Engine	-	-	-	-
5	Disc Brake Caliper @ Right Side	63.7	24.3	-90.3	42.8
6 ††	Instrument Panel	-	-	-	-
7 ‡	Disc Brake Caliper @Left Side	-	-	-	-
8 ‡‡	Rear Seat X-Member @ Left-Redundant	553.4	88.2	-439.3	95.5
9	Rear Seat X-Member @ Right-Redundant	10.9	22.6	-43.7	65.7

† Transducer cable was damaged during the impact, data is invalid after 54 milliseconds.
†† Transducer cable was damaged during the impact, data is invalid after 80 milliseconds.
‡ Transducer cable was damaged during the impact, data is invalid after 55 milliseconds.
‡‡ Data is questionable.

DATA SHEET NO. 8 DUMMY INJURY CRITERIA VALUES

NHTSA Test No.: MX0101 Vehicle: 1999 Chevrolet Blazer 4-Door MPV

DESCRIPTION	UNIT	MAXIMUM VALUE			
		Pos.	msec.	Neg.	msec.
Pos. 1 Head X	g's	13.1	225.7	-74.1	84.2
Pos. 1 Head Y	g's	4.3	58.7	-15.6	91.4
Pos. 1 Head Z	g's	26.0	78.2	-7.4	110.6
Pos. 1 Head Resultant	g's	77.3	83.8	0.1	-61.3
Pos. 2 Head X	g's	11.5	279.1	-50.2	85.7
Pos. 2 Head Y	g's	28.5	95.1	-11.3	280.4
Pos. 2 Head Z	g's	21.6	74.7	-17.0	101.7
Pos. 2 Head Resultant	g's	54.6	87.3	0.0	4.5
Pos. 1 Chest X	g's	4.5	180.4	-65.8	78.5
Pos. 1 Chest Y	g's	1.6	592.3	-6.4	55.6
Pos. 1 Chest Z	g's	14.4	62.0	-8.7	120.4
Pos. 1 Chest Resultant	g's	66.7	78.4	0.0	-36.6
Pos. 1 Chest Displacement	mm	0.0	-0.9	-38.9	66.8
Pos. 2 Chest X	g's	2.8	296.4	-55.8	81.6
Pos. 2 Chest Y	g's	8.7	88.4	-2.7	119.0
Pos. 2 Chest Z	g's	18.0	75.7	-11.0	126.2
Pos. 2 Chest Resultant	g's	58.3	80.2	0.0	-30.5
Pos. 2 Chest Displacement	mm	0.0	-22.1	-26.2	93.8
Pos. 1 Left Femur	N	193.3	36.7	-7004.8	59.5
Pos. 1 Right Femur	N	190.5	39.9	-5880.3	58.9
Pos. 2 Left Femur	N	174.2	38.0	-5403.9	60.8
Pos. 2 Right Femur	N	428.0	100.7	-4875.5	54.4
Pos. 1 Left Belt Load	N	5186.9	70.4	-102.0	184.9
Pos. 1 Torso Belt Load	N	4208.3	65.6	-119.5	177.0
Pos. 2 Right Belt Load	N	5598.1	69.2	-29.0	120.1
Pos. 2 Torso Belt Load	N	3890.4	87.3	-18.6	370.1

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

NHTSA Test No.: MX0101 Vehicle: 1999 Chevrolet Blazer 4-Door MPV

	HEAD INJURY CRITERIA (HIC)			
	HIC**	t_1 (msec)	t_2 (msec)	Average Acceleration t_1 to t_2
Position #1 - Driver	799.9	62.6	96.3	56.3
Position #2 - Passenger	406.1	66.1	102.1	41.8

** HIC is as defined in FMVSS 208. The maximum time interval from t_1 to t_2 is 36 milliseconds.

	CLIP SUMMARY*			
	CLIP (g's)	t_1 (msec)	t_2 (msec)	CSI
Position #1 - Driver	64.5	77.2	80.2	747.1
Position #2 - Passenger	57.1	79.4	82.4	574.9

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

DATA SHEET NO. 8 DUMMY INJURY CRITERIA VALUES (cont.)
HYBRID III NECK AND PELVIC DATA SHEET

Vehicle Year/Make/Model/Body Style: 1999 Chevrolet Blazer 4-Door MPV

NHTSA Test No.: MX0101 Test Date: January 18, 1999

DESCRIPTION	UNIT	MAXIMUM VALUE			
		Pos.	msec	Neg.	msec
Pos. 1 Upper Neck Fx	N	1081.9	76.6	-276.1	155.7
Pos. 1 Upper Neck Fy	N	127.9	599.9	-121.1	79.4
Pos. 1 Upper Neck Fz	N	1946.4	71.5	-322.1	111.2
Pos. 1 Neck Force Result	N	2163.8	78.1	1.4	-53.9
Pos. 1 Upper Neck Mx	N-m	15.6	65.2	-12.1	102.2
Pos. 1 Upper Neck My	N-m	75.2	75.5	-28.9	250.1
Pos. 1 Upper Neck Mz	N-m	19.3	104.4	-7.6	161.6
Pos. 1 Neck Moment Result	N-m	75.2	75.5	0.0	-57.7
Pos. 2 Upper Neck Fx	N	522.1	277.6	-650.2	162.1
Pos. 2 Upper Neck Fy	N	357.8	136.4	-135.2	85.7
Pos. 2 Upper Neck Fz	N	1963.2	79.9	-1565.2	284.1
Pos. 2 Neck Force Result	N	1971.9	79.9	1.8	-64.0
Pos. 2 Upper Neck Mx	N-m	30.6	282.2	-10.7	96.4
Pos. 2 Upper Neck My	N-m	56.6	158.0	-47.4	57.3
Pos. 2 Upper Neck Mz	N-m	20.7	163.4	-30.0	101.0
Pos. 2 Neck Moment Result	N-m	60.1	158.0	0.1	-55.9
Pos. 1 Pelvic (X)	g's	4.4	145.5	-68.1	59.5
Pos. 1 Pelvic (Y)	g's	14.7	59.8	-9.3	49.4
Pos. 1 Pelvic (Z)	g's	4.0	46.7	-17.4	66.6
Pos. 1 Pelvic (R)	g's	69.8	59.3	0.0	-31.9
Pos. 2 Pelvic (X)	g's	5.8	116.0	-55.3	63.2
Pos. 2 Pelvic (Y)	g's	6.7	78.2	-6.4	66.4
Pos. 2 Pelvic (Z)	g's	4.7	280.8	-16.6	83.6
Pos. 2 Pelvic (R)	g's	55.7	63.1	0.0	-33.6

DATA SHEET NO. 8 DUMMY INJURY CRITERIA VALUES (cont.)
HYBRID III LOWER LEG DATA SHEET

Vehicle Year/Make/Model/Body Style: 1999 Chevrolet Blazer 4-Door MPV

NHTSA Test No.: MX0101 Test Date: January 18, 1999

DESCRIPTION	UNIT	MAXIMUM VALUE			
		Pos.	msec	Neg.	msec
P1 Lt Upper Tibia Mx	N-m	52.2	71.5	-17.9	58.0
P1 Lt Upper Tibia My	N-m	75.1	60.3	-132.6	47.0
P1 Lt Lower Tibia Fz	N	136.1	71.6	-4062.8	53.1
P1 Lt Lower Tibia Mx	N-m	10.0	46.8	-97.5	54.6
P1 Lt Lower Tibia My	N-m	40.2	46.9	-68.7	55.8
P1 Rt Upper Tibia Mx	N-m	56.4	46.8	-25.3	65.3
P1 Rt Upper Tibia My	N-m	54.9	70.5	-183.3	49.4
P1 Rt Lower Tibia Fz	N	252.0	243.3	-7265.4	48.0
P1 Rt Lower Tibia Mx	N-m	†	†	†	†
P1 Rt Lower Tibia My	N-m	48.6	42.6	-139.5	58.7
Pos. 2 Lt Upper Tibia Mx	N-m	26.5	52.9	-125.9	48.1
Pos. 2 Lt Upper Tibia My	N-m	21.7	161.7	-197.5	47.4
Pos. 2 Lt Lower Tibia Fz	N	103.4	280.6	-5300.1	47.0
Pos. 2 Lt Lower Tibia Mx	N-m	89.8	47.8	-133.0	52.1
Pos. 2 Lt Lower Tibia My	N-m	60.4	46.9	-101.2	60.2
Pos. 2 Rt Upper Tibia Mx	N-m	17.3	577.1	-54.8	90.6
Pos. 2 Rt Upper Tibia My	N-m	15.6	122.5	-157.3	53.4
Pos. 2 Rt Lower Tibia Fz	N	††	††	††	††
Pos. 2 Rt Lower Tibia Mx	N-m	45.9	51.7	-10.6	599.9
Pos. 2 Rt Lower Tibia My	N-m	42.9	38.3	-71.1	62.3

† Data is questionable.
†† No data.

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

Vehicle Year/Make/Model/Body Style: 1999 Chevrolet Blazer 4-Door MPV

NHTSA Test No.: MX0101 Test Date: January 18, 1999

DESCRIPTION	UNIT	MAXIMUM VALUE			
		Pos.	msec	Neg.	msec
Pos. 1 Left Ankle X	**g's**	26.5	59.1	-91.1	45.3
Pos. 1 Left Ankle Z	**g's**	8.7	61.8	-110.4	49.8
Pos. 1 Left Toe Z	**g's**	23.8	61.5	-139.8	49.8
Pos. 1 Right Ankle X	**g's**	40.2	48.7	-114.8	43.8
Pos. 1 Right Ankle Z	**g's**	19.2	55.7	-172.6	47.5
Pos. 1 Right Toe Z	**g's**	154.7	55.8	-205.9	42.2
Pos. 2 Left Ankle X	**g's**	42.9	53.3	-219.3	47.2
Pos. 2 Left Ankle Z	**g's**	25.3	50.5	-187.8	46.6
Pos. 2 Left Toe Z	**g's**	119.6	47.0	-241.8	46.1
Pos. 2 Right Ankle X	**g's**	32.1	63.3	-98.7	37.5
Pos. 2 Right Ankle Z	**g's**	9.7	76.9	-87.0	47.1
Pos. 2 Right Toe Z	**g's**	763.2	115.1	-1454.7	73.1

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

NHTSA Test No.: MX0101 Vehicle: 1999 Chevrolet Blazer 4-Door MPV

DESCRIPTION	UNIT	MAXIMUM VALUE			
		Pos.	msec	Neg.	msec
Pos. 1 Head X(R)	g's	14.5	226.4	-86.1	84.1
Pos. 1 Head Y(R)	g's	8.7	58.9	-21.1	90.9
Pos. 1 Head Z(R)	g's	32.0	65.3	-9.0	102.0
Pos. 1 Head Resultant(RR)	g's	91.0	84.0	0.1	-58.3
Pos. 2 Head X(R)	g's	11.2	278.8	-53.0	85.6
Pos. 2 Head Y(R)	g's	11.9	280.2	-24.1	88.2
Pos. 2 Head Z(R)	g's	22.5	73.5	-18.7	101.6
Pos. 2 Head Resultant(RR)	g's	57.9	87.8	0.0	11.0
Pos. 1 Chest X(R)	g's	4.2	174.0	-59.8	78.6
Pos. 1 Chest Y(R)	g's	1.6	592.4	-7.4	55.8
Pos. 1 Chest Z(R)	g's	15.2	76.9	-9.6	119.8
Pos. 1 Chest Resultant(RR)	g's	61.2	78.6	0.0	-35.8
Pos. 2 Chest X(R)	g's	3.1	292.9	-62.6	81.4
Pos. 2 Chest Y(R)	g's	11.2	88.4	-2.7	118.9
Pos. 2 Chest Z(R)	g's	22.0	75.7	-13.8	126.2
Pos. 2 Chest Resultant(RR)	g's	66.0	81.3	0.0	-35.1

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

NHTSA Test No.: MX0101 Vehicle: 1999 Chevrolet Blazer 4-Door MPV

	HEAD INJURY CRITERIA (HIC) **REDUNDANT**			
	HIC**	t_1 (msec)	t_2 (msec)	Average Acceleration t_1 to t_2
Position #1 - Driver	1241.3	60.5	96.5	65.3
Position #2 - Passenger	422.7	66.6	100.9	43.3

** HIC is as defined in FMVSS 208. The maximum time interval from t_1 to t_2 is 36 milliseconds.

	CLIP SUMMARY* **REDUNDANT**			
	CLIP (g's)	t_1 (msec)	t_2 (msec)	CSI
Position #1 - Driver	59.2	77.2	80.2	614.9
Position #2 - Passenger	63.9	79.2	82.2	751.5

* 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:	Driver	Passenger
Belt length from trim panel exit to bolt hole anchor point for continuous webbing systems.	1849	1844
Shoulder belt length as measured on Part 572 Dummy.	826	814
Lap belt length as measured on Part 572 Dummy.	768	775
SHOULDER BELT SPOOL-OFF DATA:		
As determined by film analysis.	109	190
As determined mechanically.	110	193
As determined electronically.	113	80
BELT STRETCH DATA:		
Measured electronically between shoulder belt load cell and the "D" ring.	22 mm/M	56 mm/M
Measured mechanically.	10 mm/M	16 mm/M

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 18 mm molding.

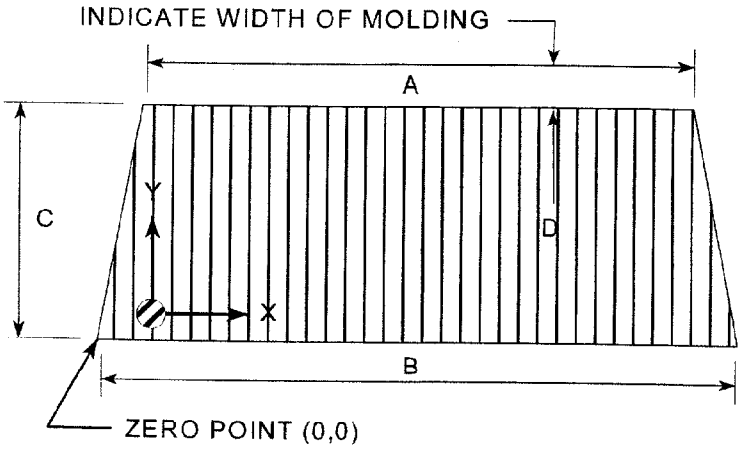
FMVSS 212 REQUIREMENTS:

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	2116	2116	100
LEFT SIDE	2116	2116	100
TOTAL	4,232	4,232	100

AREA OF RETENTION FAILURE:



FRONT VIEW OF WINDSHIELD

DIMENSIONS (mm)	
A	1238
B	1634
C	680
D	18

FAILURE DETAILS: None

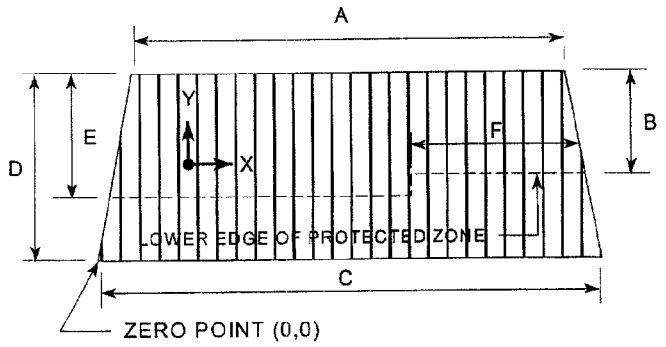
DATA SHEET NO. 11 FMVSS NO. 219 (PARTIAL) - "WINDSHIELD ZONE INTRUSION" DATA

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:

(Dimensions in mm)



FRONT VIEW OF WINDSHIELD

DIMENSIONS	
A	1238
B	324
C	1634
D	680
E	392
F	775

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.: MX0101 TEST DATE: January 18, 1999

VEHICLE MAKE/MODEL: 1999 Chevrolet Blazer

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:

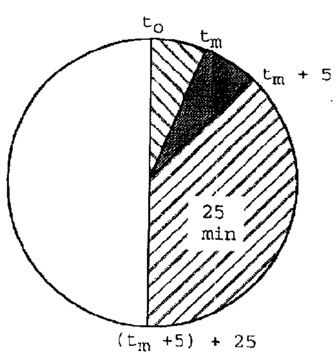
X Frontal (56 kph)

\- Oblique (48 kph) with ________ deg. barrier face first contacting ________ (driver/passenger) side

\- Rear Moving Barrier (48 kph)

\- Lateral Moving Barrier (32 kph)

FUEL SPILLAGE MEASUREMENT:



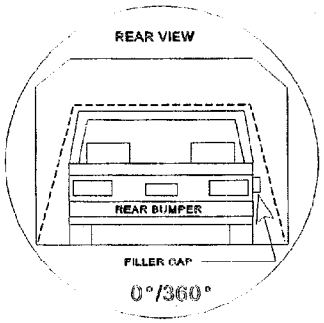
	ACTUAL	MAX ALLOWED
1. From impact until vehicle motion ceases	0	28 g
2. For 5 minute period after vehicle motion ceases	0	141 g
3. For next 25 minutes	0	28 g/min.

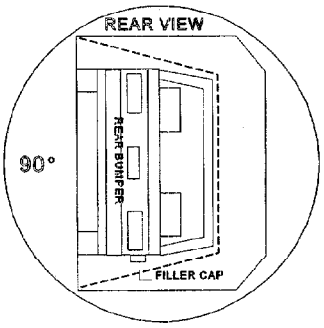
SOLVENT SPILLAGE DETAILS: None

DATA SHEET NO. 13 FMVSS NO. 301 STATIC ROLLOVER DATA SHEET

TEST PHASE:
0-90 deg.

NHTSA Test No.:
MX0101





INDETERMINATION OF SOLVENT COLLECTION TIME PERIOD:

Rollover Fixture 90 deg. Rotation Time (Spec. Range = 1 to 3 minutes)	1	minutes	12	seconds
FMVSS 301 Position Hold Time +	5	minutes	00	seconds
TOTAL	6	minutes	12	seconds
Next whole minute interval	7	minutes	00	seconds

II. FMVSS 301 REQUIREMENTS:

(1) Time Period

First 5 min. from onset of rotation	6th min.	7th min.	8th min. if reqd.

(2) Maximum Allowable Solvent Spillage

141 g	28 g	28 g	28 g

III. ACTUAL TEST VEHICLE SOLVENT SPILLAGE:

0 g	0 g	0 g	N/A

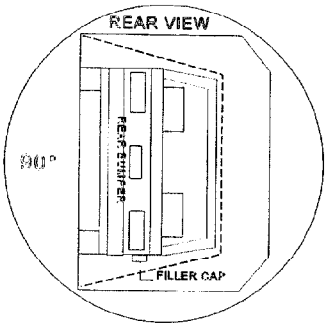
Note: Record spillage for whole minute intervals only as determined above.

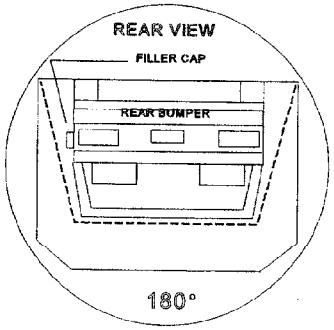
IV. SOLVENT SPILLAGE LOCATION(S): None

TEST SHEET NO. 13 FMVSS NO. 301 STATIC ROLLOVER DATA SHEET (cont.)

TEST PHASE:
90-180 deg.

NHTSA Test No.:
MX0101





I. DETERMINATION OF SOLVENT COLLECTION TIME PERIOD:

Rollover Fixture 90 deg. Rotation Time (Spec. Range = 1 to 3 minutes)	1	minutes	18	seconds
FMVSS 301 Position Hold Time +	5	minutes	00	seconds
TOTAL	6	minutes	18	seconds
Next whole minute interval	7	minutes	00	seconds

II. FMVSS 301 REQUIREMENTS:

(1) Time Period

First 5 min. from onset of rotation	6th min.	7th min.	8th min. if reqd.

(2) Maximum Allowable Solvent Spillage

141 g	28 g	28 g	28 g

III. ACTUAL TEST VEHICLE SOLVENT SPILLAGE:

0 g	0 g	0 g	N/A

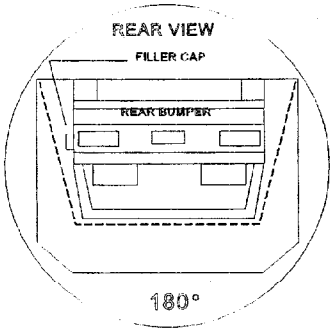
Note: Record spillage for whole minute intervals only as determined above.

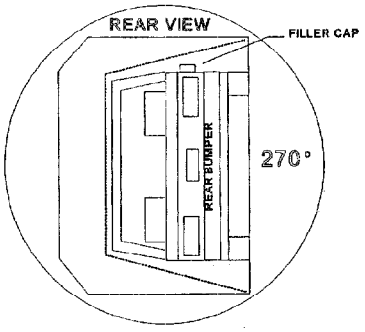
IV. SOLVENT SPILLAGE LOCATION(S): None

TEST SHEET NO. 13 FMVSS NO. 301 STATIC ROLLOVER DATA SHEET (cont.)

TEST PHASE:
180-270 deg.

NHTSA Test No.:
MX0101





I. DETERMINATION OF SOLVENT COLLECTION TIME PERIOD:

Rollover Fixture 90 deg. Rotation Time (Spec. Range = 1 to 3 minutes)	1	minutes	4	seconds
FMVSS 301 Position Hold Time +	5	minutes	00	seconds
TOTAL	6	minutes	4	seconds
Next whole minute interval	7	minutes	00	seconds

II. FMVSS 301 REQUIREMENTS:

(1) Time Period

First 5 min. from onset of rotation	6th min.	7th min.	8th min. if reqd.

(2) Maximum Allowable Solvent Spillage

141 g	28 g	28 g	28 g

III. ACTUAL TEST VEHICLE SOLVENT SPILLAGE:

0 g	0 g	0 g	N/A

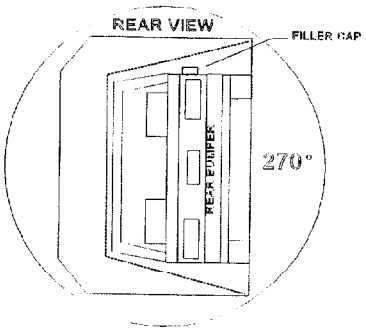
Note: Record spillage for whole minute intervals only as determined above.

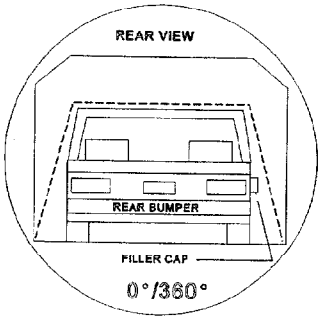
IV. SOLVENT SPILLAGE LOCATION(S): None

TEST SHEET NO. 13 FMVSS NO. 301 STATIC ROLLOVER DATA SHEET (cont.)

TEST PHASE:
270-360 deg.

NHTSA Test No.:
MX0101





I. DETERMINATION OF SOLVENT COLLECTION TIME PERIOD:

Rollover Fixture 90 deg. Rotation Time (Spec. Range = 1 to 3 minutes)	1	minutes	9	seconds
FMVSS 301 Position Hold Time +	5	minutes	00	seconds
TOTAL	6	minutes	9	seconds
Next whole minute interval	7	minutes	00	seconds

II. FMVSS 301 REQUIREMENTS:

(1) Time Period

First 5 min. from onset of rotation	6th min.	7th min.	8th min. if reqd.

(2) Maximum Allowable Solvent Spillage

141 g	28 g	28 g	28 g

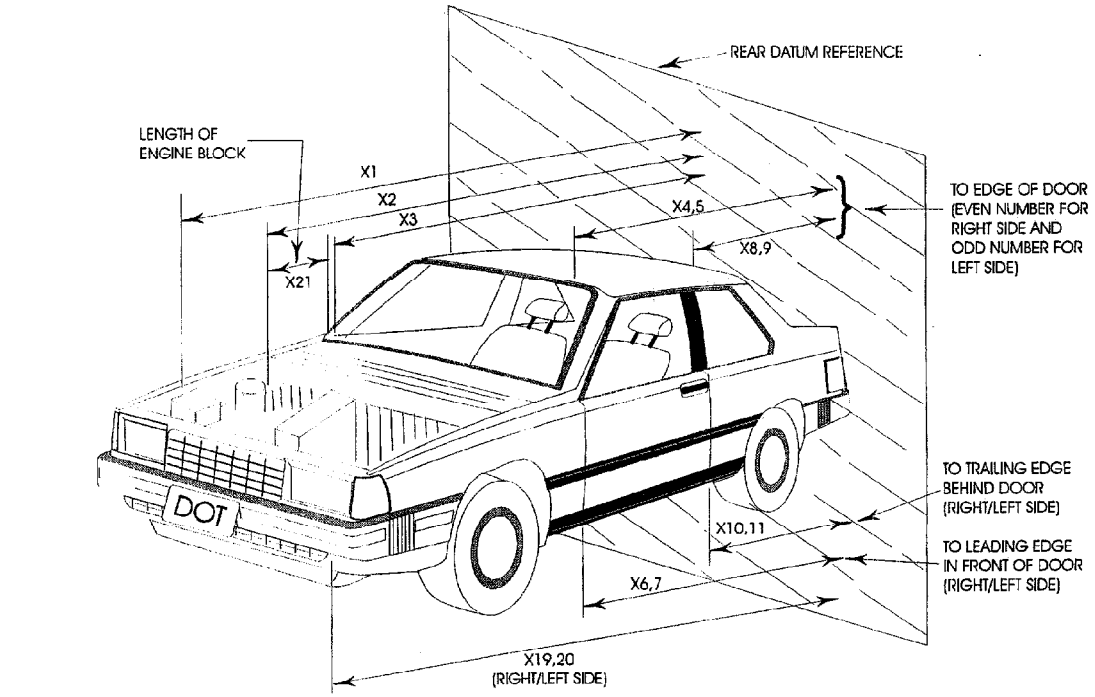
III. ACTUAL TEST VEHICLE SOLVENT SPILLAGE:

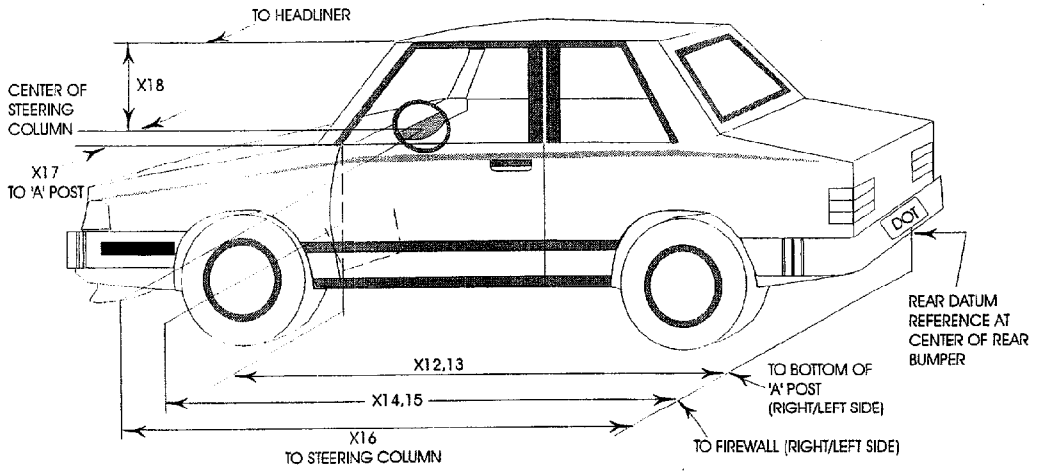
0 g	0 g	0 g	N/A

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

IV. SOLVENT SPILLAGE LOCATION(S): None

TEST VEHICLE MEASUREMENTS





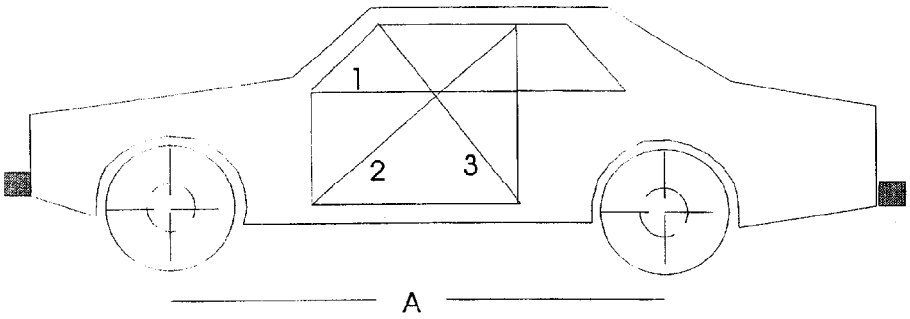
DATA SHEET NO.14 VEHICLE MEASUREMENTS

No.		All Dimensions in mm		
		Pre-Test	Post-Test	Differences
X1	Total Length of Vehicle at Centerline	4697	4046	651
X2	Rear Surface of Vehicle to Front of Engine	4082	3854	228
X3	Rear Surface of Vehicle to Firewall	3434	3274	160
X4	Rear Surface of Vehicle to Upper Leading Edge of Right Door	3290	3206	84
X5	Rear Surface of Vehicle to Upper Leading Edge of Left Door	3291	3212	79
X6	Rear Surface of Vehicle to Lower Leading Edge of Right Door	3274	3247	27
X7	Rear Surface of Vehicle to Lower Leading Edge of Left Door	3279	3226	53
X8	Rear Surface of Vehicle to Upper Trailing Edge of Right Door	2164	2086	78
X9	Rear Surface of Vehicle to Upper Trailing Edge of Left Door	2163	2102	61
X10	Rear Surface of Vehicle to Lower Trailing Edge of Right Door	2153	2124	29
X11	Rear Surface of Vehicle to Lower Trailing Edge of Left Door	2151	2122	29
X12	Rear Surface of Vehicle to Bottom of "A" Post of Right Side	3266	3238	28
X13	Rear Surface of Vehicle to Bottom of "A" Post of Left Side	3267	3232	35
X14	Rear Surface of Vehicle to Firewall, Right Side	3489	3389	100
X15	Rear Surface of Vehicle to Firewall, Left Side	3522	3447	75
X16	Rear Surface of Vehicle to Steering Column	2801	2724	77
X17	Center of Steering Column to "A" Post	325	312	13
X18	Center of Steering Column to Headliner	435	451	-16
X19	Rear Surface of Vehicle to Right Side of Front Bumper	4608	4041	567
X20	Rear Surface of Vehicle to Left Side of Front Bumper	4596	4058	538
X21	Length of Engine Block	527	527	0
RD	Rear Surface of Vehicle to Right Side of Dash Panel	2984	2909	75
CD	Rear Surface of Vehicle to Center of Dash Panel	2999	2921	78
LD	Rear Surface of Vehicle to Left Side of Dash Panel	2975	2892	83

DATA SHEET NO.14 VEHICLE MEASUREMENTS (cont.)

VEHICLE INTRUSION MEASUREMENTS

DOOR OPENING WIDTH



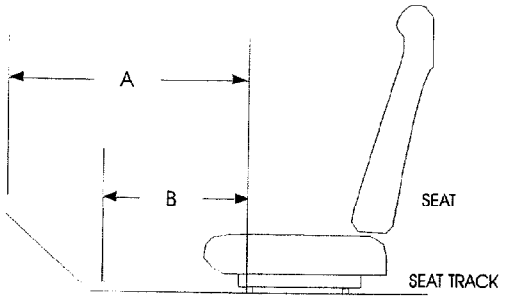
UNITS (mm)	LEFT			RIGHT		
MEASUREMENT	1	2	3	1	2	3
BEFORE TEST	1064	1461	1159	1054	1457	1159
AFTER TEST	1011	1376	1280	1010	1372	1274
DIFFERENCE	53	85	-121	44	85	-115

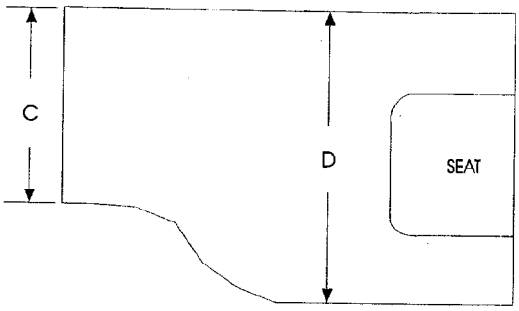
UNITS (mm)	A = WHEELBASE LEFT	A = WHEELBASE RIGHT
BEFORE TEST	2722	2722
AFTER TEST	2583	2589
DIFFERENCE	139	133

DATA SHEET NO.14 VEHICLE MEASUREMENTS (cont.)

VEHICLE INTRUSION MEASUREMENTS

STATIC FOOTWELL DEFORMATION





DRIVER

Measurement	Pre-Test	Post-Test	Difference
A	844	744	100
B	657	600	57
C	496	457	39
D	521	495	26

PASSENGER

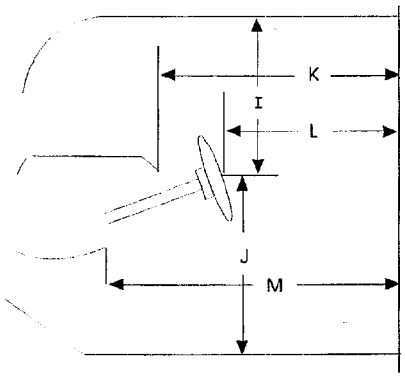
Measurement	Pre-Test	Post-Test	Difference
A	783	680	103
B	646	598	48
C	457	433	24
D	539	532	7

Units = mm

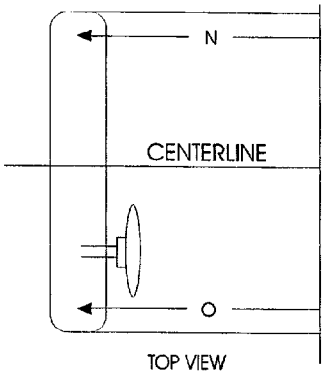
DATA SHEET NO.14 VEHICLE MEASUREMENTS (cont.)

VEHICLE INTRUSION MEASUREMENTS

STATIC PASSENGER COMPARTMENT INTRUSION

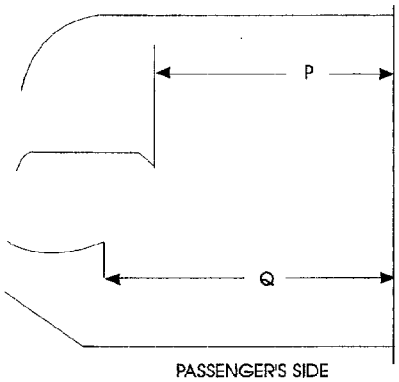


DRIVER'S SIDE



TOP VIEW

MEASUREMENTS
FROM C-PILLAR
BELT ANCHORAGE



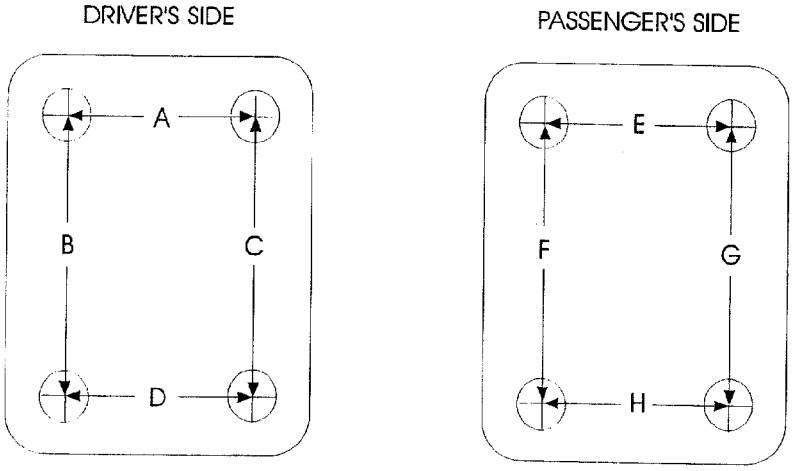
PASSENGER'S SIDE

Measurement	Pre-Test	Post-Test	Difference
I	476	496	-20
J	614	686	-72
K	3018	2951	67
L	2801	2724	77
M	3008	2904	104
N	2985	2905	80
O	2983	2891	92
P = K (PASS.)	2920	2869	51
Q = M (PASS.)	3022	2945	77

Units = mm

DATA SHEET NO.14 VEHICLE MEASUREMENTS (cont.)

FLOORBOARD DEFORMATION



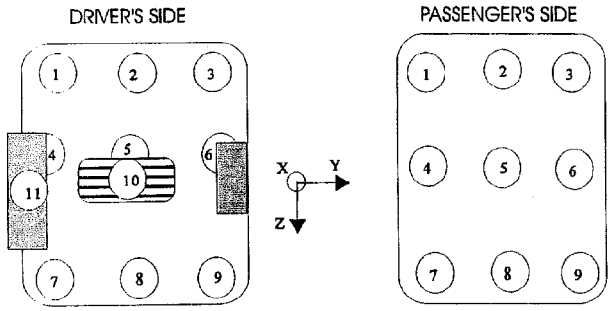
TOP VIEW THROUGH FLOOR PAN

Measurement	Pre-Test	Post-Test	Difference
A	300	296	4
B	600	588	12
C	600	568	32
D	300	296	4
E	300	297	3
F	600	573	27
G	600	598	2
H	300	296	4

Units = mm

DATA SHEET NO.14 VEHICLE MEASUREMENTS (cont.)

TOE-PAN INTRUSION



Driver Side Floorpan Measurements

Reference: X = Rear Bumper; Z = Ground

Floorpan Location	X Deformation			Z Deformation		
	Pre-Test	Post-Test	Difference	Pre-Test	Post-Test	Difference
1	3398	3334	64	-772	-848	76
2	3505	3367	138	-731	-838	107
3	3483	3256	227	-711	-855	144
4	3366	3266	100	-645	-735	90
5	3411	3240	171	-613	-730	117
6	3436	3289	147	-580	-730	150
7	3312	3240	72	-496	-580	84
8	3318	3226	92	-490	-586	96
9	3310	3208	102	-505	-607	102
10	3300	3125	175	-660	-792	132
11	-	-	-	-	-	-

Passenger Side Floorpan Measurements

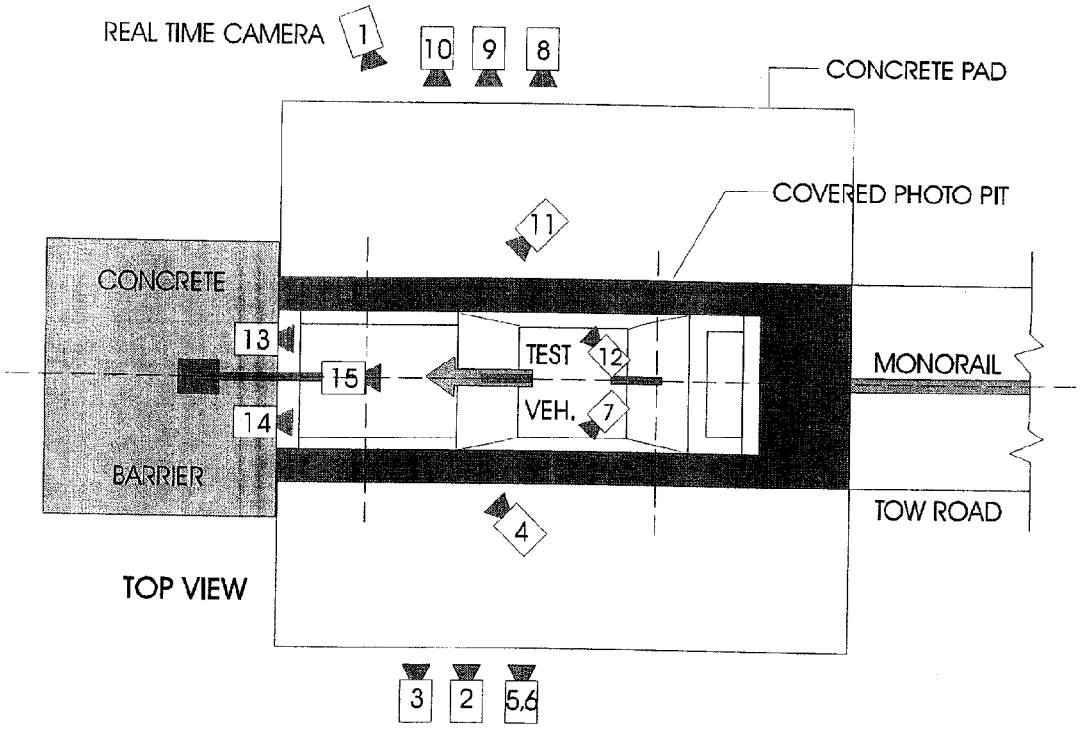
Reference: X = Rear Bumper; Z = Ground

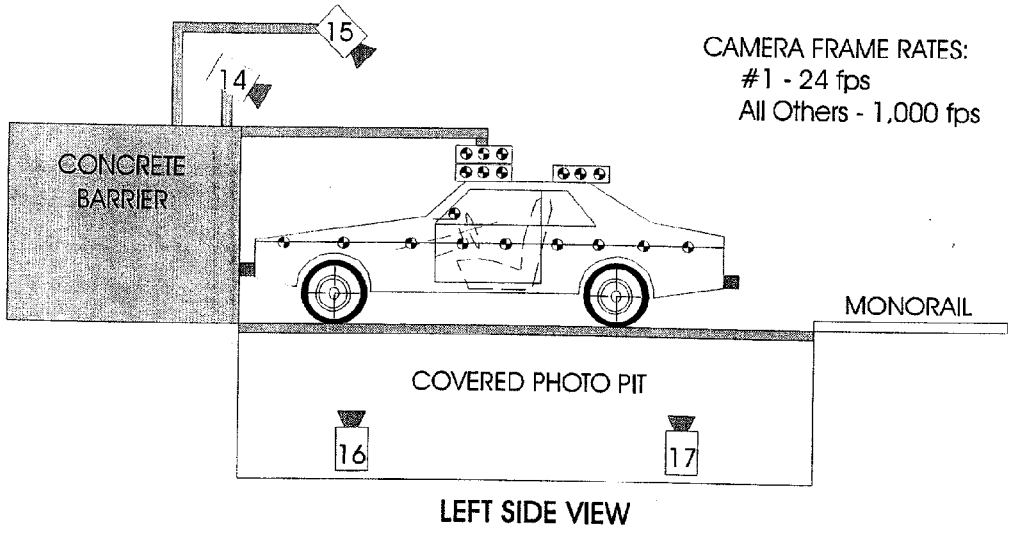
Floorpan Location	X Deformation			Z Deformation		
	Pre-Test	Post-Test	Difference	Pre-Test	Post-Test	Difference
1	3443	3261	182	-665	-824	159
2	3429	3294	135	-680	-828	148
3	3405	3292	113	-695	-789	94
4	3368	3228	140	-590	-743	153
5	3366	3283	83	-574	-705	131
6	3360	3291	69	-588	-697	109
7	3281	3204	77	-504	-627	123
8	3305	3237	68	-476	-578	102
9	3305	3248	57	-479	-560	81

Units in mm

CAMERA POSITIONS FOR FRONTAL IMPACTS

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





DATA SHEET NO.15 HIGH-SPEED CAMERA LOCATIONS

NHTSA Test No.: MX0101 Vehicle: 1999 Chevrolet Blazer 4-Door MPV

CAMERA NO.	VIEW	CAMERA POSITIONS (mm)* X	Y	Z	ANGLE** (deg)	FILM PLANE TO HEAD TARGET	LENS (mm)	SPEED (fps)
1	Real-Time Camera	-	-	-	-	-	-	24
2	Overall Left Side	6921	1360	1048	-2	6506	12.5	1020
3	Left Side View	7834	990	1078	-2	7419	25	1000
4	Driver and Interior View	4871	2644	2022	-11	-	25	1000
5	Steering Column (Bottom)	6818	1865	1170	-3	6403	25	1000
6	Steering Column (Top)	6818	1865	1794	-8	6403	25	1015
7	Left Belt	-	-	-	-	-	13	1020
8	Overall Right Side	6806	1811	1080	-4	6391	12.5	1010
9	Right Side View	8126	1288	1105	-3	7711	25	1010
10	Right Passenger View	8136	1600	1350	-3	7721	35	1020
11	Passenger and Interior View	4934	2822	2022	-12	-	25	1020
12	Right Belt	-	-	-	-	-	13	1025
13	Passenger Front View	580	-25	1975	-29	-	13	1020
14	Driver Front View	580	-25	1975	-31	-	13	1015
15	Windshield View	0	-92	3558	-50	-	13	1015
16	Pit View of Engine	0	630	-3048	90	-	13	940
17	Pit View of Fuel Tank	0	2195	-3048	90	-	13	1060

*X = film plane to monorail centerline

Y = film plane to impact location

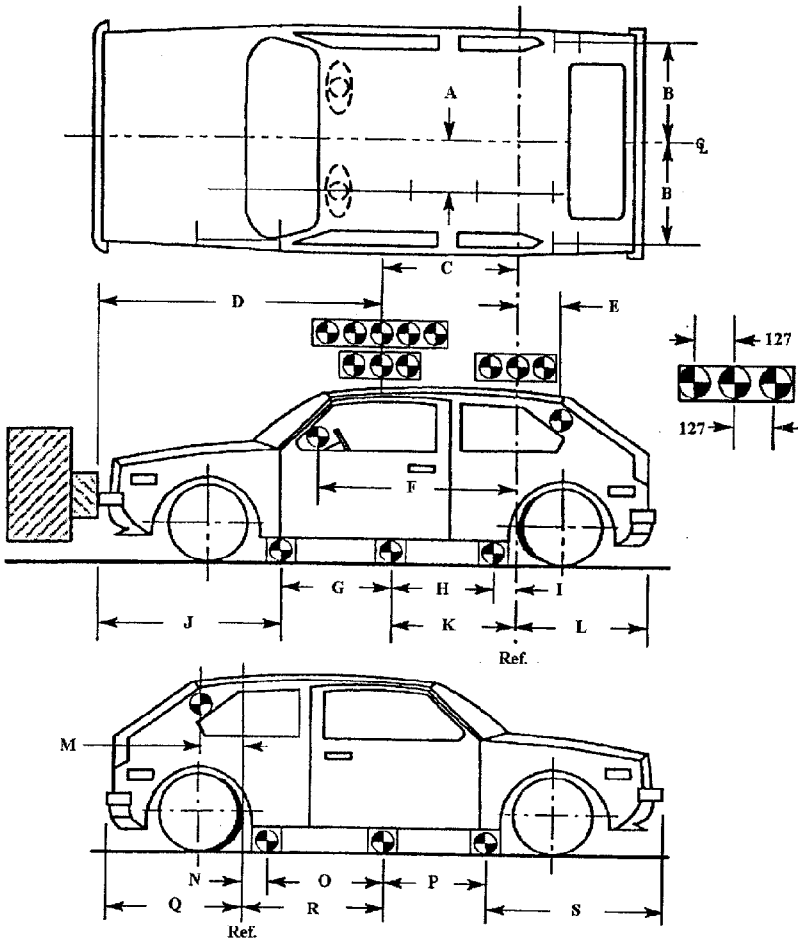
Z = film plane to ground

** = referenced to horizontal plane

N.T. indicates No Timing

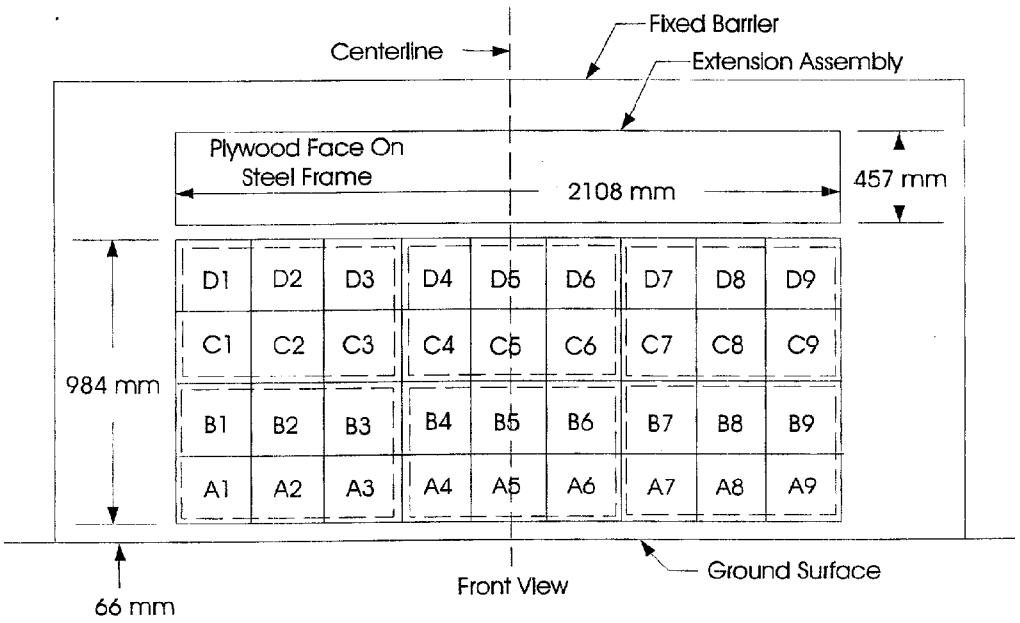
(Dimensions in millimeters)

A	339
B	560
C	1217
D	1999
E	297
F	1492
G	808
H	804
I	221
J	1436
K	1025
L	1427
M	244
N	230
O	801
P	802
Q	1429
R	1031
S	1435



DATA SHEET NO. 17 LOAD CELL LOCATIONS ON FIXED BARRIER

36 Load Cells
4 Rows
9 Columns
6 Groupings (6 cells/group)



6 GROUPS OF 6 LOAD CELLS EACH

Group 4 C1 thru D3	Group 5 C4 thru D6	Group 6 C7 thru D9
Group 1 A1 thru B3	Group 2 A4 thru B6	Group 3 A7 thru B9

The following data is presented in Appendix B:

(1)Data from 36 individual load cells
(2)Total or Sum of 36 individual load cells
(3)Data from 6 Groupings shown above (6 cells/group)

DATA SHEET NO. 18 POST TEST AIR BAG DATA

NHTSA No. : MX0101; Test Date: January 18, 1999; Technician: LQV

Vehicle Model Year/Make/Model: 1999 Chevrolet Blazer

A. No. of vent holes: 2 -Driver 2 -Passenger

B. Size of vent holes: (mm^2) 707 -Driver 1964 -Passenger

C. Total vent area: (mm^2) 1414 -Driver 3928 -Passenger

D. Deflated air bag length and width dimensions or, if round, diameter. (mm)

Driver: - -Length; - -Width; 656 -Diameter

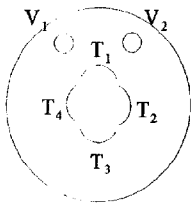
Passenger: 510 -Height; 580 -Width; 570 -Depth

E. Is the air bag tethered?

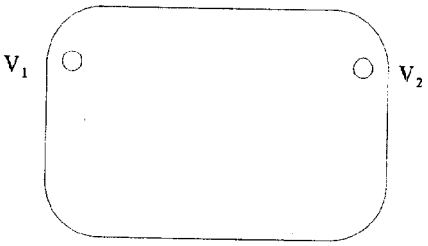
Driver: X -Yes; - -No; If yes, record length of tether- 656

Passenger: - -Yes; X -No; If yes, record length of tether- -

DRIVER



PASSENGER



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$_n$).

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

Driver: Air bag: 16761159-07; ST/GMT800 DS; TRBK80331671

Generator: AB4224QWSC9GCQ; GBH JYH 3X BFU

Passenger: Air bag: 16822860-00; ST TRUCK; TRAV80989969

Generator: AL3743QZSC8CGY; T524

DATA SHEET NO.19 ACCIDENT INVESTIGATION DIVISION DATA

FOR 56.3 KPH FRONTAL BARRIER IMPACT

Vehicle Make/Model/Body Style: Chevrolet Blazer 4-Door MPV

NHTSA Test No.: MX0101 VIN: 1GNDT13W7X2144083

Model Year: 1999 Build Date: 12/98 Test Date: January 18, 1999

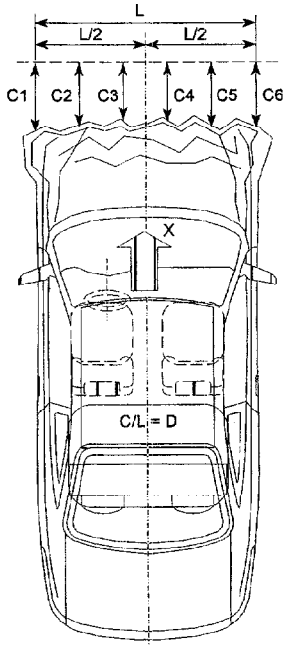
Vehicle Size Category: MPV Test Weight: 2171.5 kg

Vehicle Wheelbase: 2722 mm; Front Overhang: 1436 mm; Overall Width: 1722 mm

Collision Deformation Classification (CDC) Code: 12FDEW3

Crush Depth Dimensions:

	PRE	POST	DIFF	
C1 =	4585	4059	-526	mm
C2 =	4651	4054	-597	mm
C3 =	4692	4048	-644	mm
C4 =	4692	4037	-655	mm
C5 =	4651	4034	-617	mm
C6 =	4585	4044	-541	mm



Midpoint of Damage: D = Vehicle Centerline (Longitudinal)

Length of Damaged Region:

L1 = 1670 mm

L2 = 835 mm

L3 = 557 mm

Appendix A

PHOTOGRAPHS

PHOTOGRAPHS

PHOTOGRAPHS (continued)

Figure A-1 LOAD CELL LOCATIONS

Figure A-2 PRE-TEST FRONT VIEW

Figure A-3 POST-TEST FRONT VIEW

Figure A-4 PRE-TEST LEFT SIDE VIEW

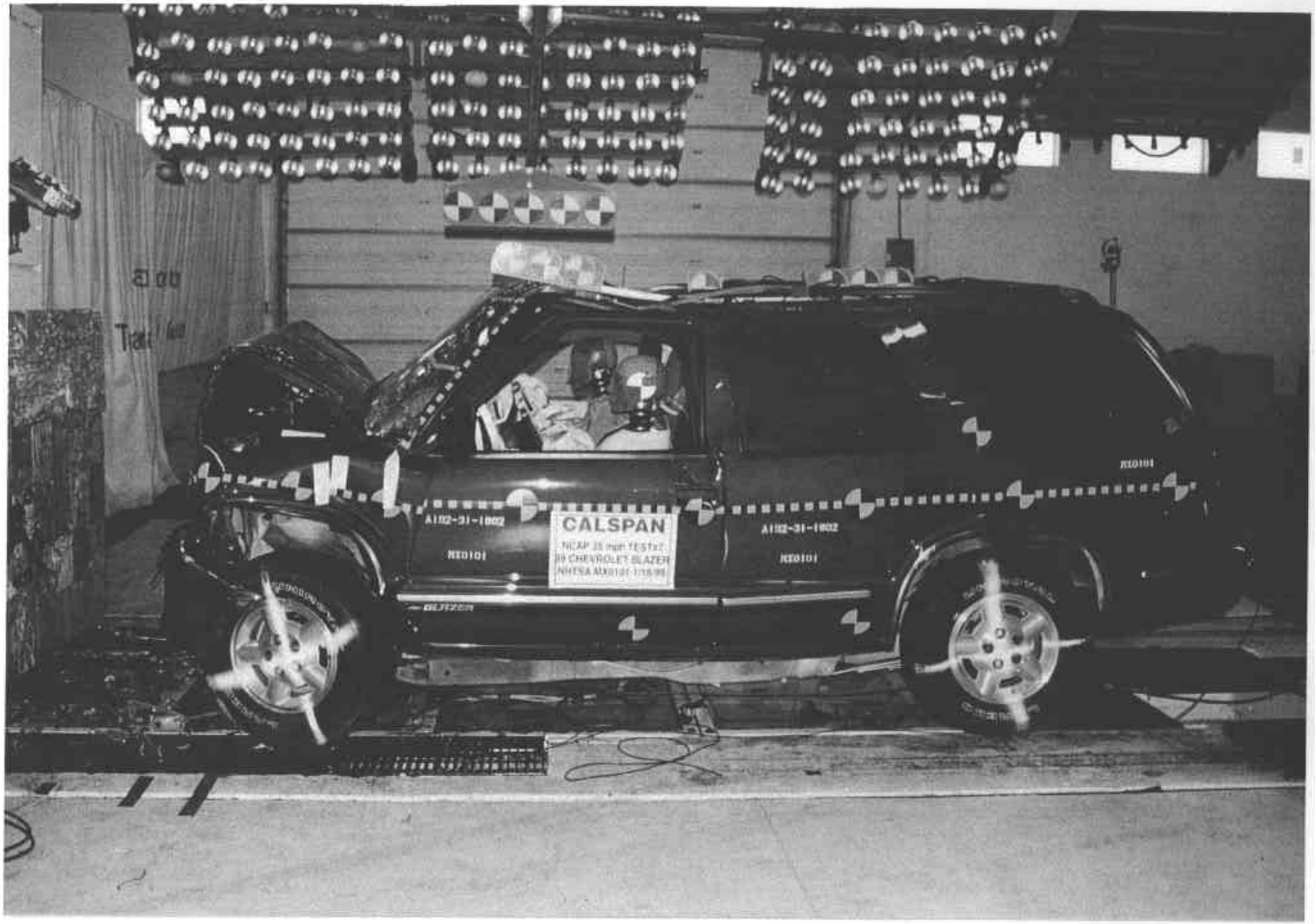


Figure A-5 POST-TEST LEFT SIDE VIEW

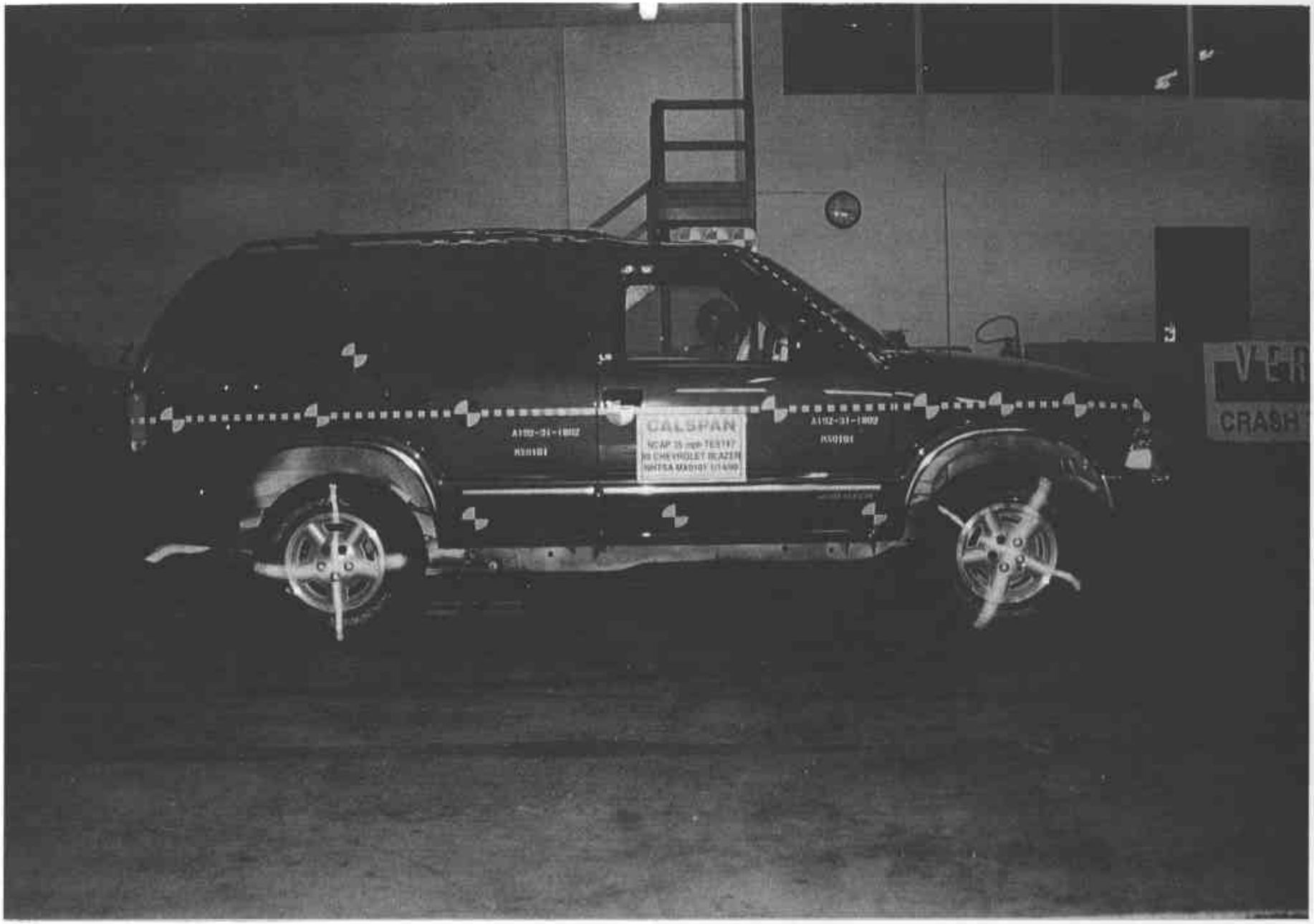


Figure A-6 PRE-TEST RIGHT SIDE VIEW

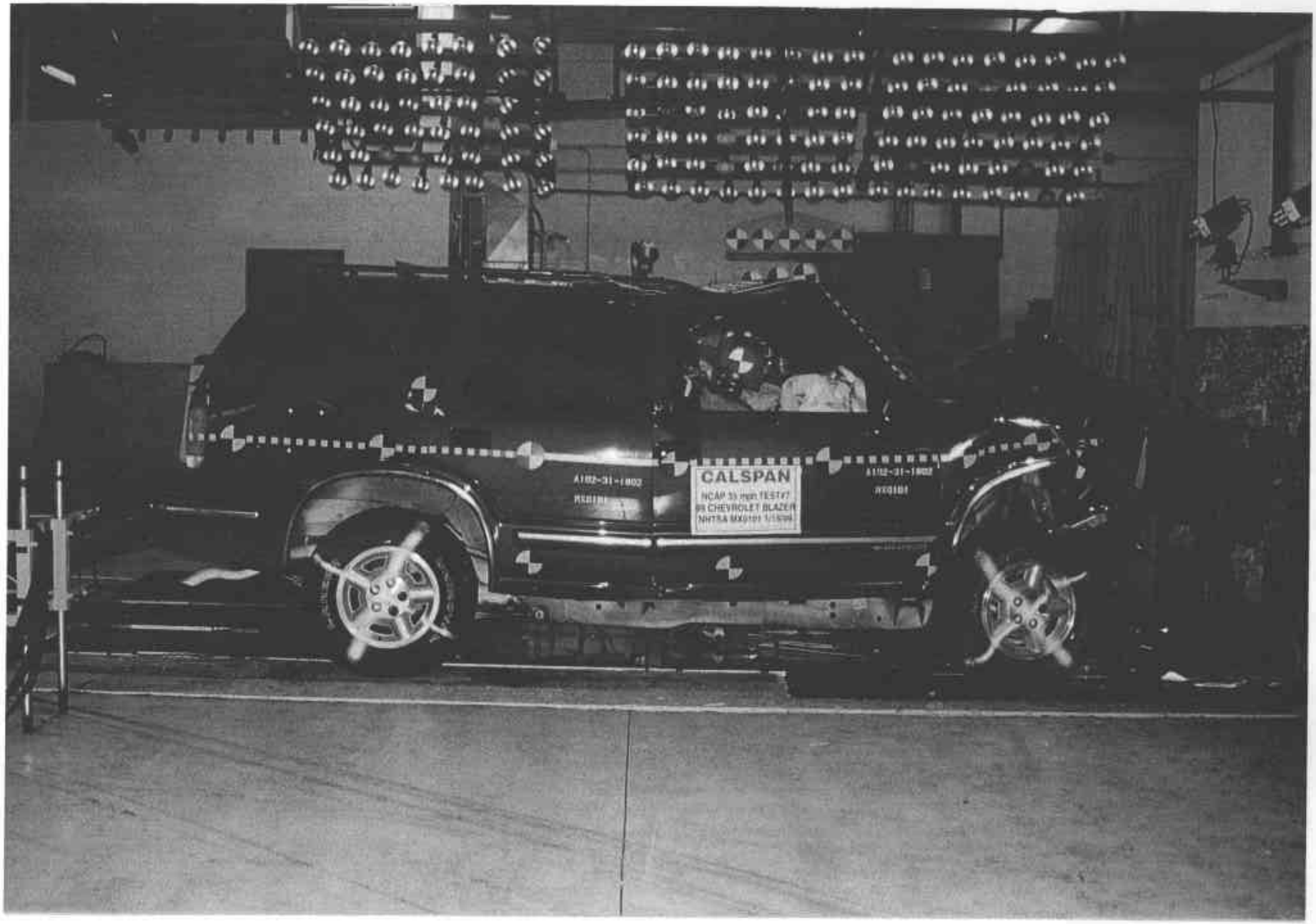


Figure A-7 POST-TEST RIGHT SIDE VIEW

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

Figure A-9 POST-TEST RIGHT FRONT THREE-QUARTER VIEW

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

Figure A-11 POST-TEST LEFT REAR THREE-QUARTER VIEW

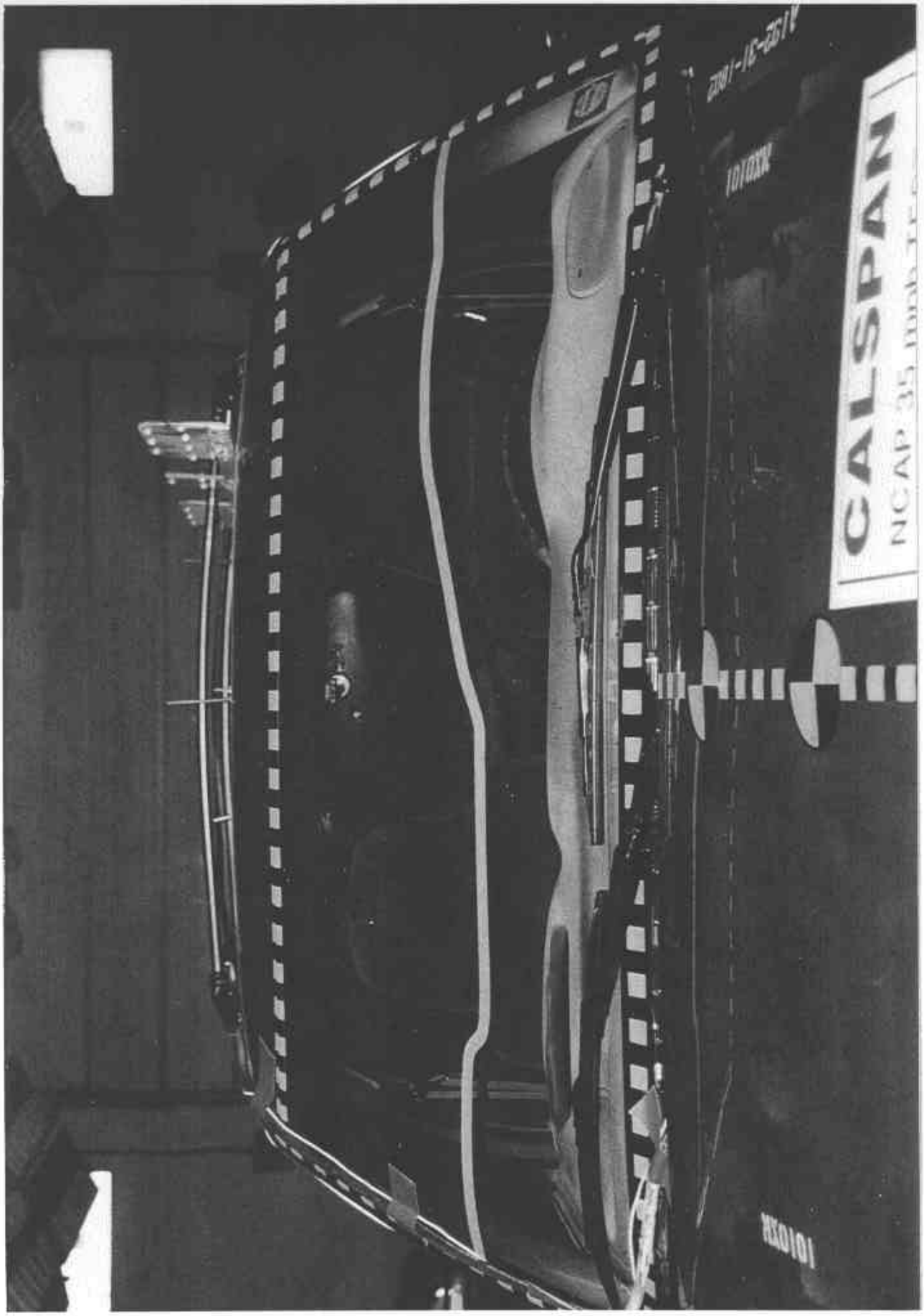


Figure A-12 PRE-TEST WINDSHIELD VIEW

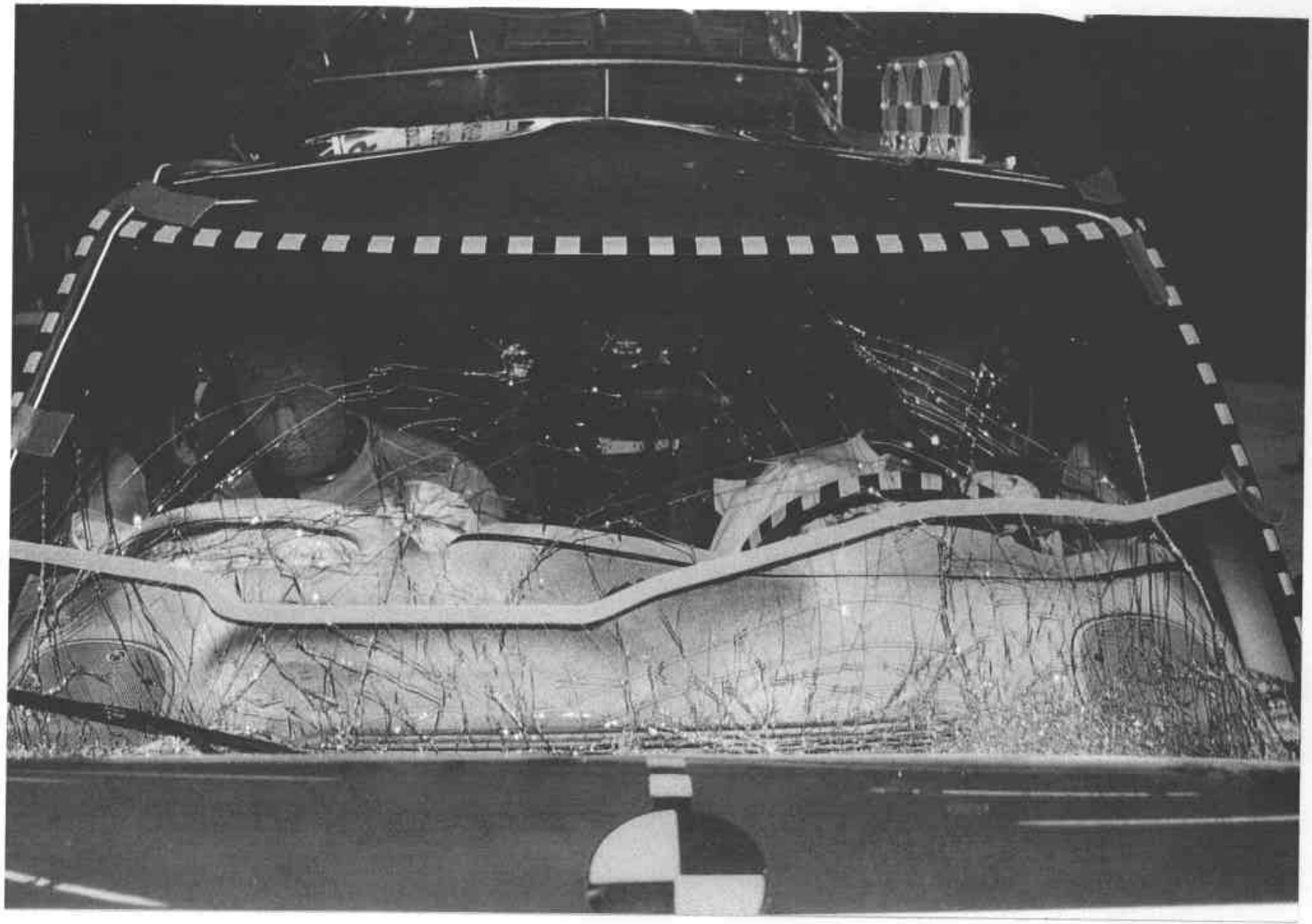


Figure A-13 POST-TEST WINDSHIELD VIEW

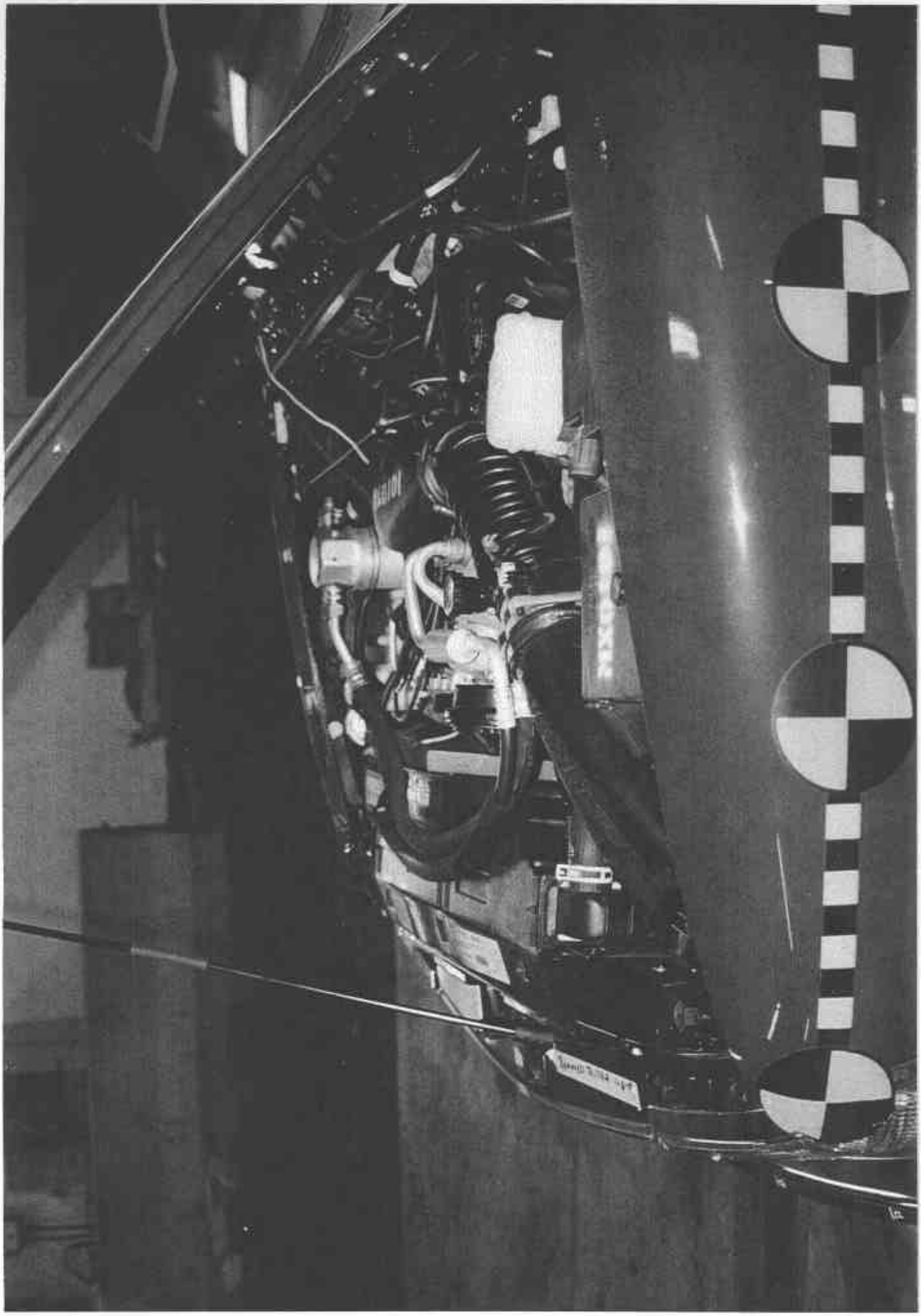


Figure A-14 PRE-TEST ENGINE COMPARTMENT VIEW

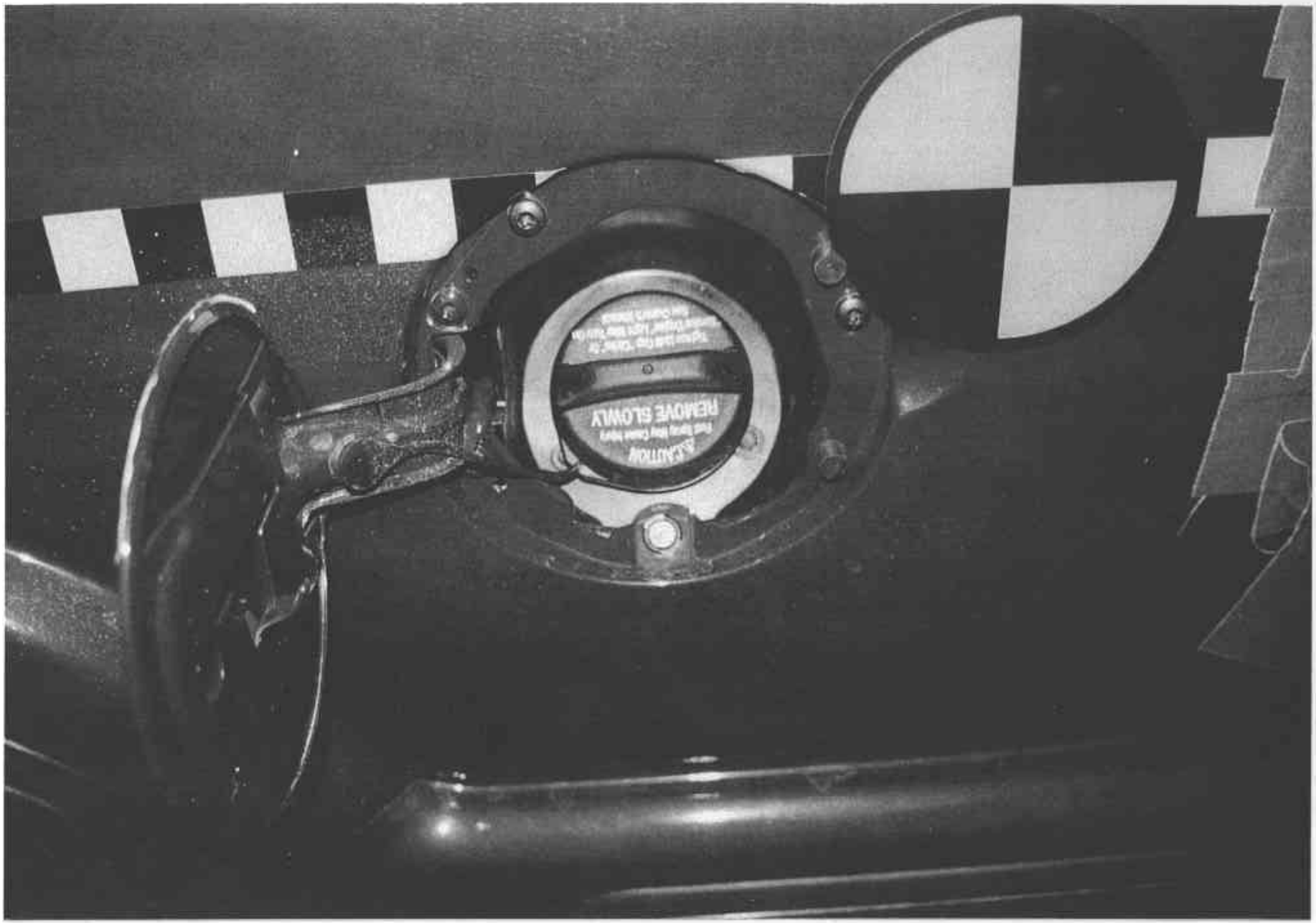


Figure A-15 FUEL CAP VIEW

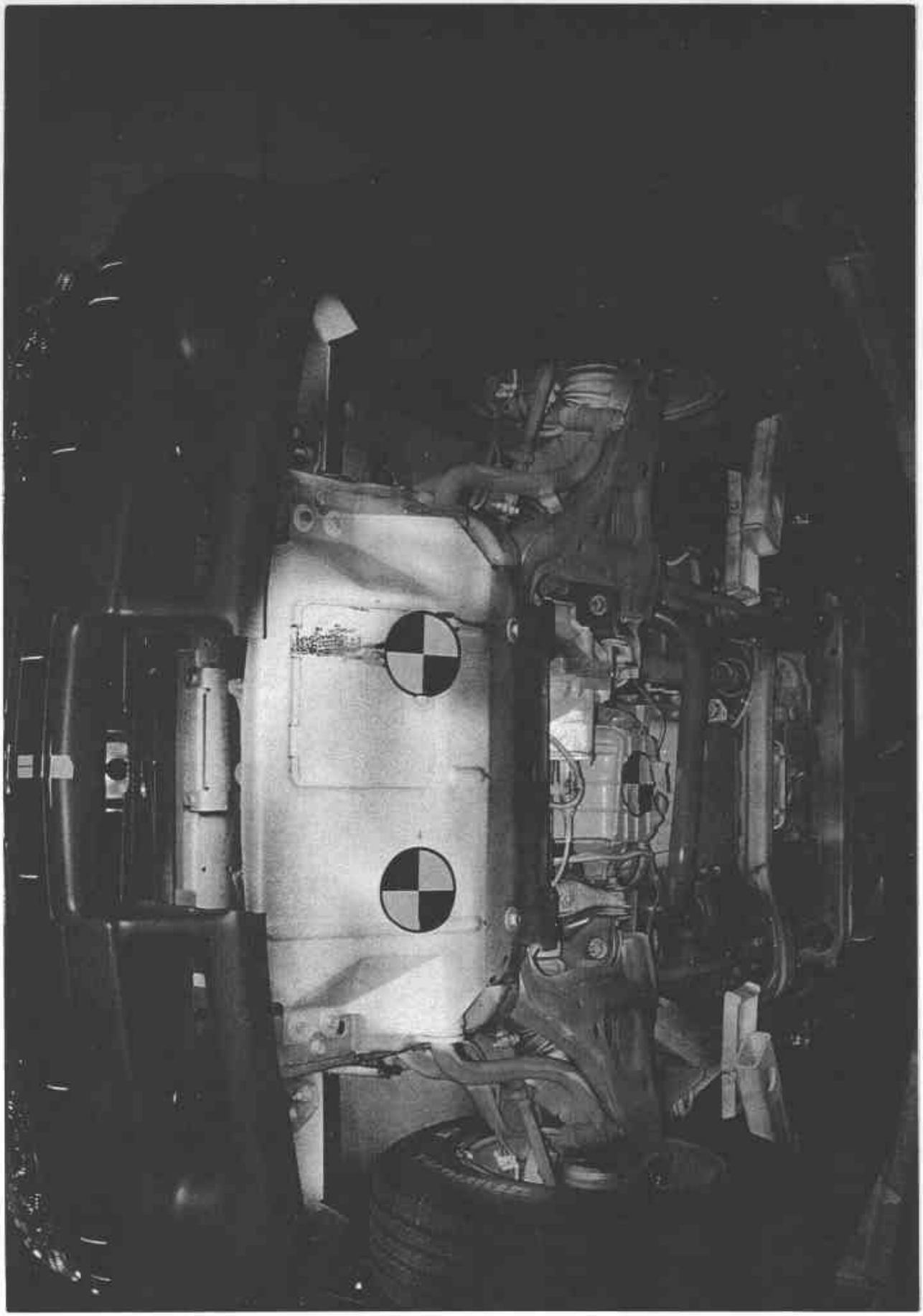


Figure A-16 PRE-TEST FRONT UNDERBODY VIEW

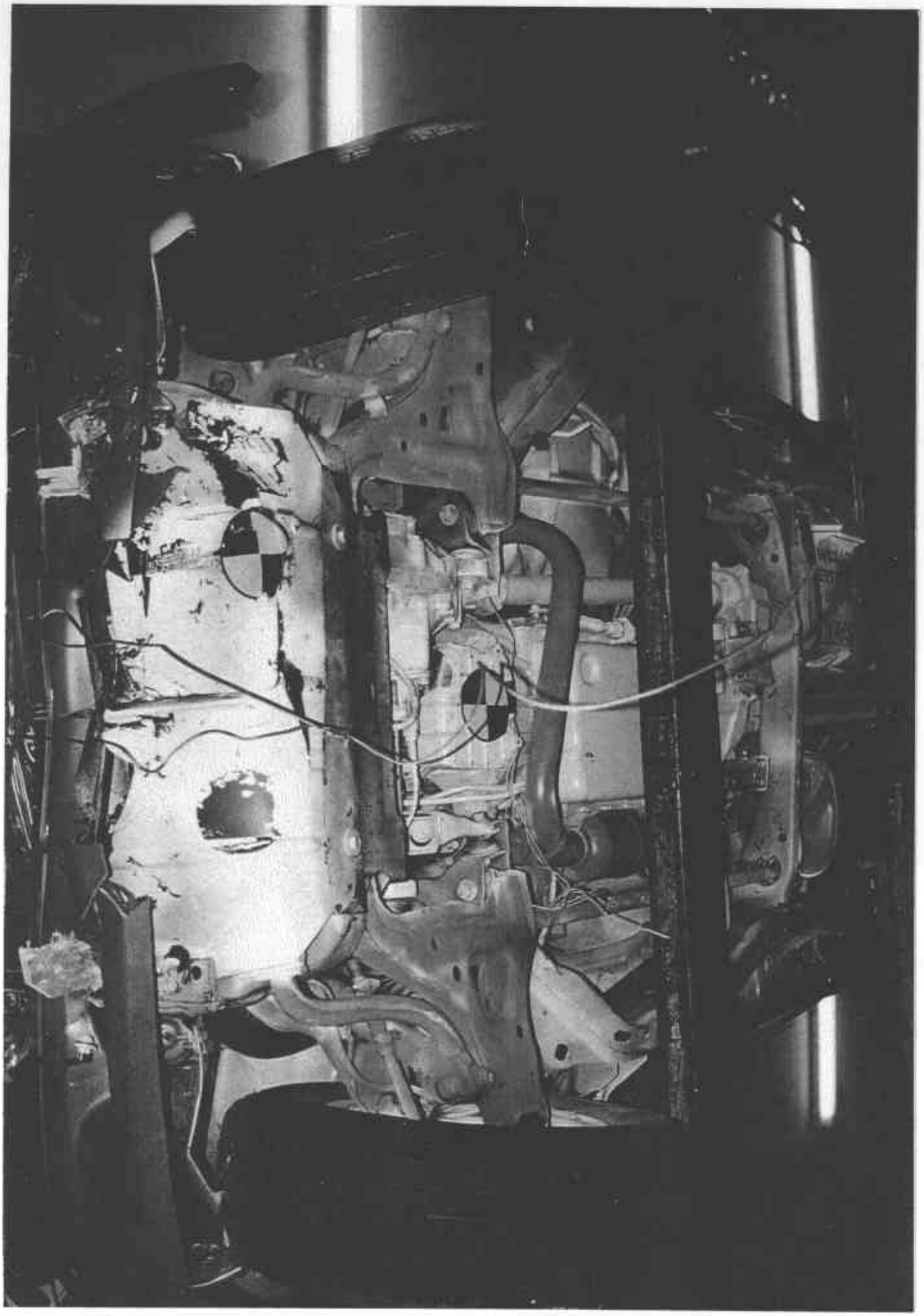


Figure A-17 POST-TEST FRONT UNDERBODY VIEW

Figure A-18 PRE-TEST FRONT SIDE UNDERBODY VIEW

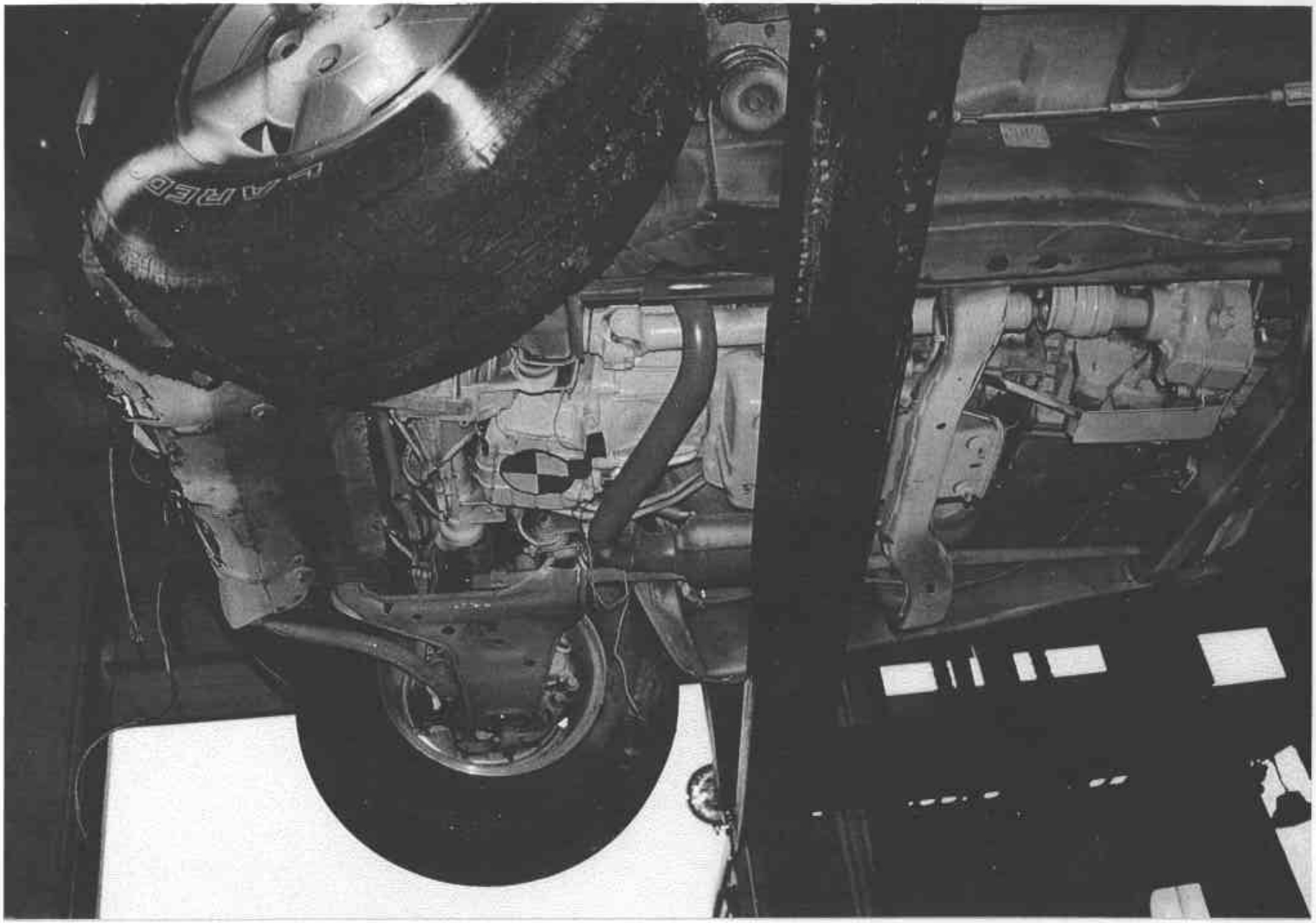


Figure A-19 POST-TEST FRONT SIDE UNDERBODY VIEW

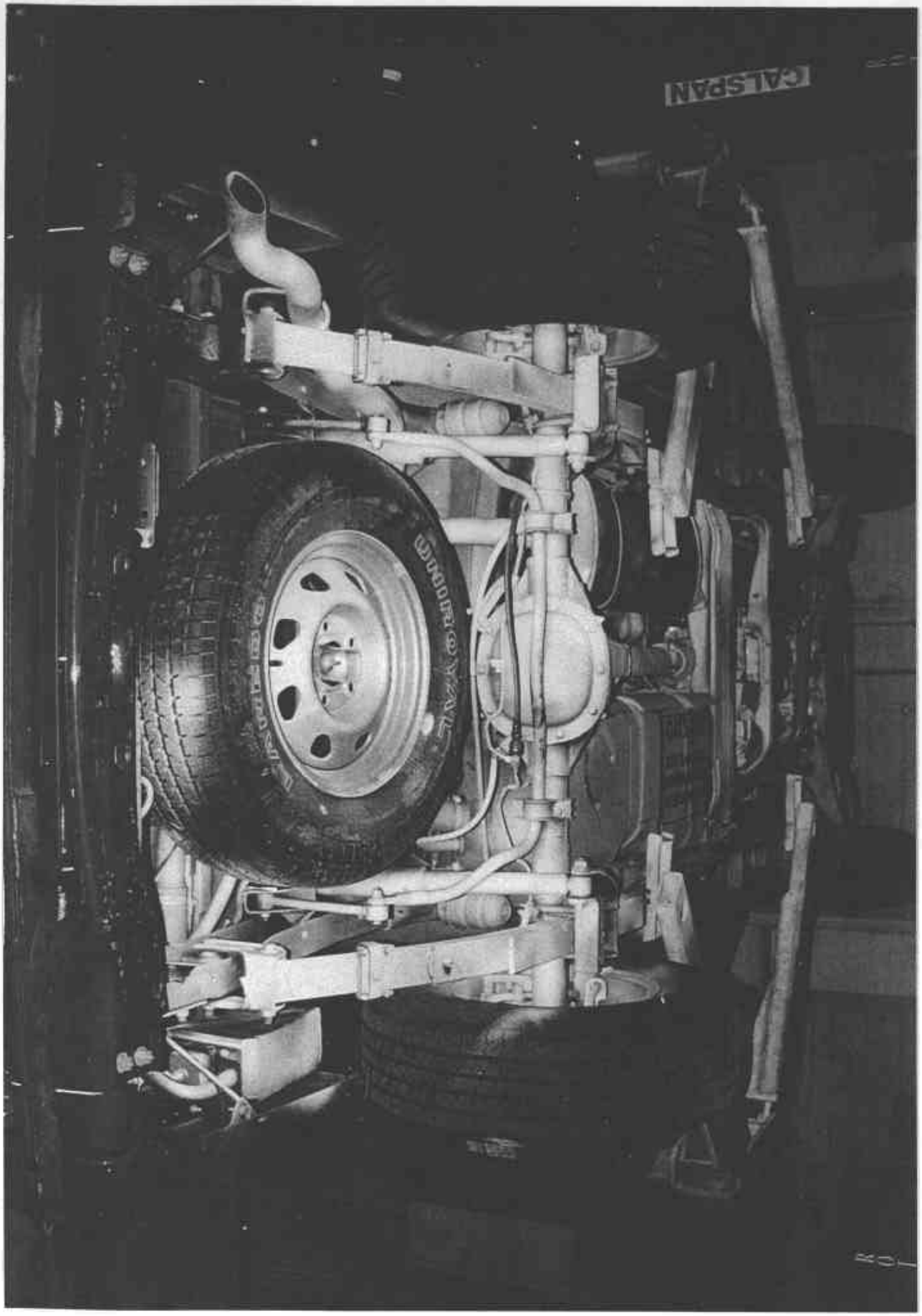


Figure A-20 PRE-TEST REAR UNDERBODY VIEW

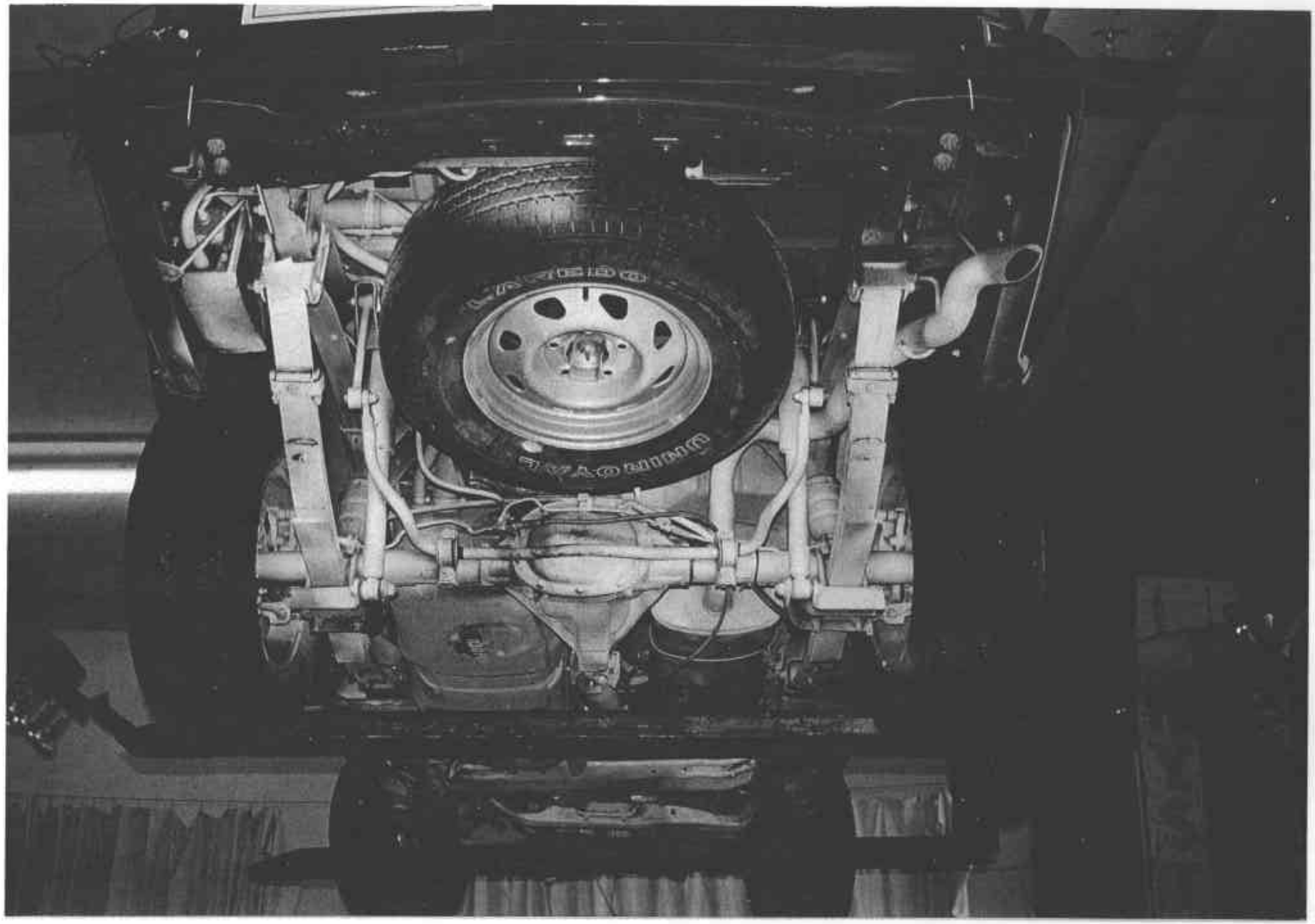


Figure A-21 POST-TEST REAR UNDERBODY VIEW

Figure A-22 PRE-TEST DRIVER POSITION VIEW

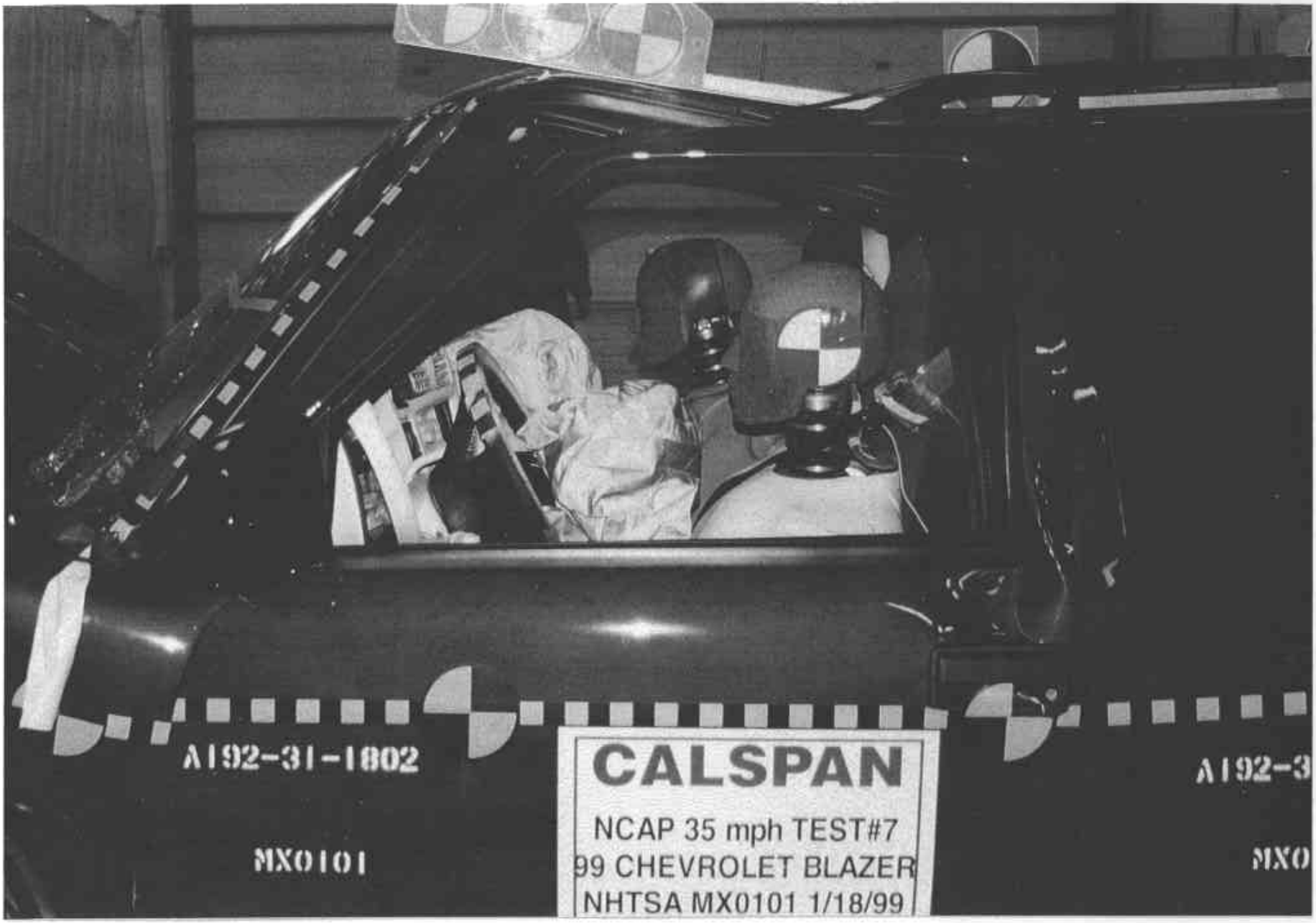


Figure A-23 POST-TEST DRIVER POSITION VIEW

Figure A-24 PRE-TEST PASSENGER POSITION VIEW

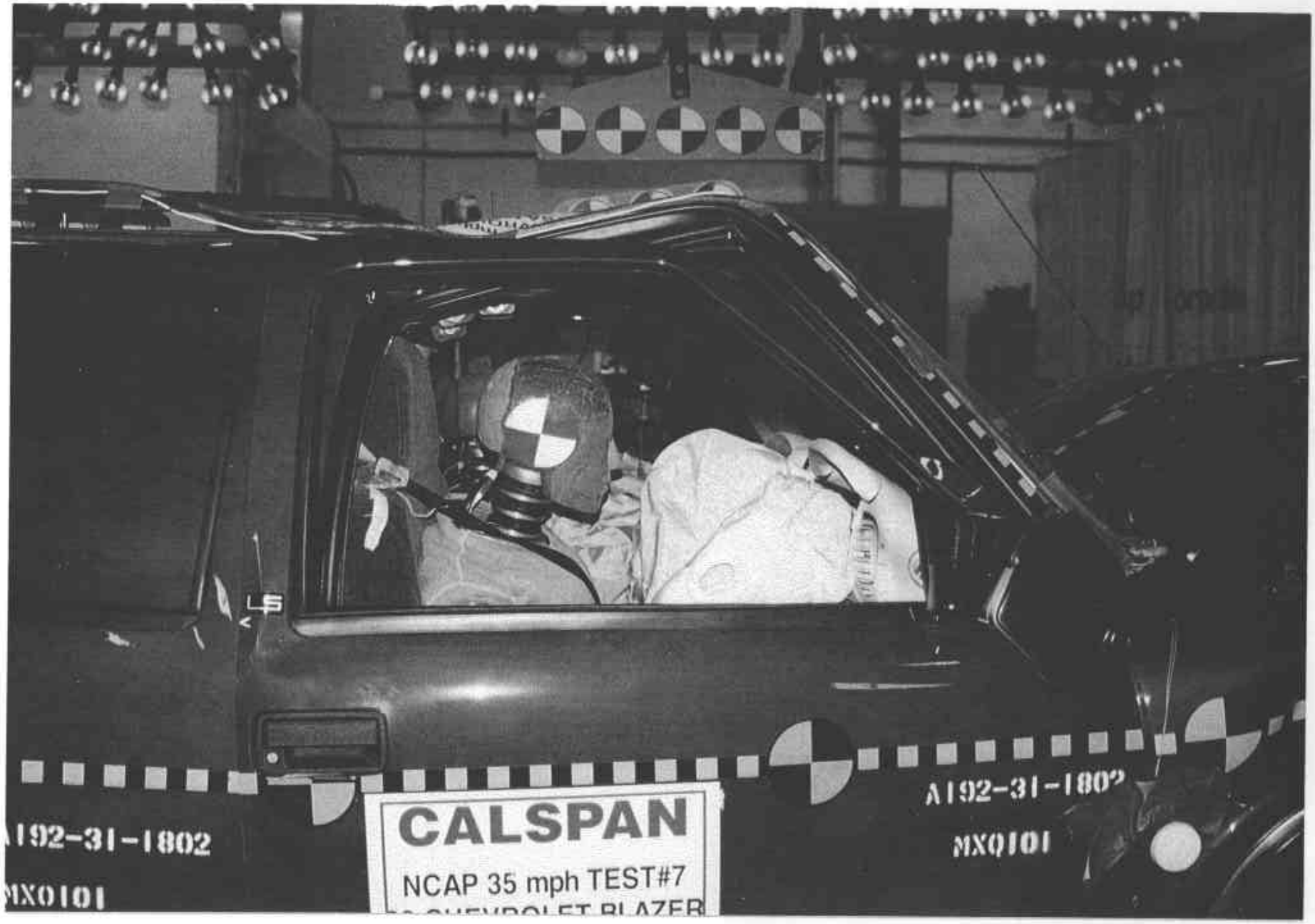


Figure A-25 POST-TEST PASSENGER POSITION VIEW

Figure A-26 PRE-TEST DRIVER AND INTERIOR VIEW

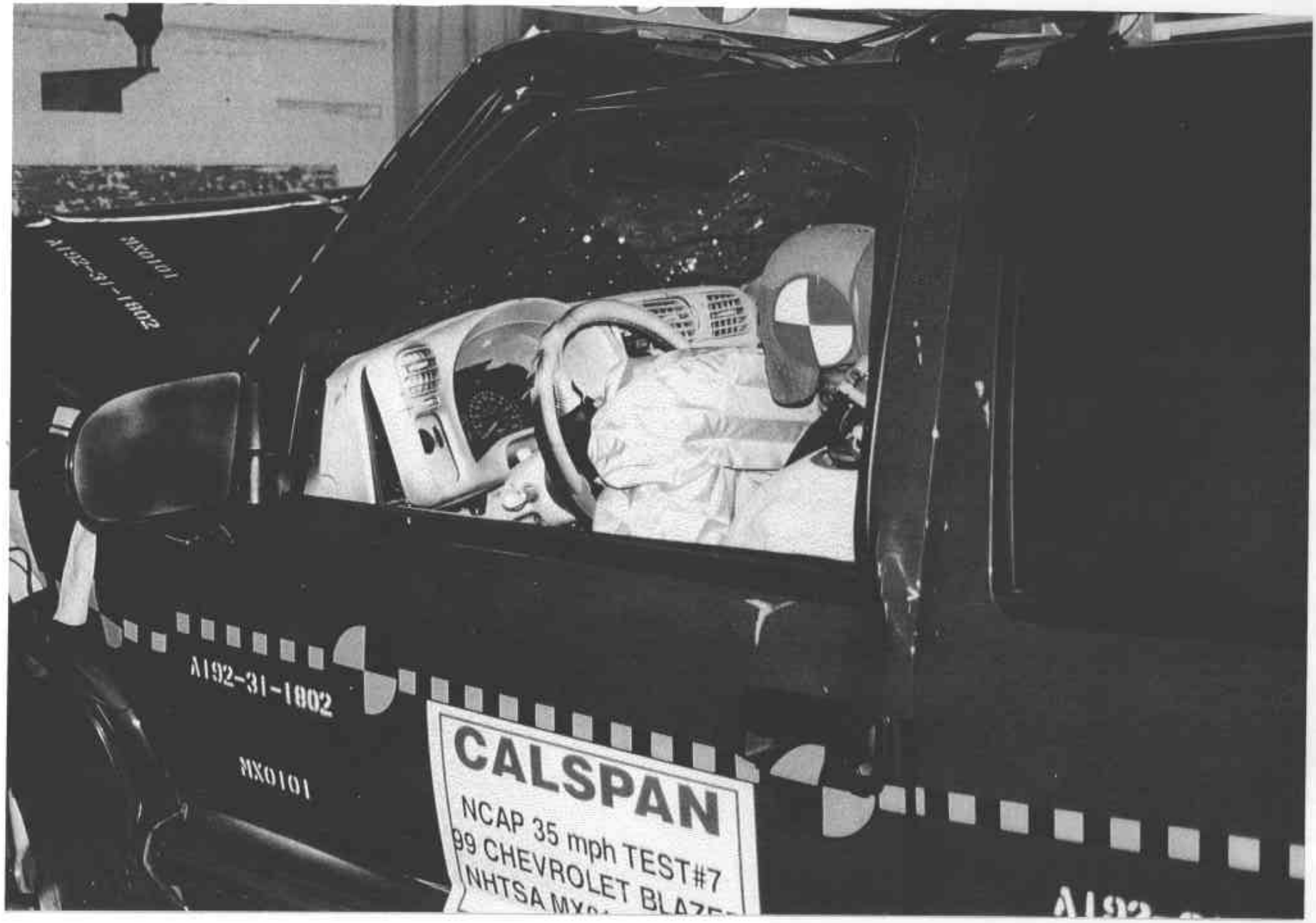


Figure A-27 POST-TEST DRIVER AND INTERIOR VIEW

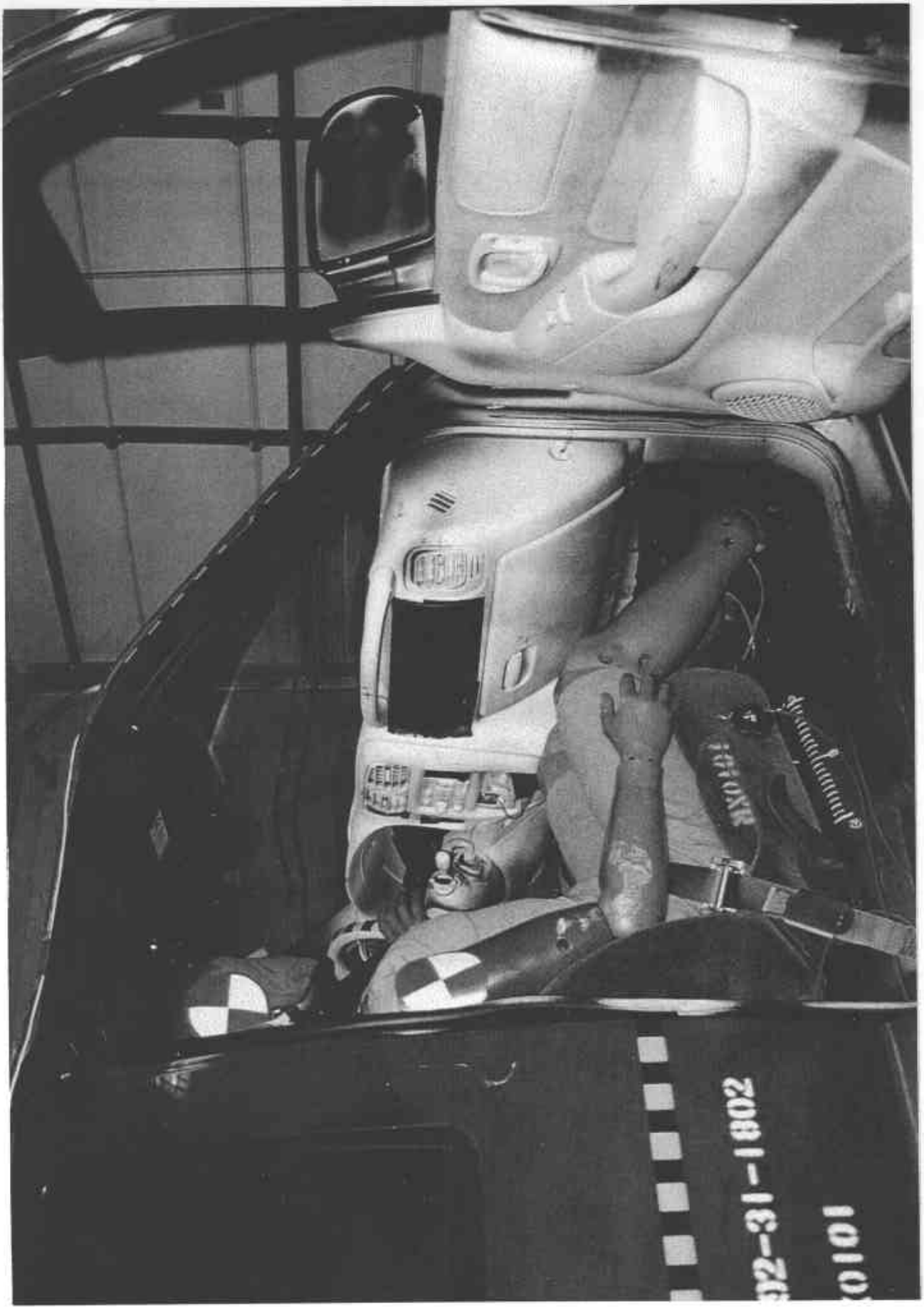


Figure A-28 PRE-TEST PASSENGER AND INTERIOR VIEW

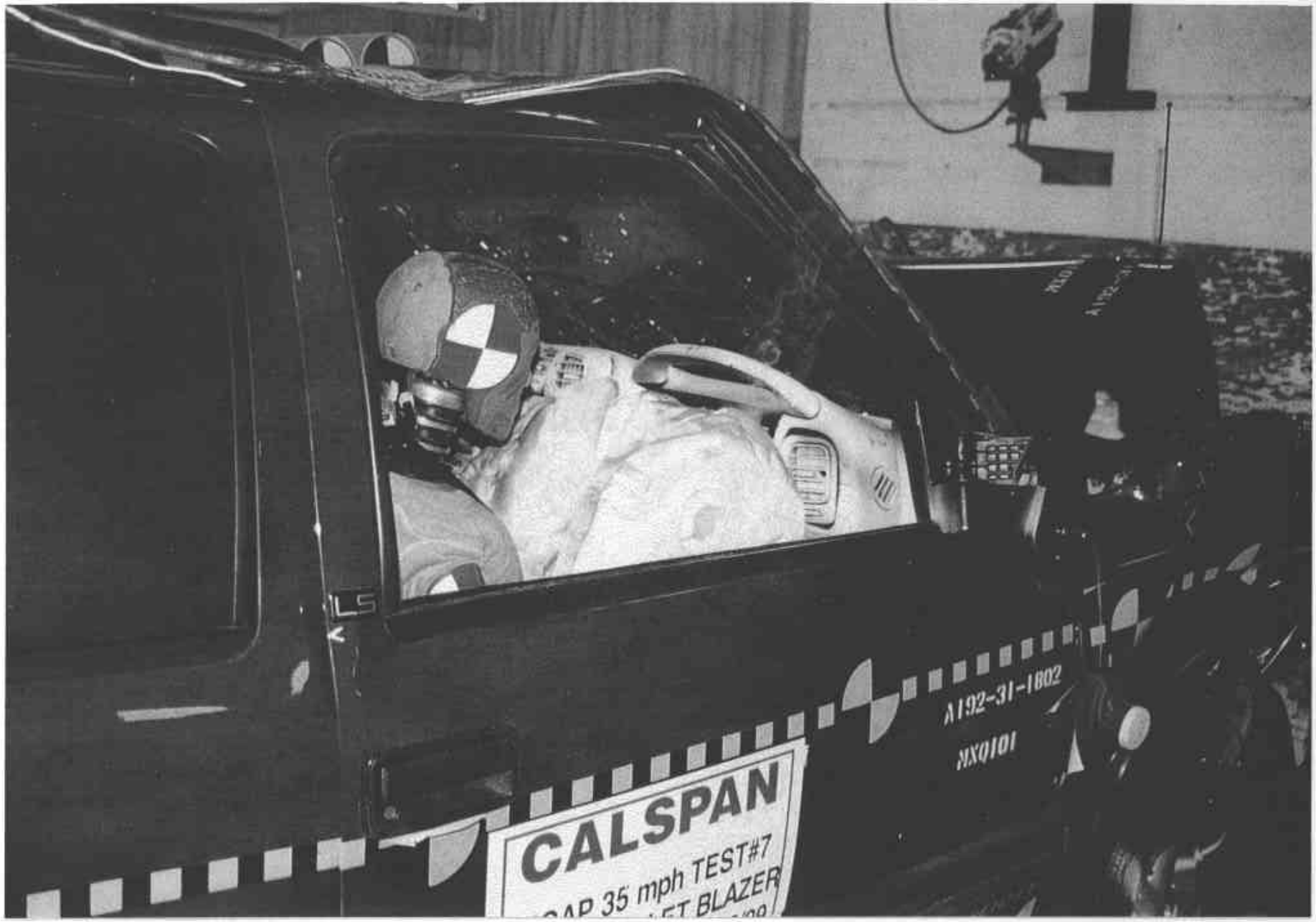


Figure A-29 POST-TEST PASSENGER AND INTERIOR VIEW

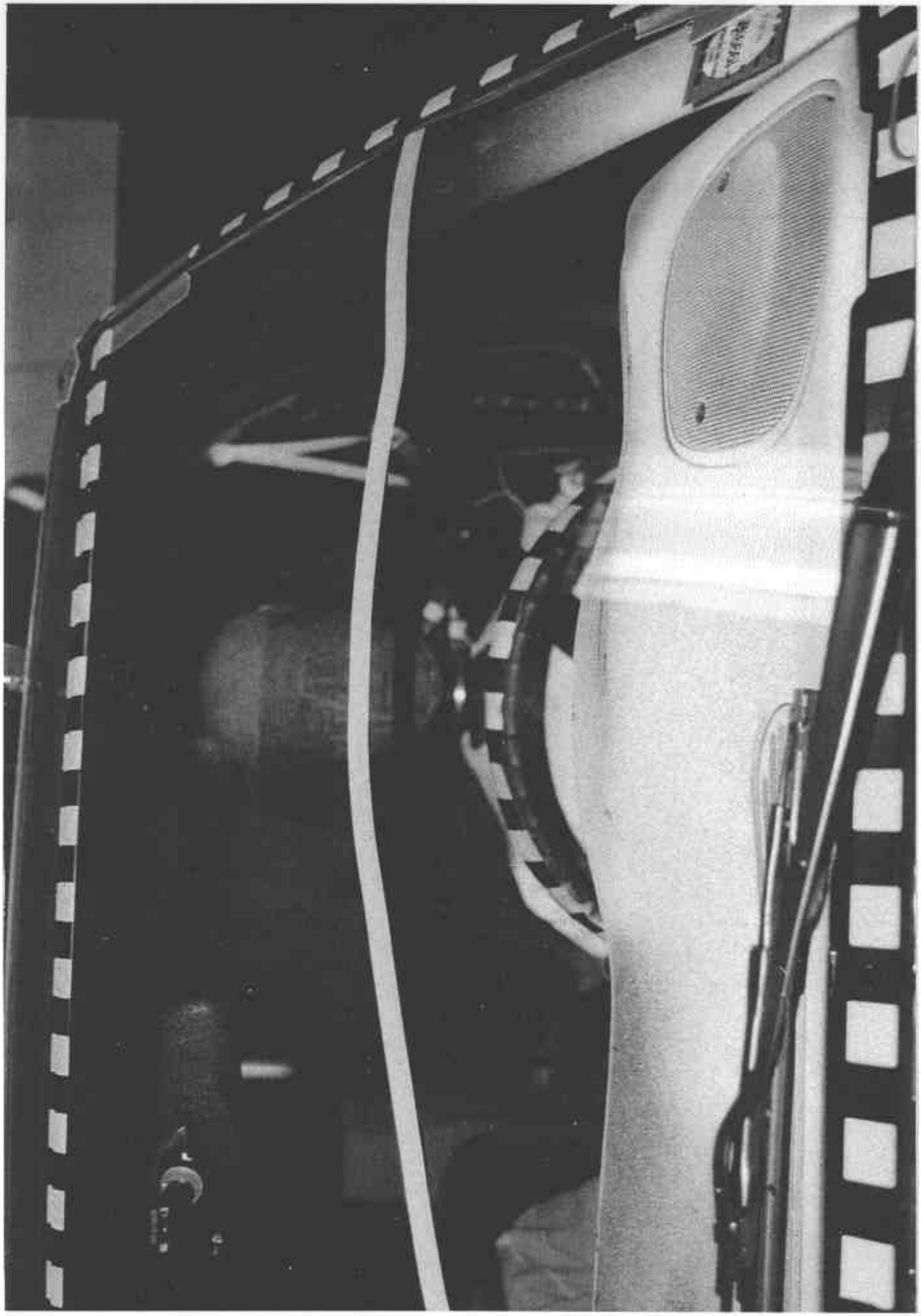


Figure A-30 PRE-TEST DRIVER HEAD LOCATION

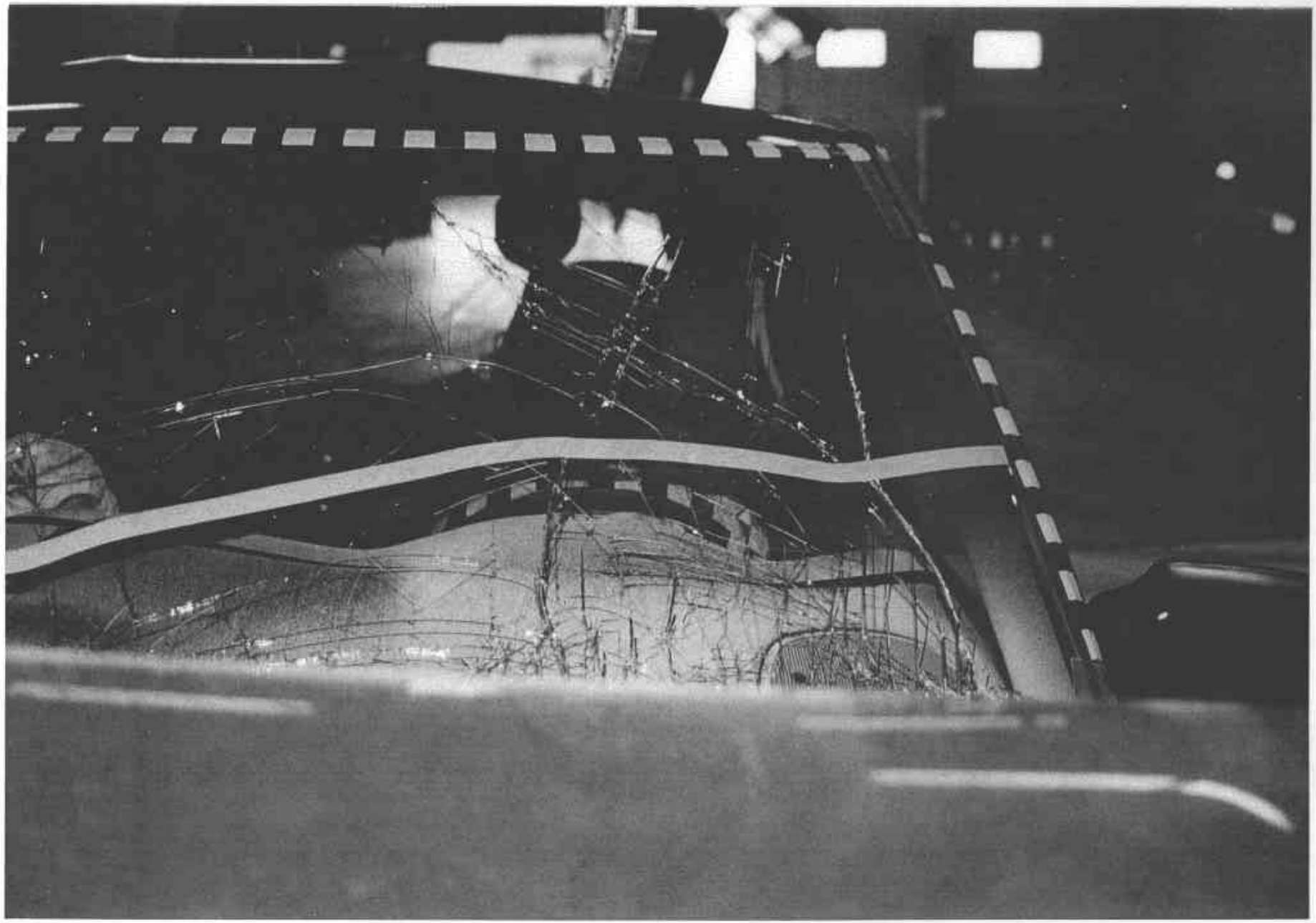


Figure A-31 POST-TEST DRIVER HEAD LOCATION

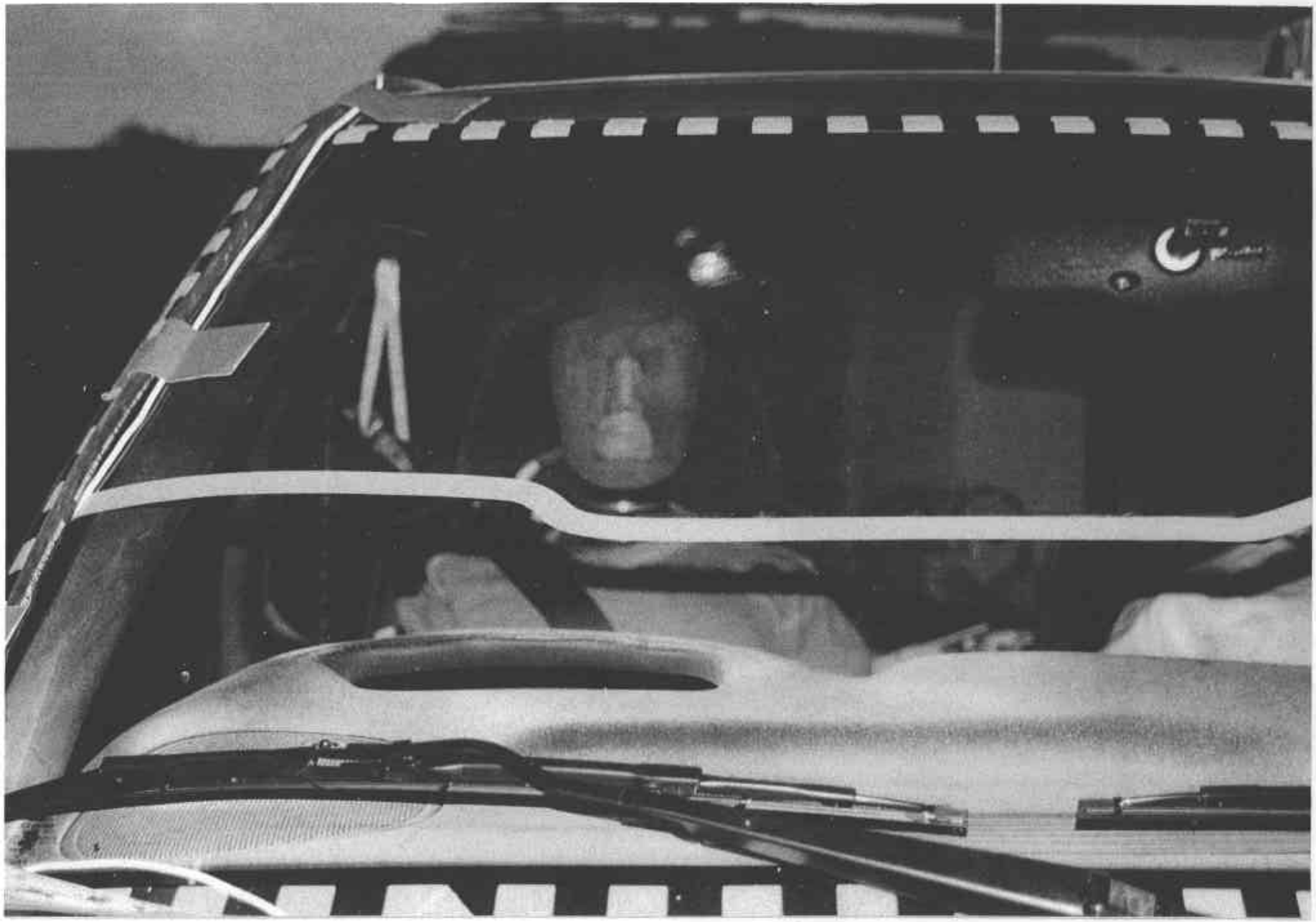


Figure A-32 PRE-TEST PASSENGER HEAD LOCATION

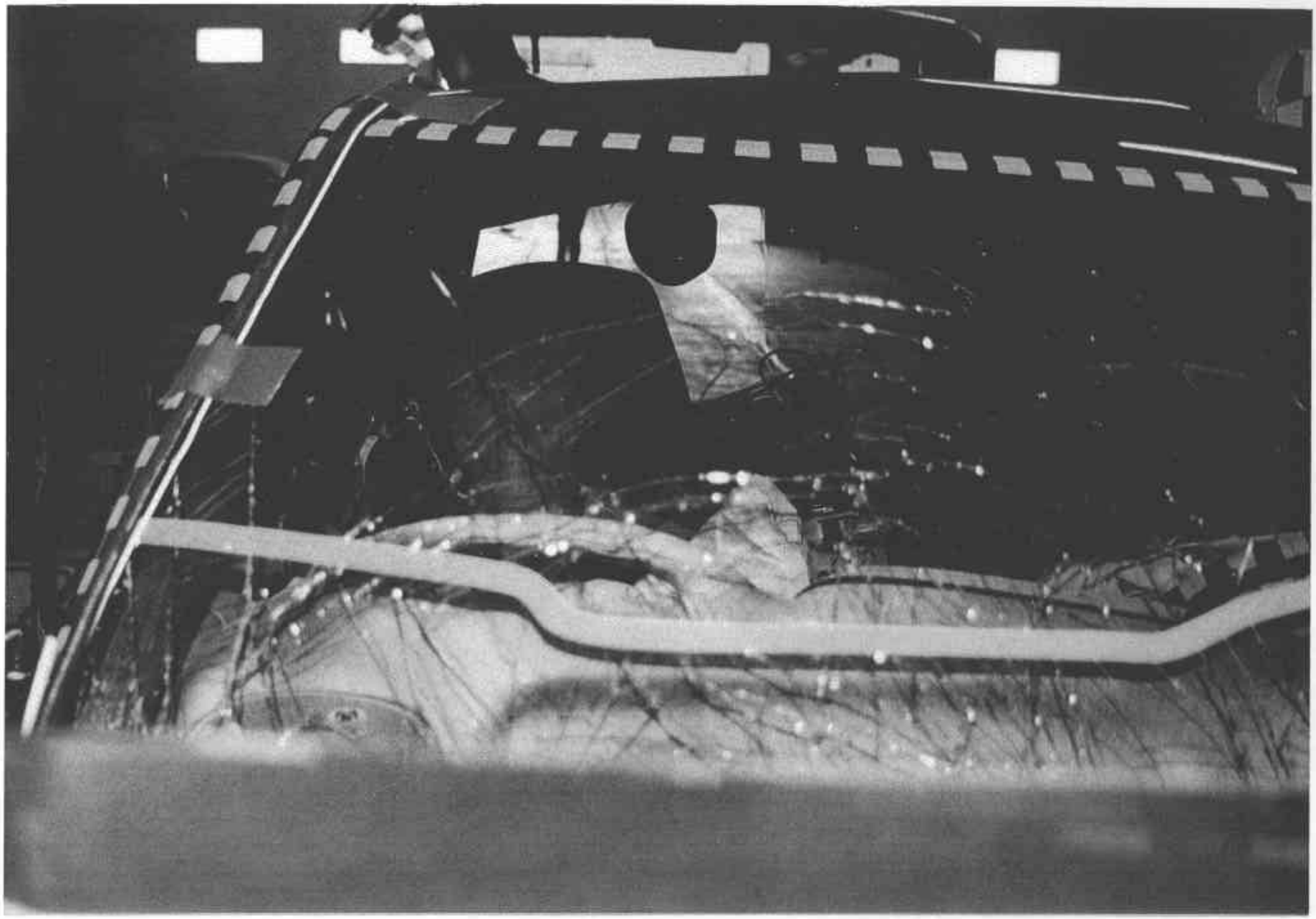


Figure A-33 POST-TEST PASSENGER HEAD LOCATION

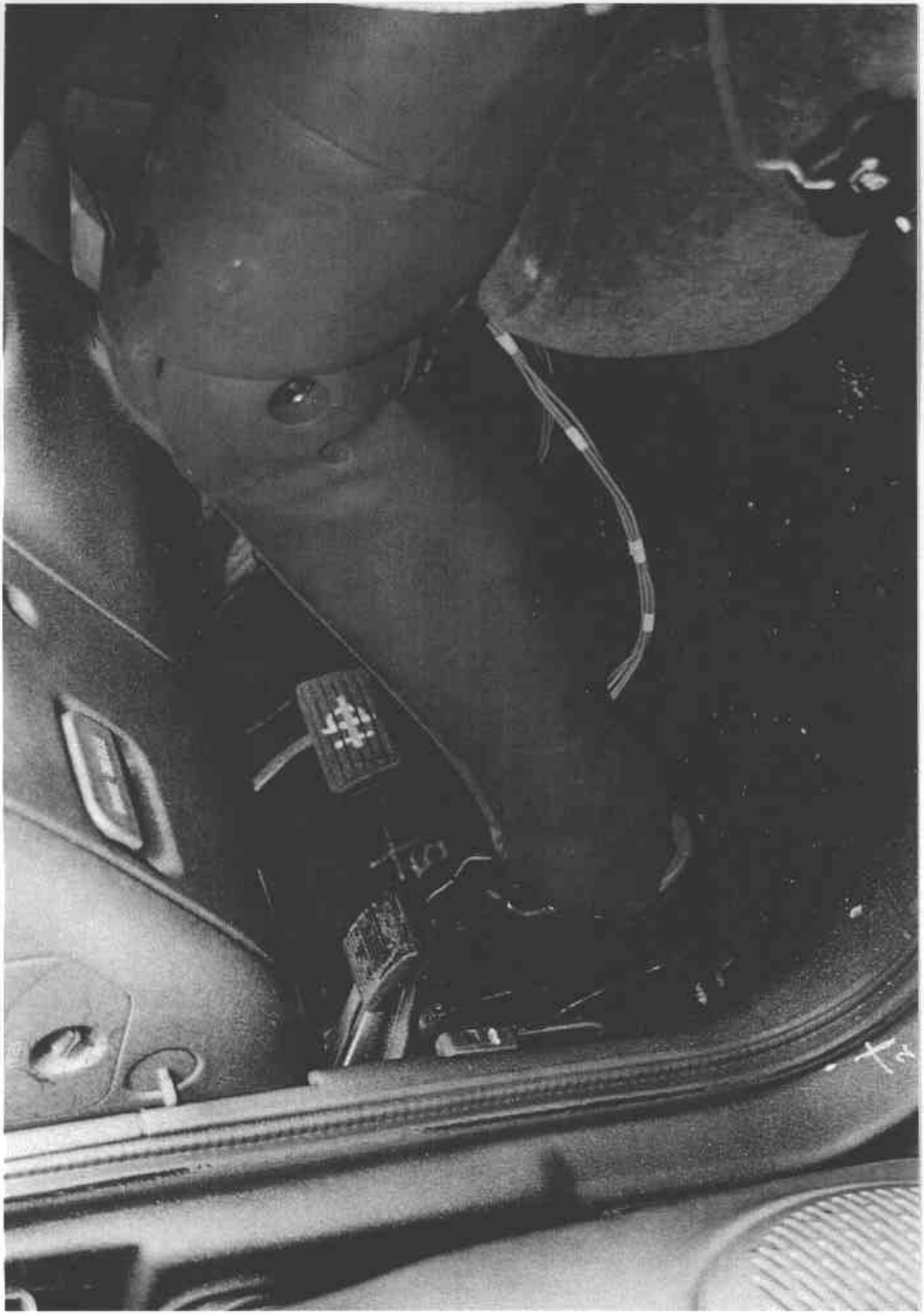


Figure A-34 PRE-TEST DRIVER FLOOR PAN VIEW

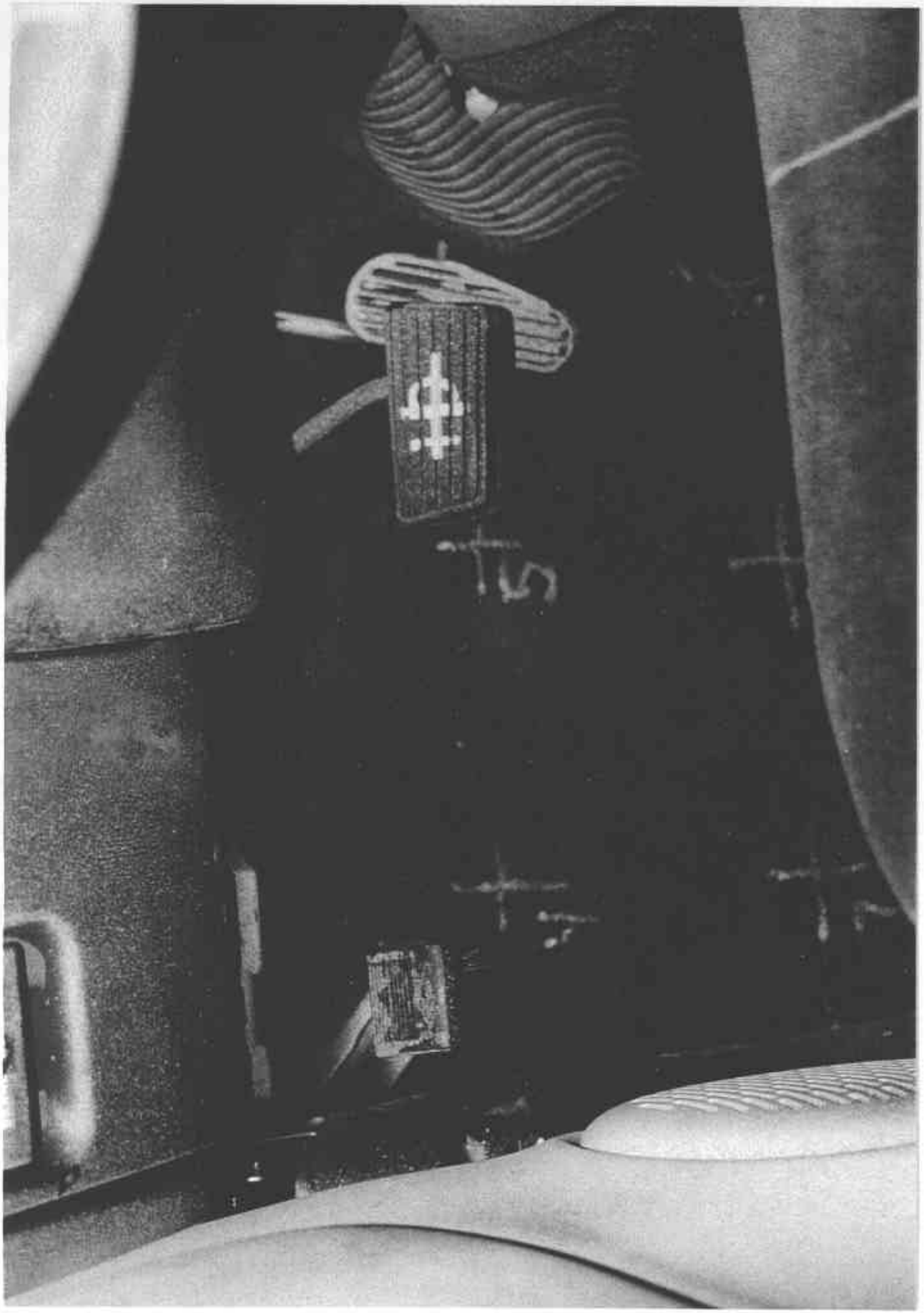


Figure A-35 POST-TEST DRIVER FLOOR PAN VIEW

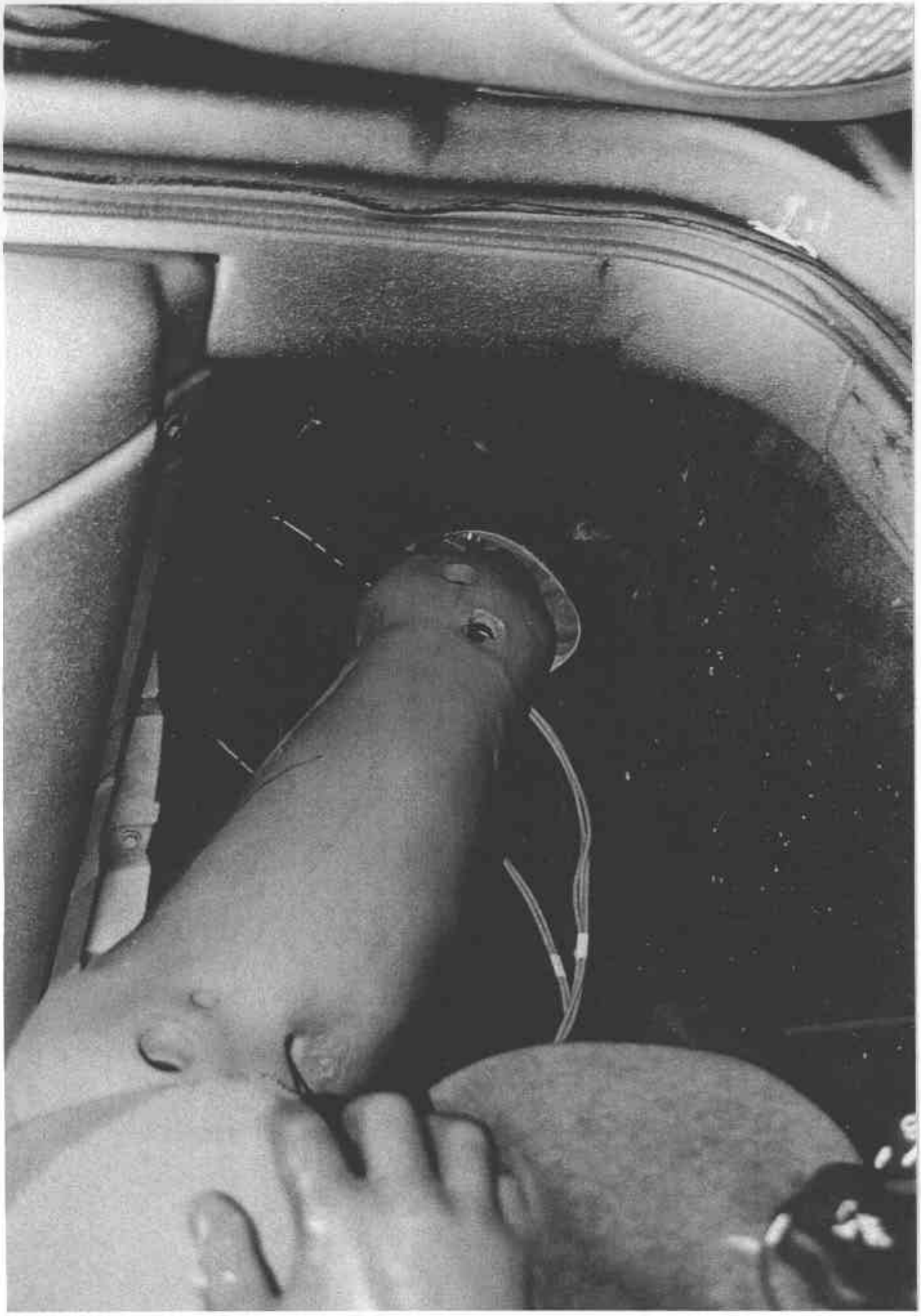


Figure A-36 PRE-TEST PASSENGER FLOOR PAN VIEW

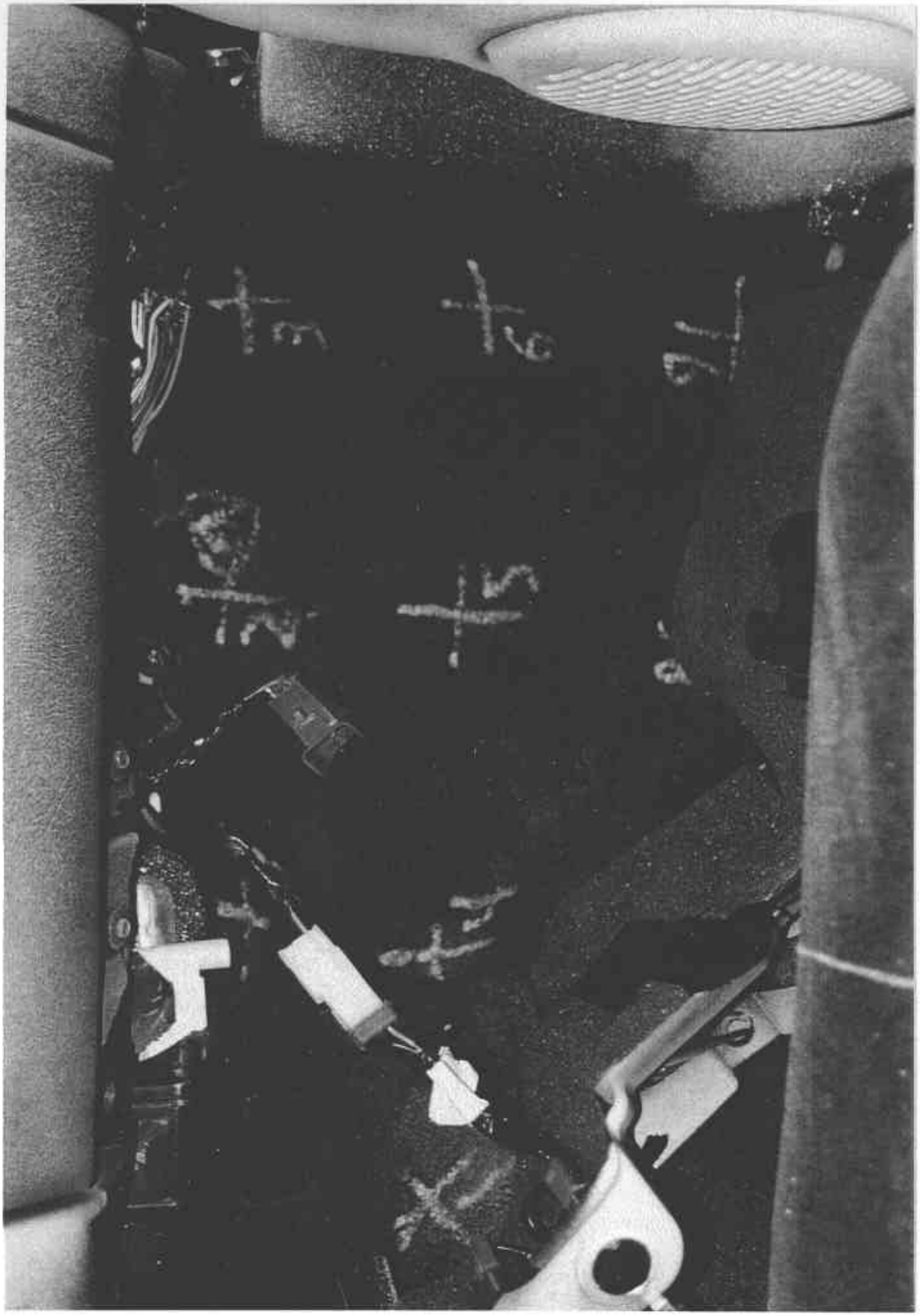


Figure A-37 POST-TEST PASSENGER FLOOR PAN VIEW

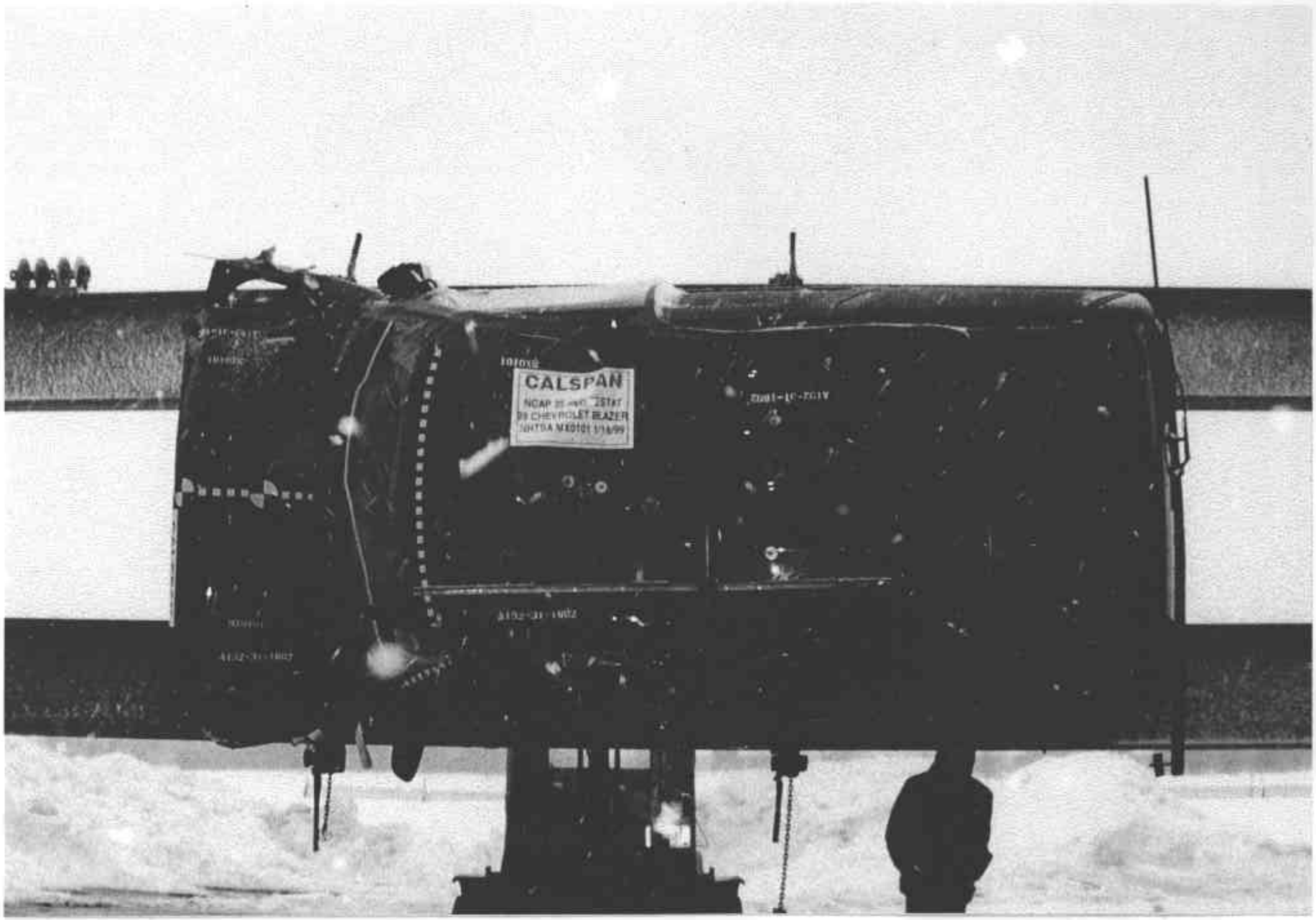


Figure A-38 ROLLOVER VIEW

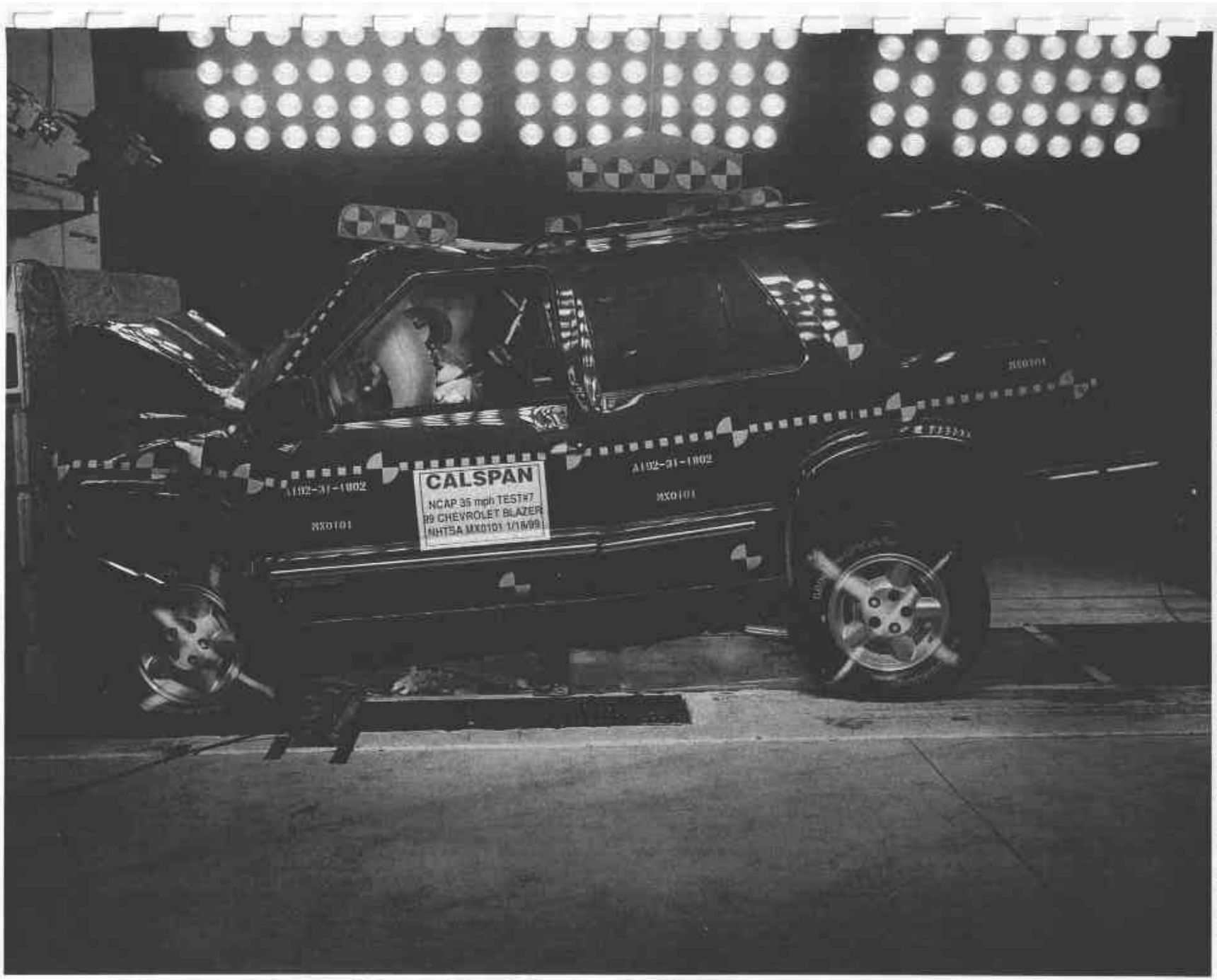


Figure A-39 IMPACT VIEW

Appendix B

DUMMY, VEHICLE AND LOAD CELL BARRIER RESPONSE DATA

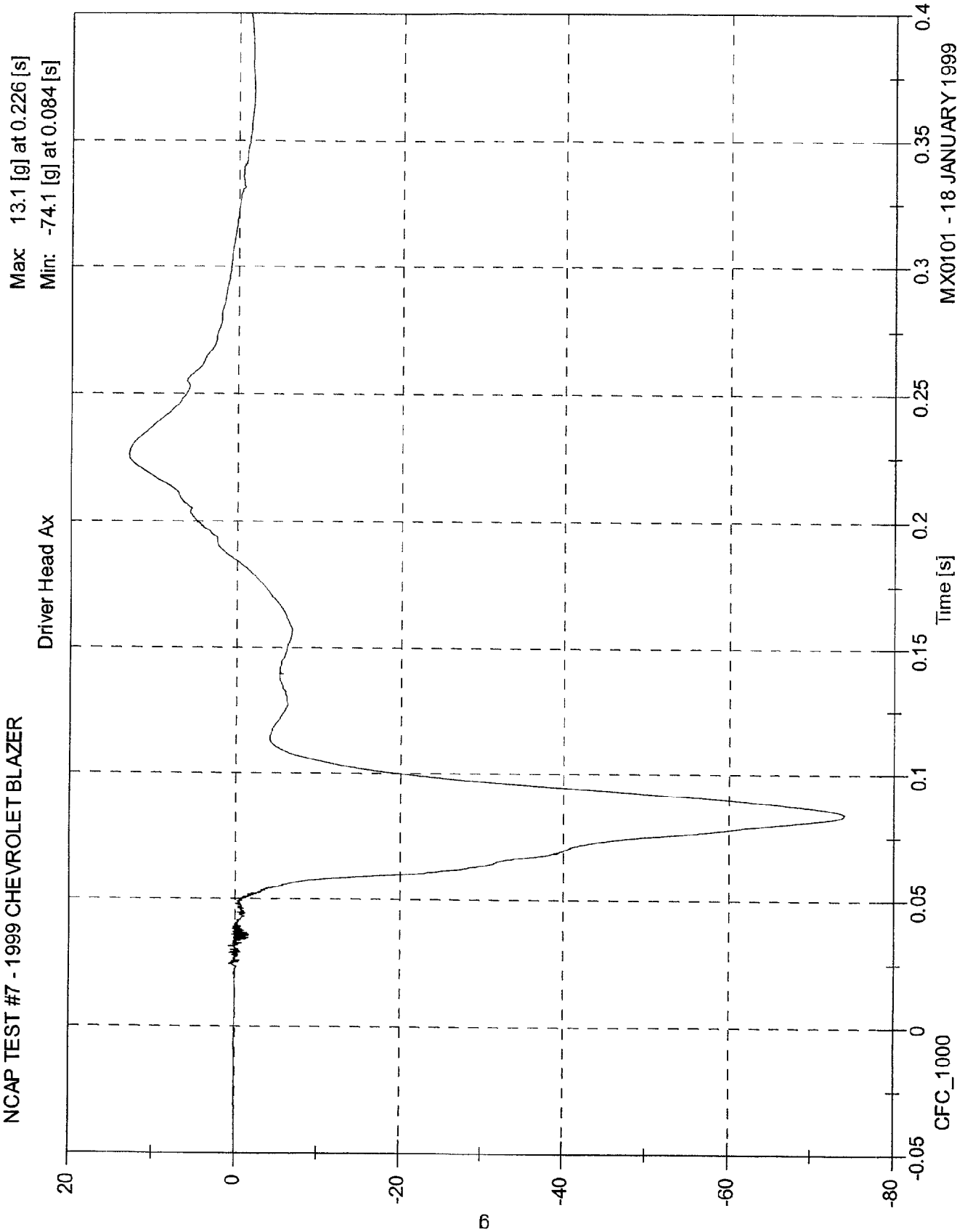
Hybrid III Dummy Sign Conventions
Load Cells and Special Transducers

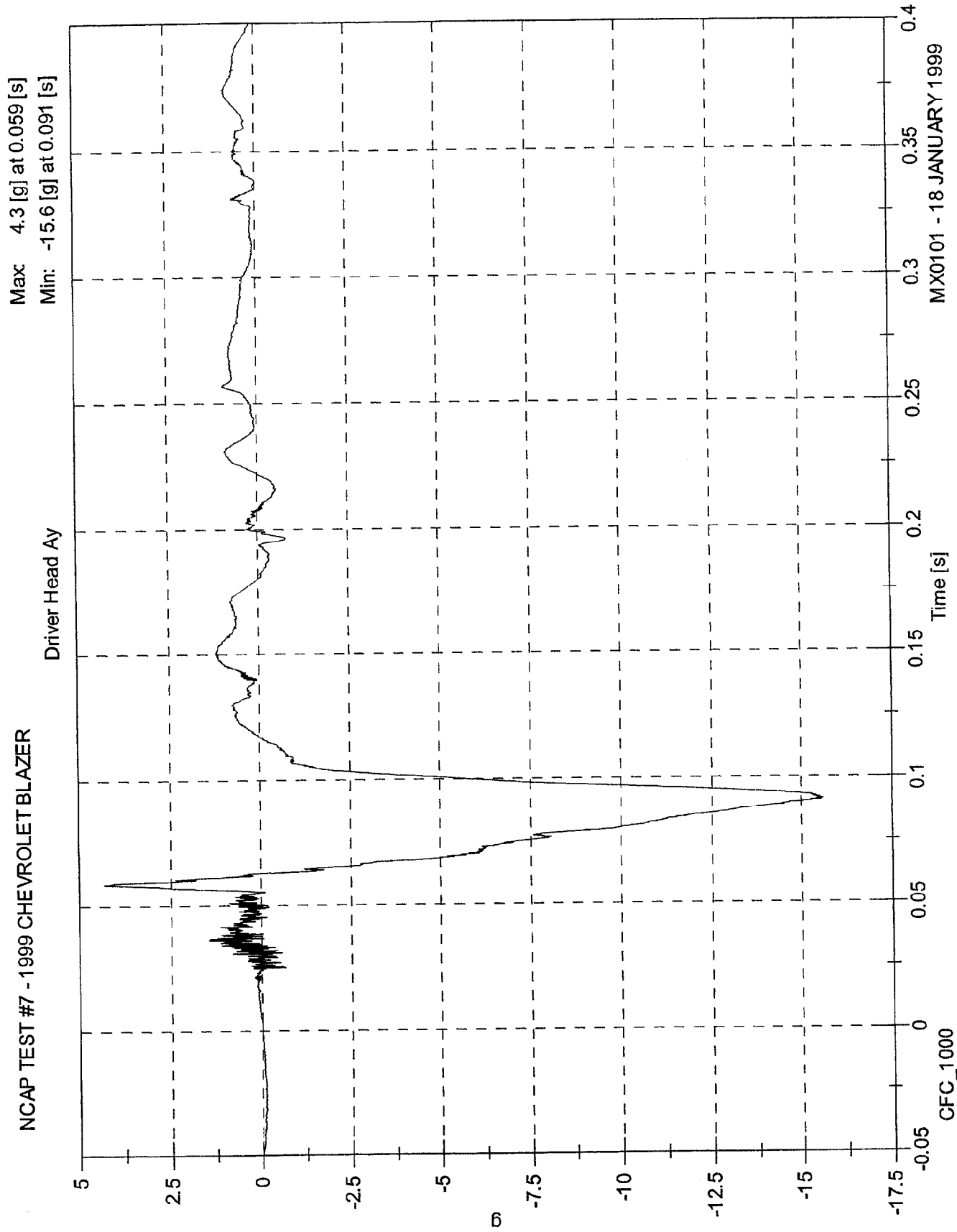
Transducer	SAE Sign Convention (positive unless noted)
Upper Neck Load Cell	Fx Head rearward Fy Head left Fz Neck in tension Mx Left ear to left shoulder My Chin to chest (flexion) Mz Chin to left shoulder (look left)
Chest Displacement Potentiometer	Compression is negative
Pelvic Load Cell (Lower Lumbar)	Fx Chest rearward Fy Chest left Fz Spine in tension
Femur Load Cell	Compression is negative
Upper Tibia Load Cell (right and left leg)	Mx Support tibia at ends, load left side center My Support tibia at ends, load front (shin) center
Lower Tibia Load Cell (right and left leg)	Fz Tibia in tension Mx Support tibia at ends, load left side center My Support tibia at ends, load front (shin) center

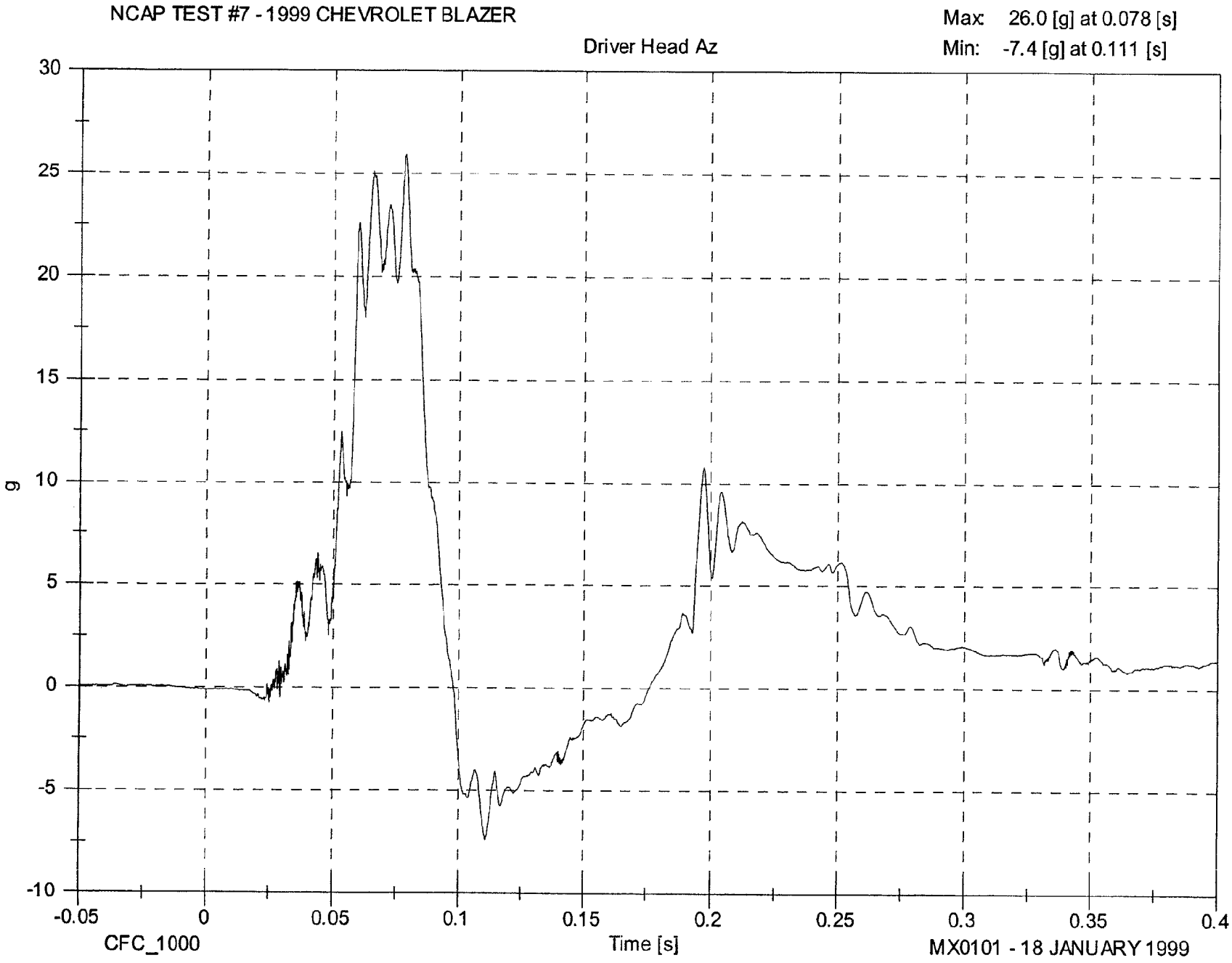
NHTSA TEST NO. MX0101

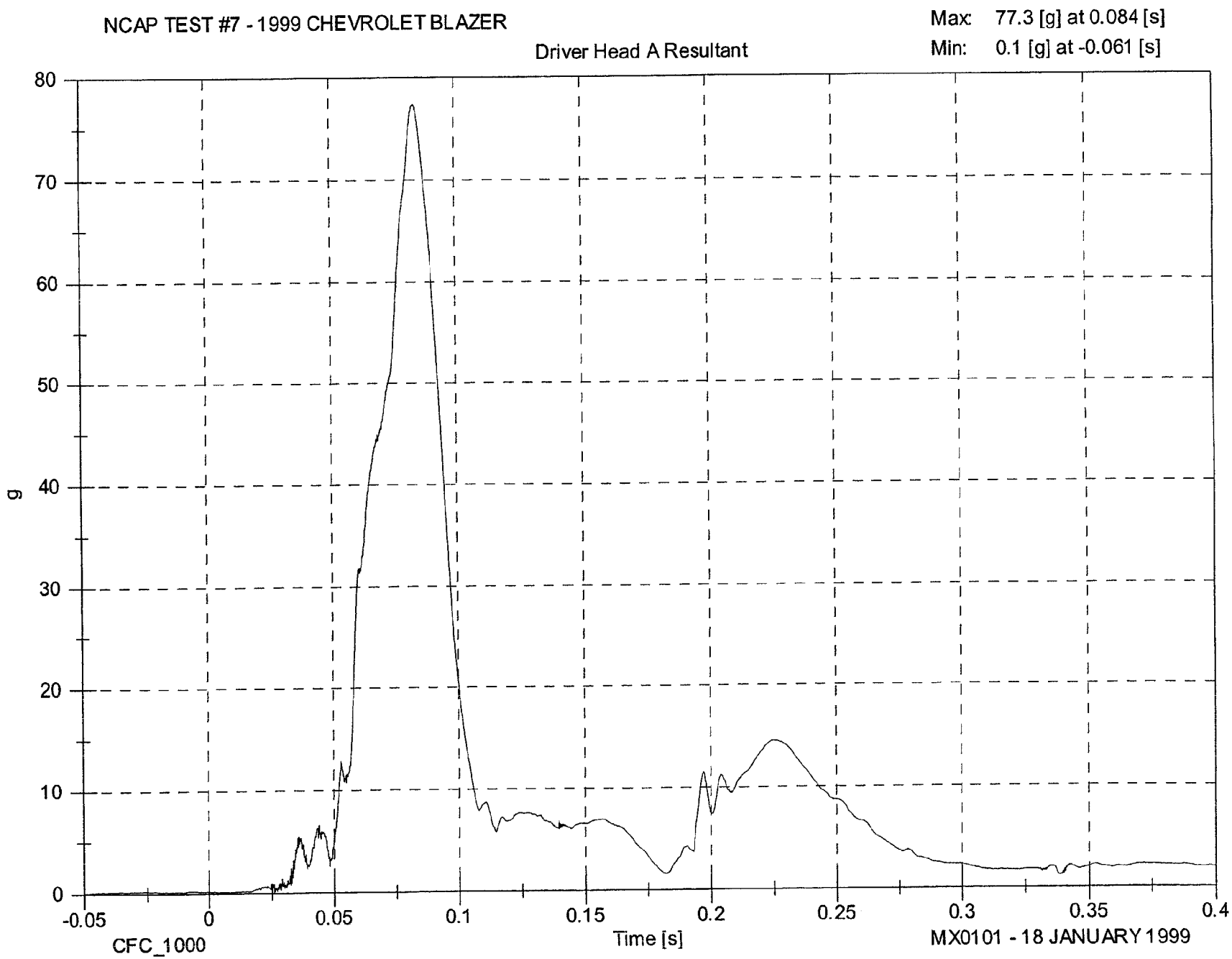
DUMMY DATA

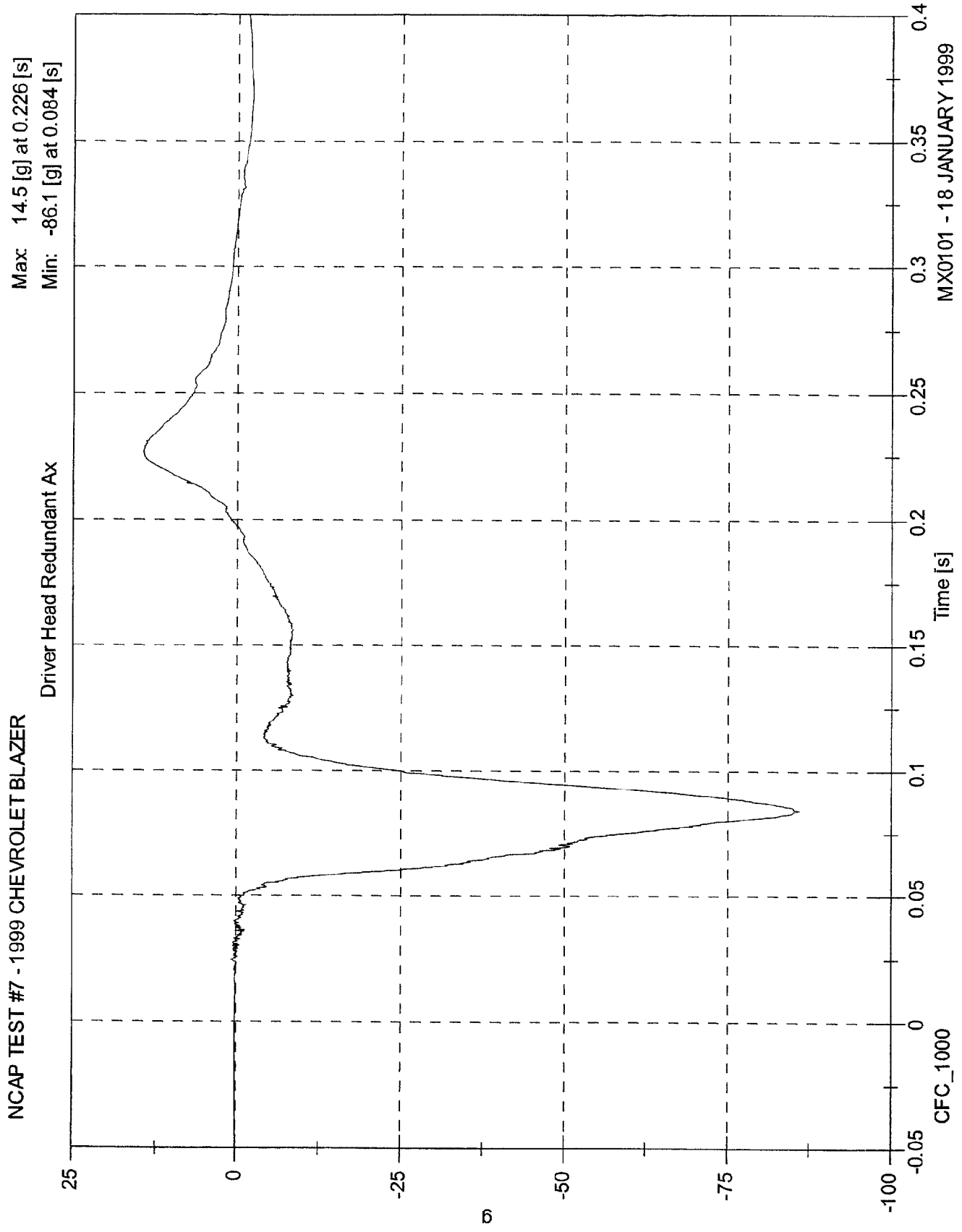
CLASS	FILTER CHANNEL
Head Accelerations	1000
Chest Accelerations	180
Chest Displacements	60
Femur Forces	600
Belt Loads	60
Belt Displacements	180
Neck Forces	1000
Neck Moments	600

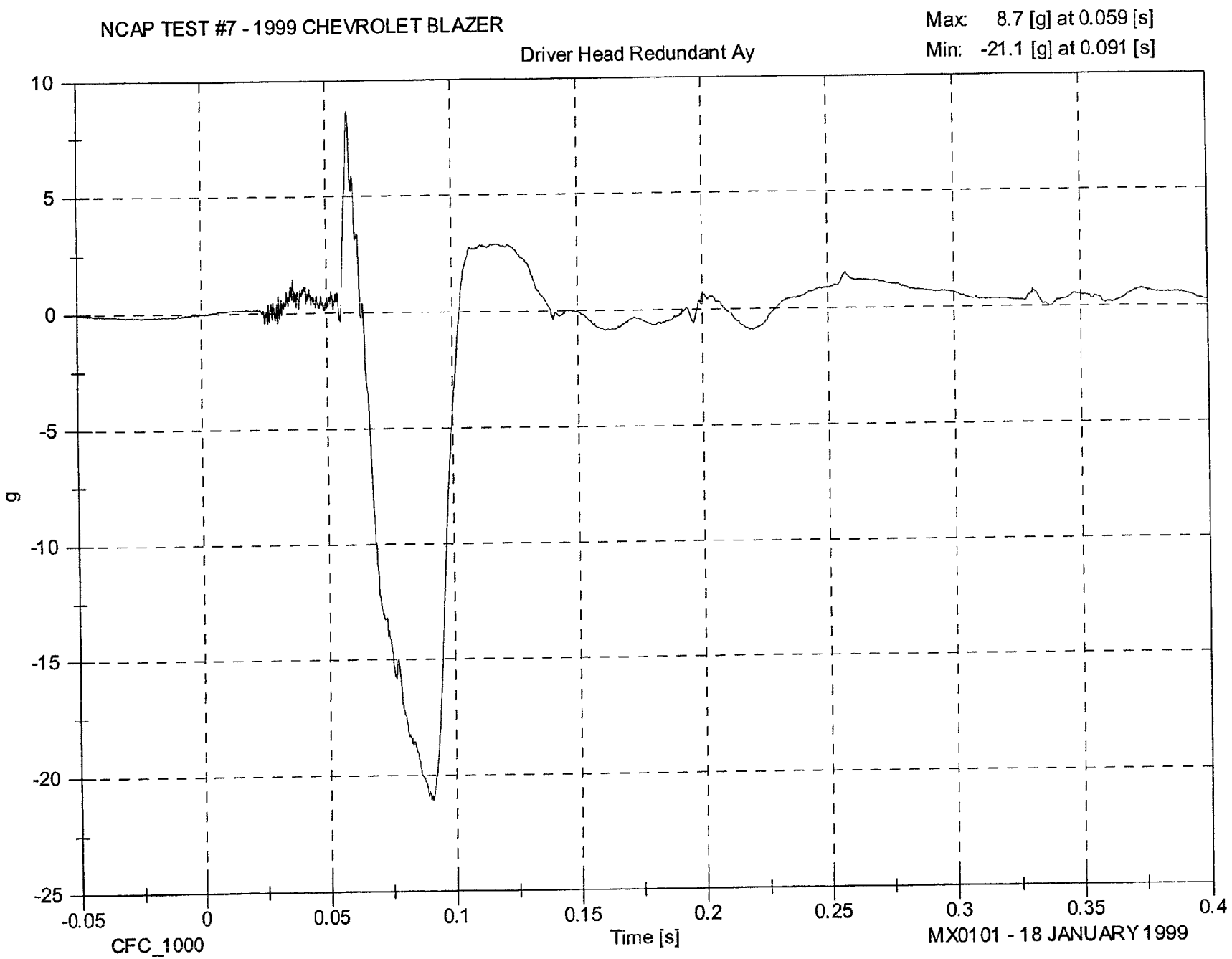

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Max: 13.1 [g] at 0.226 [s]
Min: -74.1 [g] at 0.084 [s]
Driver Head Ax
MX0101 - 18 JANUARY 1999
CFC_1000
Time [s]
g
20
0
-20
-40
-60
-80
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4

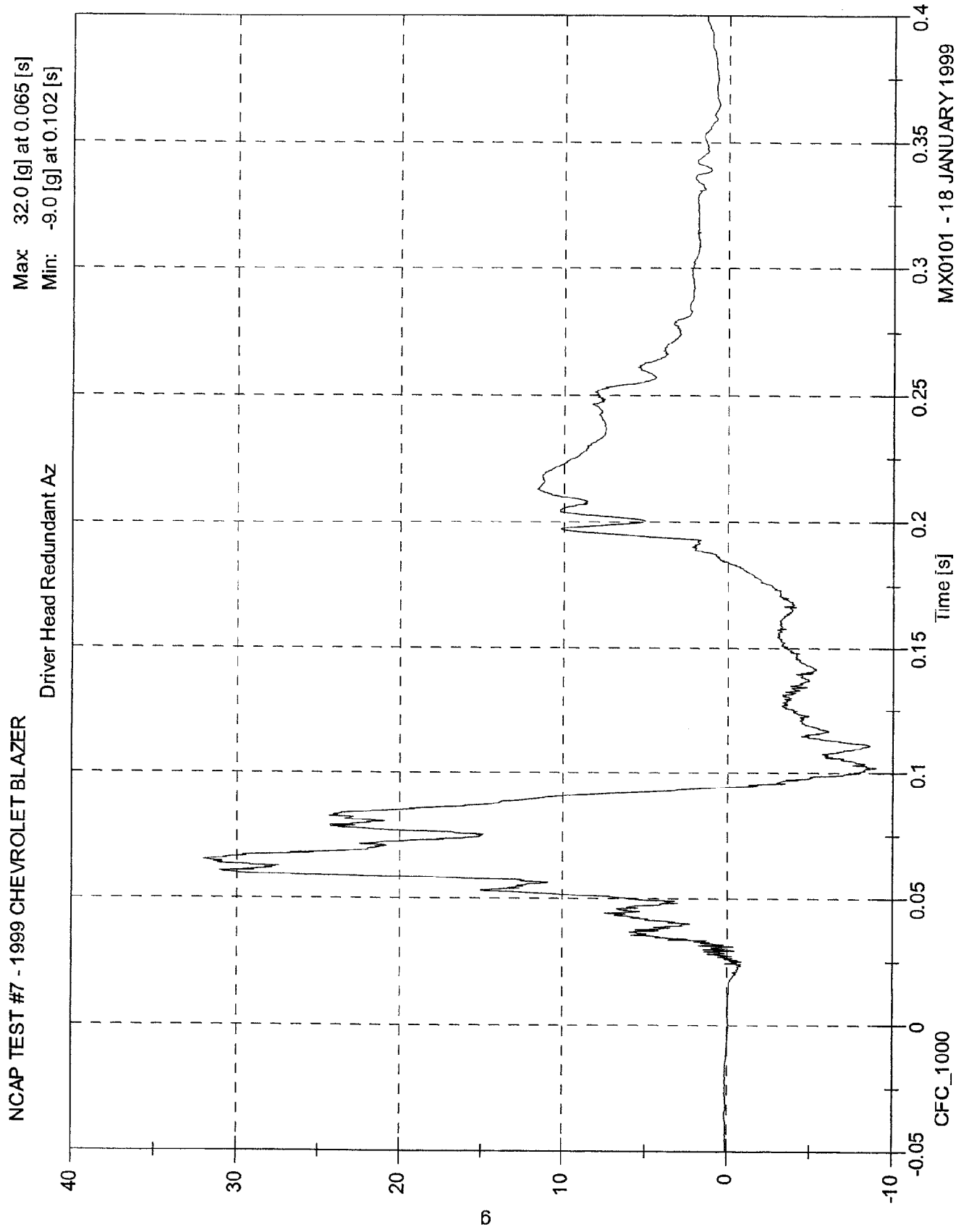

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Max: 4.3 [g] at 0.059 [s]
Min: -15.6 [g] at 0.091 [s]
Driver Head Ay
MX0101 - 18 JANUARY 1999
CFC_1000
Time [s]
g
5
2.5
0
-2.5
-5
-7.5
-10
-12.5
-15
-17.5
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4

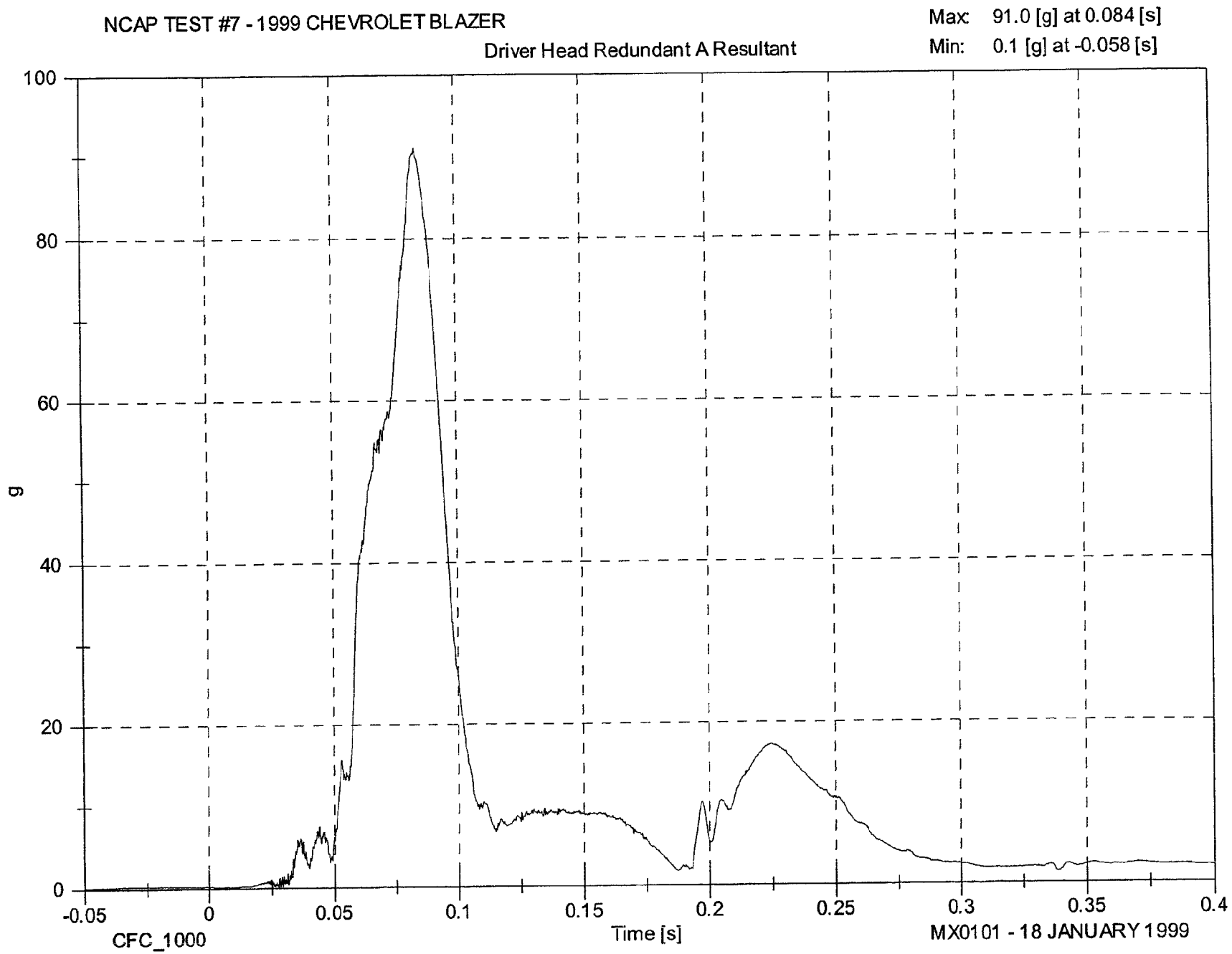

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Driver Head Az
Max: 26.0 [g] at 0.078 [s]
Min: -7.4 [g] at 0.111 [s]
30
25
20
15
10
5
0
-5
-10
g
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_1000
MX0101 - 18 JANUARY 1999

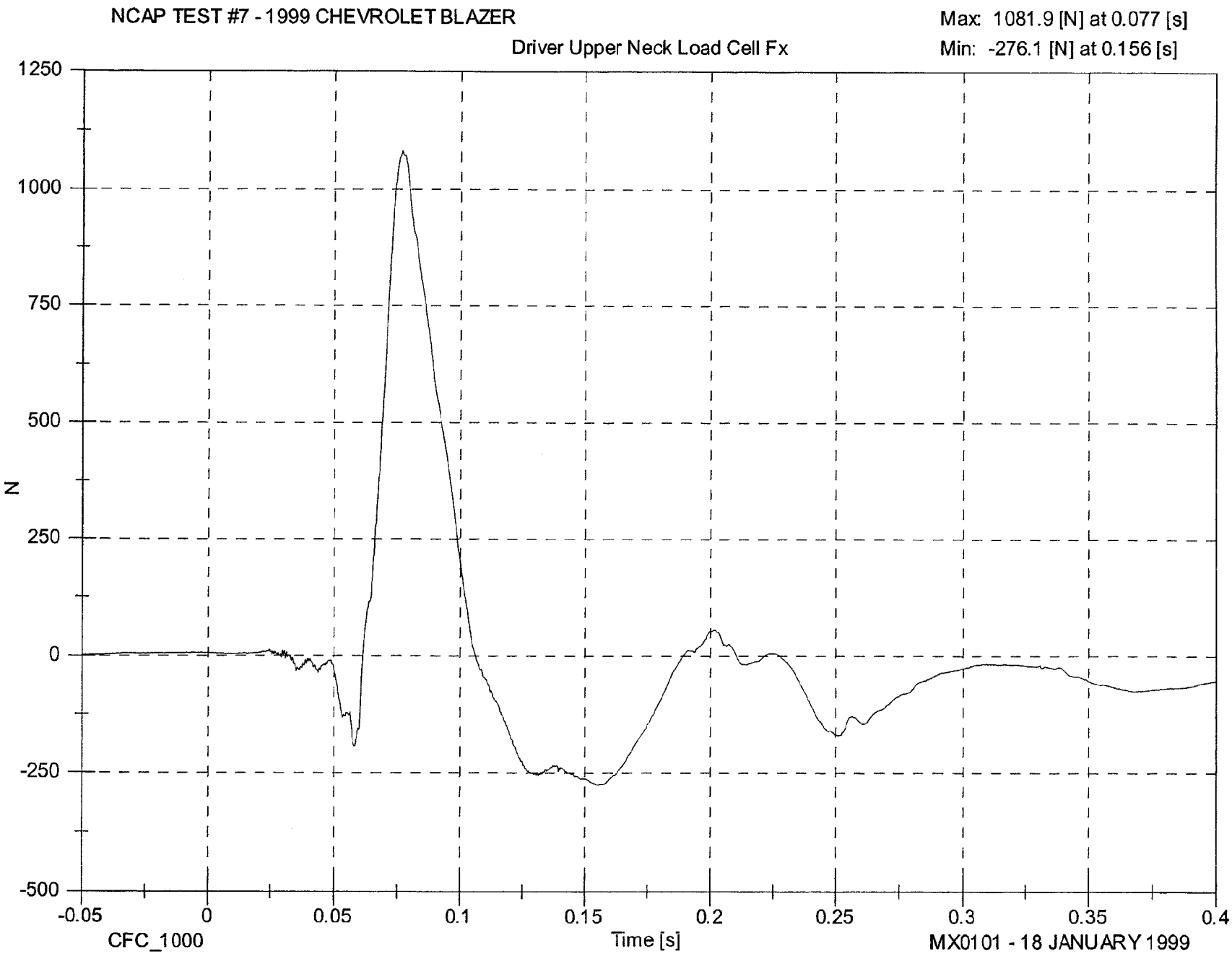

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Driver Head A Resultant
Max: 77.3 [g] at 0.084 [s]
Min: 0.1 [g] at -0.061 [s]
g
80
70
60
50
40
30
20
10
0
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_1000
MX0101 - 18 JANUARY 1999

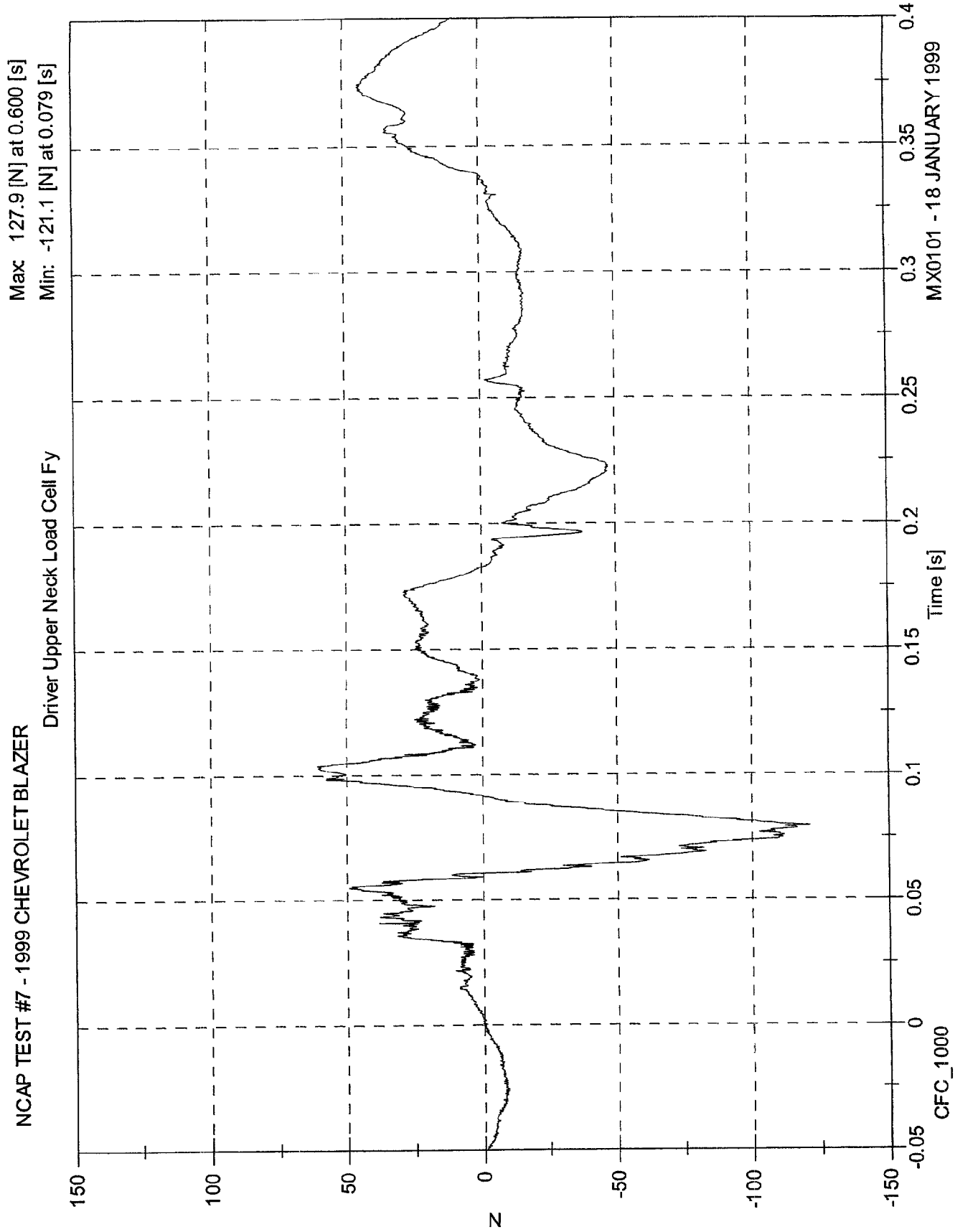

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Max: 14.5 [g] at 0.226 [s]
Min: -86.1 [g] at 0.084 [s]
Driver Head Redundant Ax
MX0101 - 18 JANUARY 1999
CFC_1000
Time [s]
g
25
0
-25
-50
-75
-100
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4

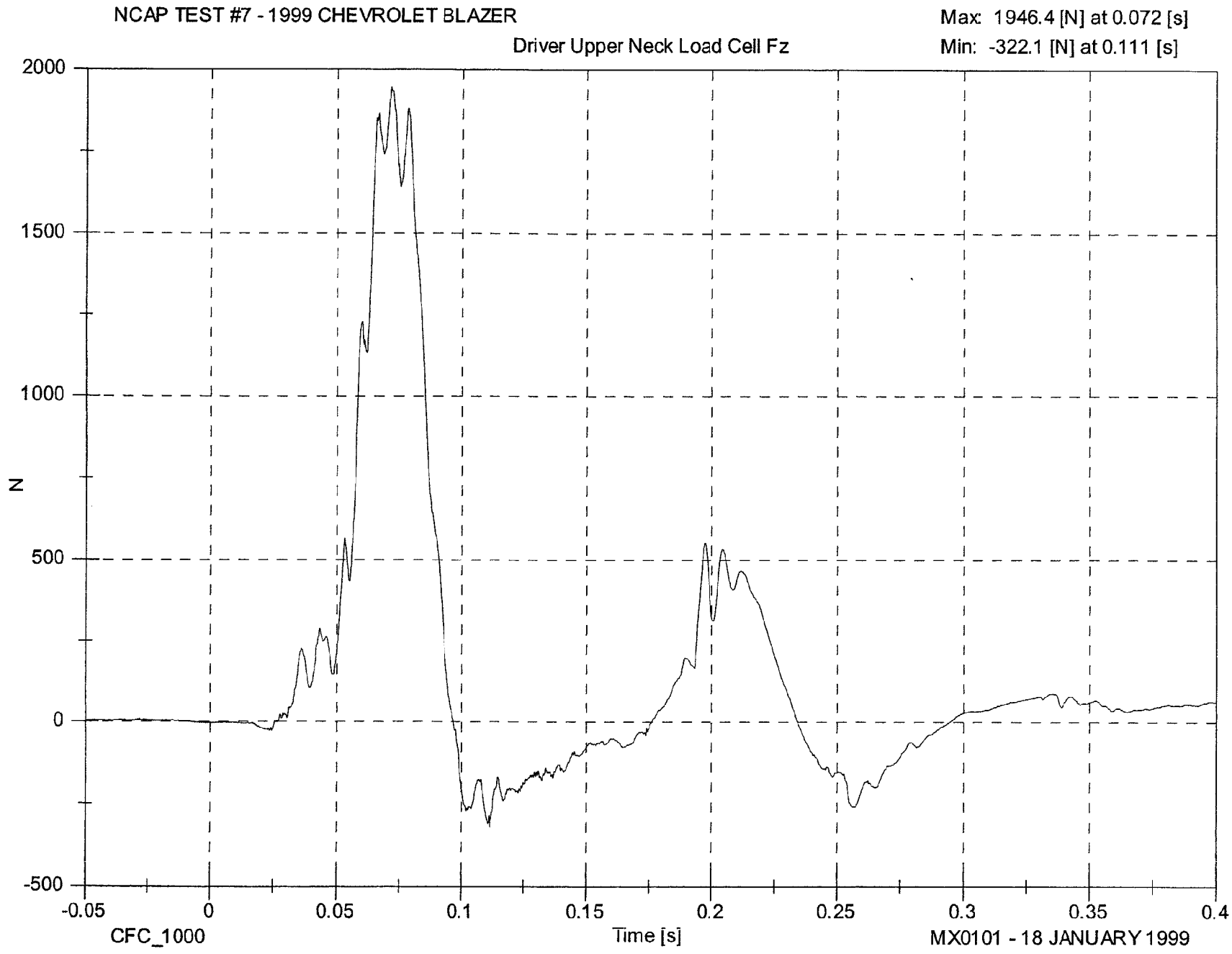

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Driver Head Redundant Ay
Max: 8.7 [g] at 0.059 [s]
Min: -21.1 [g] at 0.091 [s]
10
5
0
-5
-10
-15
-20
-25
g
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_1000
MX0101 - 18 JANUARY 1999

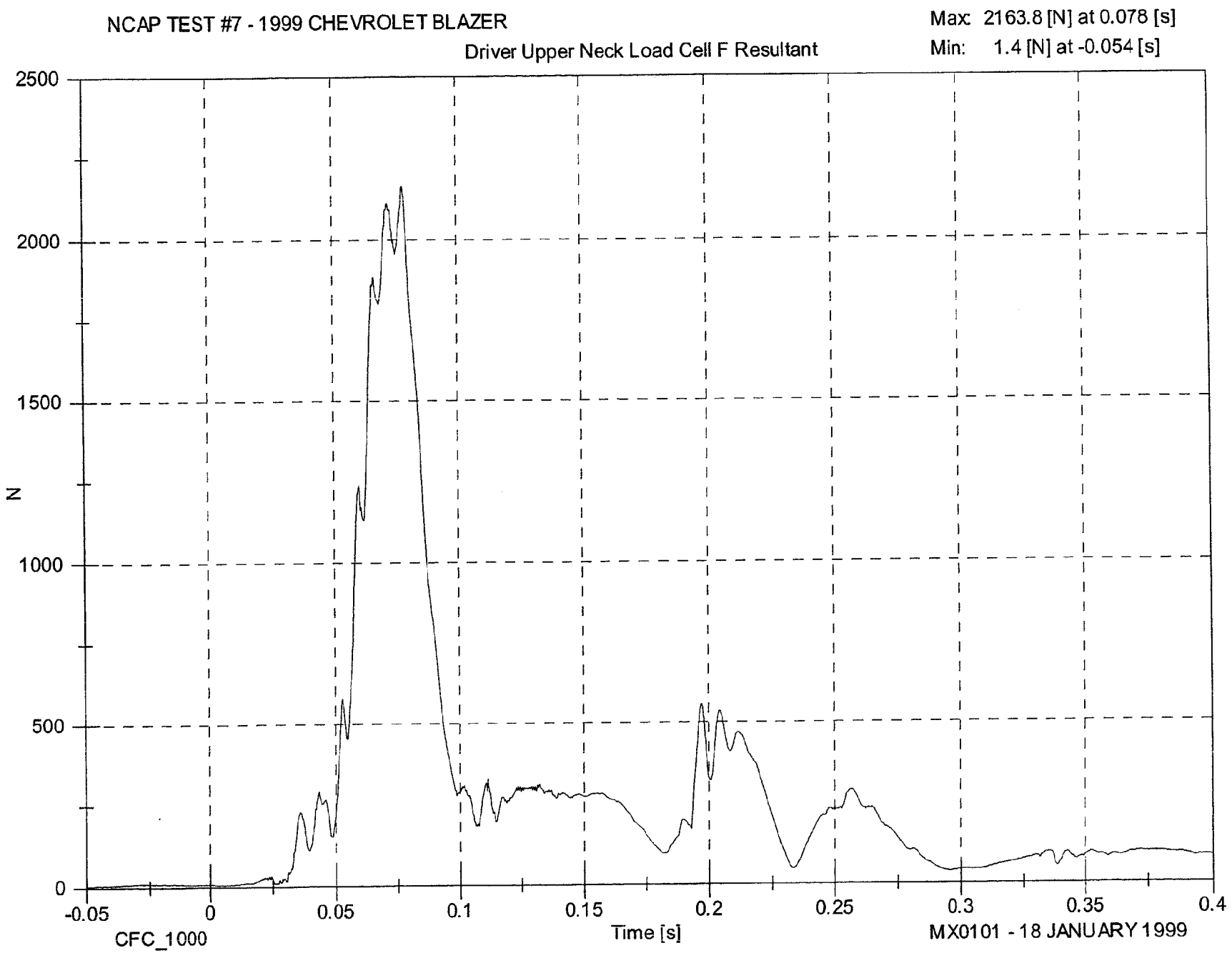

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Driver Head Redundant Az
Max: 32.0 [g] at 0.065 [s]
Min: -9.0 [g] at 0.102 [s]
MX0101 - 18 JANUARY 1999
CFC_1000
Time [s]
g
40
30
20
10
0
-10
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4

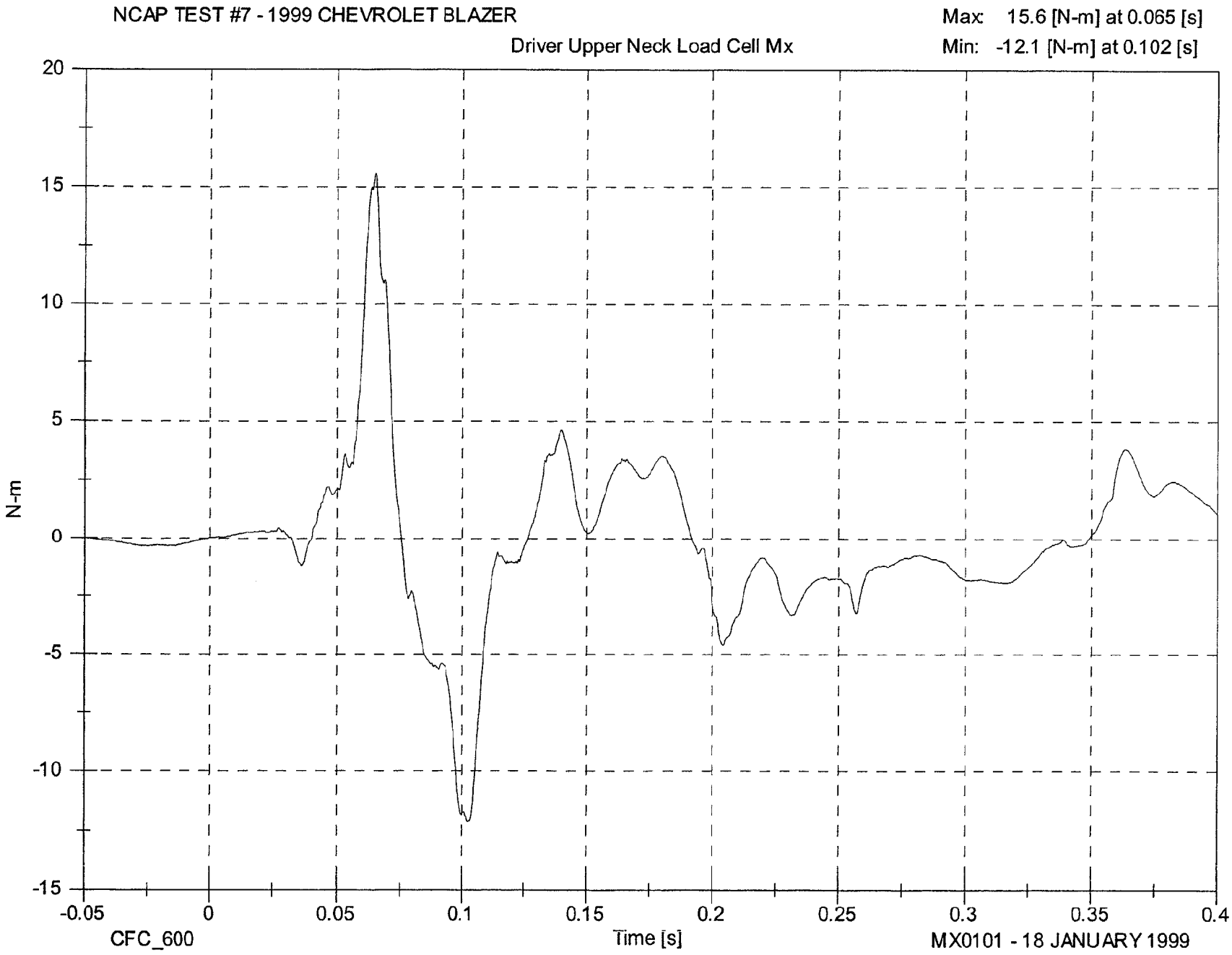

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Driver Head Redundant A Resultant
Max: 91.0 [g] at 0.084 [s]
Min: 0.1 [g] at -0.058 [s]
100
80
60
40
20
0
g
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_1000
MX0101 - 18 JANUARY 1999

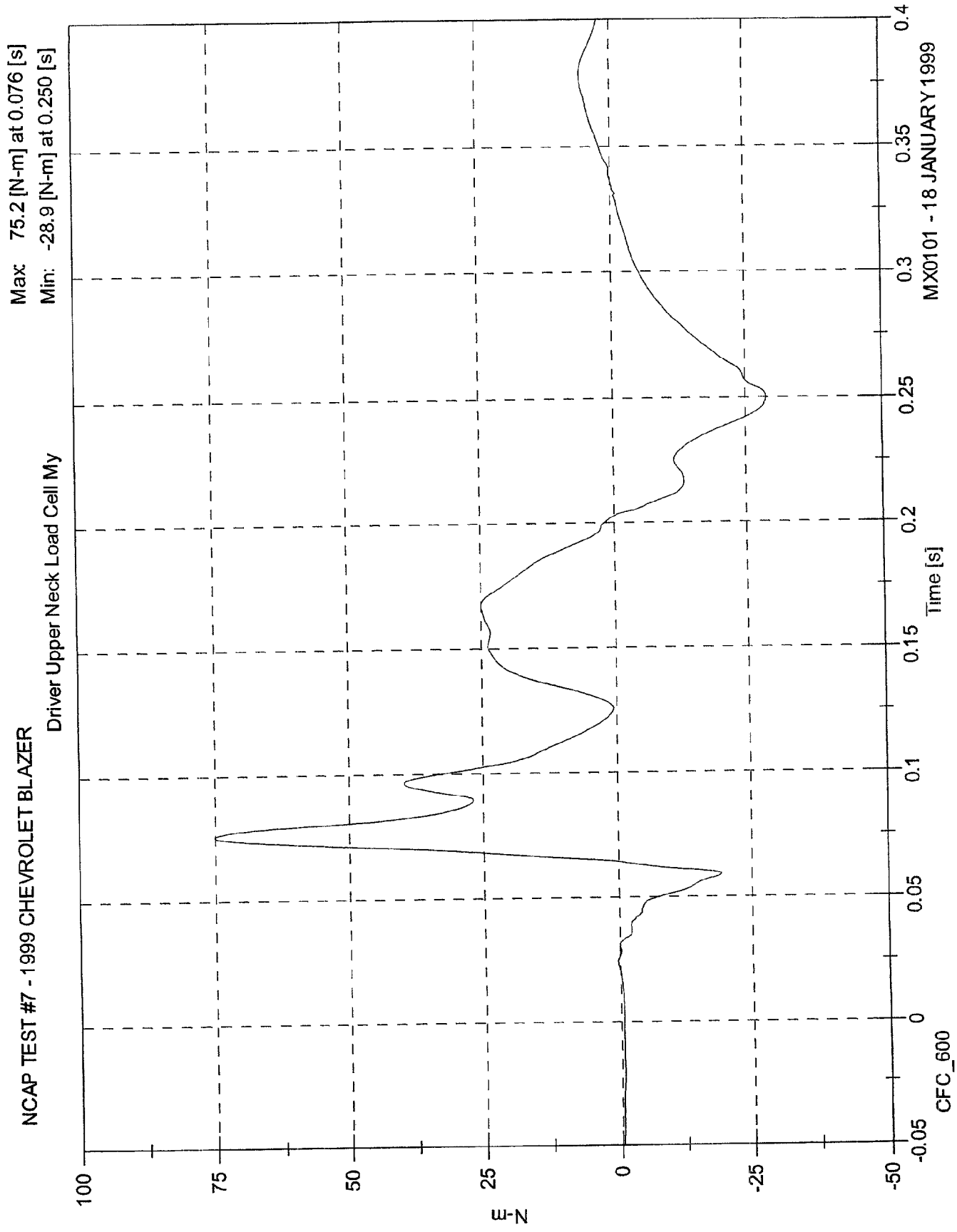

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Driver Upper Neck Load Cell Fx
Max: 1081.9 [N] at 0.077 [s]
Min: -276.1 [N] at 0.156 [s]
1250
1000
750
500
250
0
-250
-500
N
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_1000
MX0101 - 18 JANUARY 1999

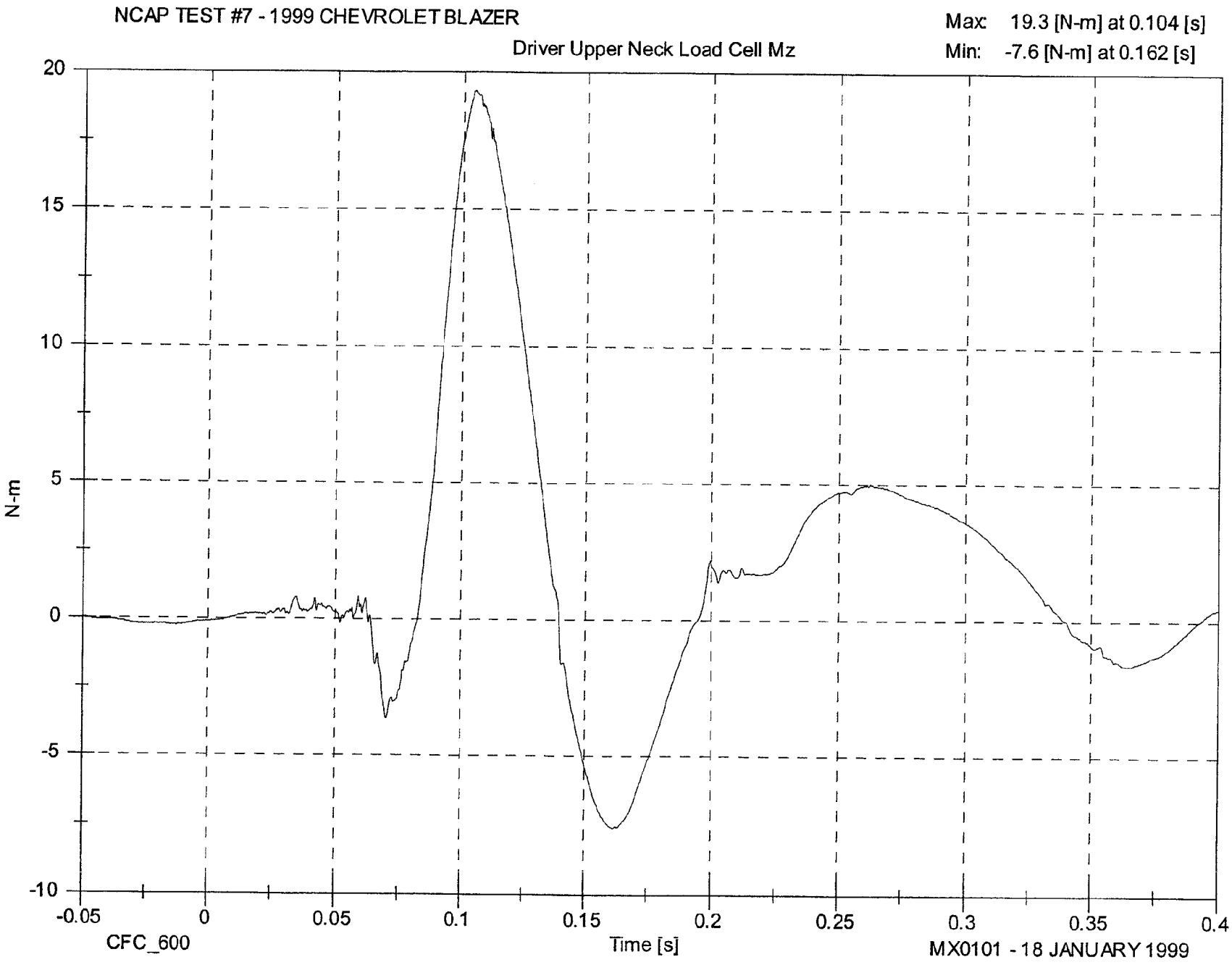

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Driver Upper Neck Load Cell Fy
Max: 127.9 [N] at 0.600 [s]
Min: -121.1 [N] at 0.079 [s]
MX0101 - 18 JANUARY 1999
CFC_1000
N
Time [s]
150
100
50
0
-50
-100
-150
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4

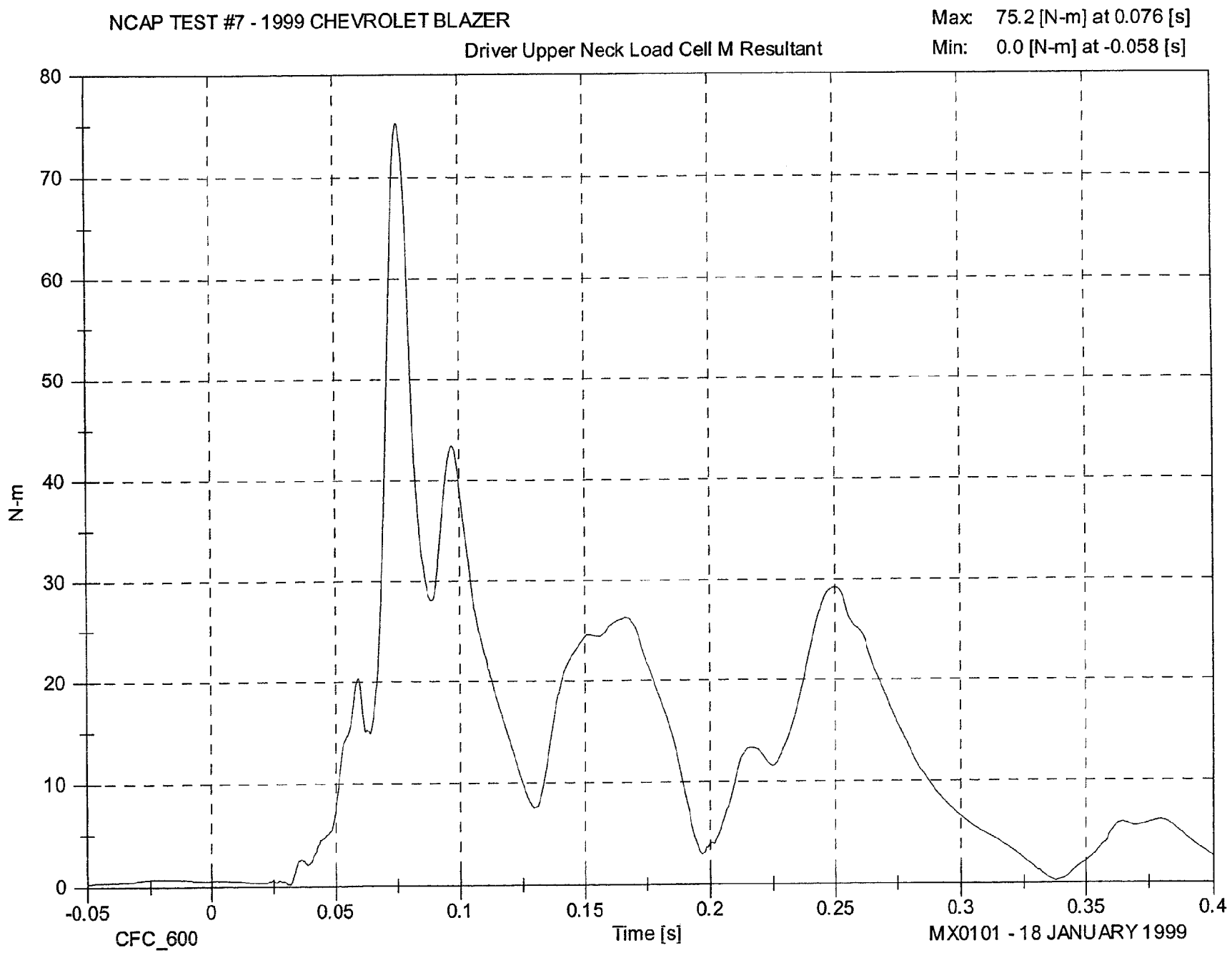

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Driver Upper Neck Load Cell Fz
Max: 1946.4 [N] at 0.072 [s]
Min: -322.1 [N] at 0.111 [s]
2000
1500
1000
500
0
-500
N
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_1000
MX0101 - 18 JANUARY 1999

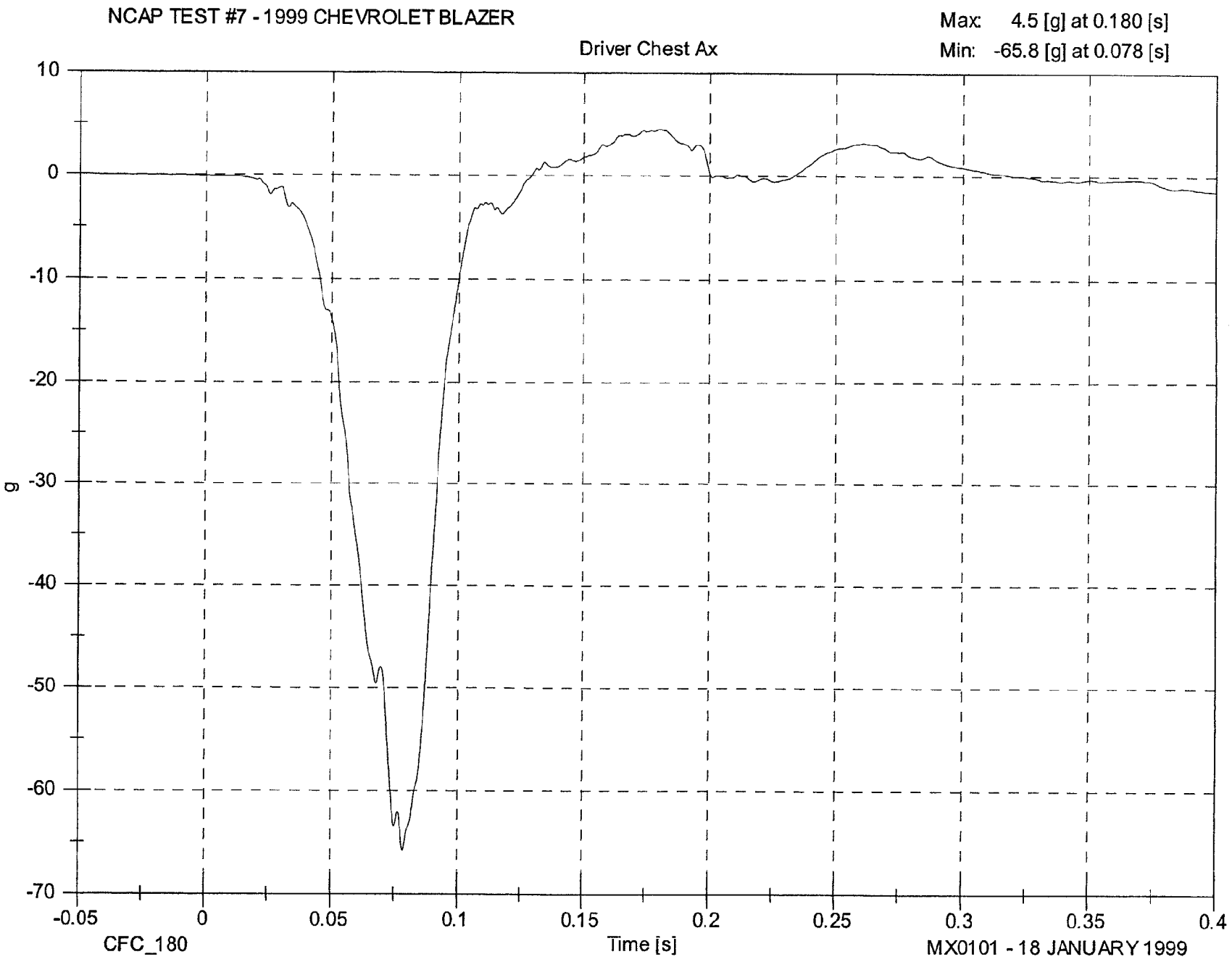

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Driver Upper Neck Load Cell F Resultant
Max: 2163.8 [N] at 0.078 [s]
Min: 1.4 [N] at -0.054 [s]
2500
2000
1500
1000
500
0
N
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_1000
MX0101 - 18 JANUARY 1999

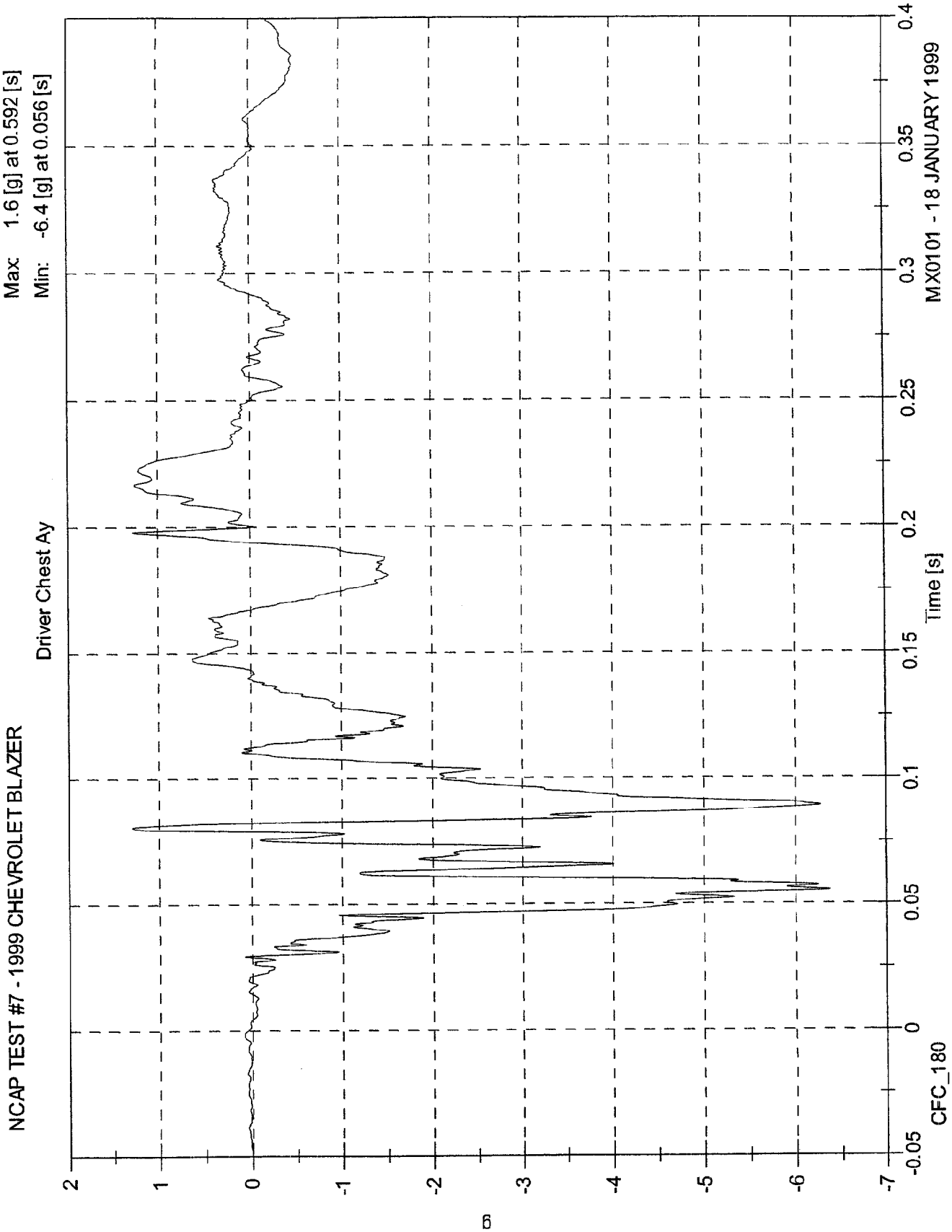

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Driver Upper Neck Load Cell Mx
Max: 15.6 [N-m] at 0.065 [s]
Min: -12.1 [N-m] at 0.102 [s]
20
15
10
5
0
-5
-10
-15
N-m
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_600
MX0101 - 18 JANUARY 1999

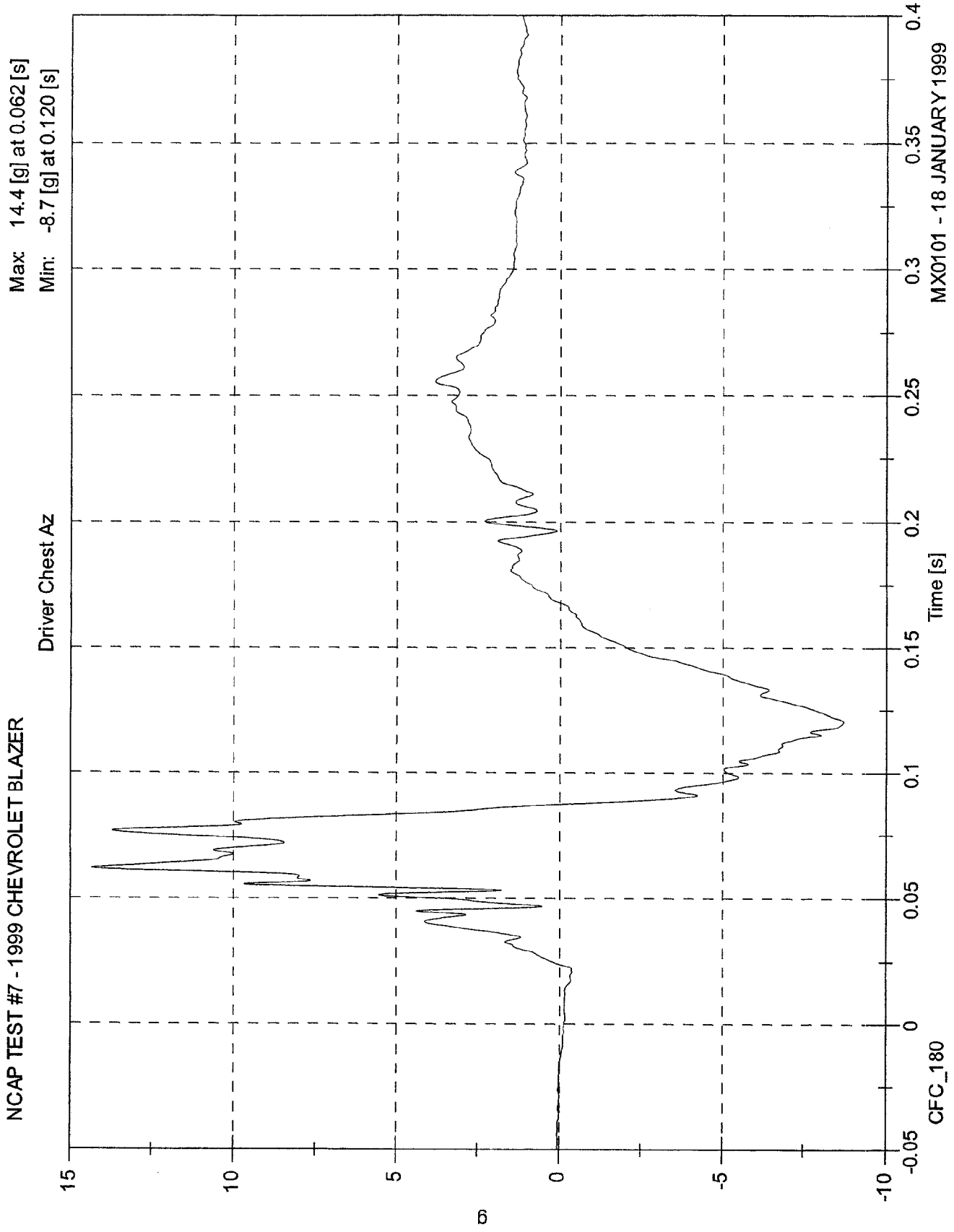

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Driver Upper Neck Load Cell My
Max: 75.2 [N-m] at 0.076 [s]
Min: -28.9 [N-m] at 0.250 [s]
MX0101 - 18 JANUARY 1999
CFC_600
N-m
Time [s]
100
75
50
25
0
-25
-50
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4

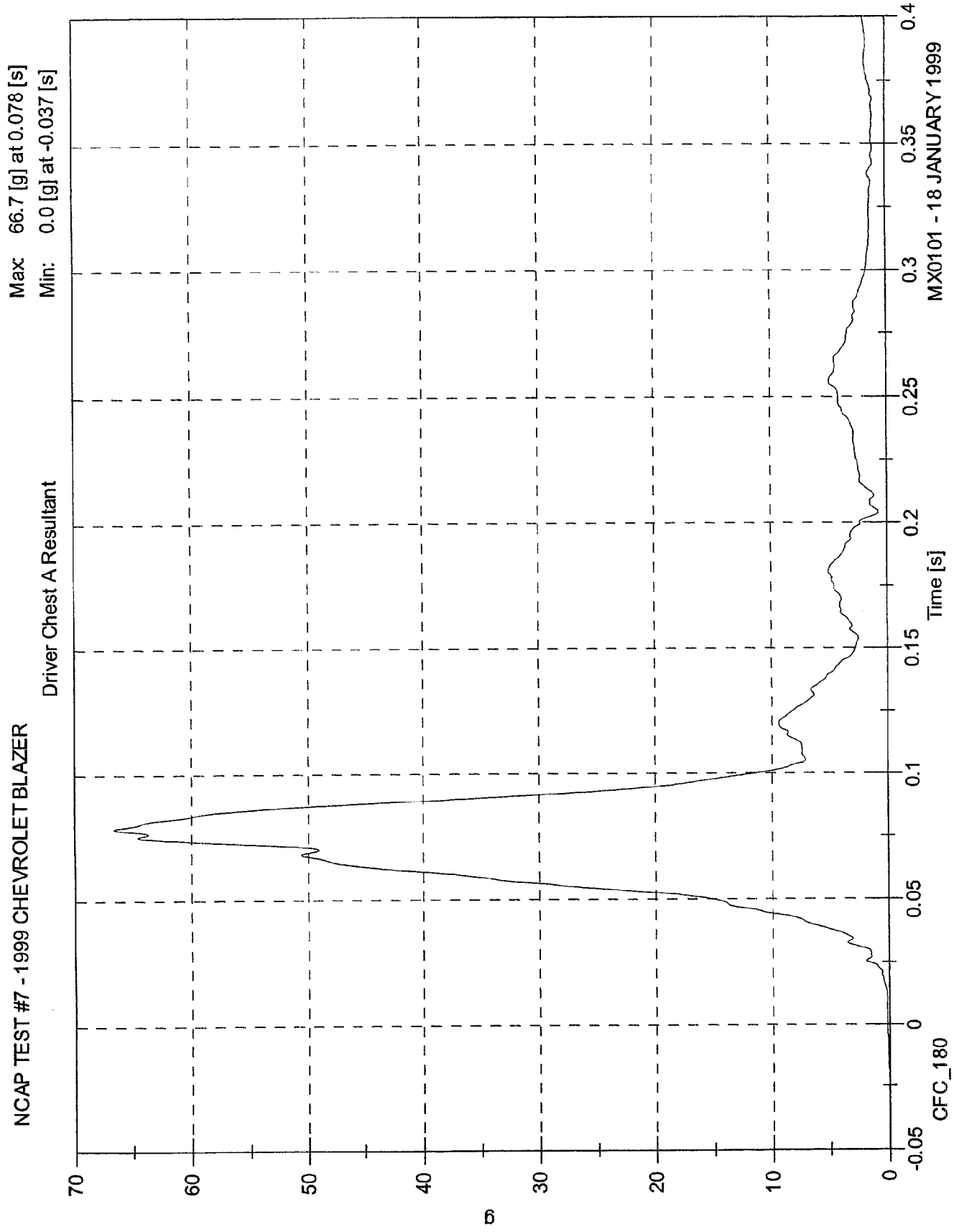

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Driver Upper Neck Load Cell Mz
Max: 19.3 [N-m] at 0.104 [s]
Min: -7.6 [N-m] at 0.162 [s]
20
15
10
5
0
-5
-10
N-m
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_600
MX0101 - 18 JANUARY 1999

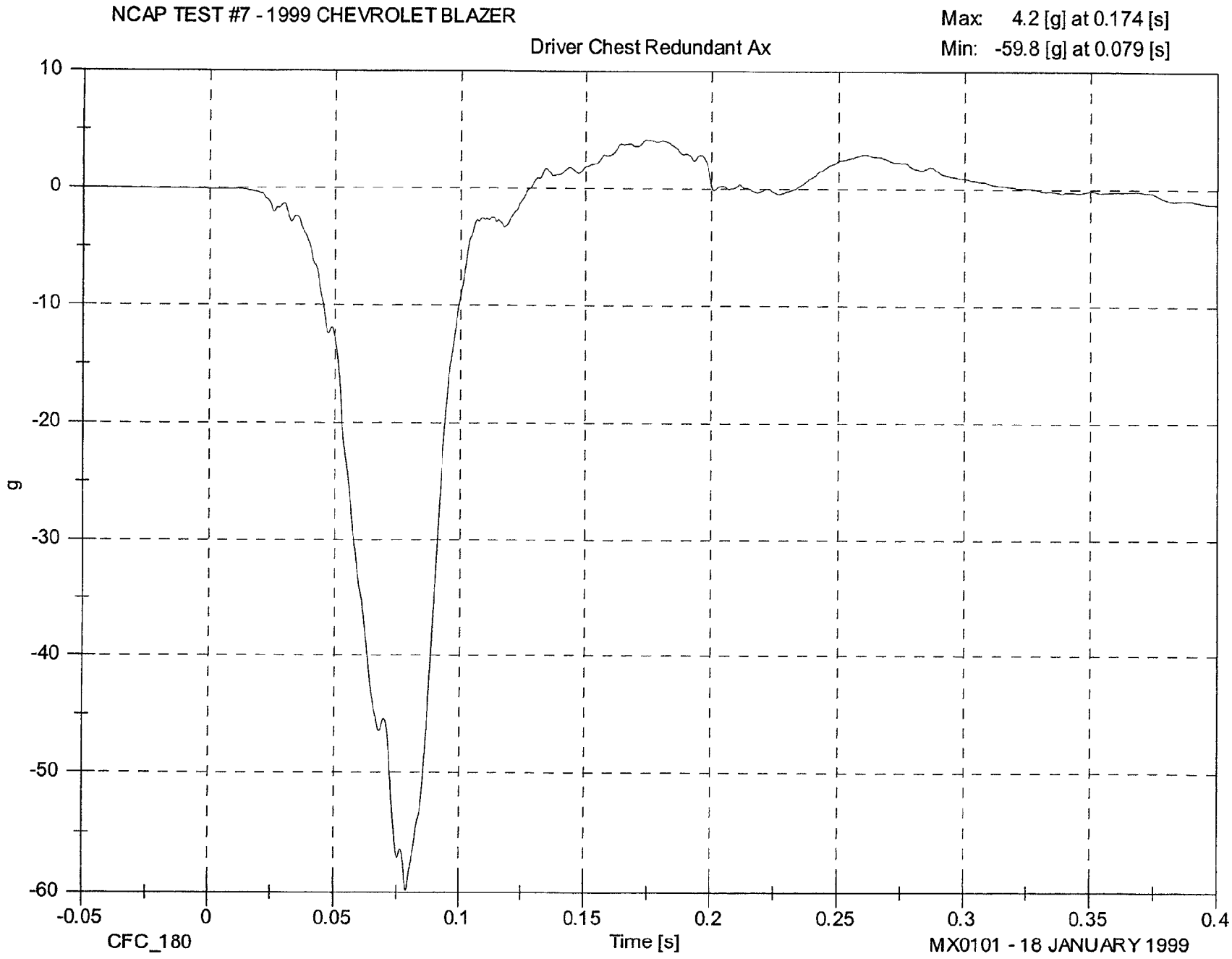

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Driver Upper Neck Load Cell M Resultant
Max: 75.2 [N-m] at 0.076 [s]
Min: 0.0 [N-m] at -0.058 [s]
N-m
80
70
60
50
40
30
20
10
0
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_600
MX0101 - 18 JANUARY 1999

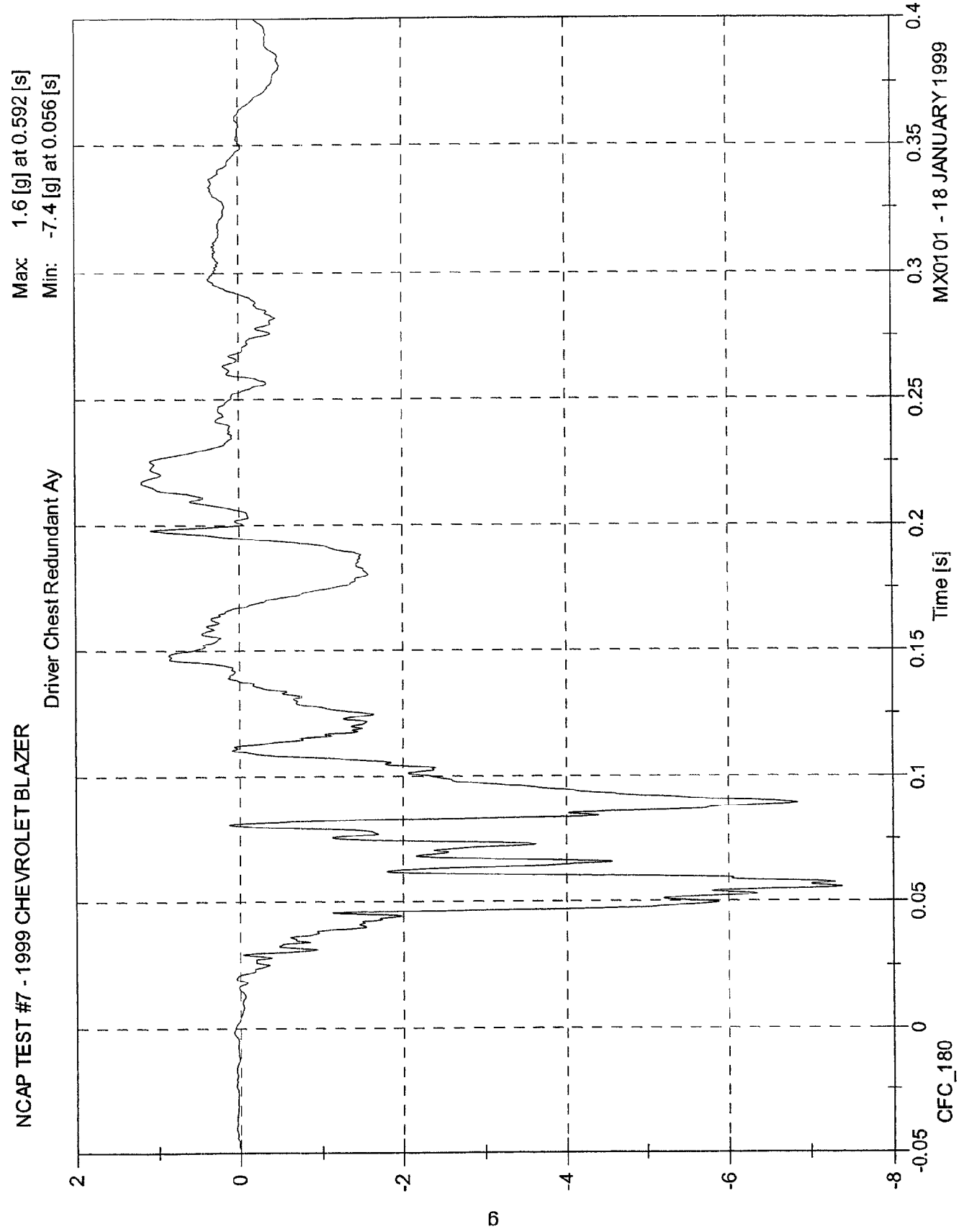

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Driver Chest Ax
Max: 4.5 [g] at 0.180 [s]
Min: -65.8 [g] at 0.078 [s]
10
0
-10
-20
-30
-40
-50
-60
-70
g
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_180
MX0101 - 18 JANUARY 1999

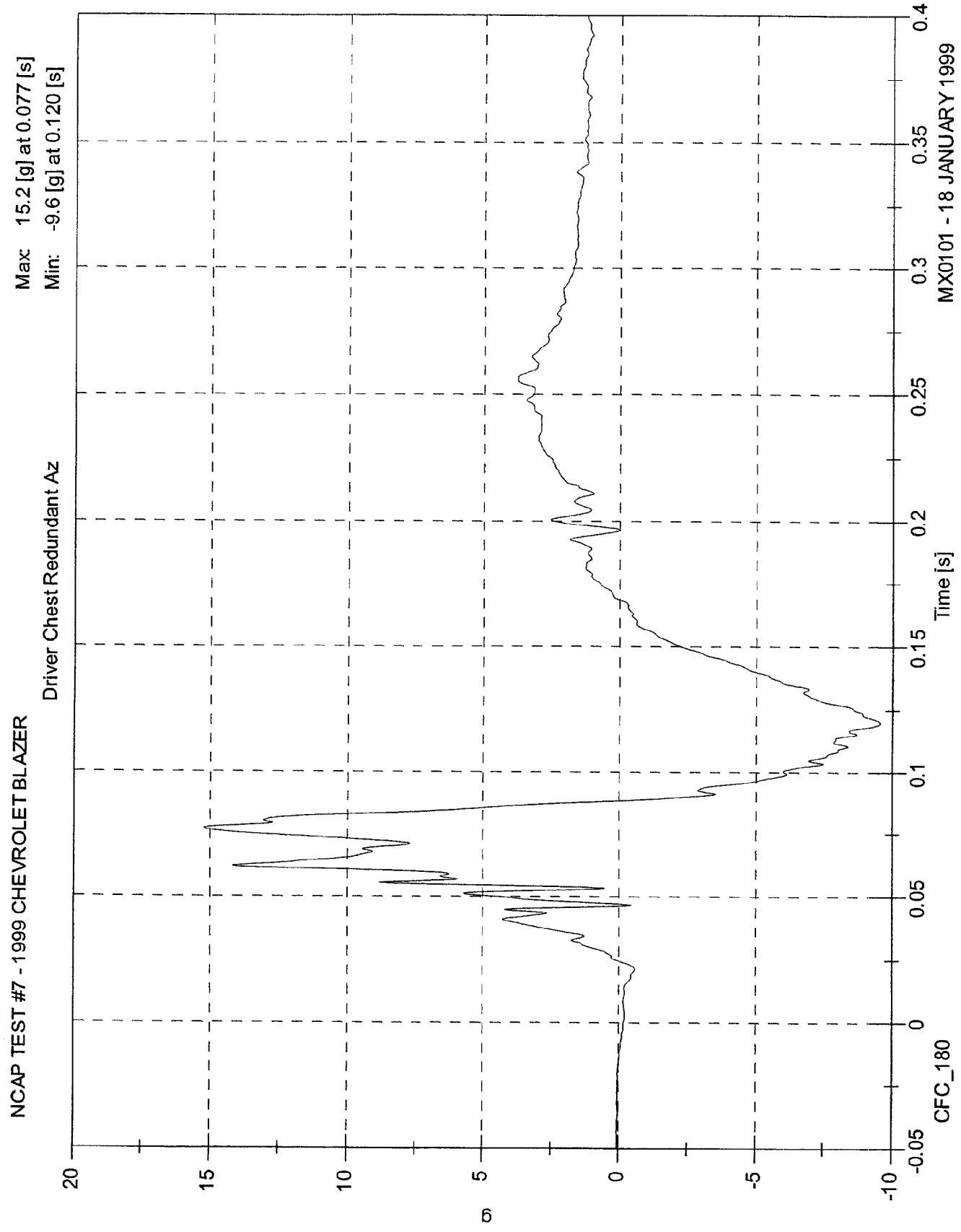

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Max: 1.6 [g] at 0.592 [s]
Min: -6.4 [g] at 0.056 [s]
Driver Chest Ay
g
2
1
0
-1
-2
-3
-4
-5
-6
-7
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_180
MX0101 - 18 JANUARY 1999

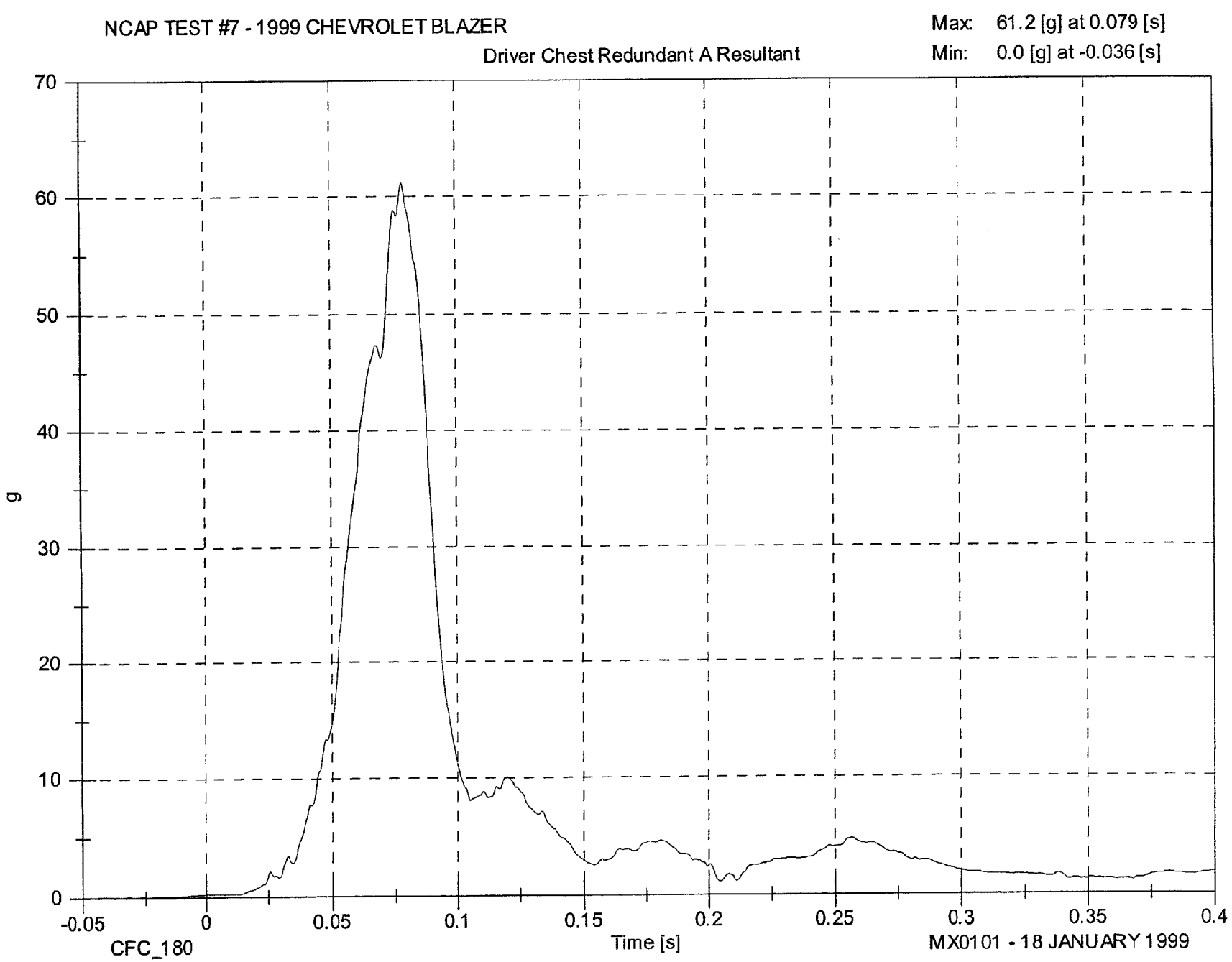

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Max: 14.4 [g] at 0.062 [s]
Min: -8.7 [g] at 0.120 [s]
Driver Chest Az
MX0101 - 18 JANUARY 1999
CFC_180
Time [s]
g
15
10
5
0
-5
-10
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4

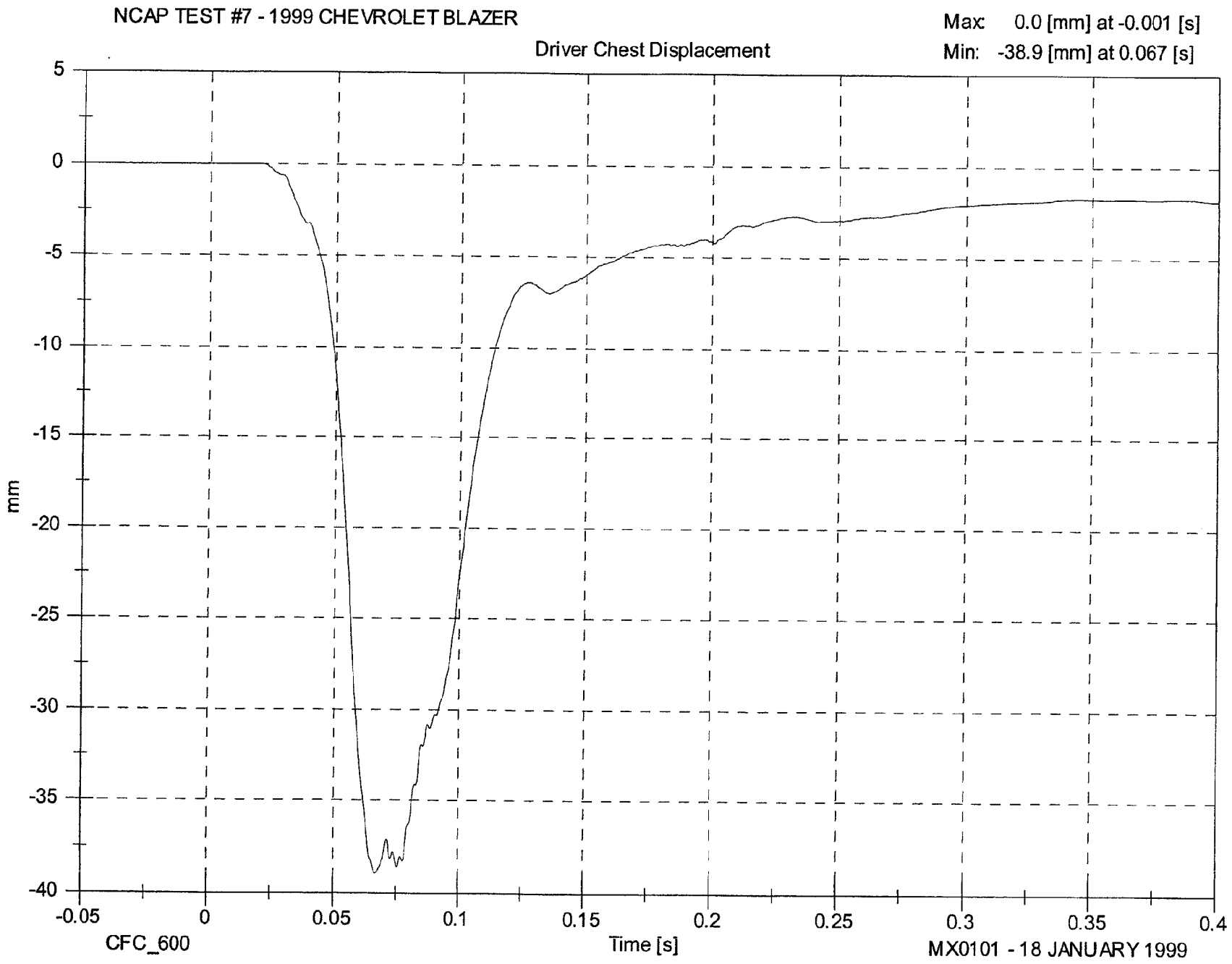

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Driver Chest A Resultant
Max: 66.7 [g] at 0.078 [s]
Min: 0.0 [g] at -0.037 [s]
g
70
60
50
40
30
20
10
0
-0.05
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_180
MX0101 - 18 JANUARY 1999

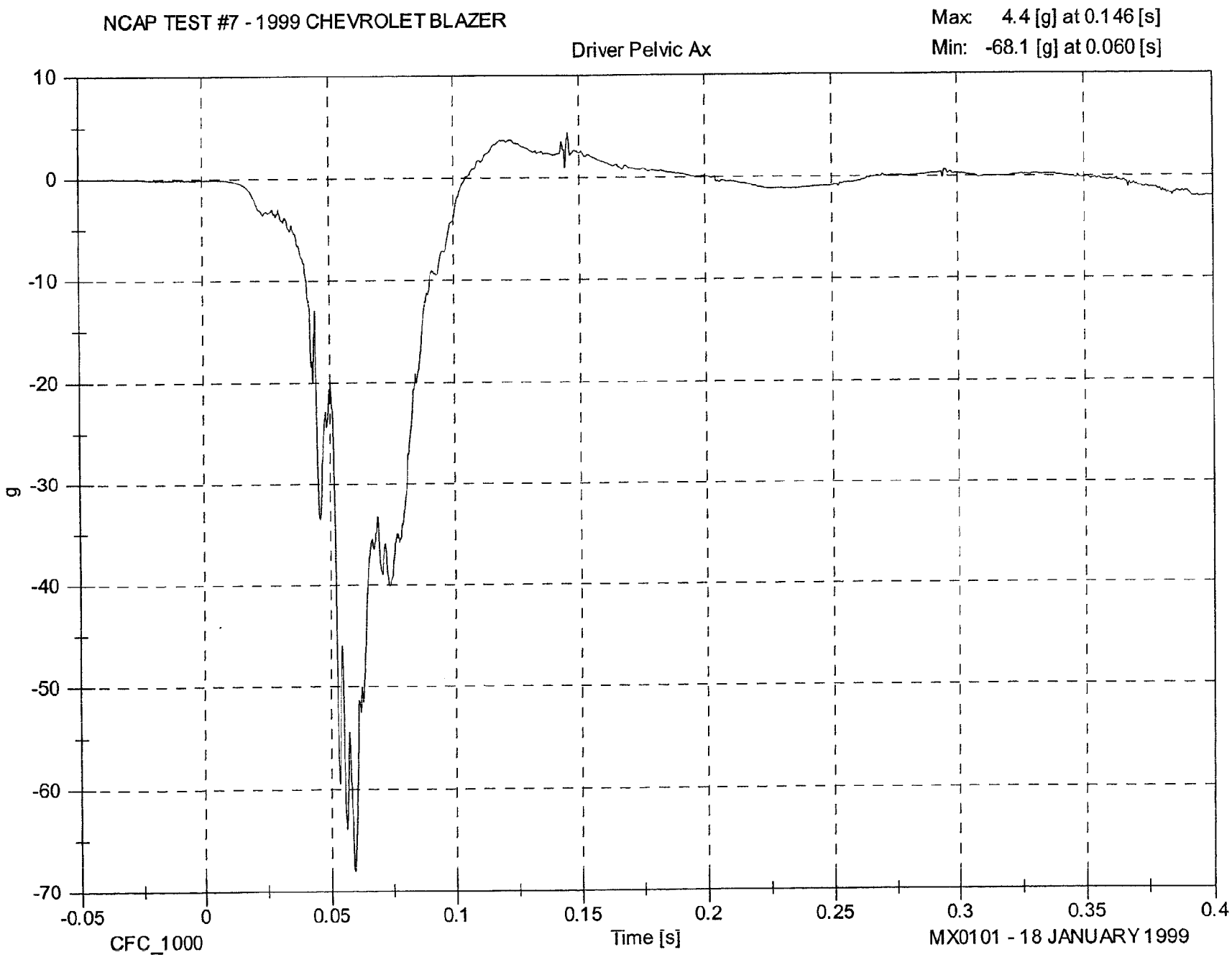

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Driver Chest Redundant Ax
Max: 4.2 [g] at 0.174 [s]
Min: -59.8 [g] at 0.079 [s]
10
0
-10
-20
-30
-40
-50
-60
g
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_180
MX0101 - 18 JANUARY 1999

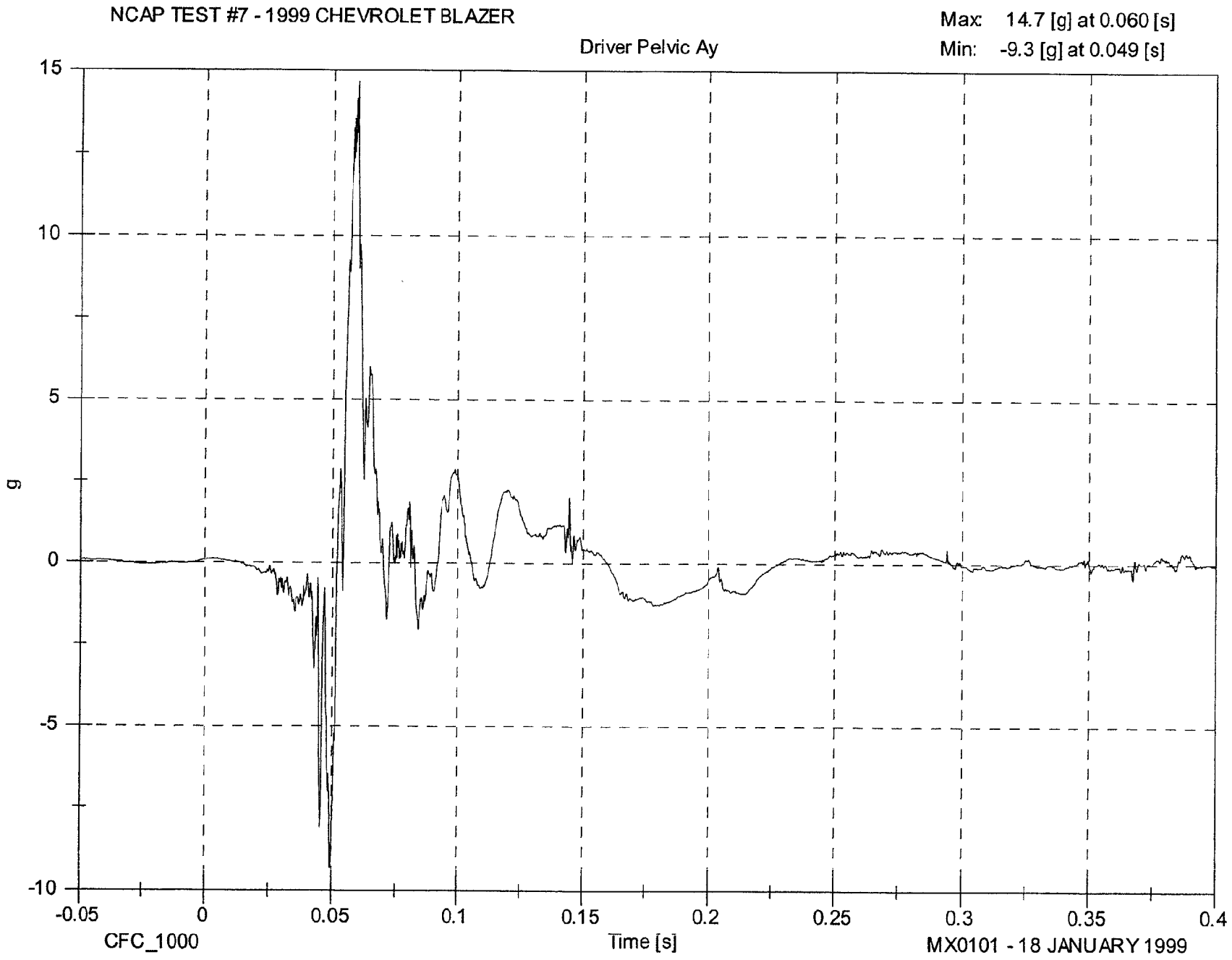

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Driver Chest Redundant Ay
Max: 1.6 [g] at 0.592 [s]
Min: -7.4 [g] at 0.056 [s]
MX0101 - 18 JANUARY 1999
CFC_180
Time [s]
g
2
0
-2
-4
-6
-8
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4

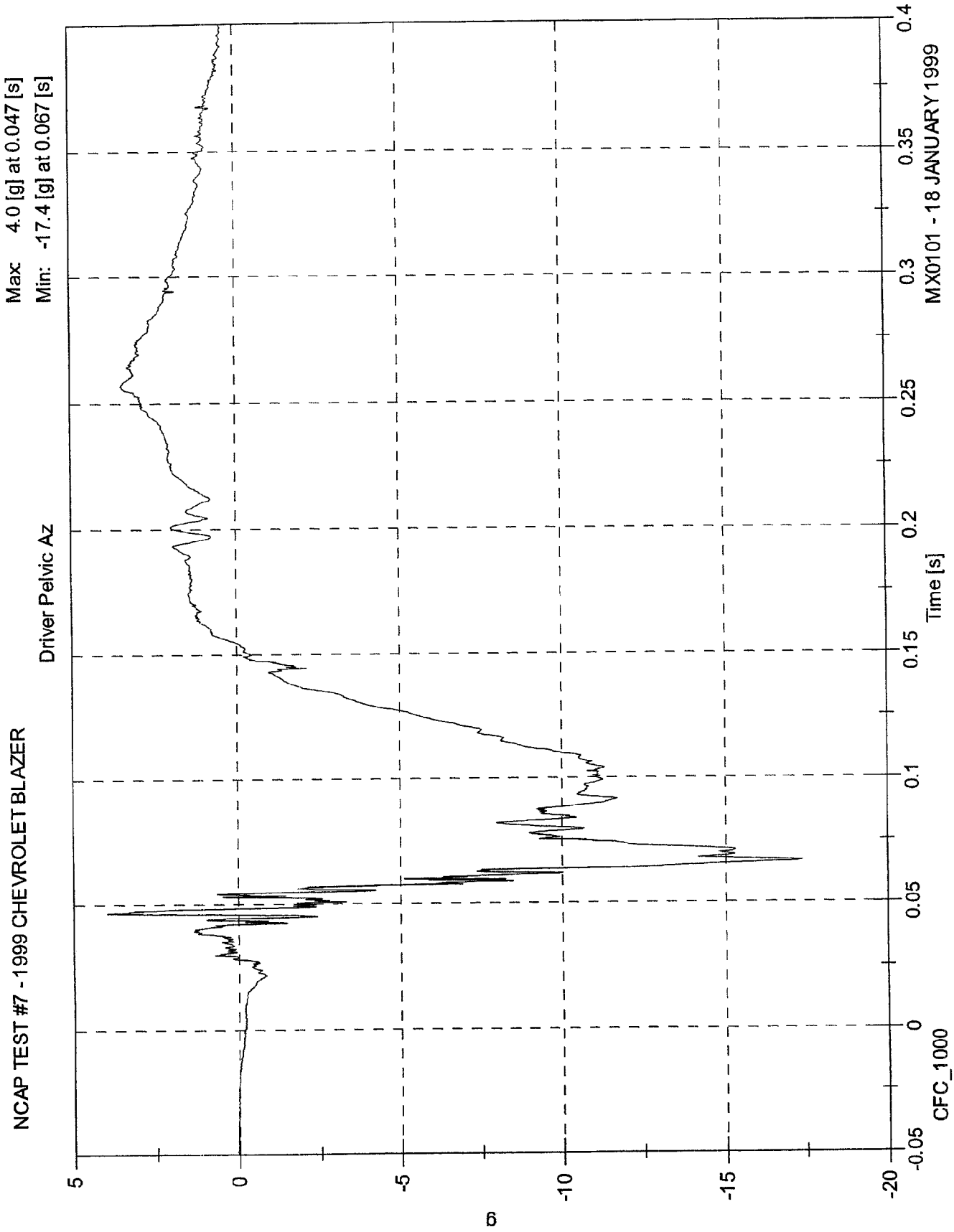

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Driver Chest Redundant Az
Max: 15.2 [g] at 0.077 [s]
Min: -9.6 [g] at 0.120 [s]
MX0101 - 18 JANUARY 1999
CFC_180
Time [s]
g
20
15
10
5
0
-5
-10
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4

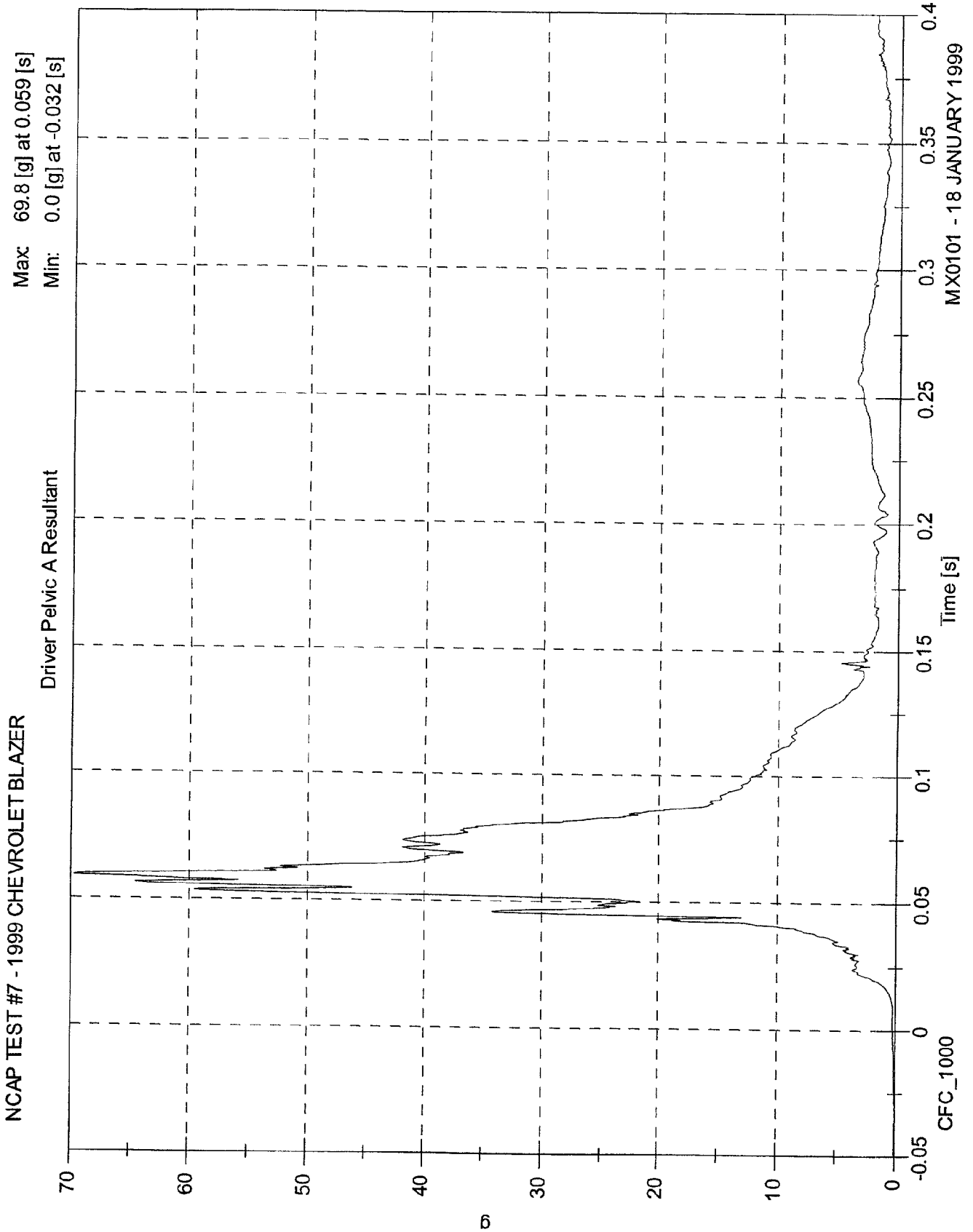

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Driver Chest Redundant A Resultant
Max: 61.2 [g] at 0.079 [s]
Min: 0.0 [g] at -0.036 [s]
70
60
50
40
30
20
10
0
g
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_180
MX0101 - 18 JANUARY 1999

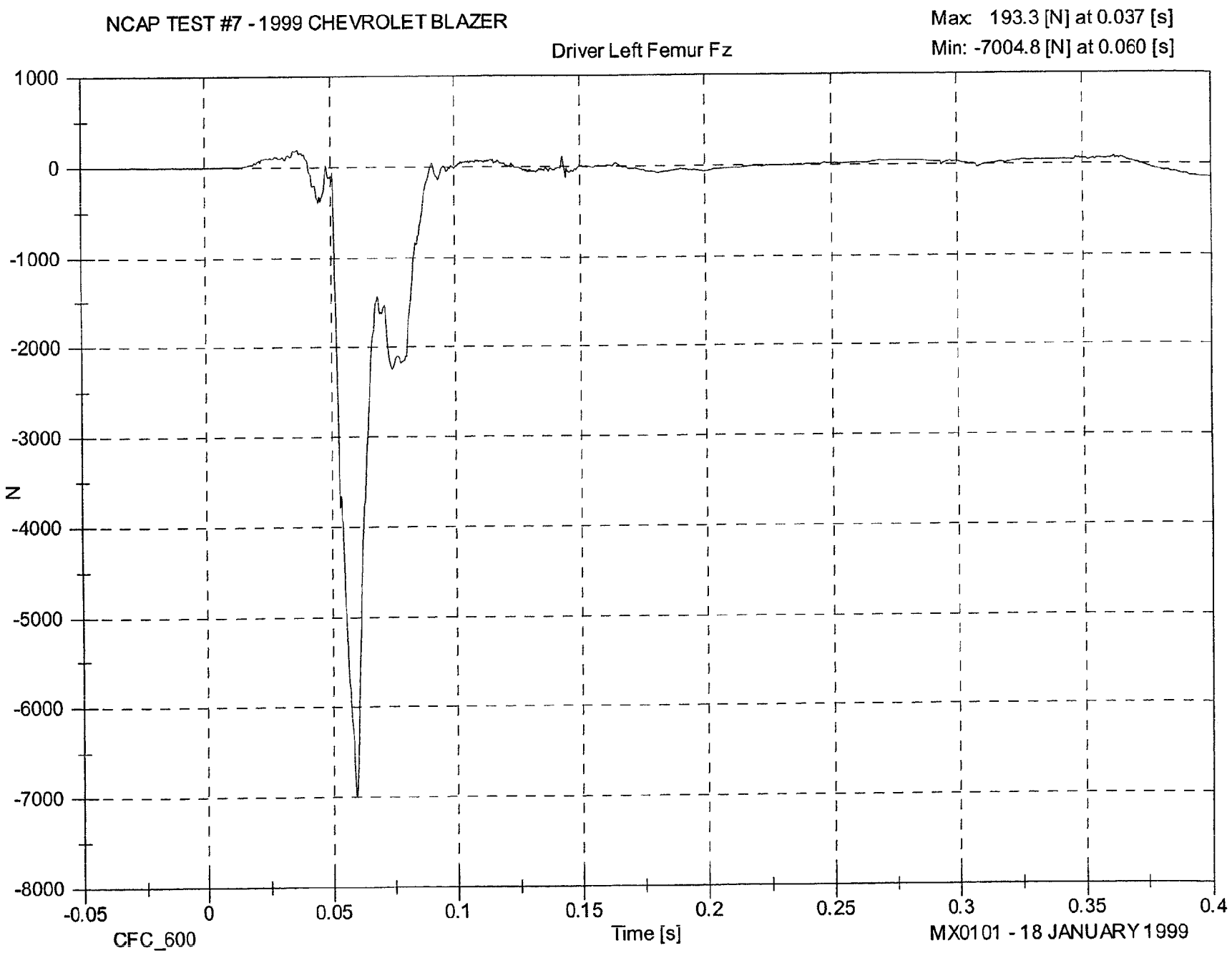

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Driver Chest Displacement
Max: 0.0 [mm] at -0.001 [s]
Min: -38.9 [mm] at 0.067 [s]
5
0
-5
-10
-15
-20
-25
-30
-35
-40
mm
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_600
MX0101 - 18 JANUARY 1999

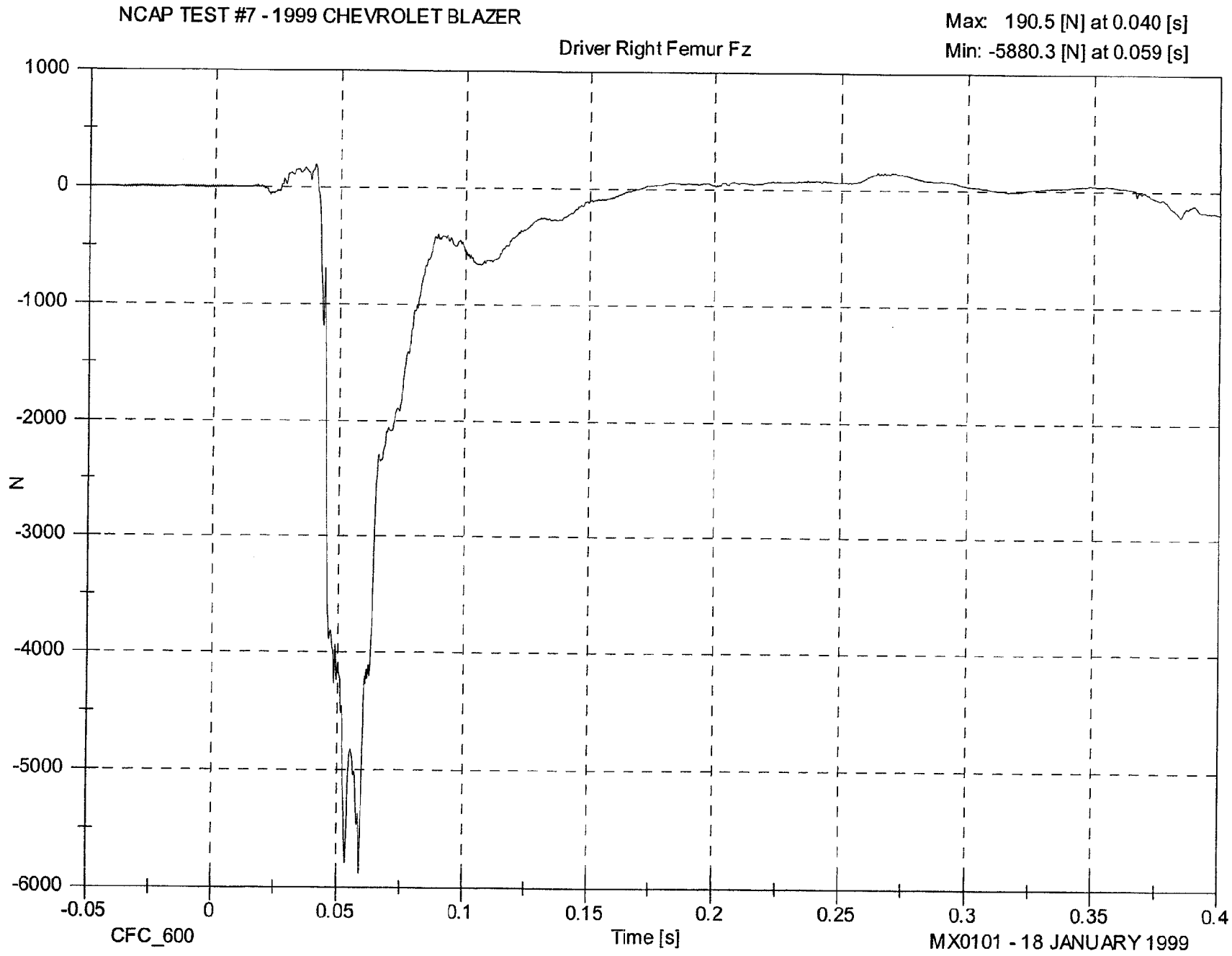

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Driver Pelvic Ax
Max: 4.4 [g] at 0.146 [s]
Min: -68.1 [g] at 0.060 [s]
10
0
-10
-20
-30
-40
-50
-60
-70
g
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_1000
MX0101 - 18 JANUARY 1999

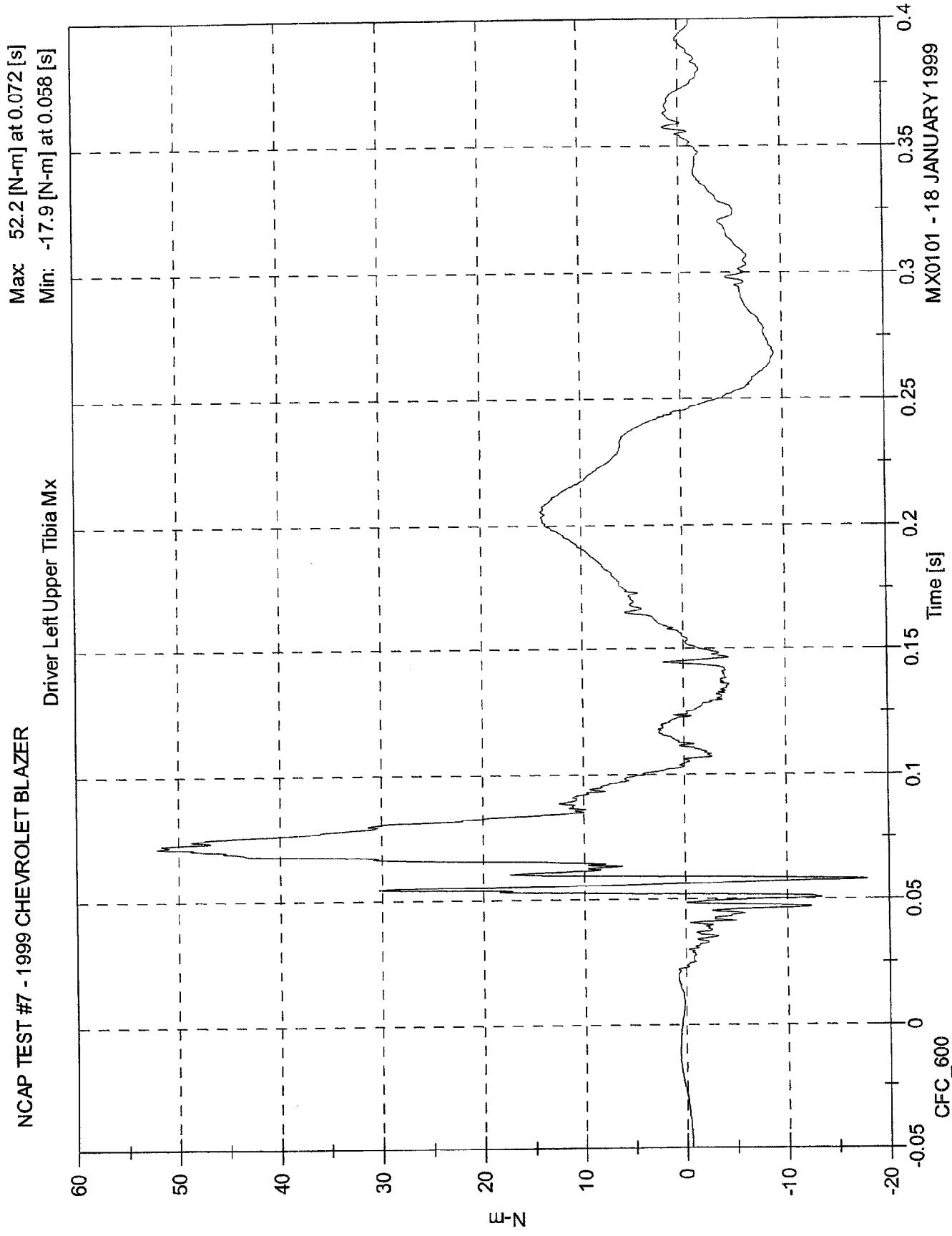

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Driver Pelvic Ay
Max: 14.7 [g] at 0.060 [s]
Min: -9.3 [g] at 0.049 [s]
15
10
5
0
-5
-10
g
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_1000
MX0101 - 18 JANUARY 1999

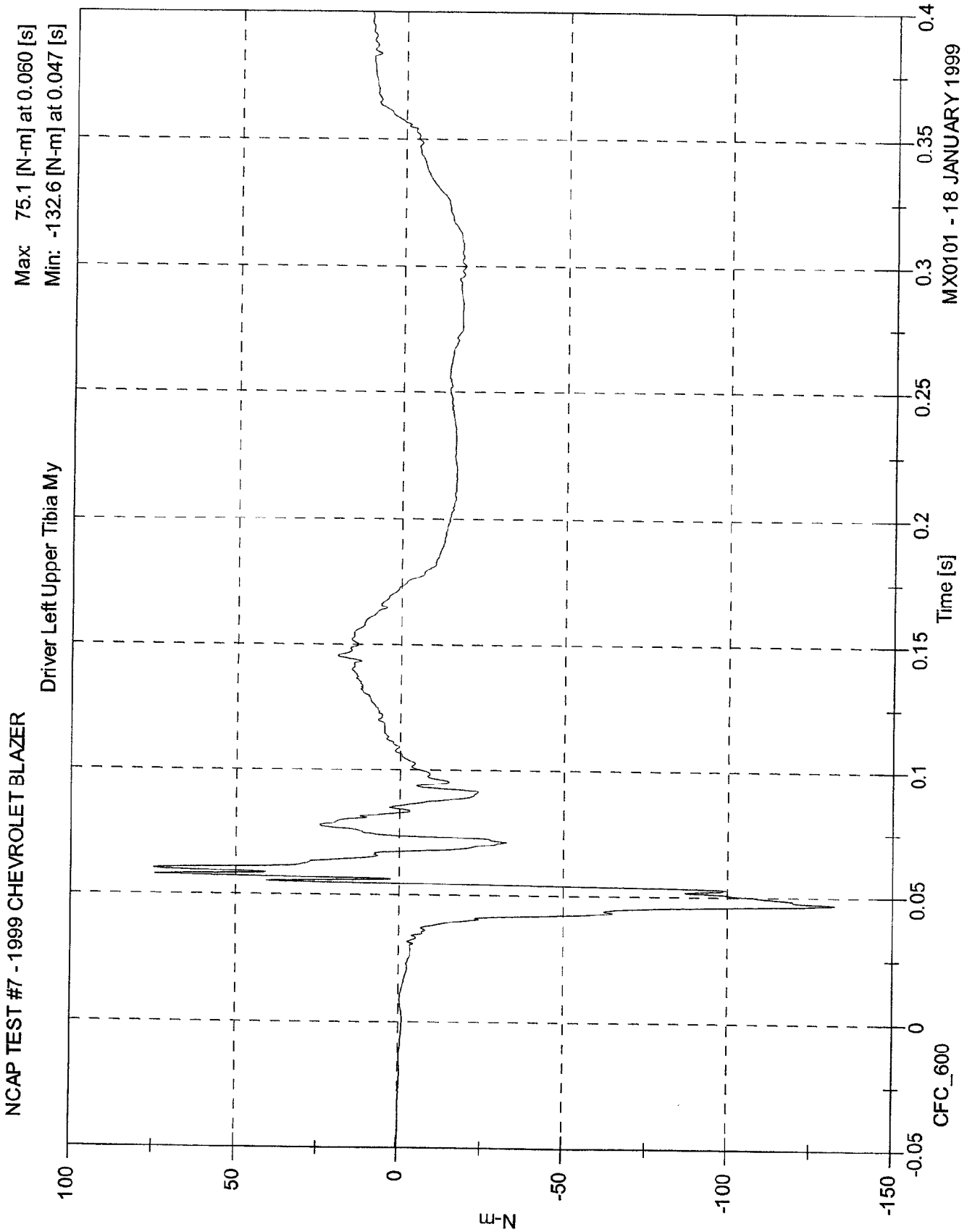

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Driver Pelvic Az
Max: 4.0 [g] at 0.047 [s]
Min: -17.4 [g] at 0.067 [s]
MX0101 - 18 JANUARY 1999
CFC_1000
Time [s]
g
5
0
-5
-10
-15
-20
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4

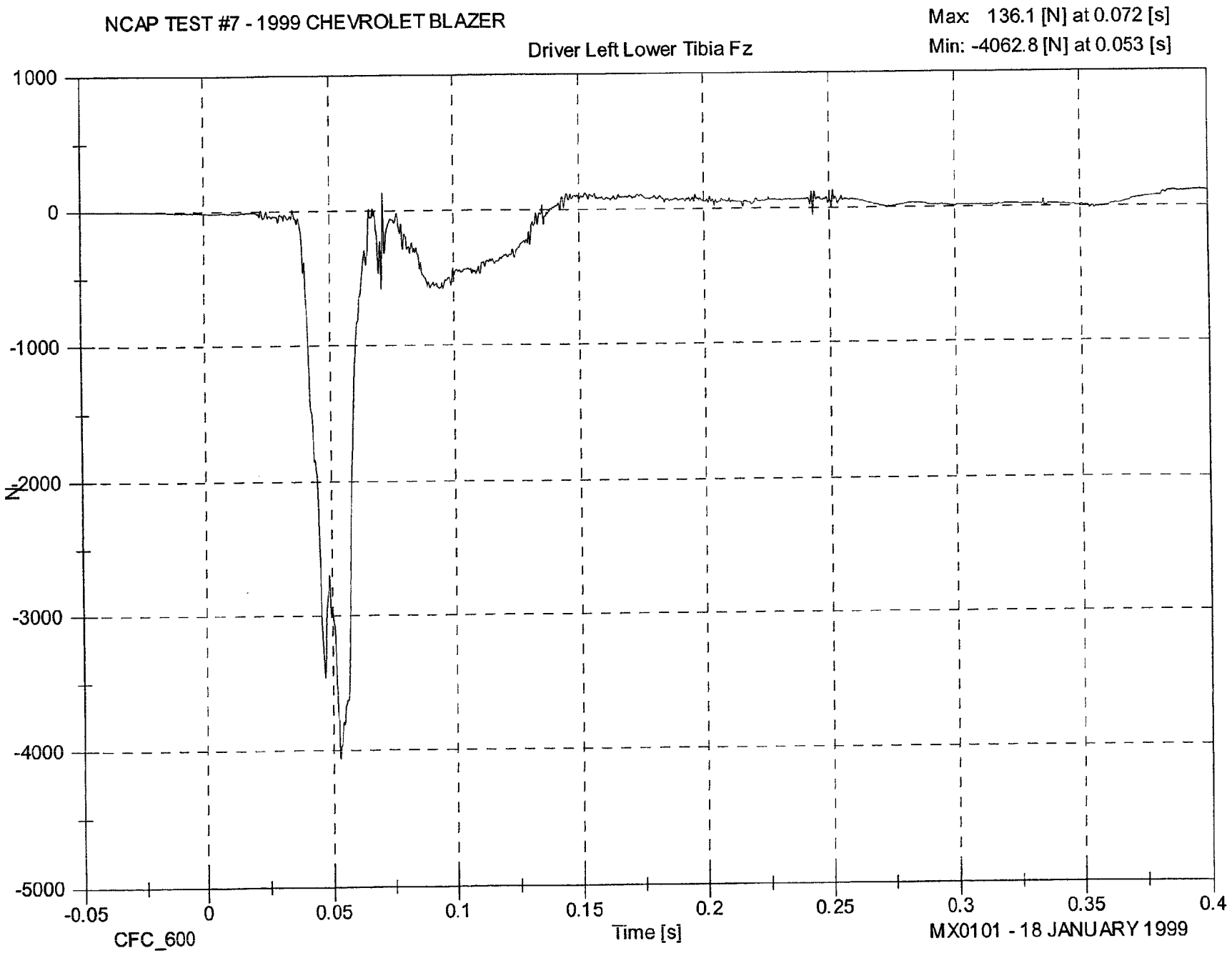

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Driver Pelvic A Resultant
Max: 69.8 [g] at 0.059 [s]
Min: 0.0 [g] at -0.032 [s]
g
70
60
50
40
30
20
10
0
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_1000
MX0101 - 18 JANUARY 1999

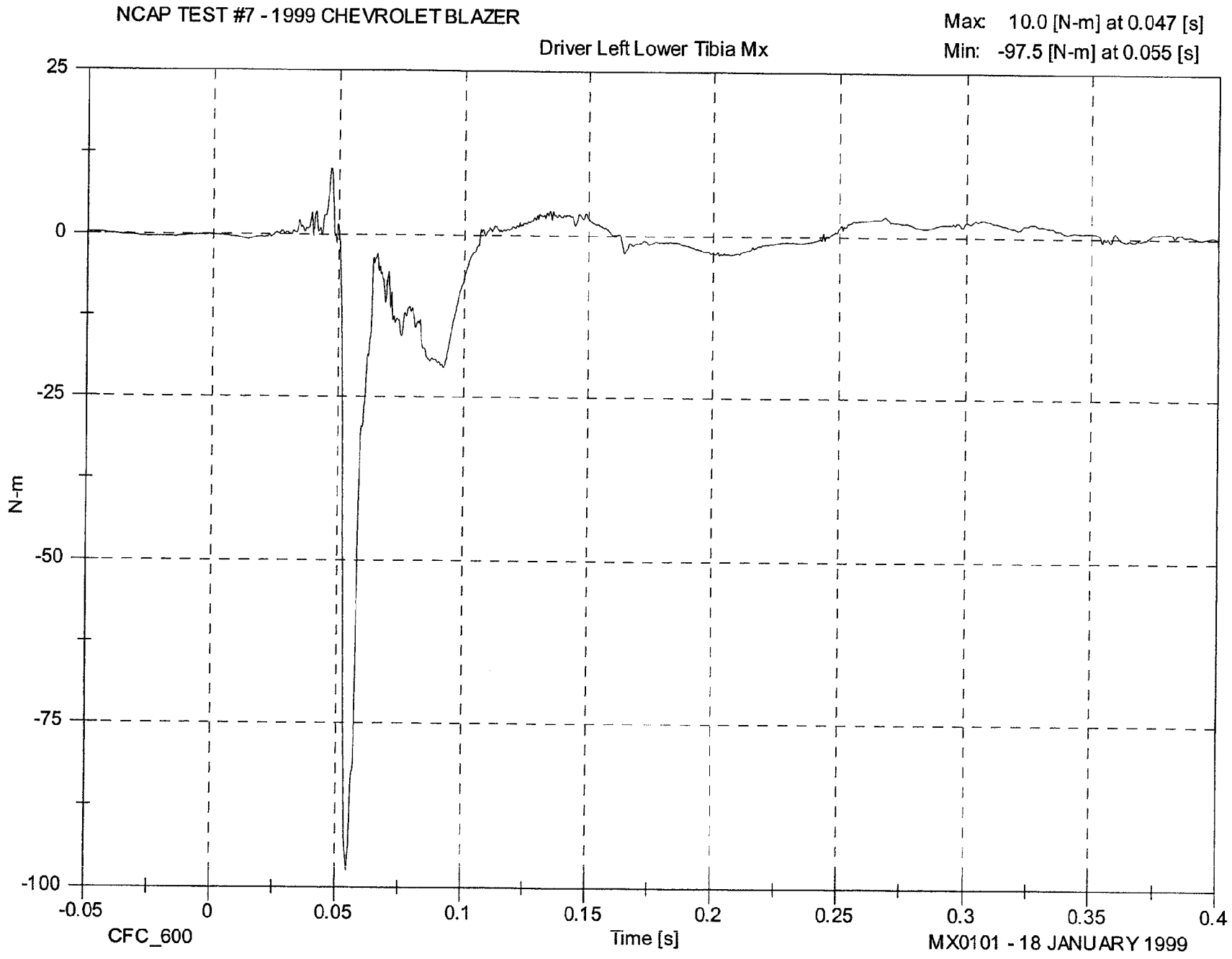

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Driver Left Femur Fz
Max: 193.3 [N] at 0.037 [s]
Min: -7004.8 [N] at 0.060 [s]
1000
0
-1000
-2000
-3000
-4000
-5000
-6000
-7000
-8000
N
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_600
MX0101 - 18 JANUARY 1999

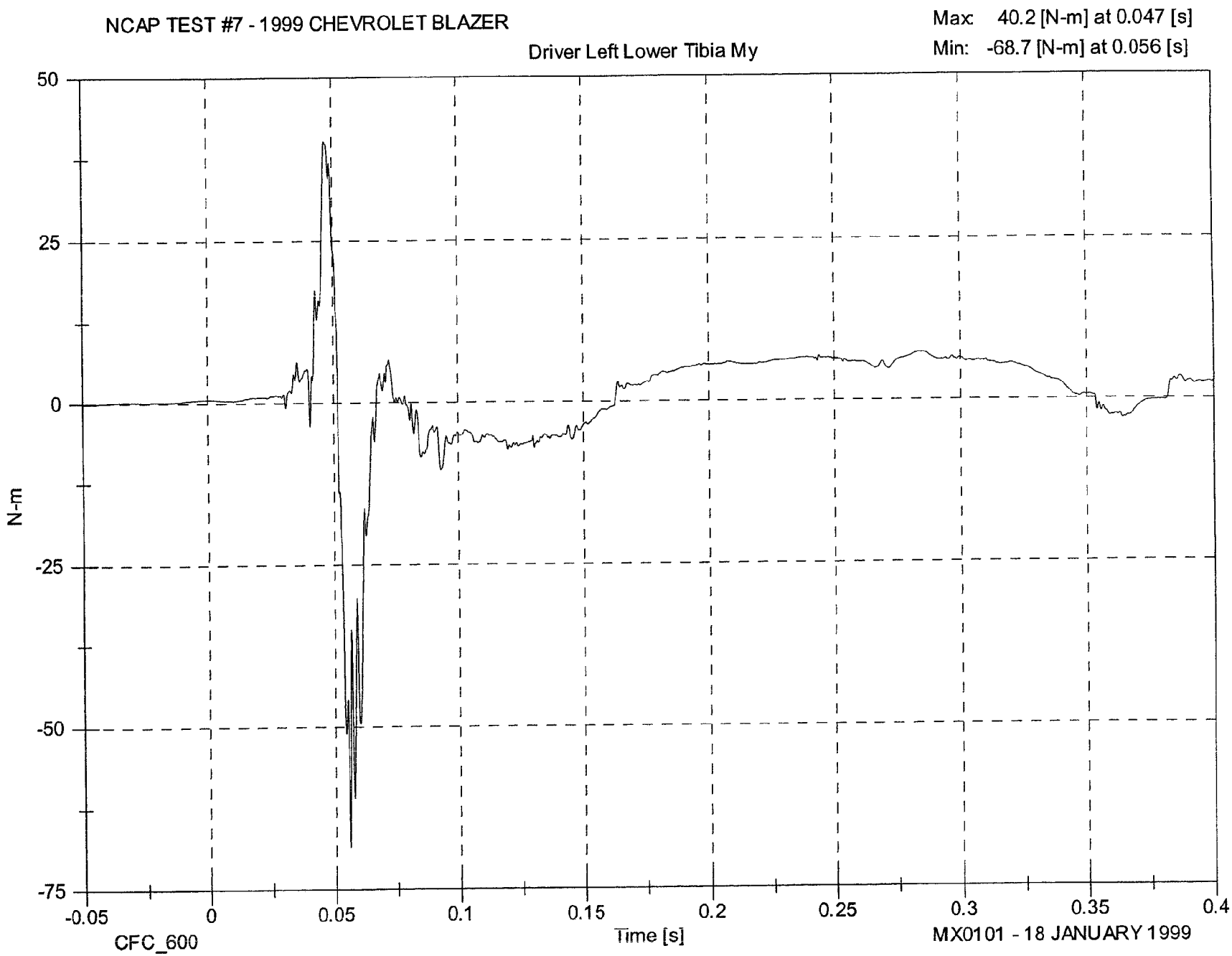

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Driver Right Femur Fz
Max: 190.5 [N] at 0.040 [s]
Min: -5880.3 [N] at 0.059 [s]
1000
0
-1000
-2000
-3000
-4000
-5000
-6000
N
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_600
MX0101 - 18 JANUARY 1999

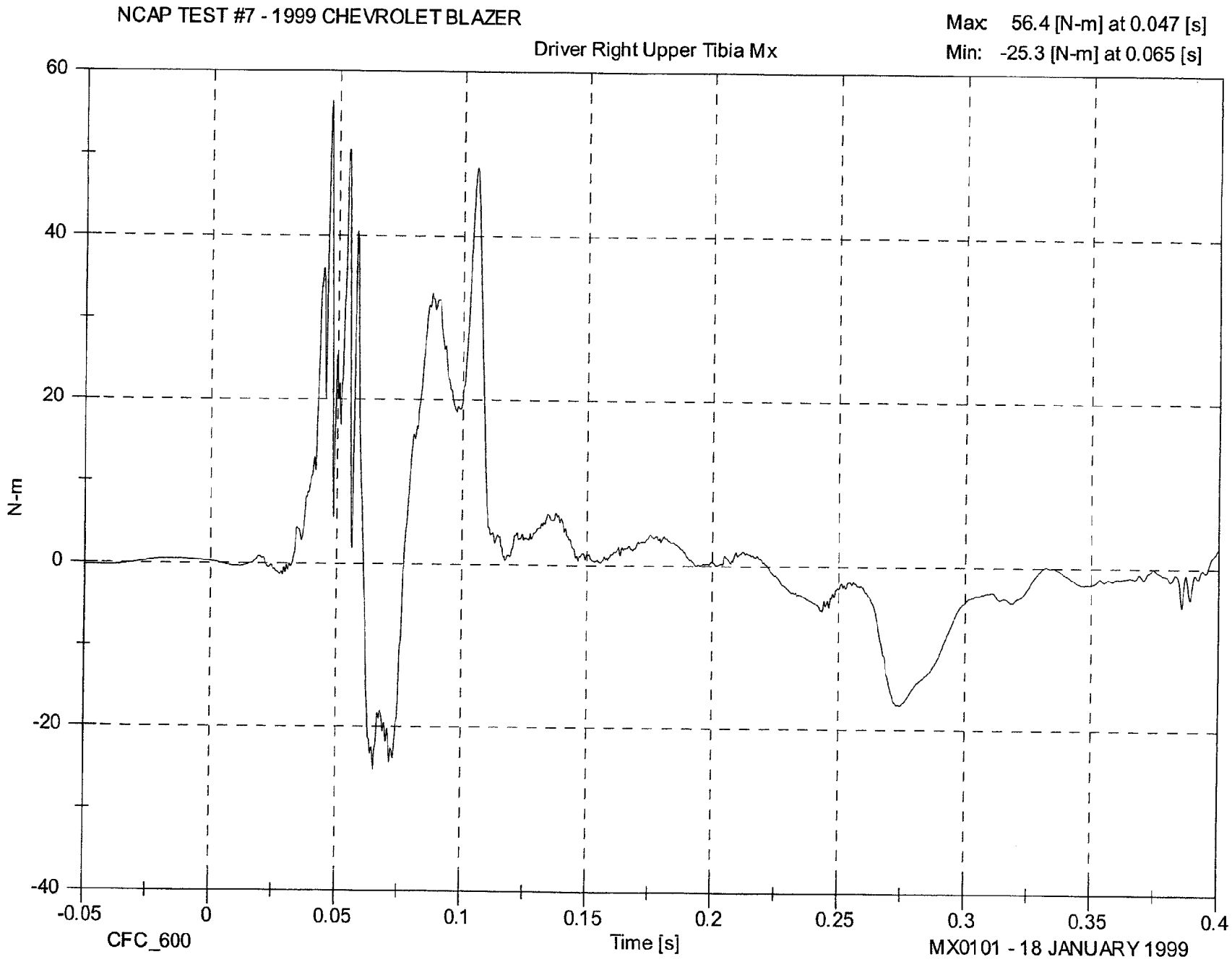

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Driver Left Upper Tibia Mx
Max: 52.2 [N-m] at 0.072 [s]
Min: -17.9 [N-m] at 0.058 [s]
MX0101 - 18 JANUARY 1999
CFC_600
N-m
Time [s]
60
50
40
30
20
10
0
-10
-20
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4

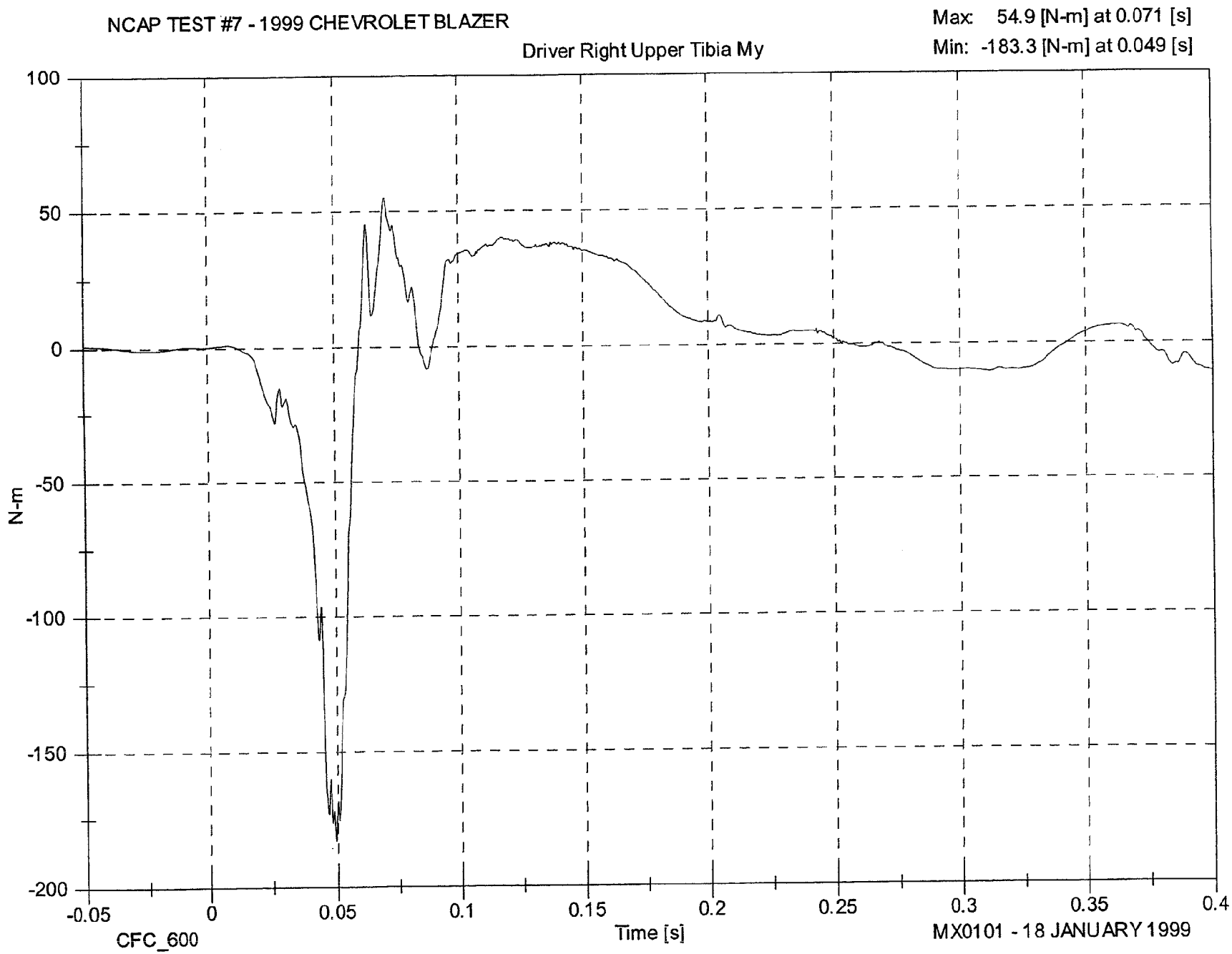

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Driver Left Upper Tibia My
Max: 75.1 [N-m] at 0.060 [s]
Min: -132.6 [N-m] at 0.047 [s]
N-m
100
50
0
-50
-100
-150
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_600
MX0101 - 18 JANUARY 1999

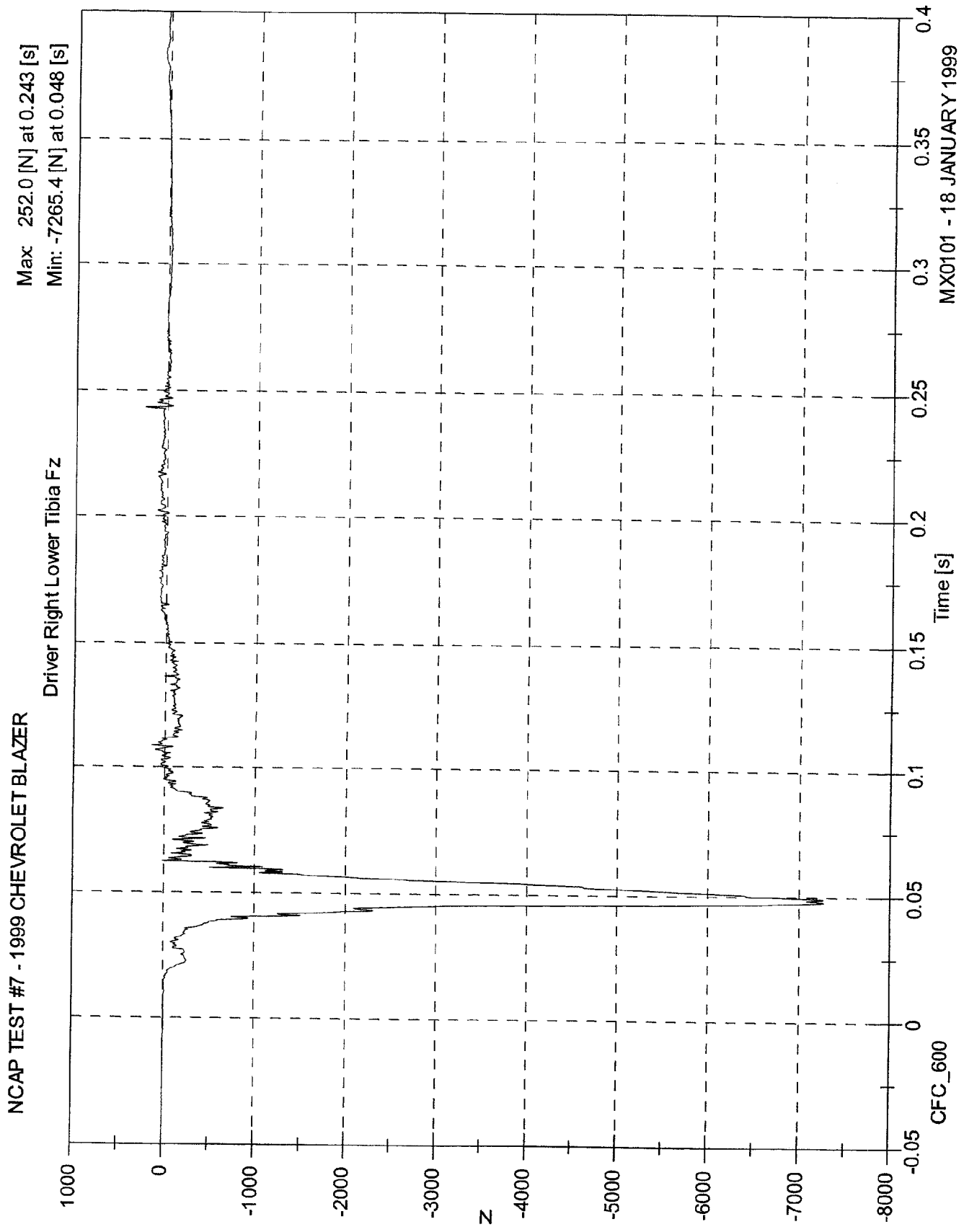

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Driver Left Lower Tibia Fz
Max: 136.1 [N] at 0.072 [s]
Min: -4062.8 [N] at 0.053 [s]
1000
0
-1000
-2000
-3000
-4000
-5000
N
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_600
MX0101 - 18 JANUARY 1999

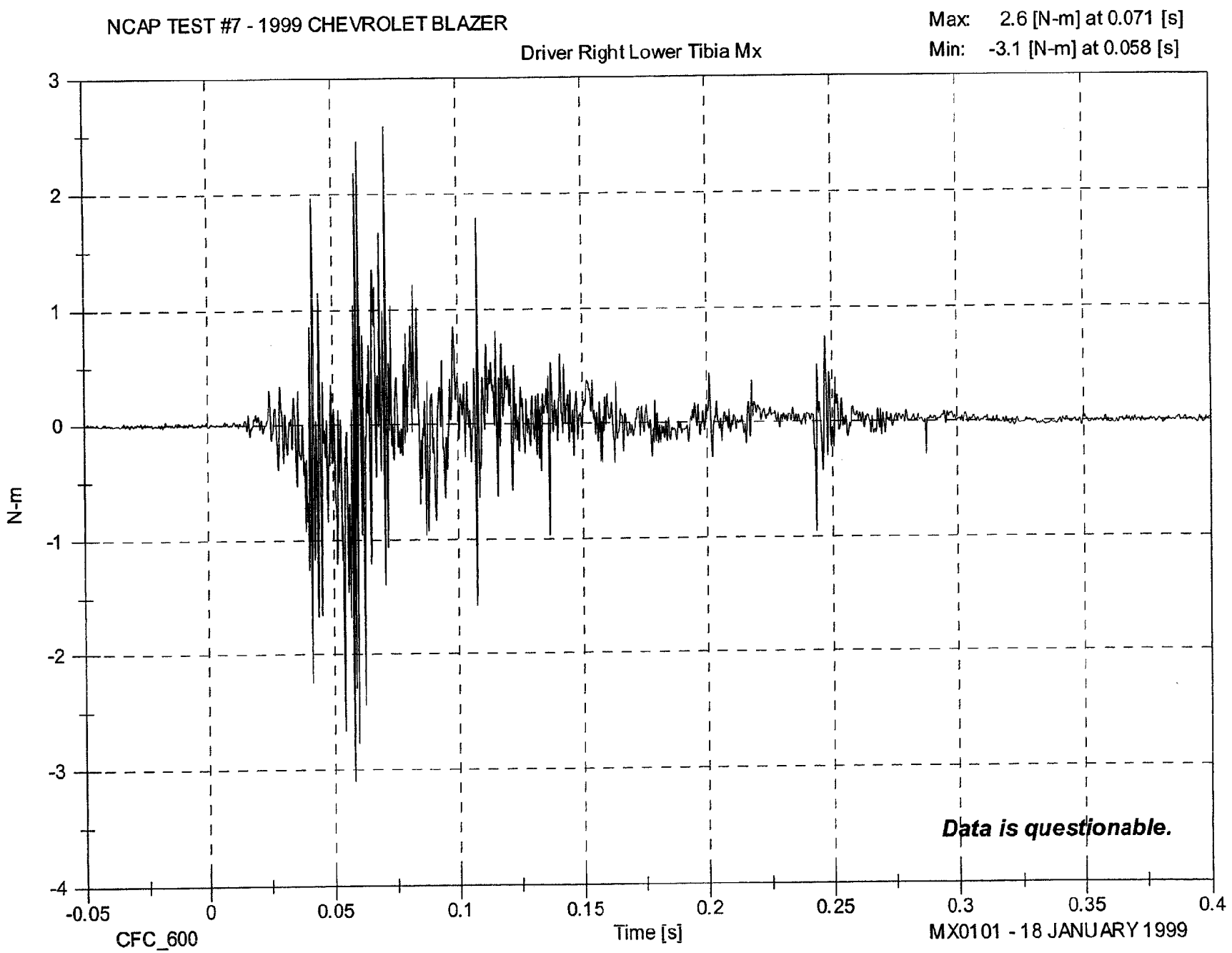

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Driver Left Lower Tibia Mx
Max: 10.0 [N-m] at 0.047 [s]
Min: -97.5 [N-m] at 0.055 [s]
25
0
-25
-50
-75
-100
N-m
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_600
MX0101 - 18 JANUARY 1999

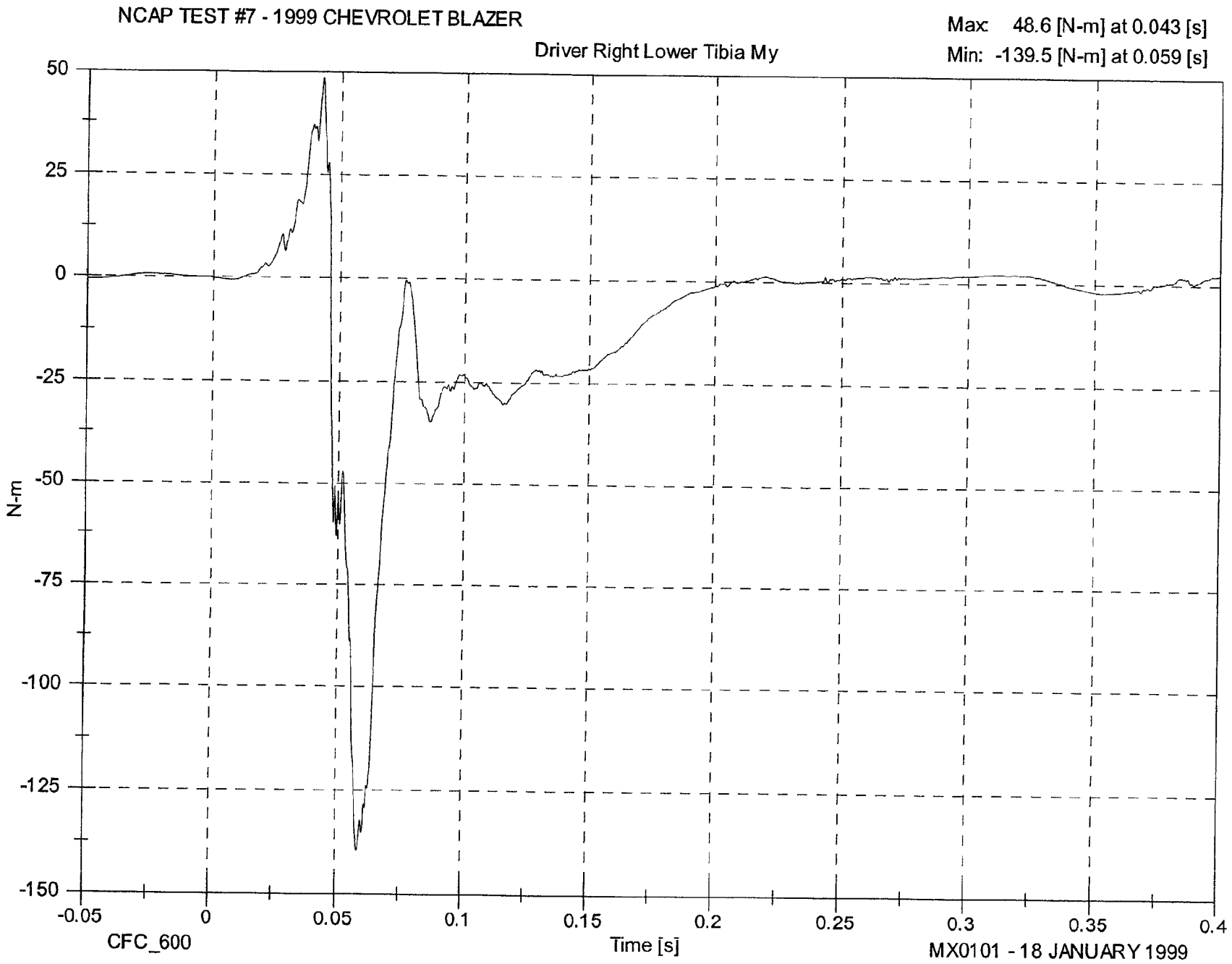

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Driver Left Lower Tibia My
Max: 40.2 [N-m] at 0.047 [s]
Min: -68.7 [N-m] at 0.056 [s]
50
25
0
-25
-50
-75
N-m
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_600
MX0101 - 18 JANUARY 1999

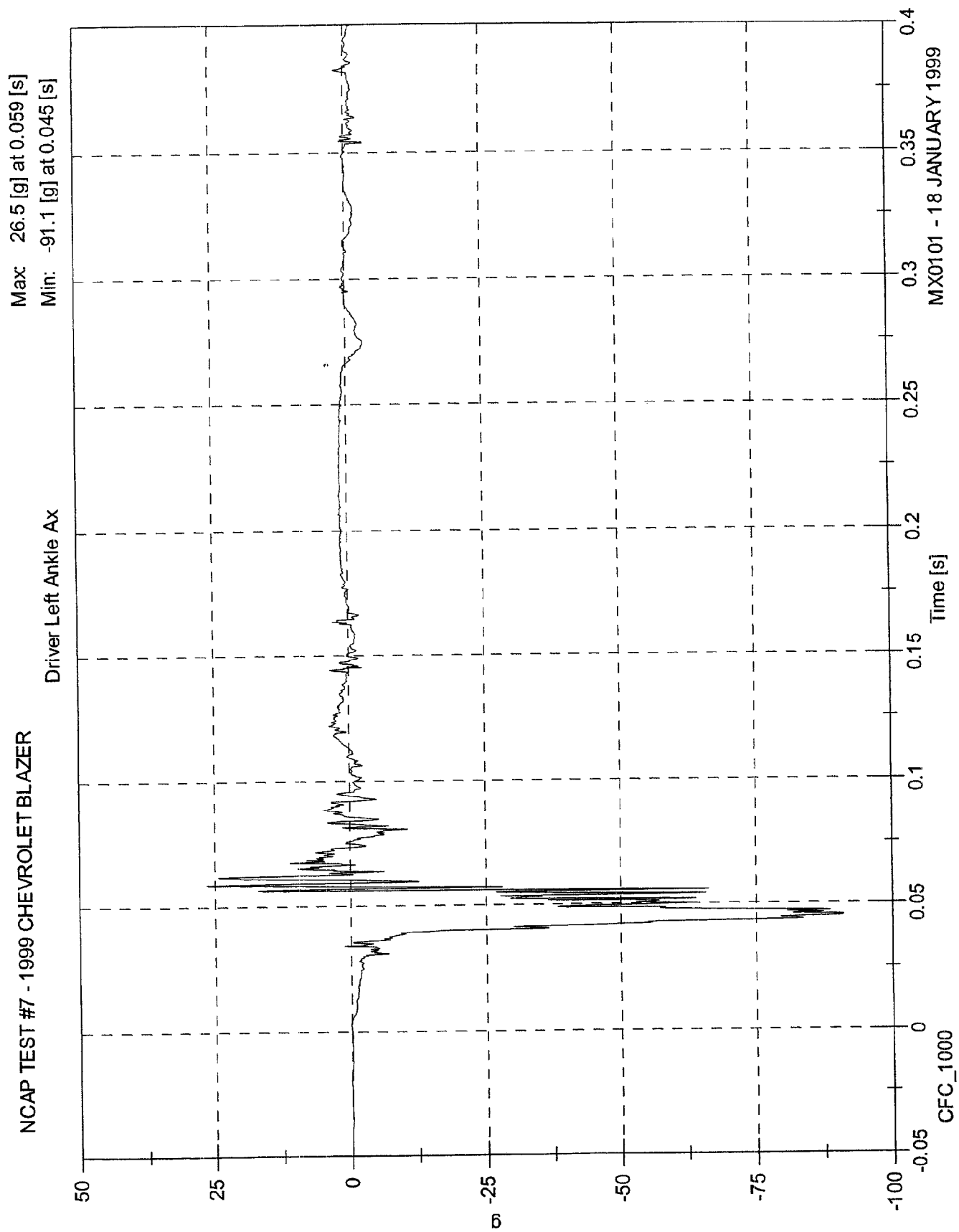

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Driver Right Upper Tibia Mx
Max: 56.4 [N-m] at 0.047 [s]
Min: -25.3 [N-m] at 0.065 [s]
60
40
20
0
-20
-40
N-m
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_600
MX0101 - 18 JANUARY 1999

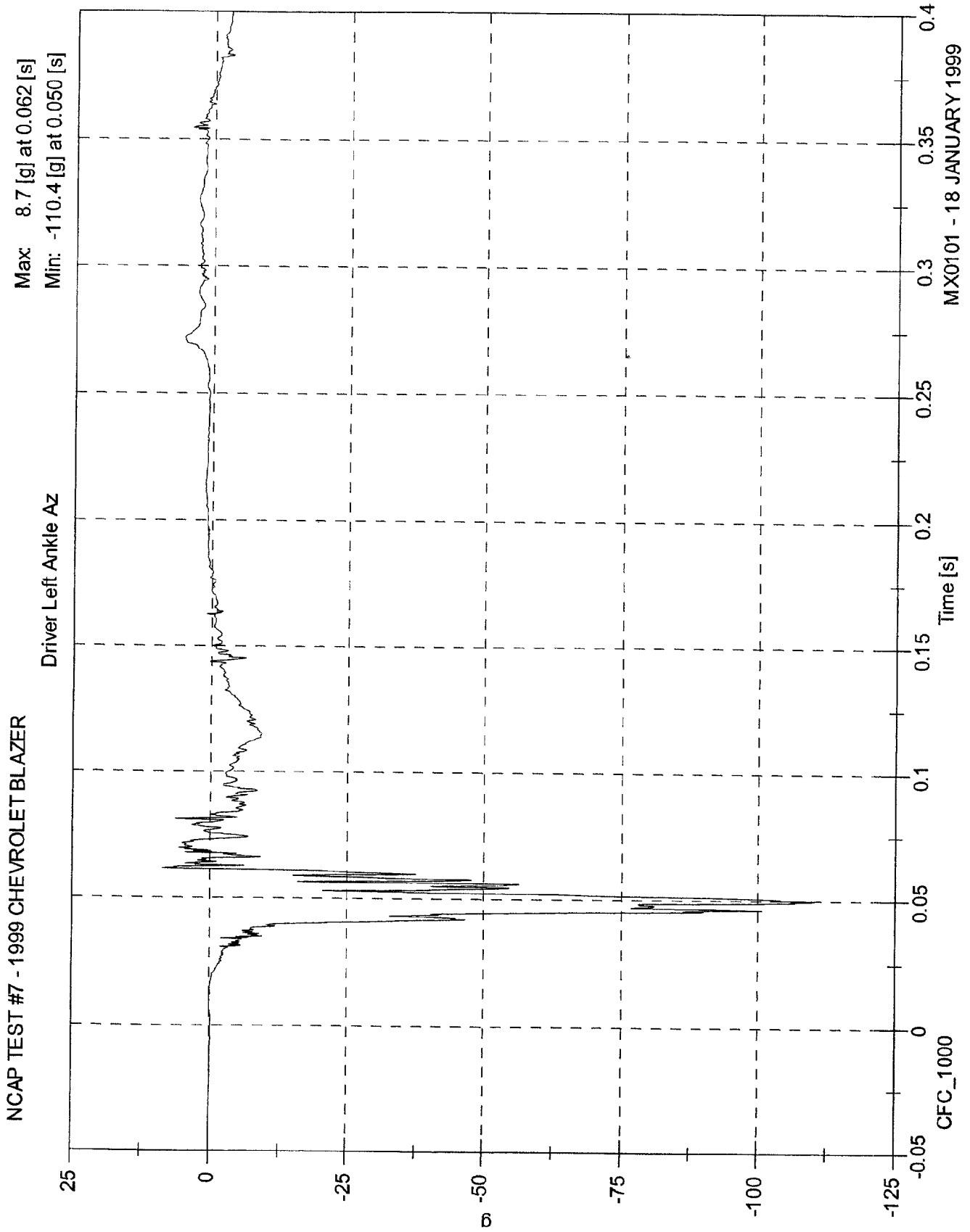

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Driver Right Upper Tibia My
Max: 54.9 [N-m] at 0.071 [s]
Min: -183.3 [N-m] at 0.049 [s]
100
50
0
-50
-100
-150
-200
N-m
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_600
MX0101 - 18 JANUARY 1999

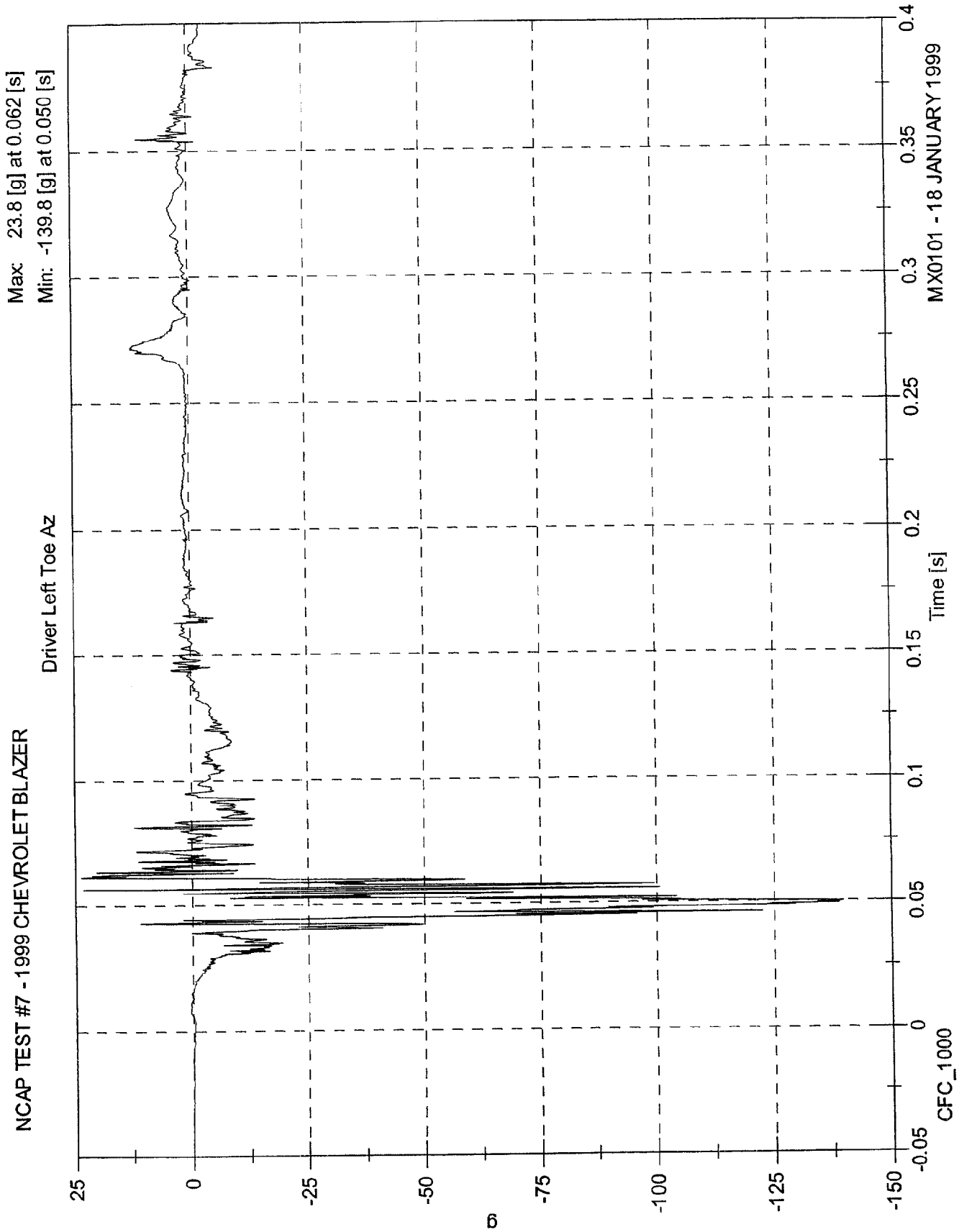

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Driver Right Lower Tibia Fz
Max: 252.0 [N] at 0.243 [s]
Min: -7265.4 [N] at 0.048 [s]
MX0101 - 18 JANUARY 1999
CFC_600
Time [s]
Z
1000
0
-1000
-2000
-3000
-4000
-5000
-6000
-7000
-8000
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4

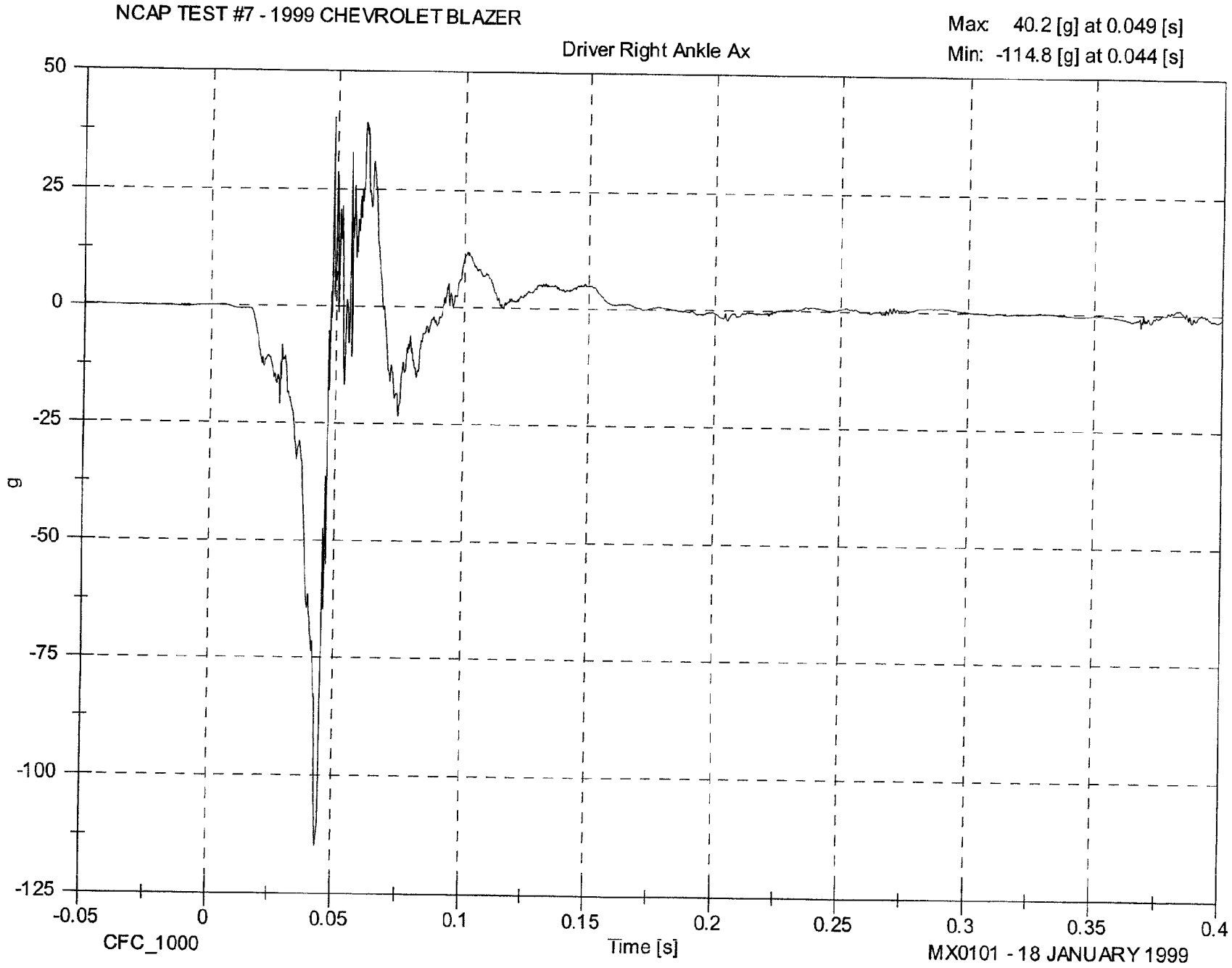

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Driver Right Lower Tibia Mx
Max: 2.6 [N-m] at 0.071 [s]
Min: -3.1 [N-m] at 0.058 [s]
N-m
3
2
1
0
-1
-2
-3
-4
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_600
MX0101 - 18 JANUARY 1999
Data is questionable.

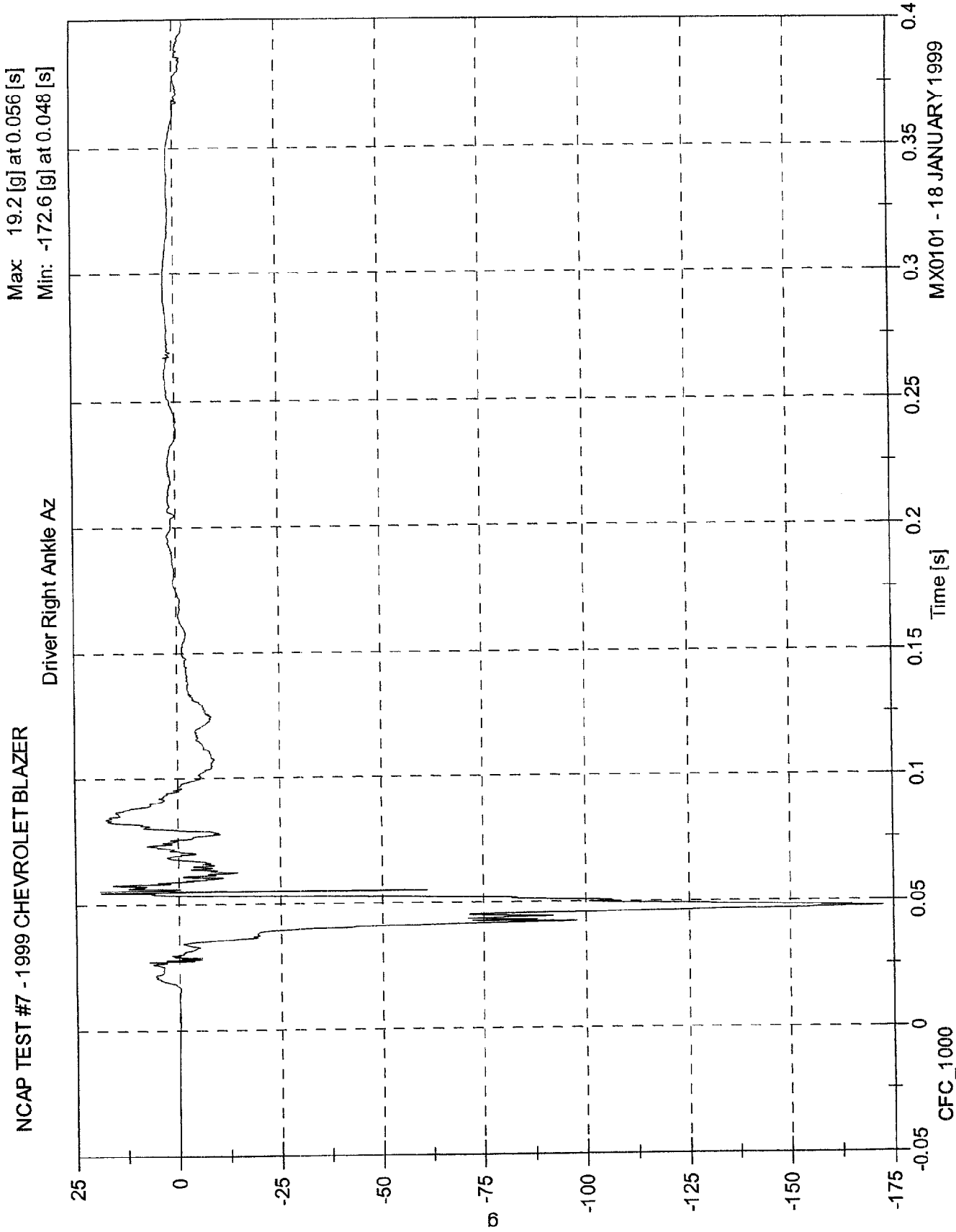

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Driver Right Lower Tibia My
Max: 48.6 [N-m] at 0.043 [s]
Min: -139.5 [N-m] at 0.059 [s]
50
25
0
-25
-50
-75
-100
-125
-150
N-m
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_600
MX0101 - 18 JANUARY 1999

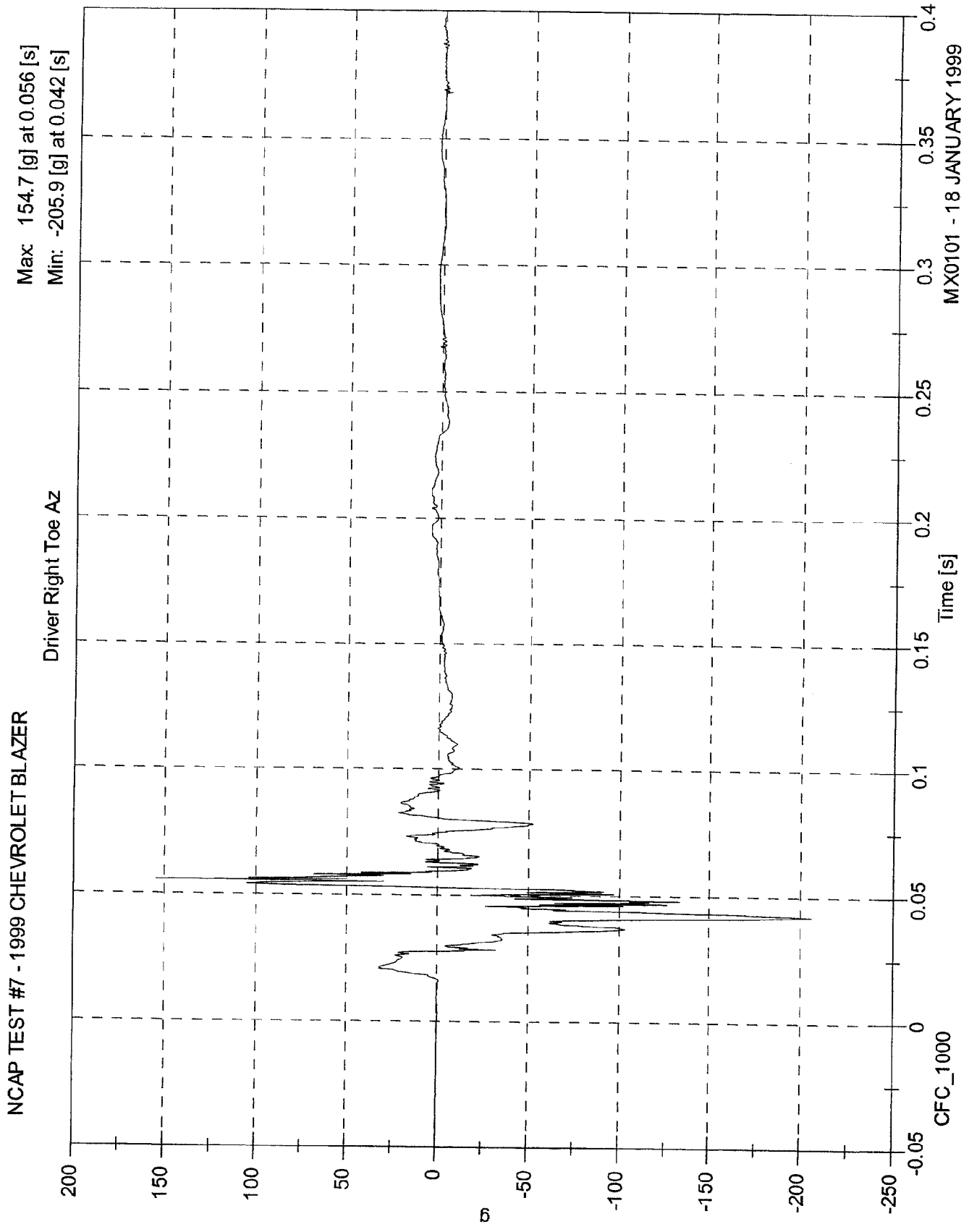

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Driver Left Ankle Ax
Max: 26.5 [g] at 0.059 [s]
Min: -91.1 [g] at 0.045 [s]
MX0101 - 18 JANUARY 1999
CFC_1000
g
Time [s]
50
25
0
-25
-50
-75
-100
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4

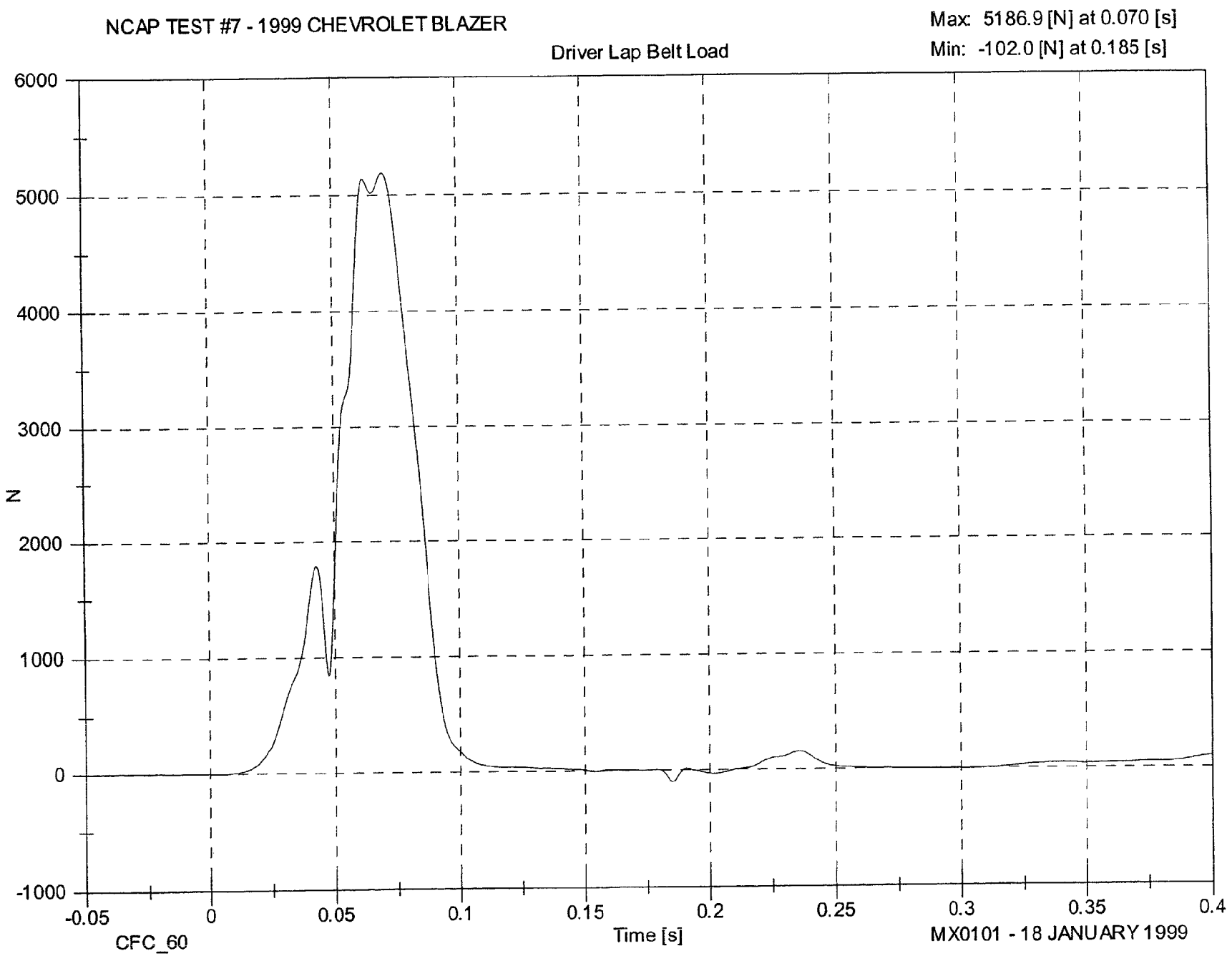

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Driver Left Ankle Az
Max: 8.7 [g] at 0.062 [s]
Min: -110.4 [g] at 0.050 [s]
MX0101 - 18 JANUARY 1999
CFC_1000
g
Time [s]
25
0
-25
-50
-75
-100
-125
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4

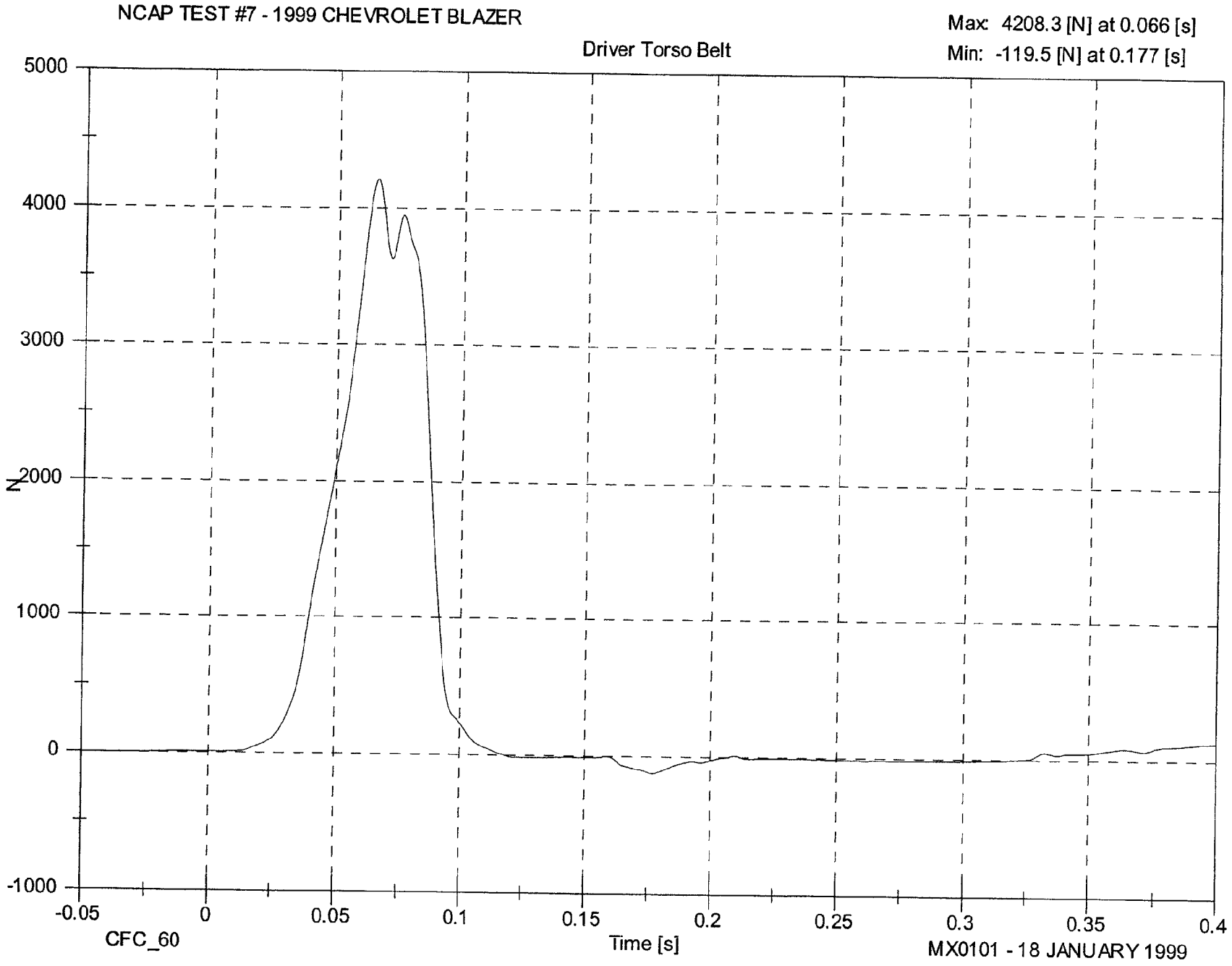

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Max: 23.8 [g] at 0.062 [s]
Min: -139.8 [g] at 0.050 [s]
Driver Left Toe Az
MX0101 - 18 JANUARY 1999
CFC_1000
g
Time [s]
25
0
-25
-50
-75
-100
-125
-150
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4

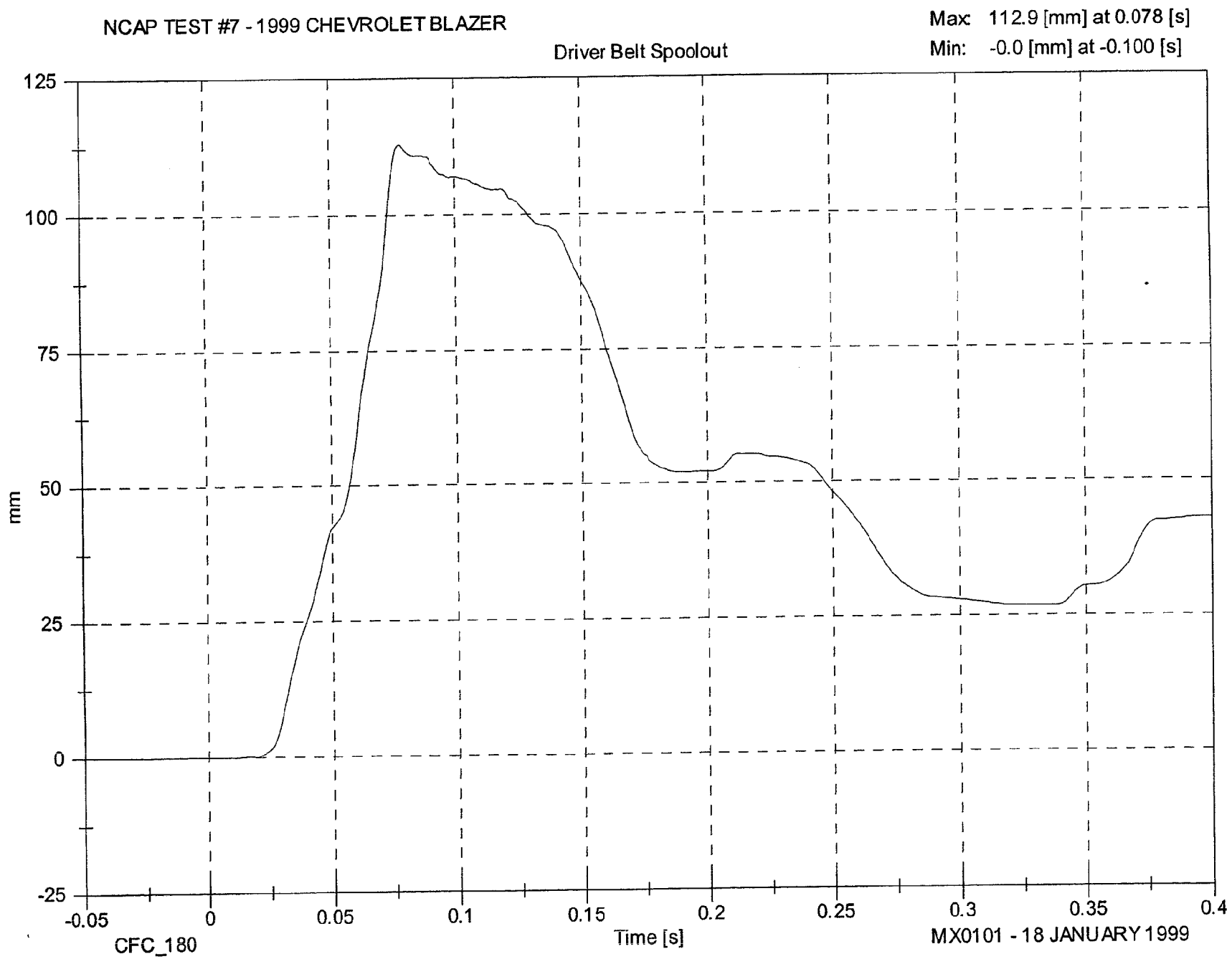

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Driver Right Ankle Ax
Max: 40.2 [g] at 0.049 [s]
Min: -114.8 [g] at 0.044 [s]
50
25
0
-25
-50
-75
-100
-125
g
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_1000
MX0101 - 18 JANUARY 1999

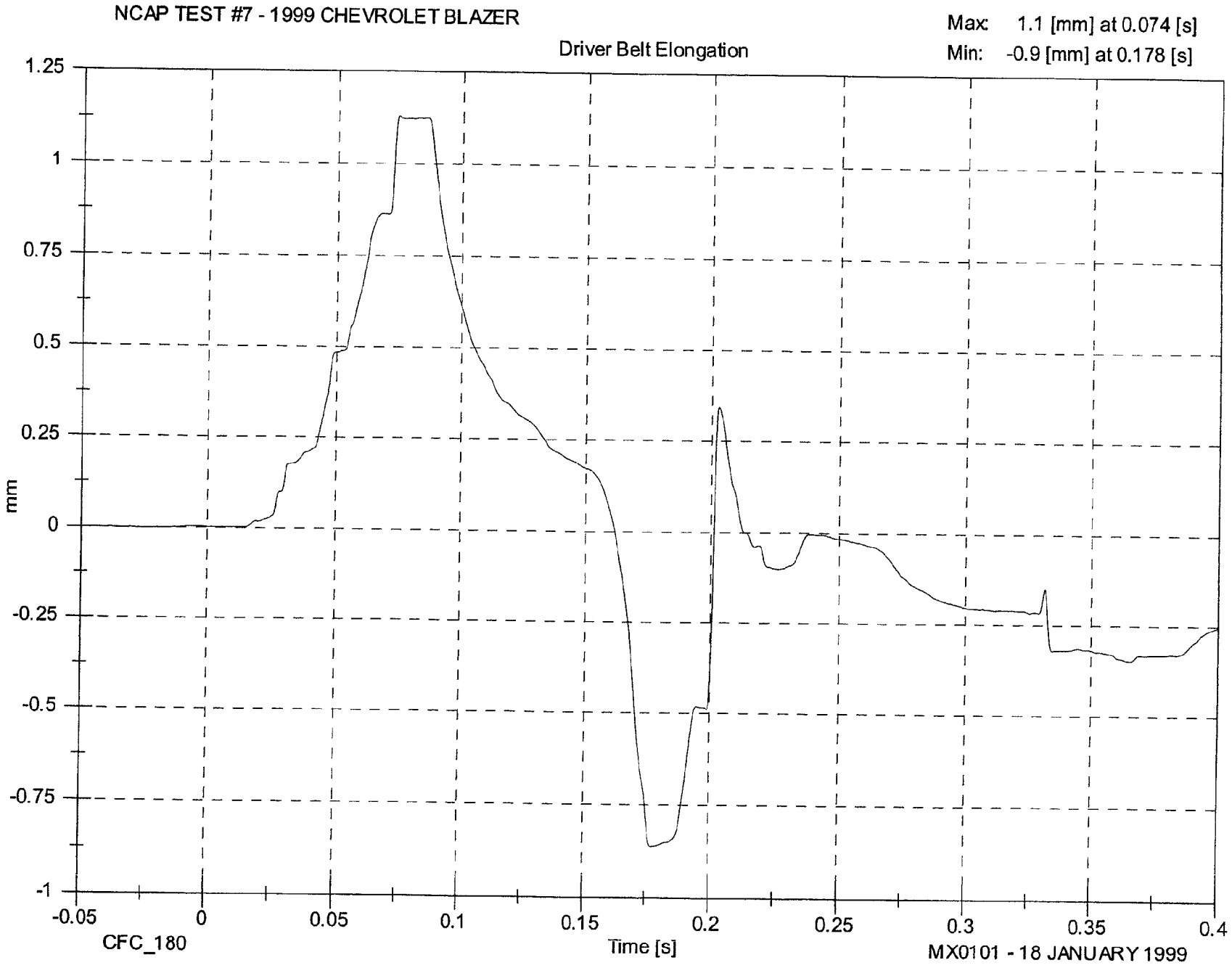

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Driver Right Ankle Az
Max: 19.2 [g] at 0.056 [s]
Min: -172.6 [g] at 0.048 [s]
g
25
0
-25
-50
-75
-100
-125
-150
-175
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_1000
MX0101 - 18 JANUARY 1999

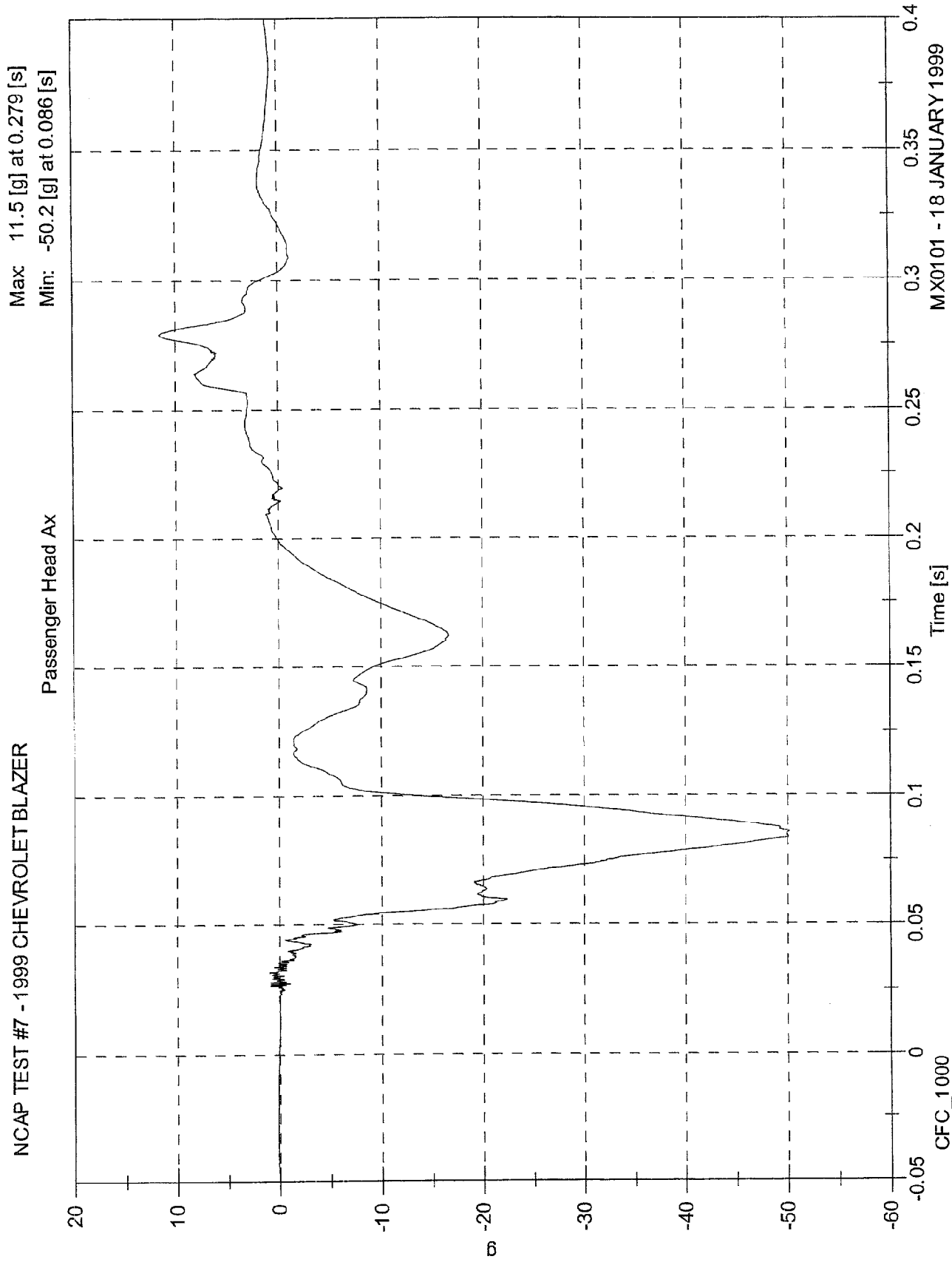

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Max: 154.7 [g] at 0.056 [s]
Min: -205.9 [g] at 0.042 [s]
Driver Right Toe Az
MX0101 - 18 JANUARY 1999
CFC_1000
Time [s]
g
200
150
100
50
0
-50
-100
-150
-200
-250
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4

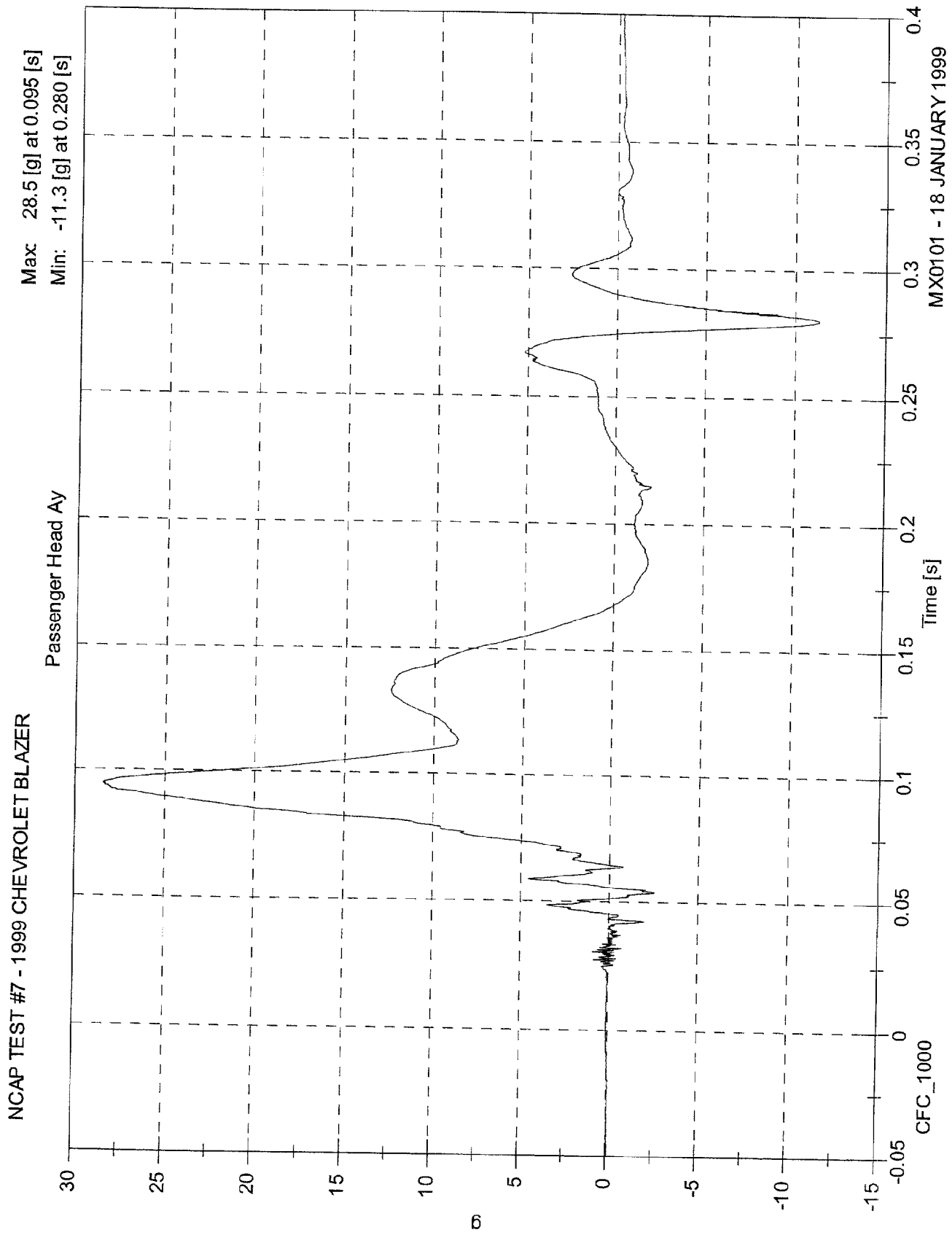

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Driver Lap Belt Load
Max: 5186.9 [N] at 0.070 [s]
Min: -102.0 [N] at 0.185 [s]
6000
5000
4000
3000
2000
1000
0
-1000
N
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_60
MX0101 - 18 JANUARY 1999

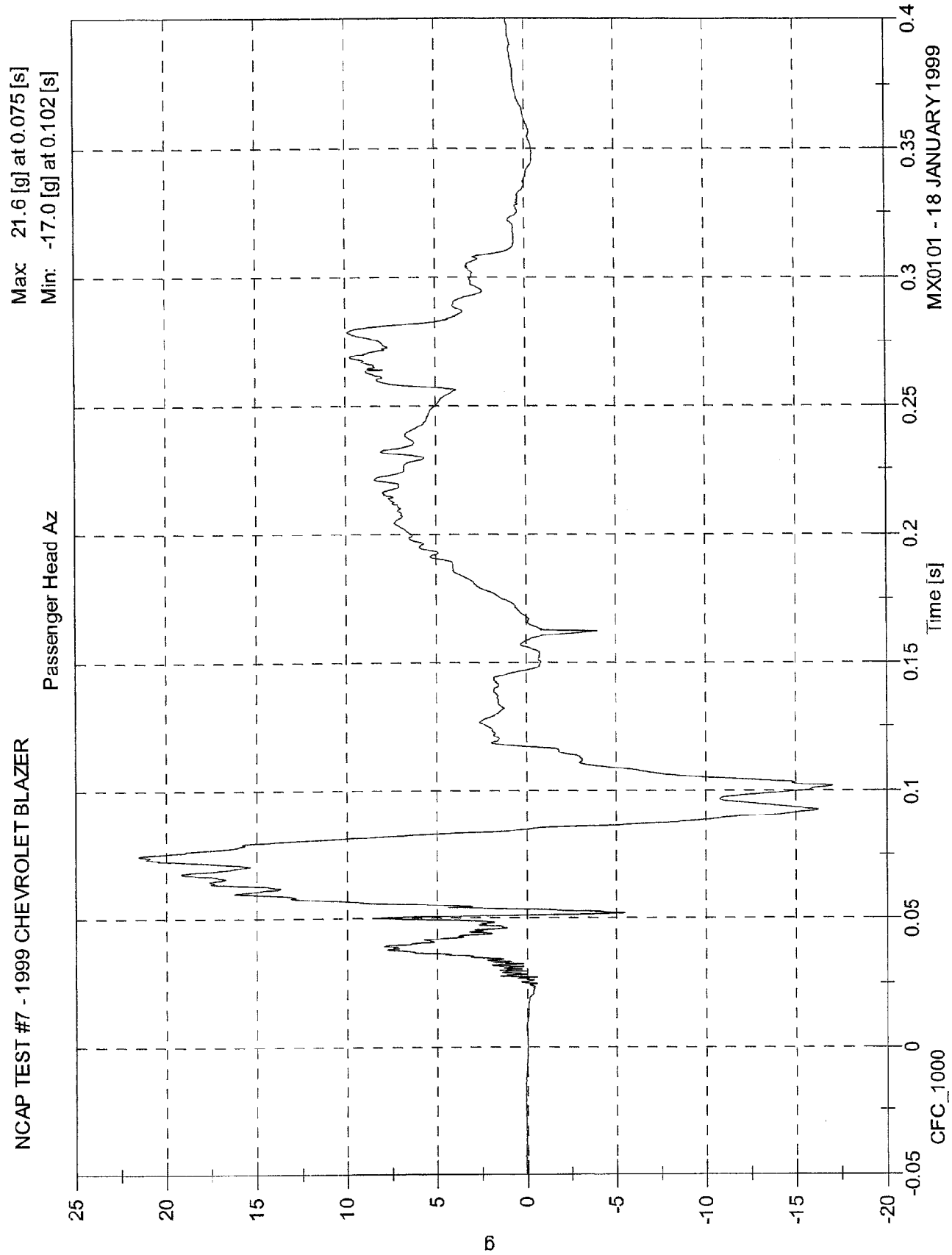

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Driver Torso Belt
Max: 4208.3 [N] at 0.066 [s]
Min: -119.5 [N] at 0.177 [s]
5000
4000
3000
2000
1000
0
-1000
N
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_60
MX0101 - 18 JANUARY 1999

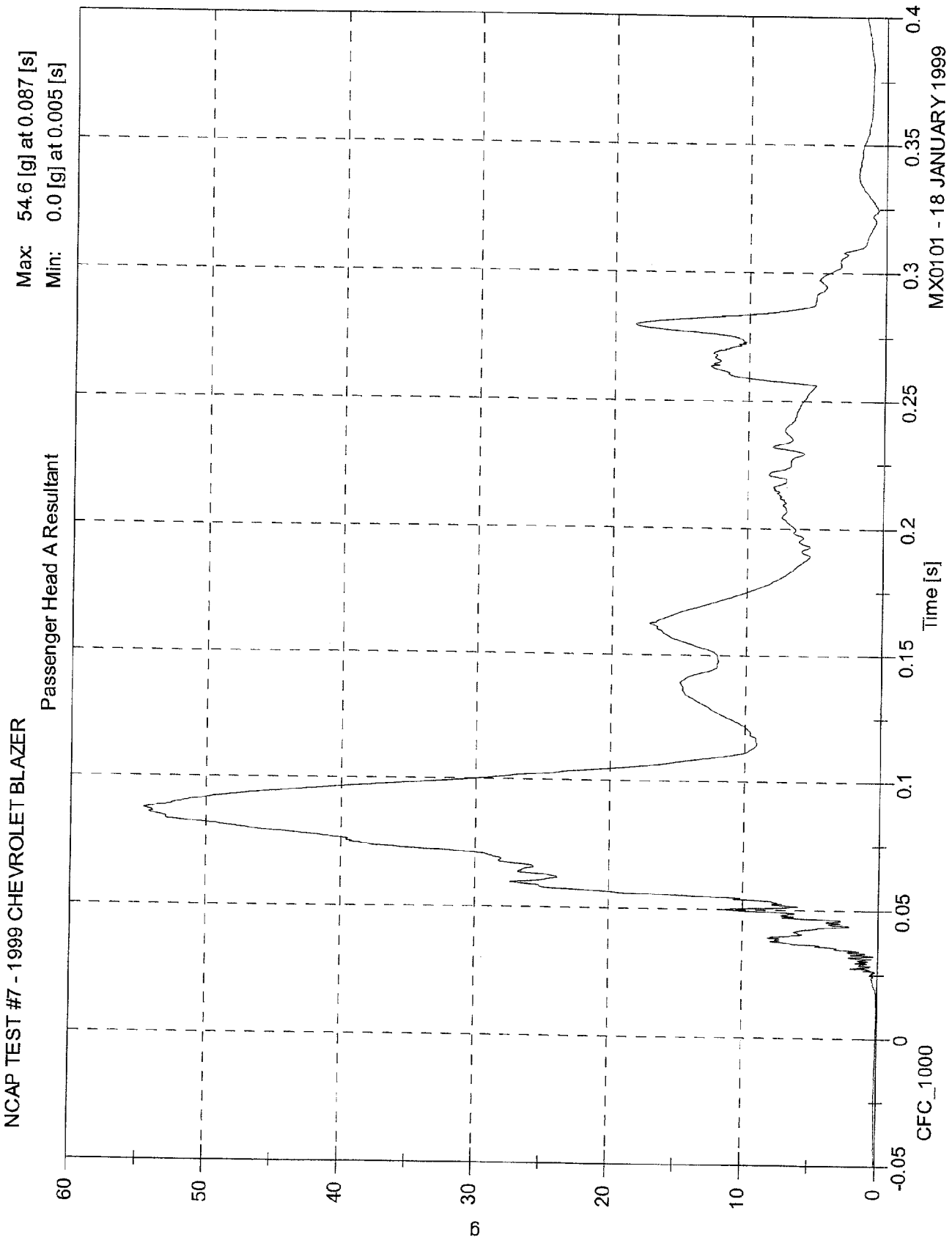

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Driver Belt Spoolout
Max: 112.9 [mm] at 0.078 [s]
Min: -0.0 [mm] at -0.100 [s]
125
100
75
50
25
0
-25
mm
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_180
MX0101 - 18 JANUARY 1999

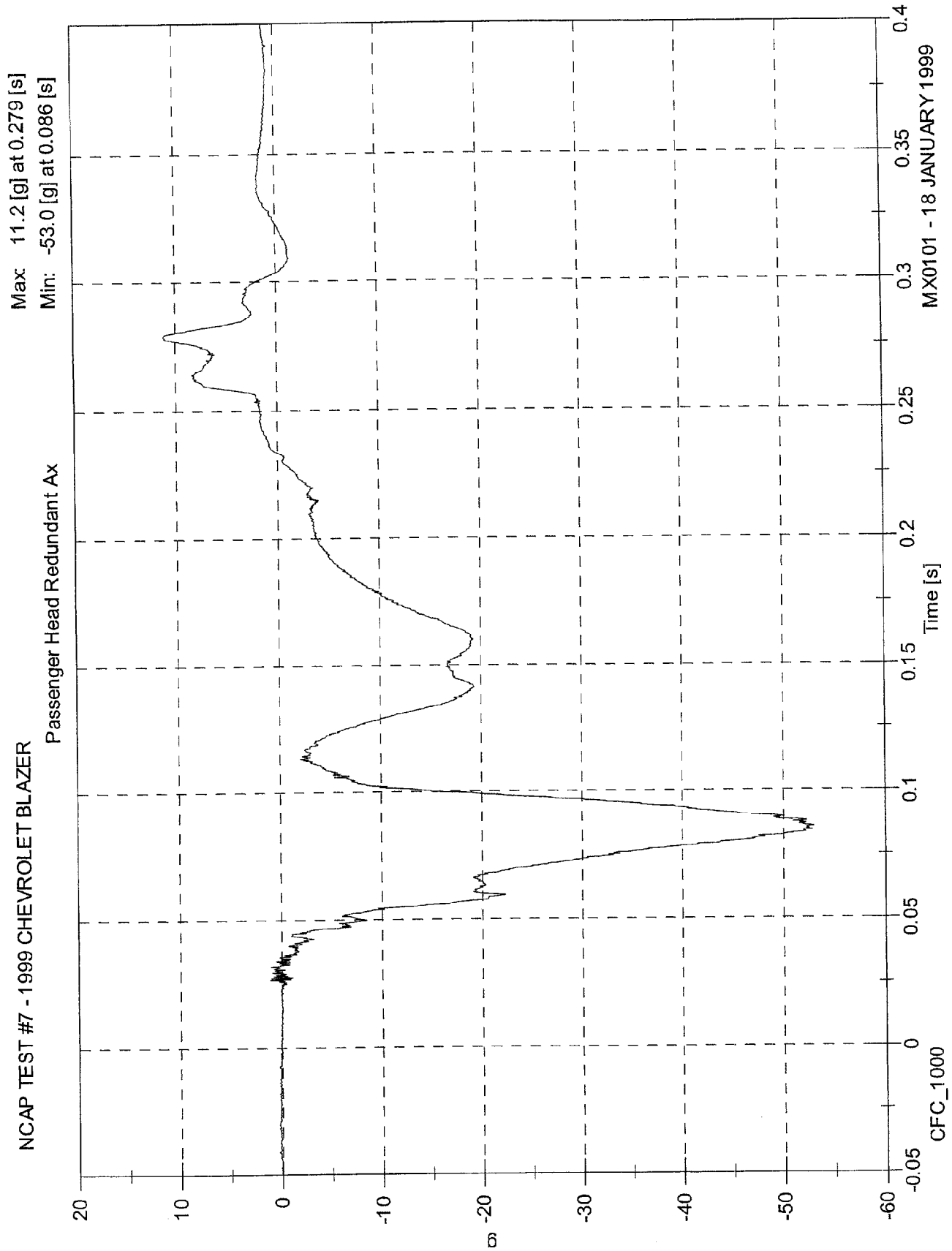

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Driver Belt Elongation
Max: 1.1 [mm] at 0.074 [s]
Min: -0.9 [mm] at 0.178 [s]
1.25
1
0.75
0.5
0.25
0
-0.25
-0.5
-0.75
-1
mm
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_180
MX0101 - 18 JANUARY 1999

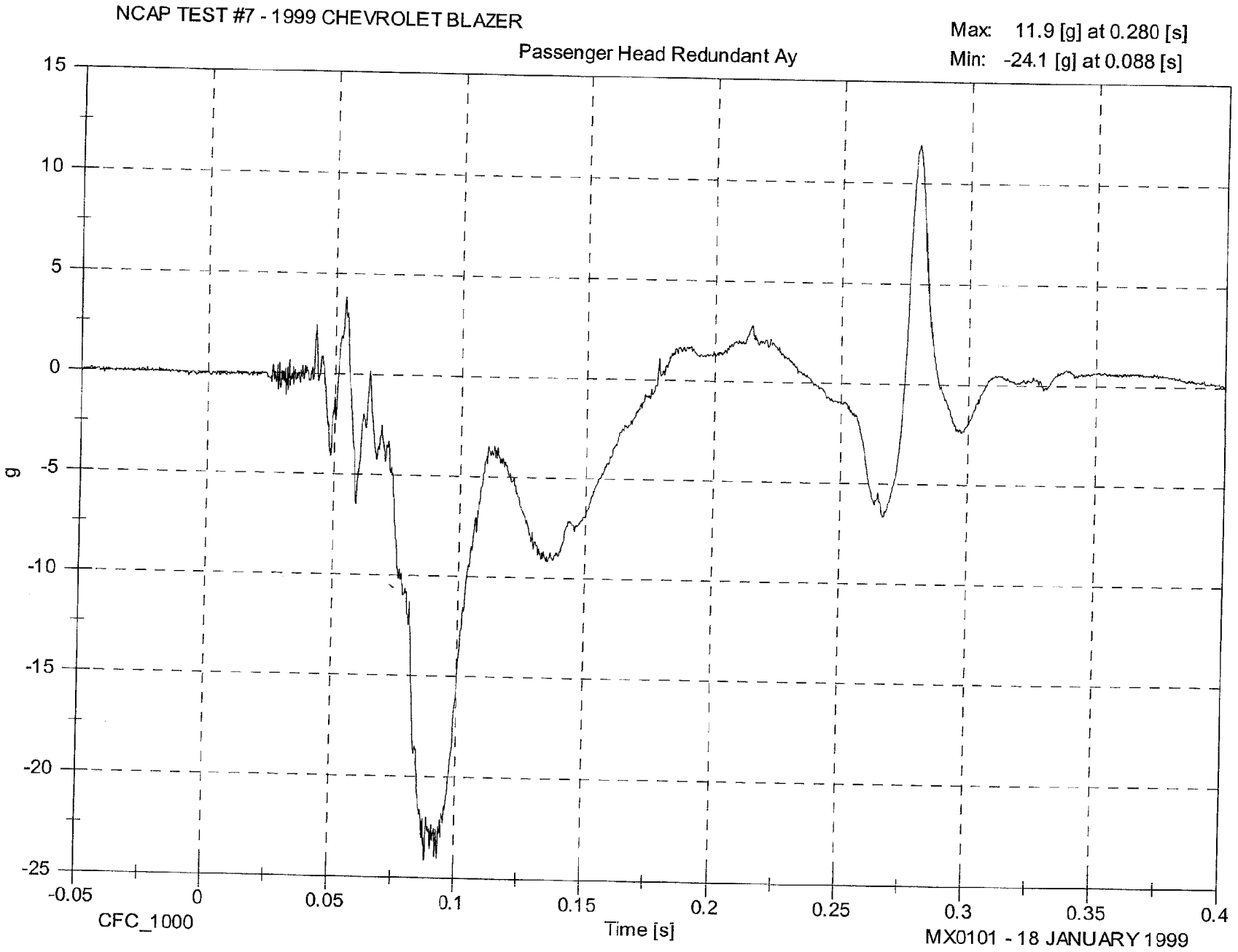

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Passenger Head Ax
Max: 11.5 [g] at 0.279 [s]
Min: -50.2 [g] at 0.086 [s]
MX0101 - 18 JANUARY 1999
CFC_1000
Time [s]
g
20
10
0
-10
-20
-30
-40
-50
-60
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4

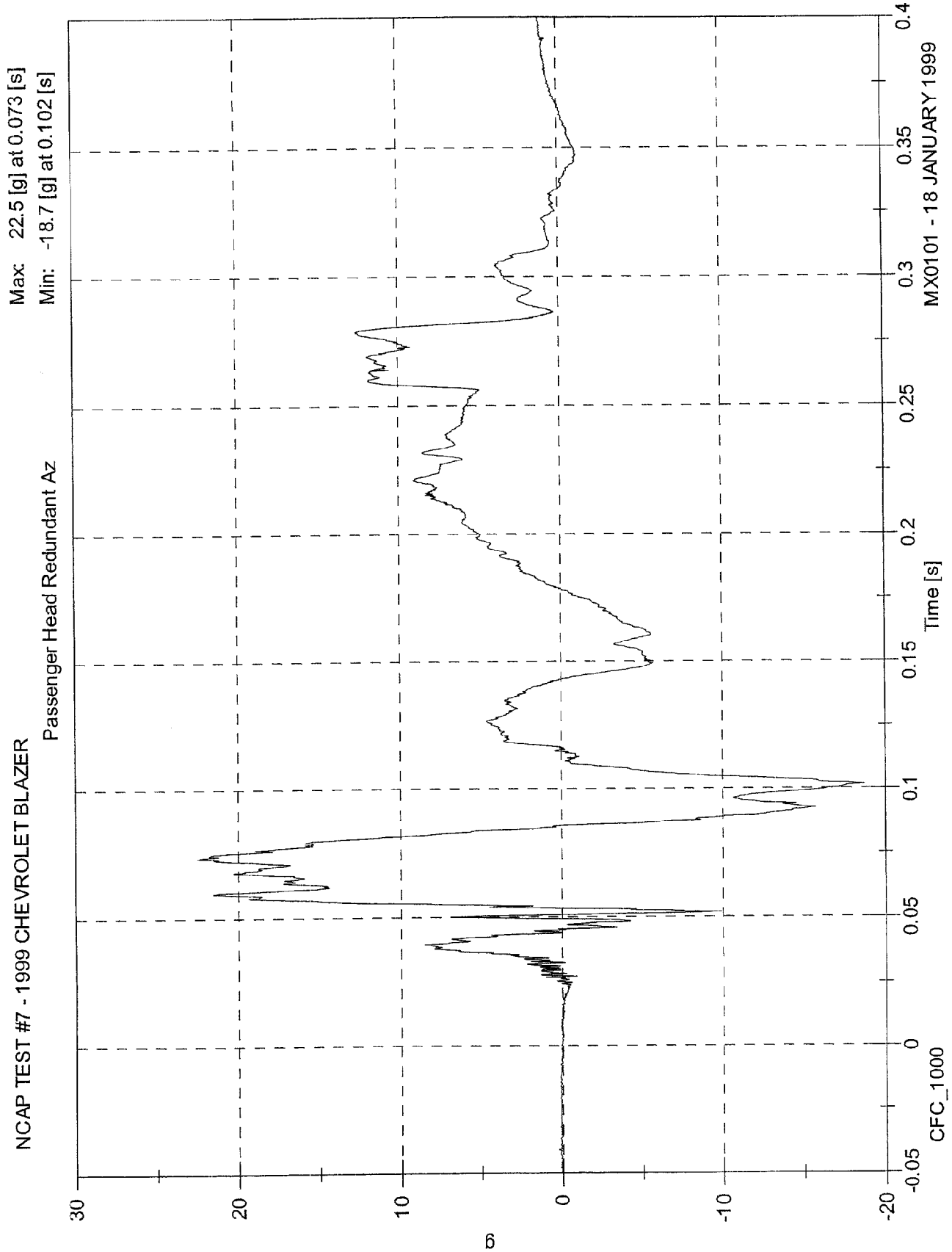

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Passenger Head Ay
Max: 28.5 [g] at 0.095 [s]
Min: -11.3 [g] at 0.280 [s]
MX0101 - 18 JANUARY 1999
CFC_1000
Time [s]
g
30
25
20
15
10
5
0
-5
-10
-15
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4

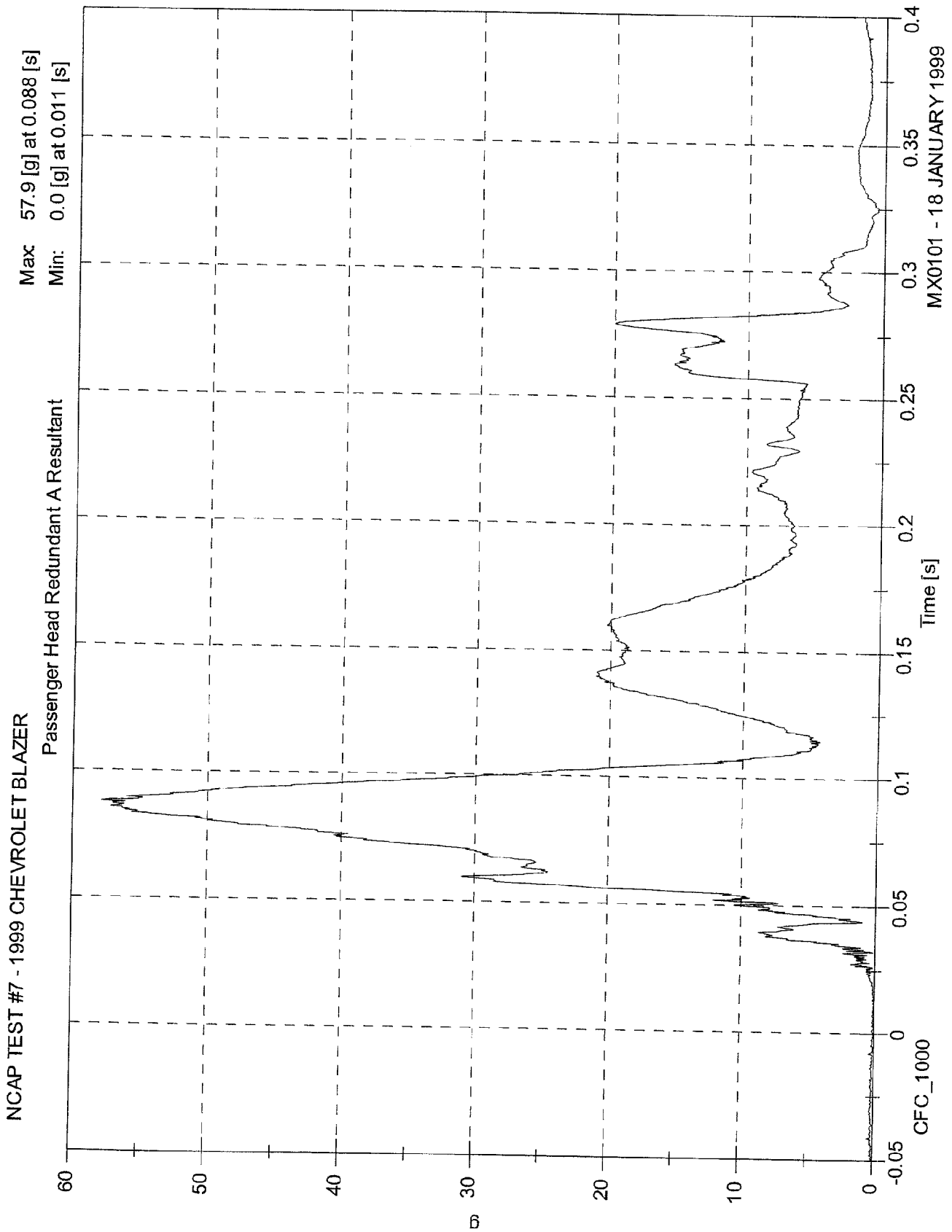

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Passenger Head Az
Max: 21.6 [g] at 0.075 [s]
Min: -17.0 [g] at 0.102 [s]
MX0101 - 18 JANUARY 1999
CFC_1000
Time [s]
g
25
20
15
10
5
0
-5
-10
-15
-20
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4

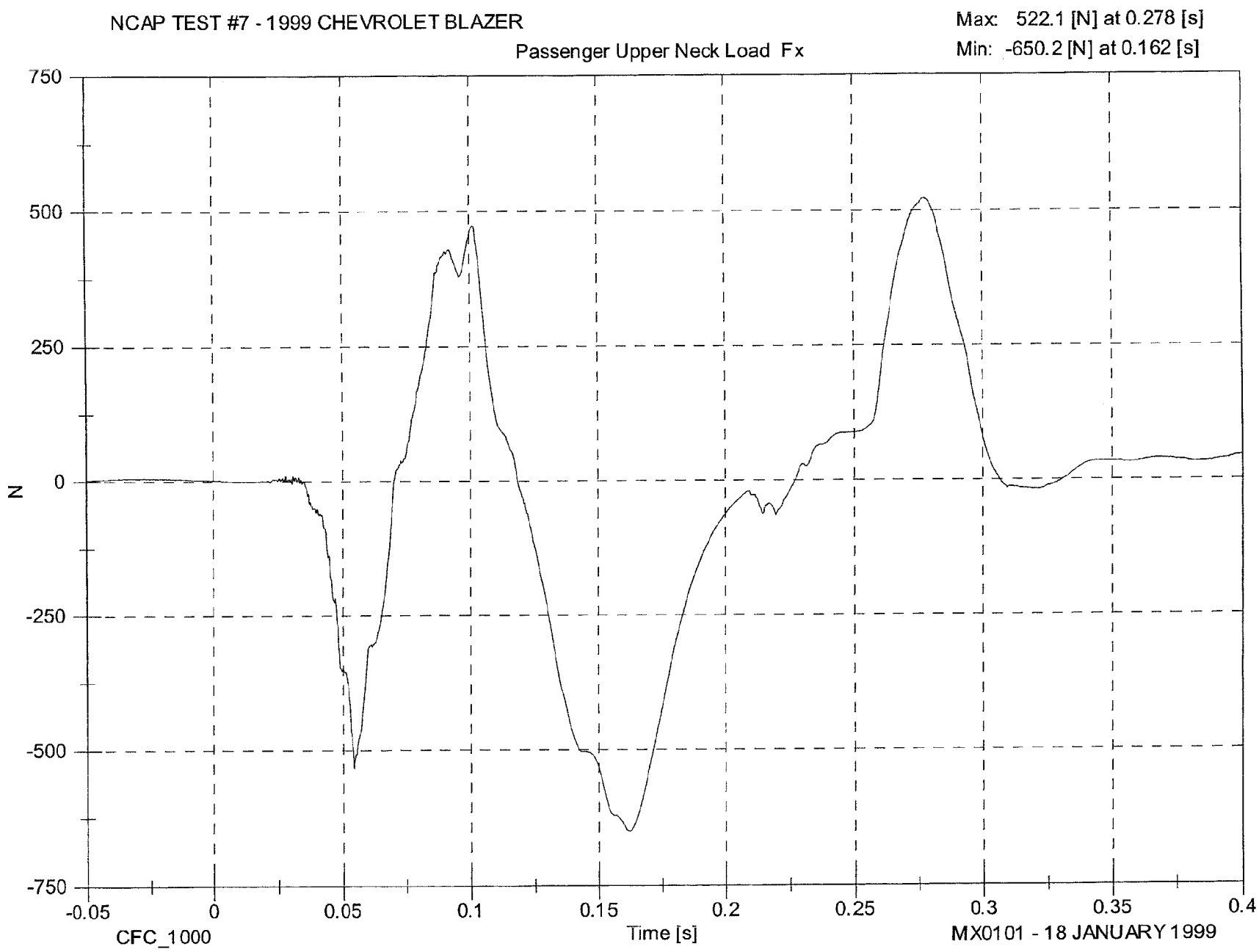

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Passenger Head A Resultant
Max: 54.6 [g] at 0.087 [s]
Min: 0.0 [g] at 0.005 [s]
MX0101 - 18 JANUARY 1999
CFC_1000
g
Time [s]
60
50
40
30
20
10
0
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4

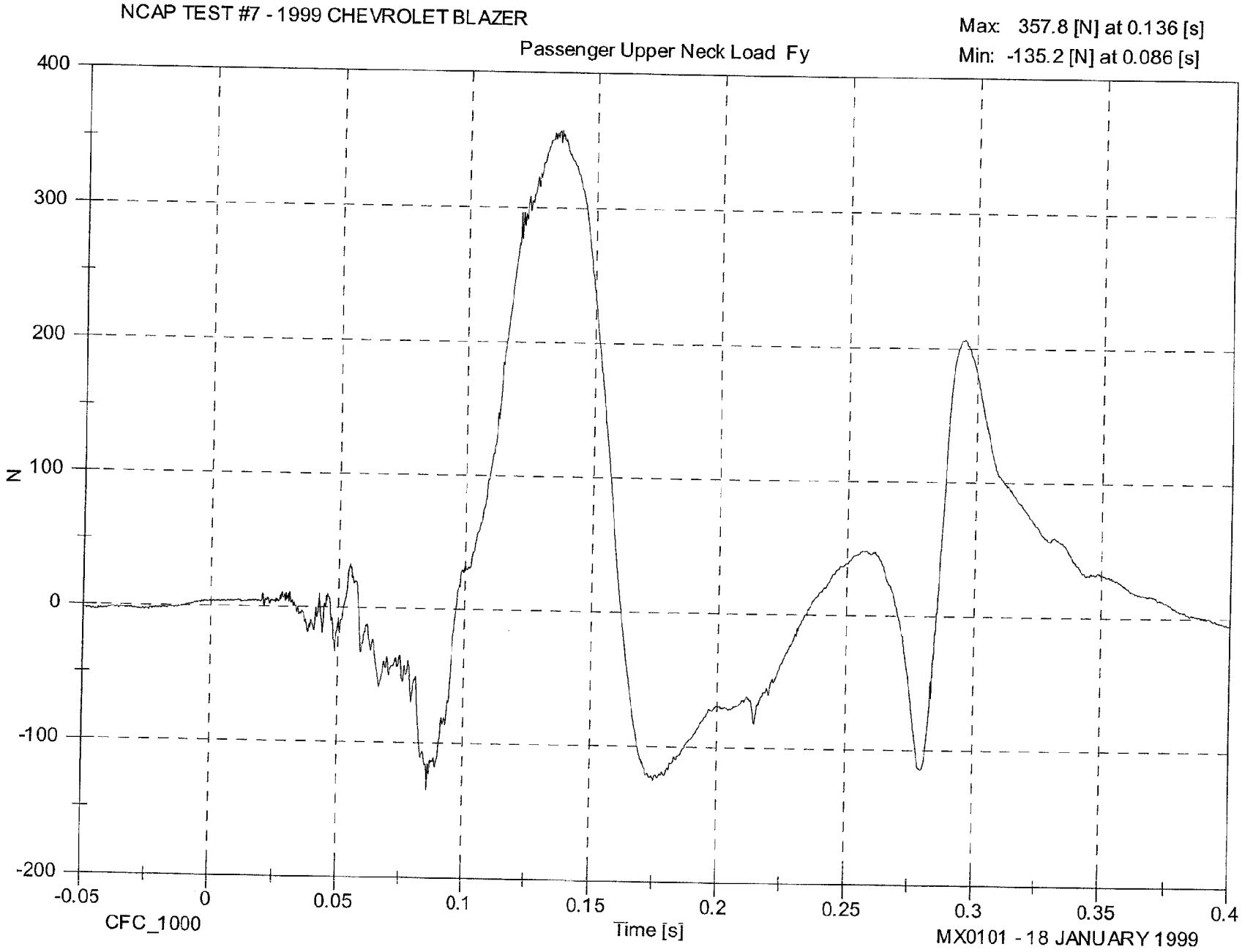

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Passenger Head Redundant Ax
Max: 11.2 [g] at 0.279 [s]
Min: -53.0 [g] at 0.086 [s]
MX0101 - 18 JANUARY 1999
CFC_1000
Time [s]
g
20
10
0
-10
-20
-30
-40
-50
-60
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4

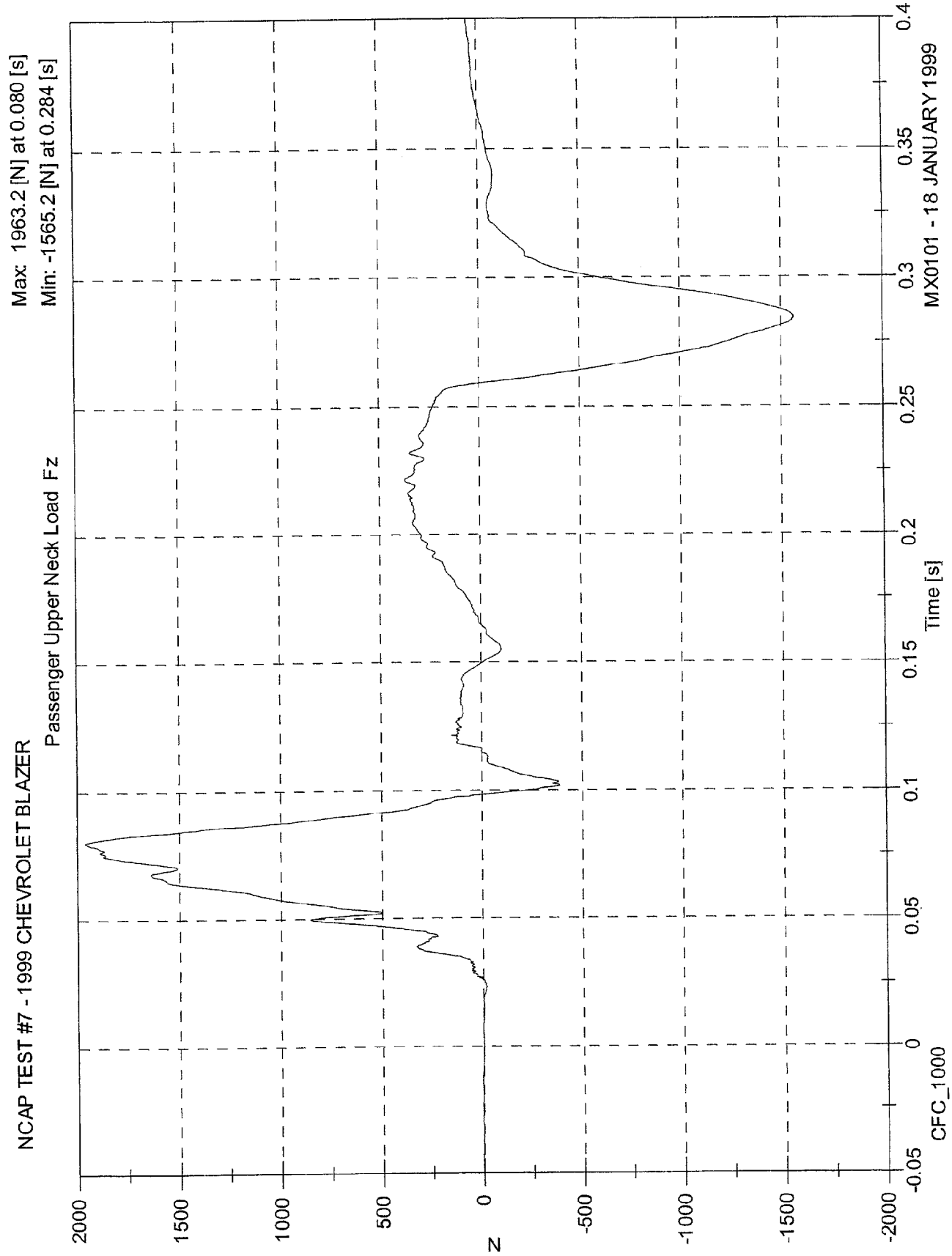

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Passenger Head Redundant Ay
Max: 11.9 [g] at 0.280 [s]
Min: -24.1 [g] at 0.088 [s]
15
10
5
0
-5
-10
-15
-20
-25
g
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_1000
MX0101 - 18 JANUARY 1999

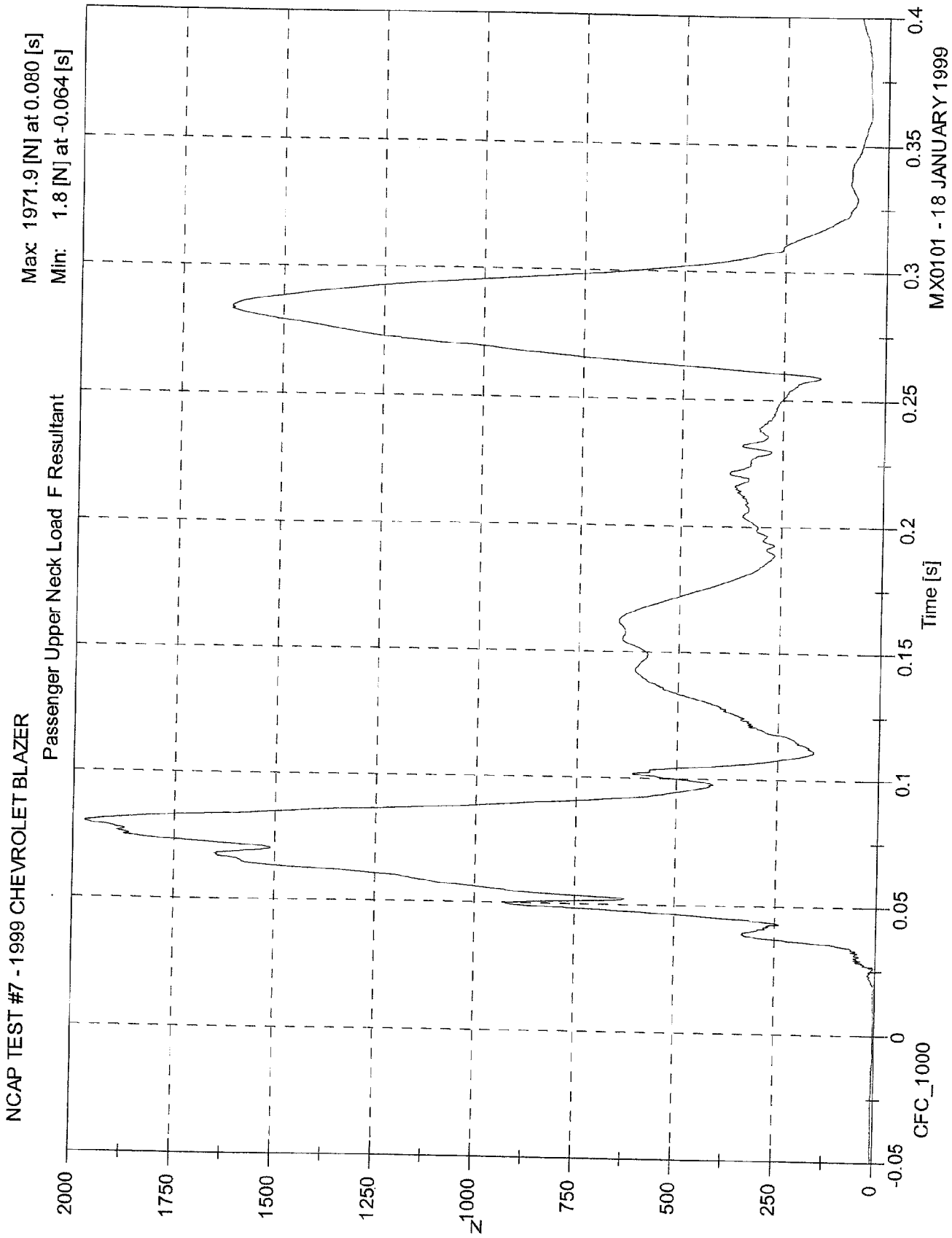

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Passenger Head Redundant Az
Max: 22.5 [g] at 0.073 [s]
Min: -18.7 [g] at 0.102 [s]
MX0101 - 18 JANUARY 1999
CFC_1000
g
Time [s]
30
20
10
0
-10
-20
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4

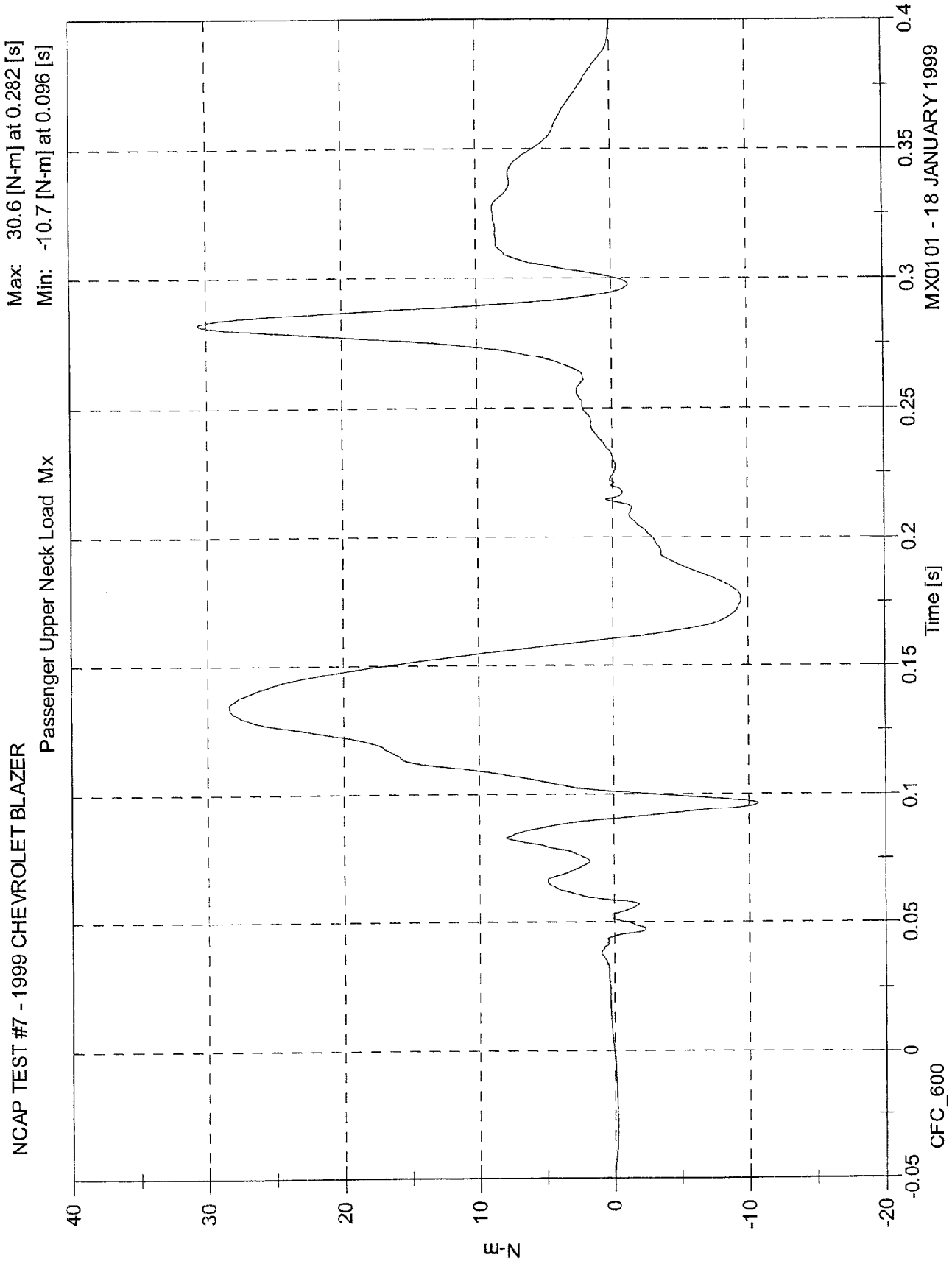

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Passenger Head Redundant A Resultant
Max: 57.9 [g] at 0.088 [s]
Min: 0.0 [g] at 0.011 [s]
MX0101 - 18 JANUARY 1999
CFC_1000
g
Time [s]
60
50
40
30
20
10
0
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4

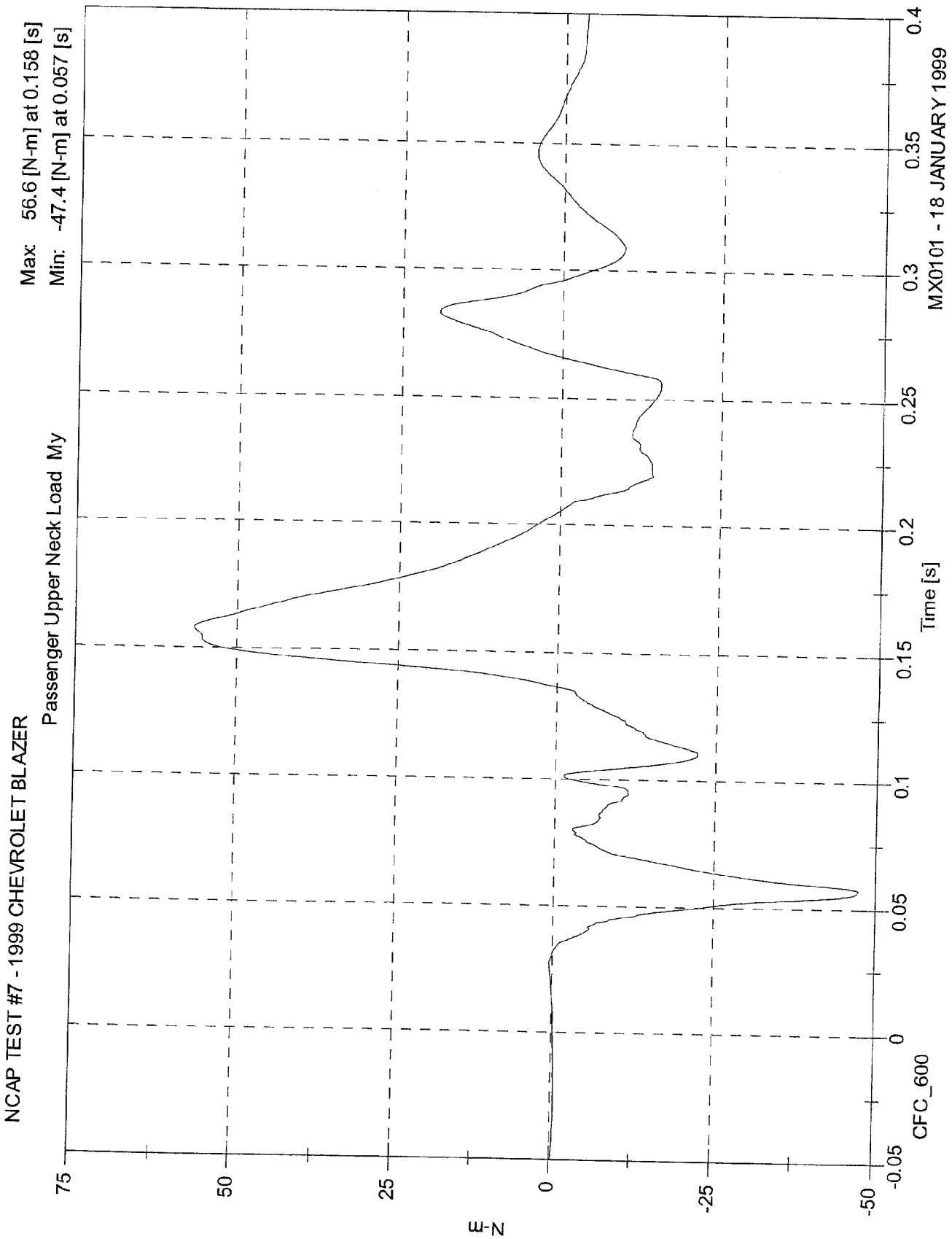

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Passenger Upper Neck Load Fx
Max: 522.1 [N] at 0.278 [s]
Min: -650.2 [N] at 0.162 [s]
750
500
250
0
-250
-500
-750
N
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_1000
MX0101 - 18 JANUARY 1999

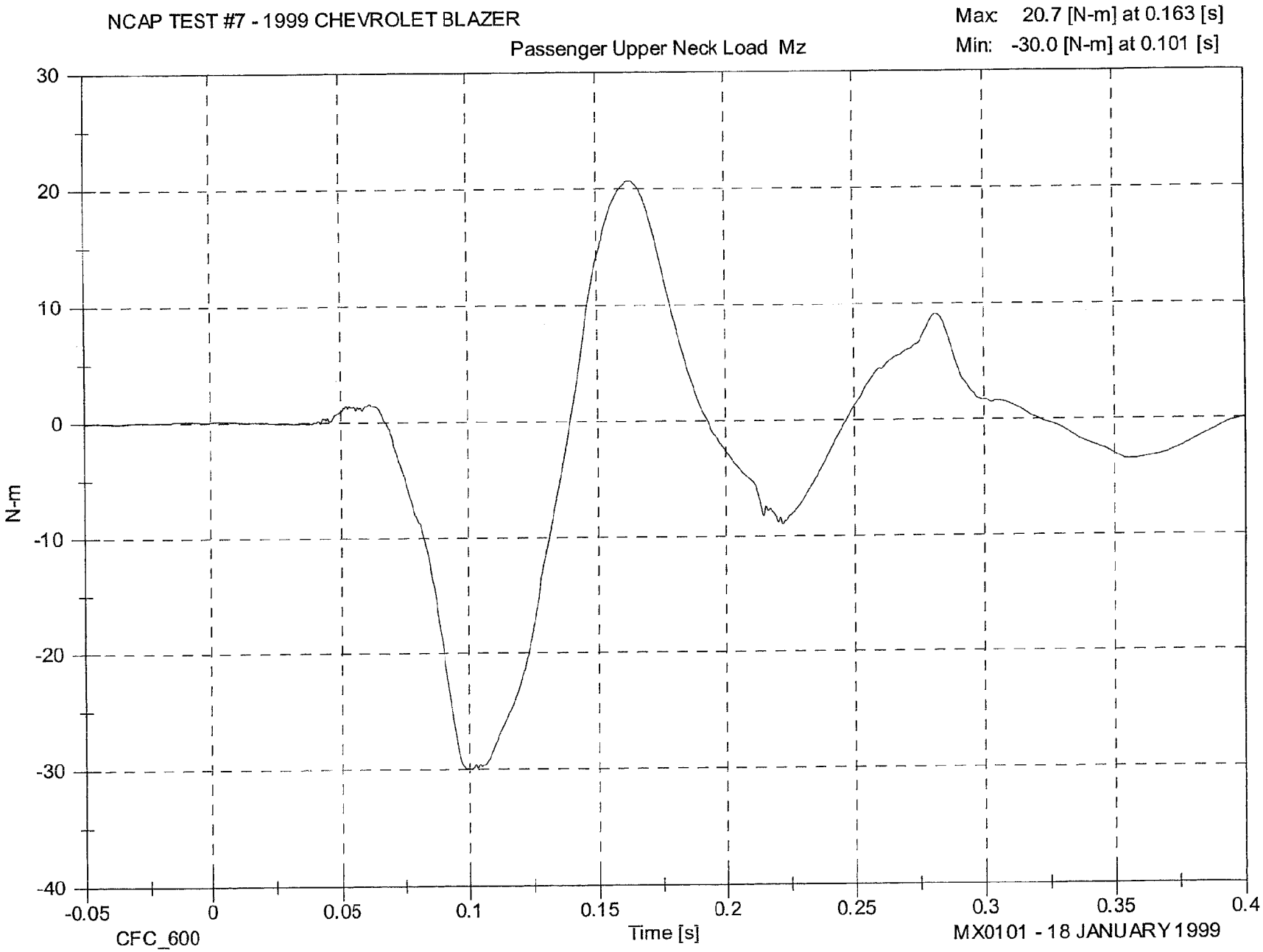

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Passenger Upper Neck Load Fy
Max: 357.8 [N] at 0.136 [s]
Min: -135.2 [N] at 0.086 [s]
400
300
200
100
0
-100
-200
N
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_1000
MX0101 - 18 JANUARY 1999

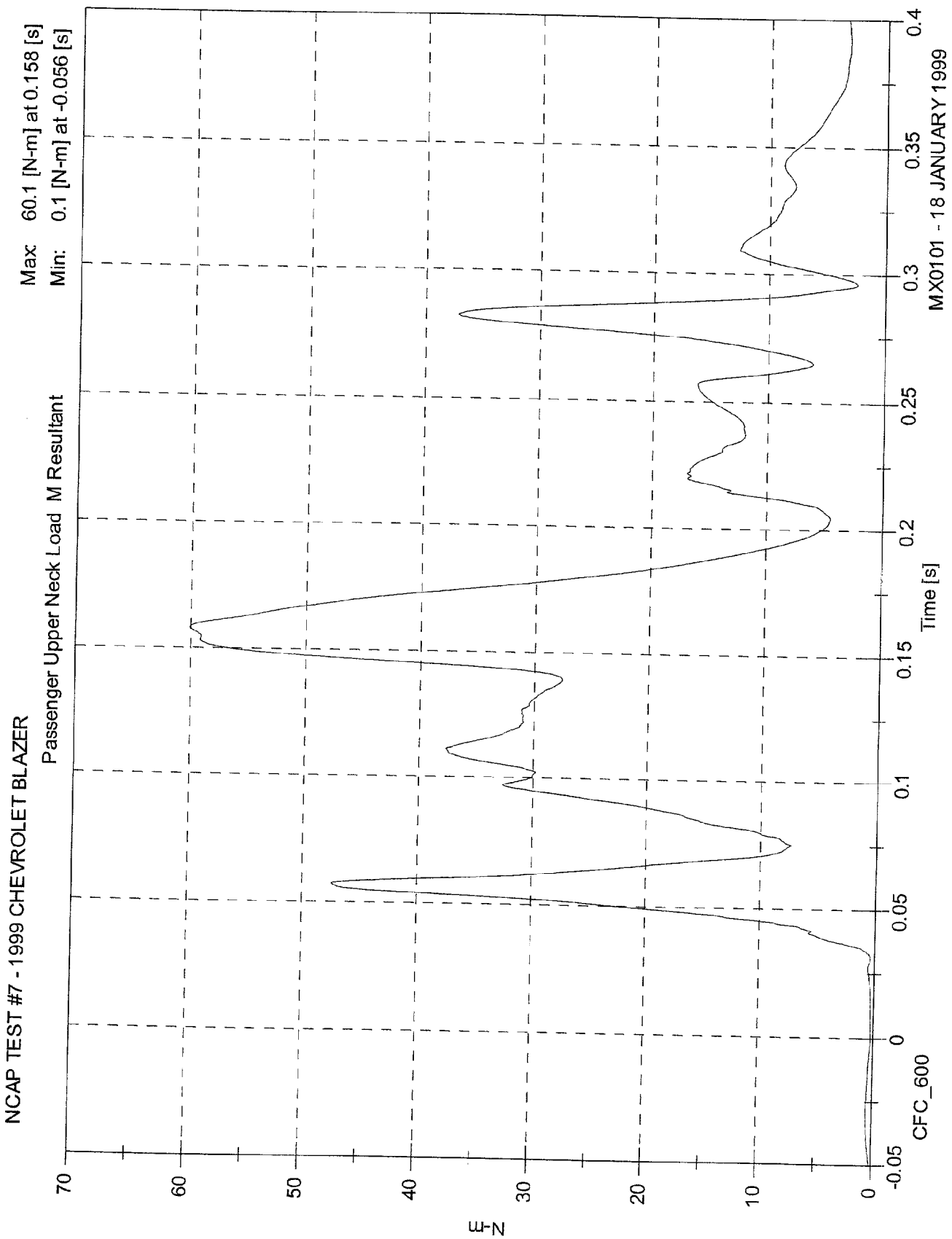

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Passenger Upper Neck Load Fz
Max: 1963.2 [N] at 0.080 [s]
Min: -1565.2 [N] at 0.284 [s]
MX0101 - 18 JANUARY 1999
CFC_1000
N
Time [s]
2000
1500
1000
500
0
-500
-1000
-1500
-2000
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4

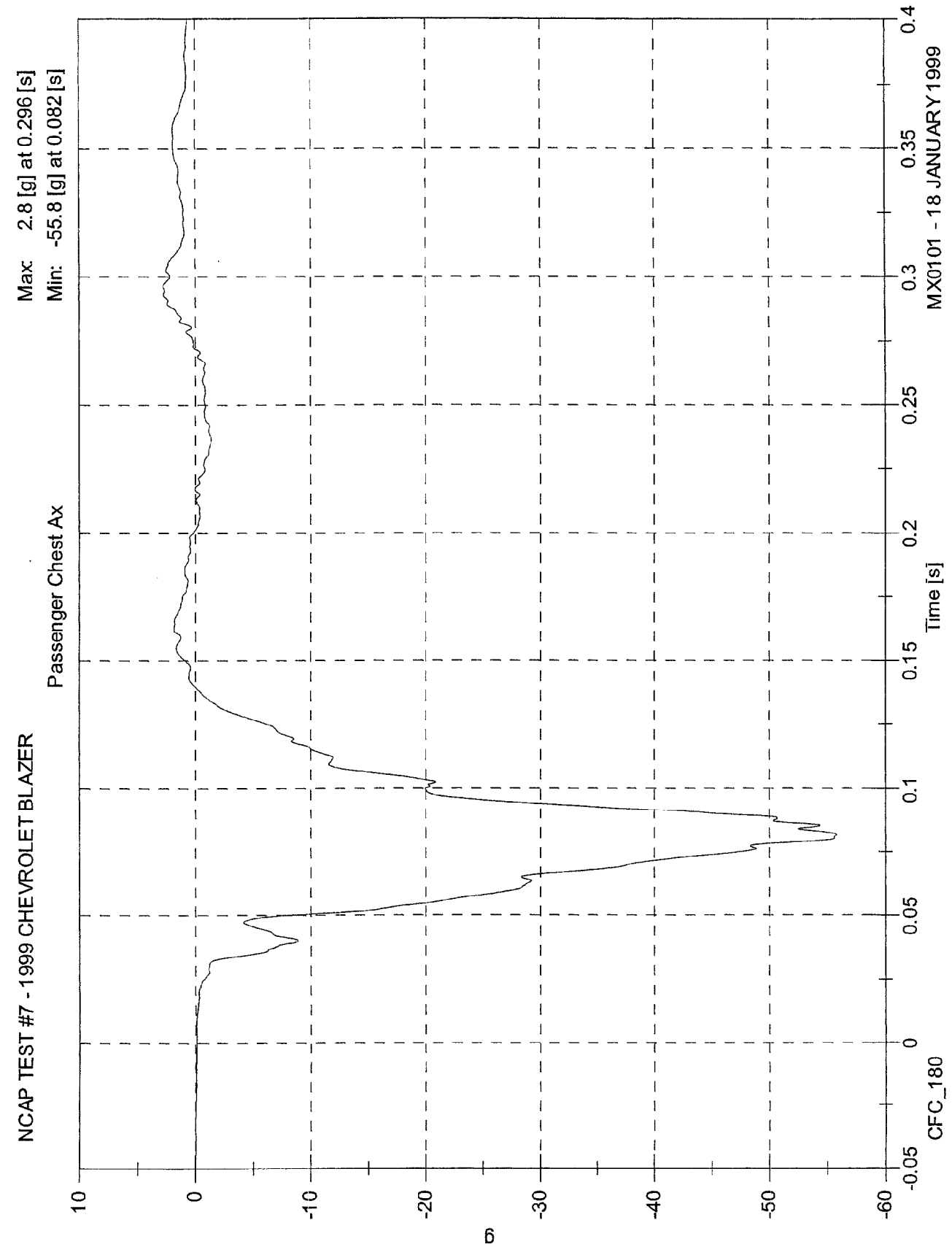

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Passenger Upper Neck Load F Resultant
Max: 1971.9 [N] at 0.080 [s]
Min: 1.8 [N] at -0.064 [s]
MX0101 - 18 JANUARY 1999
CFC_1000
Time [s]
N
2000
1750
1500
1250
1000
750
500
250
0
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4

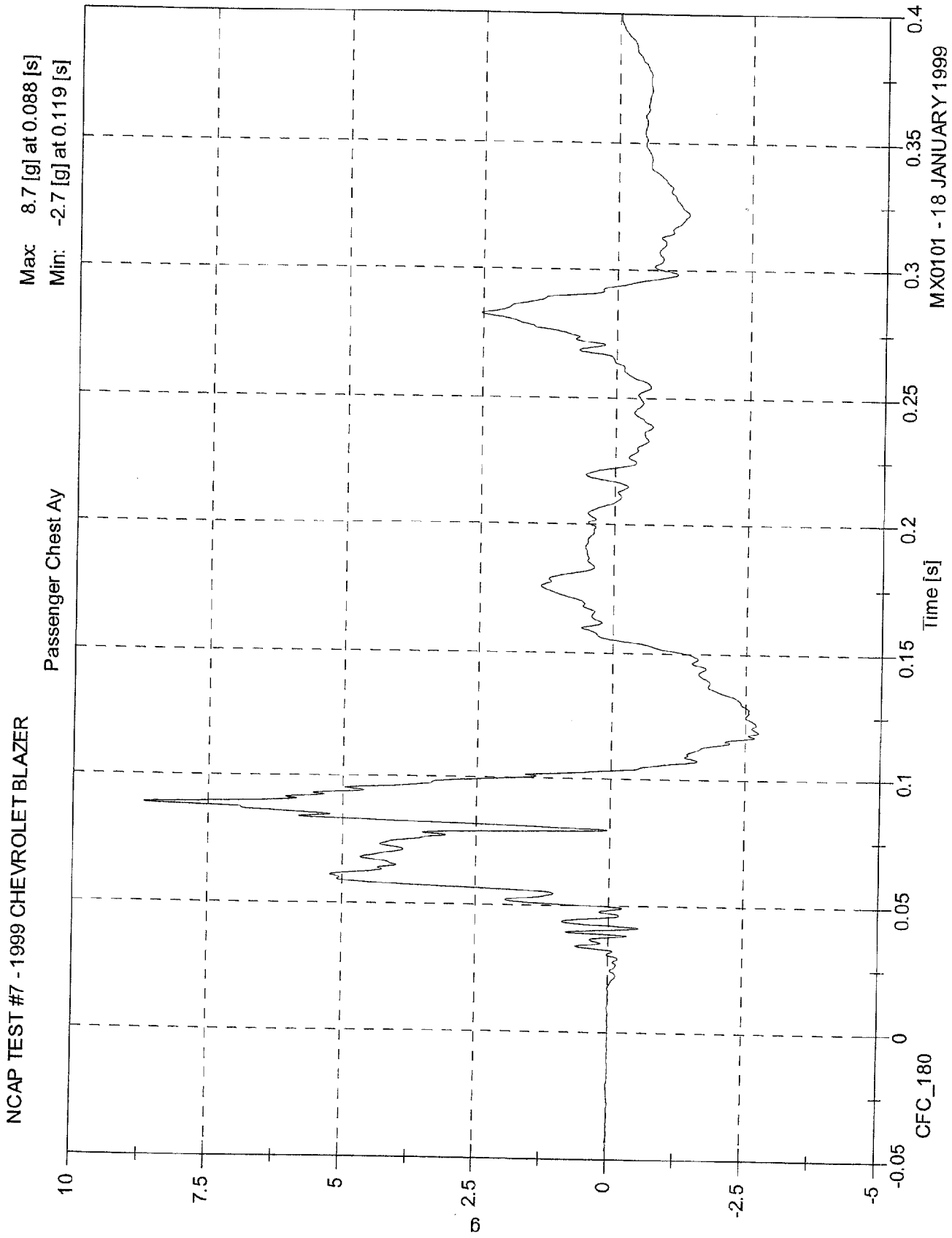

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Passenger Upper Neck Load Mx
Max: 30.6 [N-m] at 0.282 [s]
Min: -10.7 [N-m] at 0.096 [s]
MX0101 - 18 JANUARY 1999
CFC_600
N-m
Time [s]
40
30
20
10
0
-10
-20
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4

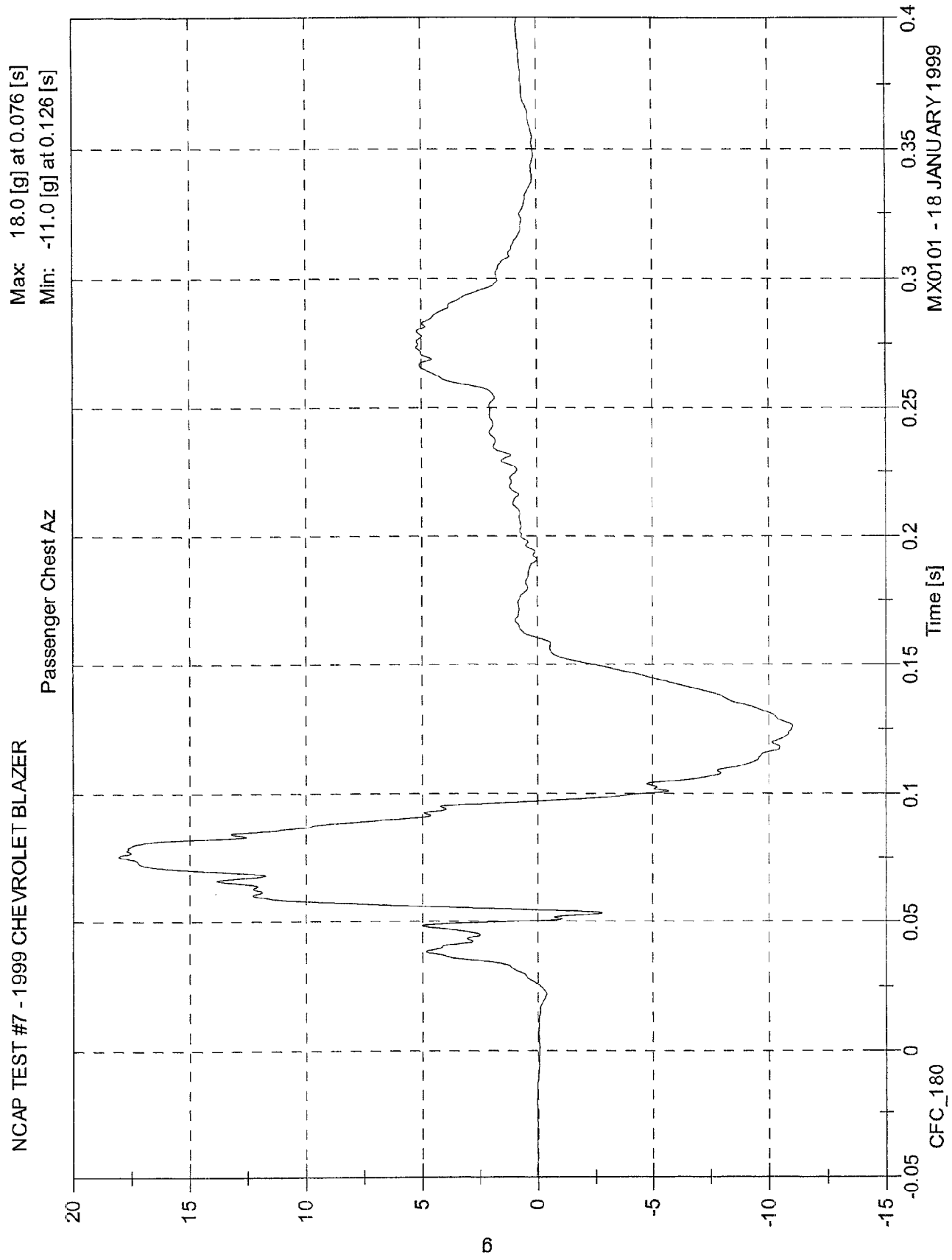

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Passenger Upper Neck Load My
Max: 56.6 [N-m] at 0.158 [s]
Min: -47.4 [N-m] at 0.057 [s]
N-m
75
50
25
0
-25
-50
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_600
MX0101 - 18 JANUARY 1999

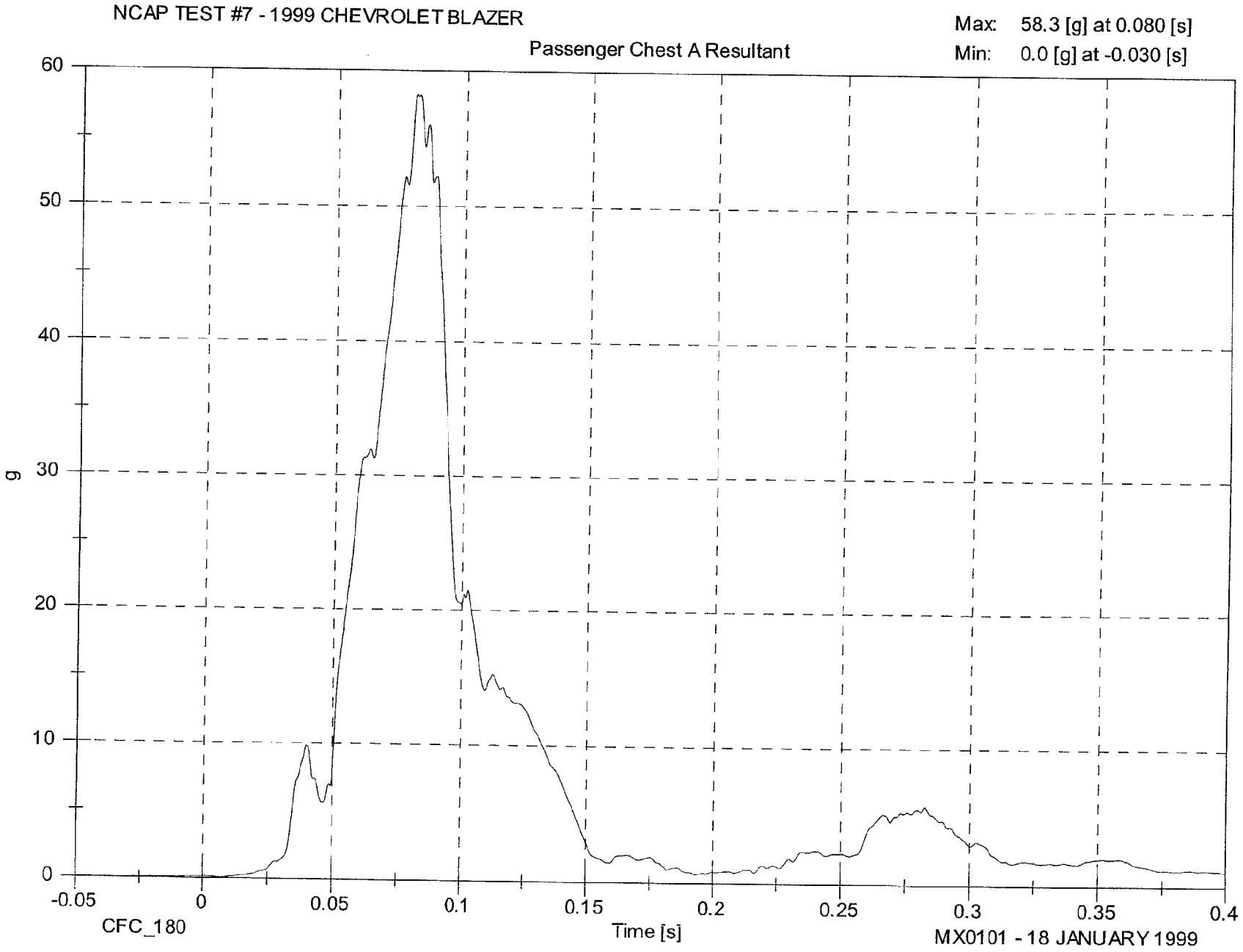

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Passenger Upper Neck Load Mz
Max: 20.7 [N-m] at 0.163 [s]
Min: -30.0 [N-m] at 0.101 [s]
30
20
10
0
-10
-20
-30
-40
N-m
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_600
MX0101 - 18 JANUARY 1999

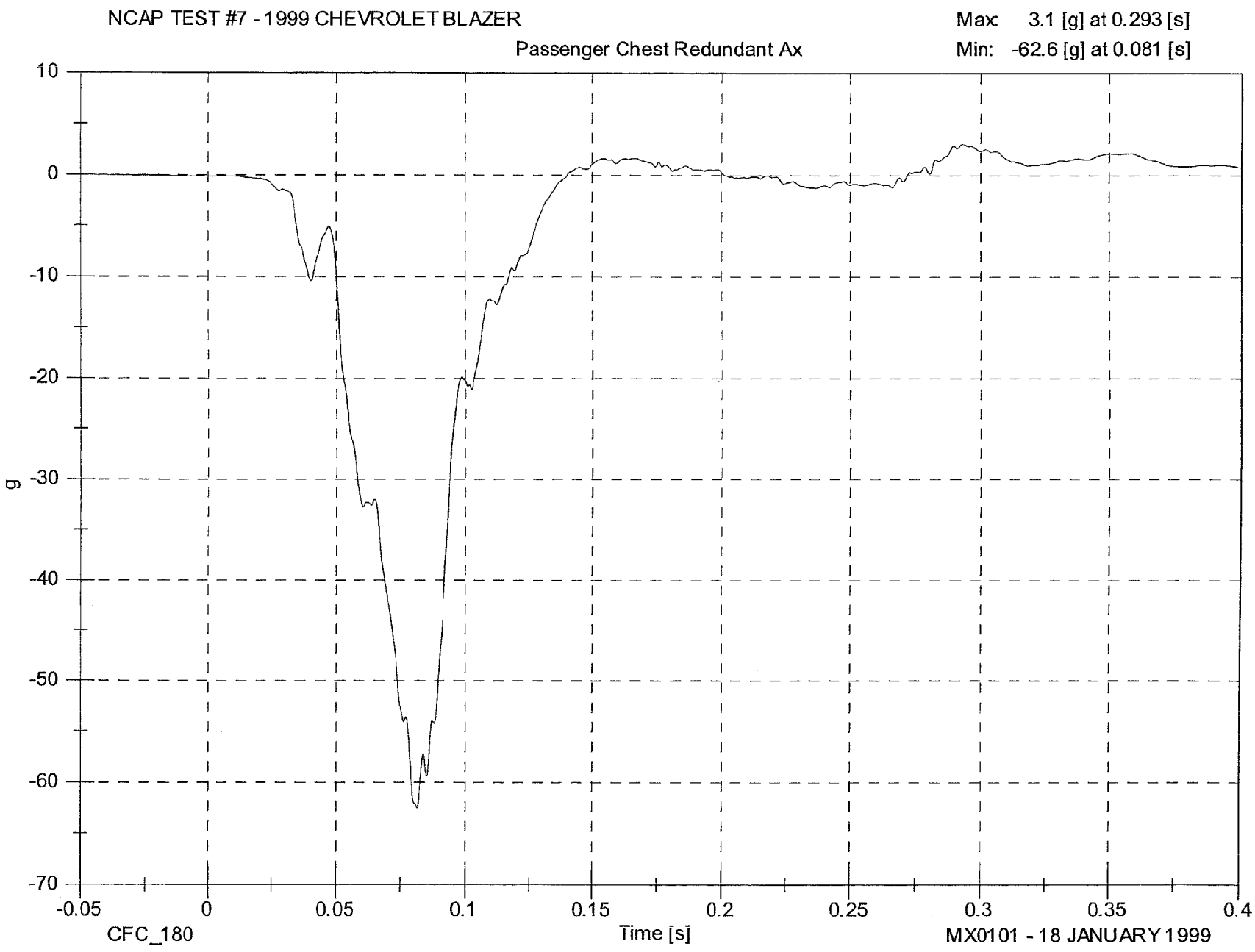

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Passenger Upper Neck Load M Resultant
Max: 60.1 [N-m] at 0.158 [s]
Min: 0.1 [N-m] at -0.056 [s]
N-m
70
60
50
40
30
20
10
0
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_600
MX0101 - 18 JANUARY 1999

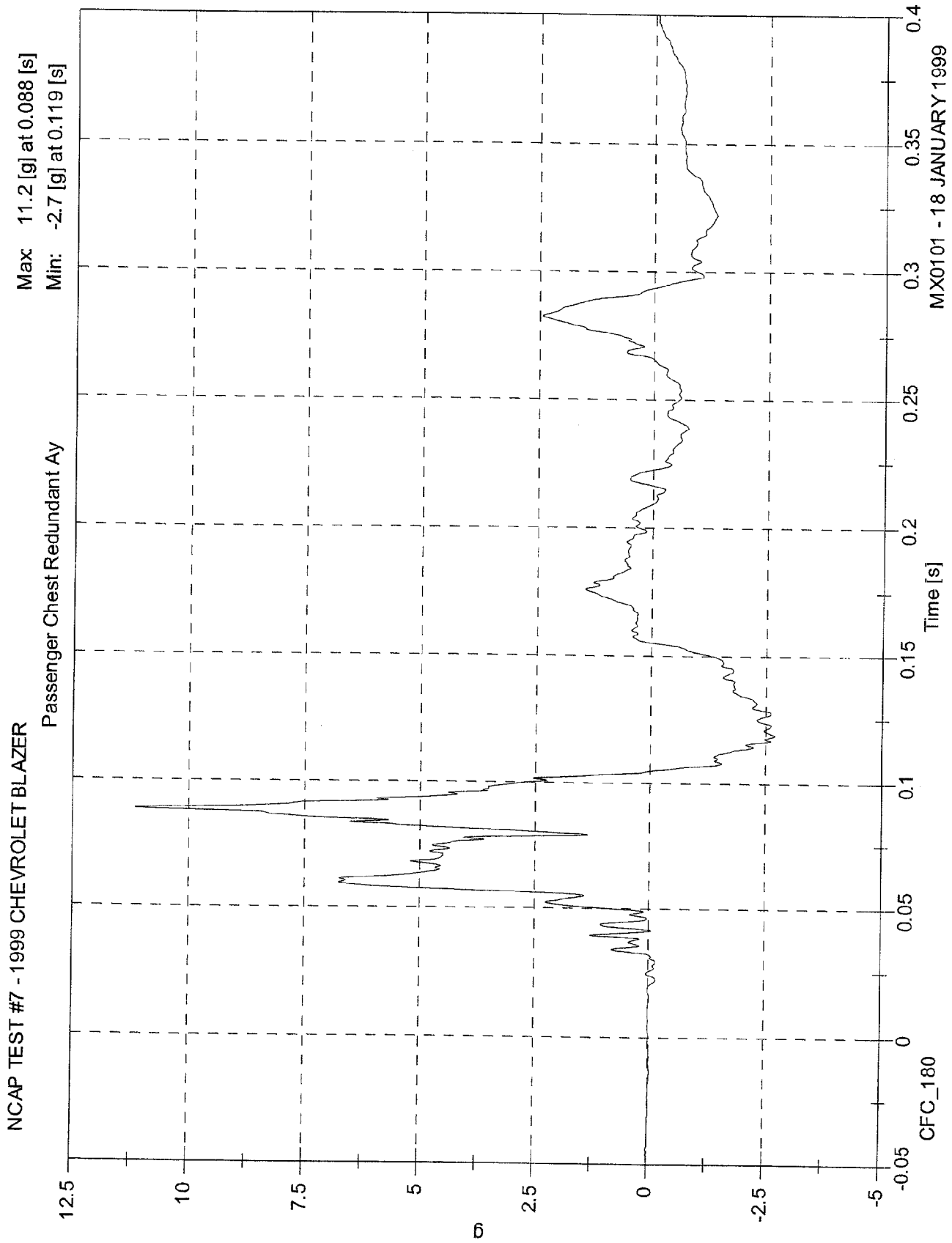

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Passenger Chest Ax
Max: 2.8 [g] at 0.296 [s]
Min: -55.8 [g] at 0.082 [s]
g
10
0
-10
-20
-30
-40
-50
-60
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_180
MX0101 - 18 JANUARY 1999

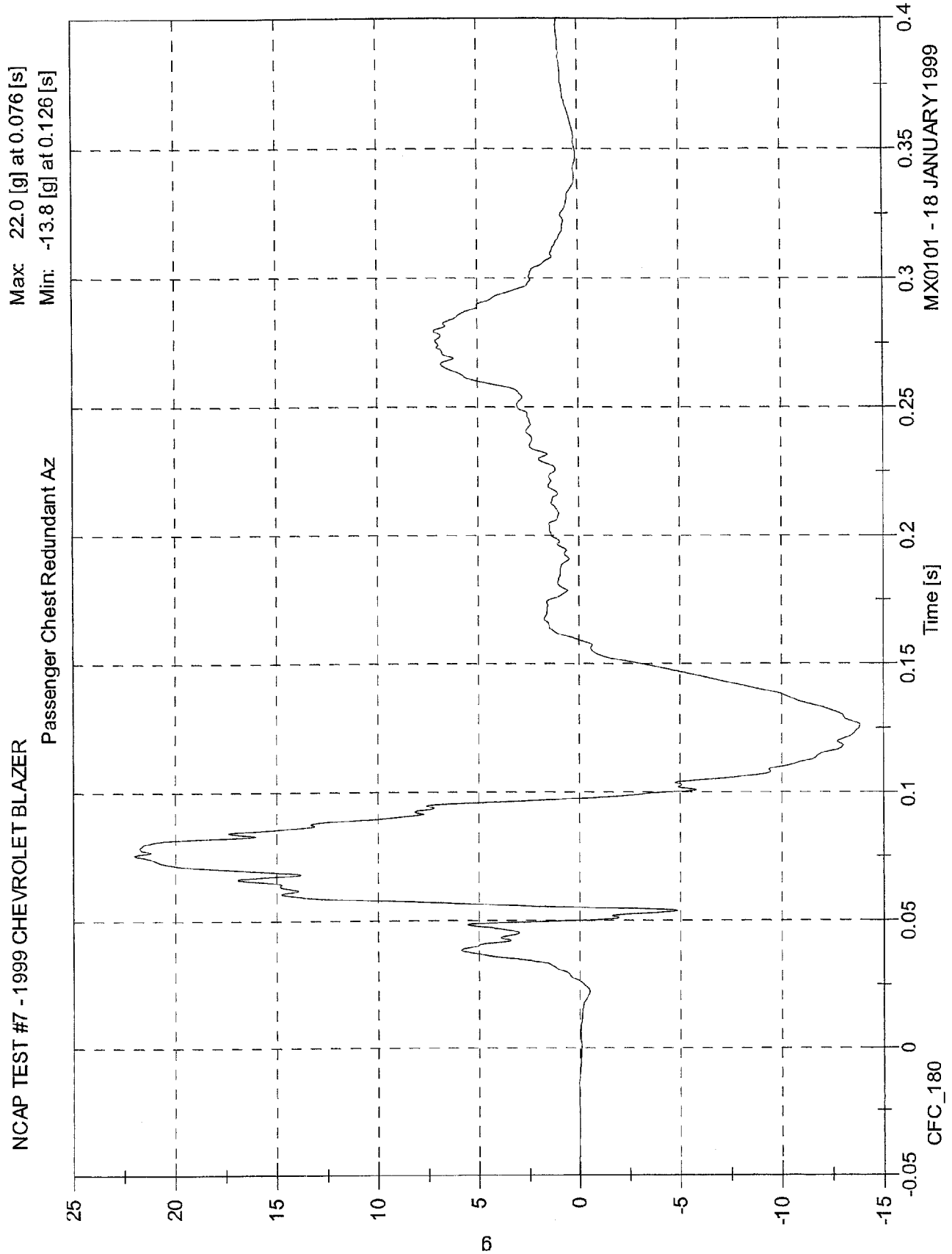

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Passenger Chest Ay
Max: 8.7 [g] at 0.088 [s]
Min: -2.7 [g] at 0.119 [s]
MX0101 - 18 JANUARY 1999
CFC_180
Time [s]
g
10
7.5
5
2.5
0
-2.5
-5
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4

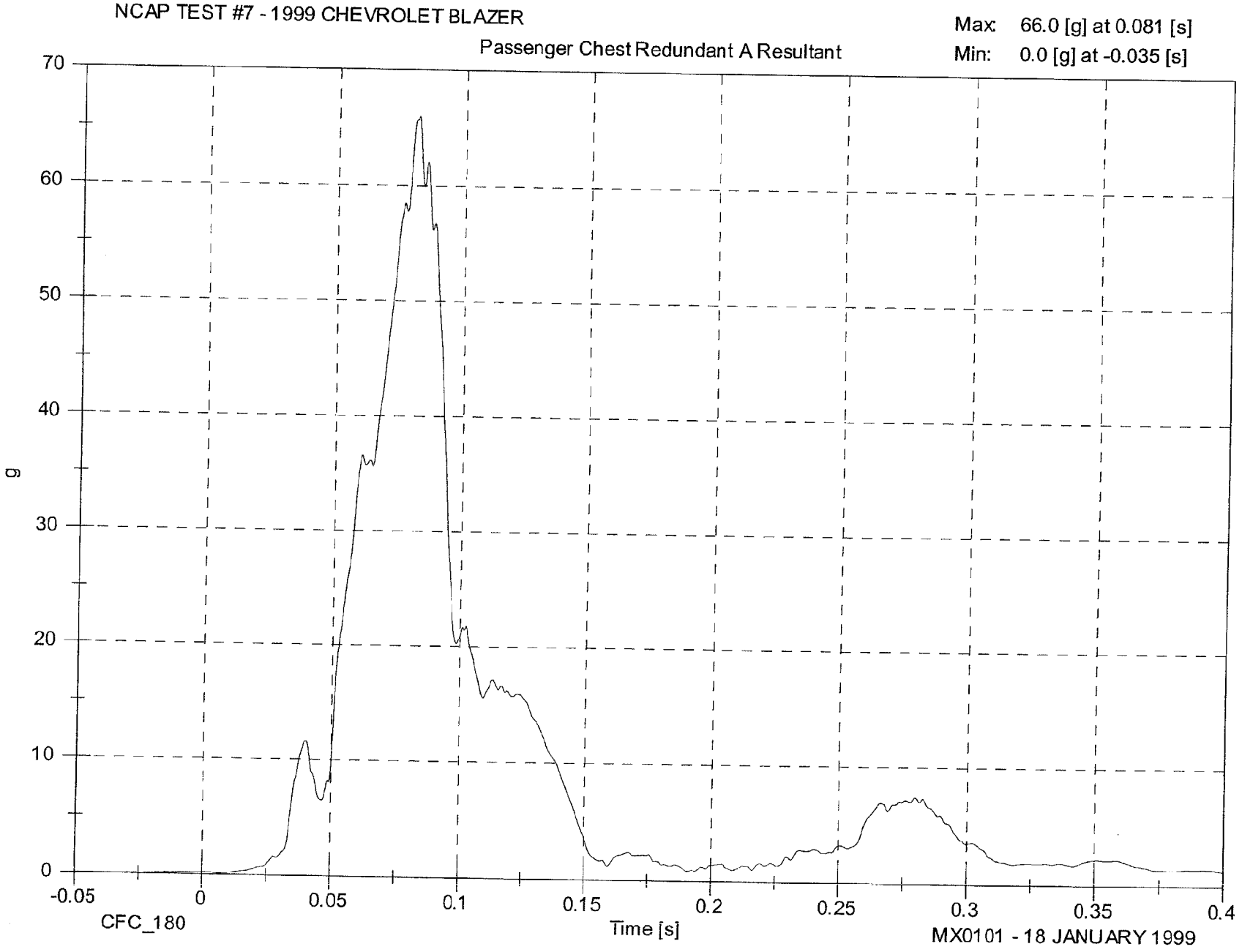

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Max: 18.0 [g] at 0.076 [s]
Min: -11.0 [g] at 0.126 [s]
Passenger Chest Az
g
Time [s]
CFC_180
MX0101 - 18 JANUARY 1999
20
15
10
5
0
-5
-10
-15
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4

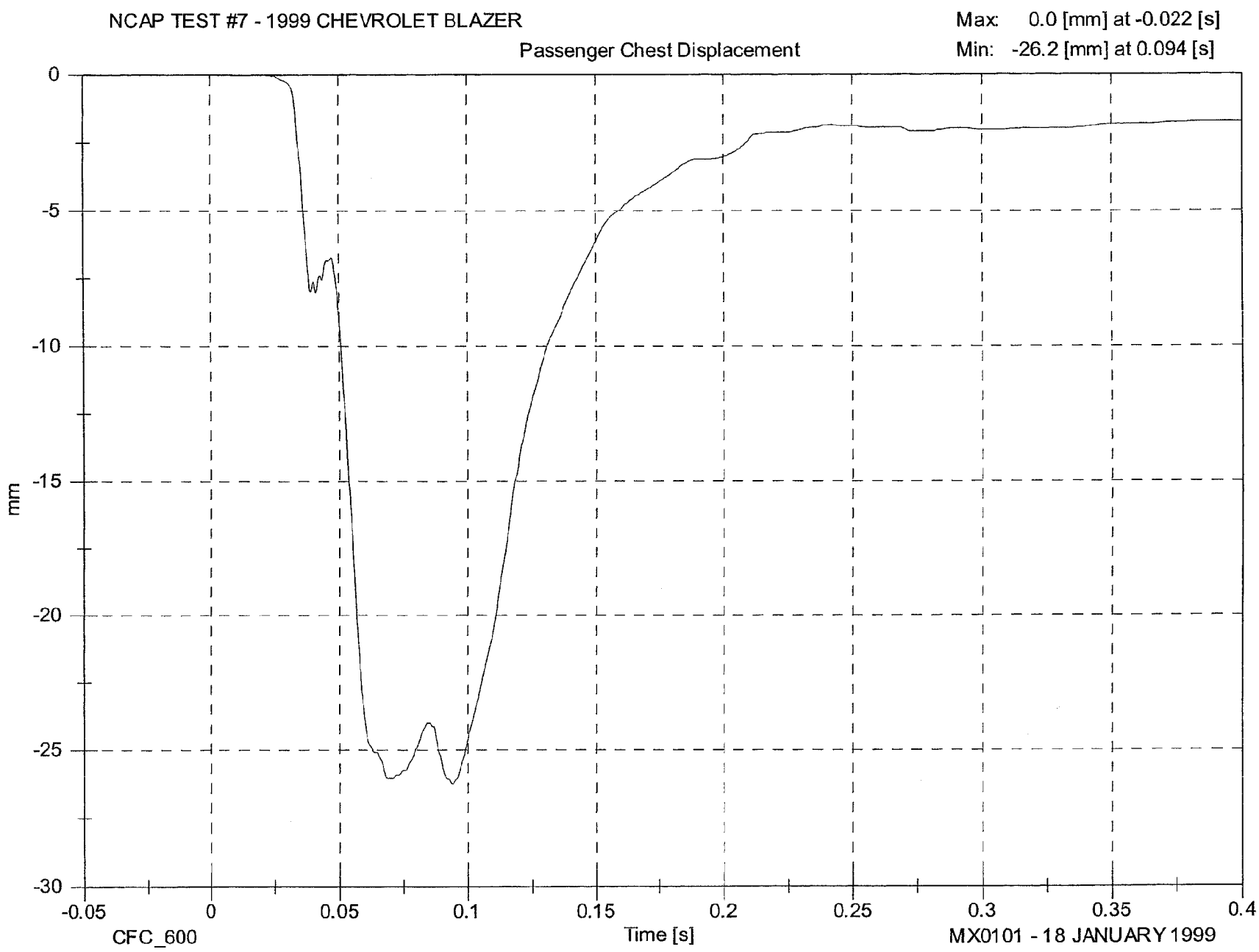

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Passenger Chest A Resultant
Max: 58.3 [g] at 0.080 [s]
Min: 0.0 [g] at -0.030 [s]
60
50
40
30
20
10
0
g
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_180
MX0101 - 18 JANUARY 1999

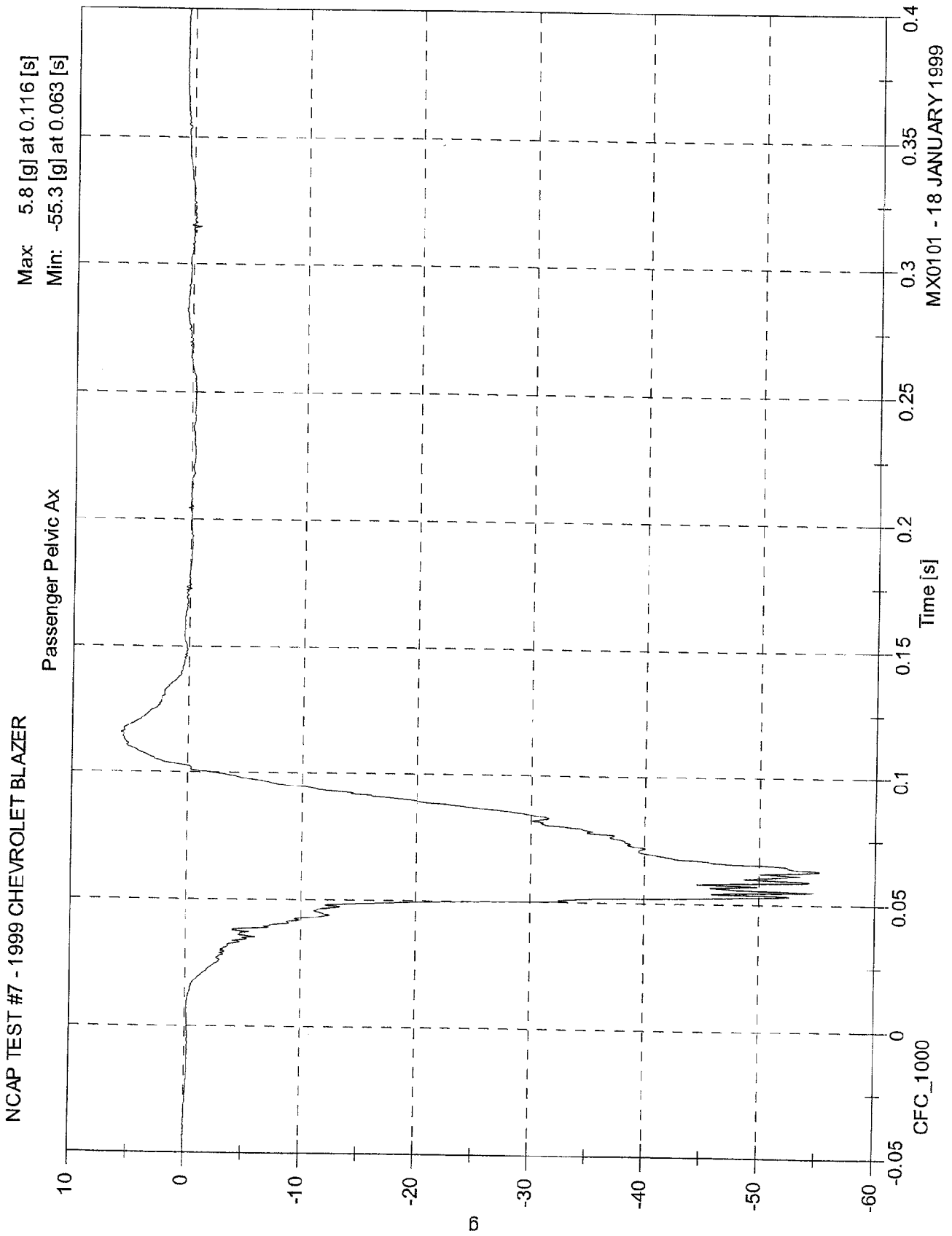

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Passenger Chest Redundant Ax
Max: 3.1 [g] at 0.293 [s]
Min: -62.6 [g] at 0.081 [s]
10
0
-10
-20
-30
-40
-50
-60
-70
g
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_180
MX0101 - 18 JANUARY 1999

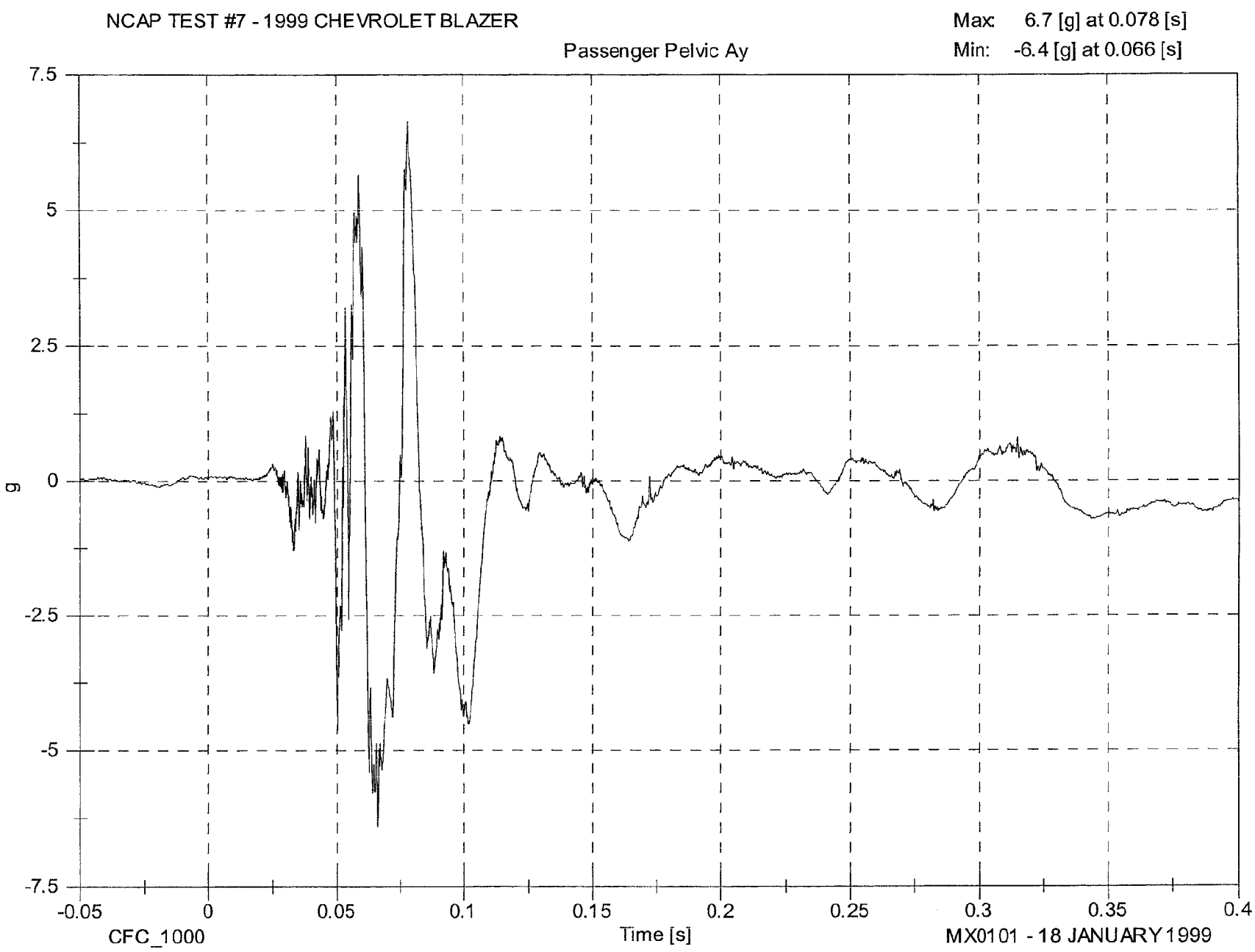

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Passenger Chest Redundant Ay
Max: 11.2 [g] at 0.088 [s]
Min: -2.7 [g] at 0.119 [s]
g
12.5
10
7.5
5
2.5
0
-2.5
-5
Time [s]
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
CFC_180
MX0101 - 18 JANUARY 1999

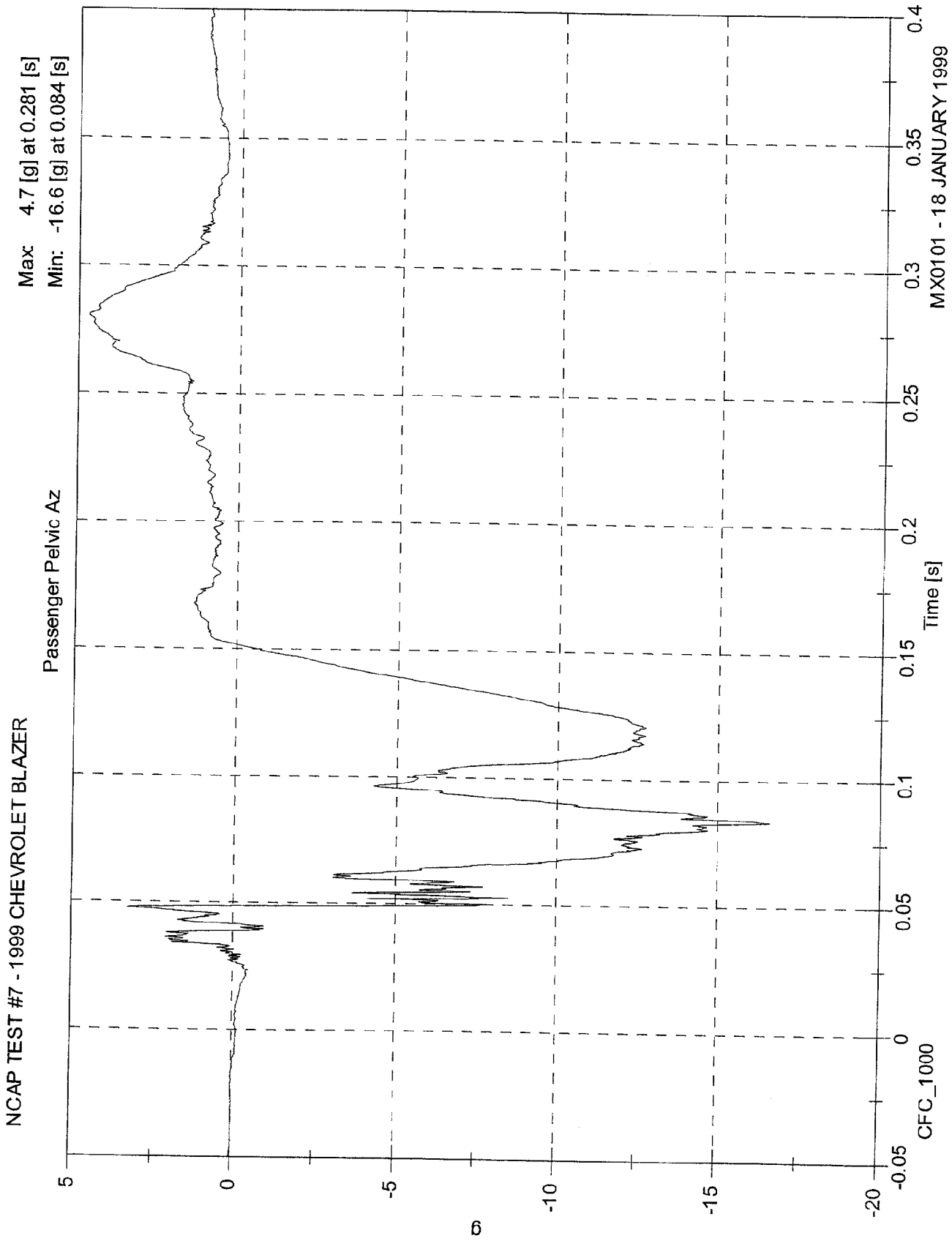

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Passenger Chest Redundant Az
Max: 22.0 [g] at 0.076 [s]
Min: -13.8 [g] at 0.126 [s]
g
Time [s]
CFC_180
MX0101 - 18 JANUARY 1999
25
20
15
10
5
0
-5
-10
-15
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4

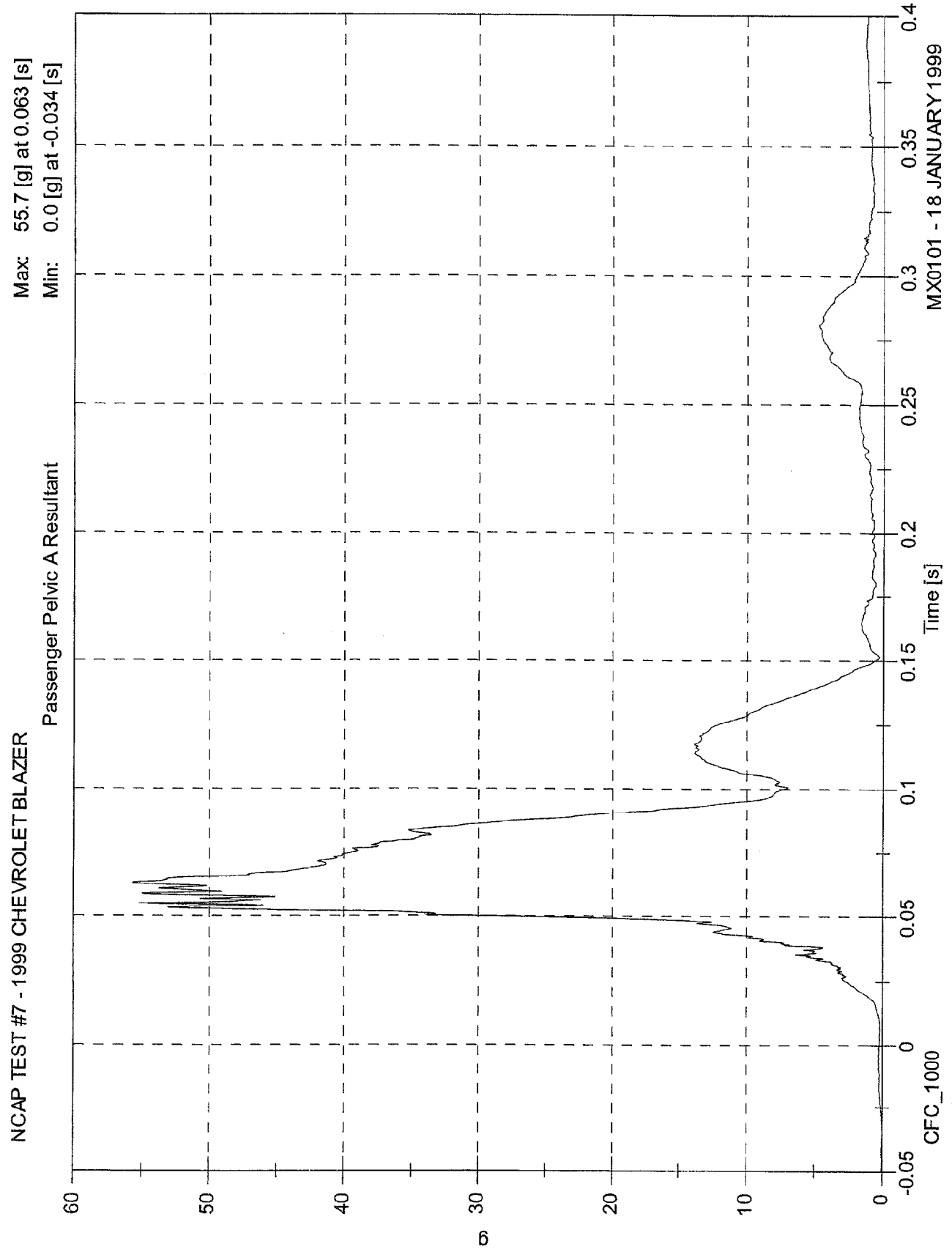

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Passenger Chest Redundant A Resultant
Max: 66.0 [g] at 0.081 [s]
Min: 0.0 [g] at -0.035 [s]
70
60
50
40
30
20
10
0
g
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_180
MX0101 - 18 JANUARY 1999

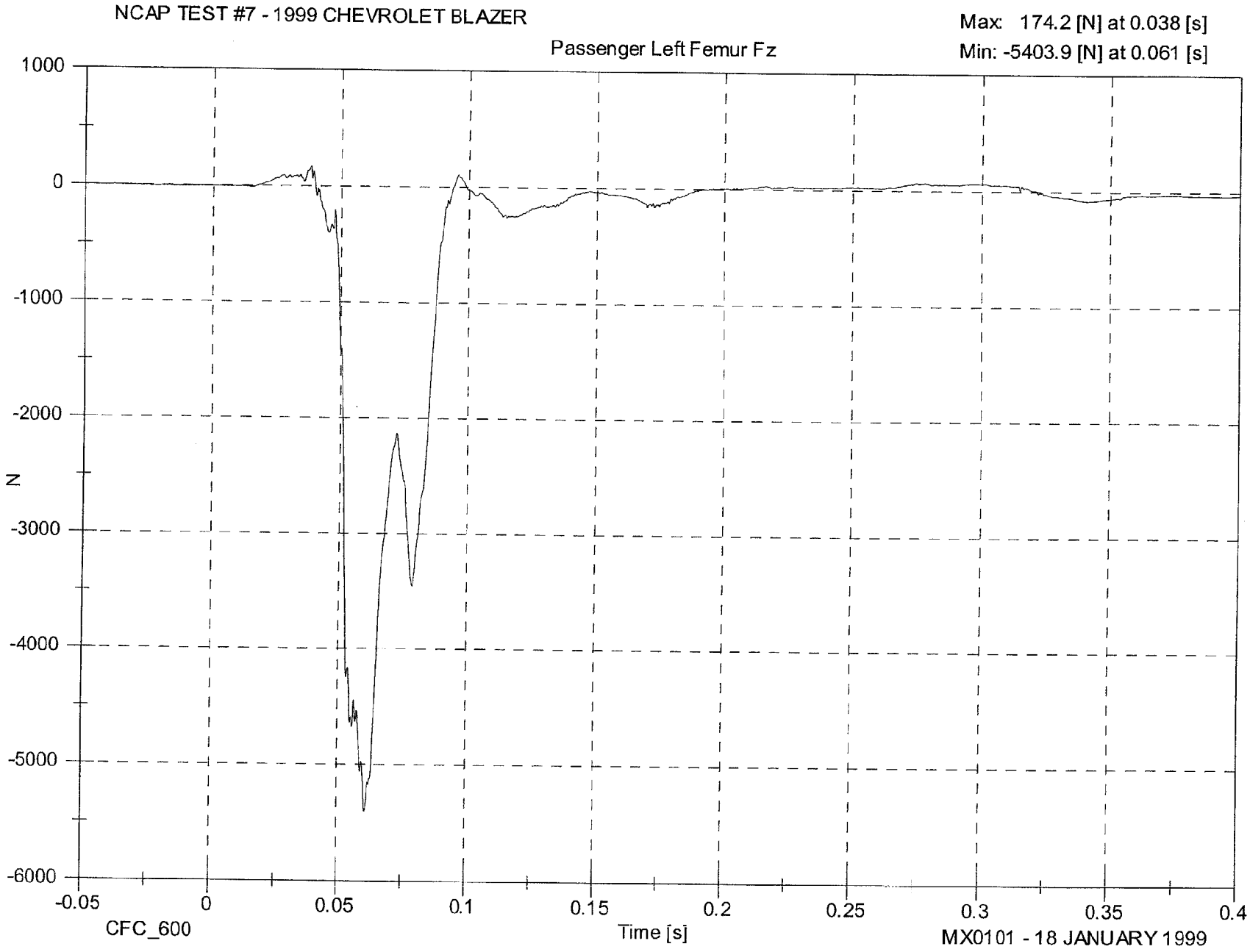

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Passenger Chest Displacement
Max: 0.0 [mm] at -0.022 [s]
Min: -26.2 [mm] at 0.094 [s]
0
-5
-10
-15
-20
-25
-30
mm
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_600
MX0101 - 18 JANUARY 1999

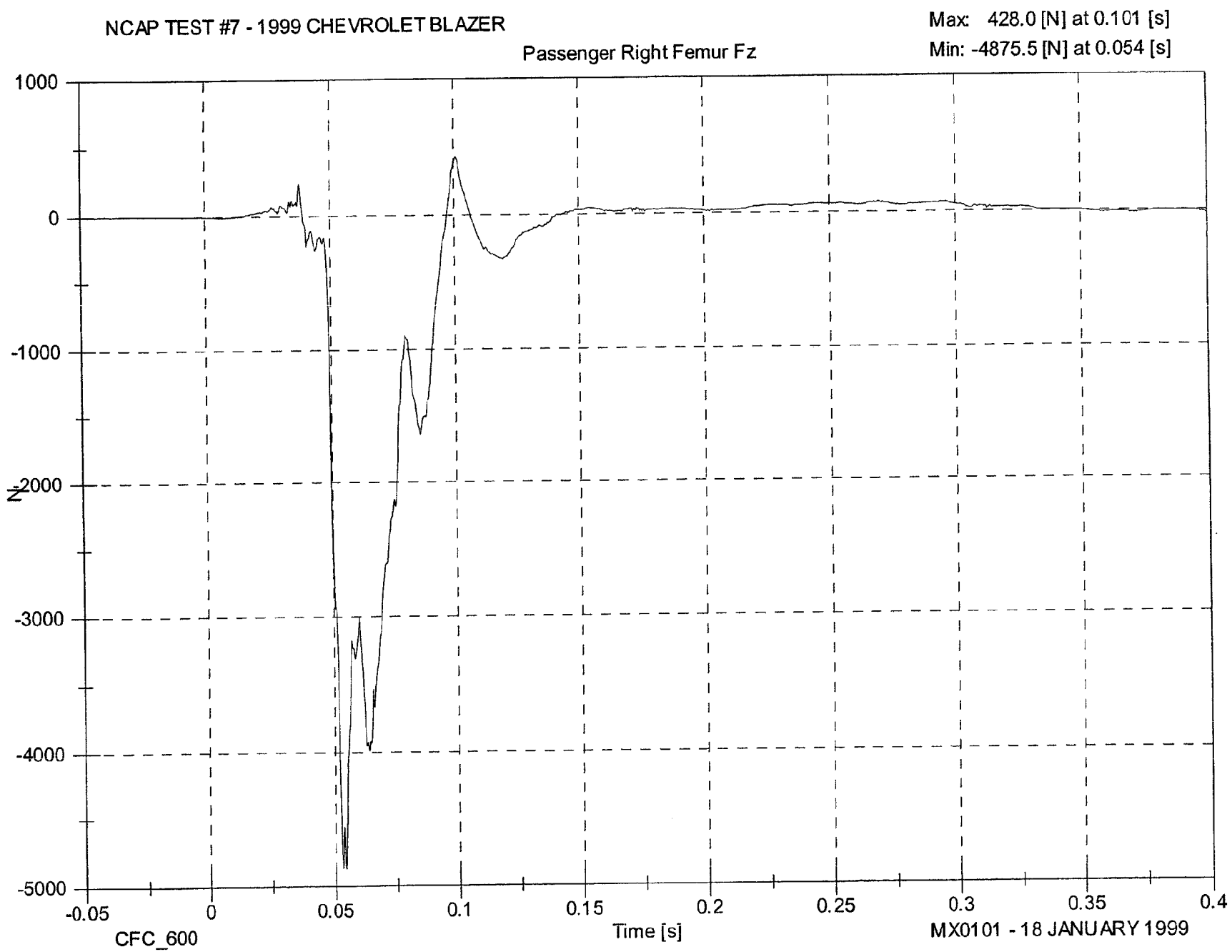

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Passenger Pelvic Ax
Max: 5.8 [g] at 0.116 [s]
Min: -55.3 [g] at 0.063 [s]
MX0101 - 18 JANUARY 1999
CFC_1000
Time [s]
g
10
0
-10
-20
-30
-40
-50
-60
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4

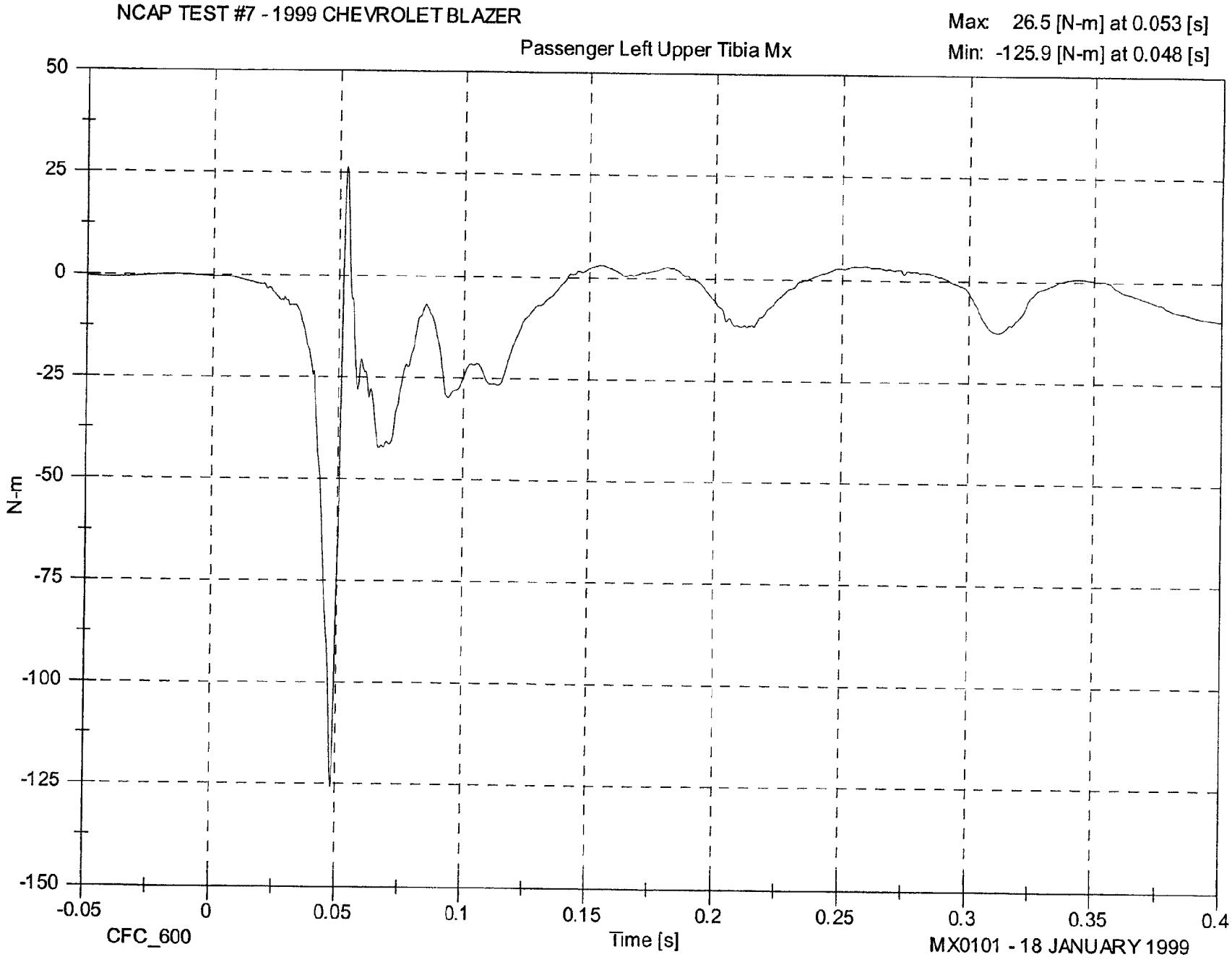

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Passenger Pelvic Ay
Max: 6.7 [g] at 0.078 [s]
Min: -6.4 [g] at 0.066 [s]
7.5
5
2.5
0
-2.5
-5
-7.5
g
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_1000
MX0101 - 18 JANUARY 1999

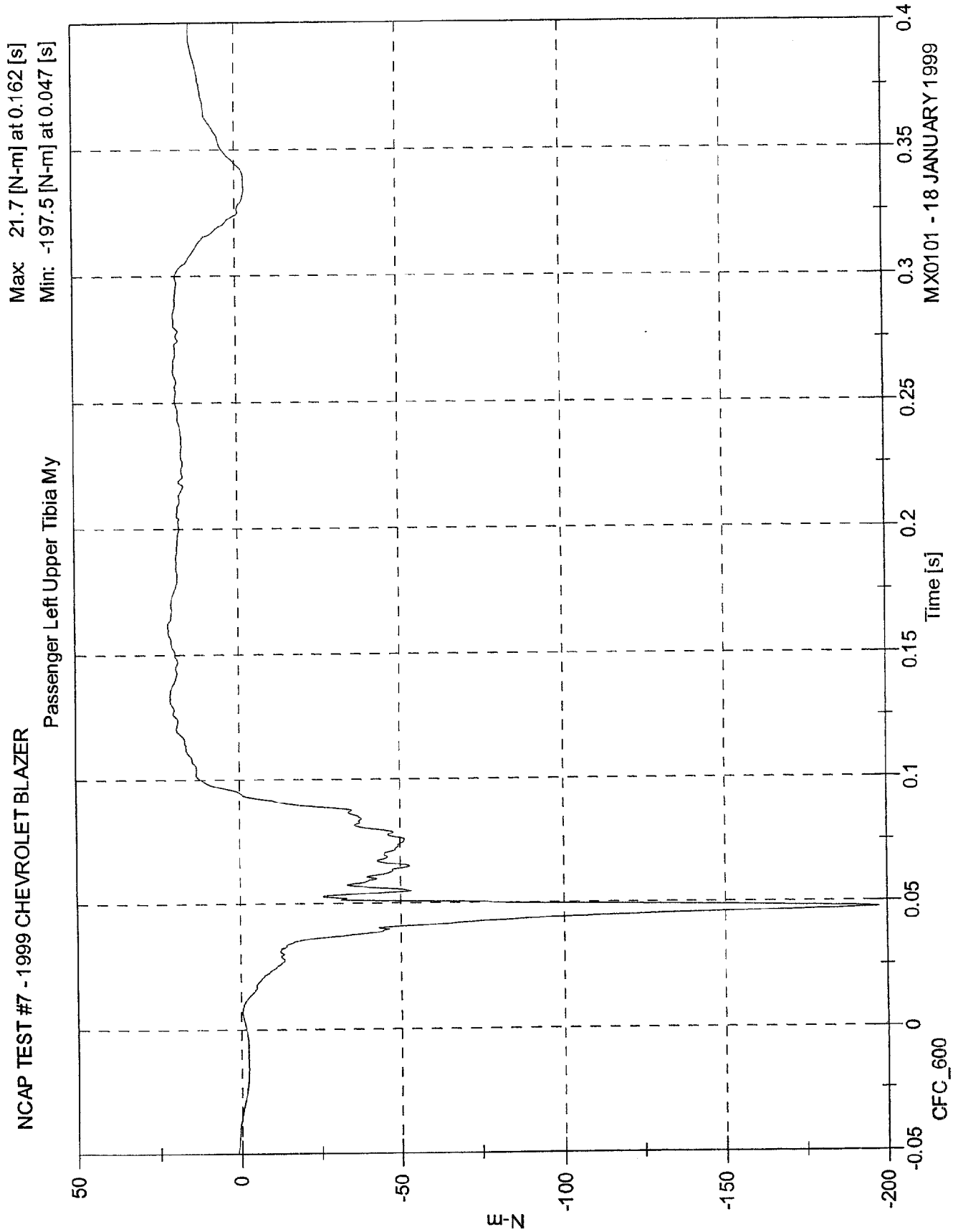

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Passenger Pelvic Az
Max: 4.7 [g] at 0.281 [s]
Min: -16.6 [g] at 0.084 [s]
MX0101 - 18 JANUARY 1999
CFC_1000
Time [s]
g
5
0
-5
-10
-15
-20
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4

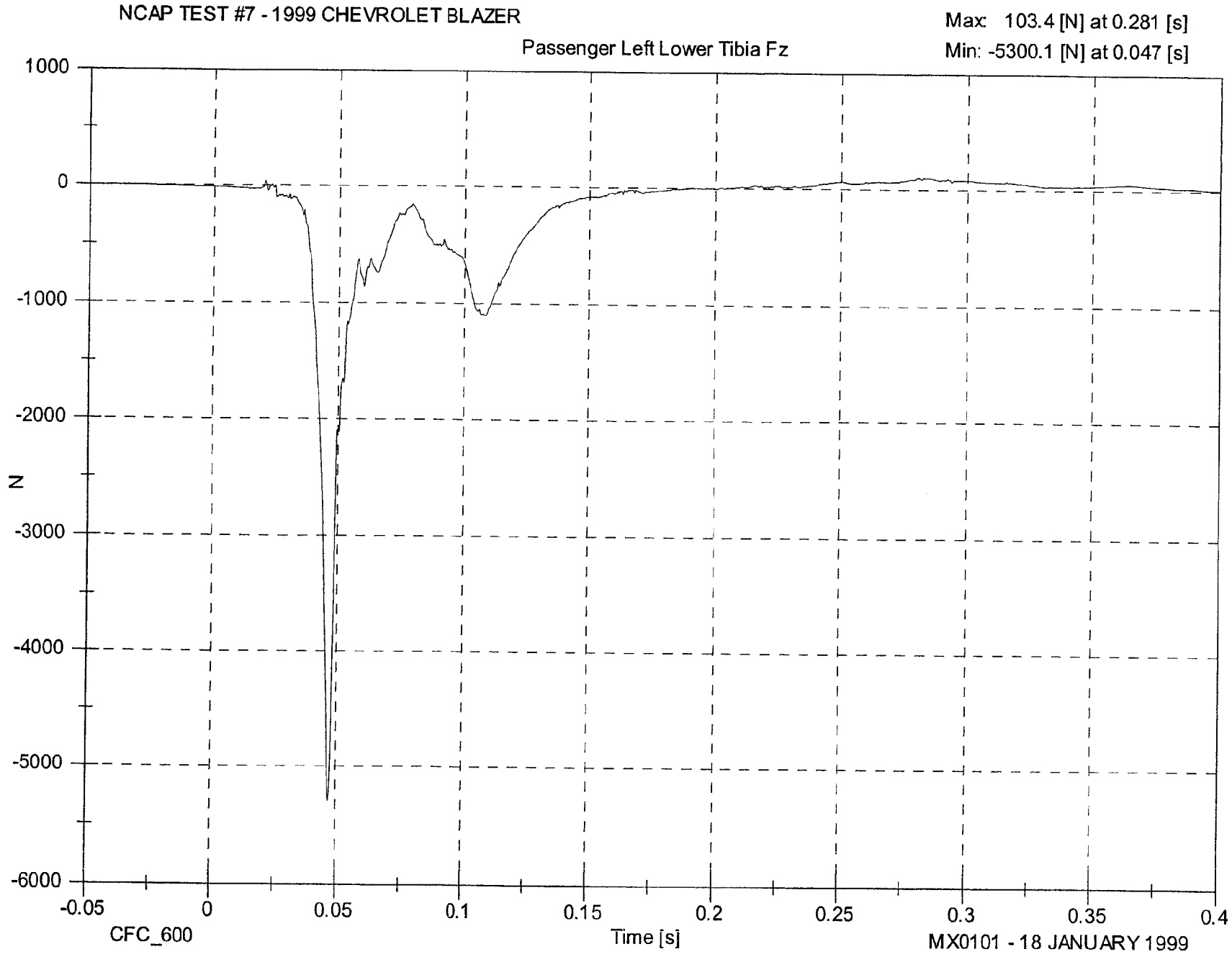

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Passenger Pelvic A Resultant
Max: 55.7 [g] at 0.063 [s]
Min: 0.0 [g] at -0.034 [s]
MX0101 - 18 JANUARY 1999
CFC_1000
Time [s]
g
60
50
40
30
20
10
0
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4

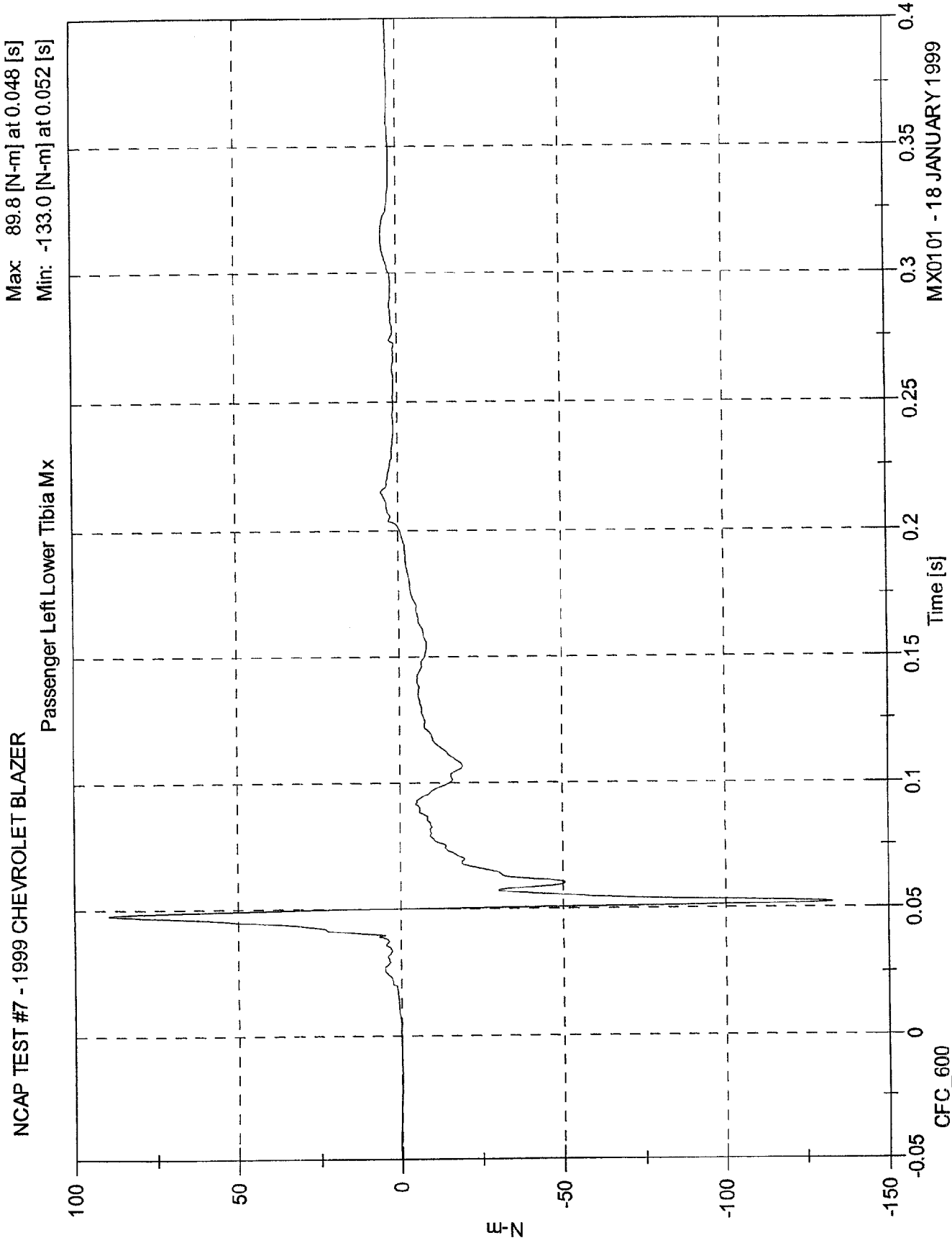

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Passenger Left Femur Fz
Max: 174.2 [N] at 0.038 [s]
Min: -5403.9 [N] at 0.061 [s]
1000
0
-1000
-2000
-3000
-4000
-5000
-6000
N
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_600
MX0101 - 18 JANUARY 1999

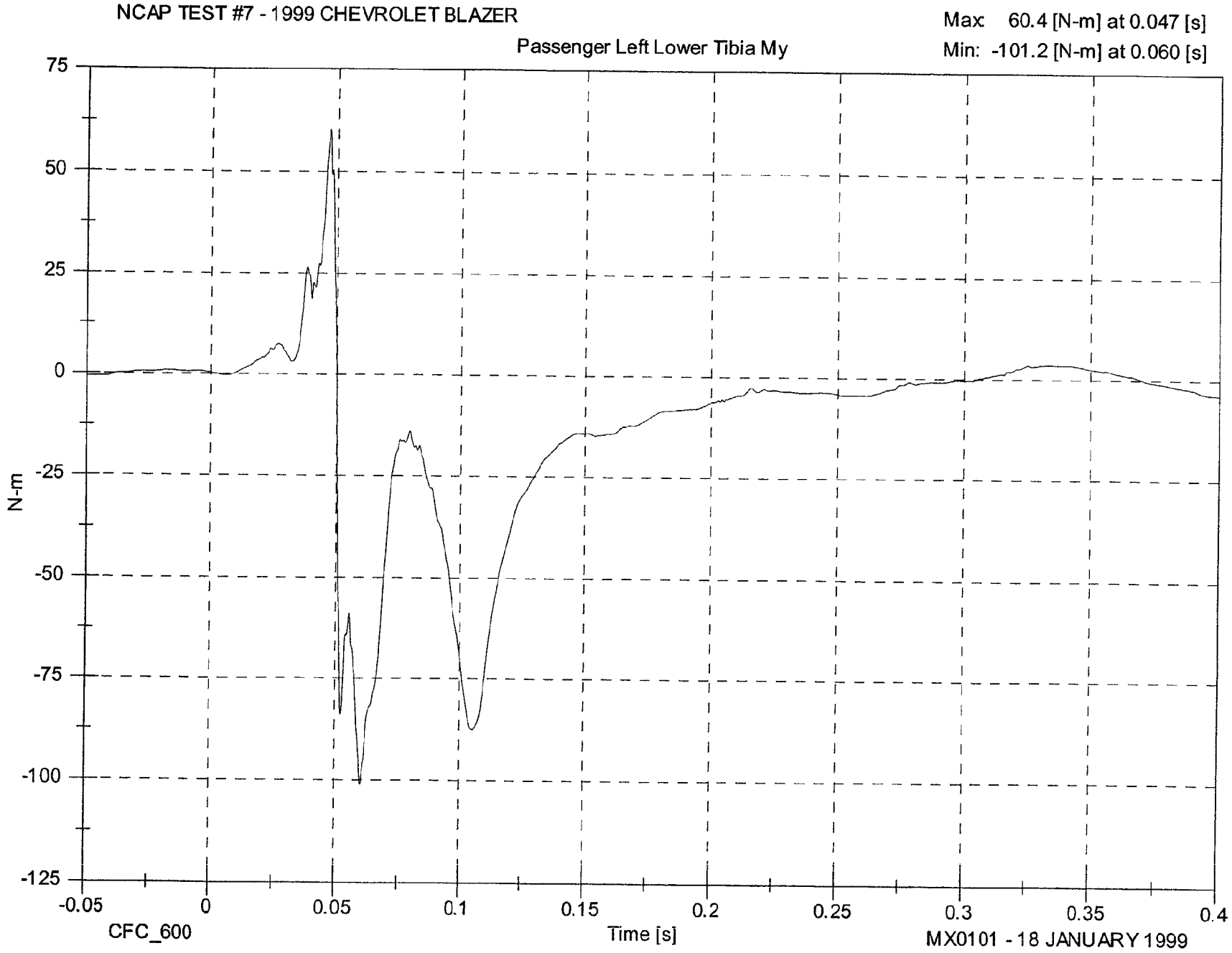

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Passenger Right Femur Fz
Max: 428.0 [N] at 0.101 [s]
Min: -4875.5 [N] at 0.054 [s]
1000
0
-1000
-2000
-3000
-4000
-5000
N
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_600
MX0101 - 18 JANUARY 1999

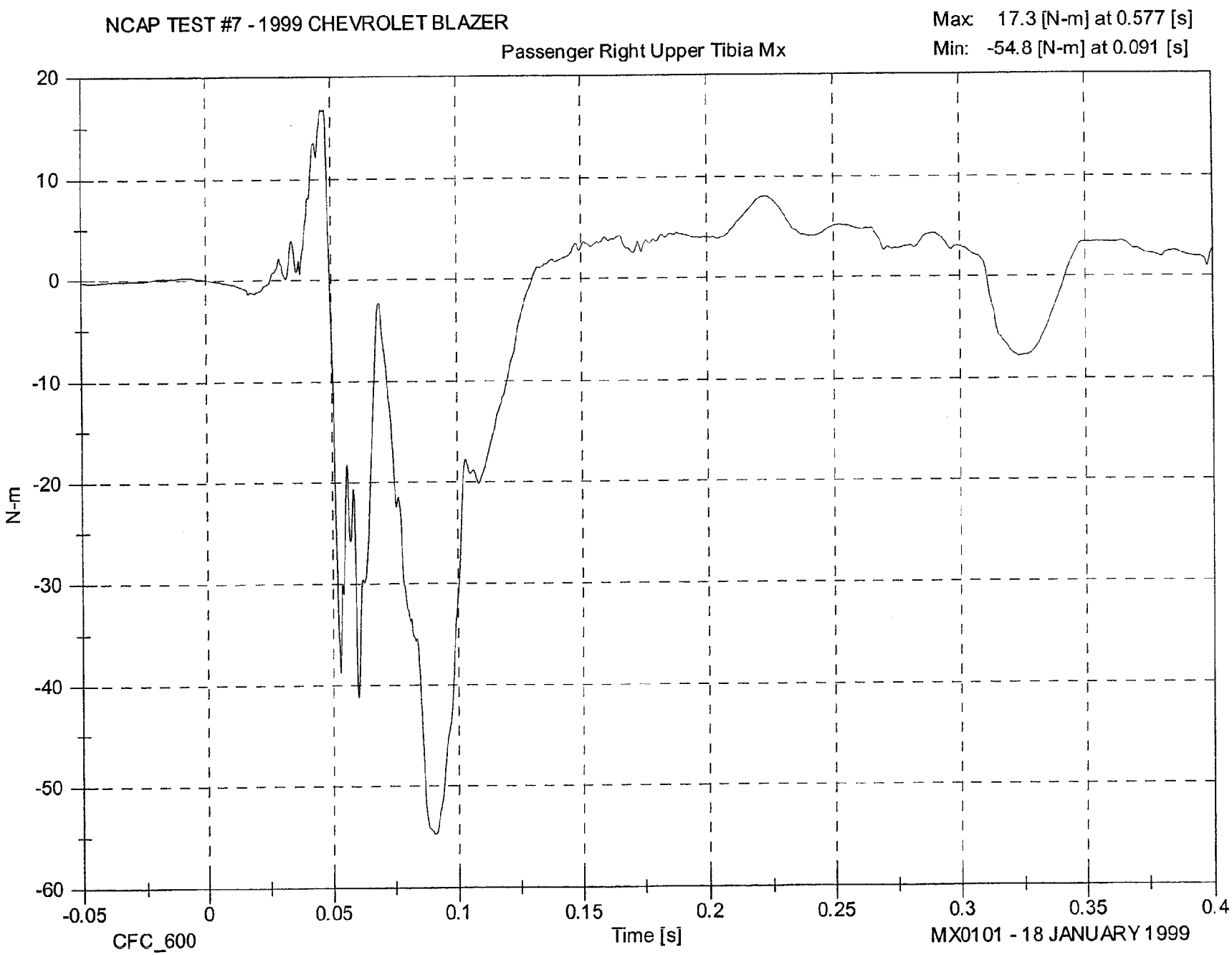

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Passenger Left Upper Tibia Mx
Max: 26.5 [N-m] at 0.053 [s]
Min: -125.9 [N-m] at 0.048 [s]
50
25
0
-25
-50
-75
-100
-125
-150
N-m
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_600
MX0101 - 18 JANUARY 1999

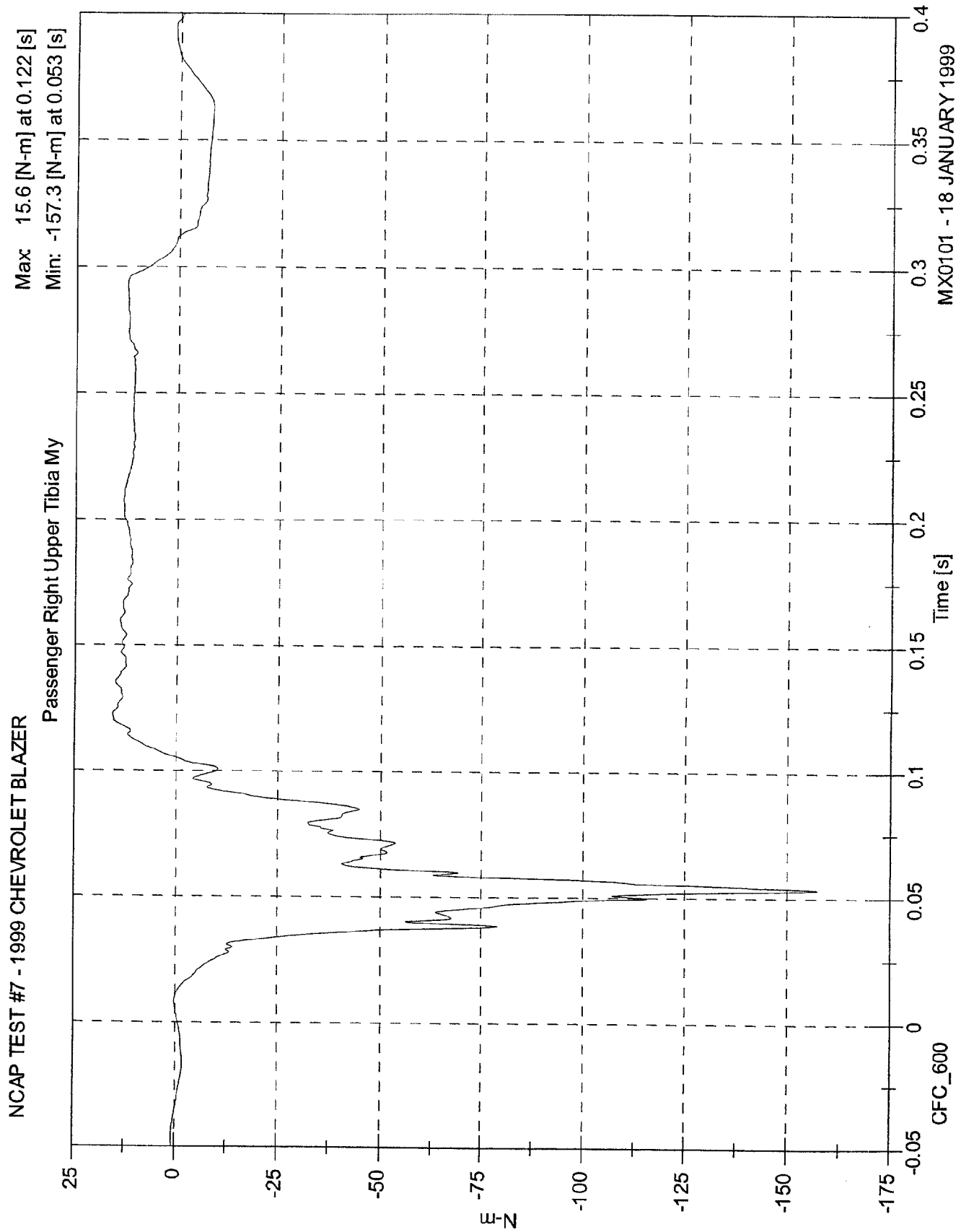

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Passenger Left Upper Tibia My
Max: 21.7 [N-m] at 0.162 [s]
Min: -197.5 [N-m] at 0.047 [s]
N-m
50
0
-50
-100
-150
-200
Time [s]
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
CFC_600
MX0101 - 18 JANUARY 1999

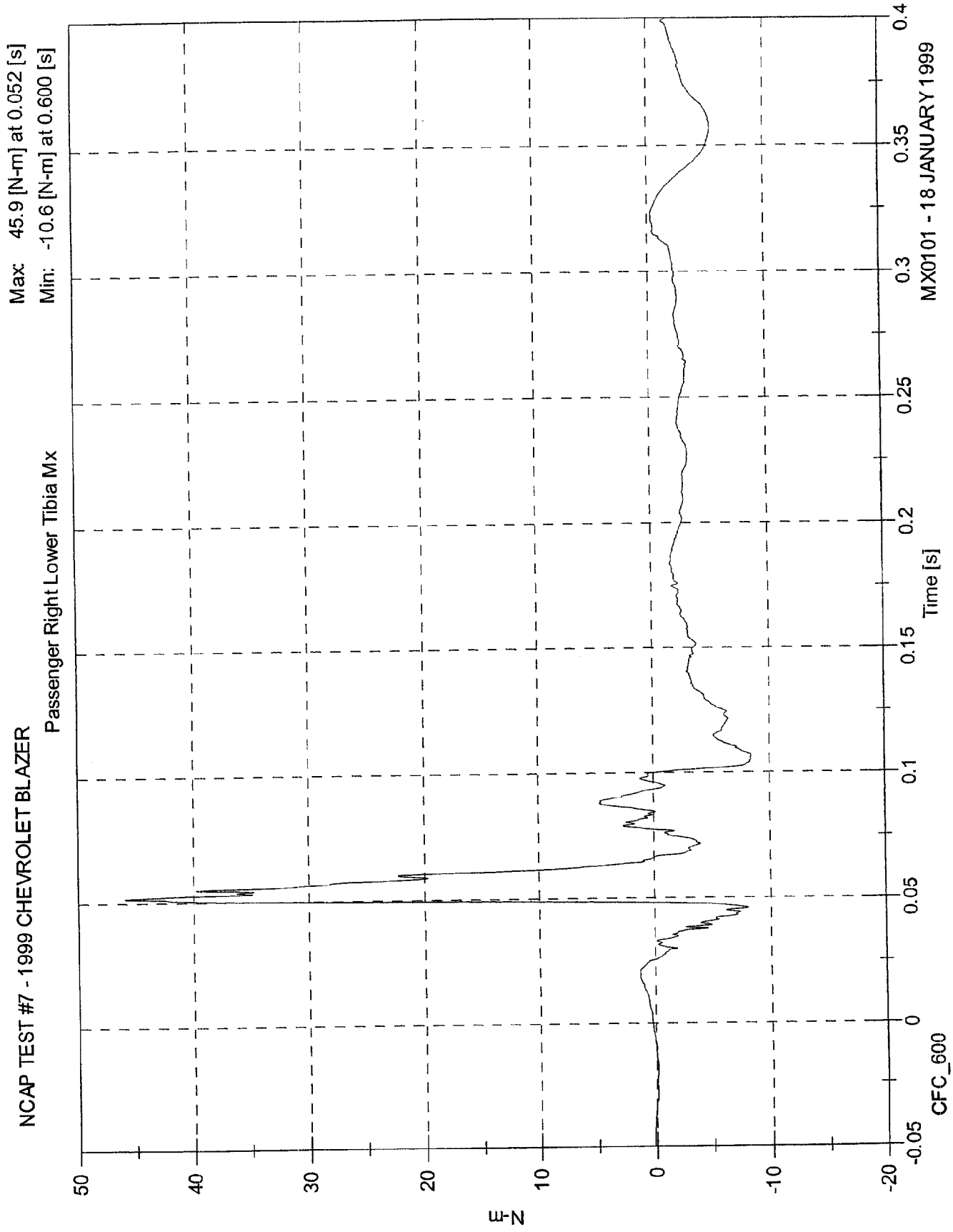

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Passenger Left Lower Tibia Fz
Max: 103.4 [N] at 0.281 [s]
Min: -5300.1 [N] at 0.047 [s]
1000
0
-1000
-2000
-3000
-4000
-5000
-6000
N
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_600
MX0101 - 18 JANUARY 1999

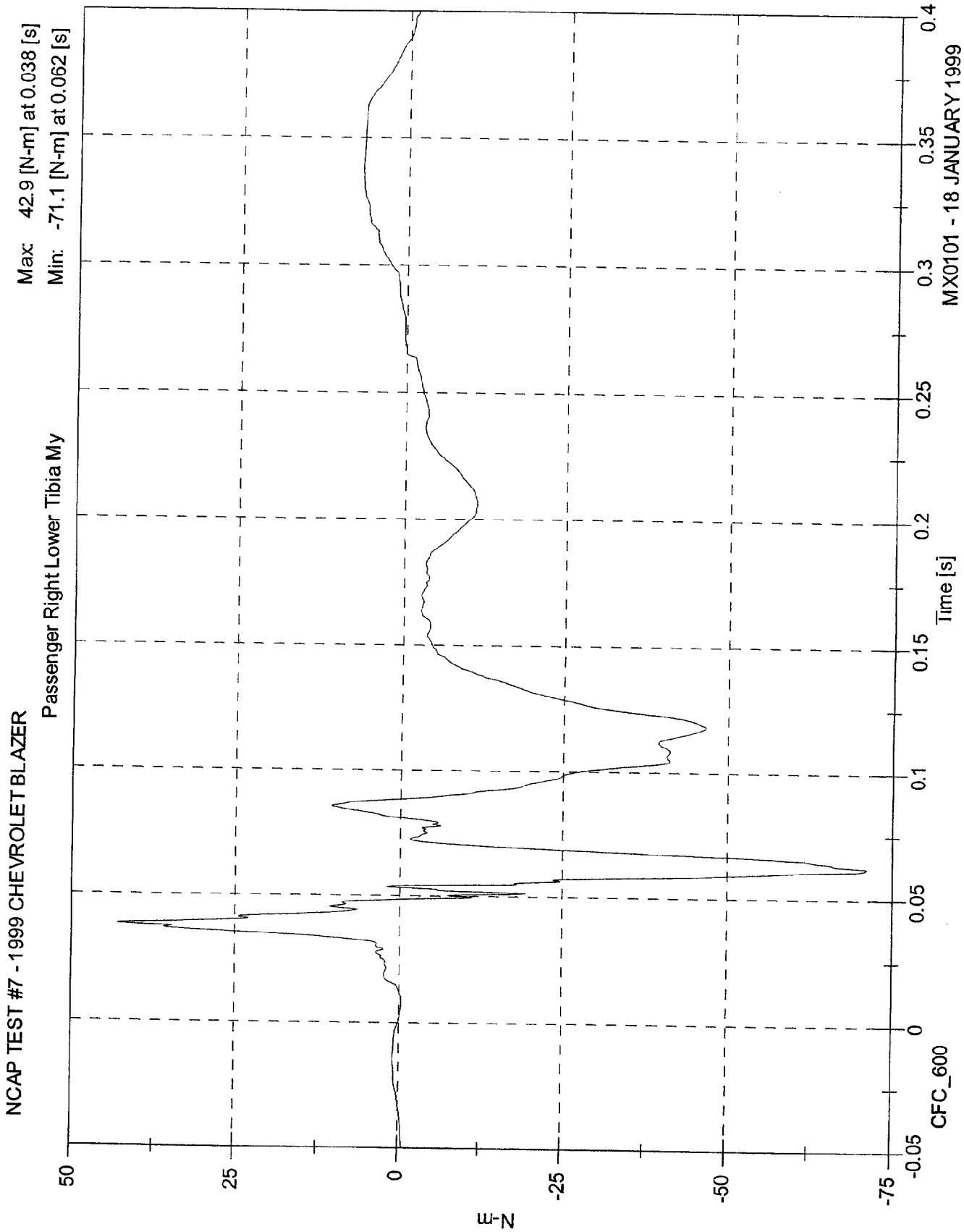

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Passenger Left Lower Tibia Mx
Max: 89.8 [N-m] at 0.048 [s]
Min: -133.0 [N-m] at 0.052 [s]
N-m
Time [s]
100
50
0
-50
-100
-150
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
CFC_600
MX0101 - 18 JANUARY 1999

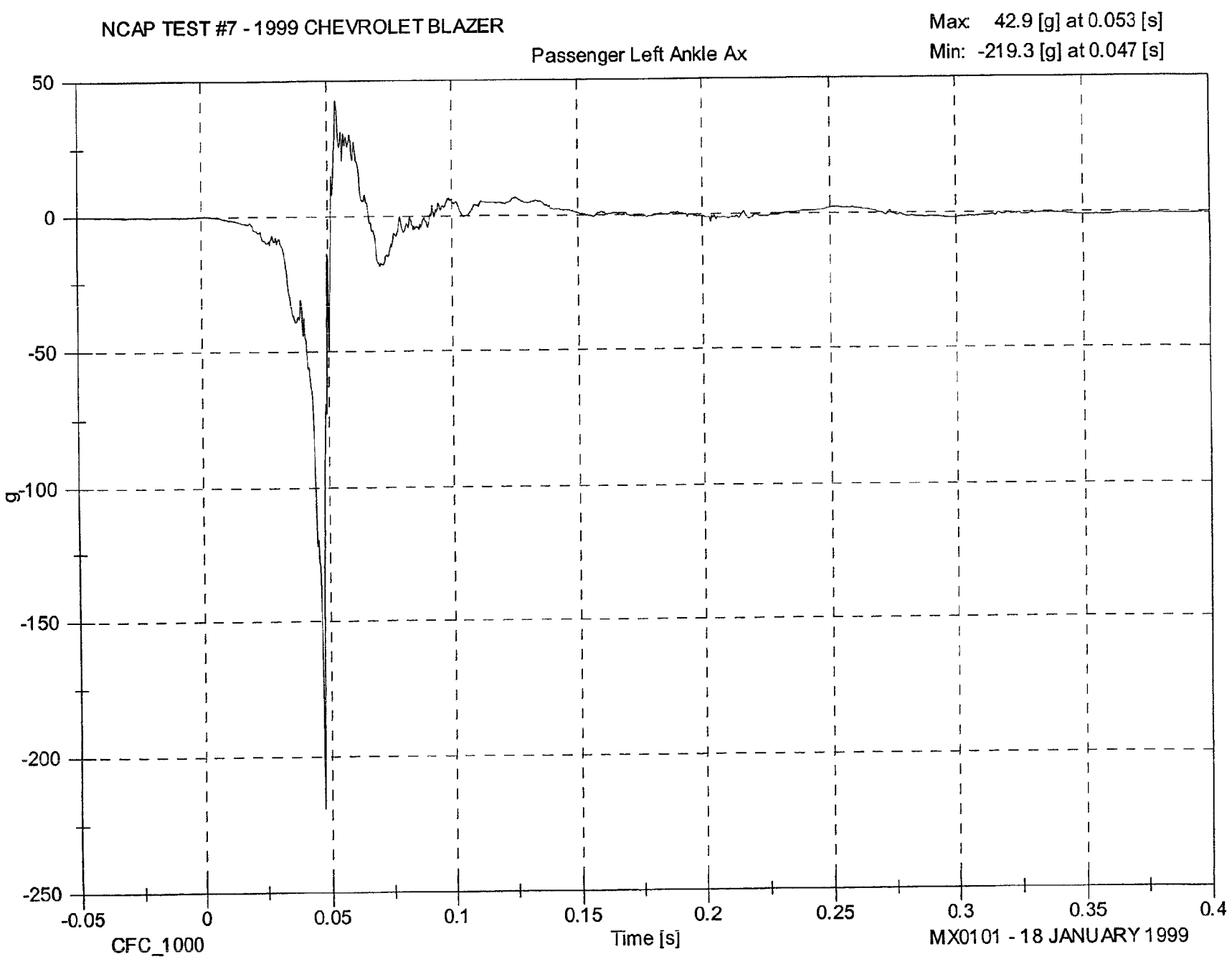

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Passenger Left Lower Tibia My
Max: 60.4 [N-m] at 0.047 [s]
Min: -101.2 [N-m] at 0.060 [s]
75
50
25
0
-25
-50
-75
-100
-125
N-m
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_600
MX0101 - 18 JANUARY 1999

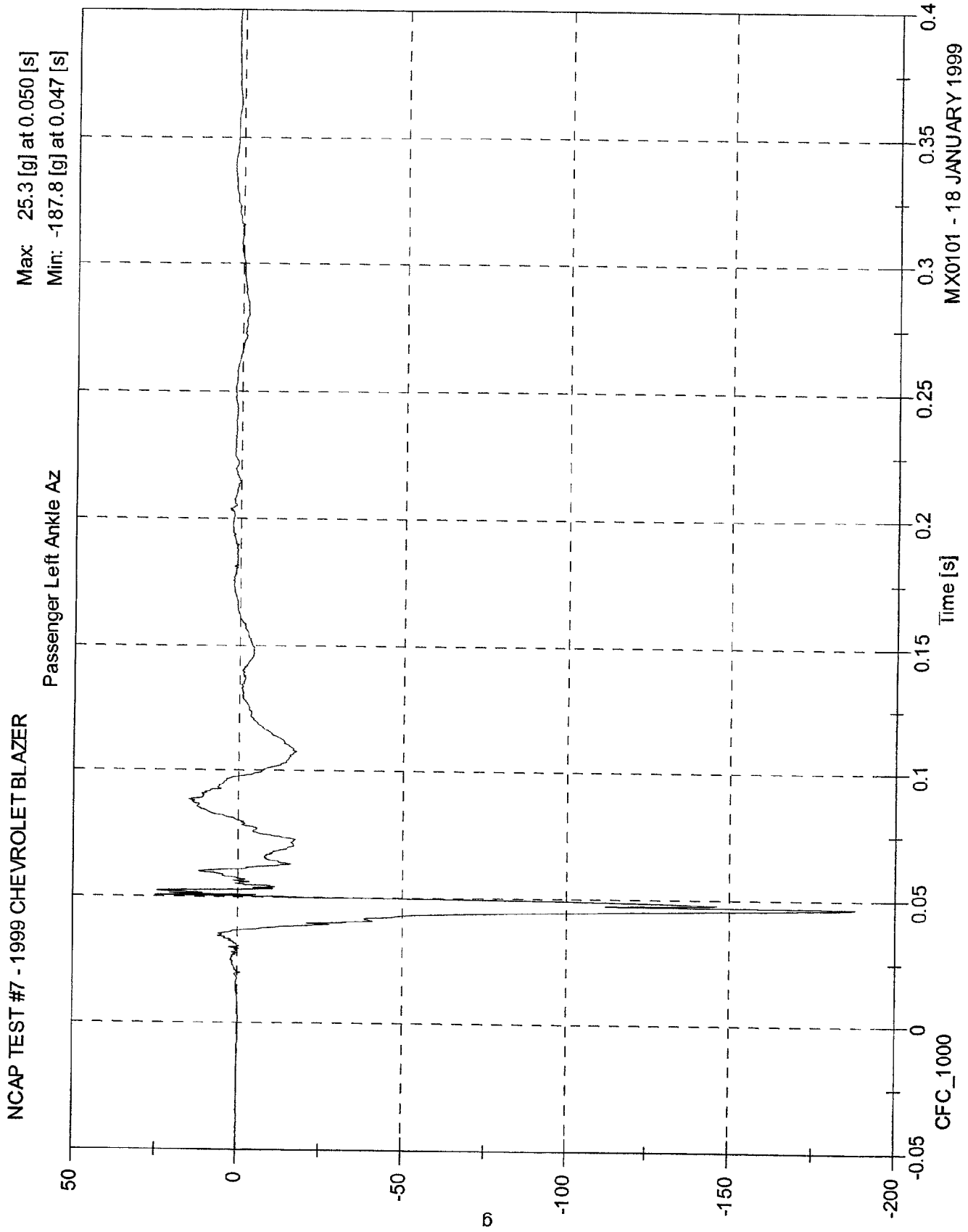

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Passenger Right Upper Tibia Mx
Max: 17.3 [N-m] at 0.577 [s]
Min: -54.8 [N-m] at 0.091 [s]
20
10
0
-10
-20
-30
-40
-50
-60
N-m
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_600
MX0101 - 18 JANUARY 1999

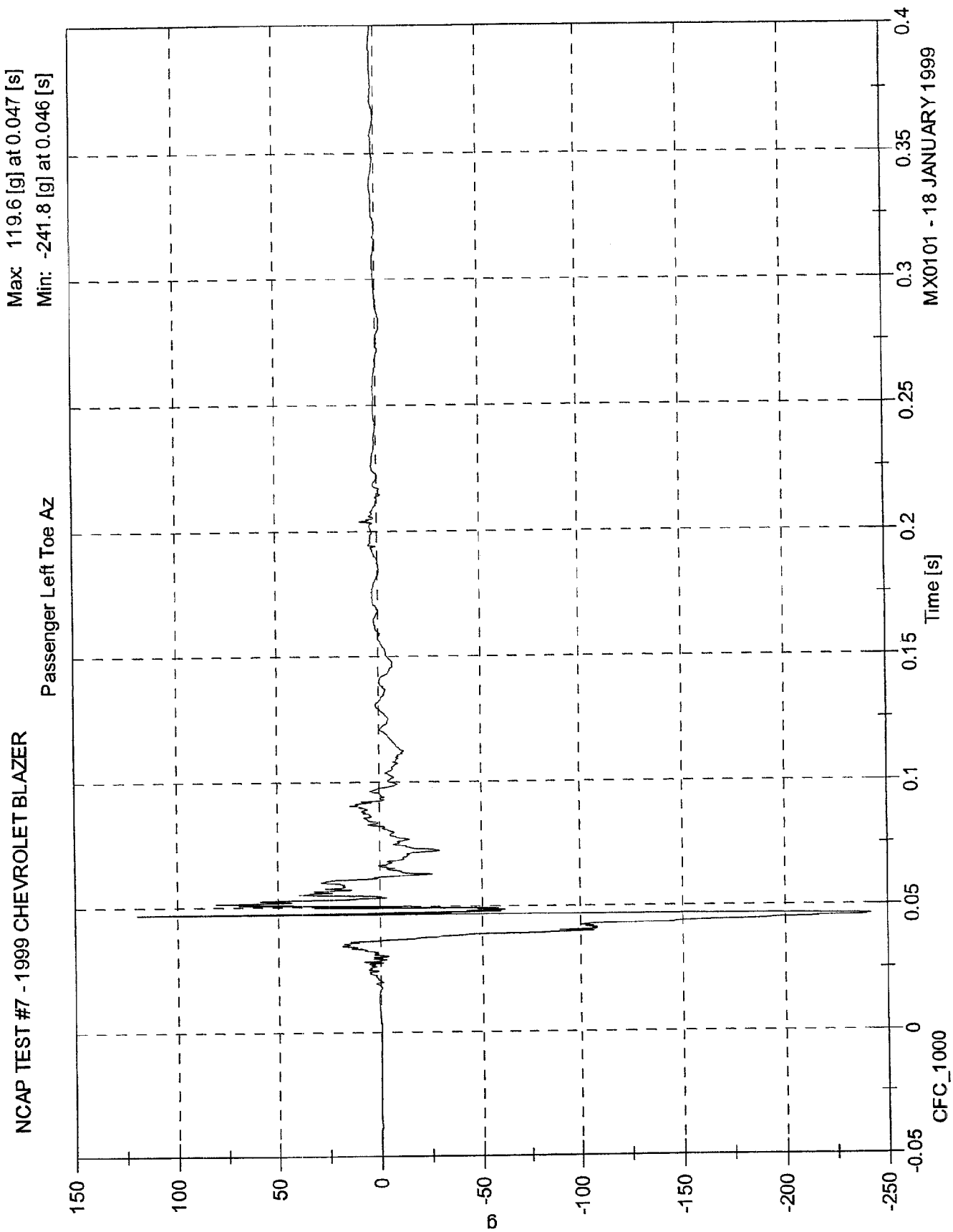

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Passenger Right Upper Tibia My
Max: 15.6 [N-m] at 0.122 [s]
Min: -157.3 [N-m] at 0.053 [s]
N-m
Time [s]
CFC_600
MX0101 - 18 JANUARY 1999
25
0
-25
-50
-75
-100
-125
-150
-175
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4

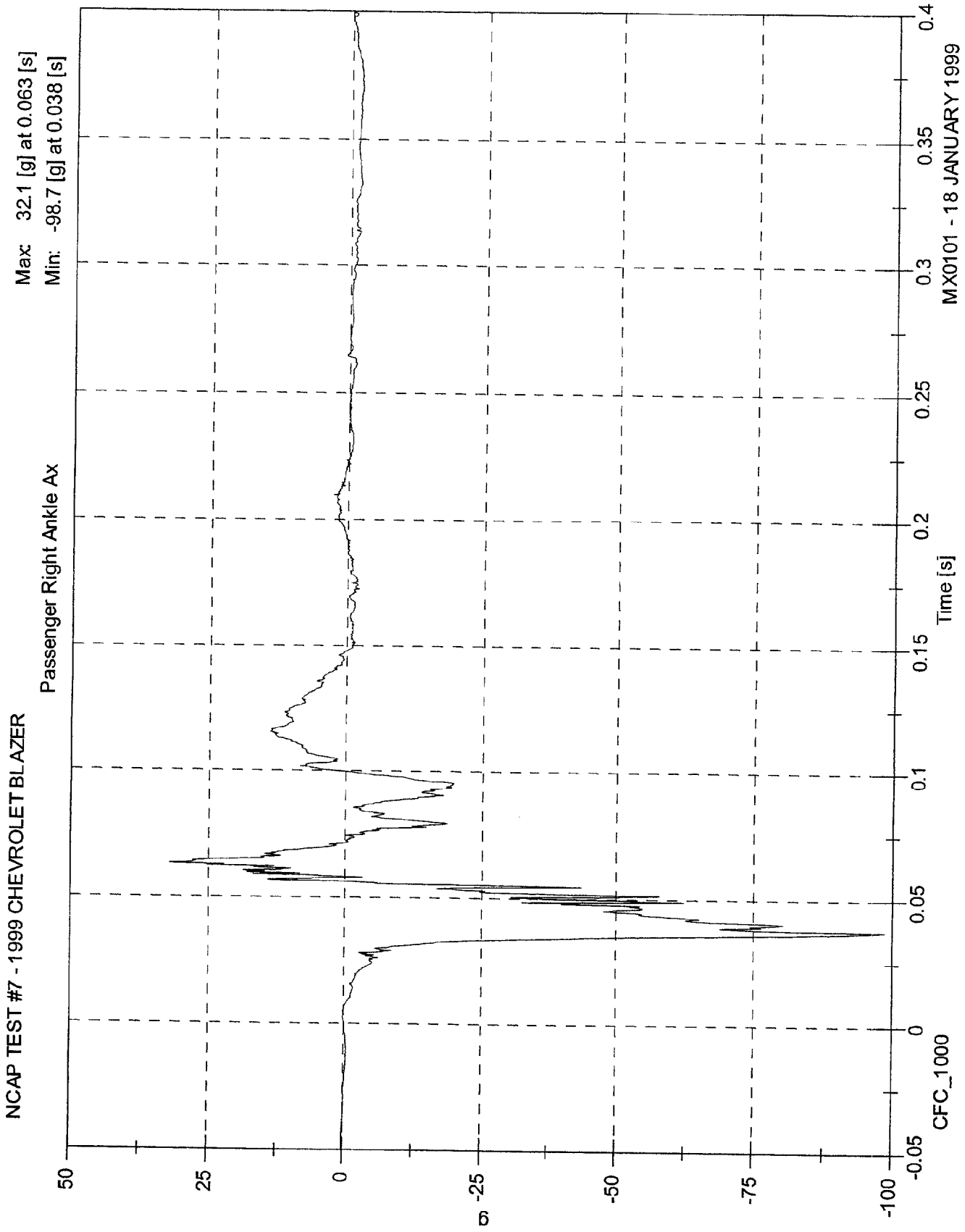

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Passenger Right Lower Tibia Mx
Max: 45.9 [N-m] at 0.052 [s]
Min: -10.6 [N-m] at 0.600 [s]
N-m
Time [s]
CFC_600
MX0101 - 18 JANUARY 1999
50
40
30
20
10
0
-10
-20
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4

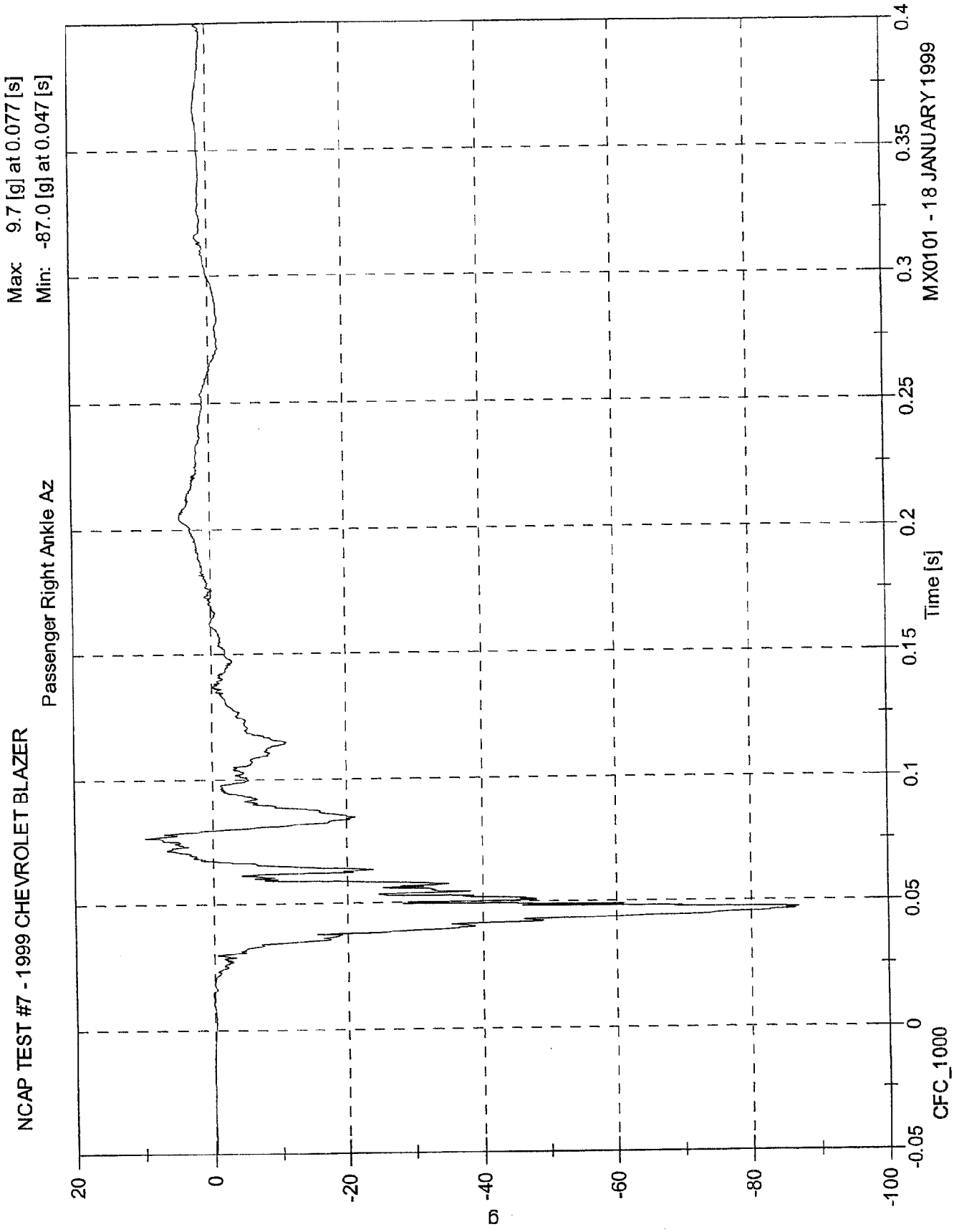

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Passenger Right Lower Tibia My
Max: 42.9 [N-m] at 0.038 [s]
Min: -71.1 [N-m] at 0.062 [s]
N-m
50
25
0
-25
-50
-75
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_600
MX0101 - 18 JANUARY 1999

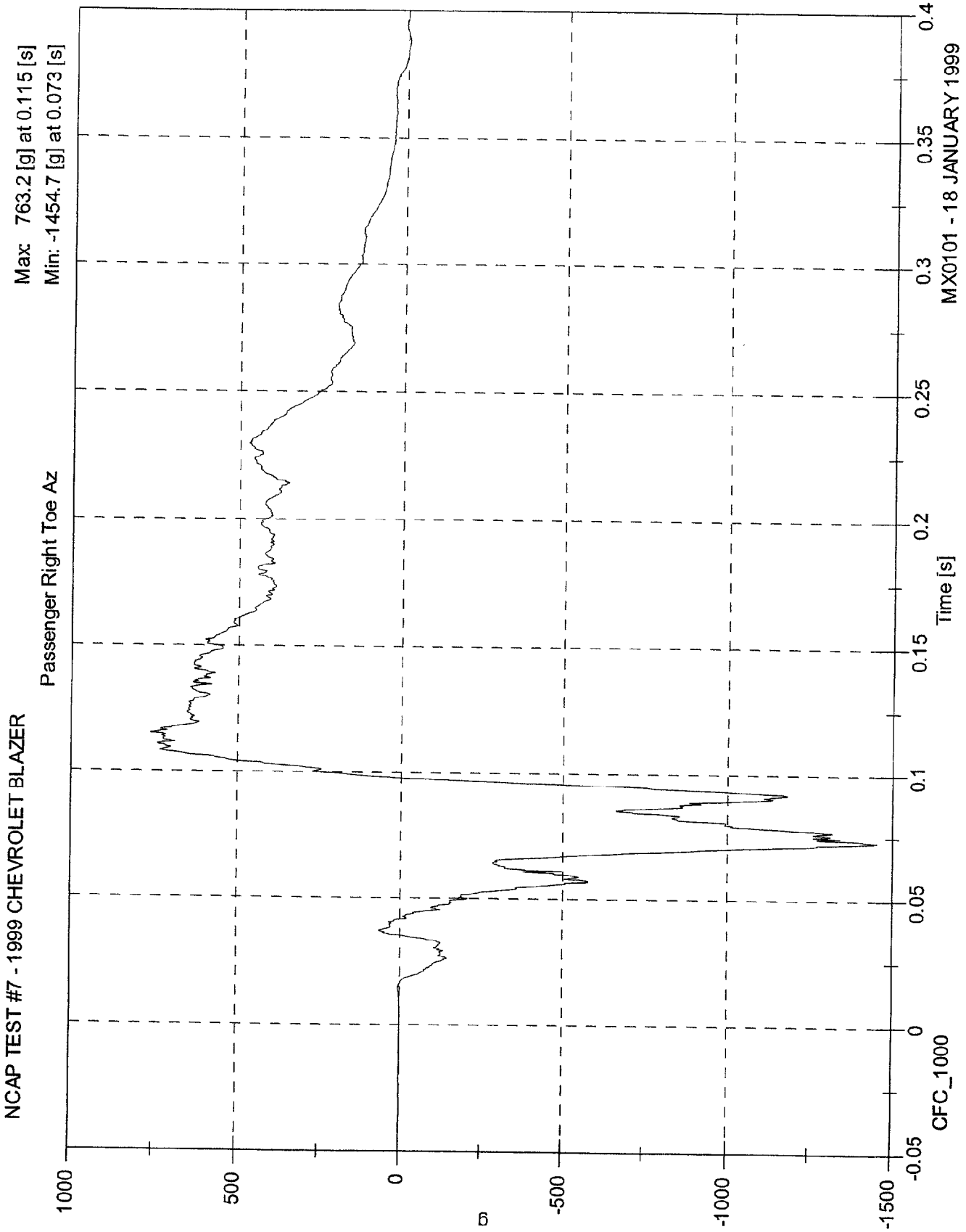

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Passenger Left Ankle Ax
Max: 42.9 [g] at 0.053 [s]
Min: -219.3 [g] at 0.047 [s]
50
0
-50
-100
-150
-200
-250
g
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_1000
MX0101 - 18 JANUARY 1999

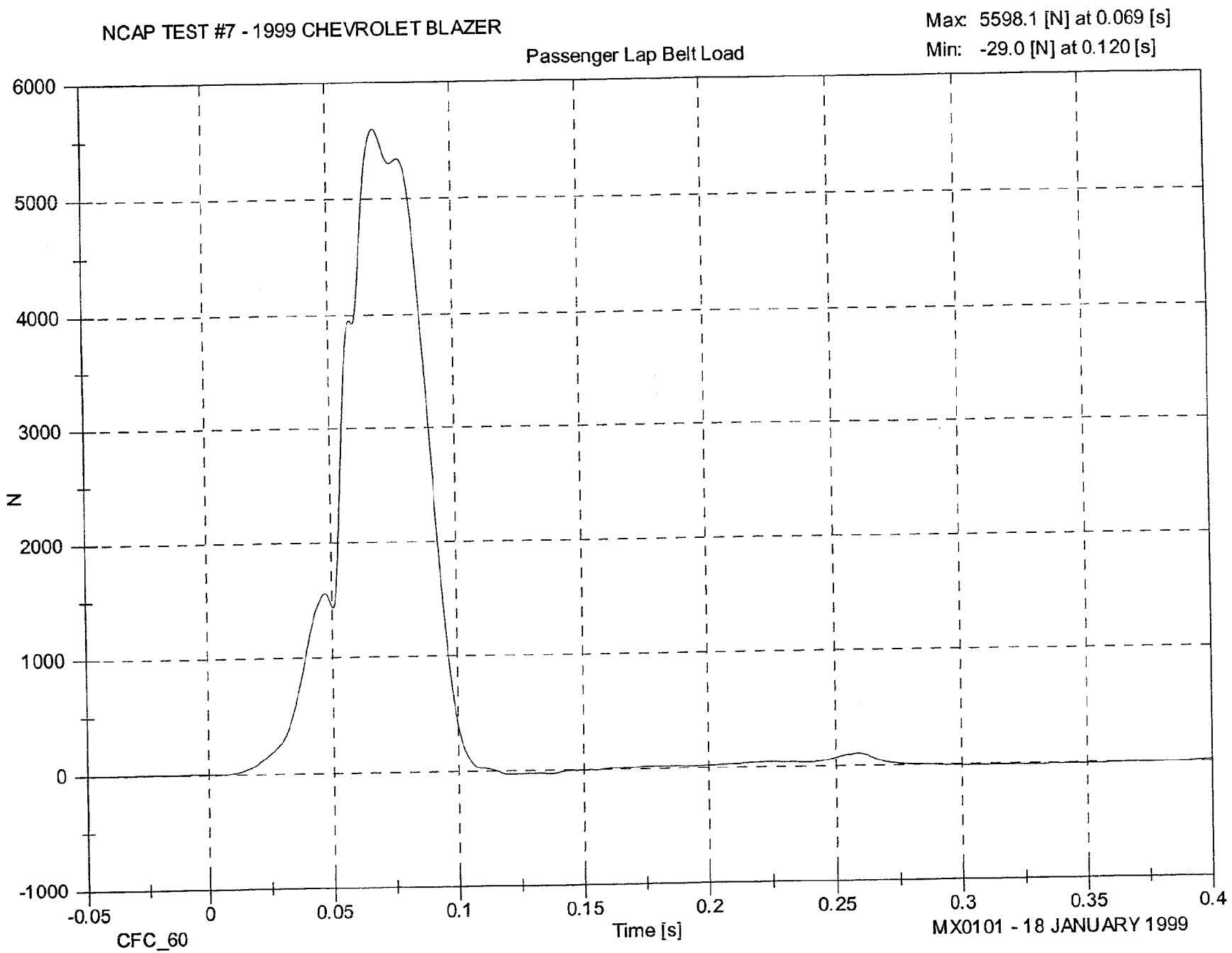

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Passenger Left Ankle Az
Max: 25.3 [g] at 0.050 [s]
Min: -187.8 [g] at 0.047 [s]
MX0101 - 18 JANUARY 1999
CFC_1000
Time [s]
g
50
0
-50
-100
-150
-200
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4

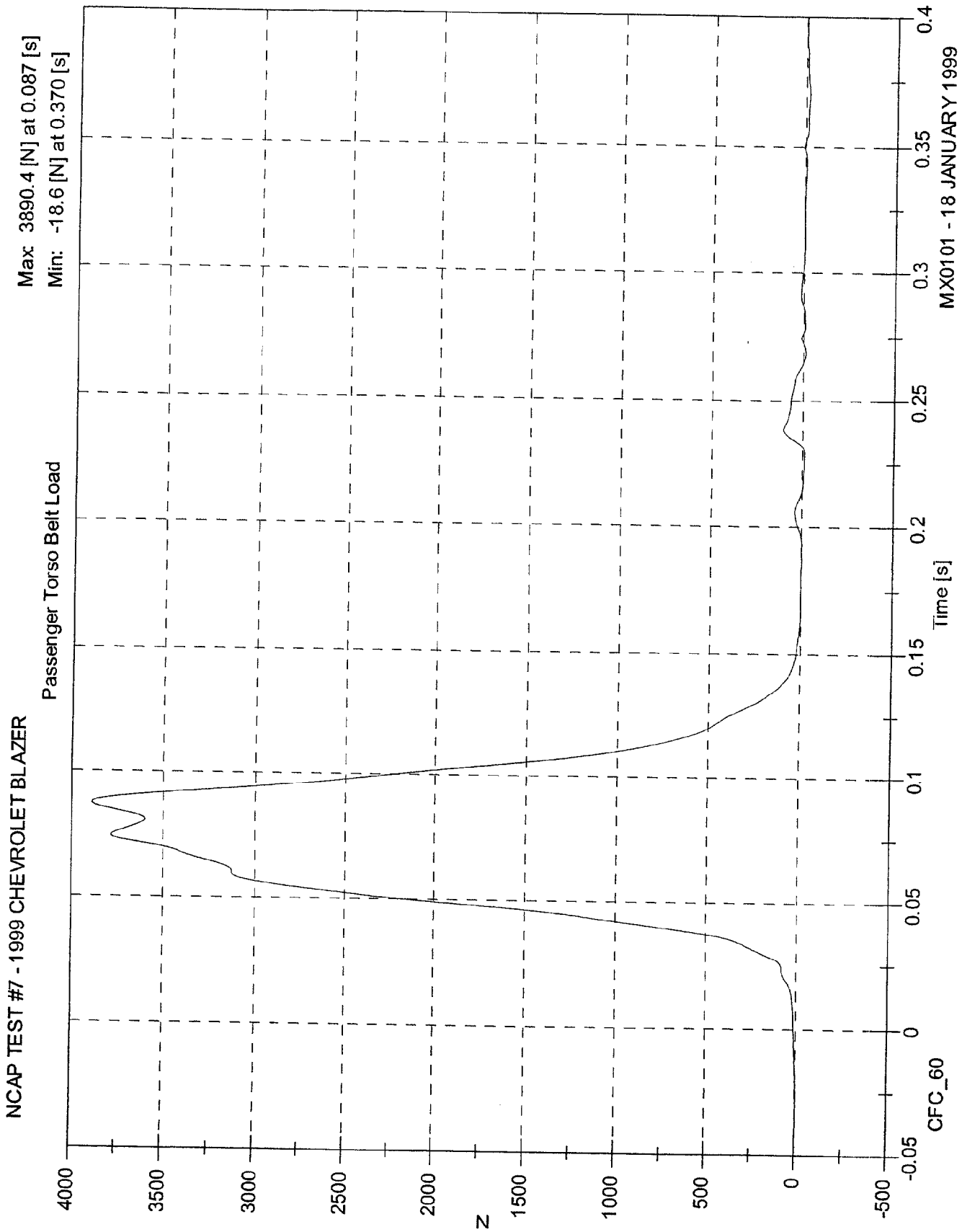

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Passenger Left Toe Az
Max: 119.6 [g] at 0.047 [s]
Min: -241.8 [g] at 0.046 [s]
g
150
100
50
0
-50
-100
-150
-200
-250
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_1000
MX0101 - 18 JANUARY 1999

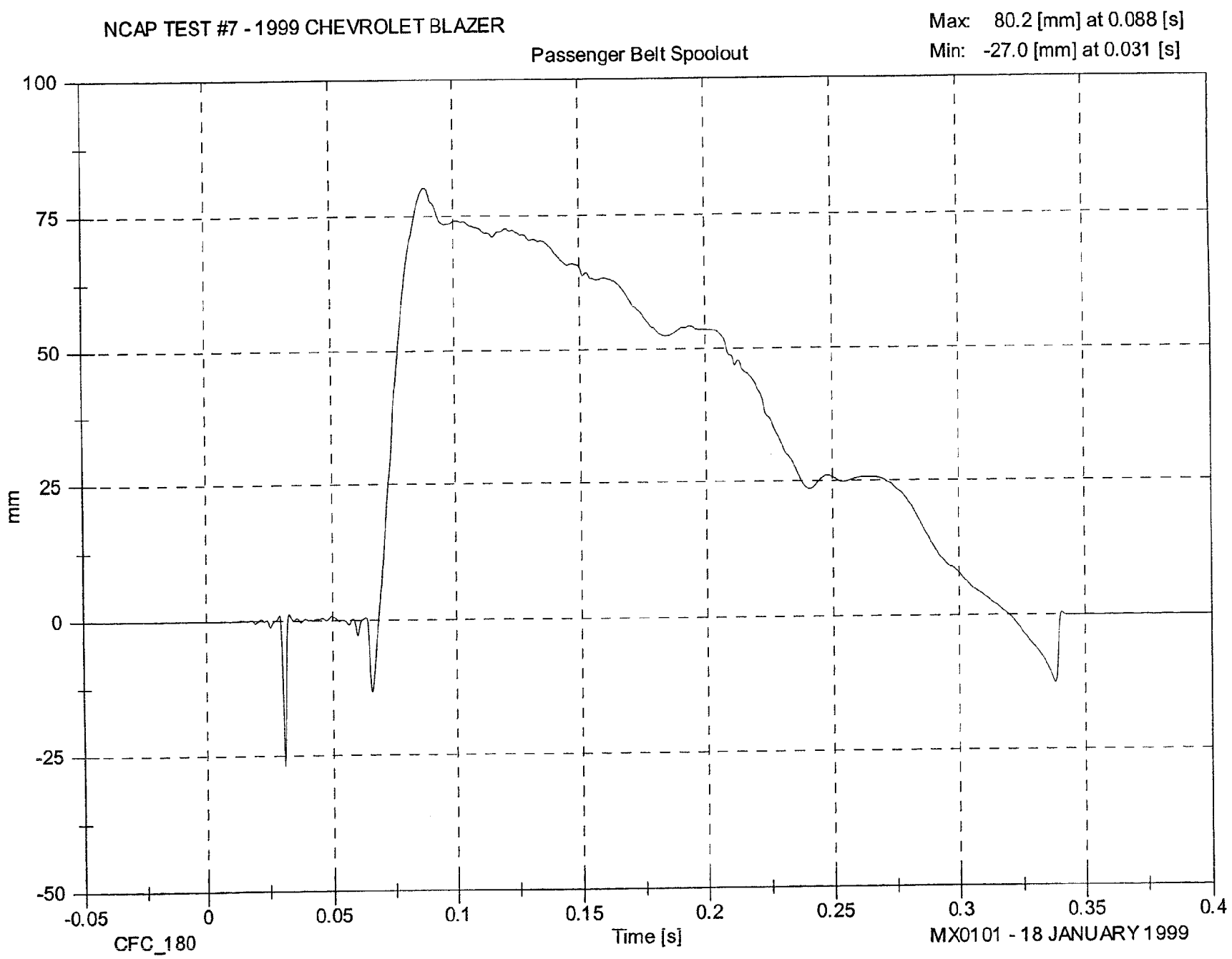

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Passenger Right Ankle Ax
Max: 32.1 [g] at 0.063 [s]
Min: -98.7 [g] at 0.038 [s]
MX0101 - 18 JANUARY 1999
CFC_1000
Time [s]
g
50
25
0
-25
-50
-75
-100
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4

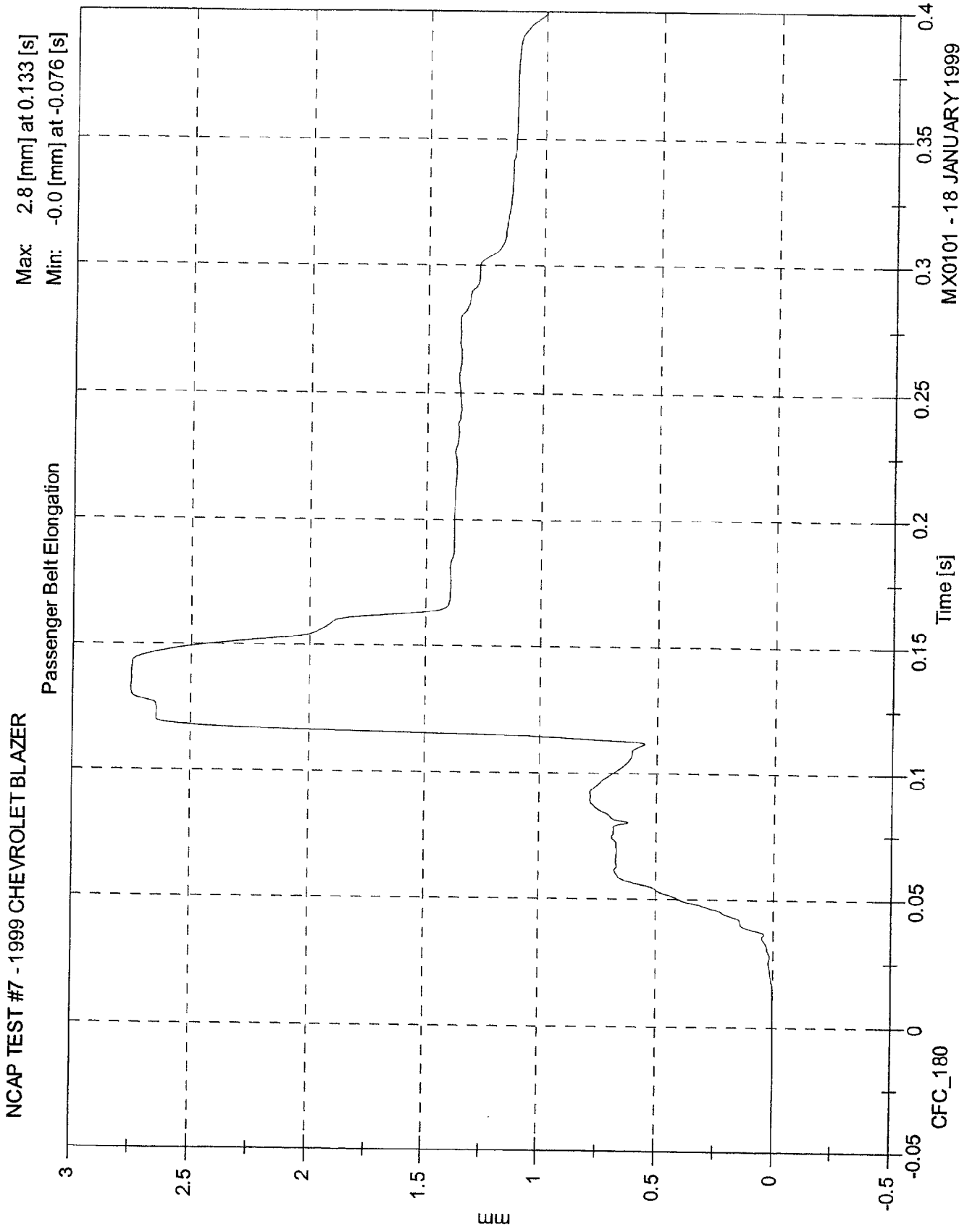

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Passenger Right Ankle Az
Max: 9.7 [g] at 0.077 [s]
Min: -87.0 [g] at 0.047 [s]
g
20
0
-20
-40
-60
-80
-100
Time [s]
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
CFC_1000
MX0101 - 18 JANUARY 1999


NCAP TEST #7 - 1999 CHEVROLET BLAZER
Passenger Right Toe Az
Max: 763.2 [g] at 0.115 [s]
Min: -1454.7 [g] at 0.073 [s]
MX0101 - 18 JANUARY 1999
CFC_1000
Time [s]
g
1000
500
0
-500
-1000
-1500
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4


NCAP TEST #7 - 1999 CHEVROLET BLAZER
Passenger Lap Belt Load
Max: 5598.1 [N] at 0.069 [s]
Min: -29.0 [N] at 0.120 [s]
6000
5000
4000
3000
2000
1000
0
-1000
N
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_60
MX0101 - 18 JANUARY 1999

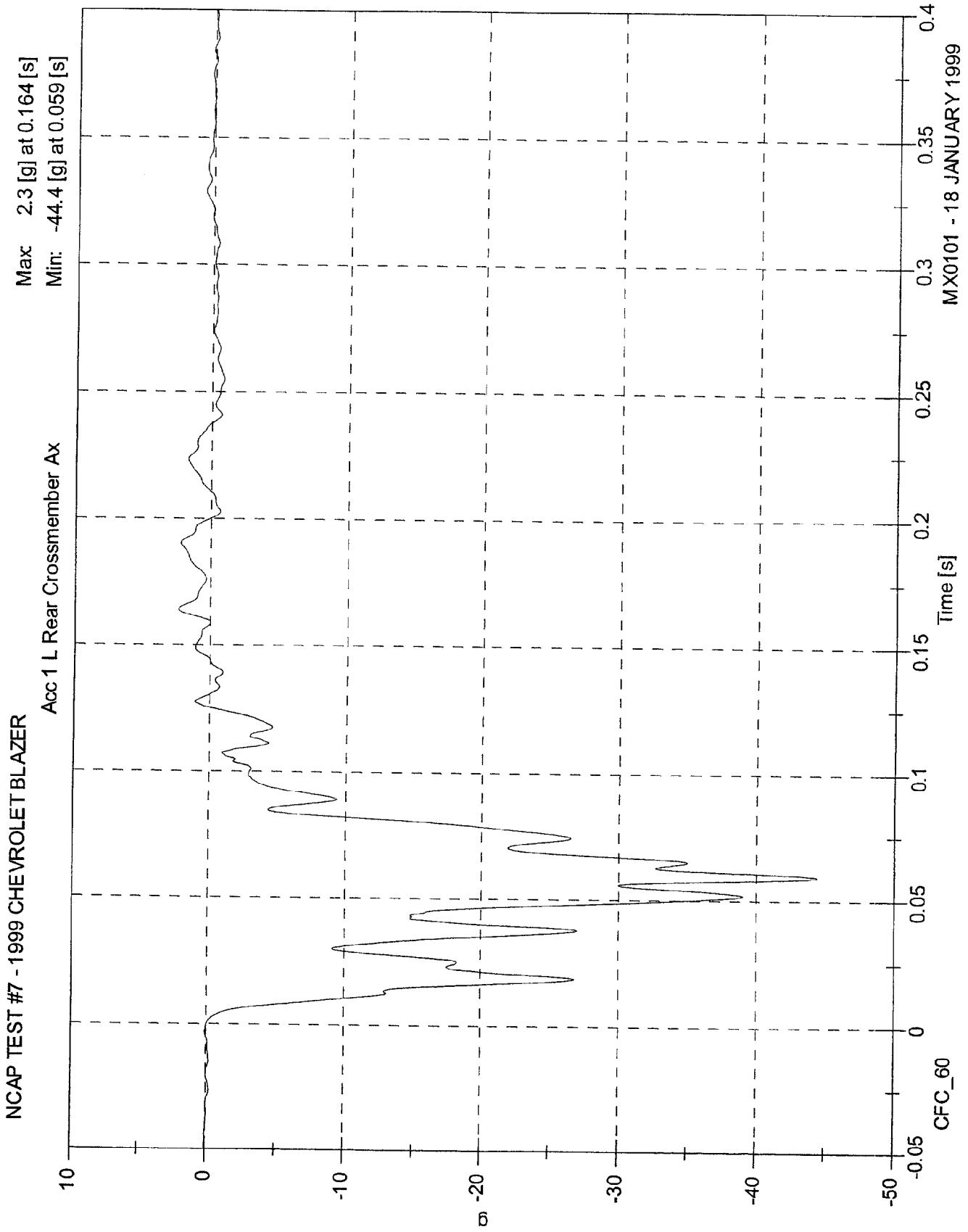

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Passenger Torso Belt Load
Max: 3890.4 [N] at 0.087 [s]
Min: -18.6 [N] at 0.370 [s]
MX0101 - 18 JANUARY 1999
CFC_60
N
Time [s]
4000
3500
3000
2500
2000
1500
1000
500
0
-500
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4

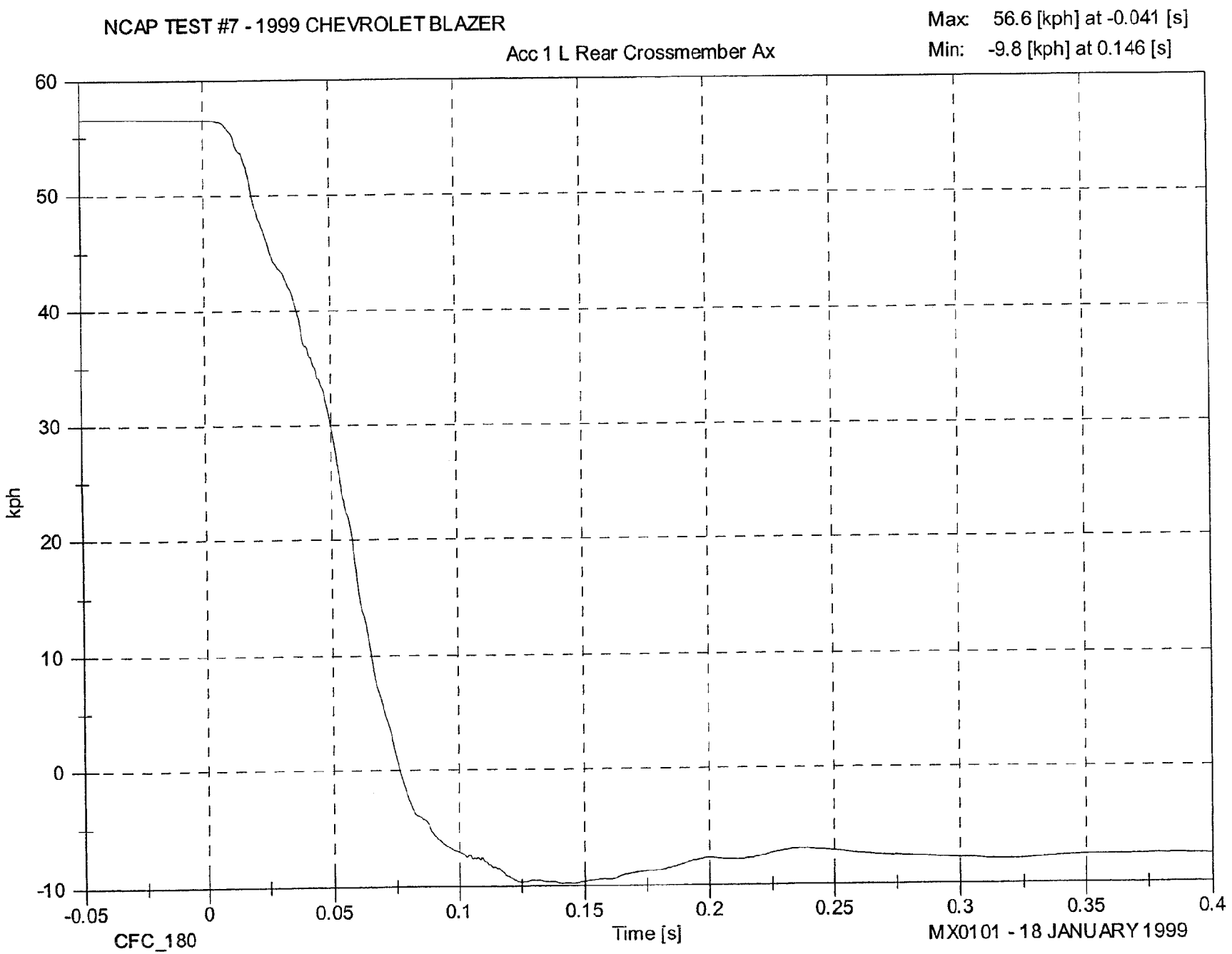

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Passenger Belt Spoolout
Max: 80.2 [mm] at 0.088 [s]
Min: -27.0 [mm] at 0.031 [s]
100
75
50
25
0
-25
-50
mm
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_180
MX0101 - 18 JANUARY 1999

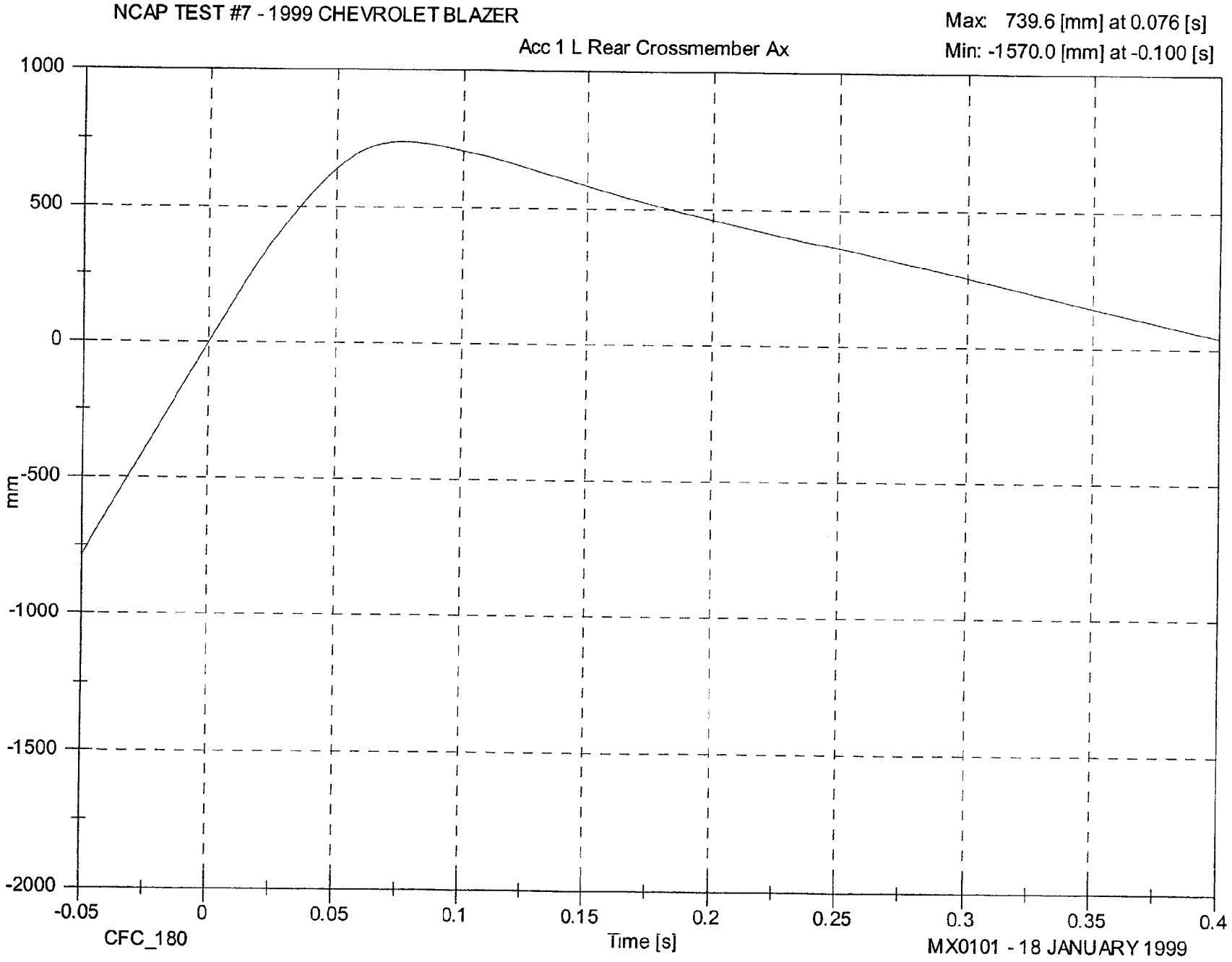

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Passenger Belt Elongation
Max: 2.8 [mm] at 0.133 [s]
Min: -0.0 [mm] at -0.076 [s]
mm
3
2.5
2
1.5
1
0.5
0
-0.5
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_180
MX0101 - 18 JANUARY 1999

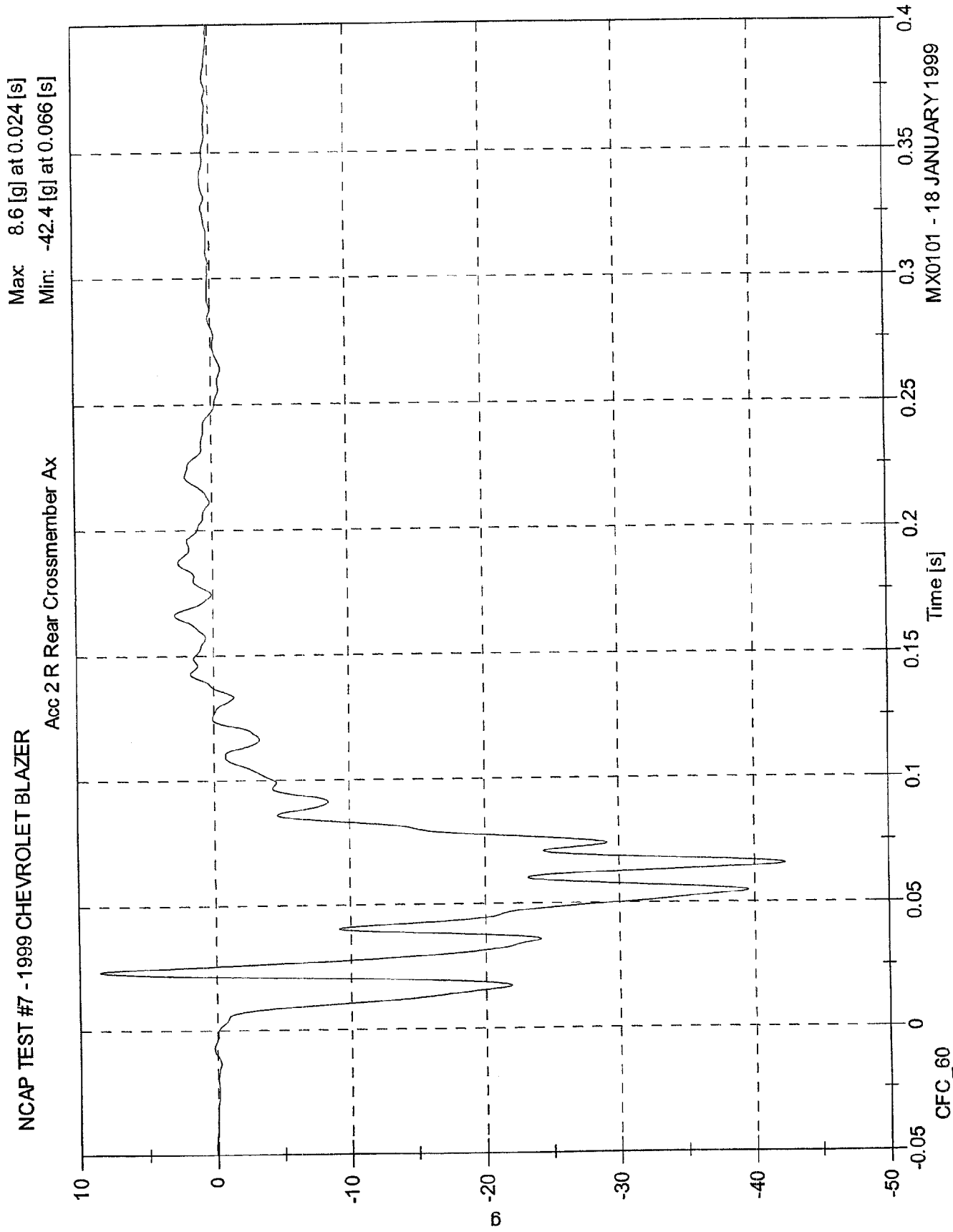
NHTSA TEST NO. MX0101

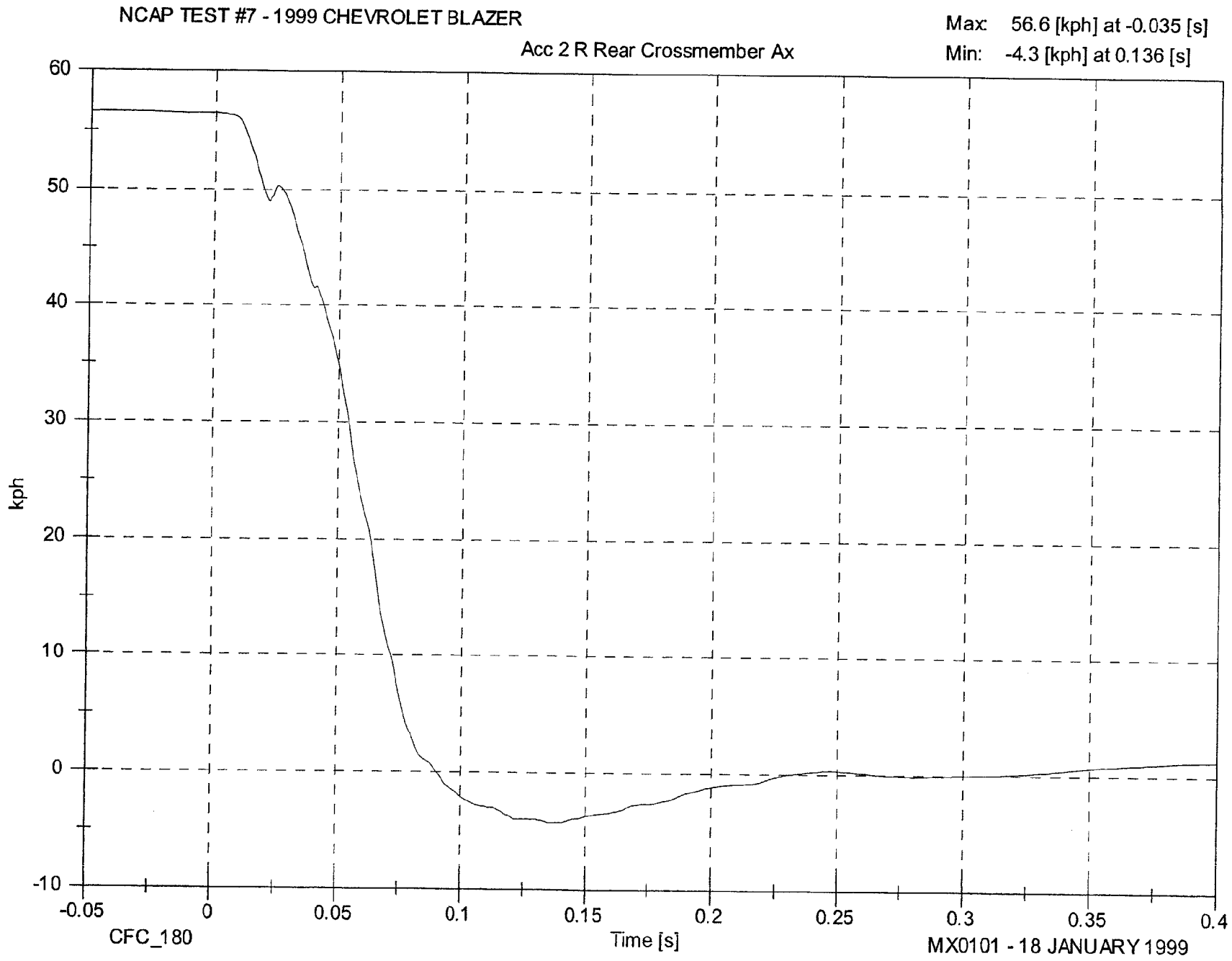
VEHICLE DATA	FILTER CHANNEL CLASS
Acceleration	60
Velocity	180
Displacement	180

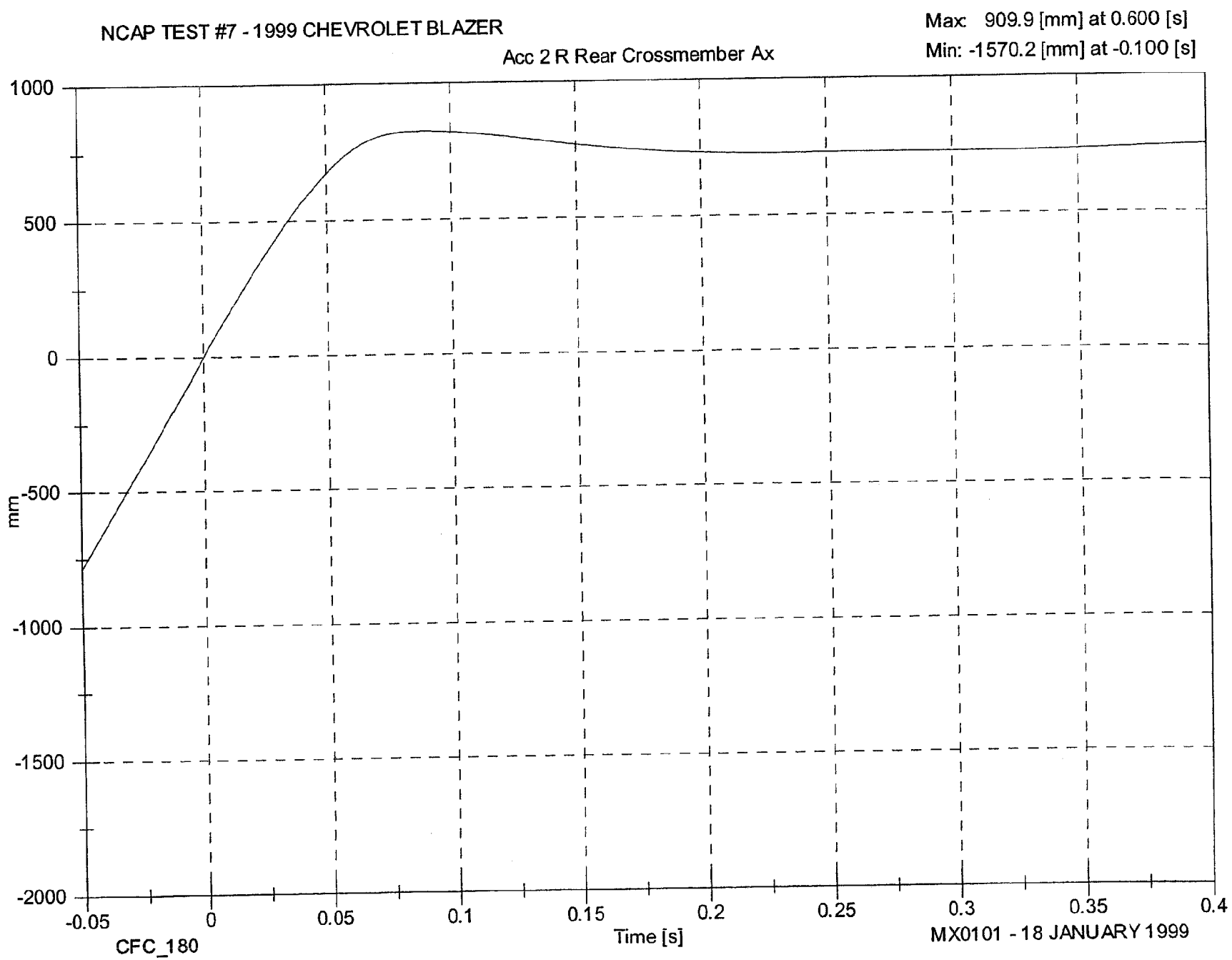

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Acc 1 L Rear Crossmember Ax
Max: 2.3 [g] at 0.164 [s]
Min: -44.4 [g] at 0.059 [s]
g
10
0
-10
-20
-30
-40
-50
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_60
MX0101 - 18 JANUARY 1999

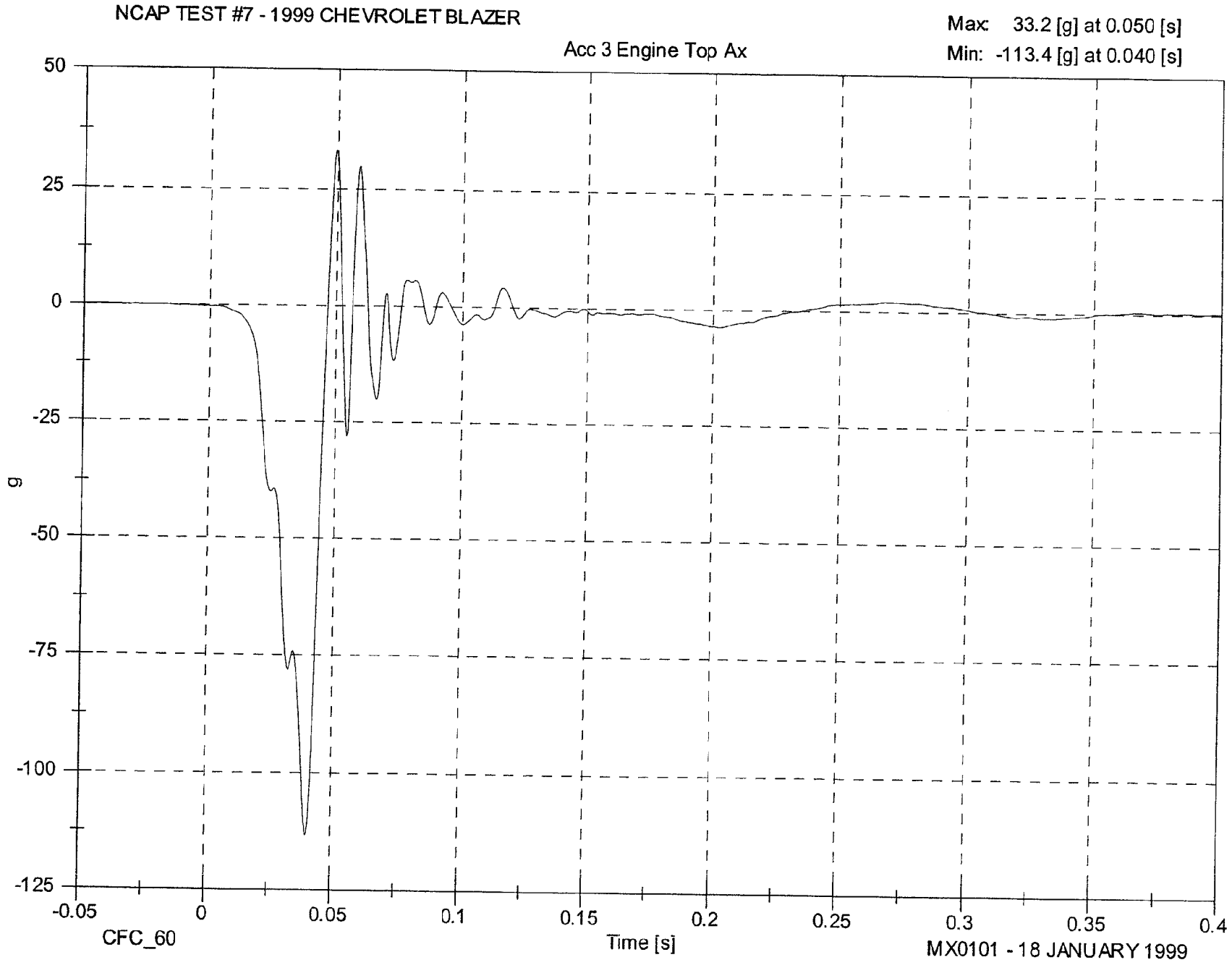

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Acc 1 L Rear Crossmember Ax
Max: 56.6 [kph] at -0.041 [s]
Min: -9.8 [kph] at 0.146 [s]
60
50
40
30
20
10
0
-10
kph
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_180
MX0101 - 18 JANUARY 1999

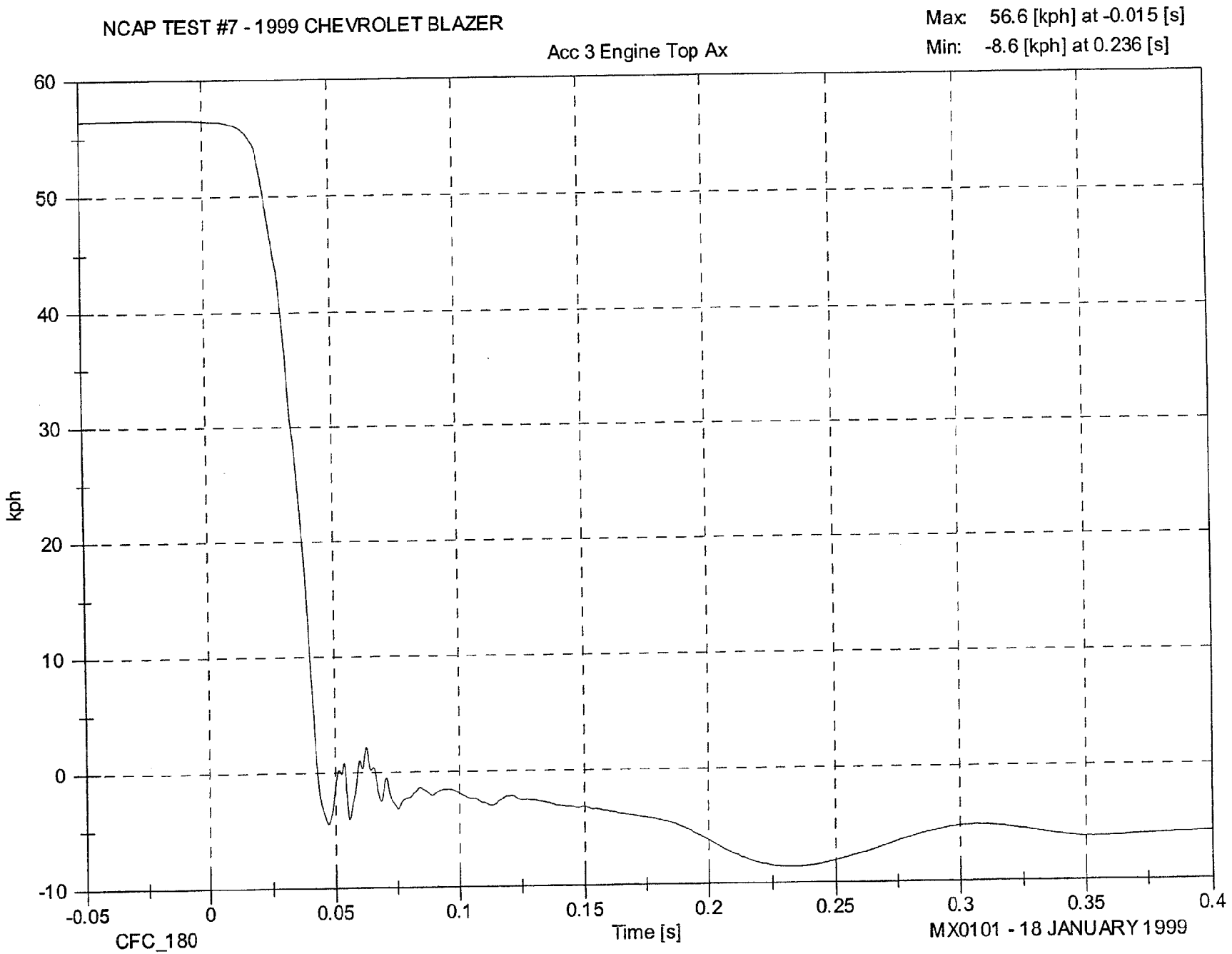

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Acc 1 L Rear Crossmember Ax
Max: 739.6 [mm] at 0.076 [s]
Min: -1570.0 [mm] at -0.100 [s]
1000
500
0
-500
-1000
-1500
-2000
mm
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_180
MX0101 - 18 JANUARY 1999

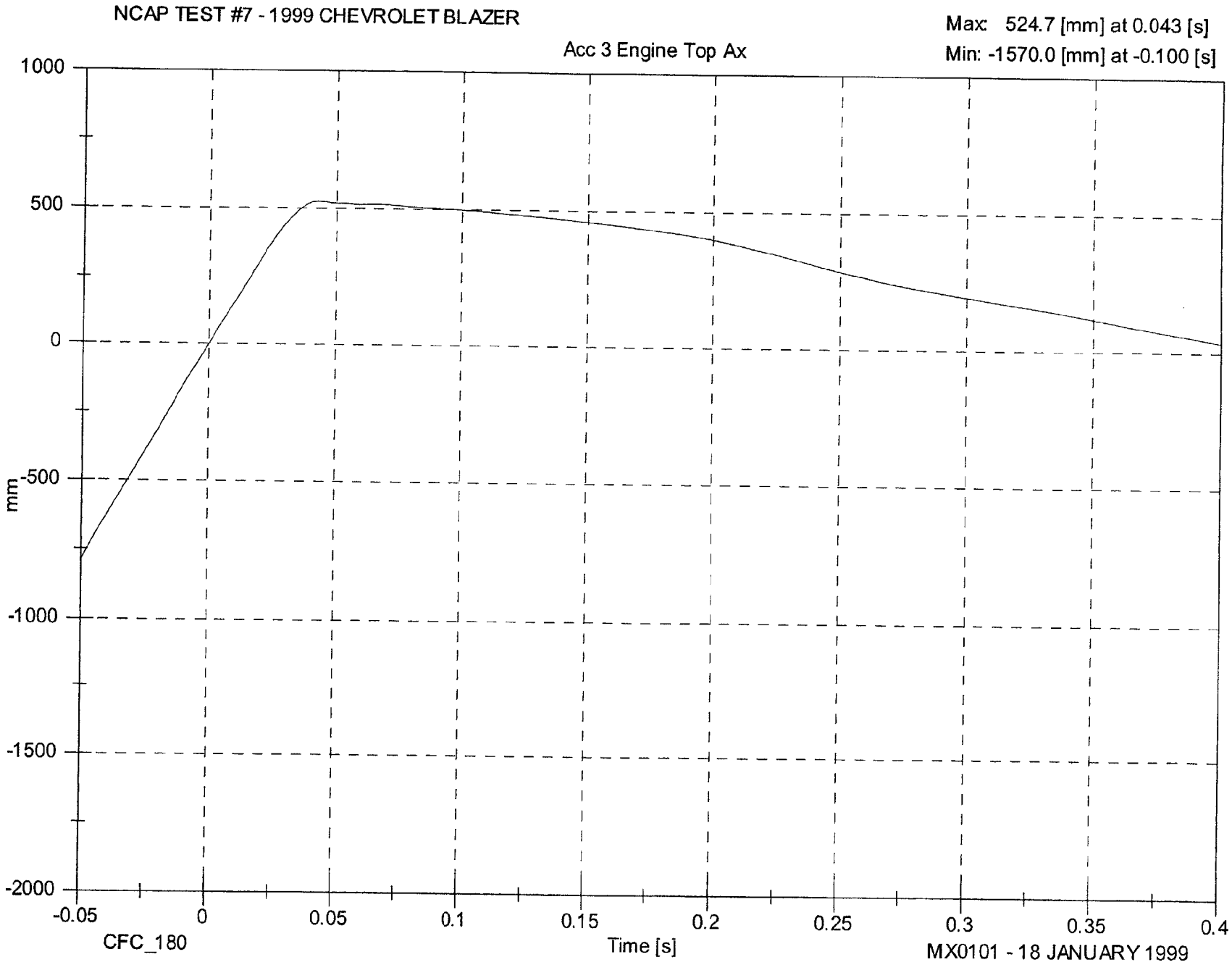

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Acc 2 R Rear Crossmember Ax
Max: 8.6 [g] at 0.024 [s]
Min: -42.4 [g] at 0.066 [s]
g
10
0
-10
-20
-30
-40
-50
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_60
MX0101 - 18 JANUARY 1999

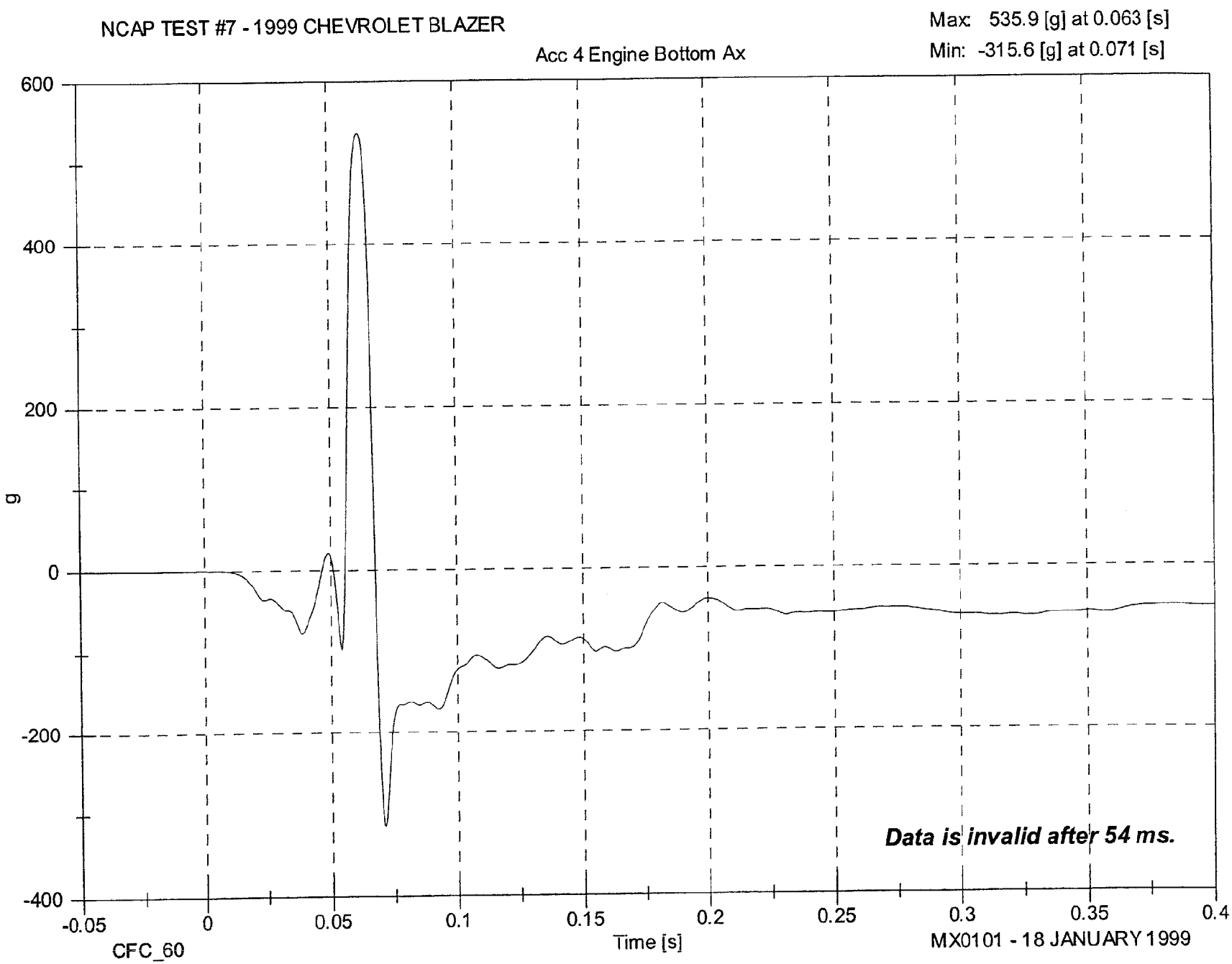

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Acc 2 R Rear Crossmember Ax
Max: 56.6 [kph] at -0.035 [s]
Min: -4.3 [kph] at 0.136 [s]
60
50
40
30
20
10
0
-10
kph
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_180
MX0101 - 18 JANUARY 1999

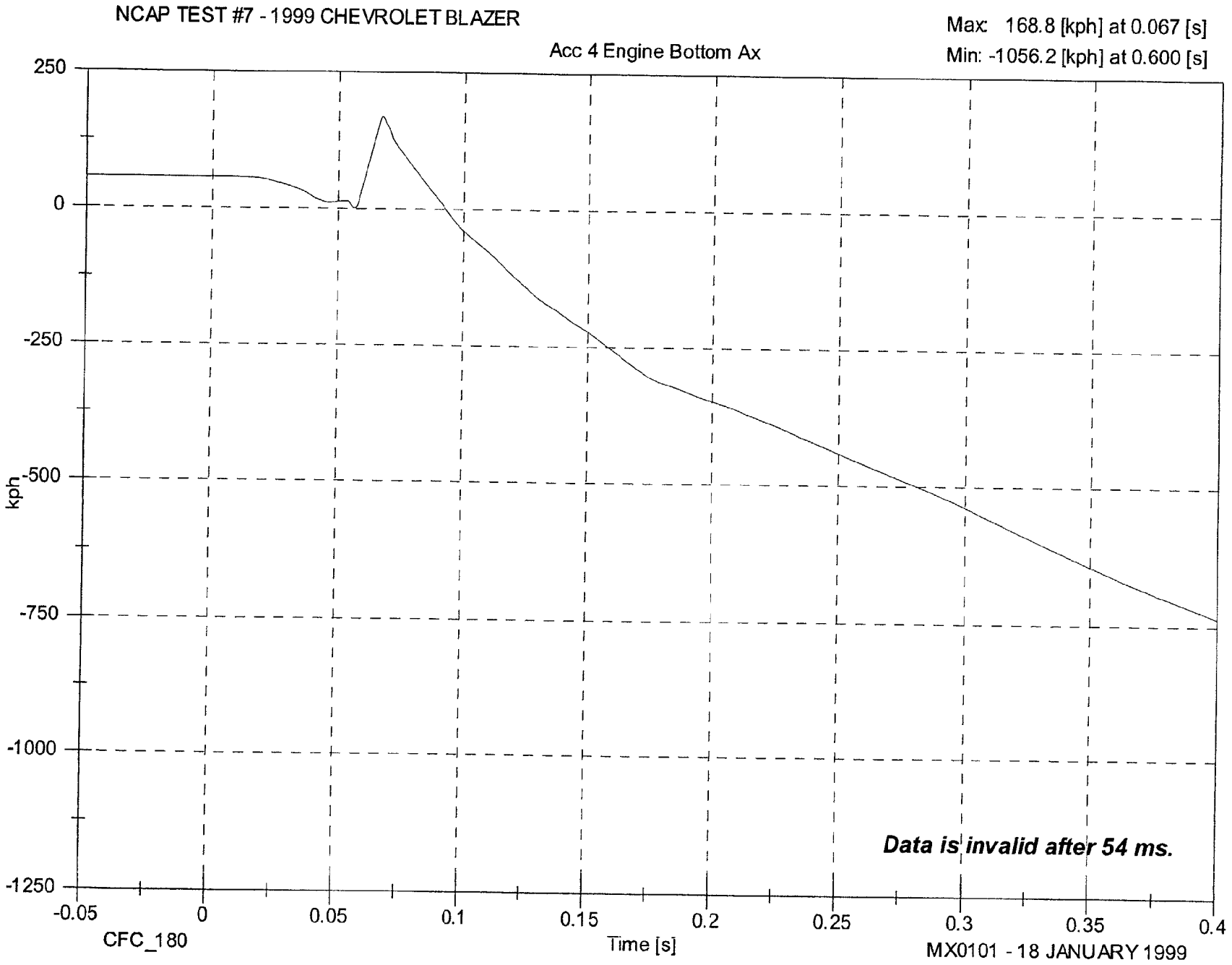

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Acc 2 R Rear Crossmember Ax
Max: 909.9 [mm] at 0.600 [s]
Min: -1570.2 [mm] at -0.100 [s]
1000
500
0
-500
-1000
-1500
-2000
mm
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_180
MX0101 - 18 JANUARY 1999

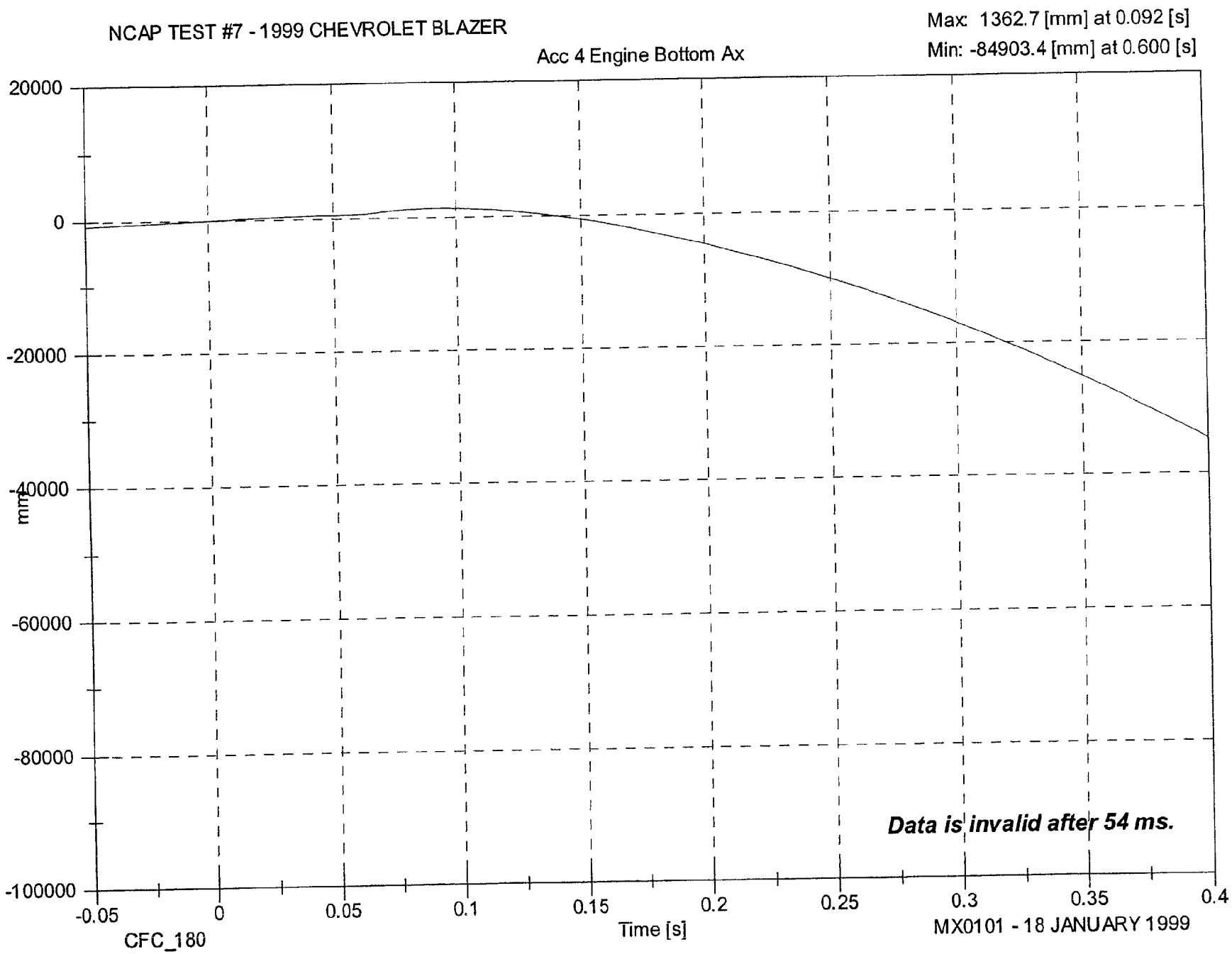

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Acc 3 Engine Top Ax
Max: 33.2 [g] at 0.050 [s]
Min: -113.4 [g] at 0.040 [s]
50
25
0
-25
-50
-75
-100
-125
g
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_60
MX0101 - 18 JANUARY 1999

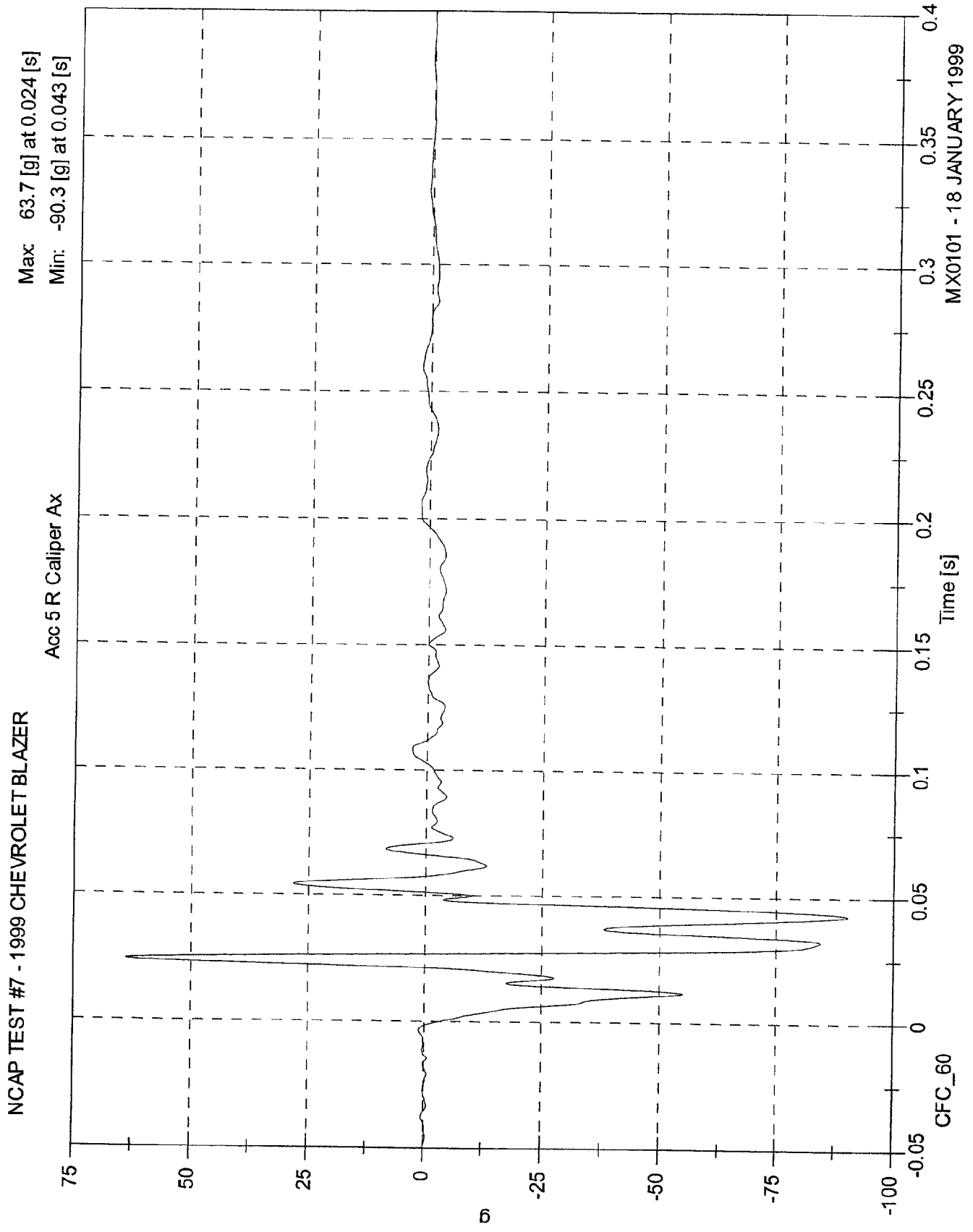

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Acc 3 Engine Top Ax
Max: 56.6 [kph] at -0.015 [s]
Min: -8.6 [kph] at 0.236 [s]
60
50
40
30
20
10
0
-10
kph
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_180
MX0101 - 18 JANUARY 1999

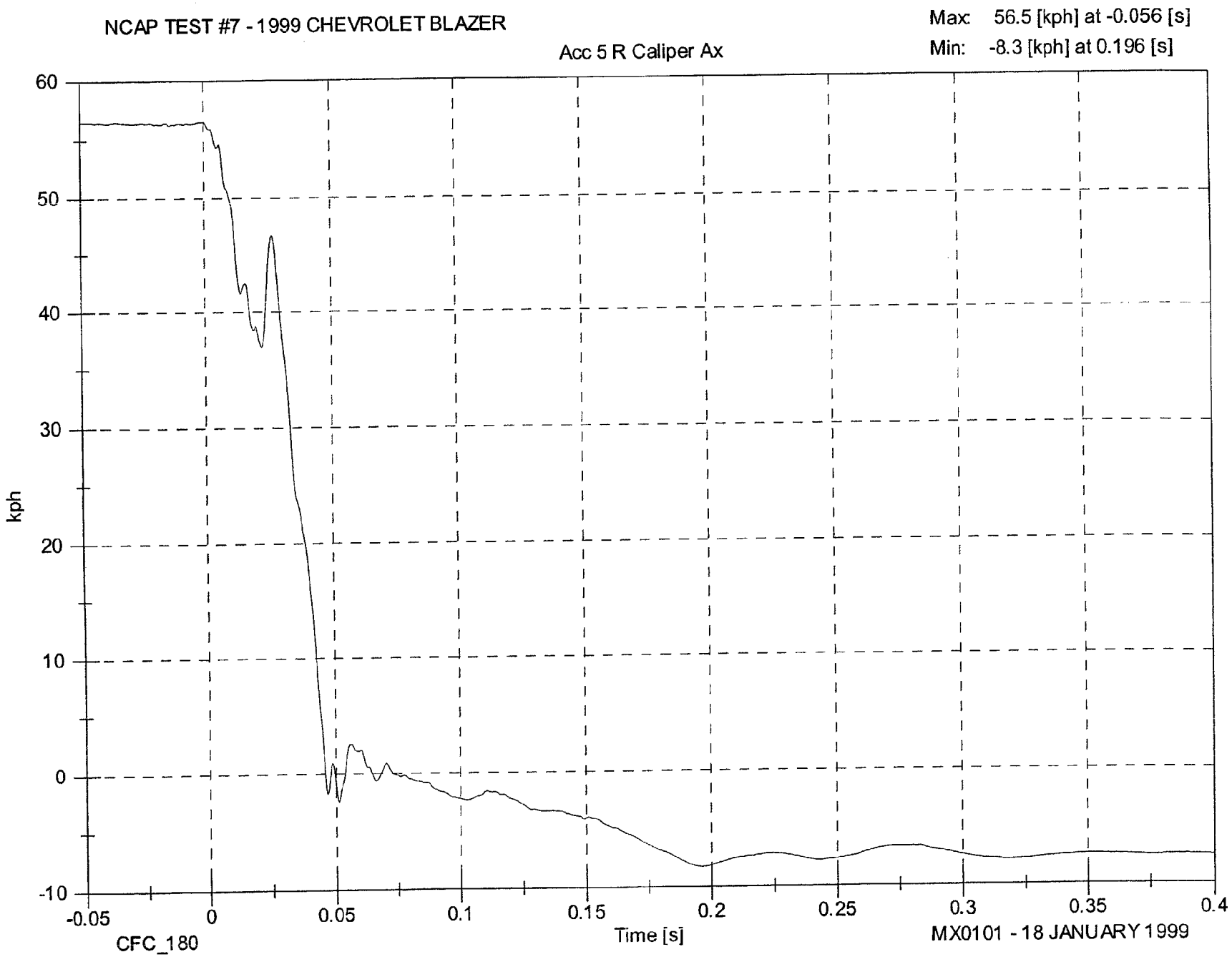

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Acc 3 Engine Top Ax
Max: 524.7 [mm] at 0.043 [s]
Min: -1570.0 [mm] at -0.100 [s]
1000
500
0
-500
-1000
-1500
-2000
mm
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_180
MX0101 - 18 JANUARY 1999

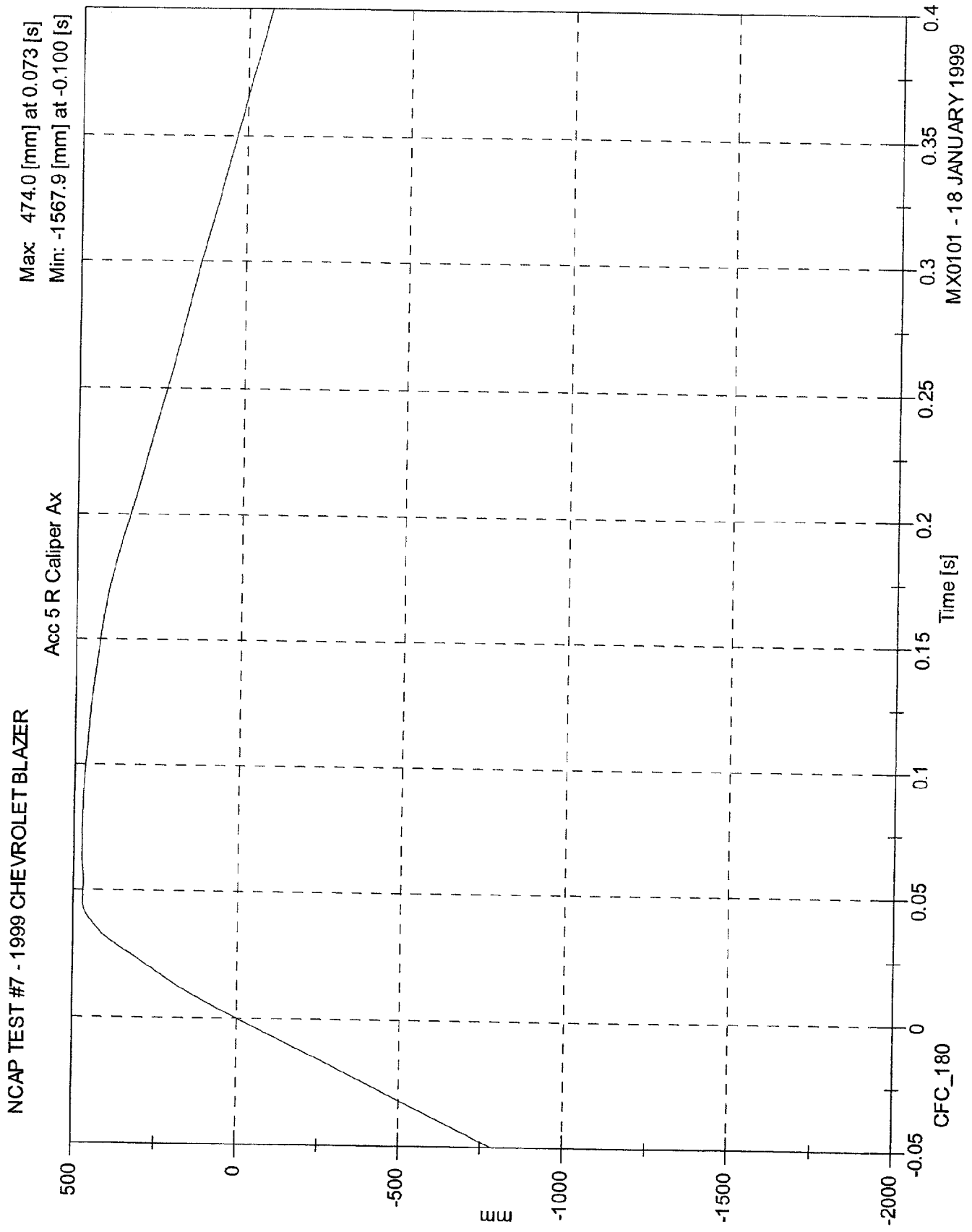

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Acc 4 Engine Bottom Ax
Max: 535.9 [g] at 0.063 [s]
Min: -315.6 [g] at 0.071 [s]
600
400
200
0
-200
-400
g
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
Data is invalid after 54 ms.
CFC_60
MX0101 - 18 JANUARY 1999

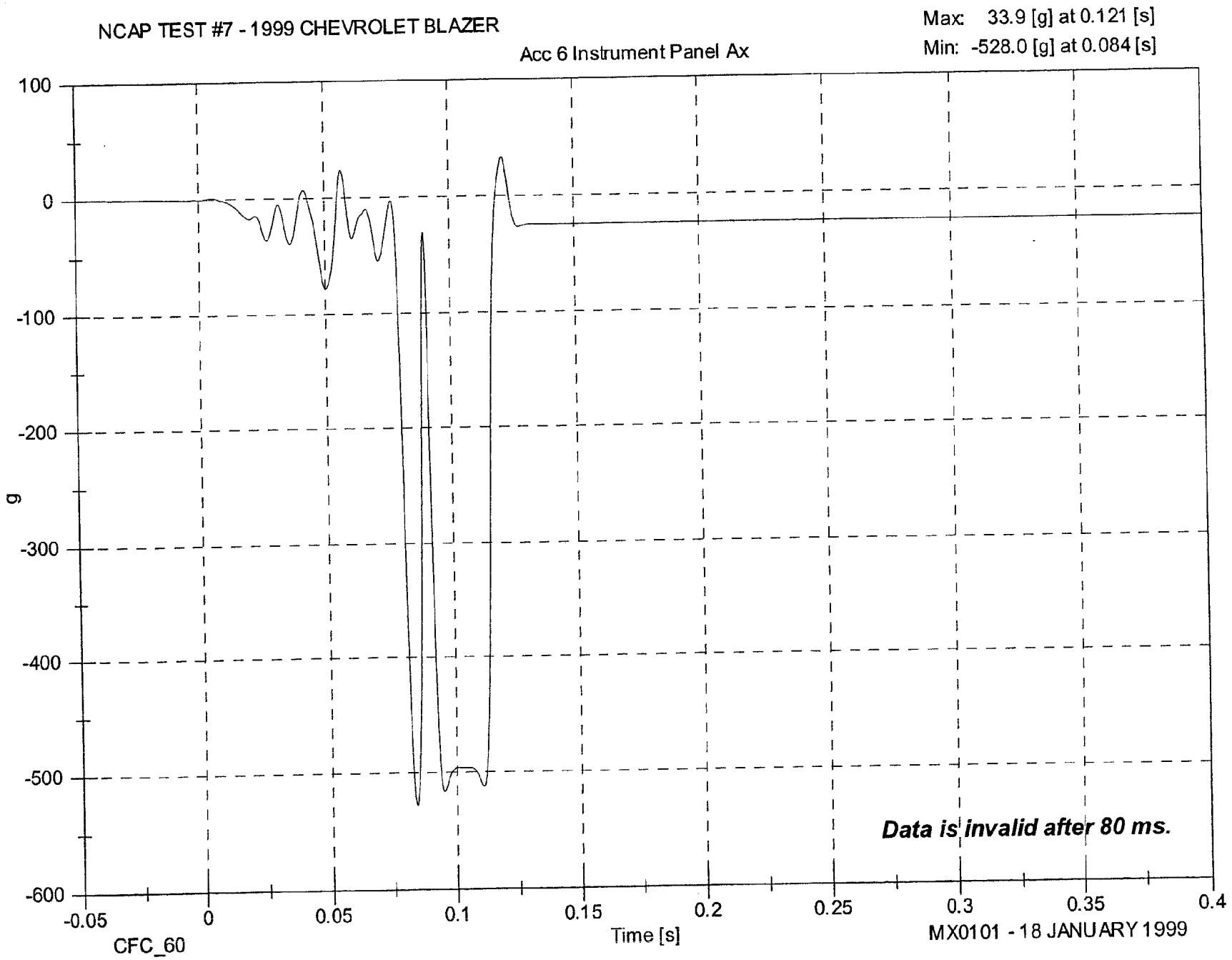

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Acc 4 Engine Bottom Ax
Max: 168.8 [kph] at 0.067 [s]
Min: -1056.2 [kph] at 0.600 [s]
250
0
-250
-500
-750
-1000
-1250
kph
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_180
Data is invalid after 54 ms.
MX0101 - 18 JANUARY 1999

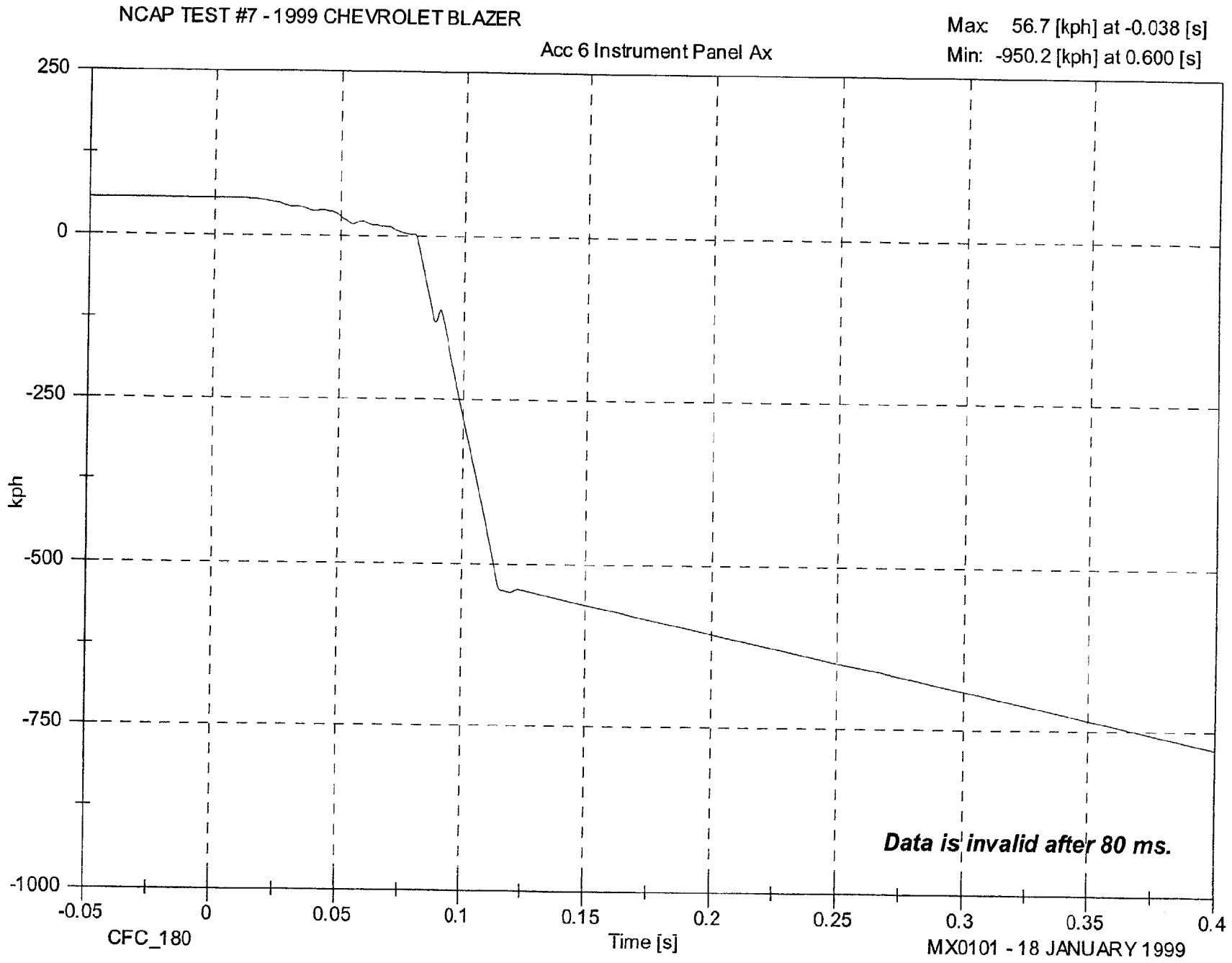

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Acc 4 Engine Bottom Ax
Max: 1362.7 [mm] at 0.092 [s]
Min: -84903.4 [mm] at 0.600 [s]
20000
0
-20000
-40000
-60000
-80000
-100000
mm
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_180
MX0101 - 18 JANUARY 1999
Data is invalid after 54 ms.

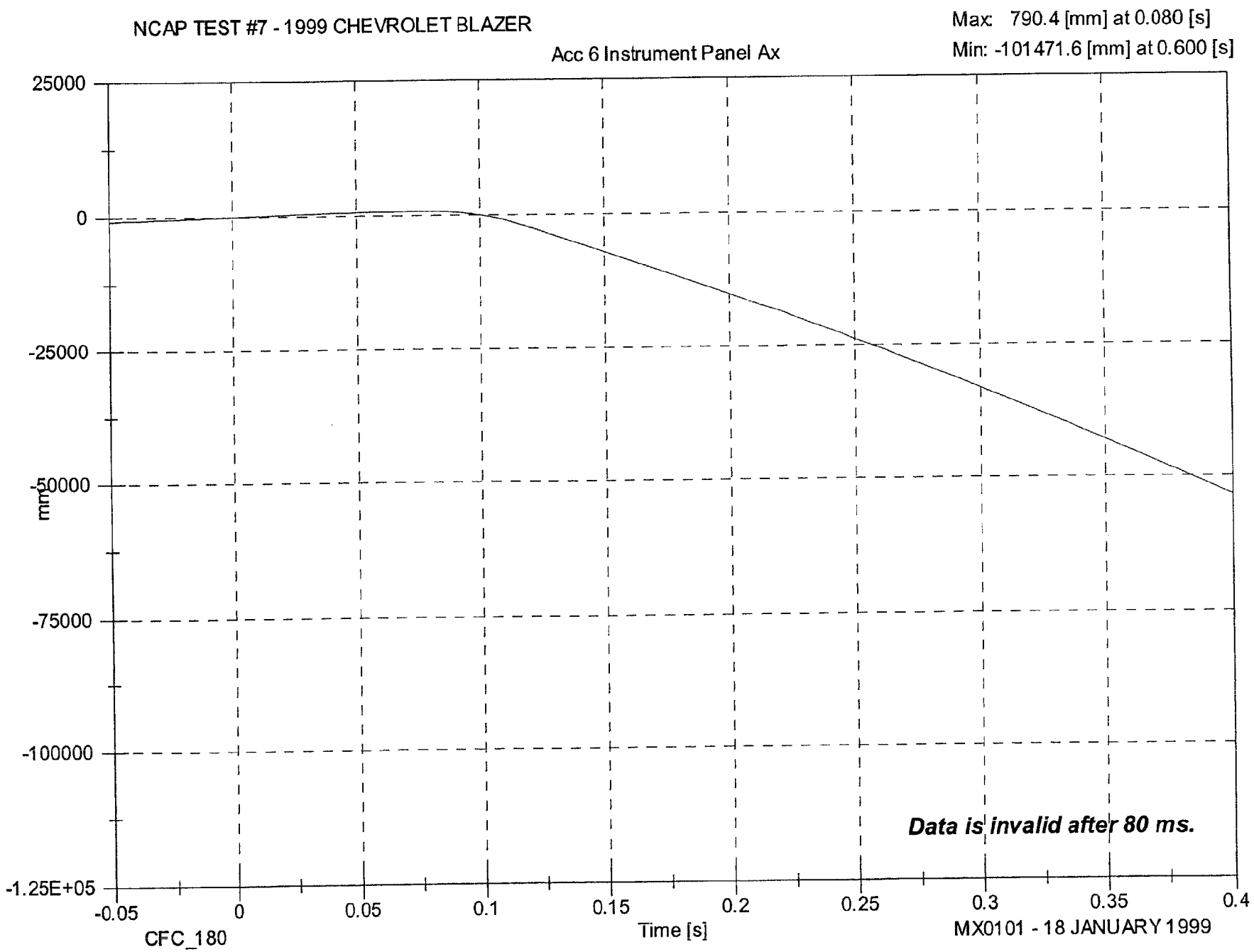

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Acc 5 R Caliper Ax
Max: 63.7 [g] at 0.024 [s]
Min: -90.3 [g] at 0.043 [s]
MX0101 - 18 JANUARY 1999
CFC_60
Time [s]
g
75
50
25
0
-25
-50
-75
-100
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4

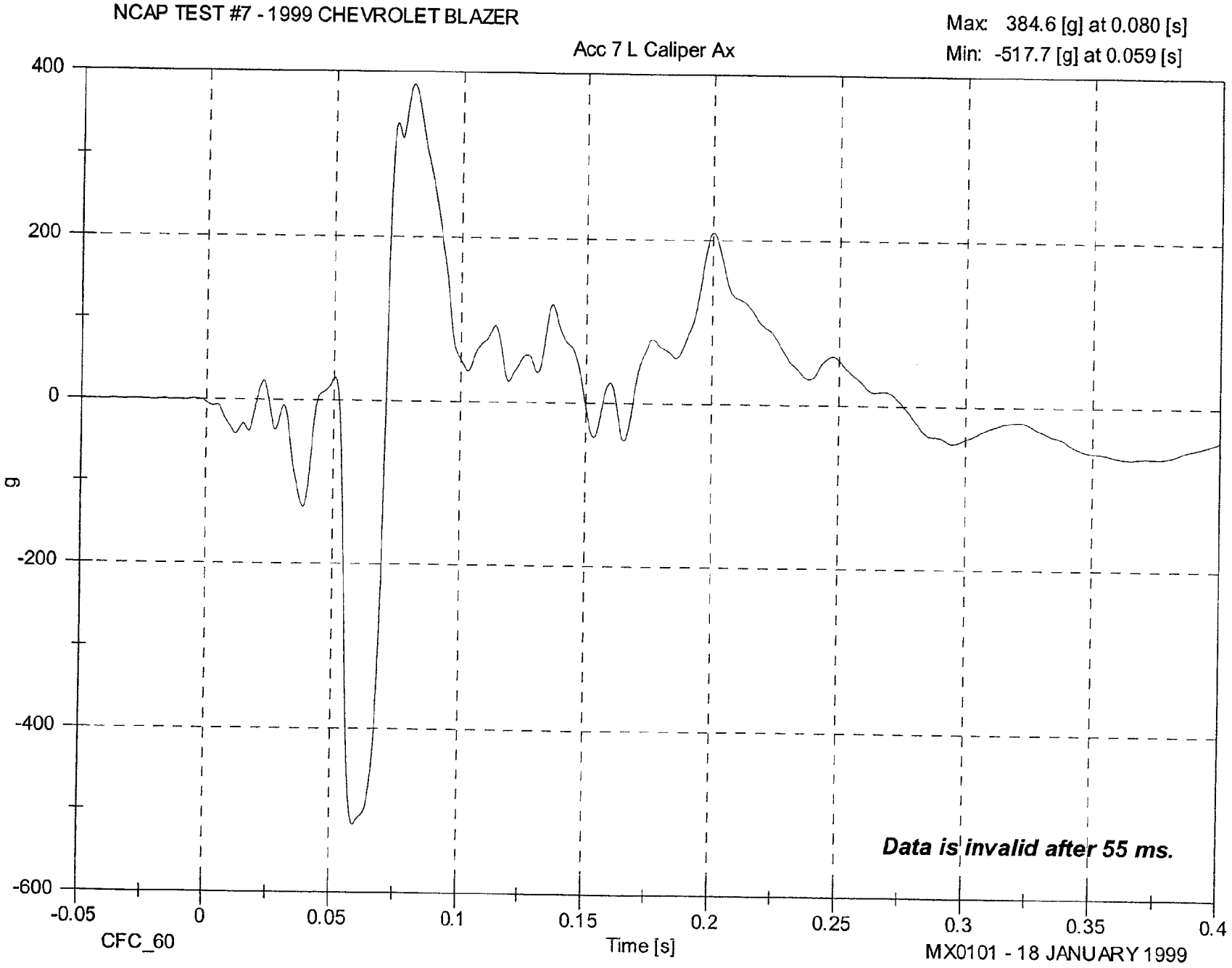

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Acc 5 R Caliper Ax
Max: 56.5 [kph] at -0.056 [s]
Min: -8.3 [kph] at 0.196 [s]
60
50
40
30
20
10
0
-10
kph
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_180
MX0101 - 18 JANUARY 1999

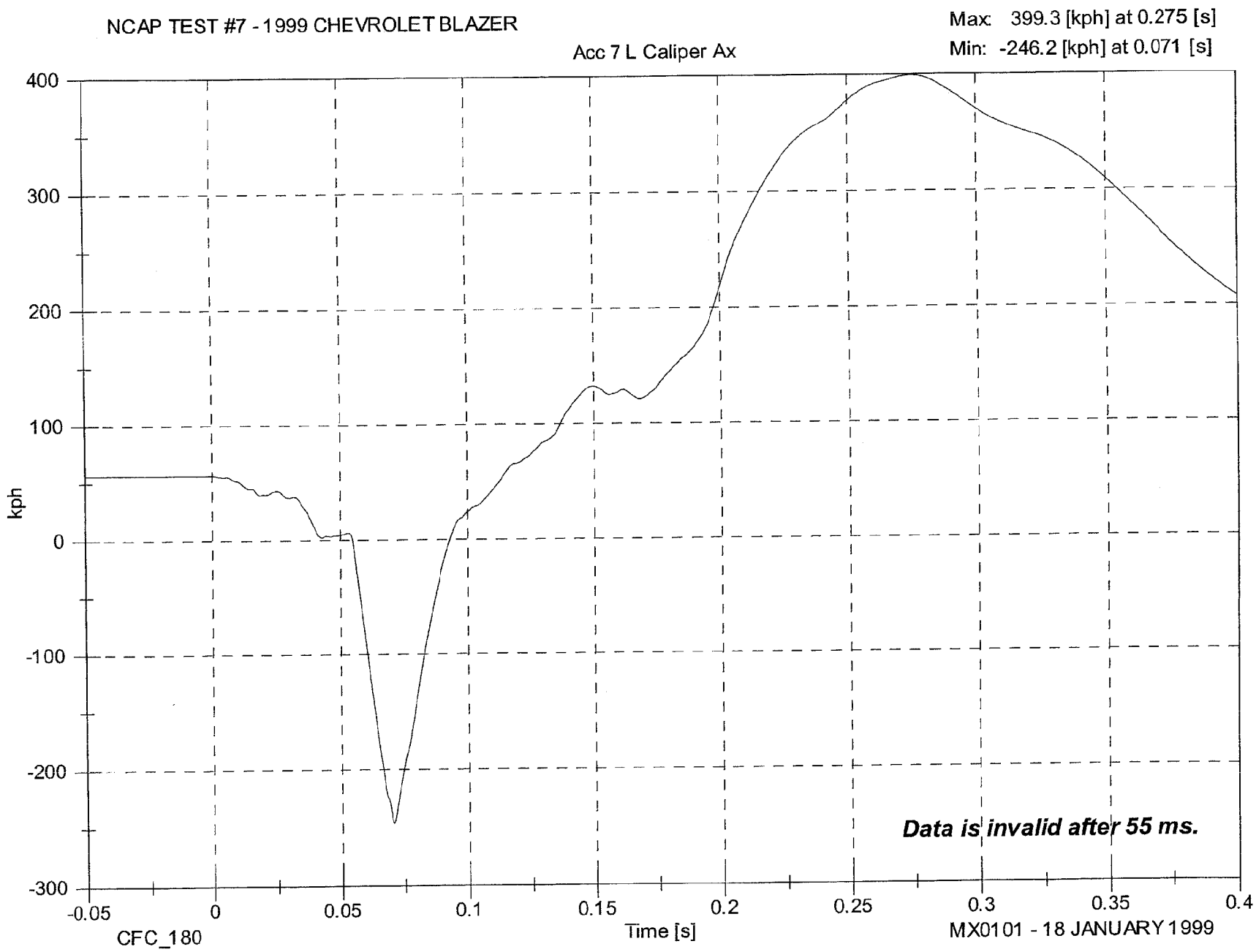

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Acc 5 R Caliper Ax
Max: 474.0 [mm] at 0.073 [s]
Min: -1567.9 [mm] at -0.100 [s]
MX0101 - 18 JANUARY 1999
CFC_180
mm
Time [s]
500
0
-500
-1000
-1500
-2000
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4

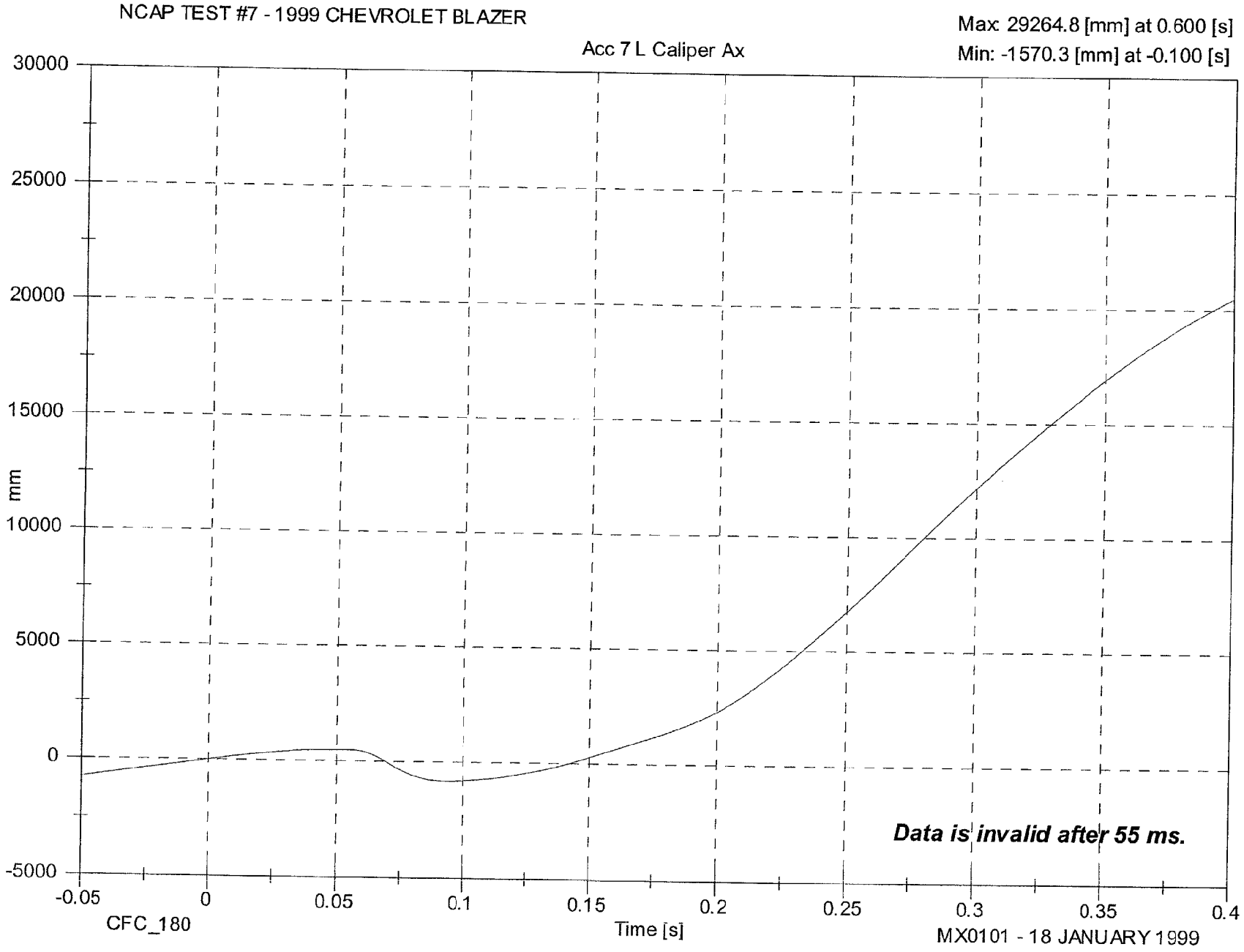

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Acc 6 Instrument Panel Ax
Max: 33.9 [g] at 0.121 [s]
Min: -528.0 [g] at 0.084 [s]
100
0
-100
-200
-300
-400
-500
-600
g
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_60
MX0101 - 18 JANUARY 1999
Data is invalid after 80 ms.

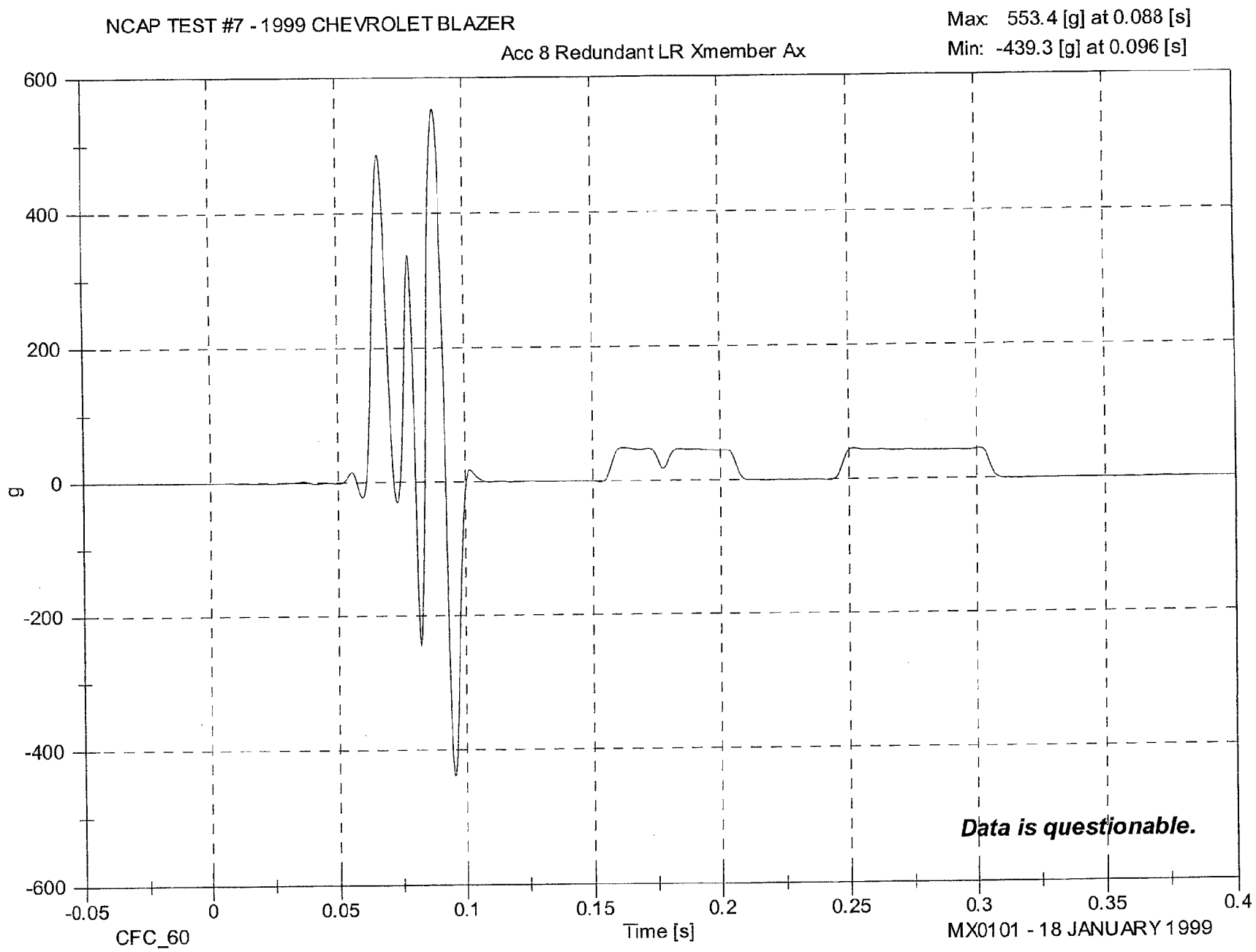

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Acc 6 Instrument Panel Ax
Max: 56.7 [kph] at -0.038 [s]
Min: -950.2 [kph] at 0.600 [s]
250
0
-250
-500
-750
-1000
kph
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_180
Data is invalid after 80 ms.
MX0101 - 18 JANUARY 1999

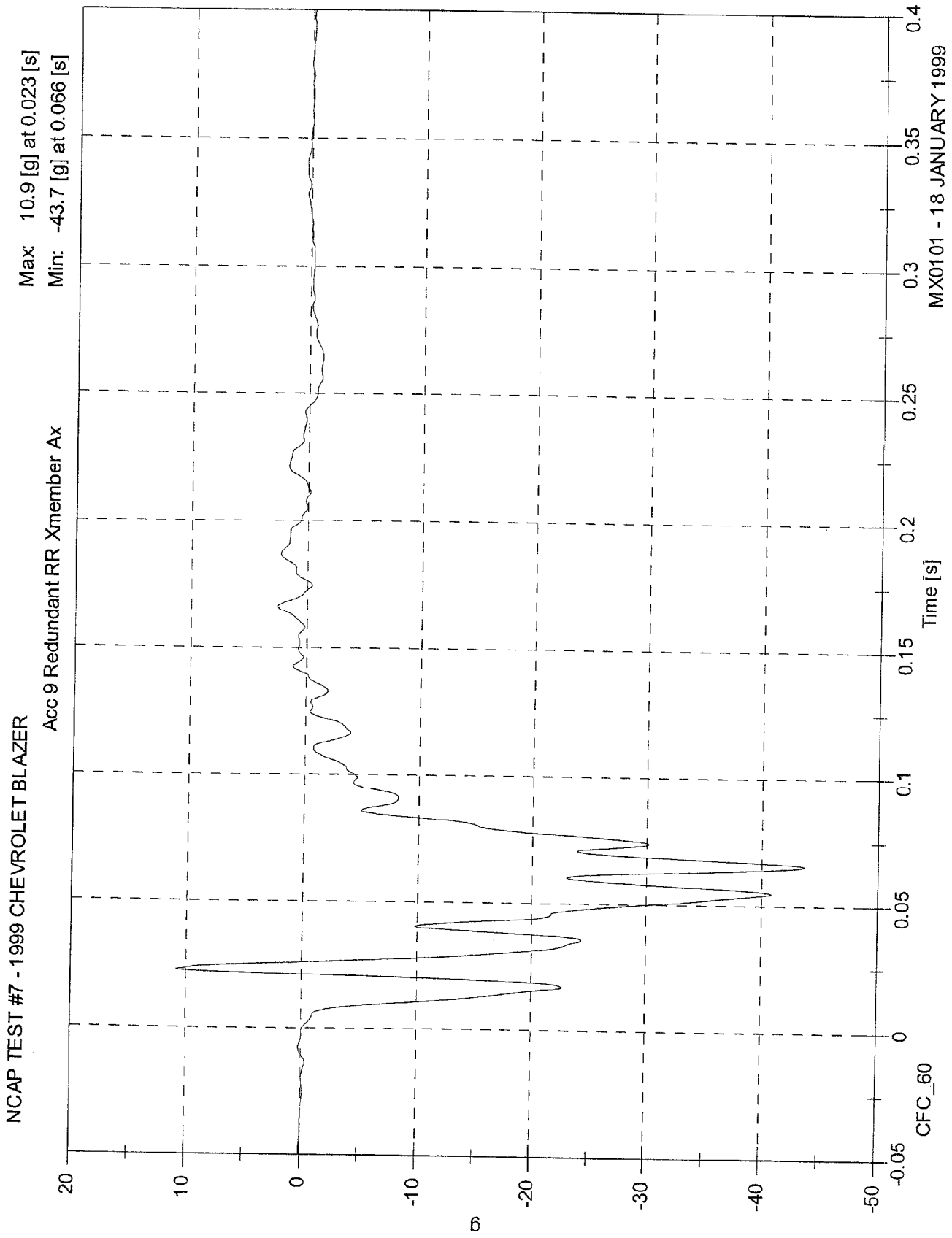

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Acc 6 Instrument Panel Ax
Max: 790.4 [mm] at 0.080 [s]
Min: -101471.6 [mm] at 0.600 [s]
25000
0
-25000
-50000
-75000
-100000
-1.25E+05
mm
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_180
Data is invalid after 80 ms.
MX0101 - 18 JANUARY 1999

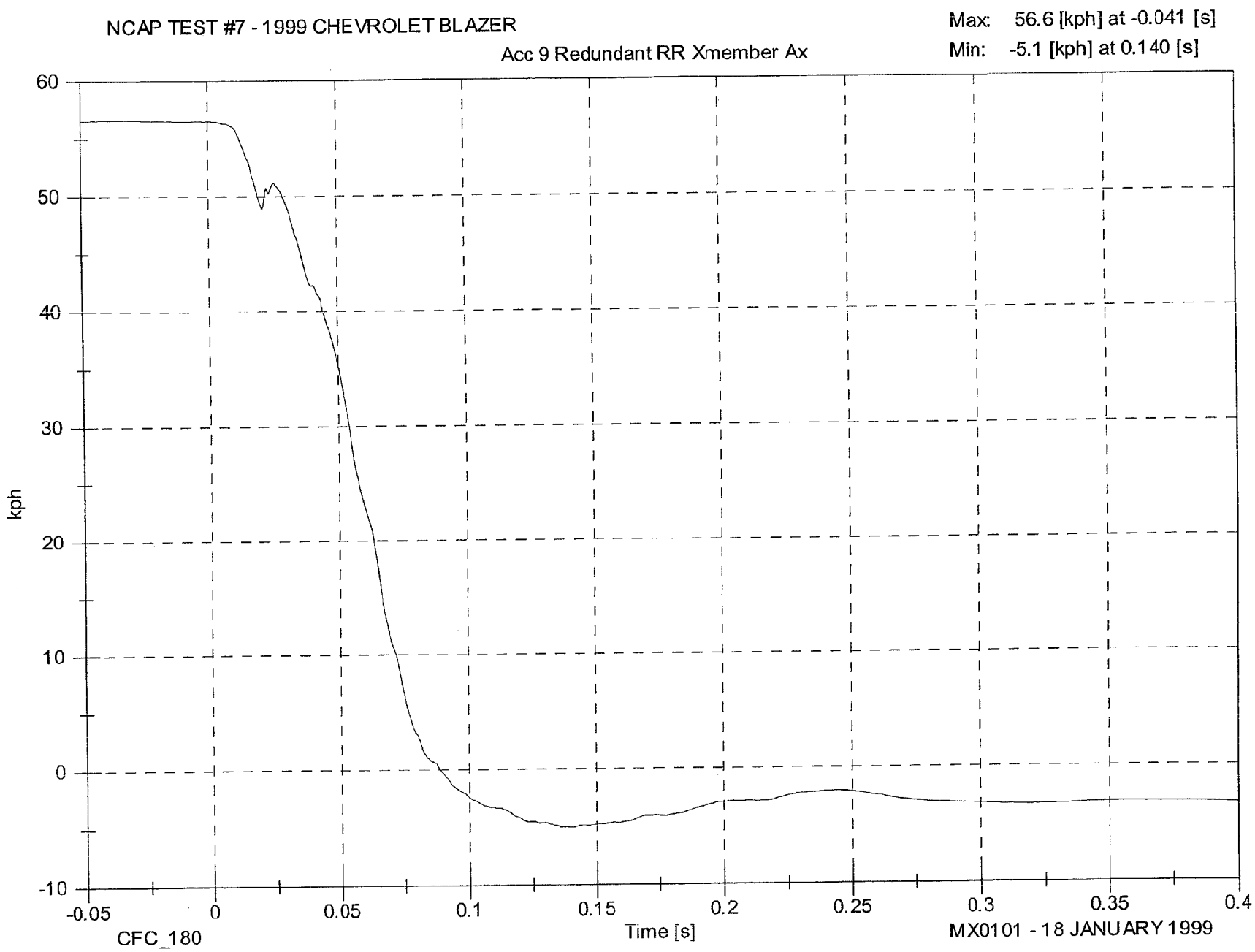

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Acc 7 L Caliper Ax
Max: 384.6 [g] at 0.080 [s]
Min: -517.7 [g] at 0.059 [s]
400
200
0
-200
-400
-600
g
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_60
Data is invalid after 55 ms.
MX0101 - 18 JANUARY 1999

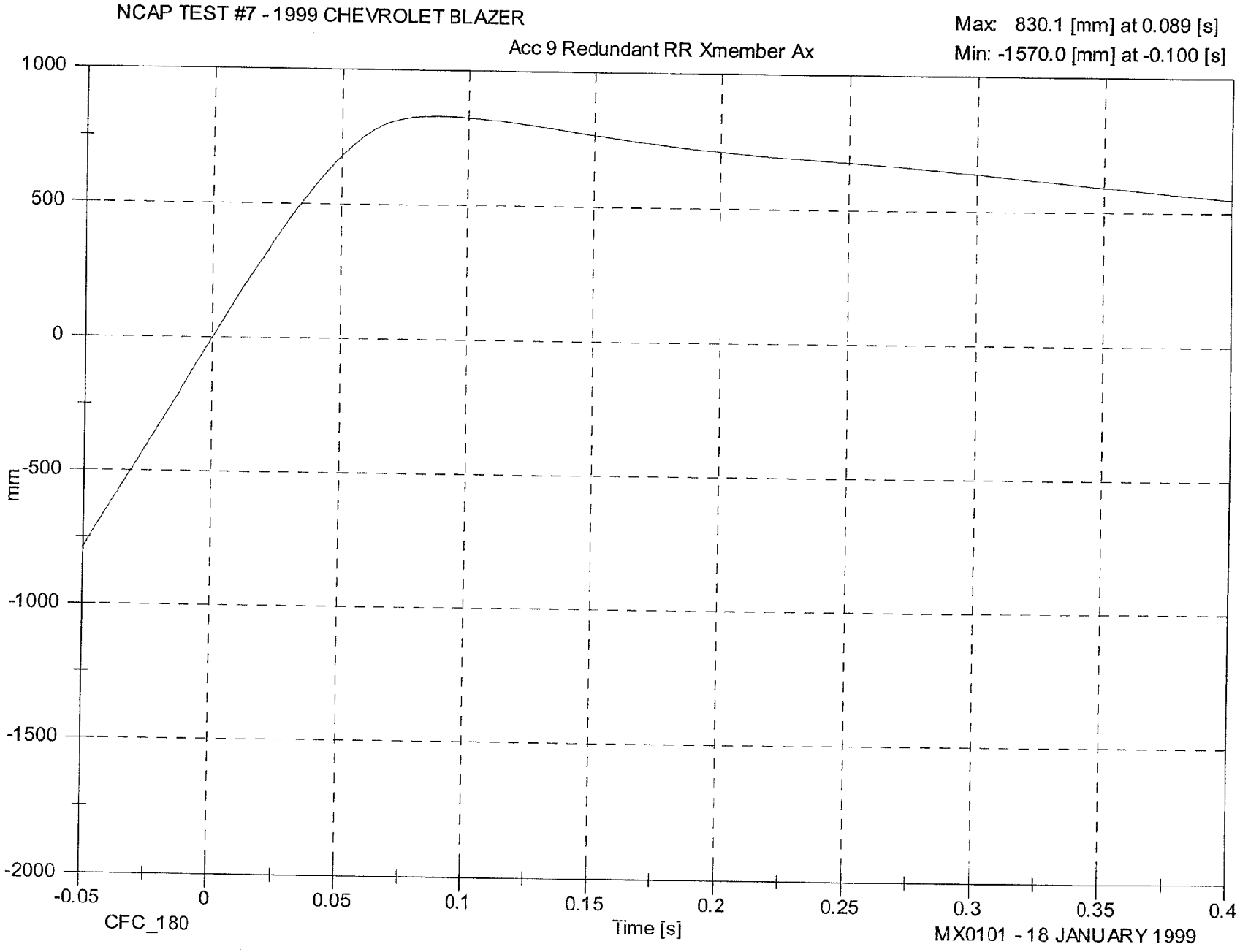

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Acc 7 L Caliper Ax
Max: 399.3 [kph] at 0.275 [s]
Min: -246.2 [kph] at 0.071 [s]
400
300
200
100
0
-100
-200
-300
kph
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
Data is invalid after 55 ms.
CFC_180
MX0101 - 18 JANUARY 1999


NCAP TEST #7 - 1999 CHEVROLET BLAZER
Acc 7 L Caliper Ax
Max: 29264.8 [mm] at 0.600 [s]
Min: -1570.3 [mm] at -0.100 [s]
30000
25000
20000
15000
10000
5000
0
-5000
mm
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_180
Data is invalid after 55 ms.
MX0101 - 18 JANUARY 1999


NCAP TEST #7 - 1999 CHEVROLET BLAZER
Acc 8 Redundant LR Xmember Ax
Max: 553.4 [g] at 0.088 [s]
Min: -439.3 [g] at 0.096 [s]
600
400
200
0
-200
-400
-600
g
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
Data is questionable.
CFC_60
MX0101 - 18 JANUARY 1999


NCAP TEST #7 - 1999 CHEVROLET BLAZER
Acc 9 Redundant RR Xmember Ax
Max: 10.9 [g] at 0.023 [s]
Min: -43.7 [g] at 0.066 [s]
MX0101 - 18 JANUARY 1999
CFC_60
Time [s]
g
20
10
0
-10
-20
-30
-40
-50
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4


NCAP TEST #7 - 1999 CHEVROLET BLAZER
Acc 9 Redundant RR Xmember Ax
Max: 56.6 [kph] at -0.041 [s]
Min: -5.1 [kph] at 0.140 [s]
60
50
40
30
20
10
0
-10
kph
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_180
MX0101 - 18 JANUARY 1999

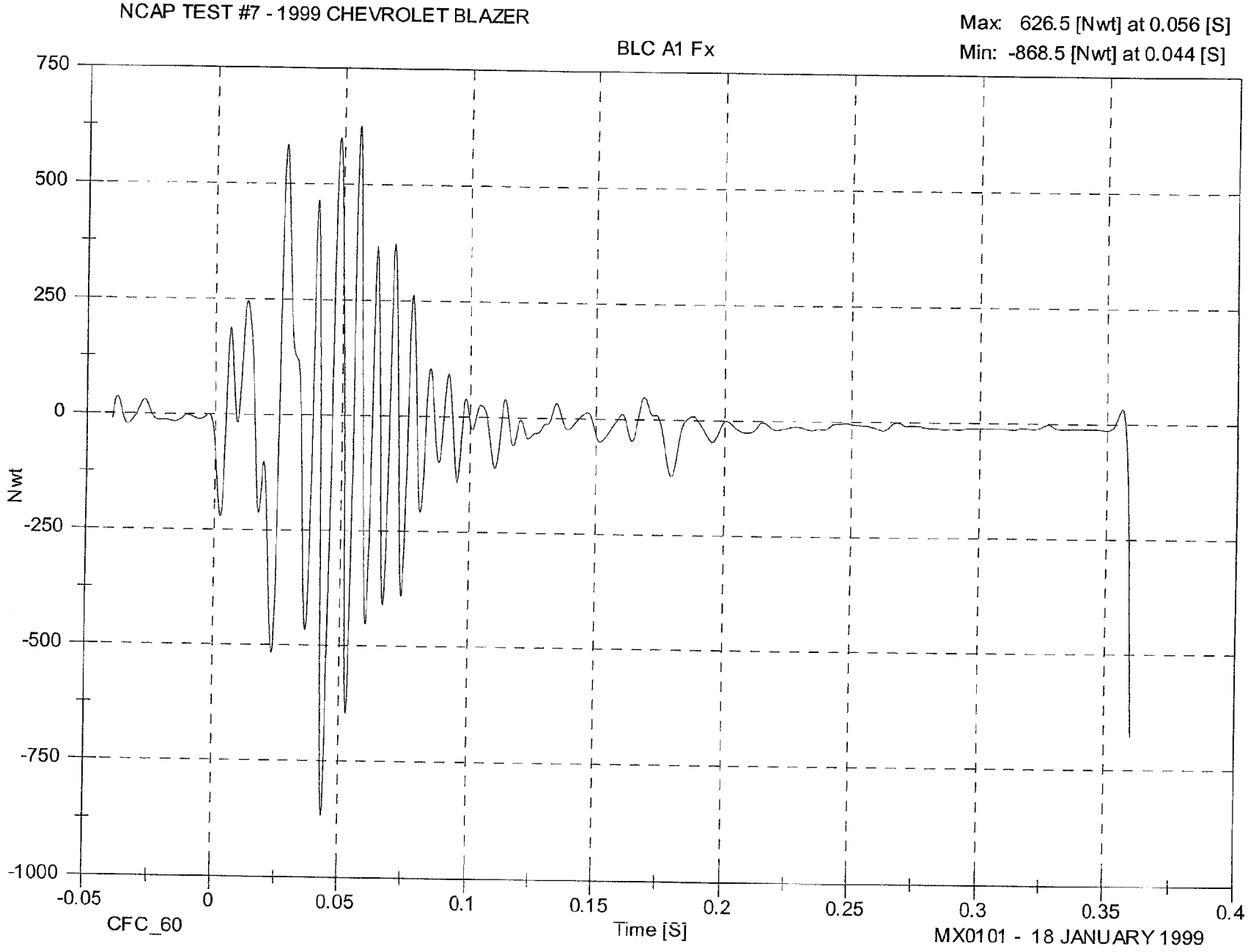

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Acc 9 Redundant RR Xmember Ax
Max: 830.1 [mm] at 0.089 [s]
Min: -1570.0 [mm] at -0.100 [s]
1000
500
0
-500
-1000
-1500
-2000
mm
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [s]
CFC_180
MX0101 - 18 JANUARY 1999

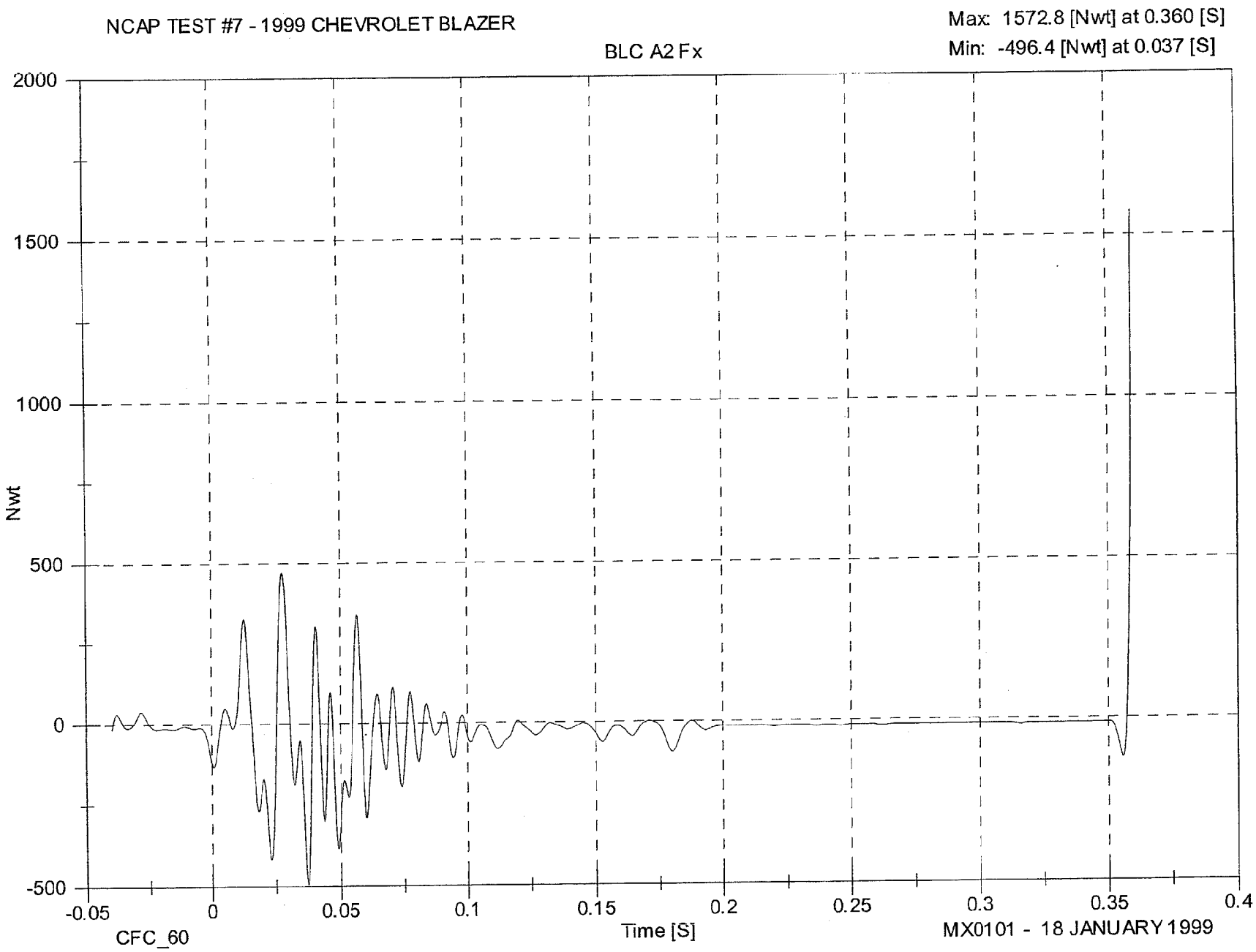
NHTSA TEST NO. MX0101

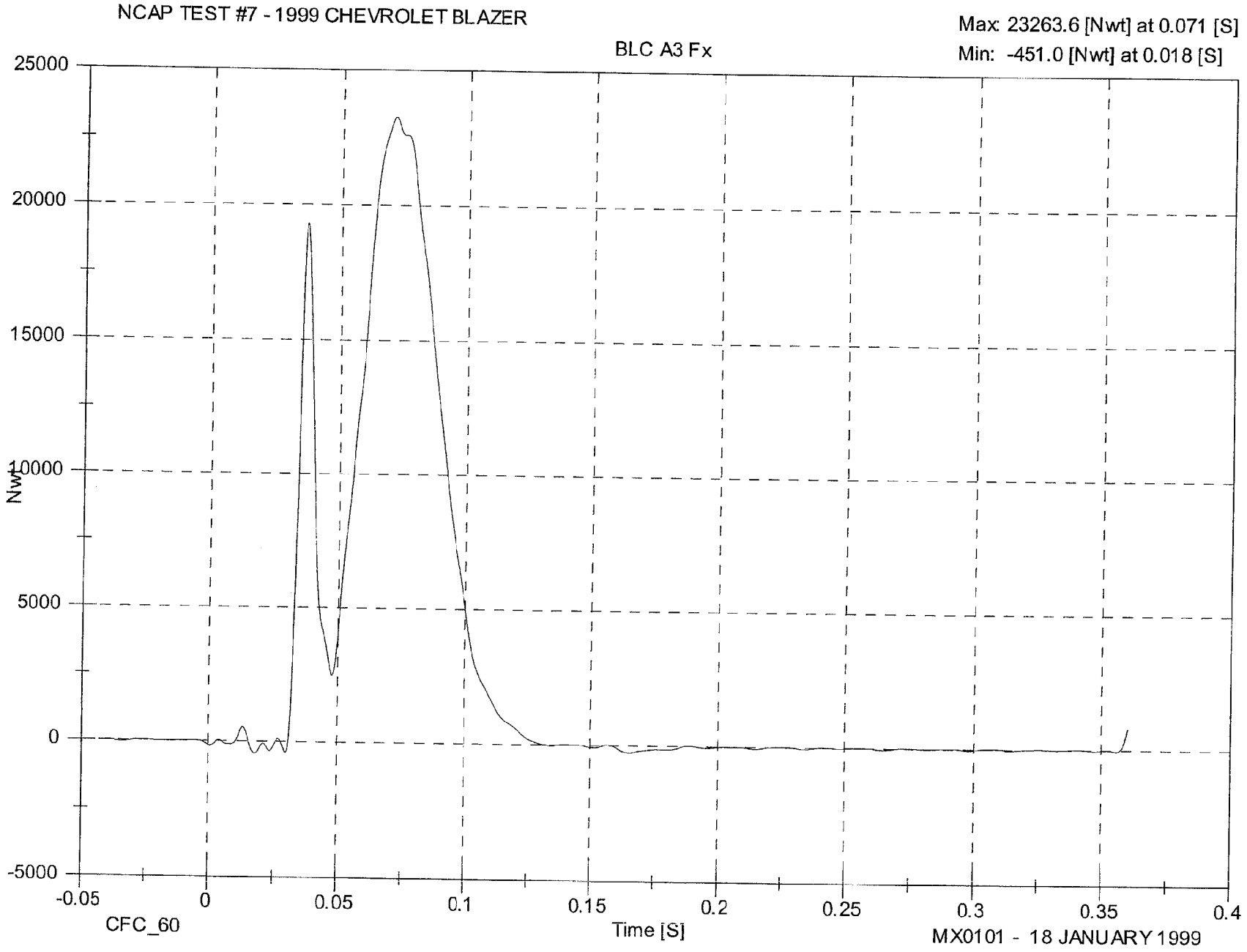
LOAD CELL BARRIER DATA

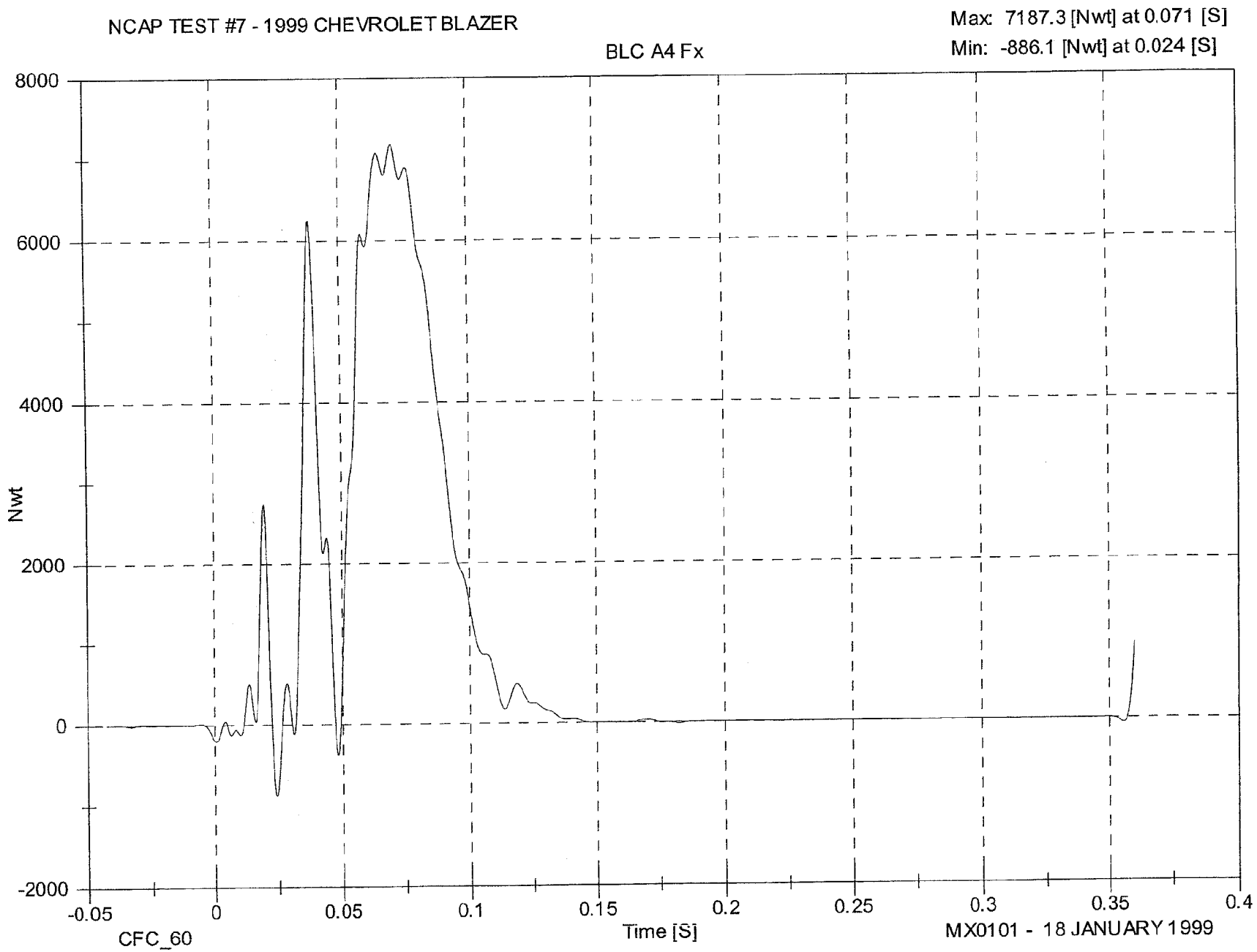
FILTER CHANNEL CLASS

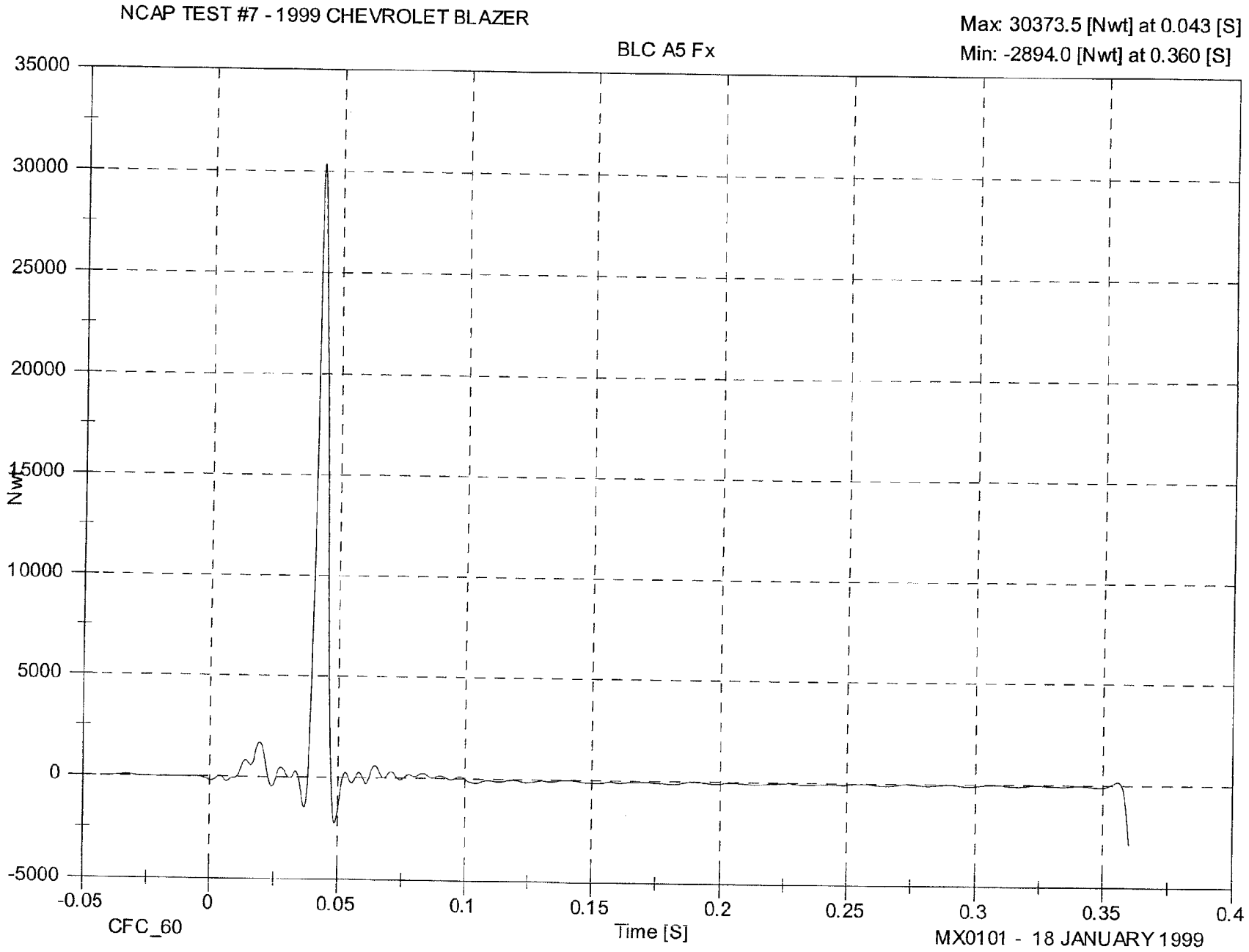
60

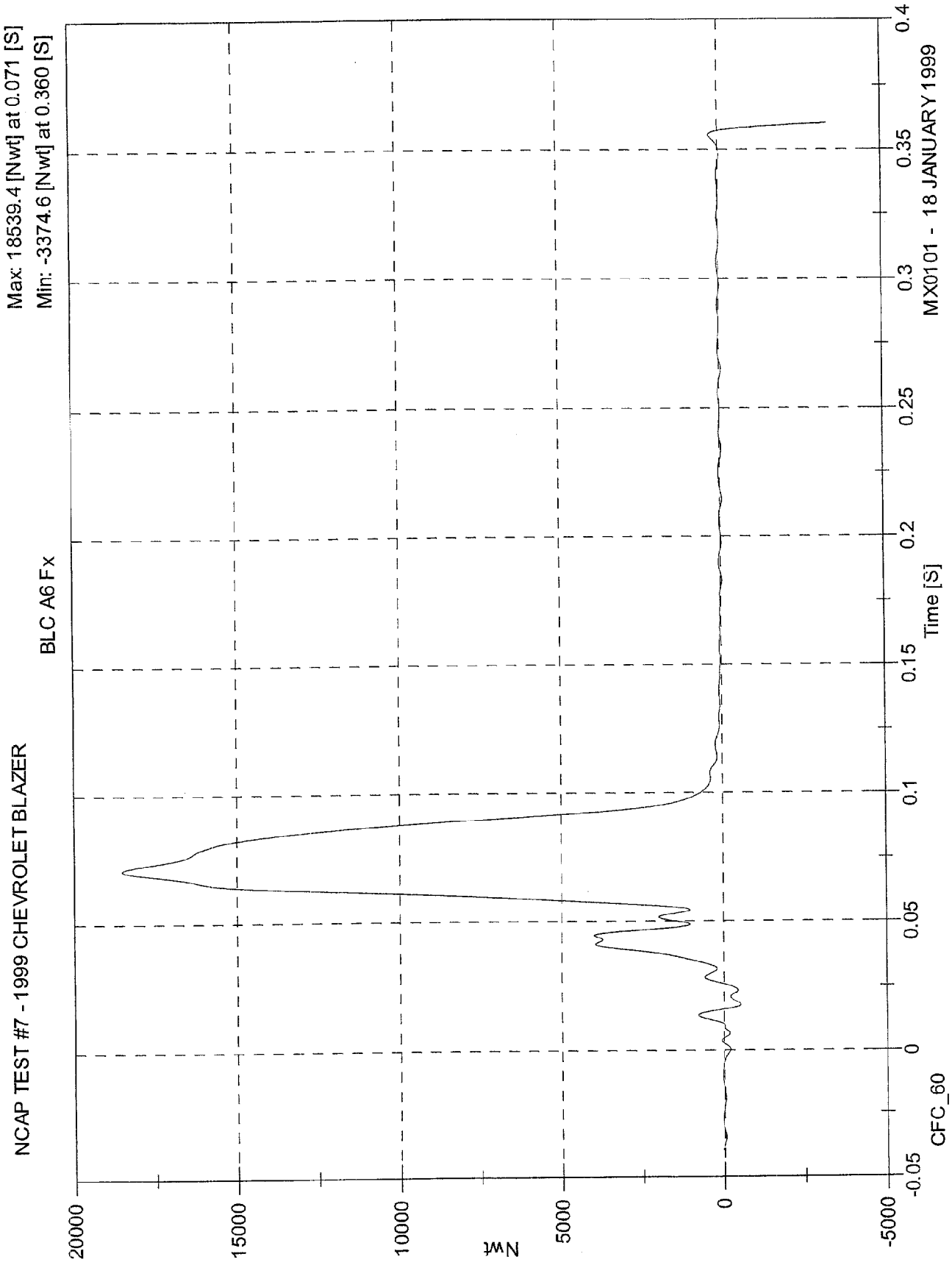

NCAP TEST #7 - 1999 CHEVROLET BLAZER
BLC A1 Fx
Max: 626.5 [Nwt] at 0.056 [S]
Min: -868.5 [Nwt] at 0.044 [S]
750
500
250
0
-250
-500
-750
-1000
Nwt
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
CFC_60
Time [S]
MX0101 - 18 JANUARY 1999

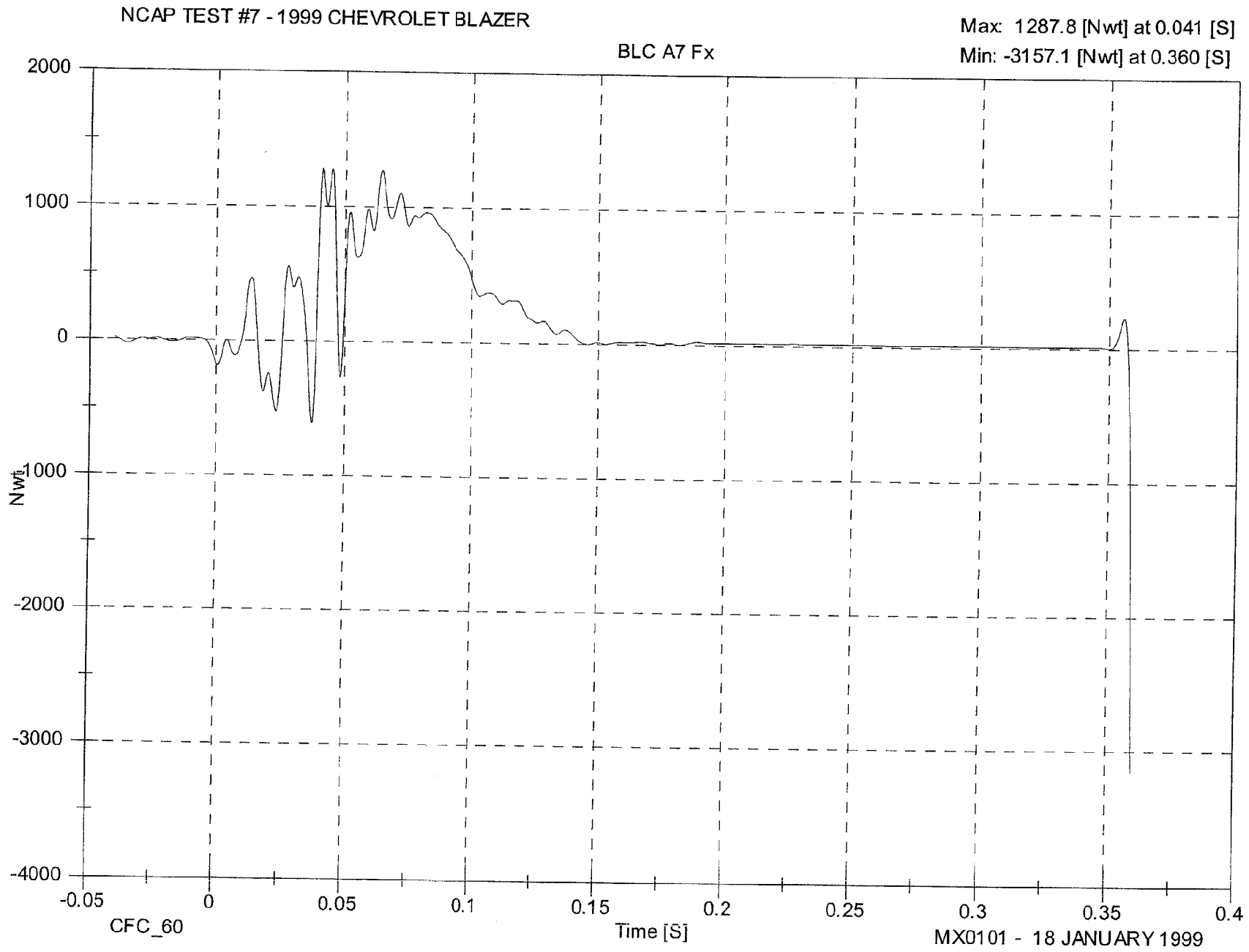

NCAP TEST #7 - 1999 CHEVROLET BLAZER
BLC A2 Fx
Max: 1572.8 [Nwt] at 0.360 [S]
Min: -496.4 [Nwt] at 0.037 [S]
2000
1500
1000
500
0
-500
Nwt
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [S]
CFC_60
MX0101 - 18 JANUARY 1999

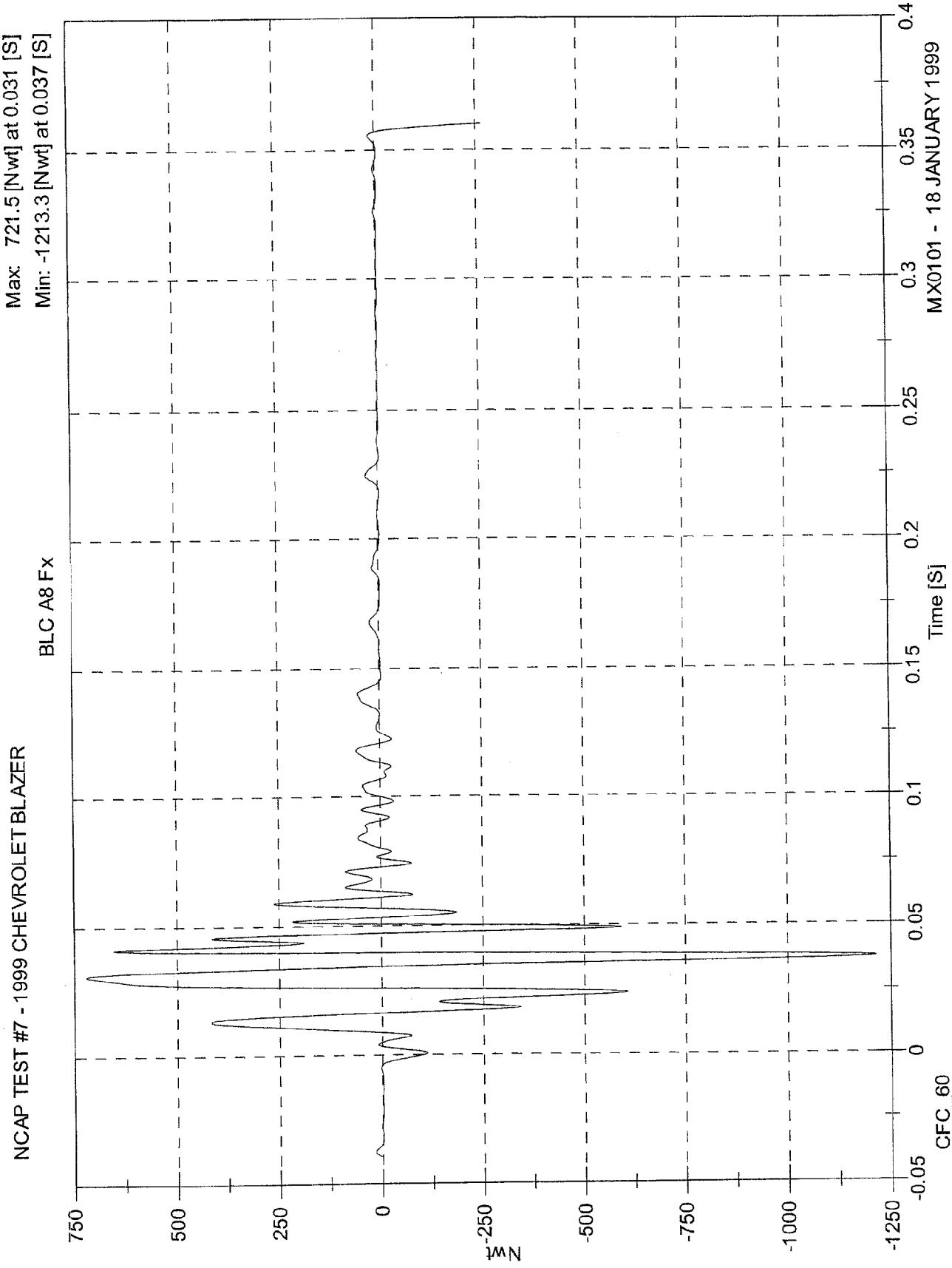

NCAP TEST #7 - 1999 CHEVROLET BLAZER
BLC A3 Fx
Max: 23263.6 [Nwt] at 0.071 [S]
Min: -451.0 [Nwt] at 0.018 [S]
25000
20000
15000
10000
5000
0
-5000
Nwt
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [S]
CFC_60
MX0101 - 18 JANUARY 1999

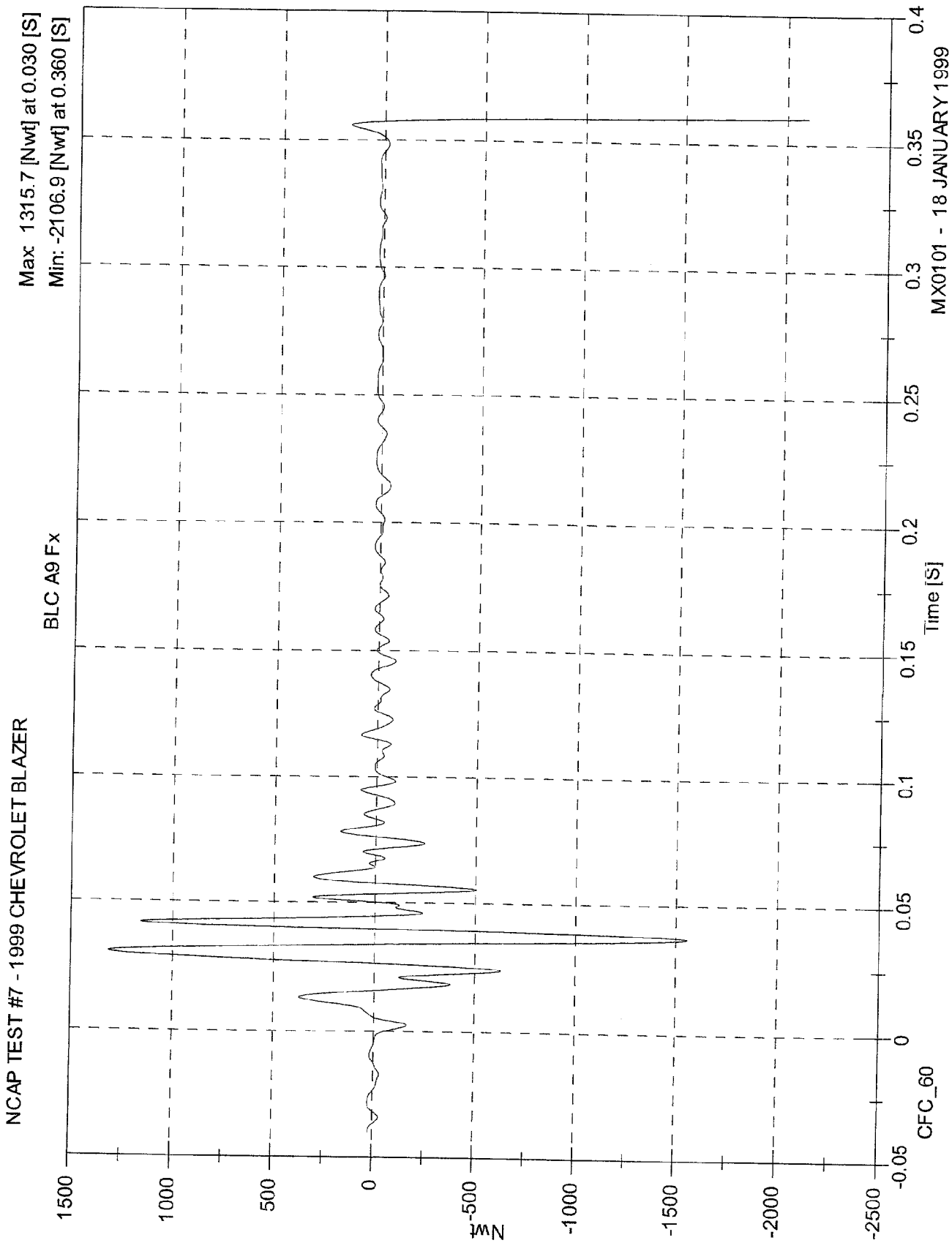

NCAP TEST #7 - 1999 CHEVROLET BLAZER
BLC A4 Fx
Max: 7187.3 [Nwt] at 0.071 [S]
Min: -886.1 [Nwt] at 0.024 [S]
8000
6000
4000
2000
0
-2000
Nwt
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [S]
CFC_60
MX0101 - 18 JANUARY 1999

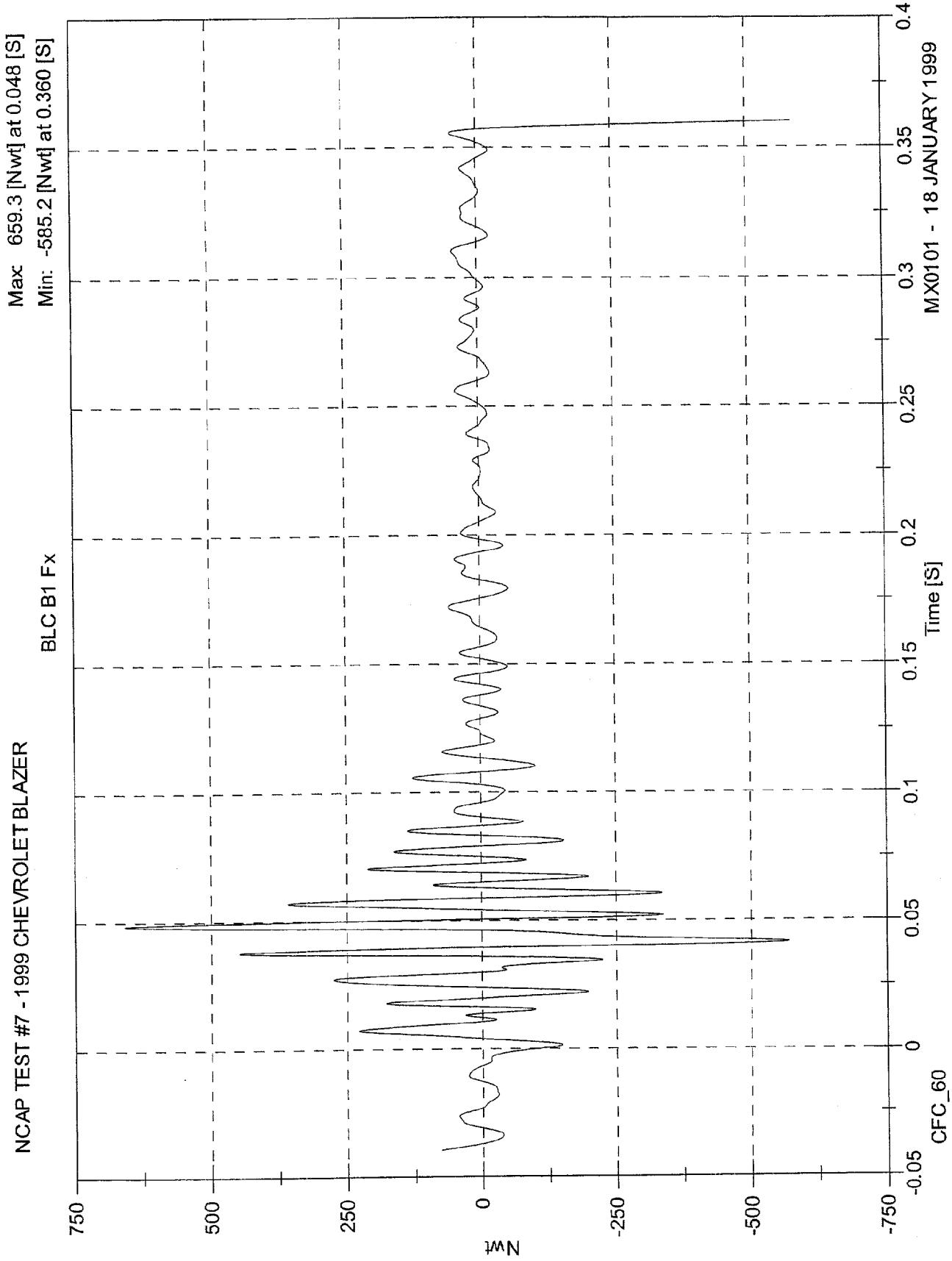

NCAP TEST #7 - 1999 CHEVROLET BLAZER
BLC A5 Fx
Max: 30373.5 [Nwt] at 0.043 [S]
Min: -2894.0 [Nwt] at 0.360 [S]
35000
30000
25000
20000
15000
10000
5000
0
-5000
Nwt
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [S]
CFC_60
MX0101 - 18 JANUARY 1999

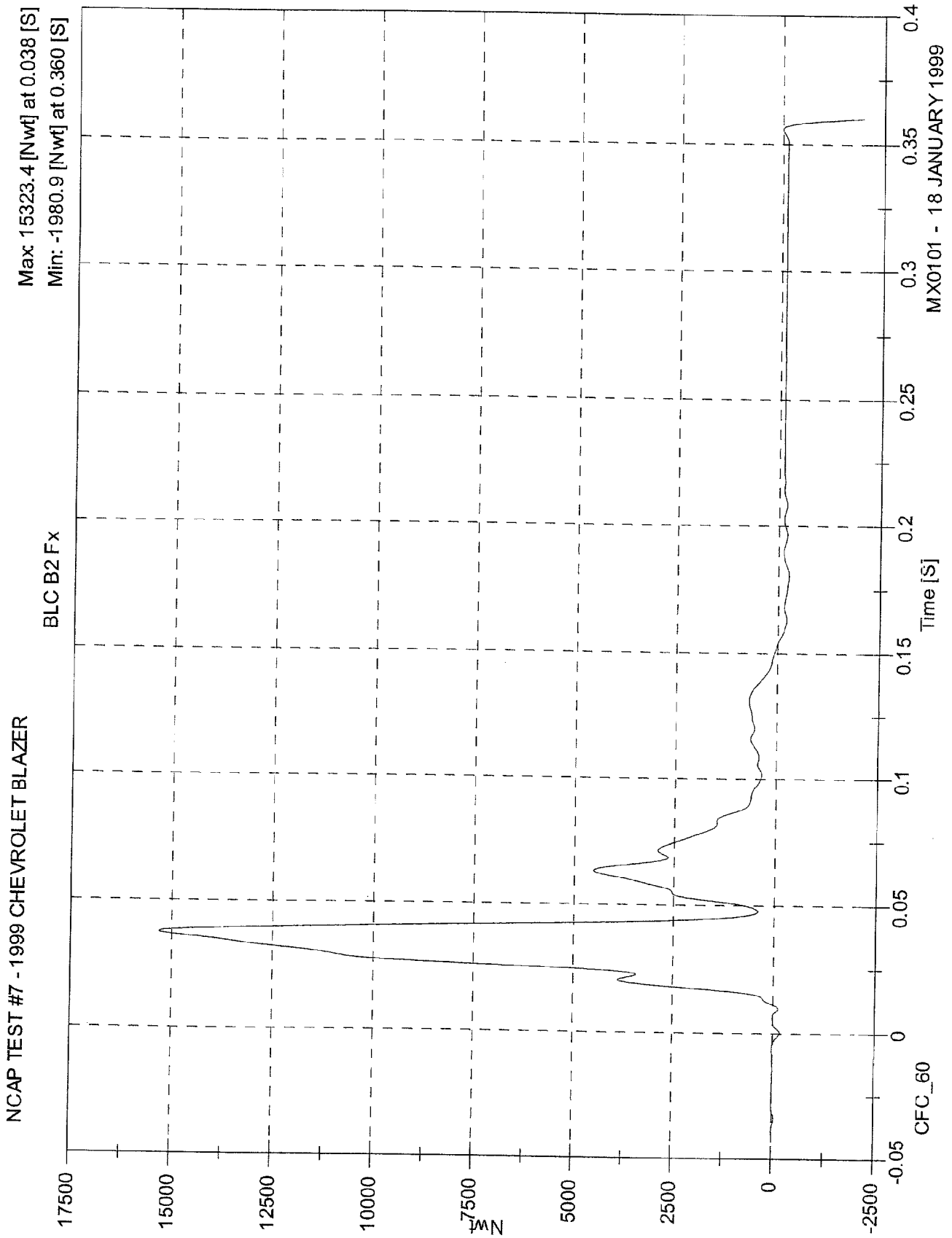

NCAP TEST #7 - 1999 CHEVROLET BLAZER
BLC A6 Fx
Max: 18539.4 [Nwt] at 0.071 [S]
Min: -3374.6 [Nwt] at 0.360 [S]
Nwt
20000
15000
10000
5000
0
-5000
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [S]
CFC_60
MX0101 - 18 JANUARY 1999

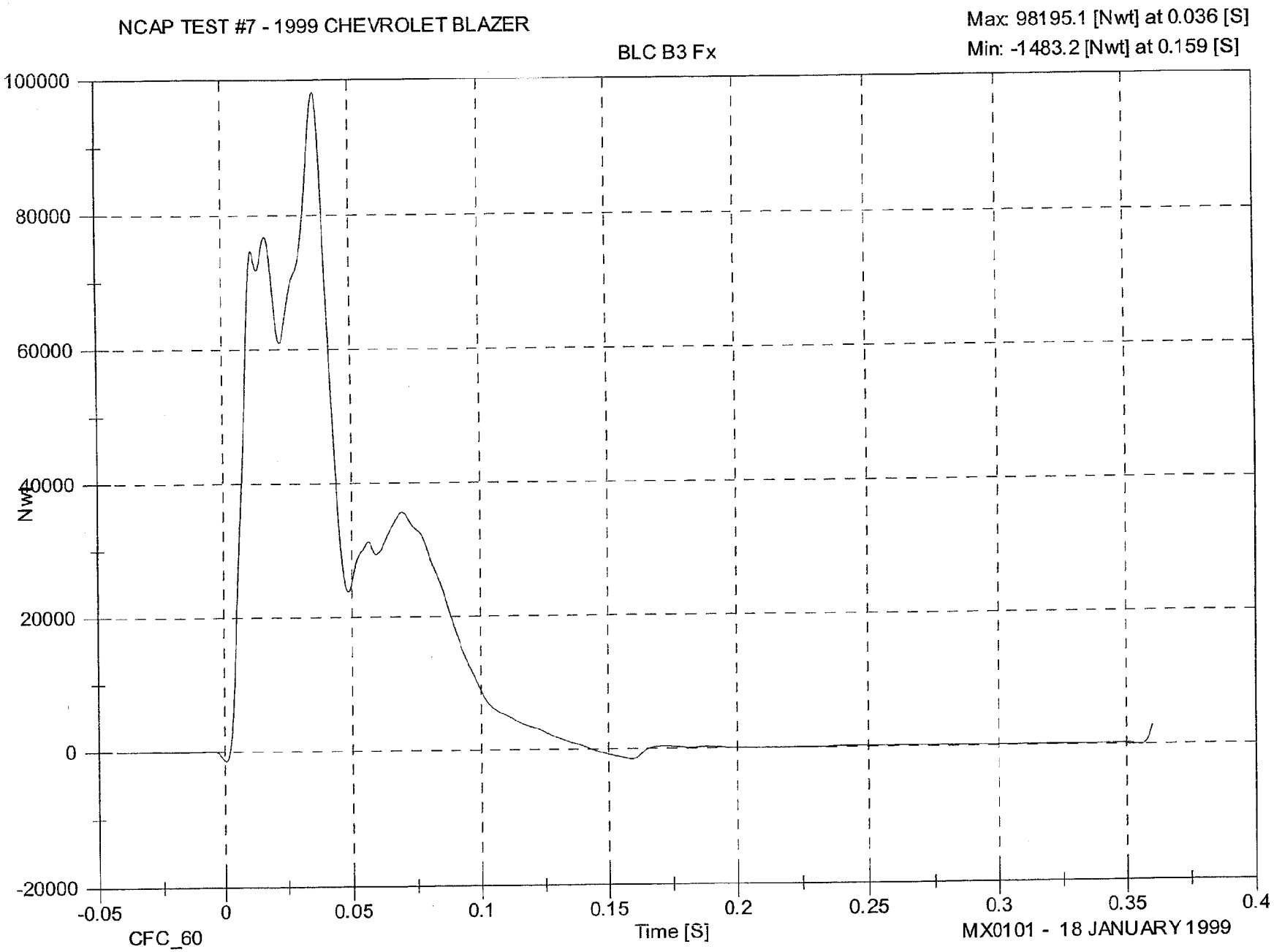

NCAP TEST #7 - 1999 CHEVROLET BLAZER
BLC A7 Fx
Max: 1287.8 [Nwt] at 0.041 [S]
Min: -3157.1 [Nwt] at 0.360 [S]
2000
1000
0
-1000
-2000
-3000
-4000
Nwt
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [S]
CFC_60
MX0101 - 18 JANUARY 1999

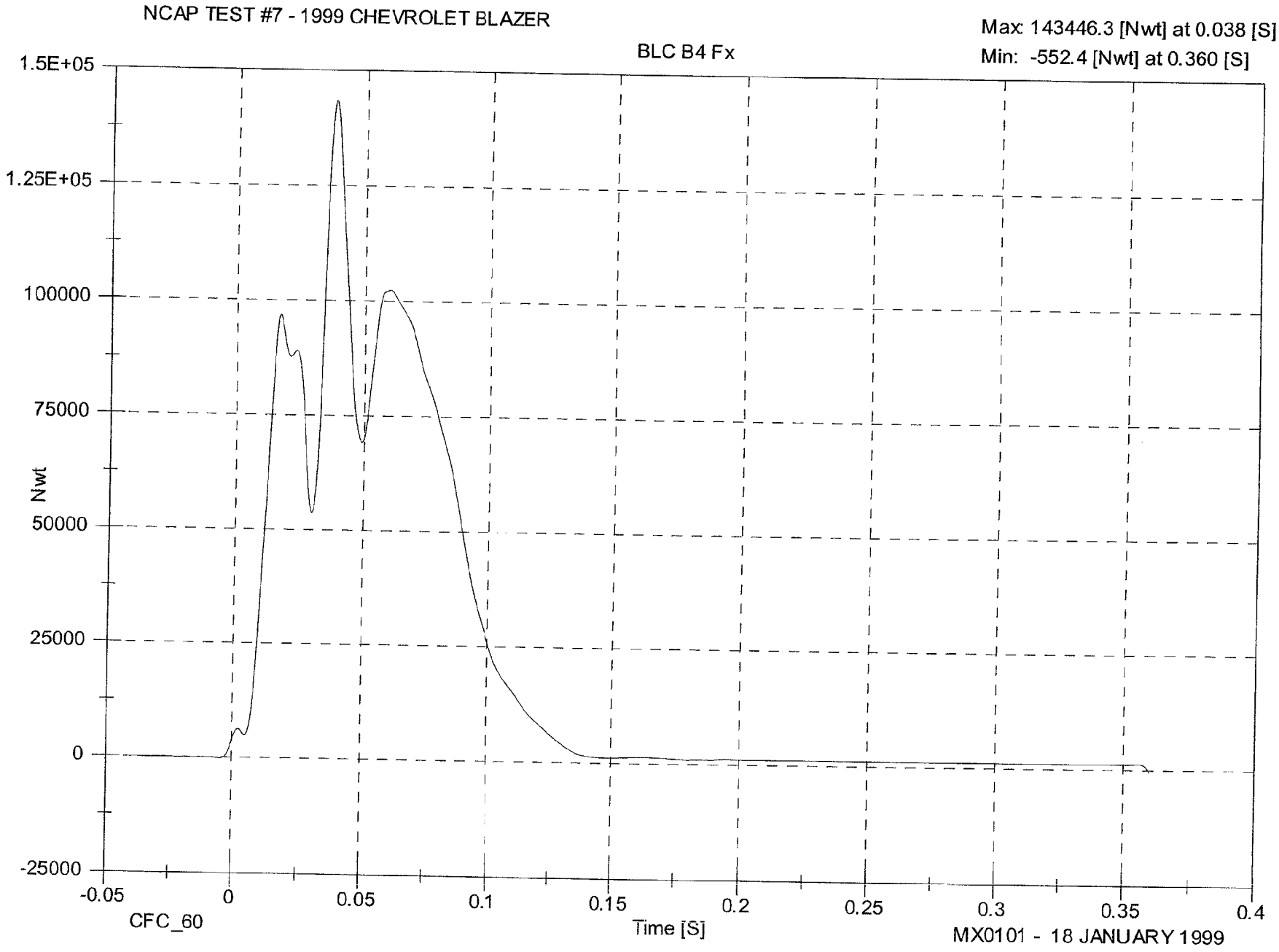

NCAP TEST #7 - 1999 CHEVROLET BLAZER
BLC A8 Fx
Max: 721.5 [Nwt] at 0.031 [S]
Min: -1213.3 [Nwt] at 0.037 [S]
MX0101 - 18 JANUARY 1999
CFC_60
Time [S]
Nwt
750
500
250
0
-250
-500
-750
-1000
-1250
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4

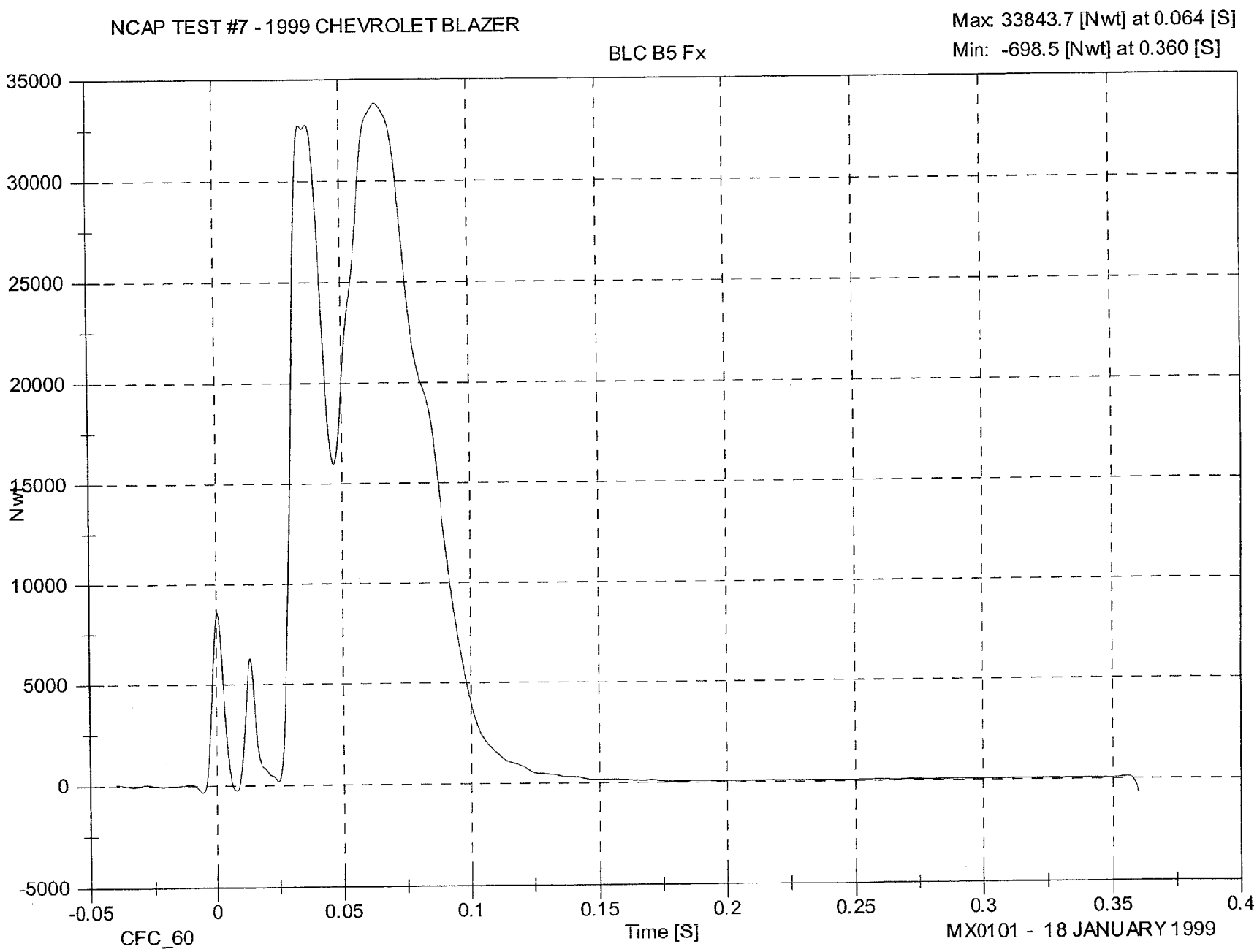

NCAP TEST #7 - 1999 CHEVROLET BLAZER
BLC A9 Fx
Max: 1315.7 [Nwt] at 0.030 [S]
Min: -2106.9 [Nwt] at 0.360 [S]
MX0101 - 18 JANUARY 1999
CFC_60
Nwt
Time [S]
1500
1000
500
0
-500
-1000
-1500
-2000
-2500
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4

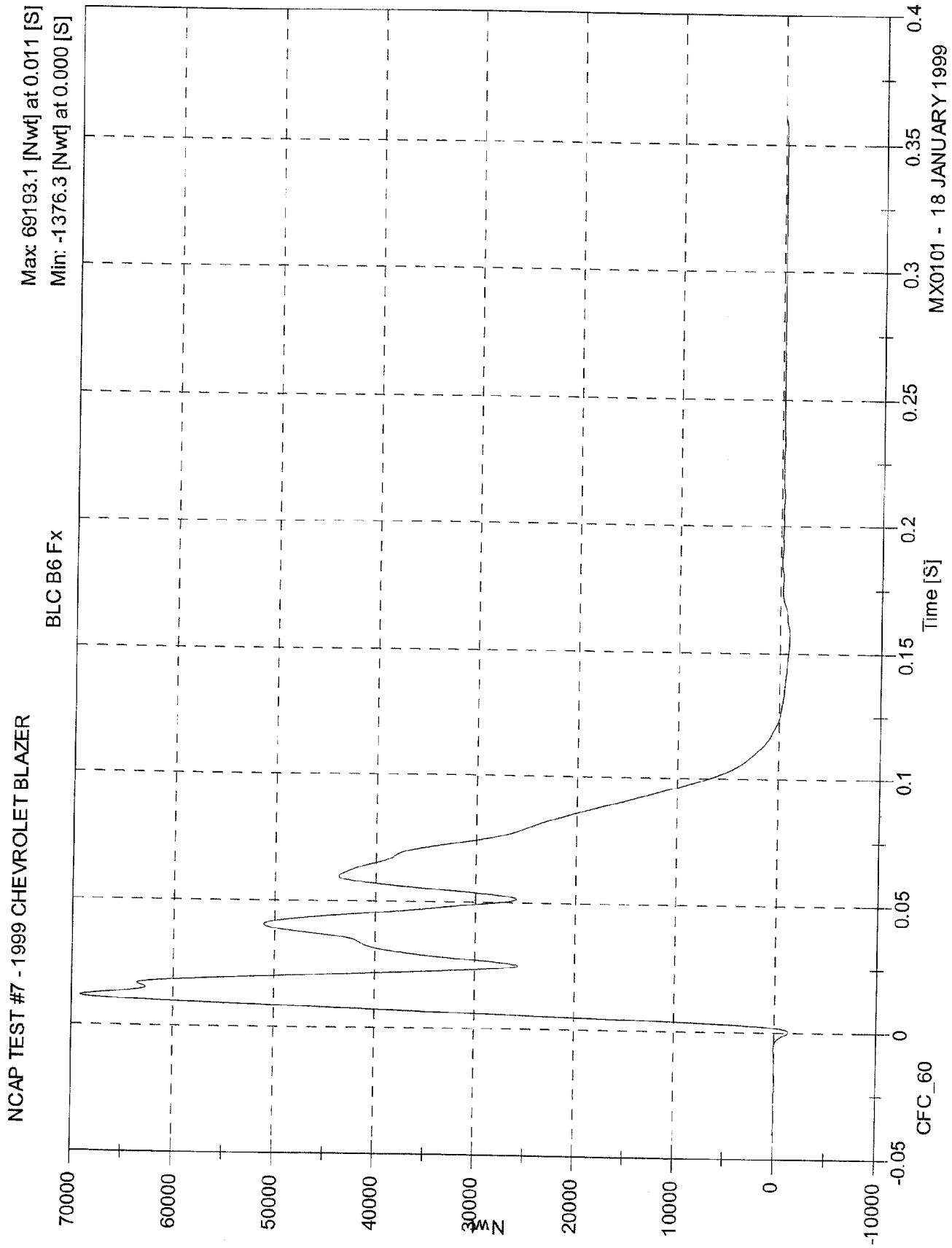

NCAP TEST #7 - 1999 CHEVROLET BLAZER
BLC B1 Fx
Max: 659.3 [Nwt] at 0.048 [S]
Min: -585.2 [Nwt] at 0.360 [S]
MX0101 - 18 JANUARY 1999
CFC_60
Time [S]
Nwt
750
500
250
0
-250
-500
-750
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4

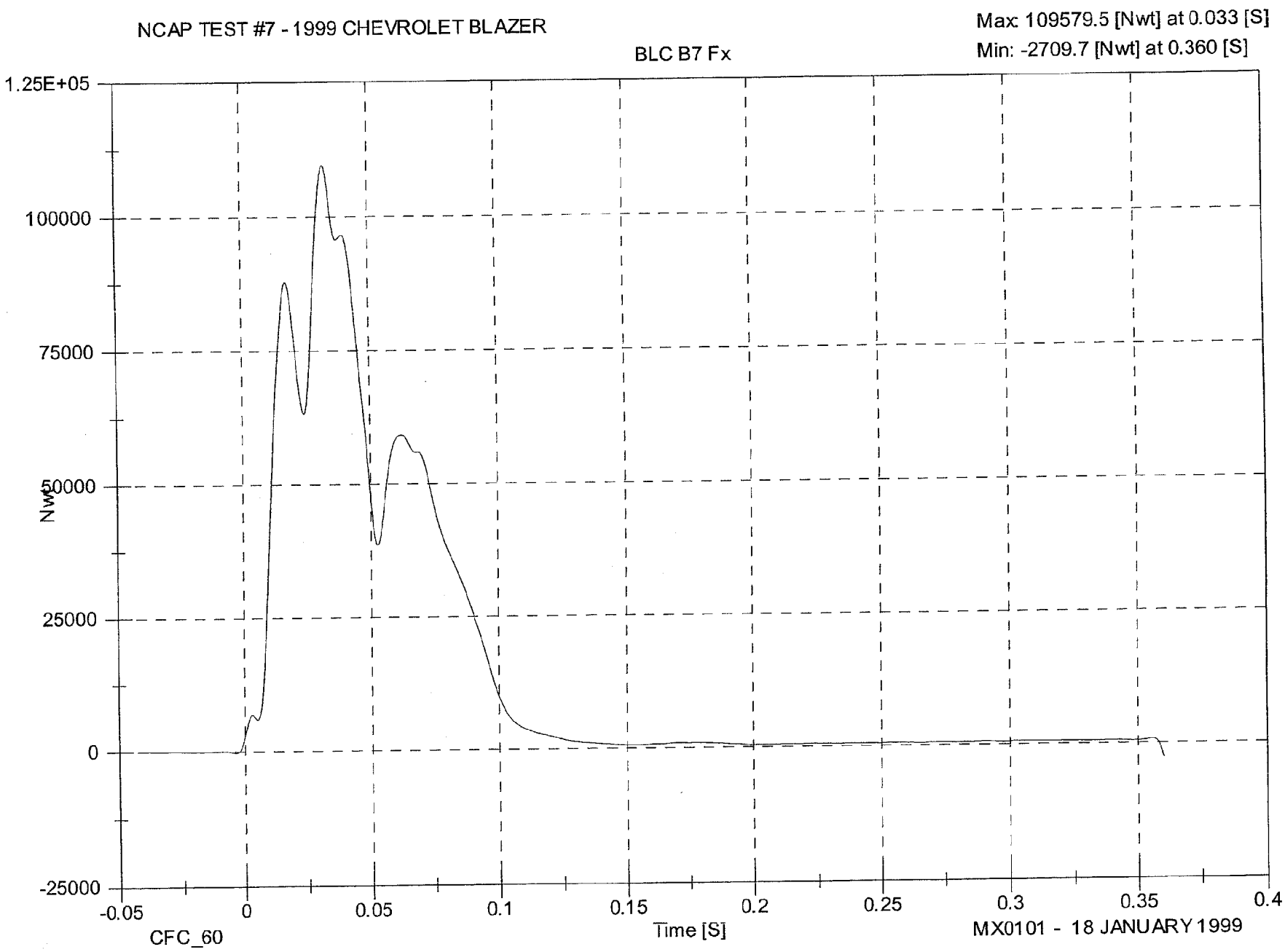

NCAP TEST #7 - 1999 CHEVROLET BLAZER
BLC B2 Fx
Max: 15323.4 [Nwt] at 0.038 [S]
Min: -1980.9 [Nwt] at 0.360 [S]
Nwt
17500
15000
12500
10000
7500
5000
2500
0
-2500
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [S]
CFC_60
MX0101 - 18 JANUARY 1999

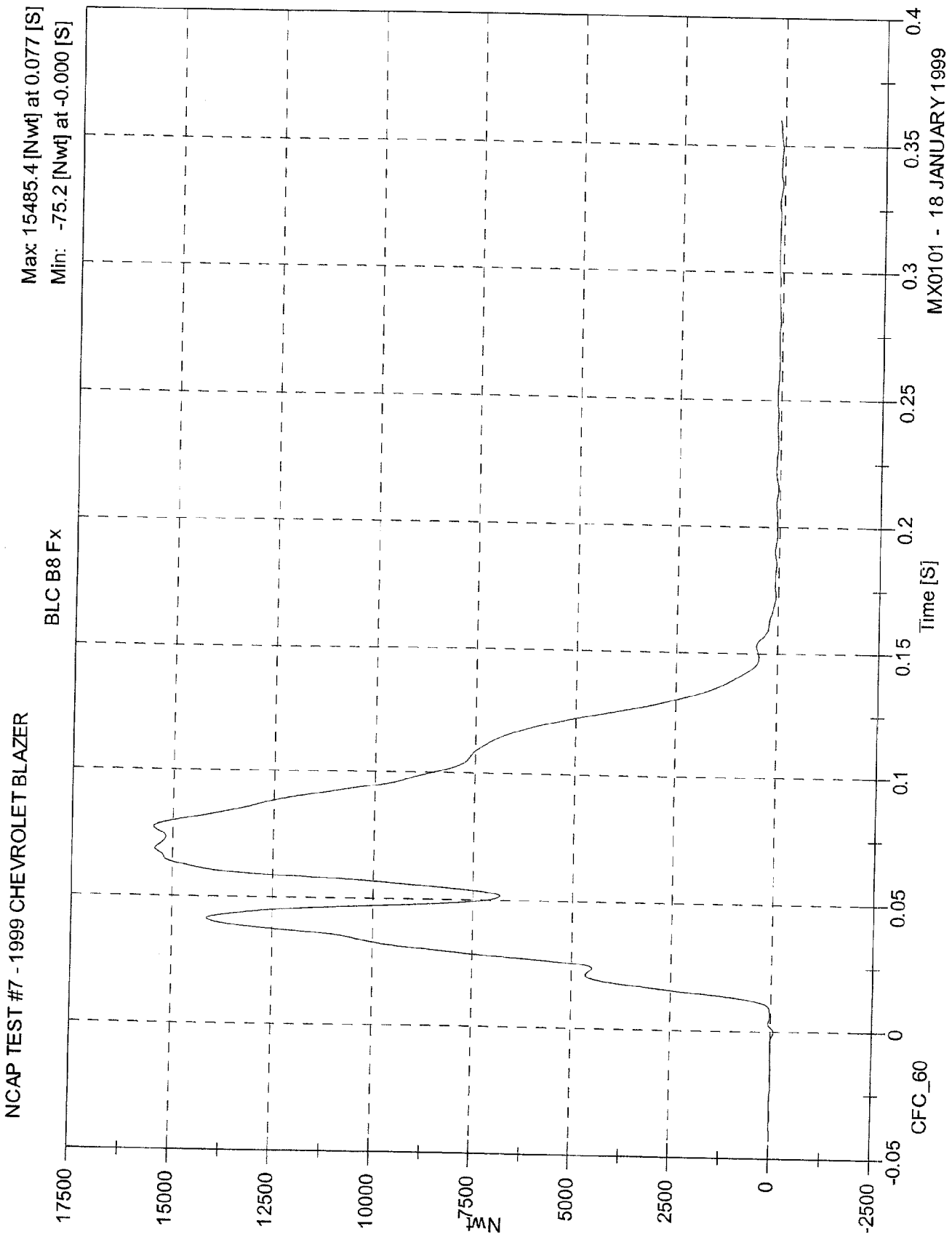

NCAP TEST #7 - 1999 CHEVROLET BLAZER
BLC B3 Fx
Max: 98195.1 [Nwt] at 0.036 [S]
Min: -1483.2 [Nwt] at 0.159 [S]
100000
80000
60000
40000
20000
0
-20000
Nwt
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [S]
CFC_60
MX0101 - 18 JANUARY 1999

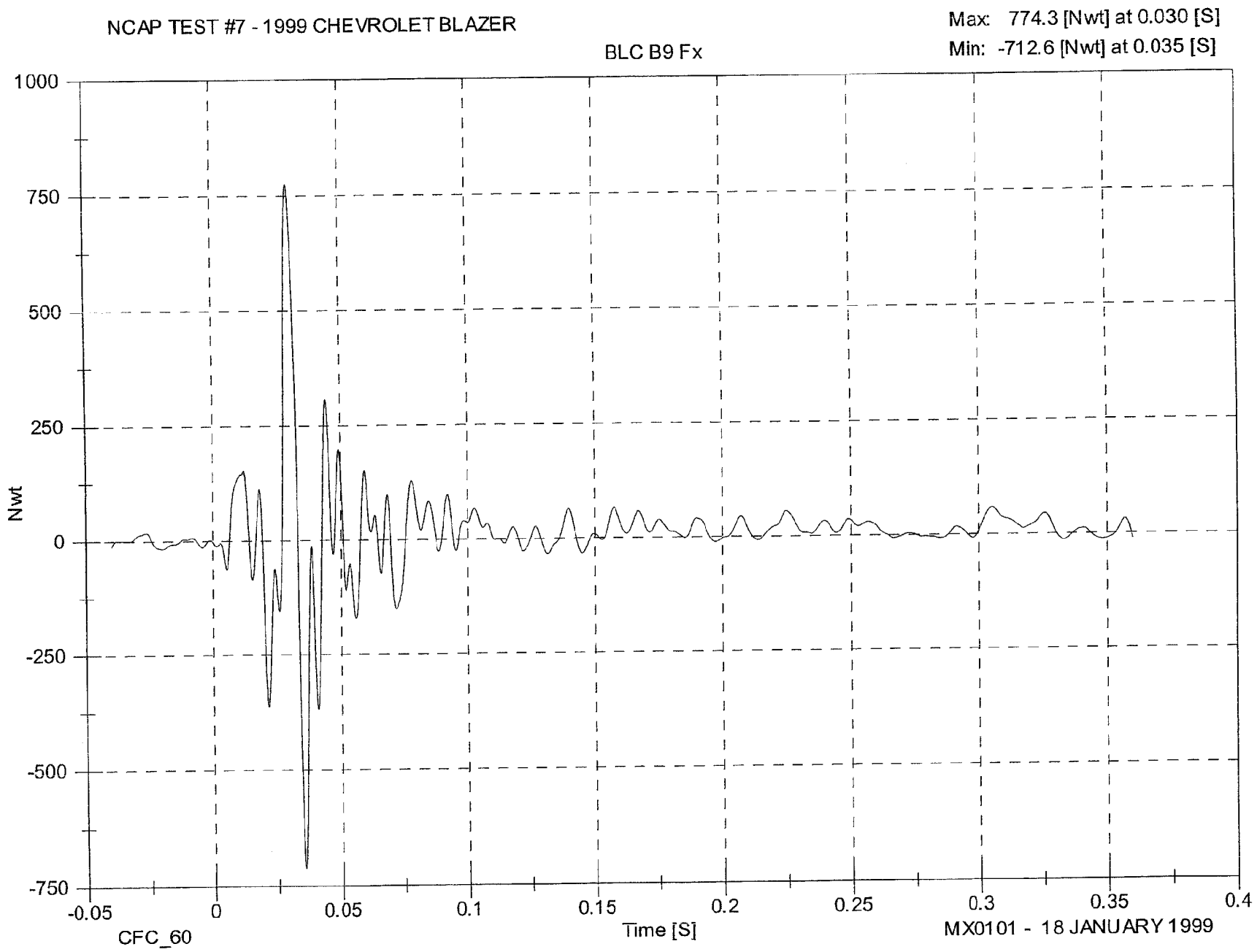

NCAP TEST #7 - 1999 CHEVROLET BLAZER
BLC B4 Fx
Max: 143446.3 [Nwt] at 0.038 [S]
Min: -552.4 [Nwt] at 0.360 [S]
1.5E+05
1.25E+05
100000
75000
50000
25000
0
-25000
Nwt
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [S]
CFC_60
MX0101 - 18 JANUARY 1999

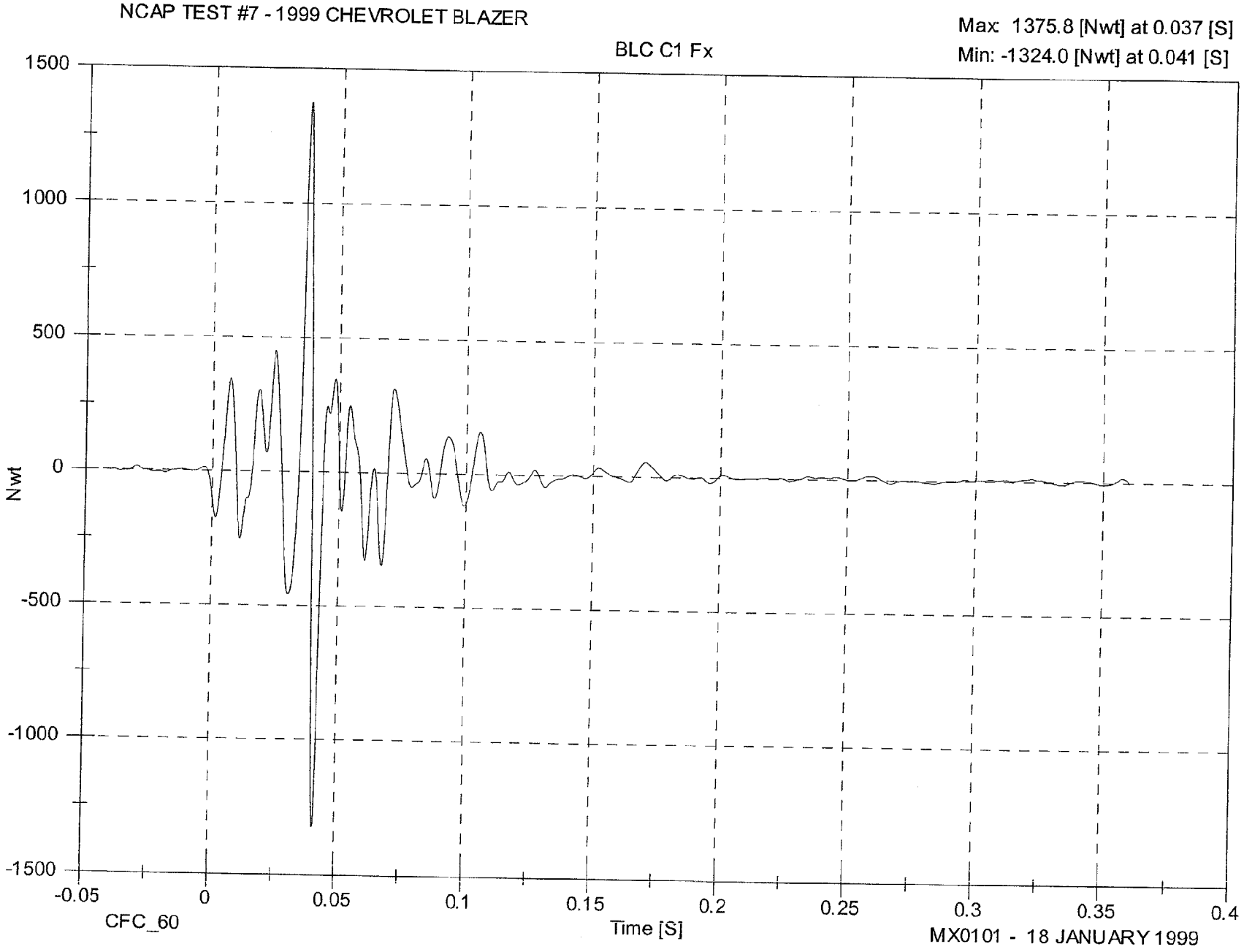

NCAP TEST #7 - 1999 CHEVROLET BLAZER
BLC B5 Fx
Max: 33843.7 [Nwt] at 0.064 [S]
Min: -698.5 [Nwt] at 0.360 [S]
35000
30000
25000
20000
15000
10000
5000
0
-5000
Nwt
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [S]
CFC_60
MX0101 - 18 JANUARY 1999

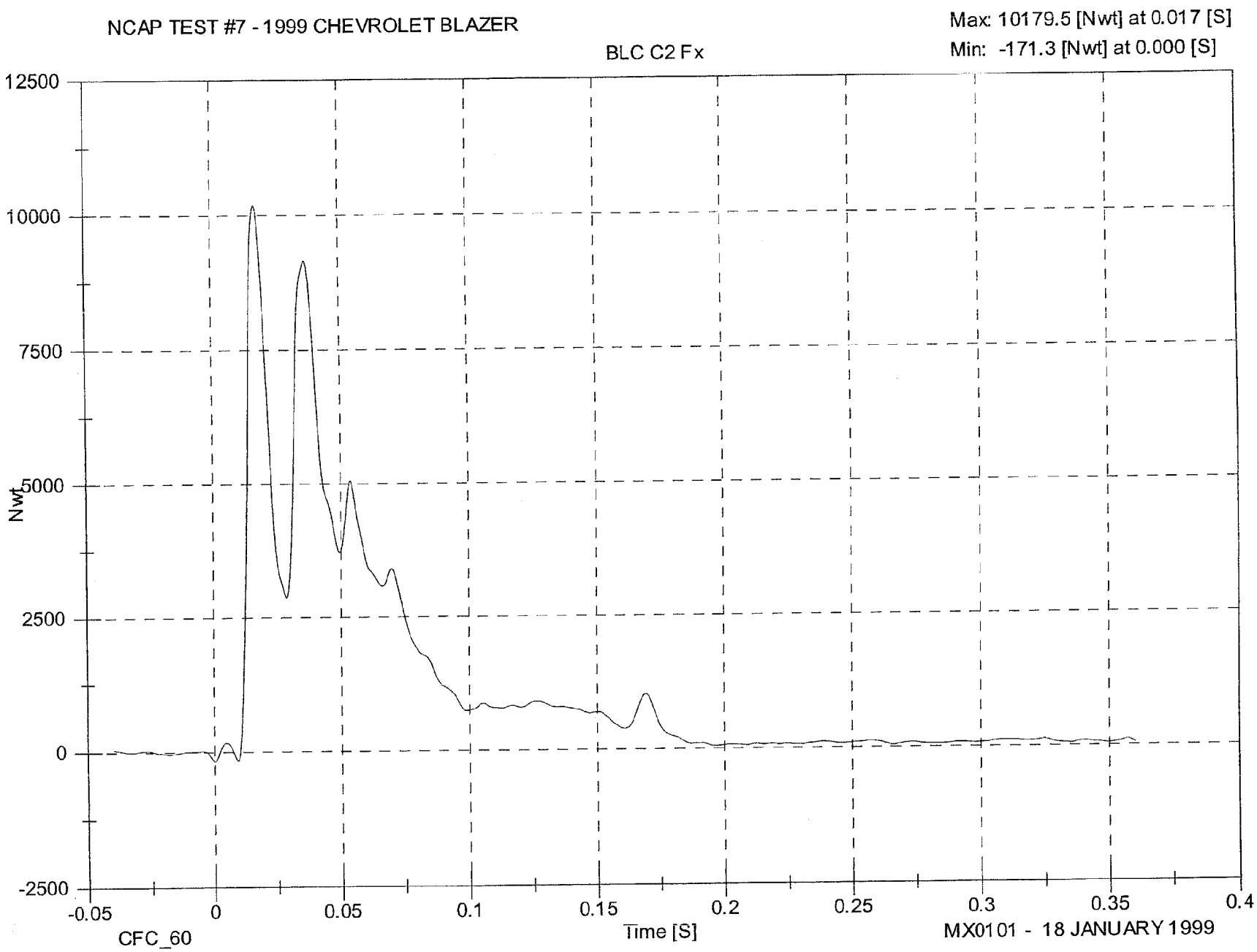

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Max: 69193.1 [Nwt] at 0.011 [S]
Min: -1376.3 [Nwt] at 0.000 [S]
BLC B6 Fx
MX0101 - 18 JANUARY 1999
CFC_60
Time [S]
Nwt
70000
60000
50000
40000
30000
20000
10000
0
-10000
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4

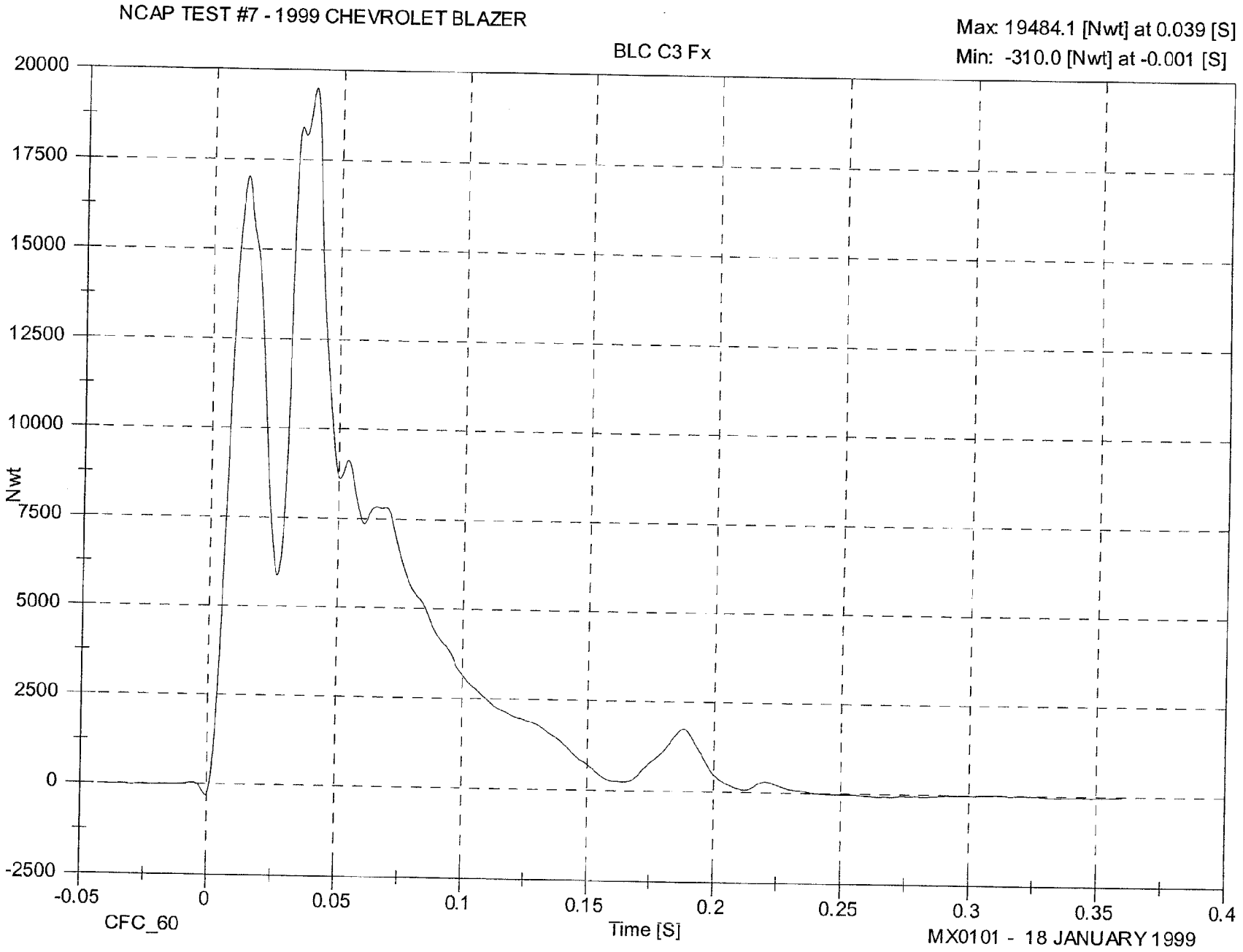

NCAP TEST #7 - 1999 CHEVROLET BLAZER
BLC B7 Fx
Max: 109579.5 [Nwt] at 0.033 [S]
Min: -2709.7 [Nwt] at 0.360 [S]
1.25E+05
100000
75000
50000
25000
0
-25000
Nwt
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [S]
CFC_60
MX0101 - 18 JANUARY 1999

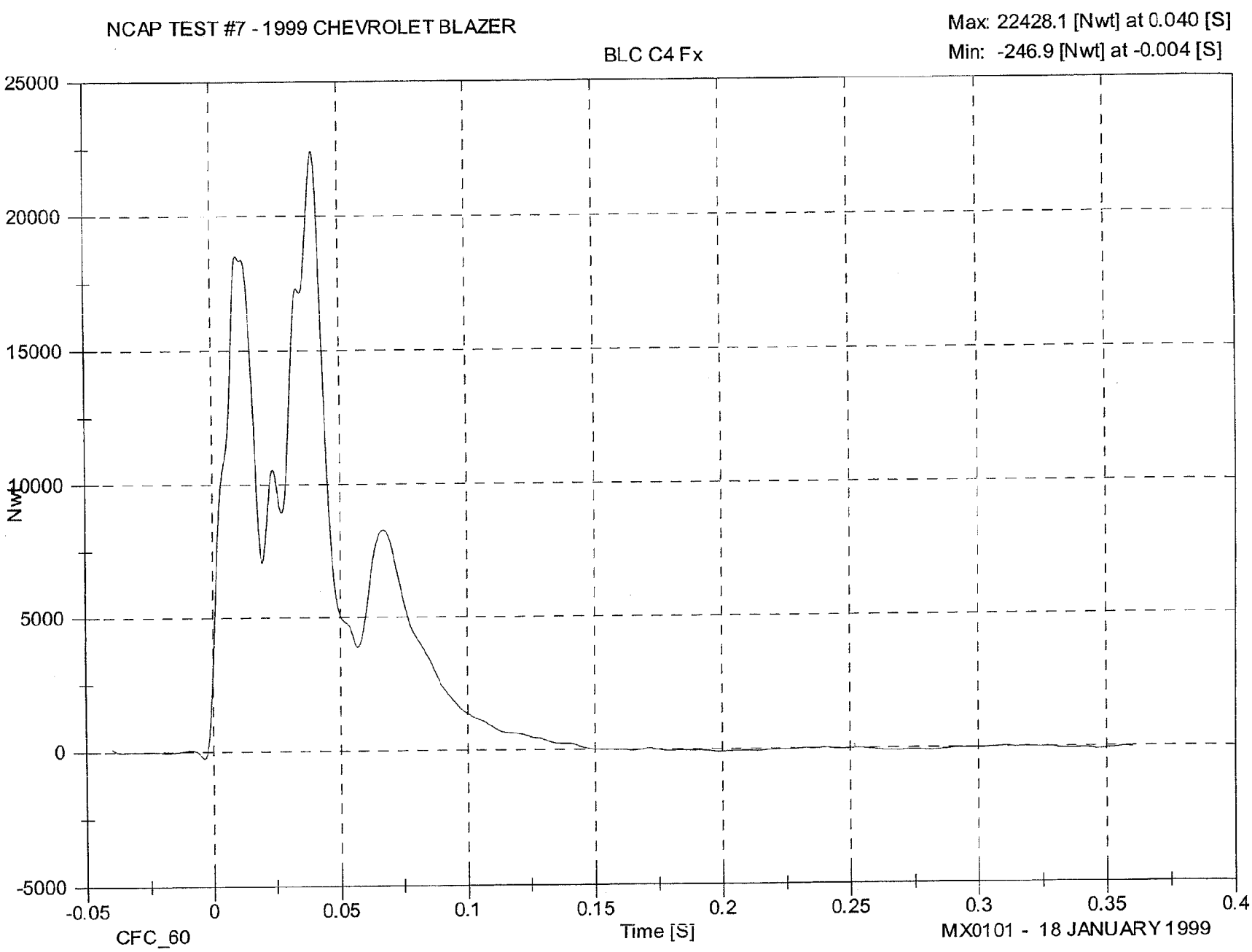

NCAP TEST #7 - 1999 CHEVROLET BLAZER
BLC B8 Fx
Max: 15485.4 [Nwt] at 0.077 [S]
Min: -75.2 [Nwt] at -0.000 [S]
MX0101 - 18 JANUARY 1999
Nwt
Time [S]
CFC_60
17500
15000
12500
10000
7500
5000
2500
0
-2500
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4

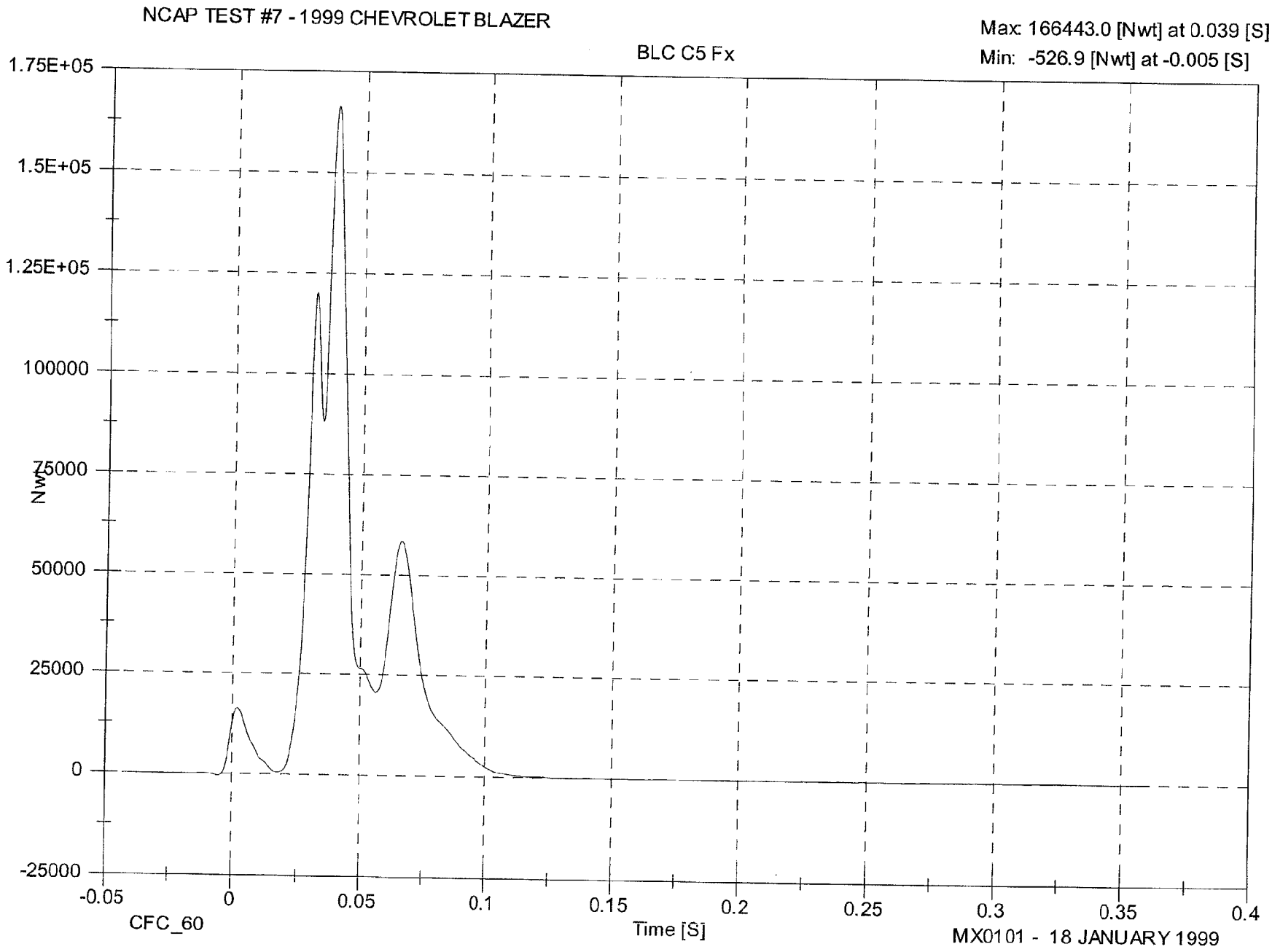

NCAP TEST #7 - 1999 CHEVROLET BLAZER
BLC B9 Fx
Max: 774.3 [Nwt] at 0.030 [S]
Min: -712.6 [Nwt] at 0.035 [S]
1000
750
500
250
0
-250
-500
-750
Nwt
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [S]
CFC_60
MX0101 - 18 JANUARY 1999

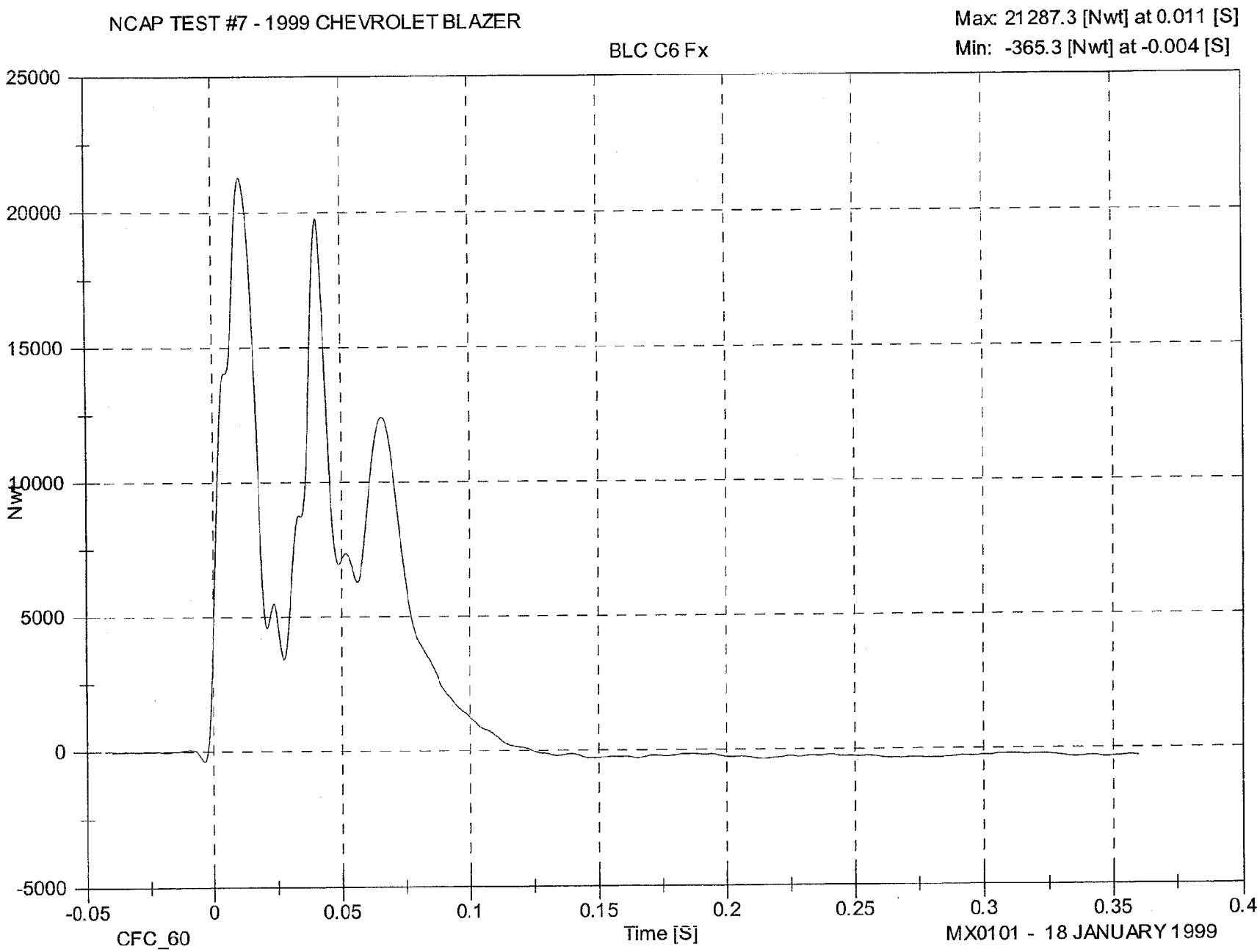

NCAP TEST #7 - 1999 CHEVROLET BLAZER
BLC C1 Fx
Max: 1375.8 [Nwt] at 0.037 [S]
Min: -1324.0 [Nwt] at 0.041 [S]
1500
1000
500
0
-500
-1000
-1500
Nwt
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [S]
CFC_60
MX0101 - 18 JANUARY 1999

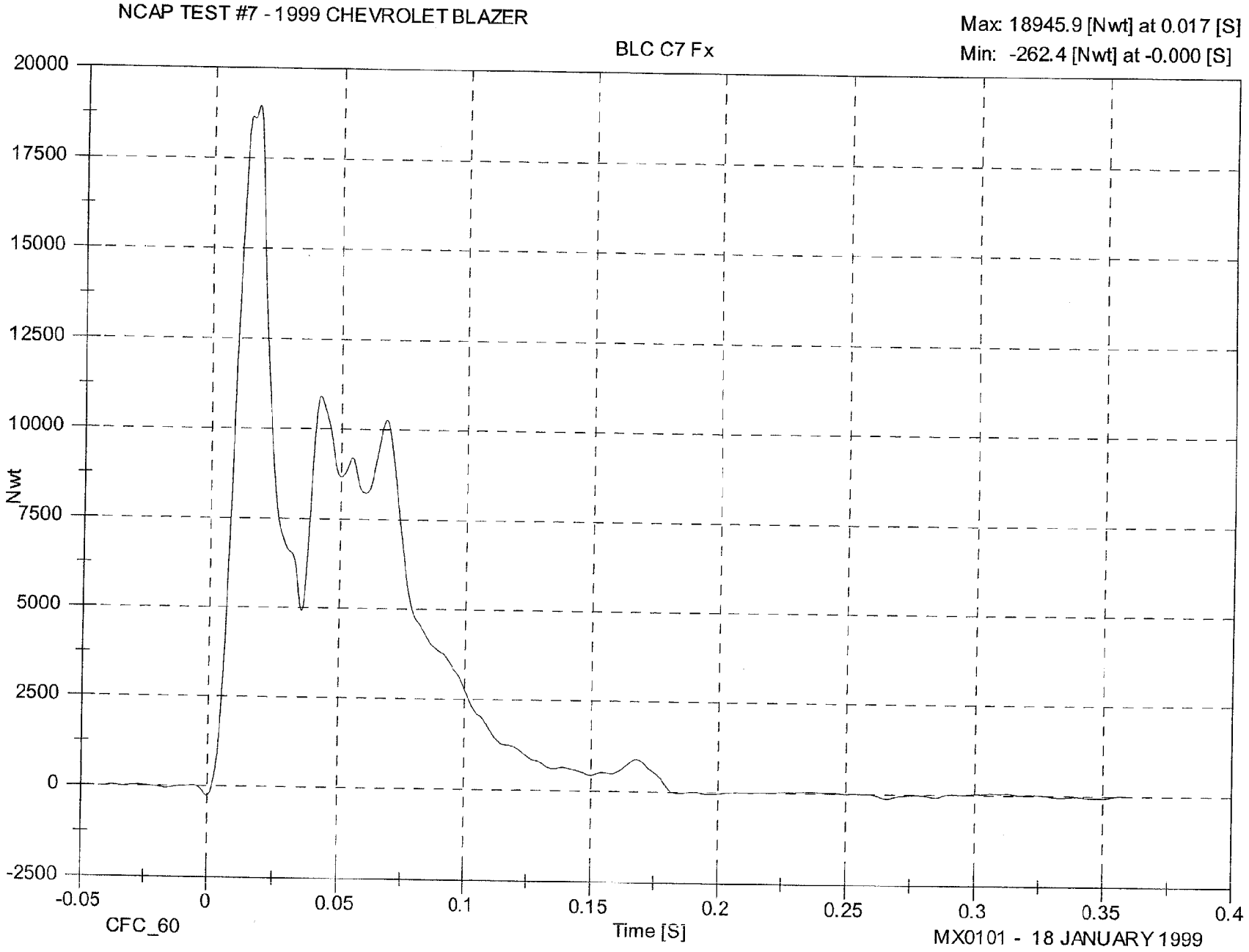

NCAP TEST #7 - 1999 CHEVROLET BLAZER
BLC C2 Fx
Max: 10179.5 [Nwt] at 0.017 [S]
Min: -171.3 [Nwt] at 0.000 [S]
12500
10000
7500
5000
2500
0
-2500
Nwt
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [S]
CFC_60
MX0101 - 18 JANUARY 1999

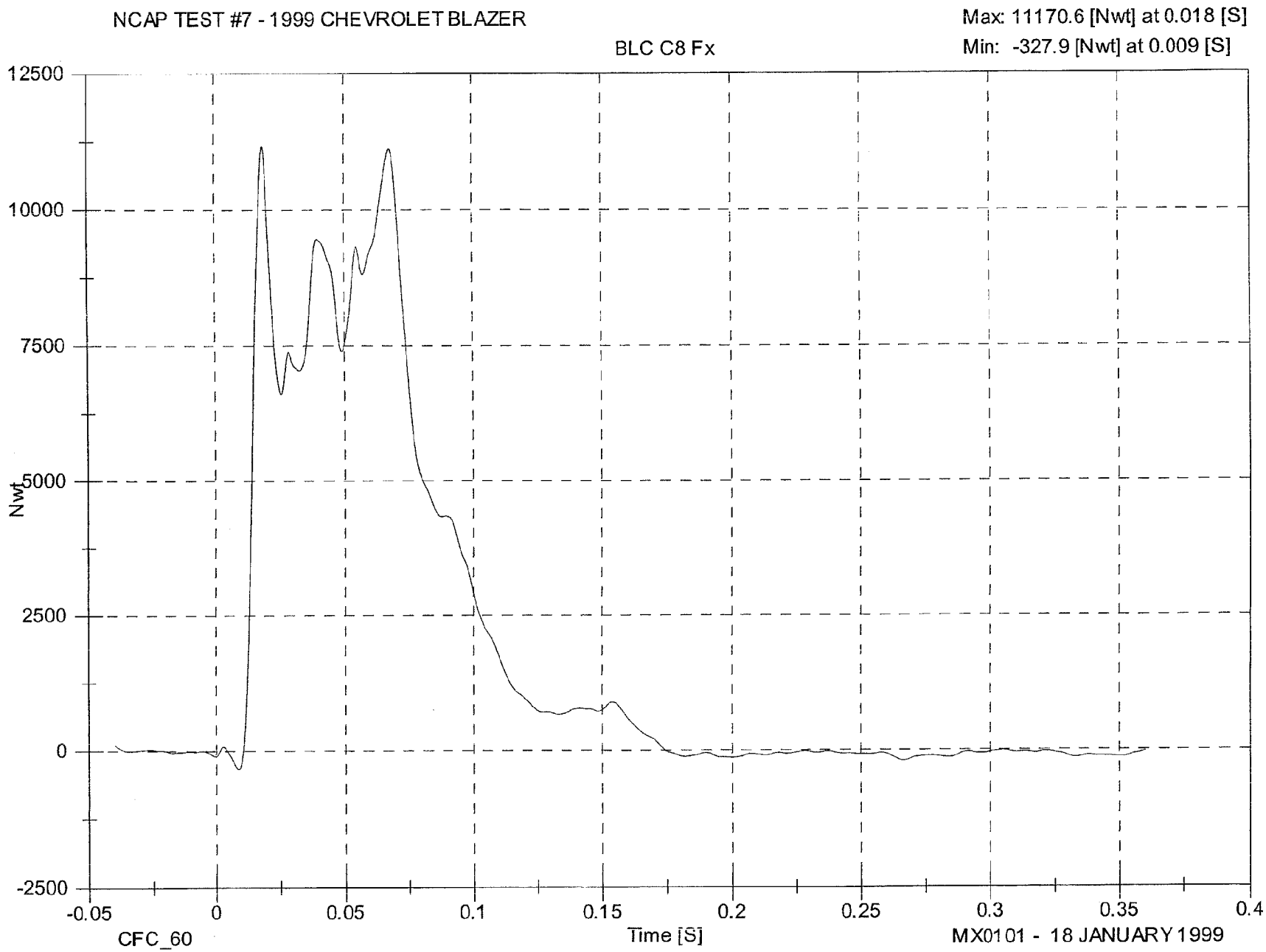

NCAP TEST #7 - 1999 CHEVROLET BLAZER
BLC C3 Fx
Max: 19484.1 [Nwt] at 0.039 [S]
Min: -310.0 [Nwt] at -0.001 [S]
20000
17500
15000
12500
10000
7500
5000
2500
0
-2500
Nwt
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [S]
CFC_60
MX0101 - 18 JANUARY 1999

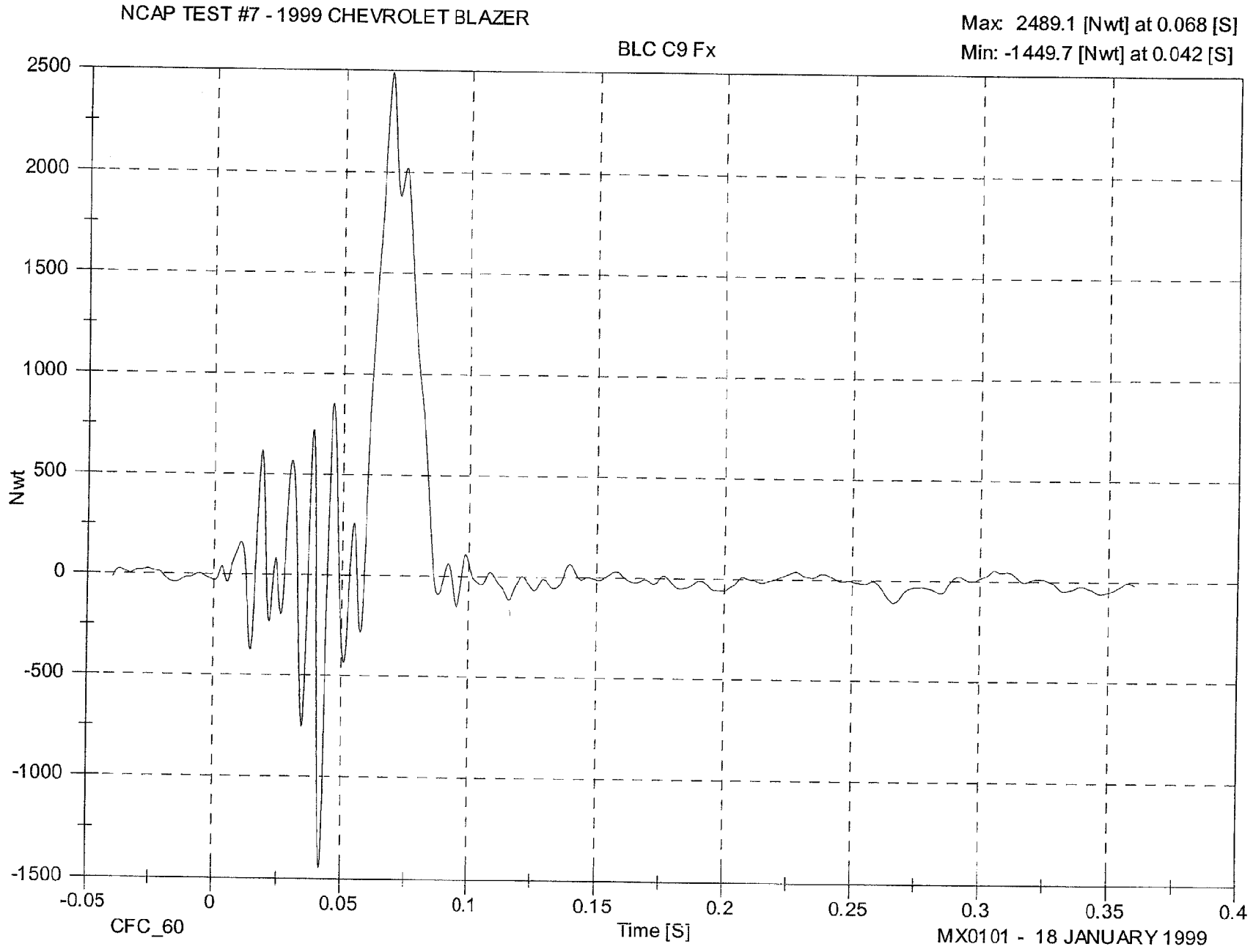

NCAP TEST #7 - 1999 CHEVROLET BLAZER
BLC C4 Fx
Max: 22428.1 [Nwt] at 0.040 [S]
Min: -246.9 [Nwt] at -0.004 [S]
25000
20000
15000
10000
5000
0
-5000
Nwt
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [S]
CFC_60
MX0101 - 18 JANUARY 1999

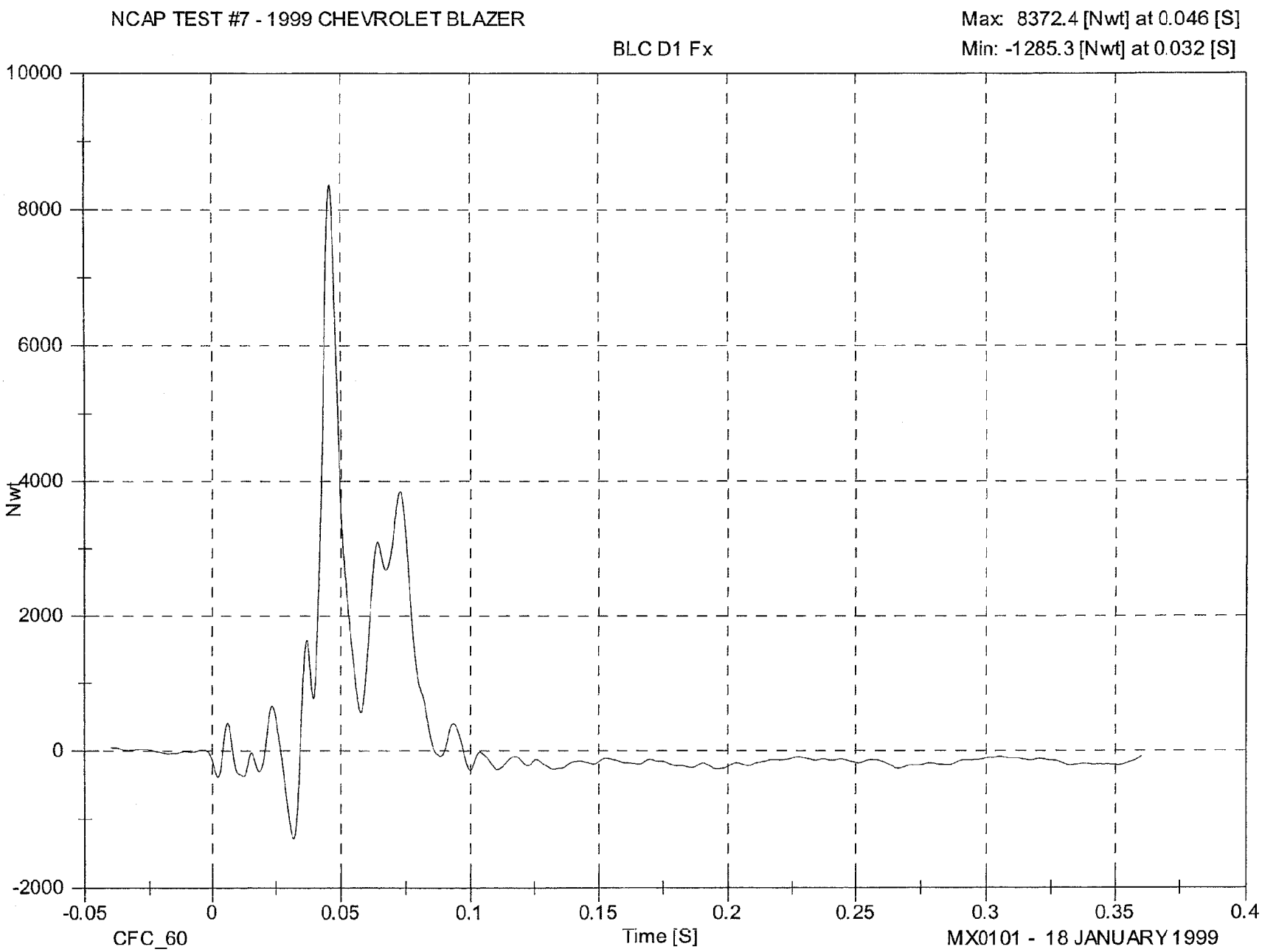

NCAP TEST #7 - 1999 CHEVROLET BLAZER
BLC C5 Fx
Max: 166443.0 [Nwt] at 0.039 [S]
Min: -526.9 [Nwt] at -0.005 [S]
1.75E+05
1.5E+05
1.25E+05
100000
75000
50000
25000
0
-25000
Nwt
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [S]
CFC_60
MX0101 - 18 JANUARY 1999

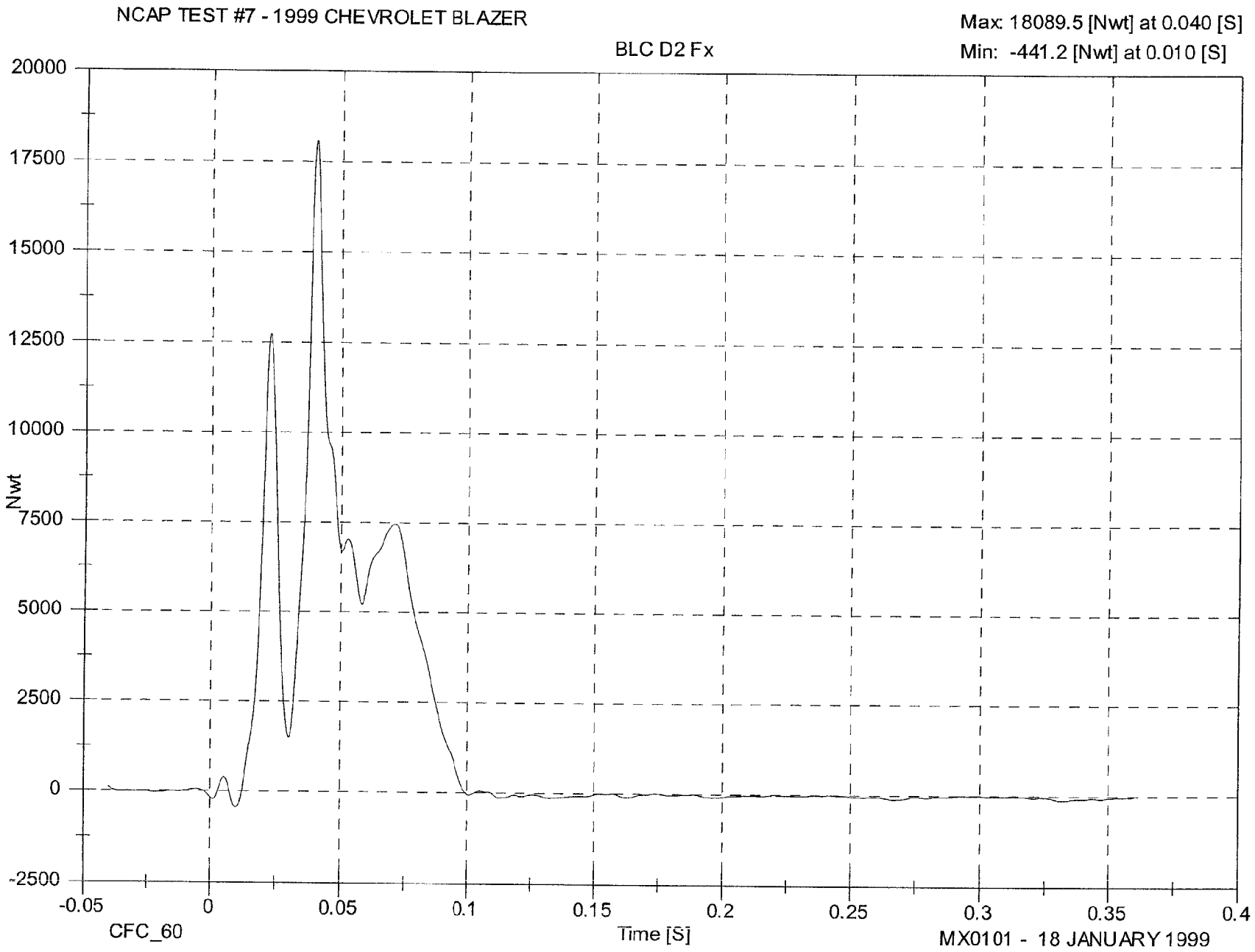

NCAP TEST #7 - 1999 CHEVROLET BLAZER
BLC C6 Fx
Max: 21287.3 [Nwt] at 0.011 [S]
Min: -365.3 [Nwt] at -0.004 [S]
25000
20000
15000
10000
5000
0
-5000
N
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [S]
CFC_60
MX0101 - 18 JANUARY 1999

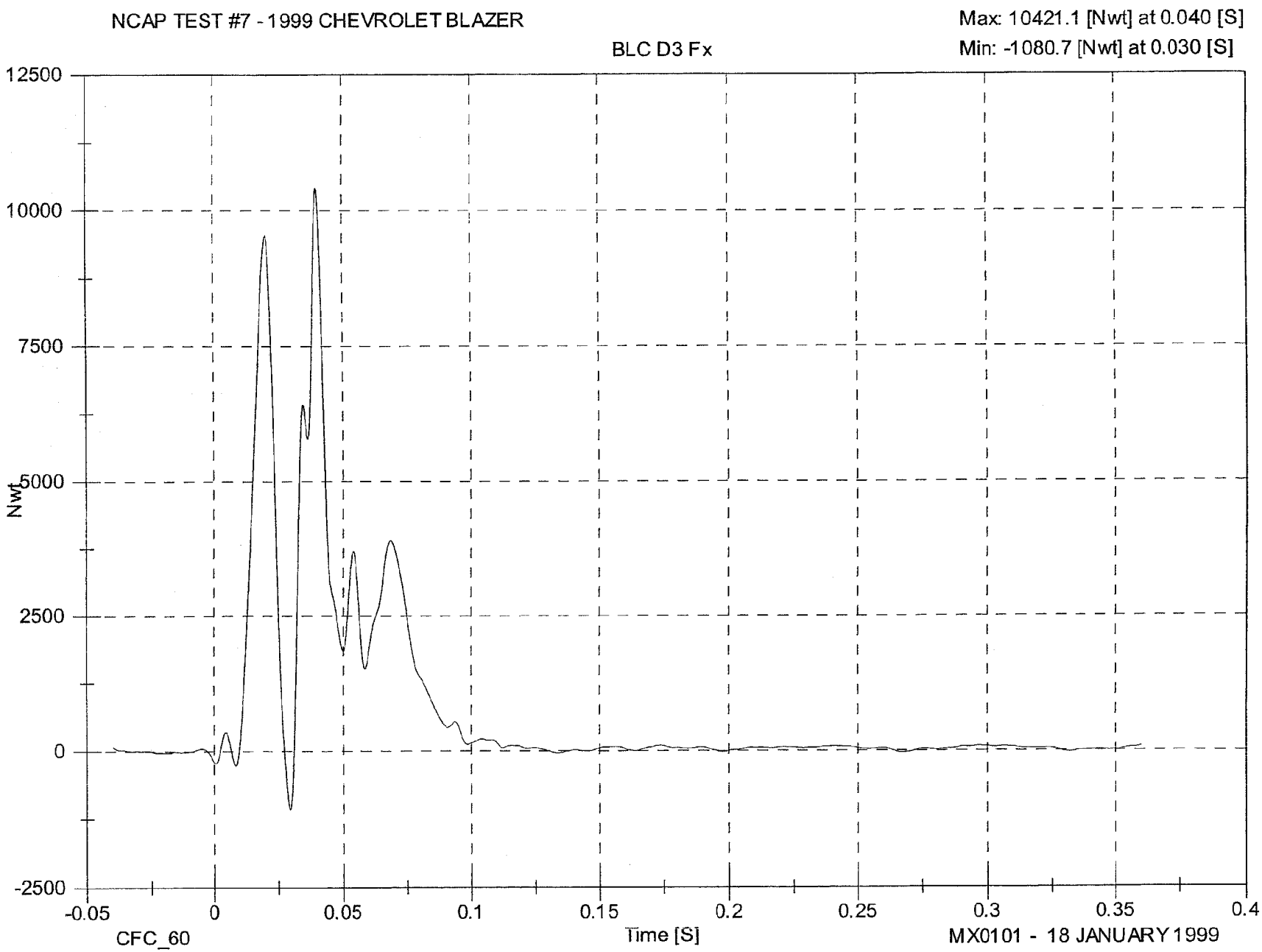

NCAP TEST #7 - 1999 CHEVROLET BLAZER
BLC C7 Fx
Max: 18945.9 [Nwt] at 0.017 [S]
Min: -262.4 [Nwt] at -0.000 [S]
20000
17500
15000
12500
10000
7500
5000
2500
0
-2500
Nwt
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [S]
CFC_60
MX0101 - 18 JANUARY 1999

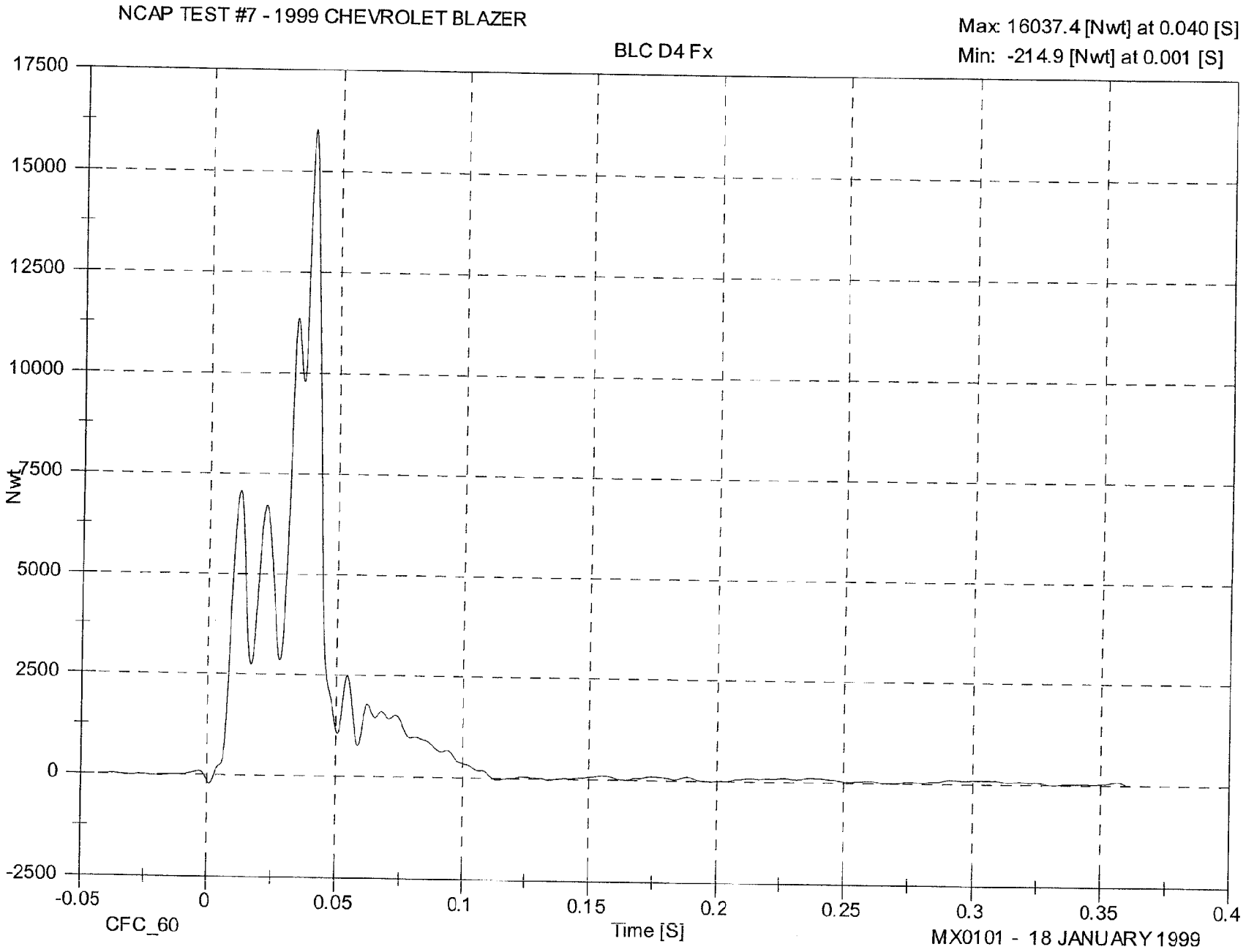

NCAP TEST #7 - 1999 CHEVROLET BLAZER
BLC C8 Fx
Max: 11170.6 [Nwt] at 0.018 [S]
Min: -327.9 [Nwt] at 0.009 [S]
12500
10000
7500
5000
2500
0
-2500
Nwt
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [S]
CFC_60
MX0101 - 18 JANUARY 1999

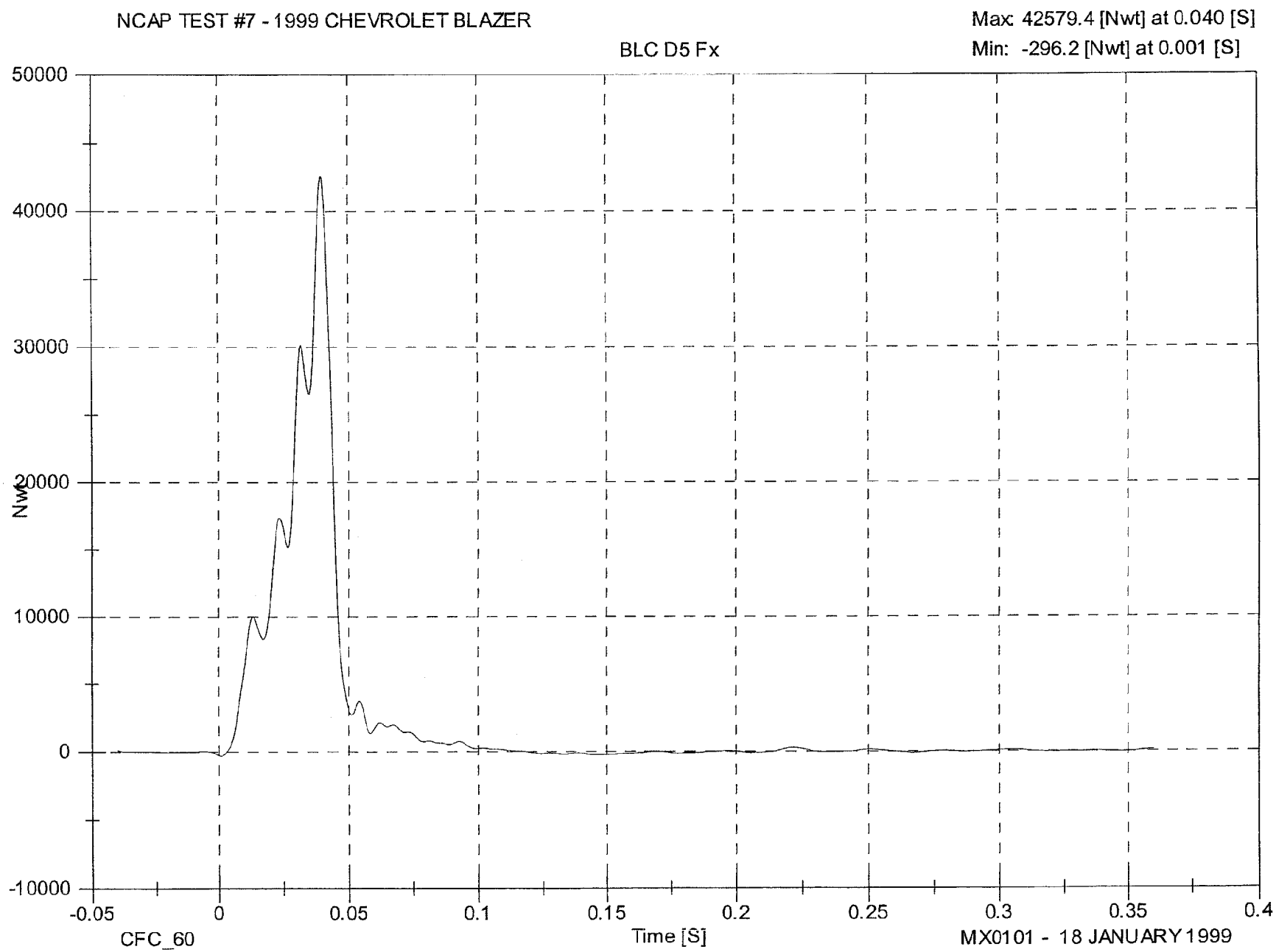

NCAP TEST #7 - 1999 CHEVROLET BLAZER
BLC C9 Fx
Max: 2489.1 [Nwt] at 0.068 [S]
Min: -1449.7 [Nwt] at 0.042 [S]
2500
2000
1500
1000
500
0
-500
-1000
-1500
Nwt
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [S]
CFC_60
MX0101 - 18 JANUARY 1999

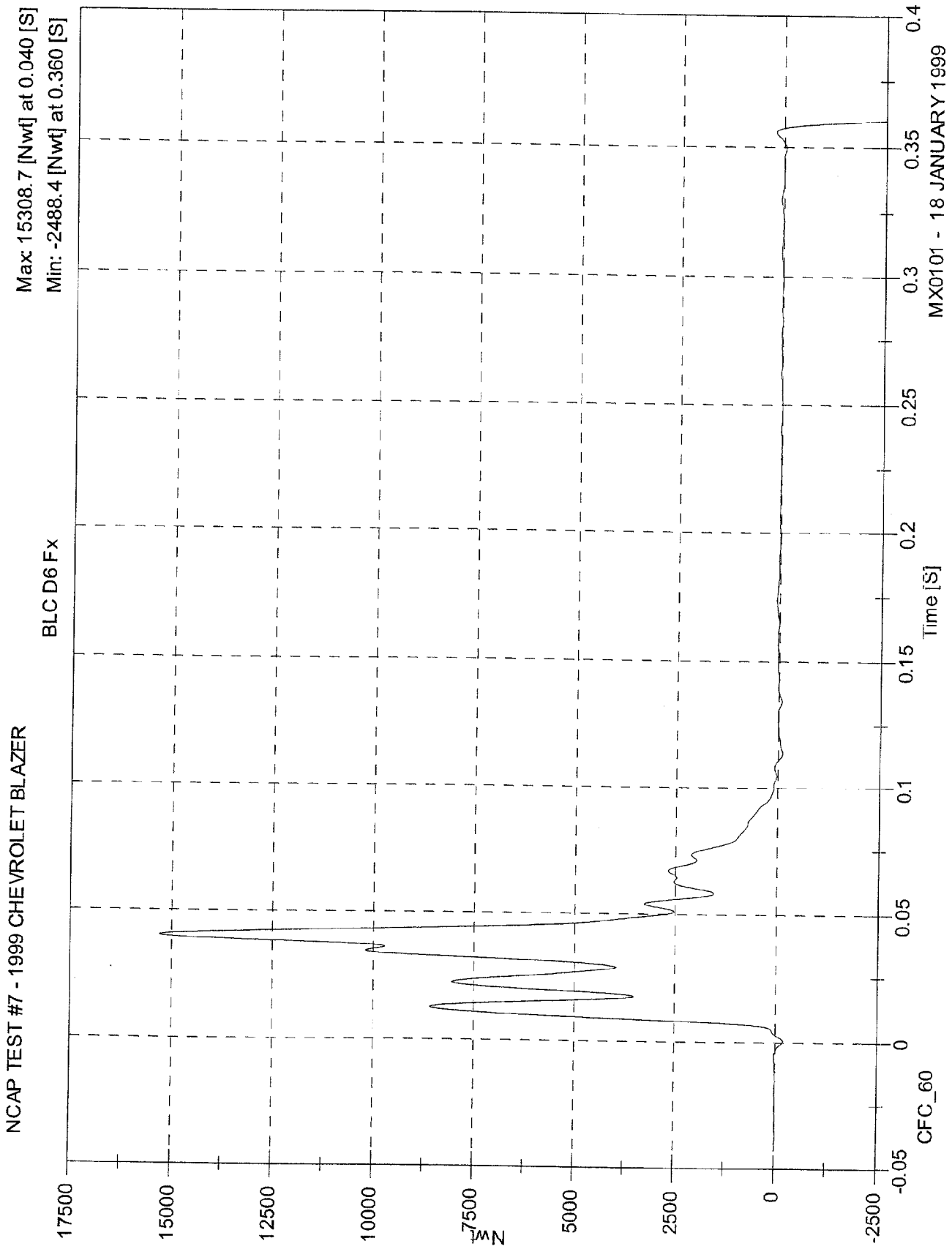

NCAP TEST #7 - 1999 CHEVROLET BLAZER
BLC D1 Fx
Max: 8372.4 [Nwt] at 0.046 [S]
Min: -1285.3 [Nwt] at 0.032 [S]
10000
8000
6000
4000
2000
0
-2000
N
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [S]
CFC_60
MX0101 - 18 JANUARY 1999

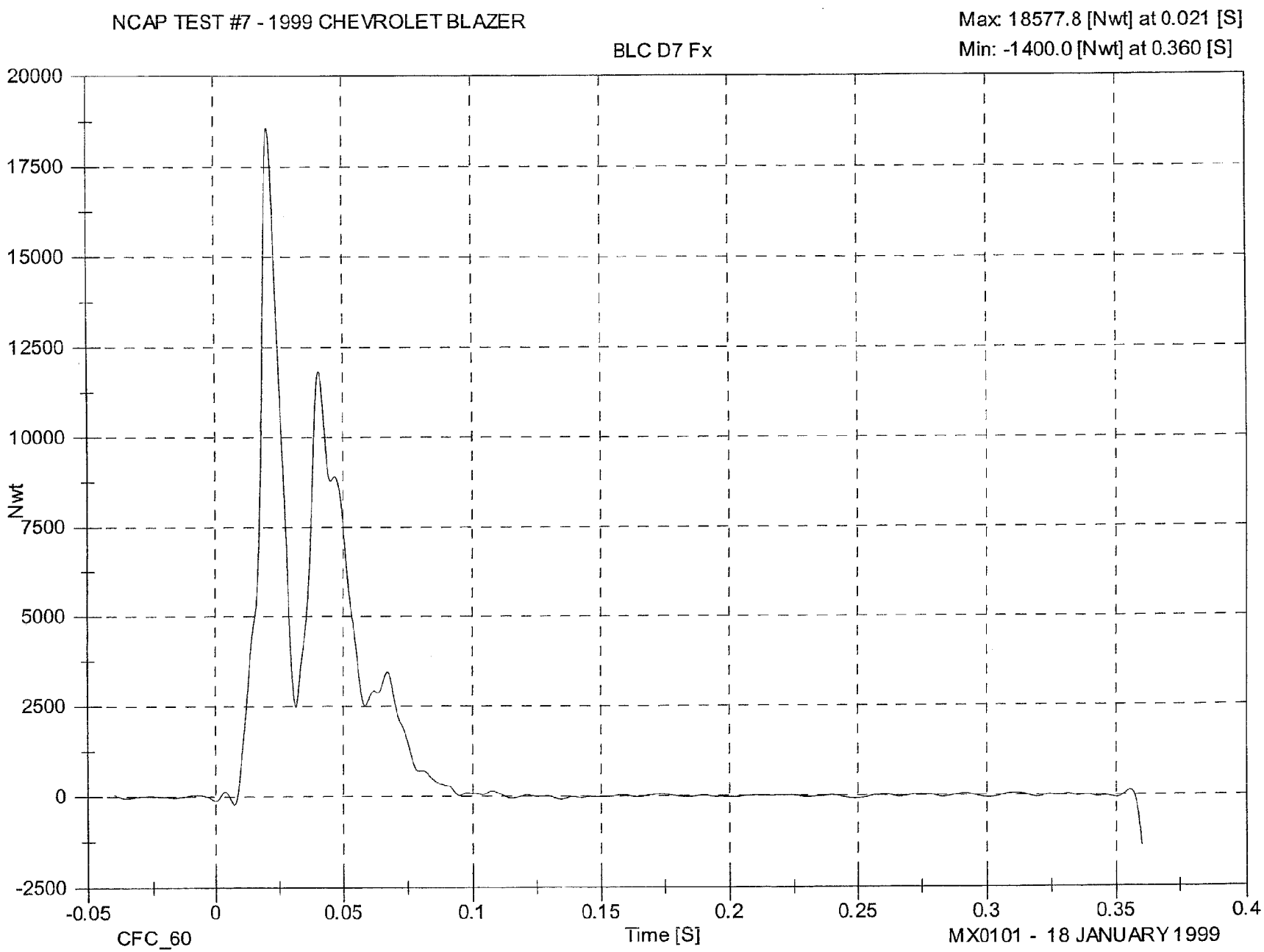

NCAP TEST #7 - 1999 CHEVROLET BLAZER
BLC D2 Fx
Max: 18089.5 [Nwt] at 0.040 [S]
Min: -441.2 [Nwt] at 0.010 [S]
20000
17500
15000
12500
10000
7500
5000
2500
0
-2500
Nwt
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [S]
CFC_60
MX0101 - 18 JANUARY 1999

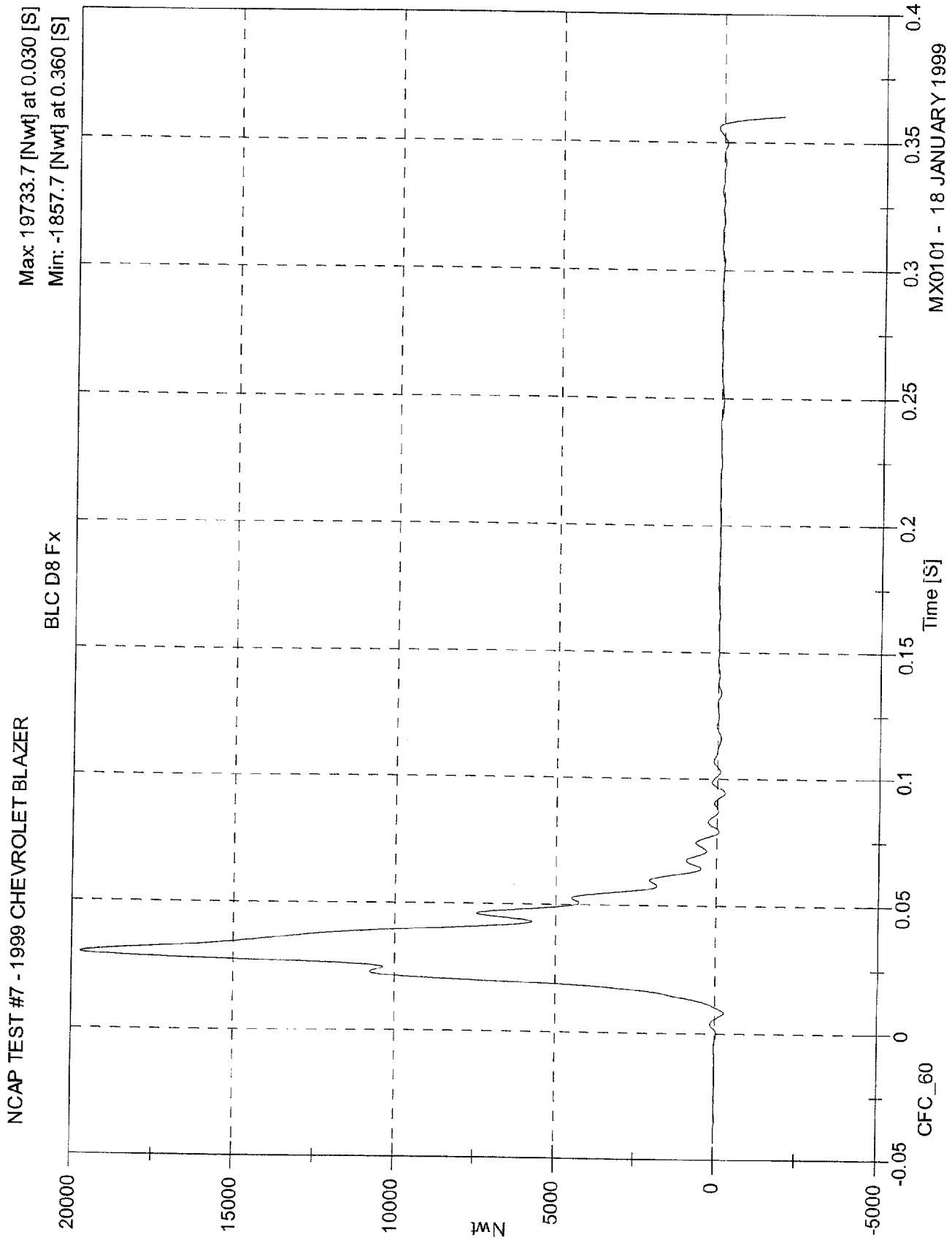

NCAP TEST #7 - 1999 CHEVROLET BLAZER
BLC D3 Fx
Max: 10421.1 [Nwt] at 0.040 [S]
Min: -1080.7 [Nwt] at 0.030 [S]
12500
10000
7500
5000
2500
0
-2500
Nwt
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [S]
CFC_60
MX0101 - 18 JANUARY 1999

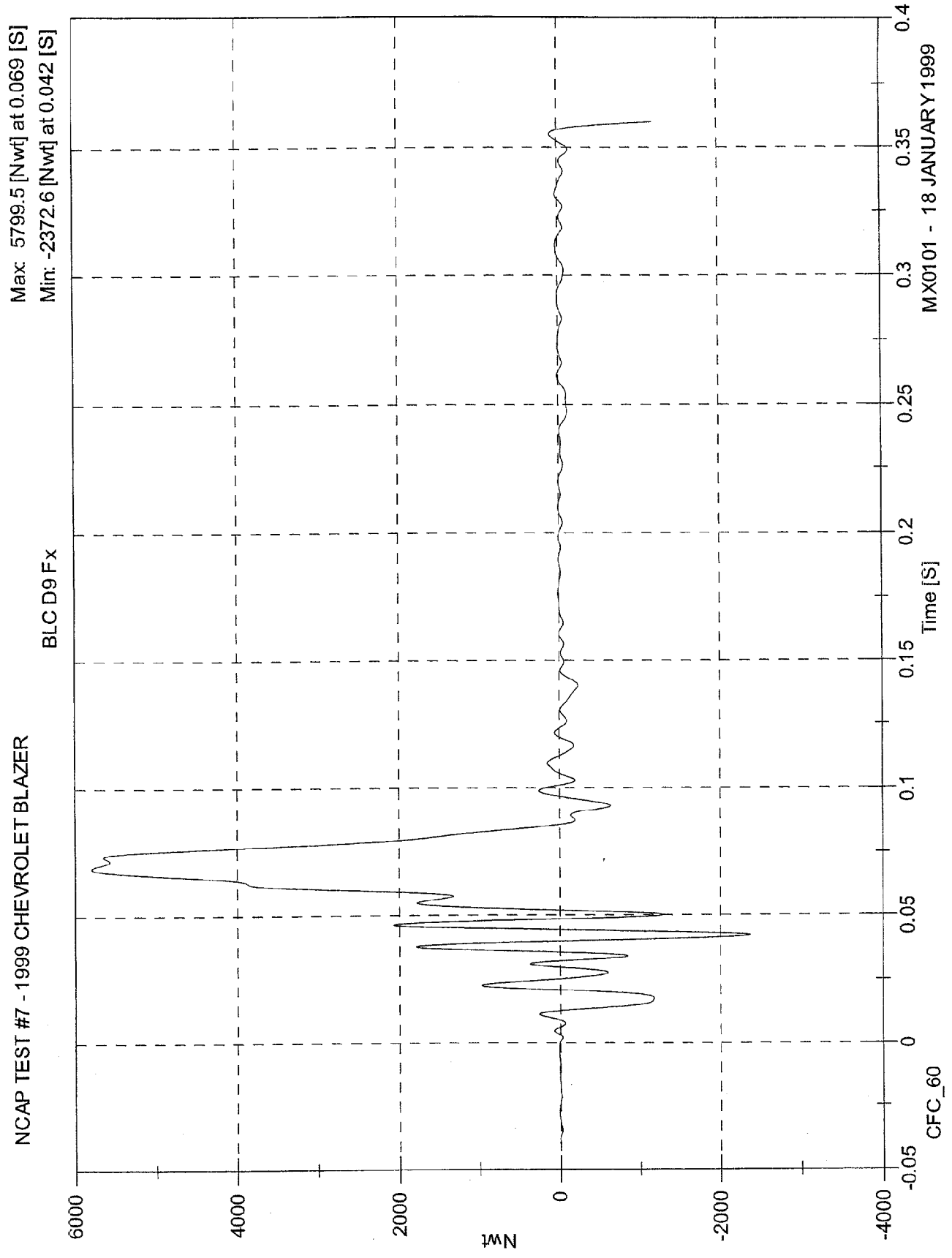

NCAP TEST #7 - 1999 CHEVROLET BLAZER
BLC D4 Fx
Max: 16037.4 [Nwt] at 0.040 [S]
Min: -214.9 [Nwt] at 0.001 [S]
17500
15000
12500
10000
7500
5000
2500
0
-2500
Nwt
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [S]
CFC_60
MX0101 - 18 JANUARY 1999

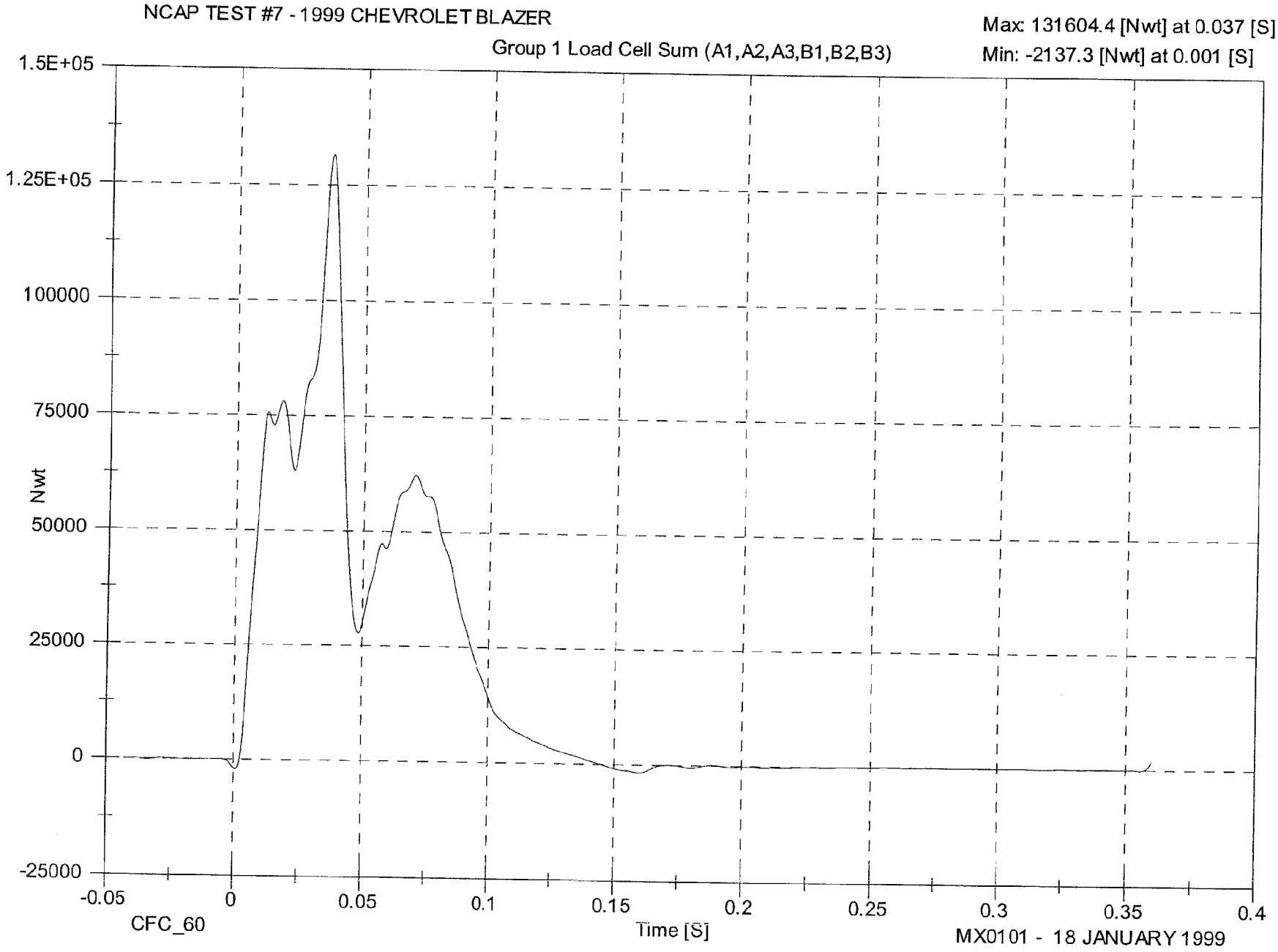

NCAP TEST #7 - 1999 CHEVROLET BLAZER
BLC D5 Fx
Max: 42579.4 [Nwt] at 0.040 [S]
Min: -296.2 [Nwt] at 0.001 [S]
50000
40000
30000
20000
10000
0
-10000
Nwt
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [S]
CFC_60
MX0101 - 18 JANUARY 1999

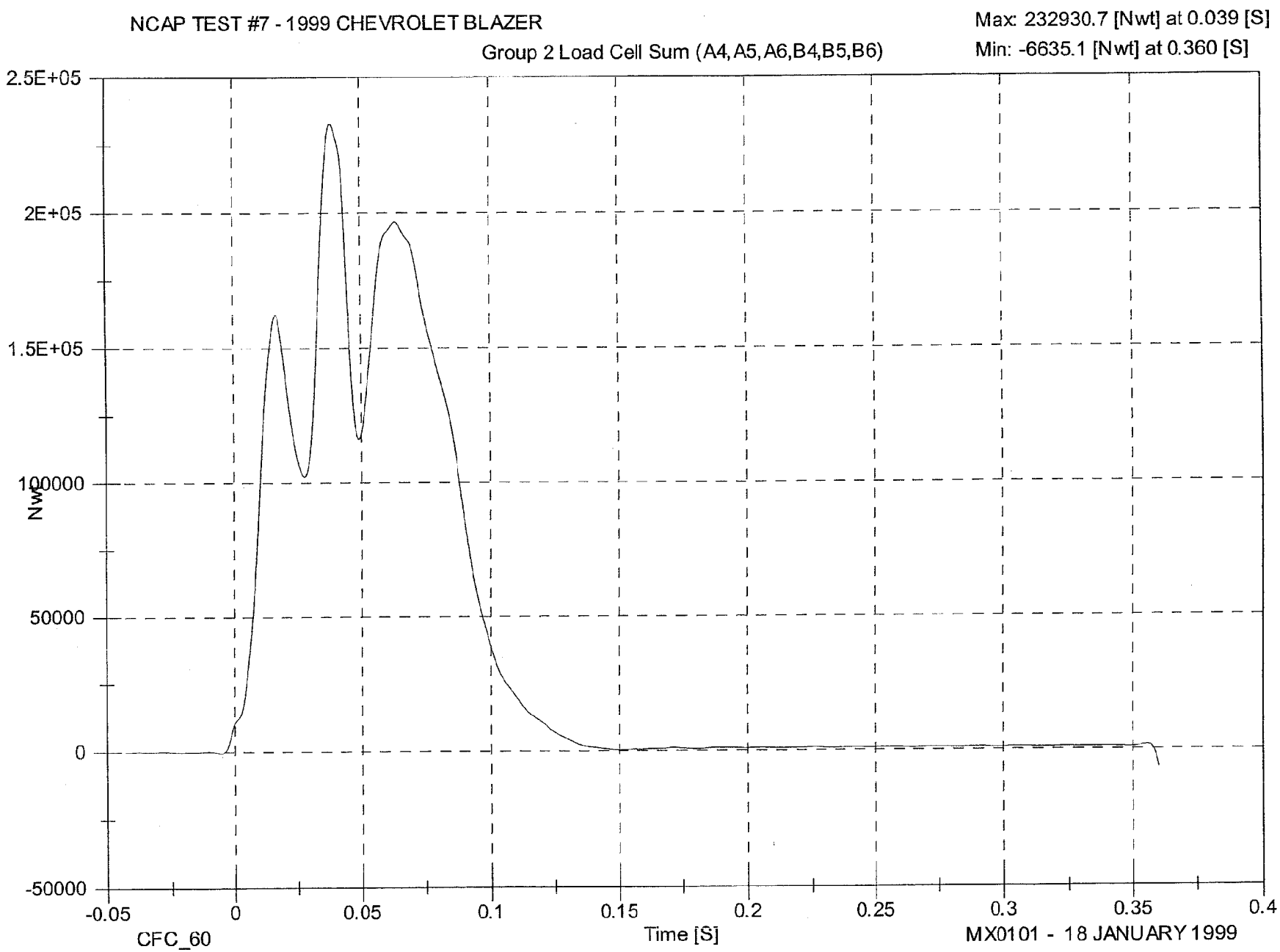

NCAP TEST #7 - 1999 CHEVROLET BLAZER
BLC D6 Fx
Max: 15308.7 [Nwf] at 0.040 [S]
Min: -2488.4 [Nwf] at 0.360 [S]
MX0101 - 18 JANUARY 1999
CFC_60
Time [S]
Nwf
17500
15000
12500
10000
7500
5000
2500
0
-2500
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4

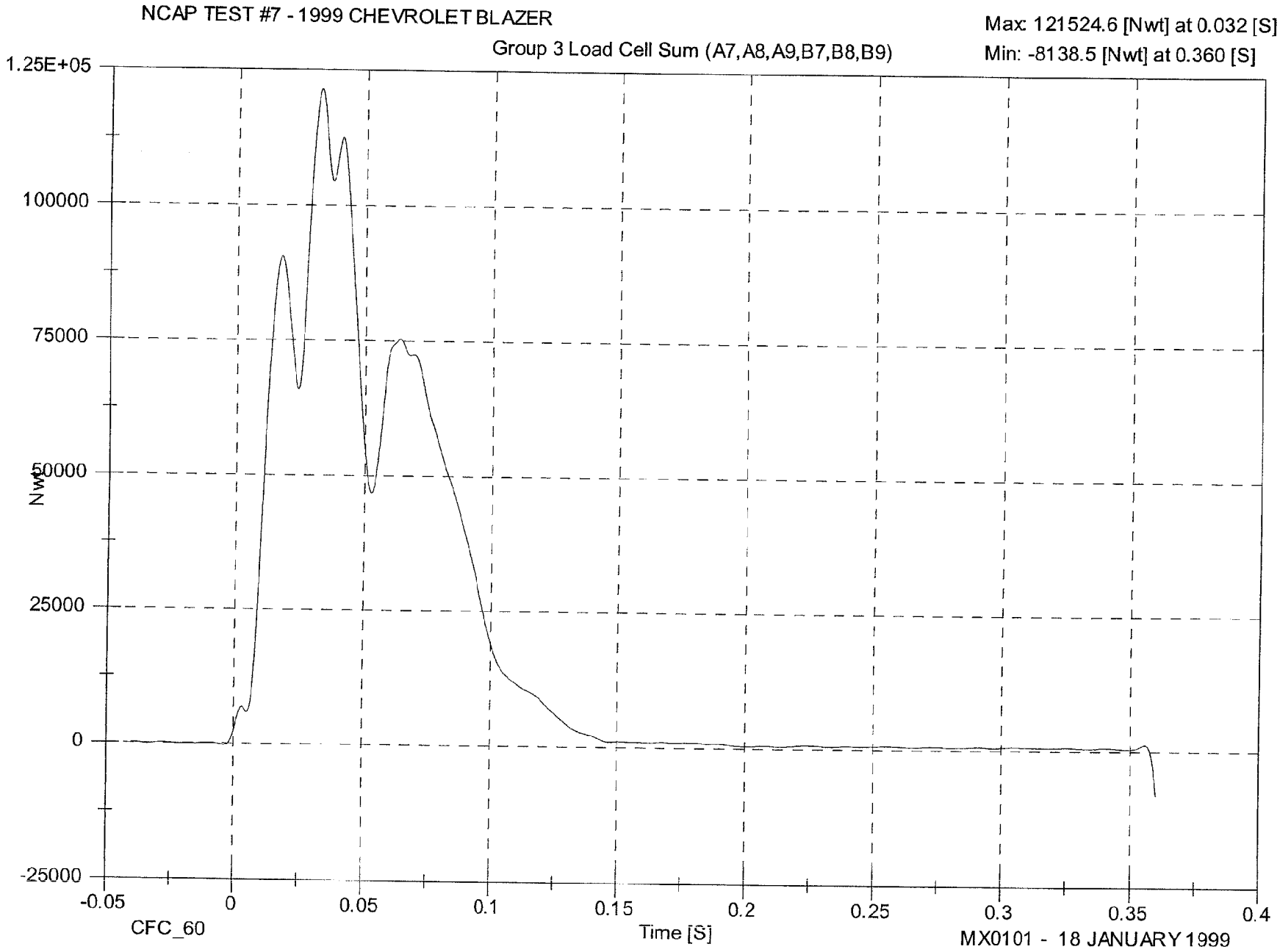

NCAP TEST #7 - 1999 CHEVROLET BLAZER
BLC D7 Fx
Max: 18577.8 [Nwt] at 0.021 [S]
Min: -1400.0 [Nwt] at 0.360 [S]
20000
17500
15000
12500
10000
7500
5000
2500
0
-2500
Nwt
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [S]
CFC_60
MX0101 - 18 JANUARY 1999

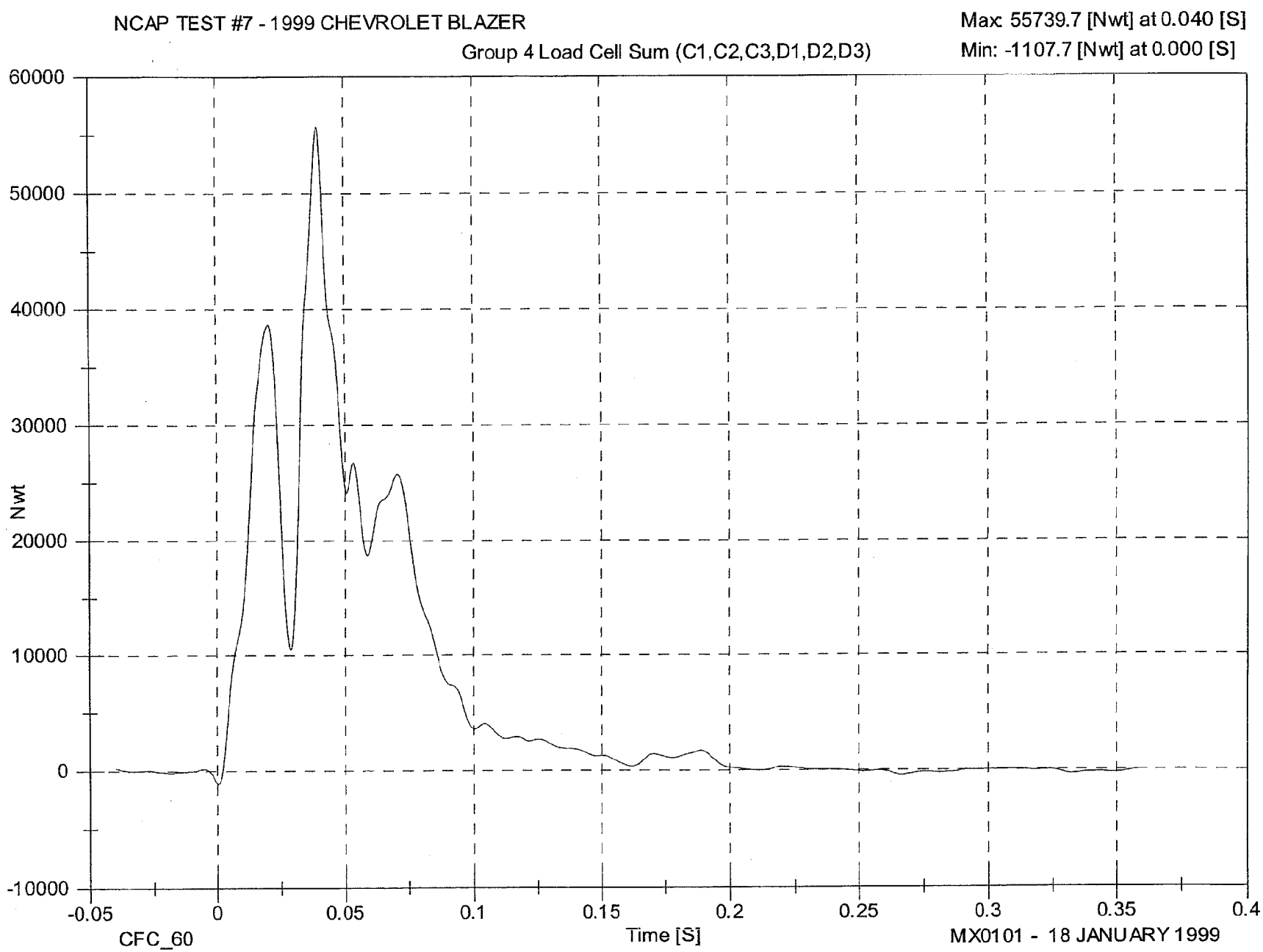

NCAP TEST #7 - 1999 CHEVROLET BLAZER
BLC D8 Fx
Max: 19733.7 [Nwt] at 0.030 [S]
Min: -1857.7 [Nwt] at 0.360 [S]
MX0101 - 18 JANUARY 1999
CFC_60
Time [S]
Nwt
20000
15000
10000
5000
0
-5000
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4

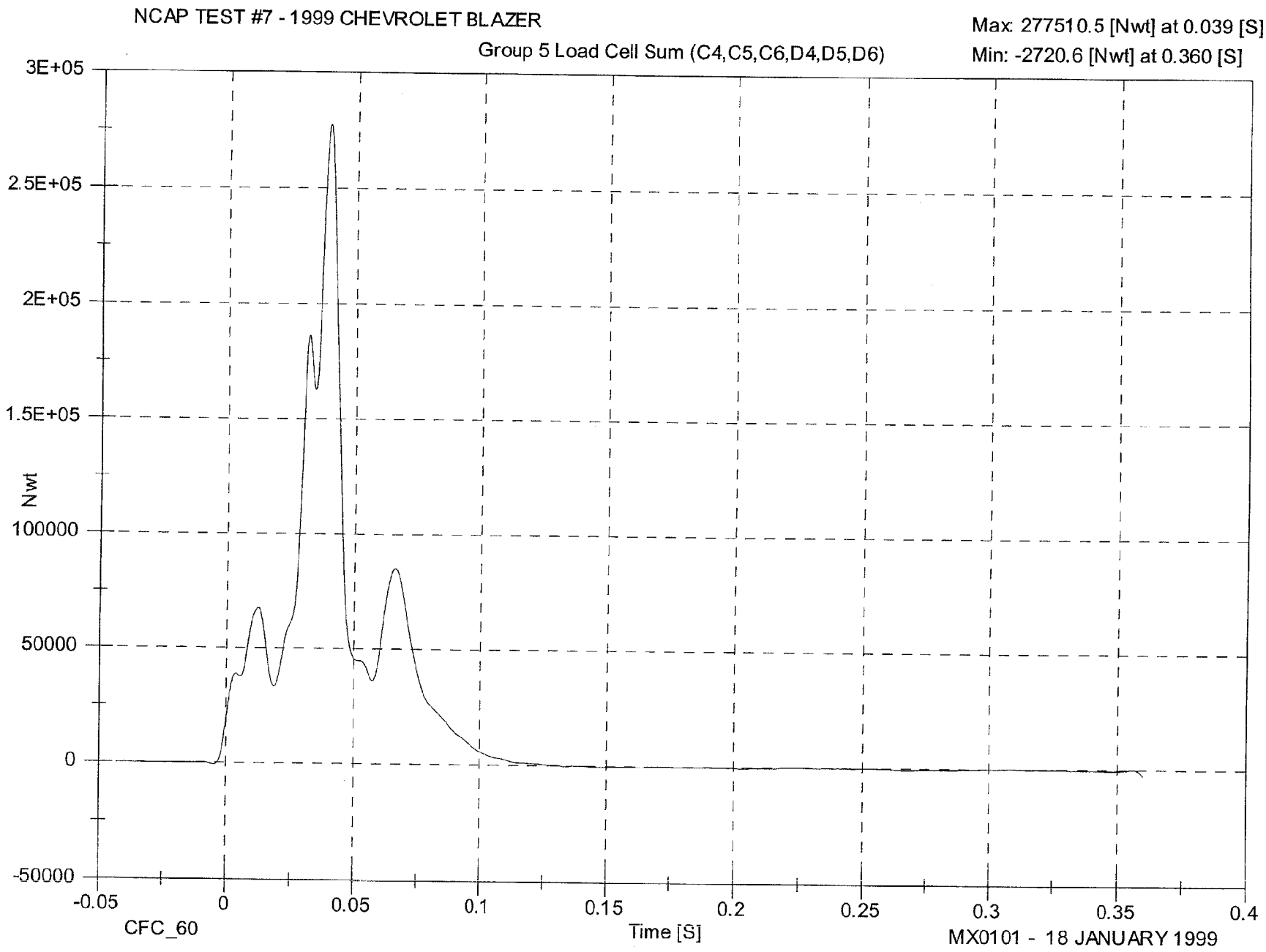

NCAP TEST #7 - 1999 CHEVROLET BLAZER
BLC D9 Fx
Max: 5799.5 [Nwt] at 0.069 [S]
Min: -2372.6 [Nwt] at 0.042 [S]
MX0101 - 18 JANUARY 1999
CFC_60
Time [S]
Nwt
6000
4000
2000
0
-2000
-4000
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4

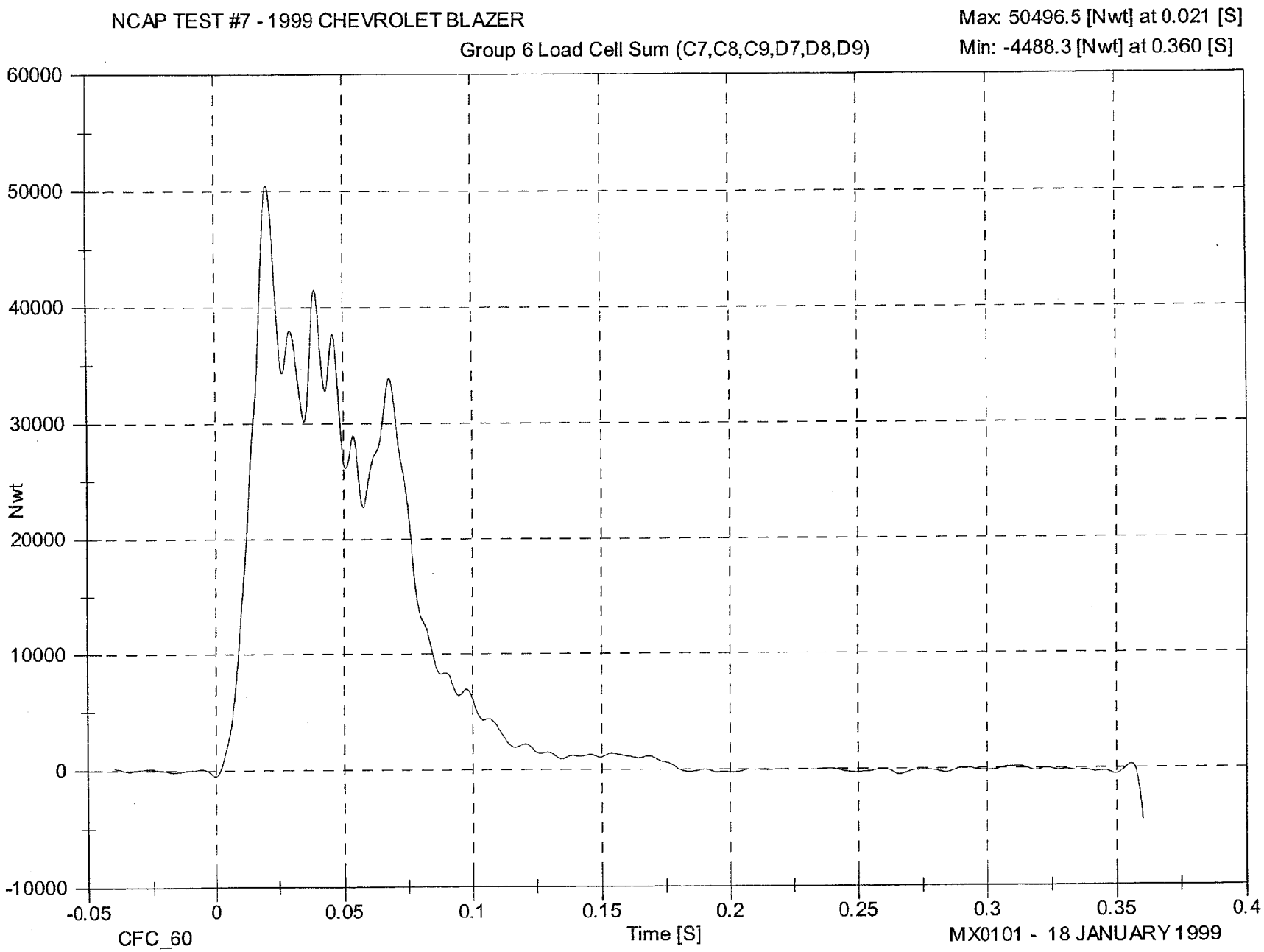

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Group 1 Load Cell Sum (A1,A2,A3,B1,B2,B3)
Max: 131604.4 [Nwt] at 0.037 [S]
Min: -2137.3 [Nwt] at 0.001 [S]
1.5E+05
1.25E+05
100000
75000
50000
25000
0
-25000
Nwt
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [S]
CFC_60
MX0101 - 18 JANUARY 1999

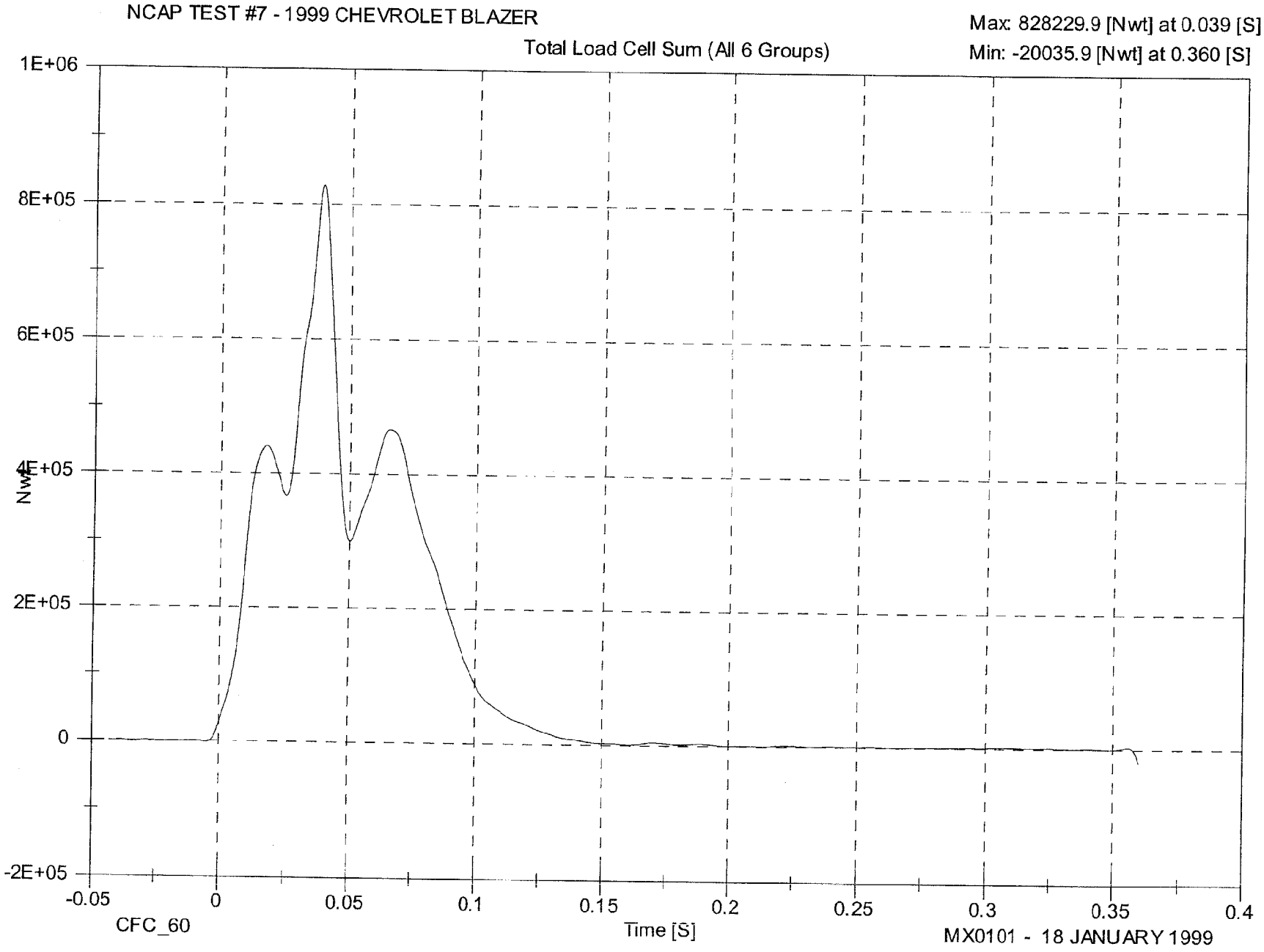

NCAP TEST #7 - 1999 CHEVROLET BLAZER
Group 2 Load Cell Sum (A4,A5,A6,B4,B5,B6)
Max: 232930.7 [Nwt] at 0.039 [S]
Min: -6635.1 [Nwt] at 0.360 [S]
2.5E+05
2E+05
1.5E+05
100000
50000
0
-50000
Nwt
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [S]
CFC_60
MX0101 - 18 JANUARY 1999


NCAP TEST #7 - 1999 CHEVROLET BLAZER
Group 3 Load Cell Sum (A7,A8,A9,B7,B8,B9)
Max: 121524.6 [Nwt] at 0.032 [S]
Min: -8138.5 [Nwt] at 0.360 [S]
1.25E+05
100000
75000
50000
25000
0
-25000
Nwt
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [S]
CFC_60
MX0101 - 18 JANUARY 1999


NCAP TEST #7 - 1999 CHEVROLET BLAZER
Group 4 Load Cell Sum (C1,C2,C3,D1,D2,D3)
Max: 55739.7 [Nwt] at 0.040 [S]
Min: -1107.7 [Nwt] at 0.000 [S]
60000
50000
40000
30000
20000
10000
0
-10000
Nwt
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [S]
CFC_60
MX0101 - 18 JANUARY 1999


NCAP TEST #7 - 1999 CHEVROLET BLAZER
Group 5 Load Cell Sum (C4,C5,C6,D4,D5,D6)
Max: 277510.5 [Nwt] at 0.039 [S]
Min: -2720.6 [Nwt] at 0.360 [S]
3E+05
2.5E+05
2E+05
1.5E+05
100000
50000
0
-50000
Nwt
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [S]
CFC_60
MX0101 - 18 JANUARY 1999


NCAP TEST #7 - 1999 CHEVROLET BLAZER
Group 6 Load Cell Sum (C7,C8,C9,D7,D8,D9)
Max: 50496.5 [Nwt] at 0.021 [S]
Min: -4488.3 [Nwt] at 0.360 [S]
60000
50000
40000
30000
20000
10000
0
-10000
Nwt
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [S]
CFC_60
MX0101 - 18 JANUARY 1999


NCAP TEST #7 - 1999 CHEVROLET BLAZER
Total Load Cell Sum (All 6 Groups)
Max: 828229.9 [Nwt] at 0.039 [S]
Min: -20035.9 [Nwt] at 0.360 [S]
1E+06
8E+05
6E+05
4E+05
2E+05
0
-2E+05
Nwt
-0.05
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
Time [S]
CFC_60
MX0101 - 18 JANUARY 1999

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 Calspan Corporation. A summary of the test results, and Part 572 specifications are included in this Appendix.

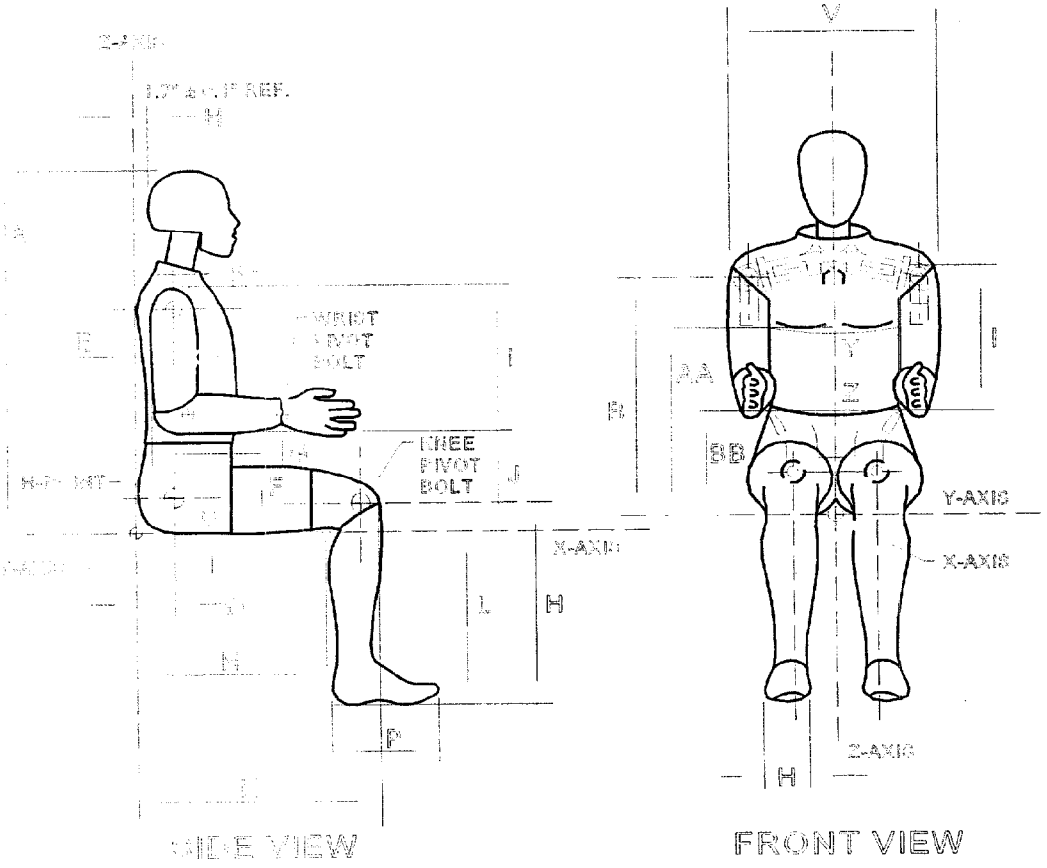
Dummy serial numbers and certification dates are:

Position No./Location	Serial No.	Completion Date
#1/Driver	150	1/7/99
#2/Right Front Passenger	245	1/5/99

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 Indicant Testing Final Report No. 6525-V-1.

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: §572.36(A)(6))

PART 572E
HEAD DROP TEST

Dummy Serial Number	150
Calspan Sequential Test Number	5
Date	01/06/99
Workfile	150598.hdp

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature	66-78 Deg F	71
Relative Humidity	10% - 70%	15
Peak Resultant Acceleration	225-275 G's	225.5
Peak Lateral Acceleration	15 G's Max	4.5
Is Acceleration Curve Unimodal?	YES	YES

Remarks:

Laboratory Technician: B. Swiecicki

PART 572E
NECK FLEXION TEST

Dummy Serial Number	150
Calspan Sequential Test Number	5
Date	01/07/99
Workfile	150598.nfl

6 Axis Neck Transducer

TEST PARAMETER		SPECIFICATION	TEST RESULTS
Temperature		69-72 Deg F	71
Relative Humidity		10% - 70%	15
Impact Velocity		22.60 - 23.40 Ft/s	23.30
Pendulum Deceleration	10 ms	22.50 - 27.50 G's	24.64
	20 ms	17.60 - 22.60 G's	20.64
	30 ms	12.50 - 18.50 G's	14.93
Max Pendulum G's Above 30 ms		29 G's Max	14.93
Deceleration - Time Curve Decay Time to 5 G's		34 - 42 ms	40.00
D Plane Rotation	Max	64 - 78 Deg	77.90
	Time	57 - 64 ms	53.38
Moment About Occipital Condyle	Max	65 - 80 Ft-Lbs	74.66
	Time	47 - 58 ms	54.25
Rotation Angle - Time Curve Decay Time to Zero		113 - 128 ms	124.63
Positive Moment - Time Curve Decay Time to Zero		97 - 107 ms	107.00

Remarks:

Laboratory Technician: B. Swiecicki

PART 572E
NECK EXTENSION TEST

Dummy Serial Number	150
Calspan Sequential Test Number	5
Date	01/07/99
Workfile	150598.nex

6 Axis Neck Transducer

TEST PARAMETER		SPECIFICATION	TEST RESULTS
Temperature		69-72 Deg F	71
Relative Humidity		10% - 70%	15
Impact Velocity		19.50 - 20.30 Ft/s	19.60
Pendulum Deceleration	10 ms	17.20 - 21.20 G's	18.87
	20 ms	14.00 - 19.00 G's	16.74
	30 ms	11.00 - 16.00 G's	13.45
Max Pendulum G's Above 30 ms		22 G's Max	13.45
Deceleration - Time Curve Decay Time to 5 G's		38 - 46 ms	43.75
D Plane Rotation	Max	81 - 106 Deg	102.05
	Time	72 - 82 ms	77.25
Moment About Occipital Condyle	Max	-59.0 - -39.0 Ft-Lbs	-48.19
	Time	65 - 79 ms	72.75
Rotation Angle - Time Curve Decay Time to Zero		147 - 174 ms	160.13
Positive Moment - Time Curve Decay Time to Zero		120 - 148 ms	148.00

Remarks:

Laboratory Technician: B. Swiecicki

PART 572E
THORAX IMPACT TEST

Dummy Serial Number	150
Calspan Sequential Test Number	5
Date	01/07/99
Workfile	150598.th3

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature	69-72 Deg F	71
Relative Humidity	10% - 70%	15
Pendulum Velocity	21.6 - 22.4 Ft/s	21.65
Maximum Deflection	2.50 - 2.86 in	2.51
Maximum Resistive Force	1160 - 1325 Lbs	1180.34
Internal Hysteresis	69 - 85 %	72.3

Remarks:

Laboratory Technician: B. Swiecicki

PART 572E
KNEE IMPACT TEST

Dummy Serial Number	150
Calspan Sequential Test Number	5
Date	01/06/99
Workfile	150598

TEST PARAMETER	SPECIFICATION	TEST RESULTS
LEFT KNEE		
Temperature	66 - 78 Deg F	70
Relative Humidity	10% - 70%	15
Probe Velocity	6.8 - 7.0 Ft/s	6.90
Peak Knee Impact Force	1060 - 1300 Lbs	1199.00
RIGHT KNEE		
Temperature	66 - 78 Deg F	70
Relative Humidity	10% - 70%	15
Probe Velocity	6.8 - 7.0 Ft/s	6.90
Peak Knee Impact Force	1060 - 1300 Lbs	1292.00

Remarks:

Laboratory Technician: B. Swiecicki

PART 572E
EXTERNAL DIMENSIONS

Dummy Serial Number 150
Calspan Sequential Test Number 5
Date 01/06/99

TEST PARAMETER		SPECIFICATION	TEST RESULTS
Temperature			71
Relative Humidity			15
Location for Chest Circumference	AA	16.9 -17.1 in	17.0
Location for Waist Circumference	BB	8.9 - 9.1 in	9.0
Chest Circumference (With Jacket)	Y	38.2 - 39.4 in	39.2
Waist Circumference	Z	32.9 - 34.1 in	34.0
Chest Depth	O	8.4 - 9.0 in	8.4
H-Point Height	C	3.3 - 3.5 in	3.4
H-Point from Backline	D	5.3 - 5.5 in	5.4
Skull Cap to Backline	H	1.6 - 1.8 in	1.7
Total Sitting Height	A	34.6 - 35.0 in	34.8
Thigh Clearance	F	5.5 - 6.1 in	5.7
Buttock Knee Length	K	22.8 - 23.8 in	23.4
Buttock Popliteal Length	N	17.8 - 18.8 in	18.4
Popliteal Height	L	16.9 - 17.9 in	17.8
Knee Pivot Height	M	19.1 - 19.7 in	19.6
Foot Length	P	9.9 - 10.5 in	10.1
Foot Breadth	W	3.6 - 4.2 in	3.8
Shoulder Pivot from Backline	E	3.3 - 3.7 in	3.7
Shoulder Breadth	V	16.6 - 17.2 in	16.9
Shoulder Pivot Height	B	19.9 - 20.5 in	20.2
Elbow Rest Height	J	7.5 - 8.3 in	8.1
Shoulder - Elbow Length	I	13.0 - 13.6 in	13.2
Back of Elbow to Wrist Pivot	G	11.4 - 12.0 in	11.5

Remarks:

Laboratory Technician: B. Swiecicki

PART 572E
HEAD DROP TEST

Dummy Serial Number	245
Calspan Sequential Test Number	4
Date	01/05/99
Workfile	245498.hdp

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature	66-78 Deg F	70
Relative Humidity	10% - 70%	32
Peak Resultant Acceleration	225-275 G's	233.0
Peak Lateral Acceleration	15 G's Max	7.6
Is Acceleration Curve Unimodal?	YES	YES

Remarks:

Laboratory Technician: B. Swiecicki

PART 572E
NECK FLEXION TEST

Dummy Serial Number	245
Calspan Sequential Test Number	4
Date	12/18/98
Workfile	245498.nfl

6 Axis Neck Transducer

TEST PARAMETER		SPECIFICATION	TEST RESULTS
Temperature		69-72 Deg F	70
Relative Humidity		10% - 70%	20
Impact Velocity		22.60 - 23.40 Ft/s	22.90
Pendulum Deceleration	10 ms	22.50 - 27.50 G's	24.25
	20 ms	17.60 - 22.60 G's	20.96
	30 ms	12.50 - 18.50 G's	14.36
Max Pendulum G's Above 30 ms		29 G's Max	14.36
Deceleration - Time Curve Decay Time to 5 G's		34 - 42 ms	39.13
D Plane Rotation	Max	64 - 78 Deg	74.95
	Time	57 - 64 ms	63.00
Moment About Occipital Condyle	Max	65 - 80 Ft-Lbs	65.24
	Time	47 - 58 ms	54.63
Rotation Angle - Time Curve Decay Time to Zero		113 - 128 ms	120.05
Positive Moment - Time Curve Decay Time to Zero		97 - 107 ms	105.88

Remarks:

Laboratory Technician: B. Swiecicki

PART 572E
NECK EXTENSION TEST

Dummy Serial Number	245
Calspan Sequential Test Number	4
Date	12/18/98
Workfile	245498.nex

6 Axis Neck Transducer

TEST PARAMETER		SPECIFICATION	TEST RESULTS
Temperature		69-72 Deg F	70
Relative Humidity		10% - 70%	20
Impact Velocity		19.50 - 20.30 Ft/s	20.00
Pendulum Deceleration	10 ms	17.20 - 21.20 G's	18.43
	20 ms	14.00 - 19.00 G's	15.81
	30 ms	11.00 - 16.00 G's	13.38
Max Pendulum G's Above 30 ms		22 G's Max	13.38
Deceleration - Time Curve Decay Time to 5 G's		38 - 46 ms	44.25
D Plane Rotation	Max	81 - 106 Deg	89.73
	Time	72 - 82 ms	73.63
Moment About Occipital Condyle	Max	-59.0 - -39.0 Ft-Lbs	-52.02
	Time	65 - 79 ms	68.88
Rotation Angle - Time Curve Decay Time to Zero		147 - 174 ms	148.00
Positive Moment - Time Curve Decay Time to Zero		120 - 148 ms	131.63

Remarks:

Laboratory Technician: B. Swiecicki

PART 572E
THORAX IMPACT TEST

Dummy Serial Number	245
Calspan Sequential Test Number	4
Date	12/18/98
Workfile	245498.th3

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature	69-72 Deg F	70
Relative Humidity	10% - 70%	20
Pendulum Velocity	21.6 - 22.4 Ft/s	21.70
Maximum Deflection	2.50 - 2.86 in	2.55
Maximum Resistive Force	1160 - 1325 Lbs	1226.59
Internal Hysteresis	69 - 85 %	74.7

Remarks:

Laboratory Technician: B. Swiecicki

PART 572E
KNEE IMPACT TEST

Dummy Serial Number	245
Calspan Sequential Test Number	4
Date	01/05/99
Workfile	245498

TEST PARAMETER	SPECIFICATION	TEST RESULTS
LEFT KNEE		
Temperature	66 - 78 Deg F	70
Relative Humidity	10% - 70%	30
Probe Velocity	6.8 - 7.0 Ft/s	7.00
Peak Knee Impact Force	1060 - 1300 Lbs	1242.00
RIGHT KNEE		
Temperature	66 - 78 Deg F	70
Relative Humidity	10% - 70%	30
Probe Velocity	6.8 - 7.0 Ft/s	7.00
Peak Knee Impact Force	1060 - 1300 Lbs	1179.00

Remarks:

Laboratory Technician: B. Swiecicki

PART 572E
EXTERNAL DIMENSIONS

Dummy Serial Number 245
Calspan Sequential Test Number 4
Date 12/18/98

TEST PARAMETER		SPECIFICATION	TEST RESULTS
Temperature			71
Relative Humidity			15
Location for Chest Circumference	AA	16.9 -17.1 in	17.0
Location for Waist Circumference	BB	8.9 - 9.1 in	9.0
Chest Circumference (With Jacket)	Y	38.2 - 39.4 in	39.0
Waist Circumference	Z	32.9 - 34.1 in	33.7
Chest Depth	O	8.4 - 9.0 in	8.4
H-Point Height	C	3.3 - 3.5 in	3.4
H-Point from Backline	D	5.3 - 5.5 in	5.4
Skull Cap to Backline	H	1.6 - 1.8 in	1.7
Total Sitting Height	A	34.6 - 35.0 in	34.9
Thigh Clearance	F	5.5 - 6.1 in	6.0
Buttock Knee Length	K	22.8 - 23.8 in	23.4
Buttock Popliteal Length	N	17.8 - 18.8 in	18.3
Popliteal Height	L	16.9 - 17.9 in	17.5
Knee Pivot Height	M	19.1 - 19.7 in	19.2
Foot Length	P	9.9 - 10.5 in	10.2
Foot Breadth	W	3.6 - 4.2 in	3.8
Shoulder Pivot from Backline	E	3.3 - 3.7 in	3.6
Shoulder Breadth	V	16.6 - 17.2 in	16.8
Shoulder Pivot Height	B	19.9 - 20.5 in	20.2
Elbow Rest Height	J	7.5 - 8.3 in	8.4
Shoulder - Elbow Length	I	13.0 - 13.6 in	13.2
Back of Elbow to Wrist Pivot	G	11.4 - 12.0 in	11.6

Remarks:

Laboratory Technician: B. Swiecicki

Appendix D

DUMMY, VEHICLE AND LABORATORY INSTRUMENT CALIBRATION

INSTRUMENT CALIBRATION FOR DRIVER DUMMY

(6 Month Calibration Minimum)

DRIVER DUMMY (S/N 150)		Serial #	Manufacturer	Calibration	
				Last	Next
Head	X	AF5P8	ENDEVCO	10/98	4/99
	Y	C14948	ENDEVCO	10/98	4/99
	Z	AH5F3	ENDEVCO	12/98	6/99
Chest	X	ADL50	ENDEVCO	12/98	6/99
	Y	AC2P5	ENDEVCO	12/98	6/99
	Z	AL6C8	ENDEVCO	12/98	6/99
Right Femur Load Cell		F551	GSE	9/98	3/99
Left Femur Load Cell		F548	GSE	9/98	3/99
Neck Load Cell	X	076	DENTON	8/98	2/99
	Y	076	DENTON	8/98	2/99
	Z	076	DENTON	8/98	2/99
Neck Moment	X	076	DENTON	8/98	2/99
	Y	076	DENTON	8/98	2/99
	Z	076	DENTON	8/98	2/99
Chest Deflection Gauge		CP150	HUMANOID	9/98	3/99
Hybrid III Use Only					
Lap Belt Load Cells		706	LEBOW	9/98	3/99
Shoulder Belt Load Cells		707	LEBOW	9/98	3/99
Spool-Out Potentiometer		M10	MAGNETEK	10/98	4/99
Belt Stretch Transducer		E2	CALSPAN	10/98	4/99

INSTRUMENT CALIBRATION FOR DRIVER DUMMY

(6 Month Calibration Minimum)

DRIVER DUMMY		Serial #	Manufacturer	Calibration	
				Last	Next
Head	X (R)	A14150	ENDEVCO	10/98	4/99
	Y (R)	B10954	ENDEVCO	10/98	4/99
	Z (R)	A14126	ENDEVCO	10/98	4/99
Chest	X (R)	A13939	ENDEVCO	12/98	6/99
	Y (R)	A14181	ENDEVCO	10/98	4/99
	Z (R)	A14124	ENDEVCO	10/98	4/99
Pelvic	X	C15018	ENDEVCO	9/98	3/99
	Y	C14883	ENDEVCO	9/98	3/99
	Z	C14972	ENDEVCO	9/98	3/99
Left Upper Tibia	Mx	016	DENTON	9/98	3/99
Left Upper Tibia	My	016	DENTON	9/98	3/99
Left Lower Tibia	Fz	123	DENTON	8/98	2/99
Left Lower Tibia	Mx	123	DENTON	8/98	2/99
Left Lower Tibia	My	123	DENTON	8/98	2/99
Right Upper Tibia	Mx	015	DENTON	9/98	3/99
Right Upper Tibia	My	015	DENTON	9/98	3/99
Right Lower Tibia	Fz	122	DENTON	8/98	2/99
Right Lower Tibia	Mx	122	DENTON	8/98	2/99
Right Lower Tibia	My	122	DENTON	8/98	2/99

INSTRUMENT CALIBRATION FOR DRIVER DUMMY

(6 Month Calibration Minimum)

DRIVER DUMMY		Serial #	Manufacture	Calibration	
				Last	Next
Left Foot Front	Z	A14307	ENDEVCO	12/98	6/99
Left Foot Rear	X	A14510	ENDEVCO	12/98	6/99
Left Foot Rear	Z	A14383	ENDEVCO	12/98	6/99
Right Foot Front	Z	14485	ENDEVCO	12/98	6/99
Right Foot Rear	X	A14321	ENDEVCO	12/98	6/99
Right Foot Rear	Z	A14381	ENDEVCO	12/98	6/99

INSTRUMENT CALIBRATION FOR PASSENGER DUMMY

(6 Month Calibration Minimum)

PASSENGER DUMMY (S/N 245)		Serial #	Manufacturer	Calibration	
				Last	Next
Head	X	C15021	ENDEVCO	9/98	3/99
	Y	AL511	ENDEVCO	10/98	4/99
	Z	AH5N0	ENDEVCO	10/98	4/99
Chest	X	AE8K1	ENDEVCO	10/98	4/99
	Y	AH5M8	ENDEVCO	11/98	5/99
	Z	AF5C4	ENDEVCO	10/98	4/99
Right Femur Load Cell		F420	GSE	9/98	3/99
Left Femur Load Cell		F732	GSE	9/98	3/99
Neck Load Cell	X	269	DENTON	10/98	4/99
	Y	269	DENTON	10/98	4/99
	Z	269	DENTON	10/98	4/99
Neck Moment	X	269	DENTON	10/98	4/99
	Y	269	DENTON	10/98	4/99
	Z	269	DENTON	10/98	4/99
Chest Deflection Gauge		245	HUMANOID	10/98	4/99
Hybrid III Use Only					
Lap Belt Load Cells		711	LEBOW	9/98	3/99
Shoulder Belt Load Cells		712	LEBOW	9/98	3/99
Spool-Out Potentiometer		M11	MAGNETEK	10/98	4/99
Belt Stretch Transducer		E4	CALSPAN	10/98	4/99

INSTRUMENT CALIBRATION FOR PASSENGER DUMMY

(6 Month Calibration Minimum)

PASSENGER DUMMY		Serial #	Manufacturer	Calibration	
				Last	Next
Head	X (R)	A14367	ENDEVCO	11/98	5/99
	Y (R)	A14501	ENDEVCO	11/98	5/99
	Z (R)	A14570	ENDEVCO	11/98	5/99
Chest	X (R)	A13506	ENDEVCO	10/98	4/99
	Y (R)	A14058	ENDEVCO	10/98	4/99
	Z (R)	B10481	ENDEVCO	10/98	4/99
Pelvic	X	AF5B3	ENDEVCO	9/98	3/99
	Y	AF5F7	ENDEVCO	9/98	3/99
	Z	AC2R5	ENDEVCO	9/98	3/99
Left Upper Tibia	Mx	045	DENTON	9/98	3/99
Left Upper Tibia	My	045	DENTON	9/98	3/99
Left Lower Tibia	Fz	0125	DENTON	8/98	2/99
Left Lower Tibia	Mx	0125	DENTON	8/98	2/99
Left Lower Tibia	My	0125	DENTON	8/98	2/99
Right Upper Tibia	Mx	038	DENTON	9/98	3/99
Right Upper Tibia	My	038	DENTON	9/98	3/99
Right Lower Tibia	Fz	0124	DENTON	9/98	3/99
Right Lower Tibia	Mx	0124	DENTON	8/98	2/99
Right Lower Tibia	My	0124	DENTON	8/98	2/99

INSTRUMENT CALIBRATION FOR PASSENGER DUMMY

(6 Month Calibration Minimum)

PASSENGER DUMMY		Serial #	Manufacture	Calibration	
				Last	Next
Left Foot Front	Z	A14239	ENDEVCO	12/98	6/99
Left Foot Rear	X	A14488	ENDEVCO	12/98	6/99
Left Foot Rear	Z	A14306	ENDEVCO	12/98	6/99
Right Foot Front	Z	A14484	ENDEVCO	12/98	6/99
Right Foot Rear	X	A14481	ENDEVCO	12/98	6/99
Right Foot Rear	Z	A14433	ENDEVCO	12/98	6/99

INSTRUMENT CALIBRATION FOR VEHICLE ACCELEROMETERS

(6 Month Calibration Minimum)

	Serial #	Manufacturer	Calibration	
			Last	Next
Left Seat Rear Crossmember	D71	ICS	8/98	2/99
Right Rear Seat Crossmember	D69	ICS	8/98	2/99
Top of Engine	D03	ICS	11/98	5/99
Bottom of Engine	J18555	ENDEVCO	10/98	4/99
Left Disc Brake Caliper	J18408	ENDEVCO	10/98	4/99
Right Disc Brake Caliper	J18624	ENDEVCO	10/98	4/99
Instrument Panel	D53	ICS	10/98	4/99
Left Seat Rear Crossmember (R)	D63	ICS	8/98	2/99
Right Seat Rear Crossmember (R)	D57	ICS	8/98	2/99