

INFORMATION BULLETIN

MOTOR VEHICLE MANUFACTURERS ASSOCIATION OF THE UNITED STATES, INC. • 7430 SECOND AVENUE, SUITE 300 • DETROIT, MICHIGAN 48202 • 872-4311 AREA 313

V1479

August 27, 1990

TO: Side Impact Subcommittee
FROM: Ronald J. Wasko
SUBJECT: MVMA Full Vehicle BioSID Test Report - Test 7B

Attached for information is a copy of the final report for one of the twelve MVMA Full Vehicle Side Impact Tests. The tests were conducted during February to April, 1990 at the General Motors Proving Grounds, using the BioSID dummy. The calibration procedures and results will be transmitted in a separate bulletin.

Attachment

cc: Engineering Research Subcommittee
Vehicle Safety Development Subcommittee

**MVMA FULL VEHICLE BIOSID SIDE IMPACT
TEST SERIES**

FEBRUARY-APRIL, 1990

USING PROPOSED NHTSA FULL VEHICLE SIDE IMPACT TEST PROCEDURE

TEST NUMBER 7B*

(B= Baseline door interior; P= Padded door interior)

TYPE IMPACT:

- REAR MOVING BARRIER
- LEFT SIDE MOVING BARRIER
- RIGHT SIDE MOVING BARRIER
- OTHER

TEST REPORT

REPORT NO. PG _____

SRDL TEST NO. C8007

TEST DATE MAR 13, 1990

BARRIER TYPE:

- FLAT FACE
- CONTOURED
- OTHER

OTHER:

CRABBED DEFORMABLE BARRIER @ 27 DEG _____

VEHICLE DESCRIPTION

MAKE	YEAR	BODY TYPE	BODY STYLE	DIVISION CAR NO.	BUILD STATUS	
PONTIAC	90	SEDAN	2AF69	MYMA 7B	PRODUCTION	
ENGINE	CONFIGURATION	L4	DISPLACEMENT	2.5 L	PREVIOUS IMPACTS	NONE
	FUEL	GASOLINE	TRAILER HITCH			YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> TYPE
	FUEL INDUCTION	ELECTRONIC FUEL INJECTION	SPARE TIRE TYPE			COMPACT
FUEL TANK	USABLE CAPACITY	N/D L	UNUSABLE CAPACITY	N/D L	AC	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>
SPECIAL FEATURES:						
VEHICLE TESTED FOR MYMA FOR EVALUATION OF THE SID AND BIOSID DUMMIES						

TEST CONDITIONS

MOVING BARRIER								
VELOCITY AT IMPACT	53.6	km/h	LOCATION	VEHICLE <input type="checkbox"/>	DRIVER SRP <input type="checkbox"/>	OTHER <input checked="" type="checkbox"/>		
TEST MASS	1360	kg	AT IMPACT					
VEHICLE			DUMMIES					
TEST MASS	FRONT	920	kg	LEFT FRONT	MAKE	SID	NO.	4
LESS DUMMIES	REAR	672	kg		TYPE	50TH %ILE MALE	MASS	78.5 kg
INCLUDING DUMMIES	TOTAL	1592	kg		RESTRAINT	UNBELTED		
FUEL TANK	TEST VOLUME:	CONTENTS	WATER	LEFT REAR	MAKE	BIOSID	NO.	2
	N/D / OF USABLE CAPACITY=	64.4	L		TYPE	50TH %ILE MALE	MASS	77.3 kg
FUEL LINES AND SYSTEM FILLED	YES	<input type="checkbox"/>	NO	<input checked="" type="checkbox"/>	RESTRAINT	UNBELTED		
VEHICLE SERVICE BRAKES ON @ IMPACT	YES	<input type="checkbox"/>	NO	<input checked="" type="checkbox"/>				
SEAT POSITION	MID							
VEHICLE ATTITUDE								
J= DRIVER SIDE	197	mm	PASSENGER SIDE	188				
K= DRIVER SIDE	178	mm	PASSENGER SIDE	171				
COMMENTS:								
LEFT SIDE OF MOVING BARRIER FACE WAS POSITIONED								
940 MM FORWARD OF VEHICLE WHEELBASE CENTERLINE.								
(SEE PAGE 4) FUEL TANK WAS FILLED WITH WATER.								
TEST CONFIGURATION:								

PHOTOGRAPHIC COVERAGE

RECORDED DATA

OFFBOARD	OVER ALL	<input checked="" type="checkbox"/>	FUEL TANK	
	REAR HALF	<input type="checkbox"/>	OVERHEAD	
	PIT	<input type="checkbox"/>		
OTHER	OFFBD-DR SIDE	<input checked="" type="checkbox"/>	ON MDB-IMPACT	<input checked="" type="checkbox"/>
	ONBD-DRIVER	<input checked="" type="checkbox"/>		
	ONBD-LR OCCUP.	<input checked="" type="checkbox"/>		

FLOOR PAN ACCEL.	LONG	<input type="checkbox"/>	LAT	<input type="checkbox"/>	TRIAx	<input type="checkbox"/>
FRAME ACCEL	LONG	<input type="checkbox"/>	LAT	<input type="checkbox"/>	TRIAx	<input type="checkbox"/>
ROCKER PANEL ACCEL.	LONG	<input type="checkbox"/>	LAT	<input type="checkbox"/>	TRIAx	<input type="checkbox"/>
VEHICLE ACCEL	<input checked="" type="checkbox"/>	SID DATA				<input checked="" type="checkbox"/>
MOVING BARRIER ACC	<input checked="" type="checkbox"/>					
BIOSID DATA	<input checked="" type="checkbox"/>					

N/A NOT APPLICABLE N/D NOT DETERMINED

POST-TEST OBSERVATIONS

		YES	NO	N/A	N/D	FIG.	NOTE
D O O R S	ALL EXTERIOR DOORS REMAINED CLOSED	X					
	ALL EXTERIOR DOORS REMAINED LATCHED	X					
	ALL EXTERIOR DOOR HINGES REMAINED INTACT	X					
							(1) DISTANCE MEASURED BETWEEN DOOR OUTER SURFACE AND ADJACENT BODY OUTER SURFACE WHEN 450 N PULL IS APPLIED TO HANDLE.
		LATCH OPERABLE		DISTANCE DOOR MAY BE OPENED (1)			
		YES	NO	OTHER			
	LEFT FRONT		X		0	mm	
	RIGHT FRONT	X			FULL	mm	
	LEFT REAR		X		0	mm	
	RIGHT REAR	X			FULL	mm	
B O D Y		YES	NO	N/A	N/D	FIG.	NOTE
	BODY TO-FRAME OR CRADLE MOUNTS REMAINED ATTACHED	X					
	SPARE TIRE REMAINED IN PLACE	X					
	TRUNK LID OR REAR HATCH REMAINED INTACT	X					
	TRUNK LID OR REAR HATCH REMAINED CLOSED	X					
D R I V E	REAR AXLE INTACT			X			1
	REAR AXLE DEFORMED			X			1
	DRIVESHAFT INTACT			X			1
	DRIVESHAFT DEFORMED			X			1
F U E L	FUEL TANK RETAINED	X					
	FILLER TUBE INTACT	X					

NOTE:

1. FRONT WHEEL DRIVE VEHICLE

VEHICLE DATA

REAR IMPACT									
VEHICLE	DRIVER SIDE	_____	mm	FUEL TANK	DRIVER SIDE	_____	mm		
RESIDUAL CRUSH	PASSENGER SIDE	_____	mm	RESIDUAL CRUSH	PASSENGER SIDE	_____	mm		
VEHICLE	DRIVER SIDE	_____	mm	FUEL TANK	DRIVER SIDE	_____	mm		
DYNAMIC CRUSH	PASSENGER SIDE	_____	mm	RESIDUAL DISP	PASSENGER SIDE	_____	mm		
SIDE IMPACT									
VEHICLE RESIDUAL CRUSH				FUEL TANK LATERAL RESIDUAL CRUSH					
FRONT	mm			FRONT	N/D	mm	REAR	N/D	mm
MID	mm			FUEL TANK LATERAL RESIDUAL DISPLACEMENT					
REAR	mm			FRONT	N/D	mm	REAR	N/D	mm

NOTE: (A) RESIDUAL CRUSH MEASUREMENTS +OR- 25mm. OTHER RESIDUAL MEASUREMENTS +OR- 5mm.
 (B) GENERALIZED TOLERANCE CANNOT BE SPECIFIED FOR DYNAMIC MEASUREMENTS BECAUSE OF ACCURACY VARIATIONS DUE TO DIFFERENCES IN ANALYSIS TECHNIQUES

A TOLERANCE FOR SPECIFIC TEST DATA CAN BE FURNISHED ON REQUEST.

N/A NOT APPLICABLE N/D NOT DETERMINED

DUMMY LOCATION IN VEHICLE

The following values reflect the dummy location in the test vehicle in corporate body coordinates. The location is determined relative to the vehicle front fiducial mark (front outboard seat anchor stud).

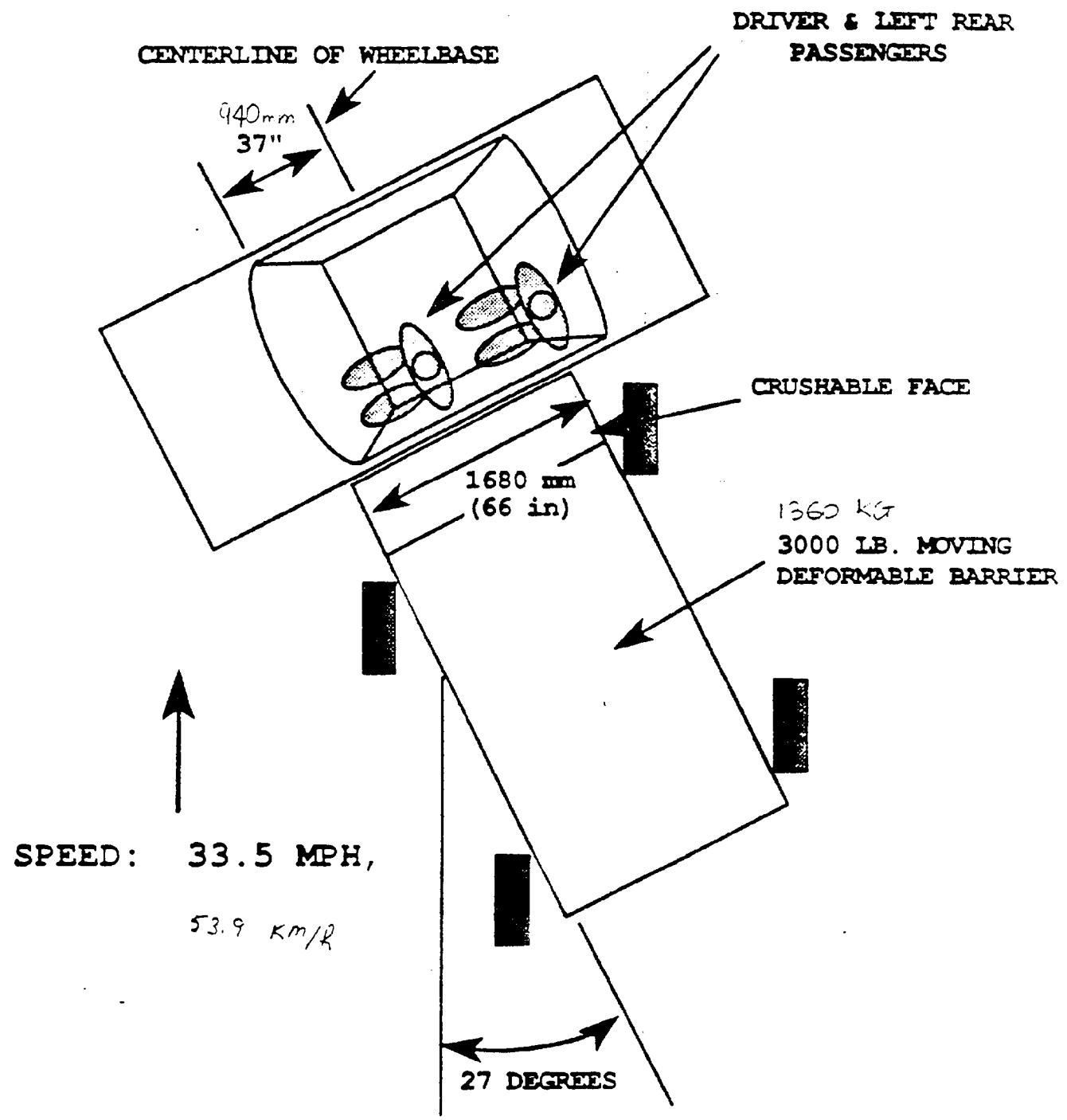
BODY COORDINATES (mm)

	LONGITUDINAL	VERTICAL
<u>LEFT FRONT PASSENGER</u>		
HEAD	<u>3257</u>	<u>1124</u>
HIP	<u>3069</u>	<u>464</u>
KNEE	<u>2673</u>	<u>537</u>
PELVIC ANGLE	<u>25</u>	SEAT BACK ANGLE <u>24</u>
<u>LEFT REAR PASSENGER</u>		
HEAD	<u>4127</u>	<u>1106</u>
HIP	<u>3932</u>	<u>442</u>
KNEE	<u>3553</u>	<u>578</u>
PELVIC ANGLE	<u>27</u>	SEAT BACK ANGLE <u>N/D</u>

Dummy lateral location: 343 mm relative to VEHICLE C/L

Comments: HEAD ANGLE IN DEGREES: LT FRT: 0, LT RR: -12

NHTSA TEST CONFIGURATION



27 DEGREE CRABBED MOVING DEFORMABLE BARRIER TO CAR SIDE IMPACT
TEST VEHICLE PRE-TEST, POST-TEST, AND STATIC CRUSH MEASUREMENTS (in mm)

TEST NUMBER: C8007

TEST DATE: 3-13-90

LOCATION			WINDOW TOP			WINDOW SILL			MID DOOR			N - POINT			AXCLE CL		
HEIGHT (in mm)			-			795			-			436			209		
TIME & CRUSH	PRE TEST	POST TEST	RSDL. CRUSH	PRE TEST	POST TEST	RSDL. CRUSH	PRE TEST	POST TEST	RSDL. CRUSH	PRE TEST	POST TEST	RSDL. CRUSH	PRE TEST	POST TEST	RSDL. CRUSH		
M F 610	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
E R 457	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
A W 305	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
B D 152	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
U 0*	-	-	-	417	436	19	-	-	-	361	362	1	455	477	22		
R 152	-	-	-	413	550	137	-	-	-	361	642	281	457	557	100		
E 305	-	-	-	410	604	194	-	-	-	358	699	341	452	585	133		
M 457	-	-	-	415	625	210	-	-	-	356	715	359	455	606	151		
E 610	-	-	-	405	638	233	-	-	-	354	733	379	451	630	179		
M R 762	-	-	-	403	654	251	-	-	-	353	752	399	453	652	199		
T E 914	-	-	-	400	674	274	-	-	-	351	771	420	451	677	226		
A 1067	-	-	-	399	693	294	-	-	-	351	777	426	451	699	248		
L R 1219	-	-	-	399	719	320	-	-	-	351	790	439	451	740	289		
O W 1372	-	-	-	399	732	333	-	-	-	351	811	460	449	638	189		
C A 1524	-	-	-	399	746	347	-	-	-	351	820	469	450	568	118		
A R 1676	-	-	-	399	750	351	-	-	-	352	814	462	449	515	66		
T D 1829	-	-	-	399	632	233	-	-	-	354	696	342	452	482	30		
I 1981	-	-	-	400	512	112	-	-	-	-	-	-	-	-	-		
O 2134	-	-	-	401	448	47	-	-	-	-	-	-	-	-	-		
M 2286	-	-	-	403	416	13	-	-	-	-	-	-	-	-	-		
2438	-	-	-	406	405	-1	-	-	-	-	-	-	-	-	-		

(in mm)

* IMPACT POINT- MOVING DEFORMABLE BARRIER LEADING EDGE

**27 DEGREE CRABBED MOVING DEFORMABLE BARRIER TO CAR SIDE IMPACT
STRIKING VEHICLE PRE-TEST, POST-TEST, AND STATIC CRUSH MEASUREMENTS (in mm)**

TEST NUMBER: C8007

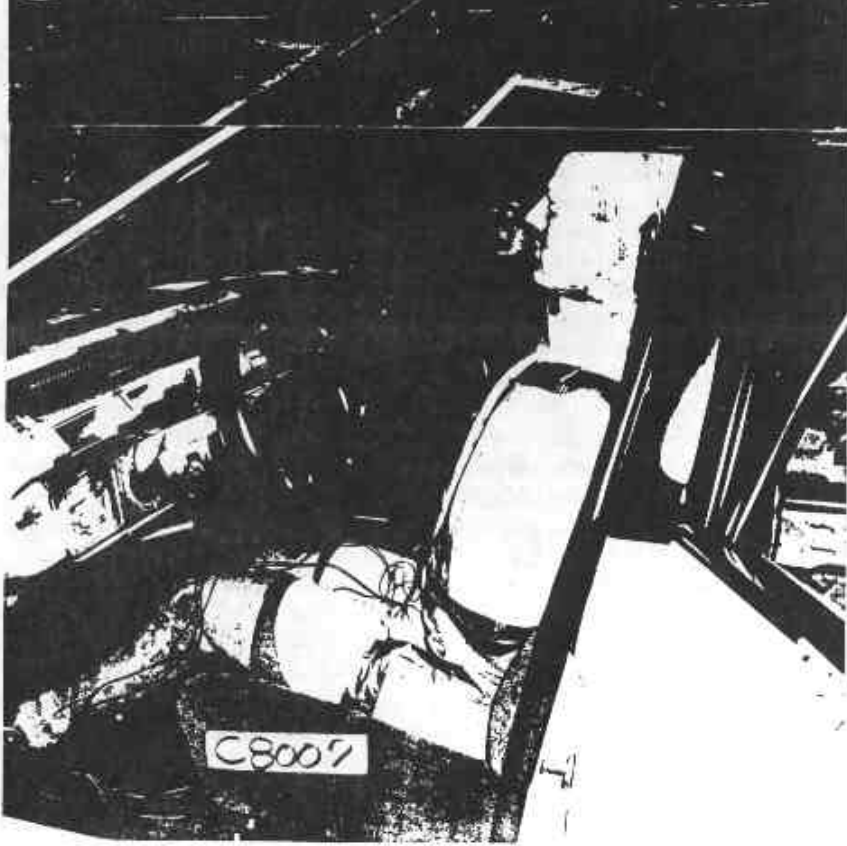
TEST DATE: MAR. 13, 1990

LOCATION	HEIGHT	TIME/CRUSH	MEASUREMENT LOCATION (in mm)																	
			DISTANCE LEFT OF CENTER**									DISTANCE RIGHT OF CENTER**								
			813	711	610	508	406	305	203	102	0	102	203	305	406	508	610	711	813	
TOPOF		POST-TEST																		
STACK LEVEL	813	PRE-TEST	320	280	280	280	282	283	285	286	288	287	290	293	320	359	390			
		STATIC CRUSH	276	276	276	276	276	276	276	276	276	276	276	276	276	276	276			
			44	4	4	4	4	6	7	9	10	12	11	14	14	44	83	114		
MID-STACK LEVEL	686	POST-TEST	284	278	280	280	280	280	280	280	280	281	282	283	294	332	382			
		PRE-TEST	276	276	276	276	276	276	276	276	276	276	276	276	276	276	276			
		STATIC CRUSH	8	2	4	4	4	4	3	4	4	5	6	7	18	56	106			
BOTTOM OF STACK LEVEL	559	POST-TEST	298	286	281	281	281	280	278	278	278	281	281	282	283	290	305	324		
		PRE-TEST	276	276	276	276	276	276	276	276	276	276	276	276	276	276	276	276		
		STATIC CRUSH	22	10	5	5	5	4	2	2	2	5	5	6	7	14	29	48		
BUMPER LEVEL	432	POST-TEST	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D	N/D		
		PRE-TEST																		
		STATIC CRUSH																		

* HEIGHTS MEASURED ABOVE GROUND LEVEL
** LOOKING AT THE FACE OF THE BARRIER.



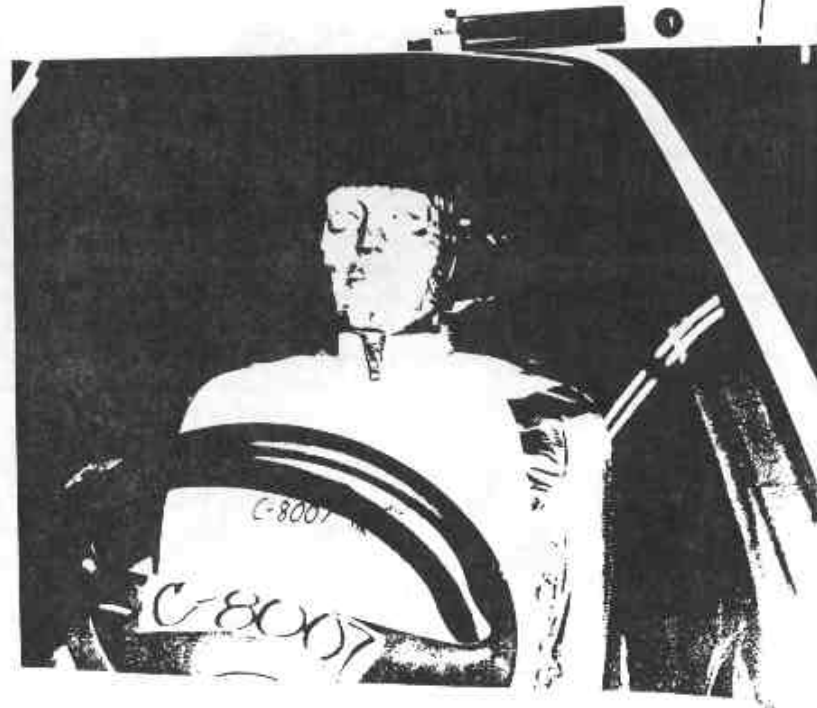
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55397	28



Document No.	Fig. No.
55397	29



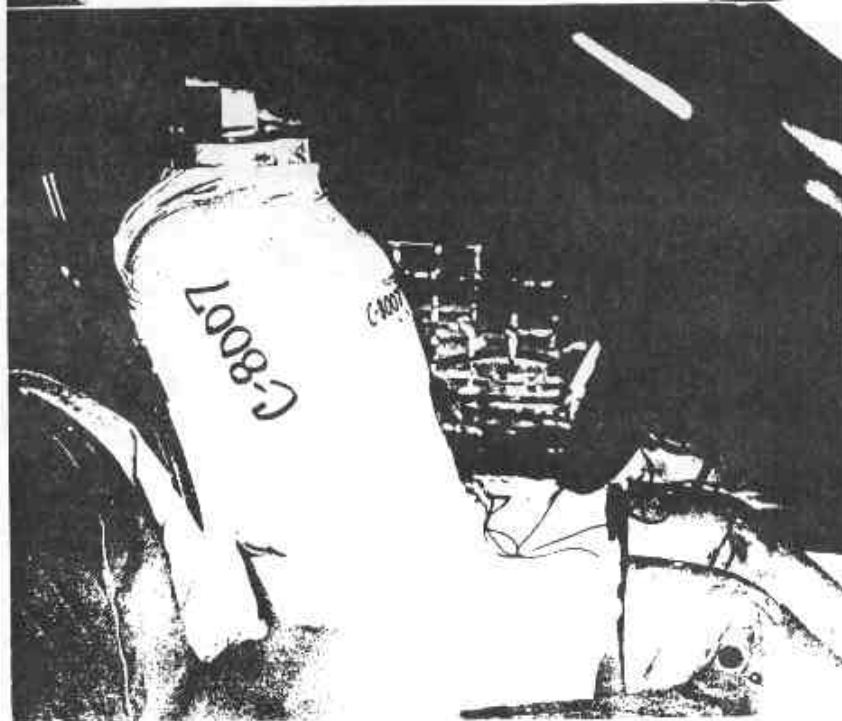
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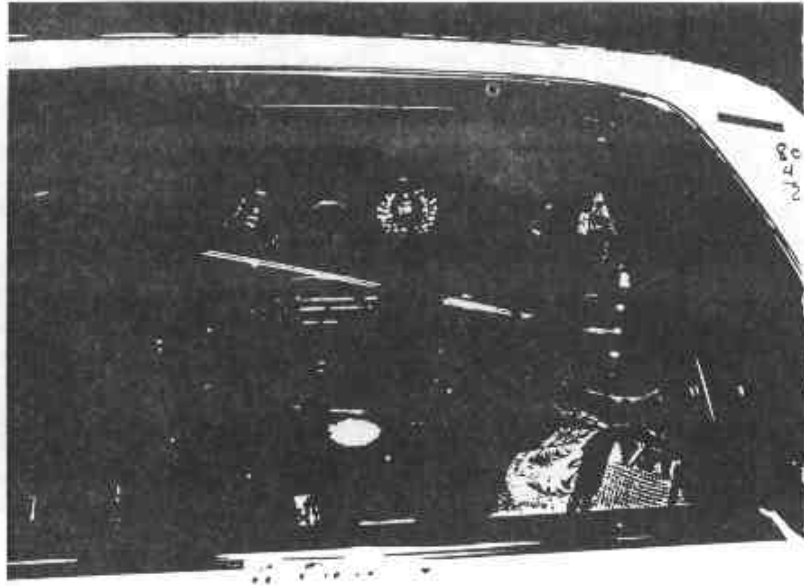


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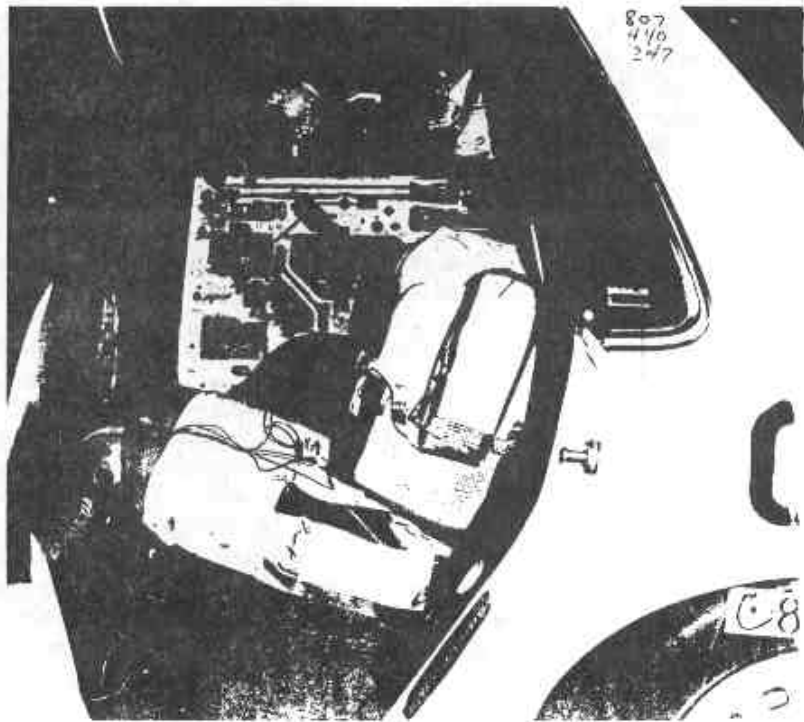


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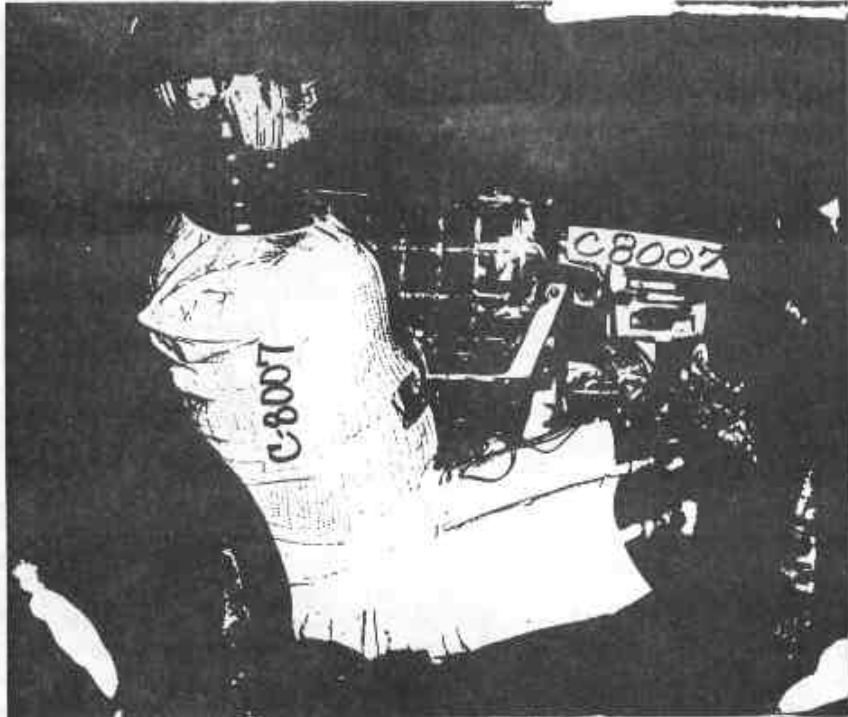
CPE-05



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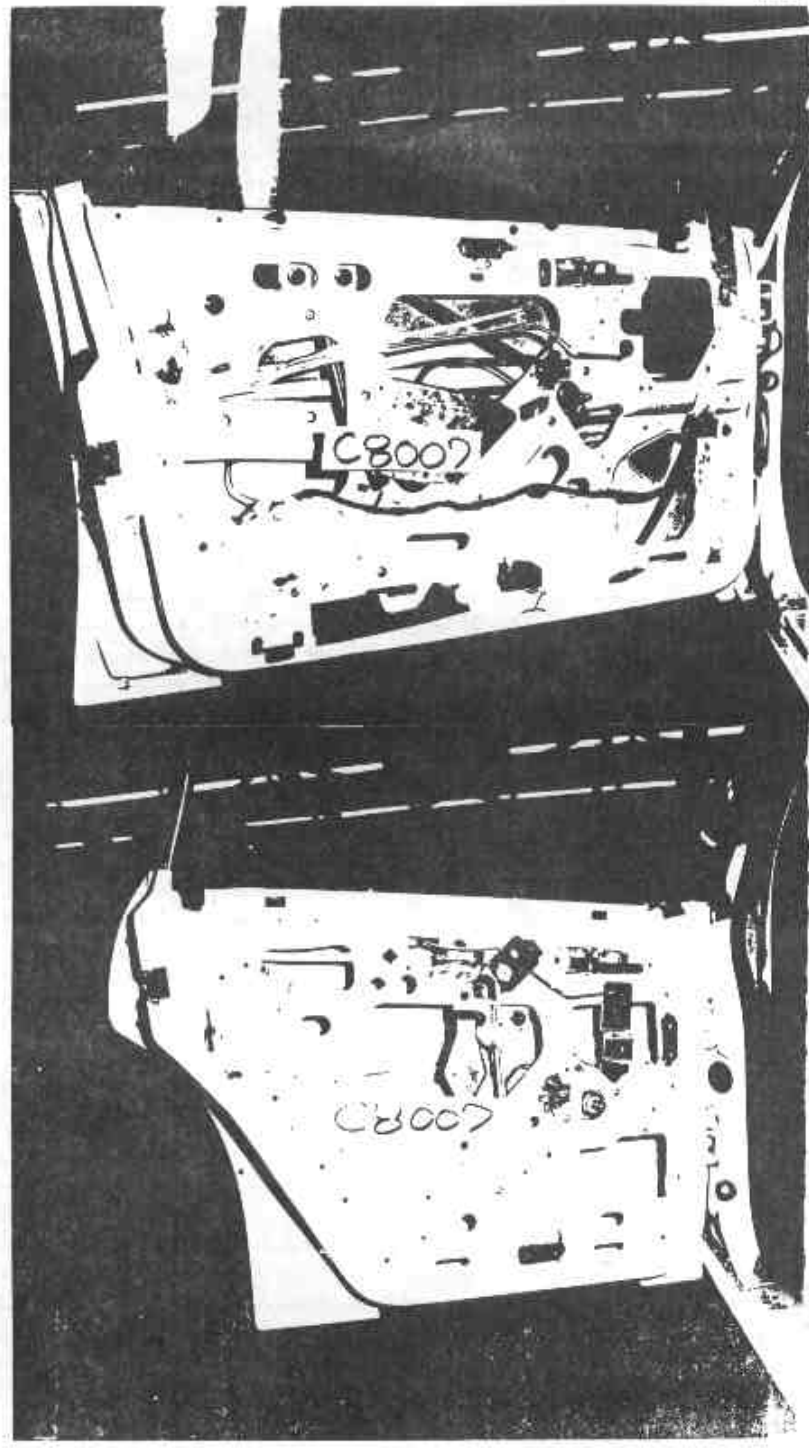
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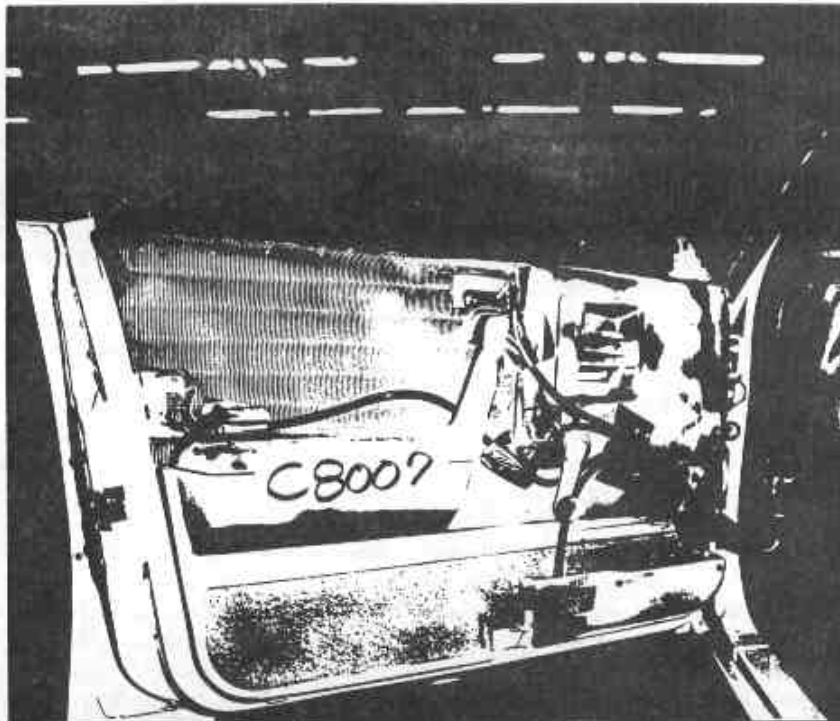
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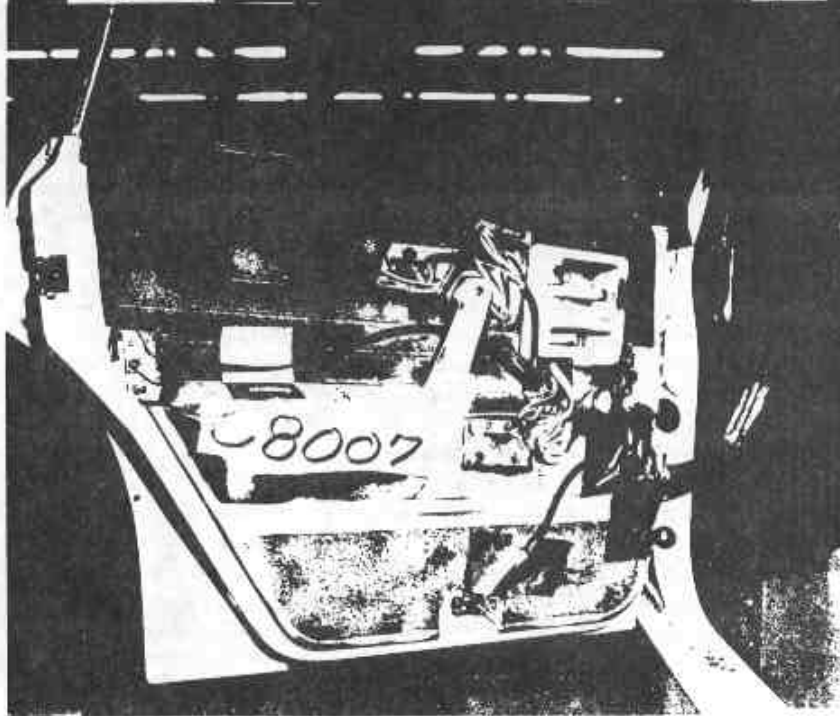
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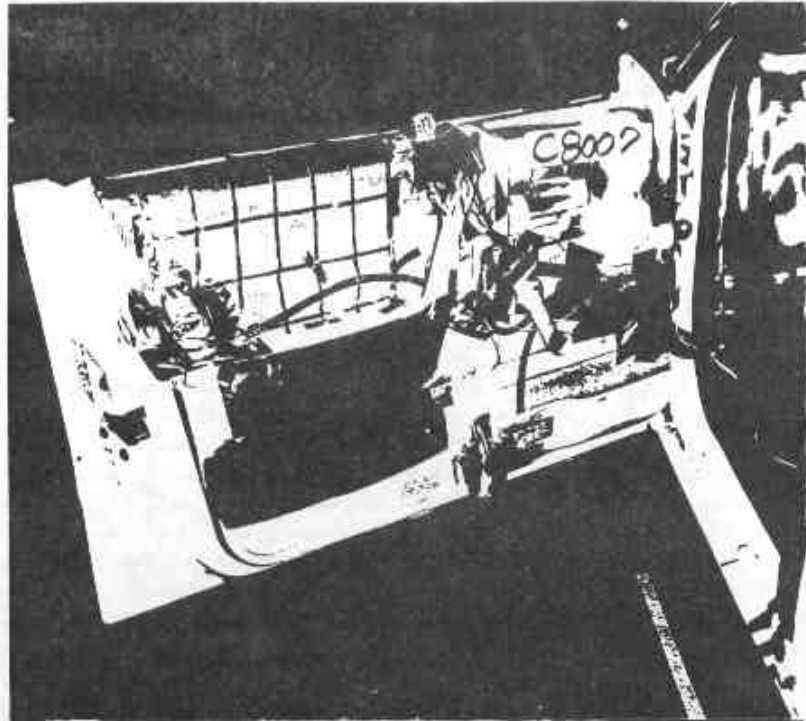
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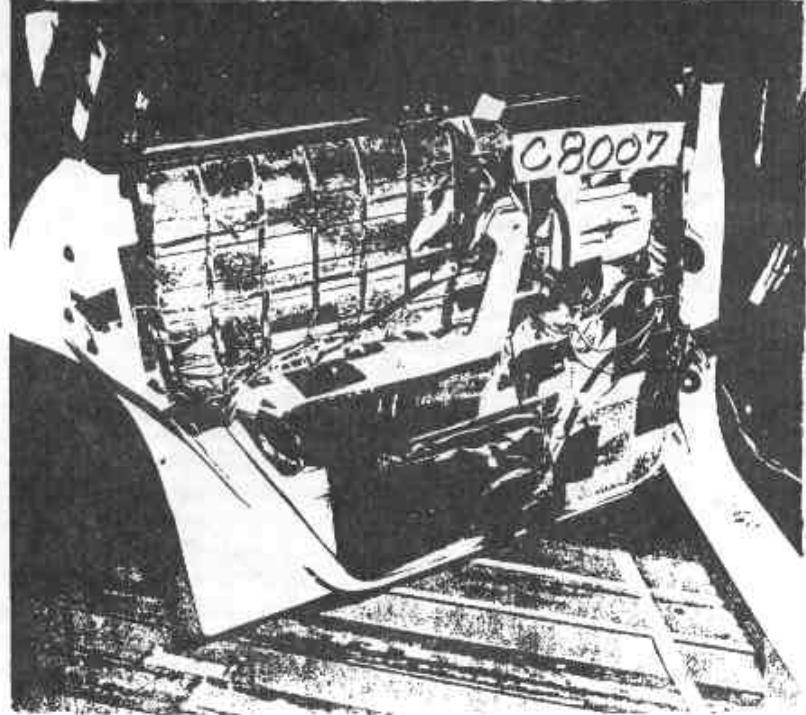


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Document No.	Fig. No.
55397	147



Document No.	Fig. No.
55397	144



Document No.	Fig. No.
55397	145

CPE 054



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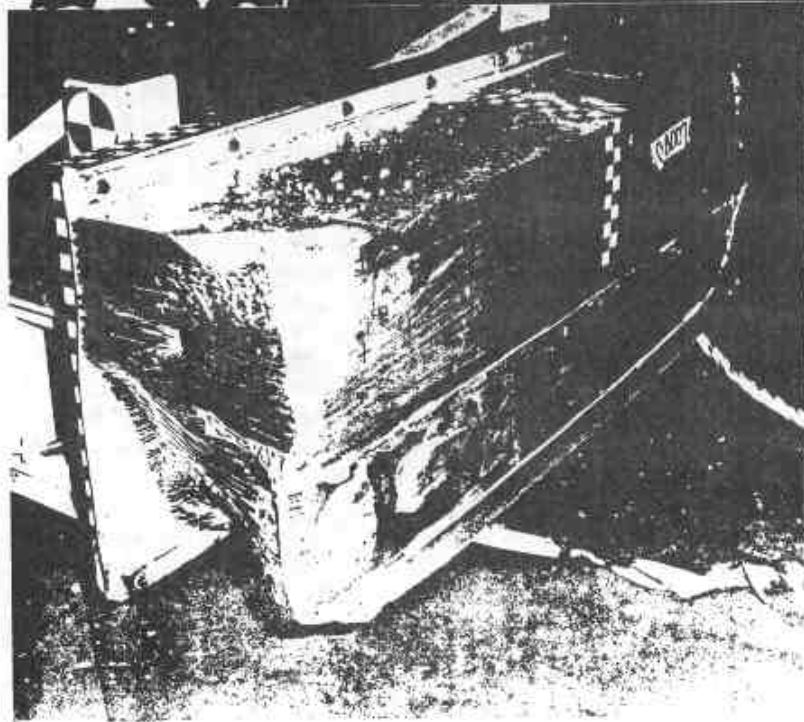


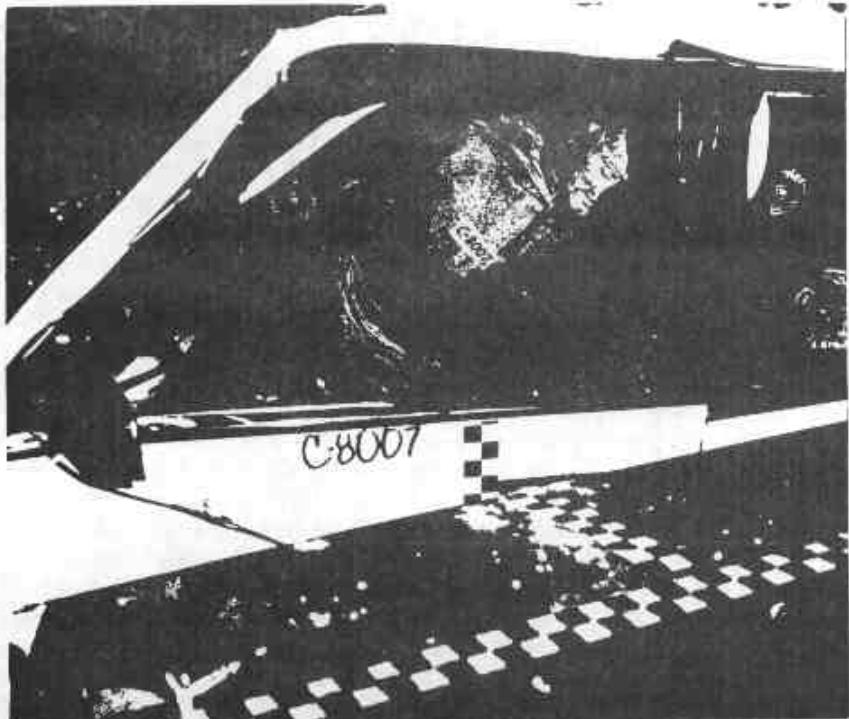
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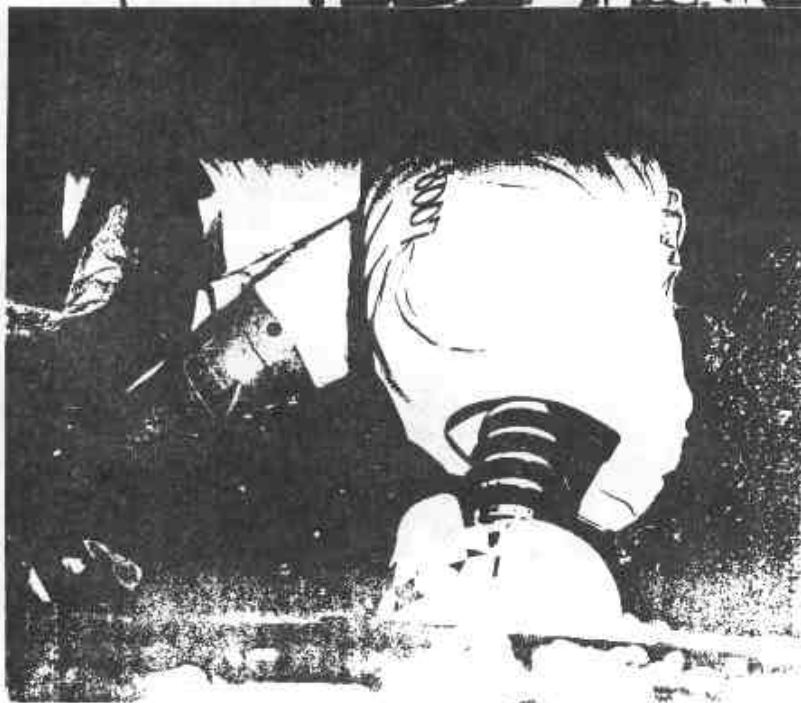


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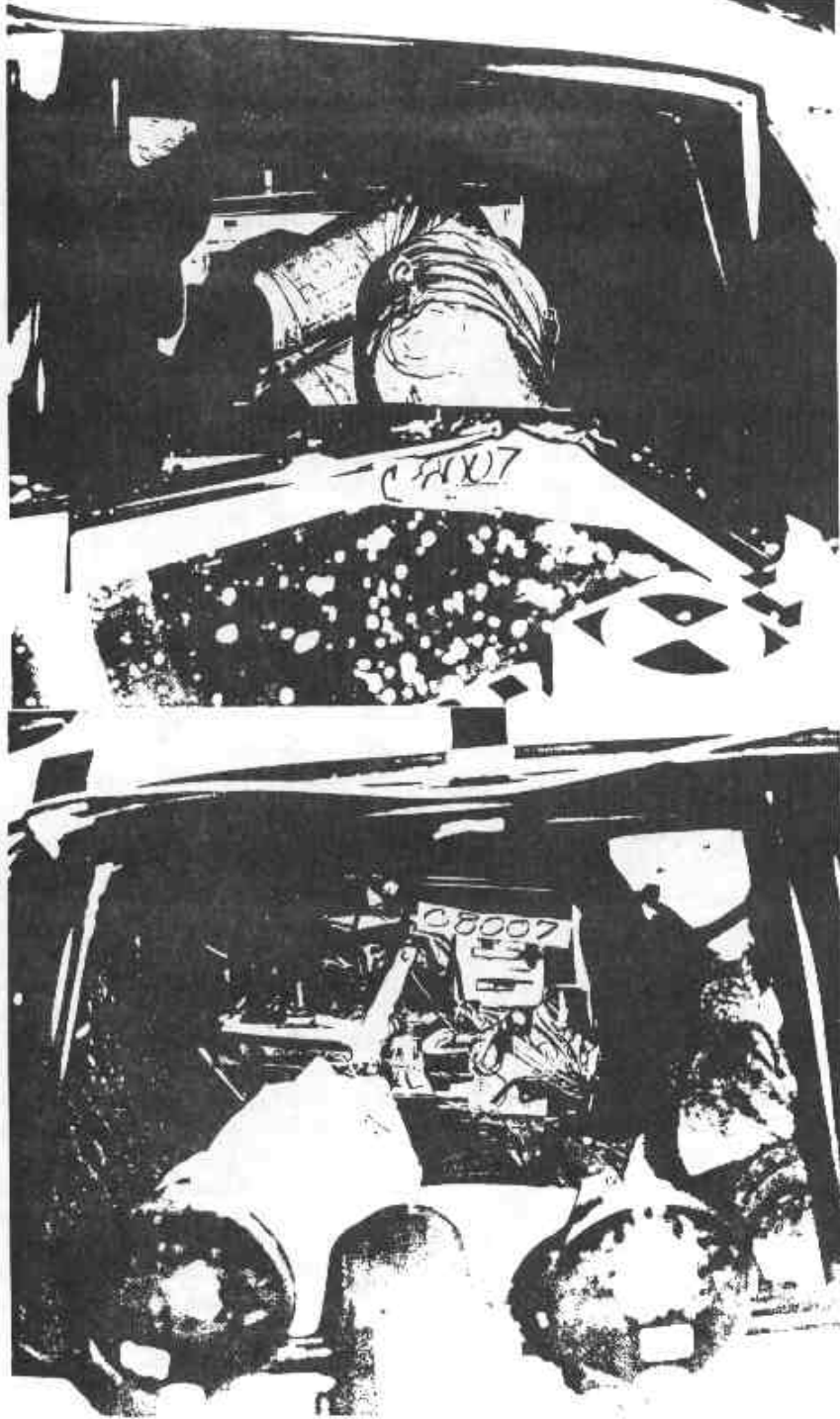
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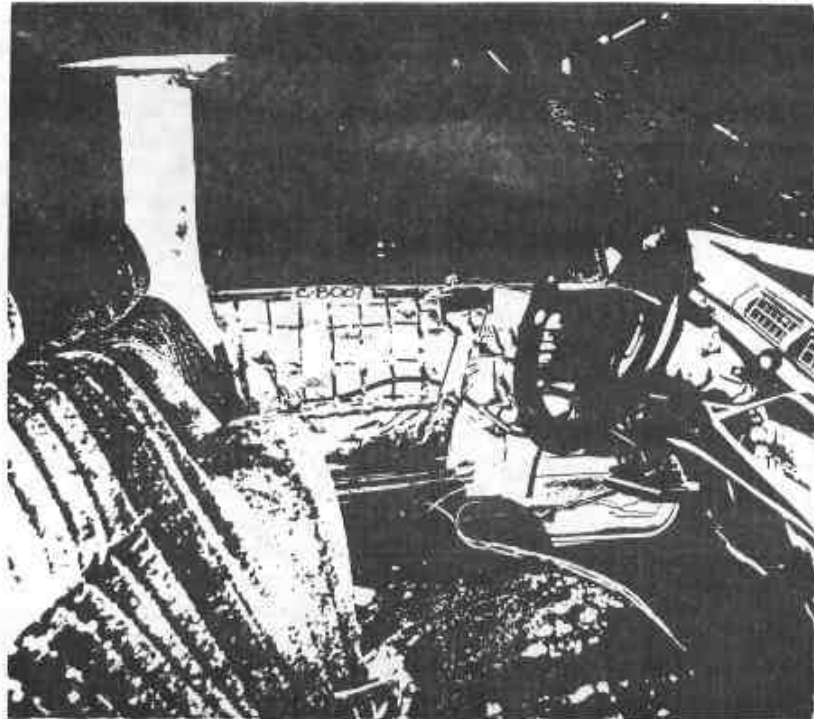
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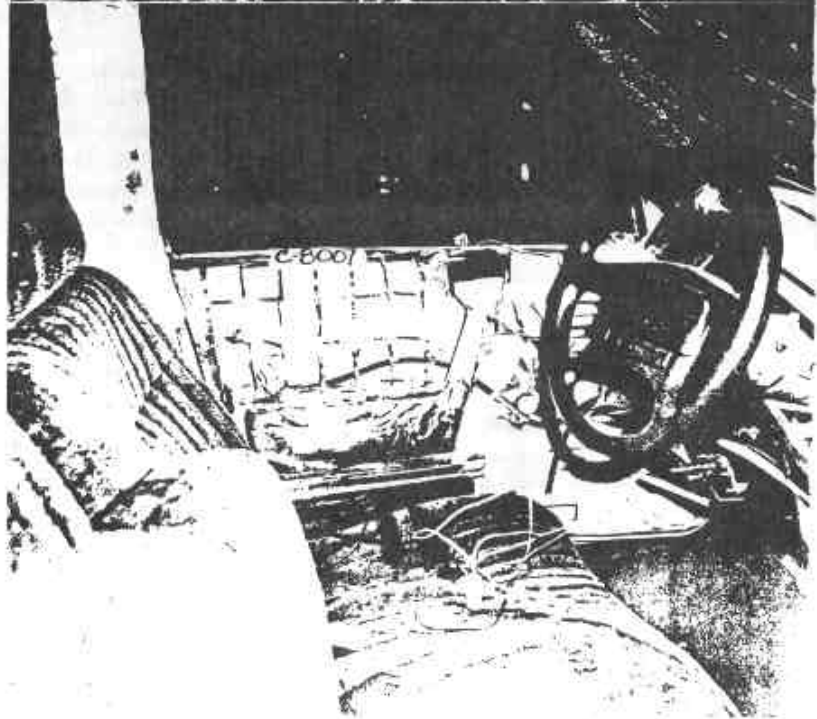
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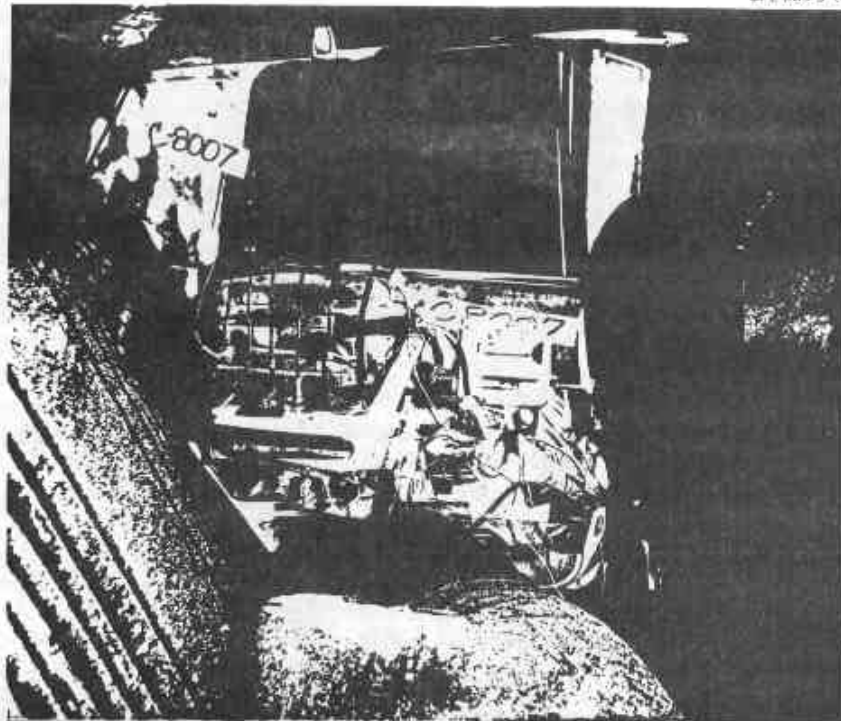
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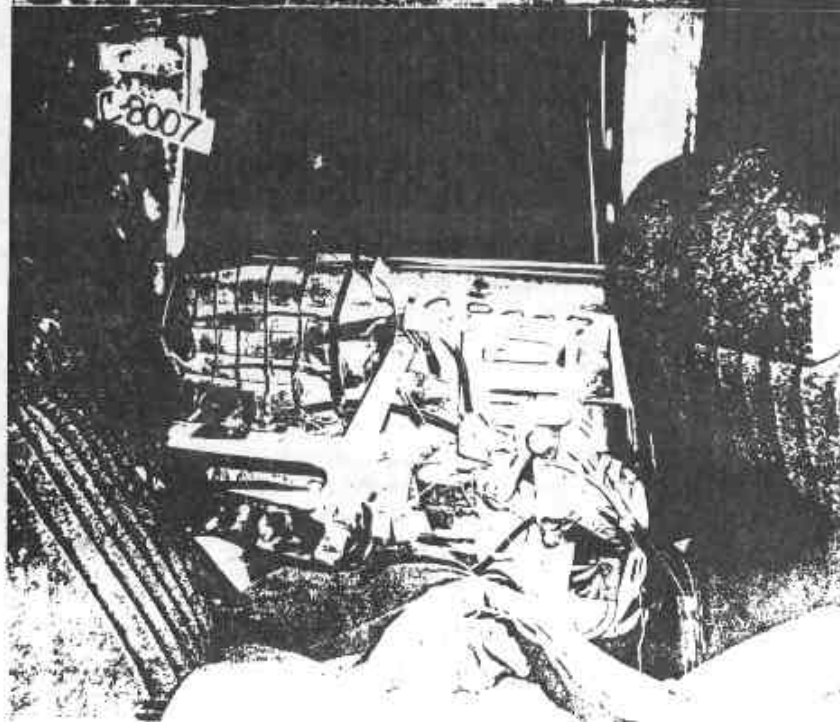


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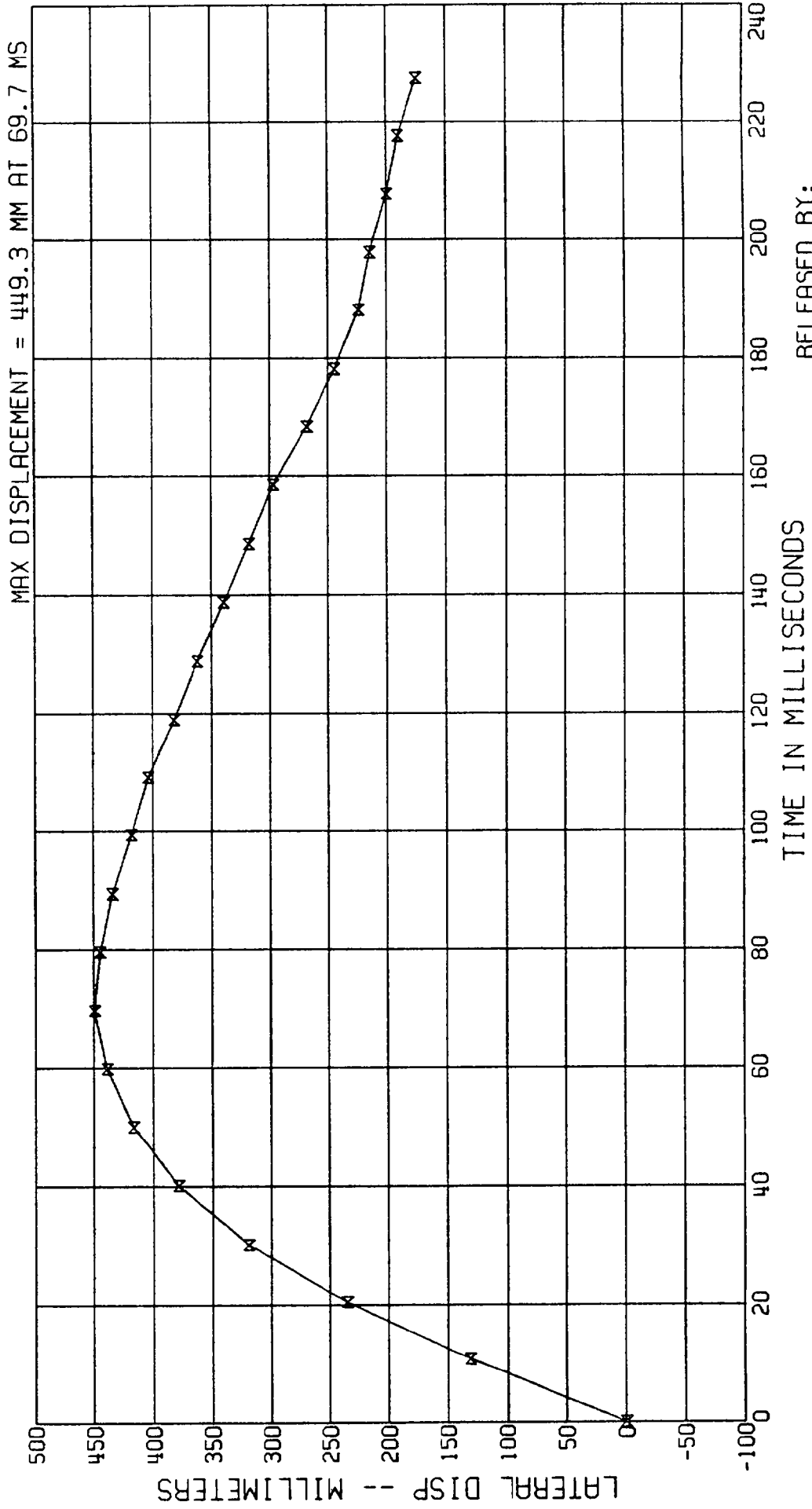
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Document No.	Fig. No.
5 397	161

C8007 L SIDE IMPACT AT 27DEG MOVING CRABBED BARR. TO PARKED VEH. 53.6KM/H FIGURE 1
 3868-905
 CPE MVMA7B 2AF69
 FILM DATA
 OVERHEAD VIEW
 TEST DATE: 03-13-90

STRIKING BARRIER RELATIVE TO STRUCK VEHICLE



RELEASED BY:
 1 PROCESSED 15 MY 90 06:47

C8007 L SIDE IMPACT AT 27DEG MOVING CRABBED BARR. TO PARKED VEH. 53.6KM/H FIGURE 2

3868-905

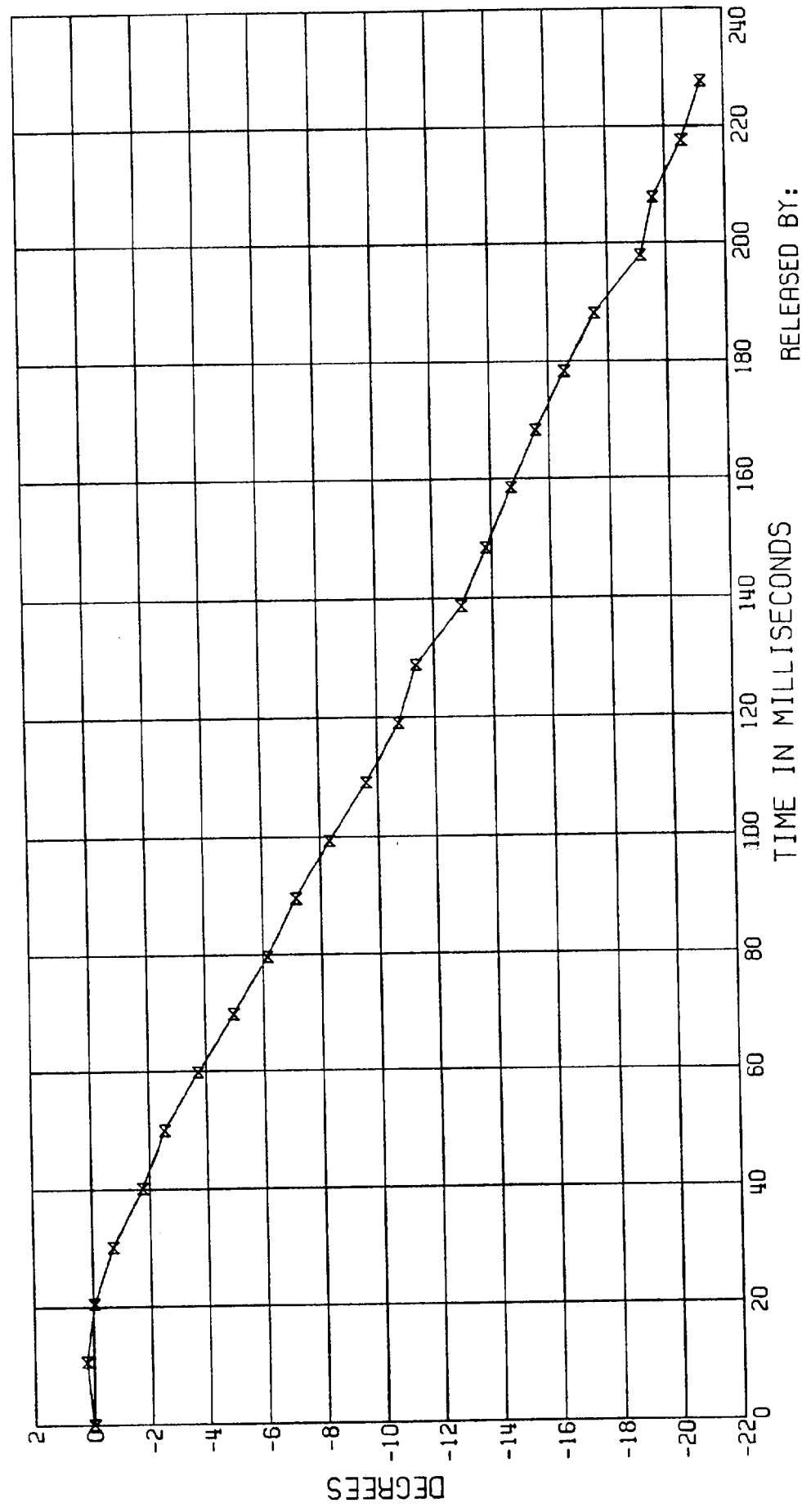
CPE MVMR7B 2AF69

FILM DATA

OVERHEAD VIEW

TEST DATE: 03-13-90

STRIKING BARRIER YAW RELATIVE TO GROUND REFERENCE



RELEASED BY: 5 PROCESSED 15 MY 90 06:47

C8007 L SIDE IMPACT AT 27DEG MOVING CRABBED BARR. TO PARKED VEH. 53.6KM/H FIGURE 3

3868-905

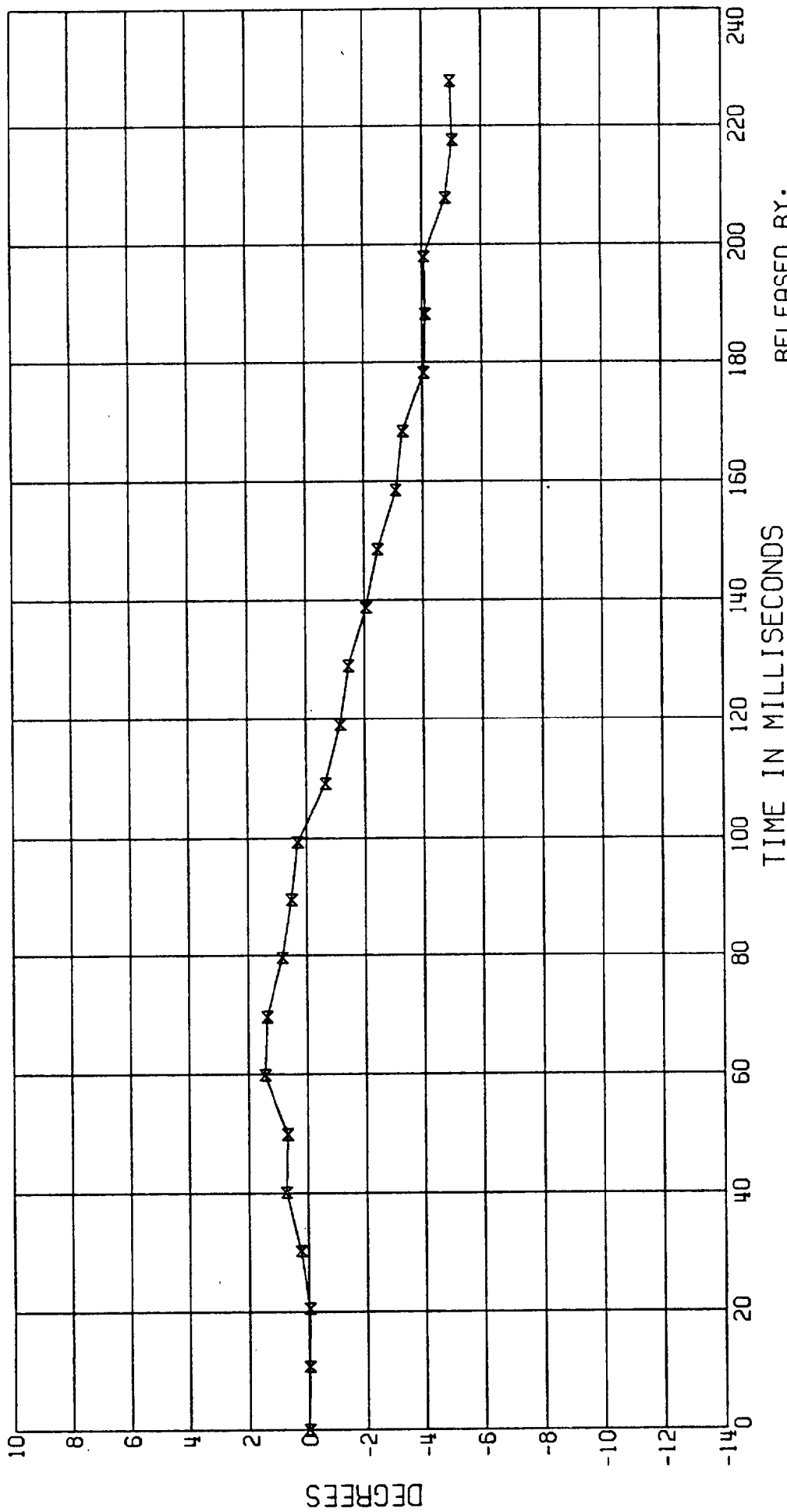
CPE MVM7B 2AF69

FILM DATA

OVERHEAD VIEW

TEST DATE: 03-13-90

STRUCK VEHICLE YAW RELATIVE TO GROUND REFERENCE



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7 PROCESSED 15 MY 90 06:47

C8007 L SIDE IMPACT AT 27DEG MOVING CRABBED BARR. TO PARKED VEH. 53.6KM/H FIGURE 4

3868-905

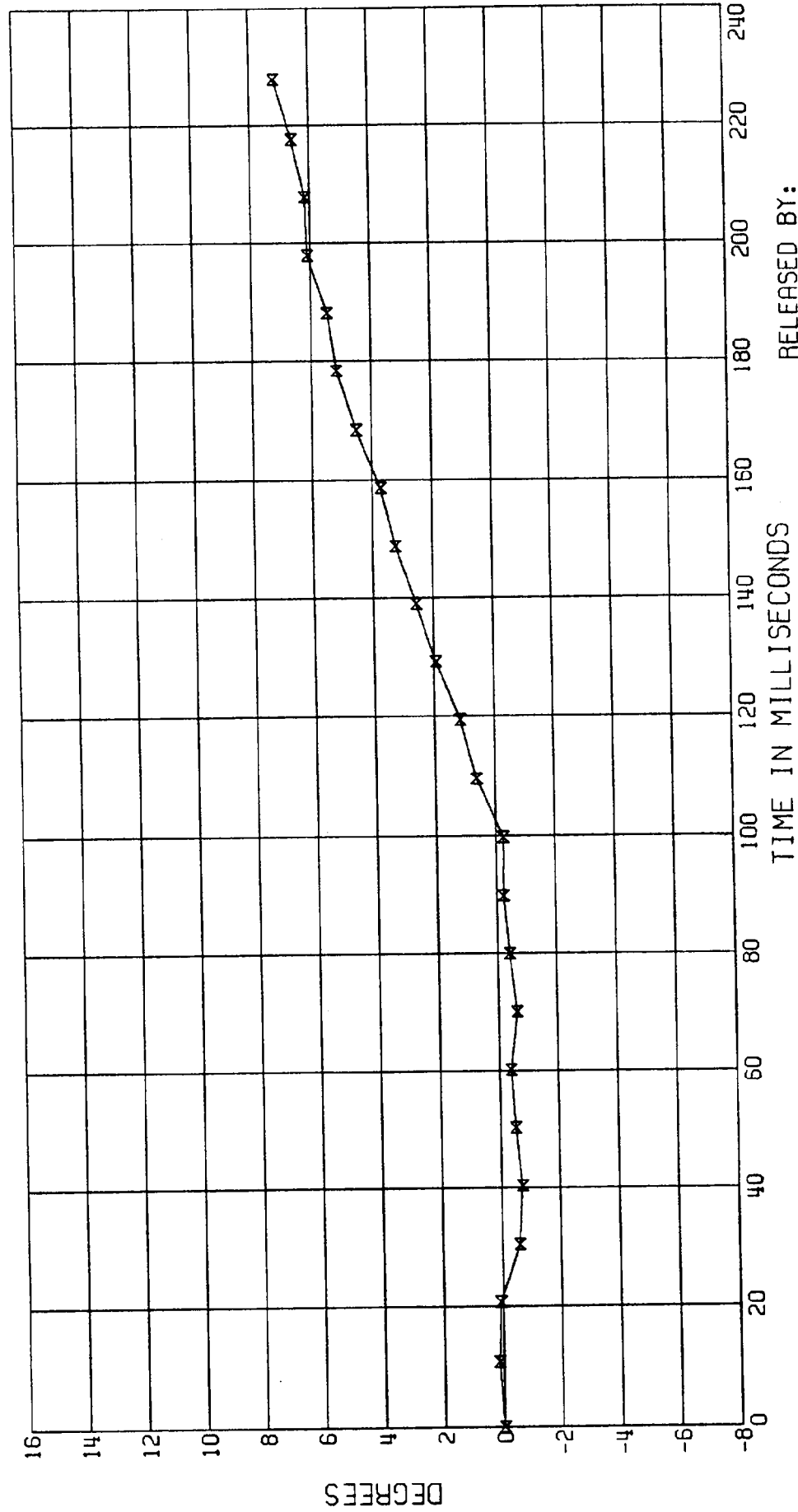
CPE MVMA7B 2AF69

FILM DATA

REAR VIEW

TEST DATE:03-13-90

STRUCK VEHICLE ROLL RELATIVE TO GROUND REFERENCE



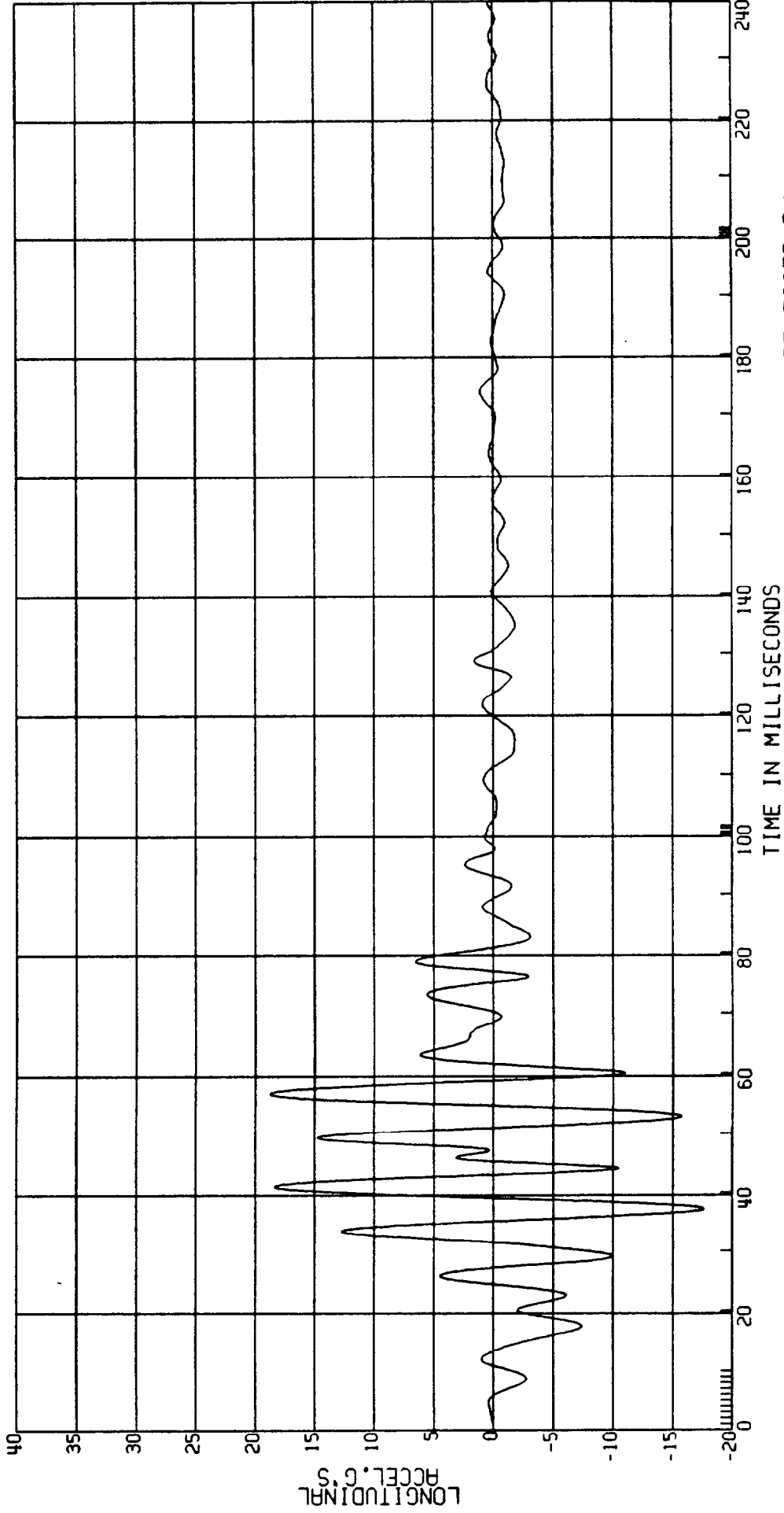
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4A

Good
Data

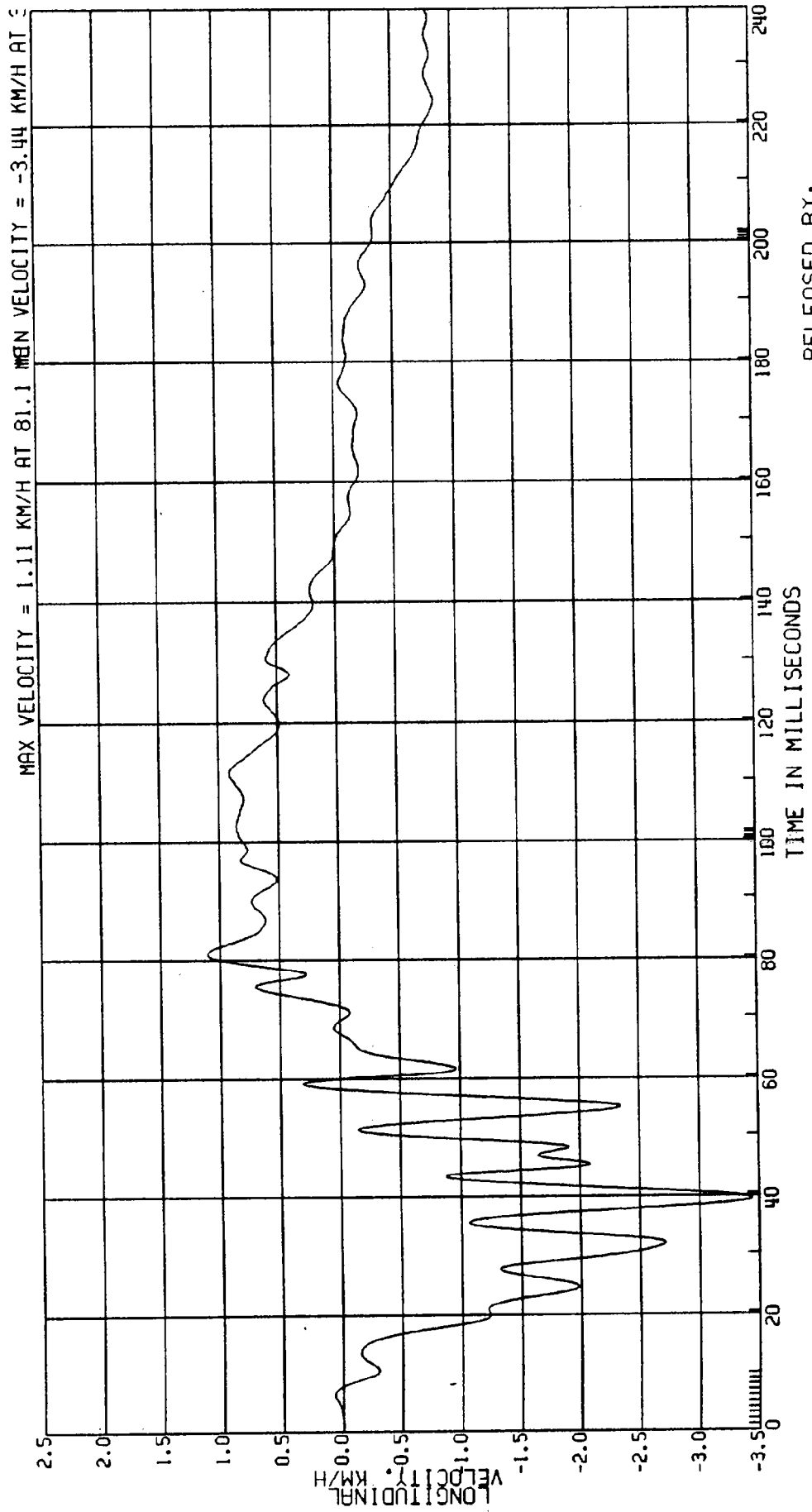
M9B6UAG#
C8007A
05/04/90
13:57:28
NUMBER OF PLOTS = 73
XOFF = 10.10
YOFF = 0.75

C8007A L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 5
3868-905
CPE MVMA 7B 2AF69 PASS-SIDE ROCKER AT CTR OF IMPACT ACCEL. TEST DATE:03-13-90
ELEC DATA, SAE CLASS 60



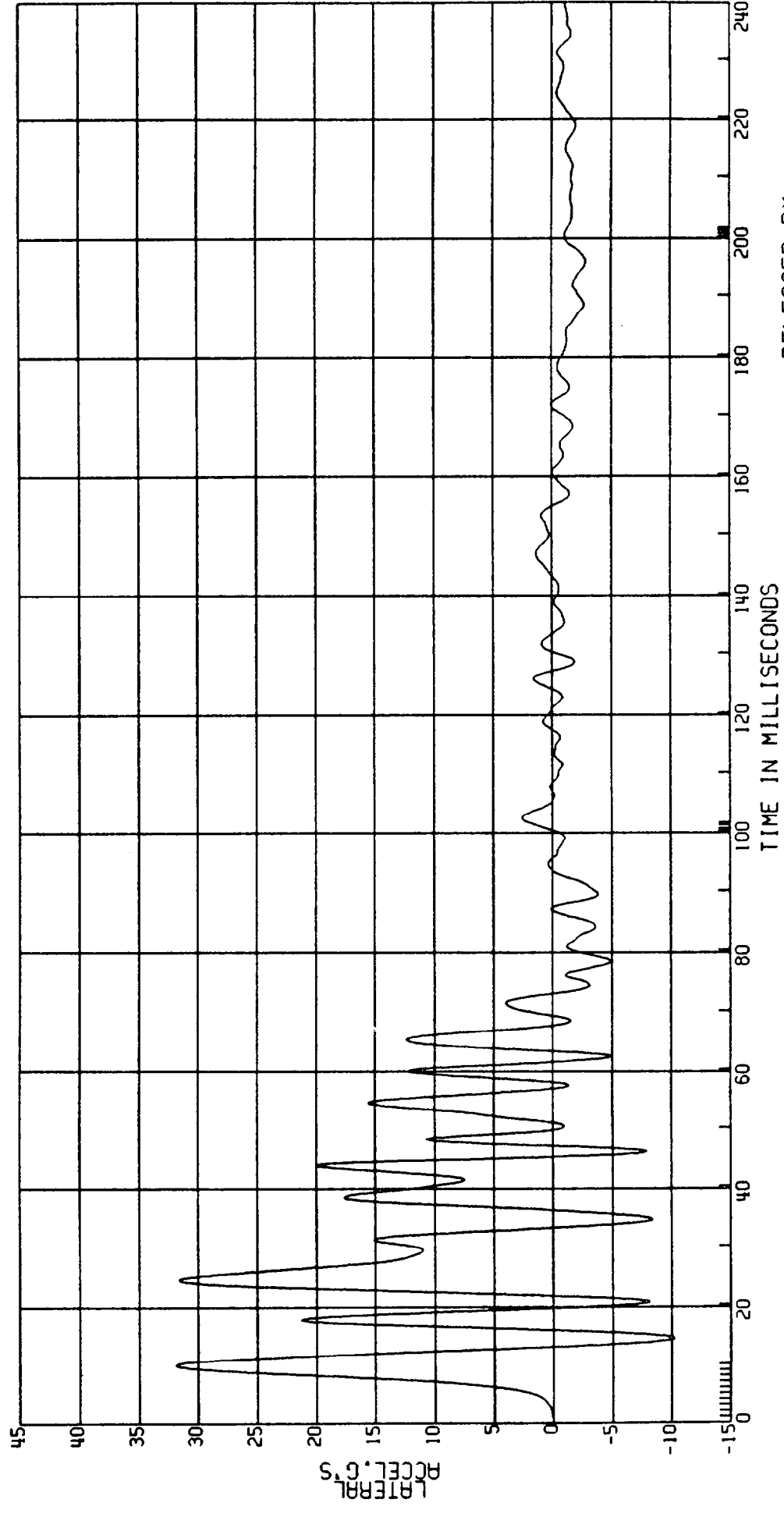
RELEASED BY:
3 PROCESSED 4 MY 90 13:57

C8007A L. SIDE IMPACT - 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6 KM/H FIGURE 6
3868-905 MVMA 7B 2AF69 TEST DATE: 03-13-90
CPE
ELEC DATA, SAE CLASS 180 (1ST INTEGRAL OF PASS-SIDE ACCELERATION)



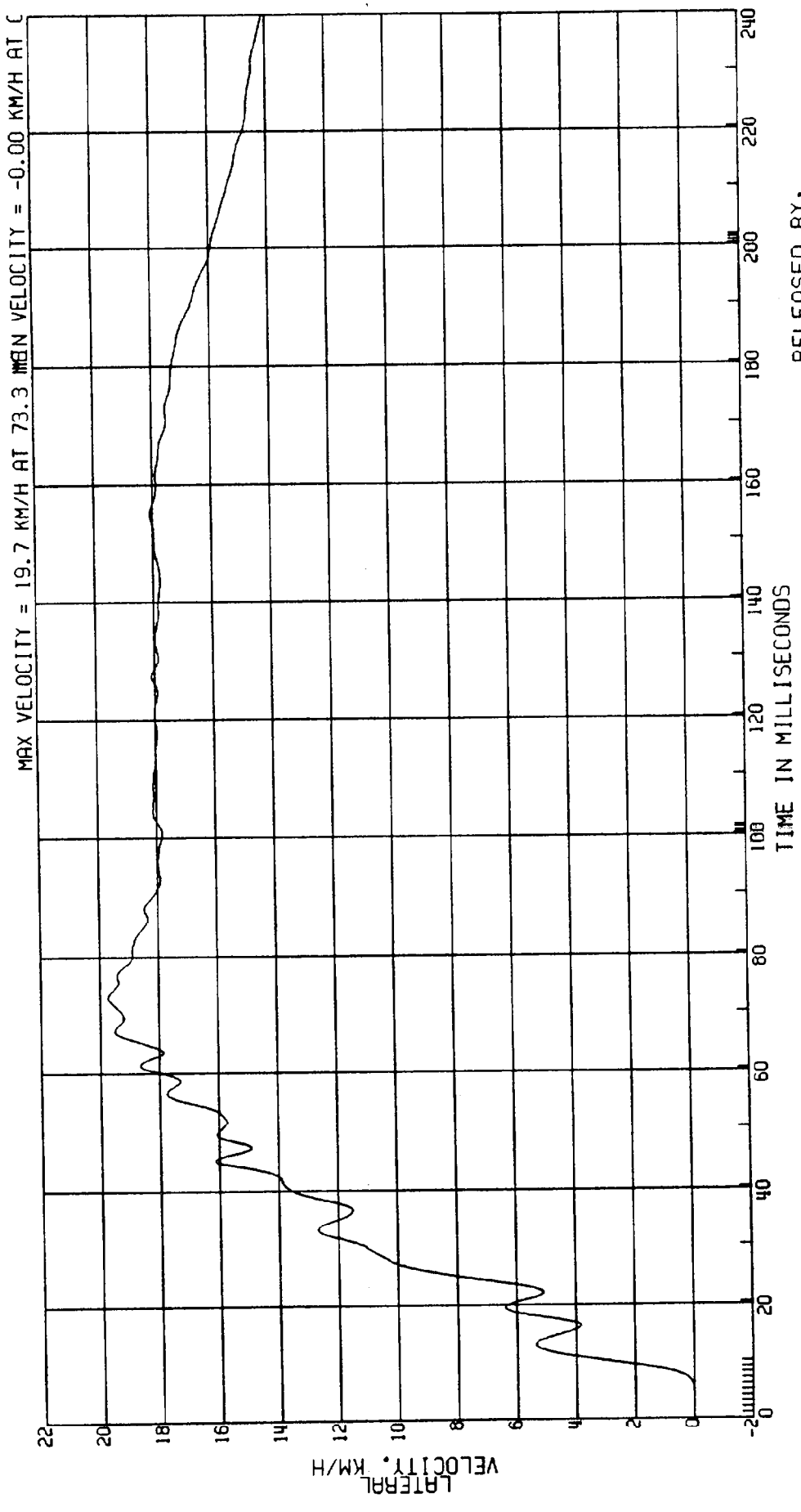
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4 PROCESSED 4. MY 90 13:57

C8007A L. SIDE IMPACT - 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6 KM/H FIGURE 7
3868-905
CPE MVMA 7B 2AF69 PASS-SIDE ROCKER AT CTR OF IMPACT ACCEL. TEST DATE: 03-13-90
ELEC DATA, SAE CLASS 60



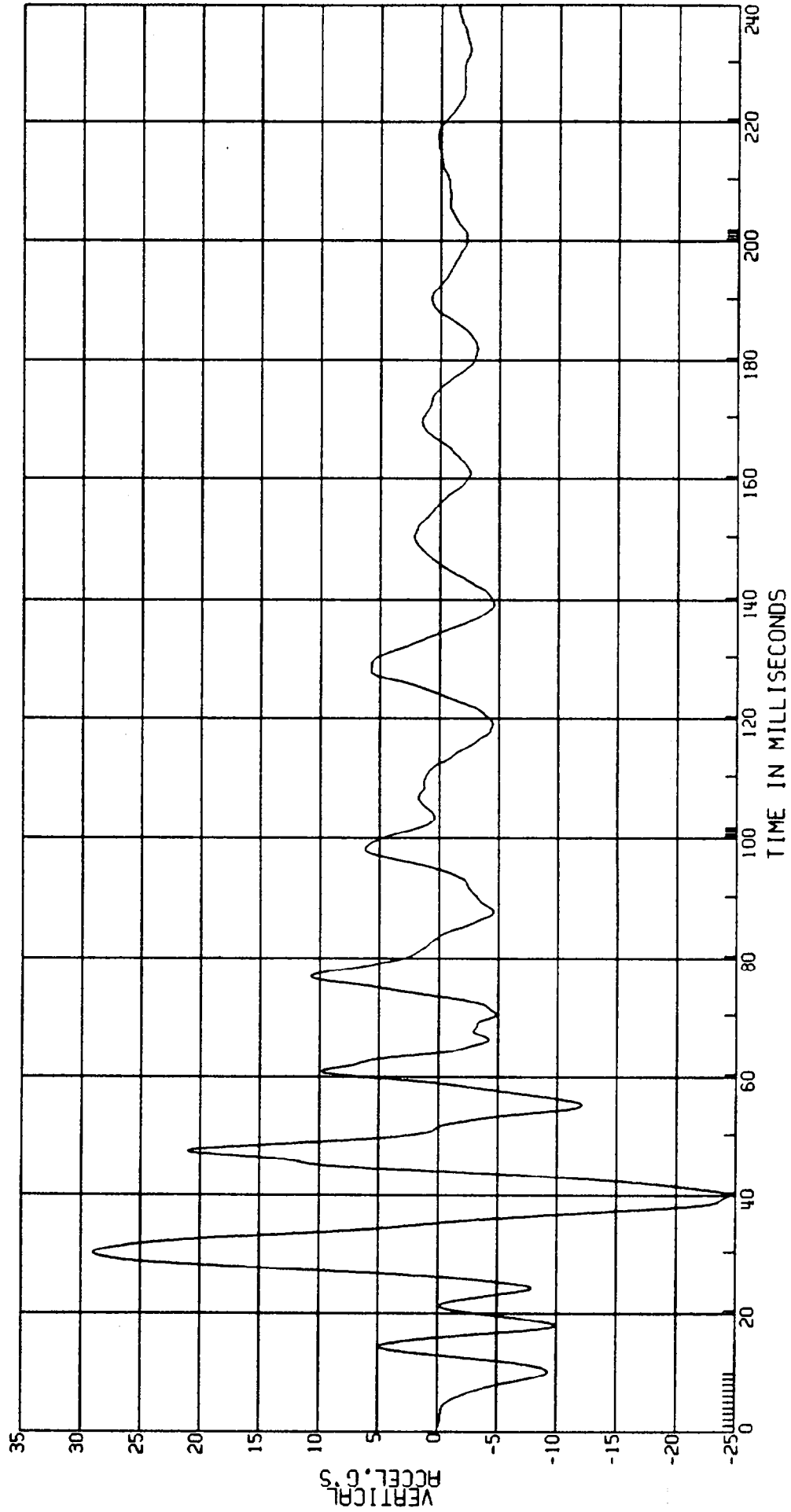
RELEASED BY:
5 PROCESSED 4 MY 90 13:57

C8007A L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6 KM/H FIGURE 8
 3868-905
 CPE MVMA 7B 2AF69
 ELEC DATA, SAE CLASS 180 (1ST INTEGRAL OF PASS-SIDE ACCELERATION) TEST DATE: 03-13-90



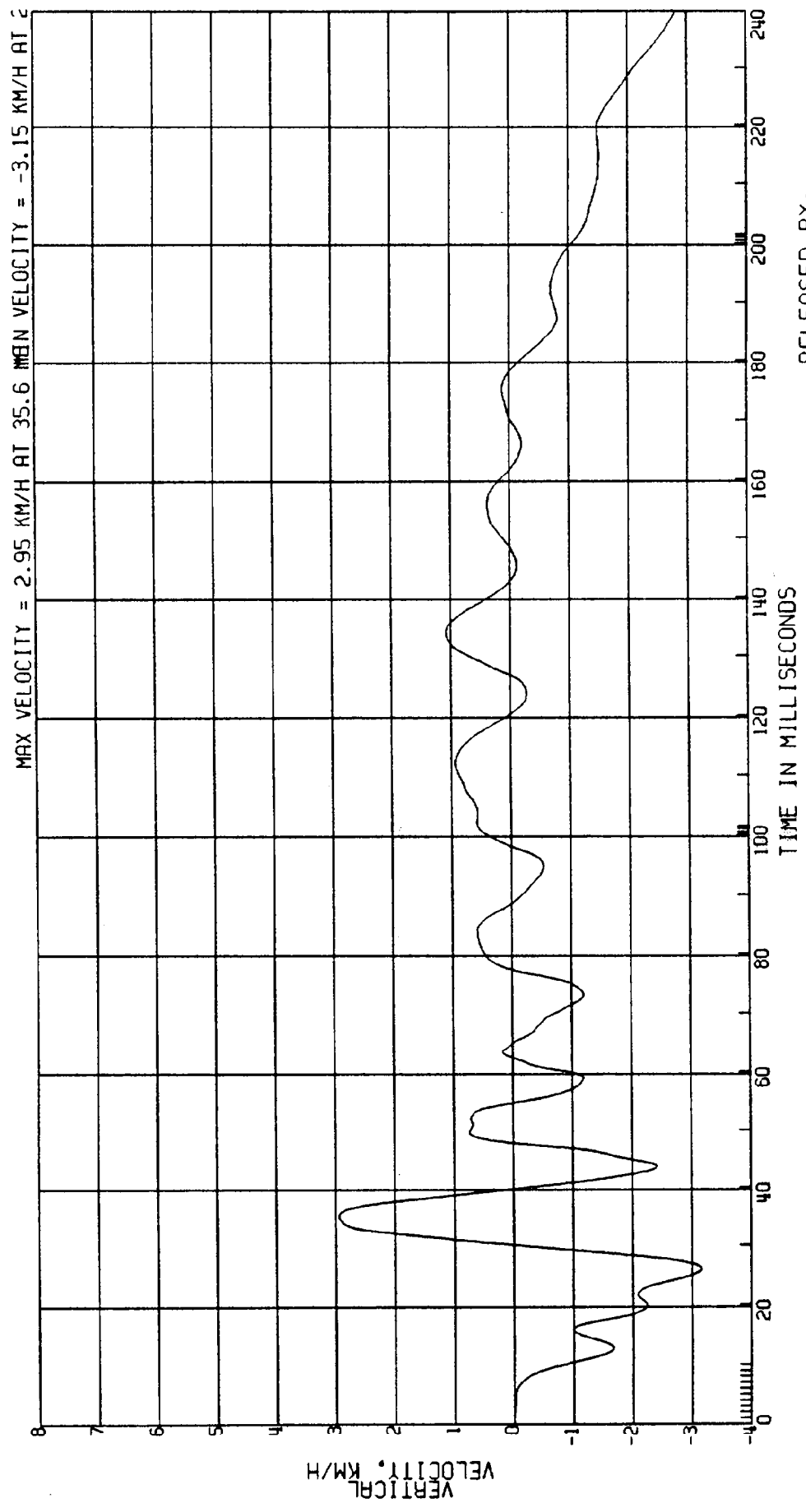
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 6 PROCESSED 4 MY 90 13:57

C8007A L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 9
3868-905
CPE MVMA 78 2AF69 PASS-SIDE ROCKER AT CTR OF IMPACT ACCEL. TEST DATE:03-13-90
ELEC DATA, SAE CLASS 60



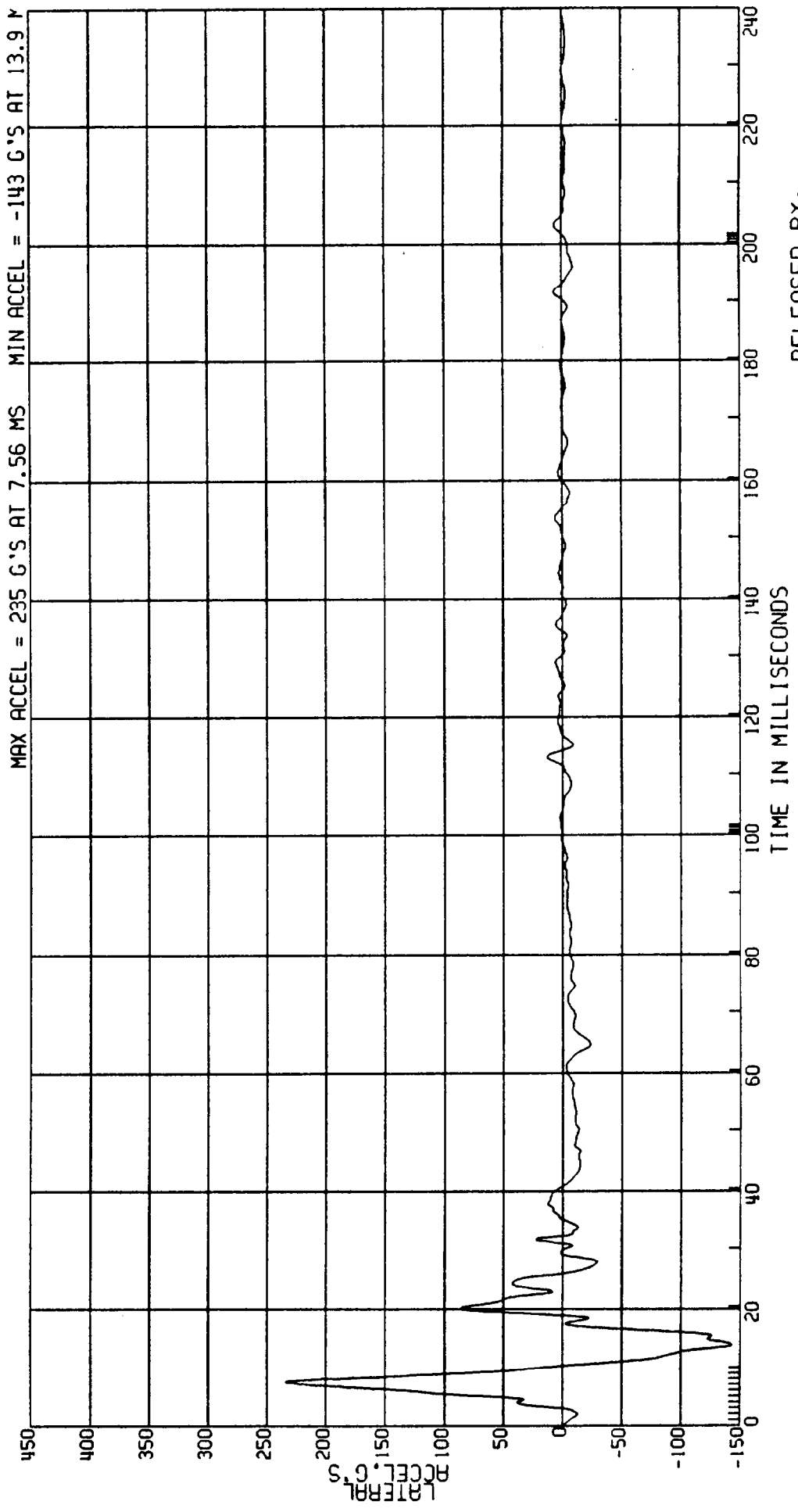
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7 PROCESSED 4 MY 90 13:57

C8007A L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6 KM/H FIGURE / 0
3868-905
CPE MVMA 7B 2AF69 COMPUTED ROCKER AT CTR OF IMPACT VEL TEST DATE: 03-13-90
ELEC DATA, SAE CLASS 180 (1ST INTEGRAL OF PASS-SIDE ACCELERATION)



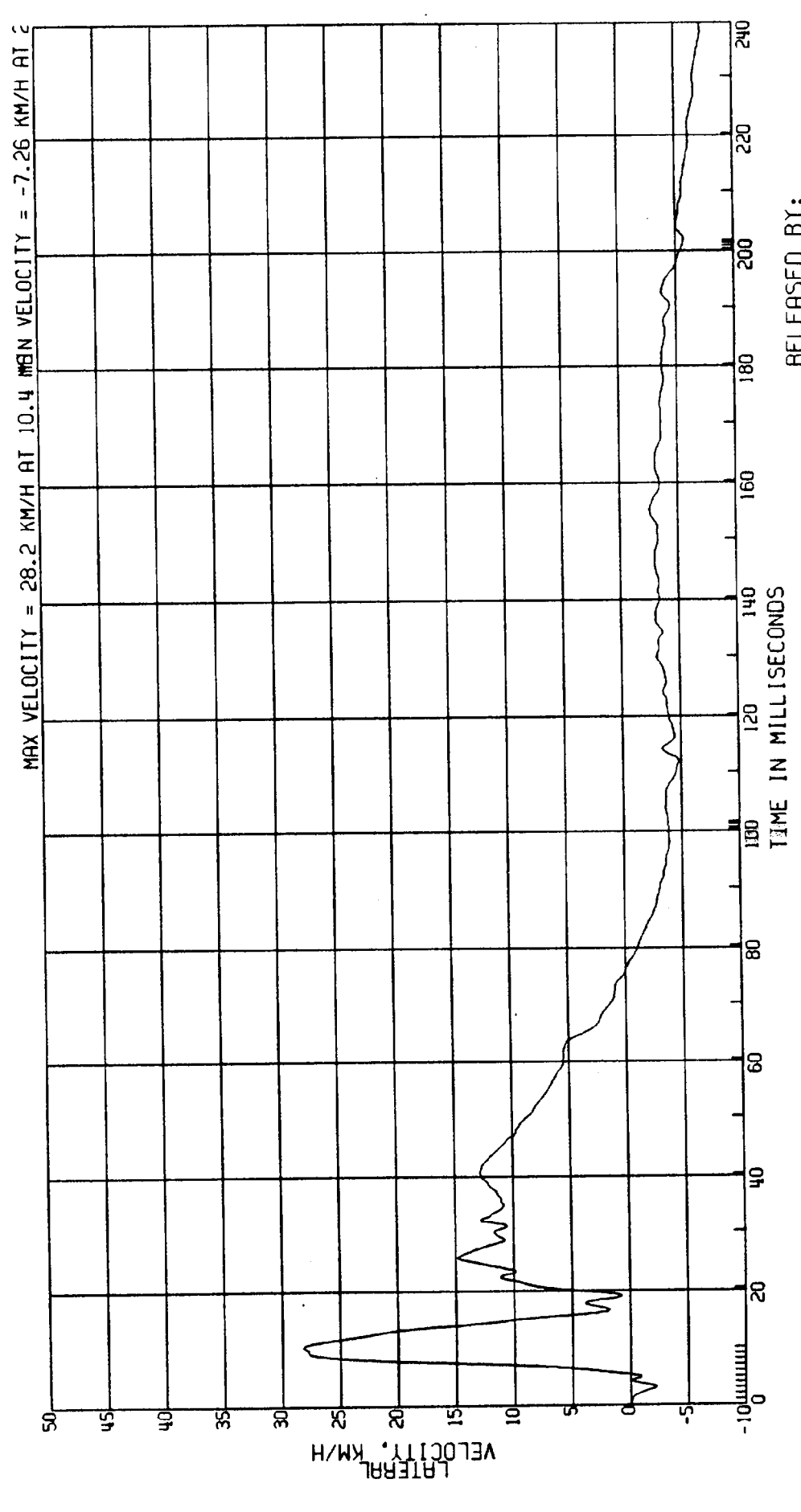
RELEASED BY:
B PROCESSED 4 MY 90 13:57

C8007A L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 1 /
3868-905
CPE MVMA 7B 2AF69 DR-SIDE FRT. DOOR NO. 1 ACCEL. TEST DATE:03-13-90
ELEC DATA, SAE CLASS 60



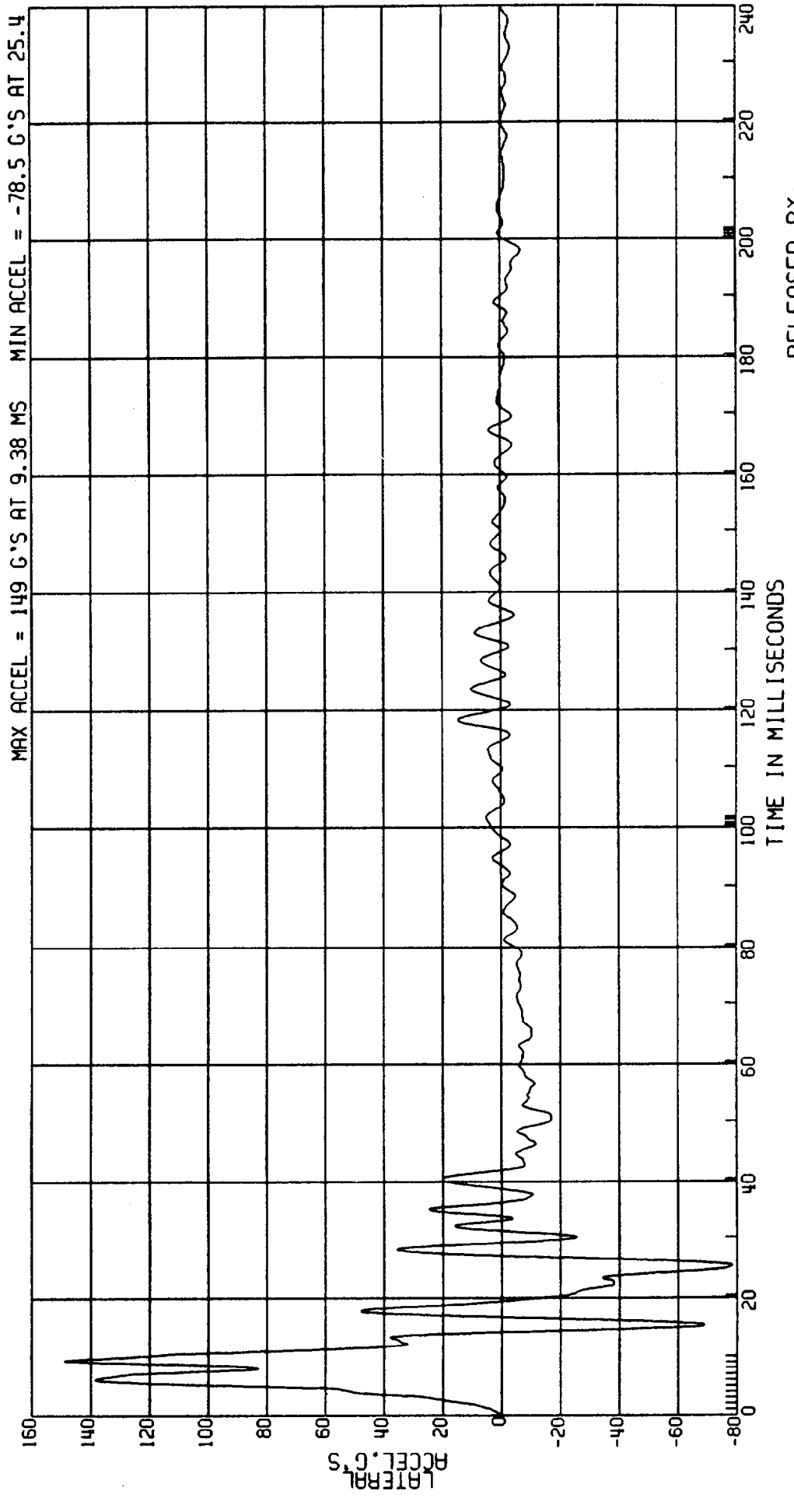
RELEASED BY:
9 PROCESSED 4 M1 90 13:57

C8007A L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 12
3868-905 MVMA 7B 2AF69 COMPUTED FRT. DOOR NO. 1 VELOCITY TEST DATE:03-13-90
CPE ELEC DATA, SAE CLASS 180 (1ST INTEGRAL OF DR-SIDE ACCELERATION)



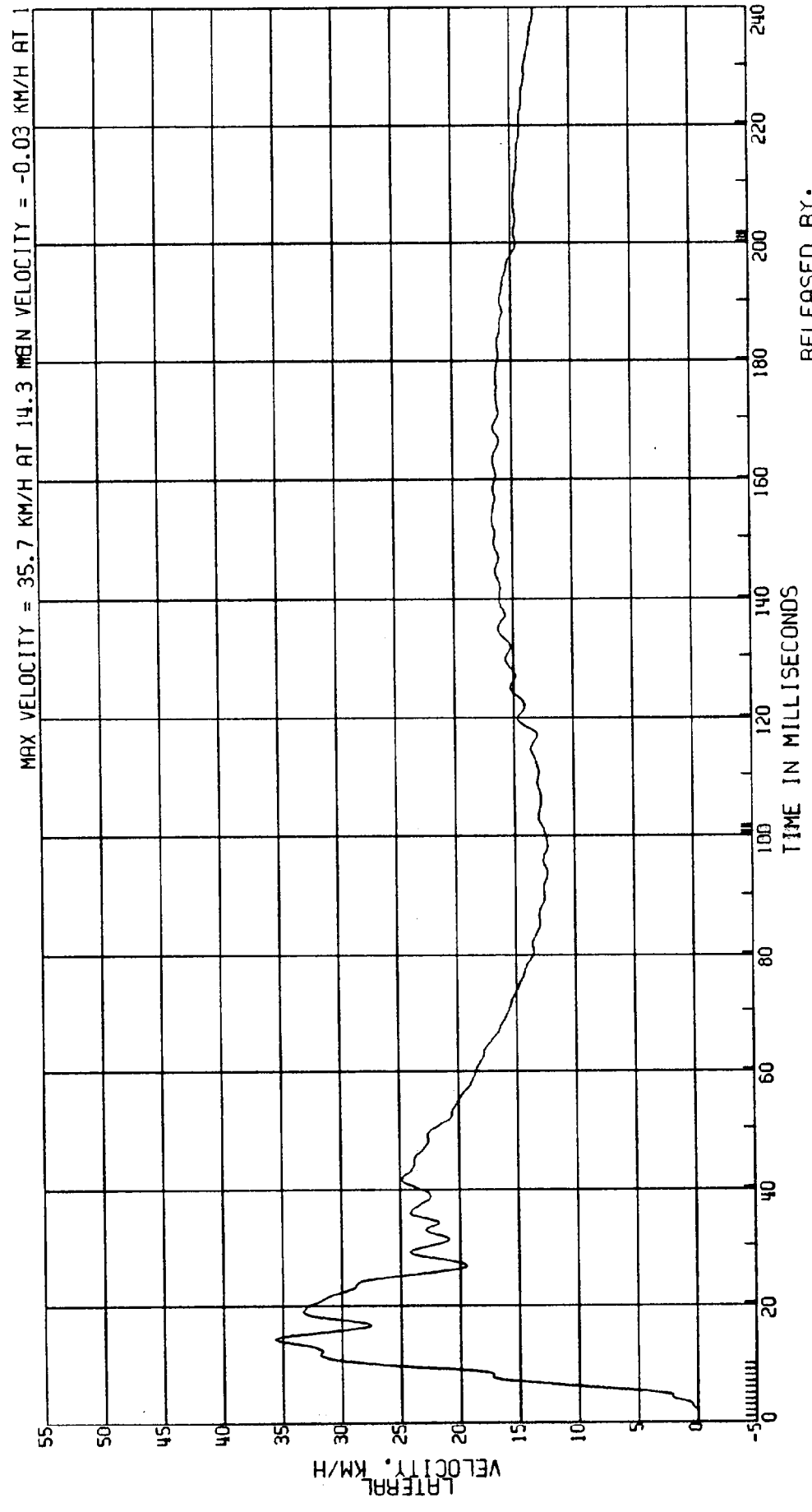
RELEASED BY:
10 PROCESSED 4 MY 90 13:57

C8007A L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 13
3868-905
CPE MVMA 78 2AF69 DR-SIDE FRT. DOOR NO. 2 ACCEL. TEST DATE:03-13-90
ELEC DATA. SAE CLASS 60



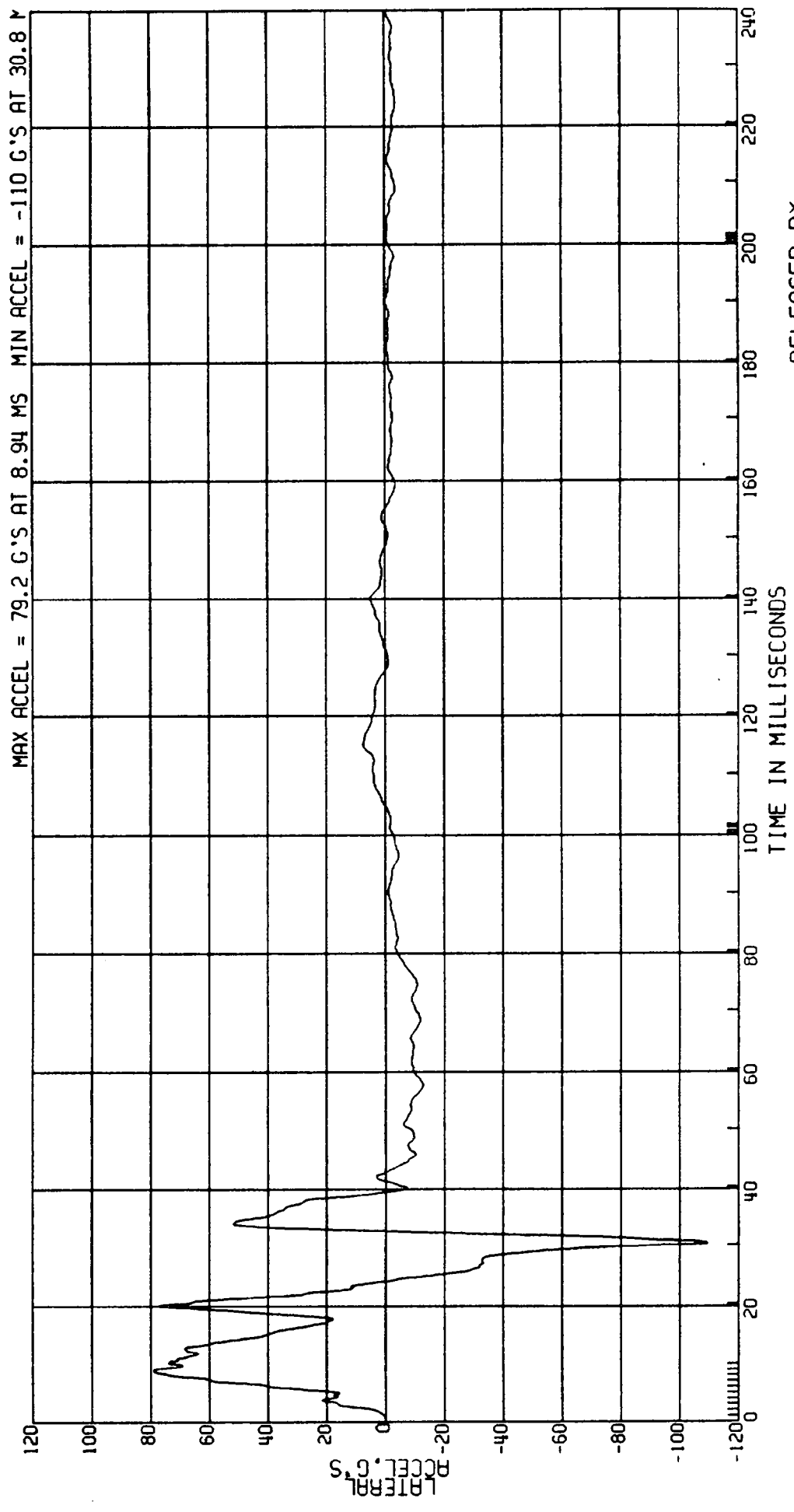
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11 PROCESSED 4 MY 90 13:57

C8007A L. SIDE IMPACT - 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6 KM/H FIGURE 14
3868-905
CPE MVMA 7B 2AF69 COMPUTED FRT. DOOR NO. 2 VELOCITY TEST DATE: 03-13-90
ELEC DATA, SAE CLASS 180 (1ST INTEGRAL OF DR-SIDE ACCELERATION)



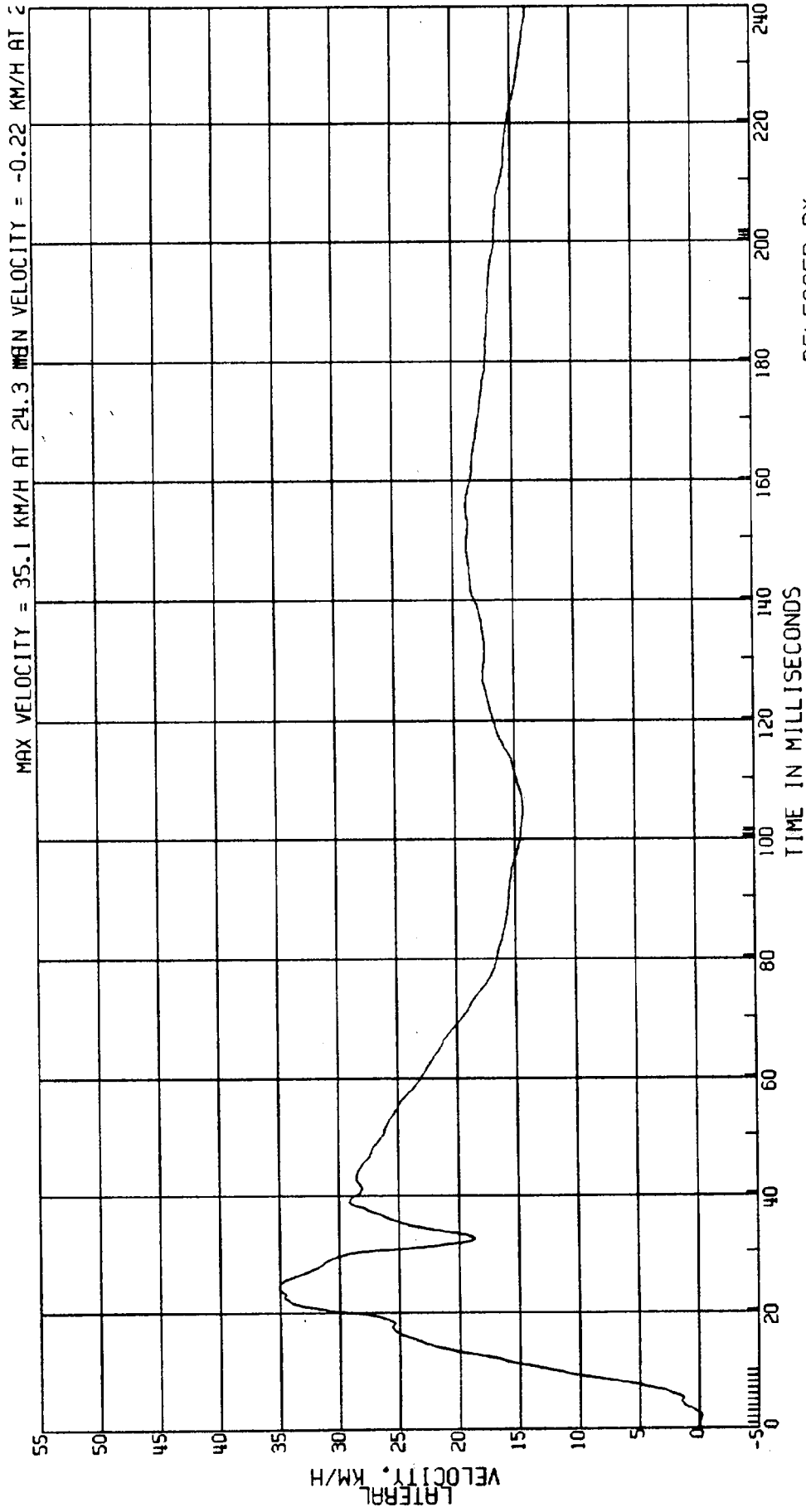
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12 PROCESSED 4 MY 90 13:57

C8007A L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 15
3868-905
CPE MVMA 7B 2AF69 DR-SIDE FRT. DOOR NO. 3 ACCEL. TEST DATE:03-13-90
ELEC DATA, SAE CLASS 60



RELEASED BY:
13 PROCESSED 4 MAY 90 13:57

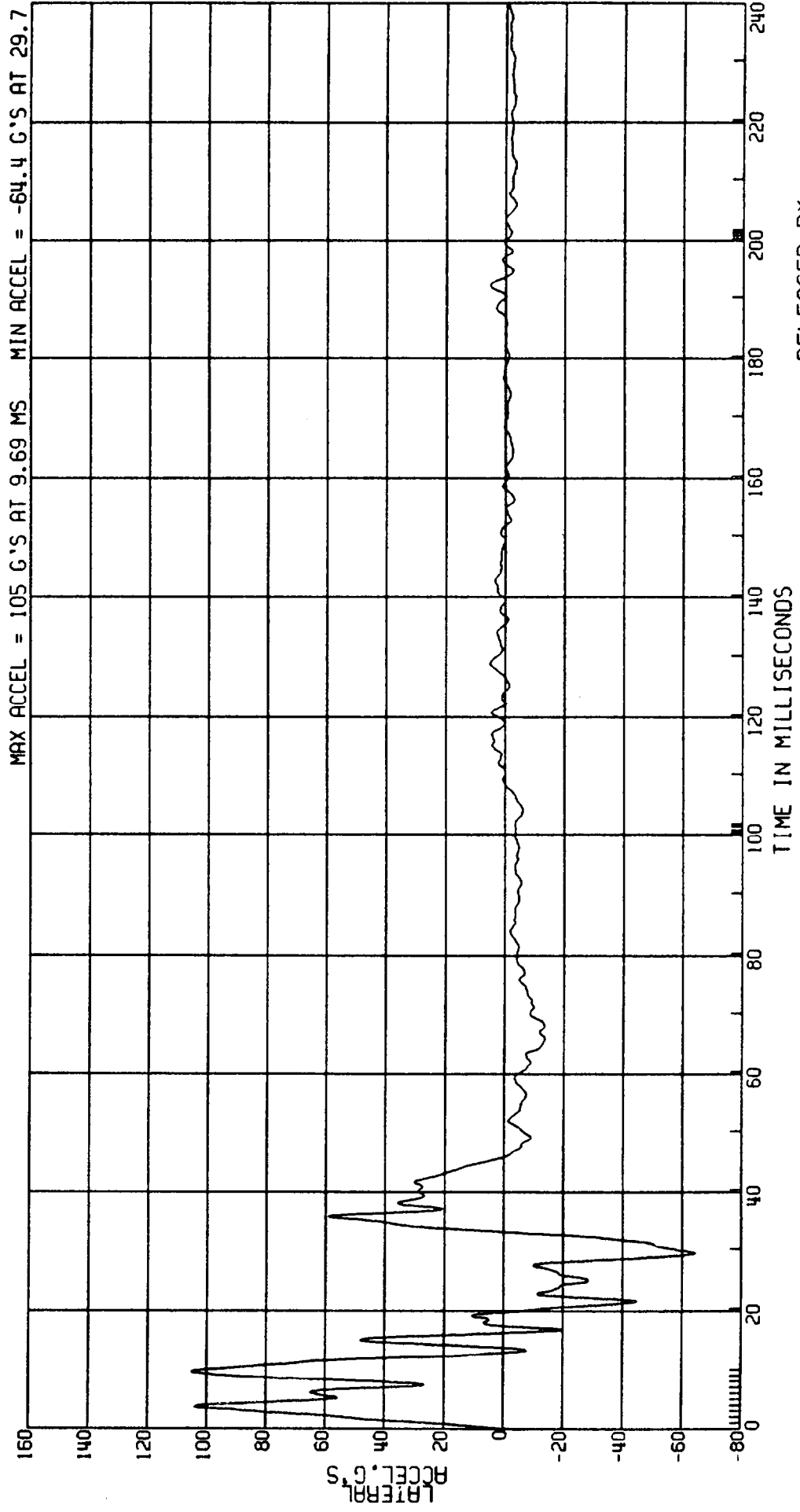
8007A L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 16
 3868-905
 CPE MVMA 7B 2AF69 COMPUTED FRT. DOOR NO. 3 VELOCITY TEST DATE:03-13-90
 ELEC DATA, SAE CLASS 180 (1ST INTEGRAL OF DR-SIDE ACCELERATION)



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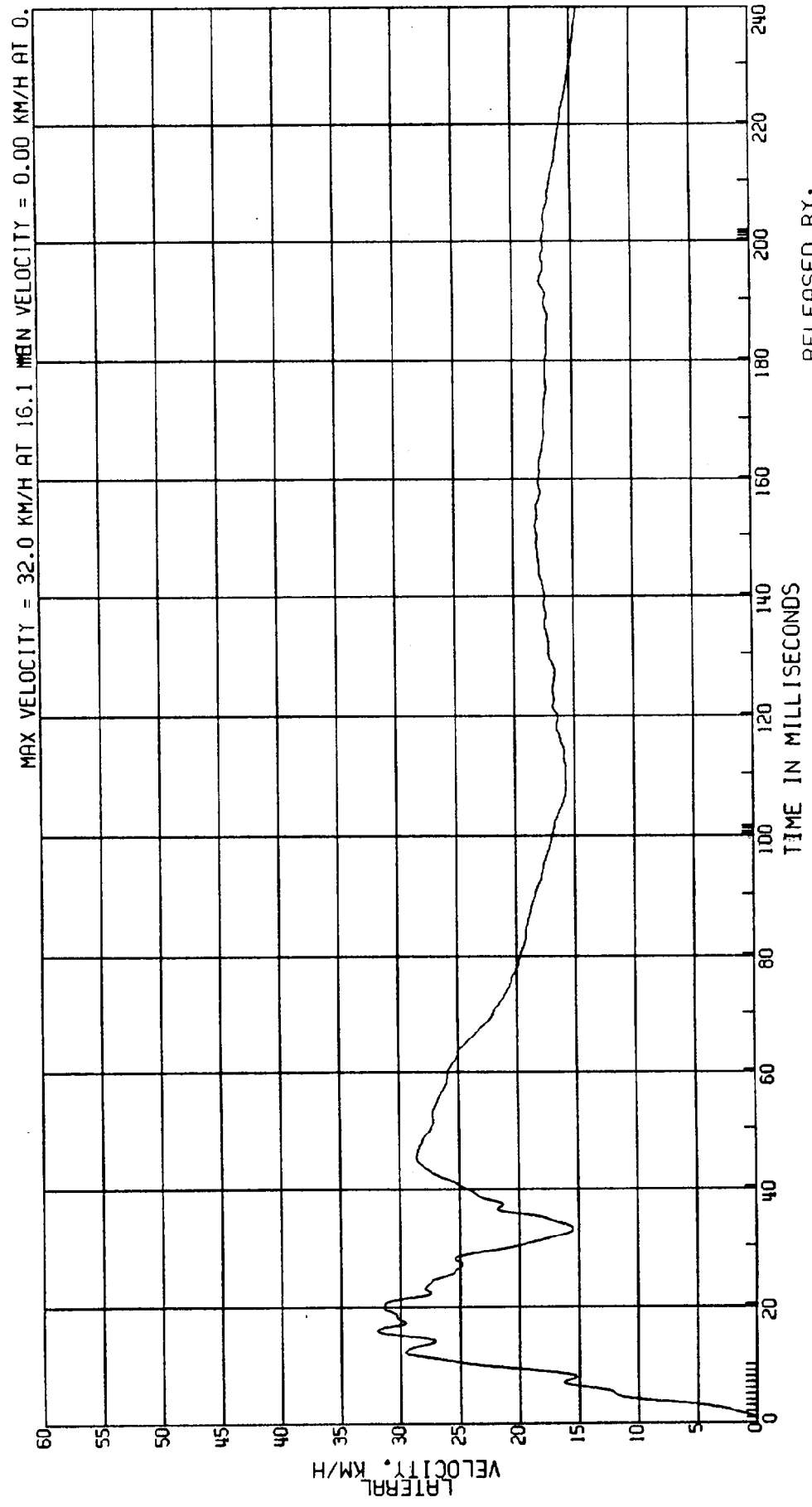
14 PROCESSED 4 MY 90 13:57

C8007A L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 17
3868-905
CPE MVMA 7B 2AF69 DR-SIDE FRT. DOOR NO. 4 ACCEL. TEST DATE:03-13-90
ELEC DATA, SAE CLASS 60



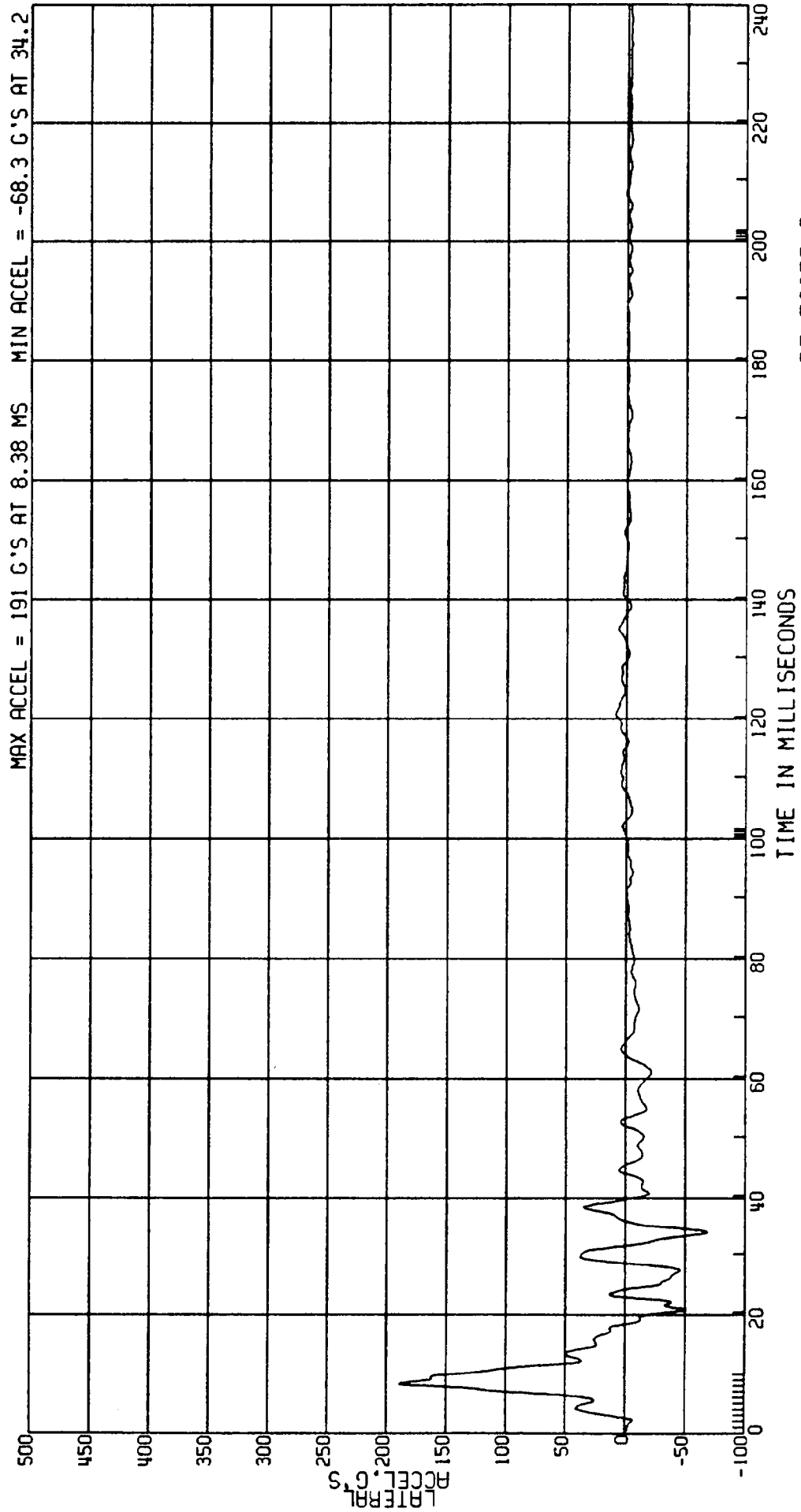
RELEASED BY:
15 PROCESSED 4 MY 90 13:58

C8007A L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6 KM/H FIGURE 18
3868-905
CPE MVMA 7B 2AF69 COMPUTED FRT. DOOR NO. 4 VELOCITY TEST DATE:03-13-90
ELEC DATA, SAE CLASS 180 (1ST INTEGRAL OF DR-SIDE ACCELERATION)



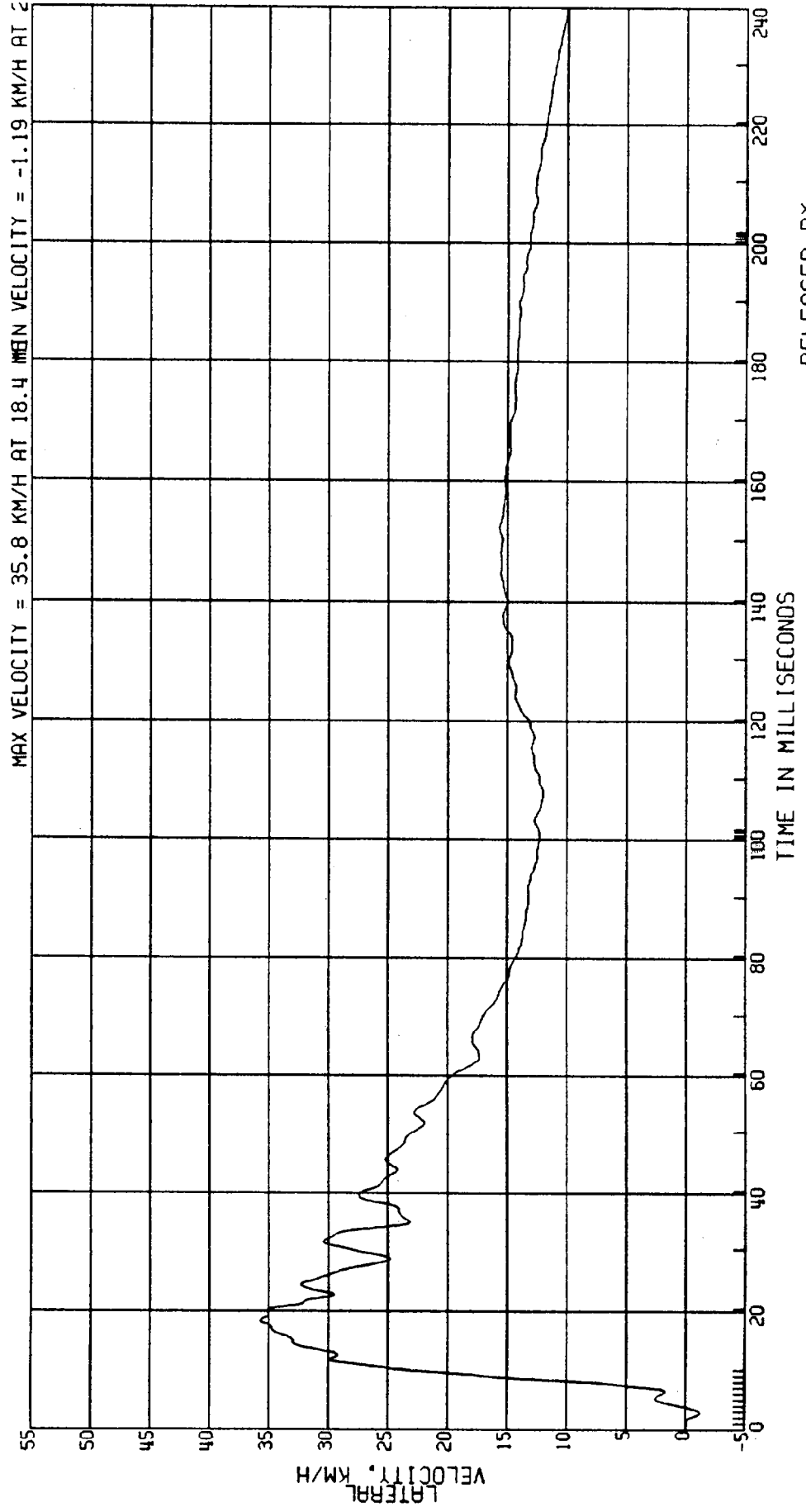
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16 PROCESSED 4 MY 90 13:58

C8007A L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 19
3868-905
CPE MVMA 7B 2AF69 DR-SIDE FRT. DOOR NO. 5 ACCEL. TEST DATE:03-13-90
ELEC DATA, SAE CLASS 60



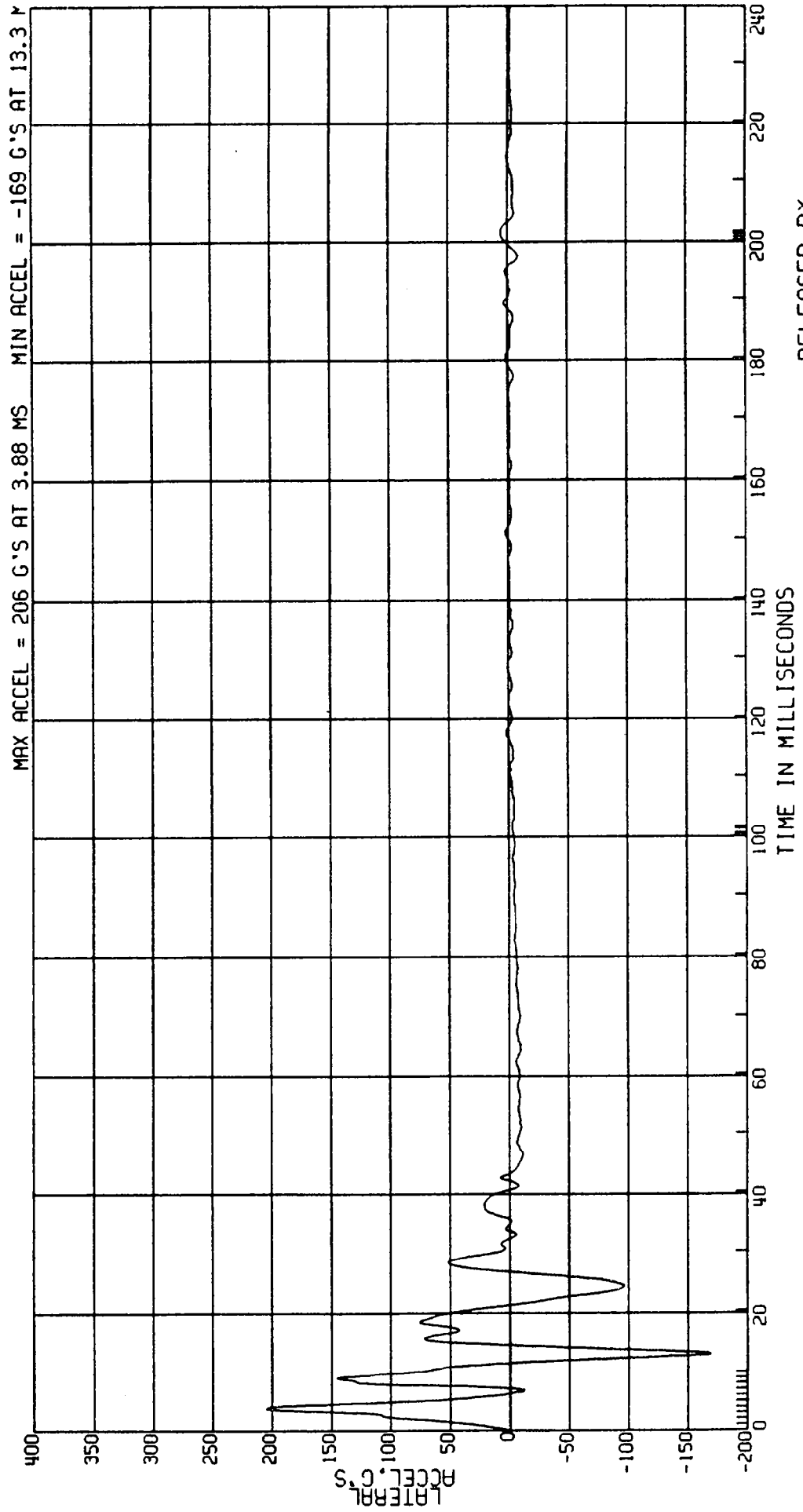
RELEASED BY:
17 PROCESSED 4 MT 90 13:58

C8007A L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 20
3868-905
CPE MVMA 7B 2AF69 COMPUTED FRT. DOOR NO. 5 VELOCITY TEST DATE:03-13-90
ELEC DATA, SAE CLASS 180 (1ST INTEGRAL OF DR-SIDE ACCELERATION)



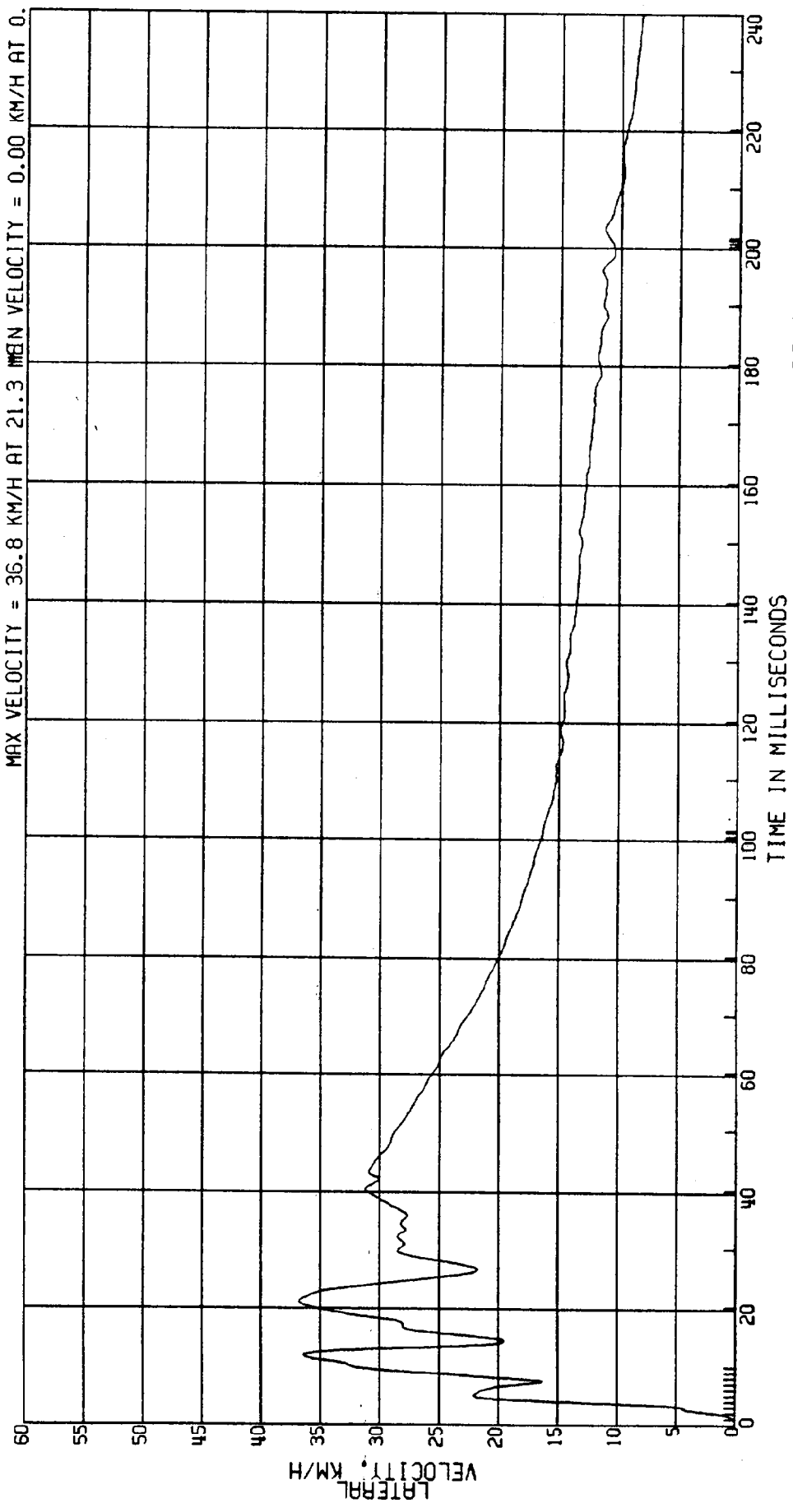
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16 PROCESSED 4 MY 90 13:58

C8007A L. SIDE IMPACT - 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6 KM/H FIGURE 24
3868-905
CPE MVMA 7B 2AF69 DR-SIDE REAR DOOR NO. 1 ACCEL. TEST DATE: 03-13-90
ELEC DATA, SAE CLASS 60



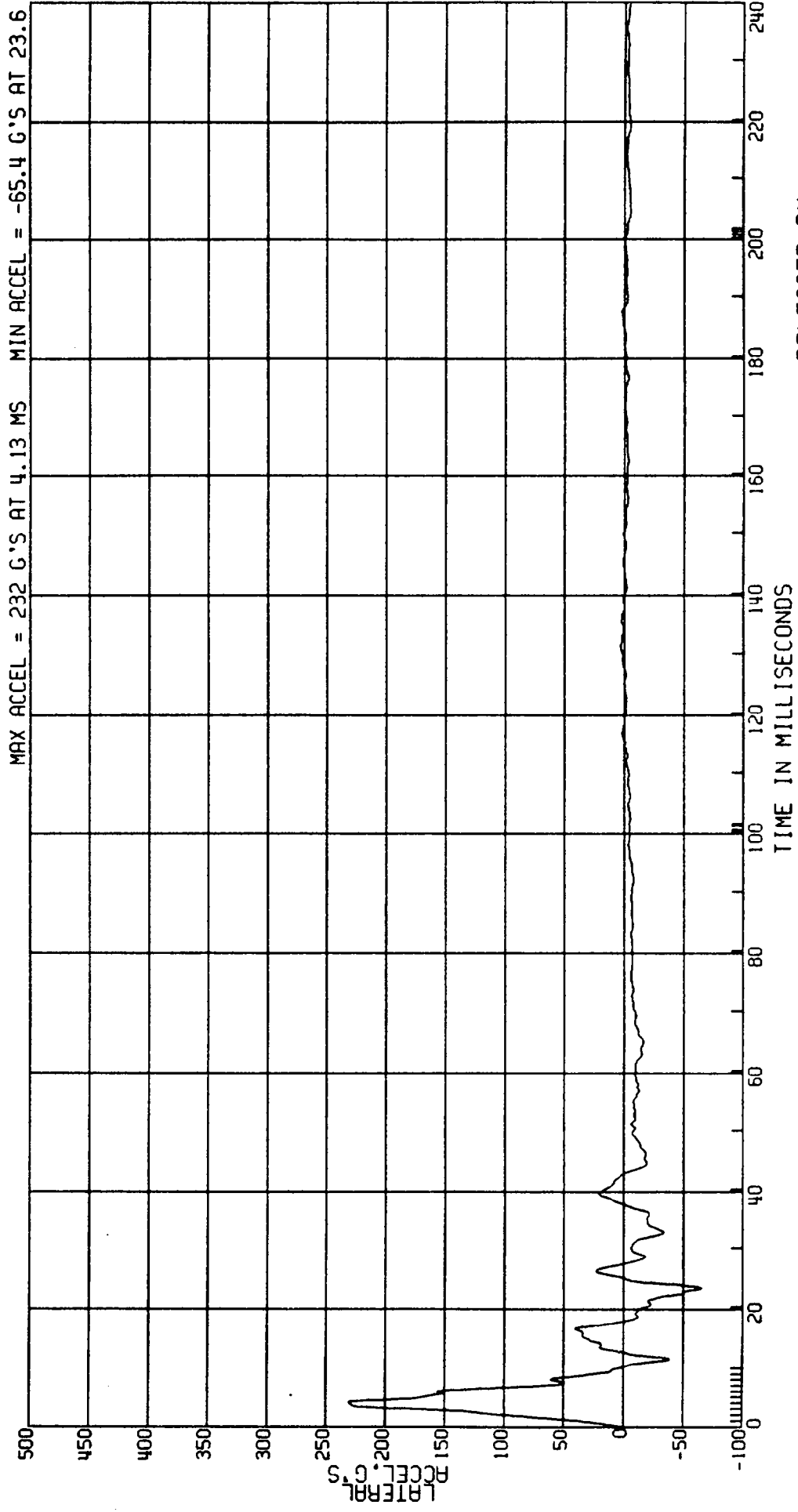
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19 PROCESSED 4 MT 90 13:58

C8007A L. SIDE IMPACT - 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6 KM/H FIGURE 2a
 3868-905
 CPE MVMA 7B 2AF69 COMPUTED REAR DOOR NO. 1 VELOCITY TEST DATE: 03-13-90
 ELEC DATA, SAE CLASS 180 (1ST INTEGRAL OF DR-SIDE ACCELERATION)



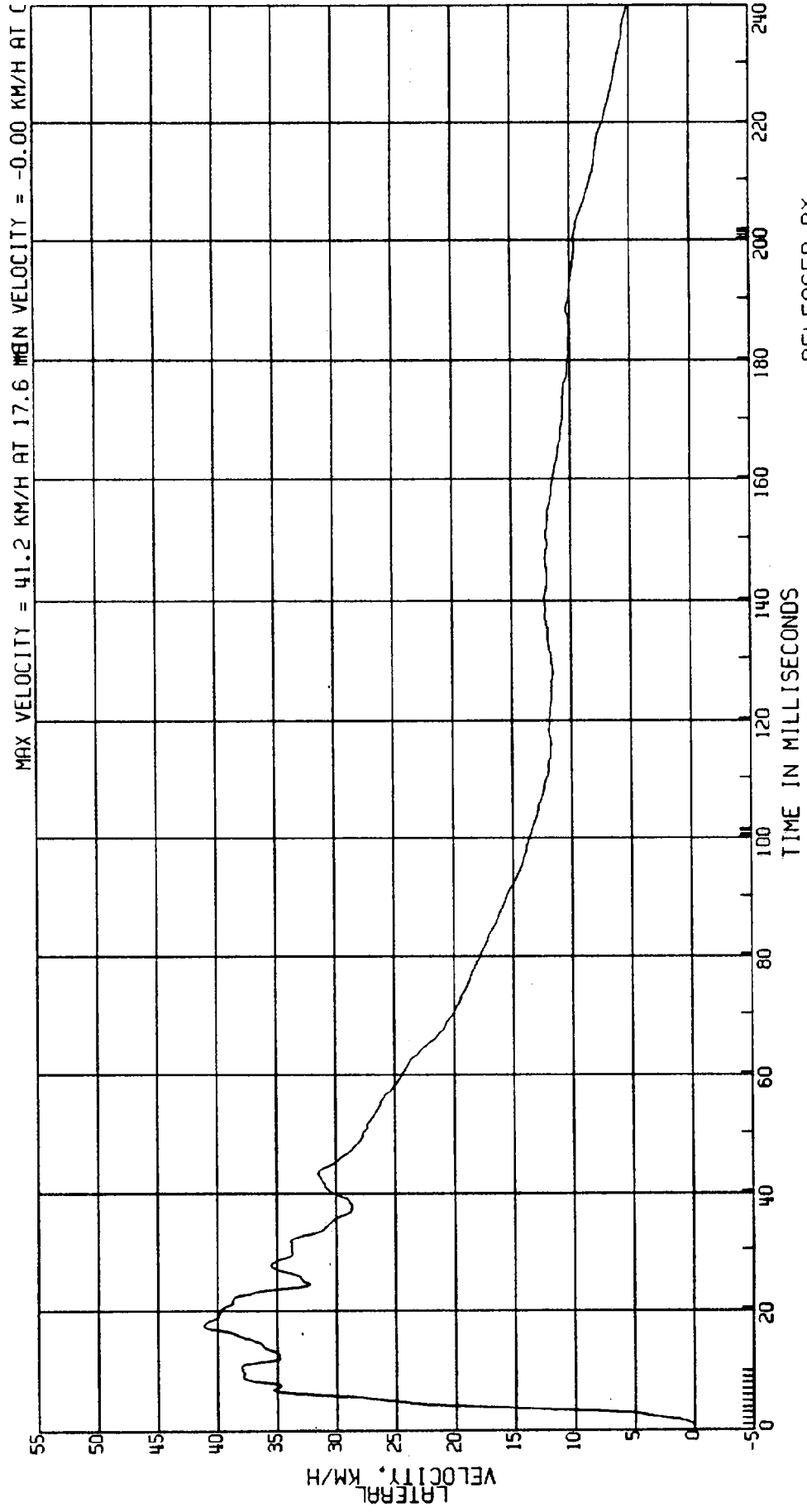
RELEASED BY:
 20 PROCESSED 4 MY 90 13:58

C8007A L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 23
3868-905
CPE MVMA 7B 2AF69 DR-SIDE REAR DOOR NO. 2 ACCEL. TEST DATE:03-13-90
ELEC DATA, SAE CLASS 60



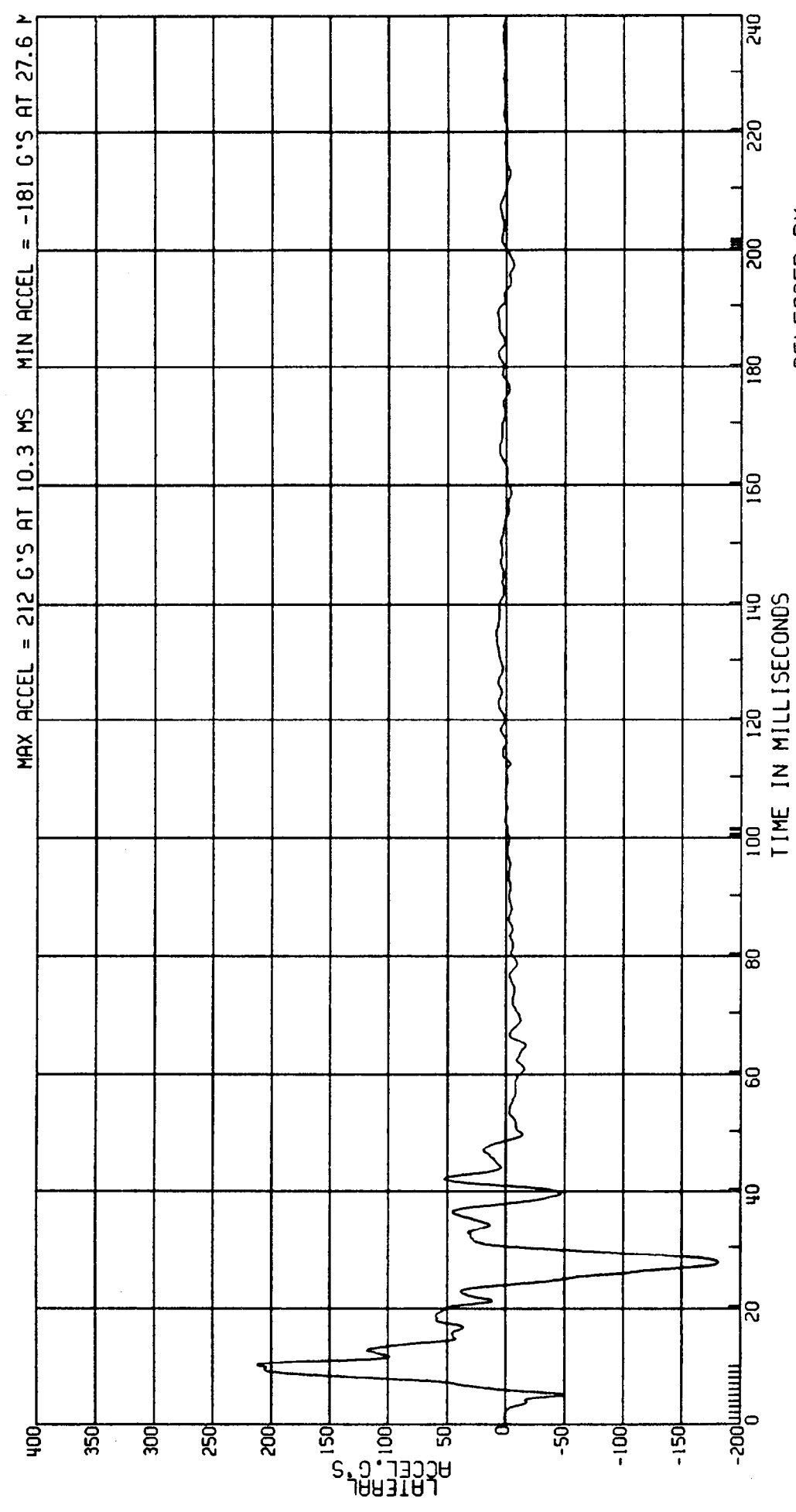
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21 PROCESSED 4 MT 90 13:58

C8007A L. SIDE IMPACT - 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6 KM/H FIGURE 24
3868-905
CPE MVMA 7B 2AF69 COMPUTED REAR DOOR NO. 2 VELOCITY TEST DATE: 03-13-90
ELEC DATA, SAE CLASS 180 (1ST INTEGRAL OF DR-SIDE ACCELERATION)



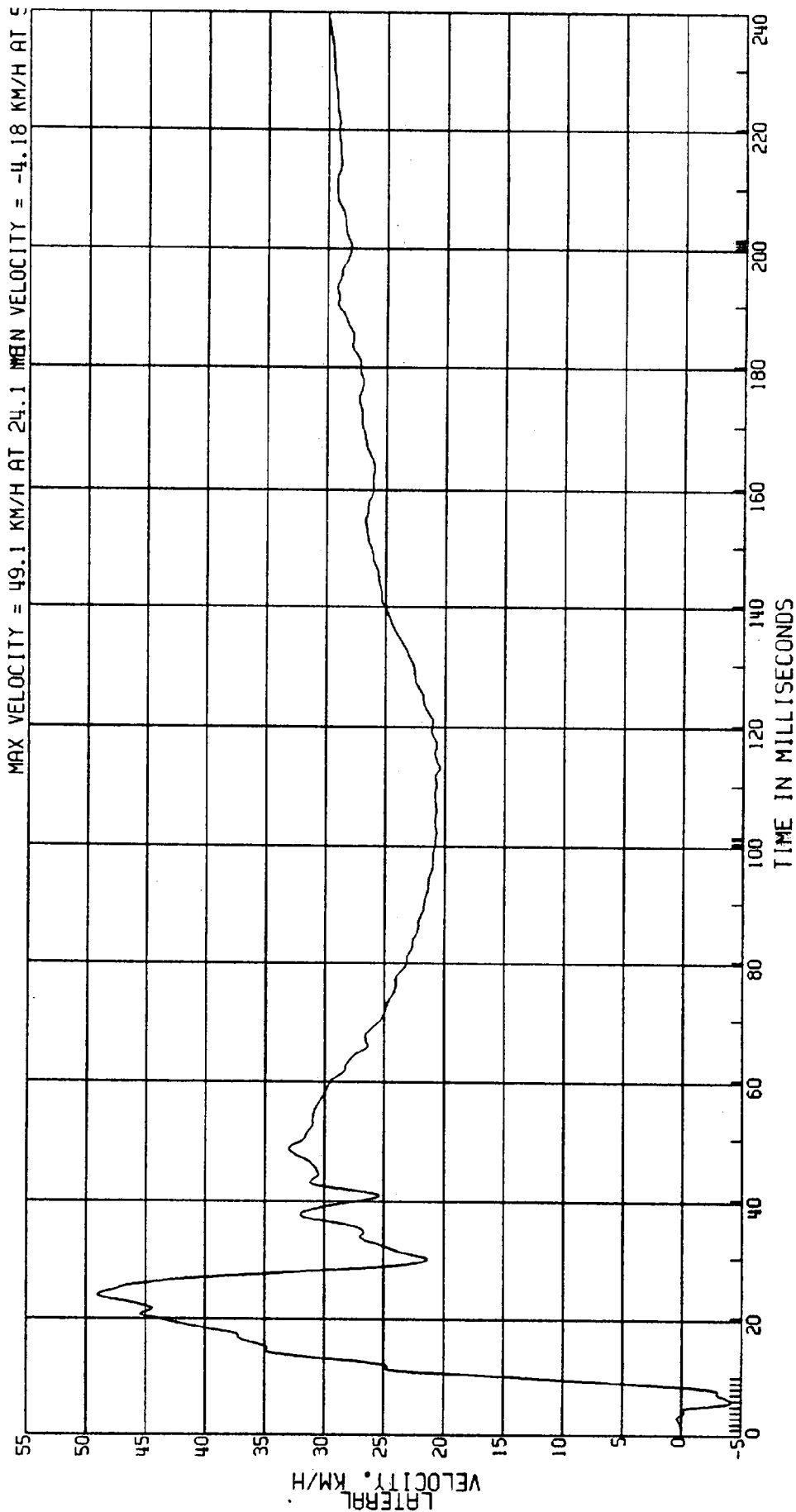
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22 PROCESSED 4 MY 90 13:58

C8007A L. SIDE IMPACT - 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 25
3868-905
CPE MVMA 78 2AF69 DR-SIDE REAR DOOR NO. 3 ACCEL.
ELEC DATA, SAE CLASS 60 TEST DATE: 03-13-90



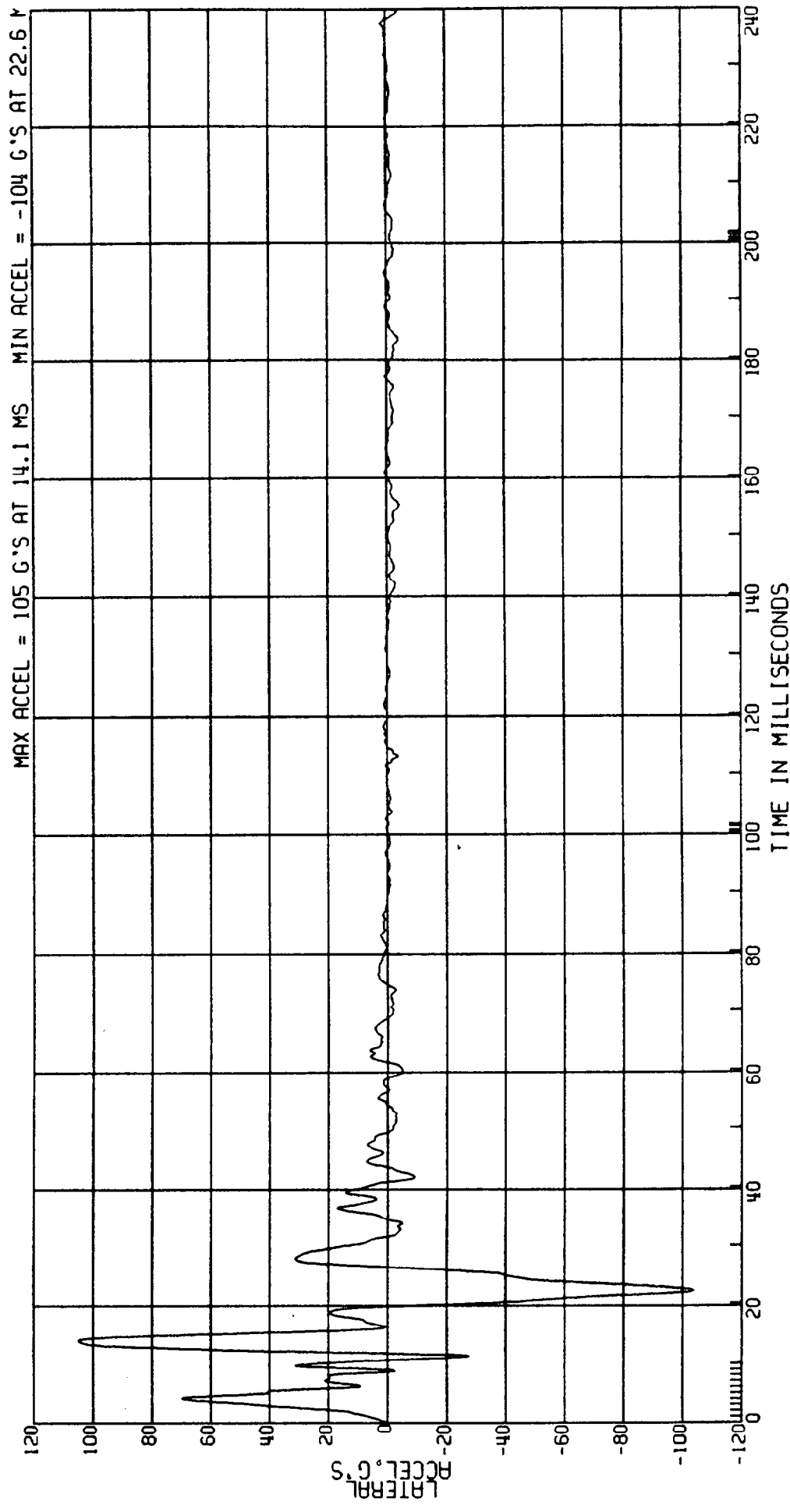
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23 PROCESSED 4 MT 90 13:58

38007A L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6 KM/H FIGURE 26
3868-905
CPE MVMA 7B 2AF69 COMPUTED REAR DOOR NO. 3 VELOCITY TEST DATE:03-13-90
ELEC DATA, SAE CLASS 180 (1ST INTEGRAL OF DR-SIDE ACCELERATION)



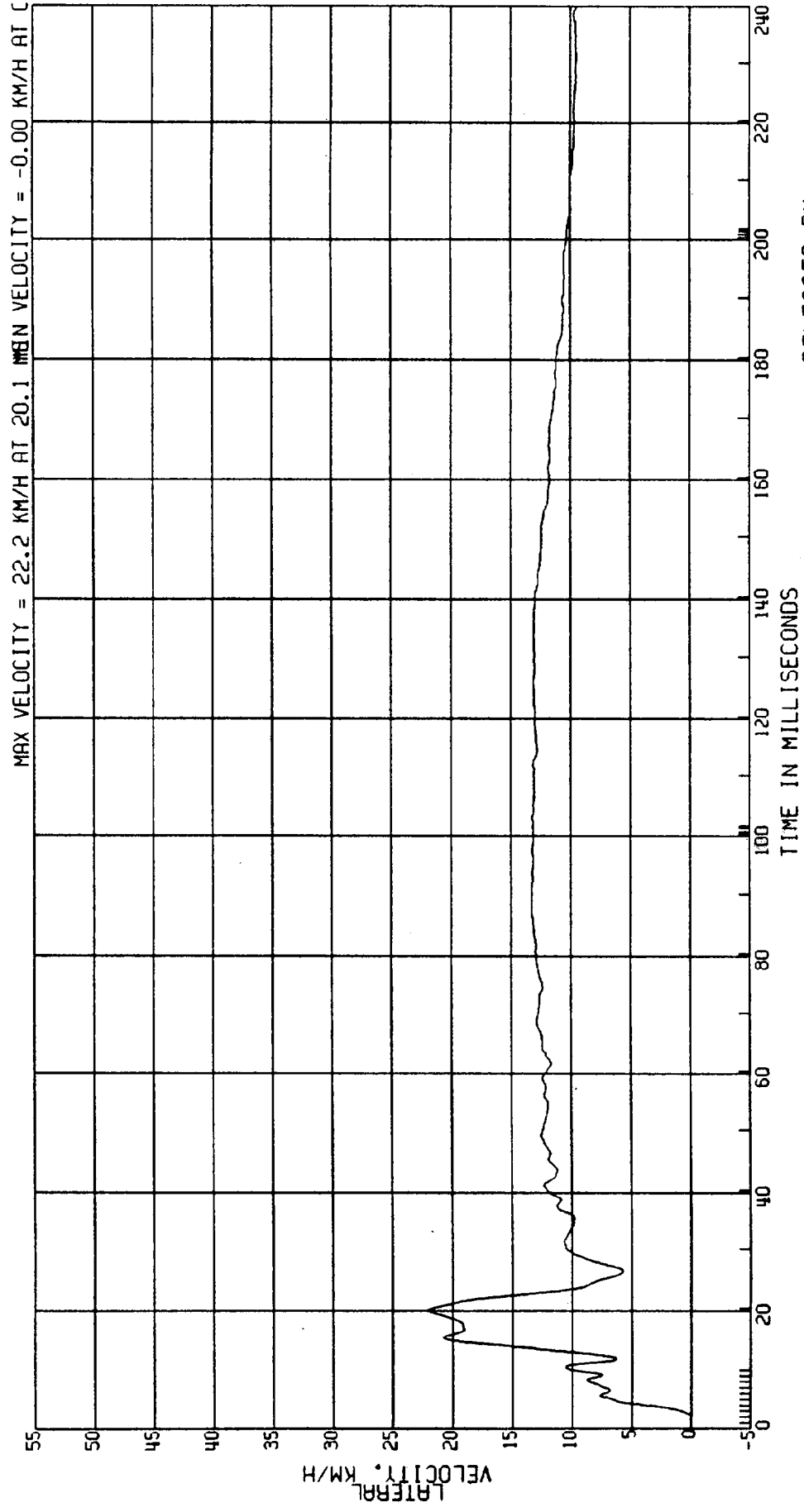
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24 PROCESSED 4 MY 90 13:58

C8007A L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 27
3868-905
CPE MVMA 7B 2AF69 DR-SIDE REAR DOOR NO. 4 ACCEL. TEST DATE:03-13-90
ELEC DATA, SAE CLASS 60



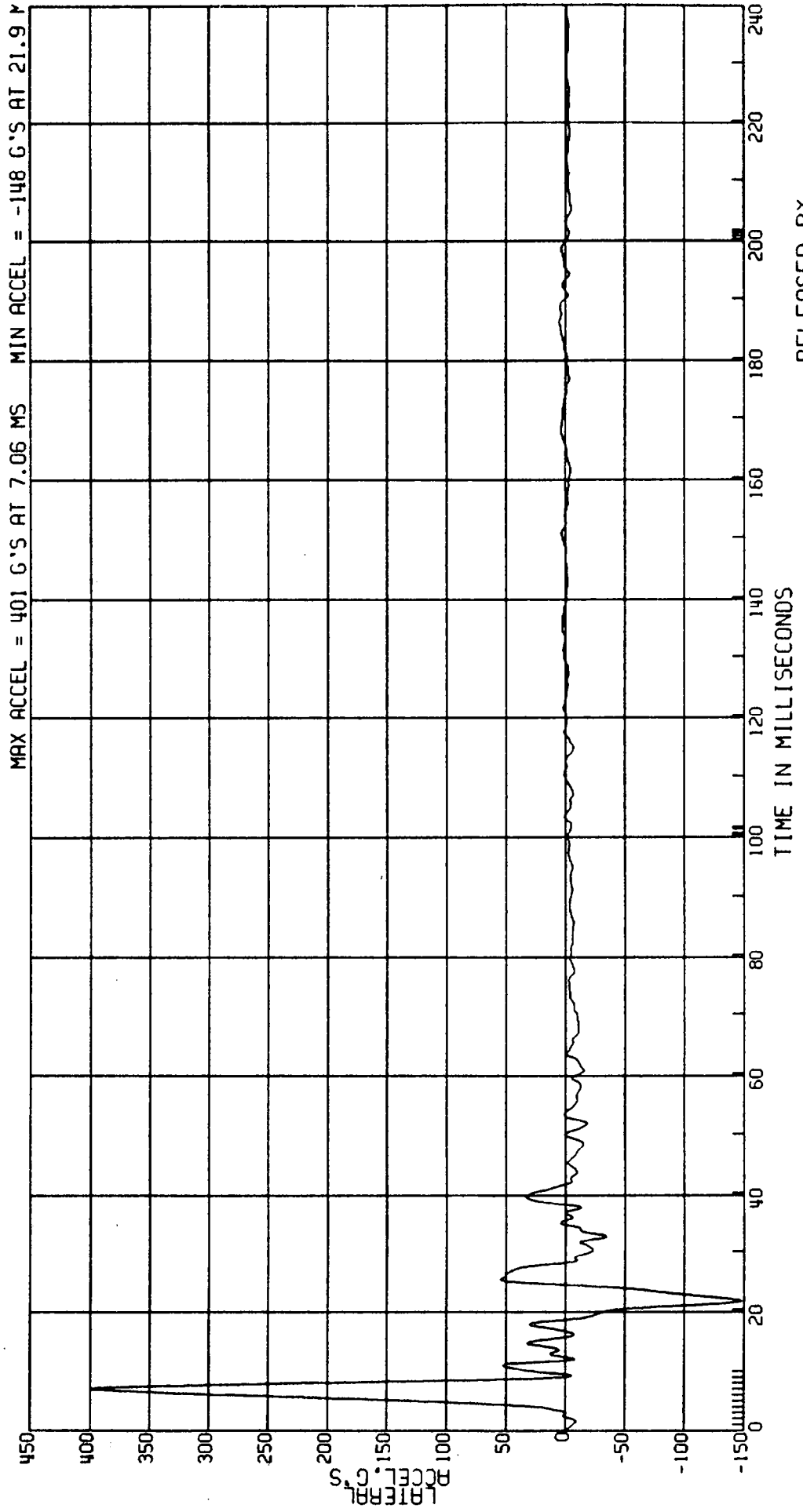
RELEASED BY:
25 PROCESSED 4 MY 90 13:58

C8007A L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 28
3868-905
CPE MVMA 7B 2AF69 COMPUTED REAR DOOR NO. 4 VELOCITY TEST DATE:03-13-90
ELEC DATA, SAE CLASS 180 (1ST INTEGRAL OF DR-SIDE ACCELERATION)



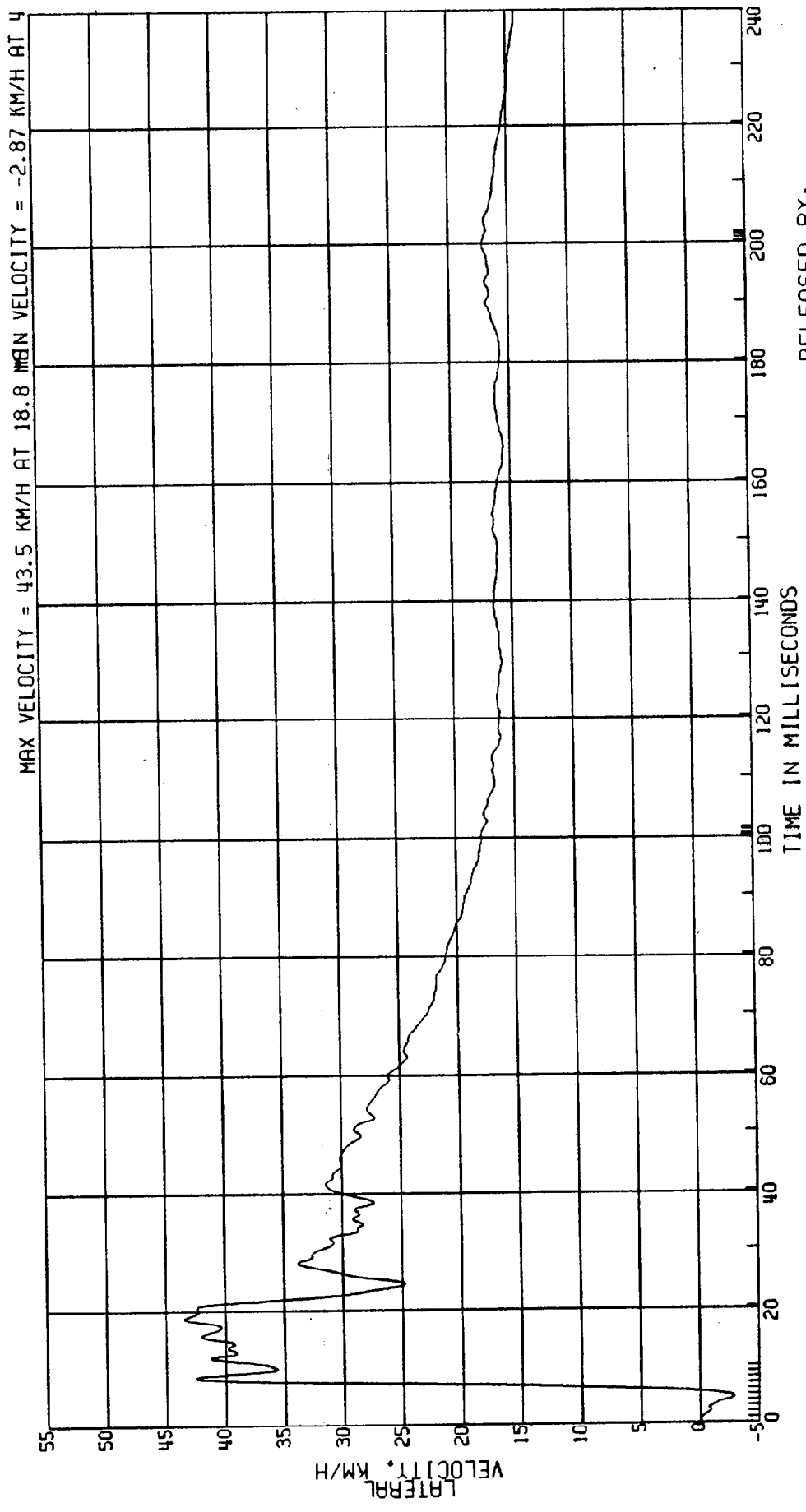
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26 PROCESSED 4 MT 90 13:58

C8007A L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 29
3868-905
CPE MVMA 7B 2AF69 DR-SIDE REAR DOOR NO. 5 ACCEL. TEST DATE:03-13-90
ELEC DATA, SAE CLASS 60



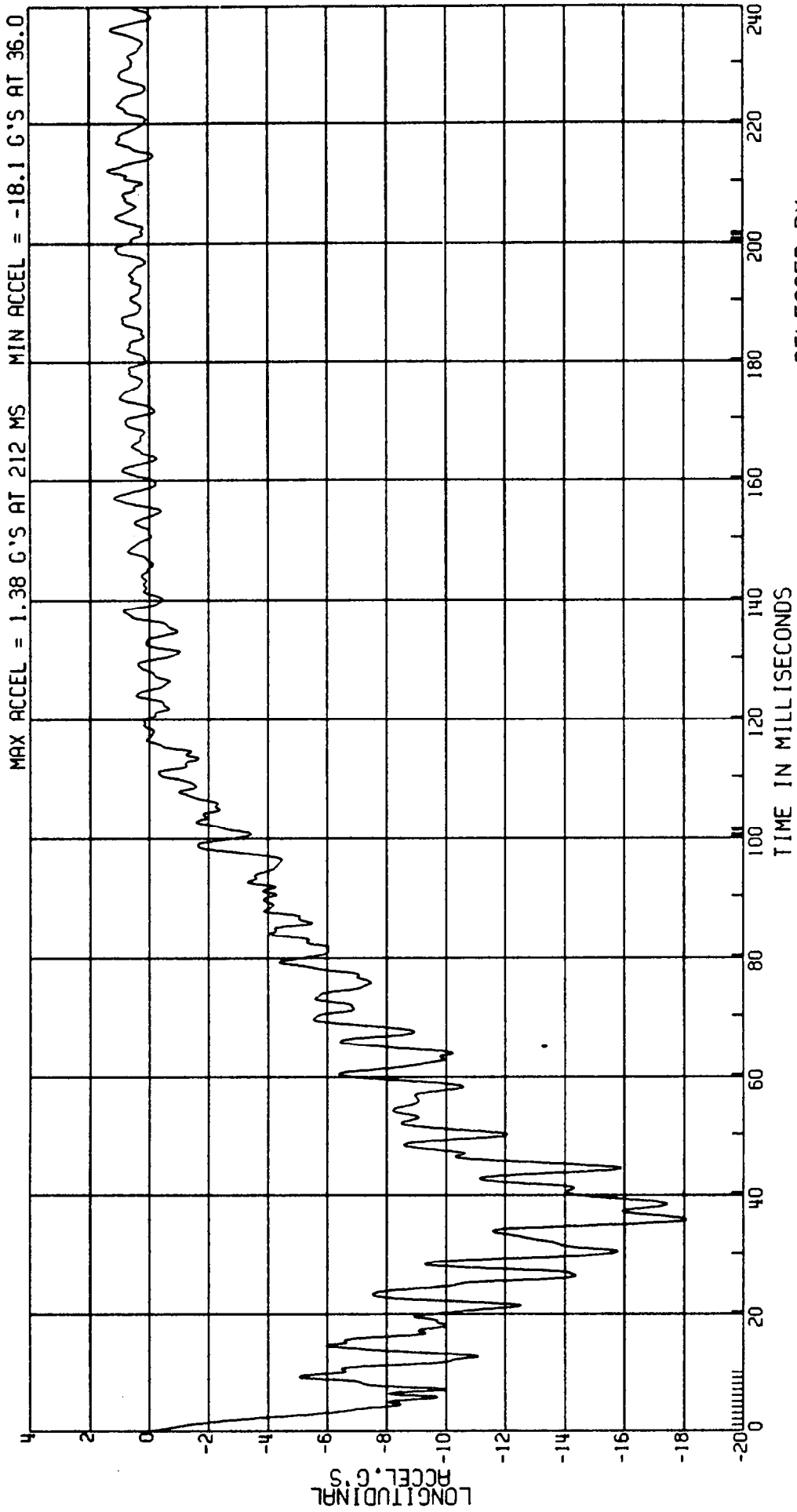
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27 PROCESSED 4 MY 90 13:58

C8007A L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 30
3868-905
CPE MVMA 7B 2AF69 COMPUTED REAR DOOR NO. 5 VELOCITY TEST DATE:03-13-90
ELEC DATA, SAE CLASS 180 (1ST INTEGRAL OF DR-SIDE ACCELERATION)



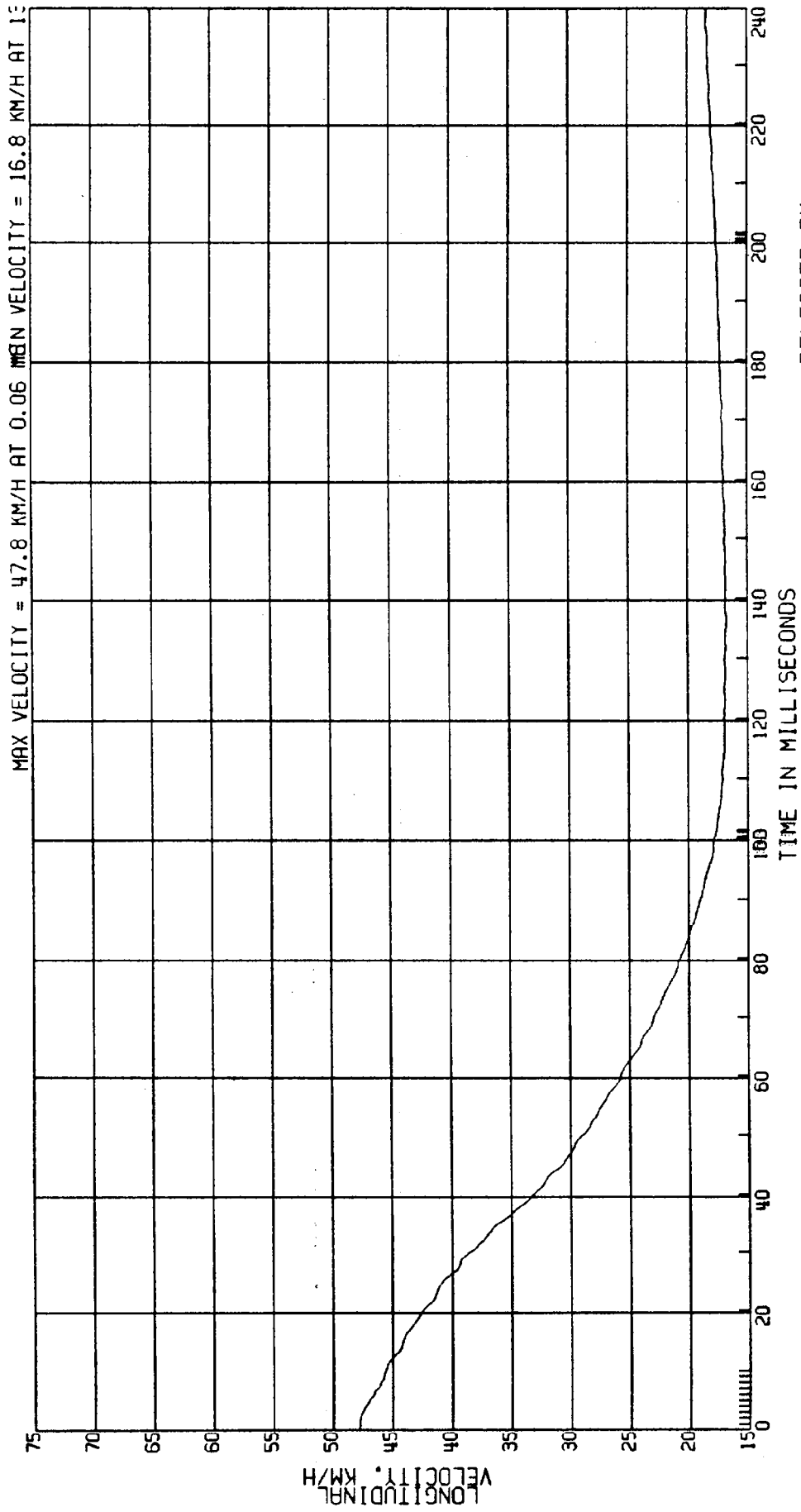
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26 PROCESSED 4 MY 90 13:58

C8007A L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6 KM/H FIGURE 31
3868-905
CPE MVMA 7B 2AF69 M.D.B. AT C.G. ACCEL.
ELEC DATA, SAE CLASS 60 TEST DATE:03-13-90

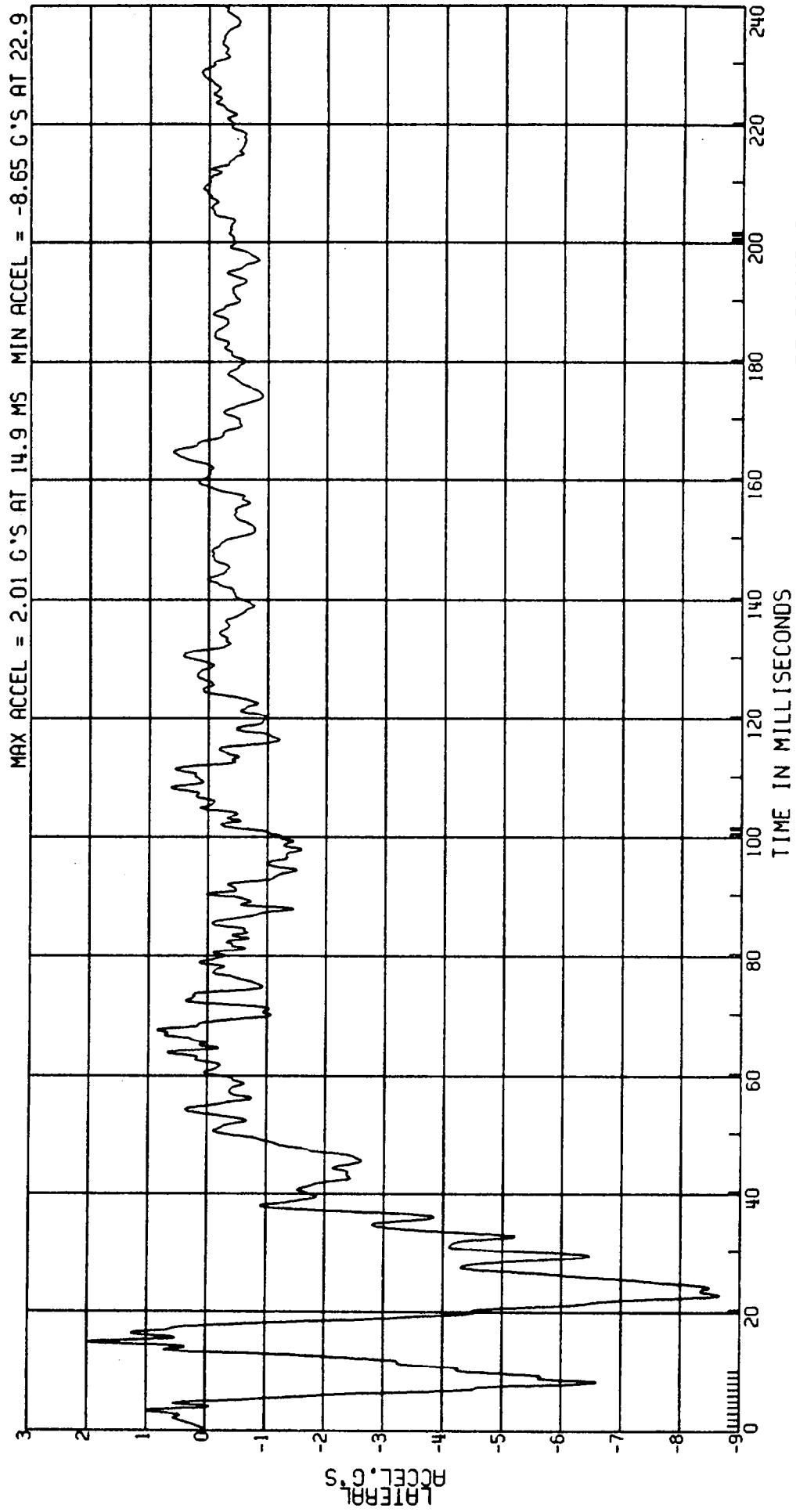


RELEASED BY:
55 PROCESSED 4 MY 90 13:59

C8007A L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6 KM/H FIGURE 32
 3868-905
 CPE MVMA 7B 2AF69 COMPUTED M.D.B. AT C.G. VELOCITY TEST DATE: 03-13-90
 ELEC DATA, SAE CLASS 180 (1ST INT OF ACCEL 53.6 KPH * COS 27 DEG)

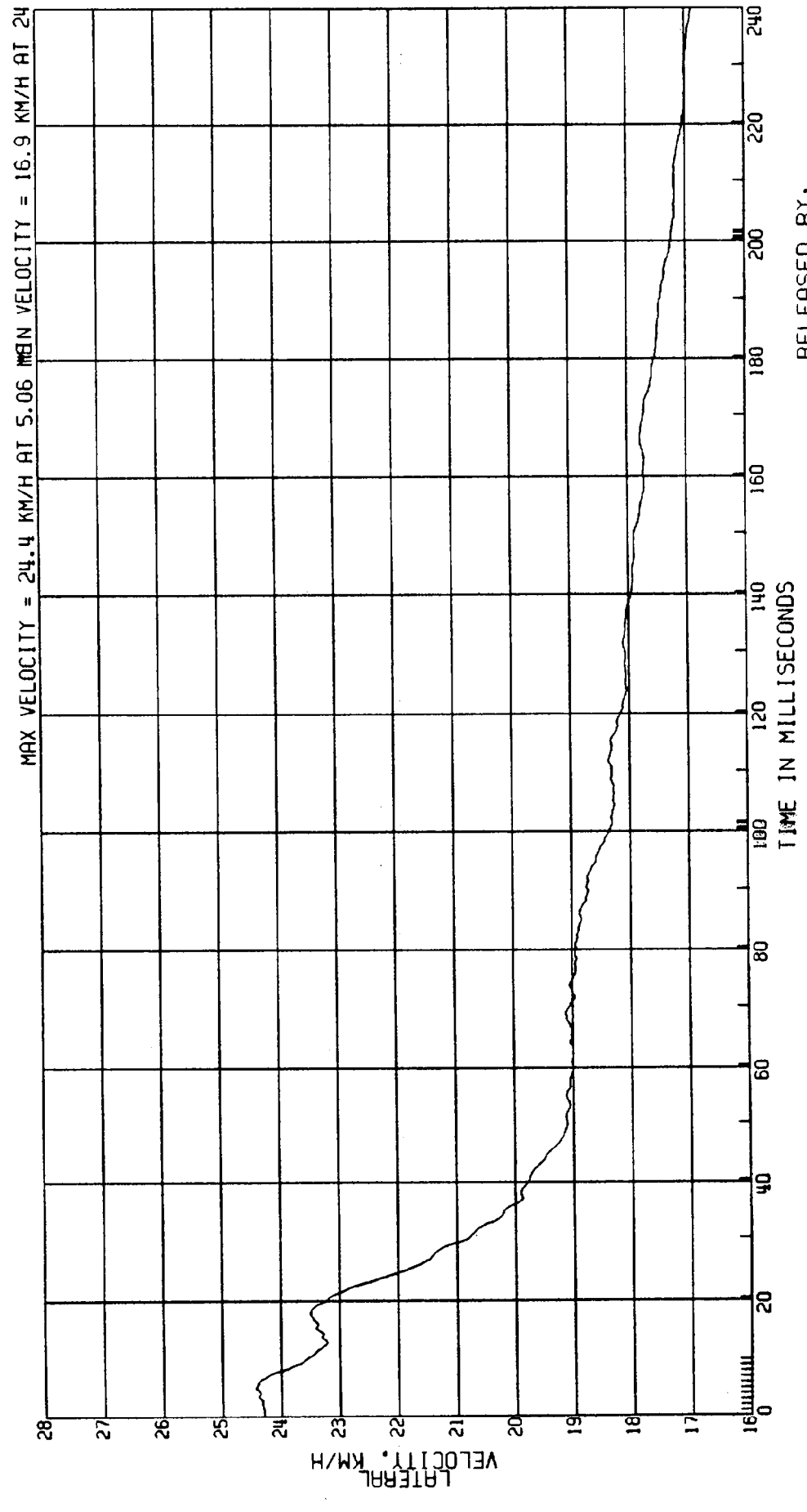


C8007A L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 33
3868-905
CPE MVMA 7B 2AF69 M.D.B. AT C.G. ACCEL. TEST DATE:03-13-90
ELEC DATA, SAE CLASS 60



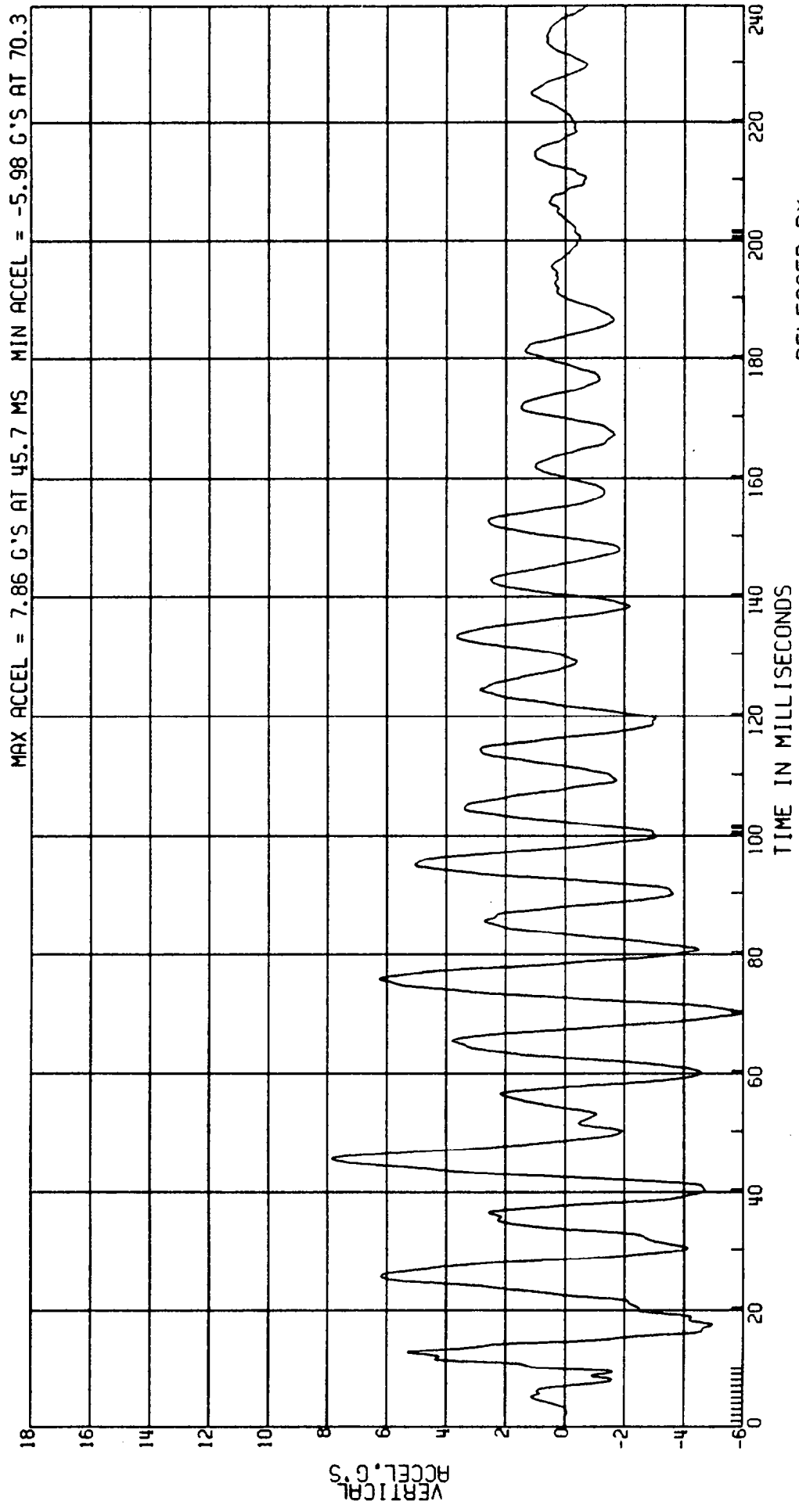
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57 PROCESSED 4 MT 90 13:59

C8007A L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 34
 3868-905
 CPE MVMA 7B 2AF69
 ELEC DATA, SAE CLASS 180
 COMPUTED M.D.B. AT C.G. VELOCITY
 (1ST INT OF ACCEL 53.6KPH*SIN27DEG)
 TEST DATE:03-13-90



RELEASED BY:
 58 PROCESSED 4 MY 90 13:59

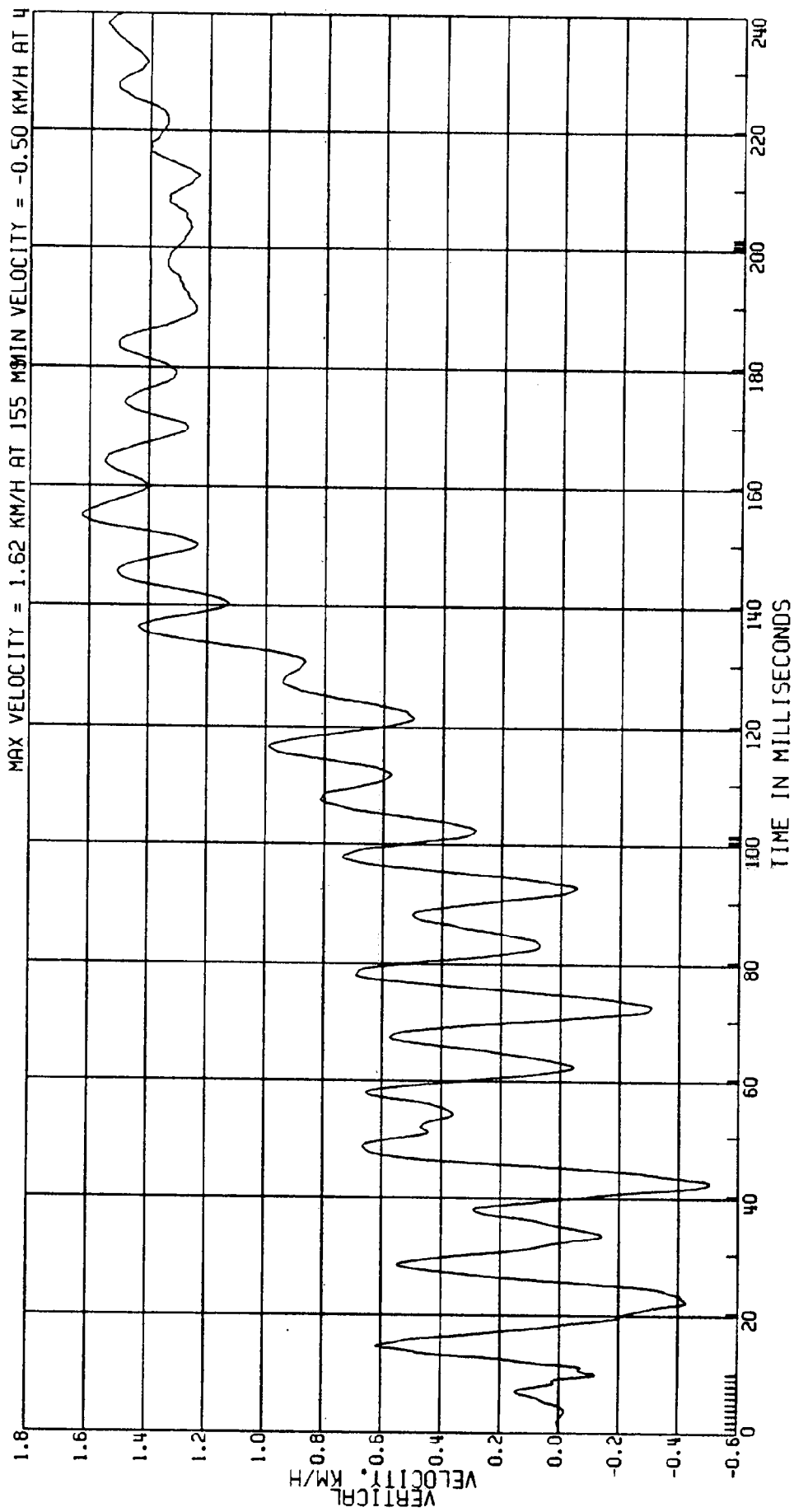
C8007A L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 35
3868-905
CPE MVMA 7B 2AF69 M.D.B. AT C.G. ACCEL. TEST DATE:03-13-90
ELEC DATA, SAE CLASS 60



RELEASED BY:
59 PROCESSED 4 MY 90 13:59

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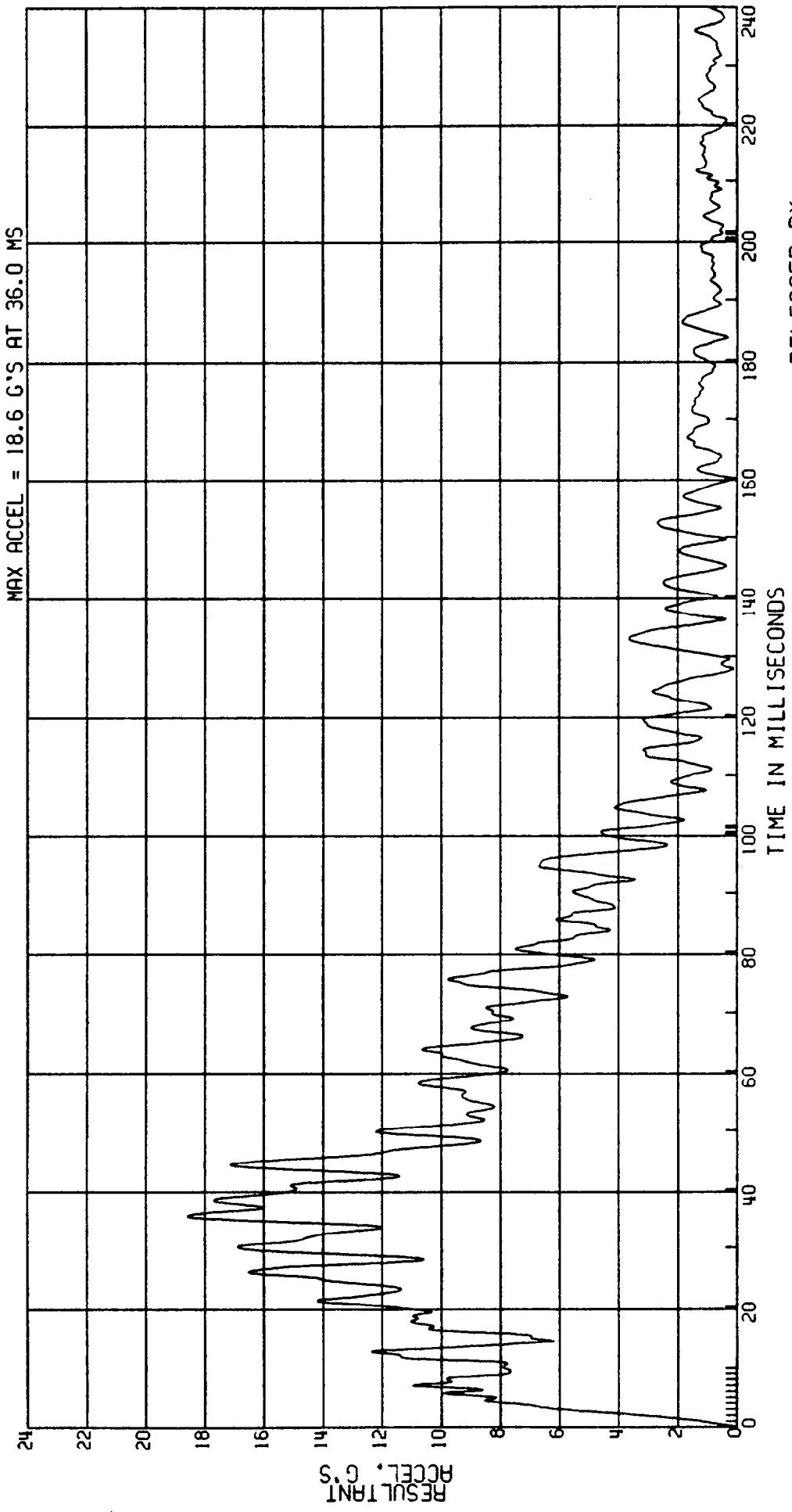
C8007A L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6 KM/H FIGURE 36
 3868-905
 CPE MVMA 7B 2AF69 COMPUTED M.D.B. AT C.G. VELOCITY TEST DATE:03-13-90
 ELEC DATA, SAE CLASS 180 (1ST INT OF ACCELERATION)



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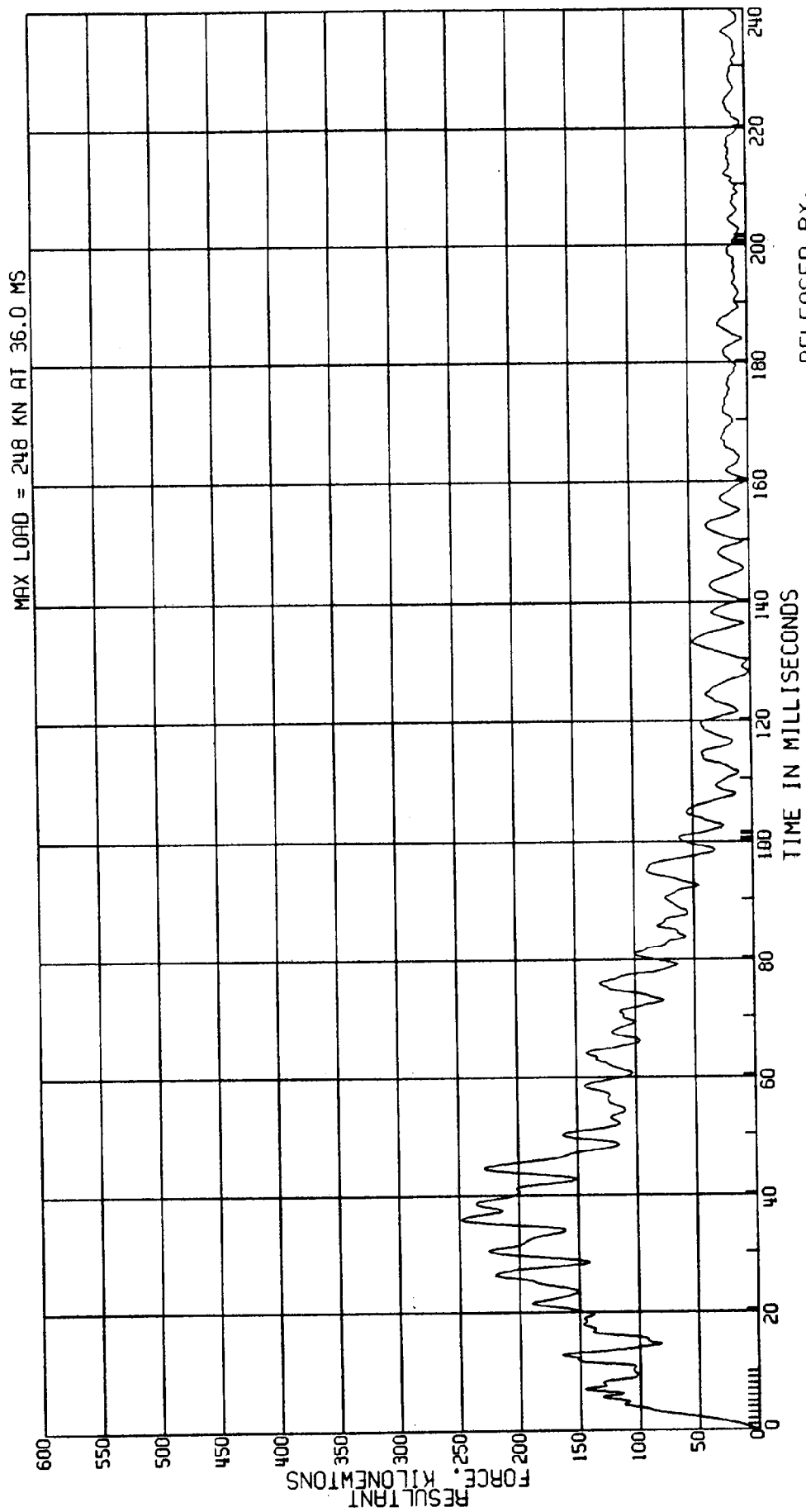
60 PROCESSED 4 MT 90 13:59

C8007A L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 37
3868-905
CPE MVMA 7B 2AF69 M.D.B. AT C.G. ACCEL.
ELEC DATA, SAE CLASS 60 (VEC SUM OF C.G. ACCELERATIONS) TEST DATE:03-13-90



RELEASED BY:
61 PROCESSED 4 MY 90 13:59

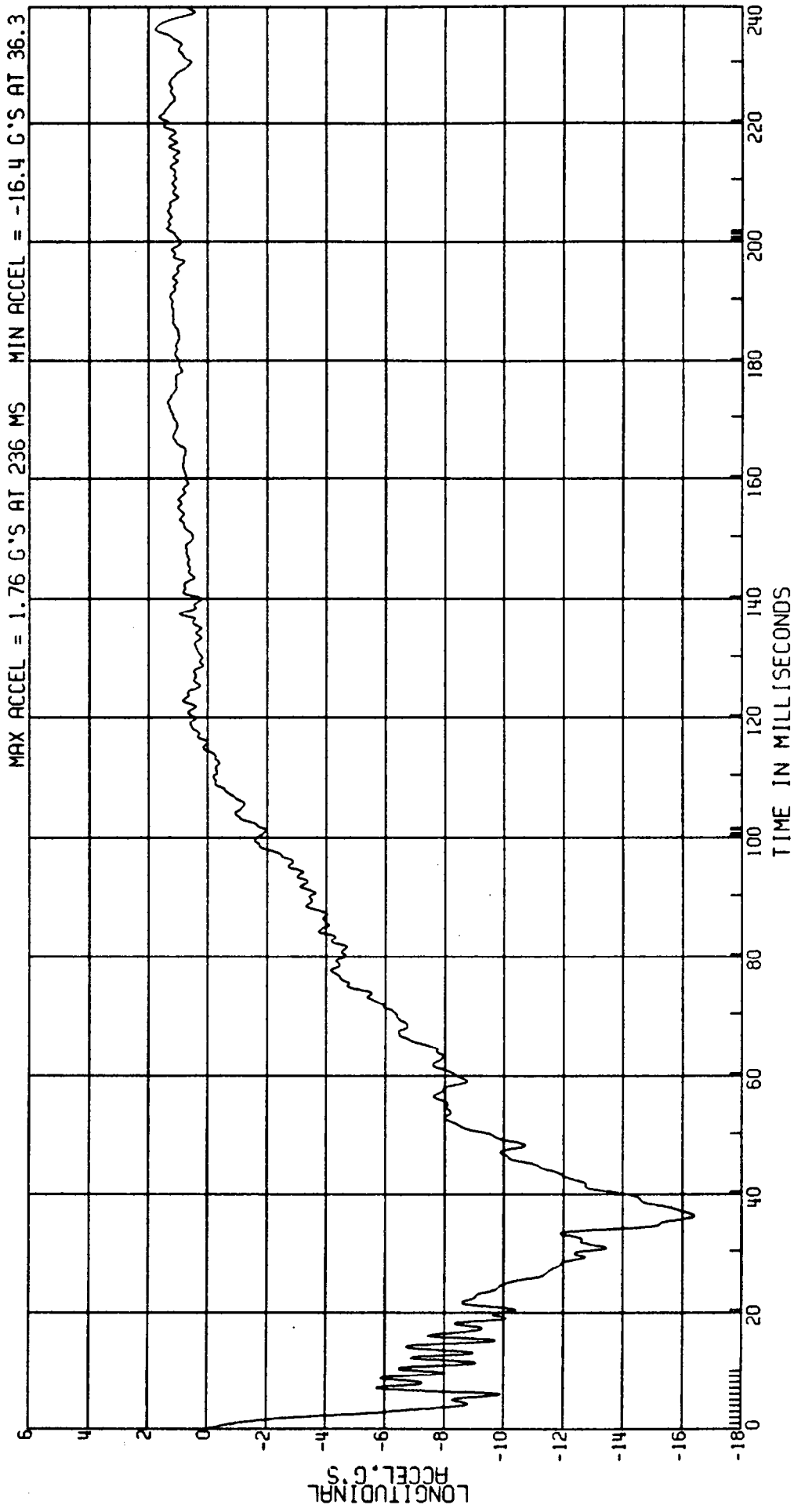
C8007A L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 38
3868-905
CPE MVMA 78 2AF69 COMPUTED M.D.B. AT C.G. FORCE TEST DATE:03-13-90
ELEC DATA, SAE CLASS 60 (1359.5KG) (9.807) (RESULTANT ACCEL)



RELEASED BY:

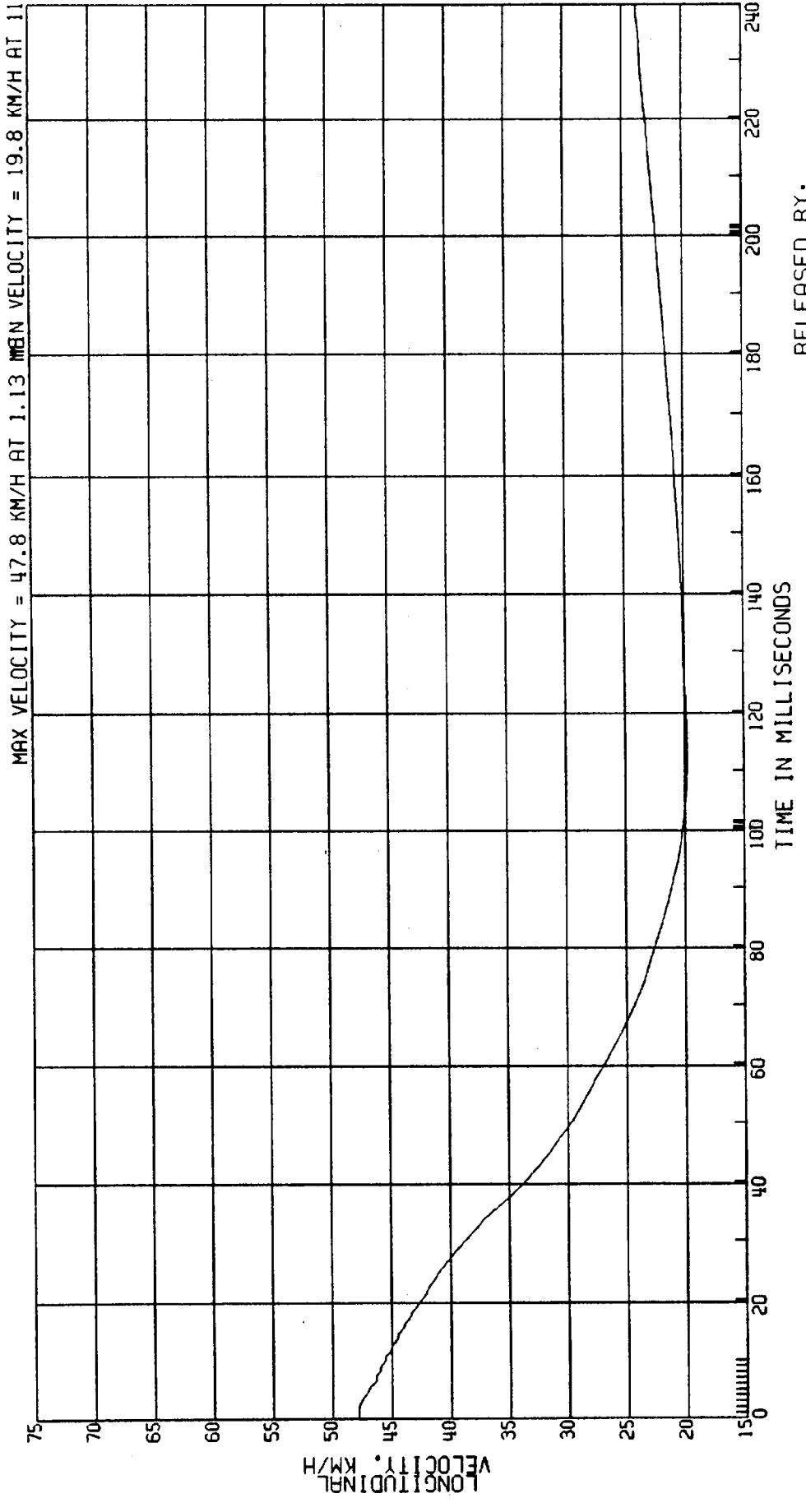
62 PROCESSED 4 MY 90 13:59

C8007A L. SIDE IMPACT - 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 39
3868-905
CPE MVMA 7B 2AF69 M.D.B. REAR CROSS MEMBER ACCEL.
ELEC DATA, SAE CLASS 60 TEST DATE:03-13-90

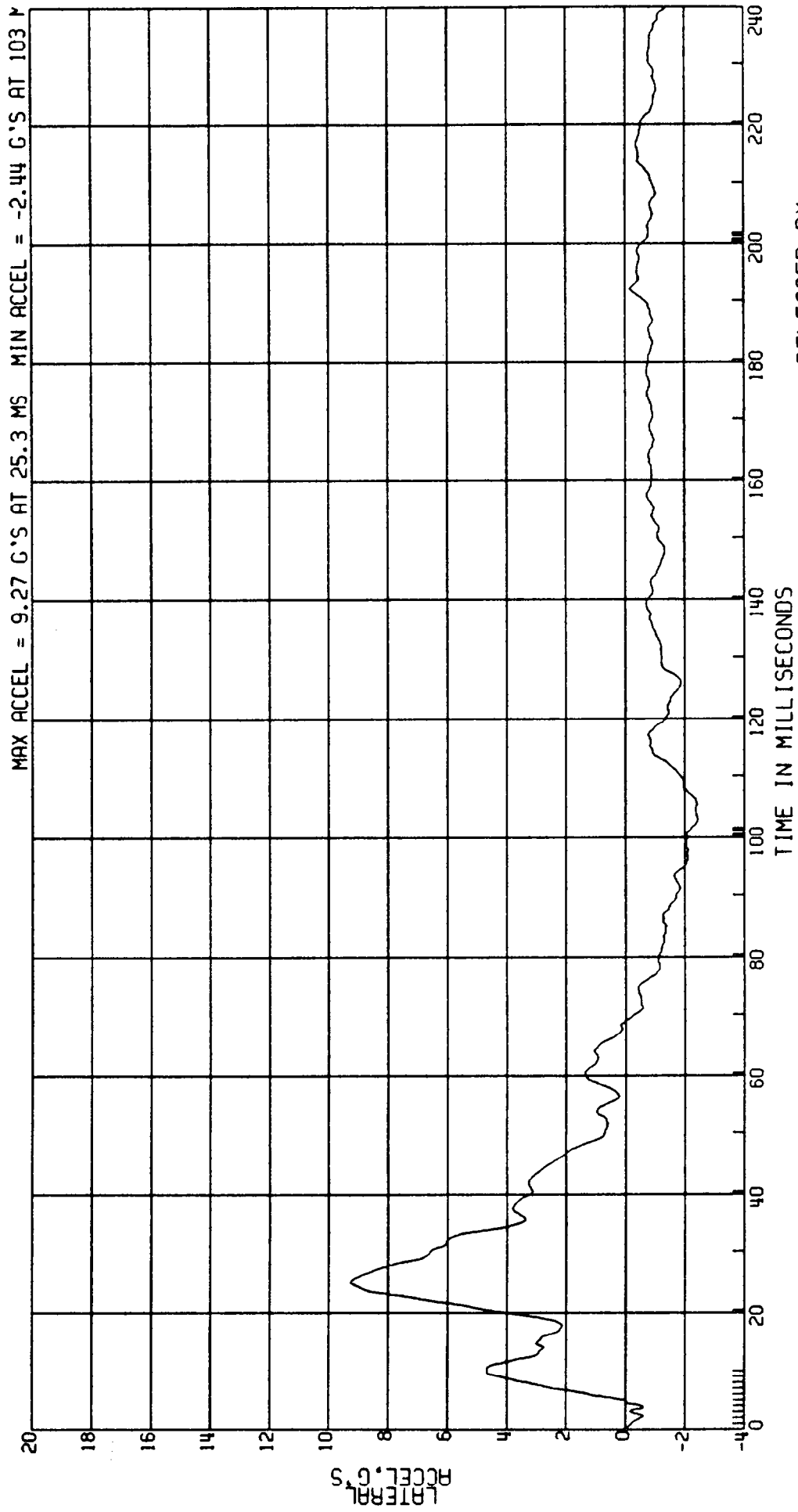


RELEASED BY:
63 PROCESSED 4 MY 90 13:59

C8007A L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 40
 3868-905
 CPE MVMA 7B 2AF69 COMPUTED M.D.B. REAR CROSS MEMBER VEL TEST DATE:03-13-90
 ELEC DATA, SAE CLASS 180 (1ST INT OF ACCEL 53.6KPH*COS27DEG)

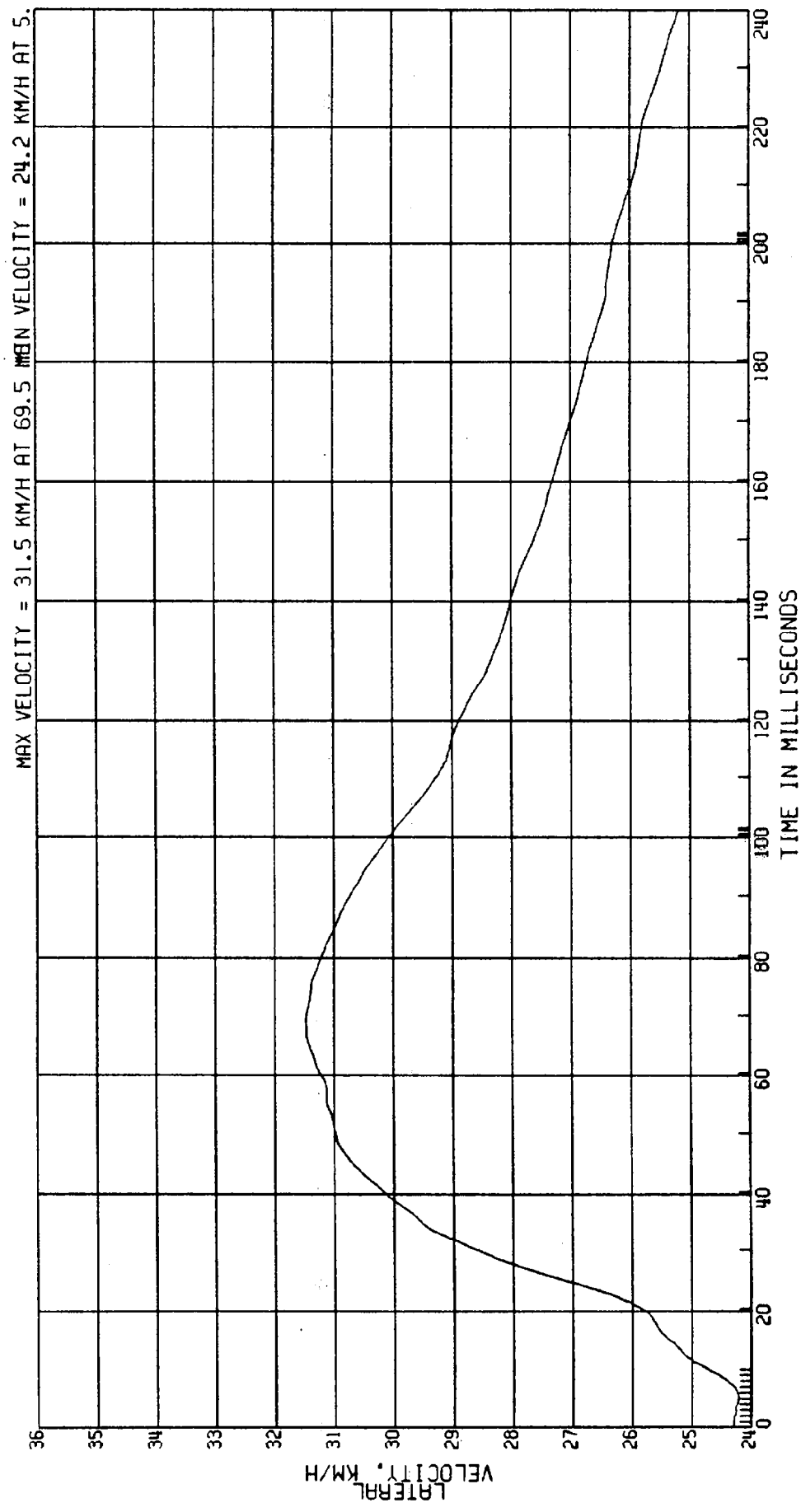


C8007A L. SIDE IMPACT - 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 4/1
3868-905
CPE MVMA 7B 2AF69 M.D.B. REAR CROSS MEMBER ACCEL. TEST DATE: 03-13-90
ELEC DATA, SAE CLASS 60



RELEASED BY:
65 PROCESSED 4 MY 90 13:59

C8007A L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 4a
 3868-905
 CPE MVMA 7B 2AF69 COMPUTED M.D.B. REAR CROSS MEMBER VEL TEST DATE:03-13-90
 ELEC DATA, SAE CLASS 180 (1ST INT OF ACCEL 53.6KPH*SIN27DEG)



RELEASED BY:
 66 PROCESSED 4 MY 90 13:59

C8007A L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE

3868-905

MVMA 7B 2AF69

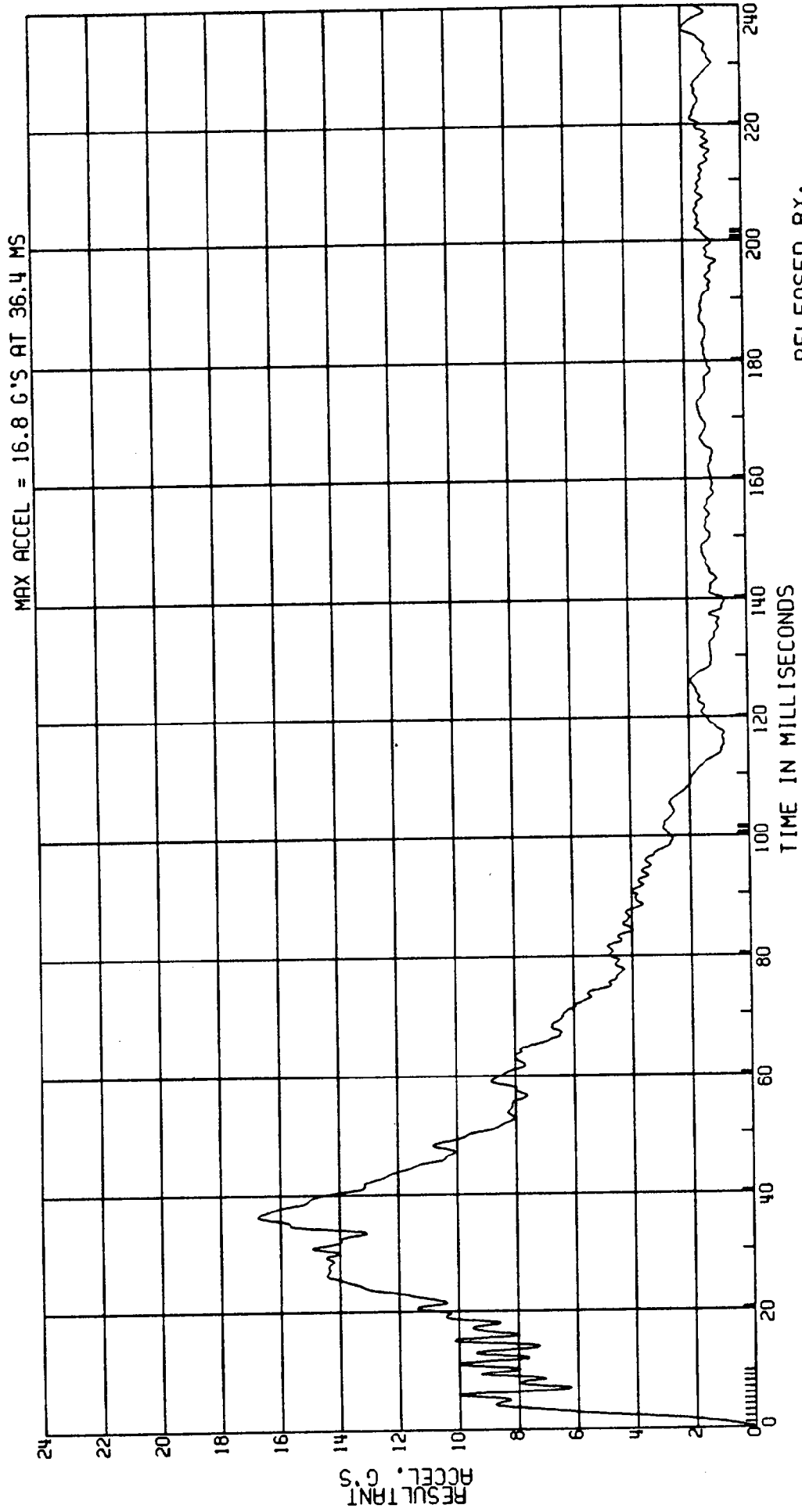
CPE

M.D.B. REAR CROSS MEMBER ACCEL.

TEST DATE:03-13-90

ELEC DATA. SAE CLASS 60

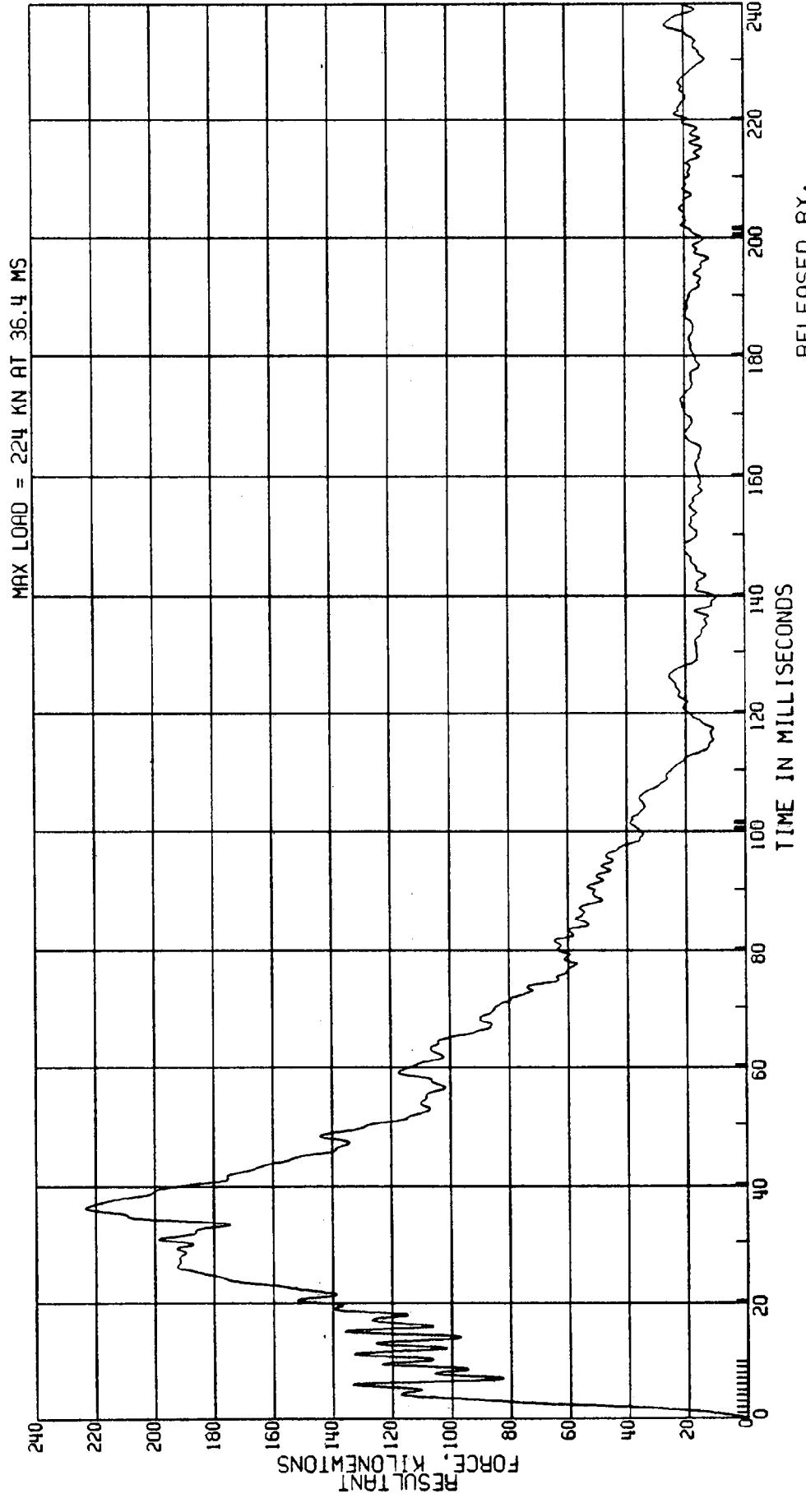
(VEC SUM OF LONG. & LAT X-MEMBER ACCELS)



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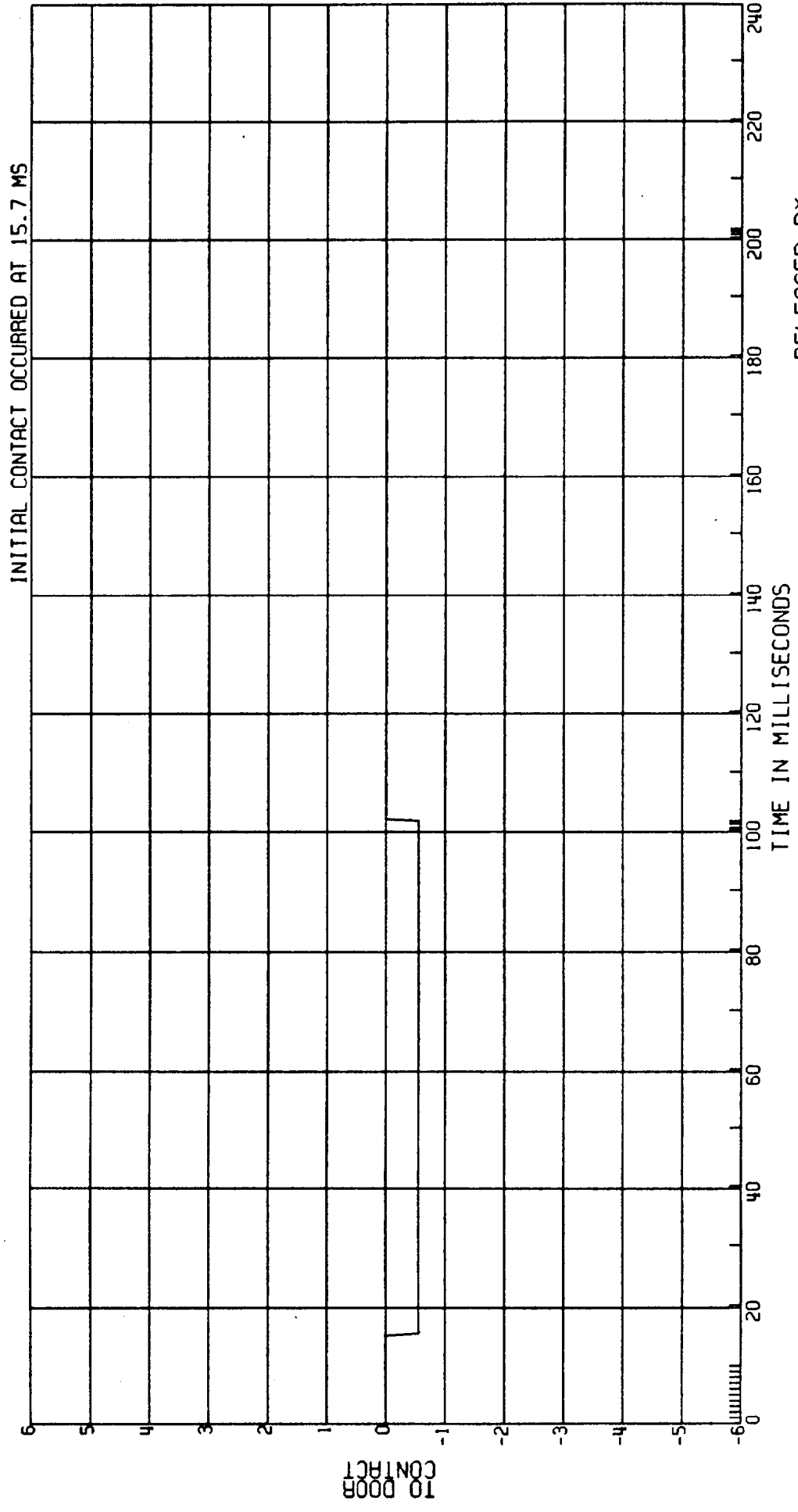
67 PROCESSED 4 MY 90 13:59

C8007A L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 44
 3868-905
 CPE MVMA 78 2AF69 COMPUTED M.D.B. REAR CROSS MEMBER FORCE TEST DATE:03-13-90
 ELEC DATA, SAE CLASS 60 (1359.5 KG) (9.807) (RESULTANT ACCEL)



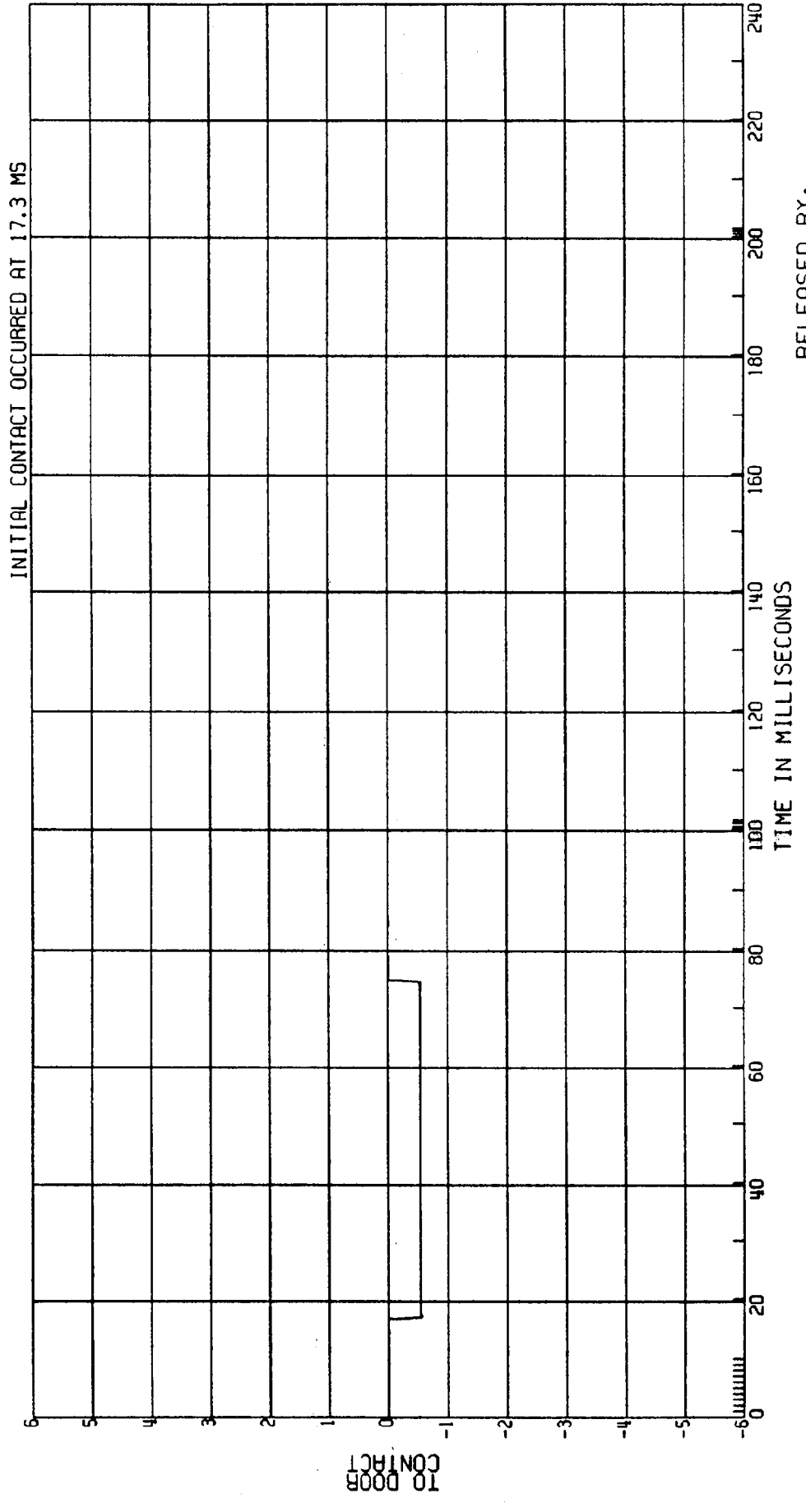
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 68 PROCESSED 4 MY 90 13:59

C8007A L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 45
 3868-905
 CPE MVMA 78 2AF69 DRIVER THORAX-LEFT SIDE CONTACT
 ELEC DATA, SAE CLASS 1000



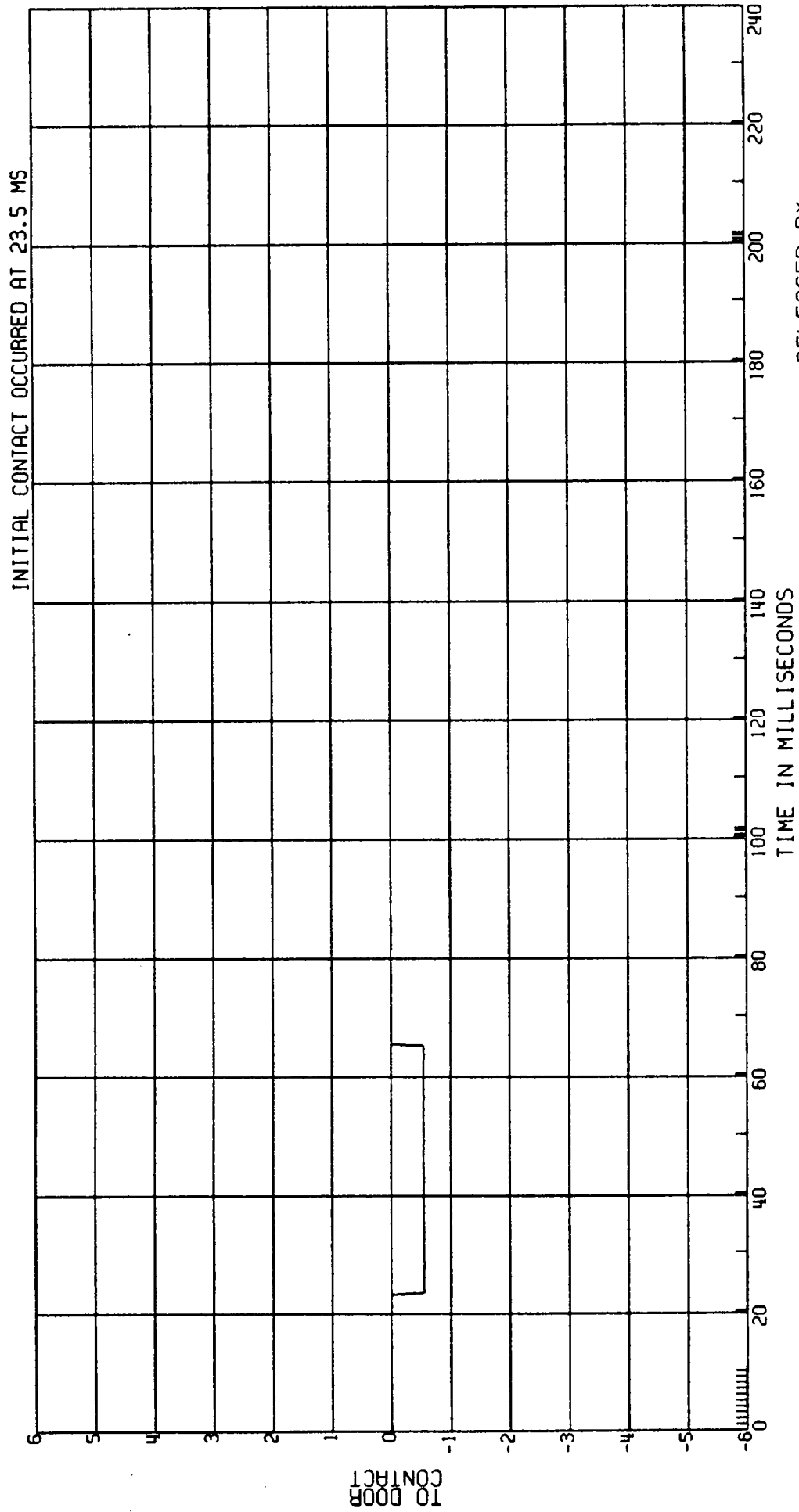
RELEASED BY:
 69 PROCESSED 4 MY 90 13:59

C8007A L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 46
3868-905 ATD TYPE: SID
CPE MVMA 7B 2AF69 DRIVER ABDOMEN-LEFT SIDE CONTACT TEST DATE:03-13-90
ELEC DATA, SAE CLASS 1000



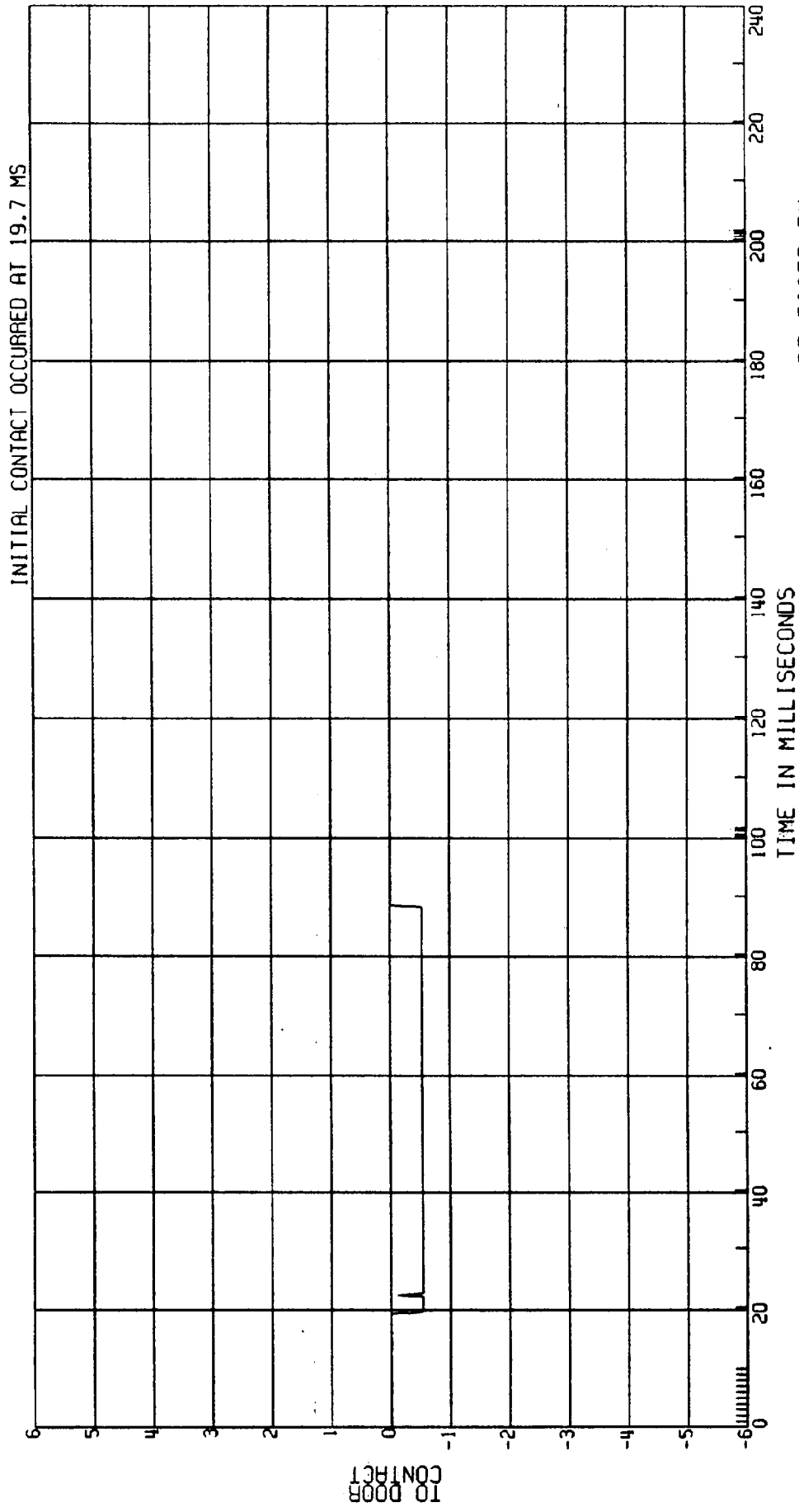
RELEASED BY:
70 PROCESSED 4 MY 90 13:59

C8007A L. SIDE IMPACT - 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 47
 3868-905 ATD TYPE: SID
 CPE MVMA 78 2AF69 DRIVER PELVIC-LEFT SIDE CONTACT TEST DATE:03-13-90
 ELEC DATA, SAE CLASS 1000



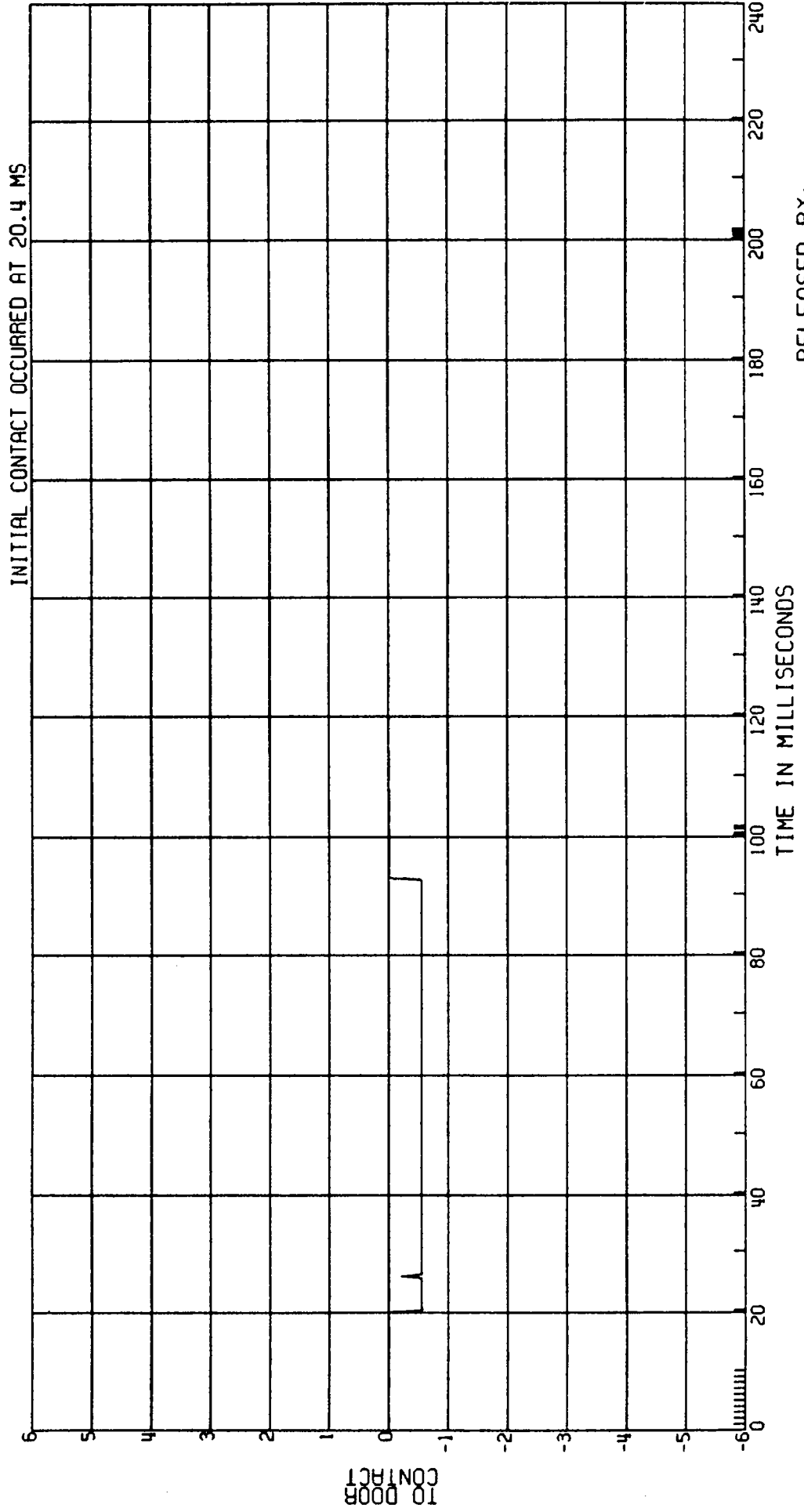
RELEASED BY:
 71 PROCESSED 4 MY 90 13:59

C8007A L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6 KM/H FIGURE 48
 3868-905 ATD TYPE: BIOSID
 CPE MVMA 7B 2AF69 L. REAR THORAX-LEFT SIDE CONTACT TEST DATE: 03-13-90
 ELEC DATA, SAE CLASS 1000



RELEASED BY:
 72 PROCESSED 4 MT 90 13:59

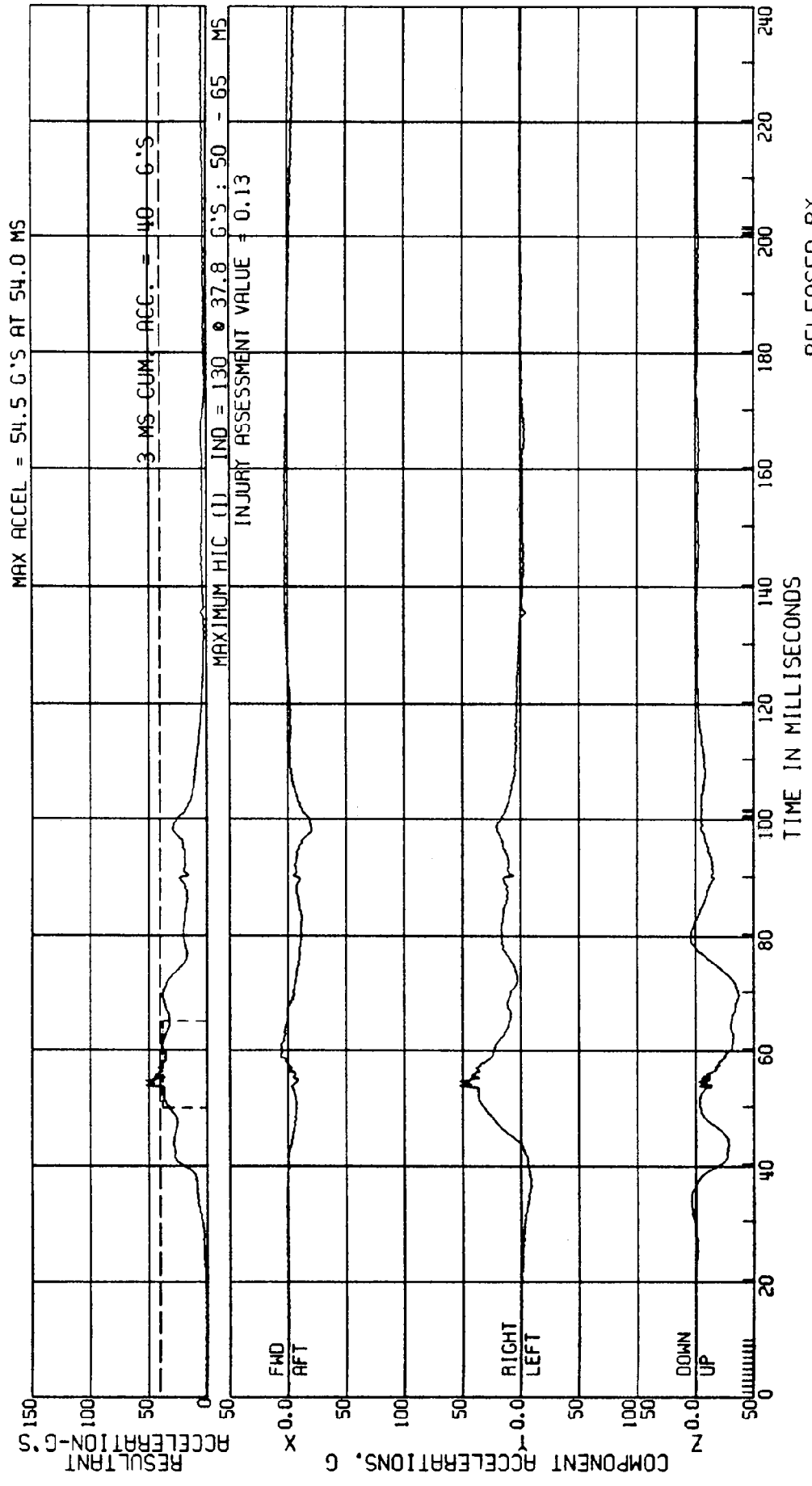
C8007A L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 49
 3868-905 ATD TYPE: BIOSID
 CPE MVMA 7B 2AF69 L. REAR ABDOMEN-LEFT SIDE CONTACT TEST DATE:03-13-90
 ELEC DATA, SAE CLASS 1000



RELEASED BY:
 73 PROCESSED 4 MT 90 13:59

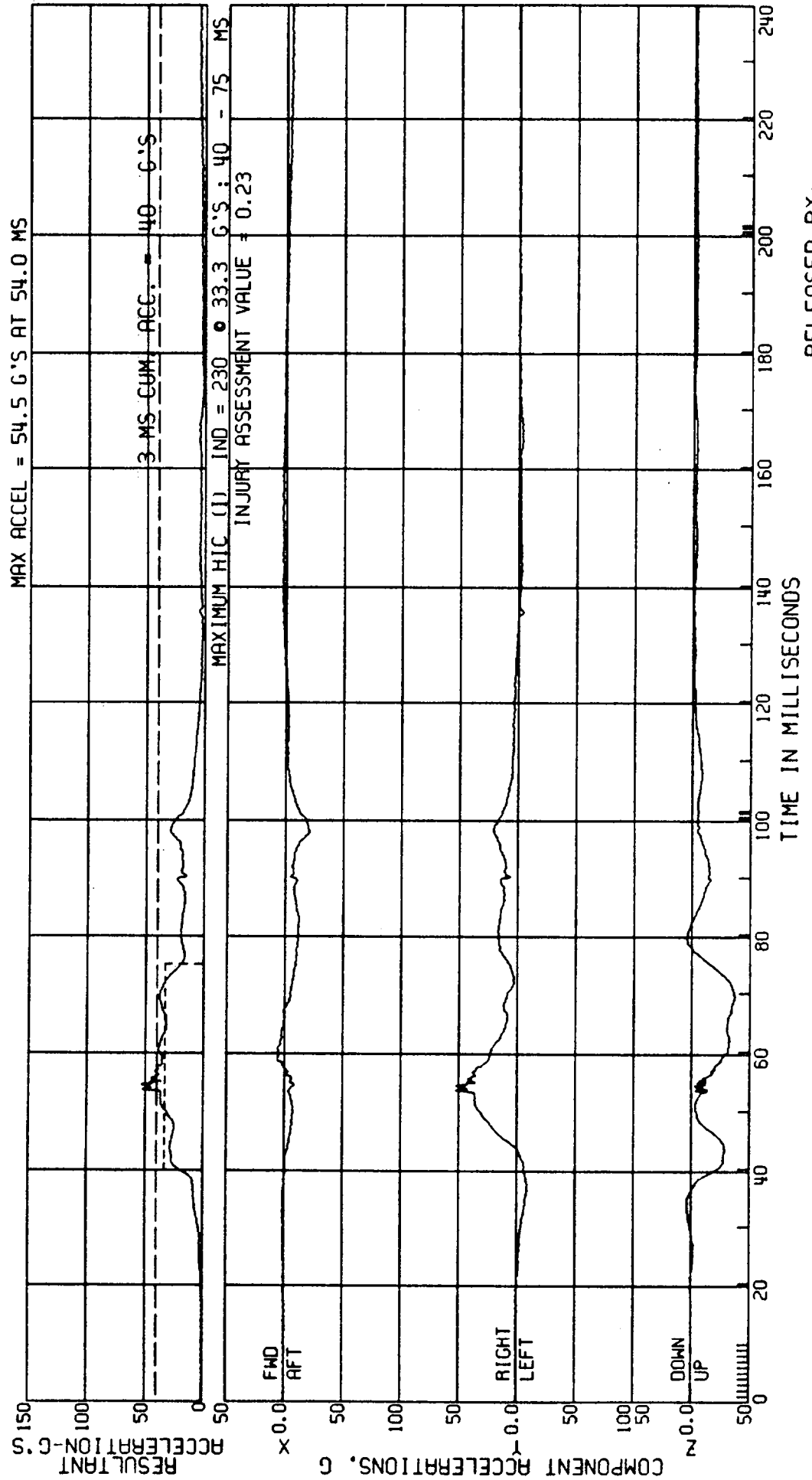
C8007A L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6 KM/H FIGURE 50
 3868-905
 CPE MVMA 7B 2AF69 DRIVER HEAD ACCEL.
 ELEC DATA, SAE CLASS 1000 (HIC I LIMITED TO 15MS)

ATD TYPE: SID
 TEST DATE: 03-13-90

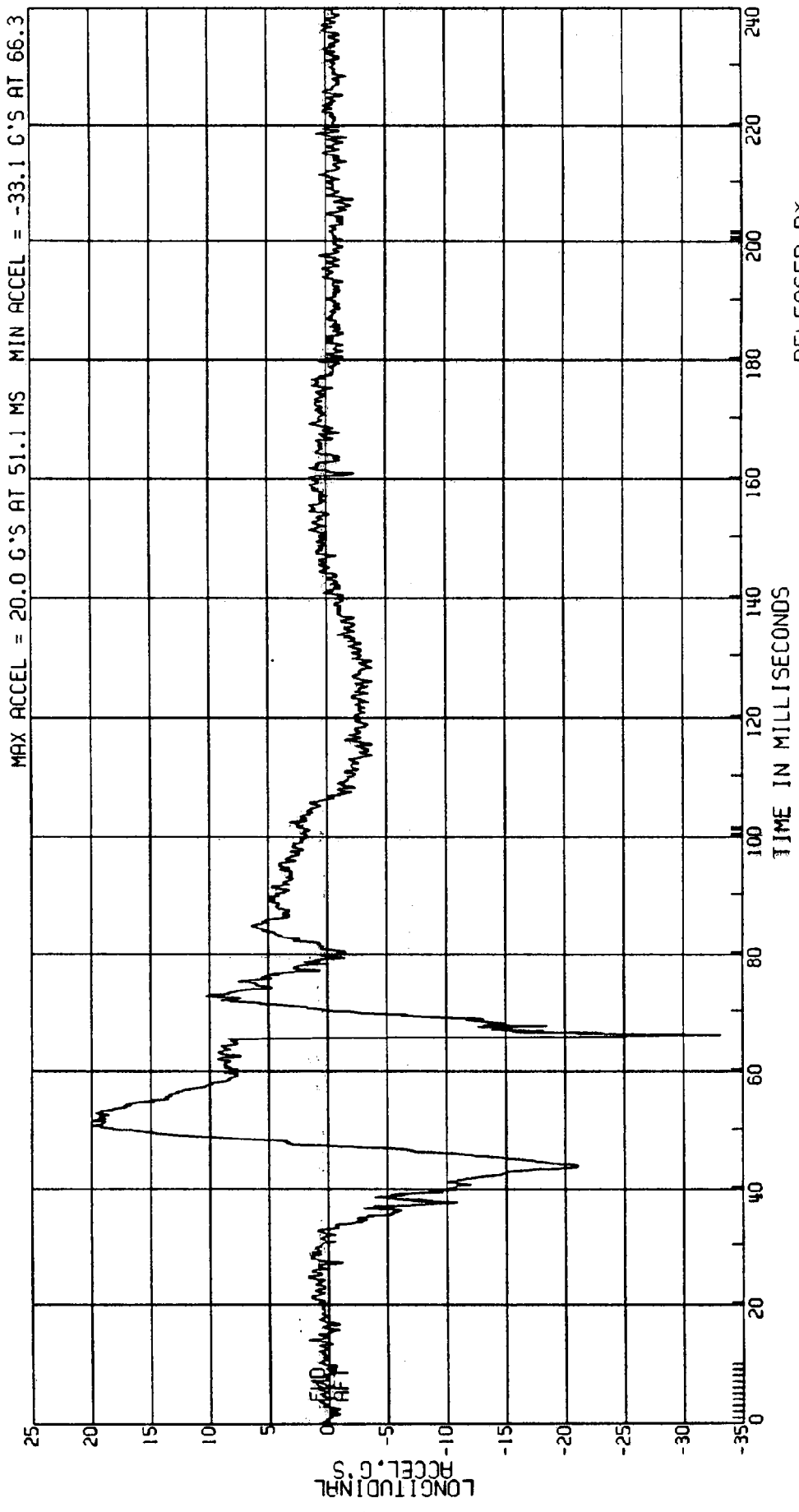


RELEASED BY:
 I PROCESSED 4 MY 90 13:57

C8007A L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 51
 3868-905 ATD TYPE: SID
 CPE MVMA 78 2AF69 DRIVER HEAD ACCEL.
 ELEC DATA, SAE CLASS 1000 (HIC 1 LIMITED TO 36MS)
 TEST DATE:03-13-90

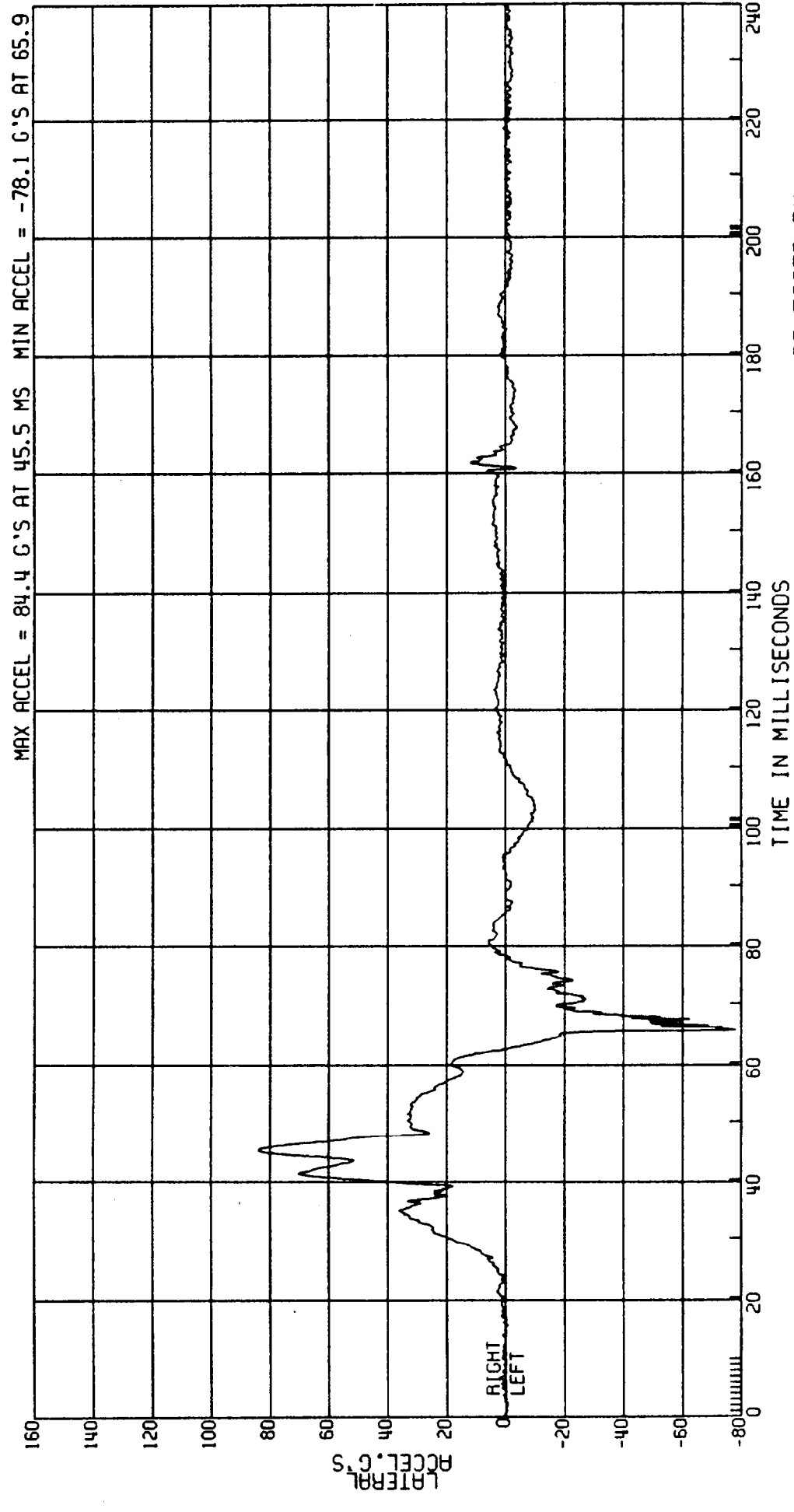


C8007A L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 52
 3868-905 ATD TYPE: SID
 CPE MVMA 7B 2AF69 DRIVER UPPER SPINE ACCEL.
 ELEC DATA, SAE CLASS 1000 TEST DATE:03-13-90



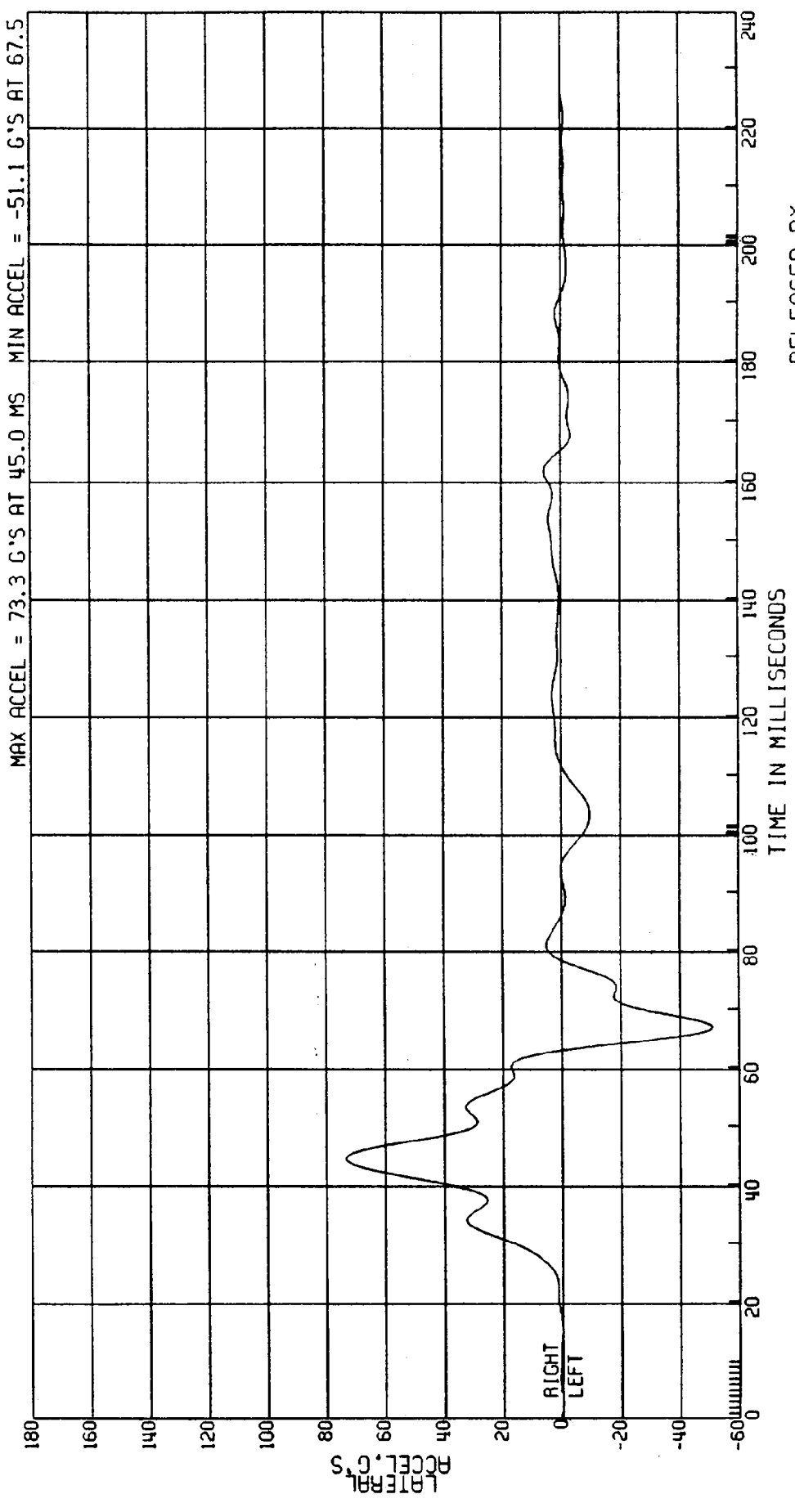
RELEASED BY:
 32 PROCESSED 4 MY 90 13:58

C8007A L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 53
3868-905
CPE MVMA 7B 2AF69
ELEC DATA, SAE CLASS 1000 DRIVER UPPER SPINE ACCEL.
ATD TYPE: SID
TEST DATE:03-13-90



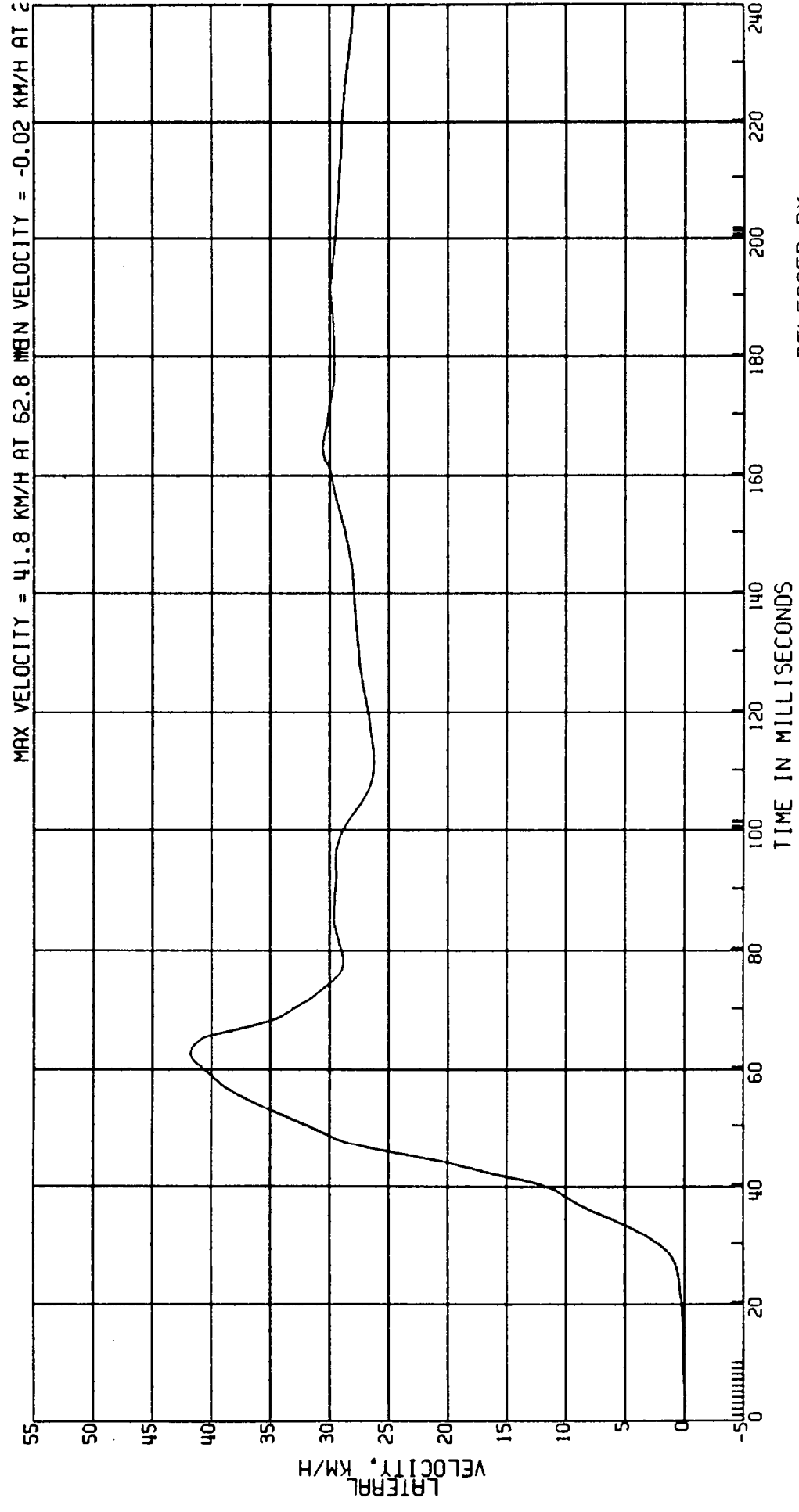
RELEASED BY:
33 PROCESSED 4 MT 90 13:58

C8007A L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 54
 3868-905 ATD TYPE: SID
 CPE MVMA 7B 2AF69 DRIVER UPPER SPINE ACCEL.
 ELEC DATA, NHTSA FIR FILTER F.I.R. FILTER, CLASS 300 BUTTERWORTH TEST DATE:03-13-90



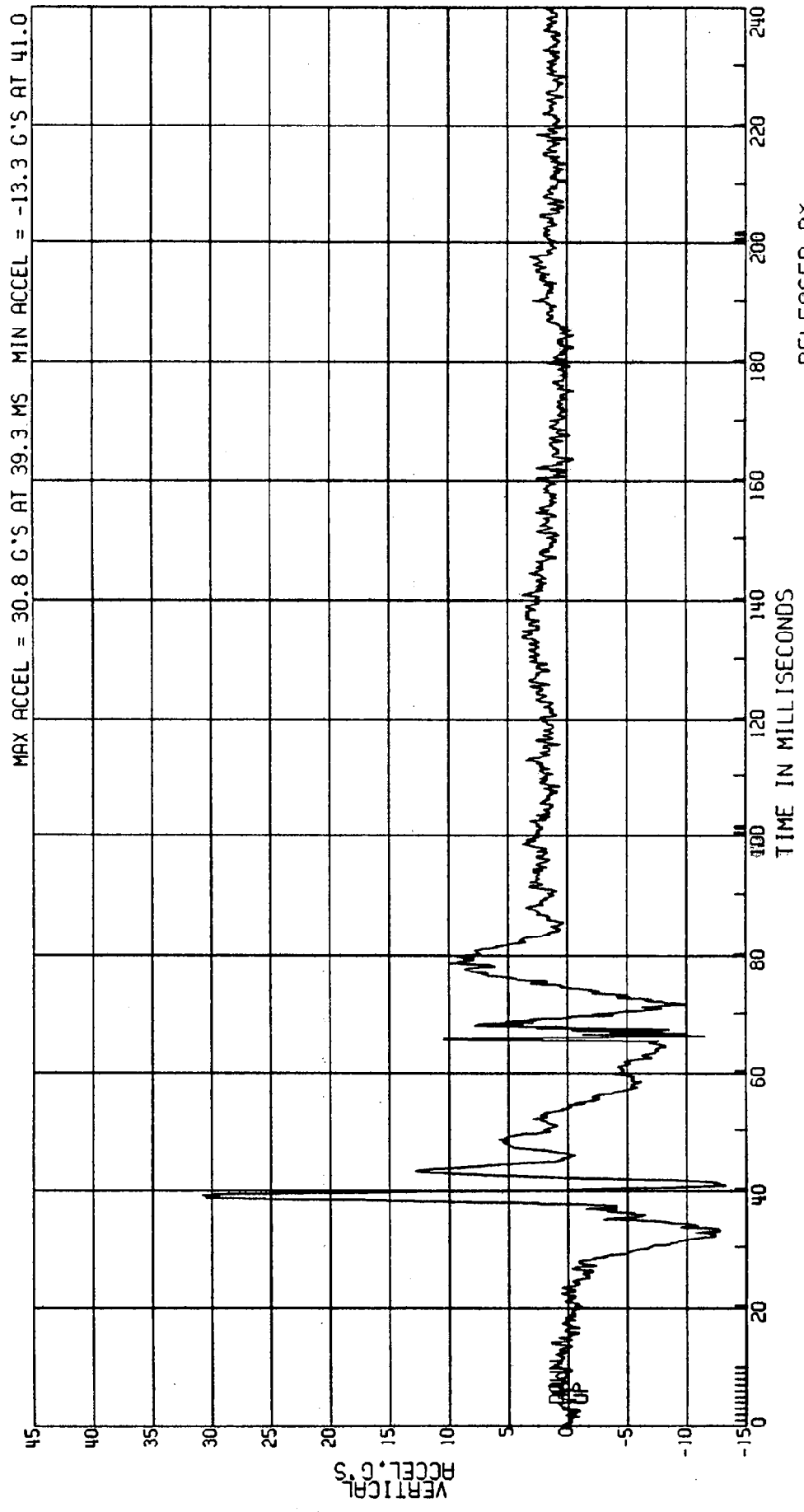
RELEASED BY:
 34 PROCESSED 4 MY 90 13:58

C8007A L. SIDE IMPACT - 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6 KM/H FIGURE 55
3868-905
CPE MVMA 7B 2AF69
ELEC DATA, SAE CLASS 180
COMPUTED UPPER SPINE VELOCITY
(1ST INT OF DRIVER ACCELERATION)
AID TYPE: SID
TEST DATE: 03-13-90



RELEASED BY:
35 PROCESSED 4 MY 90 13:58

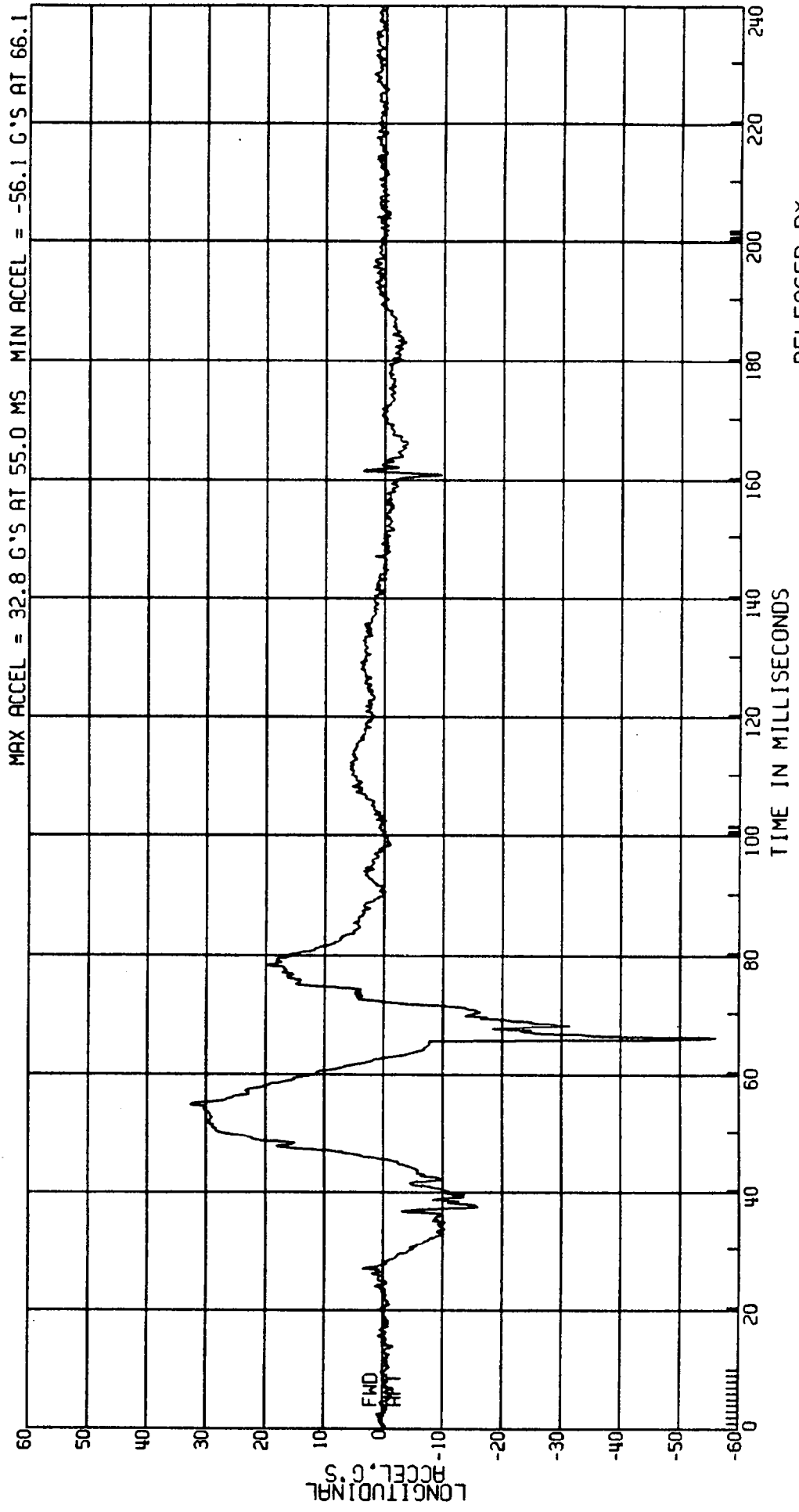
C8007A L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 56
3868-905
CPE MVMA 7B 2AF69
ELEC DATA, SAE CLASS 1000
DRIVER UPPER SPINE ACCEL.
ATD TYPE: SID
TEST DATE:03-13-90



RELEASED BY:

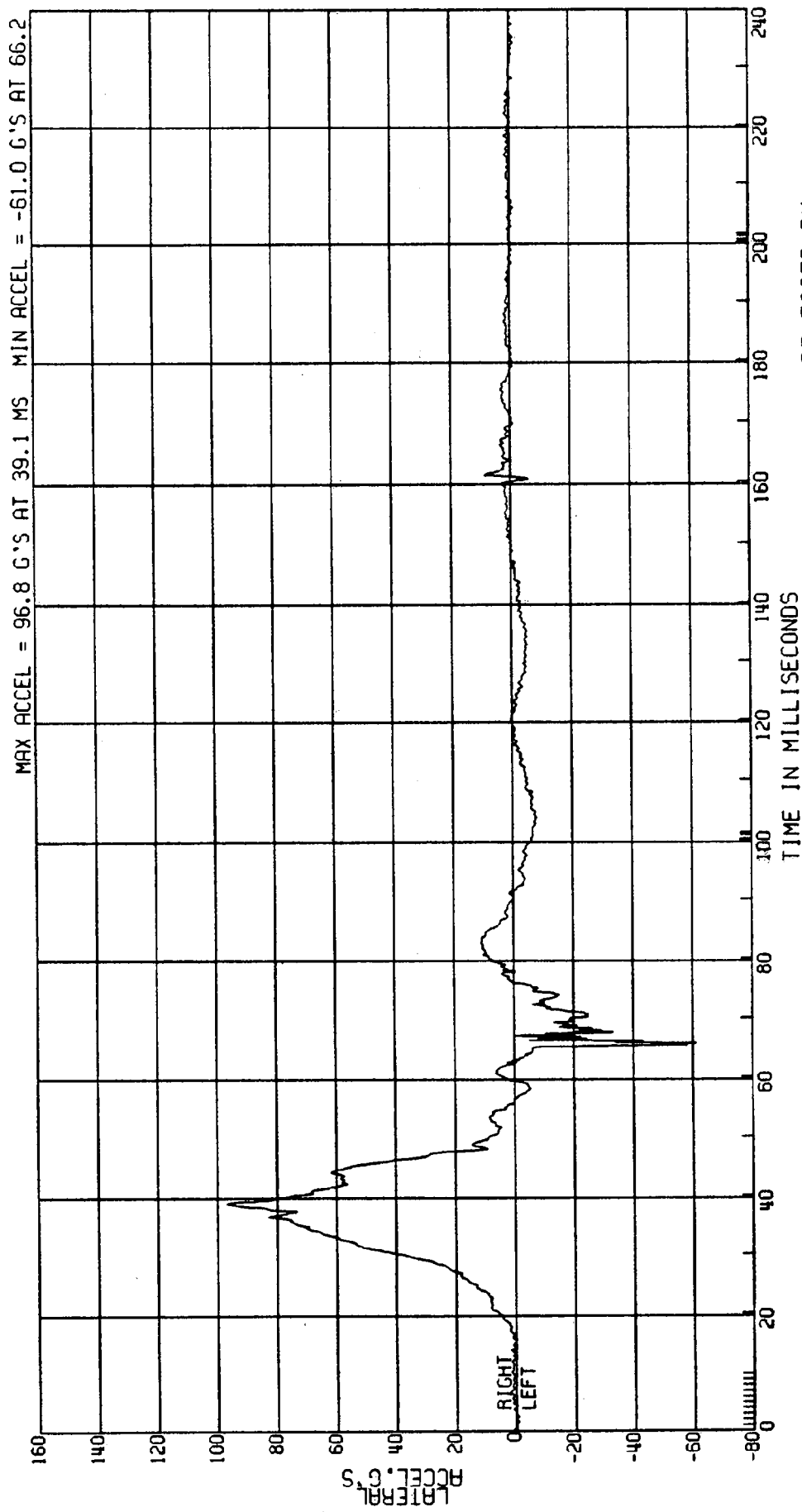
36 PROCESSED 14 MY 90 13:58

C8007A L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 57
3868-905 ATD TYPE: SID
CPE MVMA 78 2AF69 DRIVER LOWER SPINE ACCEL.
ELEC DATA, SAE CLASS 1000 TEST DATE:03-13-90



RELEASED BY:
37 PROCESSED 4 MY 90 13:58

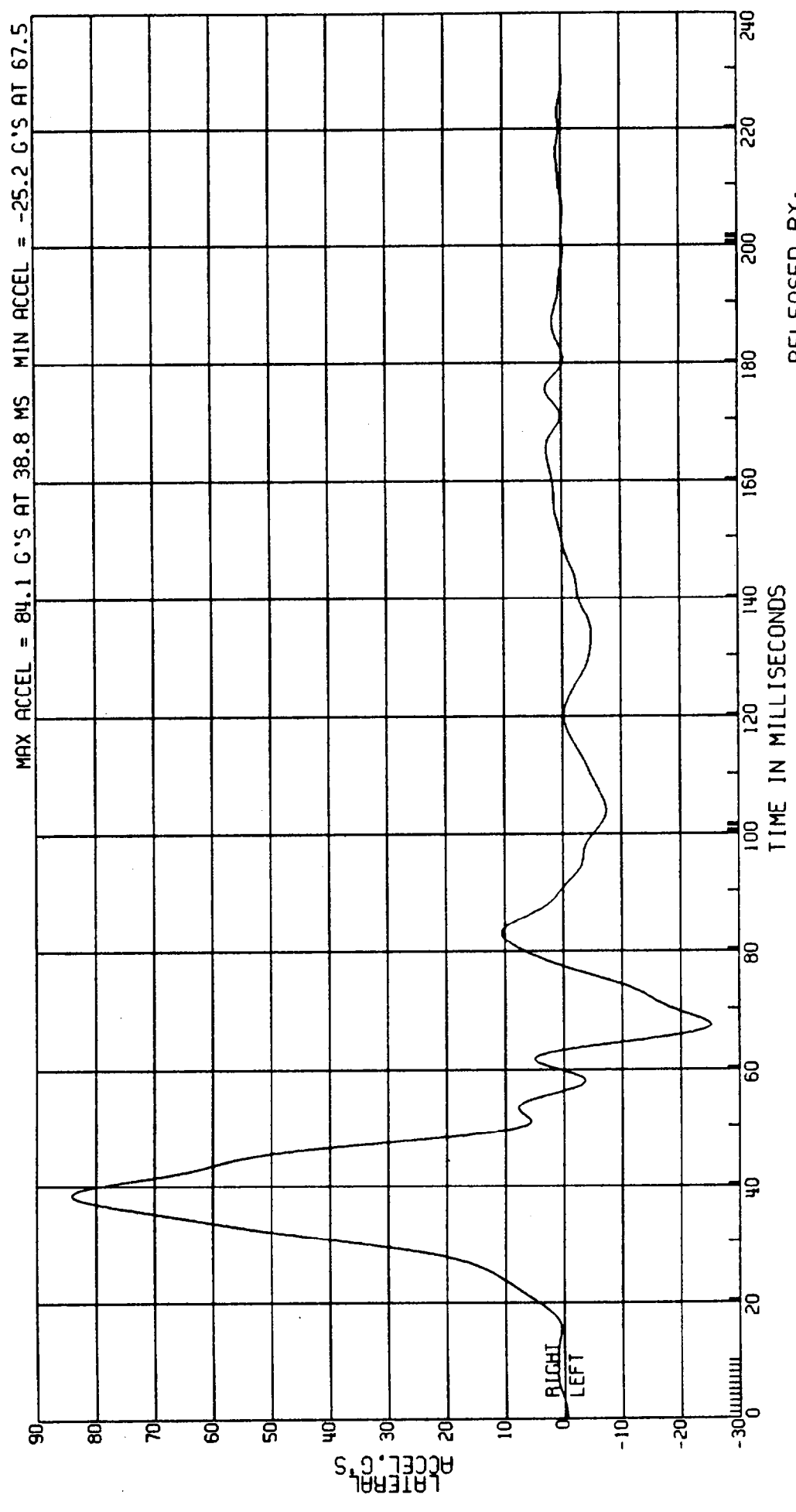
C8007A L. SIDE IMPACT - 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 58
 3868-905 ATD TYPE: SID
 CPE MVMA 7B 2AF69 DRIVER LOWER SPINE ACCEL.
 ELEC DATA, SAE CLASS 1000 TEST DATE: 03-13-90



RELEASED BY:

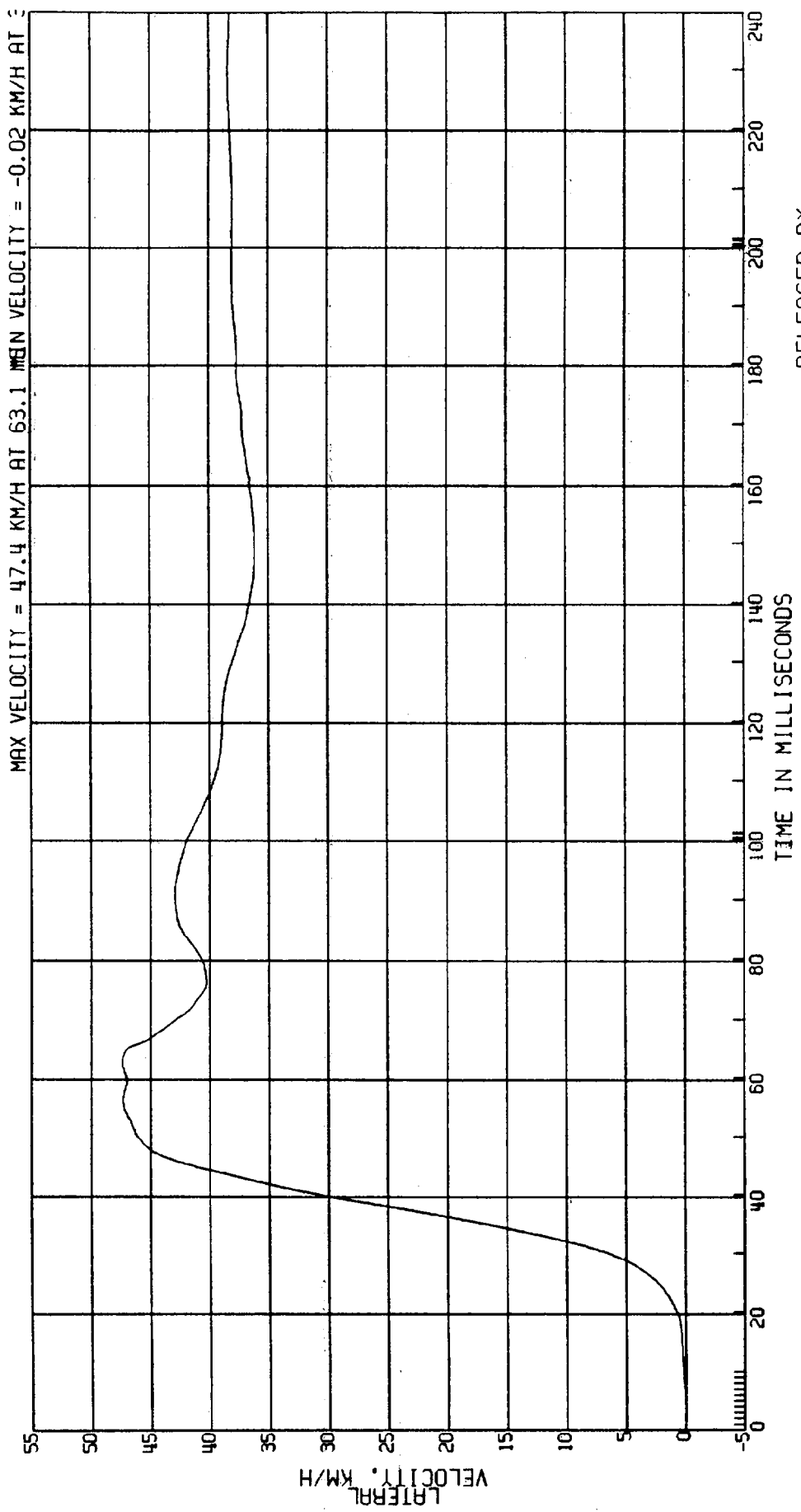
38 PROCESSED 4 MY 90 13:58

C8007A L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 59
 3868-905 ATD TYPE: SID
 CPE MVMA 78 2AF69 TEST DATE:03-13-90
 ELEC DATA, NHTSA FIR FILTER DRIVER LOWER SPINE ACCEL.
 F.I.R. FILTER, CLASS 300 BUTTERWORTH



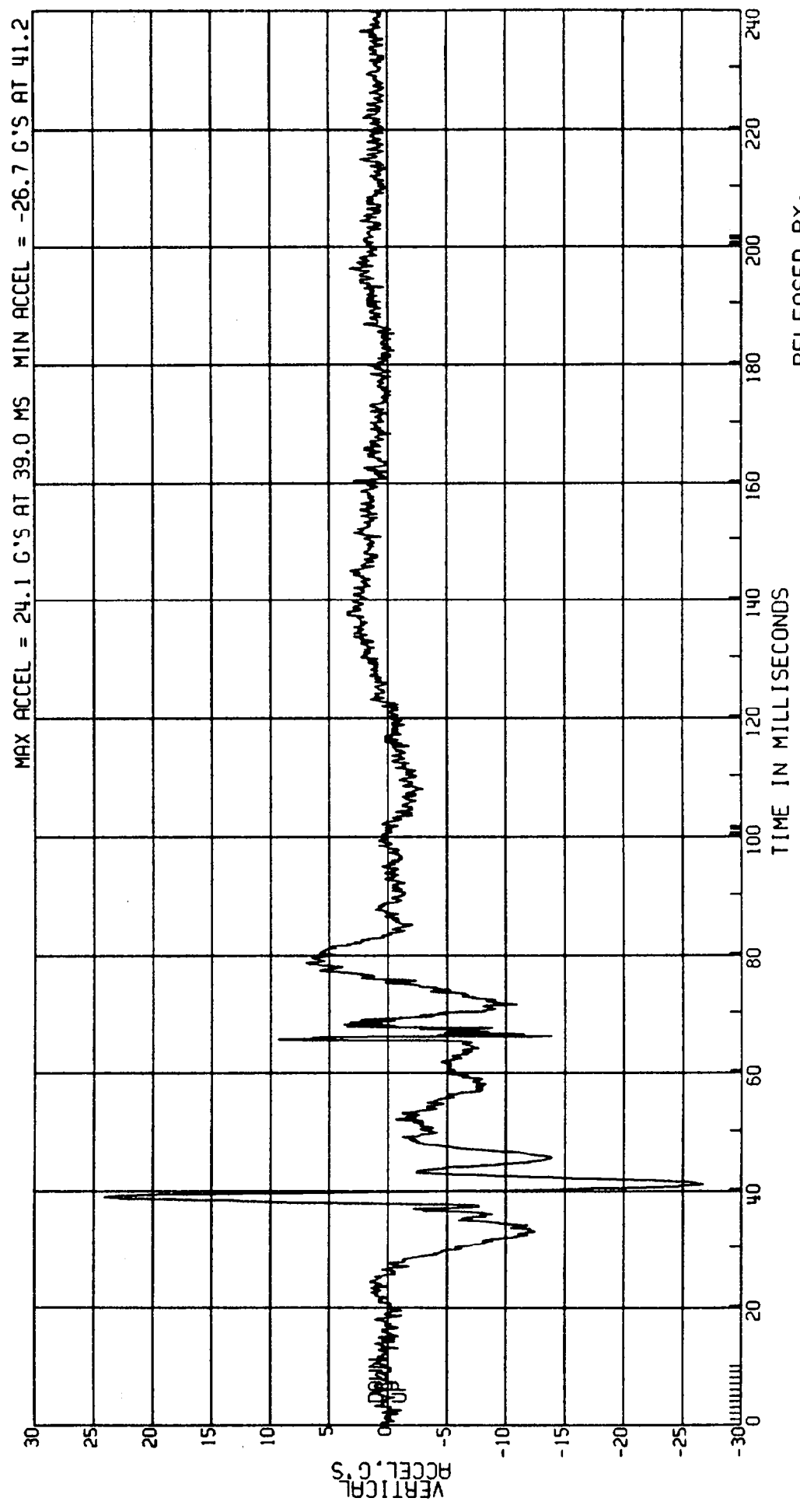
RELEASED BY:
 39 PROCESSED 4 MY 90 13:58

C8007A L. SIDE IMPACT - 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6 KM/H FIGURE 60
 3868-905 ATD TYPE: SID
 CPE MVMA 7B 2AF69 COMPUTED LOWER SPINE VELOCITY
 ELEC DATA, SAE CLASS 180 (1ST INT OF DRIVER ACCELERATION) TEST DATE: 03-13-90



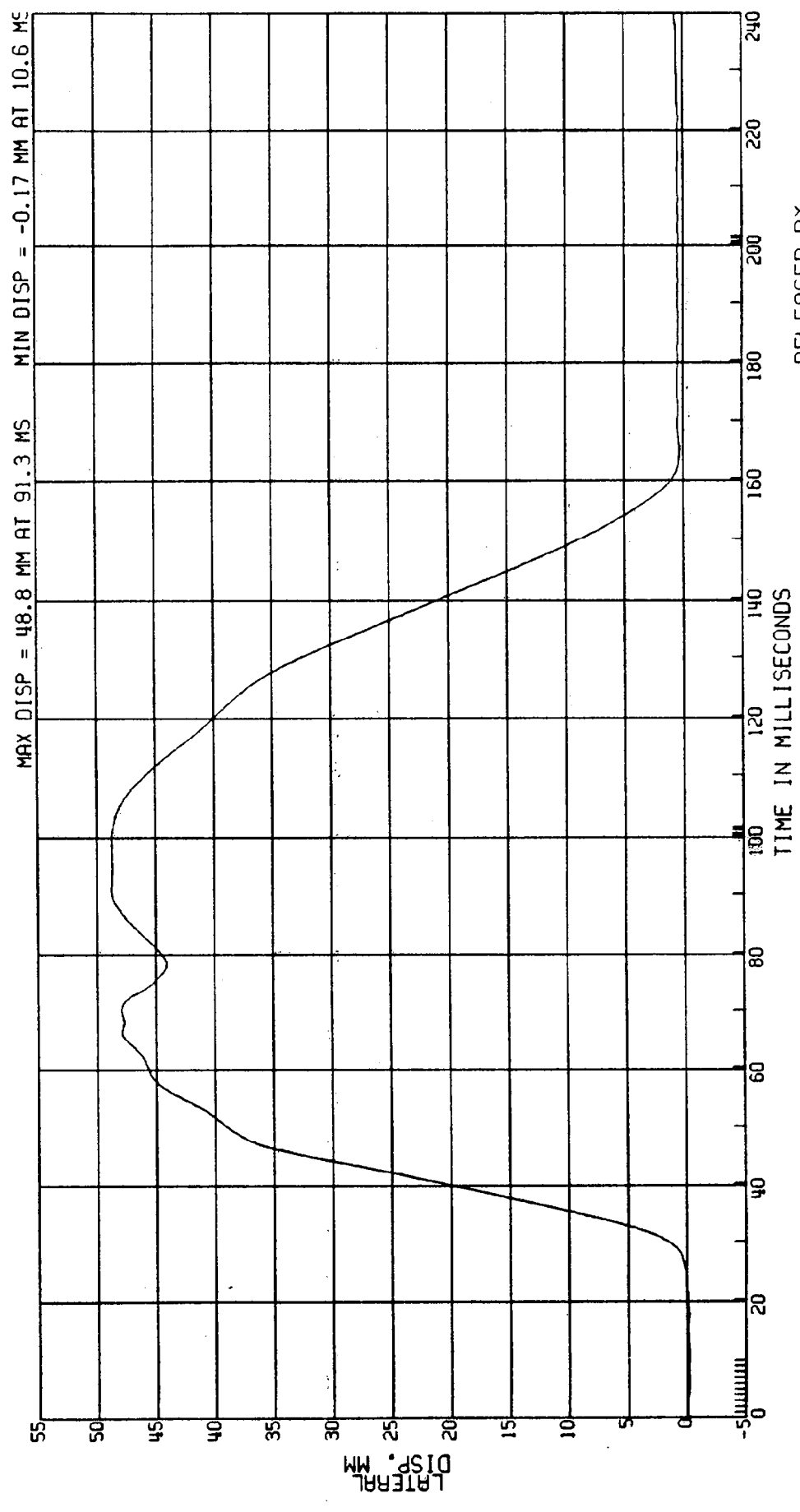
RELEASED BY:
 40 PROCESSED 4 MT 90 13:58

C8007A L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 6/
3868-905
CPE MVMA 7B 2AF69
ELEC DATA, SAE CLASS 1000 DRIVER LOWER SPINE ACCEL.
ATD TYPE: SID
TEST DATE:03-13-90



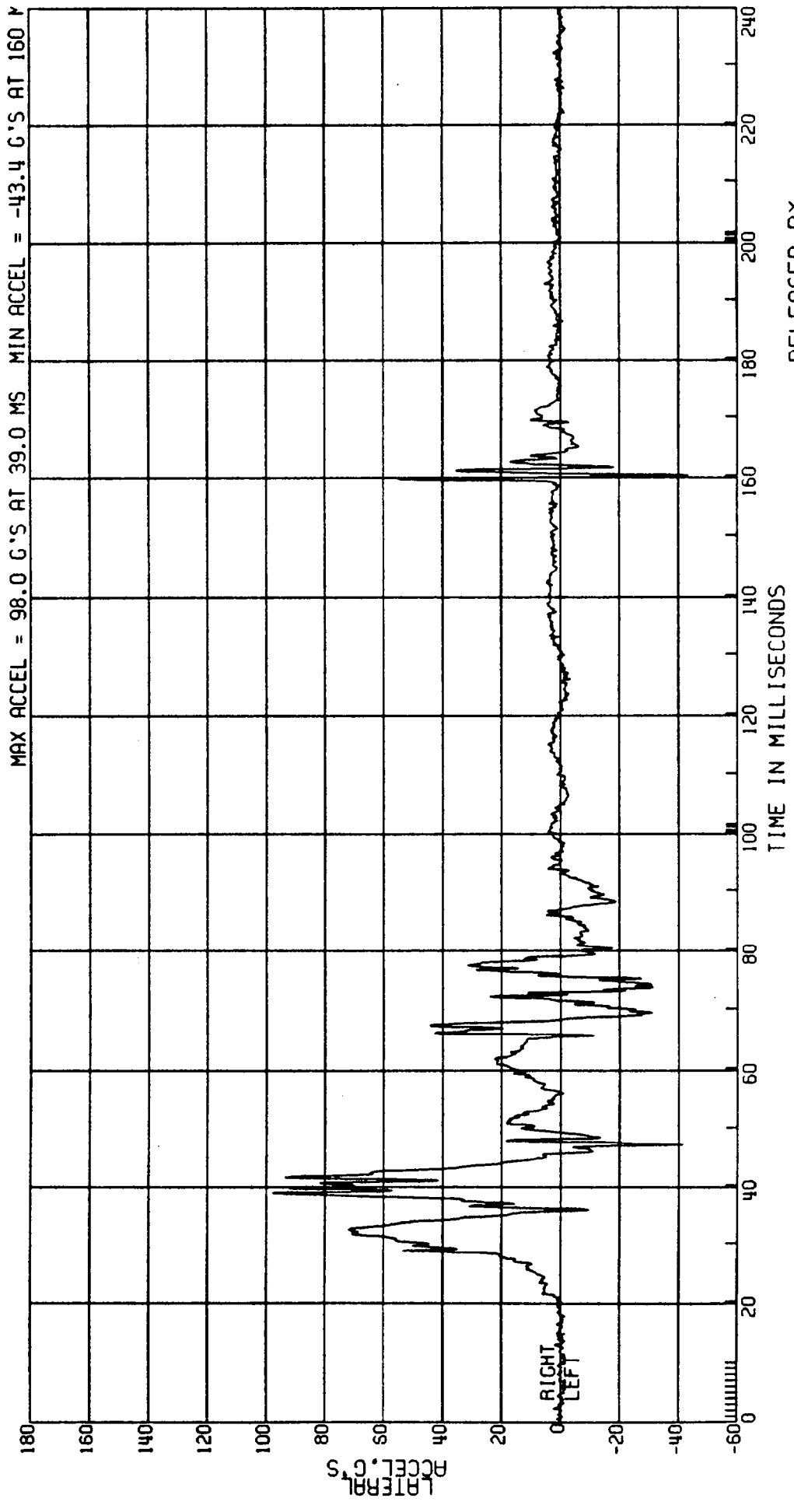
RELEASED BY:
41 PROCESSED 4 MY 90 13:58

C8007A L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6 KM/H FIGURE 62
 3868-905 ATD TYPE: SID
 CPE MVMA 7B 2AF69 DRIVER THORAX DISP.
 ELEC DATA, SAE CLASS 60 TEST DATE: 03-13-90



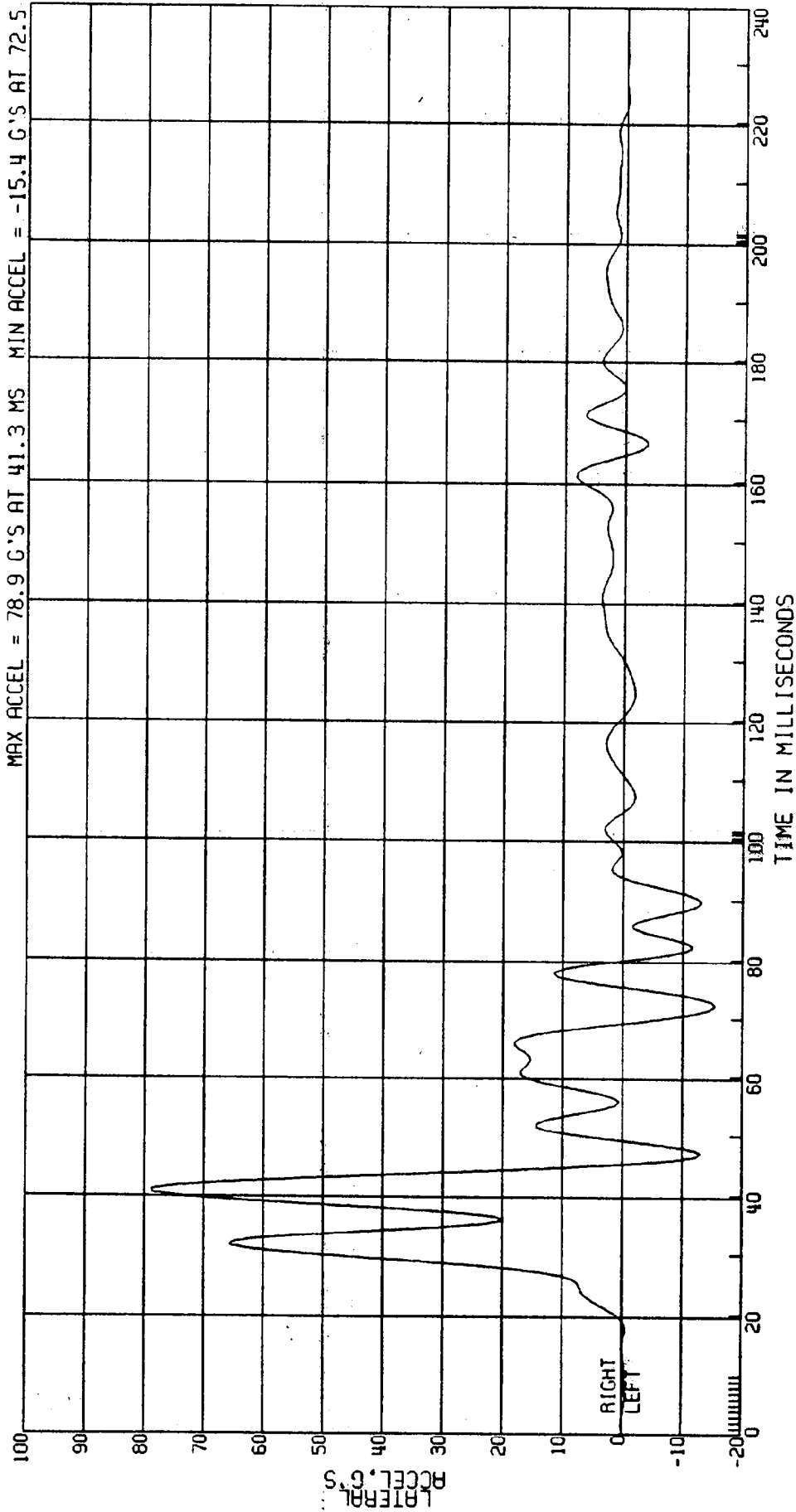
RELEASED BY:
 42 PROCESSED 4 MY 90 13:58

C8007A L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 63
3868-905
CPE MVMA 7B 2AF69
ELEC DATA, SAE CLASS 1000
DRIVER LEFT UPPER RIB ACCEL.
ATD TYPE: SID
TEST DATE:03-13-90



RELEASED BY:
43 PROCESSED 4 MY 90 13:58

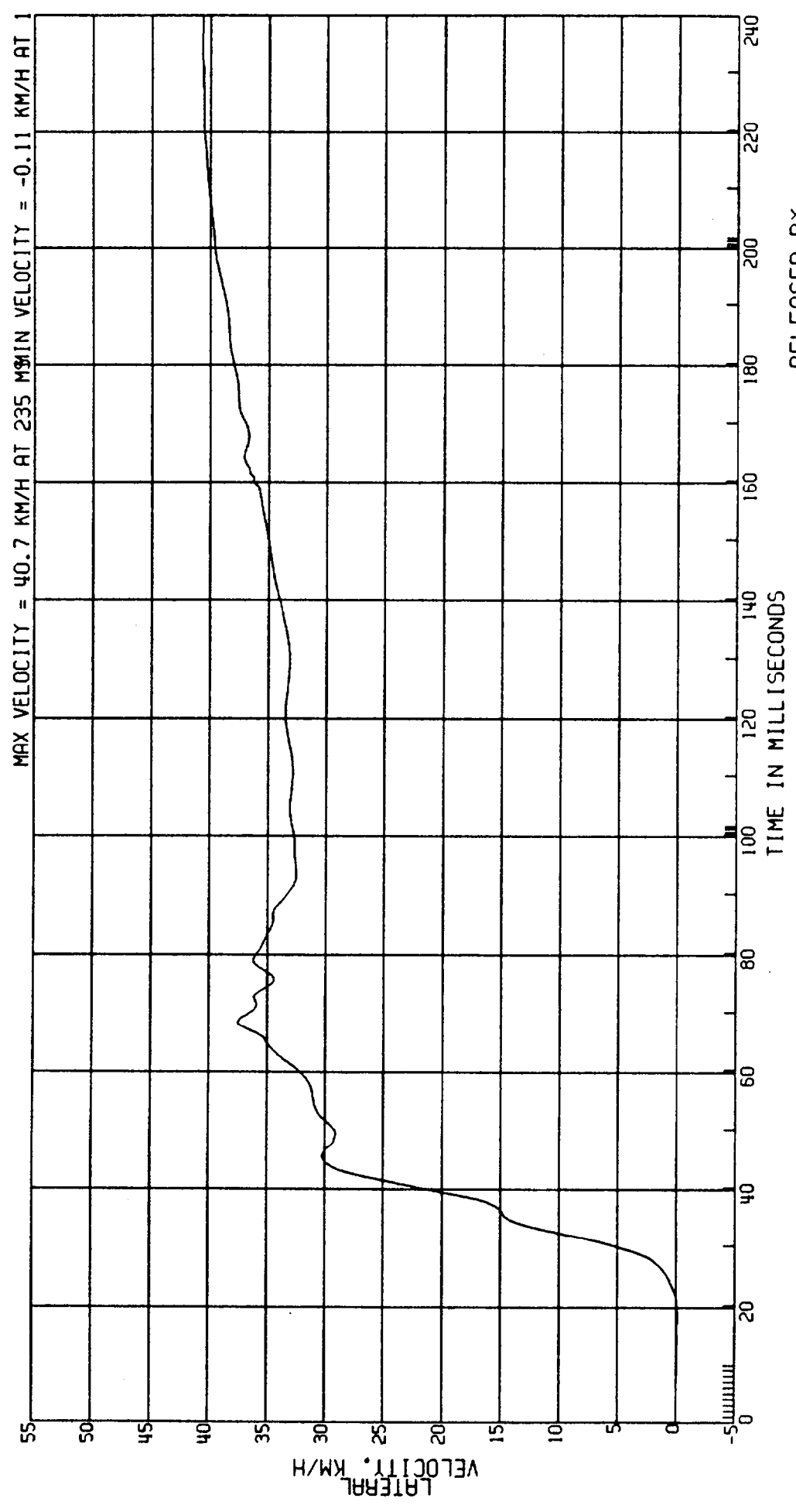
C8007A L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 64
3868-905
CPE MVMA 78 2AF69
ELEC DATA, NHTSA FIR FILTER DRIVER LEFT UPPER RIB ACCEL.
F.I.R. FILTER, CLASS 300 BUTTERWORTH



RELEASED BY:

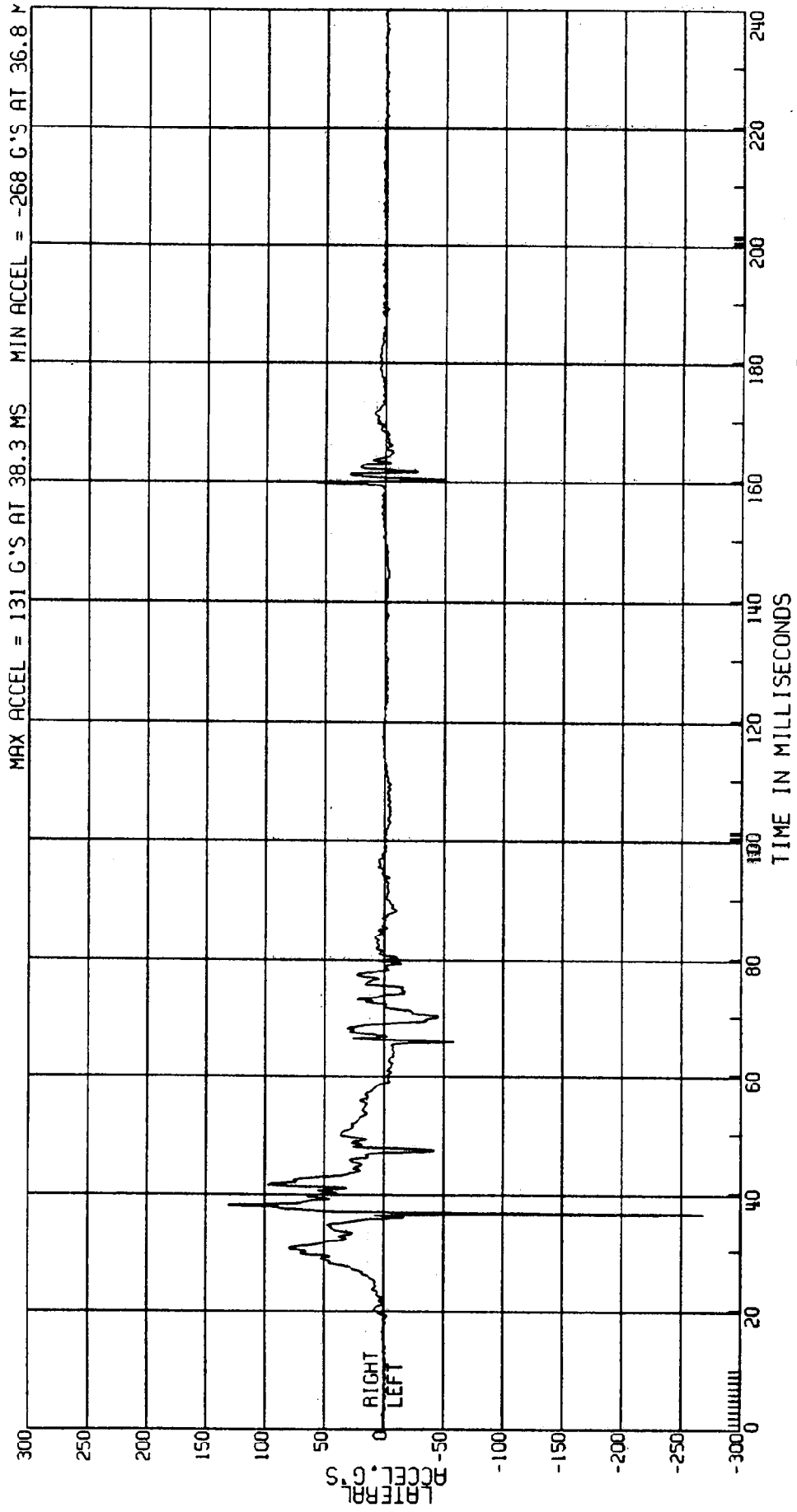
44 PROCESSED 4 MAY 90 13:58

C8007A L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 65
 3868-905
 CPE MVMA 7B 2AF69 ATD TYPE: SID
 ELEC DATA, SAE CLASS 180 (1ST INT OF DRIVER ACCELERATION) TEST DATE:03-13-90



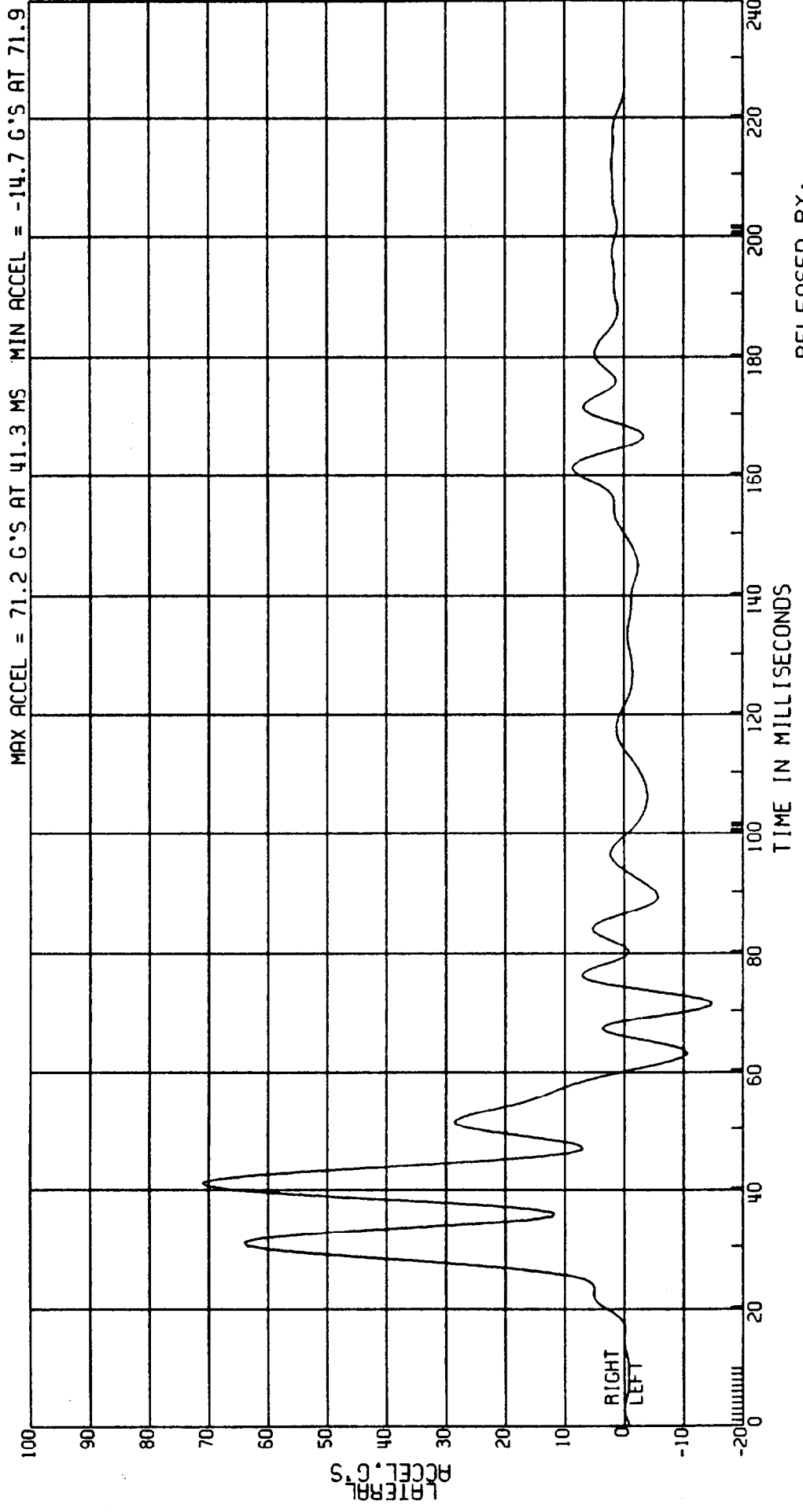
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 45 PROCESSED 4 MY 90 13:58

C8007A L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 66
3868-905 ATD TYPE: SID
CPE MVMA 7B 2AF69 DRIVER LEFT LOWER RIB ACCEL.
ELEC DATA, SAE CLASS 1000 TEST DATE:03-13-90



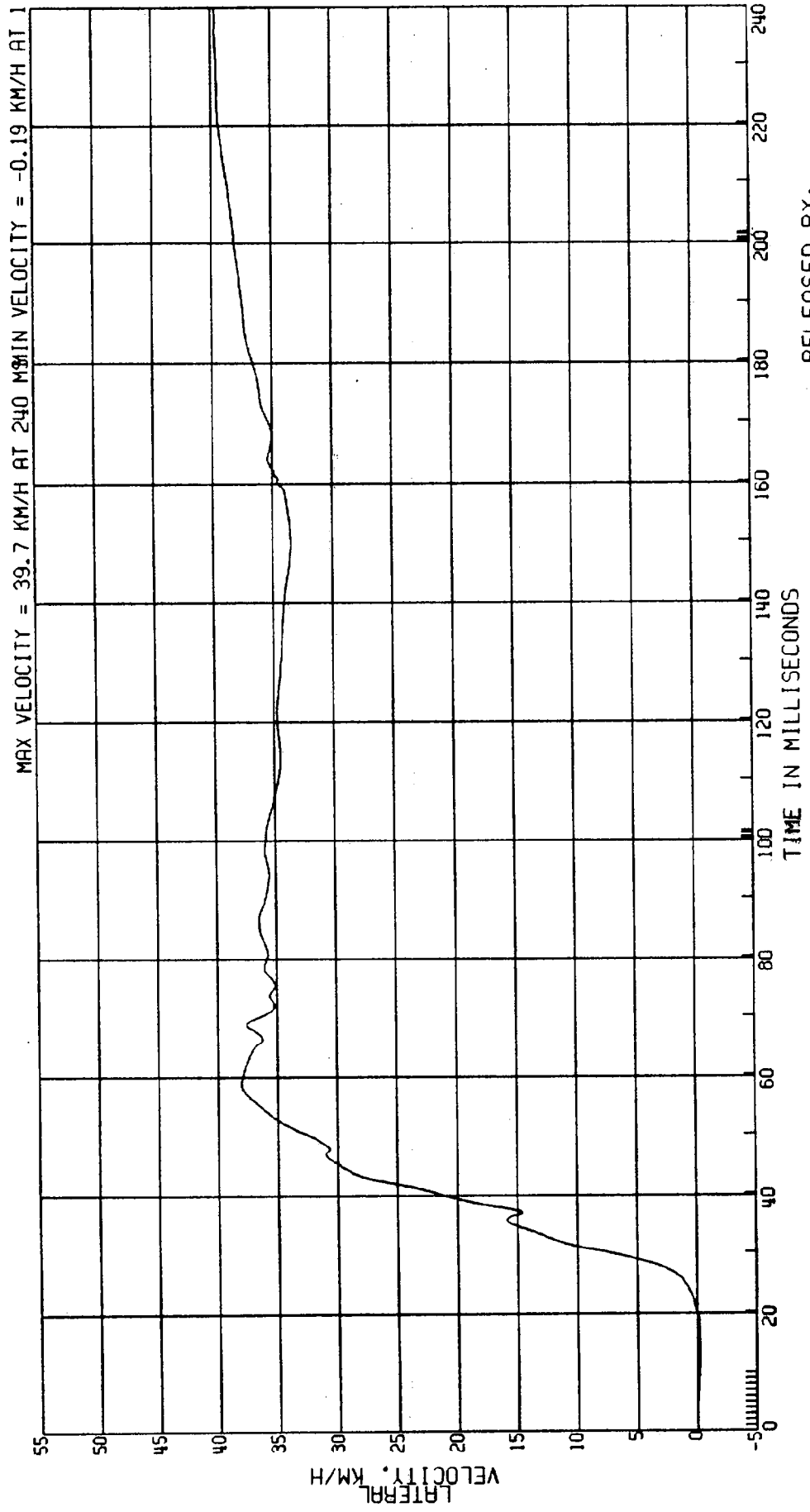
RELEASED BY:
46 PROCESSED 14 MY 90 13:58

C8007A L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 67
 3868-905 AID TYPE: SID
 CPE MVMA 78 2AF69 DRIVER LEFT LOWER RIB ACCEL. TEST DATE:03-13-90
 ELEC DATA, NHTSA FIR FILTER F.I.R. FILTER, CLASS 300 BUTTERWORTH



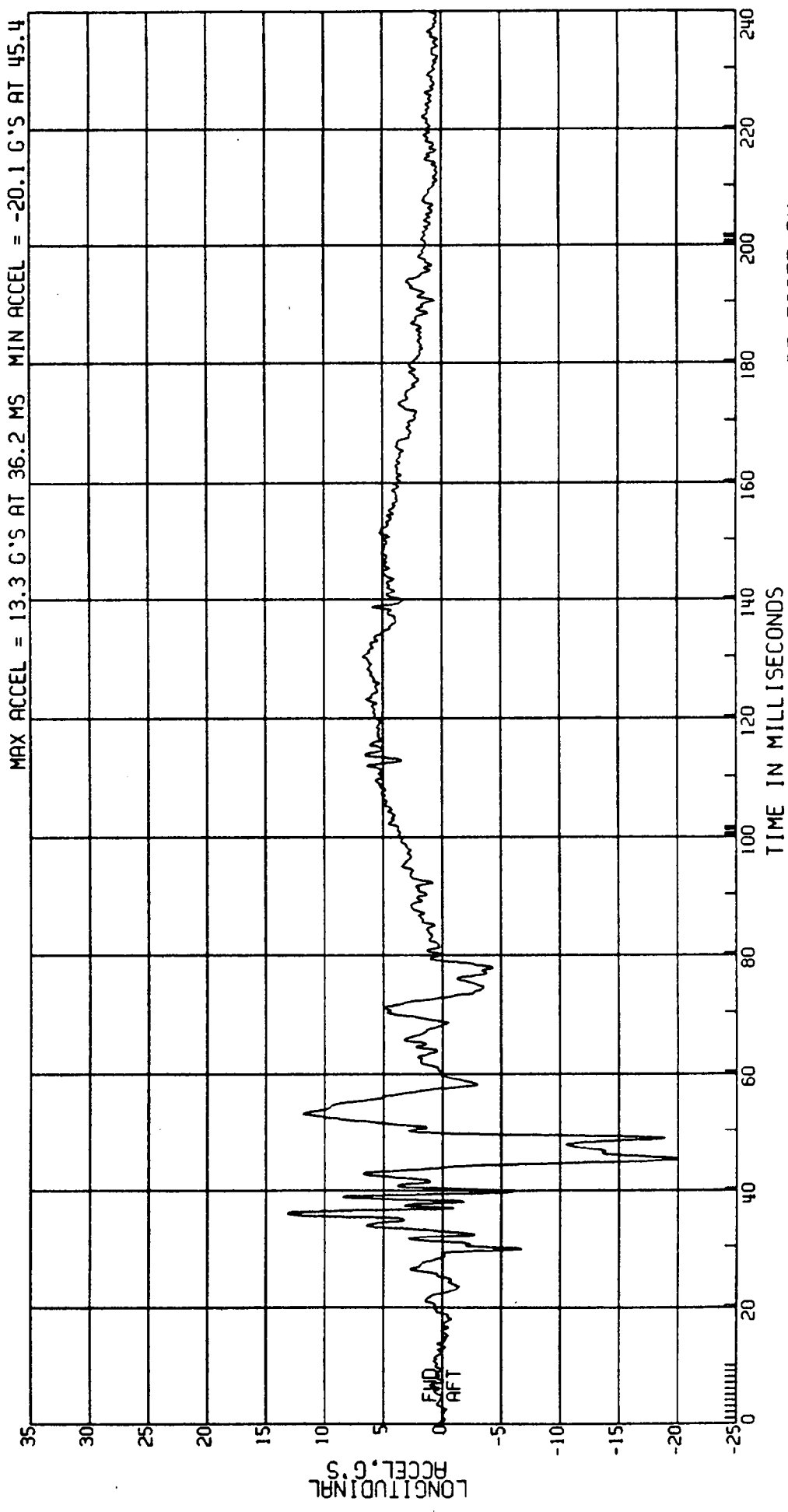
RELEASED BY:
 47 PROCESSED 4 MY 90 13:58

C8007A L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6 KM/H FIGURE 68
3868-905 AID TYPE: SID
CPE MVMA 7B 2AF69 COMPUTED LEFT LOWER RIB VELOCITY
ELEC DATA, SAE CLASS 180 (1ST INT OF DRIVER ACCELERATION) TEST DATE:03-13-90



RELEASED BY:
48 PROCESSED 4 MY 90 13:58

C8007A L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6 KM/H FIGURE 69
3868-905
CPE MVMA 7B 2AF69
ELEC DATA, SAE CLASS 600
DRIVER PELVIC ACCEL.
ATD TYPE: SID
TEST DATE: 03-13-90

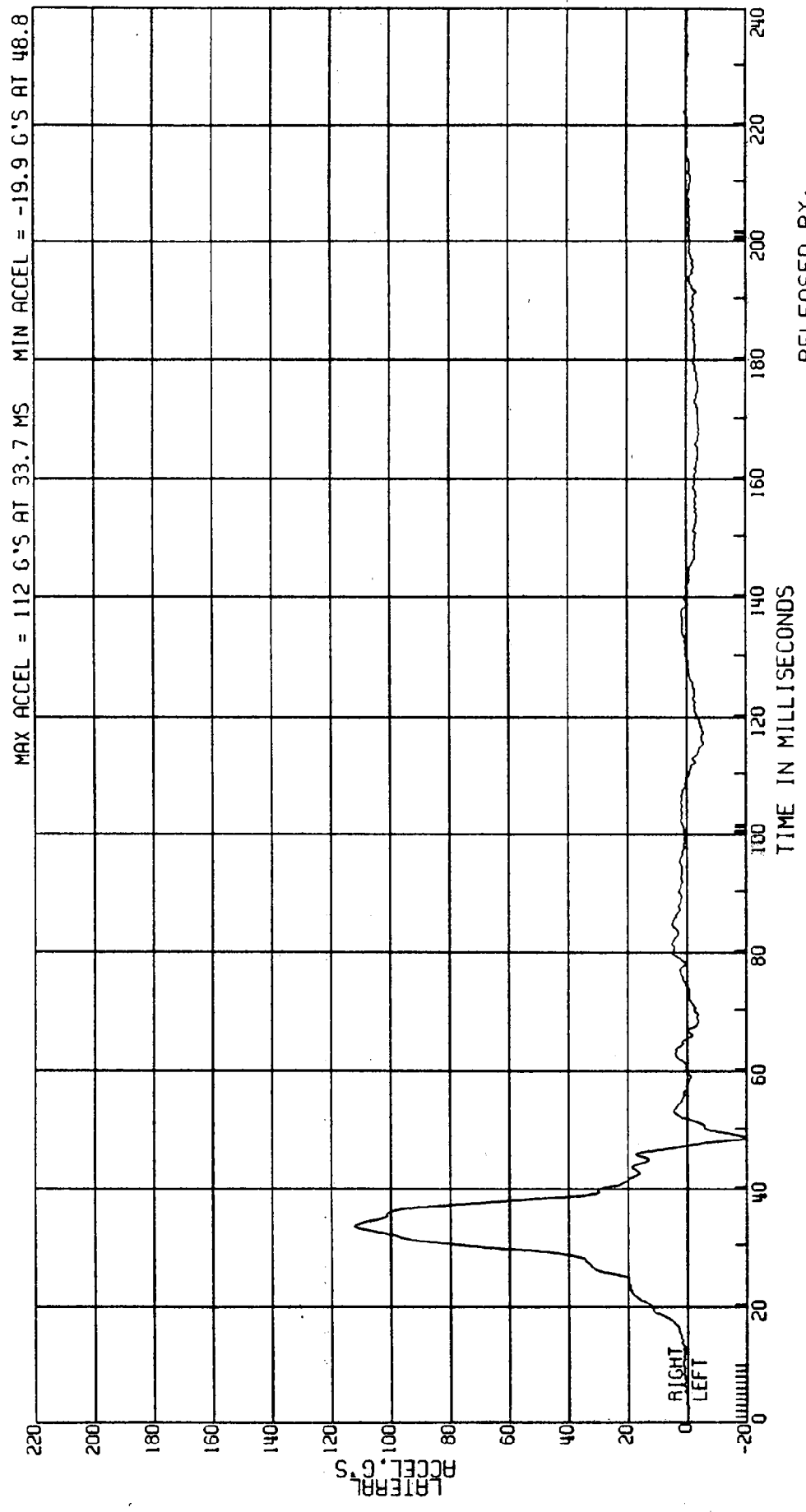


RELEASED BY:
49 PROCESSED 4 MY 90 13:58

C8007A L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6 KM/H FIGURE 70
ATD TYPE: SID
TEST DATE: 03-13-90

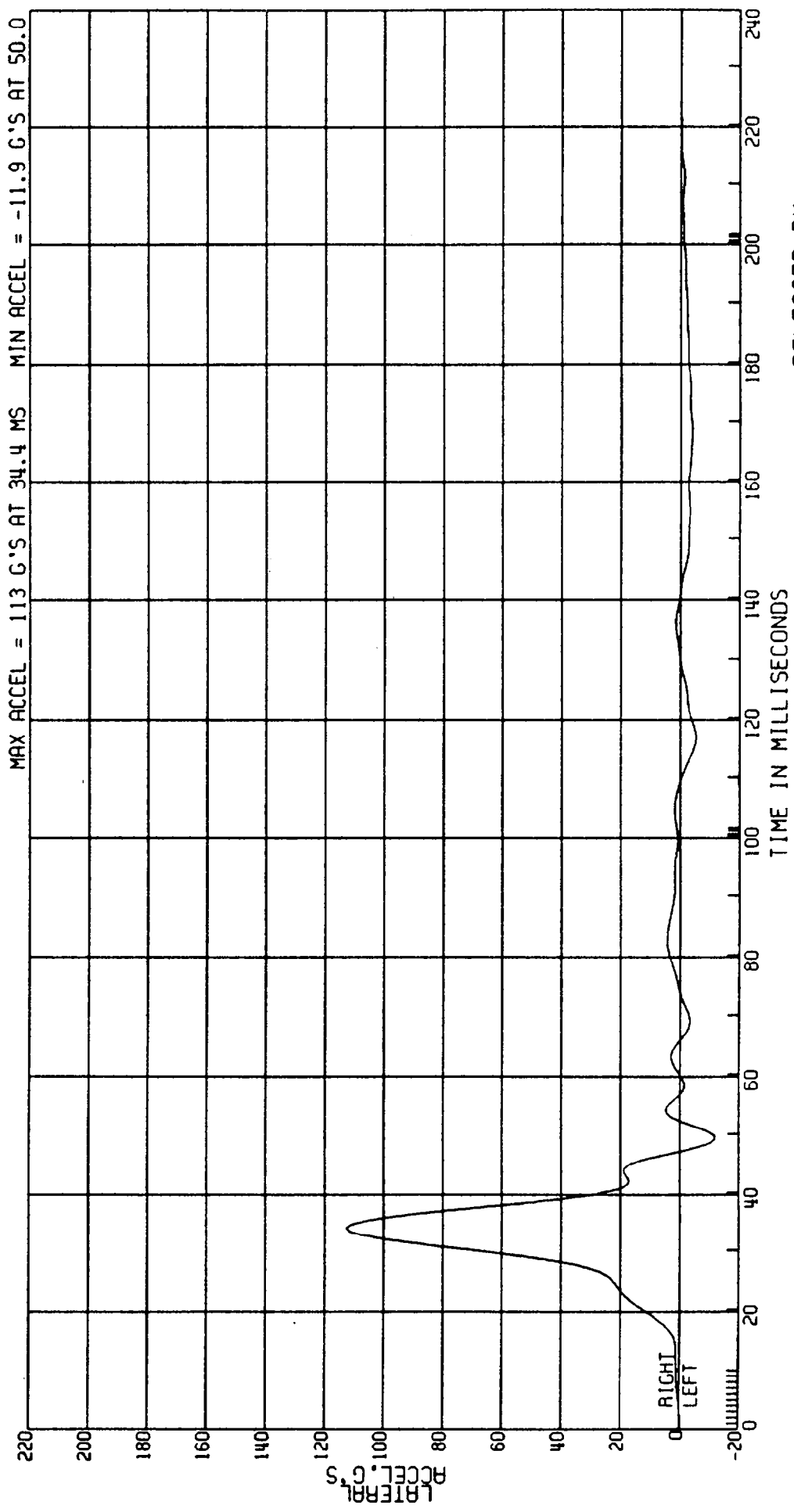
DRIVER PELVIC ACCEL.

3868-905
CPE MVMA 78 2AF69
ELEC DATA, SAE CLASS 600



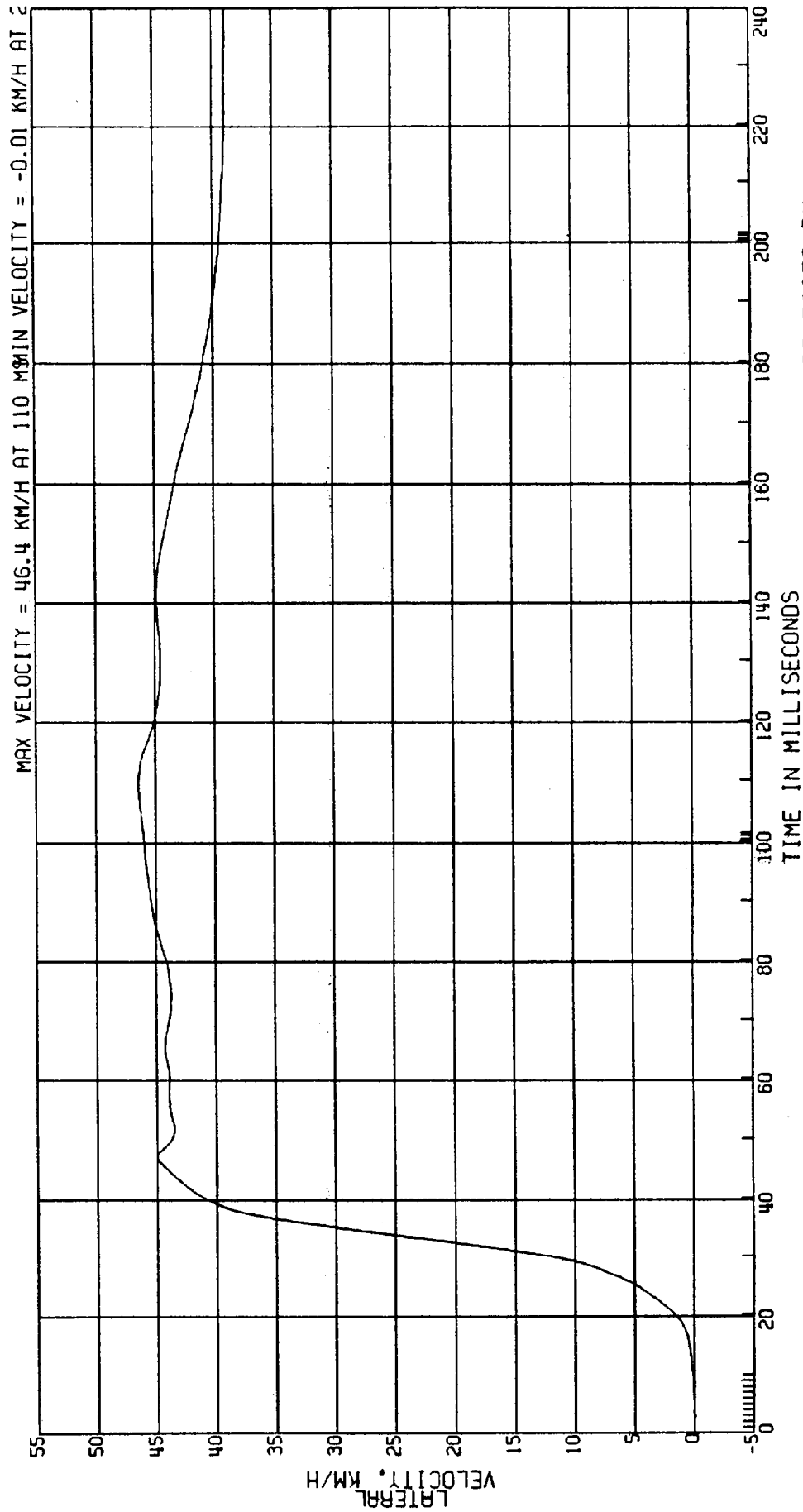
RELEASED BY:
50 PROCESSED 4 MY 90 13:59

C8007A L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 7/
 3868-905 ATD TYPE: SID
 CPE MVMA 7B 2AF69 DRIVER PELVIC ACCEL.
 ELEC DATA, NHTSA FIR FILTER F.I.R. FILTER, CLASS 300 BUTTERWORTH TEST DATE:03-13-90



RELEASED BY:
 51 PROCESSED 4 MY 90 13:59

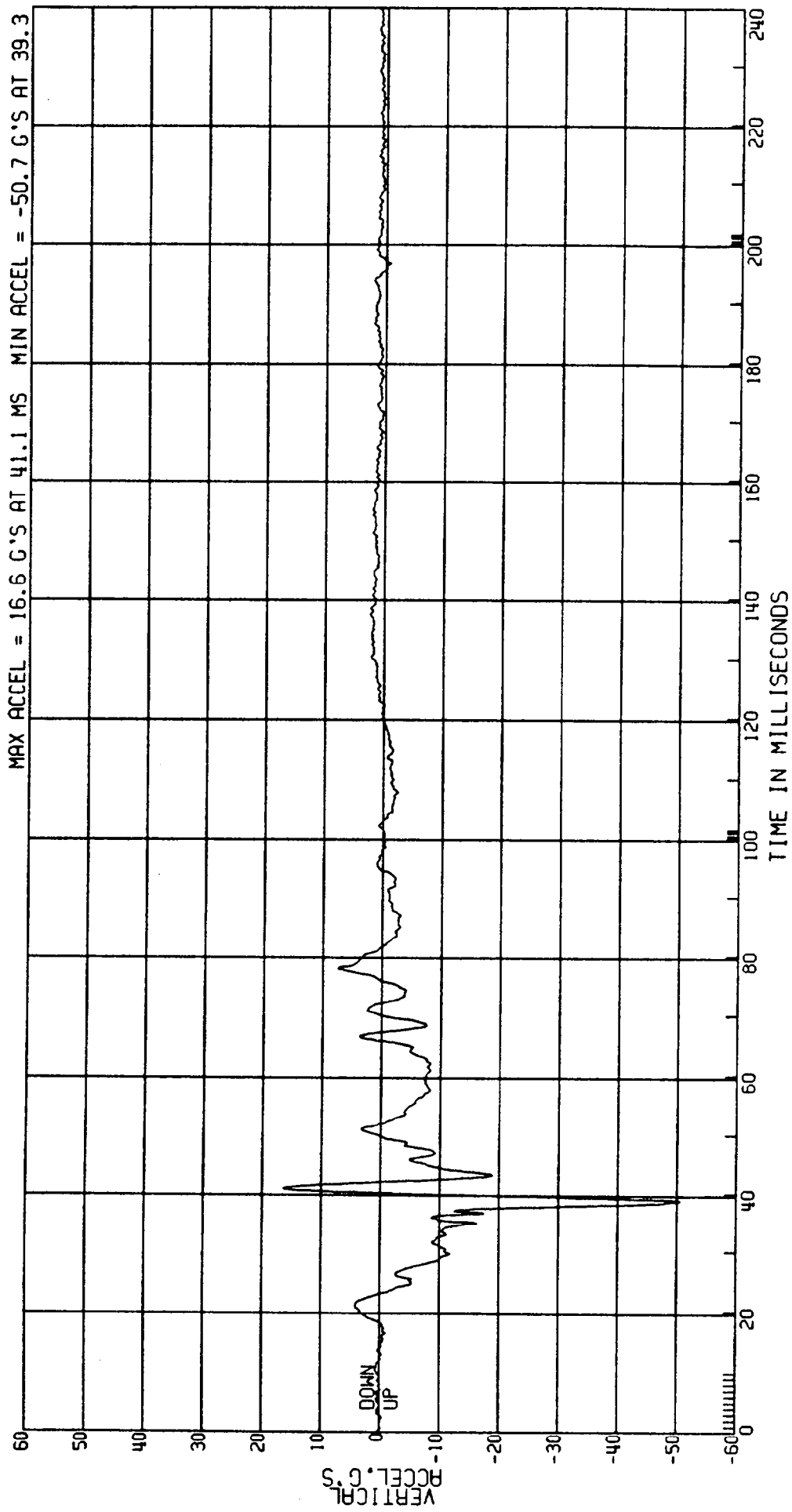
C8007A L. SIDE IMPACT - 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6 KM/H FIGURE 7
 3868-905 AID TYPE: SID
 CPE MVMA 7B 2AF69 COMPUTED PELVIC VELOCITY
 ELEC DATA, SAE CLASS 180 (1ST INT OF DRIVER ACCELERATION) TEST DATE: 03-13-90



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52 PROCESSED 4 MY 90 13:59

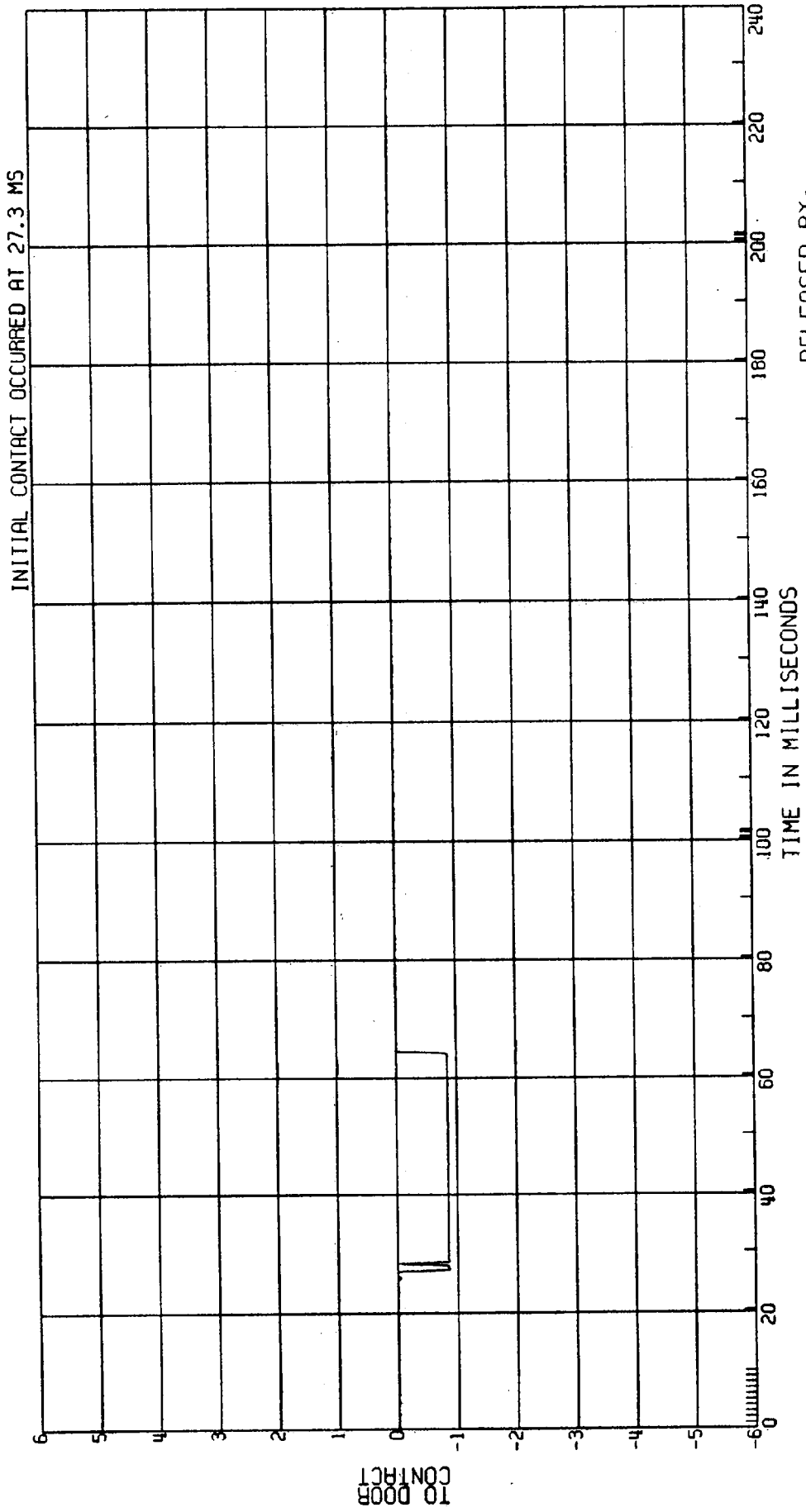
C8007A L. SIDE IMPACT - 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6 KM/H FIGURE 73
3868-905
CPE MVMA 78 2AF69
ELEC DATA, SAE CLASS 600 DRIVER PELVIC ACCEL.
ATD TYPE: SID
TEST DATE: 03-13-90



RELEASED BY:

53 PROCESSED 4 MT 90 13:59

C8007A L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6 KM/H FIGURE 74
3868-905 AID TYPE: BIOSID
CPE MVMA 7B 2AF69 L. REAR PELVIC-LEFT SIDE CONTACT TEST DATE: 03-13-90
ELEC DATA, SAE CLASS 1000



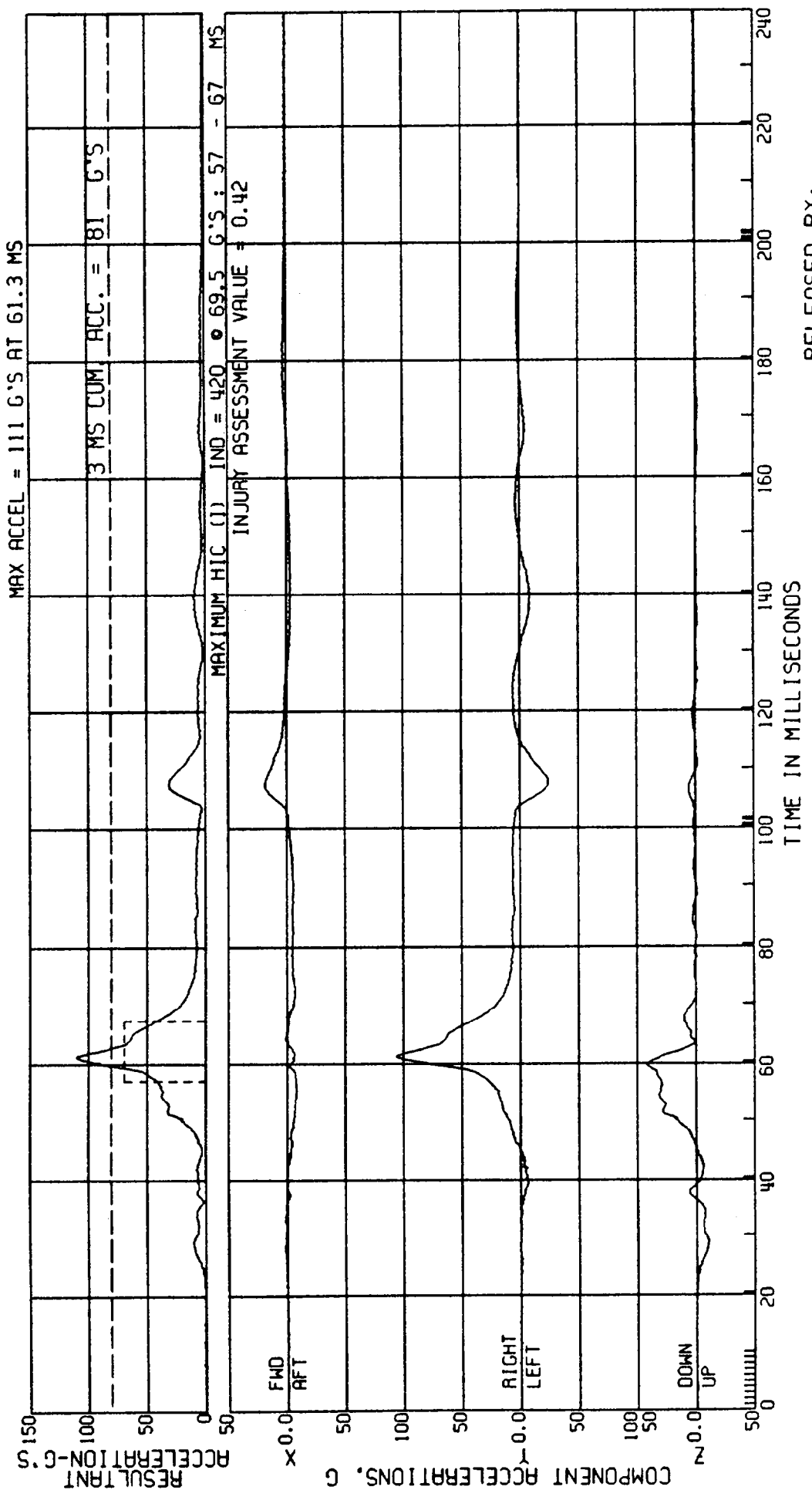
74A

Good
Data

M9B6UAG#
C8007B
05/04/90
14:06:20
NUMBER OF PLOTS = 77
XOFF = 10.10
YOFF = 0.75

C80078 L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 75
 3868-905 ATD TYPE: BIOSID
 CPE MVMA 78 2AF69 TEST DATE:03-13-90

L. REAR HEAD ACCEL.
 (HIC 1 LIMITED TO 15MS)

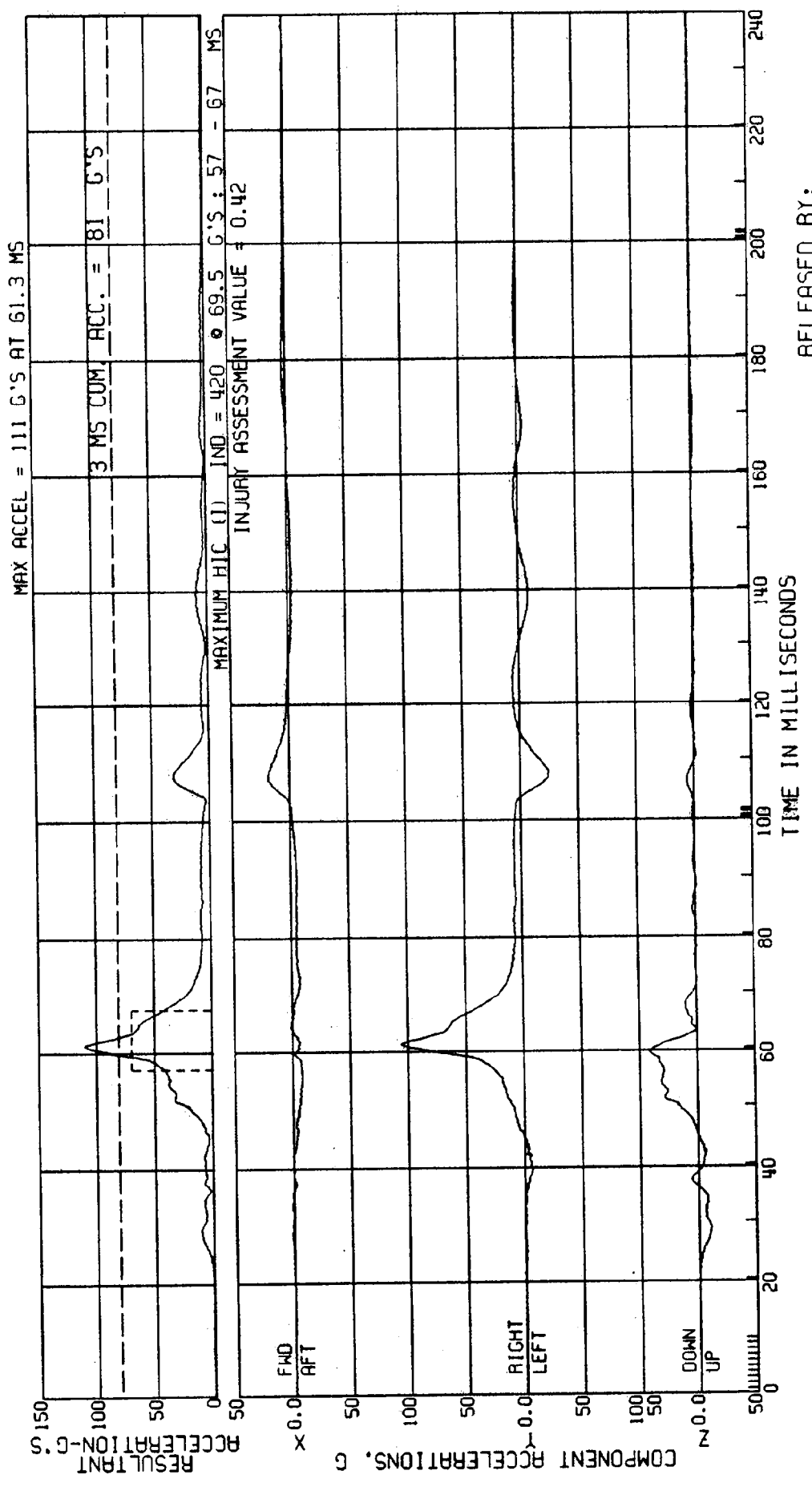


RELEASED BY:
 1 PROCESSED 4 MY 90 14:06

C8007B L. SIDE IMPACT - 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6 KM/H FIGURE 76
 3868-905
 AID TYPE: BIOSID
 TEST DATE: 03-13-90

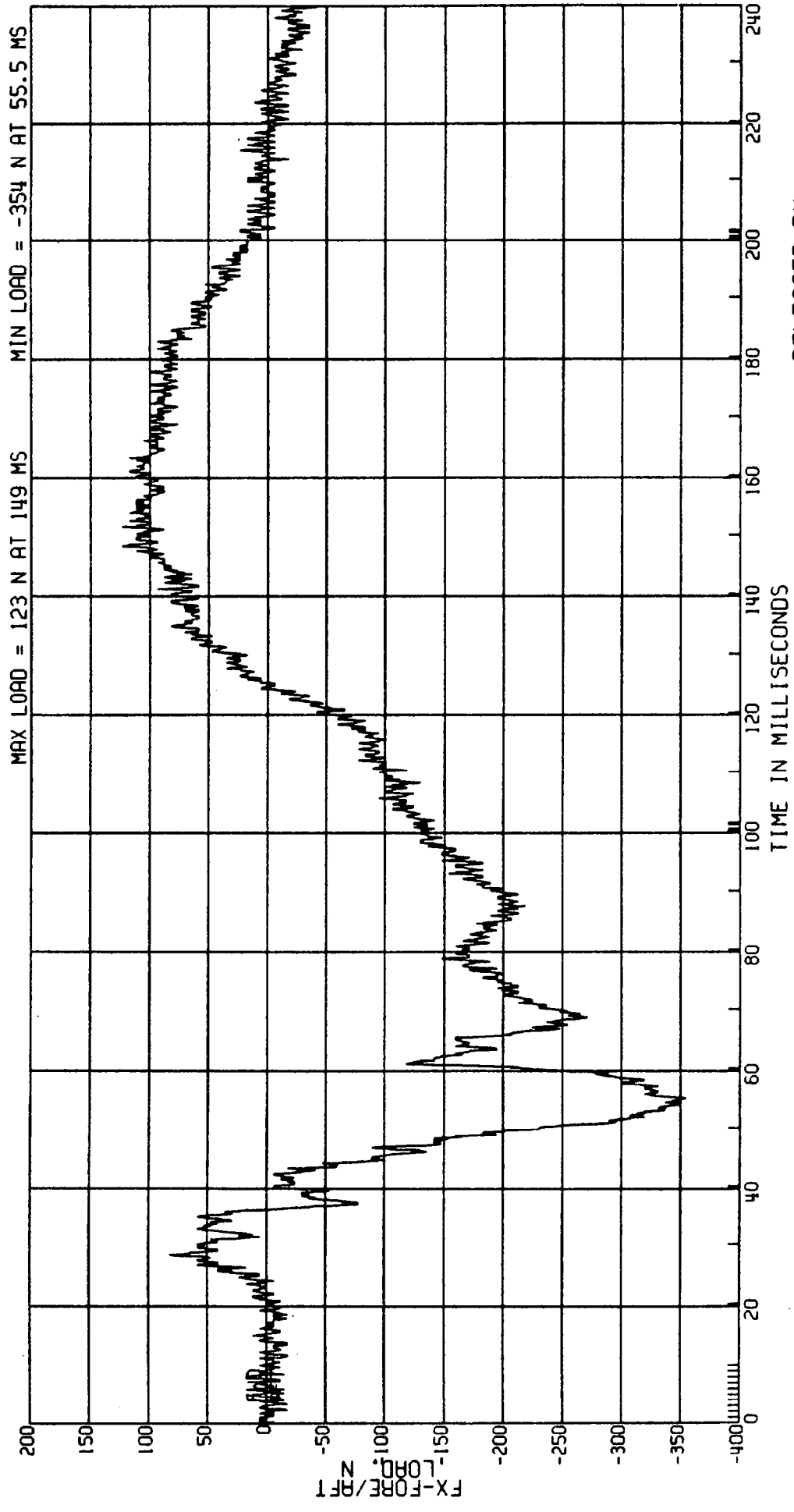
L. REAR HEAD ACCEL.
 (HIC 1 LIMITED TO 36MS)

MVMA 78 2AF69
 ELEC DATA, SAE CLASS 1000



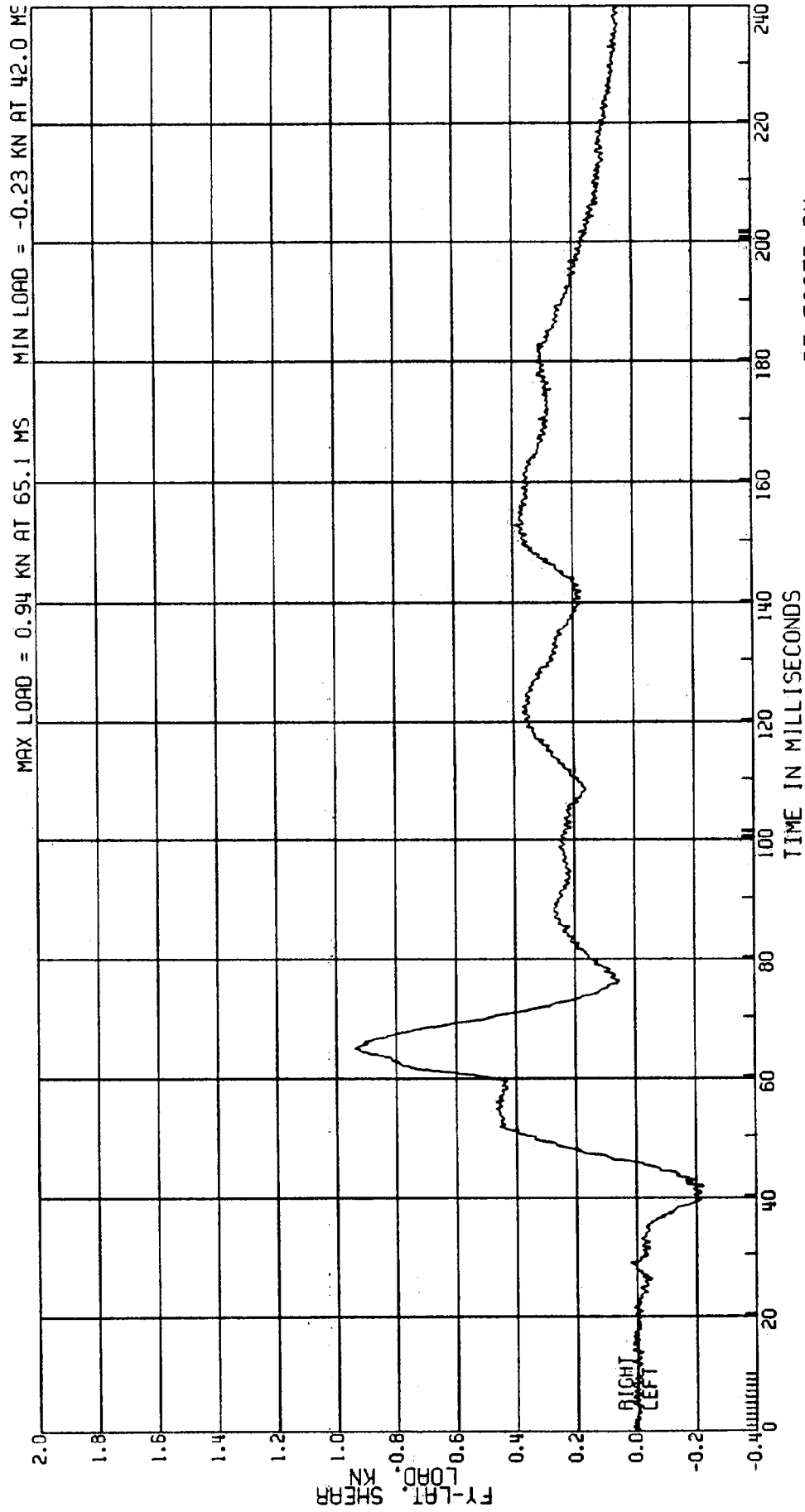
C80078 L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 77
 3868-905
 CPE MVMA 78 2AF69 L. REAR NECK LOADING ON HEAD, UPPER LOAD
 ELEC DATA, SAE CLASS 1000

ATD TYPE: BIOSID
 TEST DATE: 03-13-90



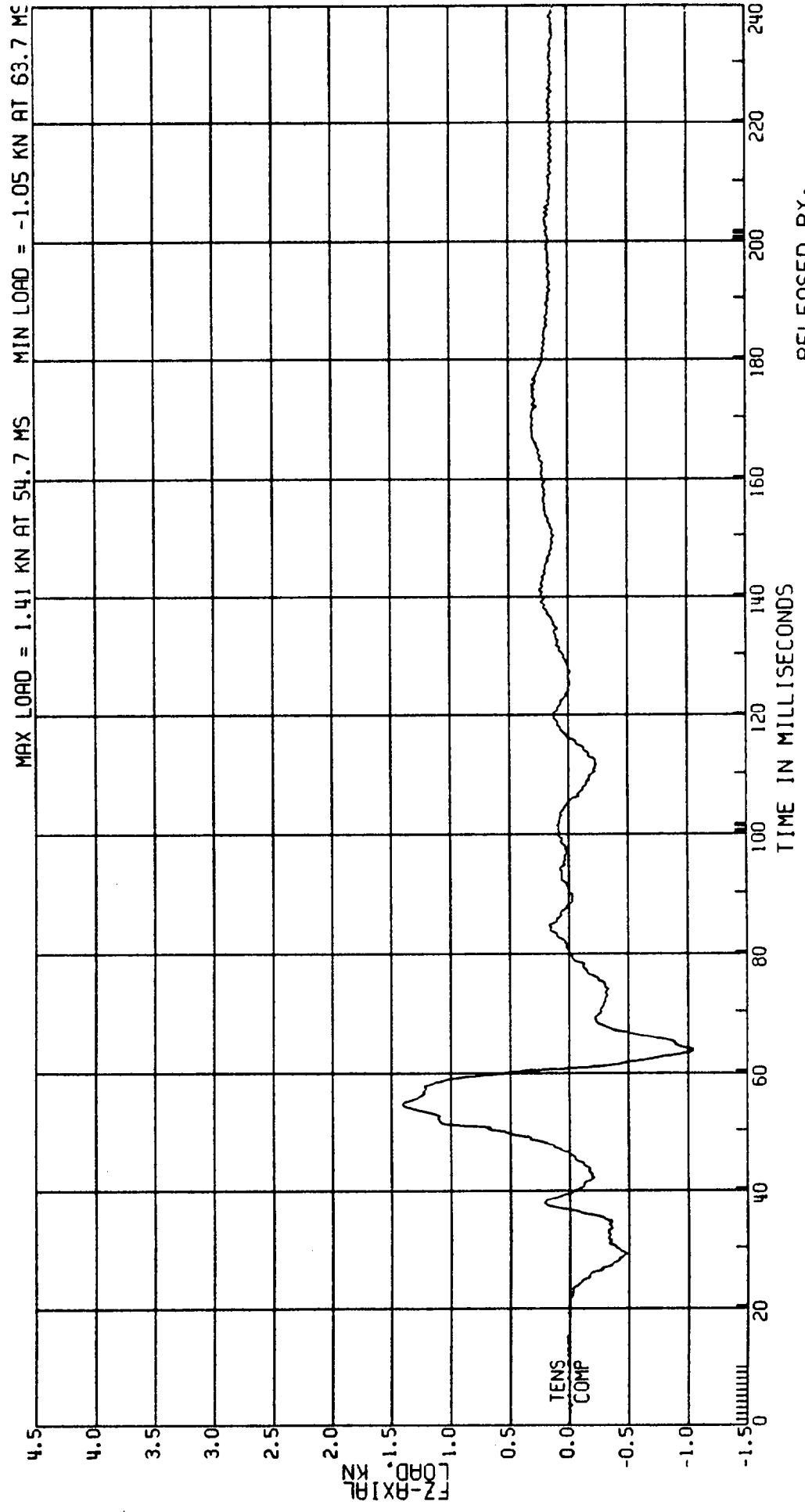
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 3 PROCESSED 4 MY 90 14:06

C80078 L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 78
 3868-905 ATD TYPE: BIOSID
 CPE MVMA 78 2AF69 L. REAR NECK LOADING ON HEAD, UPPER LOAD TEST DATE:03-13-90
 ELEC DATA, SAE CLASS 1000



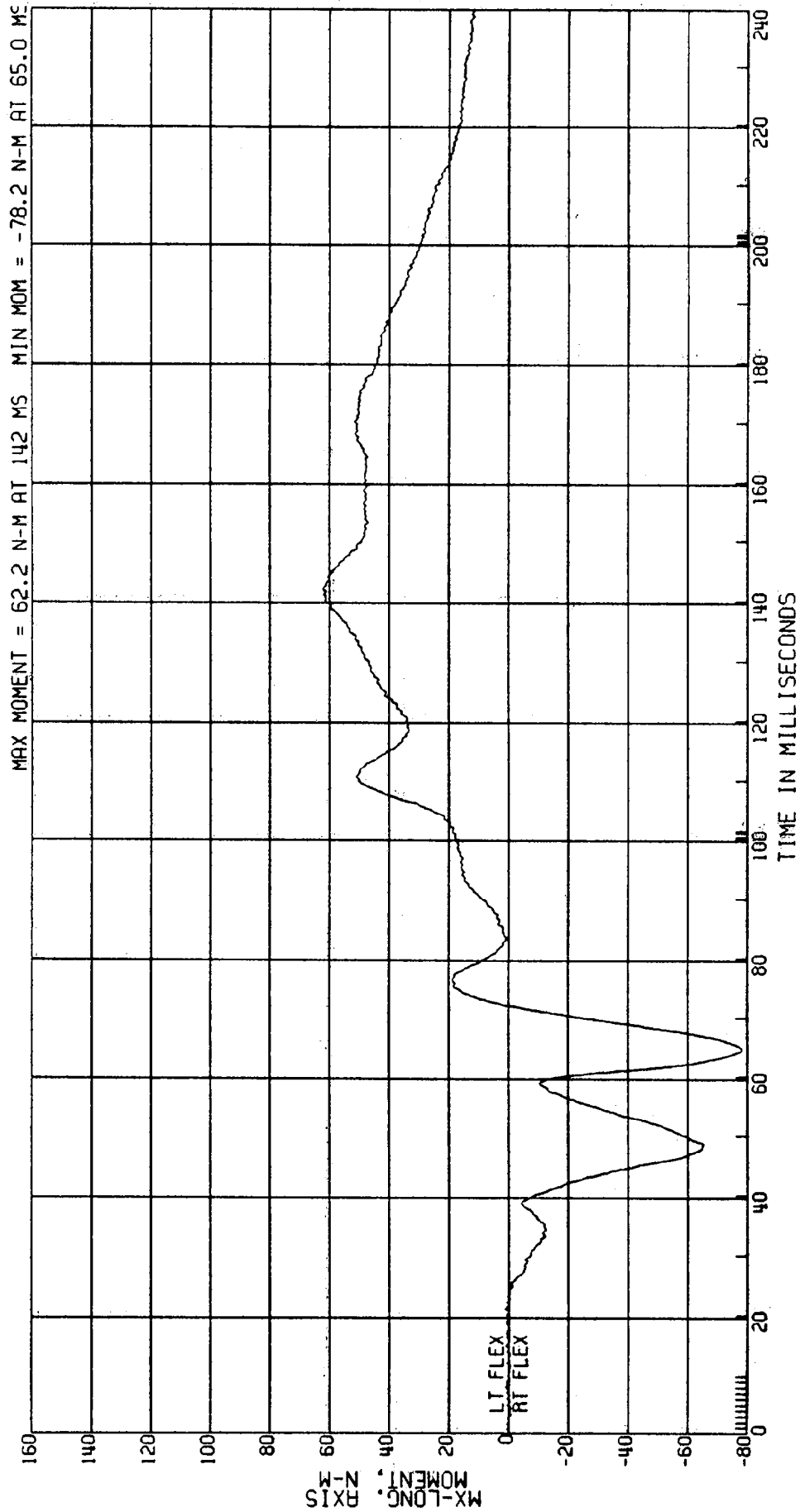
RELEASED BY:
 4 PROCESSED 4 MY 90 14:06

C8007B L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6 KM/H FIGURE 79
 3868-905
 CPE MVMA 7B 2AF69 L. REAR NECK LOADING ON HEAD, UPPER LOAD
 ELEC DATA, SAE CLASS 1000
 ATD TYPE: BIOSID
 TEST DATE: 03-13-90



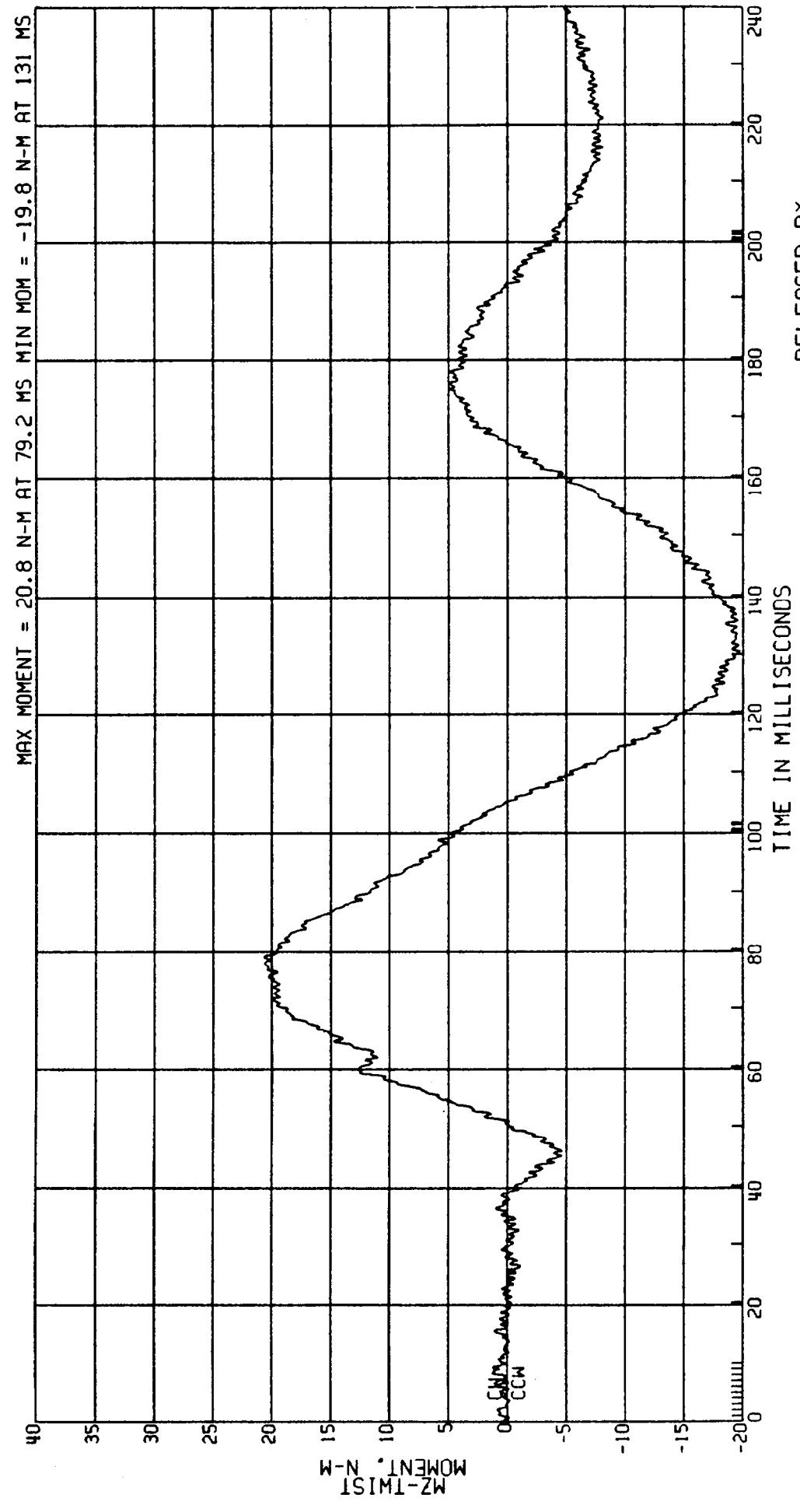
RELEASED BY:
 5 PROCESSED 4 MY 90 14:06

C80078 L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 80
 3868-905 ATD TYPE: BIOSID
 CPE MVMA 7B 2AF69 L. REAR NECK LOADING ON HEAD, UPPER TEST DATE: 03-13-90
 ELEC DATA, SAE CLASS 600



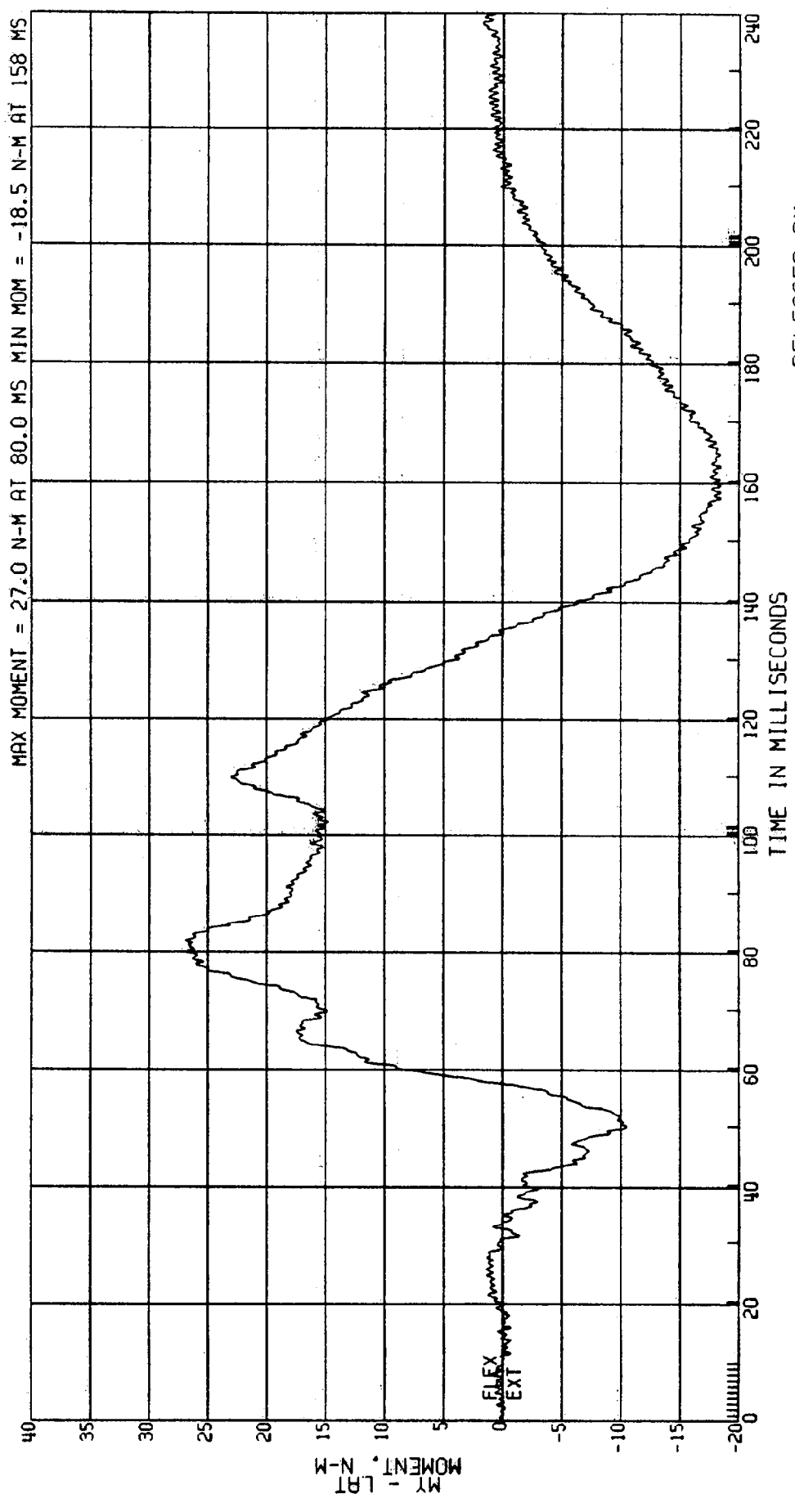
RELEASED BY:
 6. PROCESSED 4 MY 90 14:06

C80078 L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 8/
 3868-905 ATD TYPE: BIOSID
 CPE MVMA 78 2AF69 L. REAR NECK LOADING ON HEAD, UPPER TEST DATE:03-13-90
 ELEC DATA, SAE CLASS 600



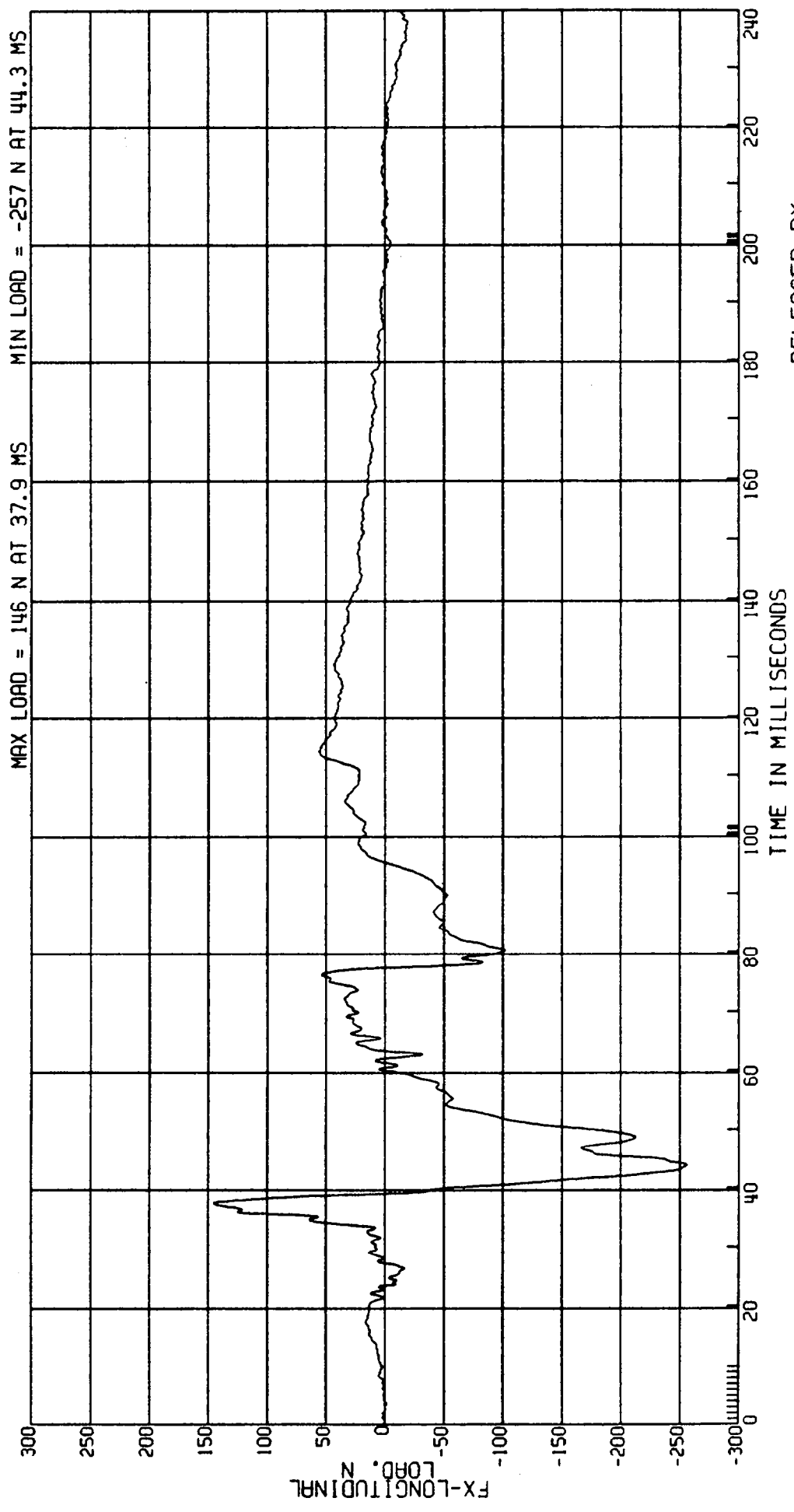
RELEASED BY:
 7 PROCESSED 4 MY 90 14:06

C80078 L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 82
 3868-905 ATD TYPE: B10SID
 CPE MVMA 7B 2AF69 L. REAR NECK LOADING ON HEAD TEST DATE: 03-13-90
 ELEC DATA, SAE CLASS 600



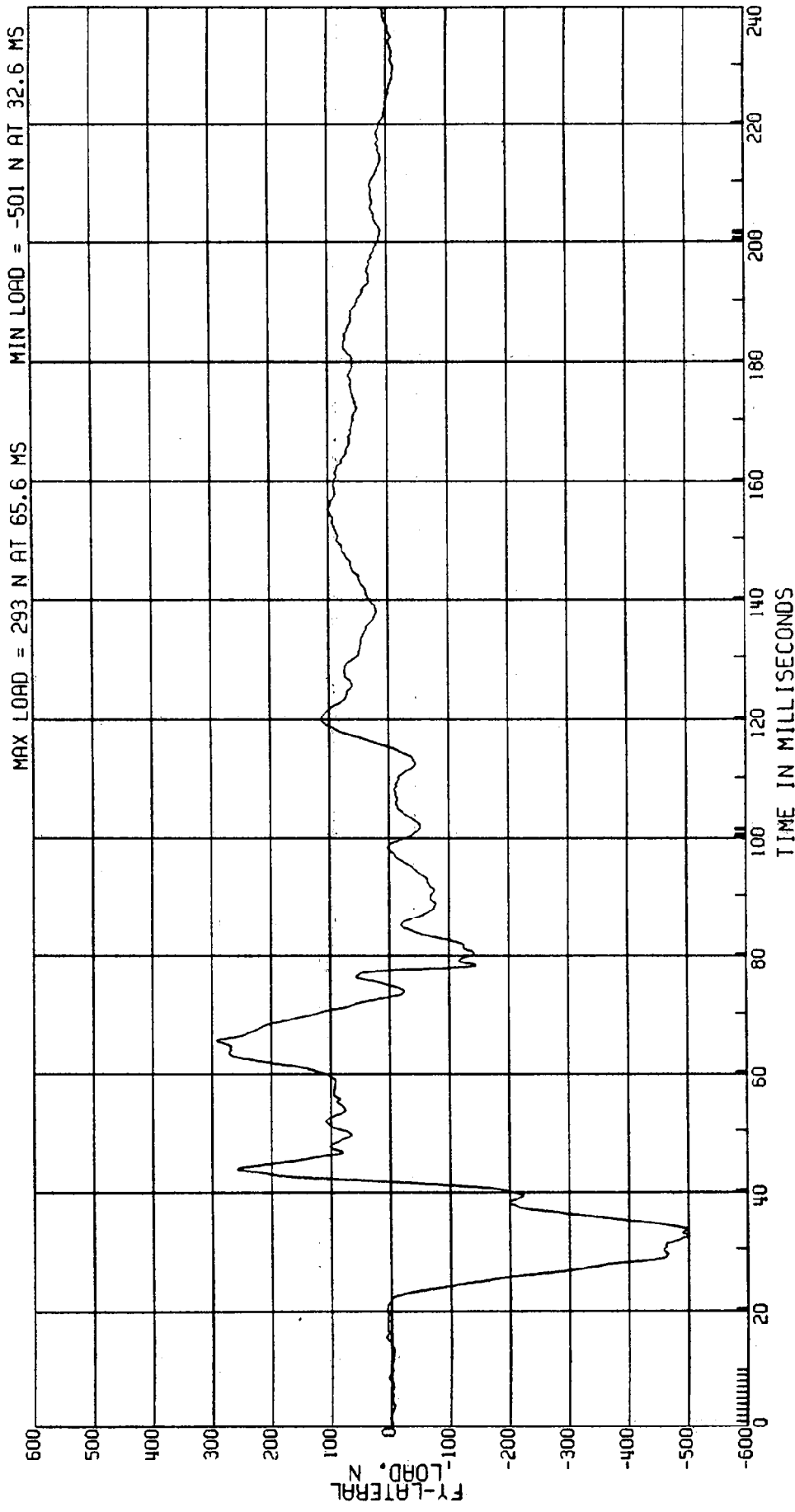
RELEASED BY:
 8 PROCESSED 4 MT 90 14:06

C80078 L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 83
3868-905 ATD TYPE: BIOSID
CPE MVMA 7B 2AF69 L. REAR SHOULDER LOAD TEST DATE:03-13-90
ELEC DATA, SAE CLASS 180



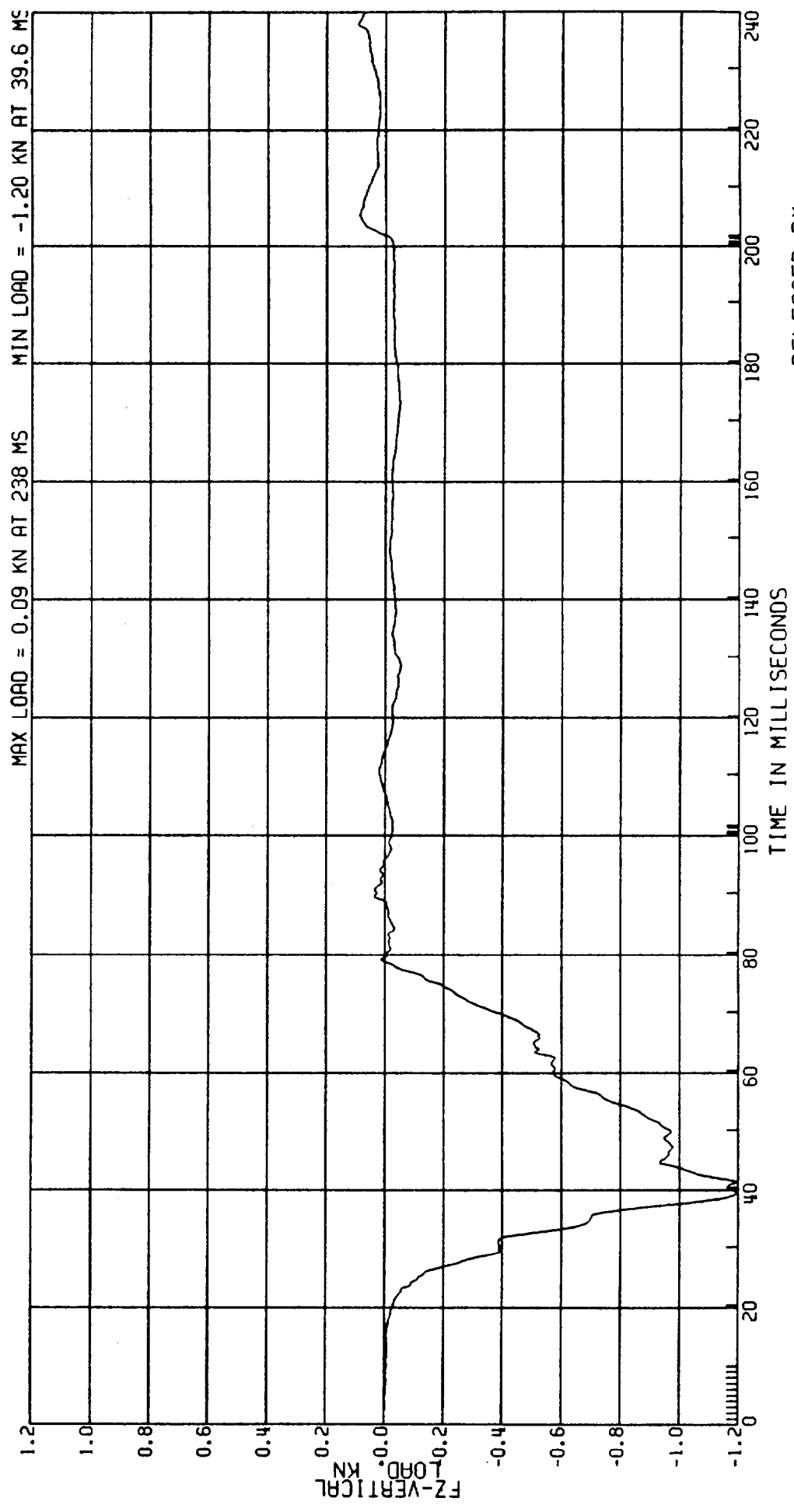
RELEASED BY:
9 PROCESSED 4 MT 90 14:06

C80078 L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6 KM/H FIGURE 84
 3868-905 ATD TYPE: BIOSID
 CPE MVMA 7B 2AF69 L. REAR SHOULDER LOAD TEST DATE: 03-13-90
 ELEC DATA, SAE CLASS 180



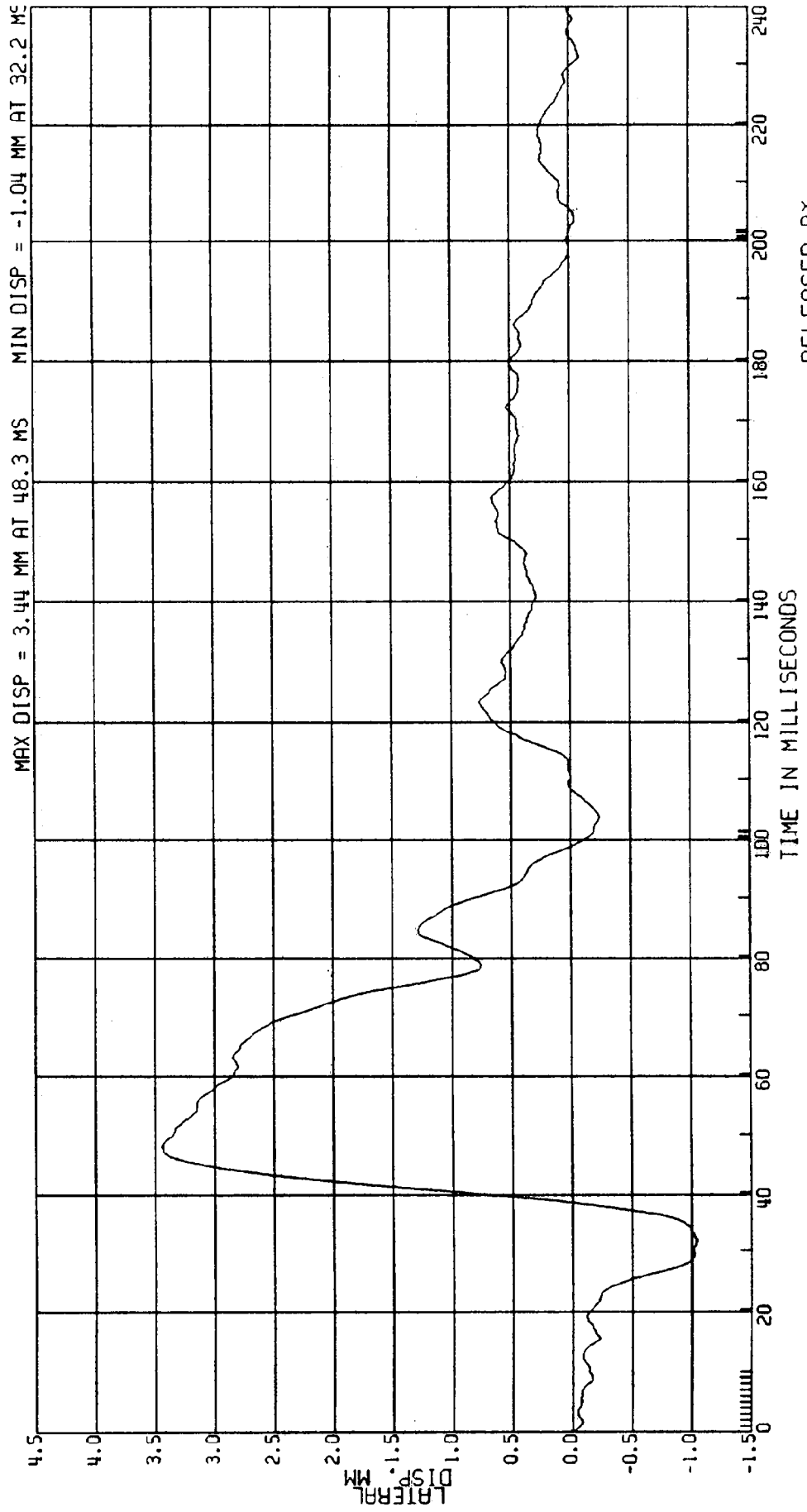
RELEASED BY:
 10 PROCESSED 4 MY 90 14:06

C8007B L. SIDE IMPACT - 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 85
 3868-905 ATD TYPE: BIOSID
 CPE MVMA 7B 2AF69 L. REAR SHOULDER LOAD TEST DATE: 03-13-90
 ELEC DATA, SAE CLASS 180



RELEASED BY:
 11 PROCESSED 4 MY 90 14:06

C80078 L. SIDE IMPACT - 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6 KM/H FIGURE 86
3868-905 ATD TYPE: BIOSID
CPE MVMA 7B 2AF69 L. REAR SHOULDER DISP. TEST DATE: 03-13-90
ELEC DATA, SAE CLASS 60

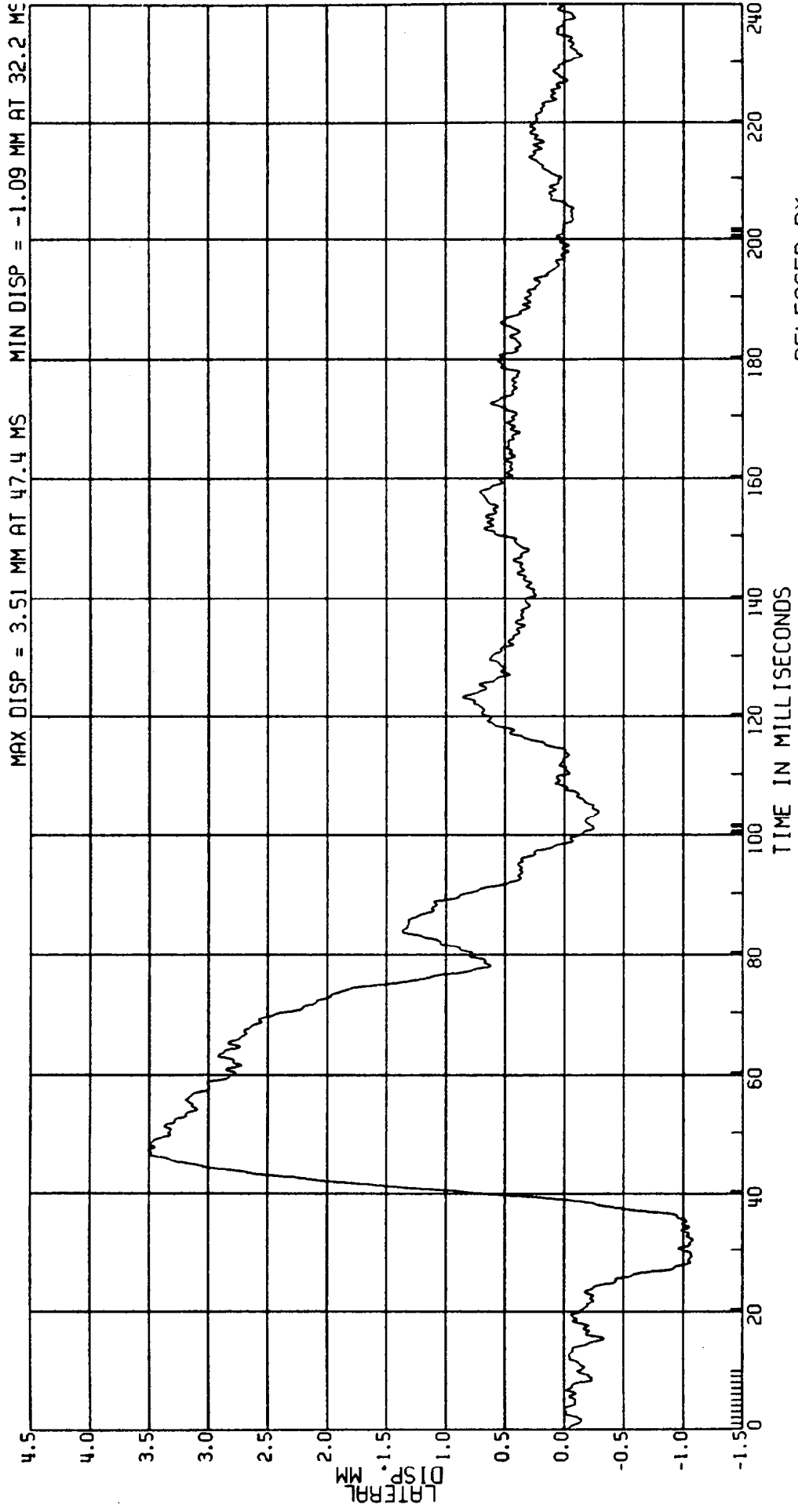


RELEASED BY:
12 PROCESSED 4 MY 90 14:06

C8007B L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 87
3868-905
CPE MVMA 7B 2AF69
ELEC DATA, SAE CLASS 180

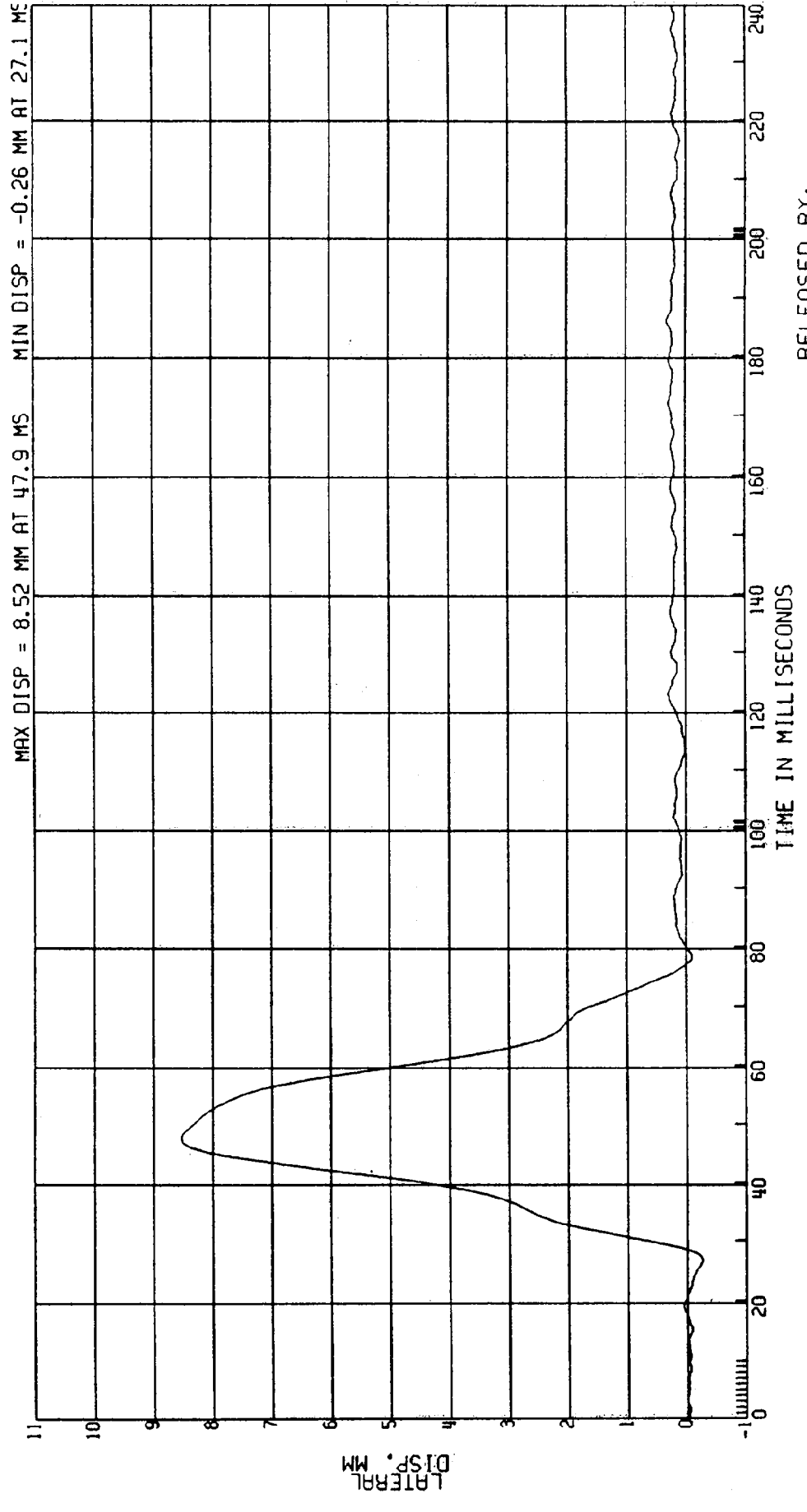
ATD TYPE: BIOSID
TEST DATE: 03-13-90

L. REAR SHOULDER DISP.



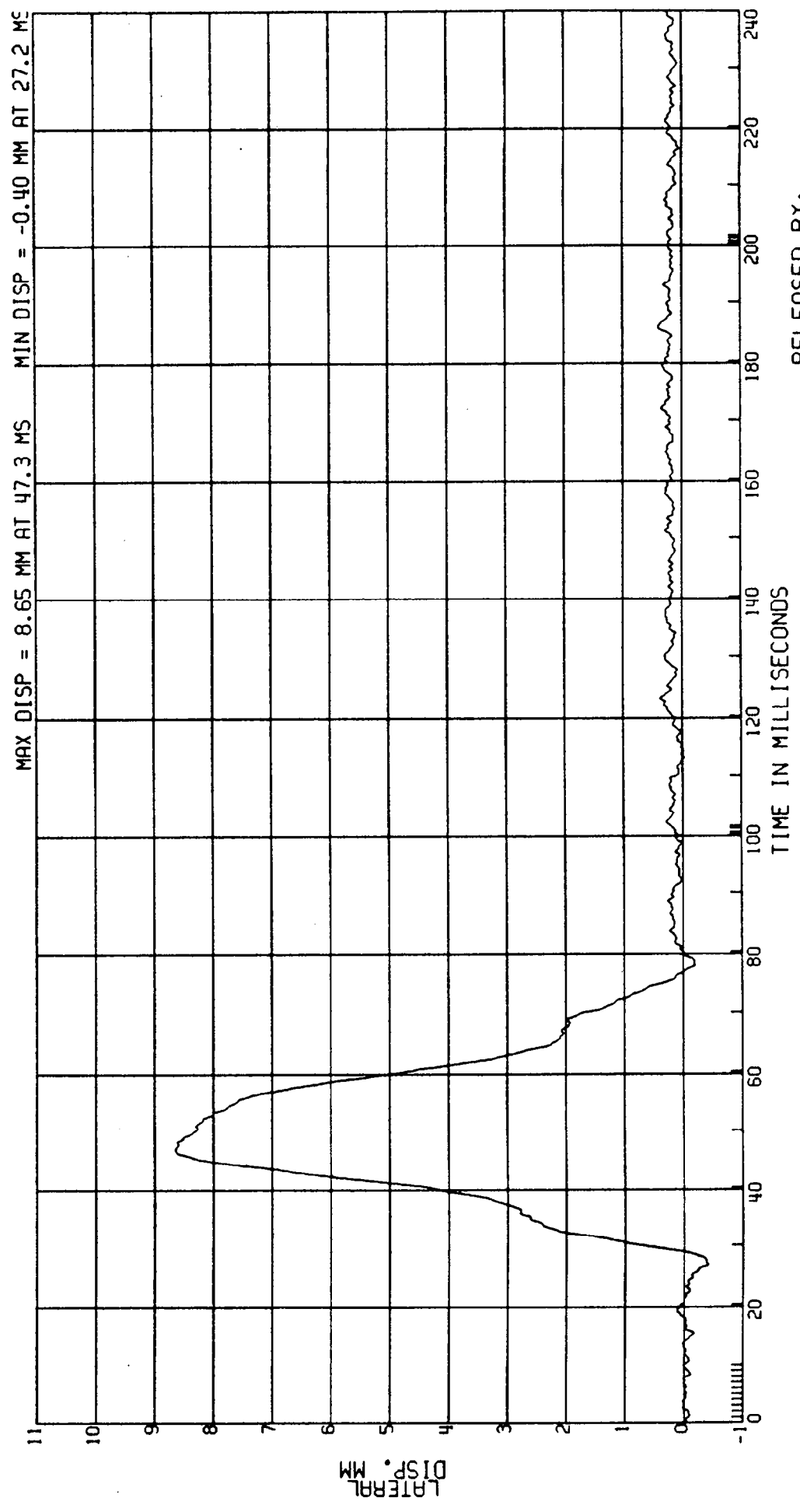
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13 PROCESSED 4 MT 90 14:06

C8007B L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 88
3868-905 AID TYPE: BIOSID
CPE MVMA 7B 2AF69 L. REAR FIRST THORACIC RIB DISP.
ELEC DATA, SAE CLASS 60 TEST DATE:03-13-90



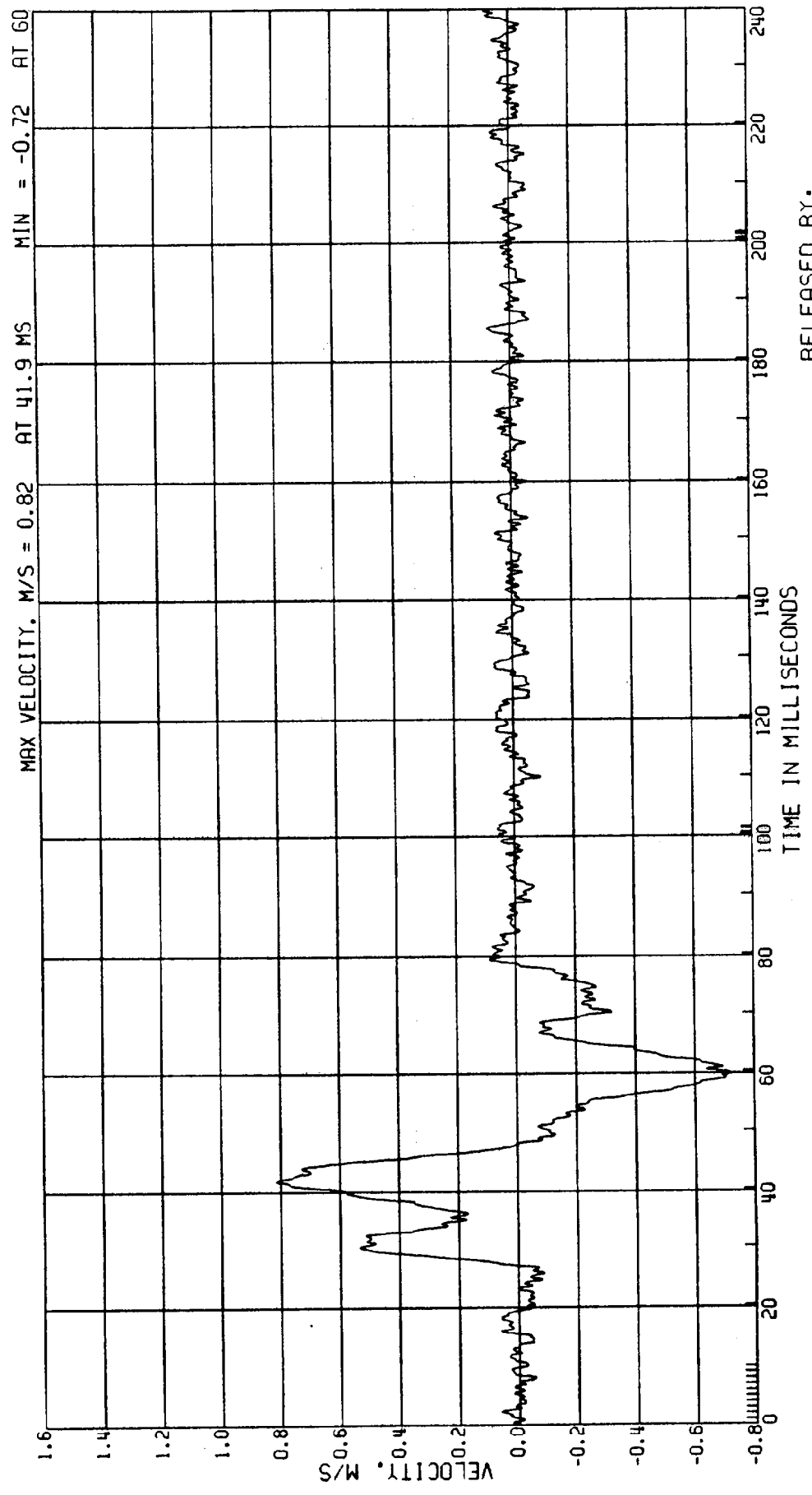
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14 PROCESSED 4 MY 90 14:06

C8007B L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 89
3868-905 ATD TYPE: BIOSID
CPE MVMA 7B 2AF69 L. REAR FIRST THORACIC RIB DISP. TEST DATE:03-13-90
ELEC DATA, SAE CLASS 180



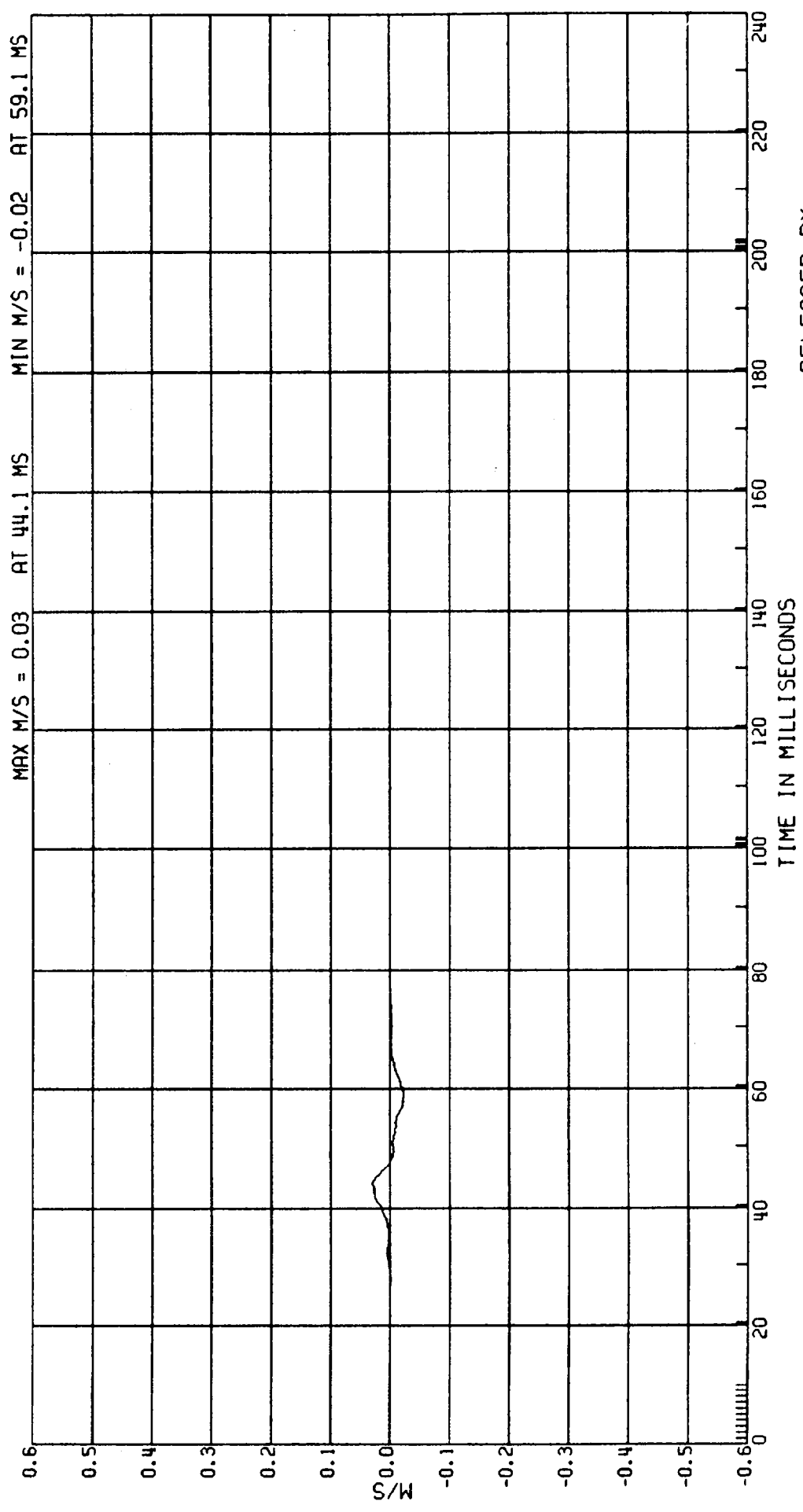
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15 PROCESSED 4 MR 90 14:06

C80078 L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 90
 3868-905 ATD TYPE: BIOSID
 CPE MVMA 7B 2AF69 TEST DATE:03-13-90
 ELEC DATA, SAE CLASS 60 (DIFF OF 1ST RIB DISP)



RELEASED BY:
 16 PROCESSED 4 MY.90 14:07

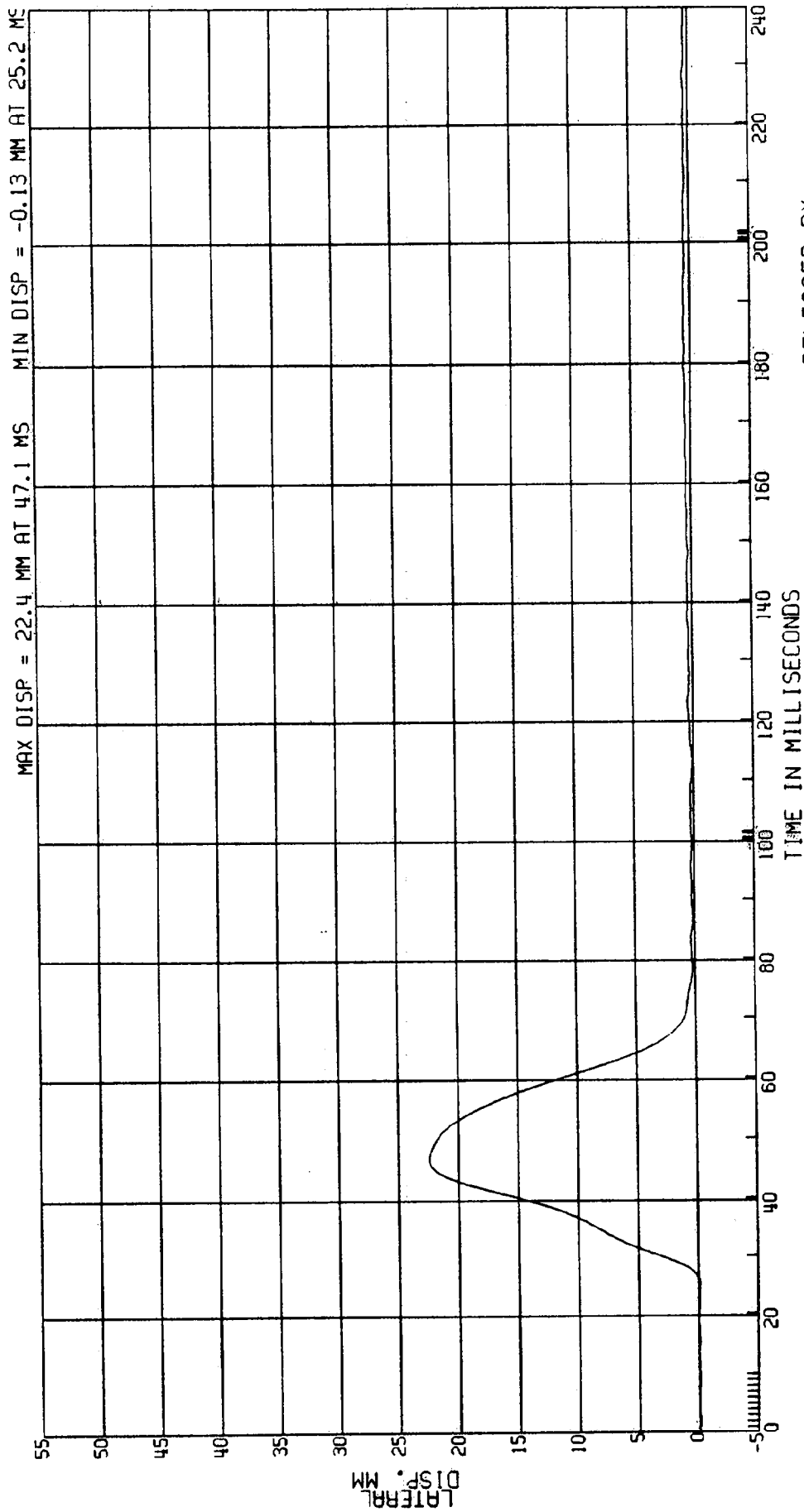
C8007B L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 91
3868-905 ATD TYPE: BIOSID
CPE MVMA 7B 2AF69 VISCIOUS RESPONSE OF 1ST THORACIC RIB
ELEC DATA, SAE CLASS 60 (1ST RIB DISP*1ST RIB VEL) /175MM
TEST DATE:03-13-90



RELEASED BY:
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C80078 L. SIDE IMPACT- 27 DEG
3868-905
CPE MVMA 78 2AF69
ELEC DATA, SAE CLASS 60

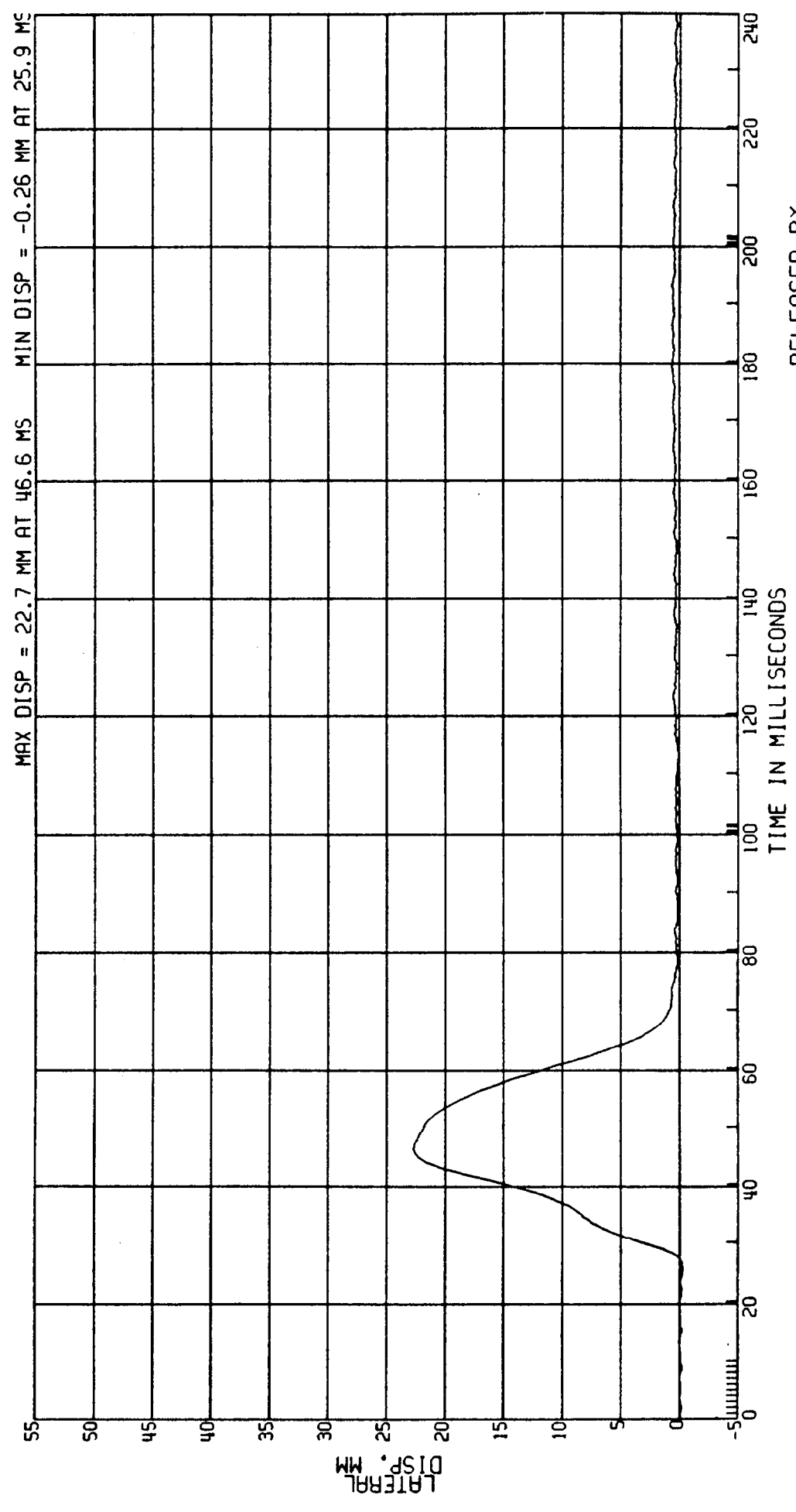
MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 92
ATD TYPE: B10SID
TEST DATE:03-13-90
L. REAR SECOND THORACIC RIB DISP.



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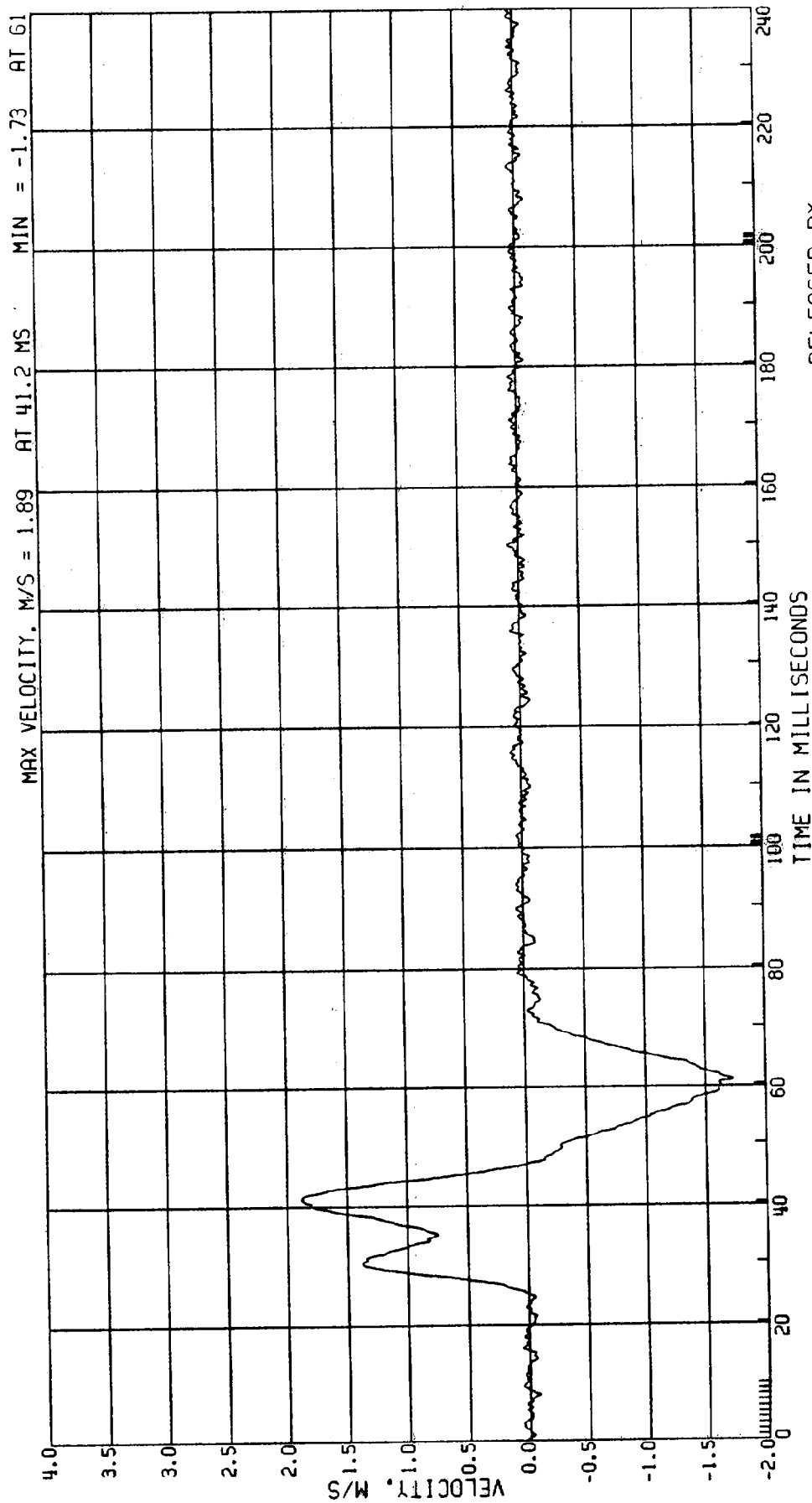
18 PROCESSED BY NT 90 14:07

C8007B L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 93
3868-905 ATD TYPE: BIOSID
CPE MVMA 7B 2AF69 L. REAR SECOND THORACIC RIB DISP. TEST DATE:03-13-90
ELEC DATA, SAE CLASS 180



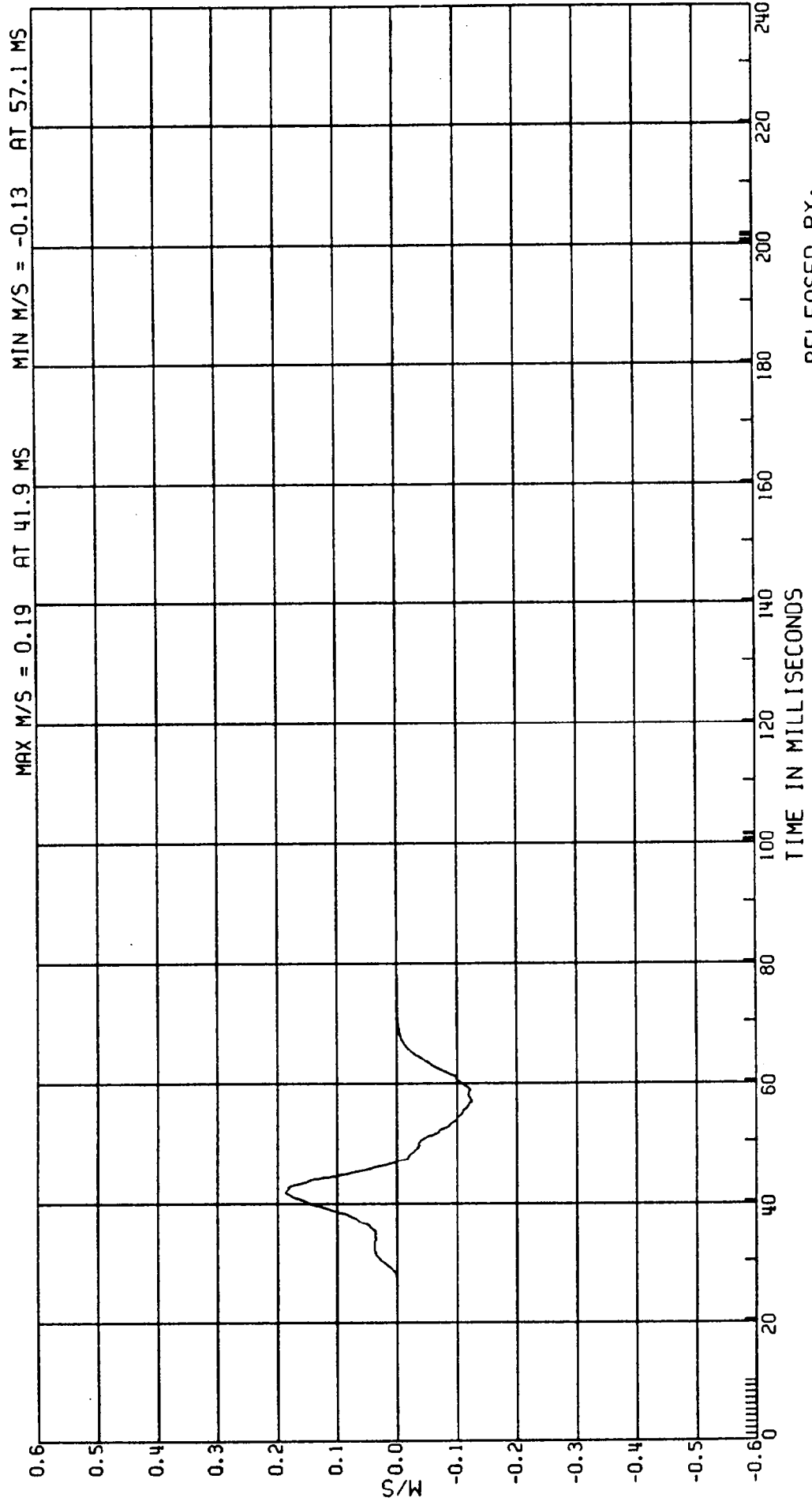
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19 PROCESSED 4 MT 90 14:07

C80078 L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 94
 3868-905 ATD TYPE: BIOSID
 CPE MVMA 78 2AF69 TEST DATE:03-13-90
 ELEC DATA, SAE CLASS 60 L. REAR 2ND THORACIC RIB VELOCITY
 (DIFF OF 2ND RIB DISP)



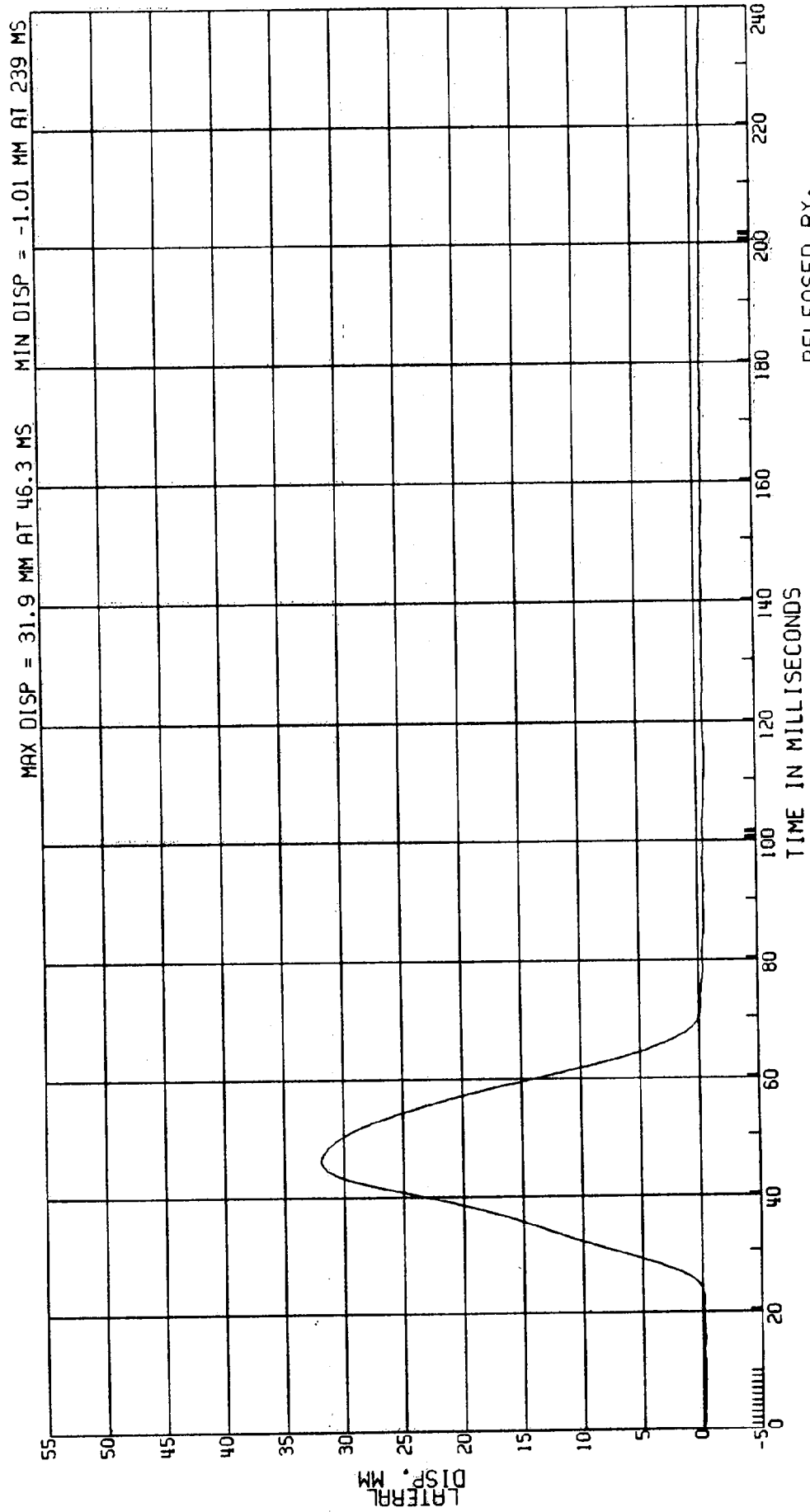
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 20 PROCESSED, 4 MY, 90 14:07

C8007B L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 95
 3868-905 ATD TYPE: BIOSID
 CPE MVMA 7B 2AF69 TEST DATE:03-13-90
 ELEC DATA, SAE CLASS 60 (2ND RIB DISP*2ND RIB VEL)/175MM



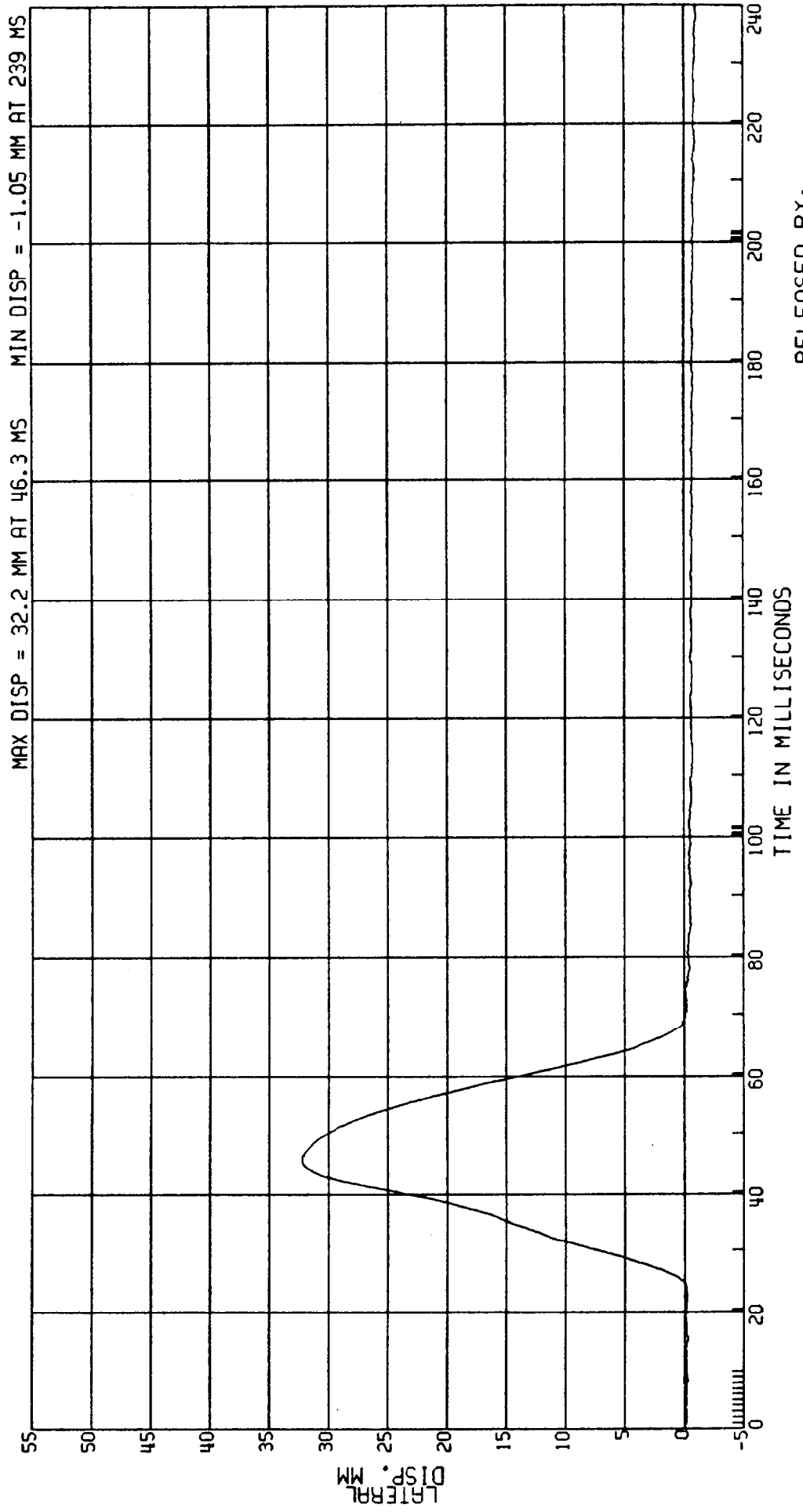
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C8007B L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 96
3868-905 ATD TYPE: BIOSID
CPE MVMA 7B 2AF69 L.REAR THIRD THORACIC RIB DISP. TEST DATE:03-13-90
ELEC DATA, SAE CLASS 60



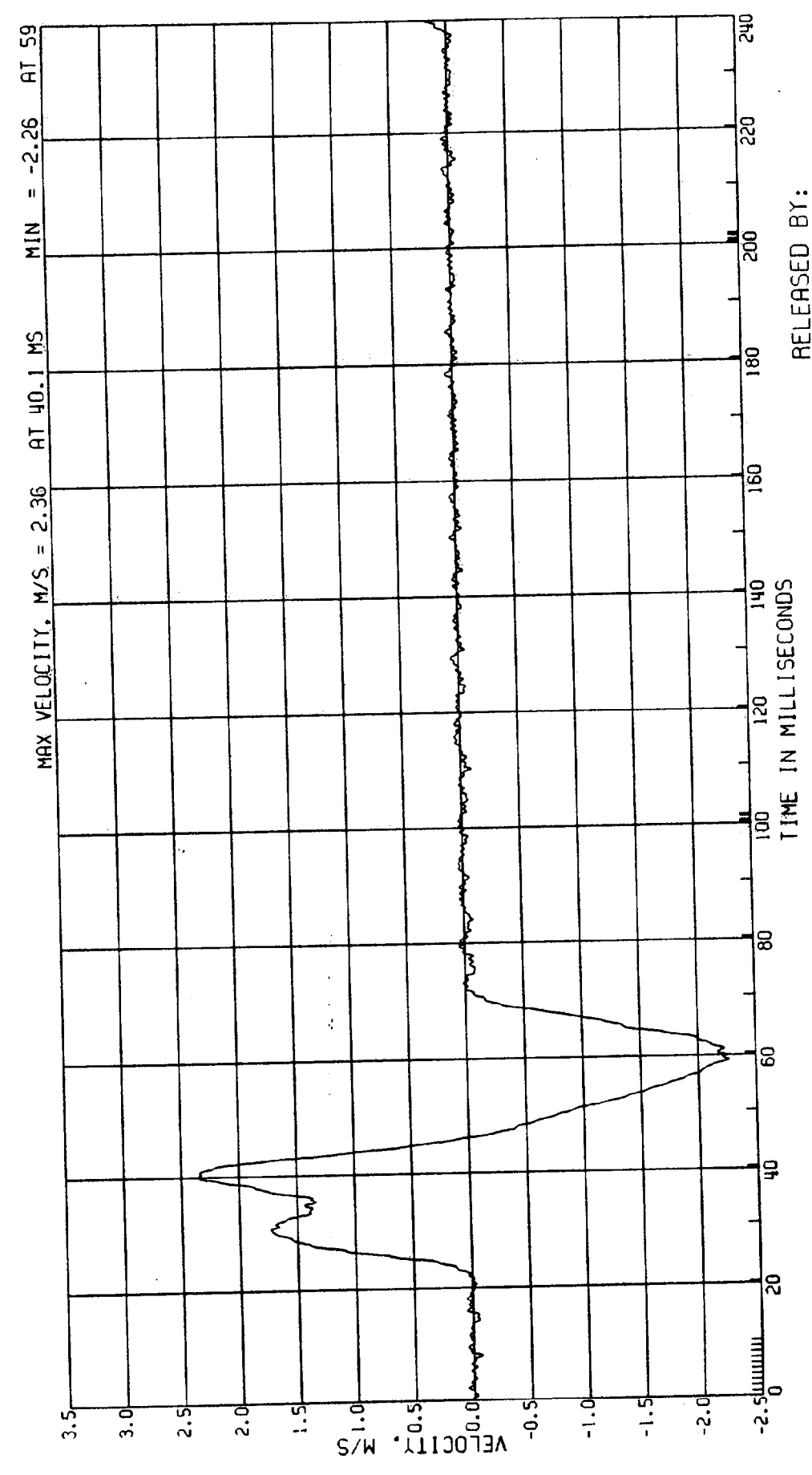
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22 PROCESSED 14 MT 90 14:07

C8007B L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 97
3868-905 ATD TYPE: BIOSID
CPE MVMA 7B 2AF69 L. REAR THIRD THORACIC RIB DISP. TEST DATE:03-13-90
ELEC DATA, SAE CLASS 180



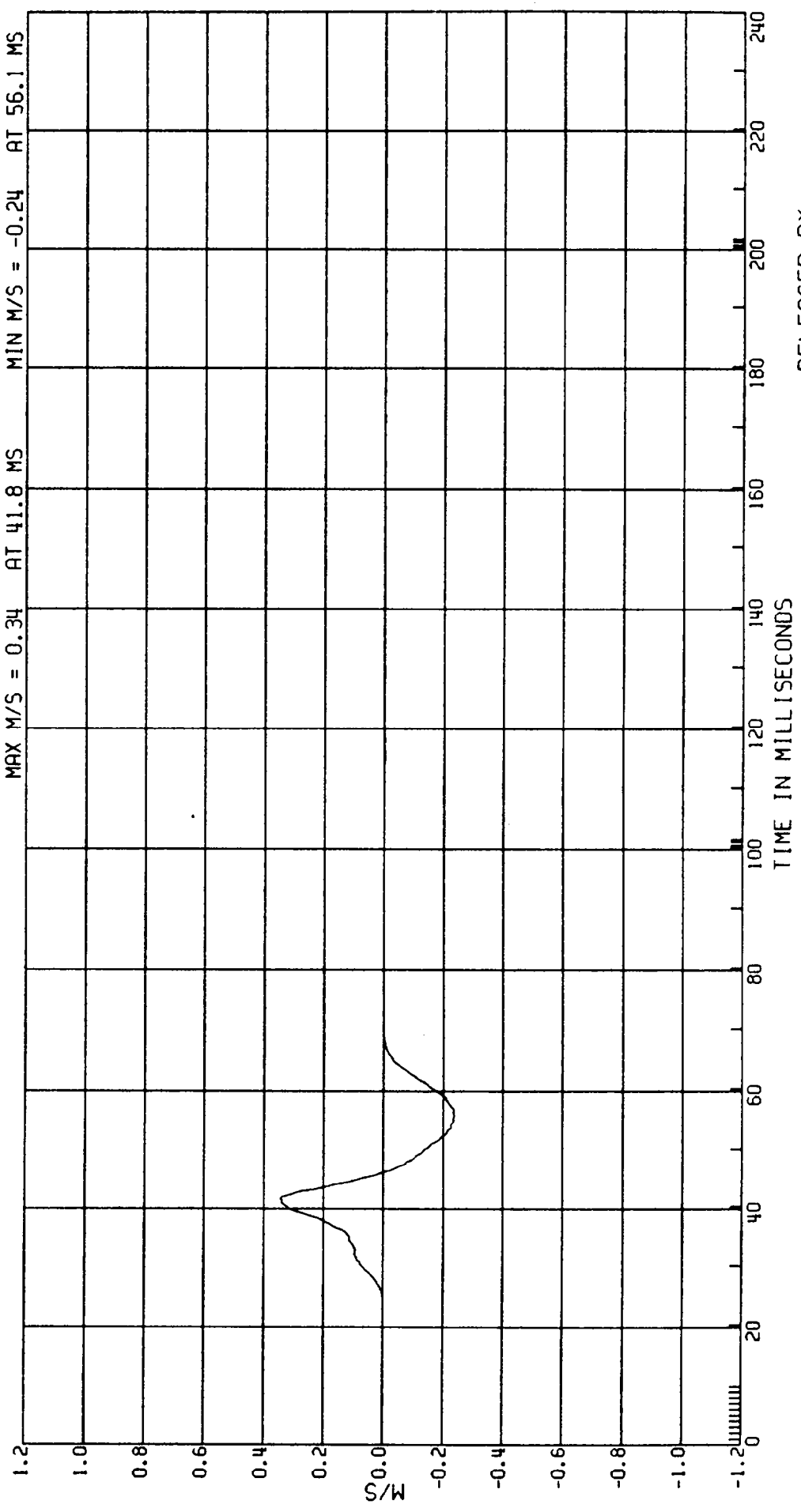
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23 PROCESSED 4 MY 90 14:07

C8007B L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6 KM/H FIGURE 98
3868-905 ATD TYPE: BIOSID
CPE MVMA 7B 2AF69 L. REAR 3RD THORACIC RIB VELOCITY TEST DATE: 03-13-90
ELEC DATA, SAE CLASS 60 (DIFF OF 3RD RIB DISP)



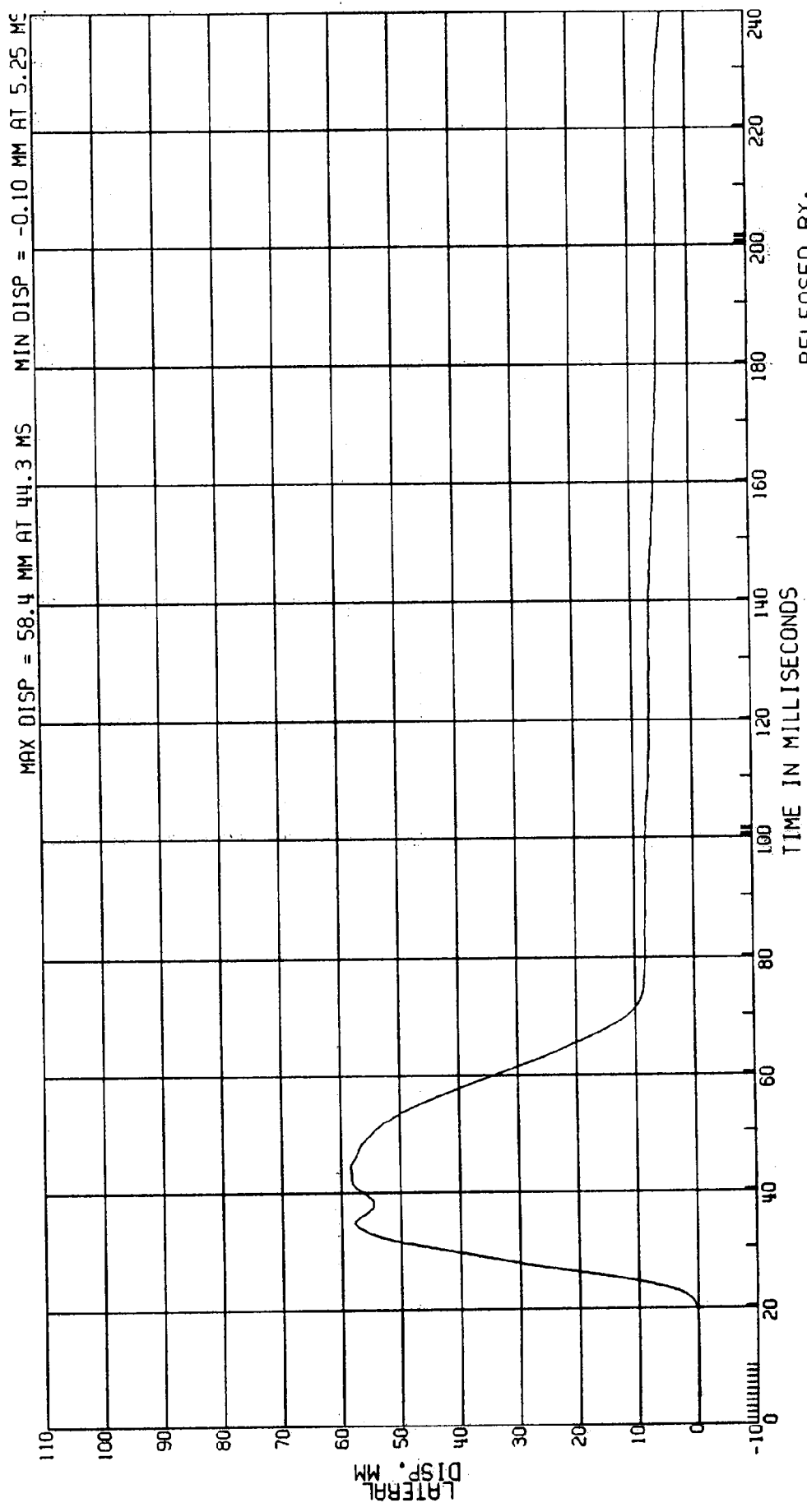
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C8007B L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 99
3868-905 ATD TYPE: B10SID
CPE MVMA 7B 2AF69 VISCIOUS RESPONSE OF 3RD THORACIC RIB
ELEC DATA, SAE CLASS 60 (3RD RIB DISP*3RD RIB VEL) /175MM
TEST DATE:03-13-90



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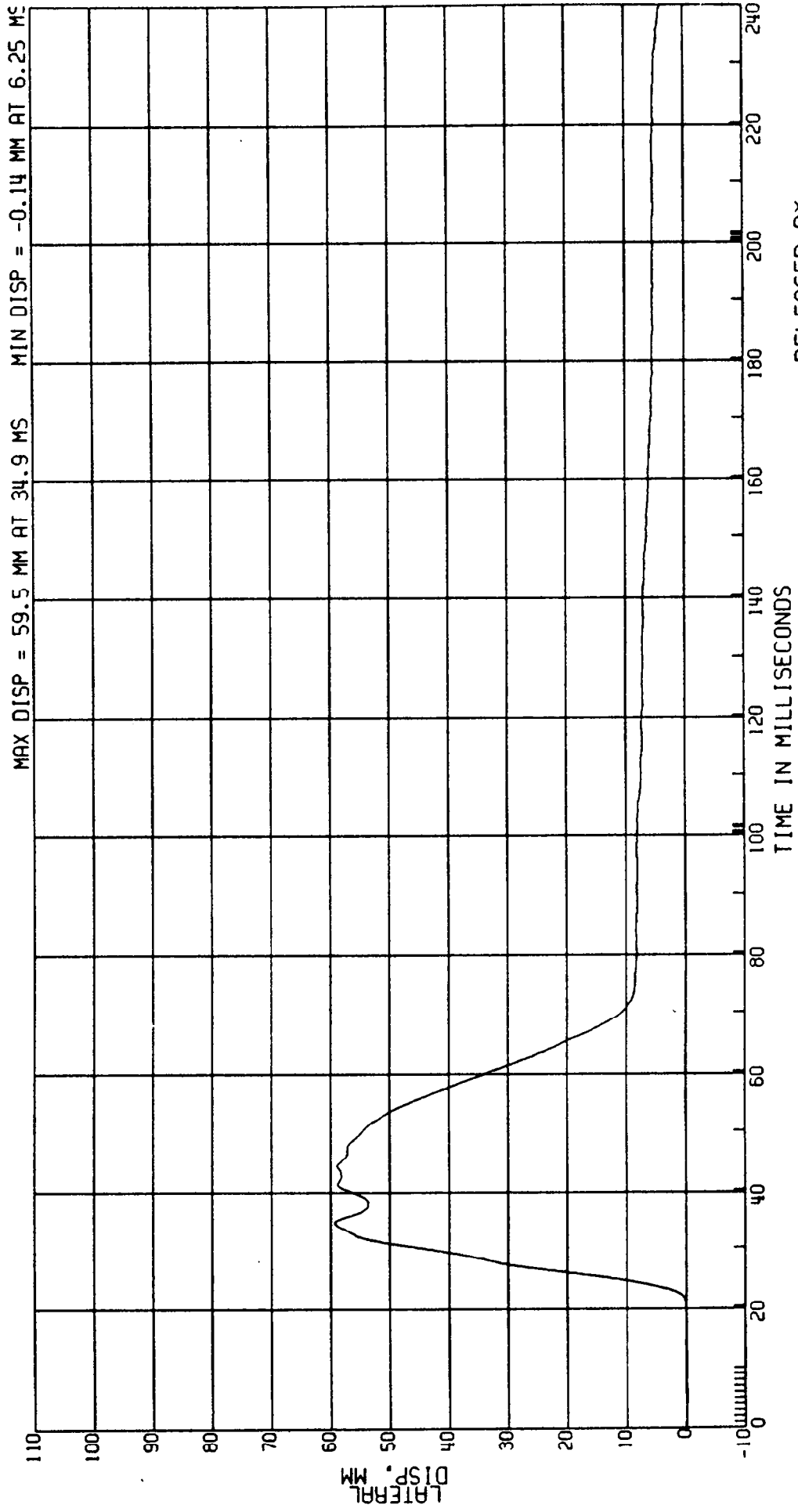
C80078 L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE /00
 3868-905 ATD TYPE: BIOSID
 CPE MVMA 7B 2AF69 L. REAR FIRST ABDOMINAL RIB DISP. TEST DATE: 03-13-90
 ELEC DATA, SAE CLASS 60



RELEASED BY:

26 PROCESSED 4 MY 90 14:07

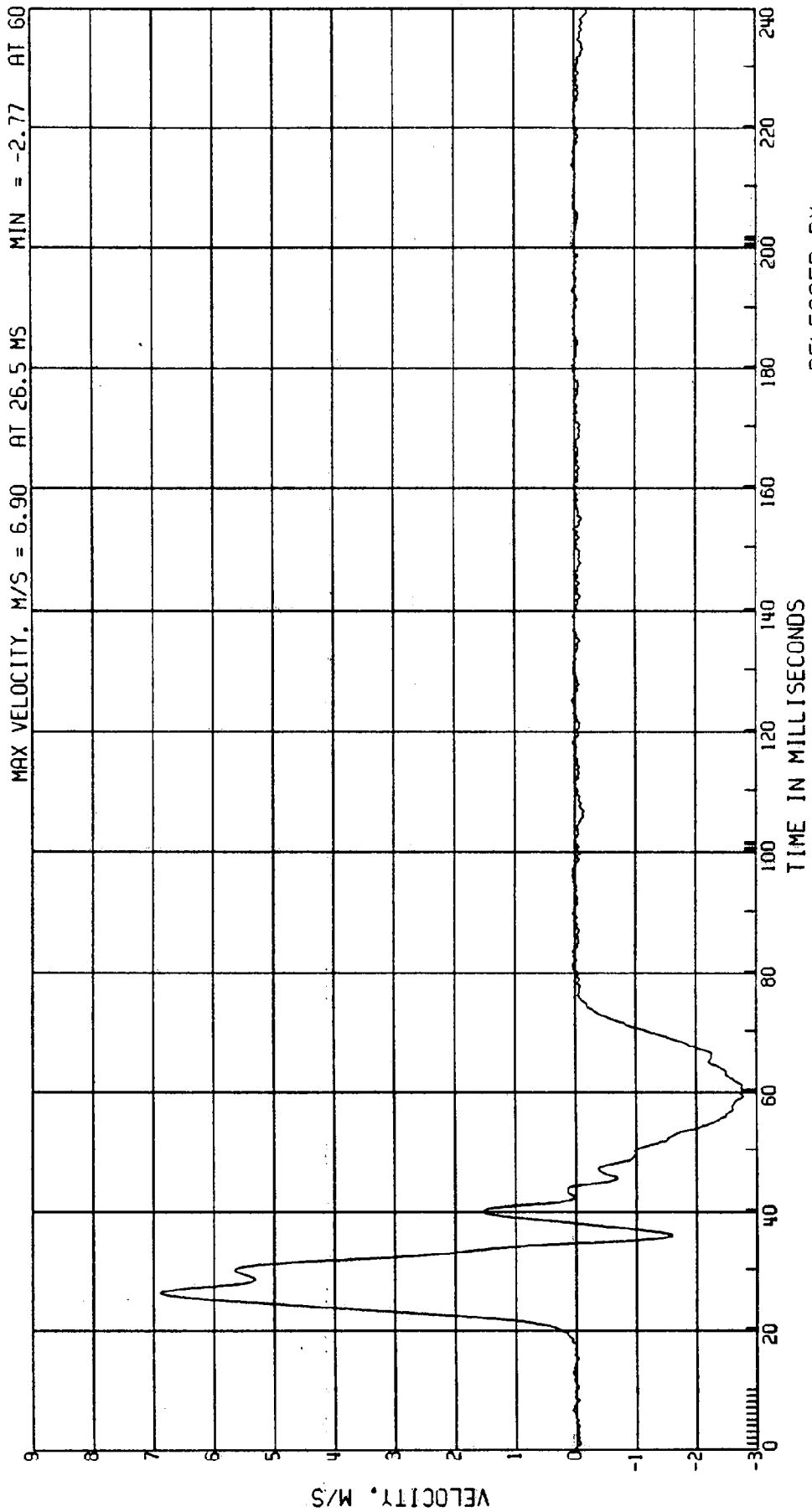
C8007B L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 101
3868-905 ATD TYPE: B10SID
CPE MVMA 78 2AF69 L. REAR FIRST ABDOMINAL RIB DISP. TEST DATE:03-13-90
ELEC DATA, SAE CLASS 180



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27 PROCESSED 4 MT 90 14:07

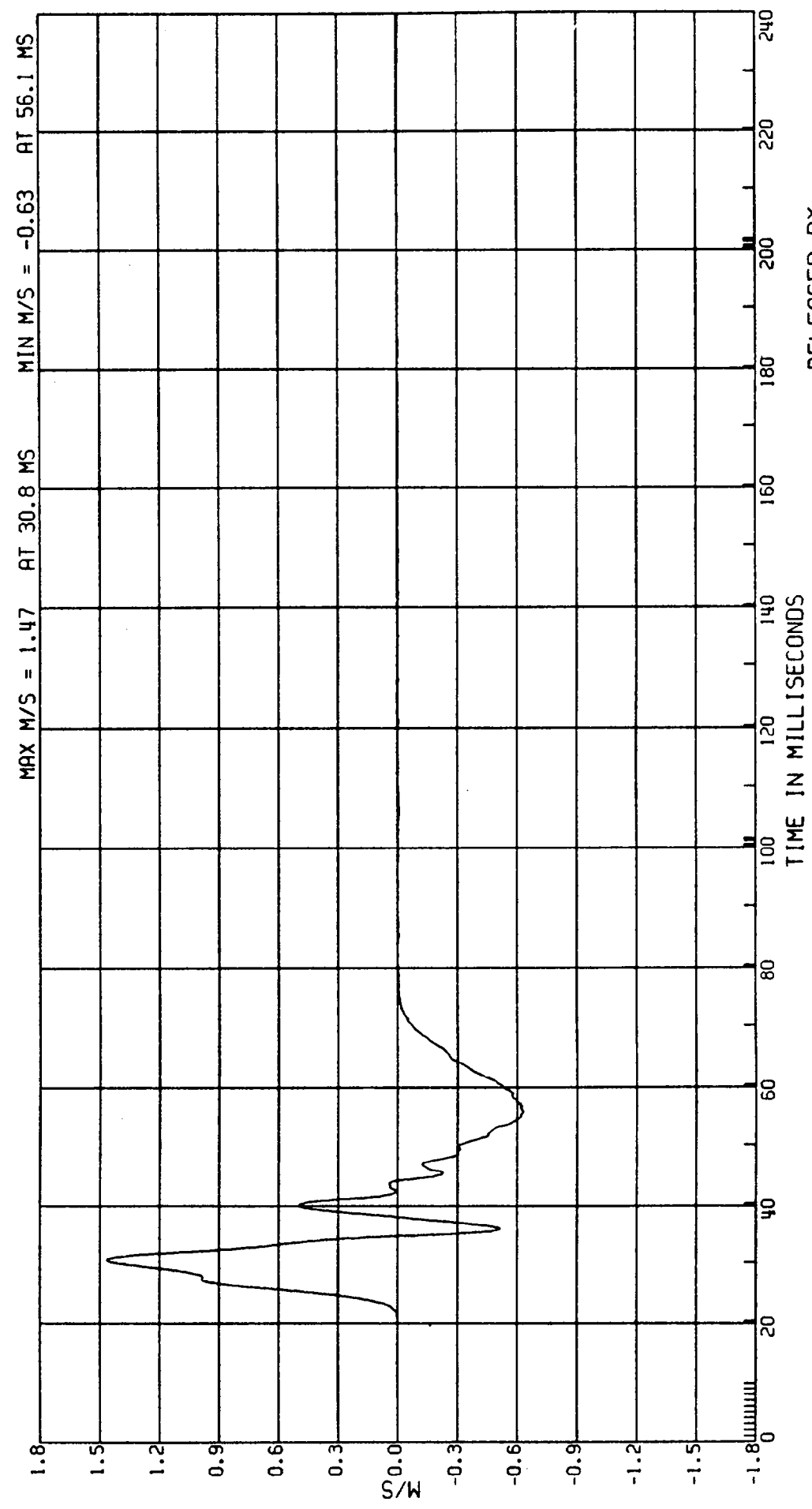
C8007B L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 102
3868-905 ATD TYPE: BIOSID
CPE MVMA 78 2AF69 L. REAR 1ST ABDOMINAL RIB VELOCITY TEST DATE:03-13-90
ELEC DATA, SAE CLASS 60 (DIFF OF 1ST RIB DISP)



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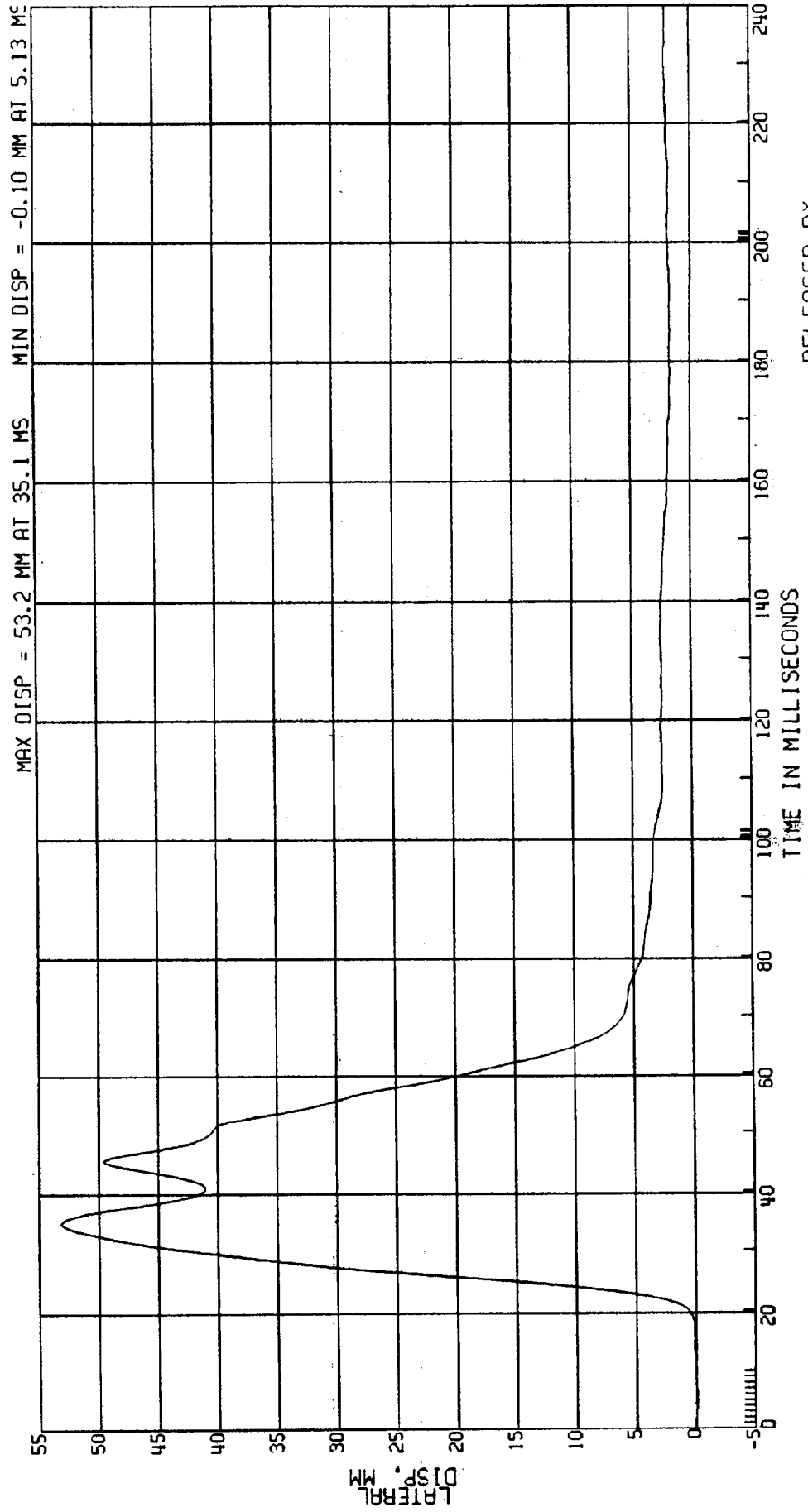
28 PROCESSED 4 MAR 90 14:07

C80078 L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE /03
 3868-905 ATD TYPE: BIOSID
 CPE MVMA 7B 2AF69 VISCOUS RESPONSE OF 1ST ABDOMINAL RIB
 ELEC DATA, SAE CLASS 60 (1ST RIB DISP*1ST RIB VEL)/175MM
 TEST DATE:03-13-90



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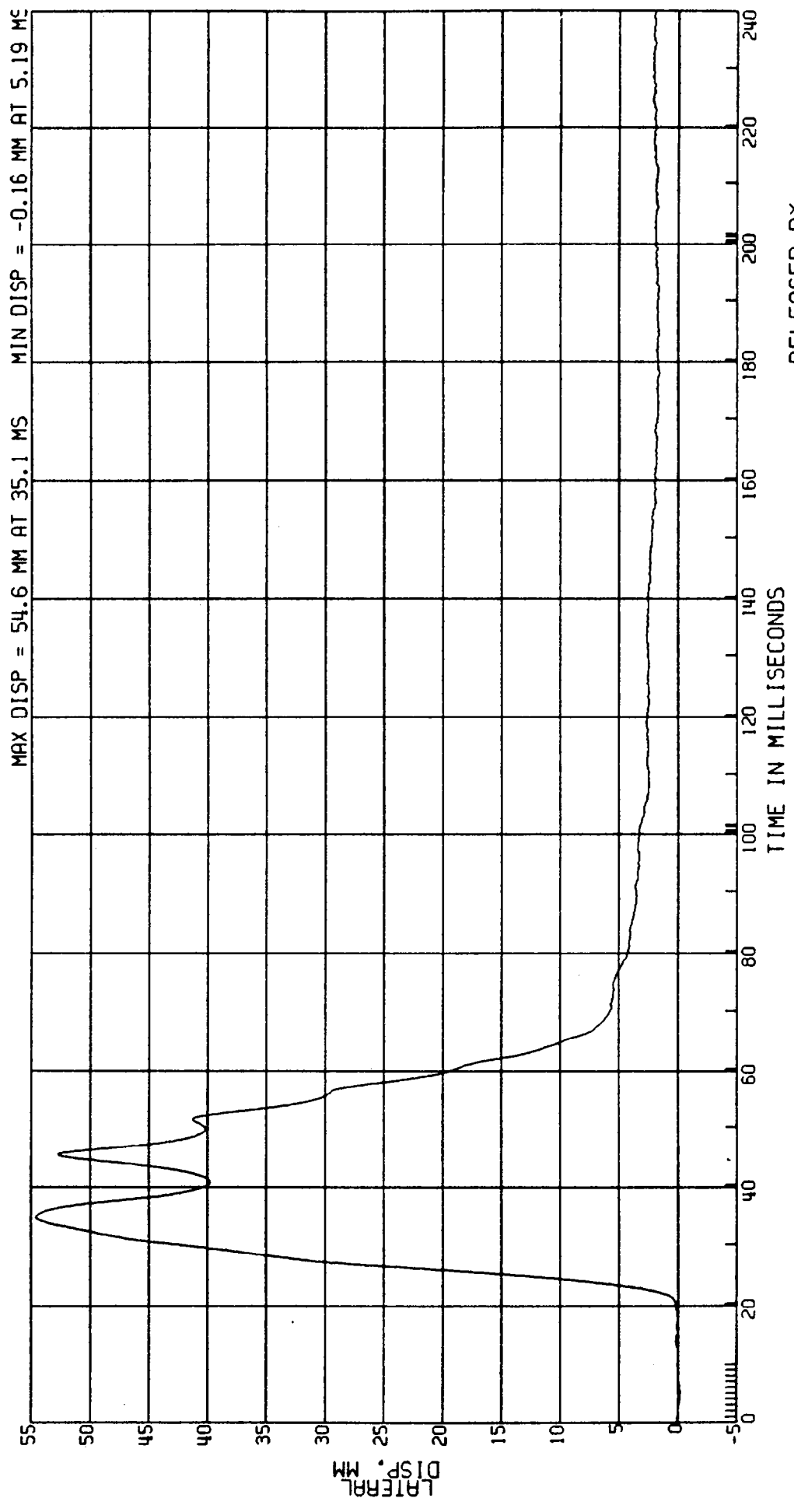
380078 L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6 KM/H FIGURE 104
 3868-905
 MVMA 7B 2AF69
 ELEC DATA, SAE CLASS 60
 ATD TYPE: BIOSID
 TEST DATE: 03-13-90
 L. REAR SECOND ABDOMINAL RIB DISP.



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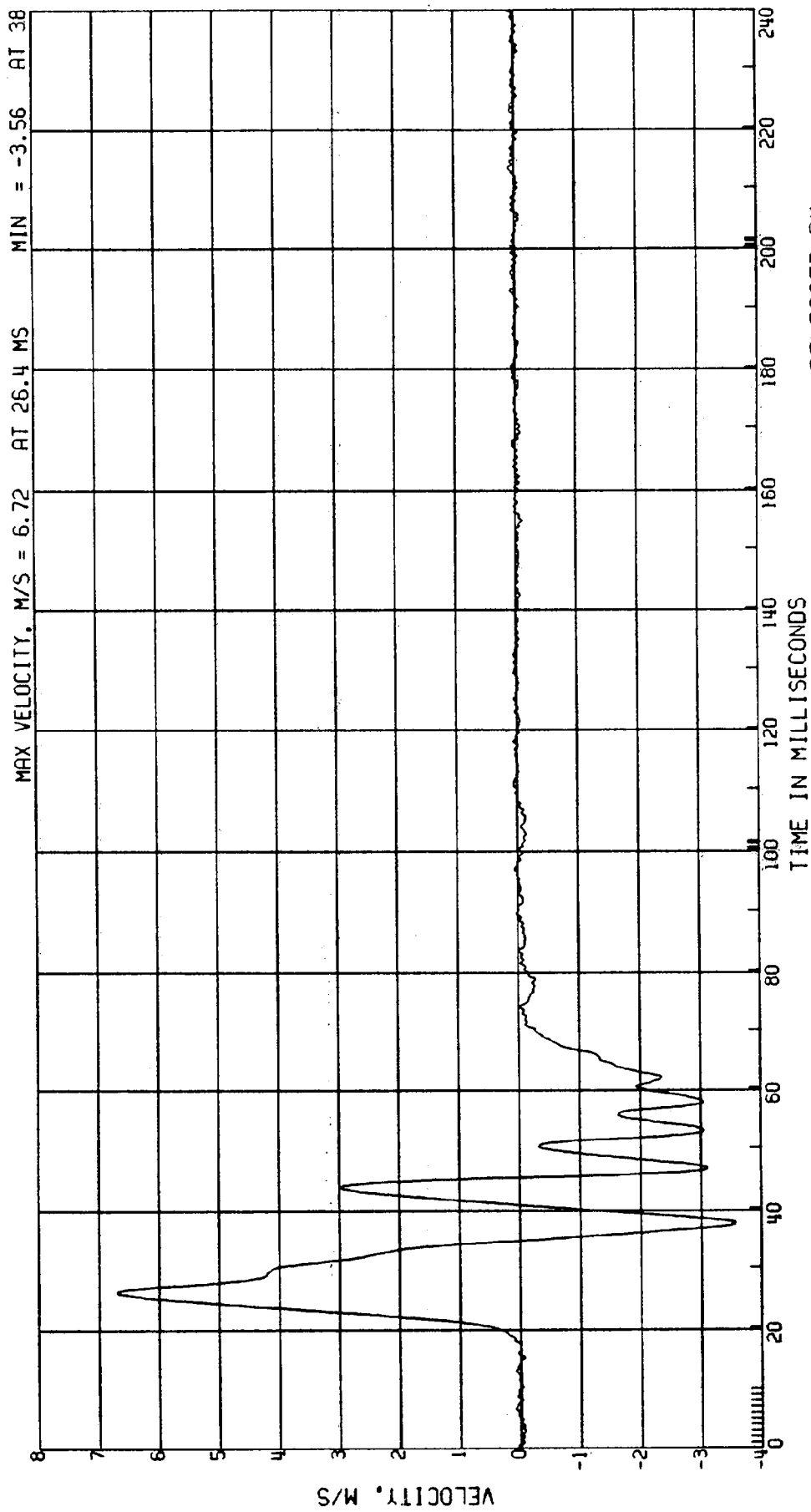
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C8007B L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 105
3868-905 ATD TYPE: BIOSID
CPE MVMA 7B 2AF69 L. REAR SECOND ABDOMINAL RIB DISP. TEST DATE:03-13-90
ELEC DATA, SAE CLASS 180



RELEASED BY:
31 PROCESSED 4 MY 90 14:07

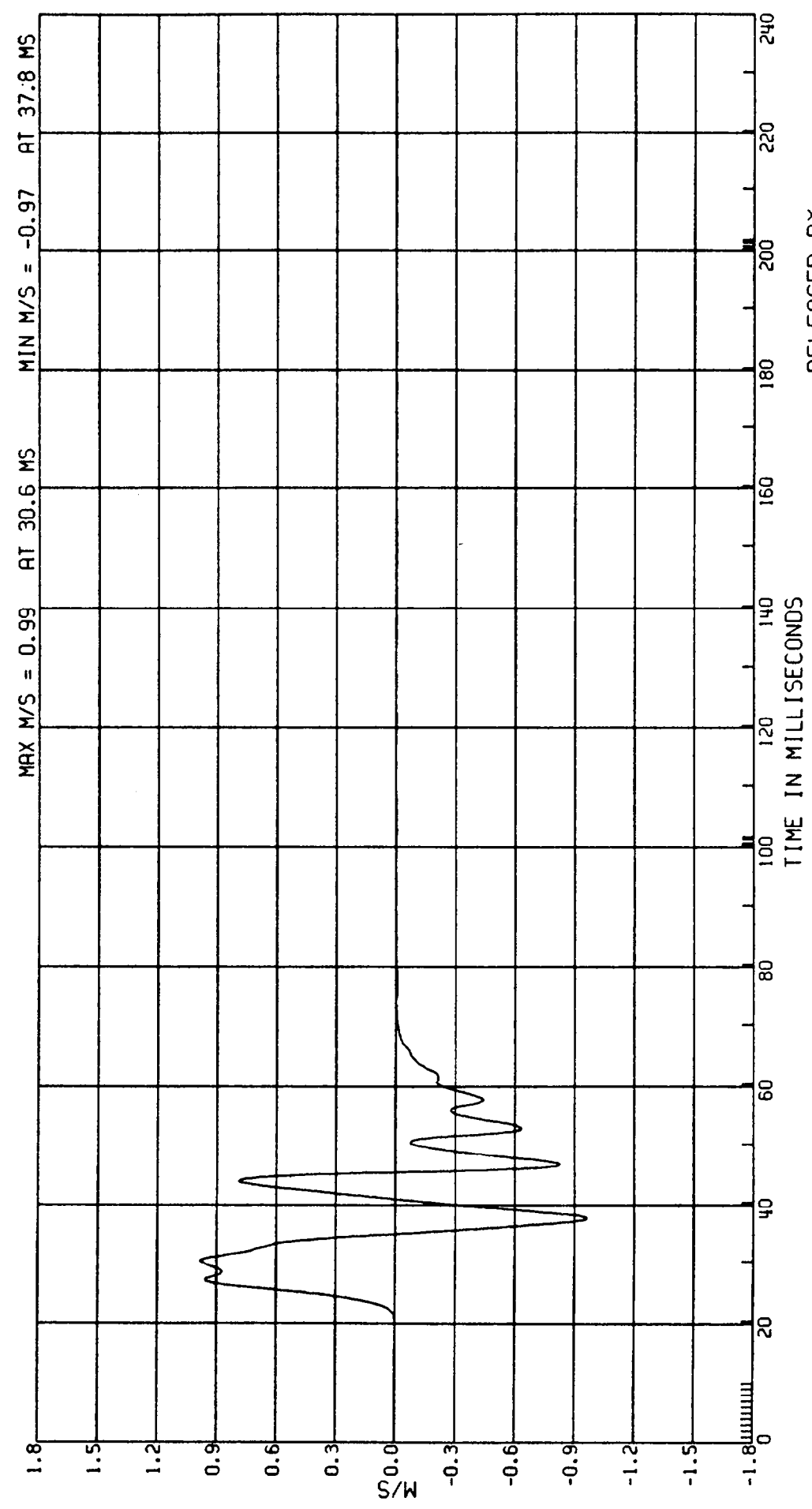
C8007B L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 106
3868-905 M/MMA 7B 2AF69 ATD TYPE: BIOSID
CPE L. REAR 2ND ABDOMINAL RIB VELOCITY TEST DATE: 03-13-90
ELEC DATA, SAE CLASS 60 (DIFF OF 2ND RIB DISP)



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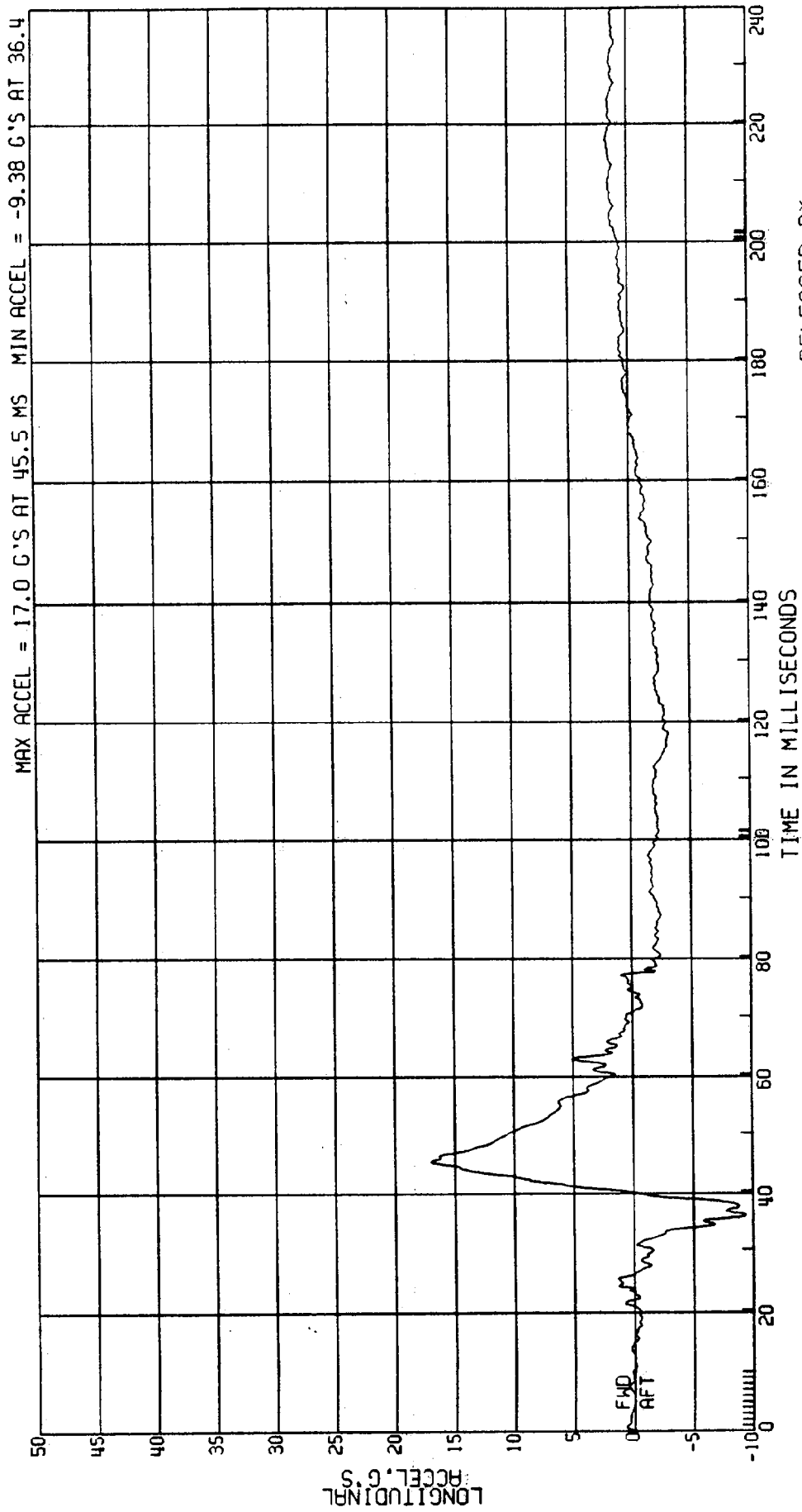
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C8007B L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 107
 3868-905
 CPE MVMA 7B 2AF69 ATD TYPE: BIOSID
 ELEC DATA, SAE CLASS 60 (2ND RIB DISP*2ND RIB VEL)/175MM TEST DATE:03-13-90



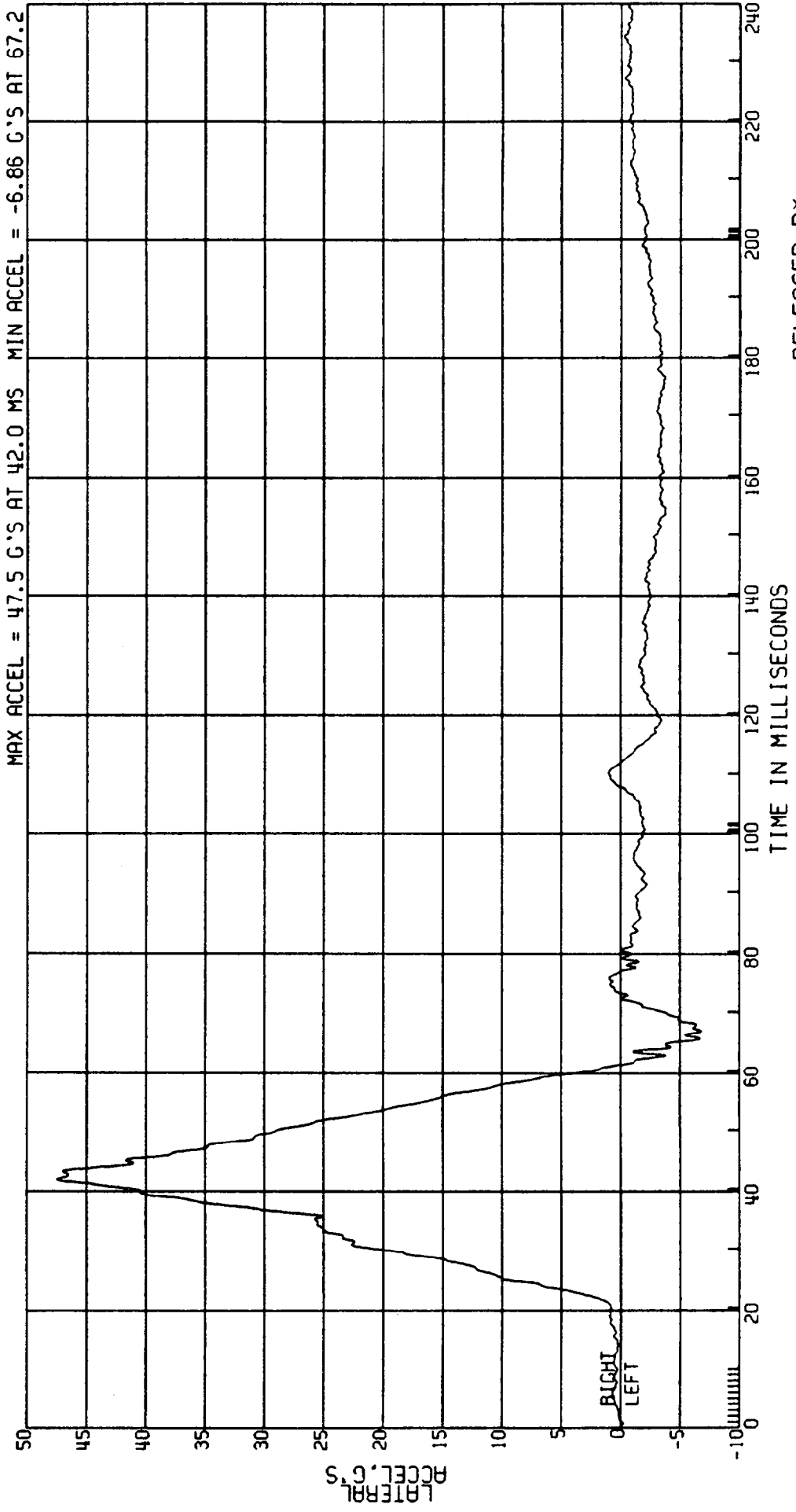
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C80078 L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6 KM/H FIGURE 108
 3868-905 AID TYPE: B10SID
 CPE MVMA 7B 2AF69 L. REAR UPPER SPINE ACCEL.
 ELEC DATA, SAE CLASS 180 TEST DATE: 03-13-90



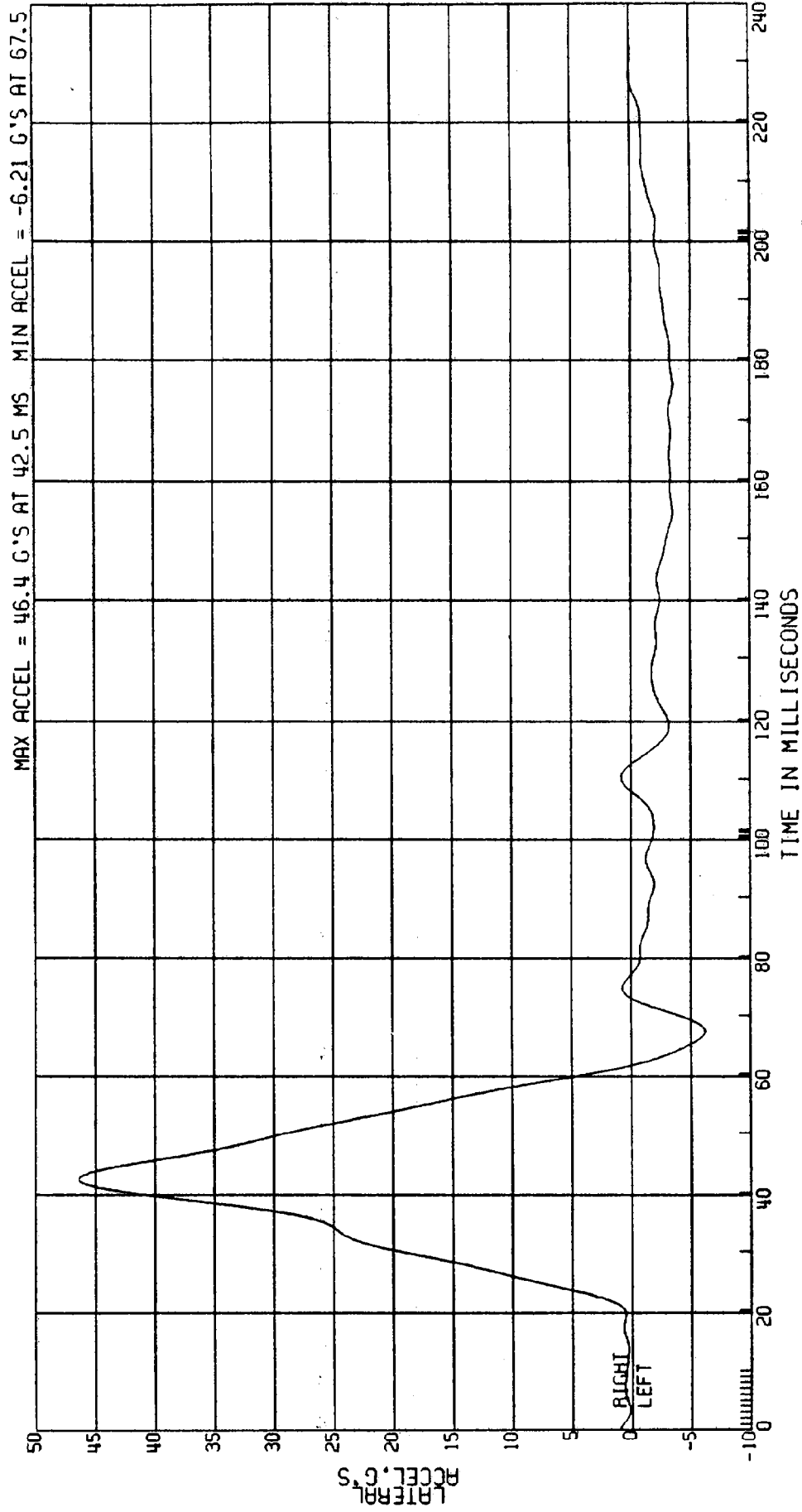
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C8007B L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 109
 3868-905
 CPE MVMA 7B 2AF69
 ELEC DATA, SAE CLASS 180
 ATD TYPE: BIOSID
 TEST DATE: 03-13-90
 L. REAR UPPER SPINE ACCEL.



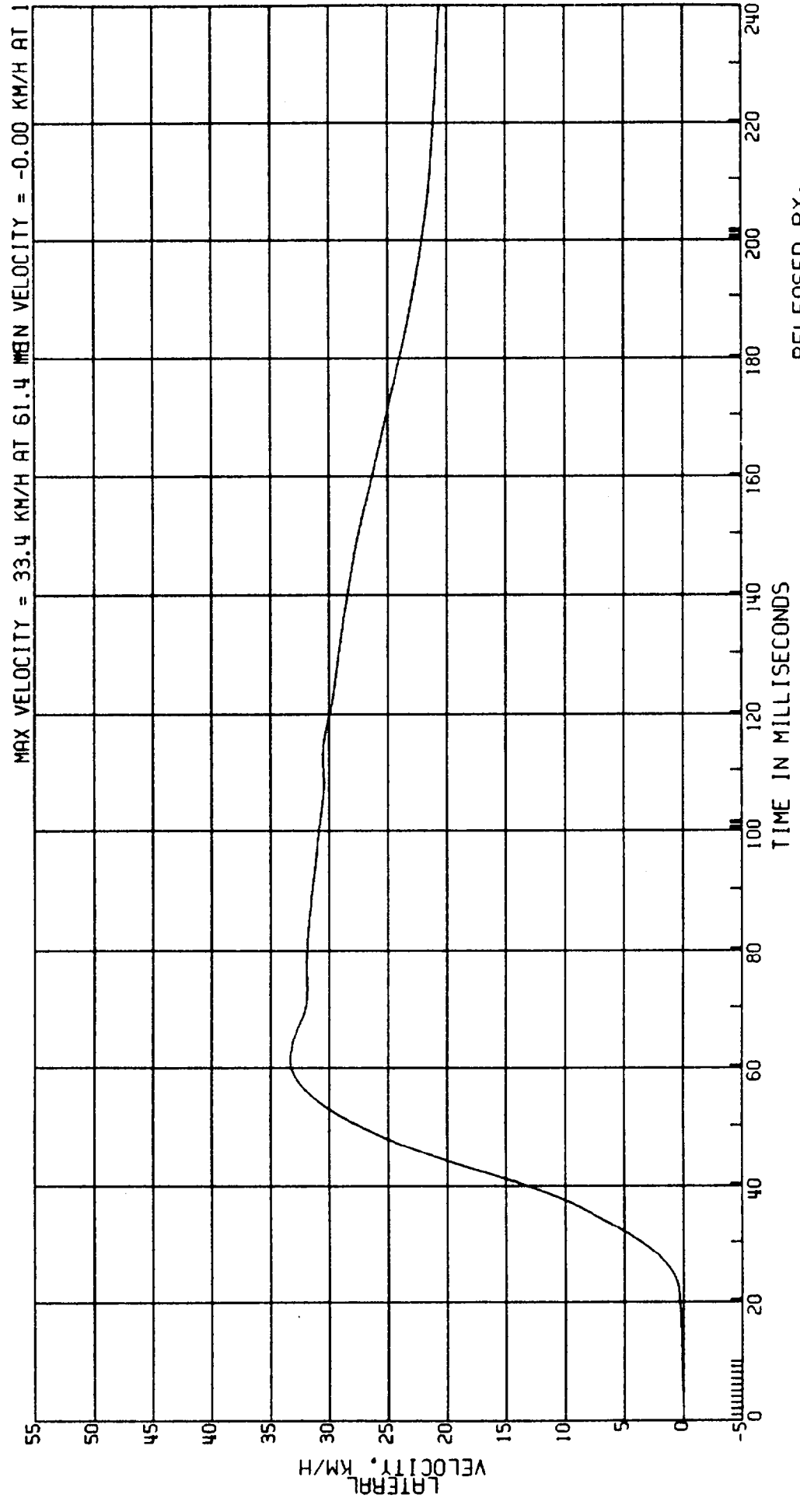
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C80078 L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE //0
 3868-905 MVMA 7B 2AF69 ATD TYPE: BIOSID
 CPE L. REAR UPPER SPINE ACCEL. TEST DATE:03-13-90
 ELEC DATA, NHTSA FIR FILTER F.I.R. FILTER, CLASS 300 BUTTERWORTH



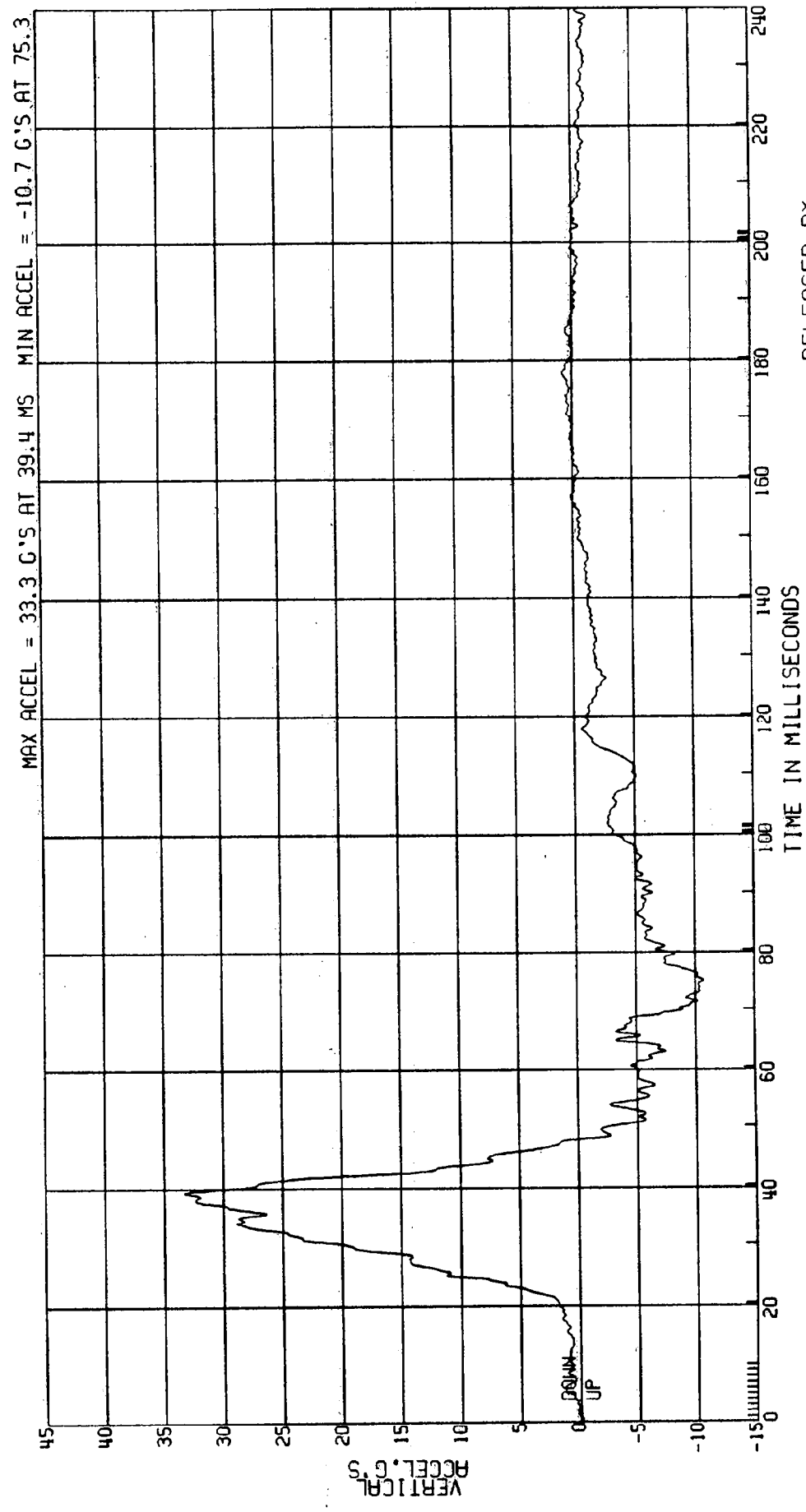
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C8007B L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE / / /
 3868-905 ATD TYPE: BIOSID
 CPE MVMA 7B 2AF69 COMPUTED UPPER SPINE VELOCITY TEST DATE:03-13-90
 ELEC DATA, SAE CLASS 180 (1ST INTEGRAL L.REAR ACCELERATION)



RELEASED BY:
 37 PROCESSED 4 MY 90 14:07

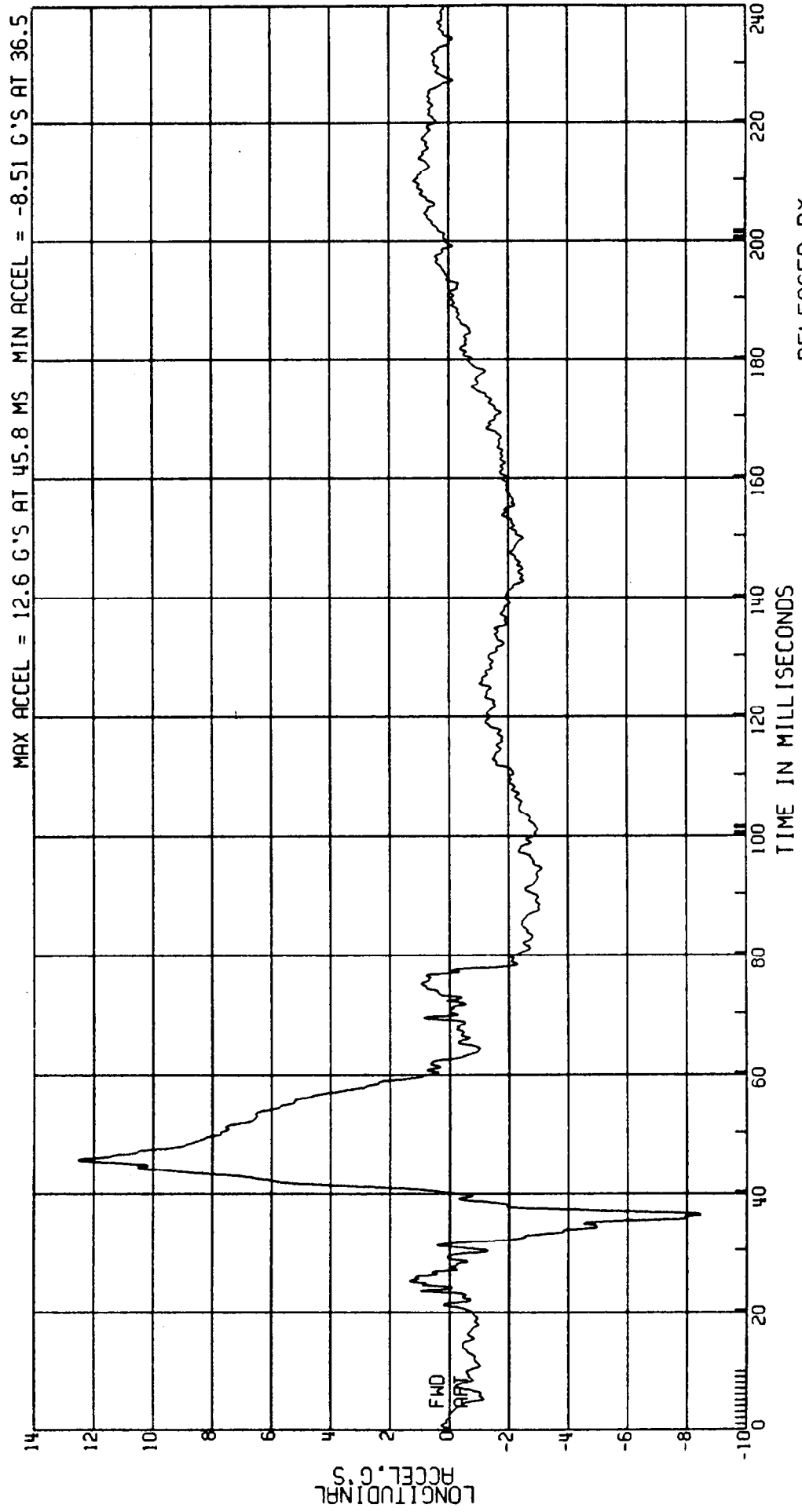
C80078 L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6 KM/H FIGURE 1/2
3868-905 ATD TYPE: BIOSID
CPE MVMA 7B 2AF69 L. REAR UPPER SPINE ACCEL.
ELEC DATA, SAE CLASS 180 TEST DATE: 03-13-90



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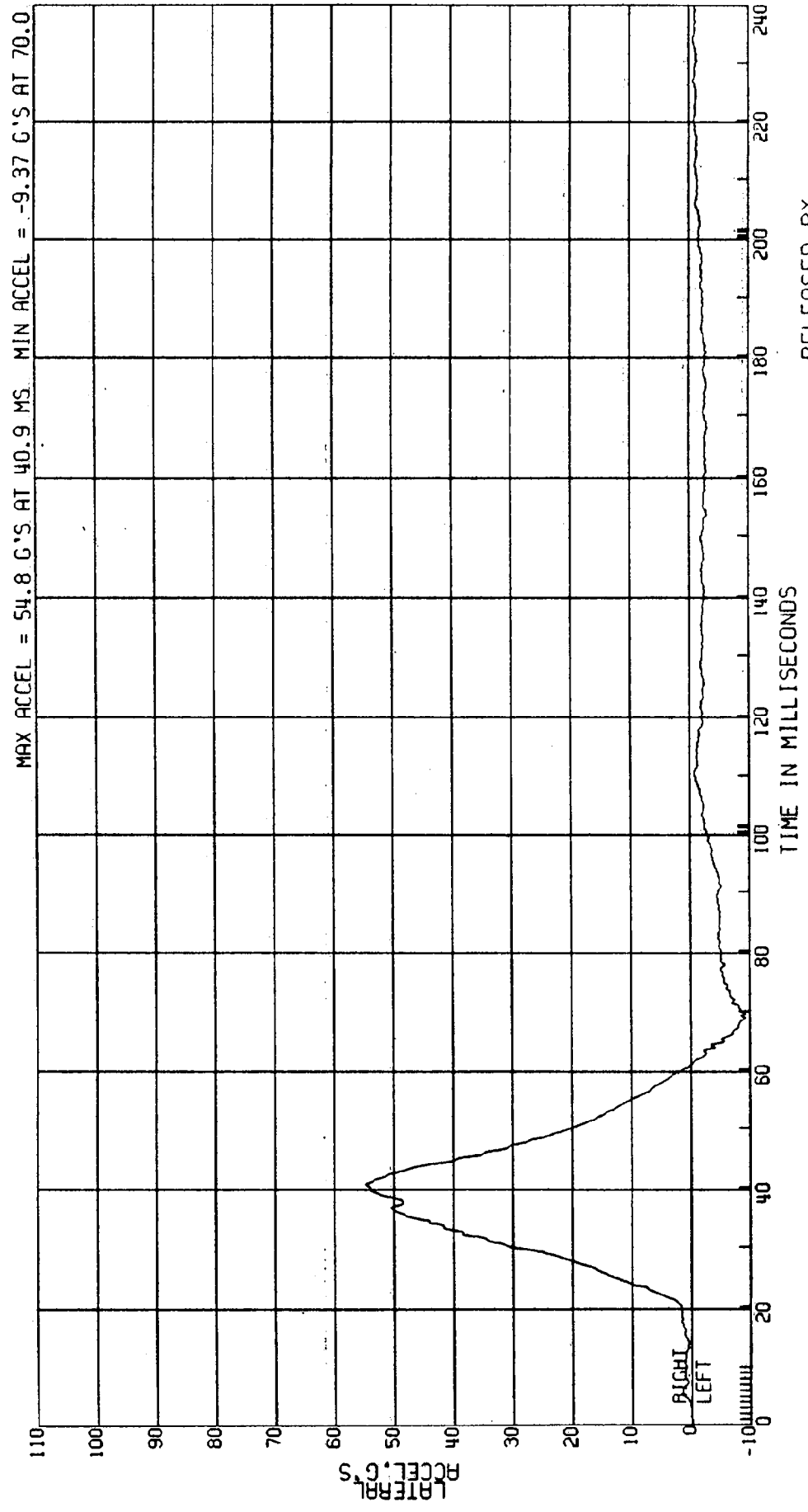
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C8007B L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE /13
3868-905 ATD TYPE: BIOSID
CPE MVMA 7B 2AF69 L. REAR LOWER SPINE ACCEL.
ELEC DATA, SAE CLASS 180 TEST DATE:03-13-90



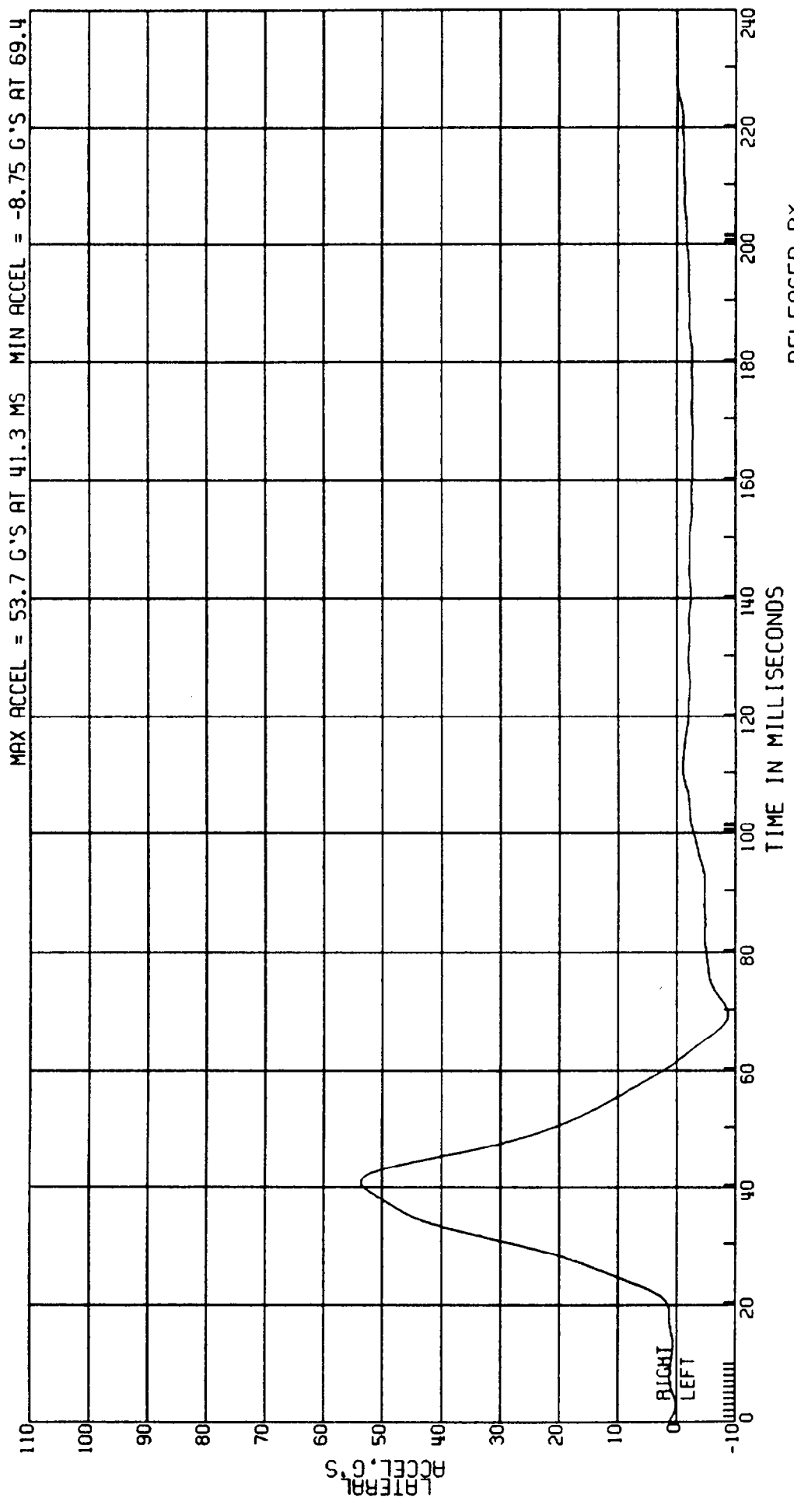
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C8007B L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 114
3868-905 ATD TYPE: BIOSID
CPE MVMA 7B 2AF69 L. REAR LOWER SPINE ACCEL. TEST DATE:03-13-90
ELEC DATA, SAE CLASS 180



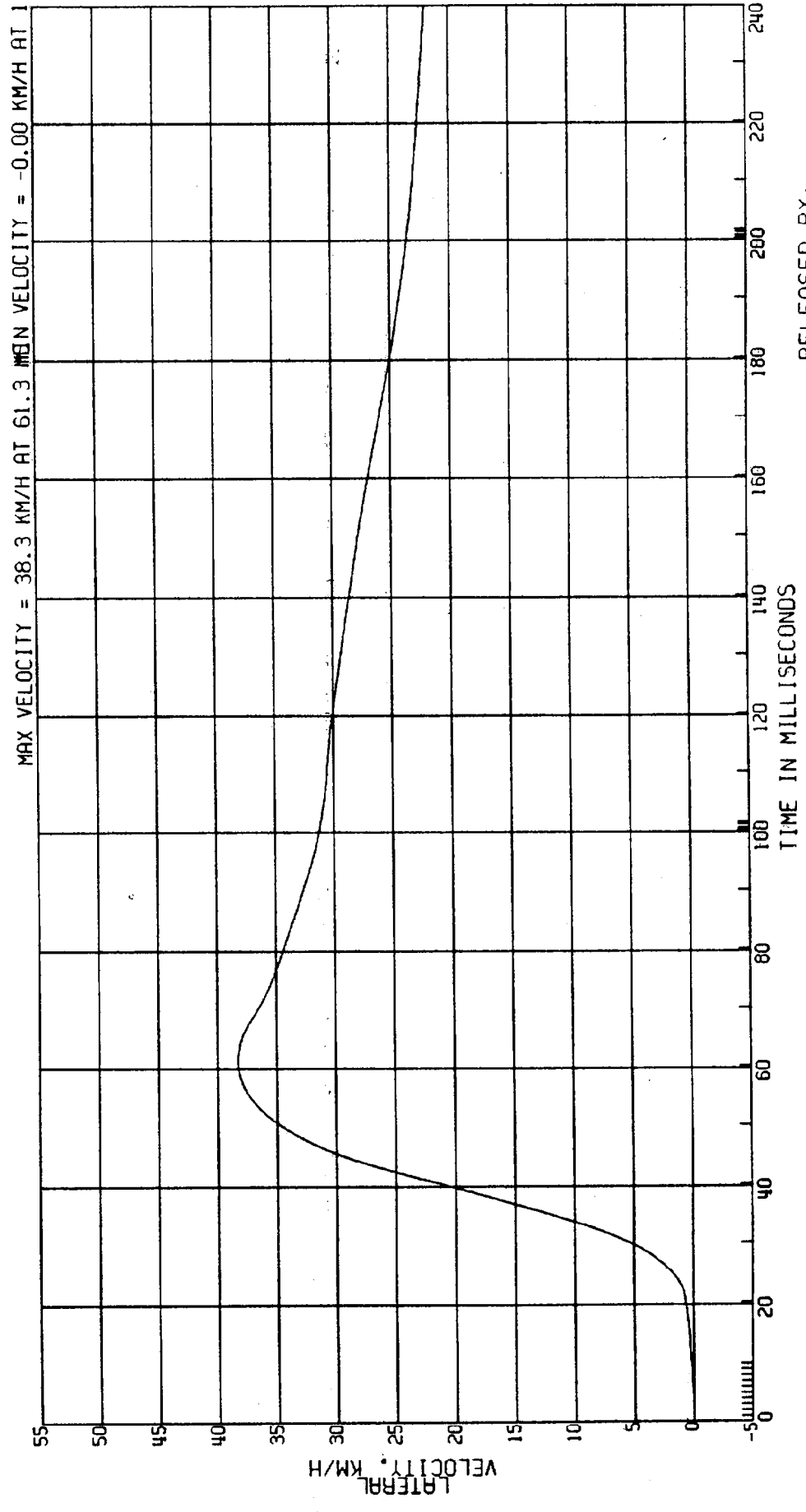
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C8007B L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 115
 3868-905 ATD TYPE: BIOSID
 CPE MVMA 7B 2AF69 TEST DATE:03-13-90
 ELEC DATA, NHTSA FIR FILTER L. REAR LOWER SPINE ACCEL.
 F.I.R. FILTER, CLASS 300 BUTTERWORTH



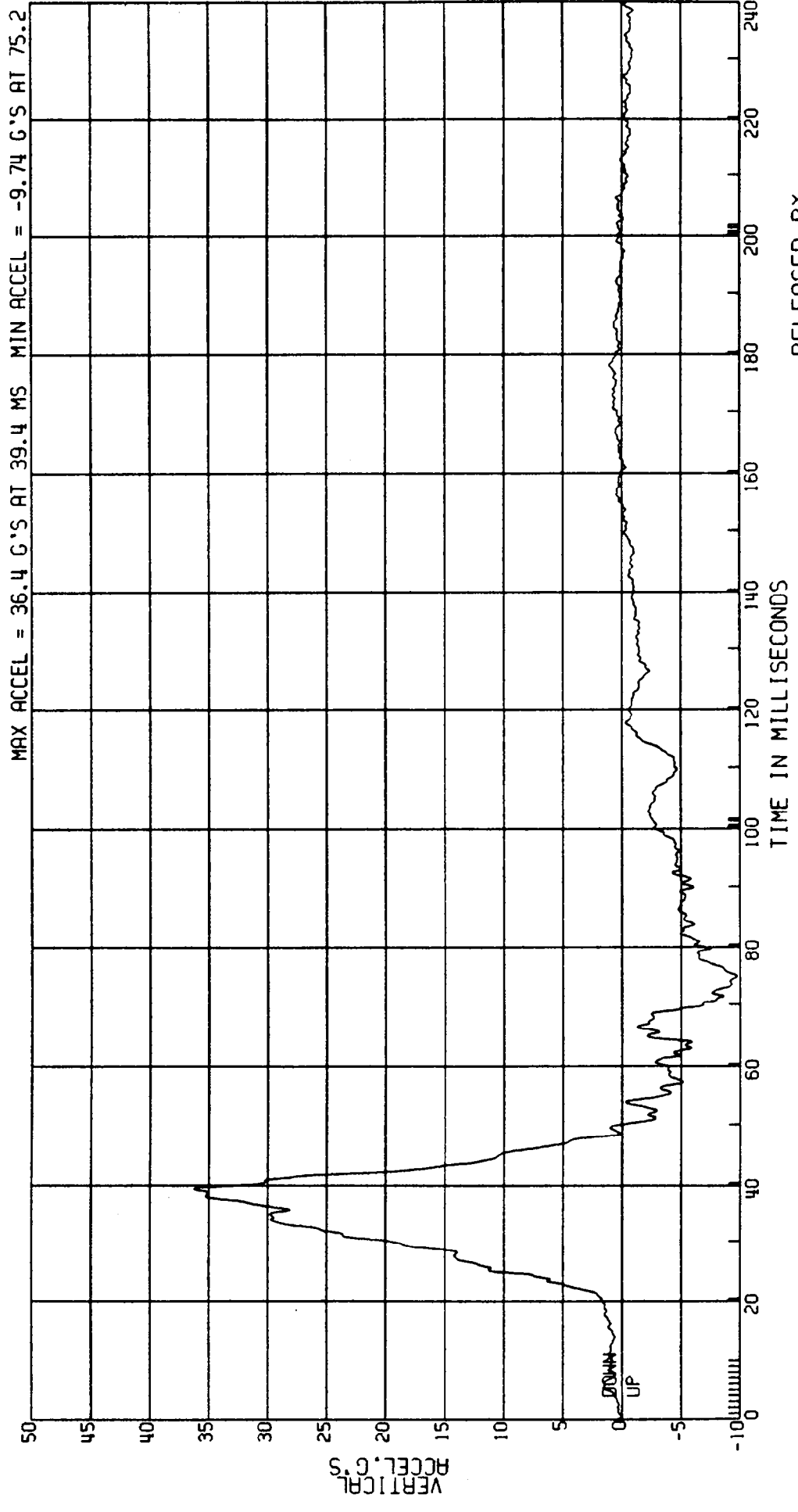
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C80078 L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6 KM/H FIGURE 116
 3868-905 ATD TYPE: BIOSID
 CPE MVMA 7B 2AF69 COMPUTED LOWER SPINE VELOCITY TEST DATE: 03-13-90
 ELEC DATA, SAE CLASS 180 (1ST INTEGRAL L. REAR ACCELERATION)



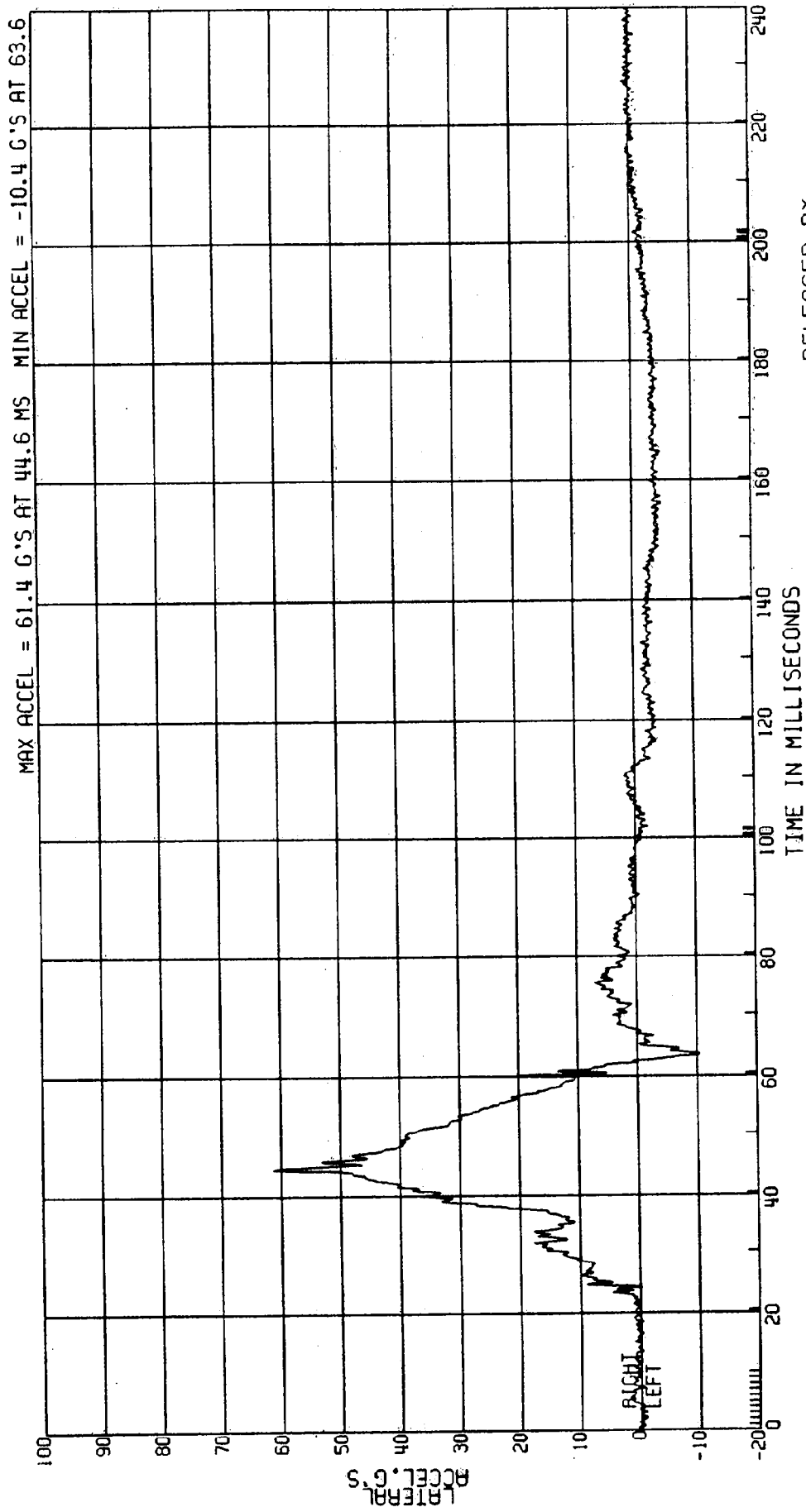
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 42 PROCESSED 4 MY 90 14:08

C80078 L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE /17
3868-905 ATD TYPE: BIOSID
CPE MVMA 7B 2AF69 L. REAR LOWER SPINE ACCEL. TEST DATE:03-13-90
ELEC DATA, SAE CLASS 180



RELEASED BY:
43 PROCESSED 4 MT 90 14:08

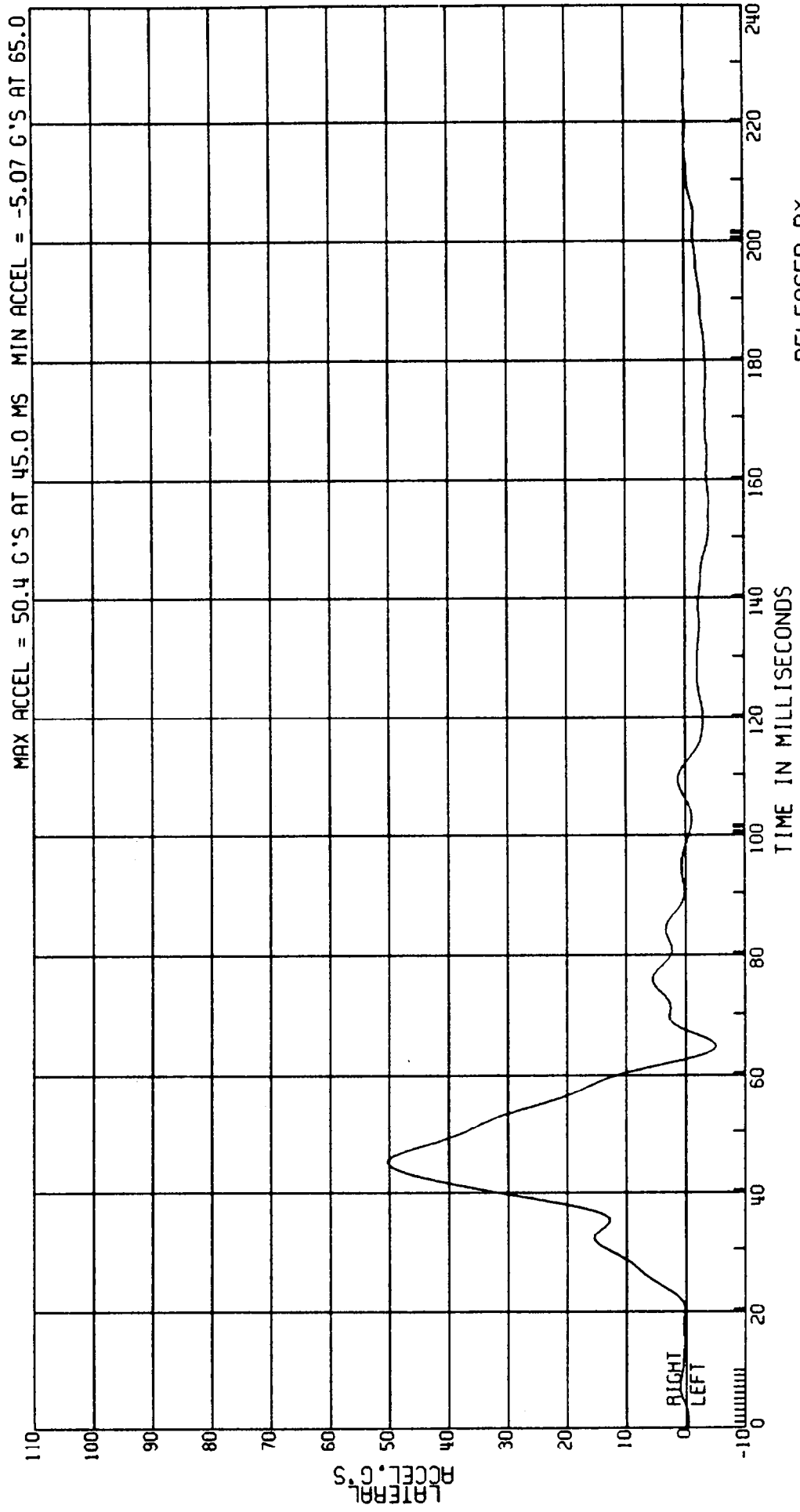
C80078 L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6 KM/H FIGURE 118
 3868-905 ATD TYPE: BIOSID
 CPE MVMA 7B 2AF69 L. REAR T1 ACCEL. TEST DATE: 03-13-90
 ELEC DATA, SAE CLASS 1000



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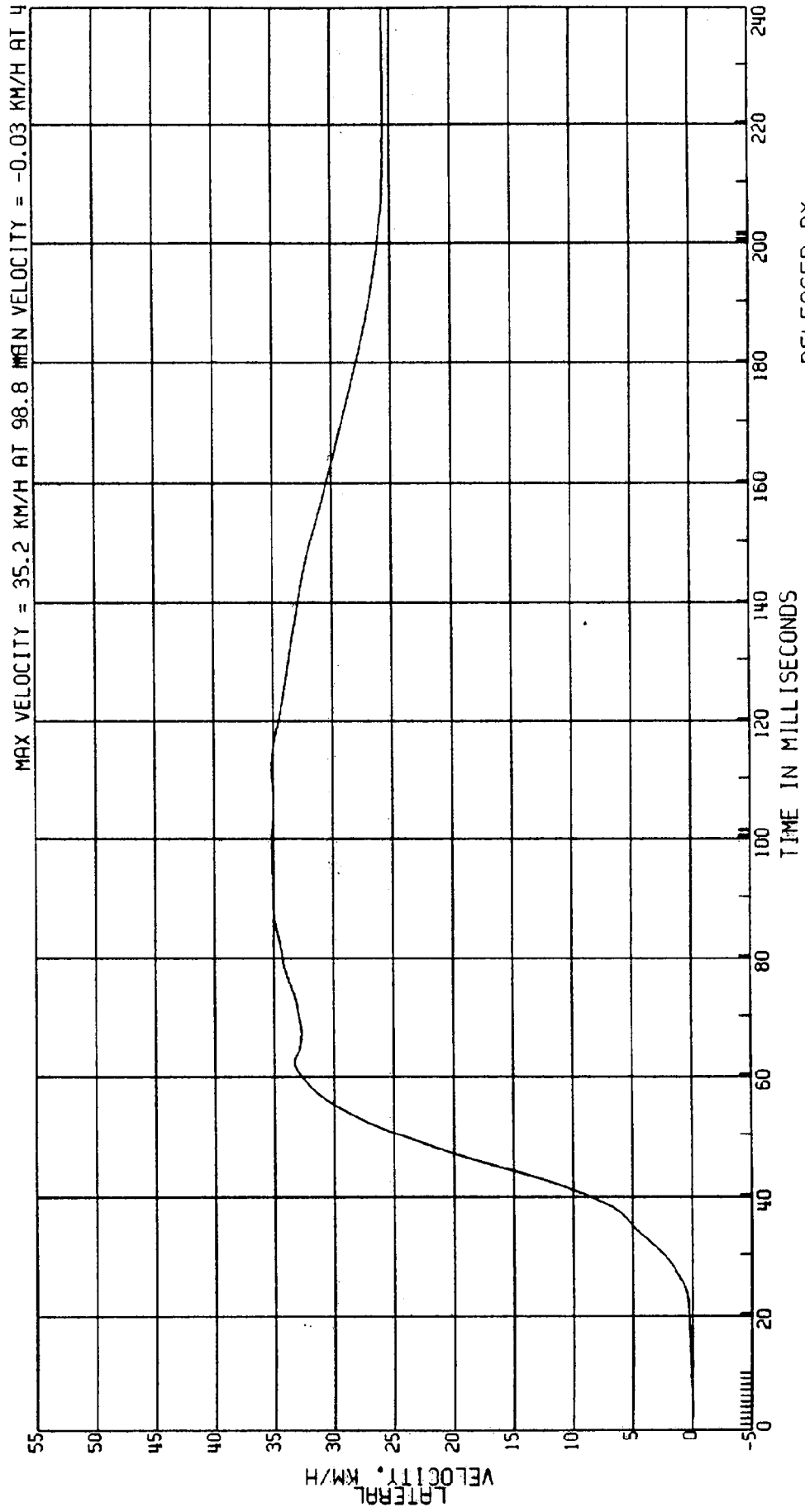
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C8007B L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 119
3868-905
CPE MVMA 7B 2AF69
ELEC DATA, NHTSA FIR FILTER F.I.R. FILTER, CLASS 300 BUTTERWORTH
L.REAR T1 ACCEL.
ATD TYPE: BIOSID
TEST DATE:03-13-90



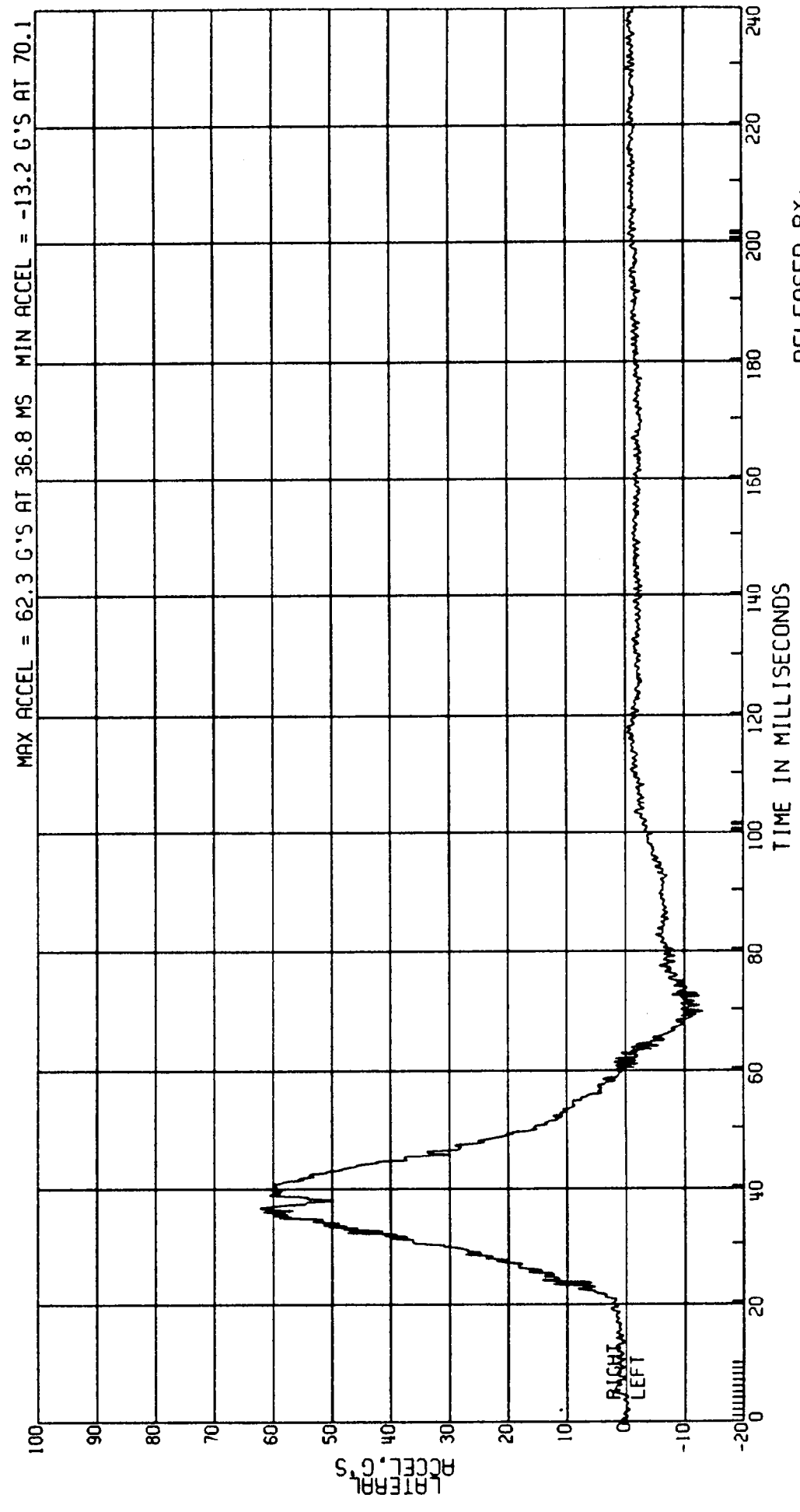
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C8007B L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6 KM/H FIGURE /20
 3868-905
 CPE MVMA 7B 2AF69
 ELEC DATA, SAE CLASS 180
 COMPUTED T1 VELOCITY
 (1ST INTEGRAL L. REAR ACCELERATION)
 ATD TYPE: BIOSID
 TEST DATE: 03-13-90



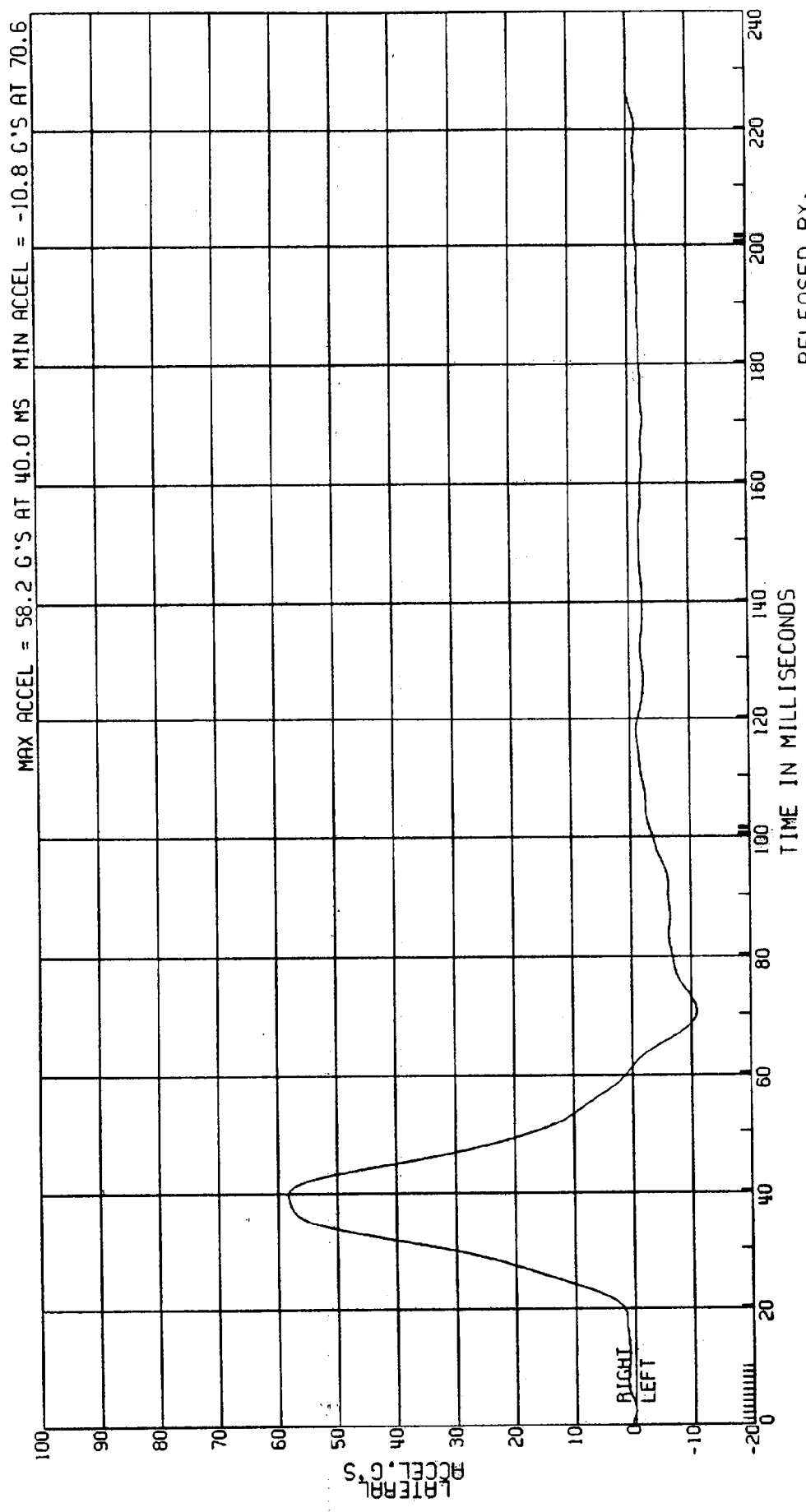
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C80078 L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 121
 3868-905
 CPE MVMA 7B 2AF69
 ELEC DATA, SAE CLASS 1000
 L. REAR T12 ACCEL.
 ATD TYPE: BIOSID
 TEST DATE: 03-13-90



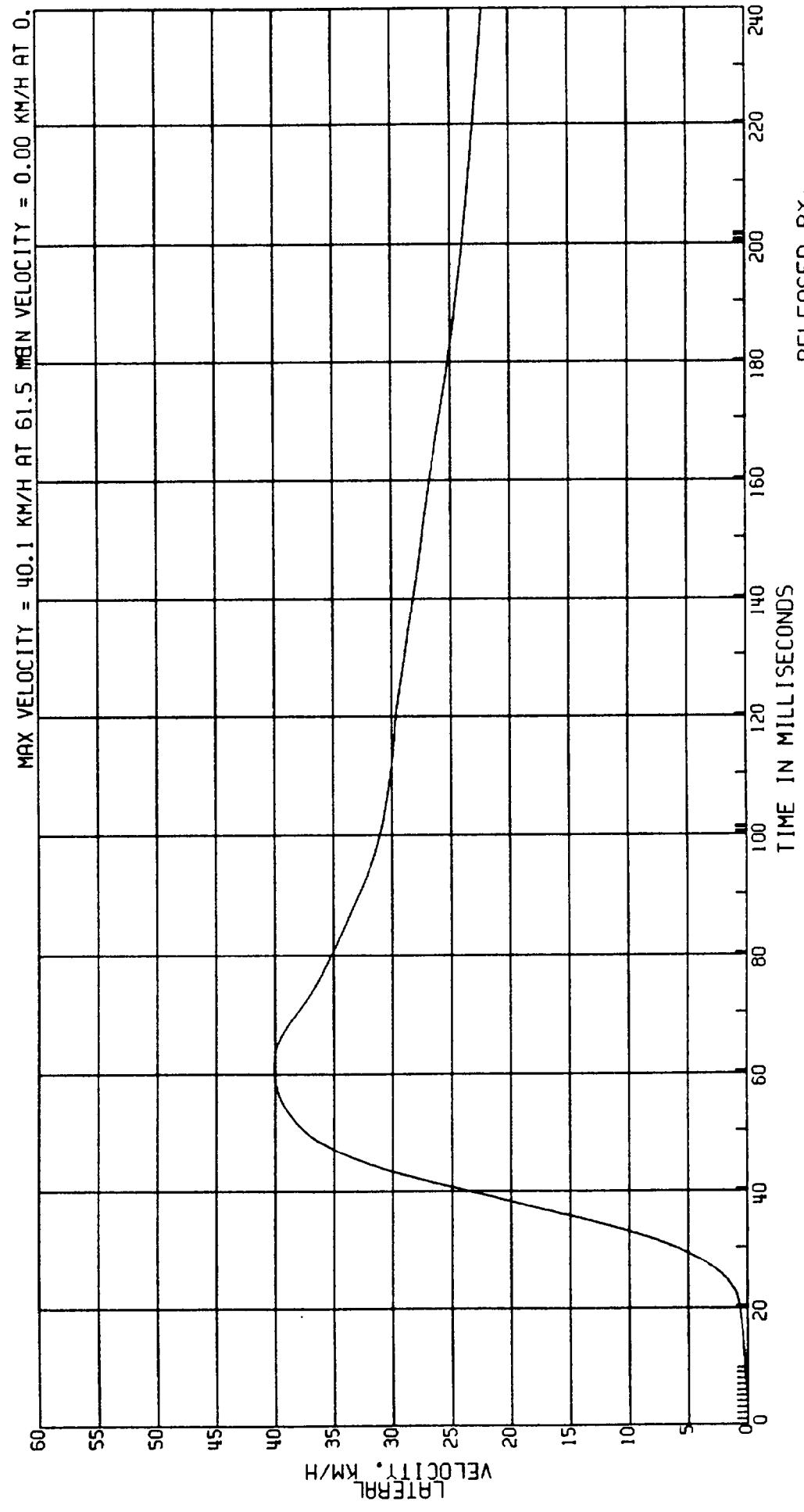
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380078 L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE /22
 3868-905 ATD TYPE: BIOSID
 TYPE MVMA 7B 2AF69 TEST DATE: 03-13-90
 ELEC DATA, NHTSA FIR FILTER L. REAR T12 ACCEL.
 F.I.R. FILTER, CLASS 300 BUTTERWORTH



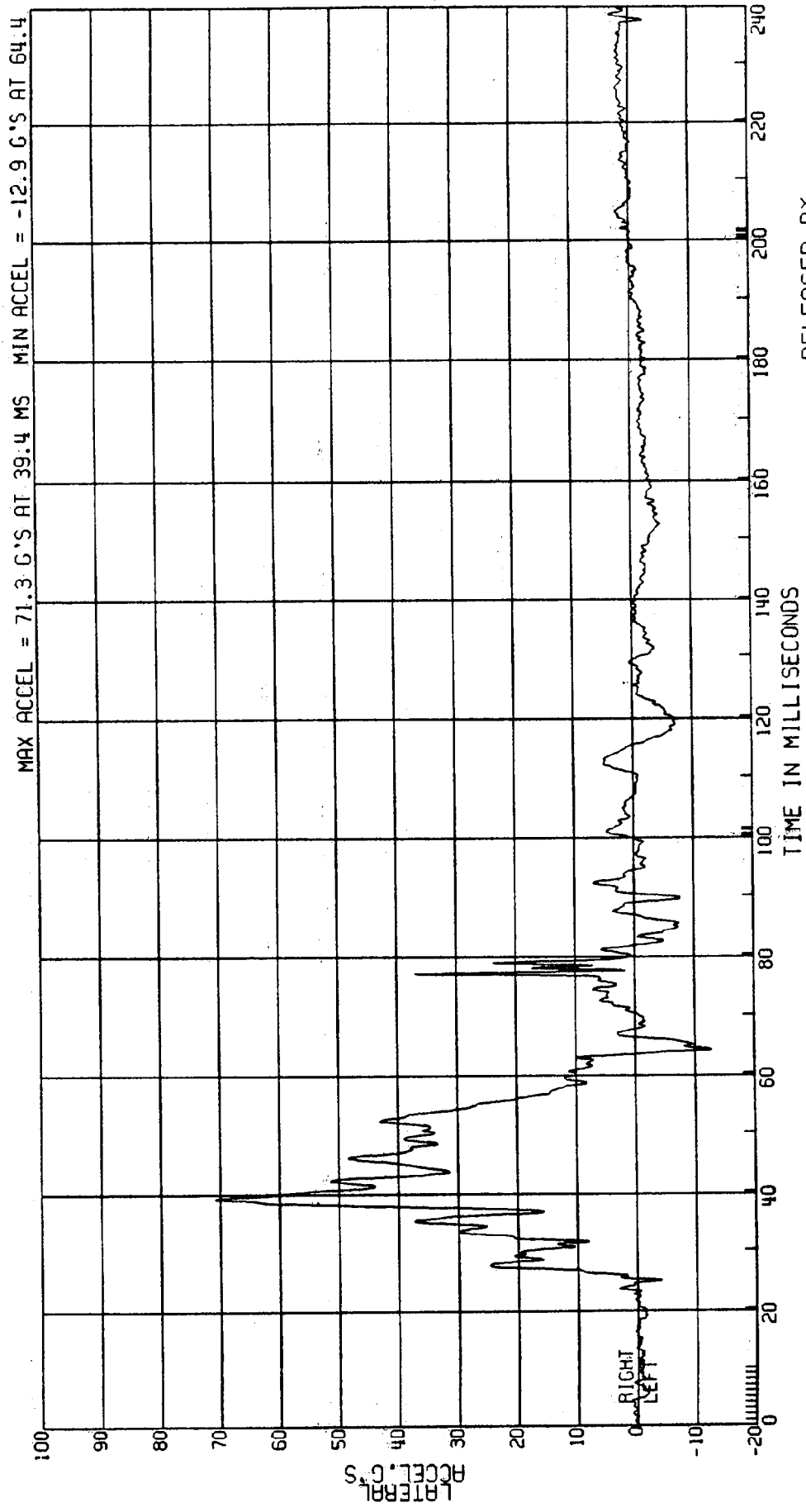
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C8007B L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 123
 3868-905 ATD TYPE: BIOSID
 CPE MVMA 7B 2AF69 COMPUTED T12 VELOCITY TEST DATE:03-13-90
 ELEC DATA, SAE CLASS 180 (1ST INTEGRAL L.REAR ACCELERATION)



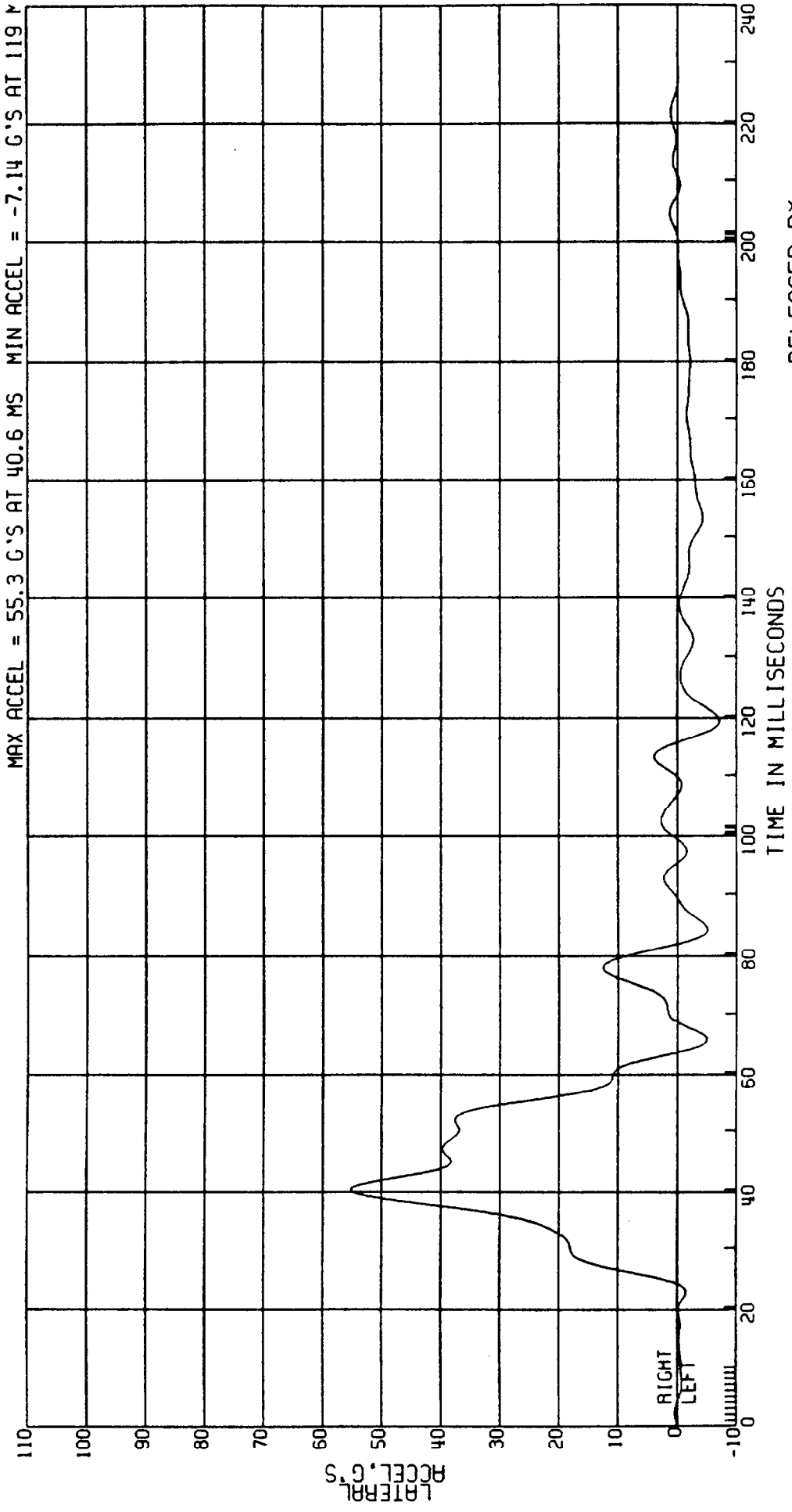
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C8007B L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 124
 3868-905 ATD TYPE: BIOSID
 CPE MVMA 7B 2AF69 TEST DATE: 03-13-90
 ELEC DATA, SAE CLASS 600 L. REAR SHOULDER ACCEL.



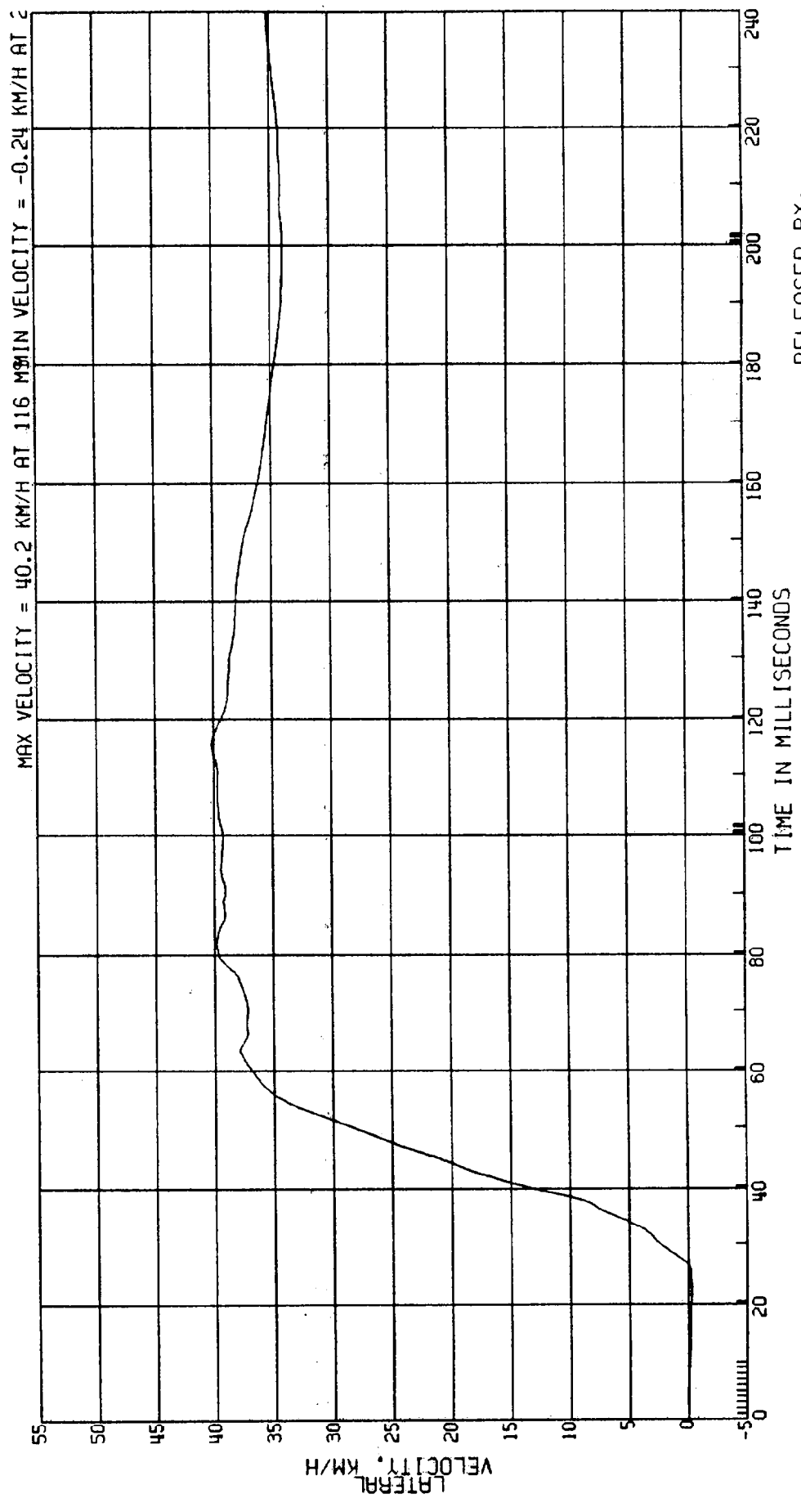
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C80078 L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 125
 3868-905 ATD TYPE: BIOSID
 CPE MVMA 78 2AF69 L. REAR SHOULDER ACCEL. TEST DATE: 03-13-90
 ELEC DATA, NHTSA FIR FILTER F.I.R. FILTER, CLASS 300 BUTTERWORTH

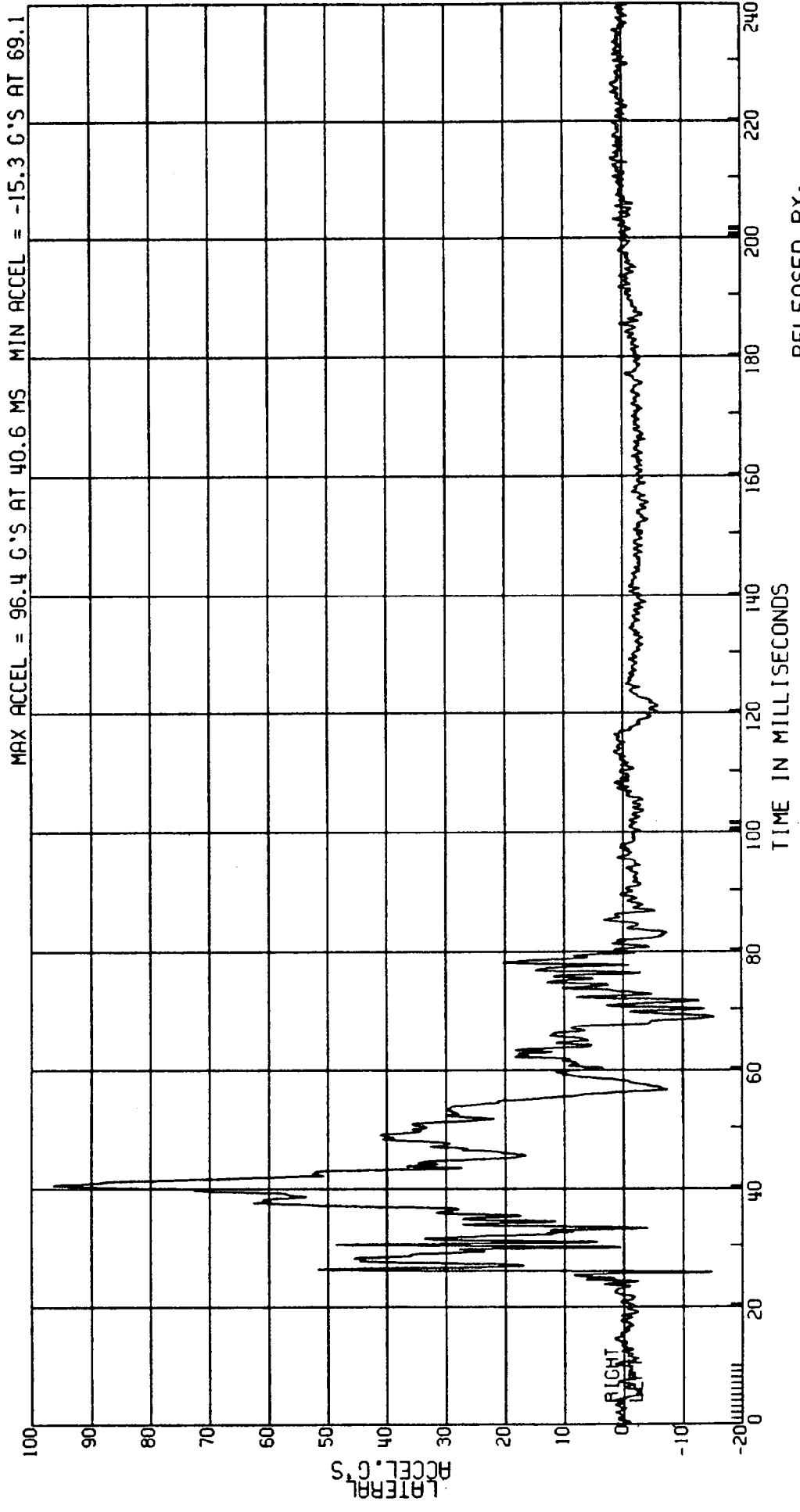


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C8007B L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6 KM/H FIGURE 126
 3868-905 ATD TYPE: BIOSID
 CPE MVMA 7B 2AF69 COMPUTED SHOULDER VELOCITY
 ELEC DATA, SAE CLASS 180 (1ST INTEGRAL L. REAR ACCELERATION)

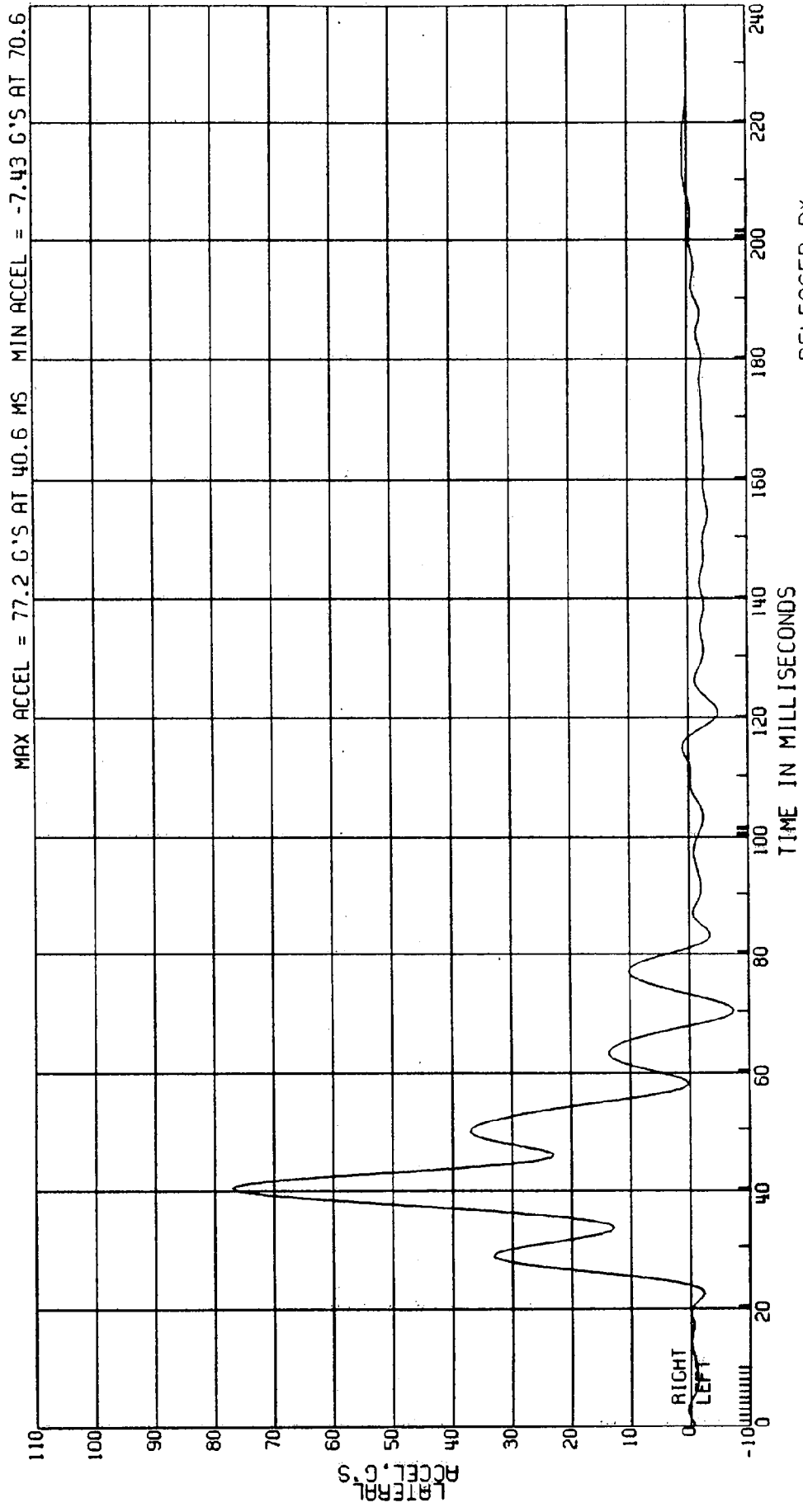


C8007B L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 127
 3868-905 ATD TYPE: BIOSID
 CPE MVMA 7B 2AF69 L. REAR FIRST THORACIC RIB ACCEL. TEST DATE:03-13-90
 ELEC DATA, SAE CLASS 1000



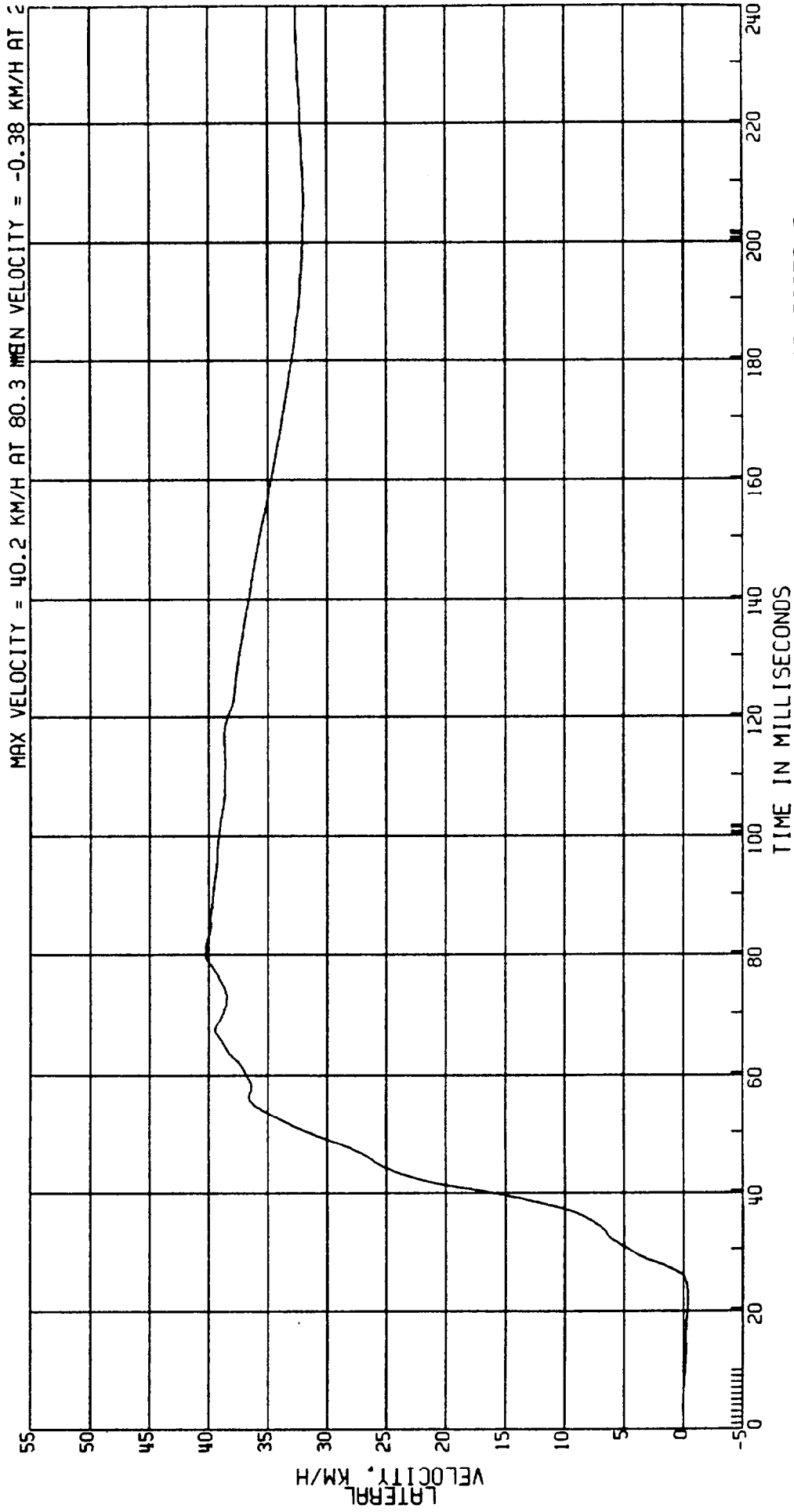
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C80078 L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6 KM/H FIGURE 128
 3868-905 MVMA 7B 2AF69 ATD TYPE: BIOSID
 CPE L. REAR FIRST THORACIC RIB ACCEL. TEST DATE: 03-13-90
 ELEC DATA, NHTSA FIR FILTER F.I.R. FILTER, CLASS 300 BUTTERWORTH



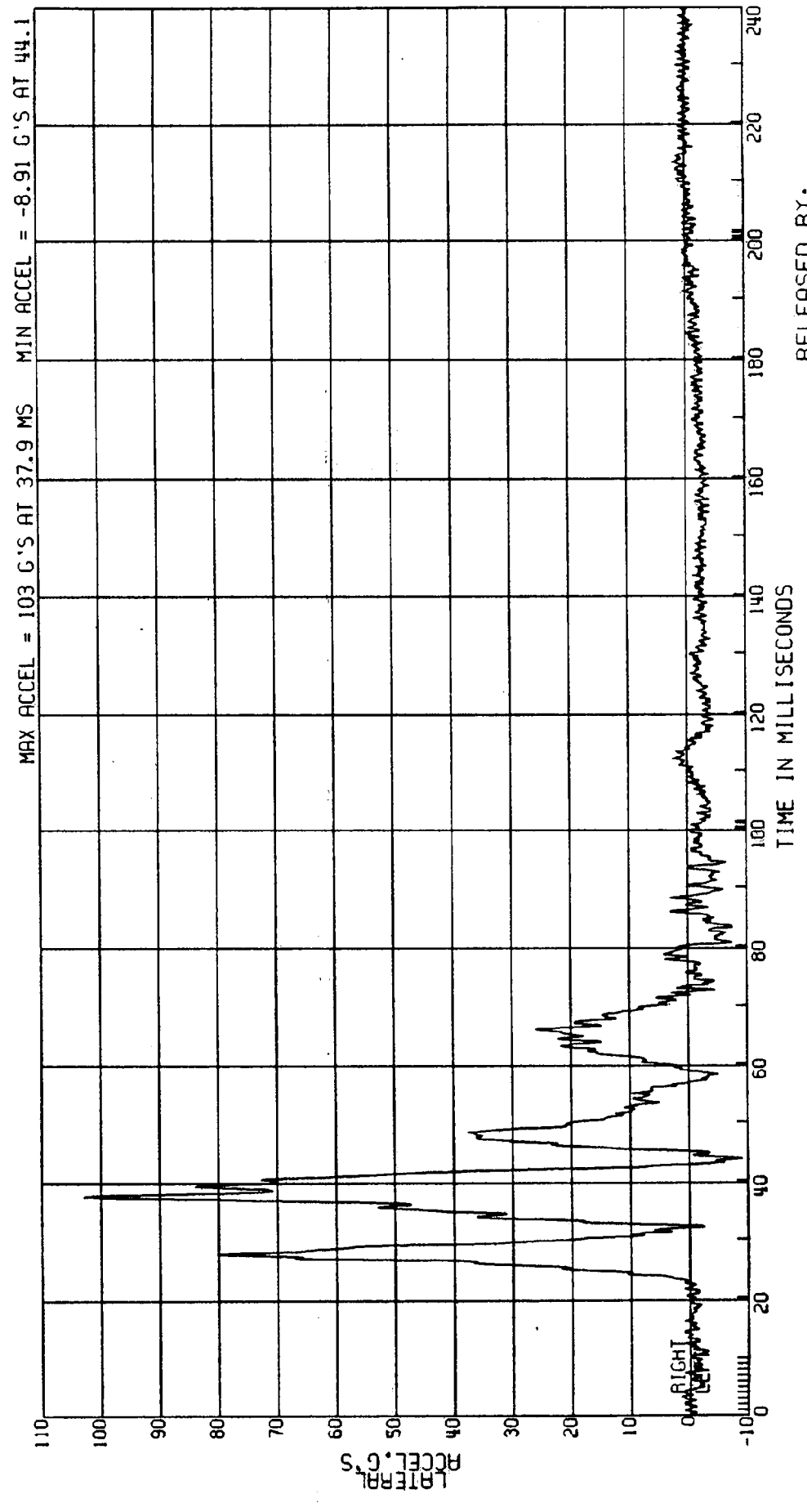
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C8007B L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6 KM/H FIGURE 129
 3868-905
 CPE MVMA 7B 2AF69
 ELEC DATA, SAE CLASS 180
 ATD TYPE: BIOSID
 TEST DATE: 03-13-90
 COMPUTED 1ST THORACIC RIB VELOCITY
 (1ST INTEGRAL L. REAR ACCELERATION)



RELEASED BY:
 55 PROCESSED 4 MT 90 14:08

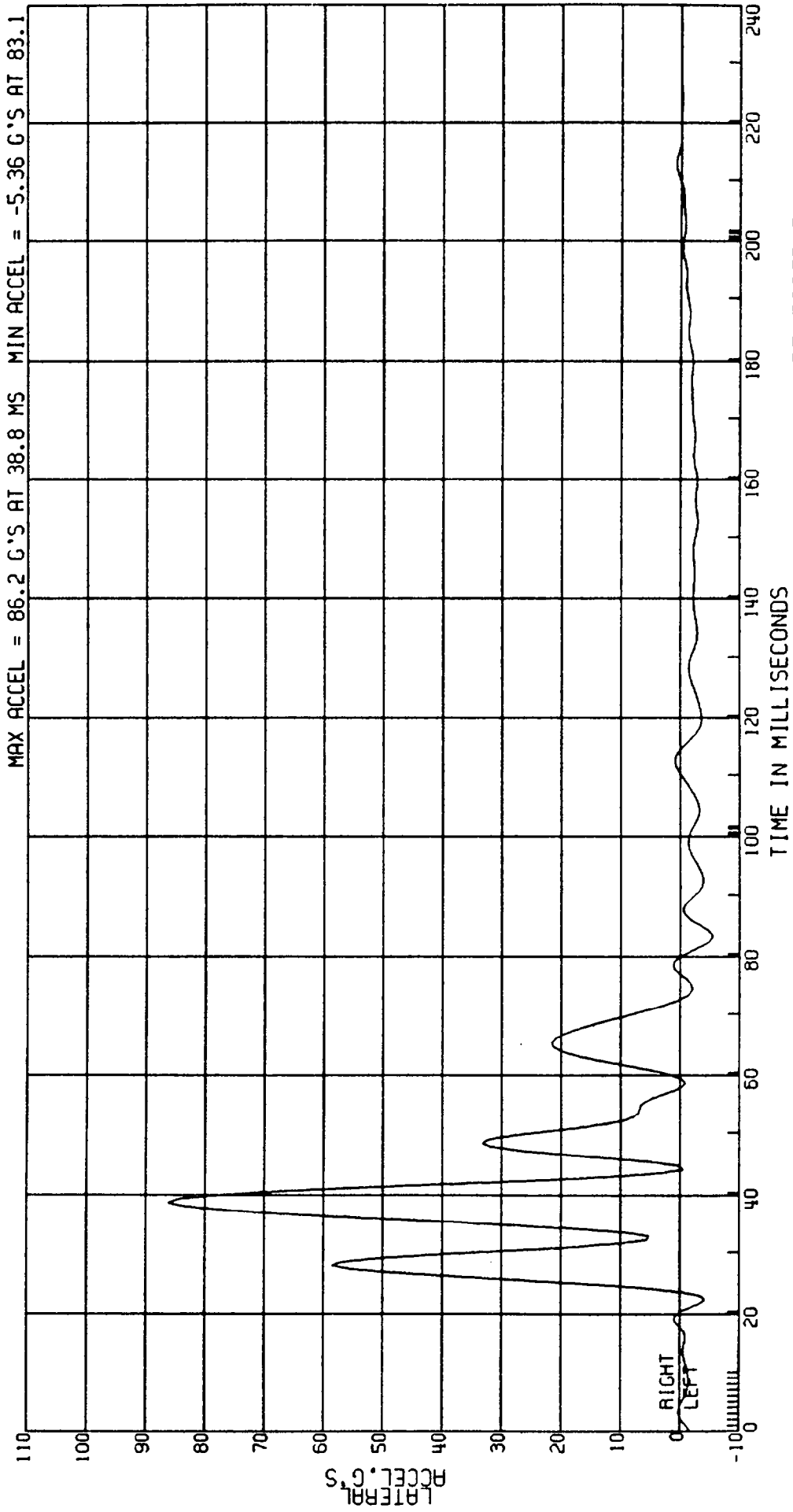
C80078 L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 130
 3868-905 ATD TYPE: BIOSID
 CPE MVMA 7B 2AF69 L. REAR SECOND THORACIC RIB ACCEL. TEST DATE:03-13-90
 ELEC DATA, SAE CLASS 1000



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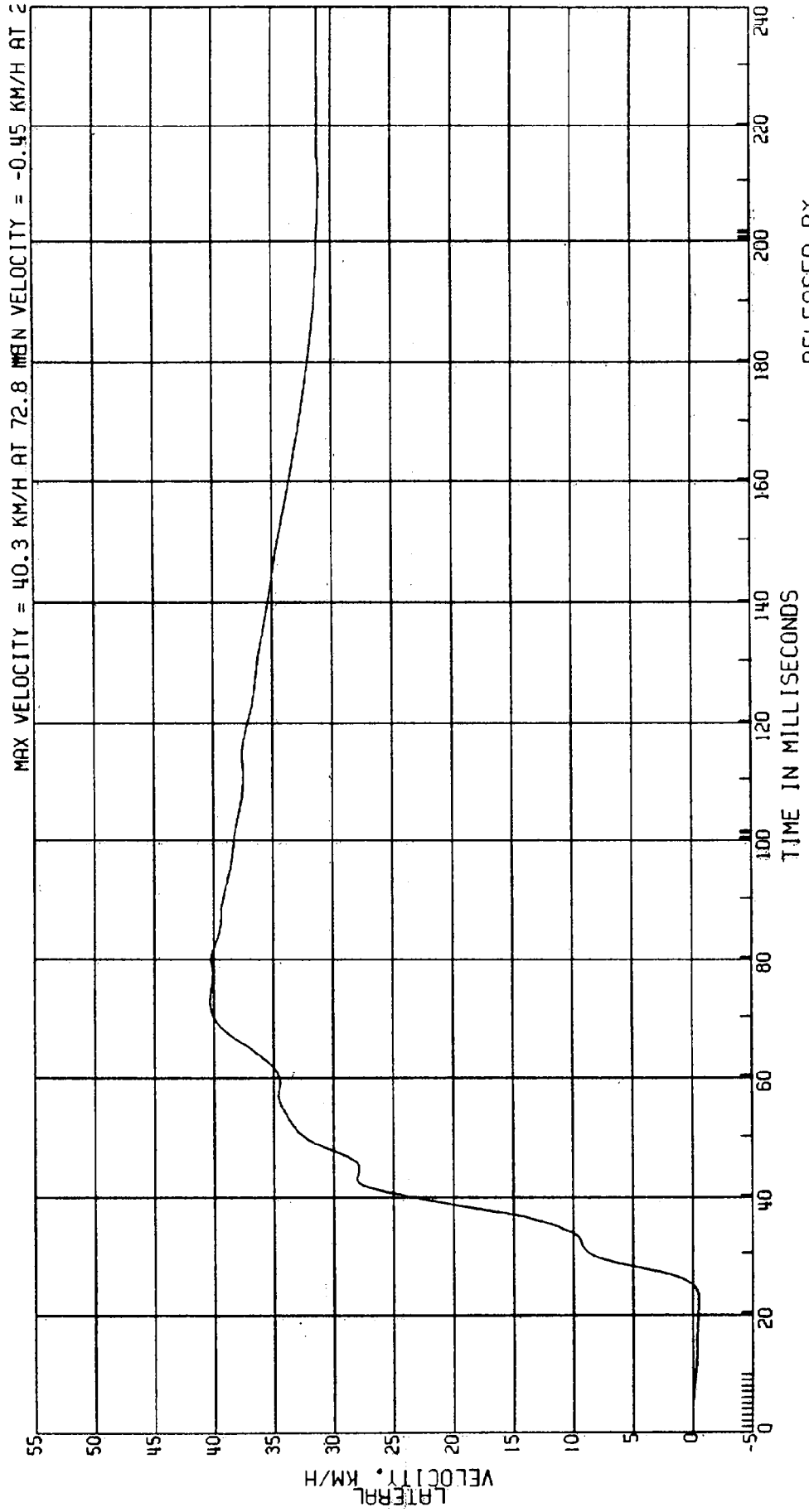
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C80078 L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE / 3 /
 3868-905 ATD TYPE: BIOSID
 CPE MVMA 7B 2AF69 L. REAR SECOND THORACIC RIB ACCEL.
 ELEC DATA, NHTSA FIR FILTER F.I.R. FILTER, CLASS 300 BUTTERWORTH TEST DATE:03-13-90



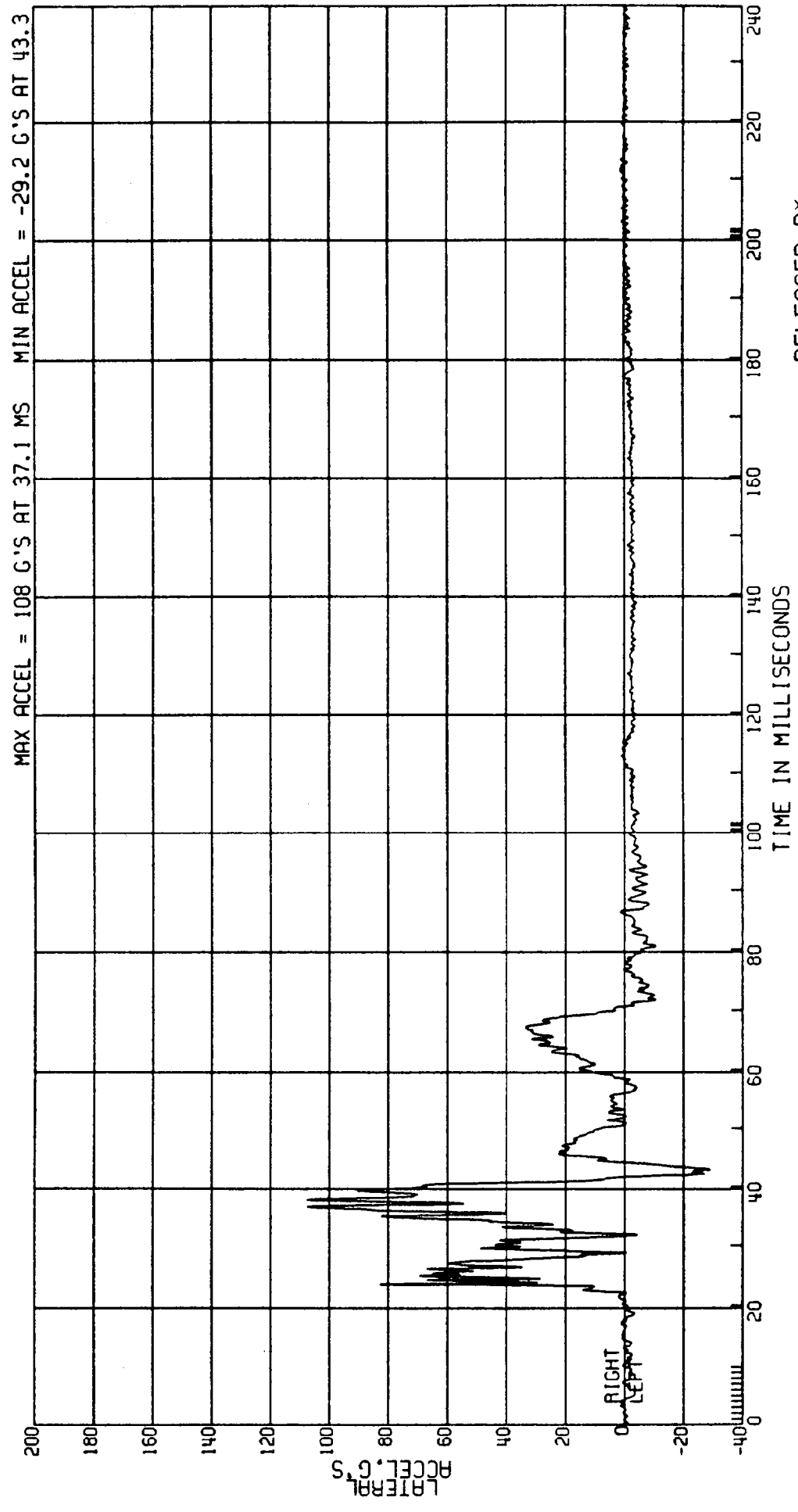
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C8007B L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE /32
 3868-905 ATD TYPE: BIOSID
 CPE MVMA 7B 2AF69 COMPUTED 2ND THORACIC RIB VELOCITY
 ELEC DATA, SAE CLASS 180 (1ST INTEGRAL L.REAR ACCELERATION) TEST DATE:03-13-90



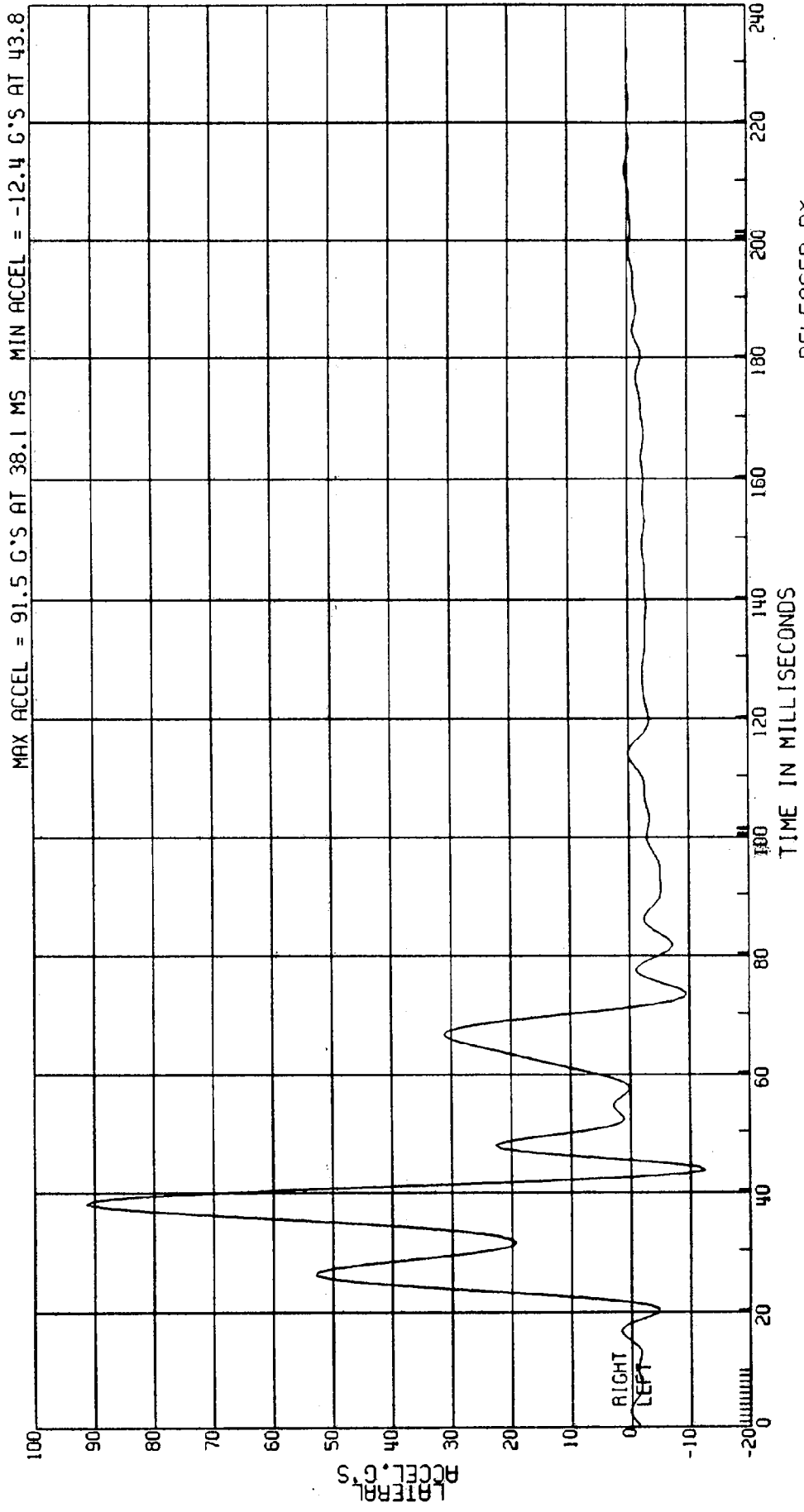
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C80078 L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE /33
 3868-905 ATD TYPE: BIOSID
 CPE MVMA 7B 2AF69 L. REAR THIRD THORACIC RIB ACCEL. TEST DATE:03-13-90
 ELEC DATA, SAE CLASS 1000



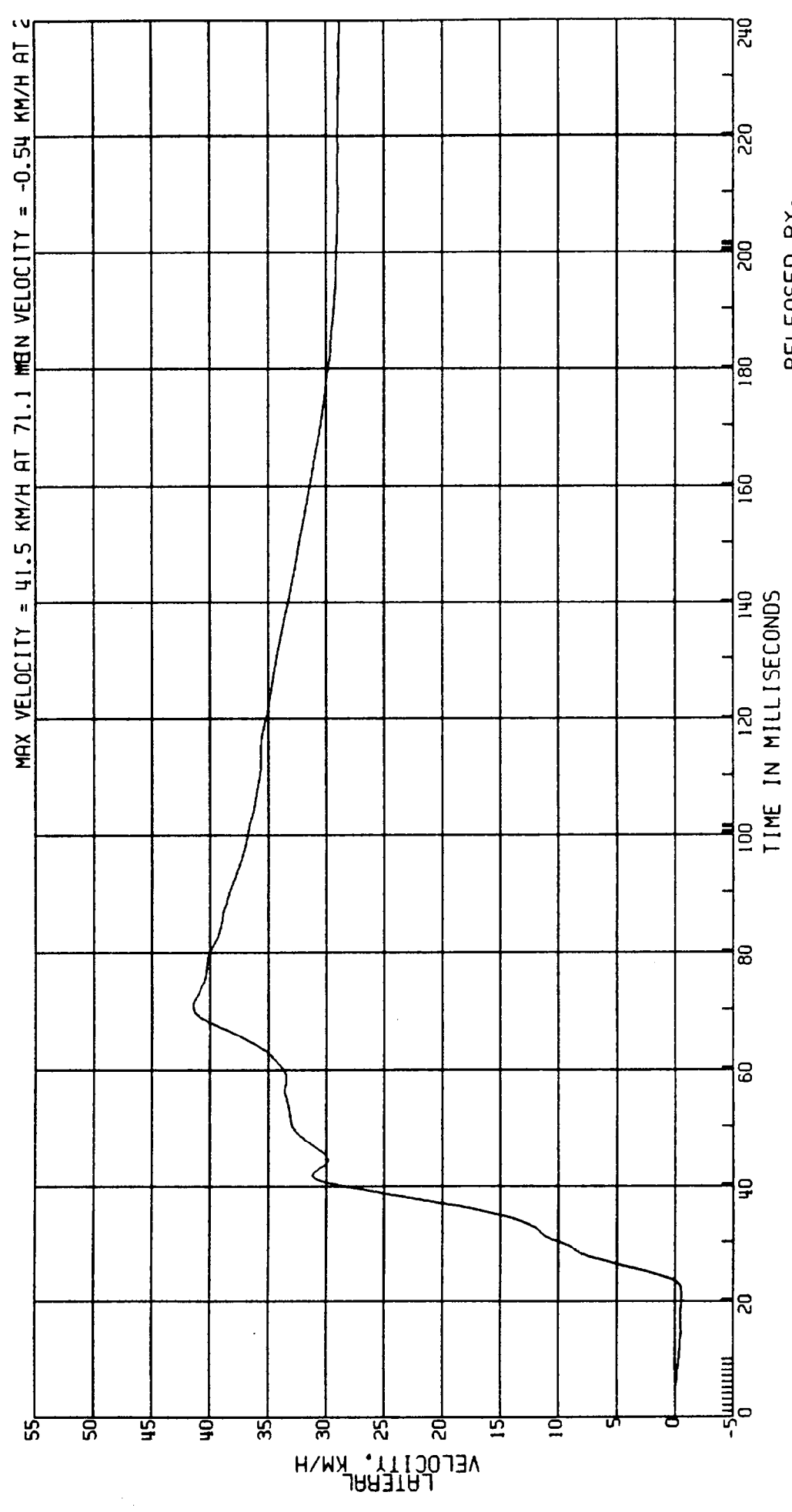
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C80078 L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 134
3868-905 MVMA 7B 2AF69 ATD TYPE: BIOSID
CPE NHTSA FIR FILTER L. REAR THIRD THORACIC RIB ACCEL. TEST DATE: 03-13-90
ELEC DATA, NHTSA FIR FILTER F. I. R. FILTER, CLASS 300 BUTTERWORTH



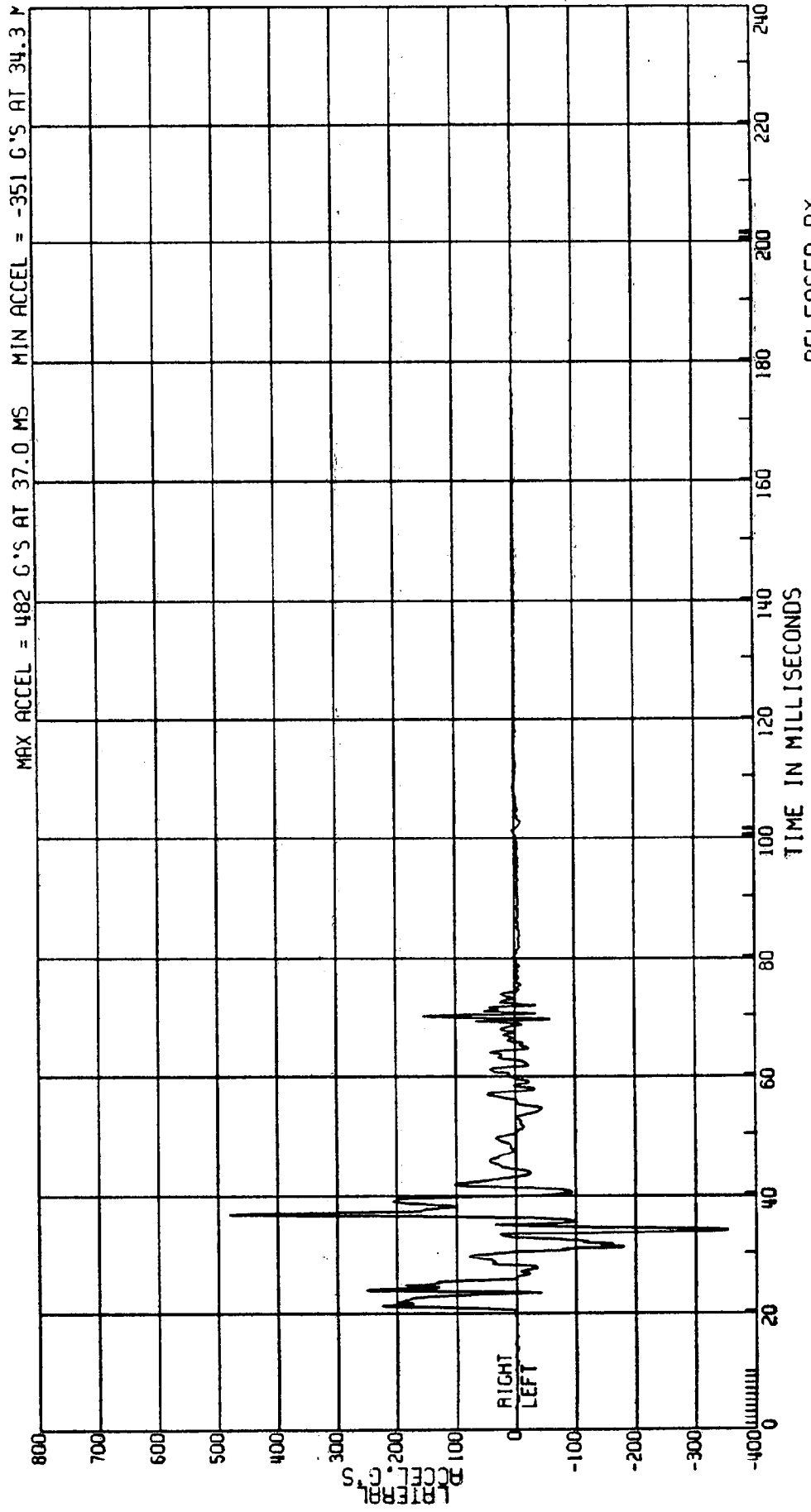
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C8007B L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 125
 3868-905
 CPE MVMA 7B 2AF69
 ELEC DATA, SAE CLASS 180
 ATD TYPE: BIOSID
 TEST DATE:03-13-90
 COMPUTED 3RD THORACIC RIB VELOCITY
 (1ST INTEGRAL L.REAR ACCELERATION)



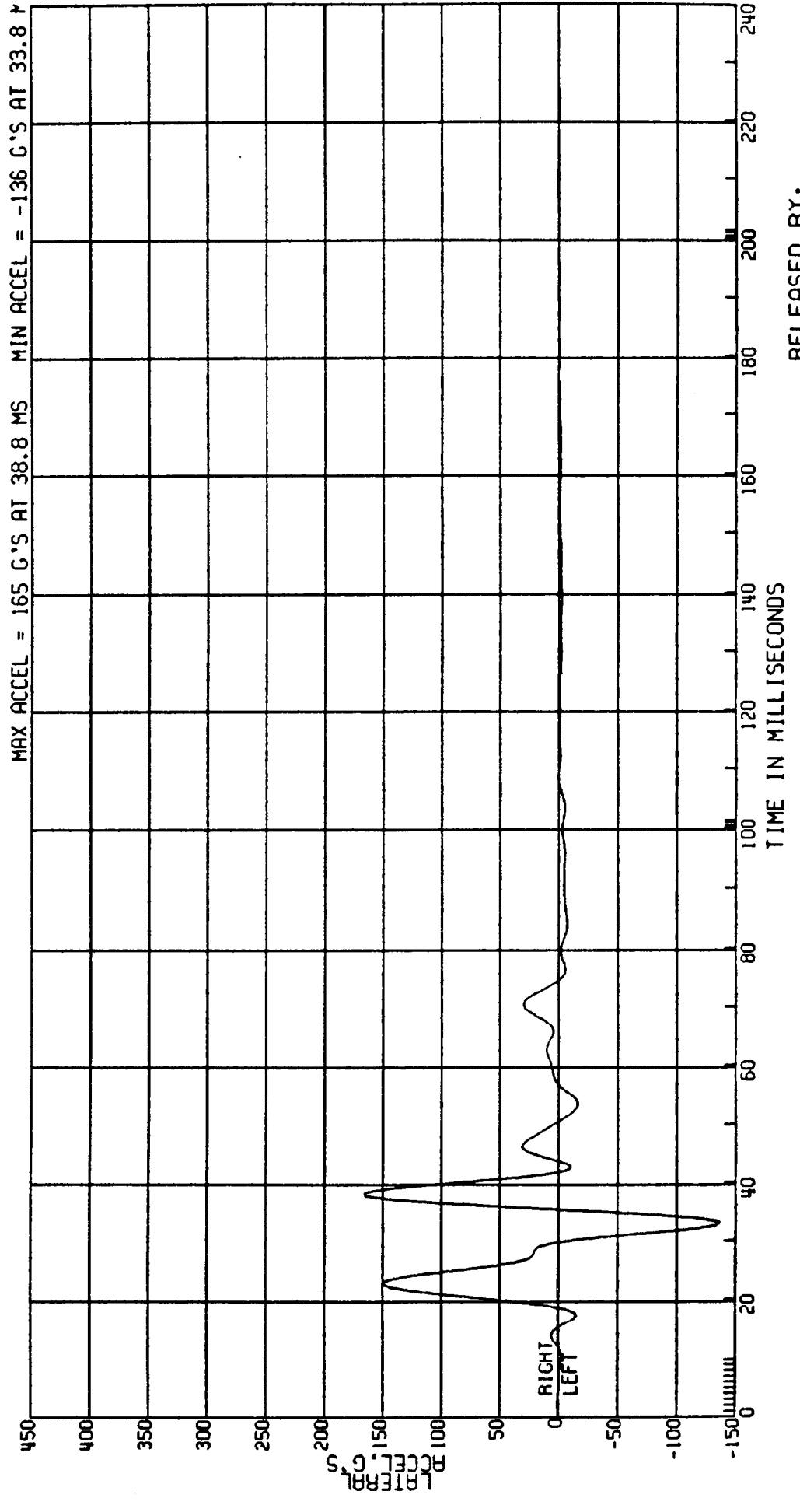
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C8007B L. SIDE IMPACT - 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE /36
 3868-905 AID TYPE: BIOSID
 CPE MVMA 7B 2AF69 L. REAR FIRST ABDOMINAL RIB ACCEL.
 ELEC DATA, SAE CLASS 1000 TEST DATE: 03-13-90



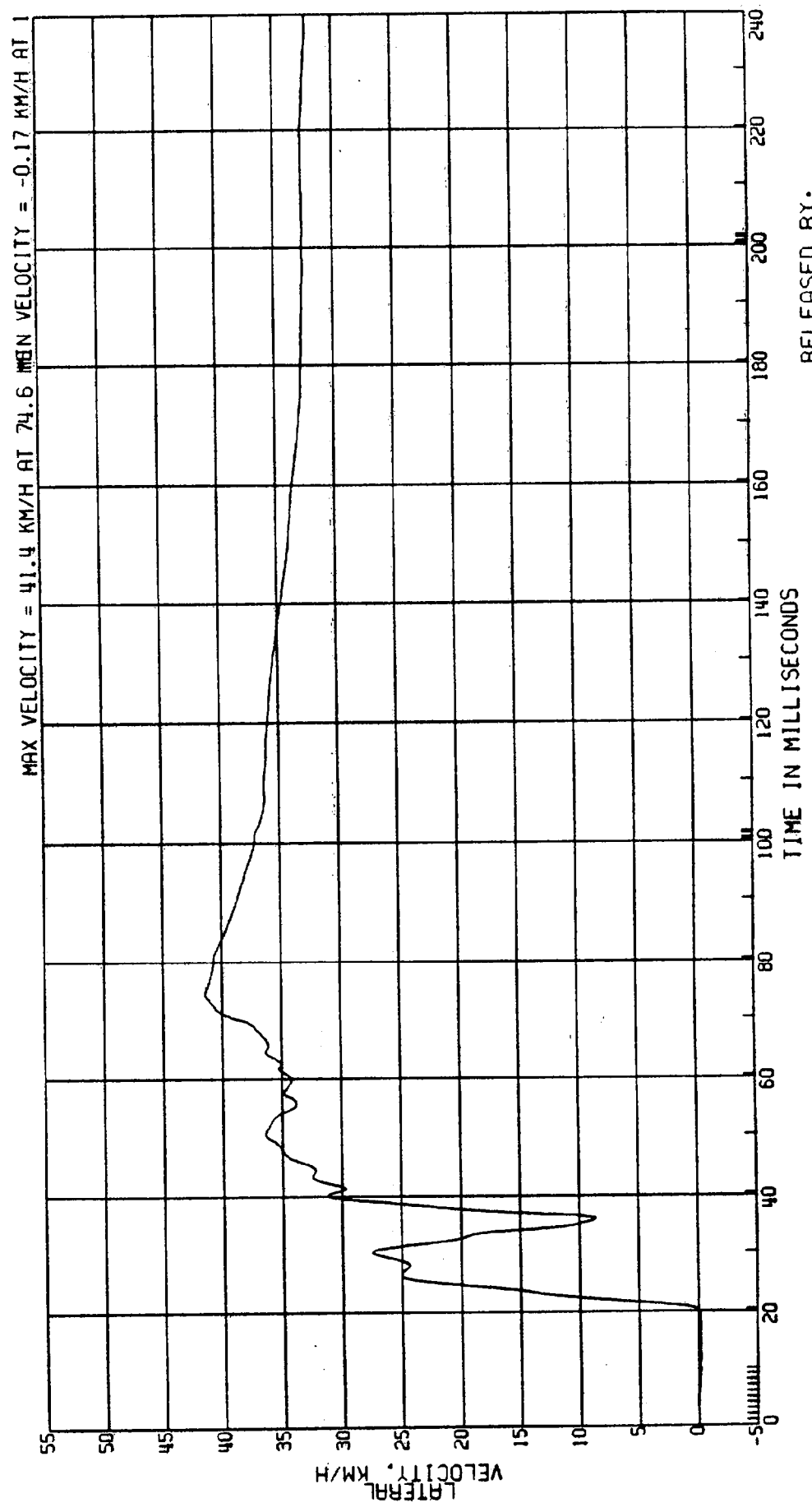
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C80078 L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 187
 3868-905 ATD TYPE: B10SID
 CPE MVMA 7B 2AF69 L. REAR FIRST ABDOMINAL RIB ACCEL.
 ELEC DATA, NHTSA FIR FILTER F.I.R. FILTER, CLASS 300 BUTTERWORTH TEST DATE: 03-13-90



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 63 PROCESSED 4 MT 90 14:08

C80078 L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 138
 3868-905 ATD TYPE: BIOSID
 CPE MVMA 78 2AF69 COMPUTED 1ST ABDOMINAL RIB VELOCITY TEST DATE:03-13-90
 ELEC DATA, SAE CLASS 180 (1ST INTEGRAL L.REAR ACCELERATION)

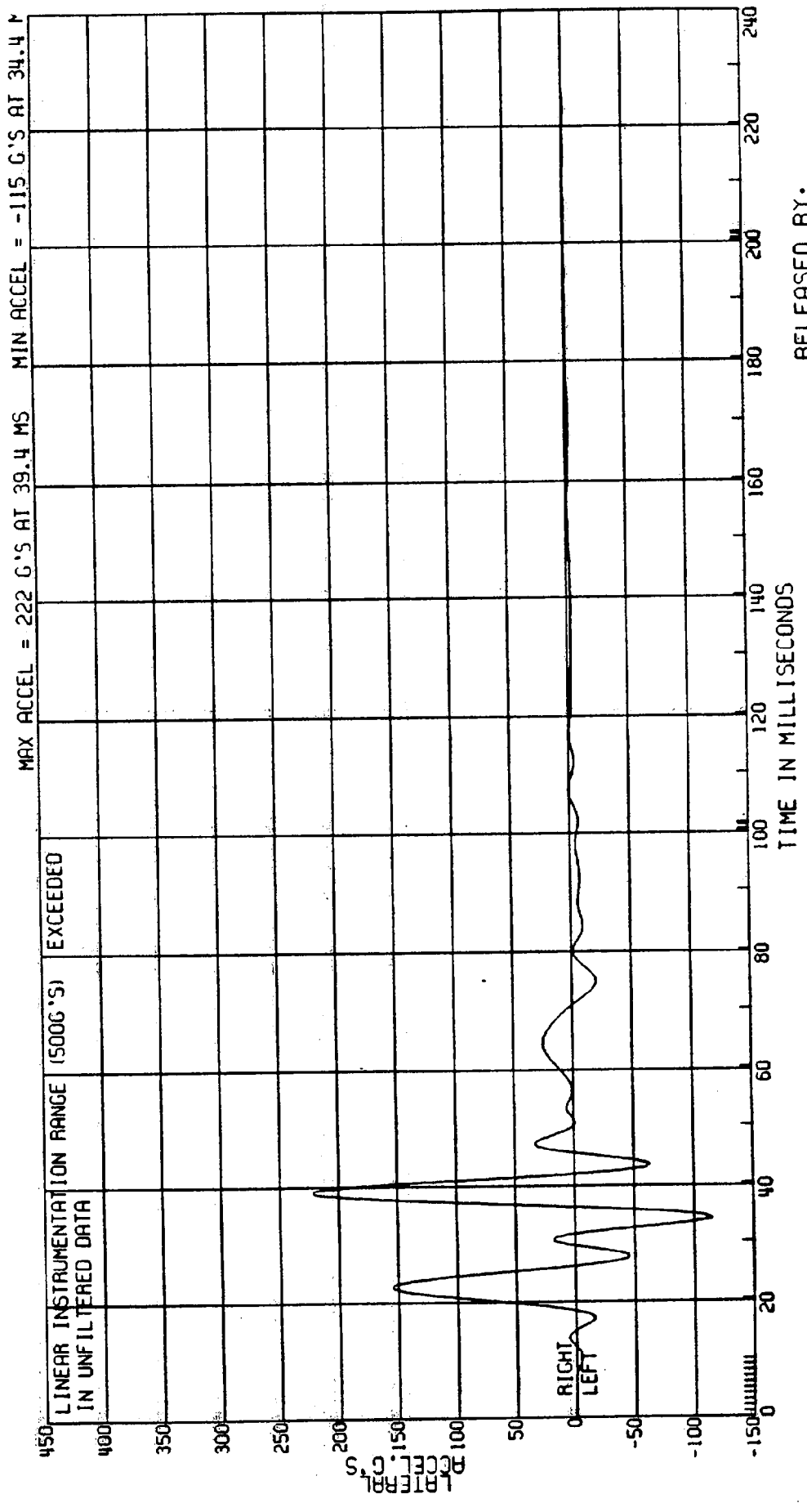


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C80078 L. SIDE IMPACT - 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6 KM/H FIGURE 140

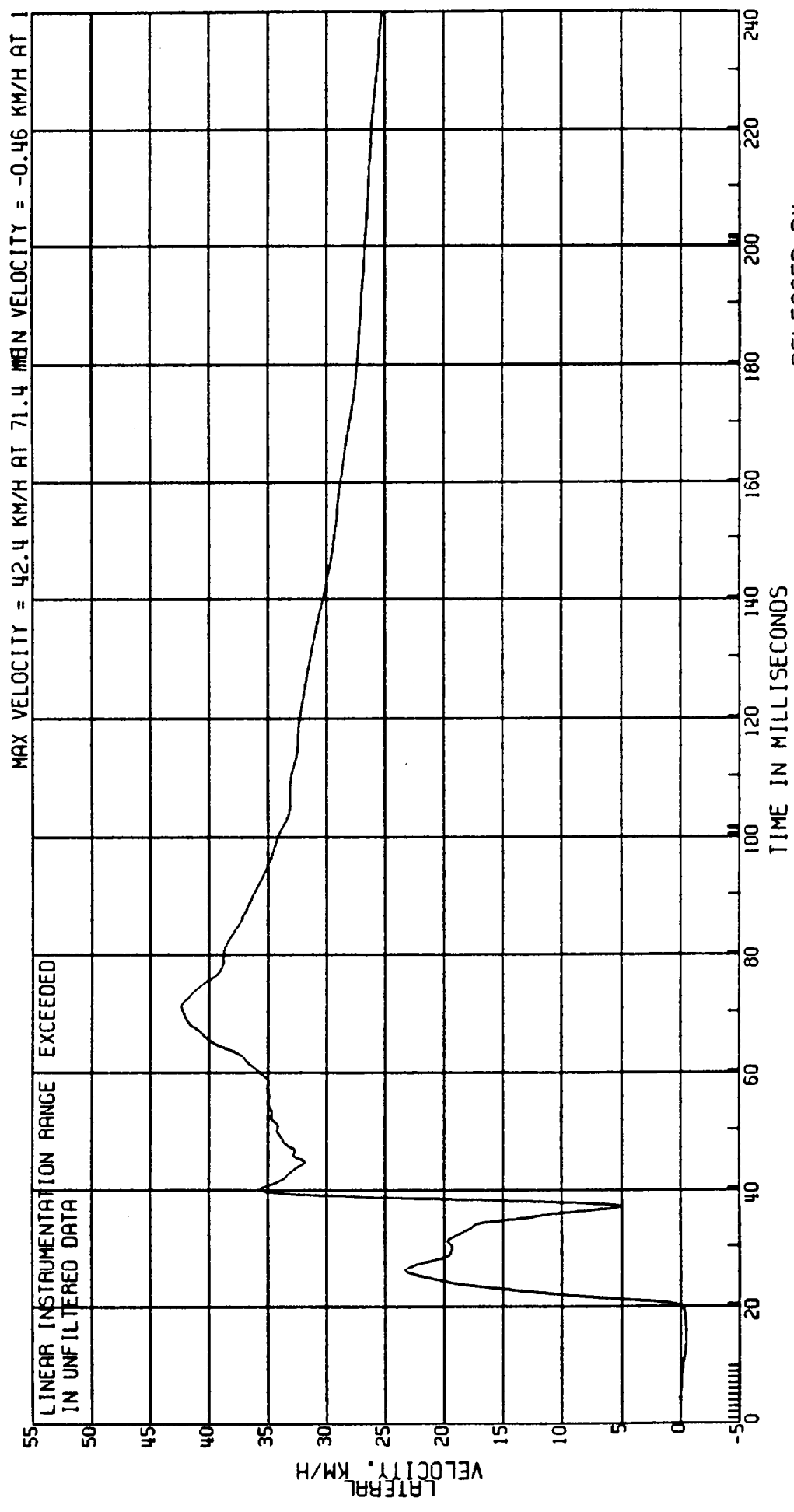
3868-905 MVMA 7B 2AF69 L. REAR SECOND ABDOMINAL RIB ACCEL. TEST DATE: 03-13-90

CPE ELEC DATA, NHTSA FIR FILTER F.I.R. FILTER, CLASS 300 BUTTERWORTH



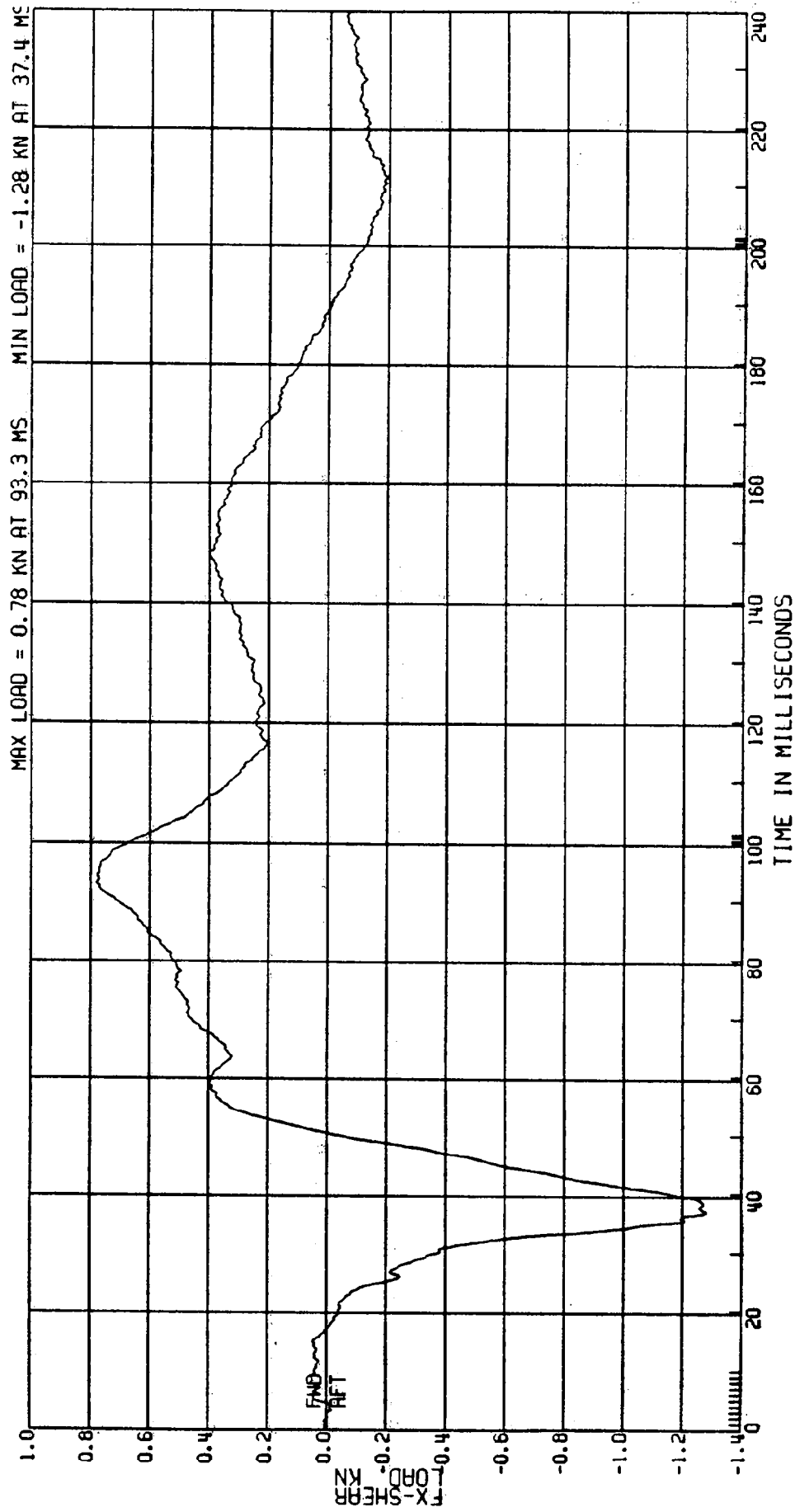
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C8007B L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6 KM/H FIGURE 141
 3868-905 ATD TYPE: BIOSID
 CPE MVMA 7B 2AF69 COMPUTED 2ND ABDOMINAL RIB VELOCITY TEST DATE:03-13-90
 ELEC DATA, SAE CLASS 180 (1ST INTEGRAL L. REAR ACCELERATION)



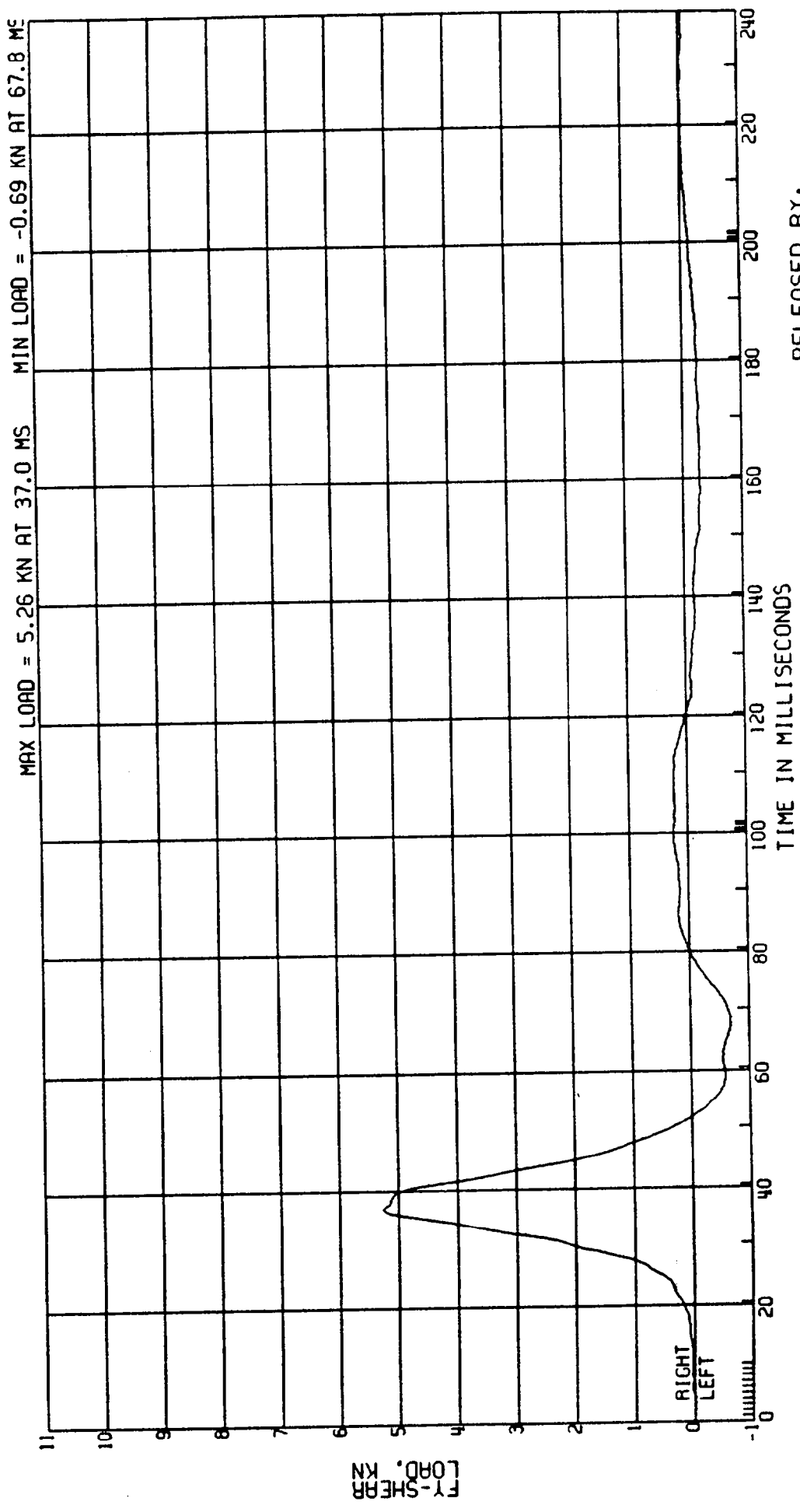
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C80078 L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 142
 3868-905
 CPE MVMA 78 2AF69
 ELEC DATA, SAE CLASS 180
 ATD TYPE: BIOSID
 TEST DATE: 03-13-90
 L. REAR LOWER LUMBAR LOAD



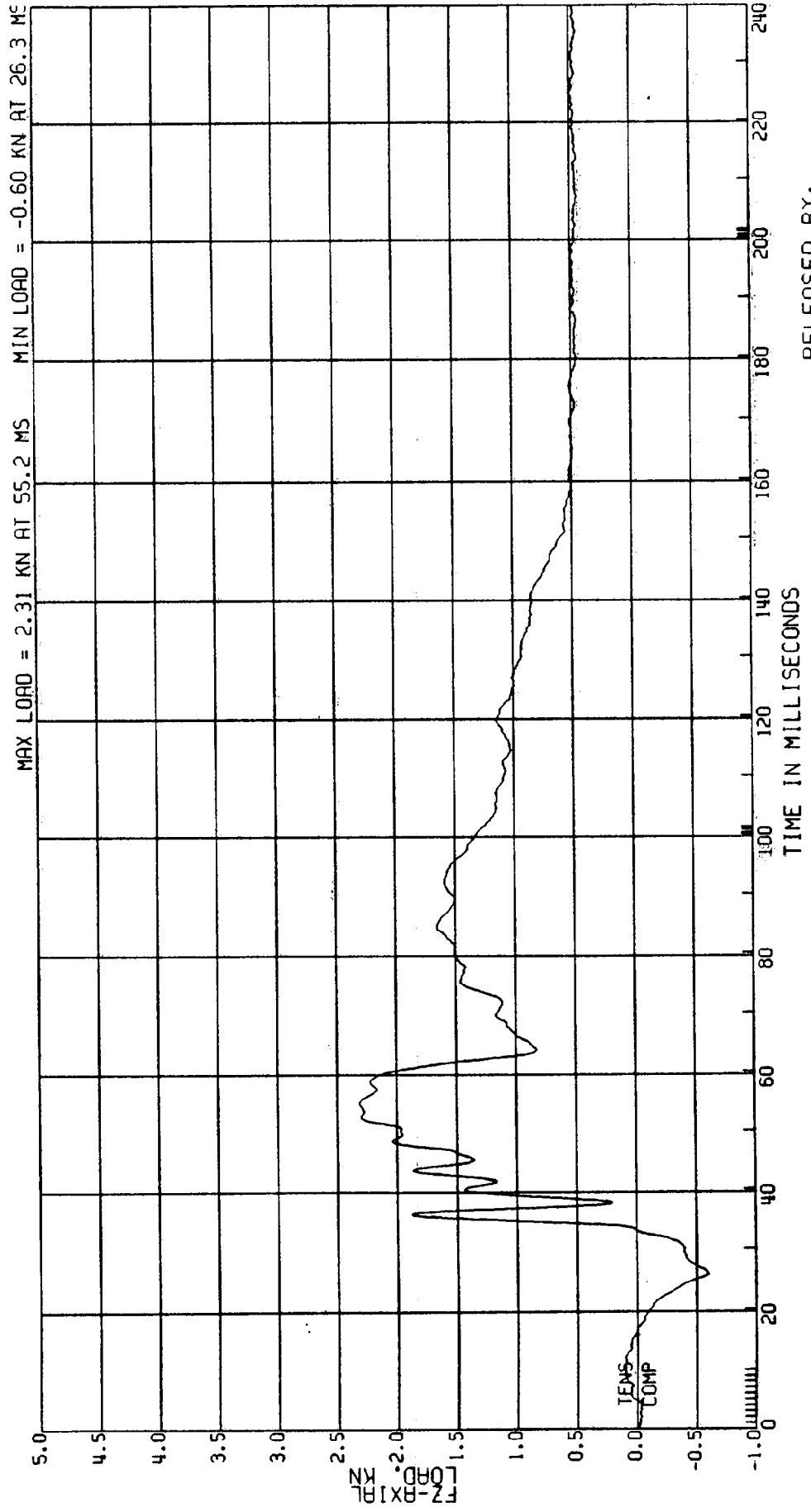
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C80078 L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 143
 3868-905 ATD TYPE: BIOSID
 CPE MVMA 7B 2AF69 TEST DATE:03-13-90
 ELEC DATA, SAE CLASS 180 L.REAR LOWER LUMBAR LOAD



RELEASED BY:
 69 PROCESSED 4 MT 90 14:08

C80078 L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 144
 3868-905 ATD TYPE: BIOSID
 CPE MVMA 78 2AF69 TEST DATE:03-13-90
 ELEC DATA, SAE CLASS 180 L.REAR LOWER LUMBAR LOAD

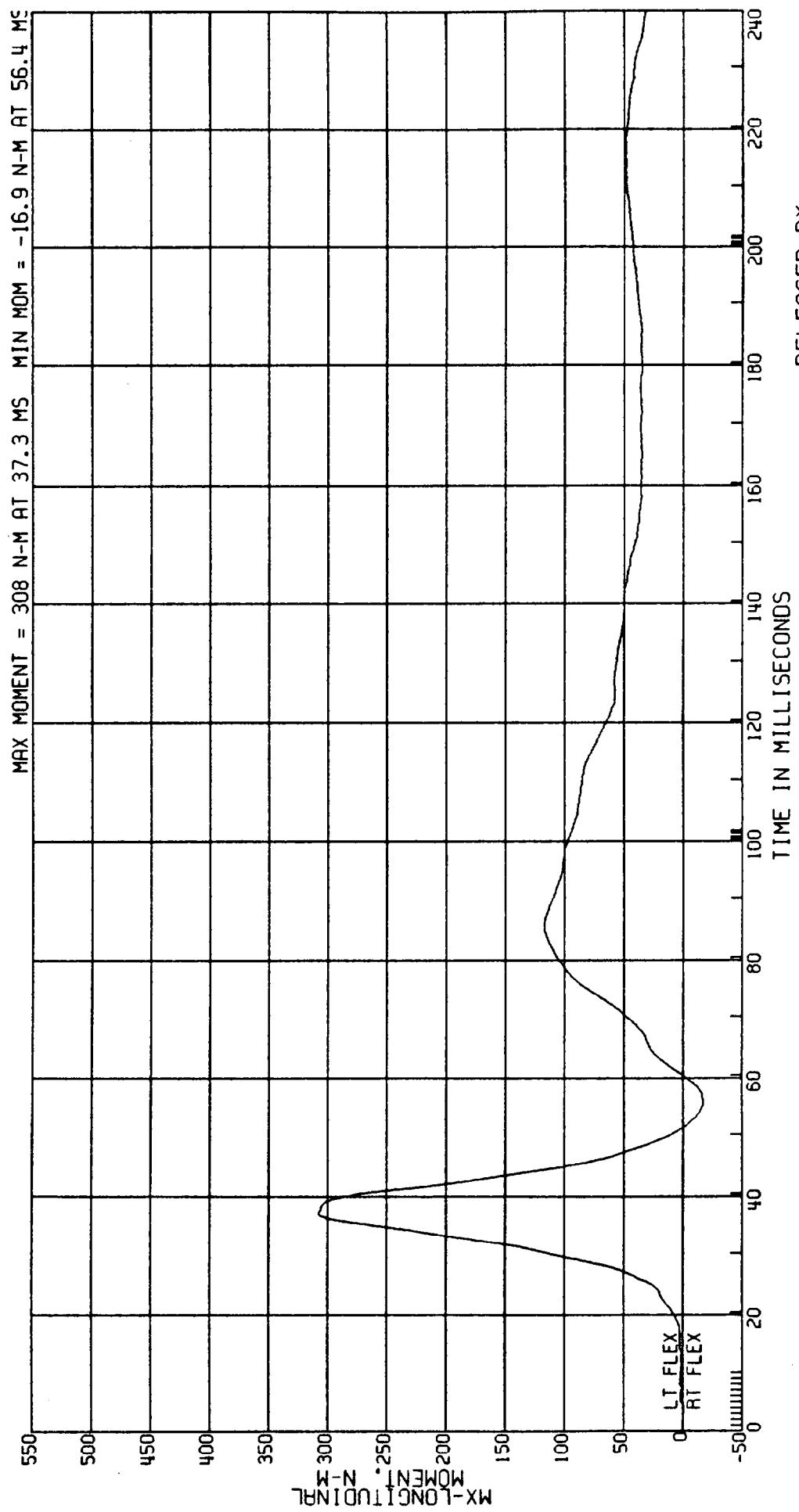


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C80078 L. SIDE IMPACT - 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 145
 3868-905
 CPE MVMA 7B 2AF69
 ELEC DATA, SAE CLASS 180

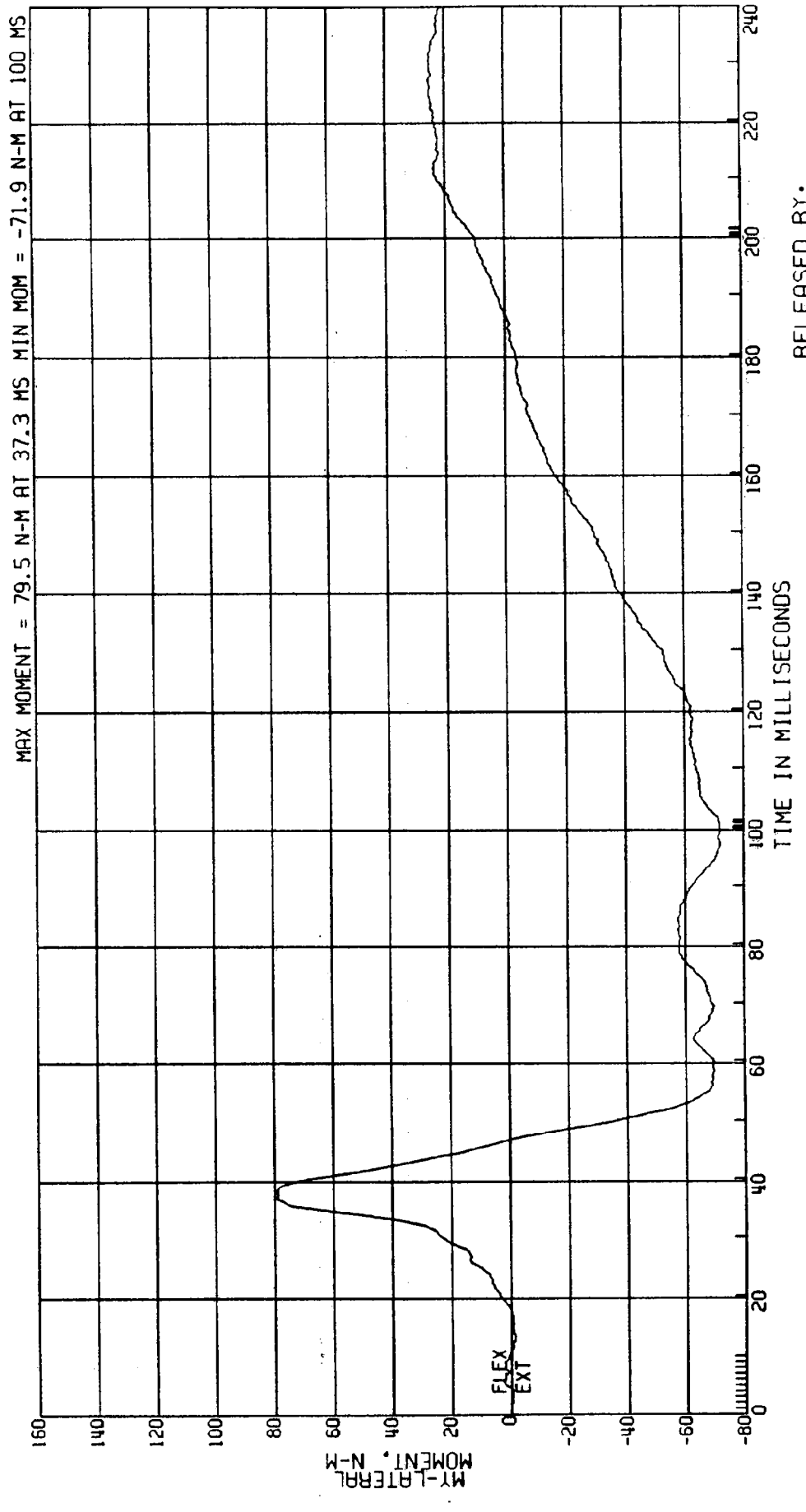
ATD TYPE: BIOSID
 TEST DATE: 03-13-90

L. REAR LOWER LUMBAR MOMENT



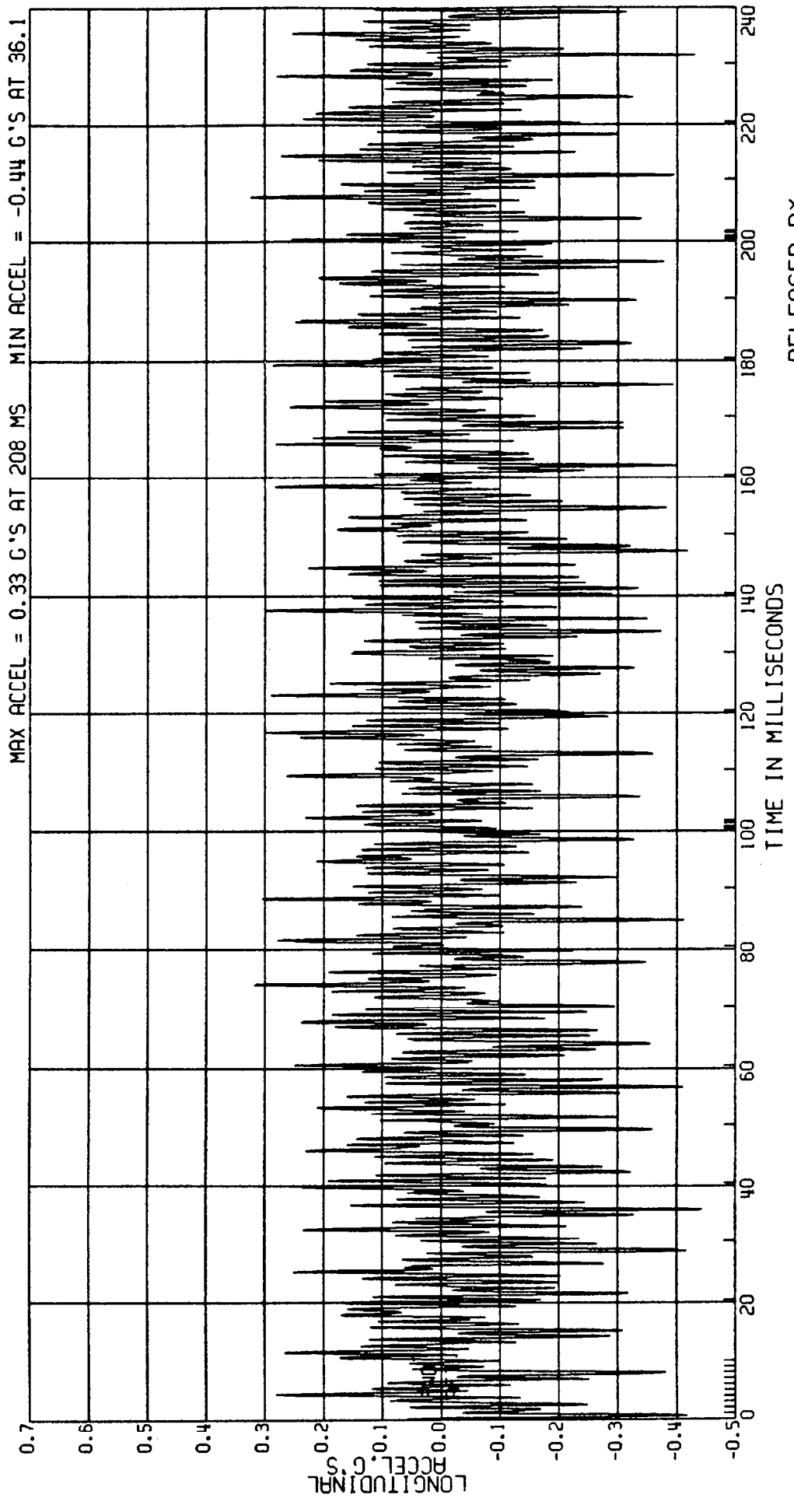
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C80078 L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 146
 3868-905 ATD TYPE: BIOSID
 CPE MVMA 7B 2AF69 L. REAR LOWER LUMBAR MOMENT TEST DATE:03-13-90
 ELEC DATA, SAE CLASS 180



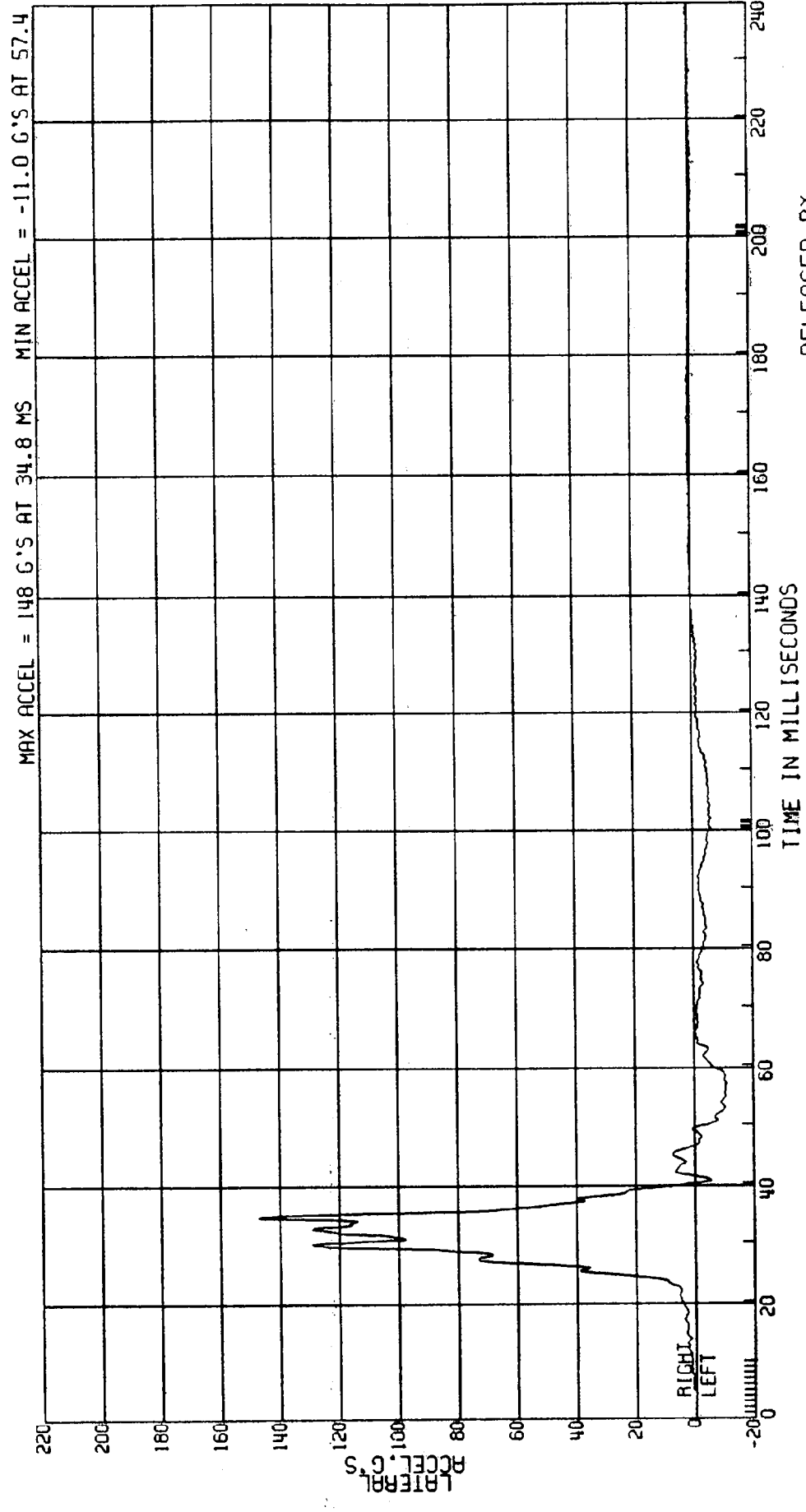
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C80078 L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 147
3868-905
CPE MVMA 7B 2AF69
ELEC DATA, SAE CLASS 600 L. REAR PELVIC ACCEL. ATD TYPE: BIOSID TEST DATE:03-13-90



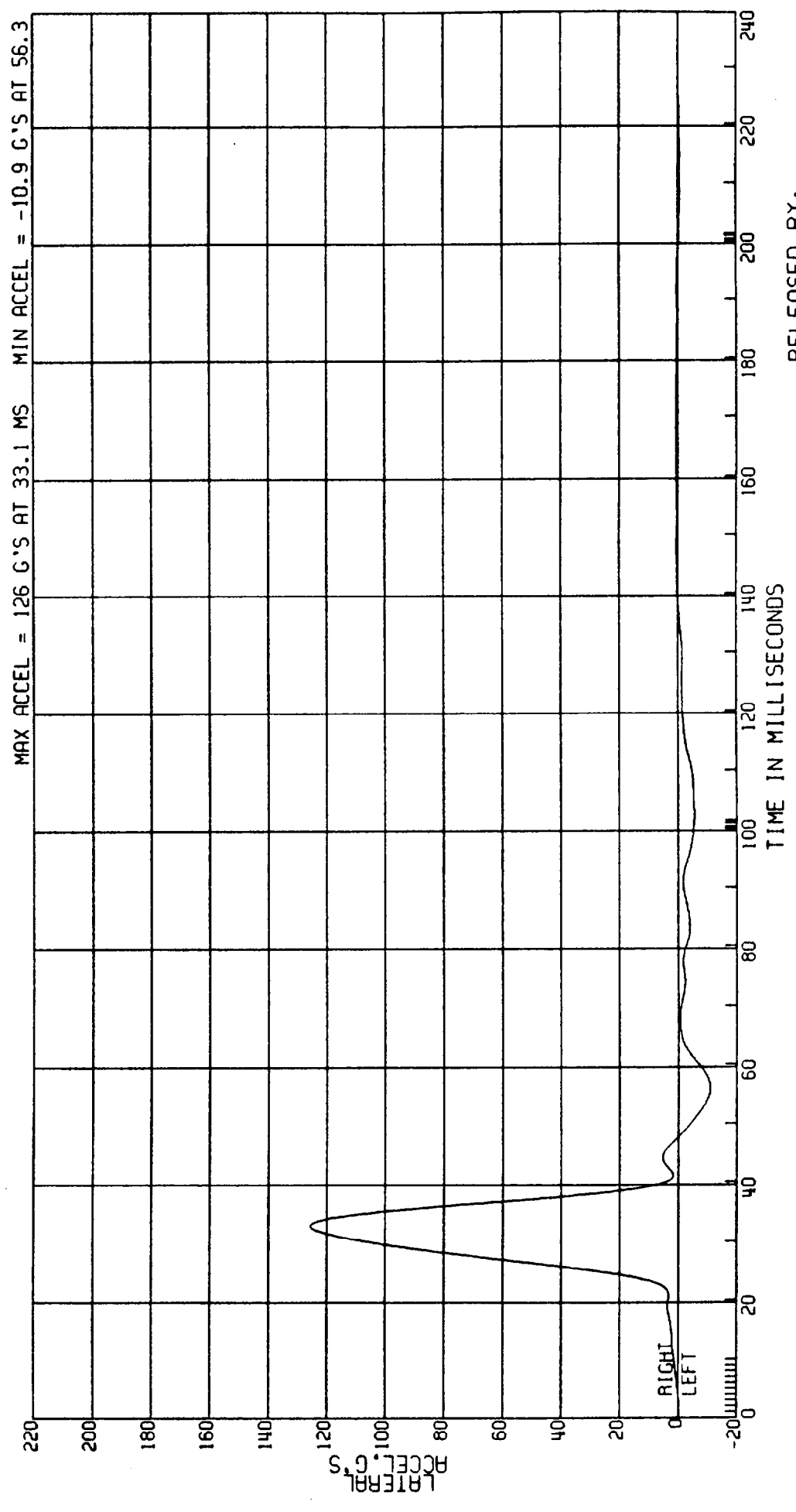
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C80078 L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 148
 3868-905 ATD TYPE: BIOSID
 CPE MVMA 7B 2AF69 TEST DATE:03-13-90
 ELEC DATA, SAE CLASS 600 L.REAR PELVIC ACCEL.



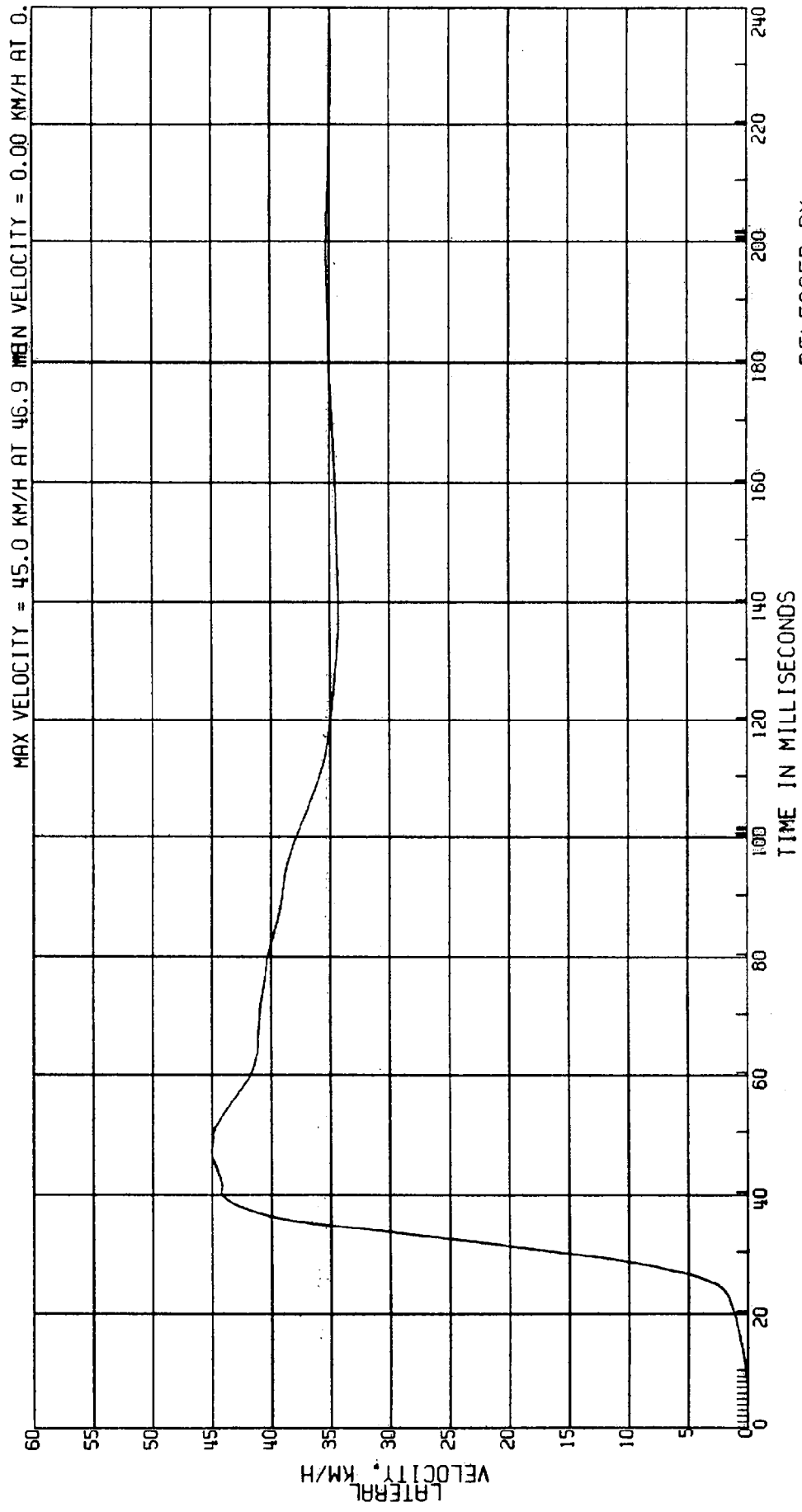
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 74 PROCESSED 4 MAR 90 14:08

C8007B L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 149
 3868-905 ATD TYPE: BIOSID
 CPE MVMA 7B 2AF69 L. REAR PELVIC ACCEL.
 ELEC DATA, NHTSA FIR FILTER F. I. R. FILTER, CLASS 300 BUTTERWORTH TEST DATE: 03-13-90



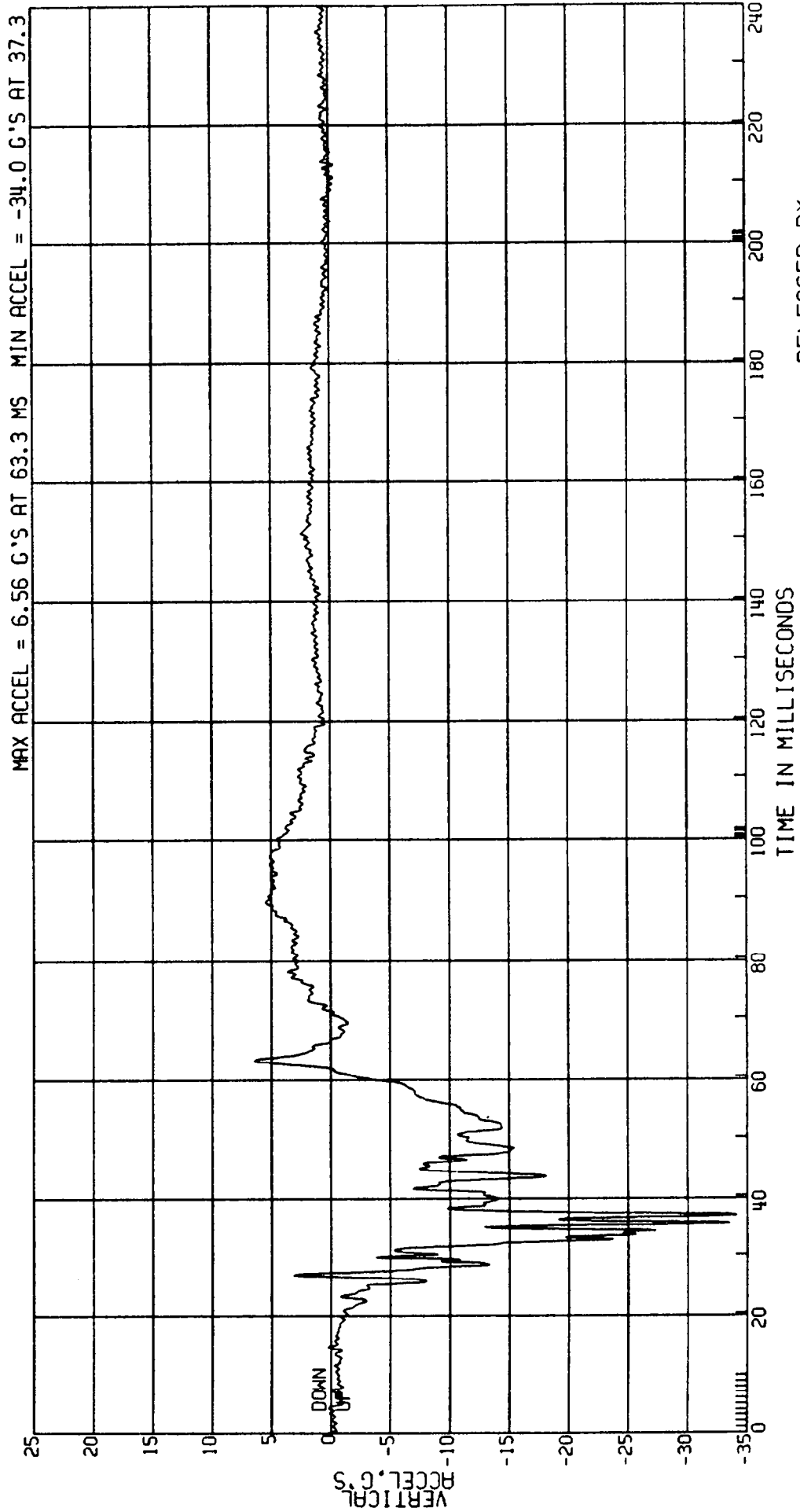
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C80078 L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6 KM/H FIGURE 150
 3868-905 ATD TYPE: BIOSID
 CPE MVMA 7B 2AF69 COMPUTED PELVIC VELOCITY TEST DATE: 03-13-90
 ELEC DATA, SAE CLASS 180 (1ST INTEGRAL L. REAR ACCELERATION)



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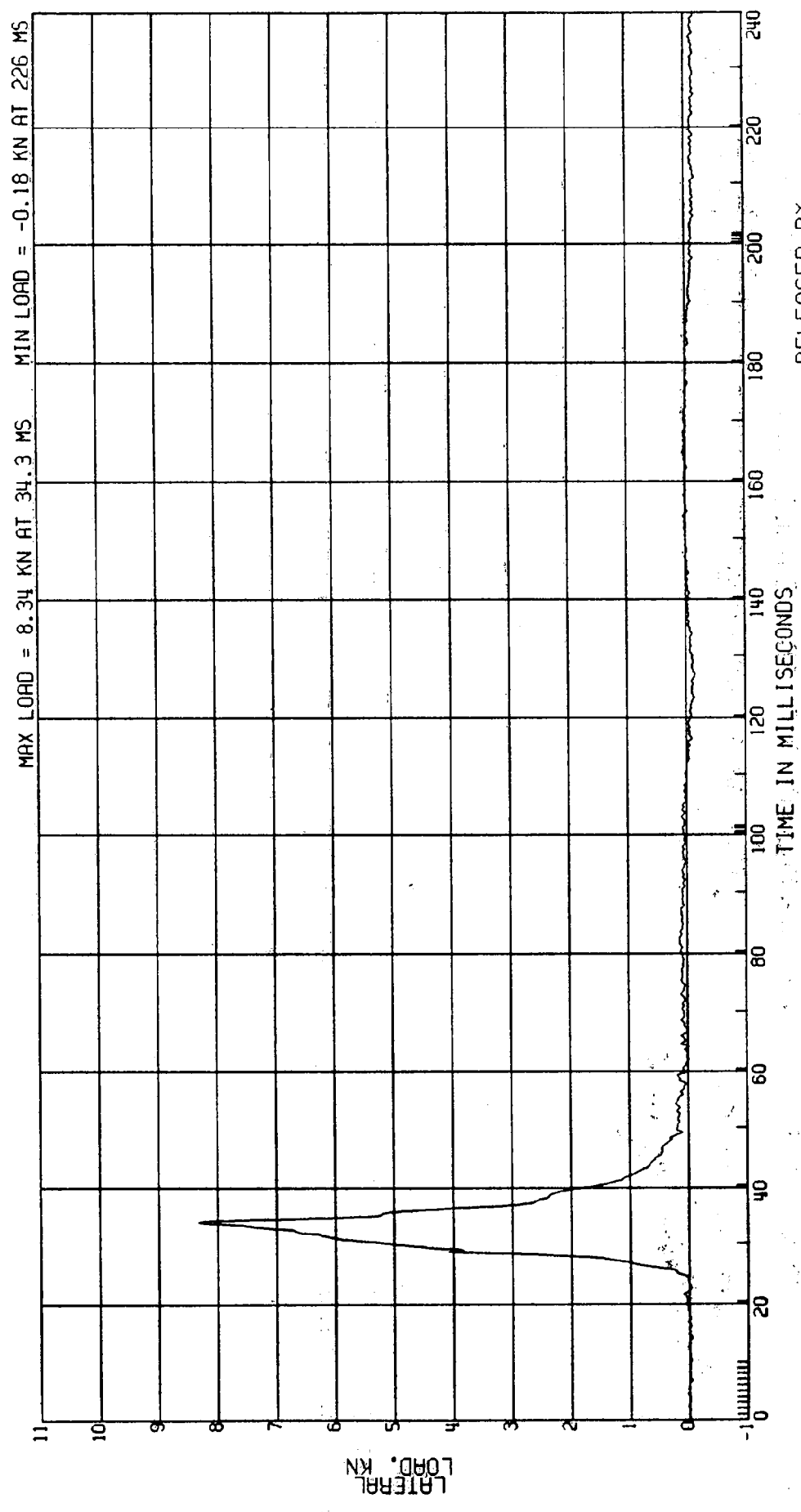
C80078 L. SIDE IMPACT - 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE /5/
3868-905 ATD TYPE: BIOSID
CPE MVMA 7B 2AF69 L. REAR PELVIC ACCEL. TEST DATE: 03-13-90
ELEC DATA, SAE CLASS 600



RELEASED BY:

77 PROCESSED 4 MT 90 14:08

C8007A L. SIDE IMPACT - 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 152
3868-905 AID TYPE: BIOSID
CPE MVMA 7B 2AF69 L. REAR PUBIC SYMPHYSIS LOAD TEST DATE: 03-13-90
ELEC DATA, SAE CLASS 600

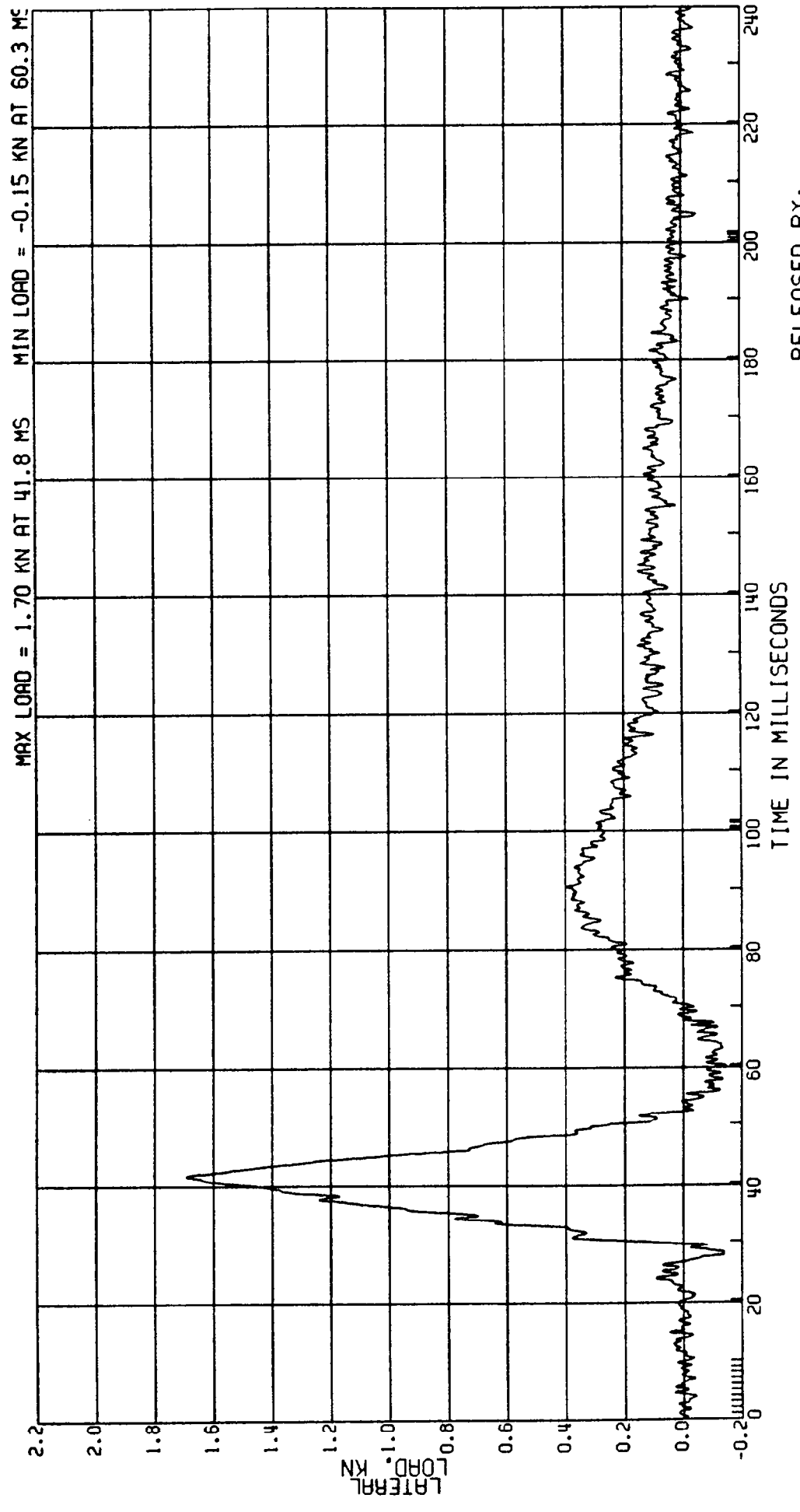


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29 PROCESSED 4 MAY 90 13:58

C8007A L. SIDE IMPACT- 27 DEG
MOVING CRABBED BARR TO PRK VEHICLE 53.6 KM/H FIGURE 153
RTO TYPE: B10S10
TEST DATE: 03-13-90

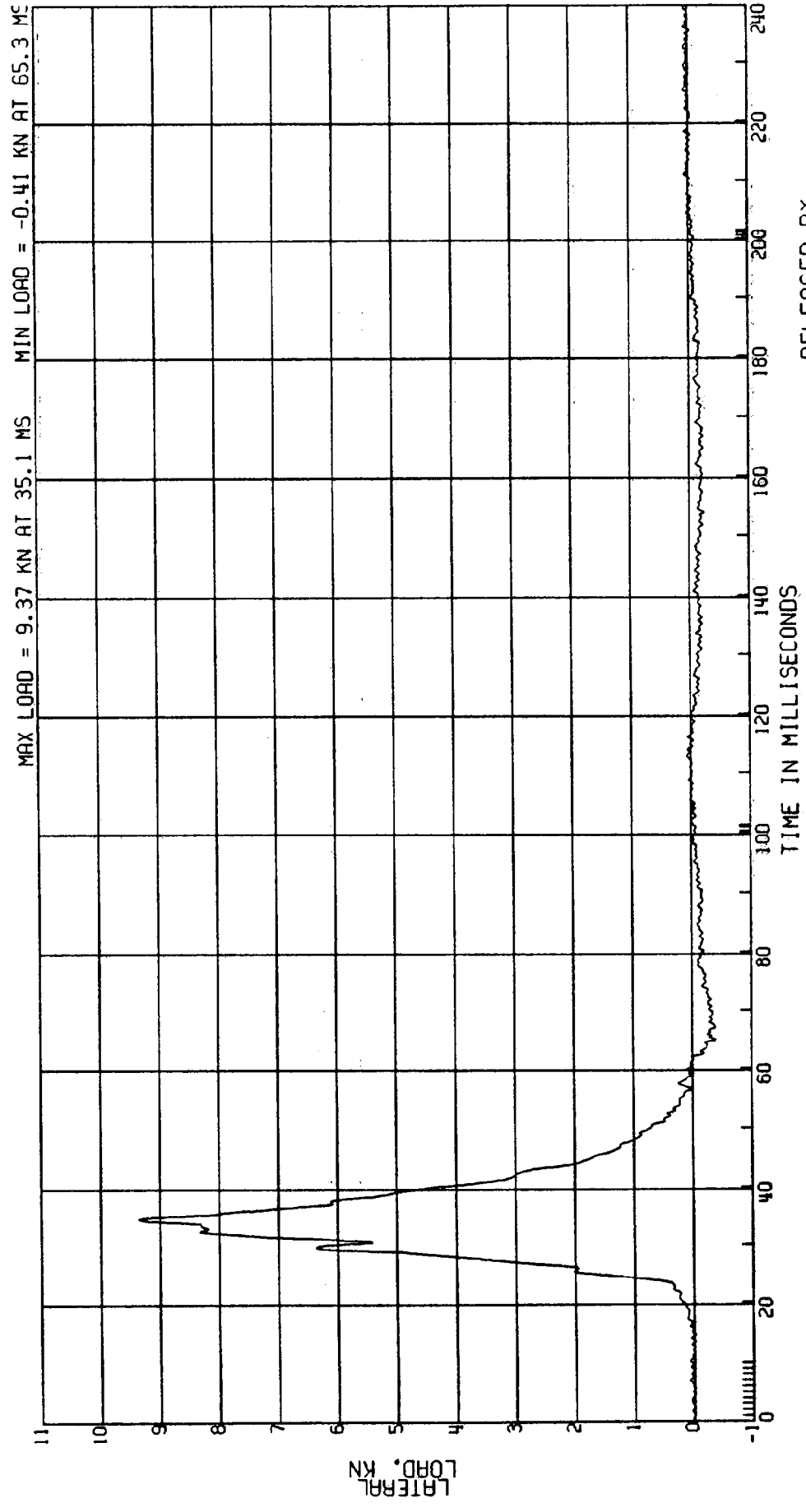
3868-905
CPE MVMA 78 2AF69
L. REAR ILIAC LOAD

ELEC DATA, SAE CLASS 600



RELEASED BY:
30 PROCESSED 4 MY 90 13:58

C8007A L. SIDE IMPACT- 27 DEG MOVING CRABBED BARR TO PRK VEHICLE 53.6KM/H FIGURE 154
3868-905 MVMA 7B 2AF69
CPE L. REAR SACRUM LOAD
ELEC DATA, SAE CLASS 600
ATD TYPE: B10SID
TEST DATE: 03-13-90



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31 PROCESSED 4/21/90 13:58