

EA03-014

**FORD 12/11/03
LETTER TO ODI**

ATTACHMENT G

BOOK 4 OF 10

PART 2 OF 4

OTHER VEHICLE SYSTEM INSTRUMENTATION

Representative/Delegate: D. R. Party
 Printed: 1/1/87 Facility: Baker
 During Print: Copies

Request #: 18-178-4891
 Institution: Washington
 Page 5 of 15

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CRTS 0010936

Dummy Instrumentation - Internal

BioSID

R/F

ACCELS:

☐ Head C.G.
☐ Chest
☐ Pelvis

☐ Long ☐ Vert ☐ Lat
☐ Long ☐ Vert ☐ Lat
☐ Long ☐ Vert ☐ Lat

LOAD CELLS:

☐ Neck Upper Load
☐ Neck Upper Moment
☐ Neck Lower Load
☐ Neck Lower Moment
☐ Thoracic Load
☐ Thoracic Moment
☐ Lower Lumbar Load
☐ Lower Lumbar Moment
☐ L/Femur Load
☐ L/Femur Moment
☐ R/Femur Load
☐ R/Femur Moment
☐ L/Up/Tibia Moment & Load
☐ R/Up/Tibia Moment & Load
☐ L/Low/Tibia Moment & Load
☐ R/Low/Tibia Moment & Load

☐ Fx ☐ Fy ☐ Fz
☐ Mx ☐ My ☐ Mz
☐ Fx ☐ Fy ☐ Fz
☐ Mx ☐ My ☐ Mz
☐ Fx ☐ Fy ☐ Fz
☐ Mx ☐ My ☐ Mz
☐ Fx ☐ Fy ☐ Fz
☐ Mx ☐ My ☐ Mz
☐ Fx ☐ Fy ☐ Fz
☐ Mx ☐ My ☐ Mz
☐ Fx ☐ Fy ☐ Fz
☐ Mx ☐ My ☐ Mz
☐ Fx ☐ Fy ☐ Fz
☐ Mx ☐ My ☐ Mz

POTENTIOMETERS:

☐ Chest Deflection
☐ Knee Slider - Left
☐ Knee Slider - Right

☐ Disap
☐ Disap
☐ Disap

OTHER INTERNAL DUMMY INSTRUMENTATION:

☐
☐

Dummy Instrumentation - External**CONTACT SWITCHES:**

☐ L / Knee Contact
☐ R / Knee Contact
☐ Header

STRING POTS:

☐ Pelvis
☐ L / Knee
☐ R / Knee

OTHER EXTERNAL DUMMY INSTRUMENTATION:

☐
☐

Dummy Instrumentation - Internal

None

R/R

ACCELS:

☐ Head O.G.
☐ Chest
☐ Pelvis

☐ Long ☐ Vert ☐ Lat
☐ Long ☐ Vert ☐ Lat
☐ Long ☐ Vert ☐ Lat

LOAD CELLS:

☐ Neck Upper Load
☐ Neck Upper Moment
☐ Neck Lower Load
☐ Neck Lower Moment
☐ Thoracic Load
☐ Thoracic Moment
☐ Lower Lumbar Load
☐ Lower Lumbar Moment
☐ L/Femur Load
☐ L/Femur Moment
☐ R/Femur Load
☐ R/Femur Moment
☐ L/Up/Tibia Moment & Load
☐ R/Up/Tibia Moment & Load
☐ L/Low/Tibia Moment & Load
☐ R/Low/Tibia Moment & Load

☐ Px ☐ Py ☐ Fz
☐ Mx ☐ My ☐ Mz
☐ Px ☐ Py ☐ Fz
☐ Mx ☐ My ☐ Mz
☐ Px ☐ Py ☐ Fz
☐ Mx ☐ My ☐ Mz
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☐ Px ☐ Py ☐ Fz
☐ Mx ☐ My ☐ Mz

POTENTIOMETERS:

☐ Chest Deflection
☐ Knee Slider - Left
☐ Knee Slider - Right

☐ Diap
☐ Diap
☐ Diap

OTHER INTERNAL DUMMY INSTRUMENTATION:

☐
☐

Dummy Instrumentation - External**CONTACT SWITCHES:**

☐ L / Knee Contact
☐ R / Knee Contact
☐ Header

STRING POTS:

☐ Pelvis
☐ L / Knee
☐ R / Knee

OTHER EXTERNAL DUMMY INSTRUMENTATION:

☐
☐

Dummy Instrumentation - Internal

BioSID

R/F

ACCELS:

☐ LF_DUMMY_HEAD_GG
☐ LF_DUMMY_T1
☐ LF_DUMMY_T1V
☐ LF_DUMMY_T1B
☐ LF_DUMMY_T12V
☐ LF_DUMMY_PELVIS
☐ LF_DUMMY_PELVISV
☐ LF_DUMMY_THORAX/REARV
☐ LF_DUMMY_THORAX/REARV
☐ LF_DUMMY_THORAX/REARV
☐ LF_DUMMY_THORAX/REARV

☐ Long ☐ Vert ☐ Lat
☐ Long ☐ Vert ☐ Lat - R
☐ Lat - L ☐ Lat - REAR
☐ Long ☐ Vert ☐ Lat - REAR
☐ Lat - L ☐ Lat - REAR
☐ Lat - FRT ☐ Lat - REAR
☐ Lat - FRT ☐ Lat - REAR
☐ Lat - FRT ☐ Lat - REAR

LOAD CELLS:

☐ LF_DUMMY ABDOMEN_LOAD_FRONT (EURO)
☐ LF_DUMMY ABDOMEN_LOAD_MID (EURO)
☐ LF_DUMMY ABDOMEN_LOAD_REAR (EURO)
☐ LF_DUMMY THORACIC SPINE_LOAD
☐ LF_DUMMY THORACIC SPINE_LOAD
☐ LF_DUMMY LUMBAR SPINE_LOAD
☐ LF_DUMMY LUMBAR SPINE_LOAD
☐ LF_DUMMY PUBIC_LOAD (EURO)

☐ Fy
☐ Fy
☐ Fy
☐ Fx ☐ Fy ☐ Fz
☐ Mx ☐ My ☐ Fz
☐ Fx ☐ Fy ☐ Fz
☐ Mx ☐ My ☐ Fy

POTENTIOMETERS:

☐ LF_DUMMY CHEST DEFLECTION (SID)
☐ LF_DUMMY THORAX/REAR/DISP (EURO)
☐ LF_DUMMY THORAX/REAR/DISP (EURO)
☐ LF_DUMMY THORAX/REAR/DISP (EURO)

☐ Disp
☐ Disp
☐ Disp
☐ Disp

OTHER INTERNAL DUMMY INSTRUMENTATION:

☐
☐

Dummy Instrumentation - External**CONTACT SWITCHES:**

☒ LF_DUMMY_HEAD_SW
☒ LF_DUMMY_ARM_SW
☒ LF_DUMMY_THORAX_SW
☒ LF_DUMMY ABDOMEN_SW
☒ LF_DUMMY_H-POINT_SW
☒ LF_DUMMY_THIGH_SW

OTHER EXTERNAL DUMMY INSTRUMENTATION:

☐
☐

None

F/R

Dummy Instrumentation - Internal**ACCELS:**

☐ L/R_DUMMY_HEAD_GG
☐ L/R_DUMMY_T1
☐ L/R_DUMMY_T2
☐ L/R_DUMMY_T12
☐ L/R_DUMMY_T18
☐ L/R_DUMMY_PELVIS
☐ L/R_DUMMY_PELVIS/
☐ L/R_DUMMY_THORAXRIBUP/
☐ L/R_DUMMY_THORAXRIBO/
☐ L/R_DUMMY_THORAXRIBLO/

☐ Long ☐ Vert ☐ Lat
☐ Long ☐ Vert ☐ Lat
☐ Lat - L ☐ Lat - R
☐ Long ☐ Vert ☐ Lat - FRT
☐ Lat - FRT ☐ Lat - REAR
☐ Long ☐ Vert ☐ Lat - L
☐ Lat - L ☐ Lat - REAR
☐ Lat - FRT ☐ Lat - REAR
☐ Lat - FRT ☐ Lat - REAR
☐ Lat - FRT ☐ Lat - REAR

LOAD CELLS:

☐ L/R_DUMMY_ABDOMEN_LOAD_FRONT (EURO)
☐ L/R_DUMMY_ABDOMEN_LOAD_MID (EURO)
☐ L/R_DUMMY_ABDOMEN_LOAD_REAR (EURO)
☐ L/R_DUMMY_THORACIC_SPINE_LOAD
☐ L/R_DUMMY_THORACIC_SPINE_LOAD
☐ L/R_DUMMY_LUMBAR_SPINE_LOAD
☐ L/R_DUMMY_LUMBAR_SPINE_LOAD
☐ L/R_DUMMY_PUBIC_LOAD (EURO)

☐ Fy
☐ Fy
☐ Fy
☐ Fx ☐ Fy ☐ Fz
☐ Mx ☐ My ☐ Fz
☐ Fz ☐ Fy ☐ Fz
☐ Mx ☐ My ☐ Fy

POTENTIOMETERS:

☐ L/R_DUMMY_CHEST_DEFLECTION (SID)
☐ L/R_DUMMY_THORAXRIBUPDISP (EURO)
☐ L/R_DUMMY_THORAXRIBODISP (EURO)
☐ L/R_DUMMY_THORAXRIBLODISP (EURO)

☐ Diap
☐ Diap
☐ Diap
☐ Diap

OTHER INTERNAL DUMMY INSTRUMENTATION:

☐
☐

Dummy Instrumentation - External**CONTACT SWITCHES:**

☐ L/R_DUMMY_HEAD_SW
☐ L/R_DUMMY_ARM_SW
☐ L/R_DUMMY_THORAX_SW
☐ L/R_DUMMY_ABDOMEN_SW
☐ L/R_DUMMY_H-POINT_SW
☐ L/R_DUMMY_THIGH_SW

OTHER EXTERNAL DUMMY INSTRUMENTATION:

☐
☐

<<< <<< END OF SHEET >>> >>>

Supervisor/Originator: D. R. Parry
Fidelist 15/10/87 Facility Number
Company Prov. Capital

Request No 15-718-0051
Submission/Action Attachment
Page 10 of 10

Amo TA
Ver 2.0d Rev 13, 1988
Author: Clearing/Provision/On

CRTS 0010936

Barrier Load Cell

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Notes:

Blank indicates cell not required

"L" indicates data required in longitudinal direction only

"T" indicates data required on all three axes

<<< <<< END OF SHEET >>> >>>

CRTS 0010936

Reported/Original: D. P. Paddy
Period: 10/1997 Facility: Barrow
Display Print: Copies

Report #: 15-J16-0001
Barrier Load Cell Attachment
Page 1 of 1

John TA
Ver: 2.004 Issues: Sept 10, 1999
Author: Charles W. Padden/Ola

ENTIRE PAGE CONFIDENTIAL

List of Test Contacts

	Last name	Phone	Pager	Profile
Requestor	D. R. Purdy	32-30466	DPUR	DPURDY1
Approving supervisor	K. D. Arthurs	33-05156	KART	KARTHURS
Build coordinator	E. Meier	84-57542	EME1	EMEIER
Test engineer				
Other				
Other				

	Last name	Phone	Pager	Profile
Seats				
Instrument panel				
Restraints				
Air bag (driver)				
Air bag (passenger)				
Steering column				

CRTS 0010936

Requested/Original: D. R. Purdy
 Printed: 11/19/97 File: 0010936
 Display Print, Copy

Request #: 10-105-421
 Contact List Attachment
 Page 1 of 1

Auto TA
 Ver 2.004 Issues: Sep 18, 1996
 Author: CharlesC/Fugate/00a

ENTIRE PAGE CONFIDENTIAL

TEST AUTHORIZATION NUMBER: _____

CONTACTS:

name	phone	pager	prefs
D. R. Purdy	32-30498	DPUR	DPURDY1
E. Meier	84-57542	EME1	EMEIER

TEST ENGINEER: _____

Test Conditions - Final Prep

T.O. #: _____

Final Prep Contacts

ONE of these MUST be present during weigh-up & final prep

Test Engineer	Request Engineer	Build Coordinator
Name: _____	Debora Purdy	Emory Meier
Phone: _____	32-30498	84-57642
Pager: _____	DPUR	EME

Tire Pressure

Front: 32. psiRear: 32. psi

Fuel System

Fuel Tank & System to Contain: none

_____	=	_____	x	19 Gal
Fill Level	%	%	x	Capacity

Weight Targets

If required weight distribution is UNACHIEVABLE, please note allowable variances.

Curb Weight	Requested Test Weight	Acceptable Test Weight Variance		Actual Test Weight
		High (+)	Low (-)	
Front: <u>2,220 lbs</u>	<u>2,314 lbs</u>	Front: <u>12 lbs</u>	<u>0 lbs</u>	Front: <u>2453</u>
Rear: <u>1,802 lbs</u>	<u>2,305 lbs</u>	Rear: <u>12 lbs</u>	<u>0 lbs</u>	Rear: <u>2156</u>
Total: <u>4,022 lbs</u>	<u>4,619 lbs</u>	Total: <u>24 lbs</u>	<u>0 lbs</u>	Total: <u>4609</u>
				<u>+2</u>

Rated Luggage Load: 200 lbsSimulate/Verify at Weigh-Up
Dummy Weight

On Board Camera Count

Weight Addition (Restrictions)

Do NOT place any weight in the following locations:

☐ Air Cleaner	☐ Engine	☒ Doors
☐ Battery	☐ Fan Box/Shroud	☒ Foot Walls - Front
☐ Bottle - Coolant	☐ Headlamp Ovrngs	☒ Foot Walls - Rear
☐ Bottle - Washer	☐ Radiator	☒ Quarter Panels
Other: _____		☐ Trunk Floor

Ride Heights

Measure @ Test Weight

Front: 715.0 mm

Rear: 707.0 mm

Measure

From: Wheel Lip

To: Ground

Additional Remarks

L F 720

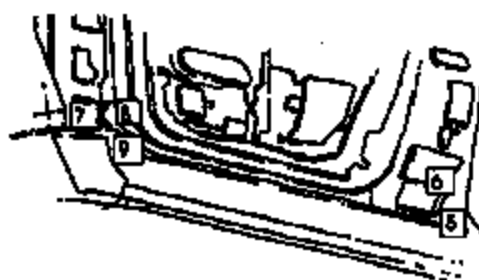
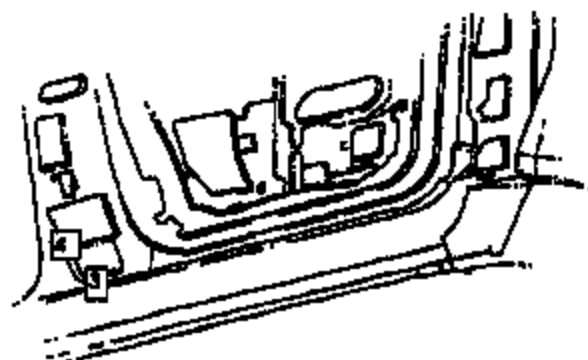
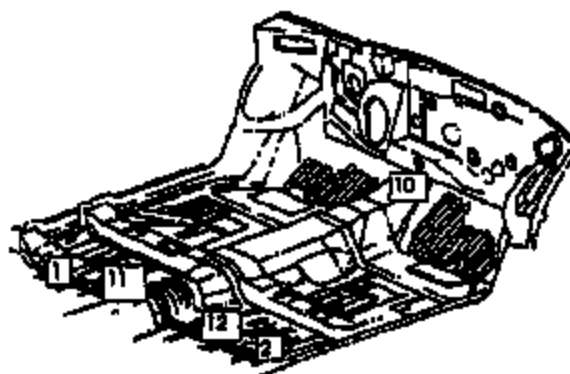
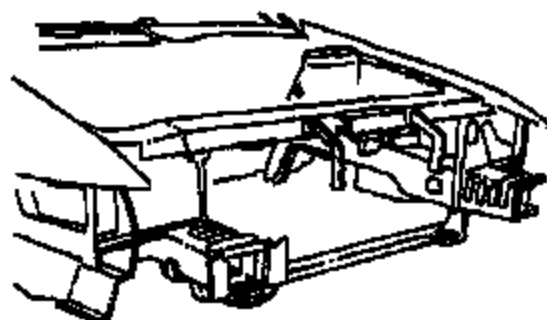
715

<<< <<< END OF SHEET >>> >>>

Program: 1000 RN148
Vehicle ID: VC8408
Build level: Phase II - Side
Test Mode: 16mph Pole RM

SENSOR MAP

Engineer: Erich Kemnitz
Phone #: 248-1802
Date: 10/15/97
Time: 12:50 PM



Location Name	Type	Output	Nominal (v)	Sensor Channels only	
				Max/Min	Serial #
1 UND_L/P_SEAT_S_L/R_BOLT_STE1	Siemens side	status	2.5 +- 0.6		780
2 UND_R/P_SEAT_S_L/R_BOLT_STE1	Siemens side	status	2.5 +- 0.6		780
3 L/R-PLR_IN_S_KICK_IN	accel	TRIAK			
4 L/R-PLR_IN_S_RETRACTOR_IN	accel	TRIAK			
5 R/R-PLR_IN_S_KICK_IN	accel	TRIAK			
6 R/R-PLR_IN_S_RETRACTOR_IN	accel	TRIAK			
7 R/A-PLR_IN_S_KICK_STE1	Siemens NCM	Pc Pres	0.0 +- 0.6		780
7a R/A-PLR_IN_S_KICK_STE2	Siemens NCM	Dr Bag	0.0 +- 0.6		
7b R/A-PLR_IN_S_KICK_STE3	Siemens NCM	Pee Bag	0.0 +- 0.6		
7c R/A-PLR_IN_S_KICK_STE4	Siemens NCM	Dr S Bag	0.0 +- 0.6		
7d R/A-PLR_IN_S_KICK_STE5	Siemens NCM	Pc S Bag	0.0 +- 0.6		
7e R/A-PLR_IN_S_KICK_STE6	Siemens NCM	Dr Pres	0.0 +- 0.6		
7f R/A-PLR_IN_S_KICK_STE7	Siemens NCM	safety	open		
7g R/A-PLR_IN_S_KICK_STE8	Siemens NCM	Status	1.0+- 0.6		
8 R/A-PLR_IN_S_KICK_BAGGT	accel	TRIAK	On NCM		
9 R/A-PLR_IN_S_KICK_IN	accel	TRIAK	On SK NCM NCM		
10 C/L_WHL_S_CAM_IN	accel	TRIAK			
11 UND_L/P_SEAT_S_L/R_BOLT_STE1	accel	TRIAK			
12 UND_R/P_SEAT_S_L/R_BOLT_STE1	accel	TRIAK			

Side Impact Barrier Test Data Sheet

T.O. TA 5624

Crash Number 10936 Test Date _____MDB Tire
Pressure

Vehicle Weight

LF RF

Impact Velocity _____ MPH Barrier Lot # _____

LF RF
LR RR

LR RR

Total

HEIGHT

Occupant/Vehicle Data

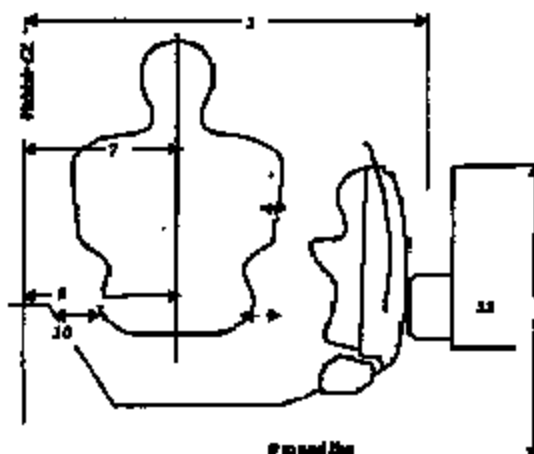
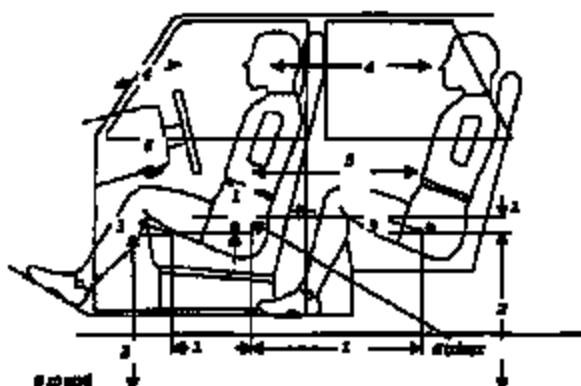
Front

Rear

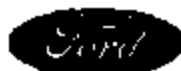
Dummy Serial Number		155	
Seatback Angle - Barrier Measurement (DA)		29.5	
Dummy to Interior/door H-point (+/- 0.5 inch required)	Vertical		
Above/Forward (+) Below/Rearward (-)	Longitudinal		
1. H-Point to Door Sill	Vertical		
Above/Forward (+) Below/Rearward (-)	Longitudinal		
2. H-Point to Ground (vertical)			
3. Pelvic Angle			
4. Nose to Upper Steering/Headrest (shortest) IP		22.0	
5. Abdomen to lower steering/seatback (horizontal) IP		14.6	
6. Pelvis centerline to Vehicle centerline (lateral)		6.1	
7. Chest centerline to Vehicle centerline (lateral)		6.3	
Seat centerline to Vehicle centerline (lateral) (DA)		14.0	
8. Chest to Beltline (lateral, shortest)			
9. Pelvis to H-Point (lateral)			
10. Pelvis to nearest inboard hand point (lateral)		7.4	
Left Wheel lip height (vertical to ground)			
Right Wheel lip height (vertical to ground)			
11. Vehicle centerline to barrier face (lateral)			
12. Barrier Top to Ground @ Pullback (Vertical)			
Impact Mark relative to Target	+ above/two - below/two		

13. DUMMY ARM TO DOOR

4.6



"RECORD COPY"

Schedule No. 7-7-12Retain Until 2020

Inter Office

Research and Vehicle Technology

January 7, 2000

To: Manager

Subject: Crash Test No. 10985, T-A5499 Test Report Corrections, R/1

The final report of the subject crash test was corrected as follows:

Sheet 3

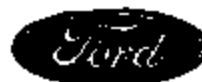
~~Remarks~~ - The file names of the still images are listed under crash number and a three digit sequence number which are 10985001 through 10985062 was changed to ' The file names of the still images are listed under crash number and a three digit sequence number which are 10985001 through 10985061'.

M. A. DeShong
M. A. DeShong
Operations Engineering Section
Safety Laboratories Department

H. A. K.
Concur: S. Lash
Section Supervisor
Operations Engineering Section

corr.10985

CRTS 0010985

**"RECORD COPY"**Schedule No. 7-7-12Retain Until 2019**CONFIDENTIAL****FINAL TEST REPORT**
**Global Test Operations
Advanced Vehicle Technology**
TO: K. Arthur

Test Order No.	T-A8499
Work Task W. O. No.	J16
Test Date	1/28/99
Date Reported	8/13/99
Sheet	1 of 107

SUBJECT: Crash Test 10985 (90° Right Side Fixed Pole Impact at 15.0 ± 0.4 mph, 24.1 ± 0.6 km/h) - 1999 Lincoln Town Car (FN-146) 4-Door Sedan

REQUESTED BY: Vehicle Safety and CAE Department, Advanced Vehicle Technology -
D. Purdy

OBJECT: To obtain development data relative to air bag system sensors.

**SUMMARY OF
TEST RESULTS:** See Section 1.0 for air bag system sensor data.

M. L. Foster
M. Foster
Test Development Engineer

S. Lash
Concur: S. Lash
Section Supervisor
Operations Engineering Section

VEHICLE DATA:

Make and Model	1999 Lincoln Town Car (FN-145) 4-Door Sedan (Confirmation Prototype)	
ID Numbers	1LNLM82W8WY608836, 318-W-180, VC09408	
Power Train	4.6L, EFI, Automatic (AODE) Transmission	
Fuel Tank(s)	Usable Capacity: 19 gal. (71.9L) Test Condition: Empty	
Front Seat(s)	Type: Bucket Cover: Leather Tracks/Position: 6-Way Power/Mechanical Mid and Down Seat Backs/Position: Adjustable/Not Measured Head Restraints/Position: Adjustable/Up	
Restraint System	RF: 3-Point Continuous Loop Active Belt and Seat Back Side Air Bag	
Occupants	RF: BIO-SID Uninstrumented Dummy	
Test Weight	Front: 3401 lb (1089 kg) Rear: 2320 lb (1007 kg) Total: 4621 lb (2096 kg)	
Tires	Front: P235/60R16 Rear: P235/60R16 Spare: Removed	32 psi (221 kPa) 32 psi (221 kPa)
Significant Content or Accessories:	Air Conditioning, Power Steering, Power Brakes, Tilt Steering Wheel	

GENERAL TEST COMMENTS:**1. Test Procedure**

The test was performed according to the following Corporate test procedure(s):

Fixed Barrier Collision, T657-ST-14 dated July 17, 1996.

1.1 Vehicle Alignment

The test vehicle impacted an 850 mm diameter steel pole structure, rigidly attached to the barrier face. The vertical steel pole was aligned so that the point of vehicle impact was centered on the test dummy's right front head center of gravity.

2. Remarks

Crash movies, pre- and post- crash still images of the test vehicle and copies of this report are available through the Operations Engineering Section, Safety Laboratories Department, GTO. The crash still images are stored and archived on CD ROMs. The file names of the still images are listed under crash number and a three digit sequence number which are 10985001 through 10985061.

TEST RESULTS:**1.0 Sensor Development**

Time histories of the dummy dynamic displacements obtained from Film Analysis are included in this report.

Time histories of the air bag/sensor(s) are included in this report.

Time histories of any requested derived data (i.e. integrations, etc.) were given to the requesting activity and are not included in this report.

2.0 Vehicle Crush, Film Analysis and/or Instrumentation Data

Time histories of the vehicle accelerations and other instrumentation are included in this report.

Time histories of vehicle dynamic displacements obtained from Film Analysis are included in this report.

Static displacements of various body points obtained by Dimensional Analysis are included in this report.

Time histories of any requested derived data (i.e. integrations, etc.) were given to the requesting activity and are not included in this report.

3.0 Vehicle Observations

The right front seat back side air bag side sensors did not sense the crash and did not send a deployment signal to the side air bag.

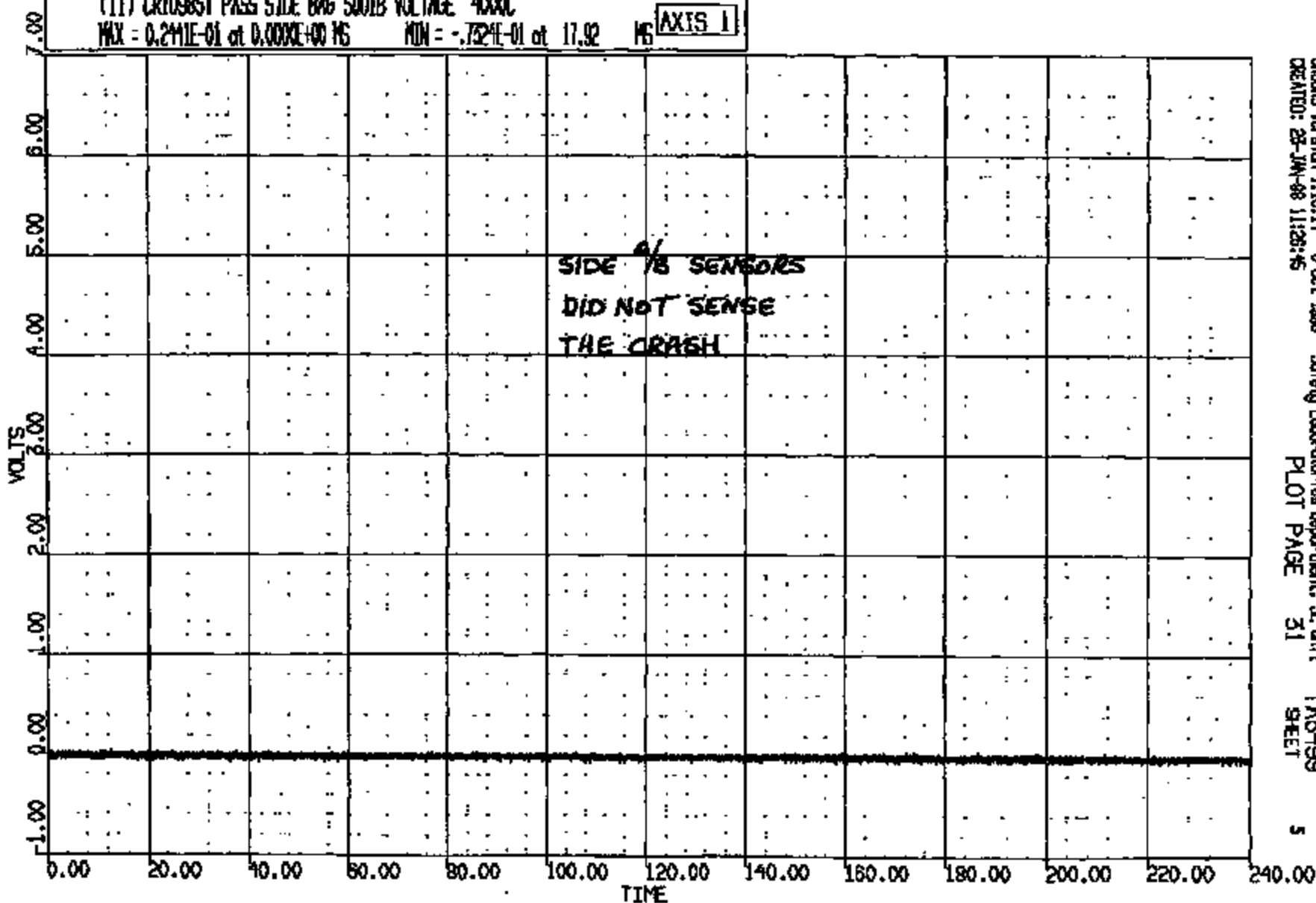
CR N: 10985 TO: TAB499 DATE: 980125 10:57:52
1999 FN-145 1999 FN-145

(11) CR10985T PASS SIDE BAG SQUIB VOLTAGE 4000C

MAX = 0.241E-01 at 0.000E+00 MS

MIN = -.752E-01 at 17.92 MS

AXIS 1



CASDS Version 1.16.14 - 8-Oct-1998
CREATED: 28-JUN-98 11:28:45

Safety Laboratories Department, SE Unit
PLOT PAGE 31

TAB499
SHEET

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ENTIRE PAGE CONFIDENTIAL

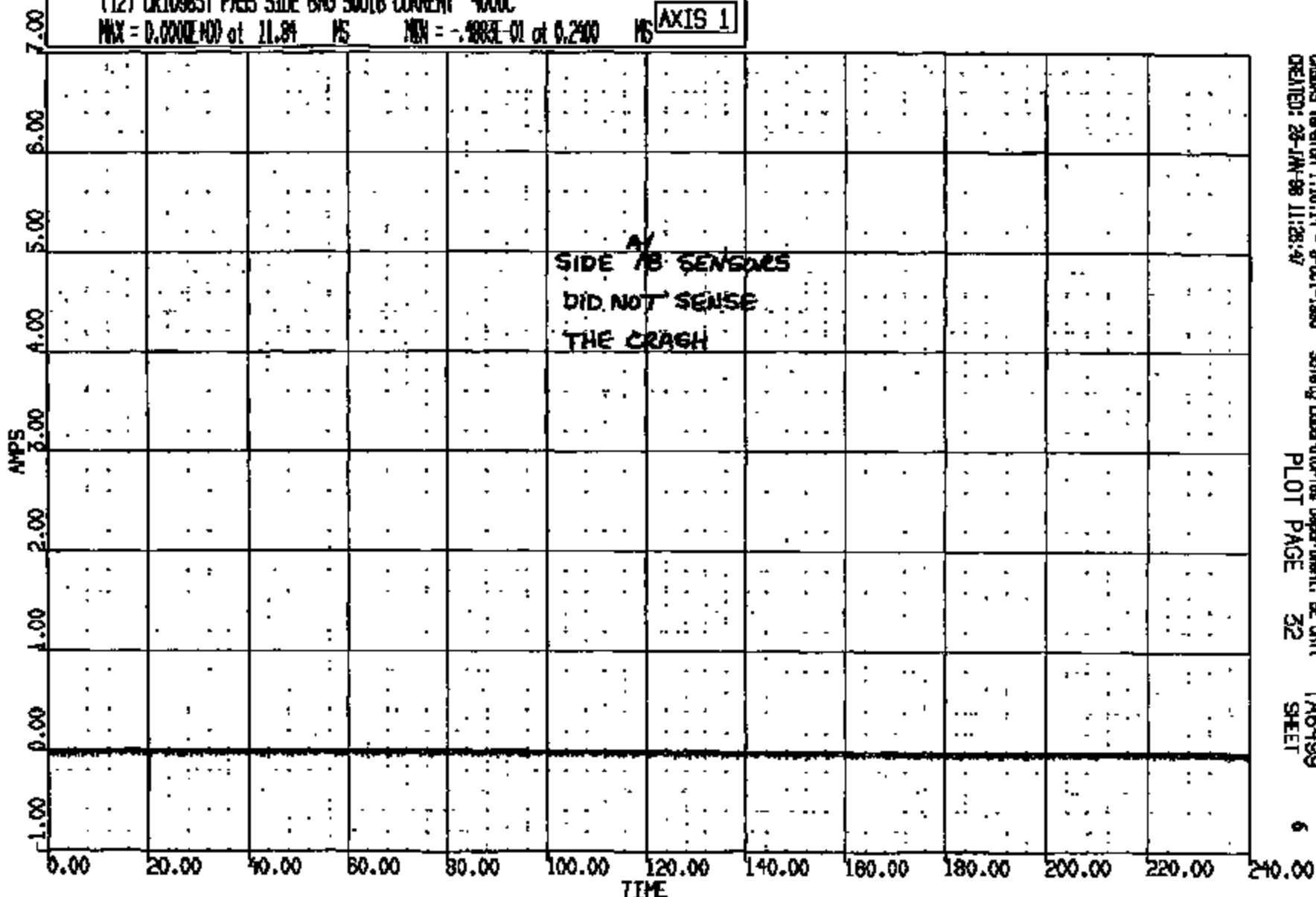
CRIS 0010985

CR R: 10985 TO: TA6499 DATE: 890123 10:57:32
1999 FN-145 1999 FN-146

(12) CR10985T PASS SIDE BAG SOUTH CURRENT 4000C

MAX = 0.0000E+00 at 21.84 MS MIN = -1.988E-01 at 0.2900 MS

AXIS 1



CRASH Version 1.16.14 - 8-Oct-1999
CREATED: 28-JAN-98 11:28:47

Safety Laboratories Department, BE Unit
PLOT PAGE 32

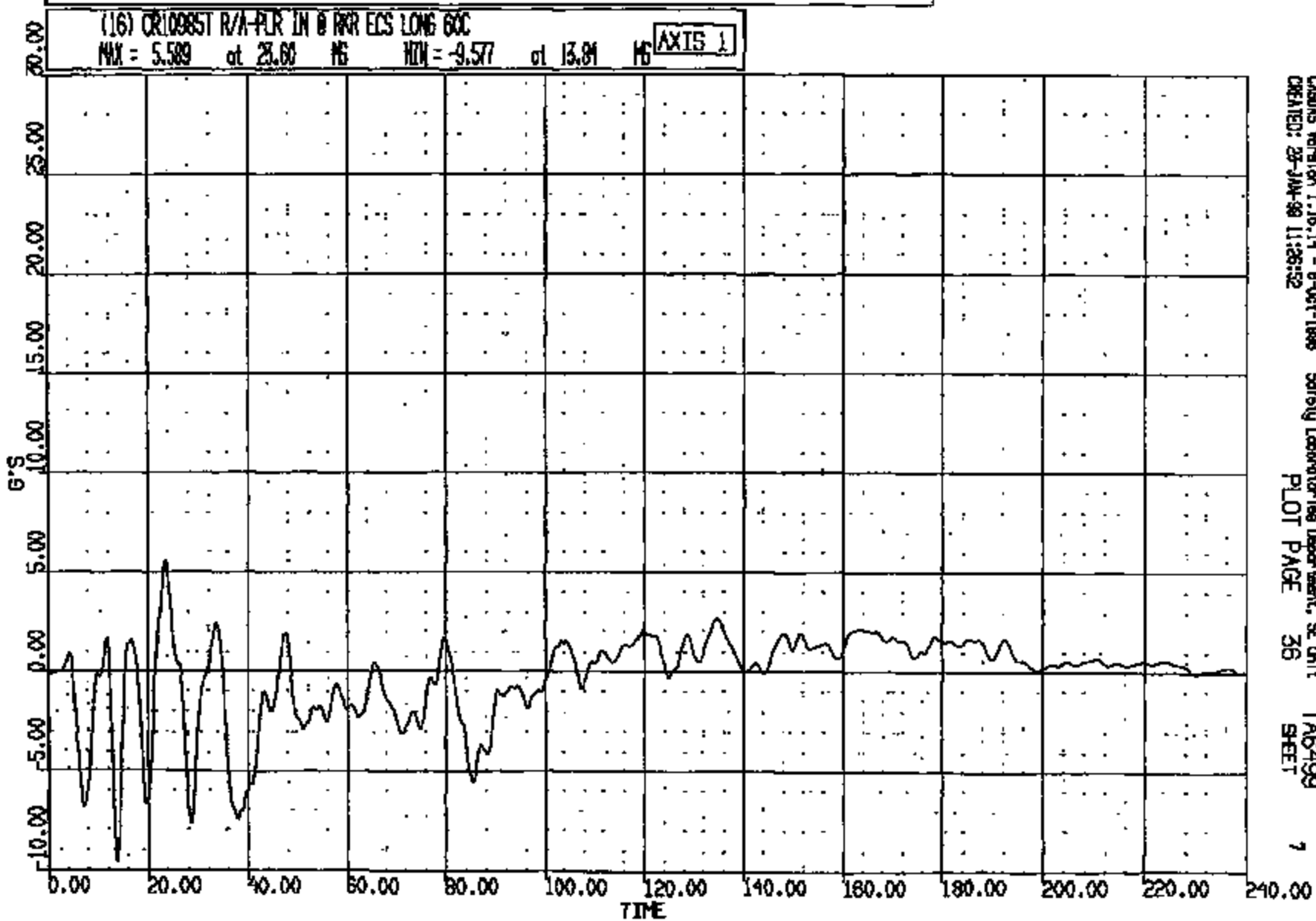
TA6499
SHEET

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CRIS 0010985

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1999 FN-148 1999 FN-148



CASIS Version 1.16.14 - 8-Oct-1998
CREATED: 28-JAN-98 11:26:52

Safety Laboratories Department, SE Unit
PLOT PAGE 36

TA6499
SHEET

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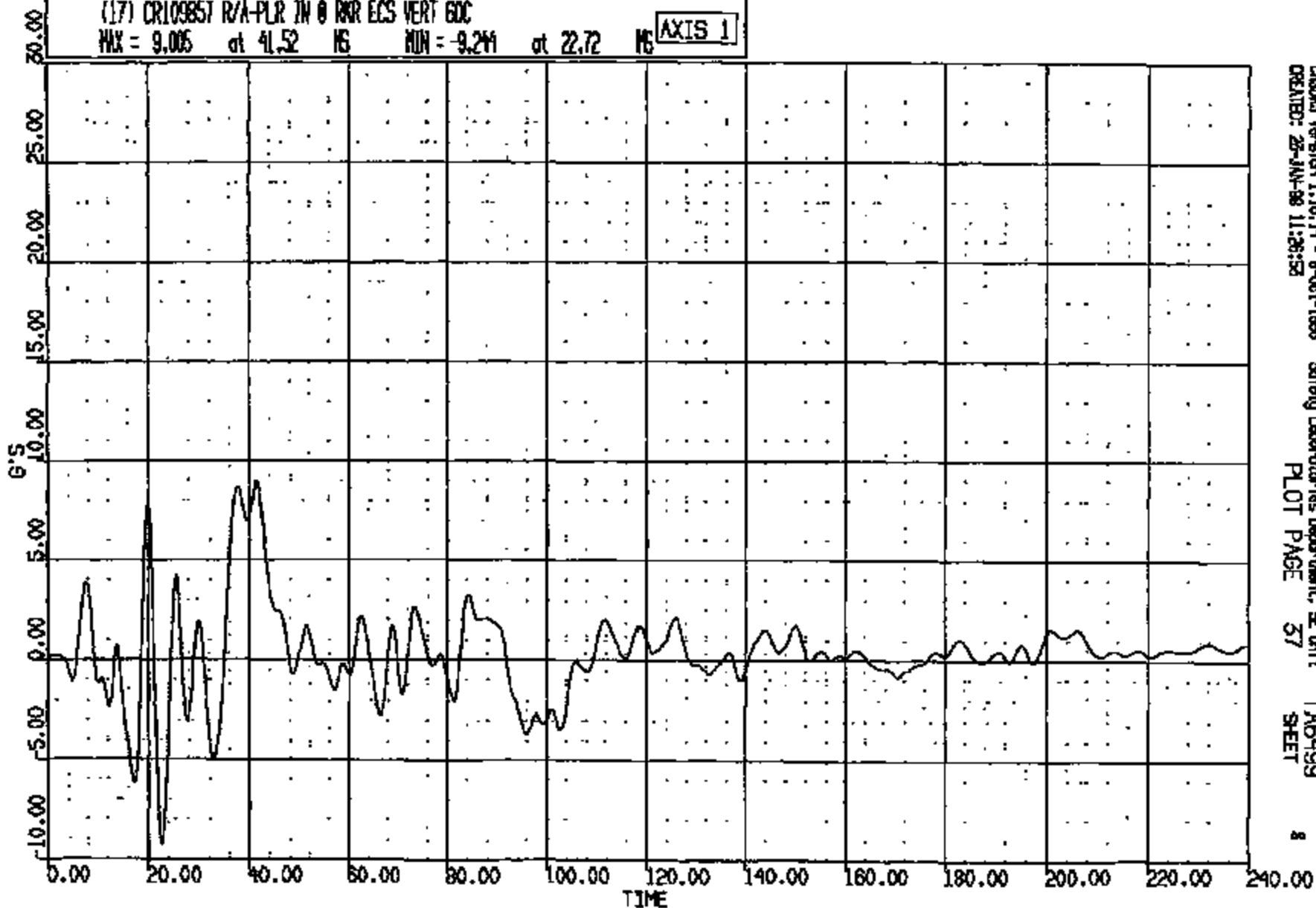
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1999 FN-148 1999 FN-148

(17) CR109857 R/A-PLR IN @ RWR ECS VERT GDC

MAX = 9.005 at 41.52 NS MIN = -9.241 at 22.72 NS

AXIS 1



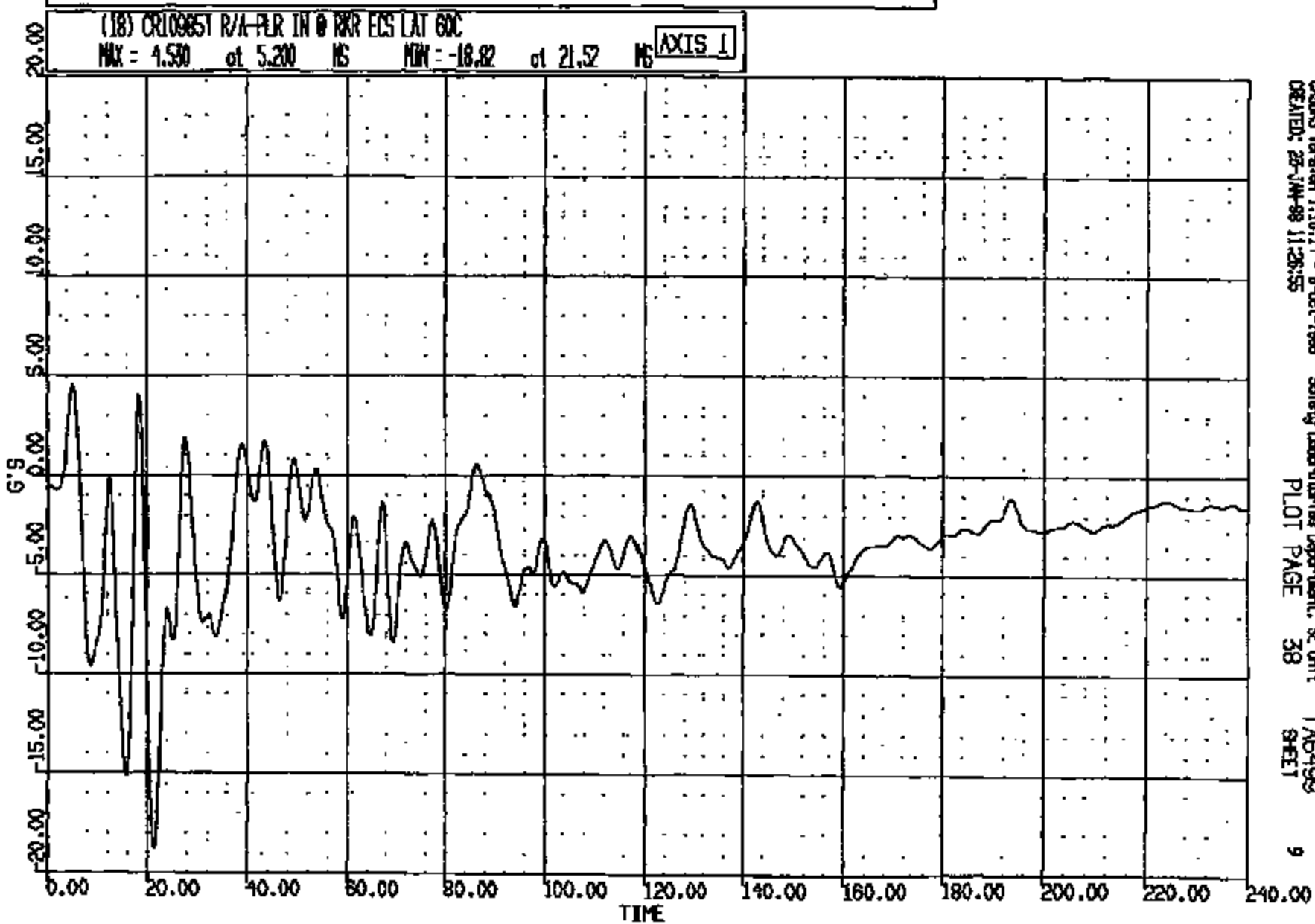
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Safety Laboratories Department, SE Unit
TAG499
PLOT PAGE 37 SHEET

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CRIS 0010985

CR R: 10985 TO: TAG499 DATE: 060125 10:57:32
1999 FN-145 1999 FN-145



CASAS Version 1.16.14 - B-Oct-1998
CREATED: 25-JAN-99 11:25:55

Safety Laboratories Department, SE Unit
TAG499
PLOT PAGE 38 SHEET

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CRIS 0010985

CASIMS Version 1.16.14 - 8-Jul-1998
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Safety Laboratories Department, SE Unit
 PLOT PAGE 21

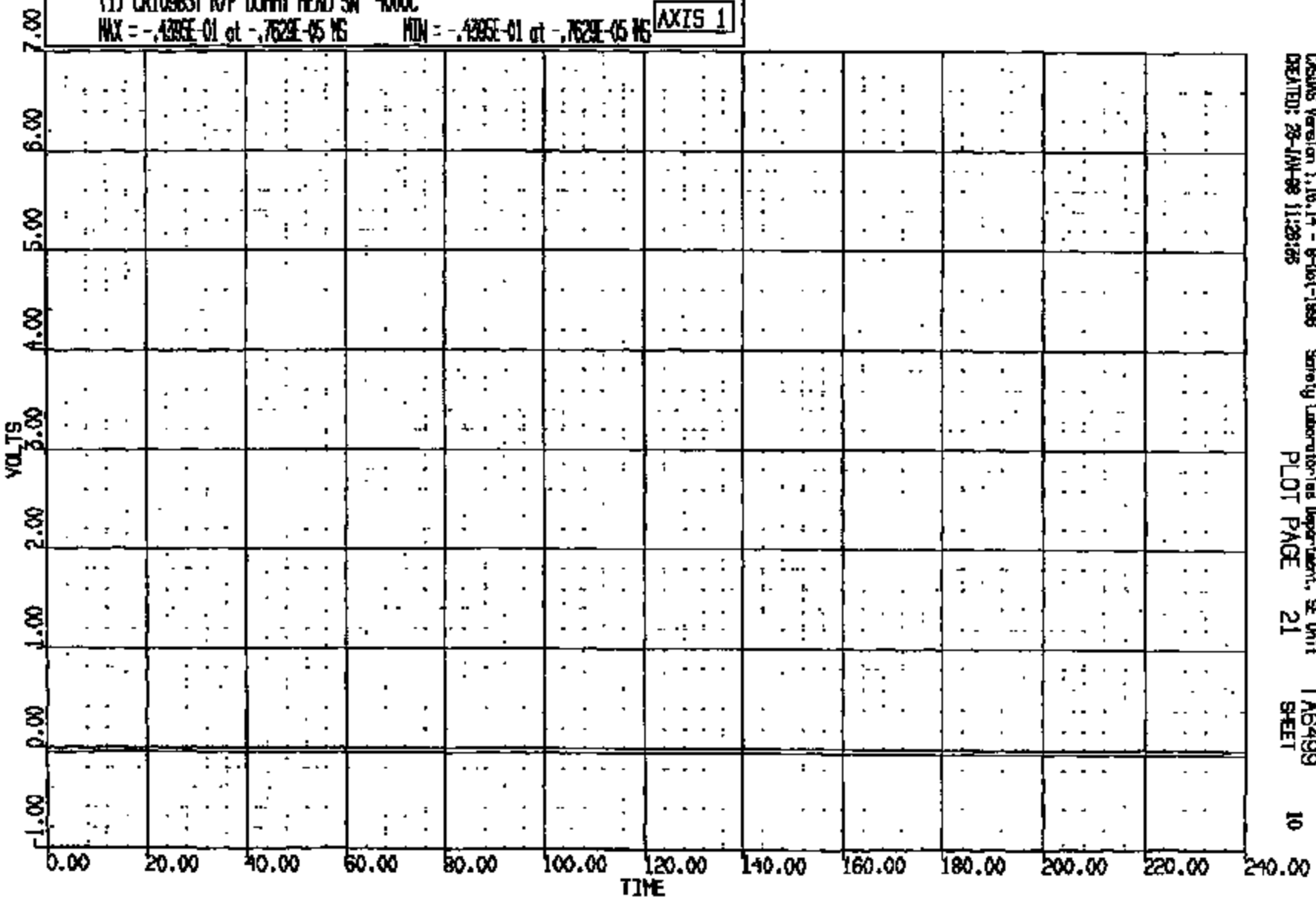
TAG499
 SHEET 10

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 1999 FN-145 1999 FN-145

(1) CR10985 R/F TUNNY HEAD SN 4000C

MAX = -.4395E-01 at -.7629E-05 MS MIN = -.4395E-01 at -.7629E-05 MS

AXIS 1



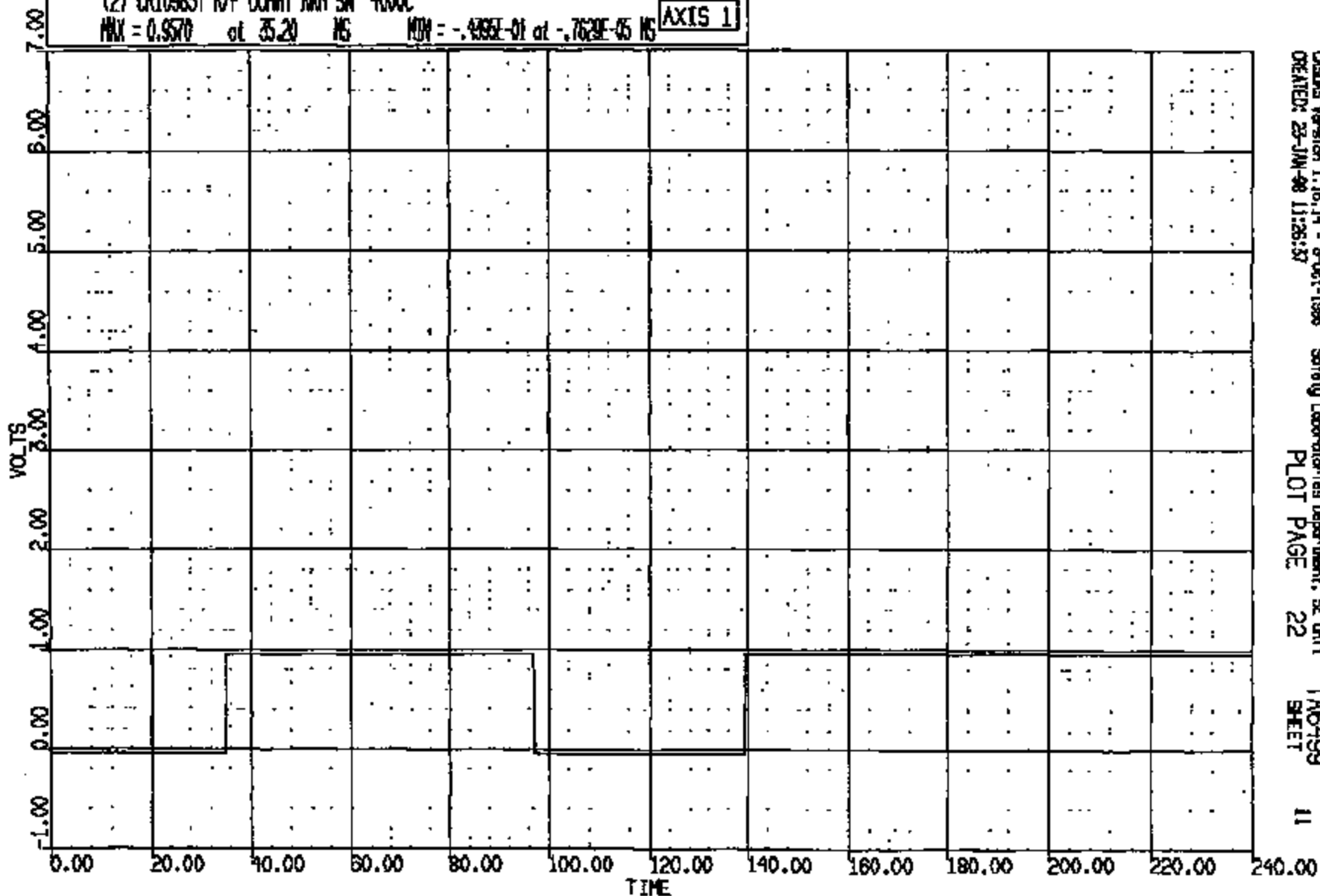
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CR R: 10985 TO: TAB499 DATE: 880125 10:57:32
1988 FN-145 1988 FN-145

(2) CR10985 R/F DUNNY AFB SW 4000C

MAX = 0.9570 at 35.20 MS MIN = -.439E-01 at -.762E-05 MS

AXIS 1



CASMS Version 1.16.14 - 8-Oct-1988
CREATED: 28-JUN-88 11:26:37

Safety Laboratories Department, SE Unit
PLOT PAGE 22

TAB499
SHEET 11

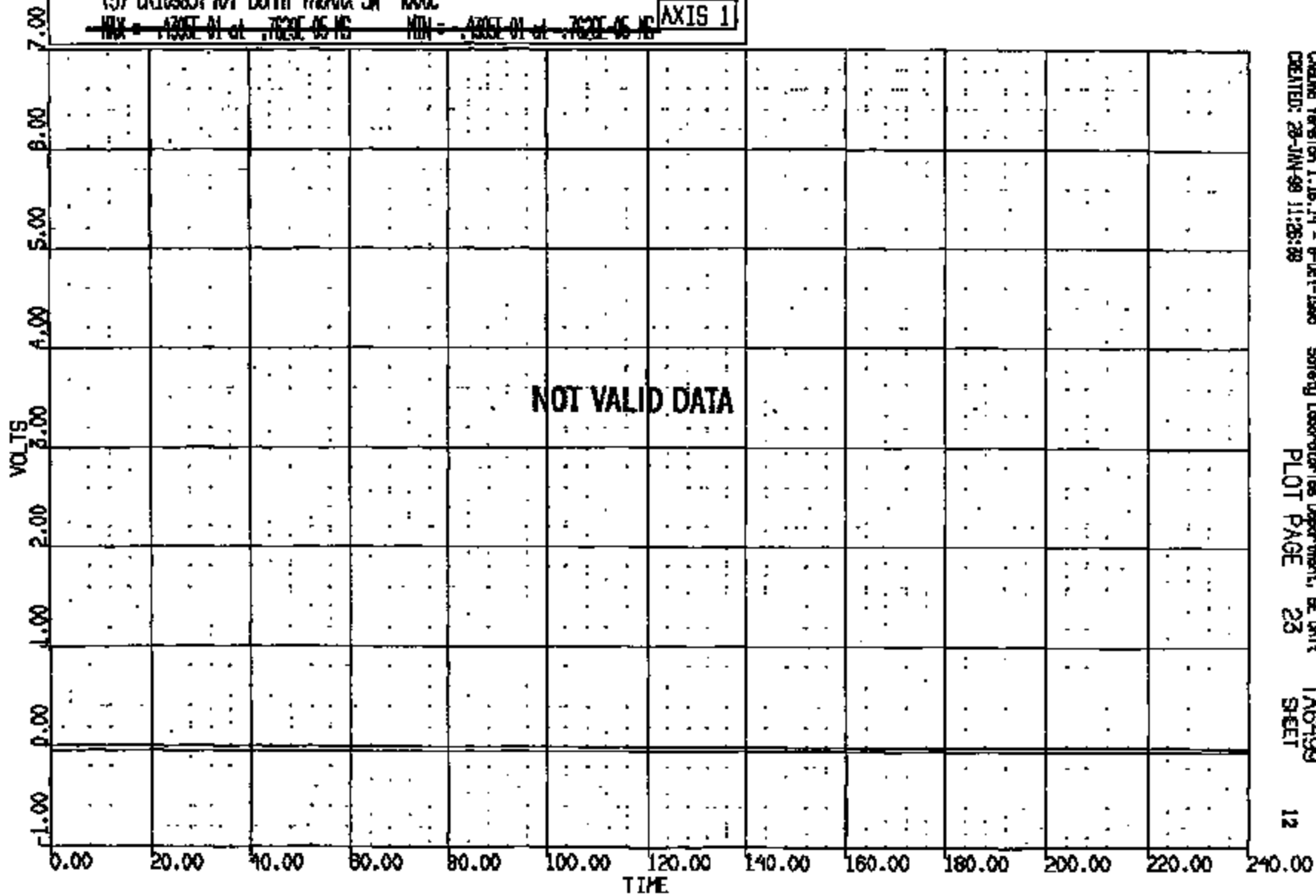
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CRTS 0010985

CR R: 10985 TO: TAG499 DATE: 990123 10:57:32
1999 FZ-146 1999 FZ-145

(3) CR108851 R/F DUMMY THORAX SN 4000C

~~MAX = 1.00E-01 at .762E-05 MS MIN = .400E-01 at .762E-05 MS~~ **AXIS 11**



CADME Version 1.16.14 - 0-06-1998
CREATED: 28-JAN-99 11:25:28

Safety Laboratories Department, BE Unit
TAG499
PLOT PAGE 23 SHEET

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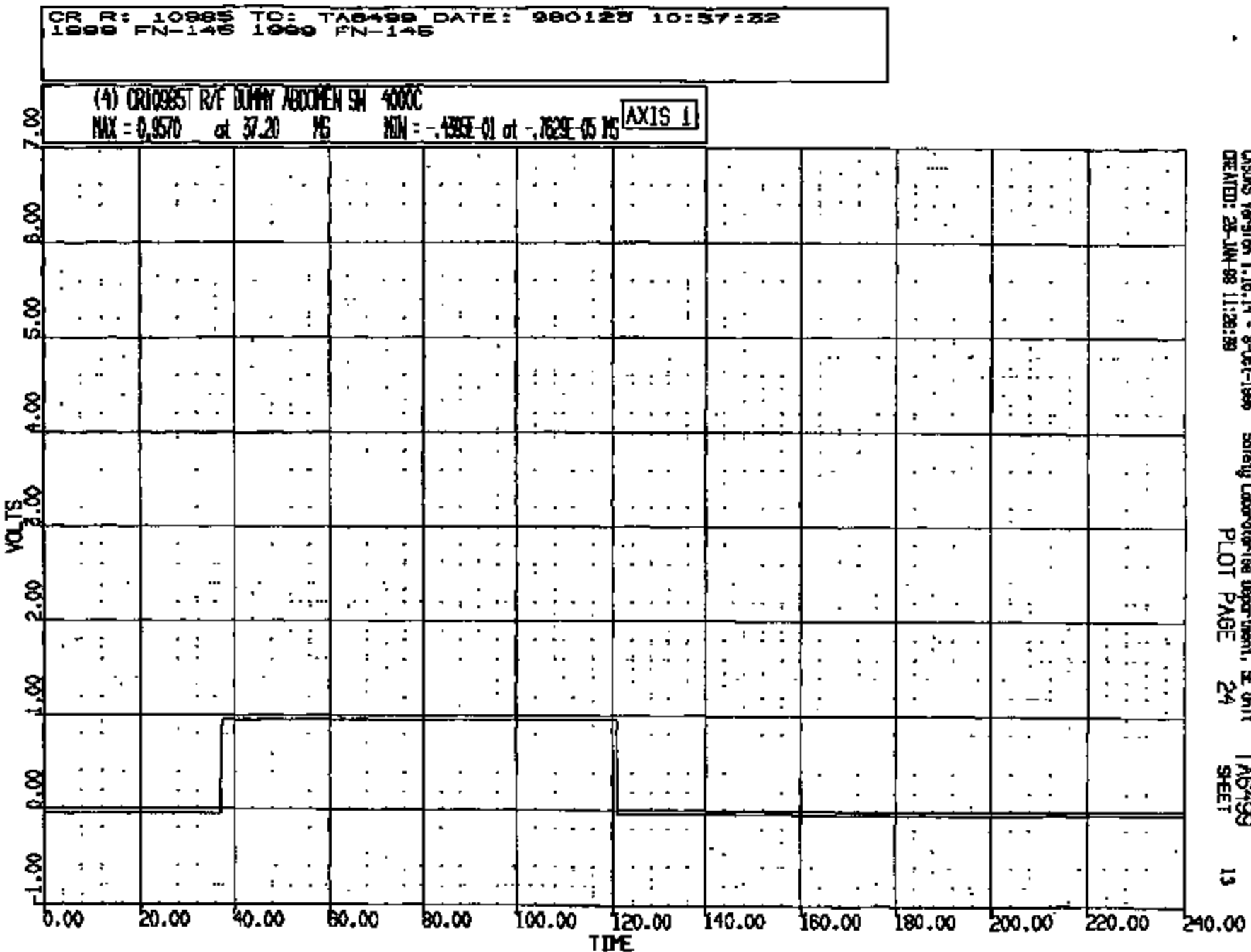
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CRTS 0010985

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Safety Laboratory Department, E Unit
 TAG499
 PLOT PAGE 24 SHEET

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CRIS 0010985

CASAS Version 1.16.14 - 8-Oct-1998
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Safety Laboratories Department, SE Unit
 PLOT PAGE 25

TAG499
 SHEET

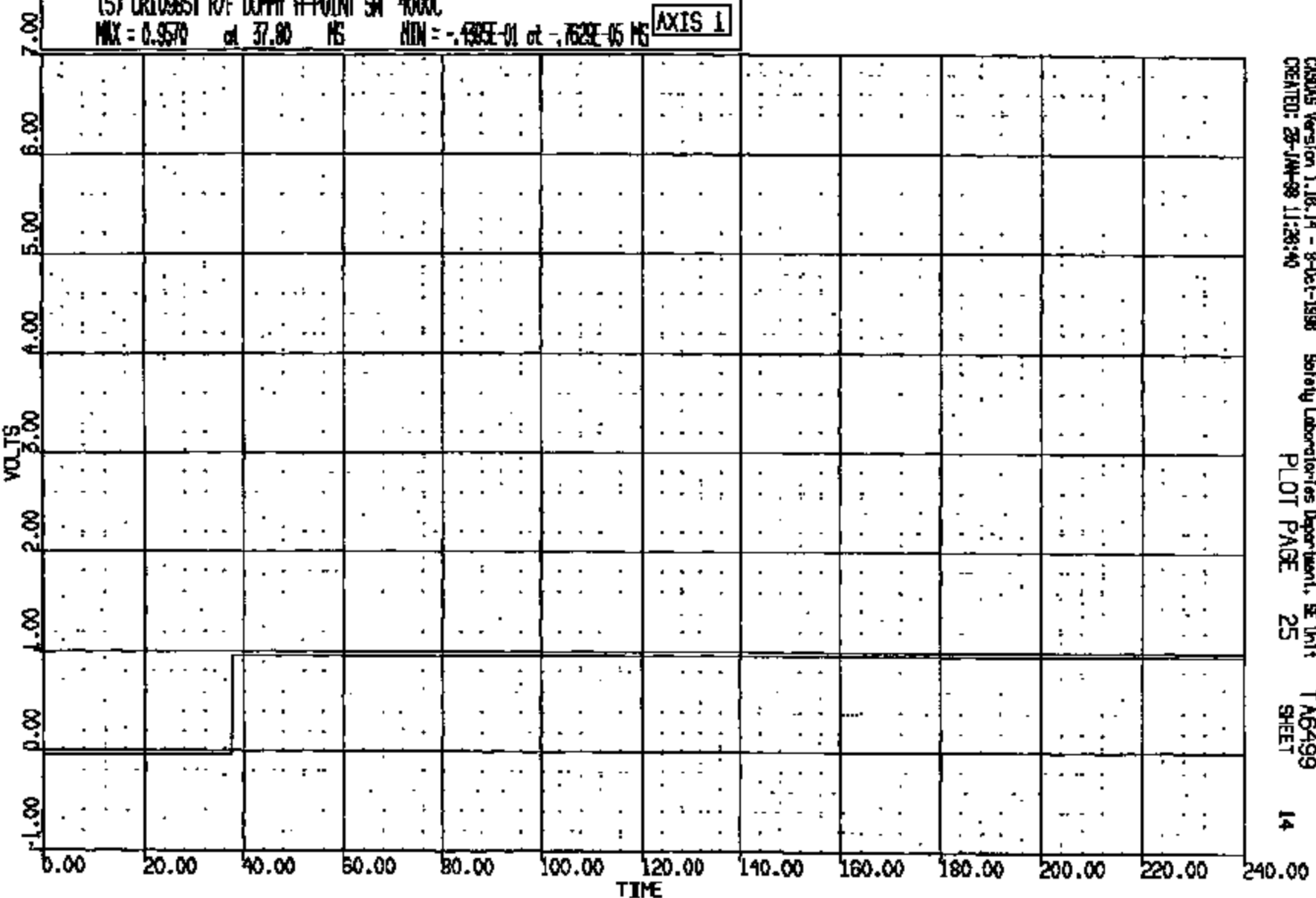
14

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 1998 FN-146 1998 FN-146

(5) CR109851 R/F DUMMY H-POINT SM 4000C

MAX = 0.9570 at 37.80 MS MIN = -.439E-01 at -.7629E-05 MS

AXIS 1



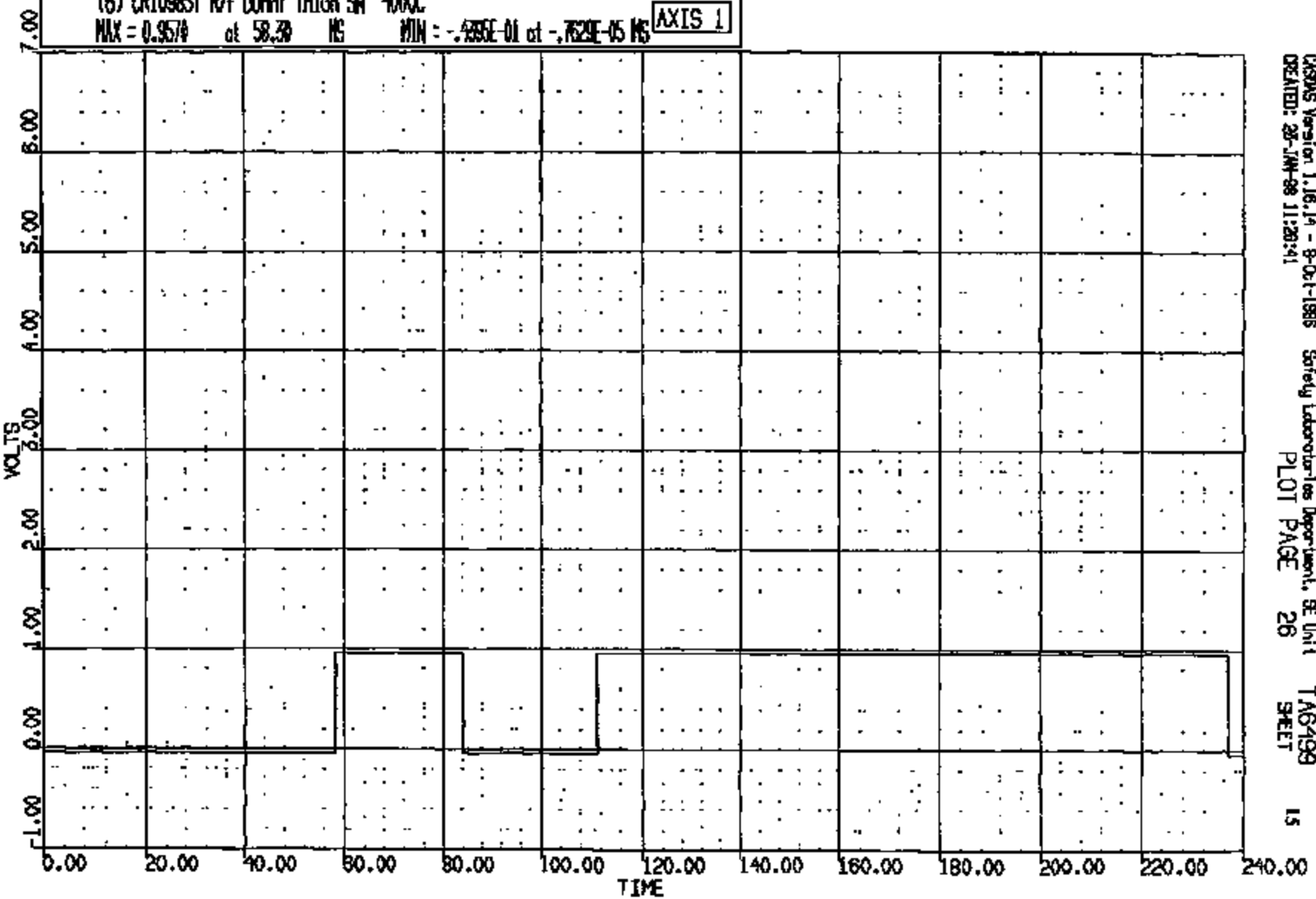
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CASAS Version 1.16.14 - 8-Oct-1985
CREATED: 28-JAN-88 11:28:41Safety Laboratories Department, SE Unit
PLOT PAGE 26TAG499
SHEET 15CR R= 10985 TO: TAG499 DATE: 880125 10:57:32
1988 PZ-145 1988 PZ-145

(S) CR10985T R/T DUMMY THIGH SN 4000C

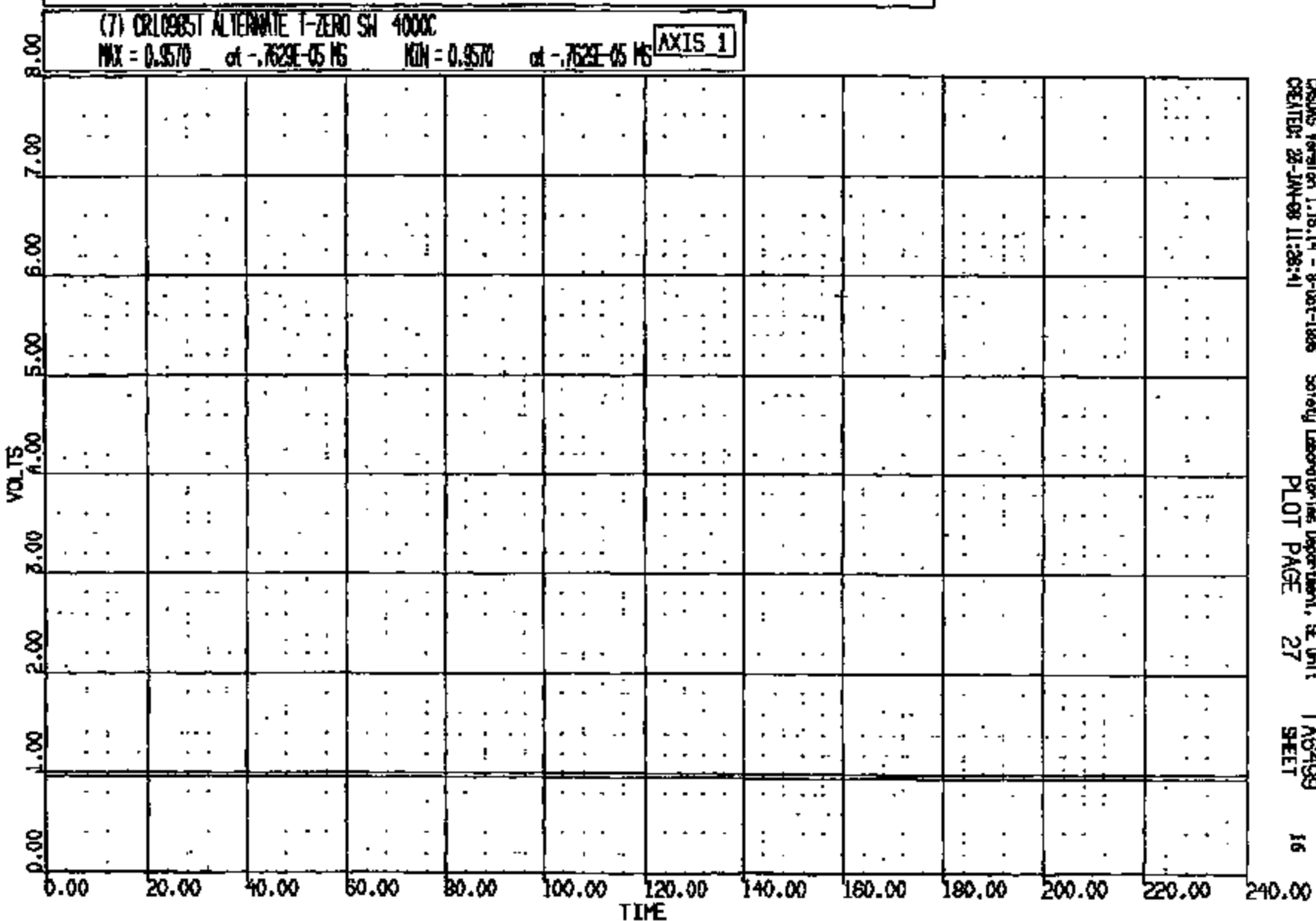
MAX = 0.9570 at 58.30 MS MIN = -.485E-01 at -.752E-05 MS

AXIS 1



CRIS 0010985

CR R: 10985 TO: TA6499 DATE: 990123 10:37:52
1999 FN-145 1999 FN-145



CASMS Version 1.18.14 - 8-Oct-1998
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Safety Laboratories Department, SE Unit
PLOT PAGE 27

TA6499
SHEET

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ENTIRE PAGE CONFIDENTIAL

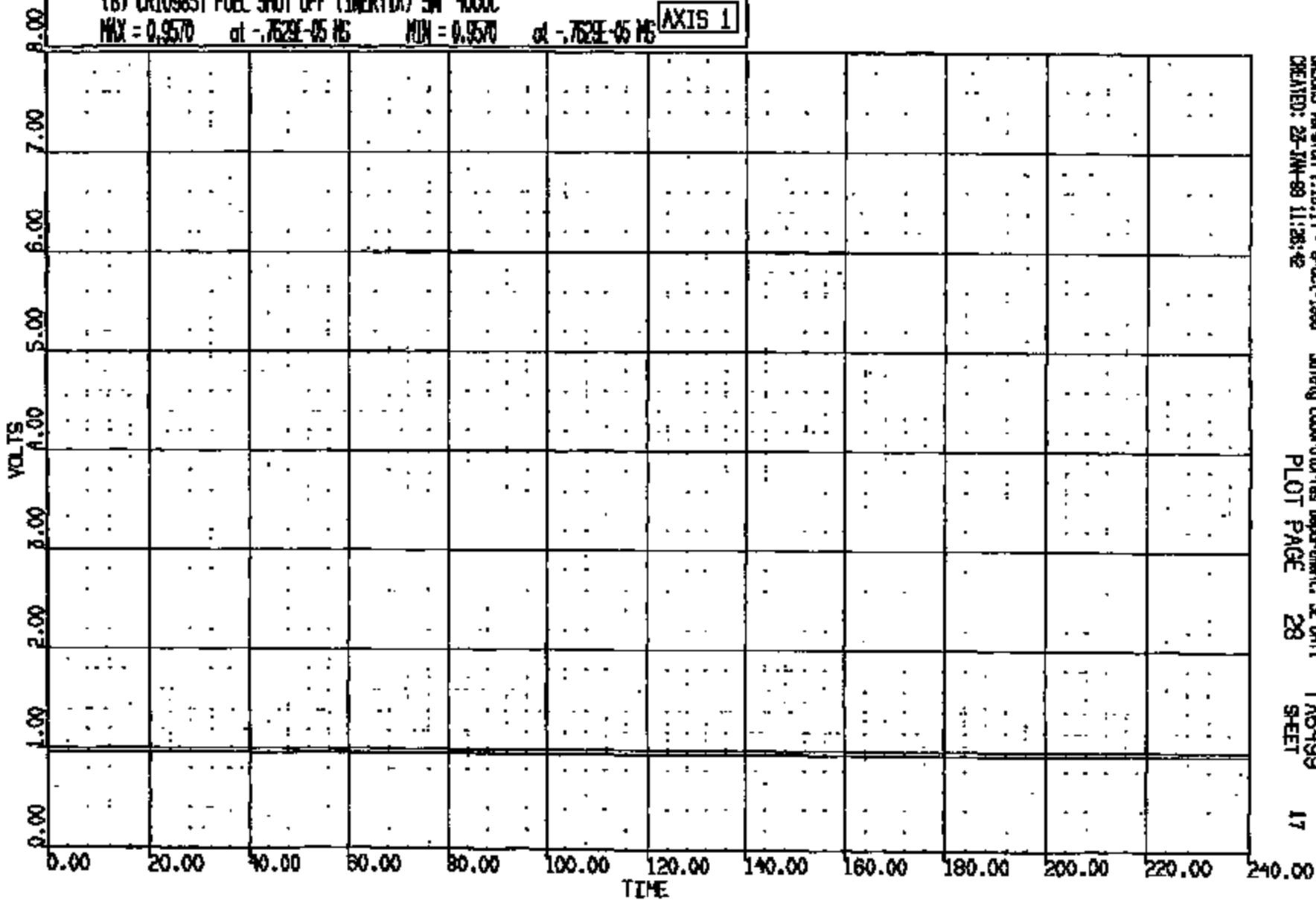
CR15 0010985

CR R: 10985 TO: TA6499 DATE: 980125 10:57:52
1999 FN-145 1999 FN-145

(B) CR10985 FUEL SHUT OFF (INERTIA) SN 4000C

MAX = 0.9570 at -7629E-05 MS MIN = 0.9570 at -7629E-05 MS

AXIS 1



CRIS Version 1.18.14 - 8-Oct-1998
CREATED: 28-JAN-99 11:28:42

Safety Laboratories Department, St. Unit
PLOT PAGE 28

TA6499
SHEET 17

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CRIS 0010985

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Safety Laboratories Department, SE Unit
 PLOT PAGE 29

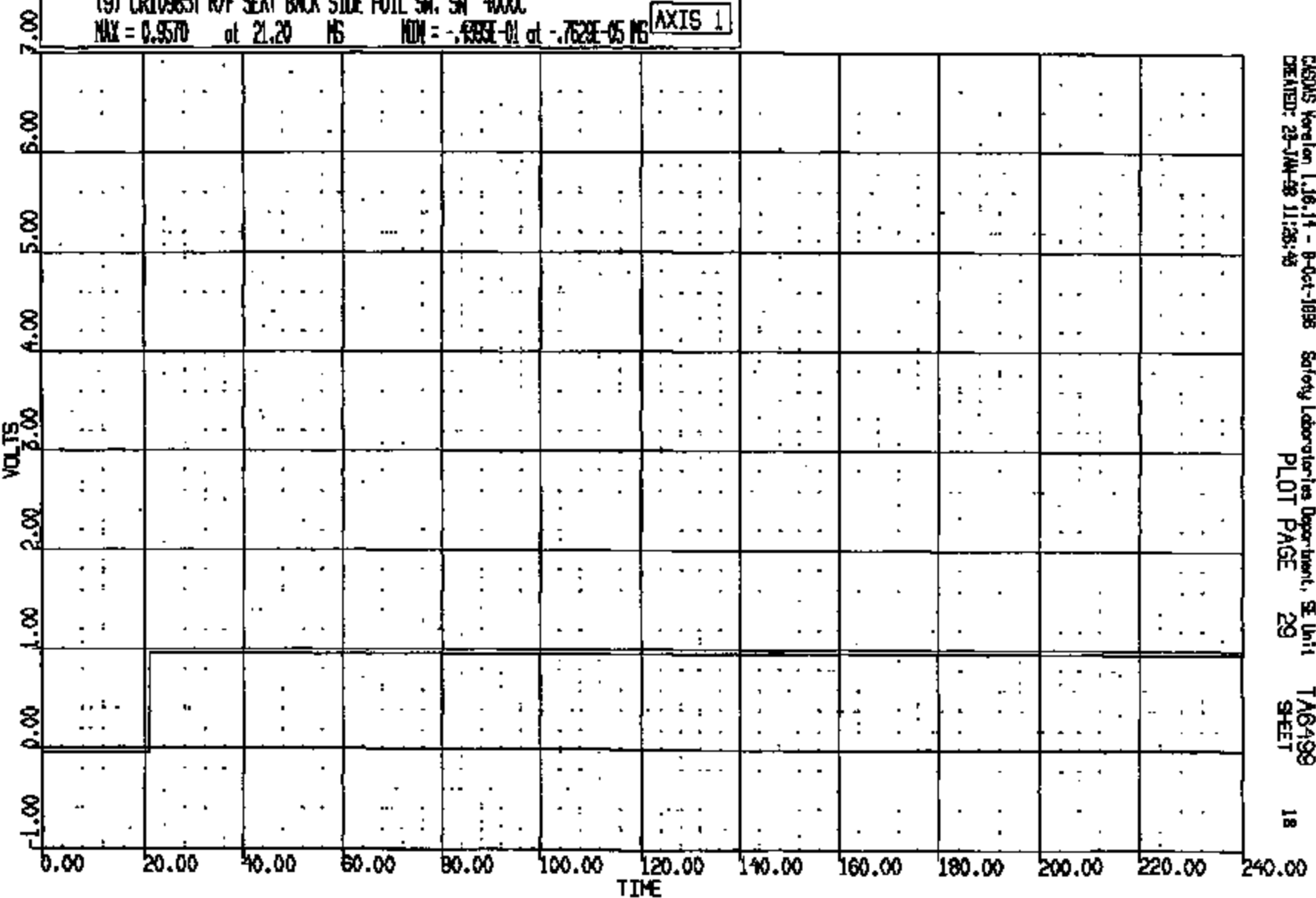
TAB499
 SHEET 18

CR R: 10985 TO: TAB499 DATE: 980125 10:57:52
 1999 FN-145 1999 FN-145

(9) CR10985T R/F SEAT BACK SIDE FOIL SW. SN 4000C

MAX = 0.9570 at 21.20 MS MIN = -.6335E-01 at -.7623E-05 MS

AXIS 1



CRIS 0010985

CASAS Version 1.1b.14 - 8-Oct-1988
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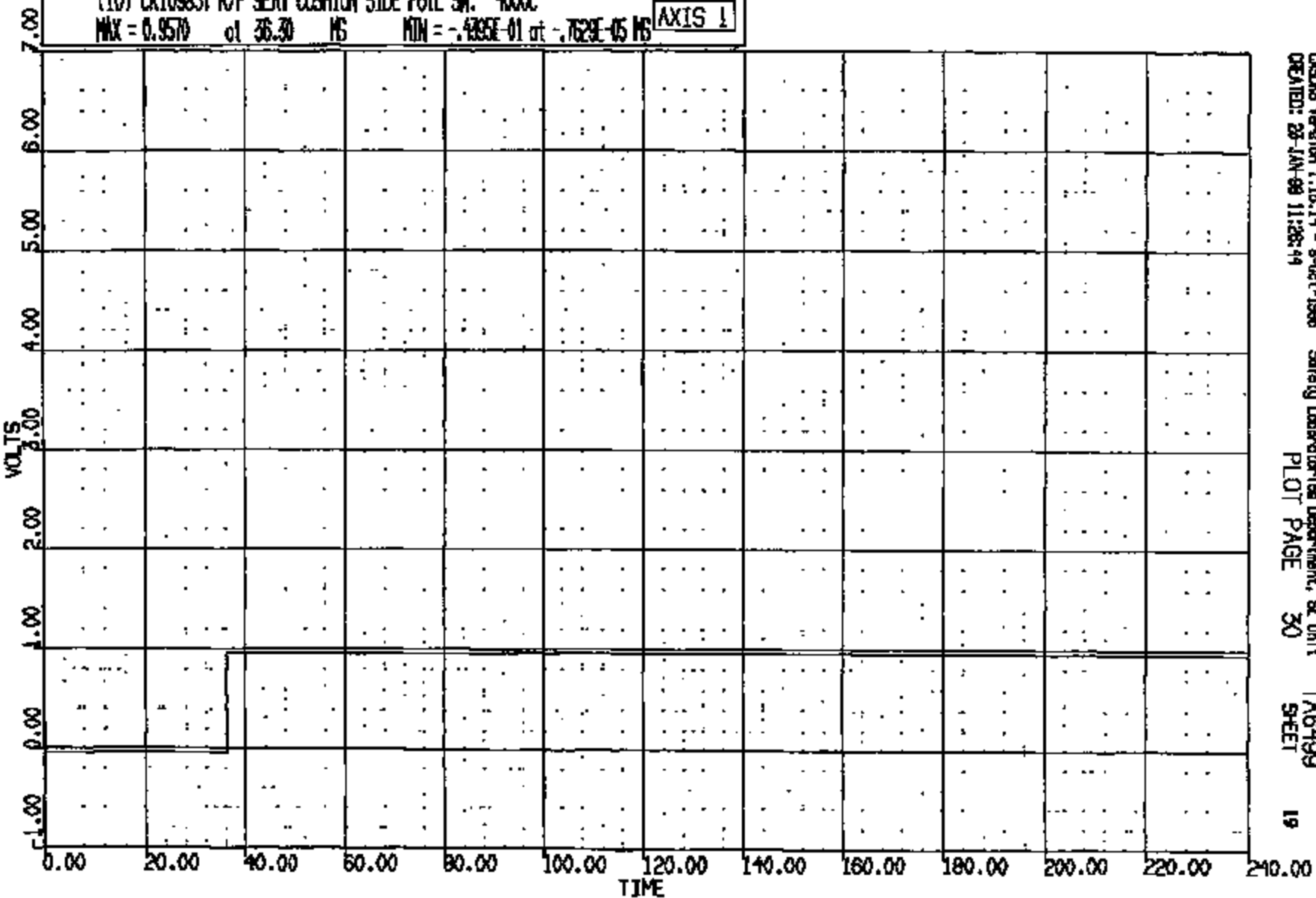
Safety Laboratory Department, St. Unit
 TAC499
 PLOT PAGE 30 SHEET 19

CR R: 10985 TO: TAC499 DATE: 980128 10:57:32
 1989 FN-145 1989 FN-145

(10) CR109851 R/F SEAT CUSHION SIDE FOIL SW. 4000C

MAX = 0.9570 of 36.30 MS MIN = -.4395E-01 at -.7629E-05 MS

AXIS 1



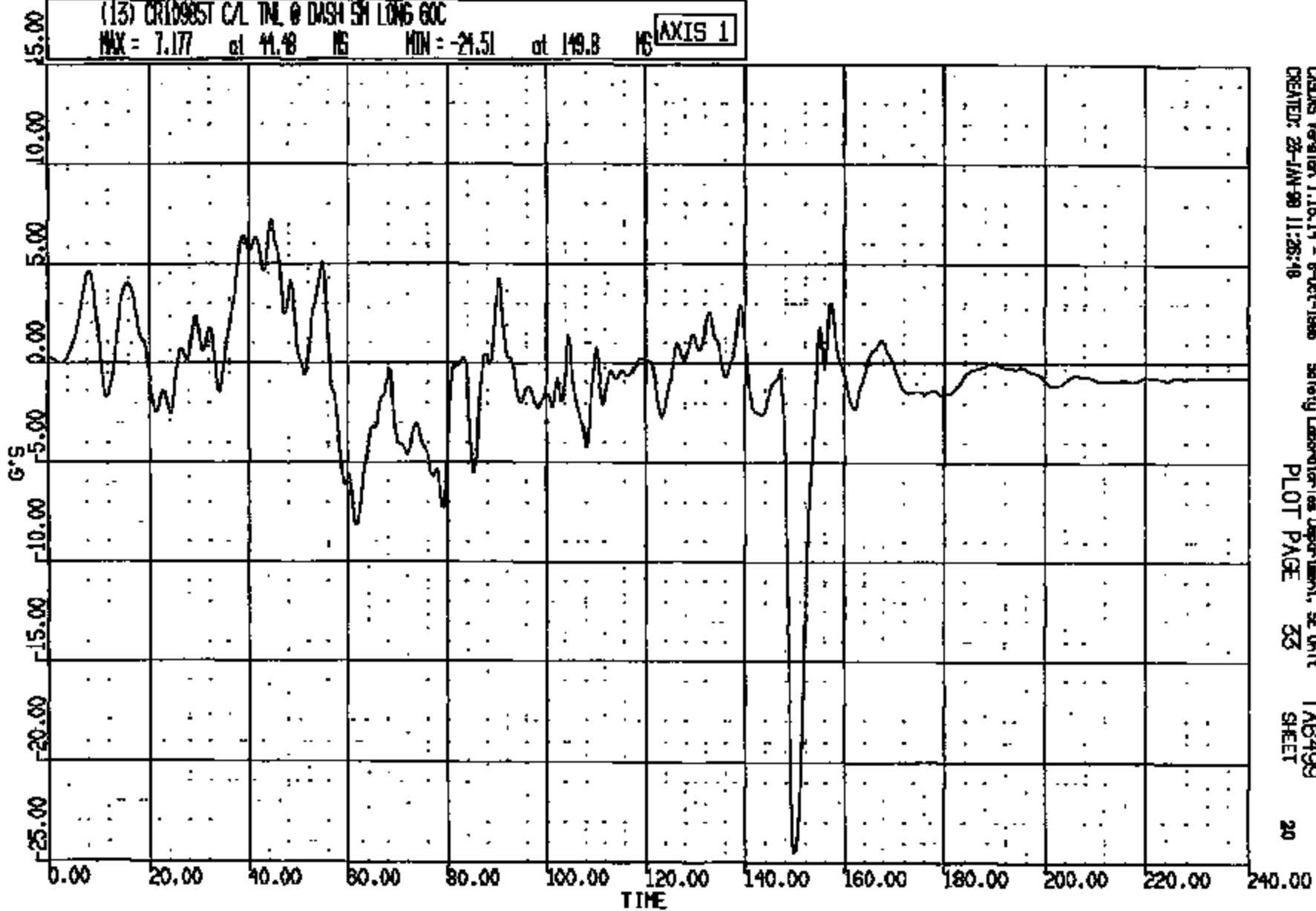
CRTS 0010985

CR R: 10985 TO: TAB499 DATE: 890128 10:57:52
1989 FN-145 1988 FN-145

(13) CR1000ST C/L TNL @ DASH 5H LONG 60C

MAX = 7.177 at 44.48 MS MIN = -24.51 at 149.8 MS

AXIS 1



CRSAS Version 1.16-14 - 8-Oct-1988
CREATED: 28-JAN-88 11:28:18

Safety Laboratories Department, SE Unit
PLOT PAGE 33
TAB499
SHEET

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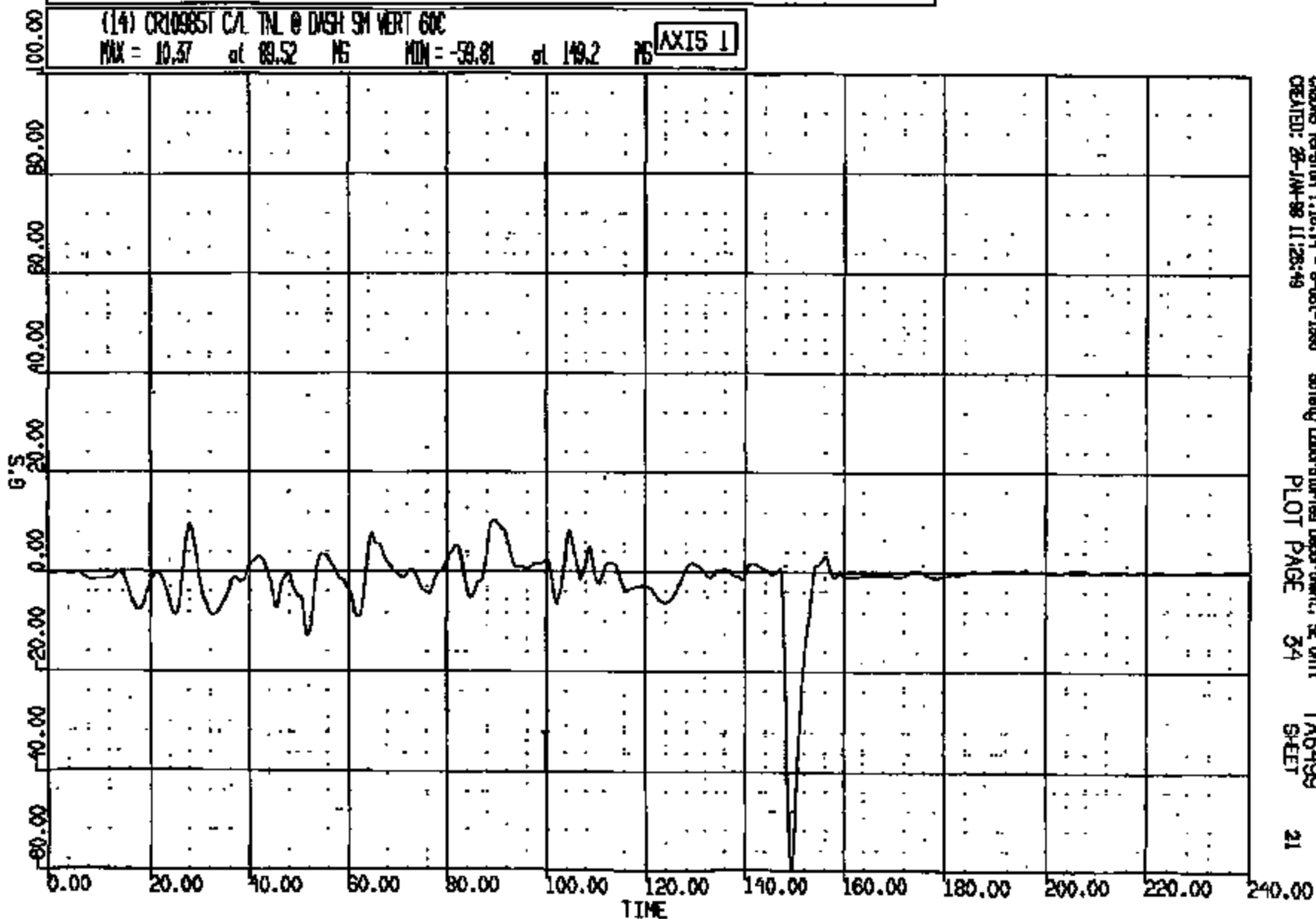
CRIS 0010985

CR R: 10985 TO: TA6498 DATE: 880125 10:57:32
1988 FN-145 1988 FN-145

(14) CR10985T C/L TNL @ DASH SM WERT 60C

MAX = 10.37 at 89.52 MS MIN = -59.81 at 149.2 MS

AXIS 1



CADDS Version 1.16.14 - 8-Oct-1988
CREATED: 25-JAN-88 11:23:49

Safety Laboratories Department, SE Unit
PLOT PAGE 34

TA6498
SHEET 21

ENTIRE PAGE CONFIDENTIAL

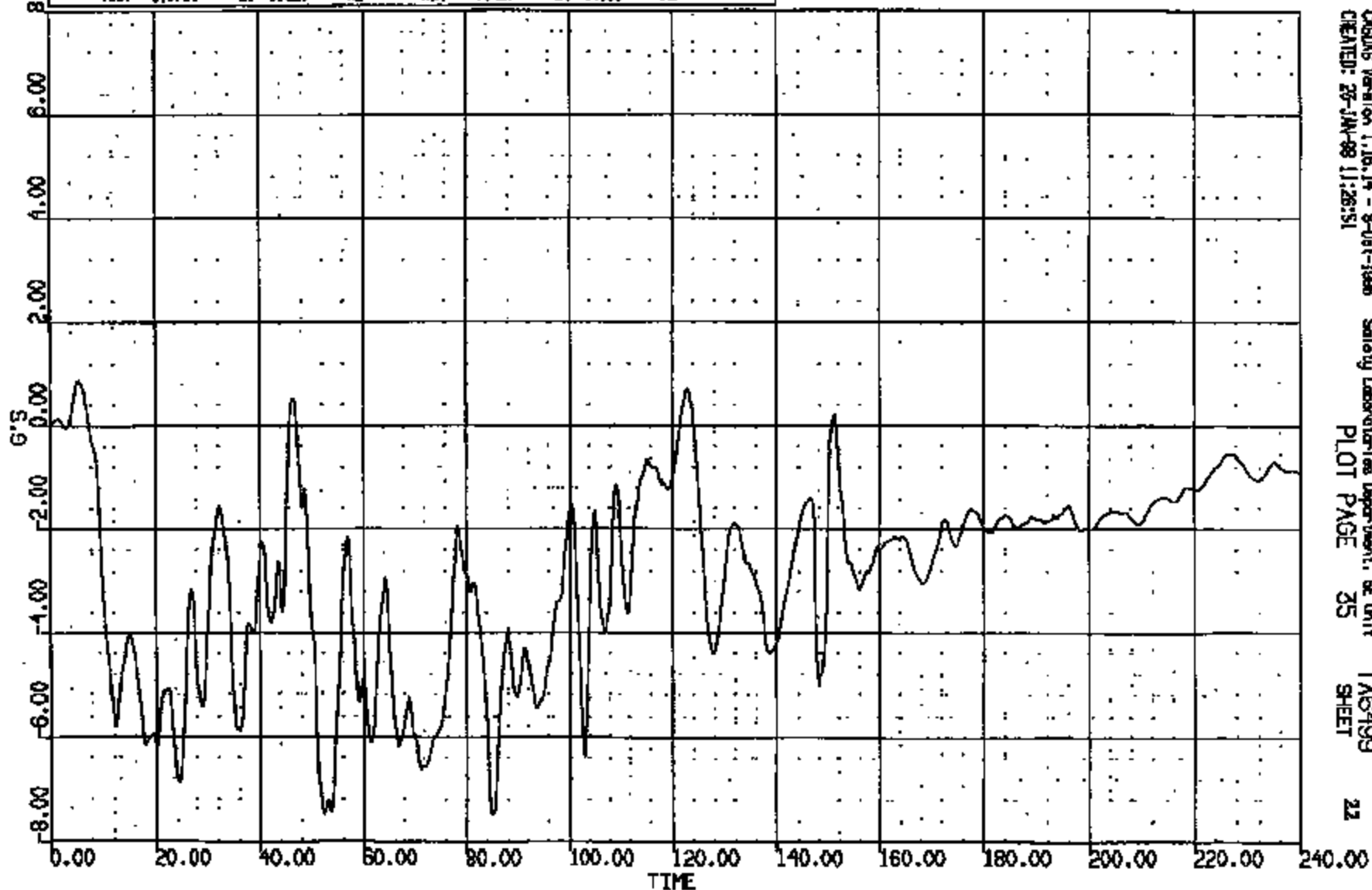
CRIS 0010985

CR R: 10085 TO: TA6499 DATE: 880128 10:57:52
1000 FN-146 1000 FN-146

(15) CR10985T CAL TNL @ DASH SH LAT 60C

MAX = 0.8761 at 5.520 NS MIN = -7.497 at 81.96 NS

AXIS 1



CR10985T Version 1.16.14 - 8-04-1988
CREATED: 28-JAN-88 11:26:51

Safety Laboratories Department, SE Unit
PLOT PAGE 25

TA6499
SHEET

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ENTIRE PAGE CONFIDENTIAL

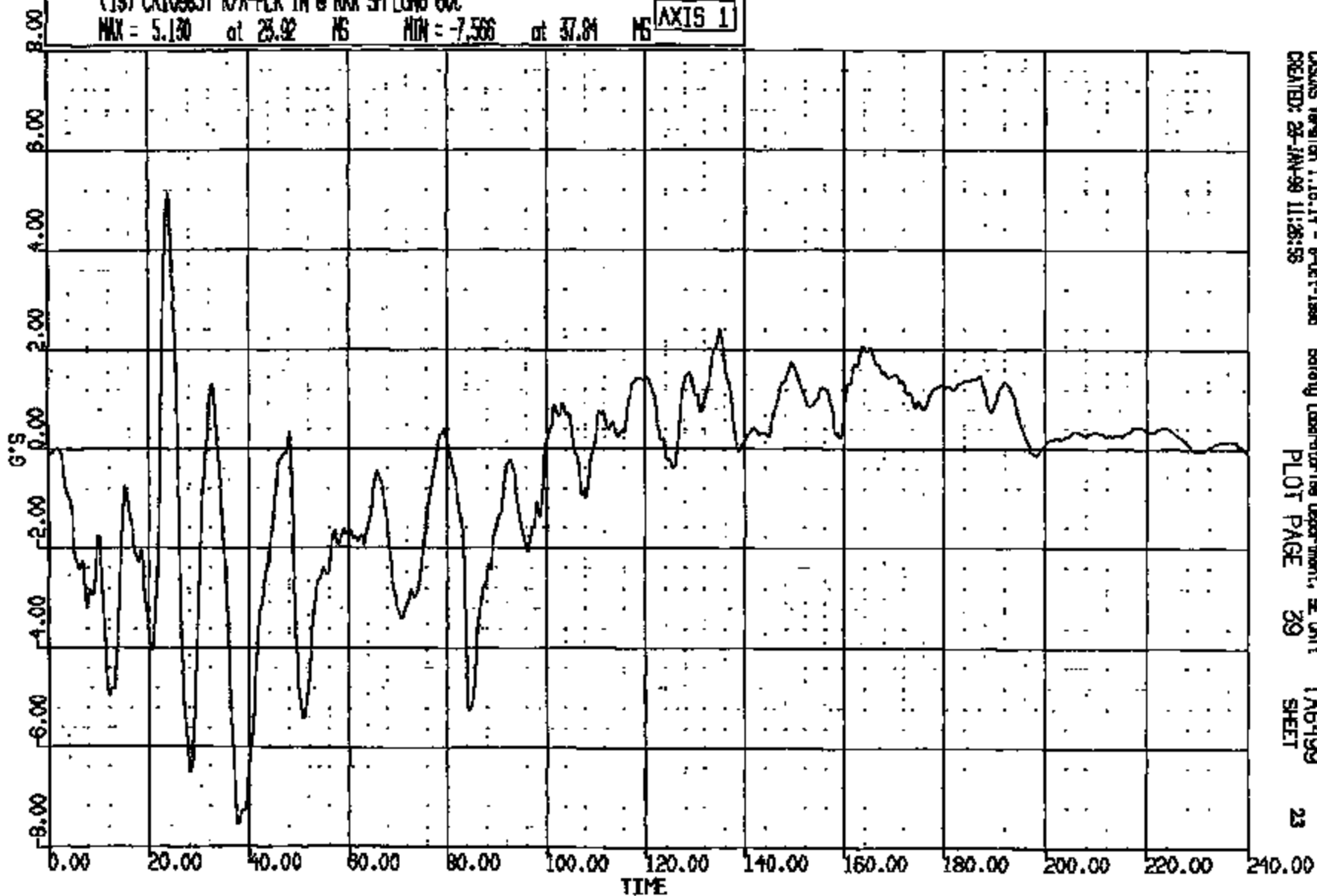
CR10985T

CR R: 10985 TO: TAB499 DATE: 980125 10:57:52
1989 FN-145 1989 FN-145

(19) CR10985 R/A-PLR IN @ RKR SM LONG 600

MAX = 5.130 at 25.92 MS MIN = -7.566 at 37.84 MS

AXIS 1



CASUS Version 1.16.14 - 8-Oct-1988
CREATED: 28-JAN-99 11:26:55

Safety Laboratories Department, E Unit
PLOT PAGE 29

TAB499
SHEET 23

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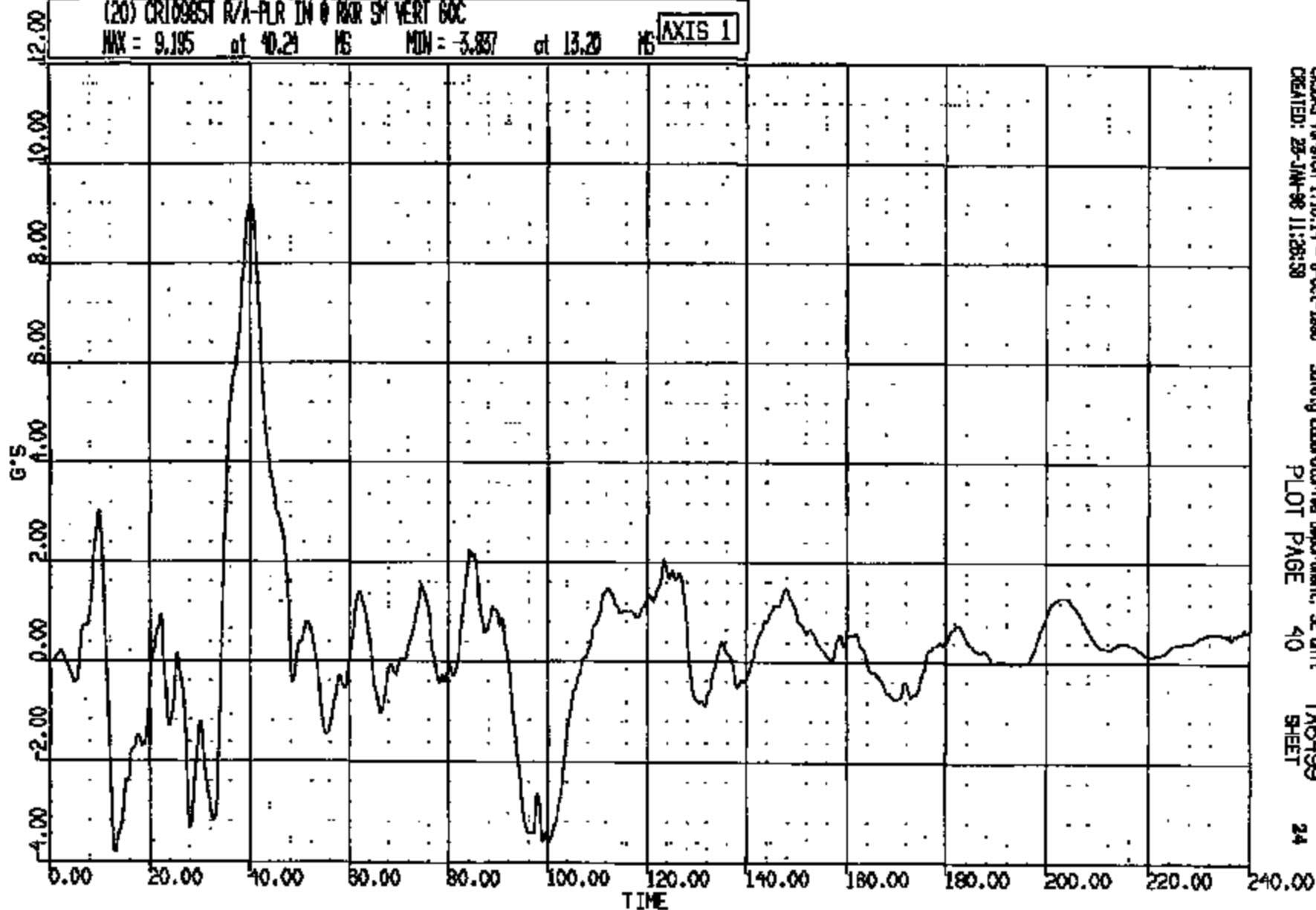
CRIS 0010985

CR R: 10985 TO: TA6499 DATE: 980125 10:57:32
1998 FN-145 1999 FN-145

(20) CR109851 R/A-PLR IN @ ROR SM VERT GOC

MAX = 9.195 at 40.24 MS MIN = -3.837 at 13.20 MS

AXIS 1



CASMS Version 1.16.14 - 8-Oct-1998
CREATED: 25-JAN-98 11:28:58

Safety Laboratory Department, SE Unit
PLOT PAGE 40

TA6499
SHEET

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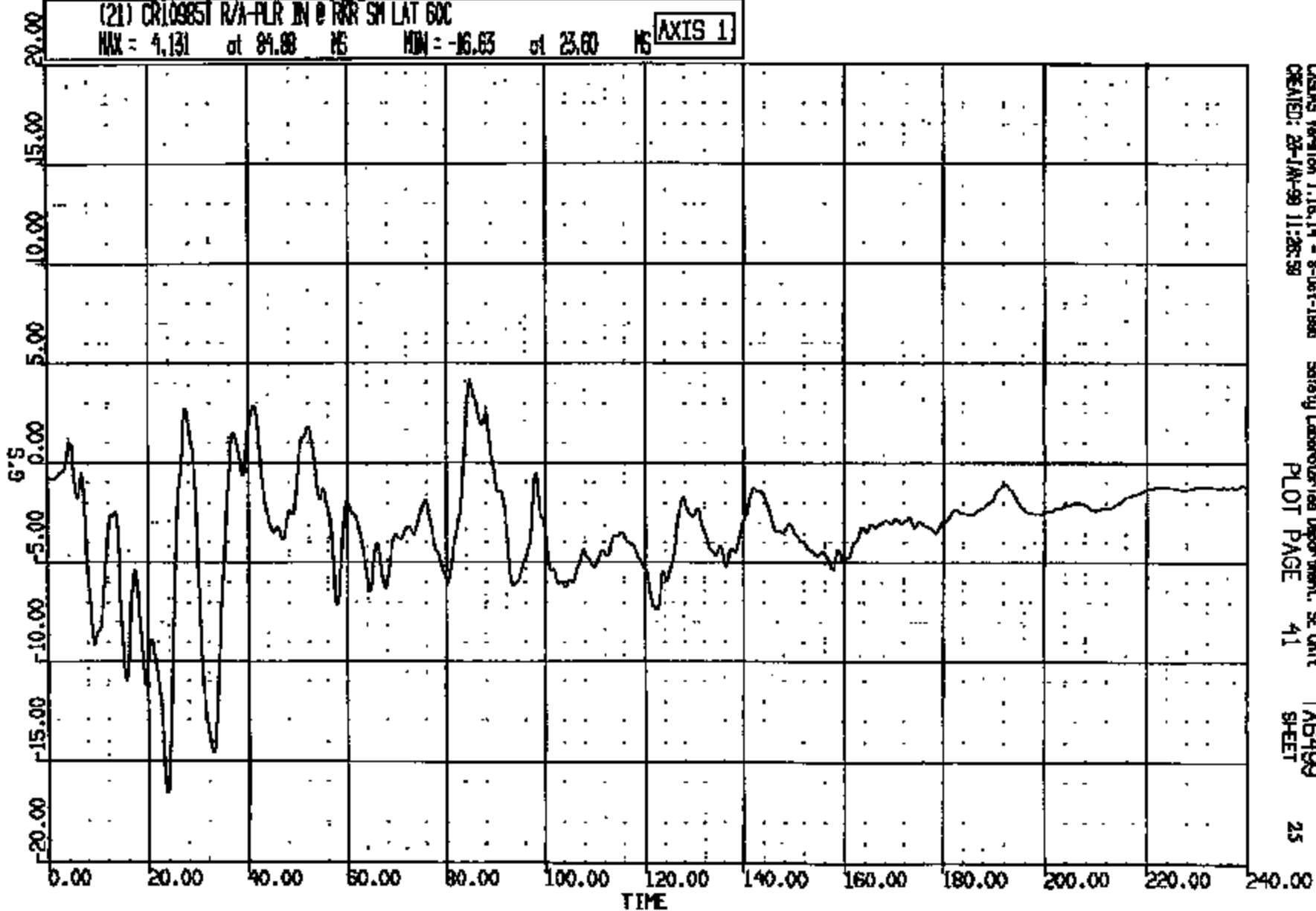
CRIS 0010985

CR R: 10985 TO: TAB499 DATE: 980123 10:57:32
1999 FN-146 1999 FN-146

(21) CR10985T R/A-PLR IN @ RRR SM LAT 60C

MAX = 4.131 at 84.00 MS MIN = -16.63 at 23.00 MS

AXIS 1



CSDMS Version 1.16.14 - 8-Jan-1998
CREATED: 28-JAN-99 11:28:59

Safety Laboratories Department, SE Unit
PLOT PAGE 41

TAB499
SHEET

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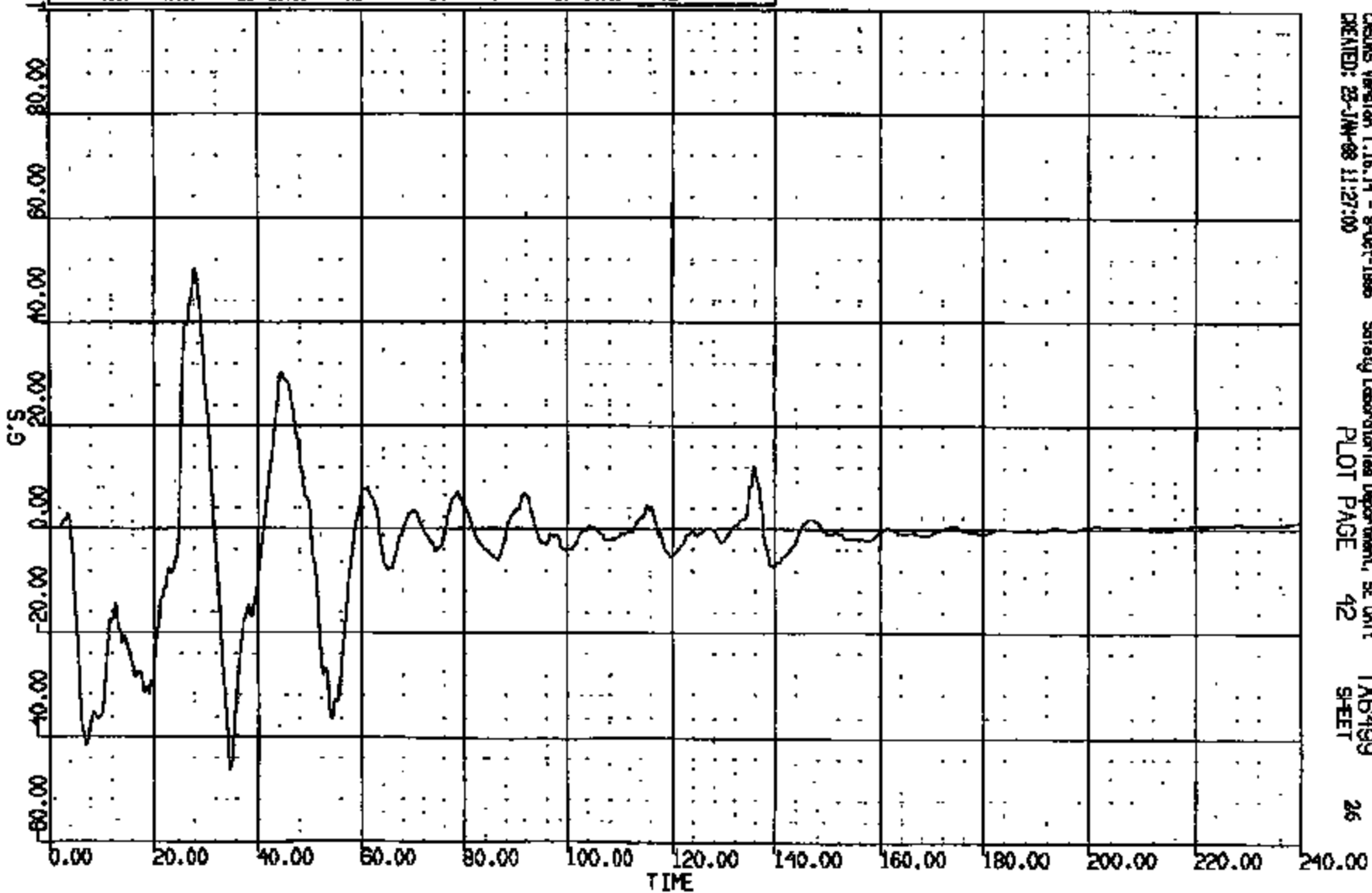
CRIS 0010985

CR R: 10885 TO: TA6499 DATE: 980125 10:57:32
1999 FN-145 1999 FN-145

(22) CR10985T R/F DOOR @ BELTLINE MID LAT 60C

MAX = 49.93 at 28.00 MS MIN = -46.35 at 34.80 MS

AXIS 1



CASINS Version 1.16.14 - 8-Oct-1996
CREATED: 23-JAN-98 11:27:00

Safety Laboratories Department, SE Unit
PLOT PAGE 42 SHEET

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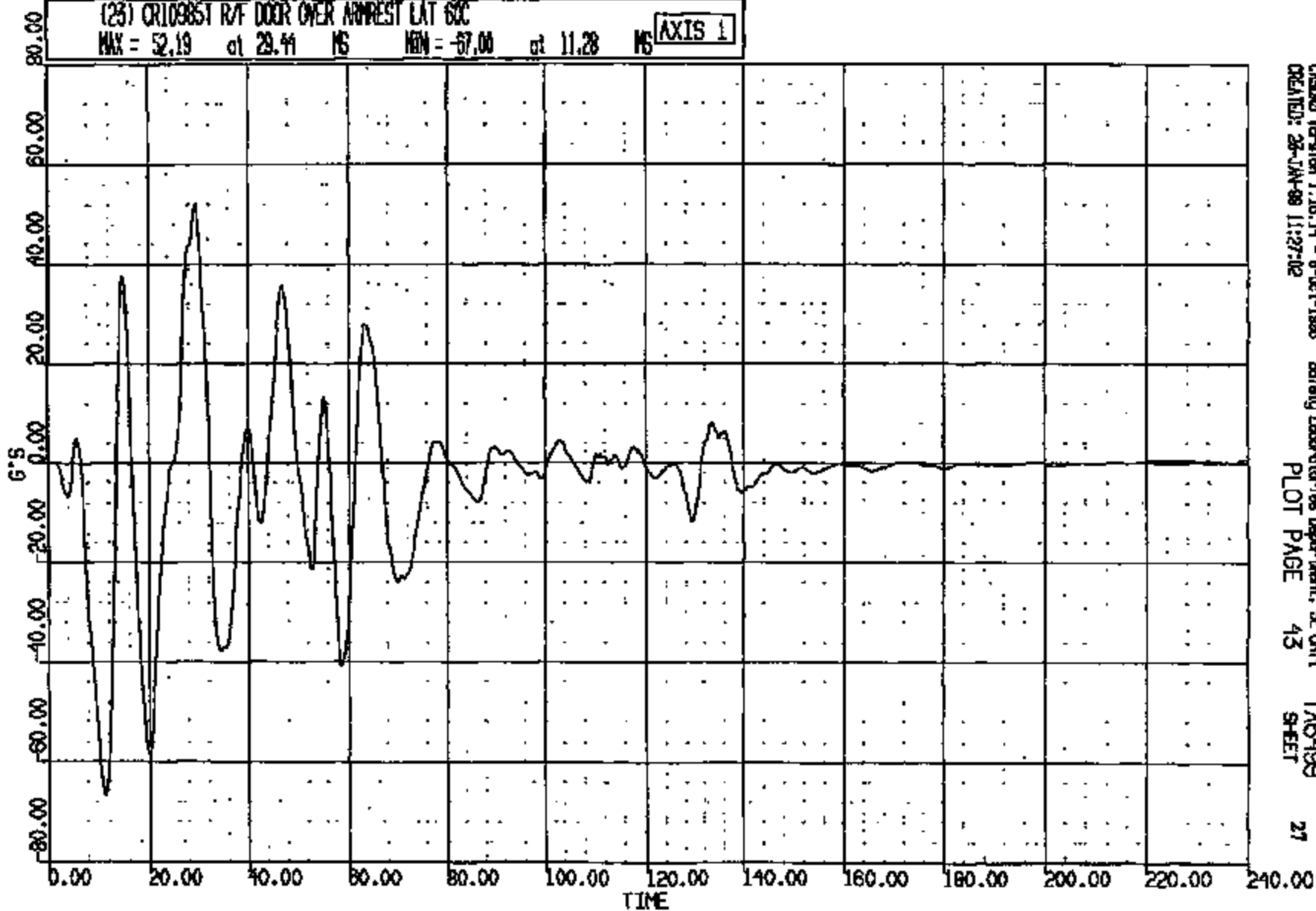
CRIS 0010985

CR R: 10985 TO: TA6499 DATE: 980125 10:57:32
1999 FN-145 1999 FN-145

(25) CR109851 R/F DOOR OVER AIRREST LAT 60C

MAX = 52.19 at 29.44 MS MIN = -57.00 at 11.28 MS

AXIS 1



CASMS Version 1.16.14 - 8-Oct-1995
CREATED: 28-JAN-98 11:27:12

Safety Laboratories Department, SE Unit
PLOT PAGE 43

TA6499
SHEET 27

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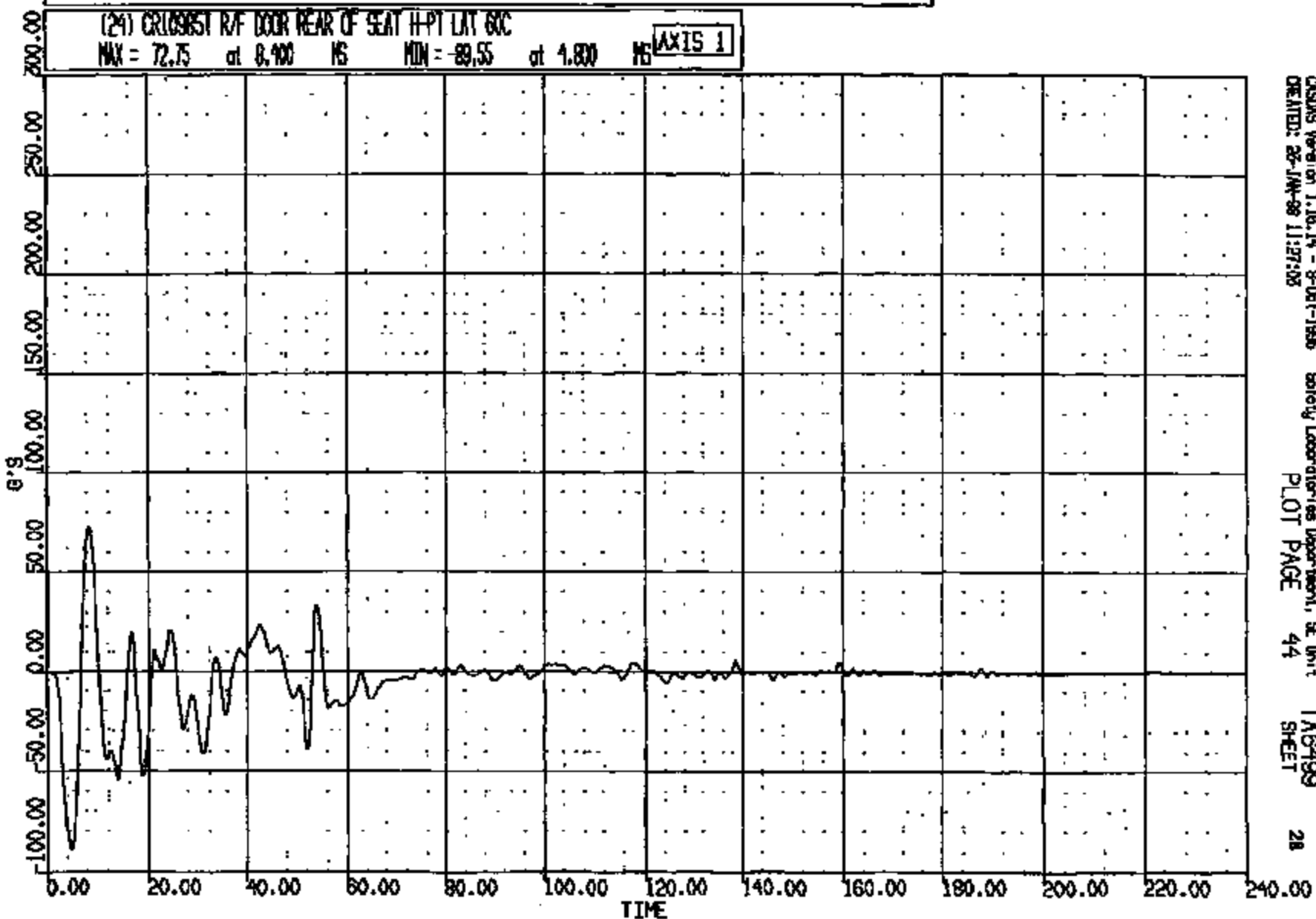
CRIS 0010985

CR R: 10988 TO: TAB499 DATE: 980128 10:57:32
1998 FN-143 1998 FN-143

(24) CRLOS851 R/F DOOR REAR OF SEAT H-PT LAT 60C

MAX = 72.75 at 8.900 HS MIN = -89.55 at 1.800 HS

AXIS 1



CASAS Version 1.16.14 - 8-Oct-1998
CREATED: 28-JAN-98 11:27:05

Safety Laboratories Department, SE Unit
PLOT PAGE 44

TAB499
SHEET

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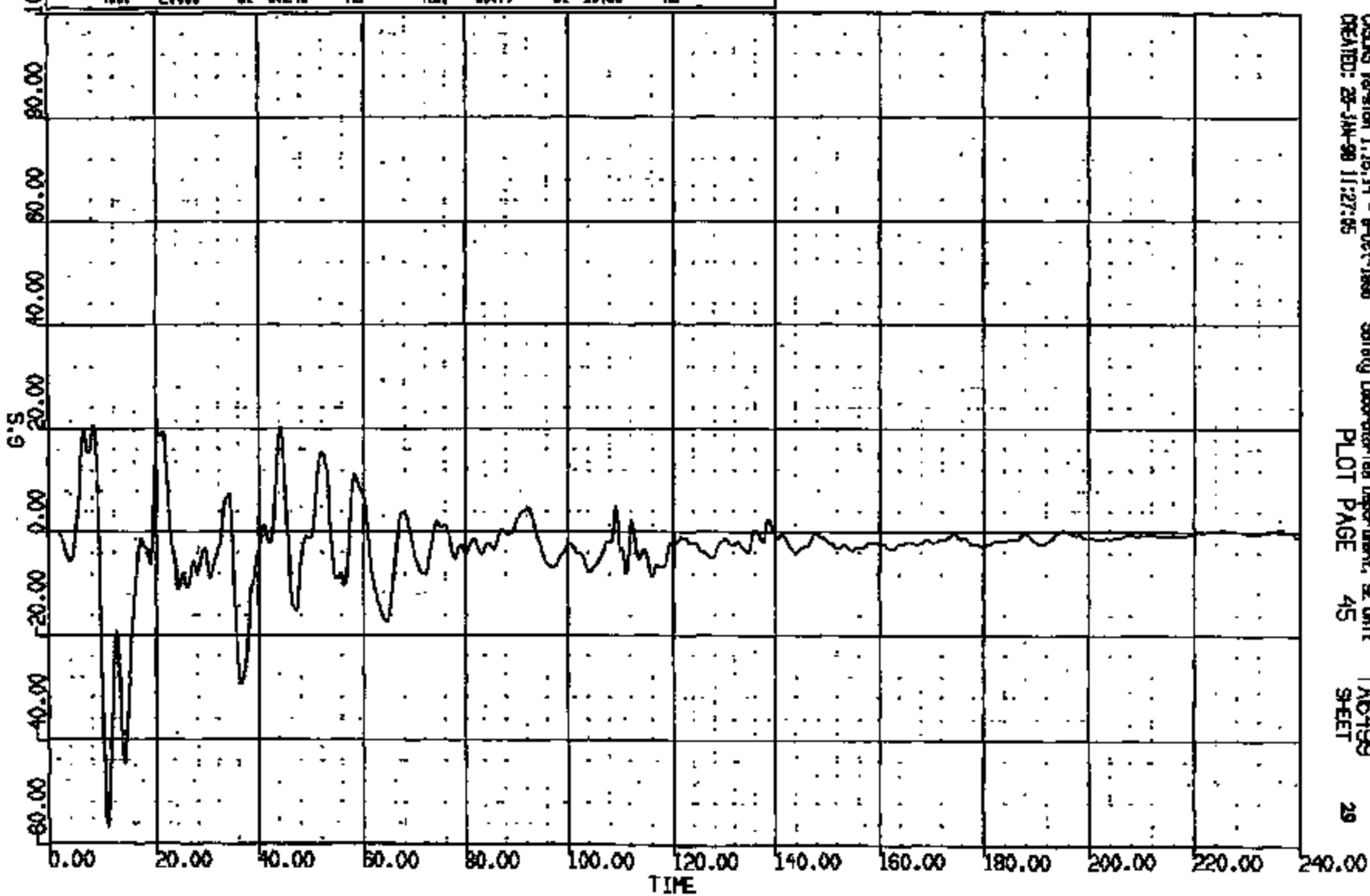
CRIS 0010985

CR R: 10985 TO: TA6499 DATE: 980125 10:57:52
1999 FN-145 1999 FN-145

(25) CR10985T R/F DOOR SPEAKER HOLE LAT 60C

MAX = 20.56 at 8.240 NS MIN = -55.77 at 10.80 NS

AXIS 1



CRS Version 1.16.14 - 8-Oct-1998
CREATED: 28-JAN-99 11:27:05

Safety Laboratory Department, SE Unit
PLOT PAGE 45

TA6499
SHEET 29

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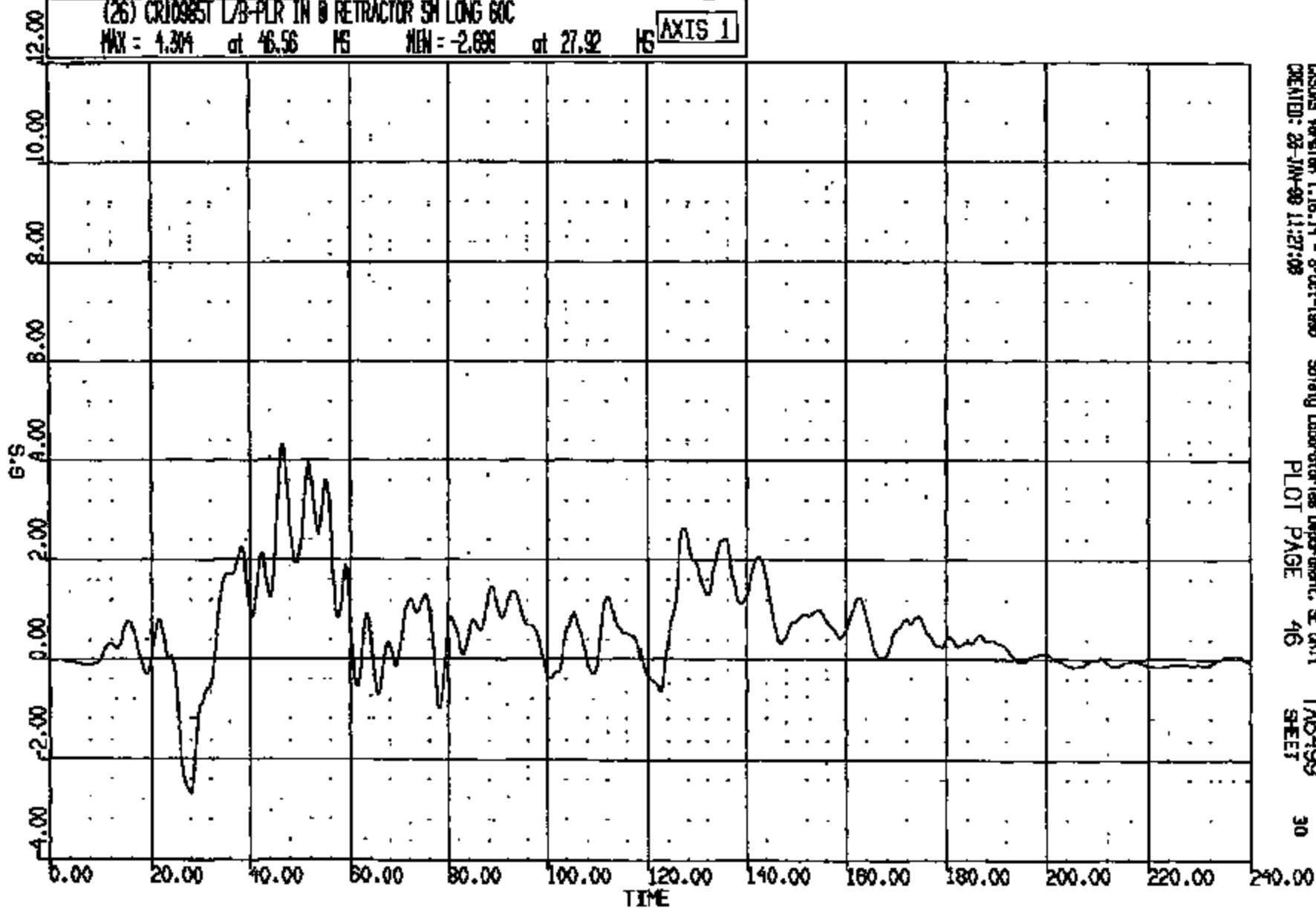
CRIS 0010985

CR R: 10985 TO: TAG499 DATE: 980123 10:57:52
1999 FN-145 1999 FN-145

(26) CR10985 L/B-PLR IN @ RETRACTOR SM LONG GOC

MAX = 4.304 at 46.56 MS MIN = -2.698 at 27.92 MS

AXIS 1



CASUS Version 1.16.14 - 8-Oct-1999
CREATED: 28-JAN-98 11:27:08

Safety Laboratories Department, SE Unit
PLOT PAGE 4/6 TAG499

SHEET 30

ENTIRE PAGE CONFIDENTIAL

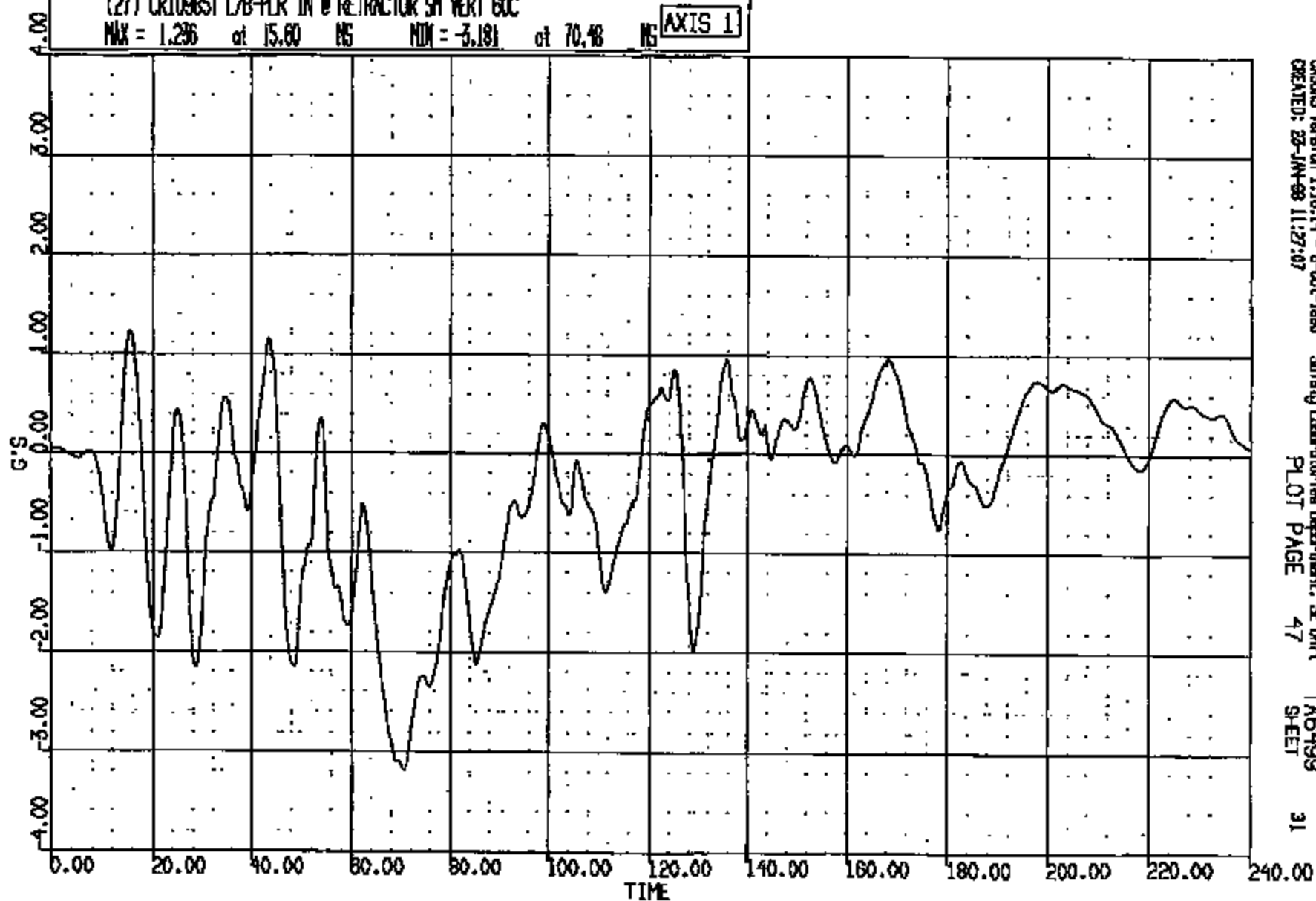
CRIS 0010985

CR R: 10985 TO: TA6499 DATE: 880125 10:57:52
1988 FN-145 1988 FN-145

(27) CR10985T L/B-PLR IN @ RETRACTOR SH VERT GOC

MAX = 1.236 at 15.60 MS MIN = -3.181 at 70.48 MS

AXIS 1



CASUS Version 1.16.14 - 8-Oct-1986
CREATED: 28-JAN-88 11:27:07

Safety Laboratory/Res Department, SE Unit
PLOT PAGE 47

TA6499
SHEET 31

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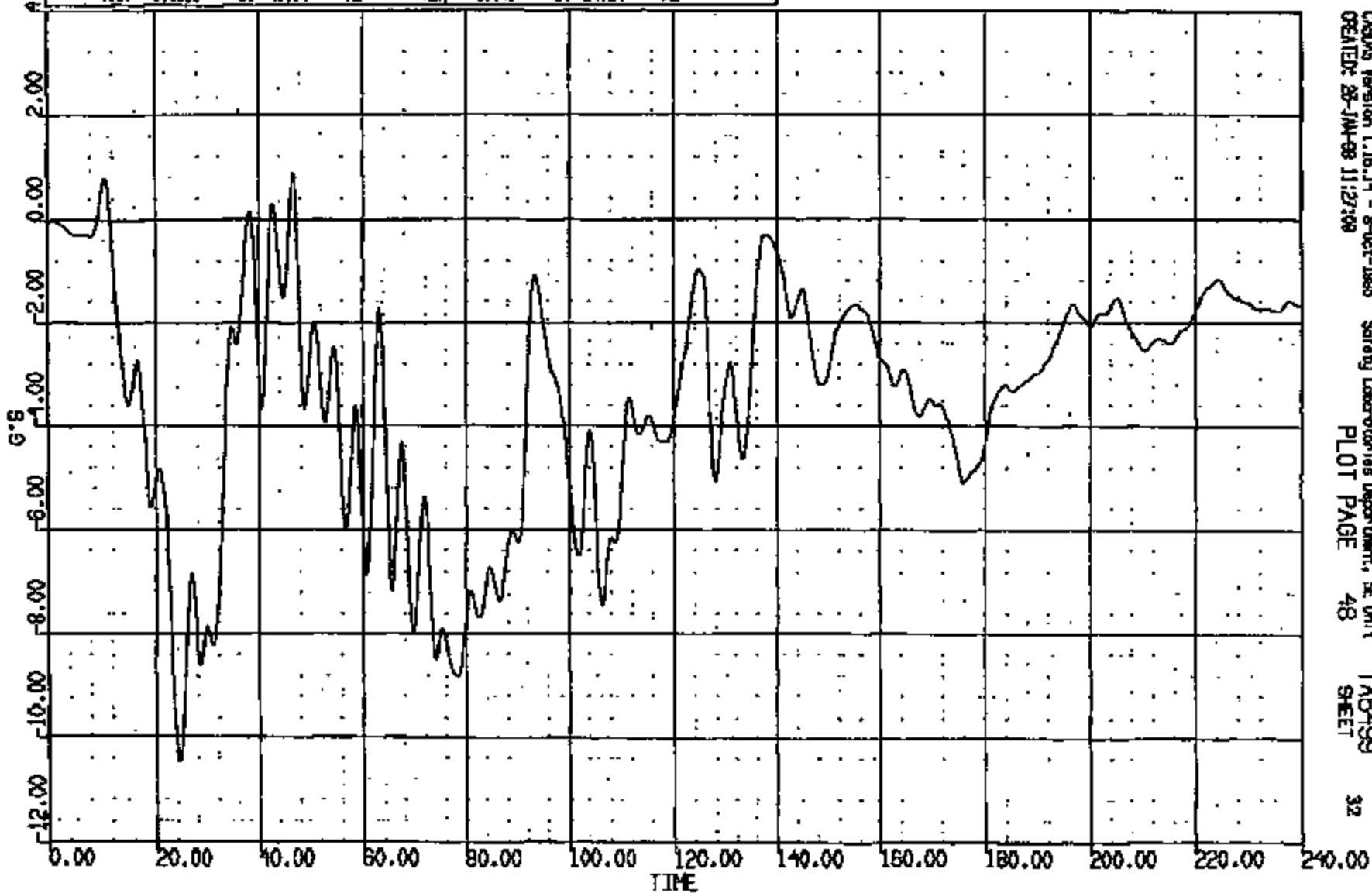
CRIS 0010985

CR #: 10985 TO: TAB498 DATE: 890128 10:57:32
1999 FN-145 1999 FN-145

(28) CR10985T L/O-PLR IN @ RETRACTOR SW LAT 60C

MAX = 0.8859 at 46.64 MS MIN = -10.49 at 24.24 MS

AXIS 1



CASDAS Version 1.16.14 - 8-Oct-1988
CREATED: 28-JAN-88 11:27:08

Safety Laboratories Department, SE Unit
PLOT PAGE 48

TAB499
SHEET

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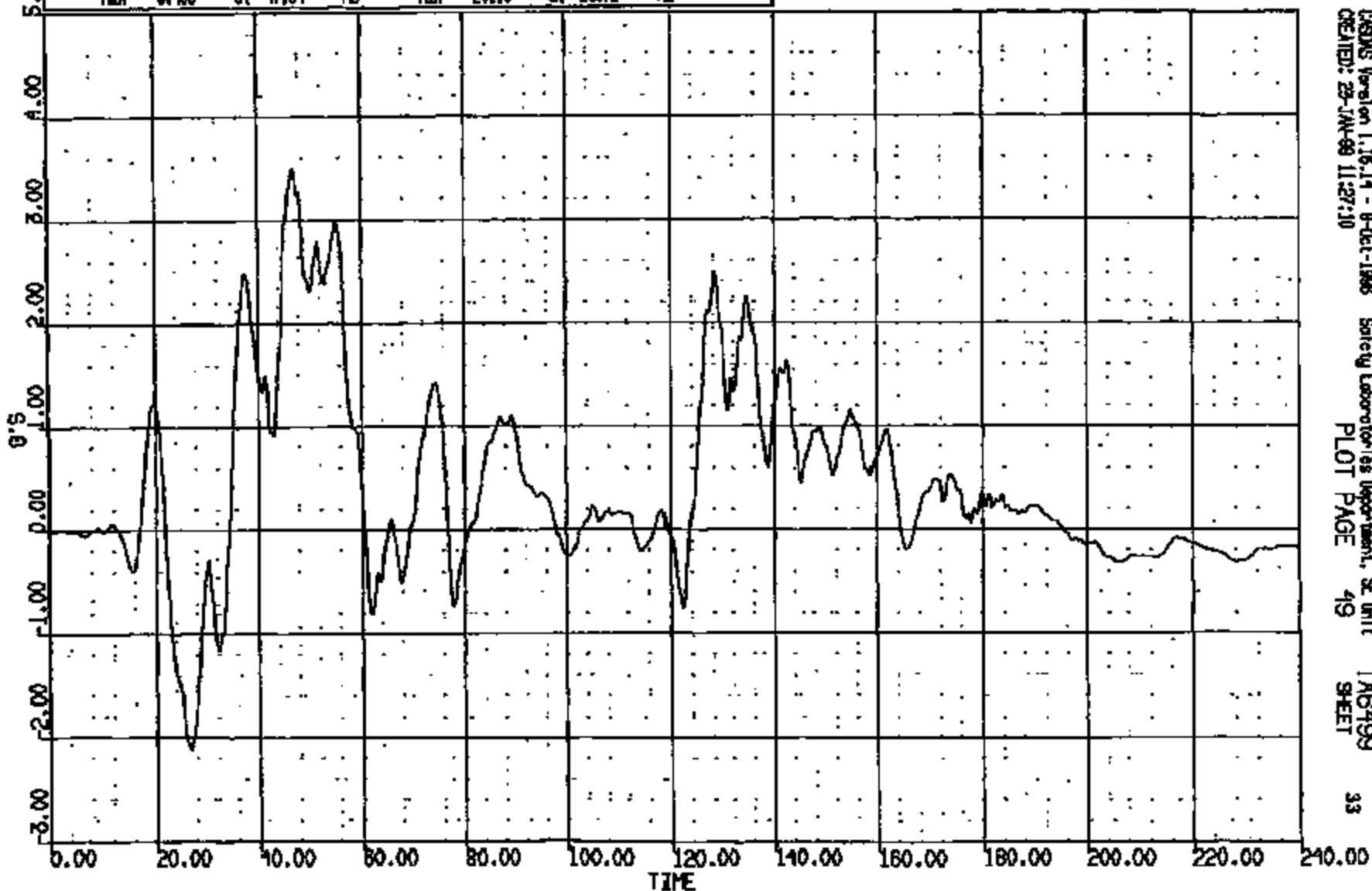
CRIS 0010985

CR R: 10985 TO: TAG499 DATE: 990123 10:37:32
1999 FN-145 1999 FN-145

(29) CR10985 L/R-PLR IN @ RRR SM LONG GOC

MAX = 3.499 at 47.04 MS MIN = -2.119 at 26.72 MS

AXIS 1



CRSMS Version 1.16.14 - 8-Oct-1998
CREATED: 29-JAN-99 11:27:10

Safety Laboratories Department, SE Unit
PLOT PAGE 49

TAG499
SHEET

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ENTIRE PAGE CONFIDENTIAL

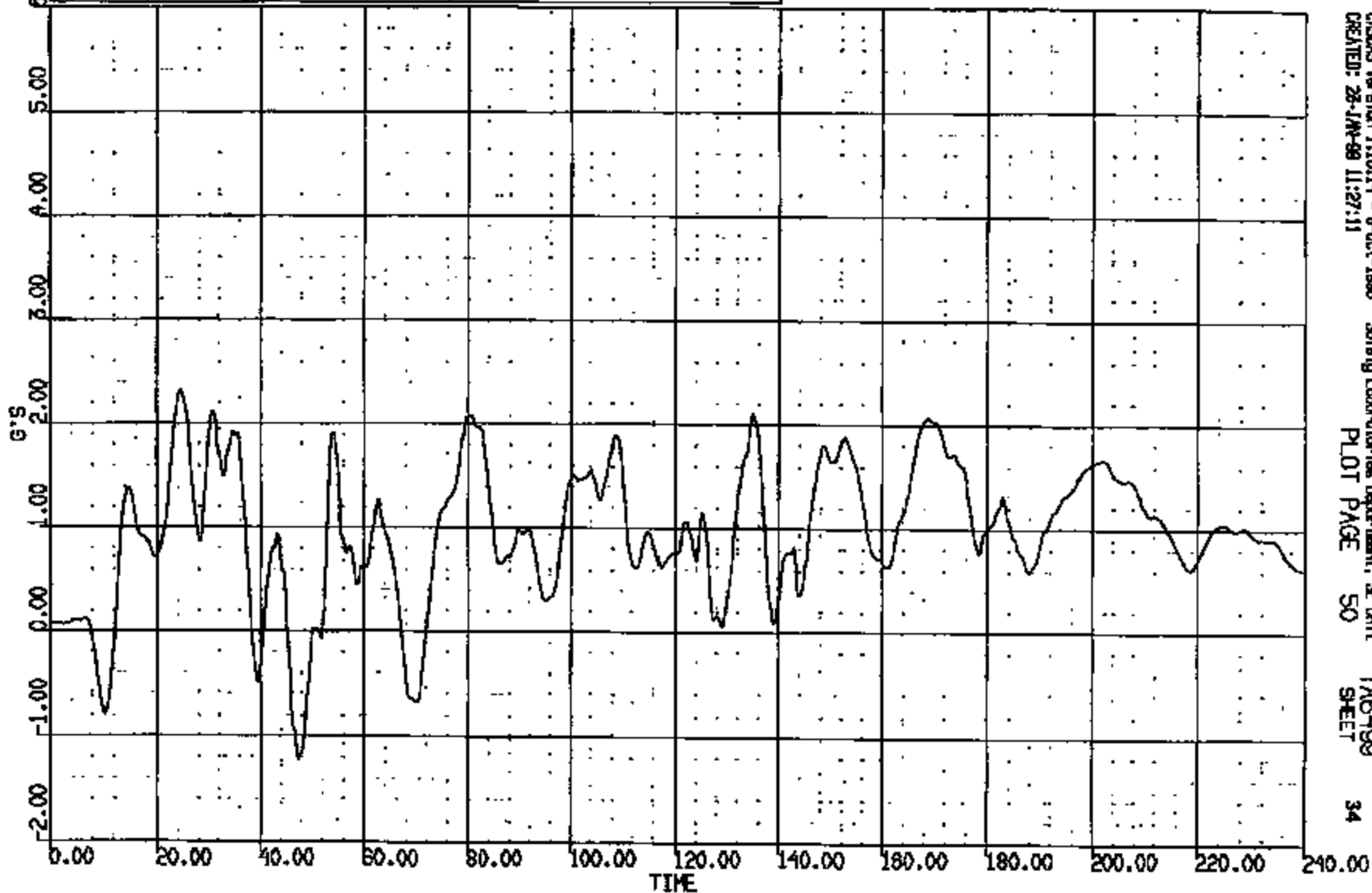
CRIS 0010985

CR R: 10985 TO: TAG489 DATE: 980123 10:57:32
1999 FN-145 1999 FN-145

(30) CR10985T LAB-PLR IN @ RRR SH VERT GDC

MAX = 2.315 at 21.40 MS MIN = -1.229 at 47.36 MS

AXIS 1



CRS05 Version 1.16.14 - 8-Oct-1998
CREATED: 28-JAN-99 11:27:11

Safety Laboratories Department, SE Unit
PLOT PAGE 50

TAG489
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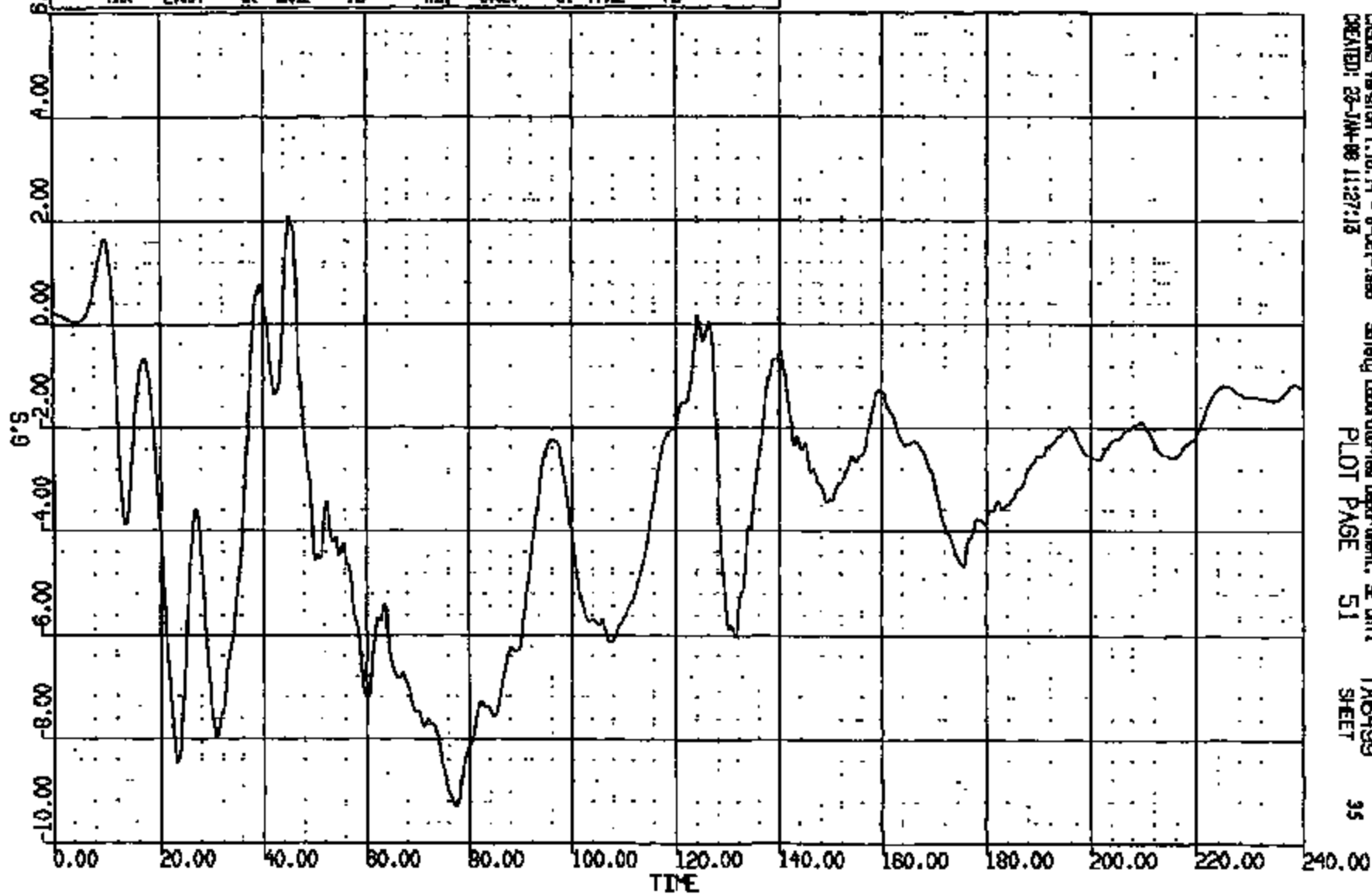
CRIS 0010985

CR R: 10985 TO: TAB499 DATE: 980125 10:57:52
1999 FN-145 1999 FN-145

(31) CR109851 L/B-PLR IN @ RKR SM LAT 60C

MAX = 2.081 at 45.12 MS MIN = -9.326 at 77.52 MS

AXIS 1



CHROM Version 1.16.14 - 8-Oct-1998
CREATED: 28-JAN-98 11:27:12

Safety Laboratories Department, SE Unit
PLOT PAGE 51

TAB499
SHEET 35

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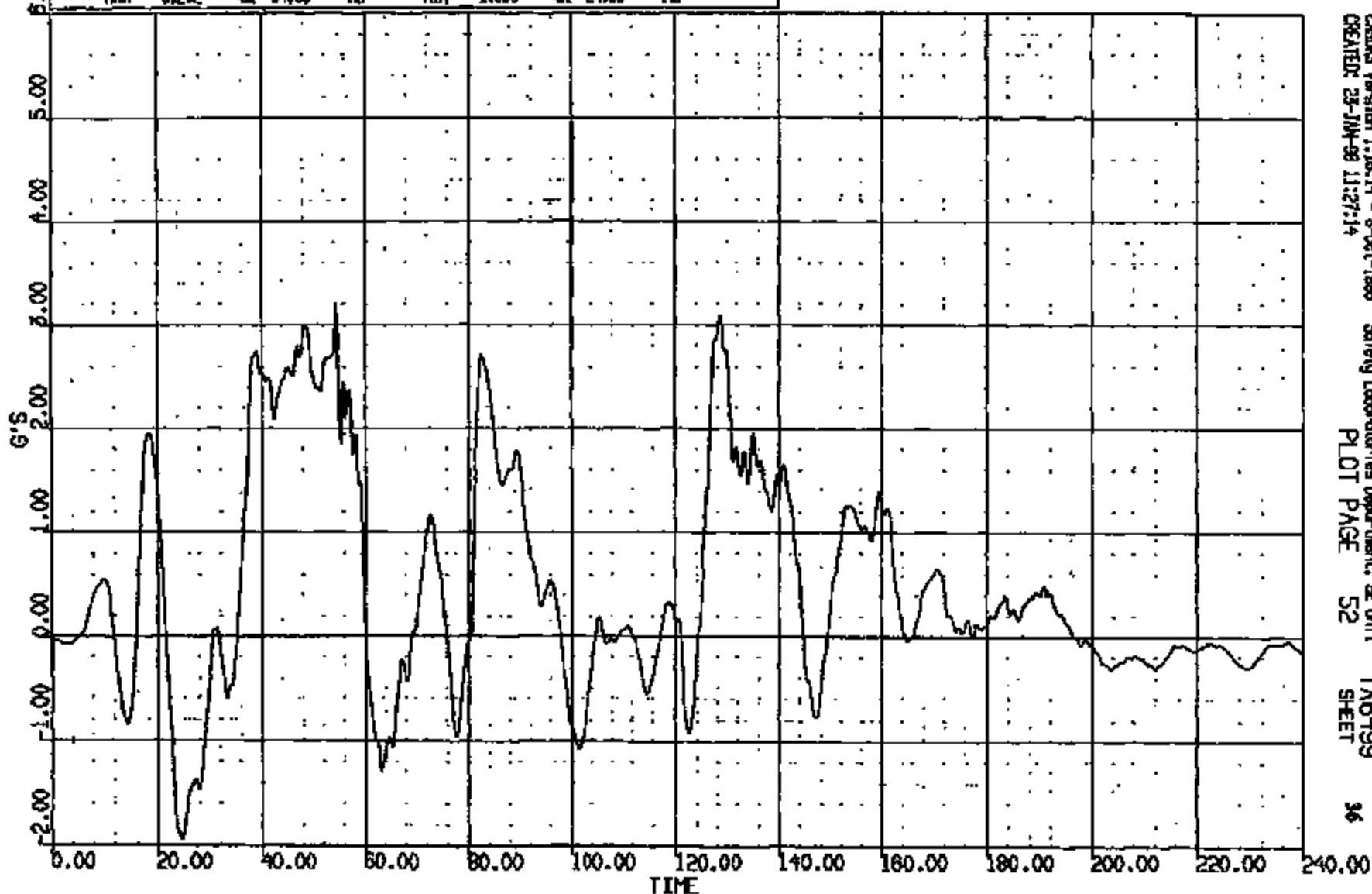
CR10985

CR R: 10985 TO: TA6499 DATE: 980125 10:57:52
1999 FN-145 1999 FN-145

(32) CR10985F UND L/R SEAT @ L/R BOLT SH LONG 60C

MAX = 3.202 at 54.56 MS MIN = -1.939 at 24.00 MS

AXIS 1



CASAS Version 1.16.14 - 8-Oct-1999
CREATED: 25-JAN-98 11:27:14

Safety Laboratories Department, SE Unit
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TA6499
SHEET

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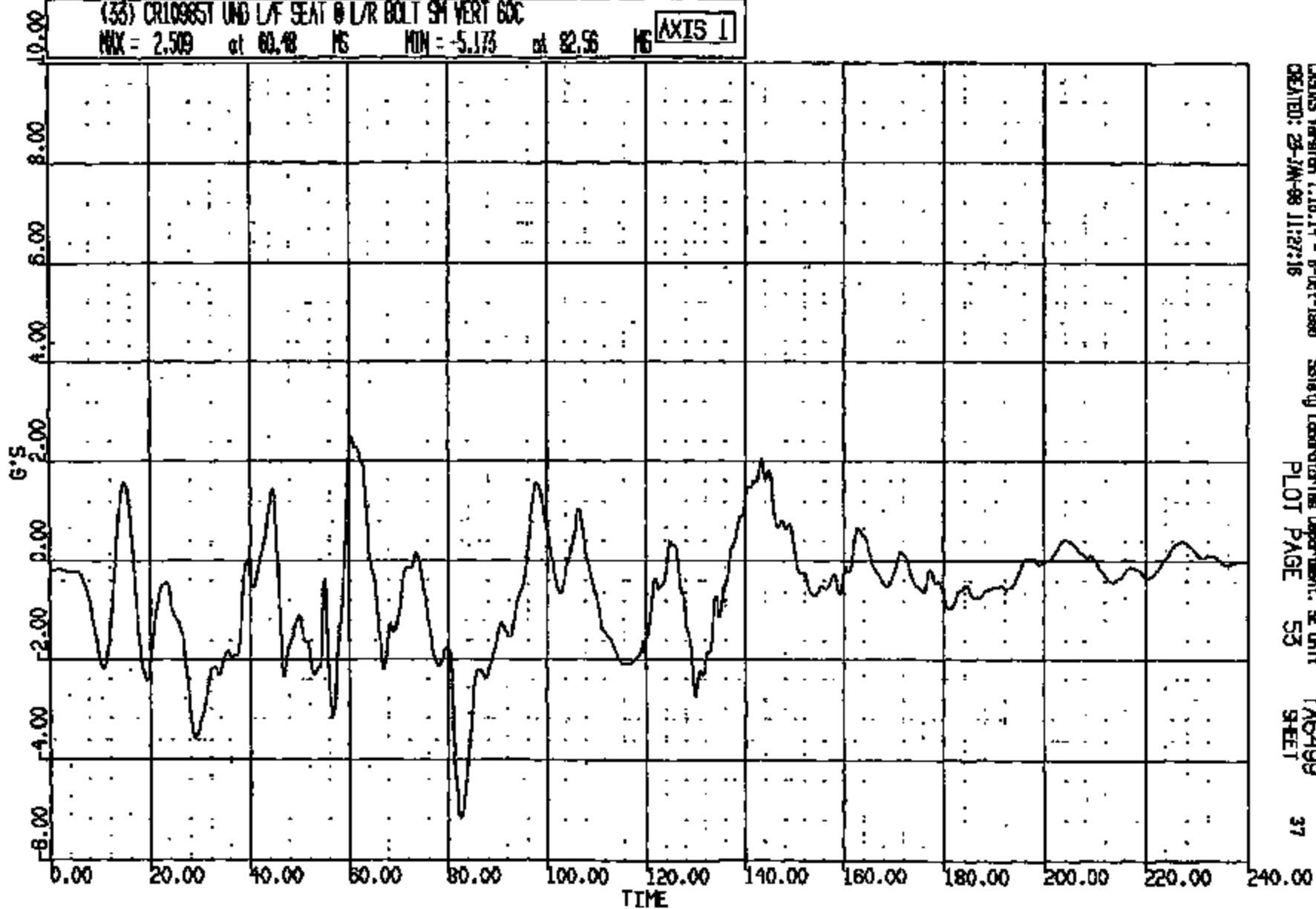
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CR R= 10985 TO: TAB499 DATE: 980123 10:57:32
1999 FN-145 1999 FN-145

(33) CR10985T UND L/R SEAT @ L/R BOLT SH VERT GDC

MAX = 2.509 at 60.48 MS MIN = -5.173 at 82.56 MS

AXIS 1



CASUS Version 1.18.14 - 8-Oct-1999
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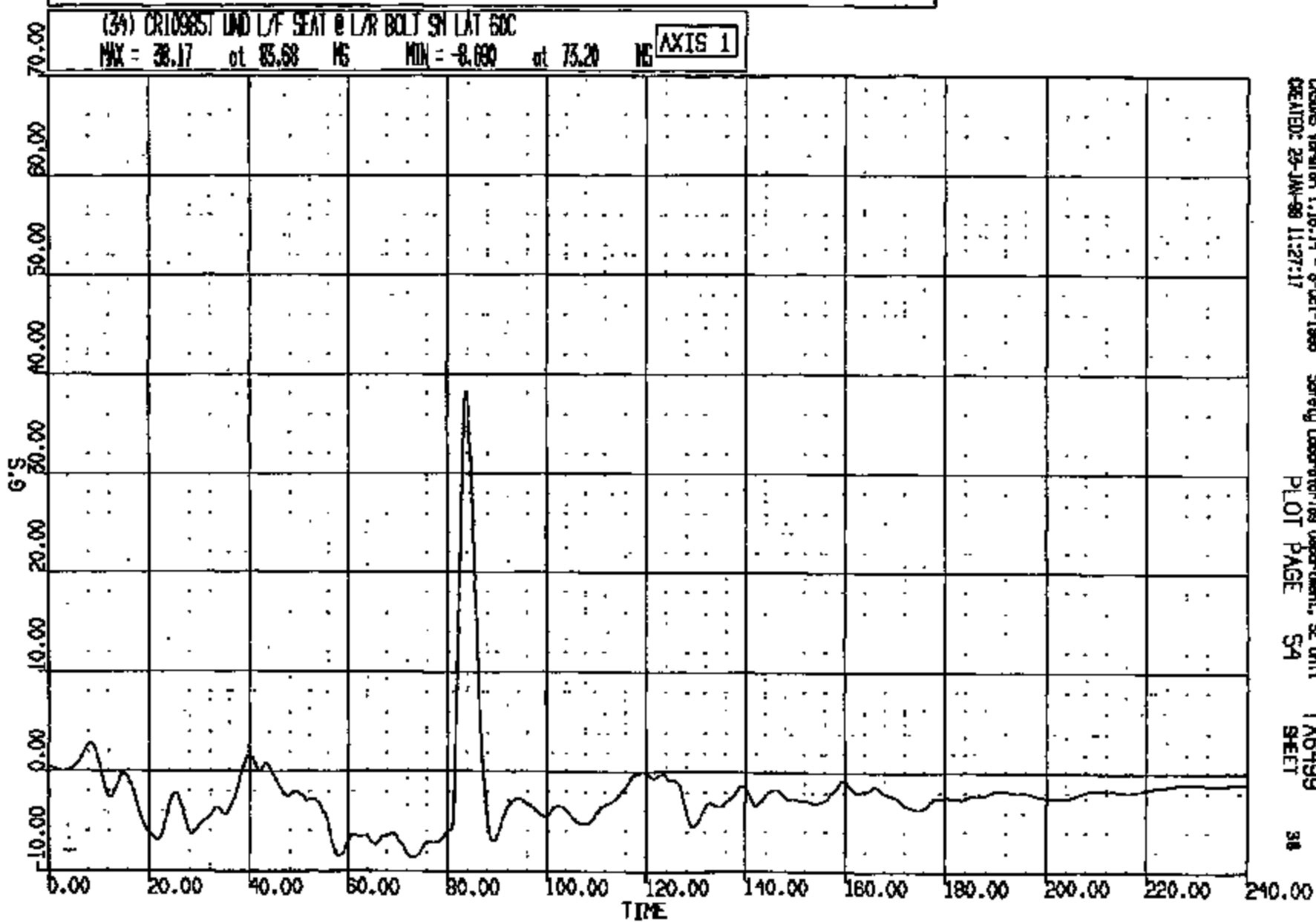
Safety Laboratories Department, SE Unit
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TAB499
SHEET 37

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CRIS 0010985

CR R: 10985 TO: TAB499 DATE: 880128 10:57:52
1999 FN-145 1999 FN-145



CRTS 0010985

CASUS Version 1.16.14 - 8 Oct 1996
CREATED: 29-JAN-98 11:27:17

Safety Laboratories Department, SE Unit
PLOT PAGE 54

TAB499
SHEET 38

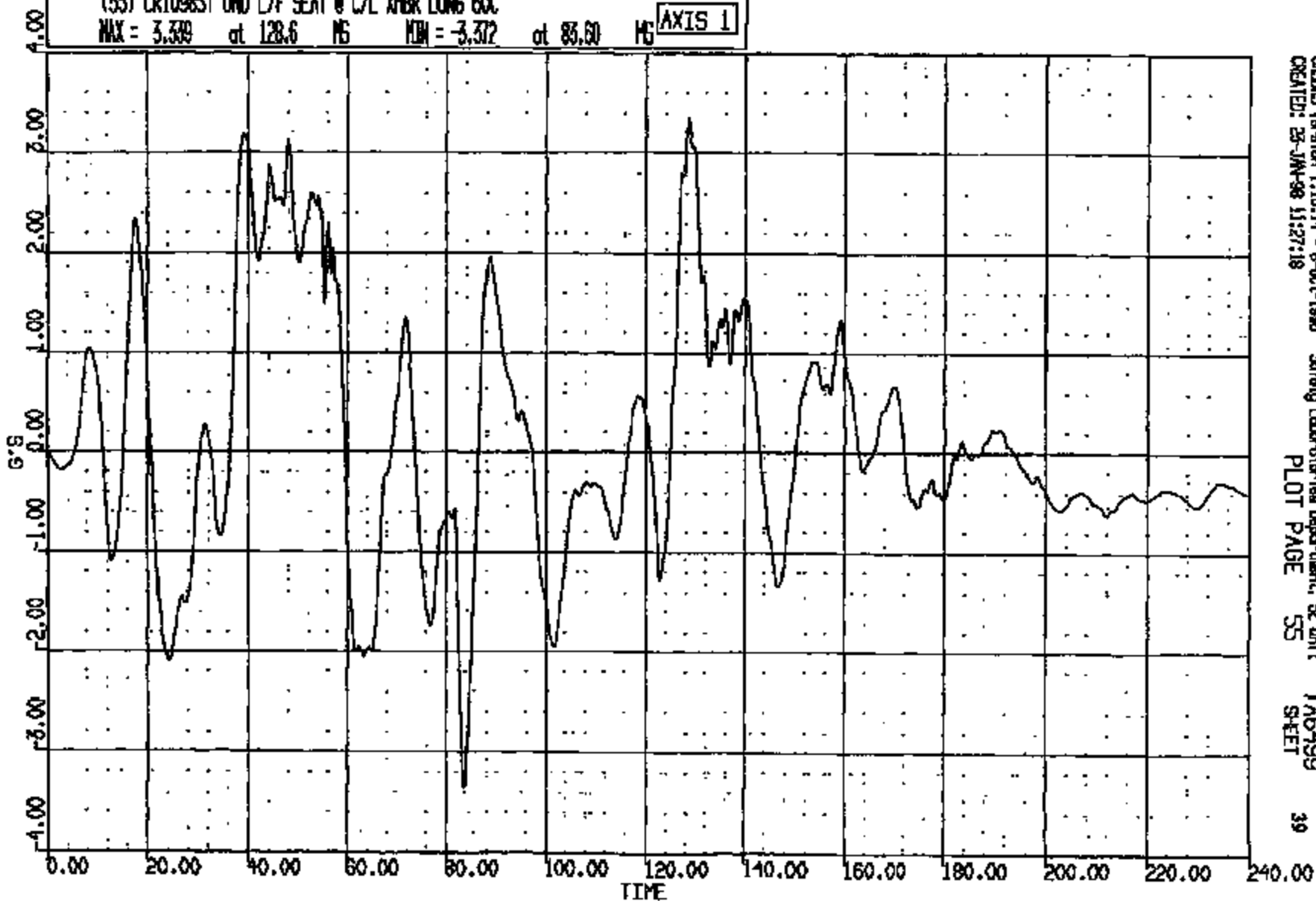
ENTIRE PAGE CONFIDENTIAL

CR R: 10985 TO: TAB-99 DATE: 980128 10:57:52
1999 FN-148 1999 FN-145

(35) CR10985 UNO L/F SEAT @ C/L XNER LONG 60C

MAX = 3.339 at 128.6 MG MIN = -3.372 at 83.60 MG

AXIS 1



CIENS Version 1.18.14 - 8-Oct-1998
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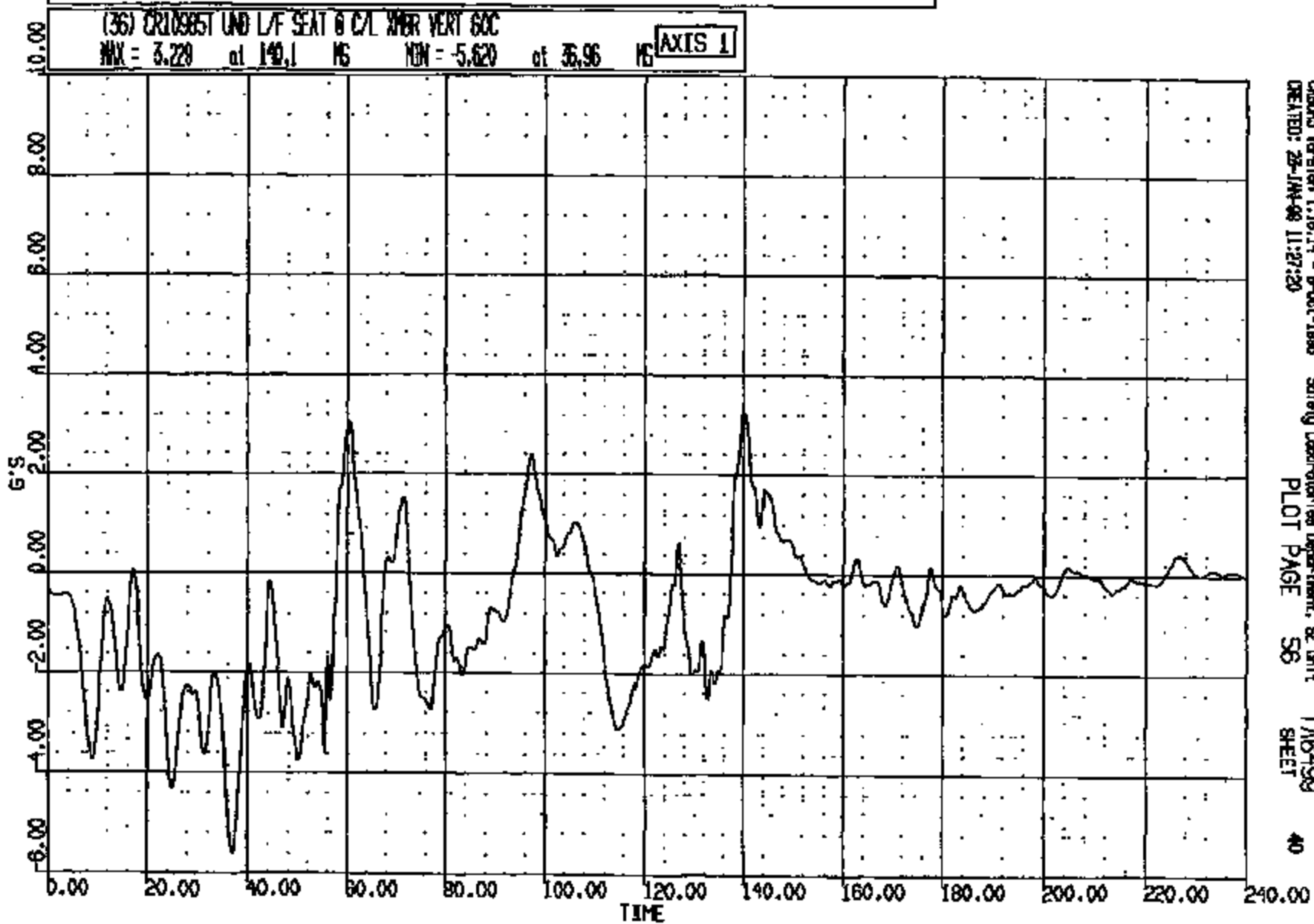
Safety Laboratories Department, SE Unit
PLOT PAGE 55

TAB-999
SHEET 39

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CRIS 0010985

CR R: 10085 TO: T/6499 DATE: 990125 10:57:52
1999 FN-145 1999 FN-148



CASIMS Version 1.16.14 - 9-Oct-1995
CREATED: 25-JAN-98 11:27:20

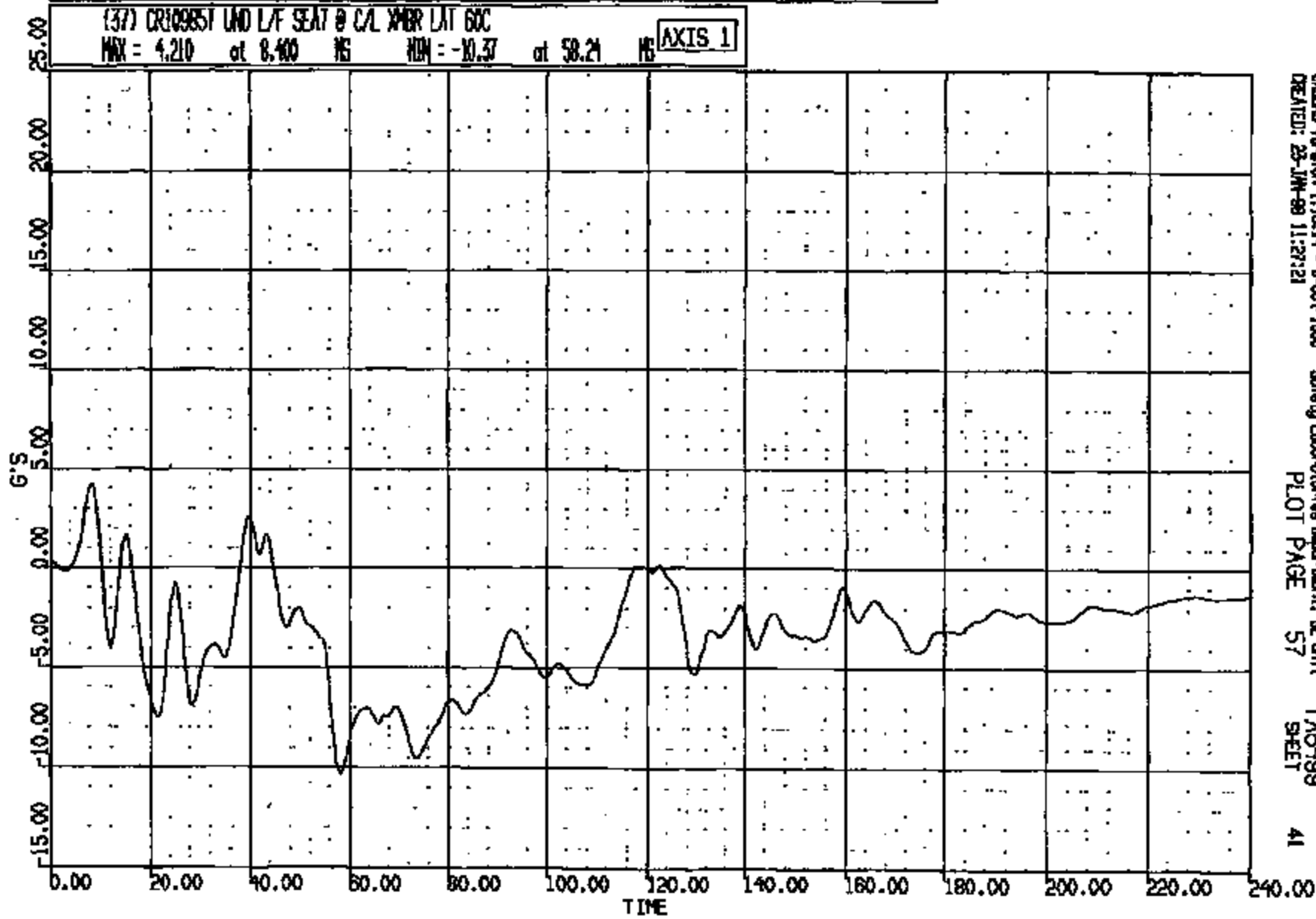
Safety Laboratories Department, SE Unit
PLOT PAGE 56

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SHEET 40

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CRIS 0010985

CR R: 10085 TO: TAG499 DATE: 980125 10:57:52
1889 FZ-145 1889 FZ-145



CASINS Version 1.16.19 - 8-06-1998
CREATED: 23-JAN-99 11:27:21

Safety Laboratories Department, SE Unit
PLOT PAGE 57

TAG499
SHEET 41

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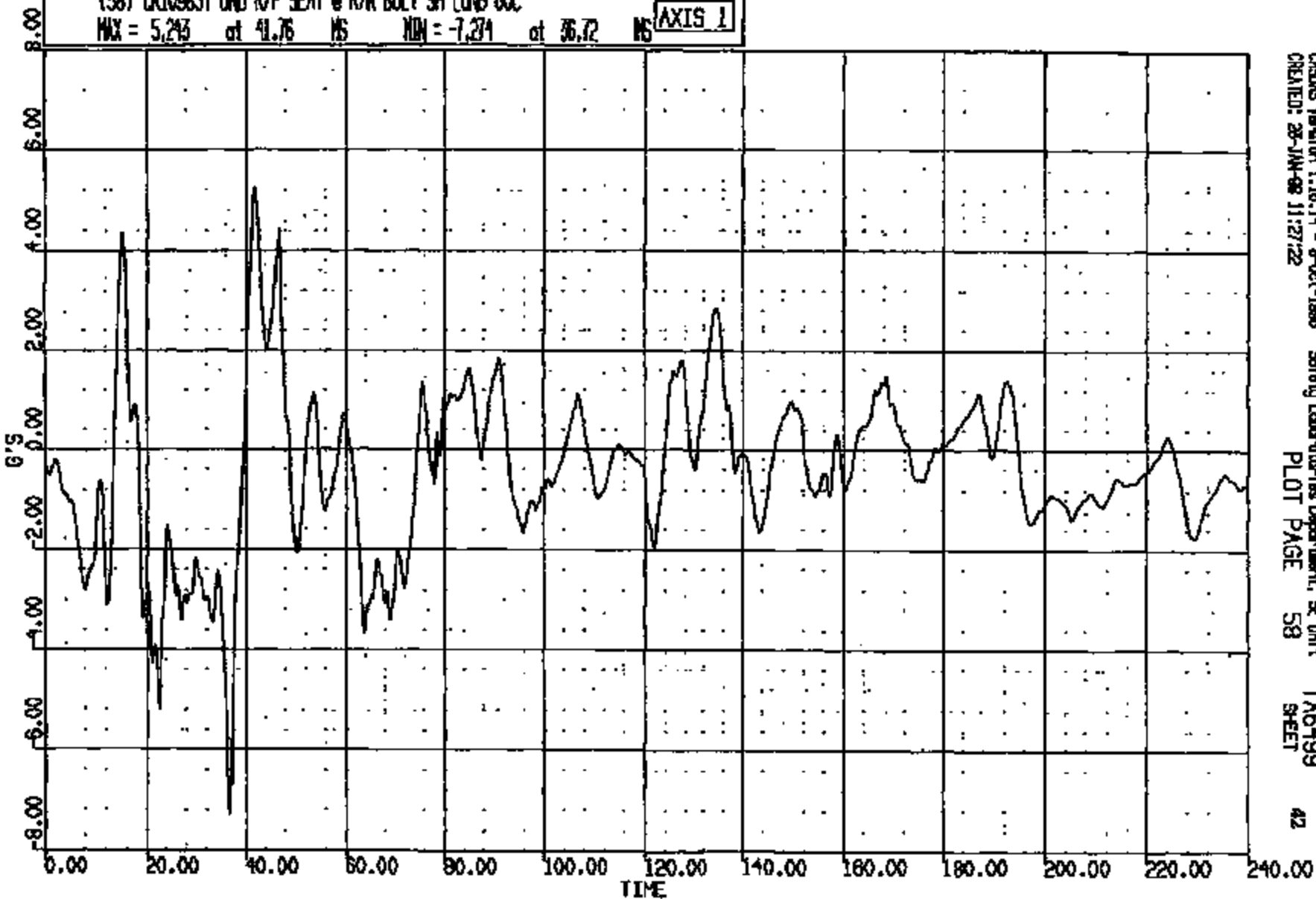
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CR R: 10985 TO: TA6499 DATE: 980128 10:57:52
1999 FN-145 1999 FN-145

(38) CR008851 UND R/F SEAT @ R/R BOLT SH LONG GOC

MAX = 5.243 at 41.76 MS MIN = -7.274 at 36.72 MS

AXIS 1



CASINS Version 1.16.14 - 9-01-1998
CREATED: 28-JAN-98 11:27:22

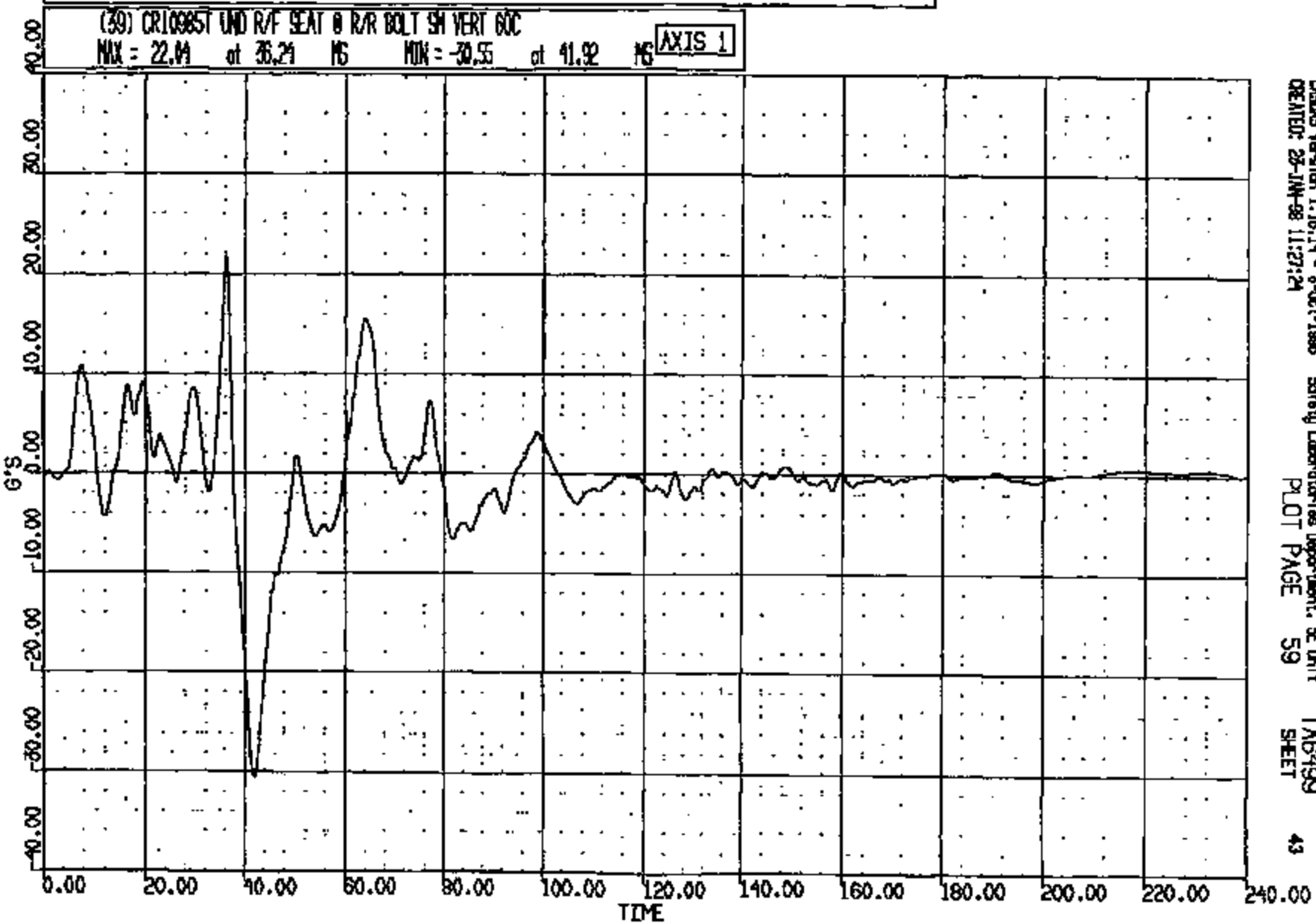
Safety Laboratories Department, SE Unit
PLOT PAGE 58

TA6499
SHEET 42

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CRITS 0010985

CR R: 10985 TD: TA6499 DATE: 980125 10:57:32
1999 FN-145 1999 FN-145



DASIS Version 1.16.14 - 8-Oct-1998
CREATED: 28-JUN-98 11:27:24

Safety Laboratories Department, SE Unit
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PLOT PAGE 59 SHEET

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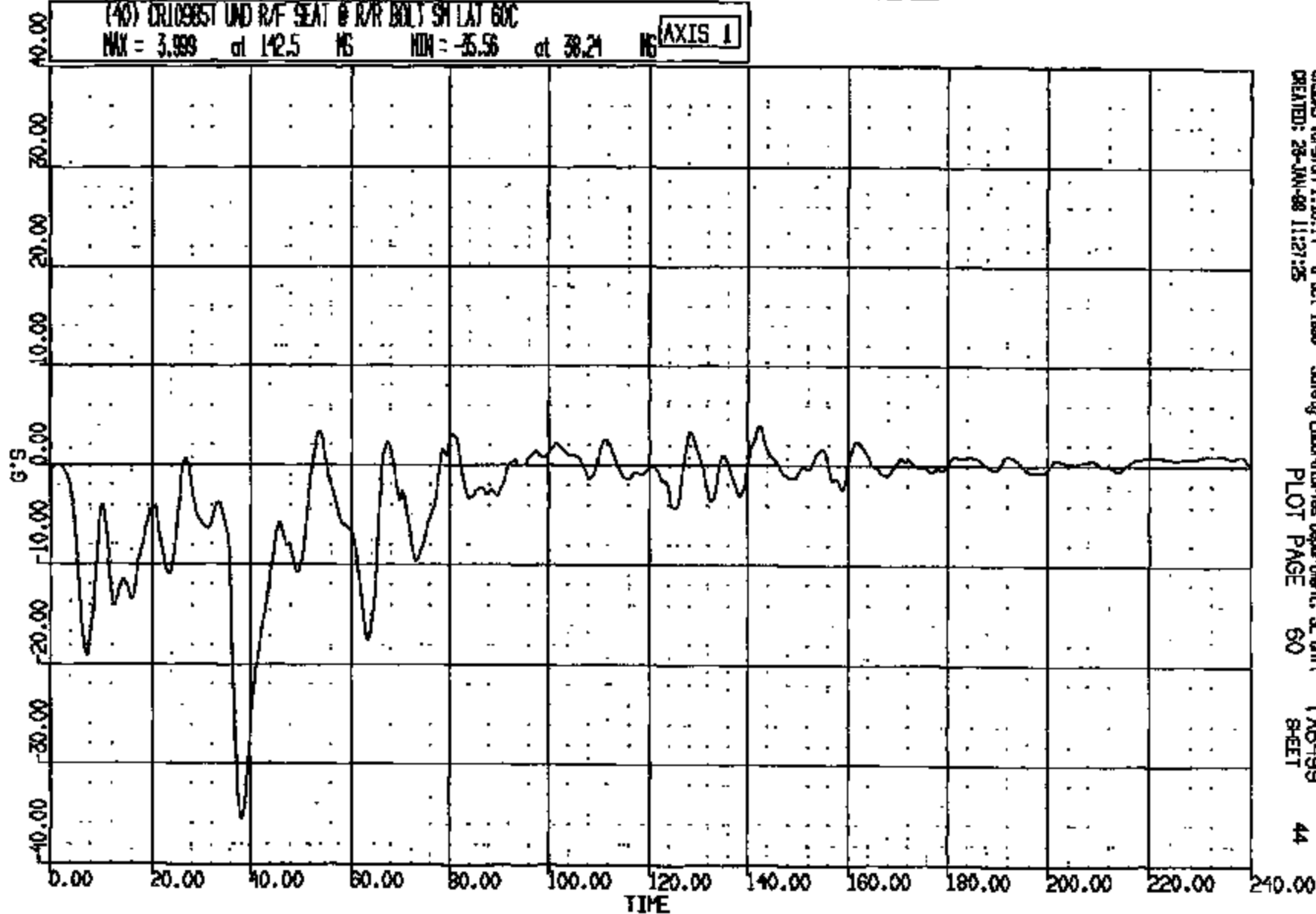
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CR R: 10085 TD: TA6499 DATE: 080128 10:57:32
1889 FN-146 1889 FN-146

(40) CR10985T UND R/F SEAT @ R/R BOLTS SH LAT 60C

MAX = 3.989 at 142.5 MS MIN = -25.56 at 38.24 MS

AXIS 1



CASMS Version 1.16.14 - 8-06-1988
CREATED: 28-JAN-88 11:27:25

Safety Laboratories Department, SE Unit
PLOT PAGE 60

TA6499
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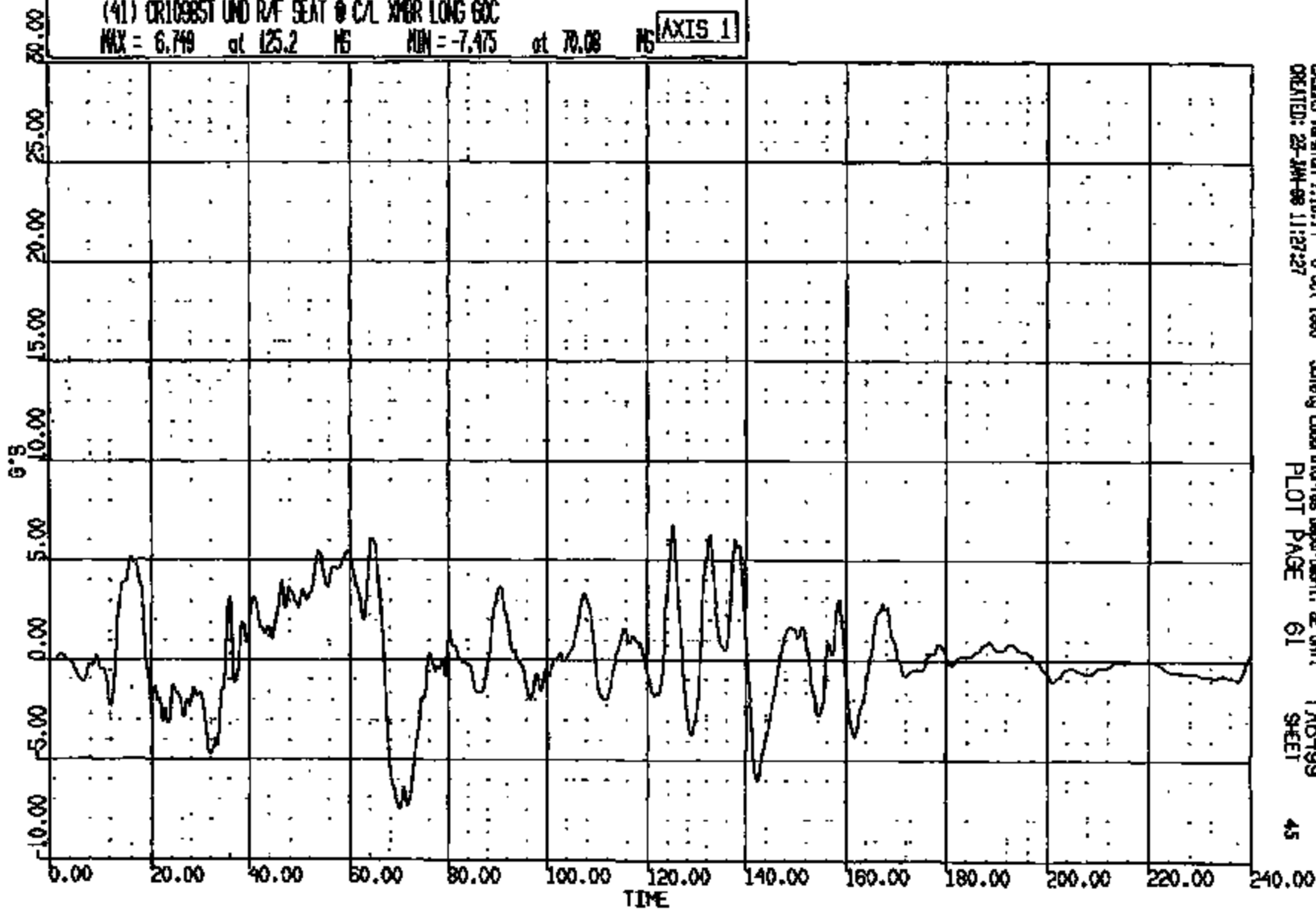
CR10985

CR R: 10985 TO: TAG499 DATE: 980123 10:57:32
1999 FN-146 1999 FN-146

(41) CR10985T UND RAF SEAT @ C/L XMR LONG GXC

MAX = 6.749 at 125.2 MS MIN = -7.475 at 70.08 MS

AXIS 1



CASAB Version 1.18.14 - 8-Oct-1998
CREATED: 23-JAN-98 11:27:27

Safety Laboratories Department, BE Unit
PLOT PAGE 61

TAG499
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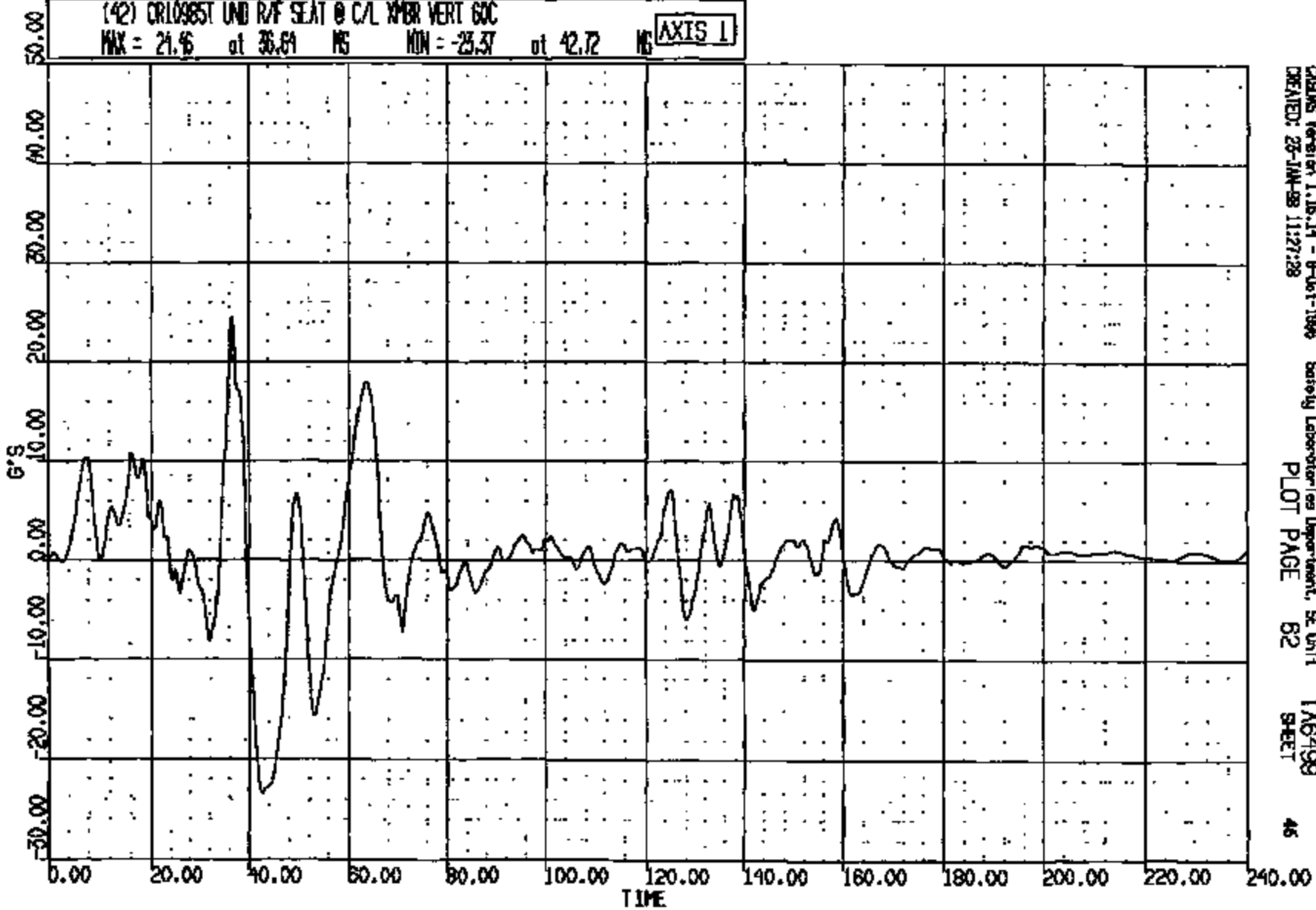
ENTIRE PAGE CONFIDENTIAL

CRIS 0010985

CR R: 10985 TO: TA8499 DATE: 990123 10:37:32
1999 FN-145 1999 FN-145

(42) ORLOGEST UND R/F SEAT @ C/L XMER VERT 60C

MAX = 21.46 at 36.64 MS MIN = -23.37 at 42.72 MS



CLAIMS Version 1.16.14 - 8-Oct-1996
CREATED: 25-JAN-98 11:27:28

Safely Laboratories Department, SE Unit
PLOT PAGE 62

TABLE 498
SHEET

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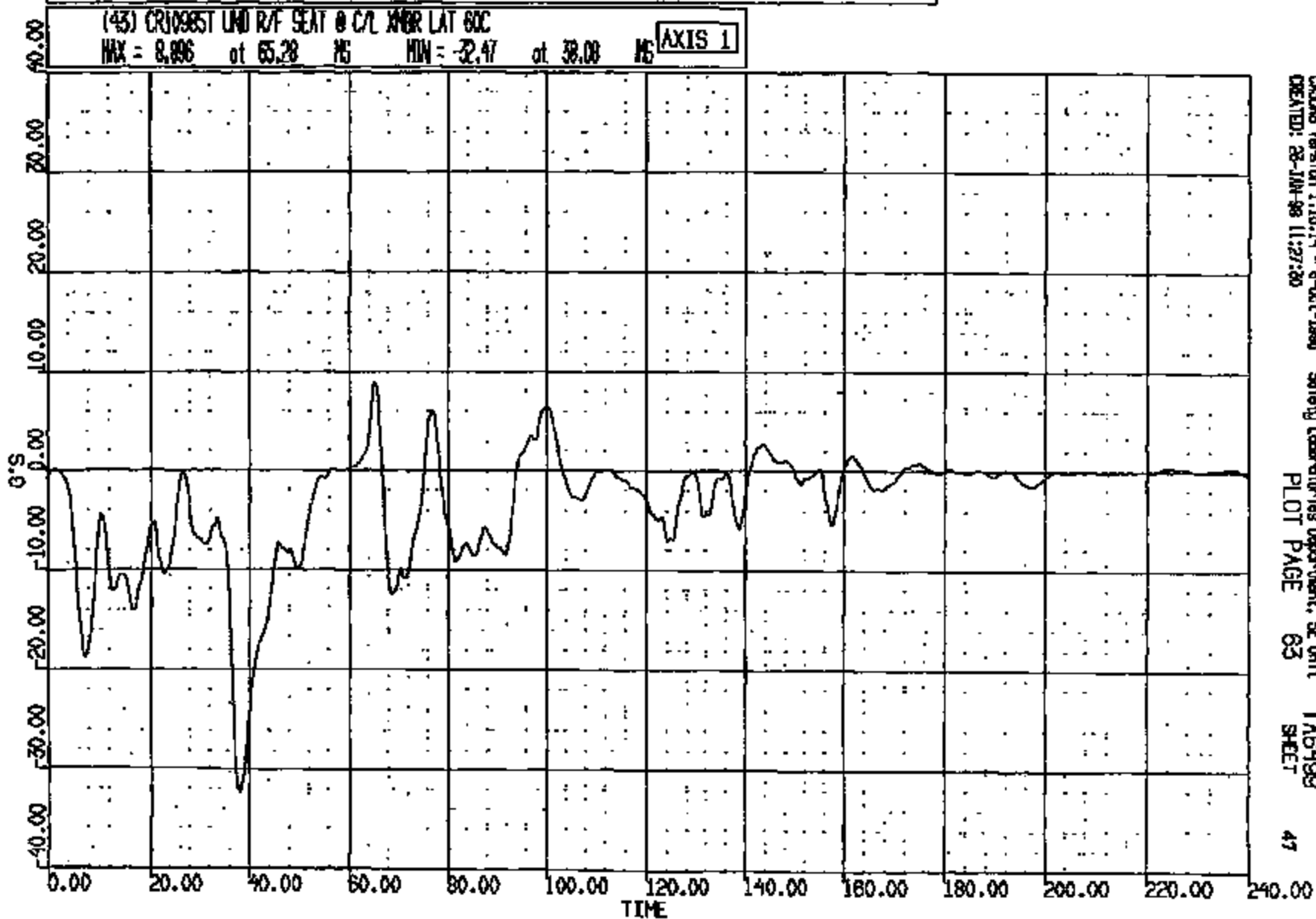
CRTS 0010985

CR R: 10085 TO: TAB499 DATE: 880123 10:57:32
1989 FN-146 1989 FN-146

(43) CR10085T UND R/F SEAT @ C/L WNR LAT 60C

MAX = 8.896 at 65.28 MS MIN = -32.47 at 38.08 MS

AXIS 1



CASDAS Version 1.15.14 - 8-Oct-1989
CREATED: 28-JUN-98 11:27:20

Safety Laboratories Department, SE Unit
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TAB499
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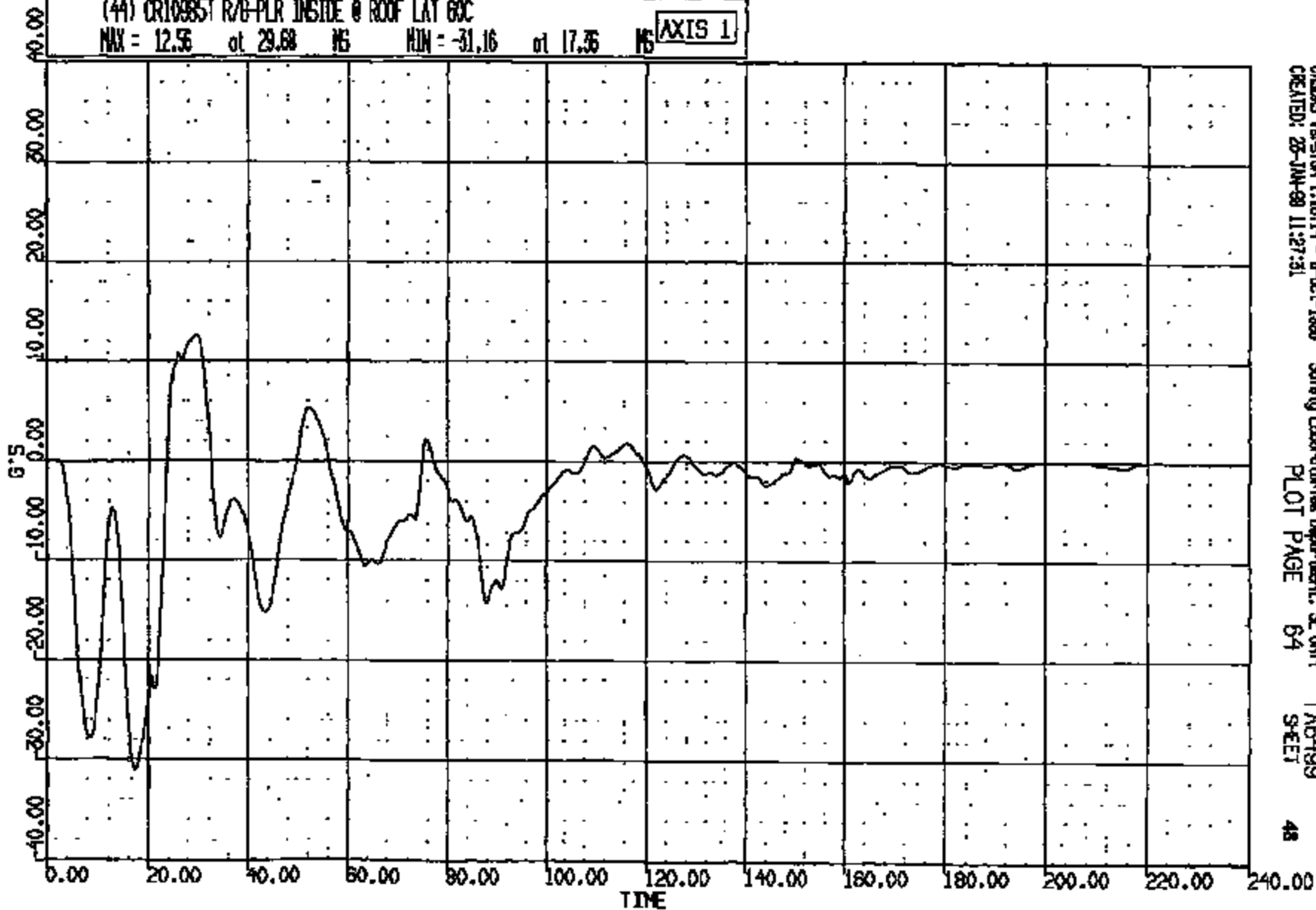
CRIS 0010985

CR R: 10985 TO: TAG499 DATE: 980128 10:57:32
1999 FN-145 1999 FN-145

(44) CR109851 R/B-PLR INSIDE @ ROOF LAT 60C

MAX = 12.56 at 29.68 MS MIN = -31.16 at 17.35 MS

AXIS 1



CADWIS Version 1.16.14 - 8-Oct-1998
CREATED: 28-JAN-99 11:27:31

Safety Laboratories Department, SE Unit
PLOT PAGE 64

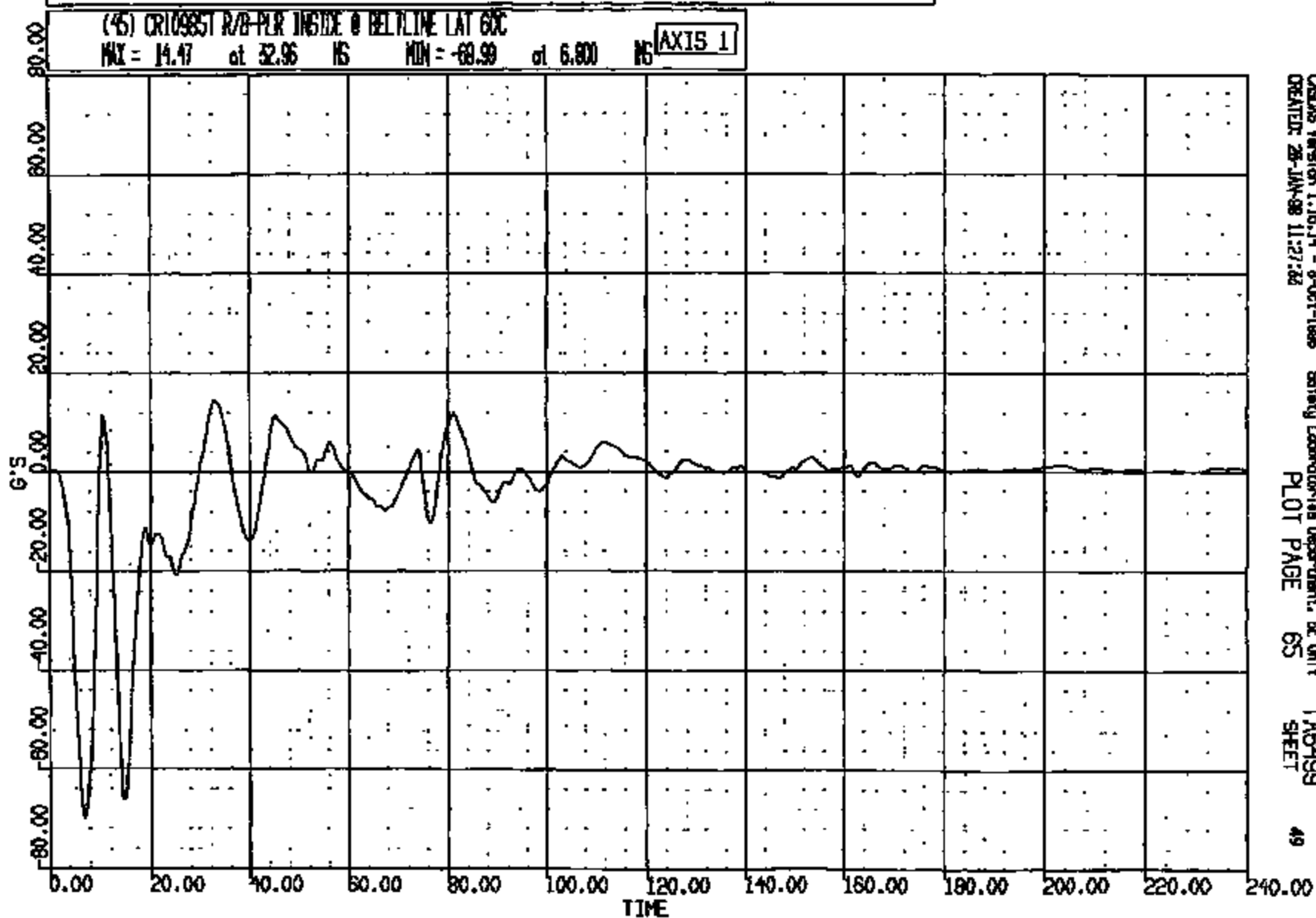
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CRTS 0010985

CR R: 10985 TO: TA6499 DATE: 980128 10:57:32
1999 FN-145 1998 FN-145



CASUS Version 1.16.14 - 8-Oct-1998
CREATED: 28-JUN-98 11:27:34

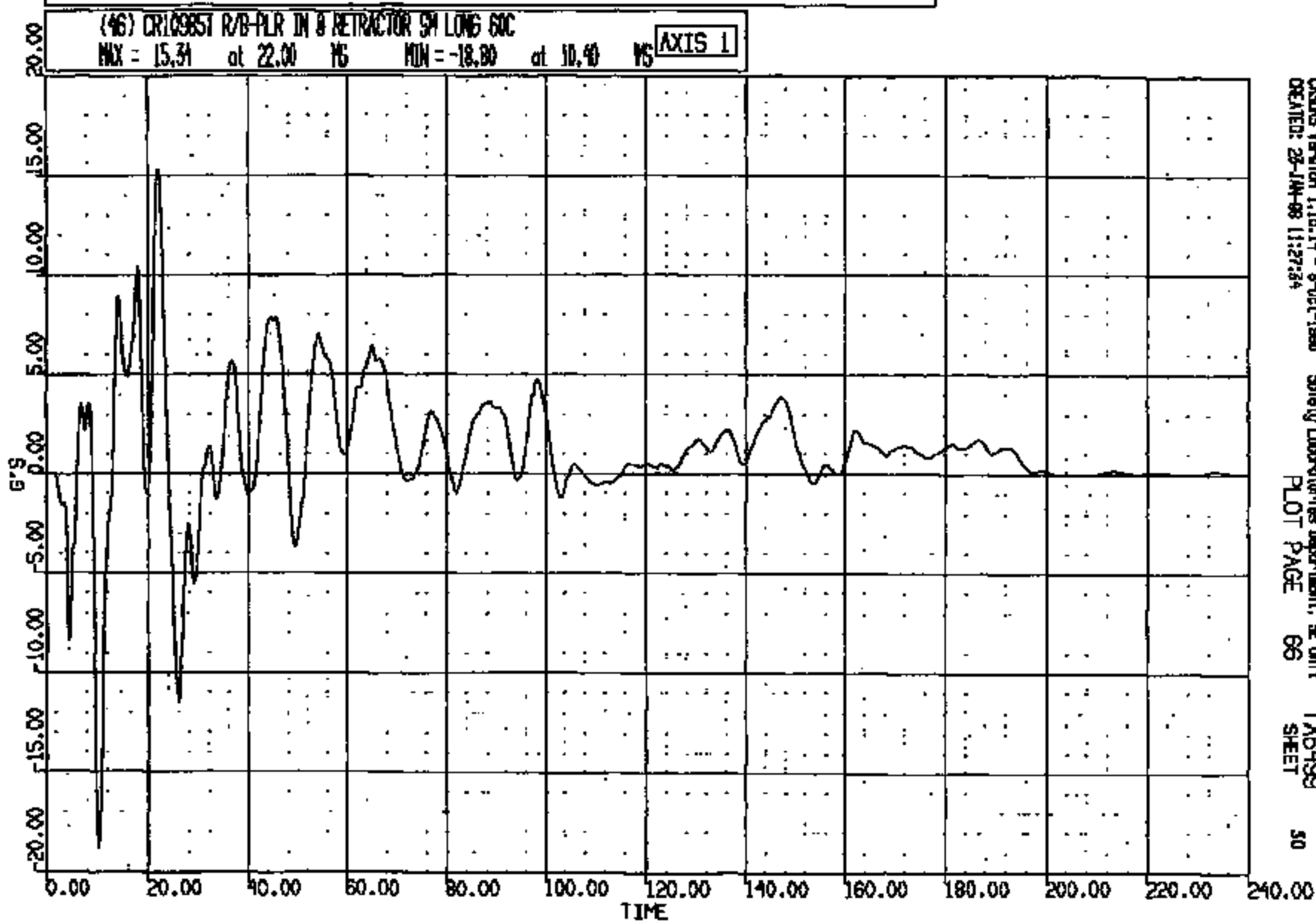
Safety Laboratories Department, EE Unit
PLOT PAGE 65

TA6499
SHEET 49

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CRIS 0010985

CR R: 10985 TO: TAG499 DATE: 980128 10:57:32
1998 FZ-145 1998 FZ-145



CASAS Version 1.15.14 - 8-01-1998
CREATED: 28-JUN-98 11:27:34

Safety Laboratories Department, SE Unit
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TAG499
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ENTIRE PAGE CONFIDENTIAL

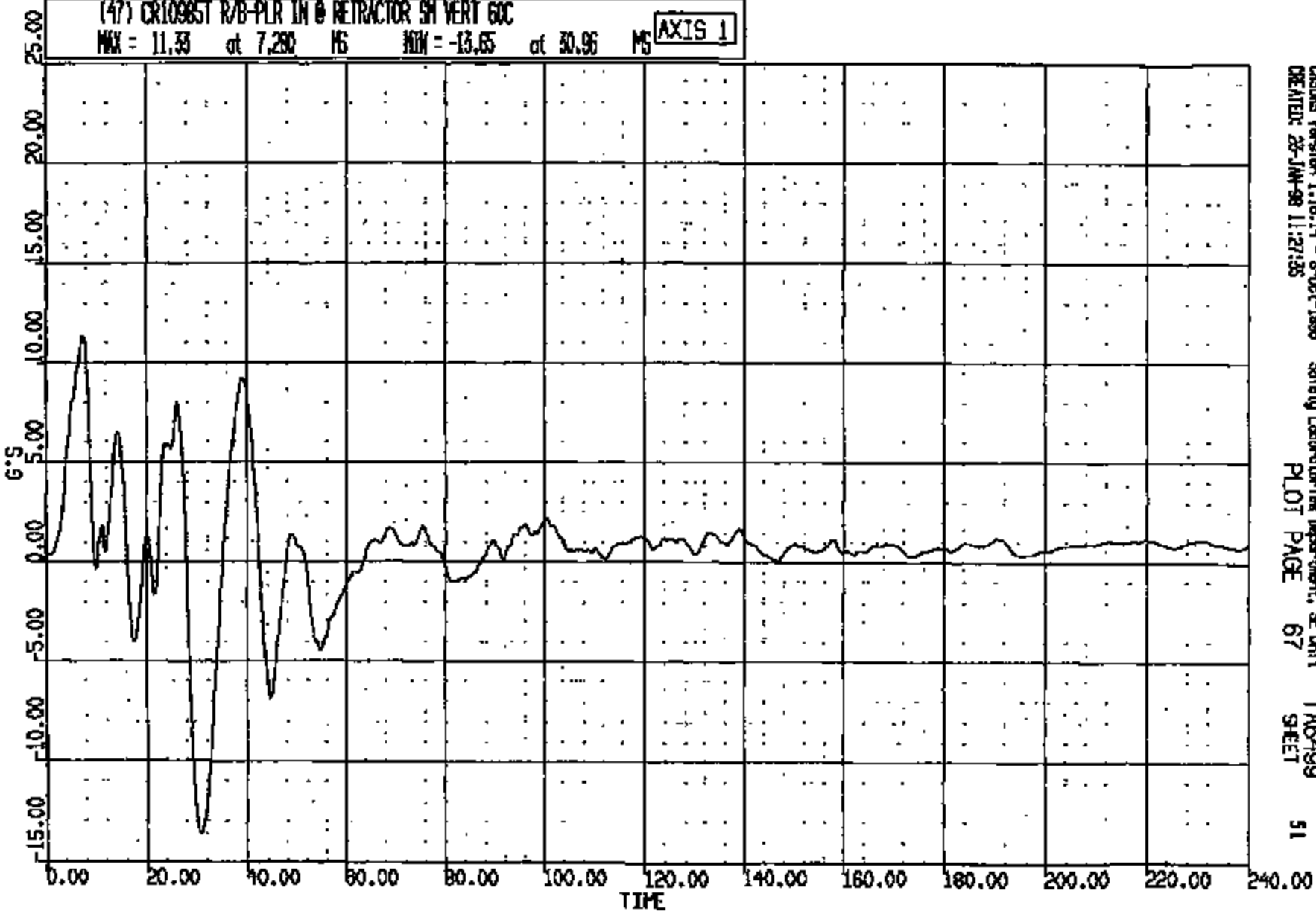
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CR R: 10985 TO: TAG499 DATE: 980128 10:57:52
1999 FN-145 1999 FN-145

(47) CR10985T R/B-PLR IN @ RETRACTOR SH VERT GOC

MAX = 11.33 at 7.280 MS MIN = -13.65 at 30.96 MS

AXIS 1



CASINS Version 1.16.14 - 8-Oct-1999
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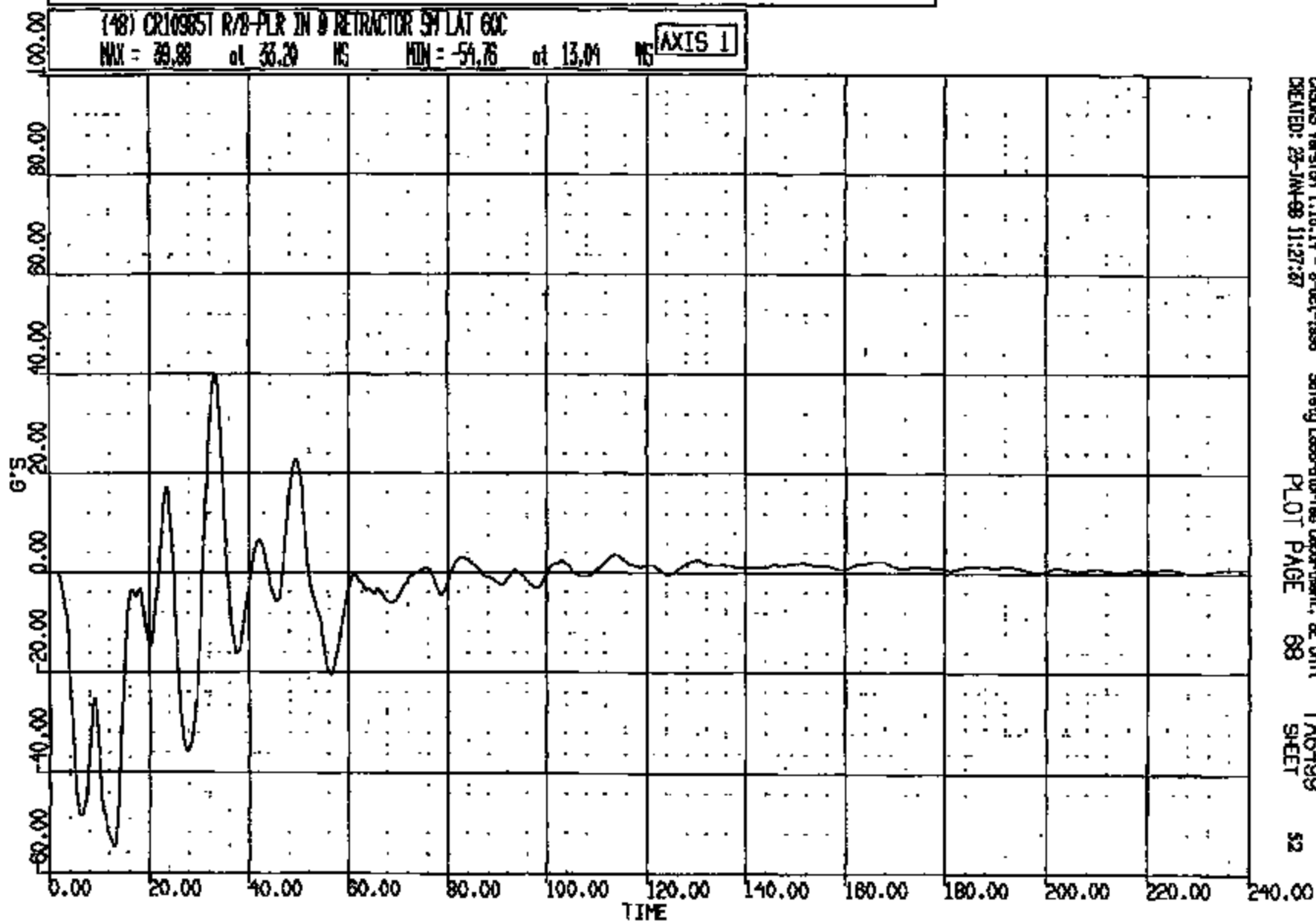
Safety Laboratory Inc. Department, SE Unit
PLOT PAGE 67

TAG499
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CRIS 0010985

CR R: 10885 TO: TA6499 DATE: 980128 10:57:52
1999 FN-145 1999 FN-145



CASMS Version 1.16.14 - 8-Oct-1998
CREATED: 28-JAN-98 11:27:27

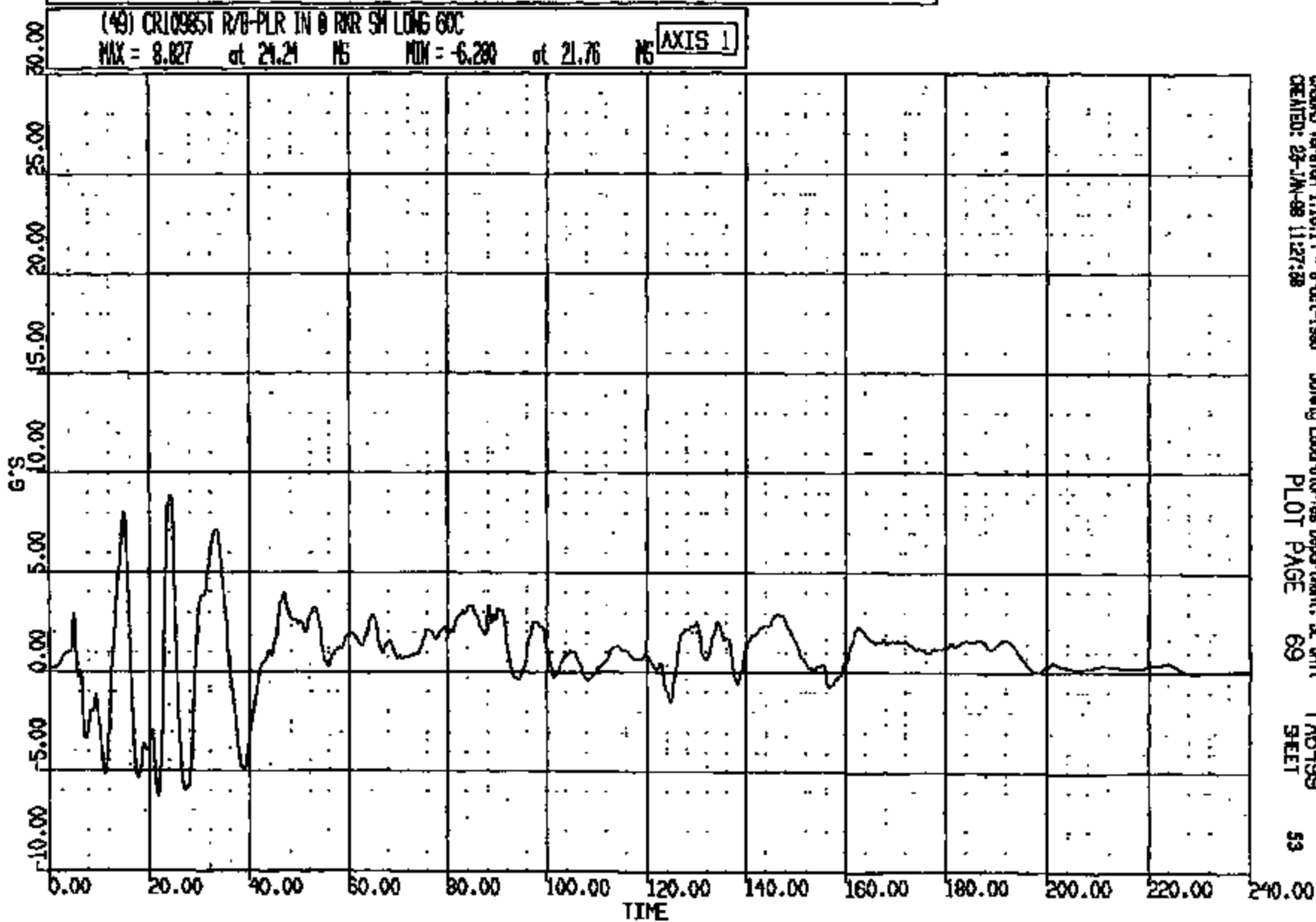
Safety Laboratory Department, SE Unit
PLOT PAGE 88

TA6499
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CRTS 0010985

CR R: 10985 TO: TA6499 DATE: 880128 10:57:32
1999 FN-145 1999 FN-145



CRSMS Version 1.16.14 - 8-Oct-1998
CREATED: 28-JAN-98 11:27:38

Safety Laboratories Department, SE Unit
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TA6499
SHEET 53

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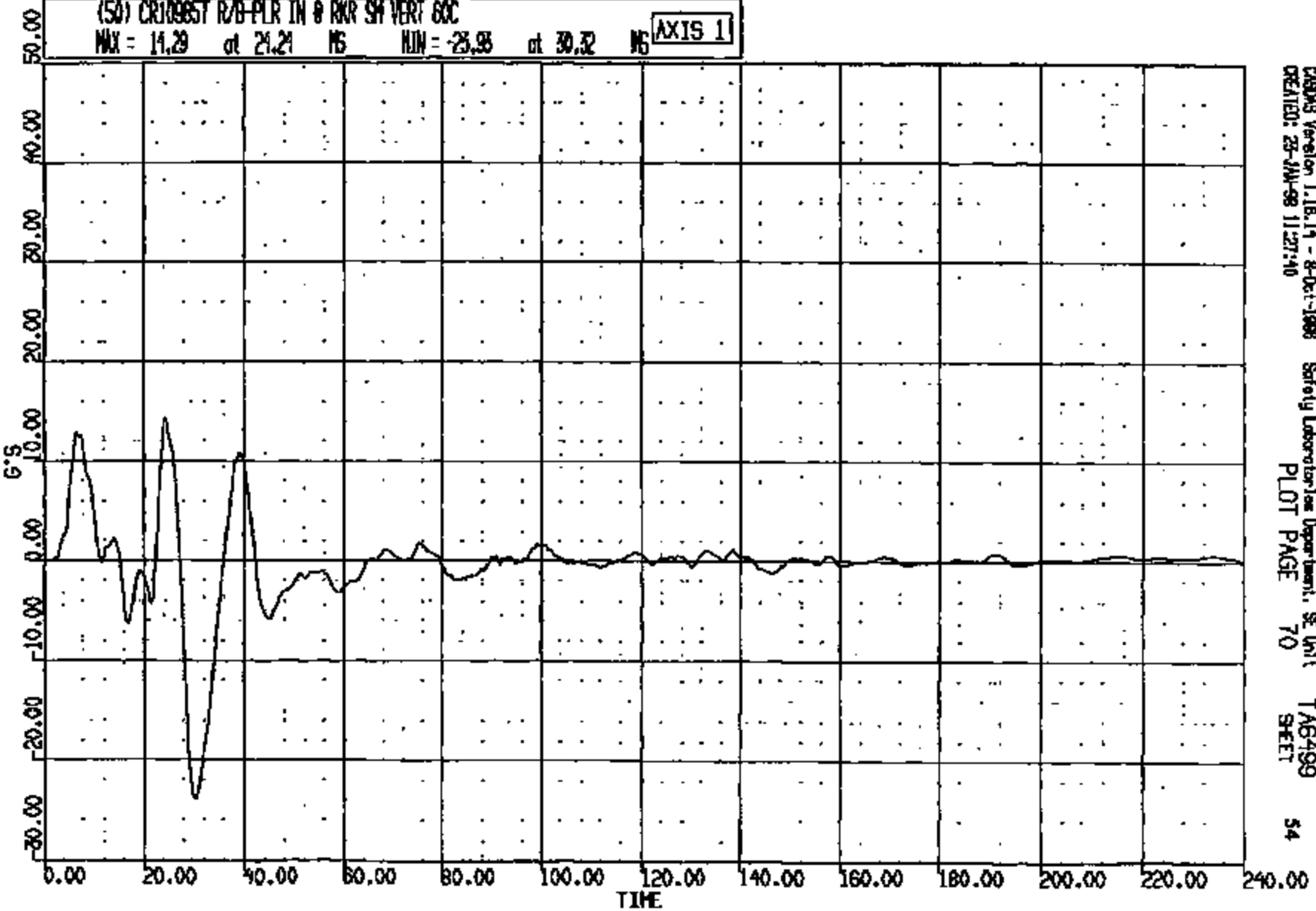
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CADDIS Version 1.16.14 - 8-Oct-1998
CREATED: 23-JAN-98 11:27:40Safety Laboratories Department, SE Unit
PLOT PAGE 70 SHEET 54CR R: 10985 TO: TAB499 DATE: 980125 10:57:52
1998 FN-145 1998 FN-145

(50) CR10985T R/B-PLR IN @ RKR SH VERT 60C

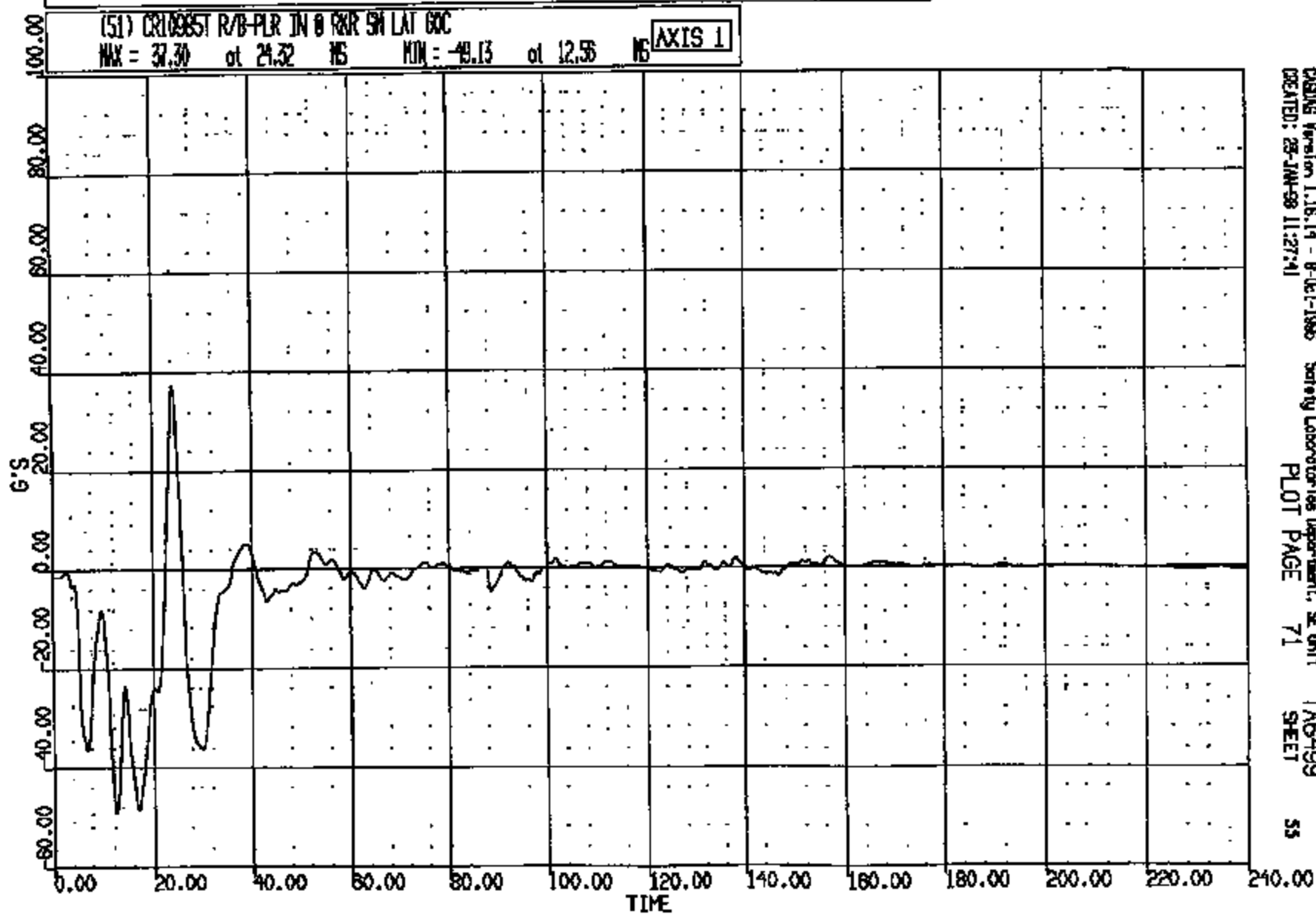
MAX = 11.29 at 21.21 MS MIN = -23.98 at 30.32 MS

AXIS 1



CR15 0010985

CR R= 10985 TO: TAG499 DATE: 990123 10:57:22
1999 FN-146 1999 FN-146



CR10985T Version 1.16.14 - 8-Dec-1999
CREATED: 23-JAN-99 11:27:41

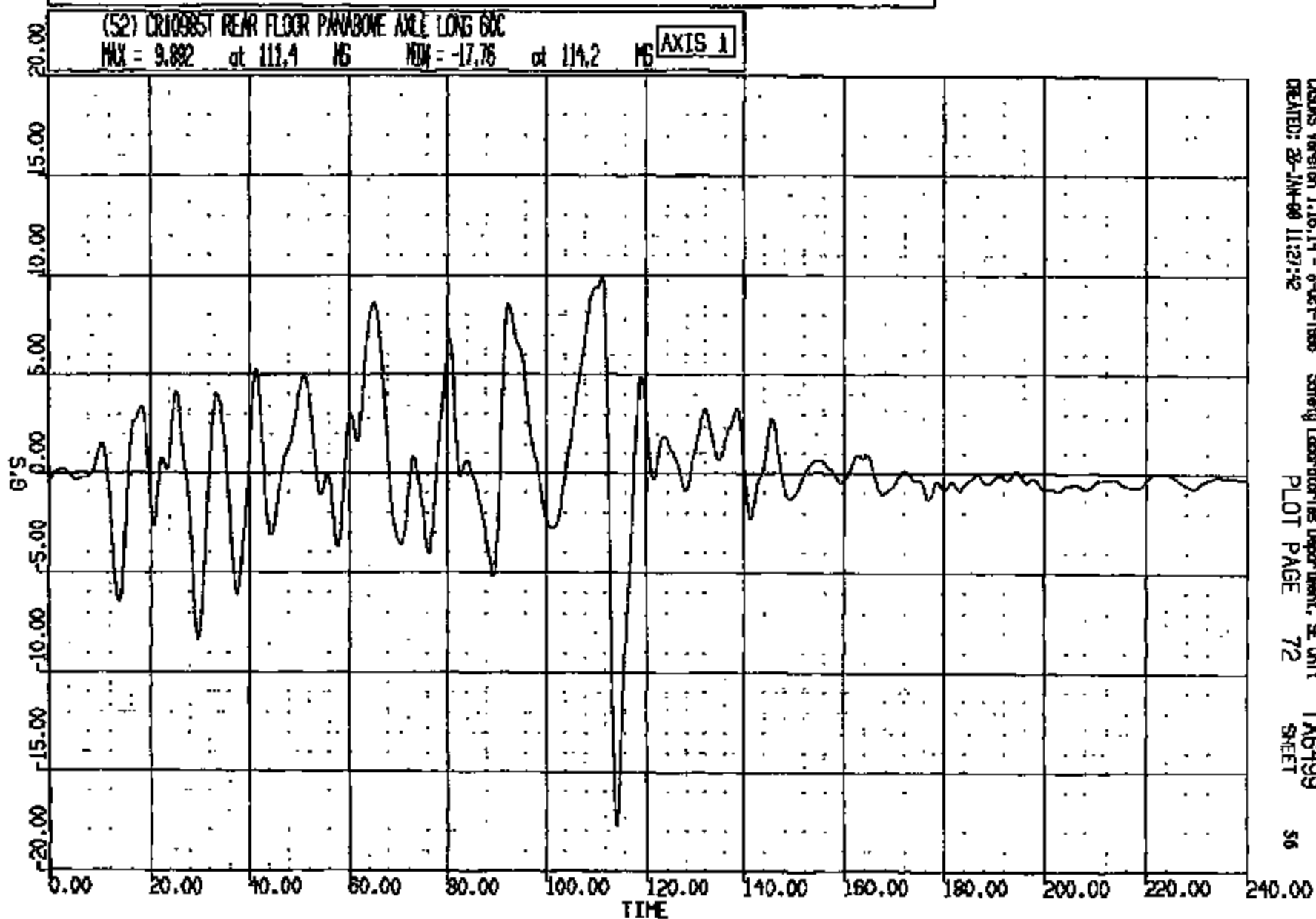
Safety Laboratories Department, SE Unit
PLOT PAGE 71

TAG499
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CR10985

CR R: 10985 TO: TAG499 DATE: 980128 10:57:32
1999 FN-146 1999 FN-146



CASUS Version 1.16.14 - 8-Oct-1998
CREATED: 28-JAN-99 11:27:42

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TAG499
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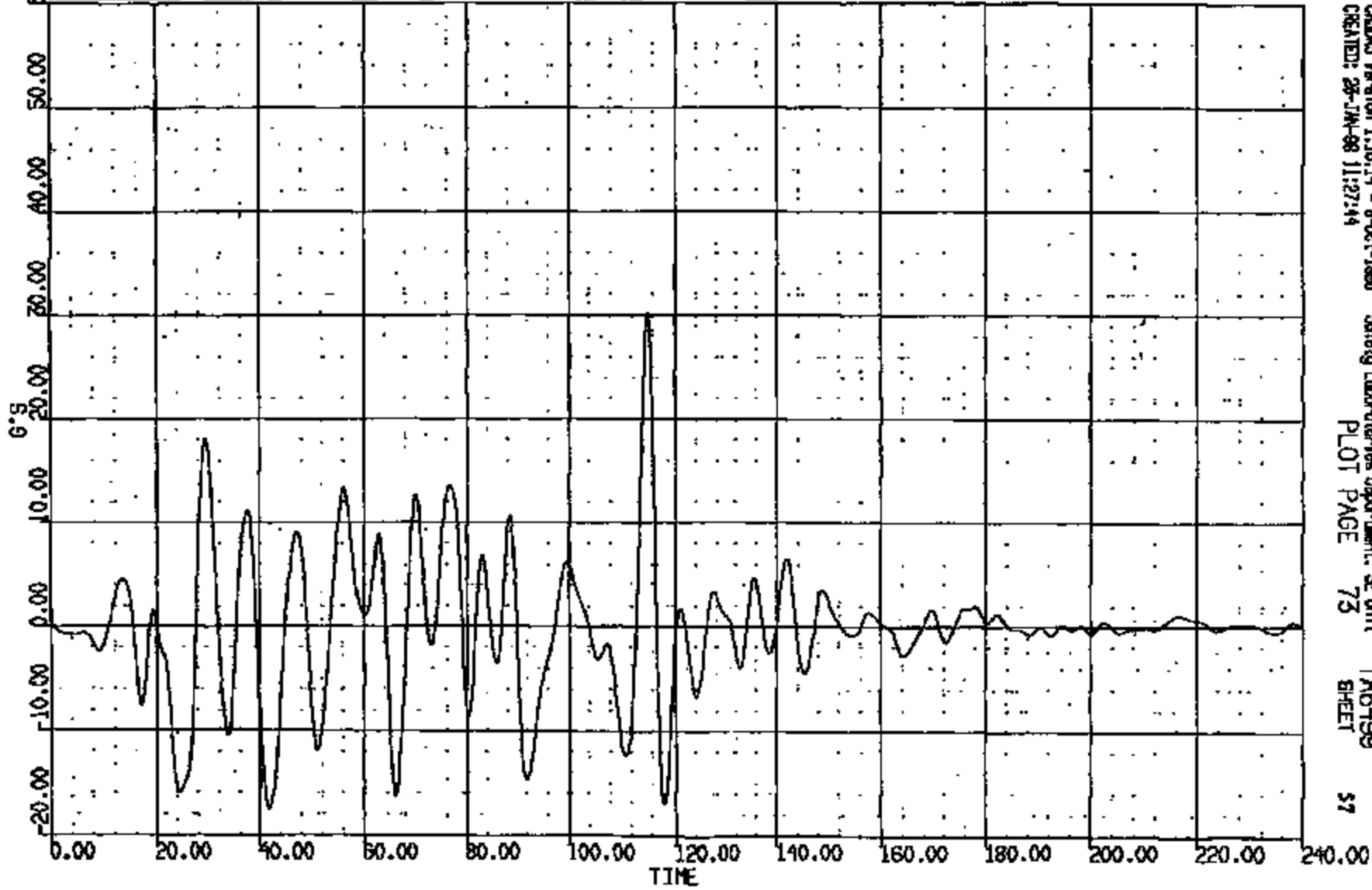
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CR R: 10985 TO: TA6499 DATE: 980128 10:57:52
1999 FN-145 1999 FN-145

(53) CR109851 REAR FLOOR PARABOLIC AXLE VERT BOC

MAX = 30.20 at 115.1 MS MIN = -17.50 at 91.84 MS

AXIS 1



CADDS Version 1.18.14 - 8-Oct-1998
CREATED: 28-JAN-98 11:27:44

Safety Laboratories Department, SE Unit
PLOT PAGE 73

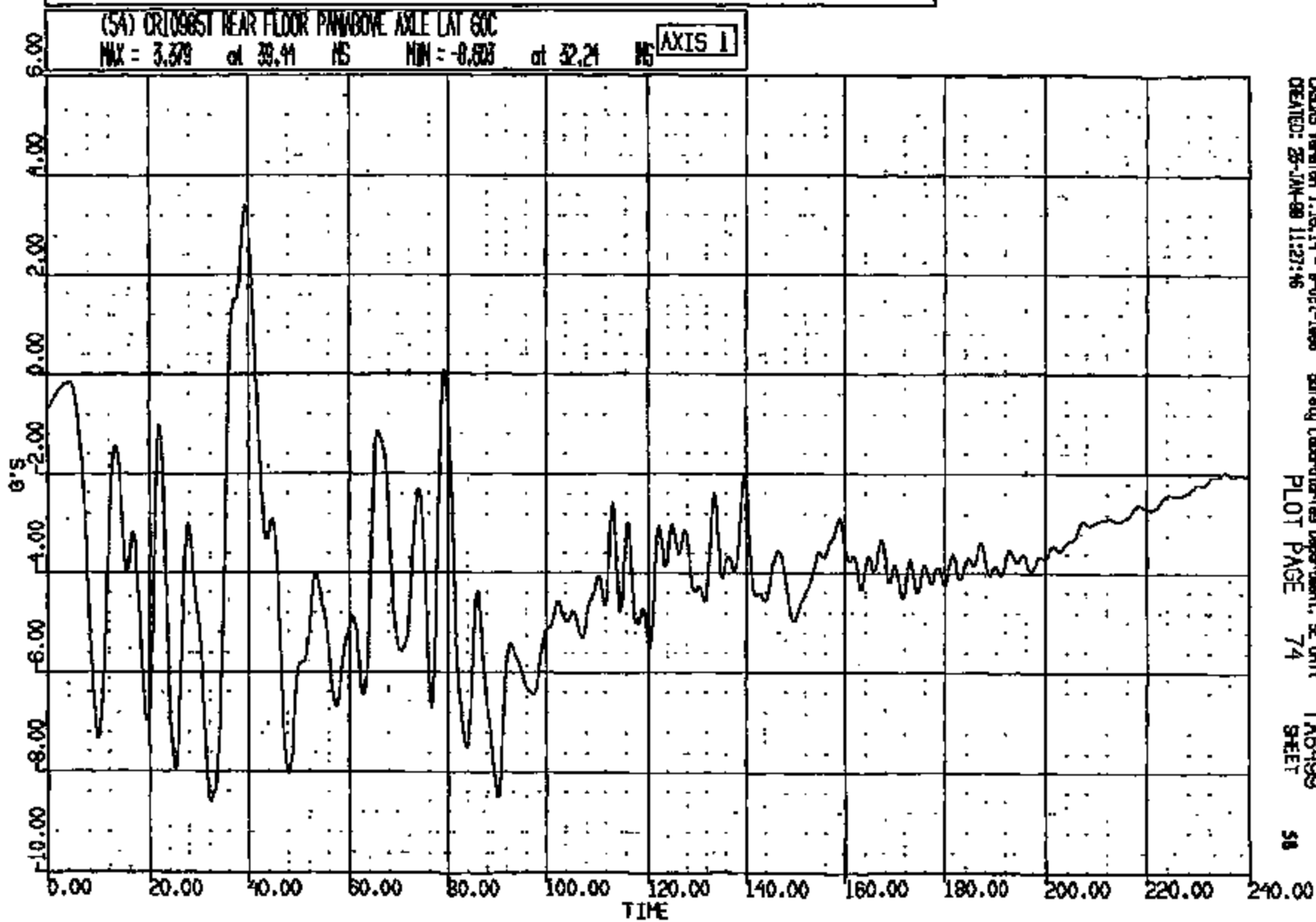
TA6499
SHEET

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CRIS 0010985

CR R: 10985 TO: TAB499 DATE: 990125 10:57:52
1999 FN-145 1999 FN-145



CADDS Version 1.16.14 - P-01-1998
CREATED: 25-JAN-99 11:27:46

Safety Laboratories Department, SE Unit
PLOT PAGE 74

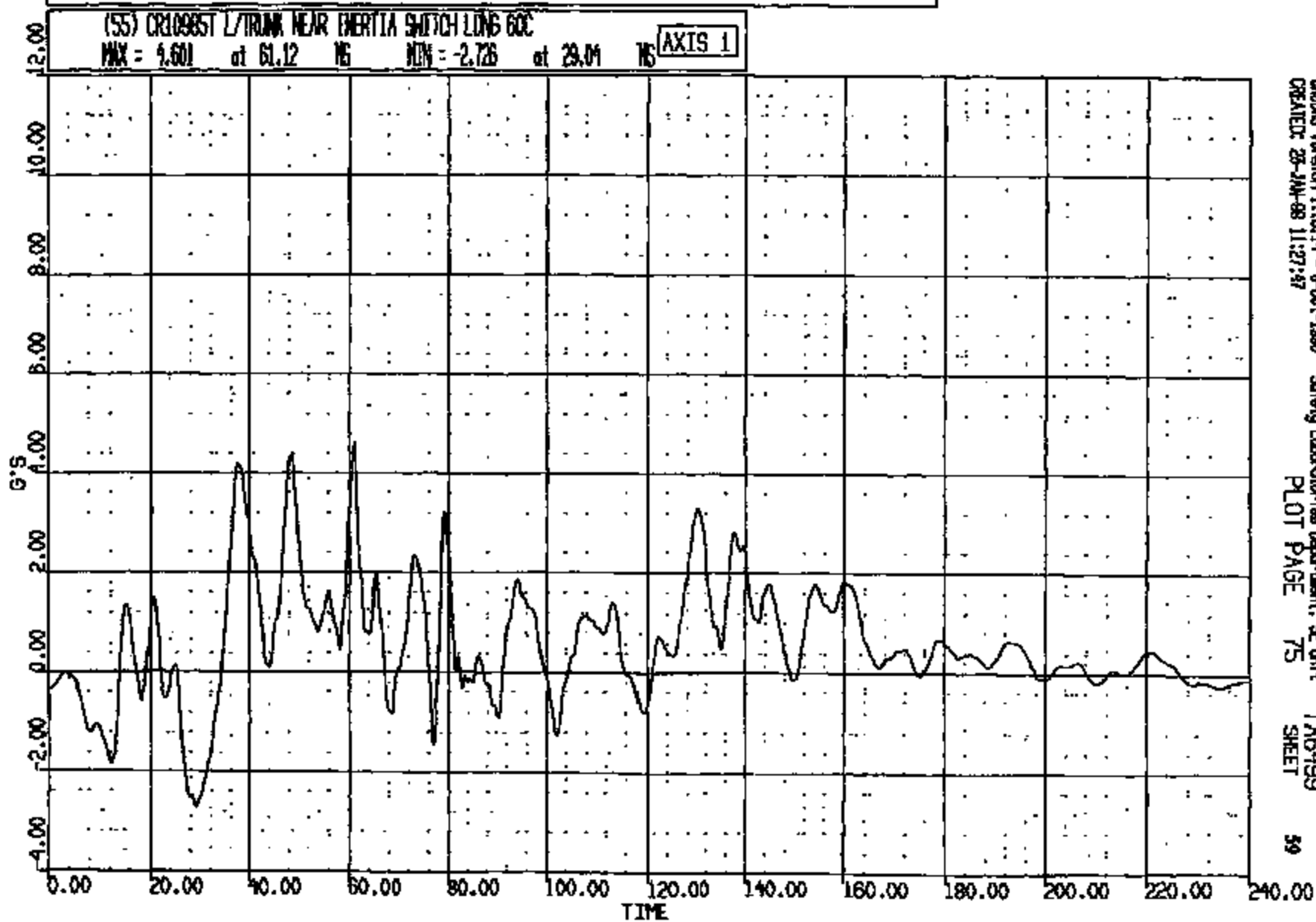
TAB499
SHEET

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CR R: 10085 TO: TAG499 DATE: 890123 10:57:32
1989 FZ-145 1989 FZ-145



CADDS Version 1.16.14 - 8-Oct-1988
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Safety Laboratories Department, SE Unit
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TAG499
SHEET

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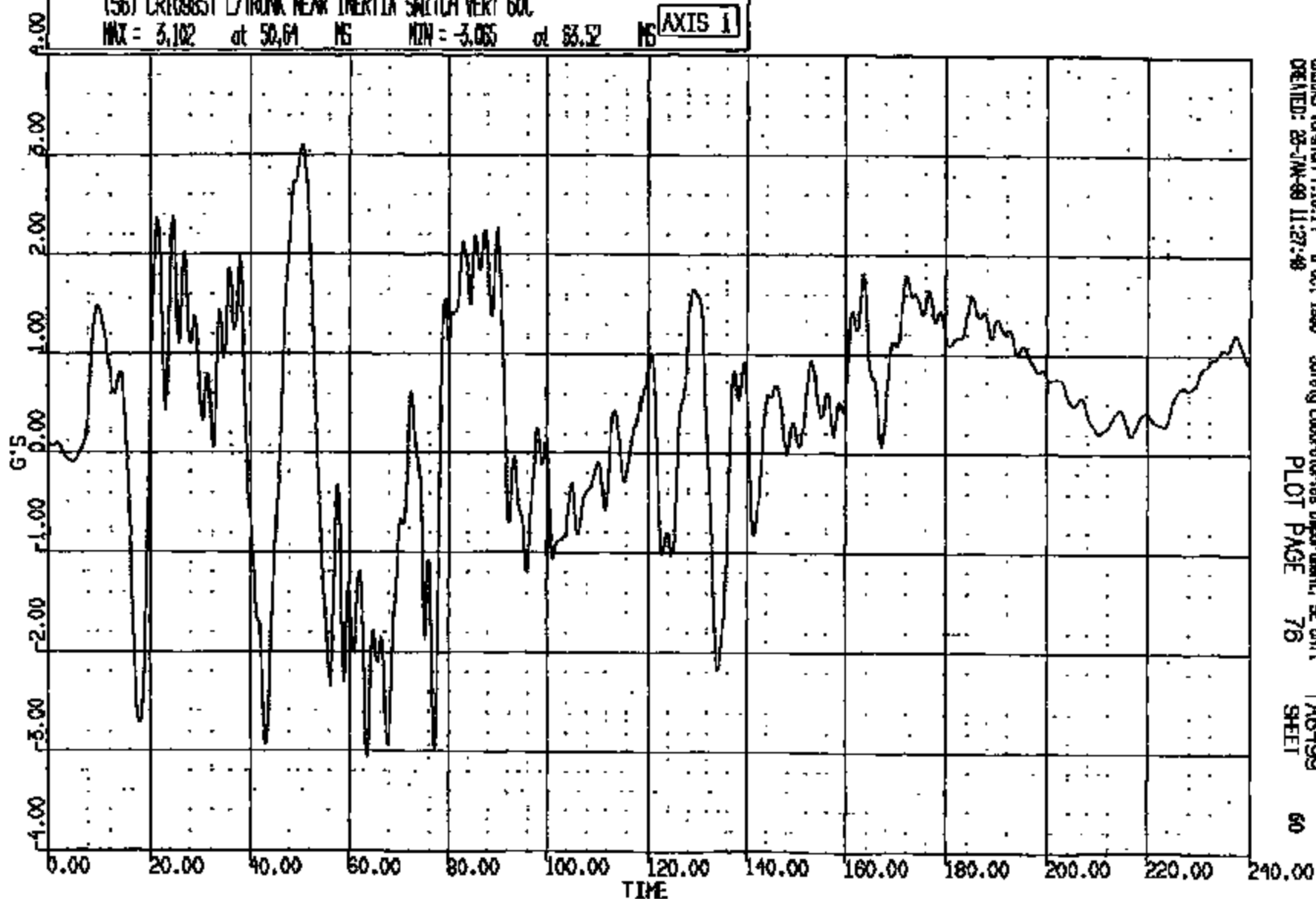
CRTS 0010985

CR R: 10985 TO: TAG499 DATE: 980123 10:57:32
1998 FN-148 1998 FN-148

(56) CR10885T L/TRUNK NEAR INERTIA SWITCH VERT GOC

MAX = 3.102 at 50.61 MS MIN = -3.065 at 83.52 MS

AXIS 1



CASIS Version 1.16.14 - 8-Oct-1998
CREATED: 28-JAN-98 11:27:48

Safety Laboratories Department, SE Unit
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TAG499
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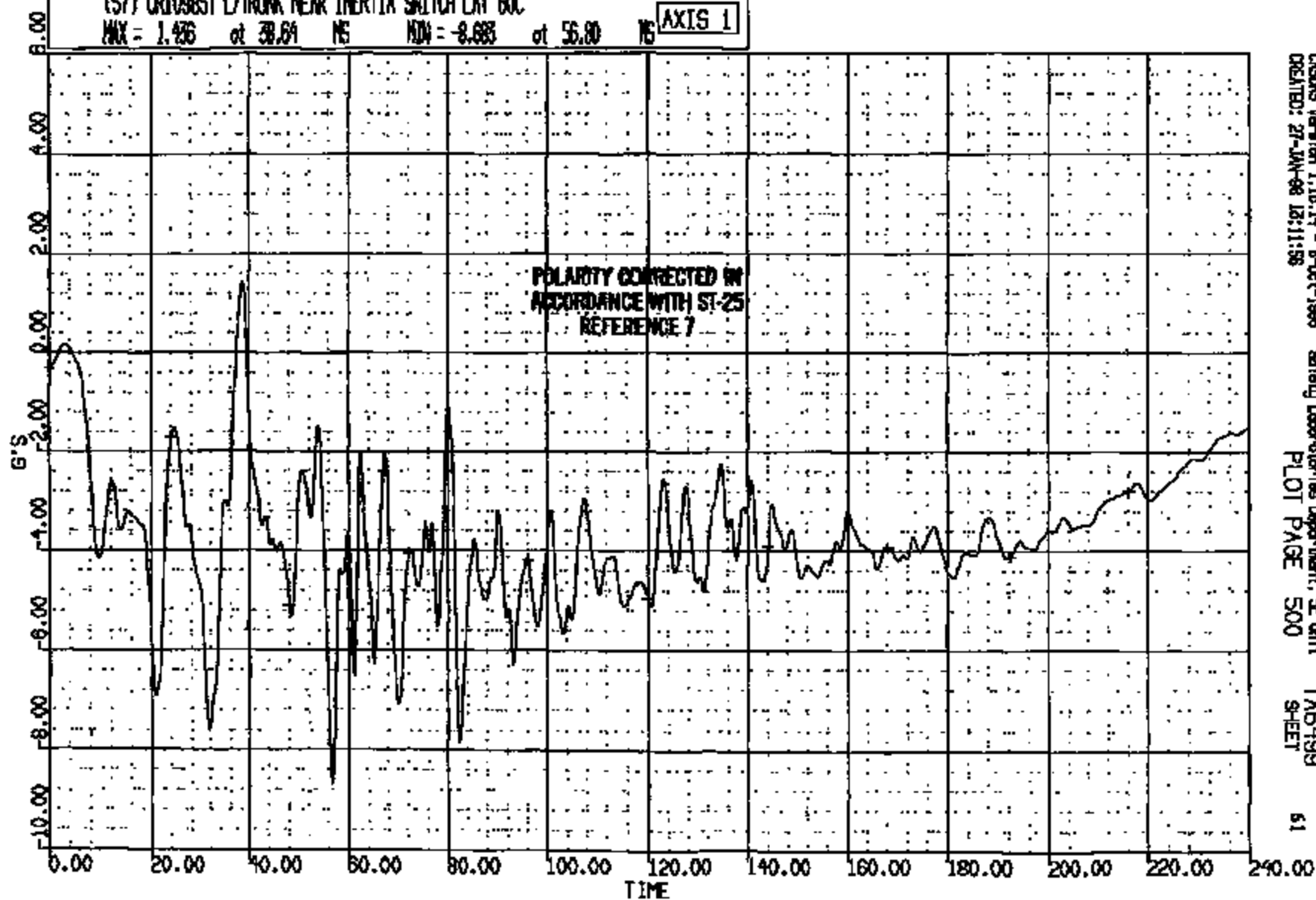
CRTS 0010985

CR 7: 10985 TO: TA6499 DATE: 880125 10:57:32
1988 FN-146 MOVING DEFORMABLE BA

(57) CR109851 L/TRUNK NEAR INERTIA SWITCH LAT 60C

MAX = 1.435 at 38.64 NS MIN = -8.683 at 56.00 NS

AXIS 1



CASMS Version 1.16.14 - 8-Oct-1986
CREATED: 27-JAN-88 12:11:58

Safety Laboratories Department, SE Unit
PLOT PAGE 500

TA6499
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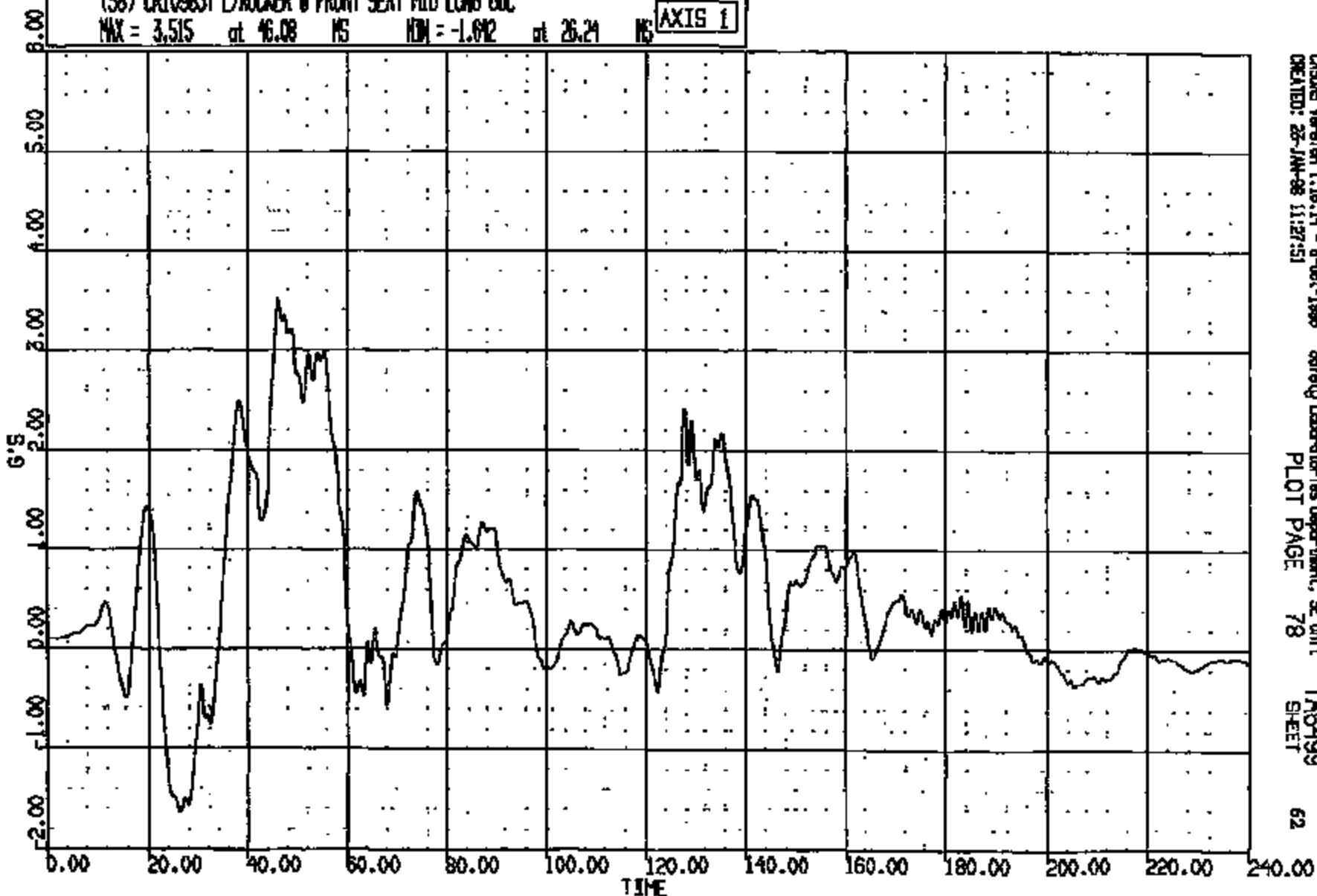
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CR R: 10985 TO: TAG499 DATE: 980125 10:57:32
1999 FN-145 1999 FN-145

(58) CR109851 L/ROCKER @ FRONT SEAT MID LONG GNC

MAX = 3.515 at 46.08 MS MIN = -1.042 at 26.24 MS

AXIS 1



CASOE Version 1.16.14 - 8-Oct-1996
CREATED: 28-JAN-98 11:27:51

Safety Laboratories Department, SE Unit
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TAG499
SHEET 62

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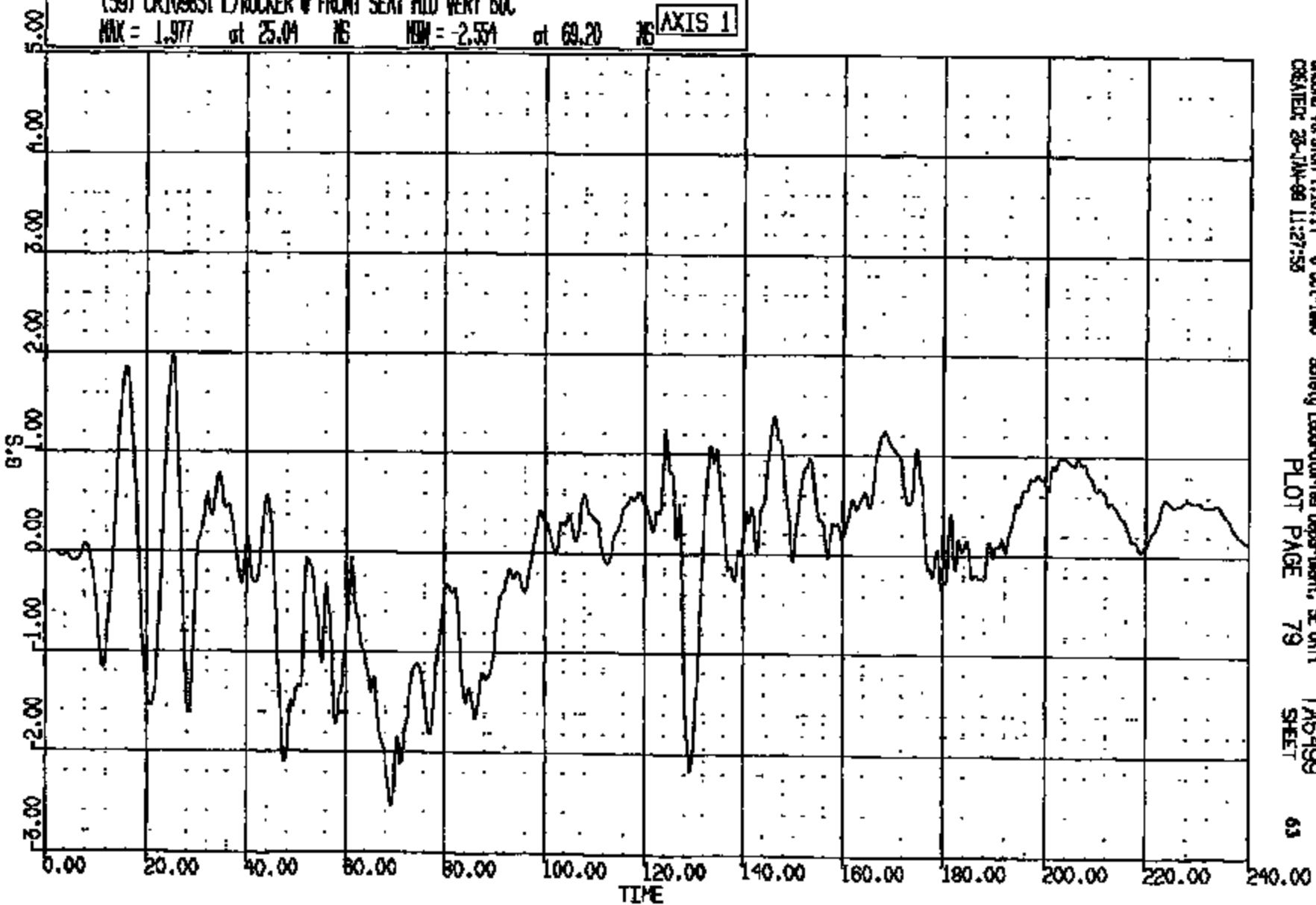
CRTS 0010985

CR R: 10985 TO: TAB499 DATE: 980123 10:57:32
1999 FN-145 1999 FN-145

(59) CR10985 L/ROCKER @ FRONT SEAT MID VERT SOC

MAX = 1.977 at 25.04 MS MIN = -2.551 at 69.20 MS

AXIS 1



CHOMS Version 1.16.14 - 8-Oct-1999
CREATED: 28-JAN-99 11:27:53

Safety Laboratories Department, SE Unit
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TAB499
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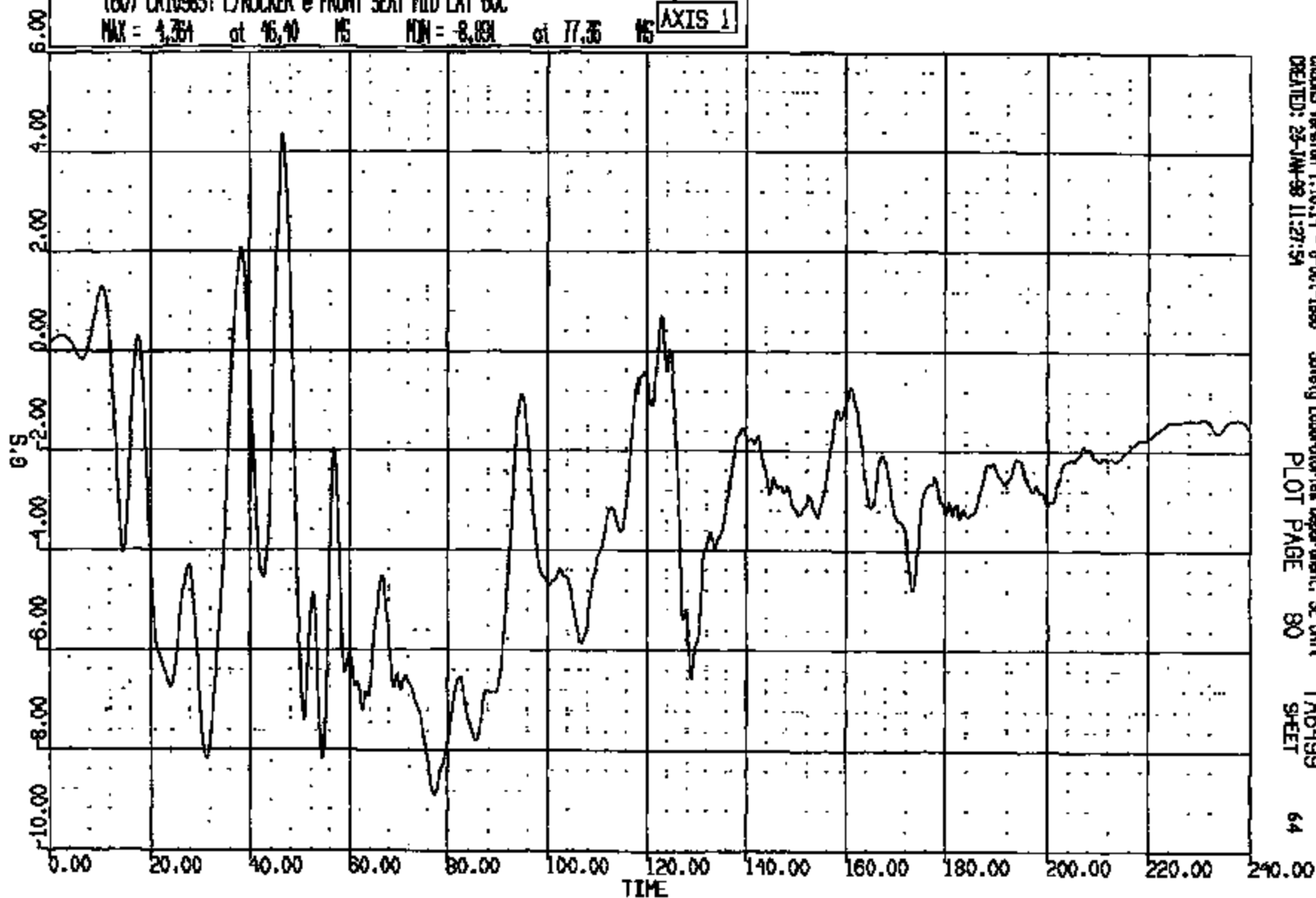
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CR R: 10985 TO: TA6499 DATE: 980128 10:57:32
1999 FN-145 1999 FN-145

(60) CR10985 L/ROCKER @ FRONT SEAT MID LAT 60C

MAX = 4.364 at 46.40 MS MIN = -8.834 at 77.36 MS

AXIS 1



CASIMS Version 1.16.14 - 8-Oct-1998
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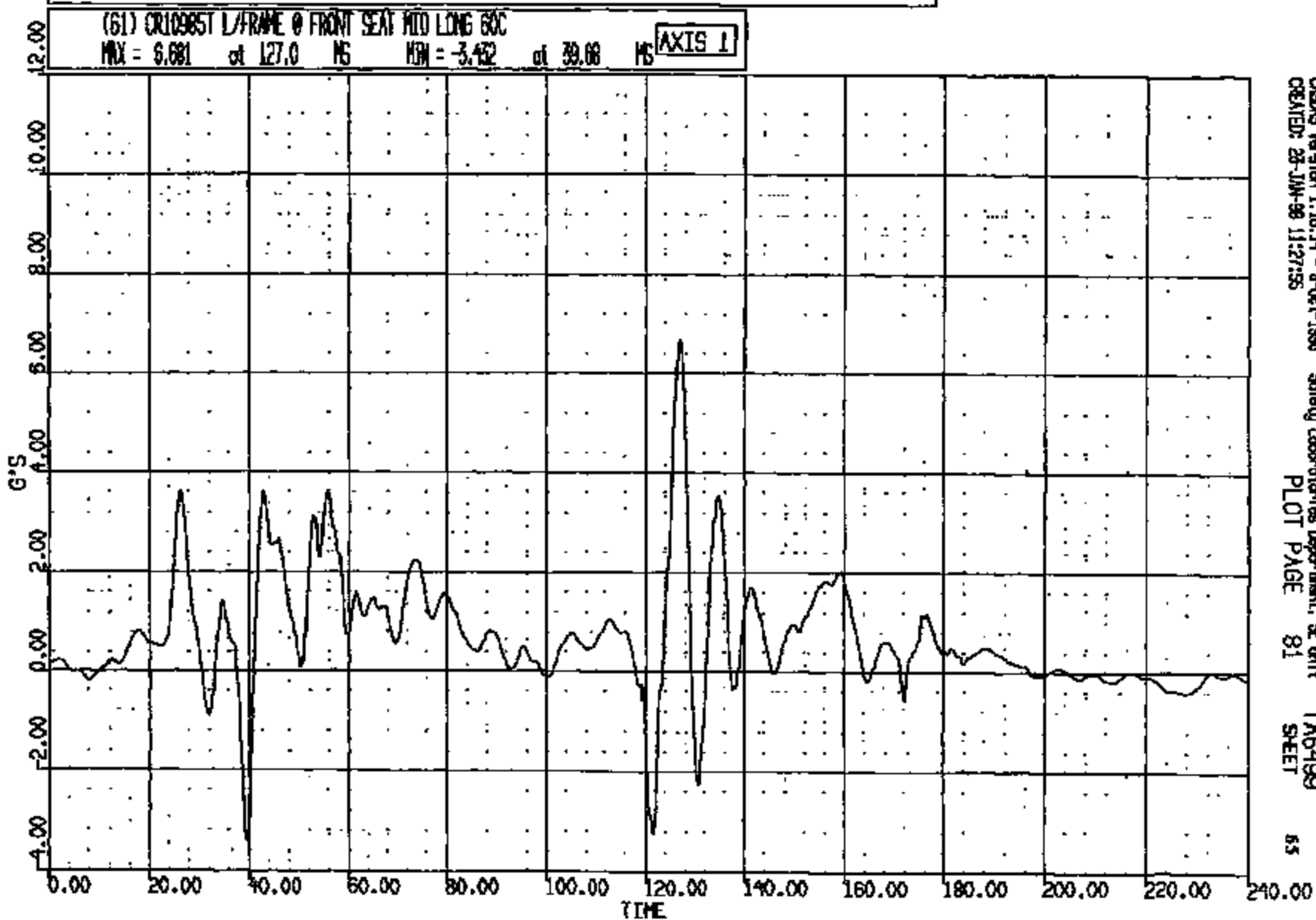
Safety Laboratories Department, SE Unit
PLOT PAGE 80

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SHEET 64

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CRTS 0010985

CR R: 10985 TO: TAB499 DATE: 980125 10:57:32
1999 FN-145 1999 FN-145



CRS Version 1.16.14 - 8-Oct-1998
CREATED: 25-JUN-98 11:27:55

Safety Laboratories Department, SE Unit
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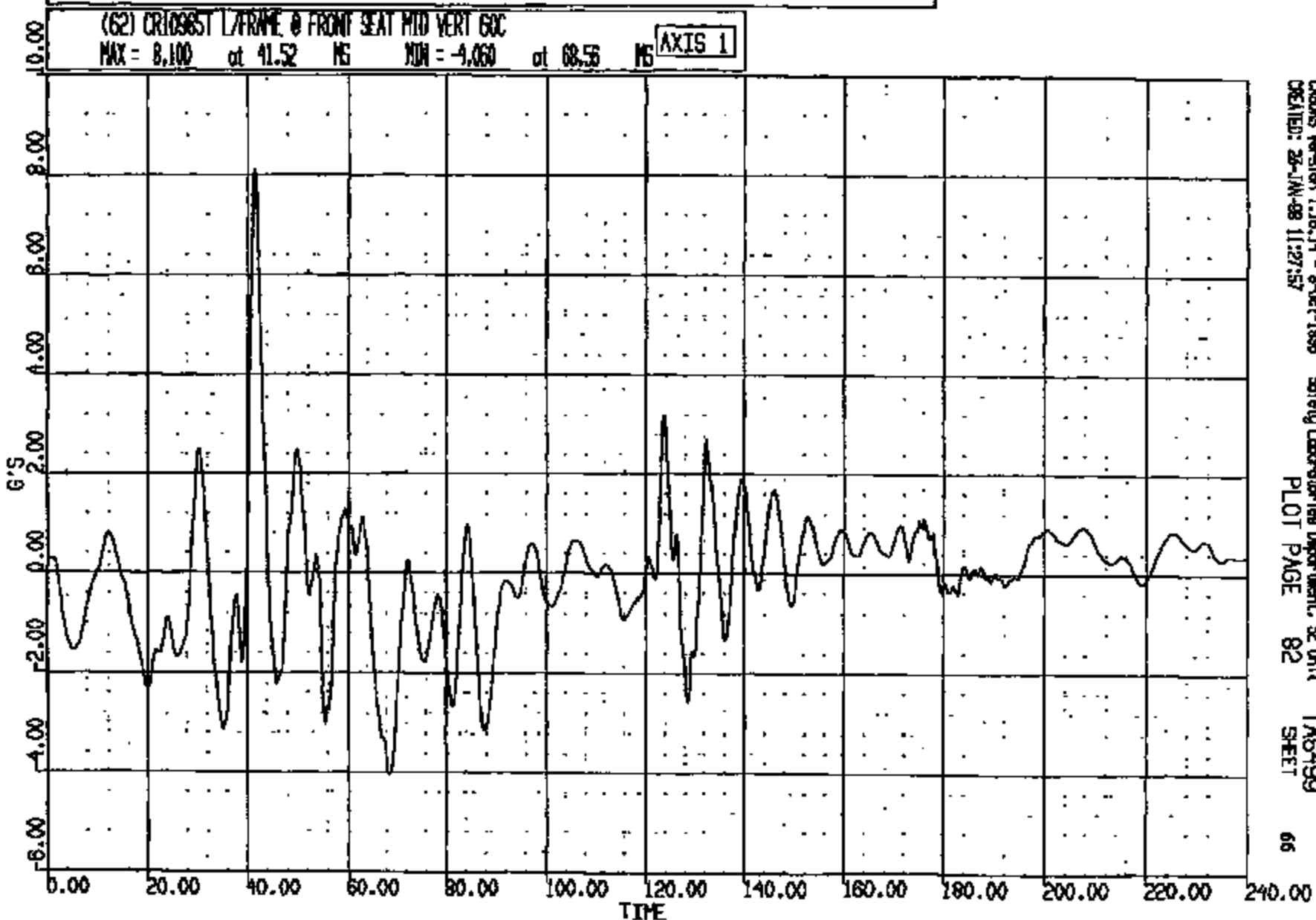
TAB499
SHEET

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CRIS 0010985

CR R: 10985 TC: TA6499 DATE: 990128 10:57:32
1999 FN-145 1999 FN-145



CASIMS Version 1.16.14 - 8-Oct-1999
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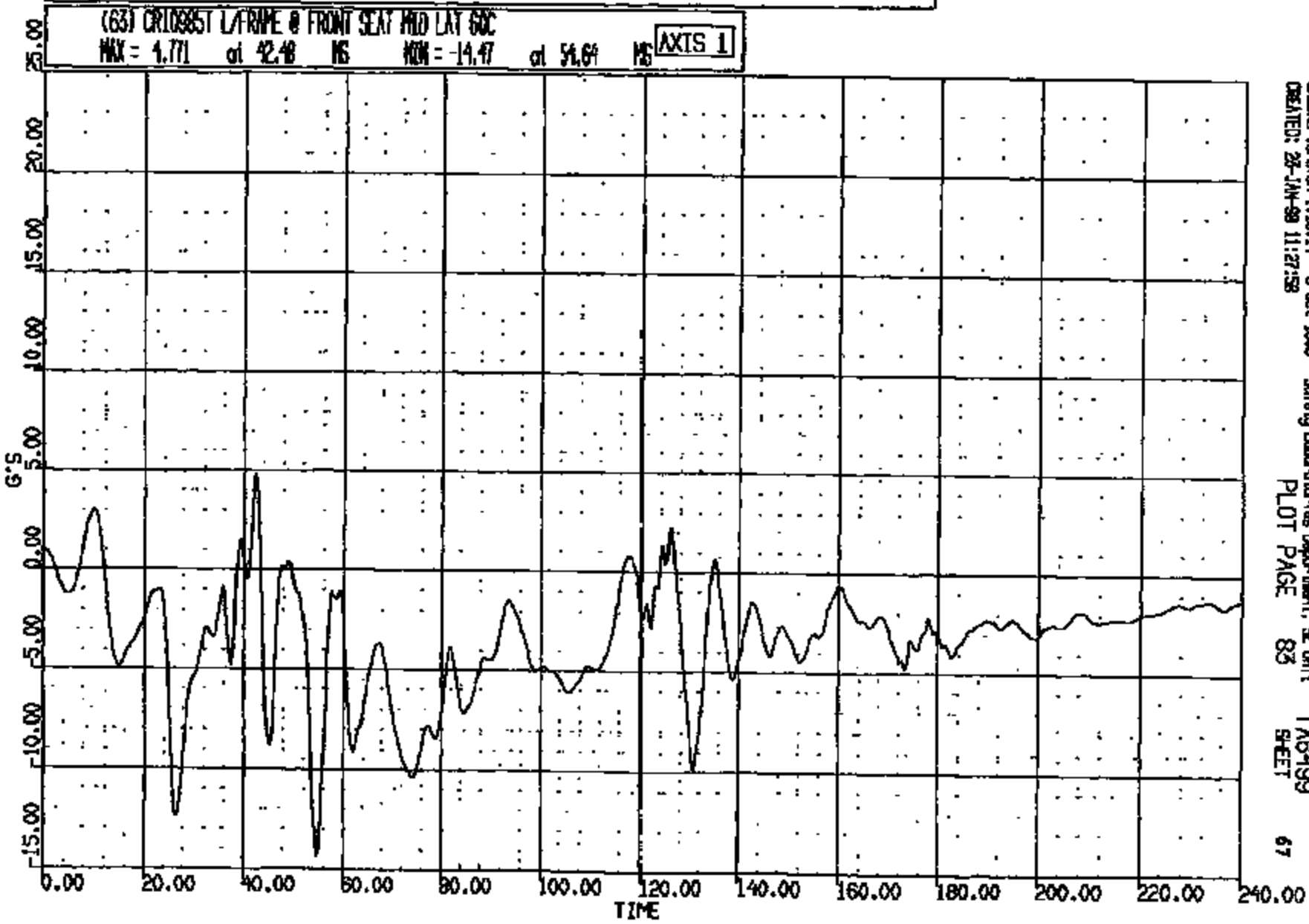
Safety Laboratories Department, SE Unit
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TA6499
SHEET 66

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CRIS 0010985

CR R: 10985 TO: TAB499 DATE: 980128 10:57:32
1999 FN-145 1999 FN-145



CASHE Version 1.16.14 - 9-Oct-1996
CREATED: 28-JAN-98 11:27:58

Safety Laboratories Department, E Unit
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TAB499
SHEET

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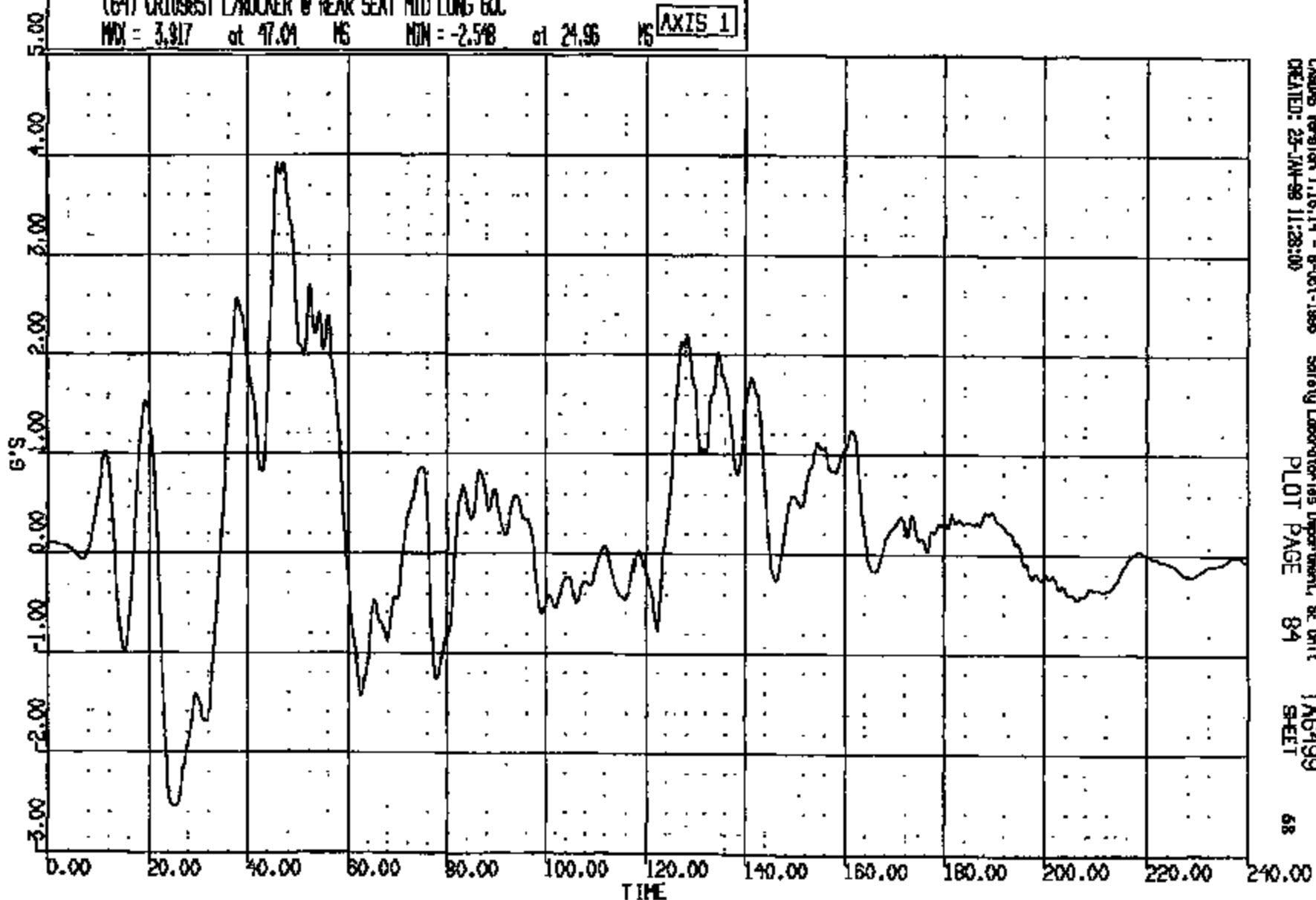
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CR R: 10085 TO: TAB499 DATE: 980125 10:57:32
1999 FN-148 1999 FN-148

(64) CRUISEST L/ROCKER @ REAR SEAT MID LONG GOC

MAX = 3.917 at 47.04 MS MIN = -2.548 at 24.96 MS

AXIS 1



CASUS Version 1.16.14 - 8-Oct-1998
CREATED: 25-JAN-98 11:28:00

Safety Laboratories Department, SE Unit
PLOT PAGE 84

TAB499
SHEET

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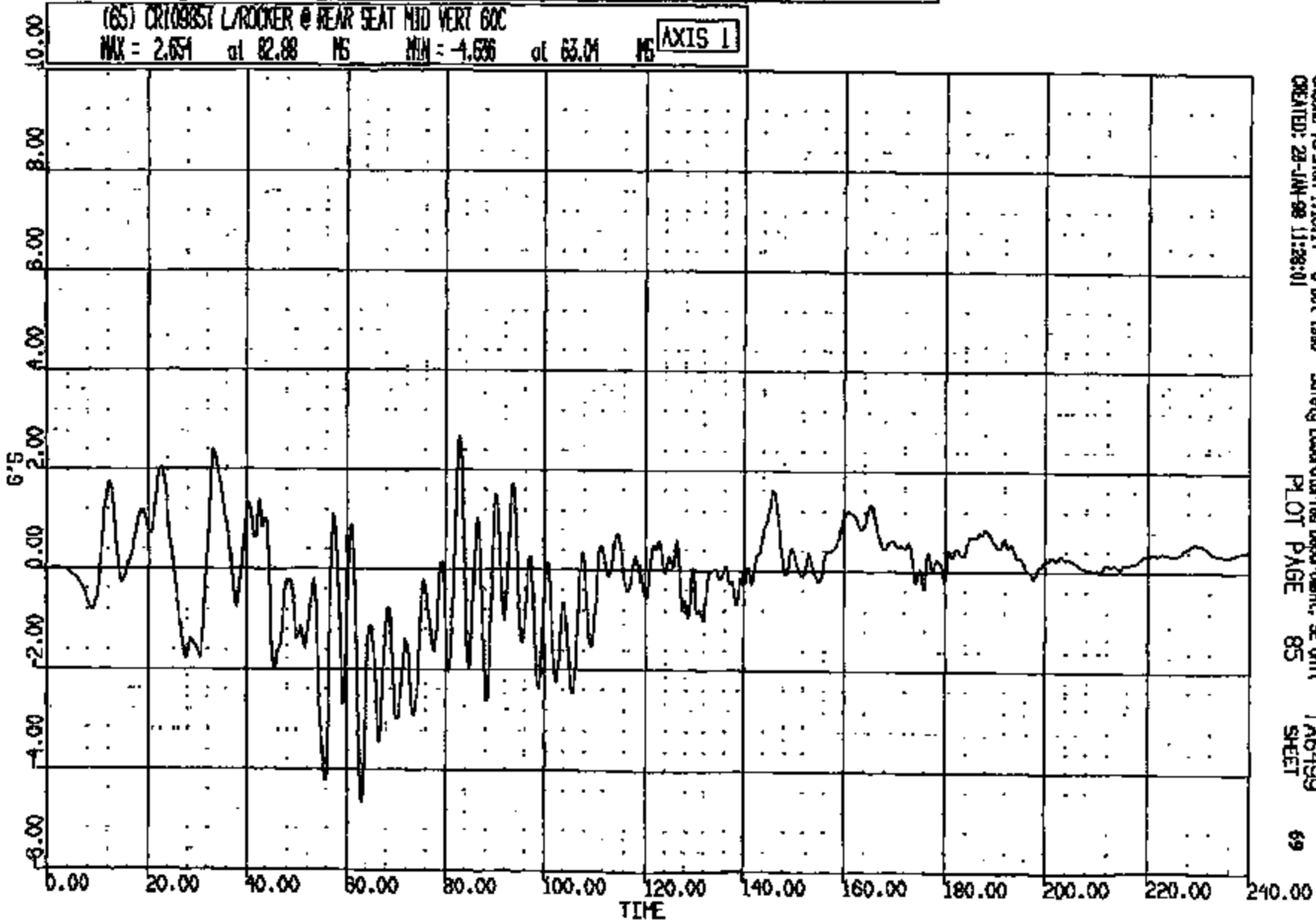
CRIS 0010985

CR R: 10985 TO: TAB+99 DATE: 980125 10:57:52
1998 FN-145 1999 FN-145

(65) CR10985T L/ROCKER @ REAR SEAT MID VERT GOC

MAX = 2.651 at 82.88 MS MIN = -4.636 at 63.04 MS

AXIS 1



CASUS Version 1.16.14 - 8-Oct-1998
CREATED: 28-JAN-98 11:28:01

Safety Laboratories Department, SE Unit
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TAB499
SHEET

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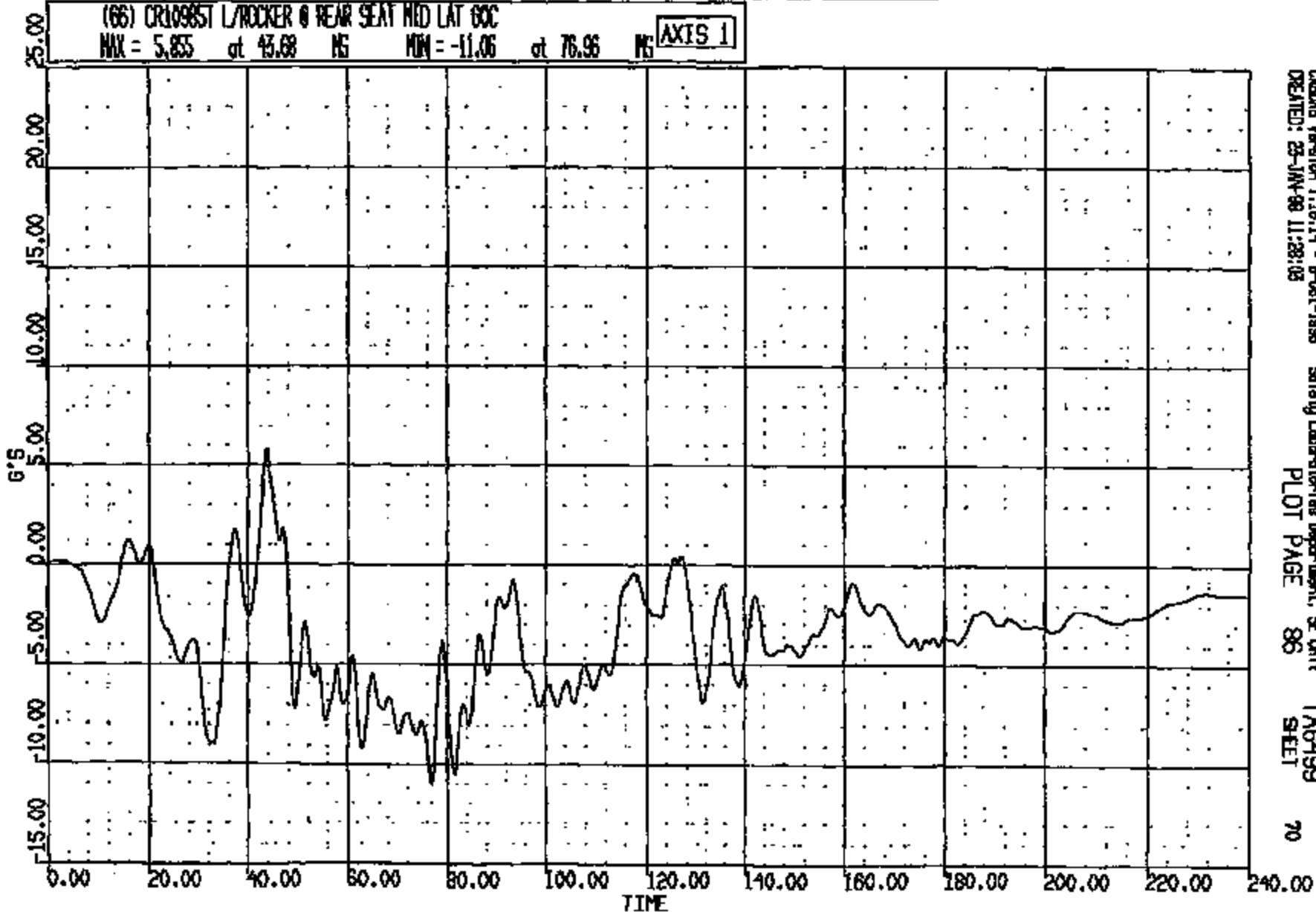
CRITS 0010985

CR R: 10985 TO: TA6499 DATE: 990128 10:57:52
1999 FN-145 1999 FN-145

(66) CR10985T L/ROCKER @ REAR SEAT MED LAT 60C

MAX = 5.855 at 43.68 NG MIN = -11.06 at 76.96 NG

AXIS 1



CASAS Version 1.16.14 - 8-Oct-1999
CREATED: 23-JAN-99 11:28:03

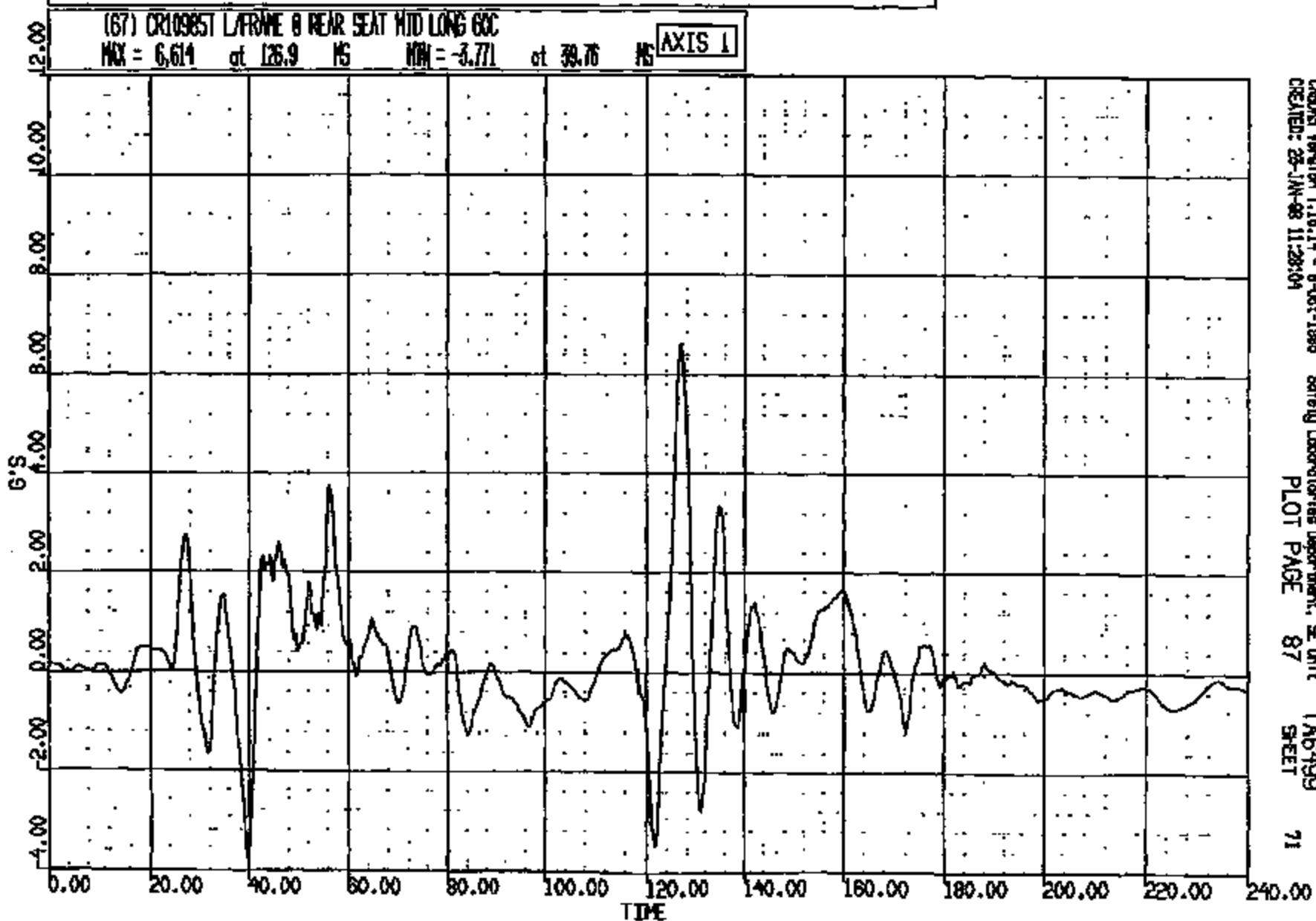
Safety Laboratories Department, SE Unit
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CRTS 0010985

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1999 FN-145 1999 FN-145



CADMS Version 1.18.14 - 8-Oct-1999
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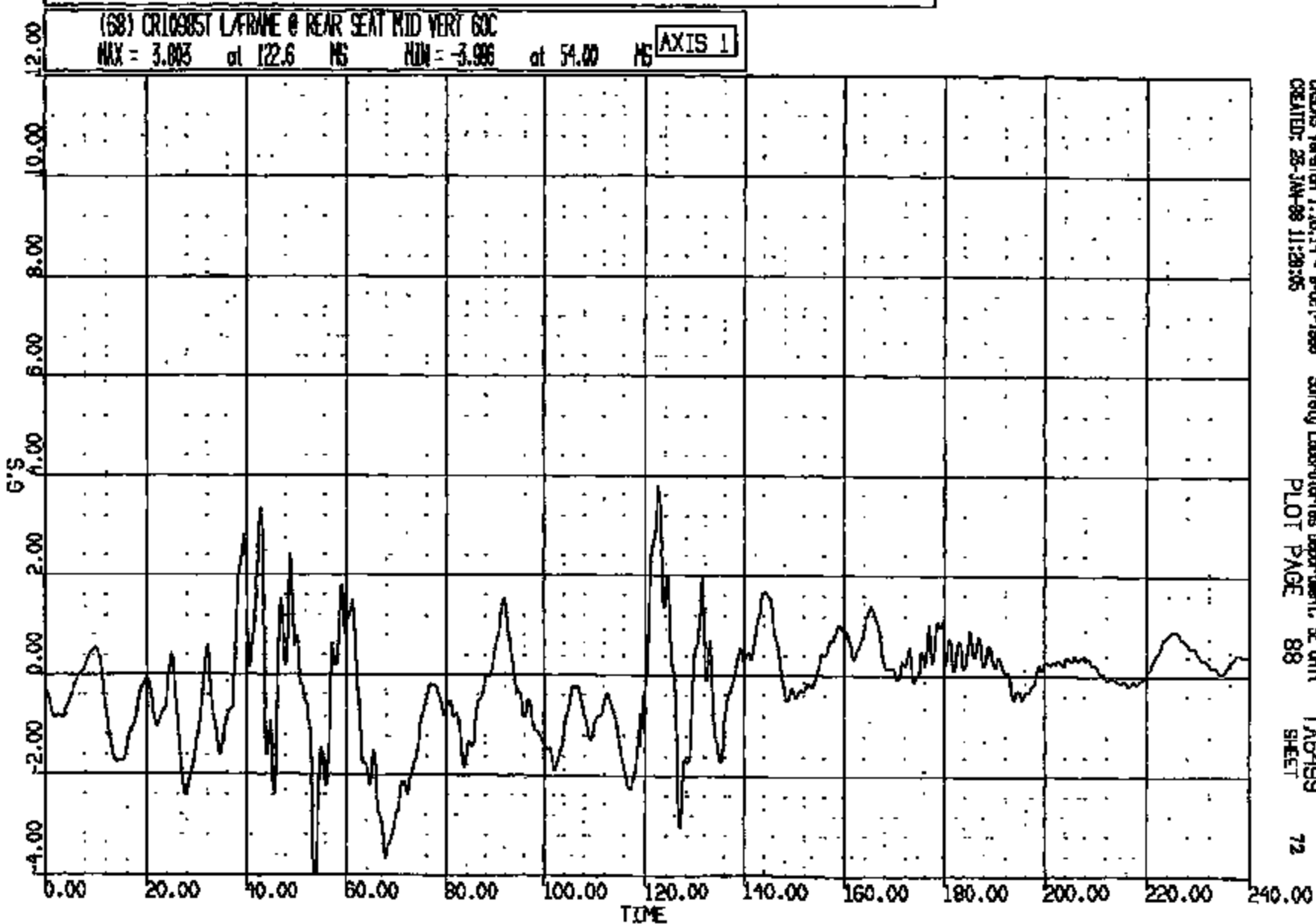
Safety Laboratories Department, SE Unit
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CRITS 0010985

CR R: 10985 TO: TA6498 DATE: 880128 10:57:32
1988 FN-145 1988 FN-146



CRIS 0010985

CADDS Version 1.16.14 - B-0-1-1986
CREATED: 28-JAN-88 11:28:05

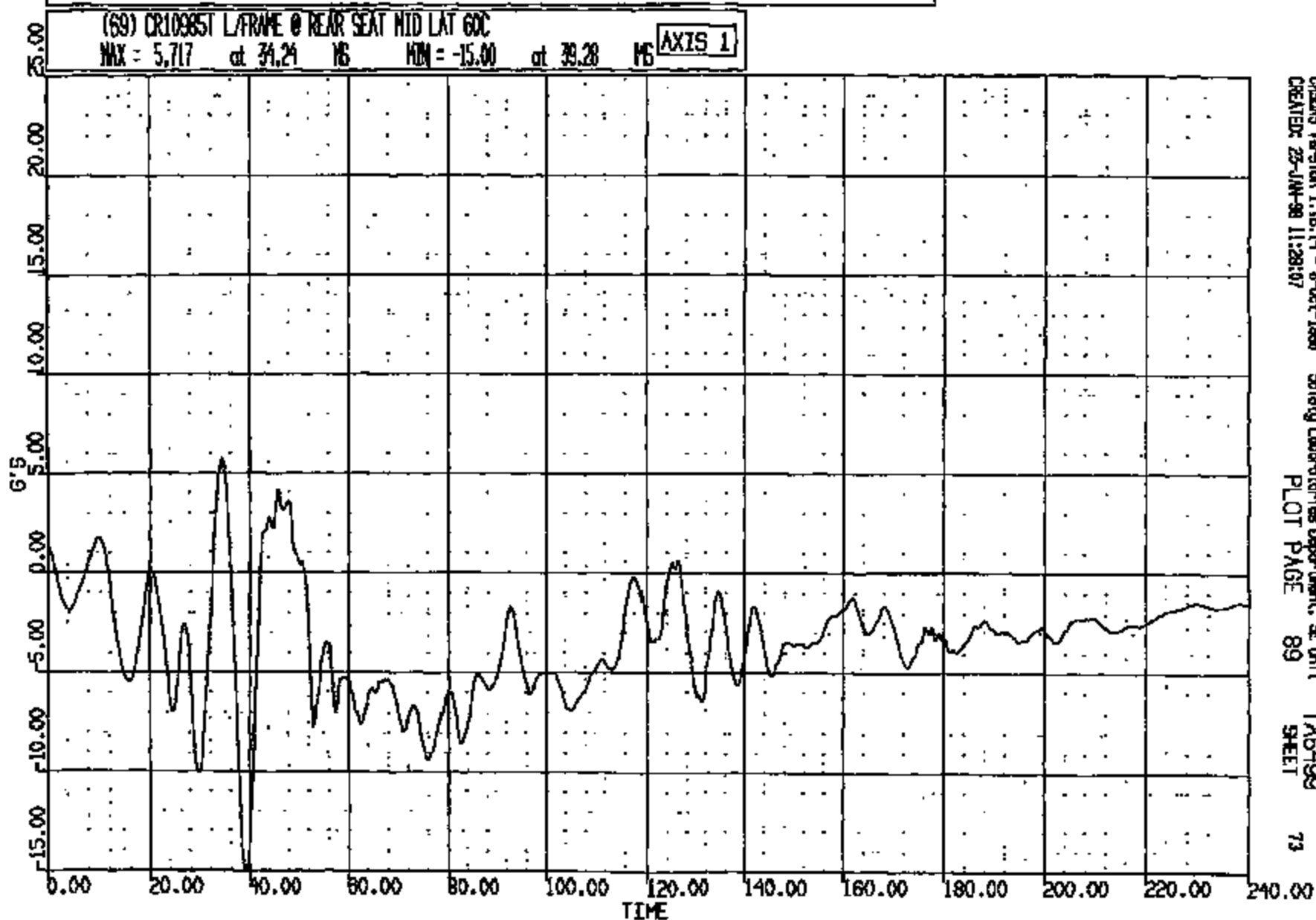
Safety Laboratories Department, SE Unit
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TA6499
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CR R: 10985 TD: TAG499 DATE: 980123 10:57:32
1999 FN-148 1999 FN-148



CASIS Version 1.16.19 - 8-Oct-1996
CREATED: 25-JUN-98 11:28:07

Safety Laboratories Department, SE Unit
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TAG499
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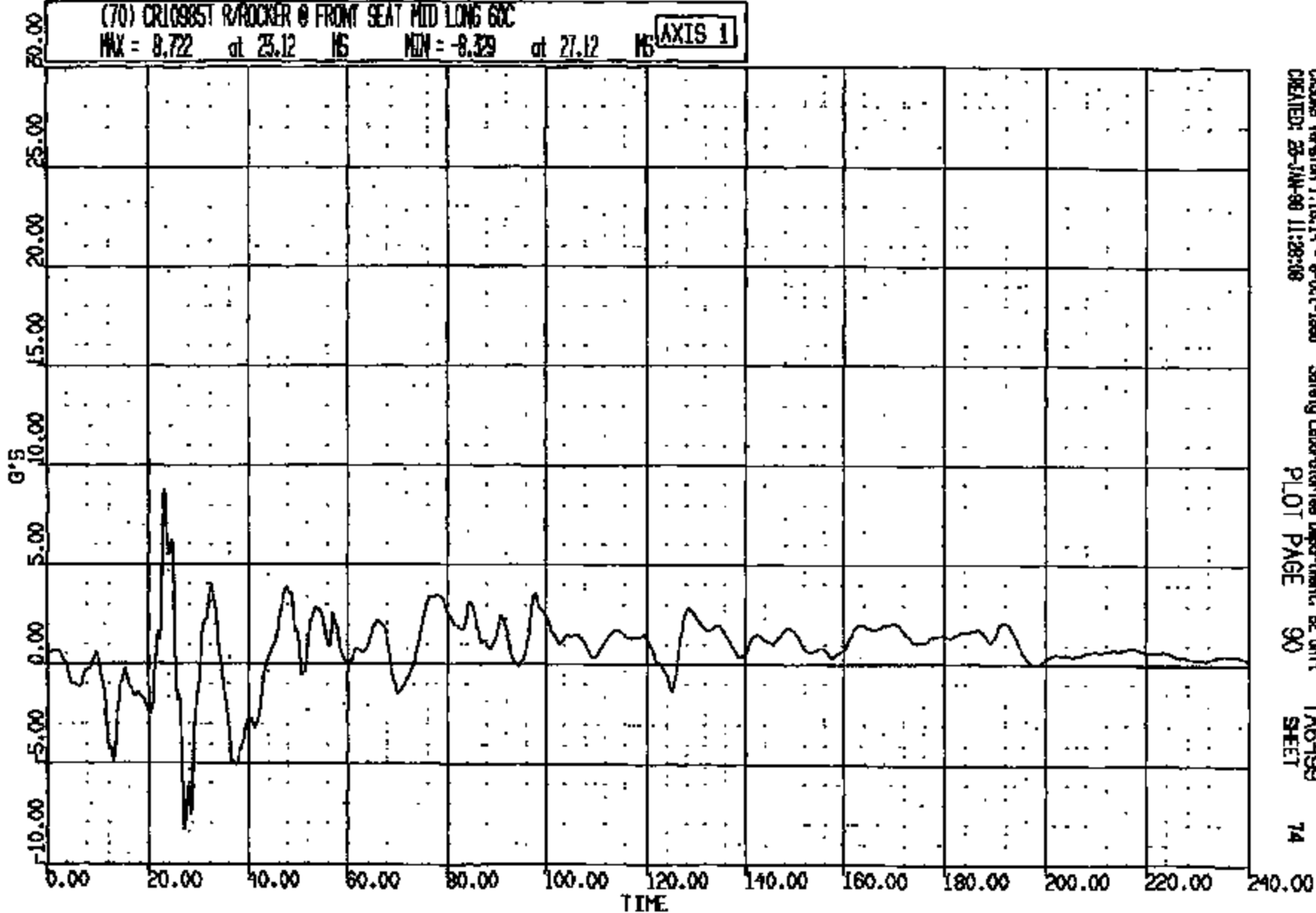
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1999 FN-145 1999 FN-145

(70) CR109851 R/ROCKER @ FRONT SEAT MID LONG GNC

MAX = 8.722 at 23.12 MS MIN = -8.329 at 27.12 MS

AXIS 1



CASAS Version 1.18.14 - 8-Oct-1999
CREATED: 28-JAN-99 11:28:08

Safety Laboratories Department, SE Unit
PLOT PAGE 90

TAG499
SHEET 74

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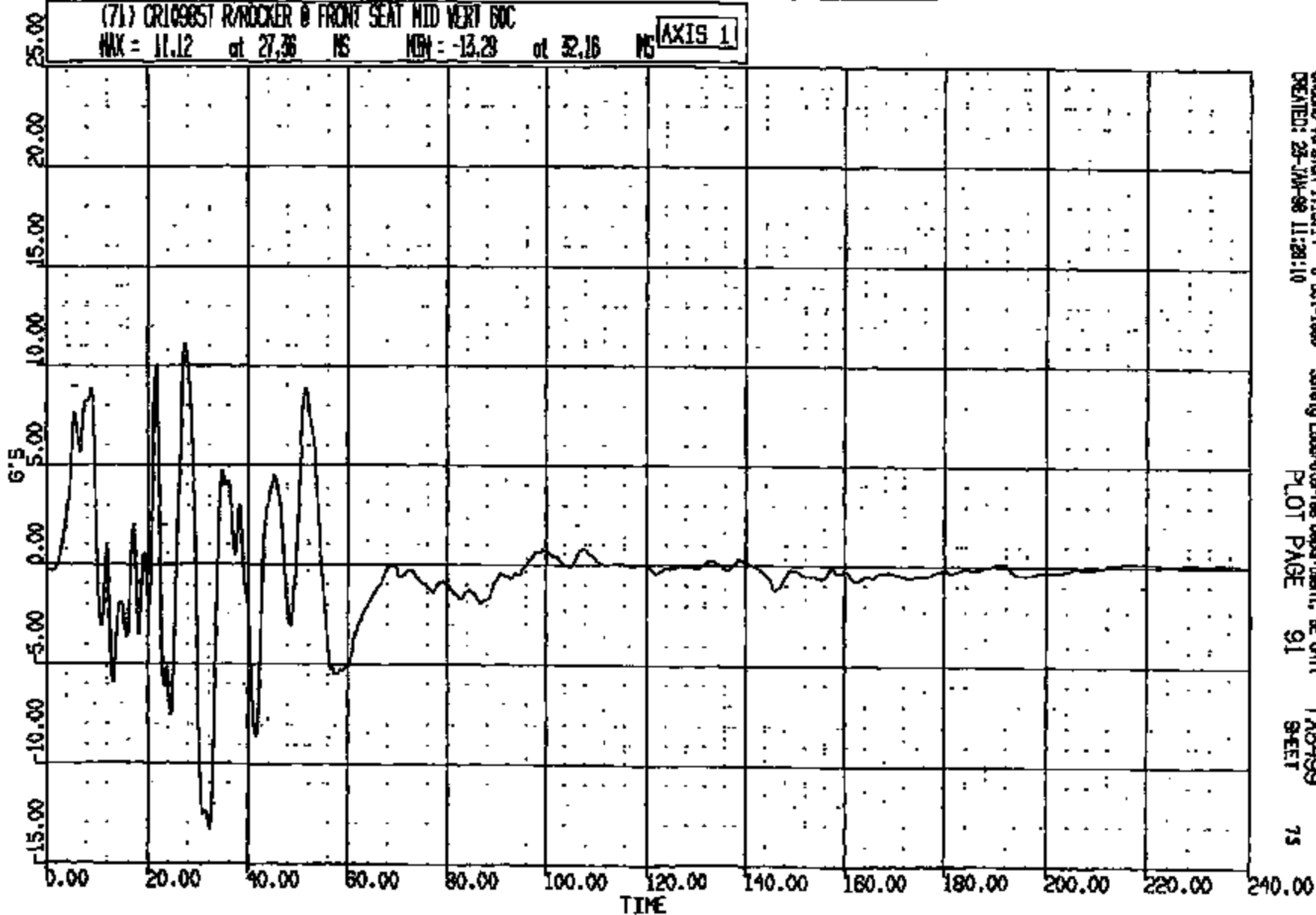
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CR R: 10985 TO: TA6499 DATE: 980123 10:57:32
1999 FN-145 1998 FN-145

(71) CR10985T R/ROCKER @ FRONT SEAT MID VERT GOC

MAX = 11.12 at 27.36 MS MIN = -13.28 at 32.16 MS

AXIS 1



CAEWS Version 1.0.14 - 8-Oct-1998
CREATED: 28-JAN-98 11:28:10

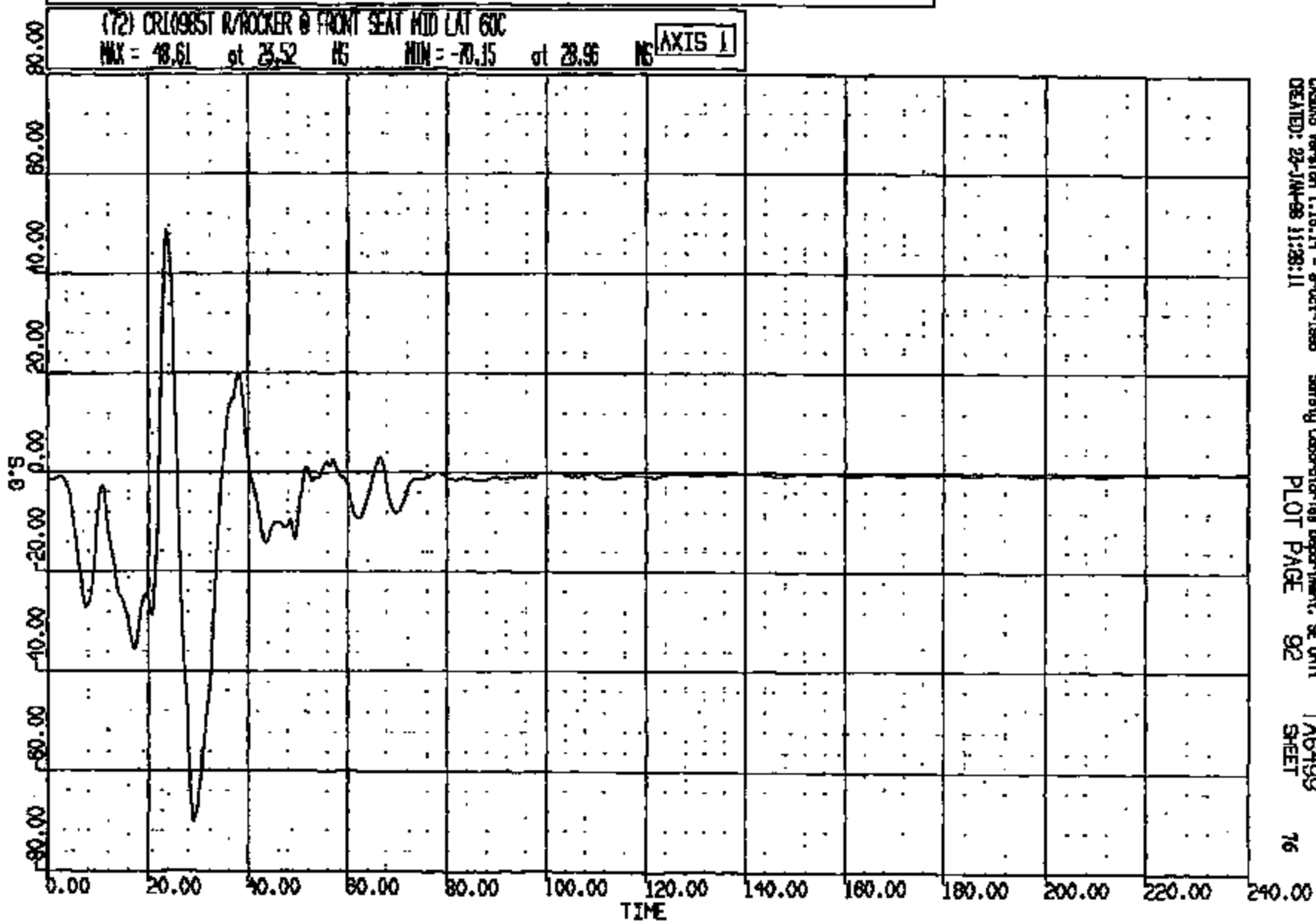
Safety Laboratories Department, SE Unit
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CRTS 0010985

CR R: 10985 TO: TA6499 DATE: 990125 10:57:32
1999 FN-146 1999 FN-146



CASIMS Version 1.16.14 - 8-Oct-1999
CREATED: 22-JAN-98 11:28:11

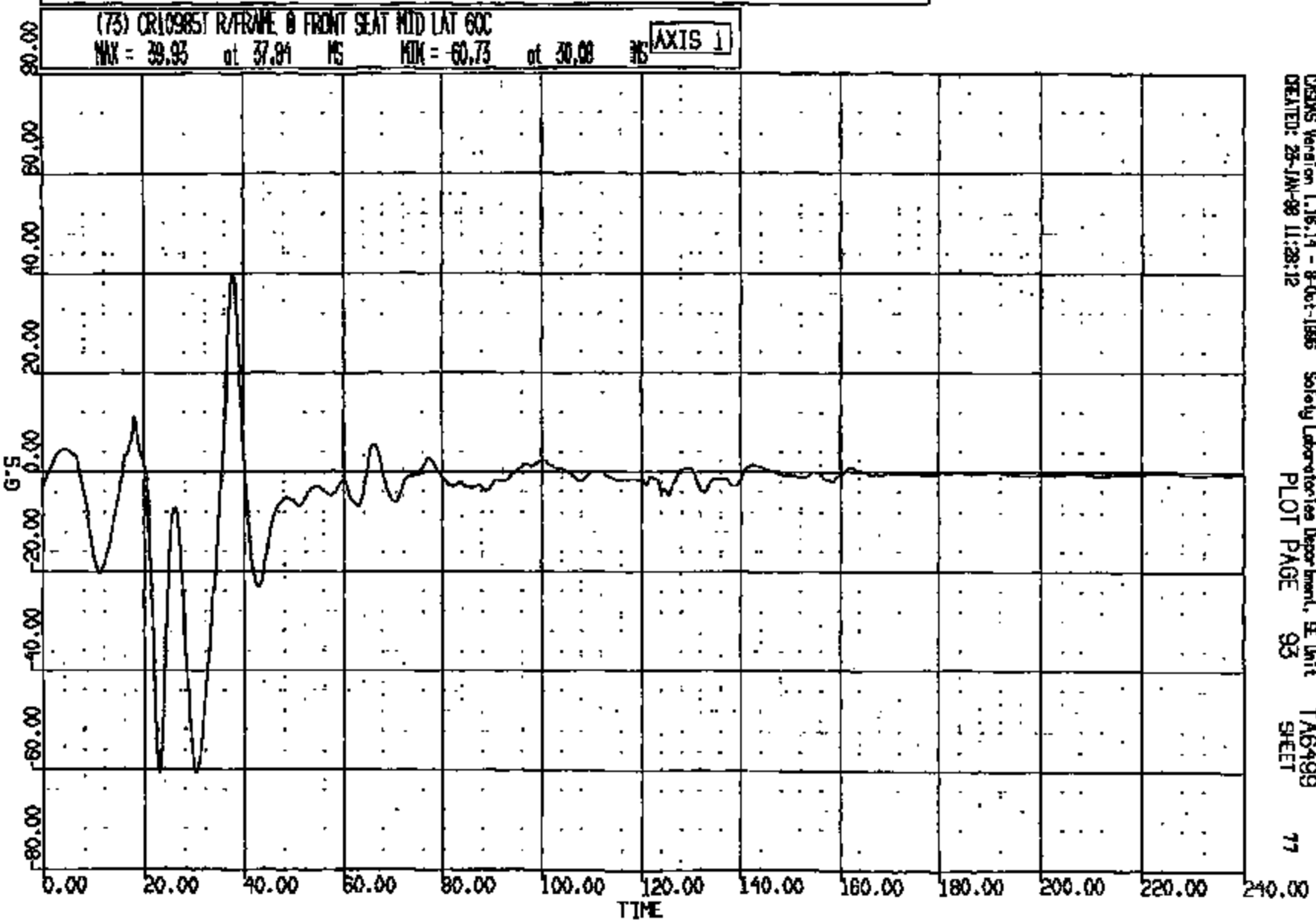
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PLOT PAGE 92

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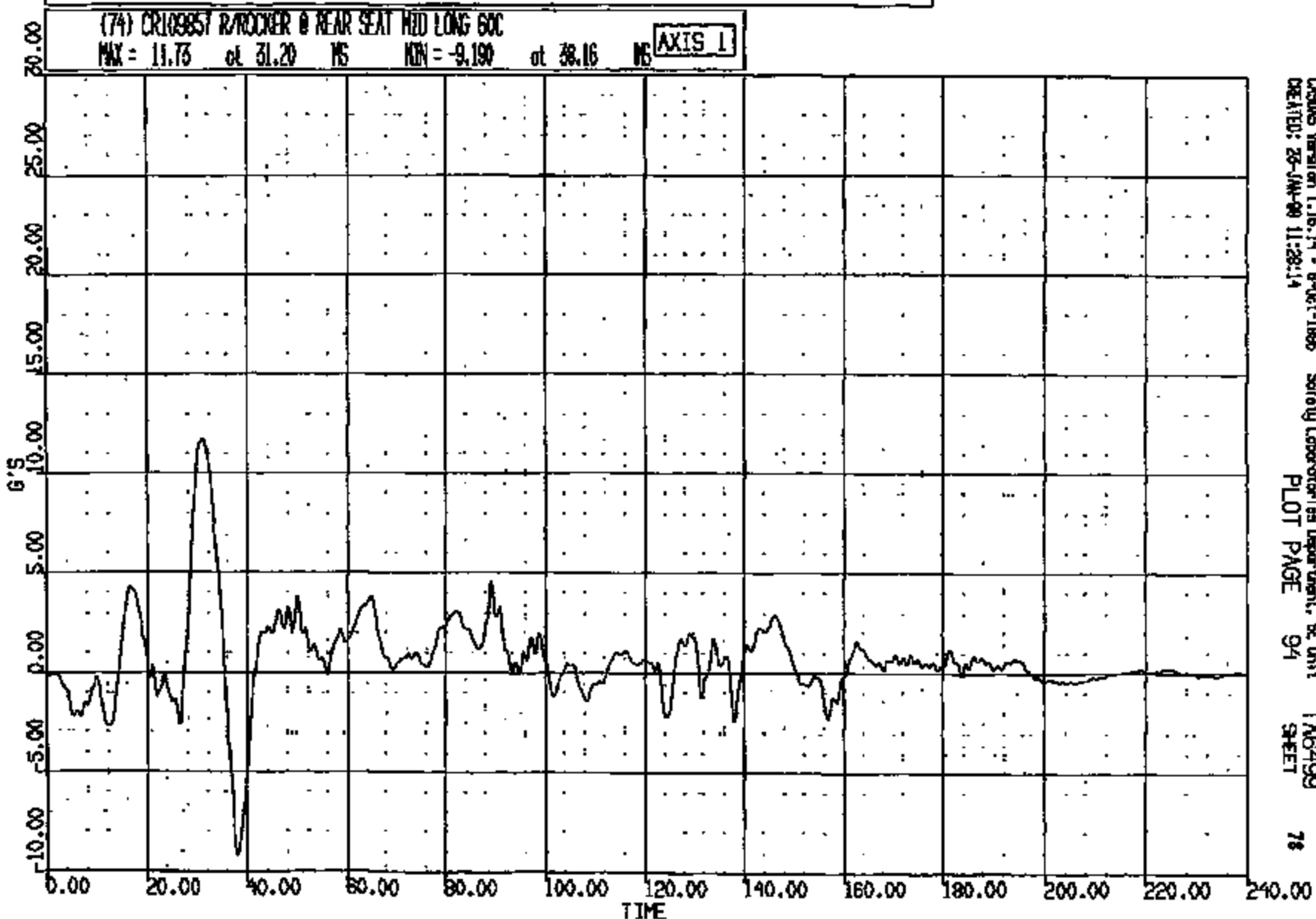
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CRTS 0010985

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CREATED: 25-JAN-98 11:28:12Safety Laboratories Department, E Unit
PLOT PAGE 93T06499
SHEET 77CR R: 10985 TO: T06499 DATE: 980123 10:57:52
1999 FN-145 1999 FN-145

CRIS 0010985

CR R: 10985 TO: TA6499 DATE: 980123 10:57:52
1999 FN-145 1999 FN-145



CASAS Version 1.16.14 - 8-04-1999
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Safety Laboratories Department, SE Unit
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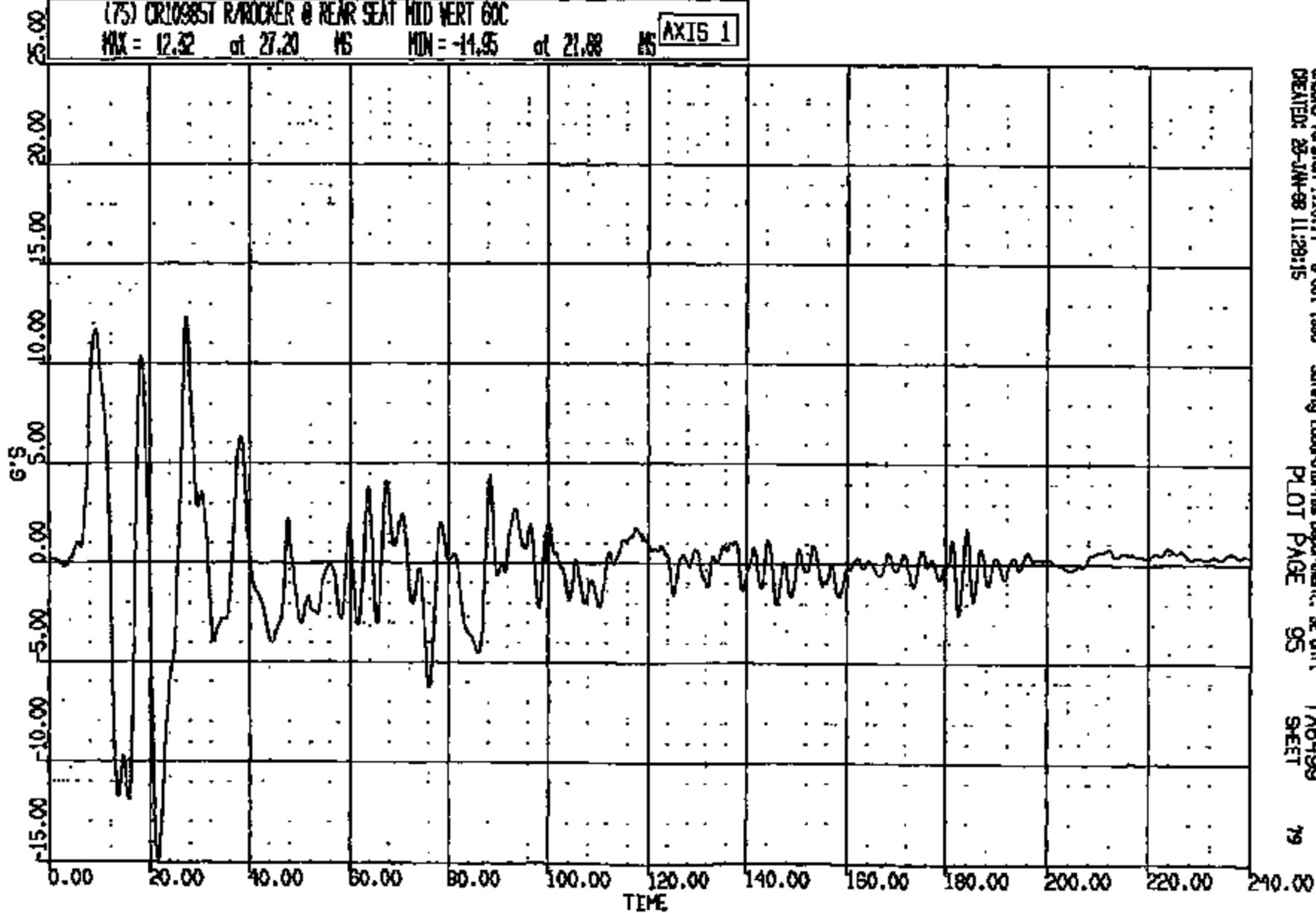
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CR #: 10985 TO: TAB499 DATE: 080123 10:57:32
1998 FN-145 1998 FN-148

(75) CR10985T R/ROCKER @ REAR SEAT MID VERT GOC

MAX = 12.32 at 27.20 MS MIN = -11.95 at 21.88 MS

AXIS 1



CRTS 0010985

CASMS Version 1.18.14 - 8-Oct-1998
CREATED: 28-JAN-98 11:29:15

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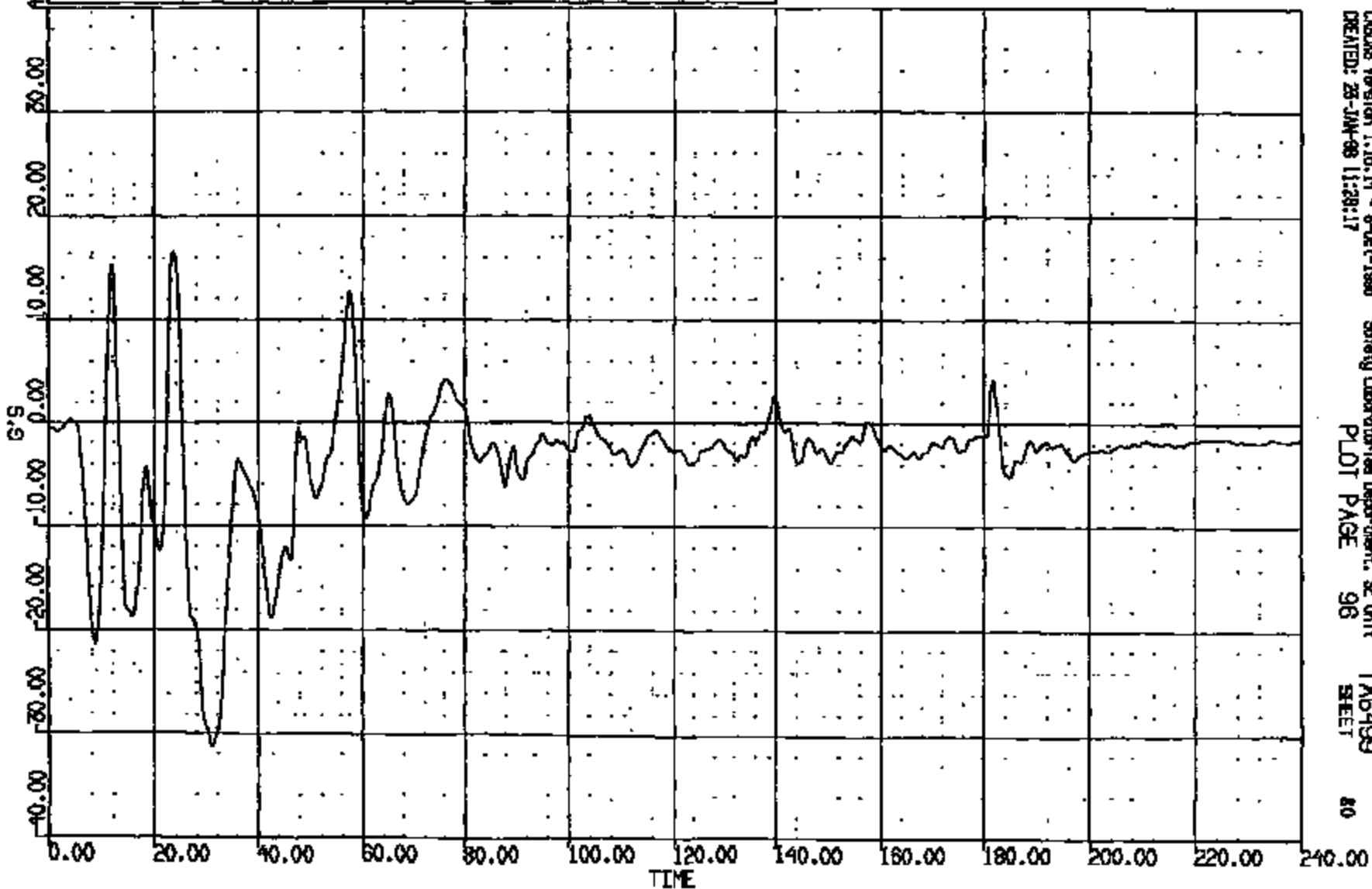
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CR R: 10985 TO: TA6499 DATE: 980128 10:57:32
1998 FN-145 1998 FN-145

(76) CR109857 R/ROCKER @ REAR SEAT MID LAT SOC

MAX = 16.56 at 23.44 MS MIN = -31.42 at 30.96 MS

AXIS 1



CASDB Version 1.16.14 - 8-Oct-1998
CREATED: 28-JAN-98 11:28:17

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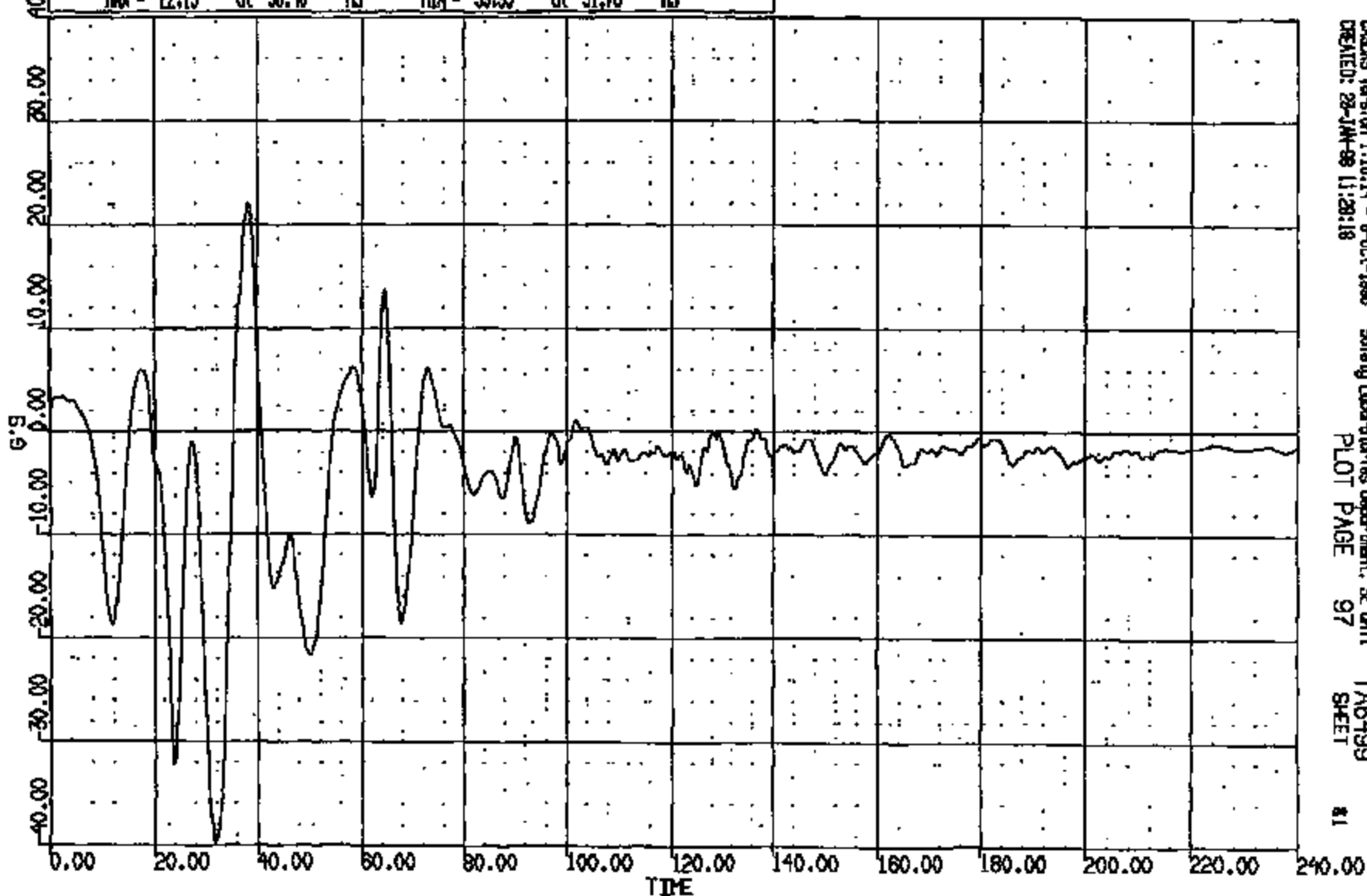
CRTS 0010985

CR #: 10985 TO: TA6499 DATE: 980123 10:57:52
1998 FN-145 1999 FN-145

(77) CR10085T R/FRAME @ REAR SEAT MID LAT 60C

MAX = 22.15 at 38.40 MS MIN = -39.93 at 31.76 MS

AXIS 1



CASIS Version 1.18.14 - 8-Oct-1998
CREATED: 28-JAN-98 11:28:18

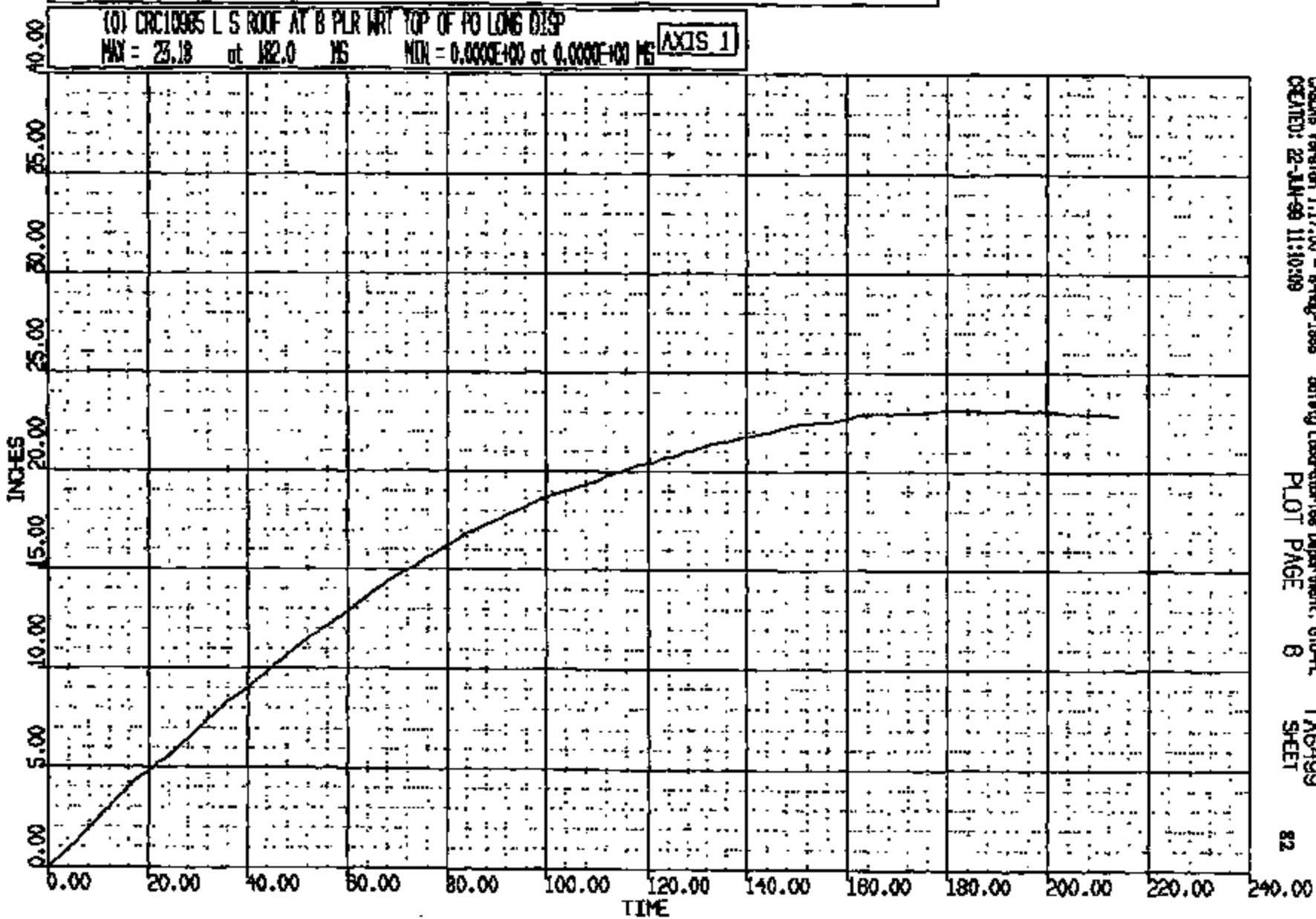
Safety Laboratories Department, SE Unit
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CRTS 0010985

CR R: 10985 TC: TAB499 DATE: 880128 10:57:32
1999 FN-145 1999 FN-145



CASAB Version 1.17.00 - 8-May-1988
CREATED: 22-JUN-99 11:10:09

Safety Laboratories Department, GPO-PL
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TAB499
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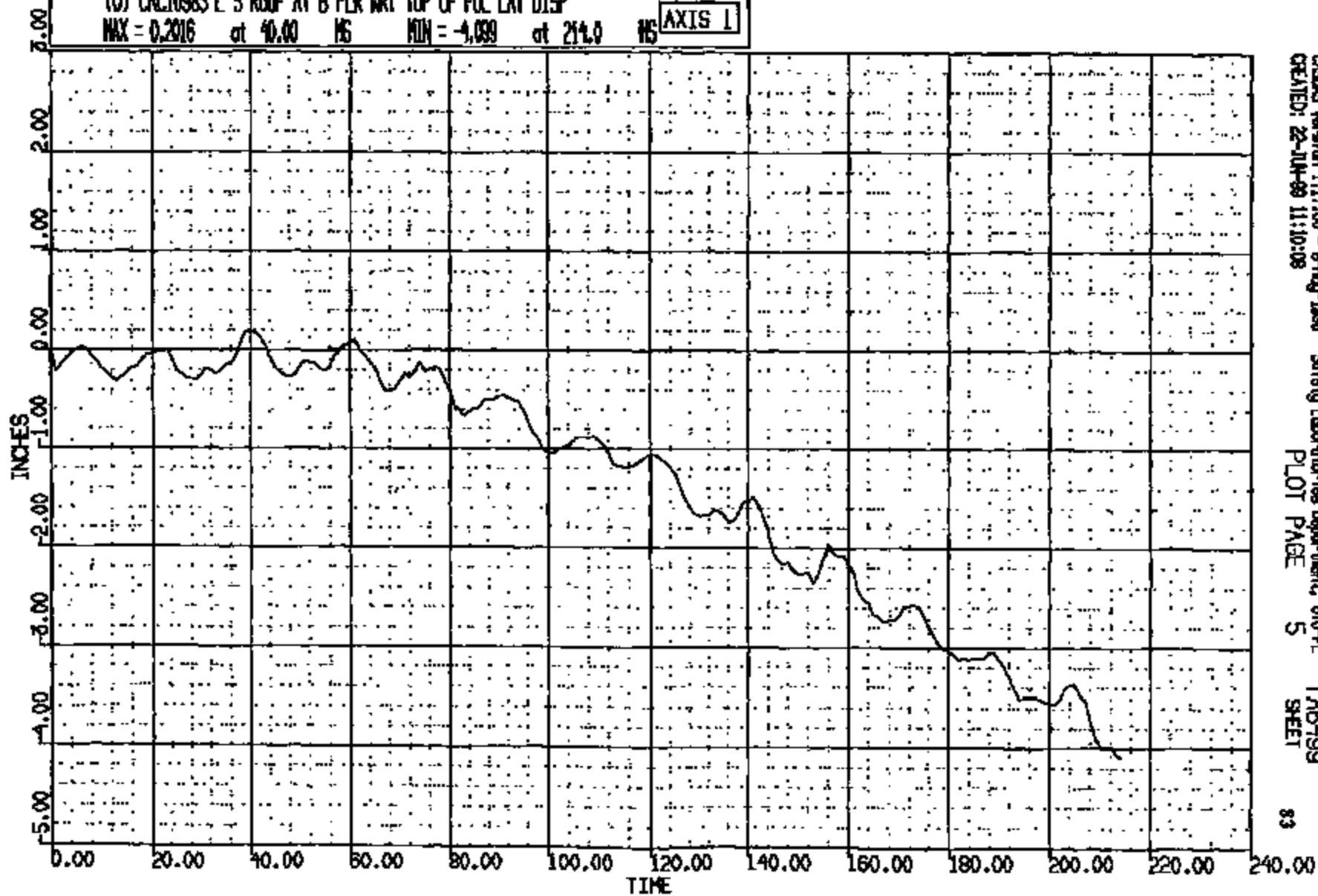
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CR R: 10888 TO: TAG499 DATE: 980128 10:57:32
1999 FN-145 1999 FN-145

(0) CR10885 L S ROOF AT B PLR WRT TOP OF POL LAT DISP

MAX = 0.2016 at 40.00 HS MIN = -4.039 at 214.0 HS

AXIS 1



CASAS Version 1.17.00 - 8-May-1998
CREATED: 22-JUN-99 11:10:08

Safety Laboratories Department, 610 PL
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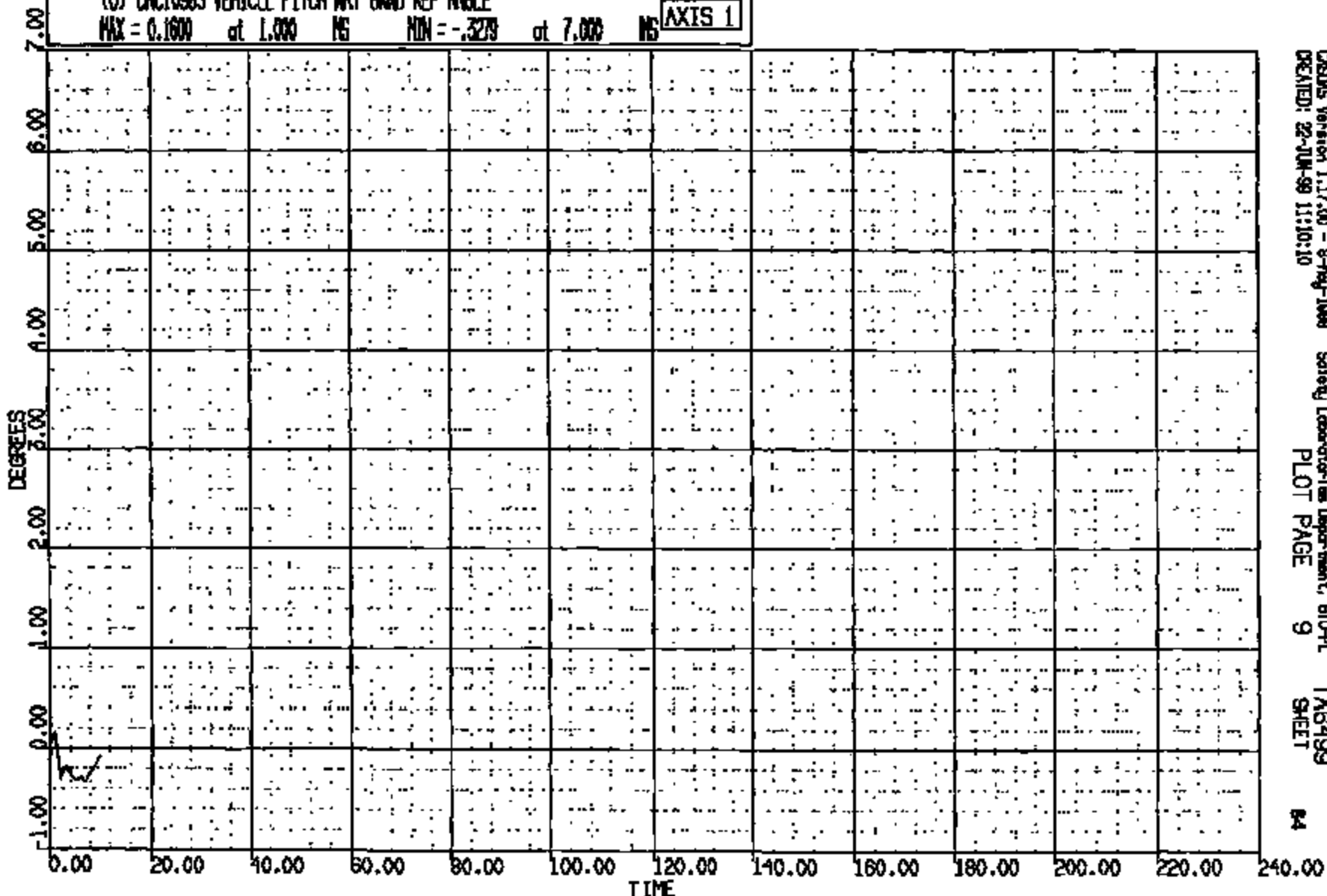
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CRIS 0010985

CR R: 10985 TO: TA6499 DATE: 990125 10:57:52
1999 FN-145 1999 FN-145

(C) CR10985 VEHICLE PITCH WRT GND REF ANGLE

MAX = 0.1600 at 1.000 NS MIN = -.3279 at 7.000 NS **AXIS 1**



CASMS Version 1.17.00 - 8-May-1999
CREATED: 22-JUL-99 11:10:10

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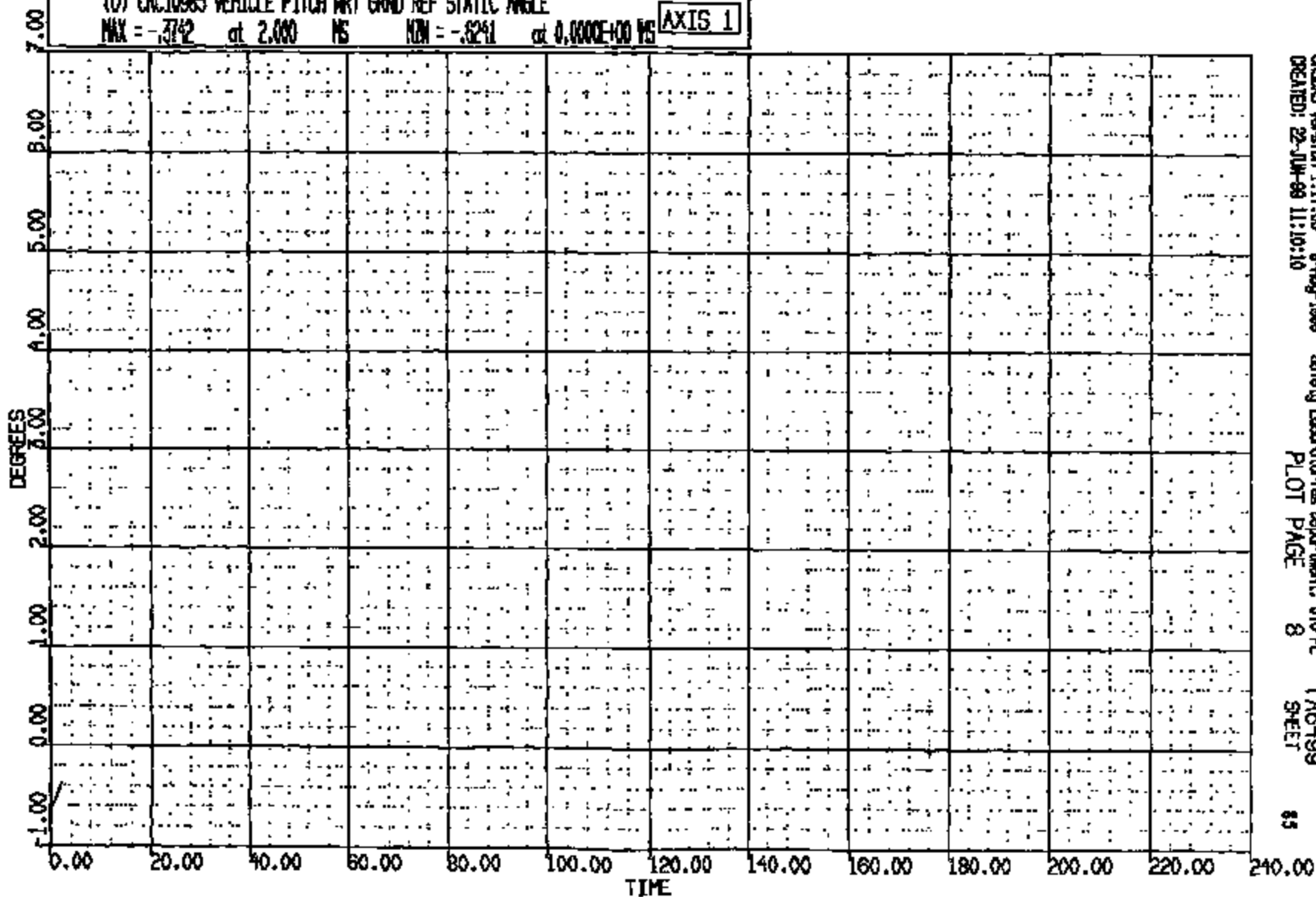
CRIS 0010985

CR R: 10985 TO: TAB499 DATE: 990125 10:57:52
1999 FN-145 1999 FN-145

(1) CR10985 VEHICLE PITCH WRT GND REF STATIC ANGLE

MAX = -.3742 at 2.000 MS MIN = -.5241 at 0.0000E+00 MS

AXIS 1



CASINS Version 1.17.00 - 8-May-1999
CREATED: 22-JUN-99 11:10:10

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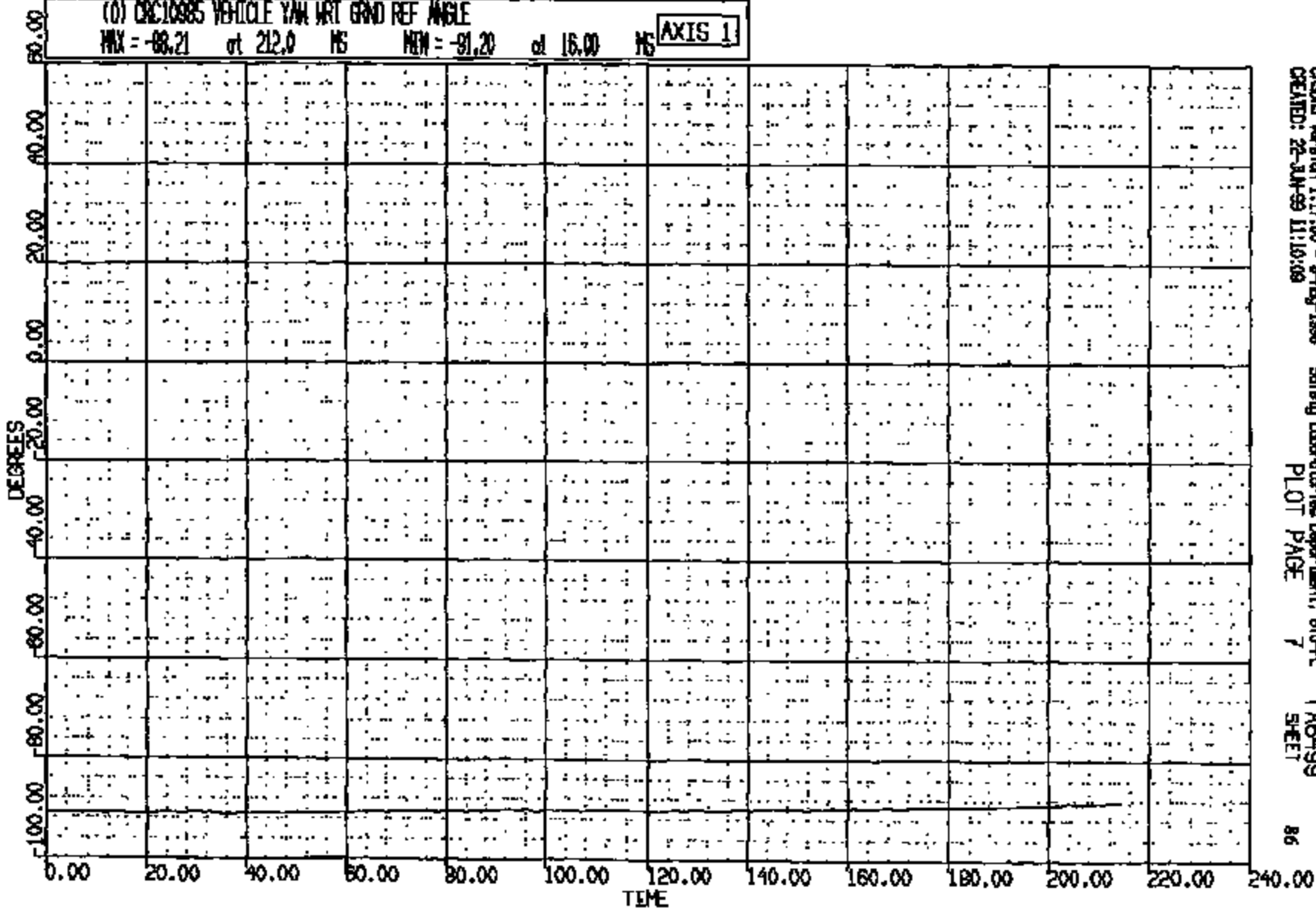
CRTS 0010985

CR R: 10885 TO: TAB499 DATE: 980128 10:57:52
1898 FN-145 1898 FN-145

(0) CR10885 VEHICLE YAW WRT GND REF ANGLE

MAX = -88.21 at 212.0 MS MIN = -91.20 at 16.00 MS

AXIS 1



CASME Version 1.17.00 - 8-May-1998
CREATED: 28-JUN-99 11:10:08

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VEHICLE INFORMATION

TEST DESCRIPTION: 90 DEG. RIGHT SIDE FIXED POLE
VEHICLE PROGRAM YEAR: 1999
VEHICLE MODEL NAME: FH-145
VEHICLE PROGRAM NAME: FH-145
VEHICLE ID NUMBER: 318W150
CERTIFICATION VEHICLE CODE: DV
REQUESTOR NAME: D. R. PURDY
TEST ENGINEER NAME: M. FOSTER

TIME AND DATE OF REPORT: 21-JUN-99 11:58:47

CRIS 0010985

ASC TO #: T- TAC499

DIMENSIONAL ANALYSIS REPORT

CRASH #: 10985

** POINT COORDINATES **

UNT NO	SIDE	PNT NO	DESCRIPTION		INCHES			INCHES CHANGED			
					LONG X	LAT Y	VERT Z	X	Y	Z	D
411			TOP (BODY) NON SIDED								
		01	EXTRA SET UP POINT (LEFT FOREMOST FRAME)	BEF AFT	36.94	-21.78	22.23				
		02	EXTRA SET UP POINT (RIGHT FOREMOST FRAME)	BEF AFT	36.59	22.16	22.22				
		03	EXTRA SET UP POINT (LEFT REARMOST FRAME)	BEF AFT	224.42	-23.39	21.56				
		04	EXTRA SET UP POINT (RIGHT REARMOST FRAME)	BEF AFT	224.54	22.89	21.40				
		87	FRONT OCCUPANT SEAT C/L (WIDTH)	BEF AFT		16.00					
		84	"W.R.T." ON ROCKER SIDE OPPOSITE OF IMPAC	BEF AFT	133.29 133.29	-31.45 -31.45	15.90 15.90	0.00	0.00	0.00	0.00
412			TOP (BODY) SIDED POINTS								
	L	09	END OF FRONT SPINDLE @ CENTERLINE (WHEELBASE)	BEF AFT	63.34 62.91	-32.59 -32.52	15.43 18.34	-0.43	0.27	2.91	2.96
	R	09	END OF FRONT SPINDLE @ CENTERLINE (WHEELBASE)	BEF AFT	63.06 65.95	33.11 33.75	16.11 15.94	2.89	0.64	-0.17	2.96
		16	LATCH/STRIKER BOLT @C/L OR U-BOLTTOP @S FILLA	BEF AFT							
	R	16	LATCH/STRIKER BOLT @C/L OR U-BOLTTOP @S FILLA	BEF AFT	120.89	33.62	32.03				
		89	END OF REAR SPINDLE @ CENTERLINE (WHEELBASE)	BEF AFT	180.51 181.07	-31.95 -30.56	13.61 17.57				
	R	89	END OF REAR SPINDLE @ CENTERLINE (WHEELBASE)	BEF AFT	180.25 178.66	32.07 33.19	13.94 15.11	-1.59	1.12	1.17	2.27

* VALUE WAS TRANSLATED

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DIMENSIONAL ANALYSIS REPORT

CRASH #: 10985

UNIT NO	SIDE	PNT NO	DESCRIPTION	** POINT COORDINATES **			INCHES CHANGED			
				LONG X	LAT Y	VERT Z	X	Y	Z	D
650			BLANK UNIT POINTS							
		01	1	SEE COMMENTS PAGE	BEF AFT	89.64	28.57	27.30		
		02	2	SEE COMMENTS PAGE	BEF AFT	93.14	30.34	22.41		
		03	3	SEE COMMENTS PAGE	BEF AFT	104.57	32.22	28.46		
		04	4	SEE COMMENTS PAGE	BEF AFT	115.23	32.15	41.38		
		05	5	SEE COMMENTS PAGE	BEF AFT	114.76	32.23	35.41		
		06	6	SEE COMMENTS PAGE	BEF AFT	125.22	31.76	25.11		
		07	7	SEE COMMENTS PAGE	BEF AFT	136.77	22.81	58.90		
		08	8	SEE COMMENTS PAGE	BEF AFT	133.62	30.28	45.01		
		09	9	SEE COMMENTS PAGE	BEF AFT	129.61	30.73	30.79		
		10	10	SEE COMMENTS PAGE	BEF AFT	134.22	30.53	22.56		
		11	11	SEE COMMENTS PAGE	BEF AFT	176.35	-0.73	33.15		
		12	12	SEE COMMENTS PAGE	BEF AFT	125.19	31.80	15.55		
		13	13	SEE COMMENTS PAGE	BEF AFT	124.96	28.01	14.45		

* VALUE WAS TRANSLATED

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DIMENSIONAL ANALYSIS REPORT

CRASH #: 10985

UNIT NO	SIDE	PNT NO	DESCRIPTION	** POINT COORDINATES **			INCHES CHANGED			
				LONG X	LAT Y	VERT Z	X	Y	Z	D
		14	SEE COMMENTS PAGE	BEF AFT	155.50	31.27	15.28			
		15	SEE COMMENTS PAGE	BEF AFT	154.73	24.04	13.76			
		16	SEE COMMENTS PAGE	BEF AFT	136.44	-21.49	59.38			
		17	SEE COMMENTS PAGE	BEF AFT	131.86	-27.57	44.62			
		18	SEE COMMENTS PAGE	BEF AFT	130.08	-27.45	30.55			
		19	SEE COMMENTS PAGE	BEF AFT	133.99	-27.30	21.37			
		20	SEE COMMENTS PAGE	BEF AFT	123.23	-29.47	15.03			
		21	SEE COMMENTS PAGE	BEF AFT	122.82	-26.60	13.59			
		22	SEE COMMENTS PAGE	BEF AFT	156.21	-30.19	15.03			
		23	SEE COMMENTS PAGE	BEF AFT	156.48	-24.01	13.25			
		24	SEE COMMENTS PAGE	BEF AFT	99.87	-29.17	18.01			
		25	SEE COMMENTS PAGE	BEF AFT	150.40	-20.83	14.93			
		26	SEE COMMENTS PAGE	BEF AFT	64.66	-34.77	39.46			
		27	SEE COMMENTS PAGE	BEF AFT	182.45	-34.77	43.69			

* VALUE WAS TRANSLATED

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DIMENSIONAL ANALYSIS REPORT

CRASH #: 10985

** SECTIONAL **

UNIT NO	SCIN NO	SIDE	SEQ NO	NAME AND CRASH STATUS	X	Y	Z
423	81			BELTLINE EXTERIOR SECT			
			1	BEFORE	77.56	35.53	41.35
			1	AFTER	79.44	35.36	40.39
			2	BEFORE	87.74	36.14	41.35
			2	AFTER	85.41	35.45	40.39
			3	BEFORE	93.29	36.27	41.35
			3	AFTER	92.95	35.42	40.39
			4	BEFORE	108.11	36.84	41.35
			4	AFTER	94.02	35.55	40.24
			5	BEFORE	120.36	37.18	41.35
			5	AFTER	99.75	34.67	40.50
			6	BEFORE	132.43	37.29	41.35
			6	AFTER	100.88	34.36	40.35
			7	BEFORE	134.32	37.37	41.35
			7	AFTER	104.88	32.78	40.65
			8	BEFORE	147.25	37.28	41.35
			8	AFTER	112.45	28.31	40.58
			9	BEFORE	157.25	37.11	41.35
			9	AFTER	121.57	22.52	40.59
			10	BEFORE	161.48	37.00	41.35
			10	AFTER	123.96	20.84	40.48
			11	BEFORE	172.68	36.68	41.35
			11	AFTER	125.22	19.75	40.62
			12	BEFORE	175.83	36.69	41.35
			12	AFTER	126.39	18.72	40.55
			13	BEFORE	176.92	36.65	41.35
			13	AFTER	127.96	17.90	40.62

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DIMENSIONAL ANALYSIS REPORT

CRASH #: 10985

** SECTIONALS **

UNIT NO	SCIN NO	SIDE	SEQ NO	NAME AND CRASH STATUS	X	Y	INCHES Z
			14	BEFORE	192.89	35.42	41.35
			14	AFTER	130.61	18.97	40.72
425	S1			MIDLINE EXTERIOR SECT			
			1	BEFORE	75.80	37.80	31.50
			1	AFTER	79.38	37.51	30.34
			2	BEFORE	87.07	38.28	31.50
			2	AFTER	86.08	37.52	30.16
			3	BEFORE	89.93	38.30	31.50
			3	AFTER	91.19	37.58	30.34
			4	BEFORE	102.97	38.79	31.50
			4	AFTER	93.13	37.53	30.09
			5	BEFORE	116.11	39.06	31.50
			5	AFTER	98.82	35.34	30.38
			6	BEFORE	131.54	39.21	31.50
			6	AFTER	108.05	31.35	30.39
			7	BEFORE	133.22	39.20	31.50
			7	AFTER	112.55	28.79	30.52
			8	BEFORE	146.23	39.22	31.50
			8	AFTER	120.47	23.66	30.43
			9	BEFORE	158.91	39.00	31.50
			9	AFTER	123.46	21.27	30.59
			10	BEFORE	166.19	38.90	31.50
			10	AFTER	126.07	19.38	30.54
			11	BEFORE	167.82	38.85	31.50
			11	AFTER	127.43	18.77	30.46
			12	BEFORE	170.39	38.91	31.50
			12	AFTER	129.40	18.91	30.62

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CRASH #: 10985

** SECTIONS **

UNIT NO	SECTN NO	SIDE	SEQ NO	NAME AND CRASH STATUS	X	Y	INCHES Z
427	81			CHARACTER LINE KEY SECT			
			1	BEFORE	79.54	37.45	23.60
			1	AFTER	83.42	36.93	22.35
			2	BEFORE	83.85	37.51	23.60
			2	AFTER	87.75	36.85	22.40
			3	BEFORE	87.54	37.51	23.60
			3	AFTER	91.47	36.72	22.50
			4	BEFORE	88.42	37.57	23.60
			4	AFTER	93.13	36.32	22.30
			5	BEFORE	99.20	37.83	23.60
			5	AFTER	97.44	35.19	22.34
			6	BEFORE	111.89	38.08	23.60
			6	AFTER	100.35	34.36	22.94
			7	BEFORE	130.97	28.12	23.60
			7	AFTER	107.45	31.34	22.40
			8	BEFORE	132.21	38.25	23.60
			8	AFTER	113.98	28.14	22.48
			9	BEFORE	132.29	38.26	23.60
			9	AFTER	119.26	24.82	22.57
			10	BEFORE	142.63	38.37	23.60
			10	AFTER	121.18	23.49	22.55
			11	BEFORE	154.84	38.15	23.60
			11	AFTER	123.74	21.12	22.56
			12	BEFORE	162.61	37.98	23.60
			12	AFTER	125.39	20.04	22.59
			13	BEFORE	183.64	37.86	23.60
			13	AFTER	127.11	19.48	22.67

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CRASH #: 10985

** SECTIONS **

UNIT NO	SCEN NO	SIDE	SEQ NO	NAME AND CRASH STATUS	X	Y	INCHES Z
			14	BEFORE	165.27	37.81	23.60
			14	AFTER	129.15	19.97	22.96
429	31			BOTTOM OF DOOR EXT SECT			
			1	BEFORE	88.76	36.52	16.76
			1	AFTER	93.39	34.00	15.75
			2	BEFORE	106.04	36.61	16.75
			2	AFTER	100.72	32.12	15.63
			3	BEFORE	120.99	36.61	16.95
			3	AFTER	103.34	31.36	15.55
			4	BEFORE	130.54	36.60	16.97
			4	AFTER	105.04	31.38	15.36
			5	BEFORE	132.97	35.97	16.46
			5	AFTER	106.13	30.54	15.57
			6	BEFORE	146.24	35.54	16.44
			6	AFTER	115.84	26.05	15.67
			7	BEFORE	162.19	35.13	16.59
			7	AFTER	117.64	25.35	15.47
431	31			ROCKER PANEL EXT SECT			
			1	BEFORE	91.74	34.10	16.90
			1	AFTER	94.98	32.23	16.48
			2	BEFORE	105.78	34.09	16.90
			2	AFTER	96.19	32.48	16.48
			3	BEFORE	133.38	33.99	16.90
			3	AFTER	104.64	29.77	16.60
			4	BEFORE	162.47	33.76	16.90
			4	AFTER	118.01	24.44	16.06

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CRASH #: 10985

** SECTIONALS **

UNIT NO	SCIN NO	SIDE	SEQ NO	NAME AND CRASH STATUS	X	Y	INCHES Z
433	81			ROOF LINE INTERIOR SECT			
			1	BEFORE	99.39	28.86	49.59
			1	AFTER	102.02	27.13	48.52
			2	BEFORE	113.27	23.50	57.65
			2	AFTER	115.41	20.48	57.94
			3	BEFORE	120.73	22.71	59.52
			3	AFTER	122.59	16.85	60.39
			4	BEFORE	135.02	22.72	59.63
			4	AFTER	135.97	11.81	60.48
435	81			BELT LINE INTERIOR SECT			
			1	BEFORE	100.63	32.47	42.39
			1	AFTER	104.13	29.19	41.49
			2	BEFORE	107.65	32.38	42.61
			2	AFTER	109.81	25.63	41.22
			3	BEFORE	124.36	32.38	42.61
			3	AFTER	123.89	17.00	41.18
			4	BEFORE	125.64	32.29	43.04
			4	AFTER	125.18	16.21	41.19
			5	BEFORE	126.28	32.61	42.65
			5	AFTER	126.05	16.09	41.15
			6	BEFORE	129.88	32.76	41.98
			6	AFTER	129.30	15.48	40.80
			7	BEFORE	131.38	30.84	42.14
			7	AFTER	131.77	12.94	40.01
			8	BEFORE	135.27	30.93	41.60
			8	AFTER	135.90	13.39	39.61

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DIMENSIONAL ANALYSIS REPORT

CRASH #: 10985

** SECTIONAL **

INT NO	SCIN NO	SIDE	SEQ NO	NAME AND CRASH STATUS	X	Y	INCHES Z
437	81			81N INTERIOR SECTION			
			1	BEFORE	96.15	32.16	27.33
			1	AFTER	100.14	29.87	25.51
			2	BEFORE	105.90	32.30	27.33
			2	AFTER	107.09	27.96	27.34
			3	BEFORE	116.11	32.23	27.33
			3	AFTER	117.65	21.73	25.78
			4	BEFORE	127.03	32.07	27.33
			4	AFTER	126.82	16.67	25.85
			5	BEFORE	128.82	30.86	27.33
			5	AFTER	129.19	14.64	25.38
			6	BEFORE	134.60	30.73	27.33
			6	AFTER	135.47	18.17	25.19
438	81			1ST 50 FWD/HEDGE PLANK			
			1	BEFORE	90.57	36.38	17.12
			1	AFTER	94.75	33.91	16.15
			2	BEFORE	90.57	37.18	18.79
			2	AFTER	94.85	34.94	18.40
			3	BEFORE	90.57	37.42	22.60
			3	AFTER	95.25	35.76	22.97
			4	BEFORE	90.57	38.05	29.30
			4	AFTER	96.29	36.20	25.29
			5	BEFORE	90.57	38.29	30.18
			5	AFTER	95.40	36.20	27.82
			6	BEFORE	90.57	38.09	35.59
			6	AFTER	95.36	36.46	29.08

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DIMENSIONAL ANALYSIS REPORT

CRASH #: 10985

** SECTIONALS **

UNT NO	SCTM NO	SLIDE	SEQ NO	NAME AND CRASH STATUS	X	Y	INCHES Z
			7	BEFORE	90.57	36.71	40.19
			7	AFTER	95.45	36.60	34.00
			8	BEFORE	90.57	34.87	43.38
			8	AFTER	95.24	36.20	37.52

439 81

SECT @ 2500 BODY LINE

1	BEFORE	98.43	36.43	17.04
1	AFTER	102.13	31.81	15.78
2	BEFORE	98.43	37.50	21.30
2	AFTER	102.49	32.90	17.60
3	BEFORE	98.43	38.30	27.10
3	AFTER	102.57	33.41	21.91
4	BEFORE	98.43	38.45	35.24
4	AFTER	102.56	33.41	26.54
5	BEFORE	98.43	36.54	41.19
5	AFTER	102.87	33.43	28.65
6	BEFORE	98.43	35.25	43.35
6	AFTER	102.86	33.87	35.16

439 82

SECT @ 2500 BODY LINE

1	BEFORE	98.43	31.80	22.32
1	AFTER	101.89	28.65	22.05
2	BEFORE	98.43	32.21	25.55
2	AFTER	101.84	29.03	23.35
3	BEFORE	98.43	32.67	35.57
3	AFTER	101.93	29.47	25.86
4	BEFORE	98.43	32.48	40.24
4	AFTER	102.15	30.03	32.24

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DIMENSIONAL ANALYSIS REPORT

CRASH #: 10985

** SECTIONALS **

UNIT NO	SCN NO	SIDE	REQ NO	NAME AND CRASH STATUS	X	Y	INCHES E
			5	BEFORE	98.43	32.45	42.61
			5	AFTER	102.35	30.25	41.41
440	B1			VERT SECT. 20° FWD I/CL			
			1	BEFORE	121.65	36.87	17.89
			1	AFTER	123.75	21.92	15.51
			2	BEFORE	121.63	37.93	22.11
			2	AFTER	122.82	21.84	19.51
			3	BEFORE	121.65	38.77	27.67
			3	AFTER	123.75	21.92	25.85
			4	BEFORE	121.65	39.10	32.02
			4	AFTER	122.51	21.72	28.71
			5	BEFORE	121.65	38.71	36.94
			5	AFTER	122.63	21.82	29.24
			6	BEFORE	121.65	36.52	42.54
			6	AFTER	122.56	21.69	34.61
			7	BEFORE	121.65	35.33	44.24
			7	AFTER	123.29	21.32	36.30
			8	BEFORE	121.65	25.09	60.87
			8	AFTER	122.36	21.27	37.44
			9	BEFORE	121.65	23.85	61.87
			9	AFTER	122.59	21.61	40.07
			10	BEFORE	121.65	20.57	62.64
			10	AFTER	122.47	21.66	42.58
440	S2			VERT SECT. 20° FWD I/CL			
			1	BEFORE	121.65	31.74	22.78
			1	AFTER	121.90	18.87	20.12

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DIMENSIONAL ANALYSIS REPORT

CRASH #: 10985

** SECTIONS **

UNIT NO	SECTN NO	SIDE	SEQ NO	NAME AND CRASH STATUS	X	Y	INCHES Z
			2	BEFORE	121.65	32.55	38.96
			2	AFTER	122.06	19.31	21.47
			3	BEFORE	121.65	32.58	39.78
			3	AFTER	122.34	19.52	23.74
			4	BEFORE	121.65	32.26	40.96
			4	AFTER	122.07	18.79	37.57
			5	BEFORE	121.65	32.59	43.31
			5	AFTER	122.60	19.35	39.77

441 81

VERT SECT. @ IMPACT C/L

	1	BEFORE	129.92	36.76	17.76
	1	AFTER	130.33	19.90	16.37
	2	BEFORE	129.92	37.65	20.50
	2	AFTER	130.26	19.64	20.67
	3	BEFORE	129.92	38.60	26.04
	3	AFTER	130.01	19.43	25.17
	4	BEFORE	129.92	39.19	33.60
	4	AFTER	129.89	19.04	30.27
	5	BEFORE	129.92	38.25	38.97
	5	AFTER	129.67	18.70	34.67
	6	BEFORE	129.92	36.50	42.72
	6	AFTER	129.58	18.47	38.06
	7	BEFORE	129.92	35.22	44.51
	7	AFTER	129.61	18.32	38.81
	8	BEFORE	129.92	24.70	61.46
	8	AFTER	129.29	18.31	40.68
	9	BEFORE	129.92	23.28	62.64
	9	AFTER	129.43	17.59	42.98

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DIMENSIONAL ANALYSIS REPORT

CRASH #: 10985

** SECTIONAL **

UNIT NO	SCIN NO	SIDE	REQ NO	NAME AND CRASH STATUS	X	Y	INCHES Z
			10	BEFORE	129.92	20.07	53.29
			10	AFTER	129.63	17.70	43.93
441	82			VERT SECT. @ IMPACT C/L			
			1	BEFORE	129.92	30.85	21.99
			1	AFTER	129.63	14.68	26.79
			2	BEFORE	129.92	30.90	32.66
			2	AFTER	129.86	13.65	32.37
			3	BEFORE	129.92	30.95	36.81
			3	AFTER	130.34	13.78	35.08
			4	BEFORE	131.70	30.78	42.71
			4	AFTER	132.06	12.80	41.14
			5	BEFORE	132.66	29.97	46.85
			5	AFTER	132.91	11.87	45.08
			6	BEFORE	134.03	27.34	52.17
			6	AFTER	135.87	11.42	49.14
			7	BEFORE	135.25	25.41	55.44
			7	AFTER	134.16	11.55	51.34
			8	BEFORE	135.42	24.30	57.51
			8	AFTER	134.99	11.68	55.16

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** COMMENTS **

ANY AUTOMATICALLY GENERATED COMMENTS APPEAR IN THIS BOX:

THIS VEHICLE IS SET UP TO DESIGN ATTITUDE AND WHILE REPORTED IN
ENGLISH UNITS, USES A METRIC PRINT ZERO. SUSPENSION COMPONENTS
ARE NOT IN DESIGN POSITION. COORDINATES CAN BE CONVERTED TO DESIGN
PRINT VALUES BY USING THE FOLLOWING: asking for a metric print-out or

TO CONVERT TO METRIC DESIGN PRINT VALUES: MULTIPLY BY 25.4.
TO CONVERT TO ENGLISH DESIGN PRINT VALUES: (for most DOMESTIC VEHICLES)
SUBTRACT 78.74 (2000 MM) FROM THE X VALUE AND SUBTRACT 19.69 (500 MM)
FROM THE Z VALUE.

*** THIS DIMENSION SYSTEM UTILIZES THE RIGHT HAND RULE ***
from front of vehicle FACING REARWARD
+ = Rearward, Up, & Left (AMERICAN PASSENGER SIDE)
[Lateral Zero is Centerline of Vehicle]

*** THE "D" DIMENSION UNDER "INCHES CHANGED X Y Z" ***
*** IS THE SCALAR (TRUE VALUE) DISTANCE CHANGE OF THE POINT ***

REMARKER:: Print a C/L stripe on tunnel from front seat to and
including rear seat where applicable.

*** If this is a POLE IMPACT TEST, do NOT scribe cart edges. ***

ON SIDE IMPACTS FOR VEHICLES WITH A WHEELBASE OF 114 inches or less
SCRIBE (4) VERTICAL LINES on side of impact from ROCKER TO BELT LINE @:
(1) WHEELBASE C/L (2) 37" FORWARD OF WHEELBASE C/L
(3) 4" FORWARD OF WHEELBASE C/L (4) 29" REARWARD OF WHEELBASE C/L

ON SIDE IMPACTS FOR VEHICLES WITH A WHEEL BASE GREATER THAN 114 INCHES
SCRIBE (4) VERTICAL LINES on side of impact from ROCKER TO BELT LINE @:
(1) 20" (2) 53" (3) 86" REARWARD OF FRONT AXLE CENTER LINE
(4) @ WHEELBASE CENTER LINE

BELT LINE (EXTERIOR SECTION) LOCATED @ 1st INCREMENTED 50mm BODY
LINE BELOW GLASS/WEATHERSTRIP

MID LINE (EXTERIOR SECTION) LOCATED @ _____mm BODY LINE

CHARACTER LINE (EXTERIOR SECTION) LOCATED @ _____mm BODY LINE

ROCKER LINE (EXTERIOR SECTION) LOCATED @
1st INCREMENTED 10mm BODY LINE BELOW DOOR OPENING

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** COMMENTS **

SCRIBE A LONGITUDINAL C/L ALONG THE ENTIRE EXTERNAL BODY
(USE TAPE OR PAINT ON THE WINDSHIELD & BACKLIGHT)

SCRIBE A LONGITUDINAL C/L IN THE INTERIOR ON THE ROOF, TUNNEL/CONSOLE
AND OR SEATS

MARK A LONGITUDINAL C/L ON THE OCCUPANT FRONT & REAR SEATS

SCRIBE A VERTICAL LINE ON THE LEFT & RIGHT ROOF TARGET 27.00" REARWARD
OF THE FRONT EDGE OF THE MASTER CONTROL NOTCH OR CONTROL HOLE CENTER-
LINE. ALSO, Scribe a HORIZONTAL LINE ON THE TARGETS 45.00" ABOVE THE
TOP OF THE MASTER CONTROL NOTCH OR CONTROL HOLE CENTERLINE.

ANY COMMENTS ENTERED BY OPERATORS APPEAR BELOW THIS LINE:

UNIT 650 POINT DESCRIPTIONS ARE AS FOLLOWS:

POINTS 1-23 ARE ACCEL LOCATIONS.

01. R/S A-PILLAR ABOVE ROCKER ON SENSOR BOX.
02. R/S A-PILLAR @ ROCKER.
03. R/S FRONT DOOR @ SPEAKER HOLE.
04. R/S FRONT DOOR UPPER BELT MID.
05. R/S FRONT DOOR MID.
06. R/S FRONT DOOR REAR LOWER.
07. R/S B-PILLAR @ ROOF.
08. R/S B-PILLAR @ BELT.
09. R/S B-PILLAR ABOVE ROCKER.
10. R/S B-PILLAR @ ROCKER.
11. TRUNK FLOOR ABOVE AXLE C/L.
12. ROCKER @ B-PILLAR R/S.
13. FRAME @ B-PILLAR R/S.
14. R/S REAR OF ROCKER.
15. FRAME @ REAR OF ROCKER.
16. L/S B-PILLAR @ ROOF.
17. L/S B-PILLAR @ BELT.
18. L/S B-PILLAR ABOVE ROCKER.
19. L/S B-PILLAR @ ROCKER.
20. L/S ROCKER @ B-PILLAR.
21. FRAME @ B-PILLAR LEFT SIDE.
22. REAR OF ROCKER LEFT SIDE.
23. LEFT SIDE FRAME @ REAR OF ROCKER.
24. LEFT SIDE FORWARD SILL SET UP POINT.
25. LEFT SIDE REARWARD SILL SET UP POINT.

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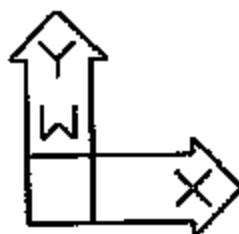
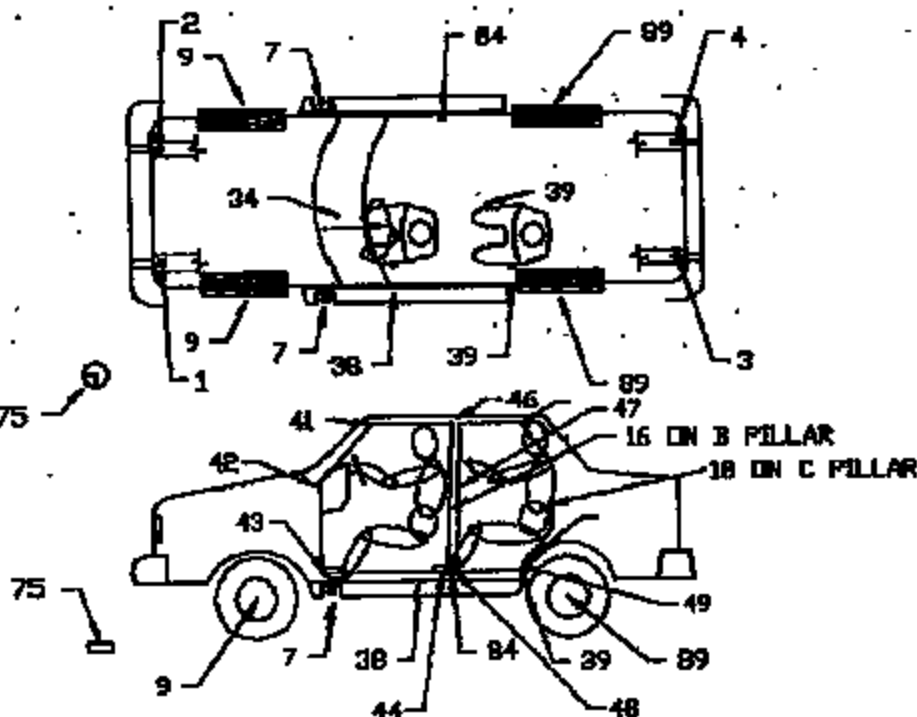
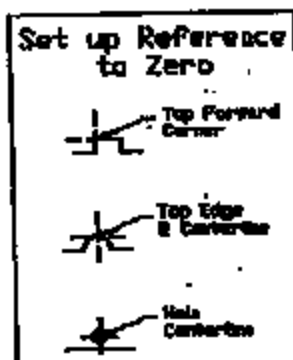
** COMMENTS **

- 26. FORWARD ALIGNMENT POINT.
- 27. REAR ALIGNMENT POINT.

DISTANCE BETWEEN RIGHT SEAT BACK AND B-PILLAR TRIM PANEL.

- 28. 3.54 AT HEIGHT OF 42.68.
- 29. 3.15 AT HEIGHT OF 35.24.
- 30. 3.75 AT HEIGHT OF 27.68.

CONTROL POINTS (SIDE IMPACT CAR) REQUEST 404
 UNIT 70 POINT 75
 UNIT 71 POINTS 7 LEFT & RIGHT
 UNIT 74 POINTS 41-44, 46-49 ON SIDE OF IMPACT
 UNIT 74 POINTS 53, 54 ON SIDE OPPOSITE OF IMPACT
 UNIT 411 POINTS 1-4, 38, 39, 84
 UNIT 412 POINTS 9, 16, 18, 89 LEFT & RIGHT
 (LEFT SIDE IMPACT SHOWN)



REFLECT 404 IPTC 960 1P/96

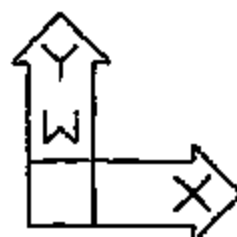
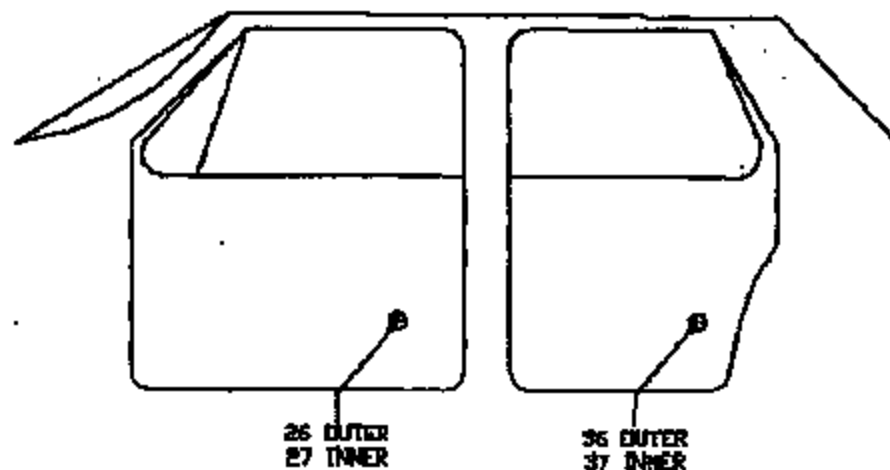
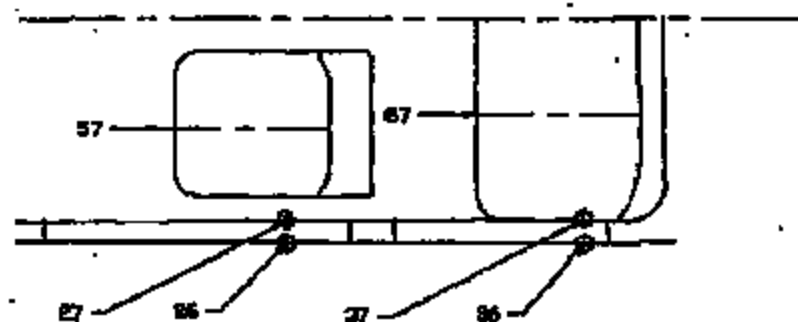
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PRE-CRASH LATERAL C/L'S 11" POINTS + REQUEST 417
UNIT 411 POINTS 26,27,36,37,57,67



REQUEST 417 UPIC 964 10/96

DREDVEL1

CRITS 0010985

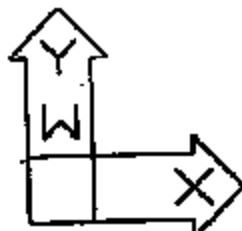
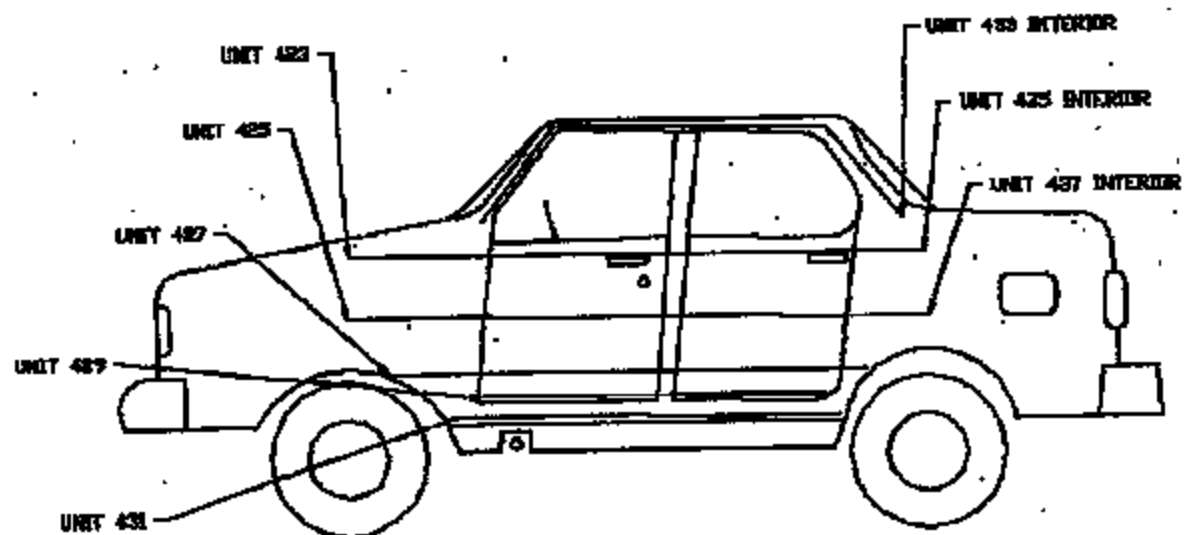
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EXTERIOR & INTERIOR HORIZ. SECTIONALS SIDE IMPACT,
REQUEST 423,425,427,429,431,433,435,437



REQUEST 423,425,427,429,431,433,435,437 UPIC 977 10/96

DDWV1.1

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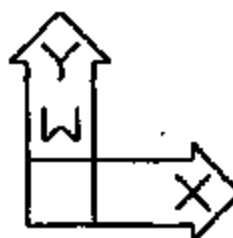
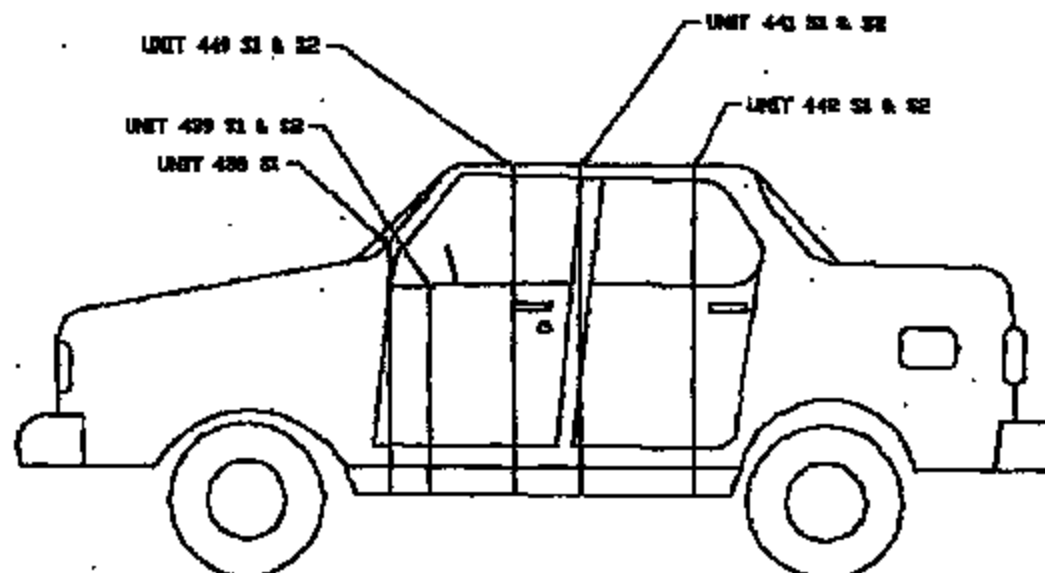
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REQUEST 438 - 442 VERT. SECTIONS SIDE IMPACT
 UNITS 438 S1, 439 - 442 S1 & S2
 S1 SECTIONS ARE EXTERIOR, S2 SECTIONS ARE INTERIOR



REQUEST 438 - 442 UPIC 979 10/96

IBEDVEL1

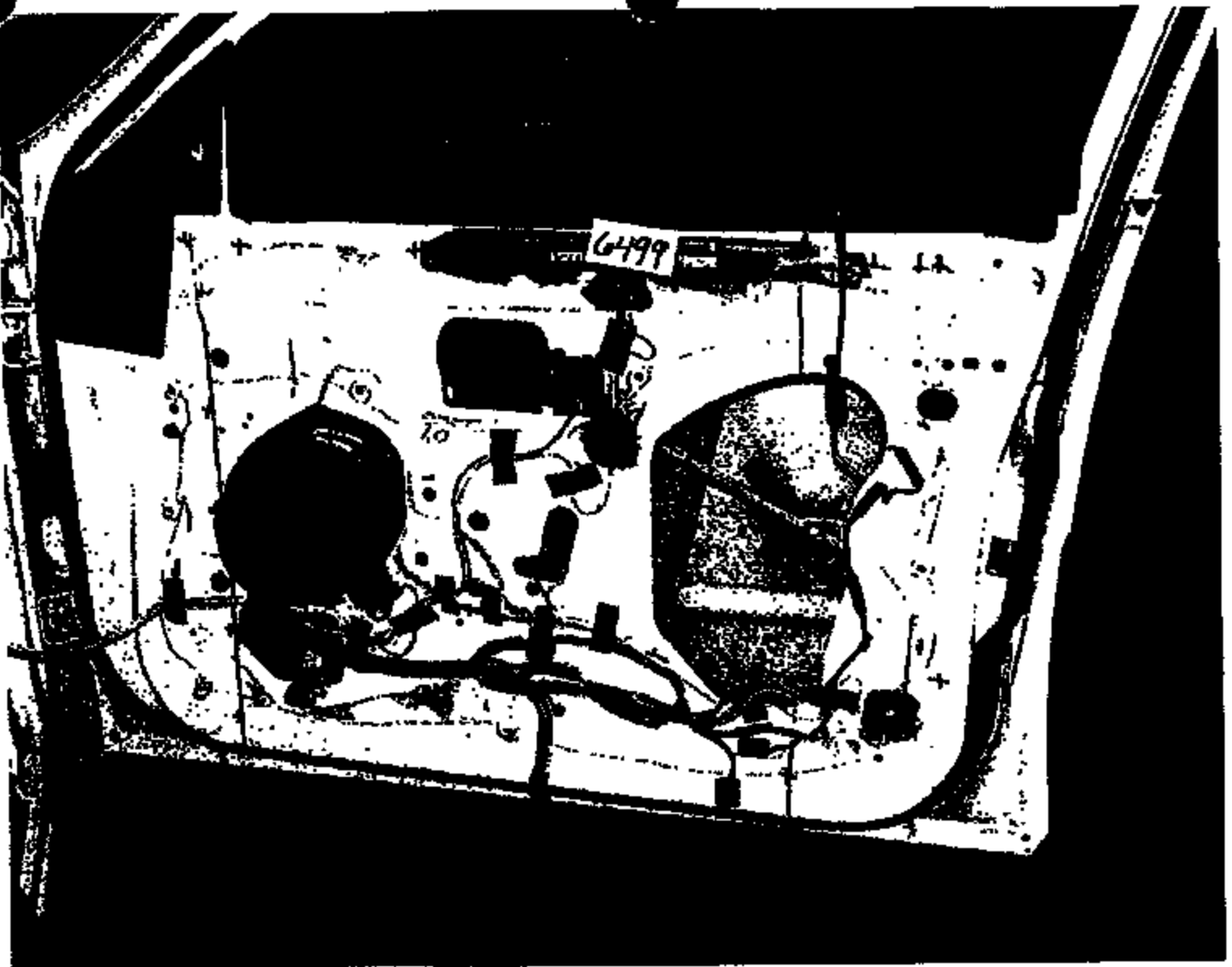
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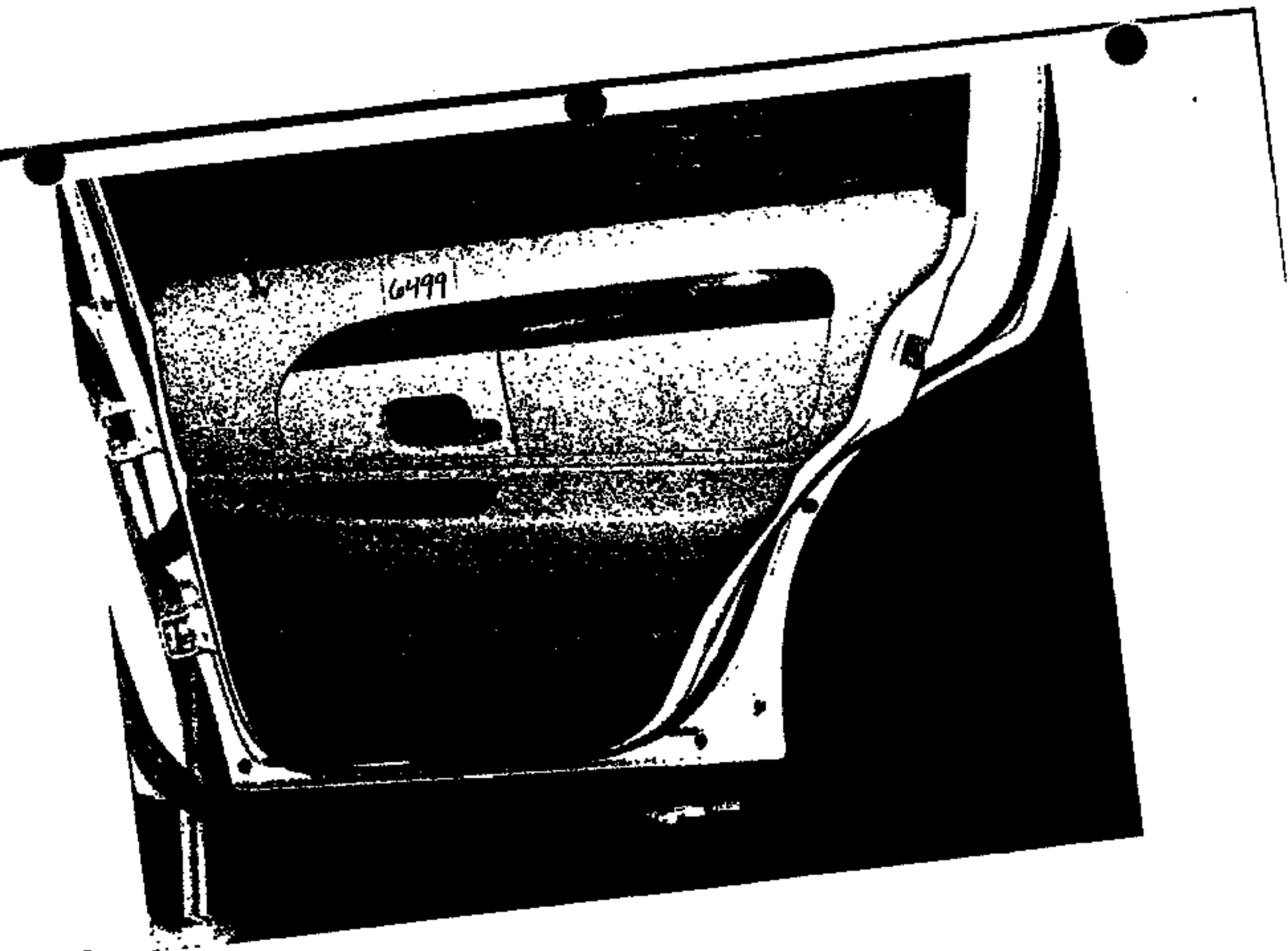
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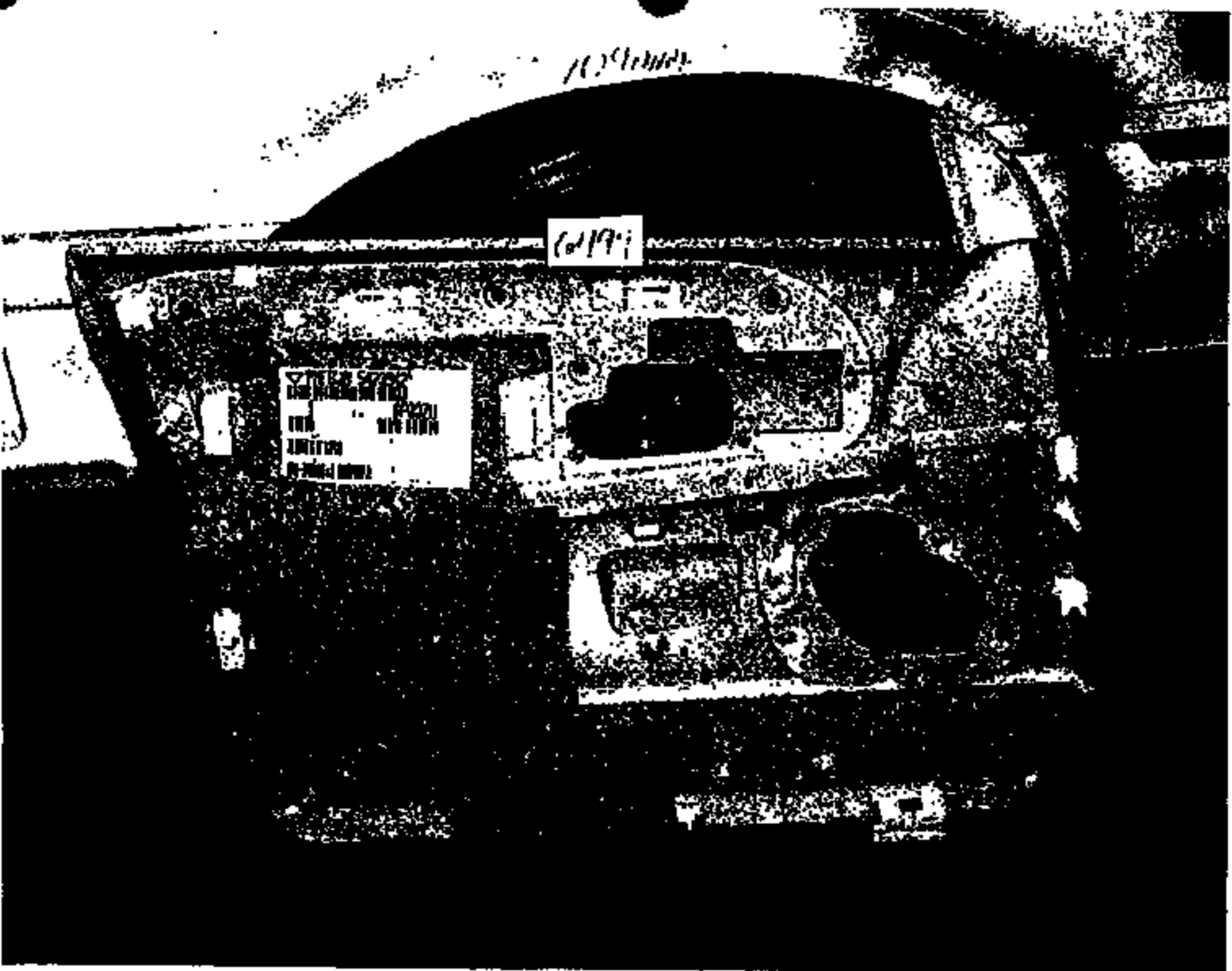
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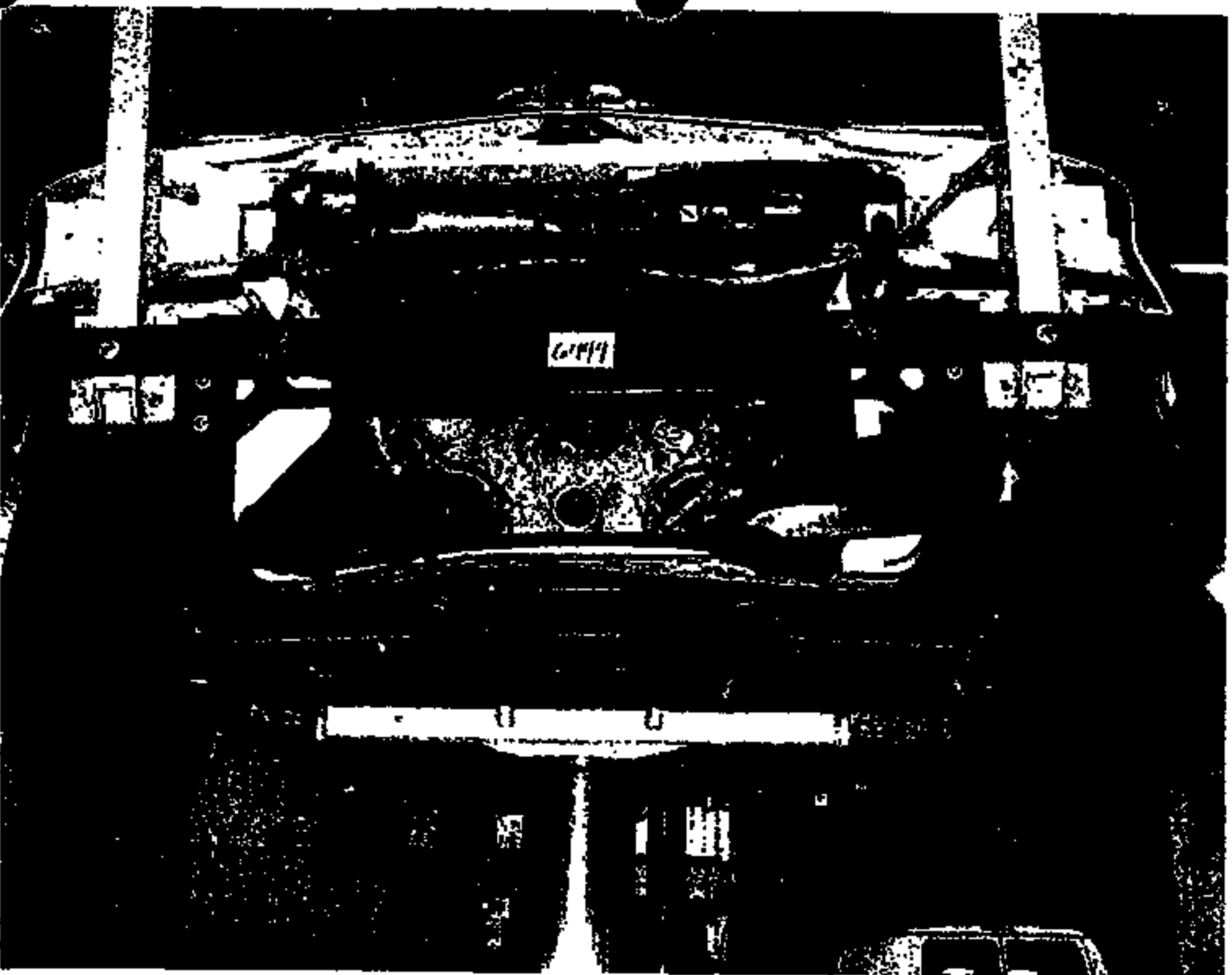
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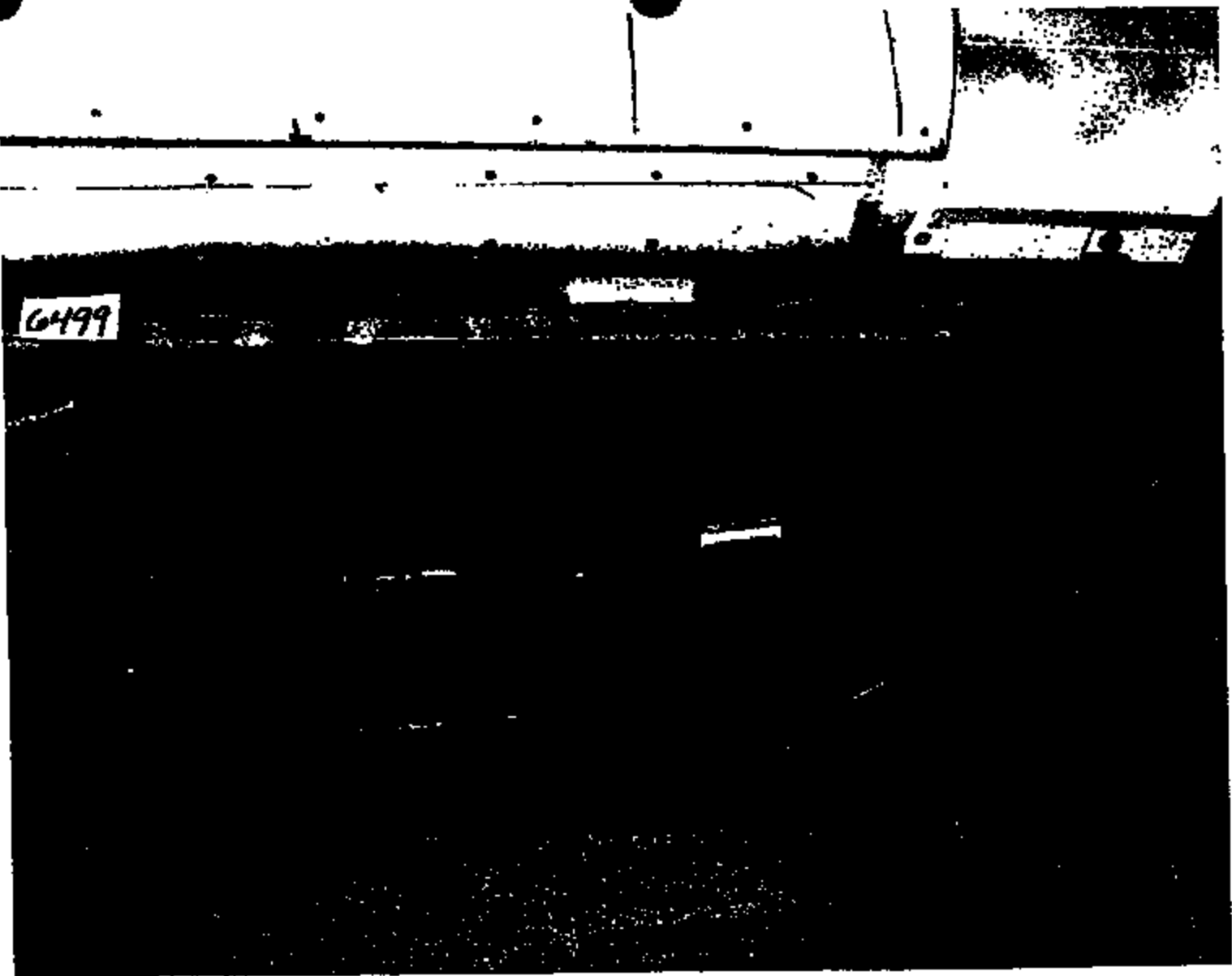
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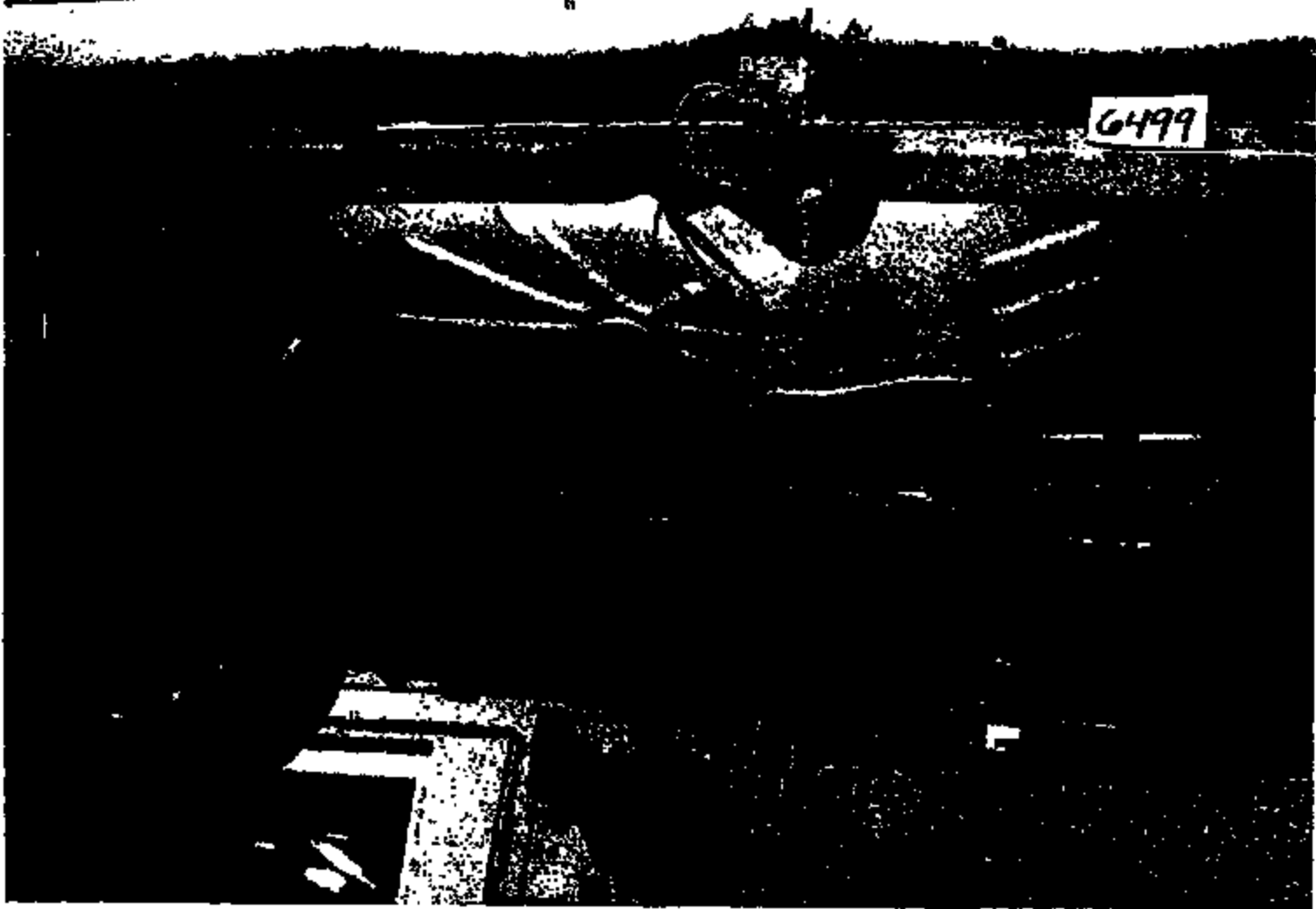


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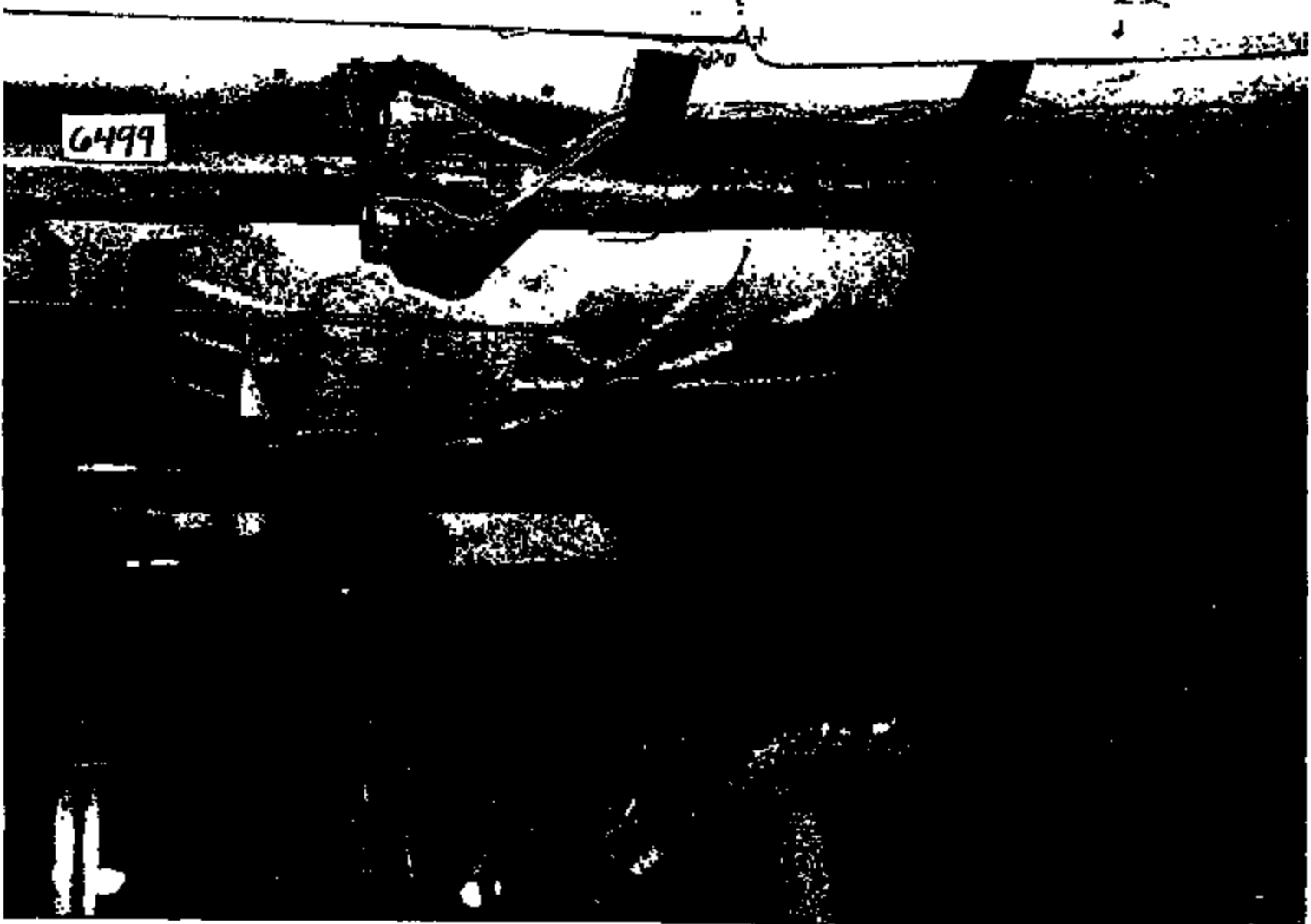
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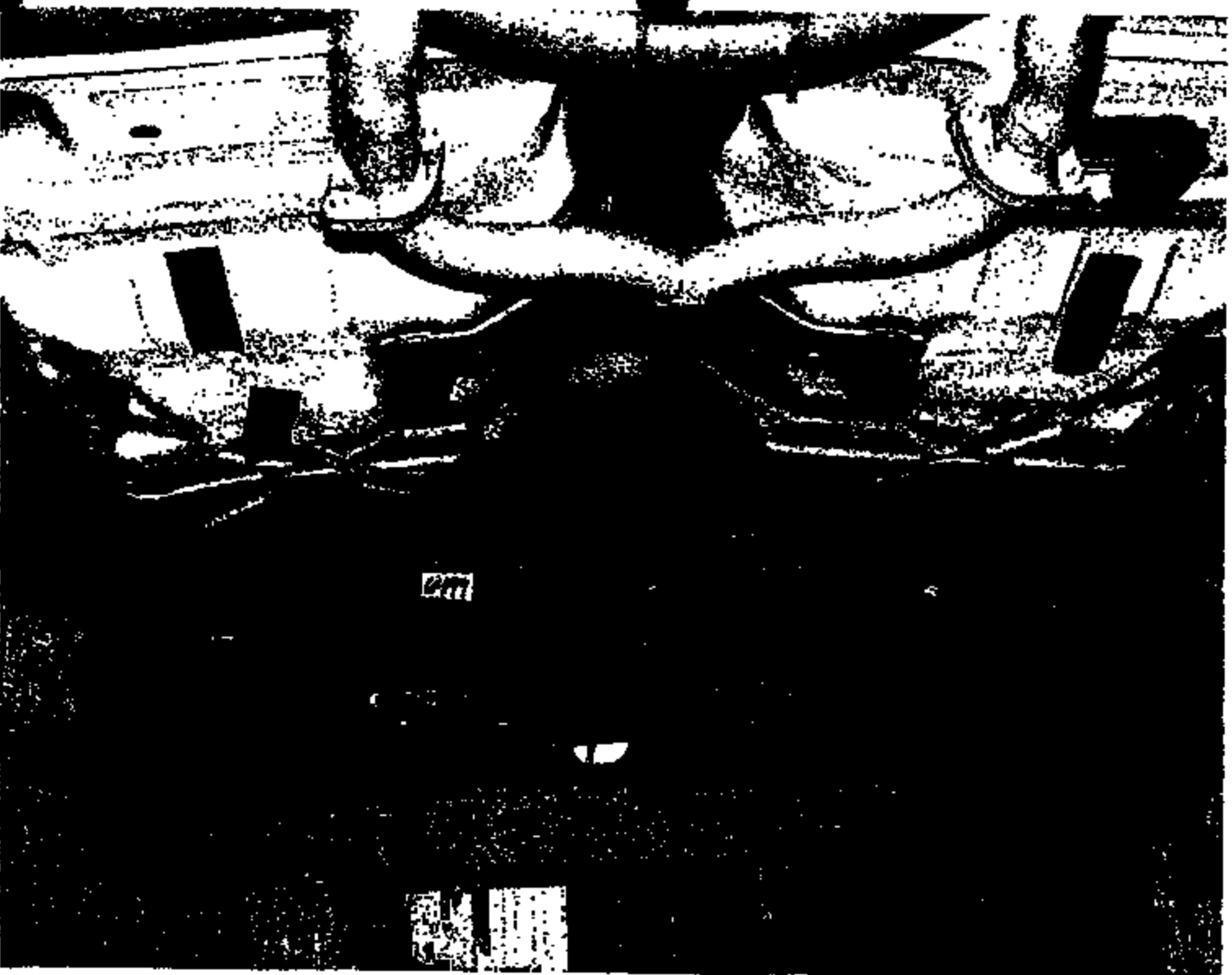
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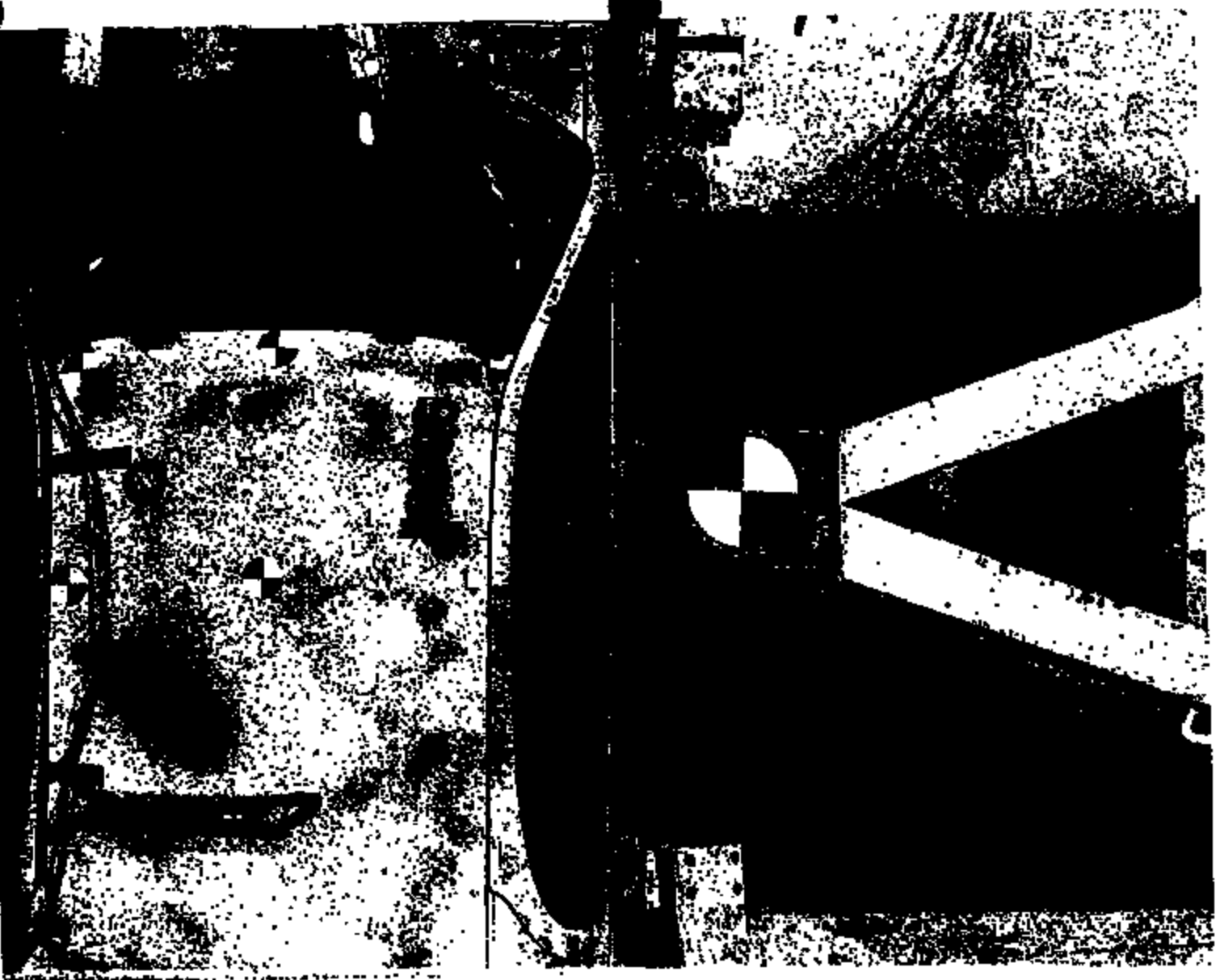
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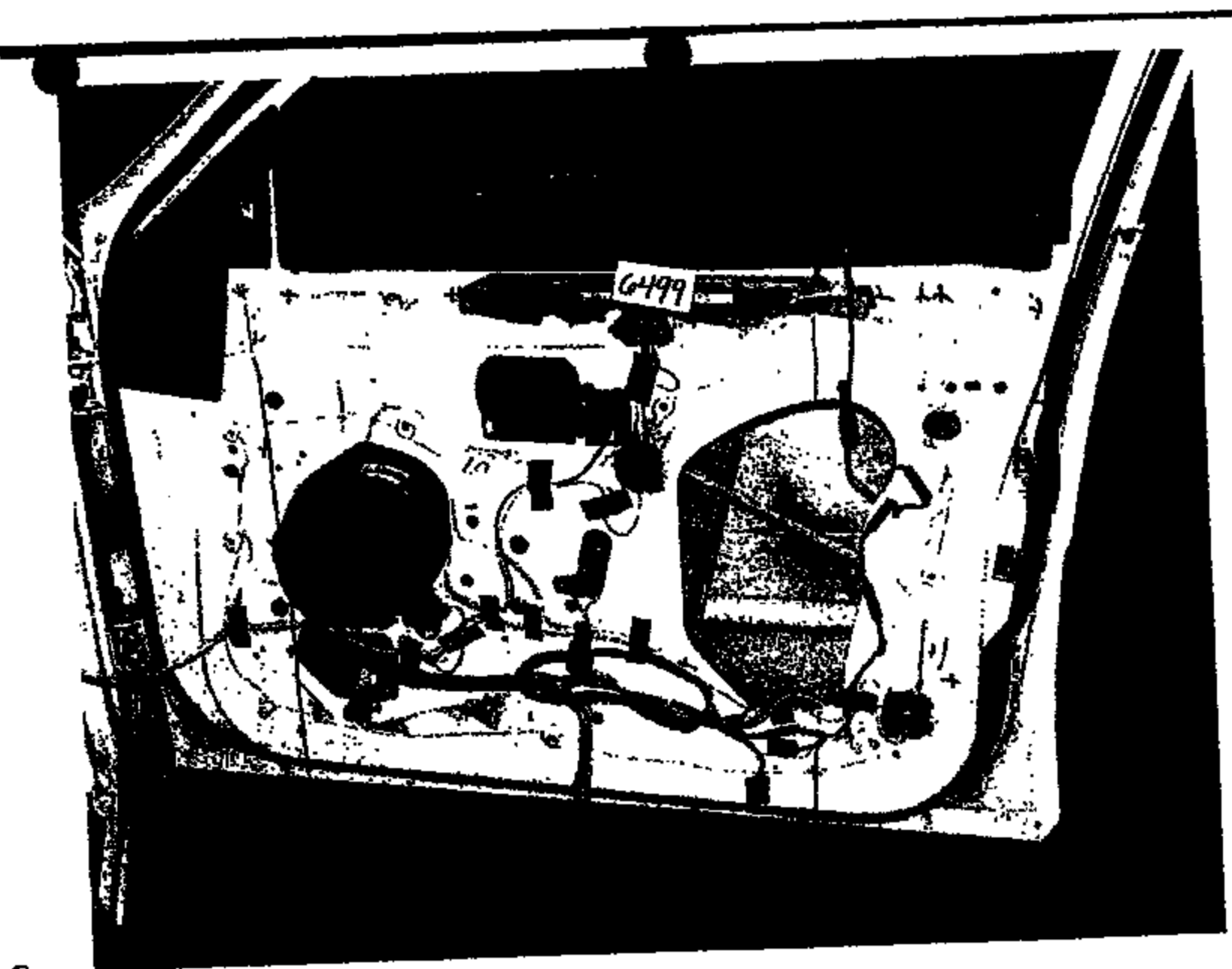


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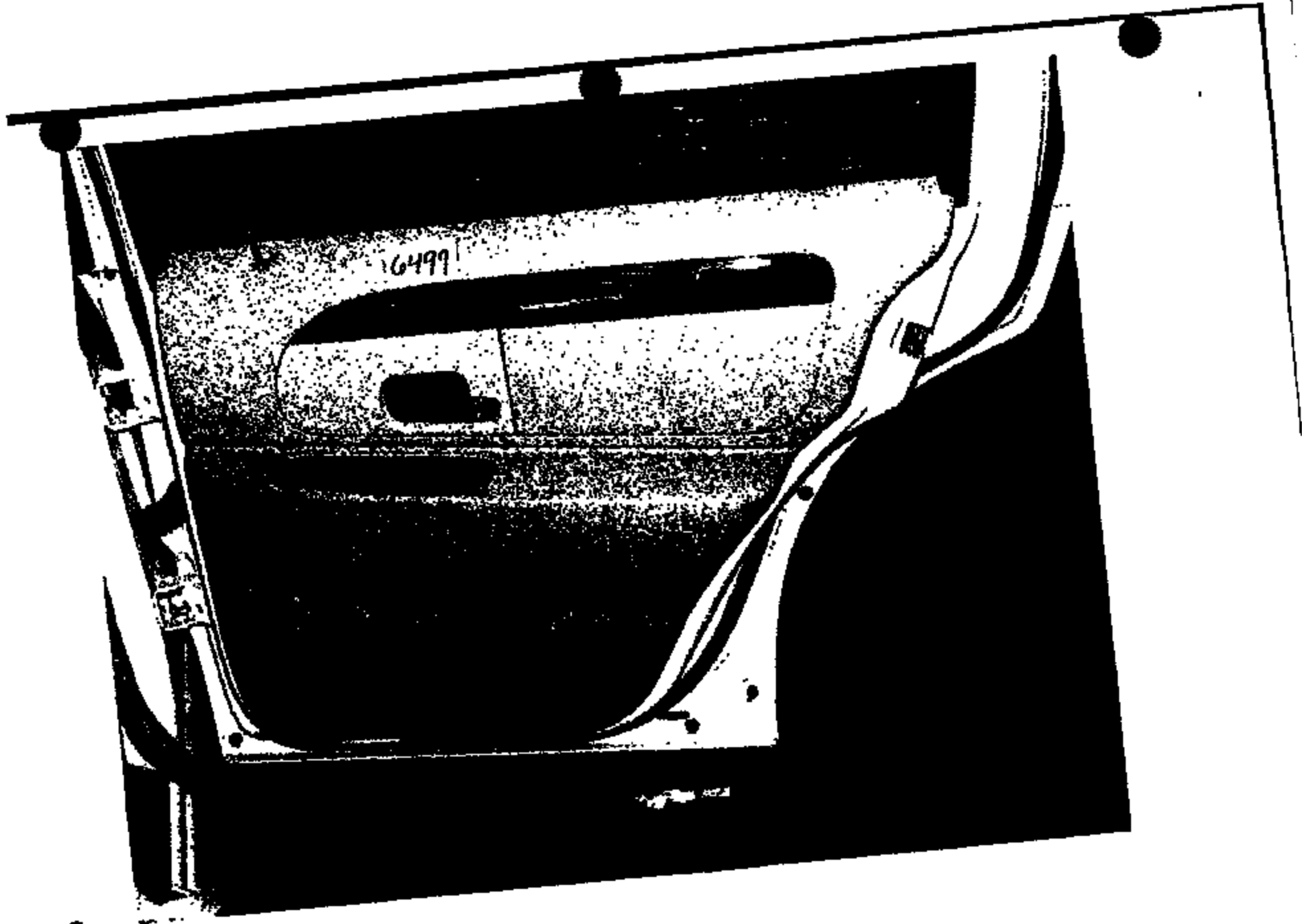
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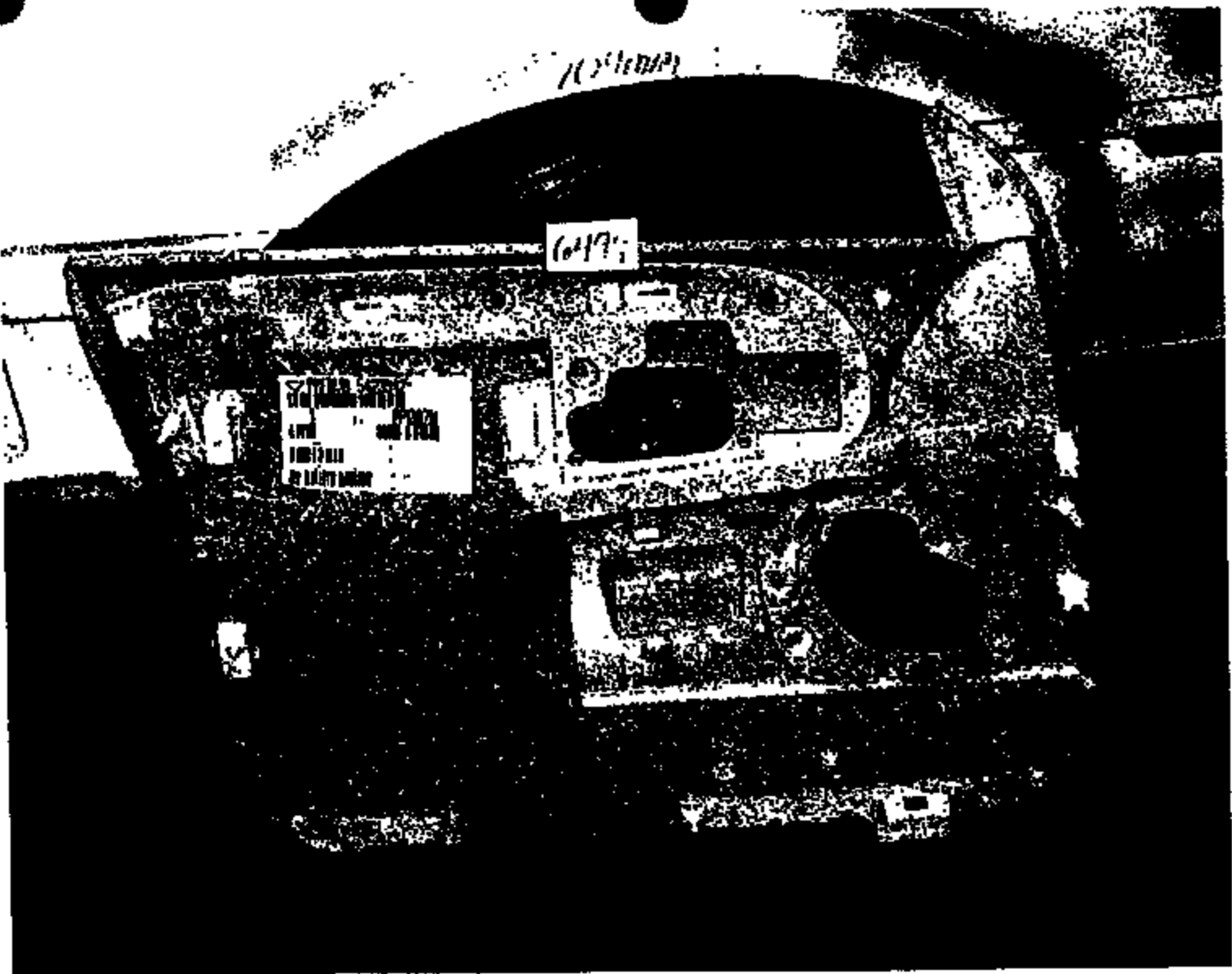
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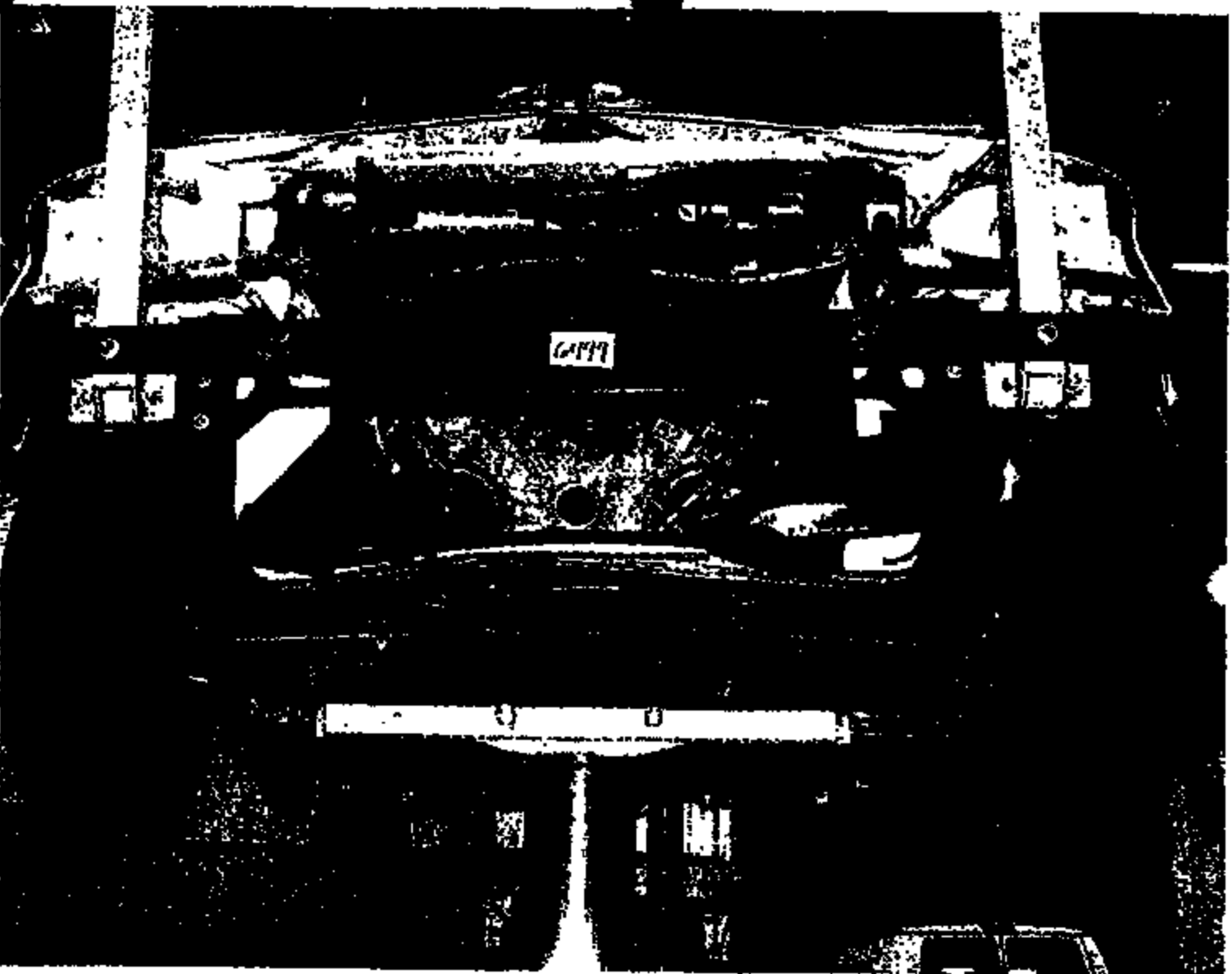


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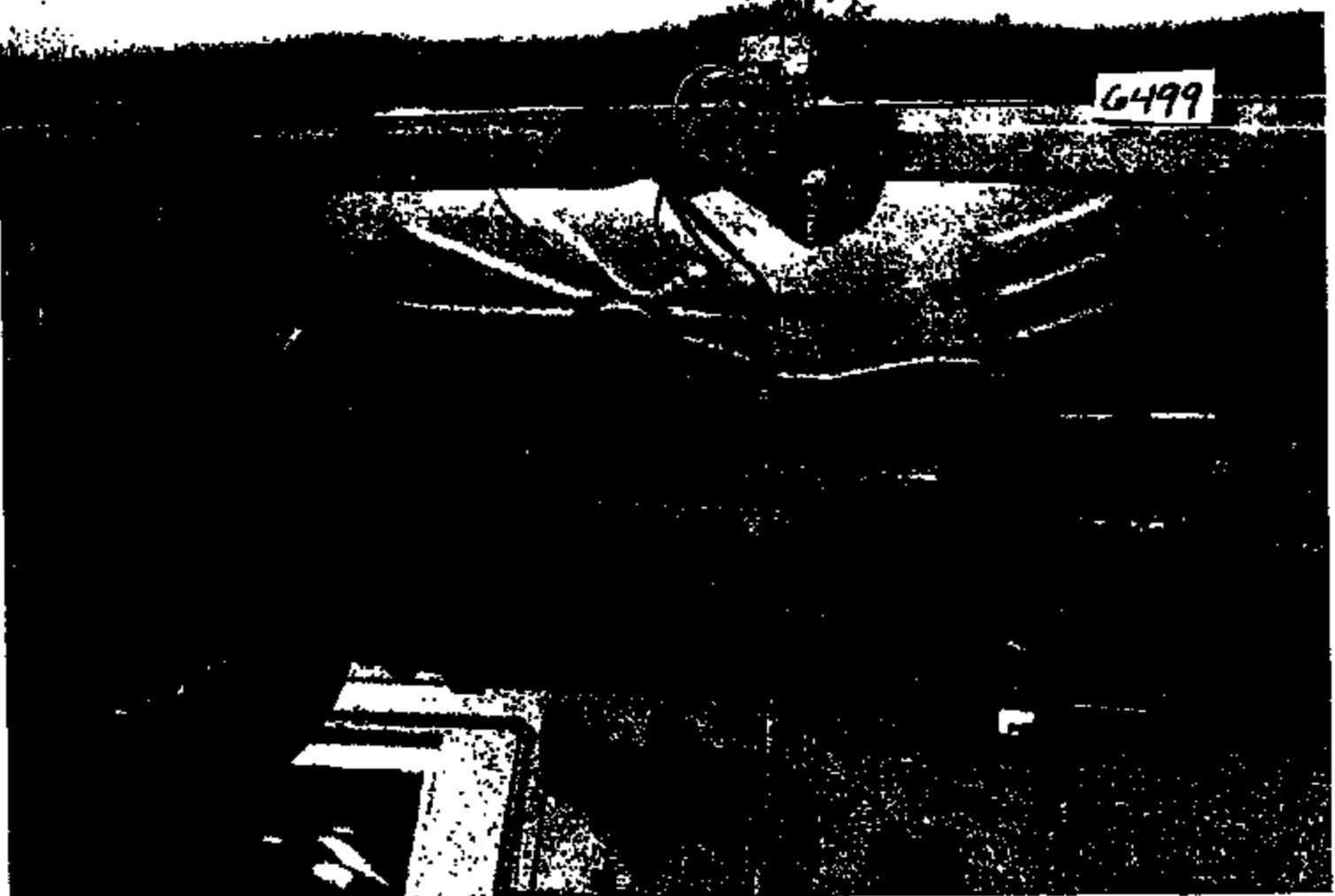
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