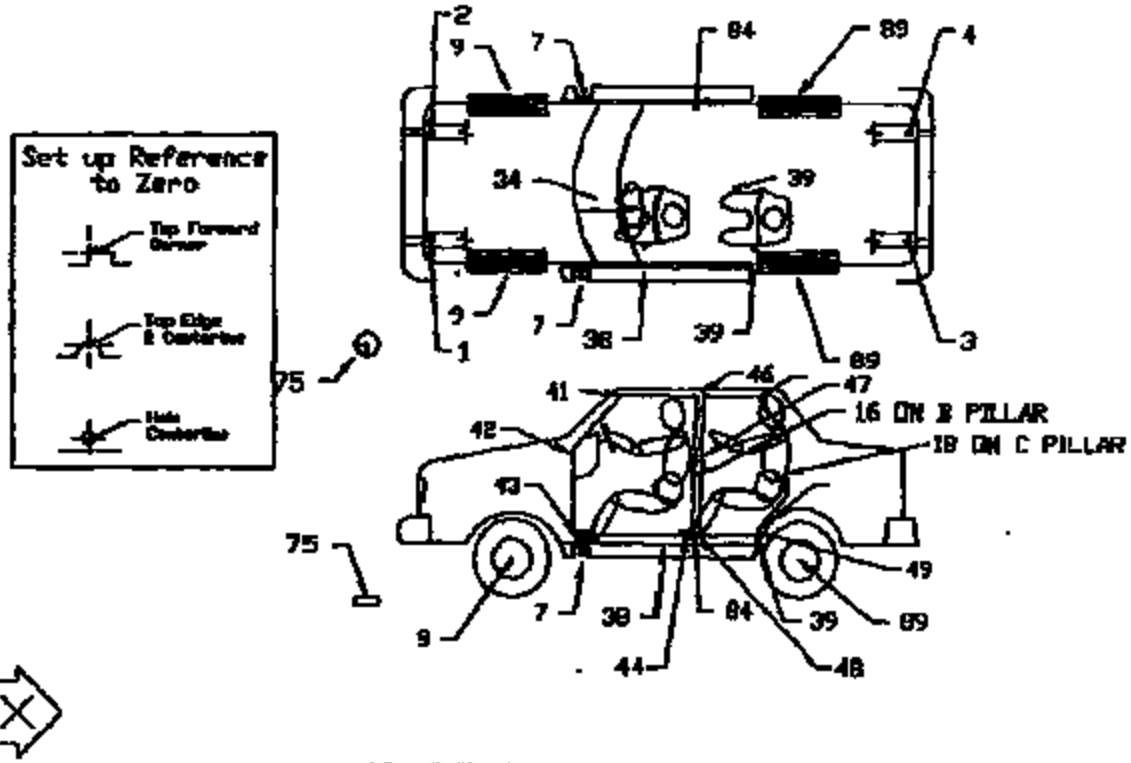
CONTROL POINTS (SIDE IMPACT CARD REQUEST 404
UNIT 70 POINT 75
UNIT 71 POINTS 7 LEFT & RIGHT
UNIT 74 POINTS 41-44,46-49 ON SIDE OF IMPACT
UNIT 74 POINTS 53,54 ON SIDE OPPOSITE OF IMPACT
UNIT 411 POINTS 1-4,38,39,84
UNIT 412 POINTS 9,16,18,89 LEFT & RIGHT
(LEFT SIDE IMPACT SHOWN)




REQUEST 404 IPIC 966 12/96



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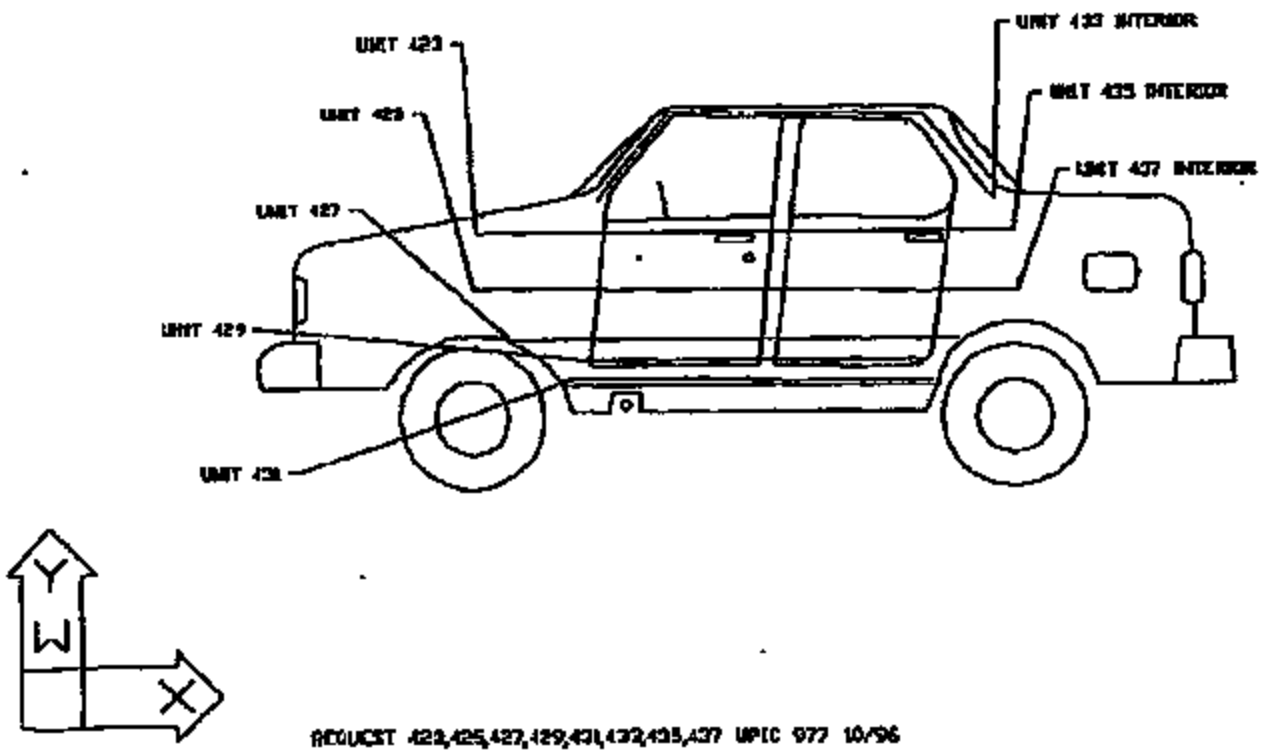
EXTERIOR & INTERIOR HORZ. SECTIONALS SIDE IMPACT
REQUEST 423,425,427,429,431,433,435,437




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

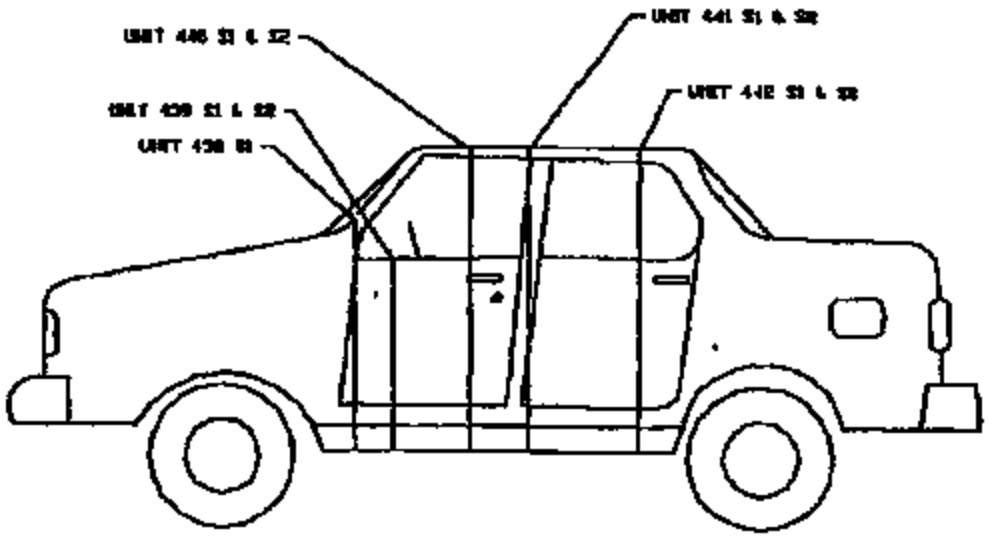
ENTIRE PAGE CONFIDENTIAL

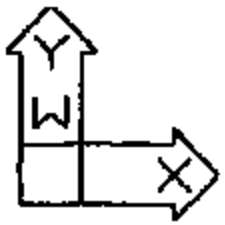
CRTS 0012181

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

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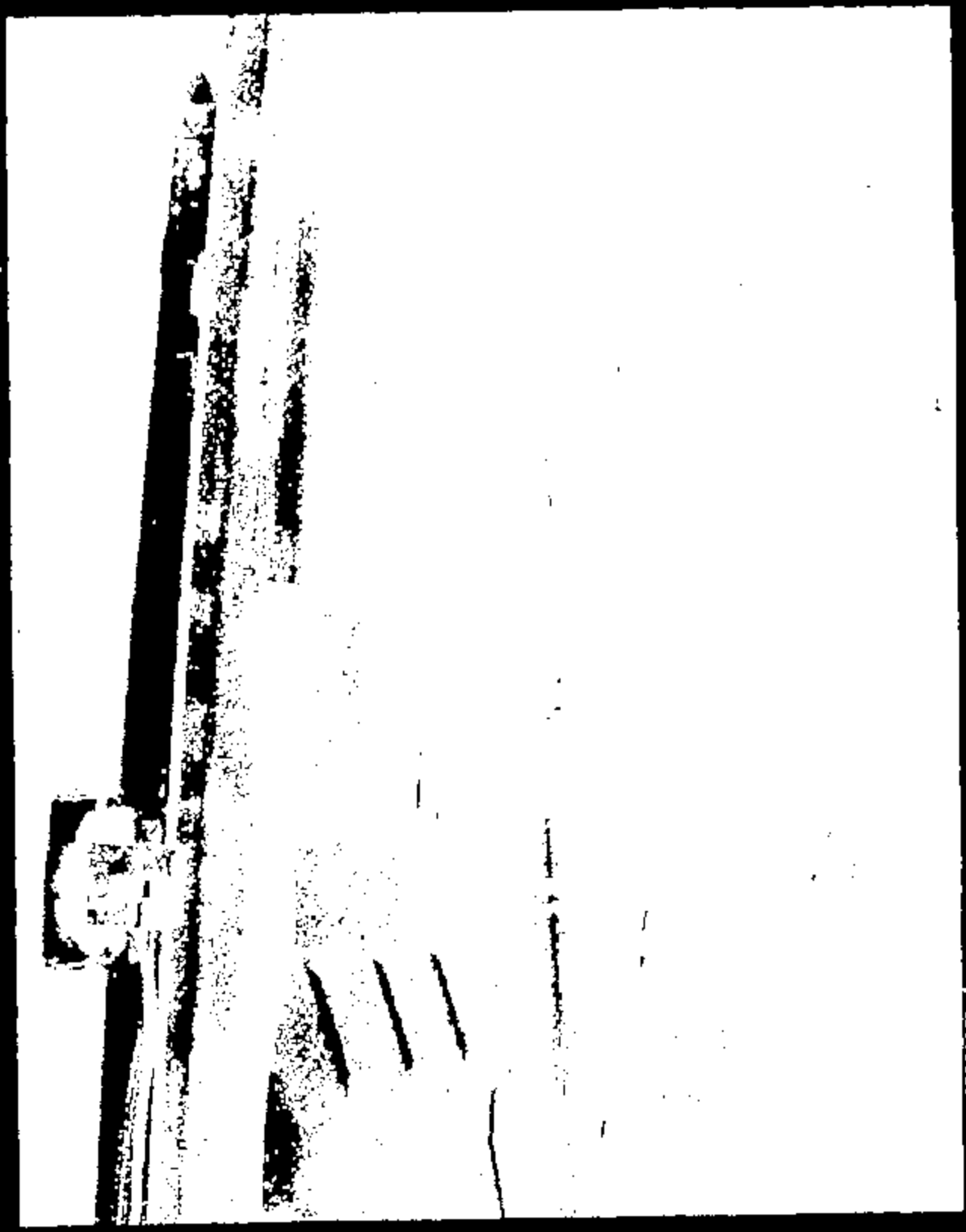

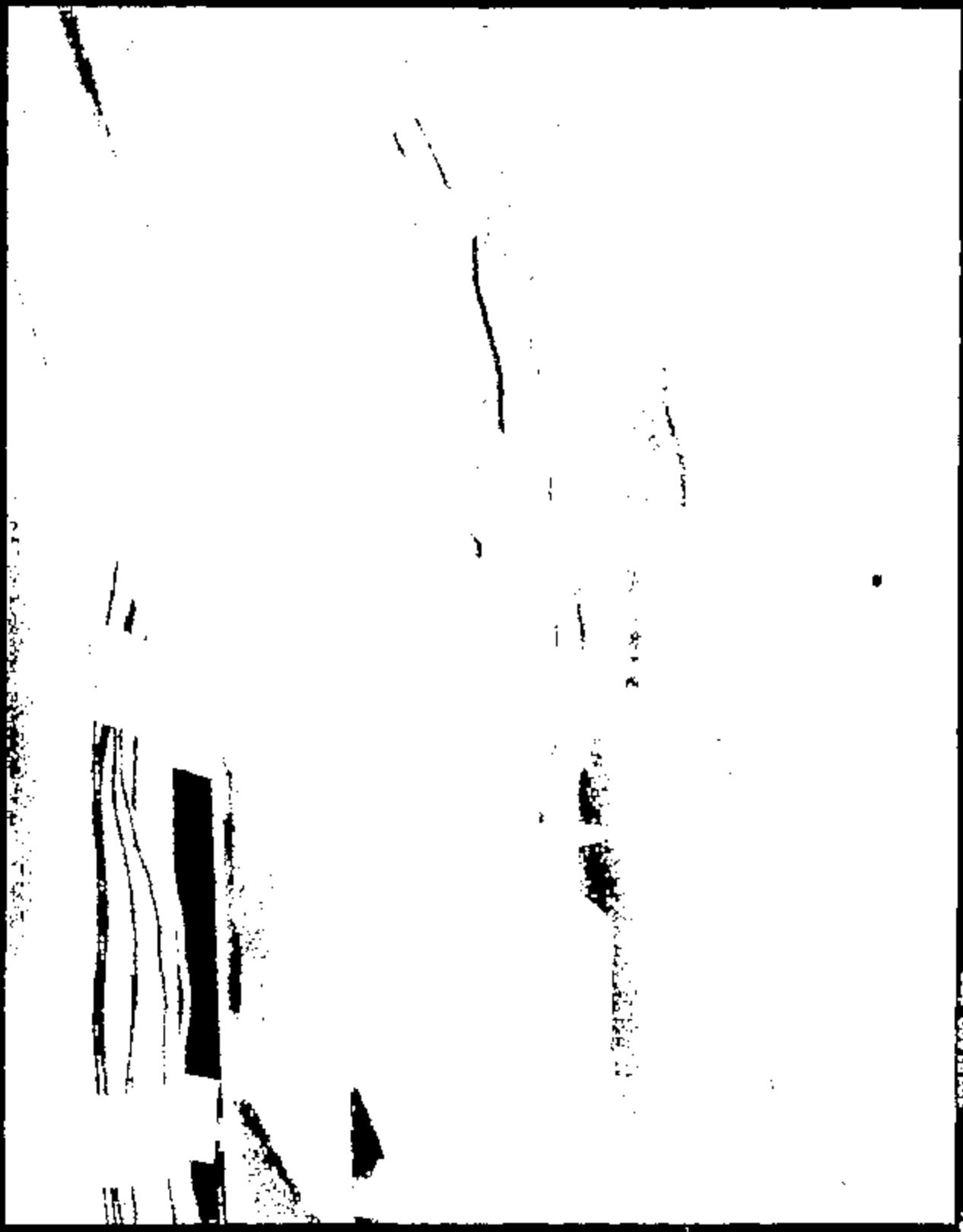

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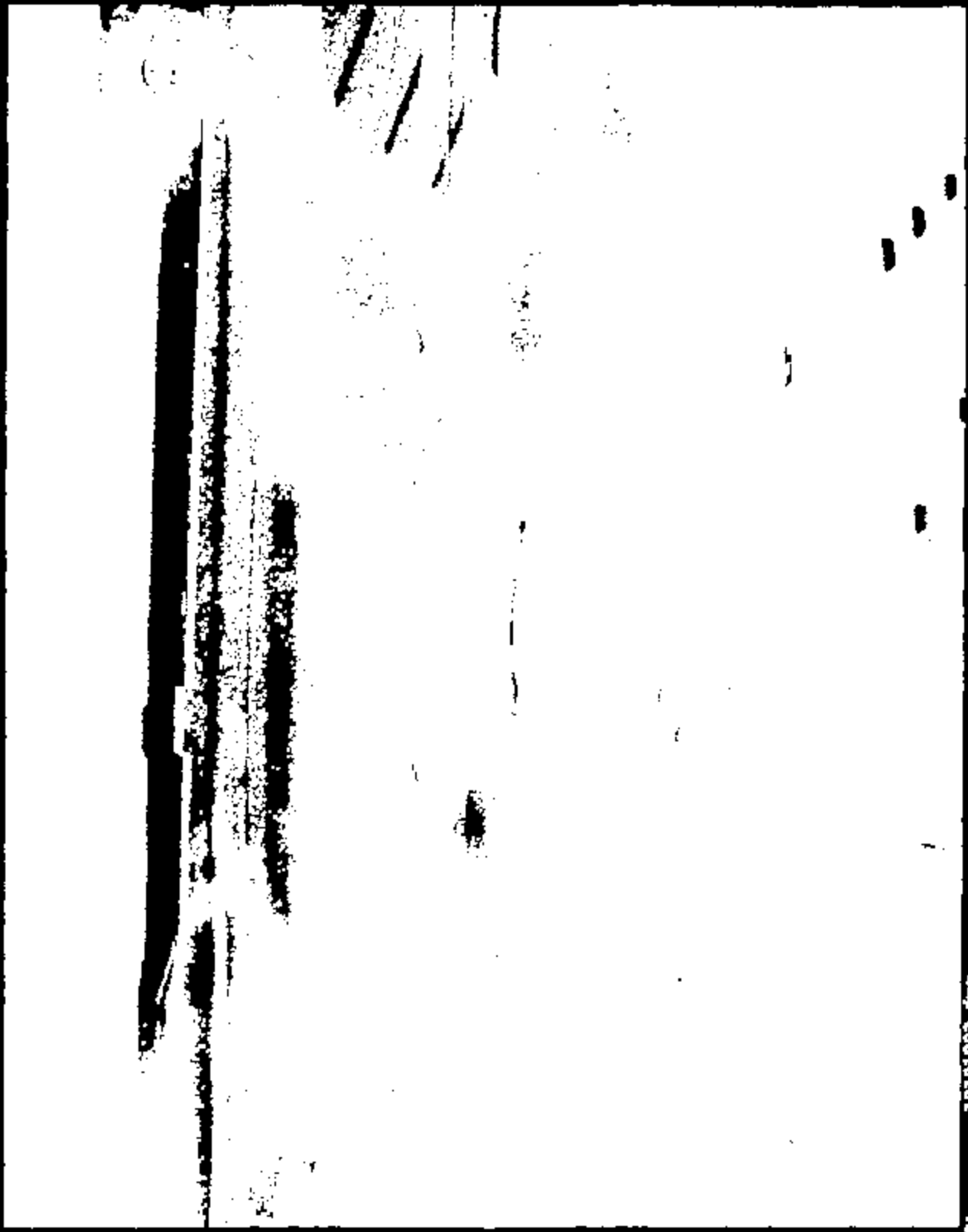

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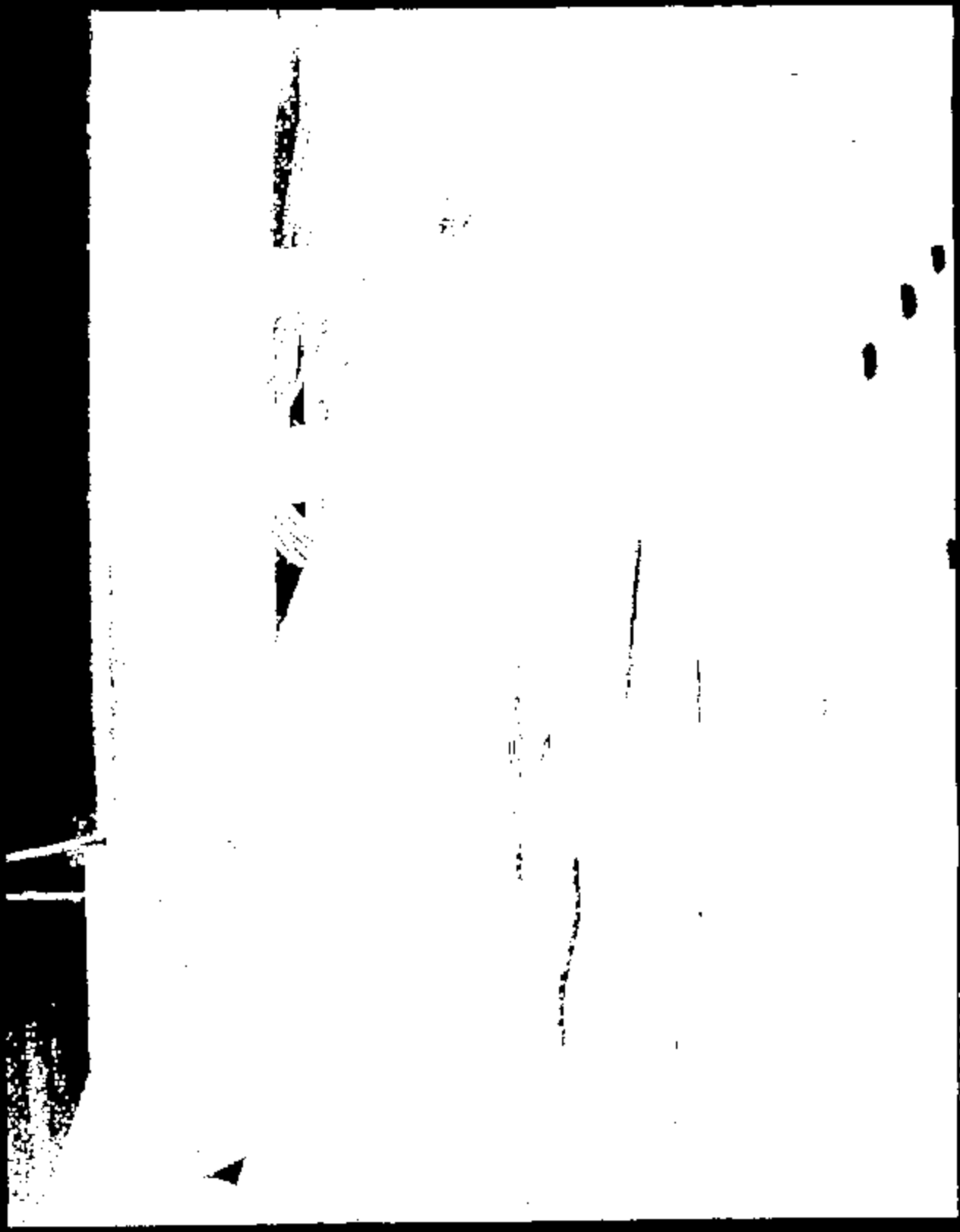

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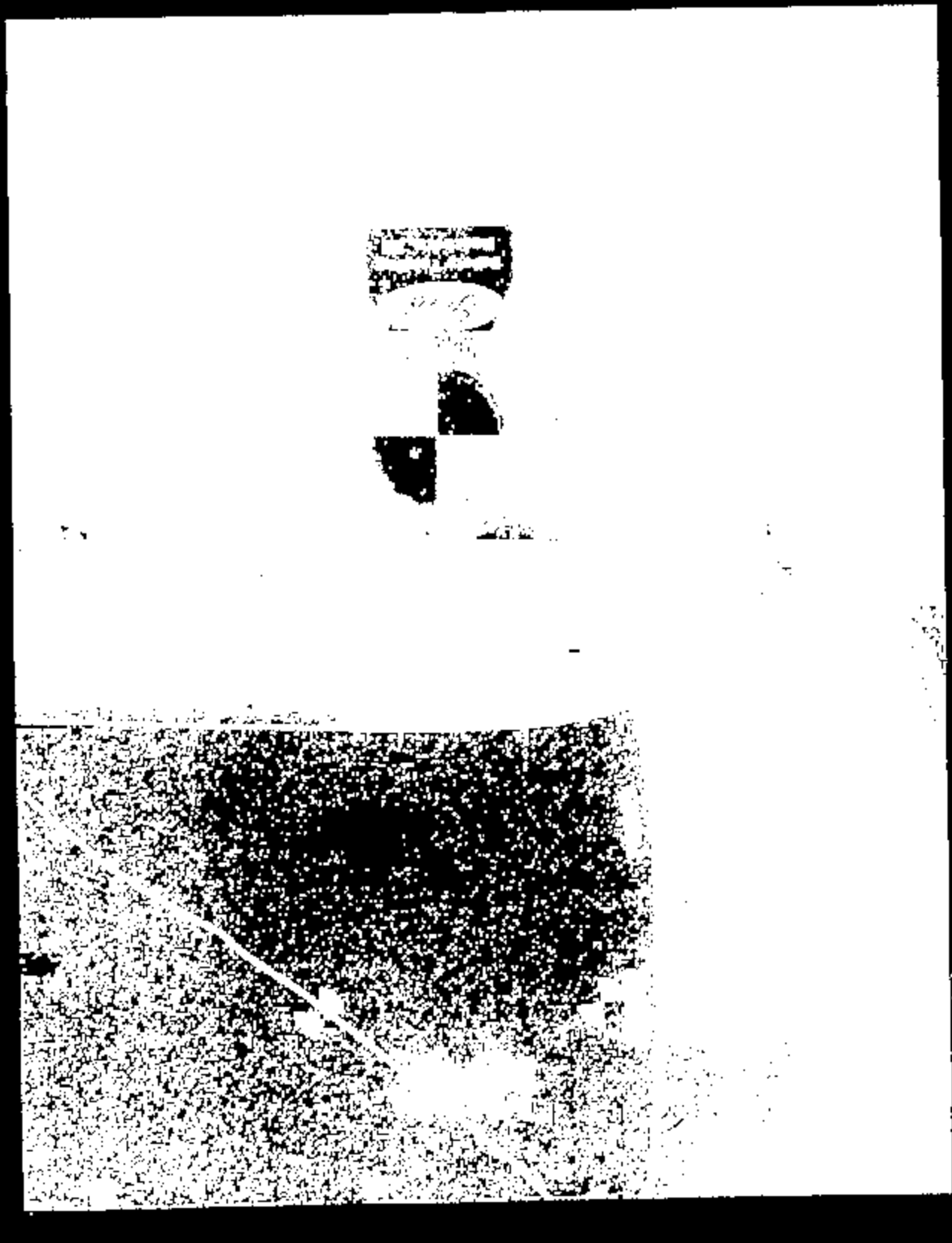

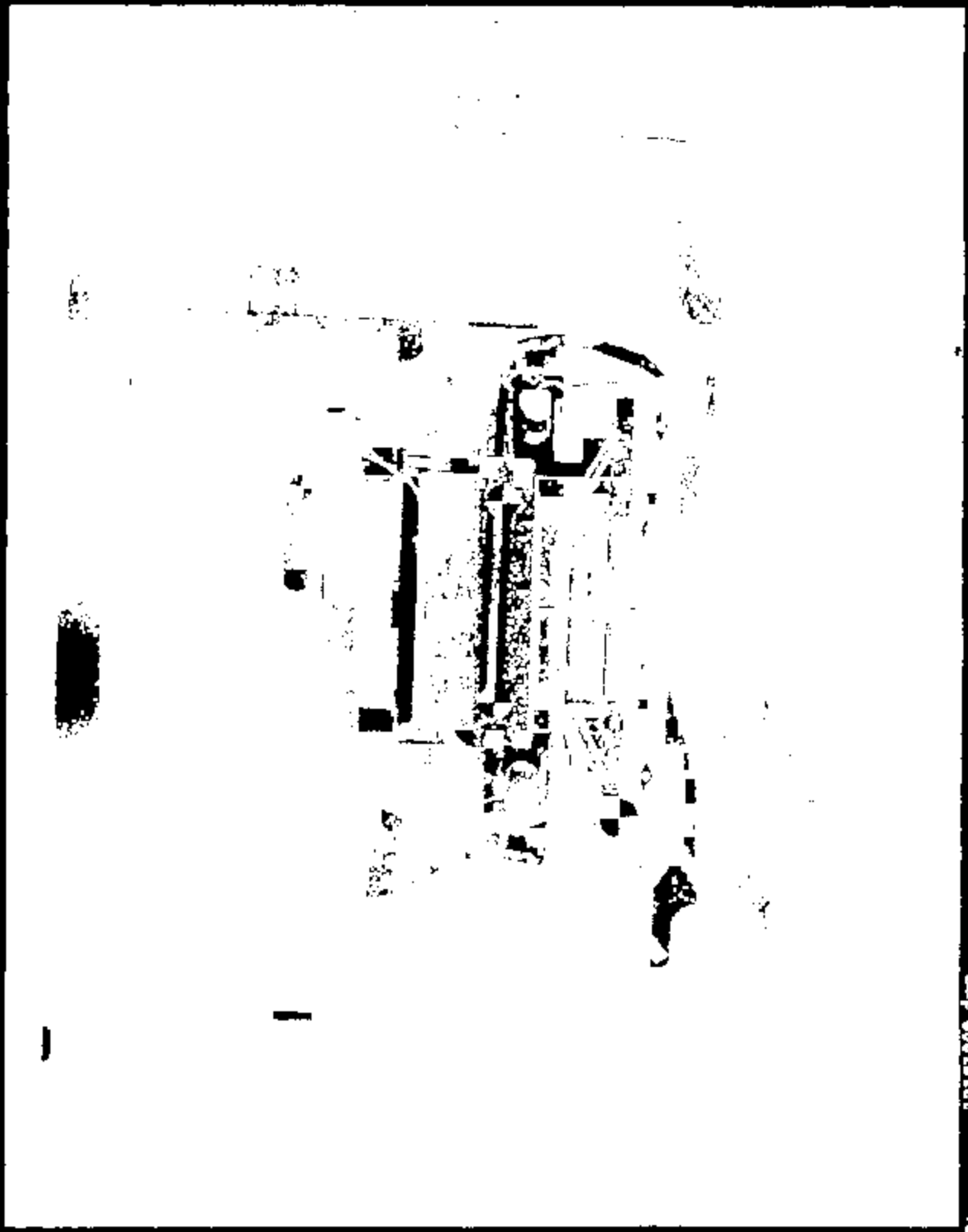

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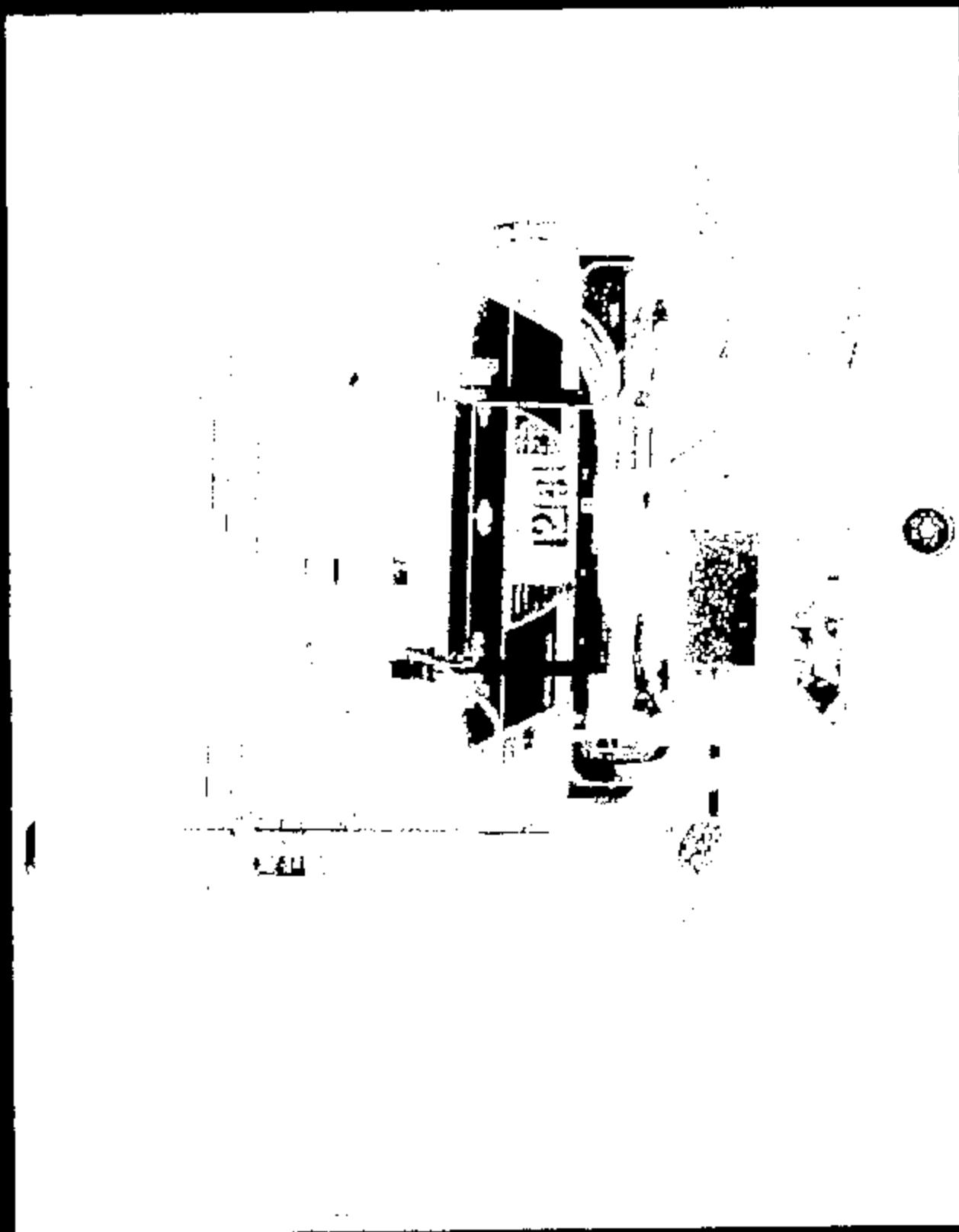

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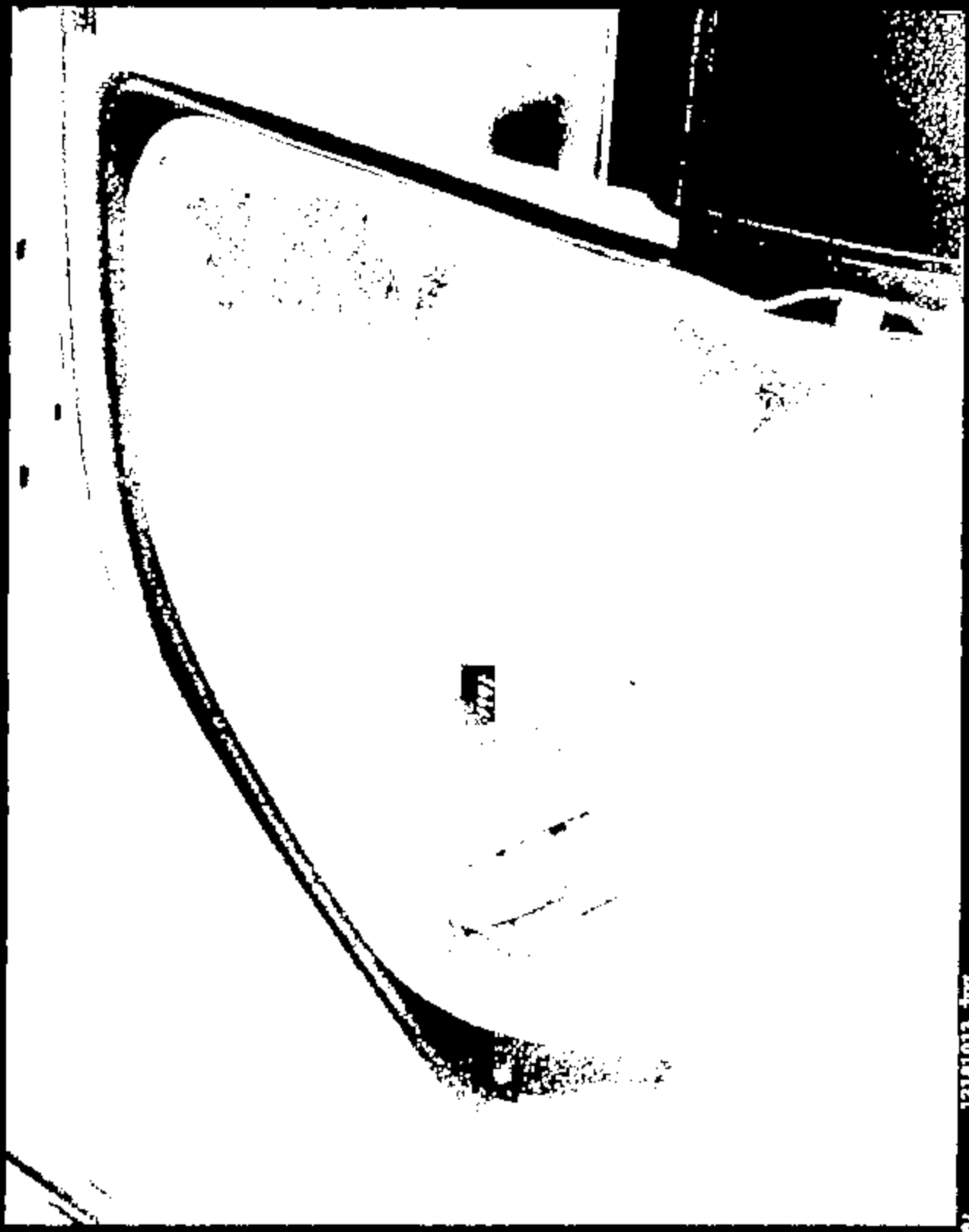

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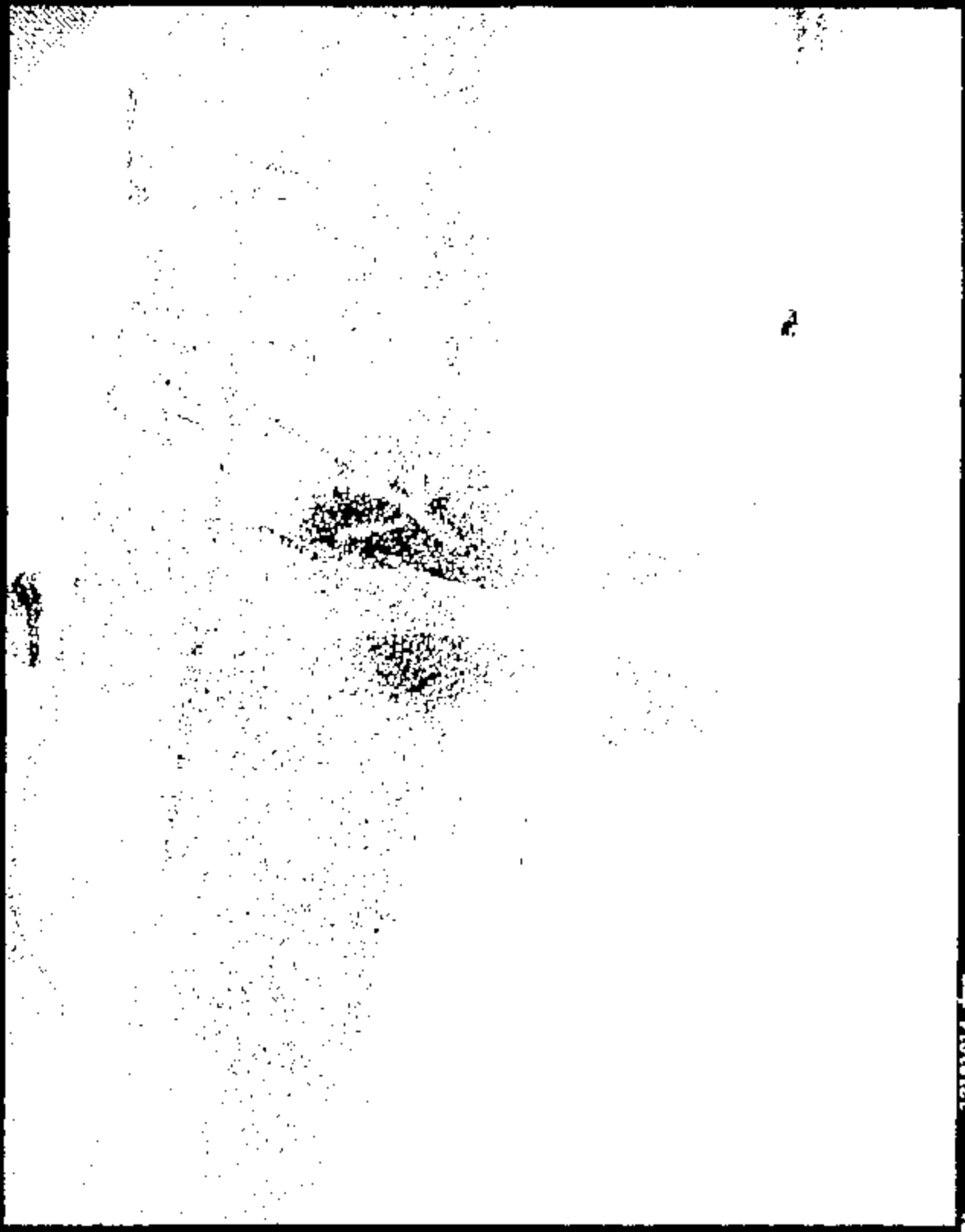

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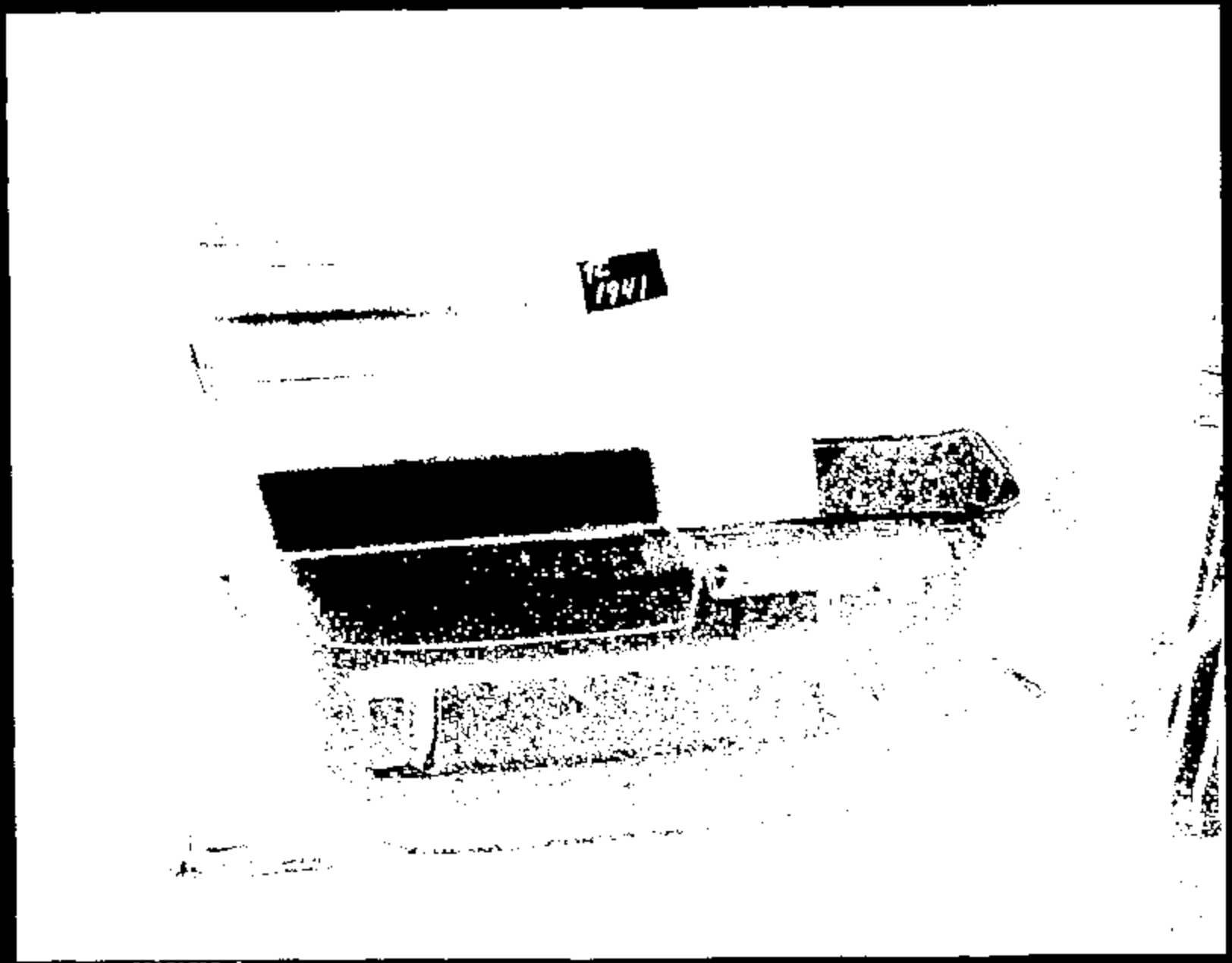


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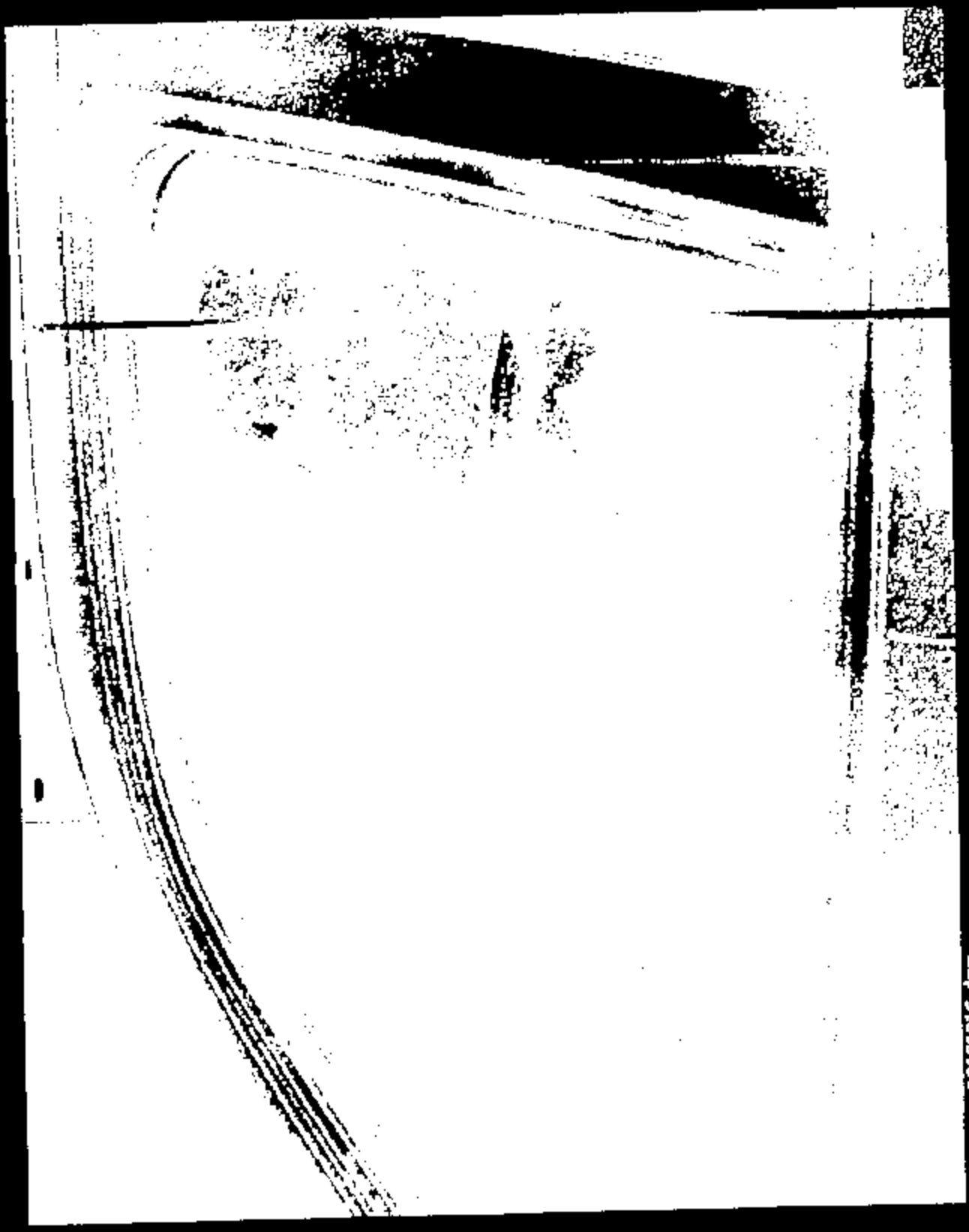

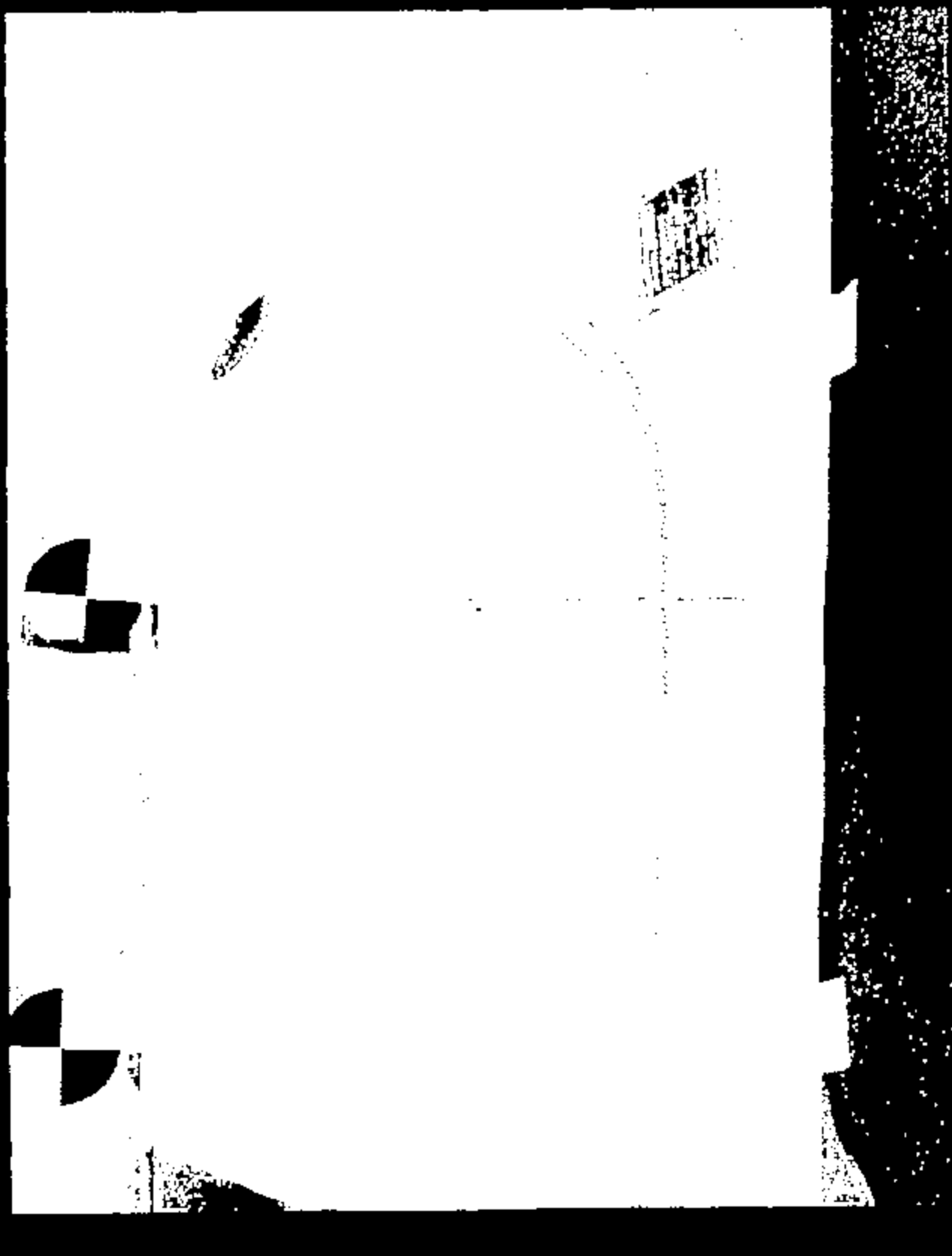

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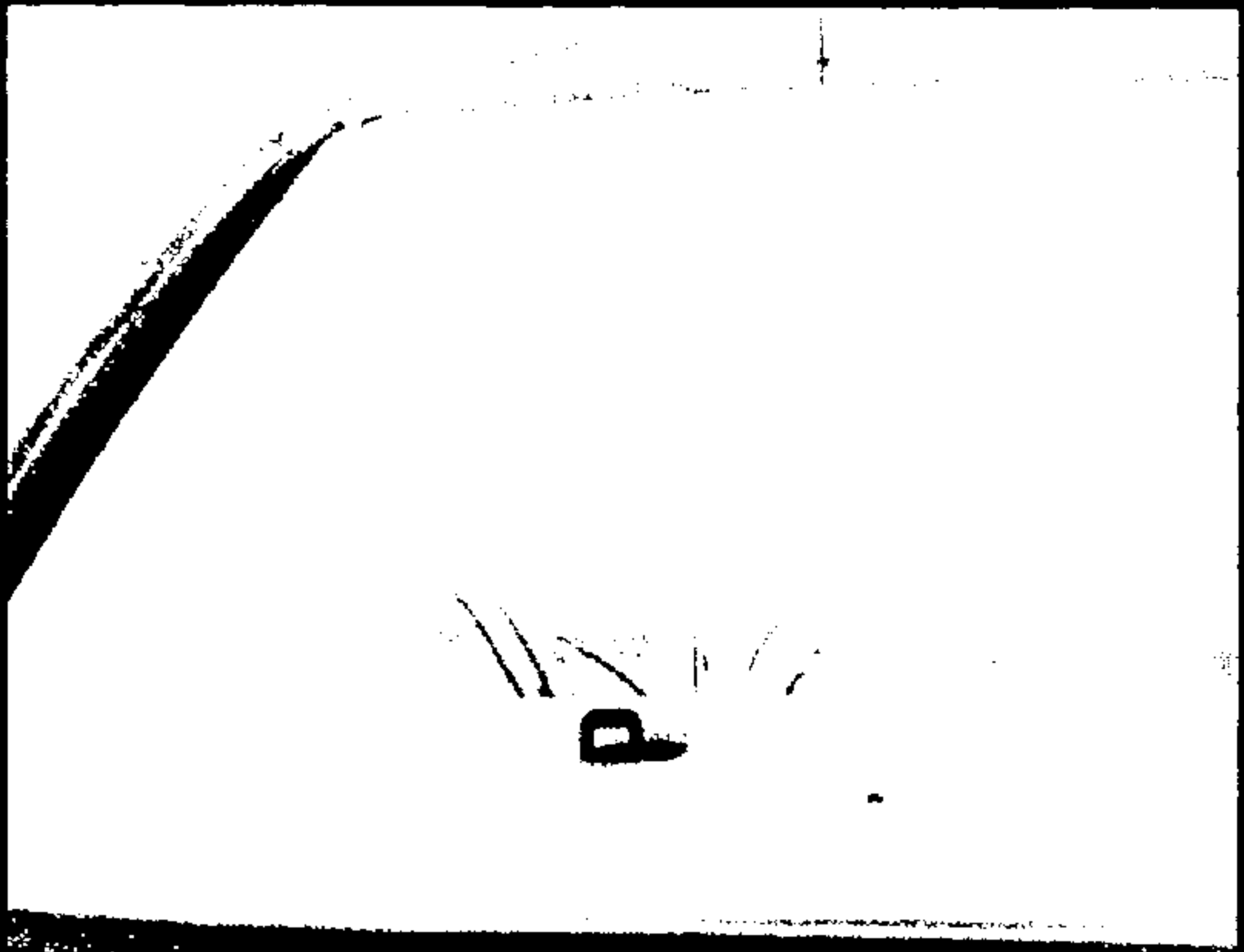

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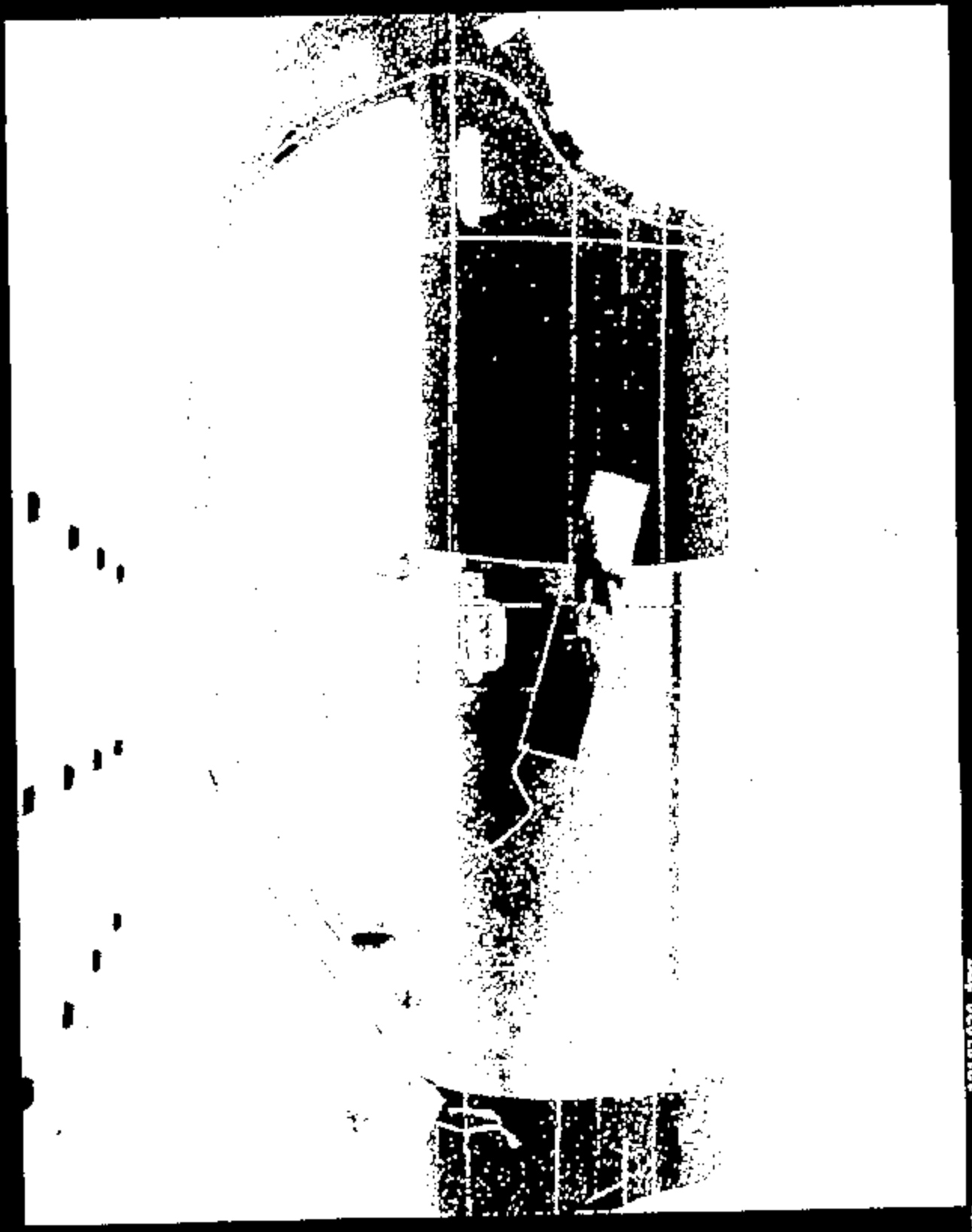

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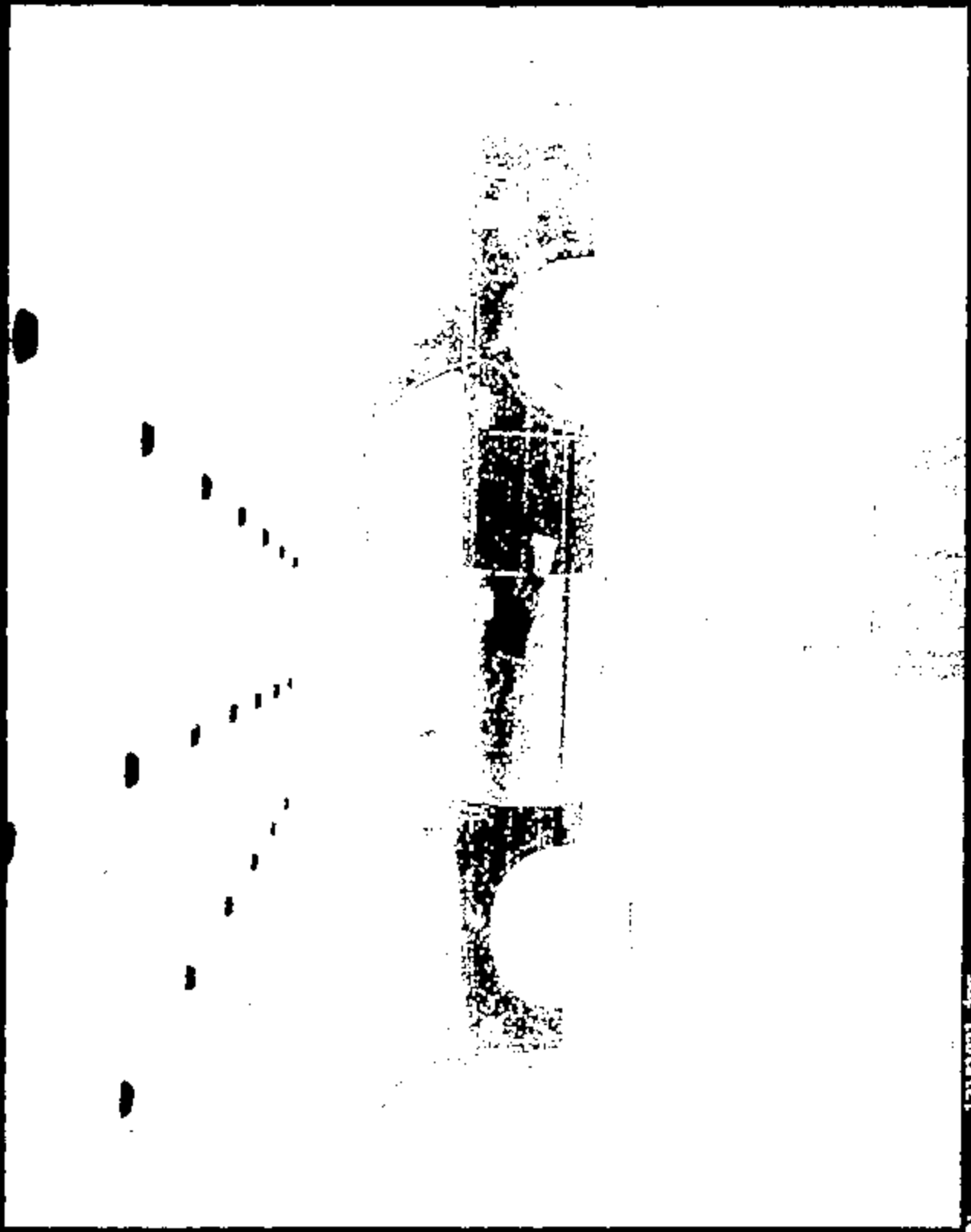

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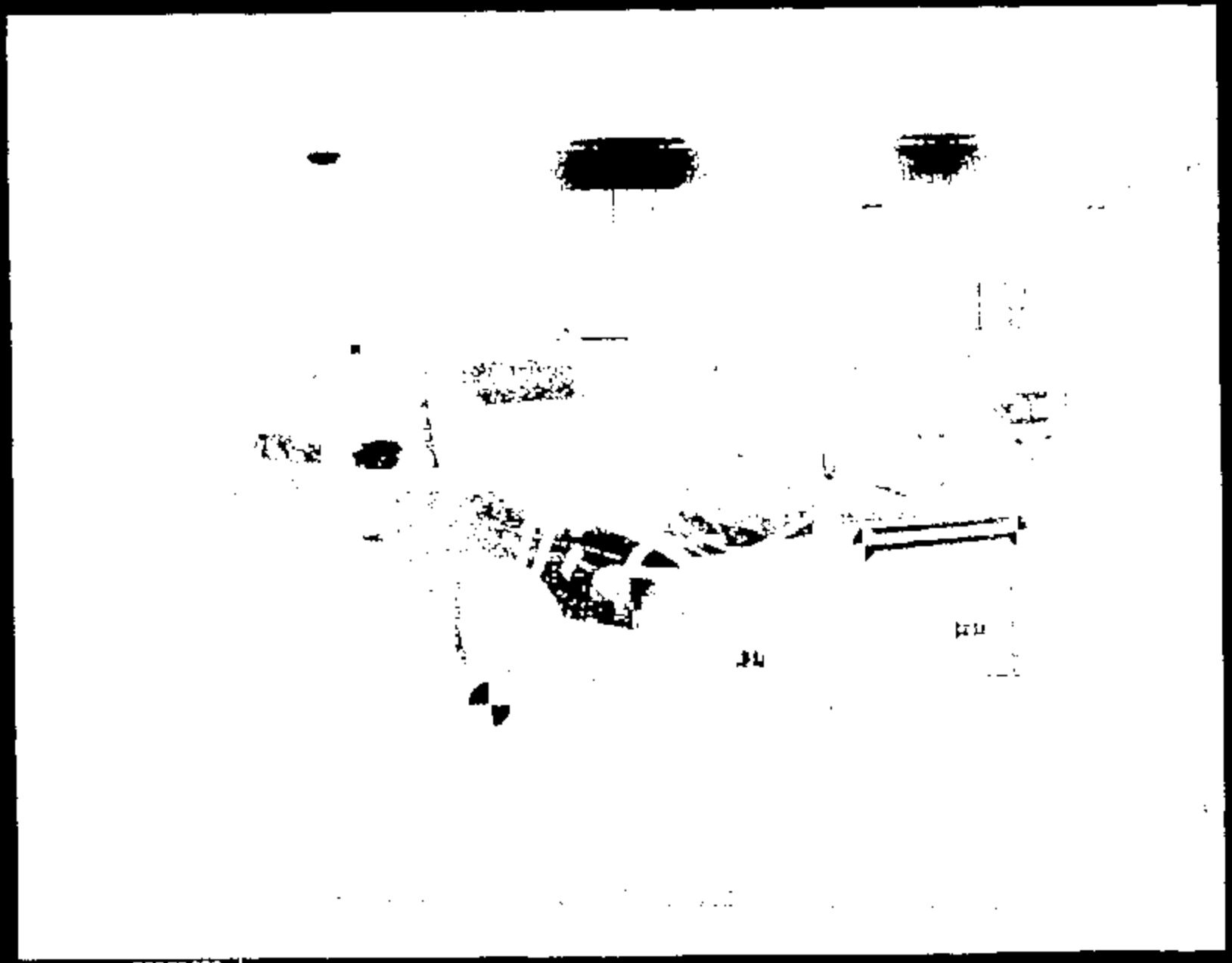

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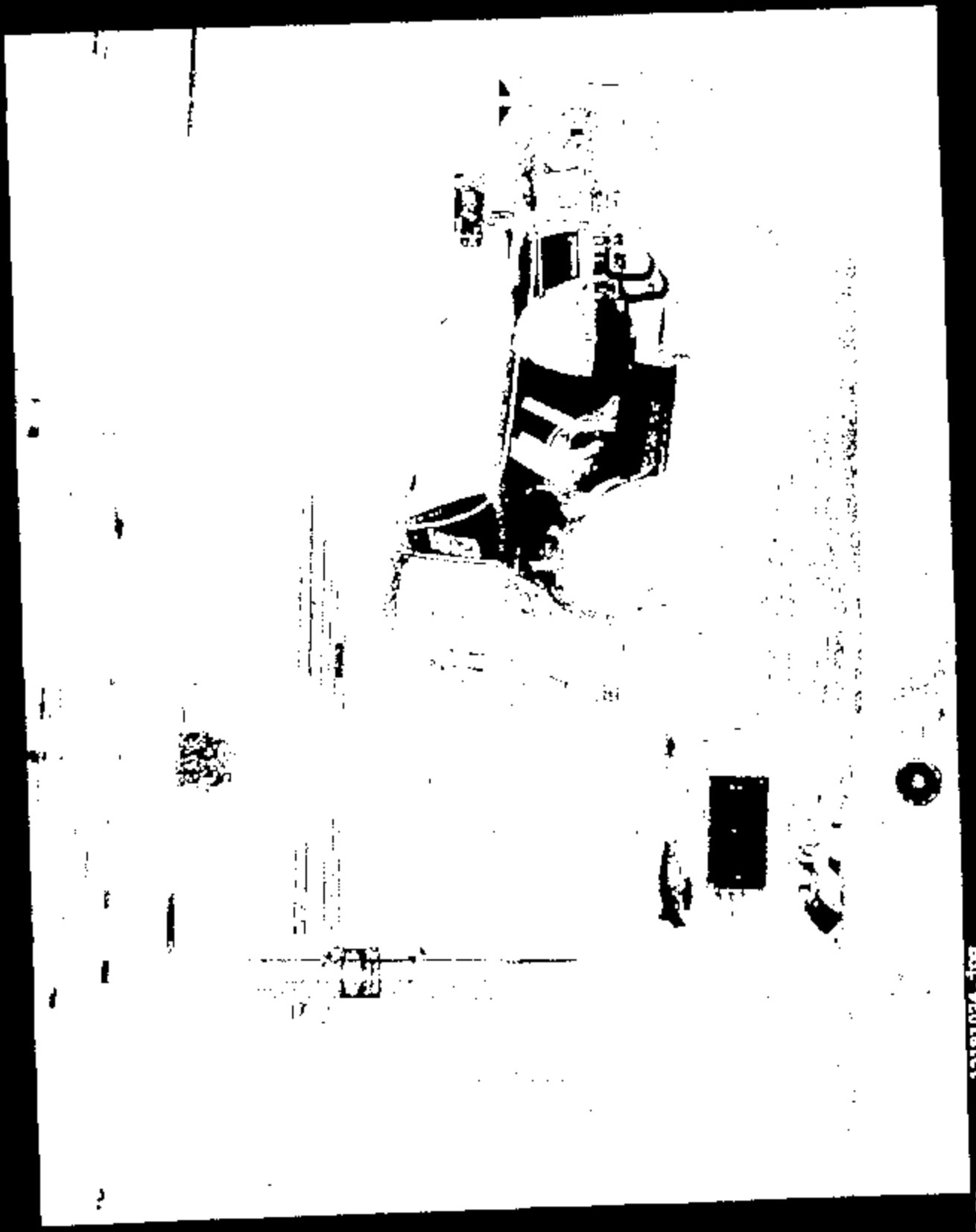

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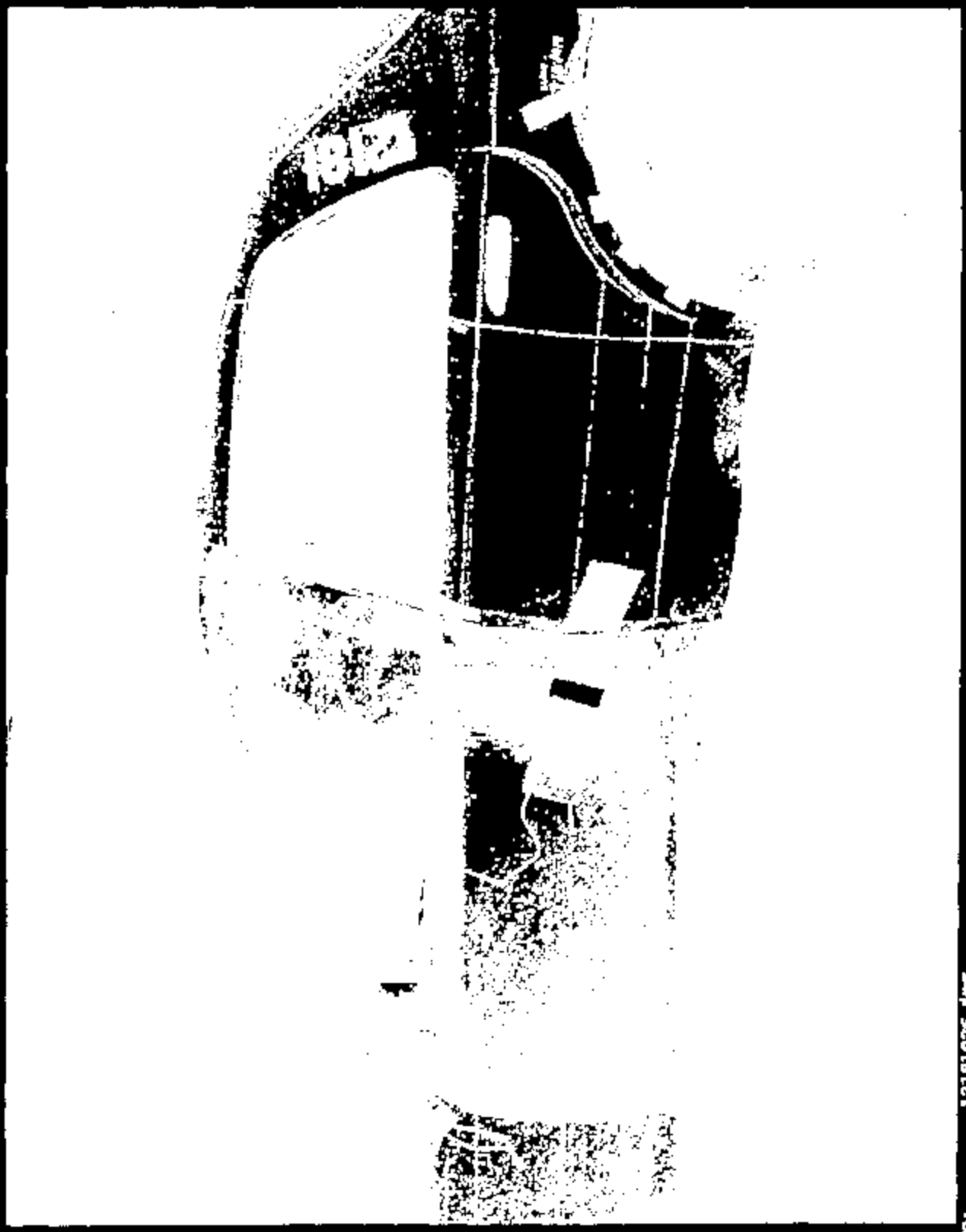

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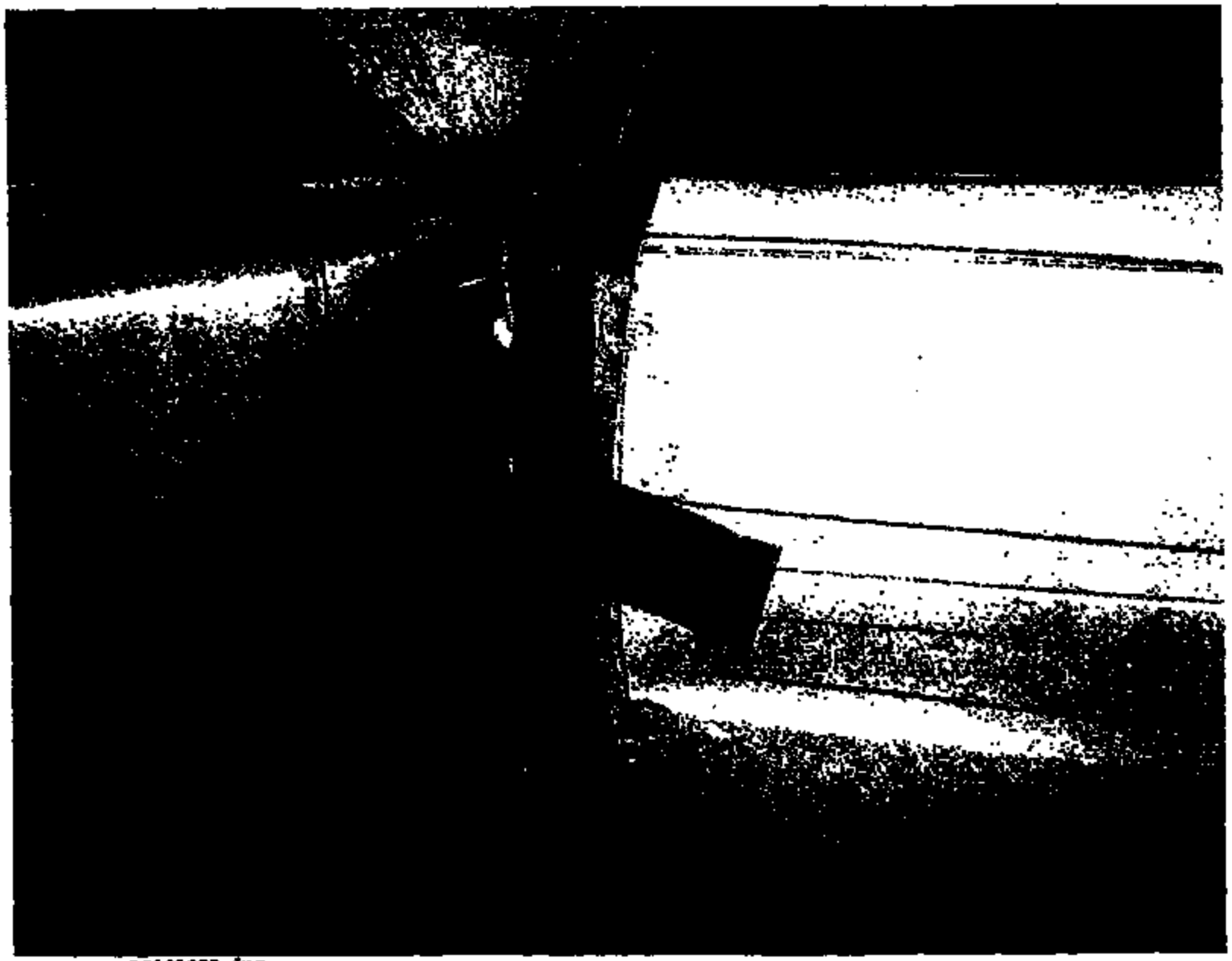

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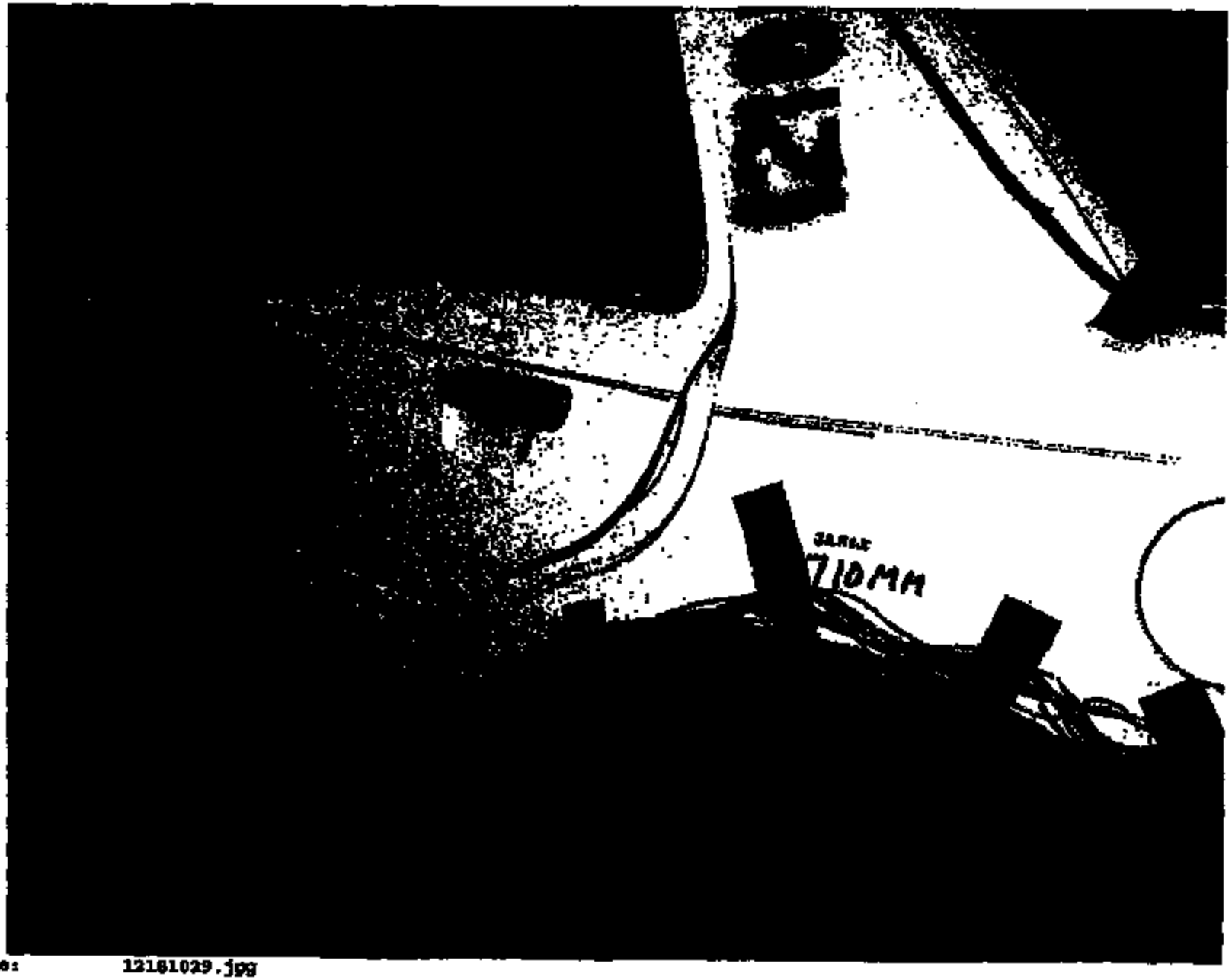


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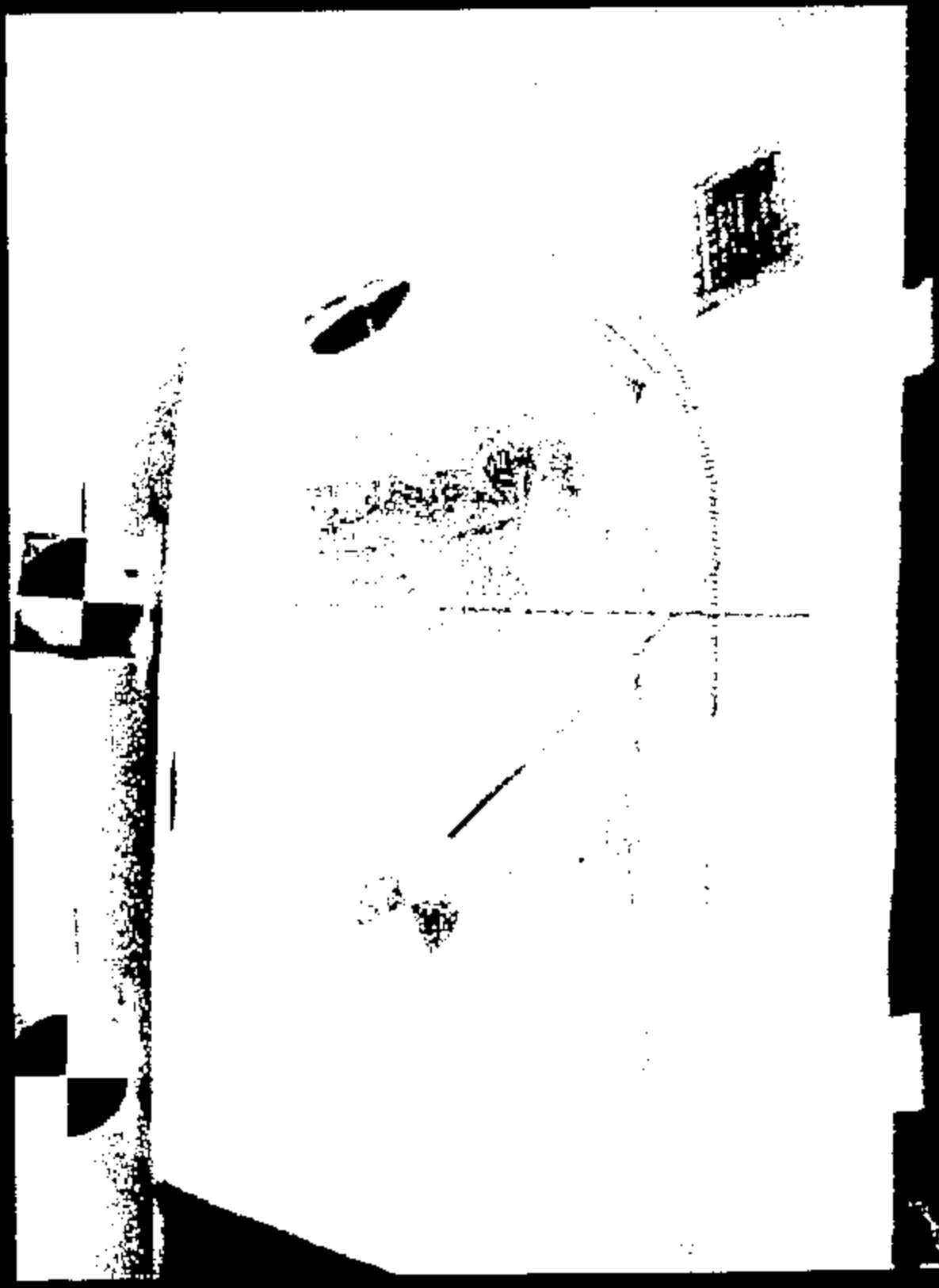

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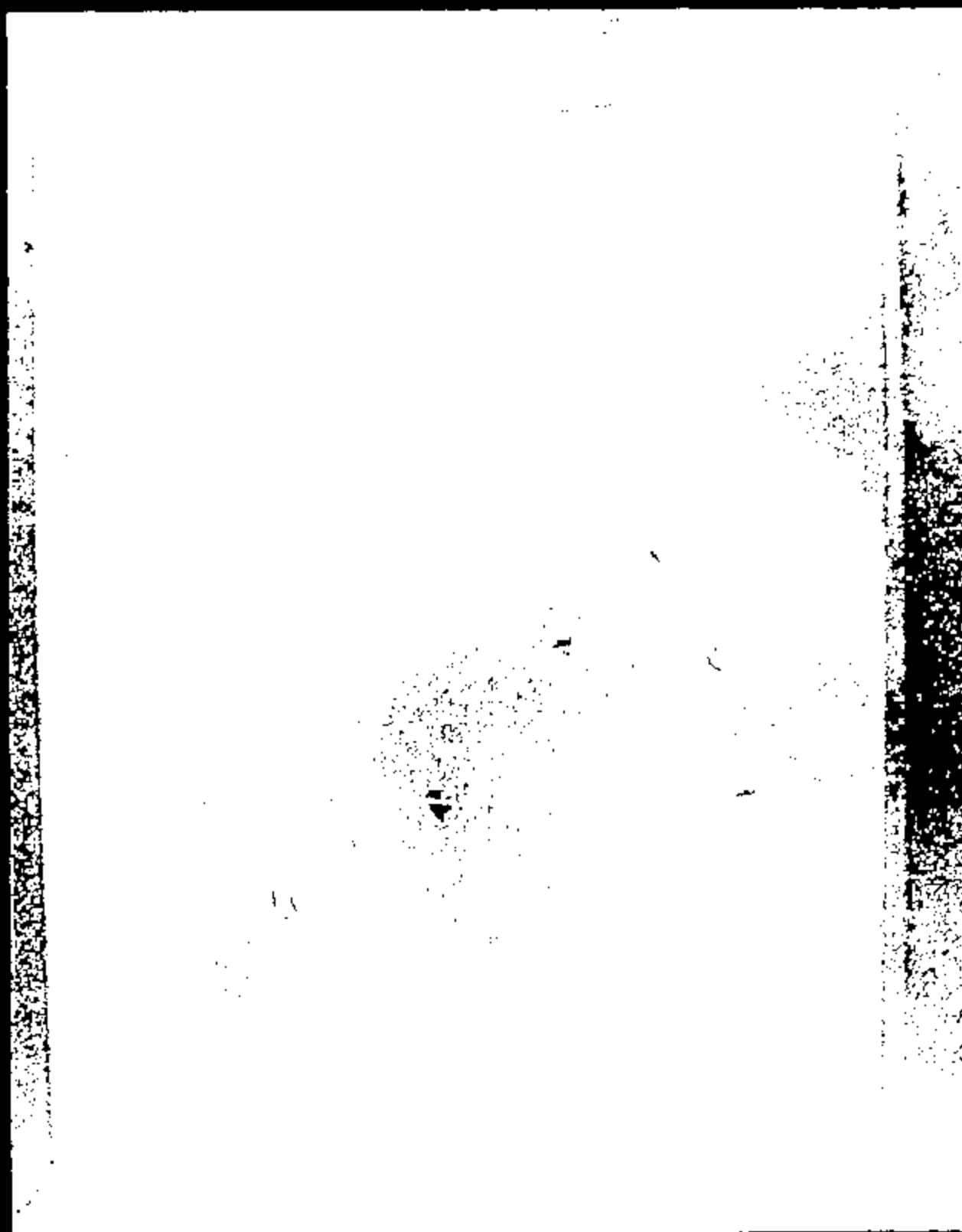

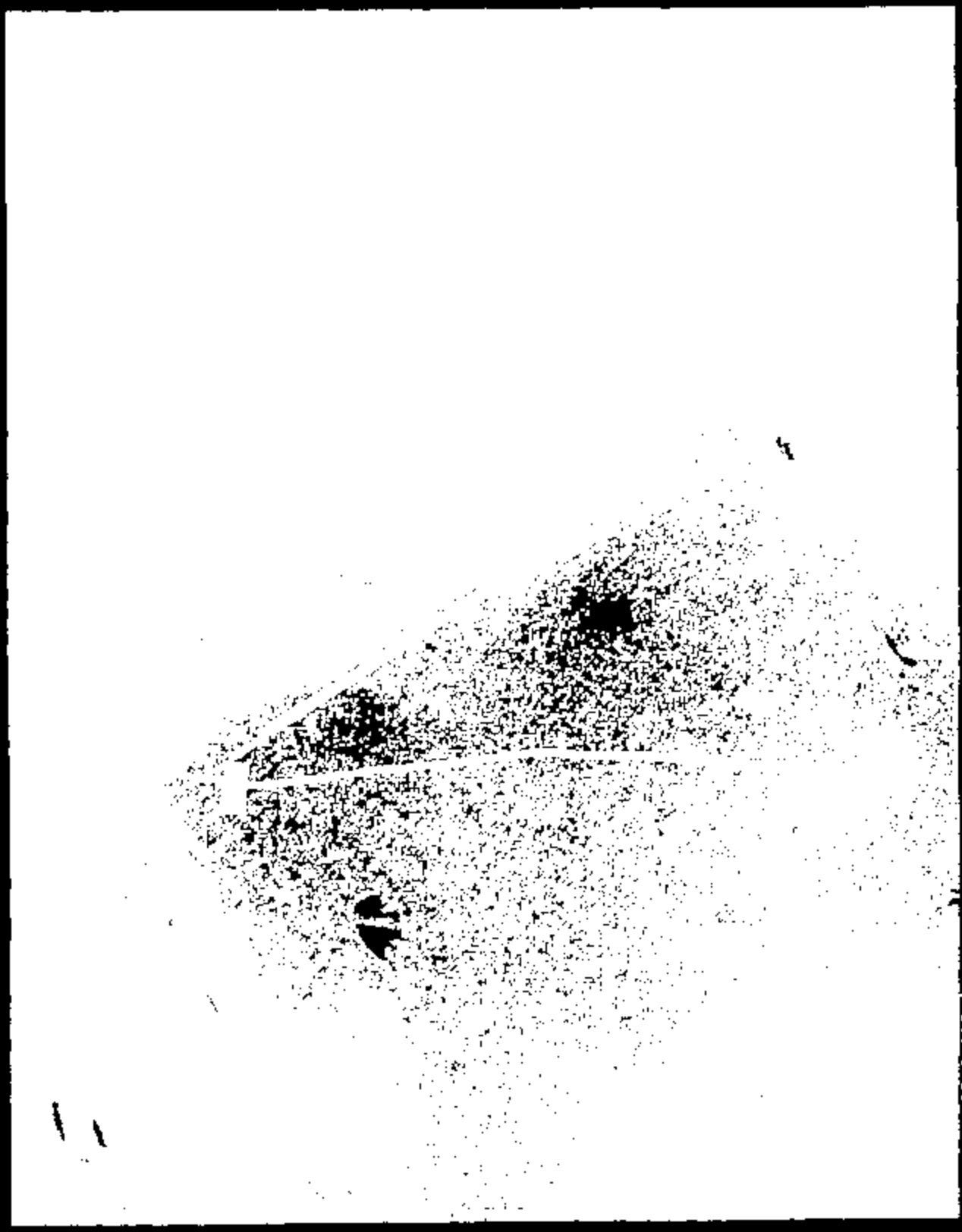

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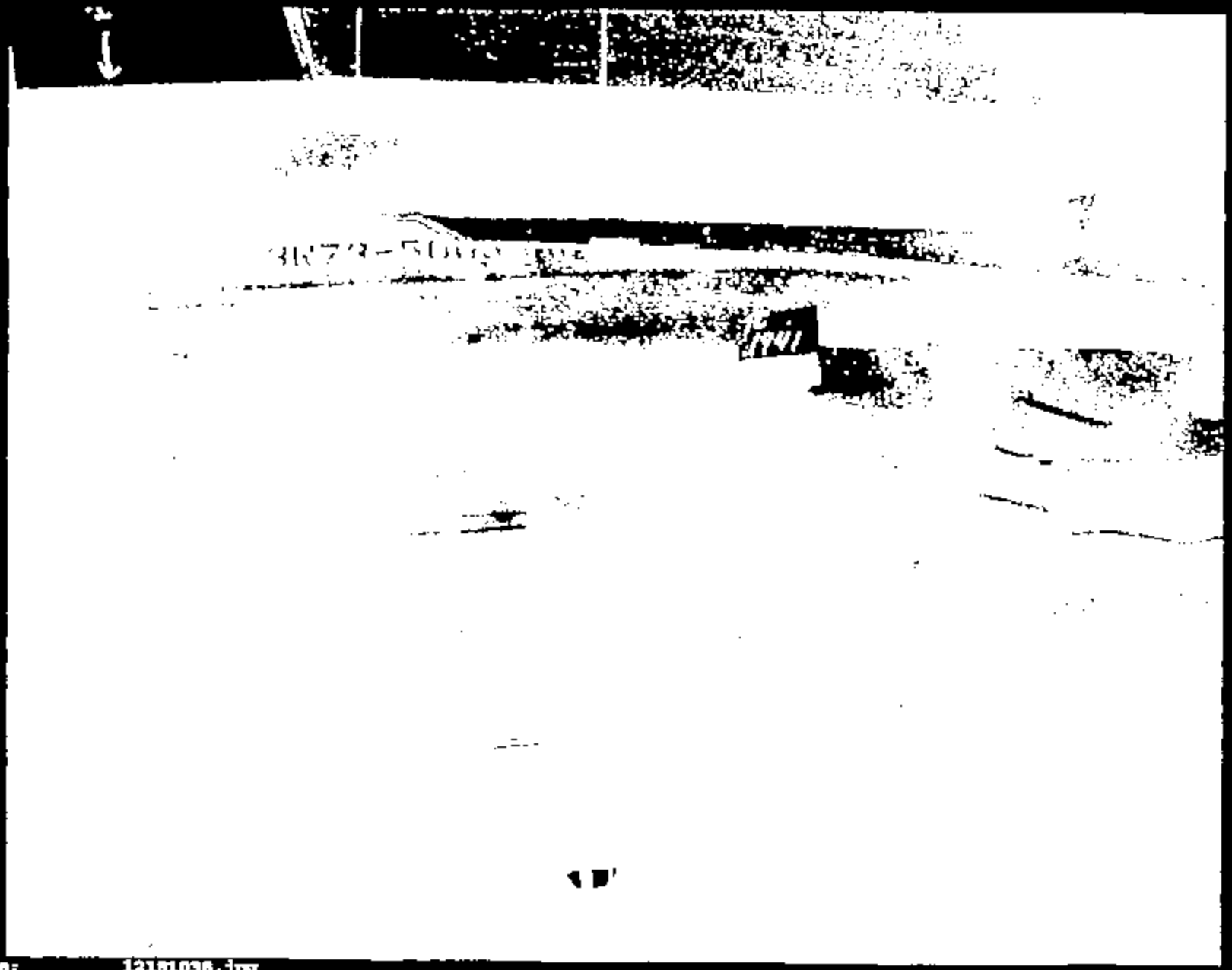

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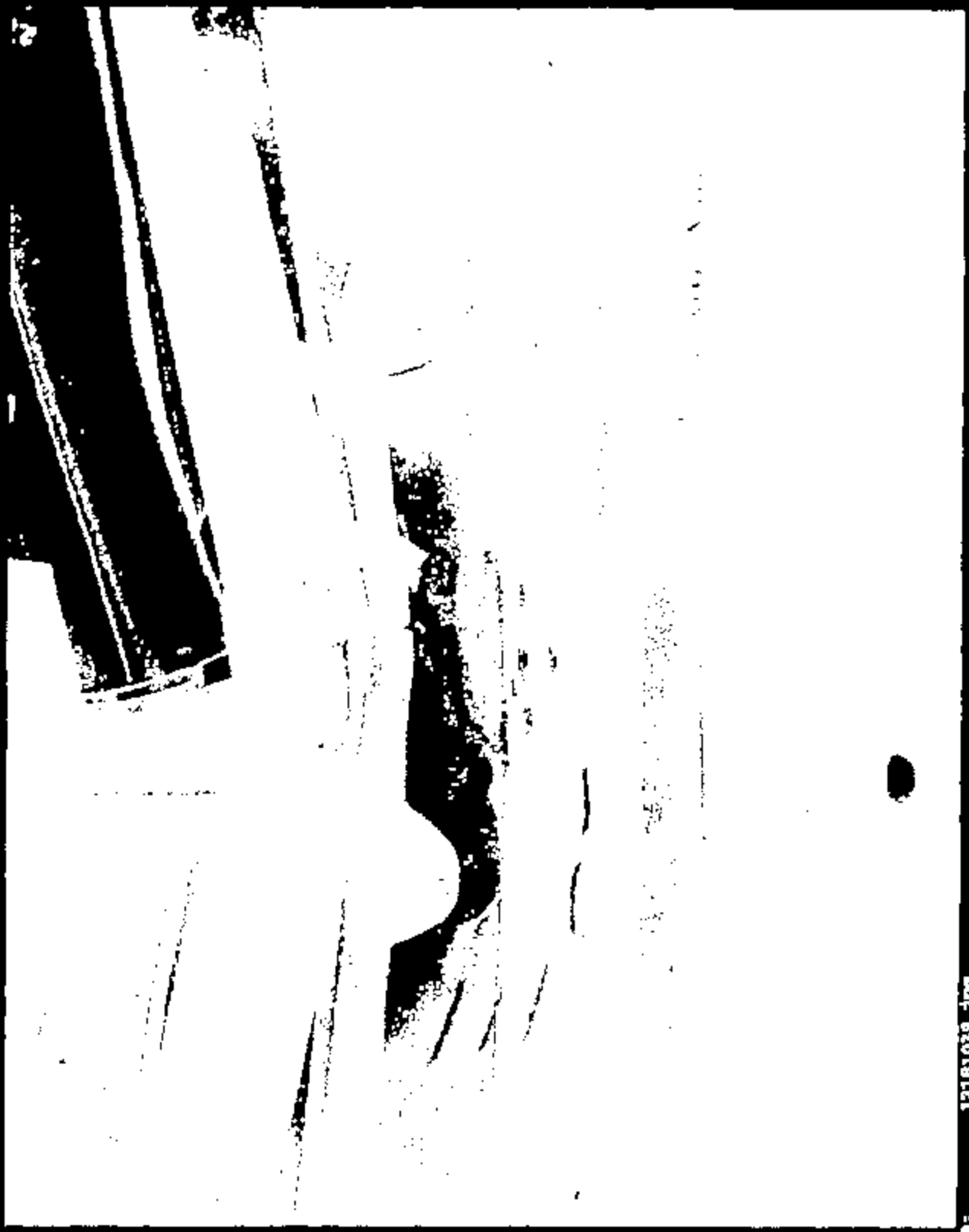

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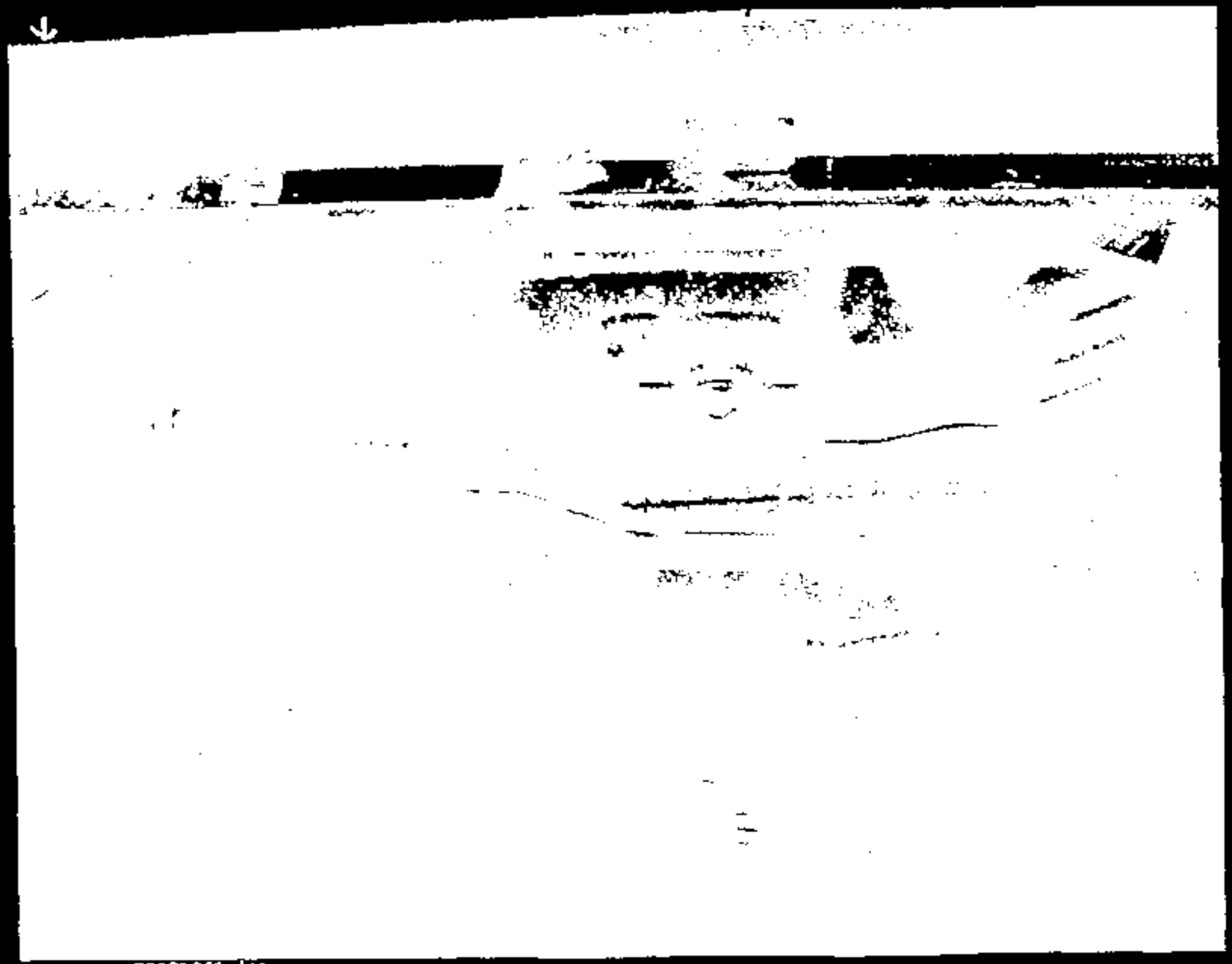

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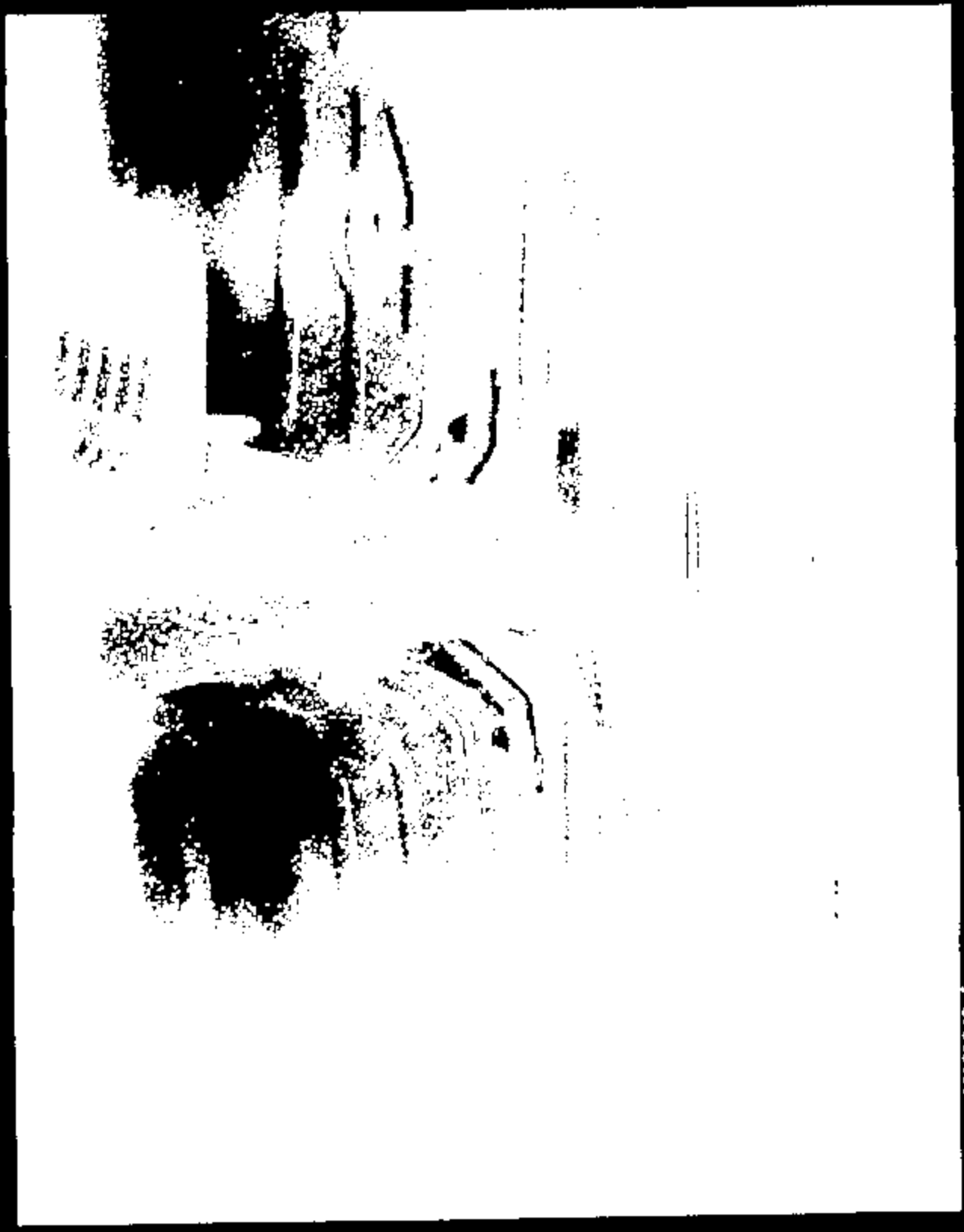

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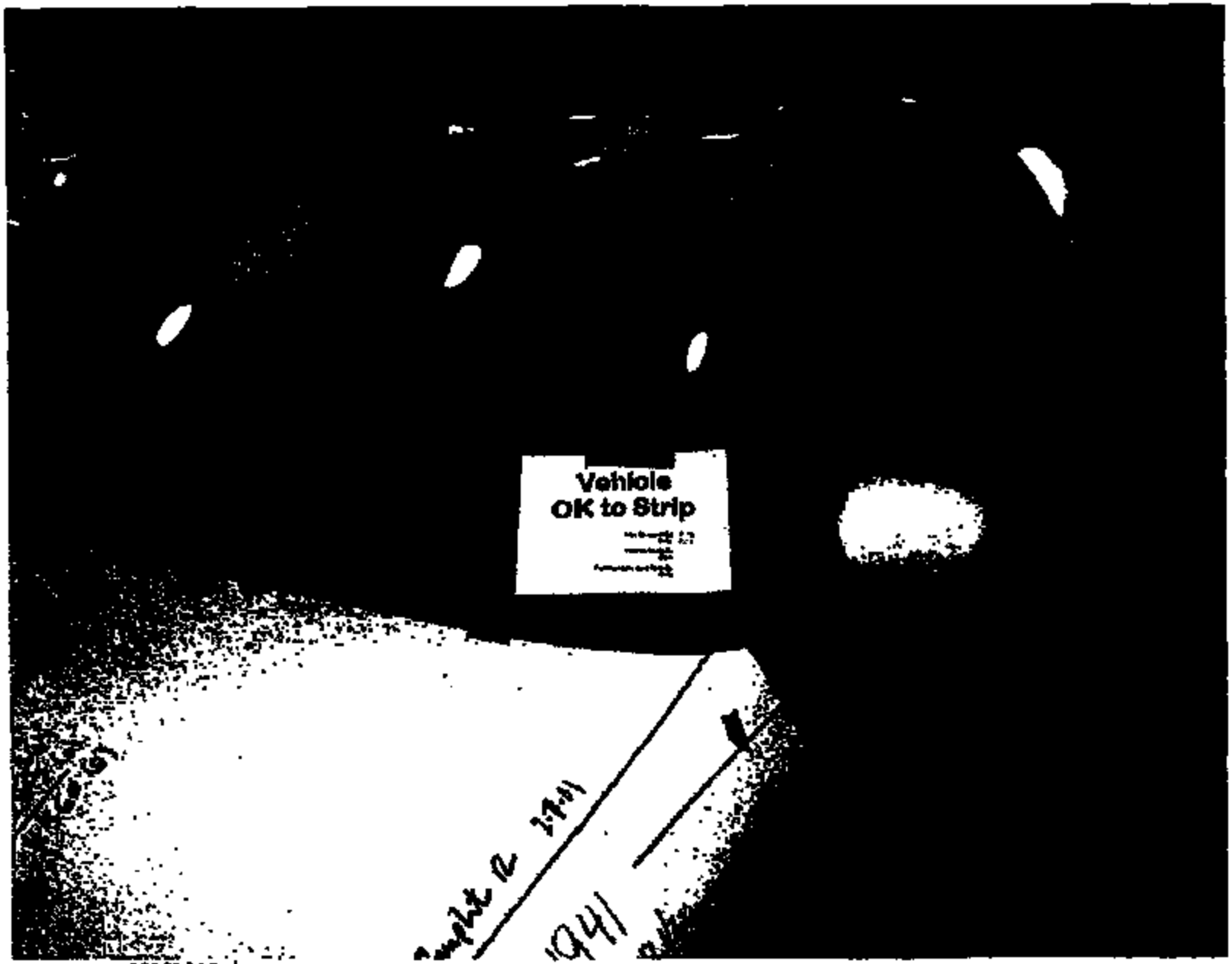


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# VEHICLE SAFETY PACKAGE LAB WORK ORDER

**TEST AUTHORIZATION** — TEST AUTHORIZATION NUMBER: T01941

TO: Safety Lab Department

CC: Christianne Jackson
Kirk Arthurs

REQUEST DATE: 1/10/01
REQUESTED COMPLETION DATE: 2/15/01
REQUEST NUMBER: n/a
PROBLEM NUMBER: n/a
REQUESTING ACTIVITY: Vehicle Crash Safety

TITLE OF TEST: 2002.5 EN114 (speed) 13 MPH (test description) LH Side Pole (10") Use Rollers
PARTS DUE DATE: n/a

TYPE OF TEST: [X] VEHICLE [ ] BENCH [ ] LABORATORY [ ] OTHER
VIN # or IDENTIFICATION: FB990000 – 21W739 / 2FAHP71W61X100016
VEHICLE MODEL & YEAR: 2002.5 EN114
PROD. OR ENG. LETTER: n/a
TEST CONDUCTED TO CERTIFY CONTROL ITEM COMPLIANCE WITH GOV. REGULATIONS: Yes / X No
DISPOSITION OF PARTS: n/a
PROCUREMENT REQ ? [ ] YES [ X ] NO
IF YES,GIVE CODE

ENGINE NO. DISPL. CAPR: 4.6L 2V
TRANS / DRIVETRAIN: 4R70W
AXLE RATIO: n/a
TYPE OF FUEL: none
CONVERTER: n/a
IGNITION TIMING: n/a
CRANKCASE OIL AND CAPACITY (L): n/a
TIRE SIZE: P225/60R16

VEHICLE TEST WEIGHT:

| FRONT | REAR | TOTAL |
|---|---|---|
| 2283 | 2307 | 4590 |

TIRE PRESSURE (psi):

| FRONT | REAR |
|---|---|
| 36 | 32 |

REPORT CATEGORIES: [X] ENGINEERING [X] DATA [X] RAWDATA

MAIL REPORT TO:
BLDG: 2
MAIL DROP: 1229
ADDRESS: 26029

1. OBJECT OF TEST 2. TEST PROCEDURE 3. ITEMS TO BE TESTED (NAME, NUMBER, QUANTITY)

1) Conduct: (speed) 13 MPH (year) 2002.5 (vehicle) EN114 (level) AP3
(mode) LH Side Pole (10") Use Rollers

"RECORD COPY"
Schedule No. 7-7-12
Retain Until 2021

2) Velocity At Impact: 13 MPH

3) Vehicle Year: 2002.5
Vehicle Line: EN114
Vehicle Level: AP3

Dummy Positioning Procedure: ST-15/FMVSS 201 for Pole
Test Procedure: Positioning

| | (name) | (phone) | (pager number) |
|---|---|---|---|
| Test Requester: | Chad Olson | 84-66018 | COLS |
| Build Coordinator: | Terry Perecki | 24-61470 | TPER |
| Additional Contacts: | C. Jackson | 32-37599 | CJAC |

Estimated test cost = $20,000.00

Test Dev. Engineer

| REQUESTING SECT. NO. | WORK ORDER/ WORK TASK: | ISSUED/ REQUESTED BY: | PHONE: | APPROVAL: | TEST TYPE: | RISK: | SIGN OFF DATE: |
|---|---|---|---|---|---|---|---|
| 7918 | 28 / 28 | Chad Olson – | 84-66018 | K.Arthurs | n/a | n/a | n/a |

COMPLETE THE FOLLOWING TWO QUESTIONS AS INDICATED:

(Check appropriate boxes)
1 - Rational for not replicating this test by CAE analysis:
__ No CAE Methodology or process available
__ No CAE Correlation
__ Insufficient confidence in CAE.
__ To obtain basic data for CAE
__ Replacement or improvement of existing Test.
__ Testing is Quicker.
__ Mandatory or Regulatory
__ Certification
__ Development test for FBS
__ Not applicable.
X Other: Sensor Development

(Check appropriate boxes)
2 - What is the expected Test Outcome
__ Results will meet DVP/WOR requirements.
__ System Component will not meet Test specification.
__ Unknown.
__ Above is Based on CAE?
X Other: Sensor Development

OK 1/23/01
NEEDS SENSOR MAP
1-23-2001
1-25-2001

Originator: G. Williams
EN16mphSI



Date Issued: 9/12/1996
Date Revised: 08/08/2000

CRTS 0012181

# VEHICLE SAFETY PACKAGE LAB WORK ORDER
## General Request Information

TA#: TC1941

### *Test Mode*

**13 MPH**
**LH Side Pole (10") Use Rollers**

### *Test Objectives: Cert (C) Verif (V) Dev (D) Audit (A)*

***REGULATORY:***

_____ FMVSS 201 - Head Impact
_____ FMVSS 214 - Side Impact
_____ FMVSS 301 - Fuel System Integrity
_____ Rollover
_____ Pressure Check
_____ FMVSS 303 - NGV Fuel System Integrity
_____ ECE 34 Fuel System Integrity
_____ ECE 95 Step II 300mm Barrier Side Impact - Occupant Performance
_____ 96/27/EC - Side Impact

***FORD AUTOMOTIVE OPERATIONS SAFETY DESIGN GUIDELINES:***

_____ Side Impact Protection FAO Safety Design Guidelines

***OTHER:***

D Sensor Development
_____ Other, Specify: _____

### *Primary Test Vehicle Information*

| | |
|---|---|
| Use (Target/Bullet): | Target |
| Model Year: | 2002.5 |
| Vehicle Program: | EN114 |
| Vehicle Name: | Crown Victoria |
| Body / Cab Style: | Sedan |
| Build Number: | FB390000 ✓ |
| Tag Number: | 318W739 ✓ |
| VIN Number: | 2FAFP74W51X100018 |
| Fuel System Rated Capacity(Gal): | 19.5 gallons |
| Prototype Level: | AP3 |
| Drive Side: | LH |

# VEHICLE SAFETY PACKAGE LAB WORK ORDER

## Special Prep/Build Instructions
## Primary Vehicle

TA#: TC1941

### *Special Build Instructions*

____ Car will be used for Head Impact Testing Prior to Pole Hit
____ Remove Side View Mirrors
____ Remove Headrests
____ Remove Hood
____ Remove Arm rest
____ Stripe Seat Belts
____ Remove Bottom of Bumper Cover
____ Cut Off Brake & Clutch Pedal
____ Color Contrast Under Hood Components

**Other, Specify:**

X Install RCM Bracket and Takata Sensors
X Replace left front driver door with new door
X Confirm driver's front window is down
X Remove driver's front seat, give to supplier so an airbag can be installed.
____ Check to see that rods/latches are on.
X Install FDPM and fuel inertia switch
X Install all new front driver's door trim panel.
X Make Glass Position DOWN

### *Pryo Restraints Usage*

____ Left Front Air Bag
____ Right Front Air Bag
X Left Front Side Air Bag
____ Right Front Side Air Bag
____ Left Rear Side Air Bag
____ Right Rear Side Air Bag
____ Left Side Curtain
____ Right Side Curtain
____ Left Pyro Retractor
____ Left Pyro Buckle
____ Right Pyro Retractor
____ Right Pyro Buckle

**Other, Specify:**

____
____

X Remote Fire Time: [redacted] 18ms 2/1/01 JC.
(No fire time listed if sensor fired OR if no pyro restraints are used)
____ Remote back-up Fire Time:

### *Special Pre-Test Preparation*

**Other, Specify:**

____
____

# VEHICLE SAFETY PACKAGE LAB WORK ORDER
## Occupant / ATD Request
## Primary Vehicle

TA#: TC1941

| | | Occupant 1 | Occupant 2 |
|---|---|---|---|
| *Type* | | SID w/ Hybrid III Head and Neck | N/A |
| *Instrumentation Level** | | Instrumented | N/A |
| *In-Vehicle Location* | | Left Front | N/A |
| *Verify:* | *Seat Position Long* | 1/2" Rearward of Mid track travel | N/A |
| | *Seat Position Vert* | Full down | N/A |
| | *Seat Back Angle* | 29 degrees | N/A |
| *Positioning Procdure* | | ST-15/FMVSS 201 for Pole Positioning | N/A |
| | *Use Foot Rest* | N/A | N/A |
| | *Take Seat Track Video* | N/A | N/A |
| | *Special Positioning Instructions* | H Point Coordinates<br>X = 3104<br>Y = -394<br>Z = 703 | |
| *Dummy Adjustment* | (arm angle) | N/A | N/A |
| *Occupant Belted* | | Yes | N/A |

*See Instrumentation request for detailed Instrumentation information.

# VEHICLE SAFETY PACKAGE LAB WORK ORDER

## Test Conditions - Final Prep

TA#: TC1941

### Final Prep Contacts

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

| | Test Engineer | Request Engineer | Build Coordinator |
|---|---|---|---|
| Name: | | Chad Olson | Terry Parsold |
| Phone: | | 84-58018 | 24-81470 |
| Pager: | | COLS | TPER |

### Test Weight

____ Minimum Option Weight
X 33% Option Weight
____ Maximum Option Weight

GVWR: ____
Wheelbase: ____

### Tire Pressure

Front: 32. psi  Rear: 32. psi

### Fuel System

Fuel Tank & System to Contain: none

| N/A | = | N/A | x | 19.5 gallons |
|---|---|---|---|---|
| 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 High (+) | Acceptable Test Weight Variance Low (-) | Actual Test Weight |
|---|---|---|---|---|---|
| Front: | | 2,353 lbs | 13 lbs | 0 lbs | |
| Rear: | | 2,207 lbs | 13 lbs | 0 lbs | |
| Total: | | 4,560 lbs | 26 lbs | 0 lbs | |

Rated Luggage Load: 200 lbs

### Simulate/Verify at Weigh-Up

Dummy Weight: ____

On Board Camera Count: ____

### Weight Addition (Restrictions)

Do NOT place any weight in the following locations:

____ Air Cleaner
____ Battery
____ Bottle - Coolant
____ Bottle - Washer

____ Engine
____ Fan Box/Shroud
____ Headlamp Opngs
____ Radiator

X Doors
X Foot Walls - Front
X Foot Walls - Rear
X Quarter Panels
____ Trunk Floor

Other: ____

### Ride Heights

| Measure @ Test Weight | | Measure | |
|---|---|---|---|
| Front: | 716 mm | From: | Wheel Lip Opening |
| Rear: | 667 mm | To: | Ground |

### Additional Remarks

____ DO NOT fill tank with stoddard until weigh-up

| | F | R | T |
|---|---|---|---|
| | 2353 | 2207 | 4560 |
| Castres | 194 | 194 | |
| | 2159 | 2013 | |
| 1) | 2092 | 1924 | |
| 2) | 2159 | | |
| 3) | 2159 | 2013 | 4172<br>194<br>194<br>4560 |

# VEHICLE SAFETY PACKAGE LAB WORK ORDER
## Dimensional Analysis Request
## Primary Vehicle

TA#: TC1941

***Side Impacts***

| | | | |
|---|---|---|---|
| X | 404 | Control Points (CAR) | Exterior |
| | 405 | Control Points (TRUCK) | Exterior |
| | 409 | Body Targets & Orientation Points (Wheel Lips) | Exterior |
| | 411 | A.B.C. Pillars | Interior |
| | 417 | Pre-Crash Lateral Seat CL's, H-Pts, etc | Exterior/Interior |
| | 418 | NHTSA Barrier face Profiles (Mid-Bumper; Mid-Stack; Top of Barrier) | Exterior |
| | 419 | European Barrier face Profiles (Mid-Bumper; Mid-Stack; Top of Barrier) | Exterior |
| X | 421 | Roof line exterior section | Exterior |
| X | 423 | Beltline exterior section (1st 50mm Body line below glass/weather strip) | Exterior |
| X | 425 | Mid-line exterior section (plan view @ 800 mm Body line) | Exterior |
| X | 427 | Character line exterior section (plan view @ 800 mm Body line) | Exterior |
| X | 429 | Bottom of door exterior section | Exterior |
| X | 431 | Rocker line exterior section (1st 10 mm Body line below door opening) | Exterior |
| X | 433 | Roof line interior section | Interior |
| X | 435 | Beltline interior section | Interior |
| X | 437 | Hip line interior section | Interior |
| X | 438 | Hinge Pillar exterior section (1st 50mm Body line forward of Hinge plane) | Exterior |
| X | 439 | 2500 mm Body line interior and exterior sections | Exterior/Interior |
| X | 440 | Front H-Point Mid -Seat Location interior and exterior sections (per package) | Exterior/Interior |
| X | 441 | B-Pillar interior and exterior sections (1st 50mm Body line rearward of striker | Exterior/Interior |
| X | 442 | Rear H-Point Location interior and exterior sections (per package) | Exterior/Interior |
| | | | |
| | | MDB: Position MDB centerline at left front seat SGRP (X = 3042mm) | |
| | | Stripe windshield & backlite @ left front seat centerline (Y = -370mm) | |
| | | Mark left front seat frame pivot point | |
| | | Pre-crash accelerometer locations | |
| | | Mark OSCAR & Euroid H-points on exterior of left front door | |

# VEHICLE SAFETY PACKAGE LAB WORK ORDER
## Film Analysis & Photographic Services Request

TA#: TC1941

### le Impact Film Analysis

| | |
|---|---|
| X | Impact Speed |
| | Impact Angle |
| X | Dummy Head wrt Vehicle Lateral |
| X | Dummy Head wrt Vehicle Vertical |
| X | Dummy Head wrt Vehicle Resultant |
| | Cart wrt Vehicle Impact Point |
| X | Dummy Chest wrt Vehicle |
| | Cart wrt Vehicle Intrusion (overhead) |
| X | Vehicle wrt Pole Intrusion (overhead) |
| X | Dummy Head wrt Pole |

Other, Specify:

### Still Photography

| | |
|---|---|
| X | Pre Test Documentation Photographs |
| X | Post Test Documentation Photographs |

### High Speed Photographic Requirements

| | |
|---|---|
| 1 | Copies of High Speed Film Required |
| | Copies of High Speed Film Required in VHS Format |
| X | Digitization of Film |
| | Format |

### High Speed Cameras for Side Impact

CG 2-5-9

On-Board Vehicle

| | |
|---|---|
| X | Front Dummy from Vehicle Hood (High) |
| X | Front Dummy from Vehicle Hood (Low) |
| X | Front Dummy from Opposite Window Opening |
| | Front Dummy Over Shoulder from Deckid (right) |
| | Front Dummy Over Shoulder from Deckid (left) |
| X | View of Front Seat to Show Dummy Interaction w/Trim from Rear (trunk left) |
| X | View of Front Seat to Show Dummy Interaction w/Trim and Airbag from Front (Fiber Optic) |

# VEHICLE SAFETY PACKAGE LAB WORK ORDER

**Secondary Vehicle Coverage**

_____ ON BOARD CART, Cart Centerline - View of Impact

TA#: TC1941

**Floor Coverage**

X Full Left View of Impact
X Full Right View of Impact
X Front 3/4 View of Impact
X Rear 3/4 View of Impact
_____ View of Cart for Velocity determination

**Pit Coverage**

_____ Cart contact - view of impacted side of vehicle with pole
_____ Cart contact - overlap view of impacted side of vehicle with cart contact
X View of impacted side of vehicle with pole

**Overhead Coverage**

X Overall view of impacted vehicle side including pole
_____ View of impacted vehicle side focus on front door opening area

**All Other High Speed Photography**

_____
_____

# VEHICLE SAFETY PACKAGE LAB WORK ORDER
## Instrumentation and Data Processing Request

TA#: TC1941

***Primary Vehicle Structural Instrumentation - Side Impact***

| ACCELEROMETERS: | | Long | Vert | Lat |
|---|---|---|---|---|
| | L/ A-PILLAR_INSIDE_@_ROCKER | | | |
| | L/ A-PILLAR_INSIDE_@_HINGE | | | |
| | R/ A-PILLAR_INSIDE_@_HINGE | | | |
| X | L/ F_DOOR_@_BELTLINE_MID | | | X |
| X | L/ F_DOOR_@_BELTLINE_REAR | | | X |
| X | L/ F_DOOR_OVER_ARMREST | | | X |
| X | L/ F_DOOR_REAR_OF_SEAT_H-PT | | | X |
| X | L/ F_DOOR_SPEAKER_HOLE | | | X |
| X | L/ B-PILLAR_INSIDE_@_ROOF | | | X |
| X | L/ B-PILLAR_INSIDE_@_BELTLINE | | | X |
| X | ~~L/ B-PILLAR_INSIDE_@_ROCKER~~ | | | X |
| X | L/ R_DOOR_@_BELTLINE_MID | | | X |
| X | L/ R_DOOR_OVER_ARMREST | | | X |
| X | L/ ROCKER_@_FRONT_SEAT_MID | X | X | X |
| X | L/ ROCKER_@_REAR_SEAT_MID | X | X | X |
| X | R/ ROCKER_@_FRONT_SEAT_MID | X | X | X |
| X | R/ ROCKER_@_REAR_SEAT_MID | X | X | X |
| | FRONT_FLOOR_PAN_@_C/L | | | |
| | FLOOR_XMBR_@_L/F_SEAT_C/L | | | |
| | FLOOR_XMBR_@_R/F_SEAT_C/L | | | |
| | C/L_TUNNEL_@_FRONT_SEAT | | | |
| | REAR_FLOOR_PAN_ABOVE_AXLE | | | |
| X | Near Fuel Inertia Switch | X | X | X |
| X | L/ Rocker_@_B-Pillar | X | X | X |
| X | R/ Rocker_@_B-Pillar | X | X | X |

| OTHER STRUCTURAL ACCELS: | | Long | Vert | Lat |
|---|---|---|---|---|
| | L/A-PILLAR @ FUEL INERTIA SWITCH | | | |
| | L/B-PILLAR INSIDE @ HARNESS | | | |
| | L/B-PILLAR INSIDE @ Z=650mm | | | |
| | R/B-PILLAR INSIDE @ ROCKER | | | |
| | | | | |
| | | | | |

# VEHICLE SAFETY PACKAGE LAB WORK ORDER

***Primary Vehicle Systems Instrumentation***

TA#: TC1941

SENSOR ACCELS:

| | Long | Vert | Lat |
|---|---|---|---|
| X See Sensor Map | | | |
| | | | |

FUEL SYSTEM:

X Inertia Fuel System Cut-Off Switch

VEHICLE STRING POTS

OTHER VEHICLE SYSTEM INSTRUMENTATION

MONITOR LEFT SIDE AIRBAG SQUIB VOLTAGE

MONITOR LEFT SIDE AIRBAG SQUIB CURRENT

MONITOR AIR BAG STATUS

X Driver Side Air Bag Voltage

# VEHICLE SAFETY PACKAGE LAB WORK ORDER

***Side Dummy Instrumentation - Internal*** TA#: TC1941

** Note: NO BACK-UP ACCELS ON BIOSID OR EUROSID DUMMIES*

SID w/ Hybrid III Head and Neck LF

ACCELS:

| | | | | |
|---|---|---|---|---|
| X | L/F_ DUMMY_HEAD_C.G. | X Long | X Vert | X Lat |
| | L/F_ DUMMY_T1 | Long | Vert | |
| | L/F_ DUMMY_T1/ | Lat - L | | Lat - R |
| X | L/F_ DUMMY_T12 | X Long | X Vert | |
| X | L/F_ DUMMY_T12/ | X Lat - FRT | | Lat - REAR |
| X | L/F_ DUMMY_PELVIS | X Long | X Vert | |
| X | L/F_ DUMMY_PELVIS/ | X Lat - L | | Lat - REAR |
| X | L/F_ DUMMY_THORAX/RIB/UP/ | X Lat - FRT | | Lat - REAR |
| | L/F_ DUMMY_THORAX/RIB/C/ | Lat - FRT | | Lat - REAR |
| X | L/F_ DUMMY_THORAX/RIB/LO/ | X Lat - FRT | | Lat - REAR |

LOAD CELLS:

| | | | | |
|---|---|---|---|---|
| X | L/F_ NECK UPPER LOAD | X Fx | X Fy | X Fz |
| X | L/F_ NECK UPPER MOMENT | X Mx | X My | X Mz |
| X | L/F_ NECK LOWER LOAD | X Fx | X Fy | X Fz |
| X | L/F_ NECK LOWER MOMENT | X Mx | X My | X Mz |
| | L/F_ DUMMY_ABDOMEN_LOAD_FRONT (EURO) | | Fy | |
| | L/F_ DUMMY_ABDOMEN_LOAD_MID (EURO) | | Fy | |
| | L/F_ DUMMY_ABDOMEN_LOAD_REAR (EURO) | | Fy | |
| | L/F_ DUMMY_THORACIC_SPINE_LOAD | Fx | Fy | Fz |
| | L/F_ DUMMY_THORACIC_SPINE_LOAD | Mx | My | |
| | L/F_ DUMMY_LUMBAR_SPINE_LOAD | Fx | Fy | Fz |
| | L/F_ DUMMY_LUMBAR_SPINE_LOAD | Mx | My | |
| | L/F_ DUMMY_PUBIC_LOAD (EURO) | | Fy | |

POTENTIOMETERS:

| | | |
|---|---|---|
| | L/F_ DUMMY_CHEST_DEFLECTION (SID) | Disp |
| | L/F_ DUMMY_THORAX/RIB/UP/DISP (EURO) | Disp |
| | L/F_ DUMMY_THORAX/RIB/C/DISP (EURO) | Disp |
| | L/F_ DUMMY_THORAX/RIB/LO/DISP (EURO) | Disp |

OTHER INTERNAL DUMMY INSTRUMENTATION:

_____

_____

***Dummy Instrumentation - External***

CONTACT SWITCHES:

| | |
|---|---|
| X | L/F_ DUMMY_HEAD_SW |
| | L/F_ DUMMY_ARM_SW (NOT ON SID) |
| | L/F_ DUMMY_THORAX_SW |
| | L/F_ DUMMY_ABDOMEN_SW |
| | L/F_ DUMMY_H-POINT_SW |
| | L/F_ DUMMY_THIGH_SW |

# VEHICLE SAFETY PACKAGE LAB WORK ORDER

## List of Test Contacts

TA#: TC1941

| | Last name | Phone | Pager | Profs |
|---|---|---|---|---|
| Requestor | Chad Olson | 84-56018 | COLS | colson3 |
| Aproving supervisor | K.Arthurs | | KART | karthurs |
| Build coordinator | Terry Persold | 24-81470 | TPER | tpersold |
| Test engineer | | | | |
| Sensor Engineer | | | | |
| Other | Christianna Jackson | 32-37899 | CJAC | cjacks24 |

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

# VEHICLE SAFETY PACKAGE LAB WORK ORDER

TA#: TC1941

| DATE | MODEL | YEAR | CARLINE | WORK ORDER NO. |
|---|---|---|---|---|
| 1/10/00 | Sedan | 2002.5 | EN114 | TC1941 |

| ENGINEER | PHONE | DEPT# | WORK TASK |
|---|---|---|---|
| Chad Olson | 84-56018 | T558 | 1-23-[illegible] J25 |

| COORDINATOR | PHONE | TEST MODE |
|---|---|---|
| Terry Perecki | 24-81470 | LH Side Pole (10") Use Rollers |

| VIN NUMBER | VEHICLE NO. | TAG NUMBER |
|---|---|---|
| 2FAFP74W51X100018 | FB390000 | 318W789 |

| TYPE OF SEAT | TA NUMBER | DATE CLOSED |
|---|---|---|
| | | |

## SEAT POSITION

| | | | | | |
|---|---|---|---|---|---|
| SGRP | | 1/2" REAR OF MID TRACK TRAVEL | XX | FULL REAR | |
| H-Point Coordinates | X = 3104 | Y = -394 | Z = 703 | | |

## SEATS TO BE CHECKED

| | | | | | |
|---|---|---|---|---|---|
| LH FRT | XX | CENTER FRT | | RH FRT | |
| LH REAR | | CENTER REAR | | RH REAR | |
| VEHICLE DELIVERED TO | D/A | | BARRIER | BUILD SITE | |

ANY QUESTIONS CONTACT:

PETER J. SIMONIE
PHONE: (313) 59-46809
PAGER: (313) 705-9953

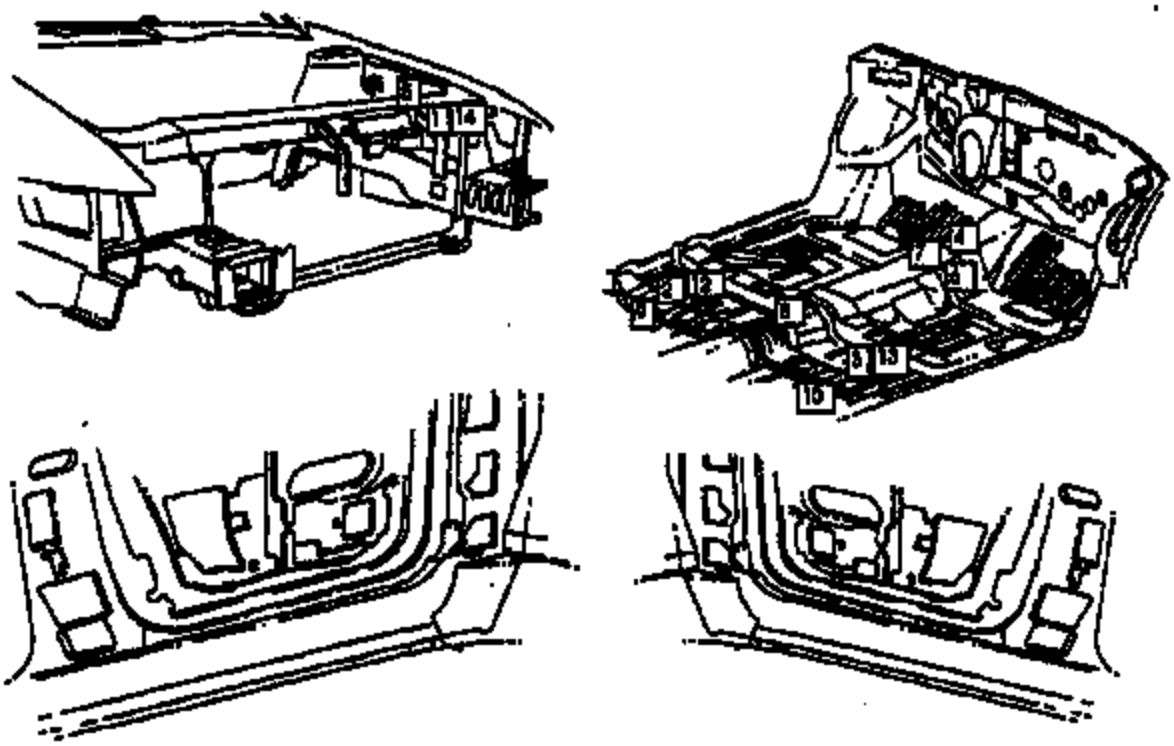
DESCRIPTION OF JOB TO BE PERFORMED:

Program: 2003 EN / PN
Vehicle ID: 318W739
Build level: APS EN114
Test Mode: 13mph Pole LH

# SENSOR MAP

FB390000

Engineer: Erich Kemnitz
Phone #: 248-1602
Date: 1/24/01
Time: 9:30 AM



| | Location Name | Type | Output | Sensor Channels only Nominal (+/-) | Max/Min | Serial # |
|---|---|---|---|---|---|---|
| • 1 | L/C/FRONT RAD SUPPORT_SM | | Sensor | Takata FCS No ODAS output | | |
| • 2 | L/F FLOOR PAN @ #2 XMBR CTR_SM | | Sensor | Takata SCS No ODAS output | | |
| • 3 | R/F FLOOR PAN @ #2 XMBR CTR_SM | | Sensor | Takata SCS No ODAS output | | |
| • 4 | CTR TUNNEL @ DASH_SM | accel | TRIAX | Near RCM | | |
| • 5 | L/C/FRONT RAD SUPPORT_SM | accel | LONG | | | |
| • 6 | CTR TUNNEL @ DASH_RCM | accel | TRIAX | On RCM | | |
| • 7 | CTR TUNNEL @ DASH_TAK1 | TAKATA RCM1 | Sensor | 2.5v (+/ 200mV) | 10 / 0 V | |
| | CTR TUNNEL @ DASH_TAK2 | TAKATA RCM2 | | 2.5v (+/ 200mV) | 10 / 0 V | |
| | CTR TUNNEL @ DASH_TAK3 | TAKATA RCM3 | | 2.5v (+/ 200mV) | 10 / 0 V | |
| | CTR TUNNEL @ DASH_TAK4 | TAKATA RCM4 | | 2.5v (+/ 200mV) | 10 / 0 V | |
| • 8 | C/L_TNL_BETWEEN_F/SEATS | accel | TRIAX | | | |
| • 9 | L/F FLOOR PAN @ #2 XMBR CTR_SM | accel | TRIAX | Near Takata SCS Sensor | | |
| • 10 | R/F FLOOR PAN @ #2 XMBR CTR_SM | accel | TRIAX | Near Takata SCS Sensor | | |
| ~~• 11~~ | ~~L/C/FRONT RAD SUPPORT_FCS~~ DELETED | accel | LONG | On FCS sensor | | |
| • 12 | L/F FLOOR PAN @ #2 XMBR CTR_SCS | accel | LAT | | On SCS Sensor | |
| • 13 | R/F FLOOR PAN @ #2 XMBR CTR_SCS | accel | LAT | | On SCS Sensor | |
| ~~• 14~~ | ~~L/C/FRONT RAD SUPPORT_FCS~~ | accel | LONG | | On FCS Sensor | |

OK

Same as 11

Contacts: Ford: Erich Kemnitz 248-1602
Takata: Mike Mohale 323-8421

# Side Impact Dummy Positioning Sheet

| | | |
|---|---|---|
| Crash Number | 12181 ✓ | |
| T.C. | TC1941 ✓ | |
| Test Date | 02-12-2001 ✓ | |
| Test Mode (Lo. 201, 214, Euro, LINCAP, etc) | L/201 ✓ | |
| Model Year | 20025 ✓ | |
| Program Name | EN114 ✓ | |
| Dmy Location (L/F,R/F, etc) | L/F ✓ | |
| Dummy Serial Number | 152 ✓ | |
| Seatback Angle - Pkg Lab (Degrees) | 18.4 ✓ | |
| Seatback Angle - Actual (Degrees) | 29° | |
| Dummy to Interior/door H-pt Long (+/- 0.5 inch required) (inch) | 0.2 ✓ | |
| Dummy to Interior/door H-pt Vert (+/- 0.5 inch required) (inch) | -0.2 ✓ | |
| H-Point to Door Striker Long (inch) | 7.2 ✓ | |
| H-Point to Door Striker Vert (inch) | 4.4 ✓ | |
| H-Point to Ground (vertical) (inch) | 23.1 ✓ | |
| Pelvic Angle (Degrees) | 21.2 ✓ | |
| Knee to Upper Steering/ Headrest (shortest) (inch) | 17.1 ✓ | |
| Head C.G. to Striker Long (inch) | 1.2 ✓ | |
| Head C.G. to Striker Vert (inch) | 19.5 ✓ | |
| Head C.G. to roof side rail (shortest) (inch) | 5.9 ✓ | |
| Head C.G. to window (lateral) (inch) | 11.0 ✓ | |
| L/Knee to I/P/Seatback (shortest) (inch) | 3.4 ✓ | |
| R/Knee to I/P/Seatback (shortest) (inch) | 3.5 ✓ | |
| Abdomen to lower steering/seatback (horizontal) (inch) | 6.0 ✓ | |
| Pelvis centerline to Vehicle centerline (lateral) (inch) | 15.6 ✓ | |
| Chest centerline to Vehicle centerline (lateral) (inch) | 15.7 ✓ | |
| Seat centerline to Vehicle centerline (lateral) (DA) (inch) | 15.6 ✓ | |
| Chest to Beltline (lateral, shortest) (inch) | 5.4 ✓ | |
| Pelvis to H-Point (lateral) (inch) | 5.7 ✓ | |
| Pelvis to nearest inboard hard point (lateral) (inch) | NA | |
| L/F Wheel lip height (vertical to ground) (mm) | NA | |
| R/F Wheel lip height (vertical to ground) (mm) | NA | |
| L/R Wheel lip height (vertical to ground) (mm) | NA | |
| R/R Wheel lip height (vertical to ground) (mm) | NA | |
| Top of Barrier to Ground (inch) | NA | |
| Impact Mark Relative to Target Front (X) (mm) | NA | |
| Impact Mark Relative to Target Front (Z) (mm) | NA | |
| Impact Mark Relative to Target rear (X) (mm) | NA | |
| Impact Mark Relative to Target rear (Z) (mm) | NA | |

| Run Number | Channel | Location Description | Axis | Transducer | Bridge | Cable 2 | Cable 1 | DAS Unit | DAS Chan | Sw | TO Number |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12181 | 1 | L/F DUMMY HEAD C.G. ACCEL | LONG | 48936 | 1 | | HDY-1 | 3209 | 1 | 0 | TC1941 |
| Level Shift | | From: -78 ms To: 546 ms Data is Unusable Cause: Other Equipment Fault Details: ODAS pkg | | | | | | | | | |
| 12181 | 2 | L/F DUMMY HEAD C.G. ACCEL | VERT | 50290 | 1 | | HDY-2 | 3209 | 2 | 0 | TC1941 |
| Level Shift | | From: -78 ms To: 546 ms Data is Unusable Cause: Other Equipment Fault Details: ODAS pkg | | | | | | | | | |
| 12181 | 3 | L/F DUMMY HEAD C.G. ACCEL | LAT | 50108 | 1 | | HDY-3 | 3209 | 3 | 0 | TC1941 |
| Level Shift | | From: -78 ms To: 546 ms Data is Unusable Cause: Other Equipment Fault Details: ODAS pkg | | | | | | | | | |
| 12181 | 4 | L/F DUMMY NECK UPPER LOAD | FX | 37473 | 1 | | HDY-4 | 3209 | 4 | 0 | TC1941 |
| Level Shift | | From: -78 ms To: 546 ms Data is Unusable Cause: Other Equipment Fault Details: ODAS pkg | | | | | | | | | |
| 12181 | 5 | L/F DUMMY NECK UPPER LOAD | FY | 37473 | 2 | | NUE-1 | 3209 | 5 | 0 | TC1941 |
| Level Shift | | From: -78 ms To: 546 ms Data is Unusable Cause: Other Equipment Fault Details: ODAS pkg | | | | | | | | | |
| 12181 | 6 | L/F DUMMY NECK UPPER LOAD | FZ | 37473 | 3 | | NUE-2 | 3209 | 6 | 0 | TC1941 |
| Level Shift | | From: -78 ms To: 546 ms Data is Unusable Cause: Other Equipment Fault Details: ODAS pkg | | | | | | | | | |
| 12181 | 7 | L/F DUMMY NECK UPPER LOAD | MX | 37473 | 4 | | NUE-3 | 3209 | 7 | 0 | TC1941 |
| Level Shift | | From: -78 ms To: 546 ms Data is Unusable Cause: Other Equipment Fault Details: ODAS pkg | | | | | | | | | |
| 12181 | 8 | L/F DUMMY NECK UPPER LOAD | MY | 37473 | 5 | | NUE-4 | 3209 | 8 | 0 | TC1941 |
| Level Shift | | From: -78 ms To: 546 ms Data is Unusable Cause: Other Equipment Fault Details: ODAS pkg | | | | | | | | | |
| 12181 | 9 | L/F DUMMY NECK UPPER LOAD | MZ | 37473 | 6 | | NCA-1 | 3209 | 9 | 0 | TC1941 |
| Level Shift | | From: -78 ms To: 546 ms Data is Unusable Cause: Other Equipment Fault Details: ODAS pkg | | | | | | | | | |
| 12181 | 10 | L/F DUMMY T12 ACCEL | LONG | 48400 | 1 | | NCA-2 | 3209 | 10 | 0 | TC1941 |
| Level Shift | | From: -78 ms To: 546 ms Data is Unusable Cause: Other Equipment Fault Details: ODAS pkg | | | | | | | | | |
| 12181 | 11 | L/F DUMMY T12 ACCEL | VERT | 49640 | 1 | | NCA-3 | 3209 | 11 | 0 | TC1941 |
| Level Shift | | From: -78 ms To: 546 ms Data is Unusable Cause: Other Equipment Fault Details: ODAS pkg | | | | | | | | | |
| 12181 | 12 | L/F DUMMY T12/FRT ACCEL | LAT | 49126 | 1 | | NCA-4 | 3209 | 12 | 0 | TC1941 |
| Level Shift | | From: -78 ms To: 546 ms Data is Unusable Cause: Other Equipment Fault Details: ODAS pkg | | | | | | | | | |
| 12181 | 13 | L/F DUMMY THORAX/RIB/UP/FRT ACCEL | LAT | 48453 | 1 | | NHG-1 | 3209 | 13 | 0 | TC1941 |
| Level Shift | | From: -78 ms To: 546 ms Data is Unusable Cause: Other Equipment Fault Details: ODAS pkg | | | | | | | | | |
| 12181 | 14 | L/F DUMMY THORAX/RIB/LO/FRT ACCEL | LAT | 48123 | 1 | | NHG-2 | 3209 | 14 | 0 | TC1941 |
| Level Shift | | From: -78 ms To: 546 ms Data is Unusable Cause: Other Equipment Fault Details: ODAS pkg | | | | | | | | | |
| 12181 | 15 | L/F DUMMY PELVIS ACCEL | LONG | 49681 | 1 | | NHG-3 | 3209 | 15 | 0 | TC1941 |
| Level Shift | | From: -78 ms To: 546 ms Data is Unusable Cause: Other Equipment Fault Details: ODAS pkg | | | | | | | | | |
| 12181 | 16 | L/F DUMMY PELVIS ACCEL | VERT | 50577 | 1 | | NHG-4 | 3209 | 16 | 0 | TC1941 |
| Level Shift | | From: -78 ms To: 546 ms Data is Unusable Cause: Other Equipment Fault Details: ODAS pkg | | | | | | | | | |
| 12181 | 17 | L/F DUMMY PELVIS/L ACCEL | LAT | 49624 | 1 | | NHE-1 | 3209 | 17 | 0 | TC1941 |





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CRTS 0012181

| Run Number | Channel | Location Description | Axis | Transducer | Bridge | Cable 2 | Cable 1 | DAS Unit | DAS Chan | Sv | TO Number |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Level Shift | | From: -70 ms To: 546 ms Data is Unusable Cause: Other Equipment Fault Details: ODRS pkg | | | | | | | | | |
| 12181 | 57 | L/ROCKER @ FRONT SEAT MID ACCEL | LONG | 45771 | 1 | | [illegible]-2 | 3250 | 4 | 0 | TC1941 |
| Data Dropout | | From: 75 ms To: 546 ms Data is Questionable Cause: Transducer failure No Fault Details: Shorted ou | | | | | | | | | |
| 12181 | 58 | L/ROCKER @ FRONT SEAT MID ACCEL | VERT | 44086 | 1 | | BGR-1 | 3250 | 1 | 0 | TC1941 |
| Data Dropout | | From: 65 ms To: 546 ms Data is Questionable Cause: Transducer failure No Fault Details: Shorted | | | | | | | | | |
| 12181 | 61 | L/ROCKER @ B-PLR ACCEL | VERT | 44851 | 1 | | BGR-4 | 3250 | 20 | 0 | TC1941 |
| Exceeded Full Scale | | From: 39 ms To: 42 ms Data is Questionable Cause: Block Was Hit No Fault | | | | | | | | | |
| 12181 | 62 | L/ROCKER @ B-PLR ACCEL | LAT | 45565 | 1 | | [illegible]-4 | 3250 | 8 | 0 | TC1941 |
| Exceeded Full Scale | | From: 39 ms To: 42 ms Data is Questionable Cause: Block Was Hit No Fault | | | | | | | | | |



ENTIRE PAGE CONFIDENTIAL

CRTS 0012181

**FINAL TEST REPORT**

CONFIDENTIAL

Product Analysis and Verification
Research and Vehicle Technology

CAD COPY
No. 4-4-12
2021

| | |
|---|---|
| Test Order No. | T-C1940 |
| Work Task W.O. No. | J24 |
| Test Dates | 2/12/01 |
| Date Reported | 4/27/01 |
| Sheet | 1 of 4 |

**TO:** C. Jackson

**SUBJECT:** Crash Test 12182 (90° Left Side Fixed Pole Impact at 13.3 ± 0.4 mph, 21.4 ± 0.6 km/h) – 2002.5 Lincoln Town Car (FN-145) 4-Door Sedan

**REQUESTED BY:** Vehicle Crash Safety Department, Research and Vehicle Technology – C. Jackson

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

**SUMMARY OF TEST RESULTS:** See Section 1 for air bag system sensor data.

R. Barnhart
Engineering Technologist

Concur: M. Hamilton
Section Supervisor
Operations Engineering Section

**VEHICLE DATA**

| | |
|---|---|
| Make and Model | 2002.5 Lincoln Town Car (FN-145) 4-Door Sedan (Attribute Prototype III) |
| ID Number | 1LNHM84W21Y637670, 565-H-789, C390000 |
| Power Train | 4.6L, EFI, Automatic (4R70W) Transmission |
| Fuel Tank(s) | Usable Capacity: 19.5 gal. (73.8L)<br>Test Condition: Removed |
| Front Seat(s) | Type: Bucket<br>Cover: Leather<br>Tracks/Position: 6-Way Power/1" Rearward of Mechanical Mid and Down<br>Seat Back/Position: Adjustable/15.8° Rear of Vertical<br>Head Restraints/Position: Adjustable/Up<br>Lumbar Support/Position: Power/In |
| Restraint System | LF: 3-Point Continuous Loop Active Belt and Seat Back Side Air Bag |
| Occupants | LF: SID/Hybrid III Instrumented Dummy |
| Test Weight | Front: 2412 lb (1094 kg)<br>Rear: 2184 lb (991 kg)<br>Total: 4596 lb (2085 kg) |
| Tires | Front: P225/60R17 — 32 psi (221 kPa)<br>Rear: P225/60R17 — 32 psi (221 kPa)<br>Spare: Removed |
| 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:

Proposed non-regulator crash test procedure.

1.1 Vehicle Alignment

The test vehicle impacted an 10 inch diameter steel pole structure, rigidly attached to the barrier face. The centerline of the steel pole was aligned with the lateral C.G. of the left front driver dummy's head.

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, PAV. 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 12182001 through 12182047.

TEST RESULTS:

1. Occupant Protection in Interior Impact

| | L.E. Dummy |
|---|---|
| Head Injury Criteria (HIC) | 164 |
| Interval t1 | 78 ms |
| t2 | 102 ms |

Time histories of the dummy instrumentation are included in this report.

Time histories of the dummy dynamic displacements obtained from Film Analysis are not included in this report due to head and chest not visible.

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. Vehicle Displacement and Instrumentation Data

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

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

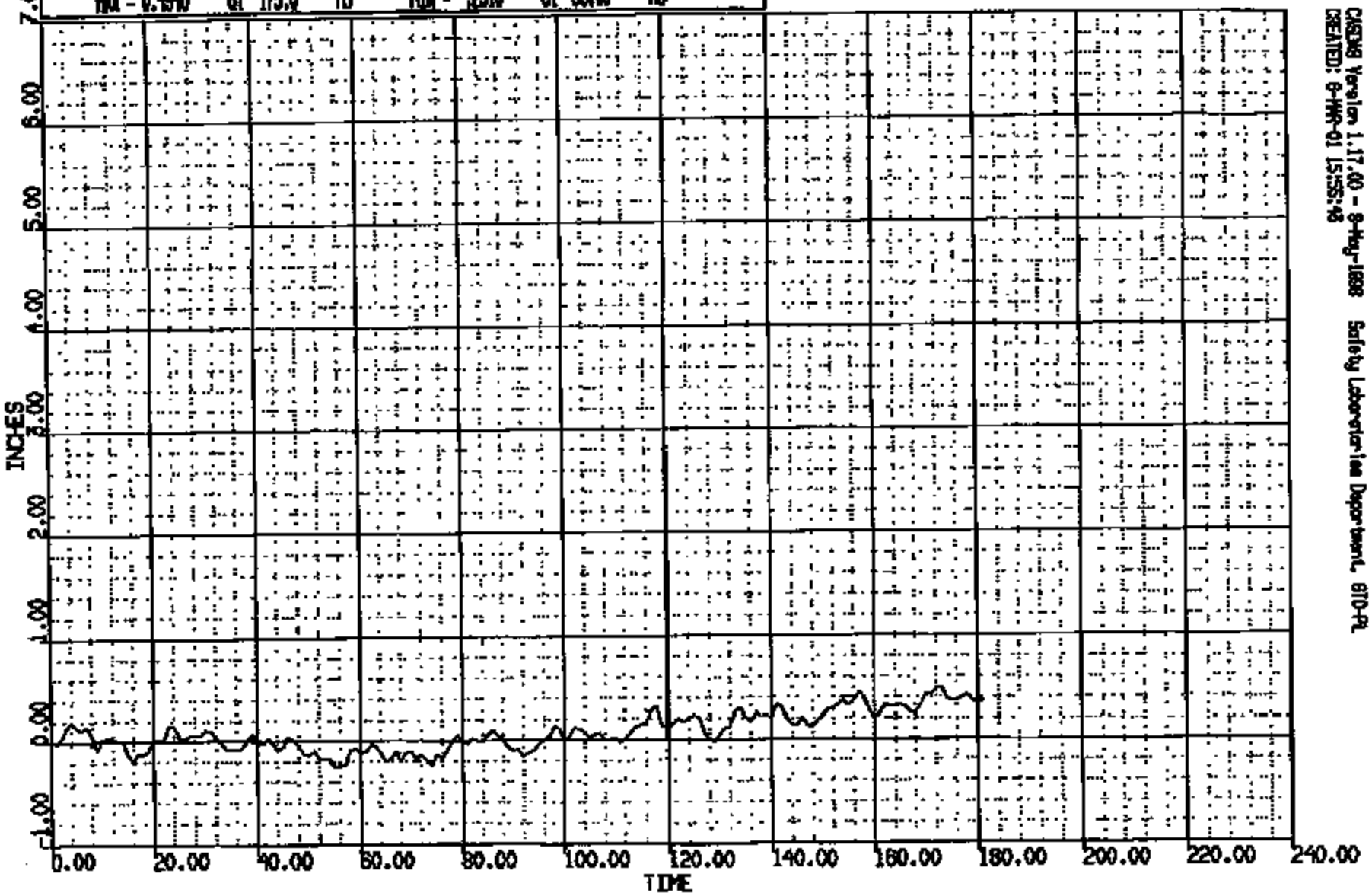
Static displacements of various body points obtained by Dimensional Analysis are included in this report.

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

CR R: 12182 TO: TC1040 DATE: 010212 14:29:14
20026 FN-145

(0) CRC12182 R S ROOF AT B PLR NRT TOP OF RO LONG DISP
MAX = 0.4910 at 173.0 MS MIN = -.2510 at 55.00 MS

AXIS 1

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CREATED: 6-MAR-01 15:55:48

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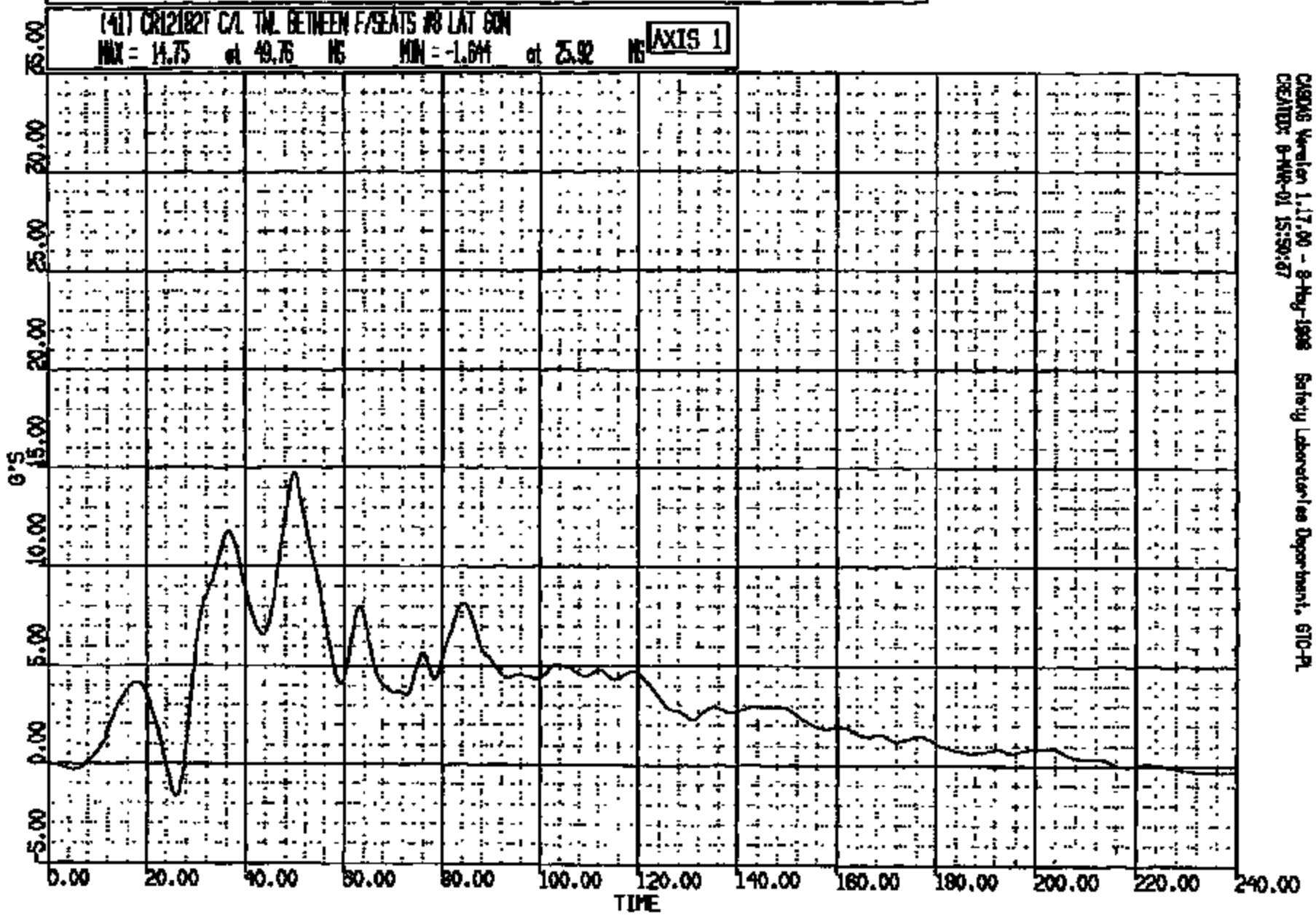
CRTS 0012182

CR R1 12182 TO: TC1940 DATE: 010212 14:22:14
20025 FN-145

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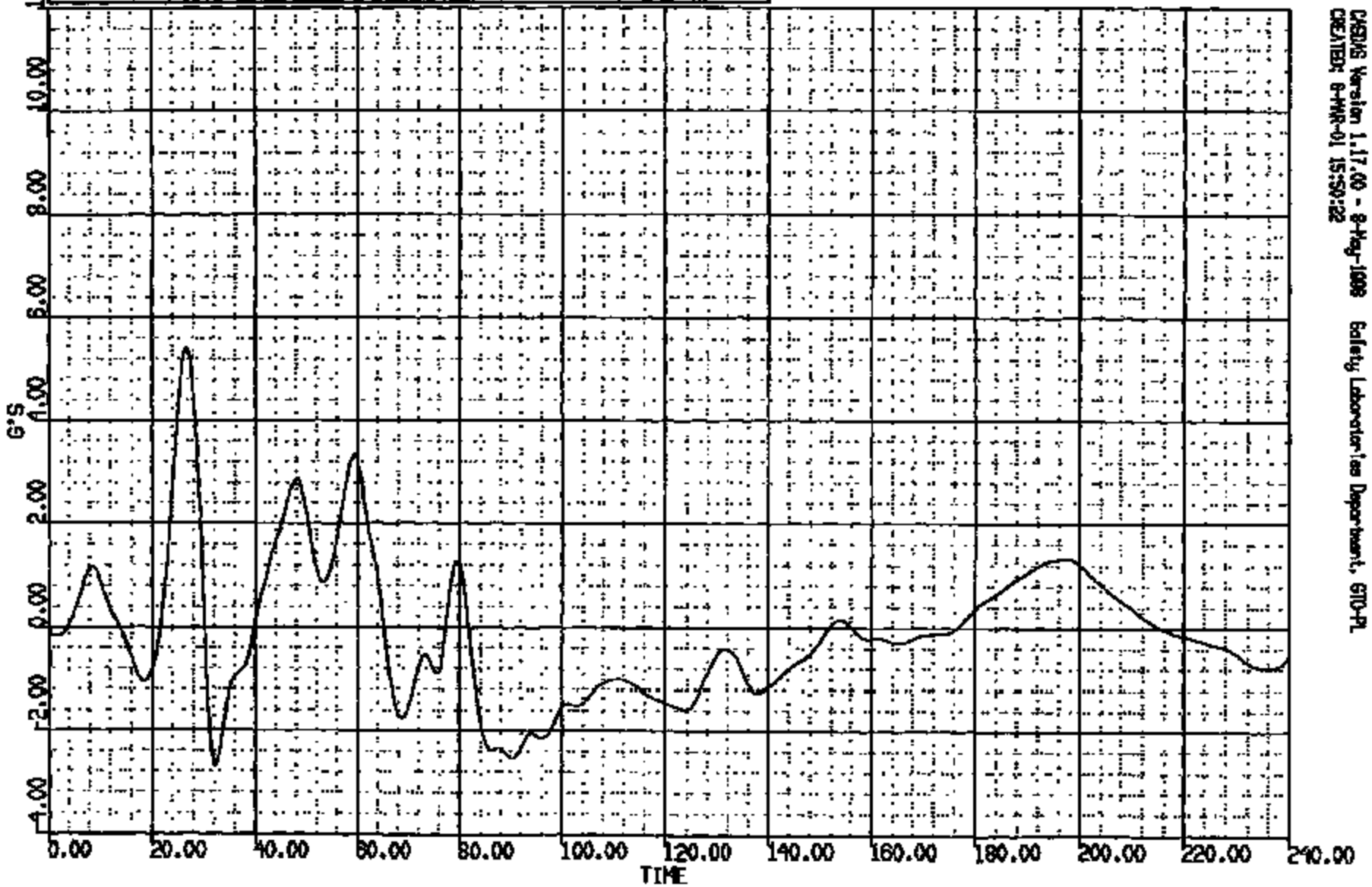
CRTS 0012182

CR R: 12182 TO: TC1940 DATE: 010212 14:29:14
20025 FN-145

(39) CR12182T C/L TAIL BETWEEN F/SEATS 28 LONG 60N
MAX = 5.412 at 26.80 MS MIN = -2.684 at 32.32 MS

AXIS 1

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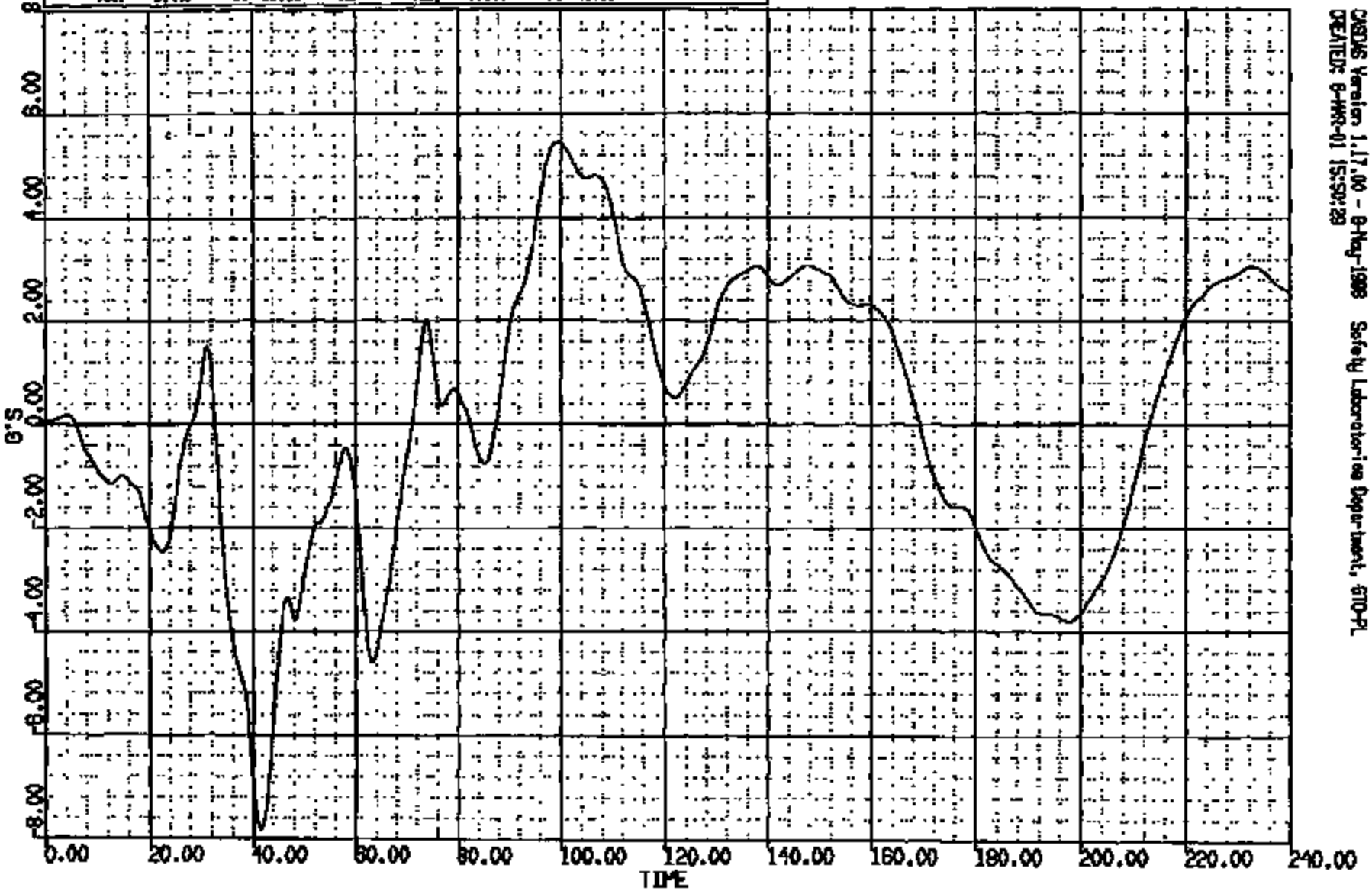
CRTS 0012182

CR R: 12192 TO: TC1940 DATE: 010212 14:29:14
20025 FN-146

(40) CR12182T C/L TNL BETWEEN F/SEATS #8 VERT 60N
MAX = 5.146 at 99.36 MS MIN = -7.855 at 41.60 MS

AXIS 1

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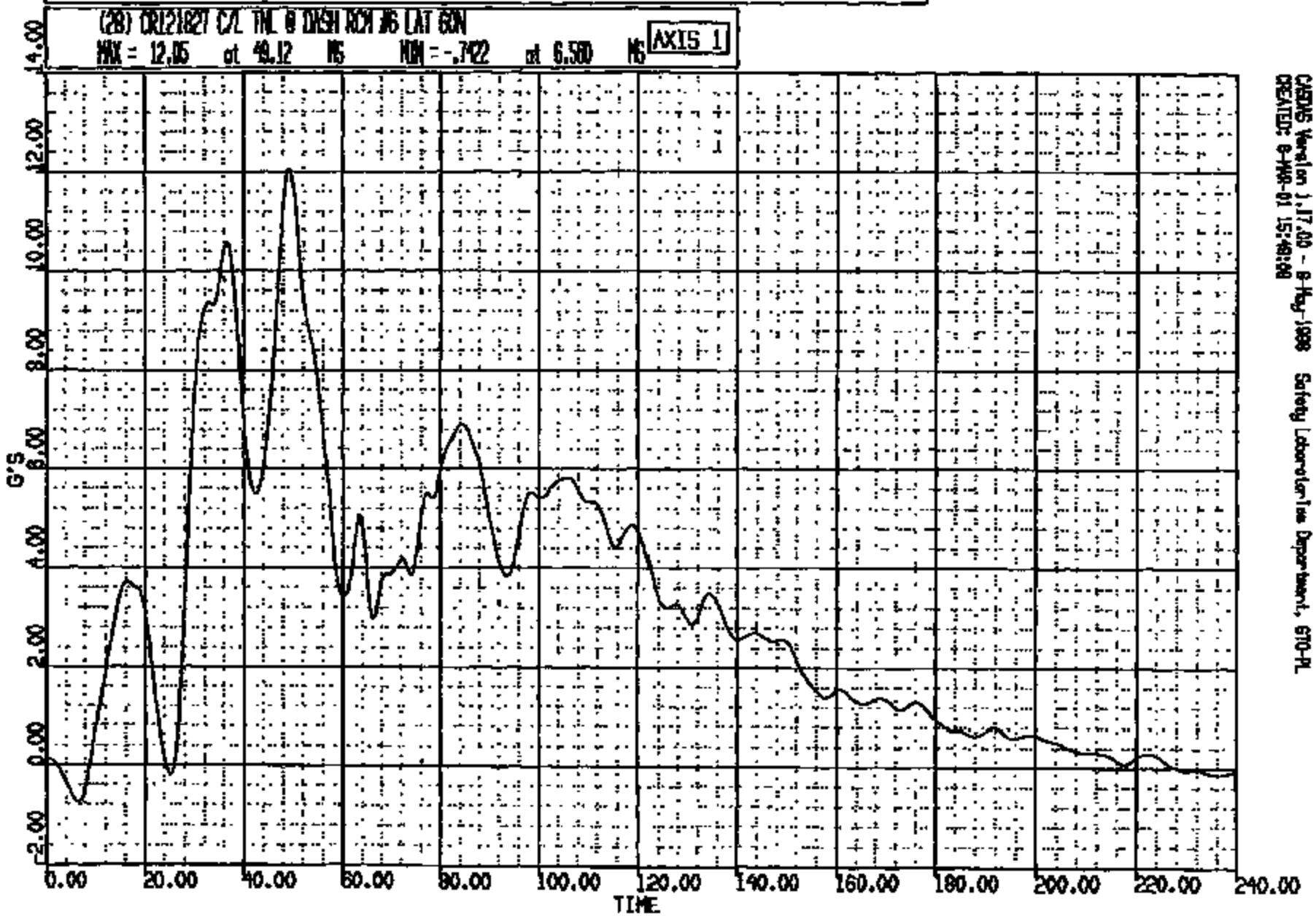
20026 FN-146

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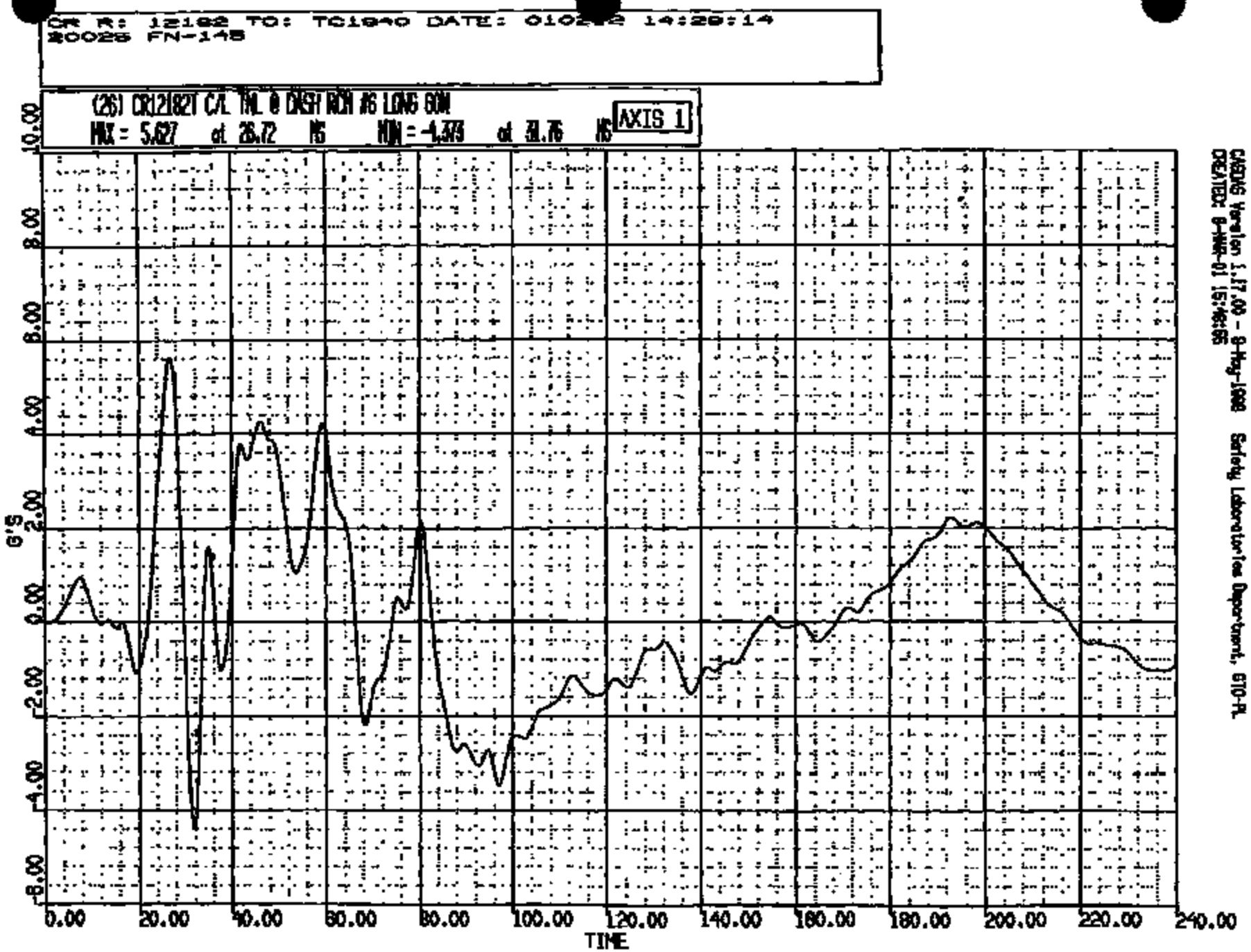


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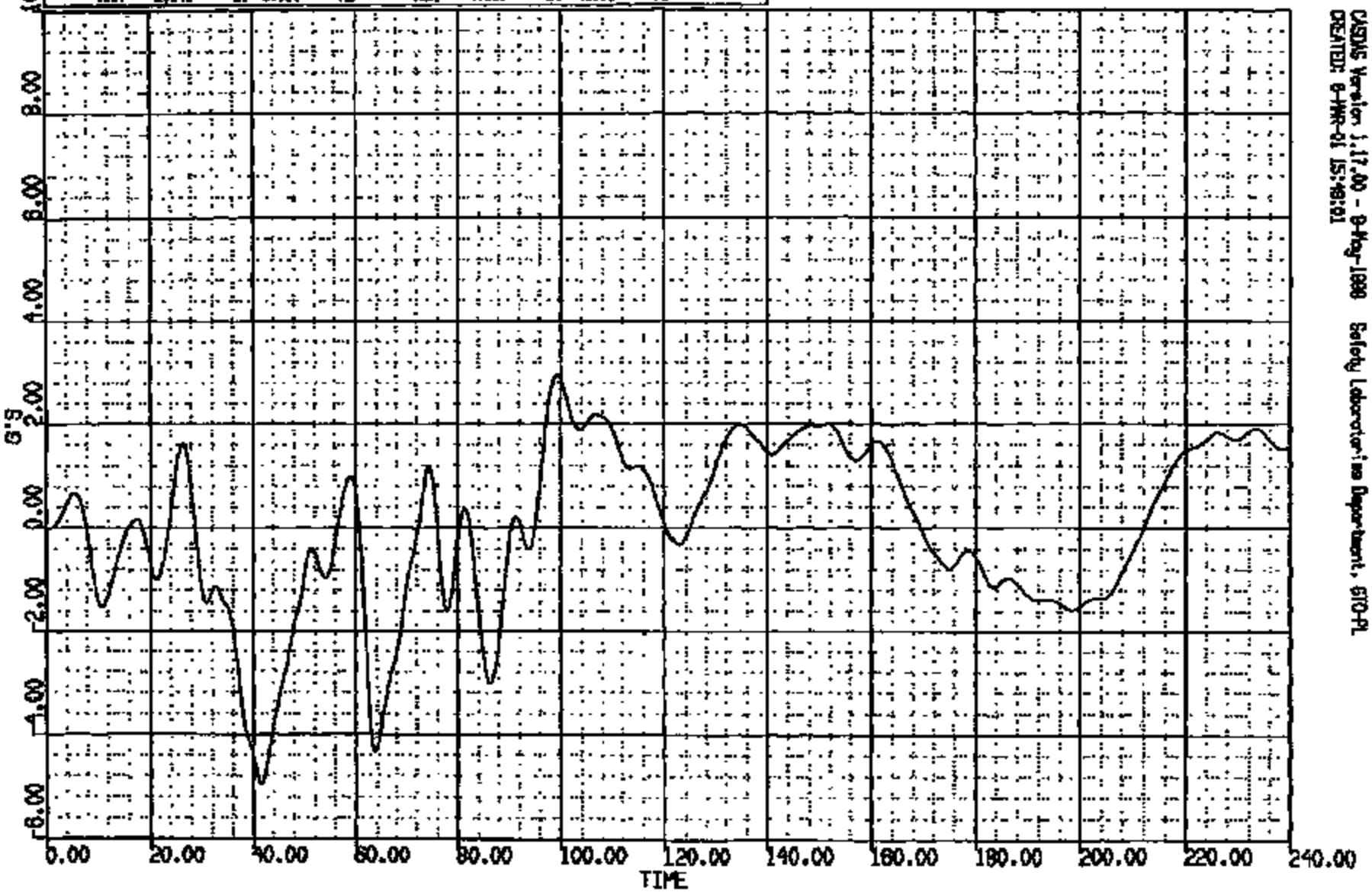
20025 FN-145

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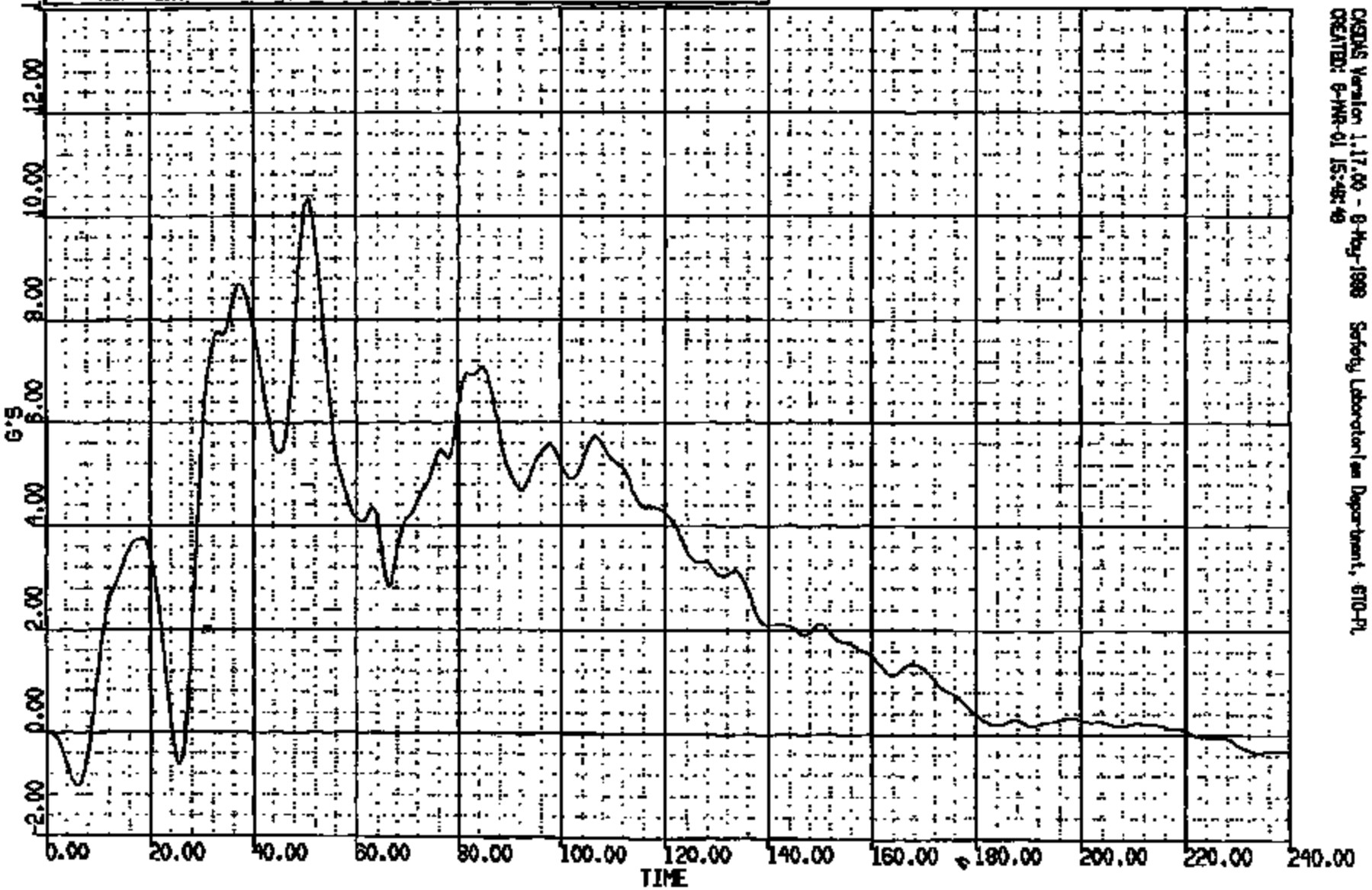
20035 FN-146

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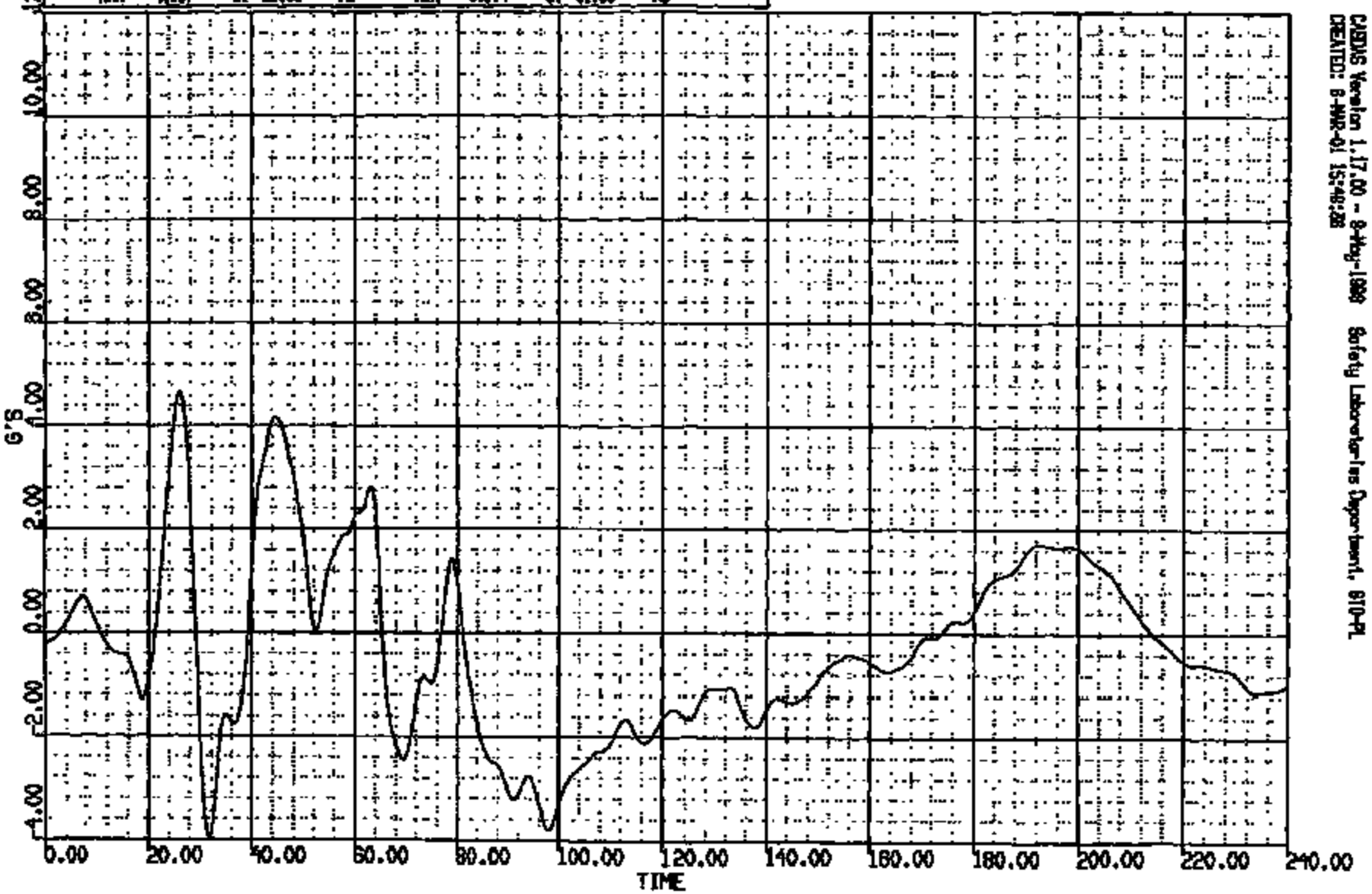
20025 FN-145



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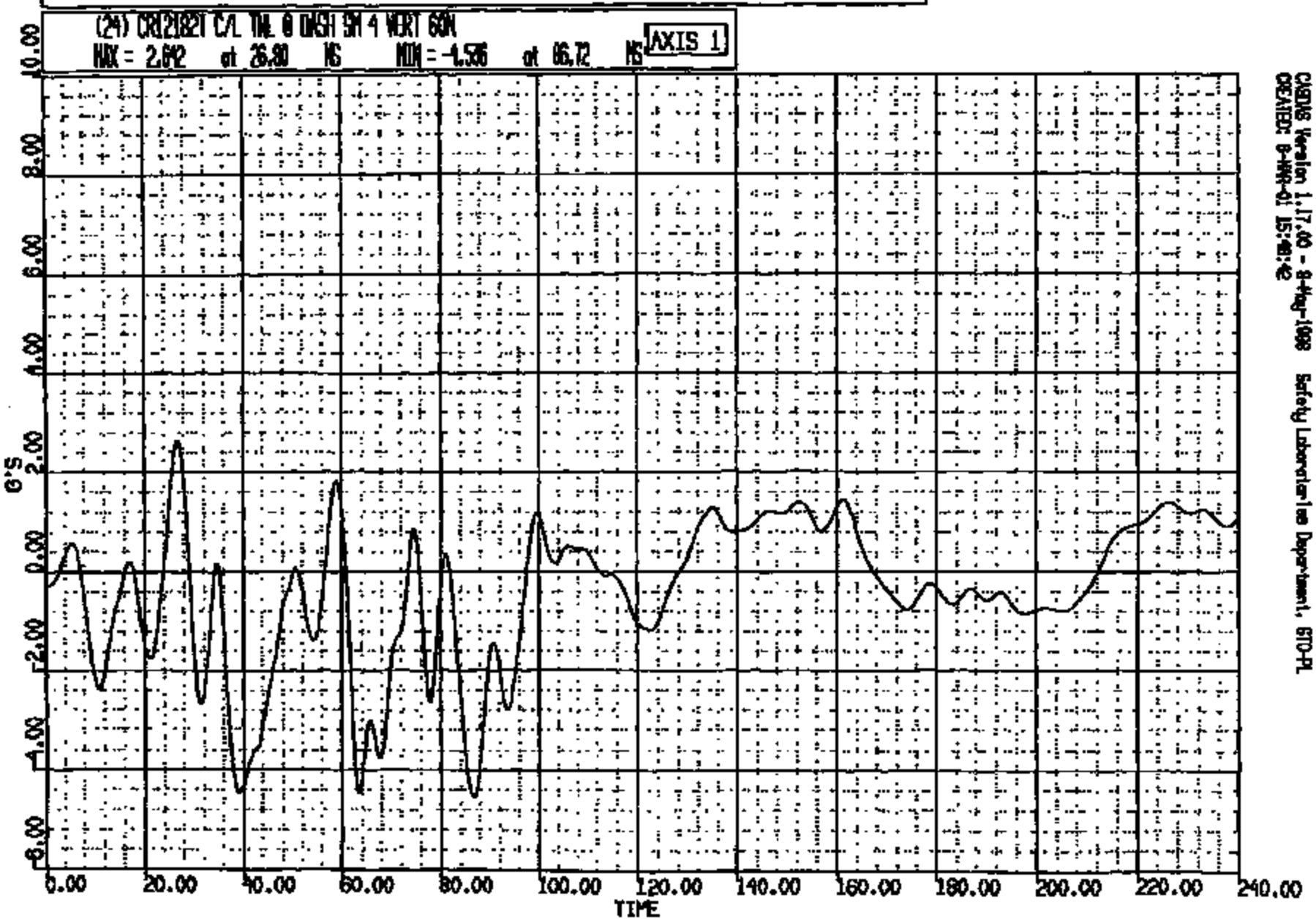
20026 FN-146

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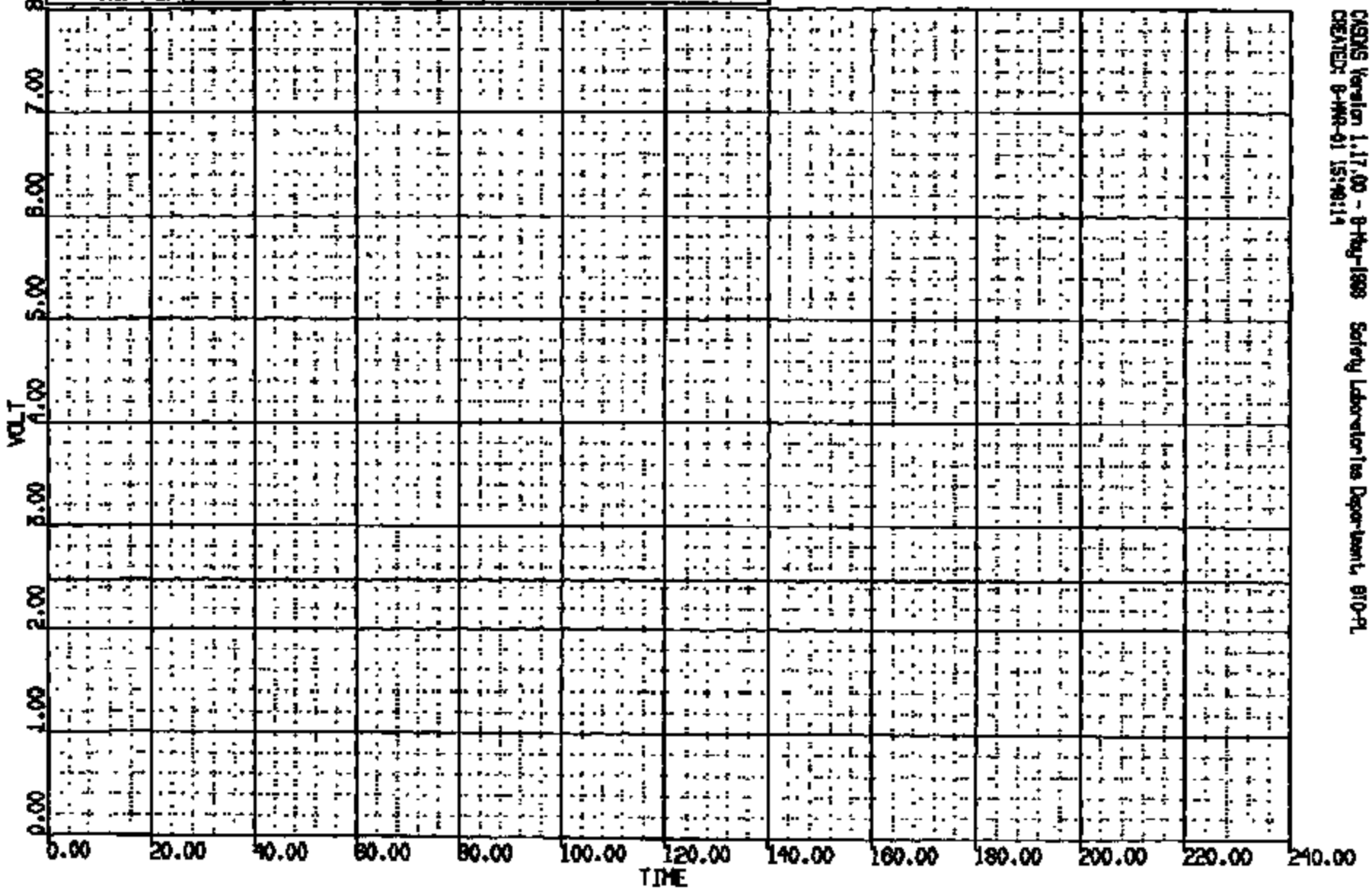
CRTS 0012182

CR R: 12182 TO: TC1940 DATE: 010202 14:28:14
20026 FN-145

(29) CR12182T C/L TNL @ DASH TANK 4000C
MAX = 2.465 at 15.36 MS MIN = 2.461 at 94.08 MS AXIS 1

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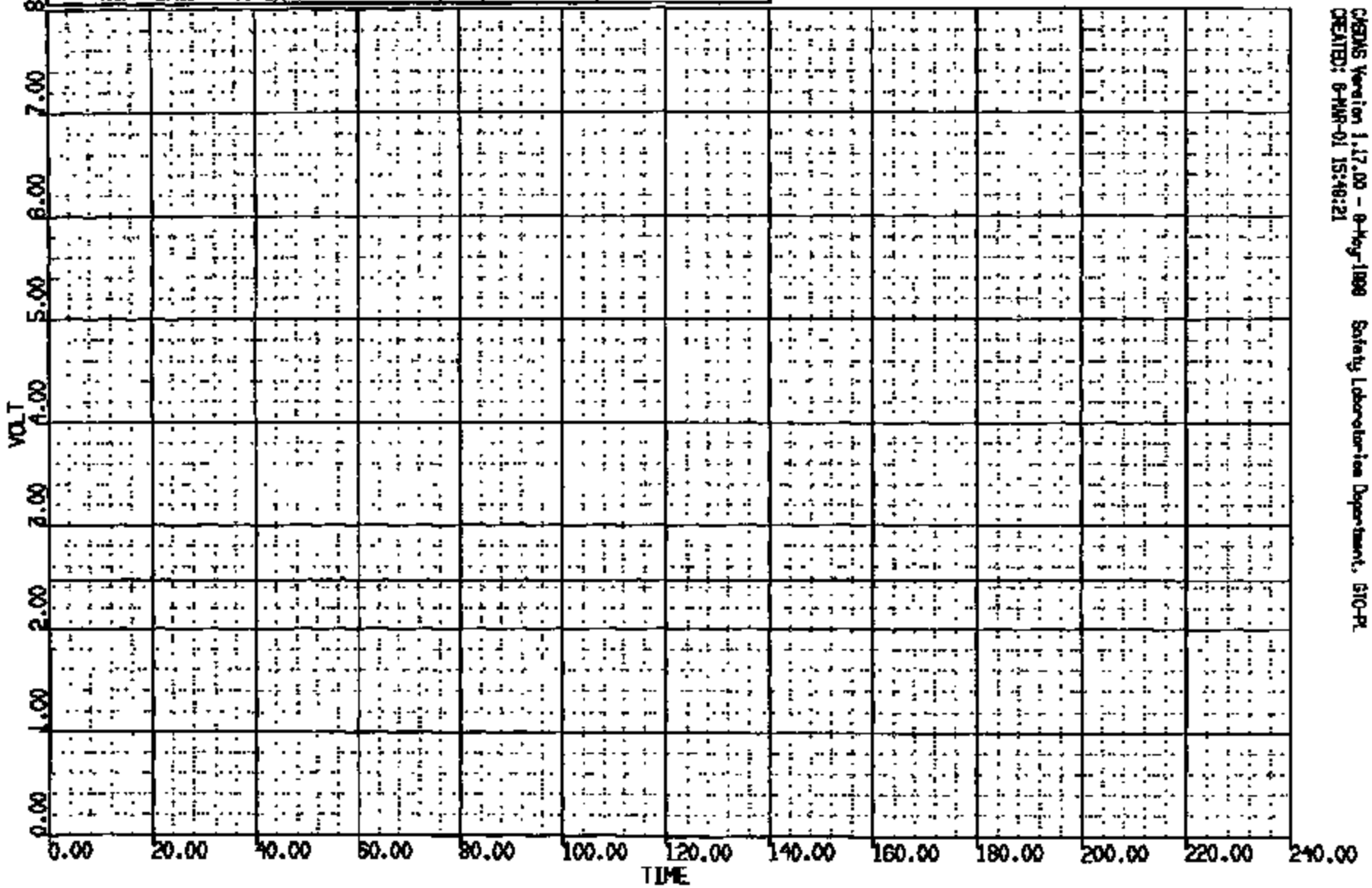
CRTS 0012182

CR #: 12182 TO: TC1940 DATE: 0102[redacted] 14:20:14
20026 FN-145

(30) CR12182T C/L TML @ DASH TAN2 4000C
MAX = 2.465 at 19.68 MS MIN = 2.461 at 30.40 MS AXIS 1

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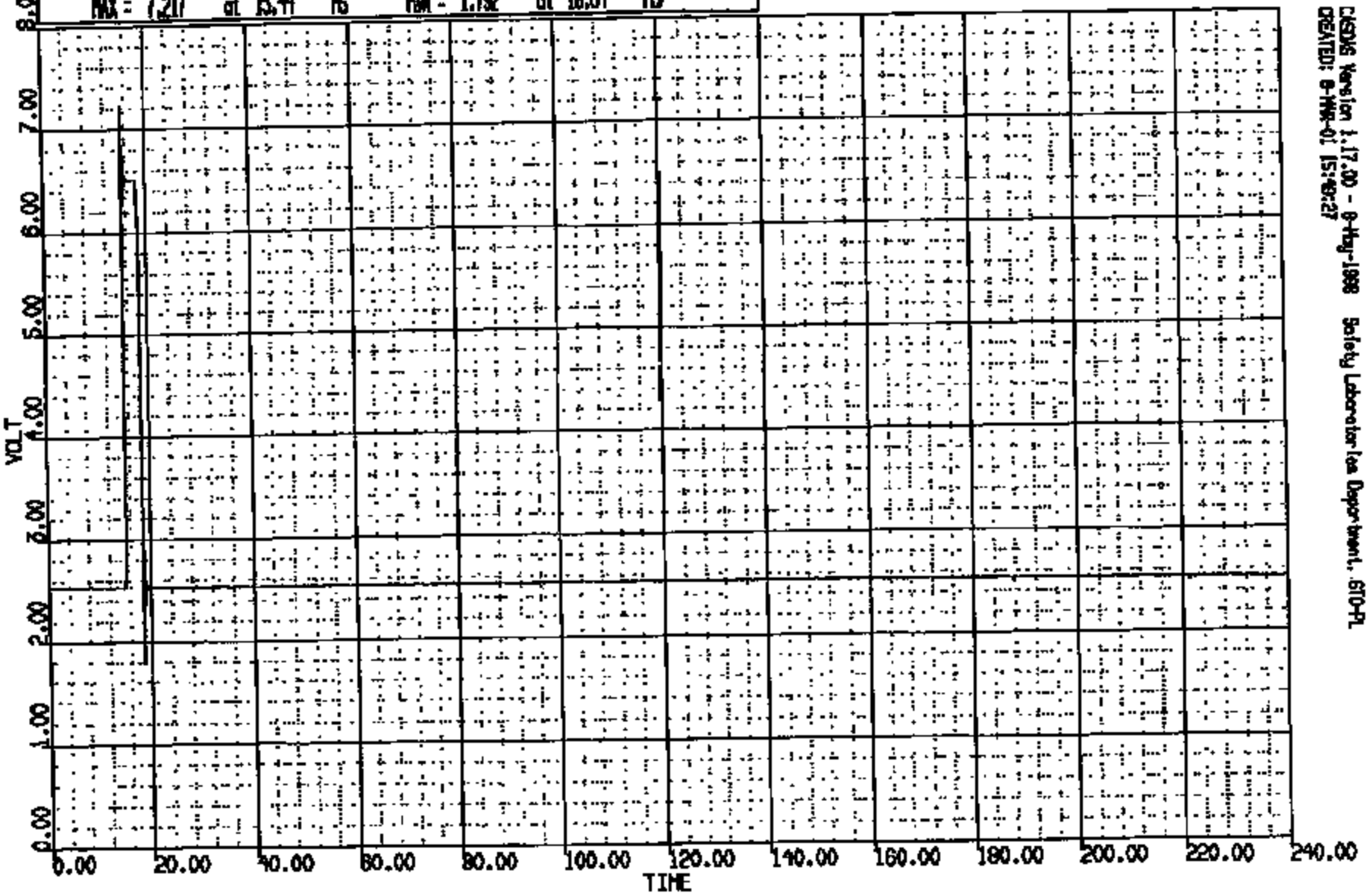
CRTS 0012182

CR R: 12182 TO: TC1940 DATE: 010212 14:20:14
20025 FN-146

(31) CR12182I C/L INL @ DKSH TANK3 4000C
MAX = 7.217 at 15.44 MS MIN = 1.792 at 18.64 MS AXIS 1

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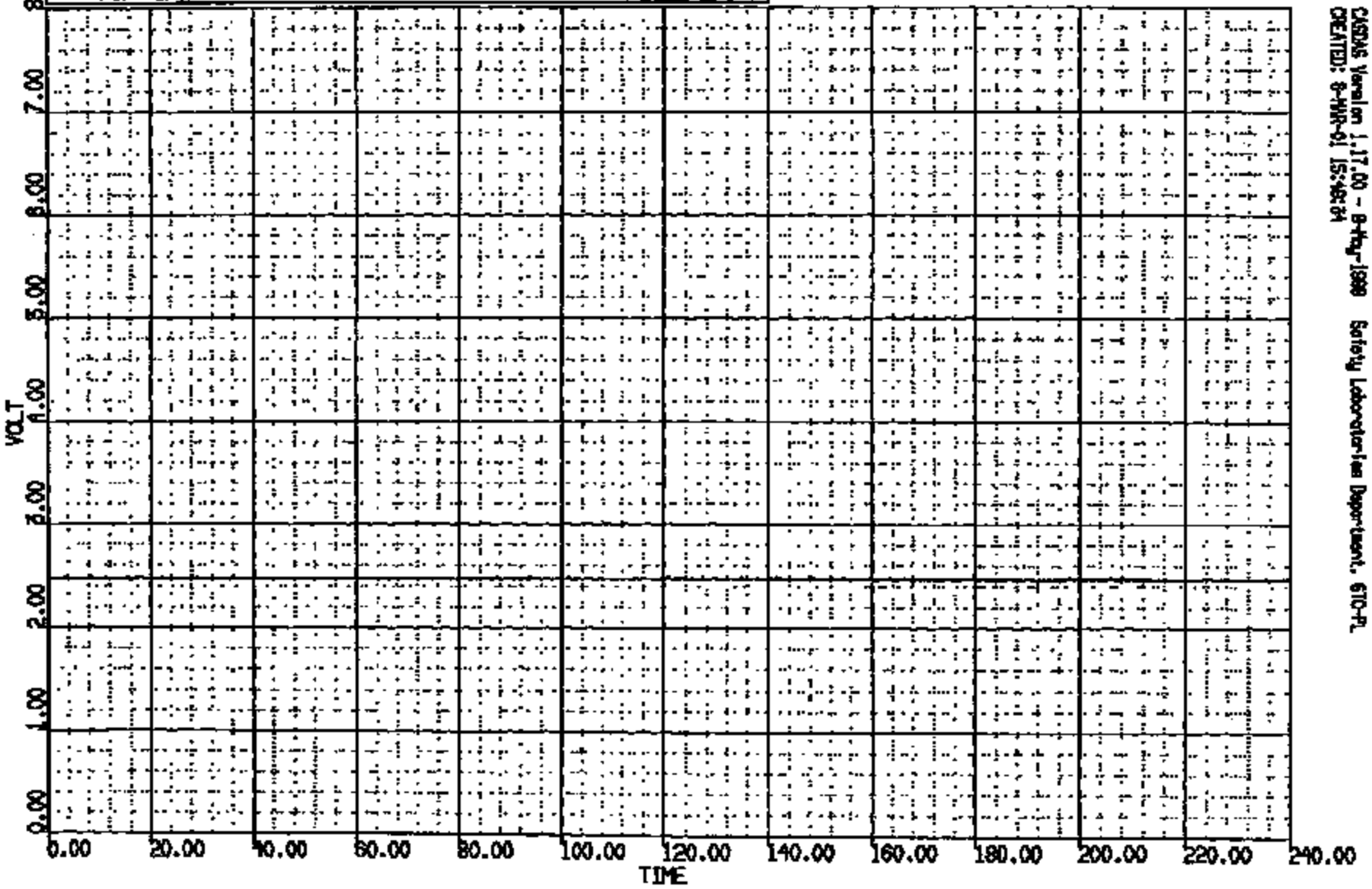
20025 FN-145

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CRTS 0012182

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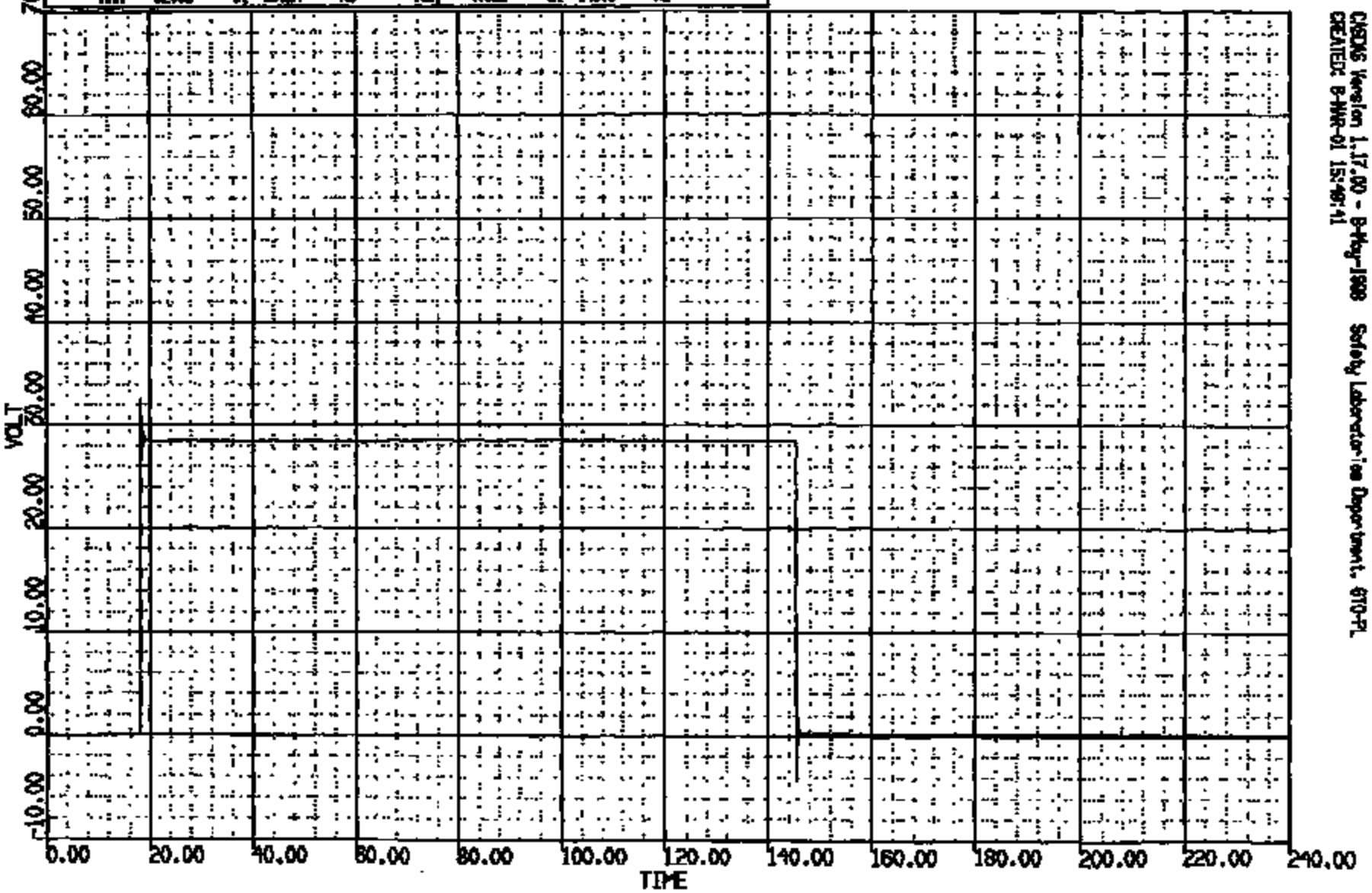
20025 FN-145

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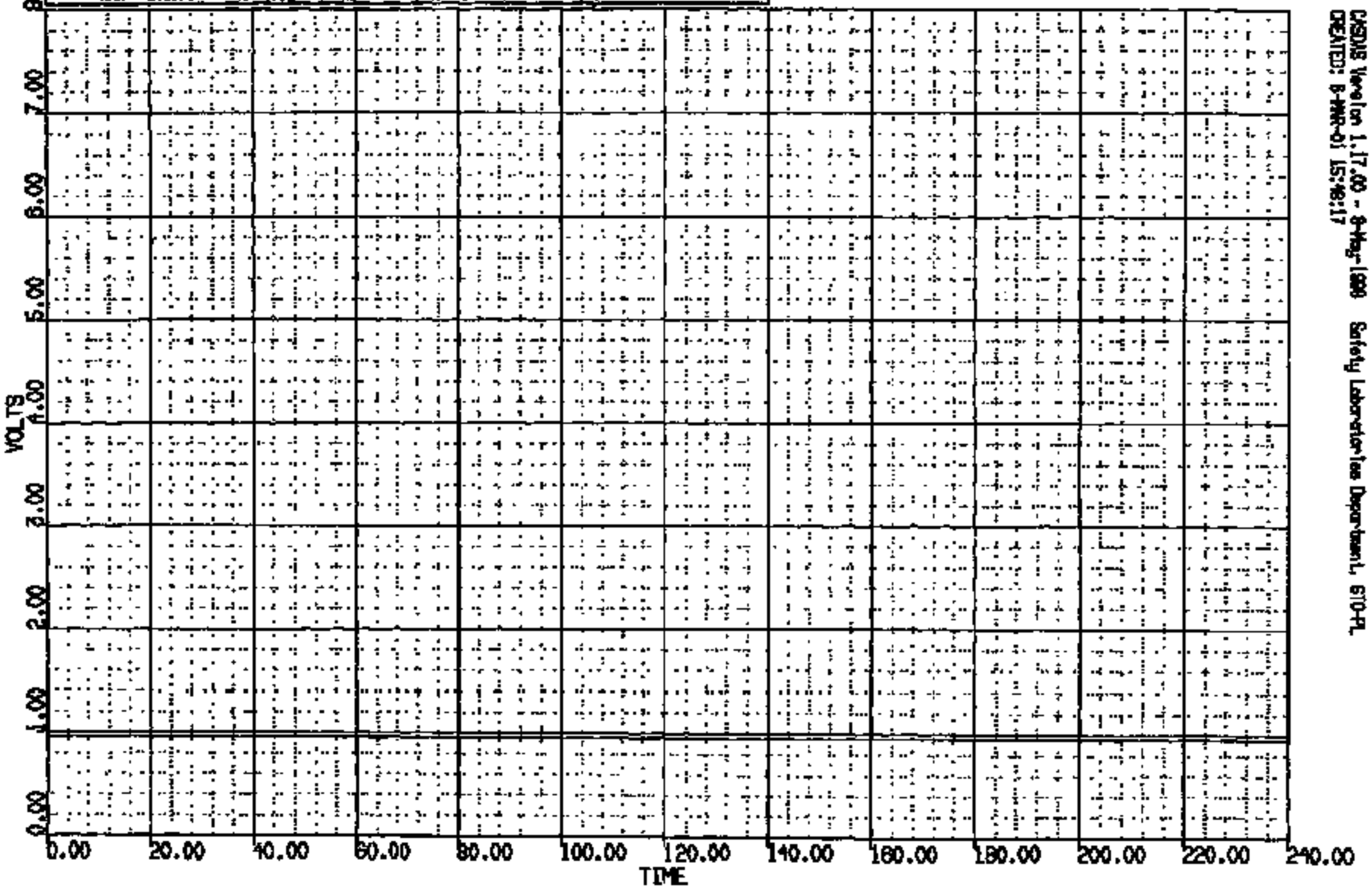
CRTS 0012182

CR R: 12182 TO: TC1940 DATE: 010212 14:29:14
20026 FN-145

(20) CR12182T FUEL SHUT OFF (INERTIA) SW 4000C
MAX = 0.5570 at -.7629E-05 MS MIN = 0.5570 at -.7629E-05 MS AXIS 1




CASDAS Version 1.17.00 - 8-May-1990 Safety Laboratories Department, 610-PL
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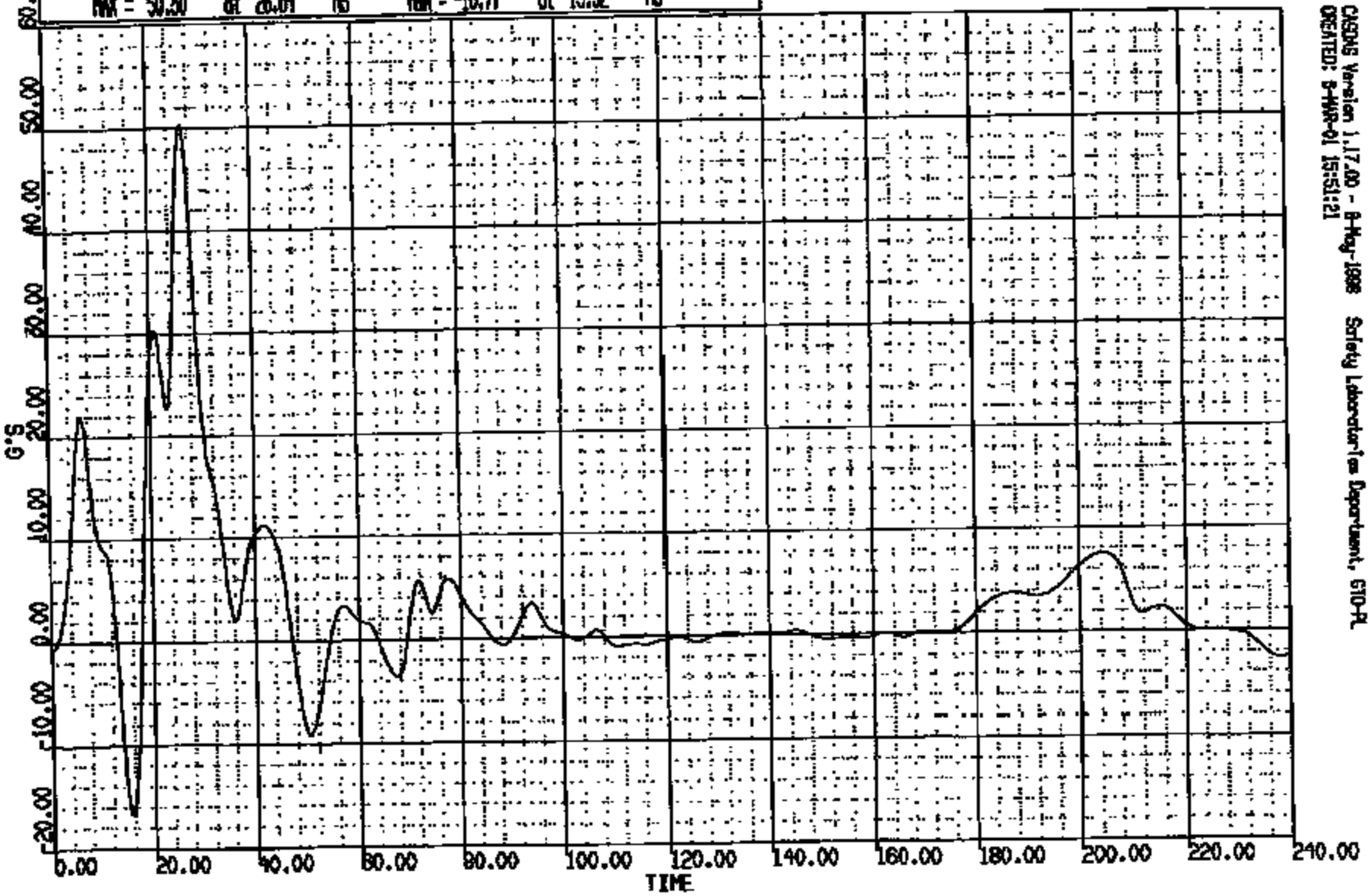
CRTS 0012182

CR R: 12182 TO: TC1940 DATE: 010212 14:28:14
20026 FN-146

(47) CR12182T L/B-PILLAR IN @ BELTLINE LAT 60N
MAX = 50.30 at 26.04 MS MIN = -16.77 at 15.52 MS AXIS 1

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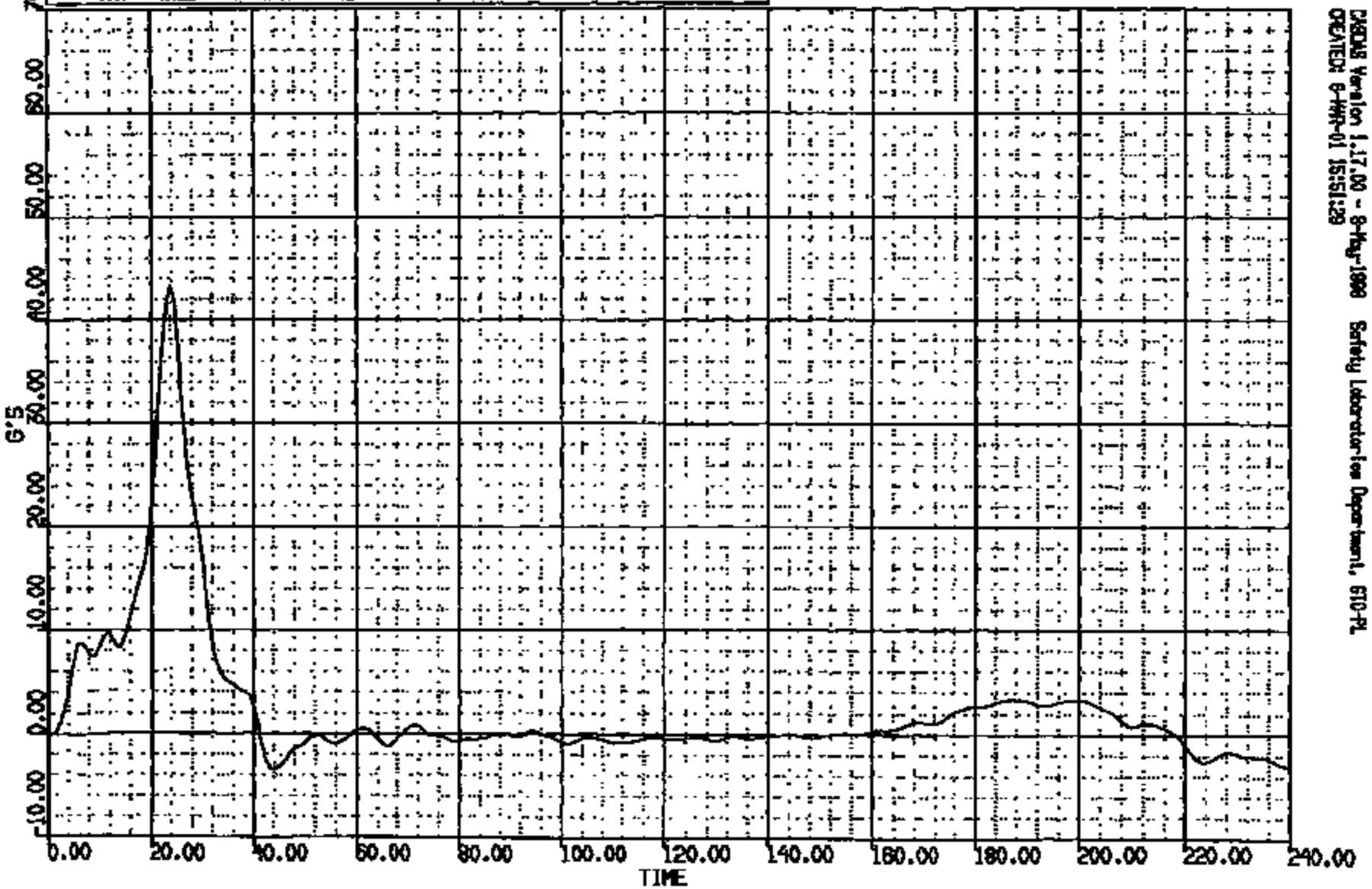
CRTS 0012182

CR R: 12182 TO: TC1940 DATE: 010202 14:29:14
20026 FN-145

(48) CR12182T L/B-PILLAR IN @ ROCKER LAT 60M
MAX = 43.22 at 23.76 MS MIN = -3.466 at 43.04 MS AXIS 1

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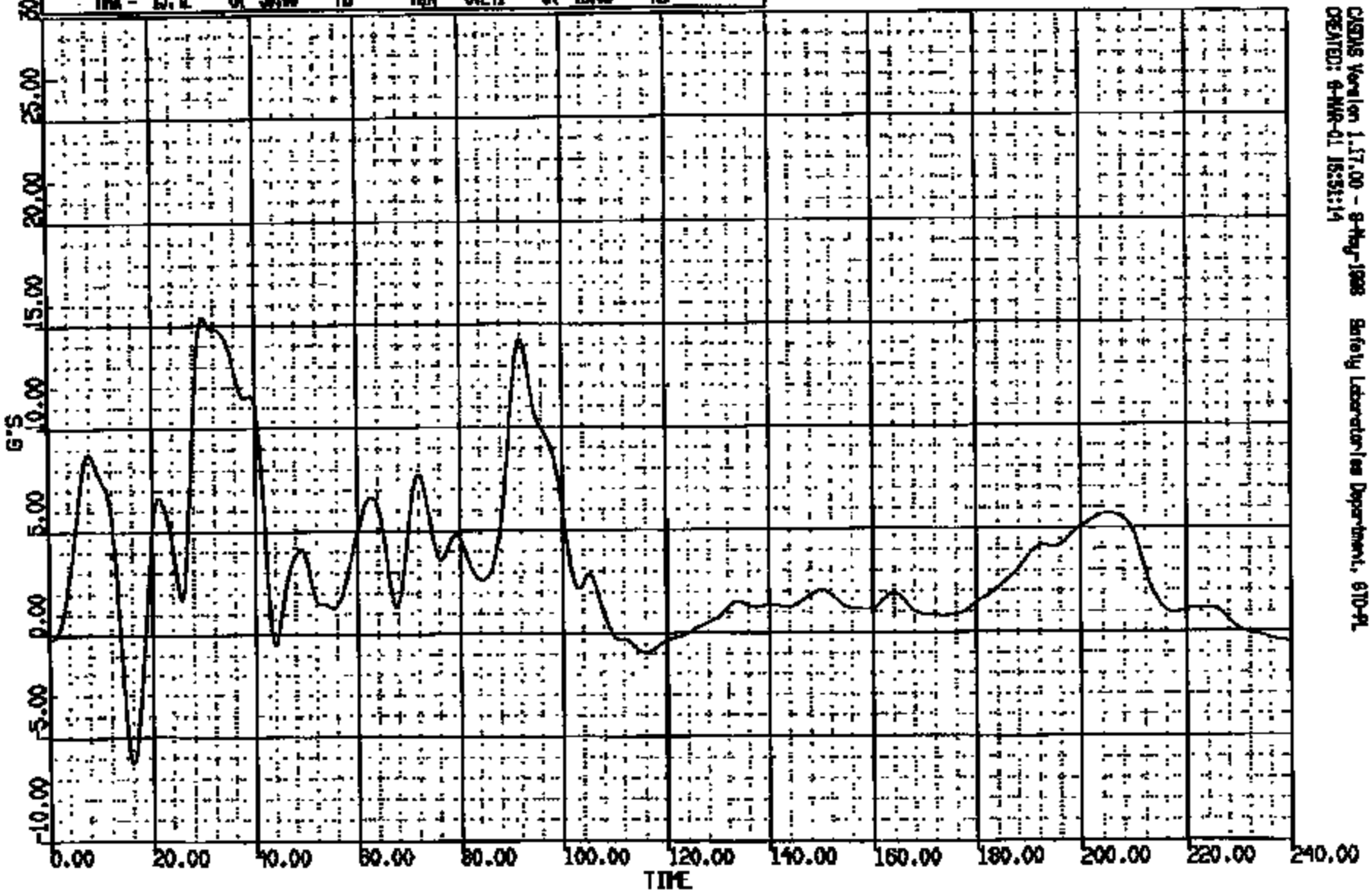
CRTS 0012182

CR R: 12182 TO: TC1940 DATE: 010[illegible]2 14:28:14
80025 FN-145

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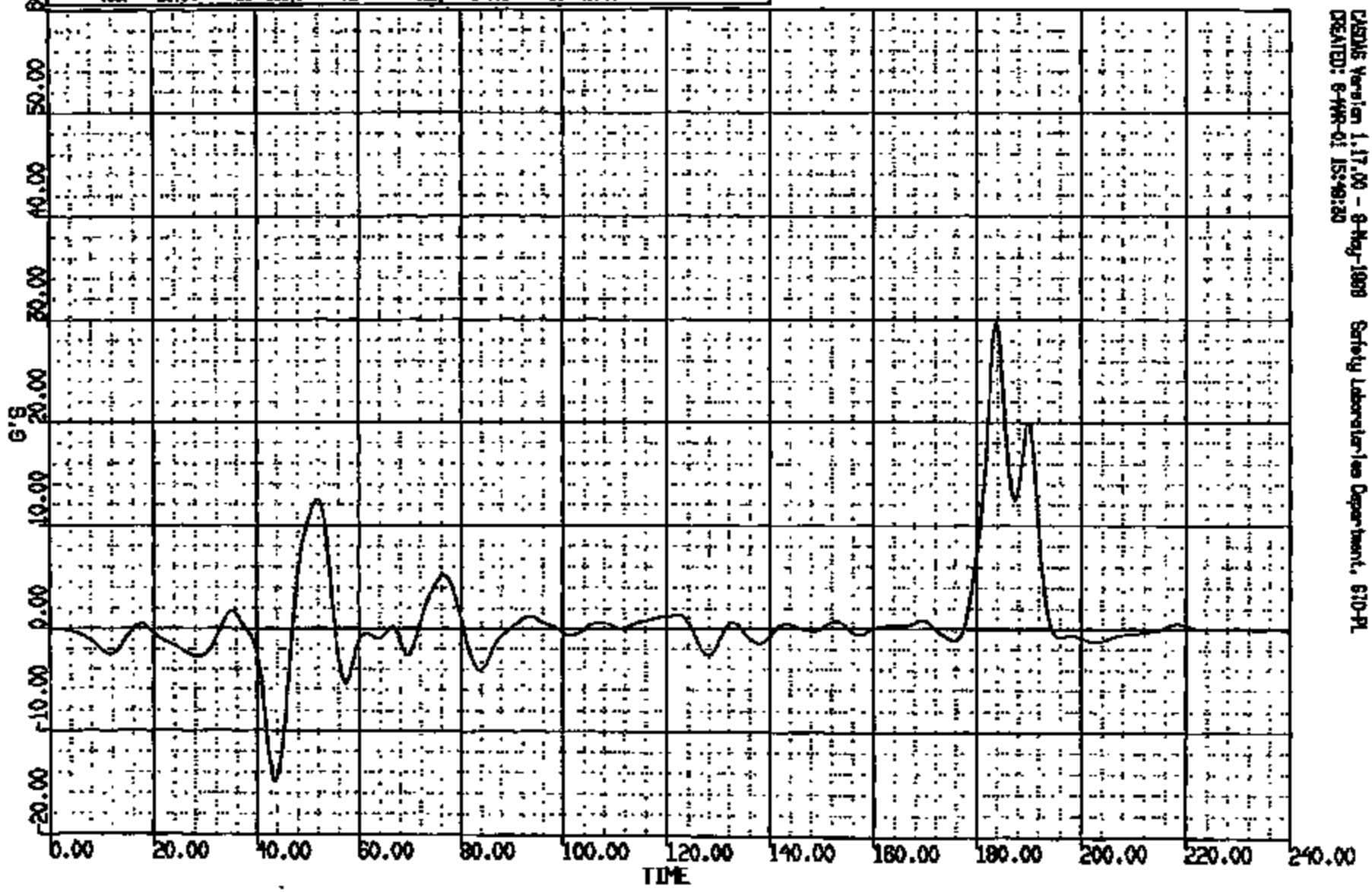
CRTS 0012182

CR R: 12182 TO: TC1940 DATE: 010212 14:28:14
20025 FN-145

(22) CR12182T L/C RAD SUPPORT FCS #11 LONG GON
MAX = 29.64 at 185.8 MS MIN = -14.82 at 43.44 MS AXIS 1

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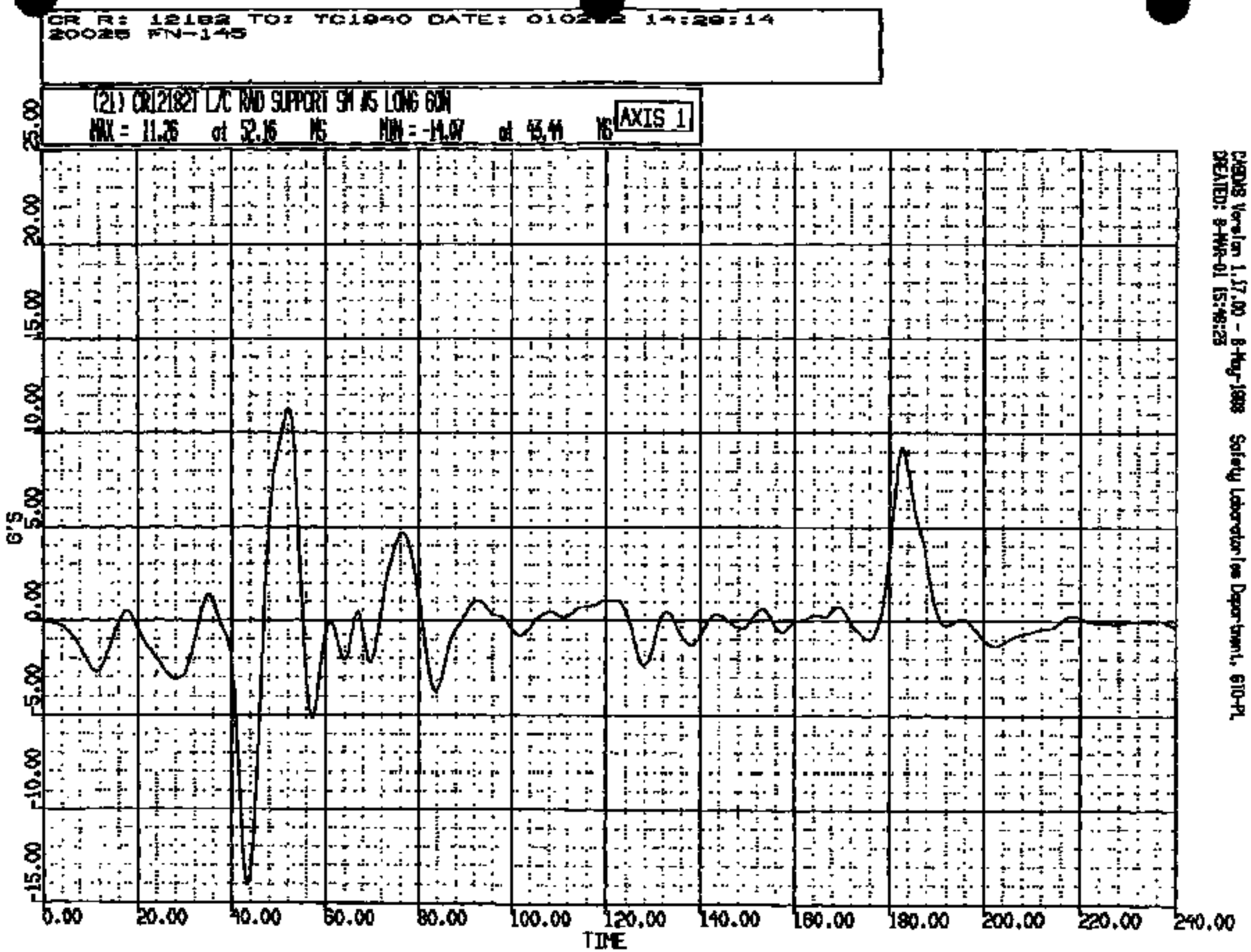
CRTS 0012182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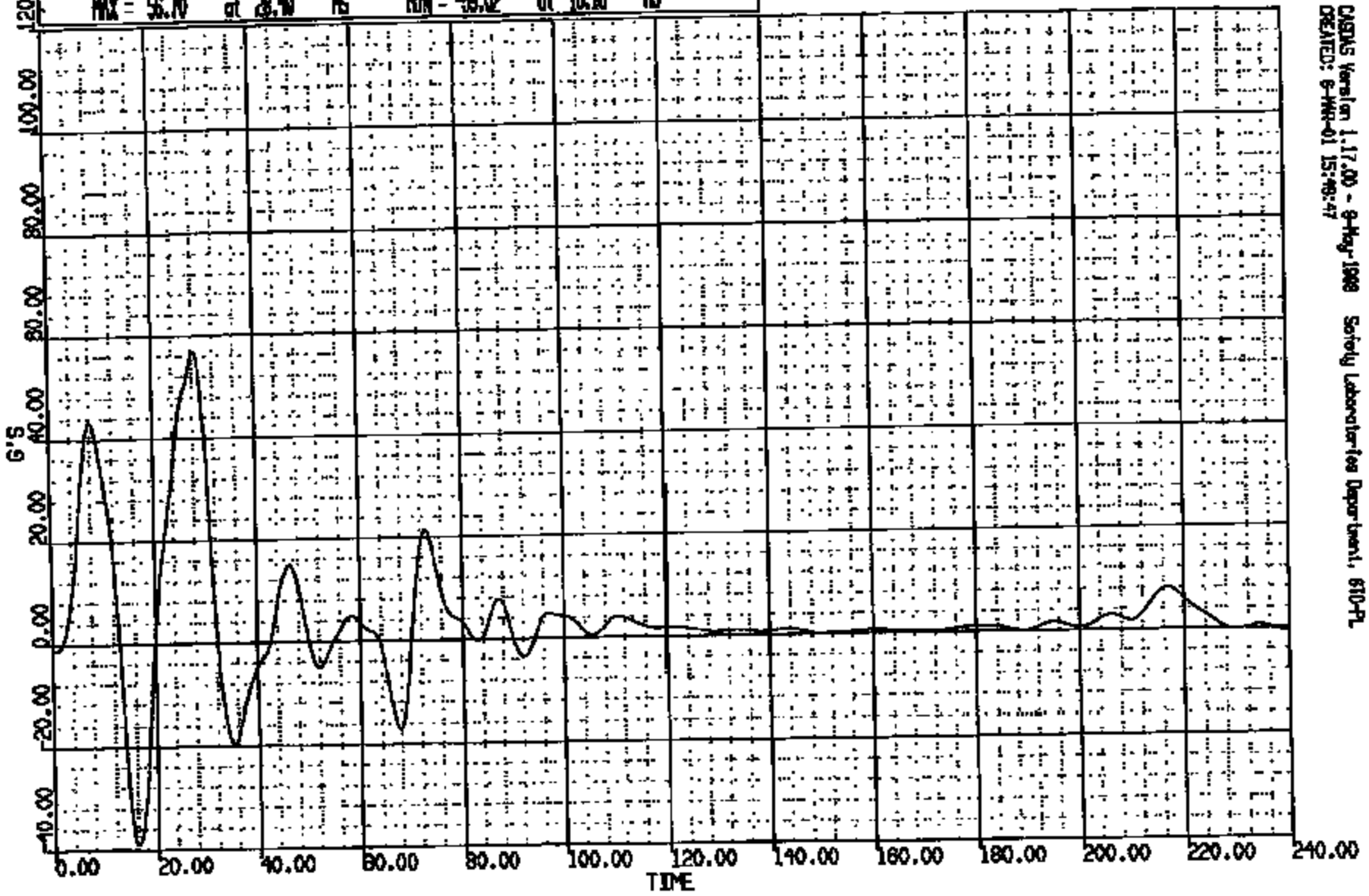
20025 FN-145
(21) CR12182T L/C RAD SUPPORT SM #5 LONG 60N
MAX = 11.26 at 52.16 MS MIN = -14.07 at 43.44 MS
AXIS 1
G'S
25.00
20.00
15.00
10.00
5.00
0.00
-5.00
-10.00
-15.00
0.00
20.00
40.00
60.00
80.00
100.00
120.00
140.00
160.00
180.00
200.00
220.00
240.00
TIME
CASDAS Version 1.17.00 - 8-May-1998 Safety Laboratories Department, 610-PL
CREATED: 8-MAR-01 15:48:23

CR R: 12182 TO: TC1940 DATE: 010212 14:29:14
20026 FN-145

(34) CR12182T L/F DOOR @ BELTLINE MID LAY GON
MAX = 56.70 at 28.40 MS MIN = -39.02 at 16.16 MS

AXIS 1

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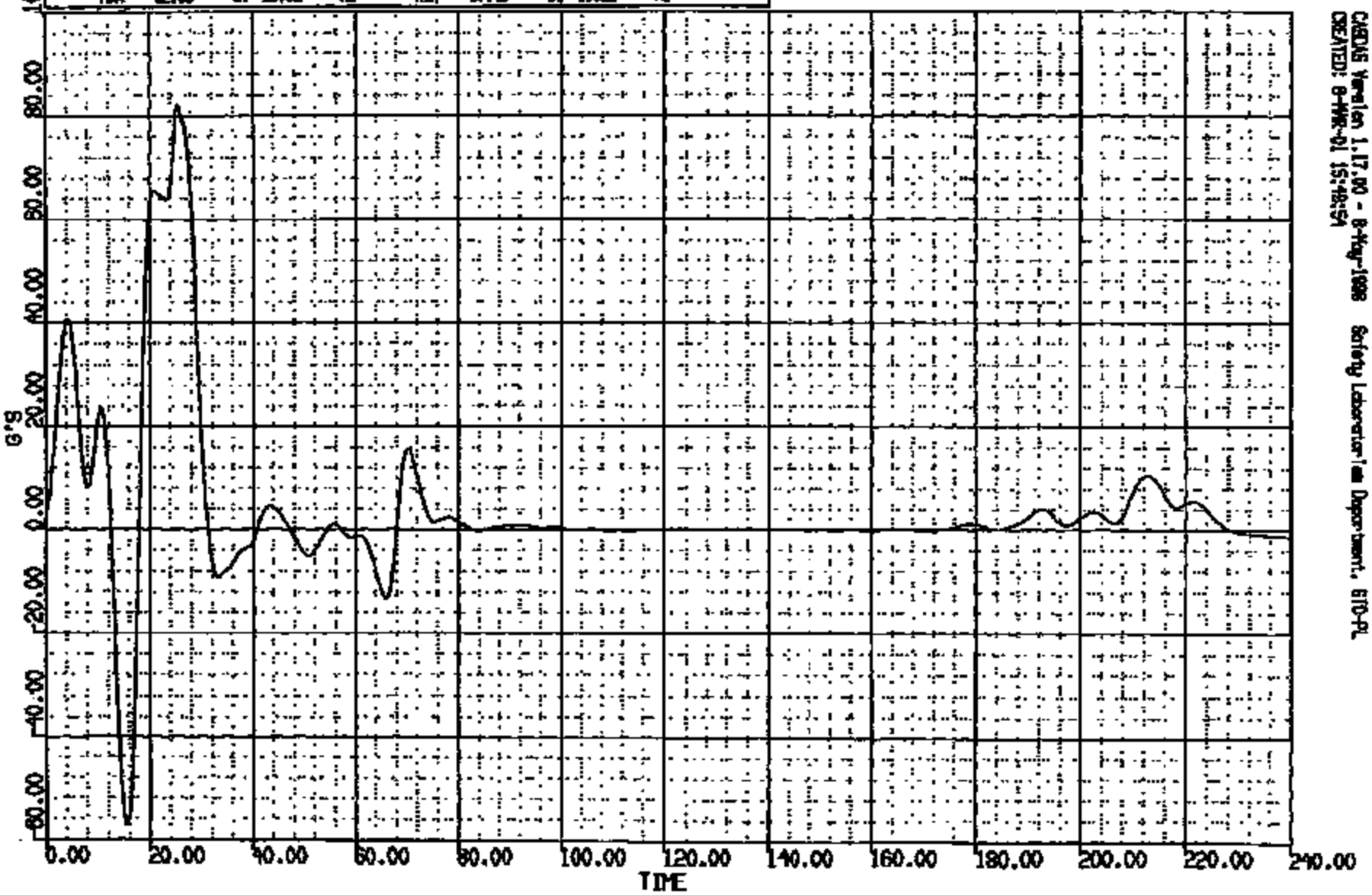
CRTS 0012182

CR R: 12182 TO: TC1840 DATE: 010212 14:28:14
20025 FN-145

(35) 0012182T L/F DOOR @ BELTLINE REAR LAT 60N
MAX = 82.09 at 25.52 MS MIN = -57.46 at 15.52 MS AXIS 1

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CRTS 0012182

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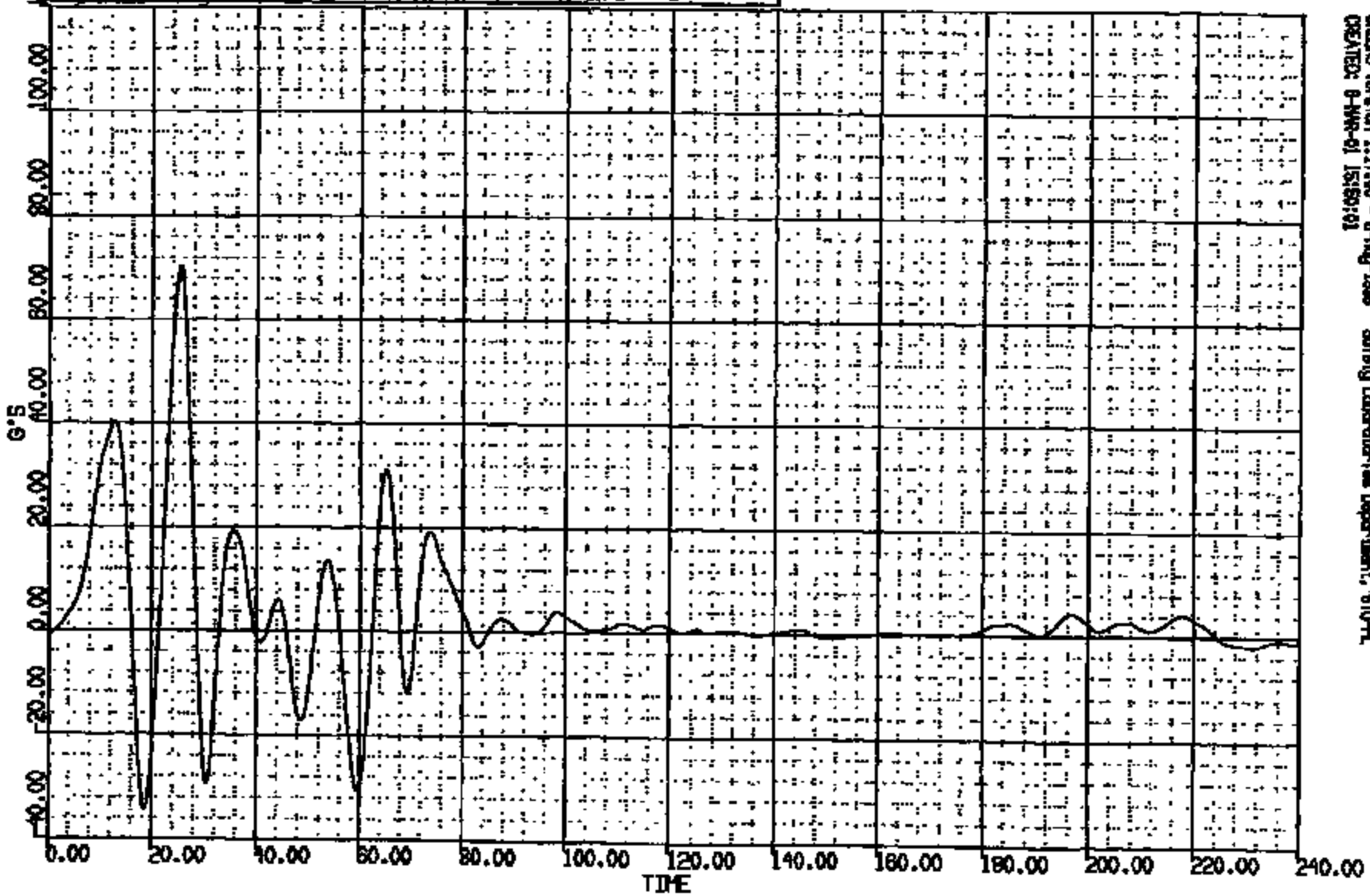
20026 FN-145

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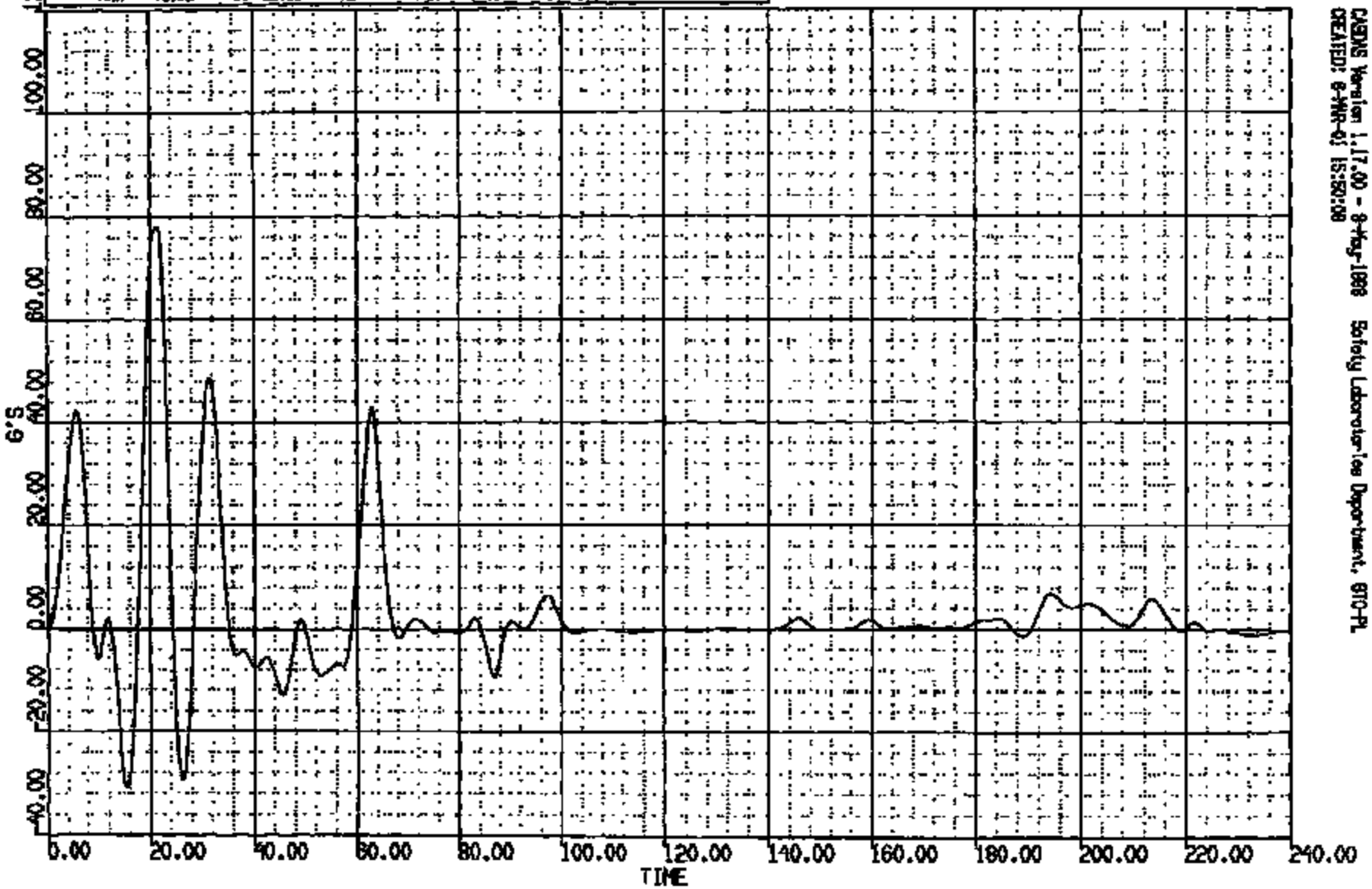
CREATED: 8-MAR-01 15:50:01

CR R: 12182 TO: TC1940 DATE: 010212 14:29:14
20025 FN-146

(37) CR12182T L/F DOOR NEAR OF SEAT H-PT LAT 60M
MAX = 78.42 at 21.36 MS MIN = -30.87 at 15.44 MS

AXIS 1

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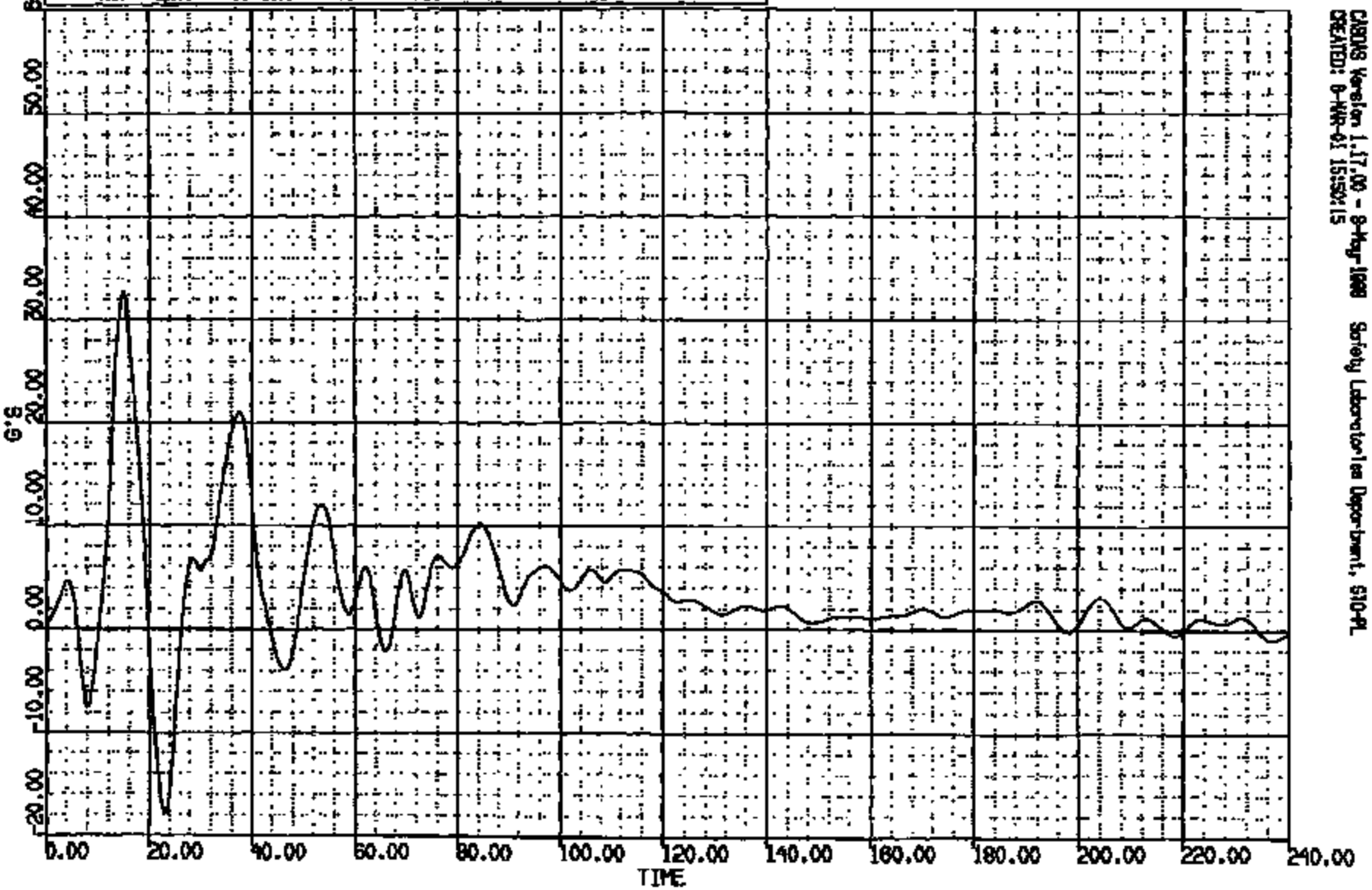
CRTS 0012182

CR R: 12182 TO: TC1940 DATE: 010212 14:29:14
20026 FN-145

(38) CR12182T L/F DOOR SPEAKER HOLE LAT 60N
MAX = 32.78 at 15.04 MS MIN = -17.87 at 23.12 MS AXIS 1

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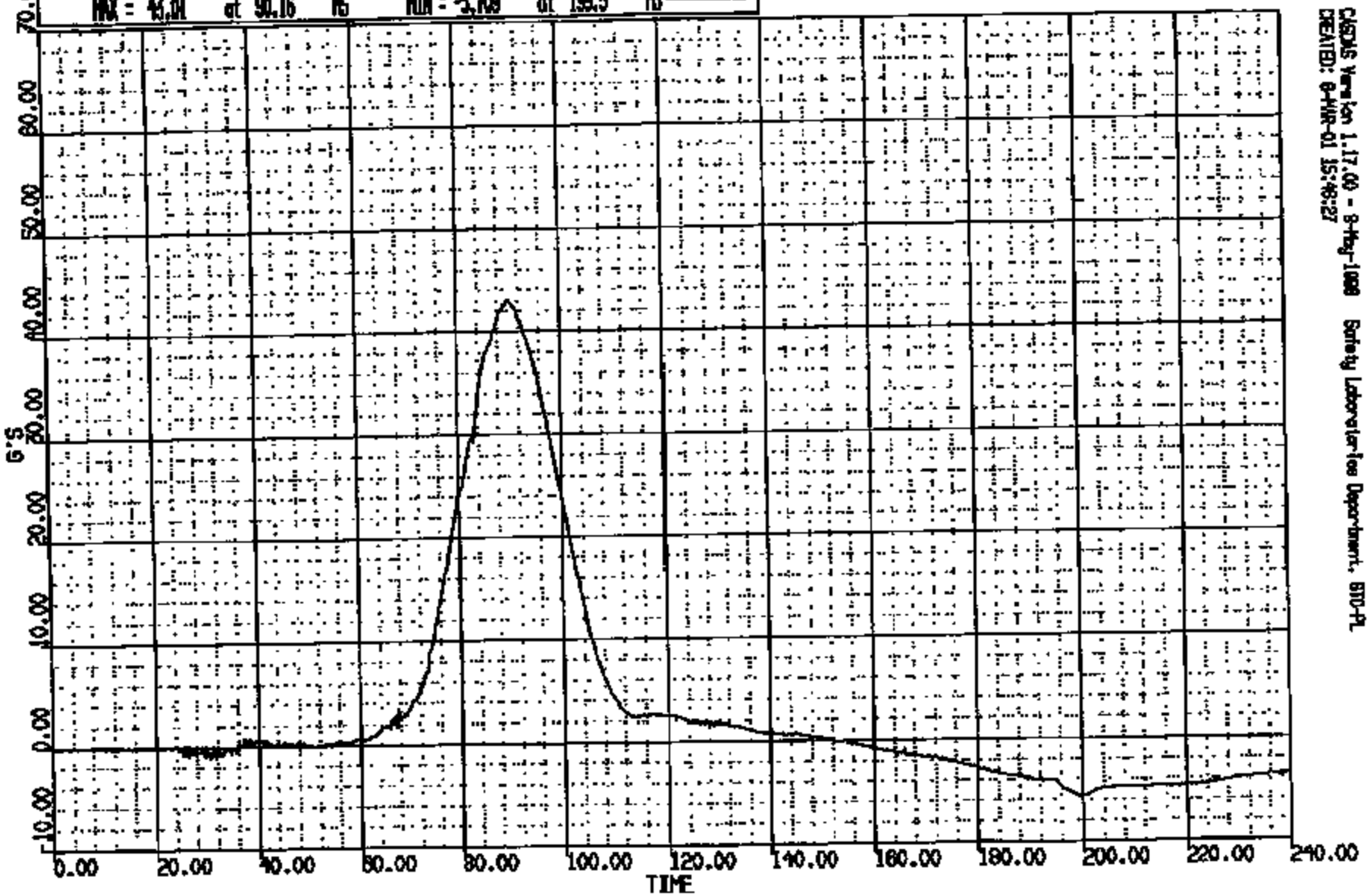
CRTS 0012182

CR R: 12182 TO: TC1840 DATE: 010[illegible] 14:29:14
20028 FN-146

(3) CR12182T L/F DUMMY HEAD C.G. LAT 1000N
MAX = 45.04 at 90.16 MS MIN = -5.709 at 199.3 MS AXIS 1

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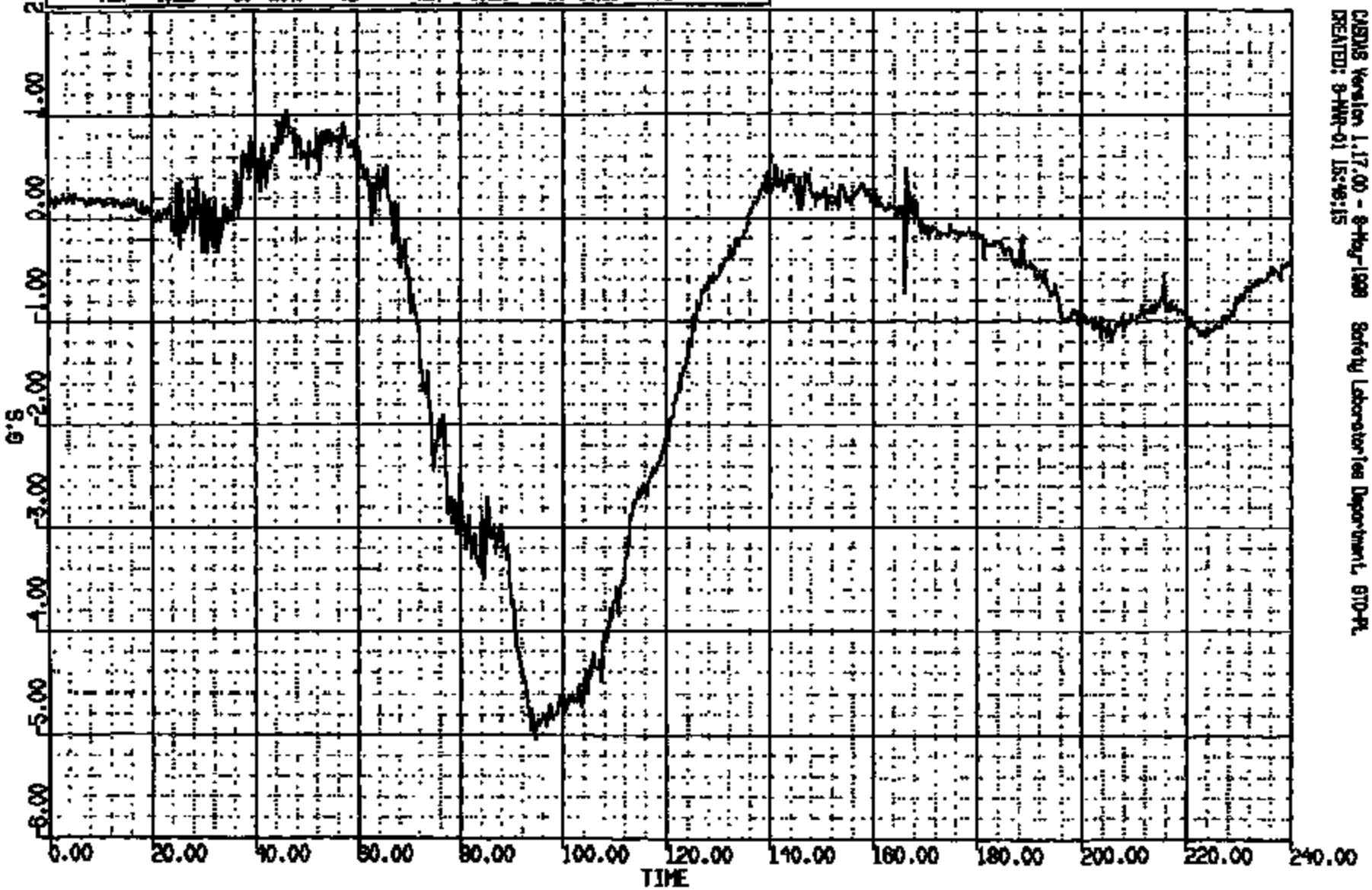
CRTS 0012182

CR R: 12182 TO: TC1940 DATE: 010212 14:29:14
20026 FN-145

(1) CR12182T L/F DUMMY HEAD C.G. LONG 1000N
MAX = 1.428 at 16.10 MS MIN = -5.027 at 91.56 MS AXIS 1




CADMS Version 1.17.00 - 8-May-1998 Safety Laboratories Department, 870-PL
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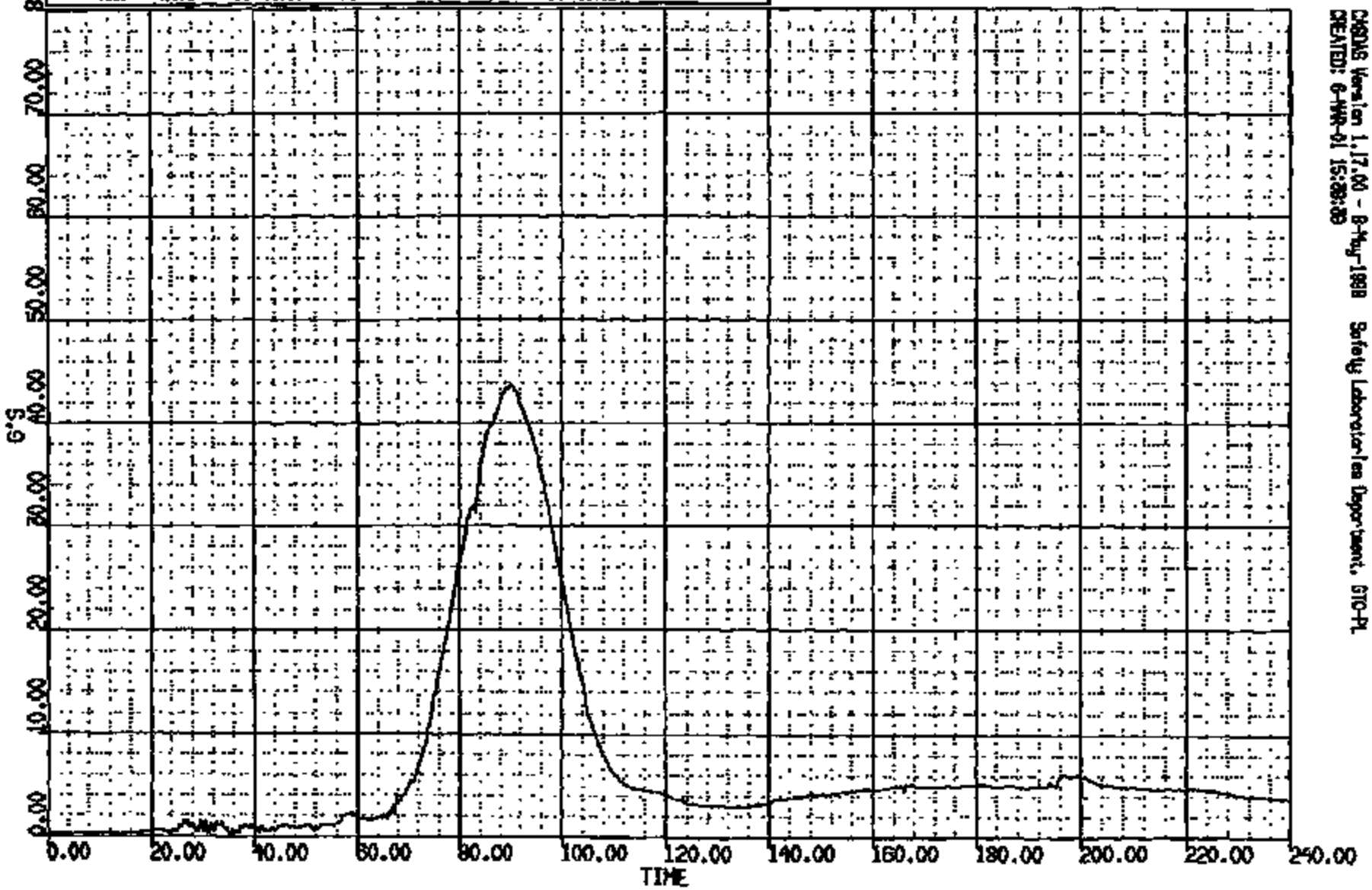
CRTS 0012182

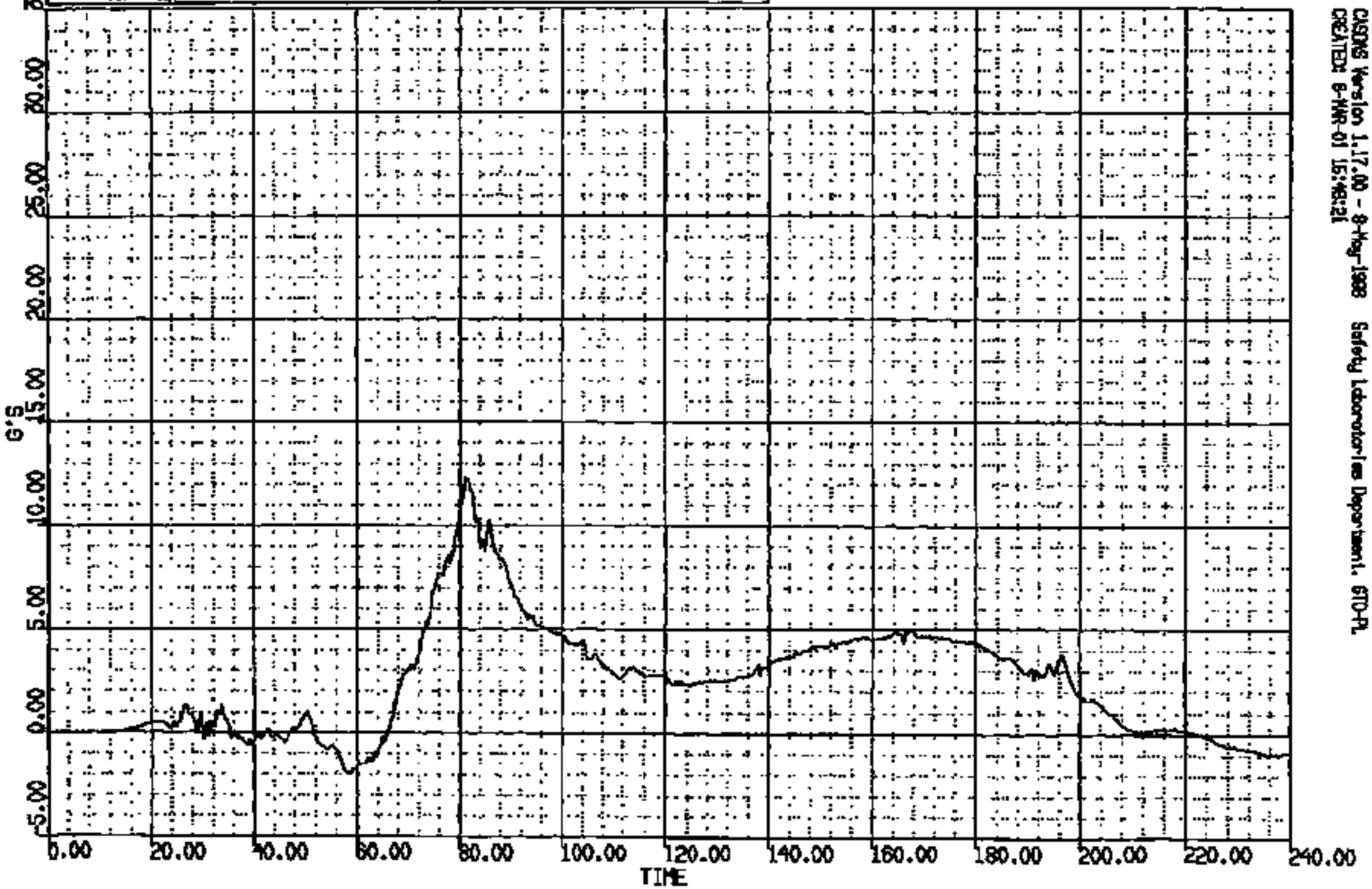
CASDAS Version 1.17.00 - 8-May-1998 Safety Laboratories Department, GTC-PL
CREATED: 6-MAR-01 15:38:39

CR R: 12182 TO: TC1940 DATE: 010222 14:29:14
20025 FN-145
HIC: 164. DUR: 240.0 T1/T2: 77.9 / 102.
HIC: 164. DUR: 30.0 T1/T2: 77.8 / 102.
HIC: 142. DUR: 15.0 T1/T2: 82.5 / 97.4



CR R: 12182 TO: TC1940 DATE: 0102[illegible] 14:29:14
20025 FN-148

(2) CR12182T L/F DUMMY HEAD C.G. VERT 1000N
MAX = 12.27 at 81.12 MS MIN = -1.994 at 58.88 MS AXIS 1




CASDAS Version 1.17.00 - 8-May-1988 Safety Laboratories Department. GTO-PL
CREATED: 6-MAR-01 15:48:21

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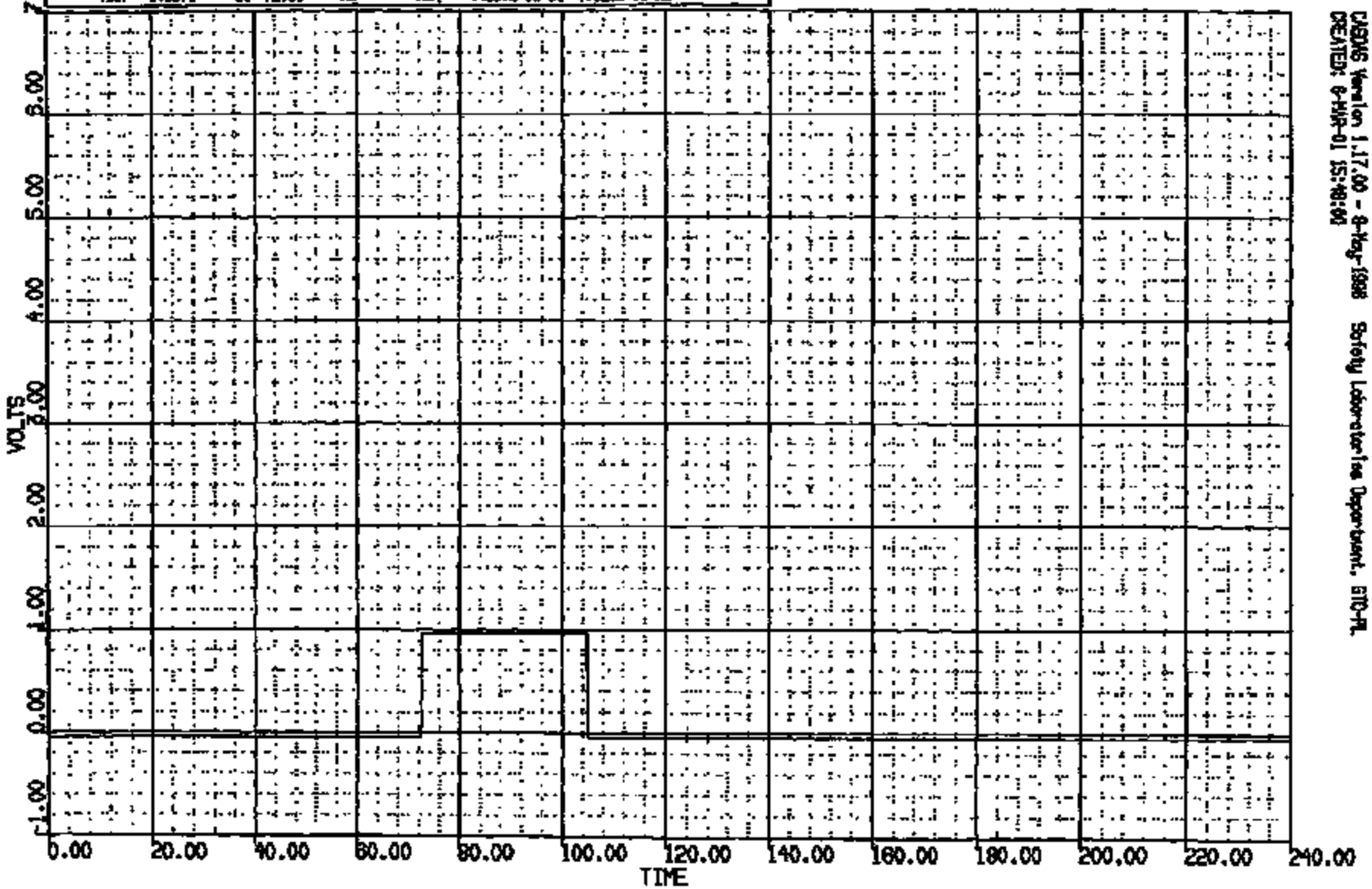
CRTS 0012182

CR R: 12182 TO: TC1940 DATE: 010212 14:29:14
20085 FN-145

(18) CR12182T L/F DUMMY HEAD SN 4000C
MAX = 0.9570 at 72.50 MS MIN = -.4855E-01 at -.7629E-05 MS

AXIS 1




CASDAS Version 1.17.00 - 8-May-1998 Safety Laboratories Department, 810-RL
CREATED: 8-MAR-01 15:48:00

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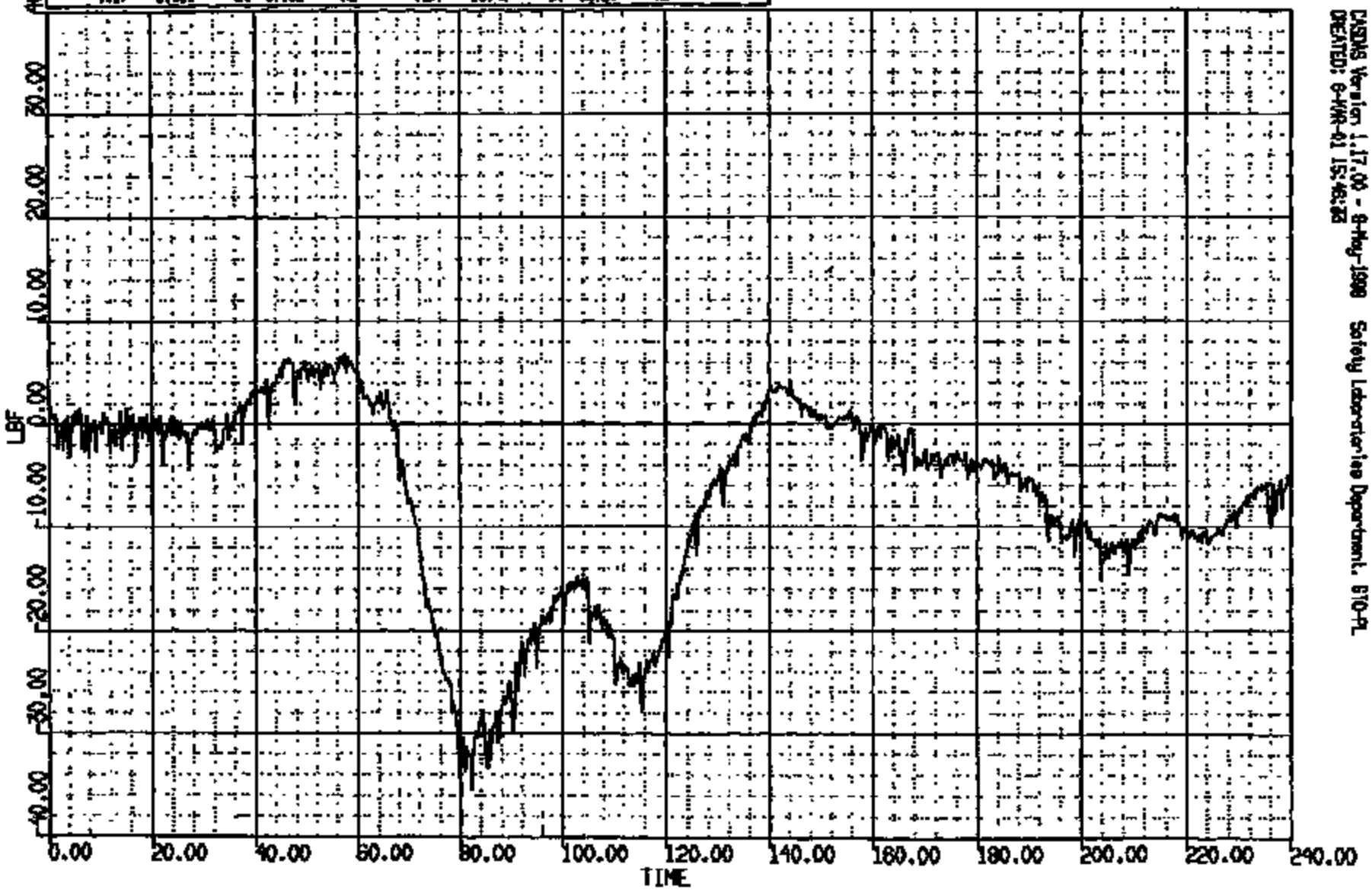
CRTS 0012182

CR R: 12182 TO: TC1940 DATE: 010212 14:29:14
20025 PN-145

(4) CX12182T L/F DUMMY NECK UPPER LOAD FX 1000M
MAX = 5.806 at 57.52 MS MIN = -35.46 at 82.21 MS

AXIS 1

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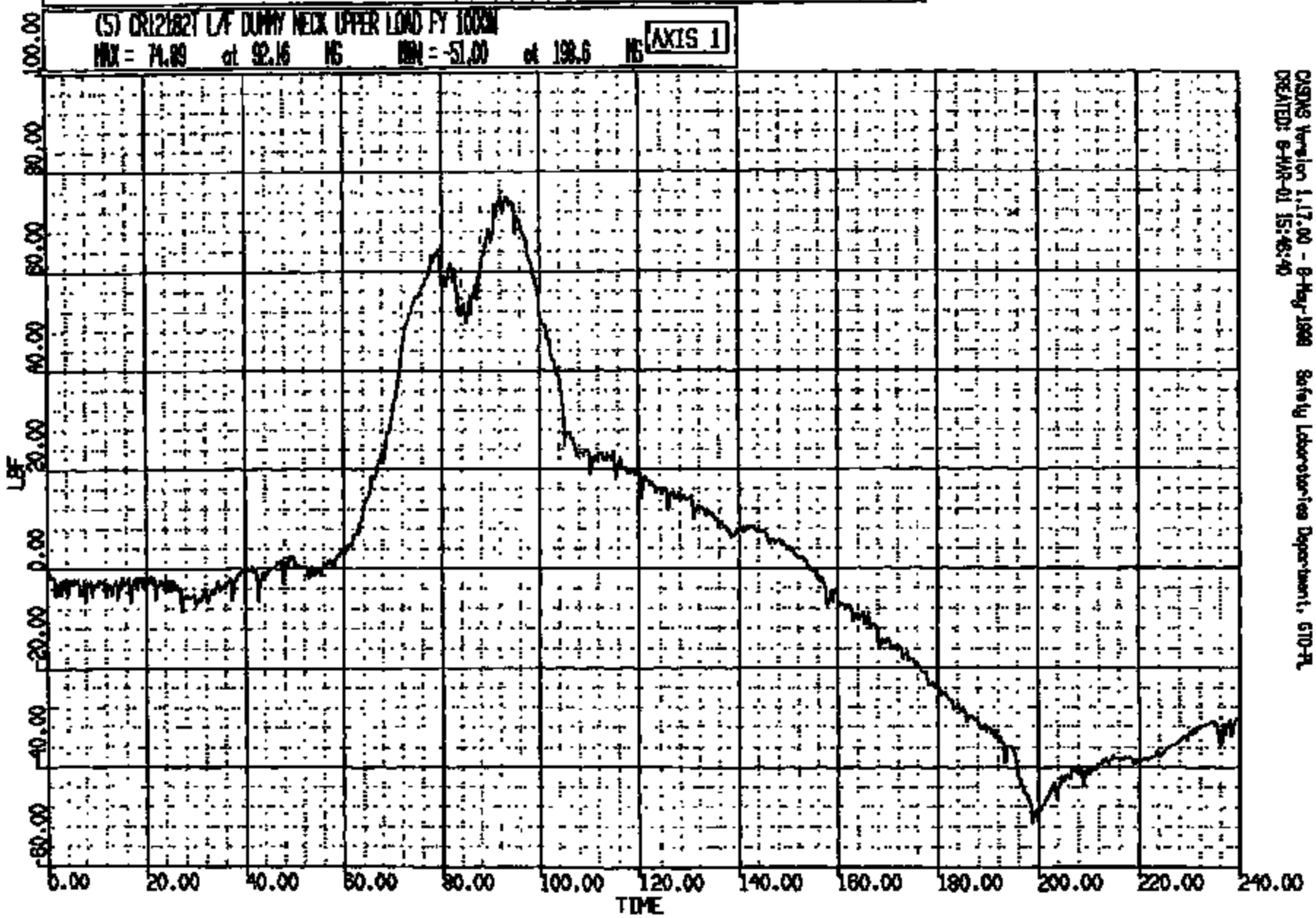
20025 FN-145




CASDAS Version 1.17.00 - 8-May-1998 Safety Laboratories Department, GTD-PL
CREATED: 6-MAR-01 15:46:40

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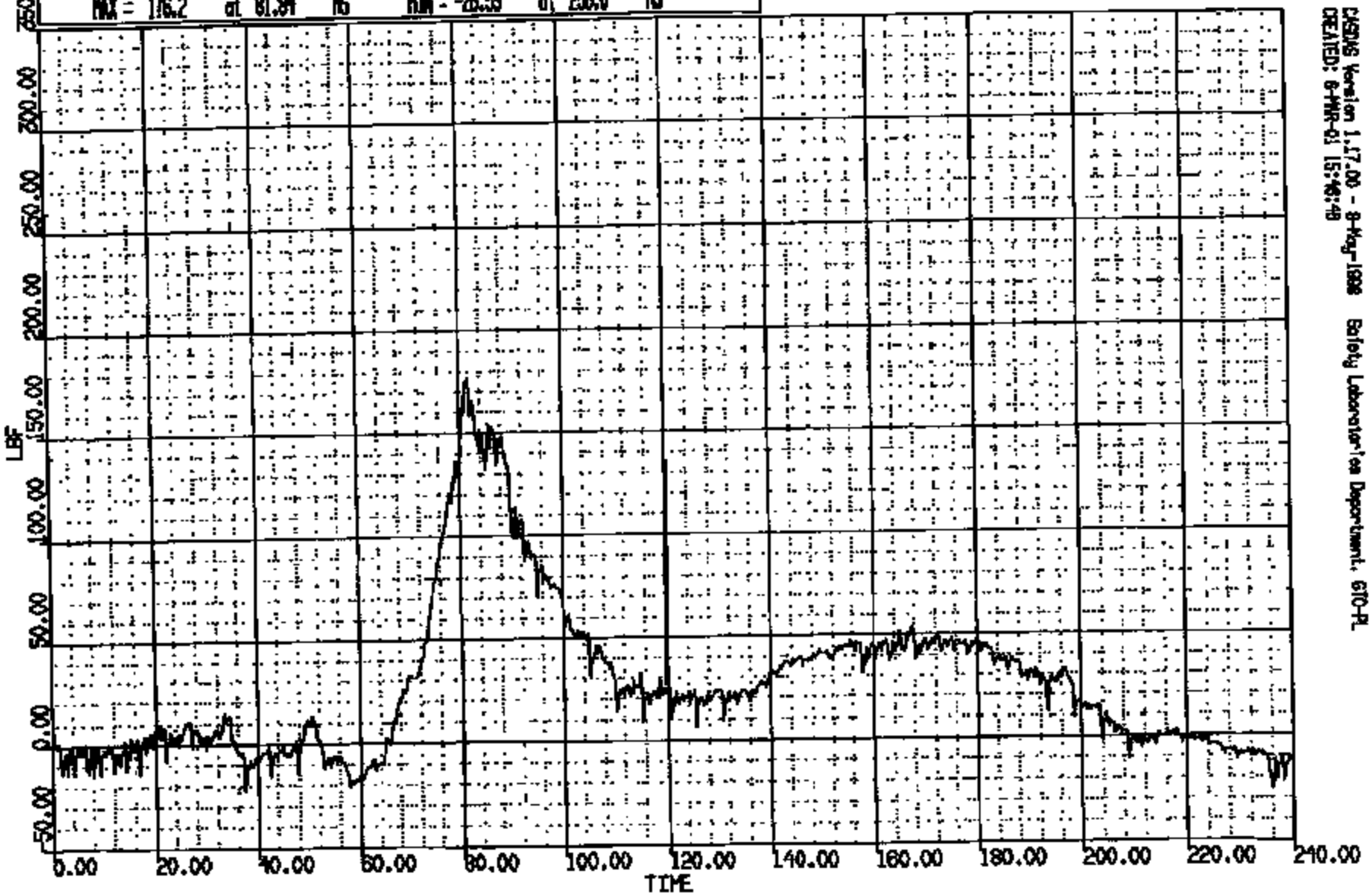
CRTS 0012182

CR R: 12182 TO: TC1940 DATE: 010212 14:29:14
20025 FN-146

(6) CR12182T L/F DUMMY NECK UPPER LOAD FZ 1000M
MAX = 176.2 at 81.94 MS MIN = -26.33 at 236.0 MS AXIS 1




CASDAS Version 1.17.00 - 8-May-1998 Safety Laboratories Department, 670-PL
CREATED: 8-MAR-01 15:46:49

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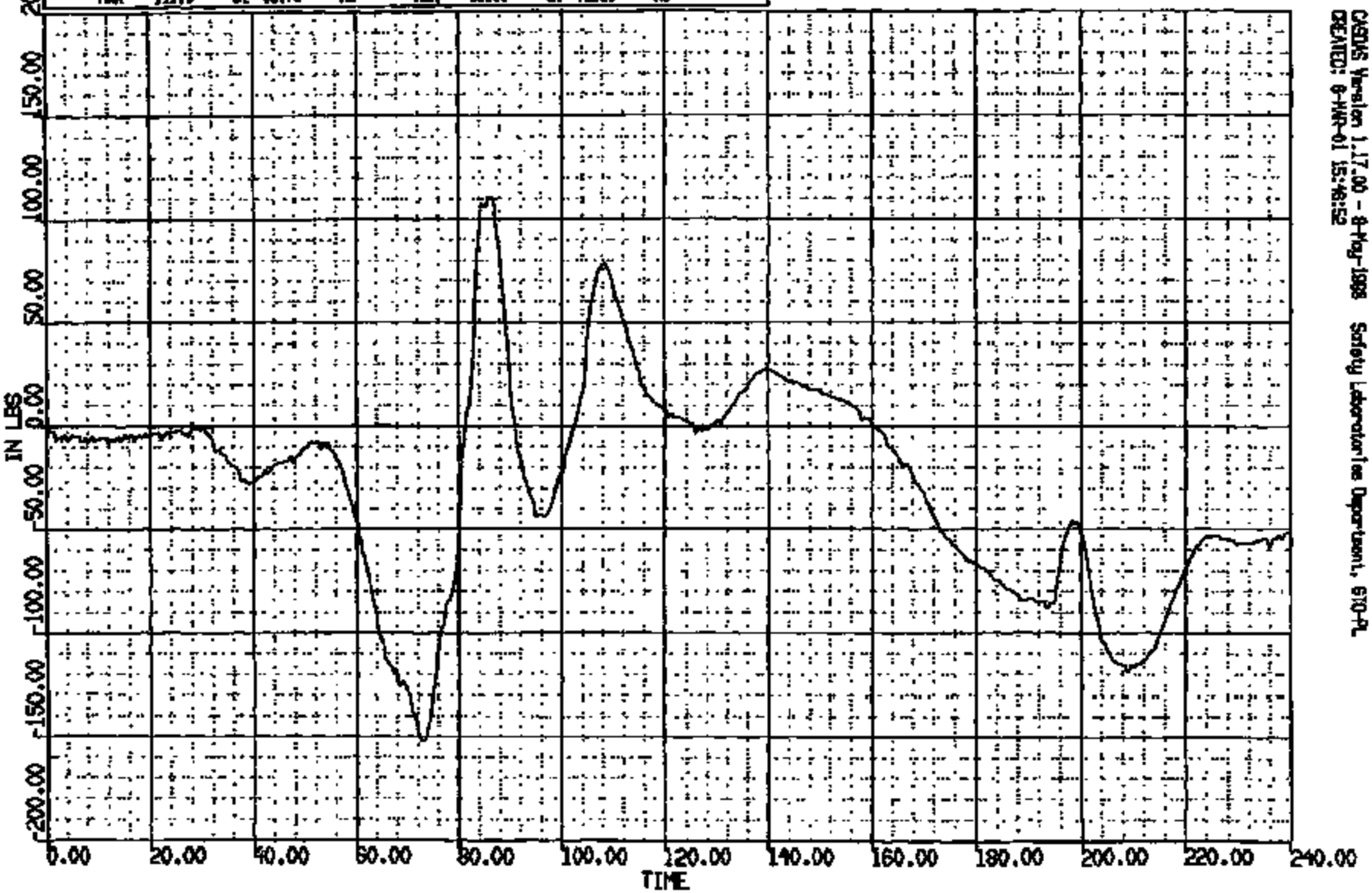
CRTS 0012182

CR R: 12182 TO: TC1640 DATE: 010212 14:29:14
20025 FN-145

(7) CR12182T L/F DUMMY NECK UPPER LOAD MX 600N
MAX = 111.0 at 85.76 MS MIN = -151.8 at 72.96 MS

AXIS 1

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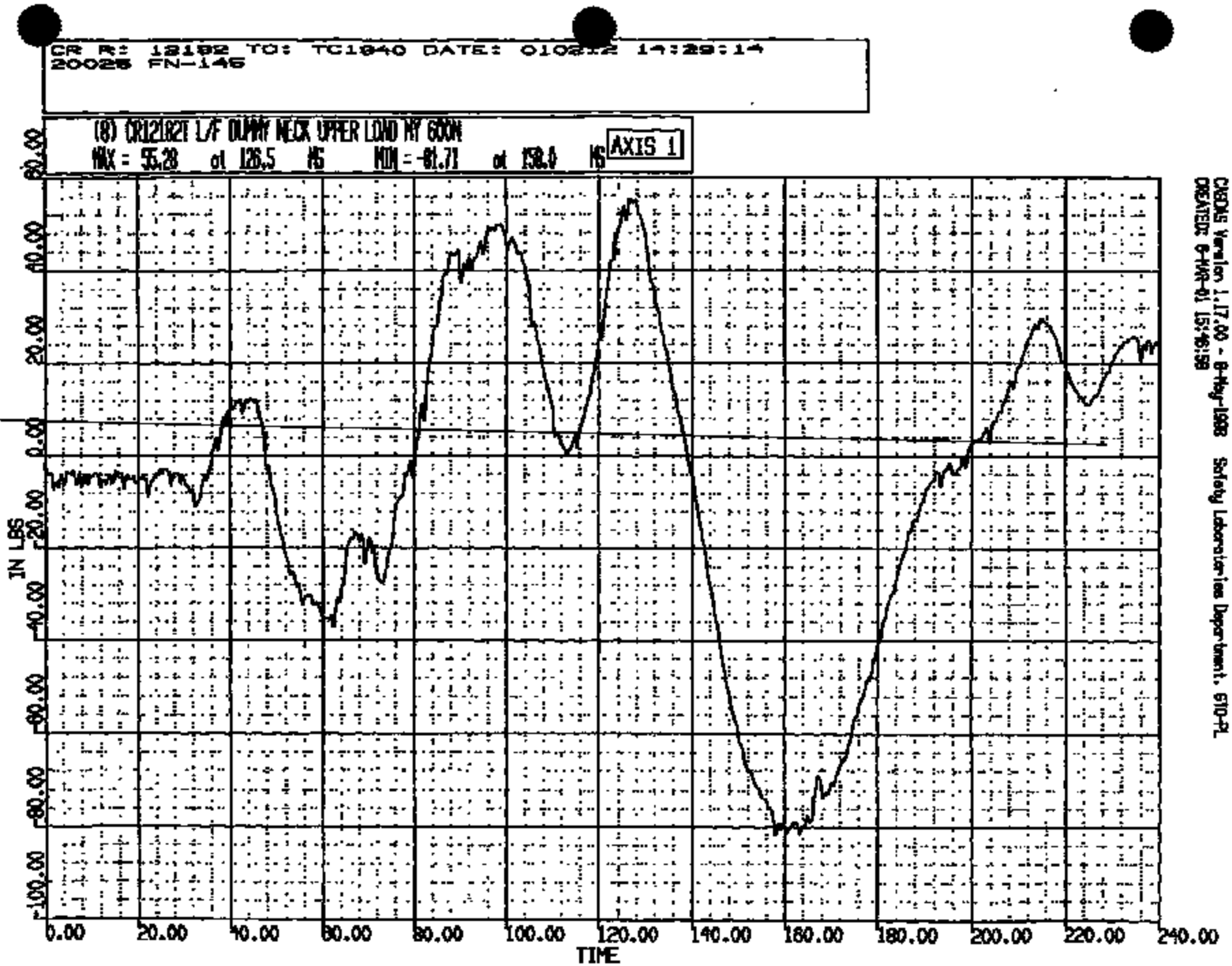


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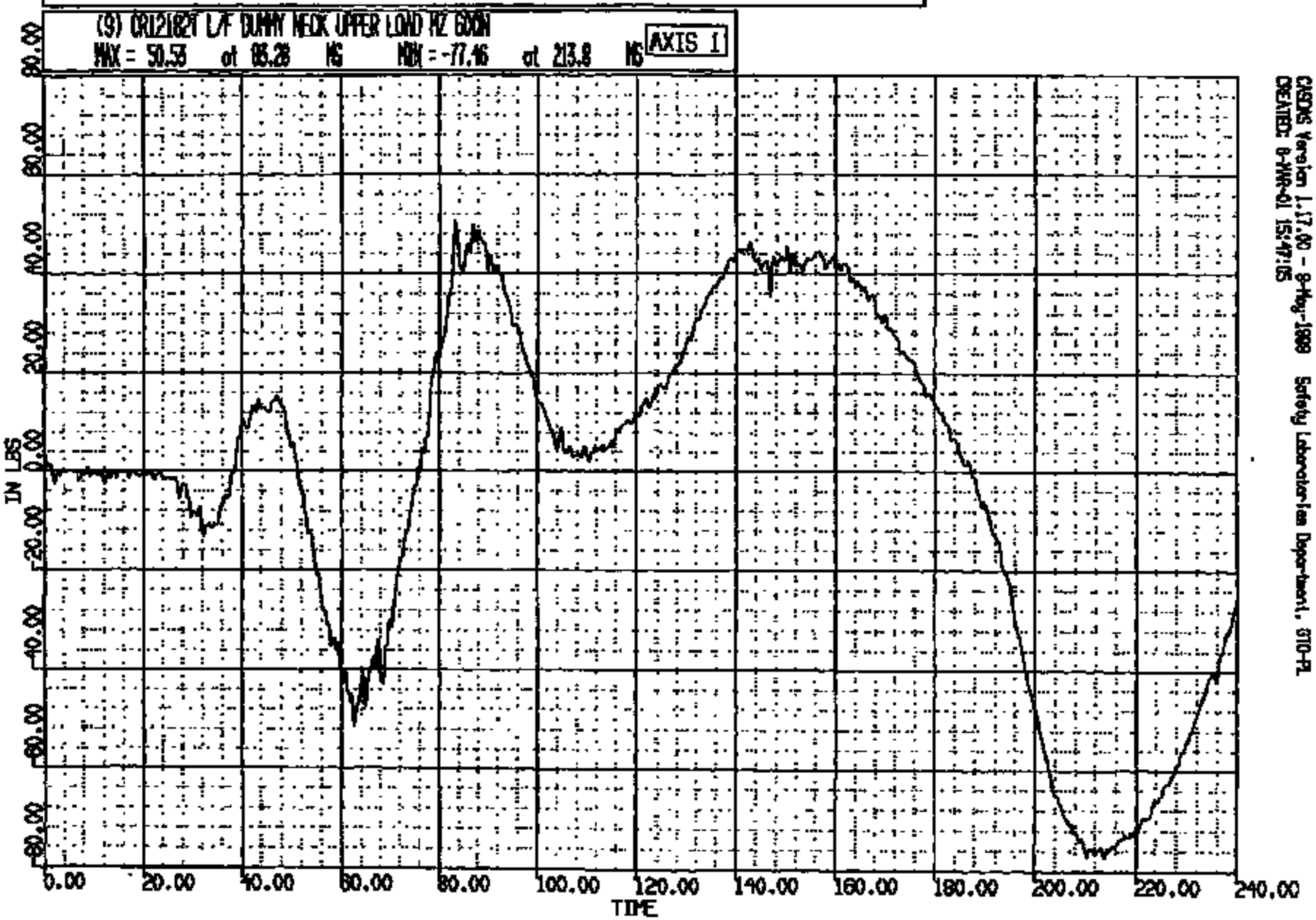
CRTS 0012182

CR R: 12182 TO: TC1840 DATE: 010212 14:29:14
20025 FN-145

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CREATED: 9-MAR-01 15:47:05

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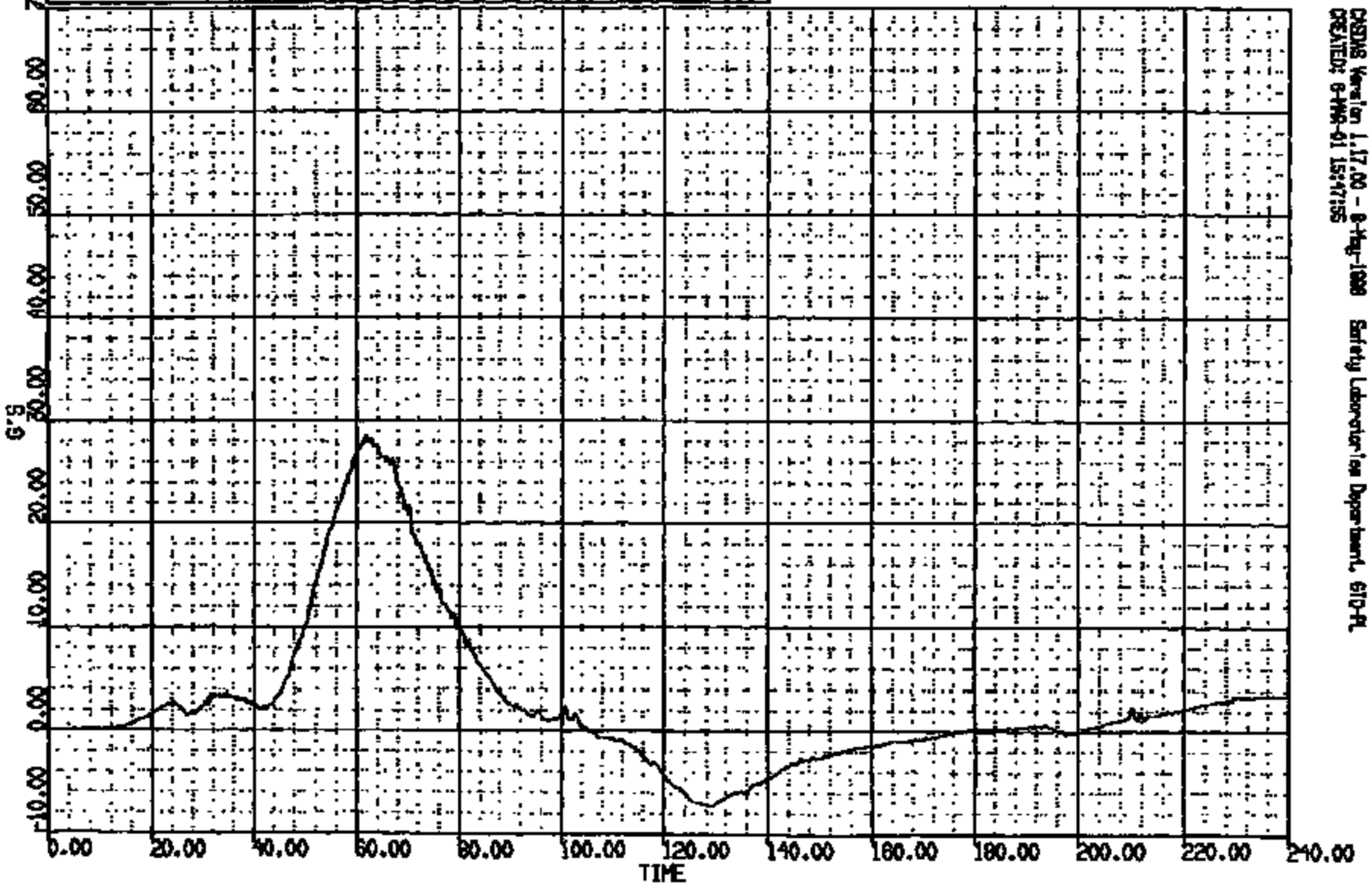
CRTS 0012182

CR R: 12182 TO: TC1940 DATE: 010212 14:28:14
20025 FN-145

(17) CR12182T LAF DUMMY PELVIS LAT 1000N
MAX = 28.46 at 61.94 MS MIN = -7.239 at 128.7 MS

AXIS 1

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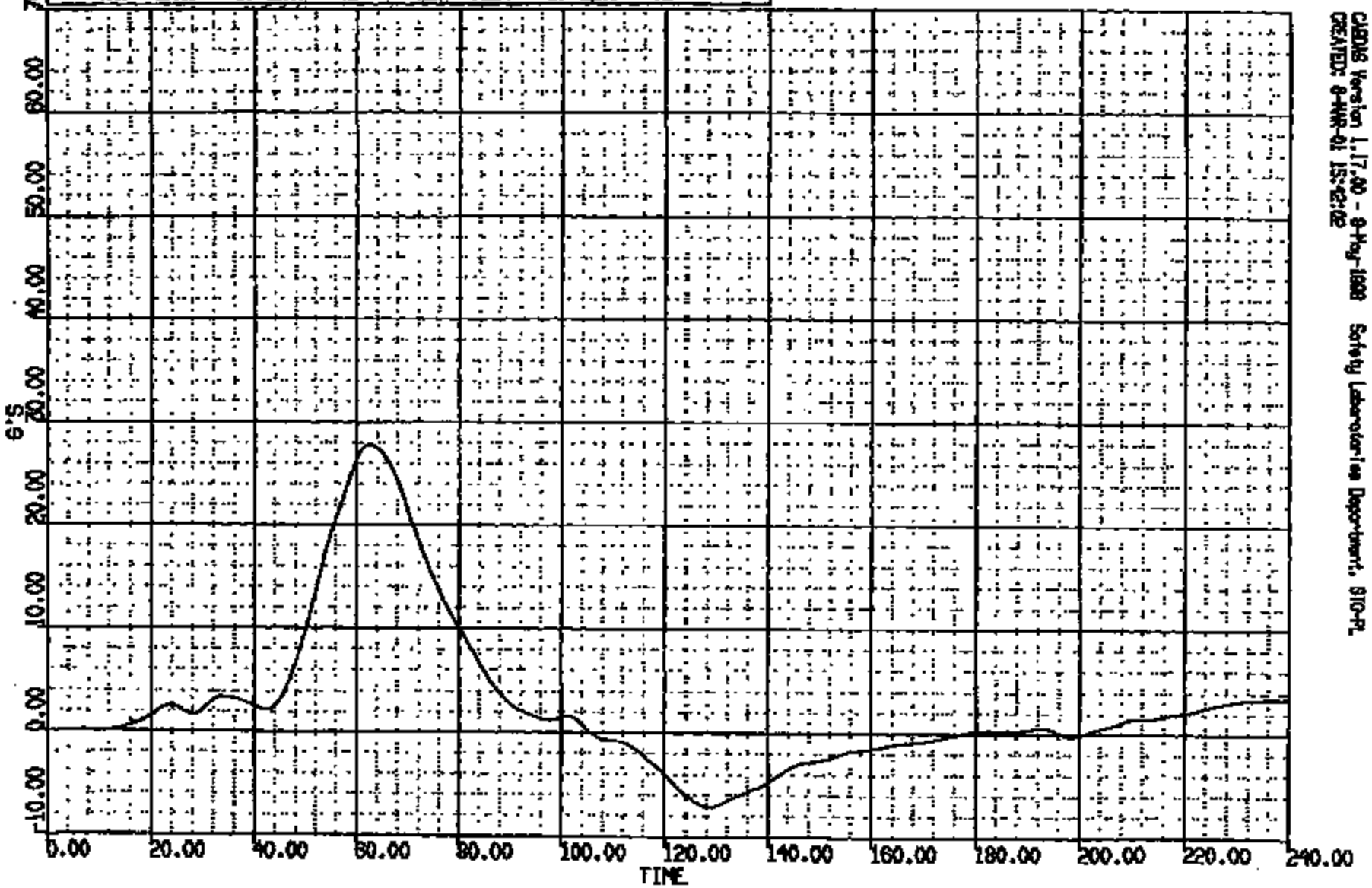
CRTS 0012182

CR R: 12182 TO: TC1940 DATE: 010[illegible]2 14:28:14
20025 FN-145

(17) CR12182I L/F DUMMY PELVIS LAT 100F
MAX = 27.81 at 62.50 MS MIN = -7.214 at 128.8 MS

AXIS 1




CARDAS Version 1.17.00 - 8-May-1998 Safety Laboratories Department, 810-PL
CREATED: 8-MAR-01 15:42:02

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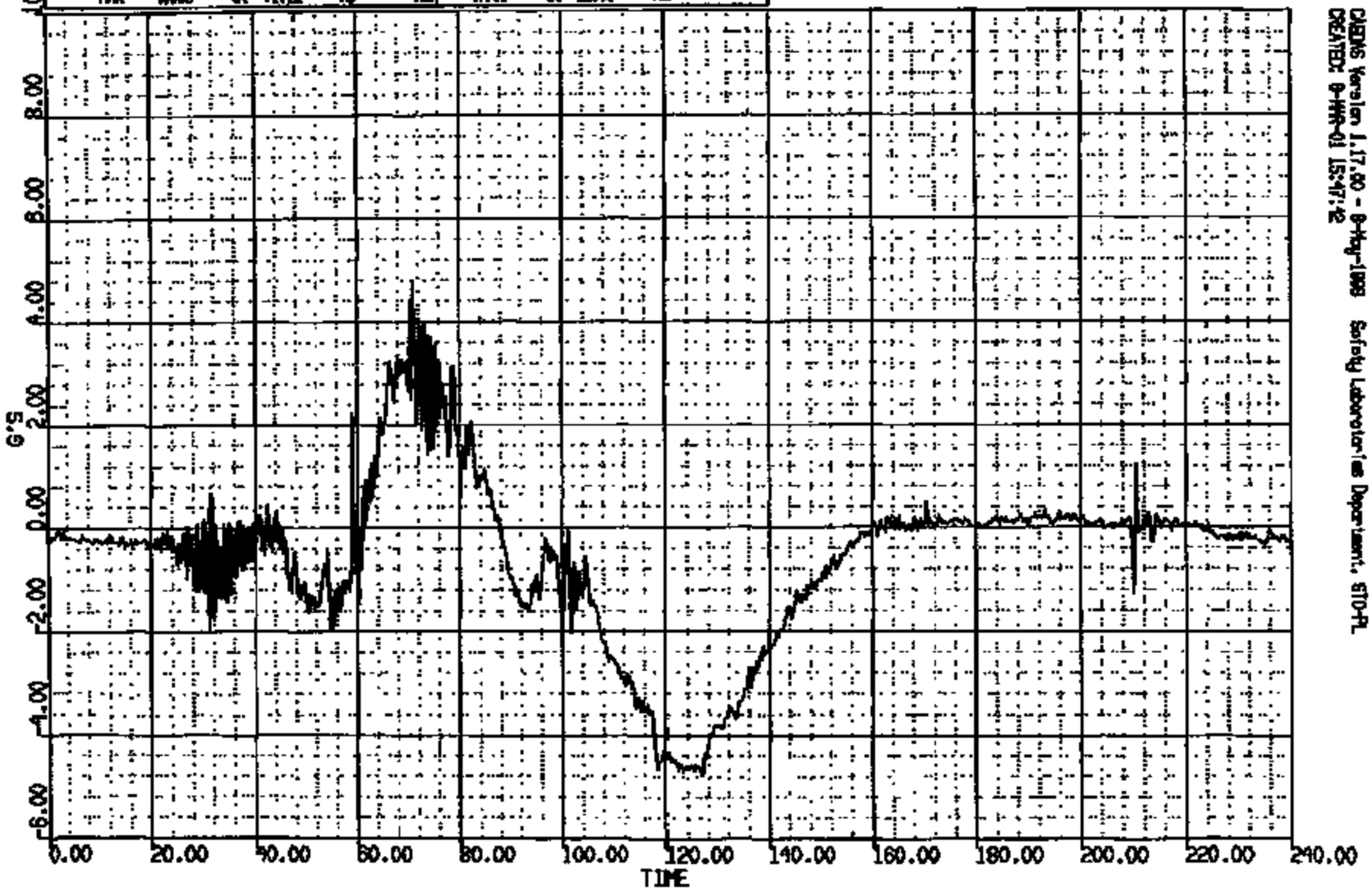
CRTS 0012182

CR #: 12182 TO: TC1940 DATE: 010212 14:29:14
20025 FN-145

(15) CR12182T L/F DUMMY PELVIS LONG 1600N
MAX = 4.885 at 71.12 MS MIN = -4.781 at 126.9 MS AXIS 1




CARDAS Version 1.17.00 - 9-May-1988 Safety Laboratories Department, 610-PL
CREATED: 9-MAR-01 15:47:42

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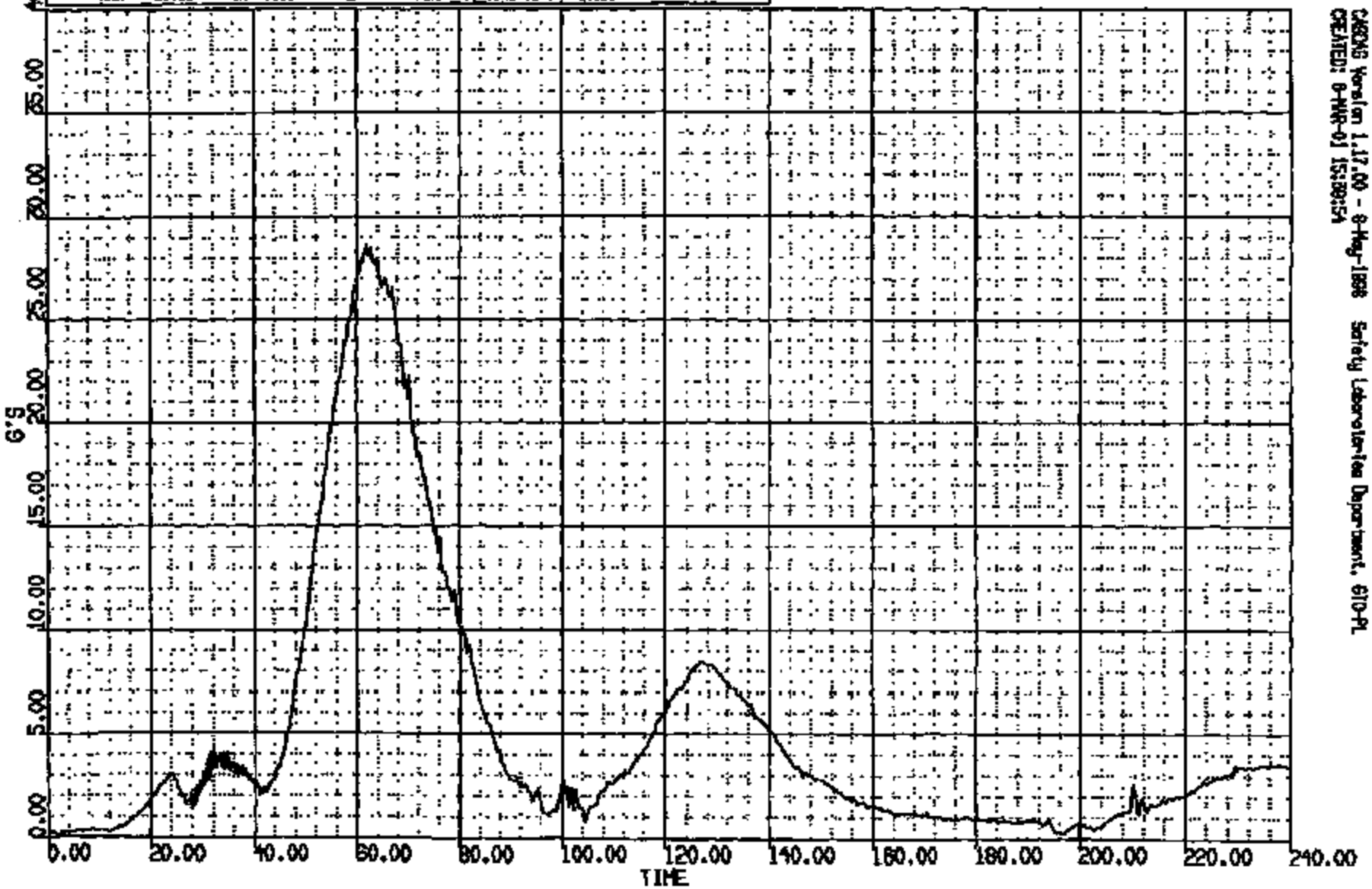
CRTS 0012182

CR R: 12182 TO: TC1040 DATE: 010212 14:29:14
20025 FN-145

(1000S) CR12182T L/F DUMMY PELVIS RES 1000N
MAX = 28.59 at 61.94 MS MIN = 0.3594E-01 at 1.920 MS AXIS 1

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CREATED: 8-MAR-01 15:08:54

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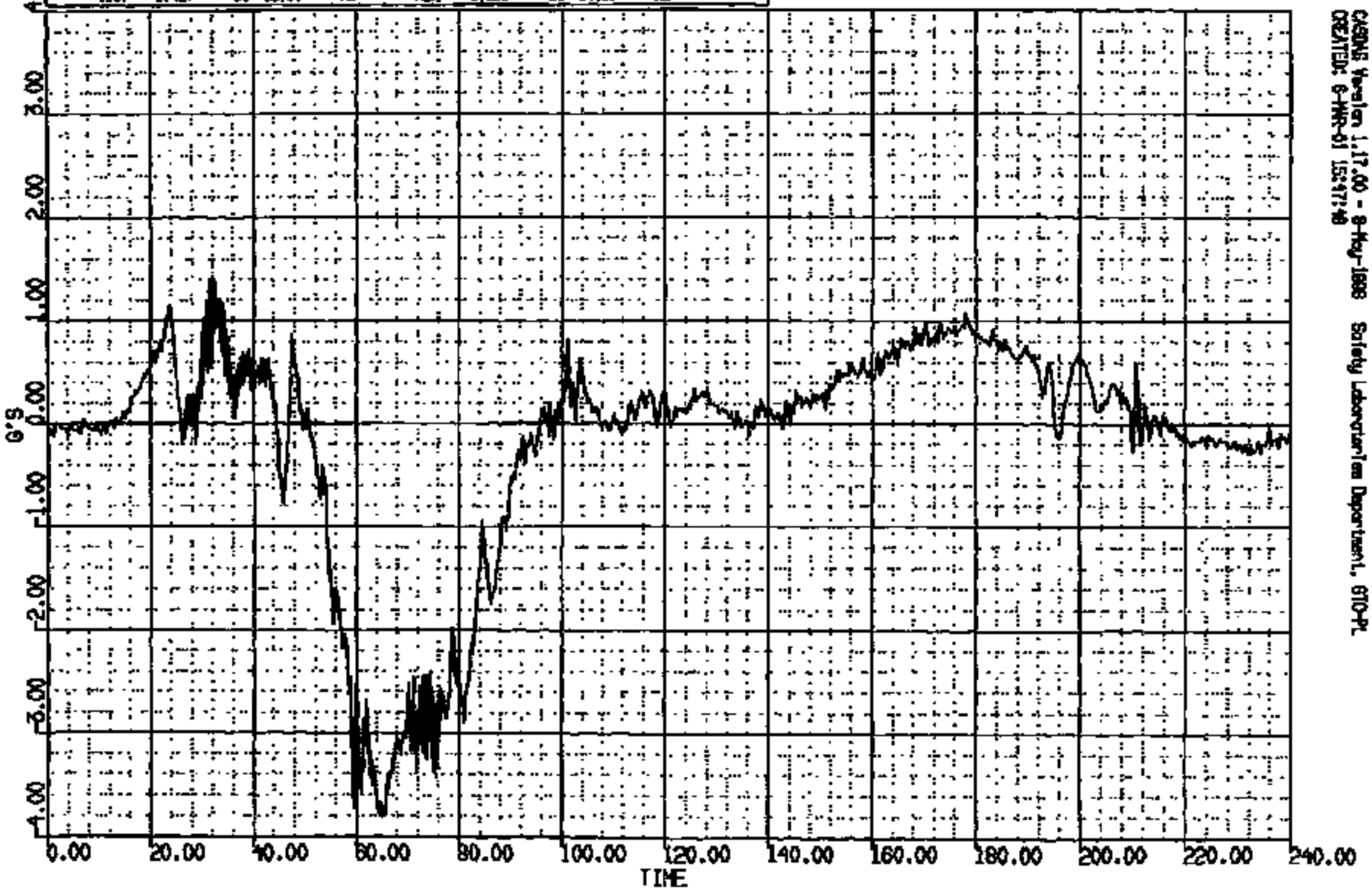
CRTS 0012182

CR #: 12182 TO: TC1940 DATE: 010212 14:29:14
20025 FN-146

(16) CR12182T L/F DUMMY PELVIS VERT 1000N
MAX = 1.427 at 32.08 MS MIN = -3.813 at 64.96 MS AXIS 1




CASDAS Version 1.17.00 - 8-May-1998 Safety Laboratories Department, 610-PL
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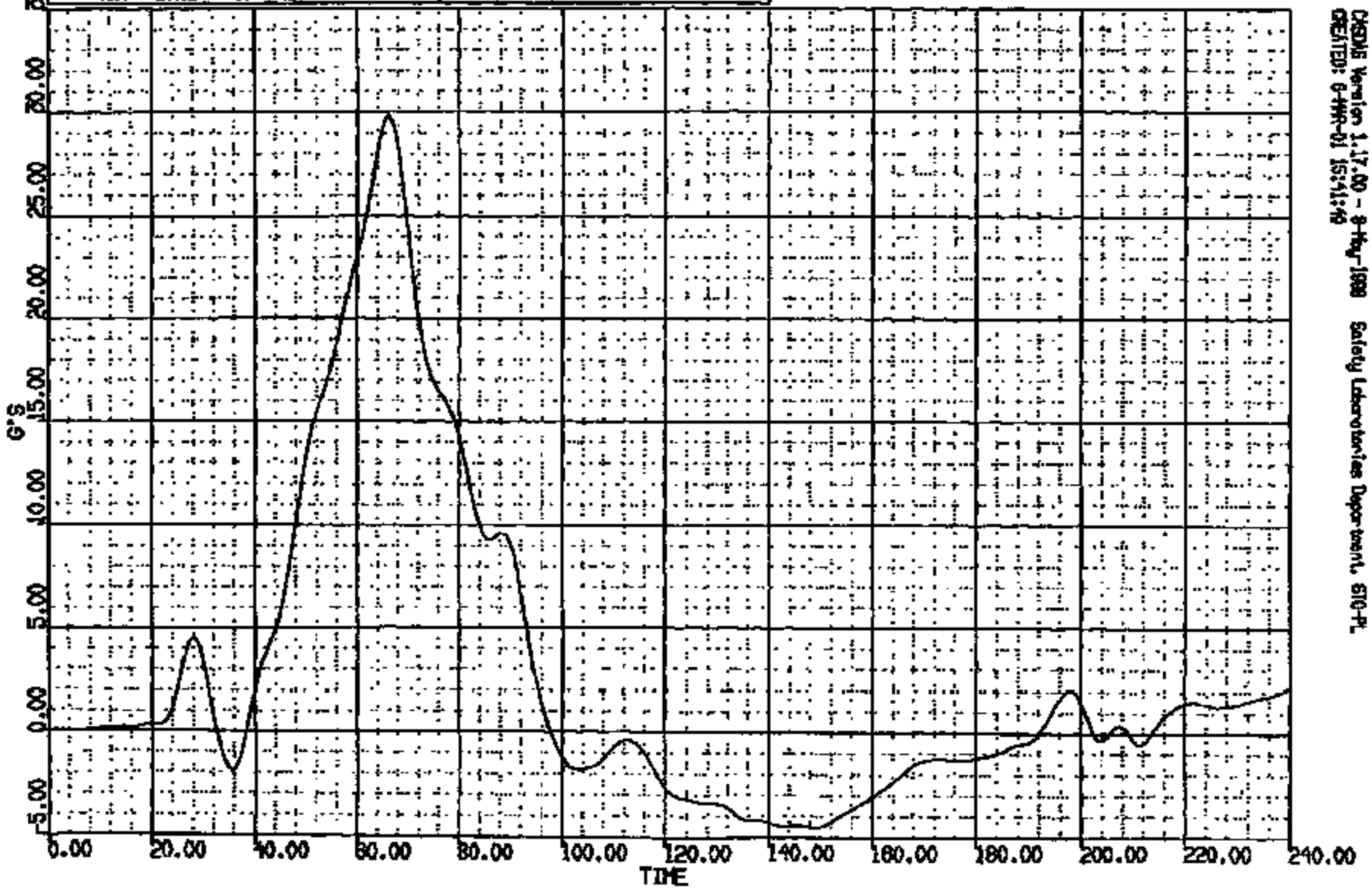
CRTS 0012182

CR R: 12182 TO: TC1940 DATE: 010212 14:29:14
20025 FN-145

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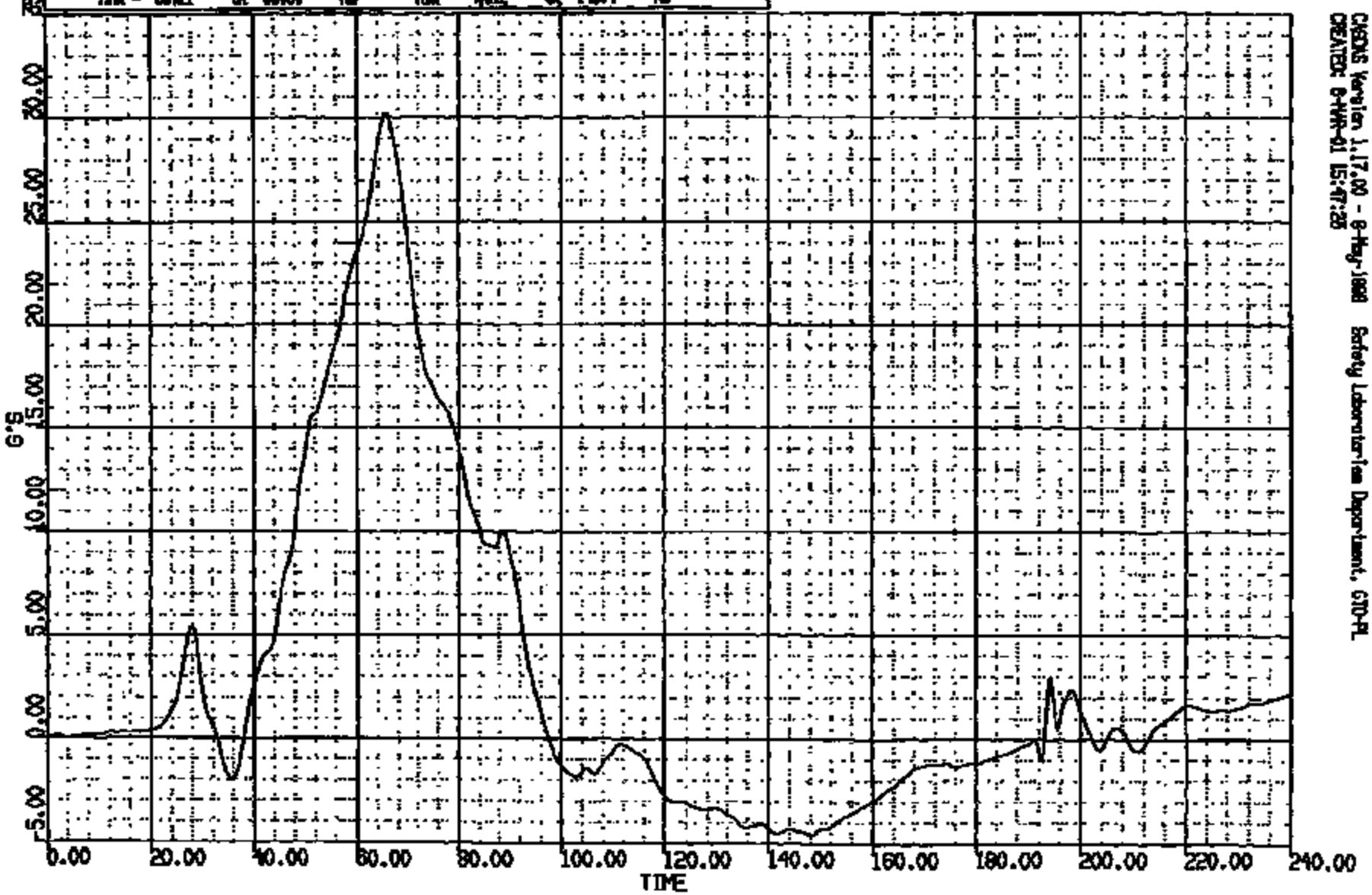
CREATED: 6-MAR-01 15:41:49

CR R: 12182 TO: TC1940 DATE: 010212 14:29:14
20025 FN-145

(12) CR121821 L/F DUMMY T12 LAT 180N
MAX = 30.21 at 65.00 MS MIN = -4.612 at 148.1 MS AXIS 1




CXSDAS Version 1.17.00 - 8-May-1998 Safety Laboratories Department, GTO-PL
CREATED: 8-MAR-01 15:47:28

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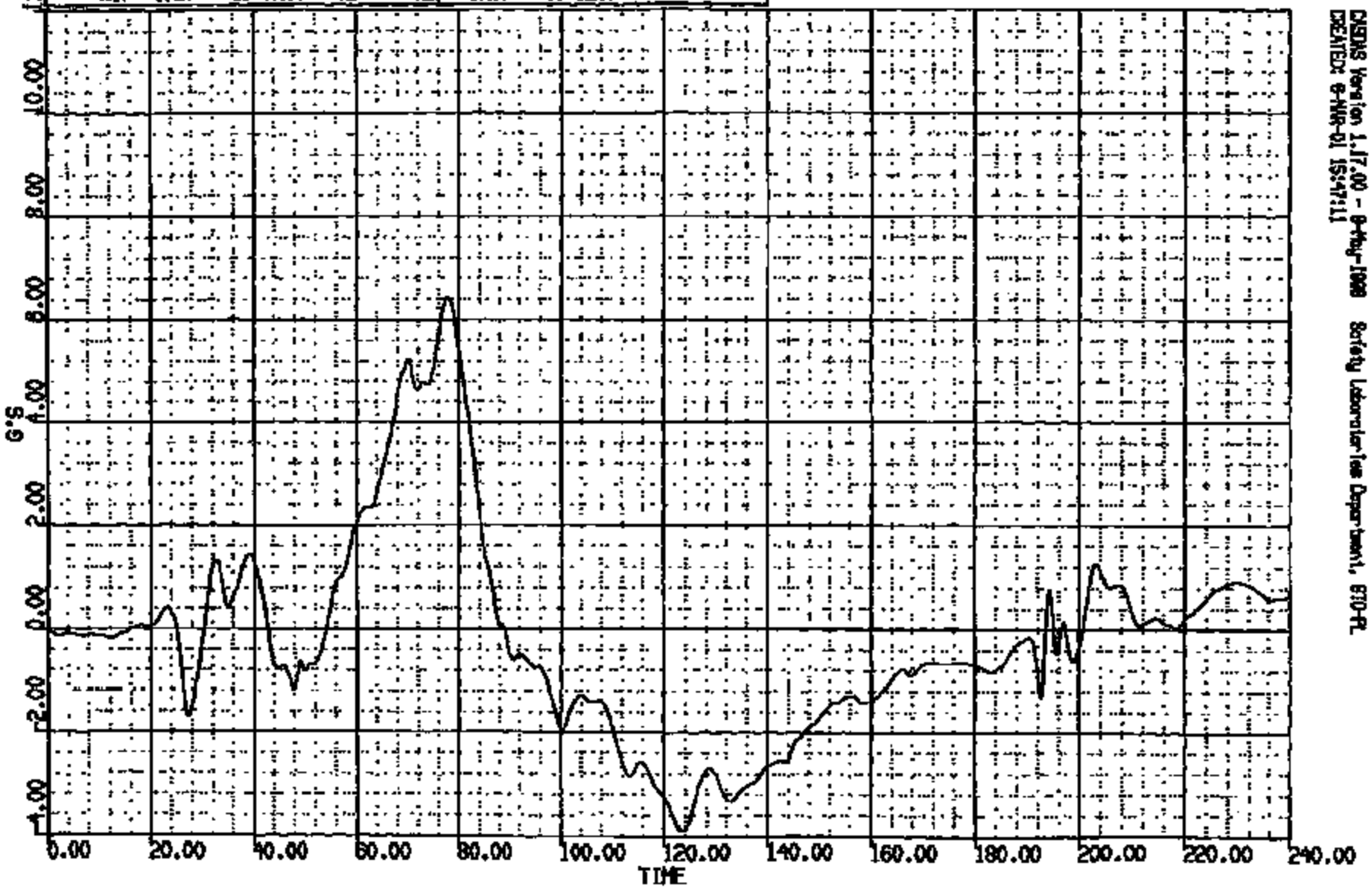
CRTS 0012182

CR R: 12182 TO: TC1840 DATE: 010212 14:29:14
20025 FN-145

(10) CR12182T L/F DUMMY T12 LONG 180N
MAX = 6.497 at 77.84 MS MIN = -3.908 at 125.5 MS AXIS 1

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CRTS 0012182

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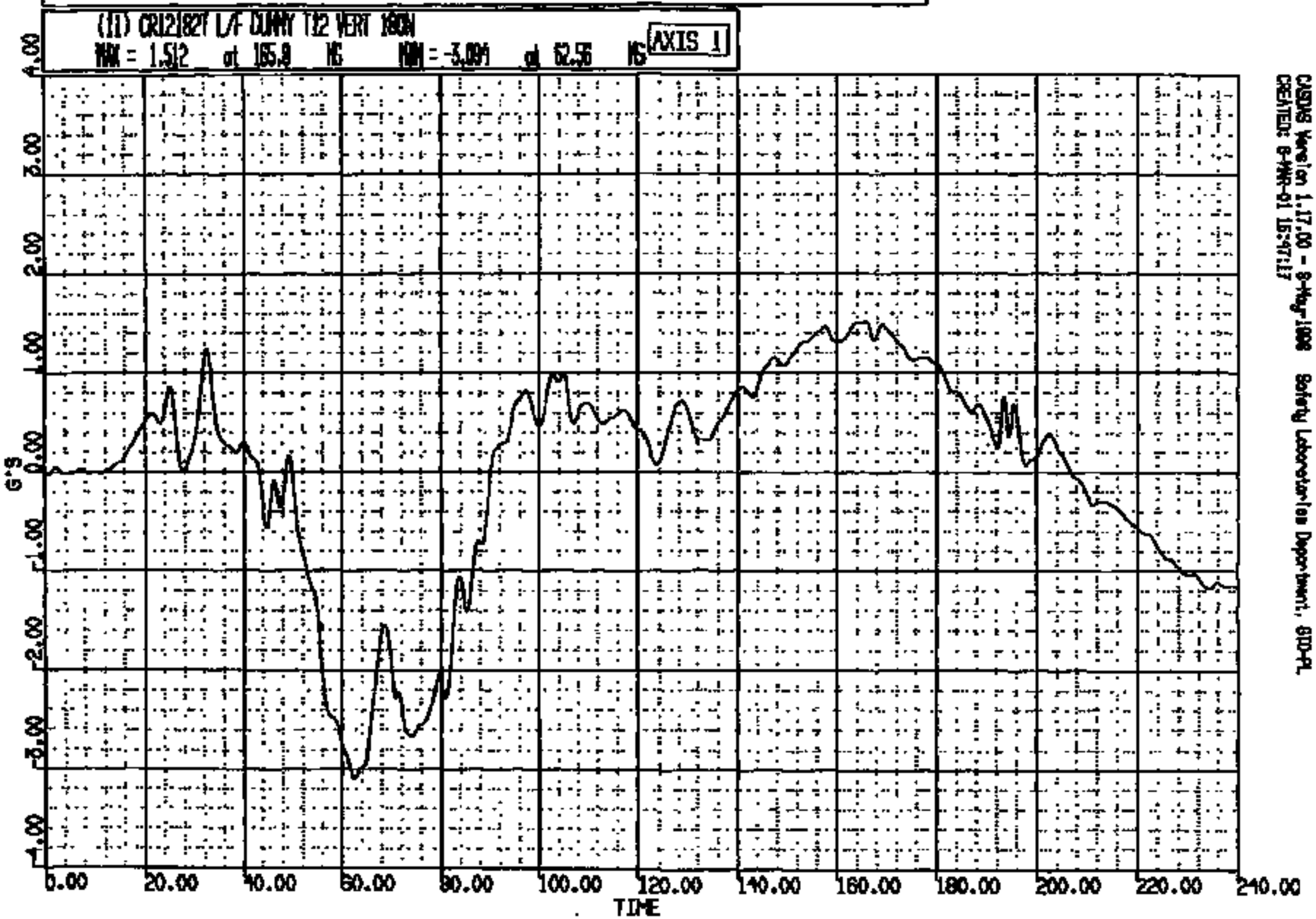
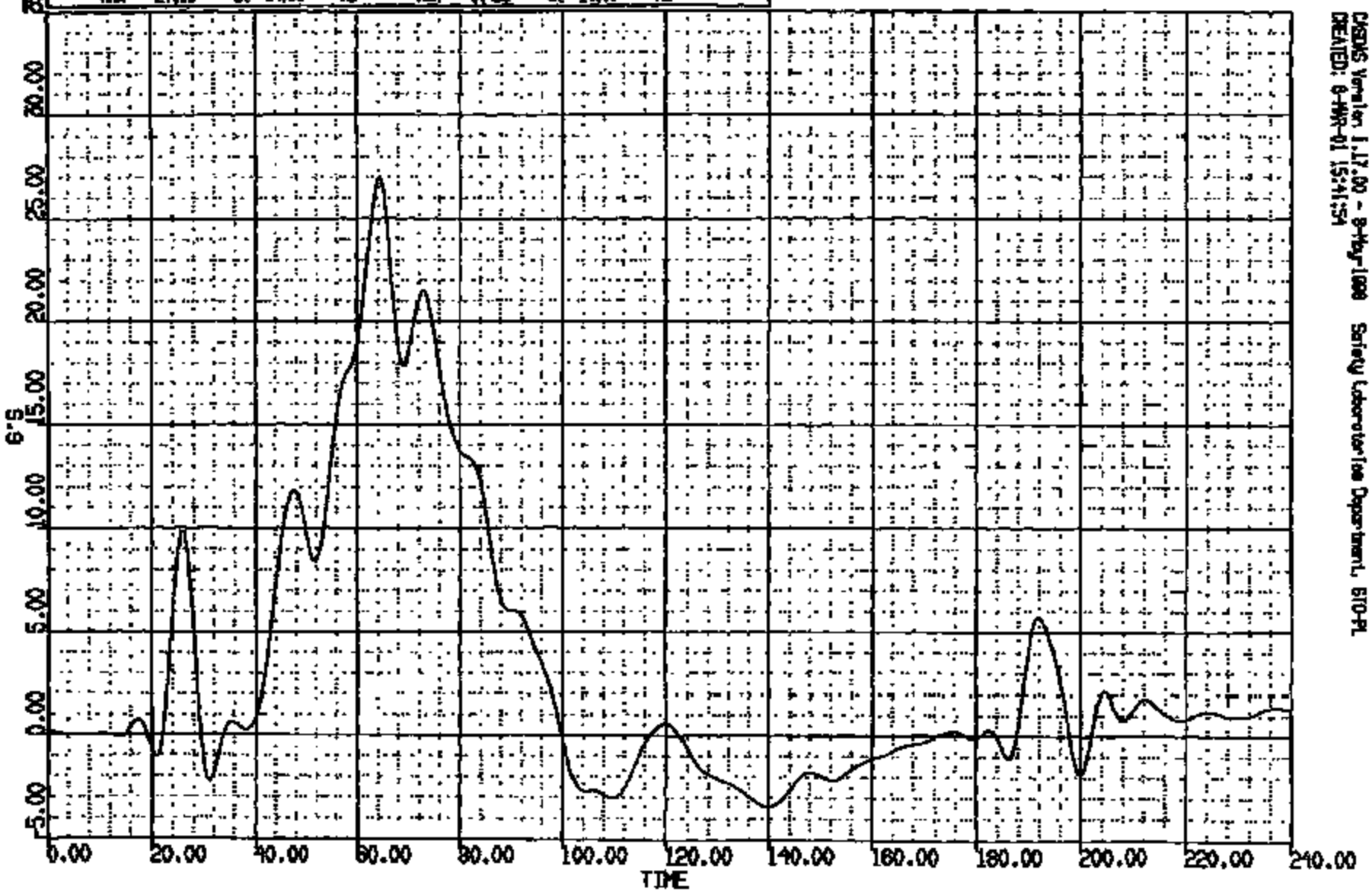
CREATED: 8-MAR-01 15:47:17

CR R: 12182 TO: TC1840 DATE: 010212 14:28:14
20025 FN-145



CR R: 12192 TO: TC1940 DATE: 010298 14:29:14
30026 FN-145

(14) CR12192T L/F DUMMY THORAX/RIB/LD/FRT LAT 100F
MAX = 27.65 at 61.38 MS MIN = -3.422 at 140.0 MS AXIS 1

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CREATED: 8-MAR-01 15:41:54

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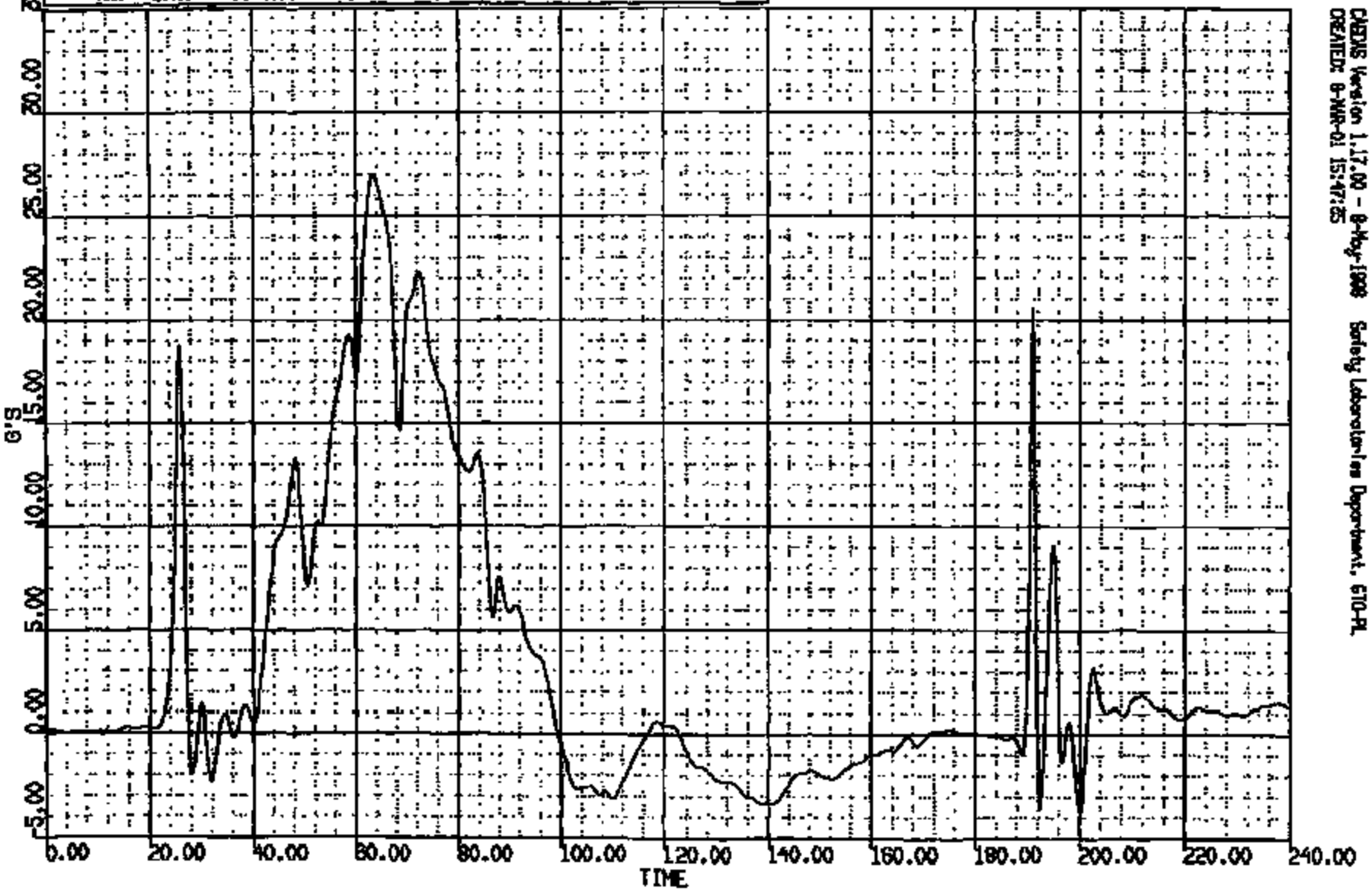
CRTS 0012182

CR R: 12182 TO: TC1940 DATE: 0102[illegible] 14:29:14
20026 FN-149

(14) CR12182T C/F DUMMY THORAX/RIB/LO/FRT LAT 180N
MAX = 26.99 at 65.44 MS MIN = -3.750 at 209.0 MS AXIS 1




CAEDS Version 1.17.00 - 8-May-1998 Safety Laboratories Department, 670-PL
CREATED: 8-MAR-01 15:47:25

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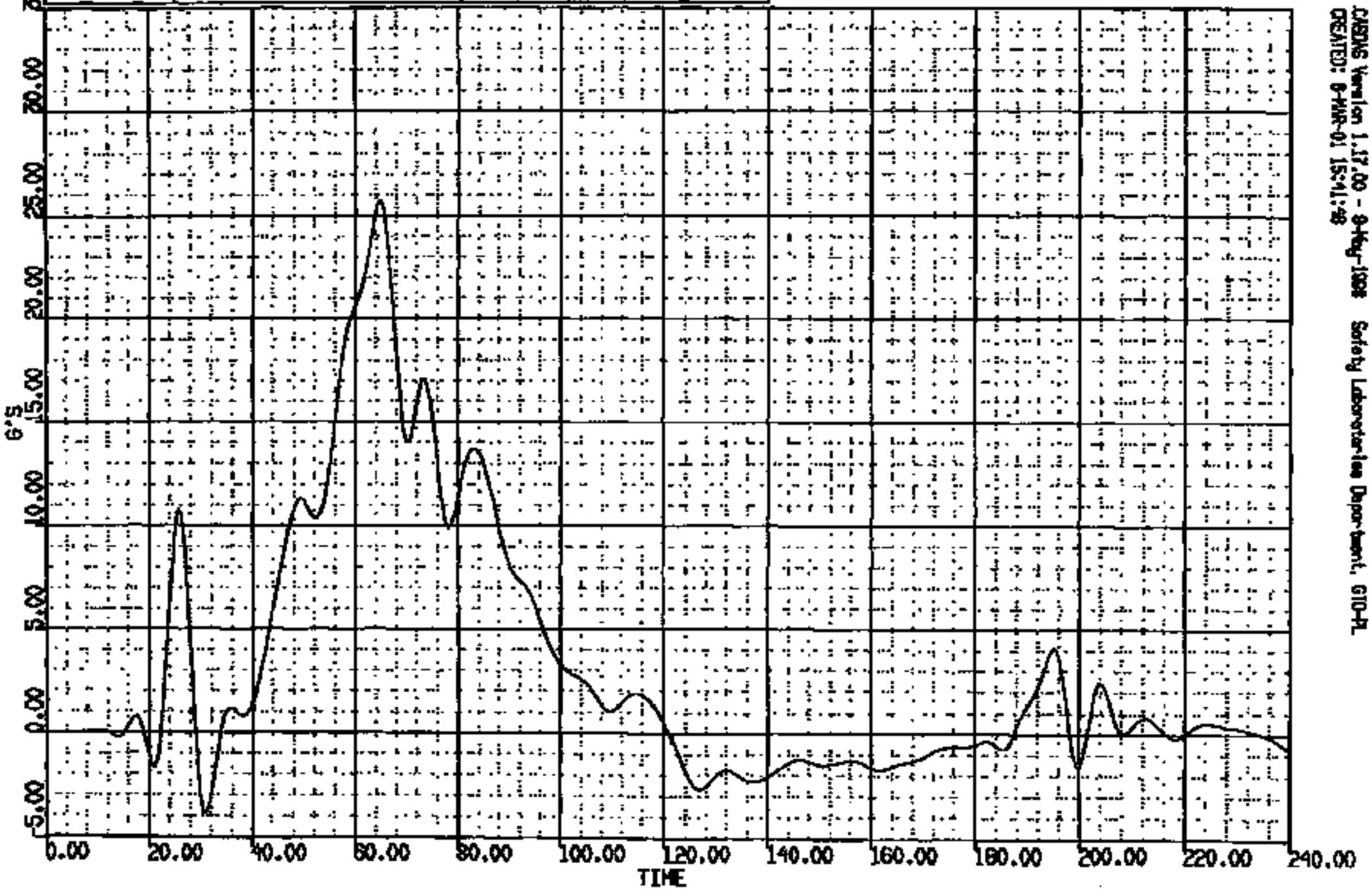
CRTS 0012182

CR R: 12182 TO: TC1940 DATE: 010212 14:29:14
20025 FN-145

(13) CR12182T L/F DUMMY THORAX/RIB/UP/RT LAT 100F
MAX = 25.74 at 65.00 MS MIN = -3.853 at 30.63 MS

AXIS 1




CAMDAS Version 1.17.00 - 8-May-1998 Safety Laboratories Department, G10-PL
CREATED: 8-MAR-01 15:41:48

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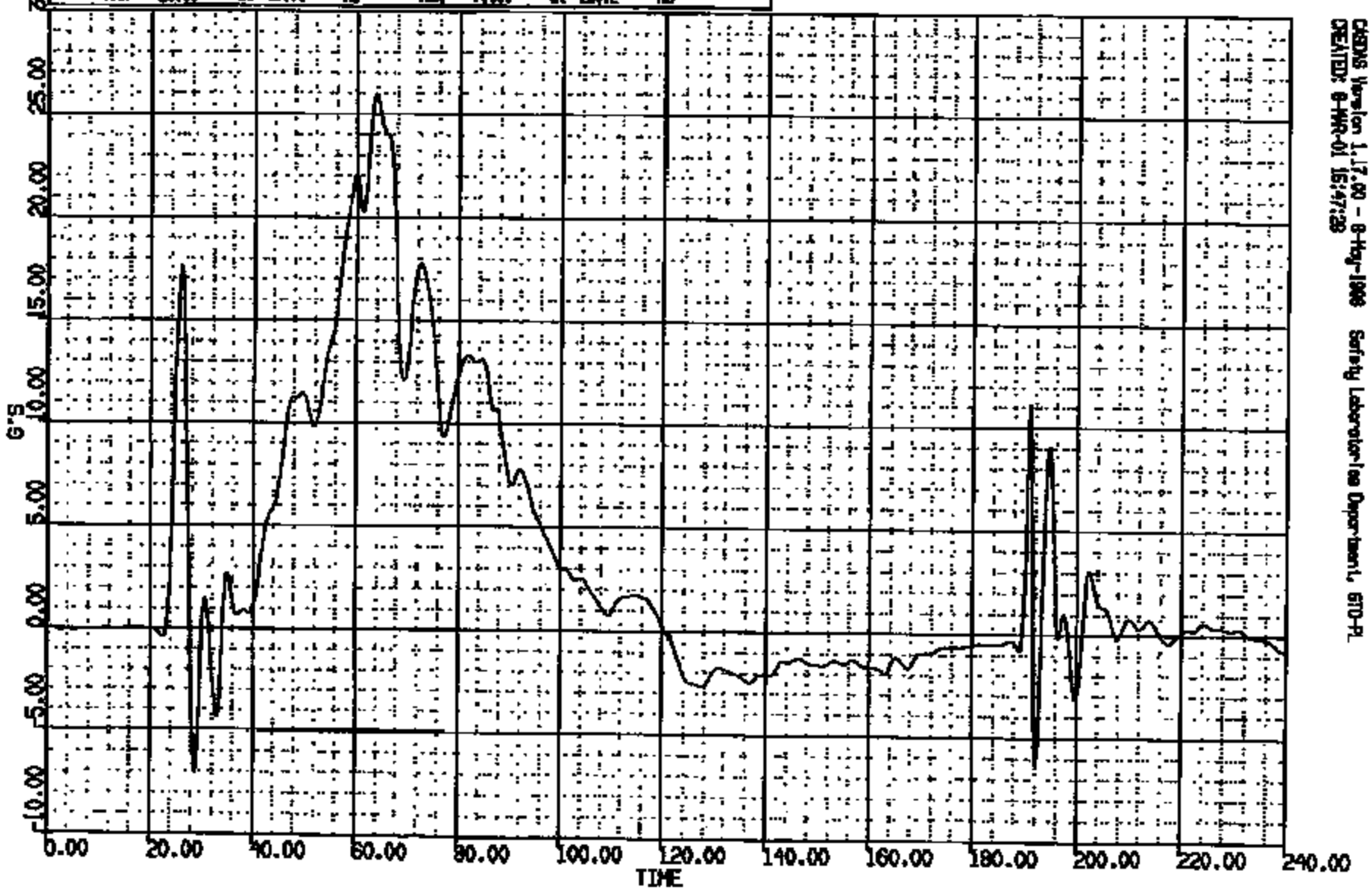
CRTS 0012182

CR R: 12182 TO: TC1940 DATE: 010212 14:28:14
20025 FN-146

(13) CR12182T L/F DUMMY THORAX/RIB/AP/FRT LAT 180M
MAX = 25.96 at 65.76 MS MIN = -7.068 at 28.72 MS

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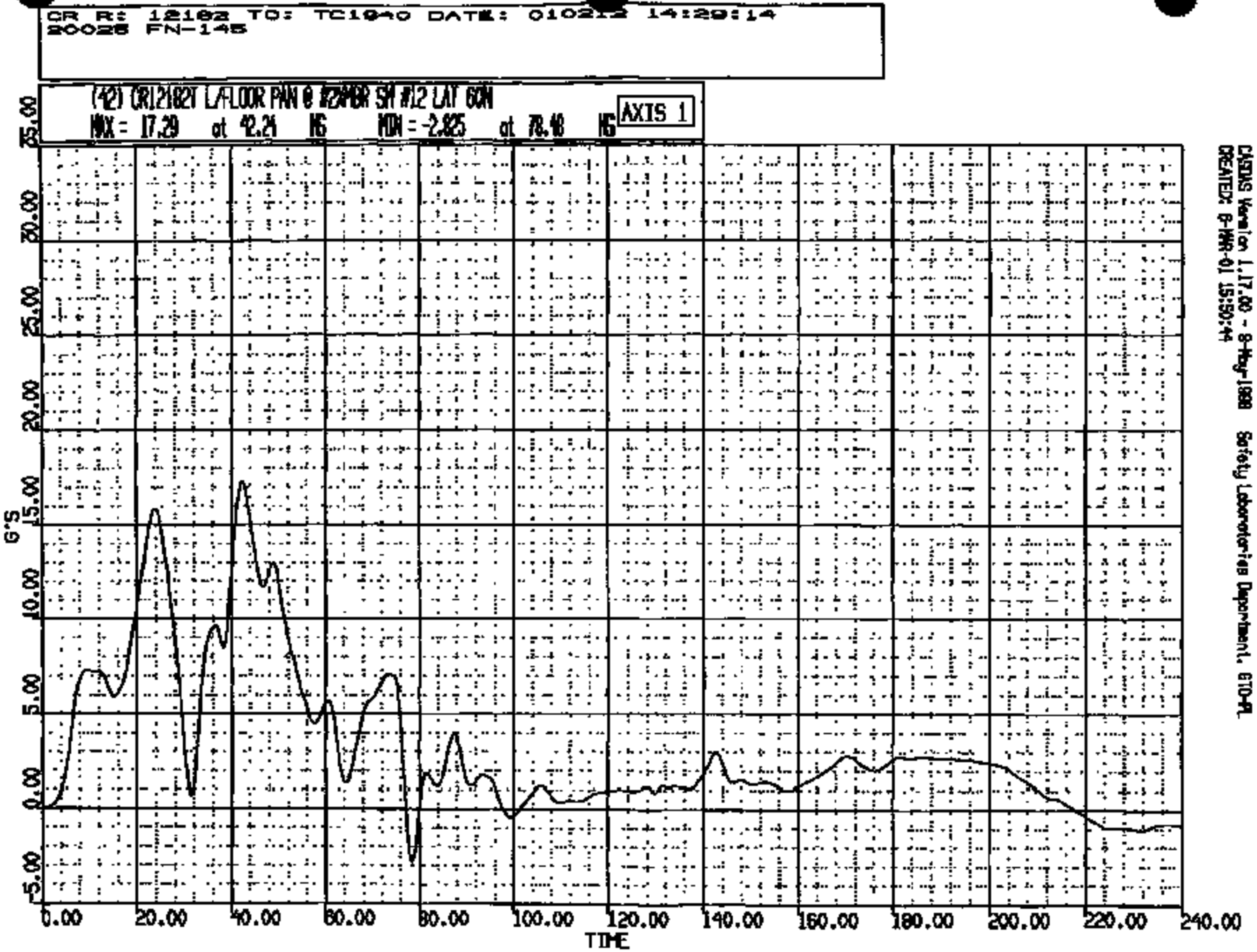
20026 FN-145




CASDAS Version 1.17.00 - 8-May-1988 Safety Laboratories Department, 610-PL
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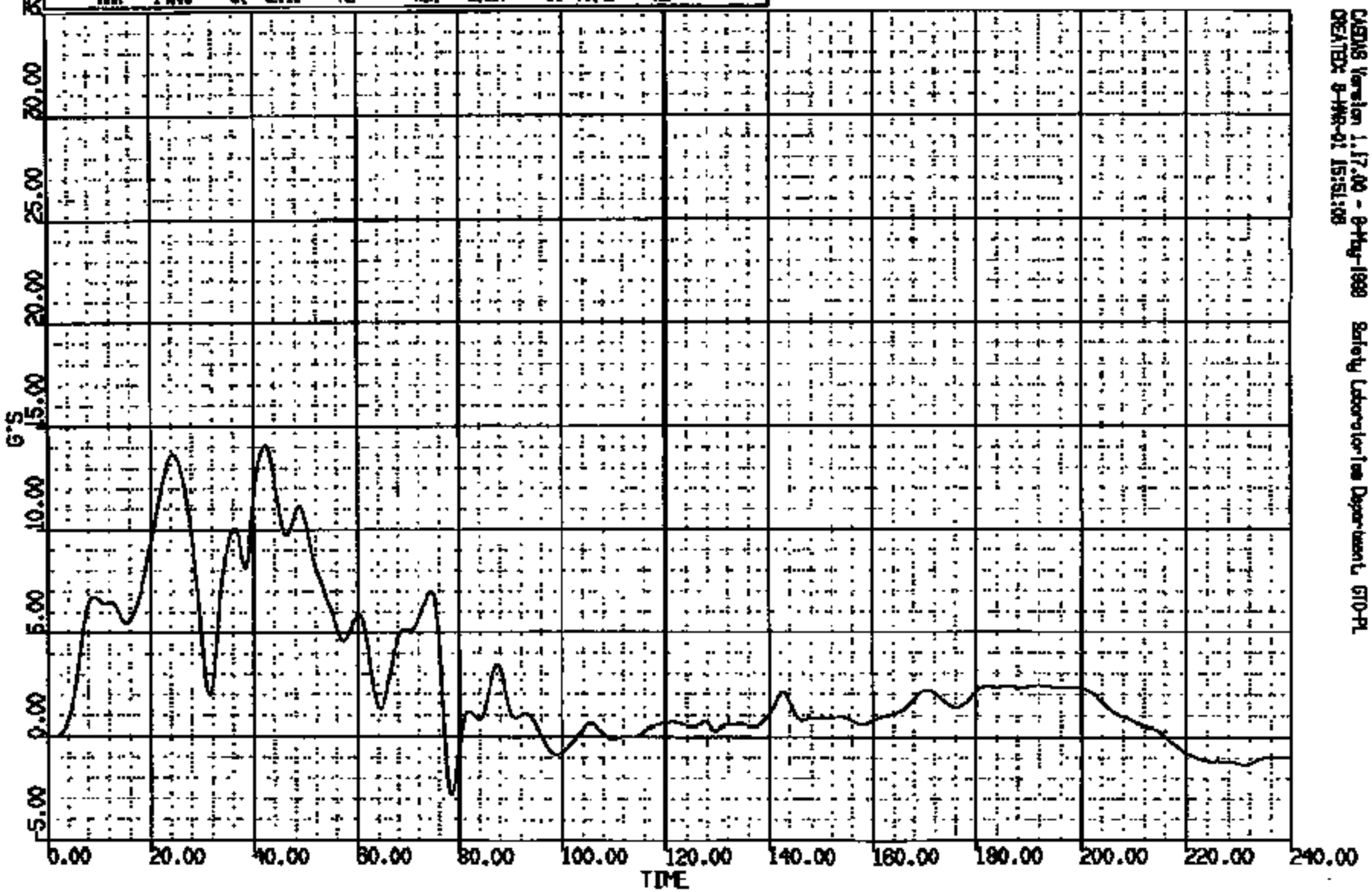
CRTS 0012182

CR R: 12182 TO: TC1840 DATE: 010212 14:28:14
20025 FN-145




CASDAS Version 1.17.00 - 8-May-1998 Safety Laboratories Department, GTO-PL
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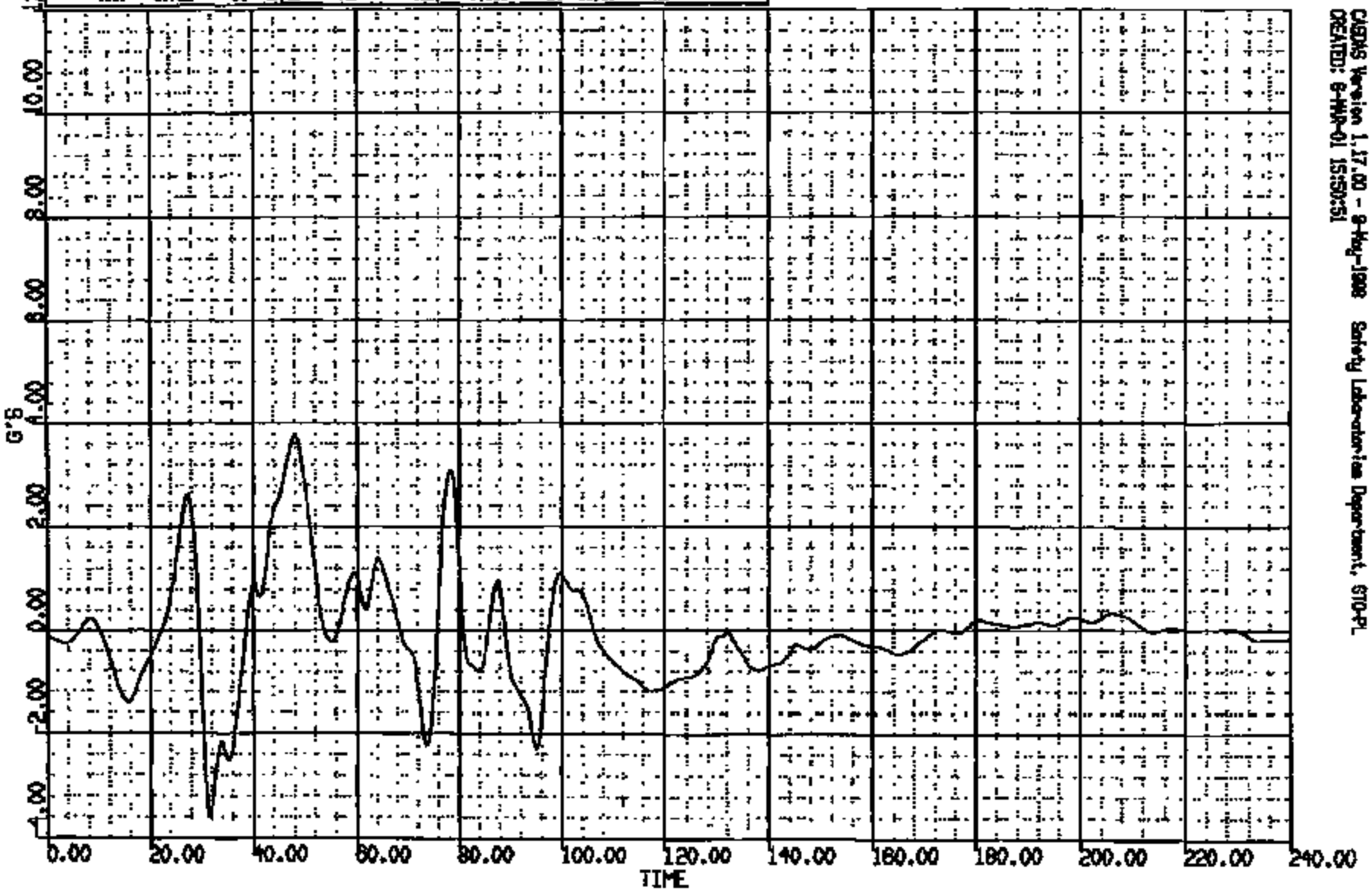
CRTS 0012182

CR R: 12182 TO: TC1940 DATE: 010212 14:28:14
20025 FN-145




CASDAS Version 1.17.00 - 9-May-1998 Safety Laboratories Department, STO-PL
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CRTS 0012182

CR R: 12182 TO: TC1940 DATE: 010272 14:29:14
20025 FN-145

CASCAS Version 1.17.00 - 8-May-1998 Safety Laboratories Department, GTD-PL
CREATED: 8-MAR-01 15:50:58

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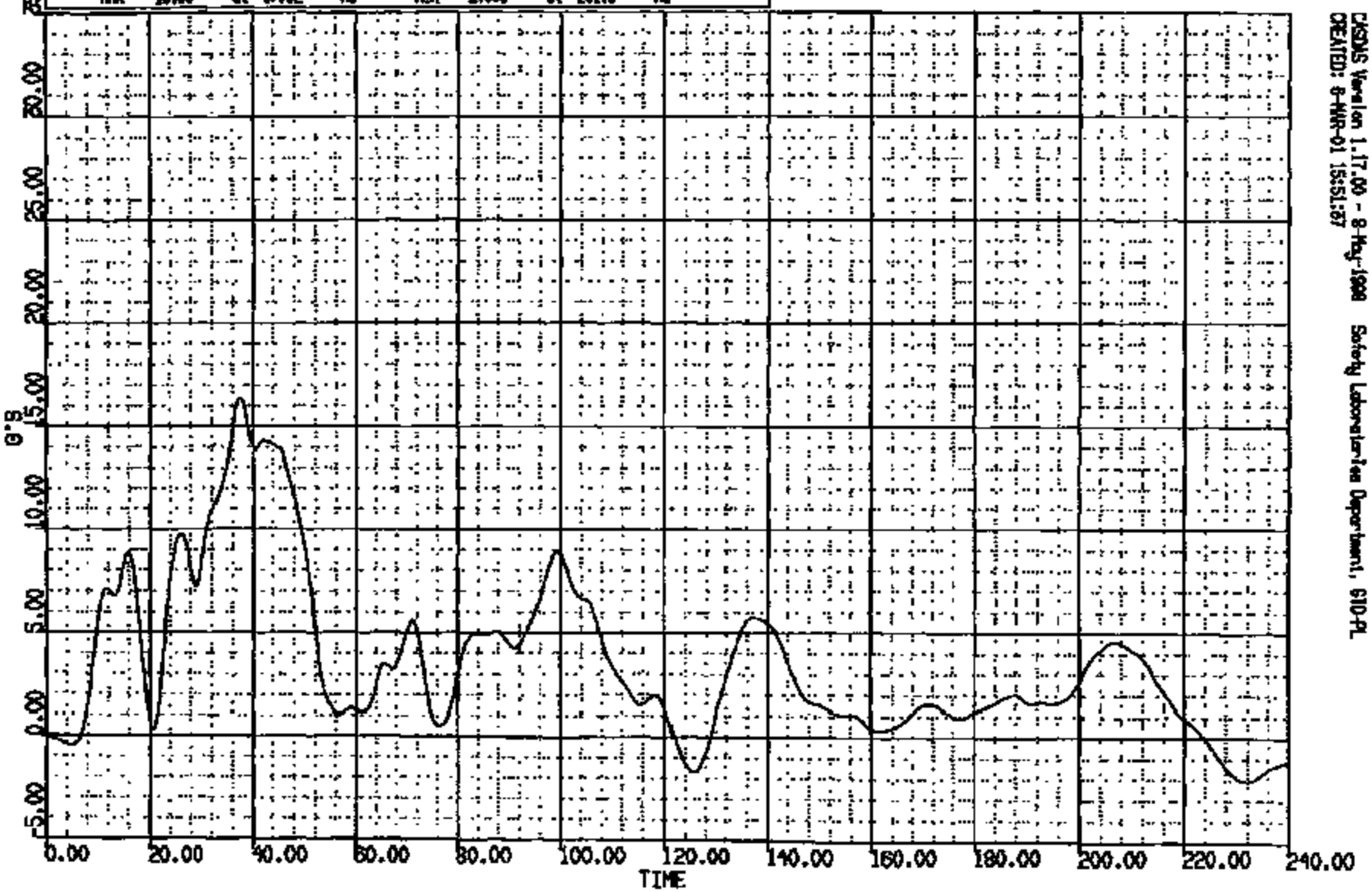
CRTS 0012182

CR RI 12182 TO: TC1840 DATE: 010212 14:29:14
20025 FN-146

(49) CR12182T L/R DOOR @ BELTLINE MID LAT GOW
MAX = 16.39 at 37.52 MS MIN = -2.058 at 251.6 MS AXIS 1

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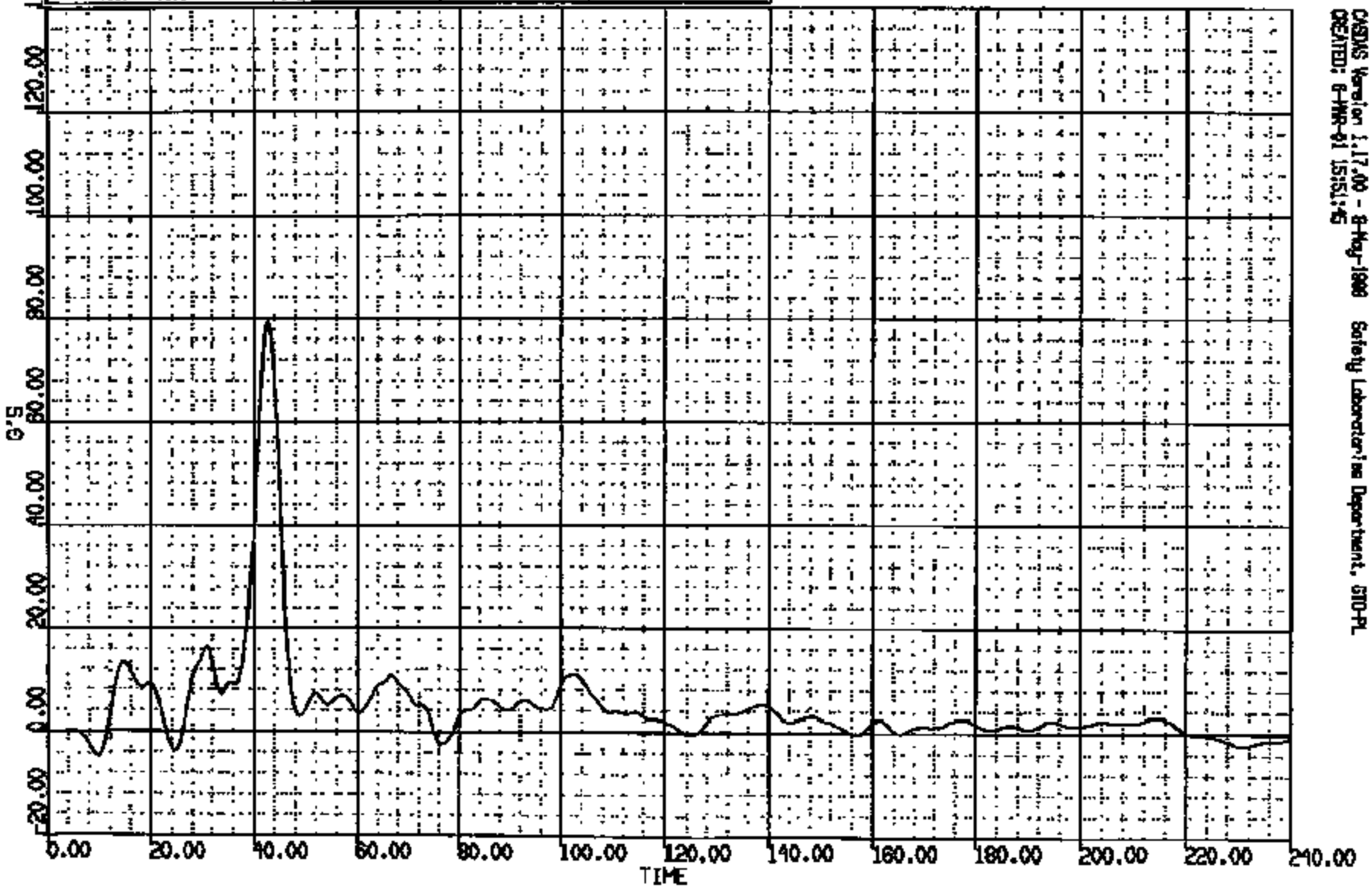
CRTS 0012182

CR R: 12182 TO: TC1940 DATE: 010212 14:29:14
20025 FN-145

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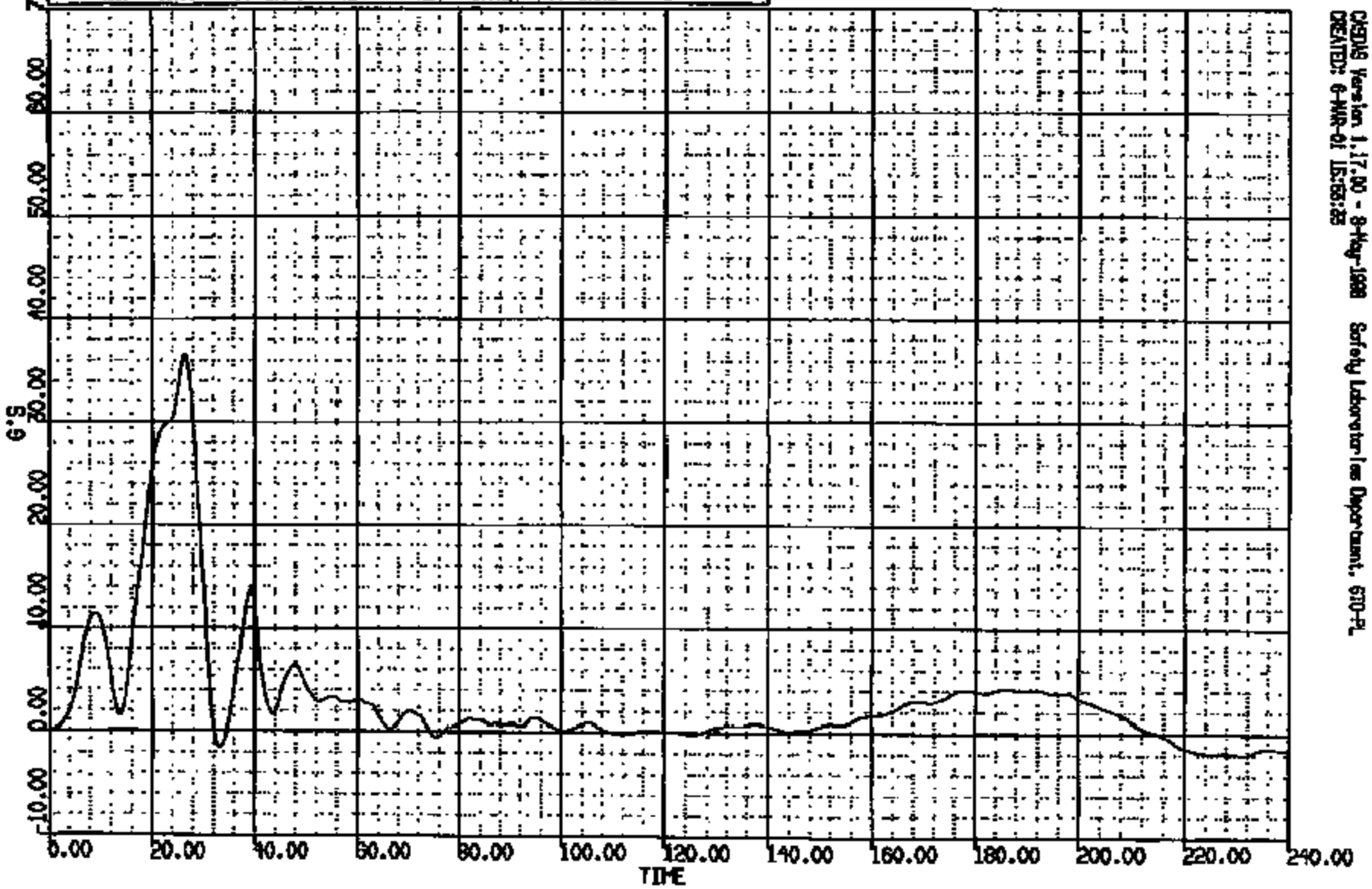
CREATED: 6-MAR-01 15:51:45

ENTIRE PAGE CONFIDENTIAL

CRTS 0012182

CR R: 12182 TC: TC1940 DATE: 010212 14:28:14
20025 FN-145

(65) CR12182T L/ROCKER @ B-PILLAR LAT 60N
MAX = 36.58 at 26.46 MS MIN = -1.952 at 281.2 MS AXIS 1

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CREATED: 6-MAR-01 15:58:22

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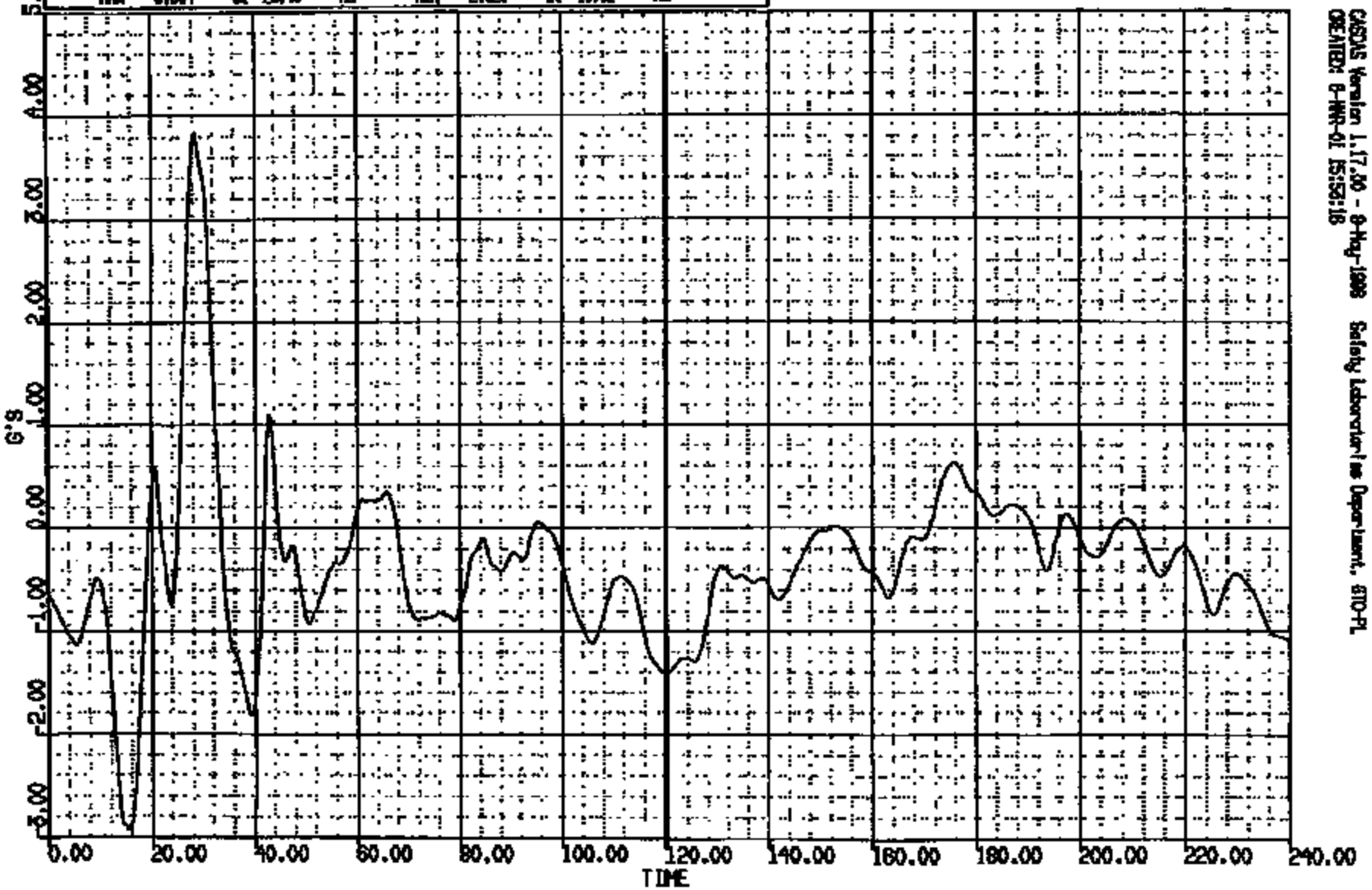
CRTS 0012182

CR R: 12192 TO: TC1940 DATE: 010212 14:29:14
20028 FN-148

(61) CR12182T L/ROCKER @ B-PILLAR LONG GON
MAX = 3.884 at 28.40 MS MIN = -2.925 at 15.52 MS AXIS 1

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CREATED: 8-MAR-01 15:52:18

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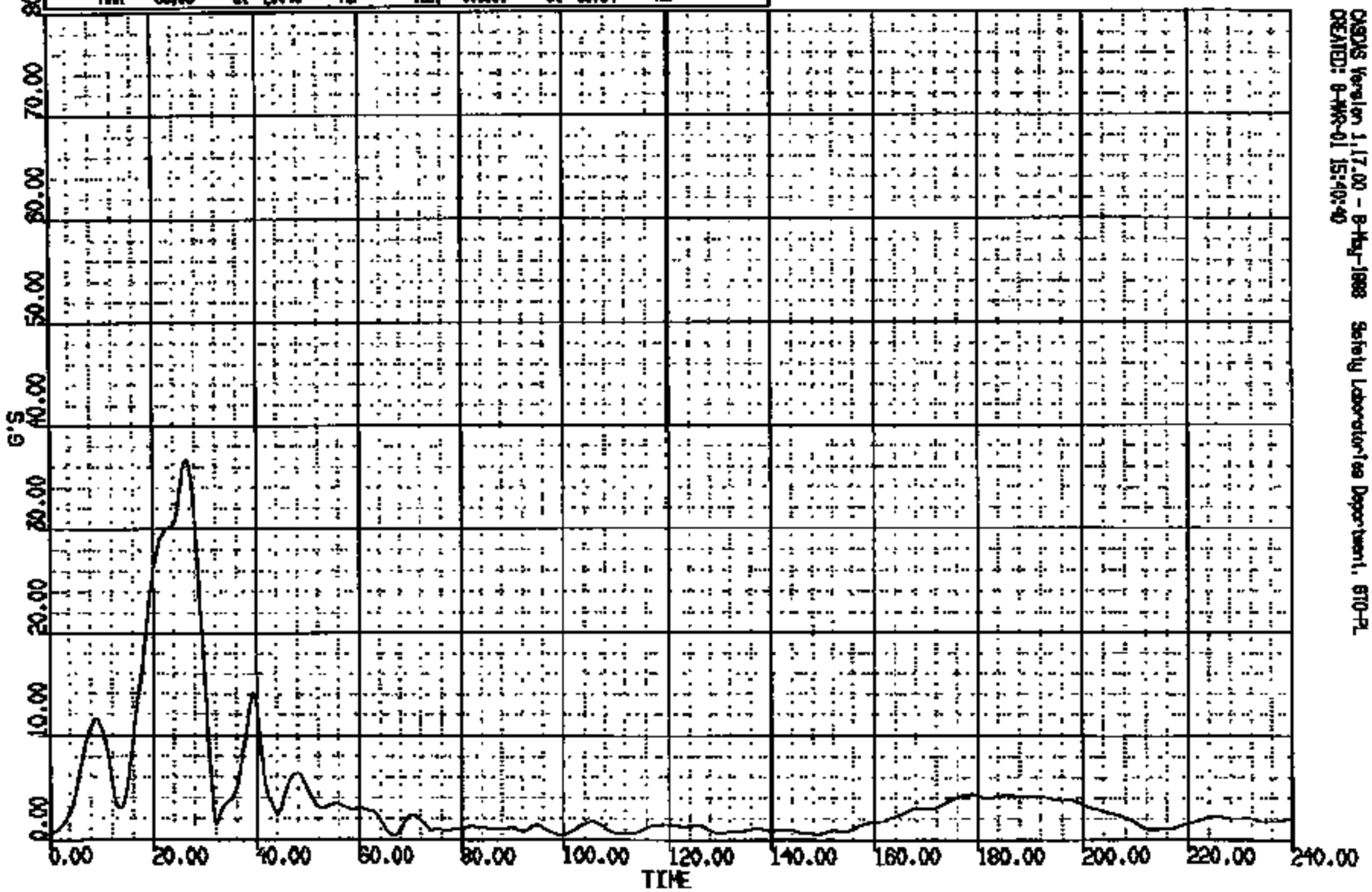
CRTS 0012182

CR #: 12182 TO: TC1940 DATE: 010212 14:29:14
20025 FN-145

(10006) CR12182T L/ROCKER @ B-PILLAR RES GON
MAX = 36.68 at 26.48 MS MIN = 0.3850 at 66.01 MS AXIS 1

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CREATED: 8-MAR-01 15:40:40

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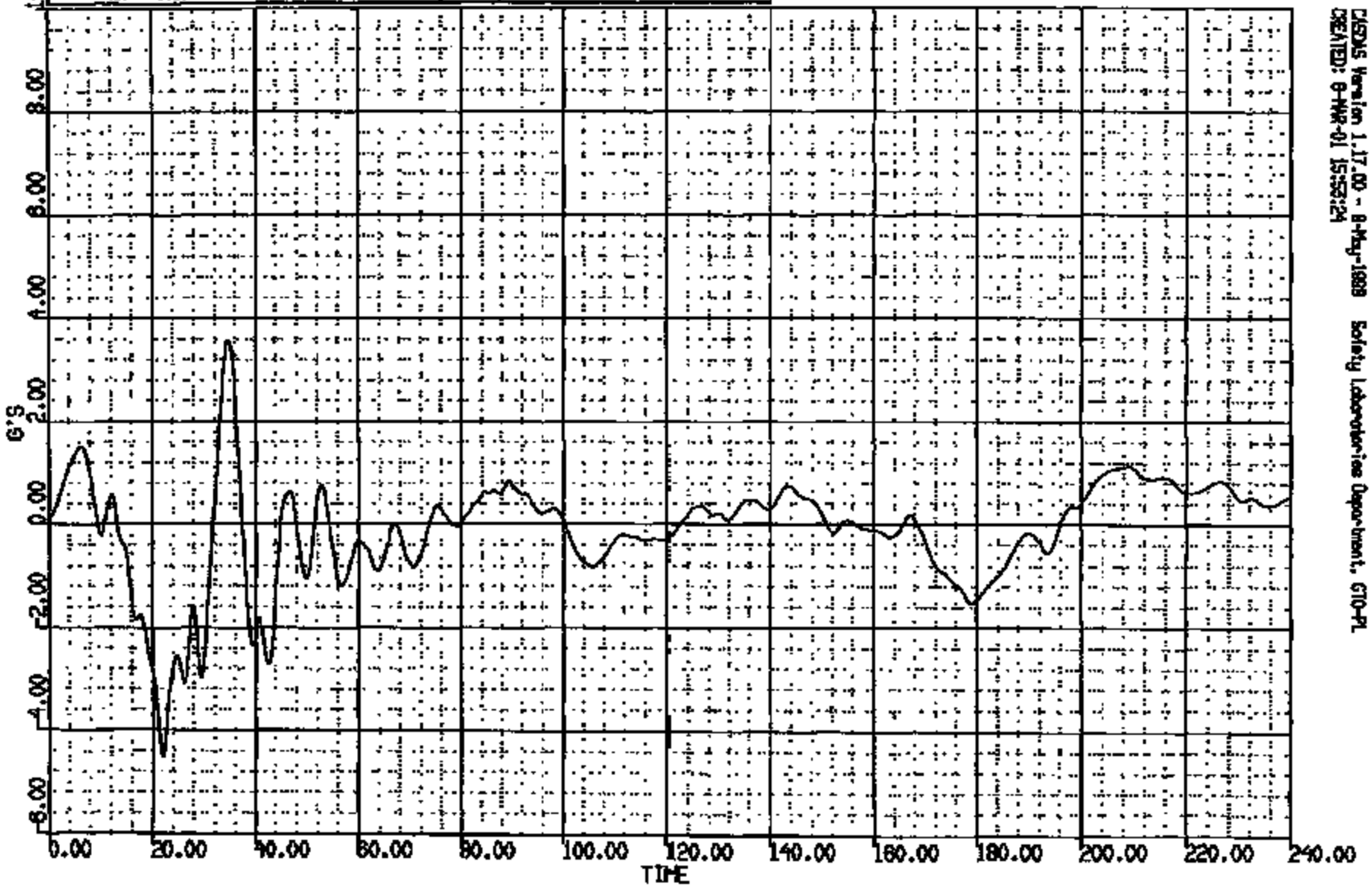
CRTS 0012182

CR R: 12182 TO: TC1940 DATE: 010212 14:28:14
20026 FN-145

(62) CR12182T L/ROCKER @ B-PILLAR VERT 60M
MAX = 3.564 at 34.72 MS MIN = -4.527 at 22.09 MS

AXIS 1




CASDAS Version 1.17.00 - 8-May-1989 Safety Laboratories Department, GTO-PL
CREATED: 8-MAR-01 15:52:24

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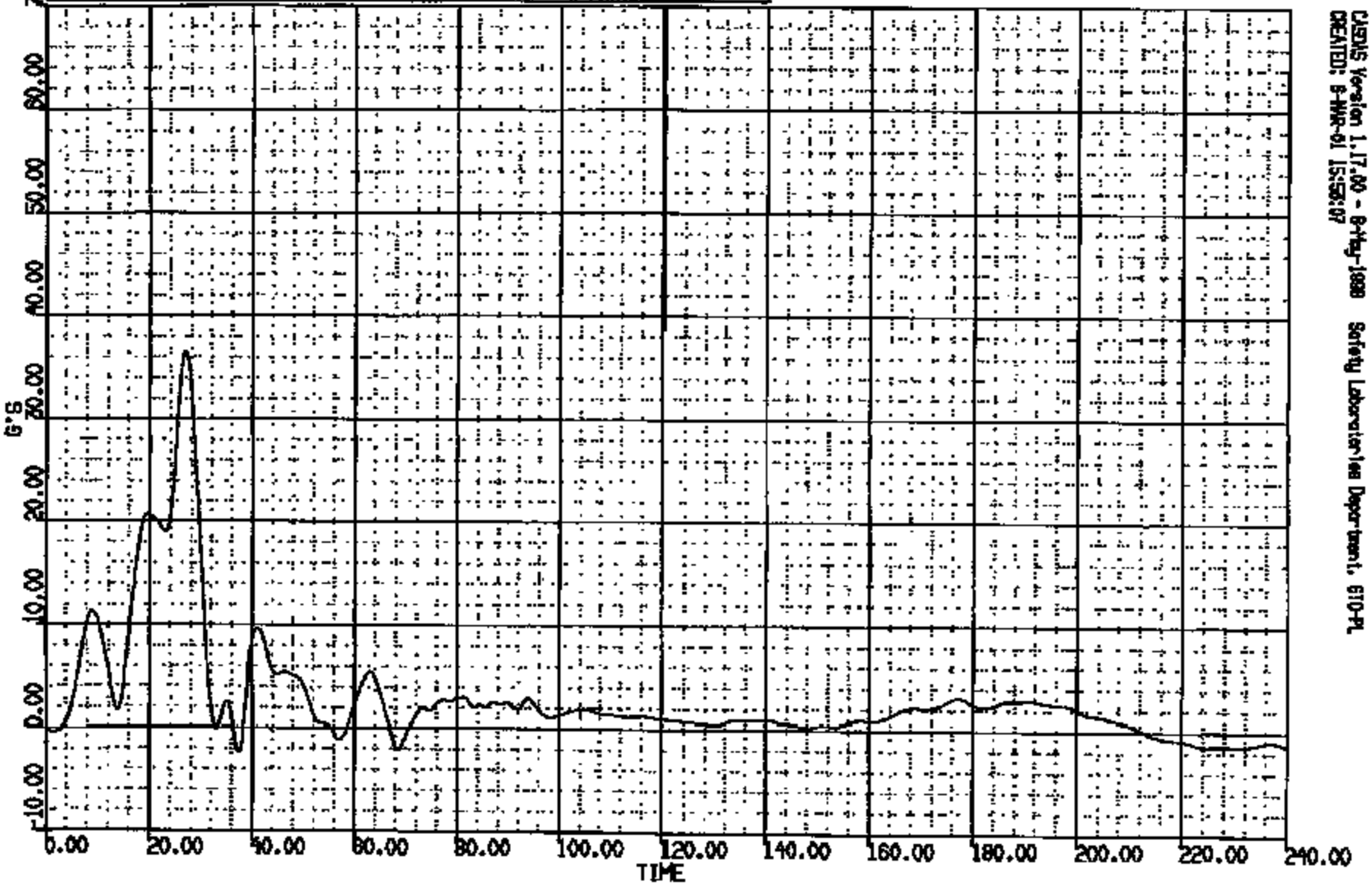
CRTS 0012182

CR #: 12182 TO: TC1940 DATE: 010212 14:29:14
20025 FN-145

(60) CR12182T L/ROCKER @ FRONT SEAT MID LAT 60N
MAX = 36.51 at 26.96 MS MIN = -2.379 at 37.44 MS AXIS 1

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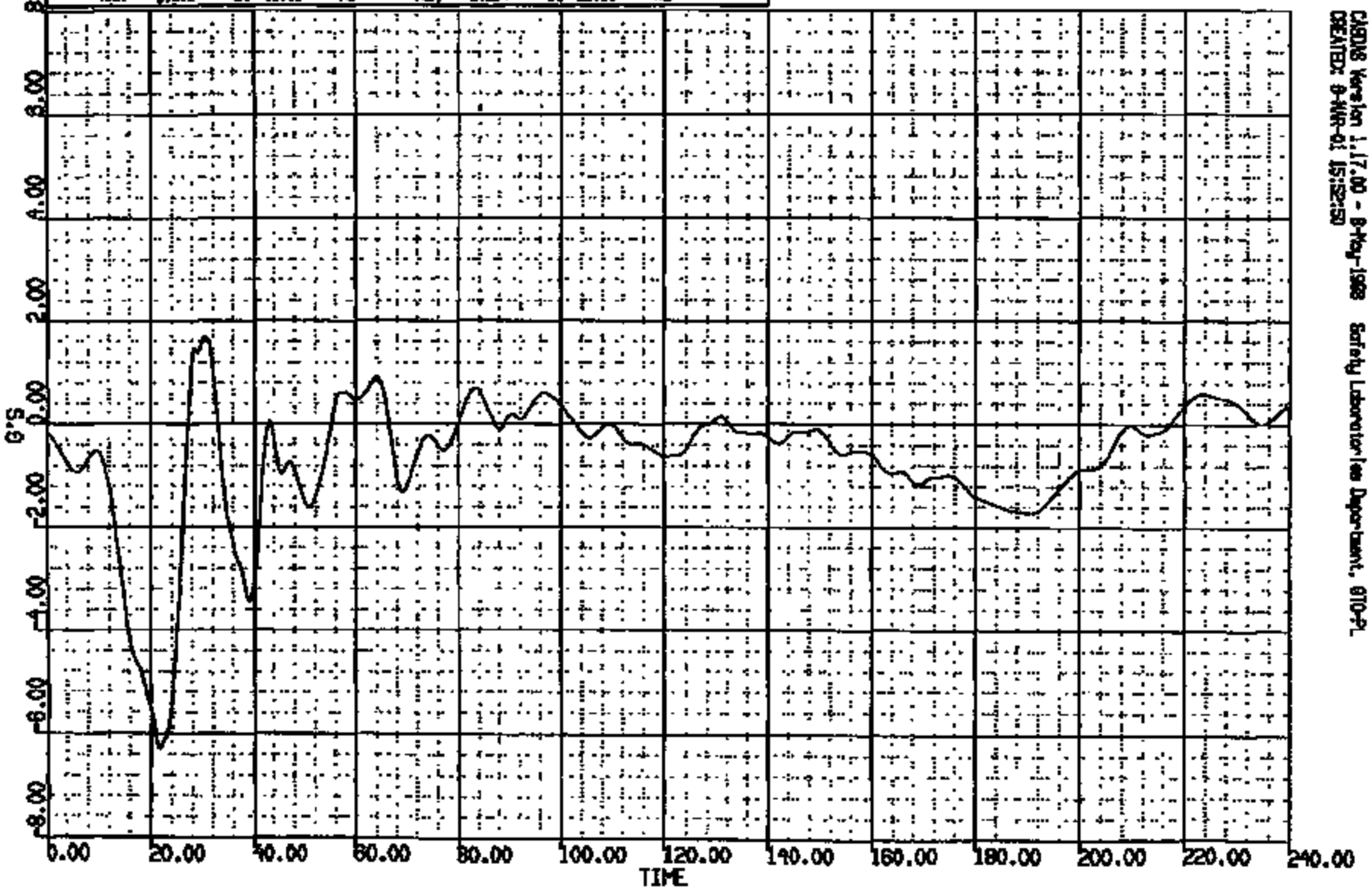
CRITS 0012182

CR R: 12192 TO: TC1940 DATE: 010212 14:29:14
20026 FN-145

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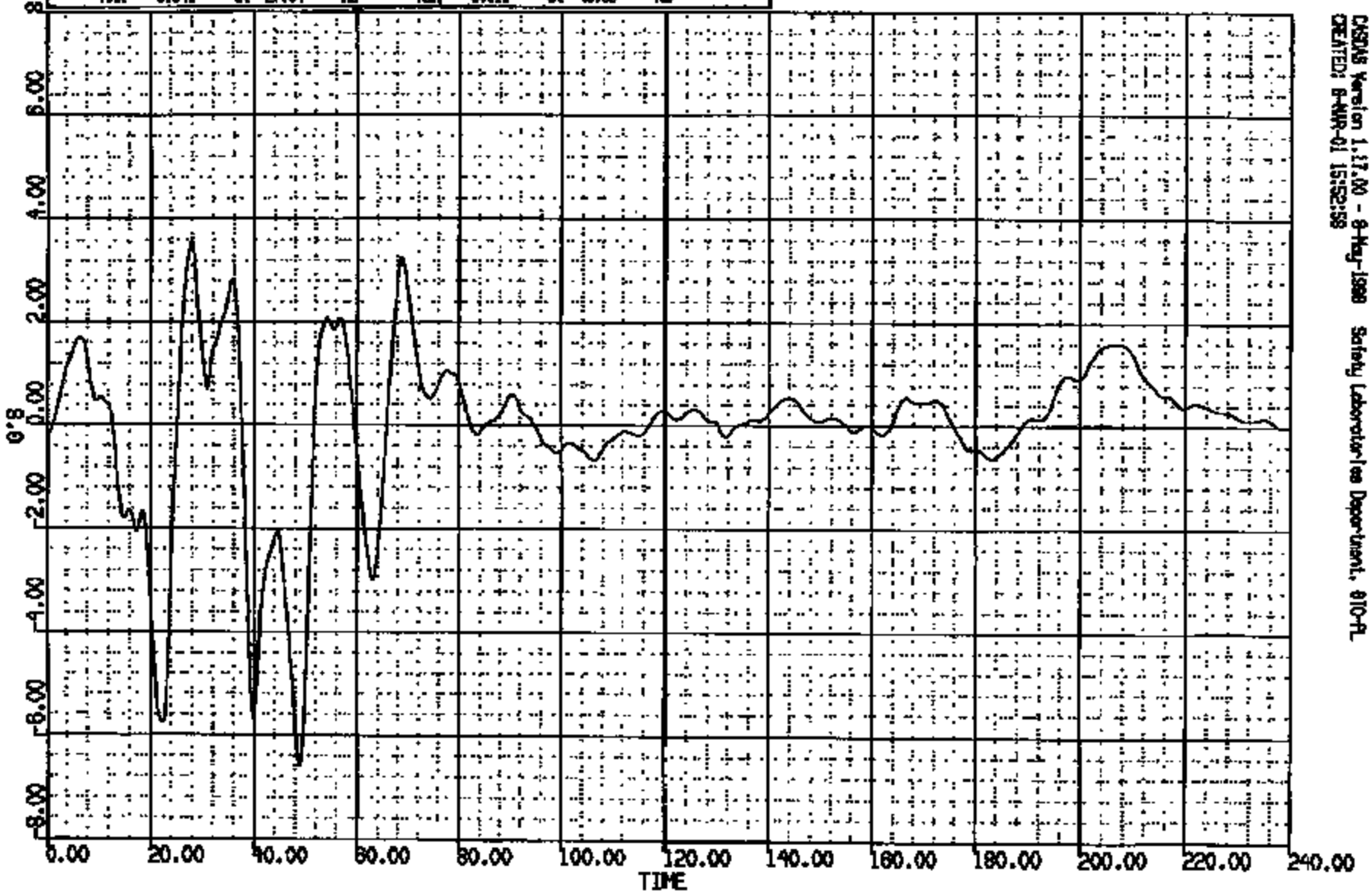
CRTS 0012182

CR R: 12162 TO: TC1940 DATE: 010212 14:29:14
20025 FN-146

(59) CR121821 L/ROCKER @ FRONT SEAT MID VERT 60N
MAX = 3.540 at 27.81 MS MIN = -6.610 at 48.00 MS AXIS 1

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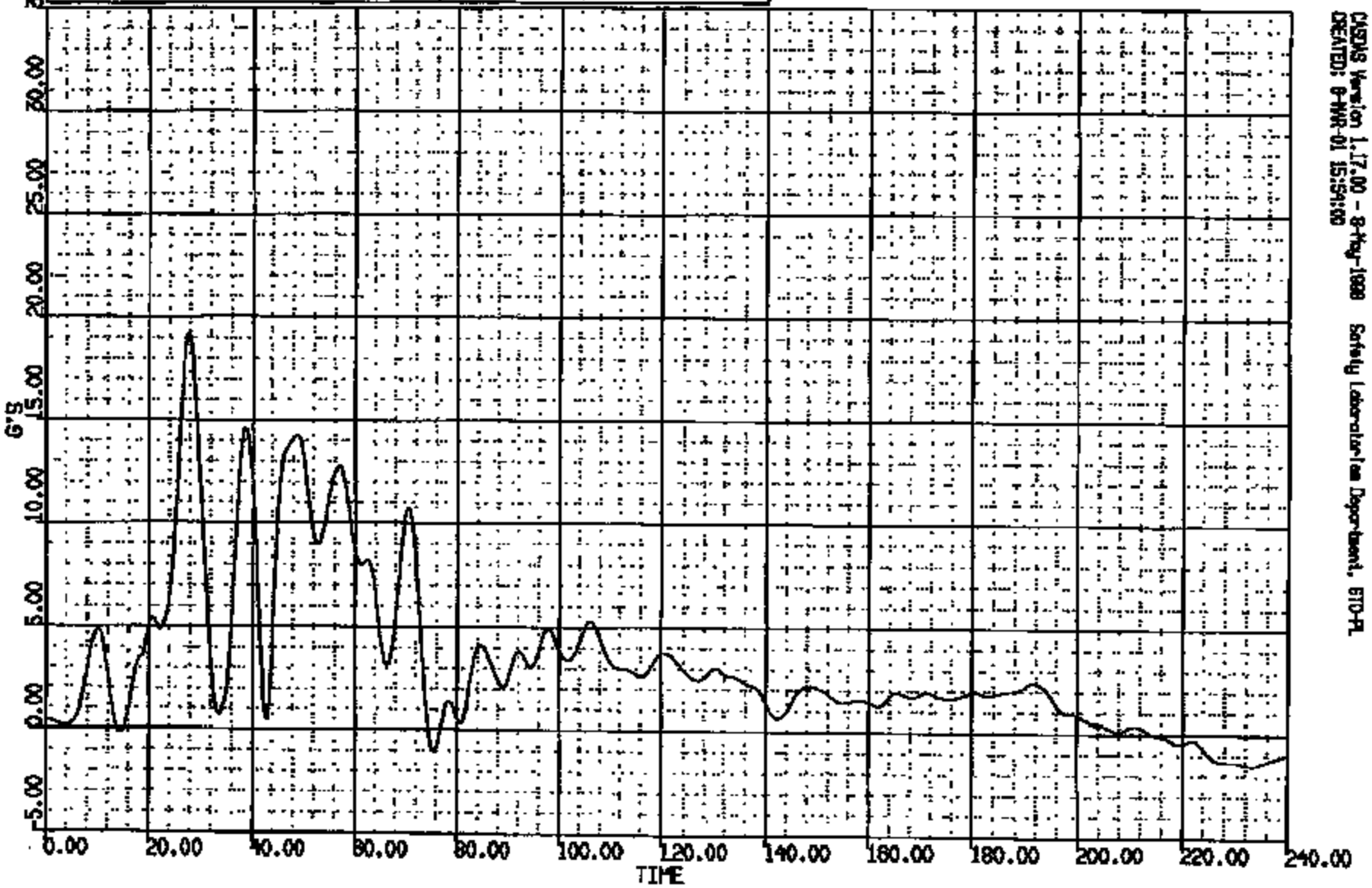
CRTS 0012182

CR RI 12182 TO: TC1940 DATE: 010212 14:28:14
20025 FN-145

(66) CR12182T L/ROCKER @ REAR SEAT MID LAT 60M
MAX = 19.20 at 27.88 MS MIN = -1.497 at 253.0 MS AXIS 1

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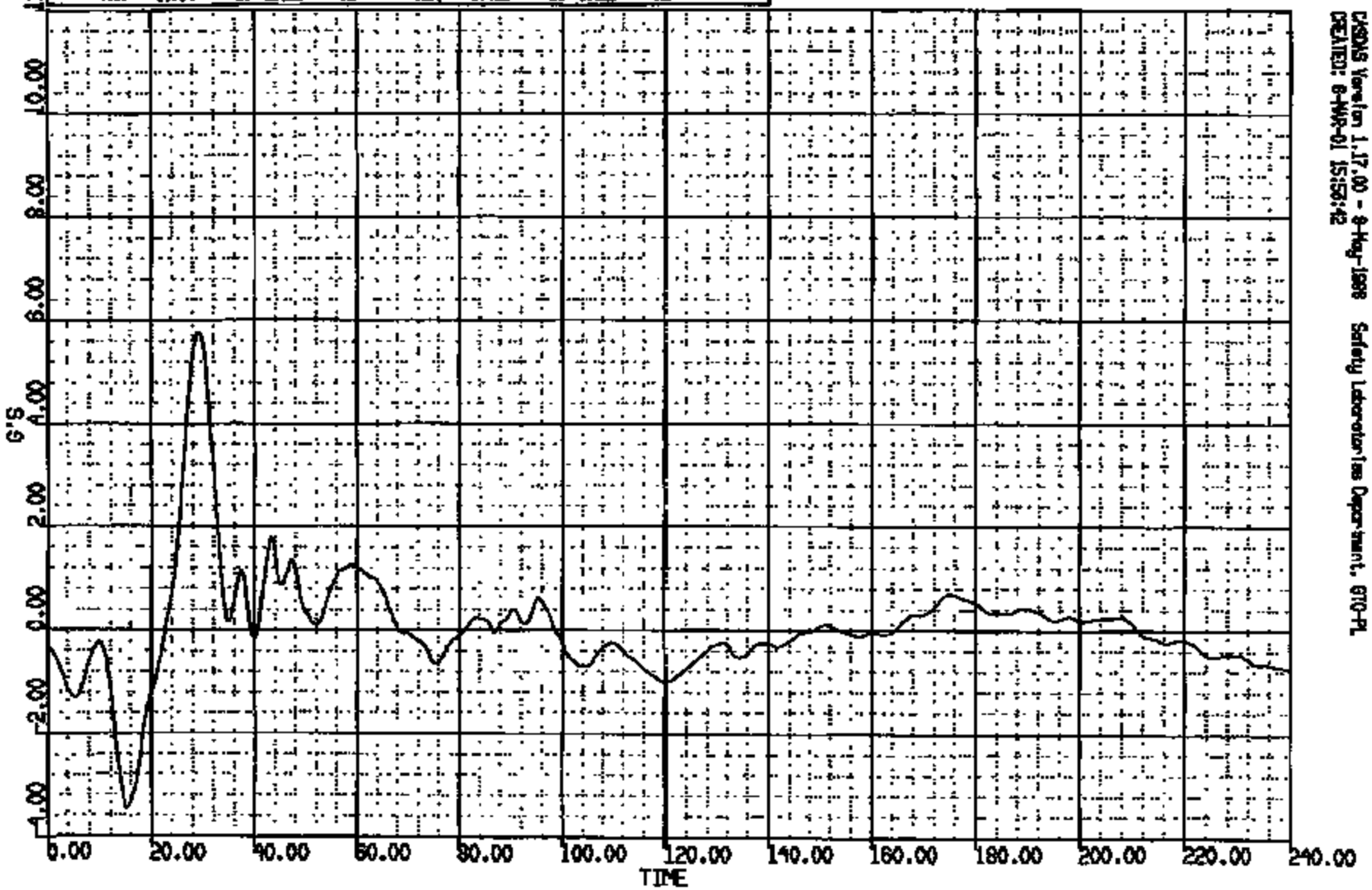
CRTS 0012182

CR R: 12182 TC: TC1940 DATE: 010212 14:29:14
20025 FN-145

(64) CR12182T LADDER & REAR SEAT MID LONG 60N
MAX = 5.754 at 29.20 MS MIN = -3.492 at 15.28 MS

AXIS I

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