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v.2

May 1982
Final Report

DOT HS 806 294



US Department of Transportation
National Highway Traffic Safety
Administration

SYSTEMS ANALYSIS APPROACH TO RESTRAINT
SYSTEMS INTEGRATION - SLED TEST SUPPORT

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Contract No. DTNH22 82 C 07132
Contract Amount \$22,910

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 V. 2

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16. Abstract This report covers the final phase of a three phase program whose overall objective was to demonstrate the validity of the systems analysis approach to restraint systems development. The term "systems analysis approach" is used to convey the concept of using high speed computing techniques to design and integrate airbag restraint systems into the subject vehicle in a way that is optimally compatible with its crash environment. If successful, the necessity of conducting a large number of preliminary tests prior to converging to the final design will be minimized since the many interrelated parameters that affect restraint system performance can be investigated in a highly efficient manner through computer simulation.					
17. Key Words Airbag, Restraint system, Forward positioned occupant, Bagslap, PAC and DRACR computer model, DeLorean sports car.			18. Distribution Statement Document is available to the U. S. public through the National Technical Information Service, Springfield, VA 22161		
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APPENDIX A

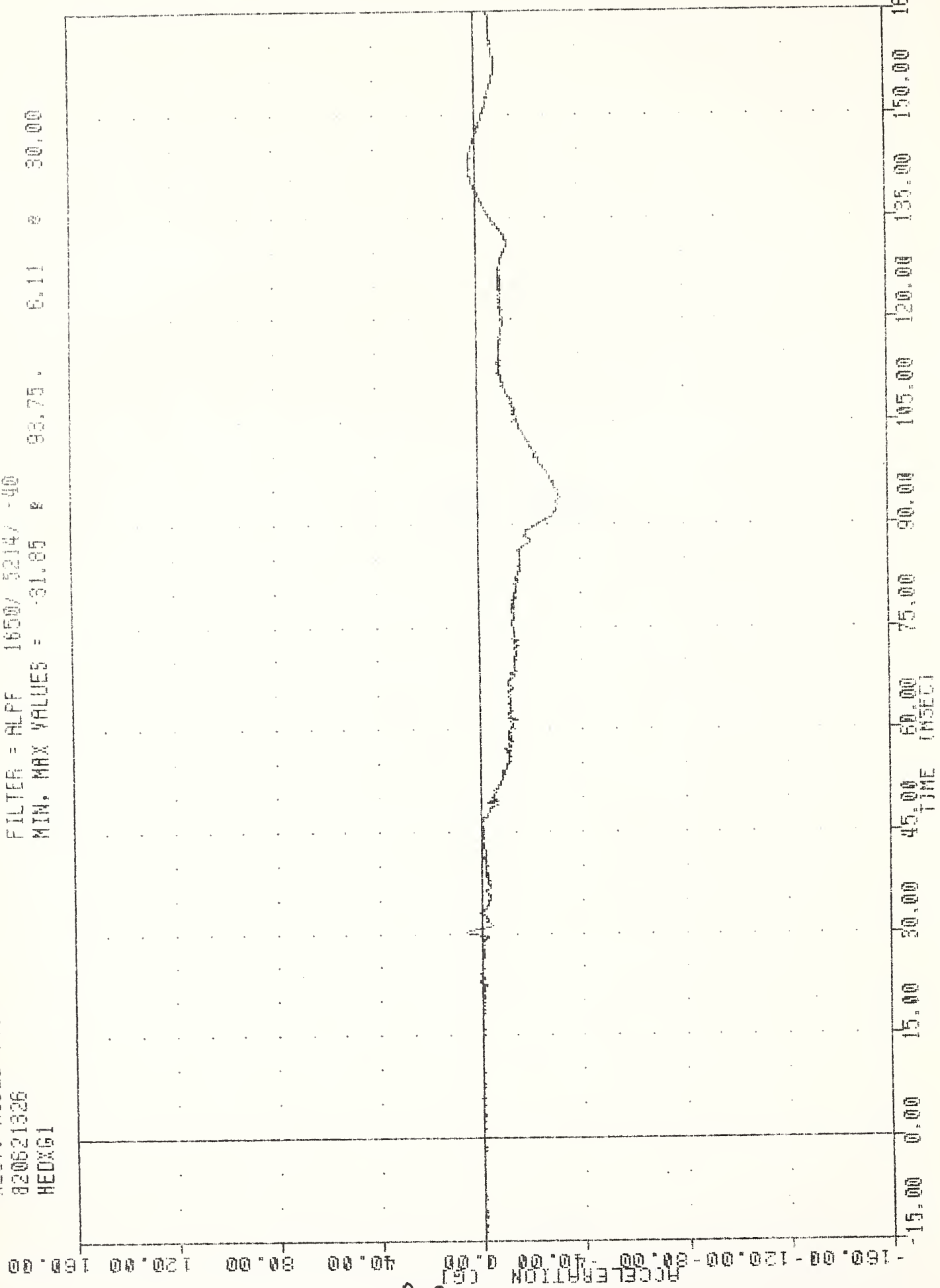
SLED TEST DATA

TEST NO. 1

16-MAR-82 08:29:35

551015003
REST. MODEL VALID. TEST
820621326
HEDXG1

FILTER = ALFF 1650/ 5214/ -40
MIN. MAX VALUES = -31.85 83.75 6.11 30.00



HEAD ACCELERATION X AXIS DRIVEN

16-MAR-82 08:28:35

REST, MODEL VALID, TEST

FILTER = RLFF 1650/ 5214/ -40

MIN, MAX VALUES = -11.28 100.63 1.97 33.50

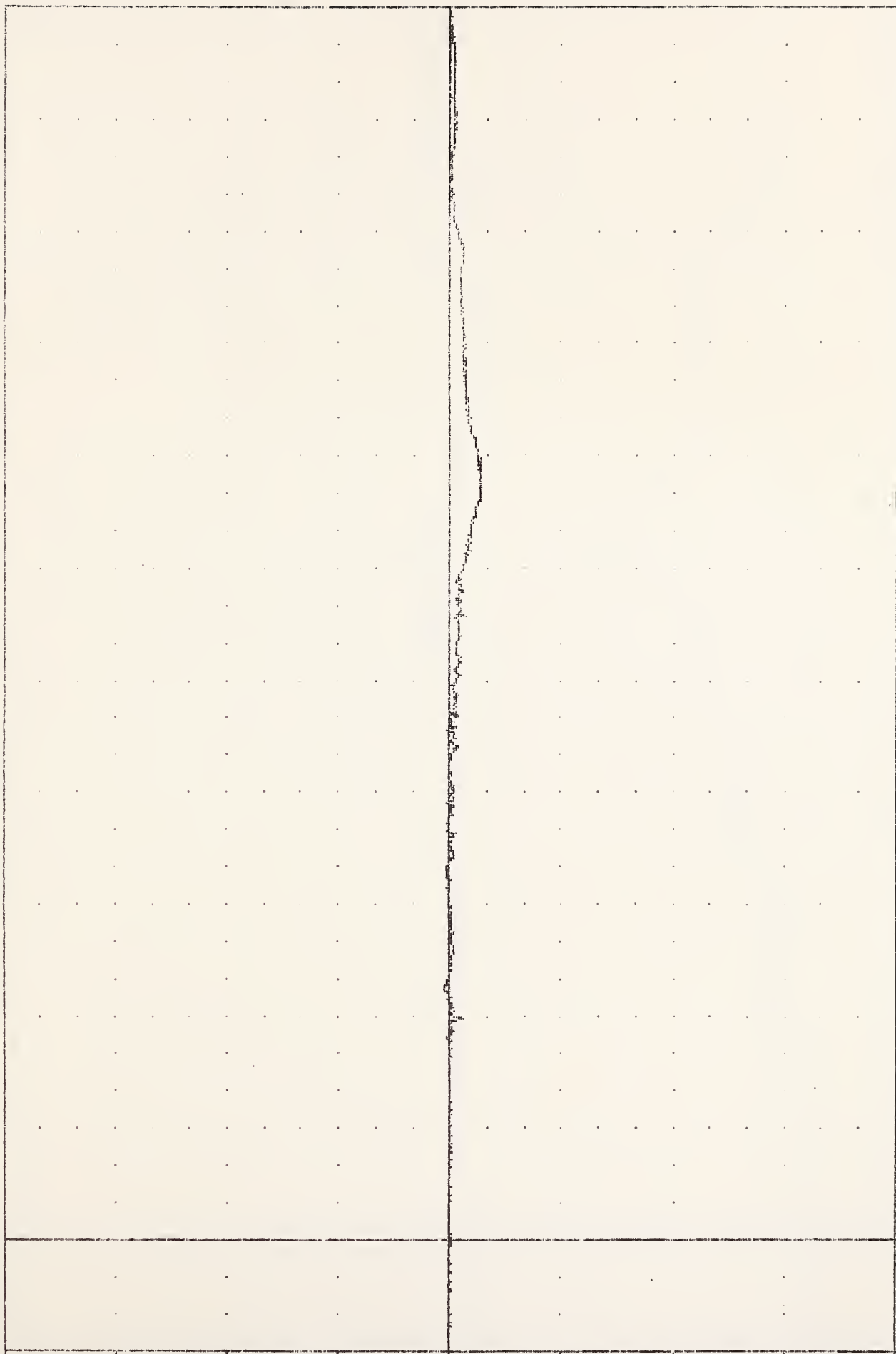
951015003

820621326

HEDY61

ACCELERATION (G) 150.00 120.00 90.00 60.00 30.00 0.00 -30.00 -60.00 -90.00 -120.00 -150.00

15.00 30.00 45.00 60.00 75.00 90.00 105.00 120.00 135.00 150.00 165.00
TIME (MSEC)



HEAD ACCELERATION Y AXIS DRIVER

16-MAR-82 08:29:35

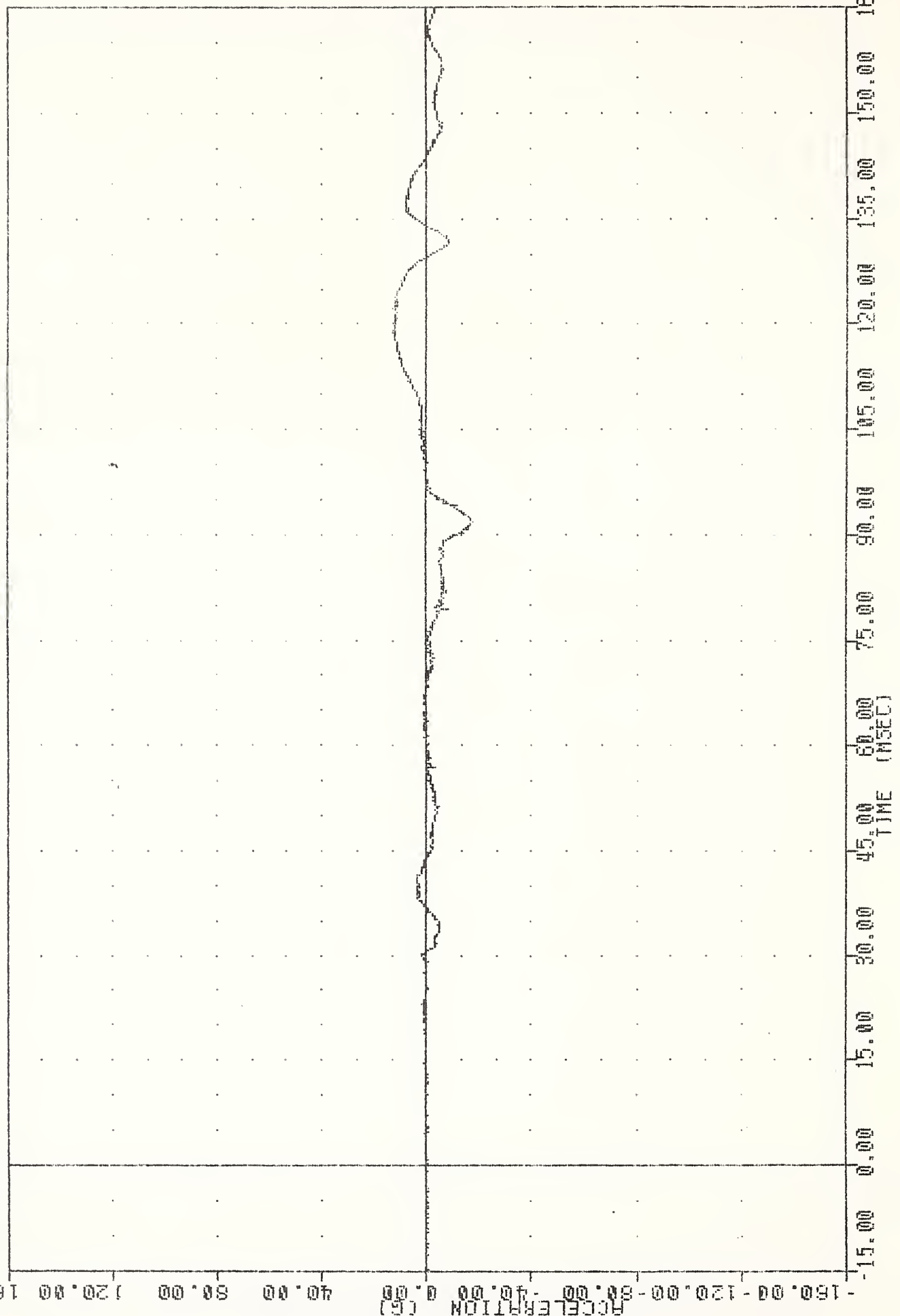
551015003
REST. MODEL VALID. TEST

FILTER = ALFF 1650/ 5214/ -40

MIN. MAX VALUES = -17.30 e 91.63, 12.70 e 118.68

820621326
HEADZ61

A-4



HEAD ACCELERATION Z AXIS DRIVER

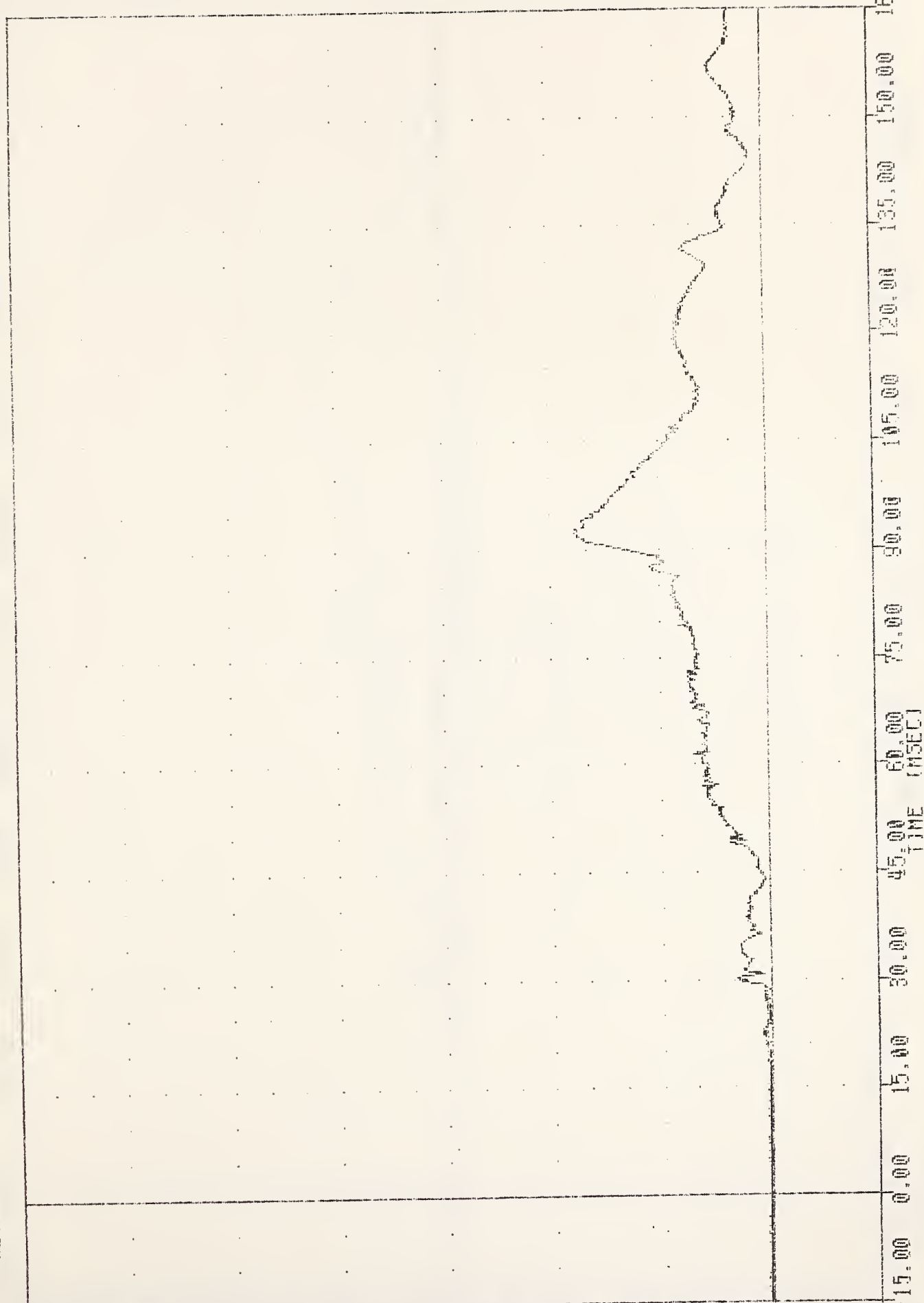
16-MAR-82 00:29:35

351015003
REST. MODEL VALID. TEST
820521326
HEADRG1

FILTER = ALPF 1650/5214/ -40
MIN. MAX VALUES = 0.05 8

1.75 35.46 92.25

ACCELERATION (G)



HEAD ACCELERATION RESULTANT DRIVER

15-MAR-82 14:51:19

551015003

REST. MODEL VALID. TEST

820621326

CSTXG1

FILTER = BLFF 300/ 050/ -40

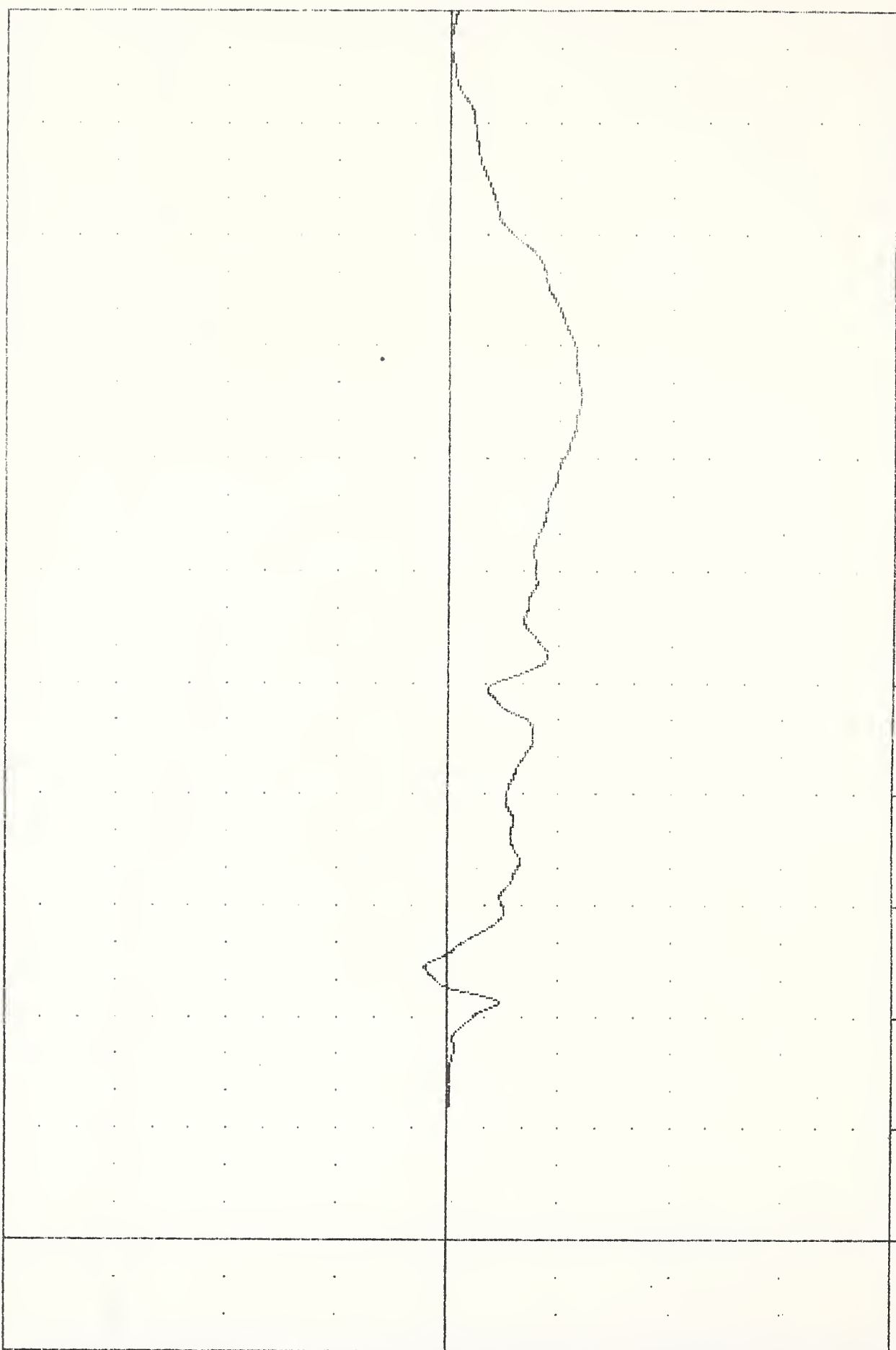
MIN, MAX VALUES = -23.81 2 113.00 2

4.16 2

36.50

80.00 60.00 40.00 20.00 0.00 -20.00 -40.00 -60.00 -80.00

A-6



165.00 150.00 135.00 120.00 105.00 90.00 75.00 60.00 45.00 30.00 15.00 0.00
TIME (MSEC)

CHEST ACCELERATION X AXIS DRIVER

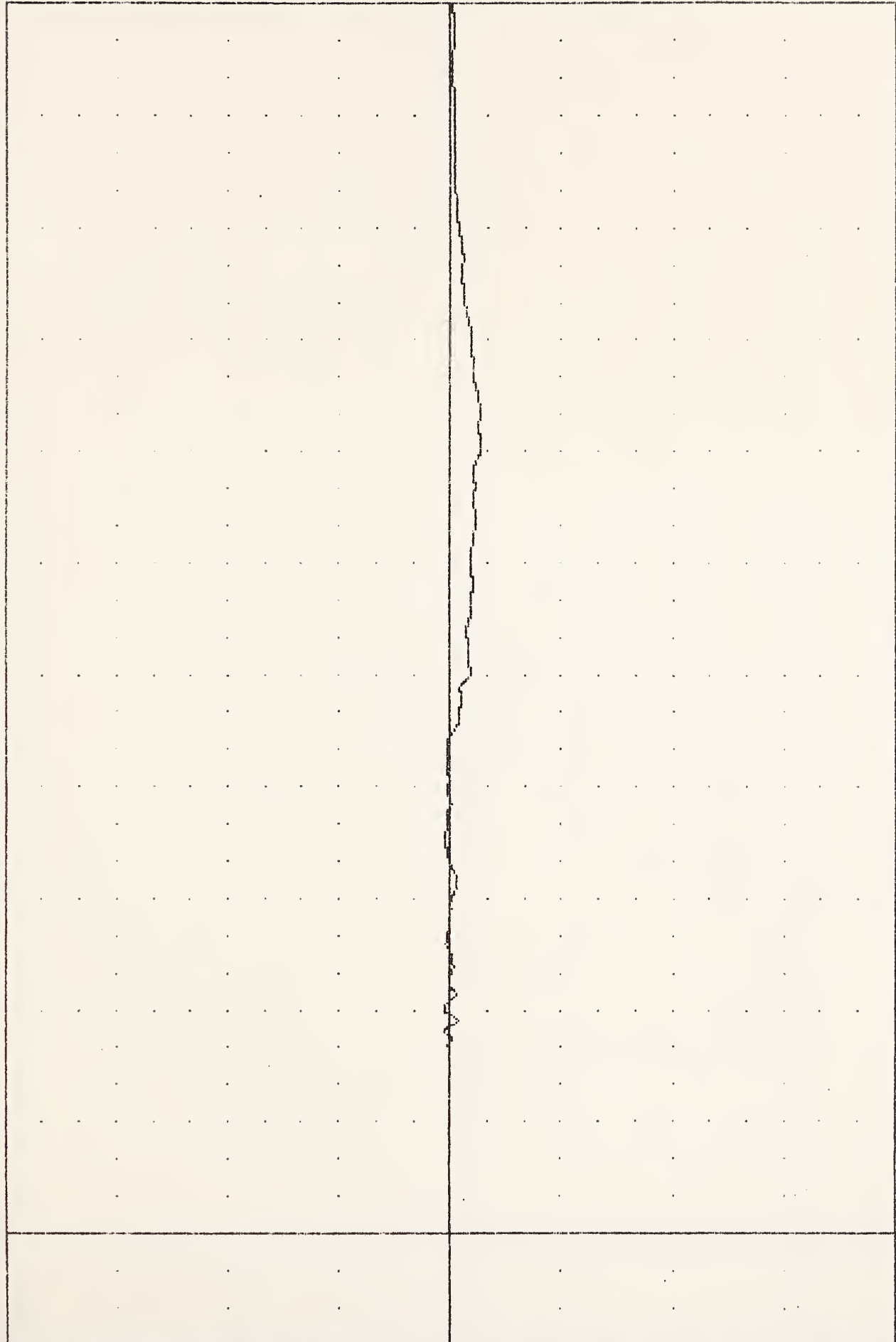
15-MAR-82 14:51:19

951015003
REST. MODEL VALID. TEST
820621526
CSTYGI

FILTER = BLPF 300/ 950/ -40
MIN. MAX VALUES = -5.60 105.63

1.12 e 30.13

ACCELERATION (G) 80.00 60.00 40.00 20.00 0.00 -20.00 -40.00 -60.00 -80.00



-15.00 0.00 15.00 30.00 45.00 60.00 75.00 90.00 105.00 120.00 135.00 150.00 165.00
TIME (MSEC)

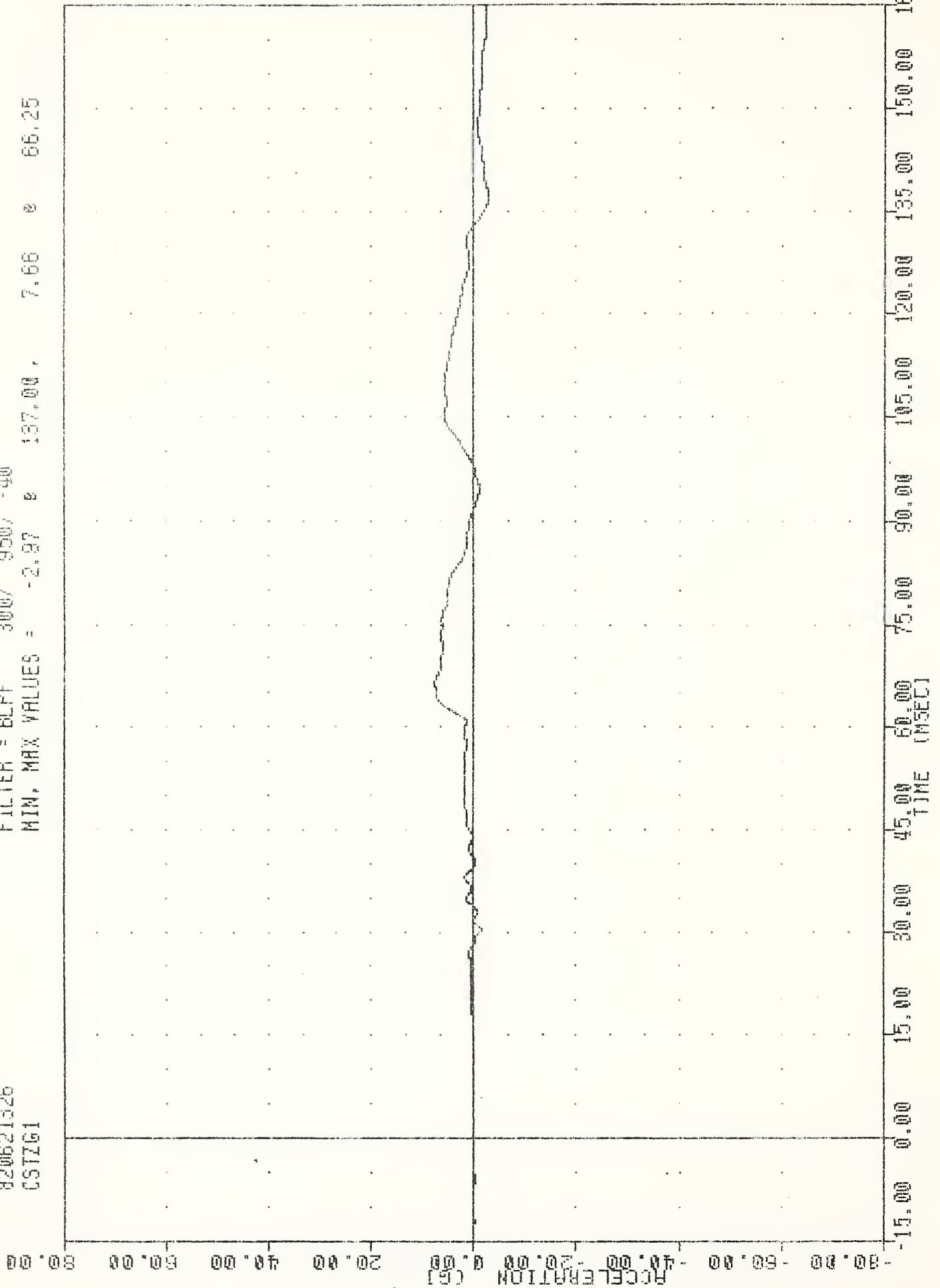
A-7

CHEST ACCELERATION Y AXIS DRIVER

15-MAR-82 16:02:31

551015003
REST. MODEL VALID. TEST
820621328
CSTZG1

FILTER = BLPF 300/ 950/ -40
MIN. MAX VALUES = -2.97 8 137.00 7.66 8 66.25



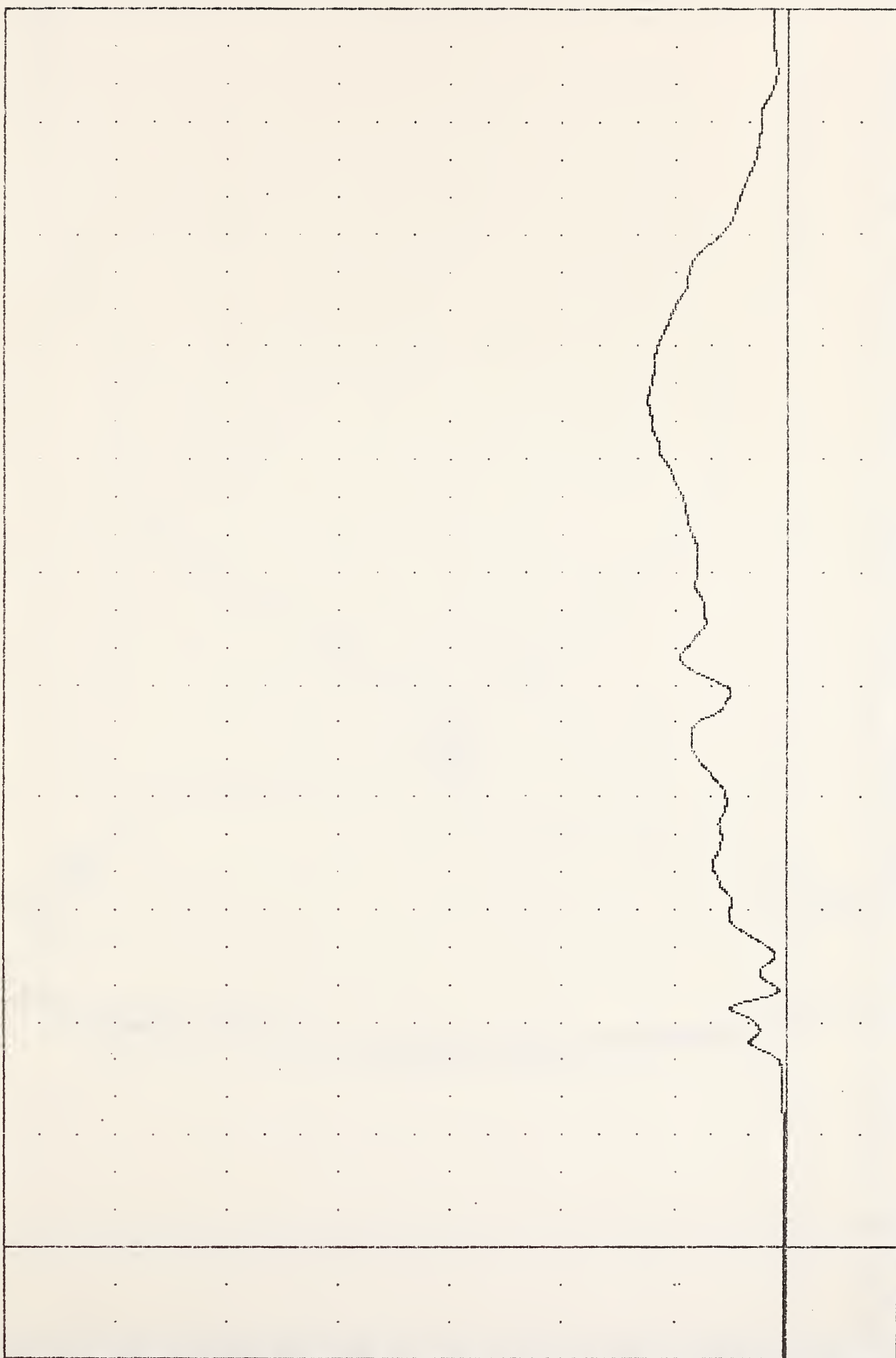
CHEST ACCELERATION Z AXIS DRIVER

16-MAR-82 08:29:35

551015003
REST. MODEL VALID. TEST
820621326
CSTRG1

FILTER = BLPF 300/ 950/ -40
MIN. MAX VALUES = 0.22 % 12.13, 24.81 % 112.75

140.00
120.00
100.00
80.00
60.00
40.00
20.00
0.00
-20.00



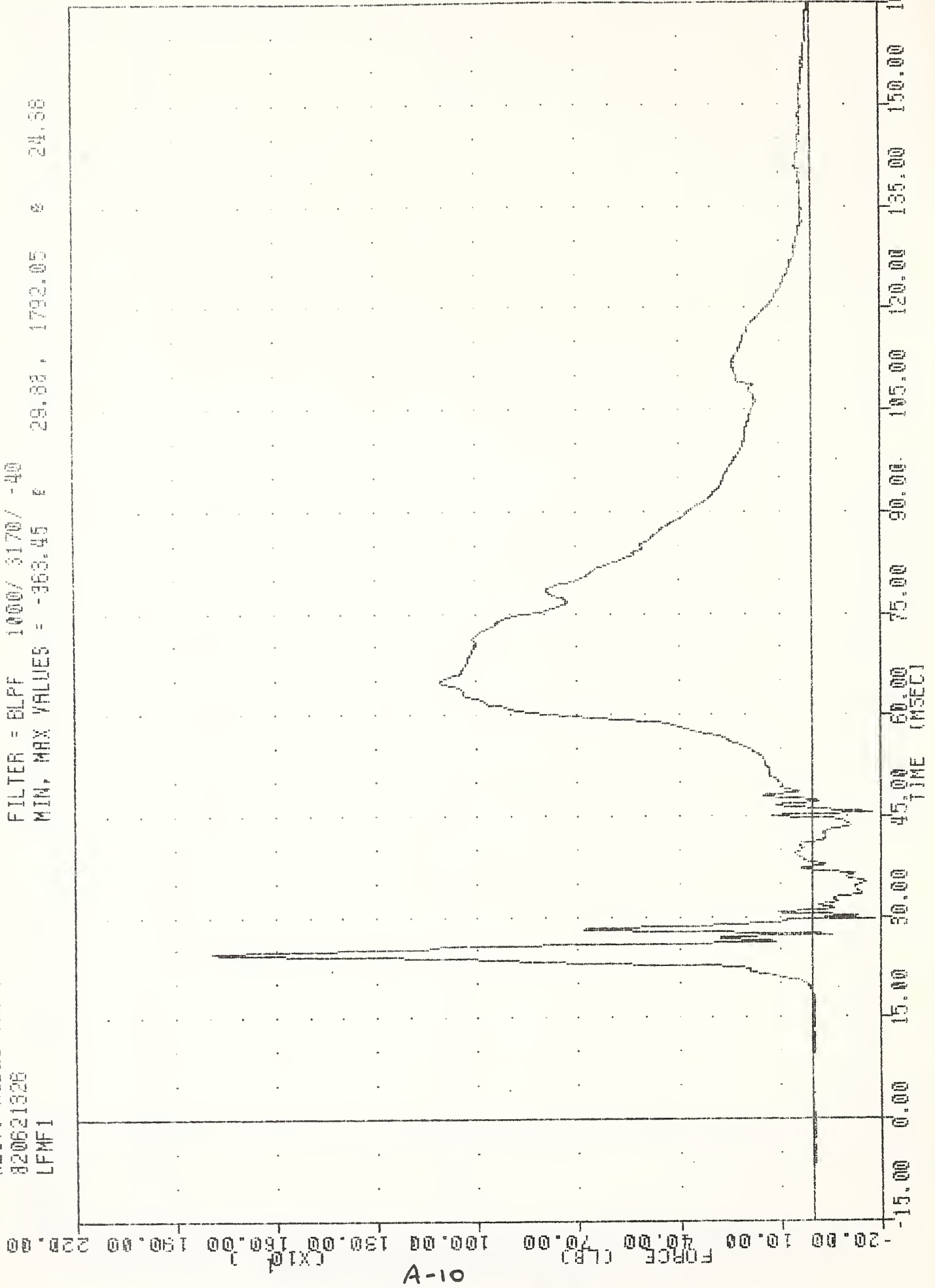
A-9

CHEST ACCELERATION RESULTANT DRIVER

551015003
 REST. MODEL VALID. TEST
 820621326
 LFMF1

16-MAR-82 08:25:35

FILTER = BLPF 1000/3170/-40
 MIN, MAX VALUES = -363.45 29.88, 1792.05 24.38



A-10

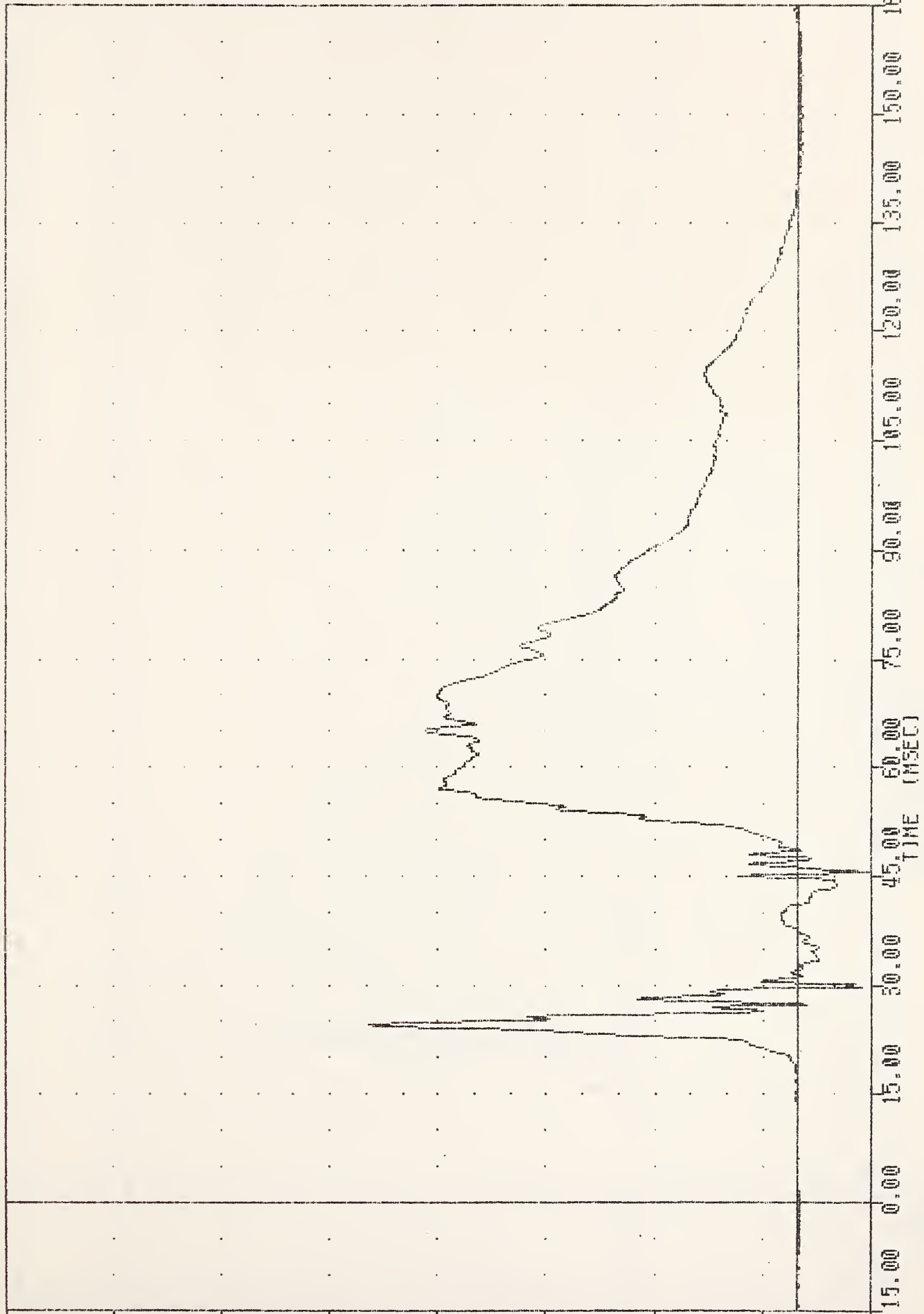
LEFT FEMUR FORCE DRIVER

351015003
REST. MODEL VALID. TEST
820621826
AFMF1

16-MAR-82 08:28:35

FILTER = BLPF 1000/ 3170/ -40
MIN. MAX VALUES = -265.93 29.75, 1195.62 24.38

11-A
FORCE (LBS)
TIME (MSEC)



RIGHT FEMUR FORCE DRIVER

19-MAR-82 08:29:35

951015009

REST. MODEL VALID. TEST

920621326

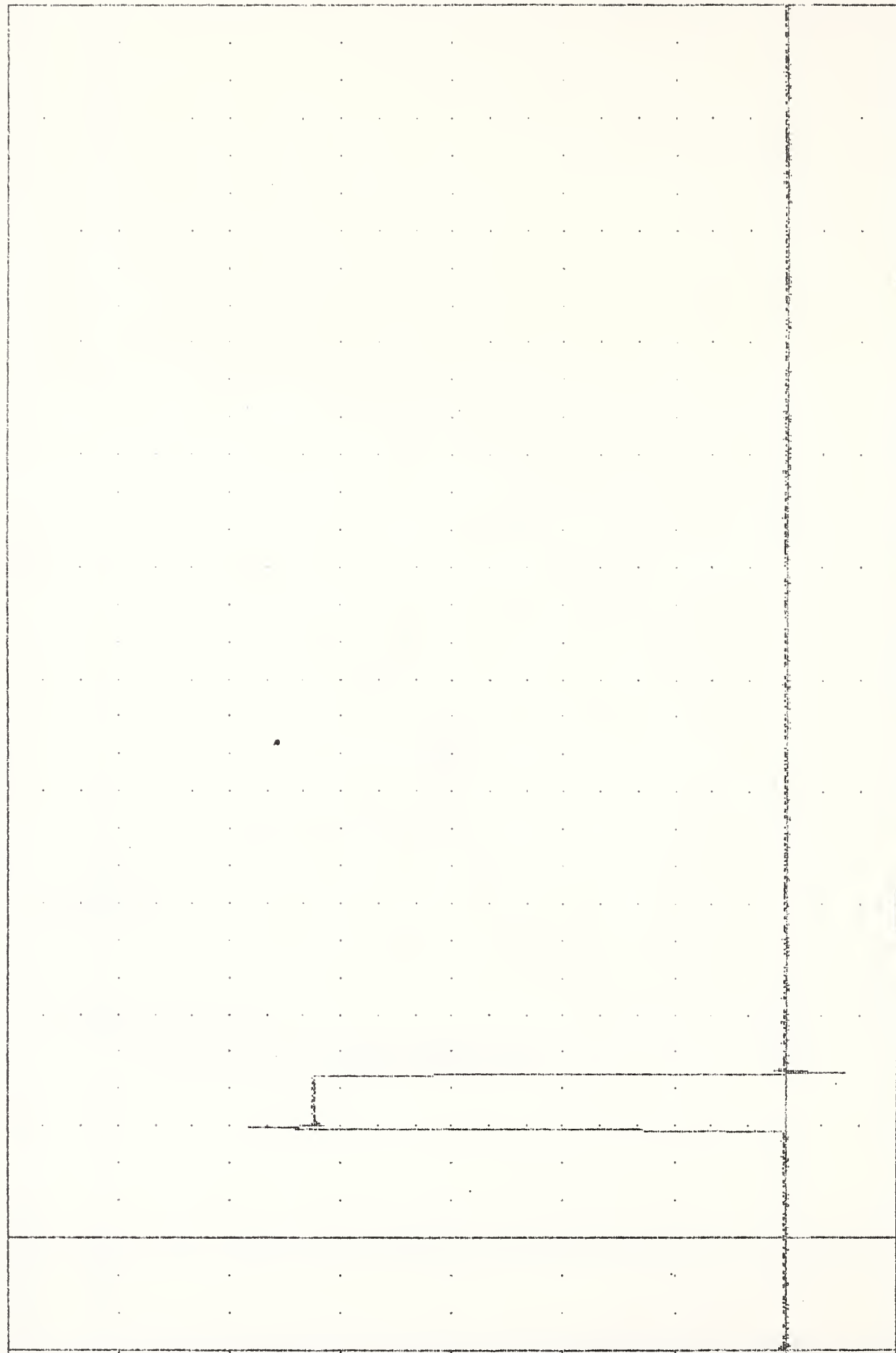
ABFT1

FILTER = ALPF 1650/ 5214/ -40

MIN. MAX VALUES = -0.53 e 22.06 e

4.63 e 14.63

2.00 1.00 0.00 -1.00



-15.00 0.00 15.00 30.00 45.00 60.00 75.00 90.00 105.00 120.00 135.00 150.00 165.00

TIME (MSEC)

AIR BAG FIRING EVENT DRIVER

16-MAR-82 08:29:35

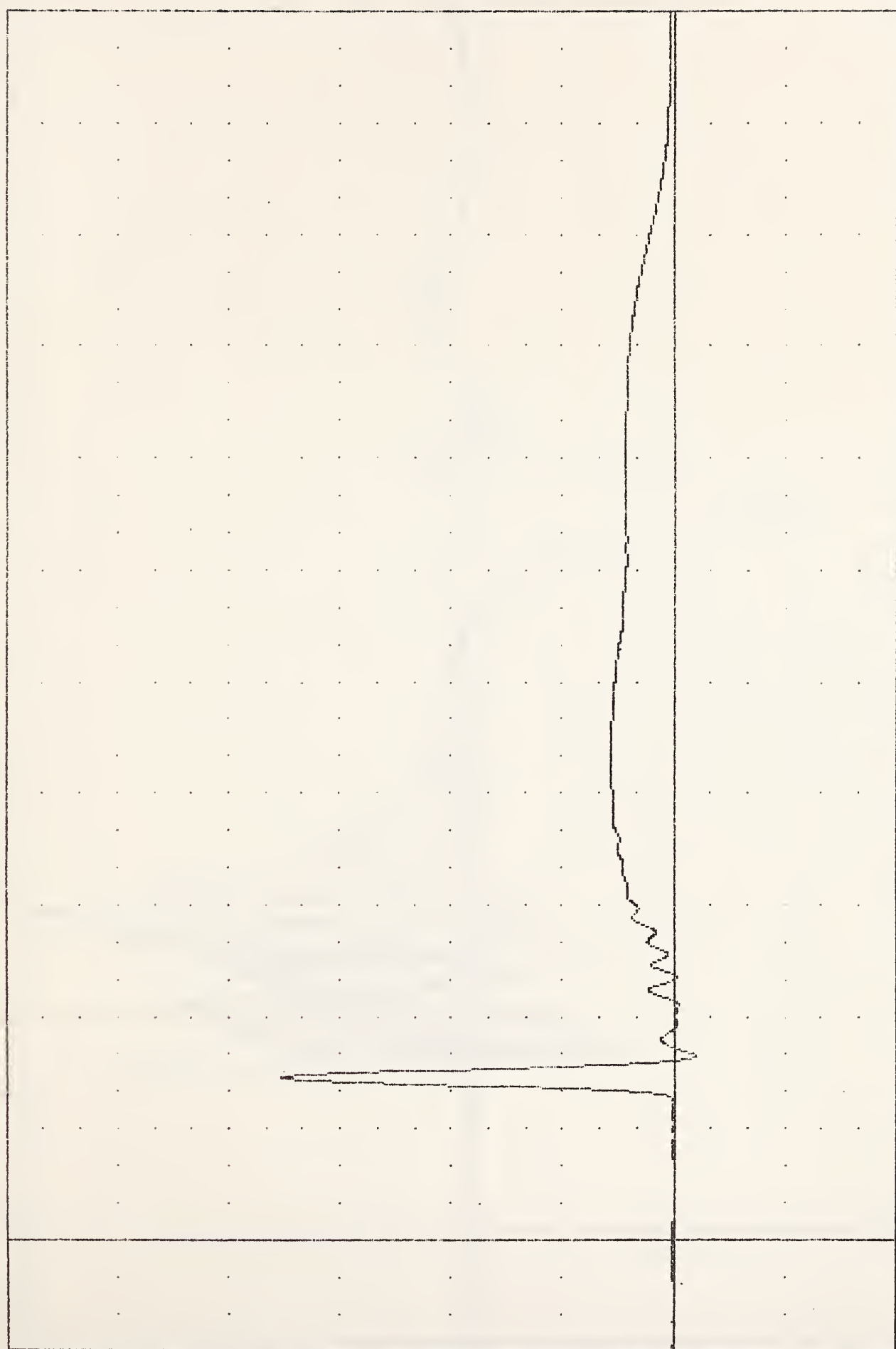
551015003
REST. MODEL VALID. TEST.

FILTER = BLPF 300/ 950/ -40

MIN. MAX VALUES = -2.07 24.63 35.25 21.75

820621326
ABFI

60.00
50.00
40.00
30.00
20.00
10.00
0.00
-10.00
-20.00



A-13

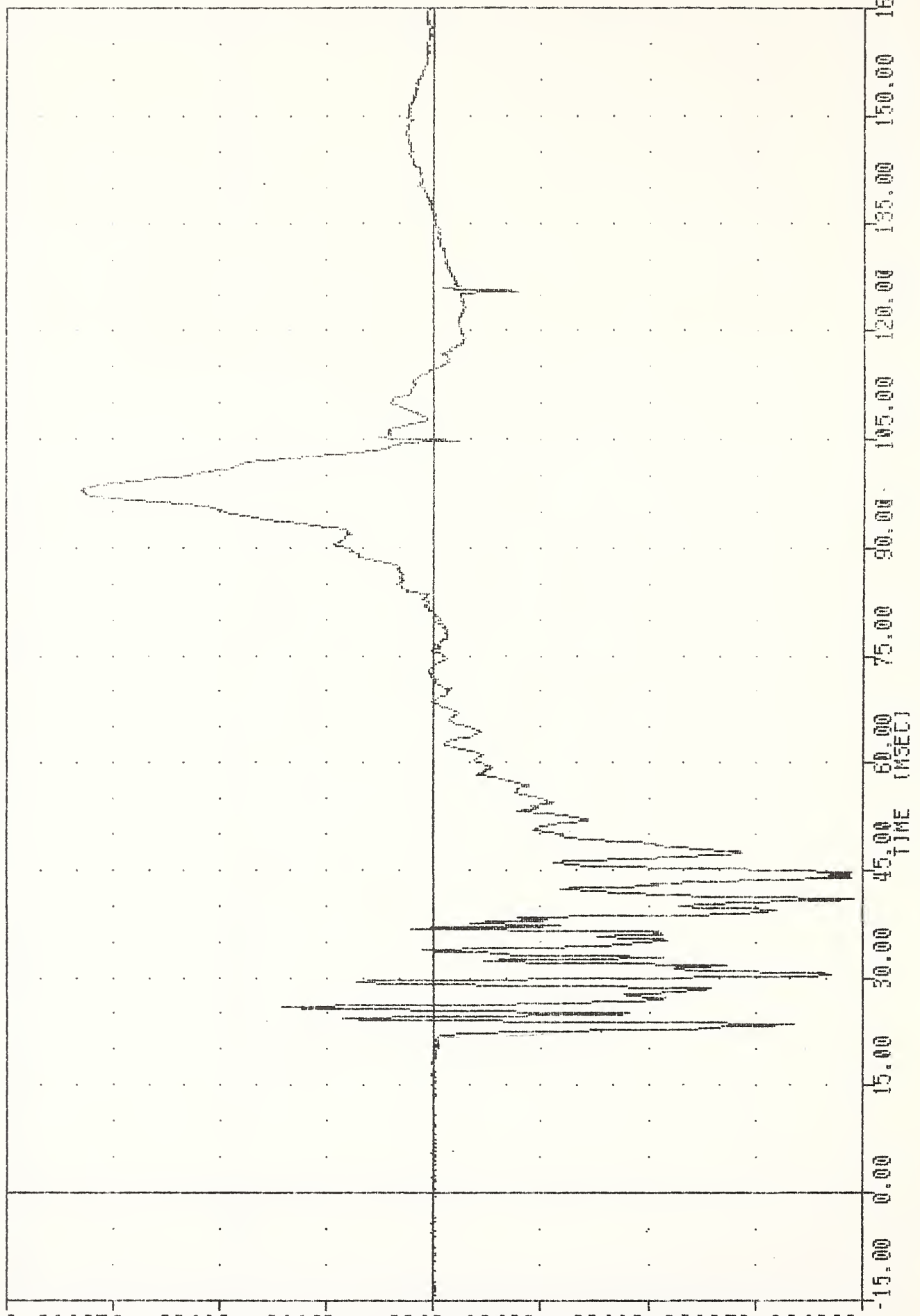
AIR BAG PRESSURE DRIVER

16-MAR-82 08:29:35

FILTER = ALPF 1650/ 5214/ -40
MIN, MAX VALUES = -172.36 e 44.13, 131.48 e 97.75

S51015003
REST. MODEL VALID. TEST
820621326
HEAD62

150.00
120.00
90.00
60.00
30.00
0.00
-30.00
-60.00
-90.00
-120.00
-150.00



A-14

HEAD ACCELERATION X AXIS PASSENGER

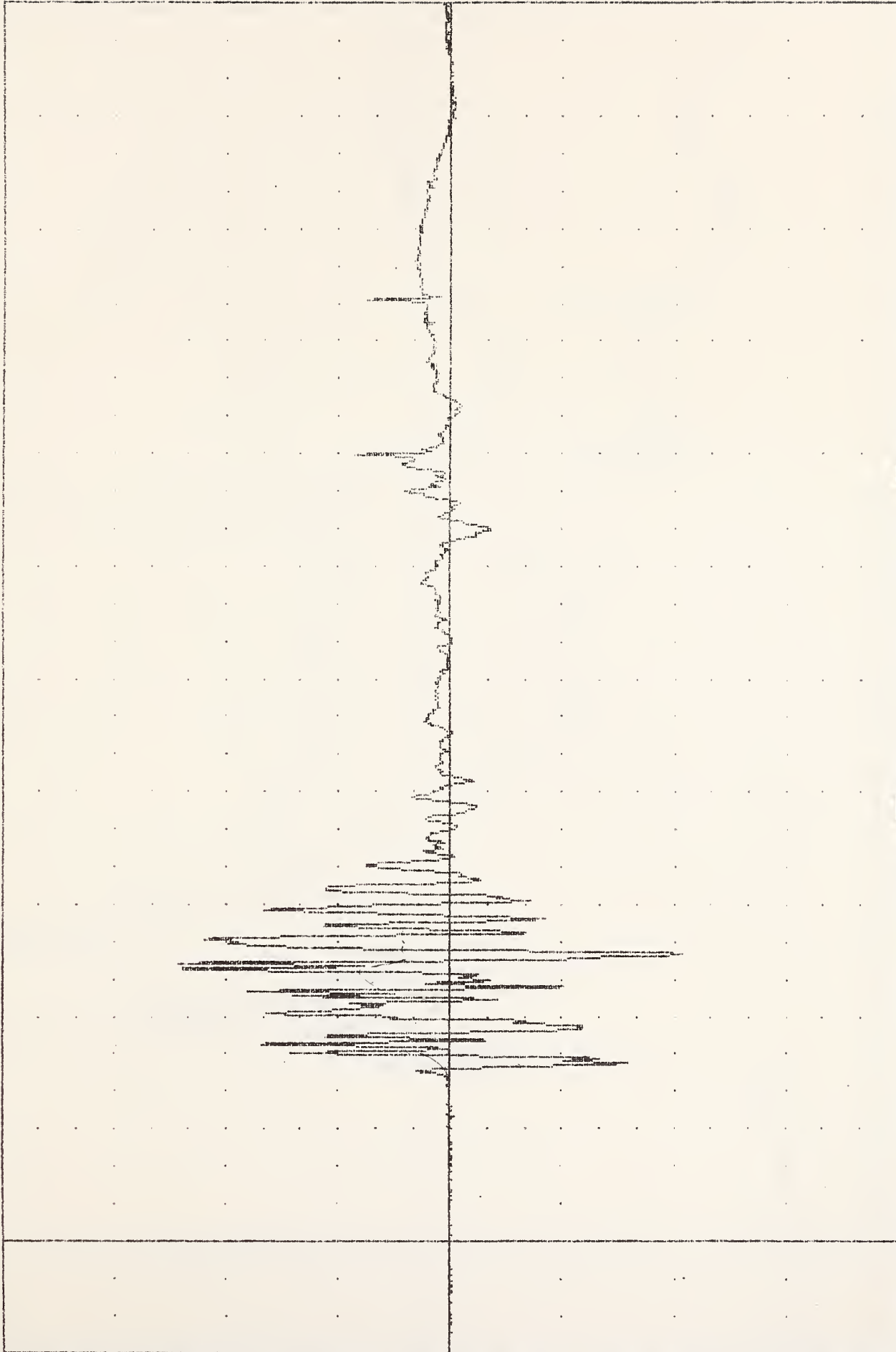
551015003
REST. MODEL VALID. TEST
820621326
HEDY62

16-MAR-82 08:29:35

FILTER = ALPF 1650/ 5214/ -40

MIN. MAX VALUES = -85.19 e 38.25, 97.35 e 37.00

ACCELERATION [G]



A-15

HEAD ACCELERATION Y AXIS PASSENGER

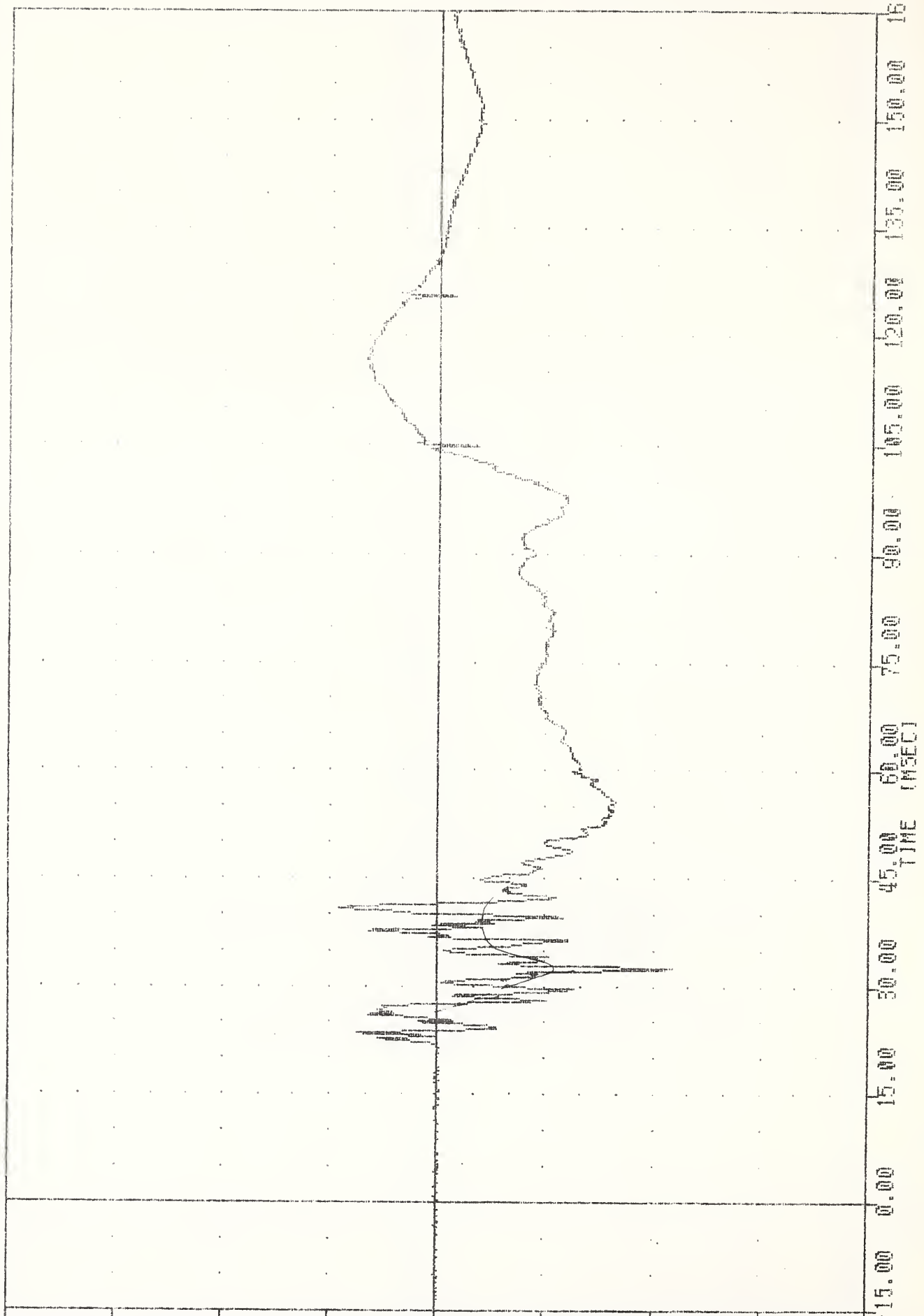
16-MAR-82 06:29:35

551015003
REST. MODEL VALID. TEST
820621326
HEDZG2

FILTER = ALPF 1650/3214/ -40
MIN. MAX VALUES = -86.89 82.38

36.69 40.63

ACCELERATION (G)
-160.00 -120.00 -80.00 -40.00 0.00 40.00 80.00 120.00 160.00



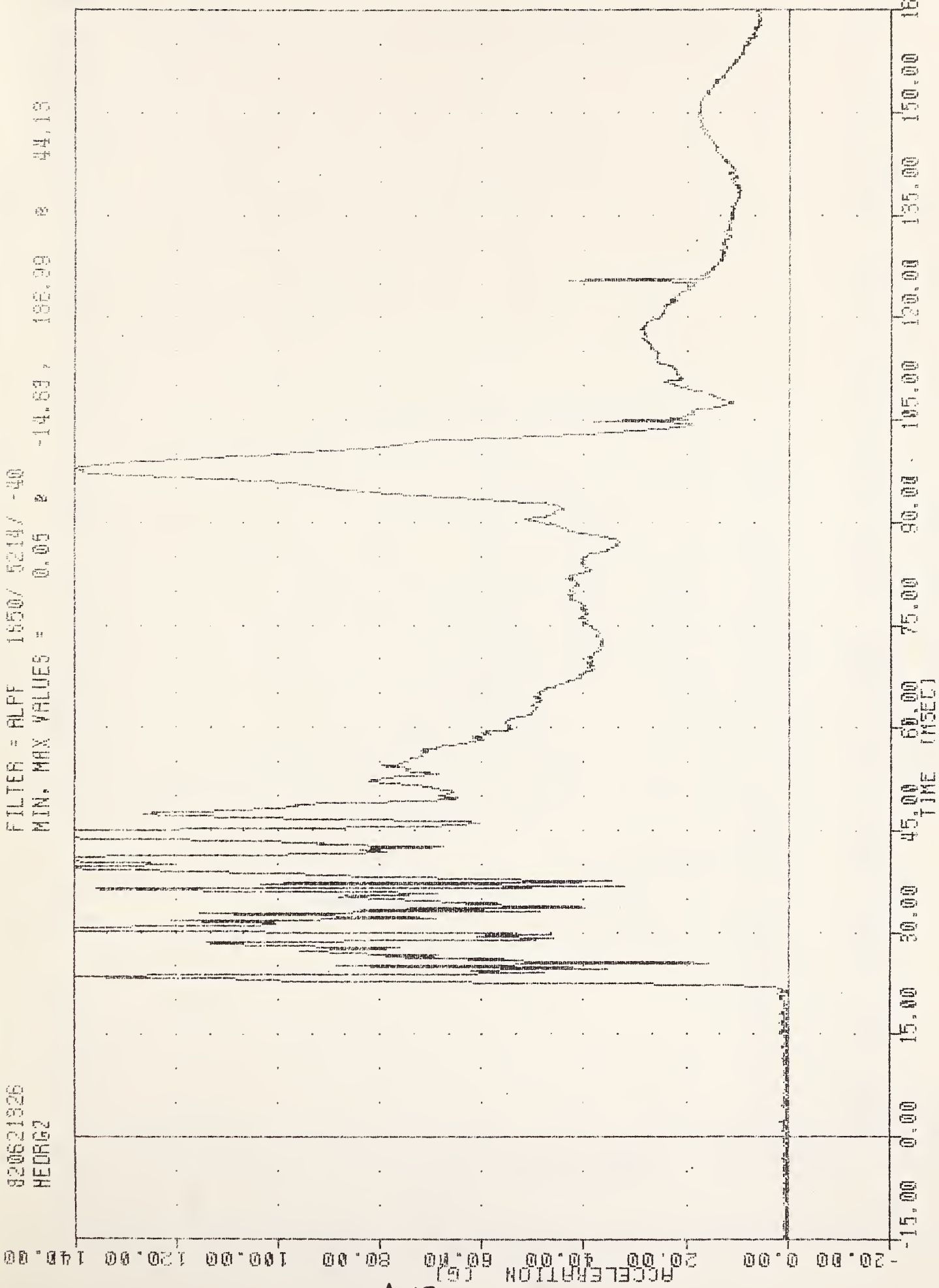
HEAD ACCELERATION Z AXIS PASSENGER

A-16

951015003
REST. MODEL VALID. TEST
820621826
HEADG2

16-MAR-82 00:29:35

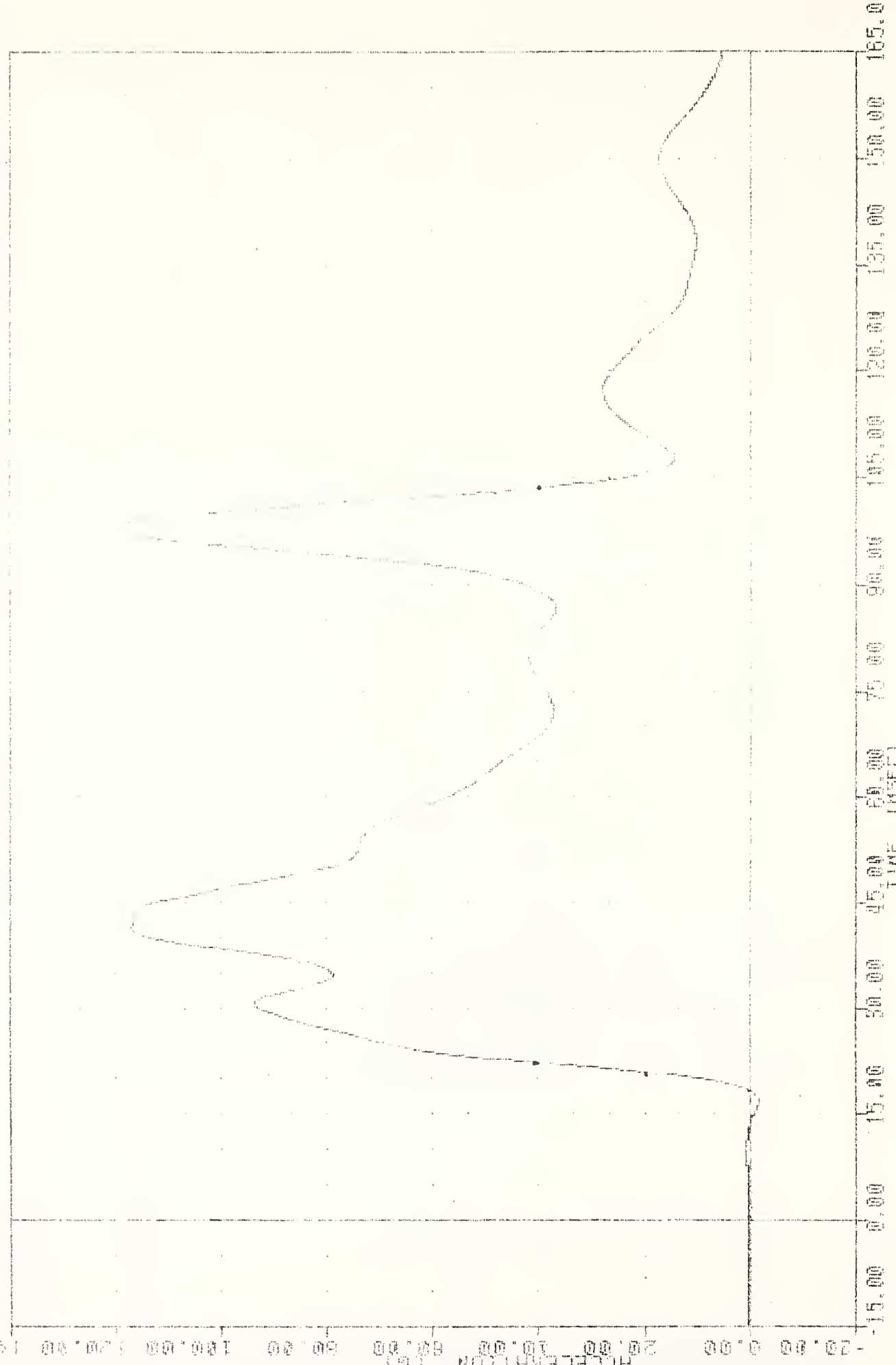
FILTER = ALPF 1850/ 5214/ -40
MIN. MAX VALUES = 0.05 182.99 44.18



A-17

HEAD ACCELERATION RESULTANT PASSENGER

331010003 , 18L058
 2-HFA-02
 FILTER : 01 PF 1000 30/ 30
 MIN. MAX VALUE : -1.74 1.00 10.00 99.75
 820021026
 H0102H

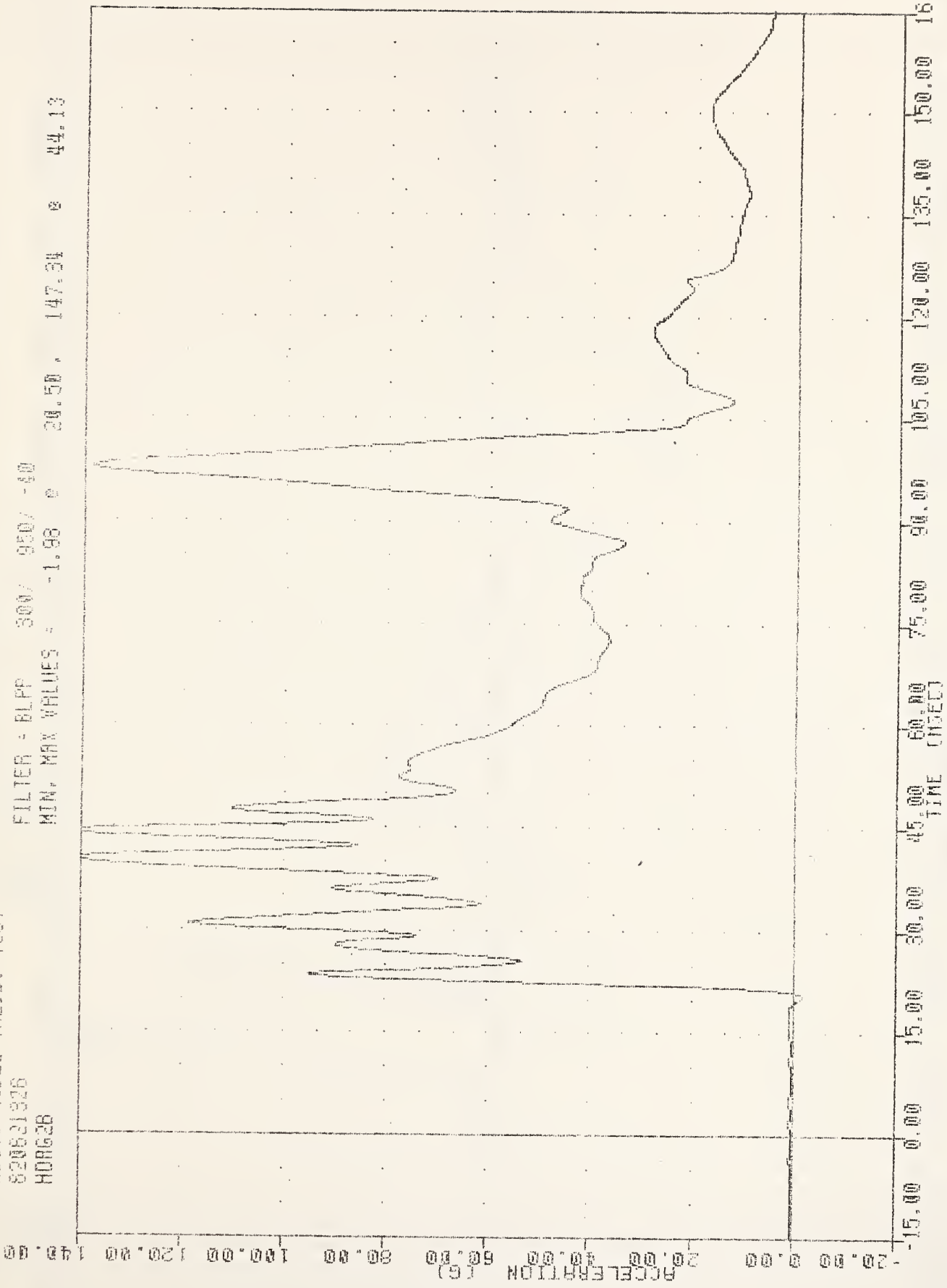


3 YR OLD HEAD RESULTANT (CLASS 1007)

551015083 , TRC056
REST. MODEL VALID. TEST
820621926
HDRG26

2-APR-82 15:43:07

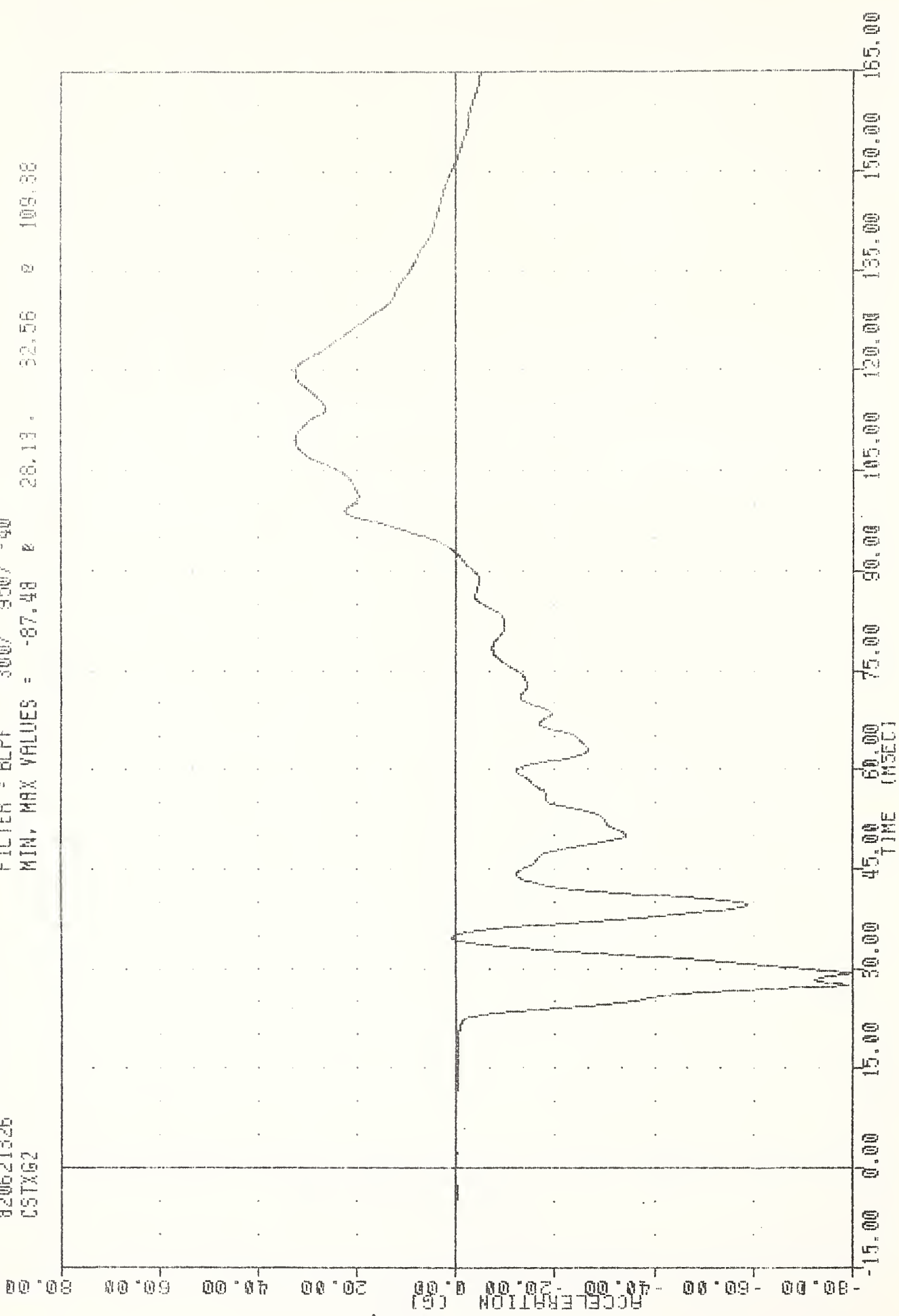
FILTER - BLPP 300 / 950 / -40
MIN. MAX VALUES - 1.98 e 20.50 , 147.34 e 44.13



A-19

3 YR OLD HEAD RESULTANT (CLASS 180)

551015003 15-MAR-82 14:51:19
REST. MODEL VALID. TEST
820621826 FILTER = BLPF 300/ 950/ -40
CSTXG2 MIN. MAX VALUES = -87.48 82.56 e 109.38



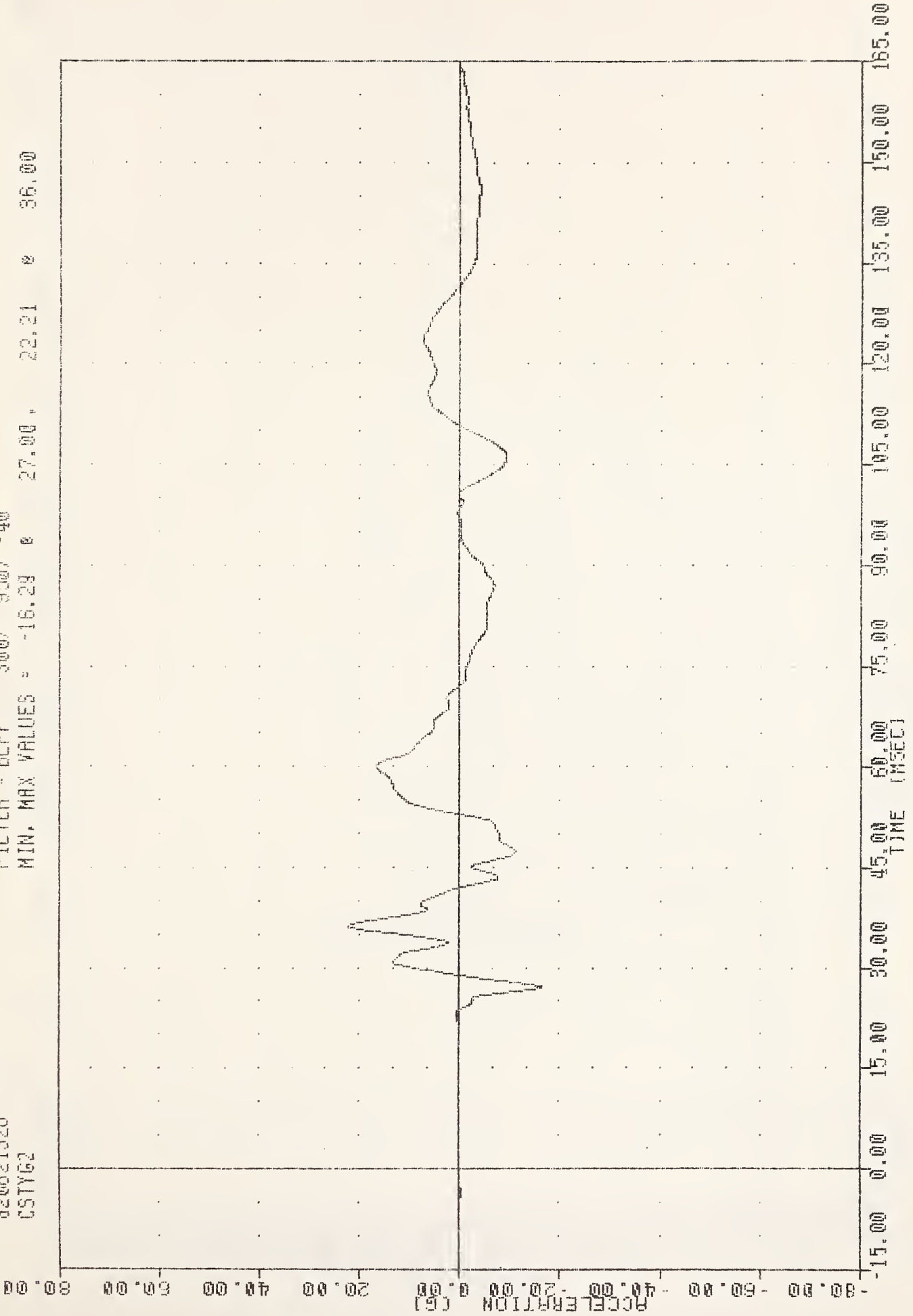
A-20

CHEST ACCELERATION X AXIS PASSENGER

351015003
REST. MODEL VALID. TEST
820521326
CSTY62

19-MAR-82 14:51:19

FILTER = BLPF 300/ 950/ -40
MIN. MAX VALUES = -16.29 e 27.00 e 22.21 e 36.00



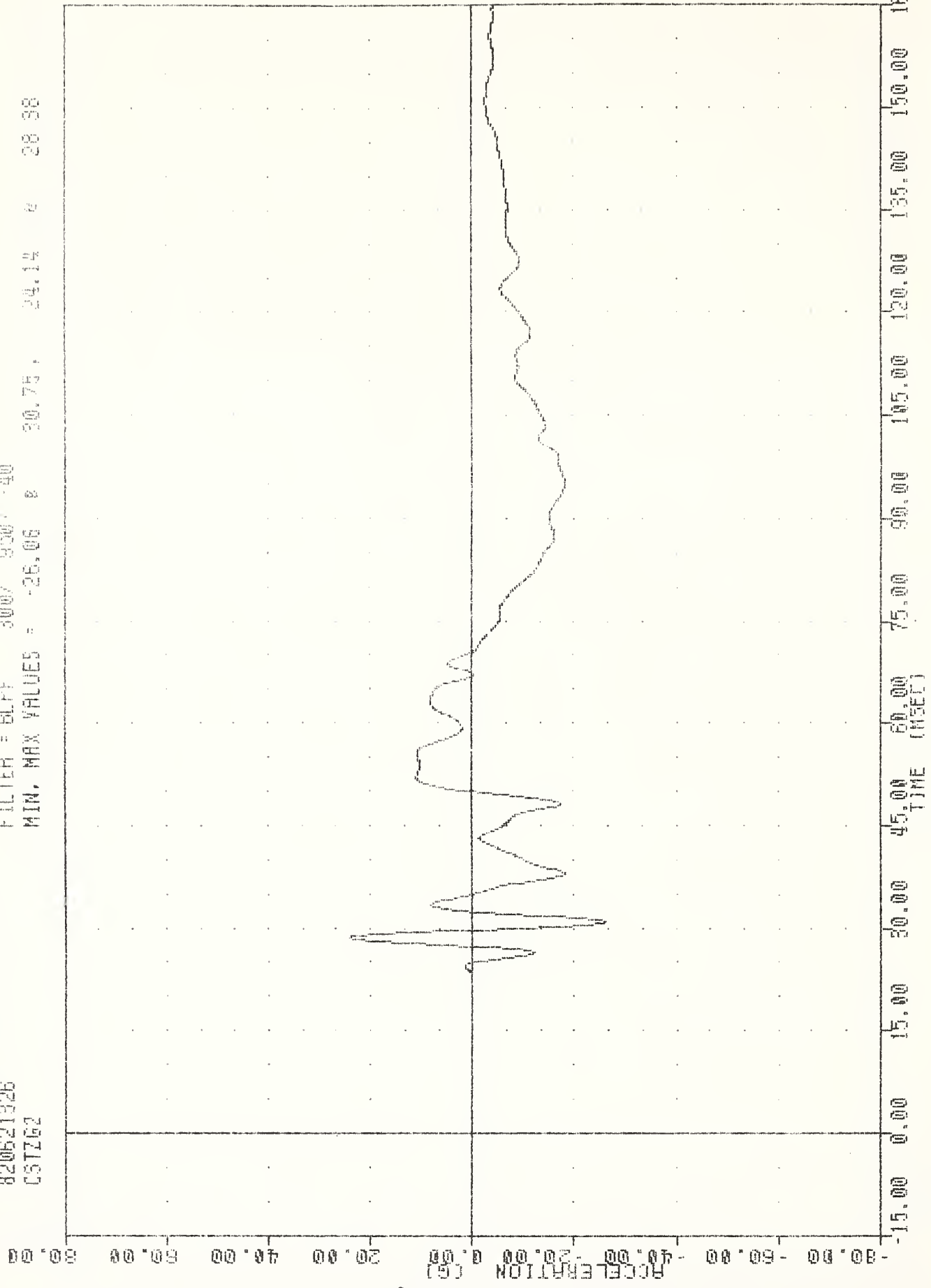
12-A

CHEST ACCELERATION Y AXIS PASSENGER

551015003
REST. MODEL VALID. TEST
820621326
CSTZ62

15-MAR-82 14:51:19

FILTER = BLFF 300. 950. 40
MIN, MAX VALUES = -25.06 24.14 28.38



A-22

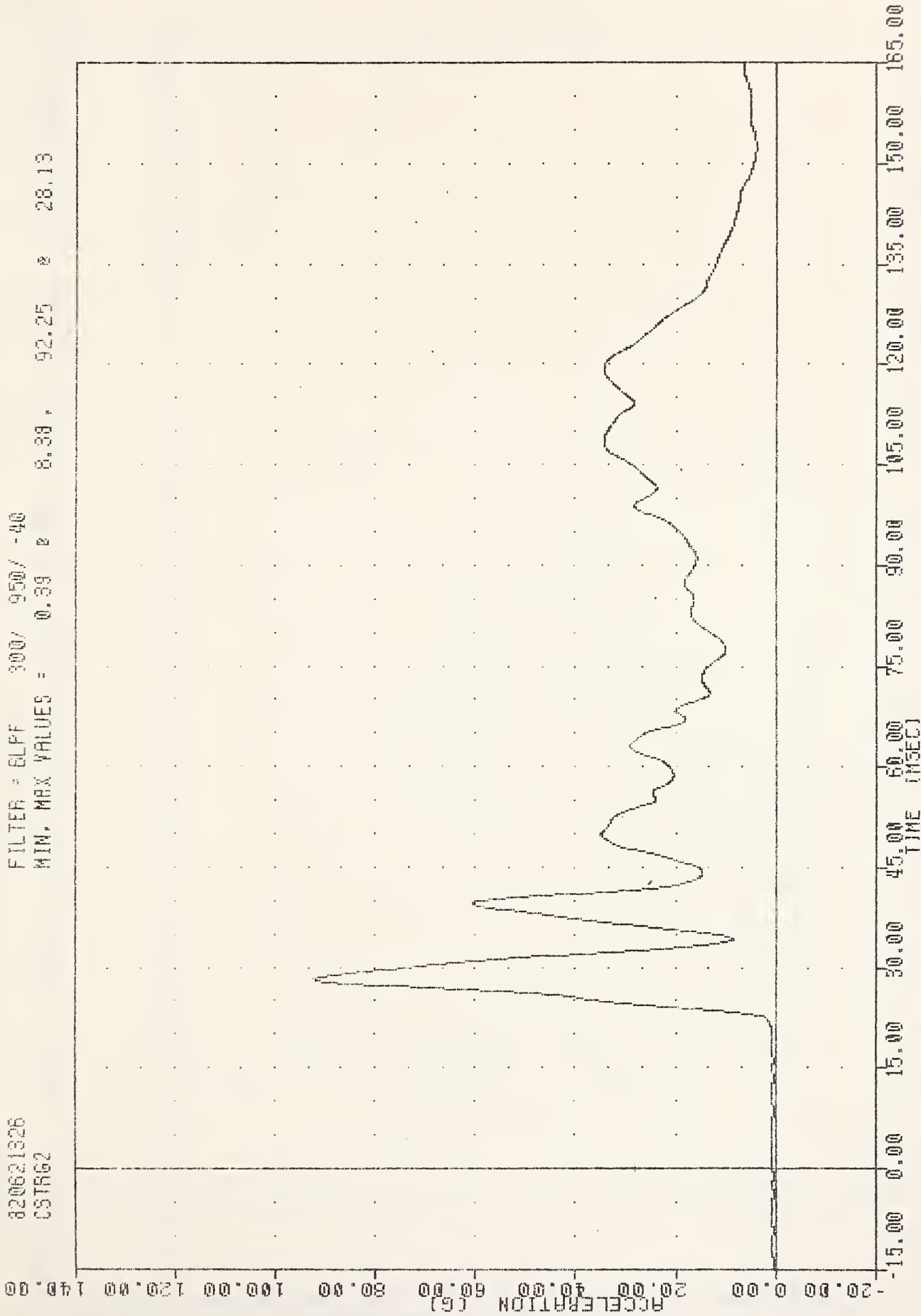
CHEST ACCELERATION Z AXIS PASSENGER

951015003
BEST, MODEL VALID, TEST
820621326
CSTR62

16-MAR-82 08:29:35

FILTER = 6LFF 300/ 950/ -40

MIN, MAX VALUES = 0.39 e 8.38, 92.25 e 28.13



A-23

CHEST ACCELERATION RESULTANT PASSENGER

16-MAR-82 08:29:25

551015003

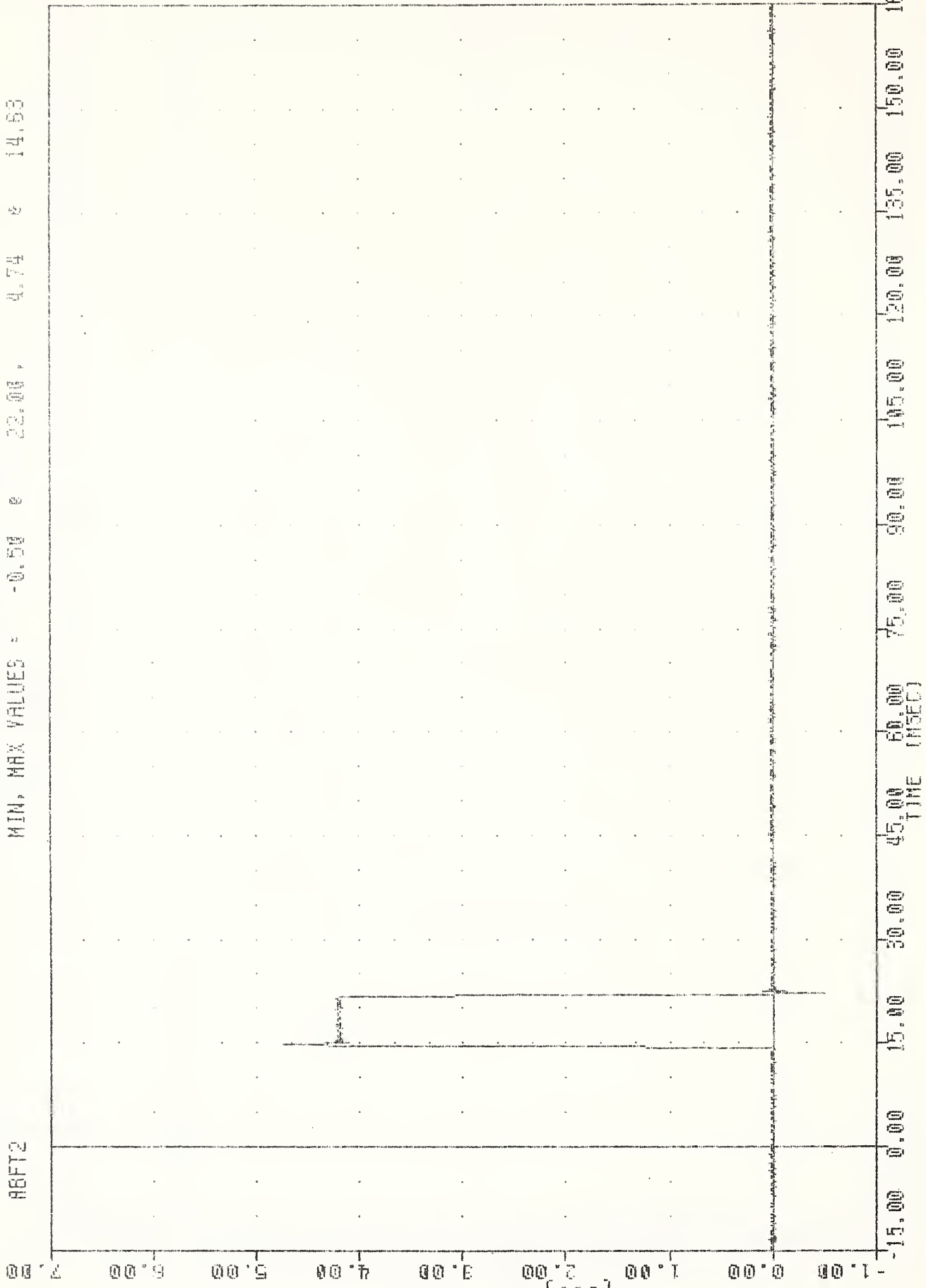
REST. MODEL VALID. TEST

FILTER = ALPF 1650/ 5214/ -40

MIN, MAX VALUES = -0.50 e 22.00 e 4.74 e 14.93

820621926

ABFT2



A-24

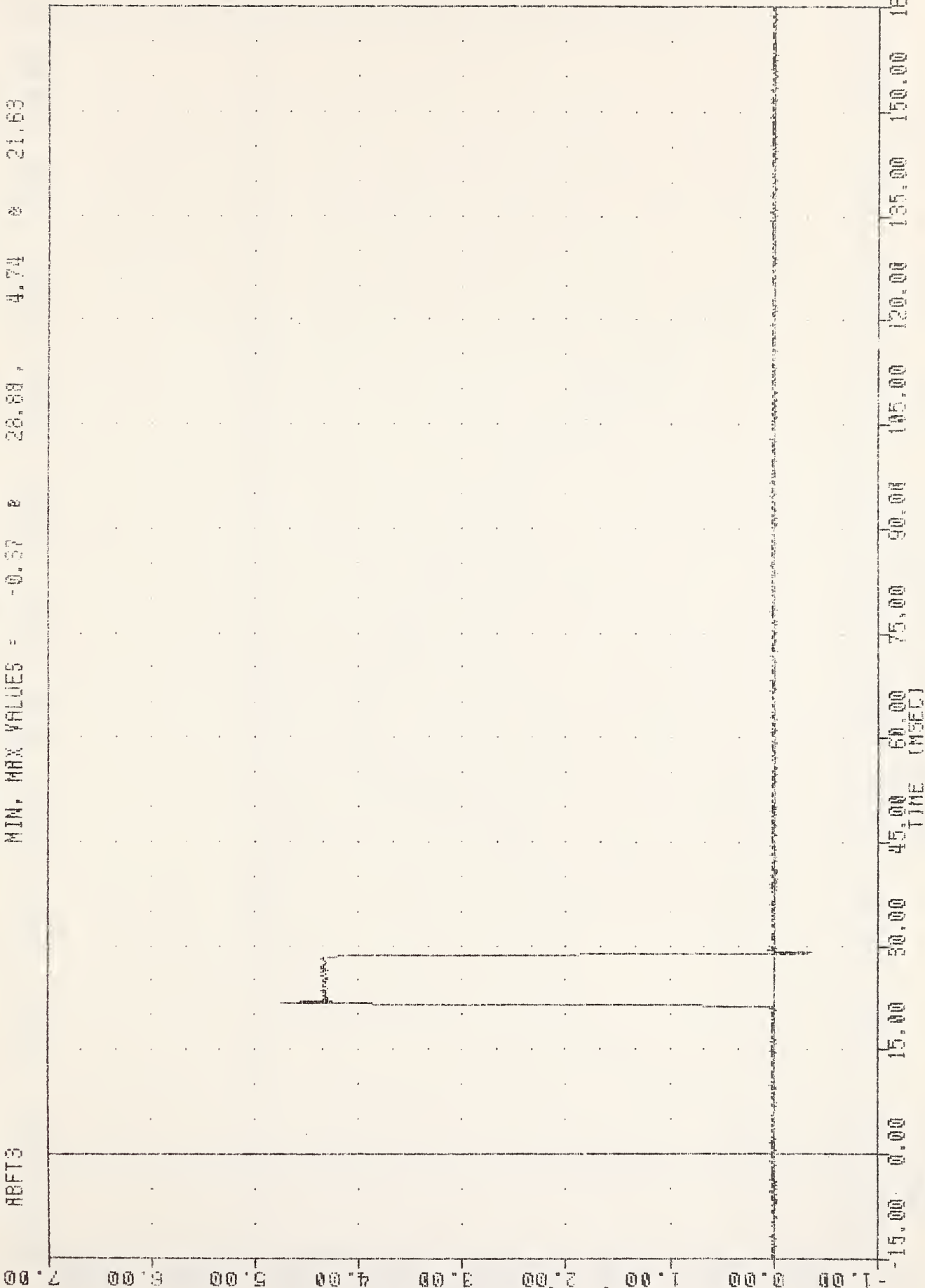
AIR BAG FIRING EVENT PASSENGER

551015003
REST. MODEL VALID. TEST
820621826
ABFT3

16-MAR-82 06:29:35

FILTER = ALPF 1650/ 5214/ -40
MIN. MAX VALUES = -0.57 28.88

4.74 21.63



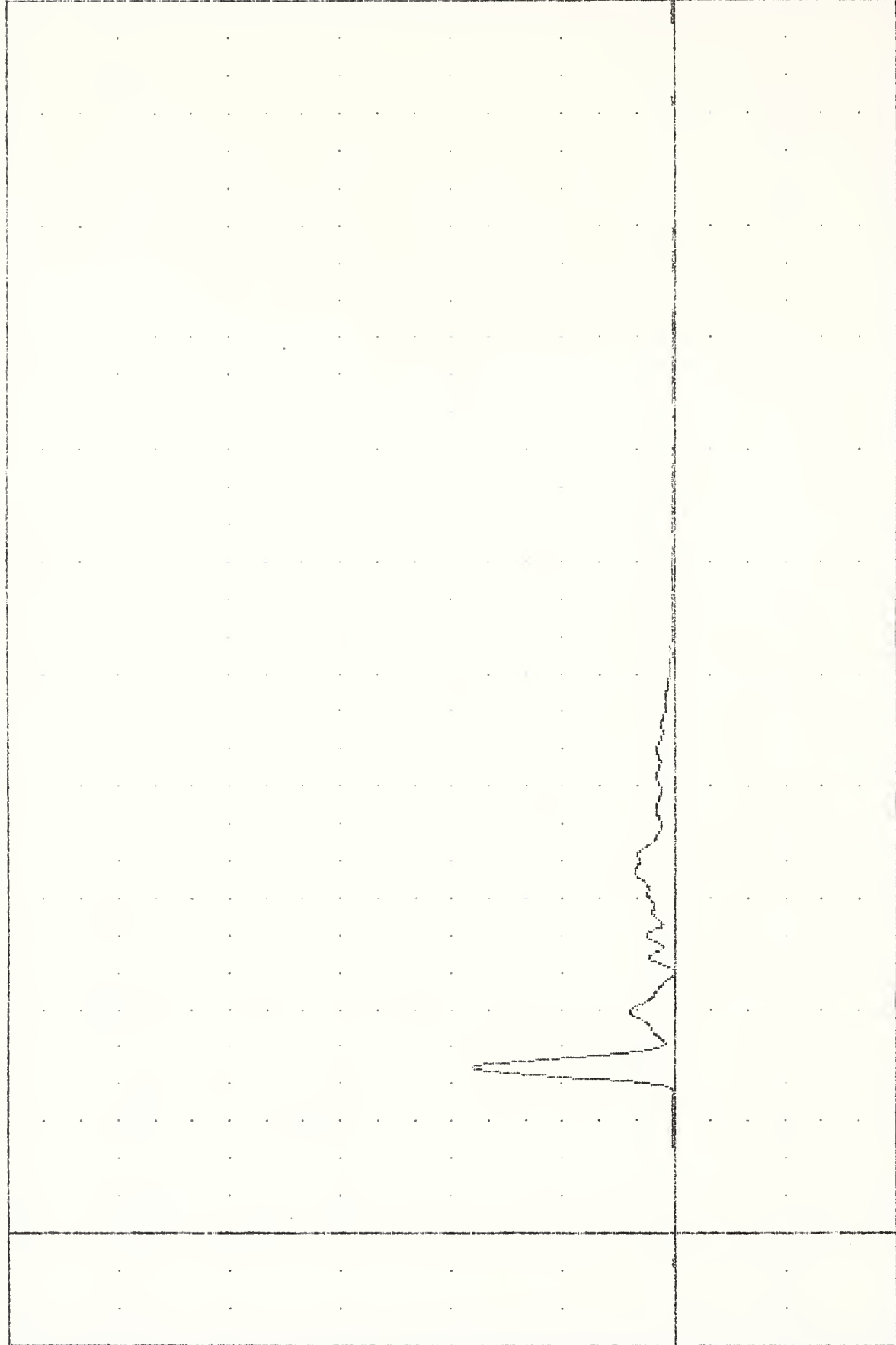
AIR BAG FIRING EVENT 3

10-MAR-82 08:28:35

551015003
REST. MODEL VALID. TEST
820621326
ABP2

FILTER = BLPF 300/ 950/ -40
MIN. MAX VALUES = -0.10 0 34.88 , 18.15 0 22.00

92-A
PRESSURE (PSIG)

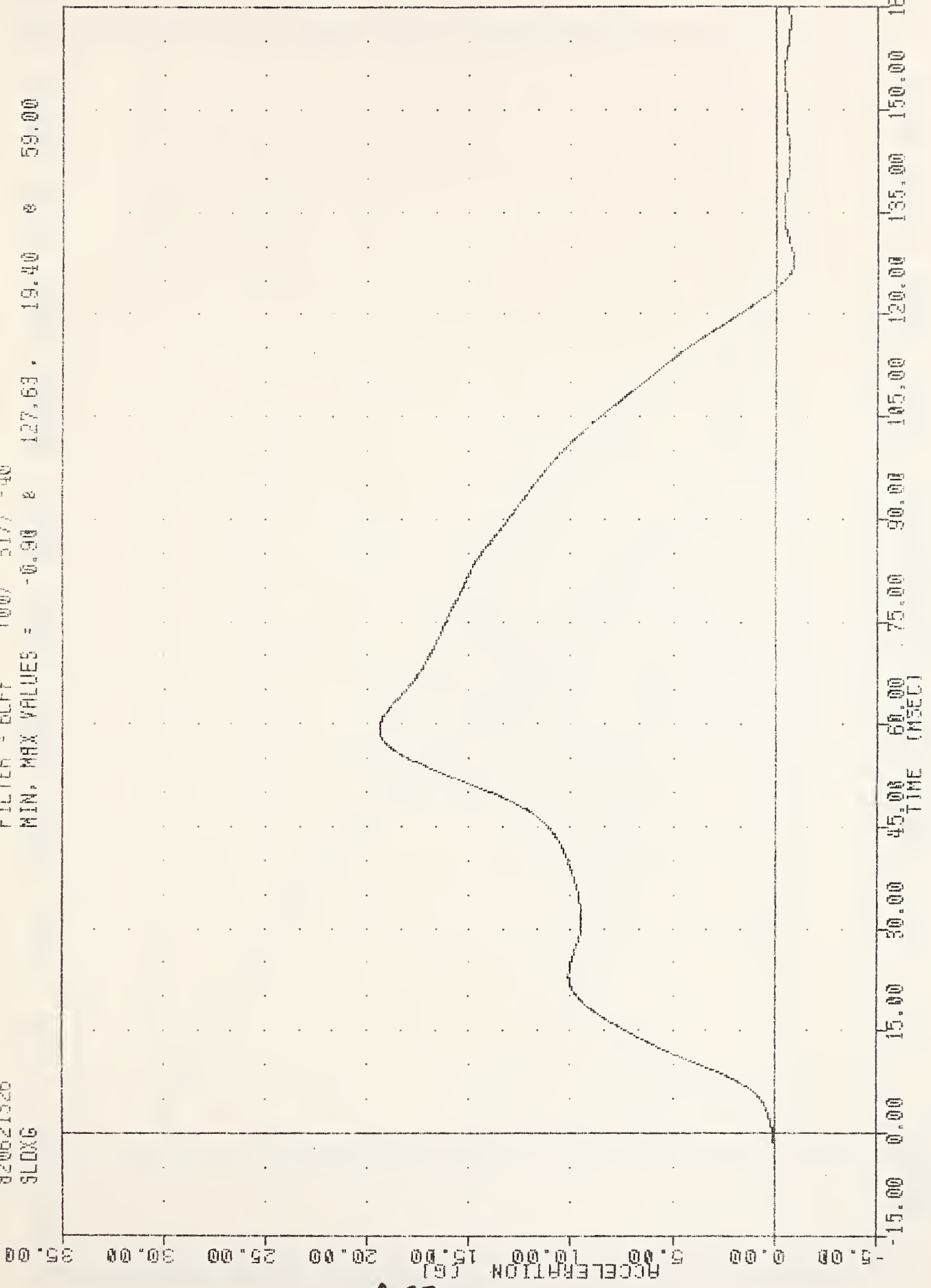


-15.00 0.00 15.00 30.00 45.00 60.00 75.00 90.00 105.00 120.00 135.00 150.00 165.00
TIME (MSEC)

AIR BAG PRESSURE PASSENGER

S51015003
REST. MODEL VALID. TEST
820621326
SLOXG

16-MAR-82 08:29:35
FILTER = BLPF 100/ 317/ -40
MIN. MAX VALUES = -0.90 e 127.63 . 19.40 e 59.00



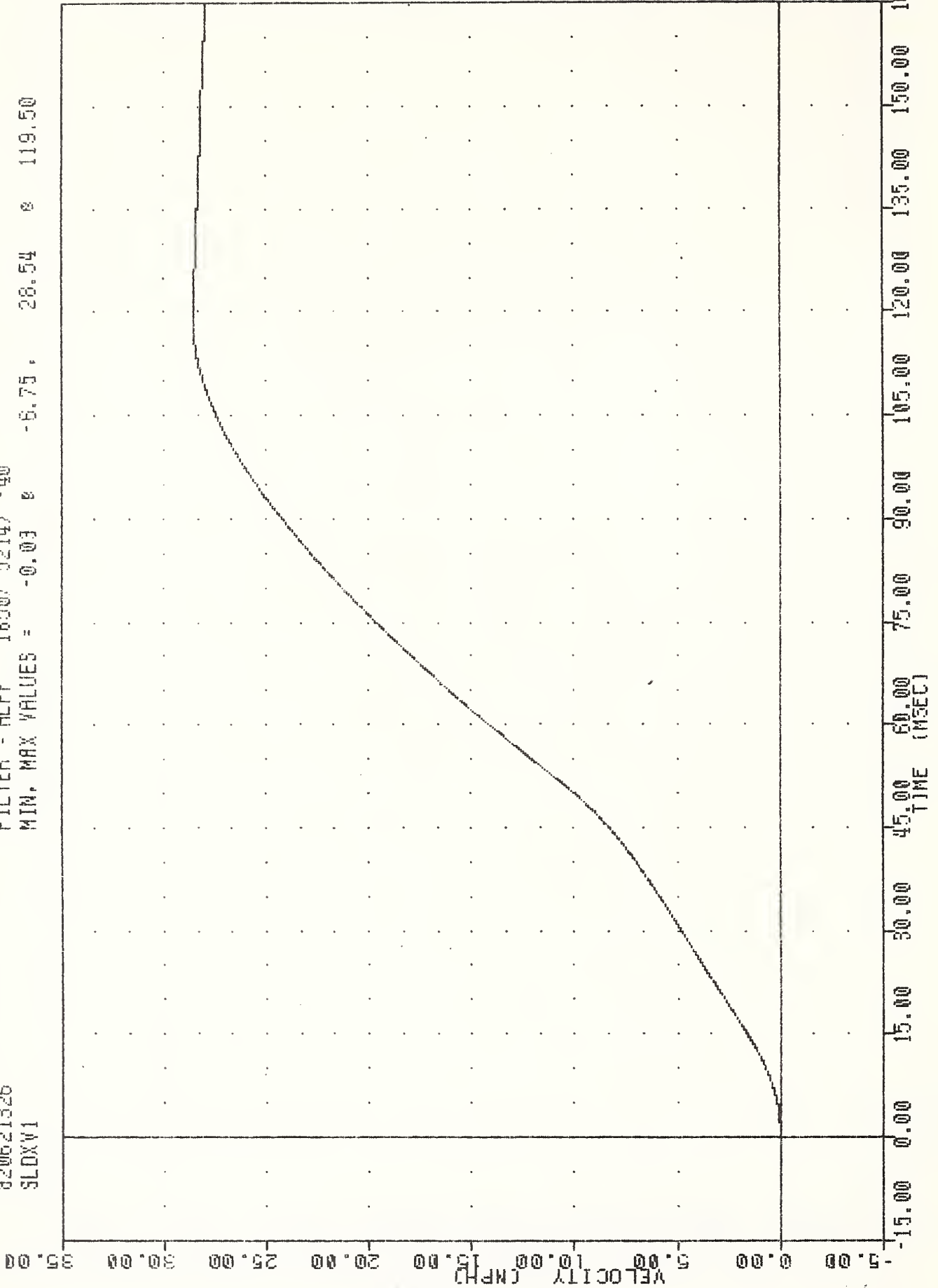
A-27

SLED ACCELERATION

S51015003
REST. MODEL VALID. TEST
820621326
SLOXV1

16-MAR-82 09:04:49

FILTER = ALPF 1650/ 5214/ -40
MIN. MAX VALUES = -0.03 0 -6.75, 28.54 0 119.50

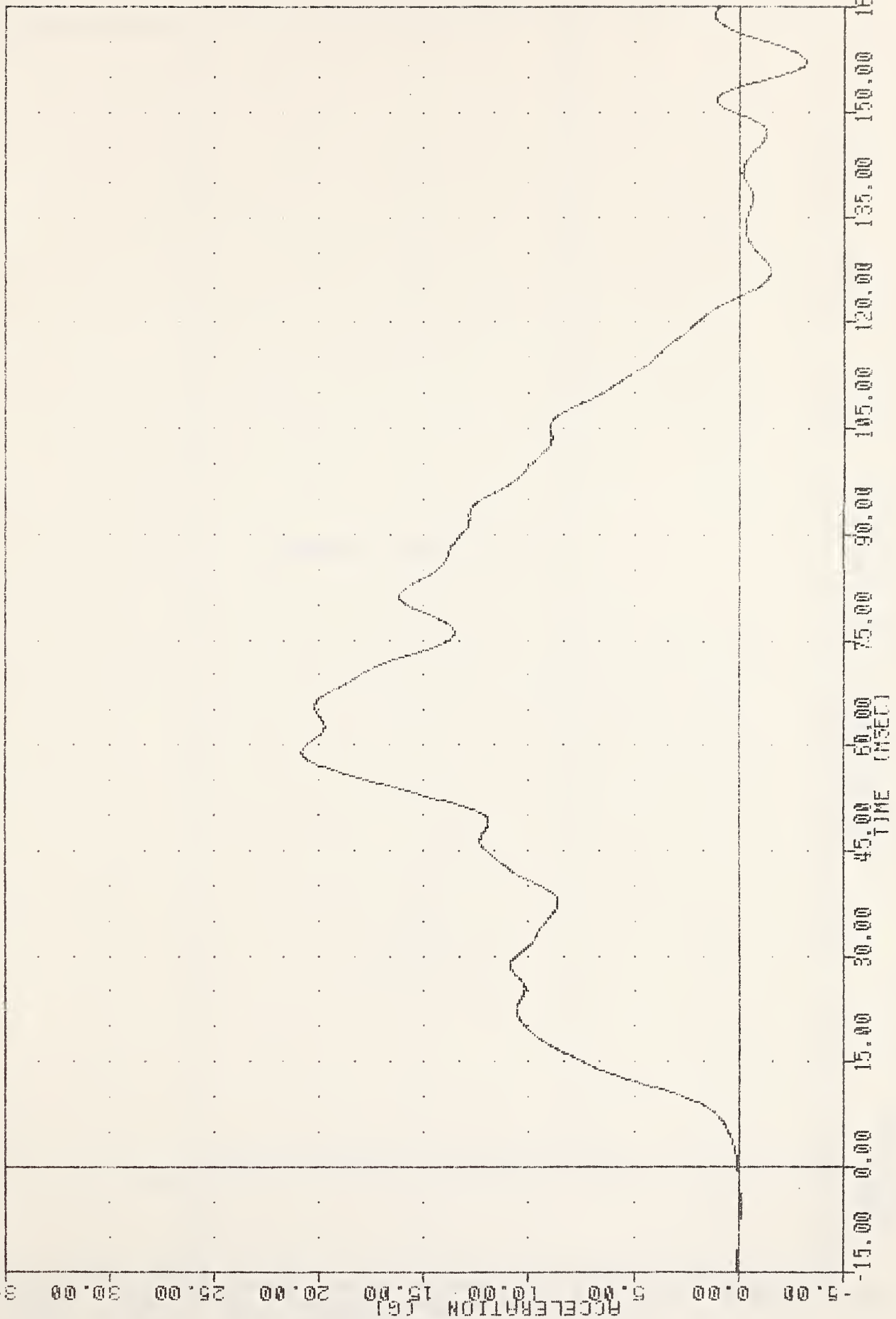


A-28

INTEGRATED SLED VELOCITY

551015003
REST. MODEL VALID. TEST
820621326
FTUXG

16-MAR-82 08:28:35
FILTER = 6LPT 100/ 317/ -40
MIN. MAX VALUES = -3.20 0 157.00 0 20.82 0 58.75



A-29

FLOOR PAN TUNNEL ACCELERATION

351015003
REGT. MODEL VALID. TEST
820621326
SPSW

15-MAR-82 16:02:00

FILTER = ALPF 1650/ 5214/ -40
MIN. MAX VALUES = -0.06 8.04

4.13

12.00

10.00

8.00

6.00

4.00

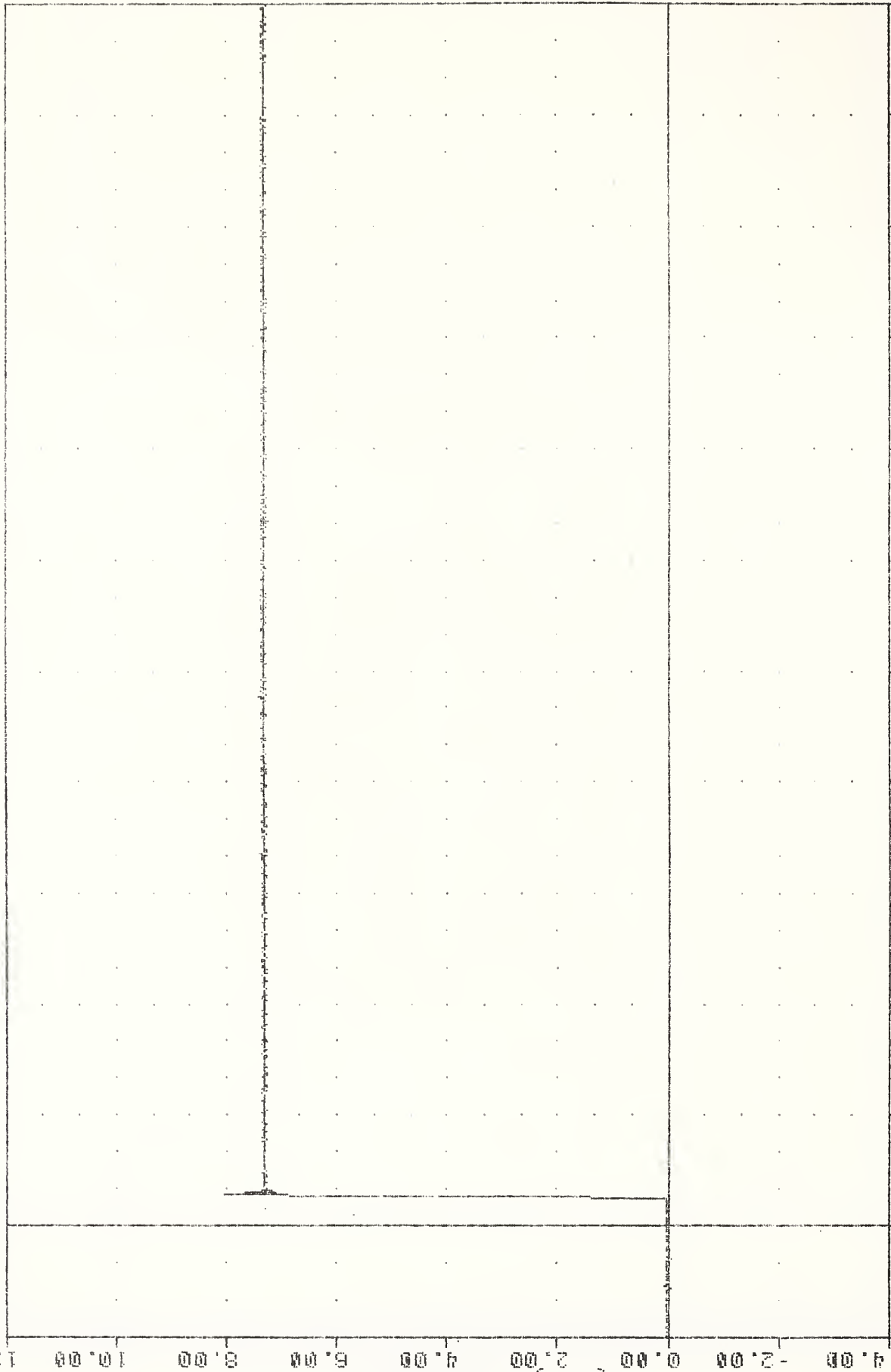
2.00

0.00

-2.00

-4.00

A-30



-15.00 0.00 15.00 30.00 45.00 60.00 75.00 90.00 105.00 120.00 135.00 150.00 155.00

TIME (MSEC)

SLED POSITION SWITCH

TEST NO. 2

551025003

REST. MODEL VALID. TEST

820831609

HEADX61

15-MAR-82

15:58:47

FILTER = ALFF 1650/ 5214/ -40

MIN. MAX VALUES = -40.74 27.13 9.73 134.25

160.00

120.00

80.00

40.00

0.00

-40.00

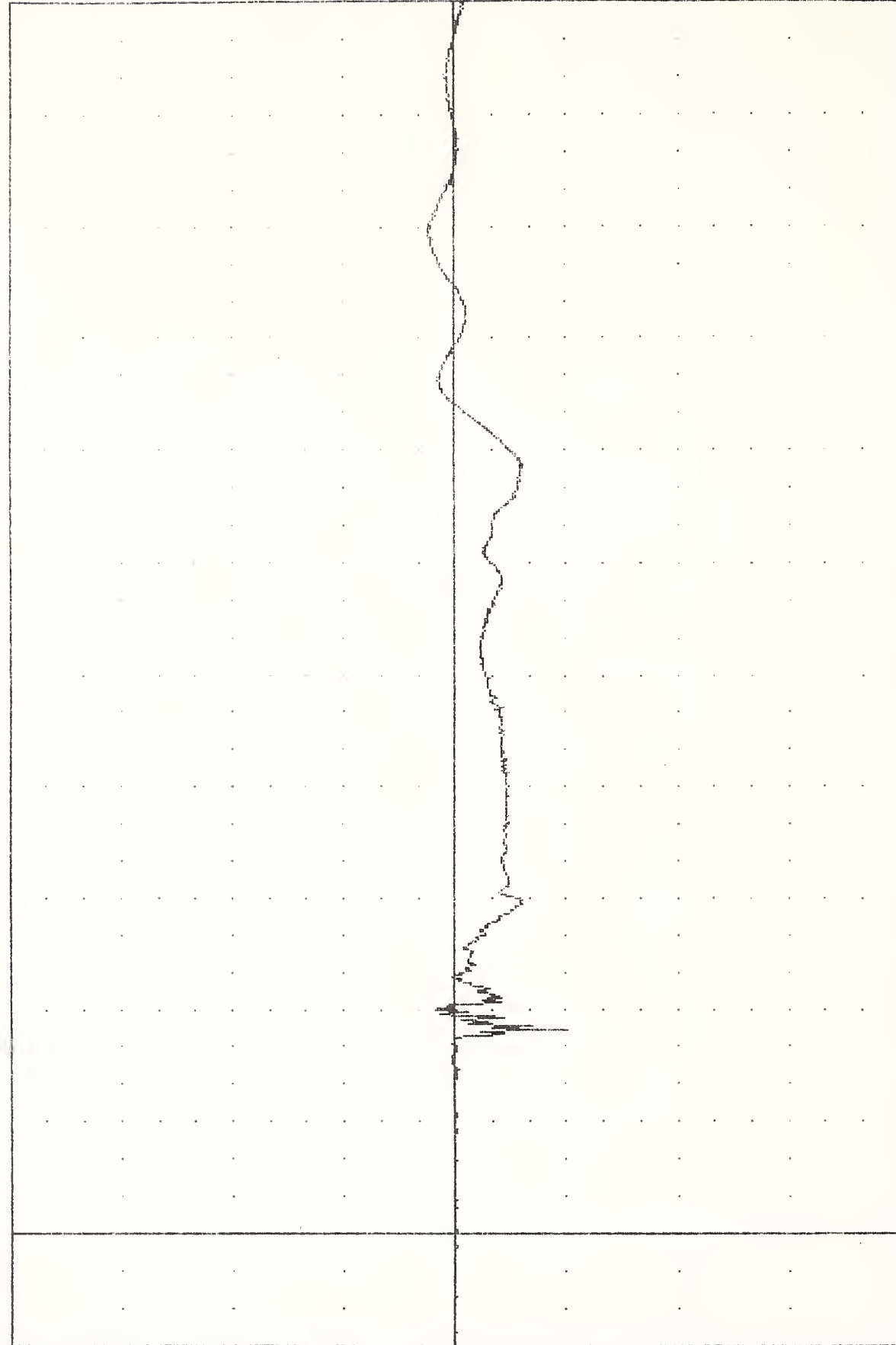
-80.00

-120.00

-160.00

A-32

ACCELERATION (G)



-15.00

0.00

15.00

30.00

45.00

60.00

75.00

90.00

105.00

120.00

135.00

150.00

165.00

TIME (MSEC)

HEAD ACCELERATION X AXIS DRIVER

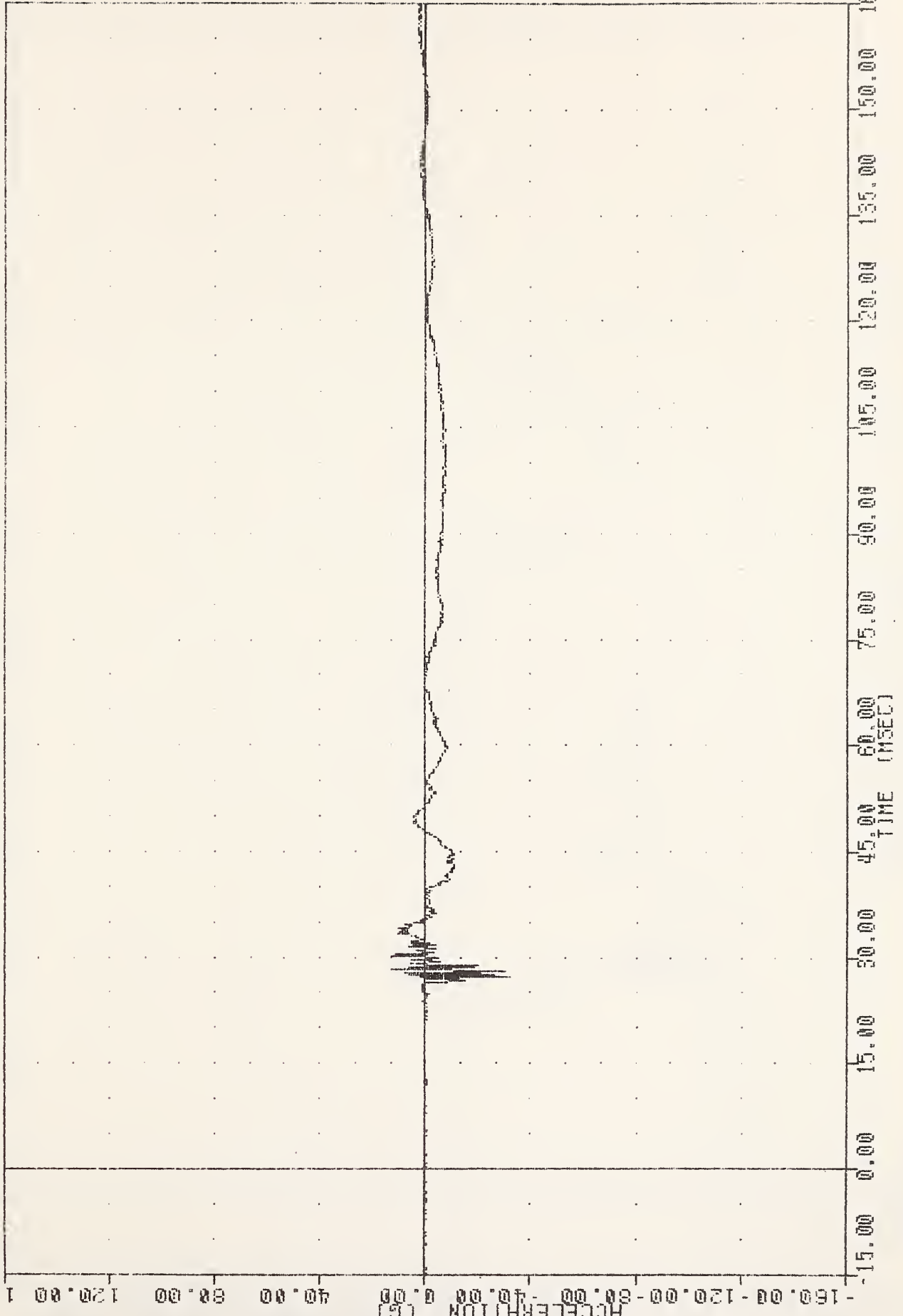
15-MAR-82 15:58:47

551025003
REST. MODEL VALID. TEST

FILTER = ALPF 1650/ 5214/ -40

MIN. MAX VALUES = -31.63 27.25 12.71 28.25

820631603
HEADY61



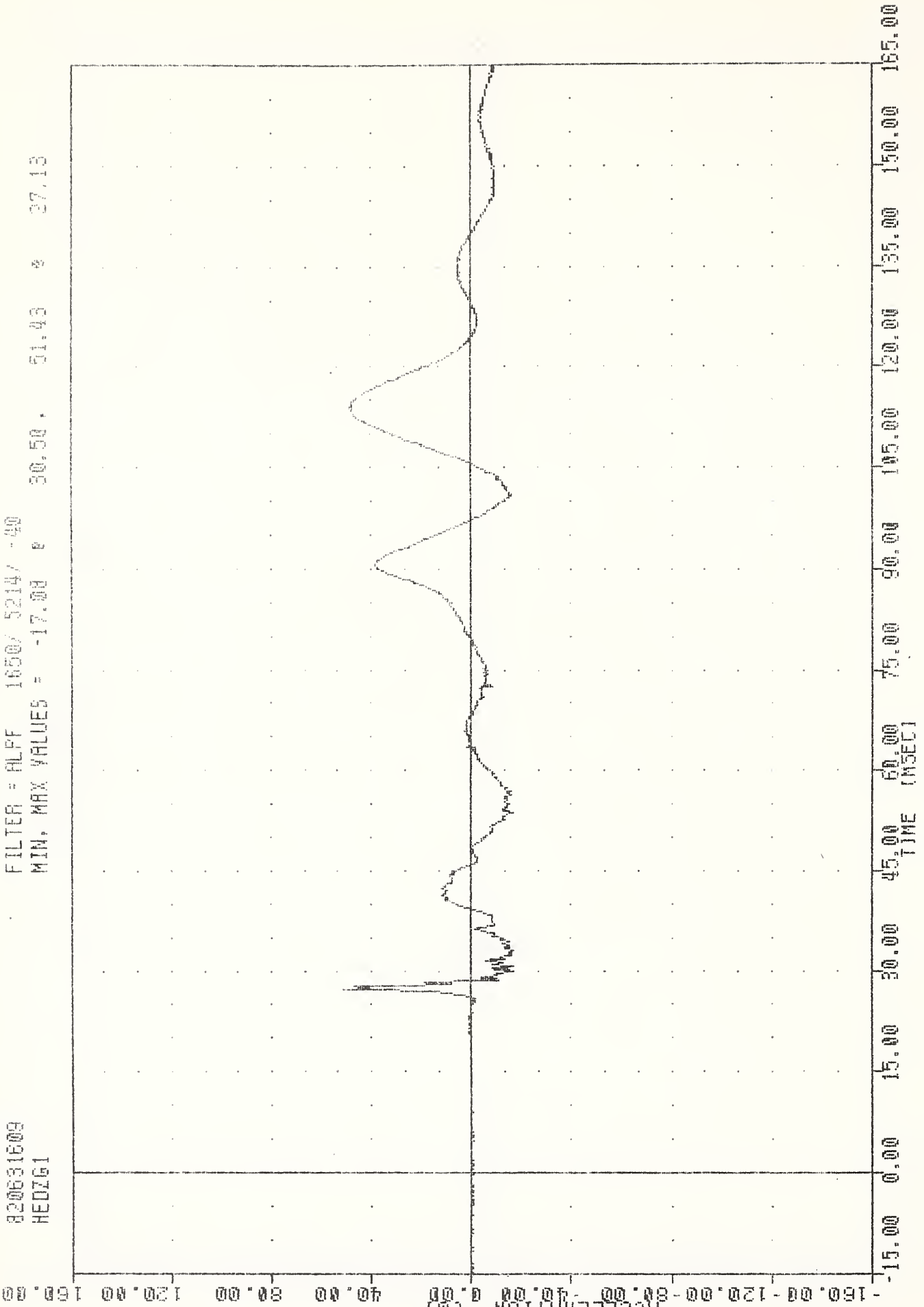
A-33

HEAD ACCELERATION Y AXIS DRIVER

551025003
REST. MODEL VALID. TEST
820631609
HEADZG1

15-MAR-82 15:58:47

FILTER = ALPF 1650/ 5214/ -40
MIN. MAX VALUES = -17.00 0 30.50 51.43 27.13



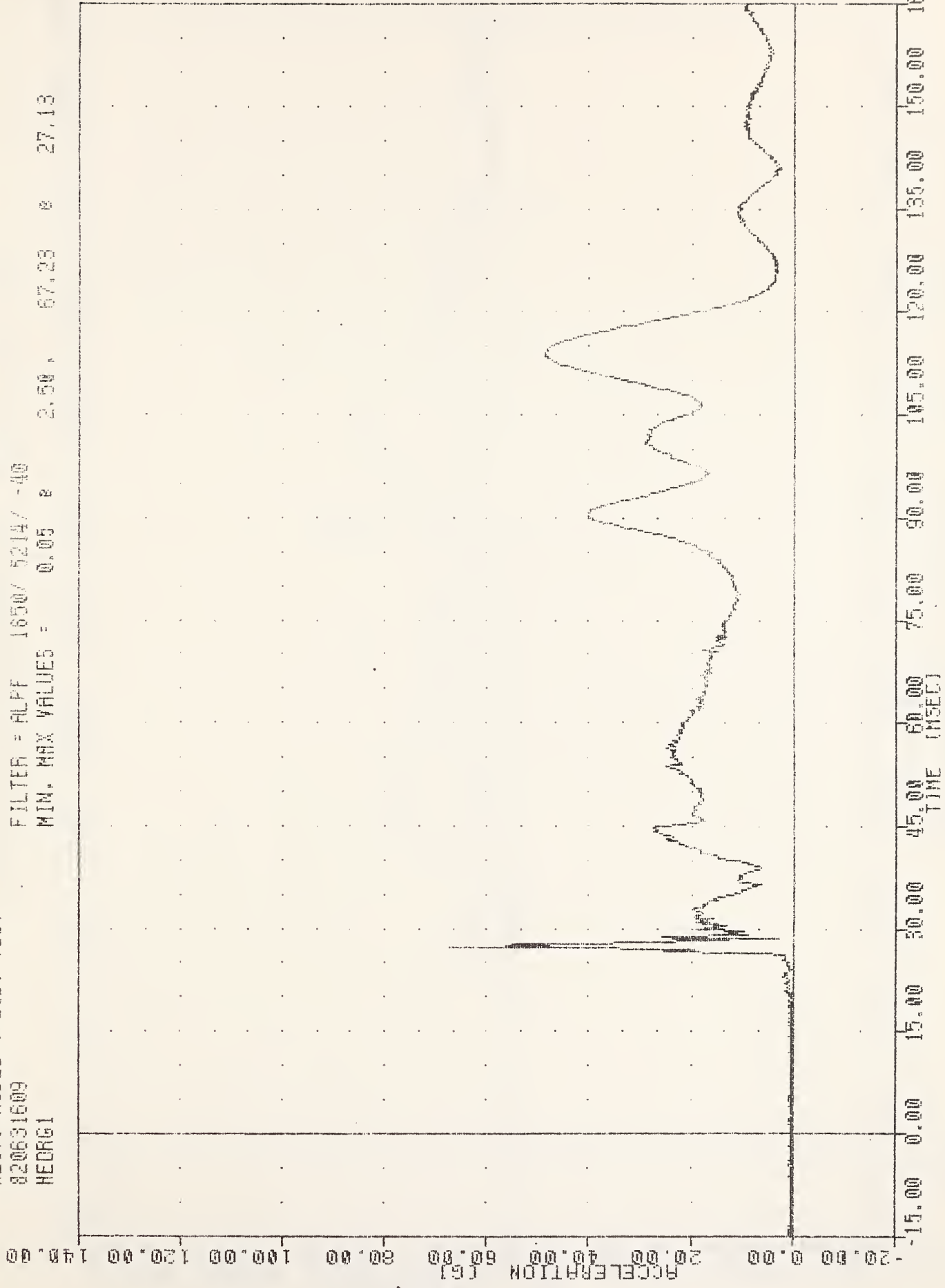
A-34

HEAD ACCELERATION Z AXIS DRIVER

551025003
REST. MODEL VALID. TEST
820631609
HEORGI

15-MAR-82 15:58:47

FILTER = ALPF 1650/ 5214/ -40
MIN. MAX VALUES = 0.05 e 2.50 , 67.23 e 27.13



A-35

DRIVER HEAD RESULTANT

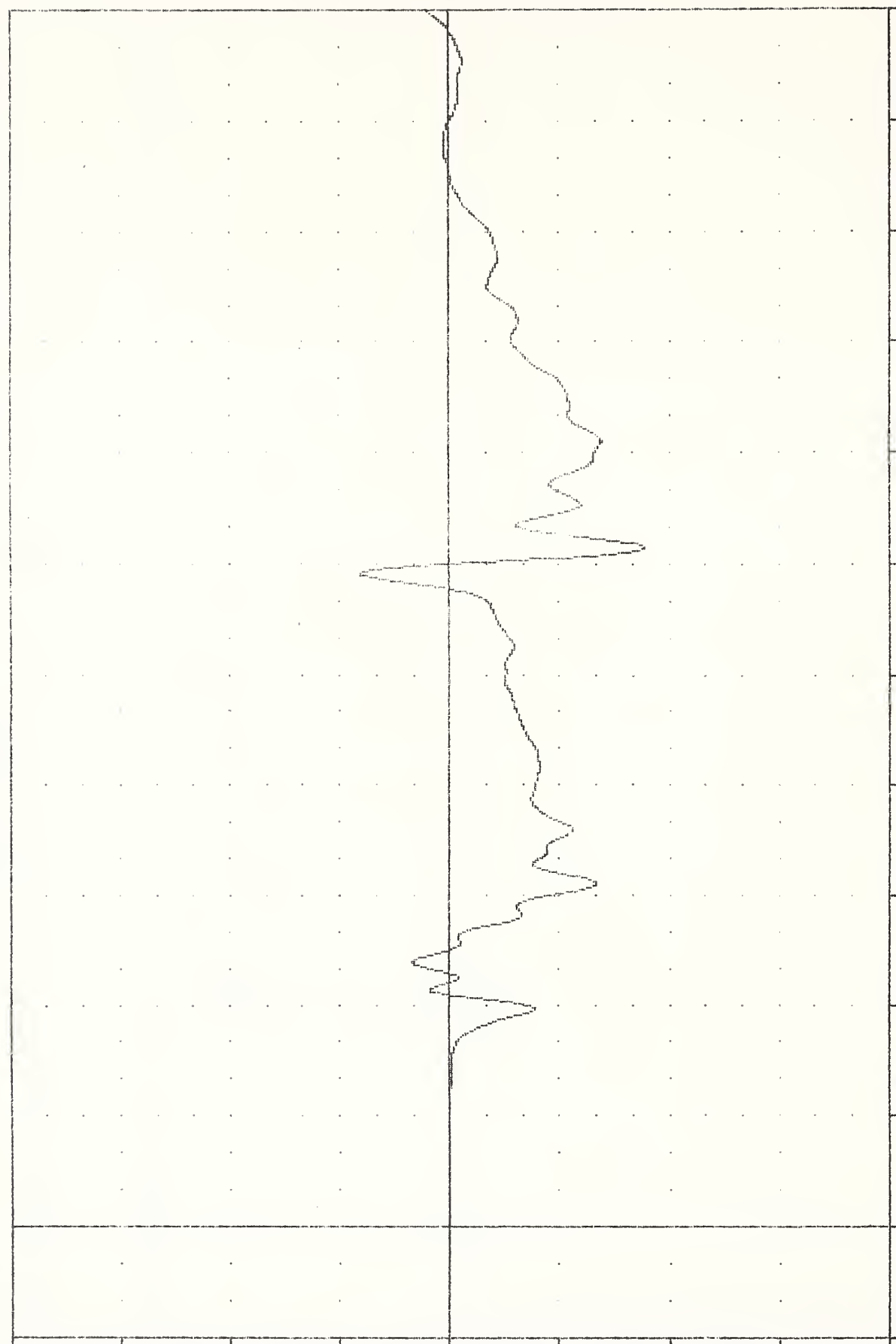
15-MAR-82 15:58:47

551025003
REST. MODEL VALID. TEST

FILTER = BLPF 300/ 950/ -40

MIN. MAX VALUES = -35.53 e 92.13 e 16.39 e 68.50

80.00
60.00
40.00
20.00
0.00
-20.00
-40.00
-60.00
-80.00



-15.00 0.00 15.00 30.00 45.00 60.00 75.00 90.00 105.00 120.00 135.00 150.00 165.00
TIME (MSEC)

CHEST ACCELERATION X AXIS DRIVER

15-MAR-82 15:58:47

351025003

REST. MODEL VALID. TEST

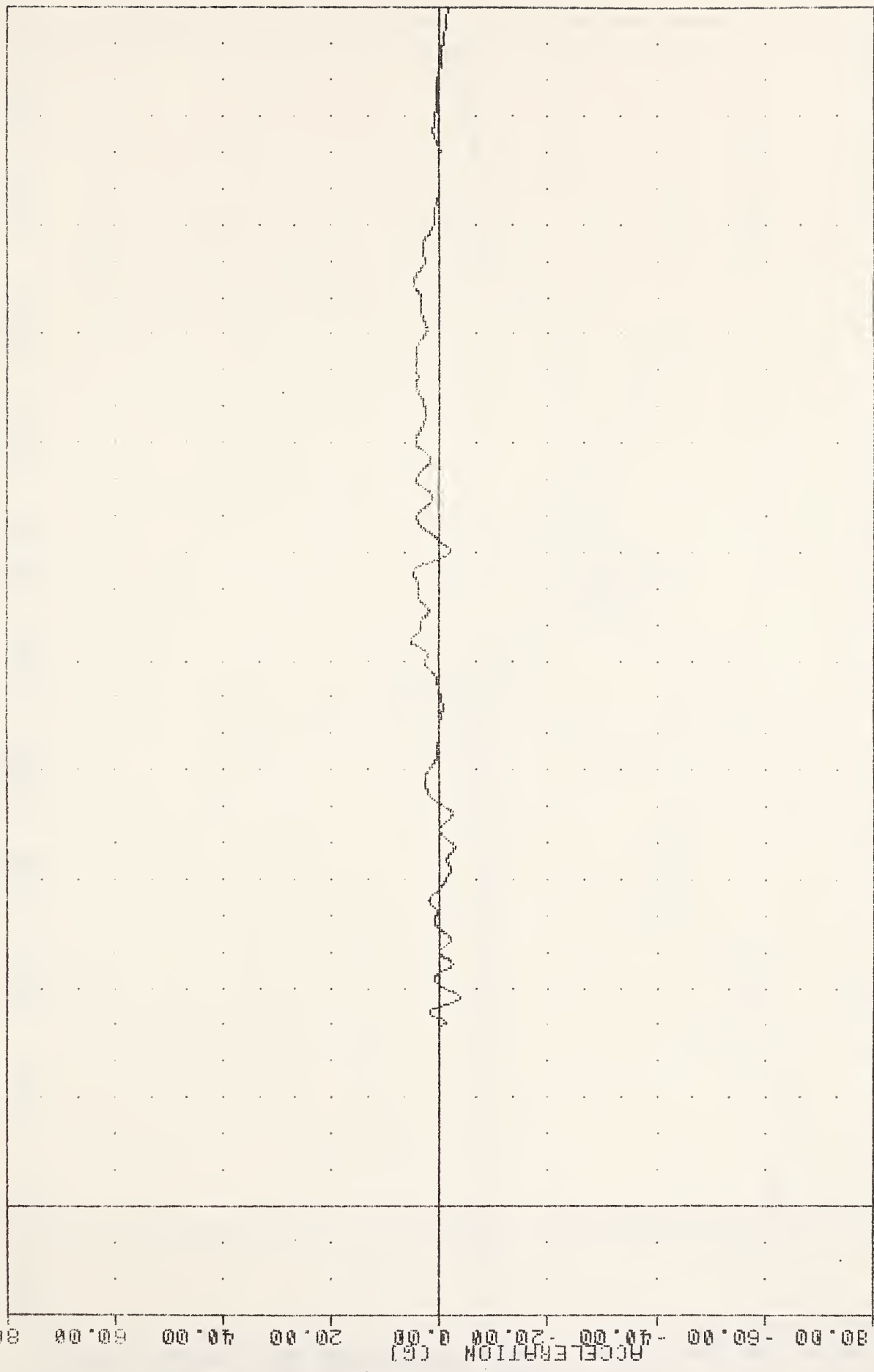
820631609

CSTY61

FILTER = BLPF 3000/ 9500/ -40

MIN. MAX VALUES = -3.75 e 28.63 , 5.30 e 77.63

80.00
60.00
40.00
20.00
0.00
-20.00
-40.00
-60.00
-80.00



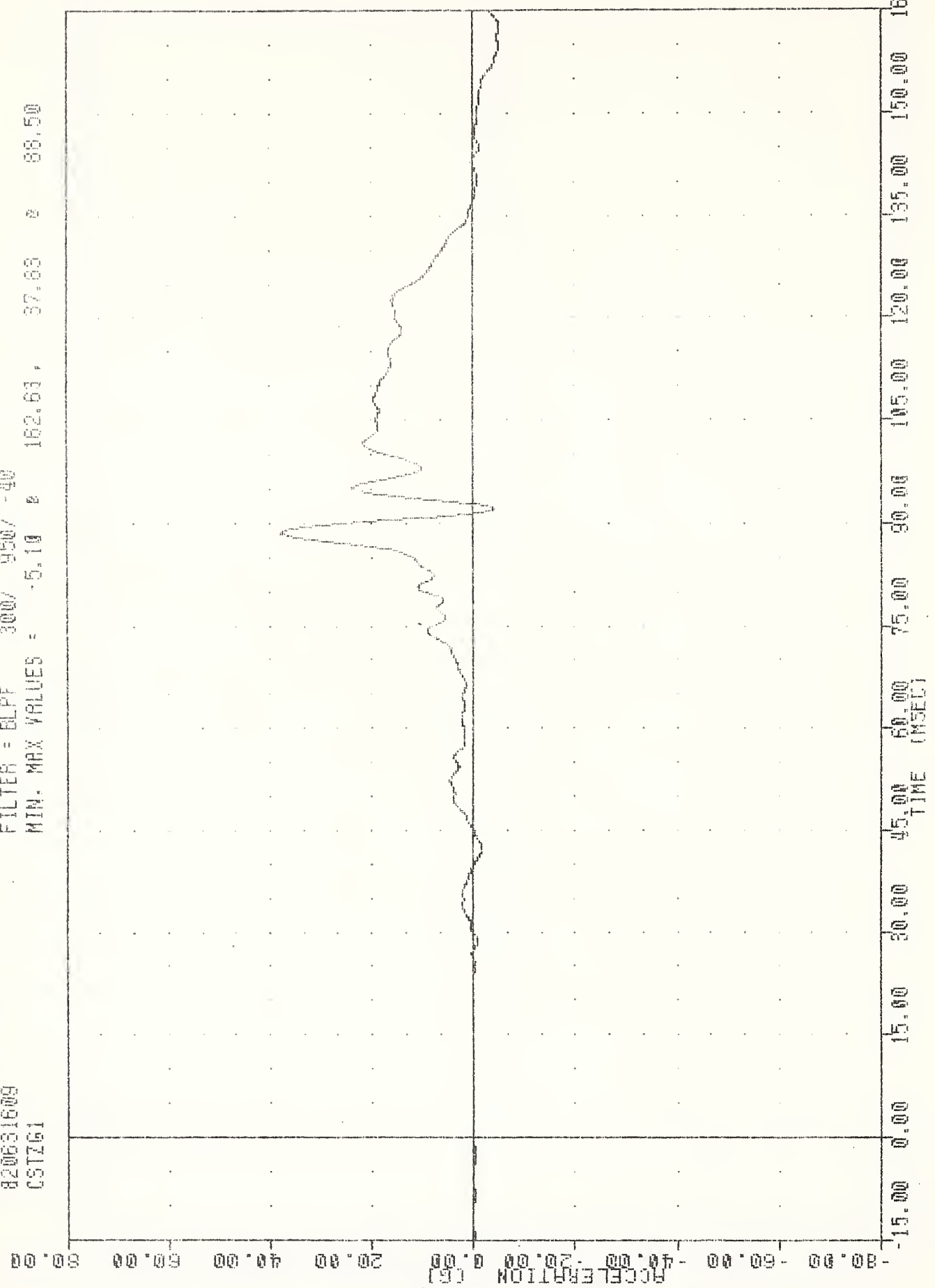
A-37

CHEST ACCELERATION Y AXIS DRIVER

15-MAR-82 15:58:47

551025003
REST. MODEL VALID. TEST
820631609
CSTZ61

FILTER = 6LPP 300/ 950/ -40
MIN. MAX VALUES = -5.10 e 162.63, 37.63 e 88.50



A-38

CHEST ACCELERATION Z AXIS DRIVER

15-MAR-82 15:56:47

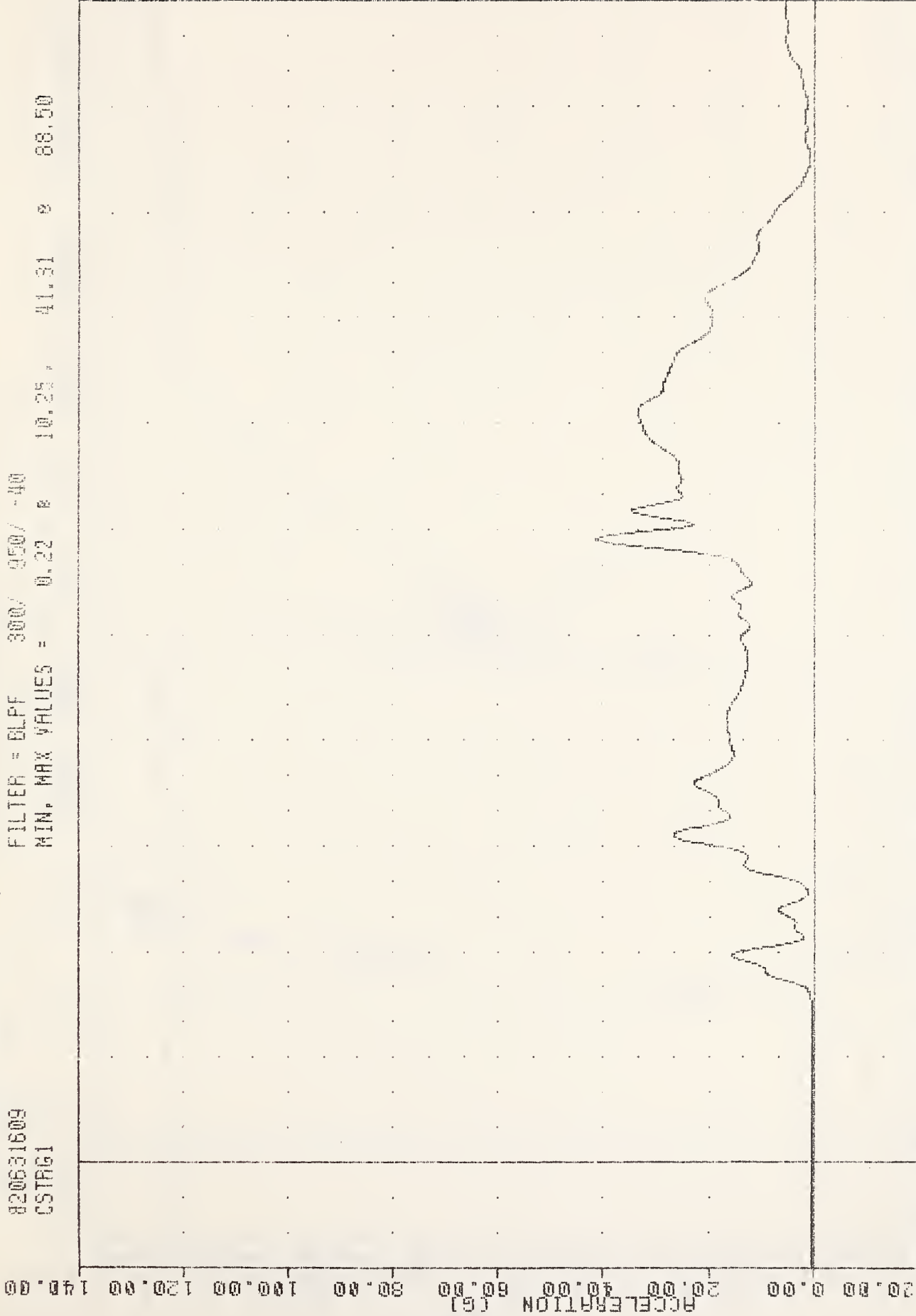
951025003
REST. MODEL VALID, TEST

820631609

CSTRG1

FILTER = BLPF 300/ 950/ -40

MIN. MAX VALUES = 0.22 41.91 88.50



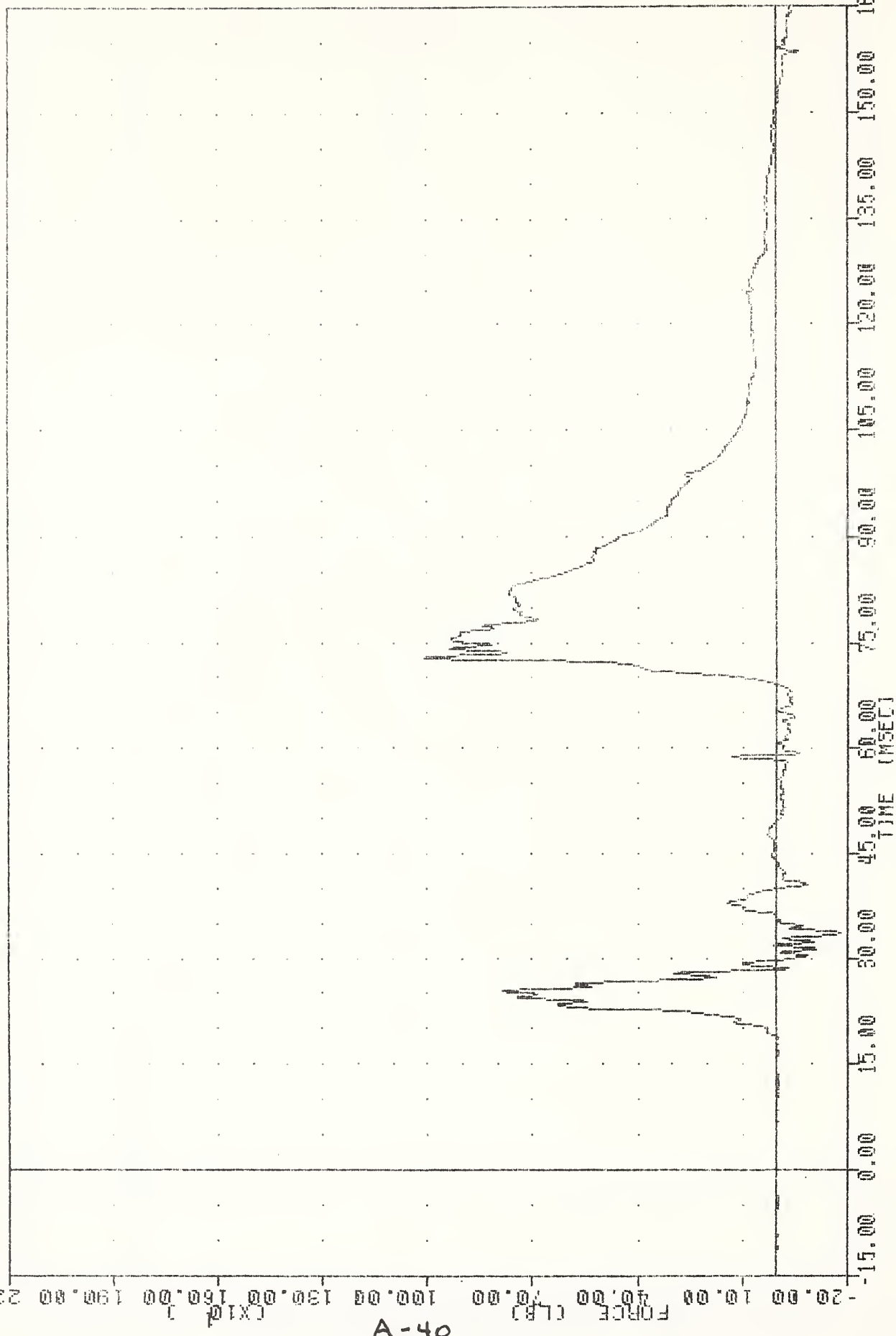
A-39

DRIVER CHEST RESULTANT

19-MAR-82 15:58:47

FILTER = BLPF 1000/ 3170/ -40
MIN, MAX VALUES = -181.30 8 33.33, 1009.60 8 72.75

551025003
REST. MODEL VALID. TEST
820631608
LFMF1



LEFT FEMUR FORCE DRIVER

A-40

S51025003

REST. MODEL VALID. TEST

020631609

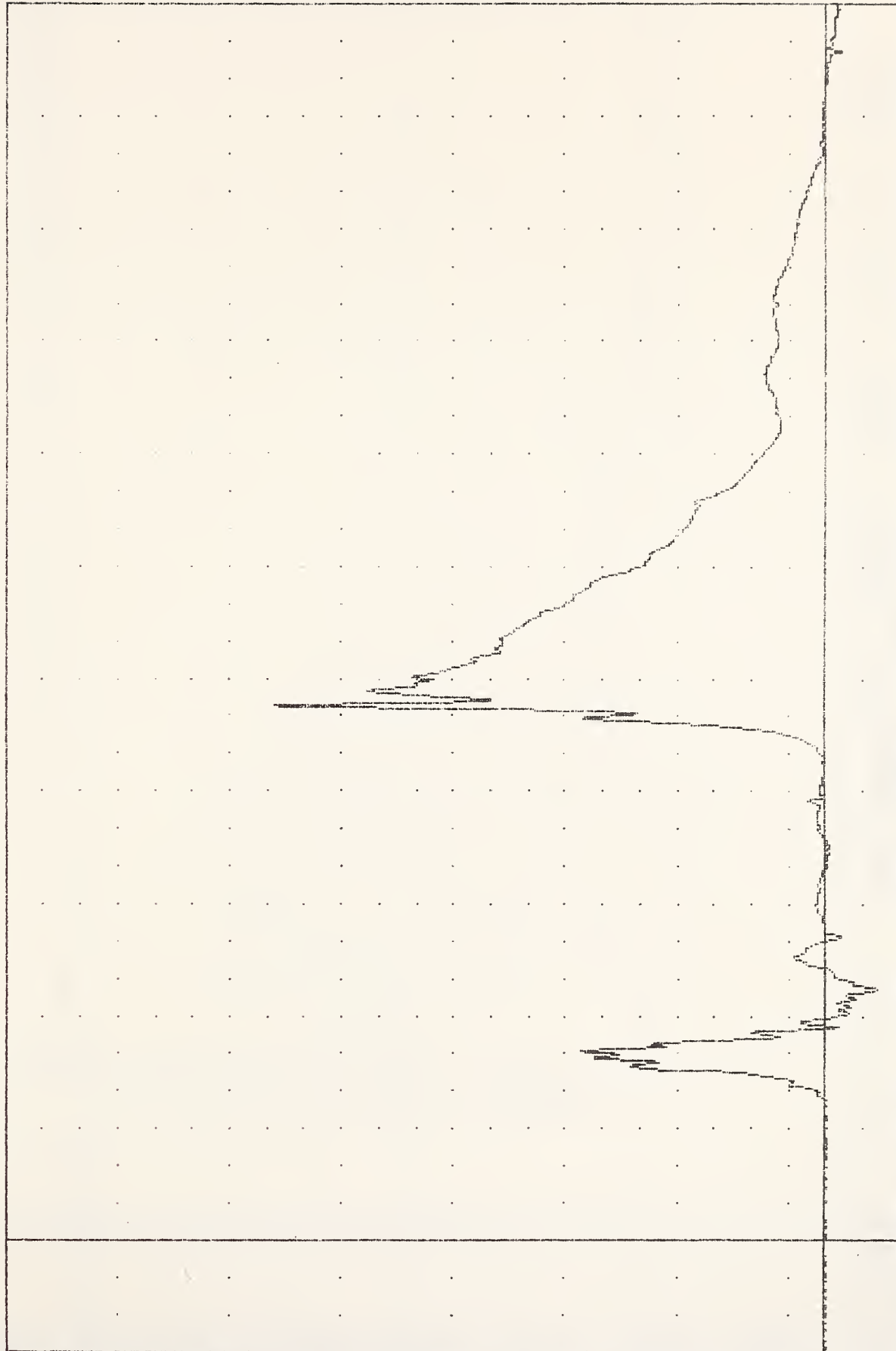
RFMF1

15-MAR-82 15:56:47

FILTER = 8LPF 1000/ 3170/ -40

MIN. MAX VALUES = -136.77 e 33.50 , 1480.26 e 71.25

14-A
FORCE (LB)
-20.00 10.00 0.00 10.00 20.00 30.00 40.00 50.00 60.00 70.00 80.00 90.00 100.00 110.00 120.00 130.00 140.00 150.00 160.00 170.00 180.00 190.00 200.00 210.00 220.00



165.00 150.00 135.00 120.00 105.00 90.00 75.00 60.00 45.00 30.00 15.00 0.00
TIME (INSEC)

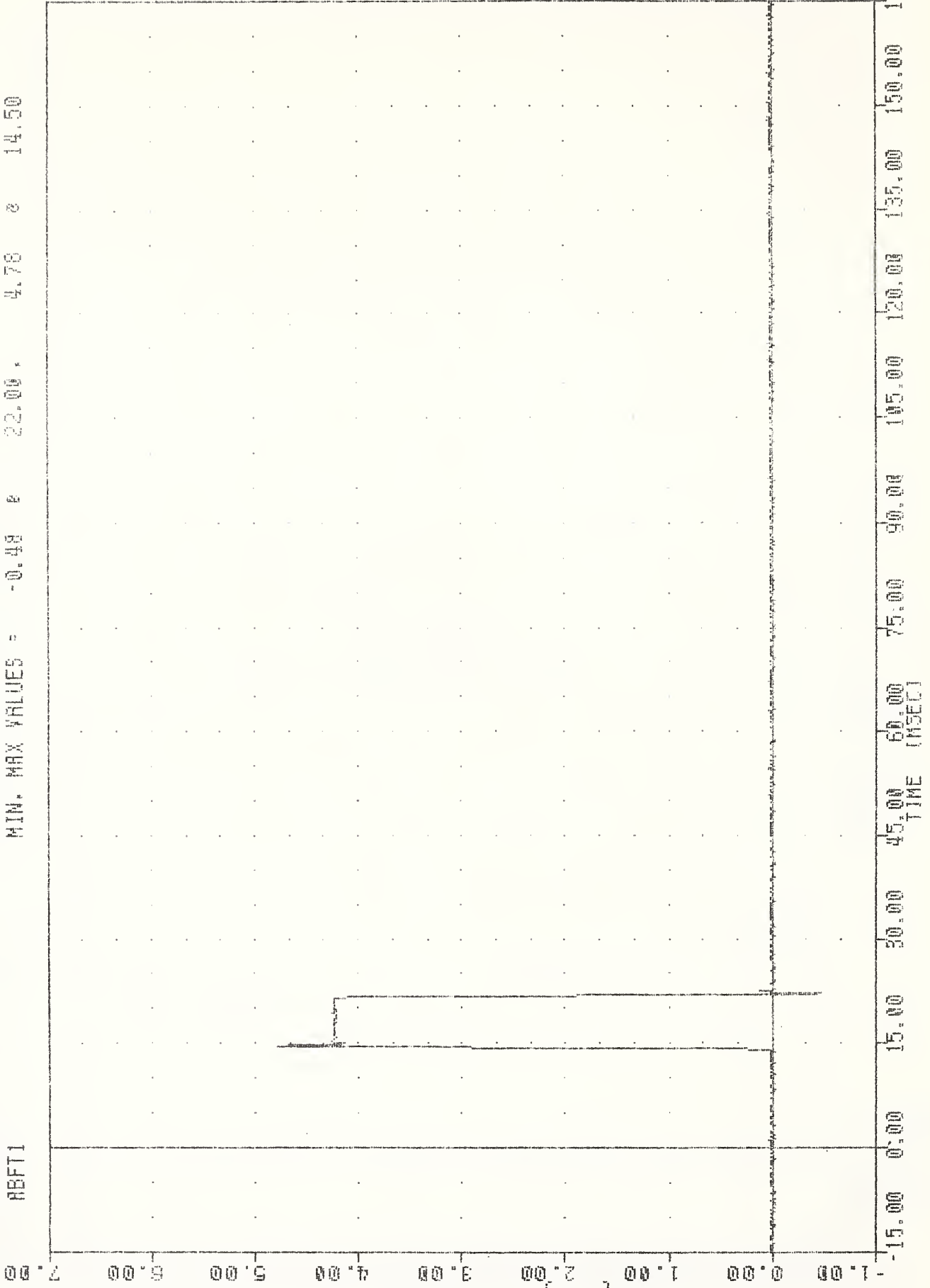
RIGHT FEMUR FORCE DRIVER

351025003
REST. MODEL VALID. TEST
820631609
ABFT1

15-MAR-82 15:58:47

FILTER = ALPF 1650/ 5214/ -40

MIN. MAX VALUES = -0.48 22.00 4.78 14.50

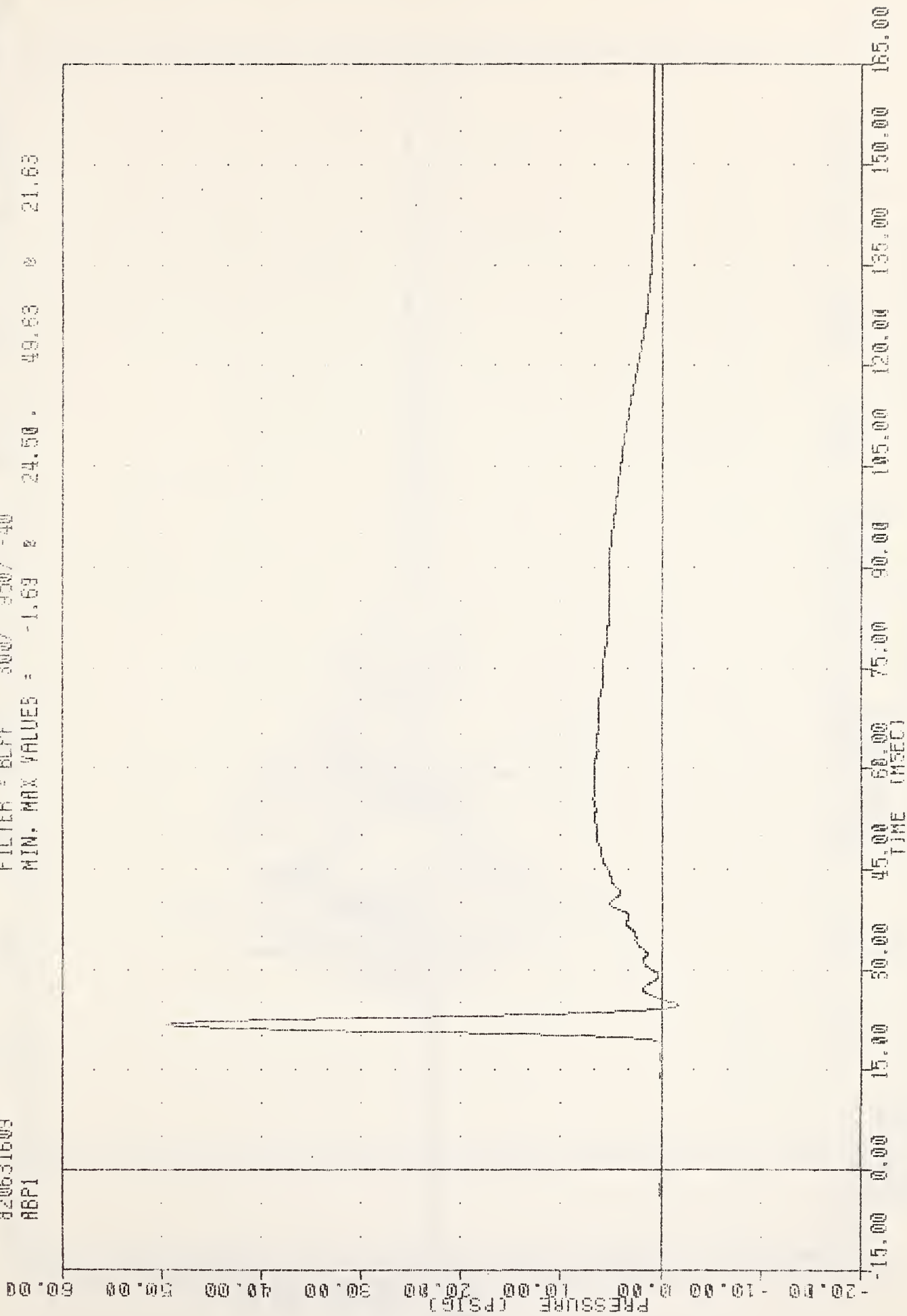


AIR BAG FIRING EVENT DRIVER

951025003
REST. MODEL VALID. TEST
820631609
ABPI

15-MAR-82 15:58:47

FILTER = BLPF 3007 9507 -40
MIN. MAX VALUES = -1.69 2 24.50 49.63 21.63



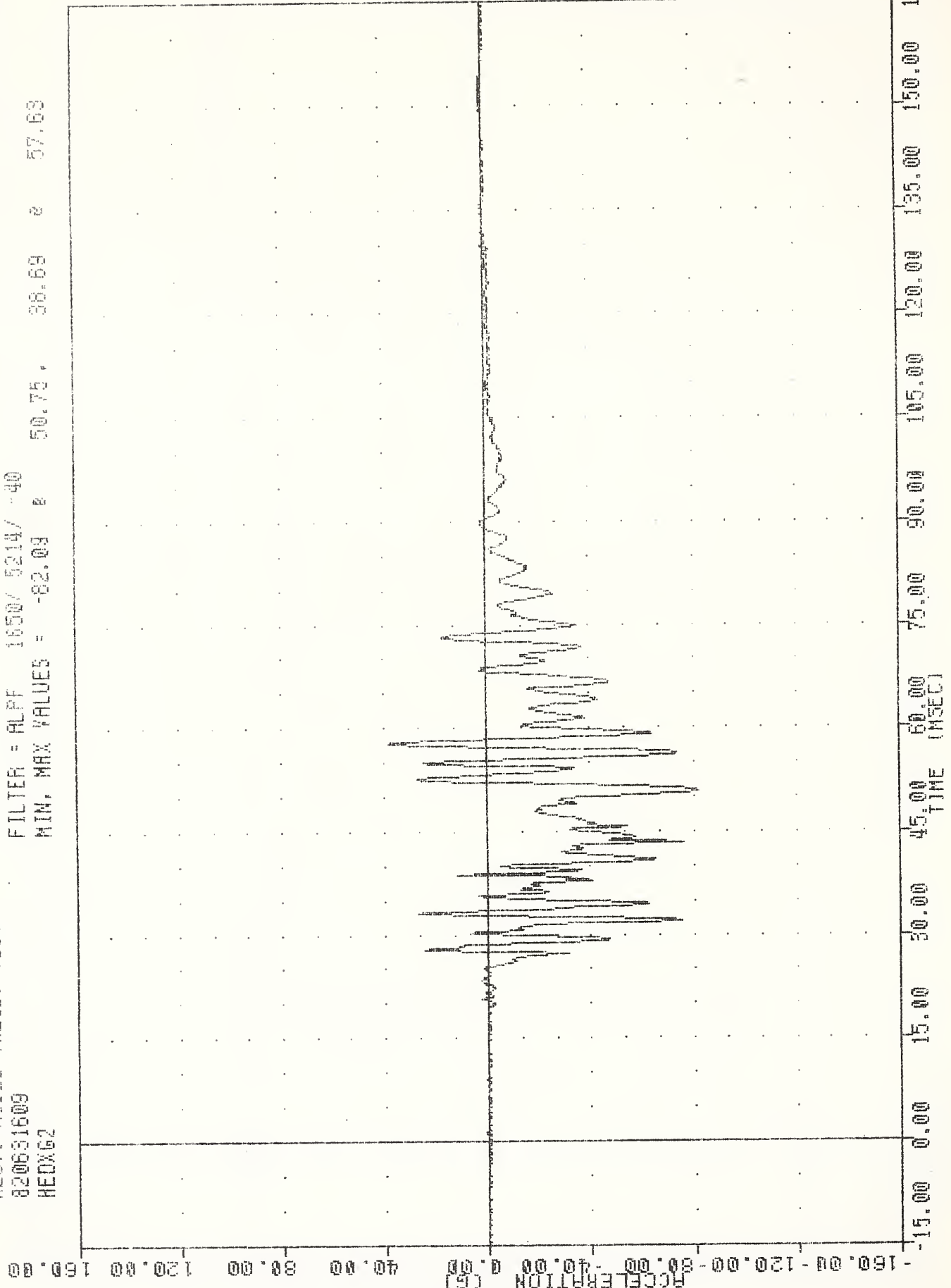
A-43

AIR BAG PRESSURE DRIVER

551025003
REST. MODEL VALID. TEST
820631609
HEAD62

15-MAR-82 15:58:47

FILTER = ALPF 1650/ 5214/ -40
MIN. MAX VALUES = -82.09 50.75, 38.69 e 57.63



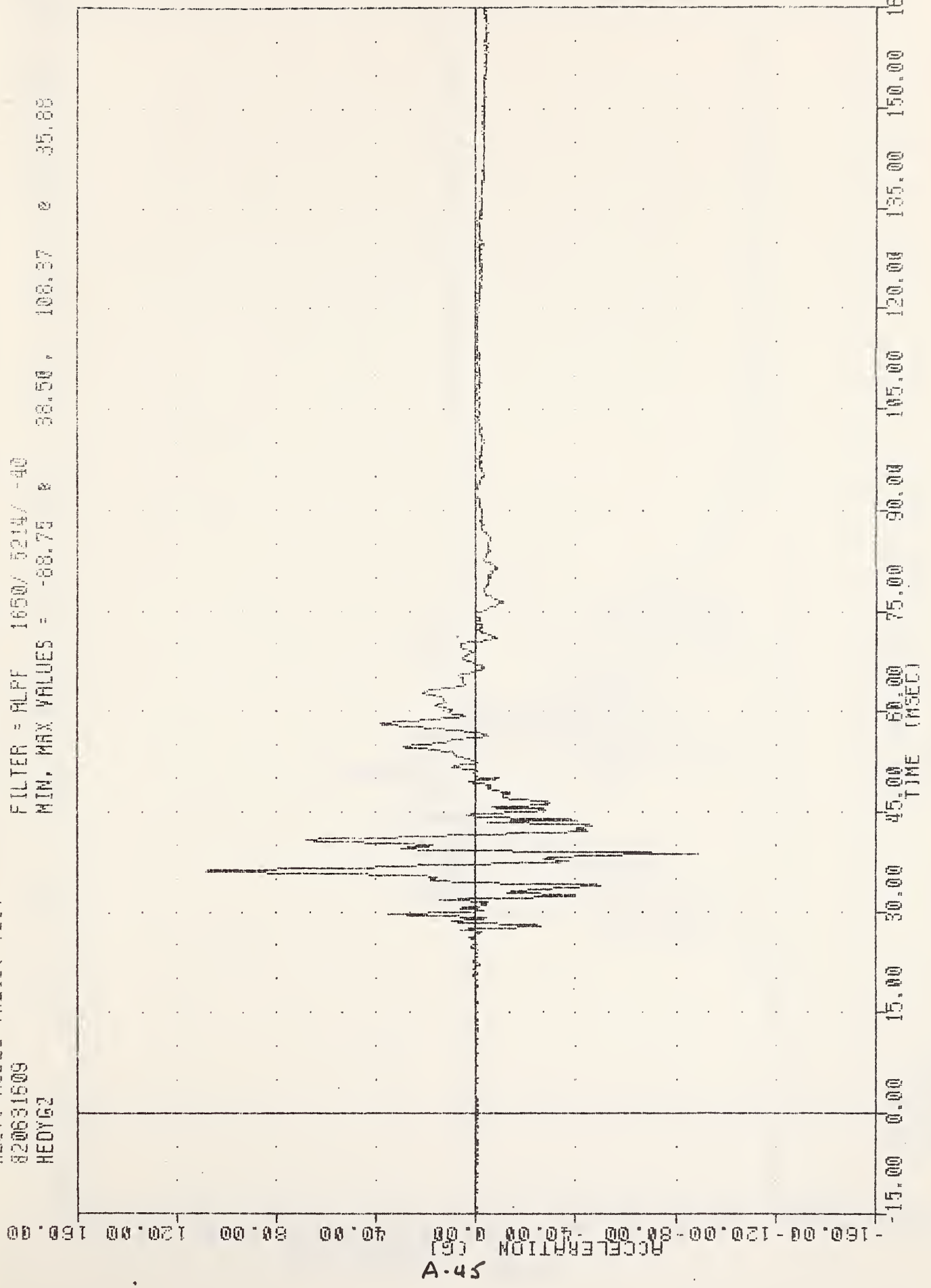
44-A

HEAD ACCELERATION X AXIS PASSENGER

S51025003
BEST, MODEL VALID, TEST
820631509
HEDYG2

15-MAR-82 15:58:47

FILTER = ALPF 1650/ 5214/ -40
MIN, MAX VALUES = -88.75 8 88.50, 100.97 0 35.88



A-45

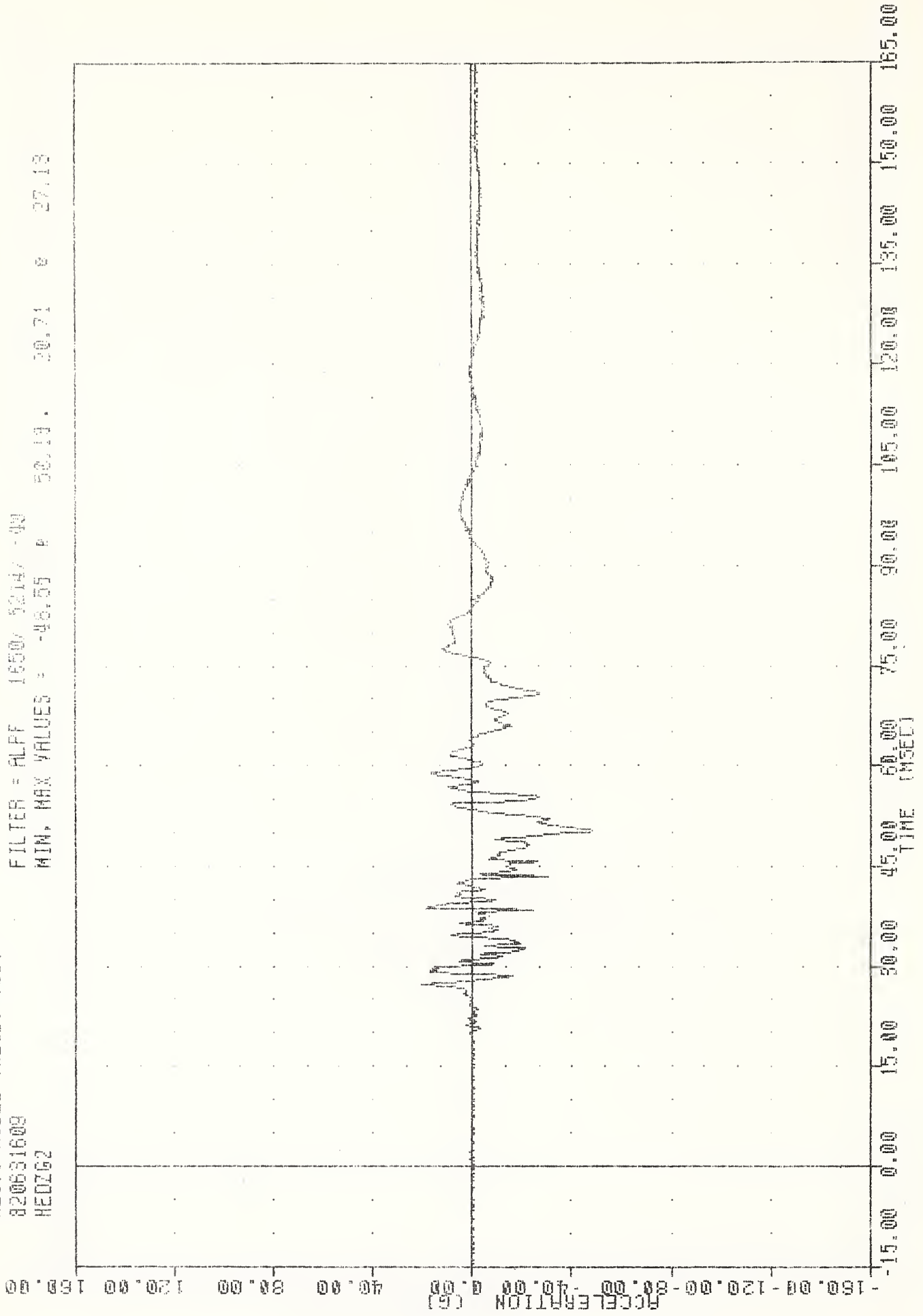
HEAD ACCELERATION Y AXIS PASSENGER

351025003
REST. MODEL VALID. TEST
820581608
HEADZ62

15-MAR-82 15:58:47

FILTER = ALFF 16507 52147 -40

MIN. MAX VALUES = -46.55 40.71 @ 27.13



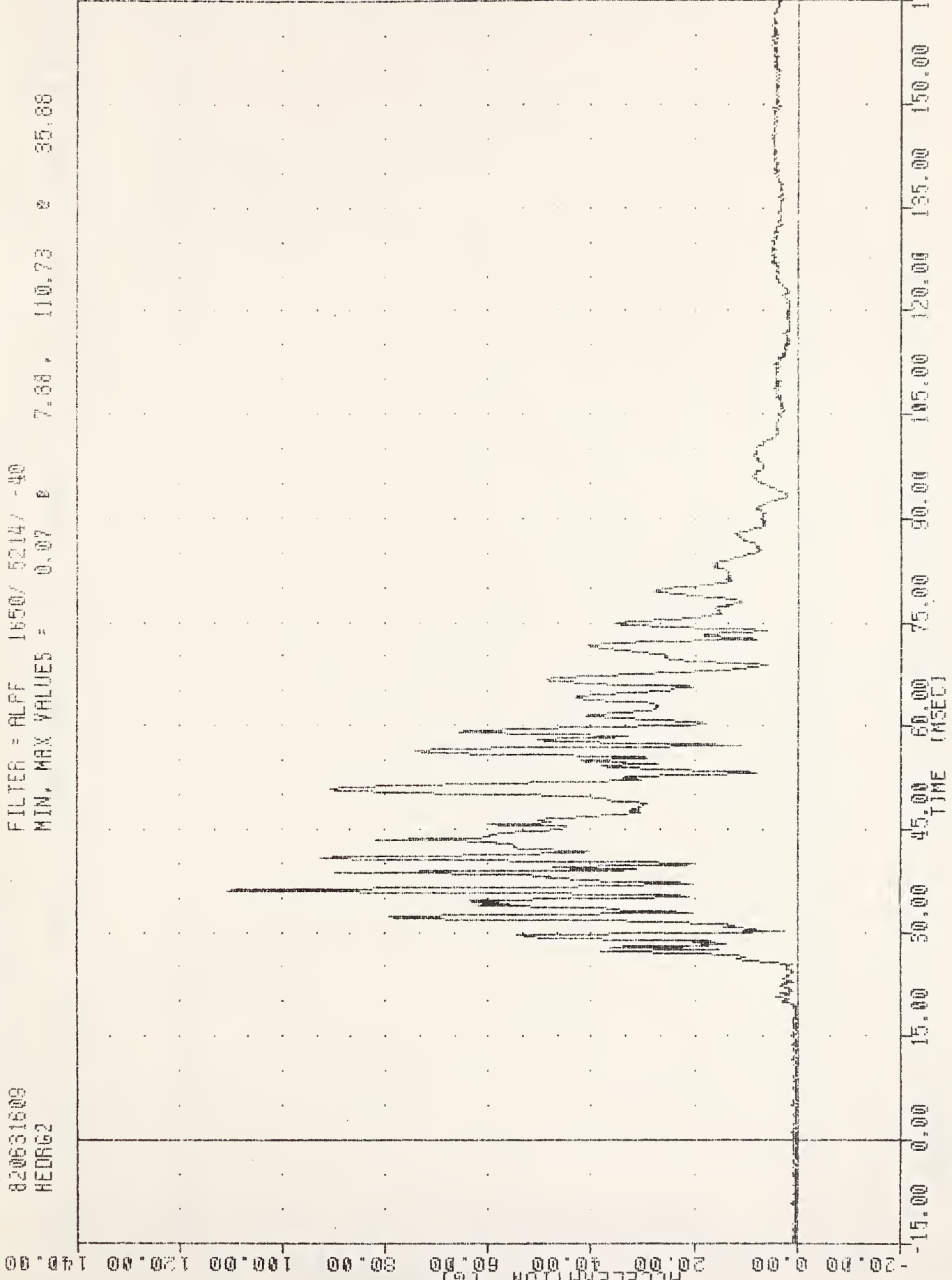
A-46

HEAD ACCELERATION Z AXIS PASSENGER

551025003
REST. MODEL VALID. TEST
820631609
HEDRG2

15-MAR-82 15:58:47

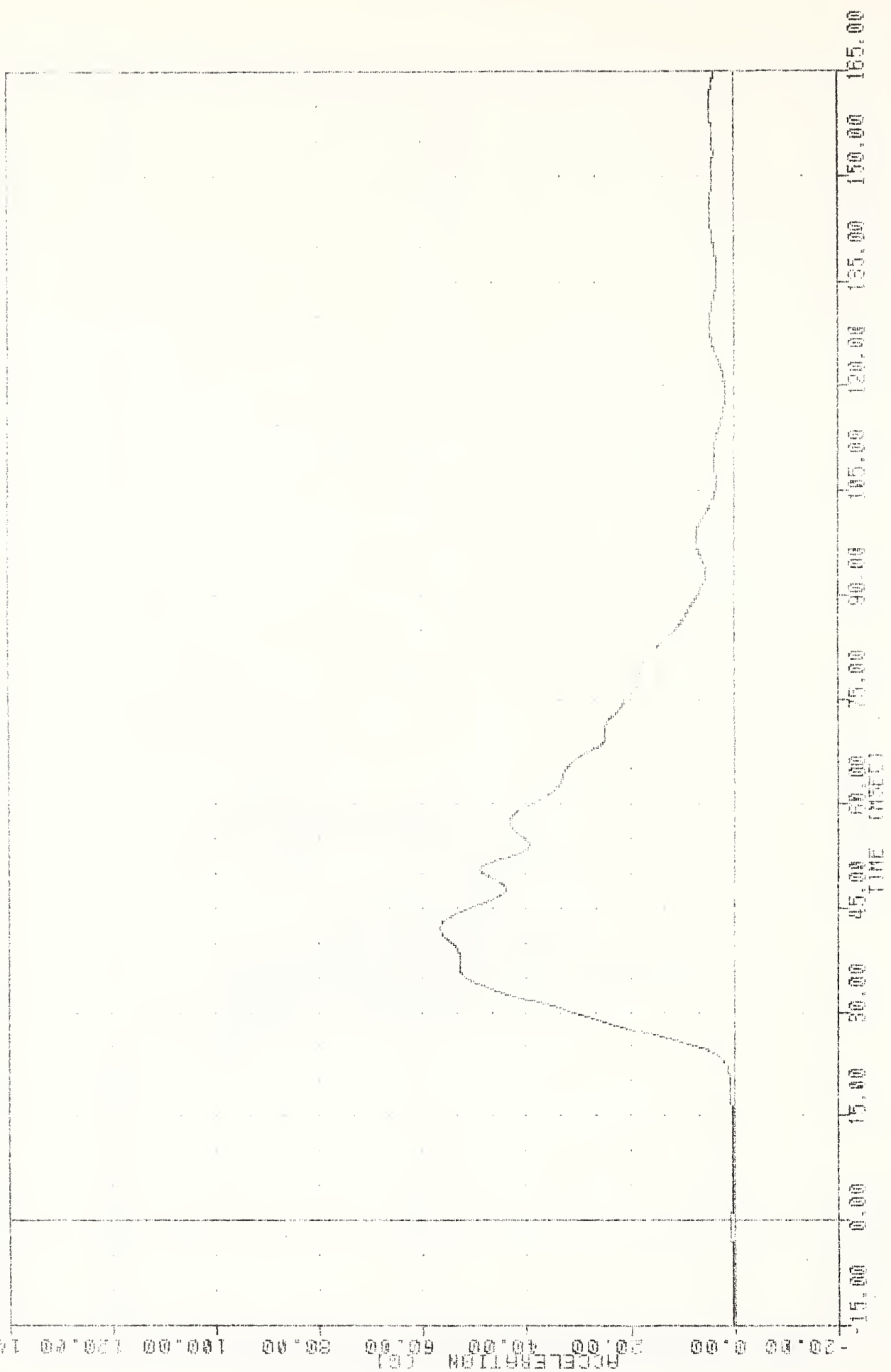
FILTER = ALPF 1650/ 5214/ -40
MIN. MAX VALUES = 0.07 8 7.88 110.73 2 35.88



A-47

PASS HEAD RESULTANT

551027003 . TR0057
 REGT. MODEL 76110. TEST
 820631809
 H0882R
 FILTER = BIPOLAR
 MIN. MAX. VALUES = -1.98 1.20
 20.54 . 95.37 . 42.80



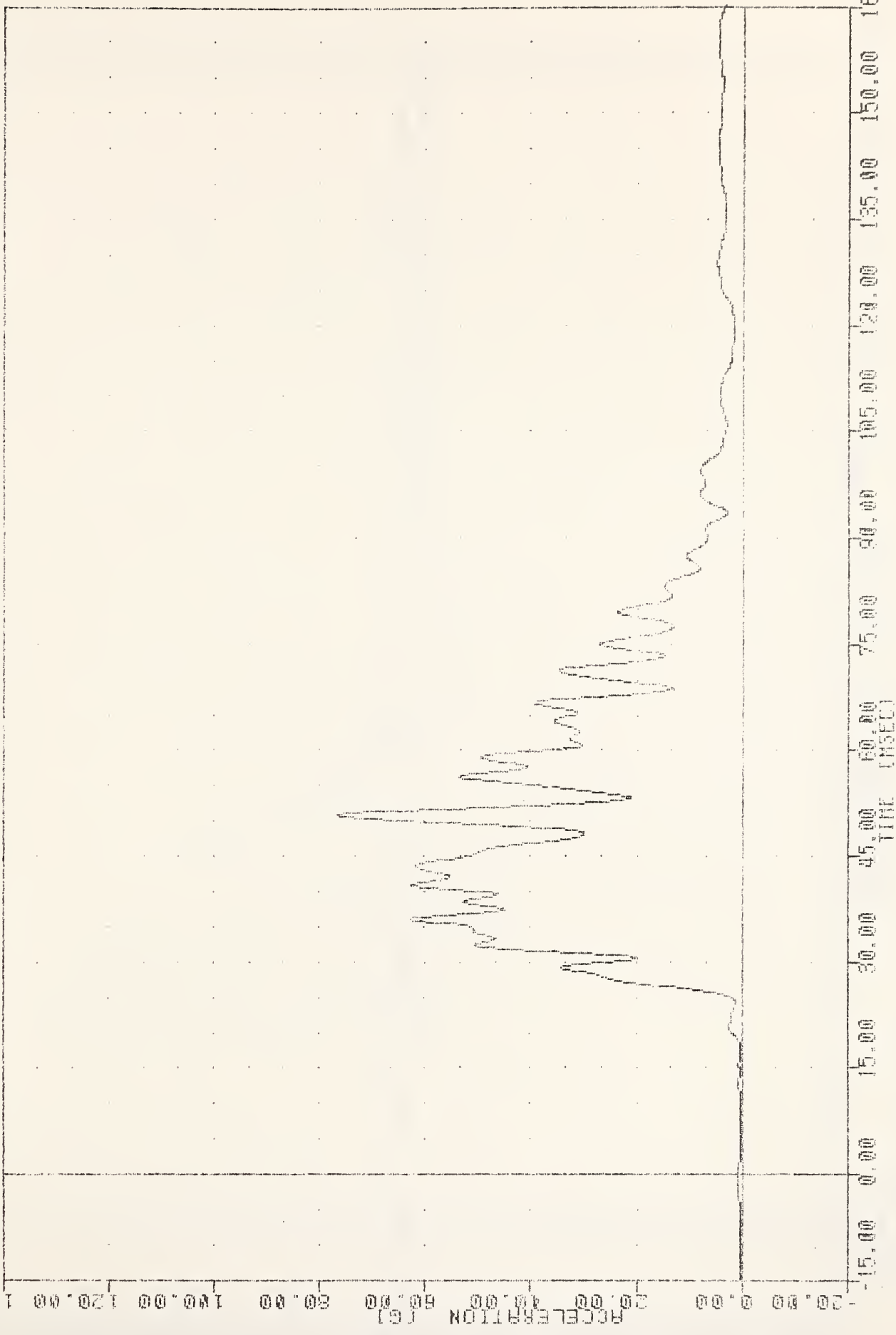
3 YR OLD HEAD RESULTANT (CLAS 100J)

551025003 , TR0957
2-APR-82 15:43:47

REST. MODEL VALID. TEST
820631689
H0R628

FILTER = BLPF 300 / 50 / 40
MIN. MAX VALUES = 0.29 76.58

7.25 50.63



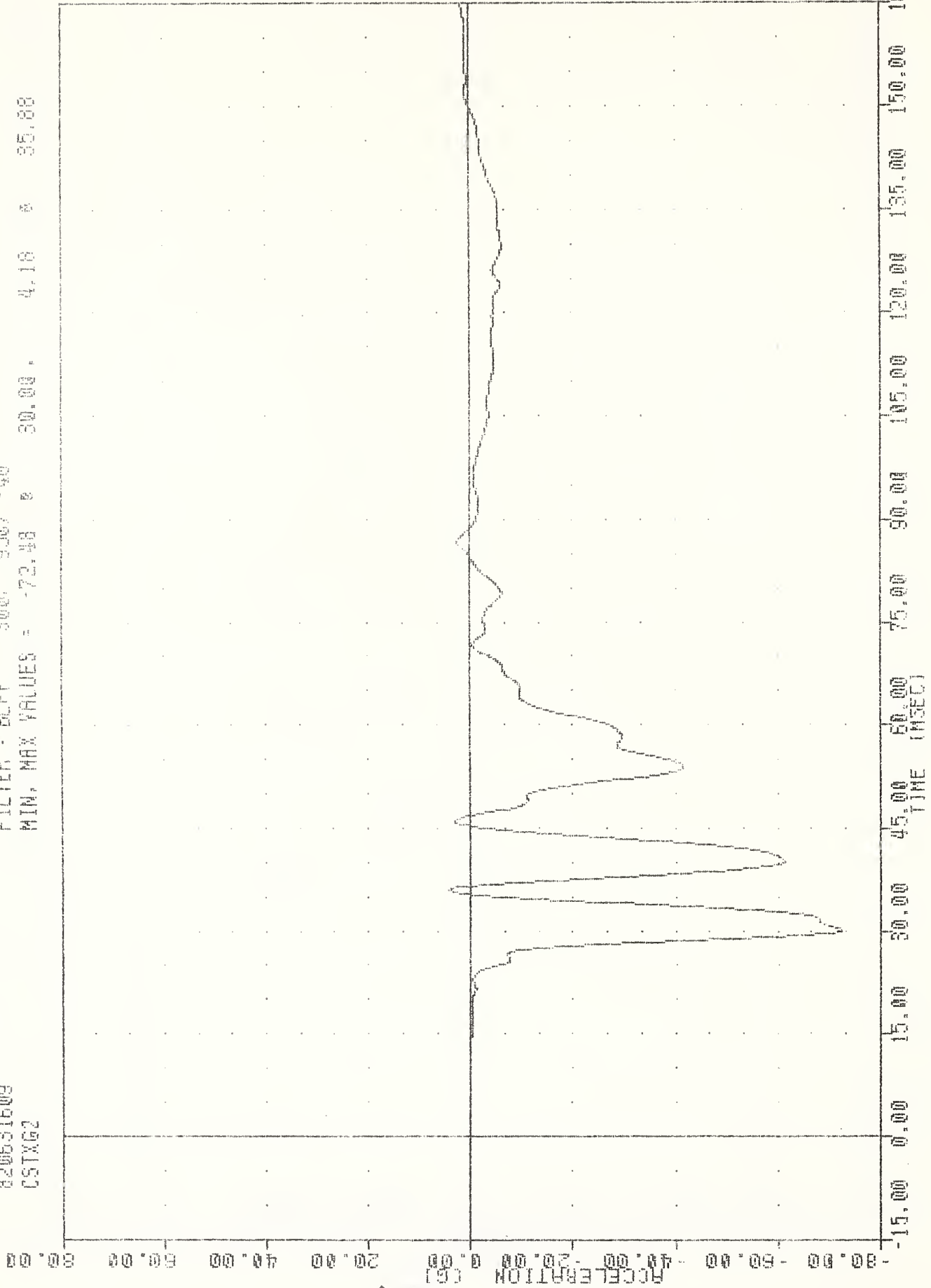
A-49

3 YR OLD HEAD RESULTANT (CLASS 180)

551025003
REST. MODEL VALID. TEST
820631609
CSTX62

15-MAR-82 15:38:14

FILTER = BLPF 300. 950 / -40
MIN. MAX VALUES = -72.48 30.00 4.18 35.88



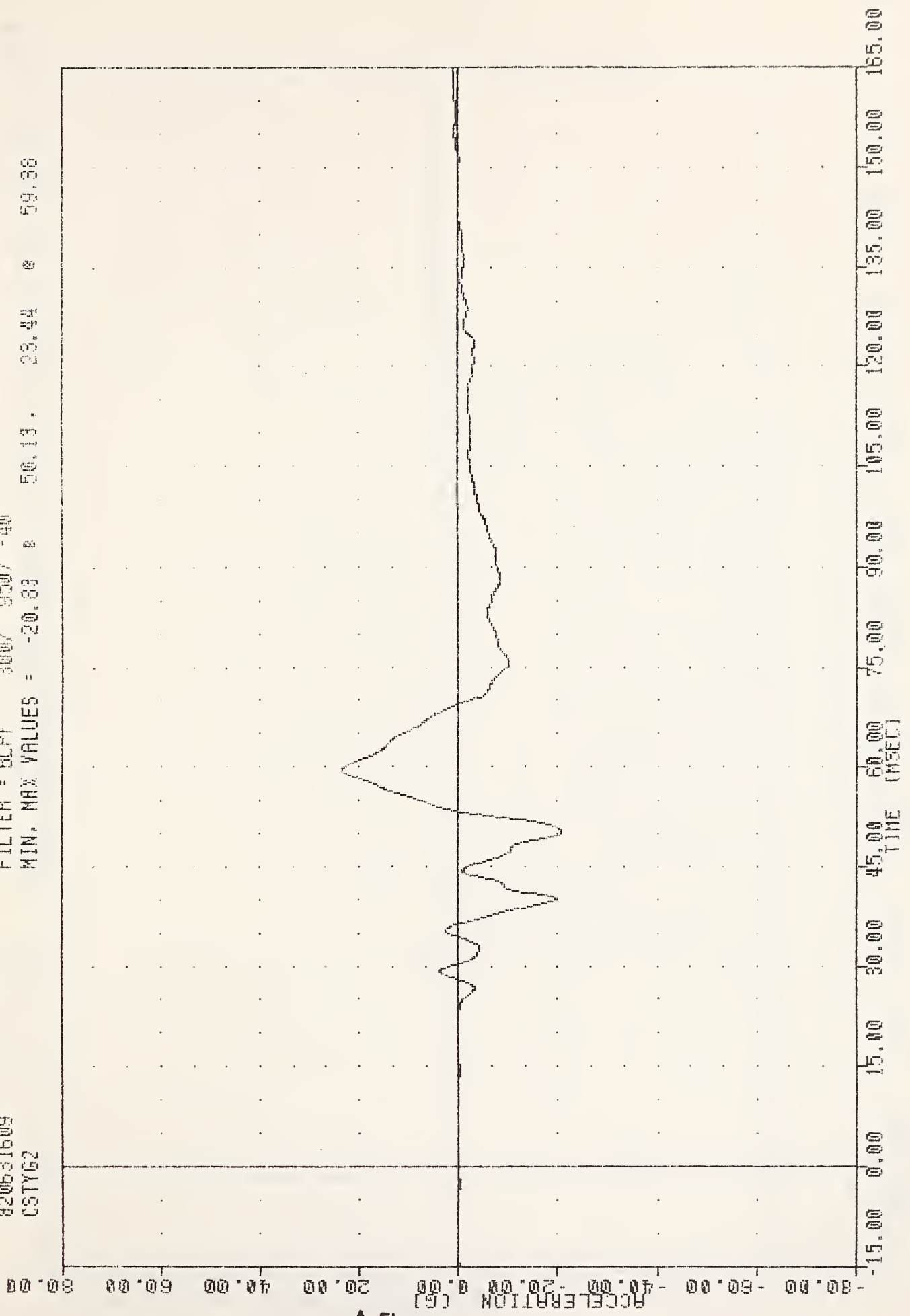
A-50

CHEST ACCELERATION X AXIS PASSENGER

15-MAR-82 15:58:47

951025003
REST. MODEL VALID. TEST
820631609
CSTY62

FILTER = 6LFF 300/ 950/ -40
MIN. MAX VALUES = -20.83 e 50.13. 23.44 e 59.38



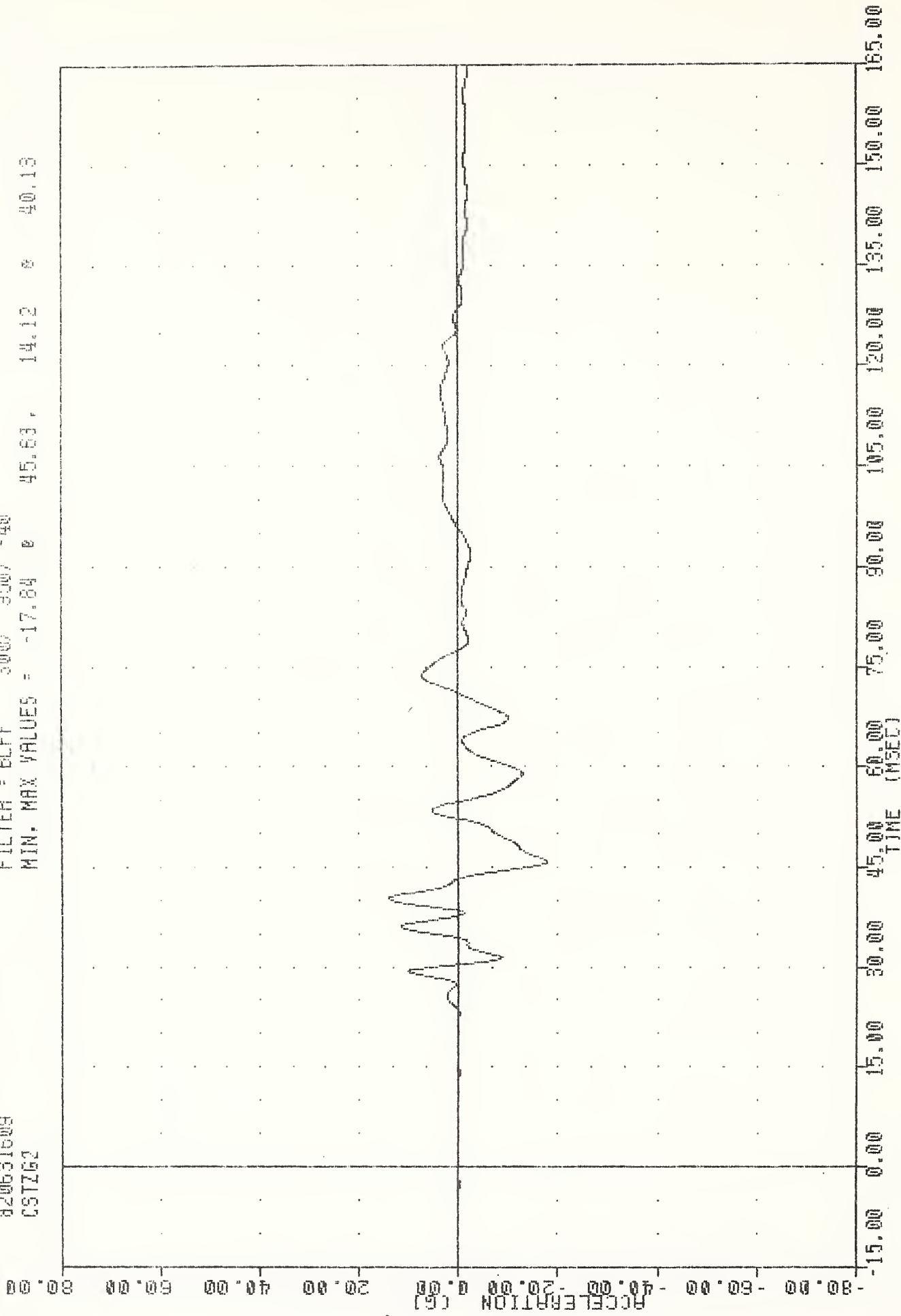
CHEST ACCELERATION Y AXIS PASSENGER

951025003
REST. MODEL VALID. TEST
820631609
CSTZ62

15-MAR-82 15:58:47

FILTER = BLPF 300/ 950/ -40

MIN. MAX VALUES = -17.84 e 45.83, 14.12 e 40.13



A-52

CHEST ACCELERATION Z AXIS PASSENGER

351025003

REST. MODEL VALID. TEST

820631609

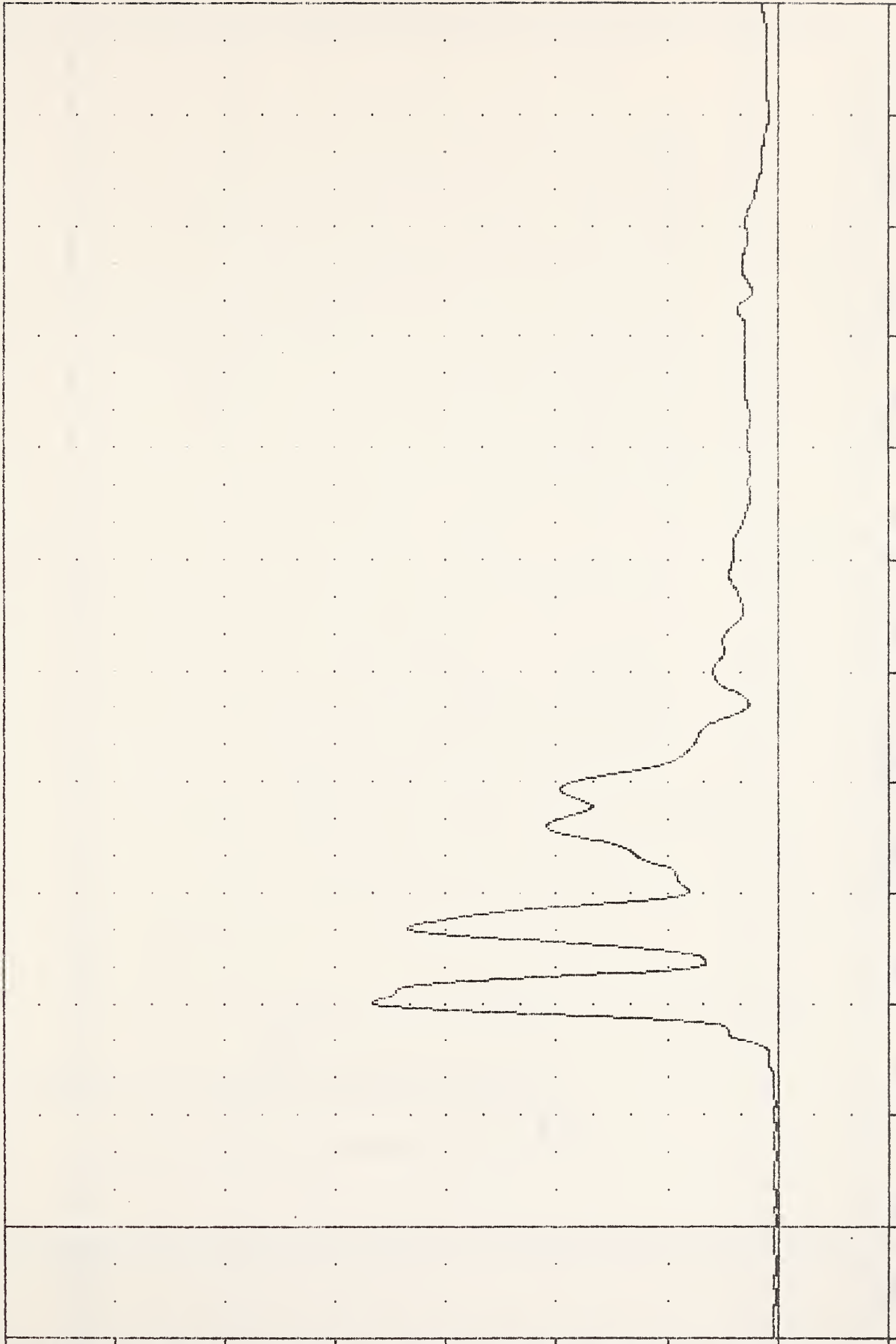
CSTR62

15-MAR-82 15:56:47

FILTER = BLPF 300/ 950/ -40

MIN. MAX VALUES = 0.38 8 3.75 , 73.43 8 30.00

ACCELERATION (G)



A-53

TIME (MSEC)

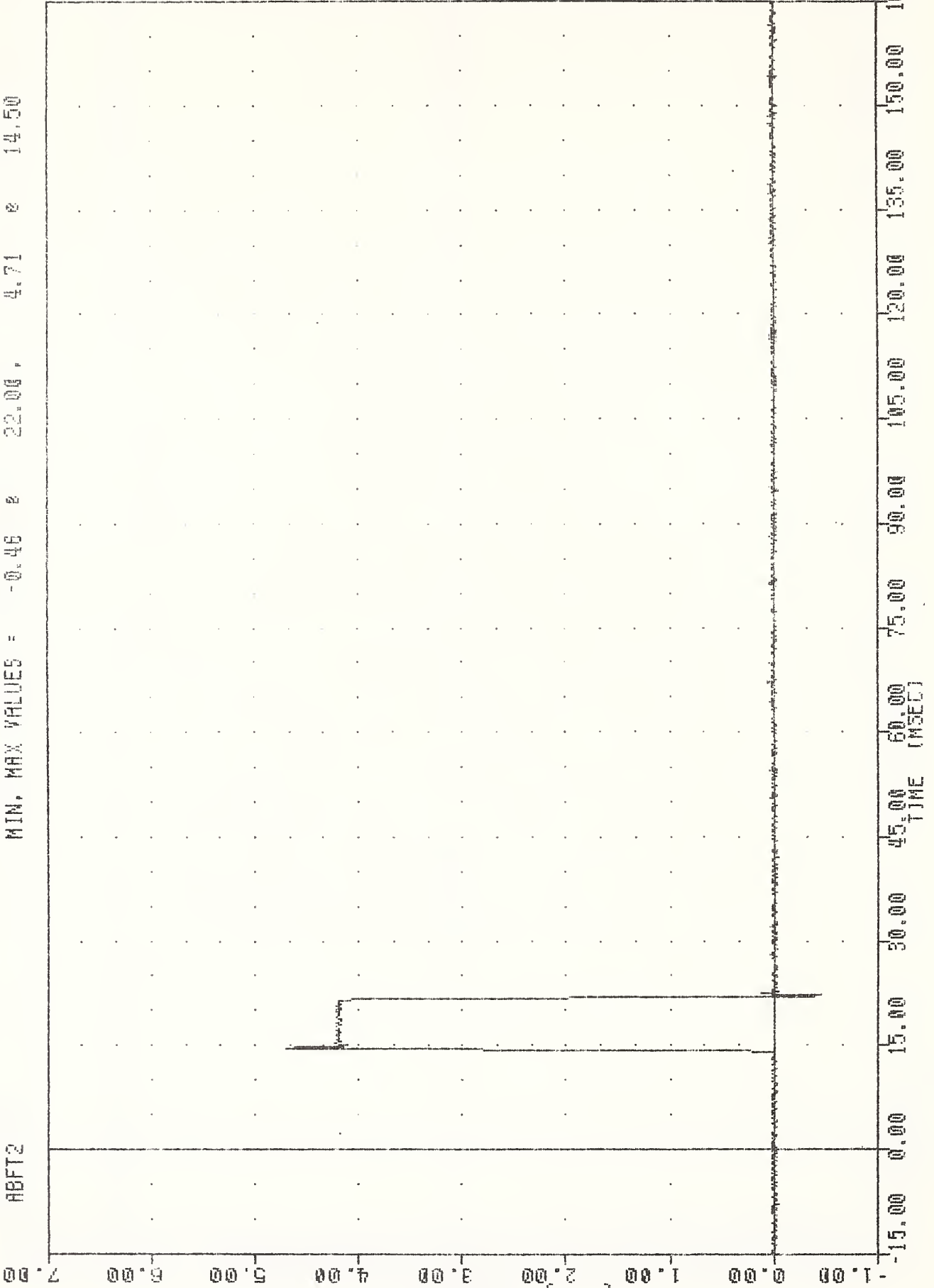
PASS CHEST RESULTANT

551025003
REST. MODEL VALID. TEST
820631609
ABFT2

15-MAR-82 15:58:47

FILTER = ALPF 1650/ 5214/ -40

MIN. MAX VALUES = -0.46 0 22.00 0 4.71 0 14.50



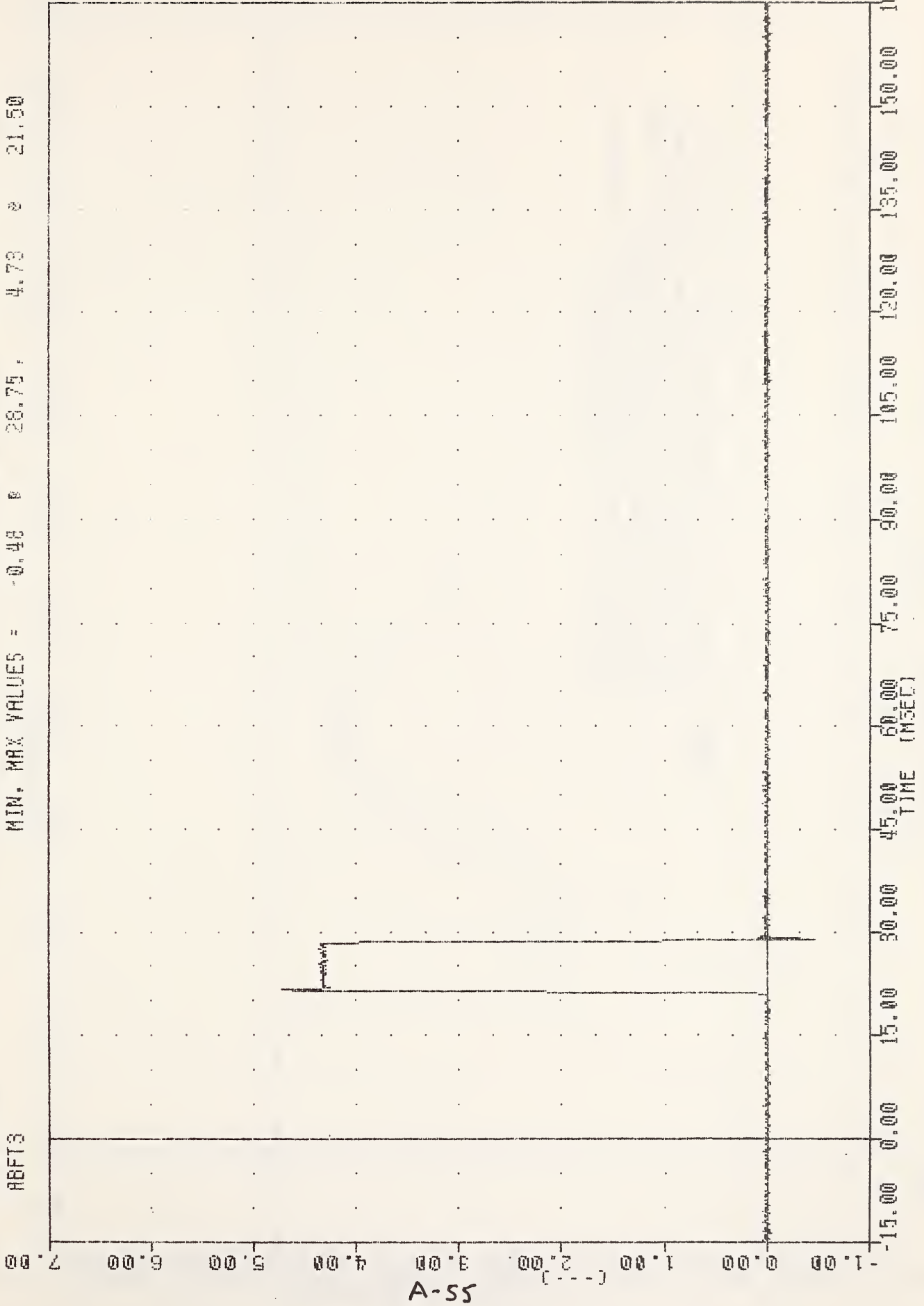
A-54

AIR BAG FIRING EVENT PASSENGER

S51025003
REST. MODEL VALID. TEST
820631609
ABFT3

13-MAR-82 15:58:47

FILTER = HLPF 1850/ 5214/ -40
MIN. MAX VALUES = -0.48 0 28.75 4.73 21.50



AIR BAG FIRING EVENT 3

15-MAR-82 15:58:47

351025003

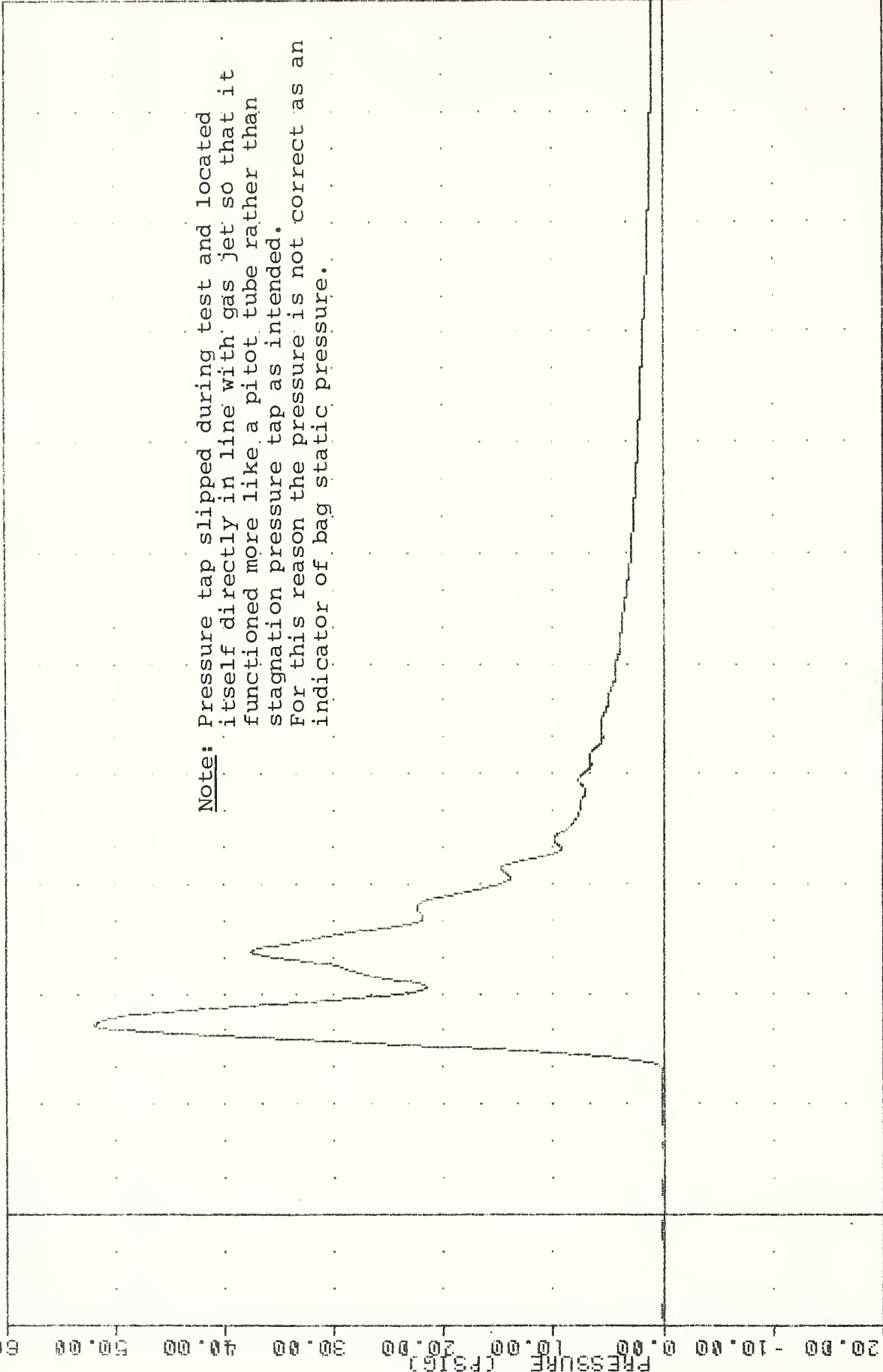
REST. MODEL VALID. TEST

820631608

ABP2

FILTER = 8LFF 300V 350V -46

MIN. MAX VALUES = -0.02 51.84 51.84 25.75



Note: Pressure tap slipped during test and located itself directly in line with gas jet so that it functioned more like a pitot tube rather than stagnation pressure tap as intended. For this reason the pressure is not correct as an indicator of bag static pressure.

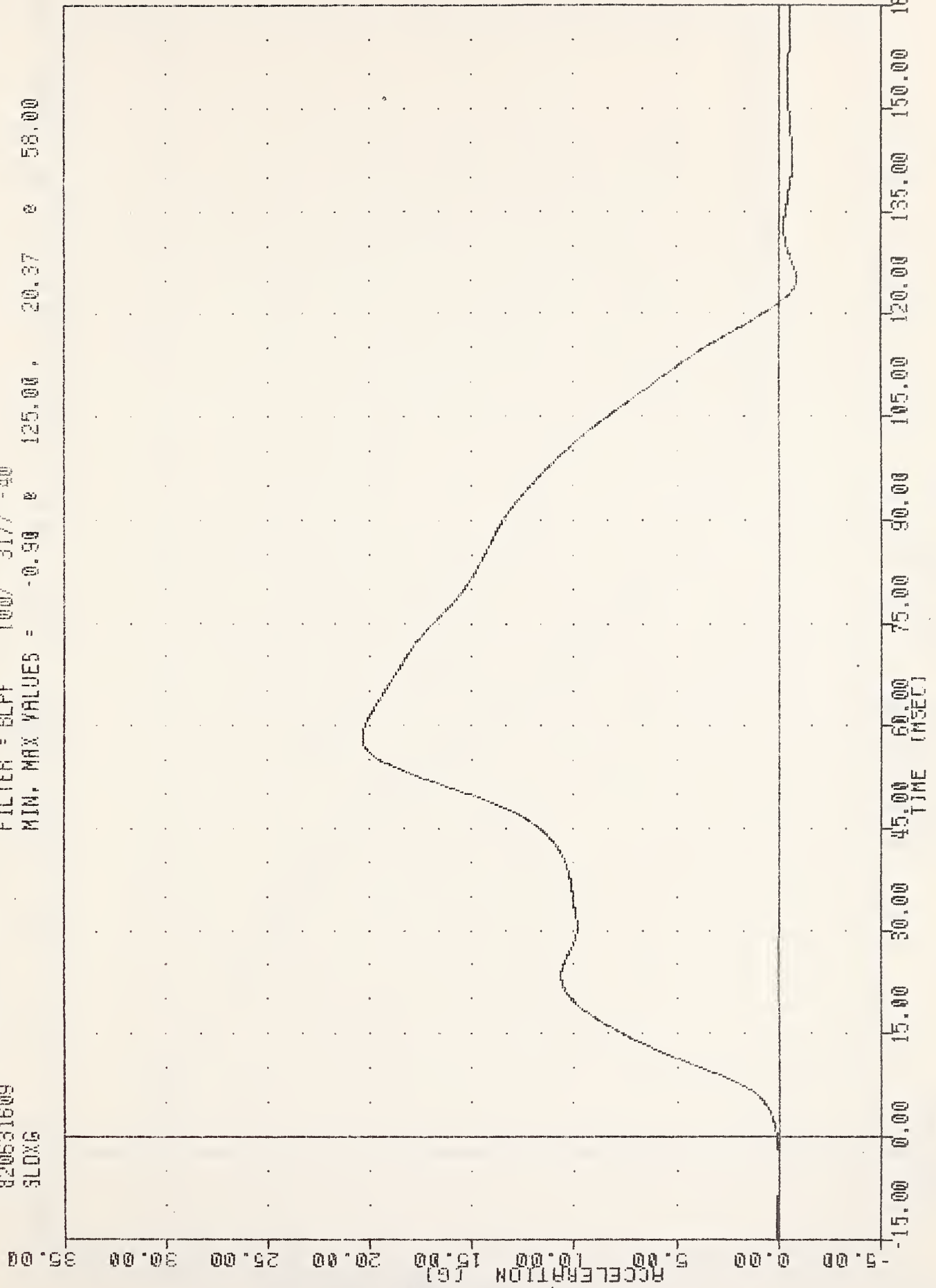
A-56

AIR BAG PRESSURE PASSENGER

951025003
15-MAR-82 15:58:47

REST. MODEL VALID. TEST
820531609
SLOXG

FILTER = BLPF 100/ 317/ -40
MIN. MAX VALUES = -0.90 0 125.00, 20.37 0 58.00



A-57

SLED ACCELERATION

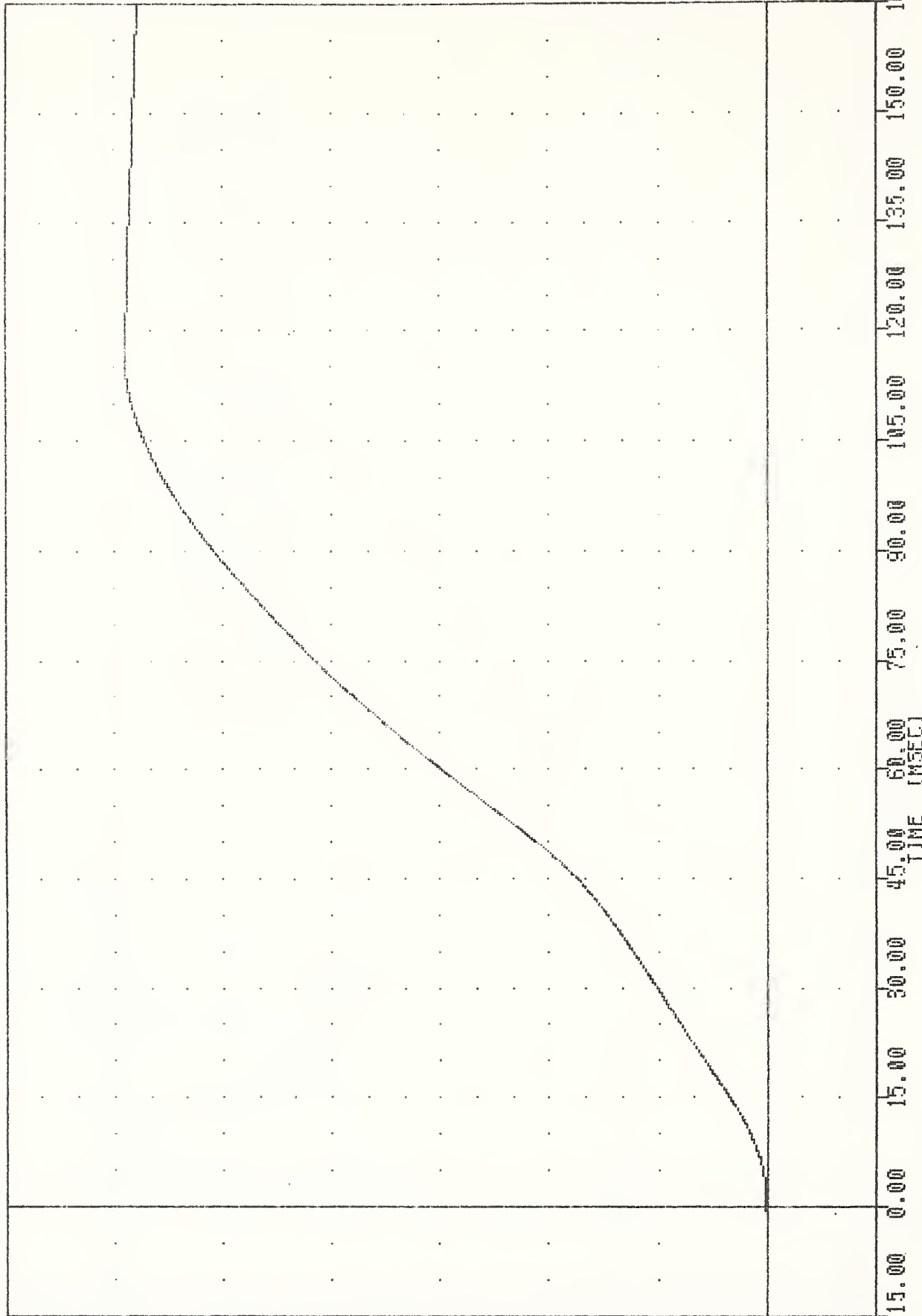
551025003
REST. MODEL VALID. TEST
820631609
SLOXV2

16-MAR-82 09:04:49

FILTER = ALPF 1650/ 5214/ -40

MIN. MAX VALUES = -0.03 0 -5.88 29.47 0 118.00

ACCELERATION (G)



A-58

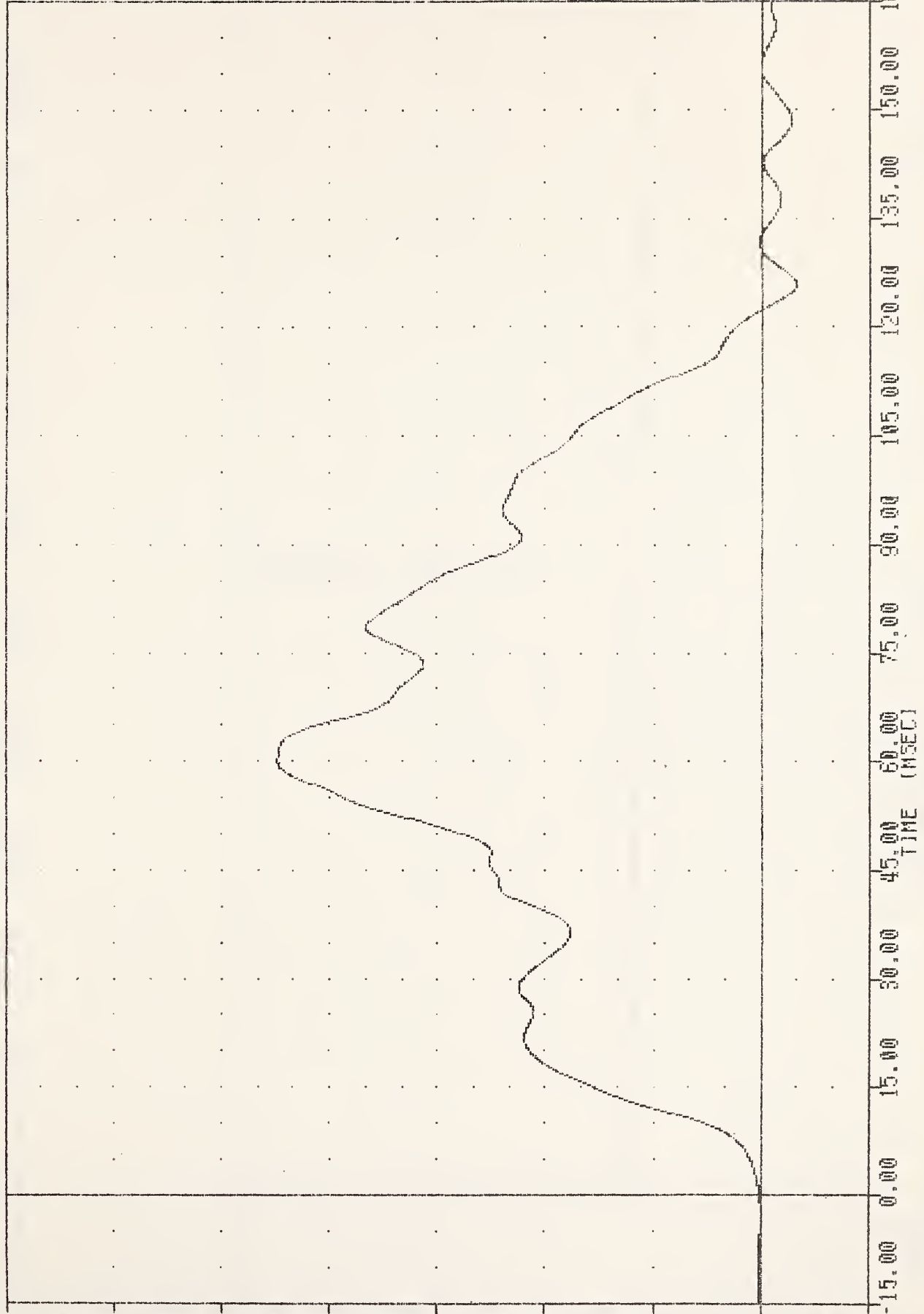
INTEGRATED SLED VELOCITY

351025003
REST. MODEL VALID. TEST
820631603
FTUXG

15-MAR-82 15:58:47

FILTER = BLPF 100% 317/ -40
MIN. MAX VALUES = -1.64 8 125.75, 22.40 8 60.00

ACCELERATION (G)



A-59

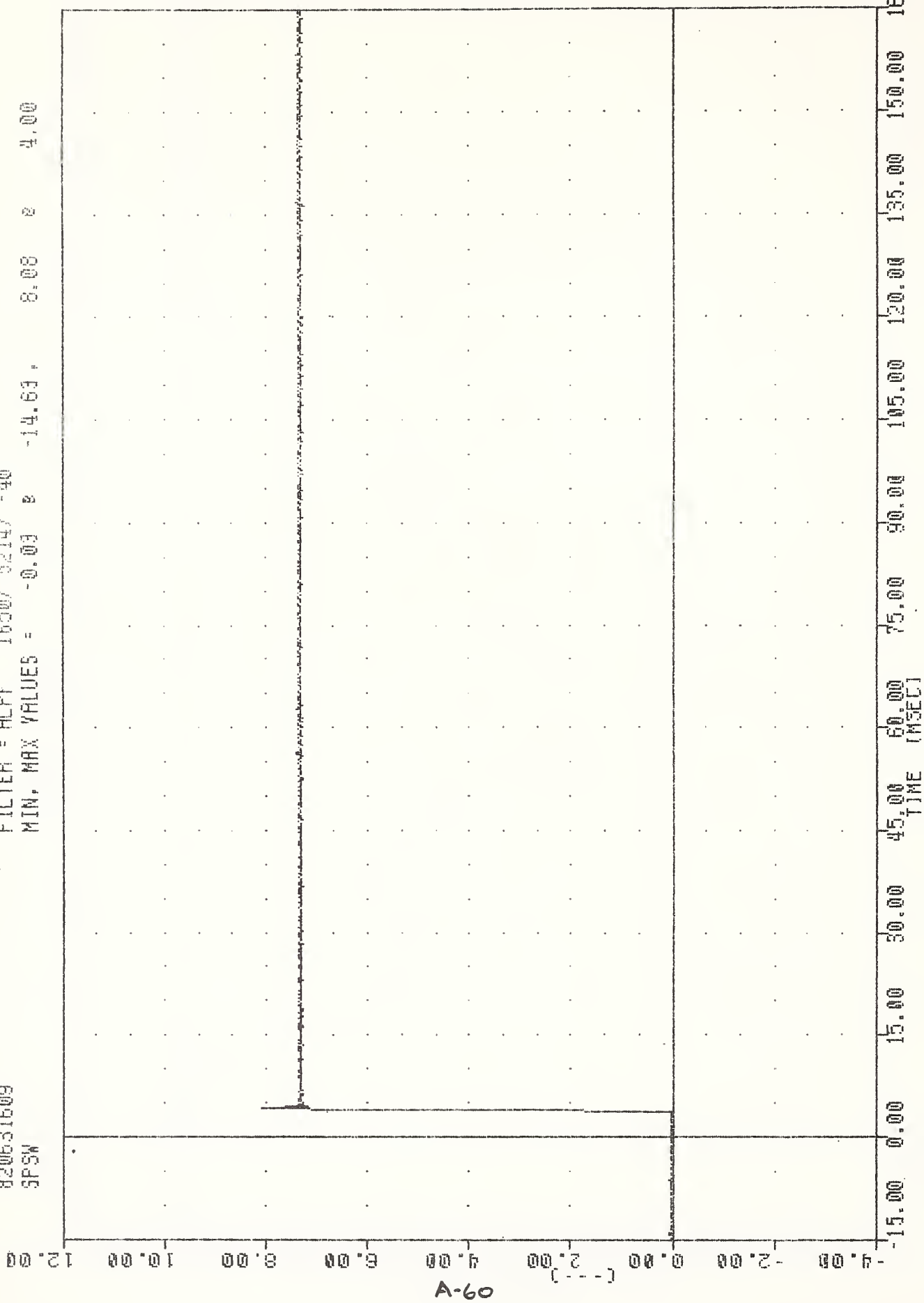
FLOOR PAN TUNNEL ACCELERATION

351025009
REST. MODEL VALID. TEST
820631609
SPSW

15-MAR-82 15:58:47

FILTER = ALPF 1650/ 5214/ -40

MIN. MAX VALUES = -0.03 e -14.63 e 8.08 e 4.00



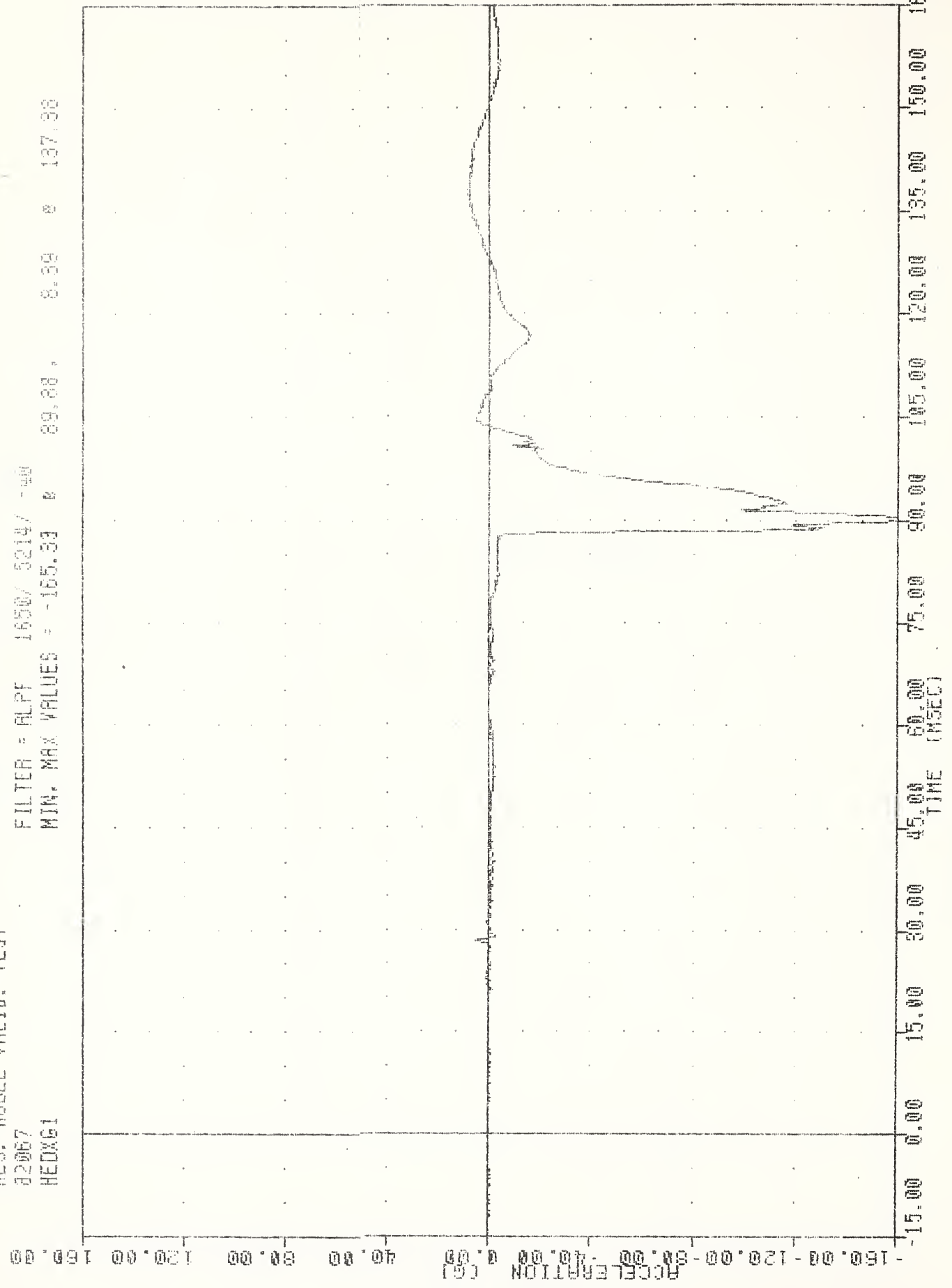
SLED POSITION SWITCH

TEST NO. 3

351029503 , TRC058
RES. MODEL VALID. TEST
02067
HEDXG1

25-MAR-82 15:36:59

FILTER = ALPF 1650/ 5214/ -40
MIN. MAX VALUES = -165.33 0 89.88 8.39 0 137.38



A-62

HEAD ACCELERATION X AXIS DRIVER

25-MAR-82 15:36:59

551039503 TRC058

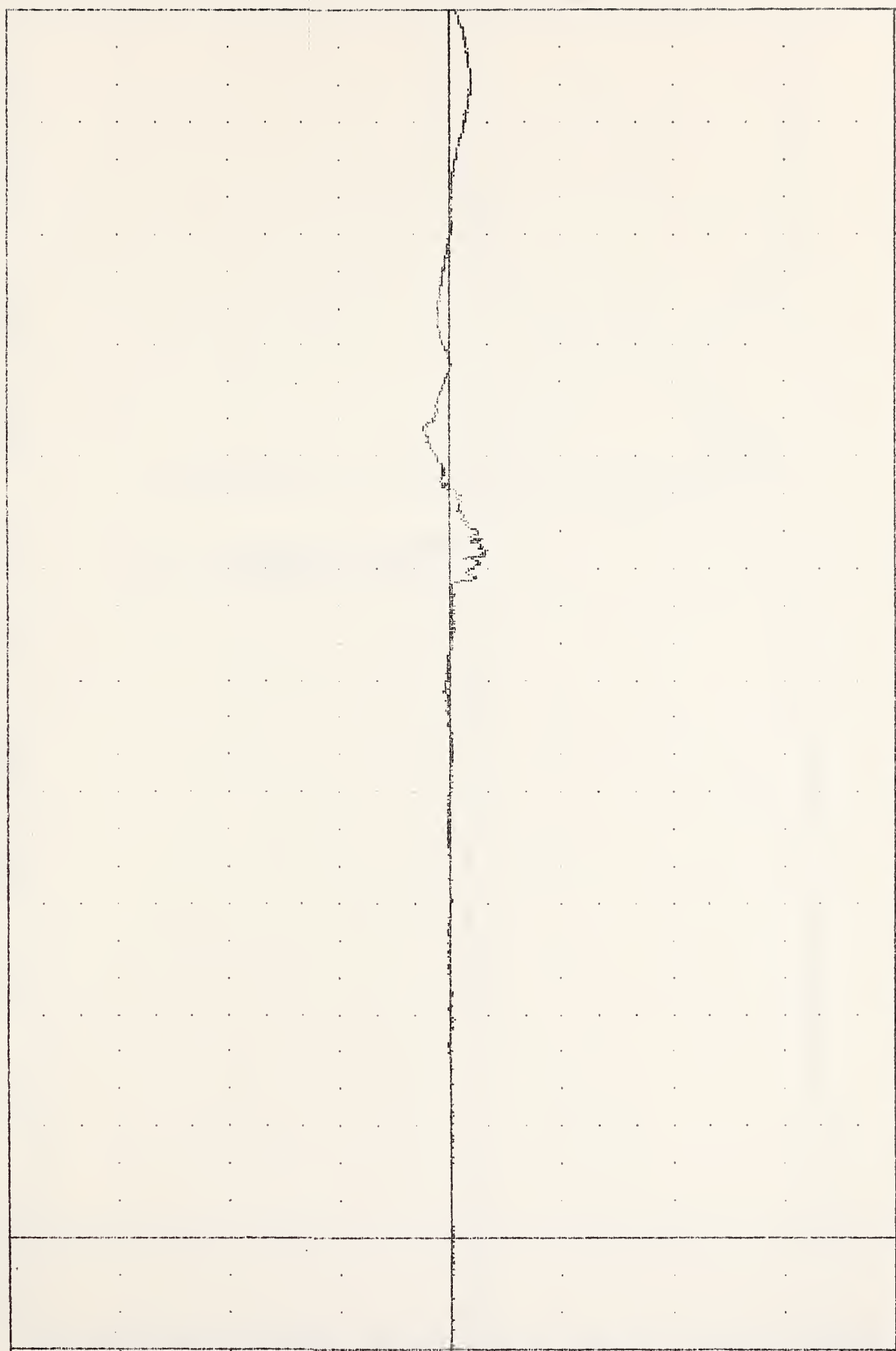
REG. MODEL VALID. TEST

FILTER = ALPF 16500/ 52100/ -00

MIN. MAX VALUES = -13.19 0 32.13 9.99 * 108.75

82067
HEADY01

ACCELERATION (G) 150.00 120.00 90.00 60.00 30.00 0.00 -30.00 -60.00 -90.00 -120.00 -150.00

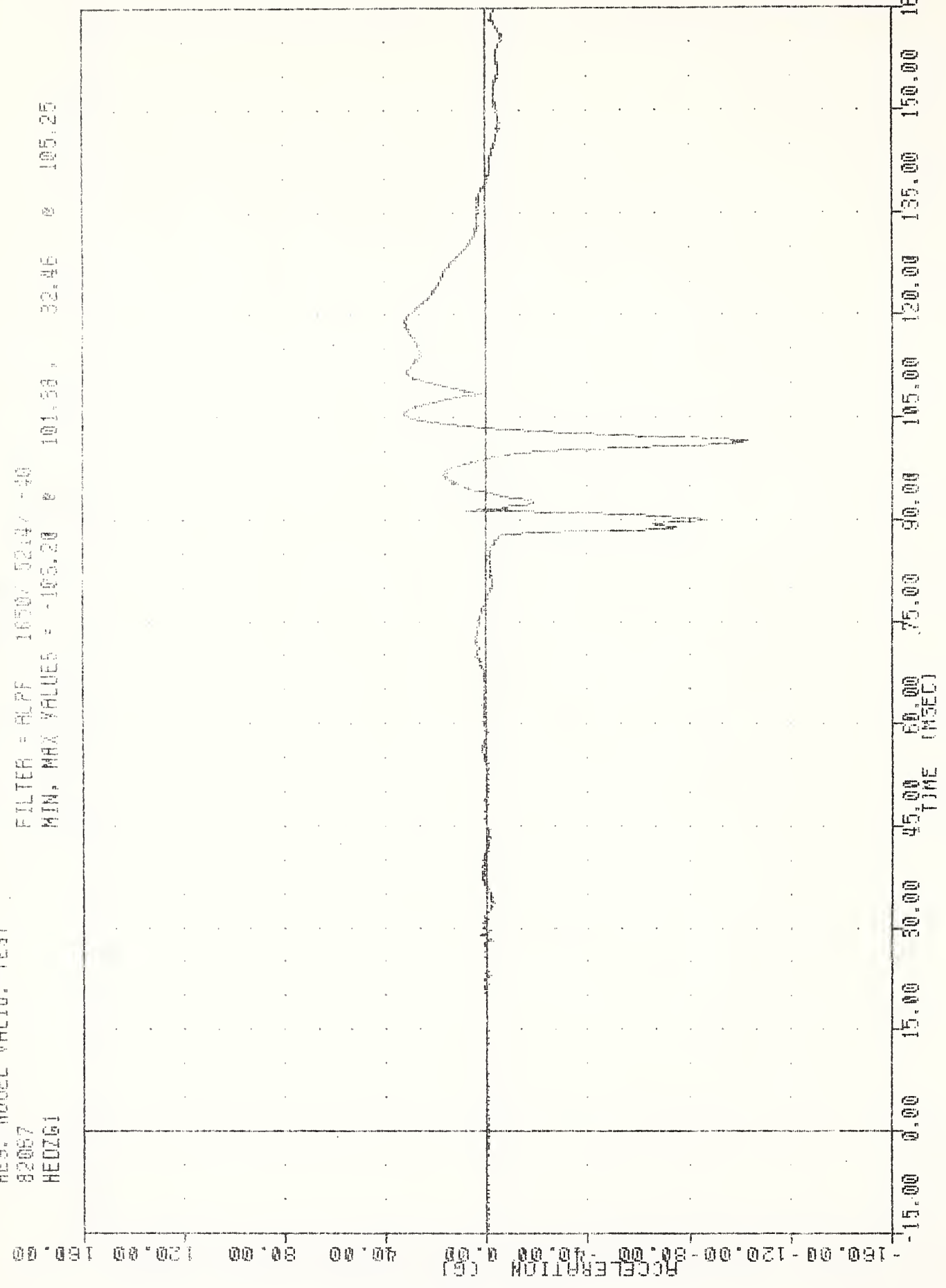


TIME (MSEC) 15.00 30.00 45.00 60.00 75.00 90.00 105.00 120.00 135.00 150.00 165.00

HEAD ACCELERATION Y AXIS DRIVER

551089503 , TRC058
RES. MODEL VALID. TEST
82087
HEADZ61

25-MAR-87 14:36:50
FILTER = ALPF 16507 52147 -40
MIN. MAX VALUES = -105.20 0 101.38 0 32.46 0 105.25



A-64

HEAD ACCELERATION Z AXIS DRIVER

25-MAR-82 18:31:08

351039503 , TRC058

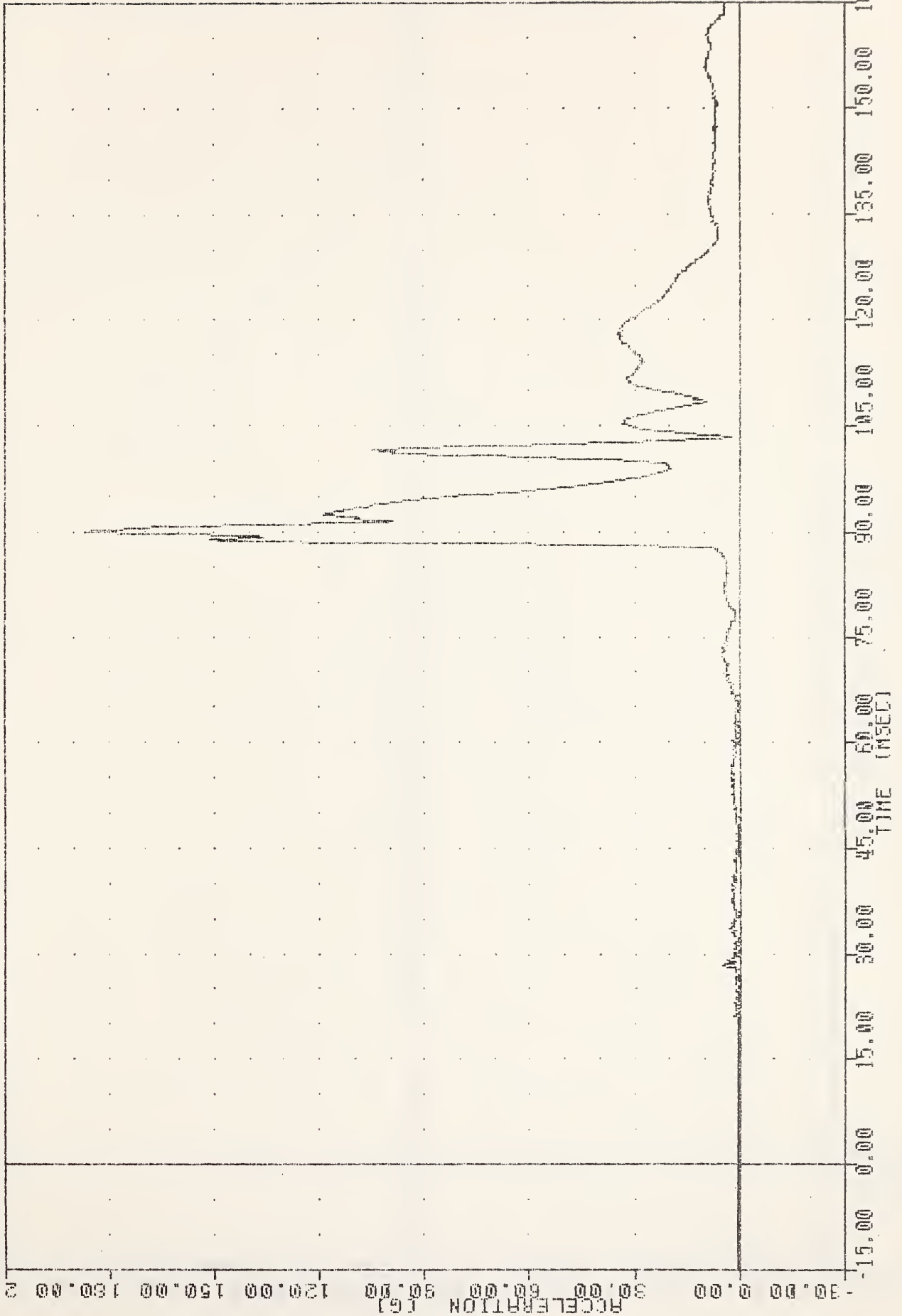
RES. MODEL VALID. TEST

FILTER = RLFF 1650/ 5214/ -40

MIN. MAX VALUES = 0.05 0

-7.98 187.14 0 89.88

HEDR01



A-65

HEAD ACCELERATION RESULTANT DRIVER

25-MAR-82 10:36:59

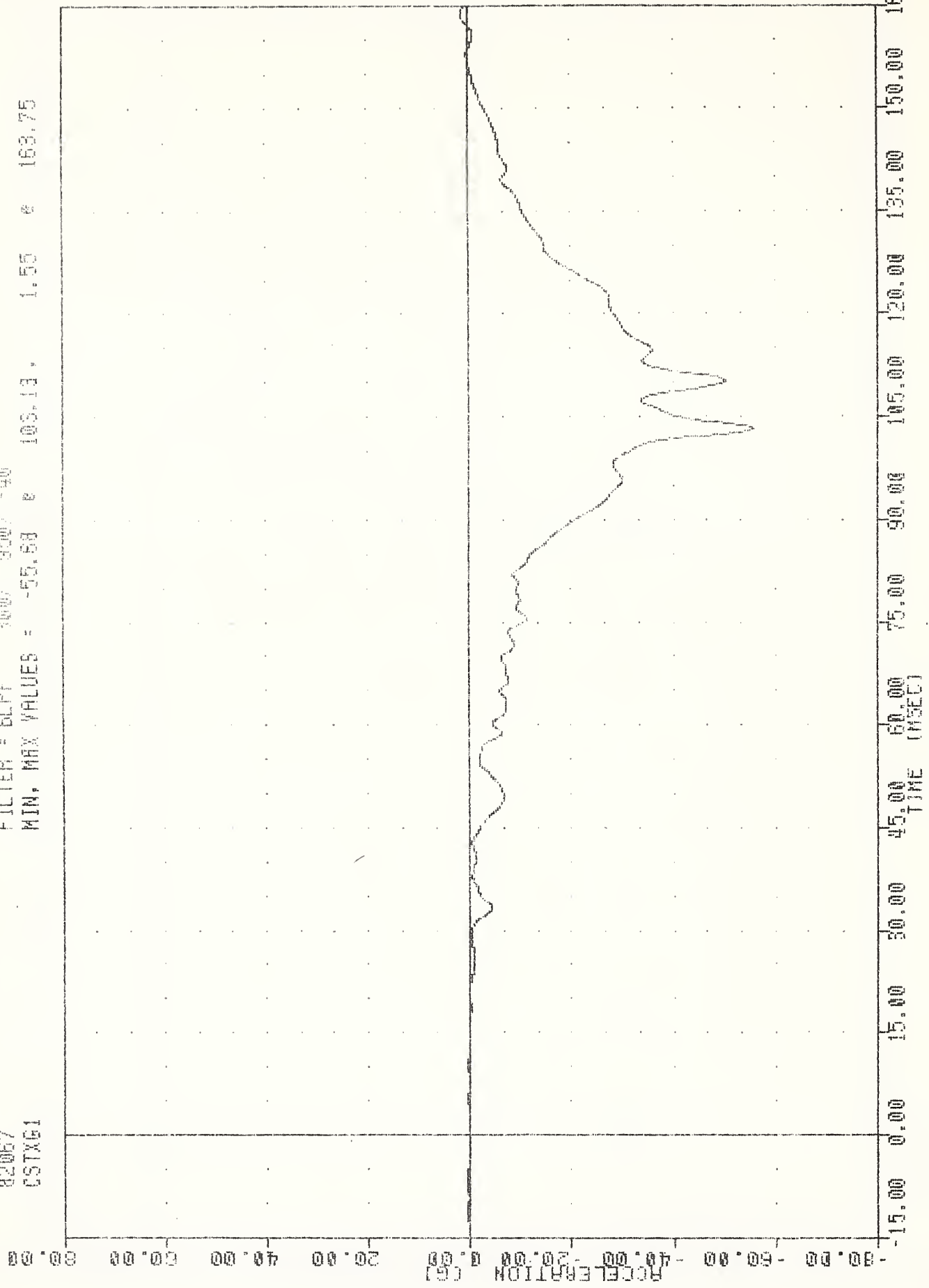
351039503 , TRC058

RES. MODEL VALID. TEST

FILTER = 6LPF 300/ 950/ -40

MIN, MAX VALUES = -55.60 @ 103.13 , 1.55 @ 163.75

02067
CSTXG1



CHEST ACCELERATION X AXIS DRIVER

20-MAR-82 15:38:58

551039503 * JAC058

RES. MODEL VALID. TEST

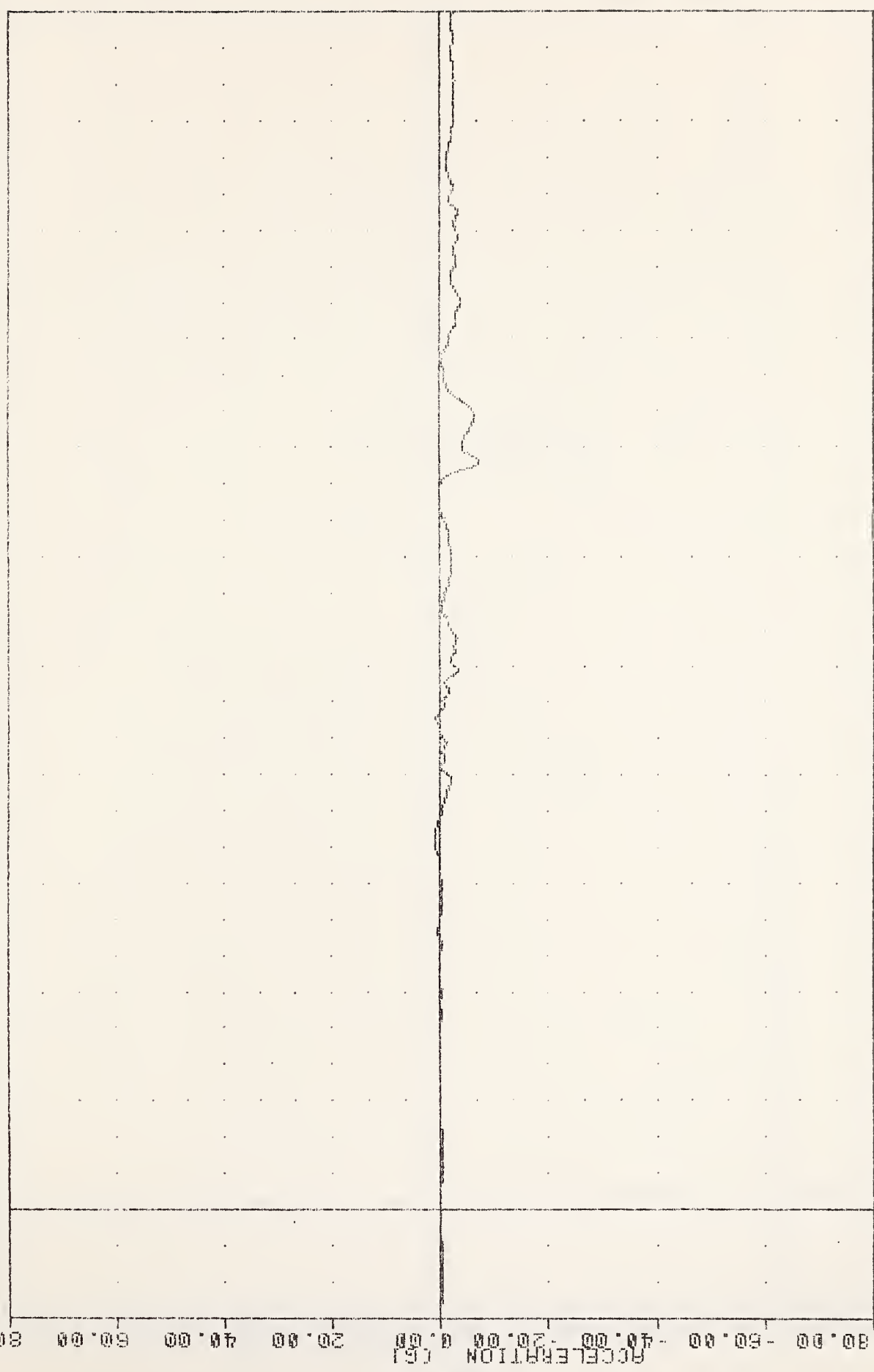
82067

FILTER = 6LFF 500/ 950/ -40

MIN. MAX VALUES = -7.24 0 102.88 0.97 * 67.63

CSTYGI

80.00



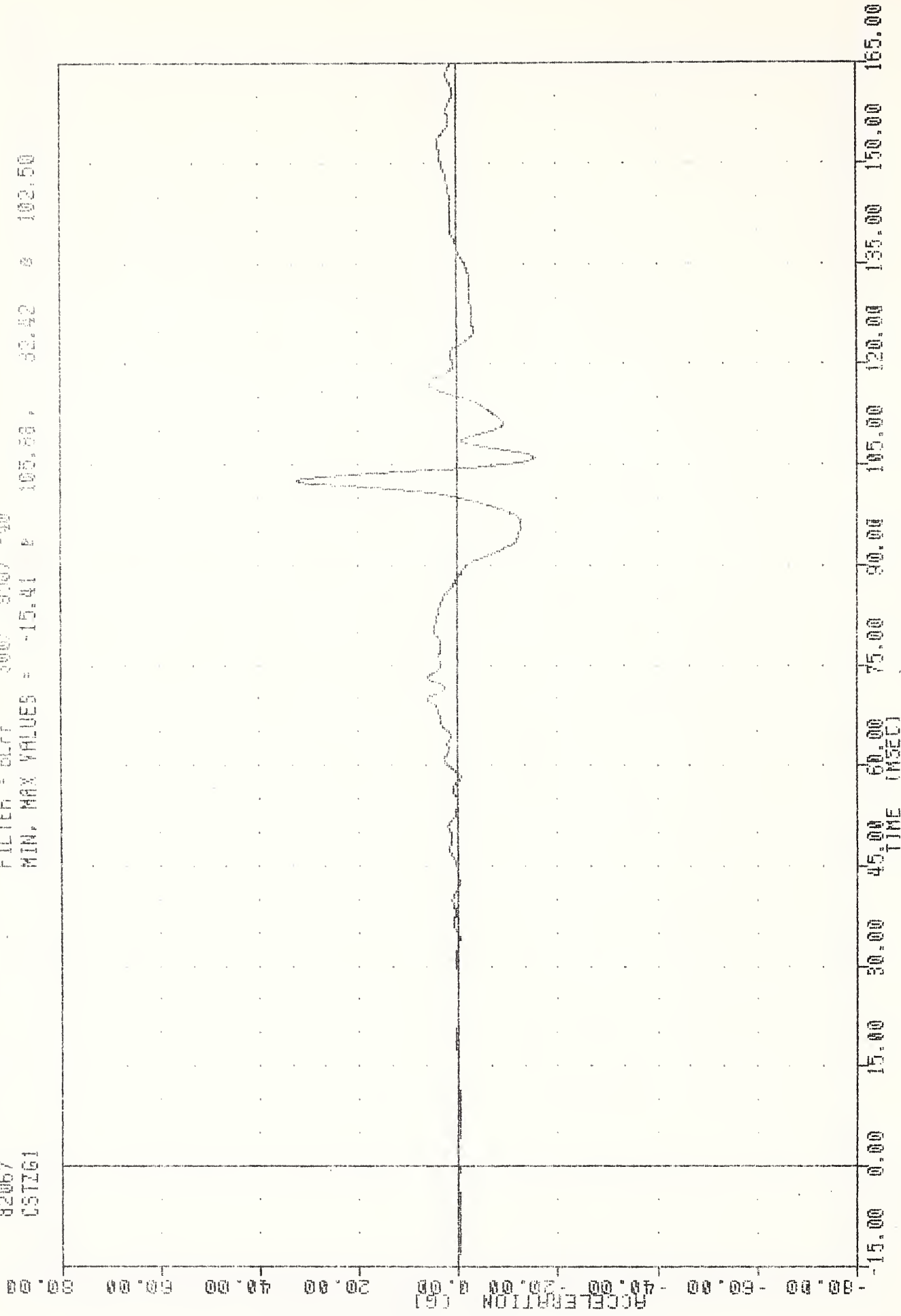
A-67

CHEST ACCELERATION Y AXIS DRIVER

25 MAR 82 15:38:59

551039503 , TAC058
RES. MODEL VALID. TEST
82067
CSTZG1

FILTER = BLPF 300/ 950/ -90
MIN. MAX VALUES = -15.41 105.68 82.42 8 102.50

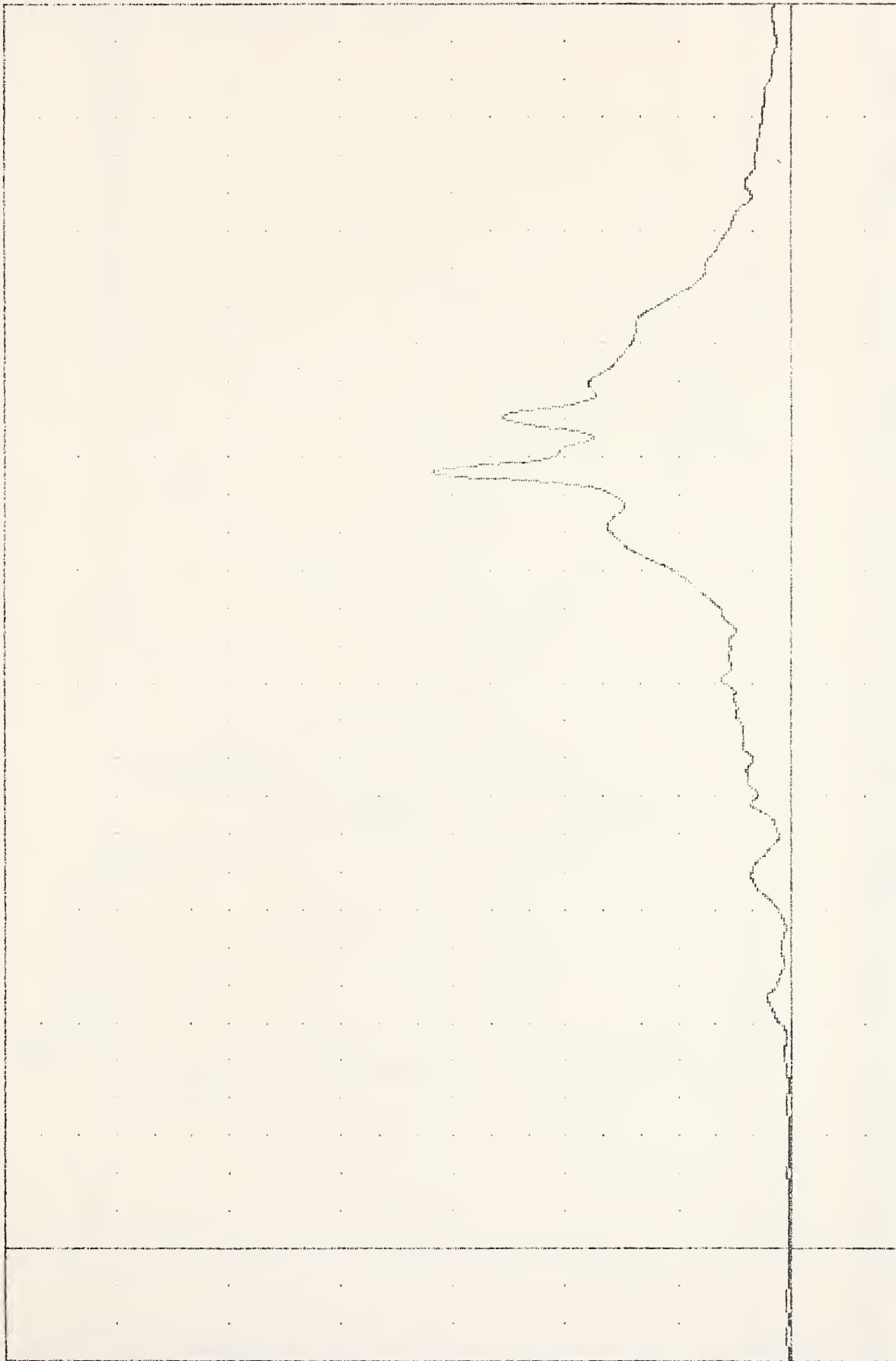


89-68

CHEST ACCELERATION Z AXIS DRIVER

351039503 , TRC056
 RES. MODEL VALID. TEST
 82067
 CSTAG1
 29-MAR-82 15:36:59
 FILTER = BLPF 3000/ 950/ -40
 MIN. MAX VALUES = 0.19 0 12.63 64.03 0 102.86

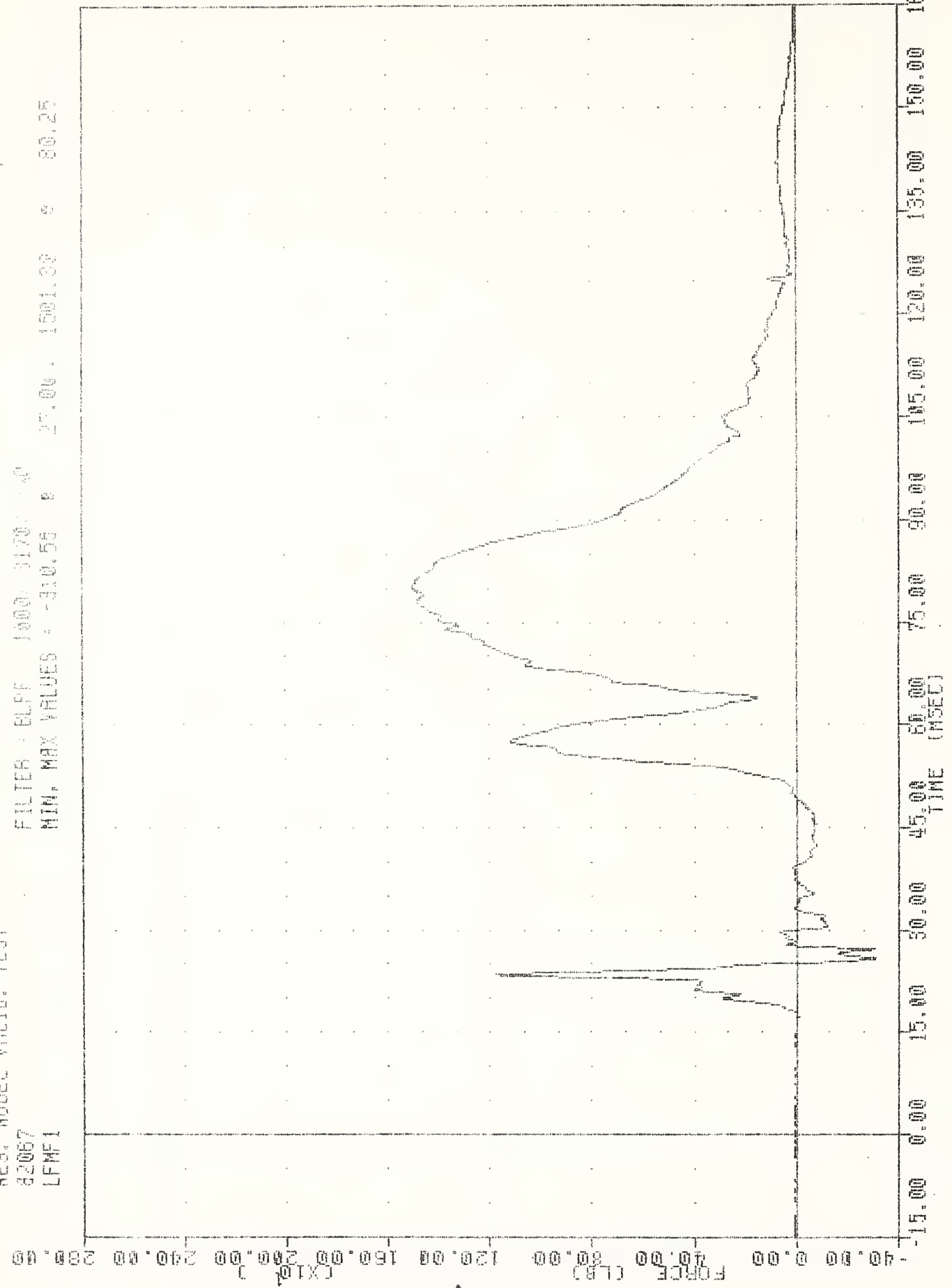
ACCELERATION (G)
 -20.00 0.00 20.00 40.00 60.00 80.00 100.00 120.00 140.00
 TIME (MSEC)
 -15.00 0.00 15.00 30.00 45.00 60.00 75.00 90.00 105.00 120.00 135.00 150.00 165.00



A-69

CHEST ACCELERATION RESULTANT DRIVER

951039503 , TAC058 25-MAR-82 16:31:09
RES. MODEL VALID. TEST
82067 FILTER : BLPF 1000 31700 40
LFMF1 MIN. MAX VALUES : -310.55 27.00 1501.33 e 80.25



A-70

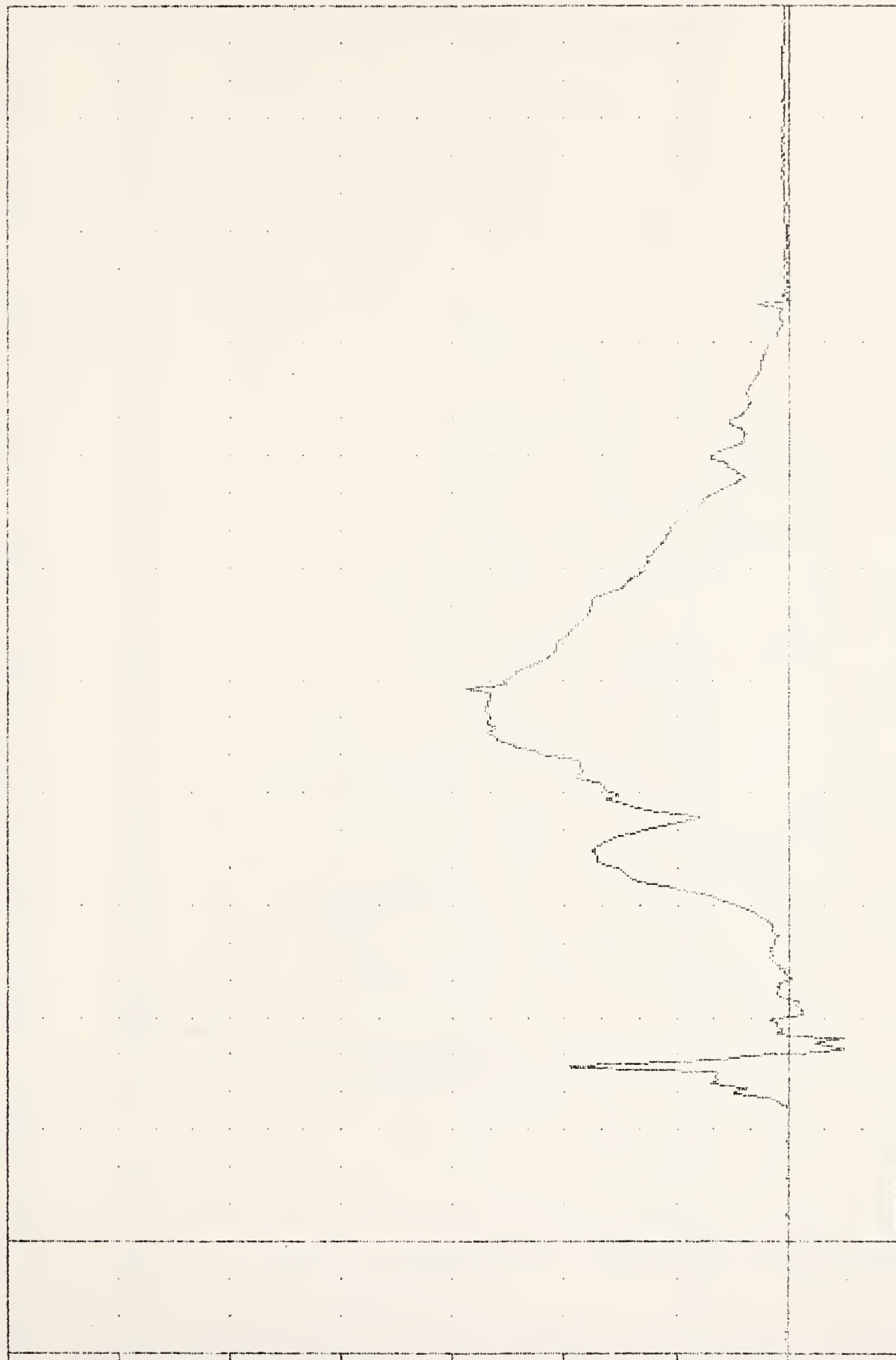
LEFT FEMUR FORCE DRIVER

25-MAR-82 18:31:00

851039503 , TRC058
RES. MODEL VALID. TEST
92067
RFMF1

FILTER = BLPF 1000: 9170 / -40
MIN. MAX VALUES = -197.00 25.75, 1147.55 73.68

FORCE (LBS) X10³



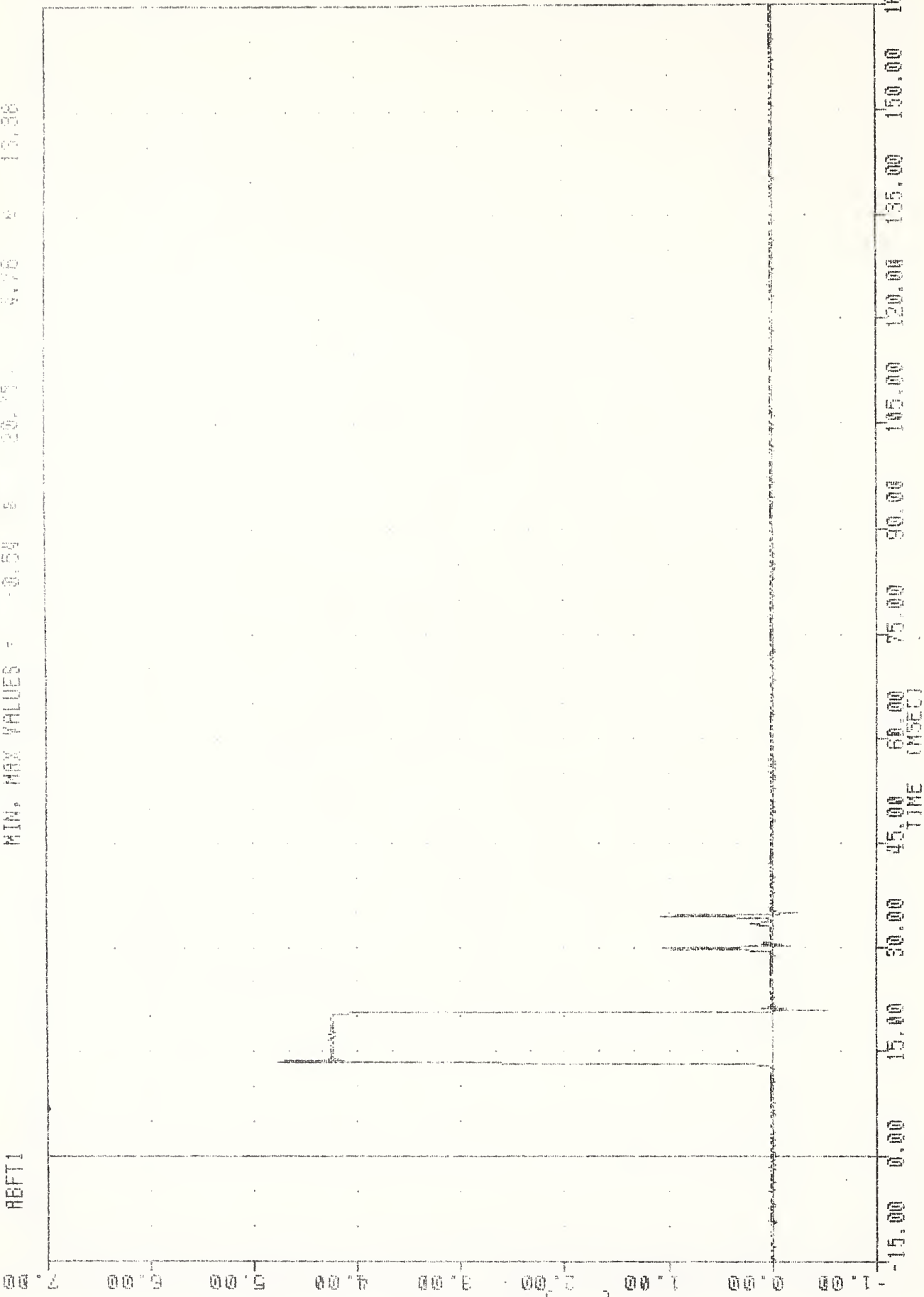
A-12

RIGHT FEMUR FORCE DRIVER

551099506 760058
RES. MODEL VALID. TEST
82067
ABFT1

25-MAR-82 15:38:54

FILTER = RLFF 1050 5214 100
MIN. MAX VALUES = -0.54 8 20.75 8 13.88



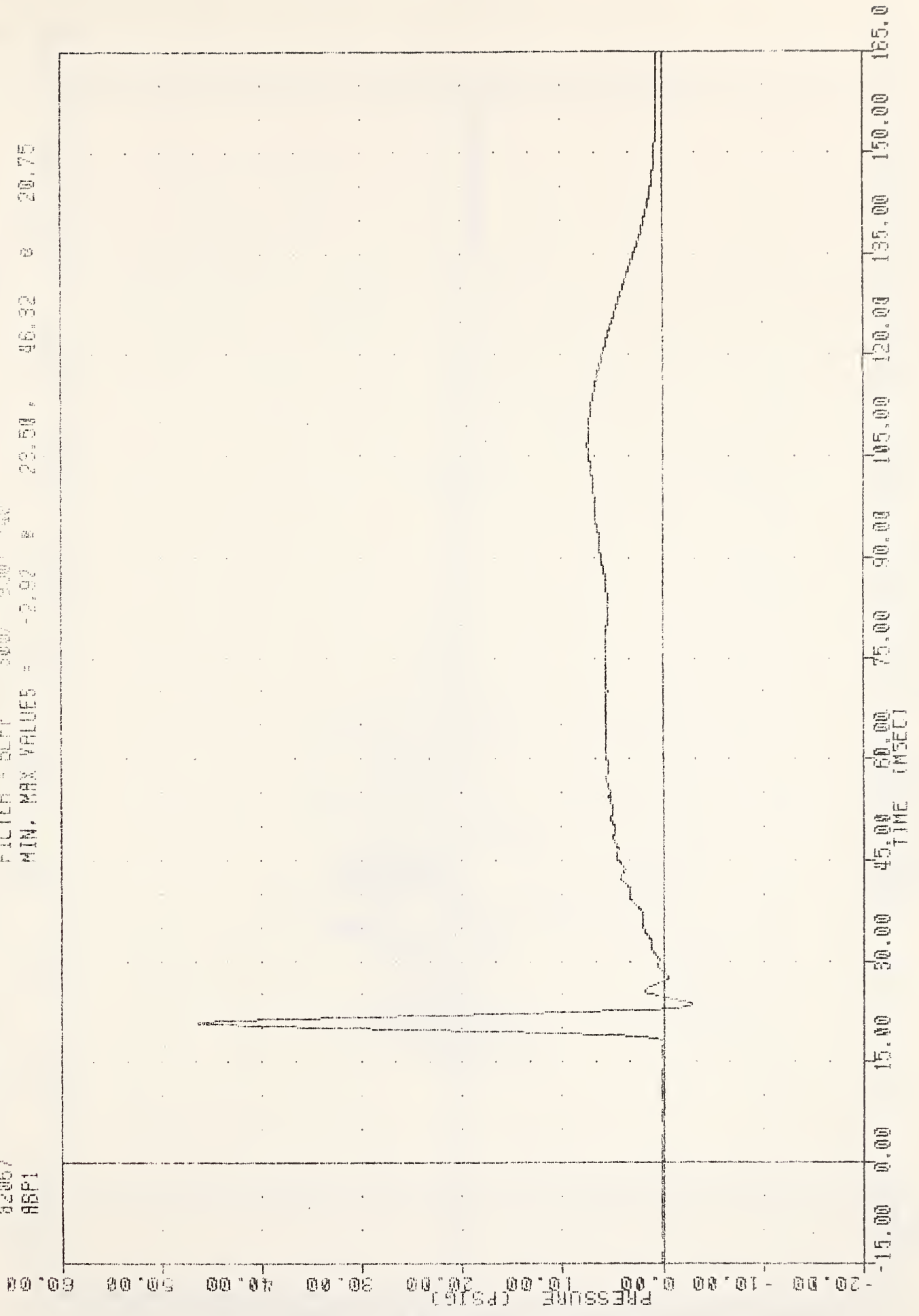
A-72

AIR BAG FIRING EVENT DRIVER

23 MAR 82 15:58:59

551039503 * TRC058
RES. NODEL VALID. TEST
82067
ABP1

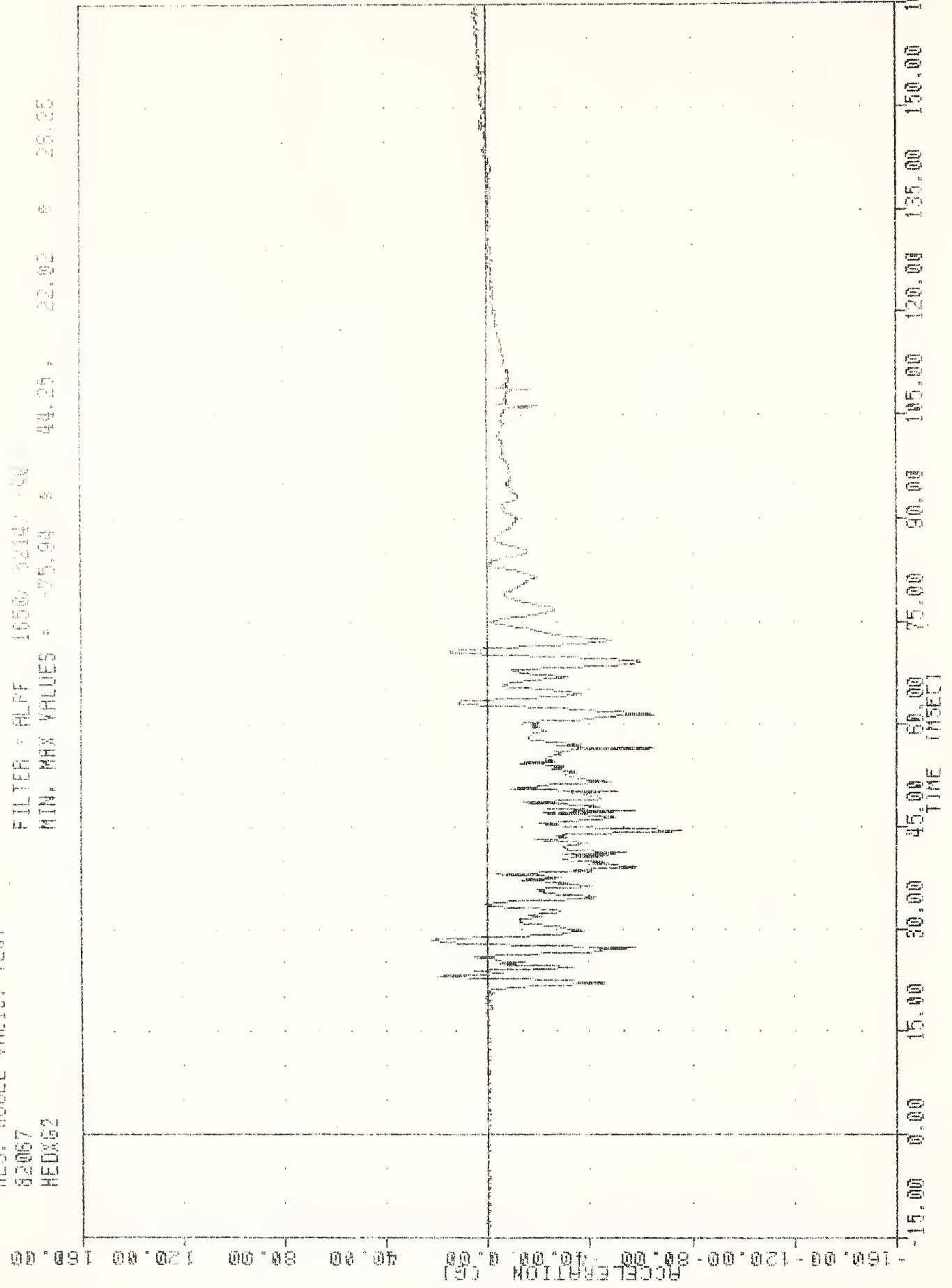
FILTER = BLFF 300/ 950/ 40
MIN. MAX VALUES = -2.92 46.32 20.75



AIR BAG PRESSURE DRIVER

951039503
RES. MODEL VALID. TEST
82067
HEDX52

25-MAR-82 15:36:59
FILTER = ALPF 16500 0.2147 160
MIN. MAX VALUES = -75.94 44.25 22.92 26.35



A-74

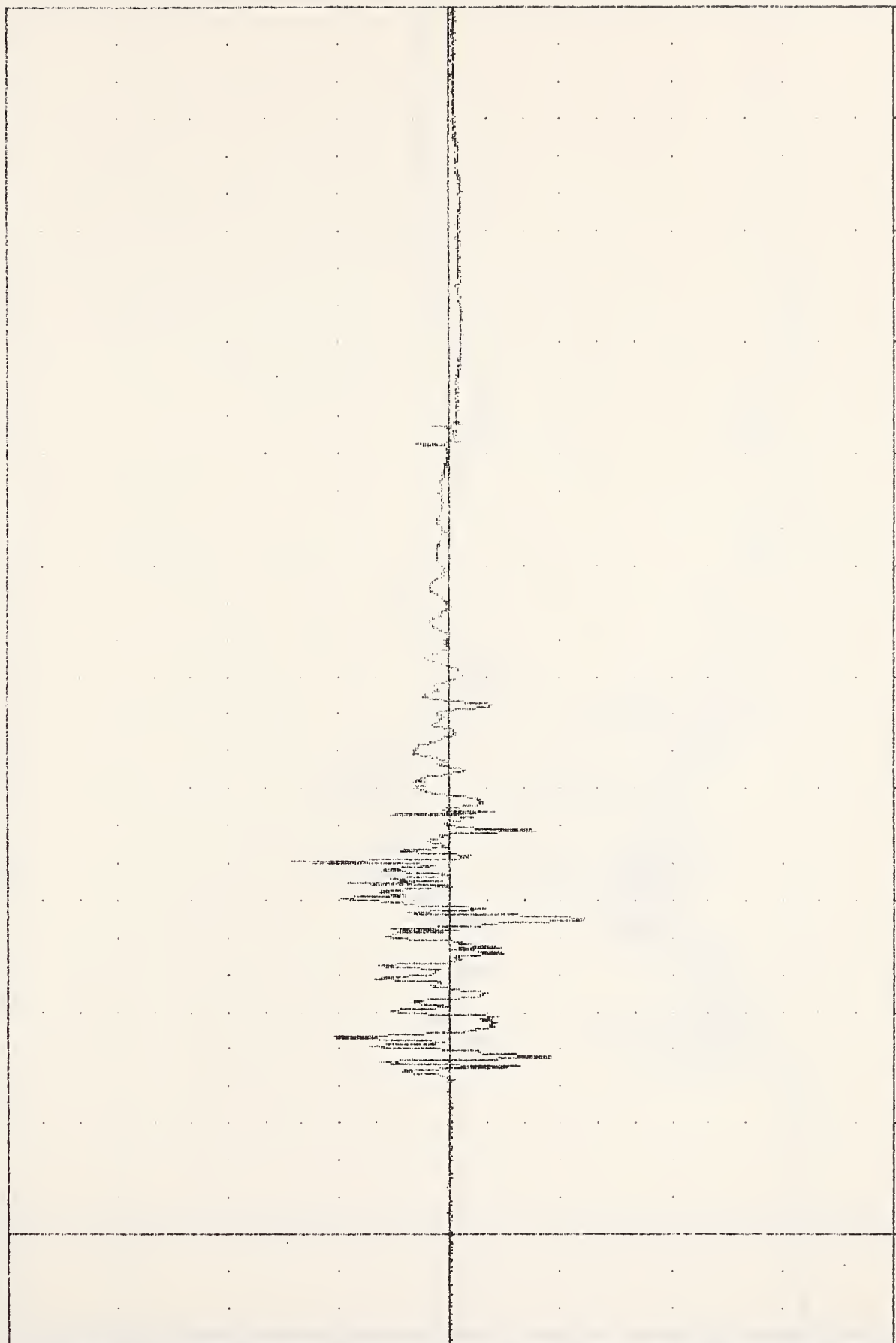
HEAD ACCELERATION X AXIS PASSENGER

551025500 , TRC050
RES. MODEL VALID. TEST
02067
HEDY02

25-MAR-82 15:30:59

FILTER = ALFF 1650/ 5214/ -40
MIN. MAX VALUES = -48.28 e 42.38 , 57.05 e 50.13

ACCELERATION (G)
150.00
120.00
90.00
60.00
30.00
0.00
-30.00
-60.00
-90.00
-120.00
-150.00



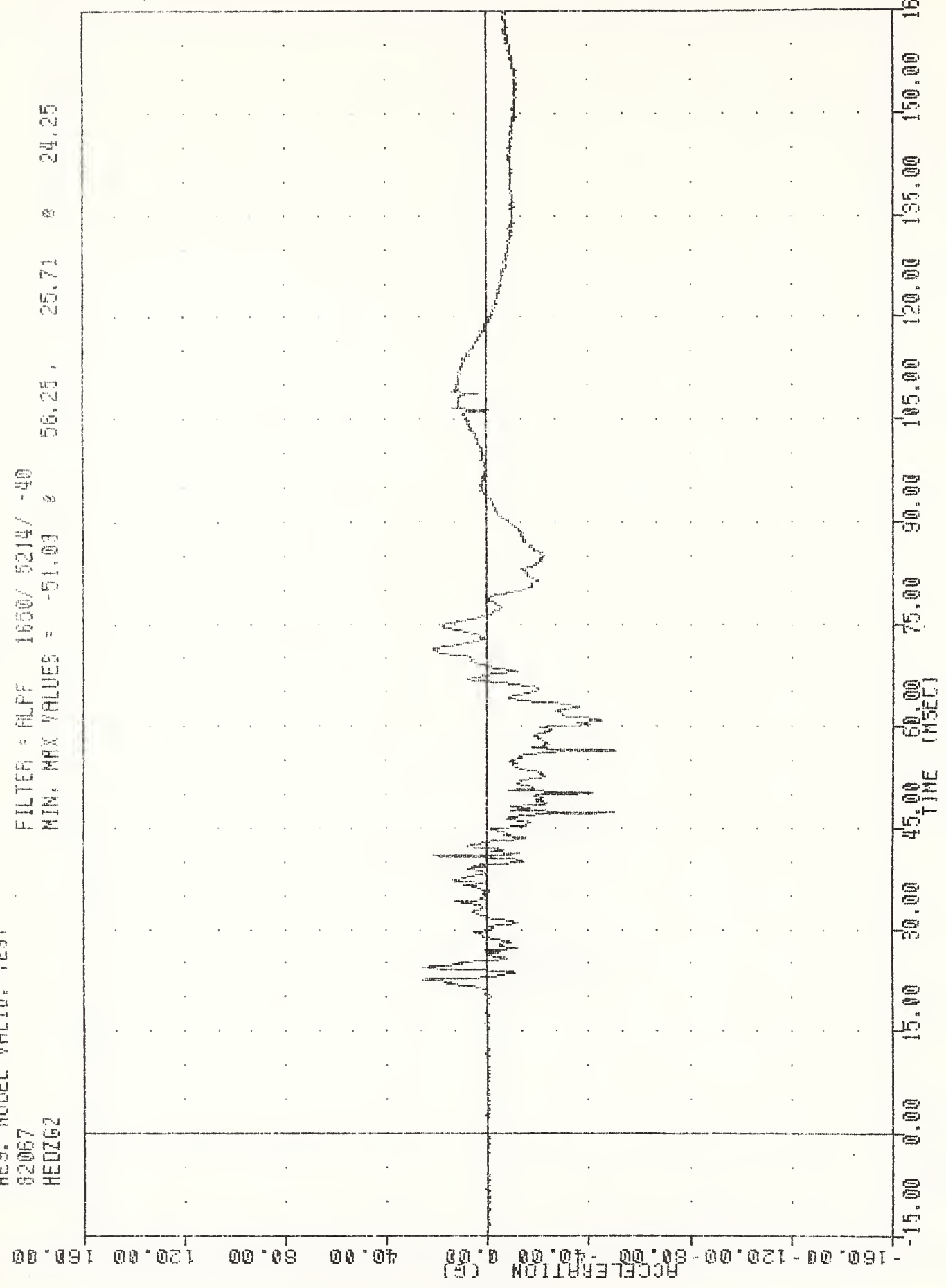
15.00 20.00 30.00 45.00 60.00 75.00 90.00 105.00 120.00 135.00 150.00 185.00
TIME (MSEC)

A-75

HEAD ACCELERATION Y AXIS PASSENGER

551039503 ; TAC058
RES. MODEL VALID. TEST
02067
HEADZ62

25-MAR-82 15:36:59
FILTER = ALPF 1650/ 5214/ -40
MIN. MAX VALUES = -51.03 56.25 25.71 24.25



A-76

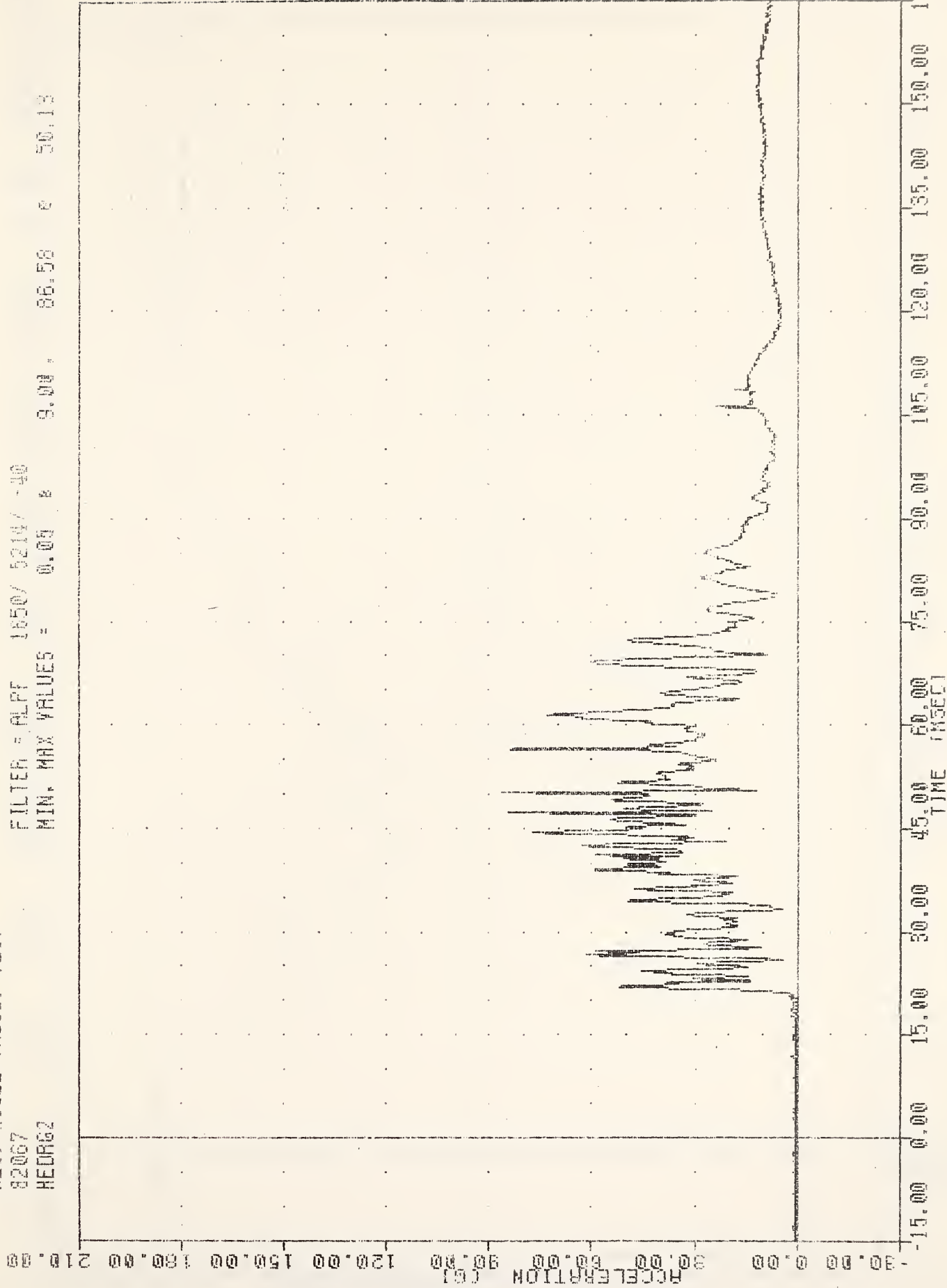
HEAD ACCELERATION Z AXIS PASSENGER

551039503 , TAC058
 RES. MODEL VALID, TEST
 82067
 HEDR62

29-MAR-82 16:31:06

FILTER = ALPF 1650/ 5214/ -40

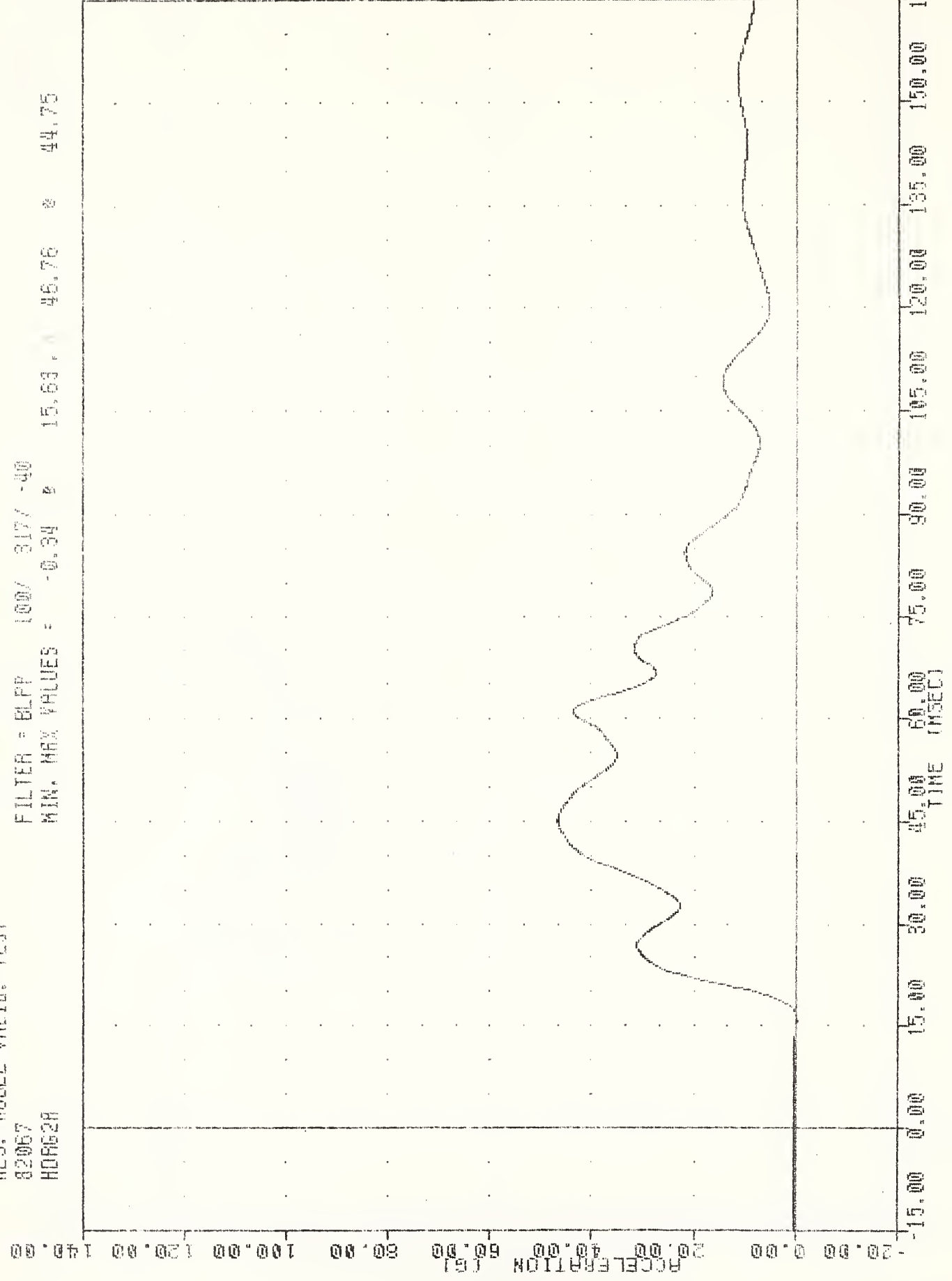
MIN. MAX VALUES = 0.05 8 9.00 88.58 50.13



A-77

HEAD ACCELERATION RESULTANT PASSENGER

951039503 , T6C058 2-APR-82 15:43:07
RES. MODEL VALID. TEST
82067 FILTER = BLPP 100/ 317/ -40
HDR062H MIN. MAX VALUES = -0.34 15.63 46.76 44.75



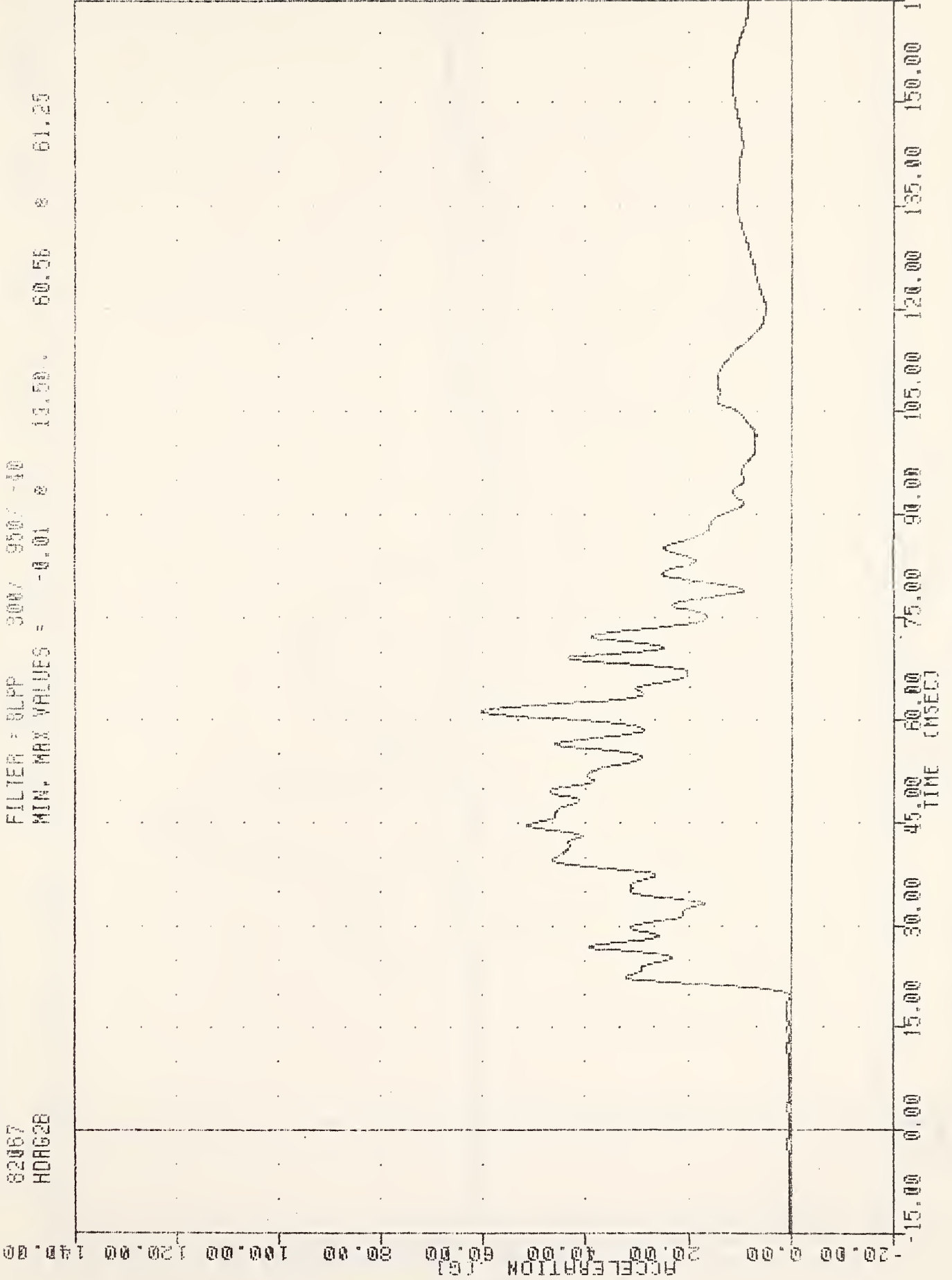
A-18

3 YR OLD HEAD RESULTANT (CLASS 100)

S51089503 , TRC050
RES. MODEL VALID. TEST
82067
H0RC2B

2-APR-62 15:43:07

FILTER = 8LPP 3007 9507 -40
MIN. MAX VALUES = -0.01 0 13.50 60.56 0 61.25



A-79

3 YR OLD HEAD RESULTANT (CLASS 180)

25-MAR-82 15:36:54

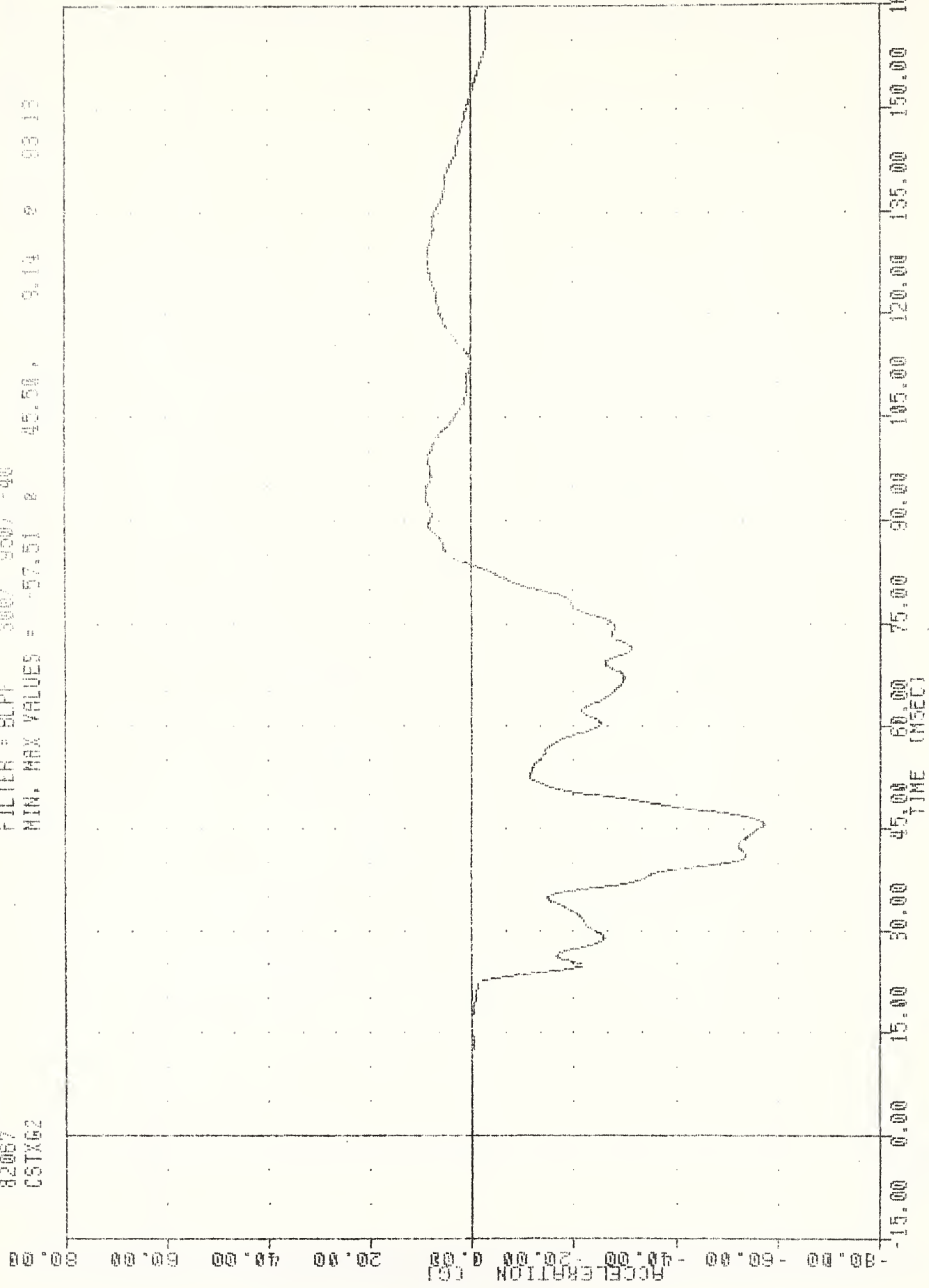
551039503 , TRC058

RES. MODEL VALID. TEST

FILTER = BLPF 300/ 900/ -40

MIN. MAX VALUES = -57.51 8 45.50, 9.14 e 93.13

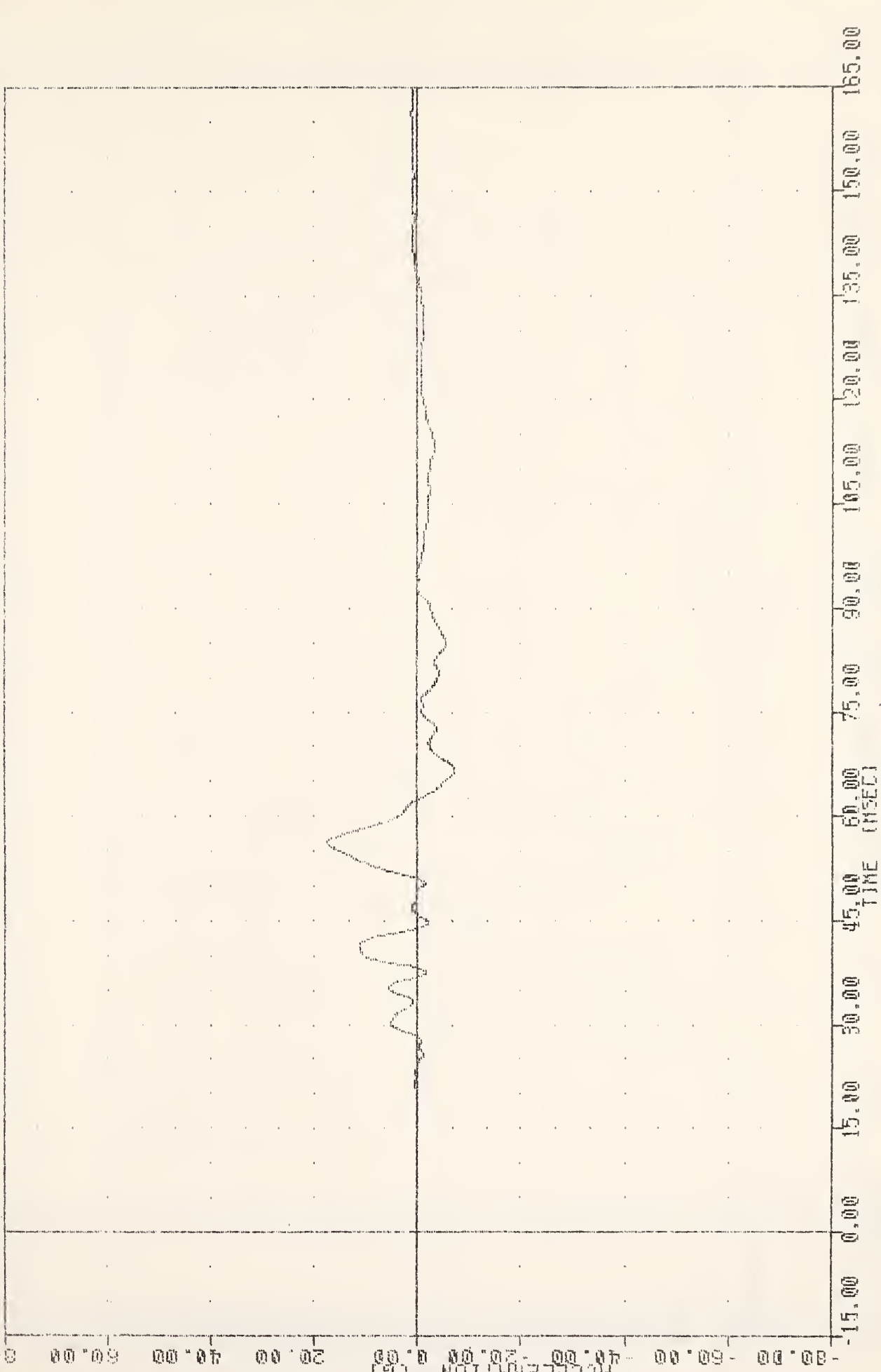
82067
CSTAG2



A-80

CHEST ACCELERATION X AXIS PASSENGER

551039503 , TRC058
 REG. MODEL VALID. TEST
 02067
 CSTY62



CHEST ACCELERATION Y AXIS PASSENGER

25-MAR-82 15:36:59

351059503 , TRC058

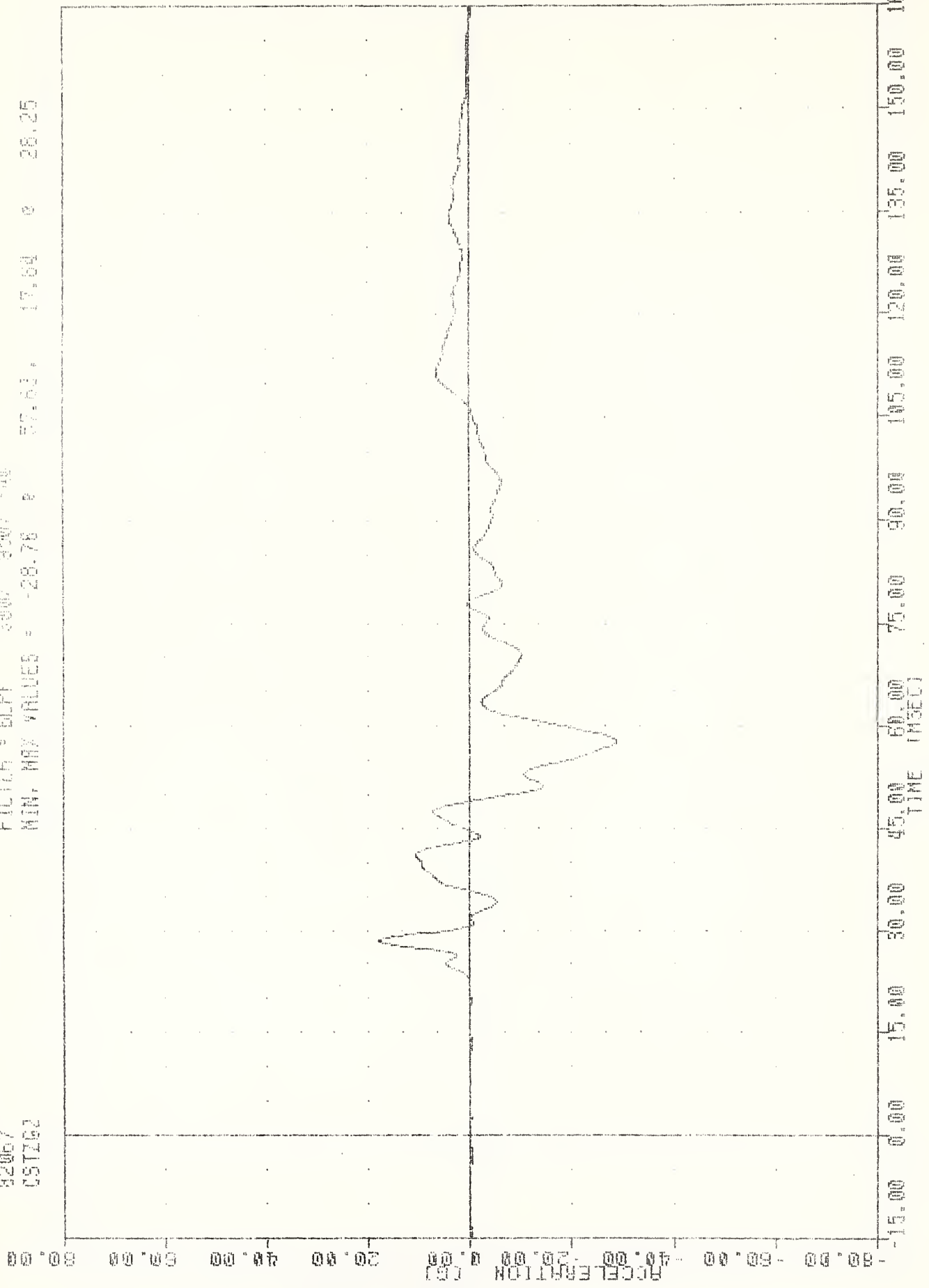
RES. MODEL VALID. TEST

92067

FILTER = OLPF 300/ 350/ -40

CSTIG2

MIN. MAX VALUES = -28.78 17.64 28.25



A-8z

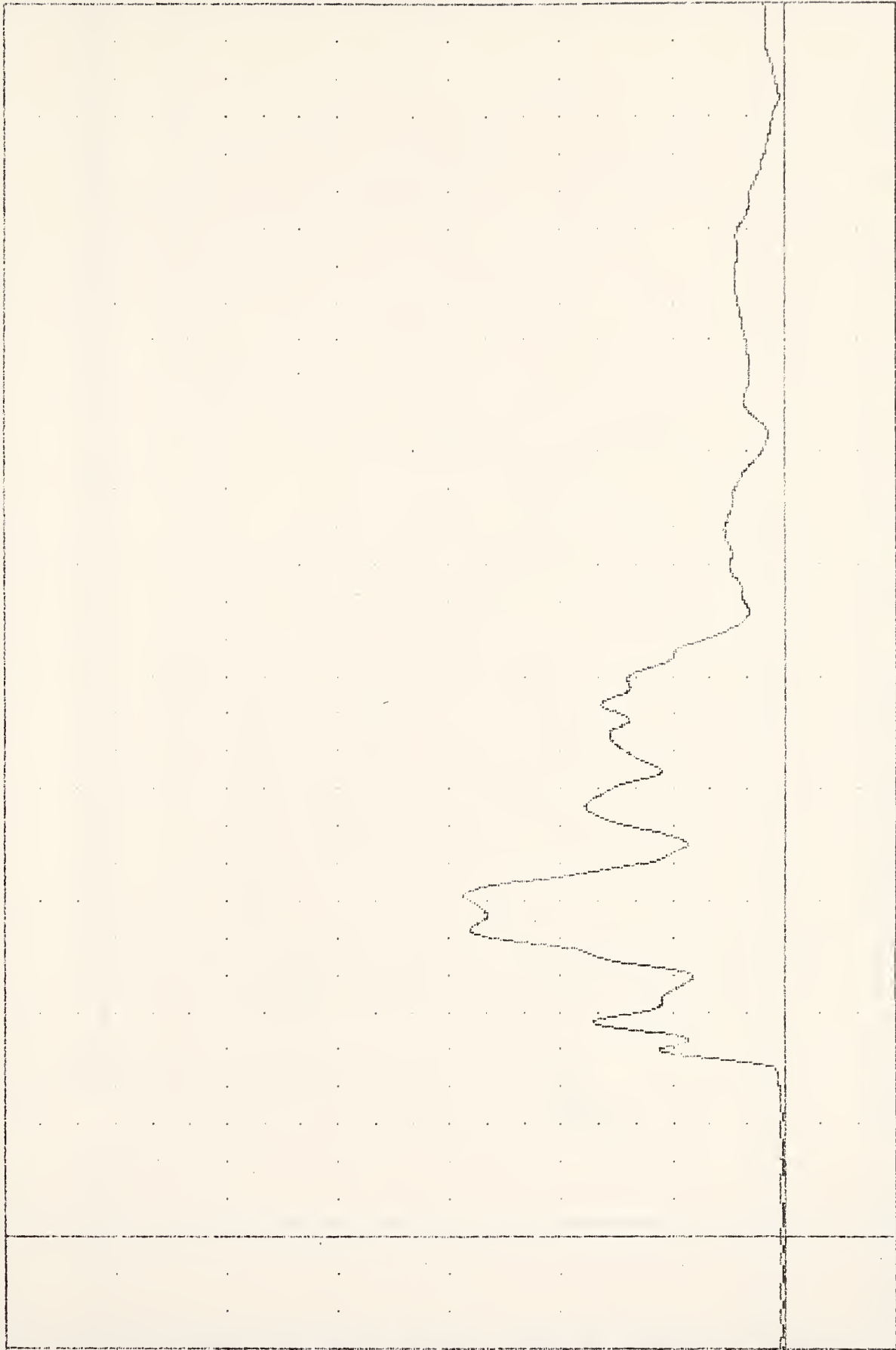
CHEST ACCELERATION Z AXIS PASSENGER

551059506 , TRC058
REG. MODEL VALID, TEST
B2067
CSTRG2

25 MAR 82 15:36:59

FILTER : BLPF 300V 950V 40
MIN, MAX VALUES : 0.19 @ 12.63, 57.68 @ 45.63

ACCELERATION (G)



A-83

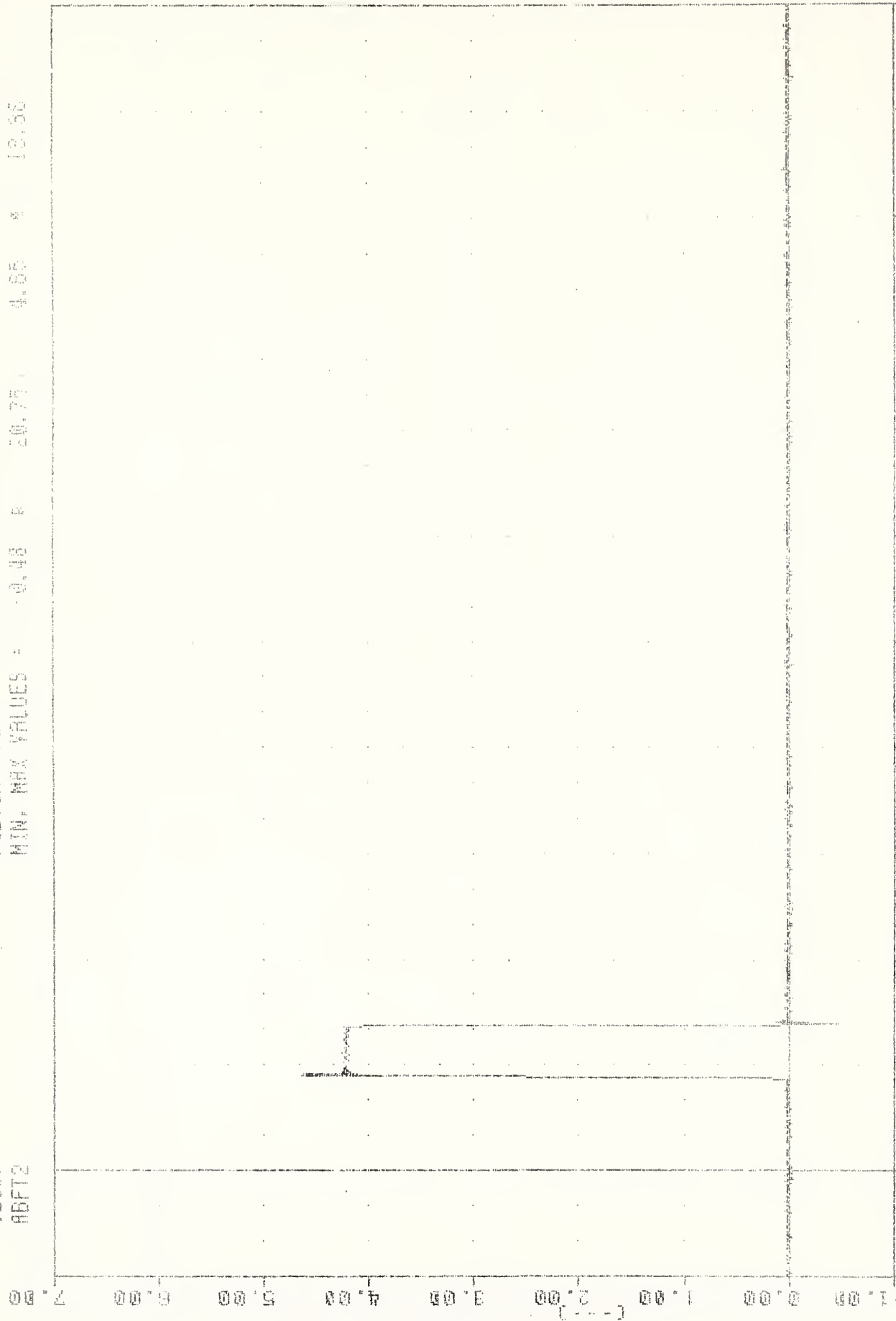
CHEST ACCELERATION RESULTANT PASSENGER

20-MAR-82 15:36:79

351039500 *TAC058
AES, MODEL VALID, TEST
02067
ABFT2

FILTER = ALPF 1552 1216 14
MIN, MAX VALUES = -0.48 4.66

20.75 4.66 13.56

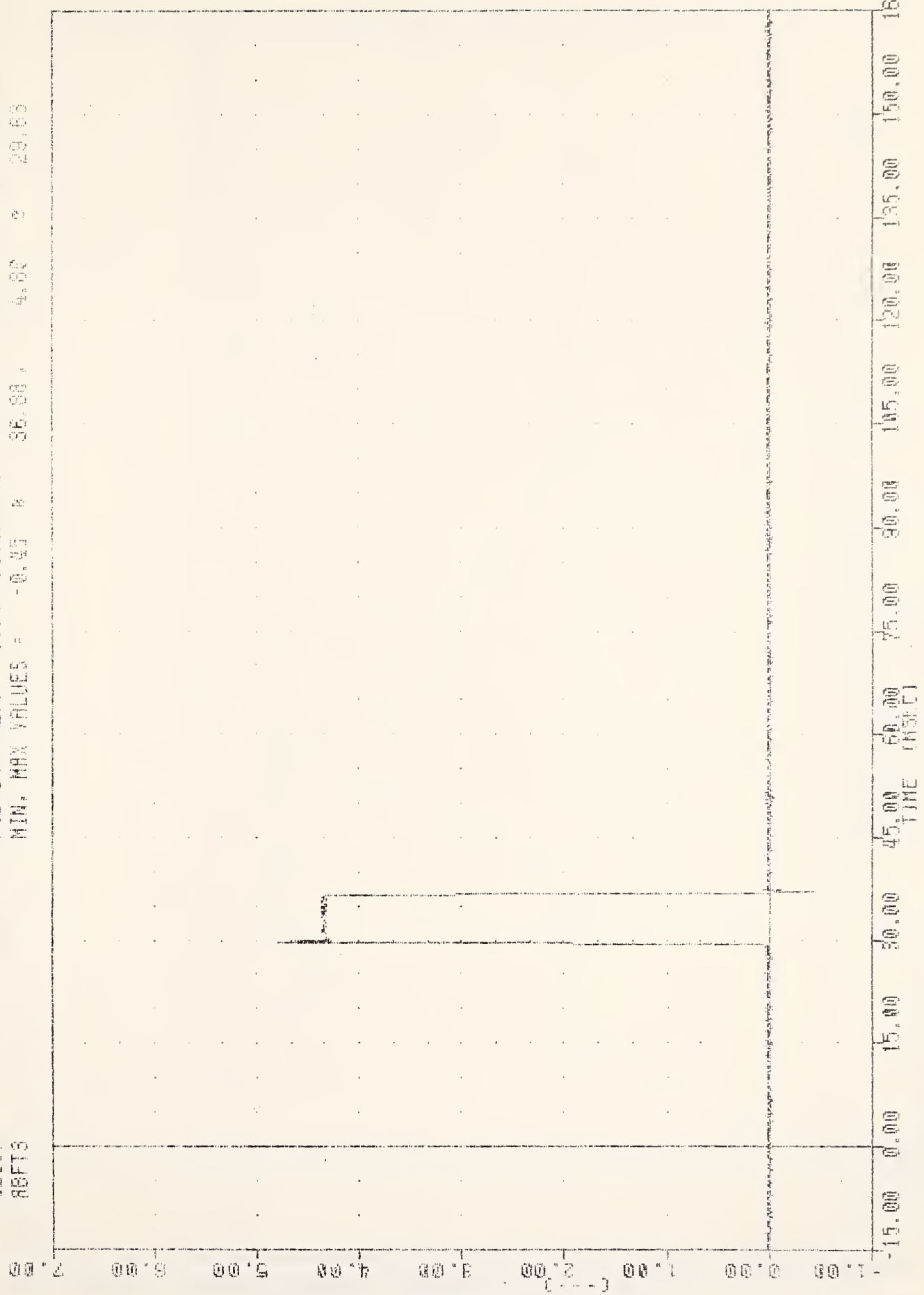


TIME (INSECT)	Value
0.00	0.00
15.00	0.00
16.00	4.00
165.00	0.00

AIR BAG FIRING EVENT PASSENGER

551039503 - TRC058
 RES. MODEL VALID. TEST
 82067
 RBFTS

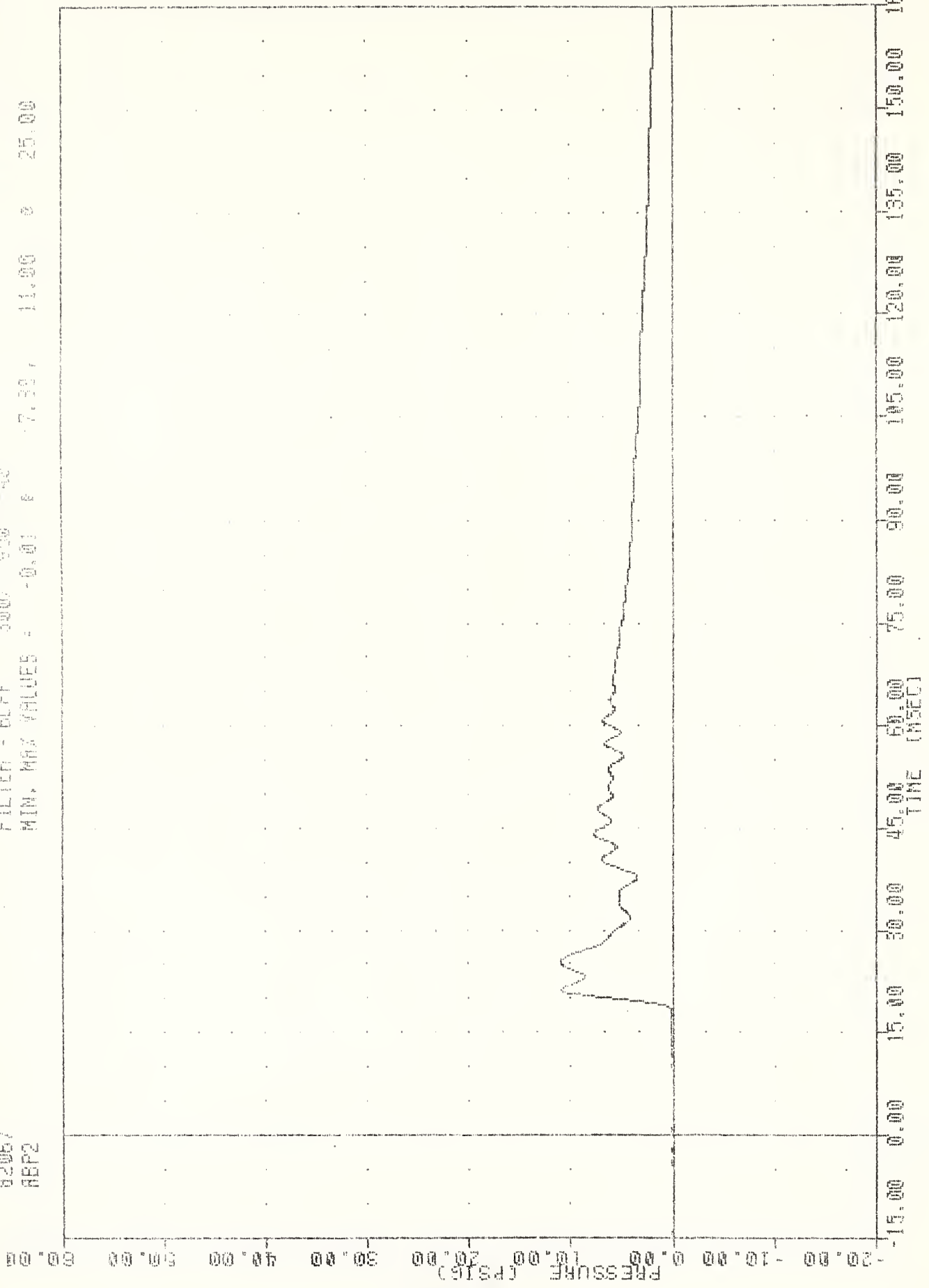
25-MAR-82 10:58:59
 FILTER = ALPF 16507 92147 -50
 MIN. MAX VALUES = -0.45 8 36.00 4.80 9 29.63



AIR BAG FIRING EVENT

551035503 , TRC056
RES. MODEL VALID, TEST
62067
ABP2

25-MAR-82 15:36:56
FILTER = 6L PF 3000 950 -40
MIN, MAX VALUES = -0.01 8 7.30 11.00 e 25.00



A-86

AIR BAG PRESSURE PASSENGER

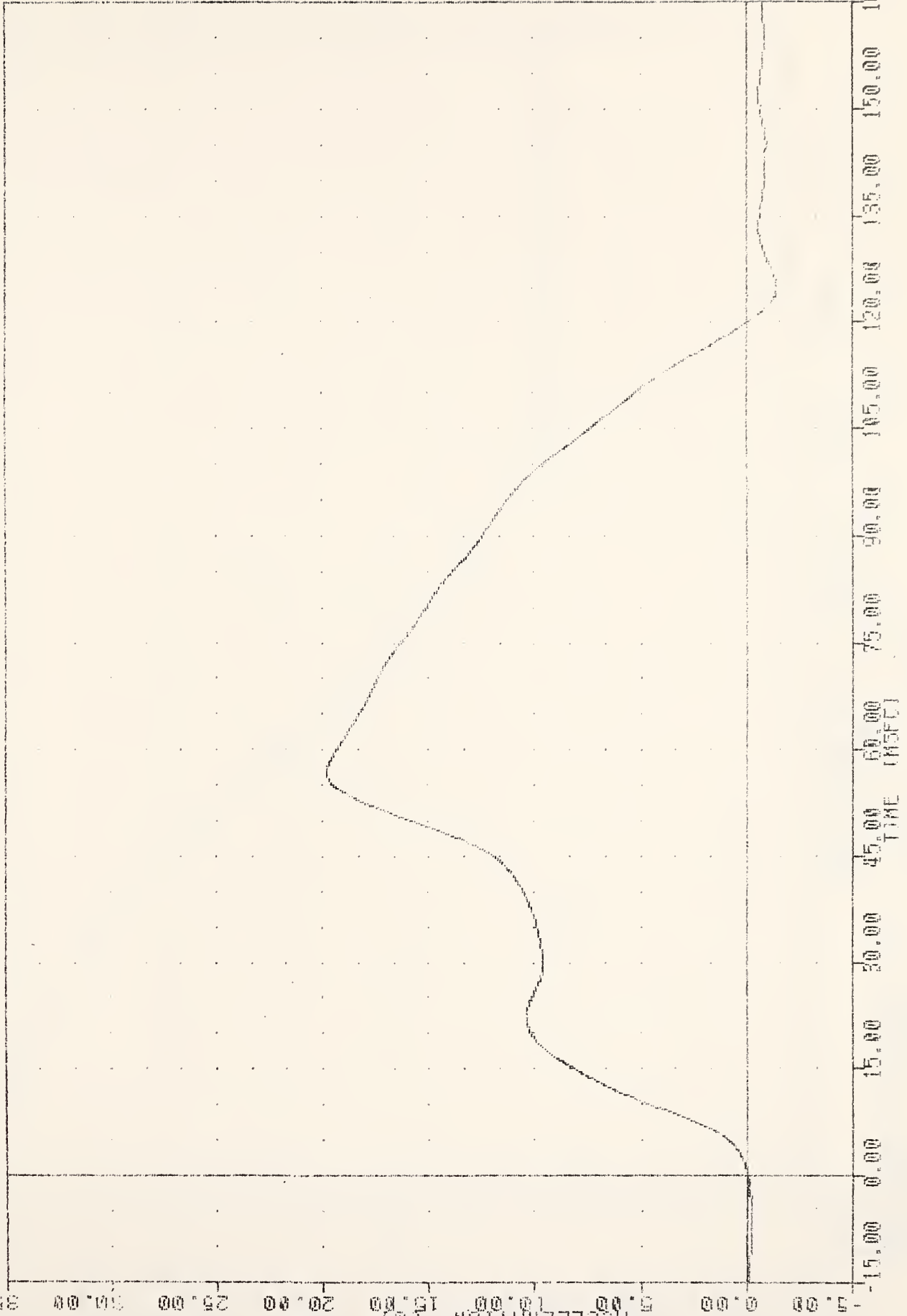
351039503 , TRC056
RES. MODEL VALID. TEST
32067
SLODG

25-MAR-82 15:35:59

FILTER = BLPF 100% 317 / 140

MIN. MAX VALUES = -1.48 g 124.63 , 19.80 g 56.63

ACCELERATION (g)



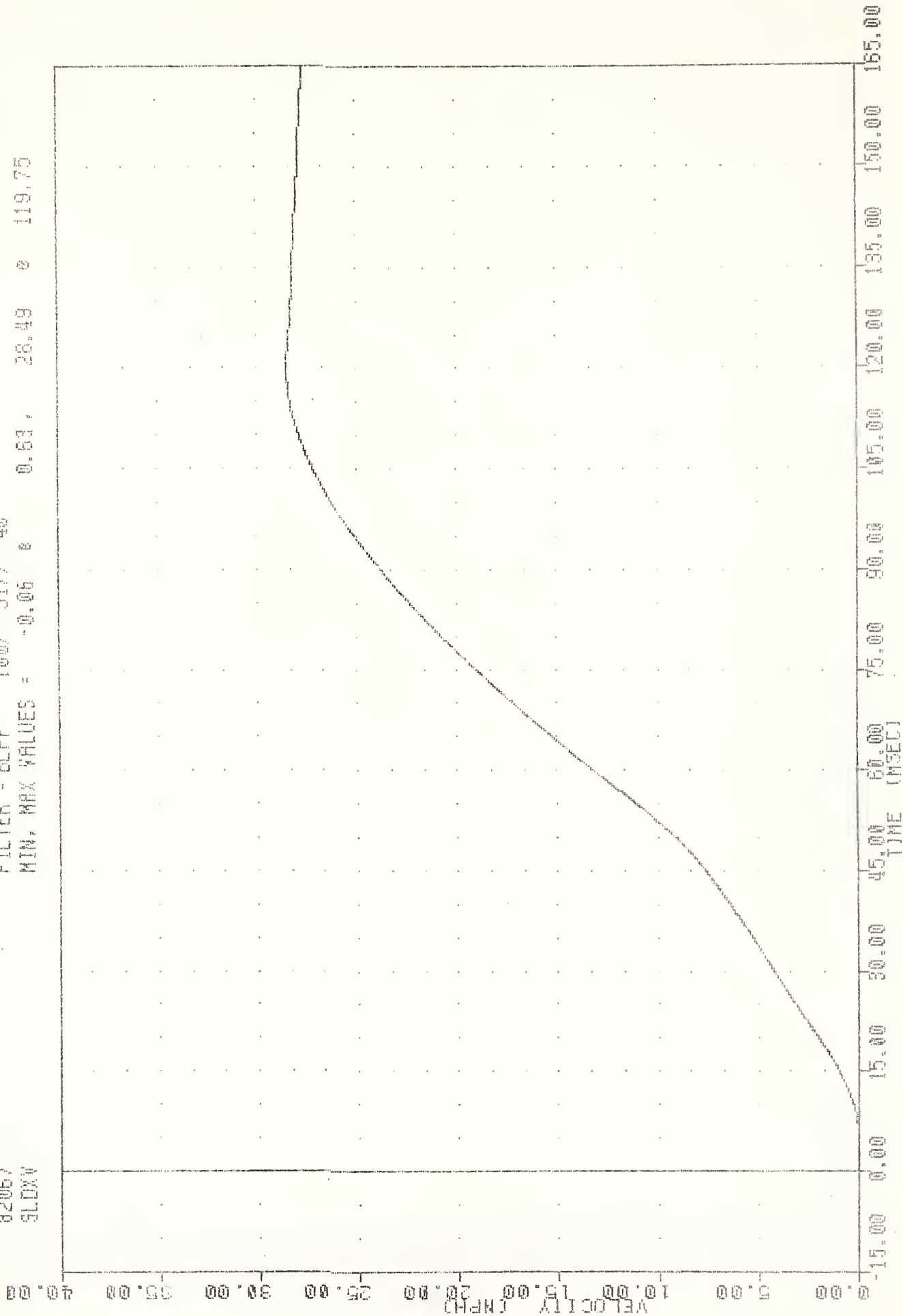
A-87

SLED ACCELERATION

25-MAR-82 15:38:59

351039503 , TRC058
RES. MODEL VALID. TEST
62067
SLOWV

FILTER = BLPF 100/ 317/ -40
MIN. MAX VALUES = -0.06 e 0.63, 28.49 e 119.75



SLED VELOCITY IN MPH

951038503 * TSC059
RES. NOCEL VALID. TEST
82067
FTUXG

25-MAR-82 15:36:59

FILTER = BLPF 100/ 317/ -40
MIN. MAX VALUES = -1.72 0 129.88, 28.24 0 57.86



A-89

FLOOR PAN TUNNEL ACCCELERATION

25-MAR-82 15:36:59

951039503 TRC058

RES. MODEL VALID. TEST

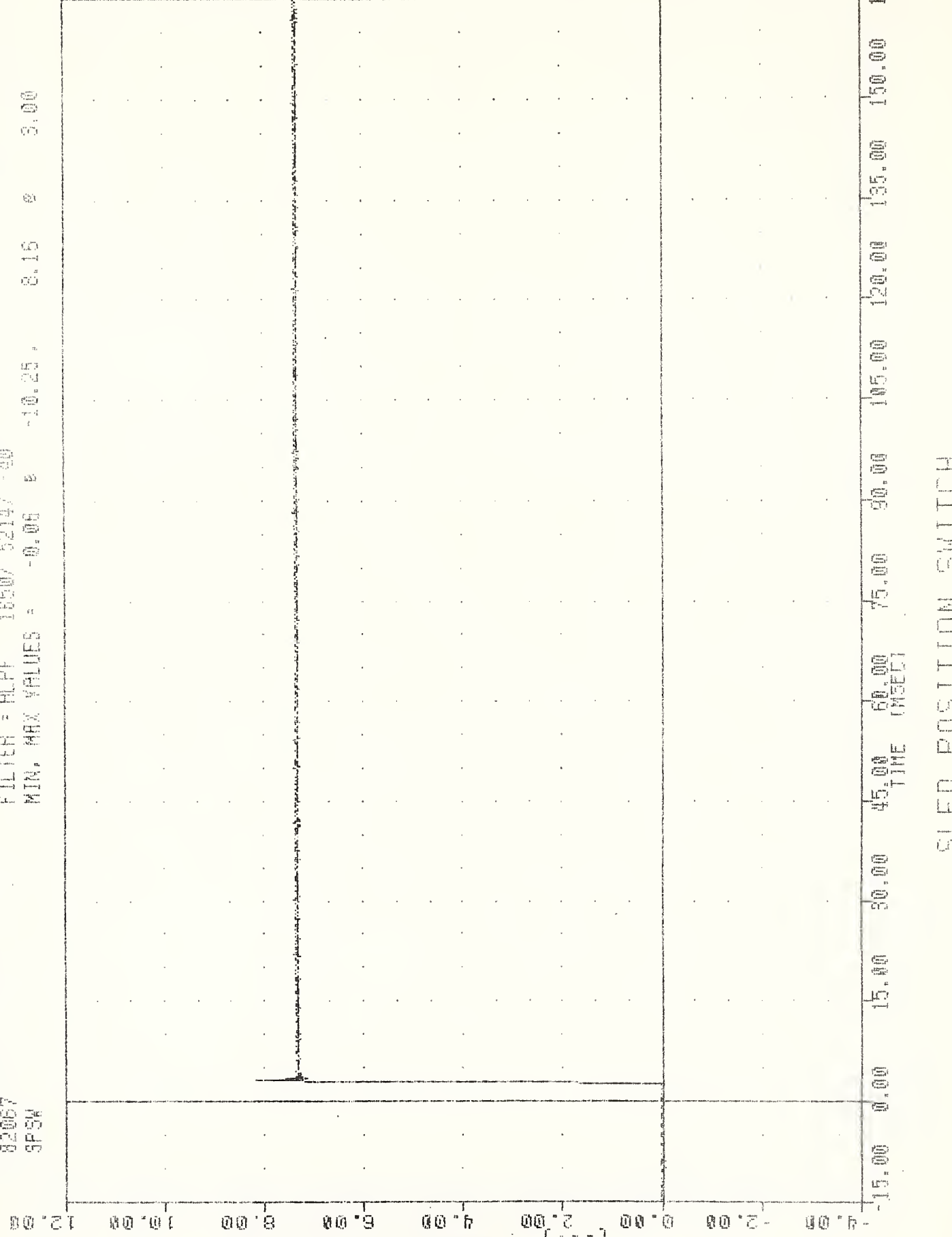
82067

9PSM

FILTER = RLFF 1650/ 5214/ -80

MIN. MAX VALUES = -0.06 8

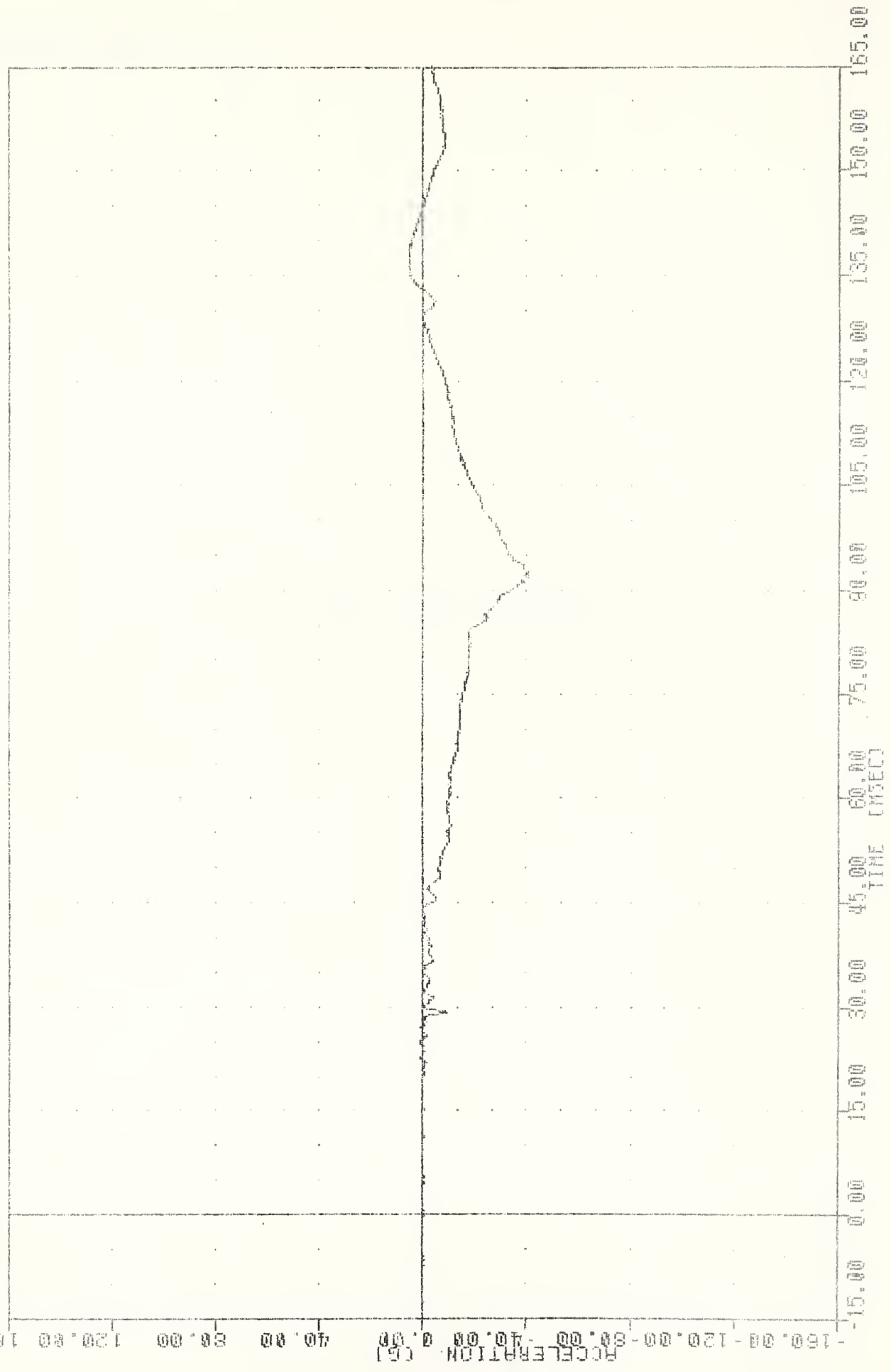
-10.25 8.16 8 3.00



SLED POSITION SWITCH

TEST NO. 4

551045003 , TR0059 30-HAR-87 12:36:00
 BEST, MODEL VALID, TEST
 82066 FILTER = ALFF 1630, 5214, 40
 HEADX61 MIN, MAX VALUES = 40.49 e 90.28, 5.61 e 136.14

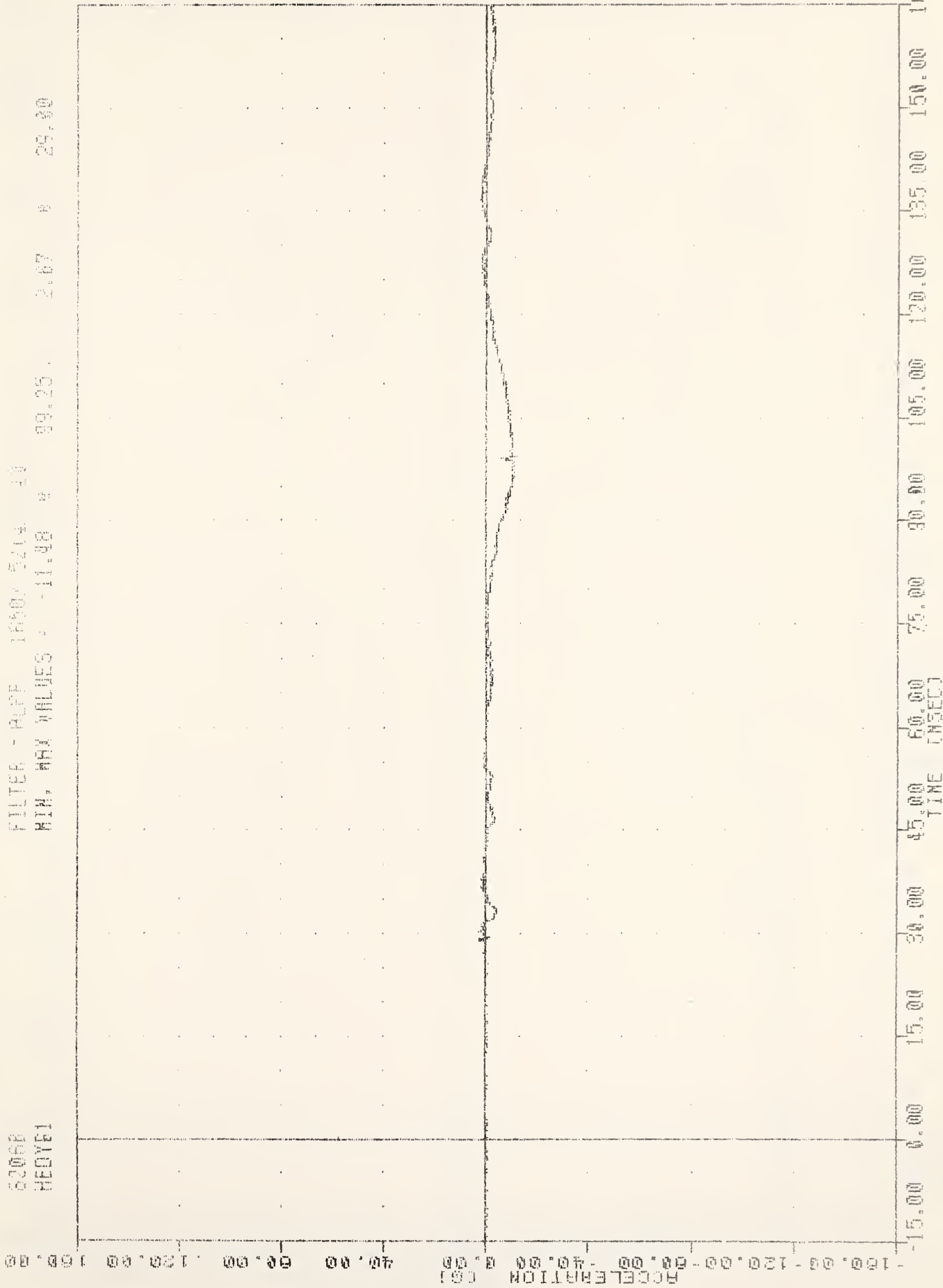


HEAD ACCELERATION X AXIS DRIVER

551045000 : TRC059
REST, MODEL VALID, TEST
62068
MEDY61

20-MAR-92 12:37:11

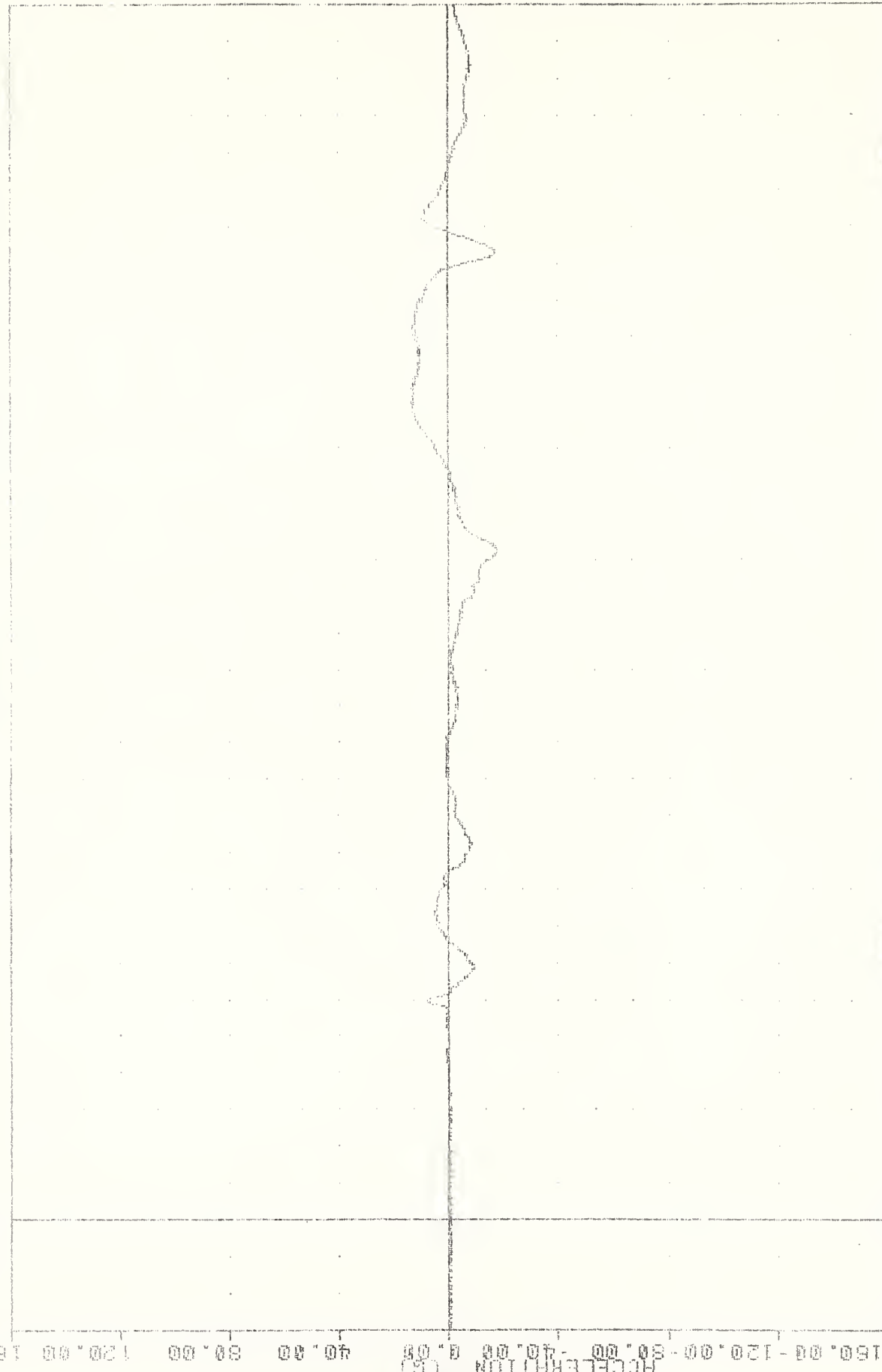
FILTER - ALPF 16907 5214 30
MIN, MAX VALUES : -11.98 * 99.25 * 2.67 * 25.30



A-93

HEAD ACCELERATION Y AXIS DRIVER

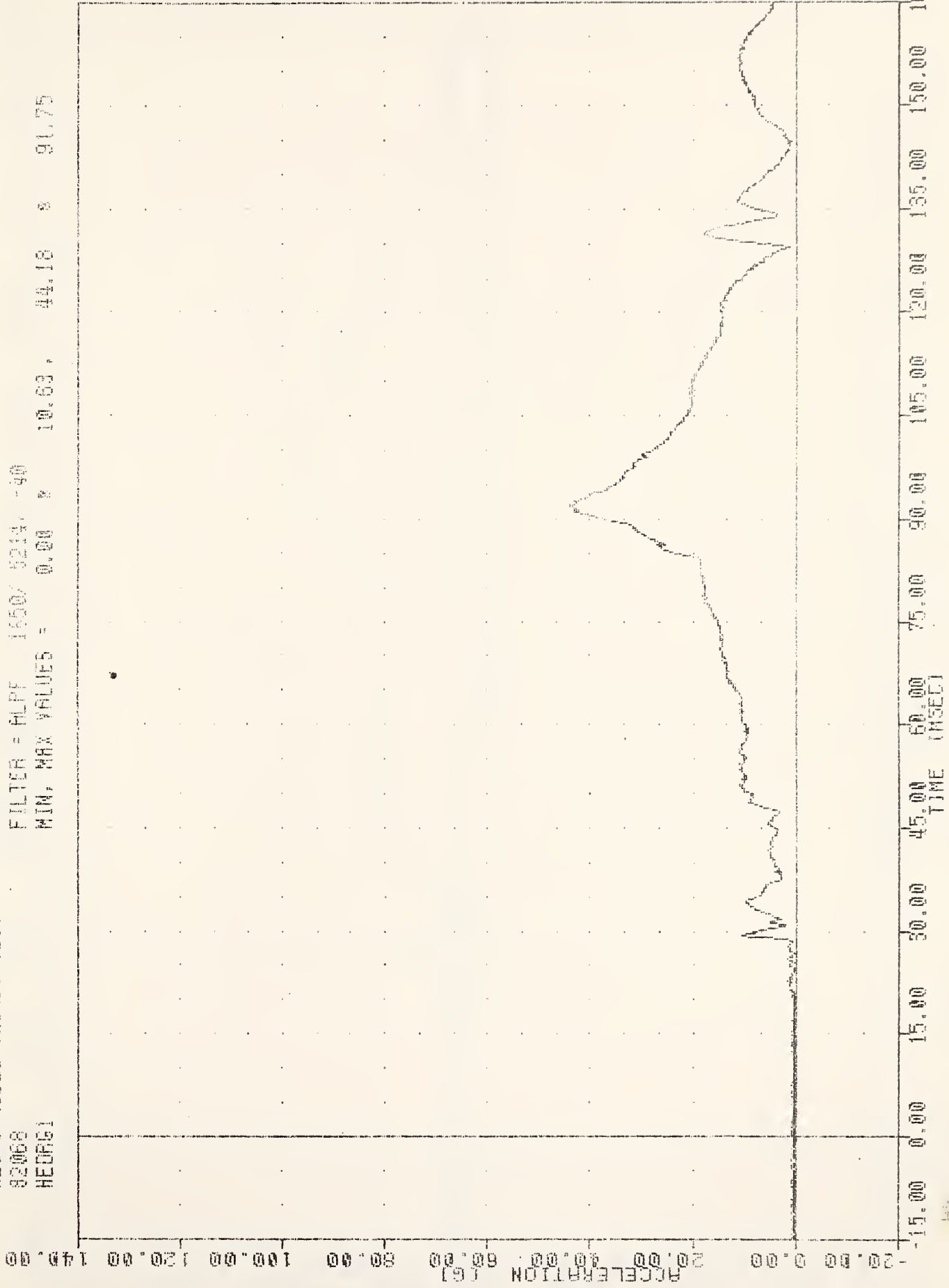
951045003 , TRC055
 BEST. MODEL VALID. TEST
 02062
 HEADIG1
 FILTER : ALPH 0.00
 MIN. MAX VALUES : 11.59 13.51
 91.00 13.51



-150.00 0.00 15.00 30.00 45.00 60.00 75.00 90.00 105.00 120.00 135.00 150.00 165.00
 ACCELERATION (G)
 TIME (MSEC)

HEAD ACCELERATION Z AXIS DRIVER

551045003 , TAC059 30-MAR-82 12:38:13
 REST, MODEL VALID, TEST
 82068 FILTER = ALPF 1650/ 5214, -40
 HEAD61 MIN, MAX VALUES = 0.00 % 10.63, 44.18 % 91.75



A-95

HEAD ACCELERATION RESULTANT DRIVER

30-MAR-82 12:50:13

561045003 , TRC059

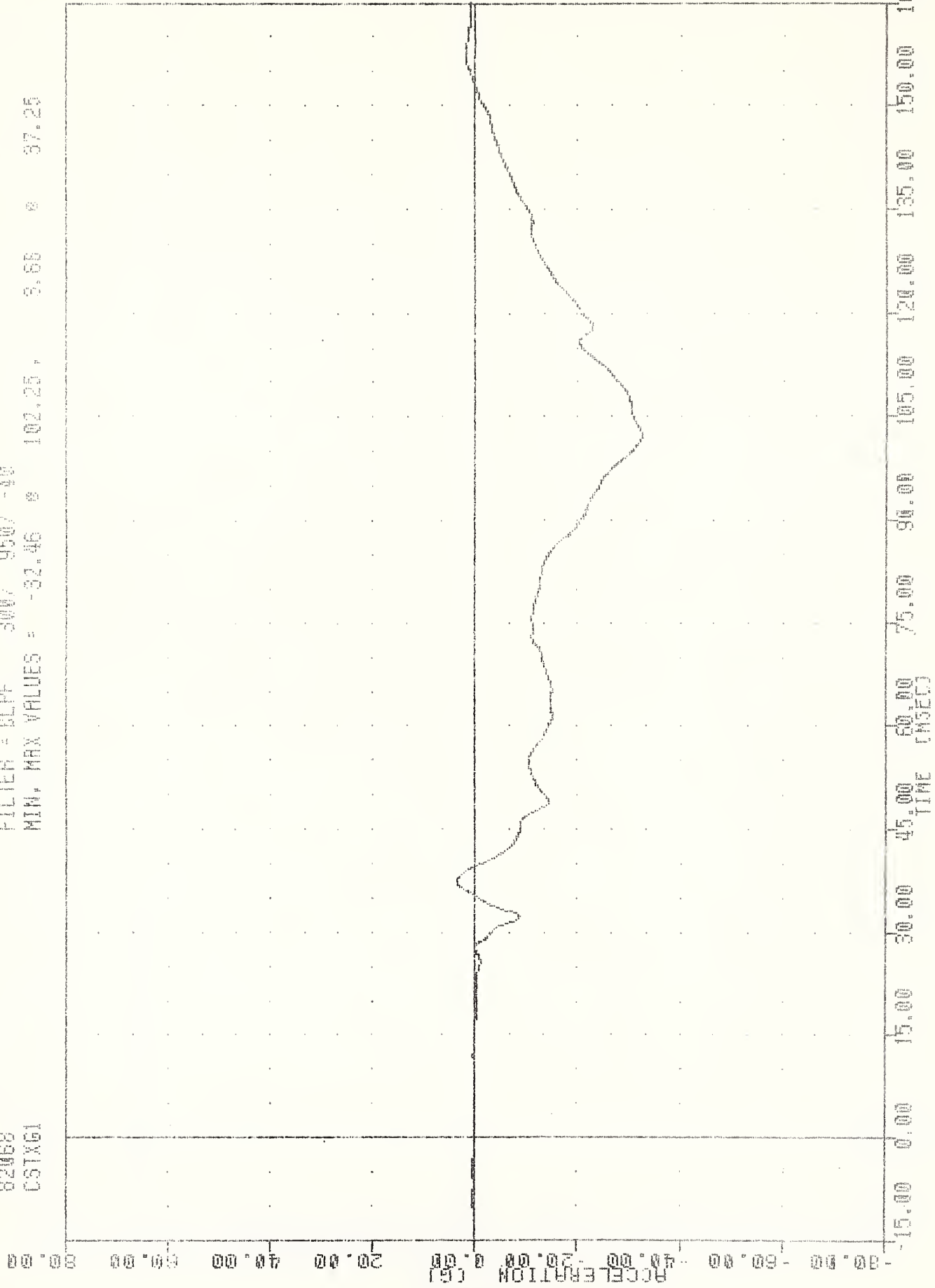
REST. MODEL VALID. TEST

82068

FILTER = BLPF 500/ 950/ -40

CSTXG1

MIN. MAX VALUES = -92.46 102.25 9.66 37.25



A-96

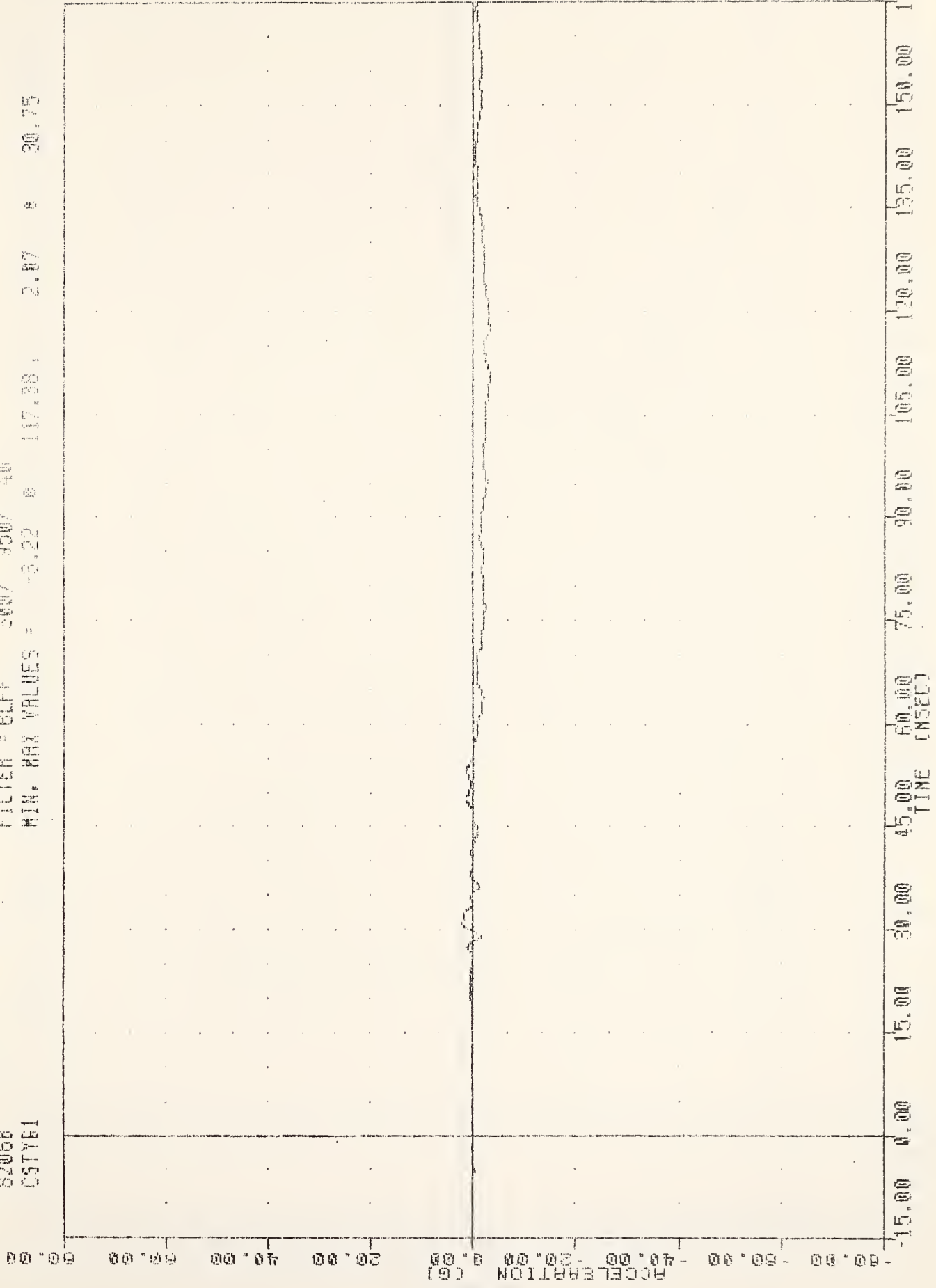
CHEST ACCELERATION X AXIS DRIVER

551042803 , TRC059
REST. MODEL VALID. TEST
S2066
CSTY61

30-MAR-82 12:30:13

FILTER = BLFF 300/ 950/ 40

MIN. MAX VALUES = -3.22 0 117.38 2.87 0 30.75



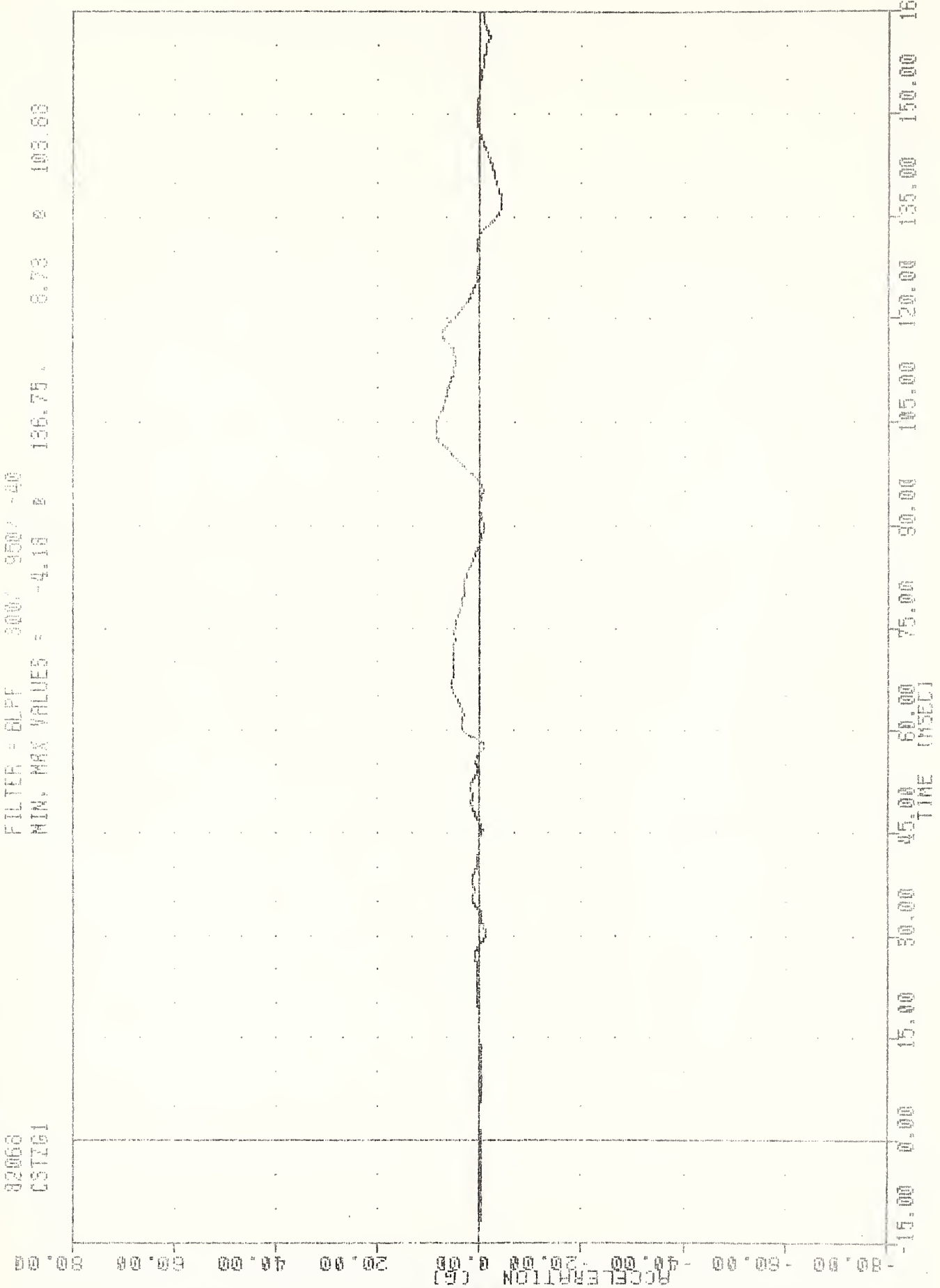
A-97

CHEST ACCELERATION Y AXIS DRIVER

30-MAR-82 10:38:10

551045003 , TAC059
BEST, MODEL VALID, TEST
02060
CSTZG1

FILTER = 6LFF 3007 9507 -40
MIN. MAX VALUES = -4.10 136.75 0.73 103.60



A-98

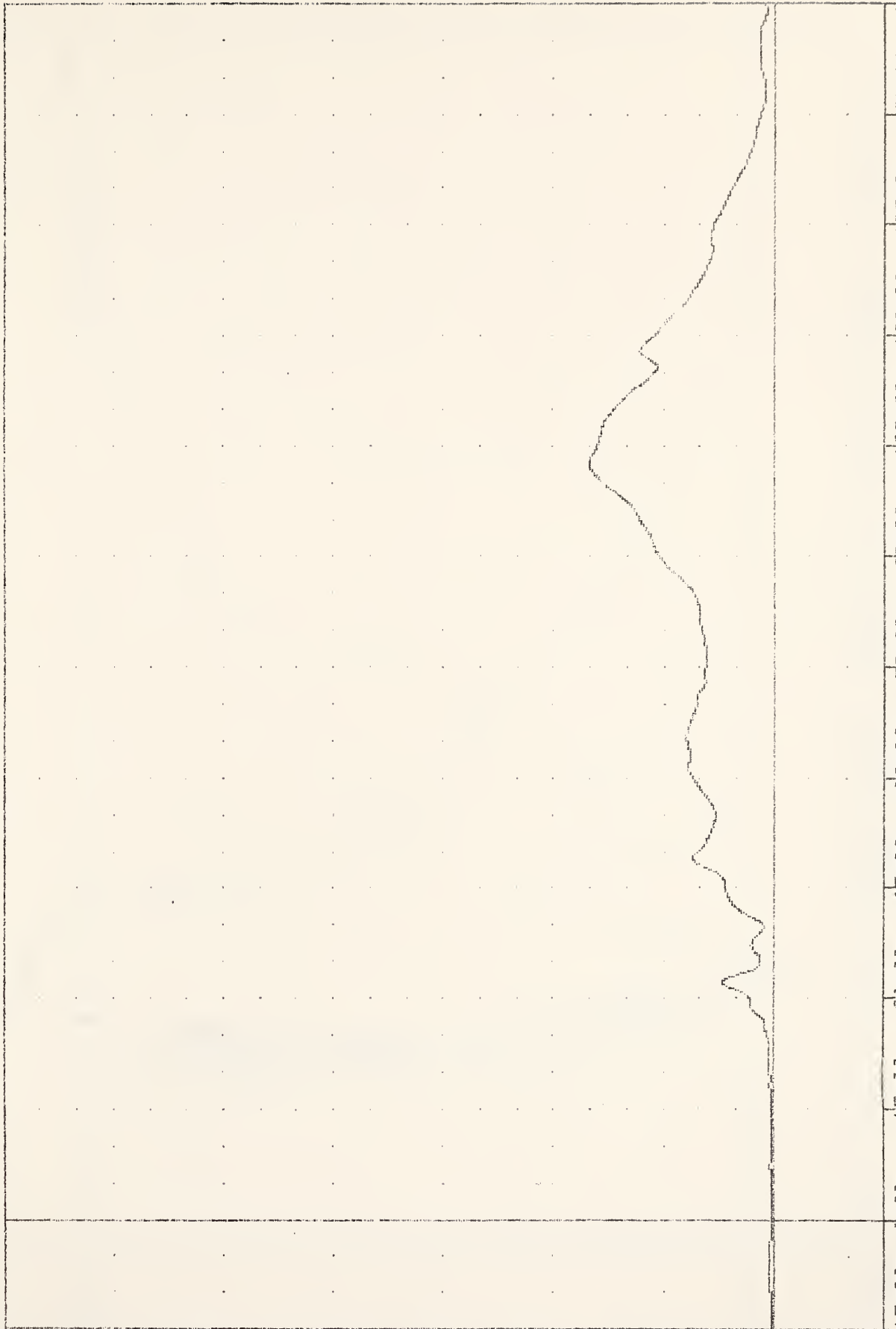
CHEST ACCELERATION Z AXIS DRIVER

551045003 , TRC056
REST, MODEL VALID, TEST
62060
CSTAR1

20-MAR-82 12:30:13

FILTER = BLPF 300 / 950 / -40
MIN. MAX VALUES = 0.32 8 -0.75 33.57 102.38

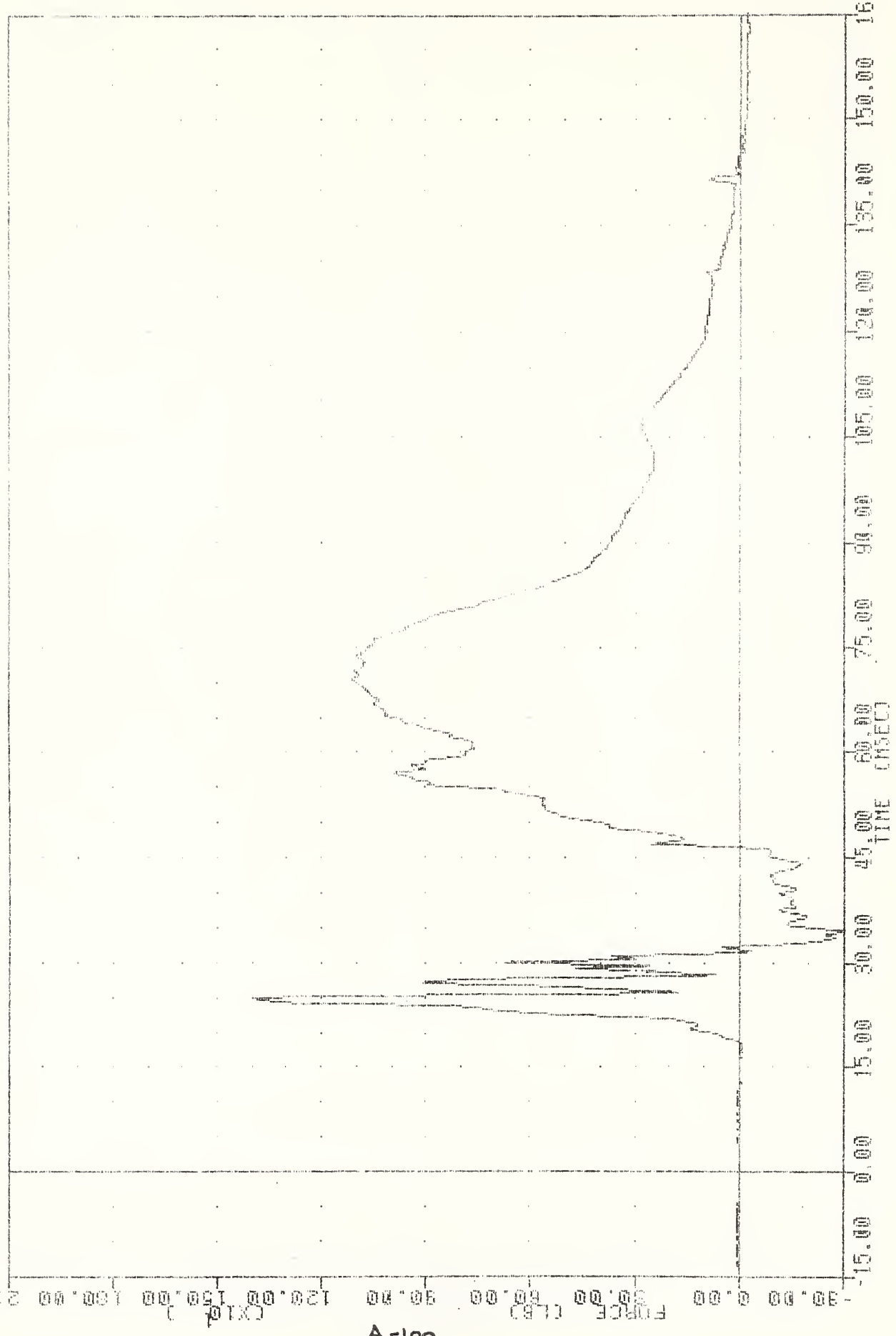
ACCELERATION (g)
-20.00 0.00 20.00 40.00 60.00 80.00 100.00 120.00 140.00



A-99

CHEST ACCELERATION RESULTANT DRIVER

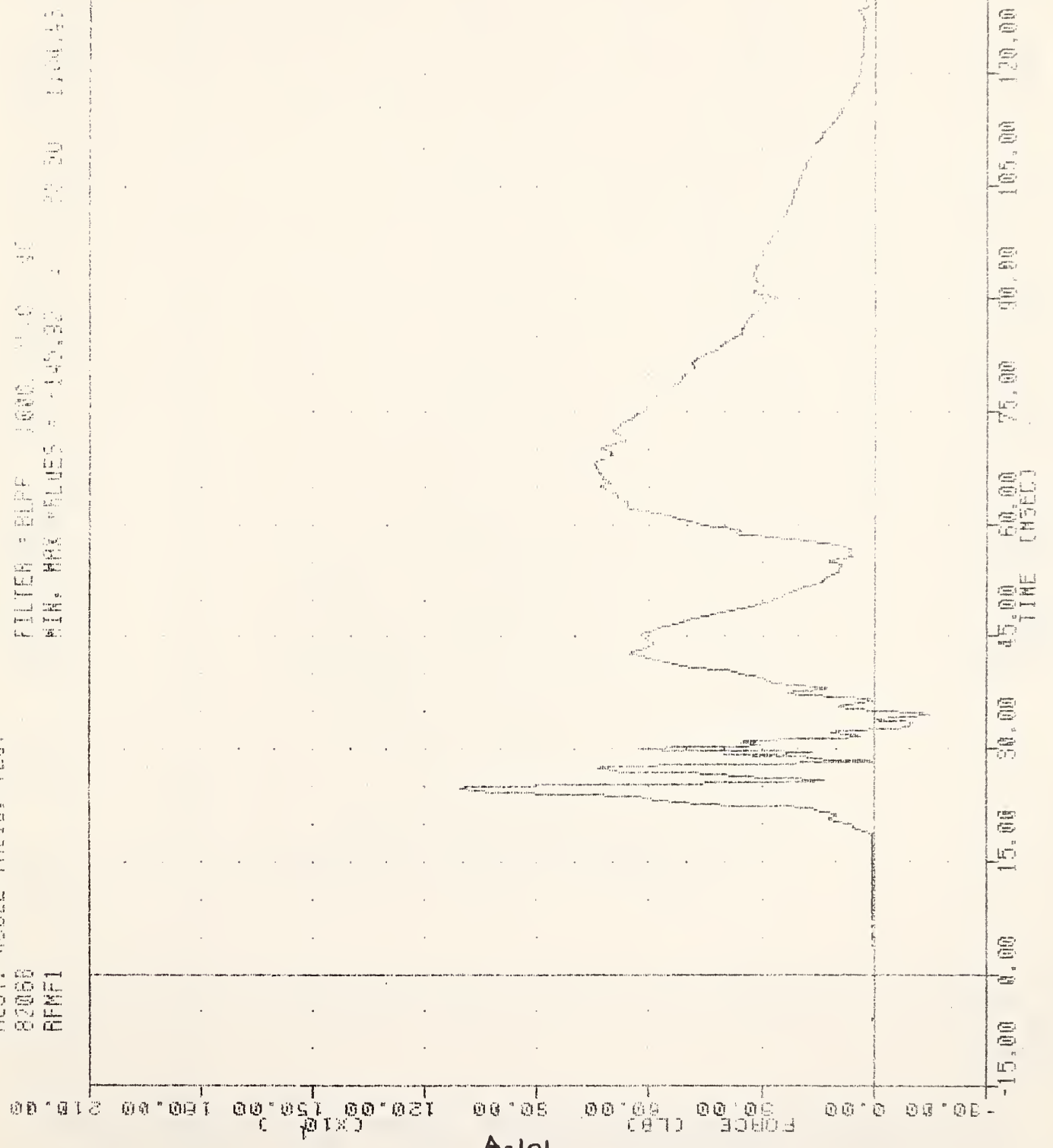
551045068 , IRC059
 REST, MODEL VALID, TEST
 62068
 LFNFI
 30 KHZ-02 12736.12
 FILTER = BLPF 1000/ 3170/ -40
 MIN, MAX VALUES = -299.29 0 24.38, 1897.84 0 24.75



LEFT FEMUR FORCE DRIVER

551015003 , TR0059
REST. MODEL VALID. TEST
82060
RFMFI

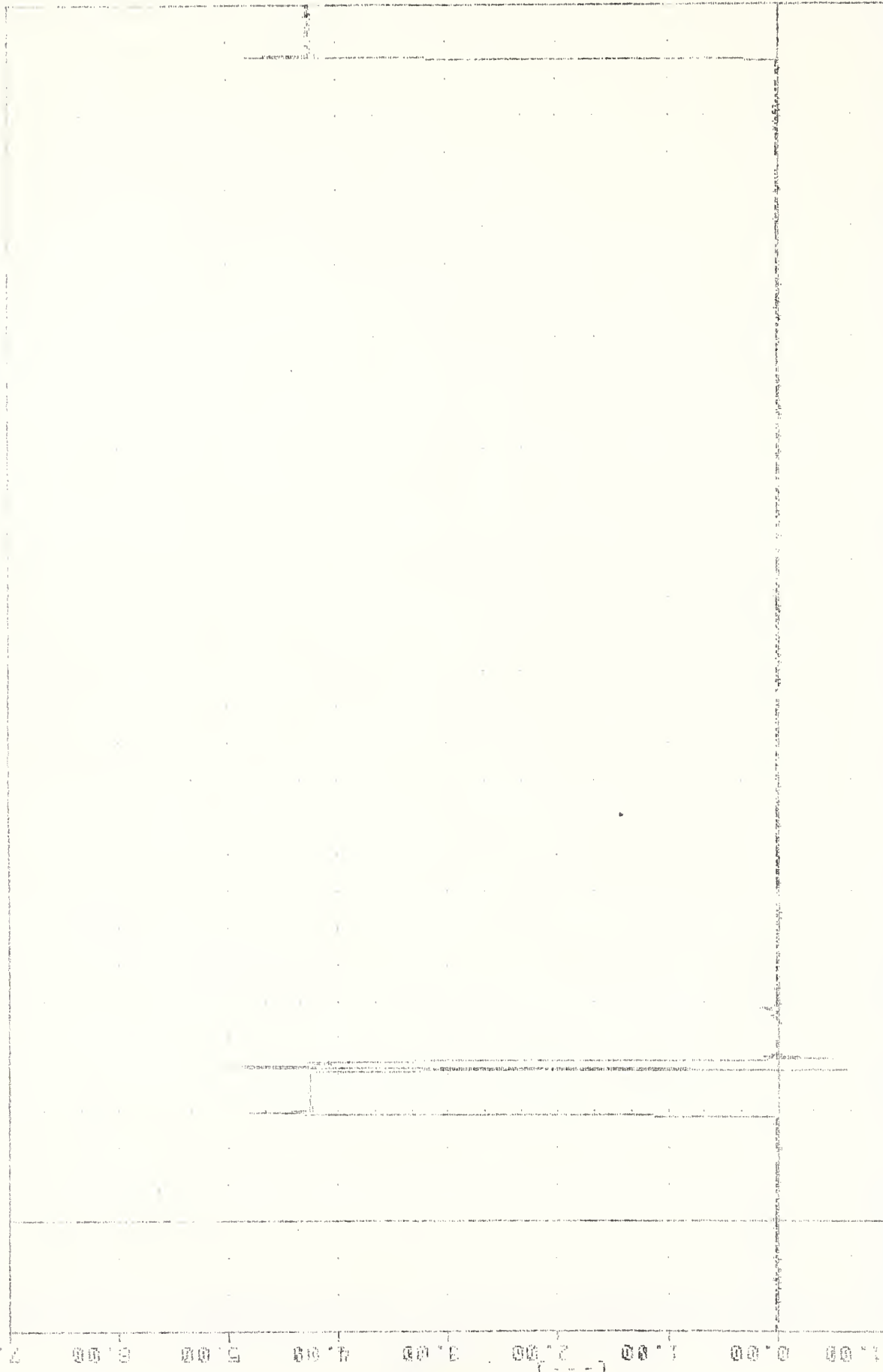
30-MAR-82 11:00:00
FILTER = BLPF 1000 Hz 40
MIN. MAX VALUES = 145.00 1700.45 # 29.70



A-101

RIGHT FEMUR FORCE DRIVER

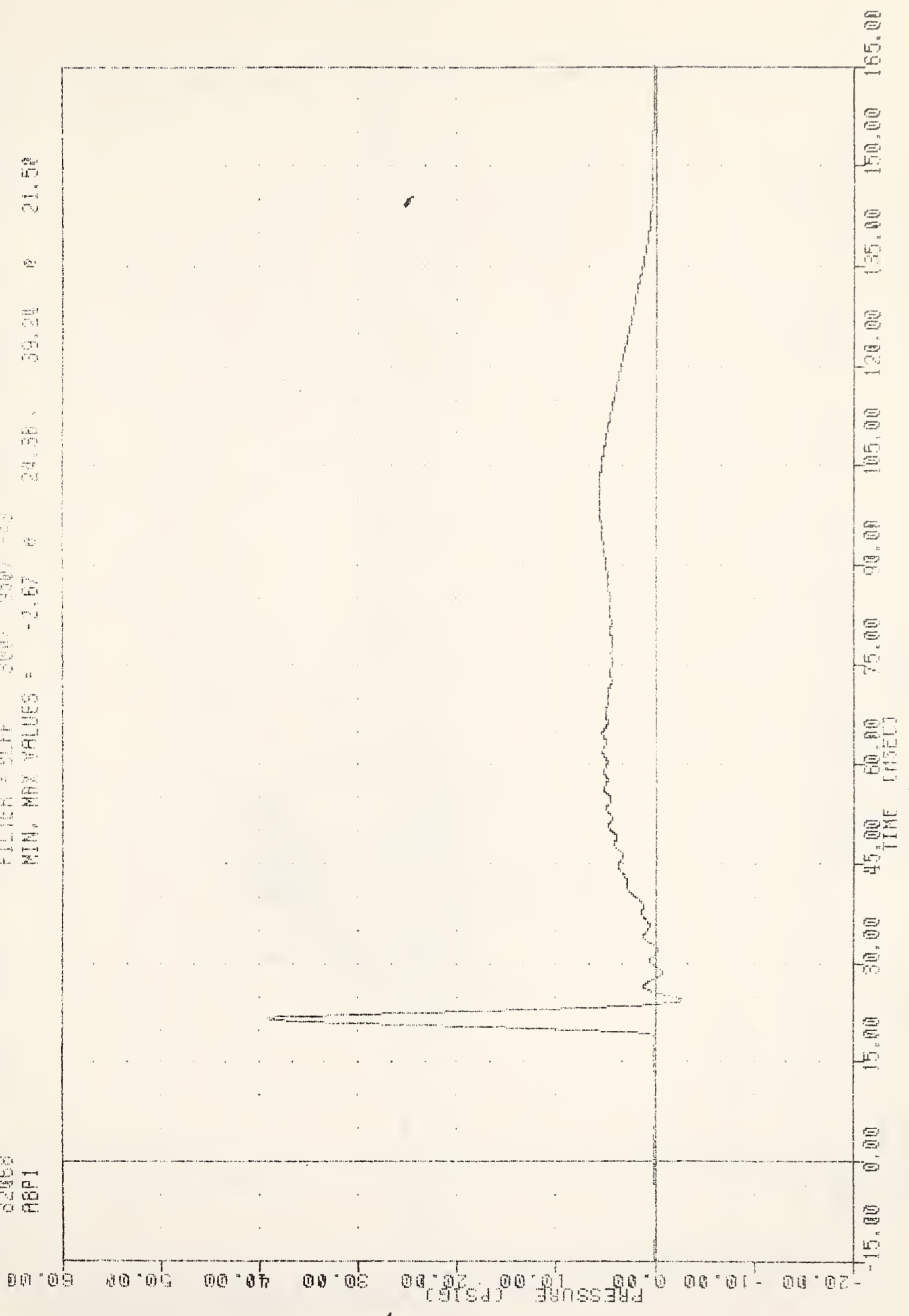
551025000 , TALKING
 BEST. MODEL VALID. TEST
 020000
 REFTI
 FILTER = ALPH
 MIN. MAX VALUES = -0.62 0.20
 0.00 * 0.00



-15.00 0.00 15.00 30.00 45.00 60.00 75.00 90.00 105.00 120.00 135.00 150.00 165.00
 TIME INSECT

AIR BAG FIRING EVENT DRIVER

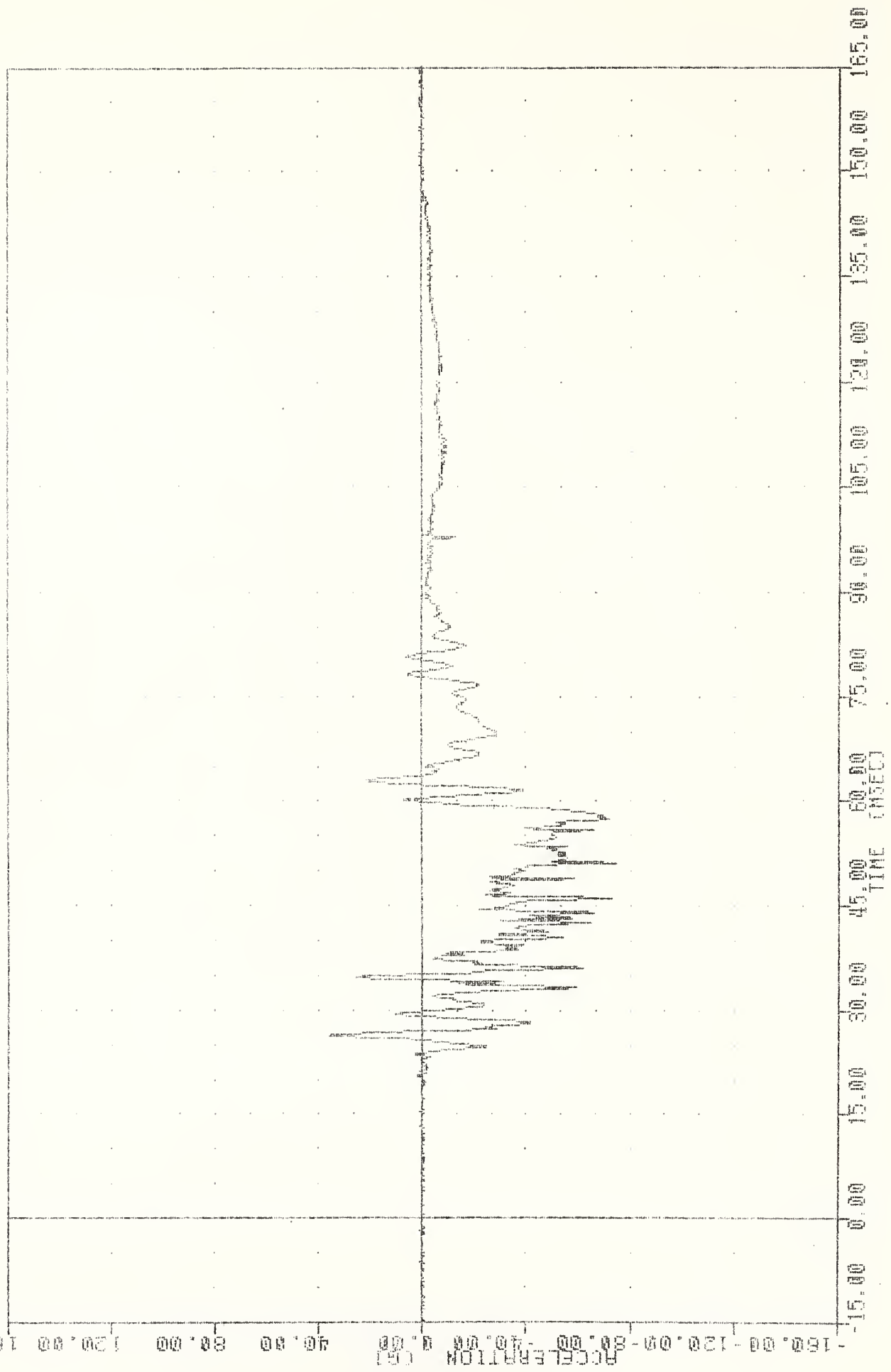
551045003 , TRCP59
 REST. NOBEL VALID. TEST
 52069
 ABPI
 58-MAR-82 10:50:14
 FILTER = SUFF 800/ 950/ -10
 MIN. MAX VALUES = -2.67 0 24.38 0 39.24 0 21.50



A-103

ATP HAG PRESSURE DRIVER

551045003 , TFC059 30-MAR-87 12:30:13
REST. MODEL VALID, TEST
82068 FILTER = ALFF 1650/ 5210/ -10
HEDX62 MIN. MAX VALUES = -74.13 0 51.00 0 35.74 0 26.12



HEAD ACCELERATION X AXIS PASSENGER

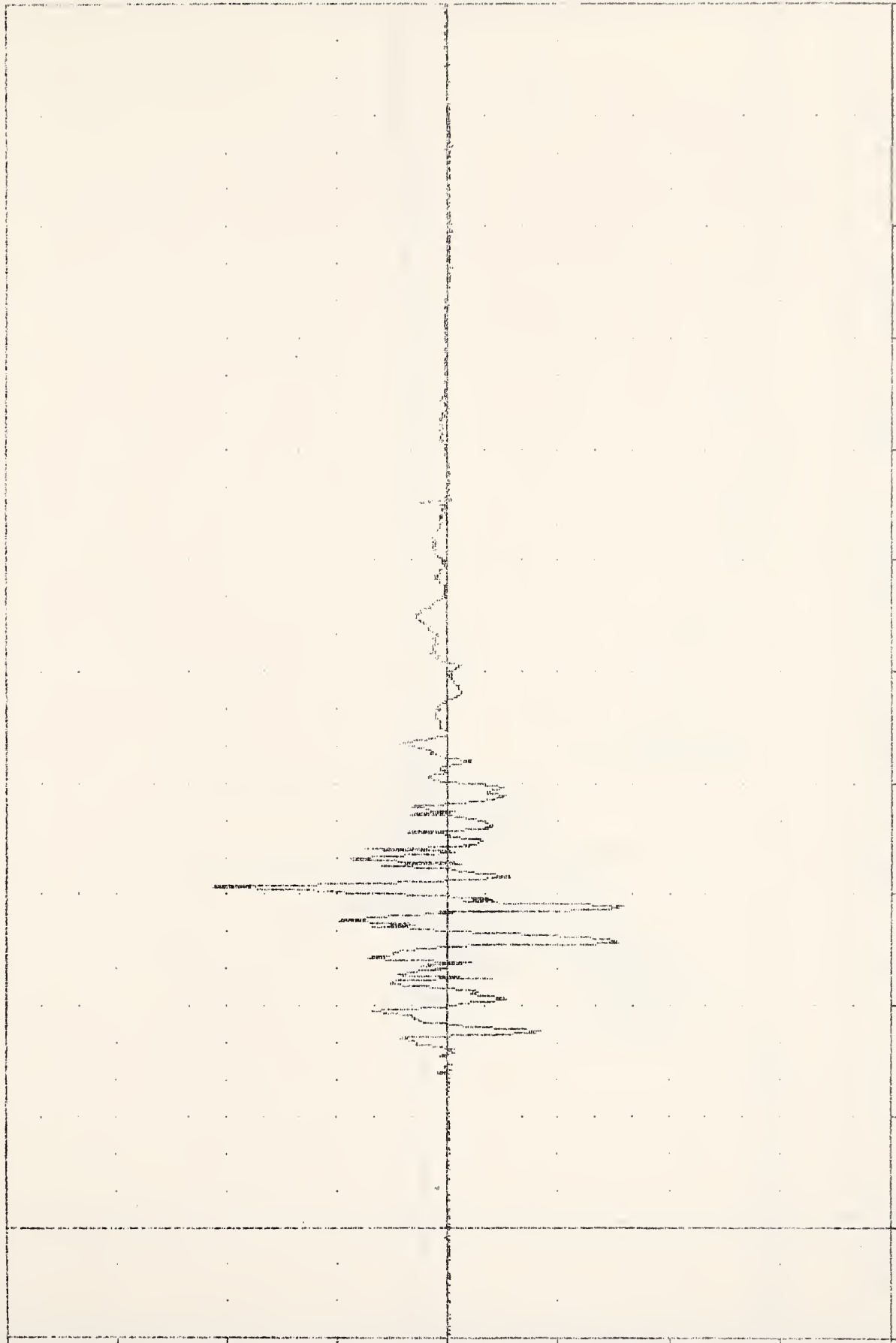
591045003 , 180059
REST. MODEL VALID. TEST
82066
HEDY62

30-MAR-82 12:30:11

FILTER = RLFF 1800 52147 50
MIN. MAX VALUES = -03.00 0

43.35 80.43 45.88

ACCELERATION (G)
-150.00 -120.00 -90.00 -60.00 -40.00 -20.00 0.00 20.00 40.00 60.00 80.00 100.00 120.00 140.00 160.00



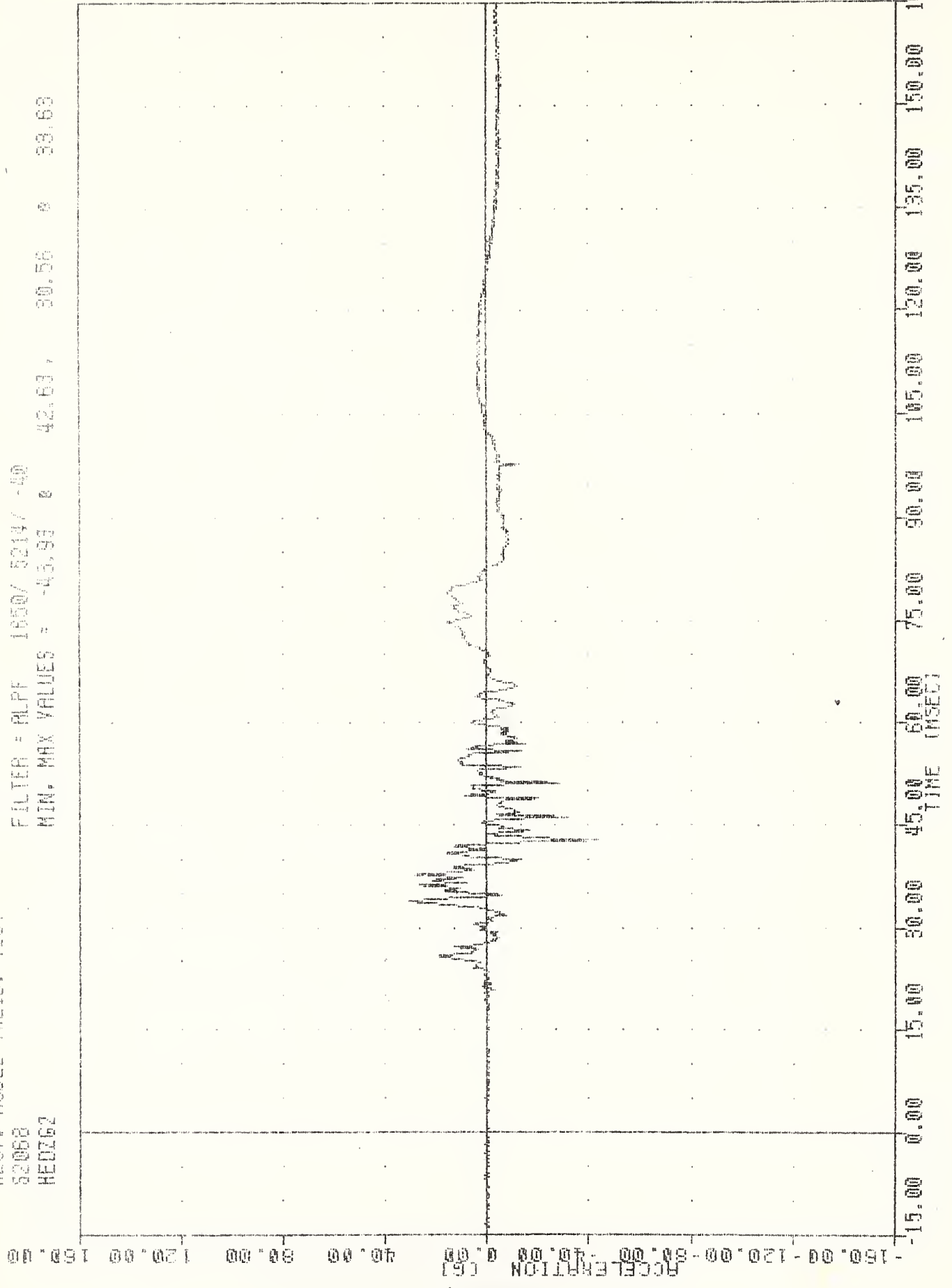
A-105

HEAD ACCELERATION Y AXIS PASSENGER

30-MAR-82 12:30:13

951045003 , TRC059
BEST. MODEL VALID. TEST
32062
HEADIG2

FILTER = RLPF 1850/ 5214/ -40
MIN. MAX VALUES = -43.93 0 42.63 , 30.56 0 33.63



901-A

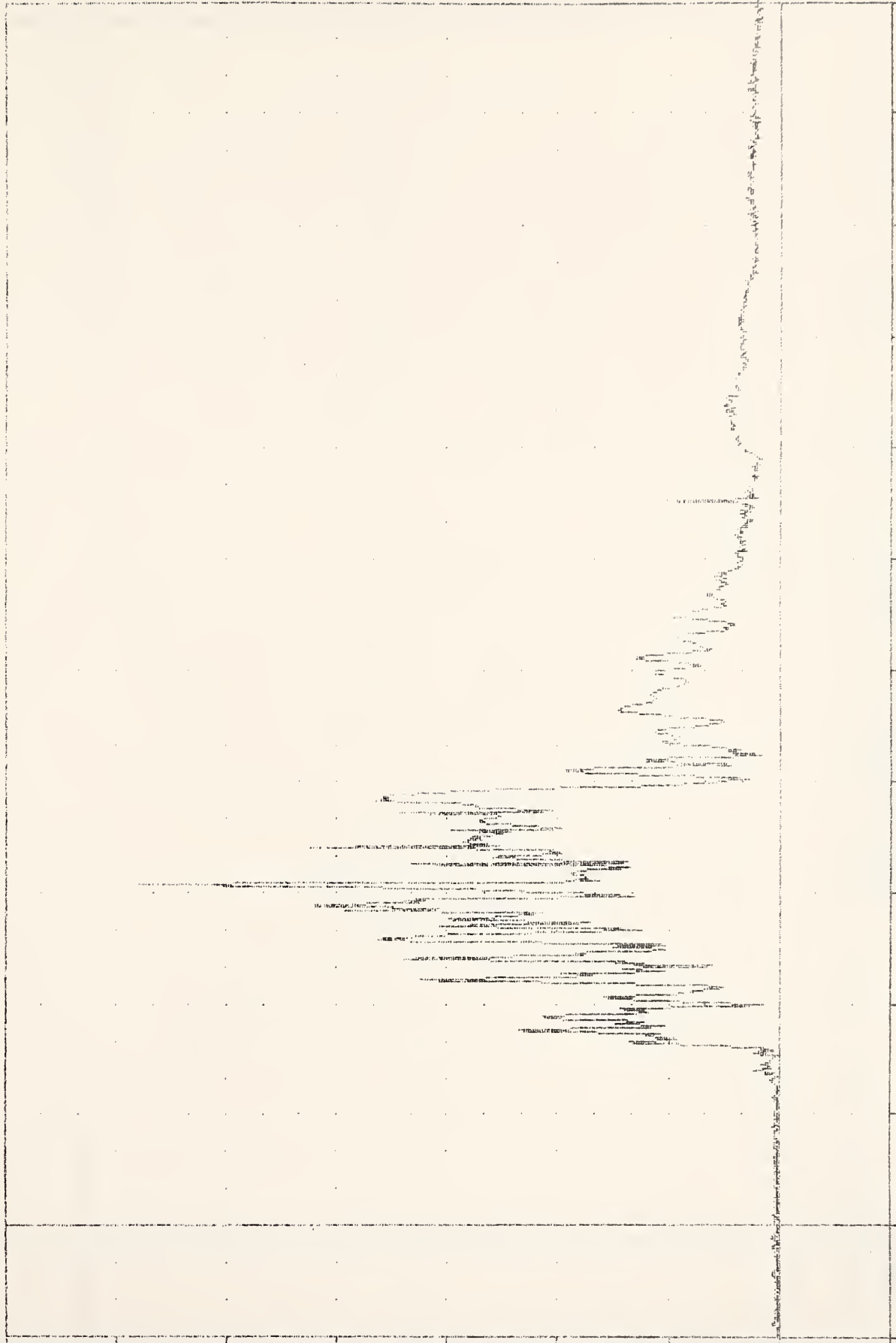
HEAD ACCELERATION Z AXIS PASSENGER

551045093 * TRC059
REST. MODEL VALID. TEST
82868
HEAD62

30-MAR-80 12:30:15

FILTER = HLPF 16000 Hz
MIN. MAX VALUES = 0.05 0.775 115.68 46.00

ACCELERATION (G)

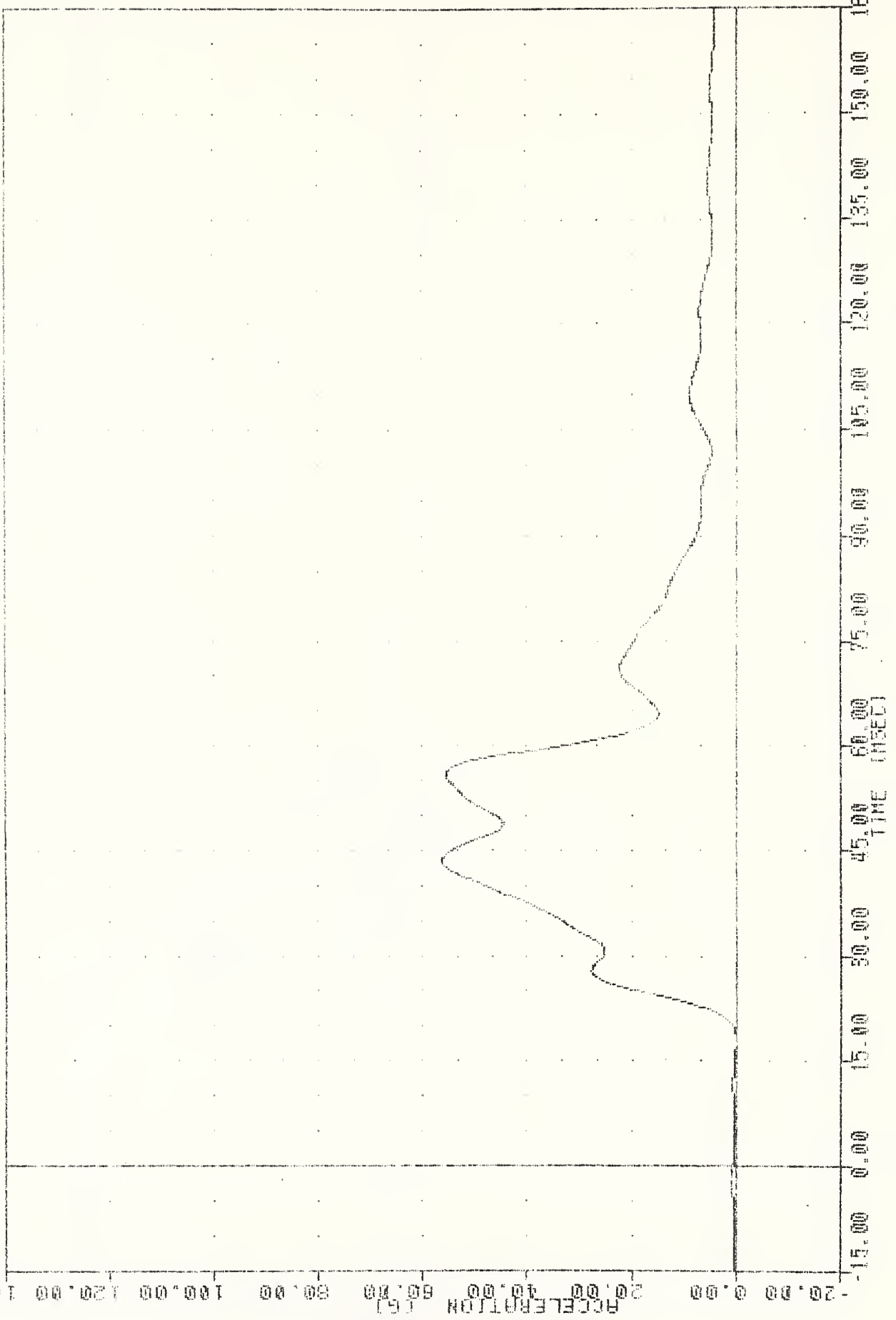


-20.00 0.00 20.00 40.00 60.00 80.00 100.00 120.00 140.00
-15.00 0.00 15.00 30.00 45.00 60.00 75.00 90.00 105.00 120.00 135.00 150.00 165.00
TIME (MSEC)

A-107

HEAD ACCELERATION PASSENGER

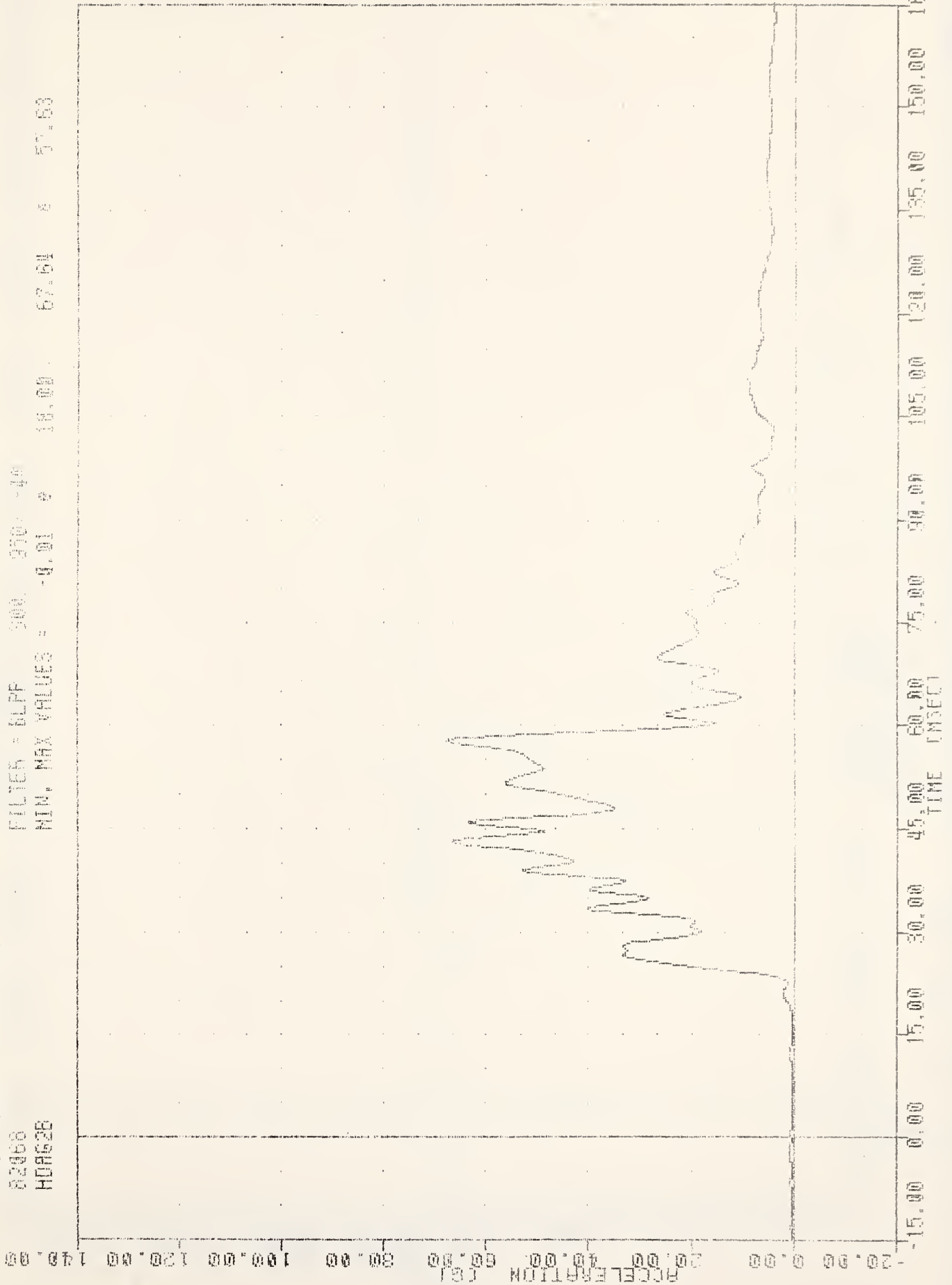
951045003 , TRC059 2-APP-82 15:43:07
 REST. MODEL VALJO. TEST
 82068 FILTER : BLPP 100/ 317/ -40
 HDRC2A MIN. MAX VALUES : -0.01 15.00 56.40 43.25



801-A

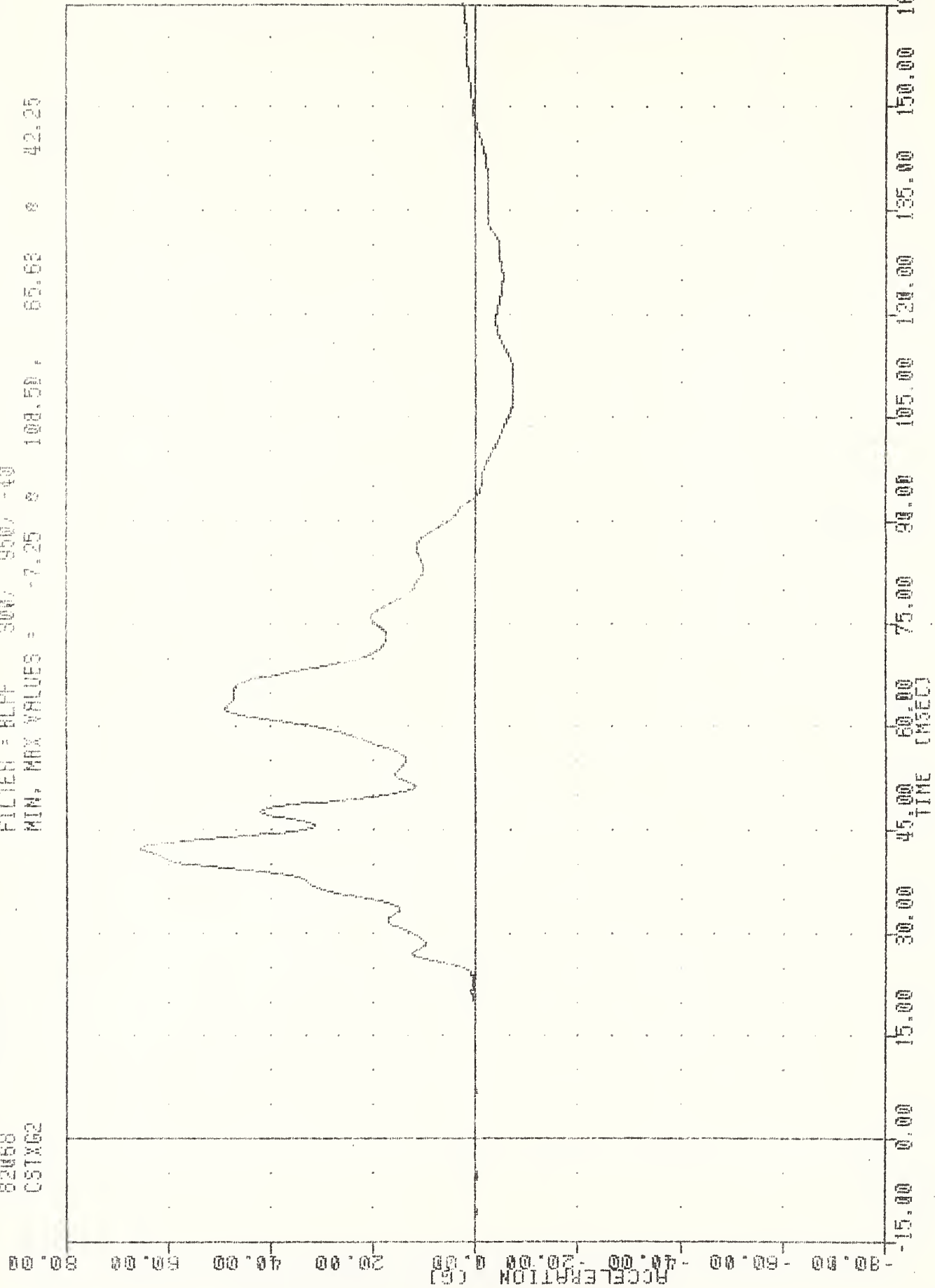
3 YR OLD HEAD RESULTANT (CLASS 100)

351045003 , TRC059 2-APR-82 15:43:17
 BEST. MODEL VALID. TEST
 02460 FILTER = BLPF 500. 970. -40
 HD1628 MIN. MAX VALUES = -9.91 e 18.00 e 57.60



A-109

S61045003 , TRC059 30-MAR-82 12:36:13
REST, MODEL VALID, TEST
82058 FILTER = BLPF 300V 950V -10
CSTX62 MIN, MAX VALUES = -7.25 8 108.50 8 65.68 8 42.25



A-110

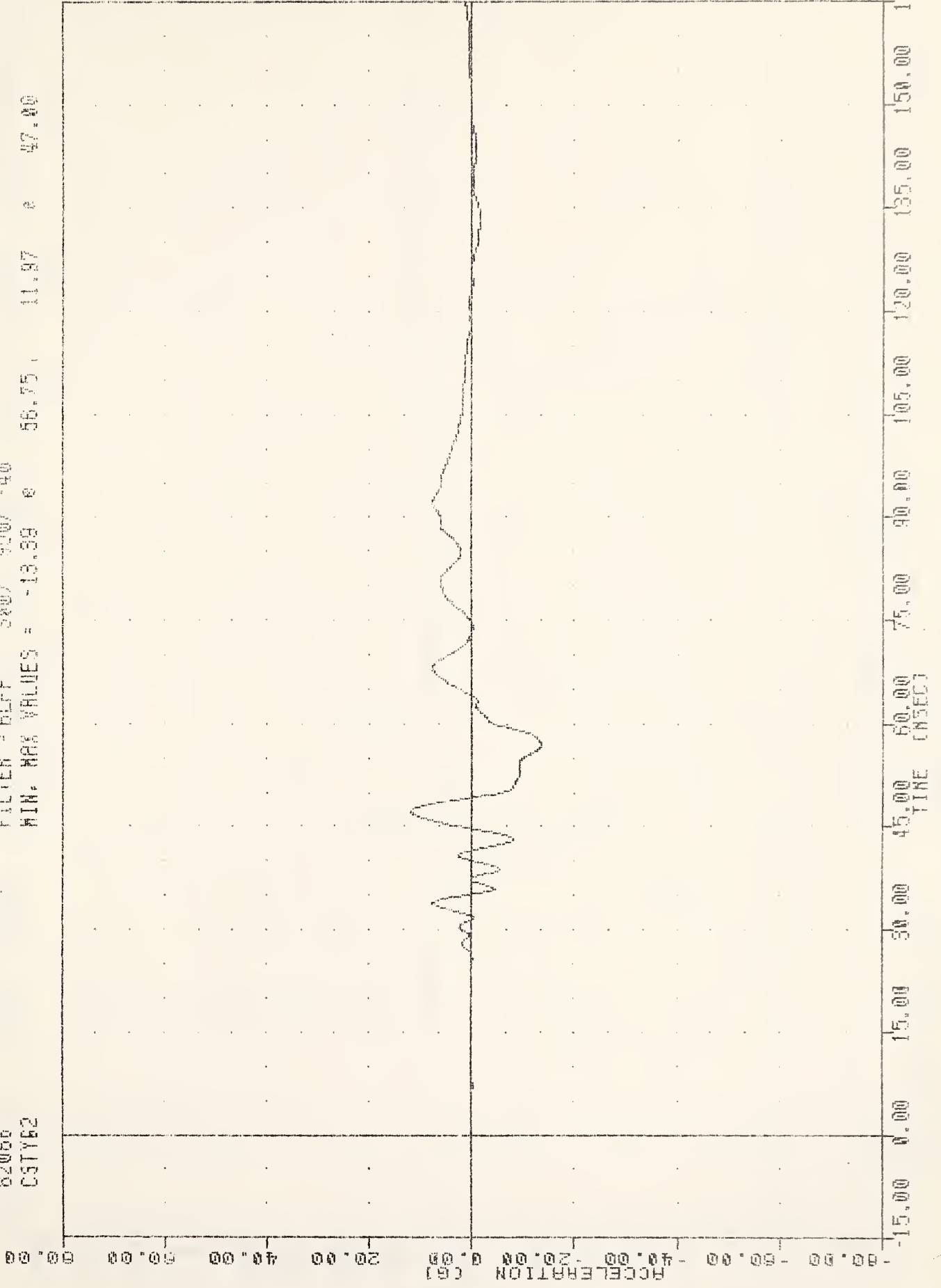
CHEST ACCELERATION X AXIS PASSENGER

551045003 , TRC059
BEST. MODEL VALID. TEST
82088
CSTY62

50-MAR-82 12:30:13

FILTER = BLPF 300/ 950/ -40

MIN. MAX VALUES = -13.39 56.75 11.97 47.00



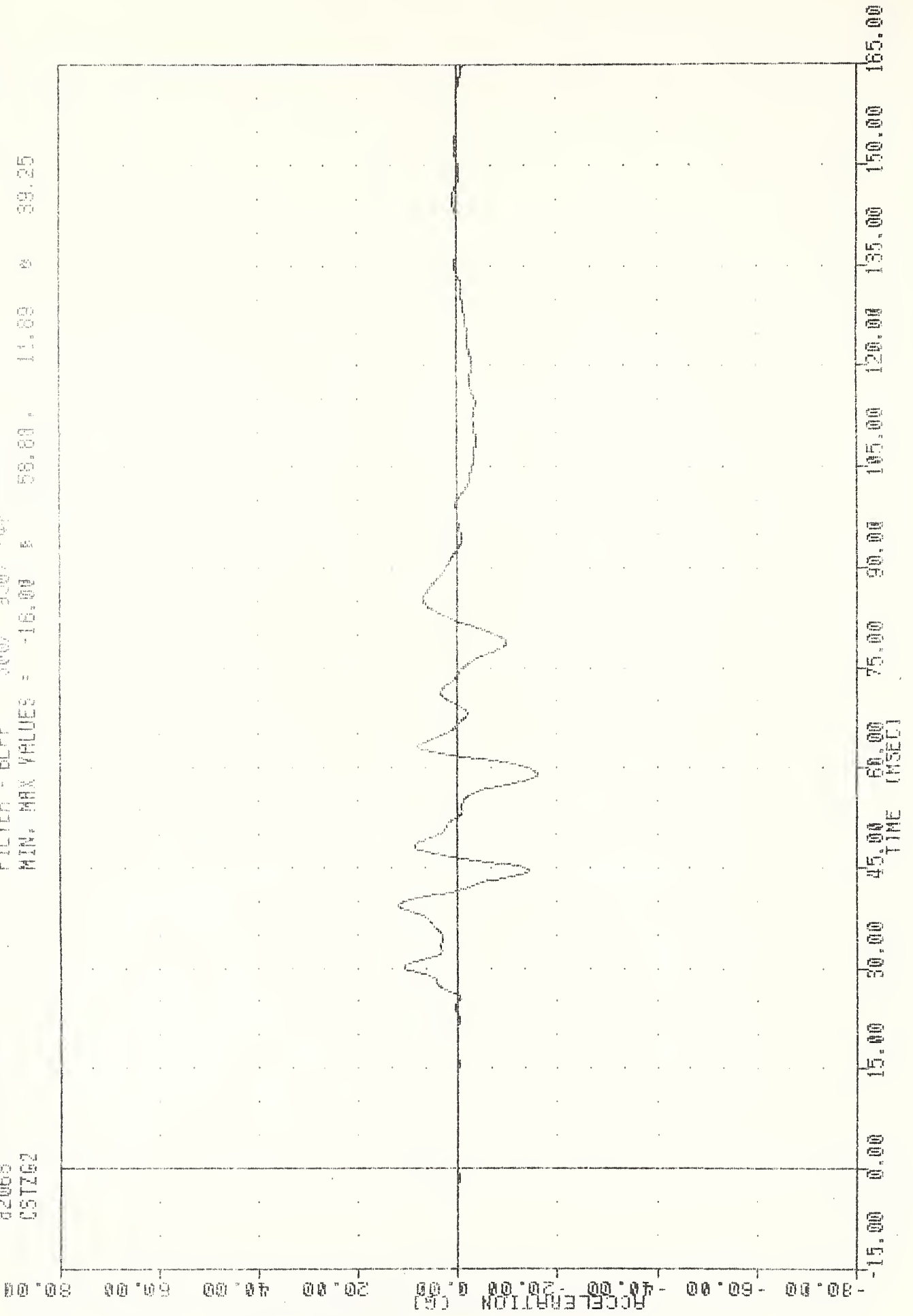
A-111

CHEST ACCELERATION Y AXIS PASSENGER

30-MAR-82 12:39:13

551045003 , TRC053
REST. MODEL VALID. TEST
82069
CSTZ62

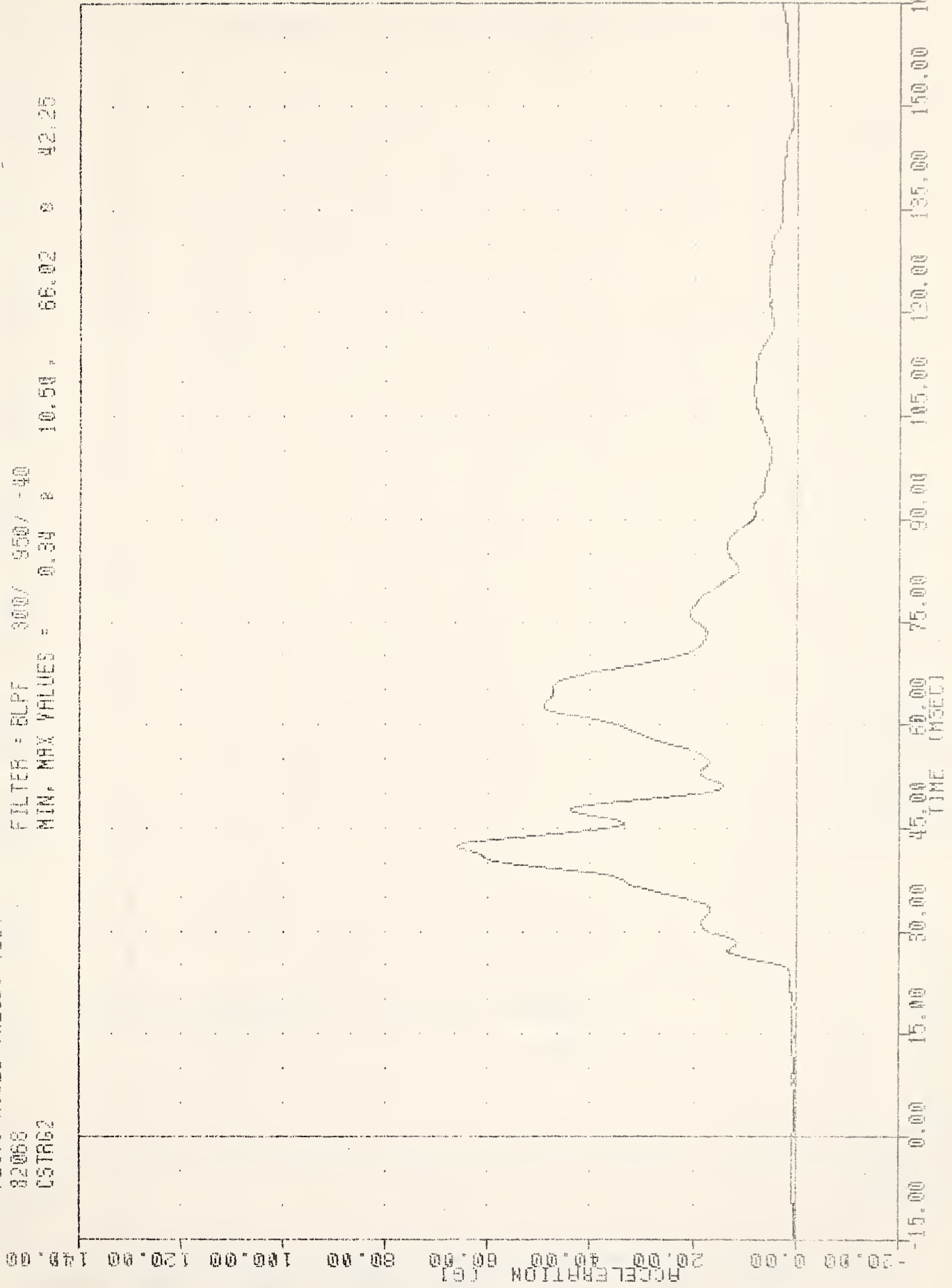
FILTER = BLPF 300/ 950/ -40
MIN. MAX VALUES = -16.00 58.00 11.09 39.25



A-112

CHEST ACCELERATION Z AXIS PASSENGER

351045003 , TRC059
 30-MAR-82 12:30:13
 REST. MODEL VALID. TEST
 82068
 CSTR62
 FILTER = BLPF 300/ 950/ -40
 MIN. MAX VALUES = 0.34 10.50 66.02 0 42.25



A-113

CHEST ACCELERATION RESULTANT PASSENGER

30-MAR-62 12:30:13

561045083 , TR059

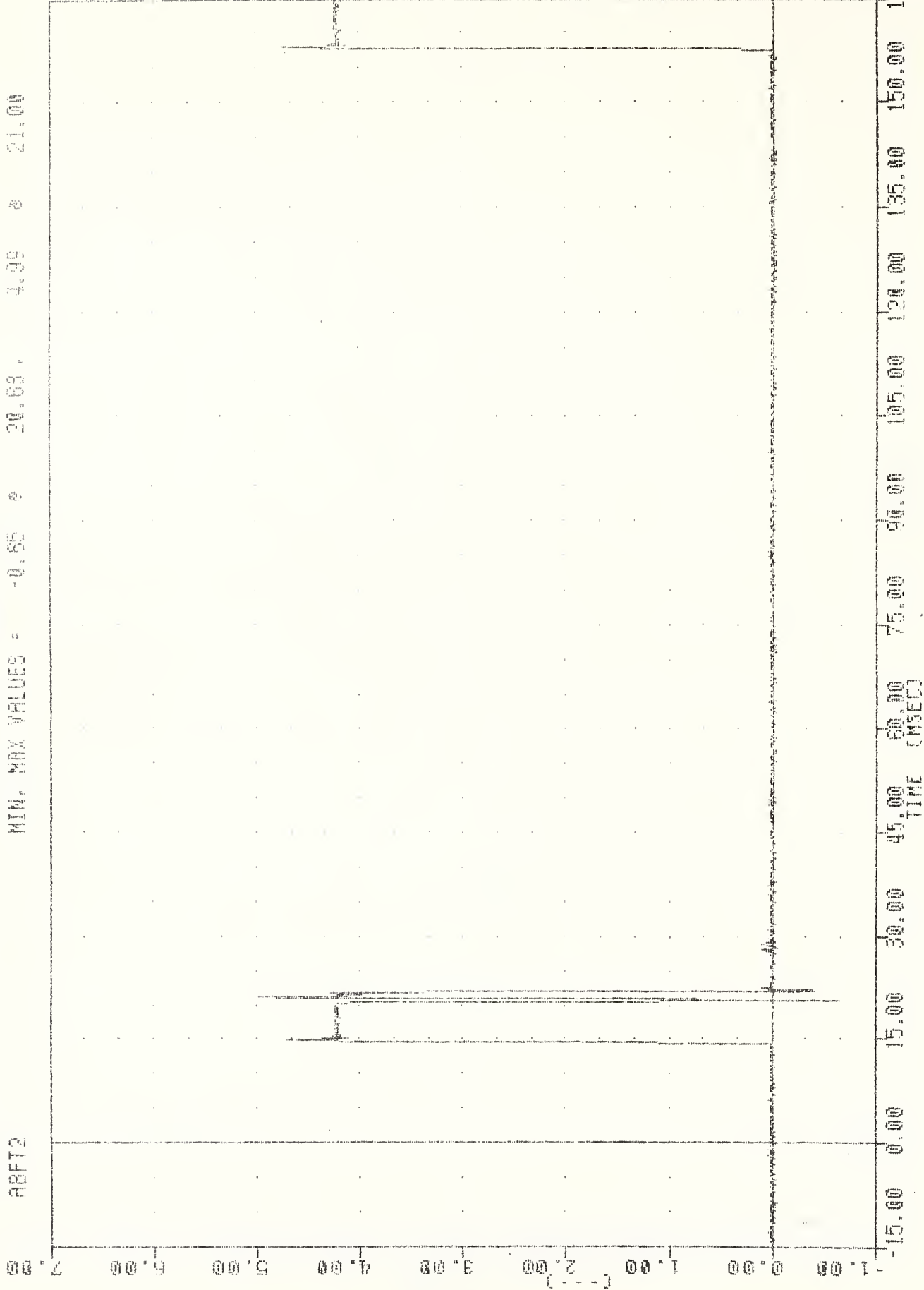
REST. MODEL VALID. TEST

FILTER = ALPF 1050/5014/ -40

MIN. MAX VALUES = -0.55 e 20.63 e 4.09 e 21.00

82969

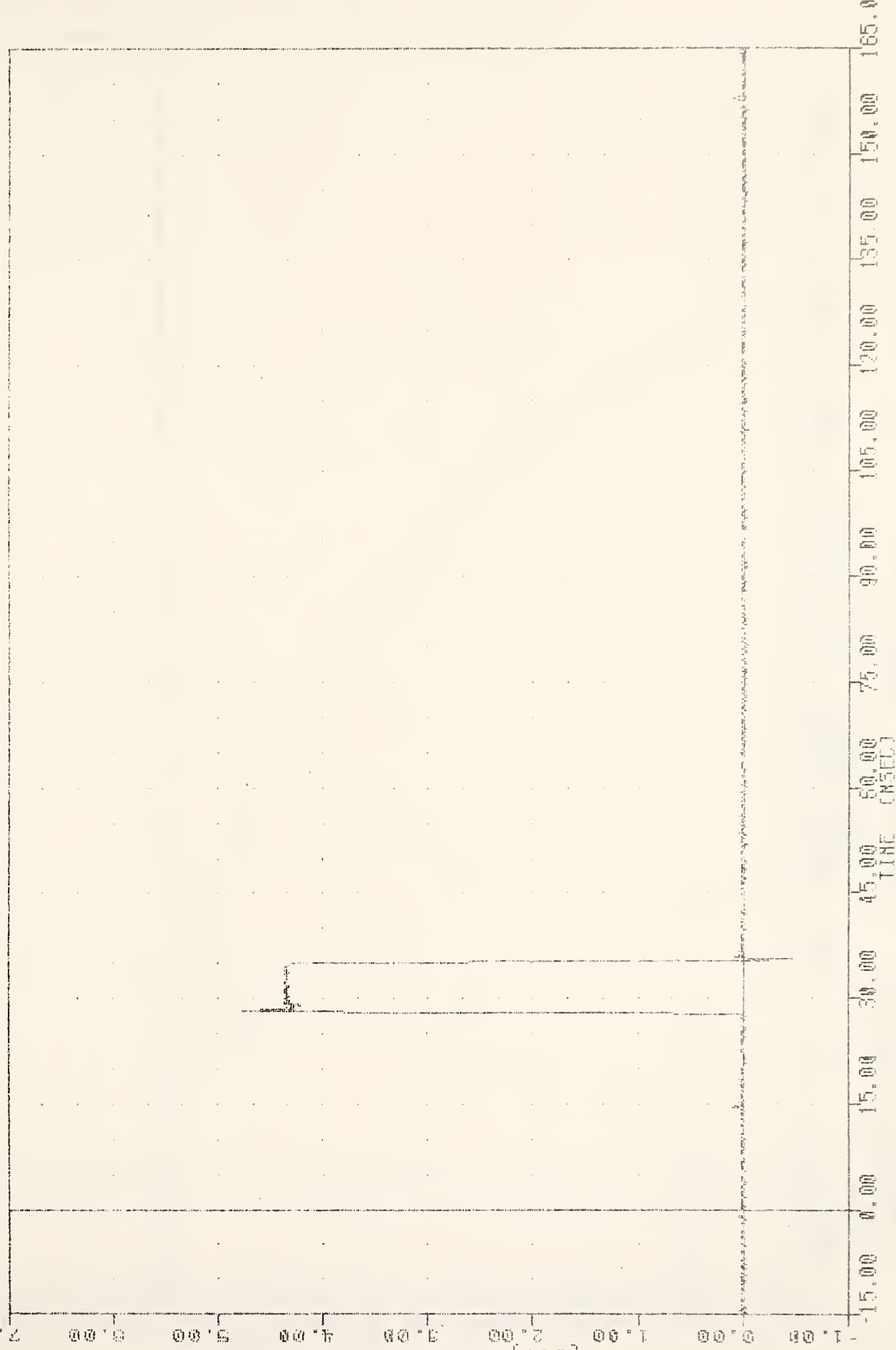
ABFT2



A-114

AIR BAG FIRING EVENT PASSENGER

551045003 , TR0059
 REST. MODEL VALID. TEST
 82066
 ABFTS

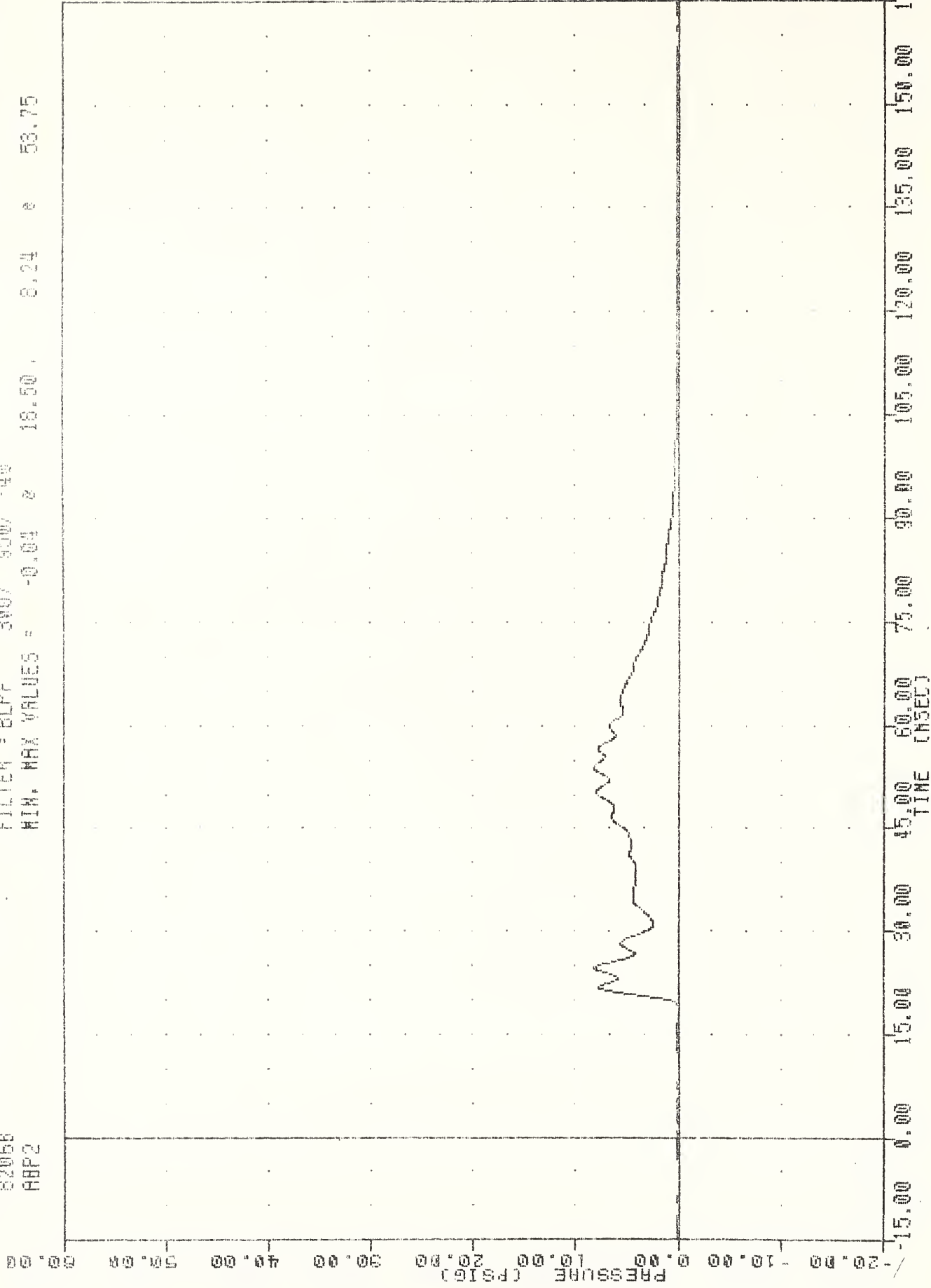


AIR BAG FIRING EVENT 7

30-MAR-82 12:30:13

551045003 , TRC059
REST, MODEL VALID, TEST
82068
RBP2

FILTER = BLPF 300 / 950 / -40
MIN. MAX VALUES = -0.04 e 18.50 e 53.75



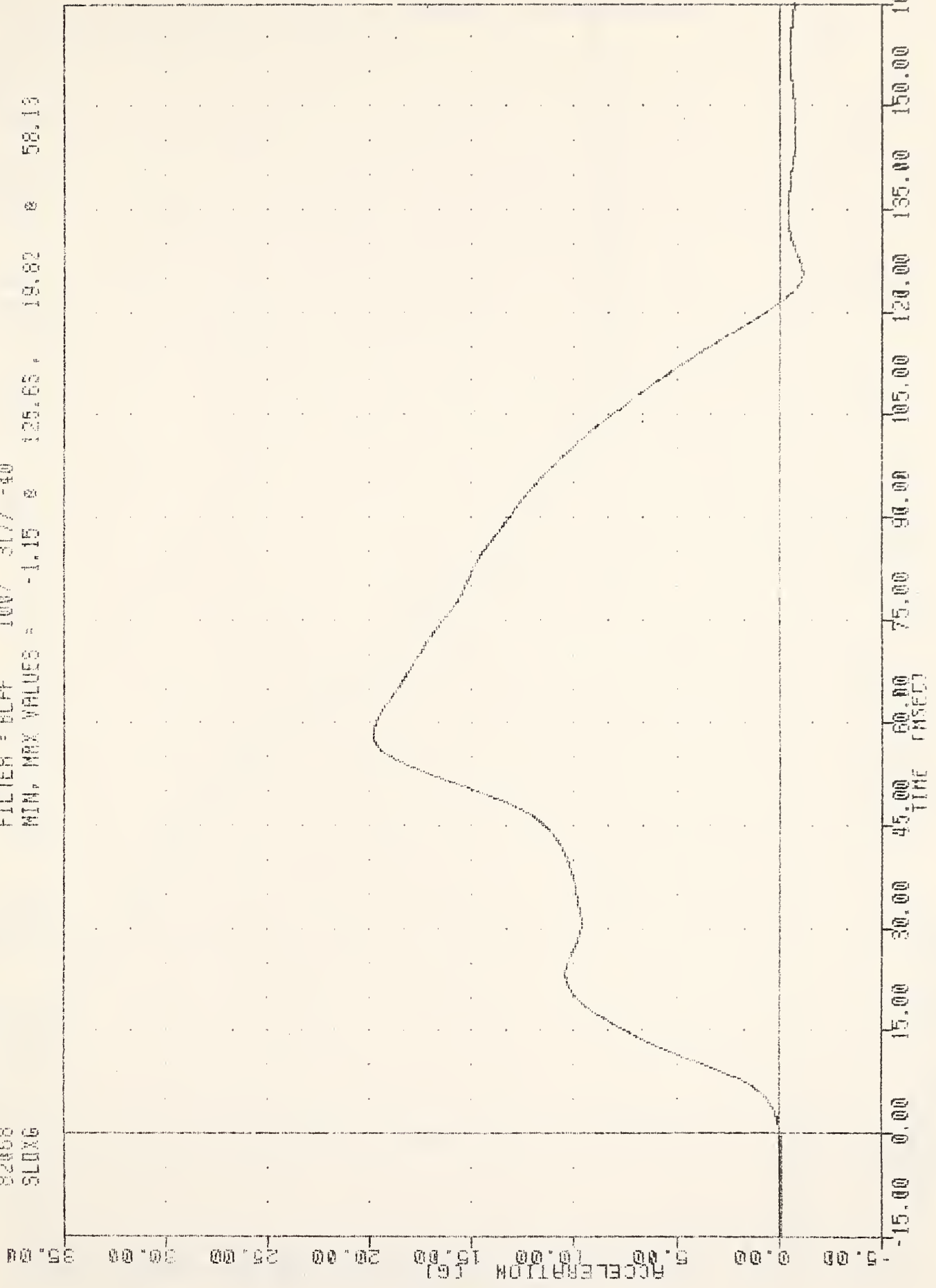
A-116

AIR BAG PRESSURE PASSENGER

30-MAR-82 12:50:13

551045003 , TRC059
REGT. MODEL VALID. TEST
82068
SLOXG

FILTER = BLPF 100/ 317/ -40
MIN, MAX VALUES = -1.15 e 125.65, 19.82 e 58.13



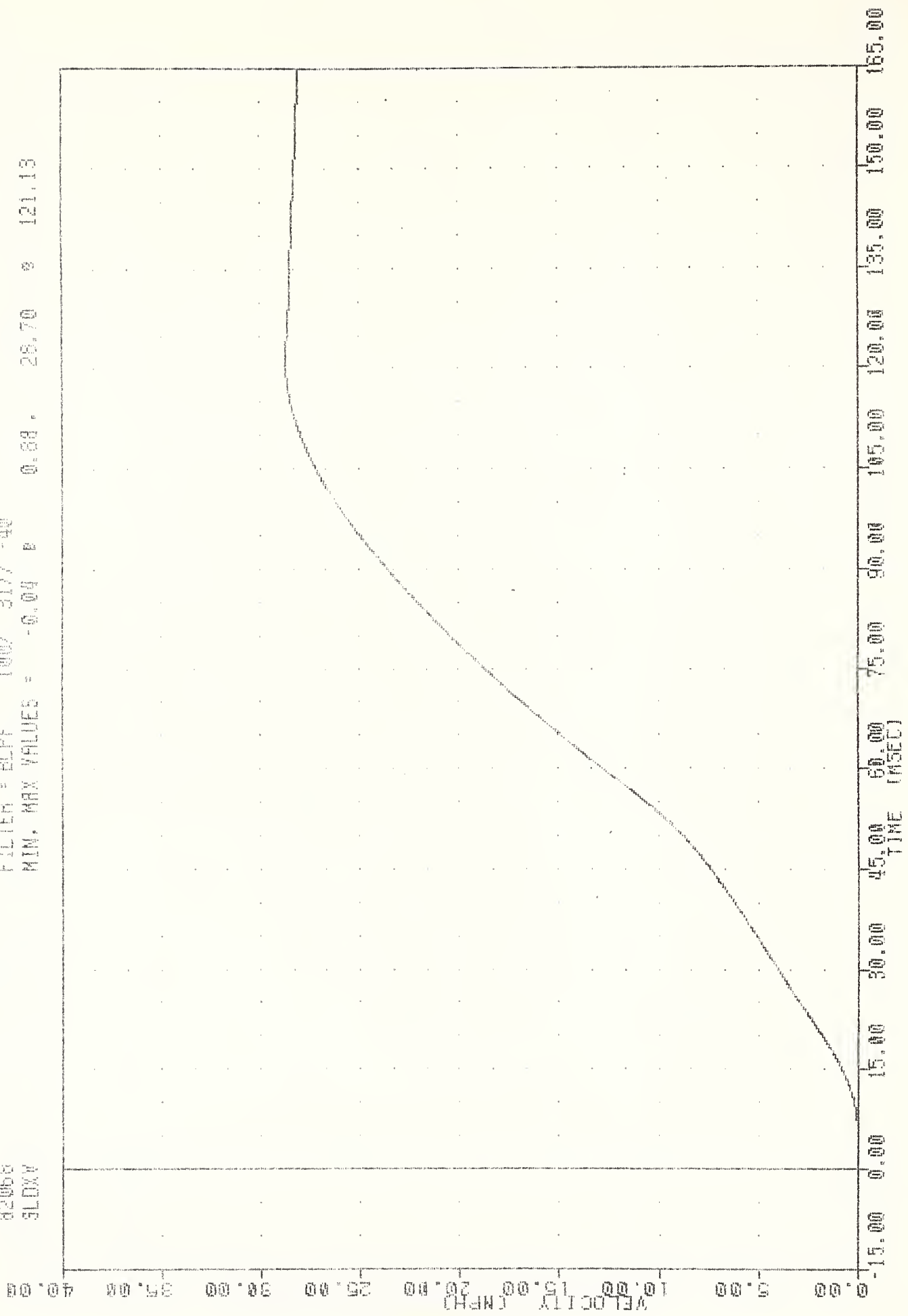
A-117

SLED ACCELERATION

30-MAR-62 12:58:13

951045003 , TRC059
BEST. MODEL VALID. TEST
82068
SLOWY

FILTER = BLPF 100% 3177 -40
MIN. MAX VALUES = -0.04 0.88 28.70 * 121.13



SLED VELOCITY IN MPH

30-MAR-82 12:30:15

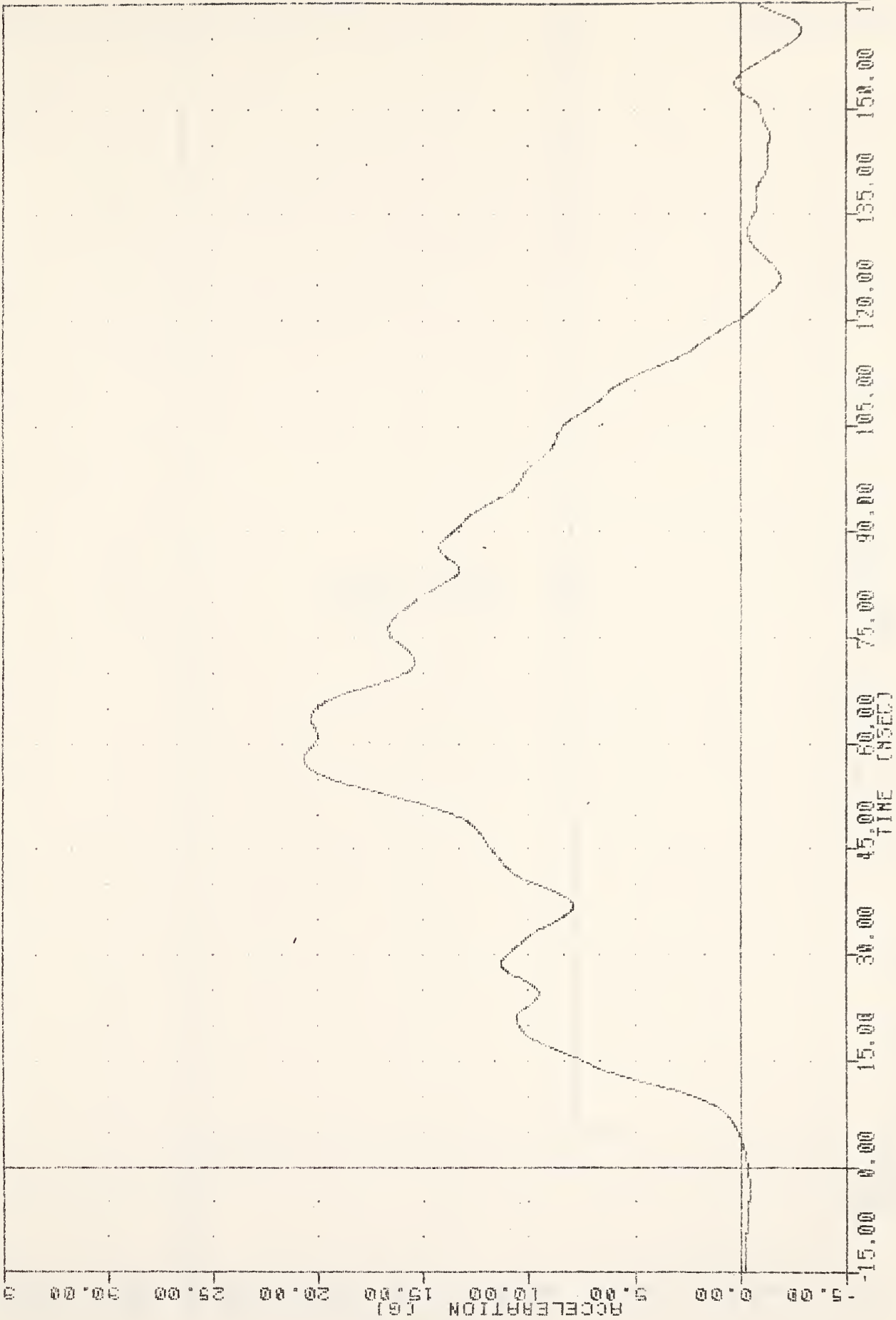
S51025002 , TAC053
REST. MODEL VALID. TEST

FILTER = BLPF 100/ 317/ -40

MIN. MAX VALUES = -2.92 2 161.80 1 20.70 2 57.75

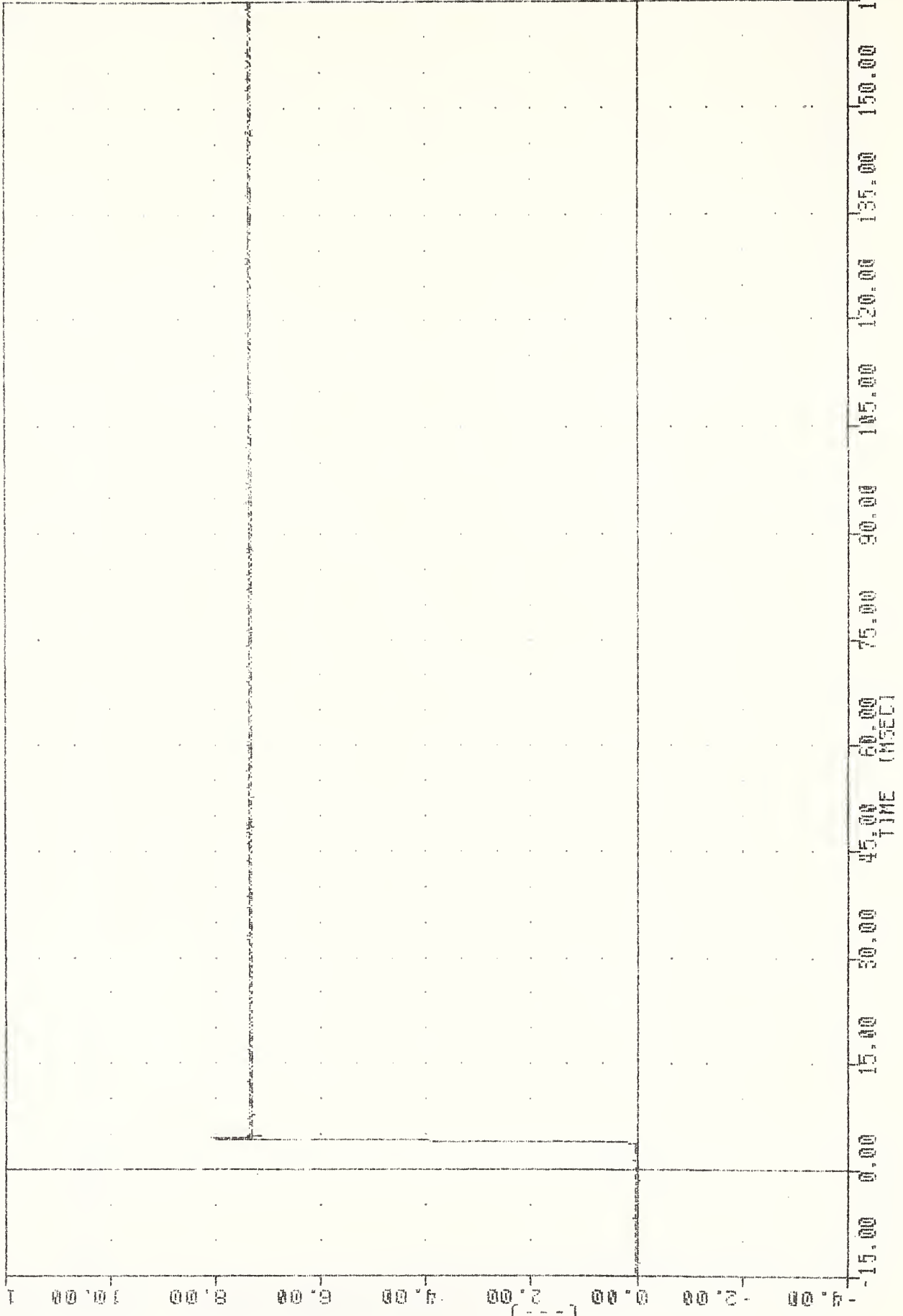
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
-5.00

A-11



FLOOR PAN TUNNEL ACCELERATION

951045003 , T8059 30-MAR-82 12:30:15
 REST. MODEL VALID. TEST
 82068
 SPSK
 FILTER = RLPF 1650/ 214/ -60
 MIN. MAX VALUES = -0.05 8 3.09 8 4.25
 -13.36 8



A-120

SLED POSITION SWITCH

TEST NO. 5

30-NRR-02 10:20:20

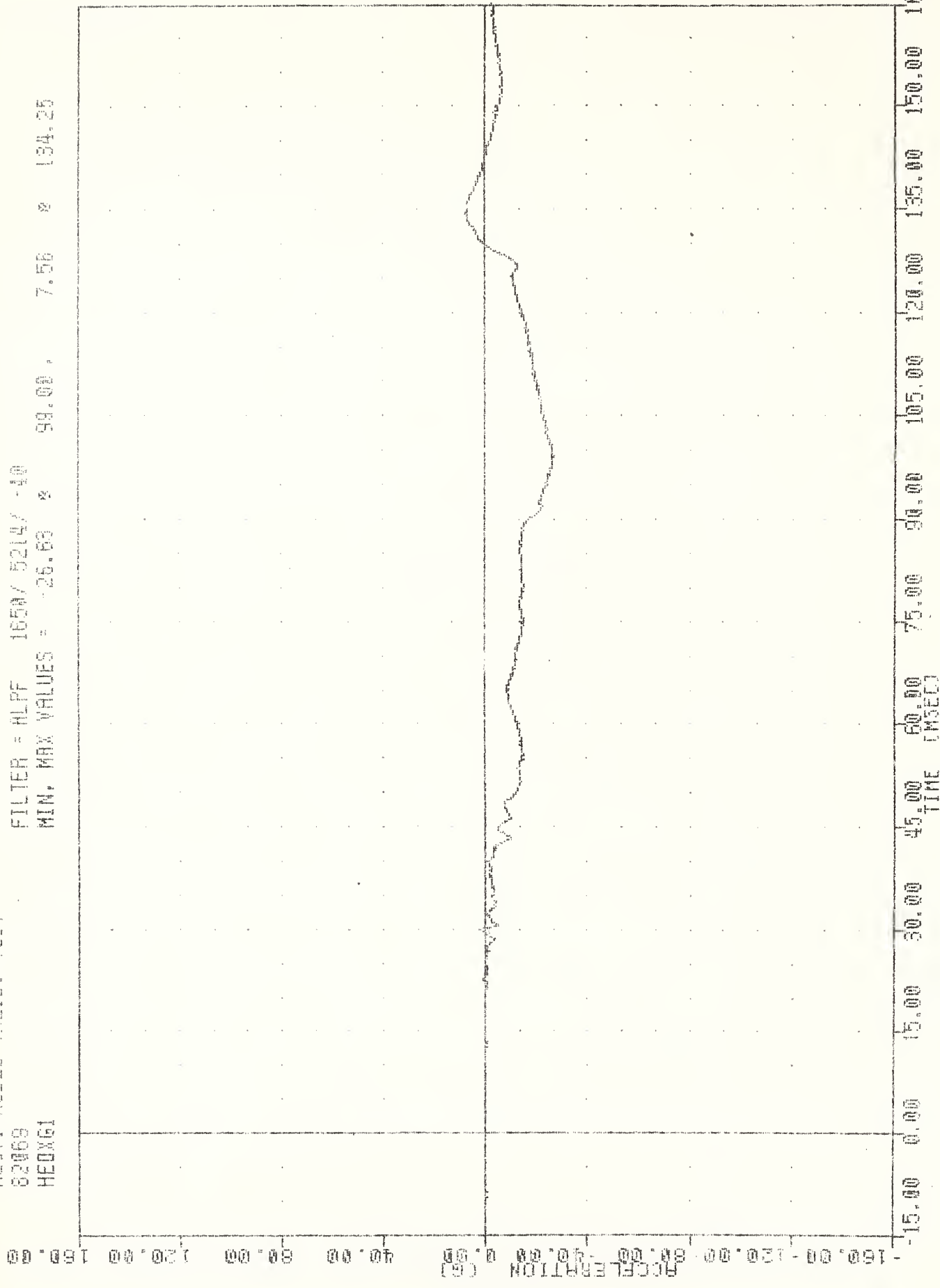
551055003 . TRC060

REST. MODEL VALID. TEST

FILTER = HLPF 165M/ 5214/ -40

MIN. MAX VALUES = -26.63 % 99.00 , 7.56 % 194.25

82069
HEADX61



HEAD ACCELERATION X AXIS DRIVER

30-MAR-82 10:20:21

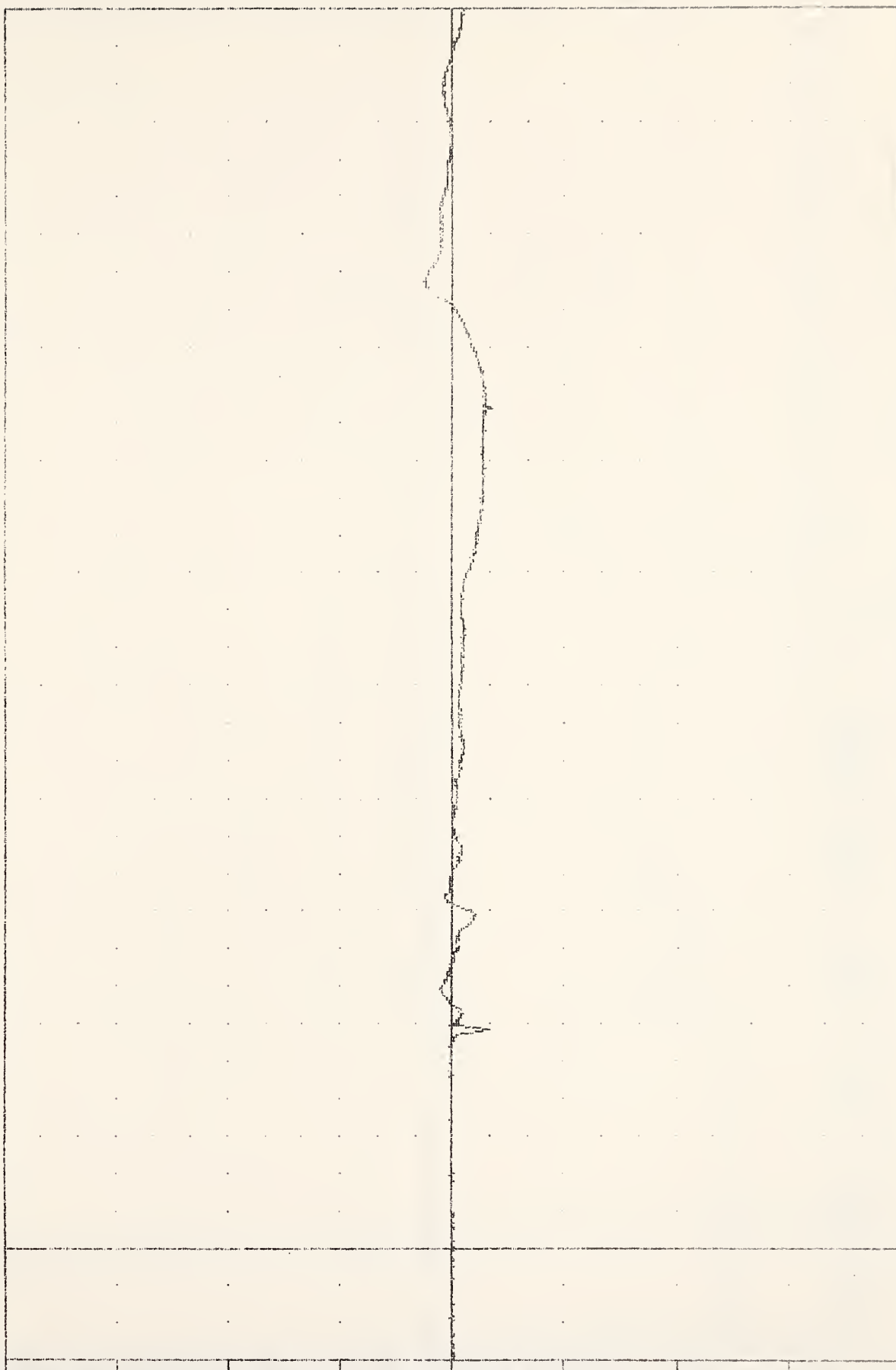
551055003 * TRC060

REST. MODEL VALID. TEST

FILTER = ALPF 1650/5214/40

MIN. MAX VALUES = -13.00 111.75 10.13 128.63

150.00
120.00
90.00
60.00
30.00
0.00
-30.00
-60.00
-90.00
-120.00
-150.00



165.00
150.00
135.00
120.00
105.00
90.00
75.00
60.00
45.00
30.00
15.00
0.00
-15.00

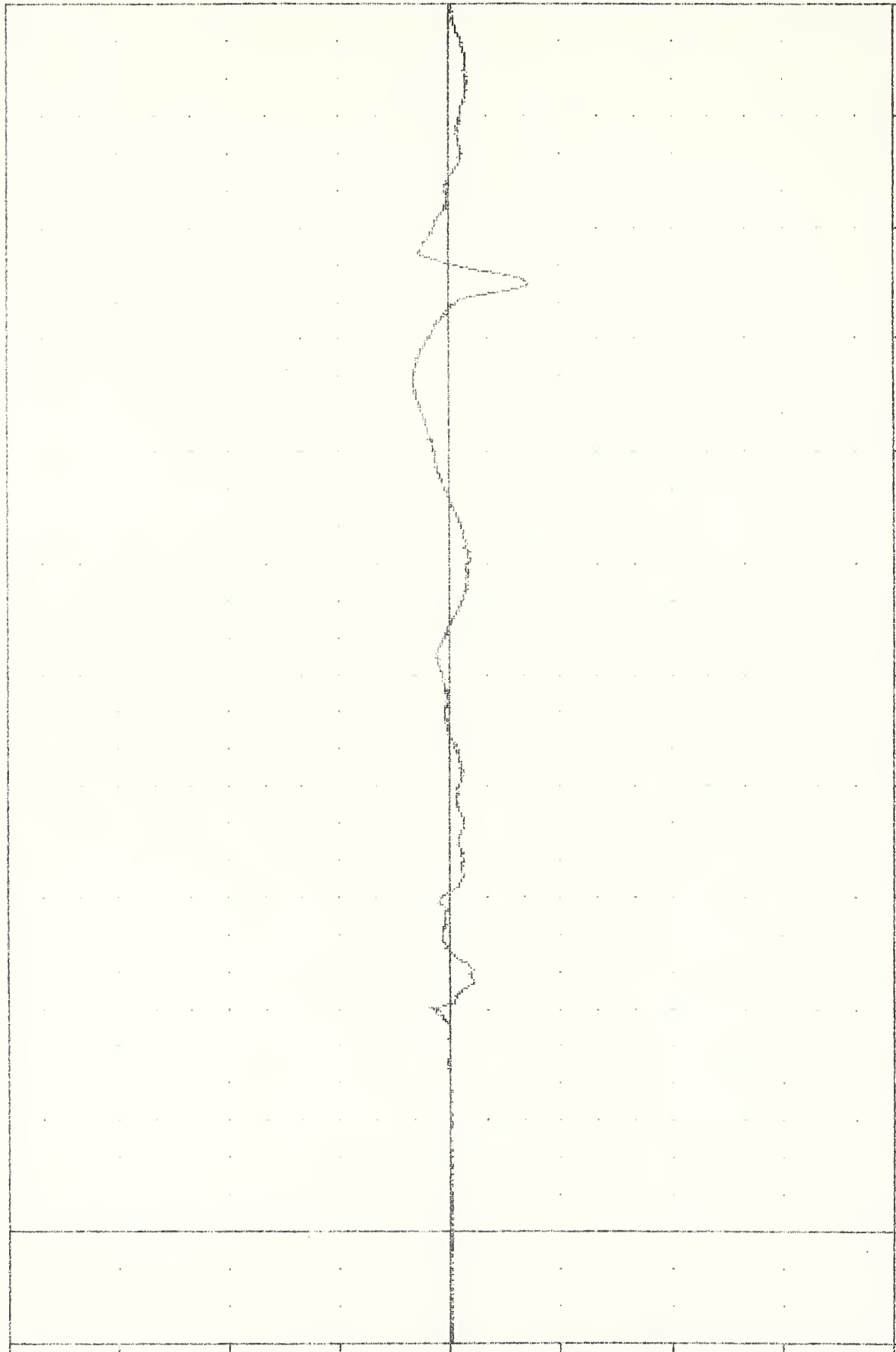
HEAD ACCELERATION Y AXIS DRIVER

30-MAR-82 10:28:22

551055003 , TAC060
REST. MODEL VALID, TEST
02069
HEADZ61

FILTER : ALPF 1650/ 5214/ -40
MIN. MAX VALUES : -29.01 127.98 15.21 113.98

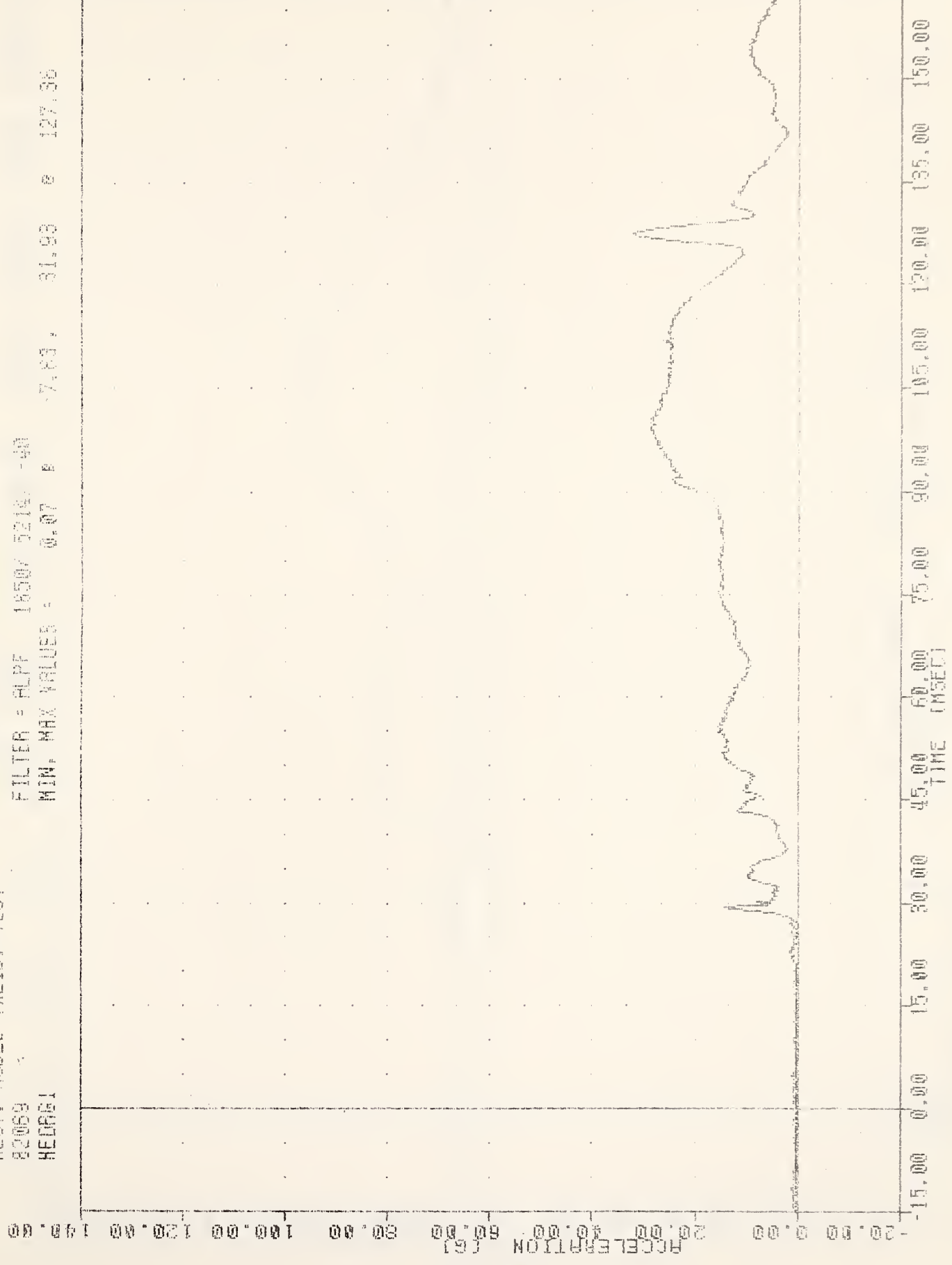
ACCELERATION (G)



A-124

HEAD ACCELERATION Z AXIS DRIVER

551055005 , TRC050
 REST. MODEL VALID. TEST
 22059
 HEAD01
 24-MAR-92 10:20:22
 FILTER = ALPF 16507 5214 -40
 MIN. MAX VALUES : 0.07 7.83 31.93 127.36



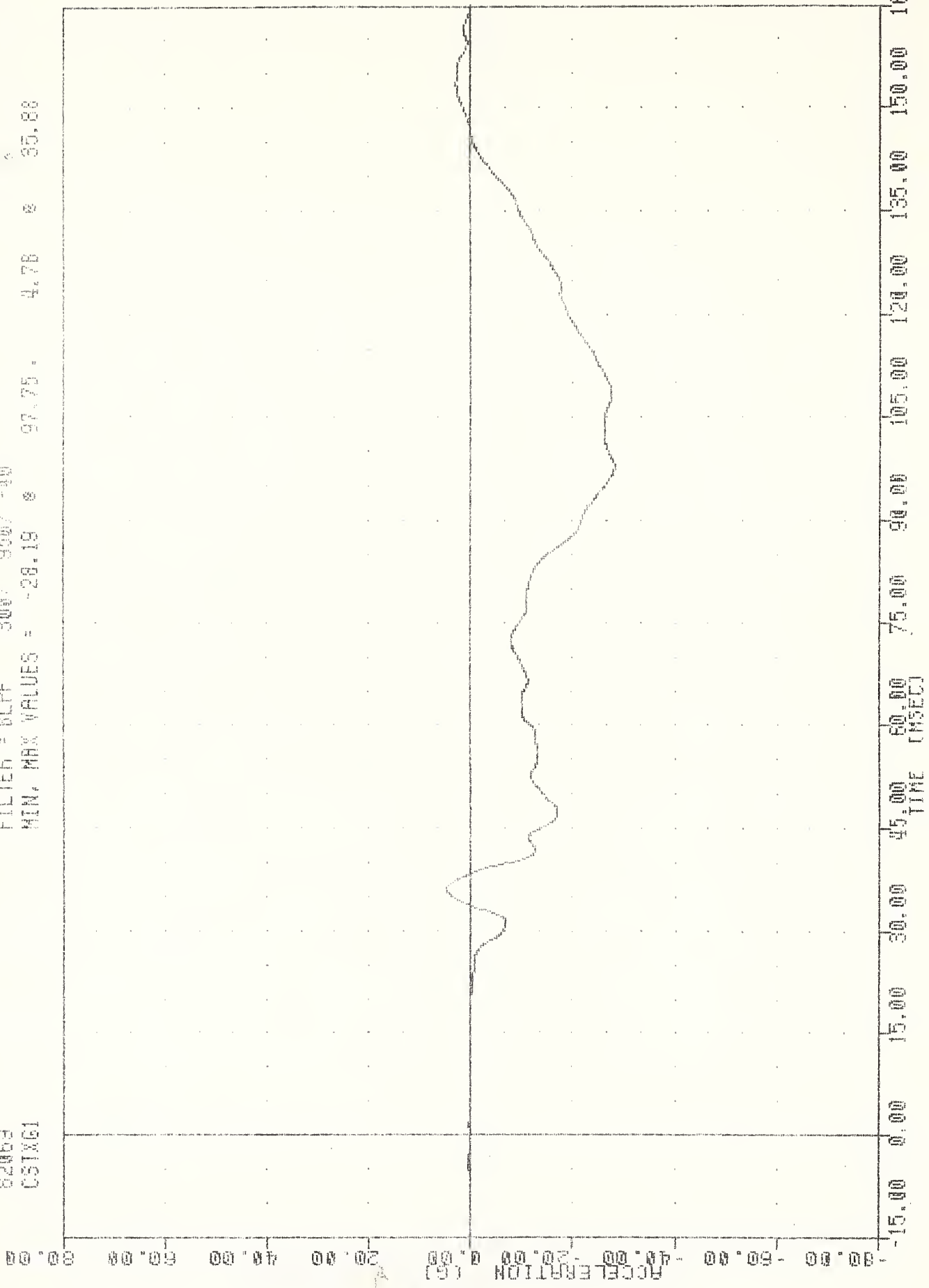
A-125

HEAD ACCELERATION HEAD01 INT.DIVER

20-MAR-82 16:20:22

551055003 , TAC060
REST. MODEL VALID. TEST
82063
CSTXG1

FILTER = 0LFF 300/ 950/ -40
MIN. MAX VALUES = -28.19 97.75 4.78 35.88



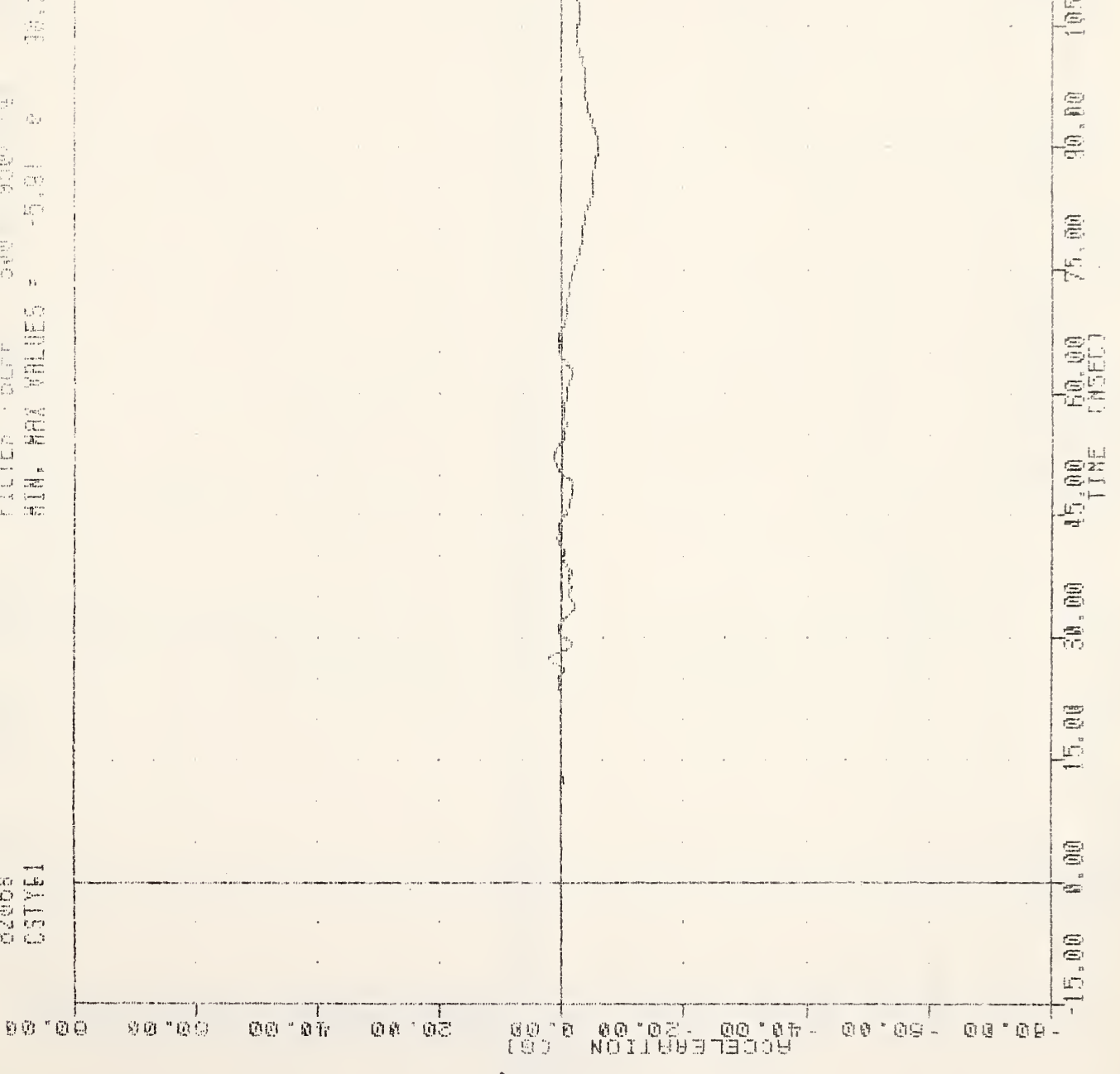
A-126

CHEST ACCELERATION X AXIS DRIVER

351055000
 20-003-02
 10/20/11

TEST. MODEL VALID. TEST
 02068
 03TYE1

FILTER = SLPF 300 900 14
 MIN. MAX VALUES = -5.91 e 5.36 * 100.00

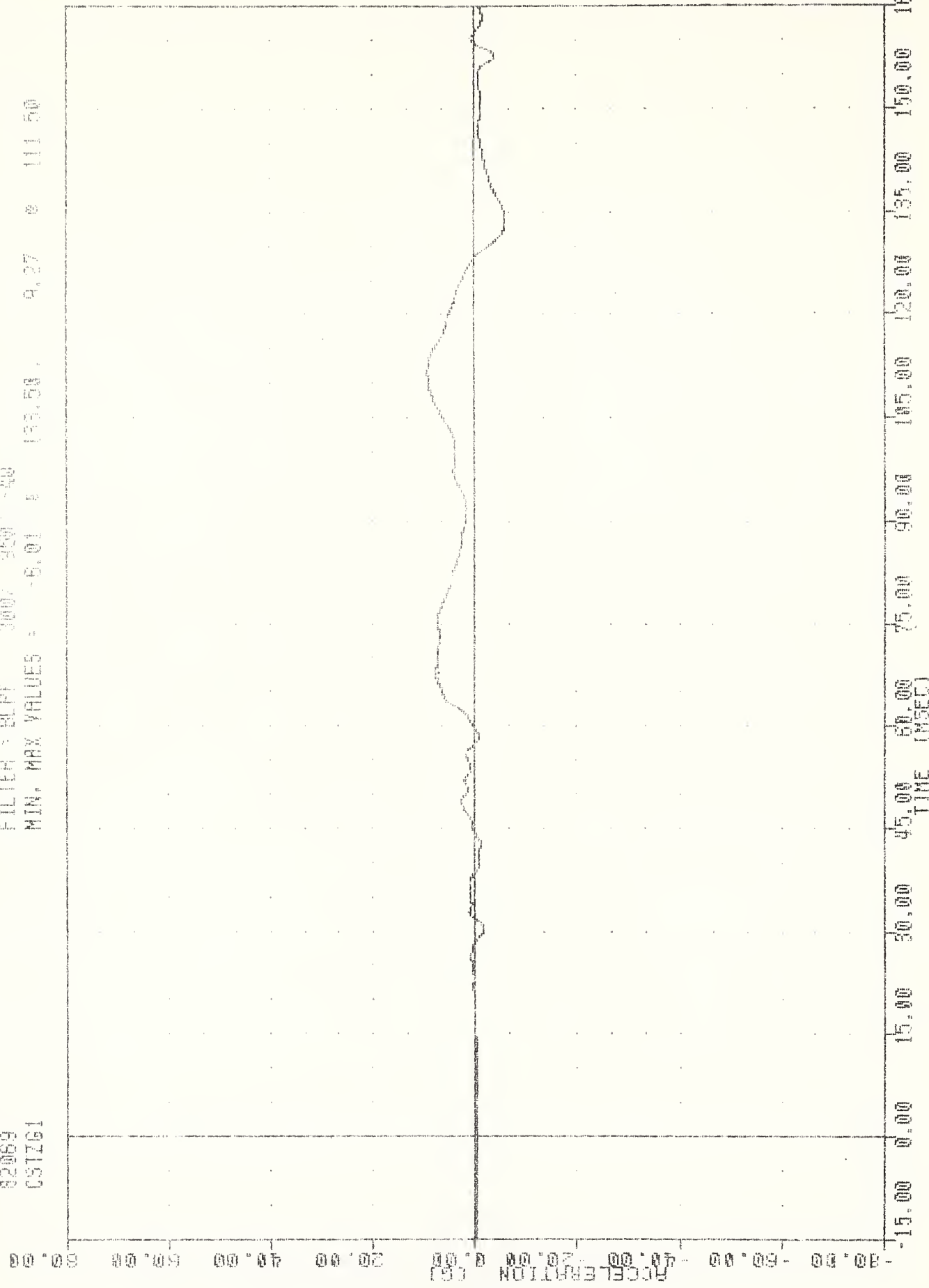


A-127

CHEST ACCELERATION Y AXIS DRIVER

30-MAR-82 10:27:22
FILTER: SLPF 0007 3507 -50
MIN. MAX VALUES: -5.01 9.27 @ 111.50

9510550093 , TRC060
REST. MODEL VALID. TEST
82069
CST1261

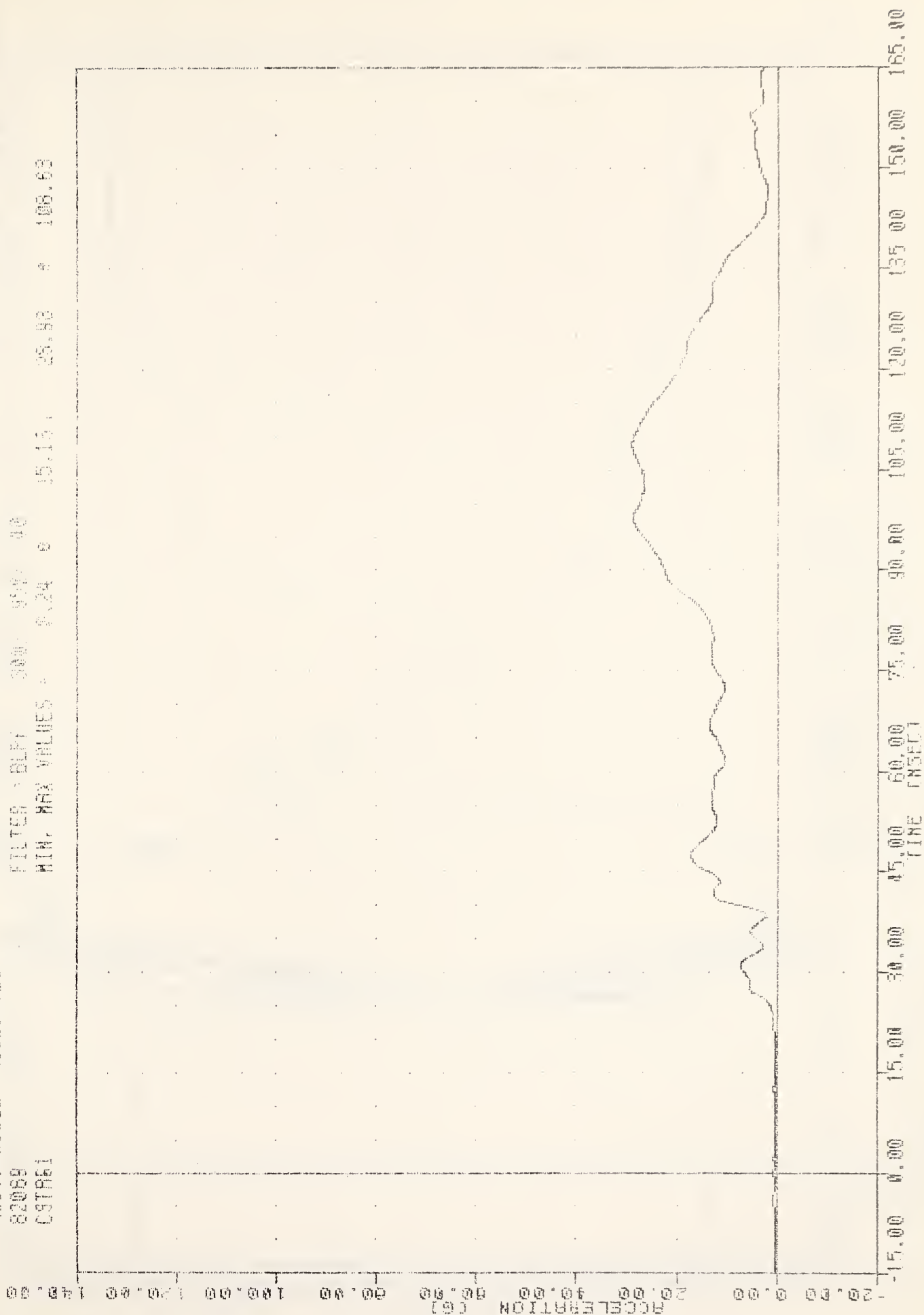


CHEST ACCELERATION Z AXIS DRIVER

50105003 , TR050
 REST, MODEL VALID, TEST
 82089
 CSTR61

30-MAR-82 10:20:12

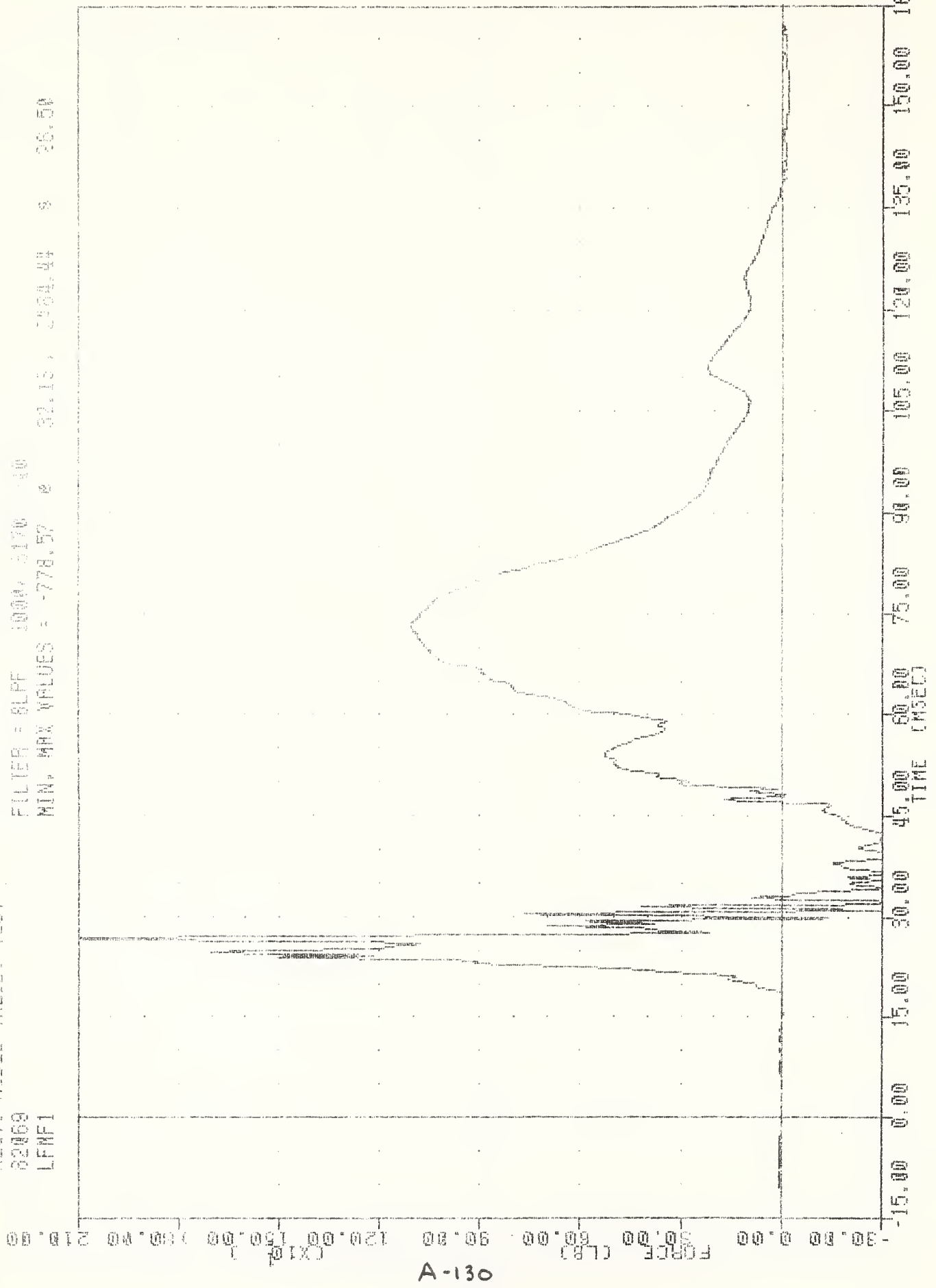
FILTER - BLF 300.000 40
 MIN, MAX VALUES - 0.24 6 15.15 26.80 * 100.00



30-MAR-82 10:20:12

951055000 , TRC060
REST. MODEL VALID. TEST
82069
LFMF1

FILTER = 5LPP 1000, 5170, 10
MIN. MAX VALUES = -778.57 8 32.15, 2564.44 8 26.50



A-130

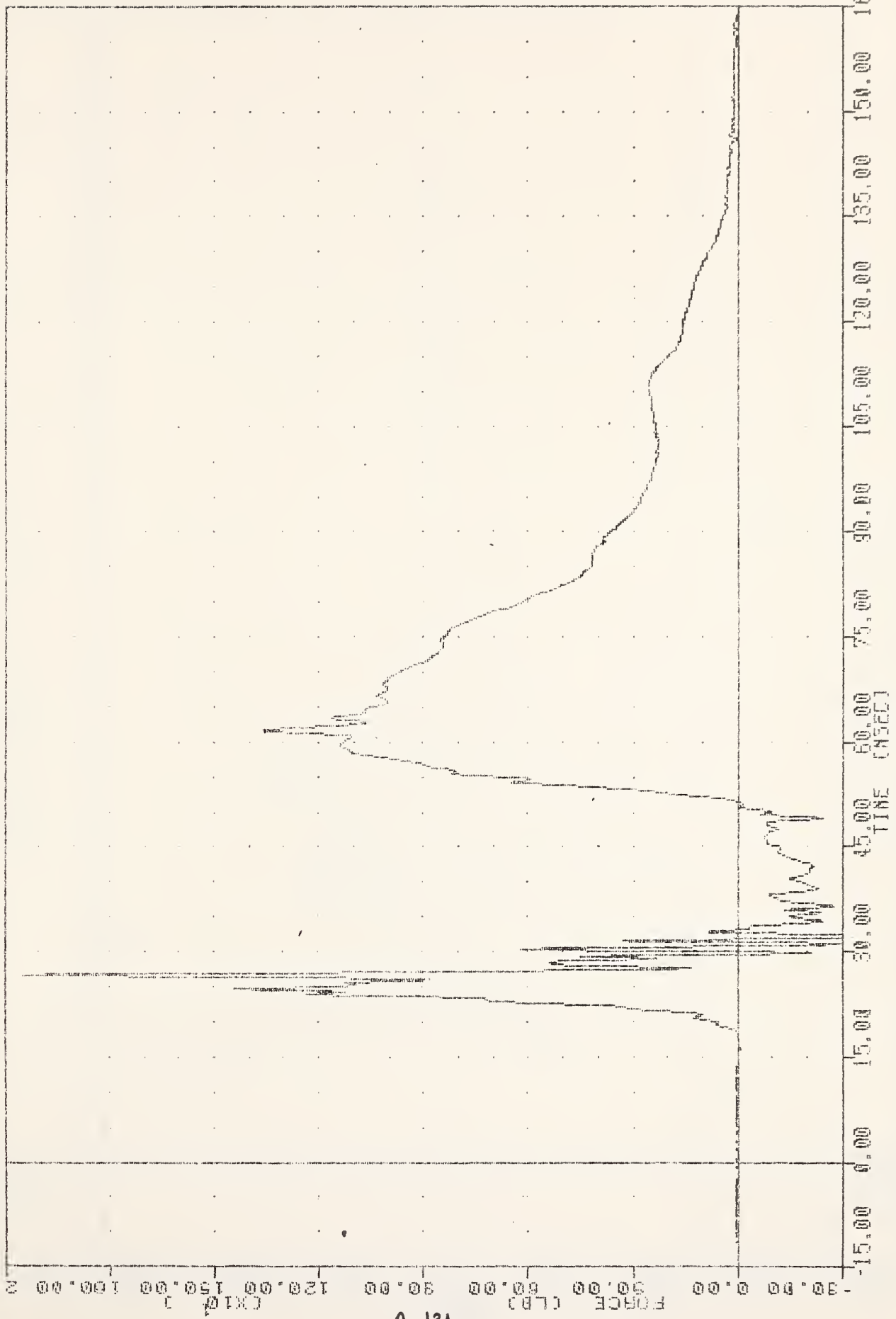
LEFT FEMUR FORCE DRIVER

30 MAR 82 10:28:31

551055002 , TRC050
REST. MODEL VALID. TEST
82059
RPMF1

FILTER = BLFF 1000/3170/-40
MIN. MAX VALUES = -740.16 2044.57 26.50

1



A-131

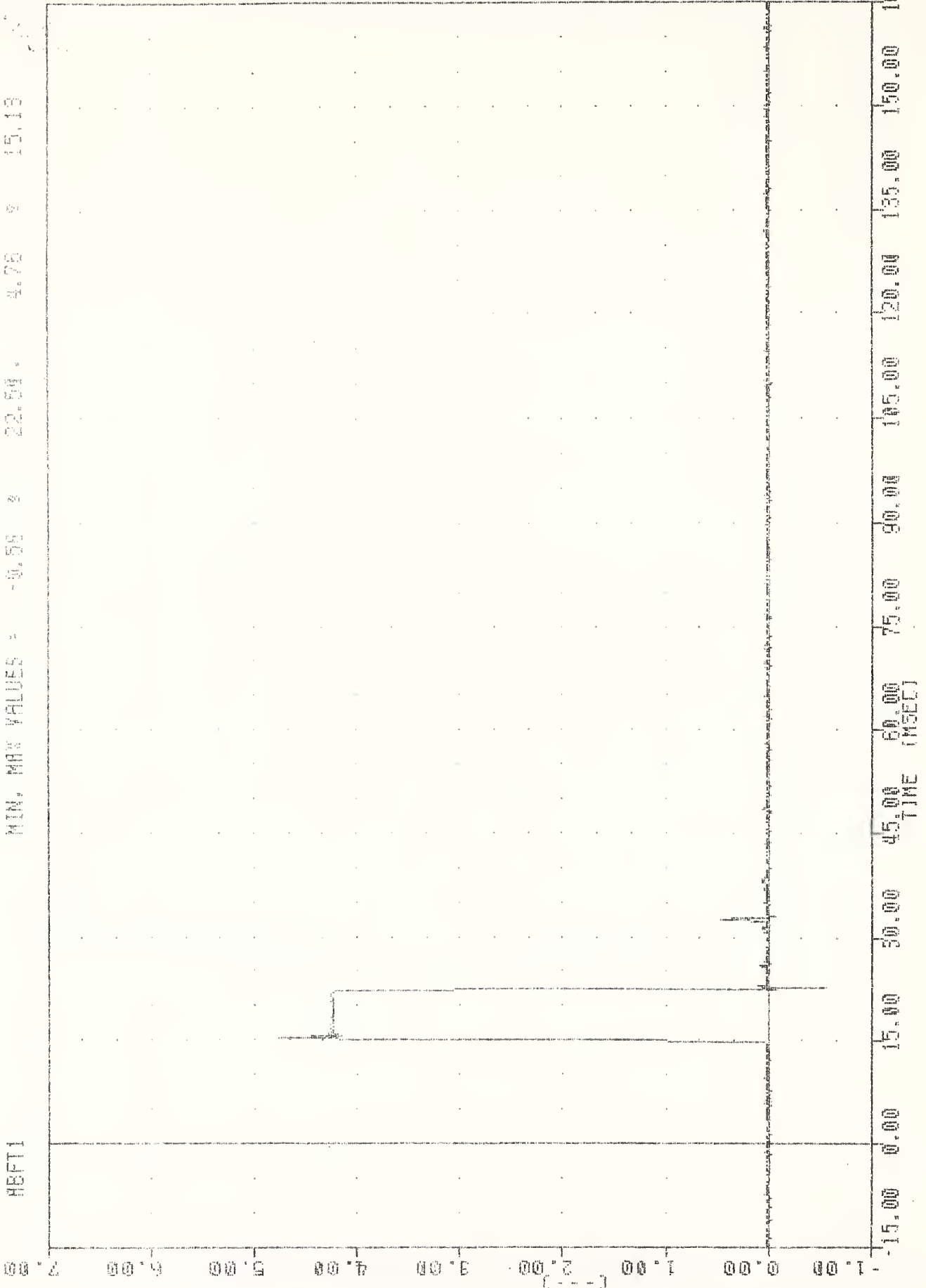
RIGHT FEMUR FORCE DRIVER

951055003 , TAC060
REST. MODEL VALID. TEST
82089
ABFT1

30 MAR 82 10:38:22

FILTER = ALPF 1559: 214/ 40
MIN. MAX VALUES = -0.59 22.54

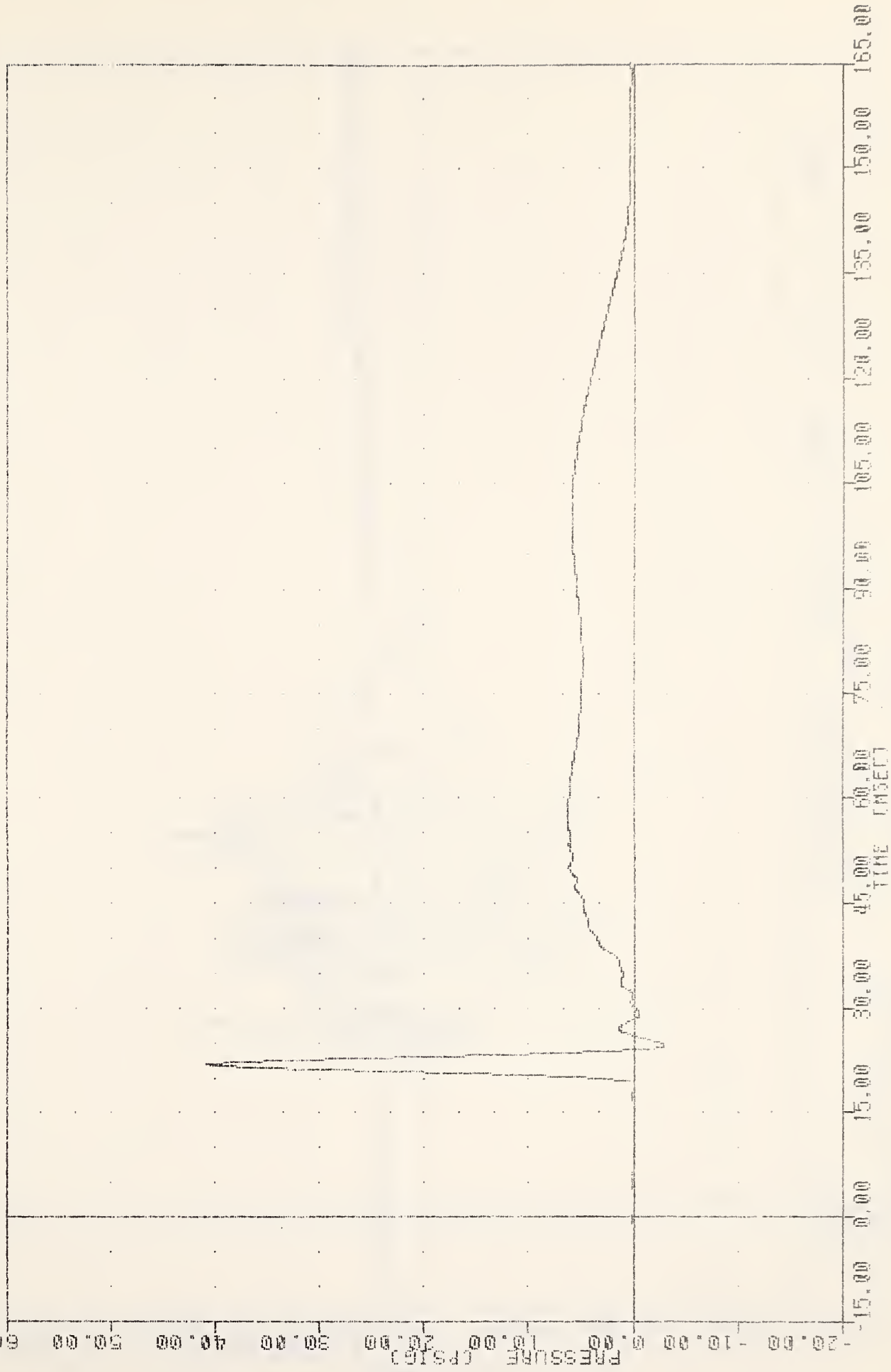
4.78 9 15.19



A-132

AIR BAG FIRING EVENT DRIVER

301055003 TRC060 30-NAR-81 10:20:20
 RE3T, MODEL VALID, TEST
 02069 FILTER = ELFF 30M 950V -40
 ABP1 MIN. MAX VALUES = -2.95 0 24.69 40.81 * 21.75



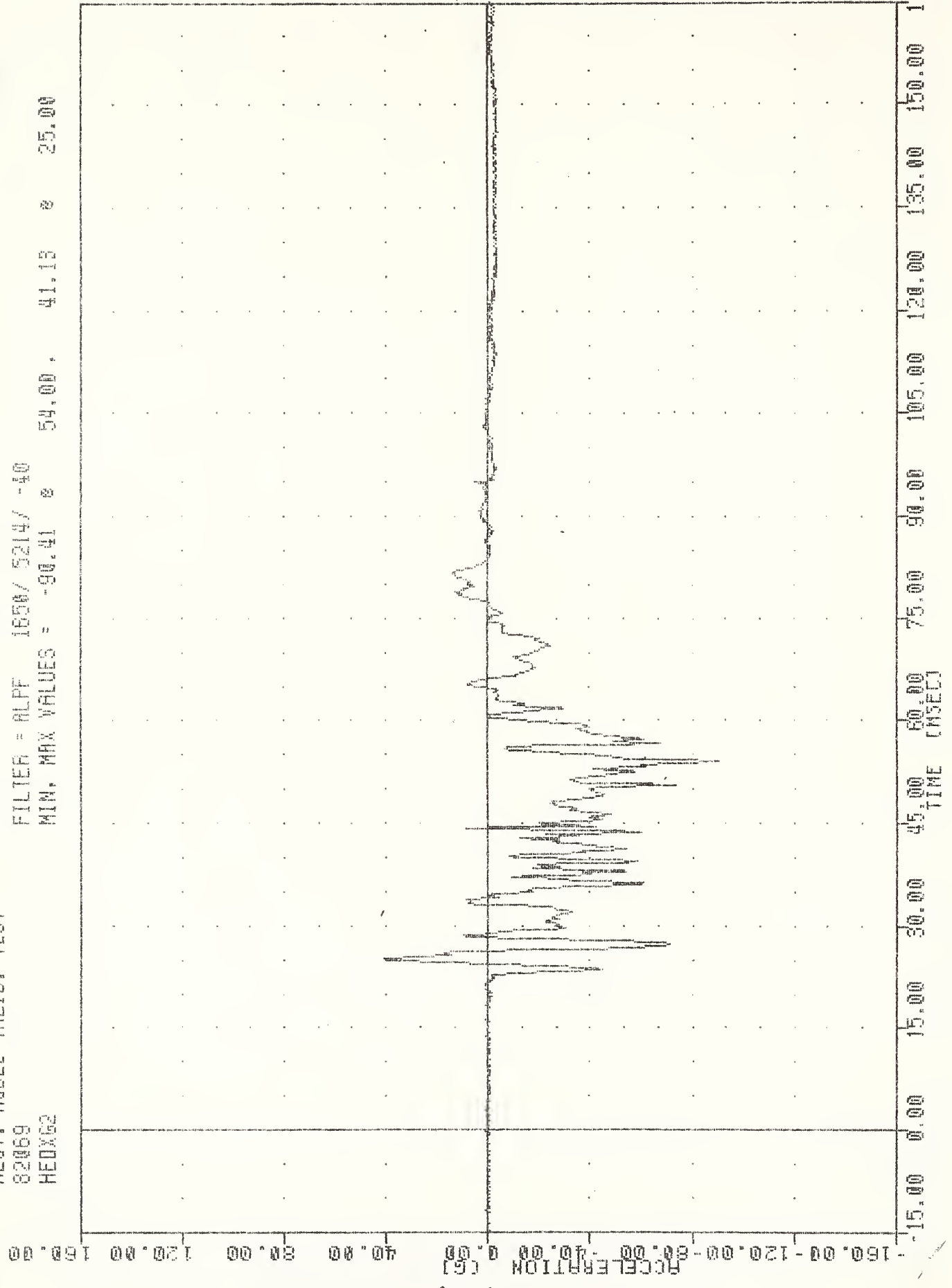
A-133

AIR BAG PRESSURE INFLATED

30-MAR-82 19:20:22

S51055003 , TRC060
REST. MODEL VALID. TEST
82069
HEAD62

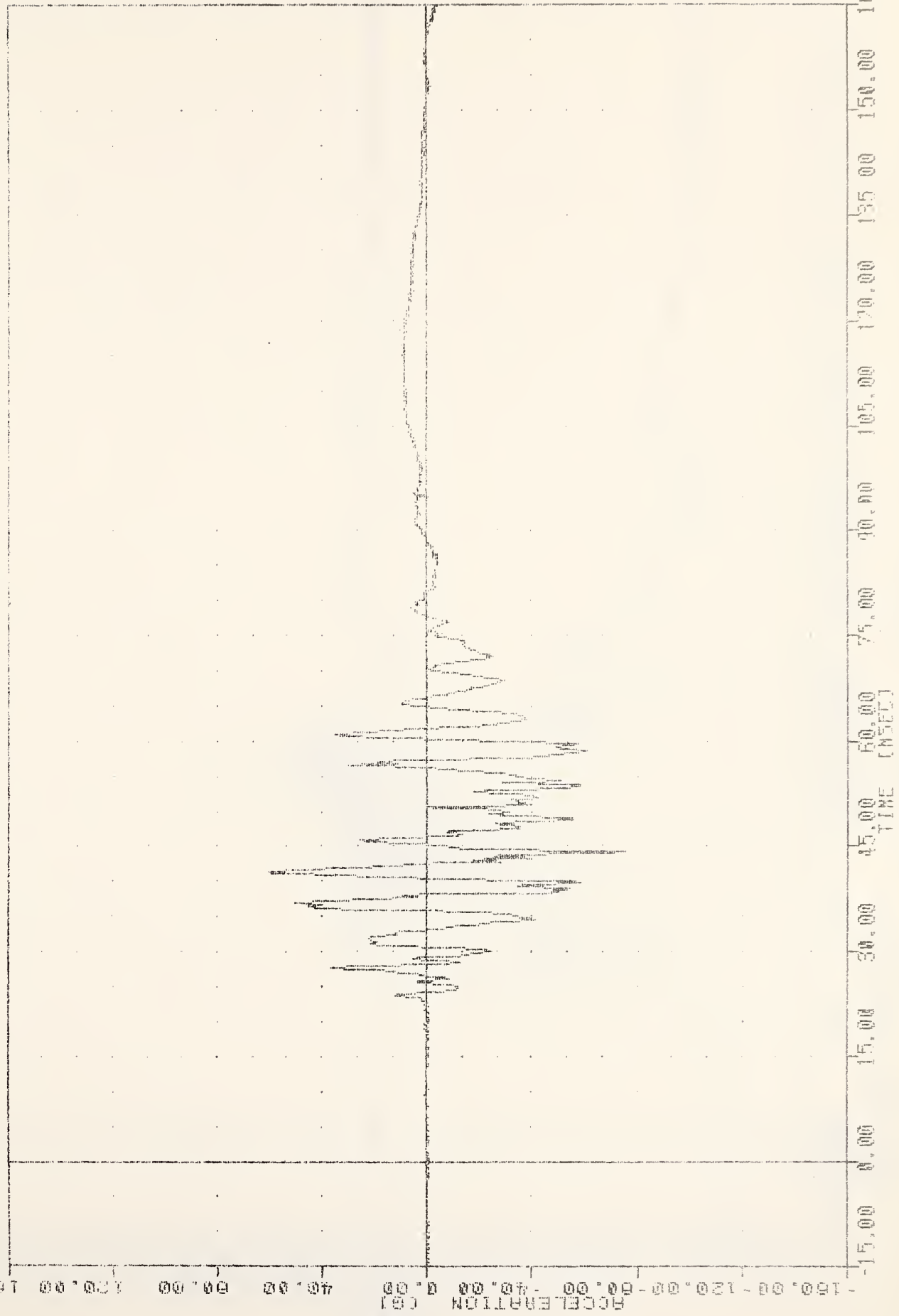
FILTER = ALPF 1650/ 5214/ -40
MIN. MAX VALUES = -90.41 @ 54.00 , 41.13 @ 25.00



A-134

HEAD ACCELERATION X AXIS PASSENGER

571055003 , TRC080
 30-MAR-82 16:20:00
 BEST, MODEL VALID, TEST
 82089
 HEDY62
 FILTER : ALFF 1680/3014/14
 MIN. MAX VALUES : -75.62 8 44.15 8 60.14 8 41.25



A-135

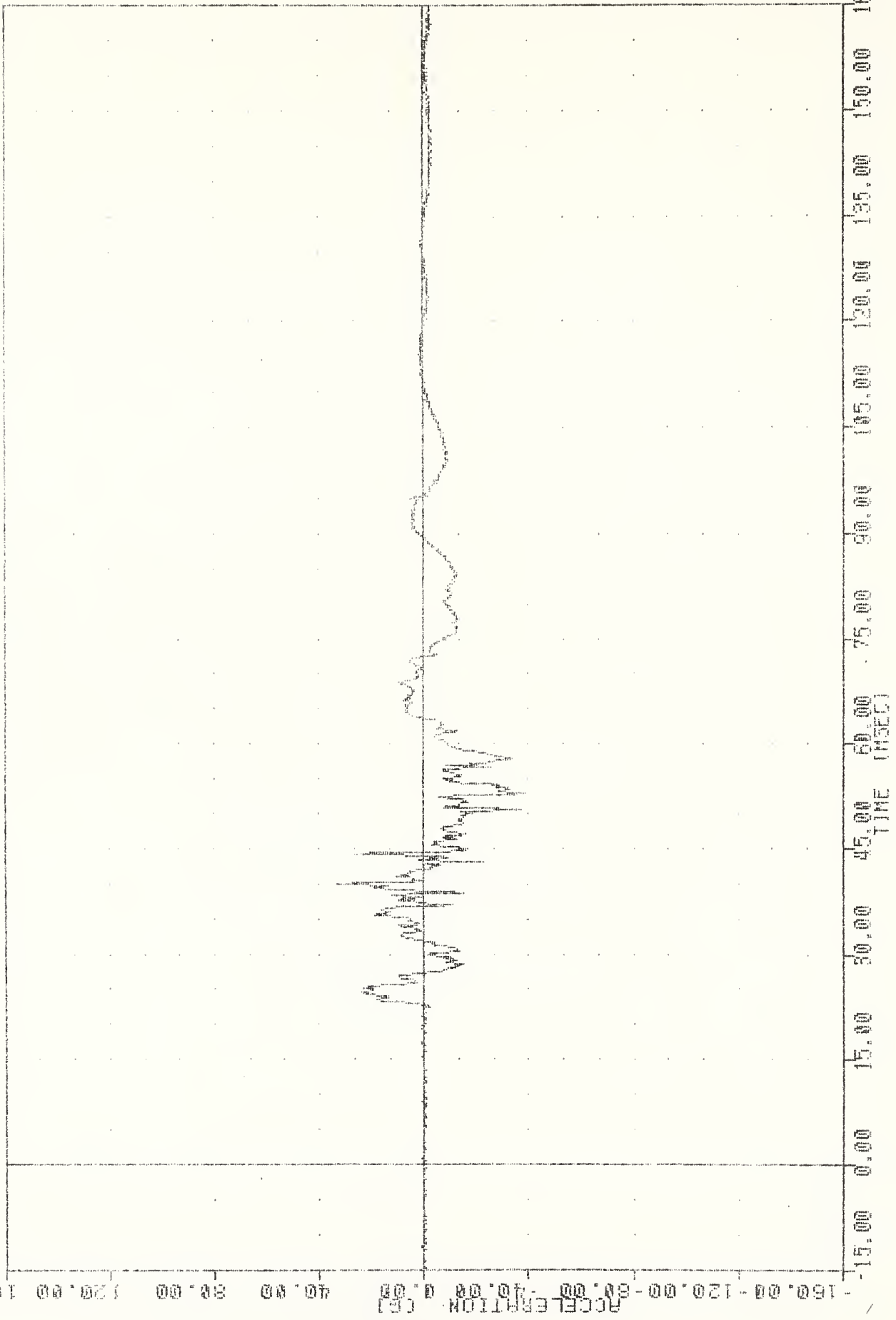
HEAD ACCELERATION Y AXIS PASSENGER

58-MRR-92 10:28:22

551055003 , TAC050
REST. NOVEL VALID. TEST
82068
HEDIG2

FILTER : ALPF 1050.52147 -40
MIN. MAX VALUES : -88.79 83.38

83.38
-88.79

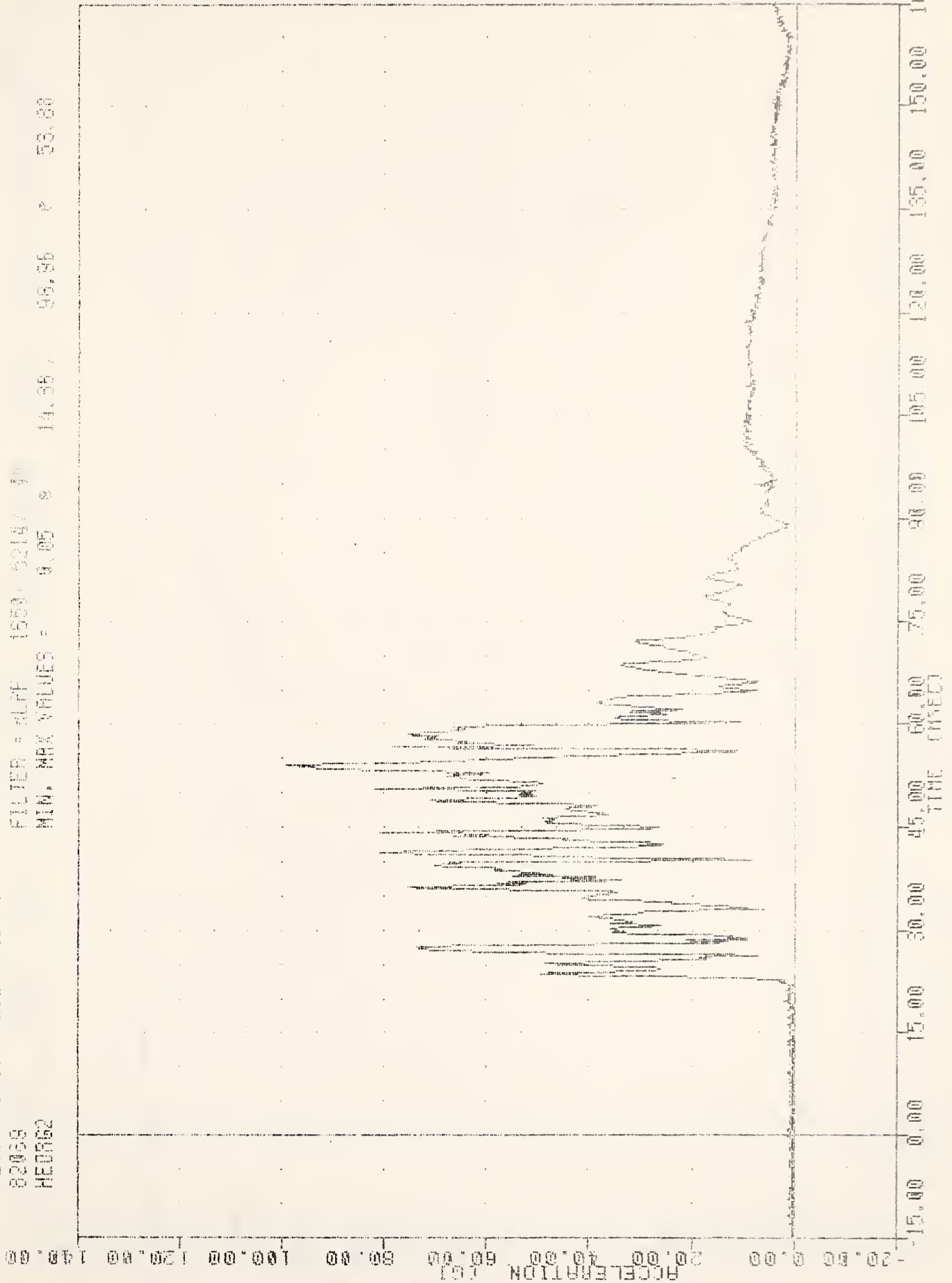


HEAD ACCELERATION Z AXIS PASSENGER

851055080 , TRS 150
REST. H099L VALID. TEST
82039
HEAD62

50-APP-82 19:20:02

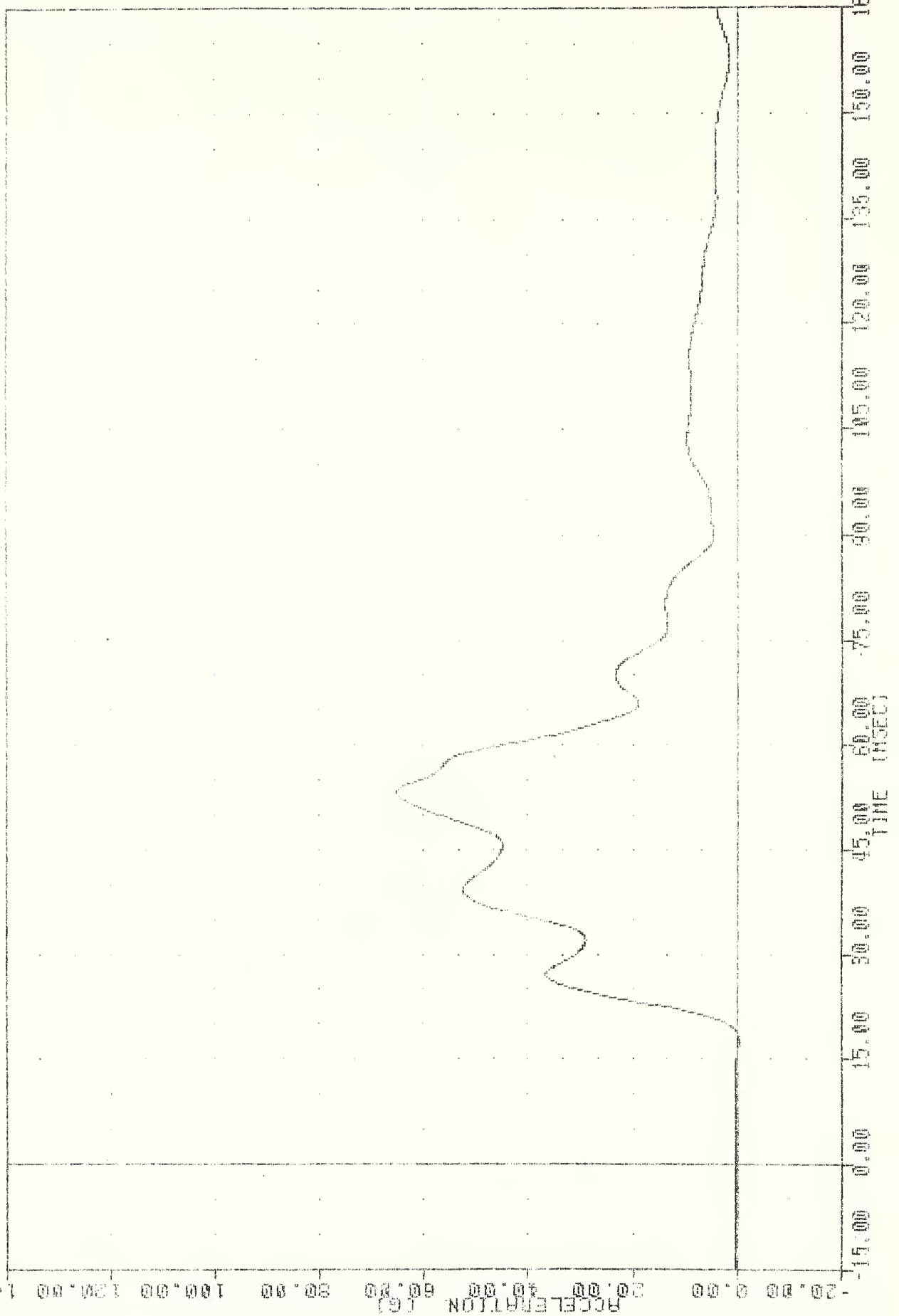
FILTER = ALFF 1500 5214 / 10
MIN. MAX VALUES = 9.05 * 14.35 / 98.56 * 53.80



A-137

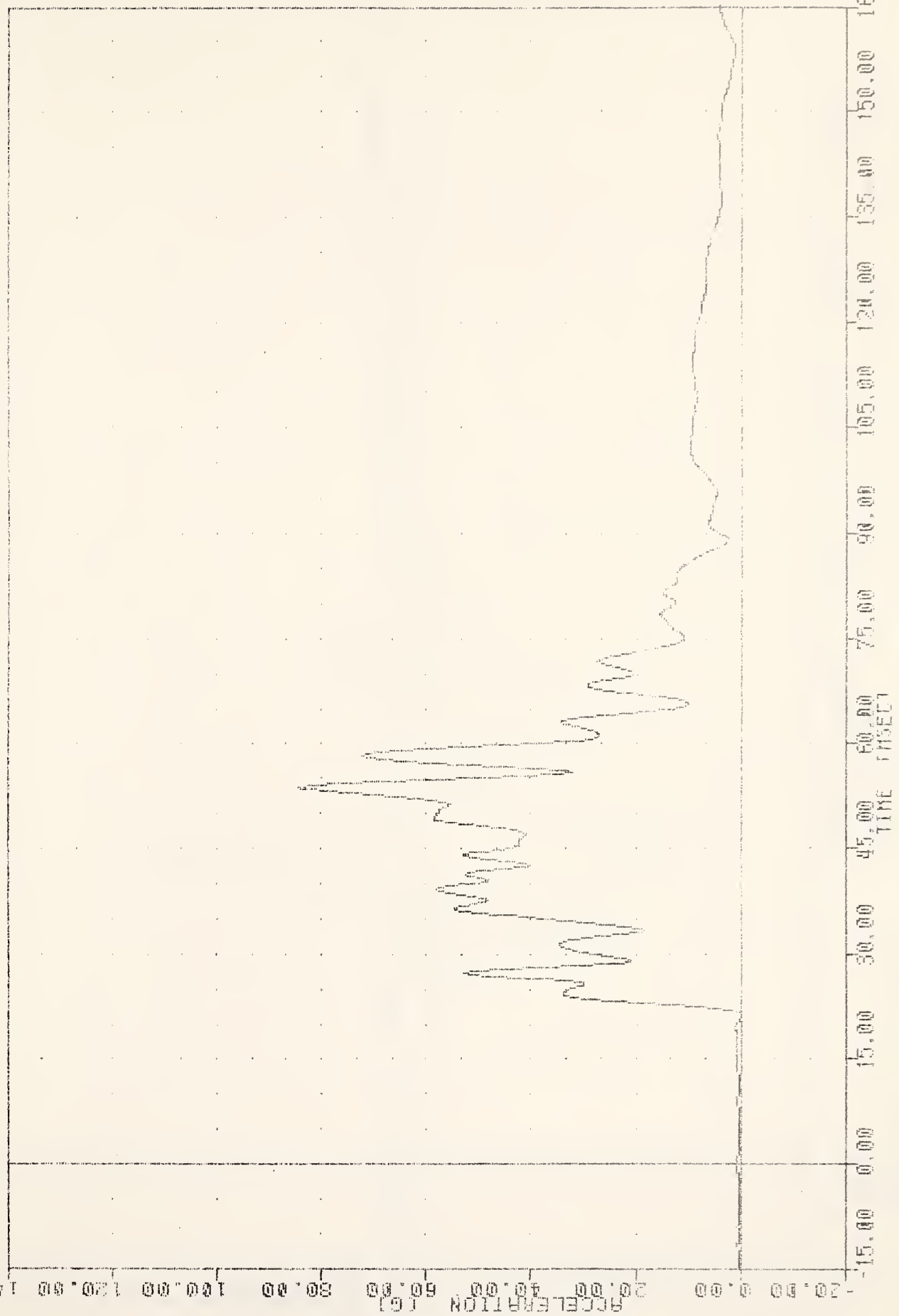
HEAD ACCELERATION RESULT PRESENCE

551055003 , TAC060
 2-APR-82 14:43:47
 REST. MODEL VALID. TEST.
 82069
 HDR02A
 FILTER = BLPP 100 317 400
 MIN. MAX VALUES = -0.47 17.50 55.15 59.15



3 YR OLD HEAD RESULTANT (CLASS 100)

5510550003 , TAC050
 BEST. MODEL VALID. TEST
 02009
 HOR028
 2-APR-87 15:40:17
 FILTER = BLPP 0000 9507 10
 MIN. MAX VALUES = -0.24 8 21.13 84.11 0 53.65



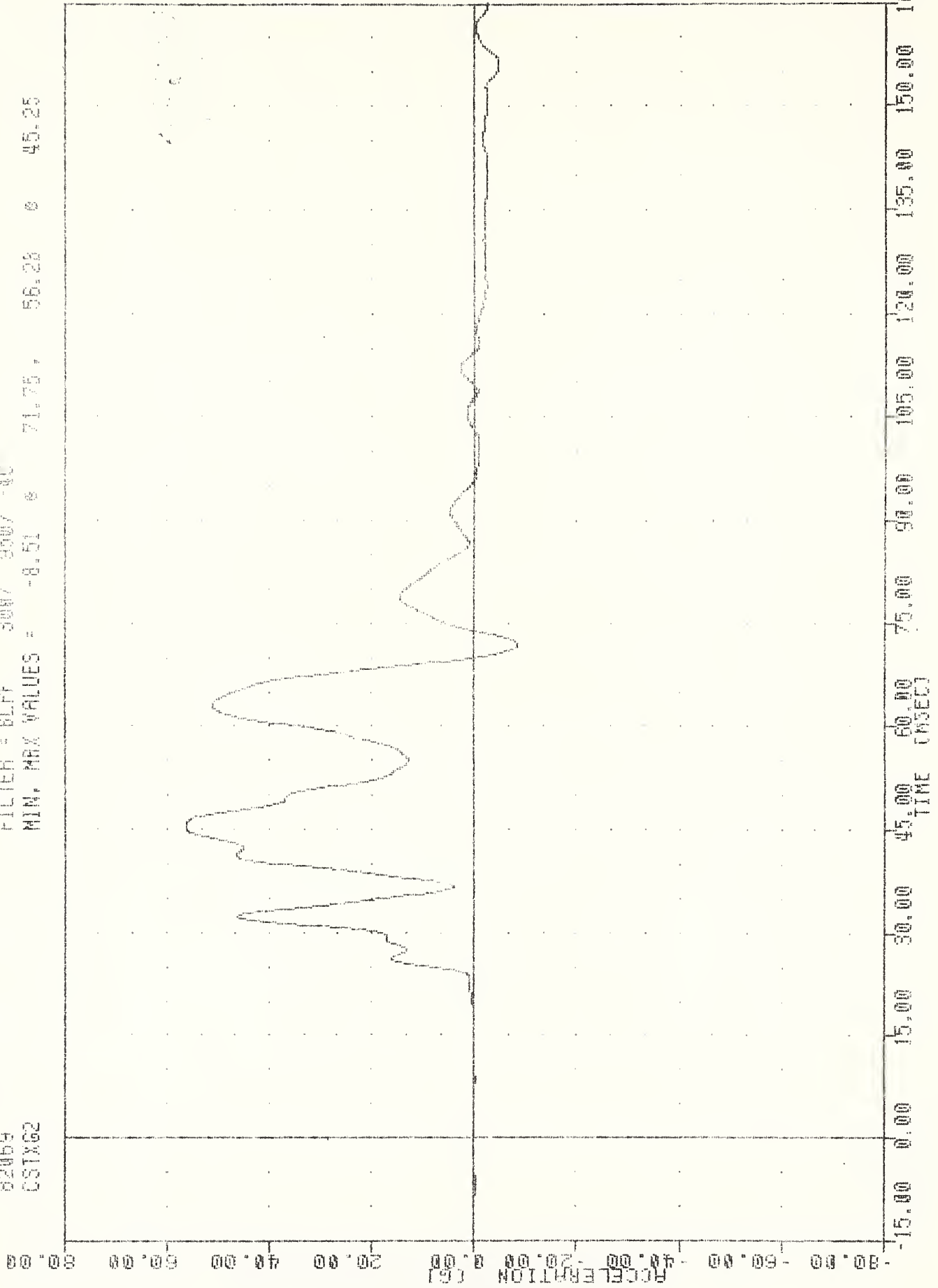
A-139

3 YR OLD HEAD RESULTANT (CLASS 100)

30-MAR-82 10:20:22

551055003 , TRC660
BEST. MODEL VALID. TEST
82069
CSTX62

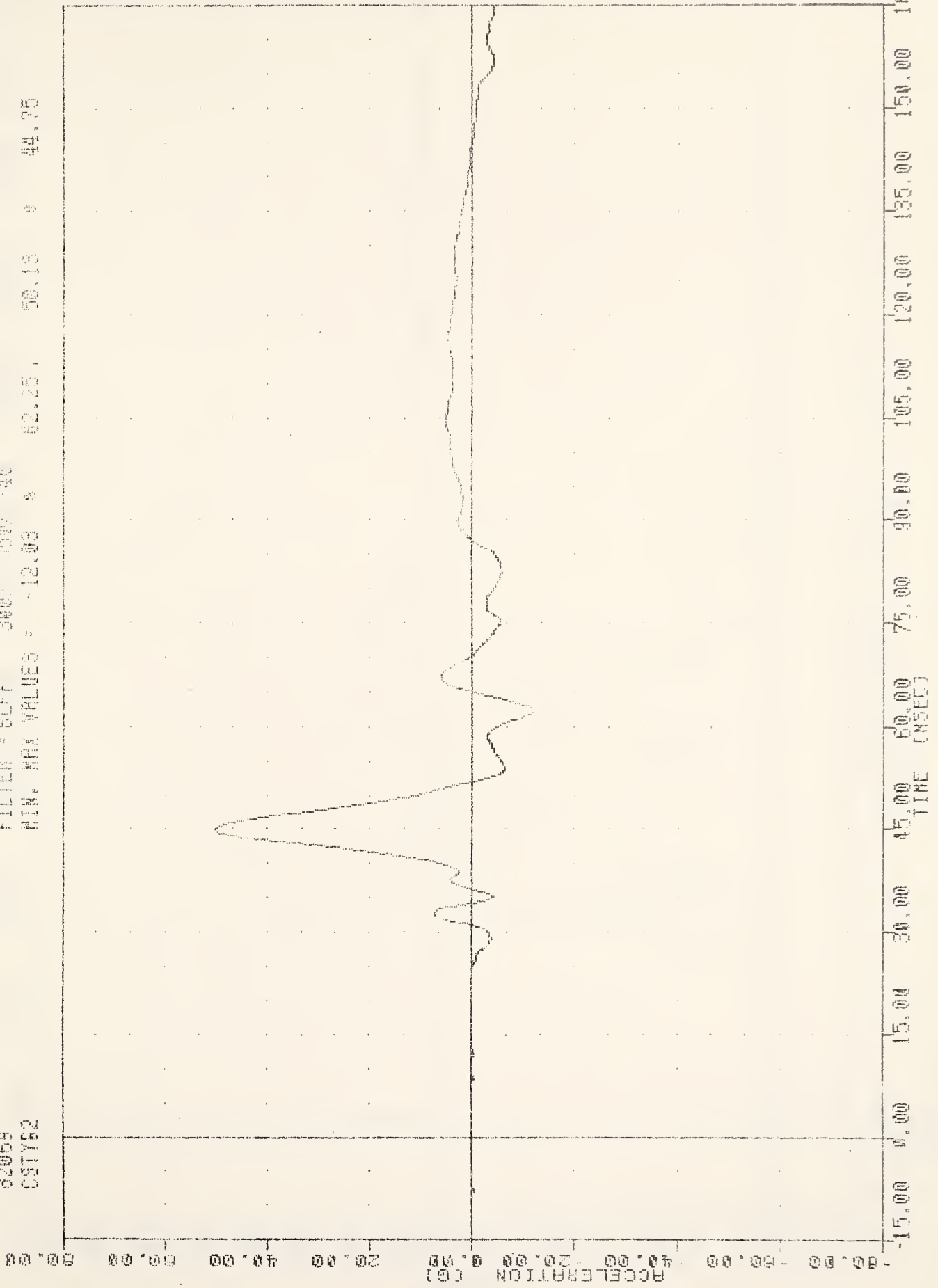
FILTER = BLFF 3007 9507 -40
MIN. MAX VALUES = -8.51 e 71.75 , 56.28 e 45.25



A-140

CHEST ACCELERATION X AXIS PASSENGER

591055003 , TR0060 50-MAR-82 10:20:22
 REST. MODEL VALID. TEST
 82059 FILTER = BLFF 3000 3500 40
 CSTY62 MIN. MAX VALUES = -12.00 % 62.25 , 50.13 * 44.75



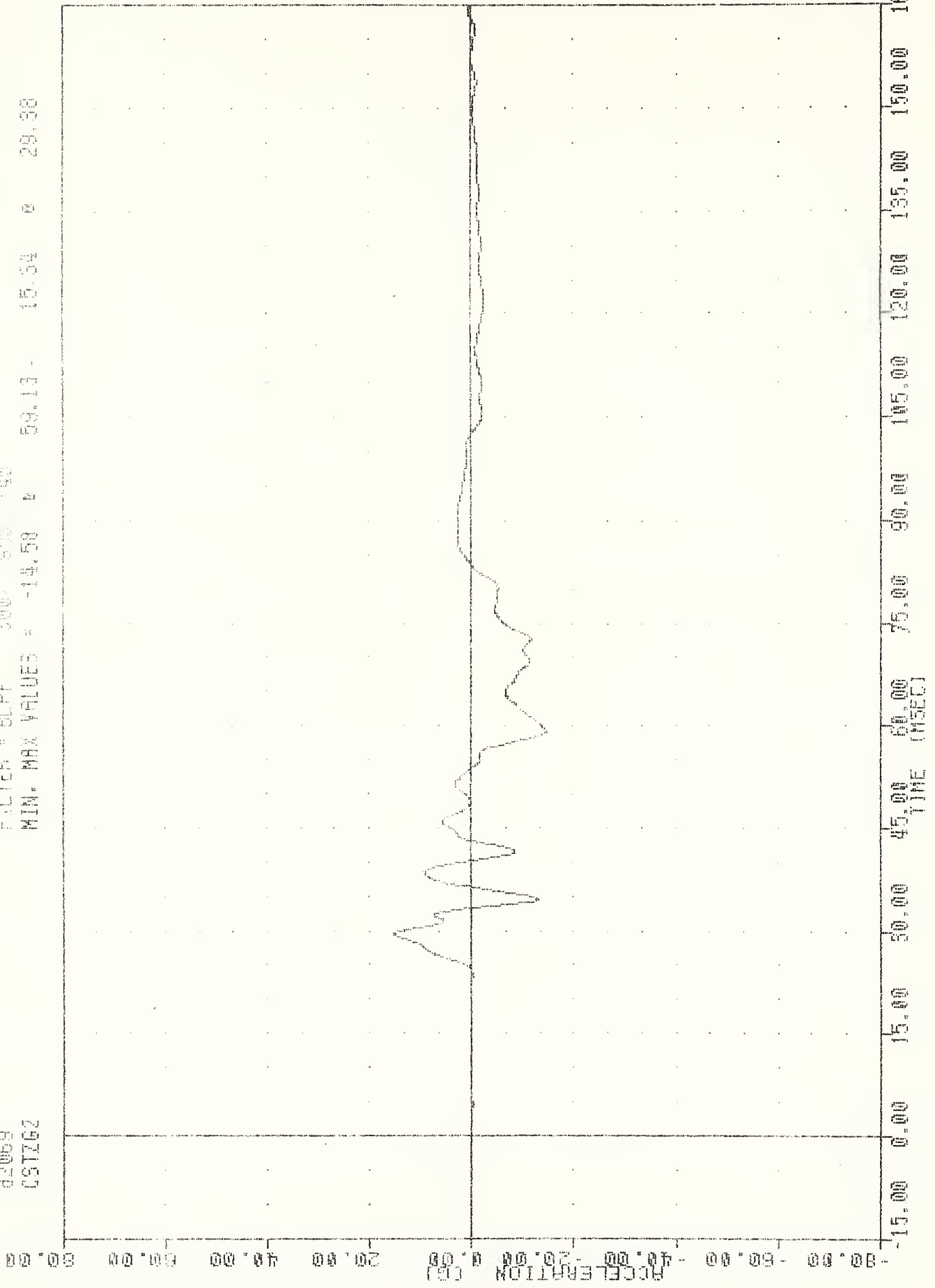
A-141

CHEST ACCELERATION Y AXIS PASSENGER

30-MAR-82 10:28:10

951055008 , TRC060
BEST, MODEL VALID, TEST
02069
CSTIG2

FILTER = BLPF 300. 050 40
MIN. MAX VALUES = -14.50 4 59.13 - 15.54 0 29.38



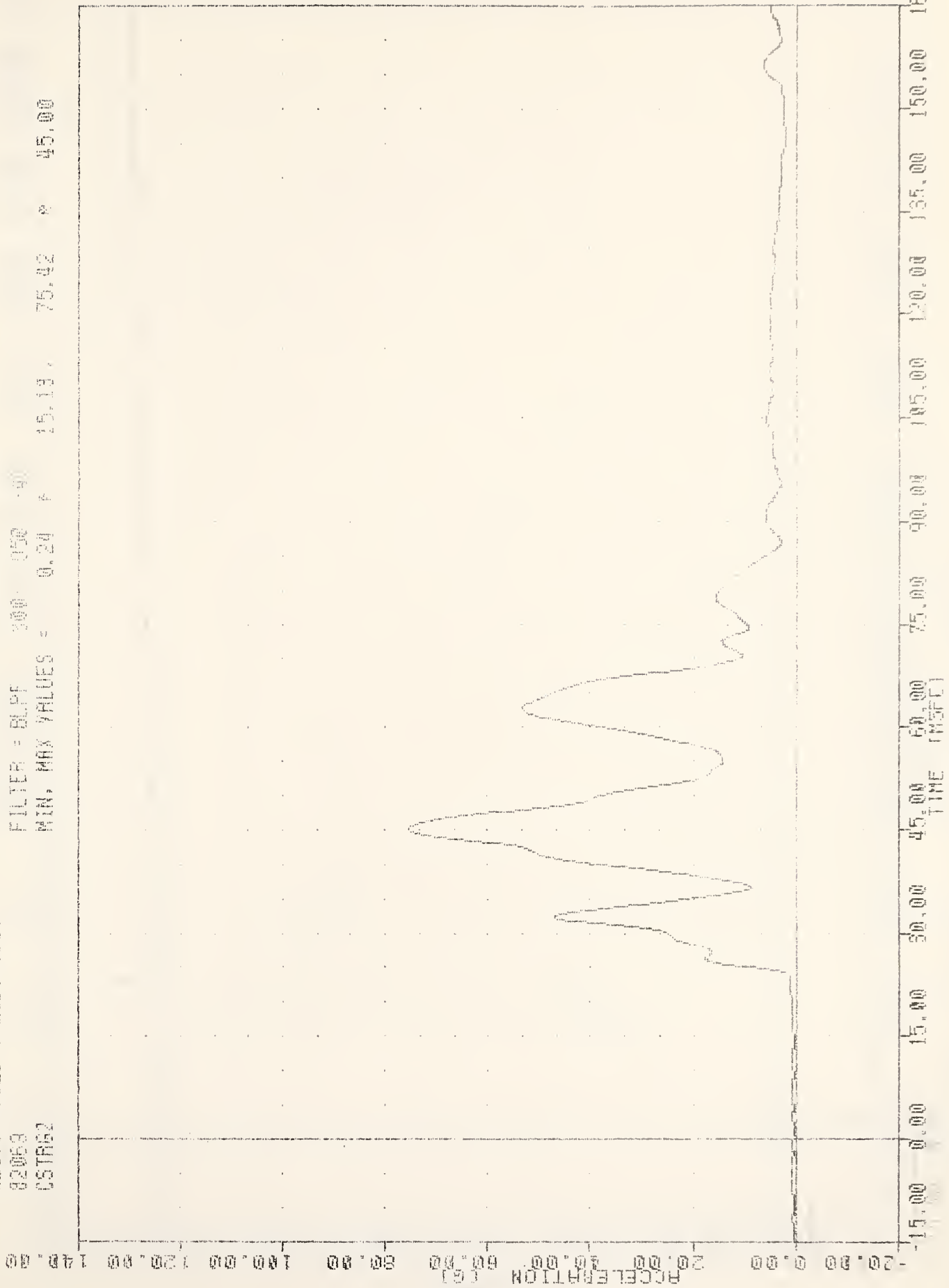
A-142

CHEST ACCELERATION Z AXIS PASSENGER

551055003 , TAC050
REST. MODEL VALID. TEST
02069
CSTR62

30 MAR 82 10:24:37

FILTER = BLPF 200 050 90
MIN. MAX VALUES = 0.24 15.19 75.42 45.00



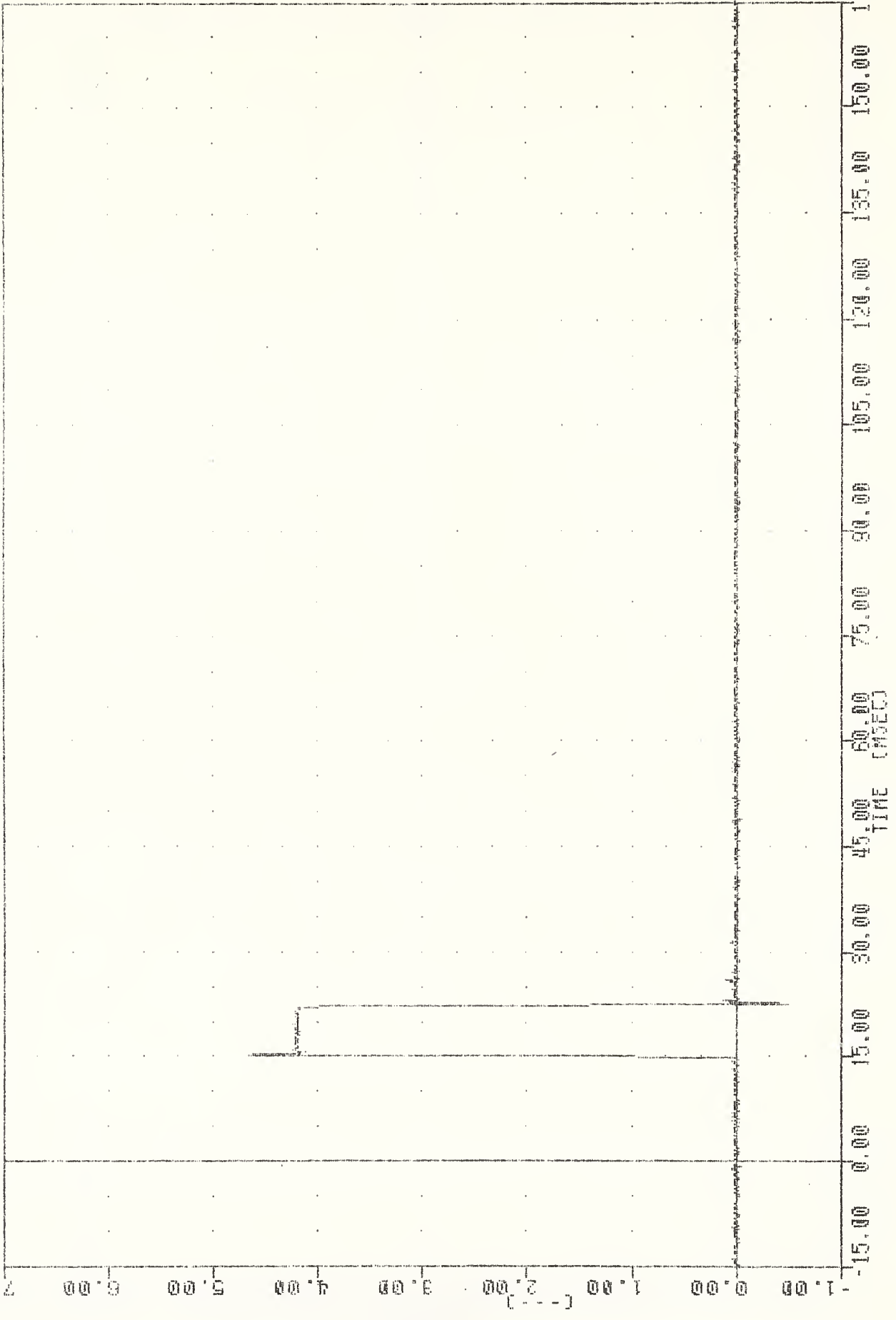
A-143

CHEST ACCELERATION REQUALIFYING PASSENGER

30 MAR 82 18:20:20

551055003 , TRC050
REST. MODEL VALID. TEST
62069
HBFT2

FILTER = ALPF 16507 52147 -40
MIN. MAX VALUES = -0.50 8 4.65 8 15.13



AIR BAG FIRING EVENT PASSENGER

571055003 , TR0050
REST, MODEL VALID, TEST
82069
RBFTS

50-MAR-82 10:20:22

FILTER = ALFF 1800/ 0214/ -40

MIN. MAX VALUES = -0.42 0 38.75 4.72 * 31.50

-1.00

0.00

5.00

4.00

3.00

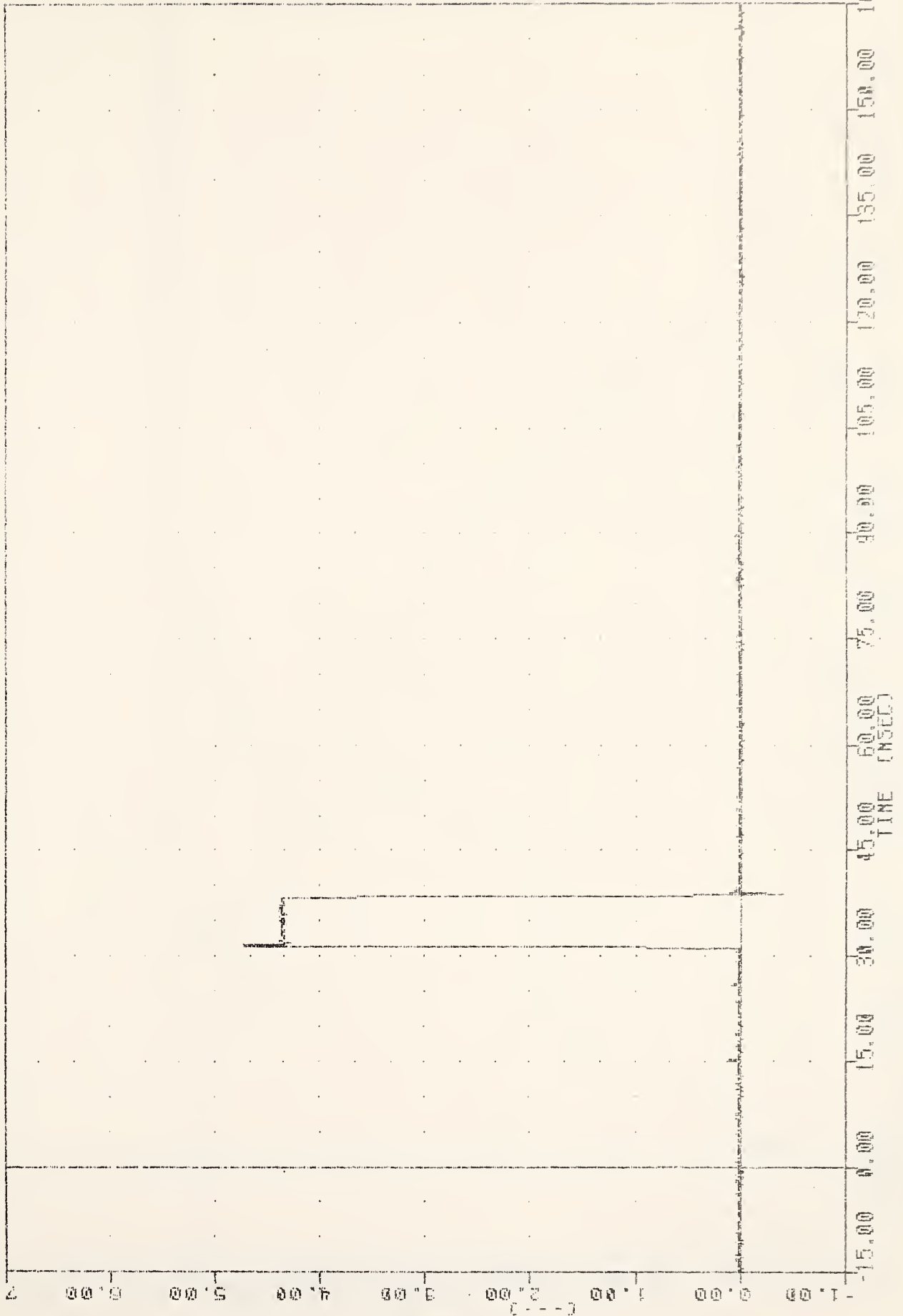
2.00

1.00

0.00

-1.00

A-145



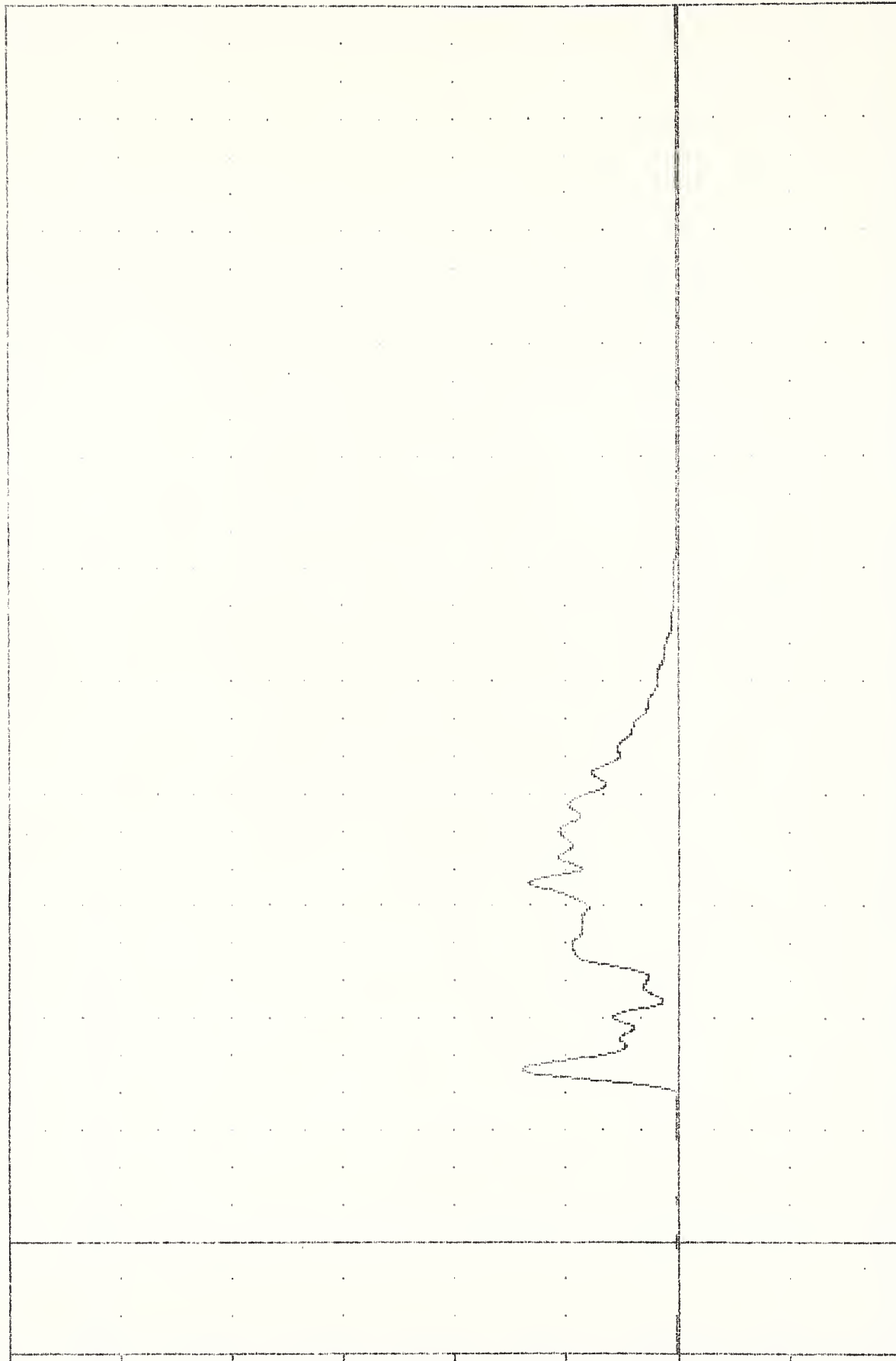
AIR BAG FIRING EVENT 3

551055003 , TRC060
REST, MODEL VALID, TEST
82069
ABP2

30-MAR-82 10:20:20

FILTER = BLPP 500/ 350/ 40
MIN. MAX VALUES = -0.05 0 -3.50 13.97 * 23.00

941-A
PRESSURE (PSIG)
-20.00 -10.00 0.00 10.00 20.00 30.00 40.00 50.00 60.00



-15.00 0.00 15.00 30.00 45.00 60.00 75.00 90.00 105.00 120.00 135.00 150.00 165.00
TIME (MSECT)

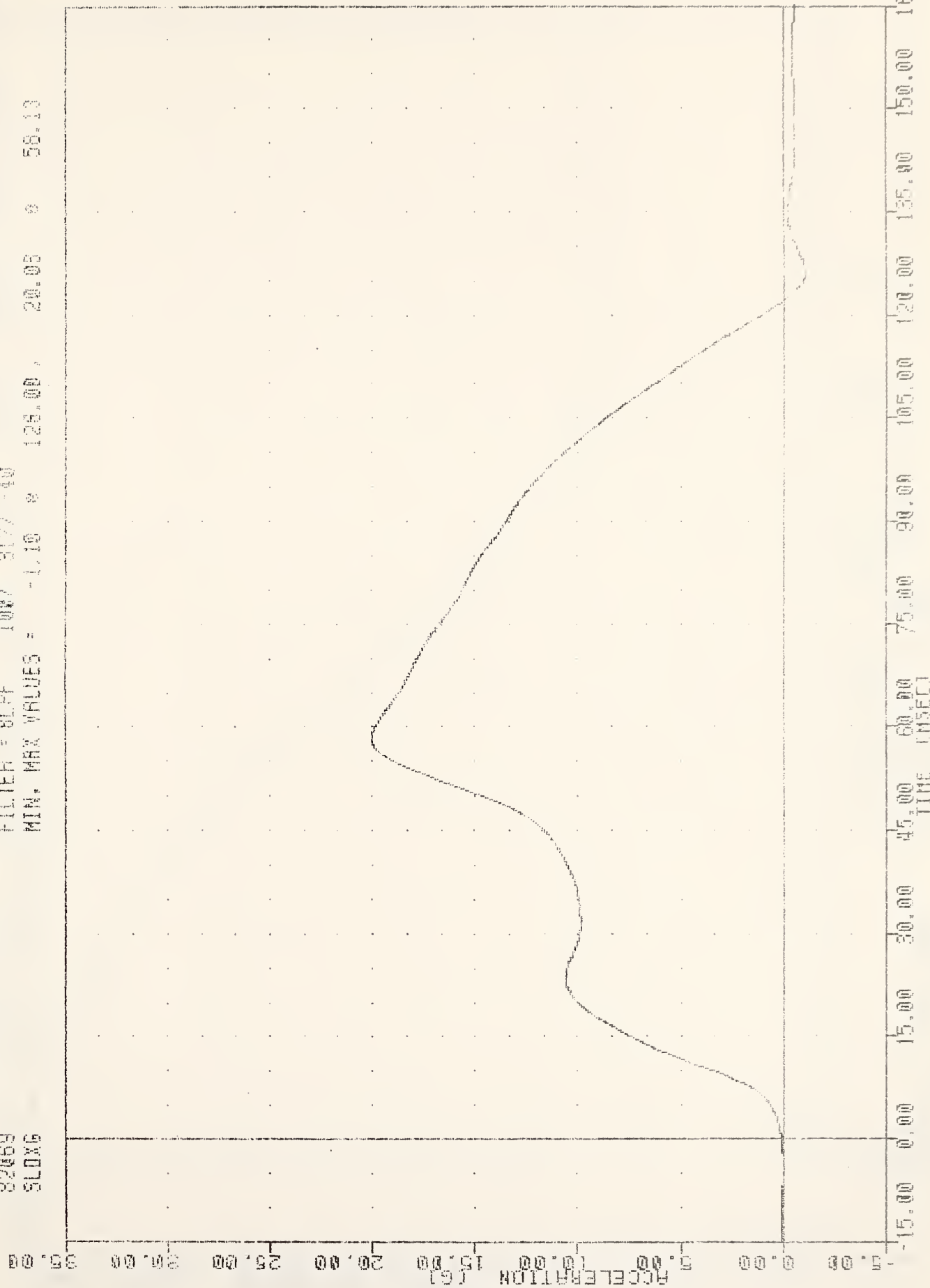
AIR BAG PRESSURE PASSENGER

551055003 , TRC060
REST. MODEL VALID. TEST
82069
SLOXG

30-NOV-82 18:20:22

FILTER = BLPF 10W 317 / 40

MIN. MAX VALUES = -1.10 * 125.00 , 20.05 @ 58.10



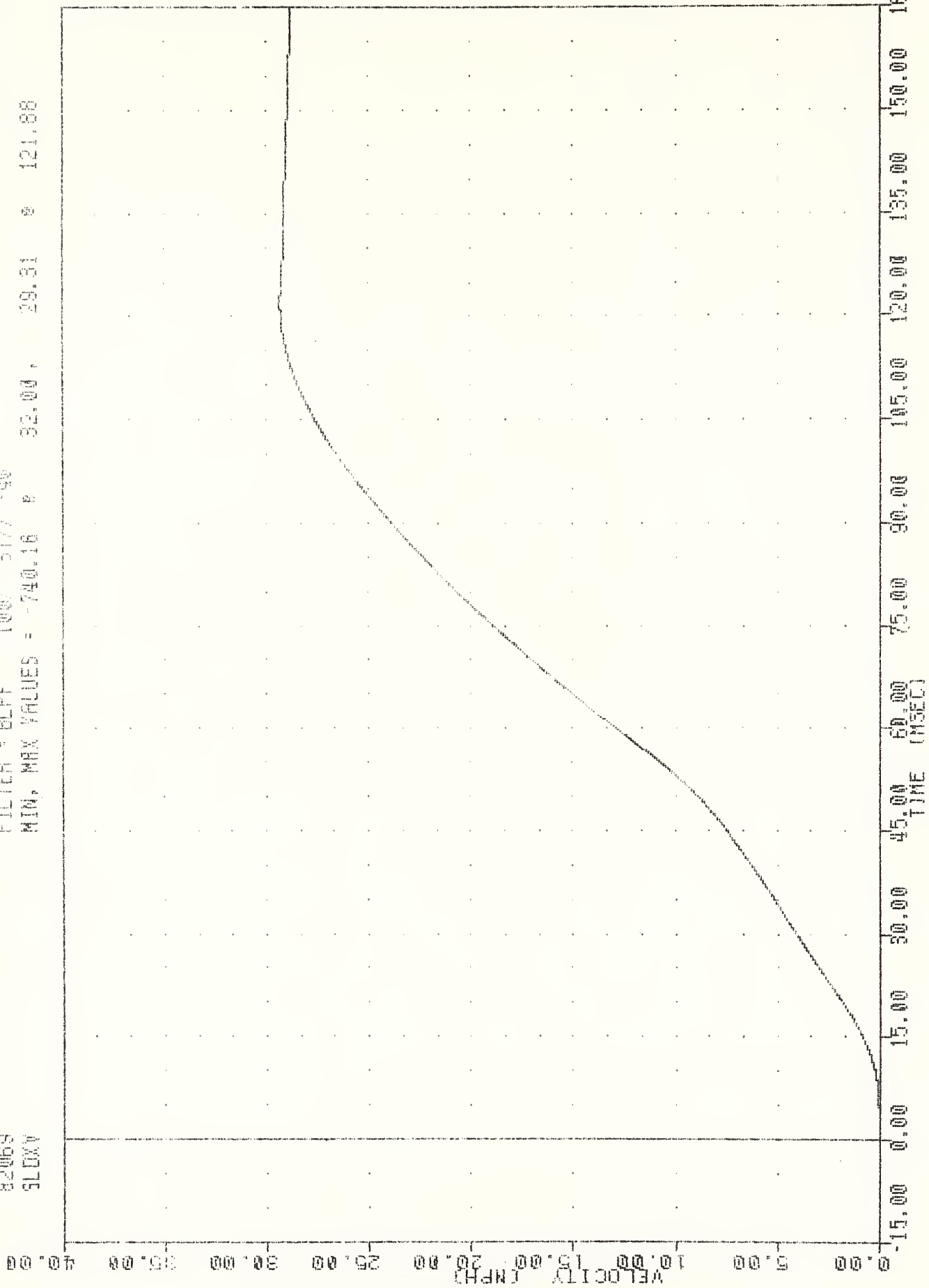
A-147

SIED ACCELERATION

30-MAR-82 10:26:22

S51055003 , TAC060
REST. MODEL VALID. TEST
82069
SLOXV

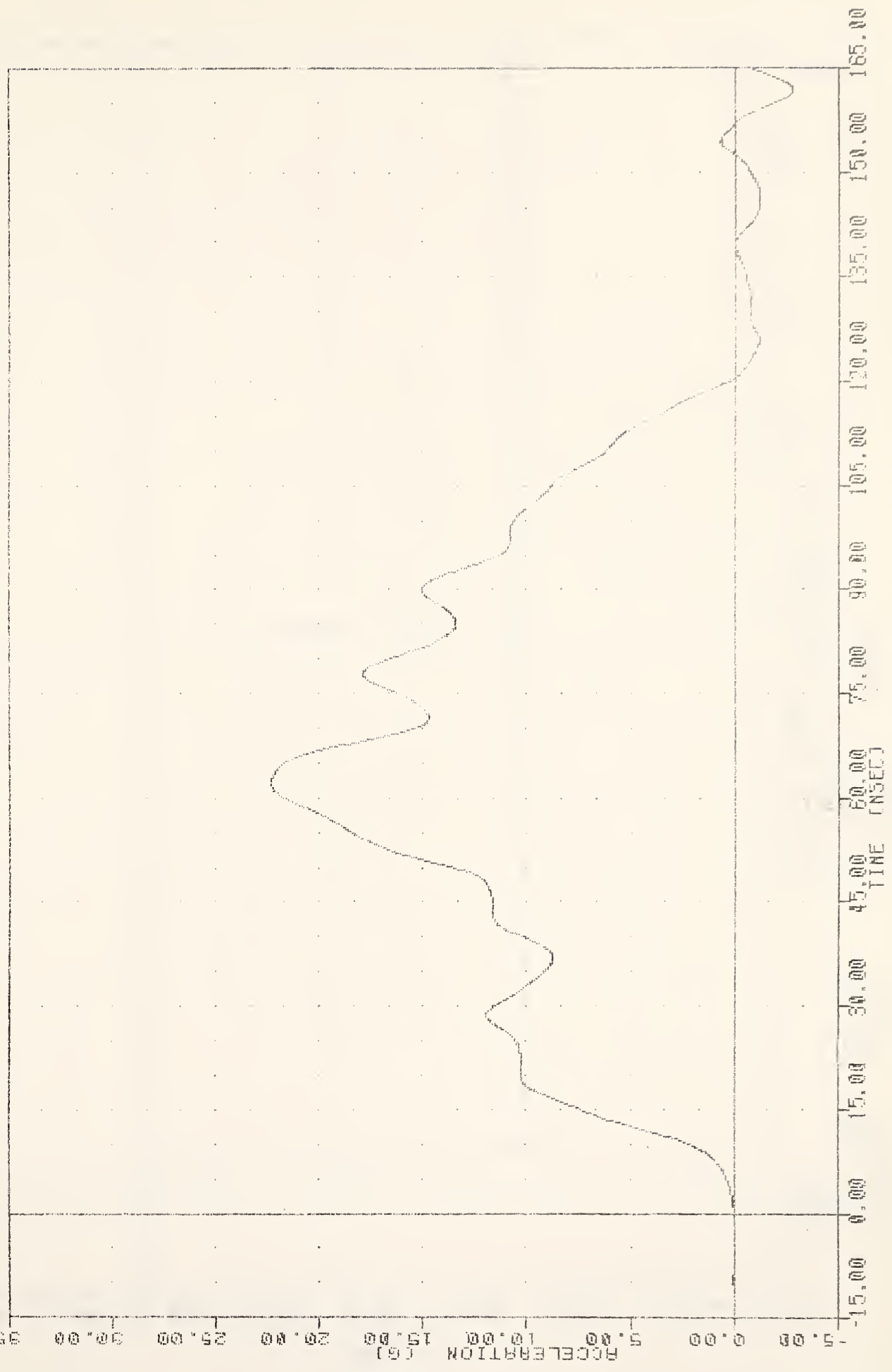
FILTER = BLPF 100/ 517/ -40
MIN. MAX VALUES = -740.16 82.00 29.31 121.88



A-148

SLED VELOCITY IN MPH

551055003 , TRC060
 REST, MODEL VALID, TEST
 82089
 FTUX6
 30-MAR-82 10:20:22
 FILTER = BLFF 100/ 317/ -40
 MIN, MAX VALUES = -3.81 8 161.83 22.82 8 82.00

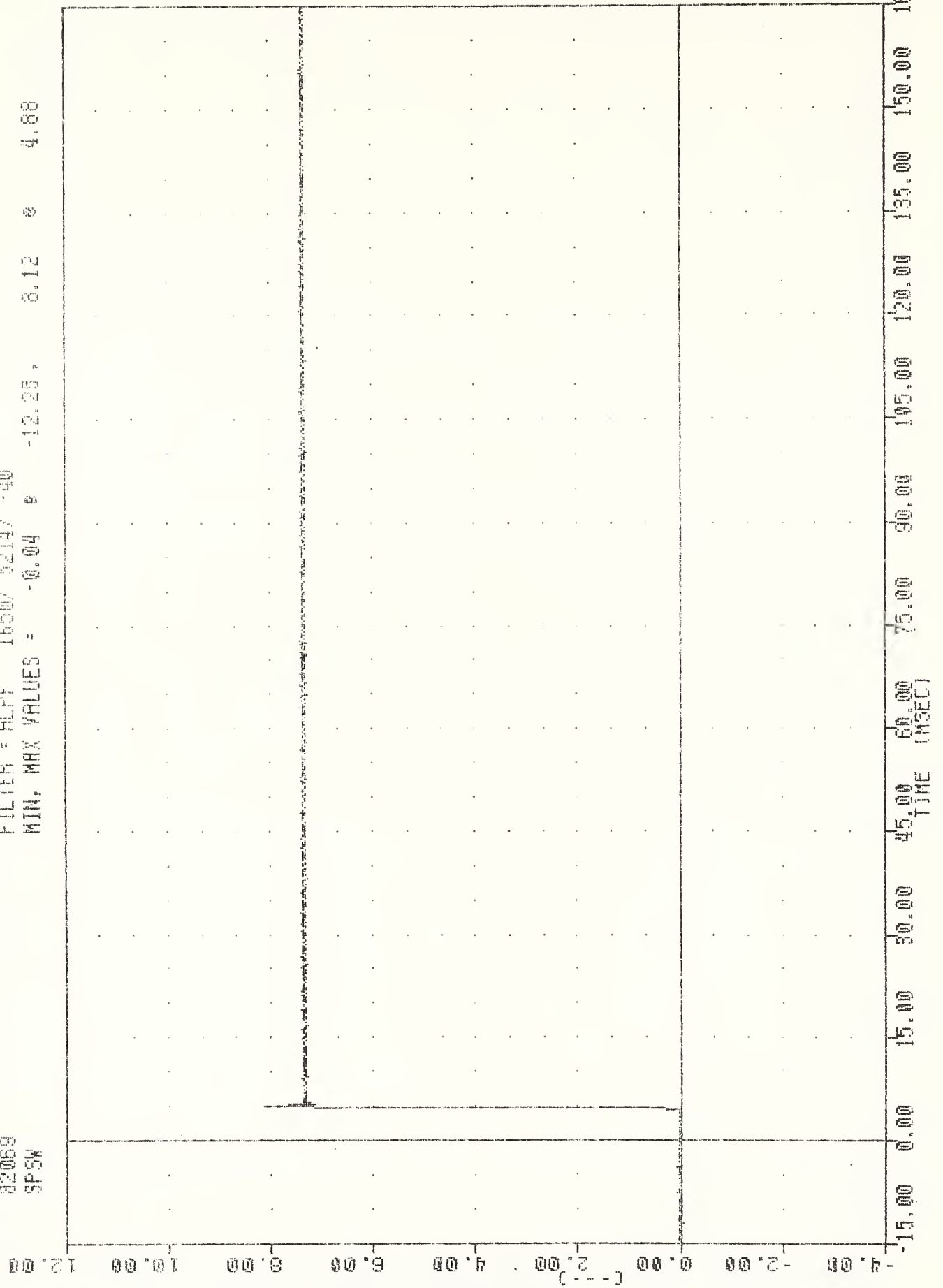


A-149

30-MAR-62 10:28:22

551055003 , TRC060
REST. MODEL VALID, TEST
82069
SPSW

FILTER = ALPF 1650/ 5214/ -90
MIN. MAX VALUES = -0.04 8.12 0 4.88



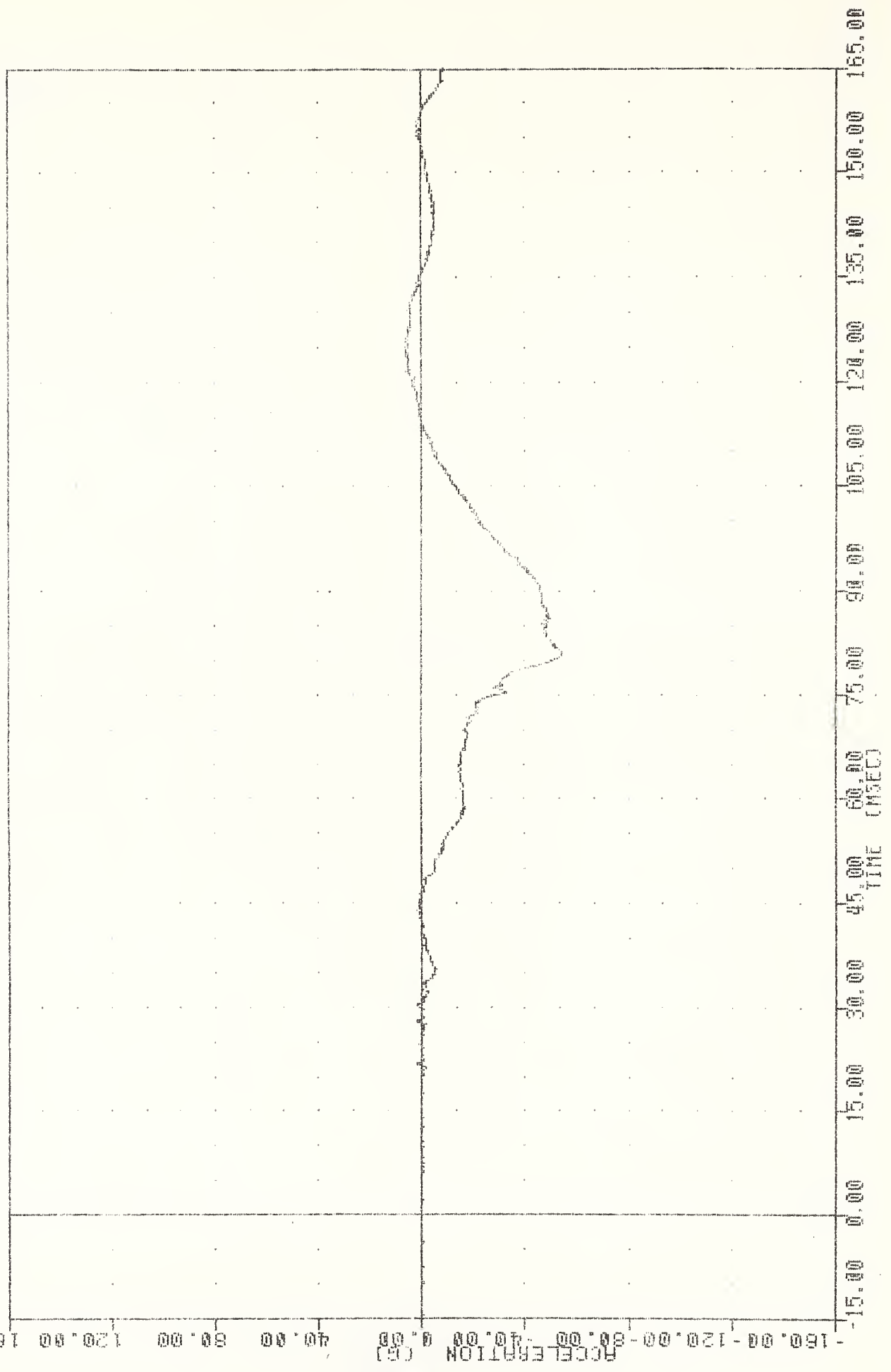
A-150

SLED POSITION SWITCH

TEST NO. 6

A-151

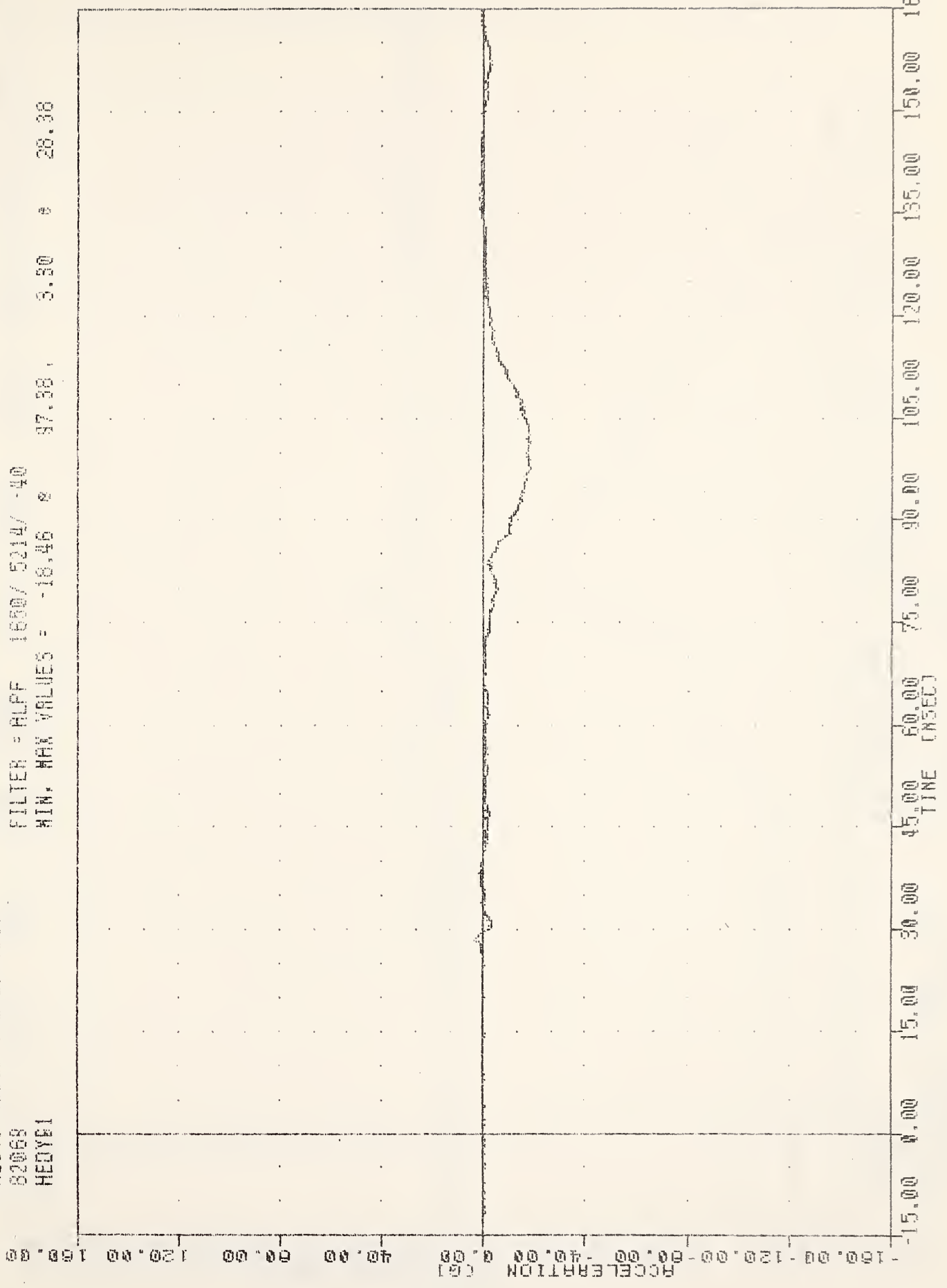
551055050 , TRC061
 30-MAR-82 10:29:14
 REST, MODEL VALID, TEST
 82069
 HEAD061
 FILTER = ALFF 1650/5219/10
 MIN, MAX VALUES : -54.37 80.63 , 5.98 124.13



A-152

HEAD ACCELERATION X AXIS DRIVER

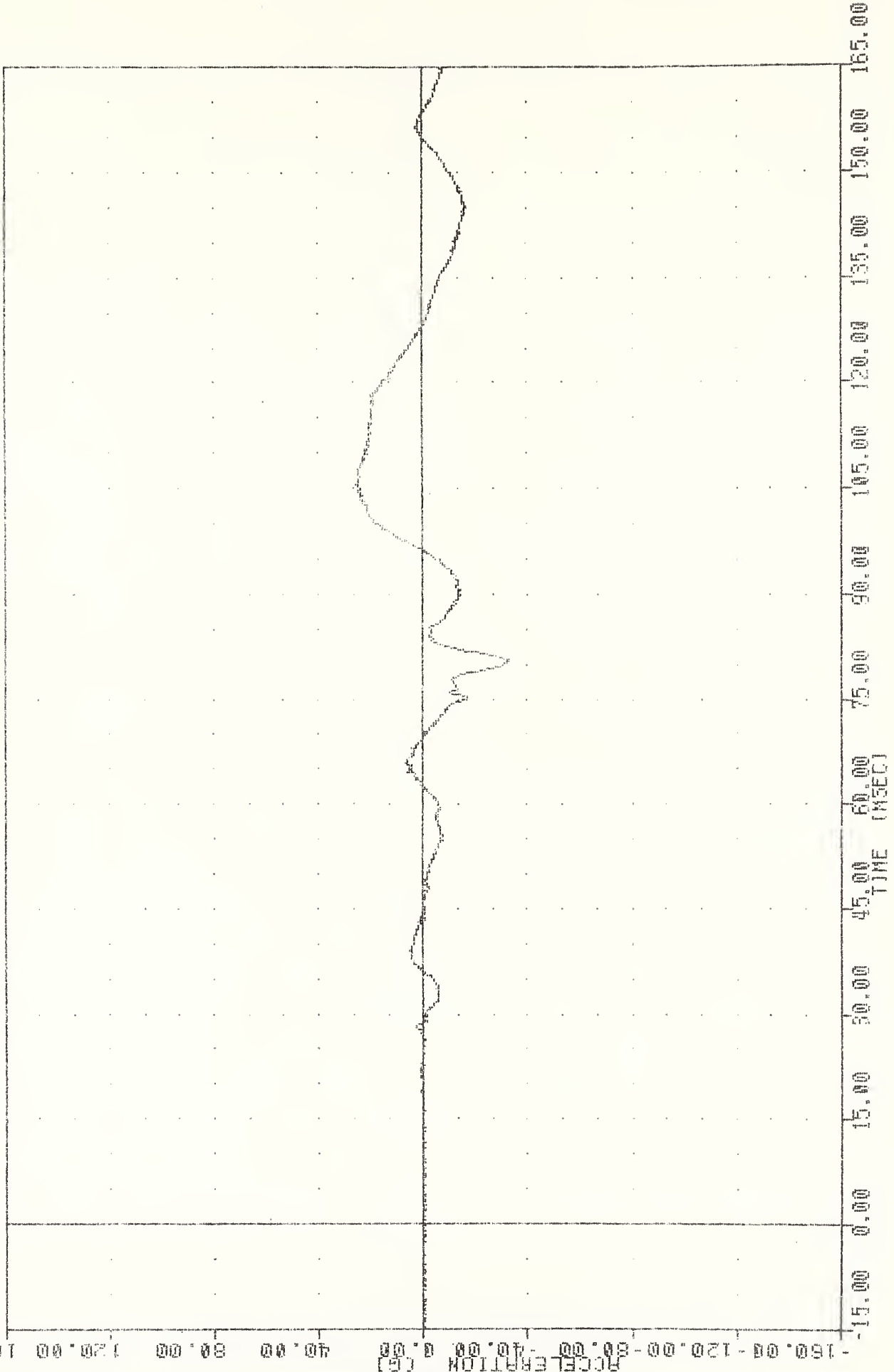
551065050 , TRC061
 30-MAR-82 10:29:44
 REST. MODEL VALID. TEST
 82068
 HEDY61
 FILTER = RLFF 1650/ 5214/ -40
 MIN. MAX VALUES = -18.46 8 97.98 , 8.50 * 28.38



A-153

HEAD ACCELERATION Y AXIS DRIVER

351065050 , TRC061
 30-MAR-82 10:29:44
 REST, MODEL VALID, TEST
 82069
 HEADIG1
 FILTER = ALPF 1650/ 5214/ -40
 MIN, MAX VALUES = -32.52 % 80.50 , 25.25 % 105.38



A-154

HEAD ACCELERATION Z AXIS DRIVER

5510650500 30-MAR-82 10:29:48

REST. MODEL VALID. TEST

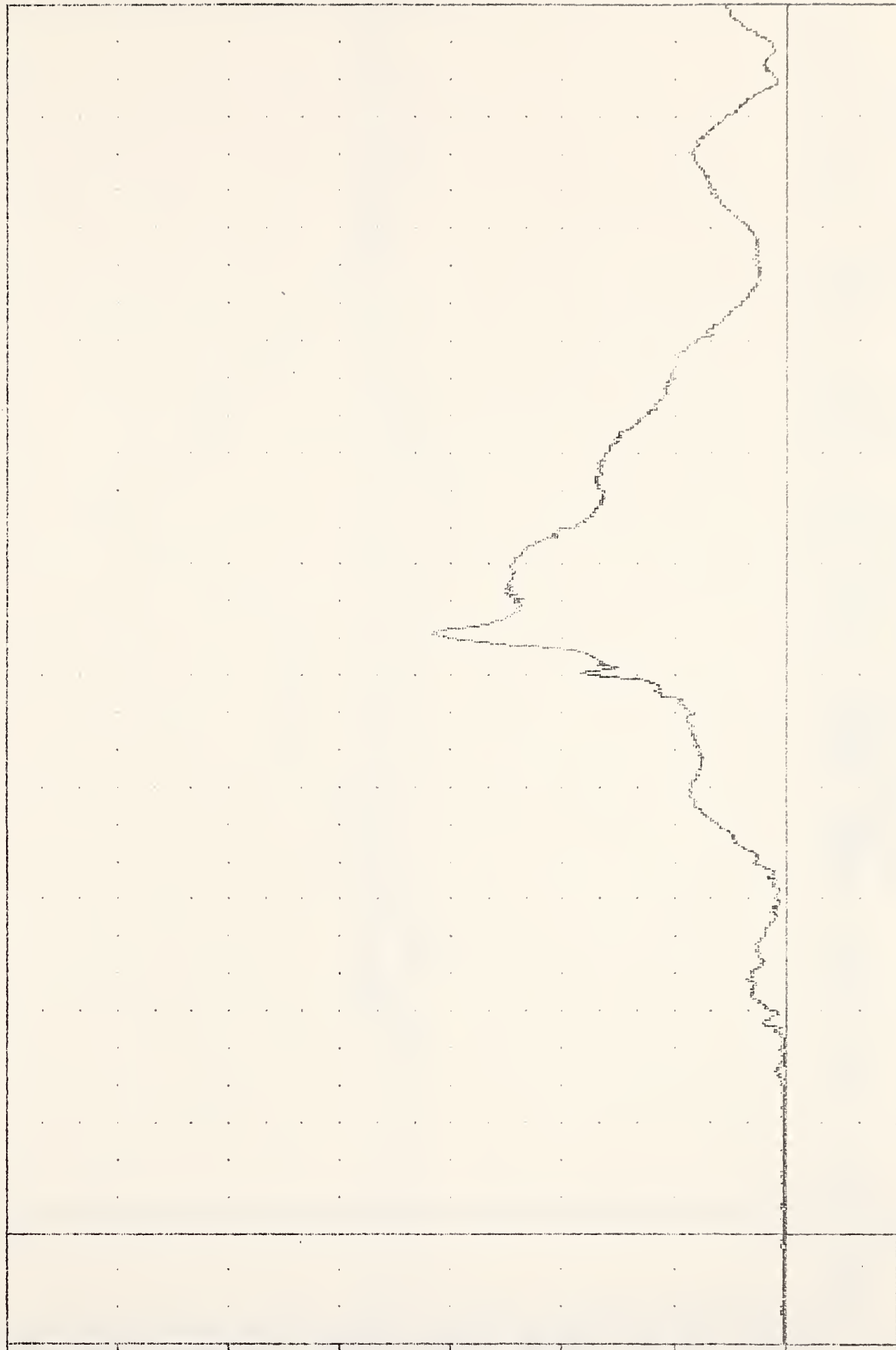
82069

FILTER = ALPF 1650/ 5214/ -40

MIN. MAX VALUES = 0.05 % -12.13 , 63.29 % 80.50

HEAD061

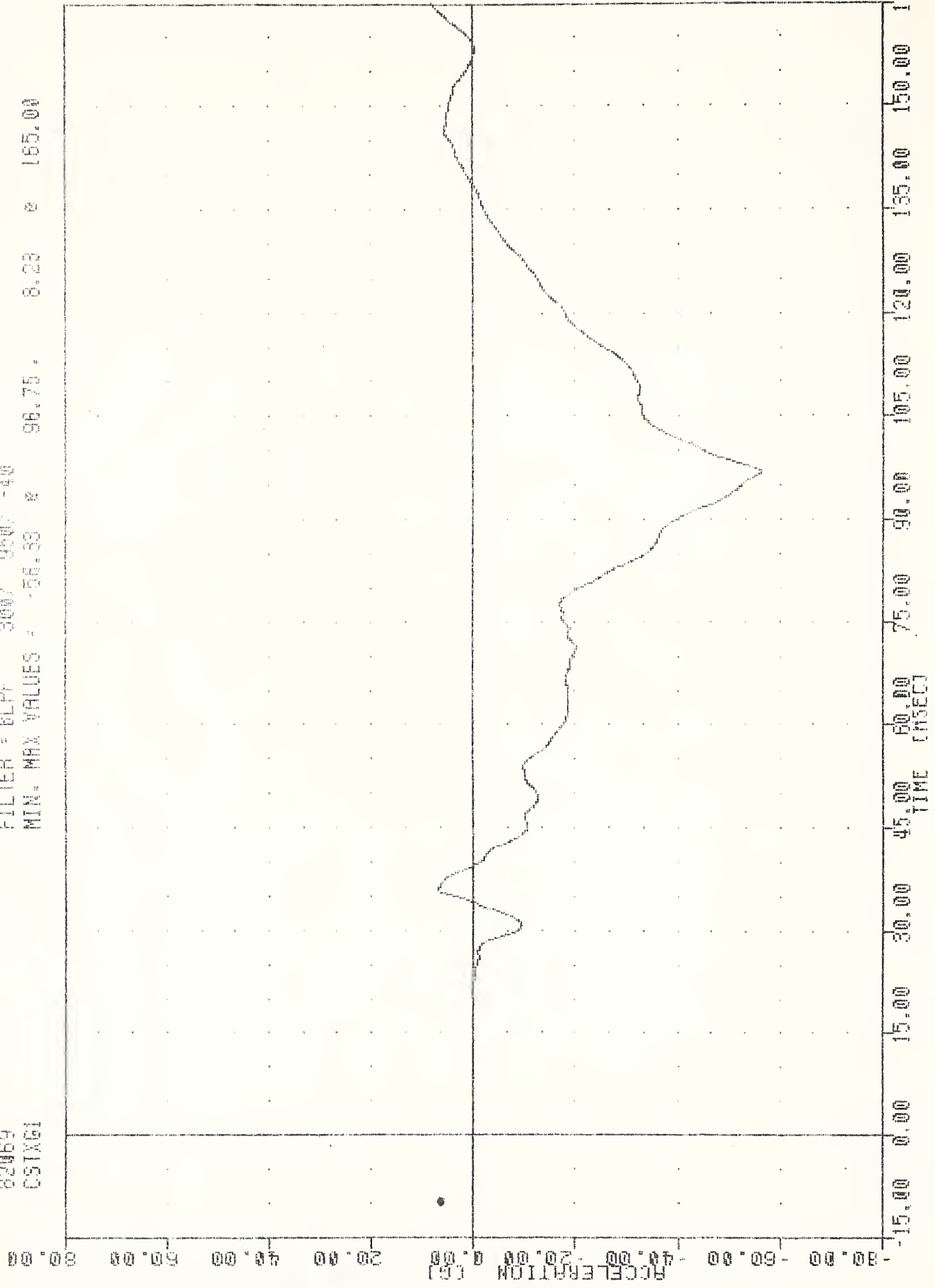
ACCELERATION (G)



A-155

HEAD ACCELERATION RESULTANT DRIVER

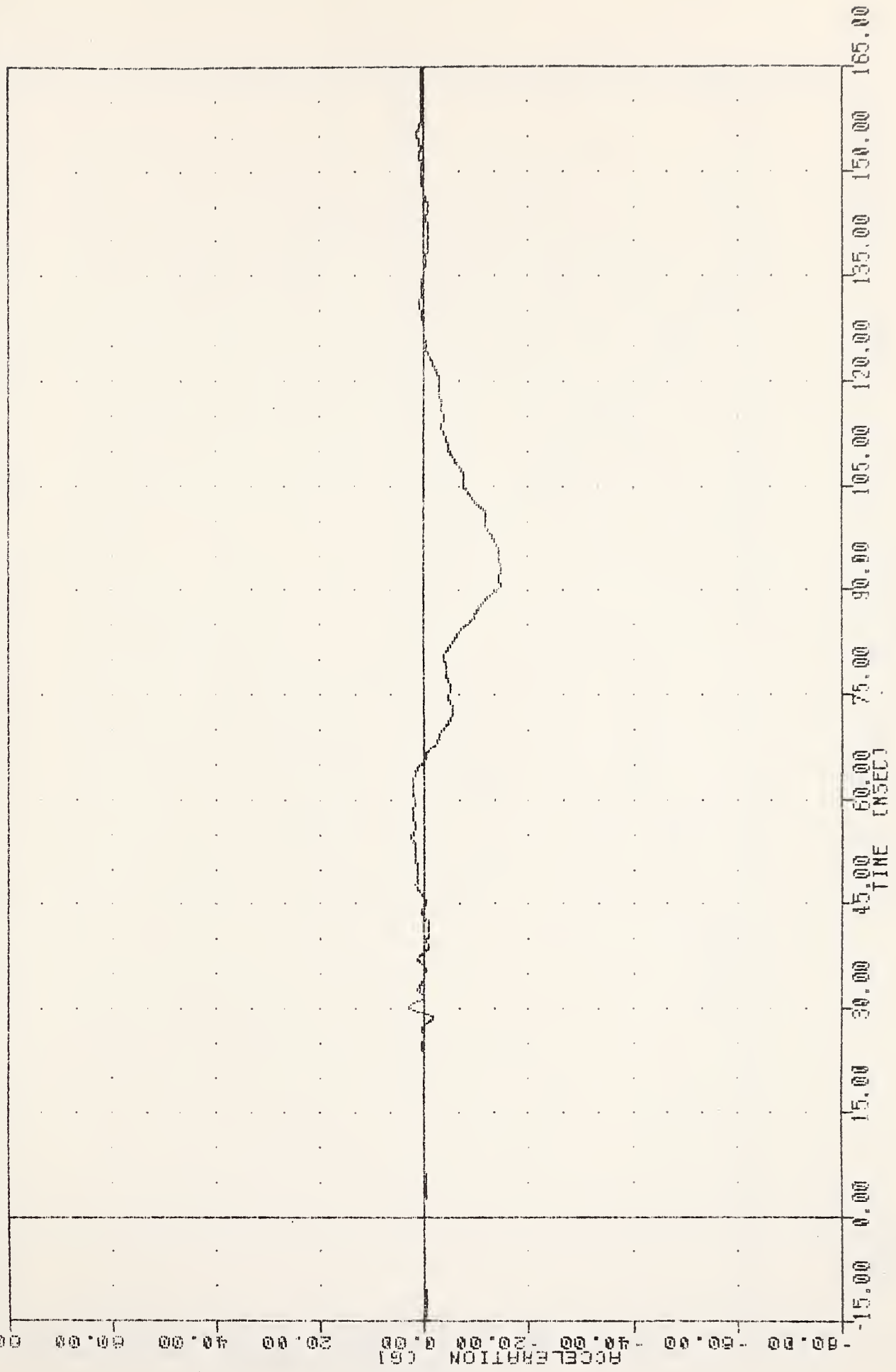
551065050 , TRCWB1 30-MAR-82 10:25:54
BEST. MODEL VALID. TEST
02069 FILTER = 6LPF 300/ 950/ -40
CSTXG1 MIN. MAX VALUES = -56.33 e 96.75 . 8.28 e 185.00



A-156

CHEST ACCELERATION X AXIS DRIVER

55105050 . TRC061
 30 MAR 82 10:29:44
 REST. MODEL VALID. TEST
 82068
 CSTY61
 FILTER = 6LPF 3007 9507 40
 MIN. MAX VALUES = -14.80 93.00 e 30.13



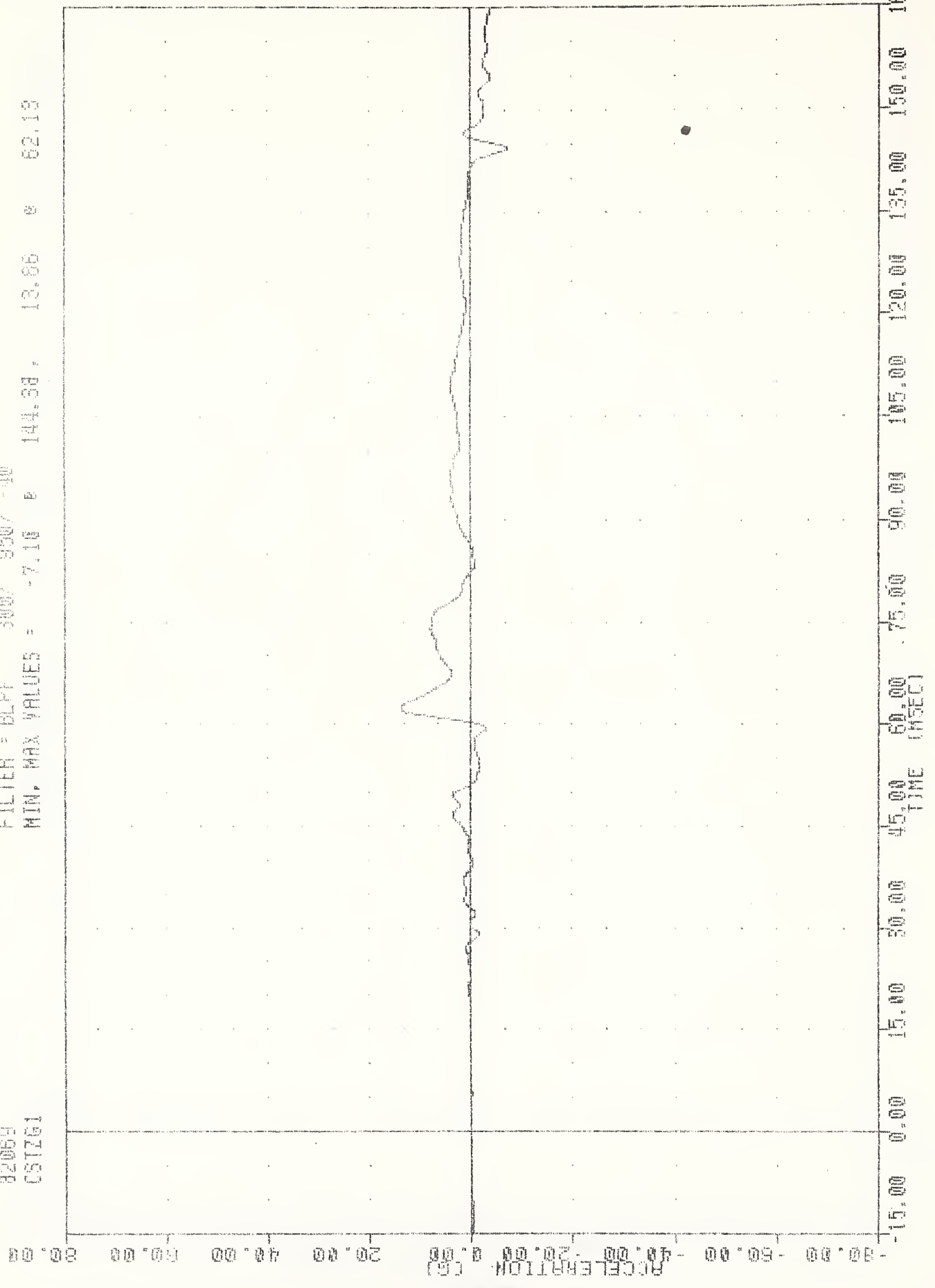
A-157

CHEST ACCELERATION Y AXIS DRIVER

951065050 , TRC061 30-MAR-82 10:29:44

REST. MODEL VALID. TEST.
82069
CSTIG1

FILTER = BLPF 300/ 950/ -10
MIN. MAX VALUES = -7.10 0 144.38 13.86 * 62.13

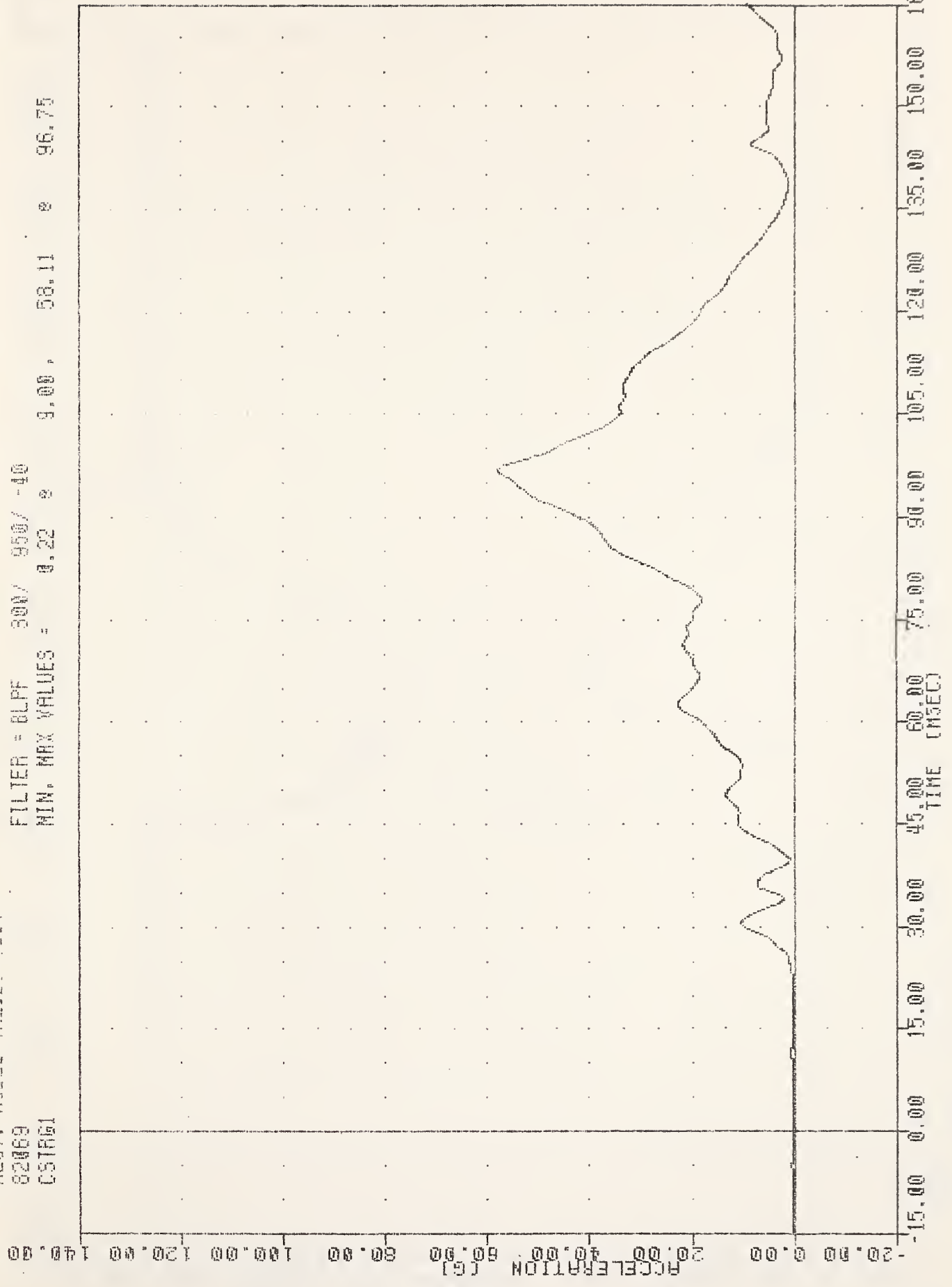


A-158

CHEST ACCELERATION Z AXIS DRIVER

551065050 , TRC061
REST. MODEL VALID. TEST
82069
CSTR61

20-NA6-82 10:29:44
FILTER = BLPF 300/ 950/ -40
MIN. MAX VALUES = 0.22 9.00 58.11 96.75



A-159

CHEST ACCELERATION RESULTANT DRIVER

351065050 , TRC061 30-MAR-82 12:26:32

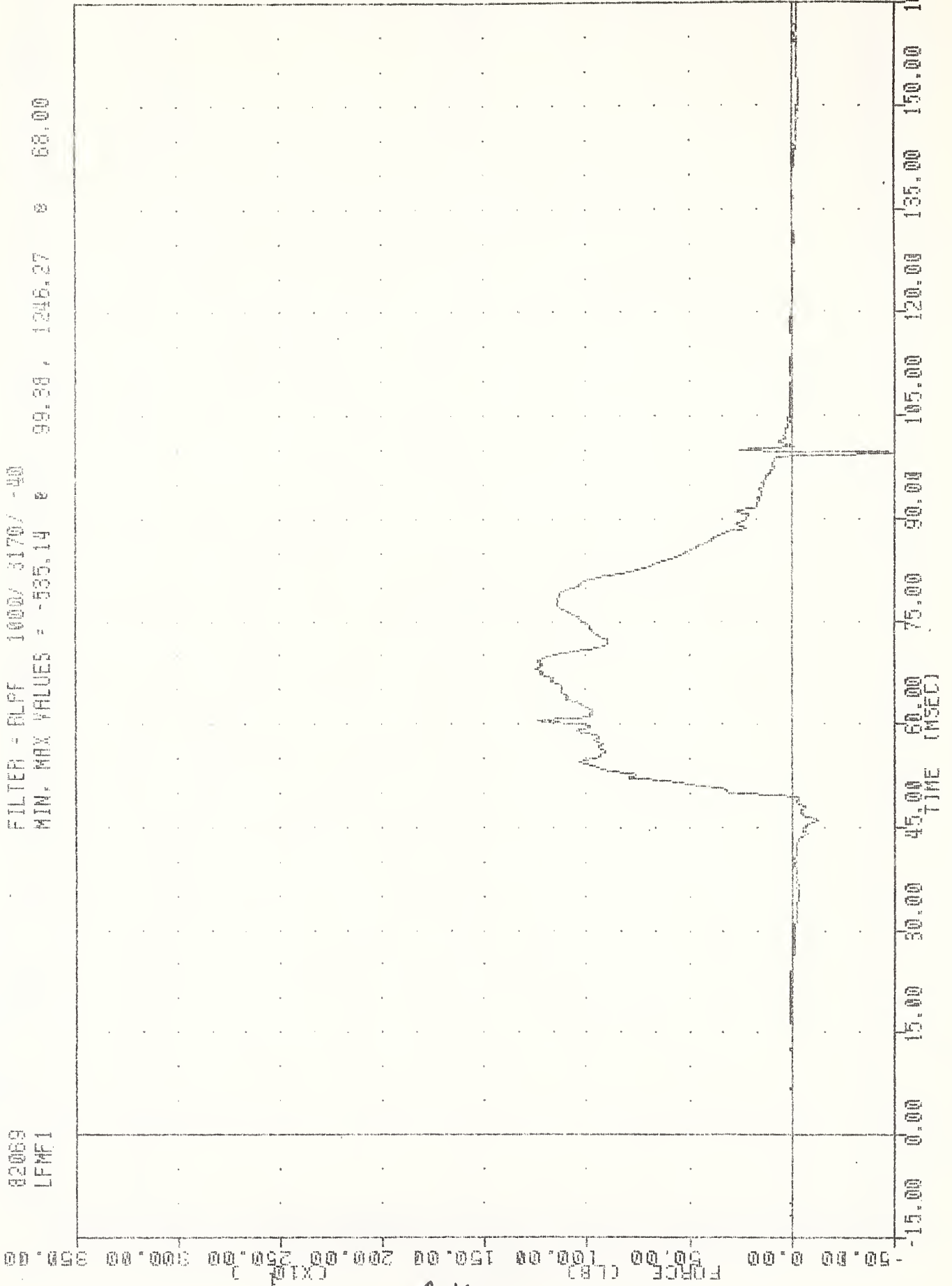
REST. MODEL VALID. TEST

82069

LFMF1

FILTER = BLPF 1000/ 3170/ -40

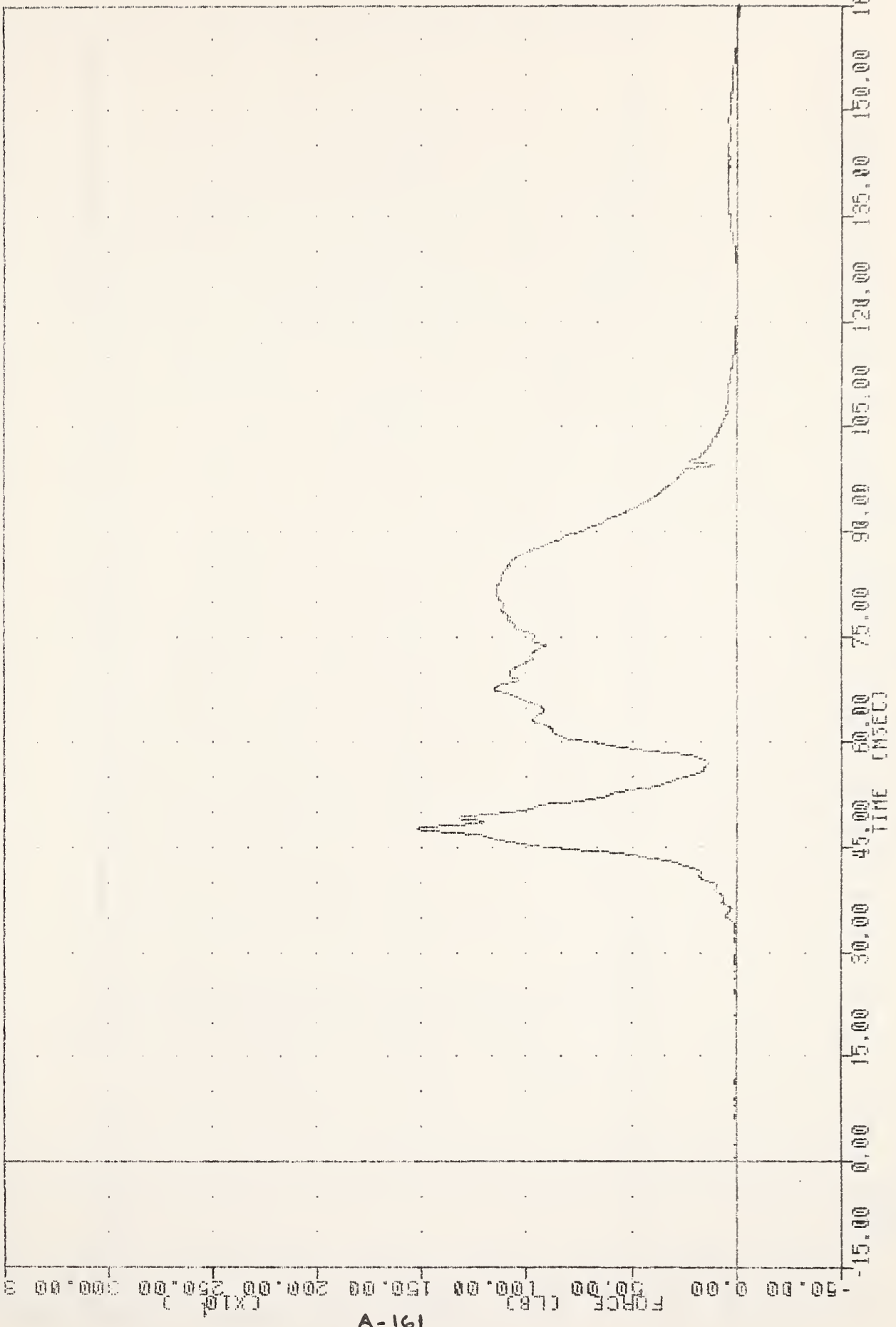
MIN. MAX VALUES = -535.14 e 99.38 , 1246.27 e 68.00



A-160

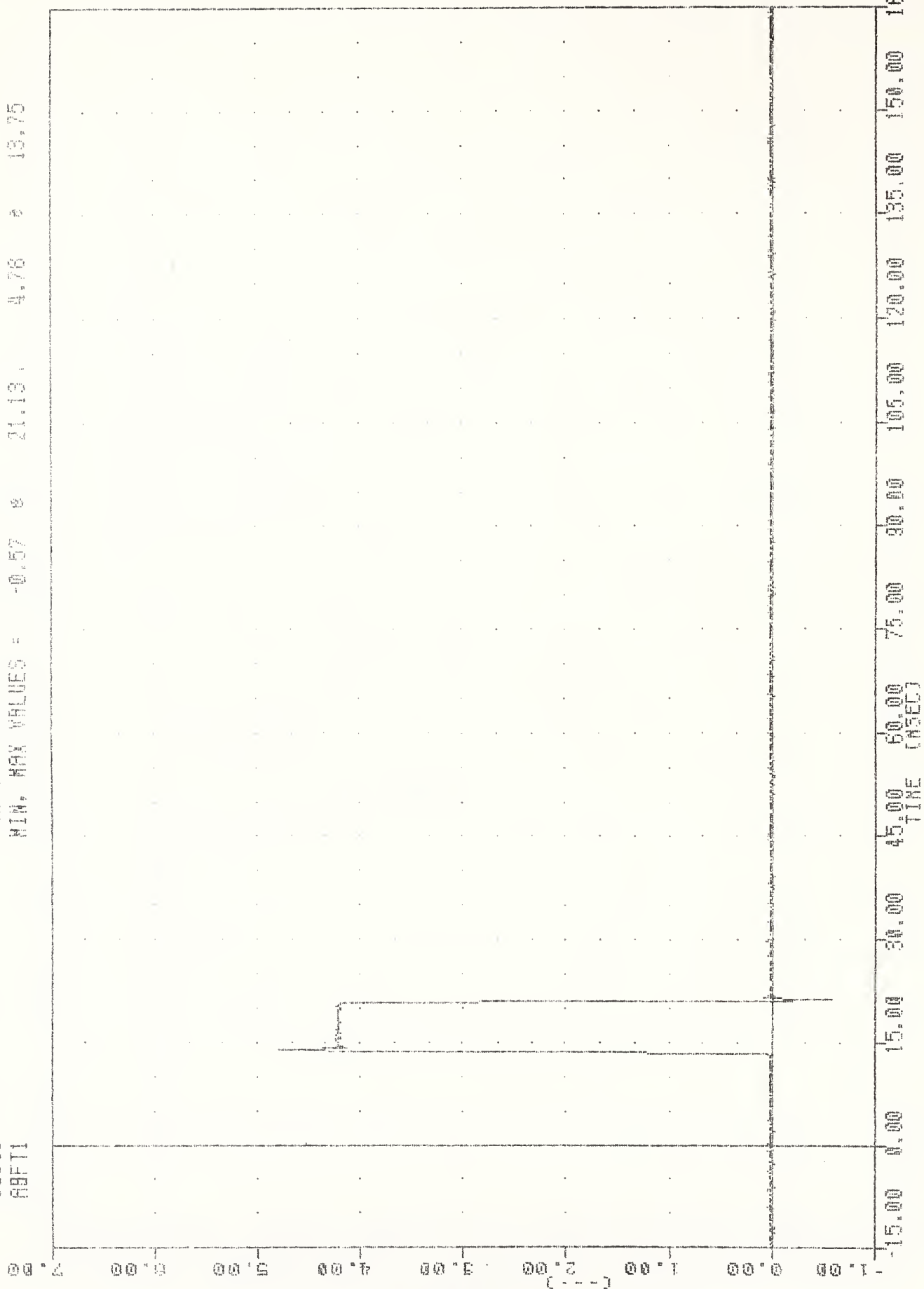
LEFT FEMUR FORCE DRIVER

S51055050 , TRC061
 50-NAR-82 12:28:52
 REST, MODEL VALID, TEST
 82869
 RFNFI
 FILTER = BLFF 1000/ 3170/ -30
 MIN, MAX VALUES = -11.97 e 164.75 , 1528.44 e 47.63



RIGHT FEMUR FORCE DRIVER

551055050 , TRC061
 30-MAR-82 10:29:44
 REST. MODEL VALID. TEST
 82069
 ABFT1
 FILTER = ALPF 1650/ 5214/ -40
 MIN. MAX VALUES = -0.57 8 21.13 8 4.78 8 13.75



A-162

AIR BAG FIRING EVENT DRIVER

351055050 TRC061 30-MAR-82 10:29:44

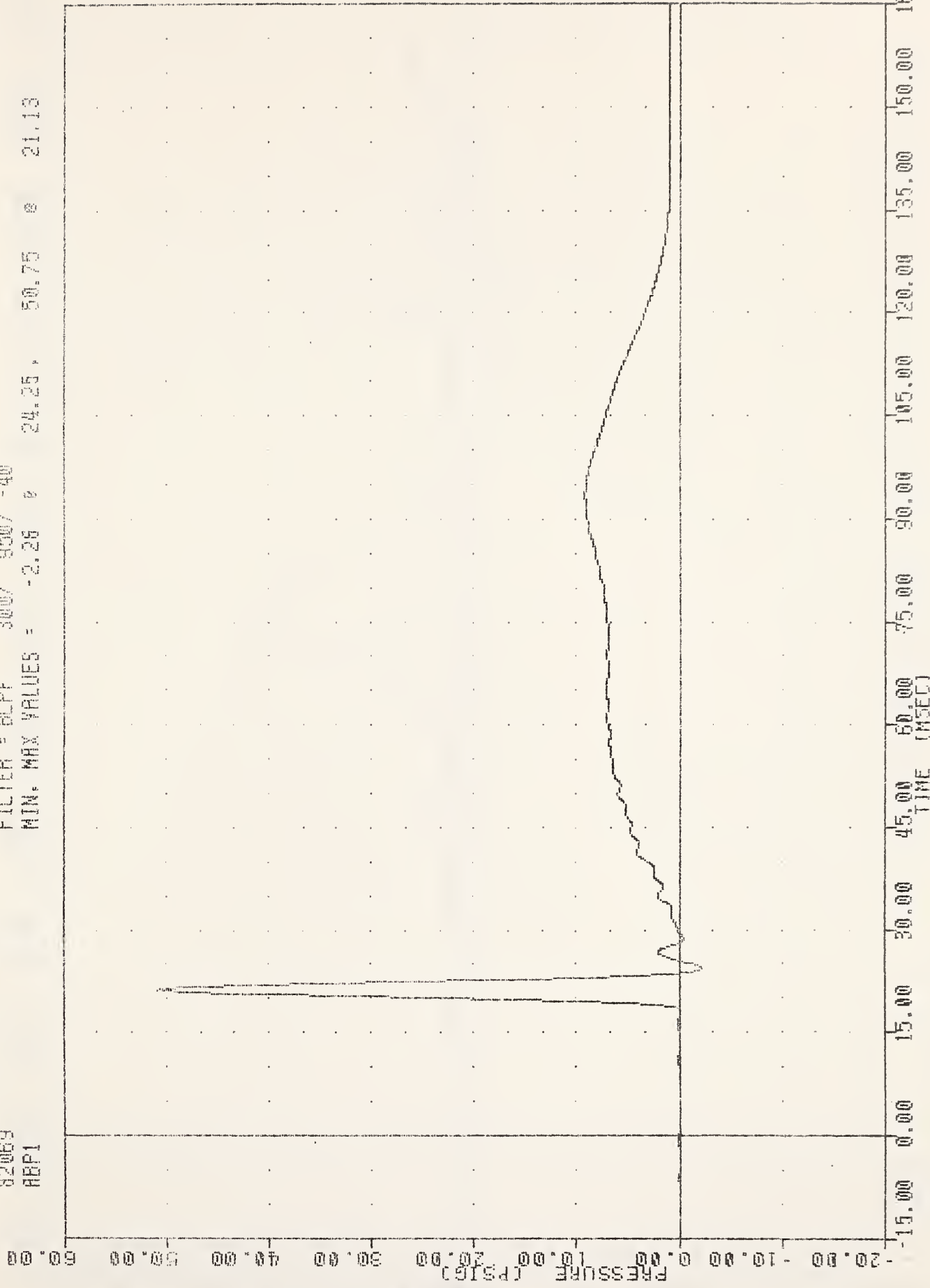
TEST. MODEL VALID. TEST

82069

ARPI

FILTER = BLPF 3007 9507 -40

MIN. MAX VALUES = -2.26 e 24.25 e 50.75 e 21.13



A-163

AIR BAG PRESSURE DRIVER

S51065050 , TRC061 30-MAR-82 10:29:44

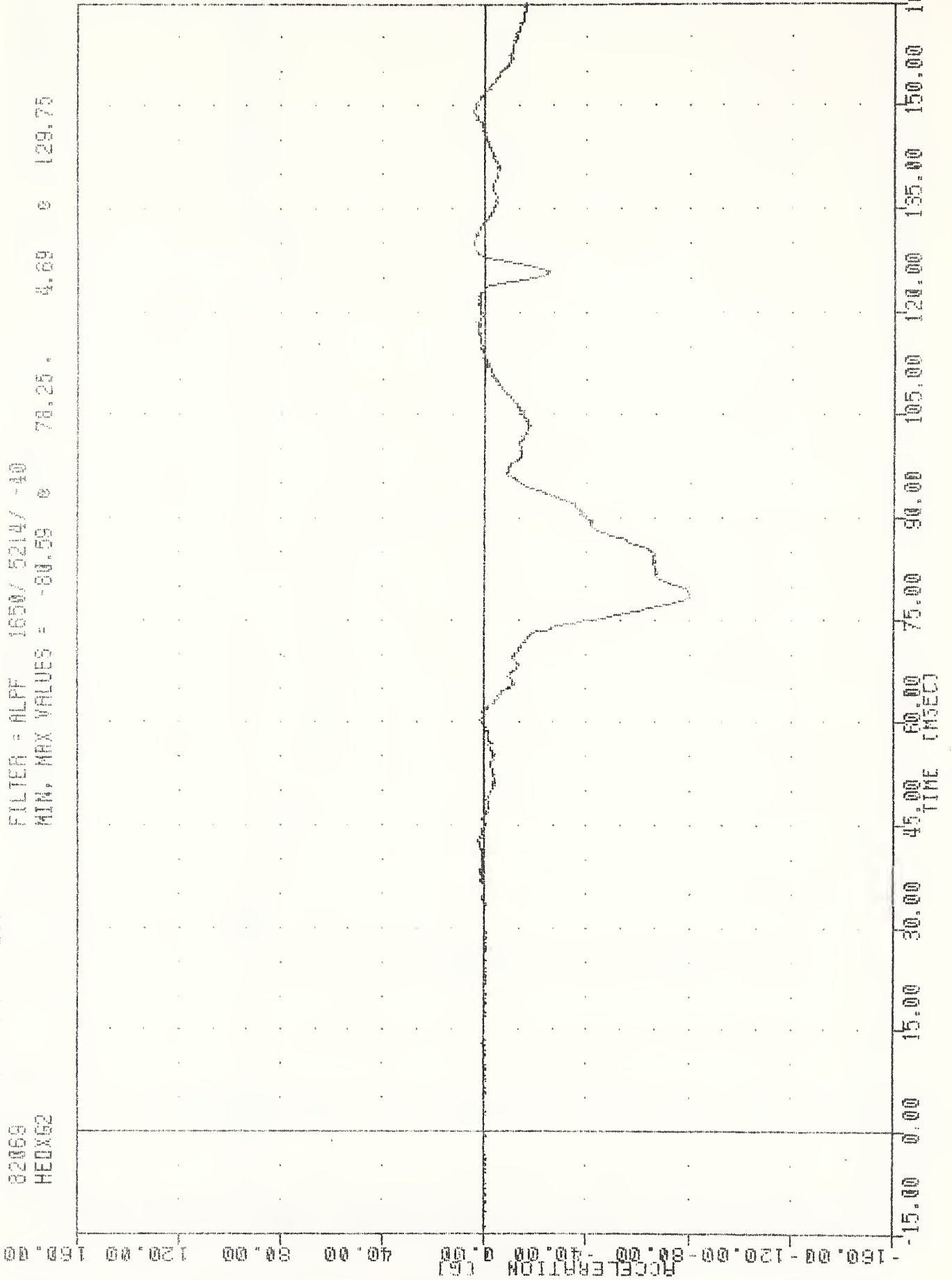
REST. MODEL VALID. TEST.

02069

FILTER = ALPF 165W/ 5214/ -10

HEAD62

MIN. MAX VALUES = -80.59 e 78.25 . 4.69 e 129.75



A-164

HEAD ACCELERATION X AXIS PASSENGER

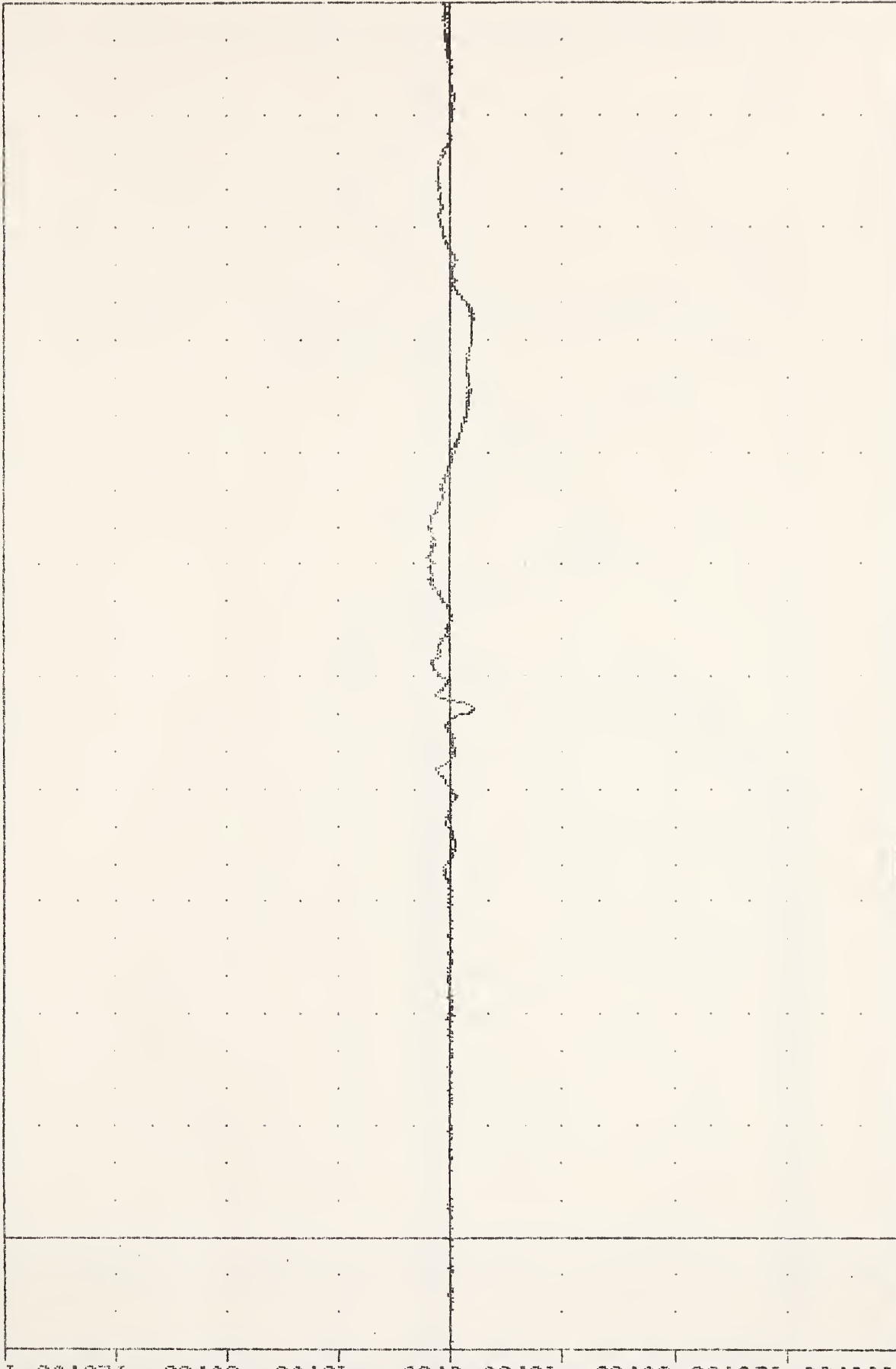
551055050 , TRC061
REST. MODEL VALID. TEST
82069
HEDY62

30-MAR-82 10:29:44

FILTER = ALPF 1650/ 5214/ -40
MIN. MAX VALUES = -8.53 8.49

90.88

ACCELERATION (G)



-15.00 0.00 15.00 30.00 45.00 60.00 75.00 90.00 105.00 120.00 135.00 150.00 165.00
TIME (NSEC)

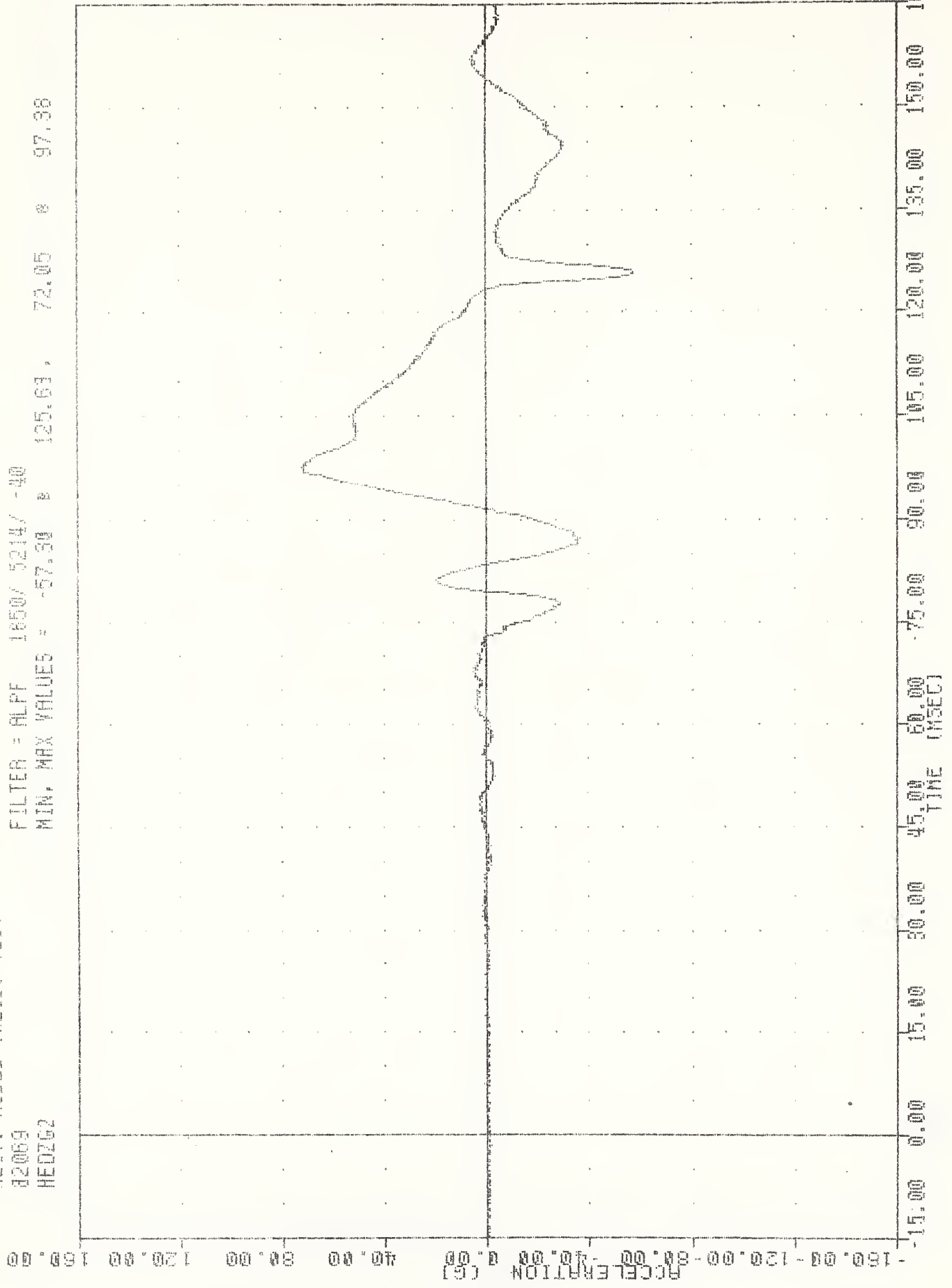
A-165

HEAD ACCELERATION Y AXIS PASSENGER

30-MAR-82 10:29:04

951085050 , TRC061
REST. MODEL VALID. TEST:
82069
HEDZG2

FILTER = ALPF 1650/ 5214/ -40
MIN. MAX VALUES = -57.30 125.63, 72.05 97.38



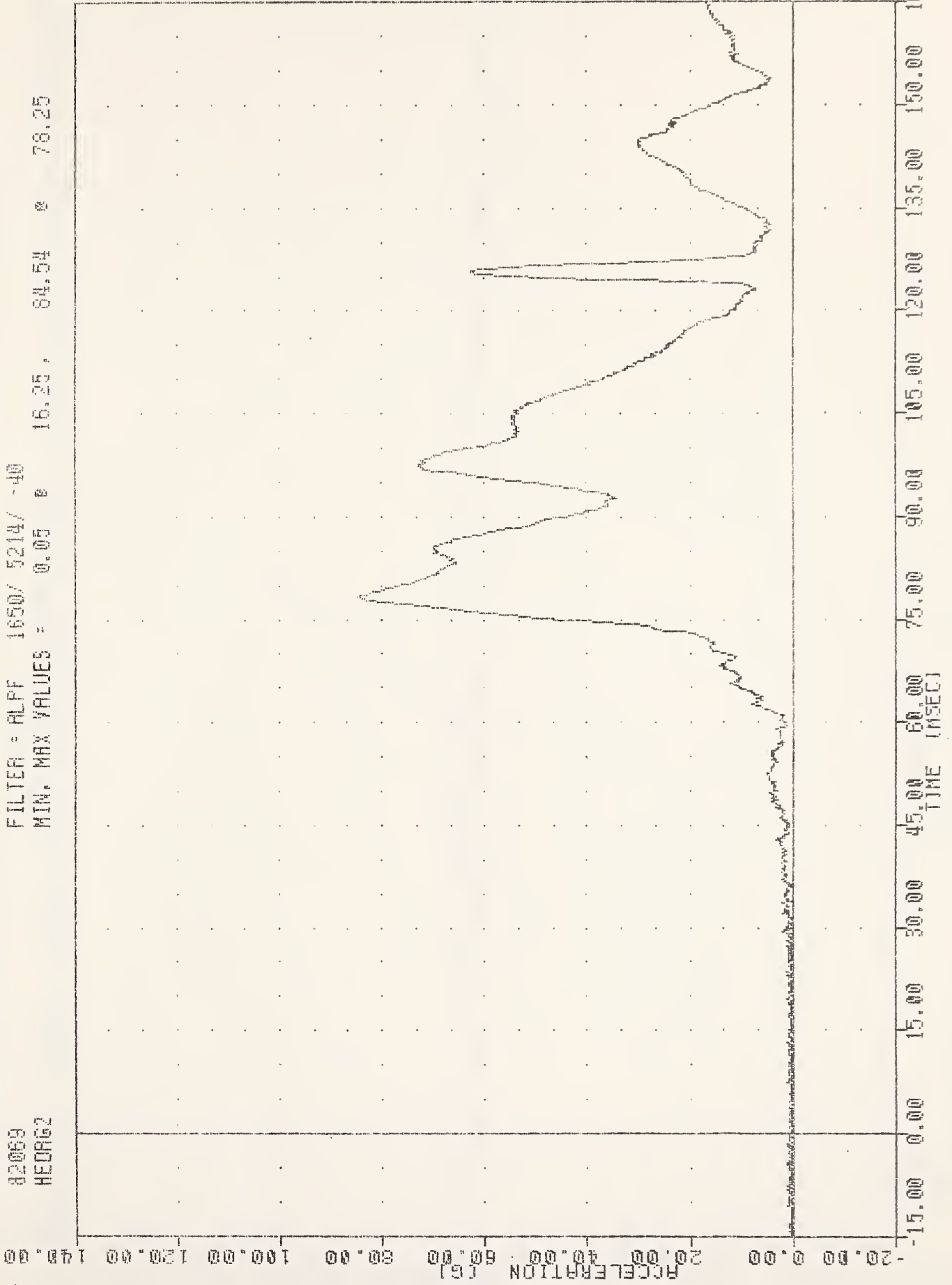
A-166

HEAD ACCELERATION Z AXIS PASSENGER

551065050 , TRC061
REST. MODEL VALID. TEST
82069
HEADG2

30-MAR-82 10:29:44

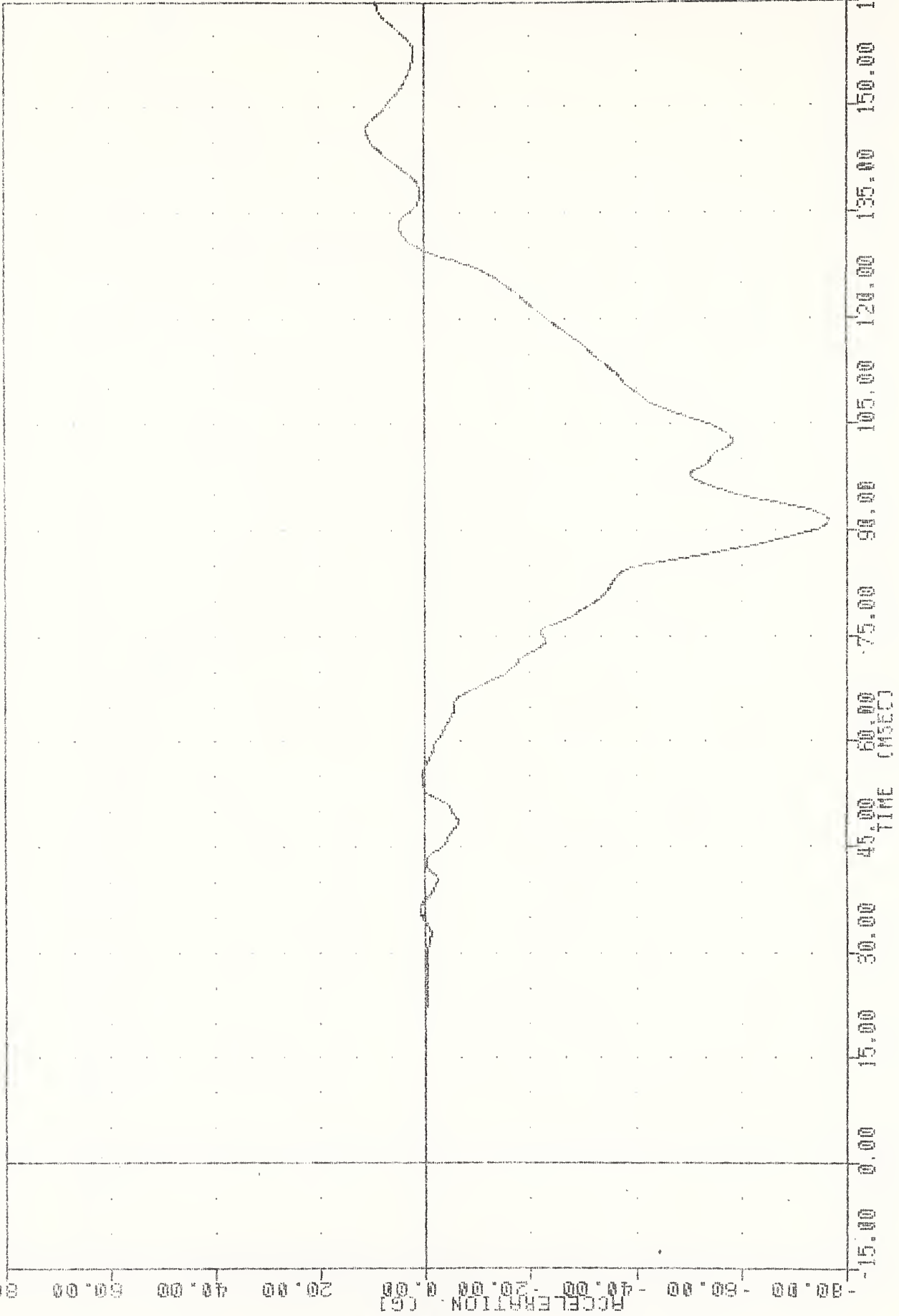
FILTER = ALPF 1650/ 5214/ -40
MIN. MAX VALUES = 0.05 8 16.25, 84.54 8 78.25



A-167

HEAD ACCELERATION RESULTANT PASSENGER

551065050 , TRC061
 3D-RAD-82 10:29:44
 REPT. MODEL VALID, TEST
 82069
 CSTX62
 FILTER = BLPF 500/ 350/ -40
 MIN. MAX VALUES = -76.50 0 91.25 11.25 0 146.75



891-A

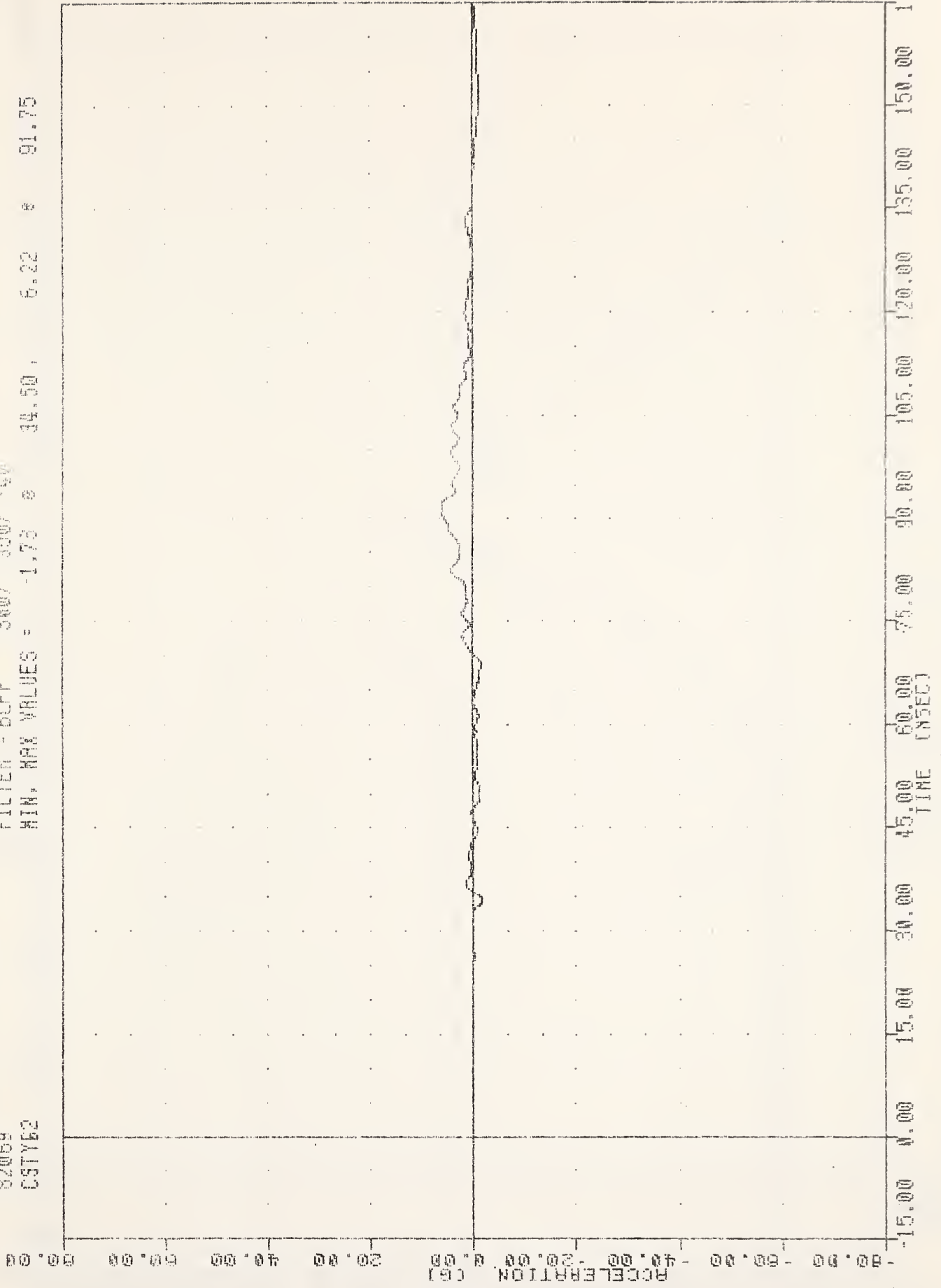
CHEST ACCELERATION X AXIS PASSENGER

551065050 , TRC061
REST. MODEL VALID. TEST
82069
CSTY62

30-MAR-82 10:29:44

FILTER = BLPF 3ND/ 950/ -40

MIN. MAX VALUES = -1.73 6 34.50 6 6.22 6 91.75



A-169

CHEST ACCELERATION Y AXIS PASSENGER

351055050 , TAC061 10:29:44

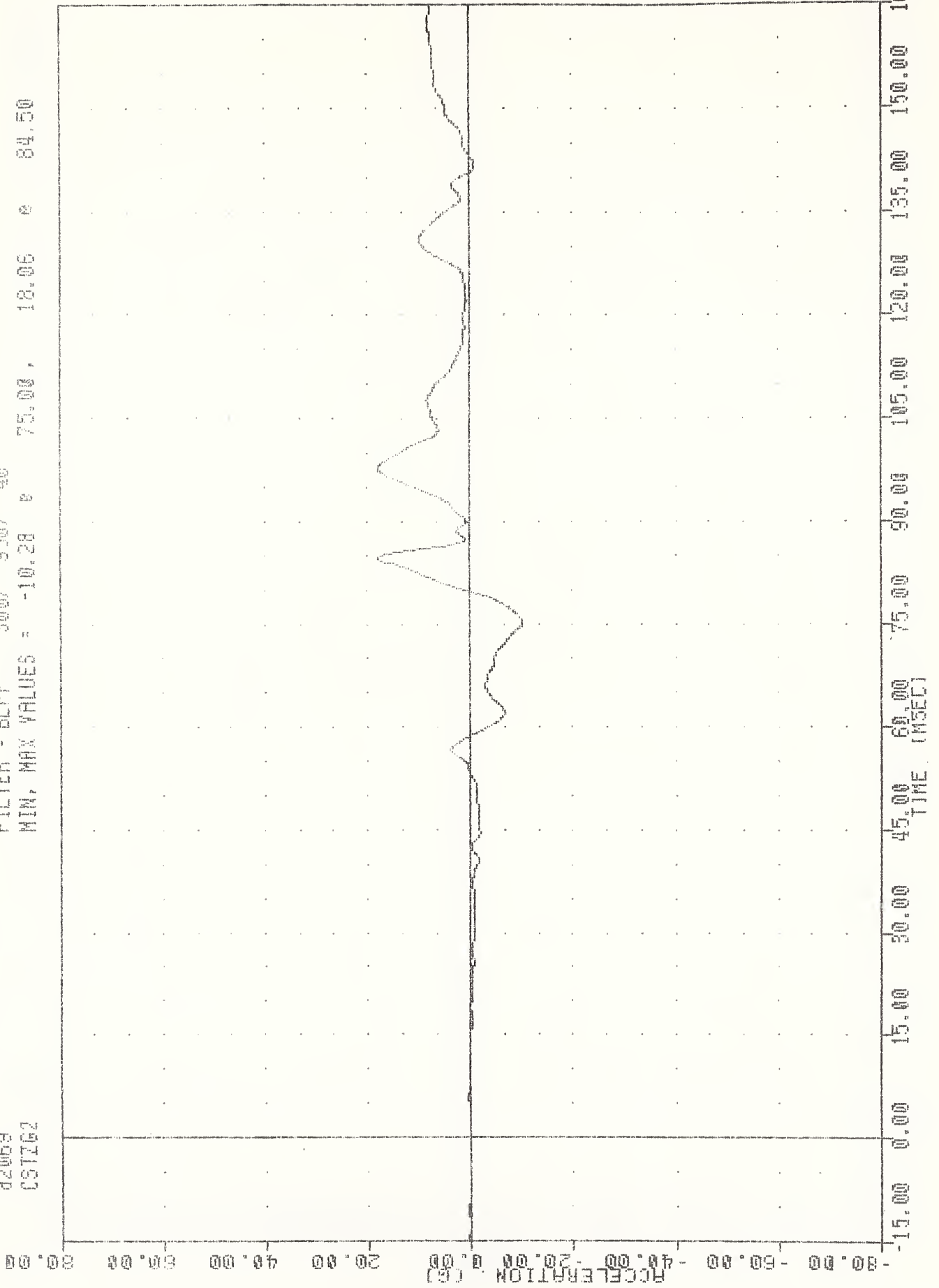
REST. MODEL VALID. TEST

02069

FILTER = BLPF 300/ 950/ -40

CSTZ62

MIN, MAX VALUES = -10.28 e 75.00, 18.06 e 84.50



A-170

CHEST ACCELERATION Z AXIS PASSENGER

30-MAR-82 10:29:44

551065050 , TRC061

REST. MODEL VALID. TEST

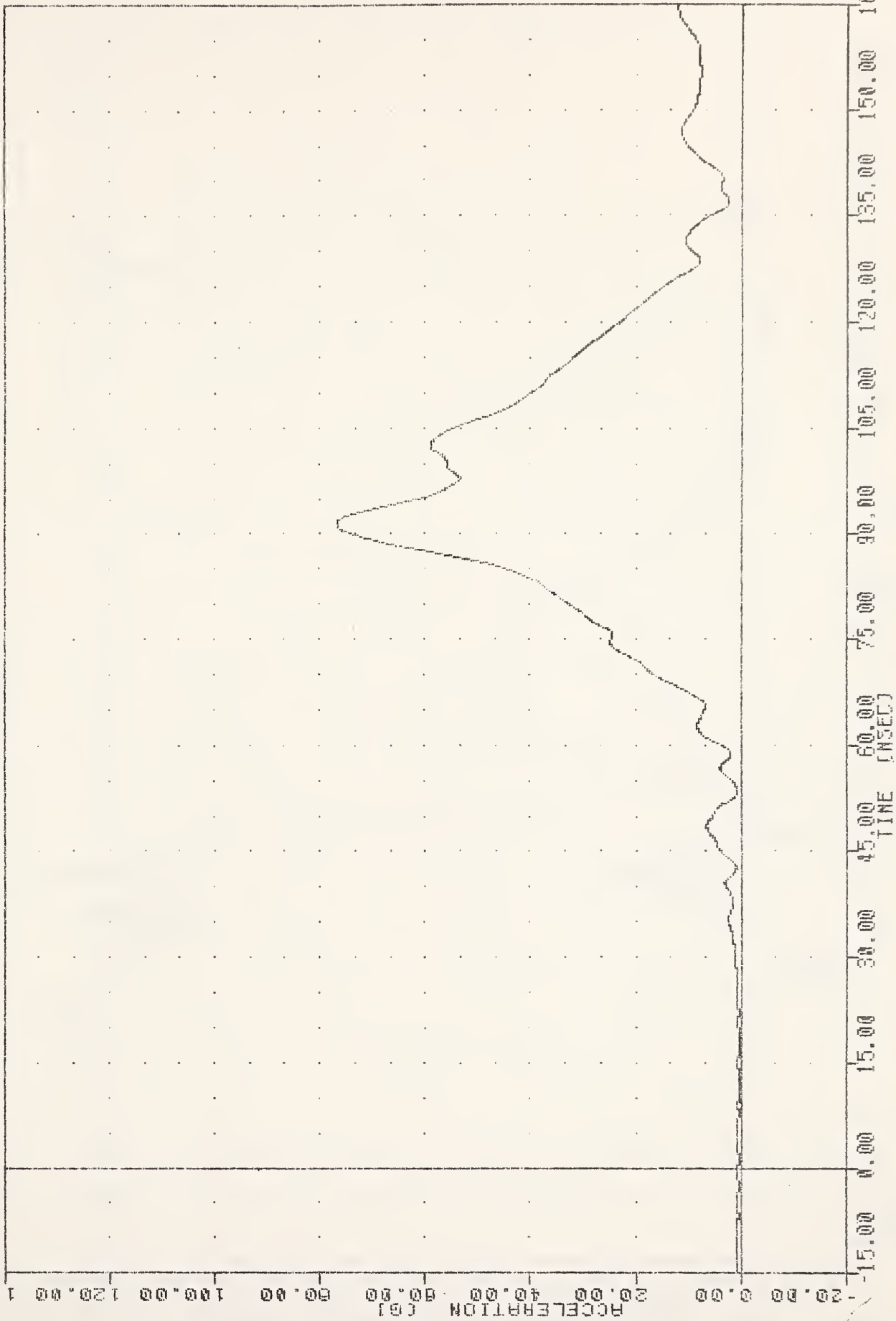
82069

FILTER = BLPF 300/ 950/ 40

CSTR92

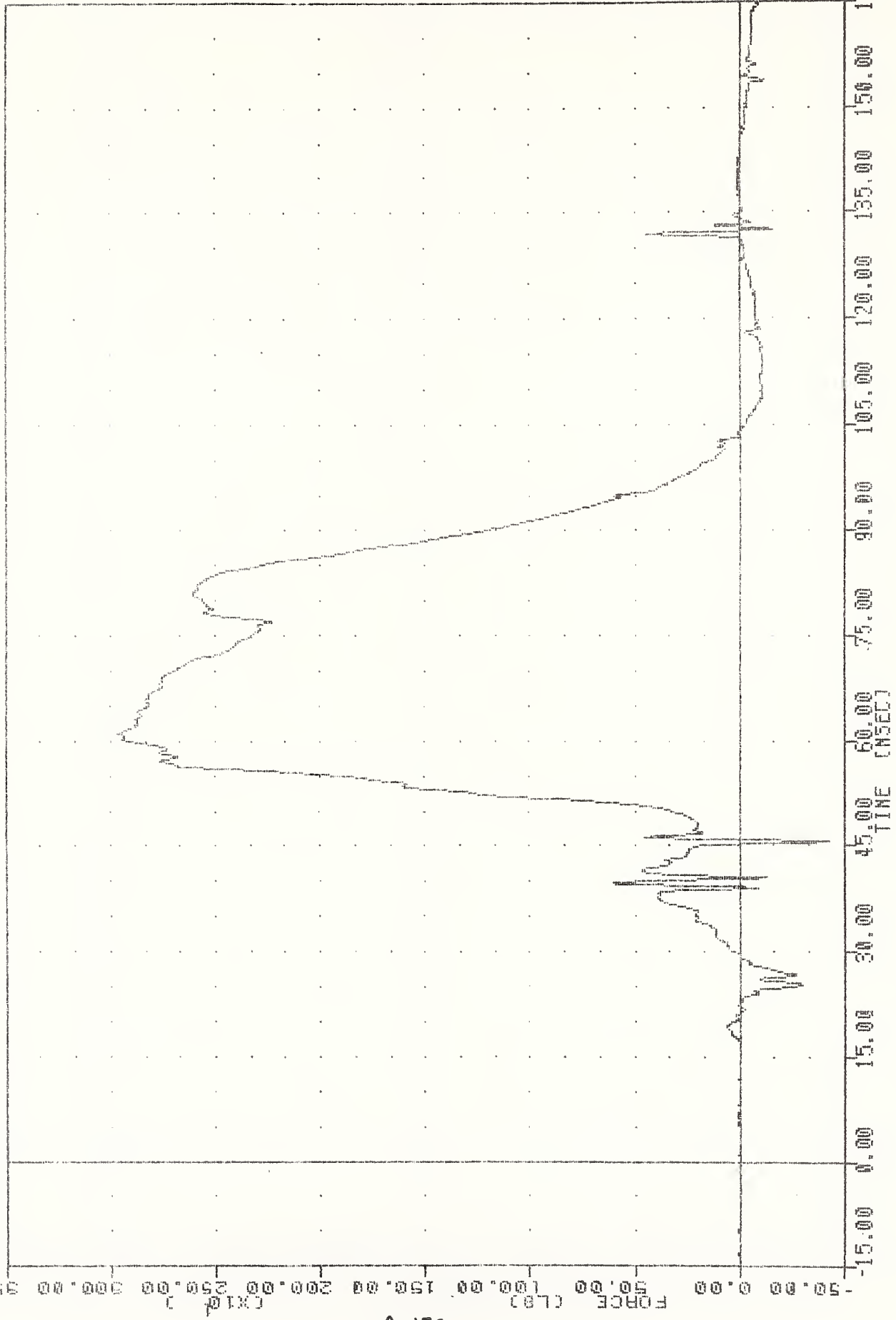
MIN. MAX VALUES = 0.37 e 12.63 , 76.60 e 91.25

140.00



CHEST ACCELERATION RESULTANT PASSENGER

881065050 , TRC061 30-MAR-82 12:26:32
 REST. MODEL VALID. TEST.
 82069 FILTER = BLPF 1000/ 3170/ -40
 LFMP2 MIN. MAX VALUES = -424.00 e 45.50 , 2954.50 e 61.00



A-112

LEFT FEMUR FORCE PASSENGER

30-MAR-82 12:28:32

351065050 , TRC051

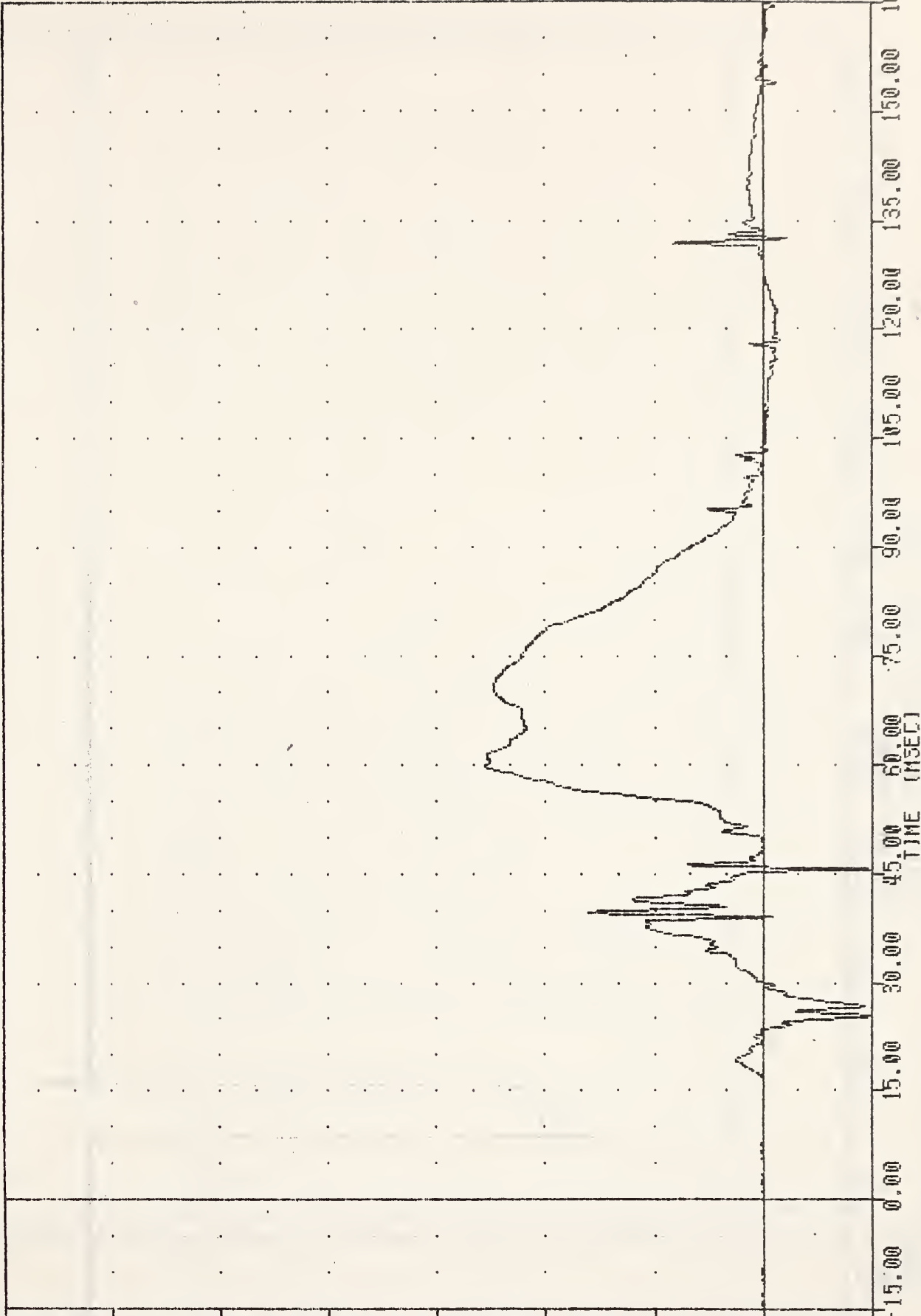
REST. MODEL VALID. TEST

FILTER = BLPF 1000/ 3170/ -40

MIN. MAX VALUES = -563.61 6 45.50 , 1282.67 8 59.75

82069
RFMF2

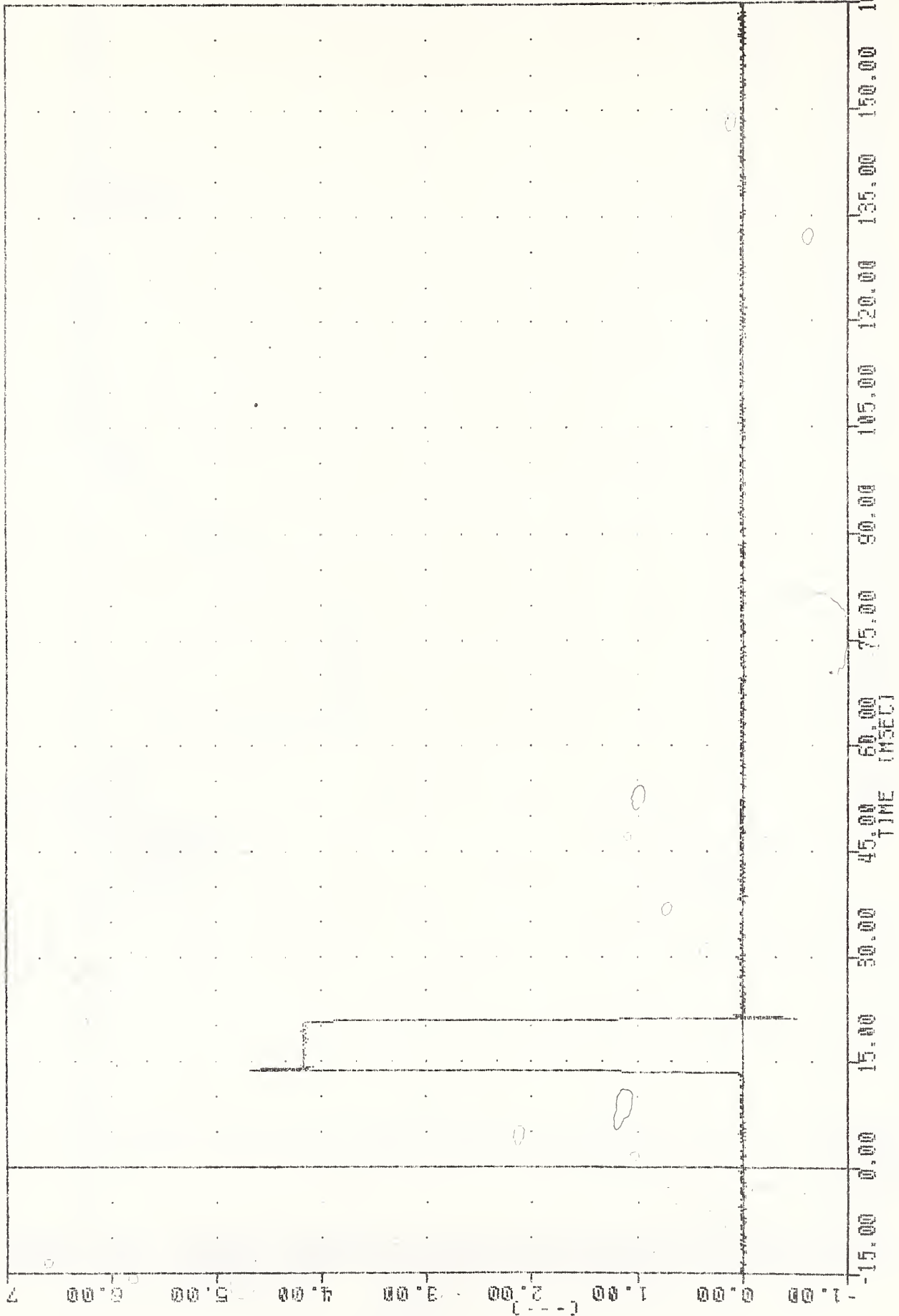
50.00 0.00 15.00 30.00 45.00 60.00 75.00 90.00 105.00 120.00 135.00 150.00 165.00



A-113

RIGHT FEMUR FORCE PASSENGER

551065050 , TRC061 30-MAR-82 10:29:44
 BEST. MODEL VALID. TEST
 02069
 ABFT2
 FILTER = ALPF 1050/ 5214/ -40
 MIN. MAX VALUES = -0.51 0 21.13 0 4.67 0 13.75

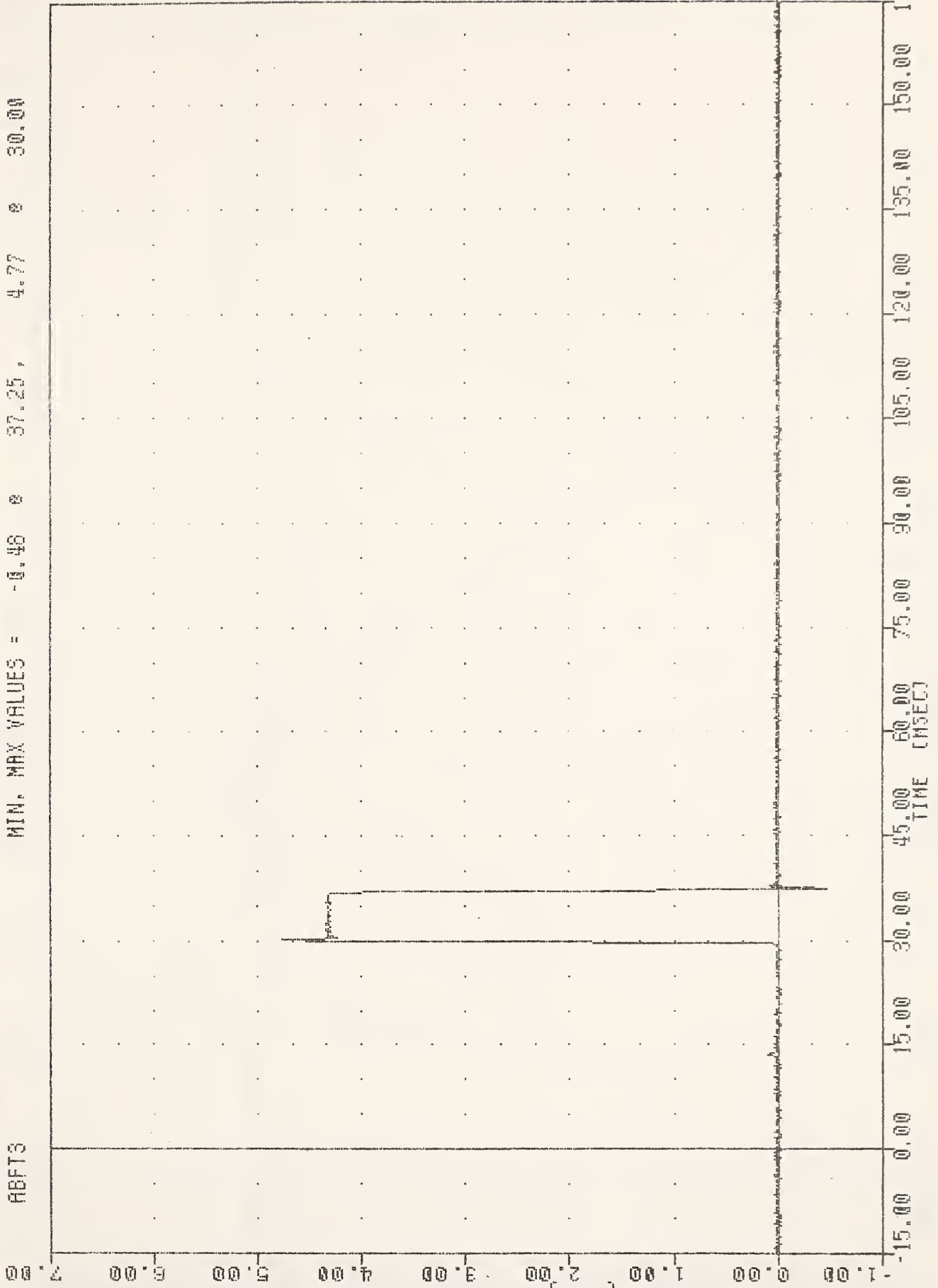


AIR BAG FIRING EVENT PASSENGER

30-MAR-82 10:29:44

S51065050 , TRC061
REST. MODEL VALID. TEST
82069
ABFT3

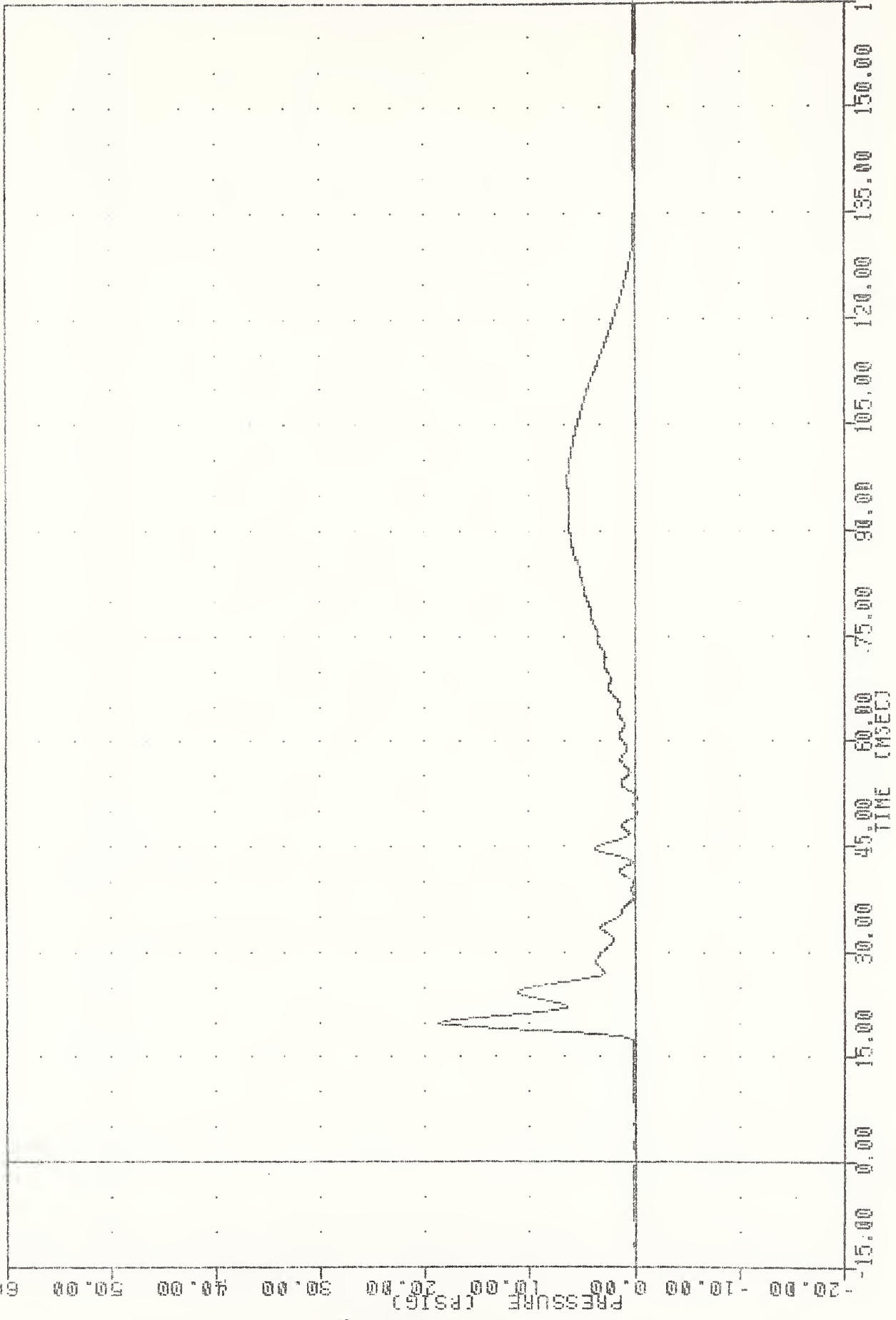
FILTER = ALPF 1650/ 5214/ -10
MIN. MAX VALUES = -0.48 @ 37.25 , 4.77 @ 30.00



A-175

AIR BAG FIRING EVENT 3

S51065050 , TRC061 30-MAR-82 10:29:44
 REST. MODEL VALID. TEST.
 82069
 RBP2
 FILTER = BLPF 300/ 950/ -40
 MIN. MAX VALUES = -0.30 @ 49.63 , 18.68 @ 19.75



A-176

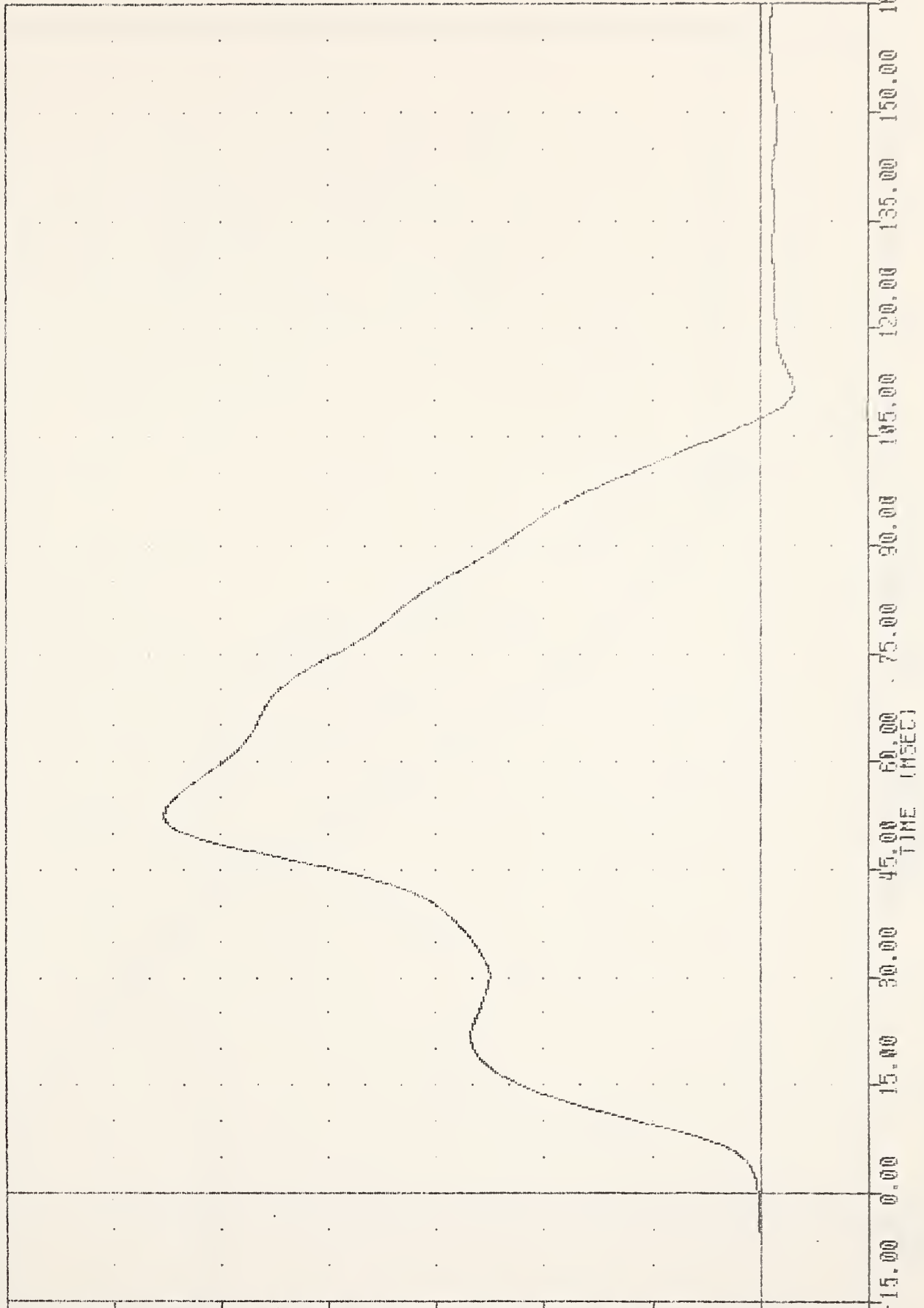
AIR BAG PRESSURE PASSENGER

551065050 * TRC061
REST. MODEL VALID. TEST
82069
SLOXG

30-MAR-82 10:29:44

FILTER = BLPF 100/ 317/ -40
MIN. MAX VALUES = -1.58 111.50, 27.61 52.38

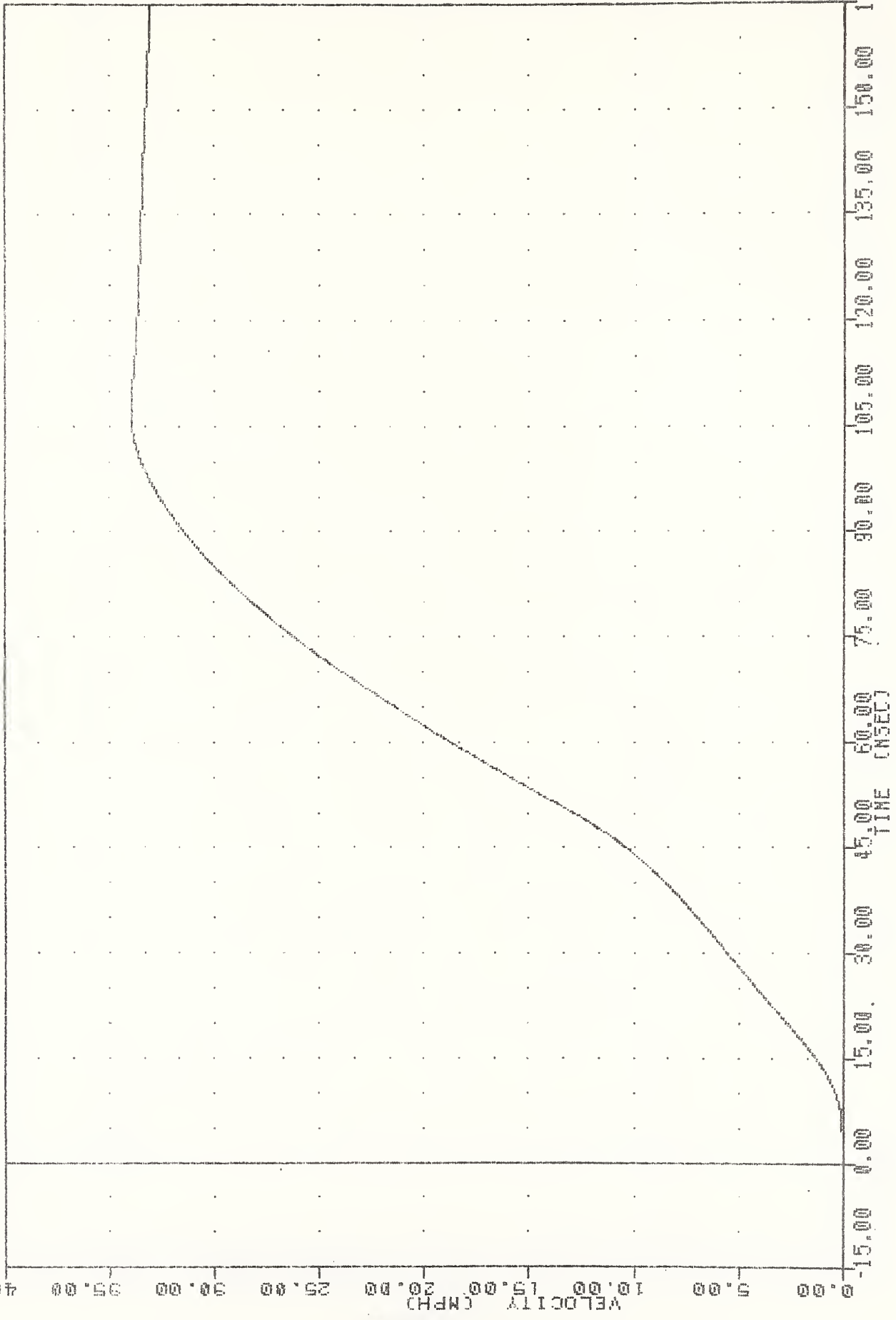
ACCELERATION (G)



A-117

SLED ACCELERATION

551065850 , TRC061
 30-MAR-82 10:29:44
 REST. MODEL VALID. TEST
 82069
 SLODY
 FILTER = BLPF 100/ 317/ -40
 MIN. MAX VALUES = 0.00 0 -6.75 , 33.96 0 107.25



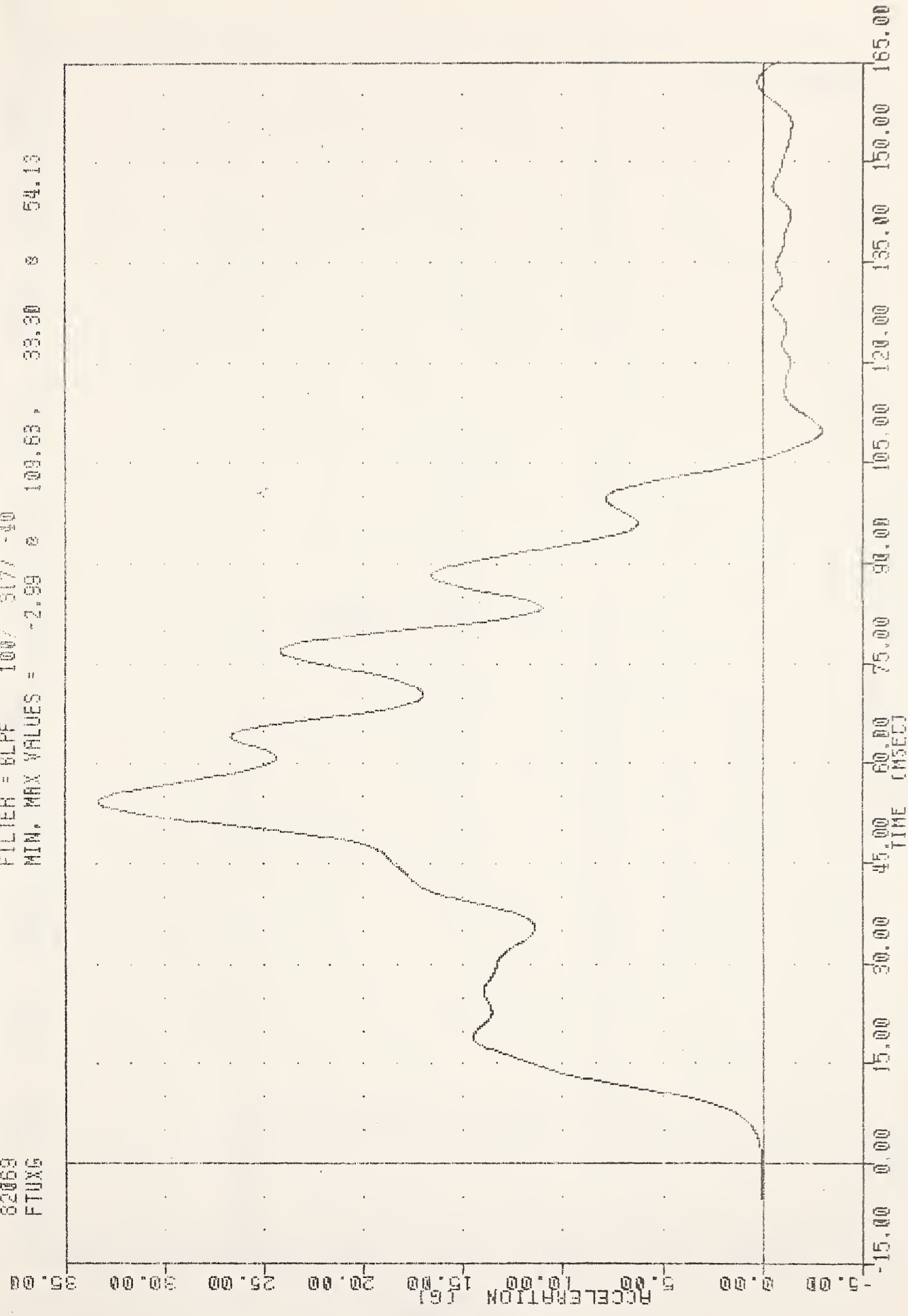
A-118

SLED VELOCITY IN MPH

551065050 , TRC061
REST. MODEL VALID. TEST
62069
FTUXG

30-MAR-62 10:28:44

FILTER = 6LPF 100/ 9177 -10
MIN. MAX VALUES = -2.99 2 109.63 33.30 8 54.13



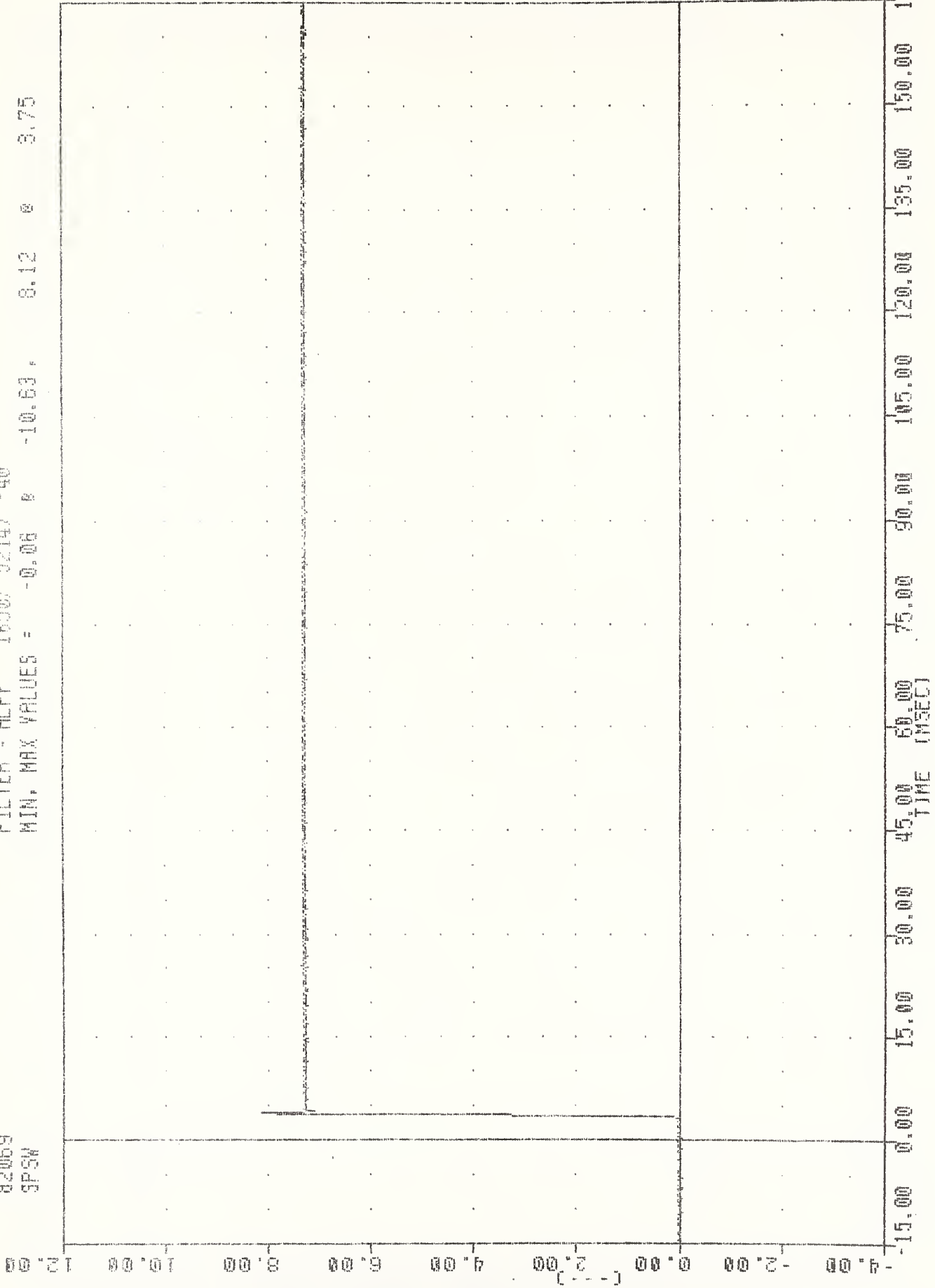
A-179

FLOOR PAN TUNNEL ACCELERATION

30-MAR-82 10:29:44

351065050 , TRC061
REST. MODEL VALID. TEST
82069
SPSW

FILTER = ALPF 1650/ 5214/ -40
MIN. MAX VALUES = -0.06 8.12 0 3.75



SLED POSITION SWITCH

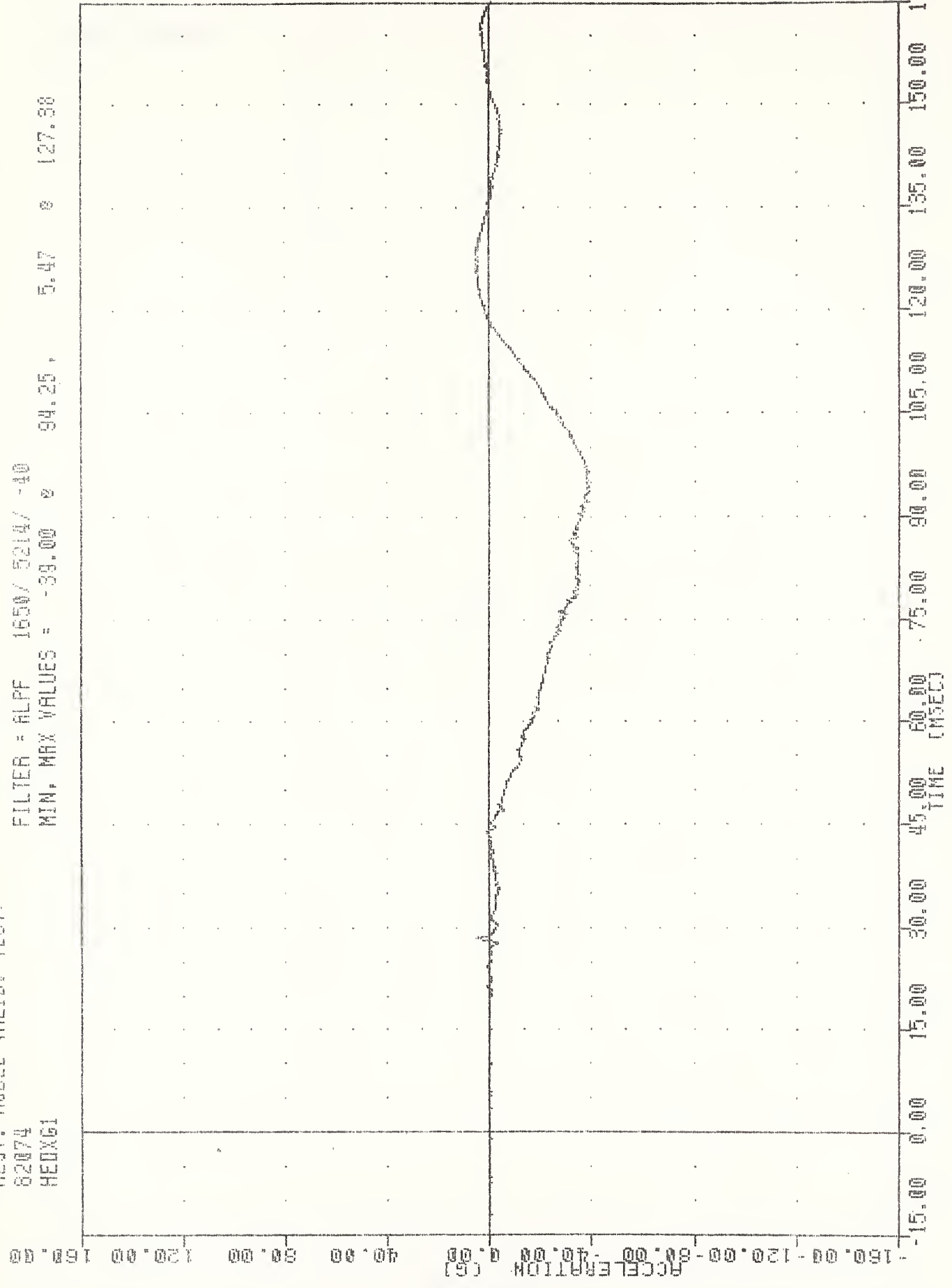
A-180

TEST NO. 7

31-MAR-82 11:10:31

551075050 , TRC052
REST. MODEL VALID. TEST.
82074
HEADXG1

FILTER = ALPF 1650/ 5214/ -40
MIN. MAX VALUES = -39.00 0 94.25 , 5.47 0 127.38



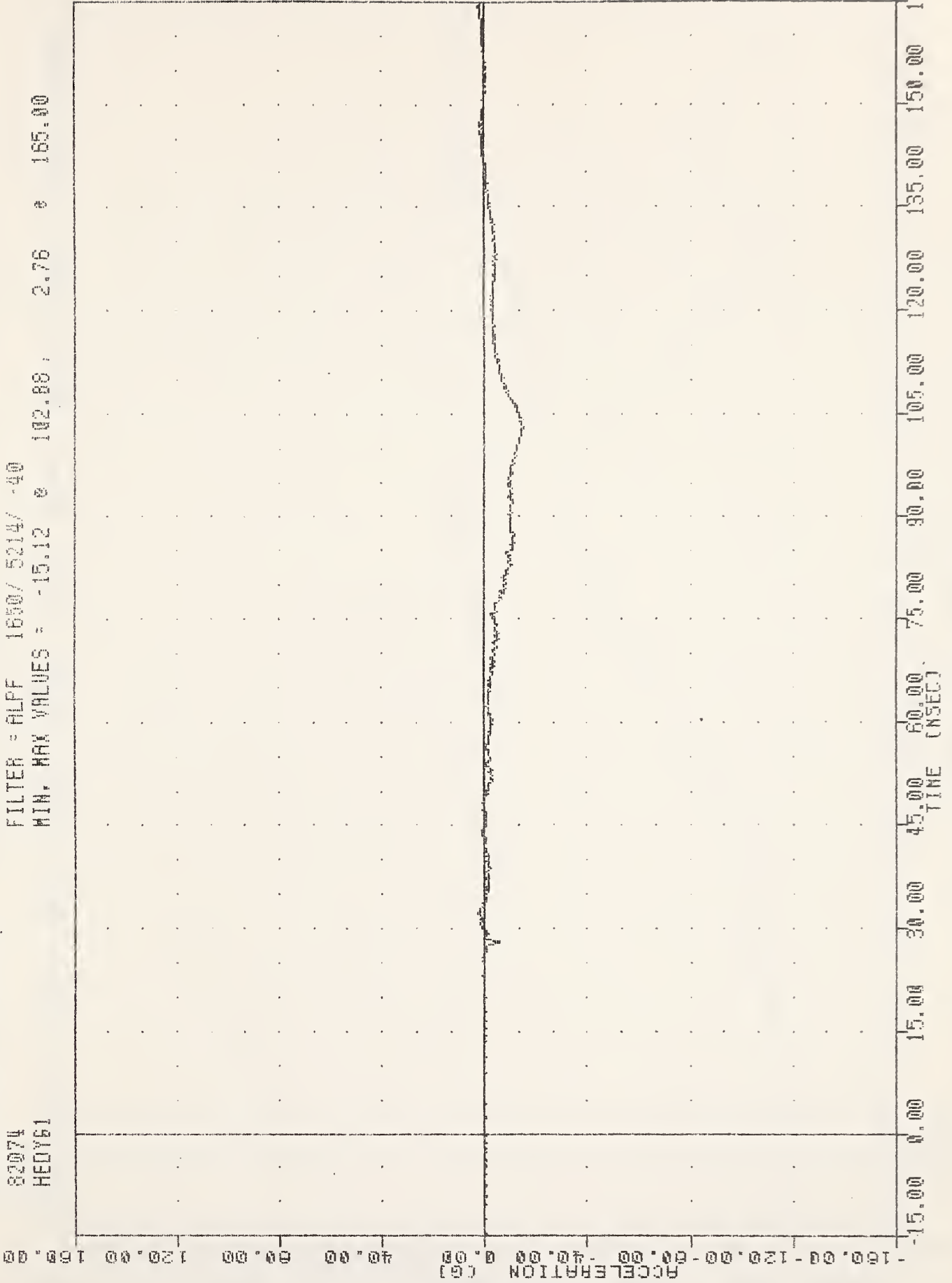
281-A

HEAD ACCELERATION X AXIS DRIVER

S51075050 , TRC062
REST. MODEL VALID. TEST
82074
HEDY61

31-MAR-82 11:10:31

FILTER = ALPF 1650/ 5214/ -40
MIN. MAX VALUES = -15.12 e 102.88 , 2.76 e 165.00



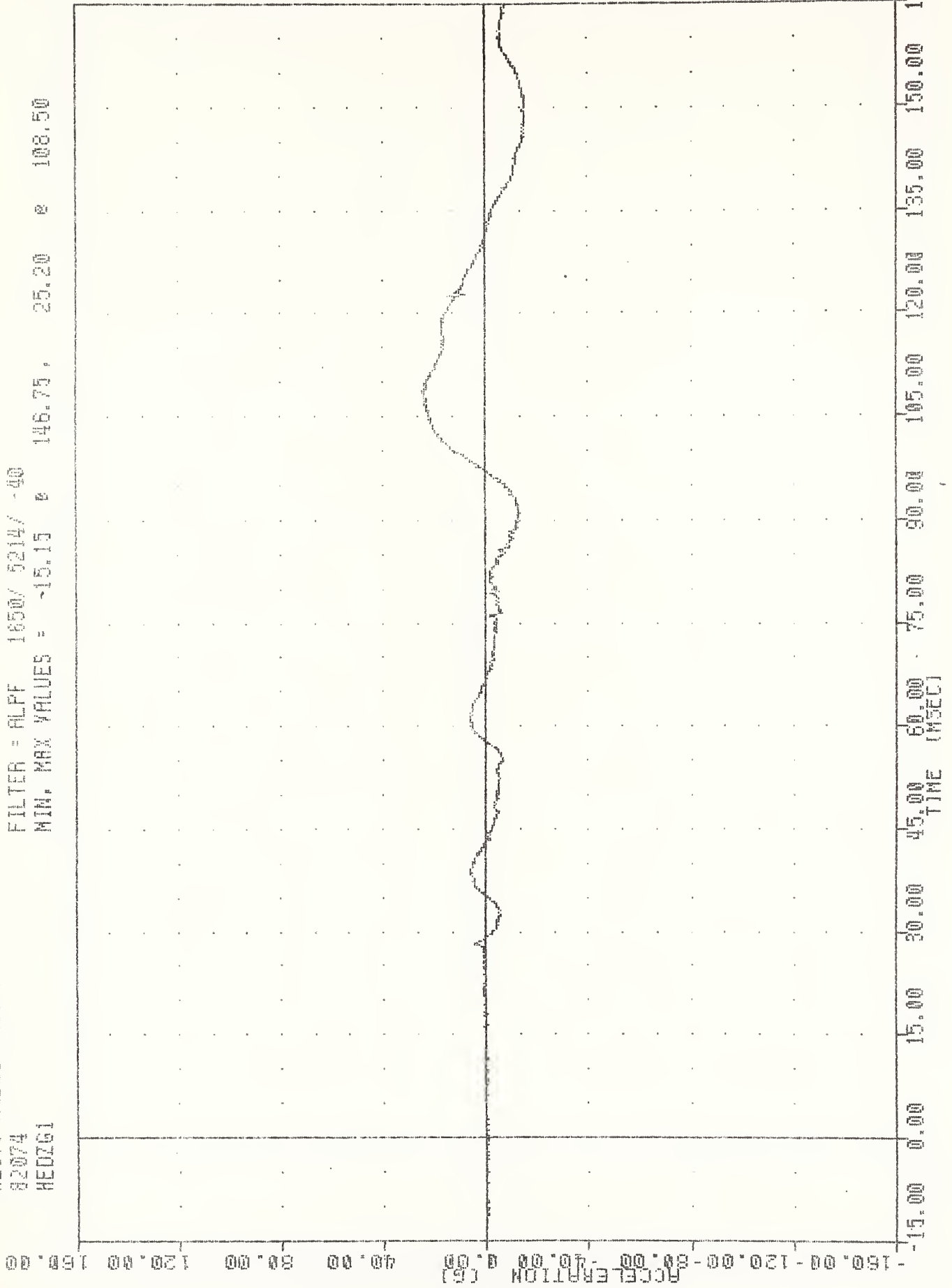
A-183

HEAD ACCELERATION Y AXIS DRIVER

551075050 . TRC062
REST. MODEL VALID, TEST
82074
HEADZ61

31-MAR-82 11:10:31

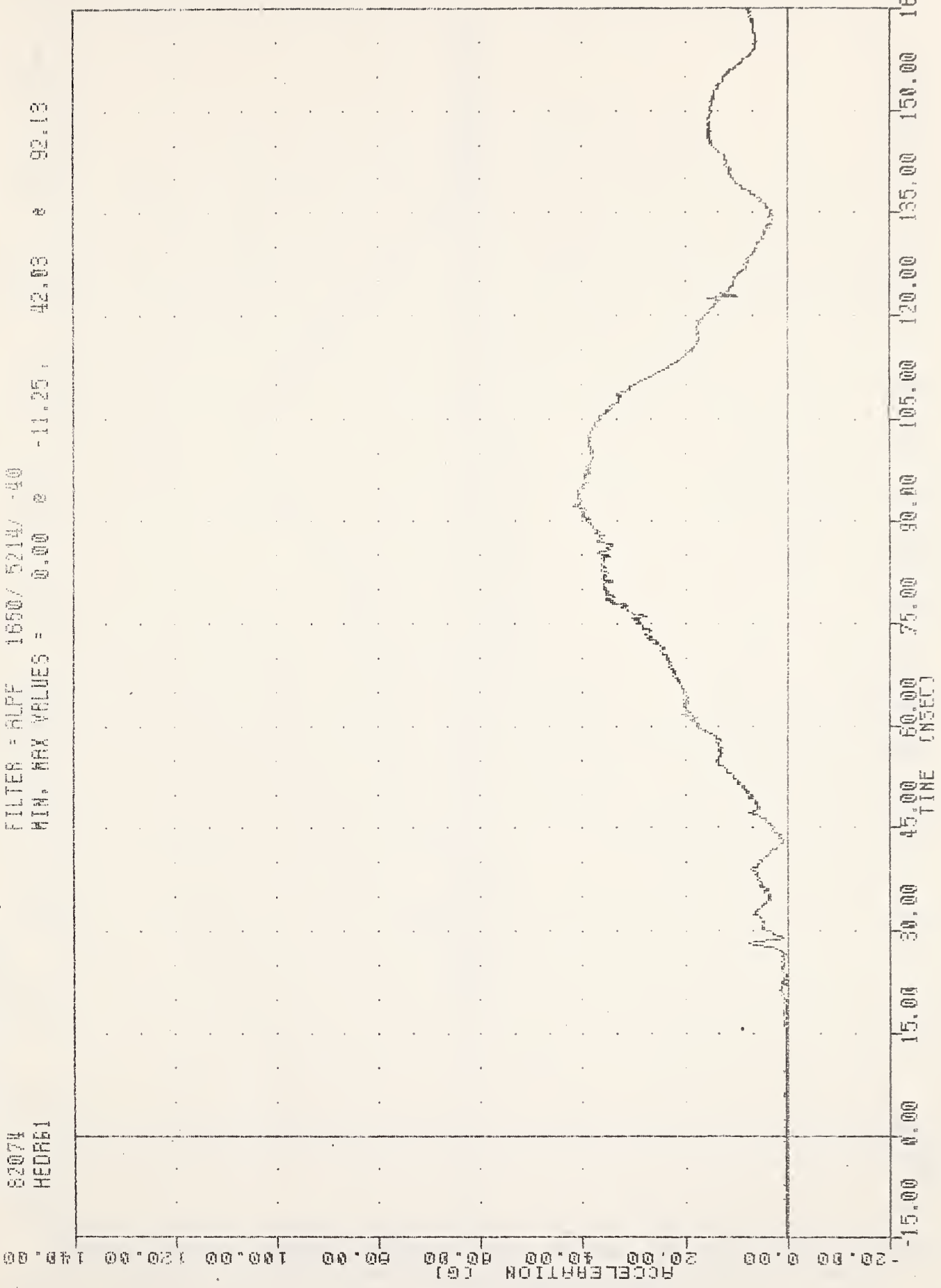
FILTER = ALPF 1650/ 5214/ -40
MIN. MAX VALUES = -15.15 e 146.75. 25.20 e 108.50



A-184

HEAD ACCELERATION Z AXIS DRIVER

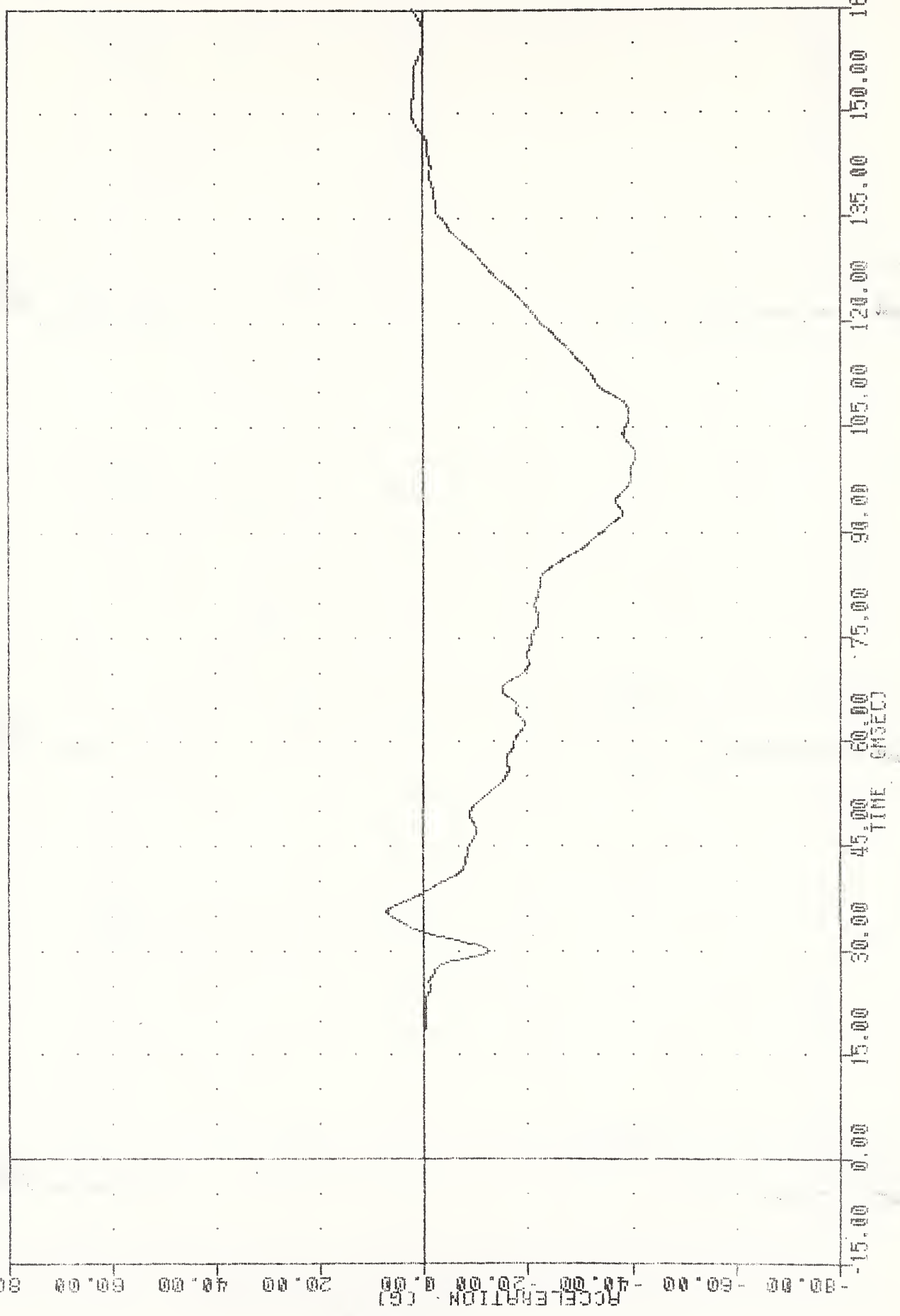
561075050 . TRC062
 REST, MODEL VALID. TEST.
 82074
 HEAD61
 51-MAR-82 11:10:31
 FILTER = ALPF 1650/ 5214/ -40
 MIN. MAX VALUES = 0.00 e -11.25 , 42.03 e 92.13



A-185

HEAD ACCELERATION RESULTANT DRIVER

551075050 , TR062
 31-MAR-82 11:10:31
 REST. MODEL VALID. TEST
 82074
 CSTXG1
 FILTER = BLPF 300/ 950/ -40
 MIN. MAX VALUES = -40.71 @ 100.88 , 7.28 @ 35.50



A-186

CHEST ACCELERATION X AXIS DRIVER

31-MAR-62 11:10:31

551075050 , TR0062

REST. MODEL VALID. TEST

FILTER = BLPF 300 / 950 / -40

82074

MIN. MAX VALUES = -6.15 e 101.13, 2.93 e 91.63

80.00

60.00

40.00

20.00

ACCELERATION (G)

0.00

-20.00

-40.00

-60.00

-80.00

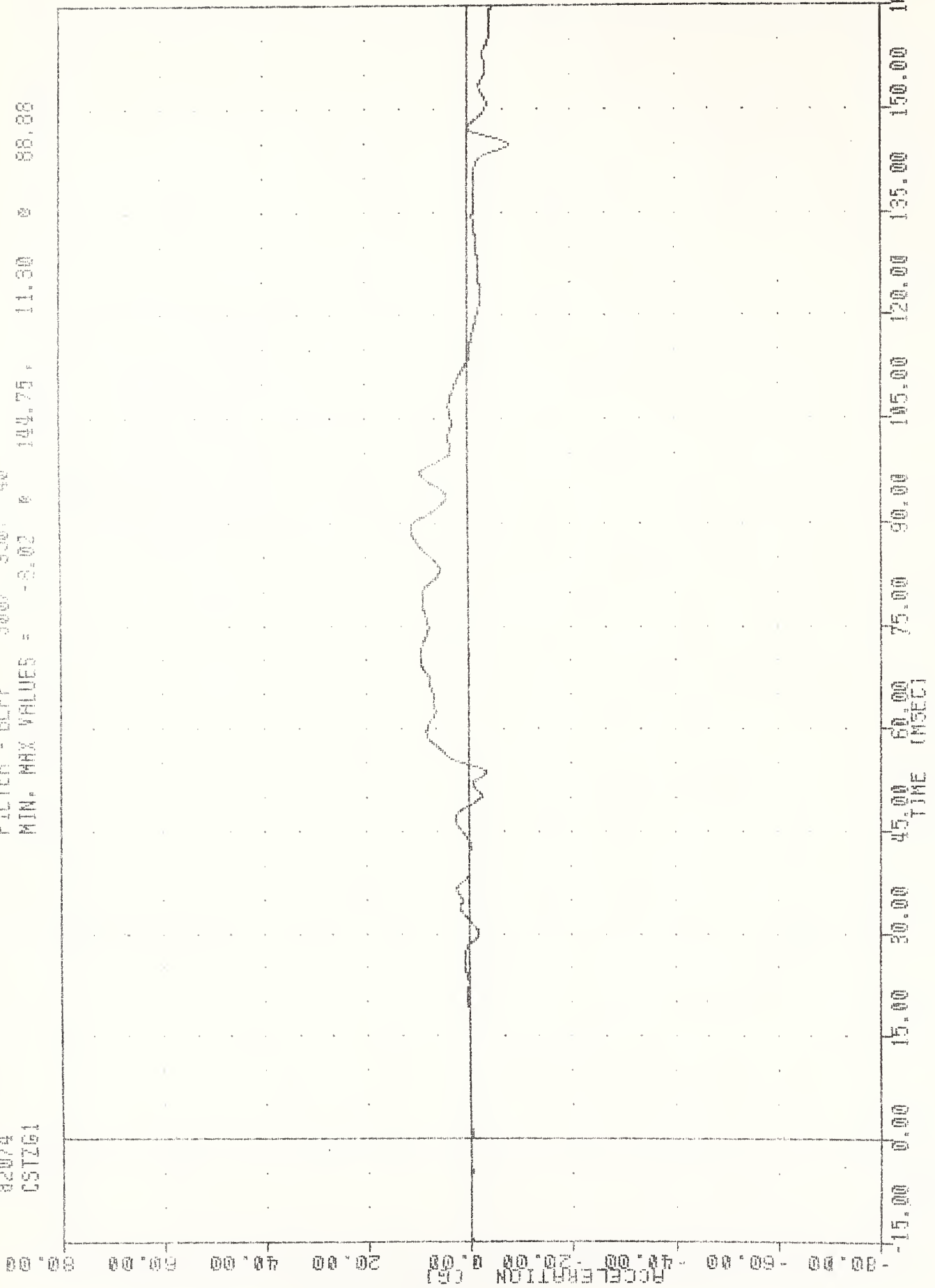
-15.00 0.00 15.00 30.00 45.00 60.00 75.00 90.00 105.00 120.00 135.00 150.00 165.00

TIME (MSEC)

A-187

CHEST ACCELERATION Y AXIS DRIVER

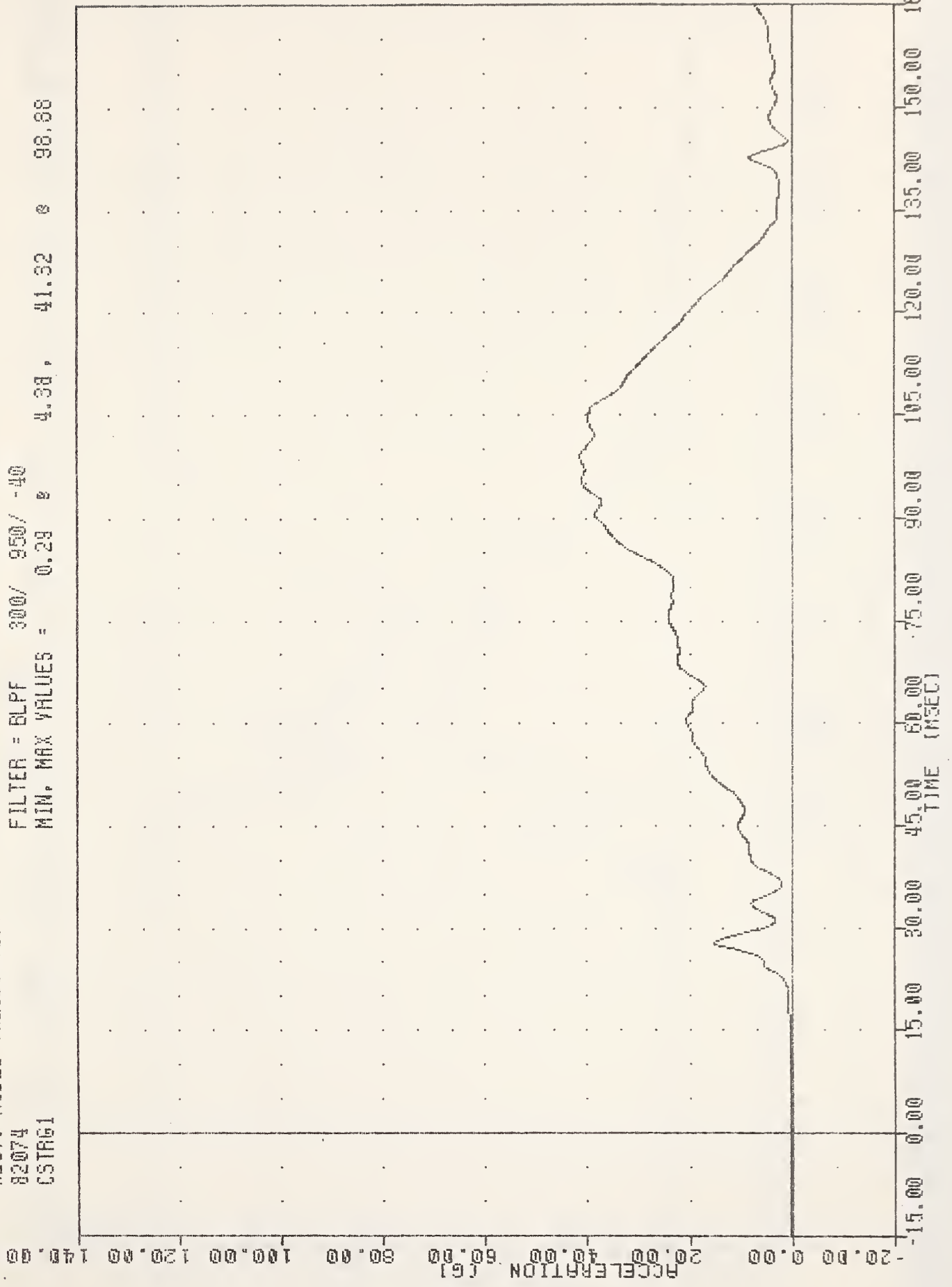
951075050 , TRC082 31-MAR-82 11:19:51
REST, MODEL VALID, TEST
82074 FILTER = BLPF 300/ 950/ -40
CSTZ61 MIN. MAX VALUES = -8.02 144.75, 11.30 88.88



881-A

CHEST ACCELERATION Z AXIS DRIVER

551075050 , TRC062
 31-MAR-82 13:10:10
 REST. MODEL VALID. TEST
 82074
 CSTRG1
 FILTER = BLPF 300/ 950/ -40
 MIN. MAX VALUES = 0.28 0 4.38, 41.32 0 98.68



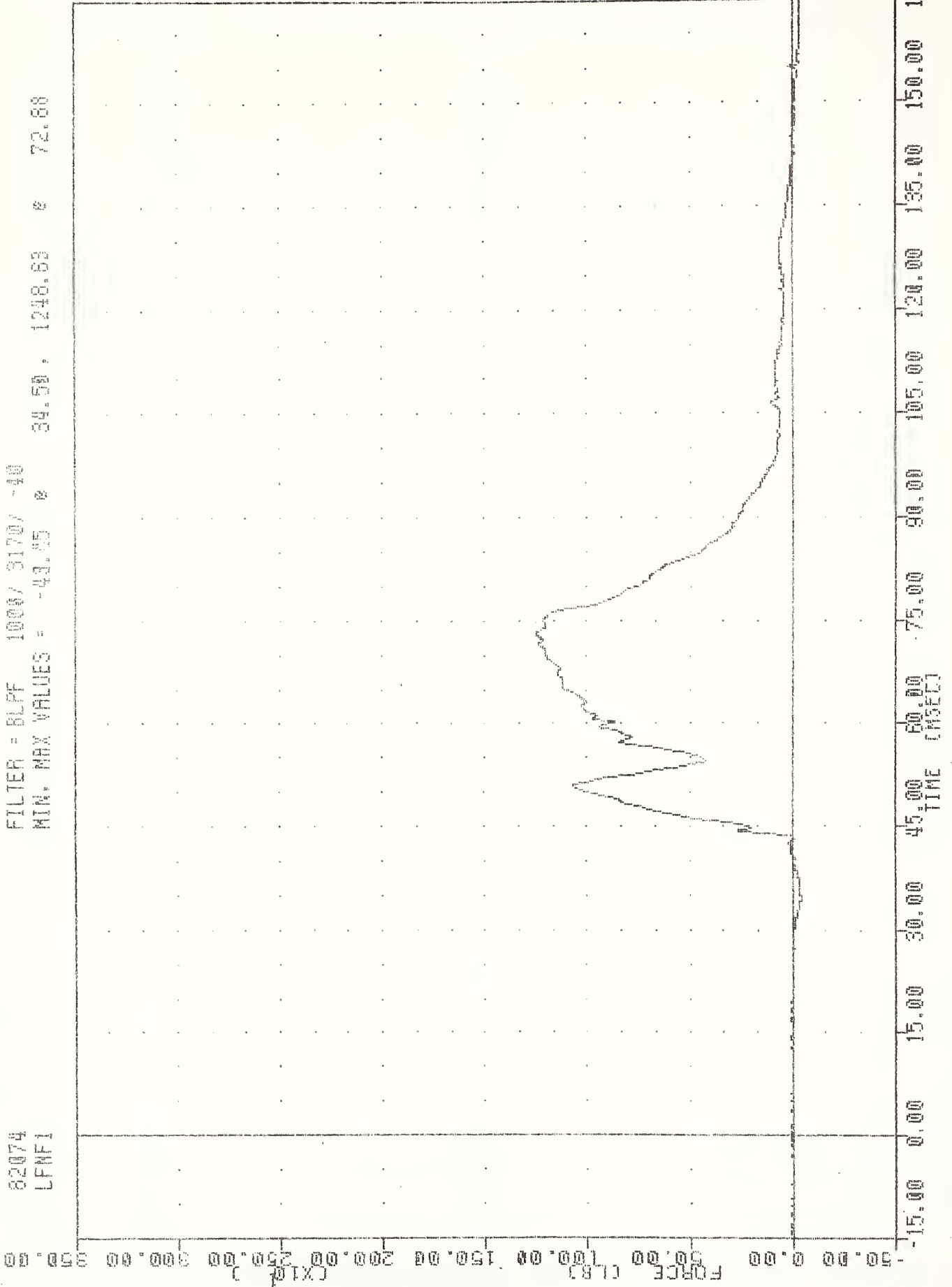
881-A

CHEST ACCELERATION RESULTANT DRIVER

31-MAR-82 11:10:51

551075050 , TRC062
REST. MODEL VALID. TEST
82074
LFNF1

FILTER = BLPF 1000/3170/ -40
MIN. MAX VALUES = -43.85 0 34.50 , 1248.83 0 72.88



A-190

LEFT FEMUR FORCE DRIVER

351075050 , TRC062

REST. MODEL VALID. TEST

32074

RFMF1

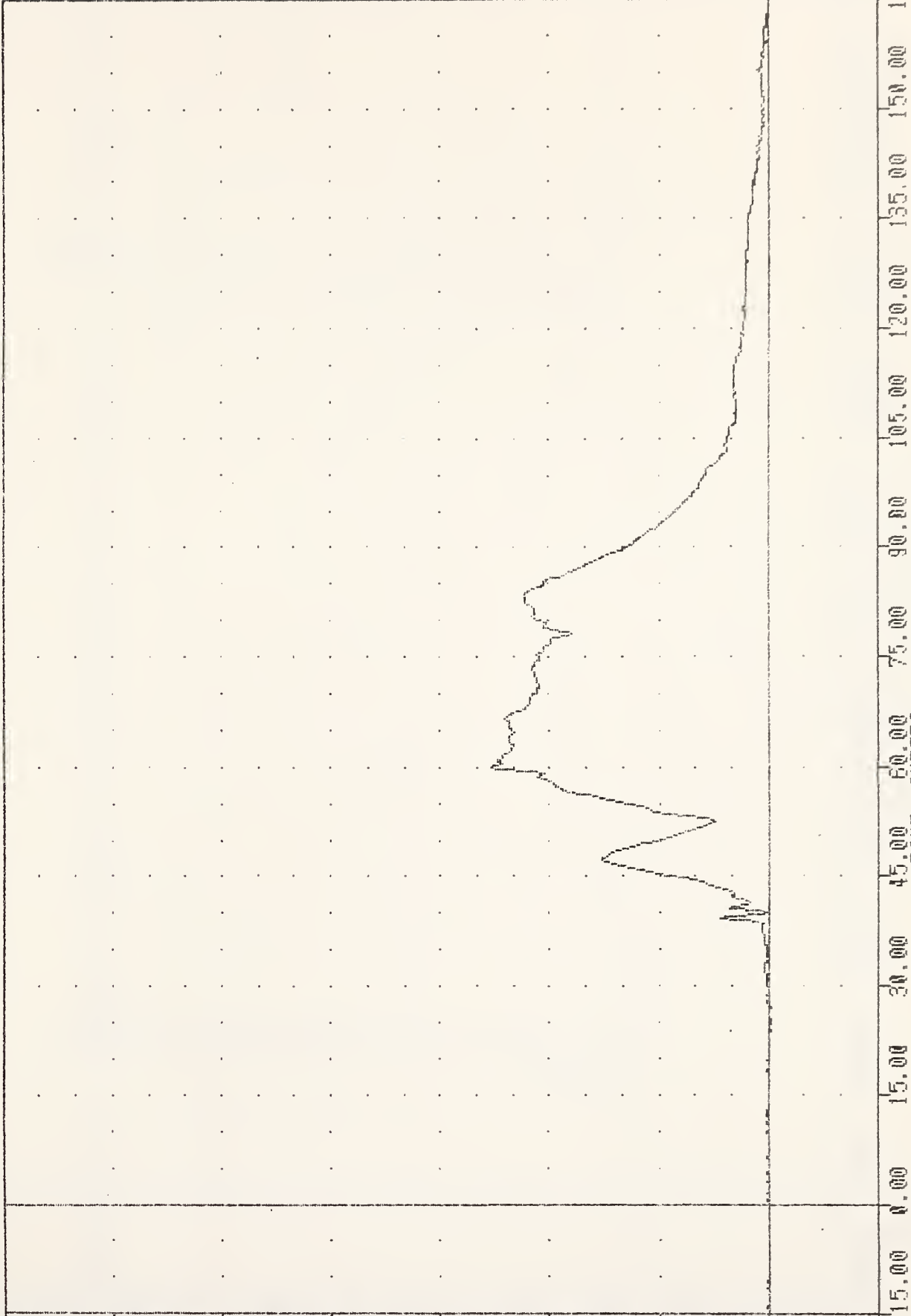
FILTER = 5LFF 1000/ 3170/ 40

MIN. MAX VALUES = -11.25 0

23.75 , 1270.52 * 59.88

50.00 0.00 50.00 100.00 150.00 200.00 250.00 300.00 350.00

A-161



RIGHT FEMUR FORCE DRIVER

31-MAR-92 11:10:31

551075950 * TRC062

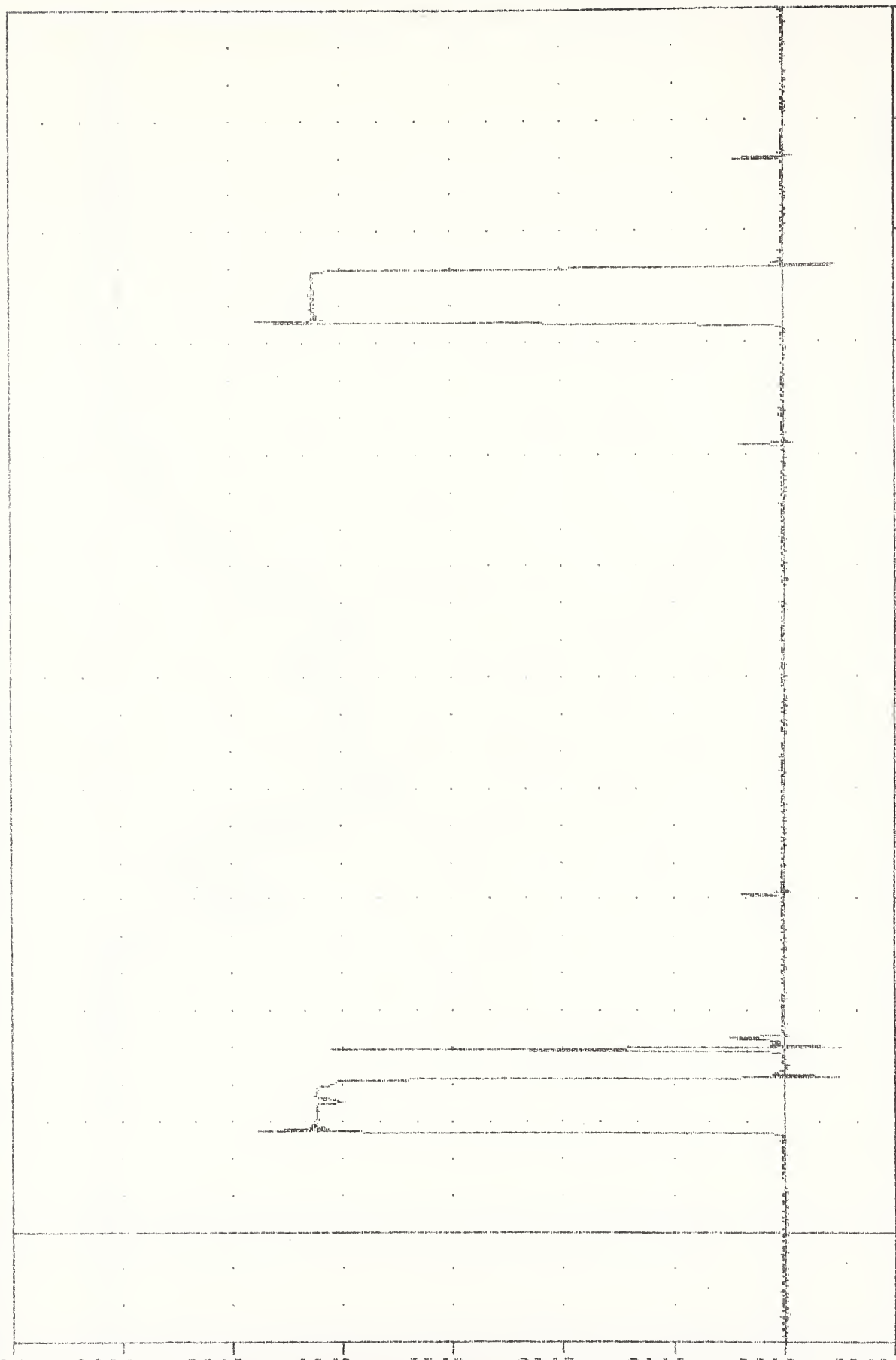
REST. MODEL VALID. TEST

FILTER = ALPF 1650/ 5214/ -40

MIN. MAX VALUES = -0.51 0 25.50 4.76 13.69

82074
ABFT1

2.00 1.00 0.00 -1.00 -2.00 -3.00 -4.00 -5.00 -6.00 -7.00



A-192

AIR BAG FIRING EVENT DRIVER

31-MAR-82 13:10:10

551075050 , TRC062

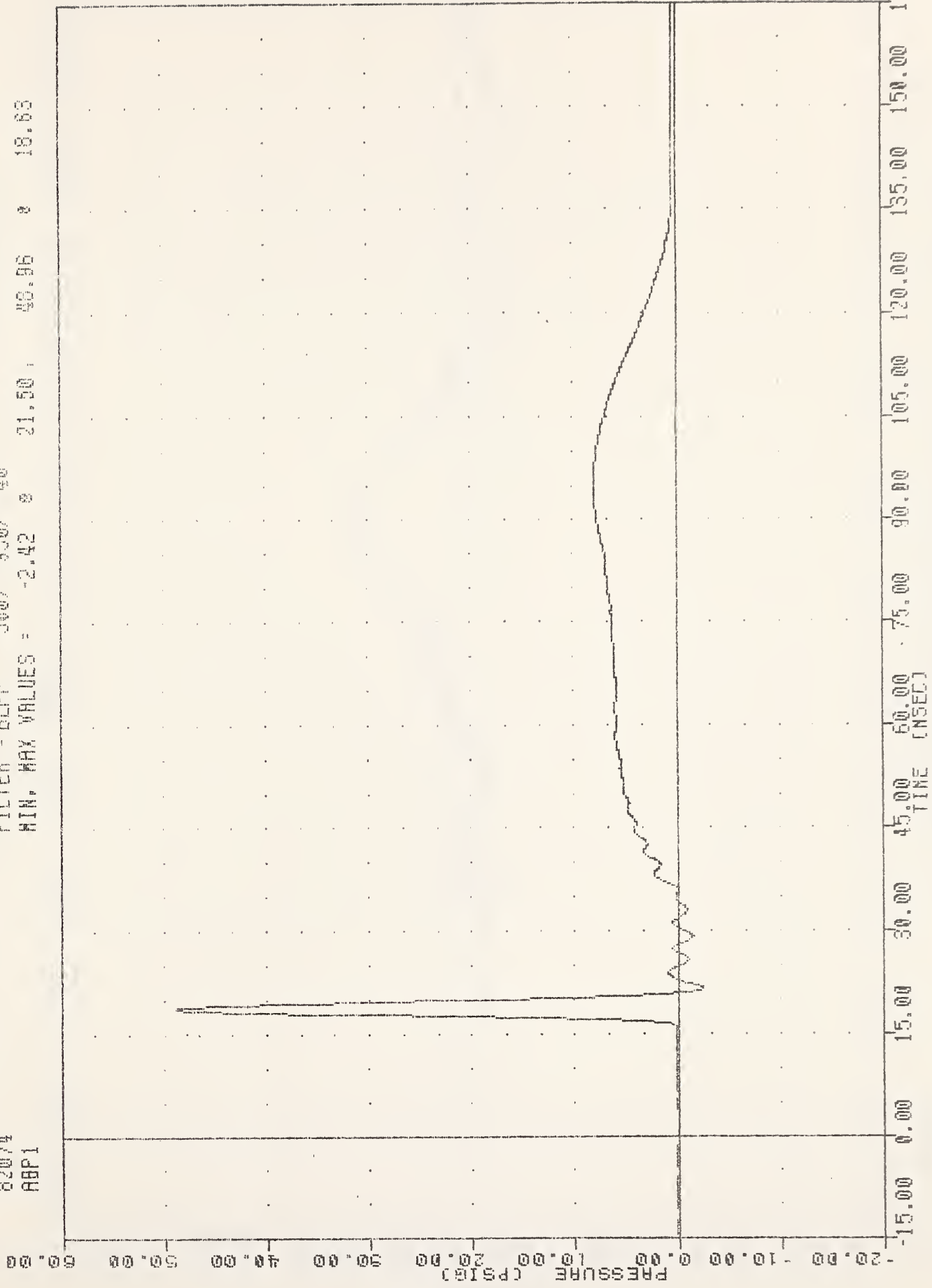
REST. MODEL VALID. TEST.

82074

FILTER = BLPF 300/ 950/ -40

ABP1

MIN, MAX VALUES = -2.42 0 21.50 40.96 * 18.63



A-193

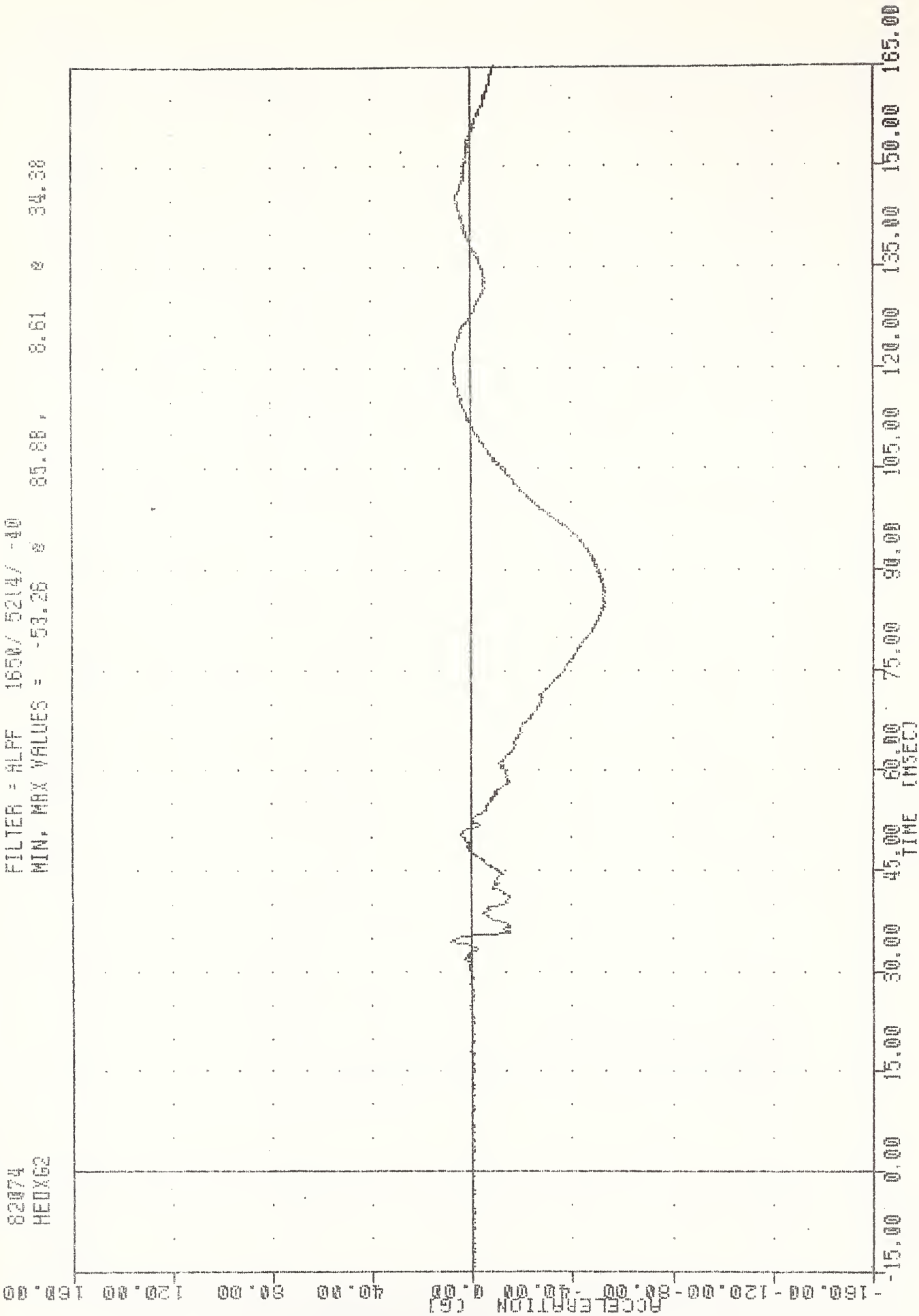
AIR BAG PRESSURE DRIVER

31-MAR-82 11:10:31

S51075050 , TRC062
REST. MODEL VALID. TEST
82074
HEADX62

FILTER = ALPF 1650/ 5214/ -40
MIN. MAX VALUES = -53.26 85.88

8.61 34.38



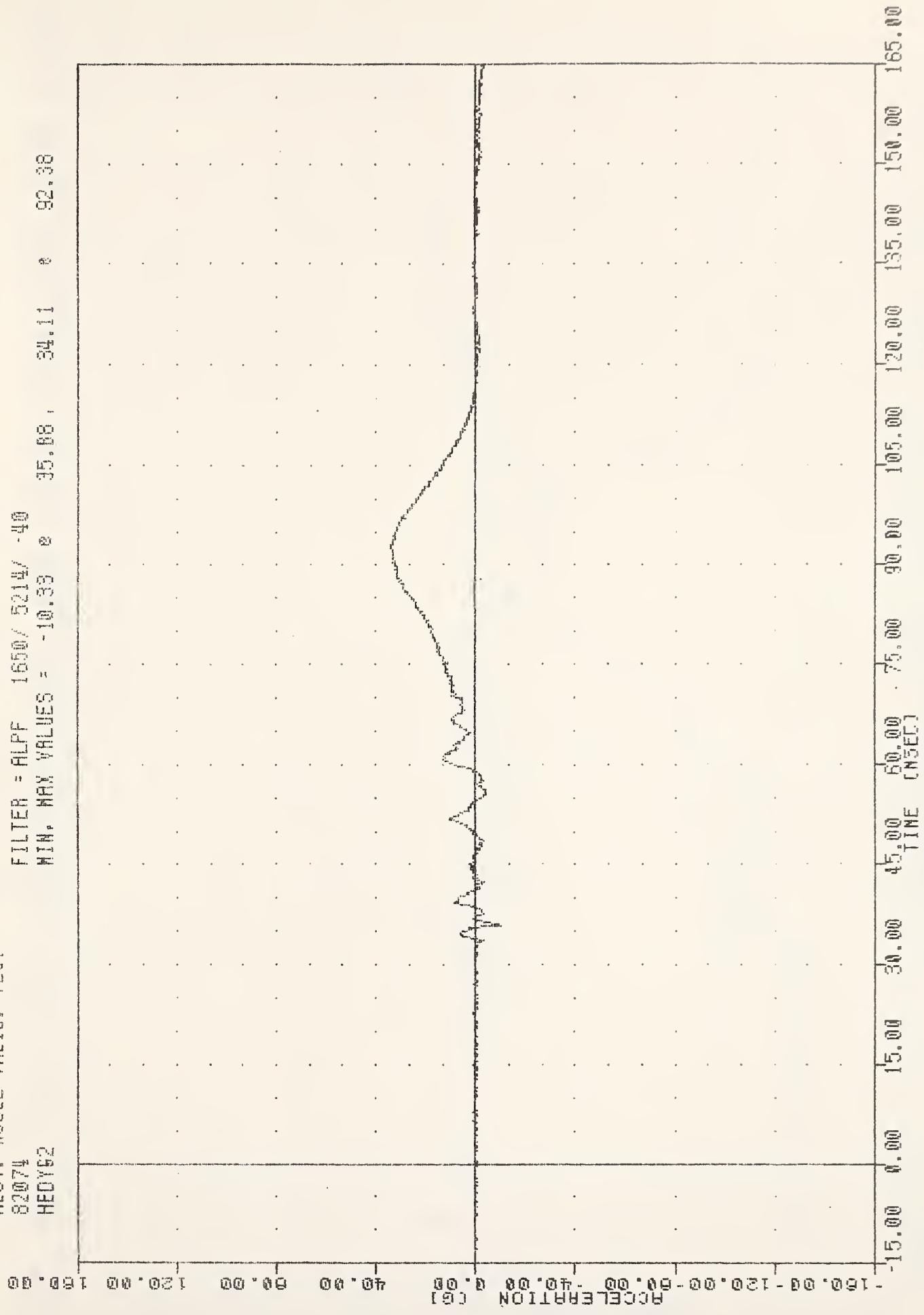
A-194

HEAD ACCELERATION X AXIS PASSENGER

31-MAR-82 11:10:31

551075050 TRC062
REST. NOCEL VALID. TEST
82074
MEDY62

FILTER = ALPF 1650/ 5214/ -40
MIN. MAX VALUES = -10.39 e 35.88 , 34.11 e 92.38



A-195

HEAD ACCELERATION Y AXIS PASSENGER

31-MAR-82 11:10:31

TAC062

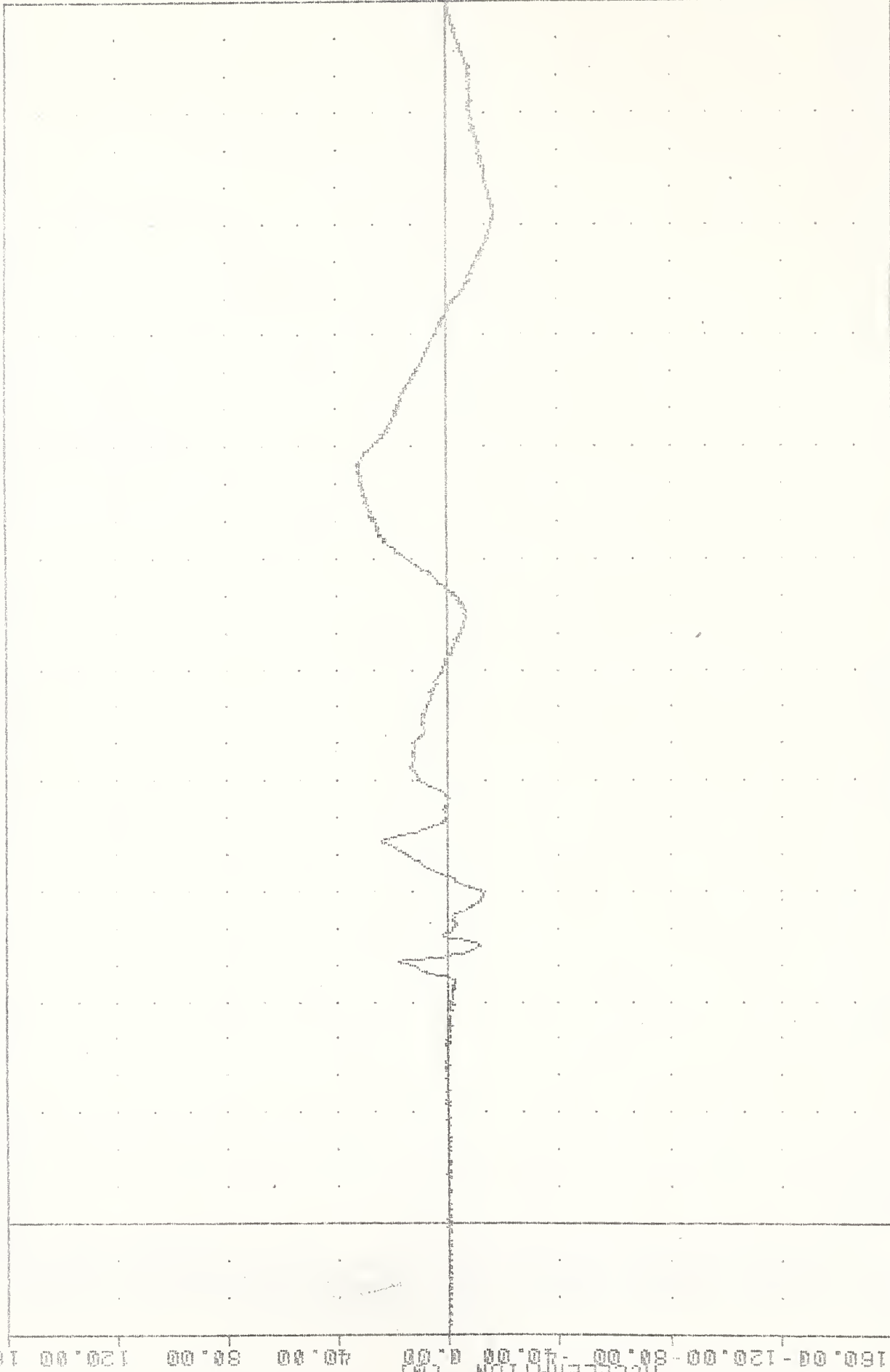
351075050 , TAC062

FILTER = HLPF 1650/ 5214/ -40

MIN. MAX VALUES = -16.86 # 136.61 # 92.37 # 102.13

82074
HEADZ62

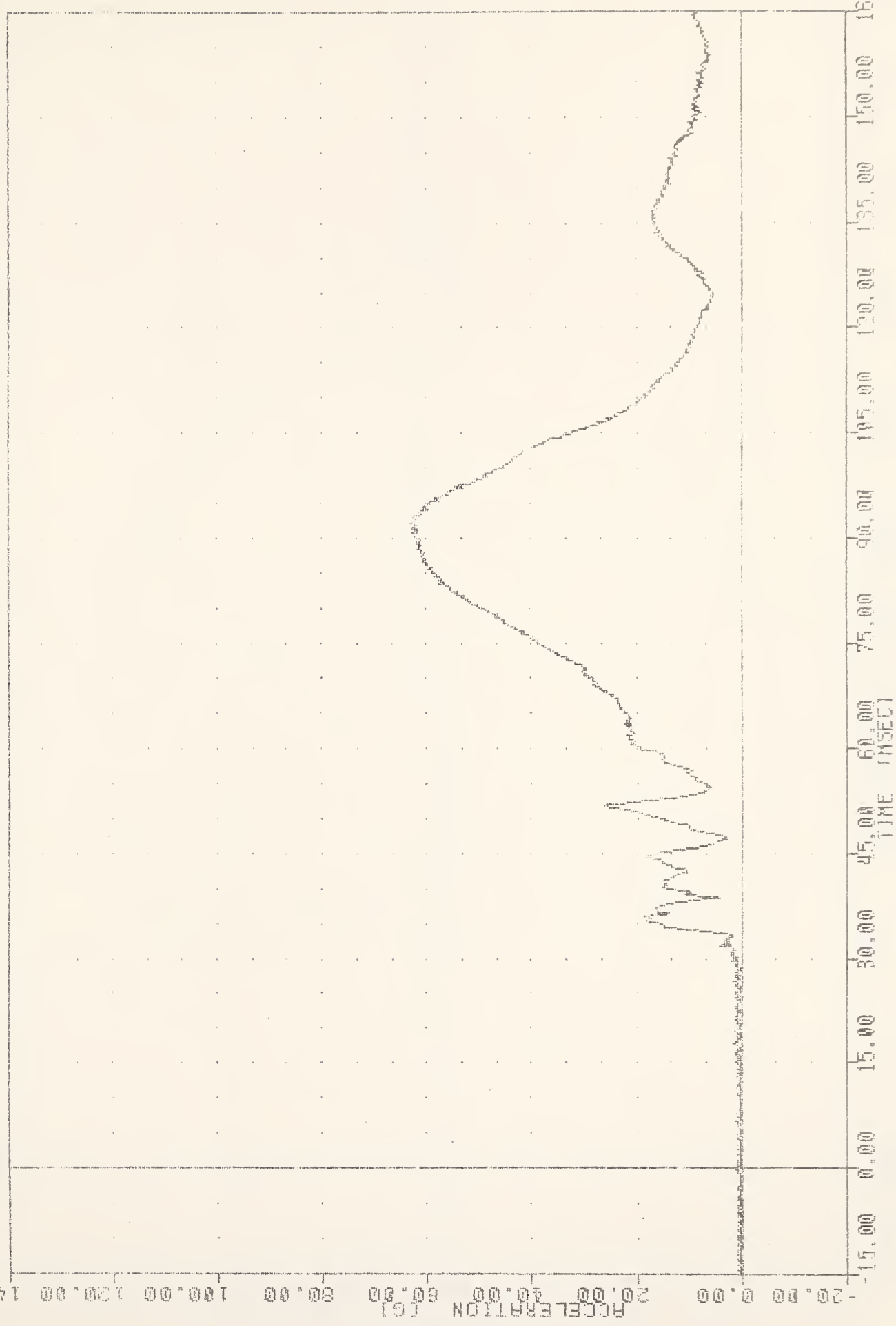
160.00



A-19

HEAD ACCELERATION Z AXIS PASSENGER

551075050 , TRC052 31-MAR-82 11:18:31
 REST. MODEL VALID. TEST
 82074
 HEDR62
 FILTER = ALPF 1650/ 5214/ 40
 MIN. MAX VALUES = 0.10 8 -1.25 8 62.90 8 91.00



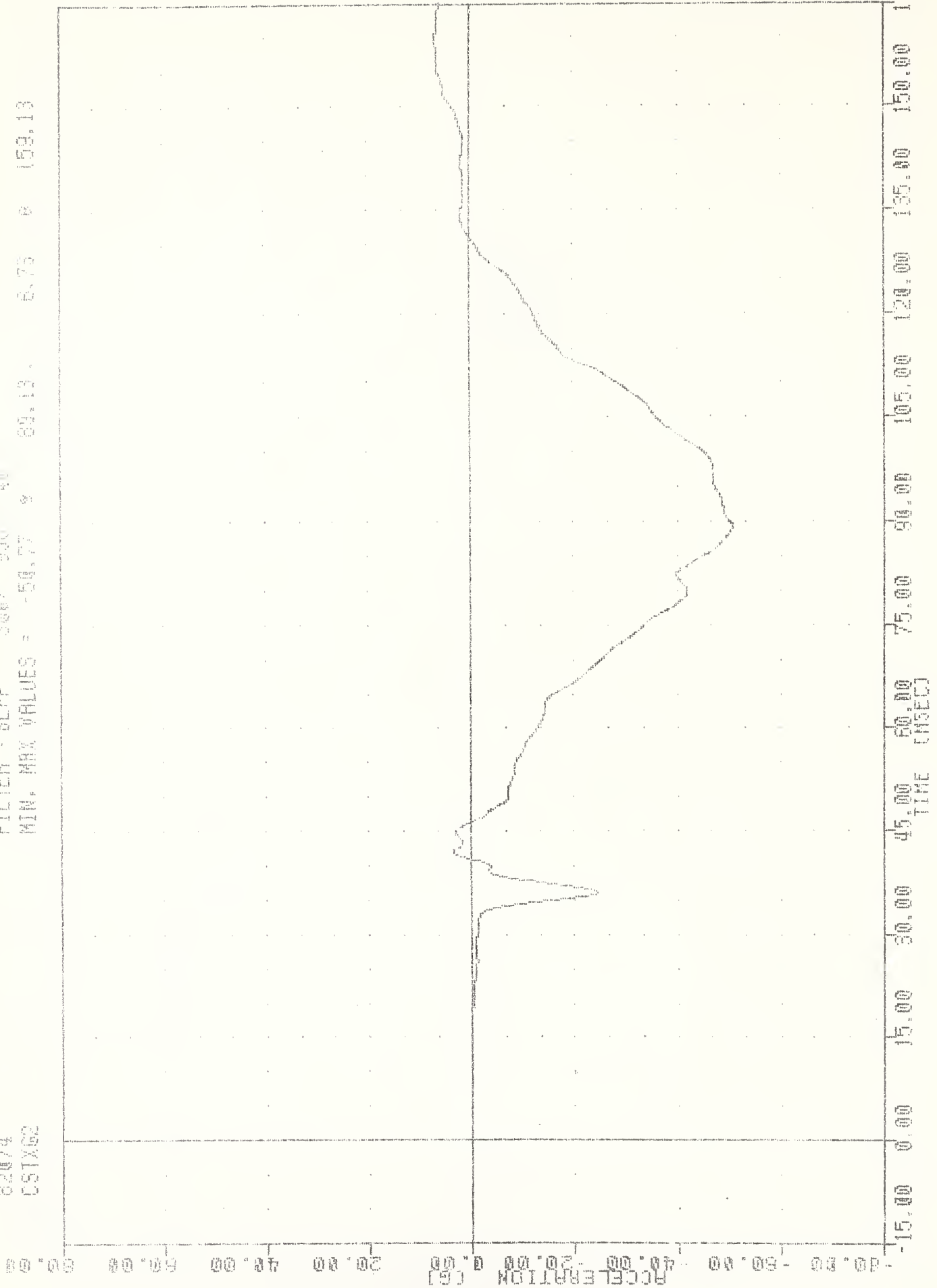
A-197

HEAD ACCELERATION RESULTANT PASSENGER

31 MAR 82 11:10:31

551075050 , TRC062
BEST, MODEL VALID, TEST
82074
CSTX62

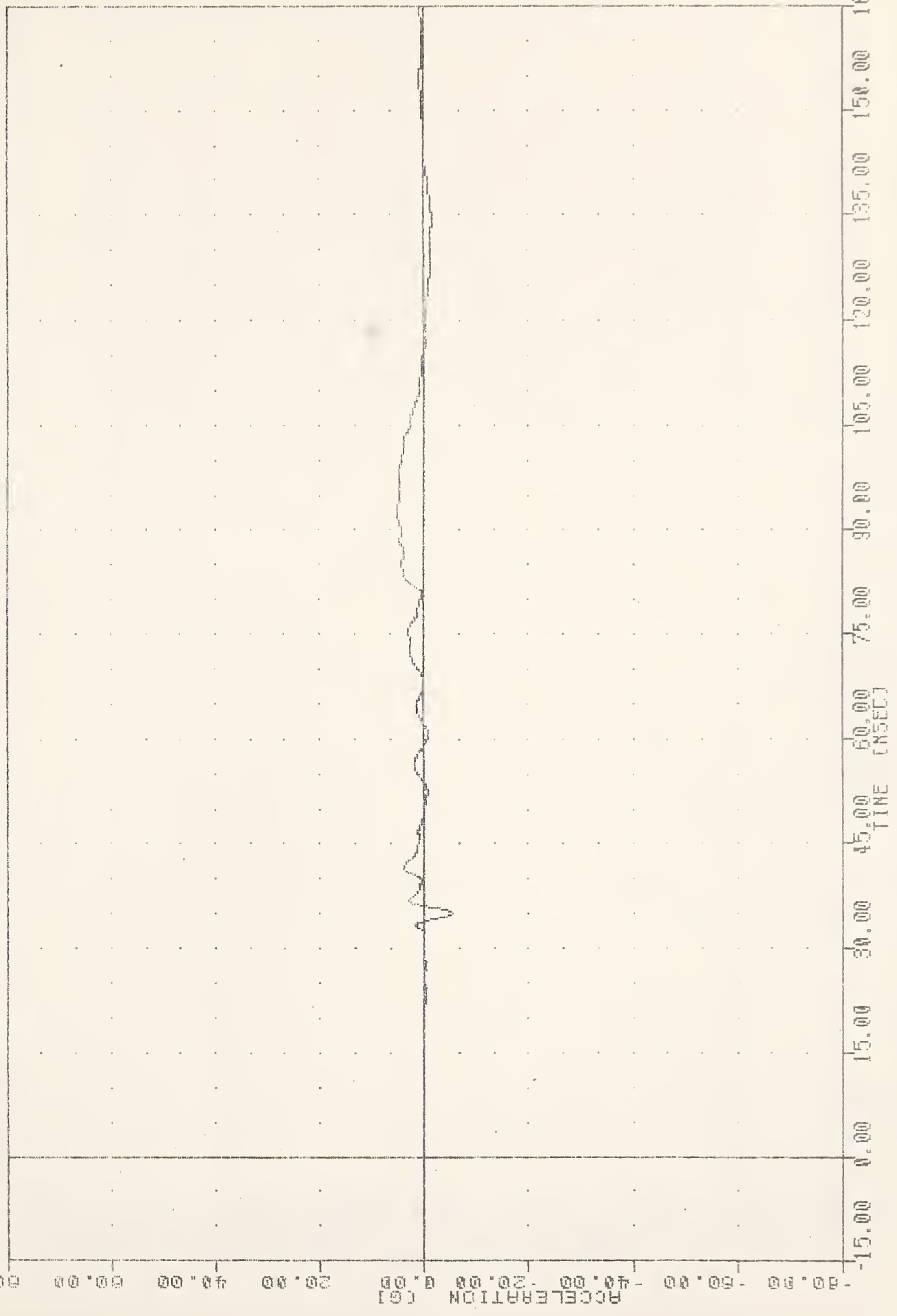
FILTER = 8LFF 300 500 40
MIN. MAX VALUES = -50.77 89.19 6.76 159.18



861-A

CHEST ACCELERATION X AXIS PASSENGER

551075050 , TRC062
 31-MAR-82 11:10:31
 REST. MODEL VALID. TEST
 82074
 C3TY62
 FILTER = BLPF 300/ 950/ -40
 MIN. MAX VALUES = -5.39 34.88 5.15 92.50



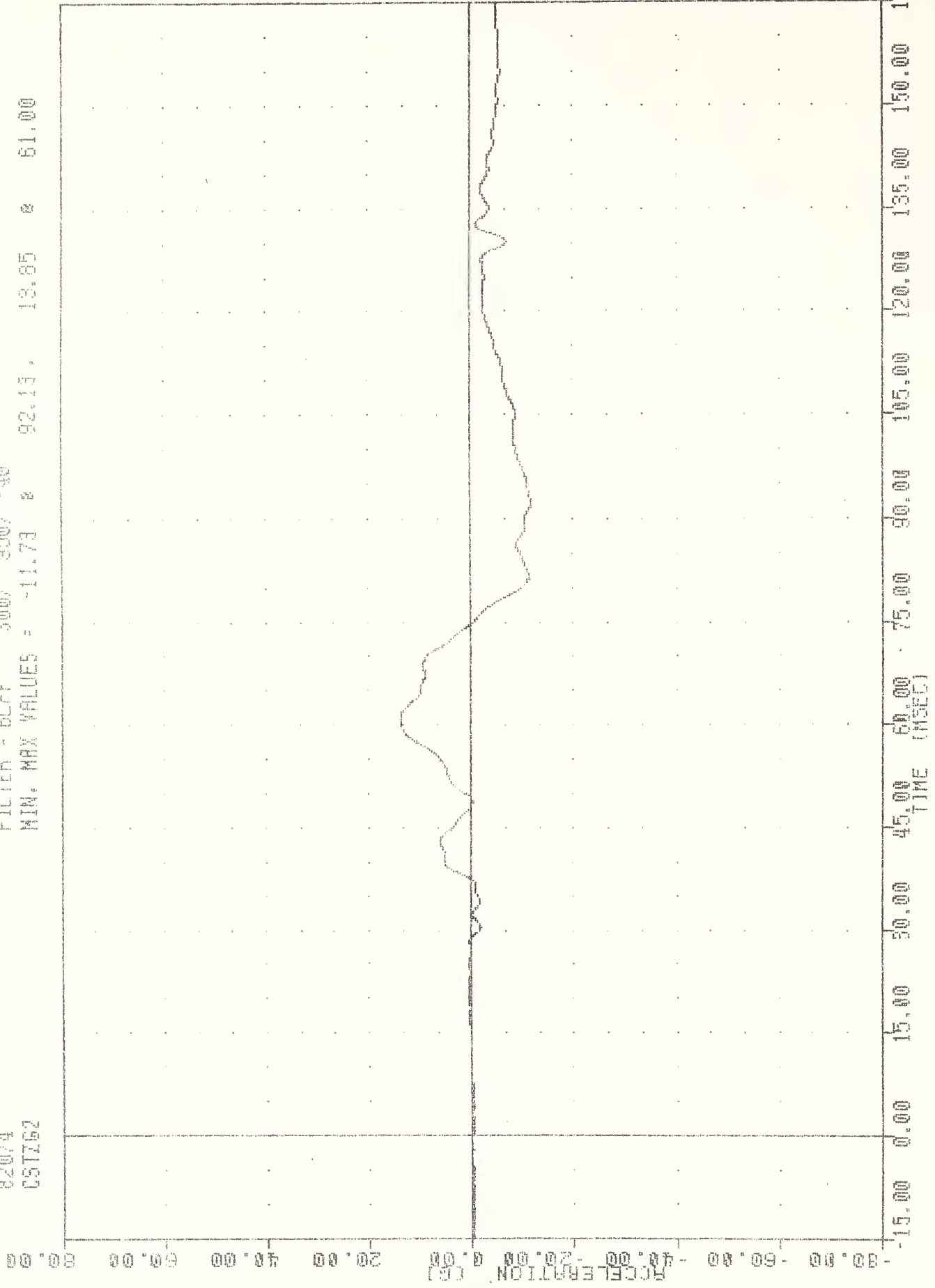
A-199

CHEST ACCELERATION Y AXIS PASSENGER

31-MAR-82 11:10:31

551075050 , TRC062
REST. MODEL VALID. TEST
82074
CSTZG2

FILTER = BLRF 300/ 950/ -40
MIN. MAX VALUES = -11.73 & 92.13, 13.85 & 61.00



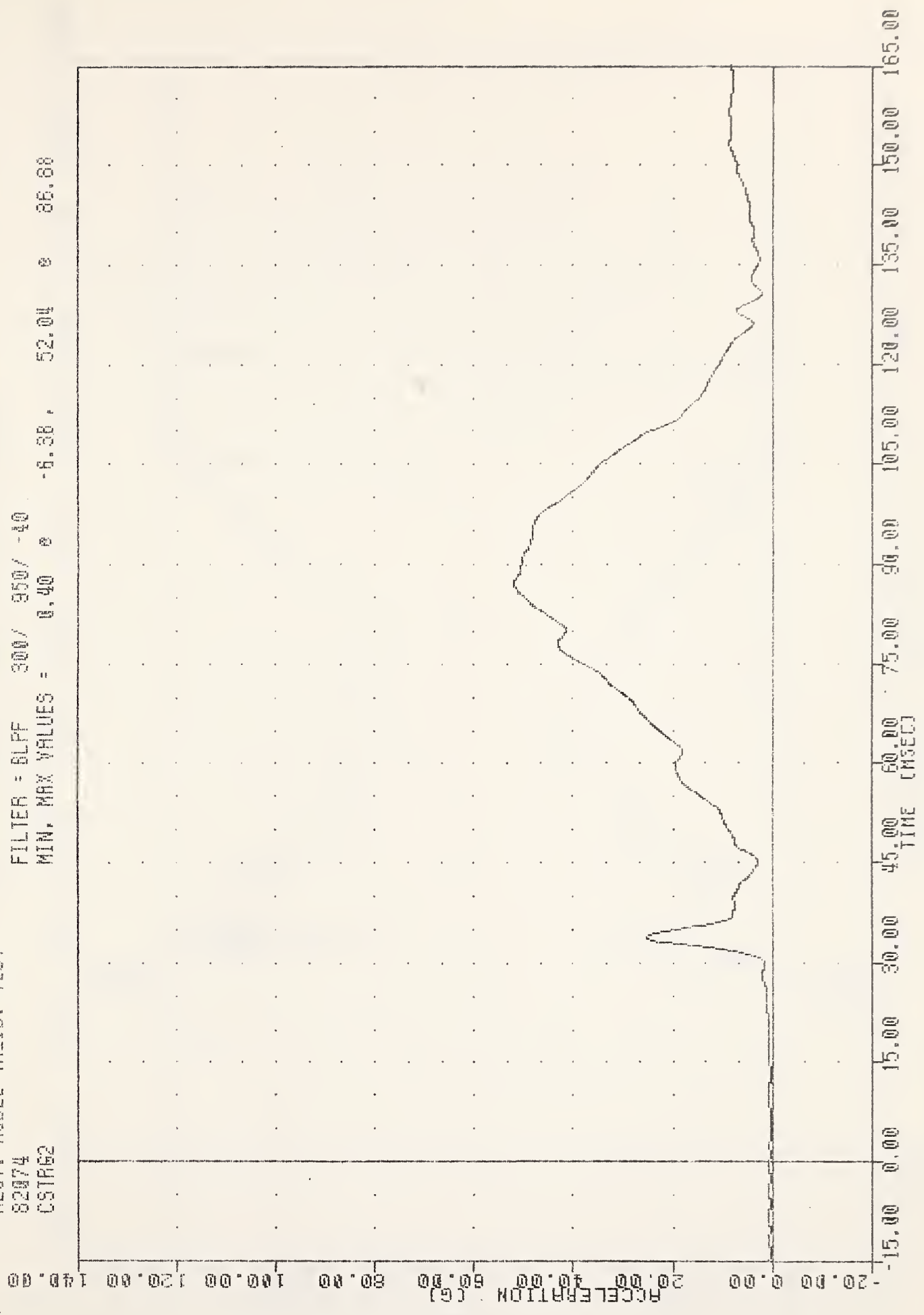
A-200

CHEST ACCELERATION Z AXIS PASSENGER

S51075050 . TRC062
BEST. MODEL VALID. TEST
82074
CSTR62

31-MAR-82 13:10:10

FILTER = BLFF 300/ 950/ -40
MIN. MAX VALUES = 0.40 0 -6.38 52.04 0 26.68



A-201

CHEST ACCELERATION RESULTANT PASSENGER

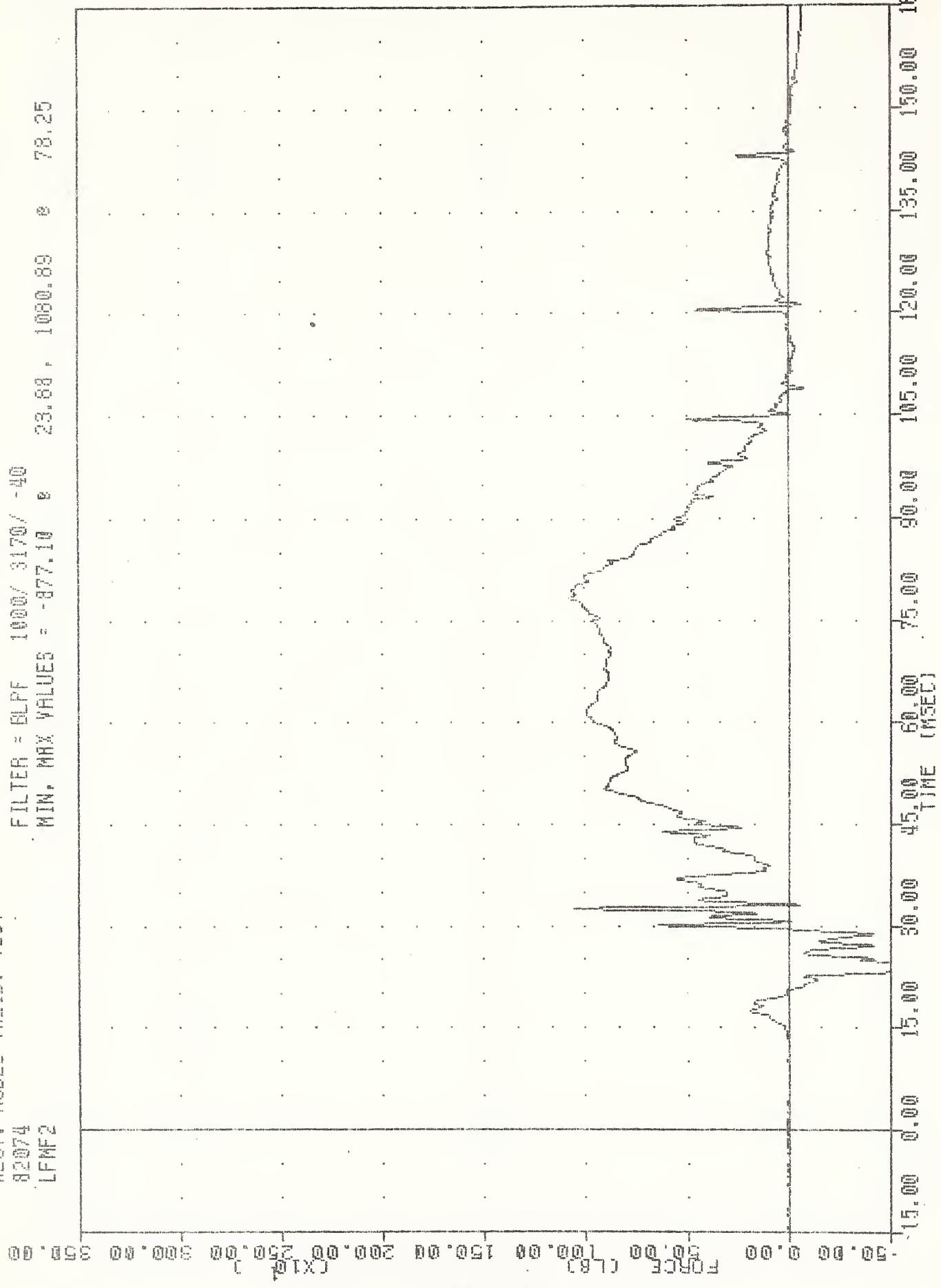
351075050 , TRC062

82074

REST. MODEL VALID. TEST

FILTER = BLPF 1000/ 3170/ -40

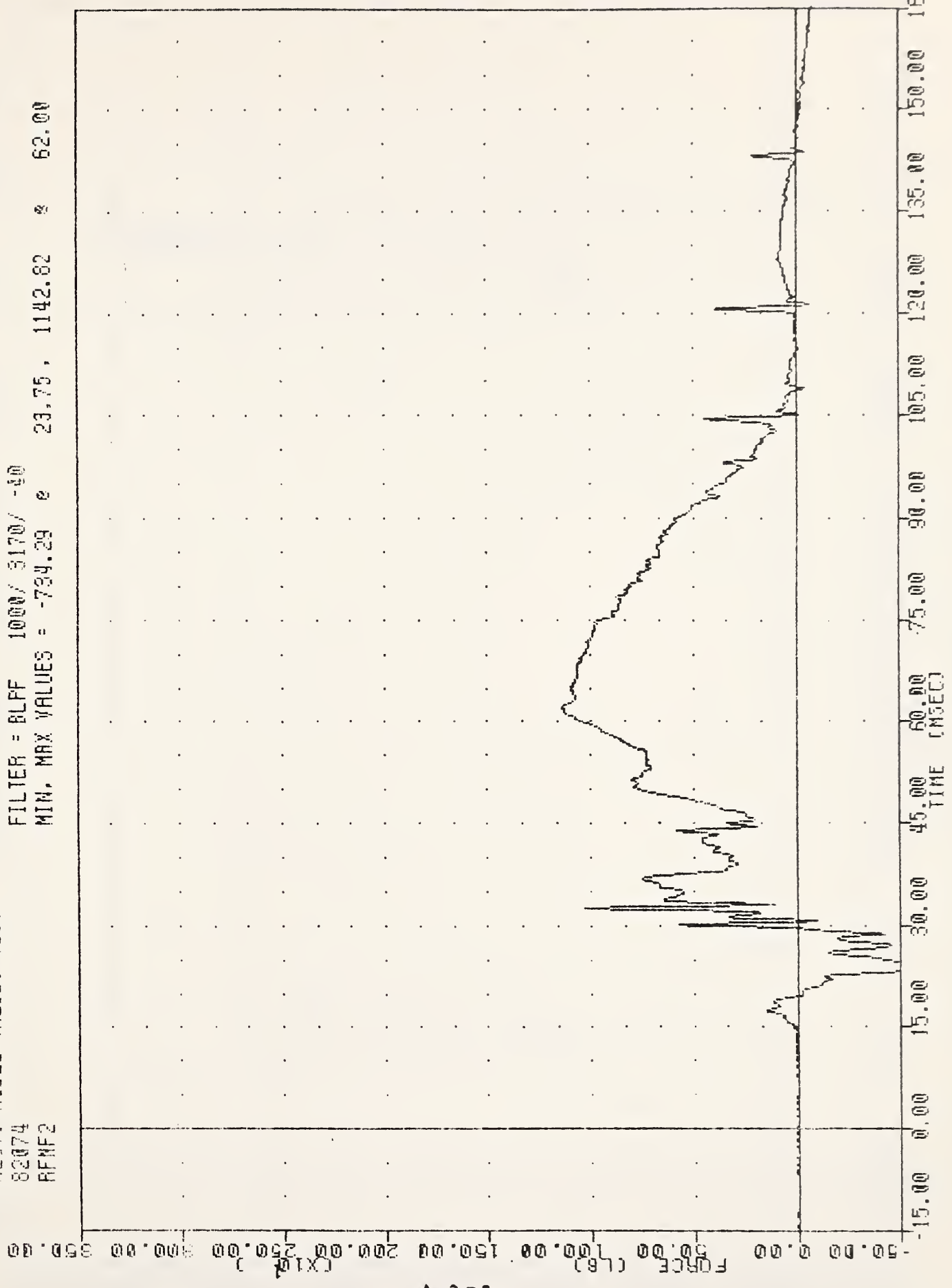
MIN. MAX VALUES = -877.10 e 23.88, 1080.89 e 78.25



A-202

LEFT FEMUR FORCE PASSENGER

551075050 , TRC062 31-MAR-82 13:10:10
 REST. MODEL VALID. TEST.
 82074 FILTER = BLFF 1000/ 3170/ -10
 RFRF2 MIN. MAX VALUES = -734.29 e 23.75, 1142.82 * 62.00



A-203

RIGHT FEMUR FORCE PASSENGER

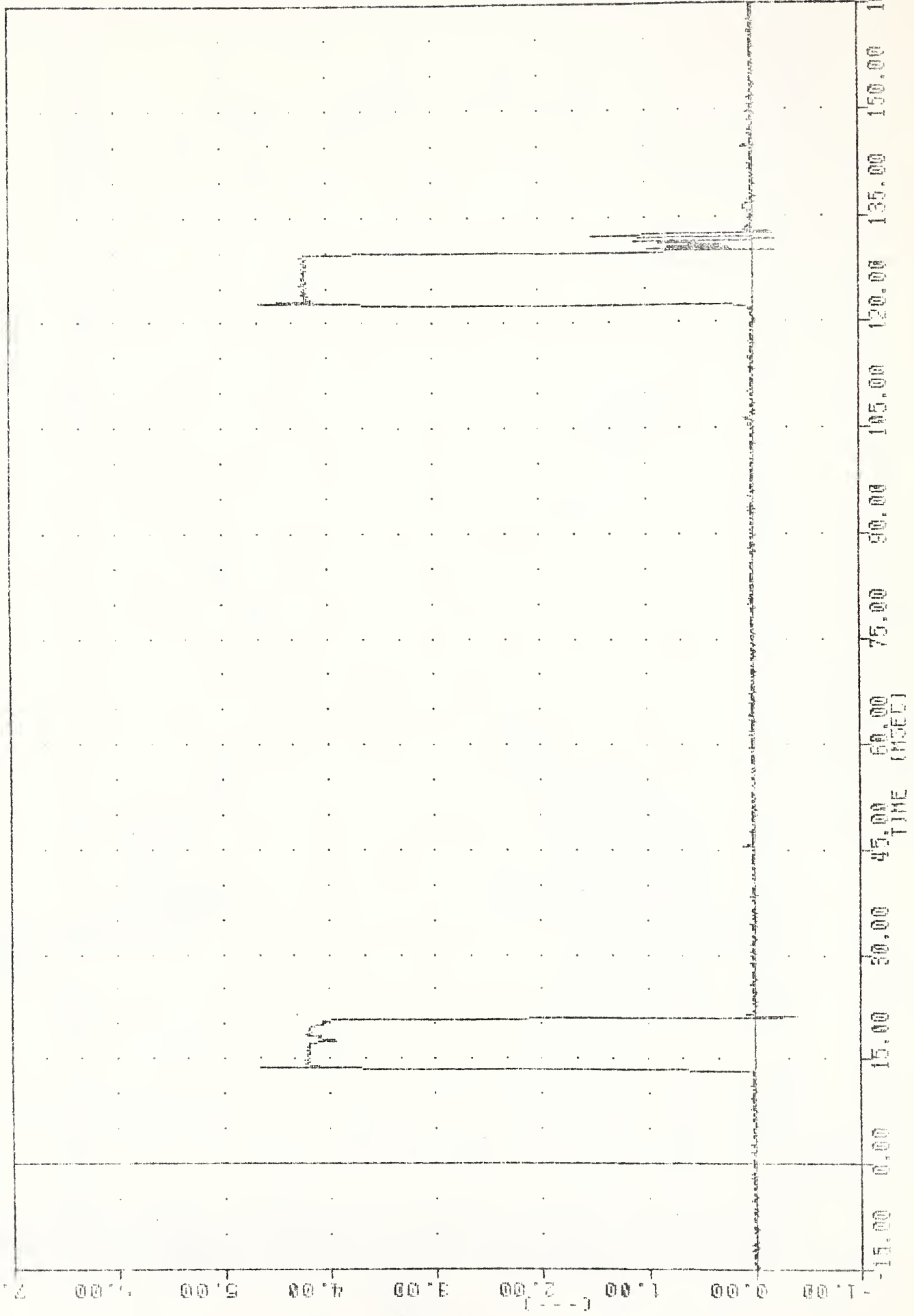
31-MAR-82 11:18:31

TOL062

REPT. MODEL VALID. TEST

FILTER #ALPF 1650/ 5214/ -40

MIN. MAX_VALUES = -0.41 8 21.03 4.65 # 19.93



AIR BAG FIRING EVENT PASSENGER

31-MAR-82 11:10:31

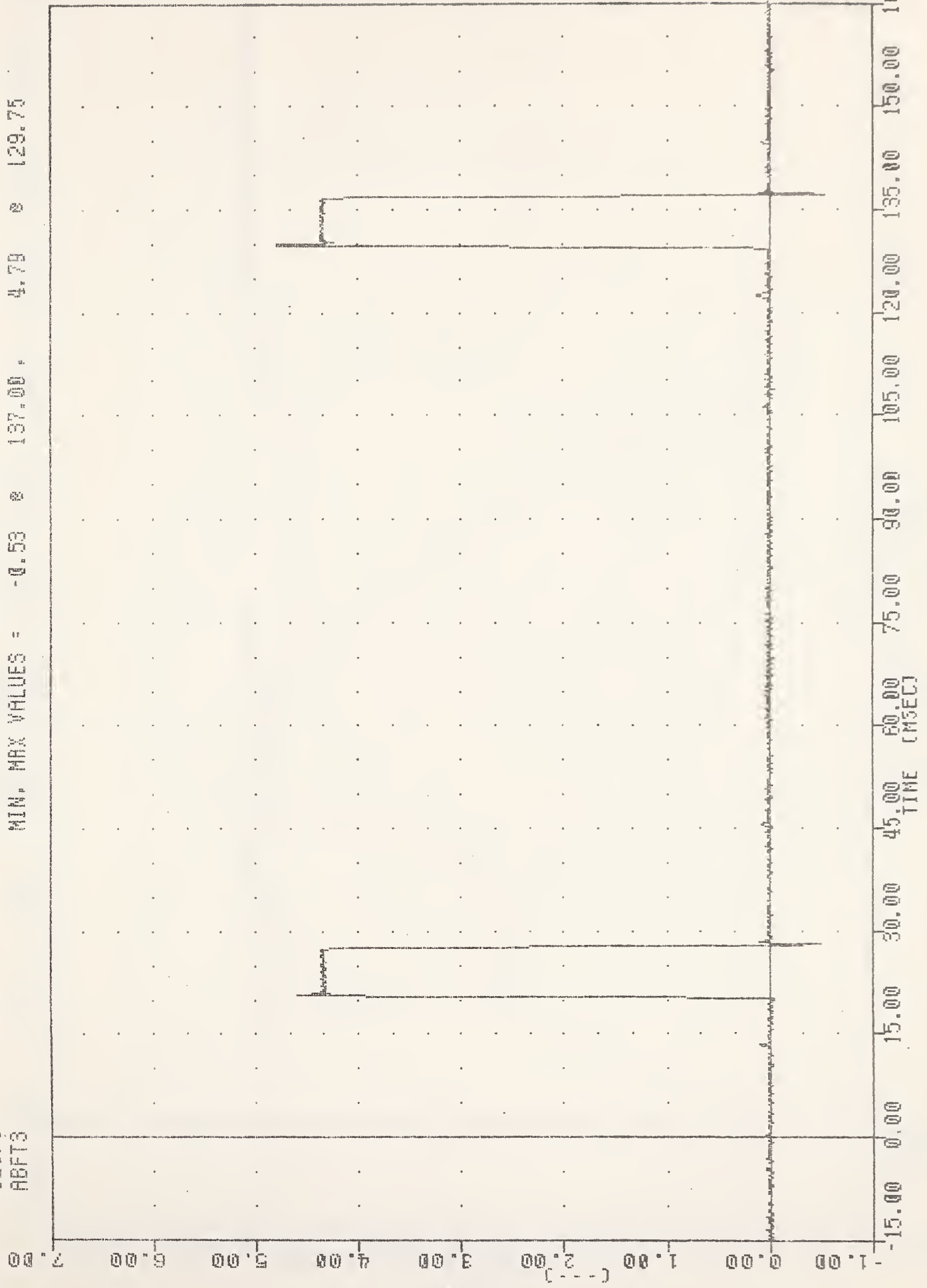
551075050 , TAC062

REST. MODEL VALID. TEST

FILTER = ALPF 1650/ 5214/ -40

MIN. MAX VALUES = -0.53 @ 137.00 @ 4.79 @ 129.75

82074
ABFT3



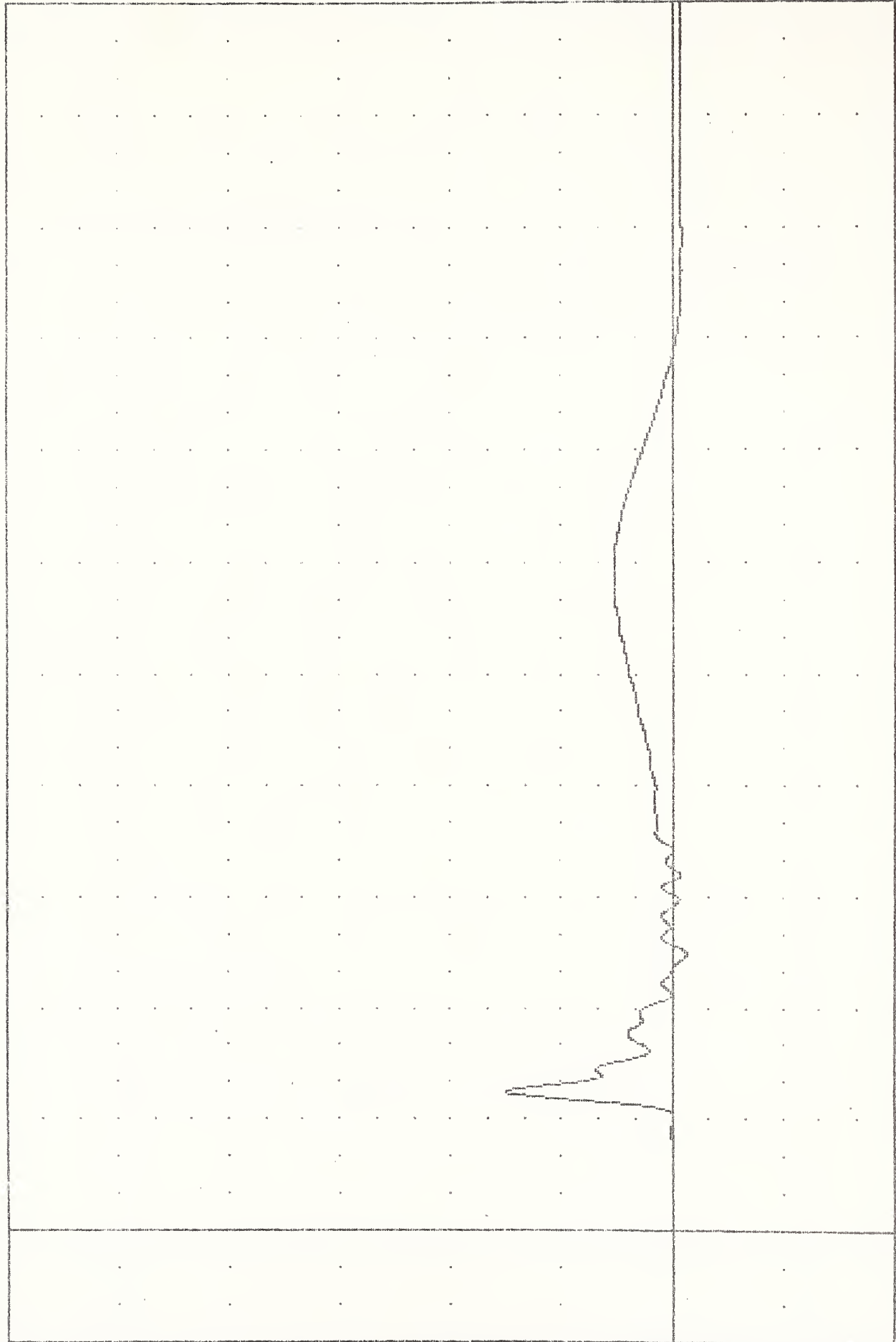
AIR BAG FIRING EVENT 3

31-MAR-82 13:10:10

551075050 , TRC062
REST. MODEL VALID. TEST
82074
ABP2

FILTER = BLPF 300/ 950/ -40
MIN. MAX VALUES = -1.30 8 37.25 15.05 18.50

902-A
PRESSURE (PSIG) 20.00 10.00 0.00 -10.00 -20.00



15.00 0.00 15.00 30.00 45.00 60.00 75.00 90.00 105.00 120.00 135.00 150.00 165.00
TIME (MSEC)

AIR BAG PRESSURE PASSENGER

31-MAR-82 11:10:31

551075050 , TAC082

REST. MODEL VALID. TEST

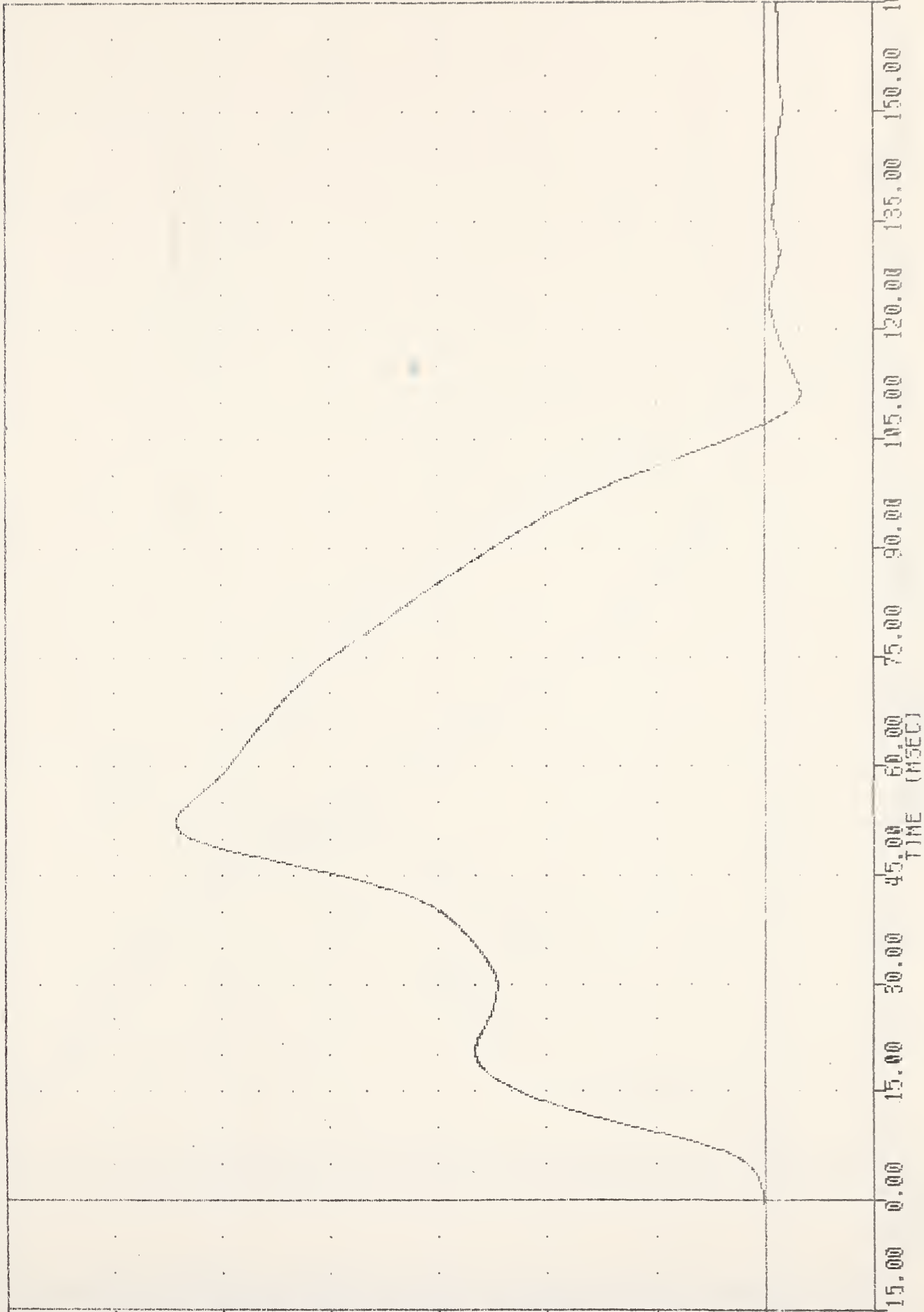
82074

FILTER = BLFF 100/ 317/ -40

5LDXG

MIN. MAX VALUES = -1.69 111.13 27.13 52.13

ACCELERATION (G)



SLED ACCELERATION

31-MAR-62 13:27:00

551075050 , TRC062

REST. MODEL VALID. TEST

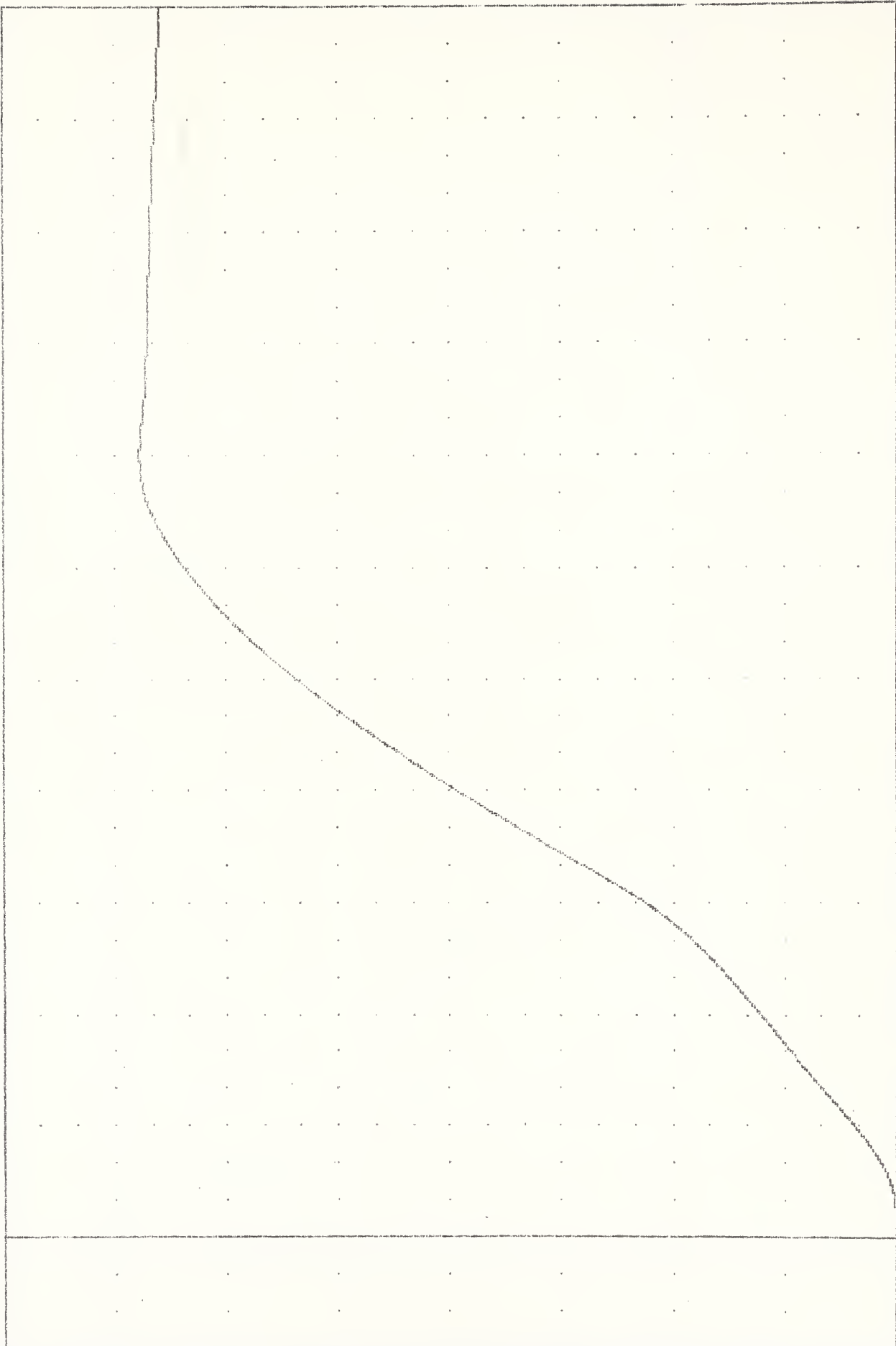
FILTER = BLPF 100/ 317/ -40

MIN. MAX VALUES = -0.02 % -3.88 , 33.87 % 104.88

82074
SLOWY

40.00 35.00 30.00 25.00 20.00 15.00 10.00 5.00 0.00

802-A



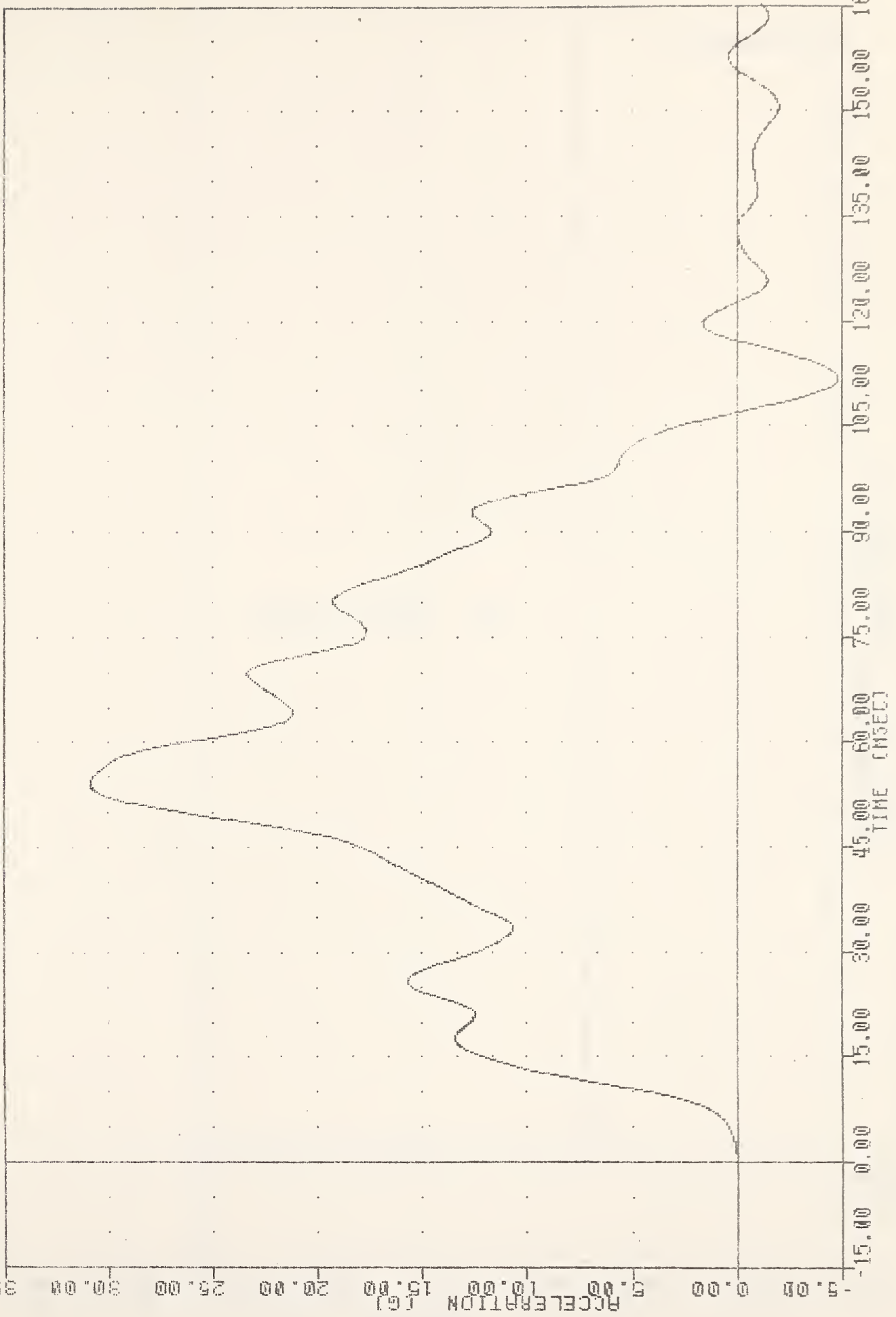
... SLED VELOCITY IN MPH

551075050 , TRC062
REST. MODEL VALID. TEST
32074
FTUXG

31-MAR-82 11:10:21

FILTER = BLPF 100/ 317/ -10
MIN. MAX VALUES = -4.85 e 111.50 , 30.86 e 53.88

35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
-5.00



A-209

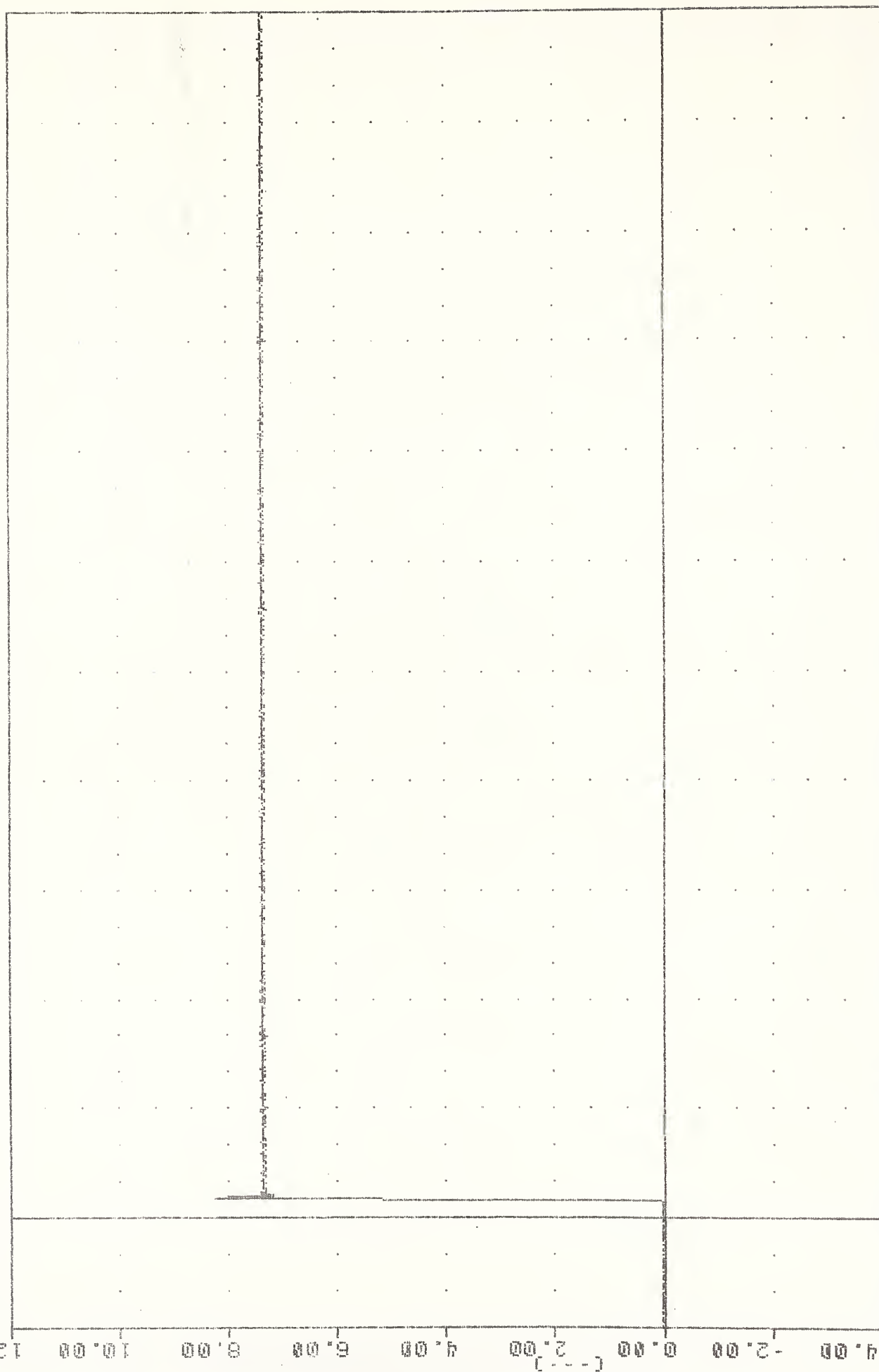
FLOOR PAN TUNNEL ACCELERATION

31-MAR-82 11:10:31

551075050 , TRC062
REST. MODEL VALID. TEST
82074
SPSW

FILTER = ALPF 1650/ 5214/ -40
MIN. MAX VALUES = -0.03 0 -7.25 . 8.24 0 2.63

12.00



A-210

-4.00
-2.00
0.00
2.00
4.00
6.00
8.00
10.00
12.00

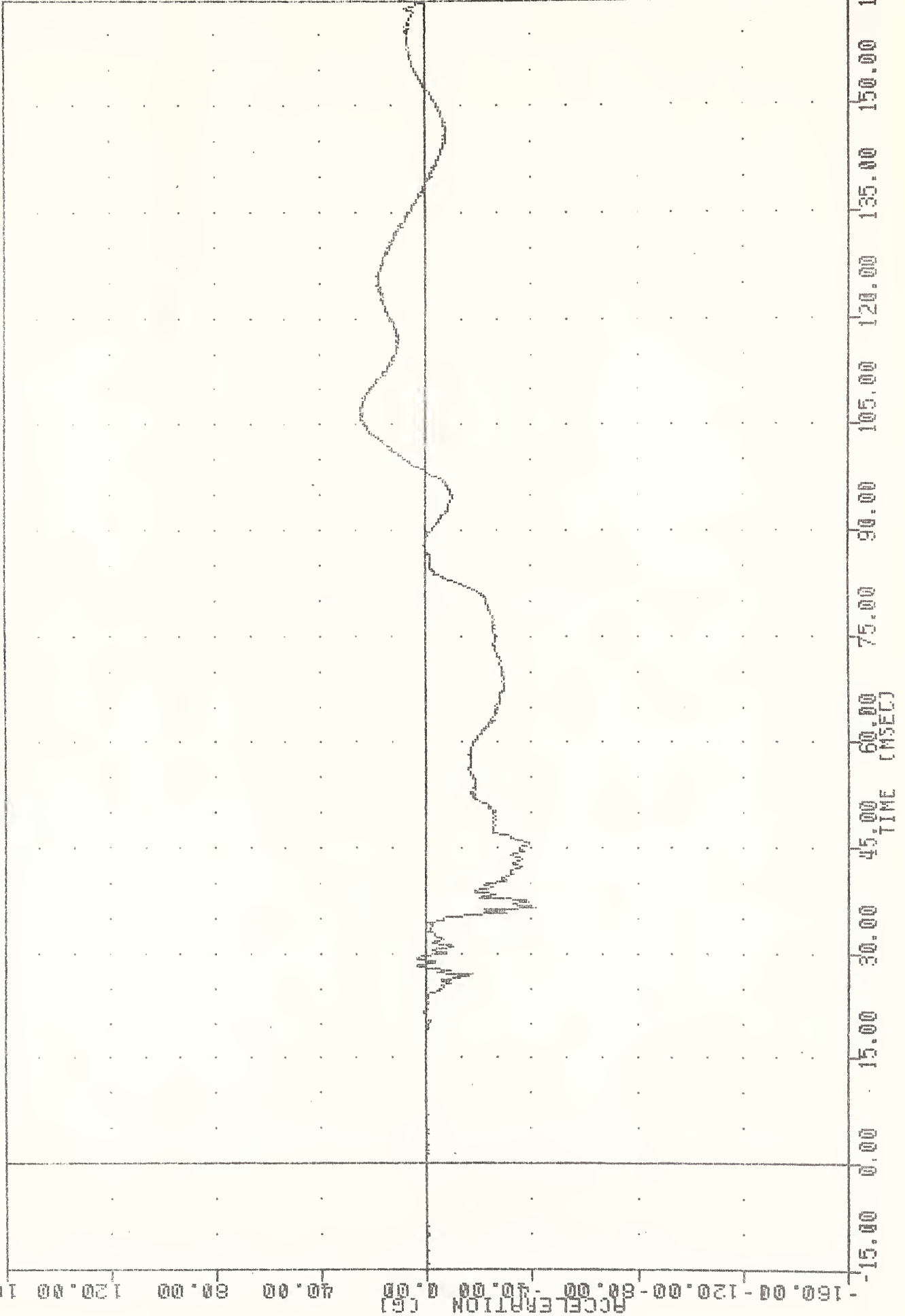
TIME (MSEC)

185.00
150.00
135.00
120.00
105.00
90.00
75.00
60.00
45.00
30.00
15.00
0.00

SLED POSITION SWITCH

TEST NO. 8

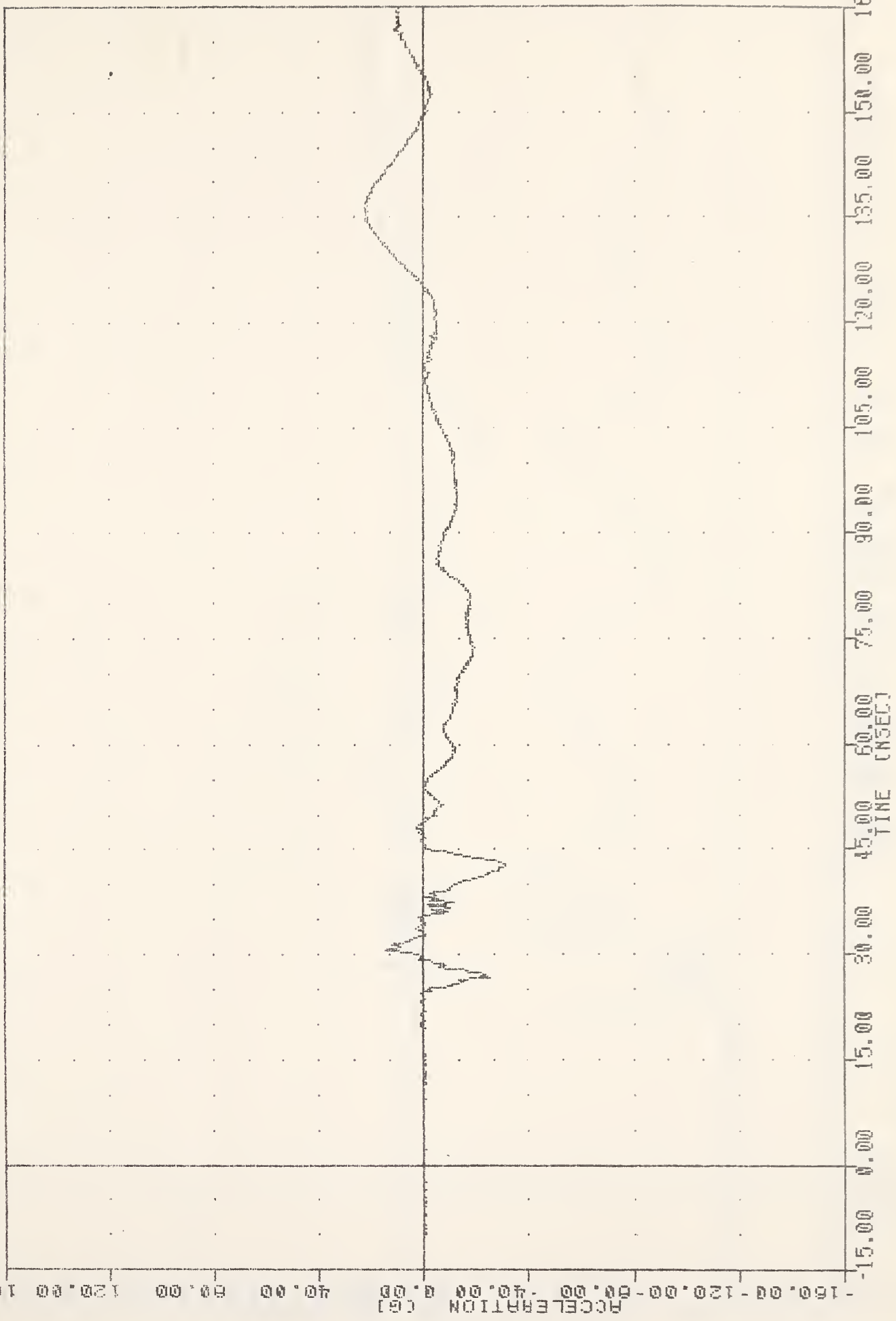
351080585 , TRC063 1-APR-82 15:48:41
REST. MODEL VALID. TEST
82075 FILTER = ALPF 165N/ 5214/ -40
HEADXG1 MIN. MAX VALUES = -41.36 @ 36.50 , 24.78 @ 105.88



HEAD ACCELERATION X AXIS DRIVER

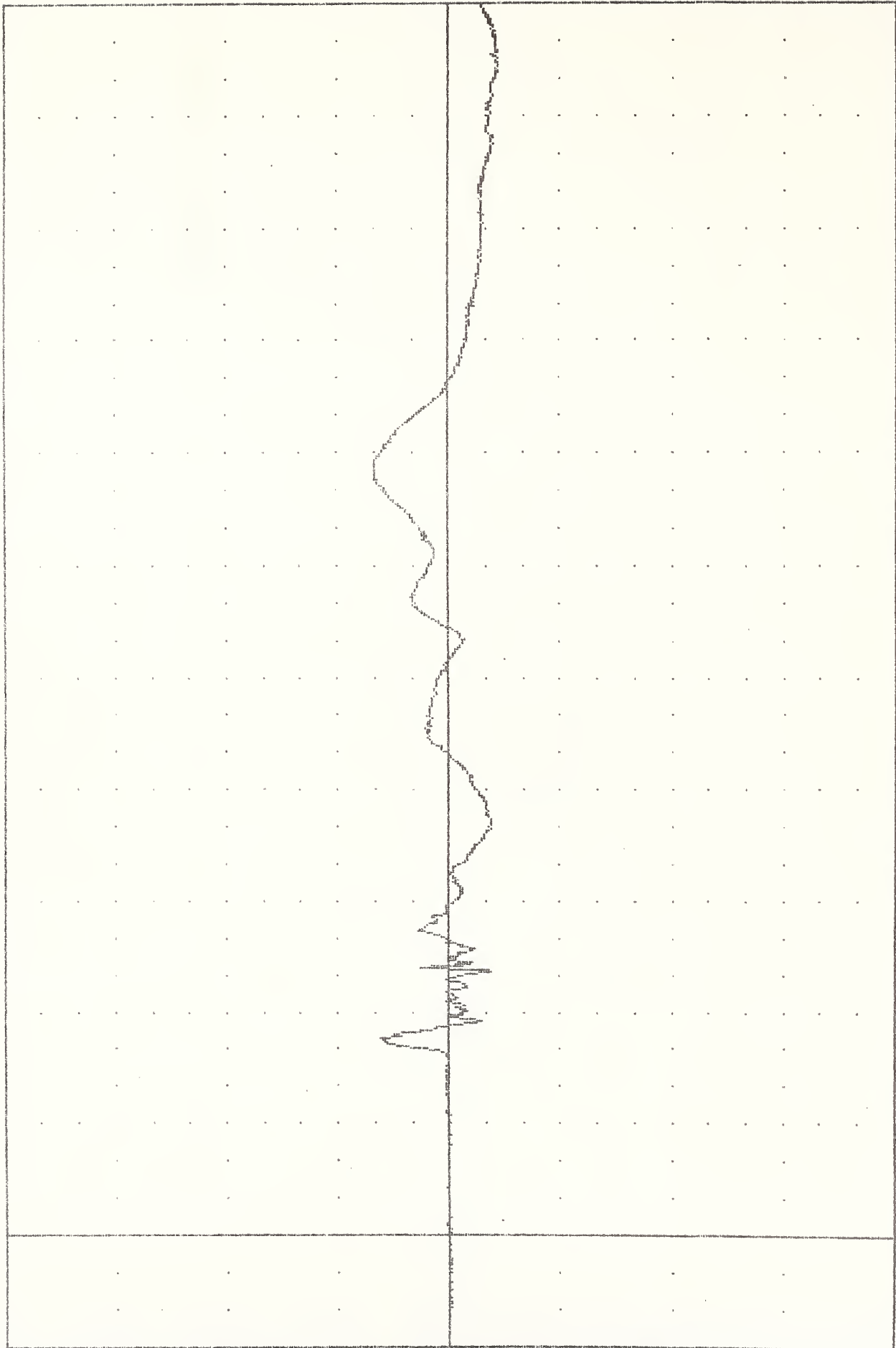
591060505 , TRC063
REST. MODEL VALID. TEST
82075
HEDY61

1-APR-82 15:48:41
FILTER = ALPF 1650/ 5214/ -40
MIN. MAX VALUES = -31.06 @ 42.83 , 22.61 @ 136.25



551000505 , TAC063 1-APR-82 15:48:41
REST. MODEL VALID. TEST
82075 FILTER = ALPF 1650/ 5214/ -40
HEAD261 MIN. MAX VALUES = -17.69 158.38 26.77 102.00

ACCELERATION (G)
-160.00 -120.00 -80.00 -40.00 0.00 40.00 80.00 120.00 160.00



-15.00 0.00 15.00 30.00 45.00 60.00 75.00 90.00 105.00 120.00 135.00 150.00 165.00
TIME (MSEC)

A-214

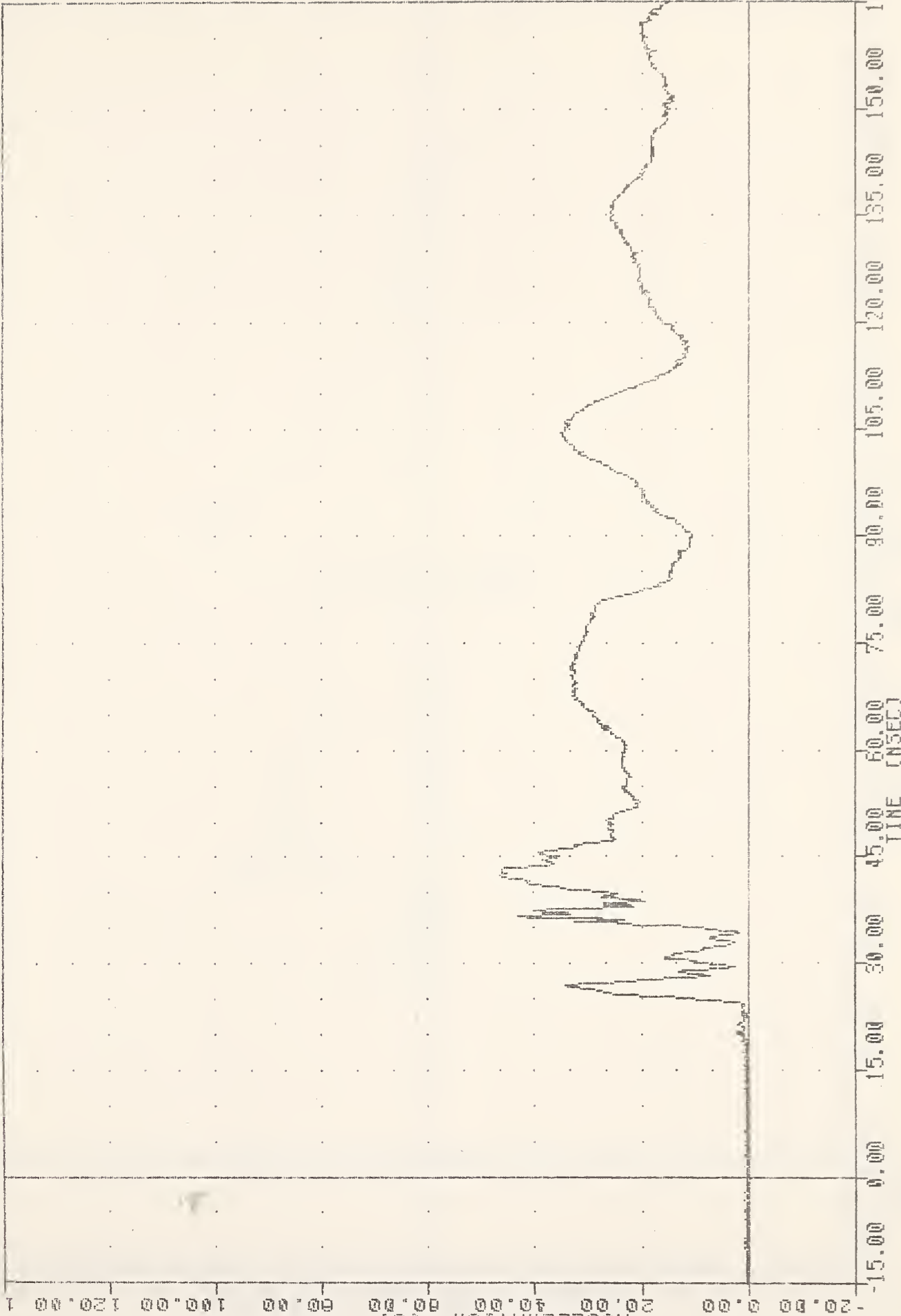
HEAD ACCELERATION Z AXIS DRIVER

1-APR-82 15:46:41

551080505 , TRC063
REST. MODEL VALID. TEST
82075
HEAD61

FILTER = ALPF 1650/5214/40
MIN. MAX VALUES = 0.05 @ 3.38 46.50 * 42.25

ACCELERATION (G)



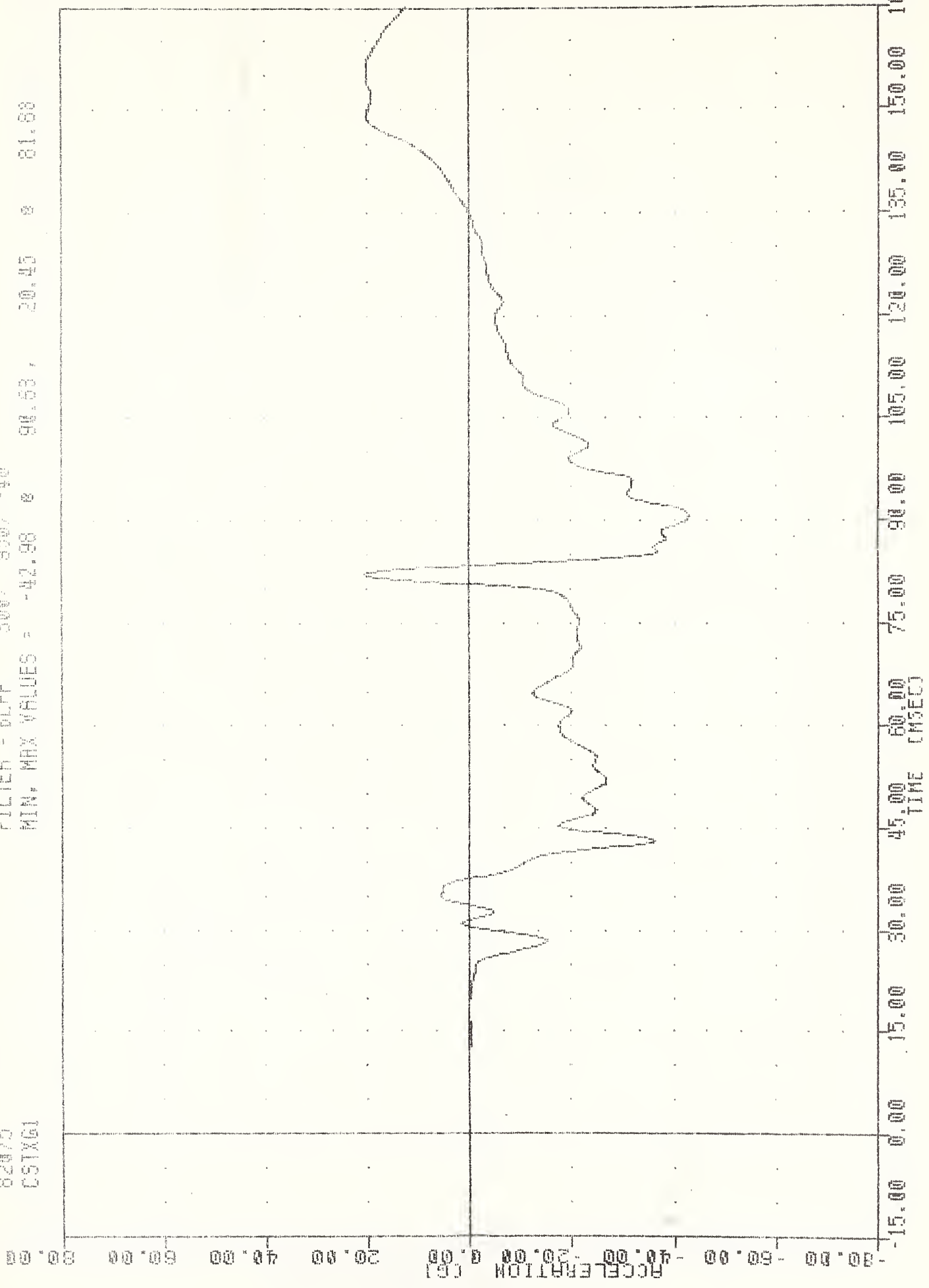
A-215

HEAD ACCELERATION RESULTANT DRIVER

1-APR-82 15:43:41

551020205 , TRCM63
REGT. MODEL VALID. TEST
82075
CSTXG1

FILTER = 0LFF 3000 8500 -40
MIN. MAX VALUES = -42.98 81.68

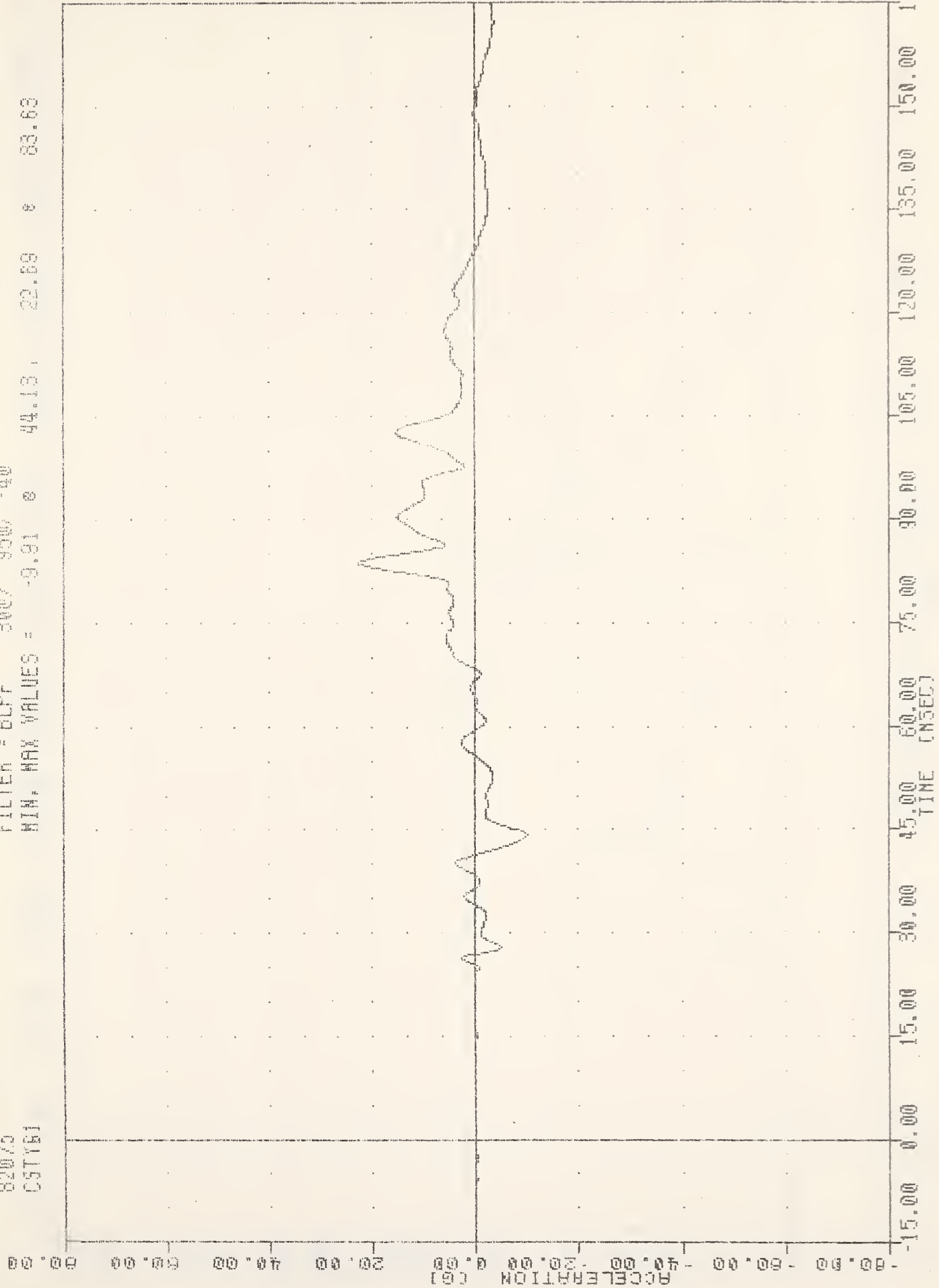


CHEST ACCELERATION X AXIS DRIVER

1-APR-82 15:48:41

S81020505 TRC053
REST. MODEL VALID. TEST
82075
CSTY61

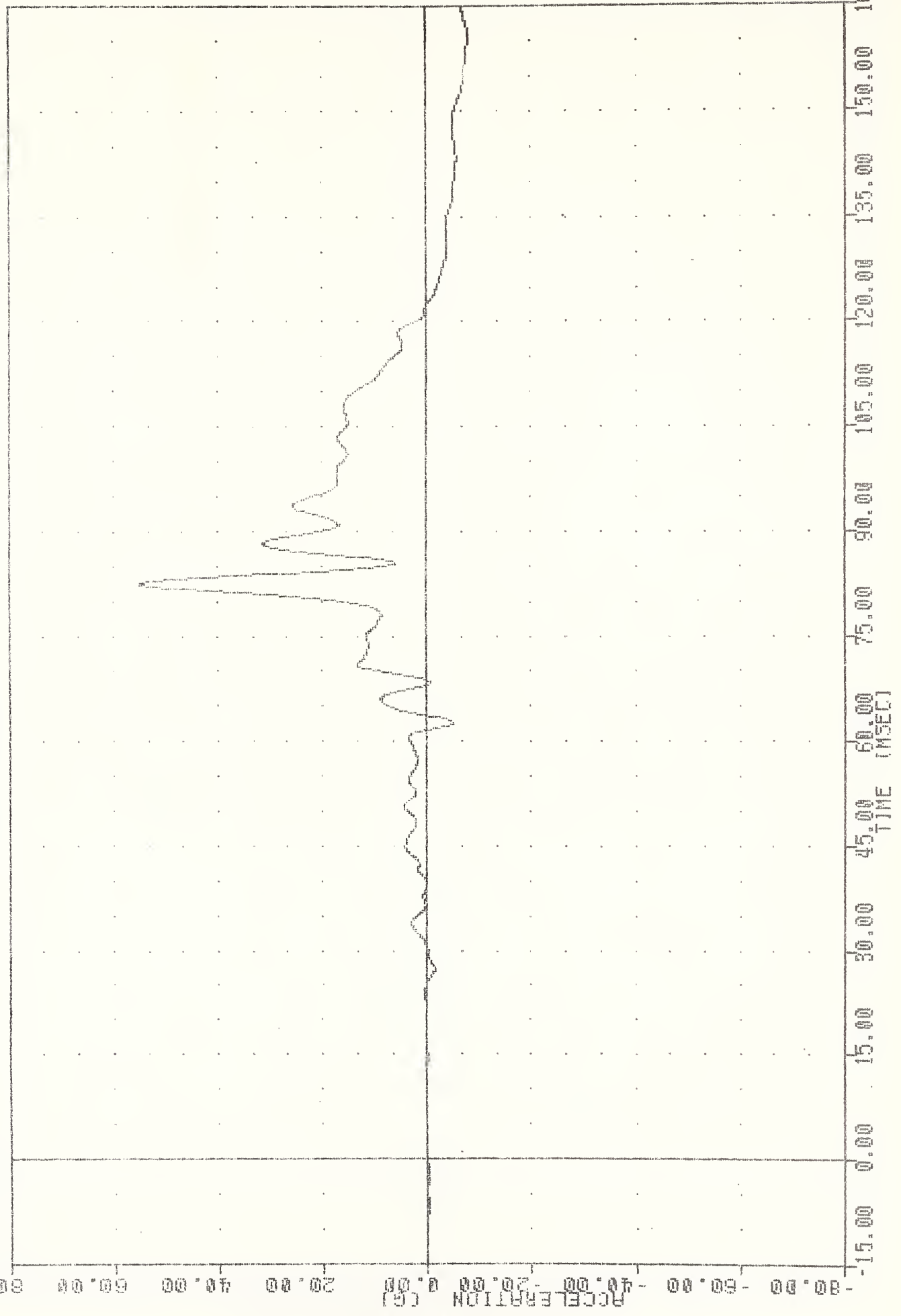
FILTER = BLPF 300 / 950 / -40
MIN. MAX VALUES = -9.91 44.13 22.69 83.69



A-217

CHEST ACCELERATION Y AXIS DRIVER

351080505 , TR0063 1-APR-82 15:48:41
REST. MODEL VALID. TEST
82075 FILTER = 5LFF 300/ 950/ -40
CSTZG1 MIN. MAX VALUES = -8.04 160.75 54.89 82.25



812-A

CHEST ACCELERATION Z AXIS DRIVER

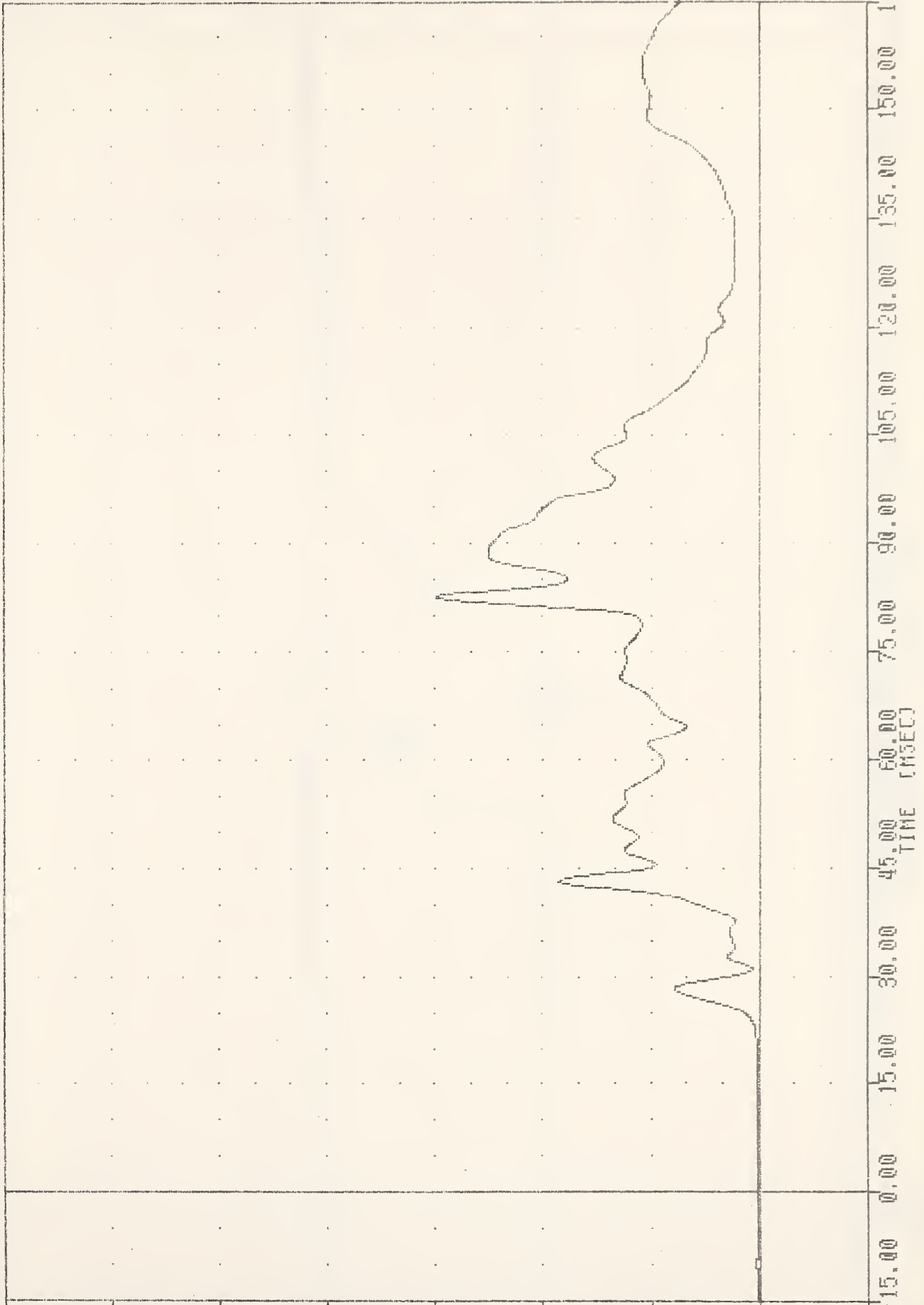
1-APR-82 15:46:41

551080505 , TRCM63
REST, MODEL VALID. TEST
82875
CSTRG1

FILTER = BLPF 300/ 990/ -40
MIN. MAX VALUES = N.27 0 12.50 , 59.59 0 82.38

A-21-A

ACCELERATION (G)



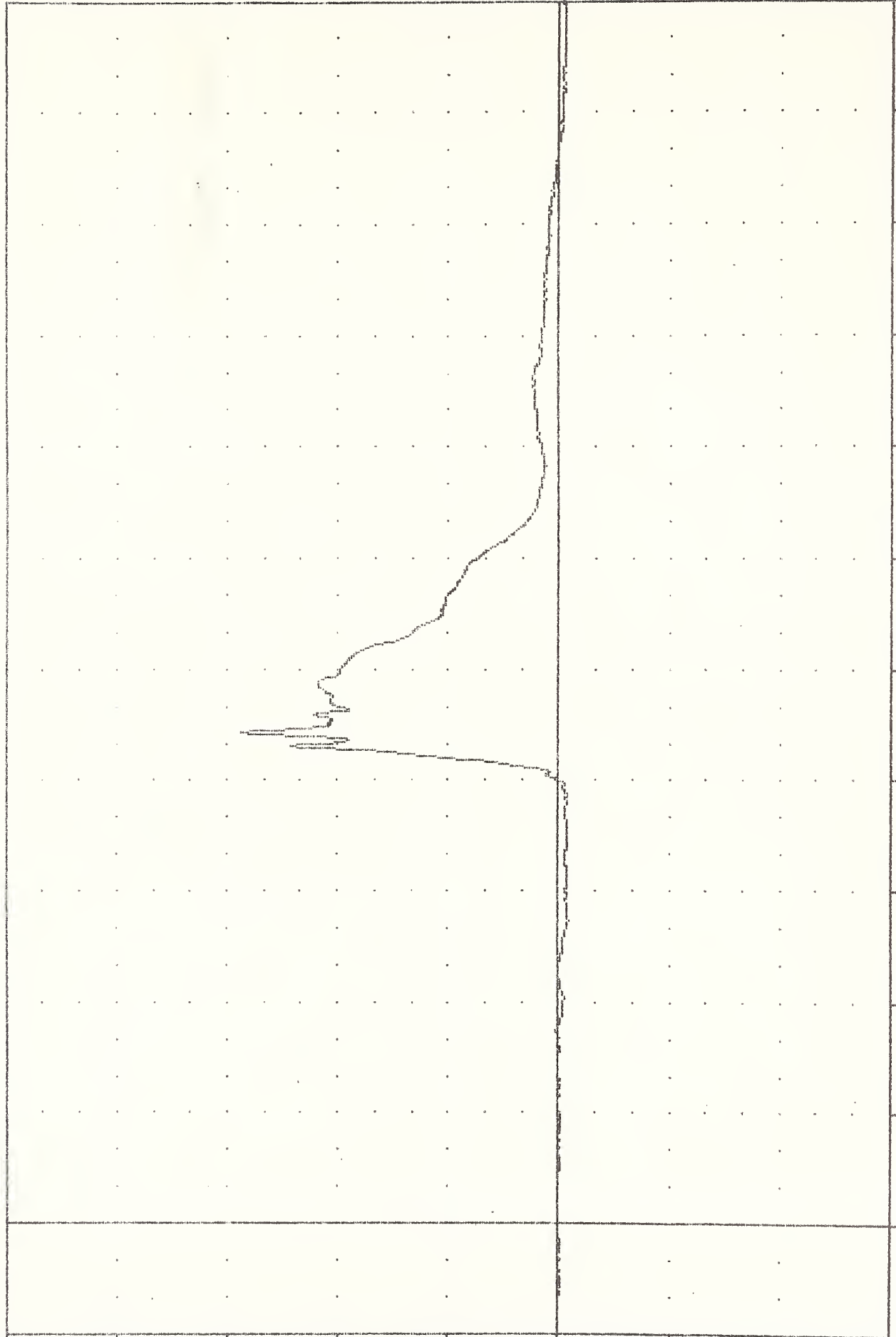
CHEST ACCELERATION RESULTANT DRIVER

2-APR-82 12:58:38

351080505 , TRC063
REST. MODEL VALID. TEST
82075
LFNF1

FILTER = BLPF 1000/ 3170/ -10
MIN. MAX VALUES = -44.63 e 40.88 , 1433.13 e 66.25

022-A
Force (LB)
ACCELERATION (G)
-150.00 -100.00 -50.00 0.00 50.00 100.00 150.00 200.00 250.00



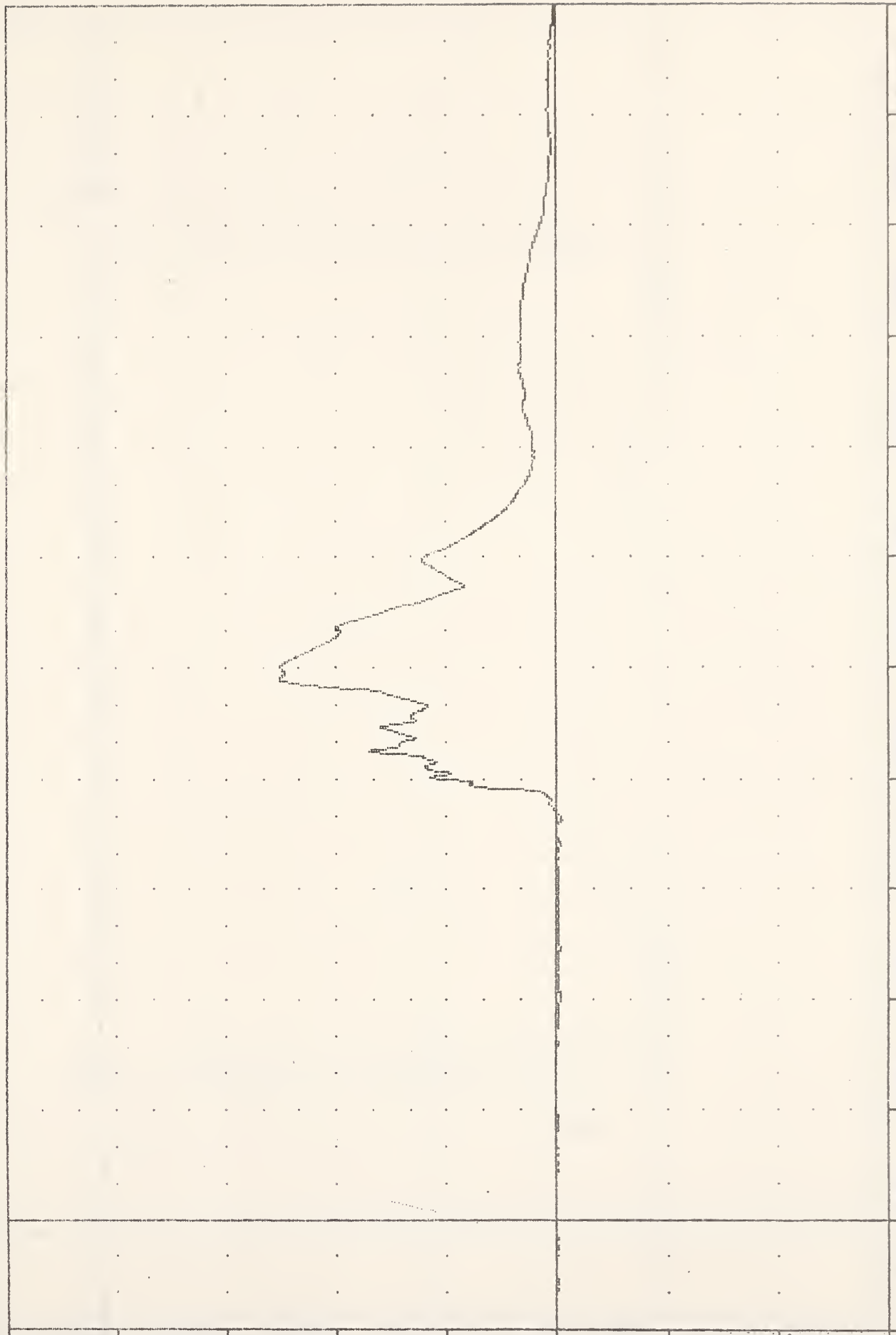
LEFT FEMUR FORCE DRIVER

2-APR-82 12:58:38

551080505 , TAC063
REST. MODEL VALID. TEST
82075
RFMF1

FILTER = BLPF 1000/ 3170/ -40
MIN, MAX VALUES = -22.31 @ 54.38, 1257.75 * 73.38

122.A
Force (kg)
ACCELERATION (G)
(X10³)



-15.00 0.00 15.00 30.00 45.00 60.00 75.00 90.00 105.00 120.00 135.00 150.00 165.00
TIME (MSEC)

RIGHT FEMUR FORCE DRIVER

1-APR-82 15:46:41

TR063

351080505

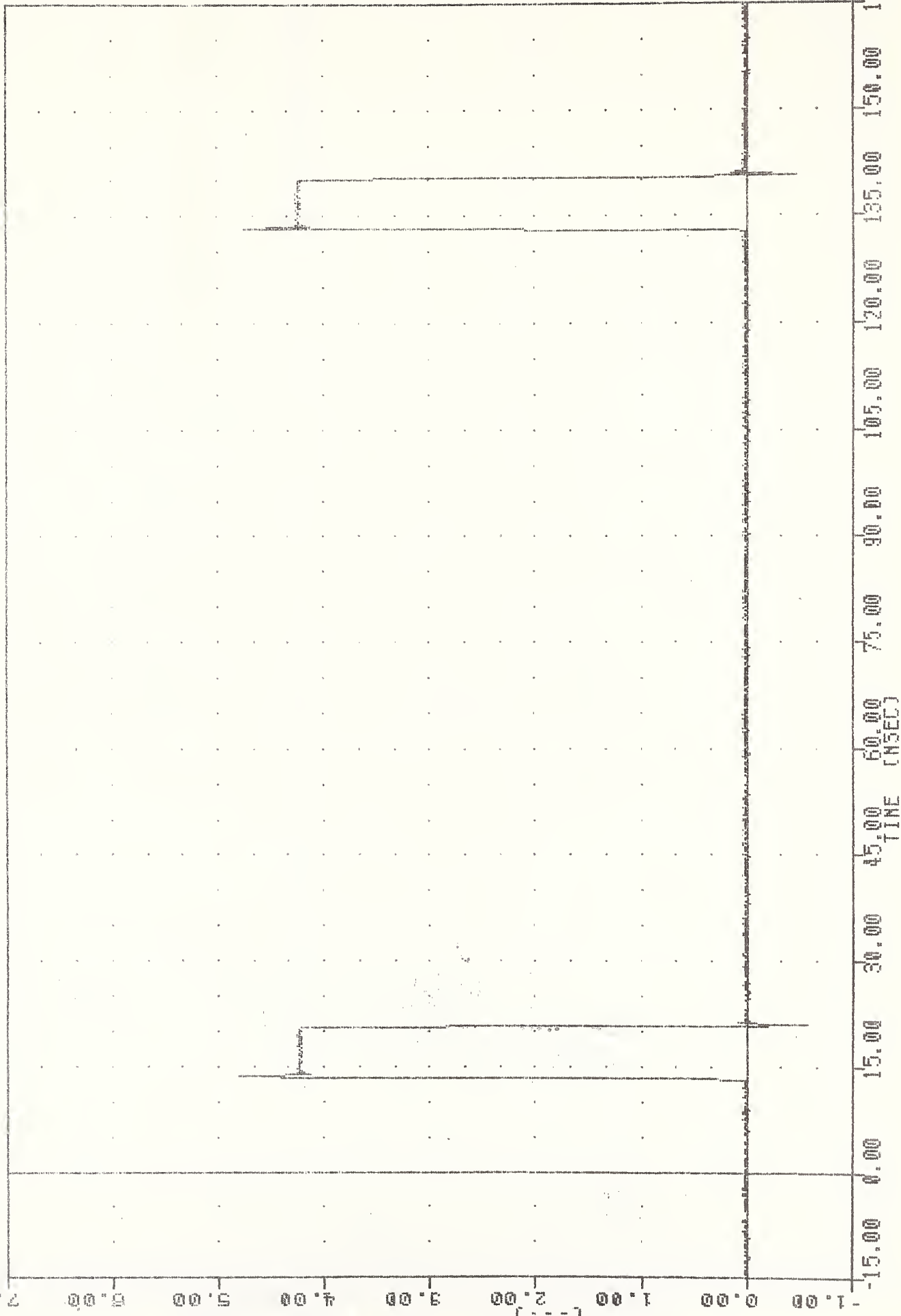
REST. MODEL VALID. TEST

FILTER = ALPF 1650/ 5214/ -40

MIN. MAX VALUES = -0.53 e 20.88 e 4.81 e 13.50

82075

ABFT1



AIR BAG FIRING EVENT DRIVER

351080505 , TRC083

1-APR-82 15:40:41

BEST. MODEL VALID. TEST

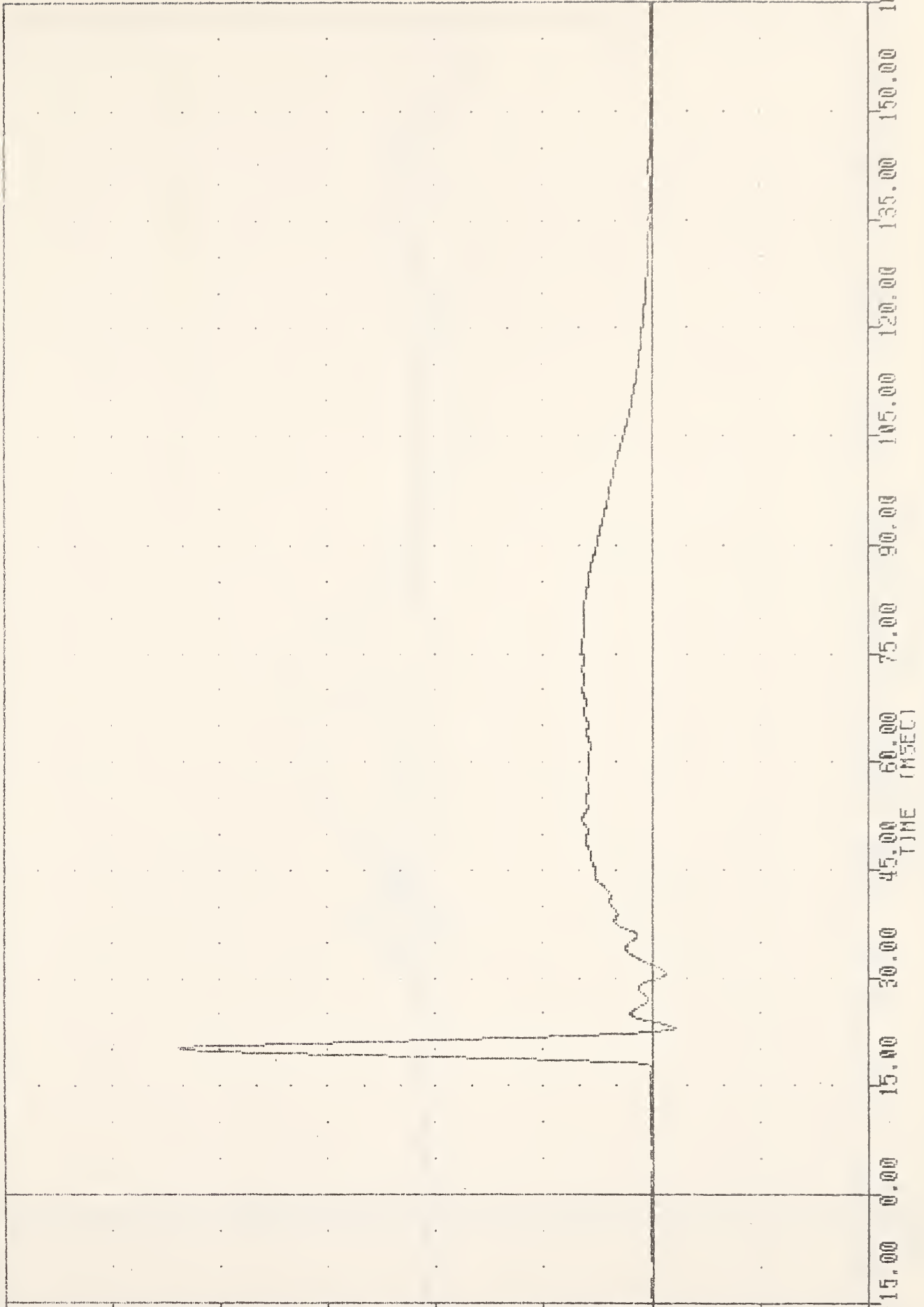
FILTER = BLPF 300/ 950/ -40

MIN, MAX VALUES = -2.14 22.88, 43.74 20.13

82075
ADP1

60.00 50.00 40.00 30.00 20.00 10.00 0.00 -10.00 -20.00

A-223



AIR BAG PRESSURE DRIVER

1-RPP-82 15:48:41

551080585 , TRC063

REGT. MODEL VALID. TEST

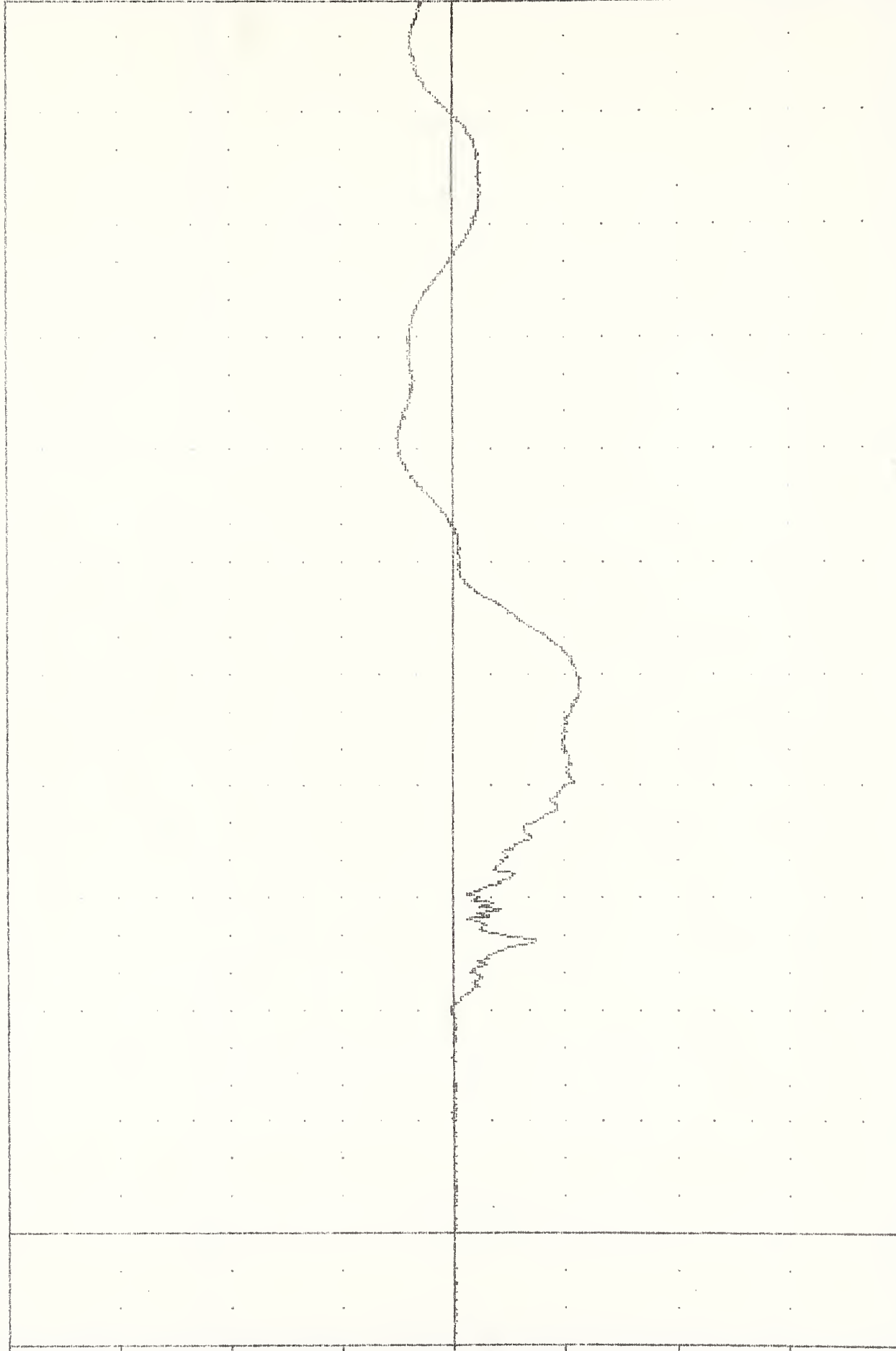
82875

FILTER = ALPF 1650/ 5214/ 40

HEAD062

MIN. MAX VALUES = -45.54 e 72.36 , 20.38 e 106.25

ACCELERATION [G] -160.00 -120.00 -80.00 -40.00 0.00 40.00 80.00 120.00 160.00



TIME (MSEC) -15.00 0.00 15.00 30.00 45.00 60.00 75.00 90.00 105.00 120.00 135.00 150.00 165.00

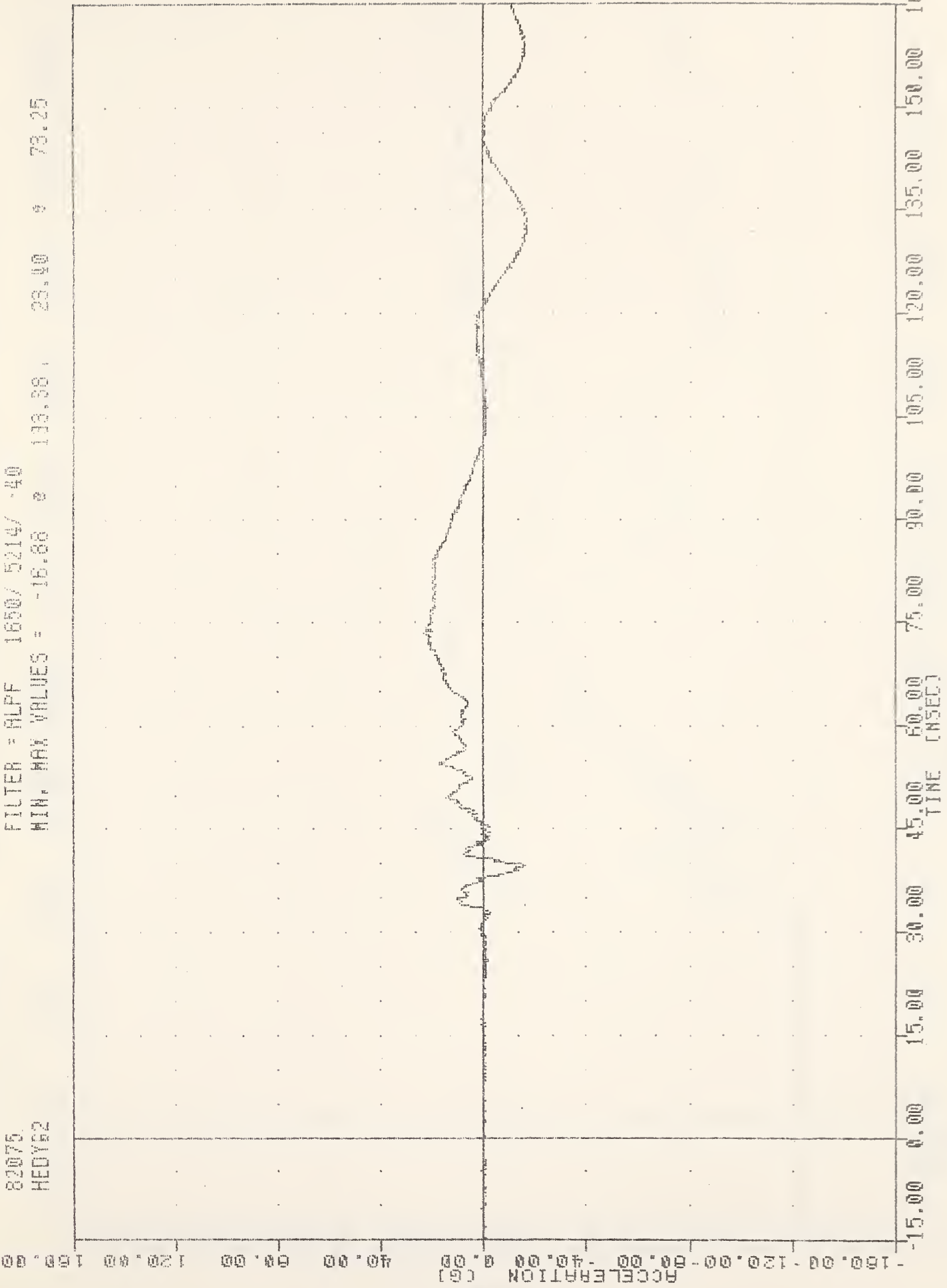
A-224

HEAD ACCELERATION X AXIS PASSENGER

1-APR-82 15:48:41

351000505 , TRC063
REST. MODEL VALID. TEST
82075.
HEDY62

FILTER = ALPF 1650/ 5214/ -40
MIN. MAX VALUES = -16.88 e 133.38 , 28.40 e 73.25



A-225

HEAD ACCELERATION Y AXIS PASSENGER

1-APR-82 15:40:41

351088505 , TAC053
REST. MODEL VALID. TEST
52075
HEADZ62

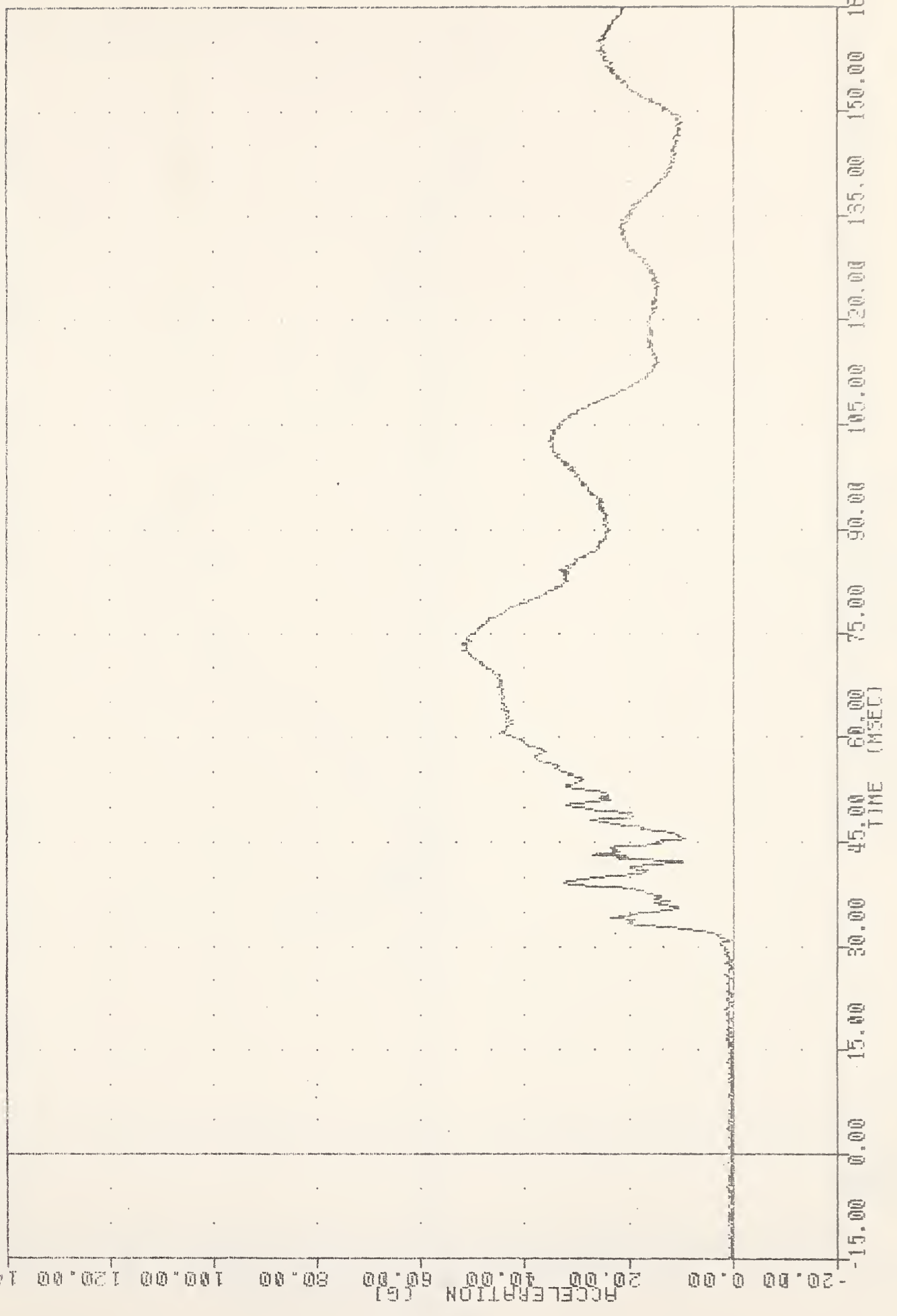
FILTER = ALPF 1650/ 5214/ -40
MIN. MAX VALUES = -21.55 43.13 31.48 100.38



A-226

HEAD ACCELERATION Z AXIS PASSENGER

551080505 , TRC063 1-APR-82 15:48:41
REST. MODEL VALID. TEST
02075 FILTER = ALPF 1650/ 5214/ -40
HEAD062 MIN. MAX VALUES = 0.07 e -8.25 e 52.16 e 79.36



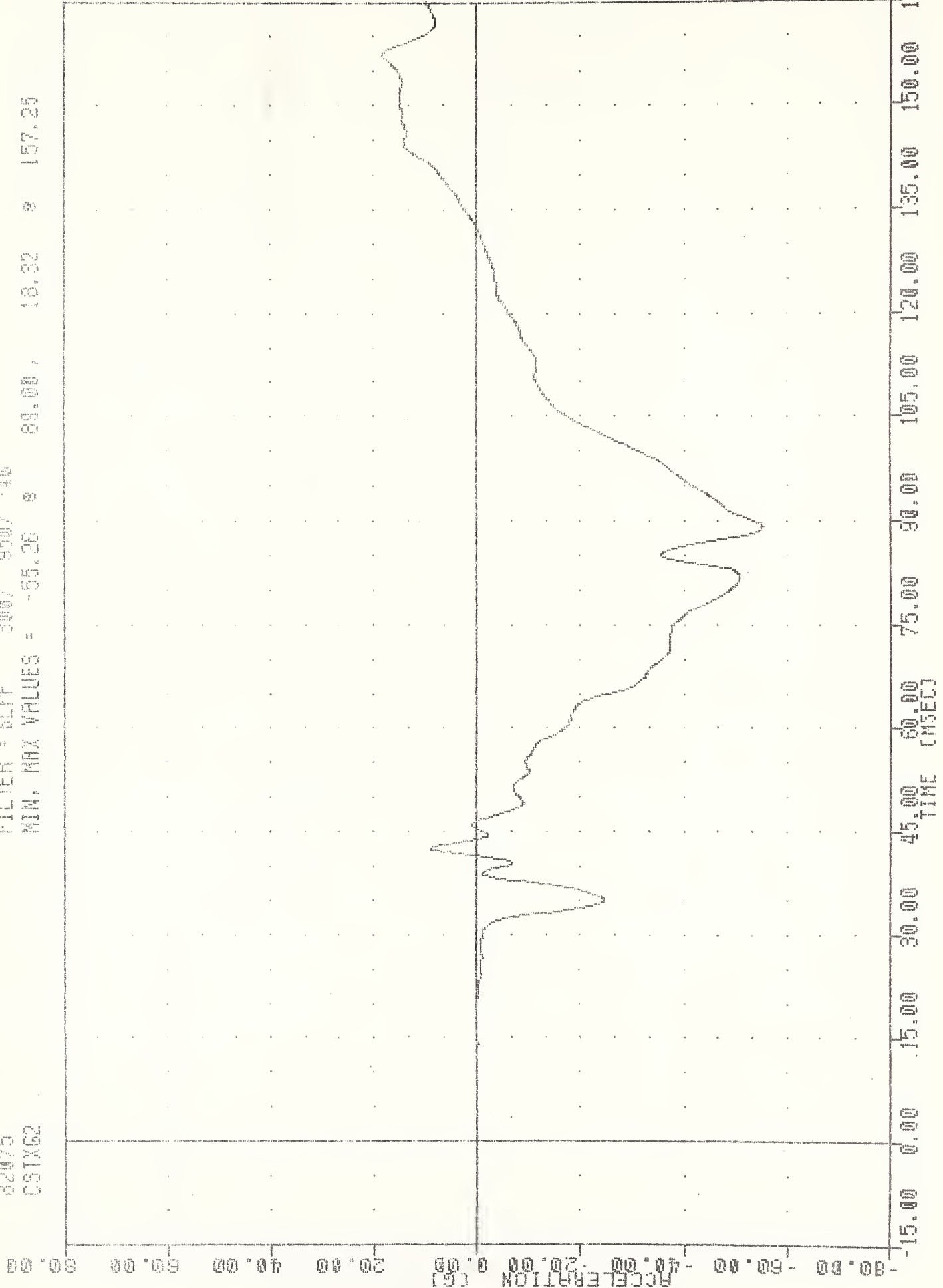
A-227

HEAD ACCELERATION RESULTANT PASSENGER

1-APR-82 15:48:41

551000585 , TAC063
REST. MODEL VALID. TEST
82075
CSTX62

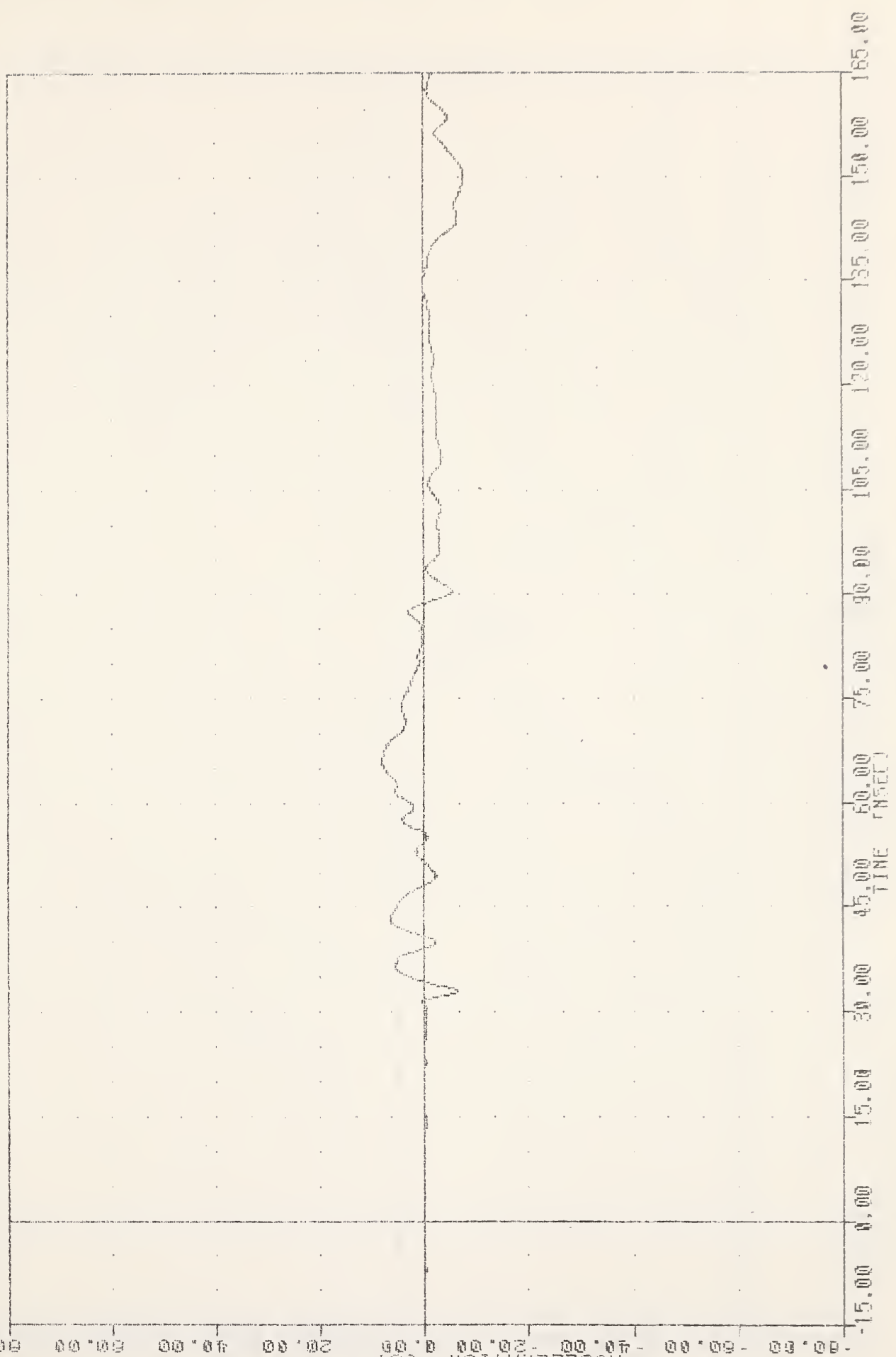
FILTER = 6LFF 300/ 960/ 40
MIN. MAX VALUES = -55.26 8 89.00 , 18.32 8 157.25



822-A

CHEST ACCELERATION X AXIS PASSENGER

591000505 , TRC063 1-APR-82 15:48:41
 BEST, MODEL VALID, TEST
 82075 FILTER = BLPF 300/ 950/ -40
 CST162 MIN, MAX VALUES = -7.56 0 149.63 0.05 * 65.75



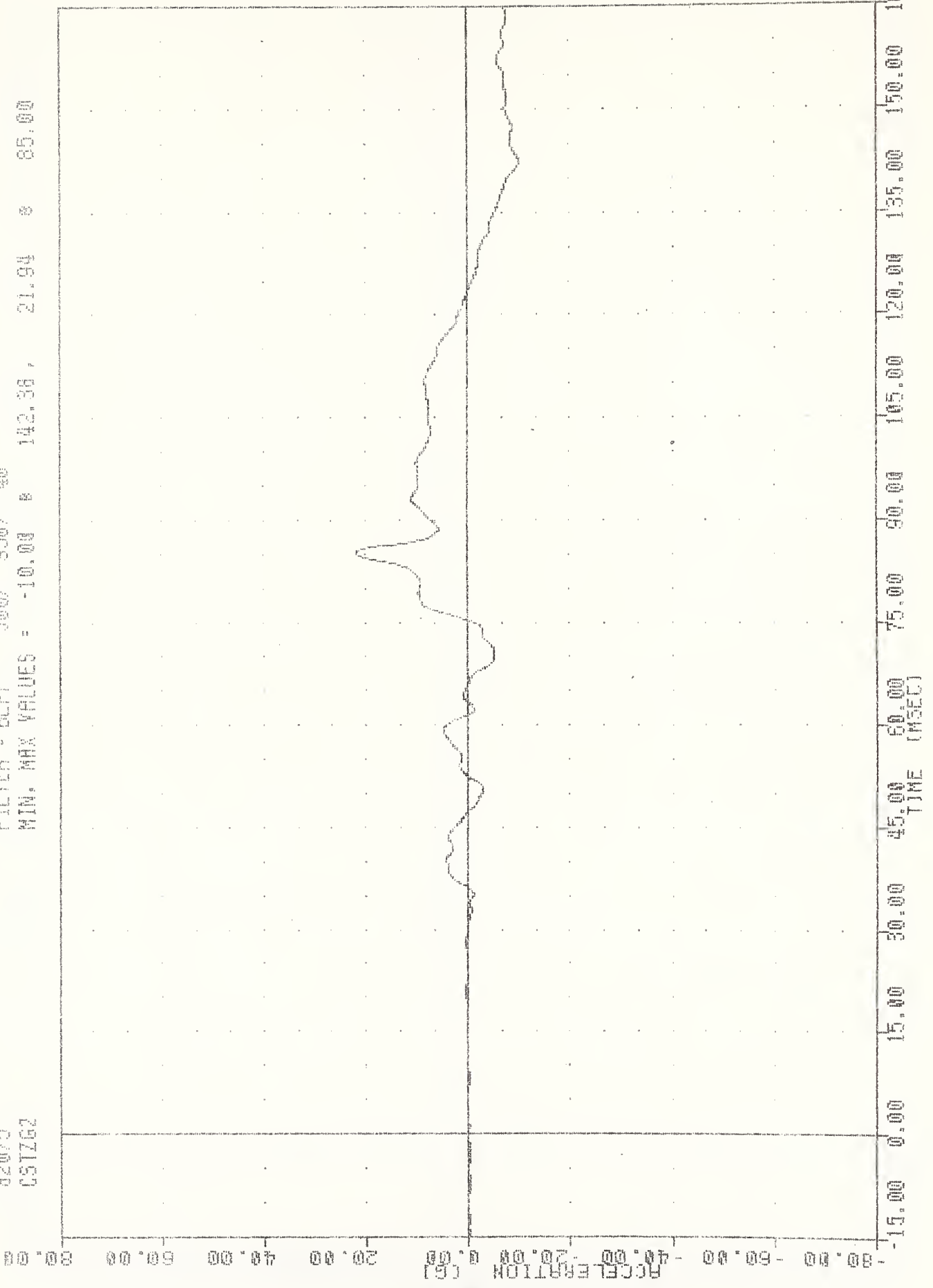
A-229

CHEST ACCELERATION Y AXIS PASSENGER

1-APR-82 15:46:41

551050505 , TAC063
REST. MODEL VALID. TEST
82075
CSTZG2

FILTER = BLFF 300/ 950/ -40
MIN. MAX VALUES = -10.00 0 142.36 , 21.94 0 85.00



A-230

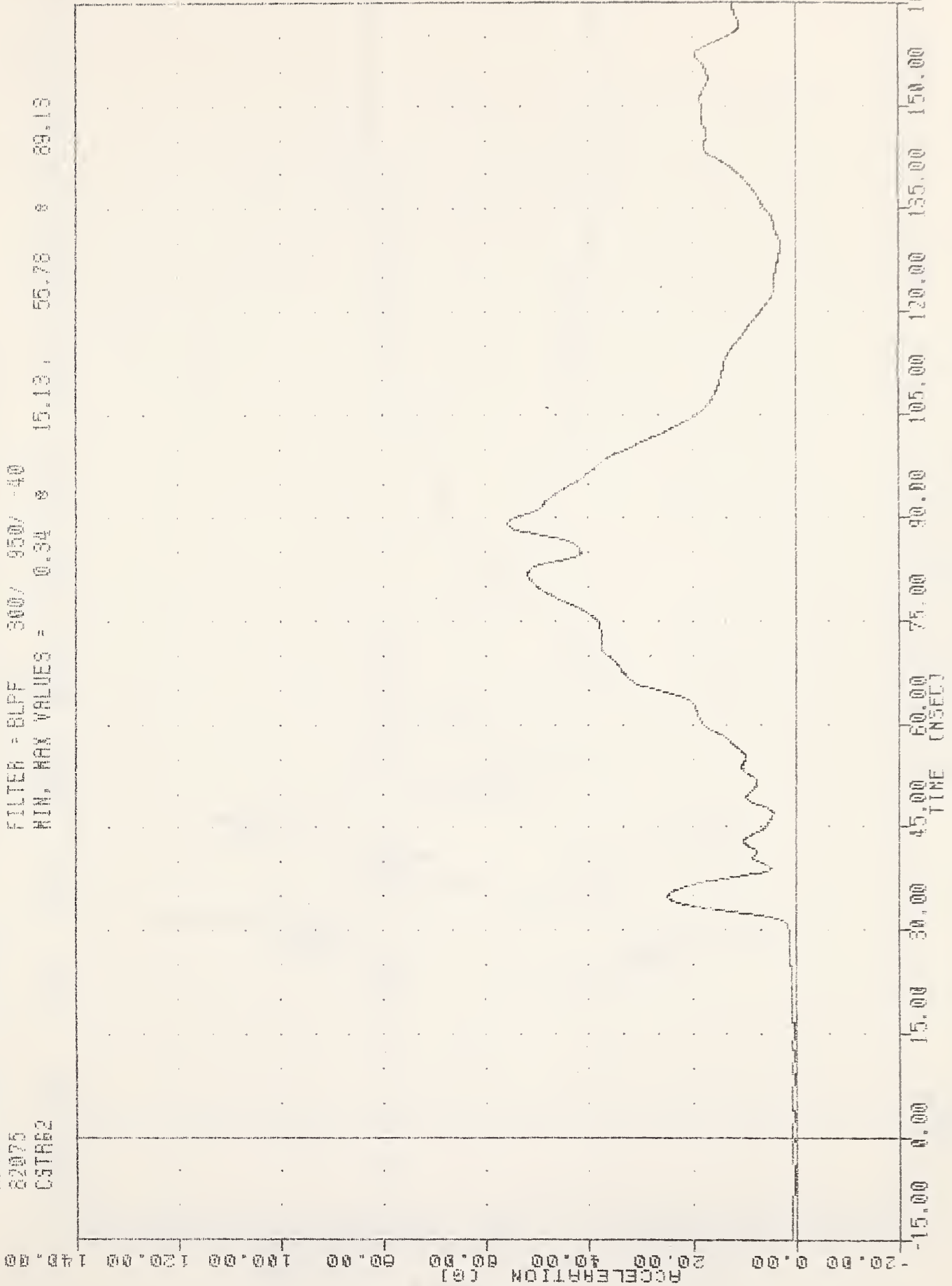
CHEST ACCELERATION Z AXIS PASSENGER

S510B0505 , TR0063
REST. MODEL VALID. TEST
62075
CSTR62

1-RFR-02 15:46:41

FILTER = BLPF 300/ 950/ -40

RIN, MAX VALUES = 0.34 @ 15.13 , 55.78 @ 89.13



A-231

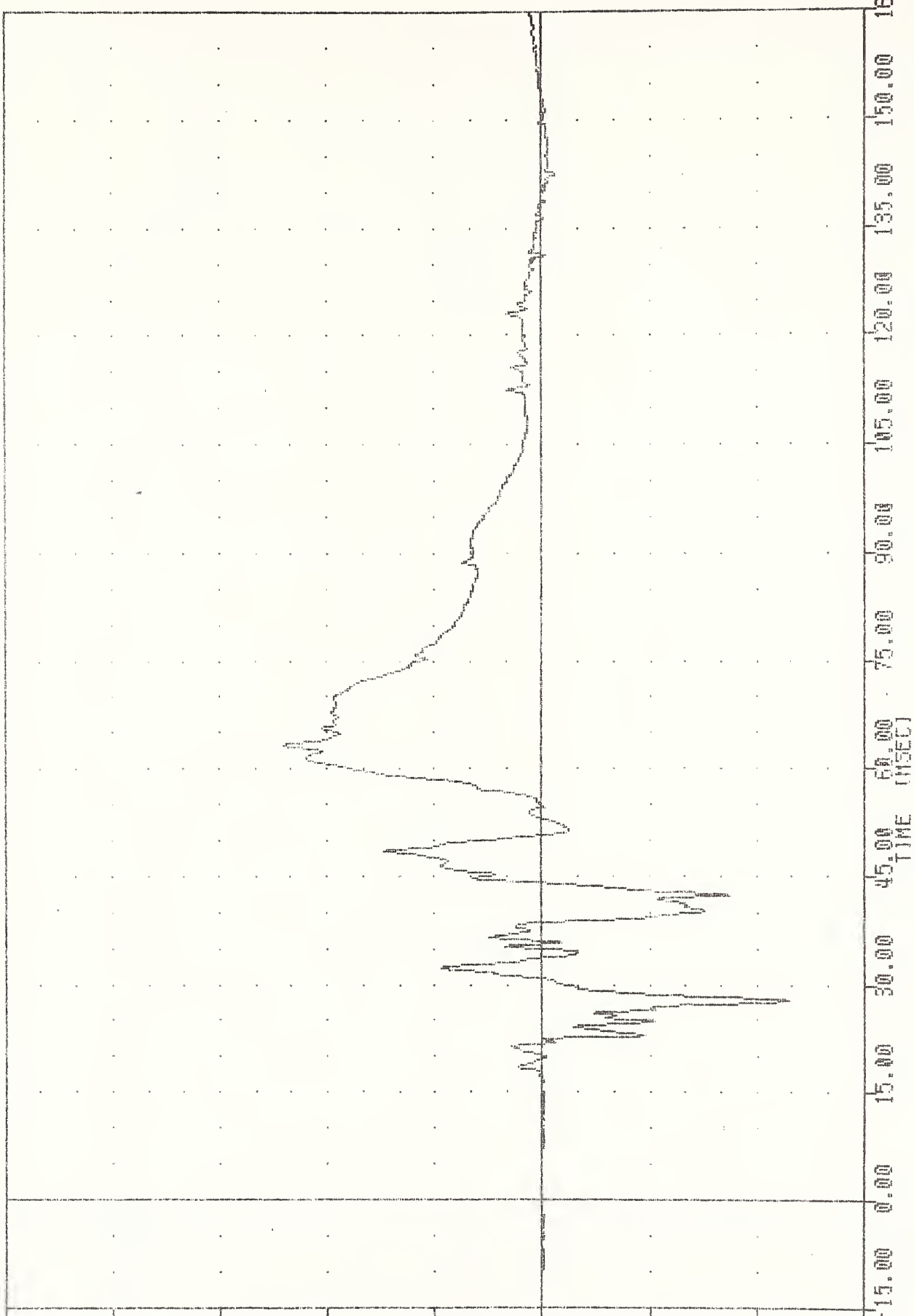
CHEST ACCELERATION RESULTANT PASSENGER

951090505 , TRC063
REST. MODEL VALID. TEST
82075
LFMF2

2-APR-82 12:58:30

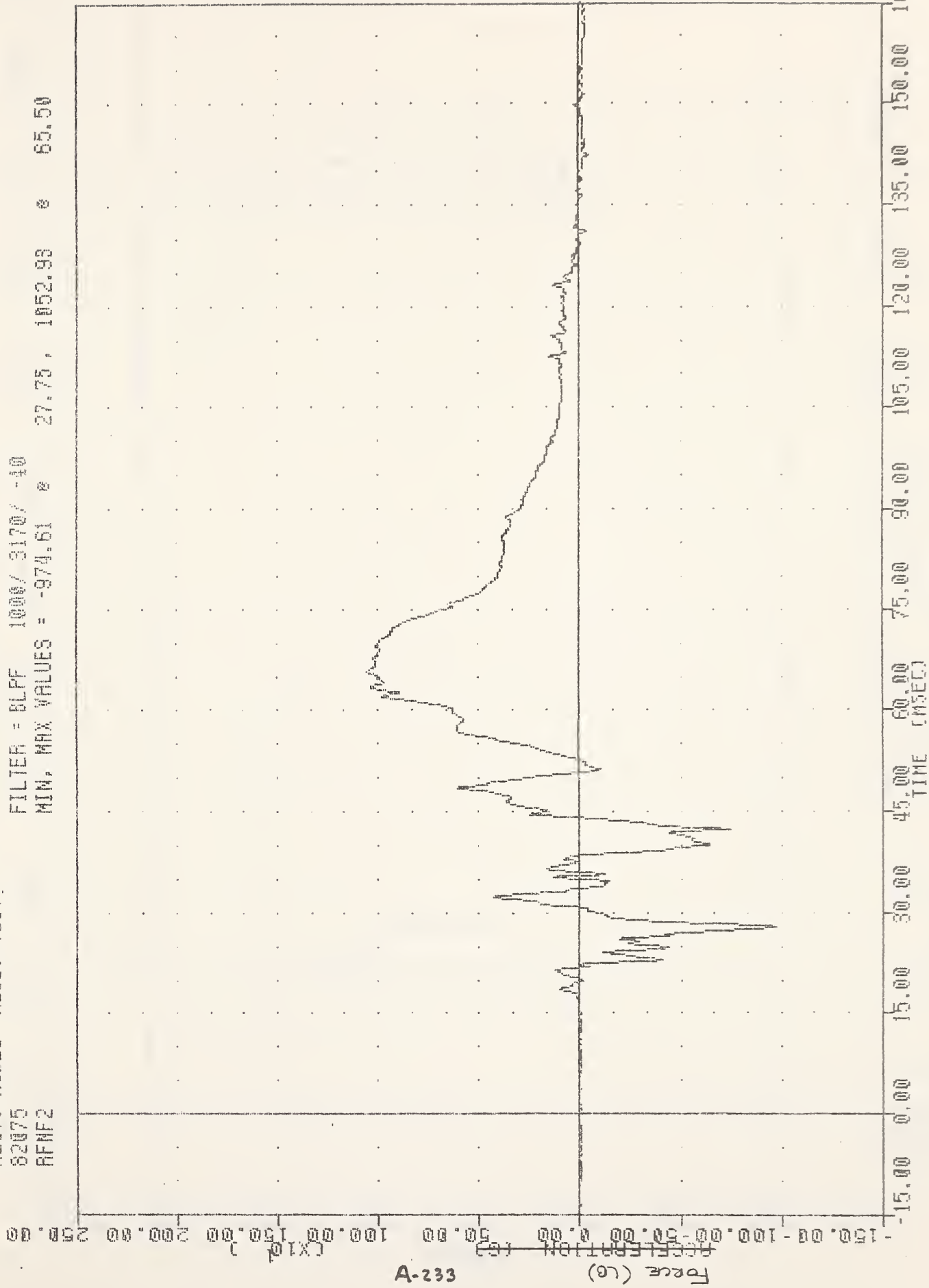
FILTER = BLPF 1000/ 3170/ -40
MIN. MAX VALUES = -1155.16 0 27.75, 1206.24 0 63.13

232-A
Force (lb)
ACCELERATION (G)
[X10⁴]



LEFT FEMUR FORCE PASSENGER

551080505 , TRC063 2-APR-82 12:58:38
 REST. MODEL VALID. TEST.
 82075 FILTER = BLFF 1000/3170/ -40
 AFNF2 MIN, MAX VALUES = -974.61 @ 27.75, 1052.93 @ 65.50



A-233

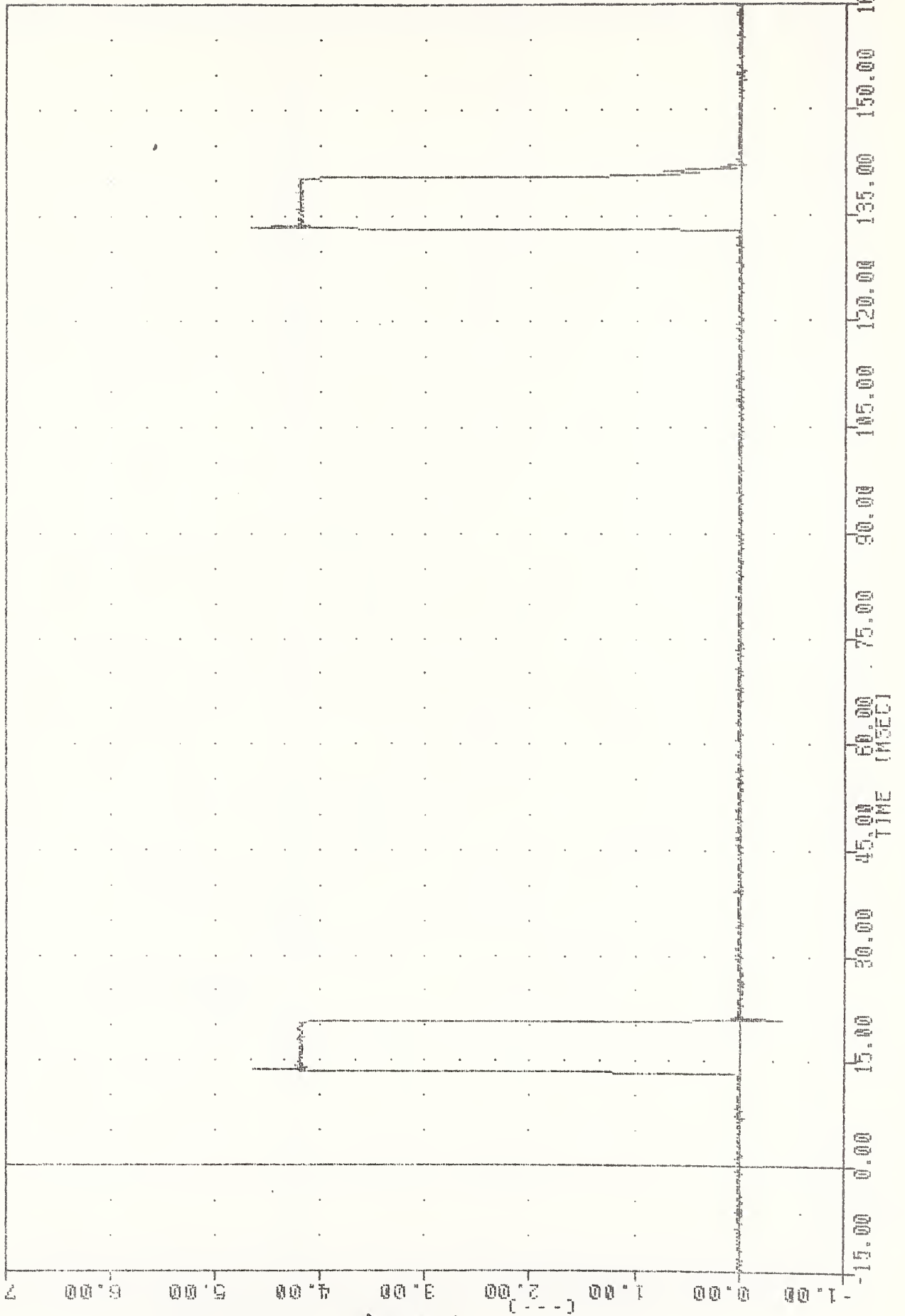
RIGHT FEMUR FORCE PASSENGER

1-APR-82 15:46:41

951084505 , TRC083
REST. MODEL VALID. TEST

FILTER = ALPF 1650/ 5214/ -40
MIN. MAX VALUES = -0.41 0 20.88 0 133.25

ABFT2



A-234

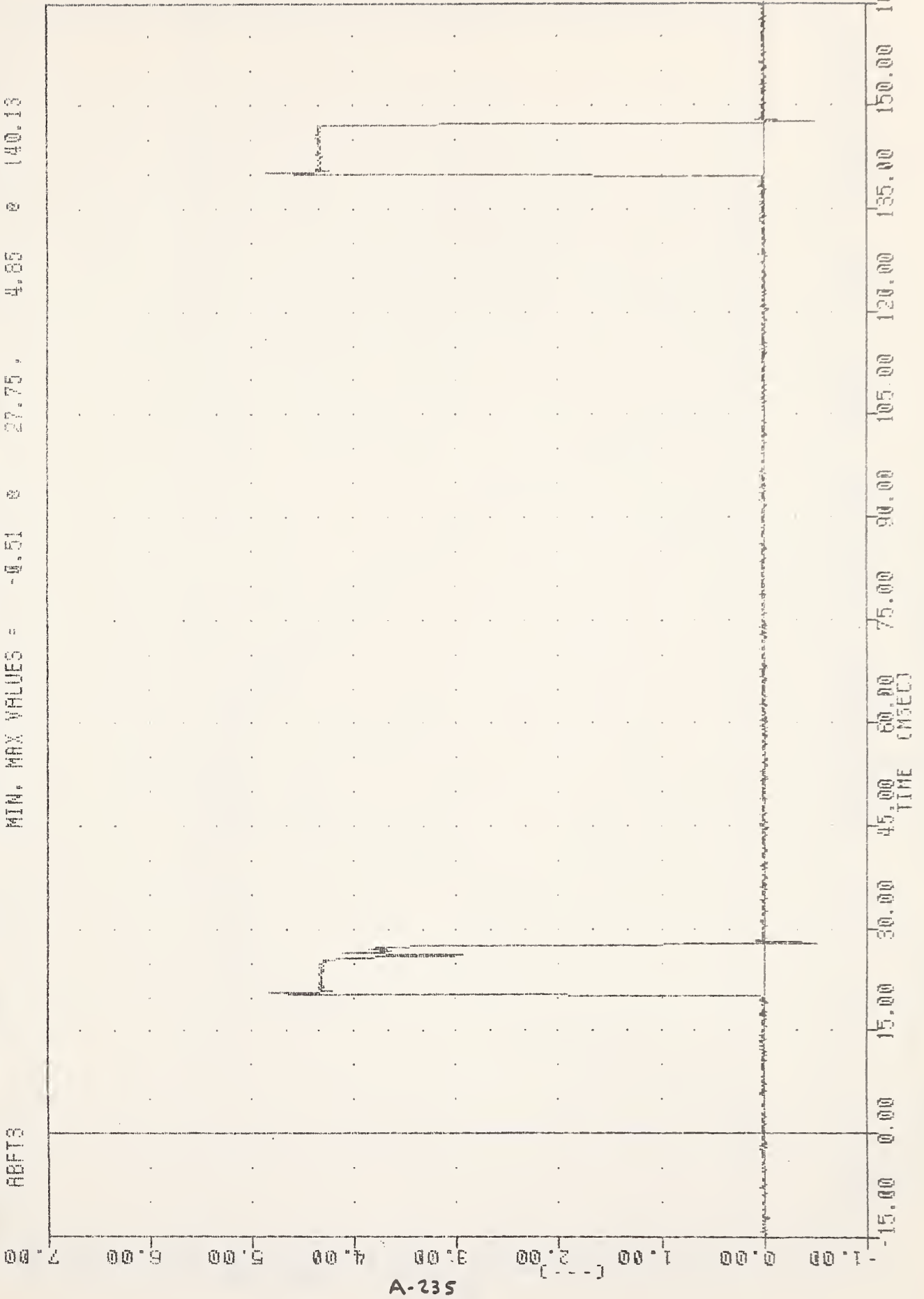
AIR BAG FIRING EVENT PASSENGER

551020505 , TRC065
REST. MODEL VALID. TEST
32075
ABFT3

1-APR-82 15:48:41

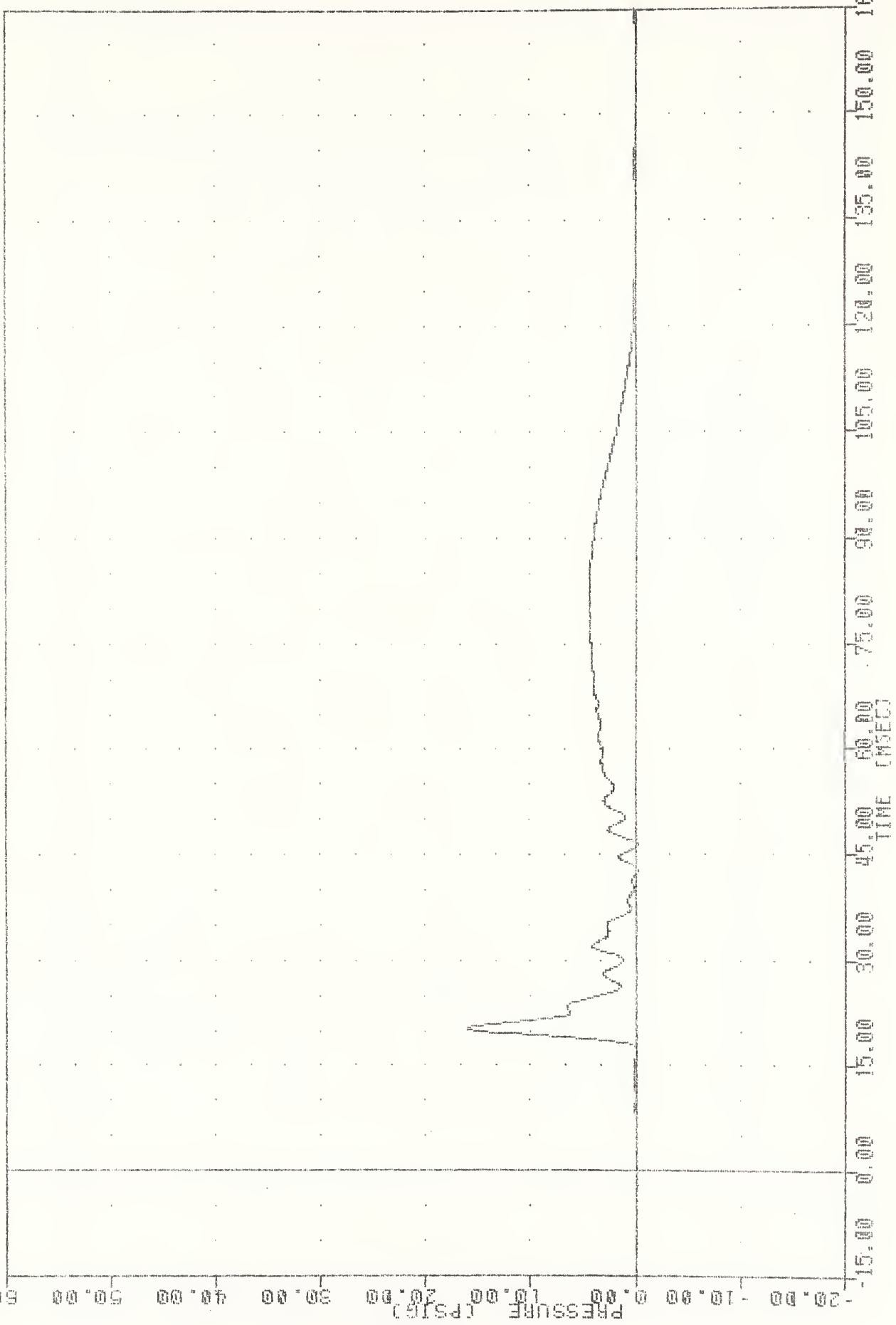
FILTER = ALFF 1650/ 5214/ -40
MIN. MAX VALUES = -0.51 e 27.75 .

4.85 e 140.13



AIR BAG FIRING EVENT 3

551000505 , TRC063 1-APR-82 15:46:41
 REST, NODEL VALID, TEST.
 82075 FILTER = BLPF 300/ 950/ -40
 ABP2 MIN, MAX VALUES = -0.24 @ 46.25, 15.97 @ 20.13

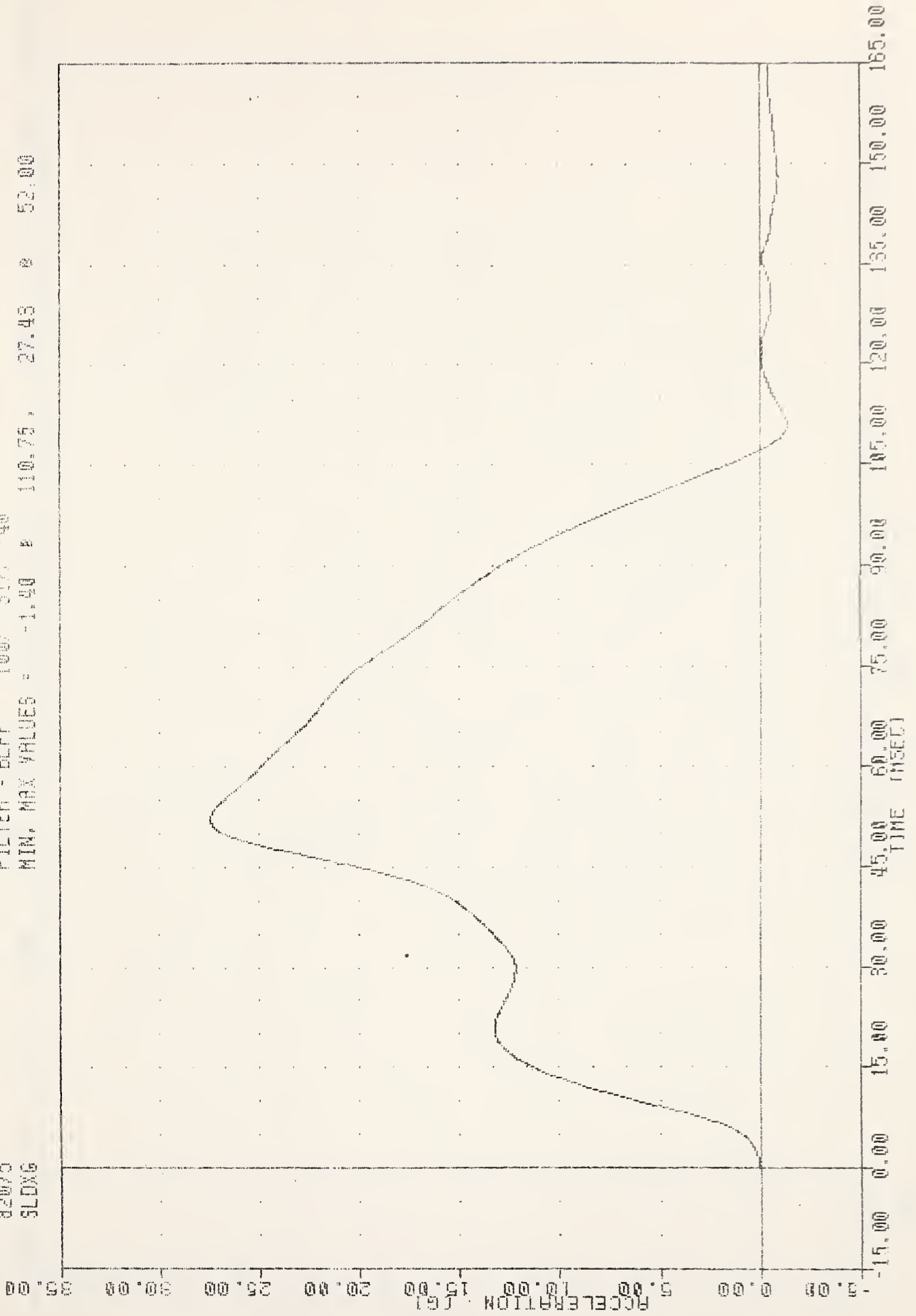


AIR BAG PRESSURE PASSENGER

851080505 , TRC053
REST, MODEL VALID, TEST
82075
SLDXG

1-APR-82 15:40:41

FILTER = BLPF 100% 317.40
MIN. MAX VALUES = -1.50 # 110.76 , 27.43 # 52.00



SLED ACCELERATION

1-APR-82 15:48:41

351060505 , TR0063
REST. MODEL VALID. TEST

FILTER = BLPF 100/ 317/ -40

MIN. MAX VALUES = -0.02 e -0.13 , 34.06 e 106.88

82075
SLDXY

40.00

35.00

30.00

25.00

20.00

VELOCITY (MPH)

15.00

10.00

5.00

0.00

-15.00

TIME (MSEC)

0.00

15.00

30.00

45.00

60.00

75.00

90.00

105.00

120.00

135.00

150.00

165.00

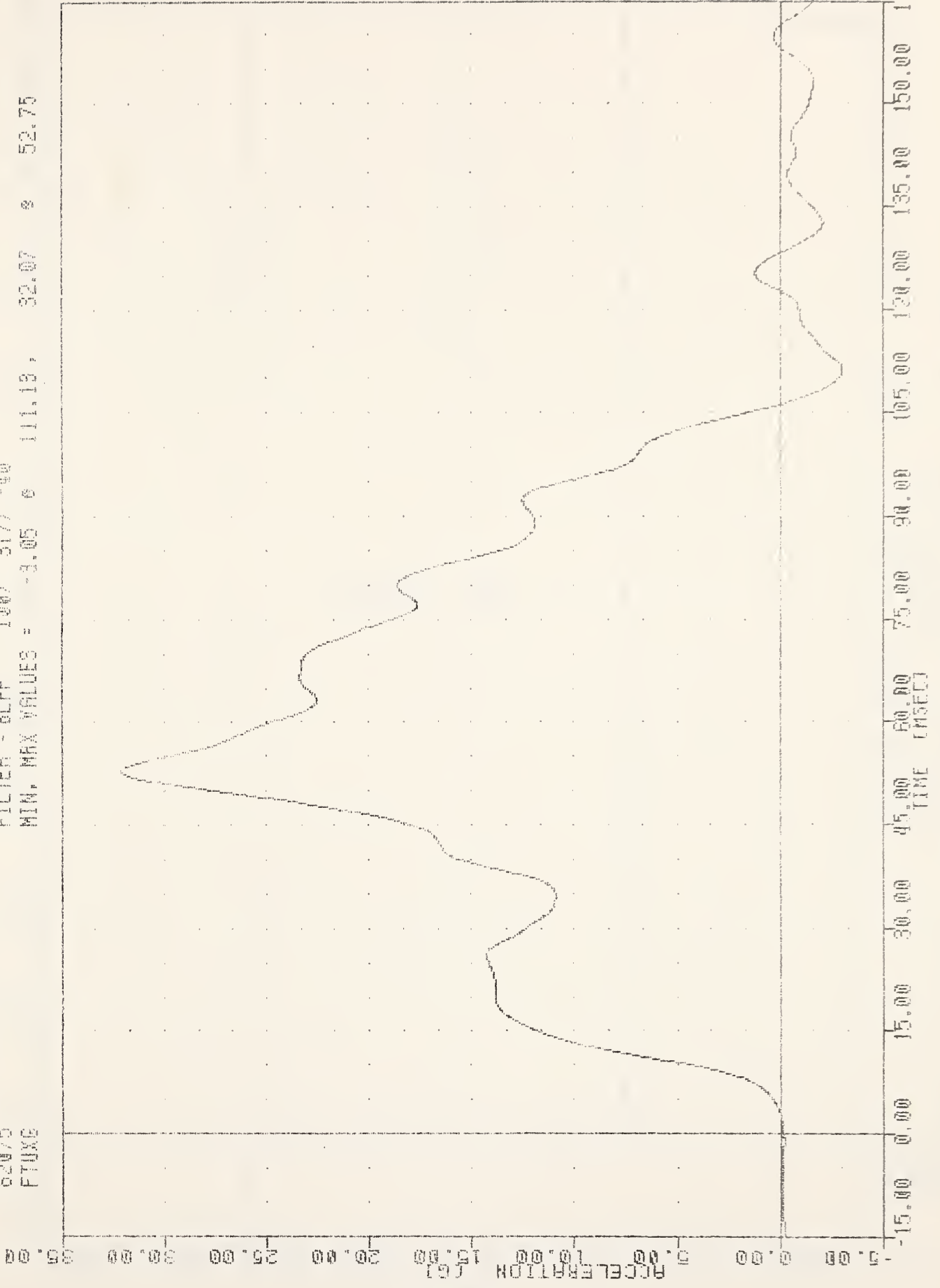
A-238

SLED VELOCITY IN MPH

551000535 , TEST063
BEST. MODEL VALID. TEST
82075
FTUXG

1-APR-82 15:48:41

FILTER = BLFF 100/ 317/ -40
MIN. MAX VALUES = -3.05 0 111.18, 32.07 % 52.75



A-239

FLOOR FAN TUNNEL ACCELERATION

351080505 , TRC063 1-APR-82 15:48:41

REST. MODEL VALID. TEST

82075

SPSW

FILTER = ALPF 1650/ 5214/ -40

MIN, MAX VALUES = -0.05 0 -4.88 0.18 0 2.38

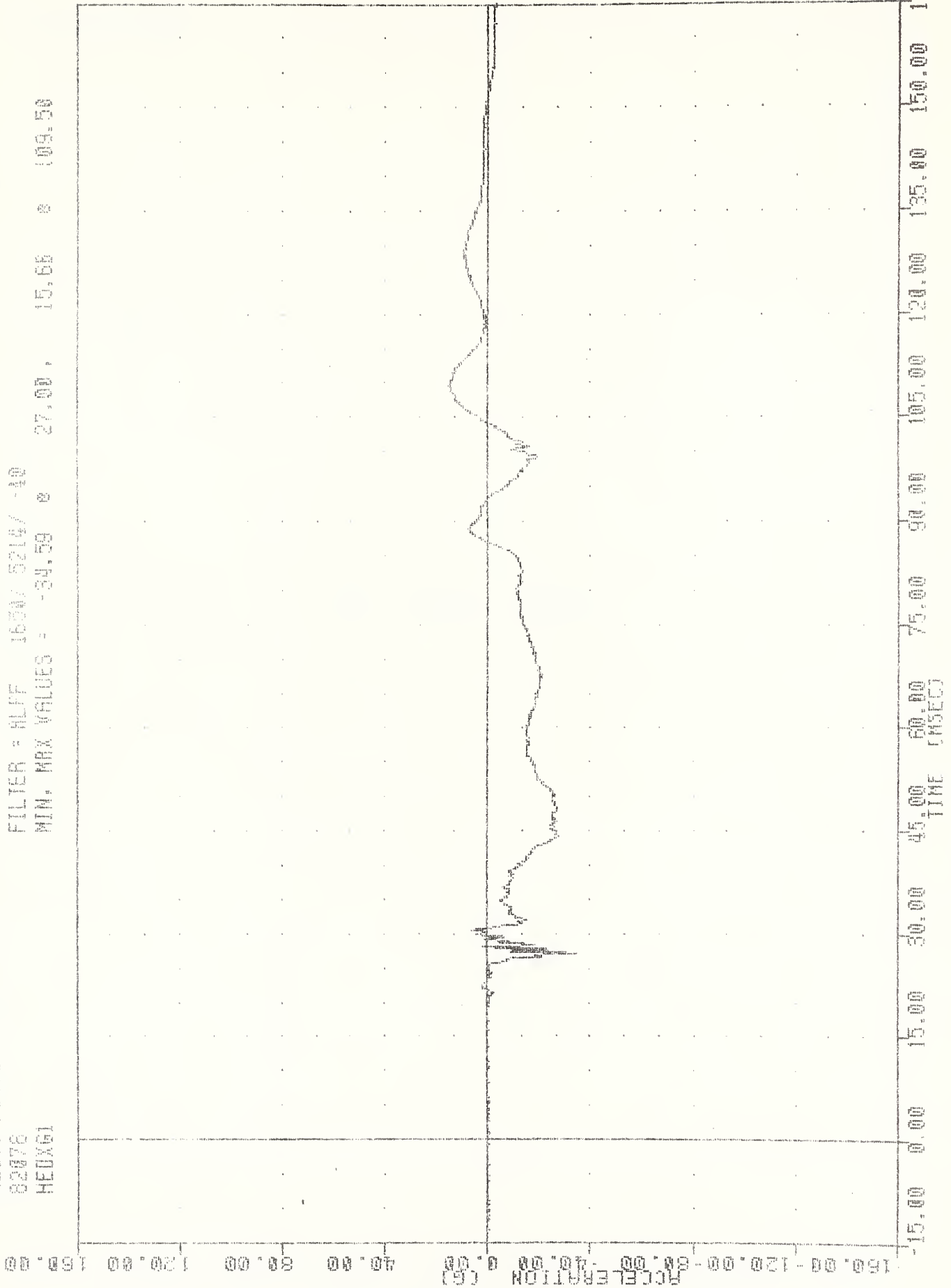


15.00 30.00 45.00 60.00 75.00 90.00 105.00 120.00 135.00 150.00 165.00
 TIME (USED)

SLED POSITION SWITCH

TEST NO. 9

551090500 , TRC054 2-APR-82 15:14:05
REST. MODEL VALID. TEST
82876 FILTER = HLFF 1600.5214 / -10
HEXG1 MIN. MAX VALUES = -34.59 27.00 15.68 0 109.50

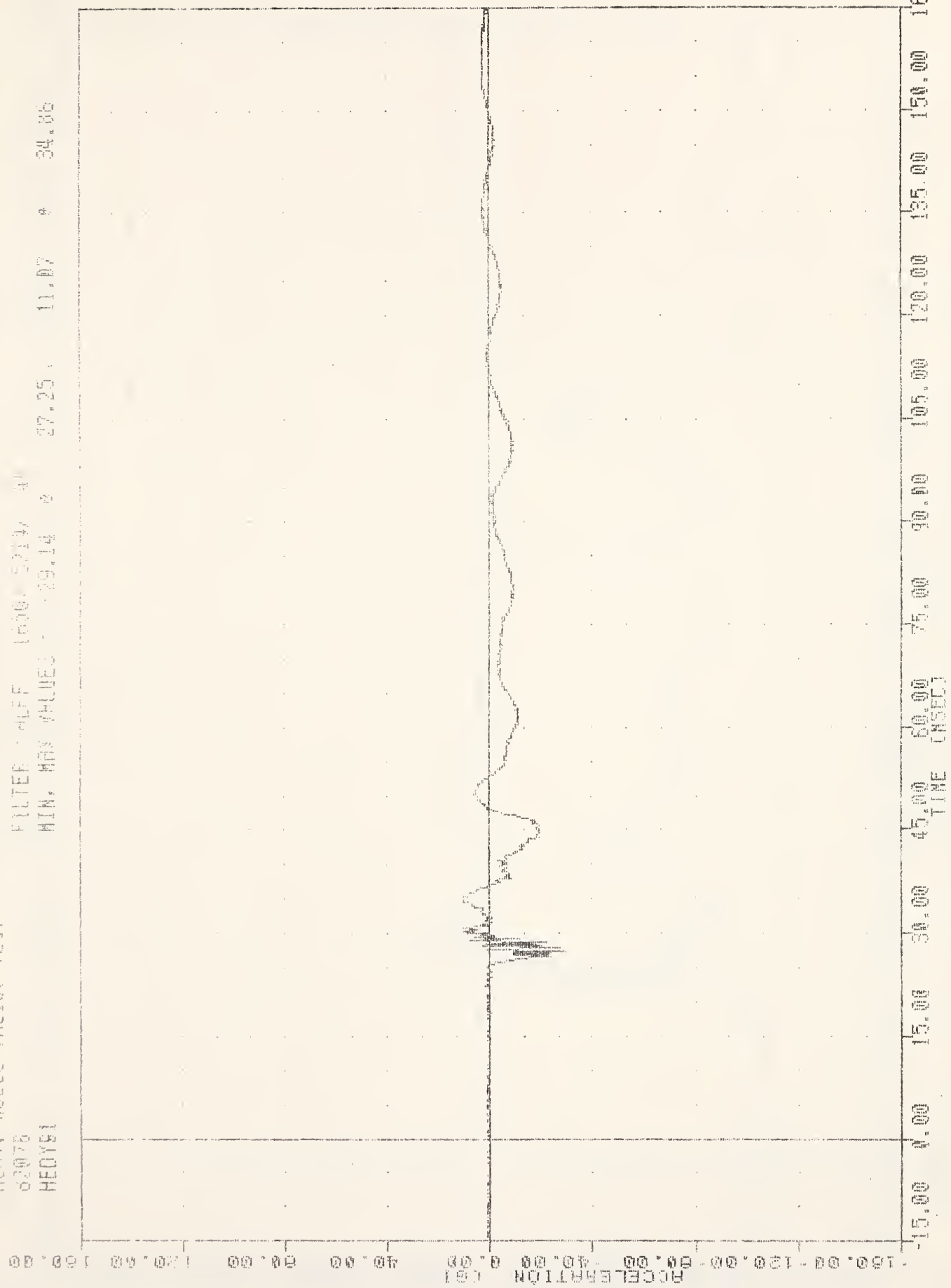


A-242

HEAD ACCELERATION X AXIS DRIVER

551080500 , T11064
 REPT, MODEL VALID. TEST
 02076
 HEDY91

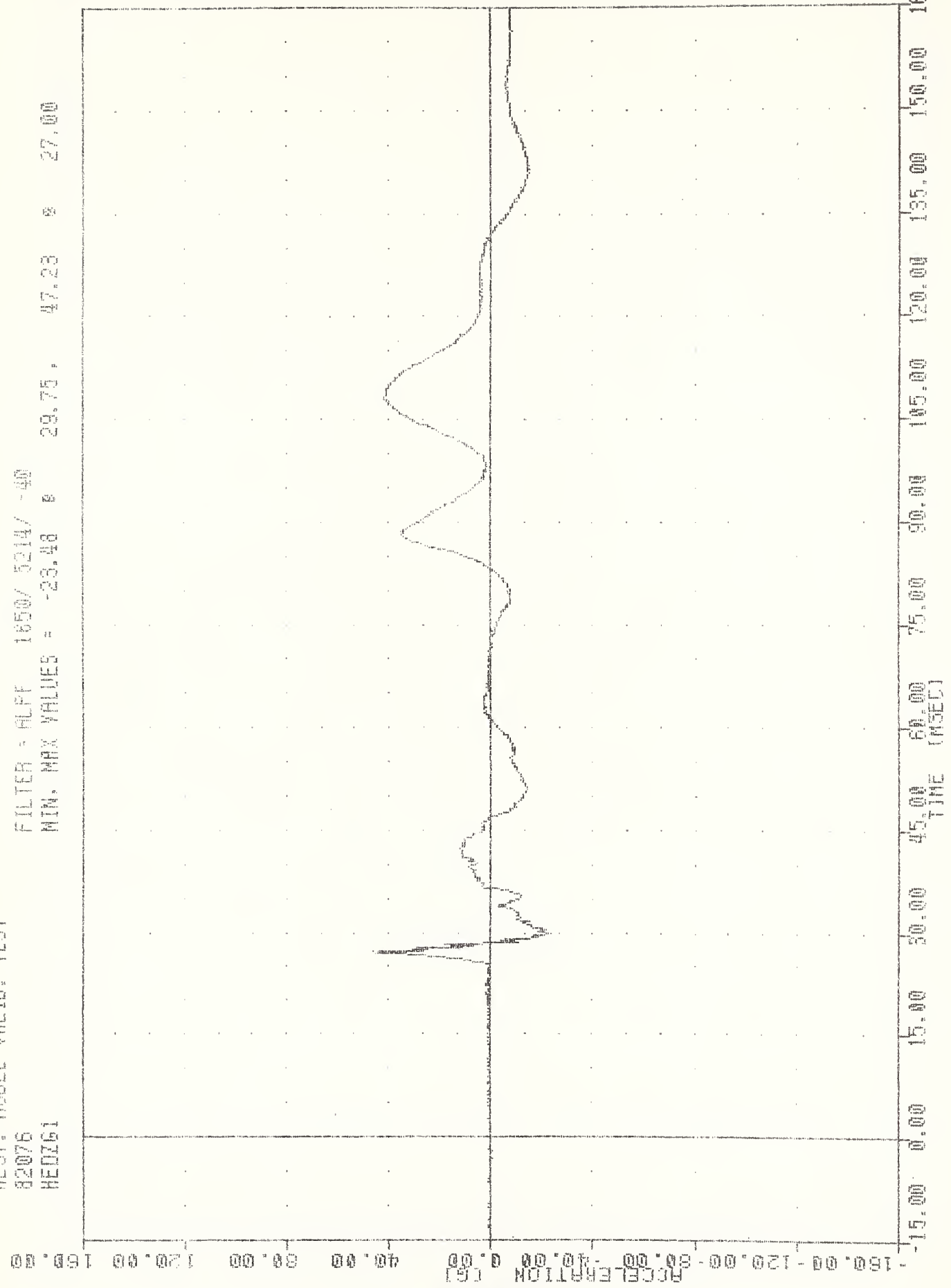
2-RFD-02 10114.00
 FILTER: HOFF 1600.5213 40
 MIN. MAX VALUES: 29.14 0 27.25 11.07 * 34.86



2-APR-82 15:16:36

351090500 , TRC064
REGT. MODEL VALID. TEST
82076
HEDZG1

FILTER = ALPF 1650/5214/ -40
MIN. MAX VALUES = -23.48 29.75, 47.23 27.00



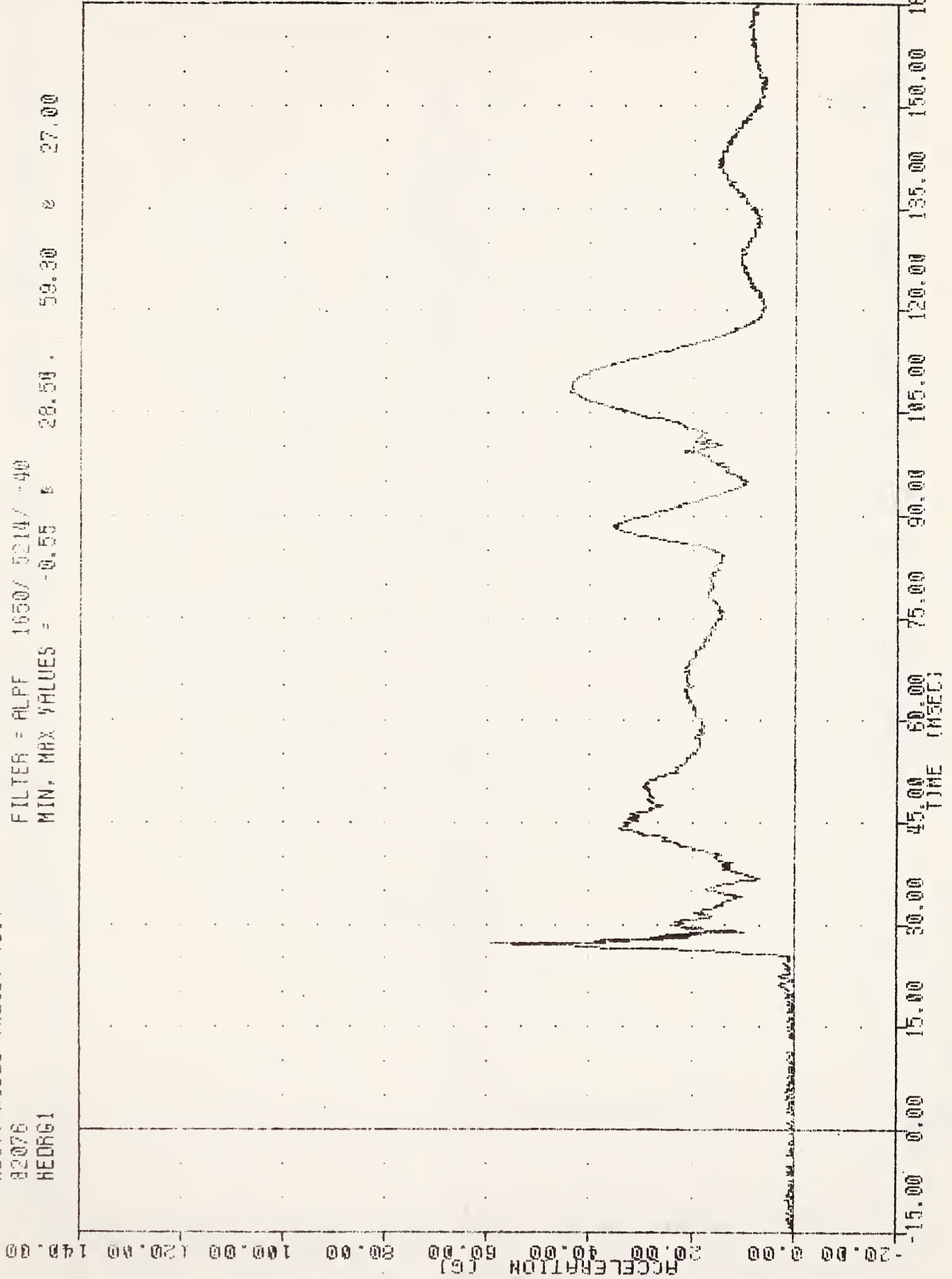
A-244

HEAD ACCELERATION Z AXIS DRIVER

551093500 , TRC054
REST. MODEL VALID. TEST
82076
HEDRG1

2-APR-82 15:16:56

FILTER = HLPF 1650/ 5214/ -40
MIN. MAX VALUES = -0.55 6 28.50 59.30 27.00



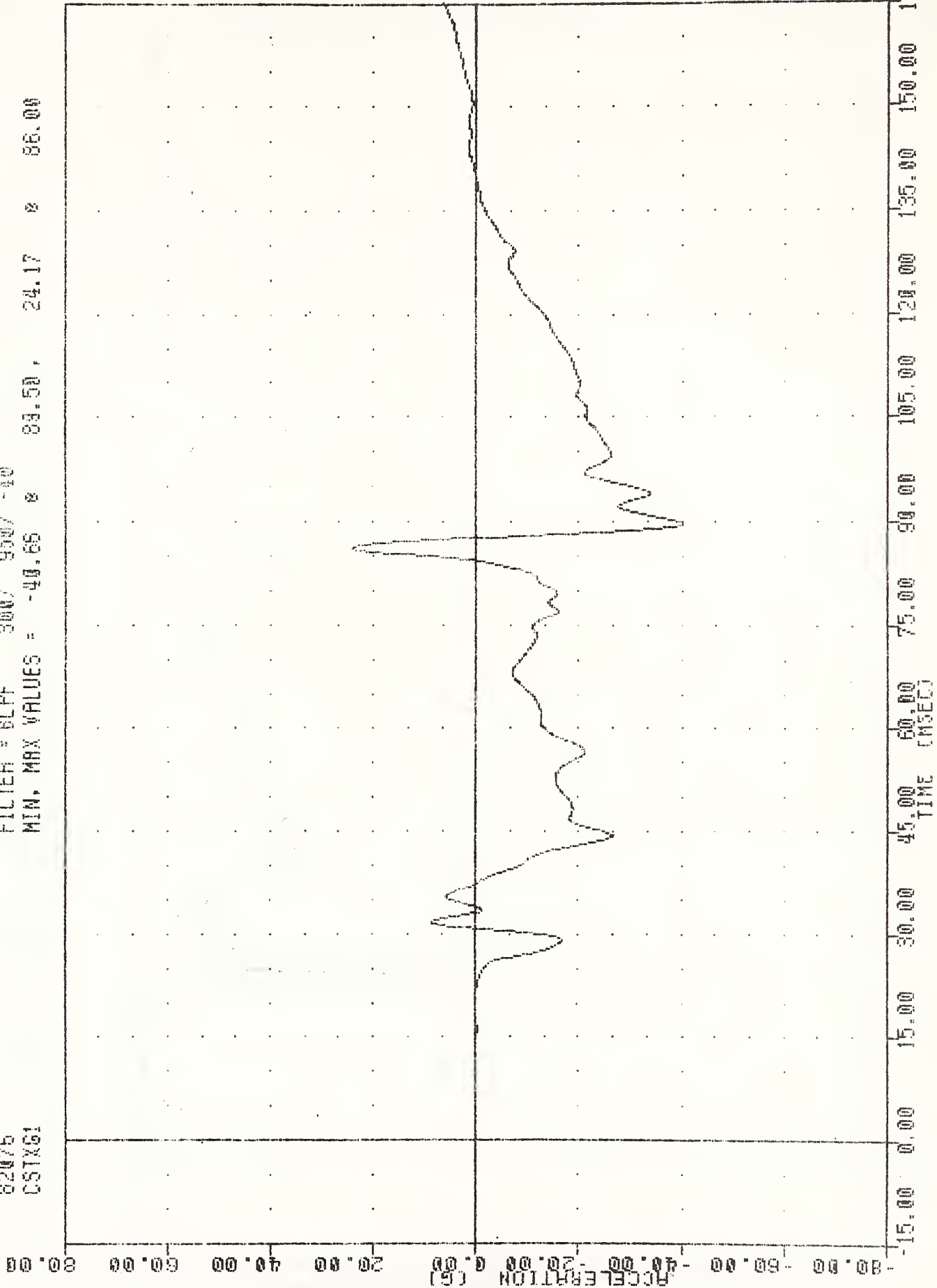
A-245

HEAD ACCELERATION RESULTANT DRIVER

2-APR-82 15:18:36

551090500 , TRCN64
REPT. MODEL VALID. TEST
82078
CSTX61

FILTER = 6LFF 300/ 950/ -10
MIN. MAX VALUES = -40.65 83.50 , 24.17 86.00



A-246

CHEST ACCELERATION X AXIS DRIVER

551090500 , TRC064

2-APR-82 15:18:36

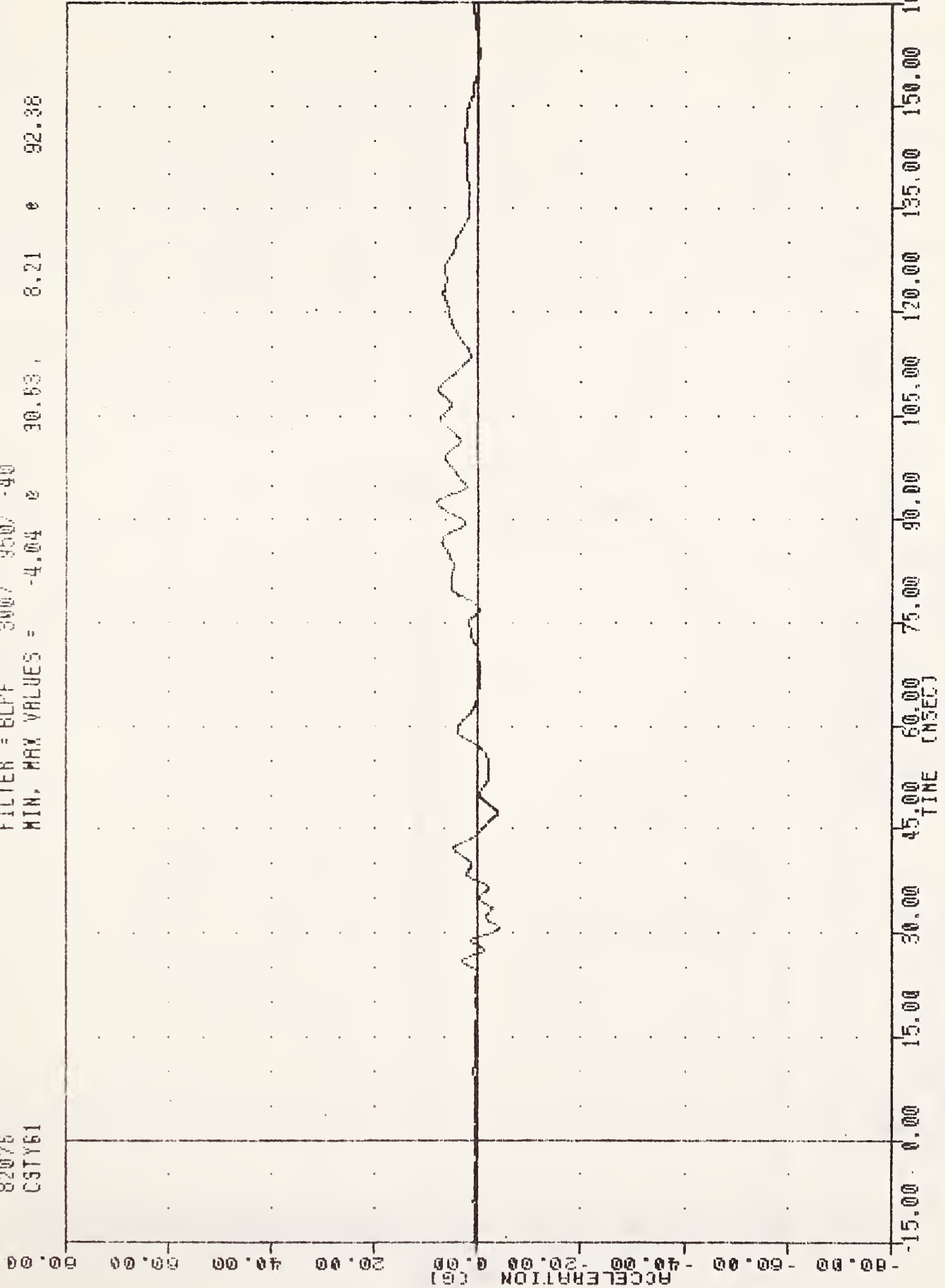
REST. MODEL VALID. TEST

82076

FILTER = BLPF 300 / 950 / -40

C3TY61

MIN. MAX VALUES = -4.04 0 30.83 8.21 0 92.38



A-247

CHEST ACCELERATION Y AXIS DRIVER

351090500 : TRC064 2-APR-82 15:18:36

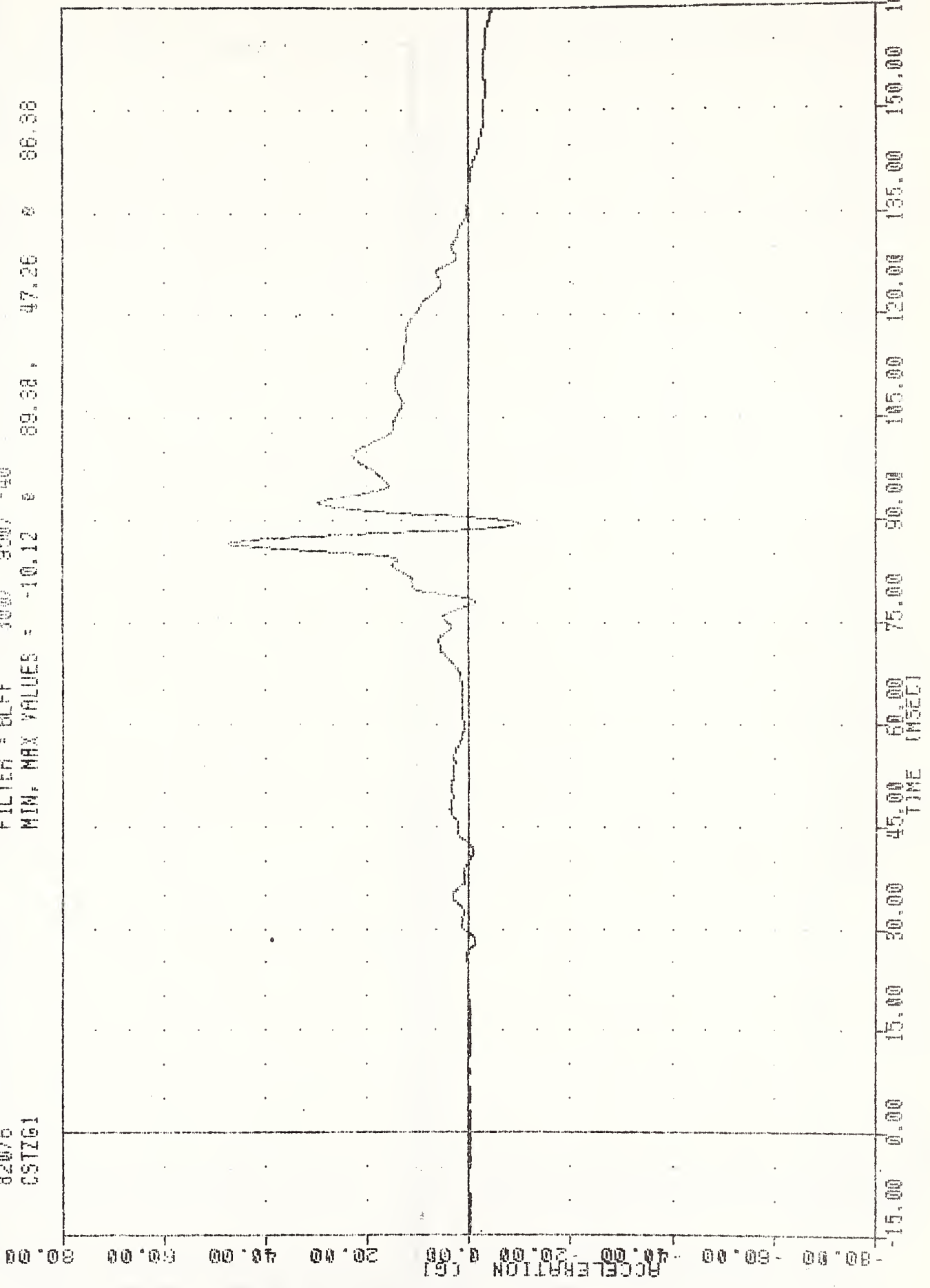
REST. MODEL VALID. TEST

82076

CSTZ61

FILTER = 8LFF 300/ 950/ -40

MIN. MAX VALUES = -10.12 e 89.38 , 47.26 e 86.38



A-248

... CHEST ACCELERATION Z AXIS DRIVER

551090580 , TRC064

2-APR-82 15:18:36

REST. MODEL VALID. TEST

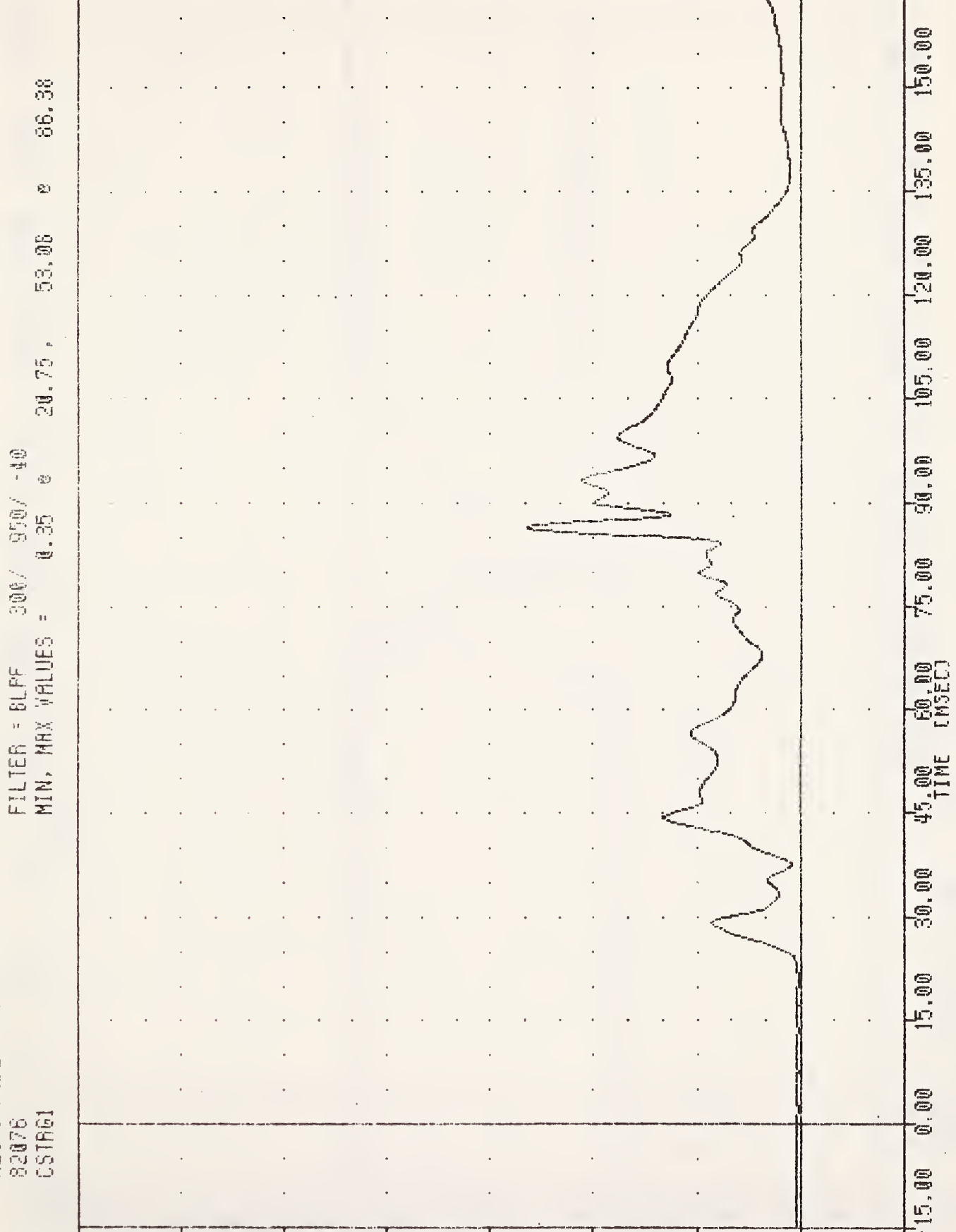
82076

FILTER = BLPF 300/ 950/ -40

CSTRG1

MIN, MAX VALUES = 0.35 @ 20.75 , 53.06 @ 86.38

A-249

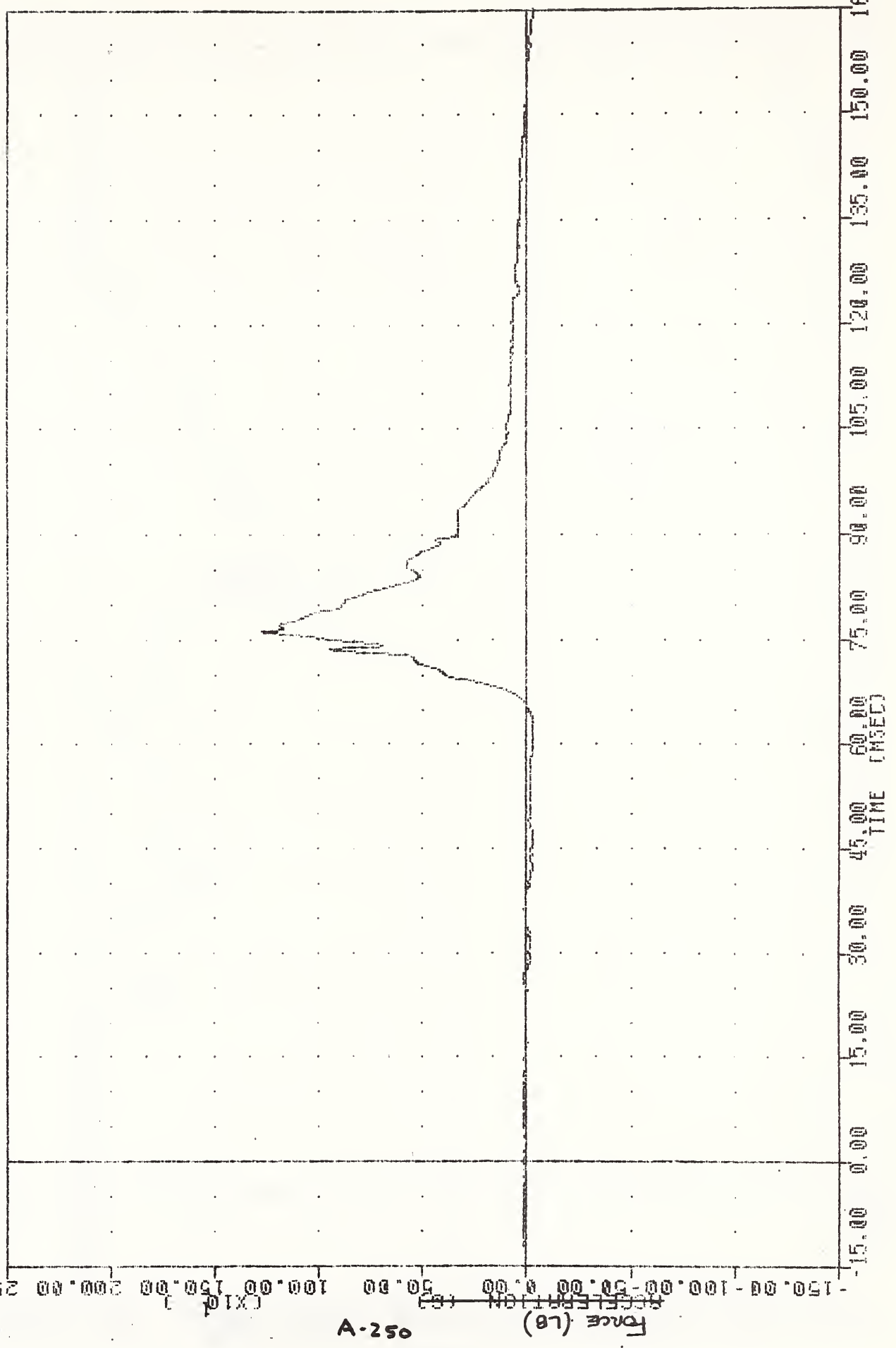


CHEST ACCELERATION RESULTANT DRIVER

2-APR-82 15:18:35

S51090500 , TRC064
REGT. MODEL VALID. TEST
82076
LFNF1

FILTER = BLPF 1000/ 3170/ -40
MIN. MAX VALUES = -26.80 8 165.00, 1273.36 8 76.00



A-250

LEFT FEMUR FORCE DRIVER

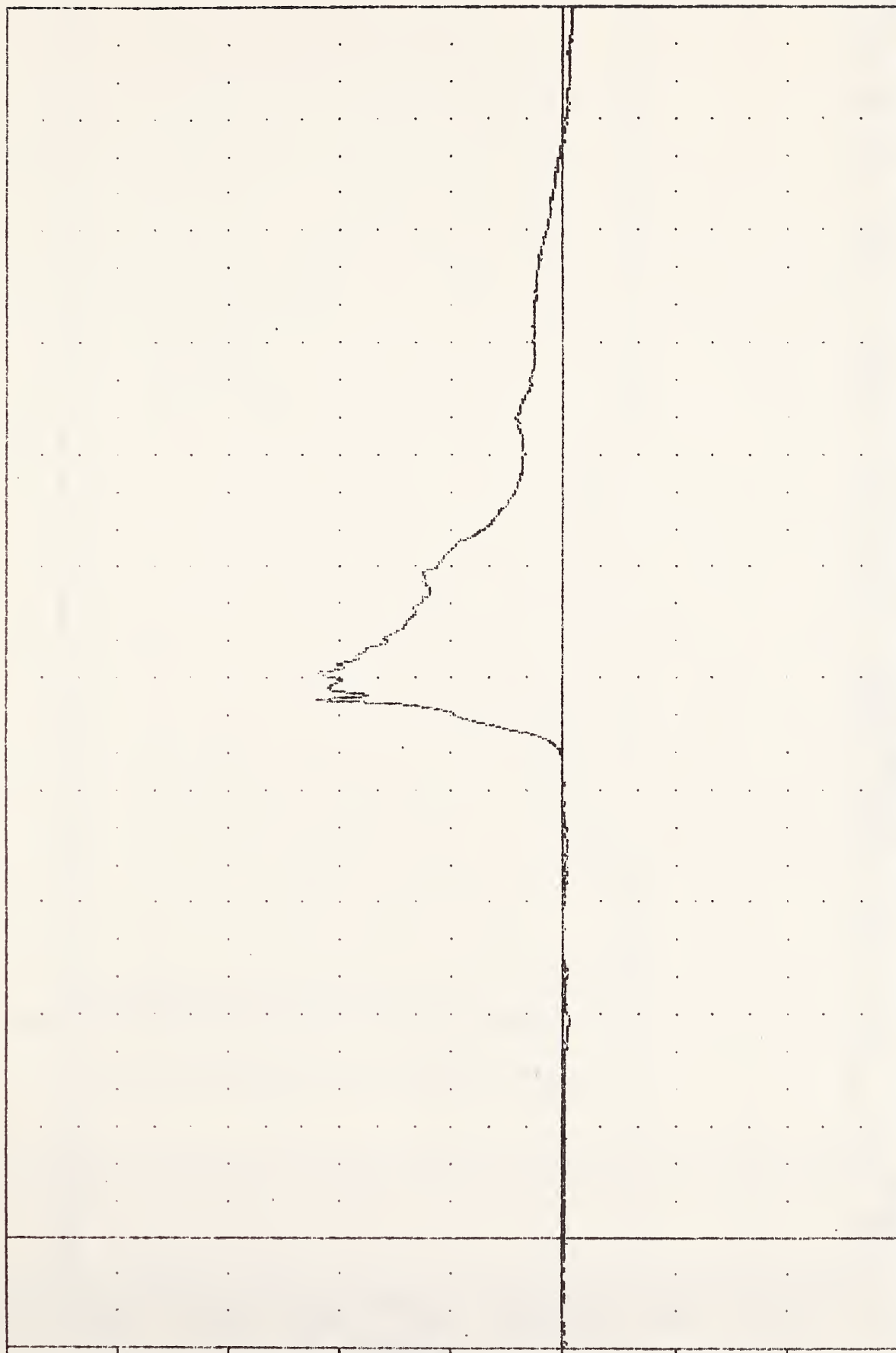
551090500 , TRC064
REST. MODEL VALID. TEST
82076
RFMFI

2-APR-82 15:18:36

FILTER = 6LFF 1000/ 3170/ -40

MIN. MAX VALUES = -38.55 e 162.50 , 1108.94 e 72.00

152-A
Force (lb)
ACCELERATION (G)
CX10 J
-150.00 -100.00 -50.00 0.00 50.00 100.00 150.00 200.00 250.00



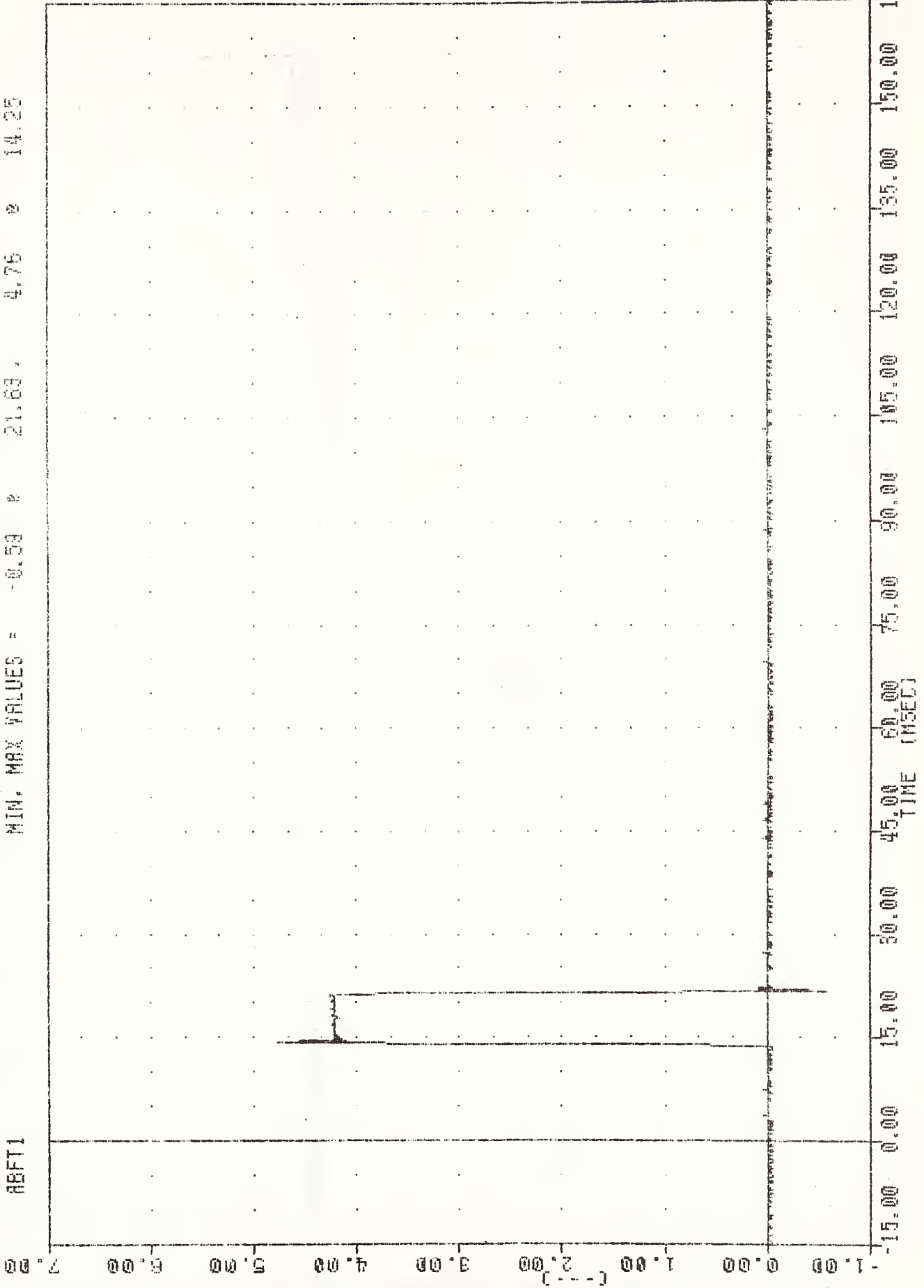
-15.00 0.00 15.00 30.00 45.00 60.00 75.00 90.00 105.00 120.00 135.00 150.00 165.00
TIME (MSEC)

RIGHT FEMUR FORCE DRIVER

551090500 , TRC064
REST. MODEL VALID. TEST
82078
ABFT1

2-APR-82 15:18:36

FILTER = HLPF 1650/ 5214/ -40
MIN. MAX VALUES = -0.53 21.63 4.76 14.25



A-252

AIR BAG FIRING EVENT DRIVER

351090500 TRC064 2-APR-82 15:18:30

REGT. MODEL VALVE TEST

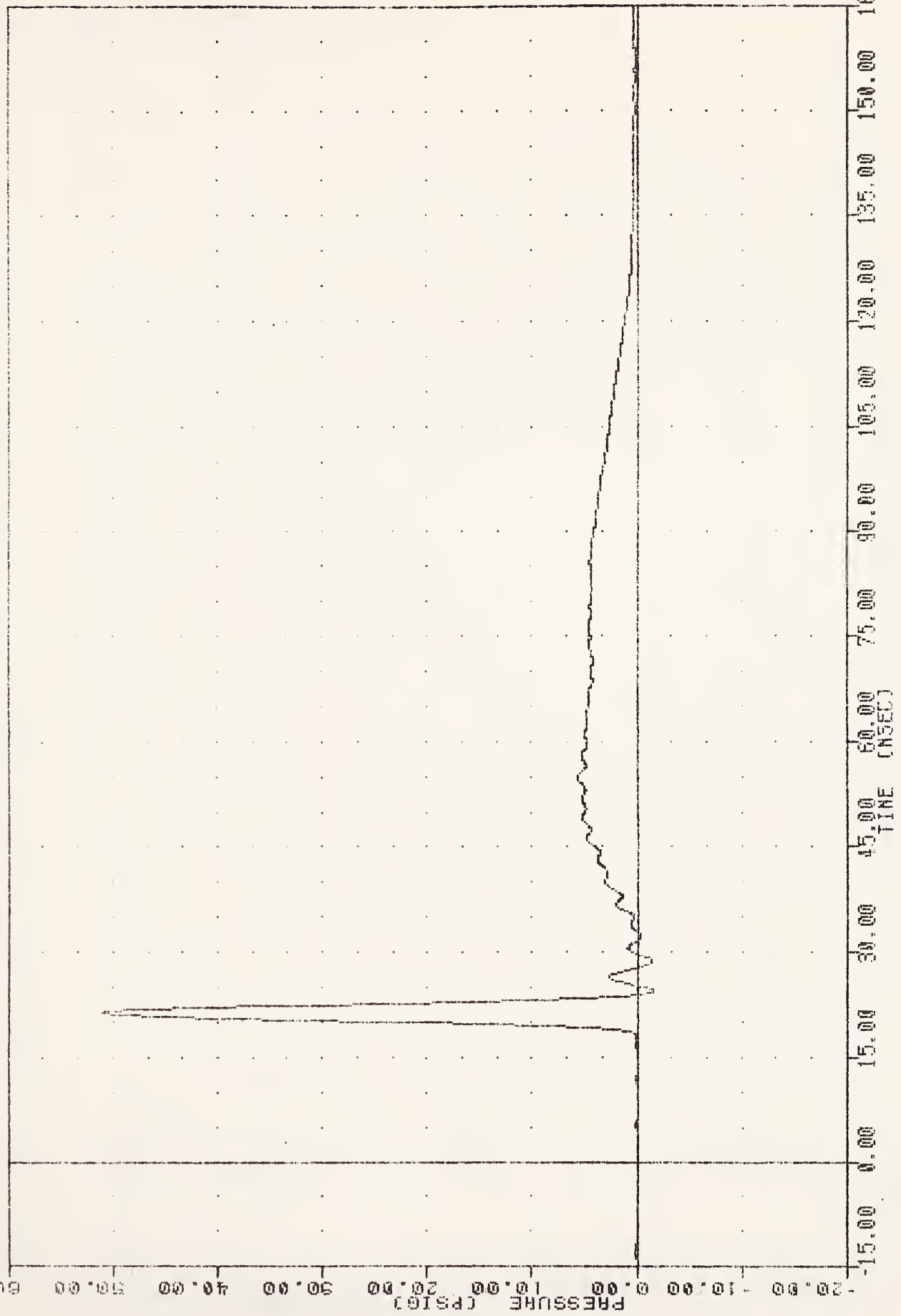
FILTER = 6LFF 3000 9500 / -40

MIN. MAX VALUES = -1.67 e 24.38 51.11 e 21.25

82076
ABPI

60.00 50.00 40.00 30.00 20.00 10.00 0.00 -10.00 -20.00

A-253



AIR BAG PRESSURE DRIVER

551090580 * TRC054 2-APR-82 15:18:36

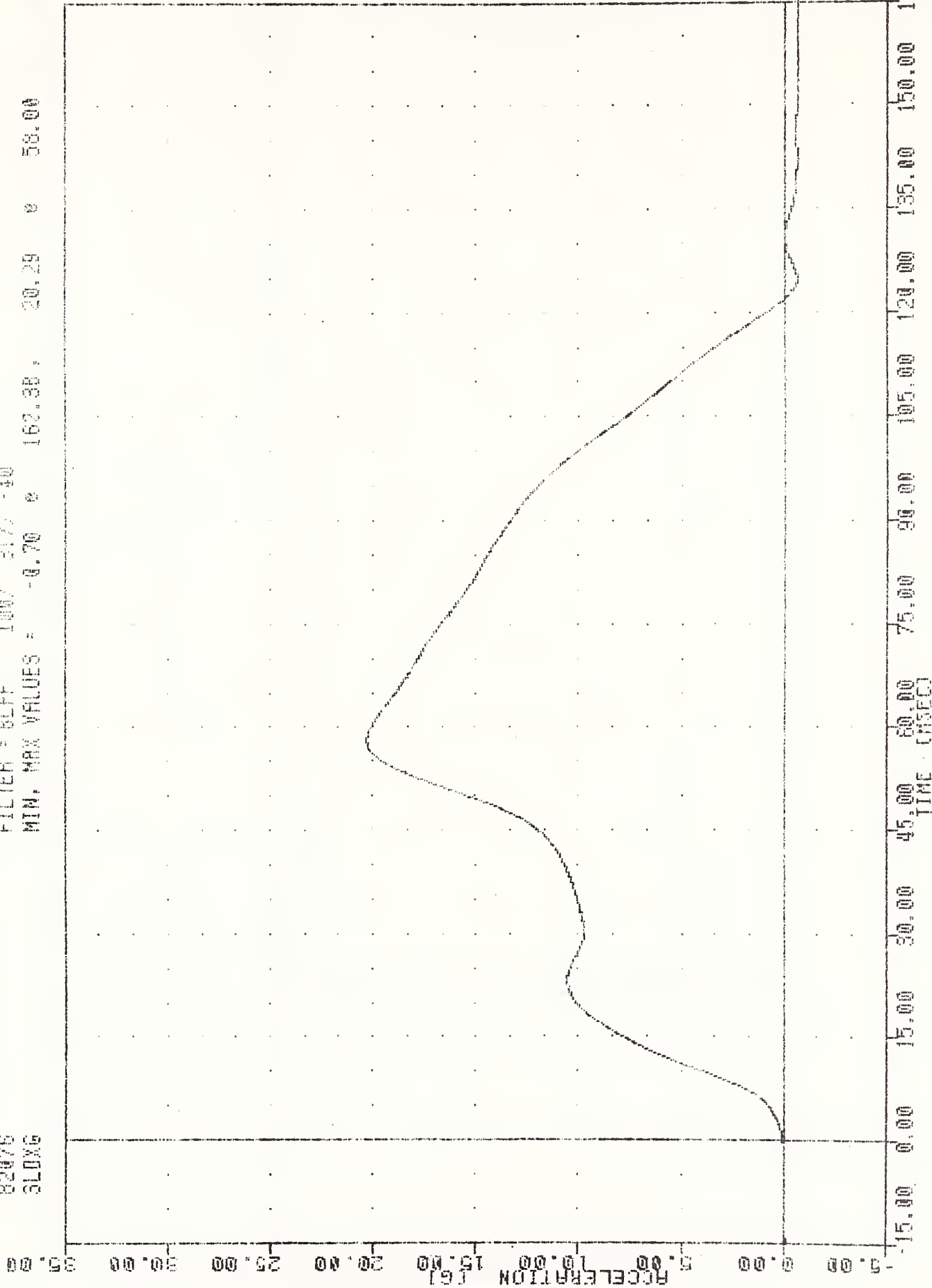
REST. MODEL VALID. TEST

82076

3LDXG

FILTER = 5LFF 100/ 5173 -40

MIN. MAX VALUES = -0.70 e 162.38, 20.29 e 58.00



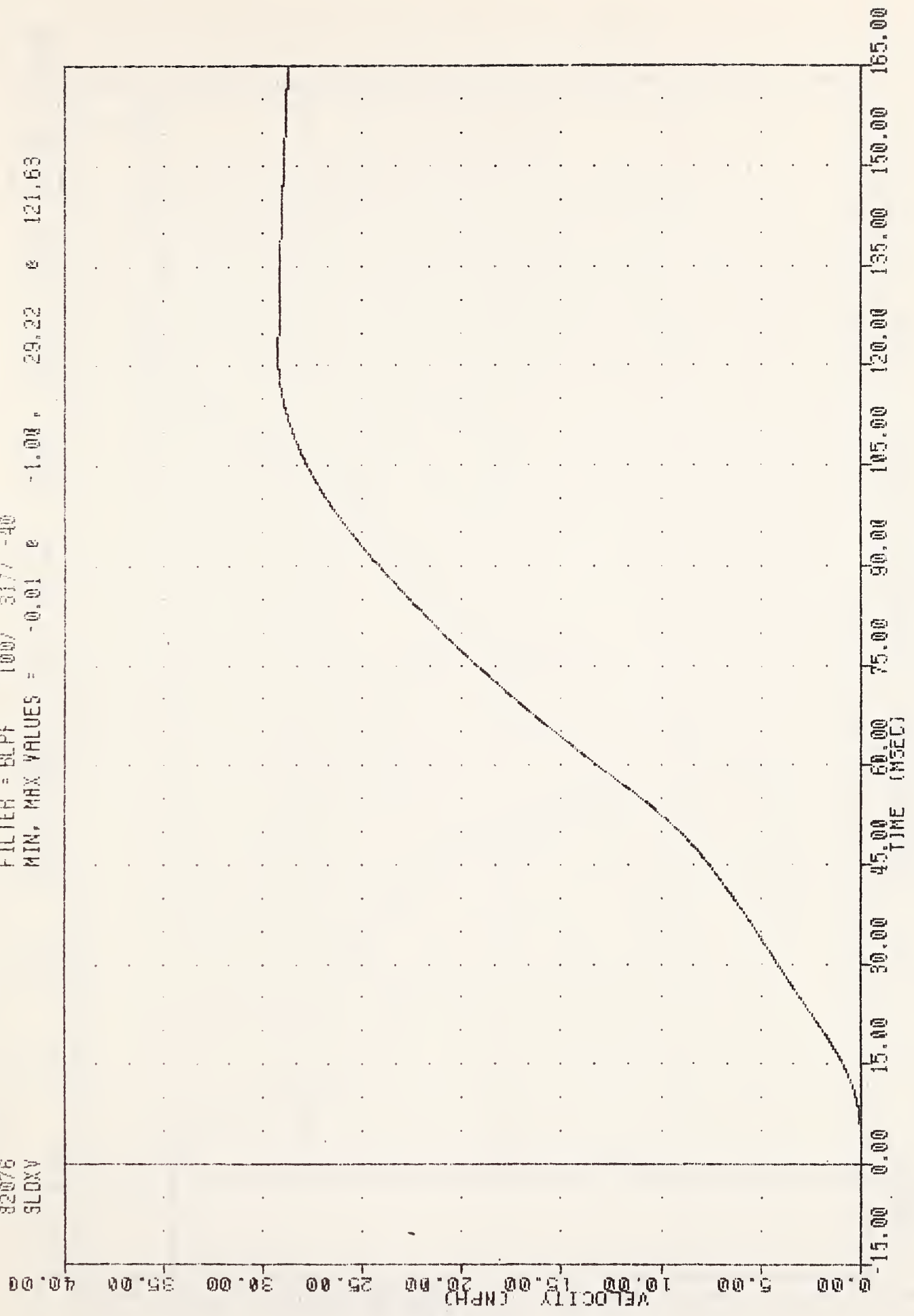
A-254

SLED ACCELERATION

2-APR-82 15:18:36

351090500 , TR0054
REST. MODEL VALID. TEST
82076
SLOXY

FILTER = BLPF 100/ 317/ -40
MIN. MAX VALUES = -0.01 e -1.00 f 29.22 e 121.63



A-255

SLED VELOCITY IN MPH

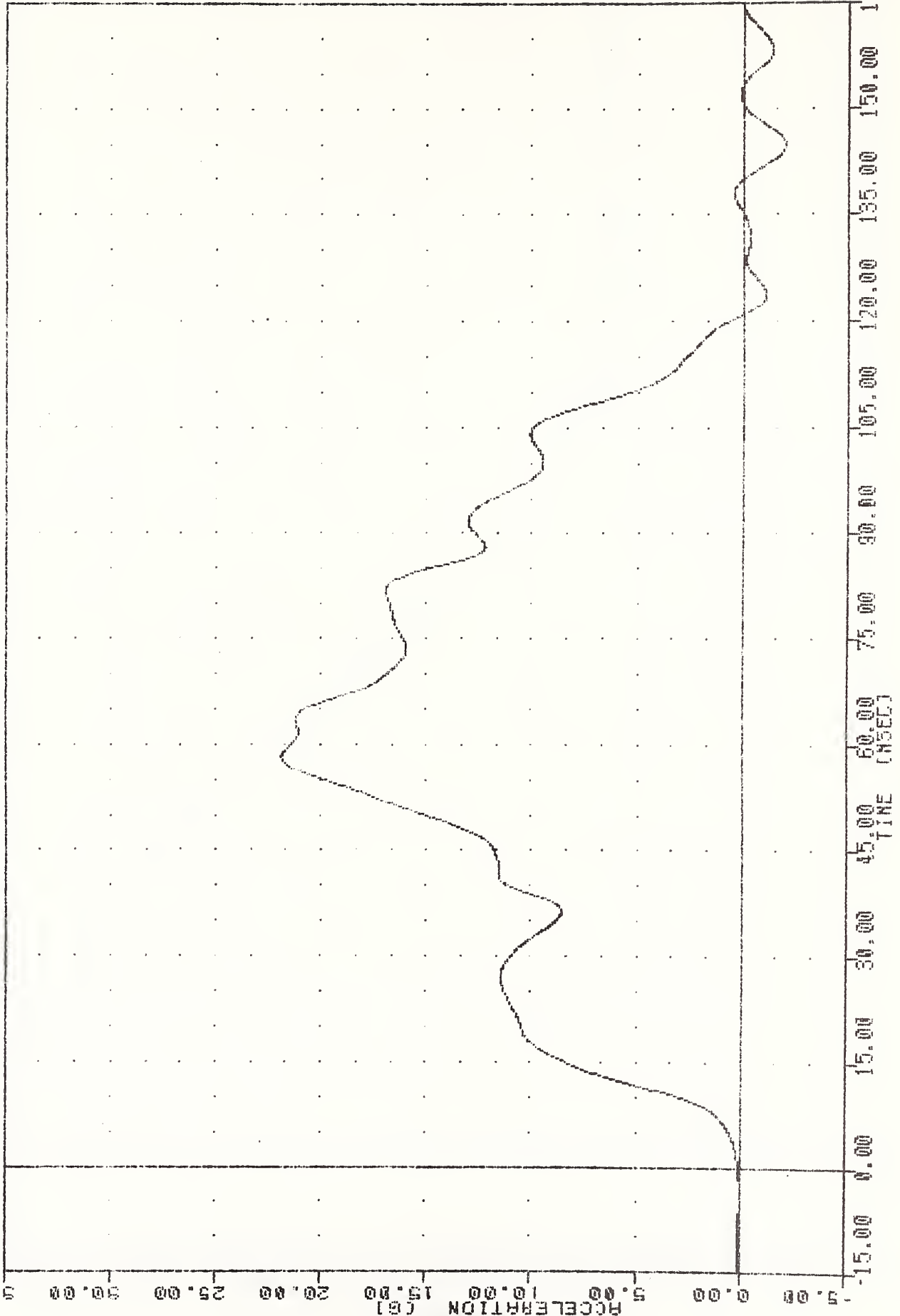
2-APR-82 15:18:36

591090500 . TR0064
REST. MODEL VALID. TEST

FILTER = 6LPF 100/ 317/ -40

MIN. MAX VALUES = -2.04 e 144.63 , 21.87 e 58.00

FTUX6

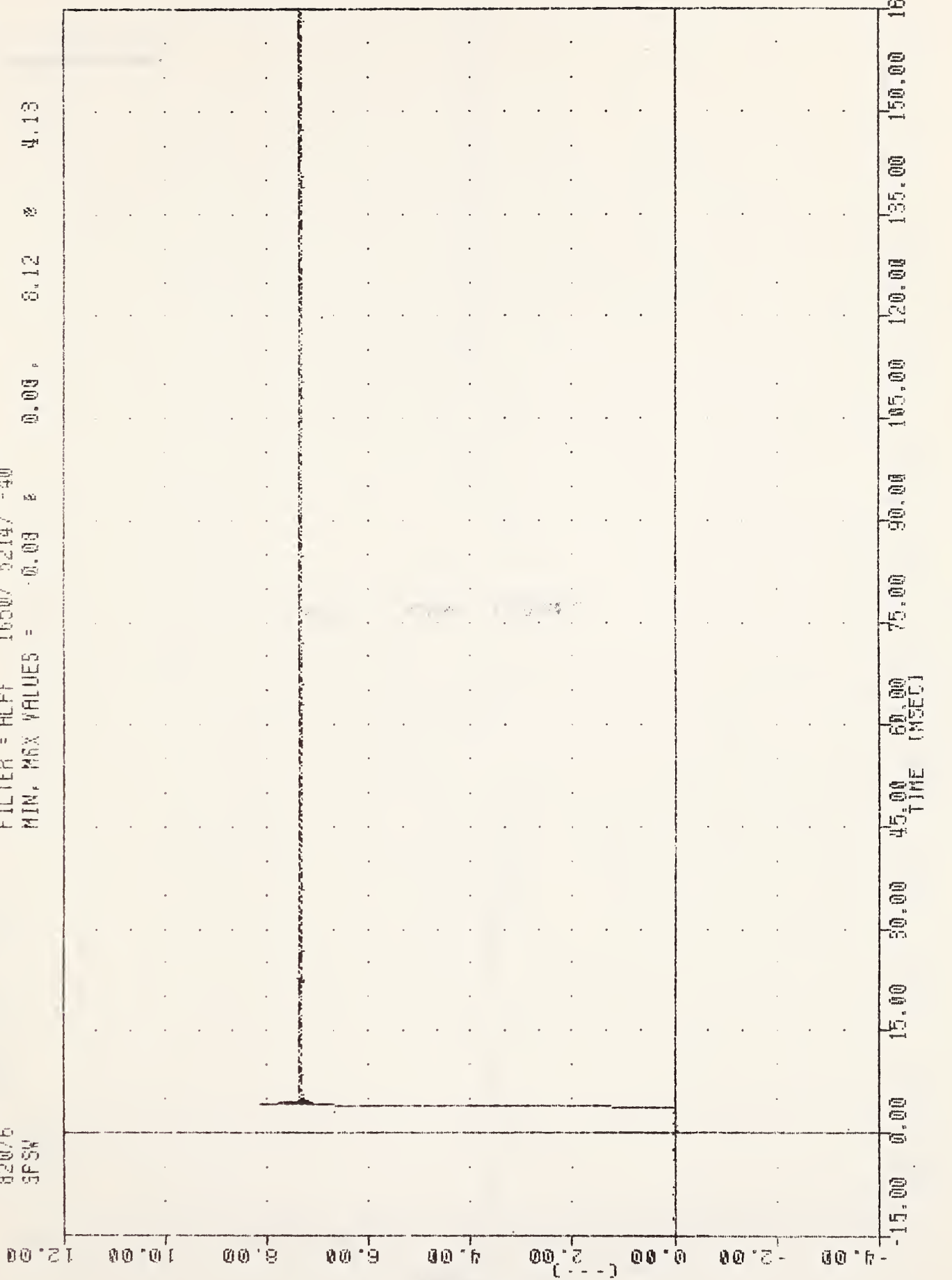


FLOOR PAN TUNNEL ACCELERATION

2-APR-62 15:14:06

351090500 , TRC054
BEST. MODEL VALID. TEST
82076
9FSW

FILTER = HLPF 1650/ 5214/ -40
MIN. MAX VALUES = 0.00 8.12 0 4.13



A-257

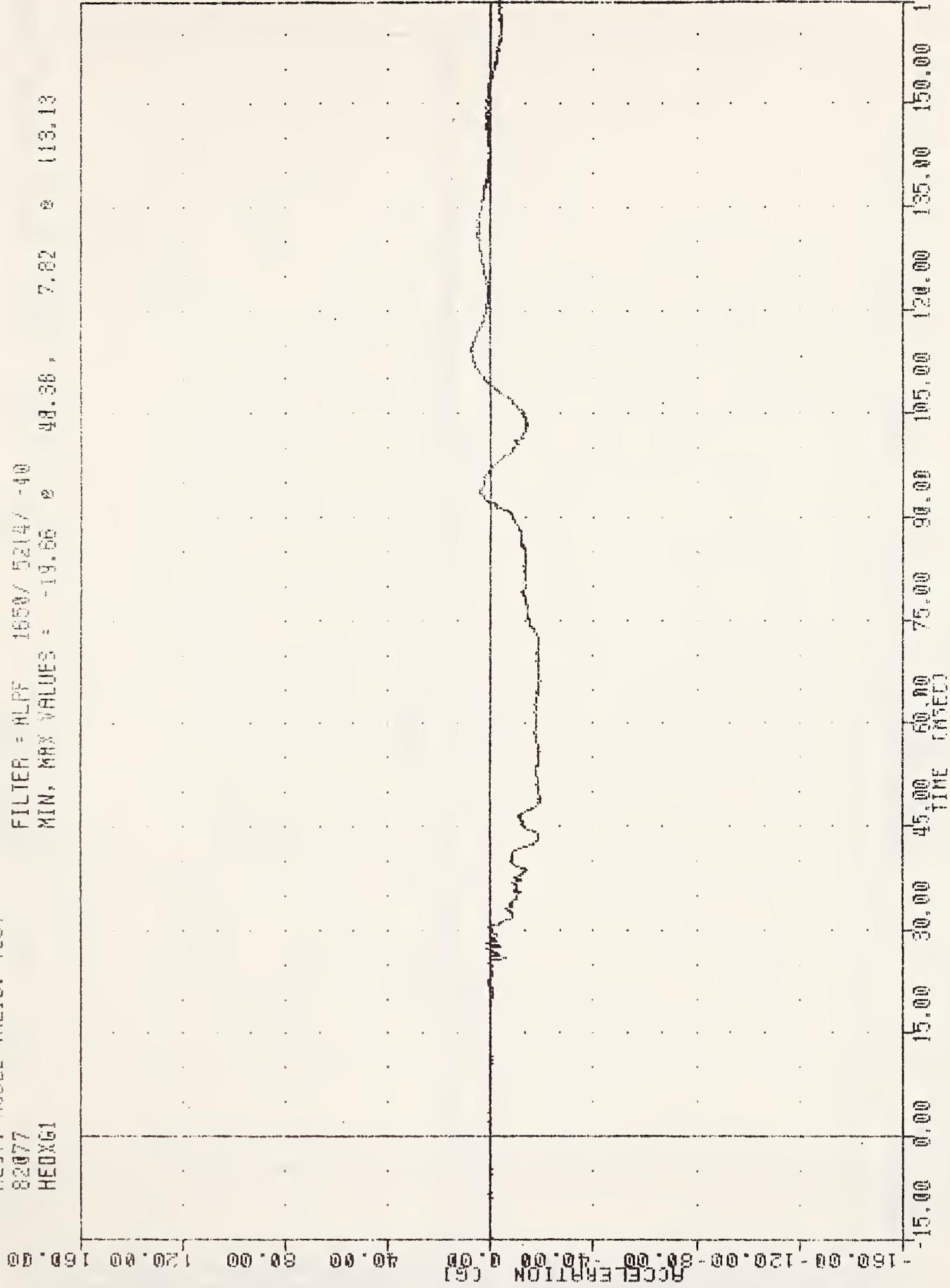
SLED POSITION SWITCH

TEST NO. 10

S51100550 , TRCN65
REST. MODEL VALID. TEST
82077
HEADXG1

2-APR-82 14:25:06

FILTER = ALPF 1650/ 5214/ -40
MIN. MAX VALUES : -19.66 e 48.38 , 7.82 e 113.13



A-259

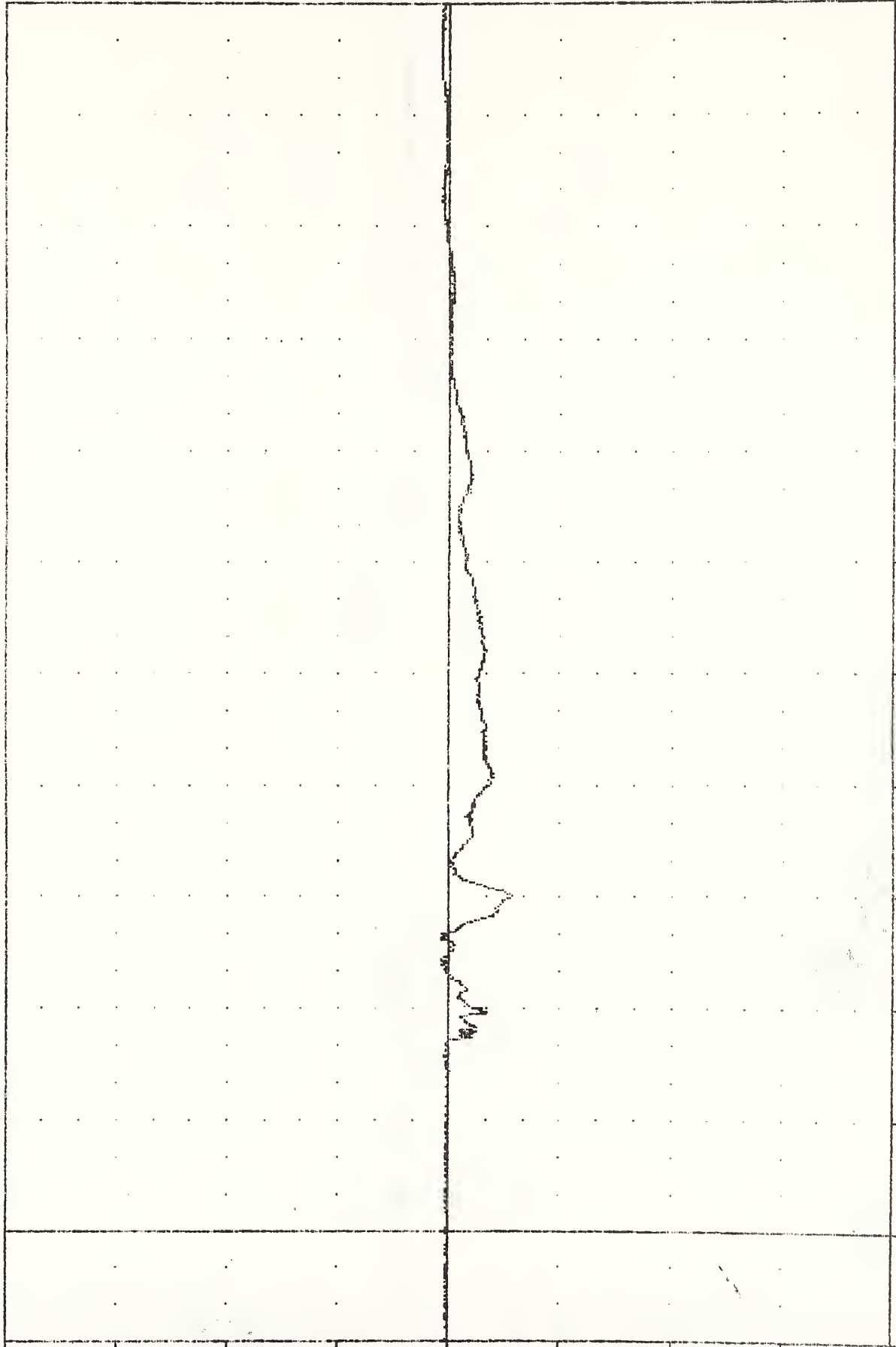
HEAD ACCELERATION X AXIS DRIVER

2-APR-82 14:25:00

551100550 , TR0065
REST. MODEL VALID. TEST
82077
HEDY61

FILTER : ALPF 1650 / 5214 / -40
MIN. MAX VALUES : -22.84 0 44.88 3.16 * 35.75

ACCELERATION (G)



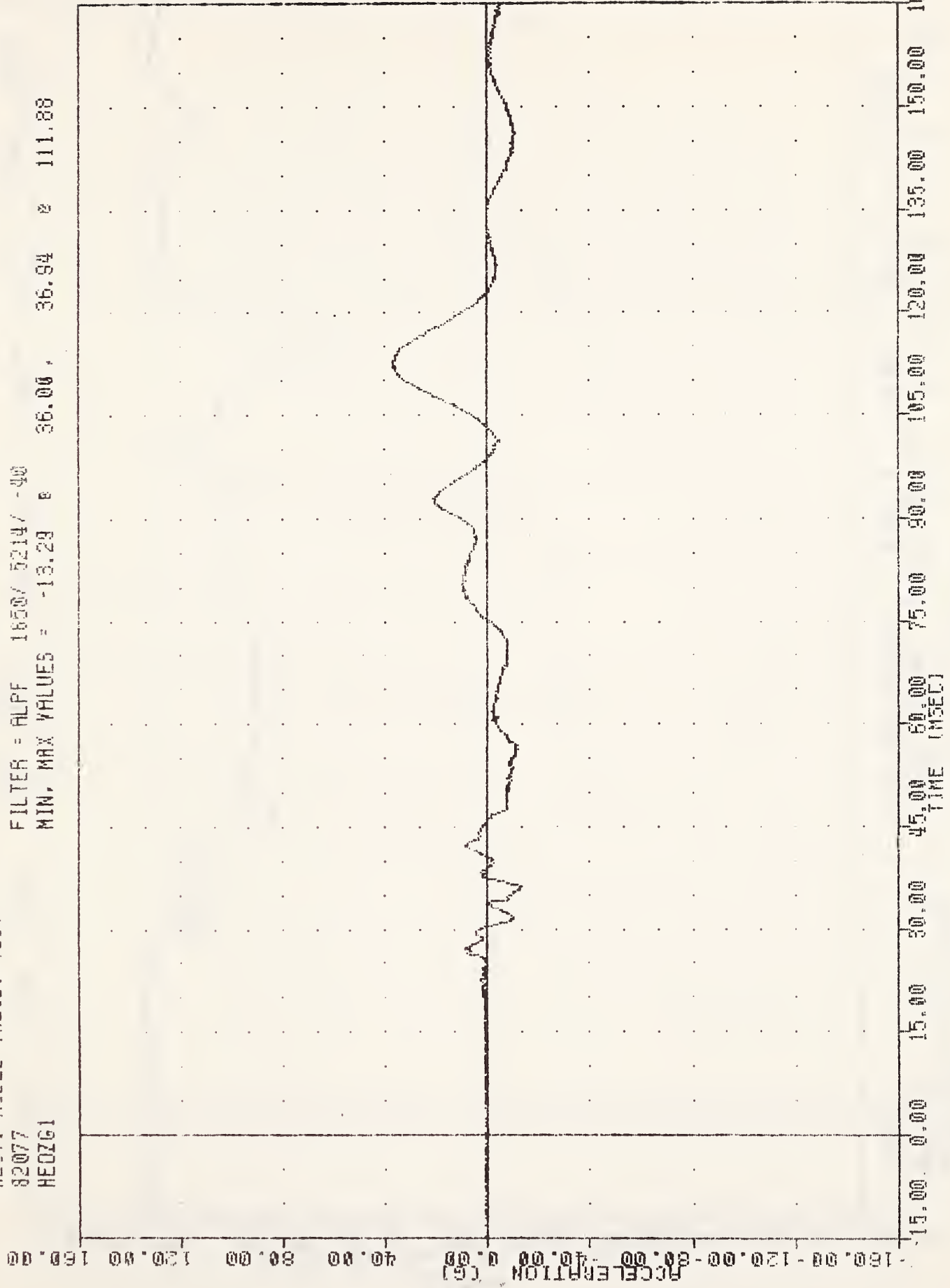
A-260

HEAD ACCELERATION Y AXIS DRIVER

S51100550 , TAD065
REST. MODEL VALID. TEST
82077
HEADZG1

2-APR-82 14:25:08

FILTER = ALPF 1650/ 5214/ -40
MIN. MAX VALUES = -13.29 e 36.94 e 111.88



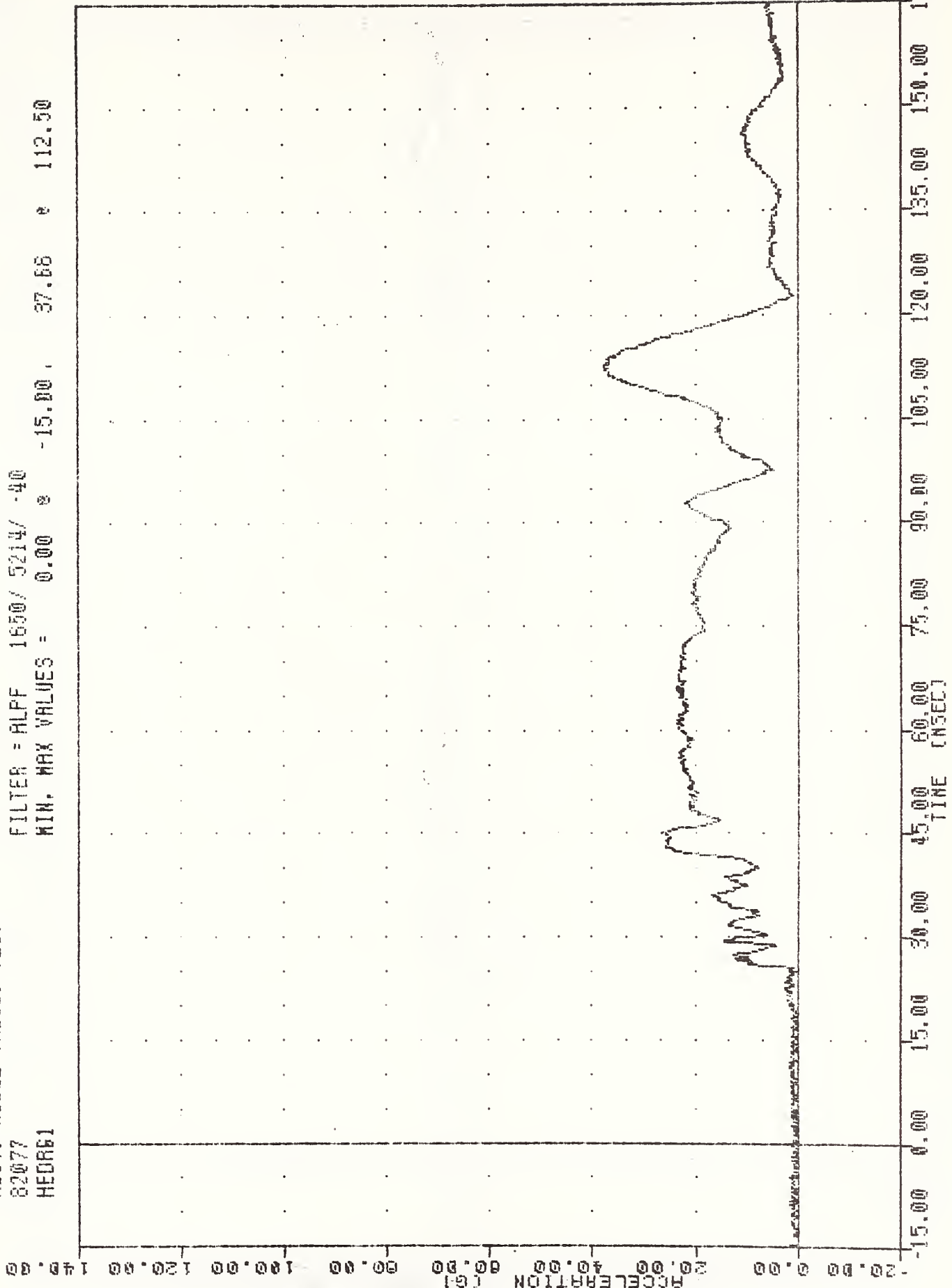
A-261

HEAD ACCELERATION Z AXIS DRIVER

351100550 , TRACES
REST. MODEL VALID. TEST
82077
HEAD61

2-APR-82 14:25:08

FILTER = ALPF 1650/ 5214/ -40
MIN. MAX VALUES = 0.00 e -15.00 . 37.66 e 112.50



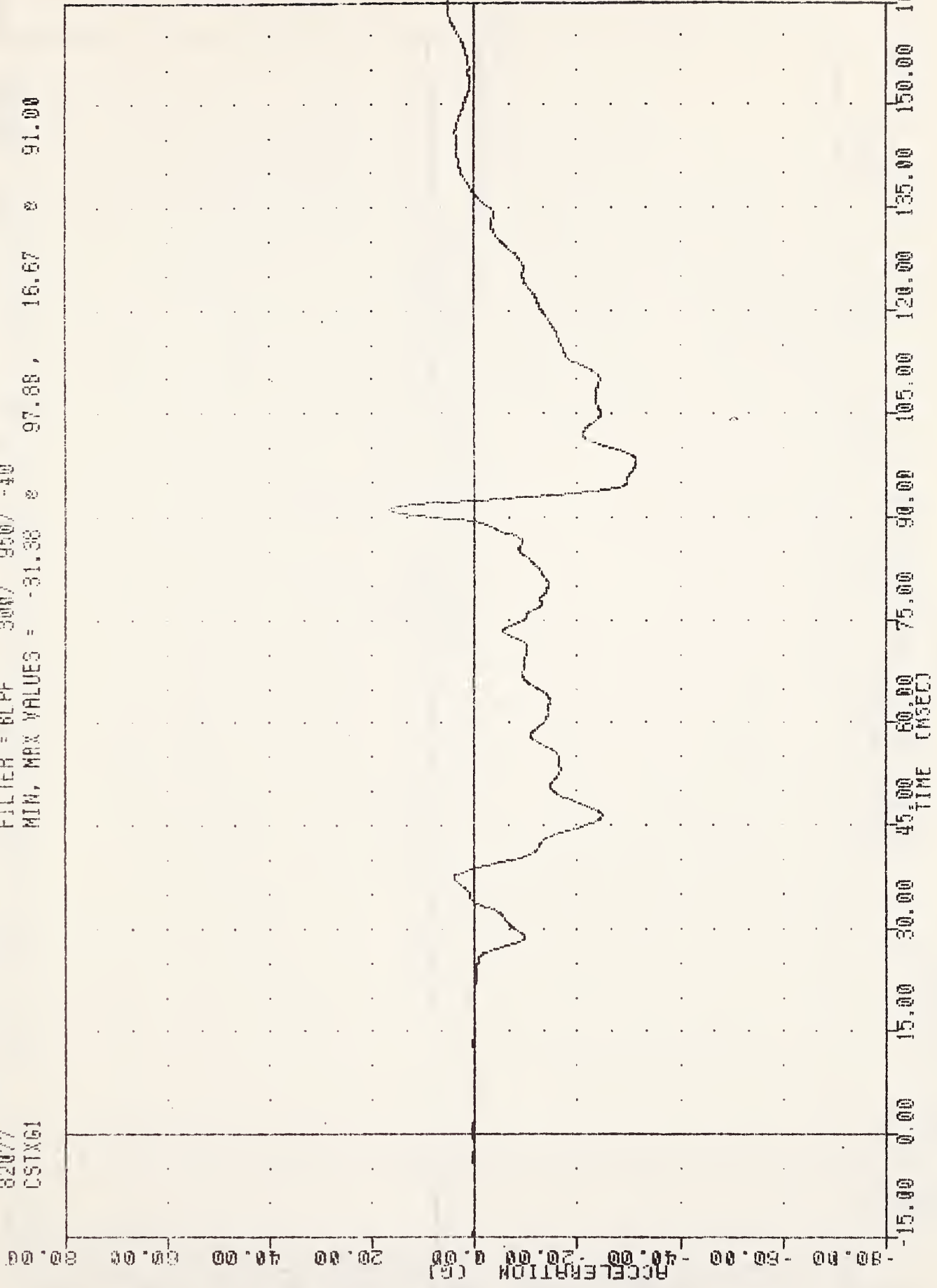
292-A

HEAD ACCELERATION RESULTANT DRIVER

951100550 . TRC065
REST. MODEL VALID. TEST
82077
CSTXG1

2-RPR-82 14:25:08

FILTER = BLPF 300/ 950/ -40
MIN, MAX VALUES = -31.38 e 97.88, 16.67 e 91.00



A-263

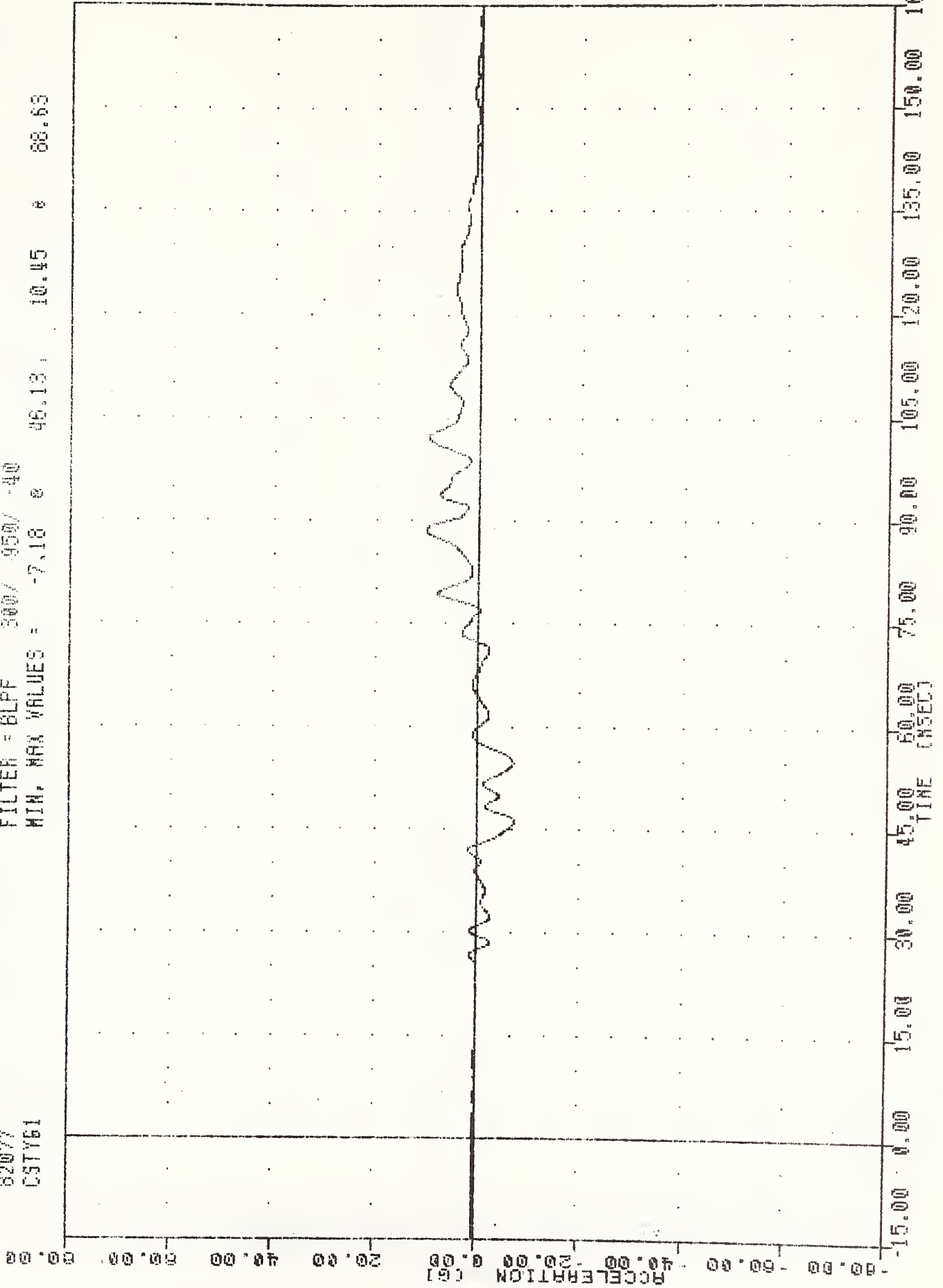
CHEST ACCELERATION X AXIS DRIVER

2-APR-82 14:25:08

S511R0550 , T5C065
REST. MODEL VALID, TEST
62077
CSTY61

FILTER = BLPF 300/ 950/ -40
MIN, MAX VALUES = -7.18 e 46.13 , 10.45 e 66.63

A-264

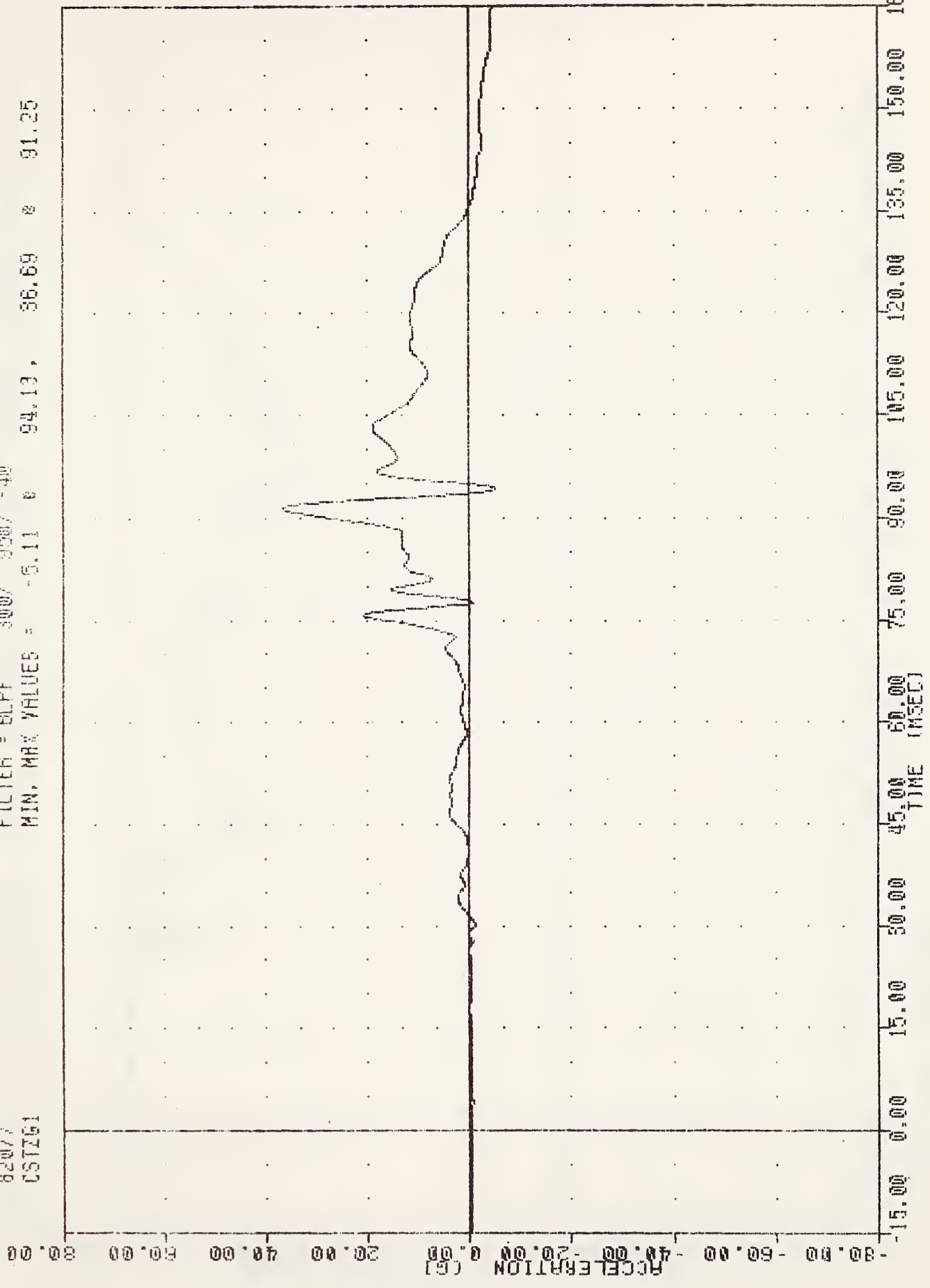


... CHEST ACCELERATION Y AXIS DRIVER

551100550 , TRC065
REST. MODEL VALID, TEST
82077
CSTZG1

2-APR-82 14:25:00

FILTER = 8LFF 300/ 950/ -40
MIN. MAX VALUES = -5.11 8 94.13, 36.69 8 91.25



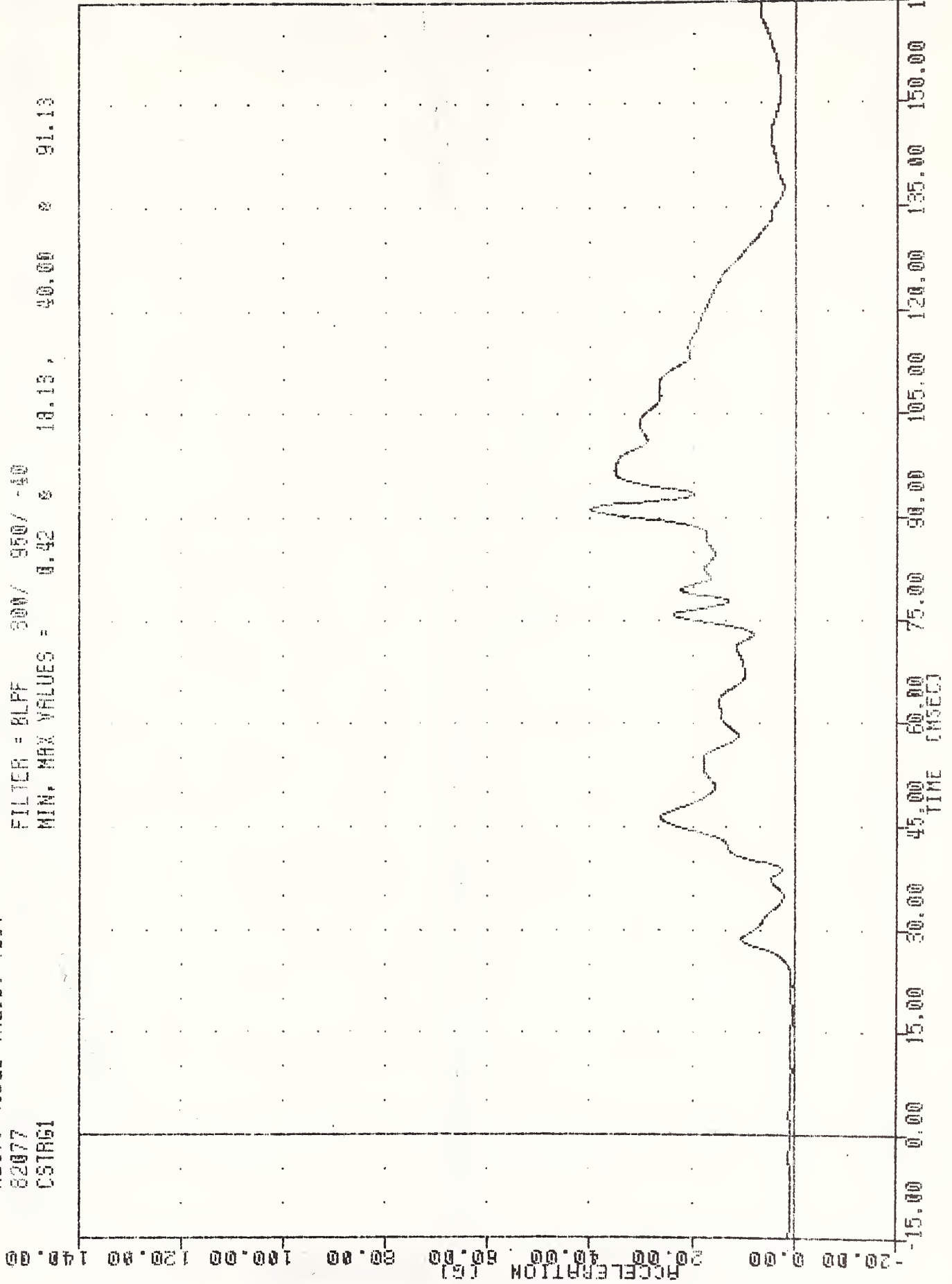
A-265

CHEST ACCELERATION Z AXIS DRIVER

2-APR-82 14:25:09

551100550 , TRC065
REST. MODEL VALID. TEST
82077
CSTRG1

FILTER = BLPF 30W/ 950/ -40
MIN. MAX VALUES = 0.42 18.13, 40.00 91.13



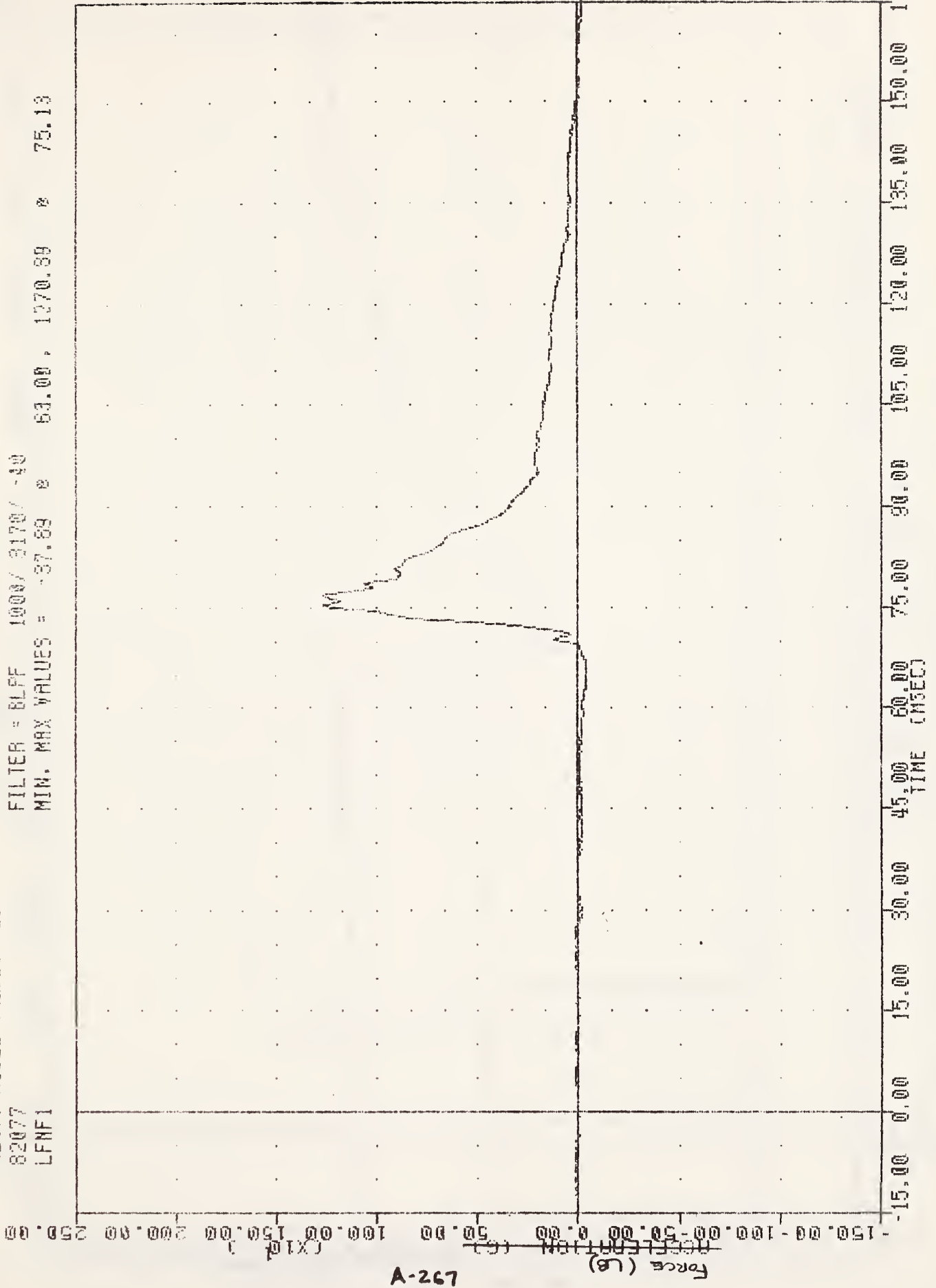
992-A

CHEST ACCELERATION RESULTANT DRIVER

S51100550 . TRC065
REST. MODEL VALID. TEST
82077
LFNF1

2-APR-82 14:25:08

FILTER = BLFF 1000/ 3170/ -40
MIN. MAX VALUES = -87.89 8 63.00 , 1270.89 8 75.13



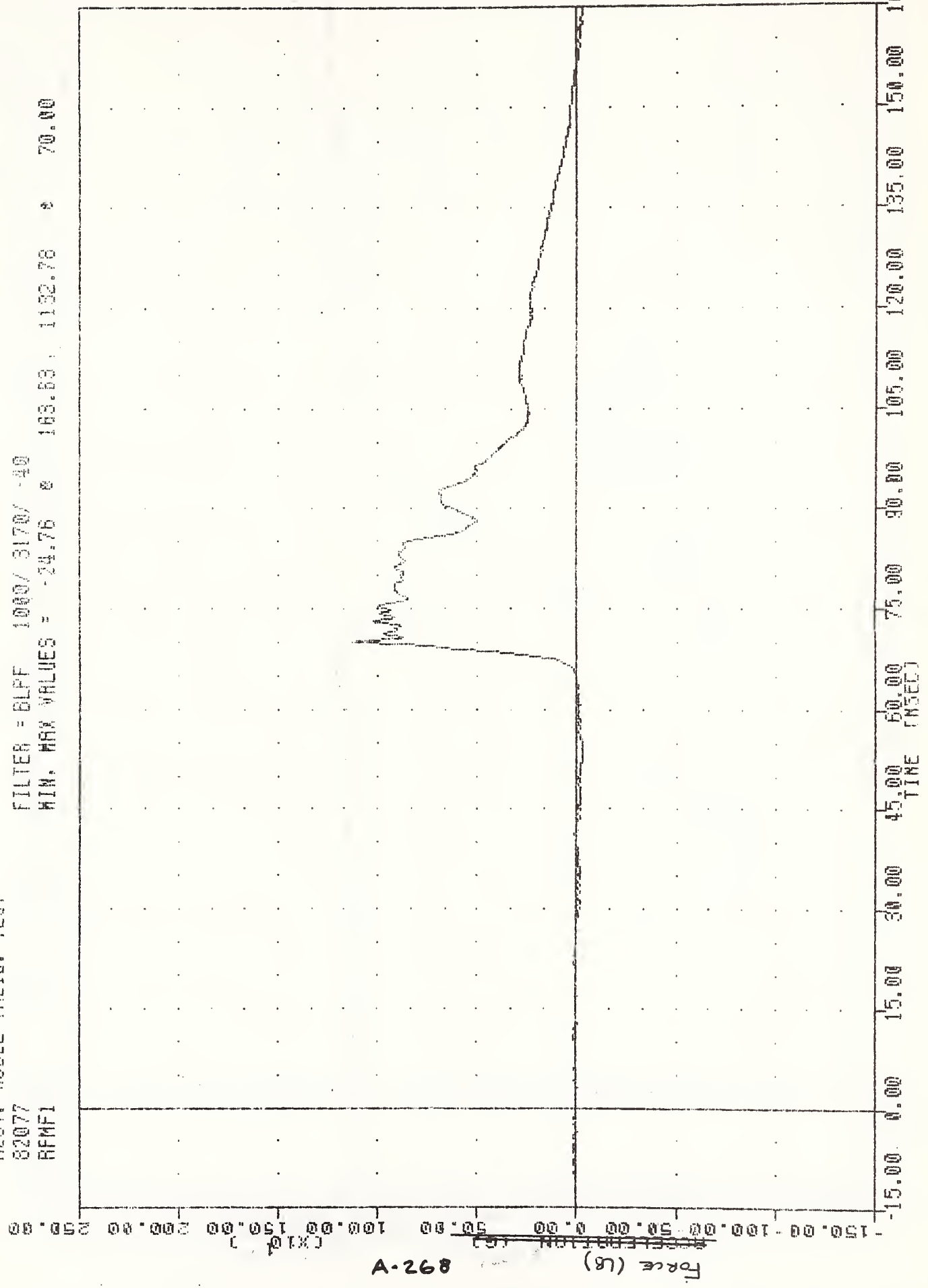
A-267

LEFT FEMUR FORCE DRIVER

2-APR-82 14:25:00

551100550 , TRC065
REST. MODEL VALID. TEST
82077
RFMF1

FILTER = BLPF 1000/3170/ -40
MIN. MAX VALUES = -24.76 * 163.53 ; 1132.78 * 70.00



RIGHT FEMUR FORCE DRIVER

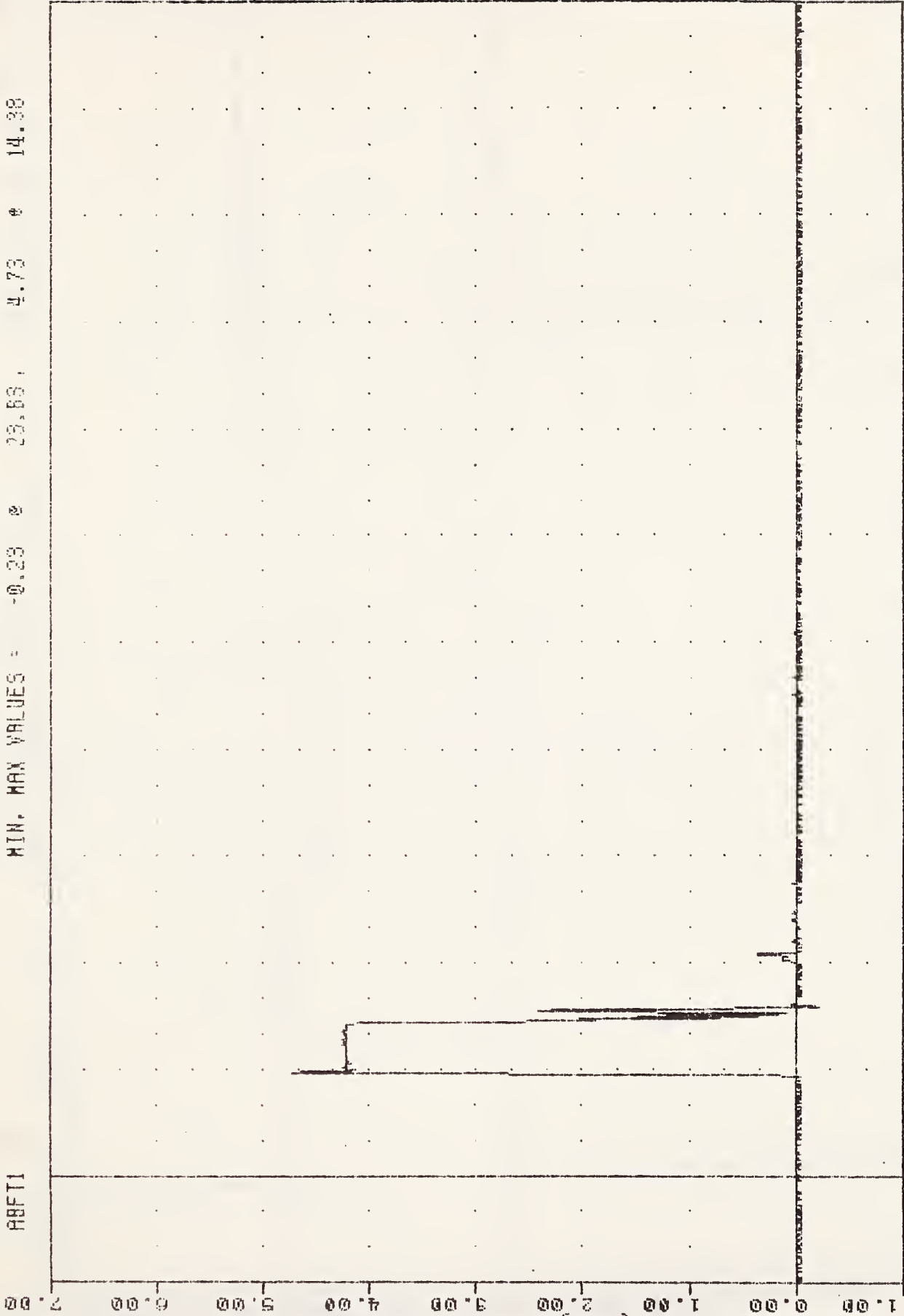
2-APR-82 14:28:08

551100550 ; TR0085
REST. MODEL VALID. TEST

FILTER = ALPF 1650 / 5214 / -40

MIN. MAX VALUES = -0.29 @ 23.69 @ 4.73 @ 14.38

82077
ABFT1

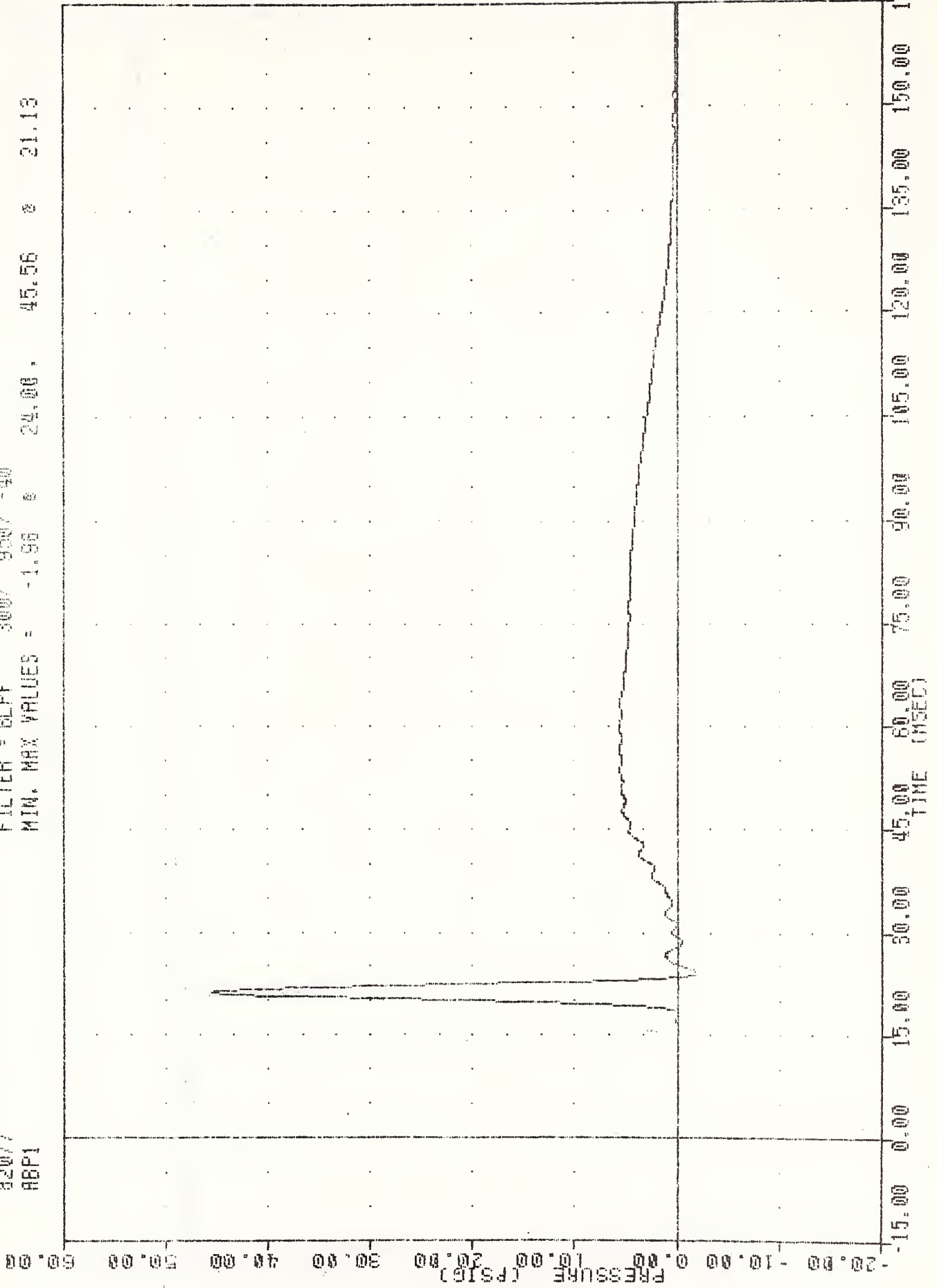


AIR BAG FIRING EVENT DRIVER

2-APR-82 14:25:08

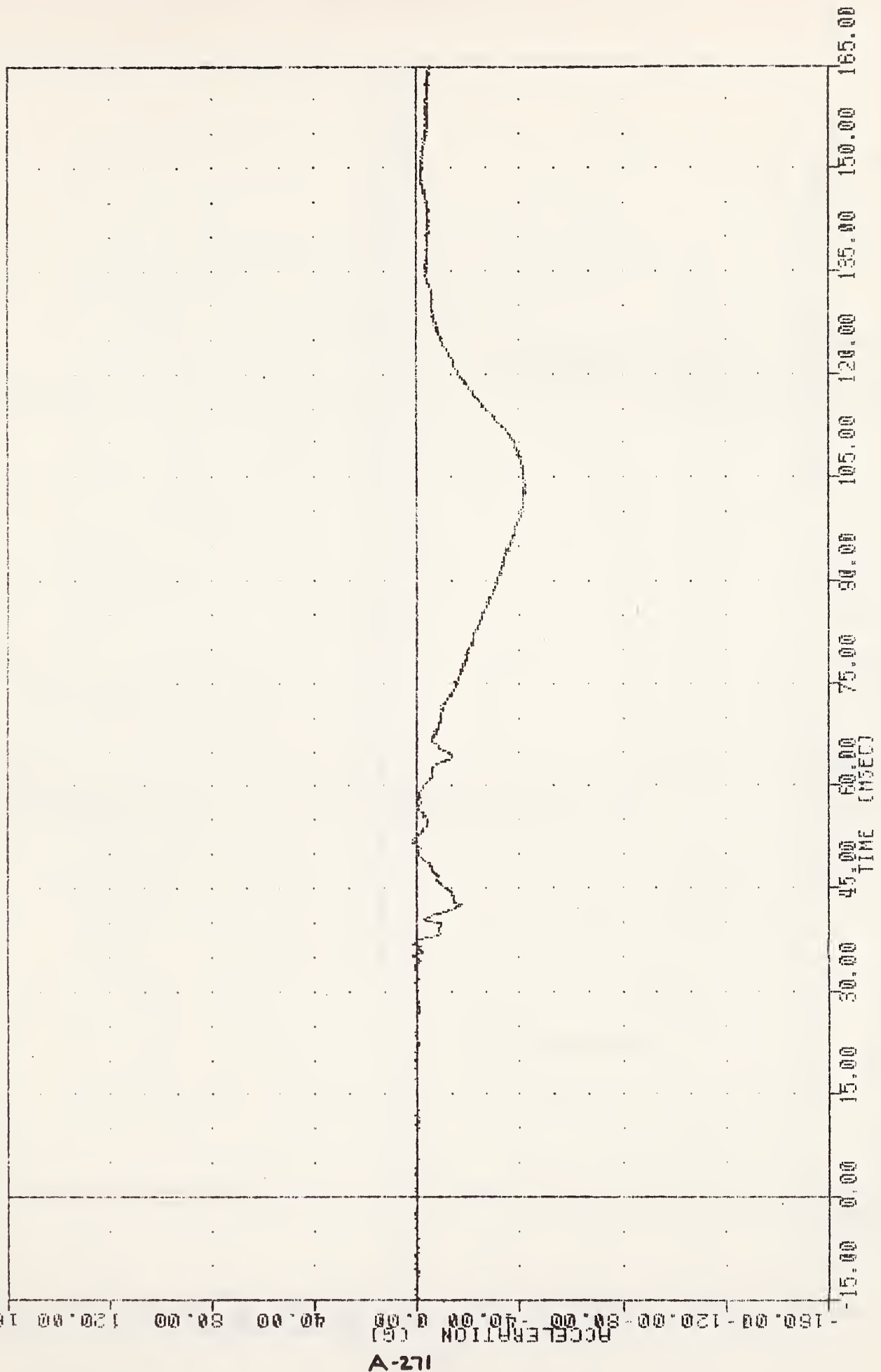
S51100550 . TRC065
REST. MODEL VALID, TEST
82077
ABPI

FILTER = BLPF 3007 9507 -40
MIN. MAX VALUES = -1.96 e 24.00 e 45.56 e 21.13



AIR BAG PRESSURE DRIVER

551100550 , TRU065 2-APR-82 14:25:08
REST. MODEL VALID, TEST
62077 FILTER = ALPF 1650/ 5214/ -10
HEADX62 MIN, MAX VALUES = -42.18 @ 102.36 , 1.58 @ 34.88



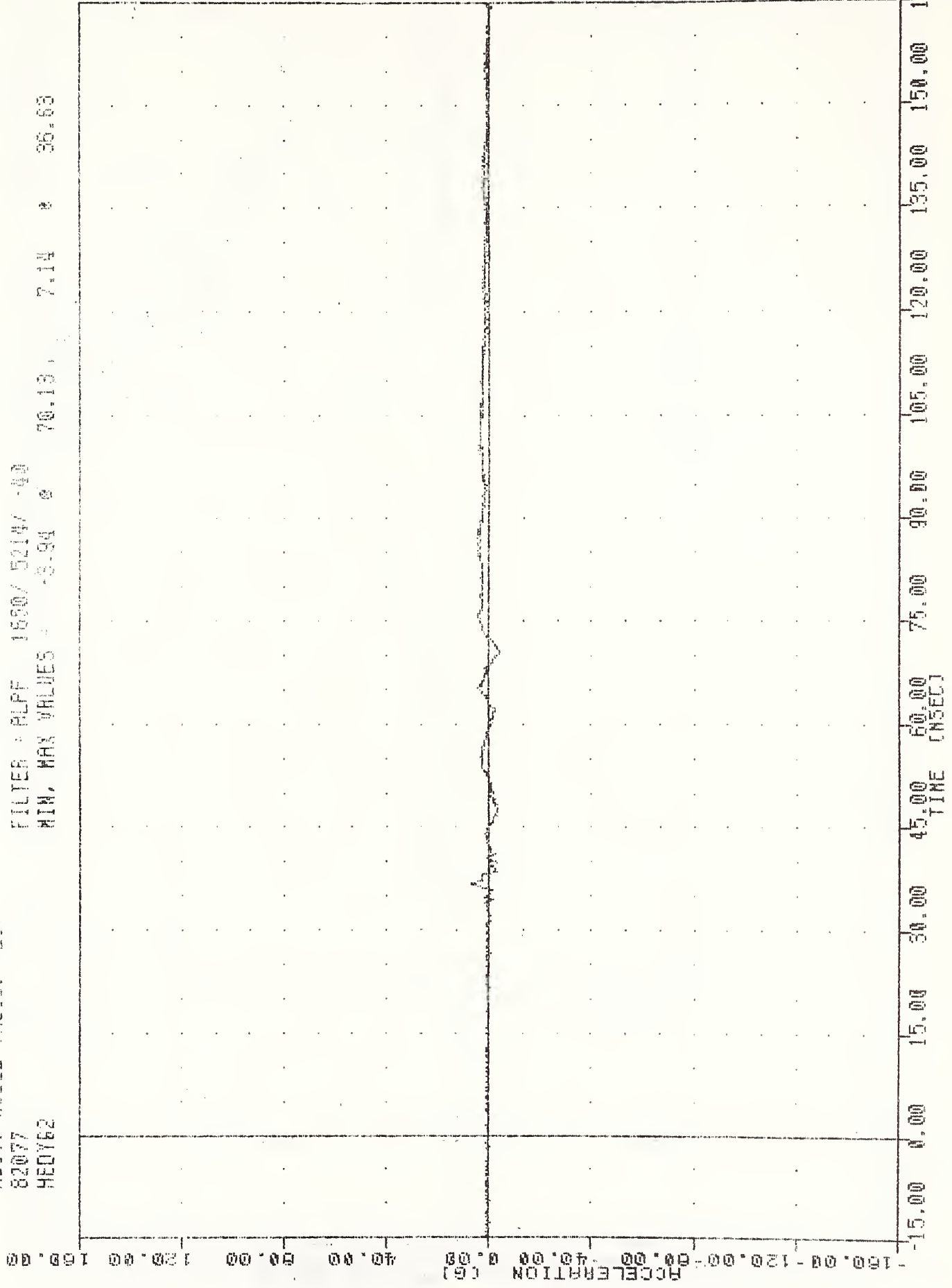
A-211

HEAD ACCELERATION X AXIS PASSENGER

551100550 , T00055
REST. MODEL VALID. TEST
82077
HEDY62

2-APR-82 14:25:08

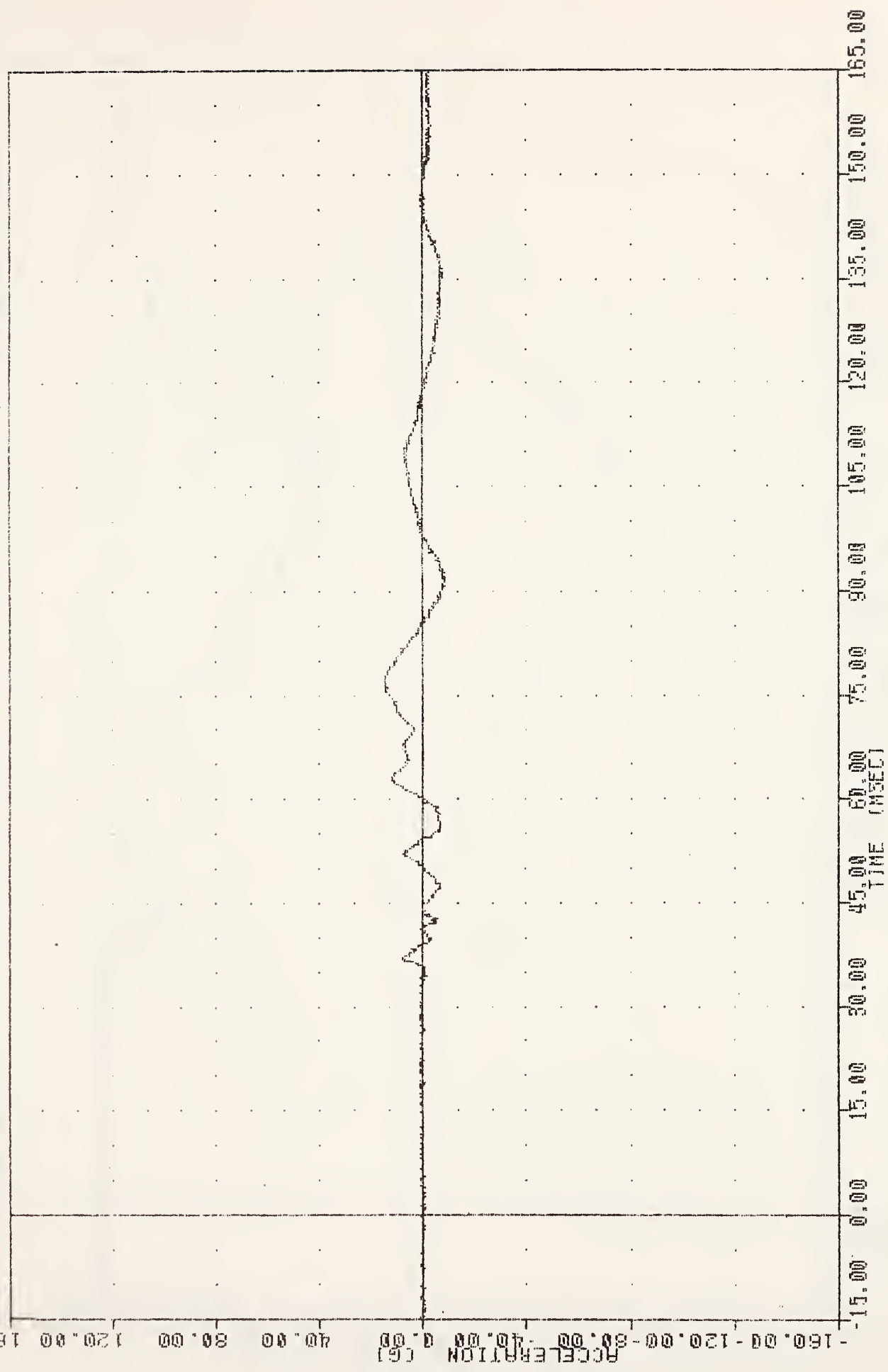
FILTER : ALPF 1600/5214/ -40
MIN, MAX VALUES : -8.94 * 7.14 * 36.63



A-272

HEAD ACCELERATION Y AXIS, PASSENGER

551100550 . TRC065 2-APR-82 14:25:08
BEST. MODEL VALID. TEST
82077 FILTER = RLFF 1850/ 5214/ -40
HEADZ62 MIN. MAX VALUES = -8.51 8 90.83, 14.73 8 75.98



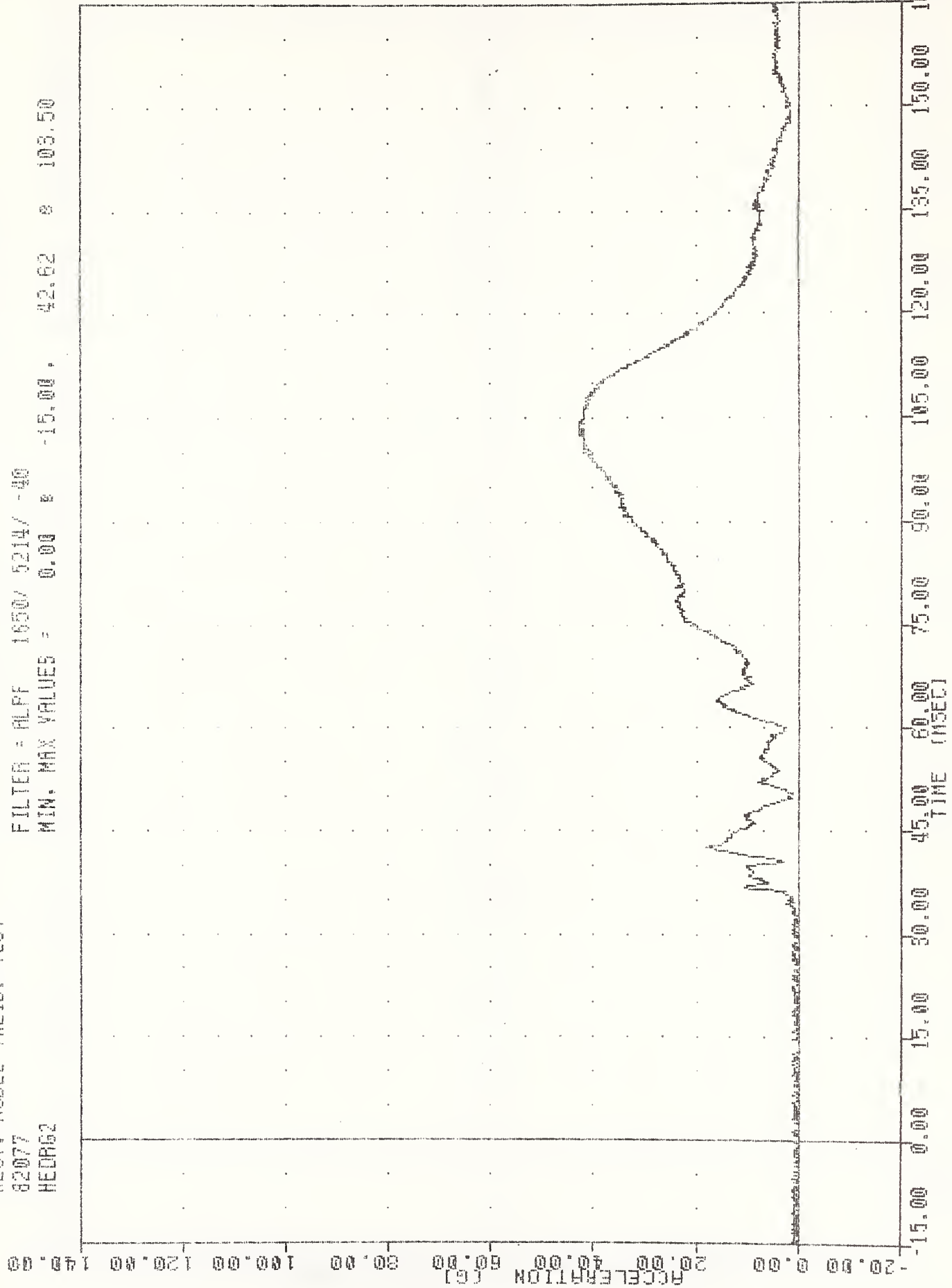
A-273

HEAD ACCELERATION Z AXIS PASSENGER

551100550 , TRC055
REST. MODEL VALID. TEST
82077
HEAD62

2-APR-82 14:25:08

FILTER = ALFF 1650/ 5214/ -40
MIN. MAX VALUES = 0.00 0 -15.00 42.62 0 103.50



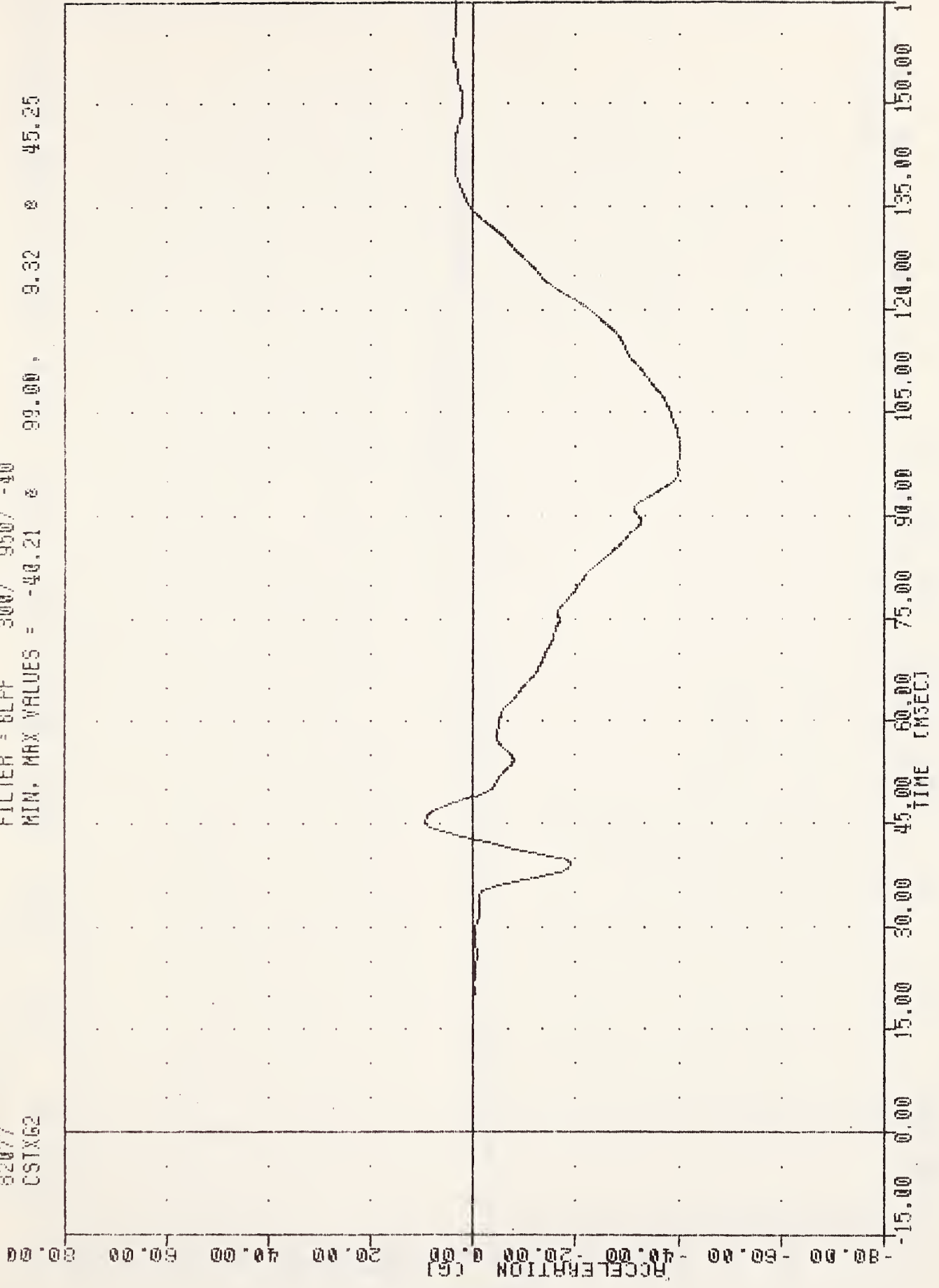
A-274

HEAD ACCELERATION RESULTANT PASSENGER

2-RPR-82 14:25:08

FILTER = 8LPF 300/ 950/ -40
MIN. MAX VALUES = -40.21 99.00 9.32 45.25

S51100550 , TRC065
REST. MODEL VALID. TEST
82077
CSTX62



A-275

CHEST ACCELERATION X AXIS PASSENGER

551100550 , TR0055 2-APR-82 14:25:08

REST. MODEL VALID. TEST

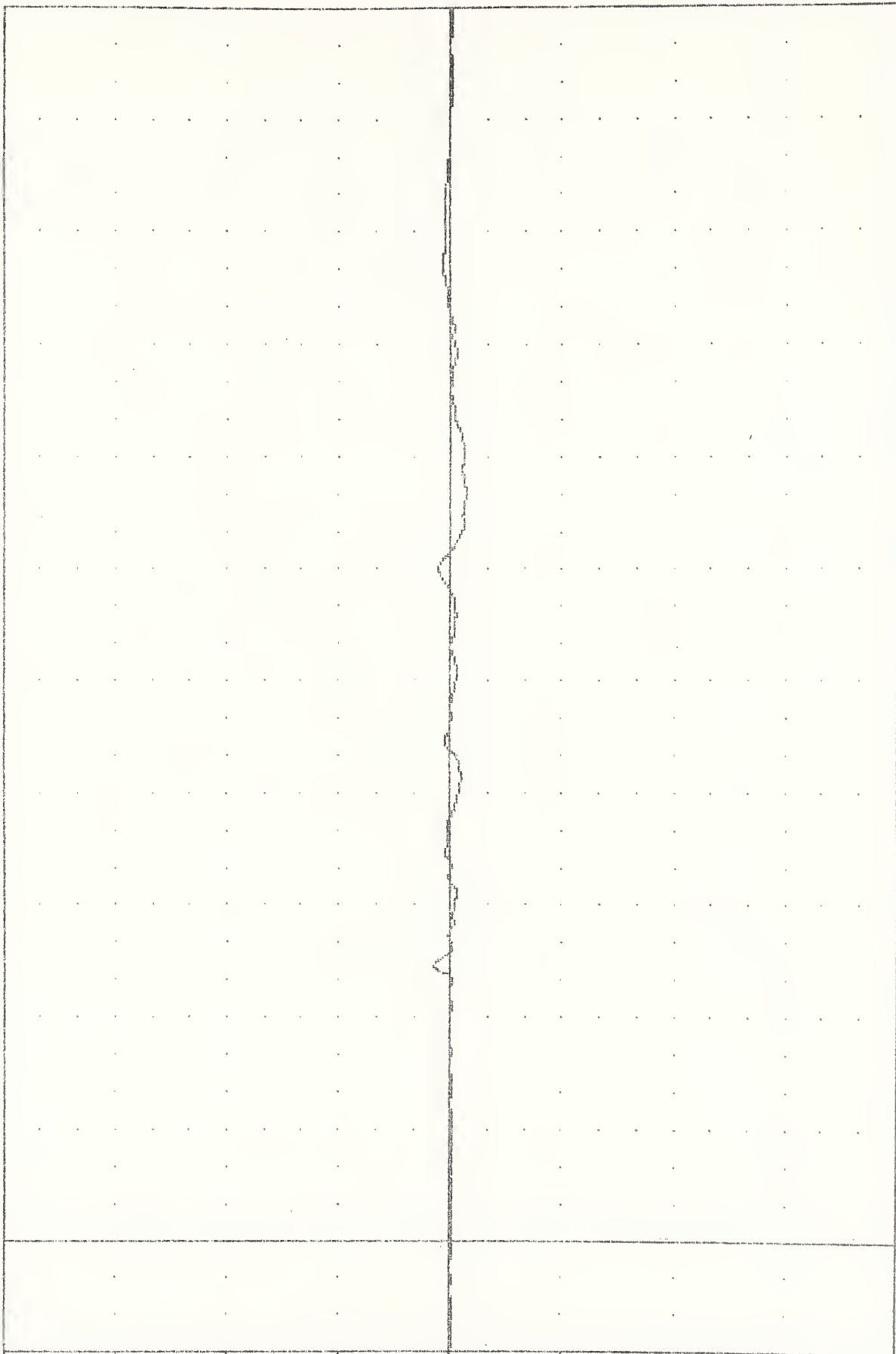
82077

CSTY62

FILTER = BLPF 300/ 950/ -40

MIN. MAX VALUES = -2.30 0 99.88 2.94 0 36.75

ACCELERATION (G) -80.00 -60.00 -40.00 -20.00 0.00 20.00 40.00 60.00 80.00



165.00 150.00 135.00 120.00 105.00 90.00 75.00 60.00 45.00 30.00 15.00 0.00 -15.00

CHEST ACCELERATION Y AXIS PASSENGER

351100550 , TRC065 2-APR-82 14:25:03

REST. MODEL VALID. TEST

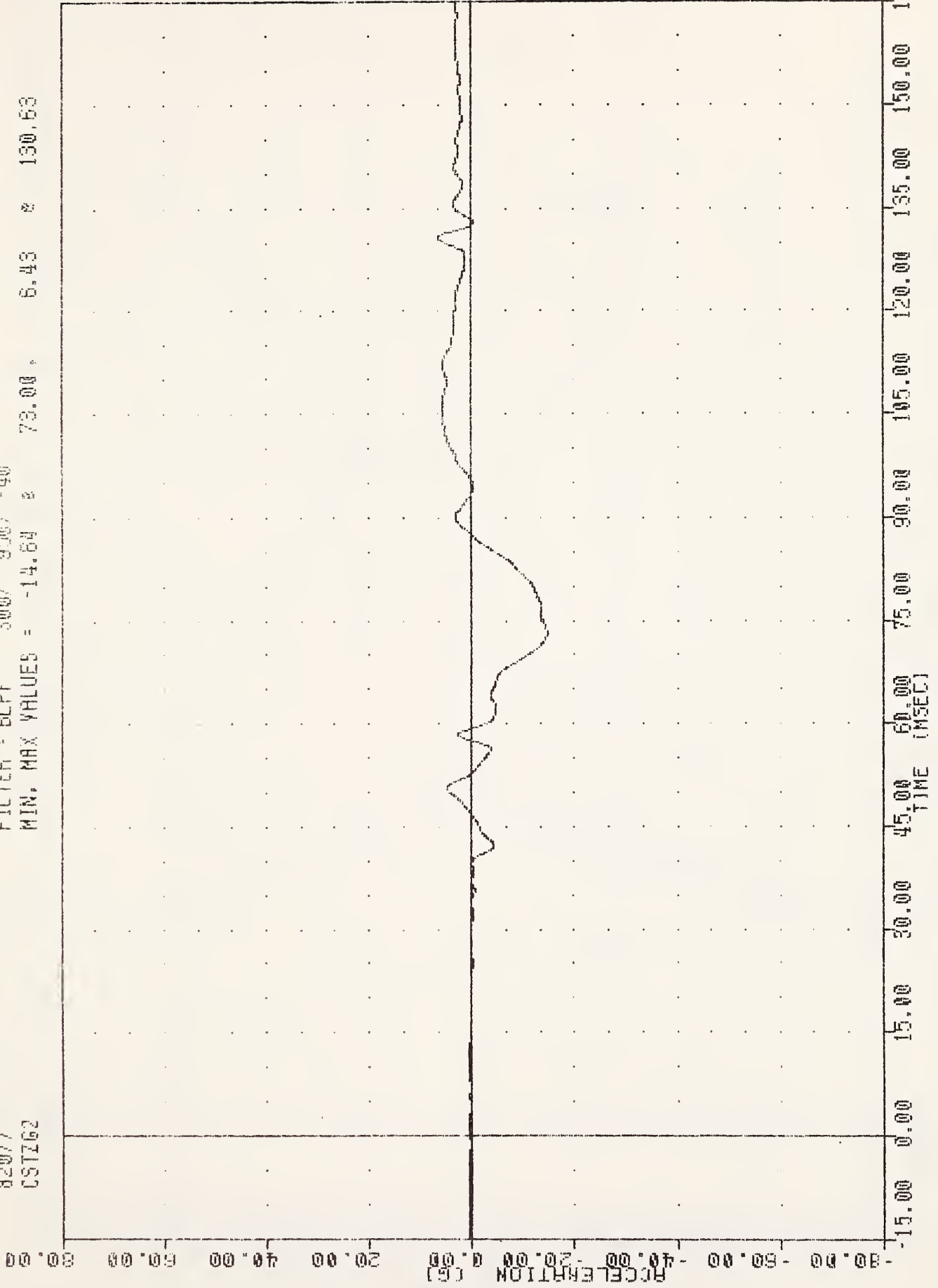
82077

CST162

FILTER = BLPF 300/ 950/ -40

MIN. MAX VALUES = -14.64 e 73.00 e

6.43 e 130.63



A-277

CHEST ACCELERATION Z AXIS PASSENGER

2-APR-82 14:25:08

591100550 . TRC065

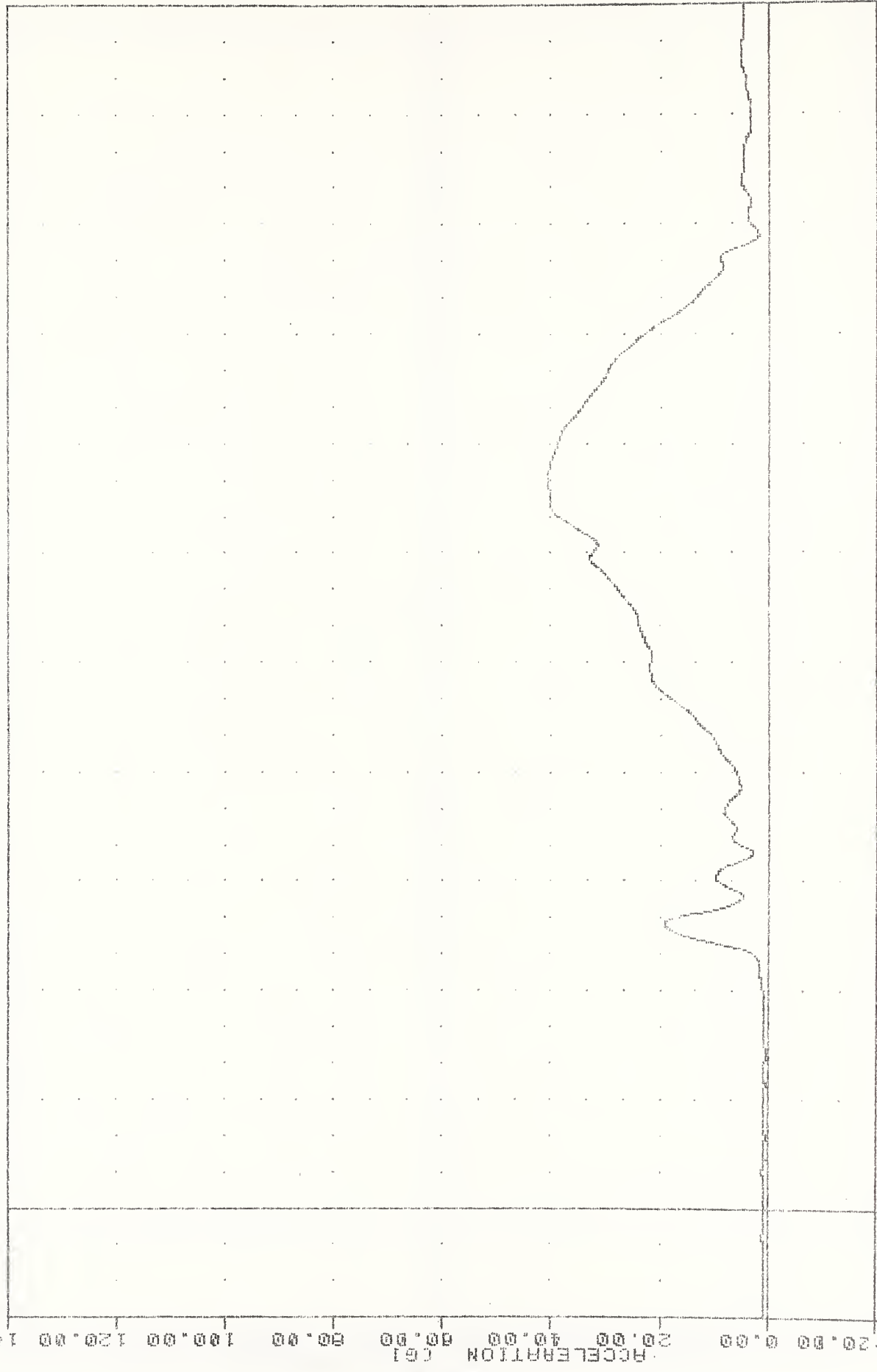
REST. MODEL VALID. TEST

FILTER = BLPF 300/ 950/ -40

MIN. MAX VALUES = 0.33 0 21.25 40.47 0 99.88

82077
CSTR62

140.00



82-A

CHEST ACCELERATION RESULTANT PASSENGER

551124559 * 160965

REST. MODEL VALID. TEST

82977
LFMF2

FILTER = BLPF 1800/ 3170 / 40
MIN. MAX VALUES = -1896.32 27.50 964.03 43.63

2-WFF-02 14:25:00

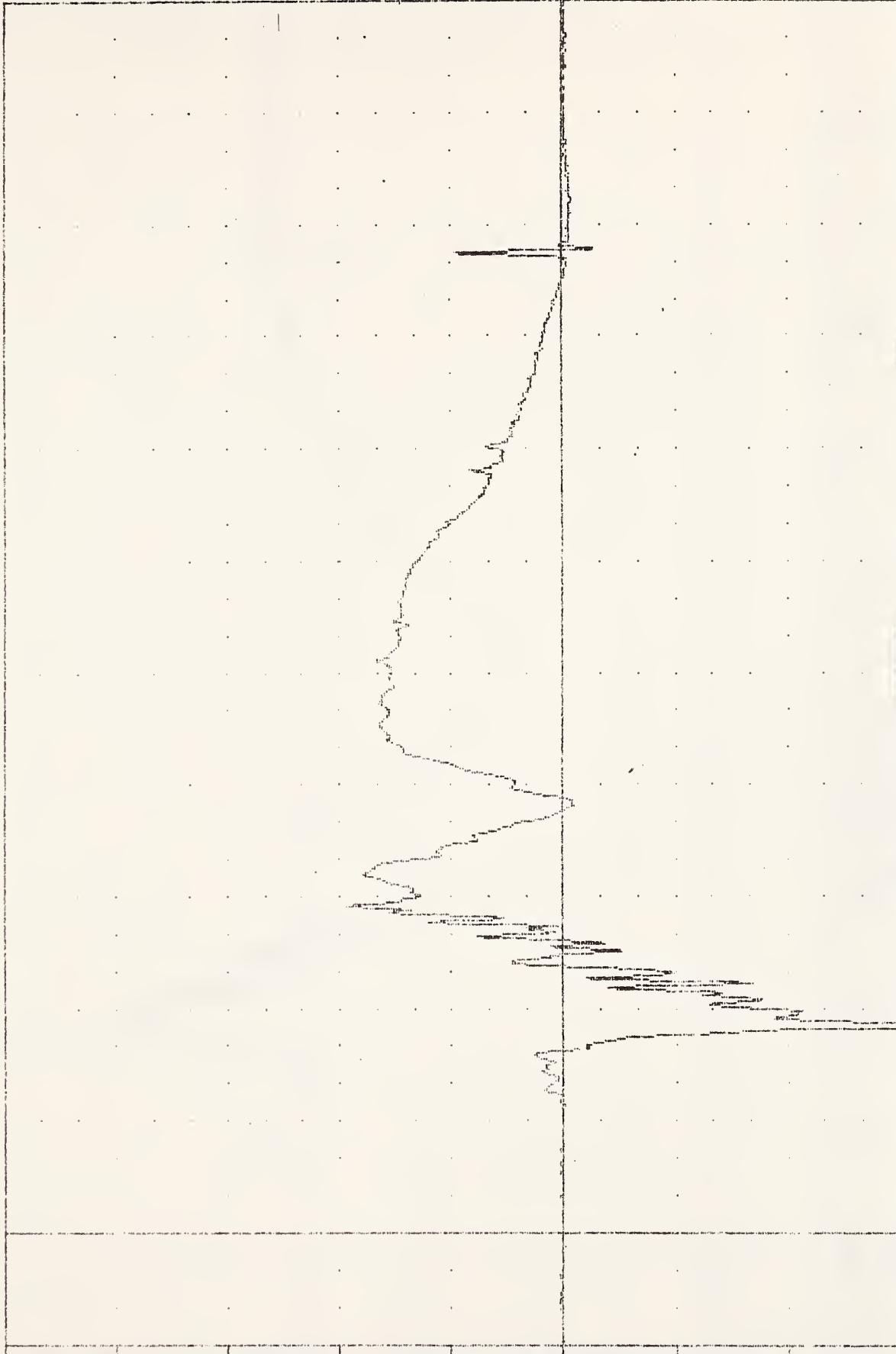
150.00 -100.00 50.00 0.00 50.00 100.00 150.00 200.00 250.00

A-219

Force (lb)

(X10³)

ACCELERATION (G)



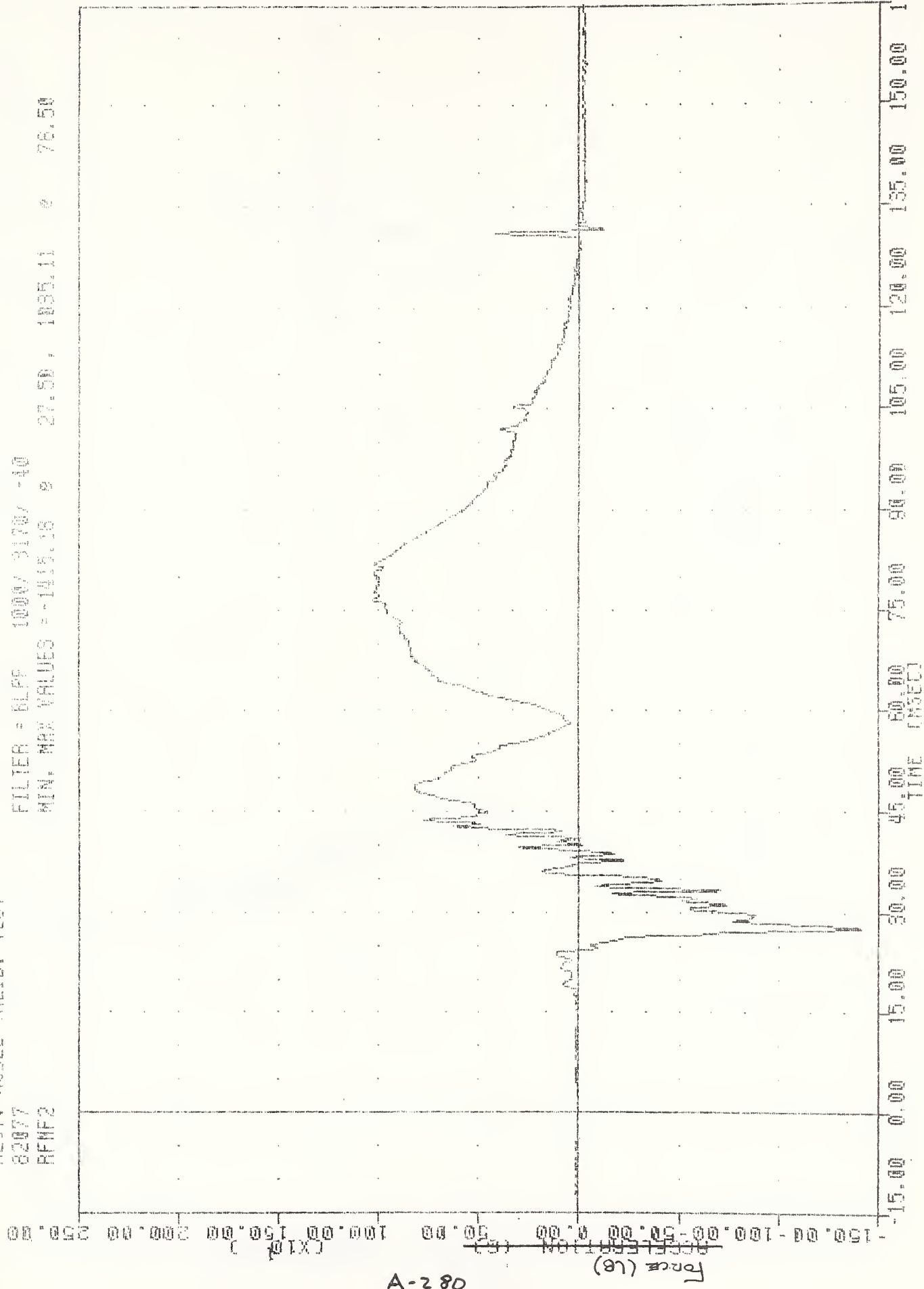
15.00 30.00 45.00 60.00 75.00 90.00 105.00 120.00 135.00 150.00 165.00
TIME (MSEC)

LEFT FEMUR FORCE PASSENGER

551100550 , TRC065
REST. MODEL VALID. TEST
82077
RFMF2

2-APR-82 14:25:08

FILTER = 6LFF 1000/ 3170/ -10
MIN. MAX VALUES = -1415.18 e 27.50 , 1835.11 e 76.50



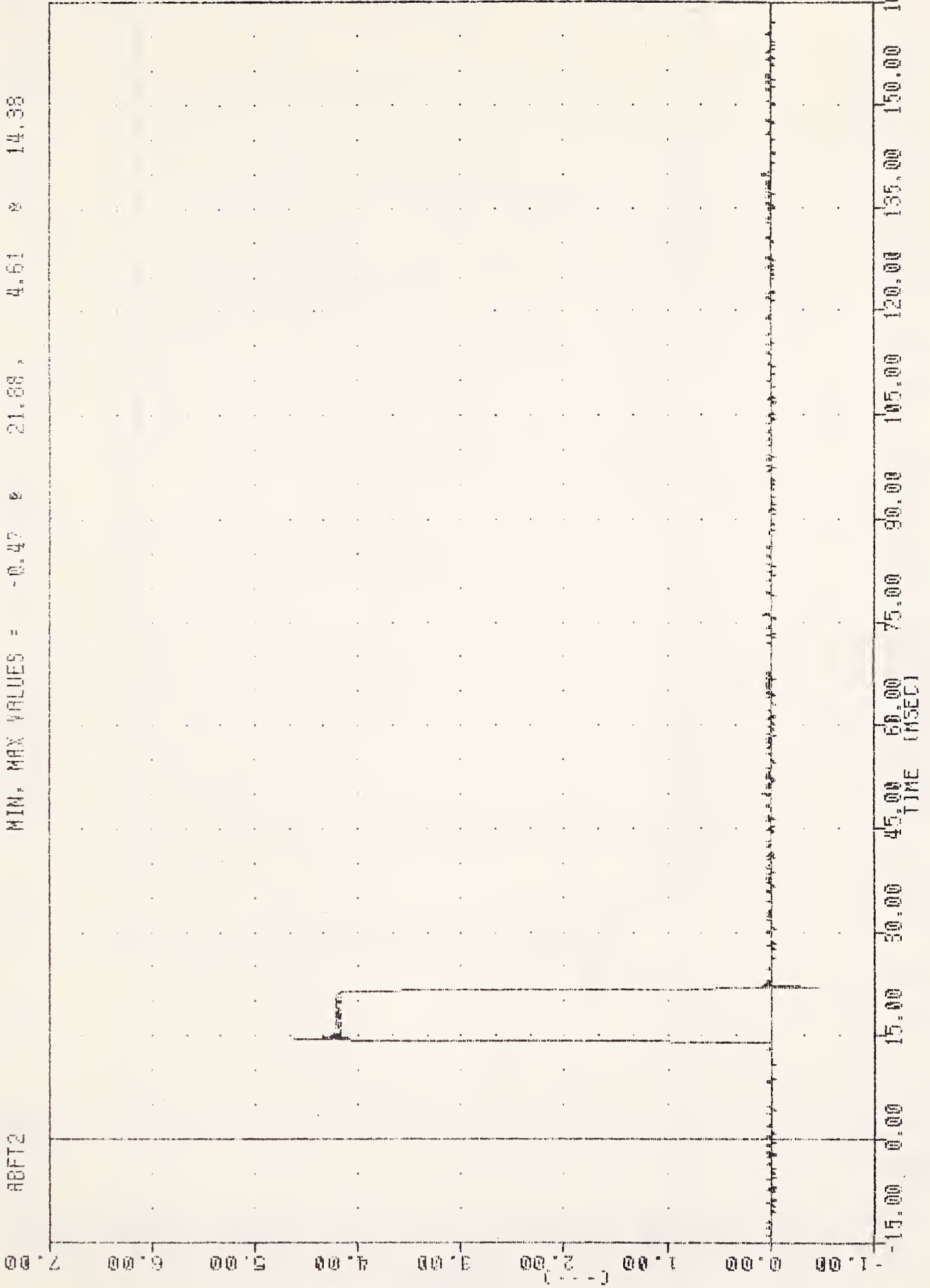
A-280

RIGHT FEMUR FORCE PASSENGER

2-APR-82 14:25:06

551100550 TRC065
REST. MODEL VALID, TEST
82077
ABFT2

FILTER = ALPF 1850/ 5214/ -40
MIN, MAX VALUES = -0.47 21.68, 4.61 14.38



AIR BAG FIRING EVENT PASSENGER

2-APR-82 14:25:03

351100550 , TRC065

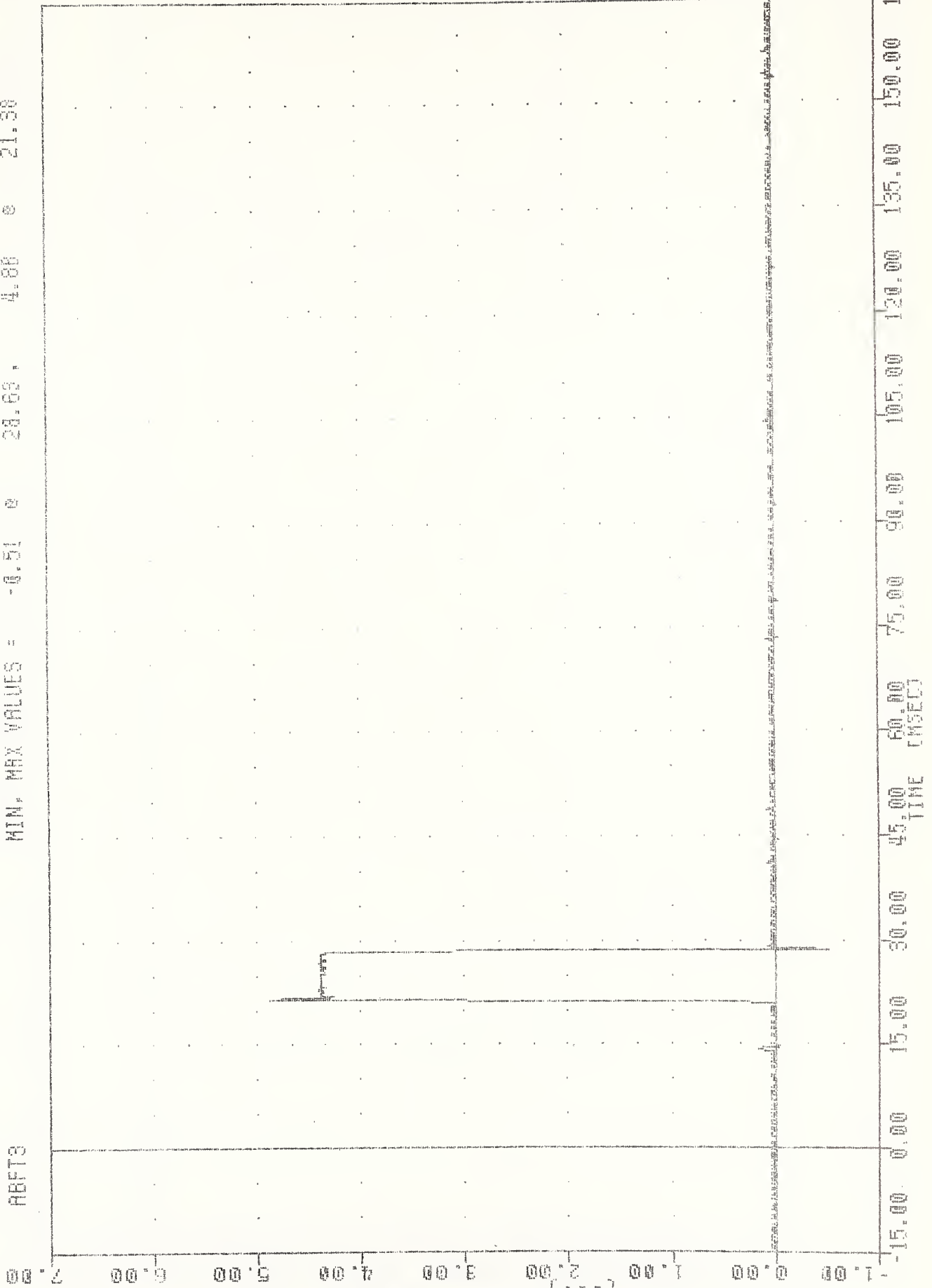
REST. MODEL VALID. TEST

82077

FILTER = HLPF 1650/ 5214/ -10

ABPTS

MIN. MAX VALUES = -0.51 0 28.69 4.86 0 21.30

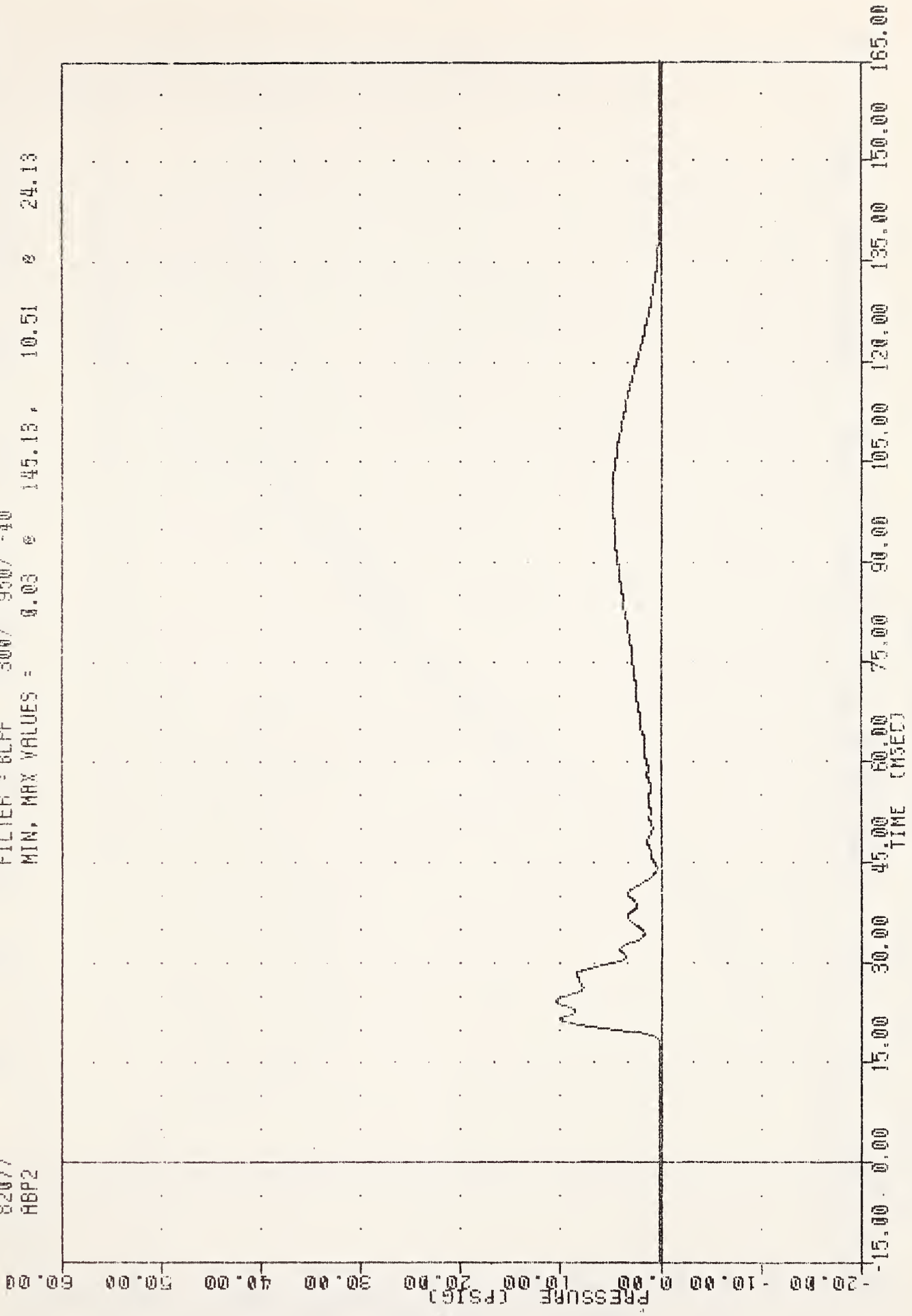


AIR BAG FIRING EVENT 3

S51100550 , TRC065
REST. MODEL VALID. TEST
82077
HBP2

2-APR-82 14:25:08

FILTER = 8LFF 300/ 950/ -40
MIN. MAX VALUES = 0.03 e 145.13 , 10.51 e 24.13



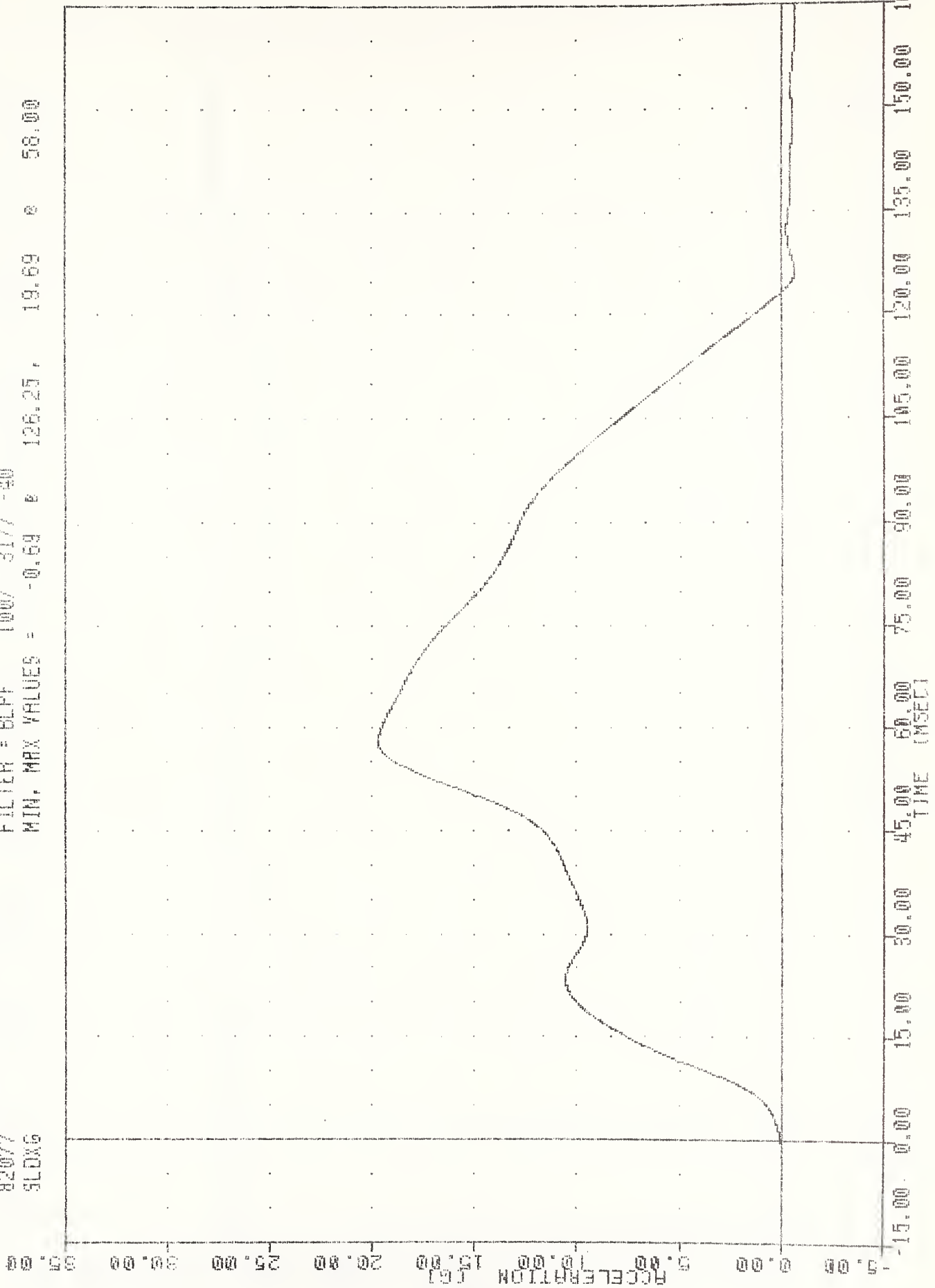
A-283

AIR BAG PRESSURE PASSENGER

351100550 , TRC055
REST. MODEL VALID. TEST
82077
SLOXG

2-APR-82 14:25:08

FILTER = 6LPF 100/ 317/ -40
MIN. MAX VALUES = -0.69 0 126.25 , 19.69 0 58.00



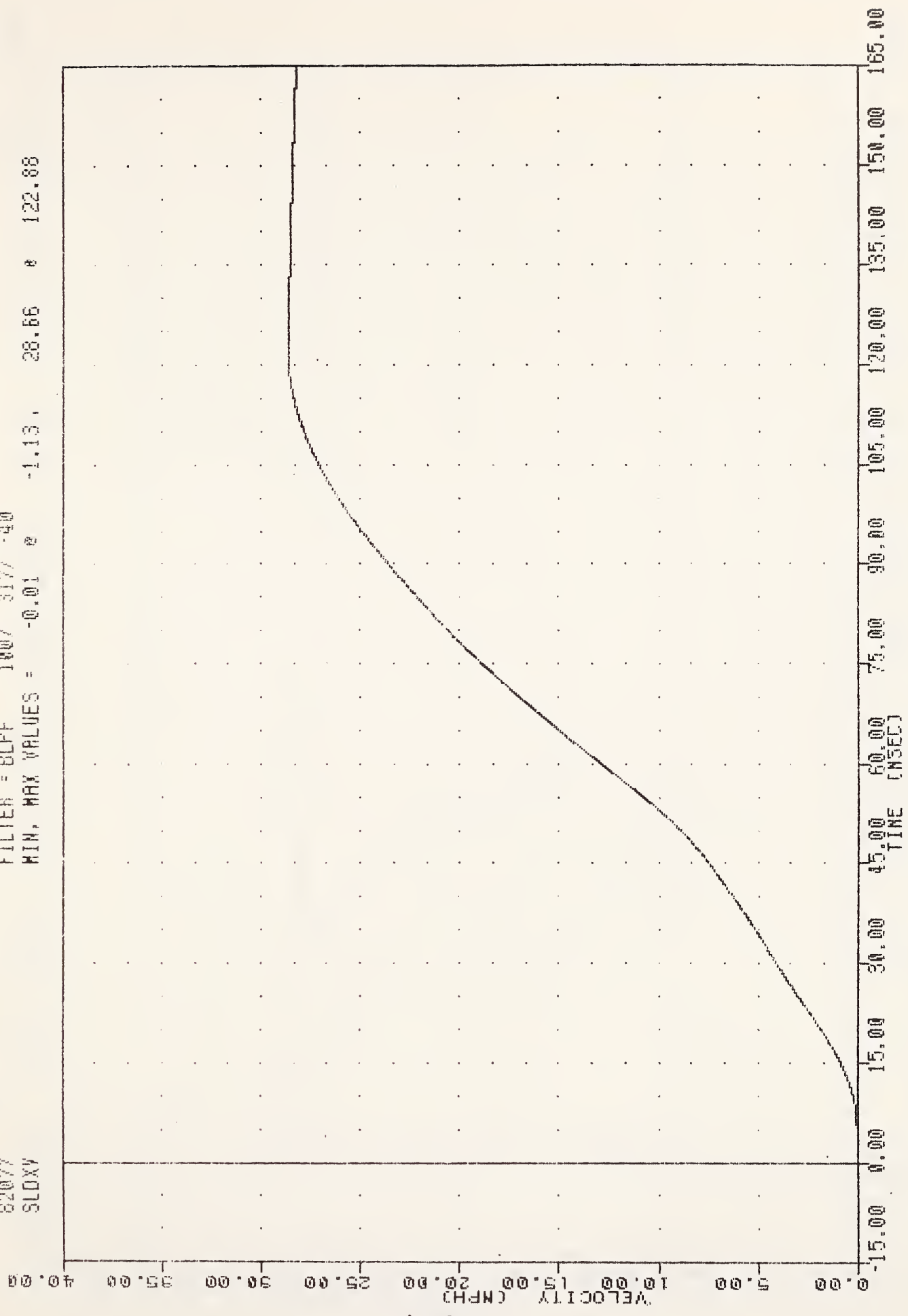
482-A

SLED ACCELERATION

2-APR-82 14:25:08

551100550 , TAC065
REST. MODEL VALID. TEST
82077
SLOXY

FILTER = BLFF 100/ 317/ -40
MIN, MAX VALUES = -0.01 0 -1.13, 28.66 0 122.88



A-285

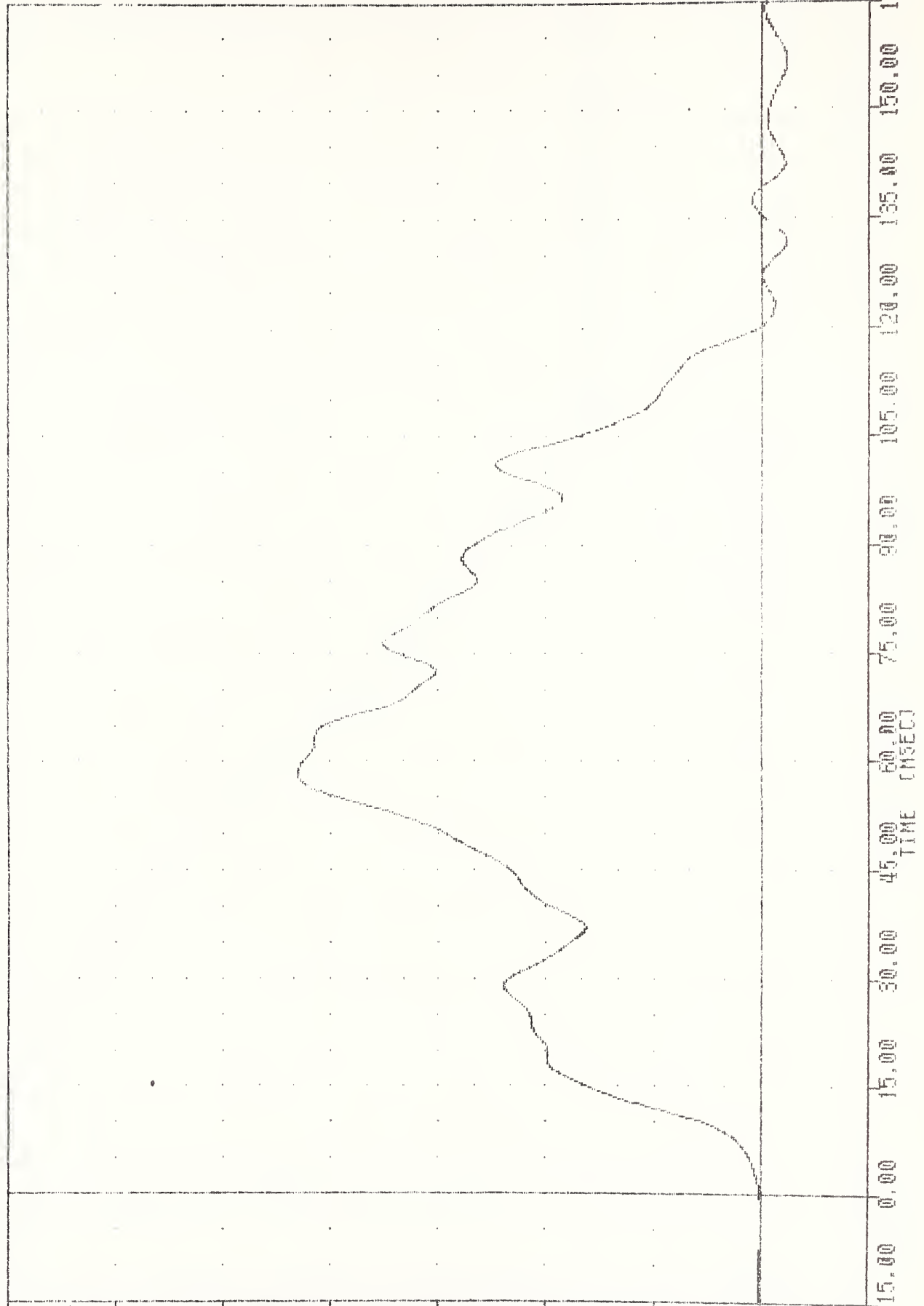
SLED VELOCITY IN MPH

551100550 , TRC065
REST. MODEL VALID. TEST
82077
FTUXG

2-APR-82 14:25:08

FILTER = BLPF 10W 3177 -40
MIN, MAX VALUES = -1.25 @ 156.63 , 21.52 @ 58.25

ACCELERATION (G)



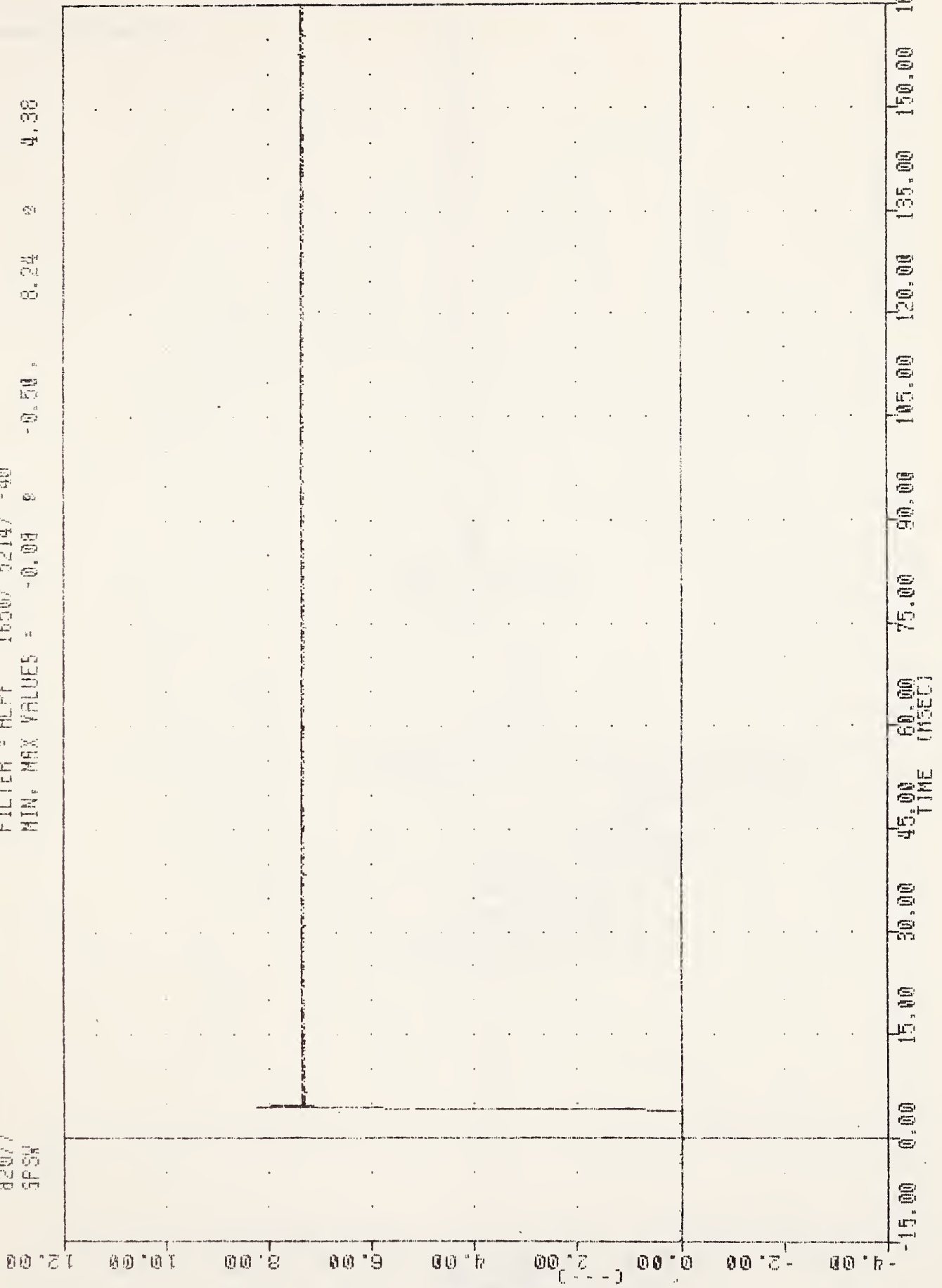
A-28

FLOOR PAN TUNNEL ACCELERATION

551103550 , TRC065
REGT. MODEL VALID. TEST
82077
SPSK

2-APR-82 14:25:08

FILTER = ALPF 1650/ 5214/ -40
MIN. MAX VALUES = -0.04 0 -0.50 0 8.24 0 4.38



A-287

SLED POSITION SWITCH

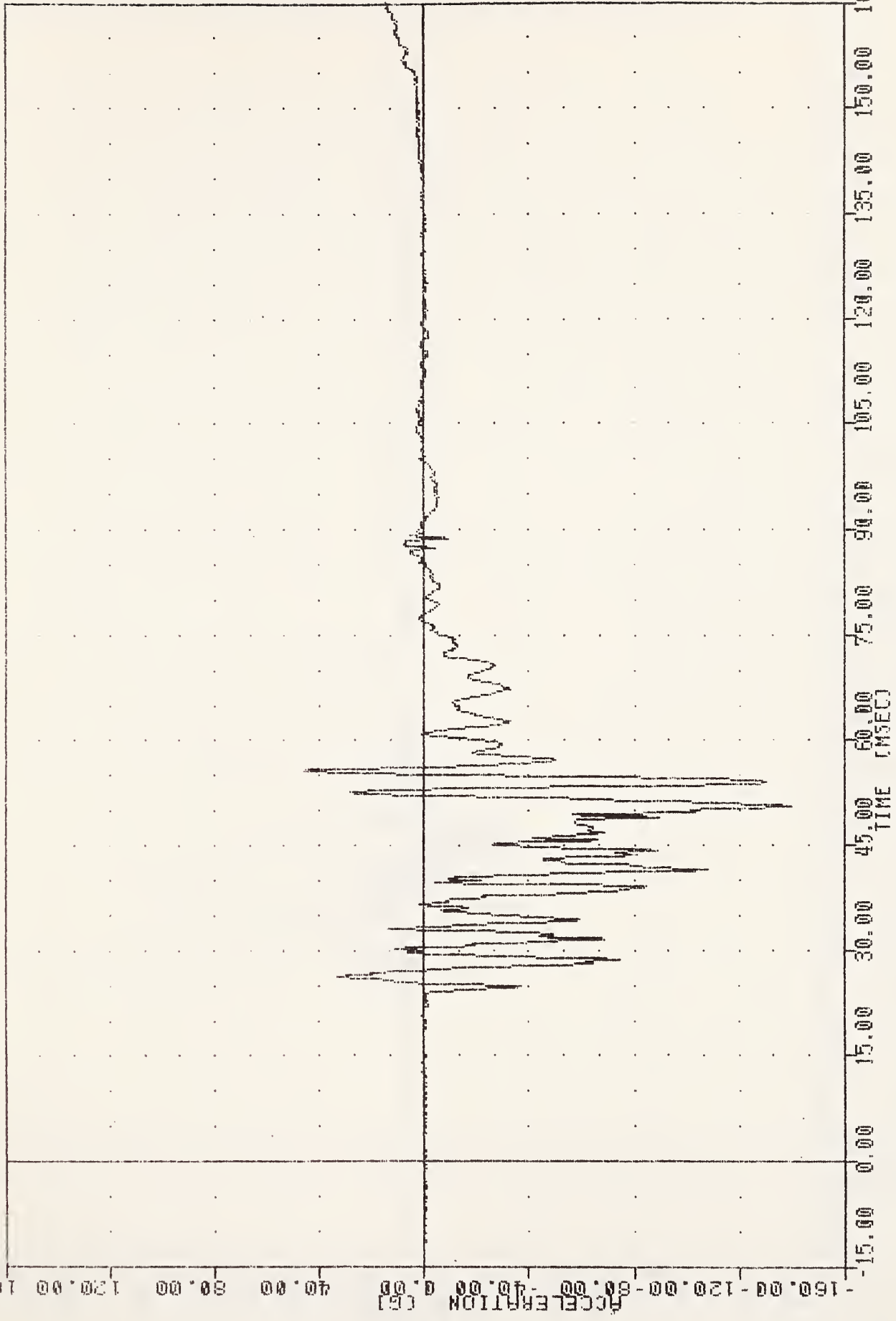
TEST NO. 11

551110003 , TRC066
REST. MODEL VALID. TEST
82081
HEADXG2

2-APR-82 10:29:14

FILTER = ALPF 1650/ 5214/ -40
MIN. MAX VALUES = -139.54 50.50 45.98 55.50

150.00
120.00
90.00
60.00
30.00
0.00
-30.00
-60.00
-90.00
-120.00
-150.00

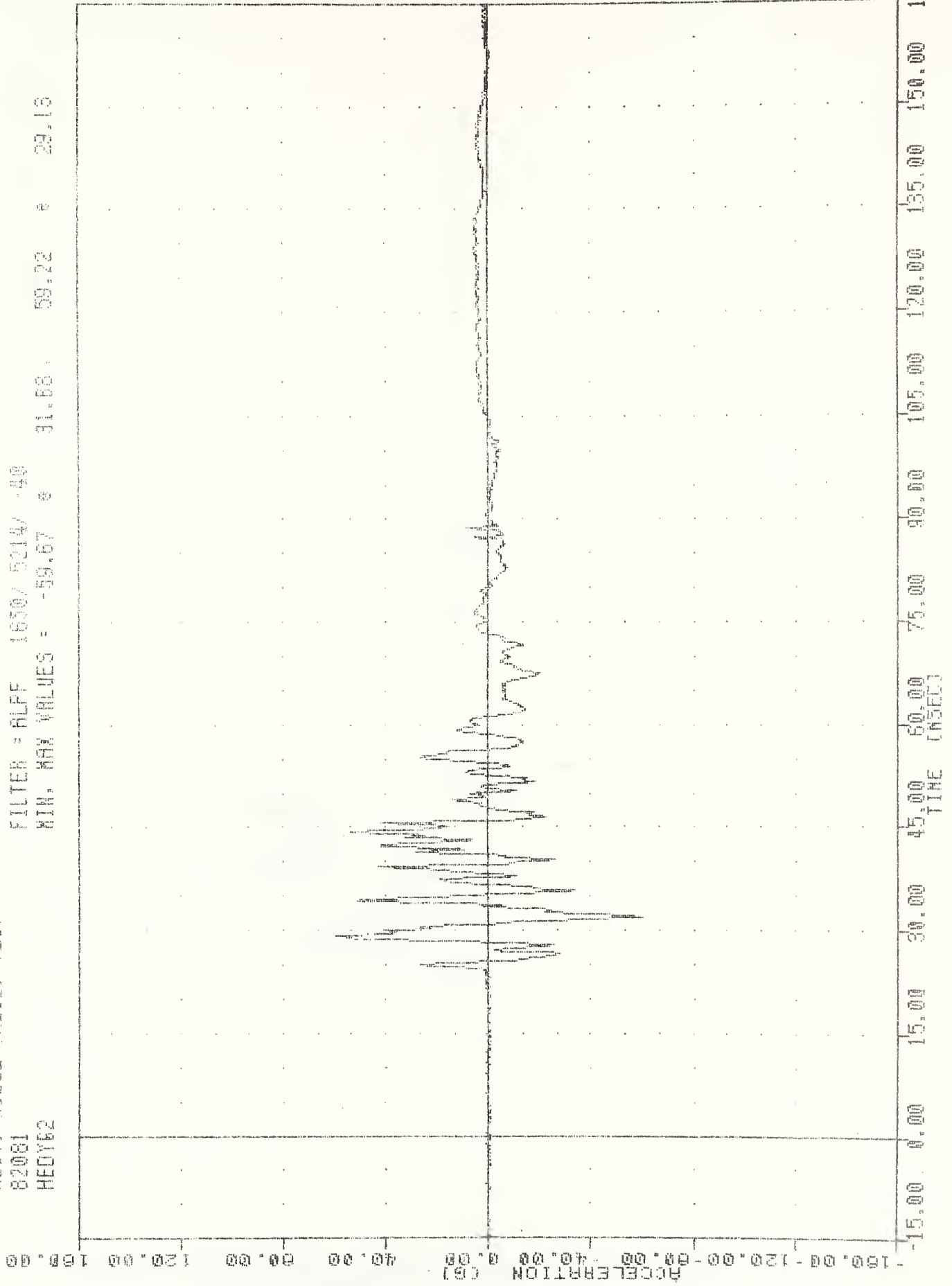


HEAD ACCELERATION X AXIS PASSENGER

2-APR-82 10:29:14

S51110003 , TR0066
REST, MODEL VALID, TEST
82081
HEAD162

FILTER = ALPF 1630/ 5214/ -40
MIN. MAX VALUES = -59.67 e 31.68 . 59.22 e 29.13

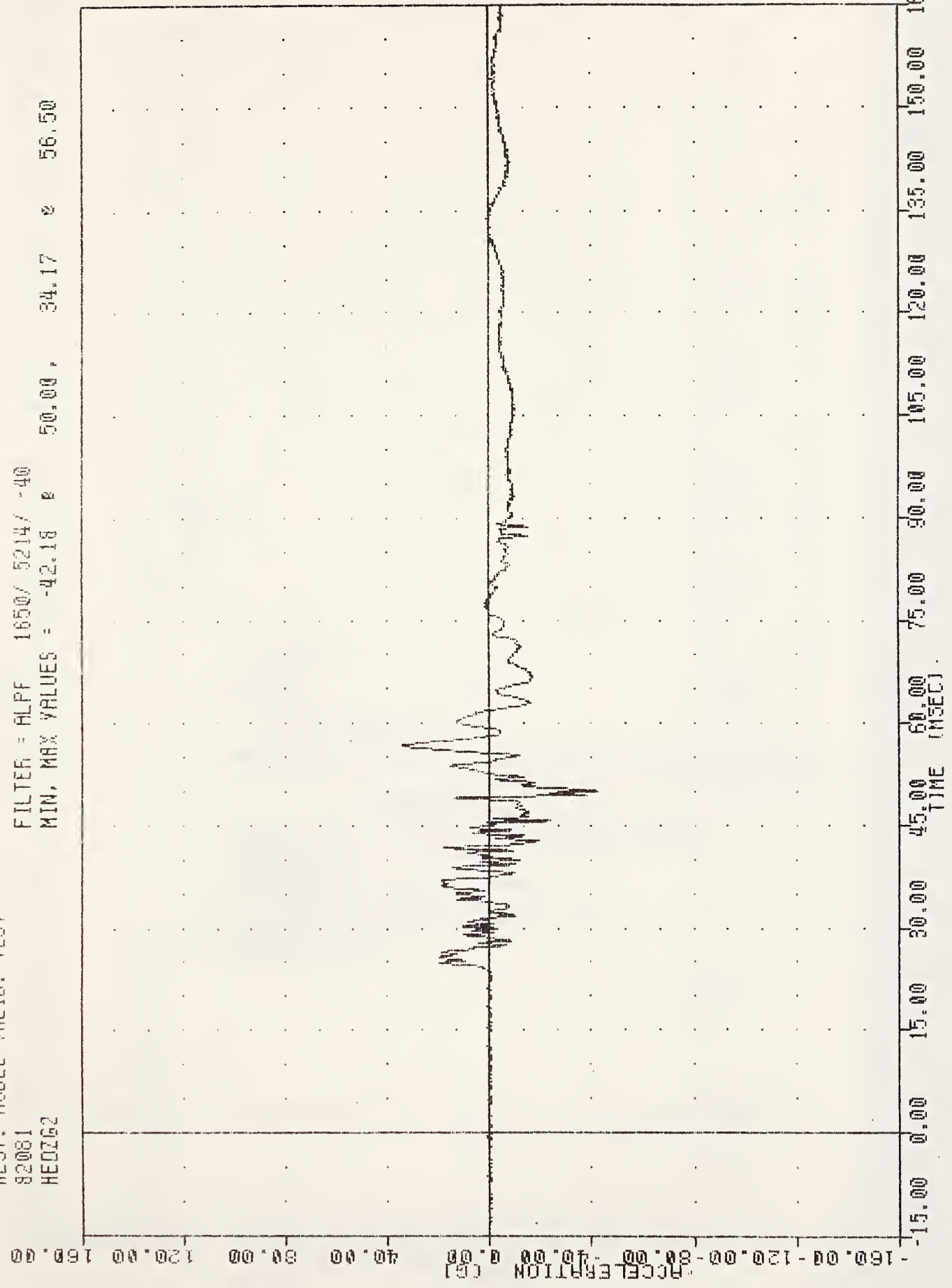


HEAD ACCELERATION Y AXIS PASSENGER

55110003 , TRC068
REST. MODEL VALID. TEST
82081
HEAD262

2-APR-82 10:28:14

FILTER = ALPF 1650/ 5214/ -40
MIN. MAX VALUES = -42.18 0 50.00, 34.17 0 56.50

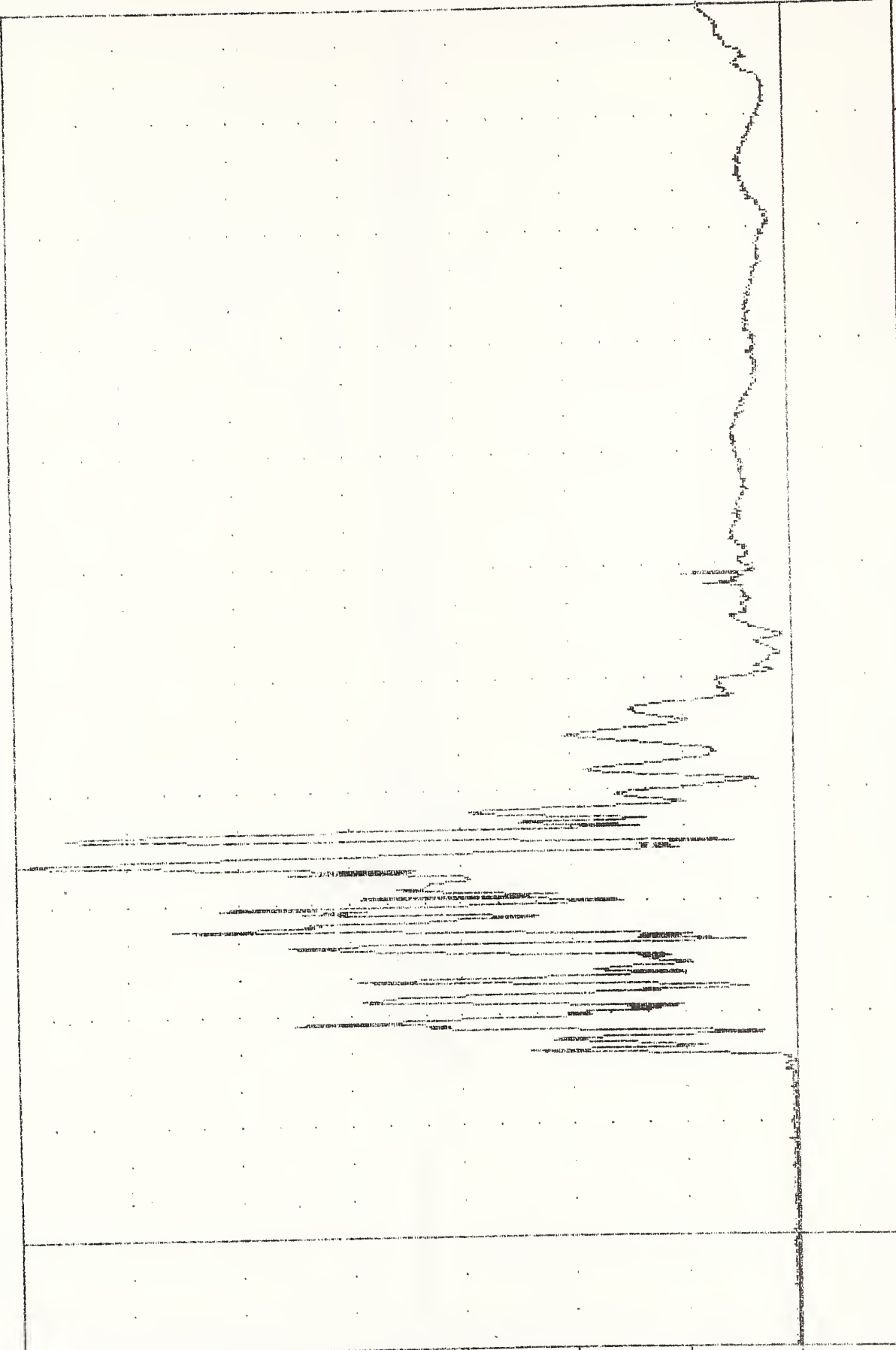


HEAD ACCELERATION Z AXIS PASSENGER

192-A

35110003 , TRC066
 REGT. MODEL VALID. TEST
 82081
 HEADG2
 2-APR-82 10:29:14
 FILTER = ALFF 1850/ 5214/ -40
 MIN. MAX VALUES = 0.05 @ -5.00, 140.91 @ 50.50

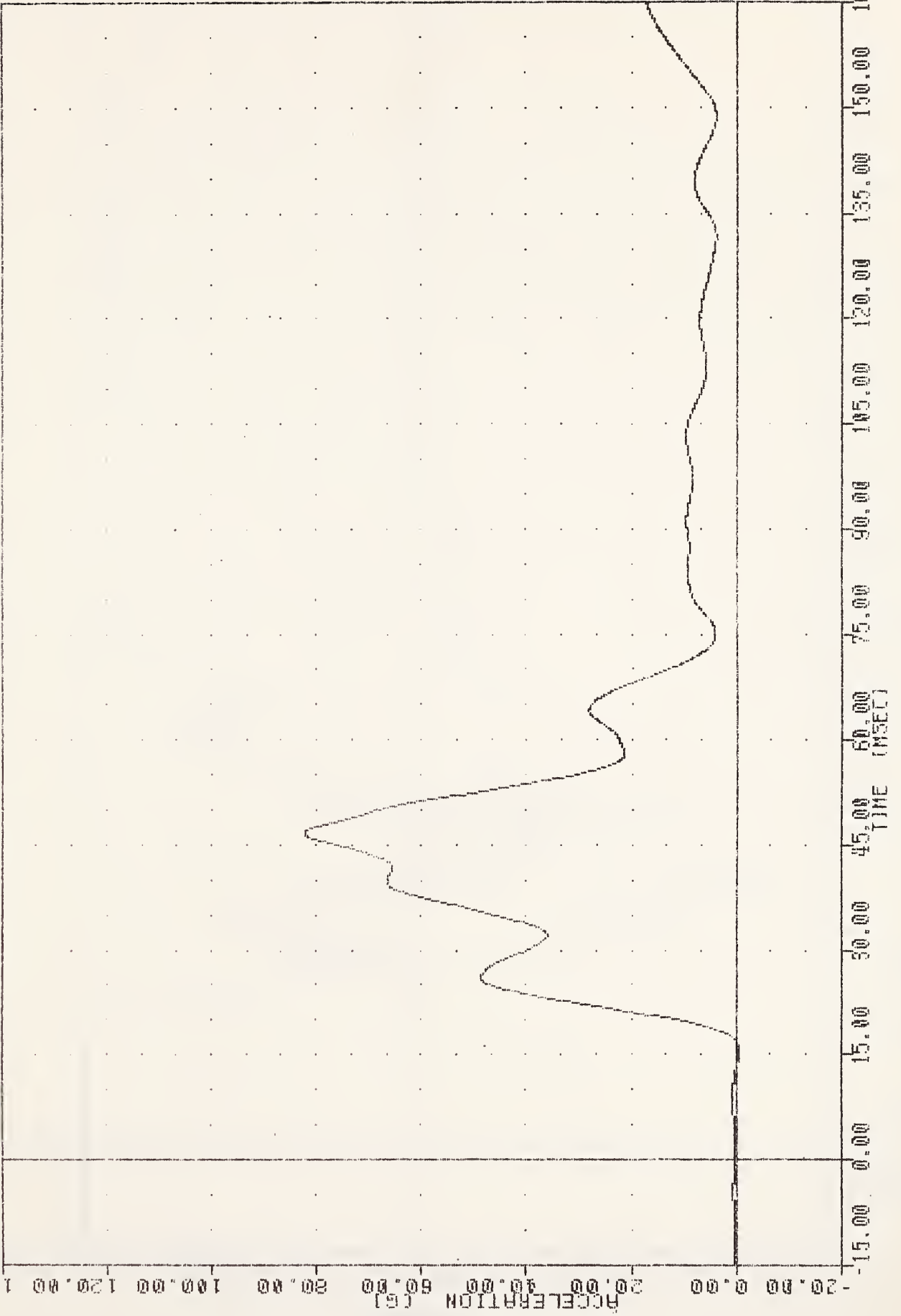
ACCELERATION (G)
 -20.00 0.00 20.00 40.00 60.00 80.00 100.00 120.00 140.00 160.00
 TIME (MSEC)
 -15.00 0.00 15.00 30.00 45.00 60.00 75.00 90.00 105.00 120.00 135.00 150.00 165.00



A-292

HEAD ACCELERATION RESULTANT, PASSENGER *

351110003 , TRC066 2-APR-82 15:43:07
 REST. MODEL VALID, TEST
 82061 FILTER = BLPP 100/ 317/ -40
 HORG2A MIN. MAX VALUES = -0.63 15.38 82.31 46.50



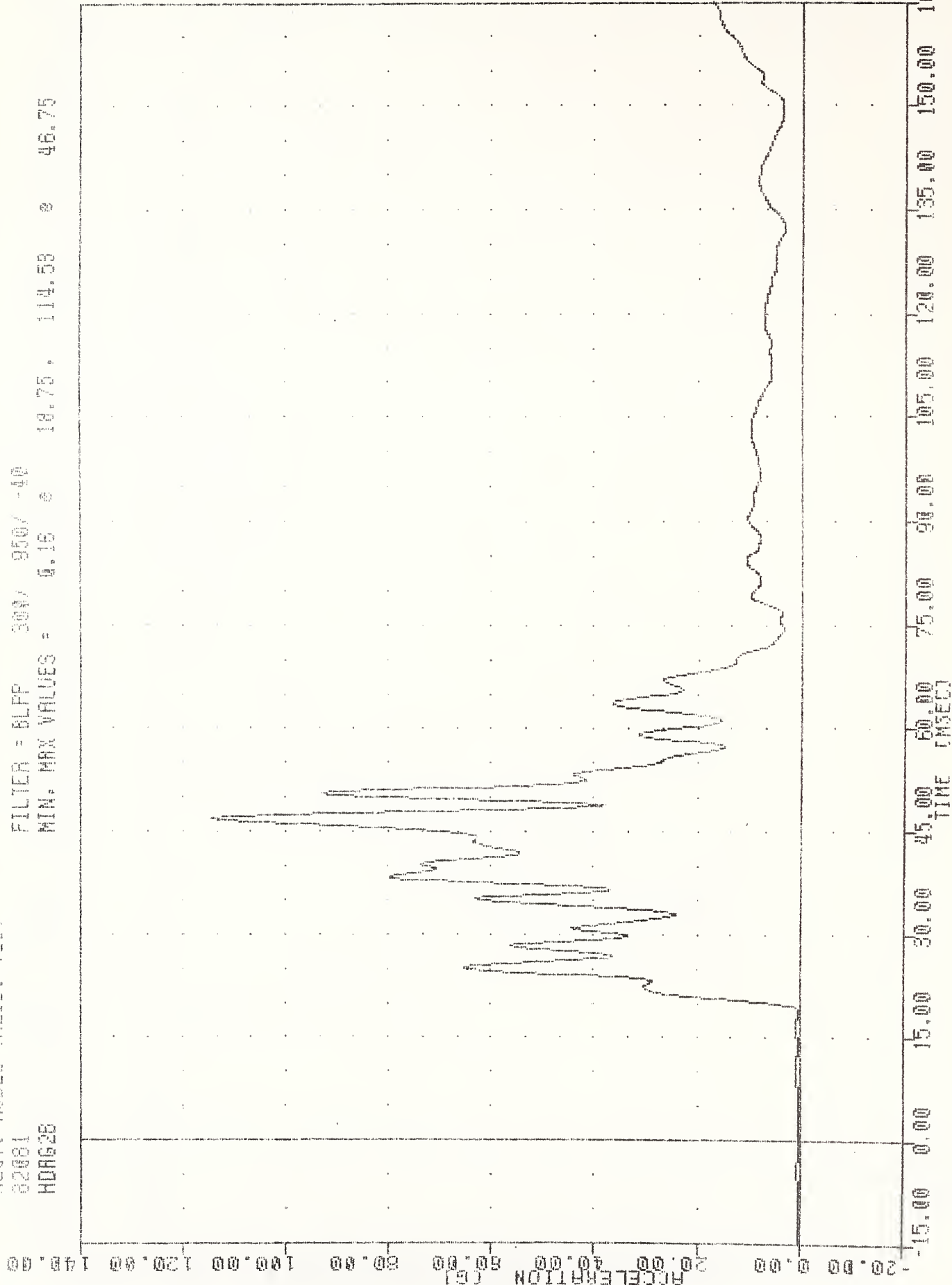
A-293

3 YR OLD HEAD RESULTANT (CLASS 100)

2-APR-82 15:48:37

55110003 , TACR66
BEST. MODEL VALID. TEST
32881
HDR628

FILTER = 5LPP 300/ 950/ -40
MIN. MAX VALUES = 0.18 e 10.75. 114.58 e 46.75



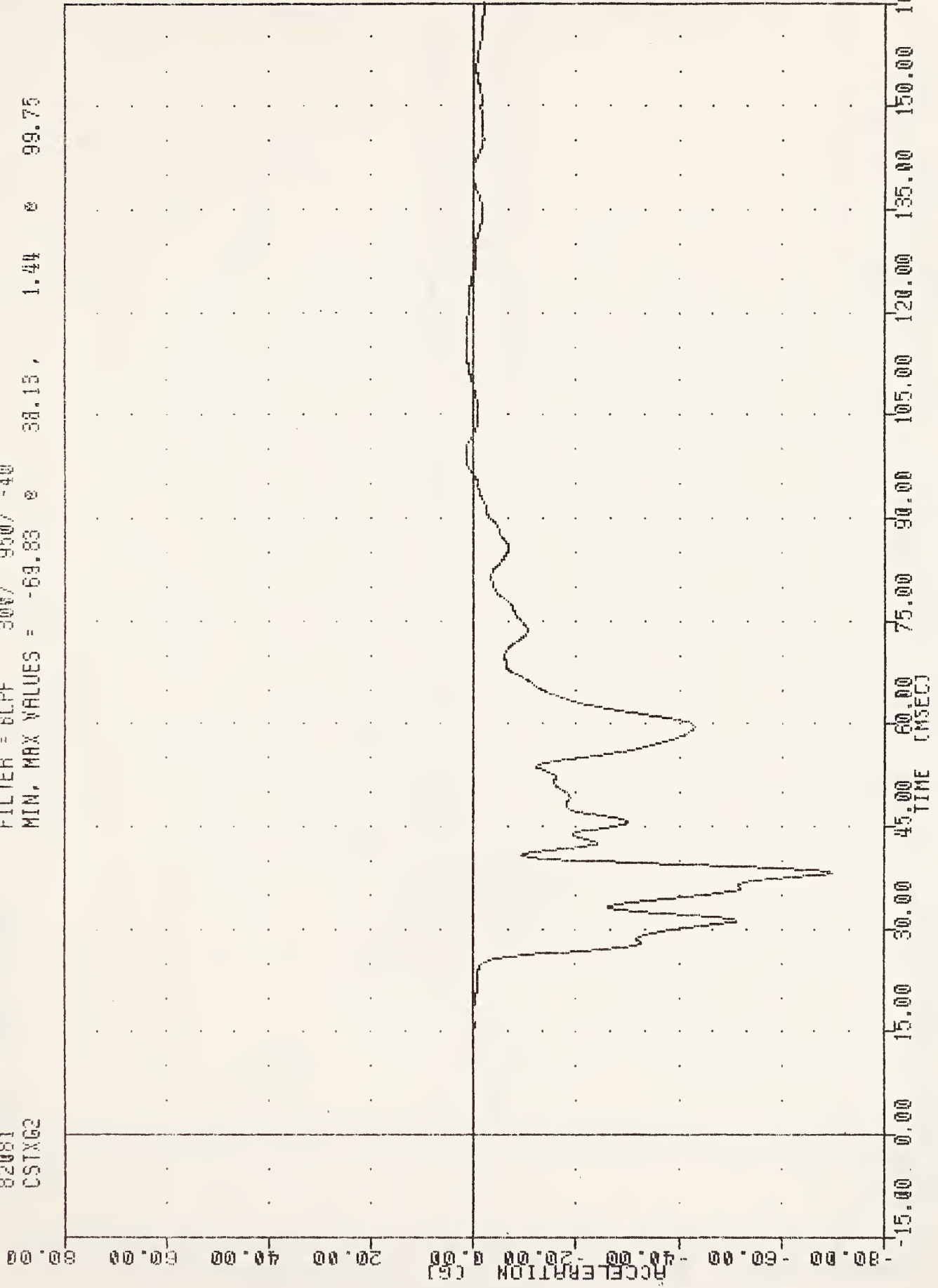
A-294

3 YR OLD HEAD RESULTANT (CLASS 180)

2-APR-82 10:29:14

S5110003 , TRCN66
REST. MODEL VALID. TEST
82081
CSTX62

FILTER = 6LPF 300/ 950/ -40
MIN. MAX VALUES = -69.83 e 38.13 , 1.44 e 99.75



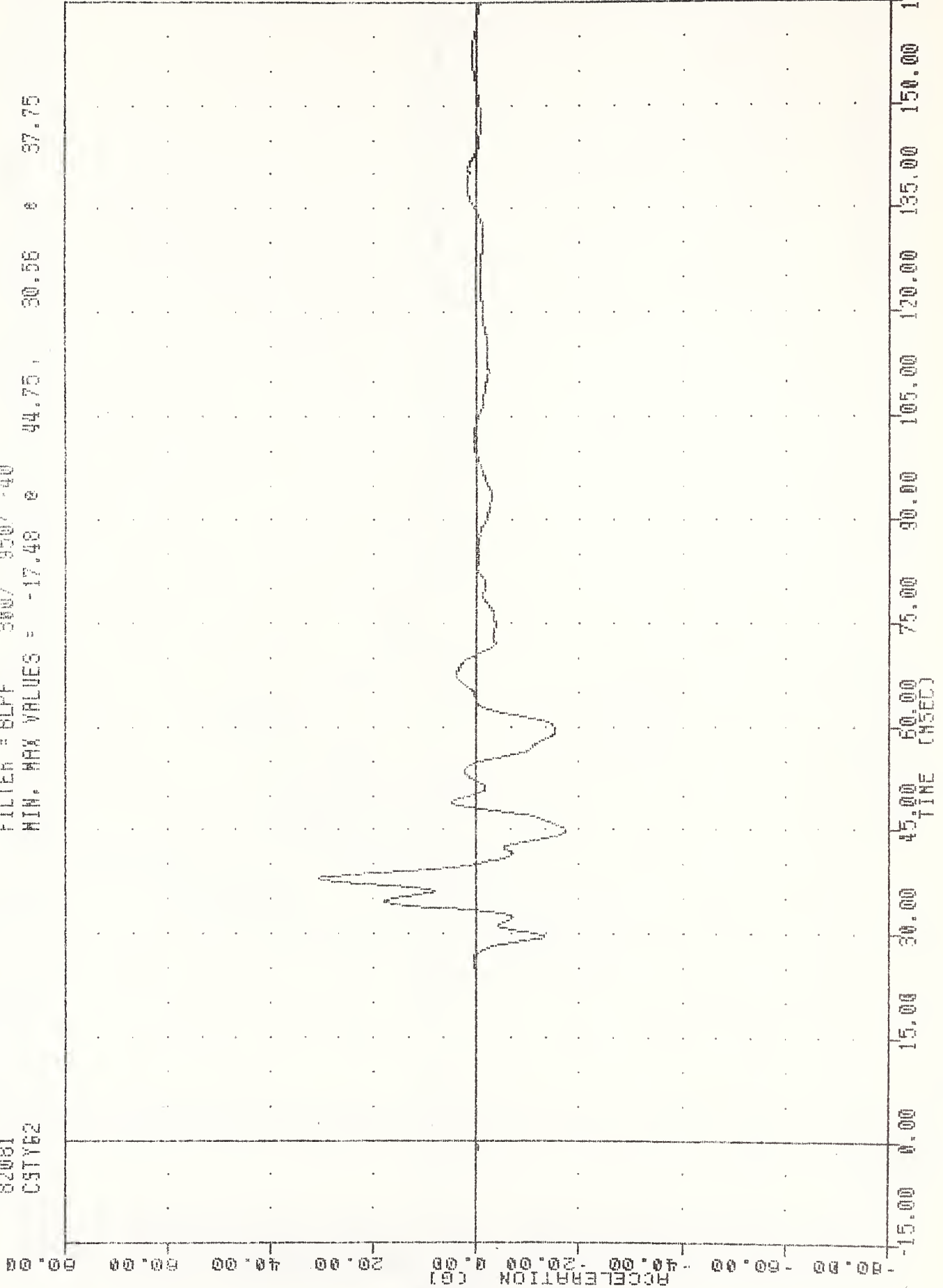
A-295

CHEST ACCELERATION X AXIS PASSENGER

2-APR-82 10:29:14

S5110003 , TR0066
REST. MODEL VALID. TEST
82081
CSTY62

FILTER = BLPF 300 / 950 / -40
MIN. MAX VALUES = -17.48 e 44.75 , 30.56 e 37.75



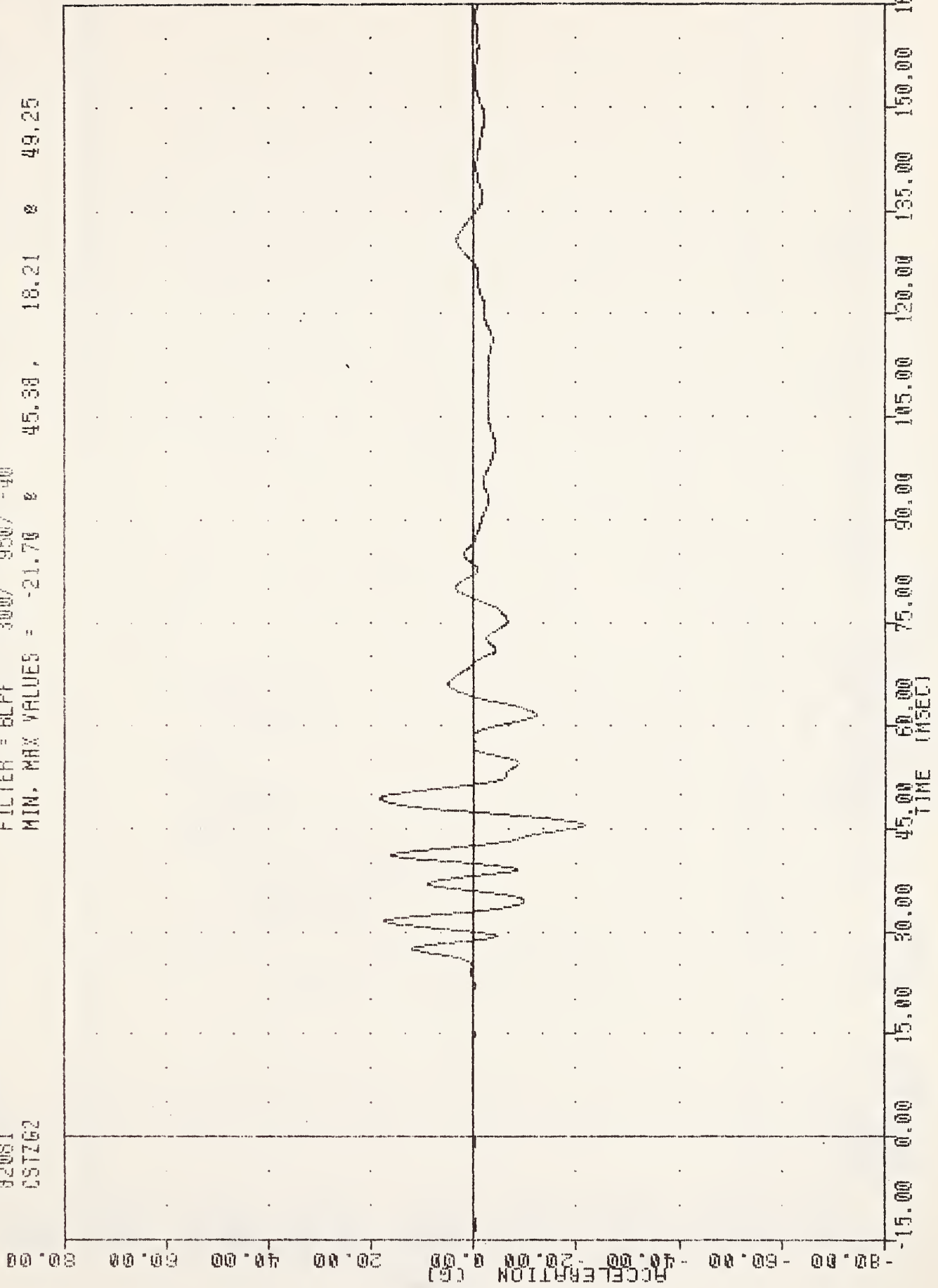
A-296

CHEST ACCELERATION Y AXIS PASSENGER

2-APR-82 10:29:14

55110003 , TRC066
REST. MODEL VALID. TEST
82081
CSTZ62

FILTER = BLFF 300/ 950/ -40
MIN. MAX VALUES = -21.70 45.38 18.21 0 49.25



A-297

CHEST ACCELERATION Z AXIS PASSENGER

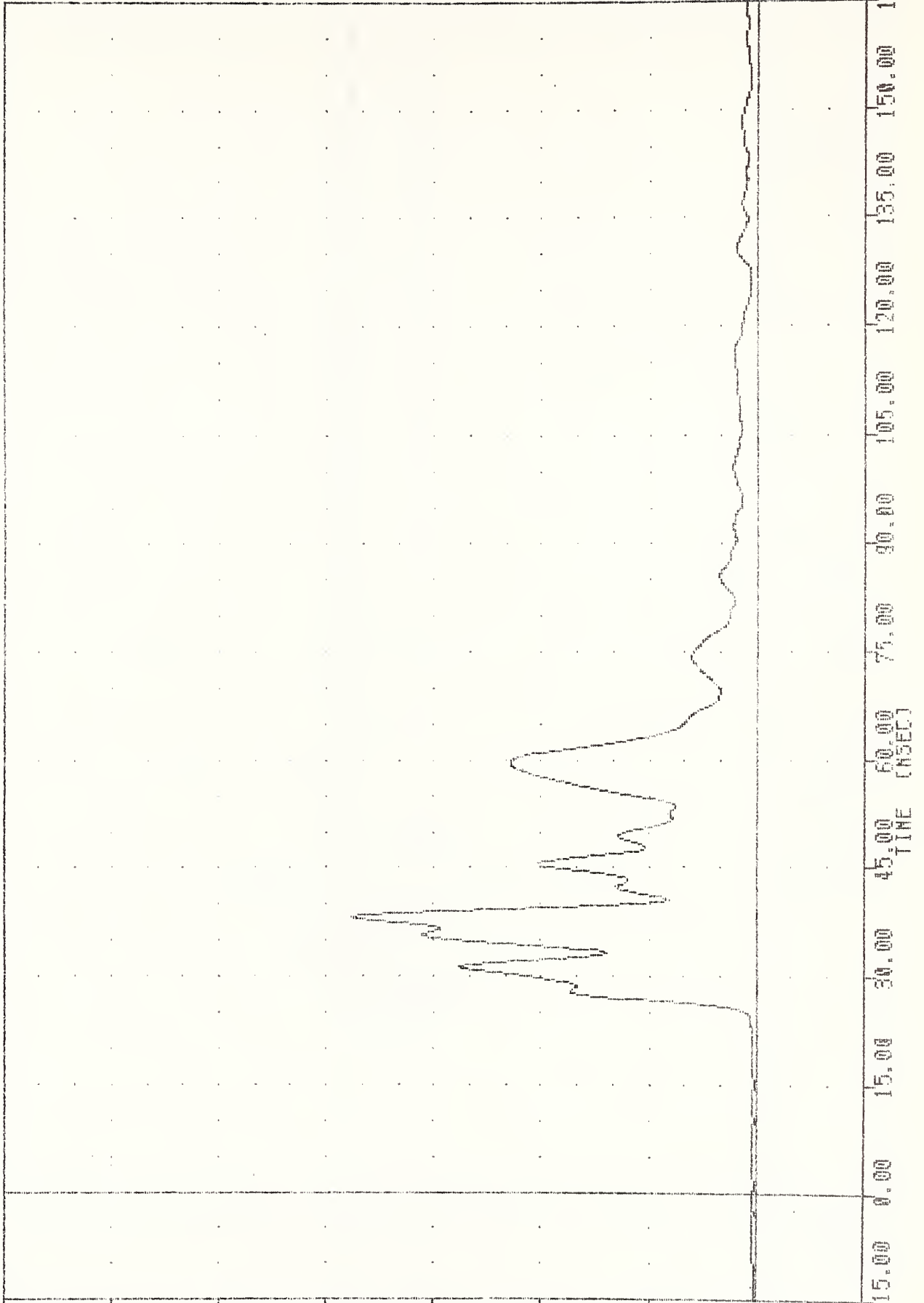
2-APR-82 10:29:14

55110803 , TRACE
REST. MODEL VALID. TEST
82081
CSTR62

FILTER = 5LFF 300/ 950/ -40
MIN. MAX VALUES = 0.41 0 -14.53 75.48 * 38.13

892-A

ACCELERATION (G)
-20.00 0.00 20.00 40.00 60.00 80.00 100.00 120.00 140.00



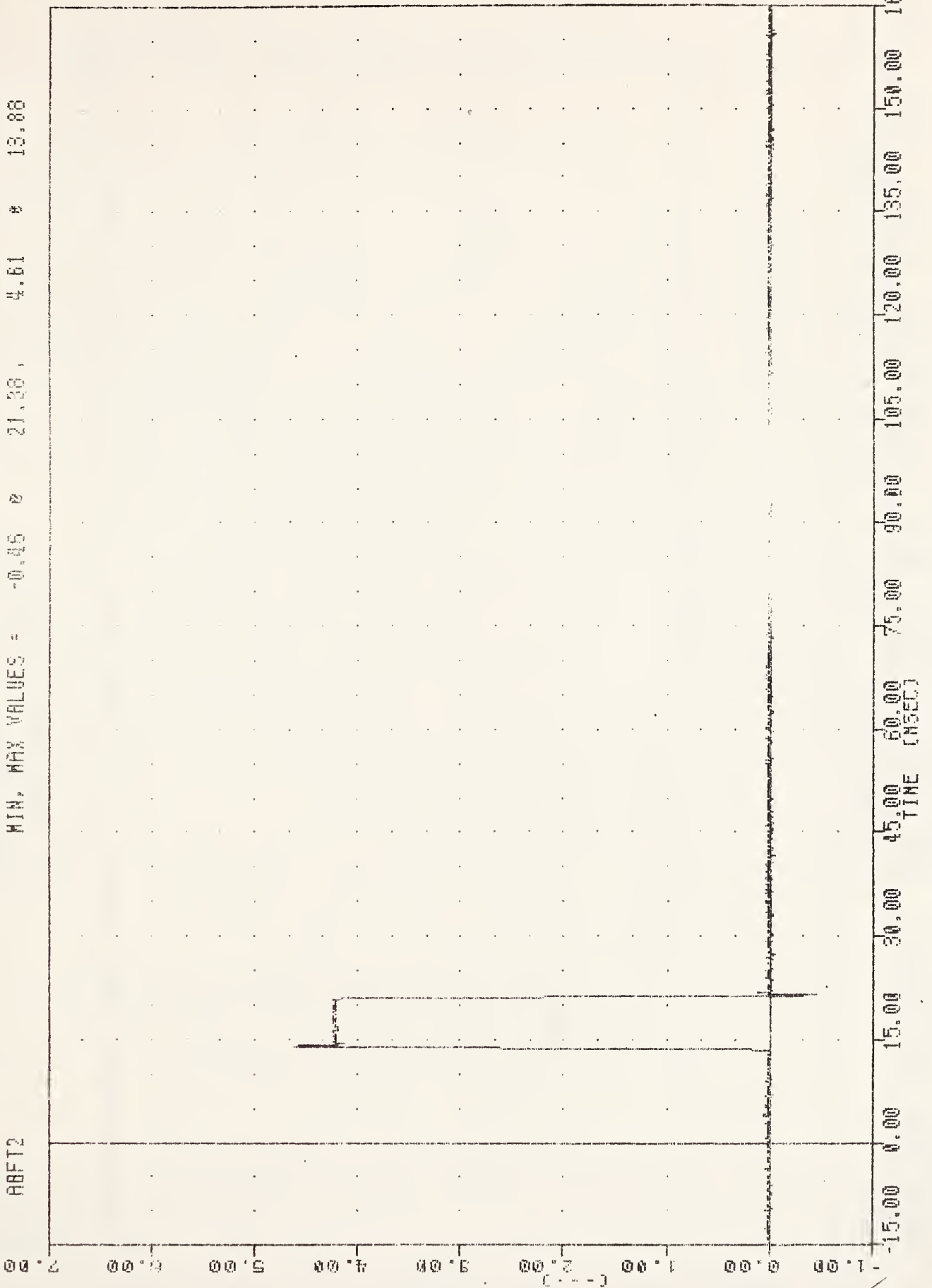
TIME (MSEC)
-15.00 0.00 15.00 30.00 45.00 60.00 75.00 90.00 105.00 120.00 135.00 150.00 165.00

CHEST ACCELERATION RESULTANT, PASSENGER

2-APR-82 10:29:14

55110803 , TRC066
REST. NOCEL VALID. TEST
82081
ABFT2

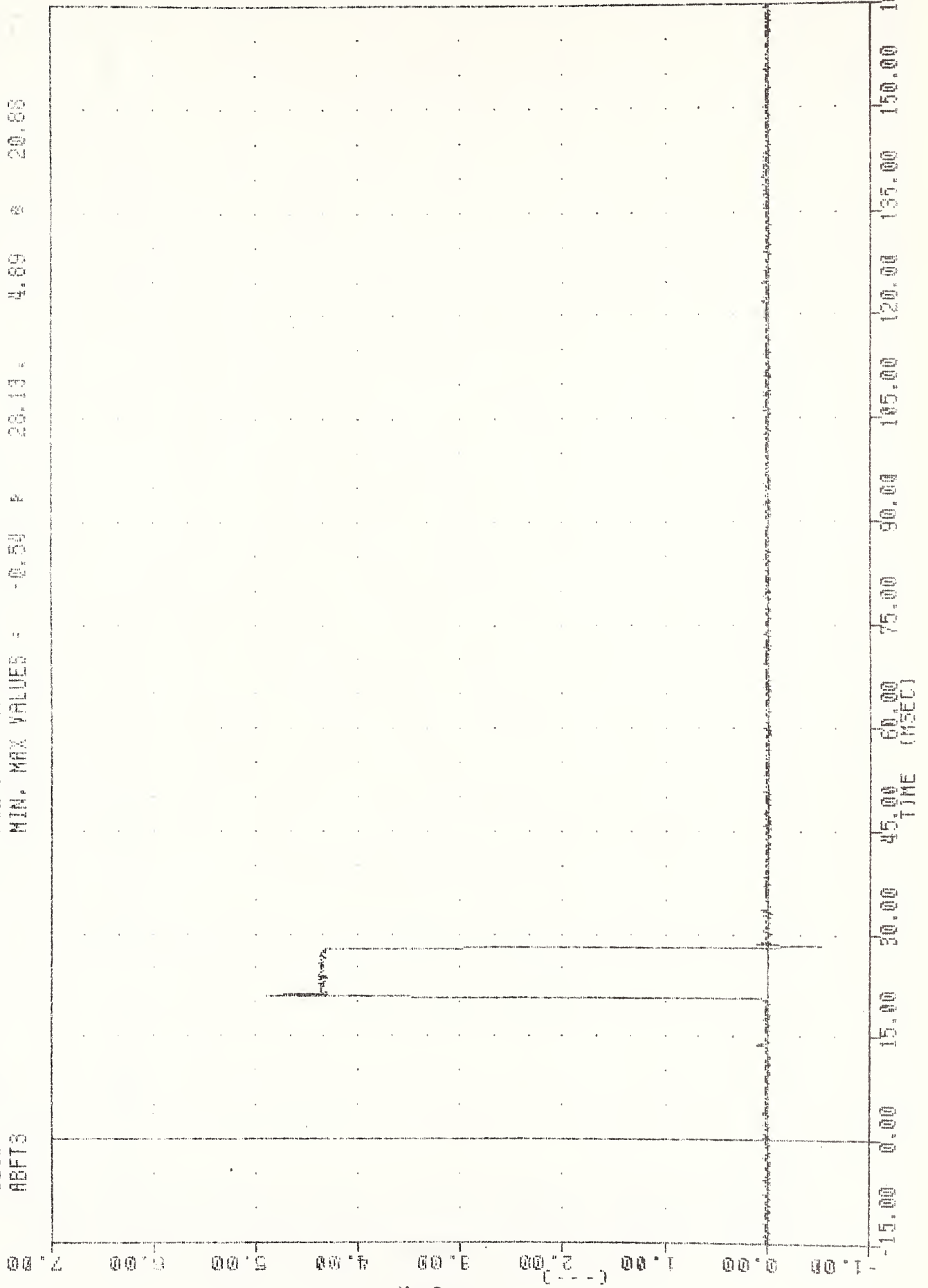
FILTER = ALPF 1650/5214/ .40
MIN. MAX VALUES = -0.45 0 21.38 4.61 * 13.88



A-299

AIR BAG FIRING EVENT PASSENGER

551110003 , TAL026 2-APR-82 10:29:14
 BEST. MODEL VALID. TEST
 02001 FILTER = ALFF 1550/5210/40
 ABFT3 MIN. MAX VALUES = -0.54 P 28.13 4.89 20.88



AIR BAG FIRING EVENT 3

351110003 , TRC026

2-99R-63 10:29:14

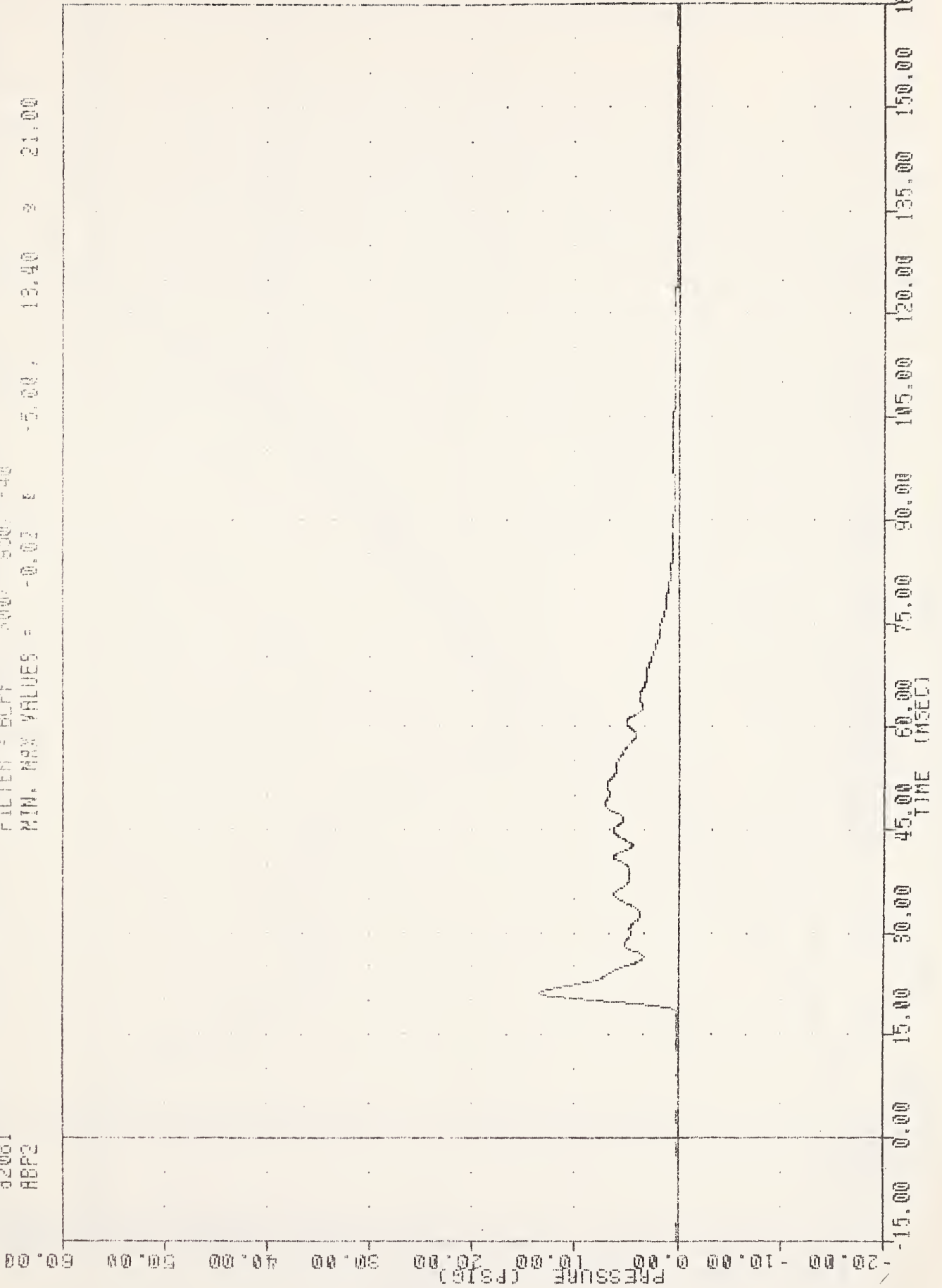
BEST. MODEL VALID. TEST

82081

FILTER = BLPF 300V 850V -40

ABP2

MIN. MAX VALUES = -0.02 13.40 3 21.00



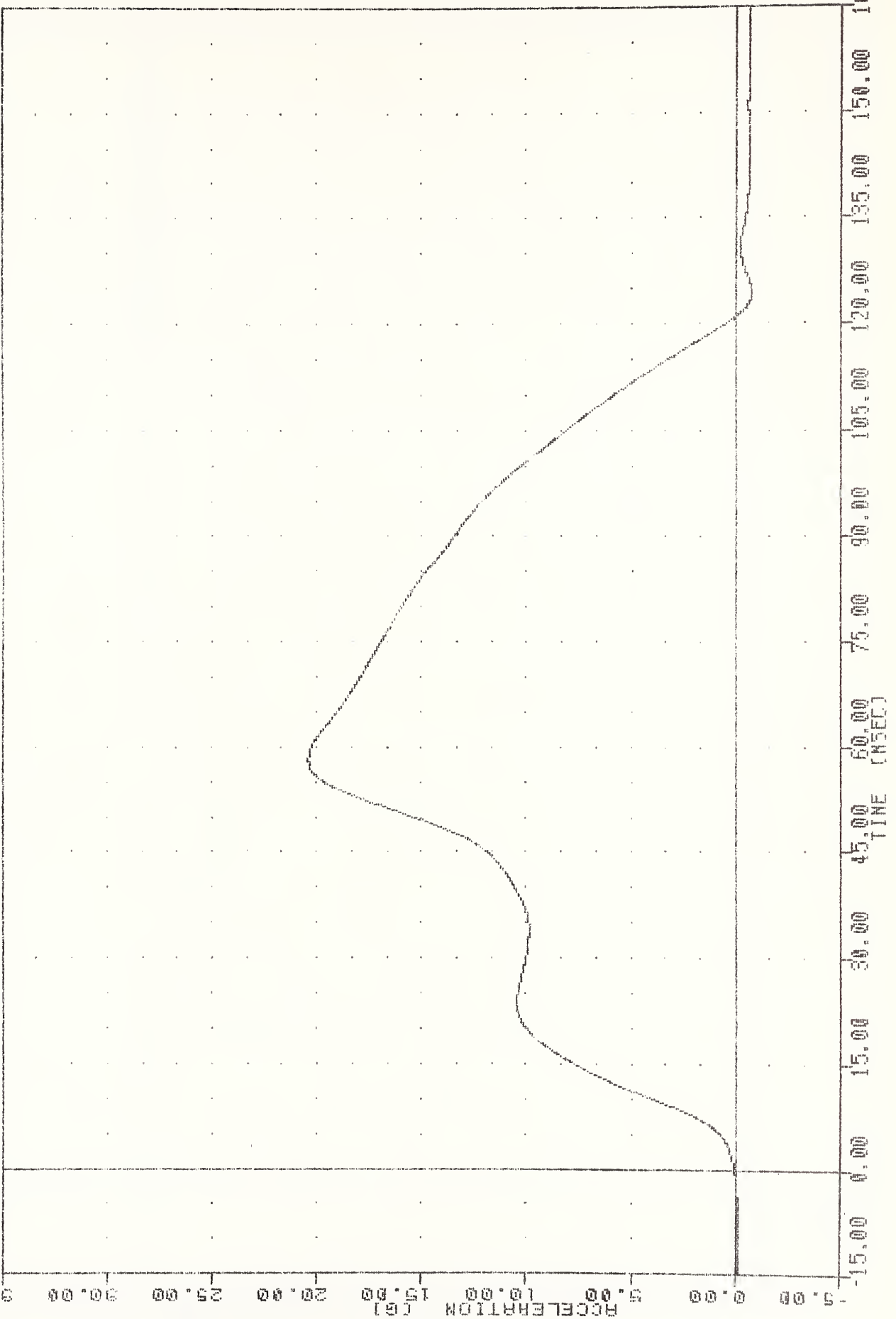
A-301

AIR BAG PRESSURE PASSENGER

551110003 , TRC066
REST. MODEL VALID. TEST
82081
SLOXE

2-APR-82 10:25:14

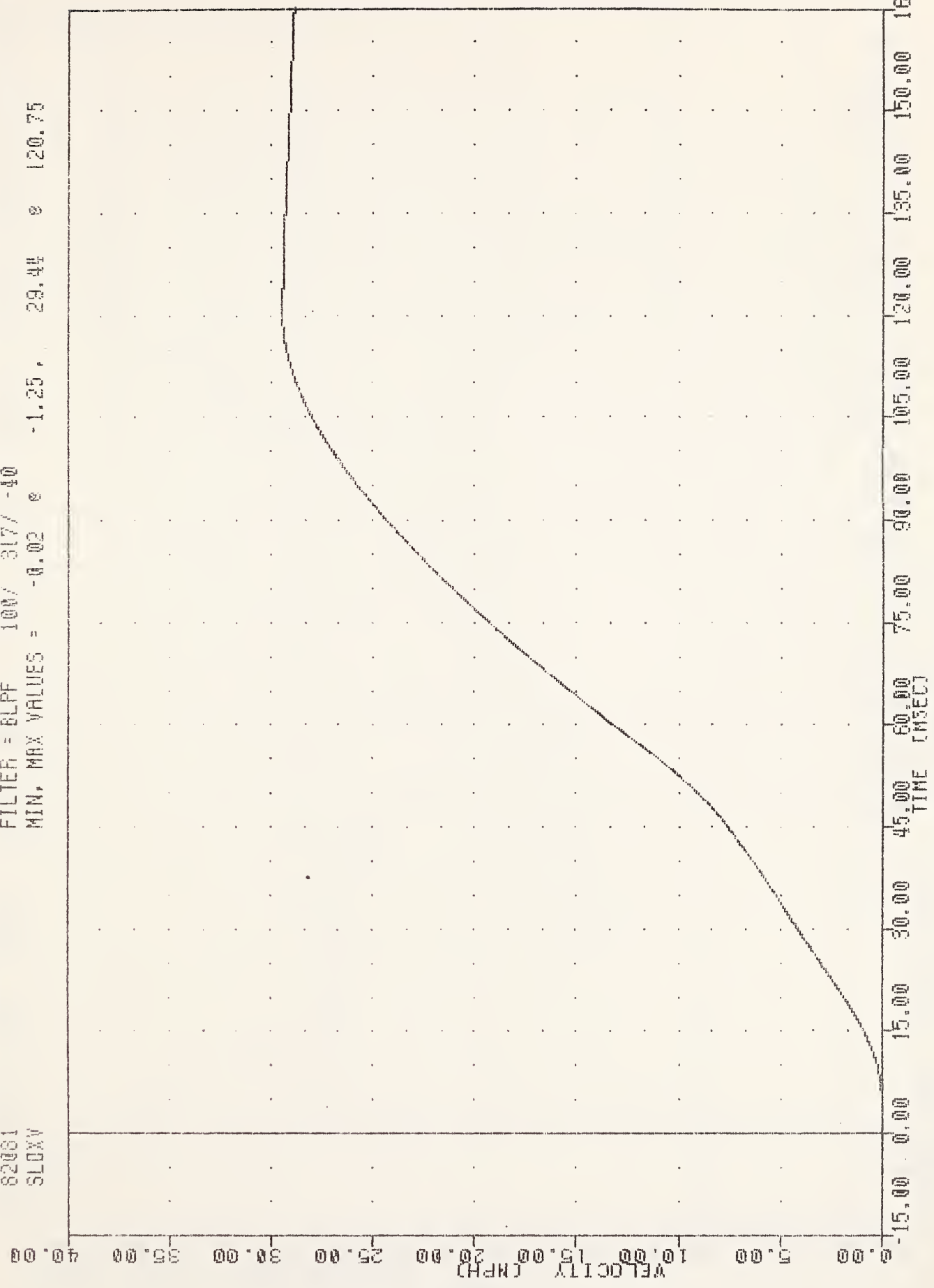
FILTER = BLPF 100/ 317/ -40
MIN, MAX VALUES = -0.60 * 124.13 , 20.39 * 58.00



A-3oz

SLED ACCELERATION

S5110003 , TRC056
REST, MODEL VALID, TEST
82061
SLOWV
2-APR-82 18:29:14
FILTER = 8LPF 100/ 317/ -40
MIN, MAX VALUES = -0.02 e -1.25 , 29.44 e 120.75



A-303

SLED VELOCITY IN MPH

2-APR-82 10:29:14

351110003 , TRACES

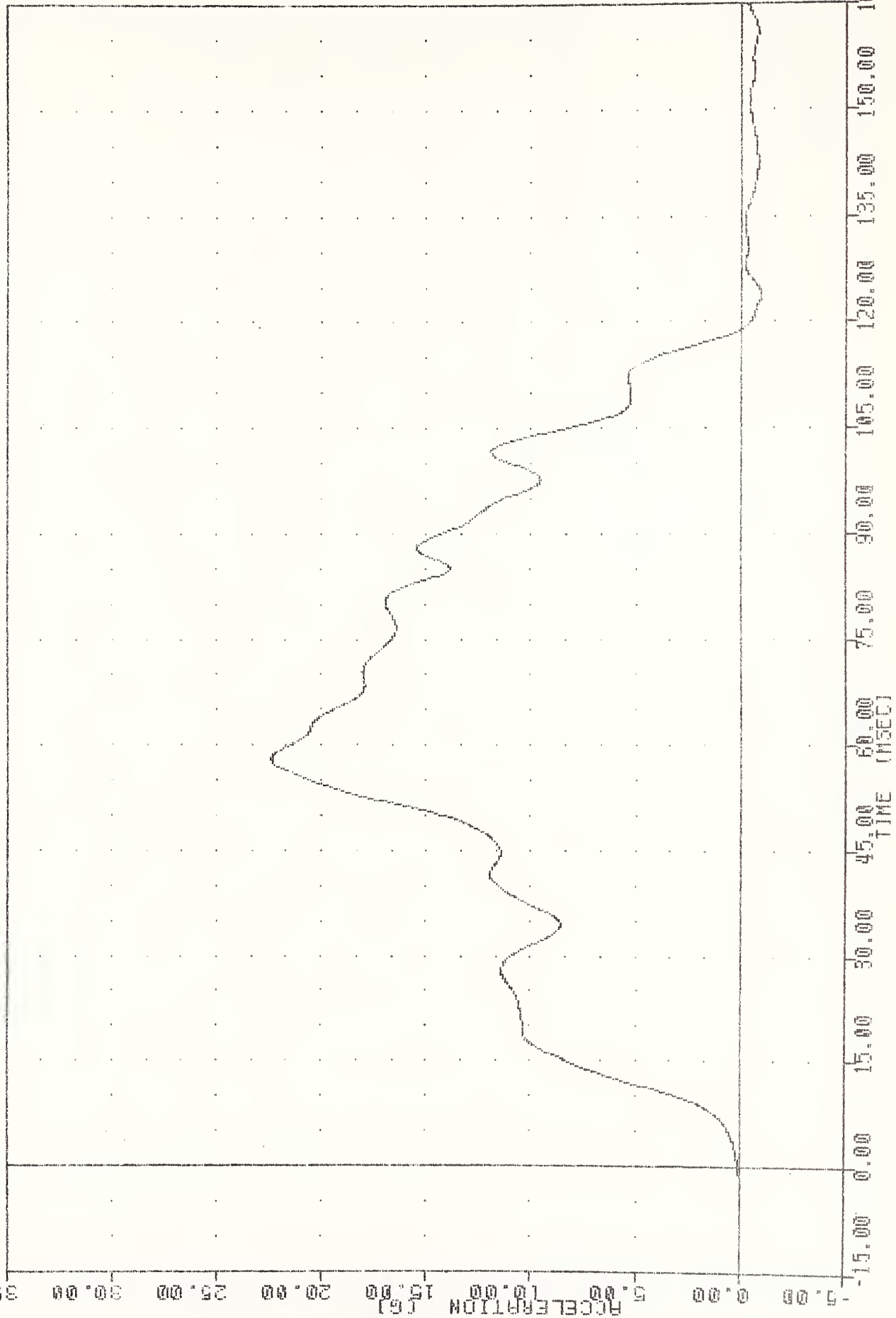
BEST, MODEL VALID, TEST

02001

FILTER = SLPF 100/ 317/ -40

FTUX6

MIN. MAX VALUES = -1.00 123.88 , 22.40 57.88



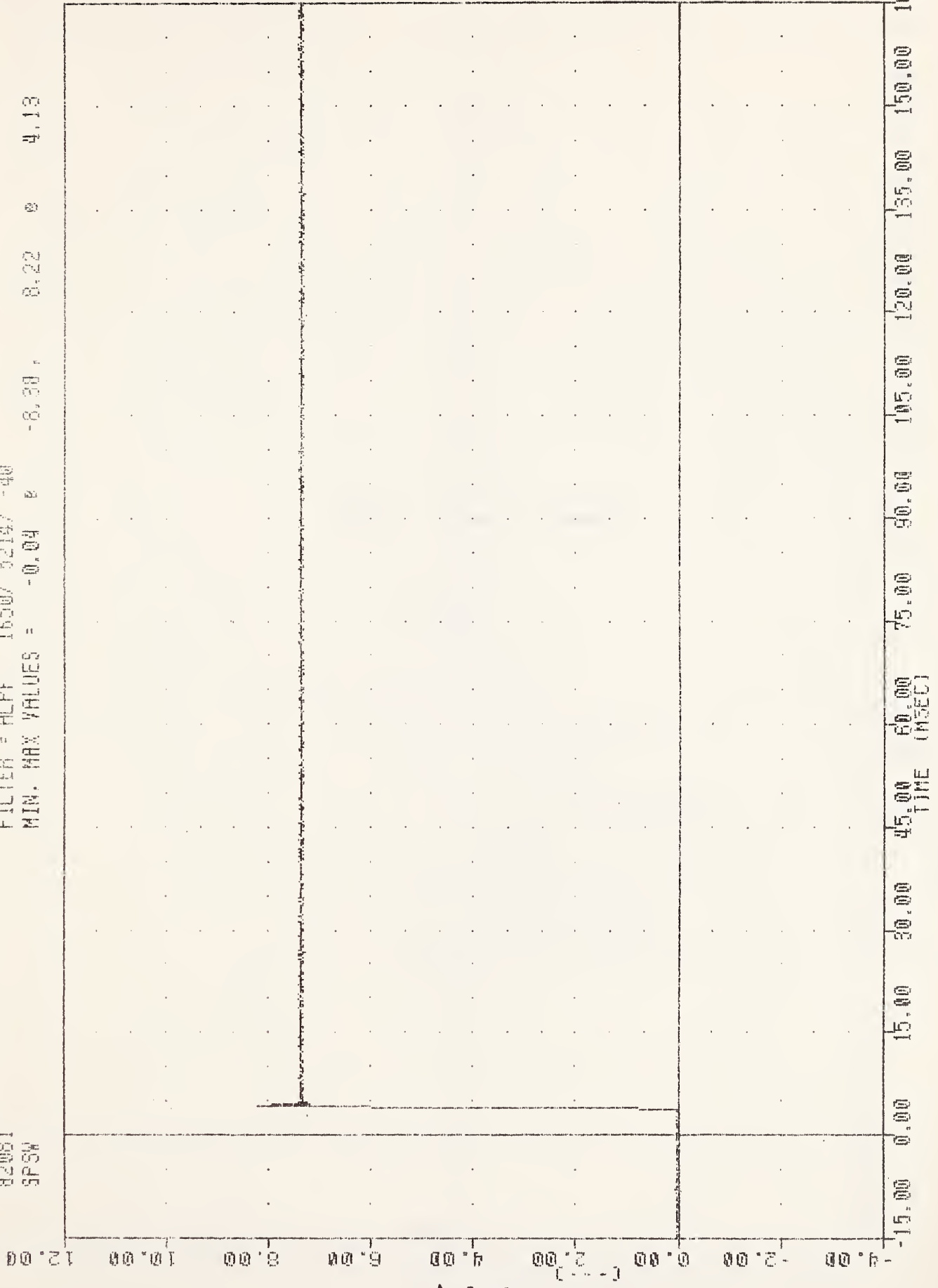
A-364

FLOOR PAN TUNNEL ACCELERATION

351110003 , TRC066
 REST. MODEL VALID. TEST
 82081
 SPSW

2-APR-82 10:29:14

FILTER = ALPF 1650/ 5214/ -40
 MIN. MAX VALUES = -0.04 8.22 0 4.13



SLED POSITION SWITCH

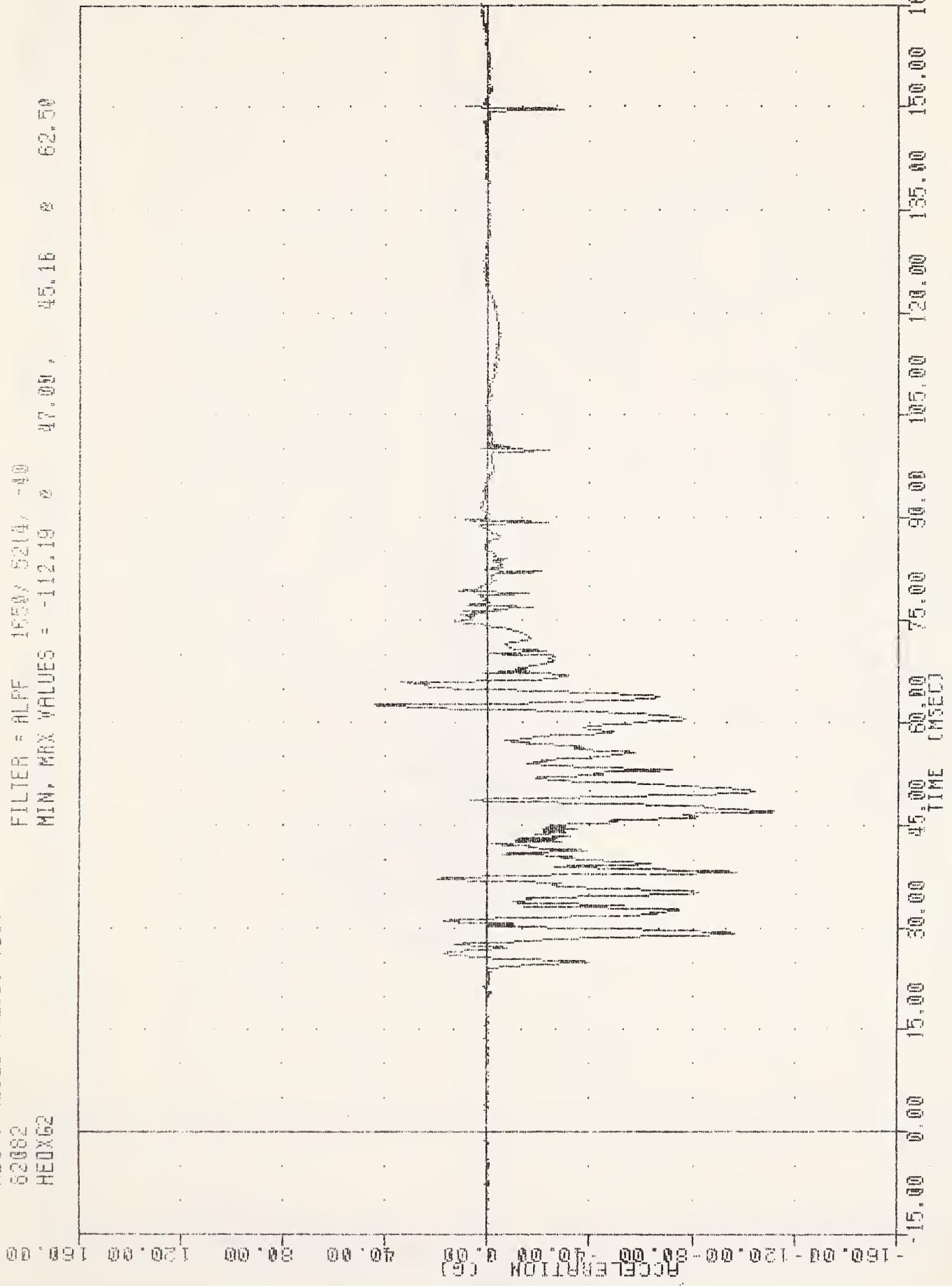
TEST NO. 12

A-306

2-APR-82 11:27:24

S51120083 , TRCN67
REST. MODEL VALID. TEST
62082
HEAD62

FILTER = ALPF 1650 5210 / -40
MIN. MAX VALUES = -112.19 47.00 45.16 62.50



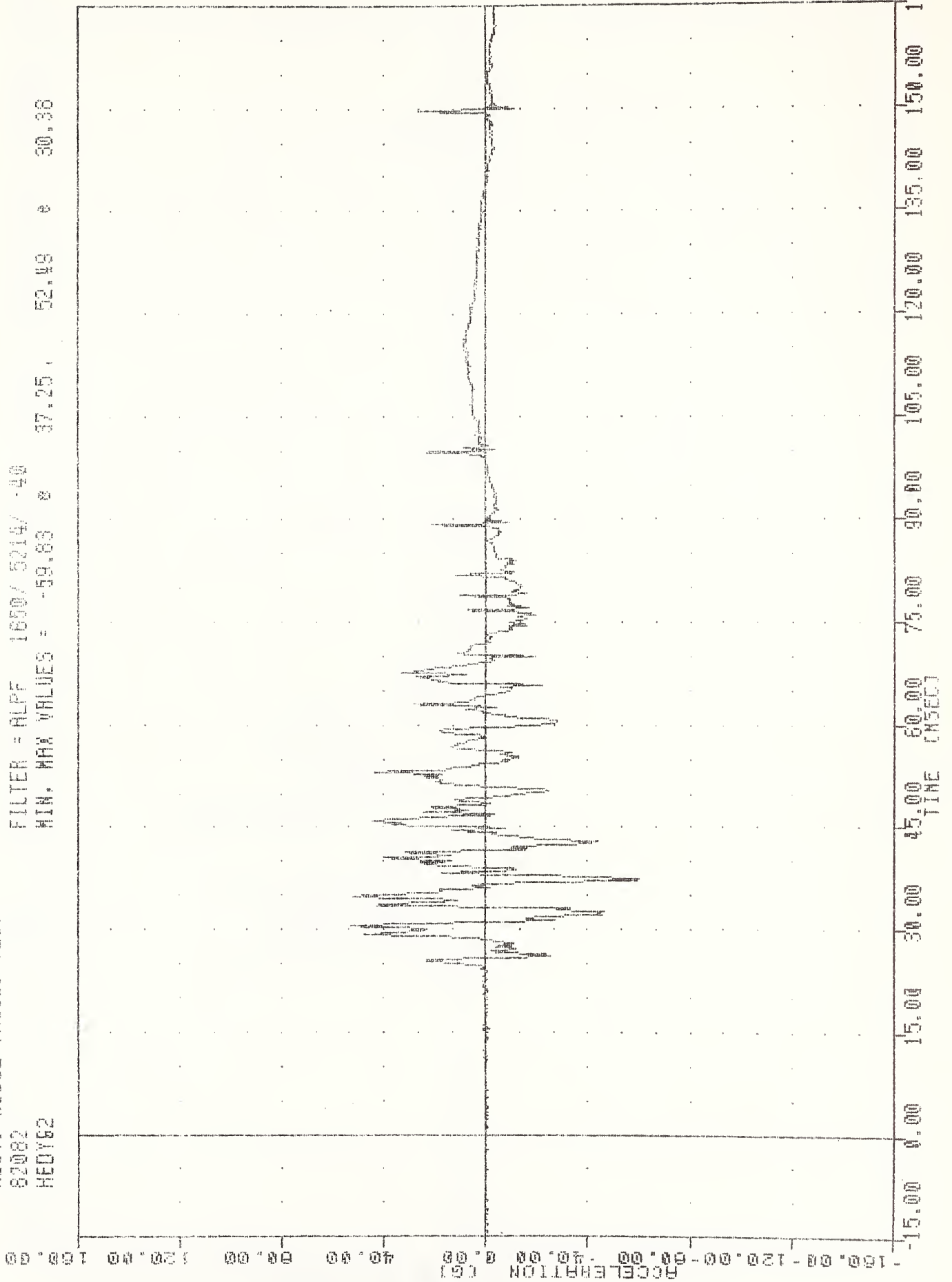
A-307

HEAD ACCELERATION X AXIS PASSENGER

551120003 , TRC067
BEST. MODEL VALID. TEST
82082
HEDY62

2-APR-82 11:27:24

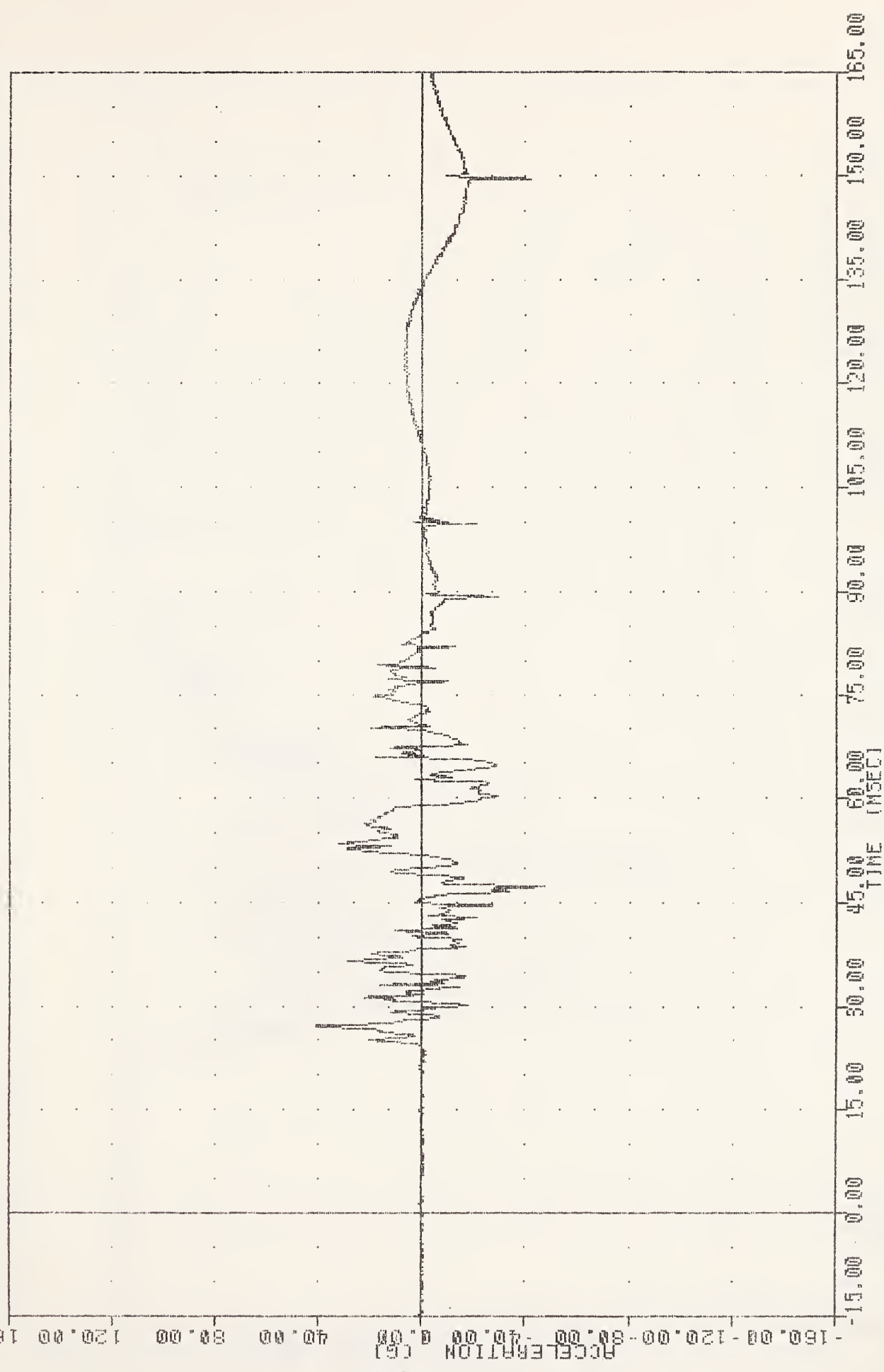
FILTER = ALPF 1650/5219/ -40
MIN. MAX VALUES = -59.83 52.48 30.38



A-308

HEAD ACCELERATION Y AXIS PASSENGER

551120003 , TRC067
 2-APR-82 11:27:24
 REST. MODEL VALID. TEST
 82082
 HEDZ62
 FILTER = ALPF 1650/ 5214/ -40
 MIN. MAX VALUES = -47.47 e 47.13 40.60 e 26.68



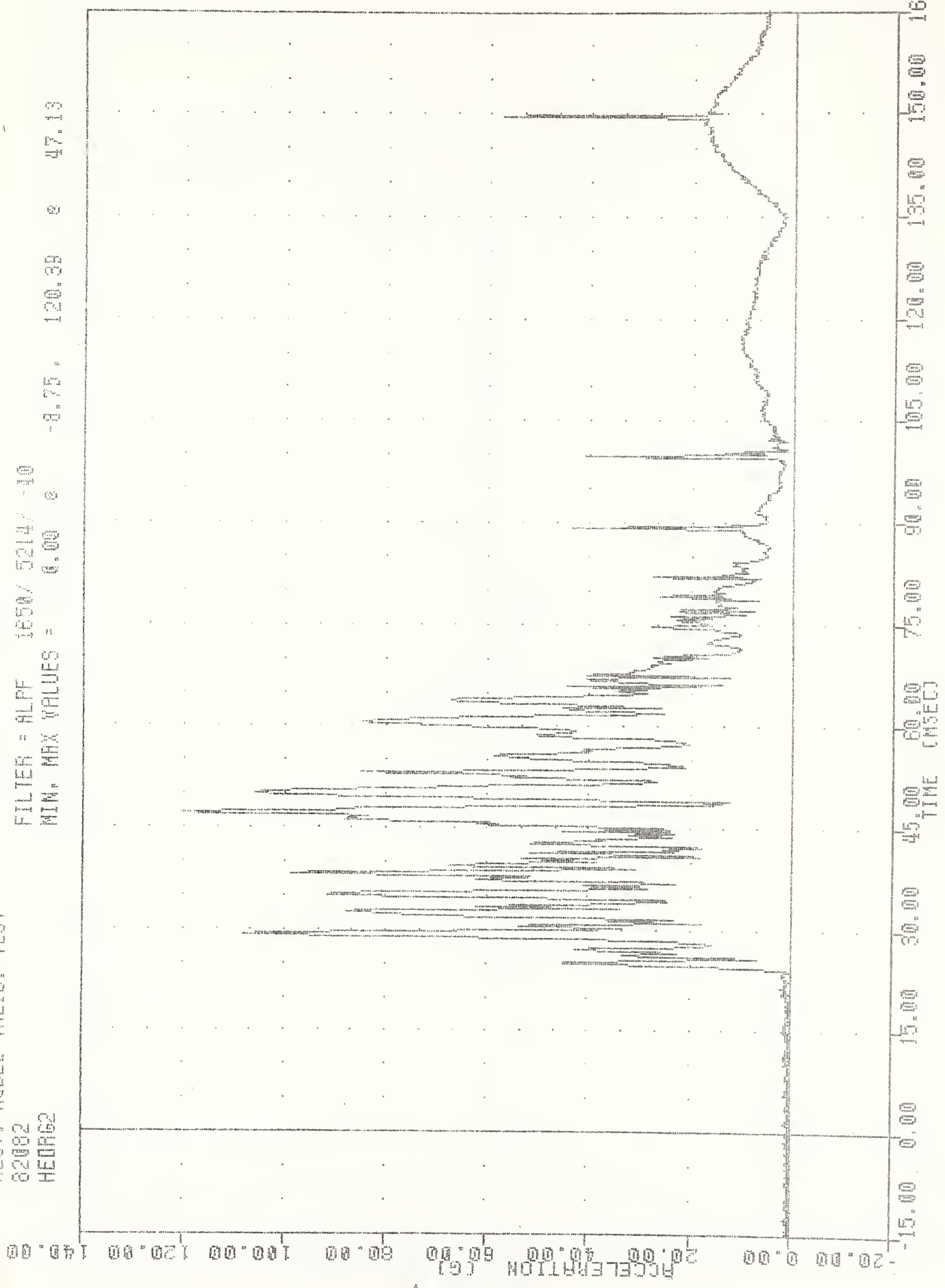
A-309

HEAD ACCELERATION Z AXIS PASSENGER

2-APR-82 11:27:24

551120003 . TRC067
BEST. MODEL VALID. TEST
82002
HEAD62

FILTER = ALPF 1650/ 5214/ -10
MIN. MAX VALUES = 6.00 8 -8.75, 120.38 8 47.13



A-310

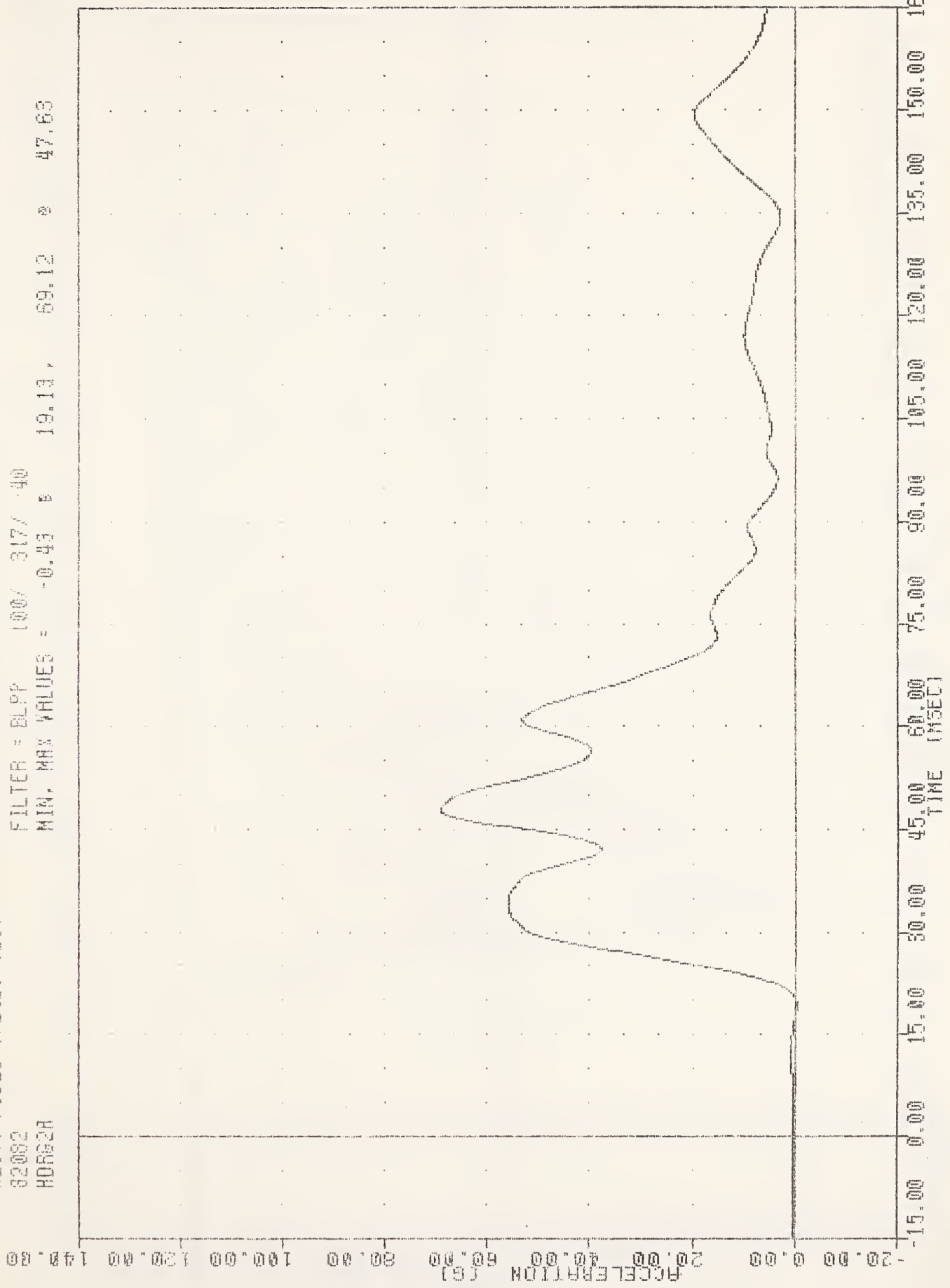
HEAD ACCELERATION RESULTANT PASSENGER

551120003 , 760057
REST, MODEL VALID, TEST
82002
HDR02A

2-APR-82 15:43:07

FILTER = BLPP 100/ 317/ 40
MIN. MAX VALUES = -0.43 47.63

19.13, 69.12 47.63



11-A-311

3 YR OLD HEAD RESULTANT (CLASS 100)

551120003 2-APR-82 15:43:07

TRC067

REST. MODEL VALID. TEST

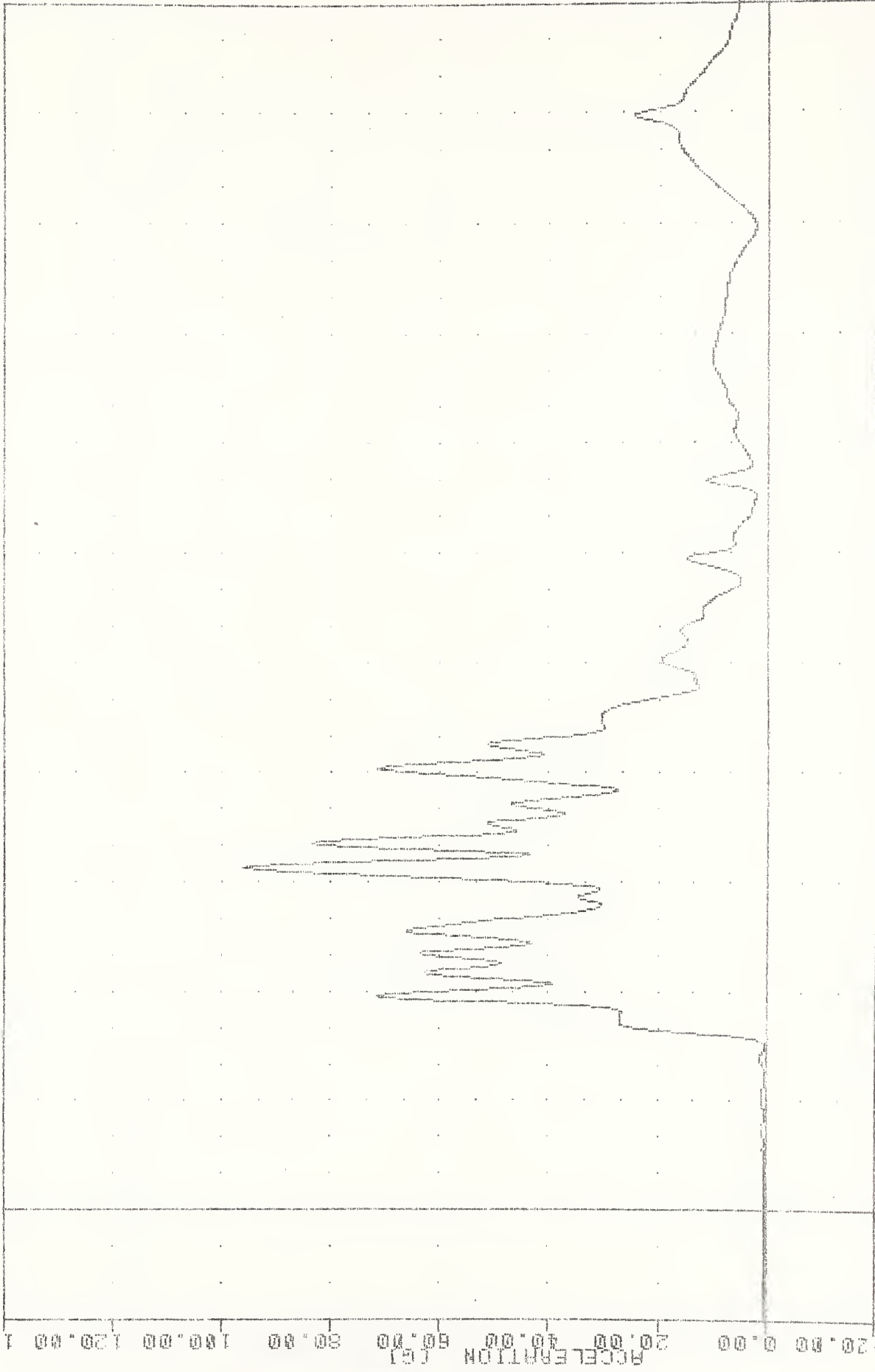
62002

FILTER = BLPP 300/ 950/ -40

MIN. MAX VALUES = 0.11 0 22.50 96.05 0 46.75

HDRG2B

ACCELERATION (G)



213-A

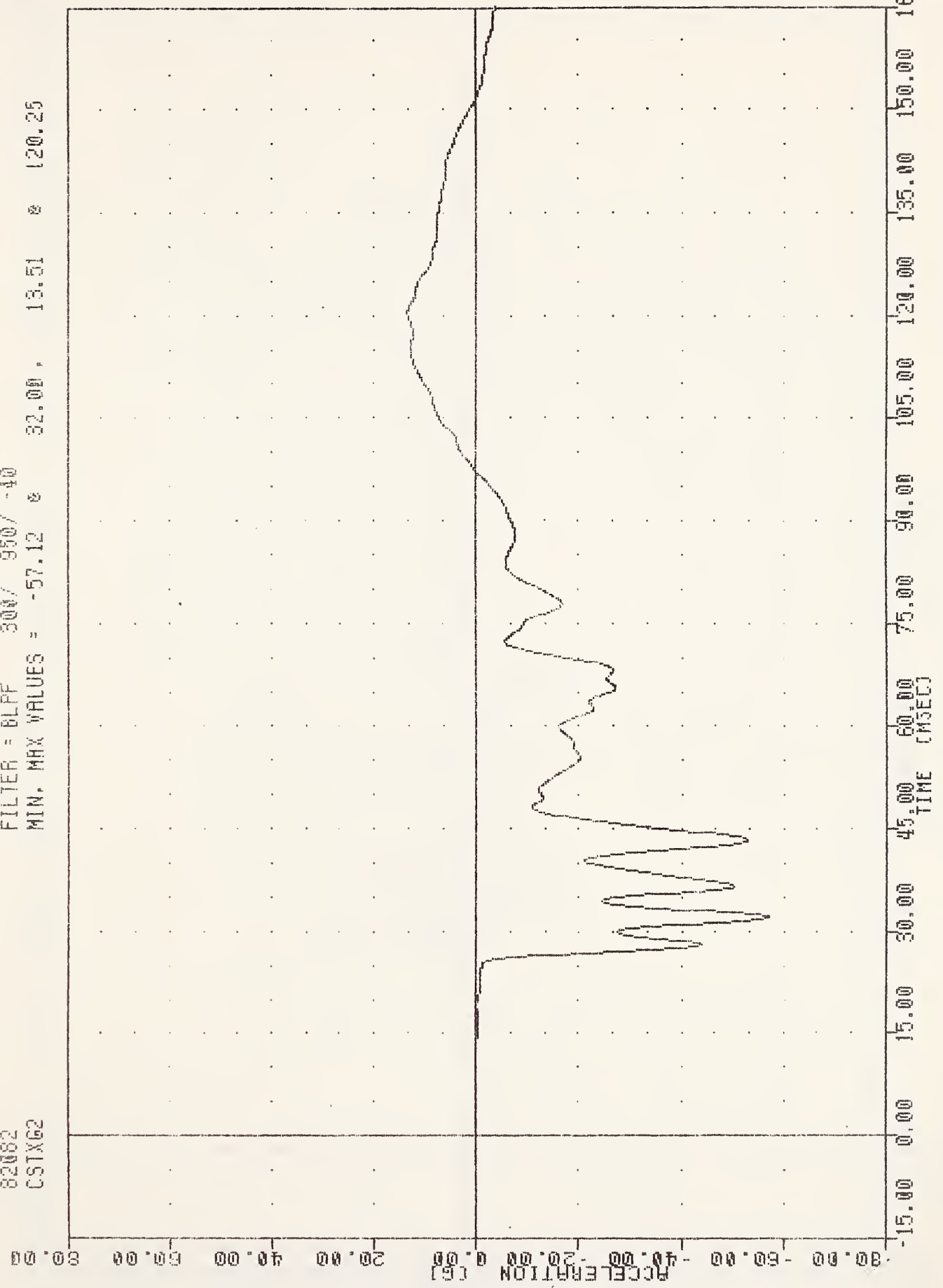
TIME (MSEC) -15.00 0.00 15.00 30.00 45.00 60.00 75.00 90.00 105.00 120.00 135.00 150.00 165.00

3 YR OLD HEAD RESULTANT (CLASS 180)

2-APR-82 11:27:24

55112003 , TRC067
BEST. MODEL VALID. TEST
82082
CSTX62

FILTER = BLPF 300/ 950/ -40
MIN. MAX VALUES = -57.12 @ 32.00 , 13.51 @ 120.25



A-313

CHEST ACCELERATION X AXIS PASSENGER

551120003 , TRC067

REST. MODEL VALID. TEST

82062

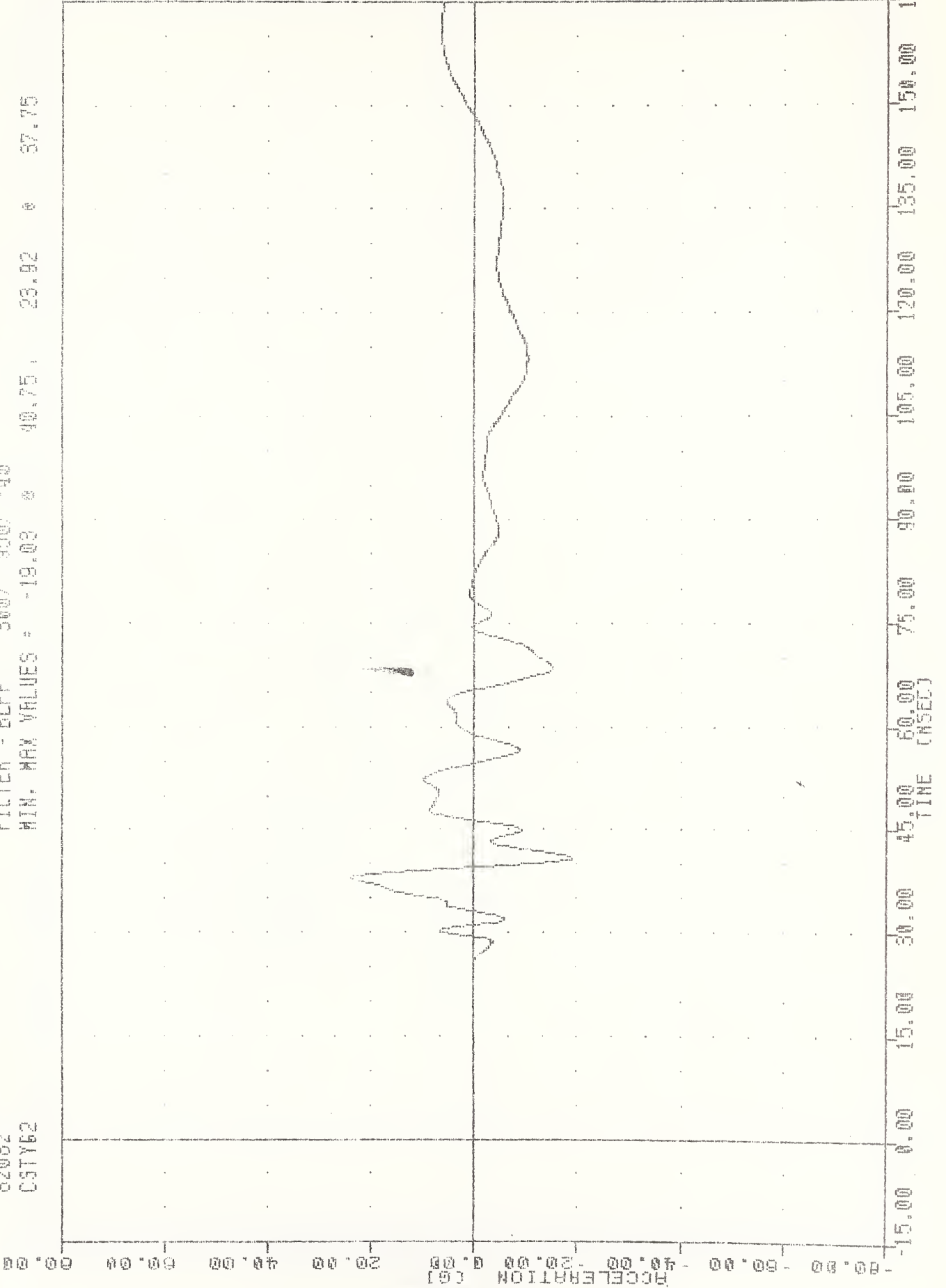
CSTY62

2-9FA-02

11:27:24

FILTER = ELFF 300/ 950/ -40

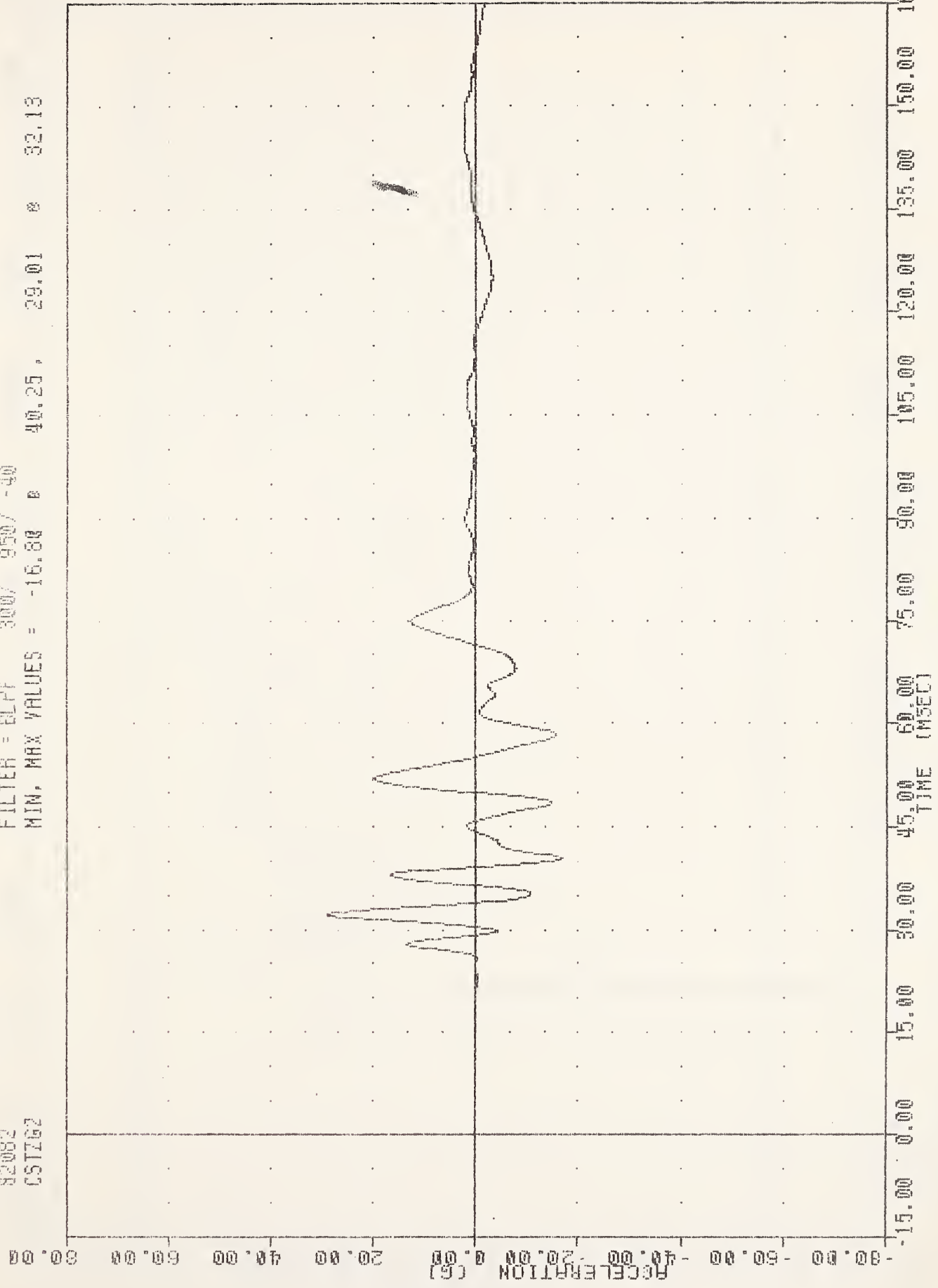
MIN. MAX VALUES = -19.03 0 40.75 23.92 0 37.75



A-314

CHEST ACCELERATION Y AXIS PASSENGER

551126003 , TH0067 2-APR 82 11:27:24
REST, MODEL VALID, TEST
82082 FILTER = BLPF 300/ 950/ -40
CSTIG2 MIN, MAX VALUES = -16.80 40.25, 29.01 32.13



A-315

CHEST ACCELERATION Z AXIS PASSENGER

2-APR-82 11:27:24

551120003 , TRC067

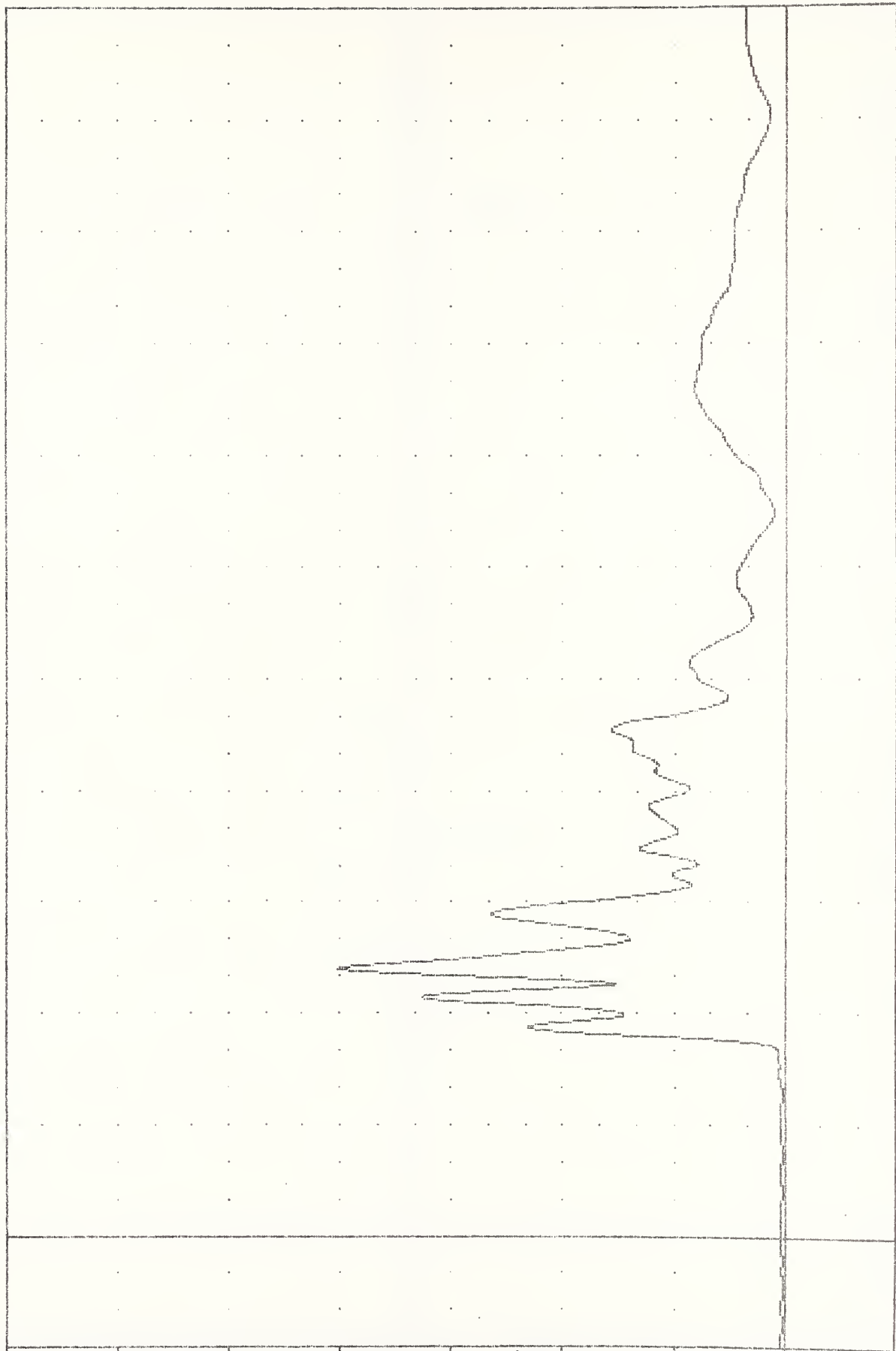
REST. MODEL VALID. TEST

FILTER = BLFF 300. 950/ -40

MIN. MAX VALUES = 0.34 0 11.00 80.53 * 35.88

82062
CSTR62

ACCELERATION (G) -20.00 0.00 20.00 40.00 60.00 80.00 100.00 120.00 140.00



185.00 150.00 135.00 120.00 105.00 90.00 75.00 60.00 45.00 30.00 15.00 0.00
TIME (MSEC)

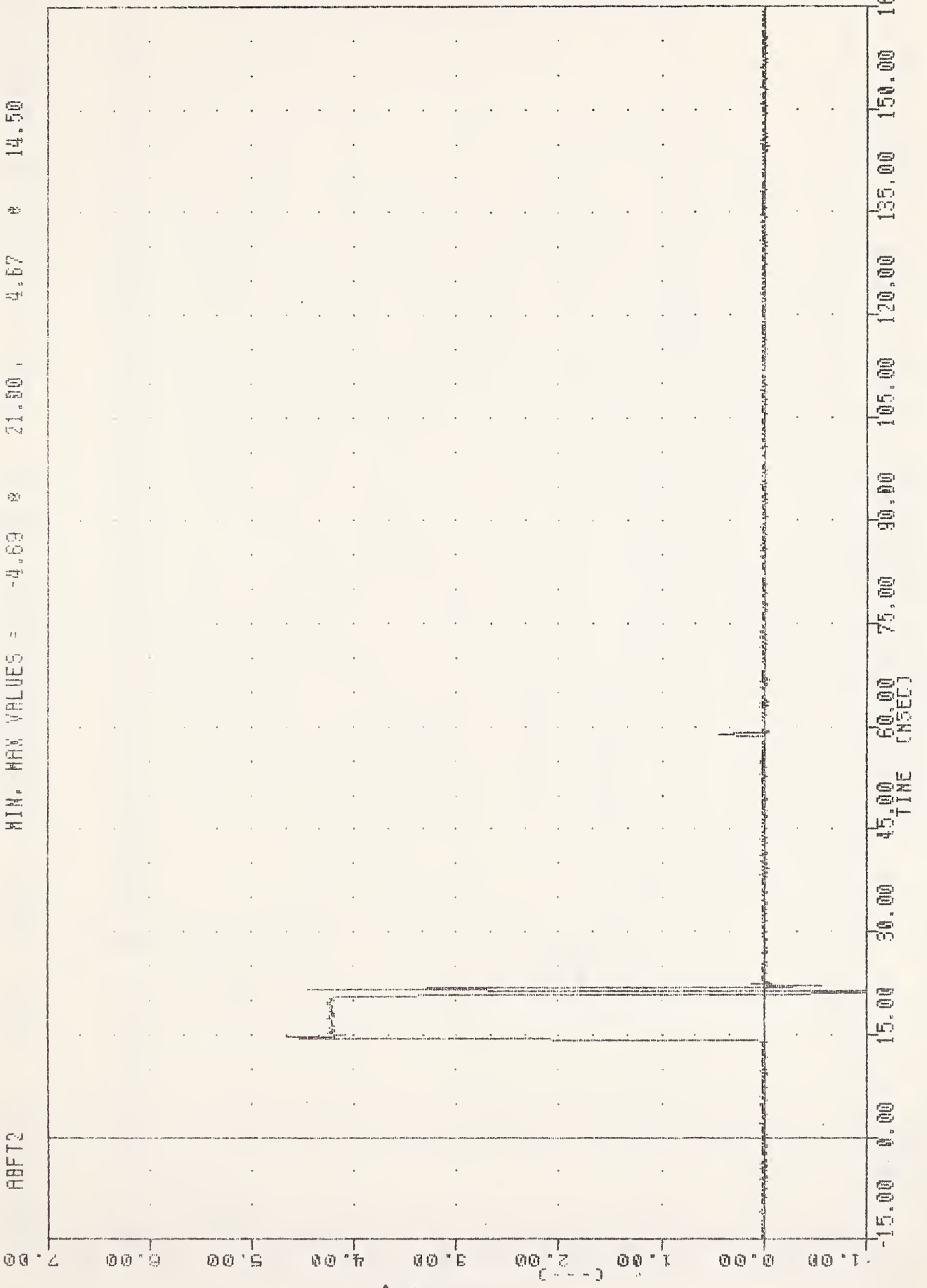
A-316

CHEST ACCELERATION RESULTANT PASSENGER

551120003 , TRC067
 REST. MODEL VALID. TEST
 82082
 ABFT2

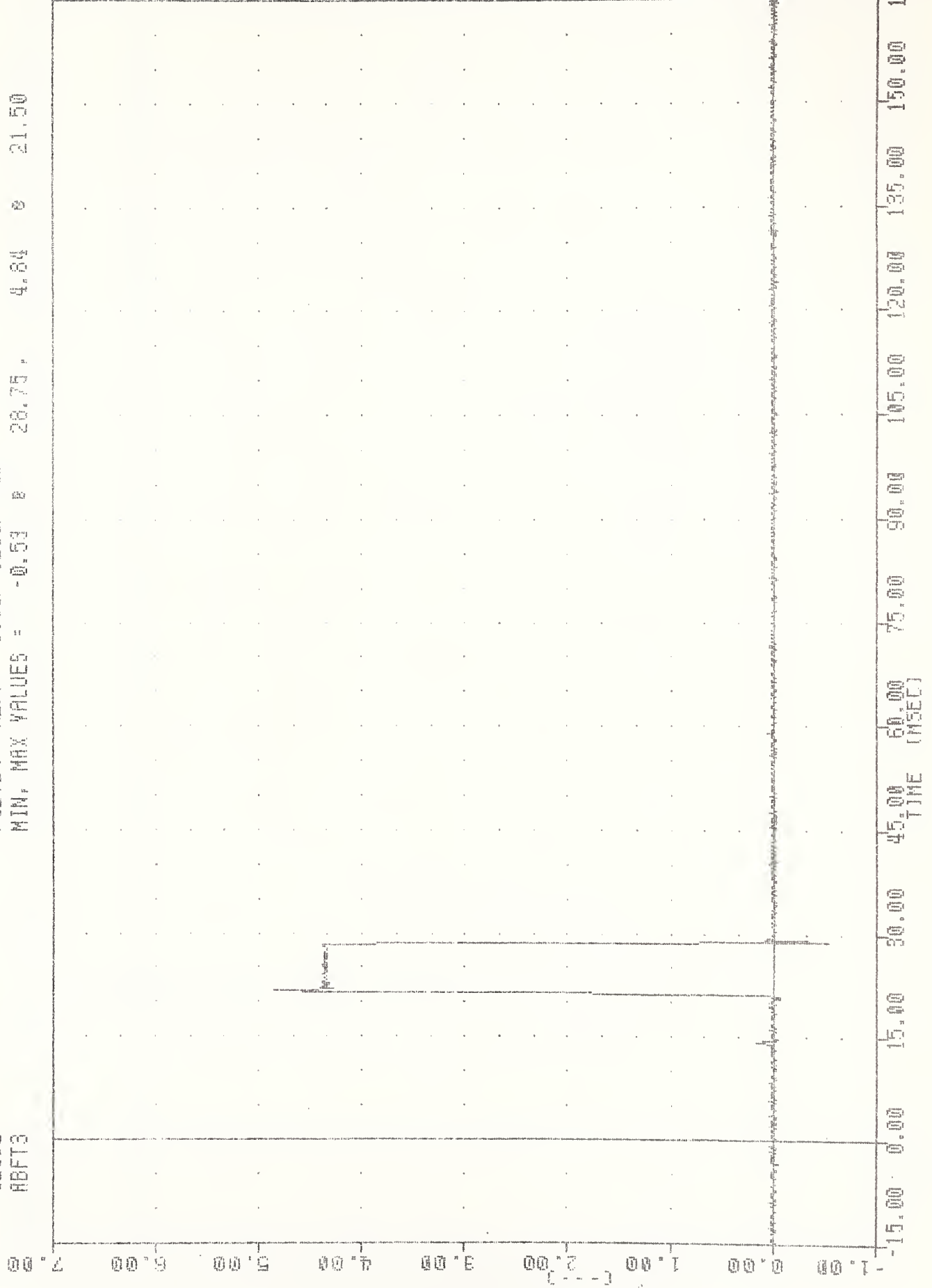
2-APR-82 11:27:24

FILTER = ALPF 1650/ 5214/ -40
 MIN. MAX VALUES = -4.69 @ 21.80 @ 4.67 @ 14.50



AIR BAG FIRING EVENT PASSENGER

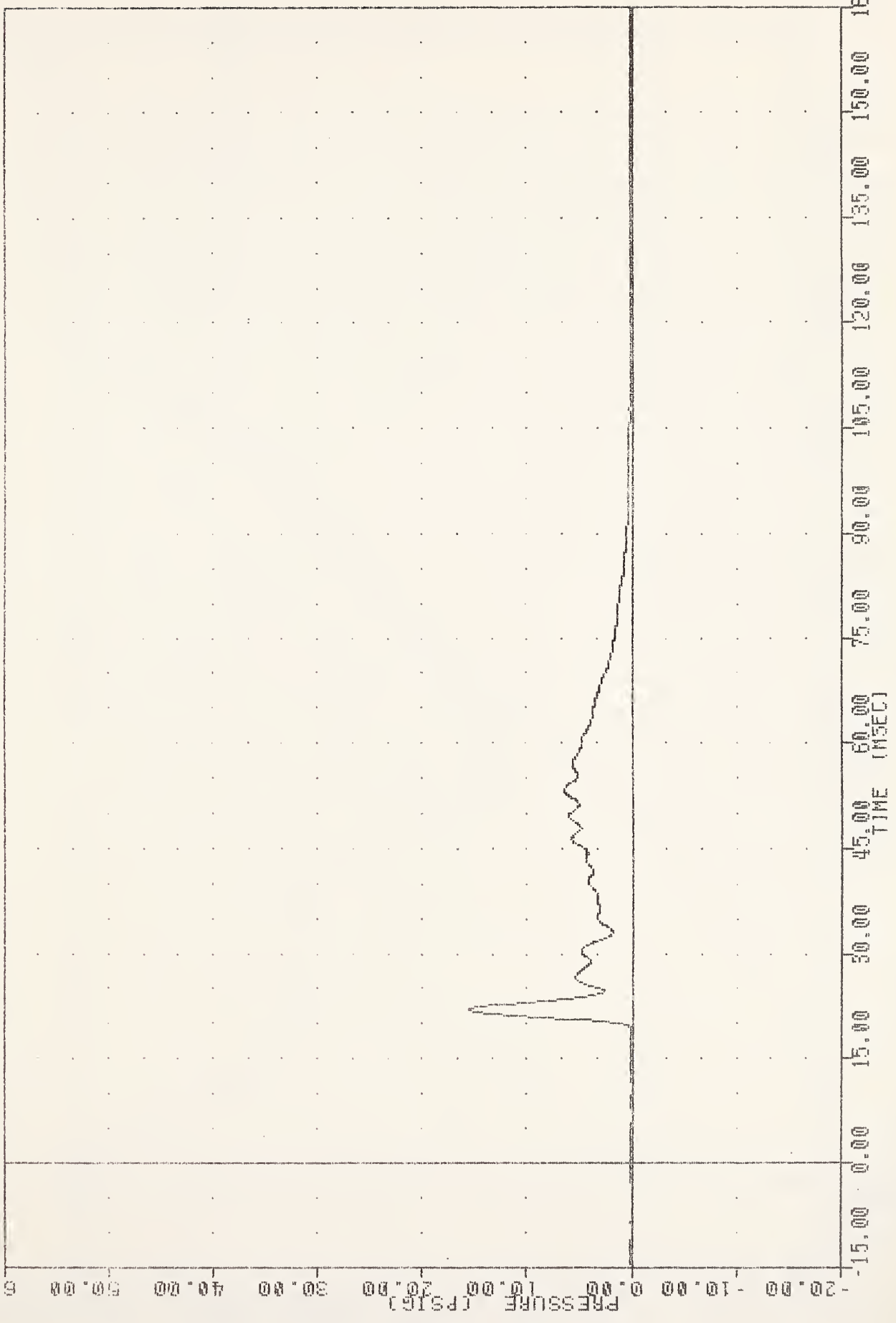
951120005 780057 2-APR-82 11:27:24
 REST. MODEL VALID. TEST
 82082 FILTER = RLFF 1650/ 5214/ -40
 ABFT3 MIN. MAX VALUES = -0.53 B 28.75 4.84 0 21.50



A-318

AIR BAG FIRING EVENT 3

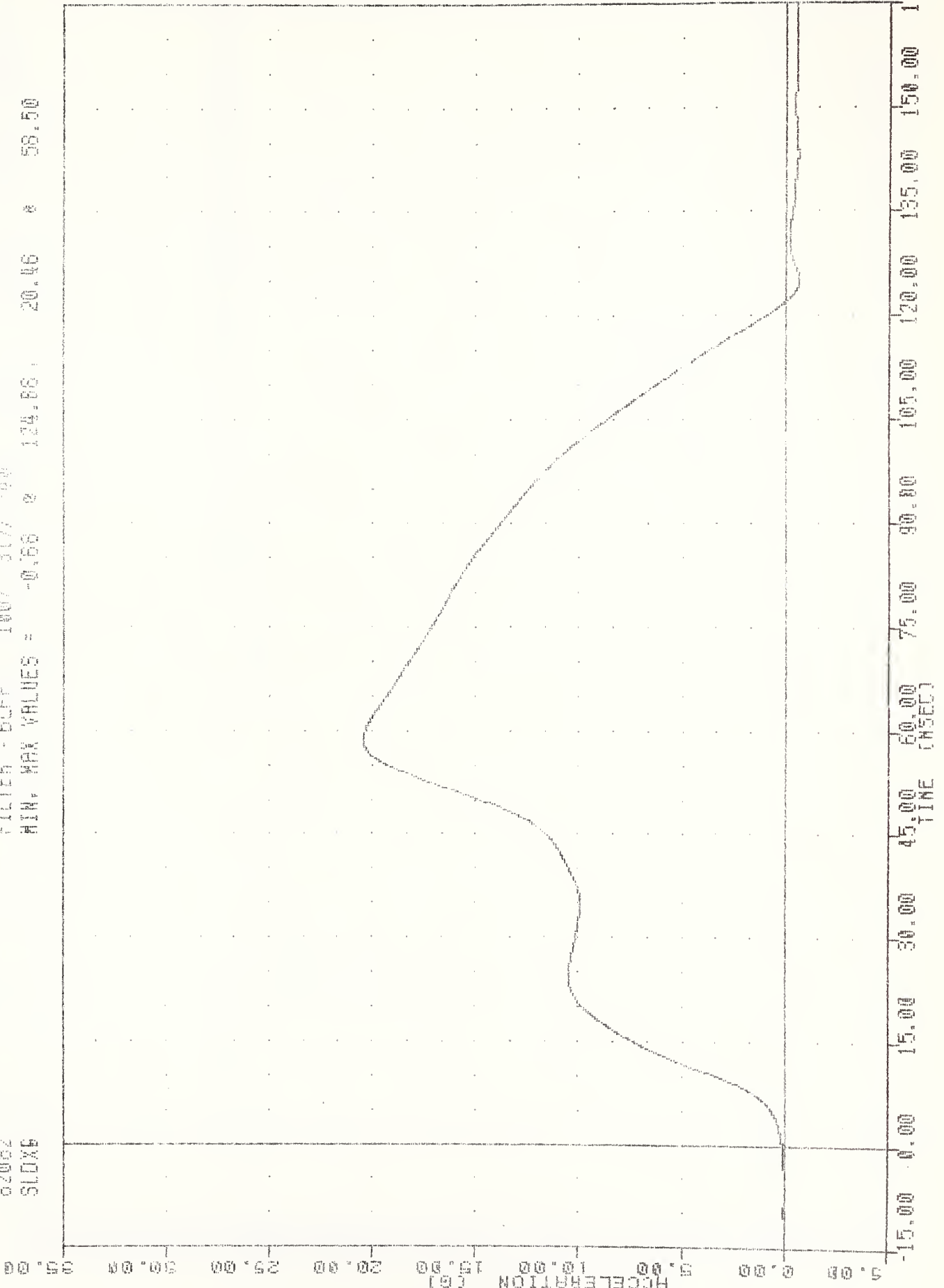
551120003 , TRC067
 2-APR-82 11:27:24
 REST. MODEL VALID. TEST
 82062
 HBP2
 FILTER = BLFF 300/ 950/ -40
 MIN. MAX VALUES = -0.01 8 -4.25 , 15.70 8 21.88



A-319

AIR BAG PRESSURE PASSENGER

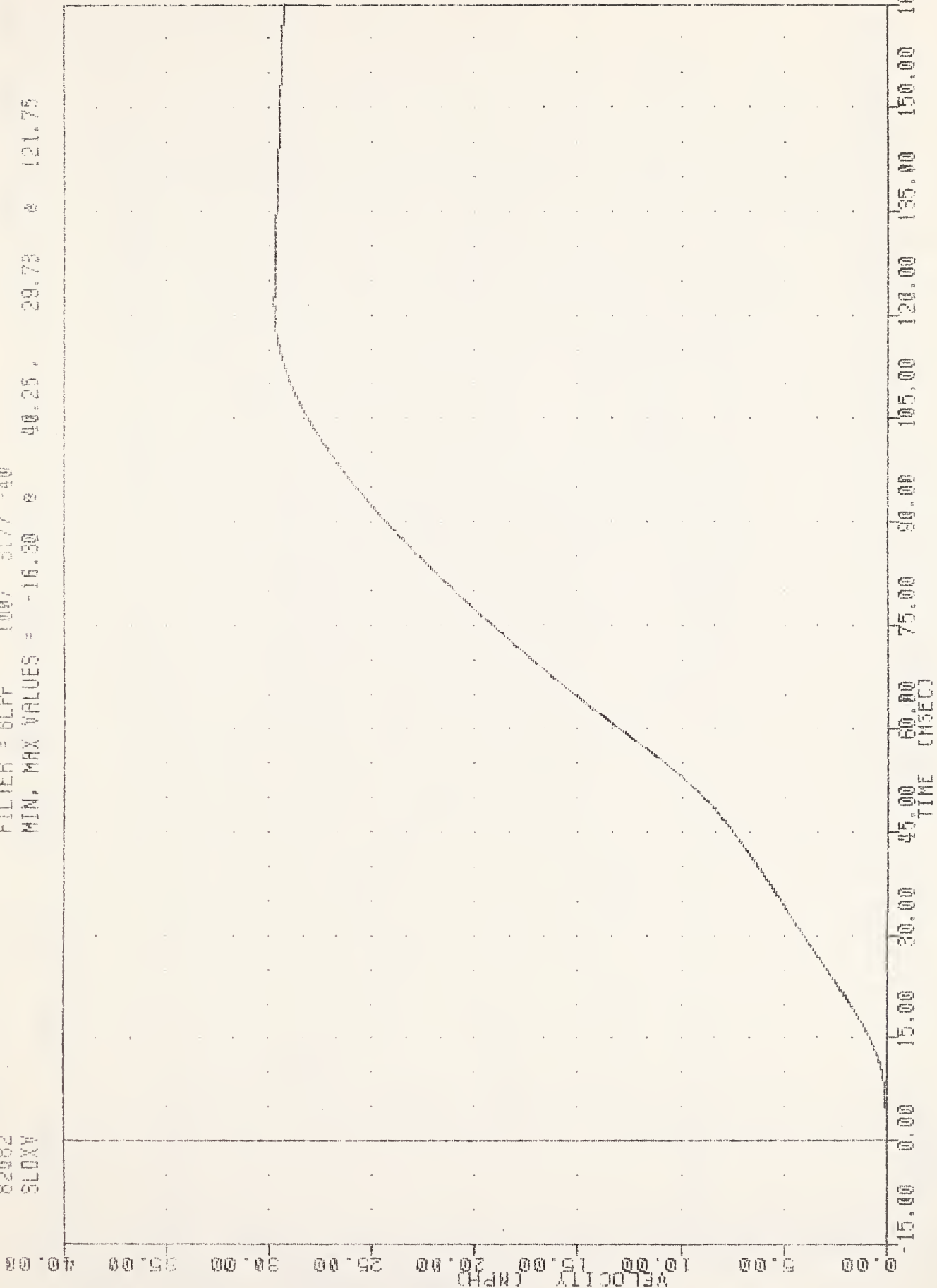
S61120009 , TRC067 2-APR-82 11:27:24
 BEST. MODEL VALID. TEST
 82082 FILTER = BLPF 1007 3177 40
 SLDX6 MIN. MAX VALUES = -0.66 @ 124.88 @ 20.46 @ 58.50



A-320

SLED ACCELERATION

551120003 TRCN67 2-APR-82 11:27:24
REST. MODEL VALID, TEST
82982 FILTER = 6LFF 100/ 317/ -40
SLOXY MIN. MAX VALUES = -16.80 e 40.25 . 29.73 e 121.75



A-321

SLED VELOCITY IN MPH

551120003 , TBC067

REST. MODEL VALID. TEST

82082

FTUNG

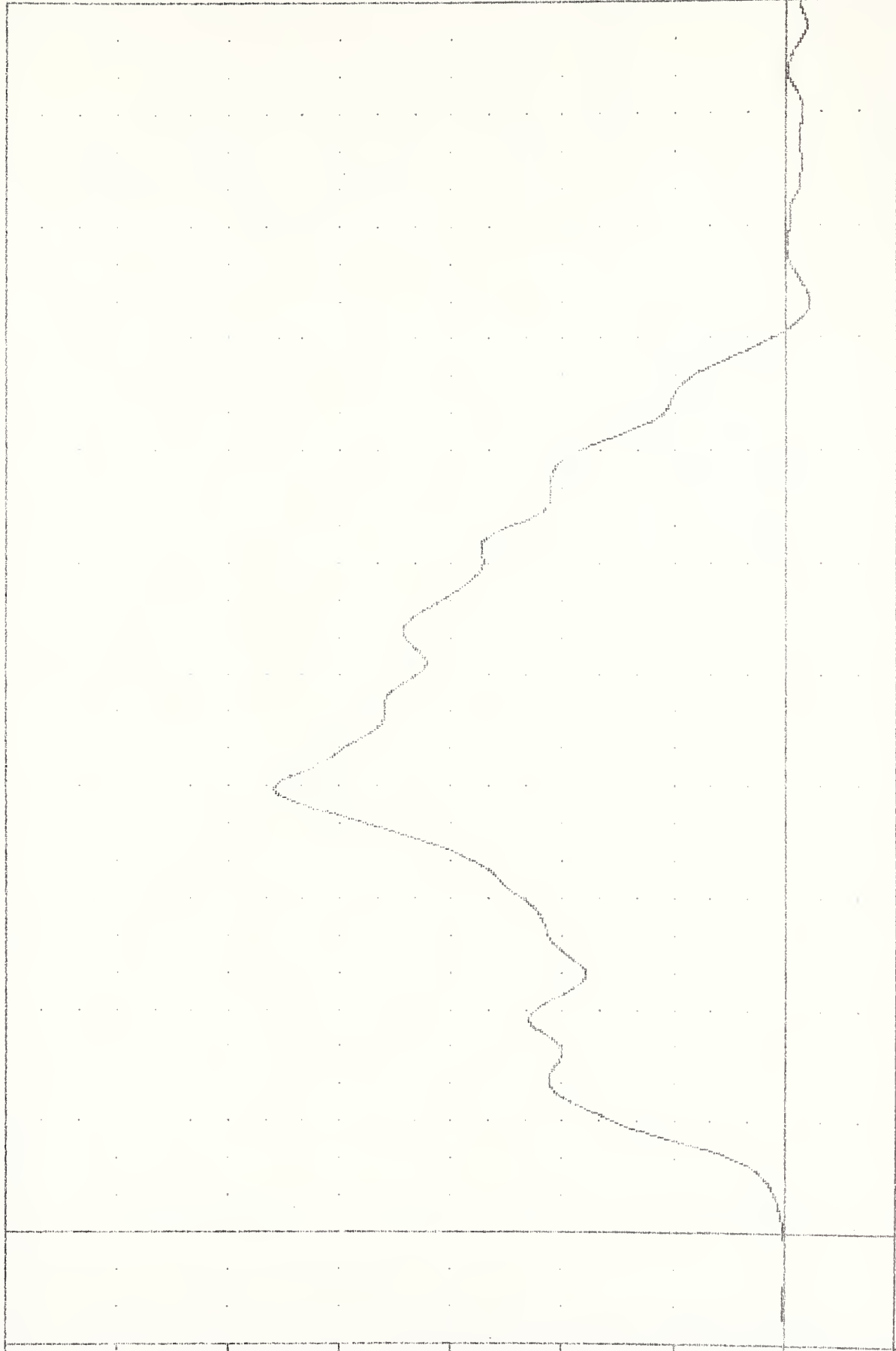
2-APR-82

11:27:24

FILTER = 8LPI 100/ 917/ -40

MIN. MAX VALUES = -1.13 124.75 , 22.84 59.50

ACCELERATION (G)
5.00
0.00
-5.00
-15.00
-25.00
-30.00
-35.00



165.00 150.00 135.00 120.00 105.00 90.00 75.00 60.00 45.00 30.00 15.00 0.00
TIME (MSEC)

A-322

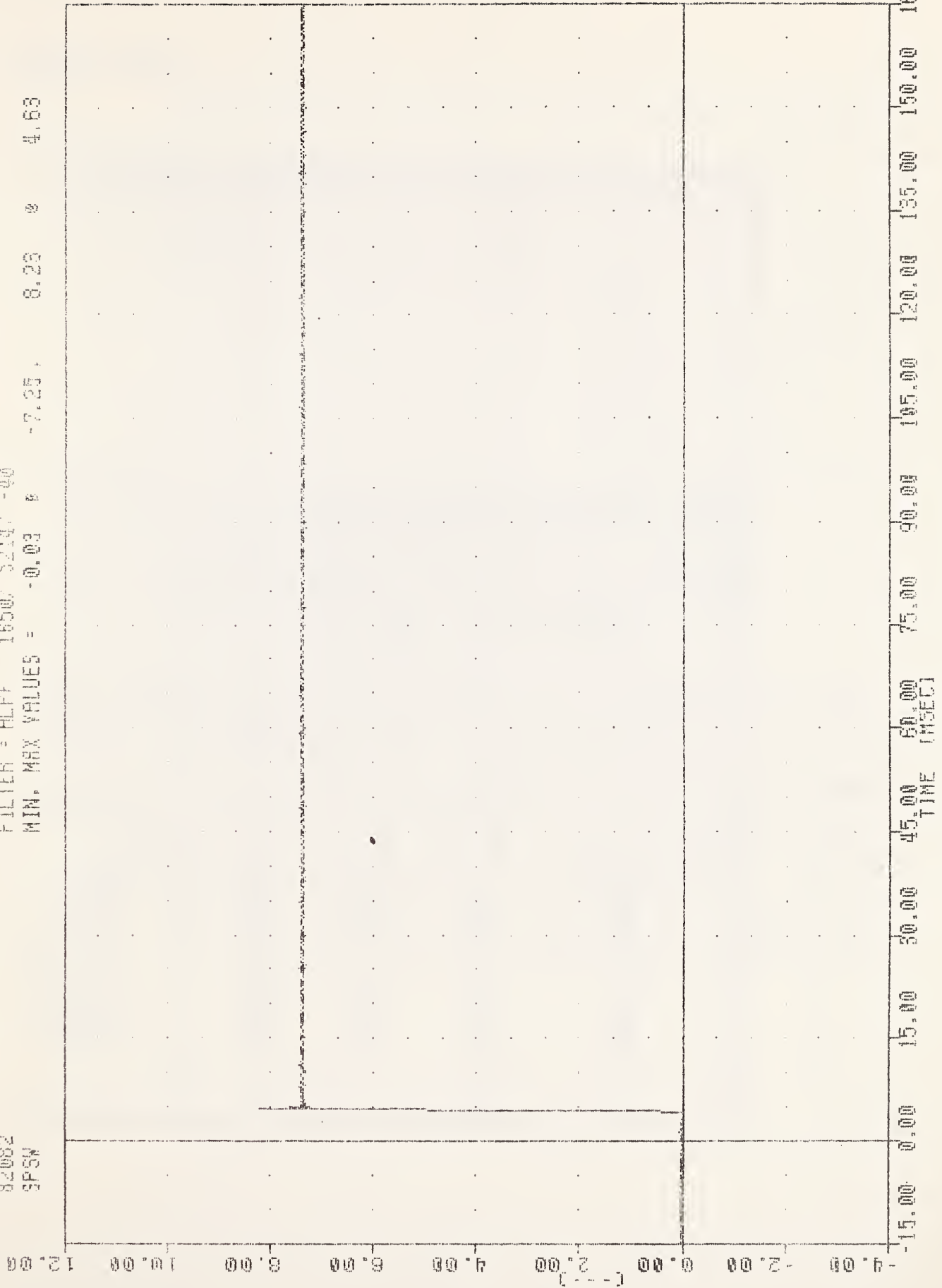
FLOOR PAN TUNNEL ACCELERATION

2-APR-92 11:27:24

851126003 , TRC067
REST. MODEL VALID, TEST

82082
SPSN

FILTER = ALLP 16500 52147 -40
MIN. MAX VALUES = -0.03 0 -7.25 0 0.20 0 4.63



SLED POSITION SWITCH

DUMMY HEAD RESPONSE TO MALLET BLOW

APPENDIX B

The traces included in this Appendix show the acceleration-time history of the response of various dummy heads to a mallet blow. The mallet blow was the same for each dummy head insofar as the technician was able to approximate the intensity and relative positioning of each blow to be the same. Please note the qualitative difference between the 3 yr old dummy head response and the other dummy sizes for the same mallet blow. We believe this supports the statements made regarding the 3 yr old ATD head response made on pages 4-19 and 4-21.

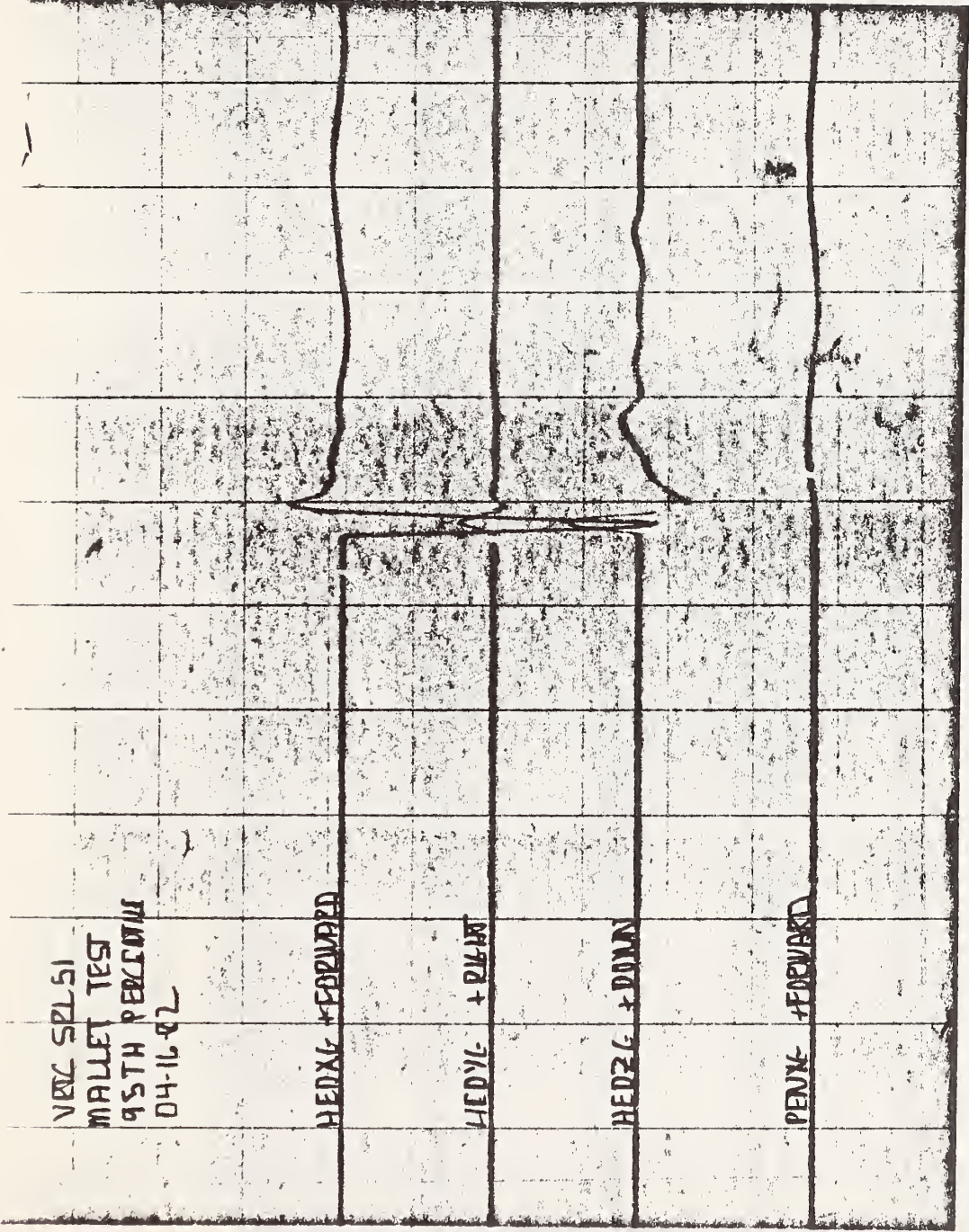


Figure B-1. 95th Percentile Male ATD Head Response to Mallet Blow.

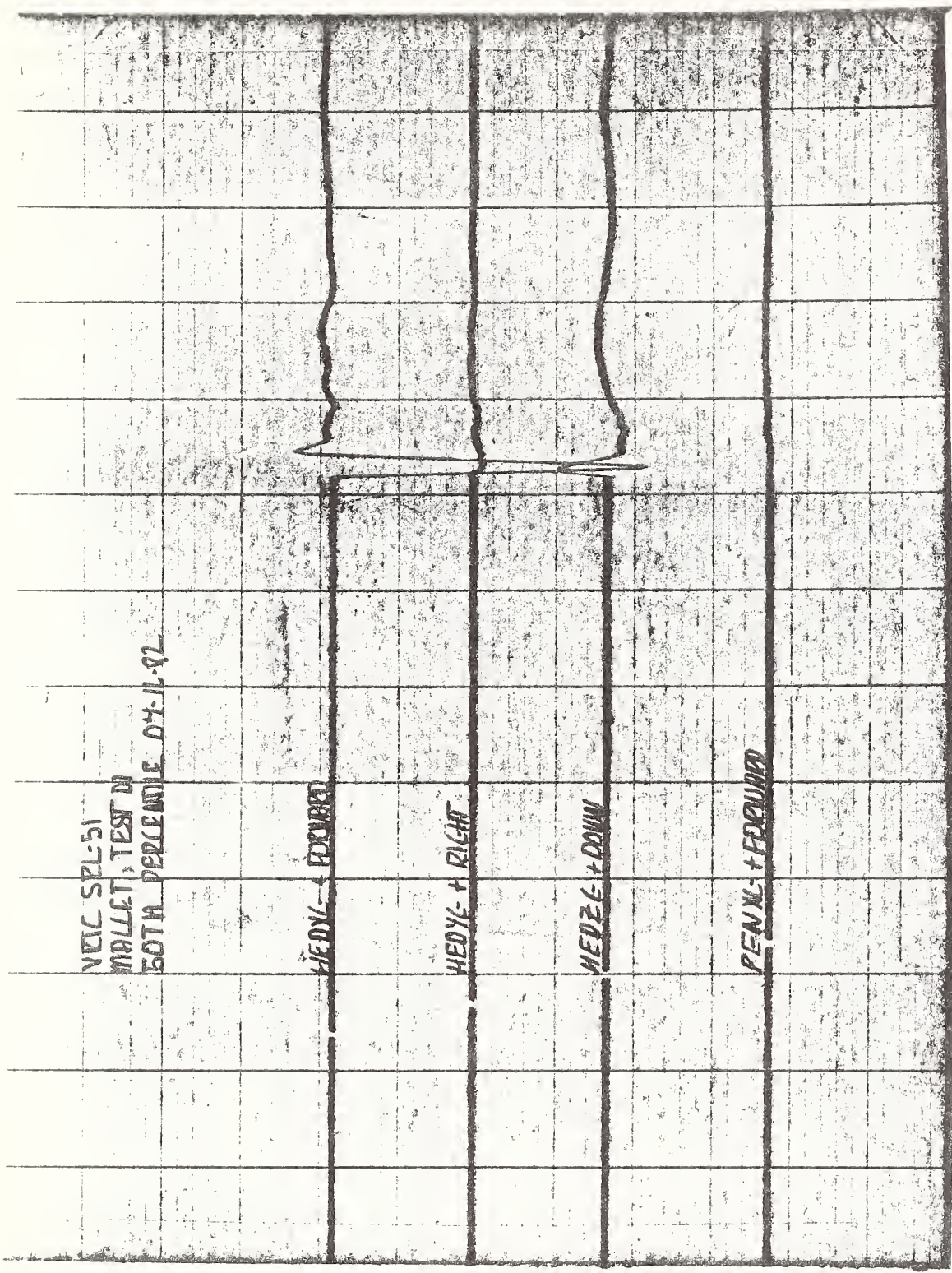


Figure B-2. 50th Percentile Male ATD Head Response to Mallet Blow

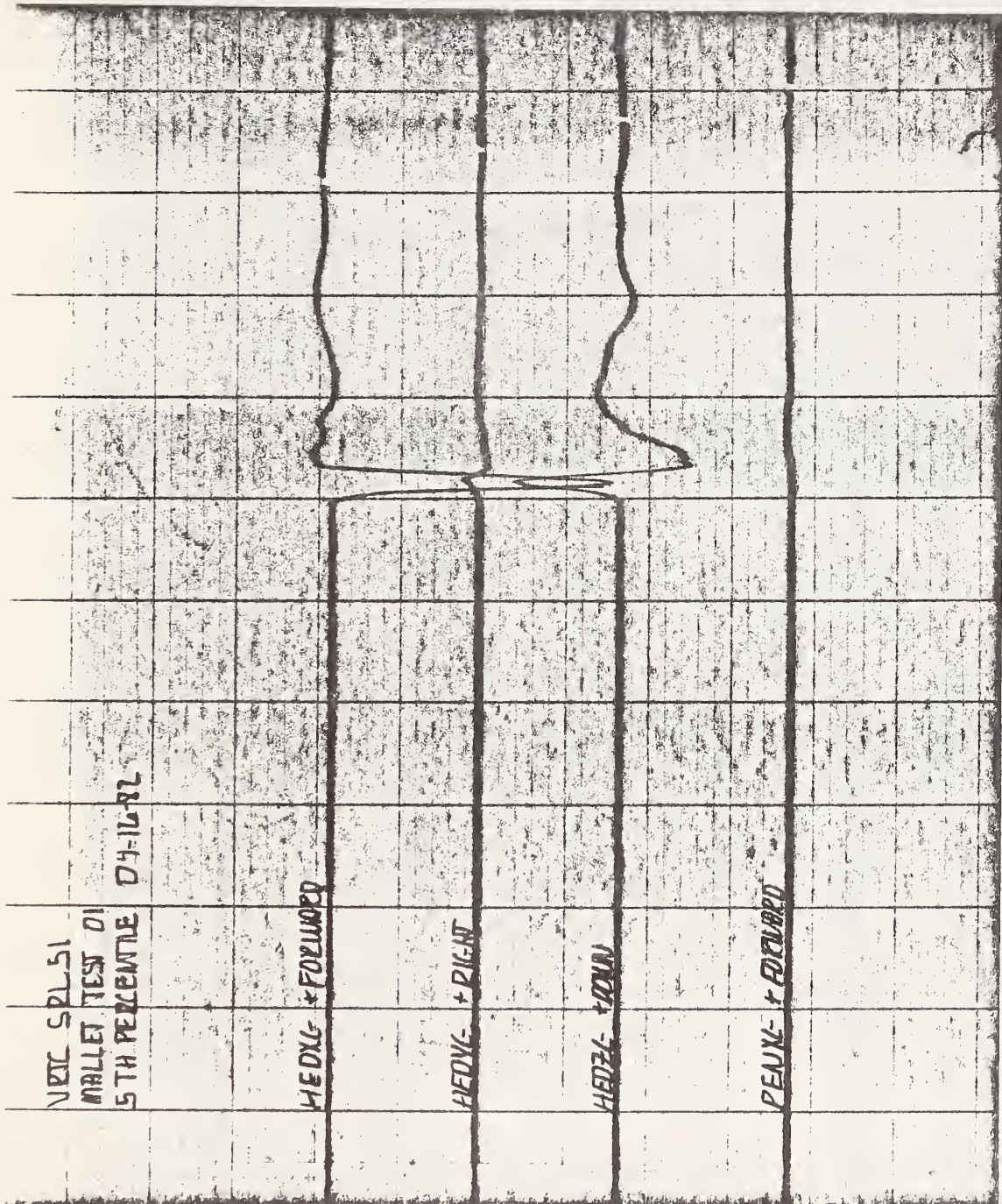


Figure B-3. 5th Percentile Female ATD Head Response to Mallet Blow

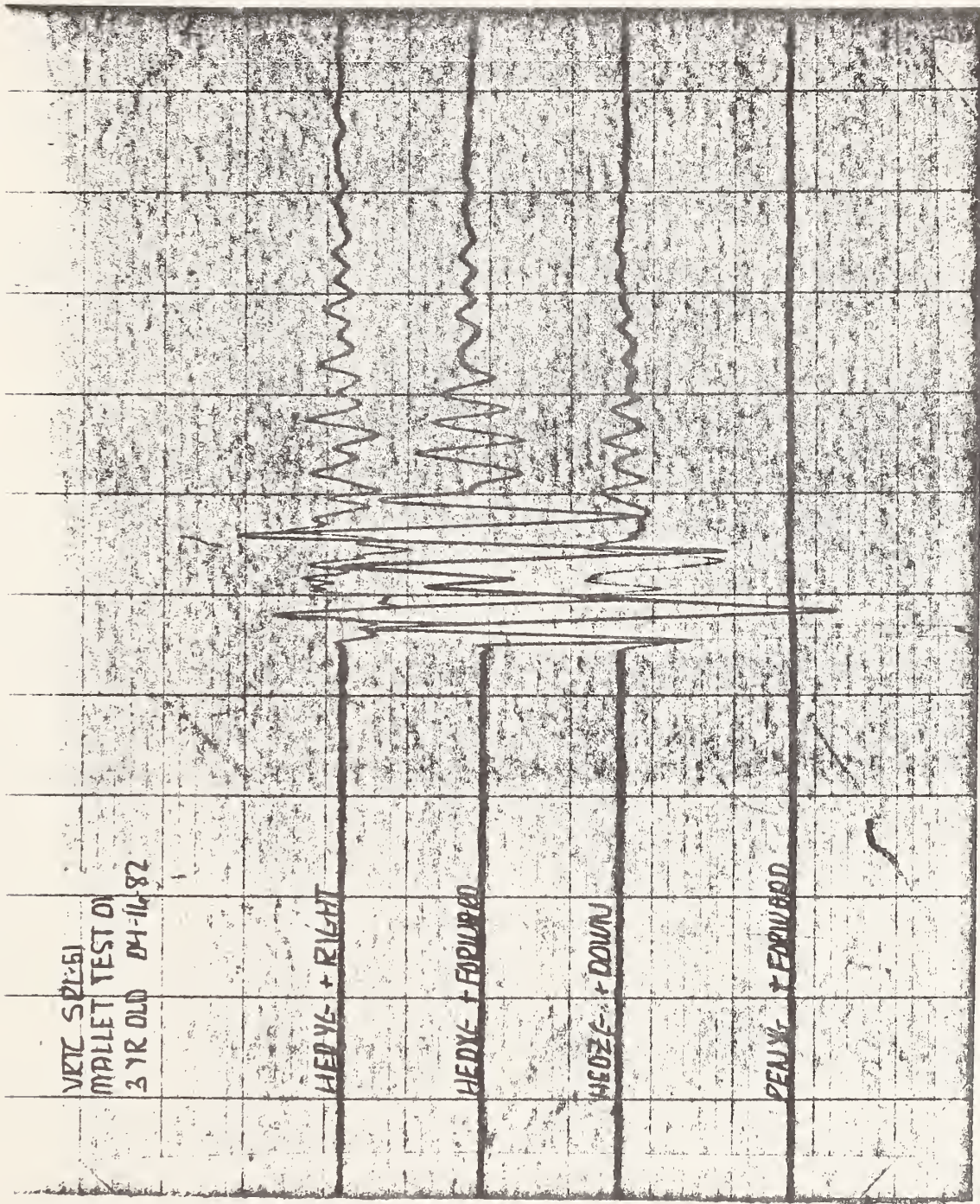


Figure B-5. Three Year Old Child Head Response to Mallet Blow

"PAC" VALIDATION COMPUTER RUN

APPENDIX C

INPUT FILE NAME?TRCST7

ENTER 1 IF YOU WANT FULL LIST OF OUTPUT; ENTER 2 IF YOU WANT ABBREVIATED LIST.?2

ENTER 1 IF 2 IDENTICAL GAS GENERATORS ARE BEING USED TOGETHER.?1

ENTER STAGING TIME IN SECONDS.?0.007

INPUT VALUES -- INPUT UNITS (MSEC, MPH, DEGREES, INCHES, LBS, FT-LBS, G/S)

INITIAL VELOCITY:	34.0							
INITIAL HEAD ANGLE:	-9.50							
INITIAL TORSD ANGLE:	-27.5							
MLEG	MTORSO	MSTERN	MHEAD	RT	RN	RH	RTDPH	
71.0	58.4	2.50	11.4	14.0	20.5	4.75	28.7	
NPTS NECK	NPTS KR	NPTS VEH	NPTS SEAT	NPTS GAS	SL.ST	SL.KR		
3	8	18	6	12	0.500E+04	0.240E+04		
NPTS STER	NPTS CHST							
5	5							
GAS FLOW TIME								
0.	15.0	18.0	23.5	28.5	33.5	38.5	43.5	
48.5	53.5							
GAS FLOW TIME								
68.5	100.							
GAS FLOW - LB/SEC								
0.	0.	3.40	4.09	4.26	3.60	2.45	1.63	
0.980	0.490							
GAS FLOW - LB/SEC								
0.	0.							
SEAT FRICTION DISPLACEMENT								
-50.0	0.	1.00	14.0	15.0	50.0			
SEAT FRICTION FORCE - LBS								
0.	0.	350.	350.	0.	0.			
NECK ANGLE								
-81.0	18.0	90.0						
NECK TORQUE - FT-LBS								
117.	0.	-87.0						
VEH. PULSE - TIME								
0.	7.00	17.0	21.0	26.0	33.0	45.0	52.0	
54.0	58.0							
VEH. PULSE - TIME								
65.0	70.0	76.0	80.0	90.0	93.0	107.	150.	
VEH. PULSE - DECELERATION								
0.	0.	13.3	12.7	15.6	10.7	18.3	29.8	
30.7	29.8							
VEH. PULSE - DECELERATION								
21.3	23.2	17.8	19.5	11.7	12.6	0.	0.	
KNEE DISPLACEMENT								
0.	2.00	2.50	2.75	3.00	3.50	4.50	15.0	

KNEE FORCE - LBS

0.	0.	200.	700.	0.180E+04	0.230E+04	0.250E+04	0.270E+04
STERNUM DISPLACEMENT							
-50.0	0.	0.250	1.00	10.0			
STERNUM FORCE - LBS							
0.	0.	400.	0.160E+04	0.250E+05			
CHEST DISPLACEMENT							
-11.2	-1.25	0.	1.25	11.2			
CHEST FORCE - LBS							
-0.465E+04	-150.	0.	150.	0.465E+04			
ATMOP	PGZ	GTZ	U	PN1	PN2	PN3	
14.7	0.	0.166E+04	662.	1.40	1.40	1.40	
VC1	VC2	AV	FSA	FSB	FSC	X1	Y1
0.700	0.700	4.00	13.0	2.00	11.0	13.4	24.5
AO	THETAD	FABMG	STDAMP	CDAMP	DMS	DINF	WSOCK
9.50	0.	8.40	0.	3.00	6.00	4.00	13.0
MA	DPOLLZ	XZ2	YZ2	WB	LF	DCN	
6.10	5.00	31.7	8.38	18.4	16.7	0.	
THFO	THLO						
19.0	44.0						

TIME (MS)	DST R GS (G'S)	HD R GS (G'S)	STN ACC (G'S)	FEM FORCE (LBS)	GEN FLD (LB/S)	BAG PRESS (PSIG)
=====	=====	=====	=====	=====	=====	=====
0.	0.00	0.00	0.00	0.	0.	0.
5.00	0.24	0.42	-5.90	0.	0.	0.
10.00	0.32	0.38	-7.51	0.	0.	0.
15.00	0.31	0.41	-7.60	0.	0.00	-0.03
20.00	0.37	0.62	-7.66	0.	3.65	15.07
25.00	0.75	1.09	-7.28	0.	7.54	2.33
30.00	1.42	1.84	-6.52	0.	8.09	1.68
35.00	1.74	2.19	-6.77	0.	7.50	1.06
40.00	1.69	2.12	-6.59	0.	5.87	-0.03
45.00	4.01	1.15	-213.88	52.67	4.00	0.25
J 585000	77604	82754	-83789	5069401	21549	01289
60.00	22.36	11.23	-12.32	1078.70	0.82	3.12
65.00	28.08	18.24	-21.03	1096.82	0.46	4.35
70.00	33.74	32.48	-29.19	1088.07	0.18	5.51
75.00	39.86	44.46	-37.28	1082.22	0.02	6.54
80.00	45.21	53.63	-44.09	1079.97	0.	7.29
85.00	48.12	60.69	-48.84	997.89	0.	7.66
90.00	47.91	61.68	-50.22	731.95	0.	7.50
95.00	43.44	56.88	-47.38	323.40	0.	6.76
100.00	38.15	40.23	-43.20	0.	0.	5.60
105.00	26.51	33.33	-30.79	0.	0.	4.20
110.00	16.53	20.98	-19.28	0.	0.	2.72
115.00	9.85	4.50	-11.70	0.	0.	1.32
120.00	2.69	4.95	-2.75	0.	0.	0.14
125.00	1.80	4.45	-0.54	0.	0.	0.
130.00	1.70	3.84	0.15	0.	0.	0.
135.00	1.70	3.23	0.76	0.	0.	0.
140.00	1.74	3.03	1.22	0.	0.	0.
145.00	1.77	3.42	1.53	0.	0.	0.
150.00	1.77	4.11	0.	0.	0.	0.

TIME (MS)	TORSO ANG (DEG)	HEAD ANG (DEG)	FEMUR ANG (DEG)	STV WR CST (FPS)	H-P R.D. (INCHES)	CHEST DEFL (INCHES)
=====	=====	=====	=====	=====	=====	=====
0.	-27.50	-9.50	19.00	0.	0.	0.
5.00	-27.50	-9.49	19.00	0.38	0.00	0.
10.00	-27.51	-9.47	19.00	0.42	0.00	0.
15.00	-27.51	-9.45	19.00	0.36	0.05	0.
20.00	-27.50	-9.44	19.00	0.31	0.19	0.
25.00	-27.46	-9.43	19.00	0.24	0.45	0.
30.00	-27.37	-9.44	19.00	0.18	0.83	0.
35.00	-27.17	-9.49	19.00	0.18	1.31	0.
40.00	-26.84	-9.62	19.72	0.15	1.87	0.
45.00	-26.38	-9.81	21.46	-3.33	2.53	-0.45
50.00	-25.90	-9.47	23.40	0.	3.33	0.
55.00	-25.07	-8.42	25.42	0.	4.21	0.
60.00	-23.48	-7.01	27.27	0.	5.08	0.
65.00	-21.26	-4.94	28.82	0.	5.86	0.
70.00	-18.54	-2.43	29.98	0.	6.47	0.
75.00	-15.48	-0.22	30.73	0.	6.88	0.
80.00	-12.22	1.17	31.01	0.	7.03	0.
85.00	-8.93	1.49	30.81	0.	6.92	0.
90.00	-5.91	0.72	30.15	0.	6.56	0.
95.00	-3.53	-0.80	29.13	0.	6.02	0.
100.00	-2.15	-2.53	27.92	0.	5.40	0.
105.00	-2.01	-3.20	26.67	0.	4.79	0.
110.00	-2.84	-3.05	25.33	0.	4.17	0.
115.00	-4.29	-2.16	23.90	0.	3.54	0.
120.00	-6.15	-0.04	22.38	0.	2.90	0.
125.00	-8.13	2.81	20.79	0.	2.27	0.
130.00	-10.12	5.91	19.11	0.	1.64	0.
135.00	-12.10	8.98	19.00	0.	1.01	0.
140.00	-14.04	11.74	19.00	0.	0.37	0.
145.00	-15.92	13.98	19.00	0.	-0.28	0.
150.00	-17.73	15.53	19.00	0.	-0.93	0.

ENTER 1 TO CALCULATE HIC?1

THE HIC IS 6.3593674E+02

T1= 7.0000000E-02

T2= 1.1000000E-01

PROGRAM STOP AT 1950

USED 61.28 UNITS

BYE

00061.95 CRU 0000.11 TCH 0009.08 KC

OFF AT 14:33 EDT 05/27/82

TL 242 .F5854

Fitzpatrick,

Systems anal
restraint s

Form DOT F 17
FORMERLY FORM C

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