

EA12-005

CHRYSLER

12-13-2012

Enclosure 6B

301 Developmental Crash  
Tests Public

KJ Development Crash Test  
VC08025.Photos-BuildDown

8025



33.5



8025

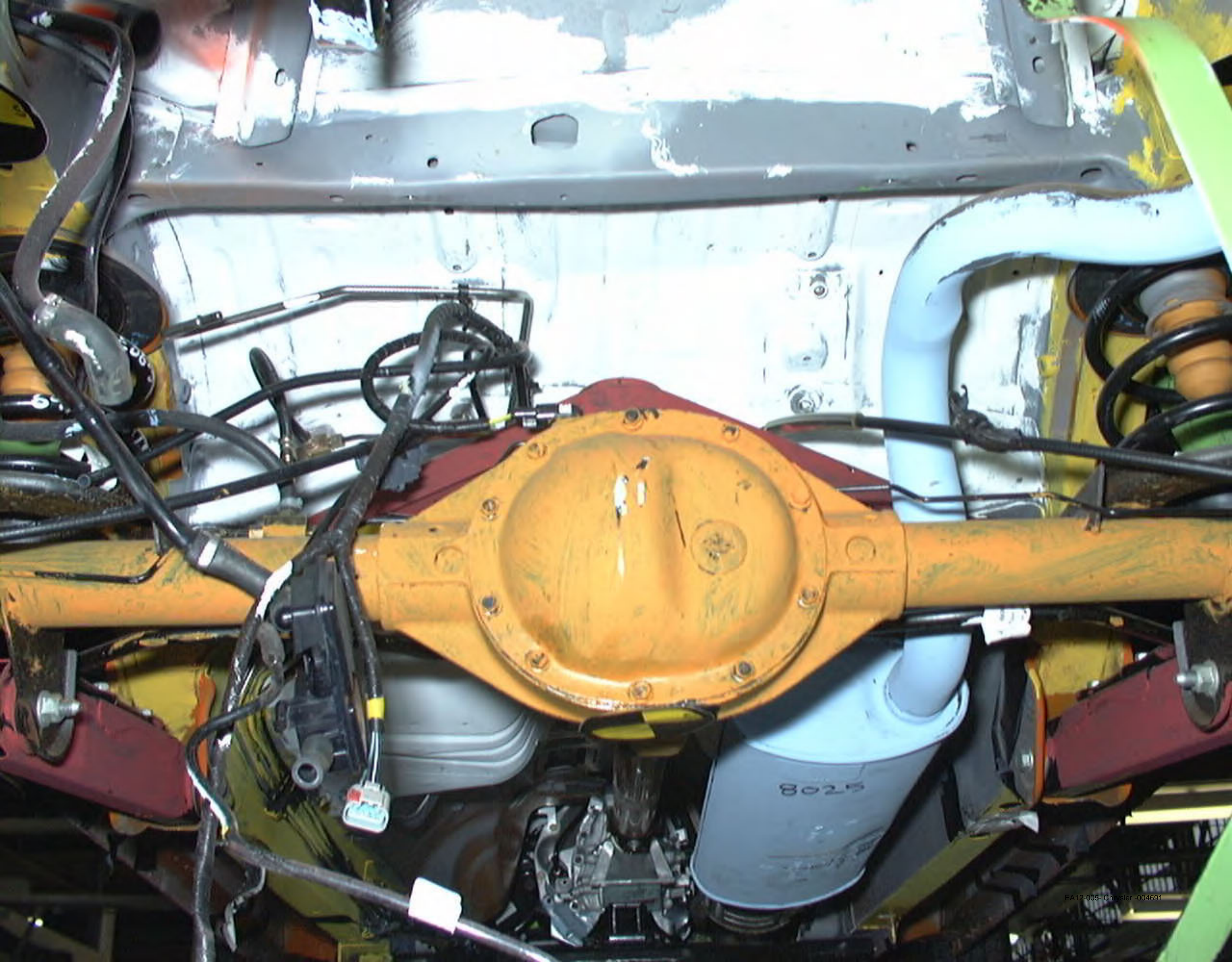


33.5













8025





STRECK WENN DIE WENDE STRECK  
FÜR  
NACHWEISEN



5 BA- E06-3





PLEASE  
SAVE  
FOR  
REAR  
RESTRAINT













TPMS  
2012





697  
2011-09-23  
85556



EA12-005

CHRYSLER

12-13-2012

Enclosure 6B

301 Developmental Crash  
Tests Public

KJ Development Crash Test

VC08025.Photos-  
Instrumentation



**VC08025 KJ4282R**  
**Rear KJ**  
**LT FT XMR SENSOR**

EA12-005- C



VC08025 KJ4282R  
Rear KJ  
LT SILL AT BPLR



VC08025 KJ4282R  
Rear KJ  
LT RR SIL FWD ST XMR



**VC08025 KJ4282R**  
**Rear KJ**  
**RT RR SIL FWD ST XM**

17  
17  
17



VC08025 KJ4282R  
Rear KJ  
RT SILL AT BPLR




VC08025 KJ4282R  
Rear KJ  
RT SILL AT BPLR



VC08025 KJ4282R  
Rear KJ  
RT FT SIL FWD ST XMR



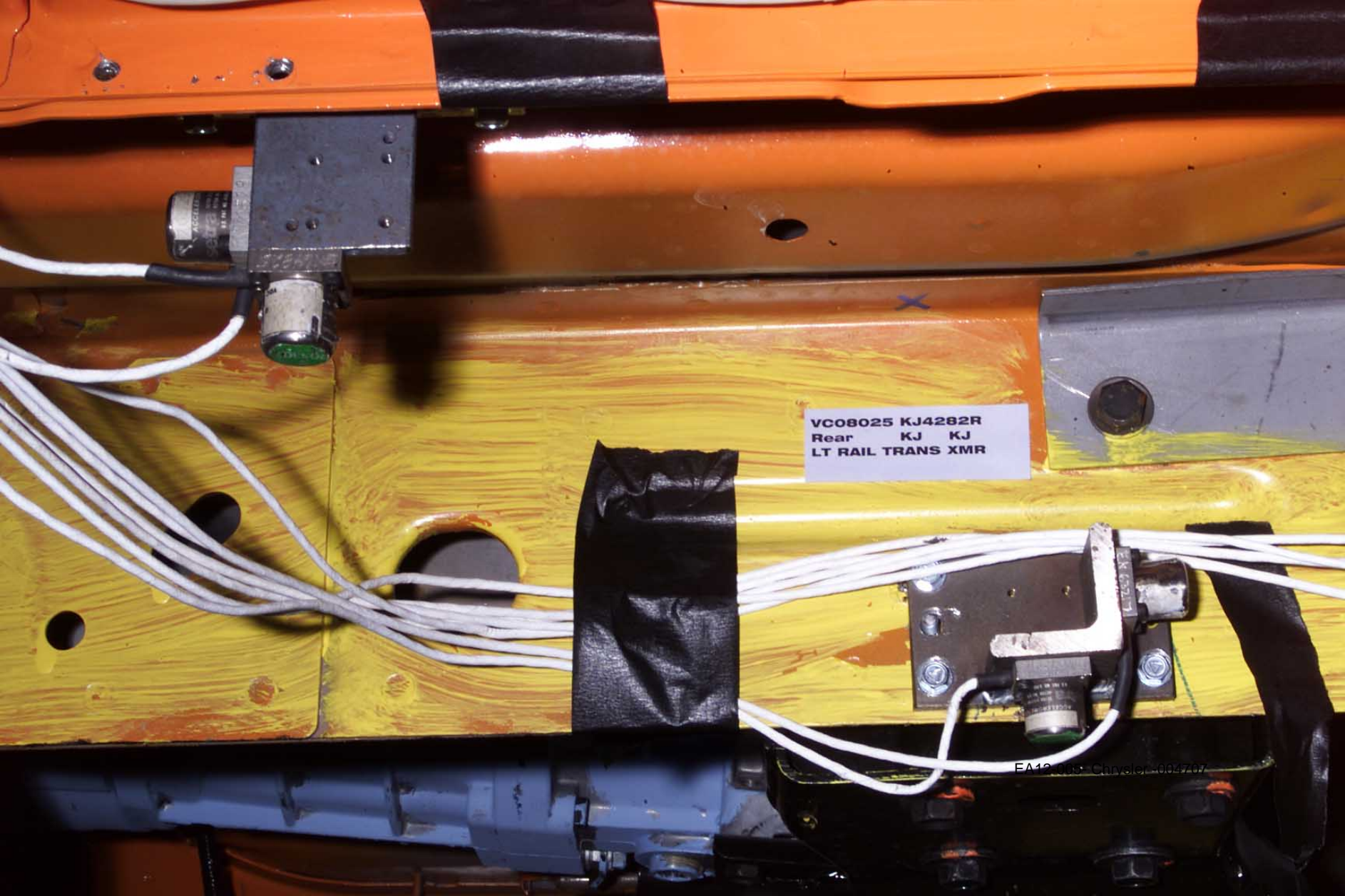


VC08025 KJ4282R  
Rear KJ  
ENGINE BOTTOM



VC08025 KJ4282R  
Rear KJ KJ  
LT RAIL TRANS XMR

EA10 100 Chrysler 3600 7267

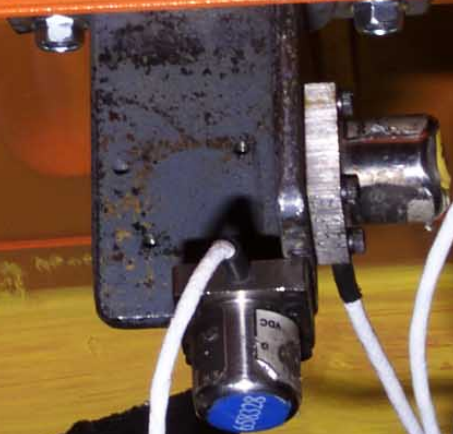






X

VC08025    KJ4282R  
Rear            KJ  
LT MID SILL





VC08025 KJ4282R  
Rear KJ  
LT RR SILL

VC08025 KJ4282R  
Rear KJ  
LT RL FWD RR CTRL



VC08025 KJ4282R  
Rear KJ  
FT FT XMR SENSOR



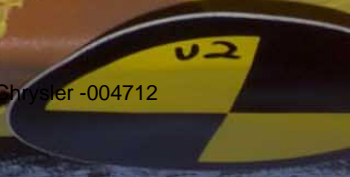
VC08025 KJ4282R  
Rear KJ  
FUEL TANK RL PASS-THRU





VC08025 KJ4282R  
Rear KJ  
RT RR SILL

VC08025 KJ4282R  
Rear KJ  
RT RL FWD RR CTRL





VC08025 KJ4282R  
Rear KJ  
RT MID SILL



VC08025 KJ4282R  
Rear KJ  
RT FRT SILL

VC08025 KJ4282R  
Rear KJ  
RT RAIL TRANS XMR



VC08025 KJ4282R  
Rear KJ  
LT RR VERT SURF RAD

9.5 mm DE4 F6

A F07-924 112598F-1

VC08025 KJ4282R  
Rear KJ  
LT RL UPR 30MM AFT R



VC08025 KJ4282R  
Rear KJ  
LT RR VERT SURF RAD

9.5 mm DE4 F81-924 112598F-1

F81-924 112598F-1

EA12-005- Chrysler -004716

VC08025 KJ4282R  
Rear KJ  
LT RL UPR 30MM AFT B



VC08025 KJ4282R  
Rear KJ  
LT RR SURF CURV RA

VC08025 KJ4282R  
Rear KJ  
LT RR VERT SURF RA

3.5 mm DE4  
1-924  
112595



VC08025 KJ4282R  
Rear KJ  
RT RR SURF CURV RAD

P/N  
DATE  
55037809AA  
6-4-98  
EPO

VC08025 KJ4282R  
Rear KJ  
RT RR VERT SURF RAD



VC08025  
Rear

VC08025 KJ4282R  
Rear  
KJ  
RT RL UPR 30MM AFT



VC08025 KJ4282R  
Rear KJ  
ORC TOP FT LT



VC08025 KJ4282R  
Rear KJ  
LT FT SIL FWD ST XMR



EA12-005

CHRYSLER

12-13-2012

Enclosure 6B

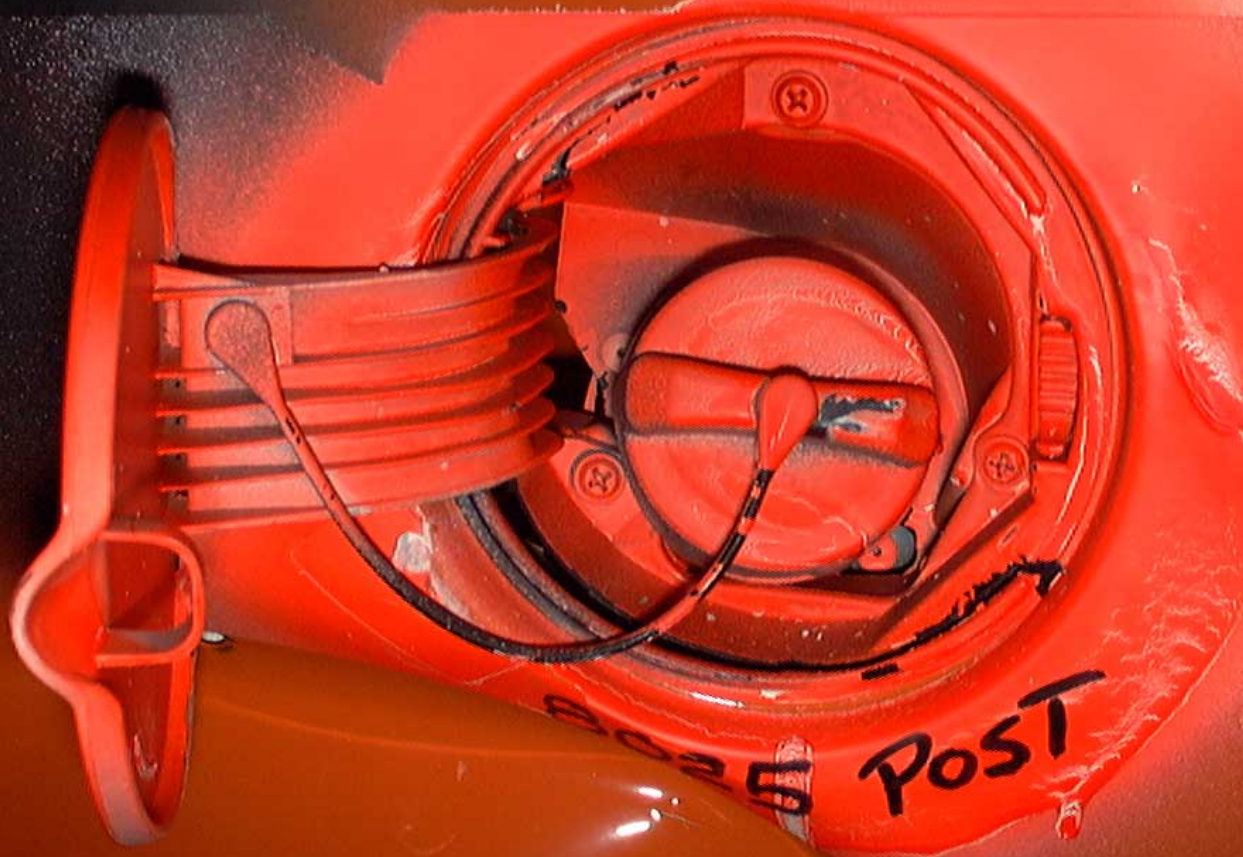
301 Developmental Crash  
Tests Public

KJ Development Crash Test

VC08025.Photos-PostTest



1700 Gals S.S.



8025 POST





EA12-005- Chrysler -004723





EA12-005- Chrysler -004724









MAYX

FUEL











**VC-08025**



EA12-005 - Chrysler - 004729





8025

EA12-005-Chrysler-004730



**VC-08025**

EA12-005- Chrysler -004731

VC08025 KJ4282R KJ  
Rear FUEL PASS-THRU





VC08025  
Rear  
FUEL TANK RL PAS



EA12-005- Chrysler -004732

**VC-08025**



EA12-005

CHRYSLER

12-13-2012

Enclosure 6B

301 Developmental Crash  
Tests Public

KJ Development Crash Test

VC08025.Photos-PreTest





8025





EA12-005 Chrysler -004734





**VC 8025 pre**

EA12-005- Chrysler -004735

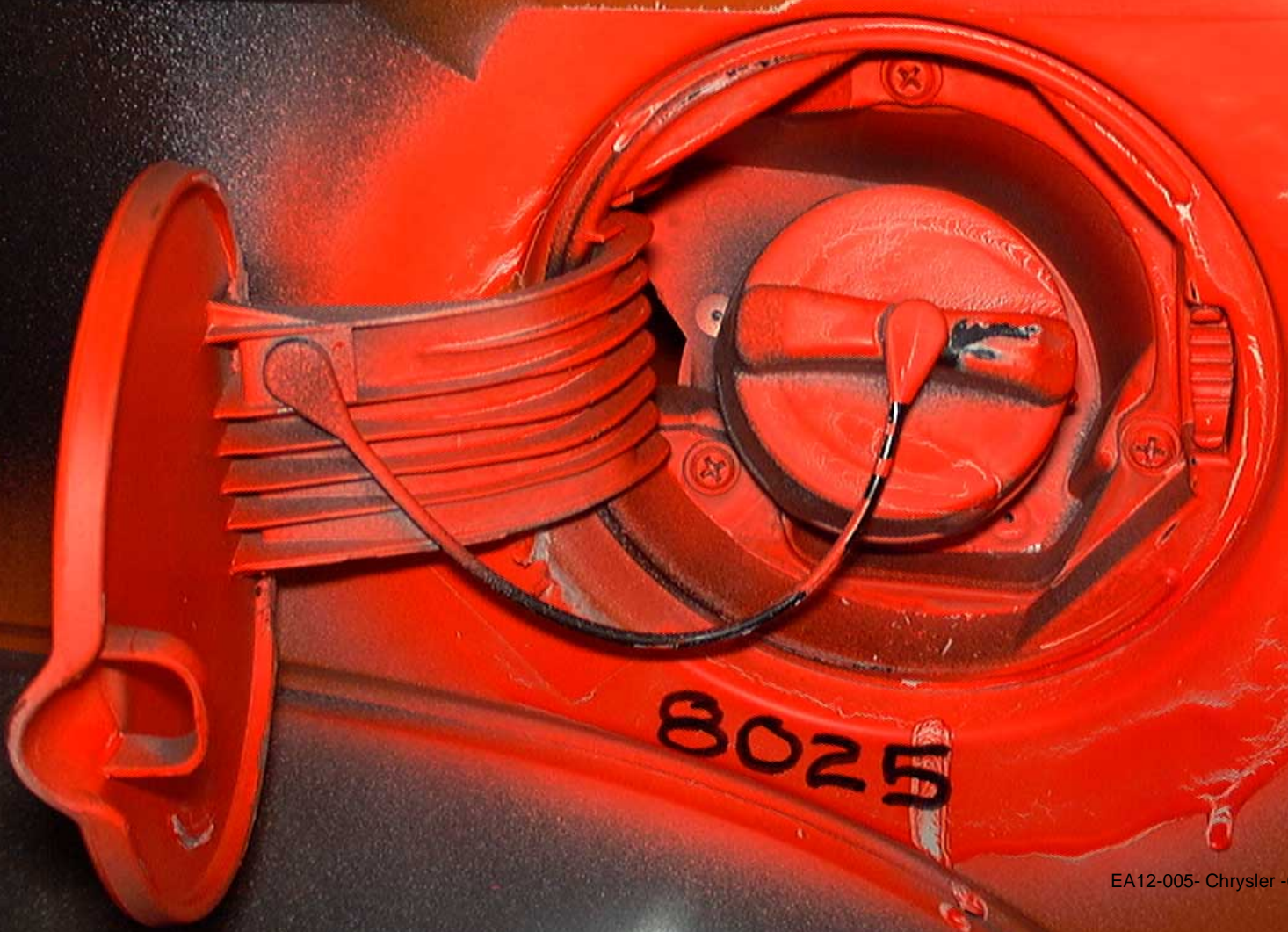


8025



PLEASE  
SAVE  
FOR  
RESTRIVE





8025





8025

NO GLASS

8025

8025





8025

8025

8025



EA12-005

CHRYSLER

12-13-2012

Enclosure 6B

301 Developmental Crash

Tests Public

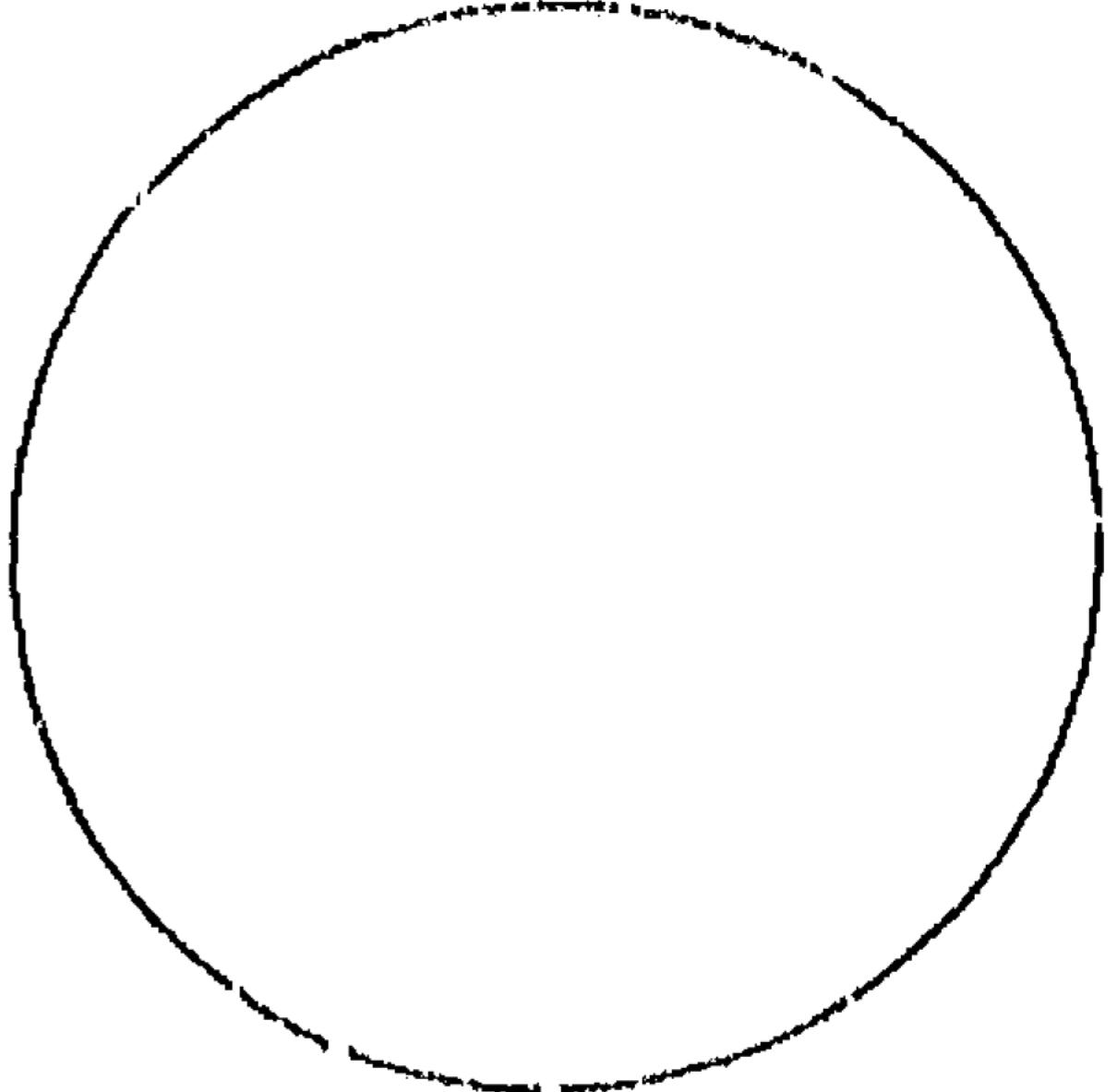
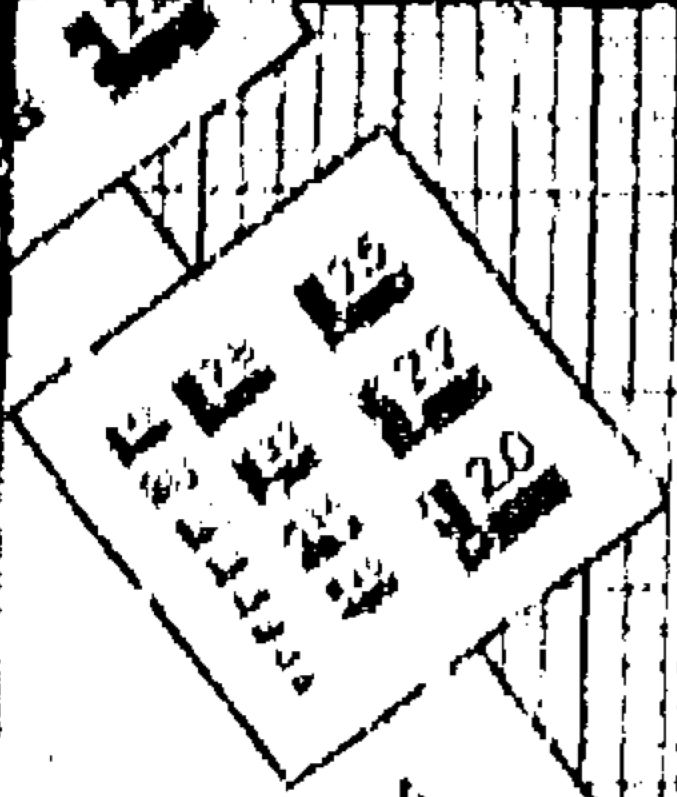
KJ Development Crash Test

VC8025 Public









POINT SIZE

4  
6  
8  
10  
12  
14

2xby Gm0c  
Y5o5- E119j  
7n34a K2b8j  
D6lnh 9s9d  
Wcuzl Llcdg  
6Y3st Okldg

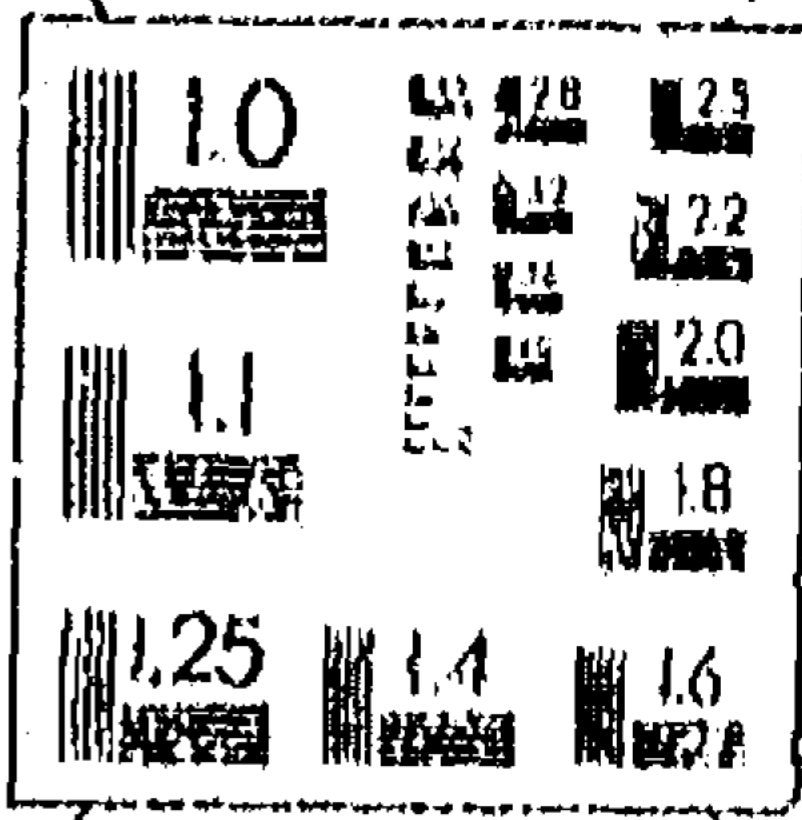
FUTURA

NEWS GOTHIC

14  
12  
10  
8  
6  
4

K2b8t Okldg  
4af8k Gm0c  
2lo6x G892  
7n34a 6Y3st  
Y0ibj A7o7q  
Oulvl 2xbly  
9st0U Llcdg  
J3ij7n E119g  
715g 2q2j Sv015a

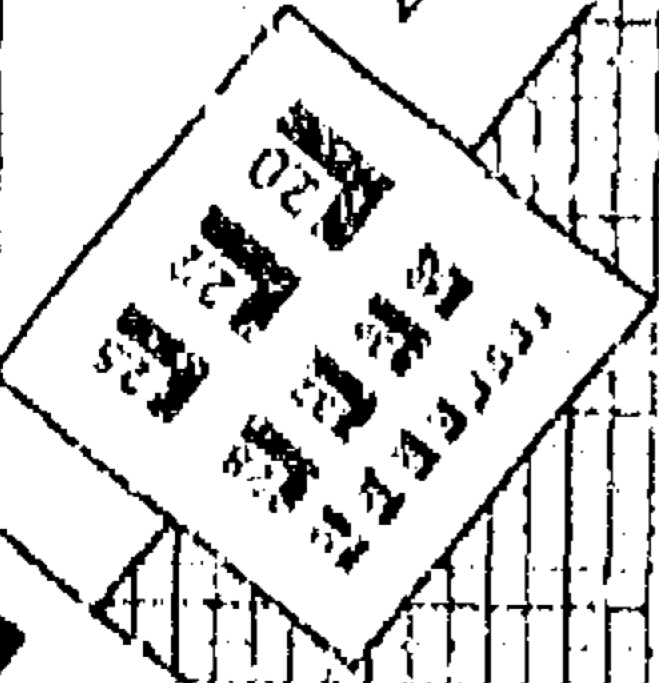
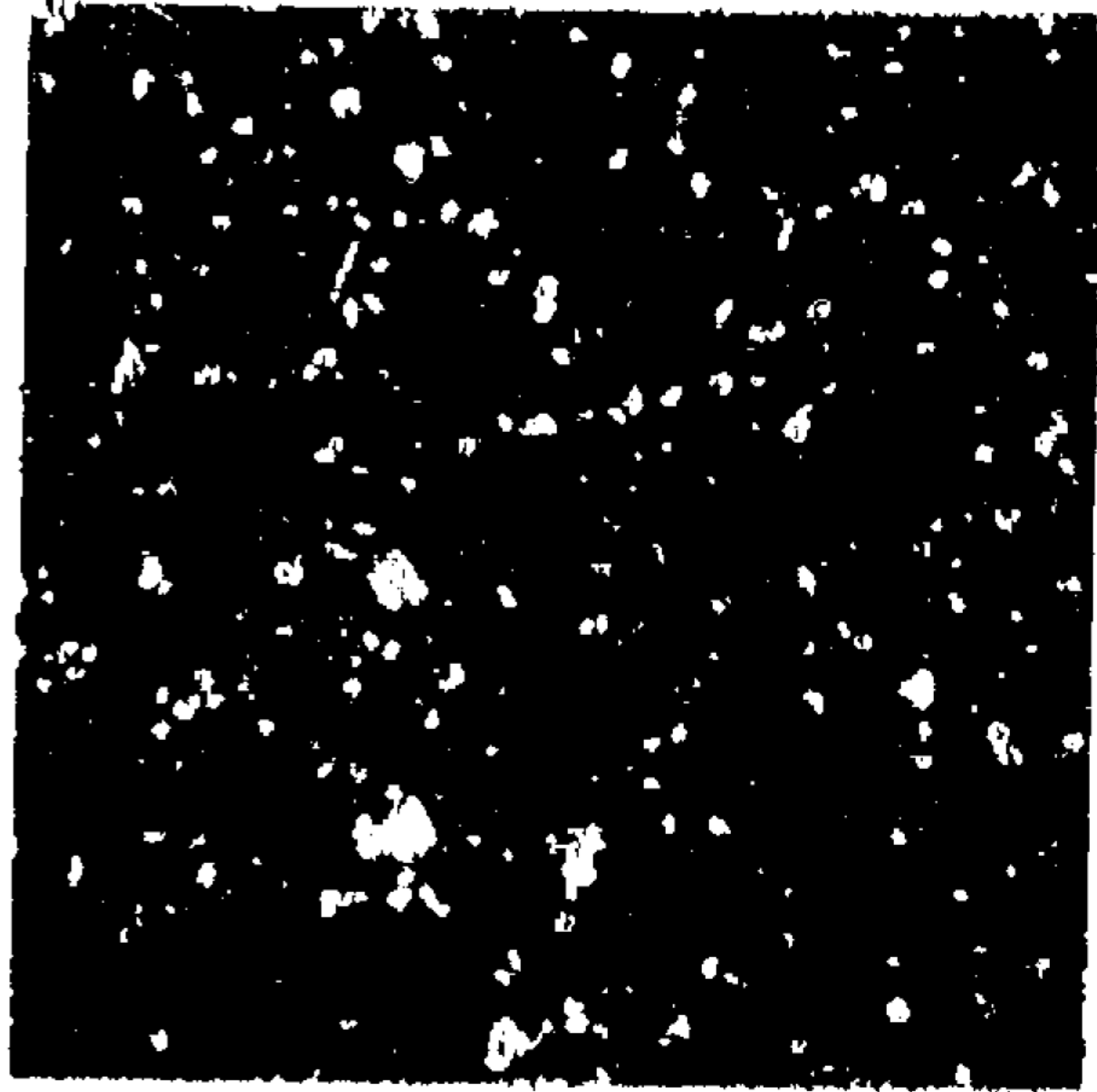
POINT SIZE



4  
6  
8  
10  
12  
14

Max Width 2m7a 3s43l 1stly 12 6FRK4 E33AG FUDMM 800AE  
Oz7h9 B55e19 W08nk 8t1z3 14 C9E83 B18AJ Z7G

SERIF (BASKERVILLE) SIZE SANS SERIF (MICROFONT)





**Retrieval Methods Inc.**  
**1142 E. Big Beaver Rd.**  
**Troy, MI 48083**

**Declaration of Intent and Purpose**

RANDALL WHYTE

Employed by Retrieval Methods Inc., do hereby declare that the records microfilmed herein are actual records of DaimlerChrysler Corp. created during its normal course of business and that it is the express intent and purpose of this organization to return all original records microphotographed herein.

Date: 05-01-2003

Microfiche Operator

Randall Whyte



11111111



SAFETY TEST  
VEHICLE CRASH TEST LETTER

PAGE 01

VC08025 30 MPH REAR MOVING BARRIER, KJT-74 ITEM KJ42B2R  
2002 MY98 301 REAR IMPACT DEVELOPMENT.  
TEST DATE 12/13/99

TEST PURPOSE	PRIMARY, 2002 USA 301 DEVELOPMENT. DETERMINE FUEL SYSTEM INTEGRITY.		
IMPACT TYPE	TARGET SPEED;	30.1 MPH	
	DAMAGE LOCATION;	REAR	
	BARRIER TYPE;	REAR TYPE IV	
	BARRIER SURFACE;	PLYWOOD	
VEHICLE	BODY CLASS;	KJ	
	CAR LINE;	J	
	BODY;	74	
	ENGINE;	2.4 LITRE	
	ENGINE NOTE;	ELECTRONIC FUEL INJECTION	
	TRANSMISSION;	5 SPEED MANUAL	
	TRANS. NOTE;		
	VIN AS TESTED;	1J4FN581527	MOD.
	VIN AS BUILT;	1J4FN581527	MOD.
TEST SPEED	30.2 MPH BY ELECTRONIC TRAP TIMER.		
TEST WEIGHT (LBS)	4572 TOTAL, 2434 FRONT, 2138 REAR		
OCCUPANTS	LEFT FRONT, HYBRID II BALLAST.		AD-61
	RESTRAINT-BELTS ONLY.		
	RIGHT FRONT, HYBRID II BALLAST.		AD-56
	RESTRAINT-BELTS ONLY.		



SAFETY TEST  
VEHICLE CRASH TEST LETTER

PAGE 02

VC08026 30 MPH REAR MOVING BARRIER, RJT-74 ITEM KJ4202R  
2002 MV84 301 REAR IMPACT DEVELOPMENT.  
TEST DATE 12/13/99

BUILD CONDITION

TARGET WEIGHT (LBS) 3938 TOTAL, 2135 FRONT, 1803 REAR REP BASE OPT. WT  
FOR A 3.7L 4X4 VEHICLE (CHART DATE 3/17/99) W/OUT  
LUGGAGE OR OCCUPANTS.

FUEL AND BALLAST 17 GALLONS OF STODDARD SOLVENT.  
300 LBS.  
350 LBS SECURED TO REAR FLOORPAN.  
200 LBS IN FRONT SEAT AREA.

REPORT CODES

A = TRANSDUCER DATA	B = ALL FILM DATA
C = HIGH SPEED FILM	D = ENGINEER'S REPORT
E = DUMMY KINEMATICS	F = STEERING COLUMN
G = UNDERBODY	H = A-POST
I = DYNAMIC CRUSH	J = ENGINE COMPARTMENT
K = DOOR CRUSH	L = FORCE/CRUSH/ENERGY
M = SPECIAL	N = CATALOG EDP DATA
* = REPORT REQUESTOR	



SAFETY TEST  
VEHICLE CRASH TEST LETTER

PAGE 03

VC00025 30 MPH REAR MOVING BARRIER, KJY-74 ITEM KJ4202R  
2002 MY39 301 REAR IMPACT DEVELOPMENT.  
TEST DATE 12/13/99

DISTRIBUTION	M.P. LEVINE	514-17-41	(AB)
	M.A. GIELOW	481-02-13	(AB)
	M. STEBELTON	422-05-01	(AB)

DATE 12/14/99

TIME 10:32:44.



CHRYSLER MOTORS  
SAFETY TEST  
VEHICLE CRASH TEST REQUEST

SUPPLEMENT NO. 03

ITEM KJ4282R CHARGE NO. MYBILL ISSUE DATE 10/12/99

VC **8025** 30 MPH REAR MOVING BARRIER, KJT-74  
2002 MYSS 301 REAR IMPACT DEVELOPMENT.

TEST DATE 10/13/99 ENGINEER **MANNEY**  
SPEED 30.0 MPH SOURCE TRAF

TEST PURPOSE PRIMARY, 2002 USA 301 DEVELOPMENT.  
DETERMINE FUEL SYSTEM INTEGRITY.

IMPACT TYPE TARGET SPEED; 30.1 MPH  
DAMAGE LOCATION; REAR  
BARRIER TYPE; REAR TYPE IV  
BARRIER SURFACE; PLYWOOD

VEHICLE BODY CLASS; KJ  
CAR LINE; J  
BODY; 74  
ENGINE; 2.4 LITRE  
ENGINE NOTE; ELECTRONIC FUEL INJECTION  
TRANSMISSION; 5 SPEED MANUAL  
TRANS. NOTE;  
VIN AS TESTED; 1J4FN581B2A [REDACTED] MOD.  
VIN AS BUILT; 1J4FN581B2A [REDACTED] MOD.

POST TEST REMARKS



**THE FOLLOWING DOCUMENT(S)  
IS MICROFILMED IN AS IS  
CONDITION.**

Camera Operator: *RANDALL WHYTE*

Date: *05-01-2003*



CHRYSLER MOTORS  
SAFETY TEST  
VEHICLE CRASH TEST REQUEST

SUPPLEMENT NO. 03

BUILD CONDITION

TARGET WEIGHT (LBS) 3938 TOTAL, 2135 FRONT, 1803 REAR REP BASE OPT. WT  
FOR A 3.7L 4X4 VEHICLE (CIART DATE 3/17/99) W/OUT  
LUGGAGE OR OCCUPANTS.

TEST WEIGHT (LBS) 467 TOTAL, 2134 FRONT, 2138 REAR

FUEL BALLAST 17 GALLONS OF STODDARD SOLVENT.

LUGGAGE BALLAST 300 LBS.

OTHER BALLAST 350# of Lead in 100# bag  
200# of Lead in 50# bag

OCCUPANTS LEFT FRONT, HYBRID II BALLAST, AD ndel  
RESTRAINT-BELTS ONLY. AD no  
RIGHT FRONT, HYBRID II BALLAST, AD no  
RESTRAINT-BELTS ONLY. AD no



CHRYSLER MOTORS  
SAFETY TEST  
VEHICLE CRASH TEST REQUEST

SUPPLEMENT NO. 03

## MECHANICAL REQ

TARGET VEHICLE PER THIRD SHEET FOR KJ VEHICLE,  
POSITION DRIVER & PASS SEAT 12 MM BACK FROM MID  
POSITION AND FULL DOWN.  
ENSURE DRIVER & PASS AIRBAGS, SIDE CURTAINS,  
DRIVER IKB, AND DRIVER PRETENSIONER DO NOT FIRE.  
MEASURE VEHICLE ATTITUDE AS RECEIVED AND WHEN  
TESTED.  
PRESSURE TEST PRE TEST WITH PUMP RUNNING.  
FUEL PUMP TO BE RUNNING DURING TEST.  
STATIC ROLL VEHICLE POST TEST.  
PAINT RAILS AND REAR UNDERBODY COMPONENTS  
INCLUDING FUEL FILLER LINE, PASSTHROUGH HOLE IN  
RAIL, FUEL TANK, REAR SUSPENSION, REAR BUMPER,  
ORV CANISTER, LINES AND EQUIPMENT, ETC. IN  
CONTRASTING COLORS FOR UNDERBODY VIEW.

## INSTRUMENTATION REQ

SEE THIRD SHEET FOR KJ REAR IMPACT TESTING FOR  
ACCEL. LOCATIONS.  
ENSURE DRIVER & PASS AIRBAGS, SIDE CURTAINS,  
DRIVER IKB AND DRIVER PRETENSIONER DO NOT FIRE.  
TRIAxIAL ACCEL ON RAIL NEAR ABOVE TANK MOUNTED  
ACCEL (NEAR FUEL PASSTHROUGH IN RAIL)  
USE INDUCTIVE PICKUPS (6) TO MONITOR ALL (6) AECM  
OUTPUTS.  
X-AXIS ACCEL. ON UPPER SURFACE OF RAIL APPROX 30MM  
BEHIND RADIATOR SPT. (LEFT AND RIGHT SIDE)  
X-AXIS ACCEL ON REAR SURFACE OF RAD. SPT.  
(HALF WAY UP THE VERTICAL PART OF THE RAD. SPT)  
LEFT AND RIGHT SIDE. (ENSURE THE ACCEL IS  
PARALLEL TO THE YZ PLANE W/SPACERS IF NEEDED).  
X AXIS ACCEL ON THE REAR SURFACE OF THE RAD. SPT.  
(AT THE POINT WHERE HORIZ. PART OF RAD. SPT.  
STARTS CURVING DOWN) LEFT AND RIGHT SIDE.  
TRIAxIAL ACCEL L&R FRONT BUMPER CROSSMEMBER (AT  
FRONT REMOTE SENSOR LOCATIONS).  
MONITOR AECM INTERNAL ACCEL & SAFING SENSOR.  
TRIAxIAL ACCEL ATTACHED TO ORC FT LT.  
BIAxIAL (X&Y) ACCEL ON INBOARD SURFACE OF FRONT  
SILL (L&R DOOR) FT SILL FWD STR XMBR  
BIAxIAL (X&Y) L&R SILL @ B-PILLAR (ON SAICM  
HOUSING)  
MONITOR SAICM INTERNAL ACCEL. (2L & 2R)  
USE INDUCTIVE PICKUPS (2) TO MONITOR RIGHT AND  
LEFT SAICM SQUID OUTPUTS/FIRE TIMES.  
BIAxIAL (X&Y) ACCEL INBOARD SURFACE OF REAR DOOR  
SILL LT & RT RR SILL FWD ST XMBR



CHRYSLER MOTORS  
SAFETY TEST  
VEHICLE CRASH TEST REQUEST

SUPPLEMENT NO. 03

## PHOTOGRAPHIC REQ

1-VELOCITY CAMERA.  
1-PIT CAMERA TO VIEW ORVR EQUIPMENT (ATTACHED TO FUEL TANK).  
1-LEFT OVERALL.  
1-RIGHT OVERALL.  
1-HIGH SPEED VIDEO OF LEFT (DRIVER) SIDE OVERALL.  
1-HIGH SPEED VIDEO OF LEFT (DRIVER) SIDE REAR QUARTER.  
2-PIT CAMERAS FOR REAR UNDERBODY ANALYSIS.  
1-L SIDE CLOSE UP OF FUEL FILLER AREA FROM PIT  
1-RR CLOSE UP OF REAR QUARTER OF VEHICLE.  
1-PIT CAMERA CLOSEUP OF L-RAIL FROM KICKUP RWD.  
PRE&POST TEST PHOTOS OF OVERALL & UNDERBODY (REAR), FRAME RAILS, FUEL TANK/REAR AXLE AREA, ETC.  
PHOTOS OF ALL SENSOR LOCATIONS.

ALL CAMERAS TO HAVE DIGITAL TIMING IF POSSIBLE.

PRE AND POST TEST DIGITAL PHOTOS.

## FILM ANALYSIS

REAR DYNAMIC CRUSH,  
REAR UNDERBODY ANALYSIS.

VEHICLE VELOCITY - ONLY IF REQUESTED.

## REMARKS

TEST REQUESTOR: M.P. LEVINE (X35368)  
MAKE 2 COPIES OD FILM AND 1 VIDEO, SEND TO:  
M.P. LEVINE 514-17-41 1 FILM & 1 VIDEO  
M. GIELOW 481-02-13 1 FILM  
PLEASE RETURN VEHICLE TO JTE ATTN. PAM MORTON.

## T. E. REPORT

FUEL SYSTEM REPORT REQUIRED.

## REPORT CODES

A = TRANSDUCER DATA	B = ALL FILM DATA
C = HIGH SPEED FILM	D = ENGINEER'S REPORT
E = DUMMY KINEMATICS	F = STEERING COLUMN
O = UNDERBODY	H = A-POST
I = DYNAMIC CRUSH	J = ENGINE COMPARTMENT
K = DOOR CRUSH	L = FORCE/CRUSH/ENERGY
M = SPECIAL	N = CATALOG EDP DATA
* = REPORT REQUESTOR	

## DISTRIBUTION

M.P. LEVINE	514-17-41	(AB)
M.A. GIELOW	481-02-13	(AB)
M. STEBELTON	422-05-01	(AB)



CHRYSLER MOTORS  
SAFETY TEST  
VEHICLE CRASH TEST REQUEST

SUPPLEMENT NO. 03

\*\*\*\*\*CHANGED 10/22/99 13104 LEVINE SUPPLEMENT 01

TARGET WEIGHT (LBS)

MODIFY 3862 TOTAL, 2019 FRONT, 2843 REAR REP, MAX OPT. WT  
TO READ 3938 TOTAL, 2135 FRONT, 1803 REAR REP BASE OPT. WT  
MODIFY 2.4L 4X4 VEHICLE (CHART DATE 3/17/99) W/OUT  
TO READ FOR A 3.7L 4X4 VEHICLE (CHART DATE 3/17/99) W/OUT

\*\*\*\*\*CHANGED 11/08/99 14155 LEVINE SUPPLEMENT 02

BUILD CONDITION

\*\*\*\*\*CHANGED 12/07/99 08129 LEVINE SUPPLEMENT 03

CHRYSLER MOTORS  
SAFETY TEST  
VEHICLE CRASH TEST REQUEST

SUPPLEMENT NO. 03

MECHANICAL REQ

MODIFY POSITION DRIVER AND PASS SEAT IN MID POSITION &  
TO READ POSITION DRIVER & PASS SEAT 12 MM BACK FROM MID  
ADD POSITION AND FULL DOWN.  
DELETE FULL DOWN.



**THE FOLLOWING DOCUMENT(S)  
IS MICROFILMED IN AS IS  
CONDITION.**

Camera Operator: *RANDALL WHYTE*

Date: *05-01-2003*

VEHICLE ATTITUDE

TEST NUMBER VC8025

TEST ENGINEER MANNEY

ITEM NUMBER KJ4202R

TEST DATE \_\_\_/\_\_\_/\_\_\_

FENDER/WHEELWELL HEIGHTS

SILL HEIGHTS

	LF	LR	RF	RR
AS RECEIVED	36.6	33.5	36.5	37.8
AS BUILT-UP				
AS TESTED	36.1	31.5	35.0	31.5



X, Y, Z DIMENSIONS

TEST NUMBER VC8025, TEST ENGINEER MANNEY

TEST TYPE: 30 MPH REAR WITH  
TYPE 4 MOV. BARR.

V.I.N. 1J4FN5B152A

LOCATION	X	Y	Z	LOCATION	X	Y	Z
BC1	XXXX	0.0	XXXX	BC2	201.1	0.0	XXXX
B1	-	-	XXXX	B2	-	-	XXXX
U1	157.3	-16.0	10.4	U2	171.8	16.1	10.2
U3	179.9	-6.8	16.4	U4	174.4	7.5	18.2
U5	186.2	-10.7	8.7	U6	198.6	18.6	20.6
U7	192.0	-13.8	25.4	U8	198.1	6.0	12.4
U9	198.9	-5.4	11.9	U10	207.3	6.0	10.4
U11	207.5	-2.3	12.1	U12	214.6	19.4	23.5
U13	215.2	-19.7	2.38				
				STL	230.1	0	-
				U01	216.1	0.7	23.8
LFS	110.9	-32.6	11.1				
LMS	139.9	-33.2	11.6				
LRA 4" TARGET W/O BLACK RING	158.5	-	13.7				
		44-   - 34.7				44-	

TRAMMEL DIMENSIONS:

LFS-LMS PRE 29.19

U1-U2 37.43

STL: SCARE  
LRA (1st POINT OF CONTACT)

# Program: 02KJ

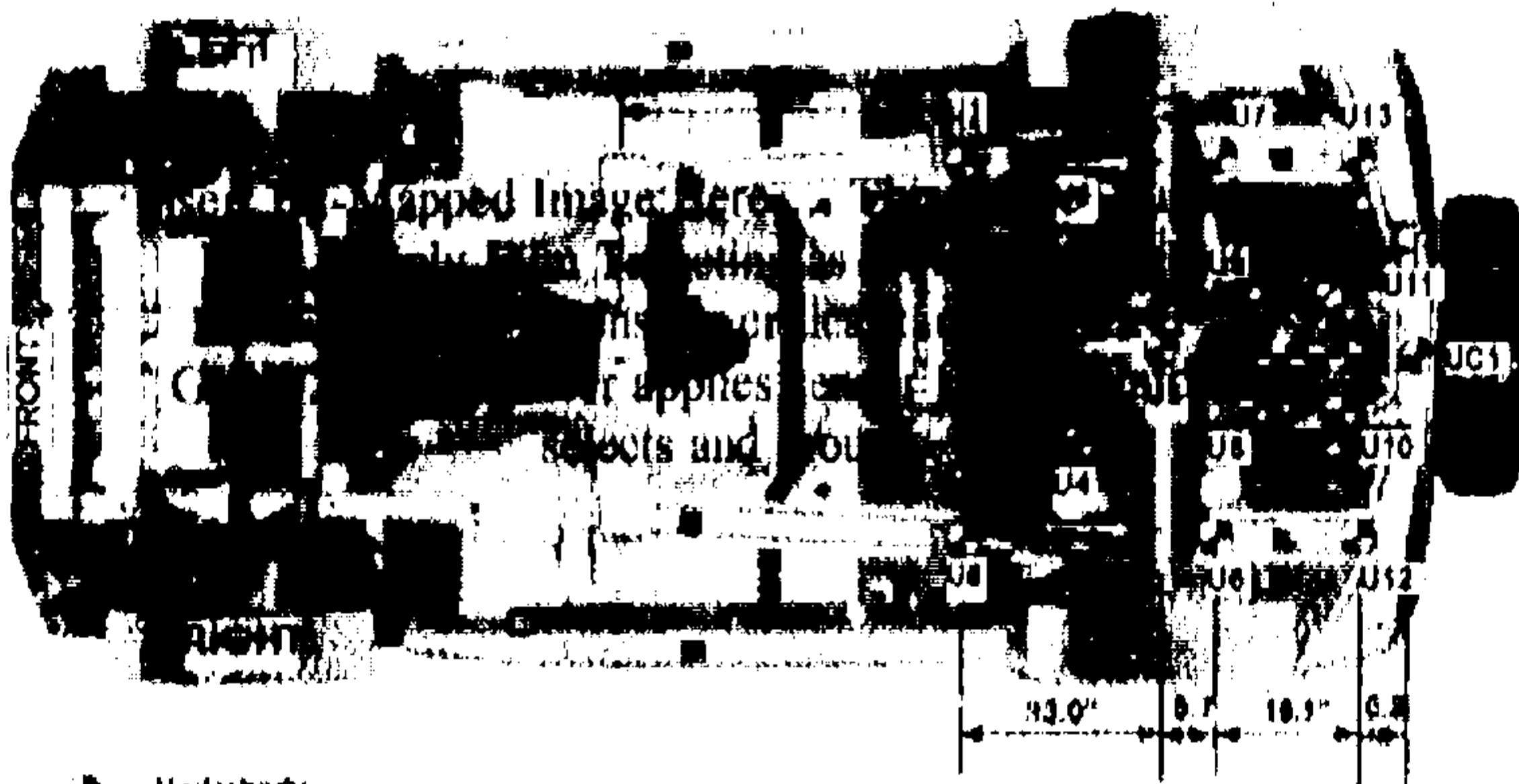
## REAR UNDERBODY





### FOR ALL REAR IMPACTS

VC ; Item No.

Impact Analysis Engineer: RHN / 05/03/1999  
 Viability Approved: DGL / 05/03/1999  
 Approved for CPD Use: GAD / 05/03/1999

Third Sheet Item VC  
 Jeep Cherokee 4x4 XJ  
 Target and Accelerometer Locations  
 For Rear Impact



-  Underbody
-  Side View
-  Single Axis (X) Accelerometer
-  Bi-axial (X & Z) Accelerometer

#### Guidelines to Placement of Critical Targets:

Item	Comments
U1 & U2	5.6\" ahead of forward edge of control arm mounting bracket.
U3 & U4	At midpoint of upper swing arm.



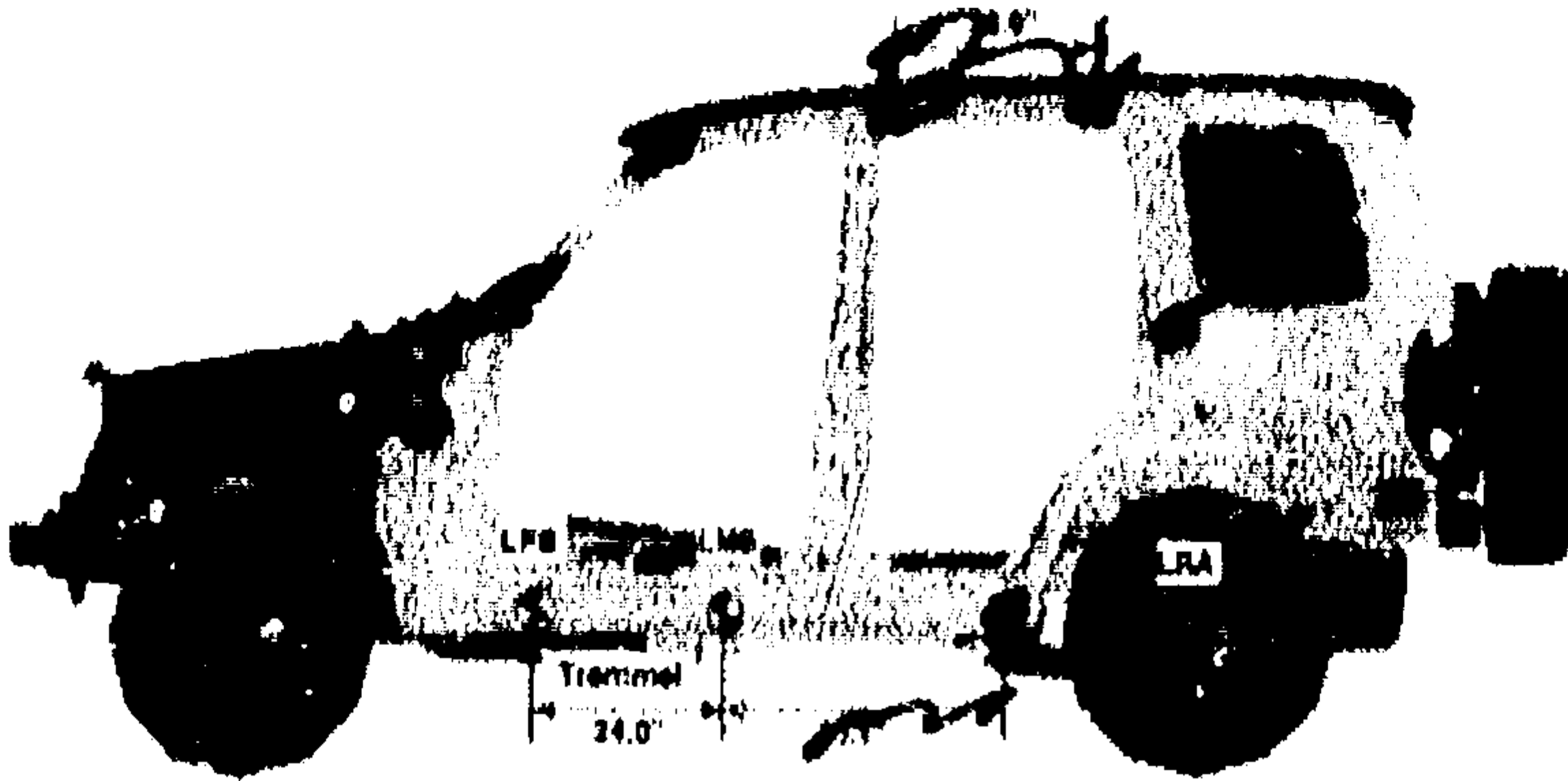
# Program: 02KJ

VO 8024 Item No. KJ4202  
08025

## LEFT SIDE FOR ALL REAR IMPACTS

Impact Analysis Engineer: RRN / 05/03/1999  
Visibility Approved: DDL / 05/03/1999  
Approved for CPG Use: GAB / 05/03/1999

Third Wheel H mt ..... VQ .....  
Jeep Cherokee 4x4 KJ



Side view

### Guidelines to Placement of Critical Targets:

Item	Comments
L1	Target not required on rear impact.
L3	Target not required on rear impact.
L5	Target not required on rear impact.
LCP	Target not required on rear impact.
LRS	Target not required on rear impact.
LRA	Place target on center of hub.
LFS, LMS	Besides LRA, these are only other two targets required.

**THE FOLLOWING DOCUMENT(S)  
IS MICROFILMED IN AS IS  
CONDITION.**

Camera Operator: *RANDALL WHYTE*

Date: *05-01-2003*



LEFT

TUBE COLOR SLUE

FRONT SILL

X=

Y=

Z= 177.9

REAR SILL

X=

Y=

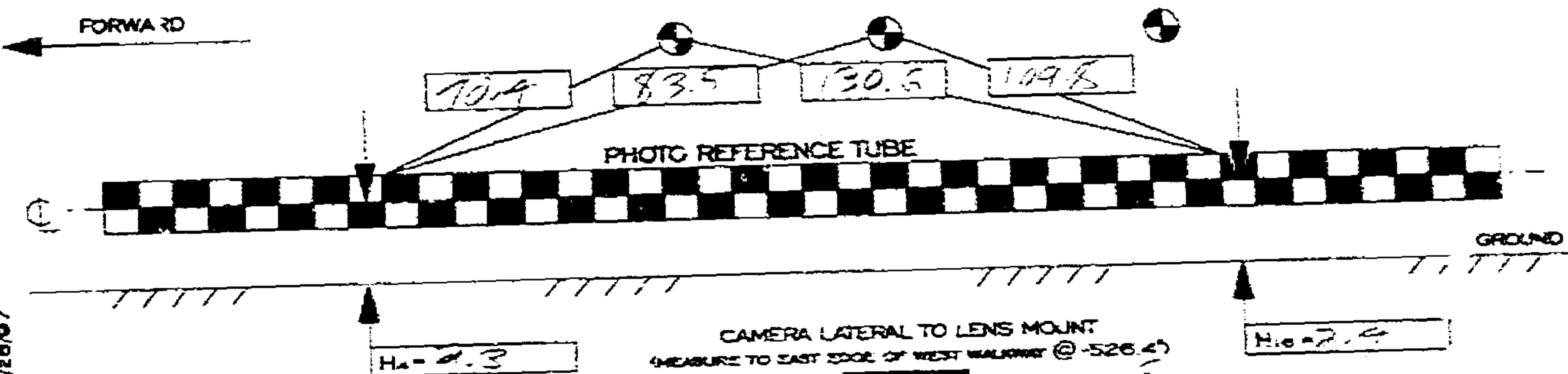
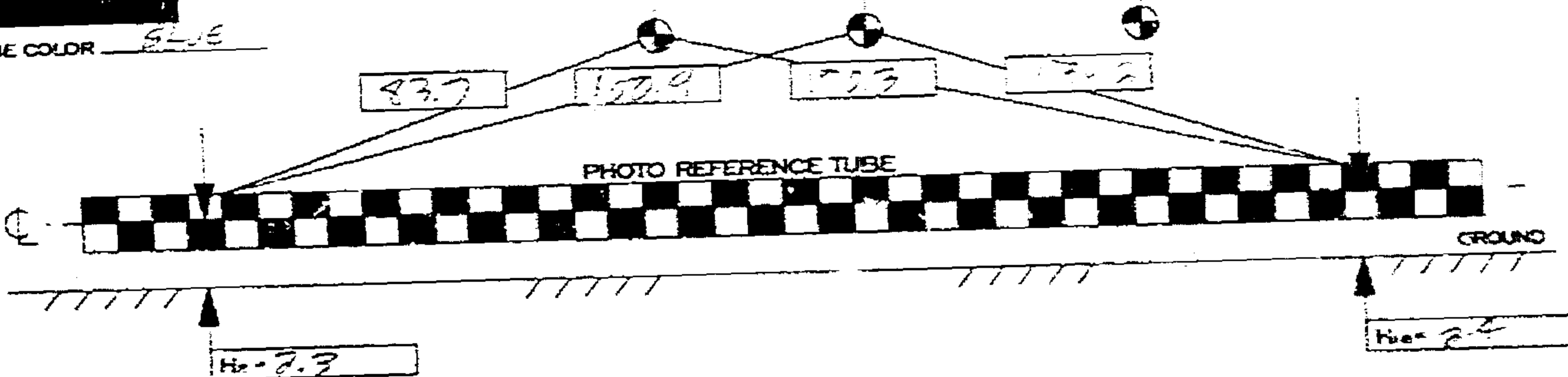
Z= 111.7

REAR AXLE

X=

Y=

Z= 156



NOTES:

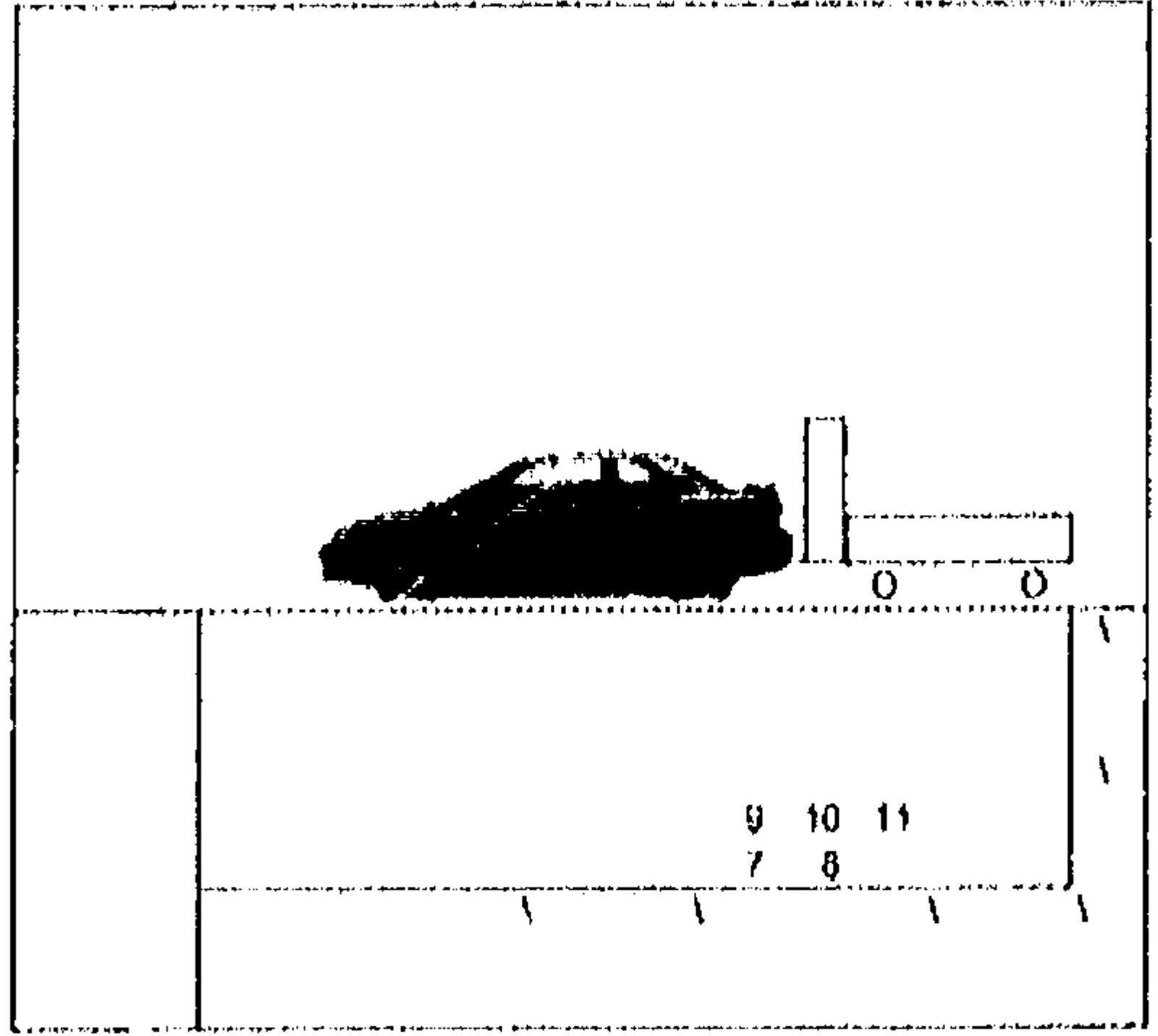
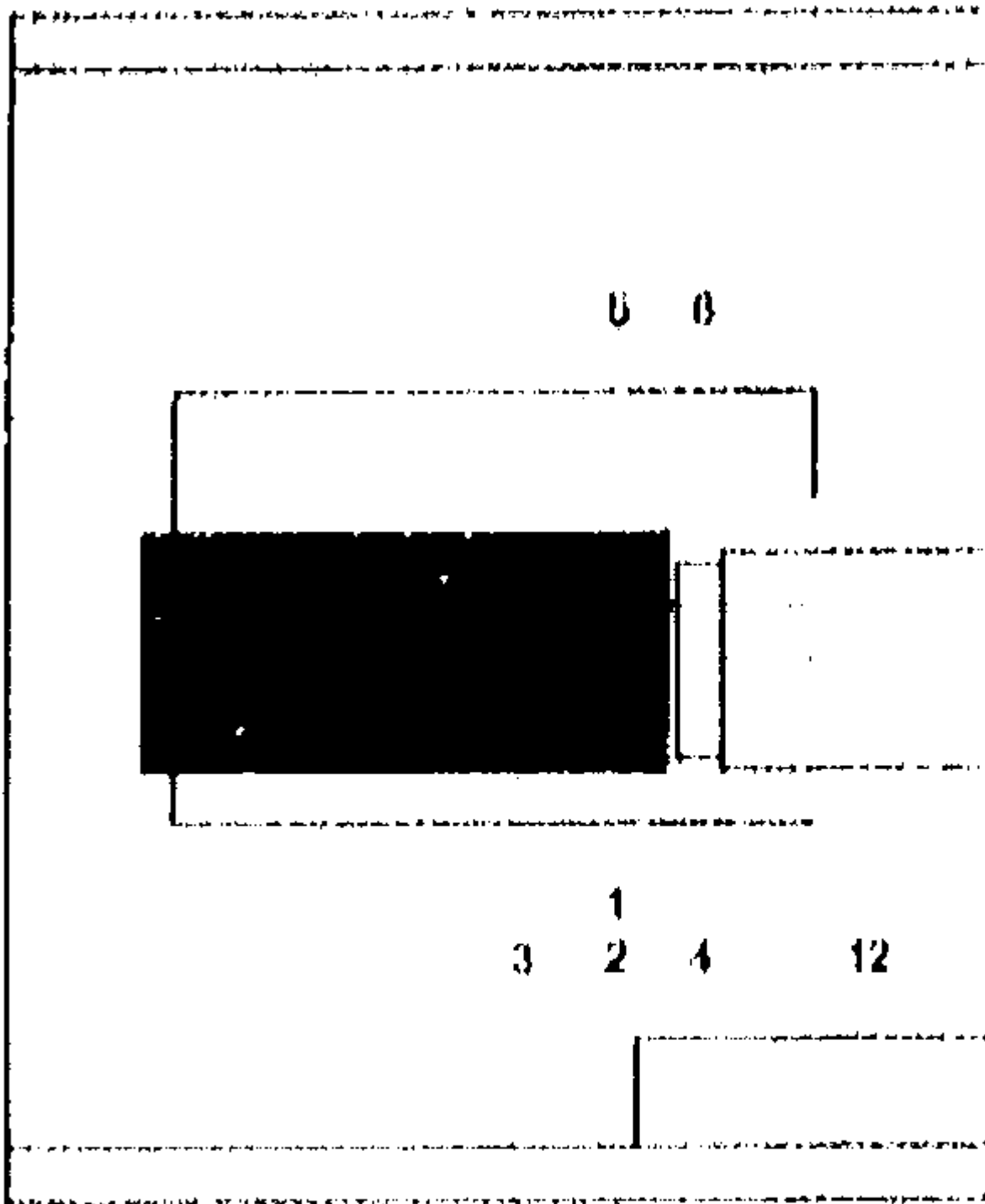
1. THE Z DIMENSION FOR THE SILL TARGETS AND REAR AXLE MUST BE RETAKEN AT THE TEST SITE
2. IF OTHER TUBE POINTS ARE USED, SO INDICATE

FOR REAR IMPACT TESTS - DIMENSIONING BETWEEN SILL TARGETS AND PHOTO REFERENCE TUBE

TEST ENGR MANN  
VC 8025

PLAN VIEW

SIDE VIEW



TEST NUMBER:	VC08025	VEHICLE TYPE:	KJ
TEST TYPE:	30 MPH REAR	TEST ENGINEER:	MANLEY
REQUEST DATE:	12/16/00		

#	VIEW DESCRIPTION A=ANALYSIS	CAM S/N	LENS FL	LENS S/N	LENS MFG.	F- STP	PN	SK	CB	MISC
1	A LT-OVERALL - DYNAMIC CRUSH	428	18MM	110093	KIN					
2	LT-REAR QUARTER PANEL	1876*	35MM	111289	KIN					
3	RT-OVERALL	1879	13MM	105432	KIN					
4	RT-REAR QUARTER PANEL	1878*	35MM	111290	KIN					
6	A PIT-REAR UNDERBODY ANALYSIS	431	13MM	13-4	COS	4 1/4				
8	A PIT-REAR UNDERBODY ANALYSIS	432	13MM	13-7	COS	4 1/4				
7	PIT-FUEL TANK & FILL TUBE	424	18MM	107230	KIN					
8	PIT-CLOSE UP OF FUEL FILTER AREA	284	25MM	25-1	COS					
	FROM KICKUP RWD.									
10	V VELOCITY	533	ZOOM	300019	CAN	8.8				
30	LT-HIGH SPEED VIDEO OF LEFT (DRIVER) SIDE OVERALL.	EKTA	ZOOM	300473	CAN	8				
31	LT-HIGH SPEED VIDEO OF (DRIVER) SIDE REAR QUARTER.	PRO	ZOOM	300086	CAN	11				
	** PRE & POST TEST PHOTOS OF OVER AND UNDERBODY (REAR), FRAME RAILS, FUEL TANK/REAR AXLE AREA, ETC									
	** PHOTOS OF ALL SENSOR LOCATION									
	** ALL CAMERAS TO HAVE DIGITAL TIMING**									

MONDAY 12/13/00



**THE FOLLOWING DOCUMENT(S)  
IS MICROFILMED IN AS IS  
CONDITION.**

Camera Operator: *RANDALL WHYTE*

Date: *05-01-2003*

FUEL SYSTEM AND STATIC ROLLOVER SUMMARY

TEST NUMBER VC8025, ITEM NUMBER KJ4282R, TEST ENGINEER MANNEY

V.I.N. 1J4FN58152/ [REDACTED] TEST DATE 12/13/99 ROLL DATE 12/14/99

TEST TYPE: 30 MPH TYPE IV MOVING BARRIER REAR IMPACT

FUEL: TYPE AND QUANTITY - .767 S.G. STODDARD SOLVENT, 17.0 GALLONS

TEST SPEED 30.0 MPH, TEST WEIGHT 4570 POUNDS.

POST IMPACT LEAKAGE(OZ): AT IMPACT 0

1ST 5 MIN. 0

NEXT 25 MIN. 0

POST TEST PRESSURE CHECK could not pressurize tank due to vent line pinched by strap?

ELECTRIC FUEL PUMP RUN N/A

NO STATIC ROLL PERFORMED

STATIC ROLL LEAKAGE WITH VEHICLE 1 CF SIDE DOWN FIRST

FUEL LEAKAGE LOCATIONS DURING STATIC ROLL

ROLL TIME					TOTAL	
0-90	1ST 5 MIN				0	*
<u>1.47</u>	POST 5 MIN				0	**
90-180	1ST 5 MIN				0	*
<u>1.47</u>	POST 5 MIN				0	**
180-270	1ST 5 MIN				0	*
<u>1.43</u>	POST 5 MIN				0	**
270-360	1ST 5 MIN				0	*
<u>1.45</u>	POST 5 MIN				0	**

\* OUNCES IN 5 MINUTES, \*\* OUNCES PER MINUTE

POST TEST FULL SYSTEM OBSERVATIONS \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

LAST FORM MODIFICATION 08/22/96 - GAB (TESTOBS896,DOCVCFORMS)



DATE 12/14/99  
TIME 11:10:57.

ELECTRONIC DATA PROCESSING  
EDP TEST LETTER

VEHICLE CRASH ENGINEERING  
DEPT 5320

VC08025 ITEM KJ4282R  
VC08025 30 MPH REAR MOVING BARRIER, KCP-74 ITEM KJ4282R  
2002 MV88 301 REAR IMPACT DEVELOPMENT.  
TEST DATE 12/13/99

TEST PURPOSE PRIMARY, 2002 USA 301 DEVELOPMENT.  
DETERMINE FUEL SYSTEM INTEGRITY.

IMPACT TYPE TARGET SPEED; 30.1 MPH  
DAMAGE LOCATION; REAR  
BARRIER TYPE; REAR TYPE IV  
BARRIER SURFACE; PLYWOOD

VEHICLE BODY CLASS; K6  
CAR LINE; J  
BODY; 74  
ENGINE; 2.4 LITRE  
ENGINE NOTE; ELECTRONIC FUEL INJECTION  
TRANSMISSION; 6 SPEED MANUAL  
TRANS. NOTE;  
VIN AS TESTED; 104FN58152A [REDACTED] MOD.  
VIN AS BUILT; 104FN58152A [REDACTED] MOD.

TEST SPEED 30.3 MPH BY ELECTRONIC TRAP TIMER.

TEST WEIGHT (LBS) 4572 TOTAL, 2434 FRONT, 2138 REAR

OCCUPANTS LEFT FRONT, HYBRID II BALLAST. AD-61  
RESTRAINT-BELTS ONLY.  
RIGHT FRONT, HYBRID II BALLAST. AD-56  
RESTRAINT-BELTS ONLY.

DATE 12/14/99  
TIME 11:10:57.

ELECTRONIC DATA PROCESSING  
EDP TEST LETTER

VEHICLE CRASH ENGINEERING  
DEPT 5320

VC08025 ITEM KJ4202R  
VC08025 30 MPH REAR MOVING BARRIER. KJ4202R ITEM KJ4202R  
2002 MY85 301 REAR IMPACT DEVELOPMENT.  
TEST DATE 12/13/99

BUILD CONDITION

TARGET WEIGHT (LBS) 3938 TOTAL, 2135 FRONT, 1803 REAR REP BASE OPT. WT  
FOR A 3.7L 4X4 VEHICLE (CHART DATE 3/17/99) W/OUT  
LUGGAGE OR OCCUPANTS.

FUEL AND BALLAST 17 GALLONS OF STODDARD SOLVENT.  
300 LBS.  
350 LBS SECURED TO REAR FLOORPAN.  
200 LBS IN FRONT SEAT AREA.

EDP TECHNICIAN S. MARCHENIA

No. of Pages 106  
CC

M. A. GIBLOW 481-02-13  
M. P. LEVINE 514-17-41  
M. STEBELTON 422-05-01



TITLE: Page Index of EDP plots

Pages 001 - 106

Page I-01

\*\*\*\*\* VC08025A \*\*\*\*\*

TITLE: Transducer Summary Reports

Pages 001 - 009

PAGE: 001 TSR Channels 001 - 008  
 PAGE: 002 TSR Channels 009 - 016  
 PAGE: 003 TSR Channels 017 - 024  
 PAGE: 004 TSR Channels 025 - 032  
 PAGE: 005 TSR Channels 033 - 040  
 PAGE: 006 TSR Channels 041 - 048  
 PAGE: 007 TSR Channels 049 - 056  
 PAGE: 008 TSR Channels 057 - 064  
 PAGE: 009 TSR Channels 065 - 066

\*\*\*\*\* VC08025B \*\*\*\*\*

TITLE: Vehicle Channels

Pages 010 - 102

PAGE: 010 Average of Sill Chls 53, 55, 61, & 63  
 PAGE: 011 Average of Frt Sill Chls 53 & 55  
 PAGE: 012 ENGINE BOTTOM X, Chl 1  
 PAGE: 013 ENGINE BOTTOM X, Chl 1, VD  
 PAGE: 014 ENGINE BOTTOM 2, Chl 2  
 PAGE: 015 FUEL TANK RL PASS-THRU, Chl 3  
 PAGE: 016 FUEL TANK RL PASS-THRU, Chl 3, VD  
 PAGE: 017 FUEL TANK RL PASS-THRU, Chl 4  
 PAGE: 018 FUEL TANK RL PASS-THRU, Chl 5  
 PAGE: 019 LT RL UPR 30MM AFT RAD, Chl 6  
 PAGE: 020 LT RL UPR 30MM AFT RAD, Chl 6, VD  
 PAGE: 021 RT RL UPR 30MM AFT RAD, Chl 7  
 PAGE: 022 RT RL UPR 30MM AFT RAD, Chl 7, VD  
 PAGE: 023 LT RR VERT SURF RAD SUX, Chl 8  
 PAGE: 024 LT RR VERT SURF PAD SUX, Chl 8, VD  
 PAGE: 025 RT RR VERT SURF RAD SUX, Chl 9  
 PAGE: 026 RT RR VERT SURF RAD SUX, Chl 9, VD  
 PAGE: 027 LT RR SURF CURVE RAD SX, Chl 10  
 PAGE: 028 LT RR SURF CURVE RAD SX, Chl 10, VD  
 PAGE: 029 RT RR SURF CURVE RAD SX, Chl 11  
 PAGE: 030 RT RR SURF CURVE RAD SX, Chl 11, VD  
 PAGE: 031 ACM DAB1 SQUIB EVENT, Chl 12, Event \*N\*  
 PAGE: 032 ACM DAB2 SQUIB EVENT, Chl 13, Event \*N\*  
 PAGE: 033 ACM PAB1 SQUIB EVENT, Chl 14, Event \*N\*  
 PAGE: 034 ACM PAL2 SQUIB EVENT, Chl 15, Event \*N\*  
 PAGE: 035 DR PRETENS SQUIB EVENT, Chl 16, Event \*N\*  
 PAGE: 036 DR KNEEBAG SQUIB EVENT, Chl 17, Event \*N\*  
 PAGE: 037 ACM INTERN ACCEL G, Chl 18  
 PAGE: 038 ACM SAFING SENSOR, Chl 19, Event \*N\*  
 PAGE: 039 LT SIACM INT ACCEL1 G, Chl 20  
 PAGE: 040 LT SIACM INT ACCEL2 G, Chl 21  
 PAGE: 041 RT SIACM INT ACCEL1 G, Chl 22  
 PAGE: 042 RT SIACM INT ACCEL2 G, Chl 23  
 PAGE: 043 LT SIACM SQUIB EVENT, Chl 24, Event \*N\*  
 PAGE: 044 RT SIACM SQUIB EVENT, Chl 25, Event \*N\*  
 PAGE: 045 LT FT XMBR SENSOR LOC X, Chl 26  
 PAGE: 046 LT FT XMBR SENSOR LOC X, Chl 26, VD  
 PAGE: 047 LT FT XMBR SENSOR LOC Y, Chl 27  
 PAGE: 048 LT FT XMBR SENSOR LOC Z, Chl 28  
 PAGE: 049 RT FT XMBR SENSOR LOC X, Chl 29  
 PAGE: 050 RT FT XMBR SENSOR LOC X, Chl 29, VD  
 PAGE: 051 RT FT XMBR SENSOR LOC Y, Chl 30  
 PAGE: 052 RT FT XMBR SENSOR LOC Z, Chl 31  
 PAGE: 053 ORC TOP FT LT X, Chl 32  
 PAGE: 054 ORC TOP FT LT X, Chl 32, VD

PAGE: 055 ORC TOP FT LT Y, Chl 33  
 PAGE: 056 ORC TOP FT LT Z, Chl 34  
 PAGE: 057 LEFT FRONT SILL X, Chl 35  
 PAGE: 058 LEFT FRONT SILL X, Chl 35, VD  
 PAGE: 059 LEFT FRONT SILL Z, Chl 36  
 PAGE: 060 RIGHT FRONT SILL X, Chl 37  
 PAGE: 061 RIGHT FRONT SILL X, Chl 37, VD  
 PAGE: 062 RIGHT FRONT SILL Z, Chl 38  
 PAGE: 063 LEFT MID SILL X, Chl 39  
 PAGE: 064 LEFT MID SILL X, Chl 39, VD  
 PAGE: 065 LEFT MID SILL Z, Chl 40  
 PAGE: 066 RIGHT MID SILL X, Chl 41  
 PAGE: 067 RIGHT MID SILL X, Chl 41, VD  
 PAGE: 068 RIGHT MID SILL Z, Chl 42  
 PAGE: 069 LEFT REAR SILL X, Chl 43  
 PAGE: 070 LEFT REAR SILL X, Chl 43, VD  
 PAGE: 071 RIGHT REAR SILL X, Chl 44  
 PAGE: 072 RIGHT REAR SILL X, Chl 44, VD  
 PAGE: 073 LT RAIL TRANS XMBR X, Chl 45  
 PAGE: 074 LT RAIL TRANS XMBR X, Chl 45, VD  
 PAGE: 075 LT RAIL TRANS XMBR Z, Chl 46  
 PAGE: 076 RT RAIL TRANS XMBR X, Chl 47  
 PAGE: 077 RT RAIL TRANS XMBR X, Chl 47, VD  
 PAGE: 078 RT RAIL TRANS XMBR Z, Chl 48  
 PAGE: 079 LT RL FWD RR CTRL ARM X, Chl 49  
 PAGE: 080 LT RL FWD RR CTRL ARM X, Chl 49, VD  
 PAGE: 081 LT RL FWD RR CTRL ARM Z, Chl 50  
 PAGE: 082 RT RL FWD RR CTRL ARM X, Chl 51  
 PAGE: 083 RT RL FWD RR CTRL ARM X, Chl 51, VD  
 PAGE: 084 RT RL FWD RR CTRL ARM Z, Chl 52  
 PAGE: 085 LT FT SILL FWD ST XMBRX, Chl 53  
 PAGE: 086 LT FT SILL FWD ST XMBRX, Chl 53, VD  
 PAGE: 087 LT FT SILL FWD ST XMBRY, Chl 54  
 PAGE: 088 RT FT SILL FWD ST XMBRX, Chl 55  
 PAGE: 089 RT FT SILL FWD ST XMBRX, Chl 55, VD  
 PAGE: 090 RT FT SILL FWD ST XMBRY, Chl 56  
 PAGE: 091 LT SILL AT B-PLR X, Chl 57  
 PAGE: 092 LT SILL AT B-PLR X, Chl 57, VD  
 PAGE: 093 LT SILL AT B-PLR Y, Chl 58  
 PAGE: 094 RT SILL AT B-PLR X, Chl 59  
 PAGE: 095 RT SILL AT B-PLR X, Chl 59, VD  
 PAGE: 096 RT SILL AT B-PLR Y, Chl 60  
 PAGE: 097 LT RR SILL FWD ST XMBRX, Chl 61  
 PAGE: 098 LT RR SILL FWD ST XMBRX, Chl 61, VD  
 PAGE: 099 LT RR SILL FWD ST XMBRY, Chl 62  
 PAGE: 100 RT RR SILL FWD ST XMBRX, Chl 63  
 PAGE: 101 RT RR SILL FWD ST XMBRX, Chl 63, VD  
 PAGE: 102 RT RR SILL FWD ST XMBRY, Chl 64

\*\*\*\*\* VC08025C \*\*\*\*\*

TITLE: Moving barrier Channels

Pages 103 - 106

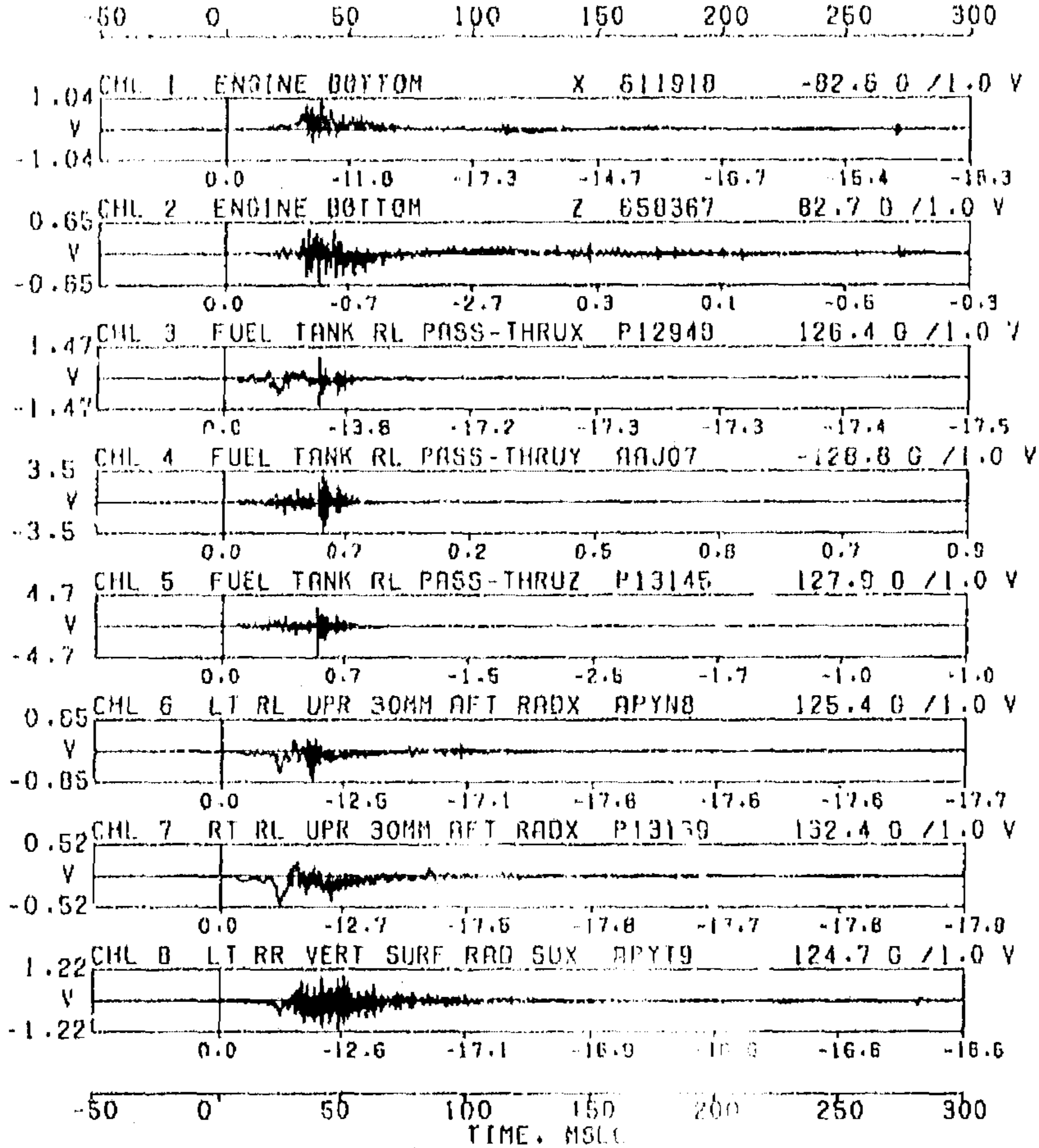
PAGE: 103 LT RAIL MBAR MID X Chl 65  
 PAGE: 104 LT RAIL MBAR MID X, Chl 65, VD  
 PAGE: 105 RT RAIL MBAR MID X Chl 66  
 PAGE: 106 RT RAIL MBAR MID X, Chl 66, VD



TRANSDUCER SUMMARY REPORT

VC08026 30 MPH REAR MOVING BARRIER, KJT-74 ITEM KJ4282R  
 2002 MYSS 301 REAR IMPACT DEVELOPMENT.  
 IMPACT ANALYSIS DEPT. 5320  
 DEC 14, 1999

PAGE 001  
 OF 106  
 DATA SET 12/13/9900  
 ERRATA 1



NOTE COMPUTED FIRST INTEGRAL VALUES ARE INDICATED BELOW EACH CHANNEL AND BRIDGED DATA IS INDICATED BY A -8-.

TRANSDUCER SUMMARY REPORT

VC08025 30 MPH REAR MOVING BARRIER, KJT-74 ITEM KJ4282R  
 2002 HVSS 301 REAR IMPACT DEVELOPMENT,  
 IMPACT ANALYSIS DEPT. 5320

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 OF 106

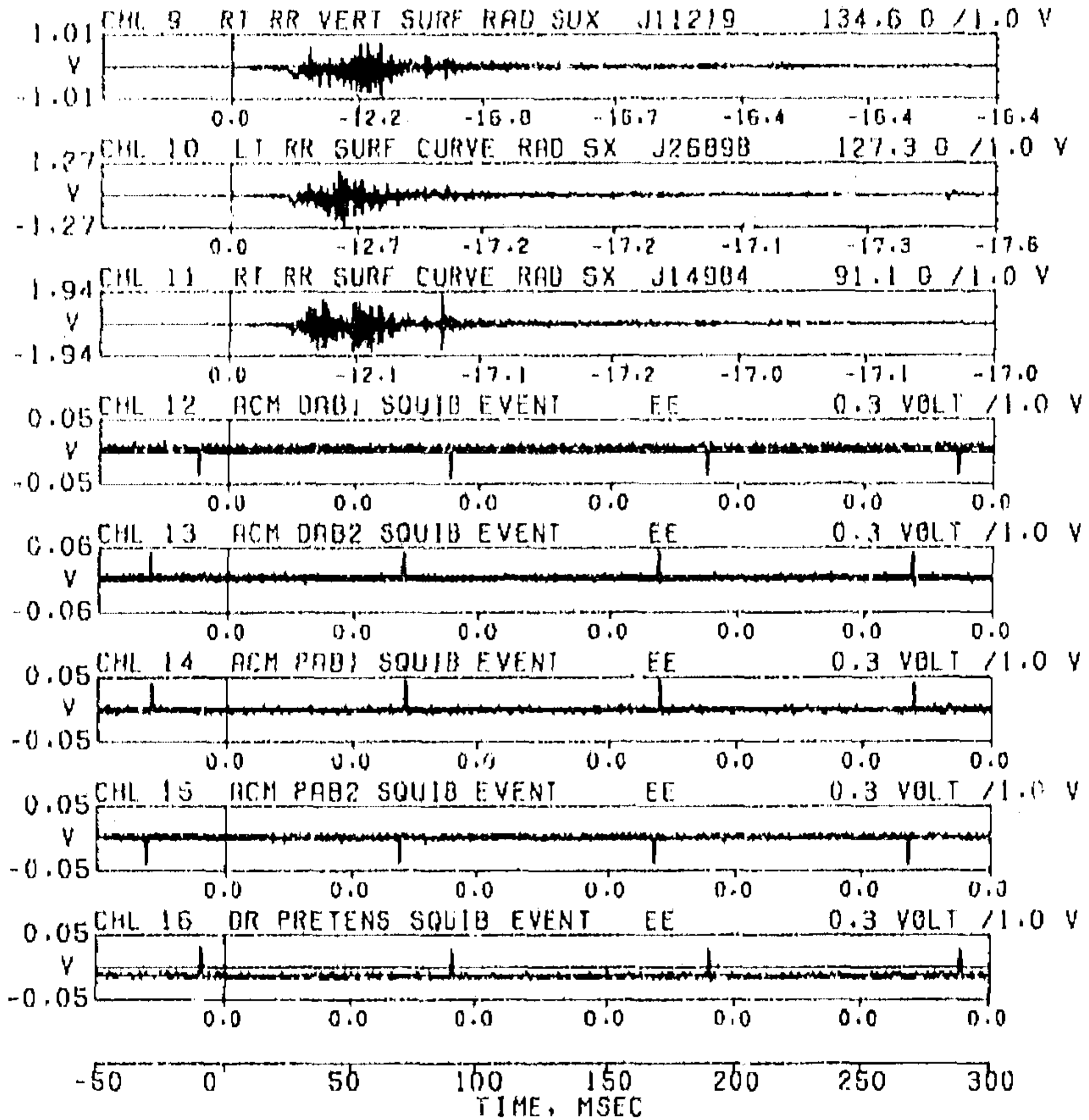
DEC 14, 1999

DATA SET 12/13/99BA

ERRATA

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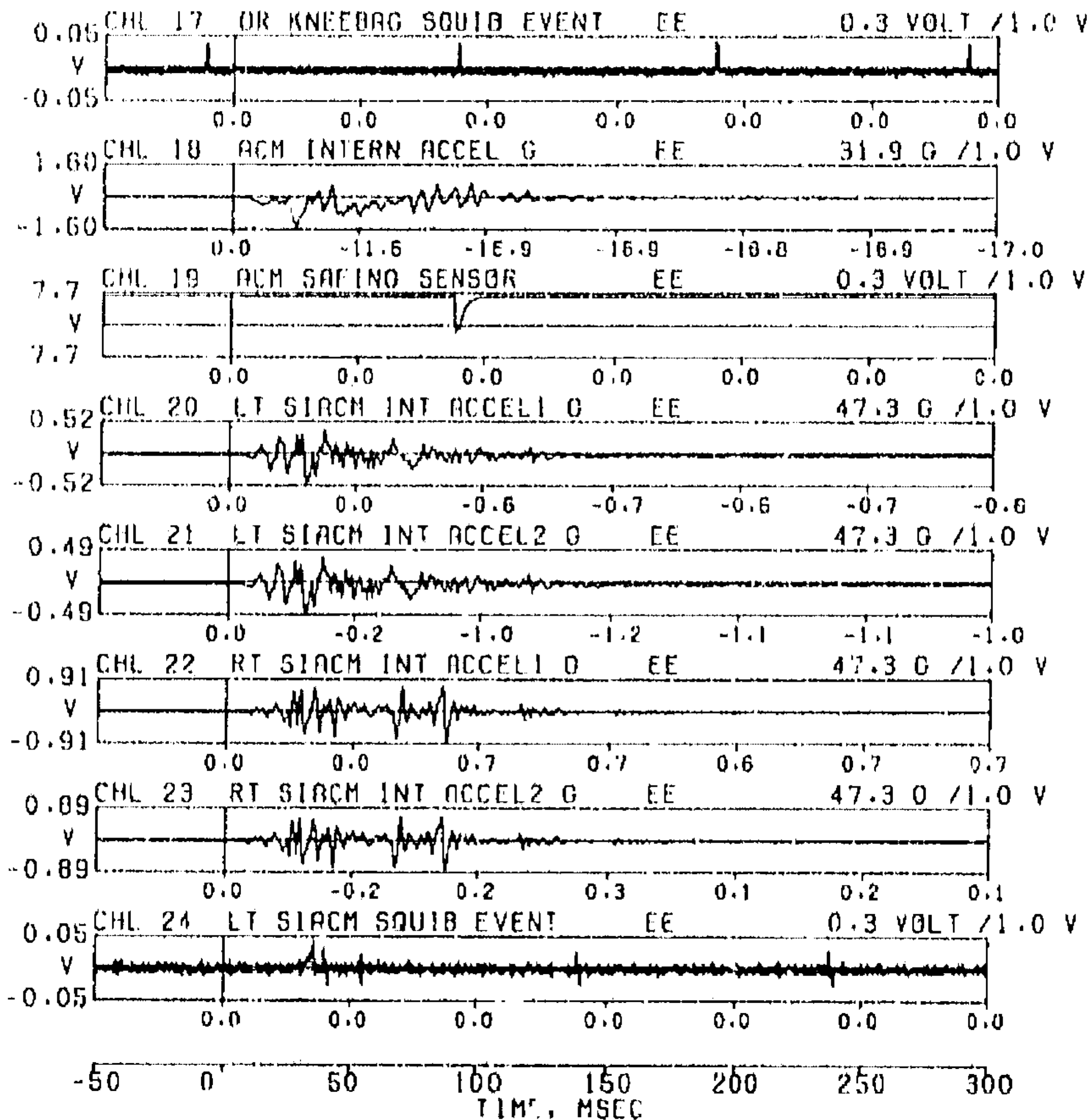


TRANSDUCER SUMMARY REPORT

VC00025 30 MPH REAR MOVING BARRIER, KJT-74 ITEM KJ4202R  
 2002 MYSS 301 REAR IMPACT DEVELOPMENT.  
 IMPACT ANALYSIS DEPT. 5320  
 DEC 14, 1999

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 OF 106  
 DATA SET 12/13/99BB  
 ERRATA 1

50 0 50 100 150 200 250 300



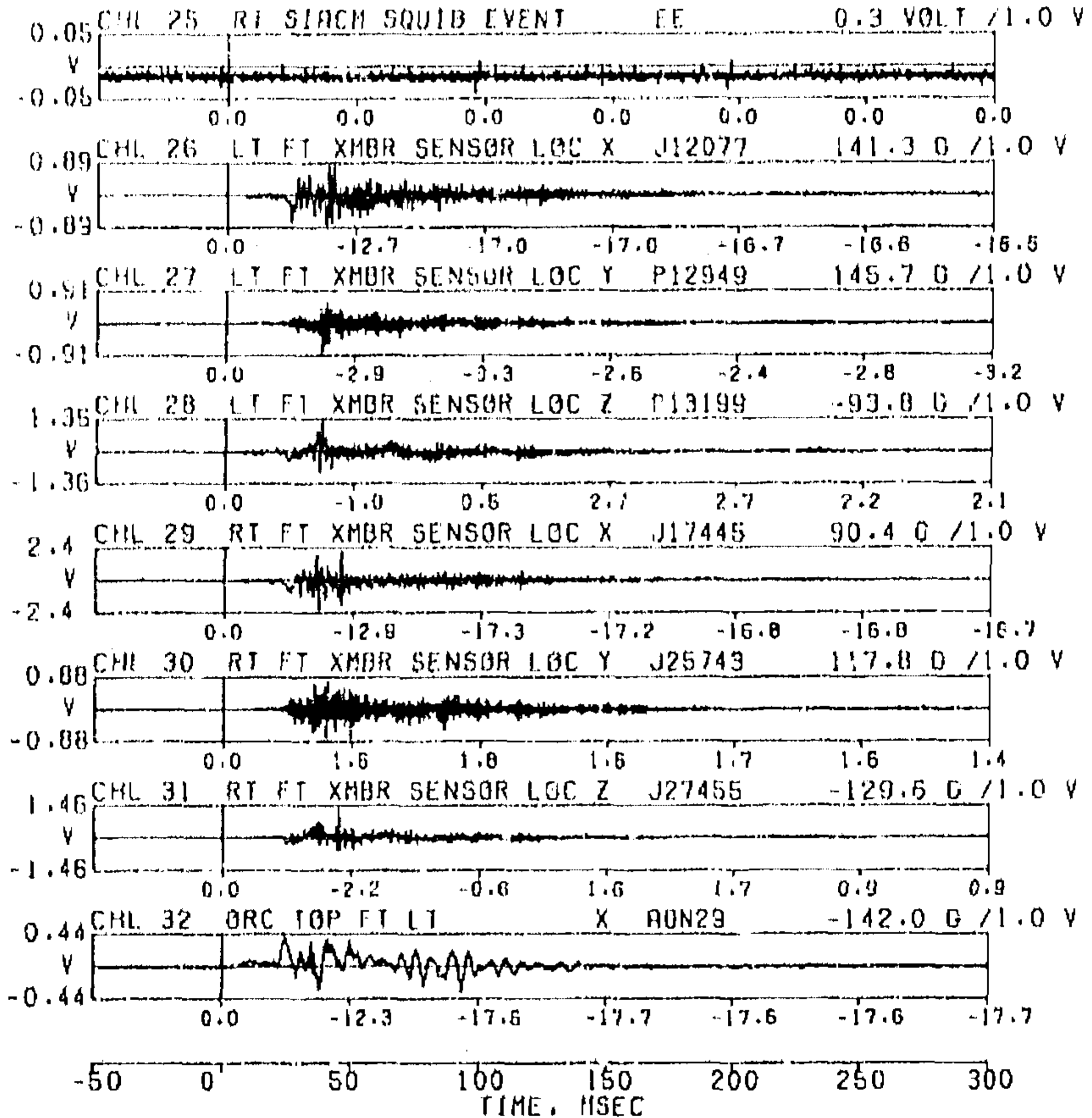
NOTE COMPUTED FIRST INTEGRAL VALUES ARE INDICATED BELOW EACH CHANNEL AND BRIDGED DATA IS INDICATED BY A -B-.

TRANSDUCER SUMMARY REPORT

VC08025 30 MPH REAR MOVING BARRIER, KJT-74 ITEM KJ4202R  
 2002 MYSS 301 REAR IMPACT DEVELOPMENT,  
 IMPACT ANALYSIS DEPT. 5320  
 DEC 14, 1999

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 OF 106  
 DATA SET 12/13/99BB  
 ER901A 1

-50 0 50 100 150 200 250 300



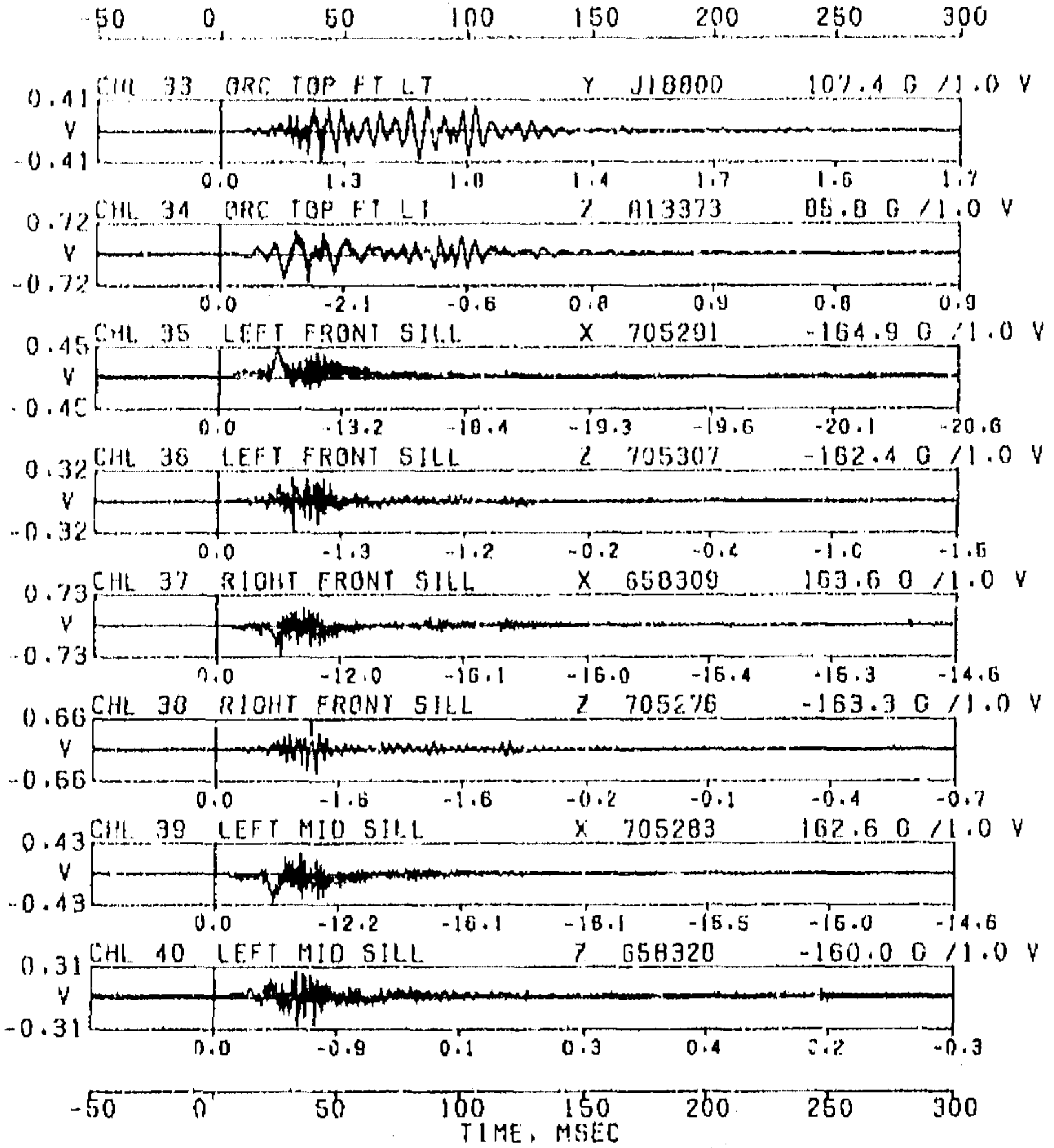
NOTE COMPUTED FIRST INTEGRAL VALUES ARE INDICATED BELOW EACH CHANNEL AND BRIDGED DATA IS INDICATED BY A "B".



TRANSDUCER SUMMARY REPORT

VC00026 30 MPH REAR MOVING BARRIER, KJ1-74 ITEM KJ4282R  
 2002 HVSS 301 REAR IMPACT DEVELOPMENT.  
 IMPACT ANALYSIS DEPT. 5320  
 DEC 14, 1999

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 DATA SET 12/13/99BC  
 ERRATA 1



NOTE COMPUTED FIRST INTEGRAL VALUES ARE INDICATED BELOW EACH CHANNEL AND BRIDGED DATA IS INDICATED BY A -B-.

TRANSDUCER SUMMARY REPORT

VC08026 30 MPH REAR MOVING BARRIER, KJT-74 ITEM KJ4202R  
 2002 MYSS 301 REAR IMPACT DEVELOPMENT,  
 IMPACT ANALYSIS DEPT. 5320

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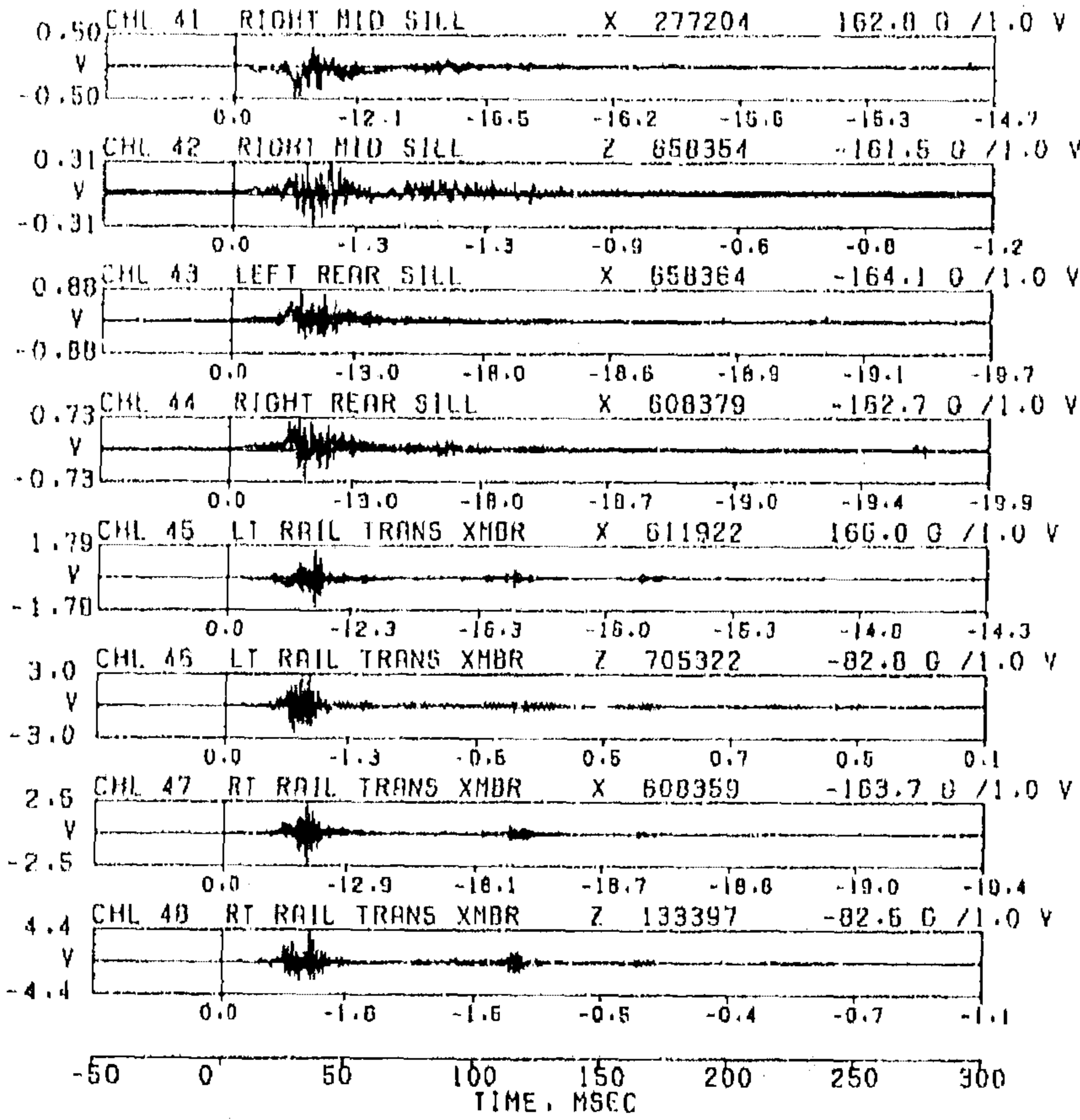
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DEC 14, 1999

ERRATA

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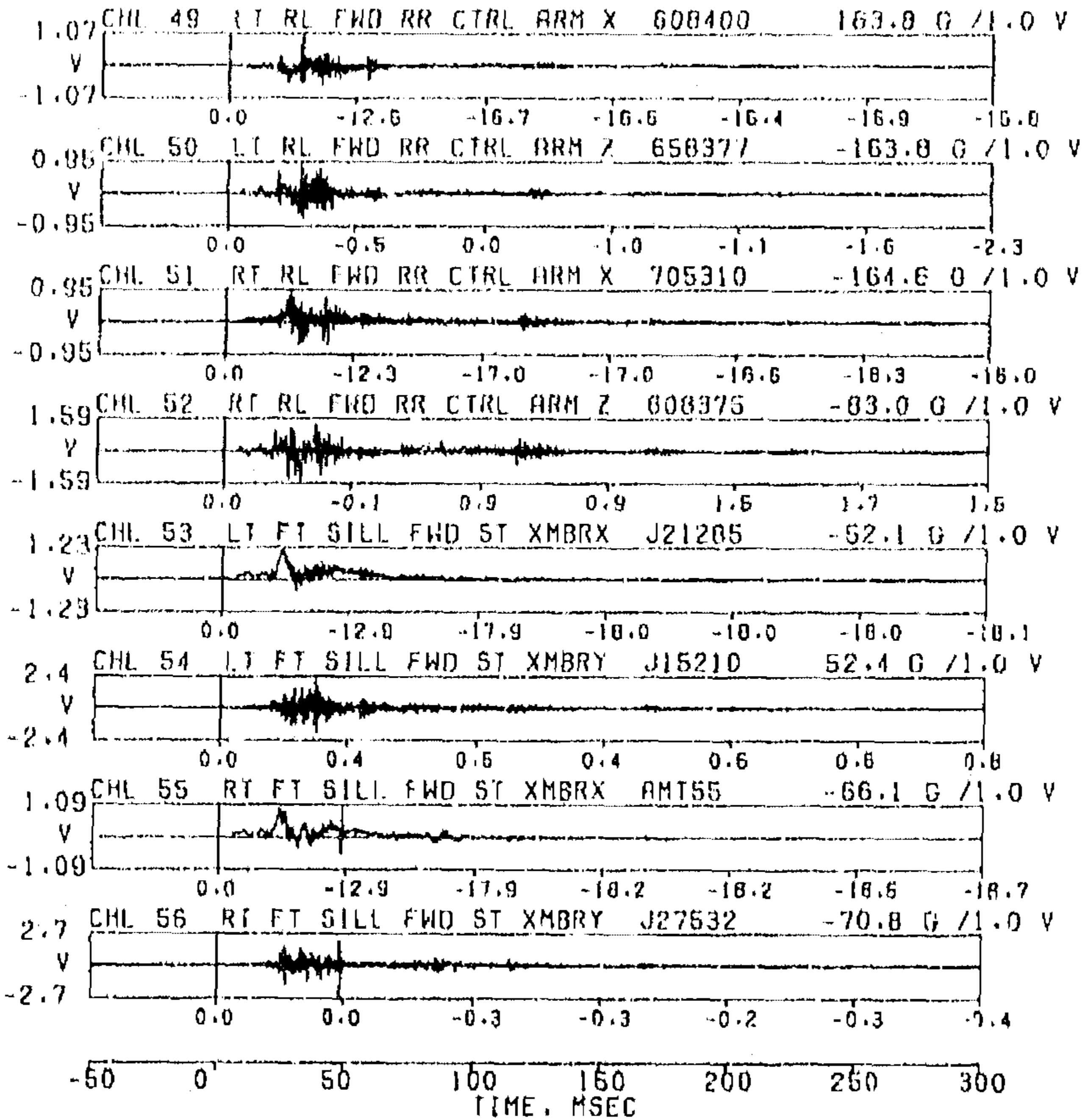


TRANSDUCER SUMMARY REPORT

VC08025 90 MPH REAR MOVING BARRIER, KJT-74 ITEM KJ4282R  
 2002 MV85 301 REAR IMPACT DEVELOPMENT,  
 IMPACT ANALYSIS DEPT. 6320  
 DEC 14, 1999

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 OF 108  
 DATA SET 12/13/9980  
 ERRATA 1

-50 0 50 100 150 200 250 300



NOTE COMPUTED FIRST INTEGRAL VALUES ARE INDICATED BELOW EACH CHANNEL AND BRIDGED DATA IS INDICATED BY A -B-.

TRANSDUCER SUMMARY REPORT

VC00026 30 MPH REAR MOVING BARRIER, KJT-74 ITEM KJ4282R  
 2002 NYS 301 REAR IMPACT DEVELOPMENT.  
 IMPACT ANALYSIS DEPT. 5320

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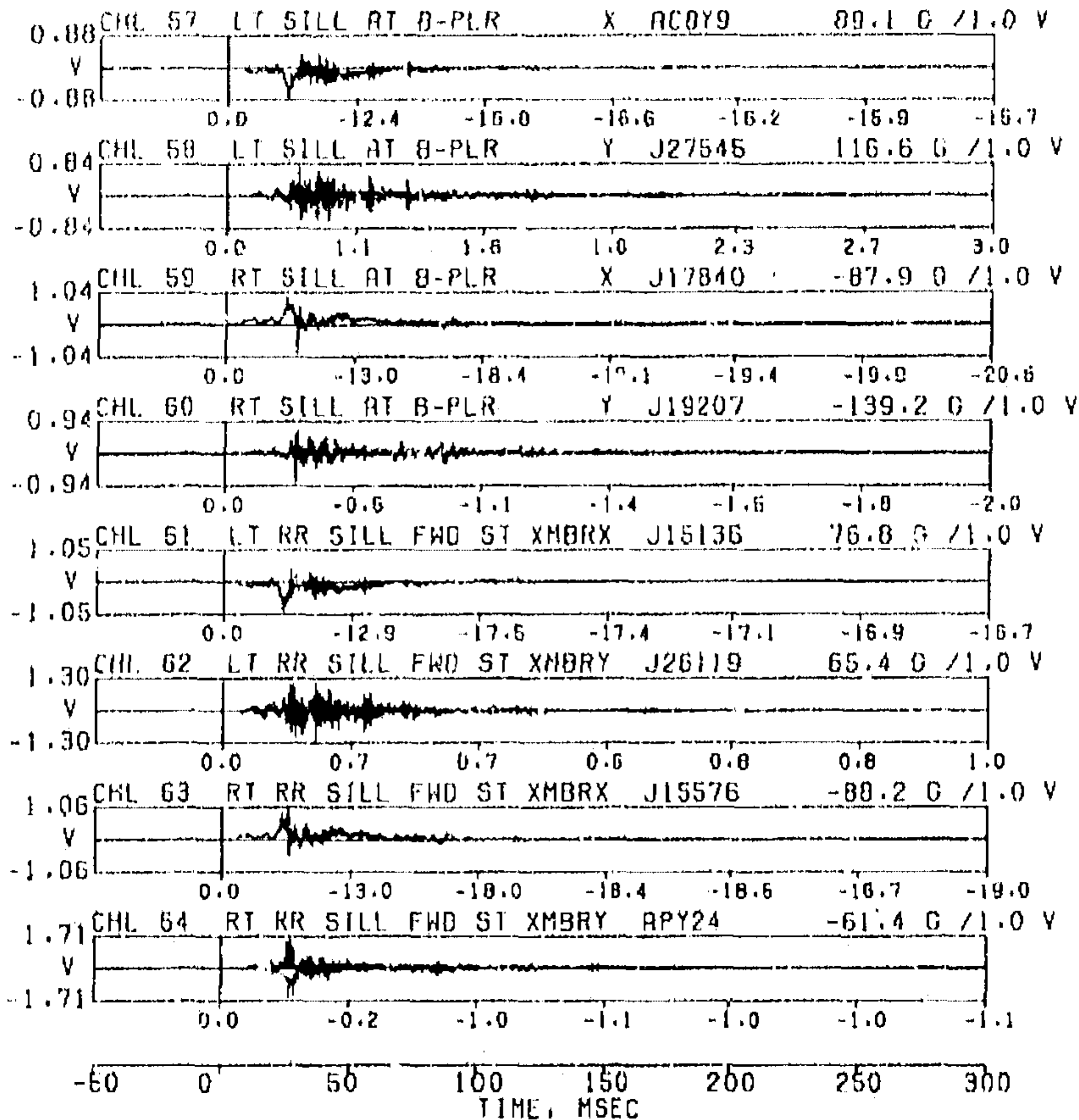
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DEC 14, 1999

ERRATA

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NOTE COMPUTED FIRST INTEGRAL VALUES ARE INDICATED BELOW  
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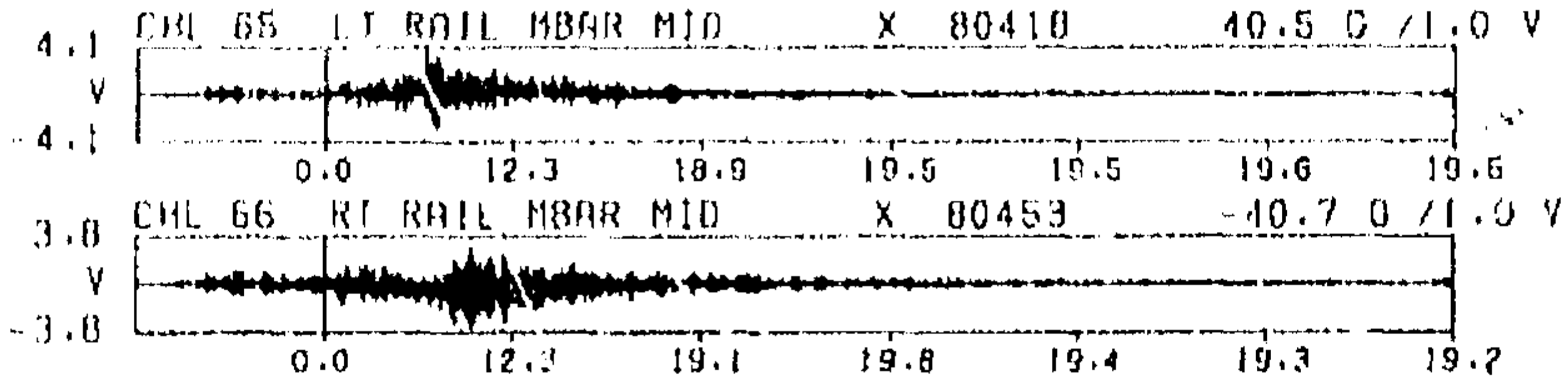
TRANSDUCER SUMMARY REPORT

VC08026 30 MPH REAR MOVING BARRIER, KJ1-74 ITEM KJ4282R  
 2002 MYSS 301 REAR IMPACT DEVELOPMENT.  
 IMPACT ANALYSIS DEPT. 5320

PROE 009  
 OF 106  
 DATA SET 12/13/99DE  
 ERRATA 1

DEC 14, 1999

-50 0 50 100 150 200 250 300



-50 0 50 100 150 200 250 300  
 TIME, MSEC

NOTE COMPUTED FIRST INTEGRAL VALUES ARE INDICATED BELOW  
 EACH CHANNEL AND BRIDGED DATA IS INDICATED BY A 0.

AVERAGE OF

CHANNEL 053 LT FT SILL FWD ST XMORX J21285  
CHANNEL 055 RT FT SILL FWD ST XMORX AMT55  
CHANNEL 061 LT RR SILL FWD ST XMORX J15136  
CHANNEL 063 RT RR SILL FWD ST XMORX J15576

FILTER TYPE: SRE J2110/80 UC C601TF-R1 EFF 3/24/86

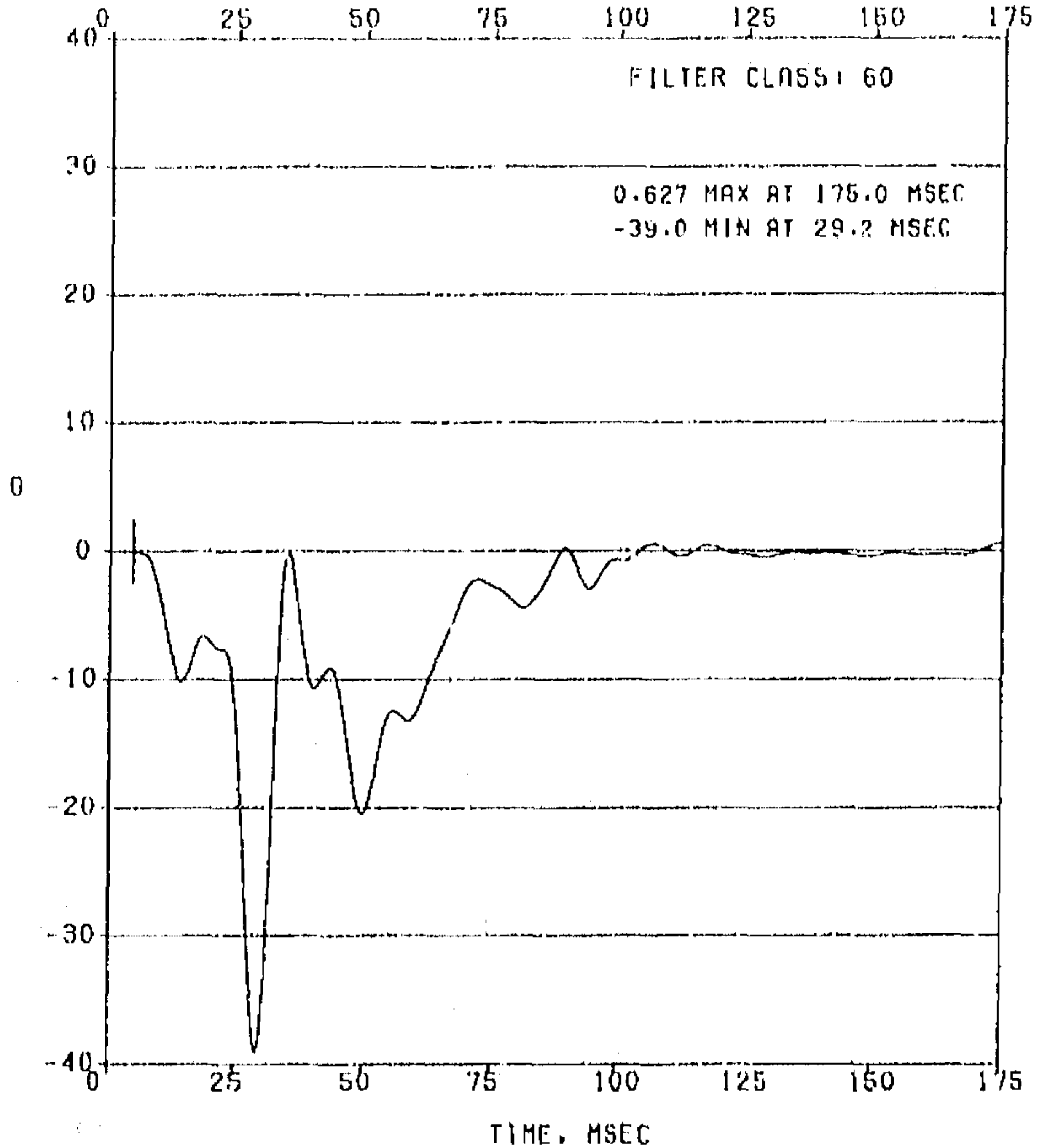
IMPACT ANALYSIS DEPT. 5320

DATA SET 12/13/99B0

DEC 14, 1999

ERRATA

1





AVERAGE OF

CHANNEL 053 LT FT SILL FWD ST XMBRX J21285  
CHANNEL 056 RT FT SILL FWD ST XMBRX ANT55

FILTER TYPE: SHE J2118/80 DC C60(IPF-R) EFF 3/24/15

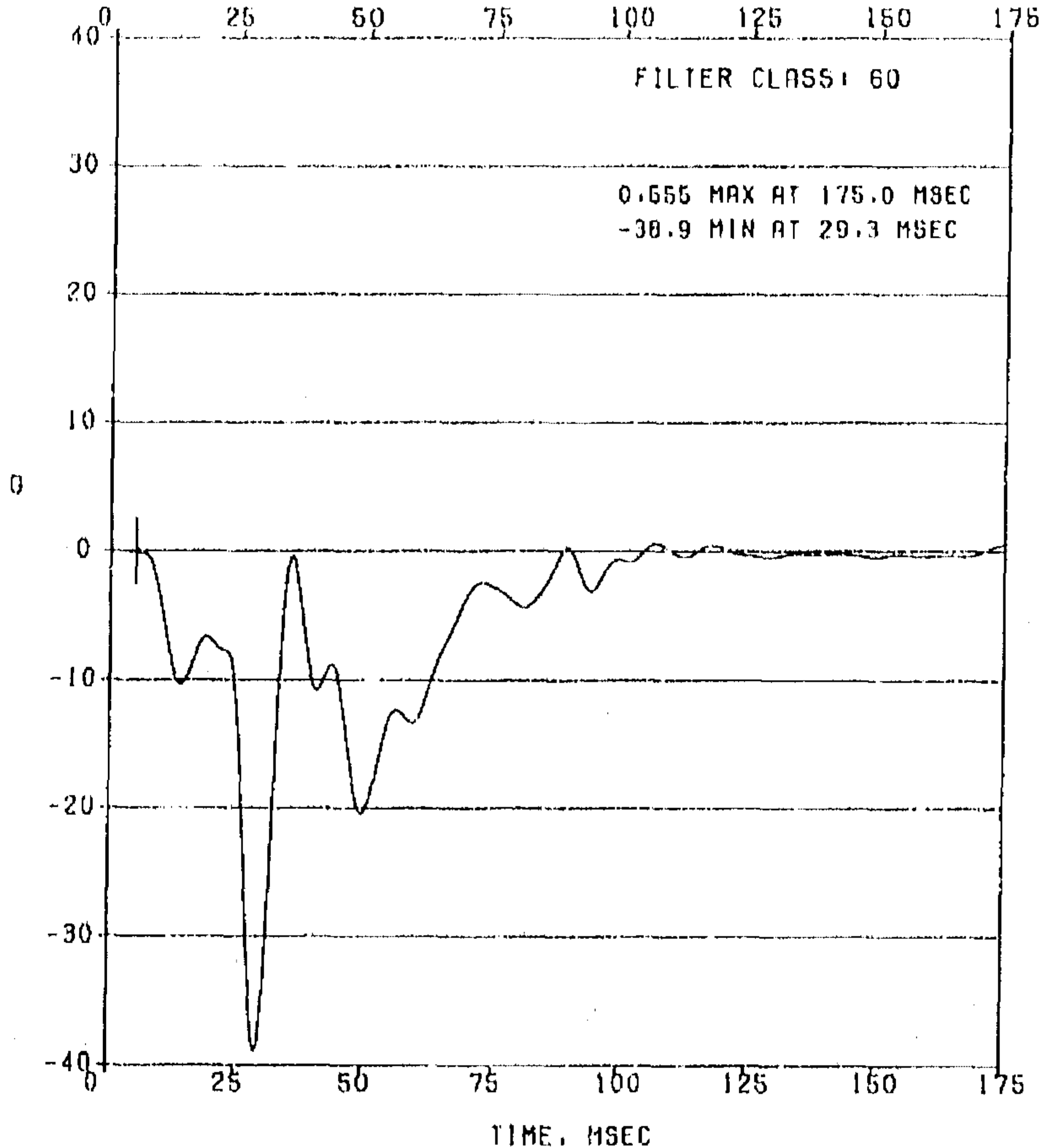
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DATA SET 12/13/9980

DEC 14, 1999

ERRATA

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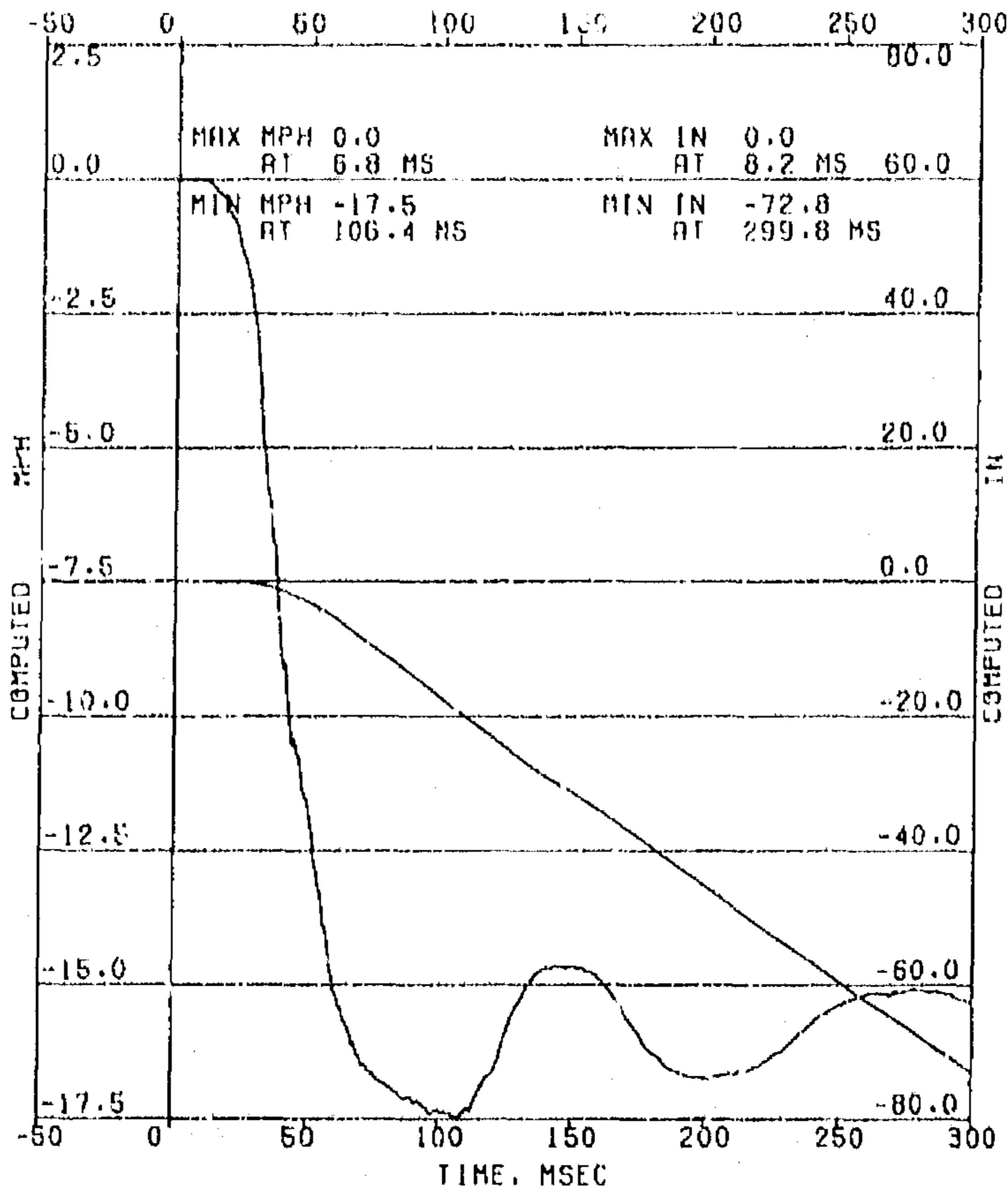




FILTER TYPE: OBORS-111 RESPONSE CORRECTION, CLASS 1000 FILTER(1850)  
 FILTER CLASS: 1000

IMPACT ANALYSIS DEPT. 5320  
 DEC 14, 1999

DATA SET 12/13/9908A  
 ERRATA 1

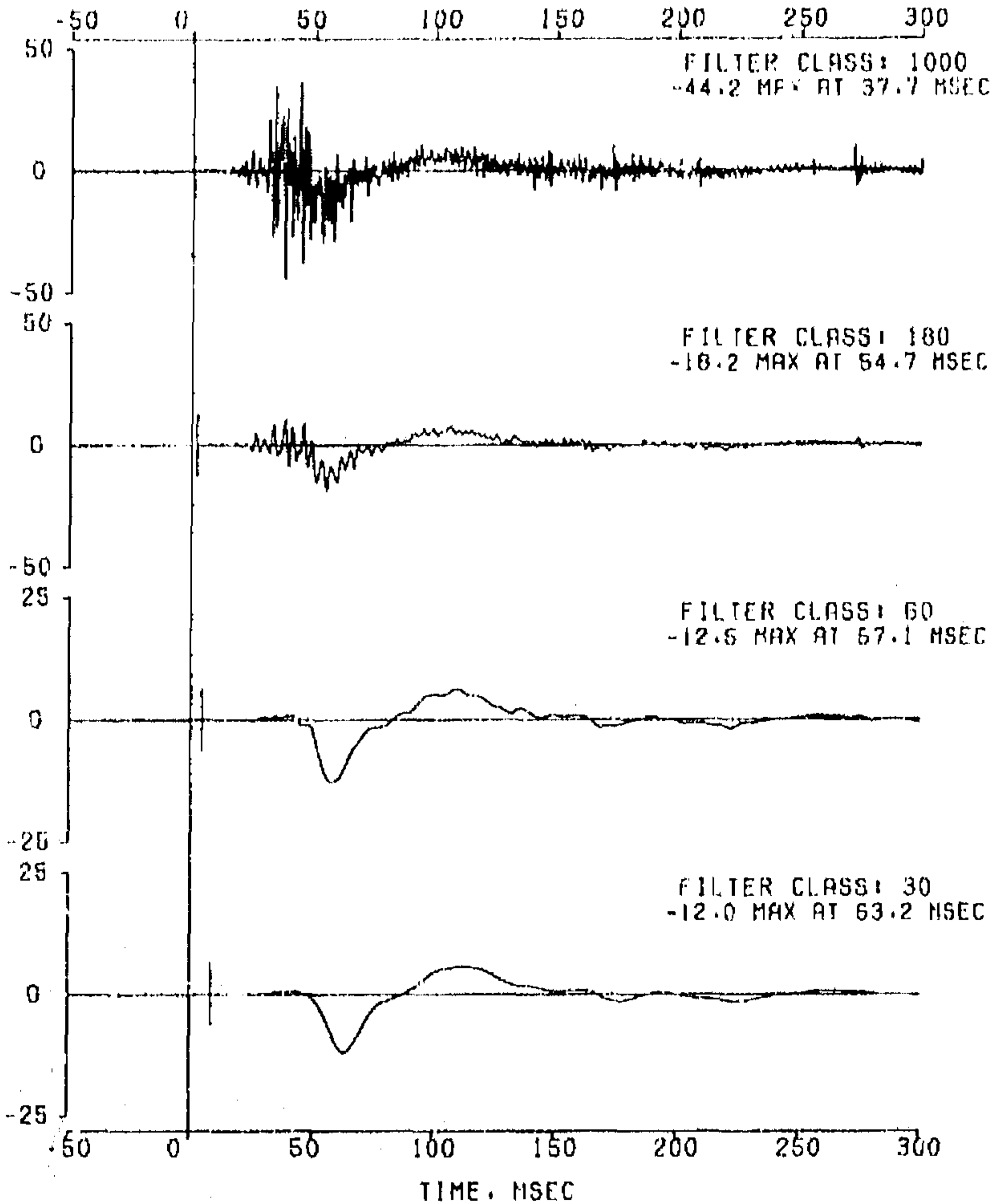


COMPUTED MPH  
 COMPUTED IN

VC00026 30 MPH REAR MOVING BARRIER, KJT-74 ITEM KJ4202R  
2002 HY85 301 REAR IMPACT DEVELOPMENT.  
CHANNEL 002 ENGINE BOTTOM Z 650367  
FILTER TYPE: OBD95-111 RESPONSE CORRECTION. CLASS 1000 FILTER(1060)  
IMPACT ANALYSIS DEPT. 5320  
DEC 14, 1999

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DATA SET 12/13/99BA  
ERRATA 1

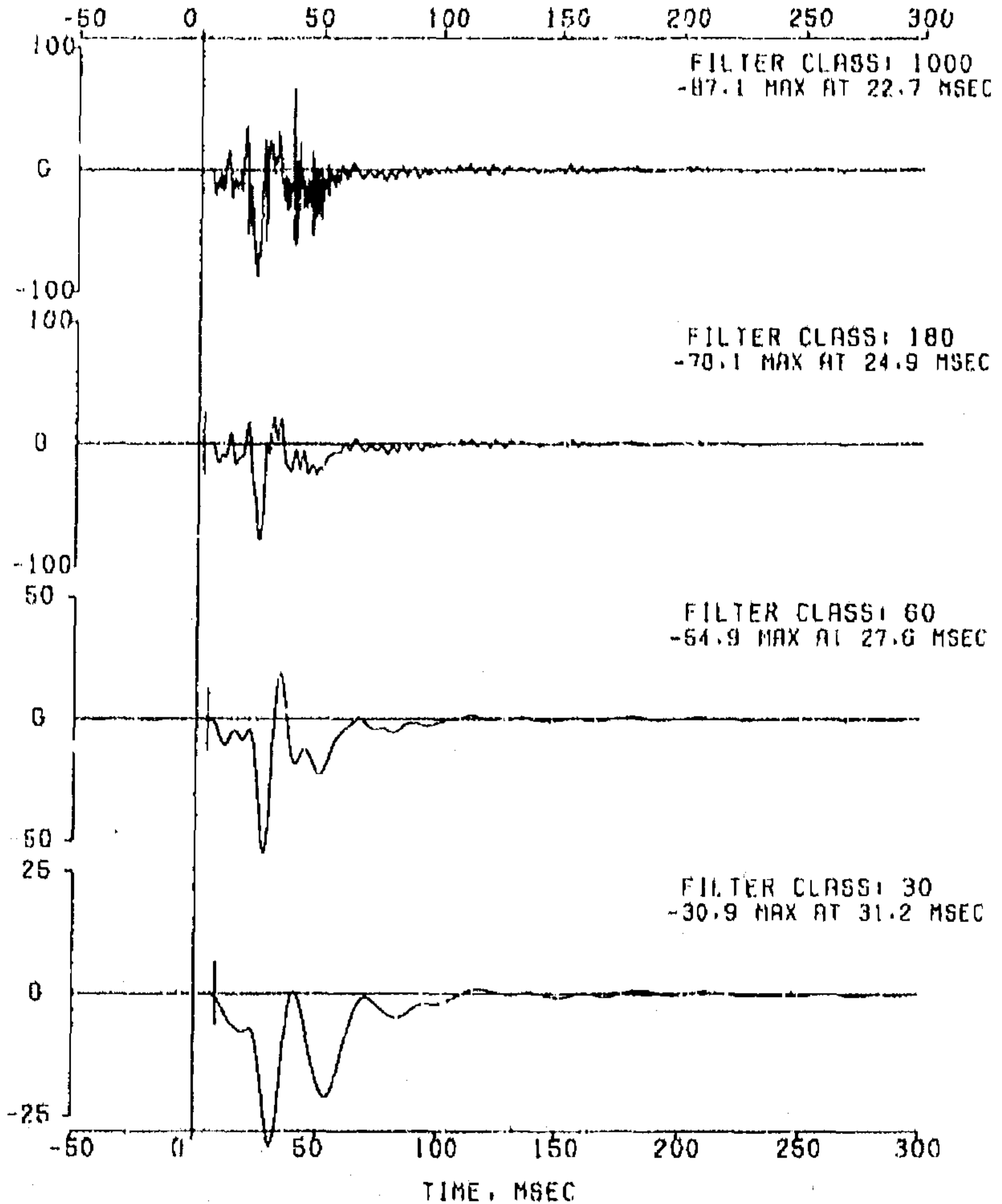




VC08025 30 MPH REAR MOVING BARRIER, KJT-74 ITEM KJ4202R  
2002 MYSS 30; REAR IMPACT DEVELOPMENT.  
CHANNEL 003 FUEL TANK RL PASS-THRU P12948  
FILTER TYPE: OBDAS III RESPONSE CORRECTION, CLASS 1000 FILTER(1650)  
IMPACT ANALYSIS DEPT. 5320  
DEC 14, 1999

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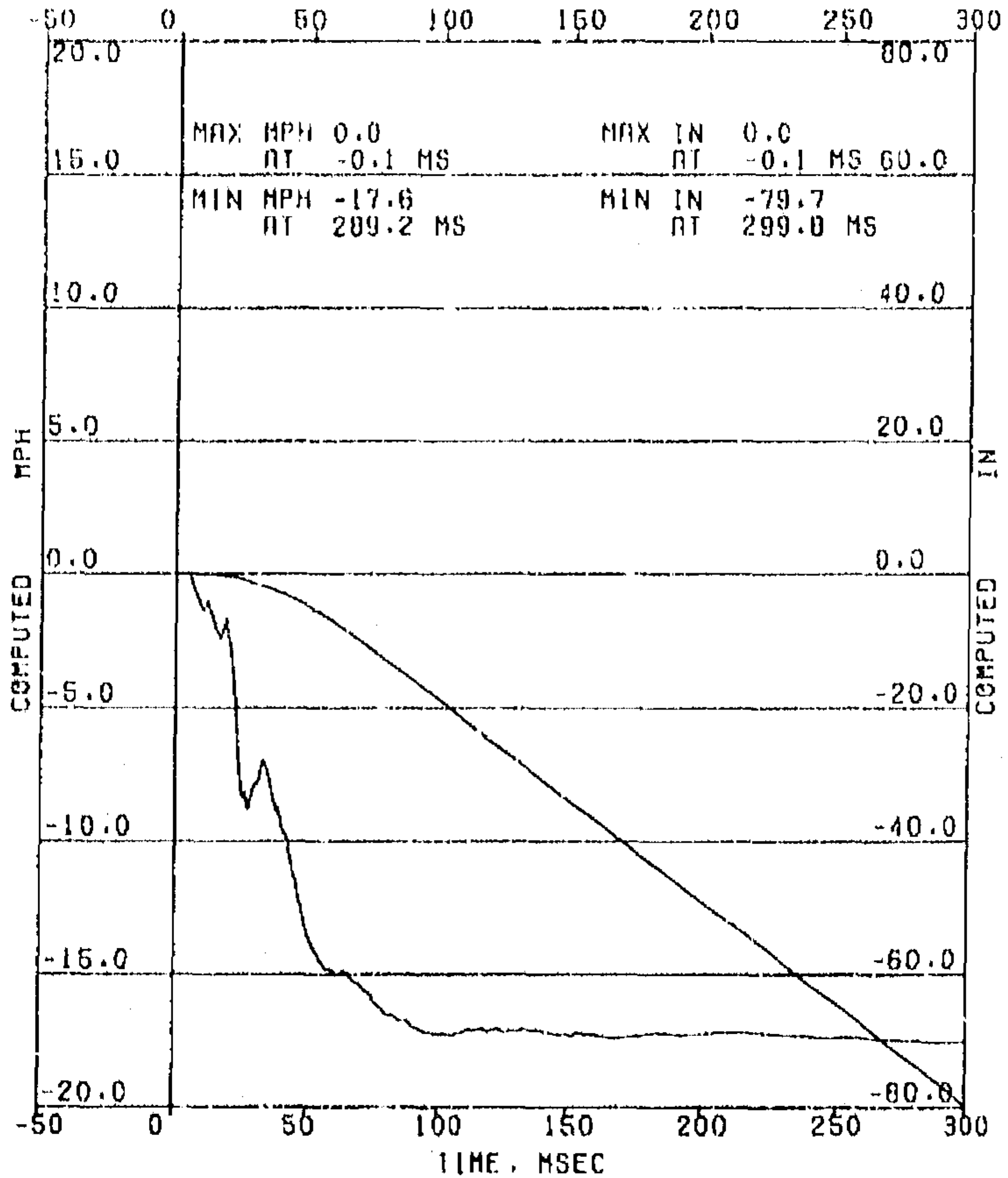
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ERRATA 1



FILTER TYPE: 000AS-111 RESPONSE CORRECTION, CLASS 1000 FILTER(1650)  
 FILTER CLASS: 1000

IMPACT ANALYSIS DEPT. 5320  
 DEC 14, 1999

DATA SET 12/13/99BA  
 ERRATA 1



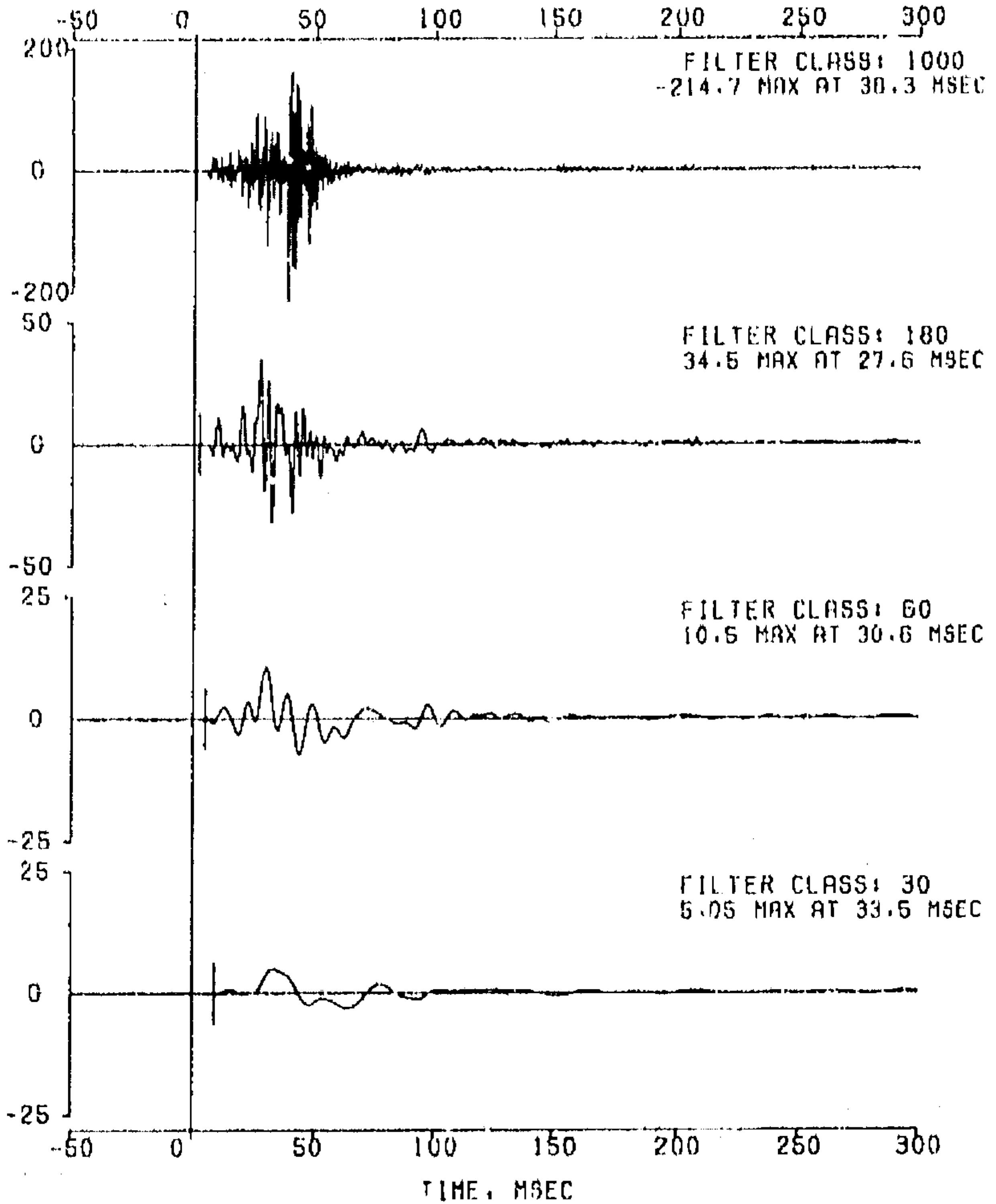
COMPUTED MPH  
 COMPUTED IN



VC00025 30 MPH REAR MOVING BARRIER, KJ1-74 ITEM KJ4202R  
2002 HYSS 301 REAR IMPACT DEVELOPMENT.  
CHANNEL 004 FUEL IR RL PASS-THRU RA.107  
FILTER TYPE: ODDDS-111 RESPONSE CORRECTION, CLASS 1000 FILTER(1660)  
IMPACT ANALYSIS DEPT. 5320  
DEC 14, 1999

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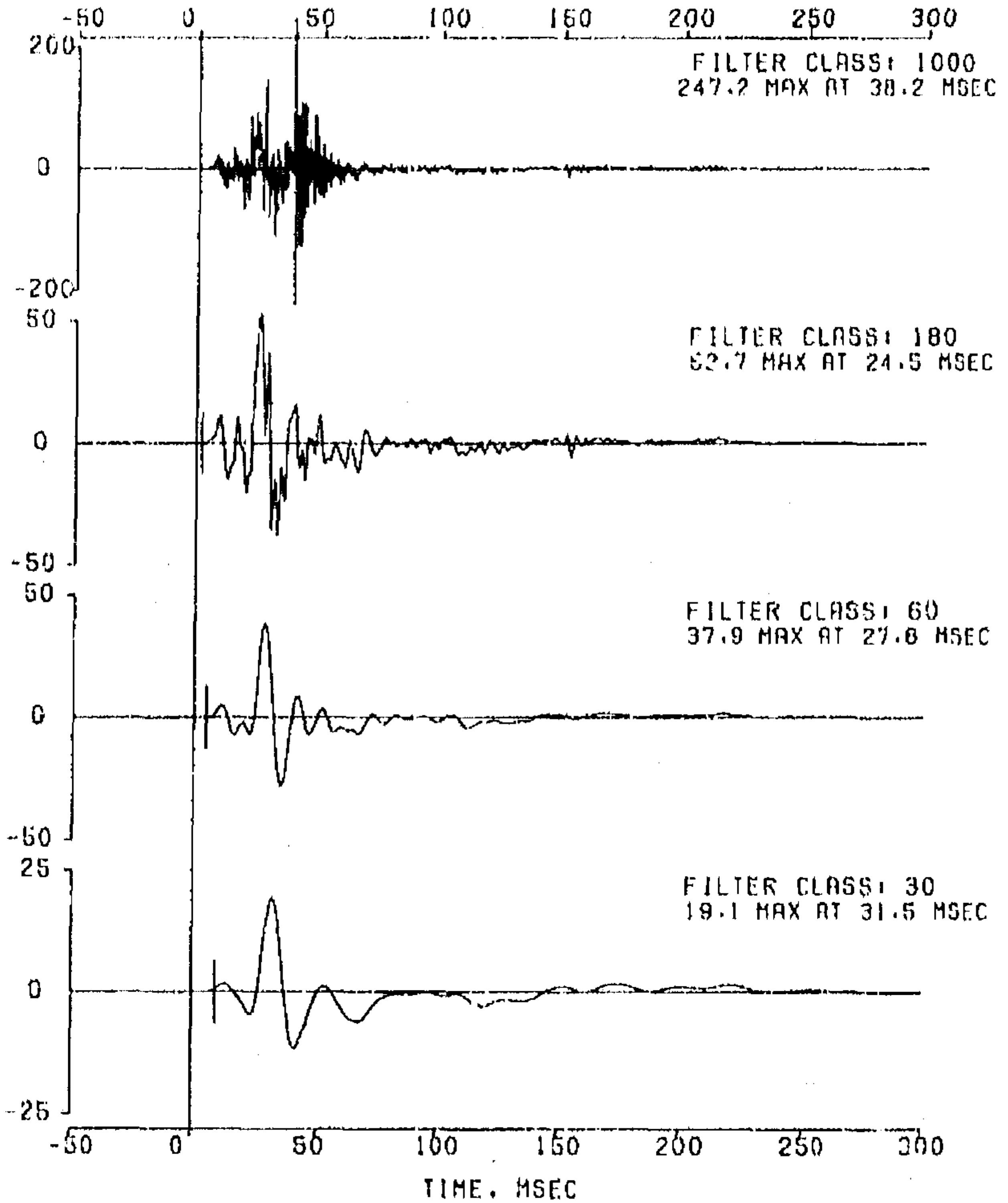
DATA SET 12/13/990A  
ERRATA 1



VC00026 30 MPH REAR MOVING BARRIER, KJ-74 ITEM KJ4292R  
2002 MYSS 301 REAR IMPACT DEVELOPMENT  
CHANNEL 005 FUEL TANK RL PASS-THRUZ P13145  
FILTER TYPE: 00DAS-111 RESPONSE CORRECTION, CLASS 1000 FILTER(1650)  
IMPACT ANALYSIS DEPT. 5320  
DEC 14, 1999

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OF 106

DATA SET 12/13/99AP  
ERRATA 1



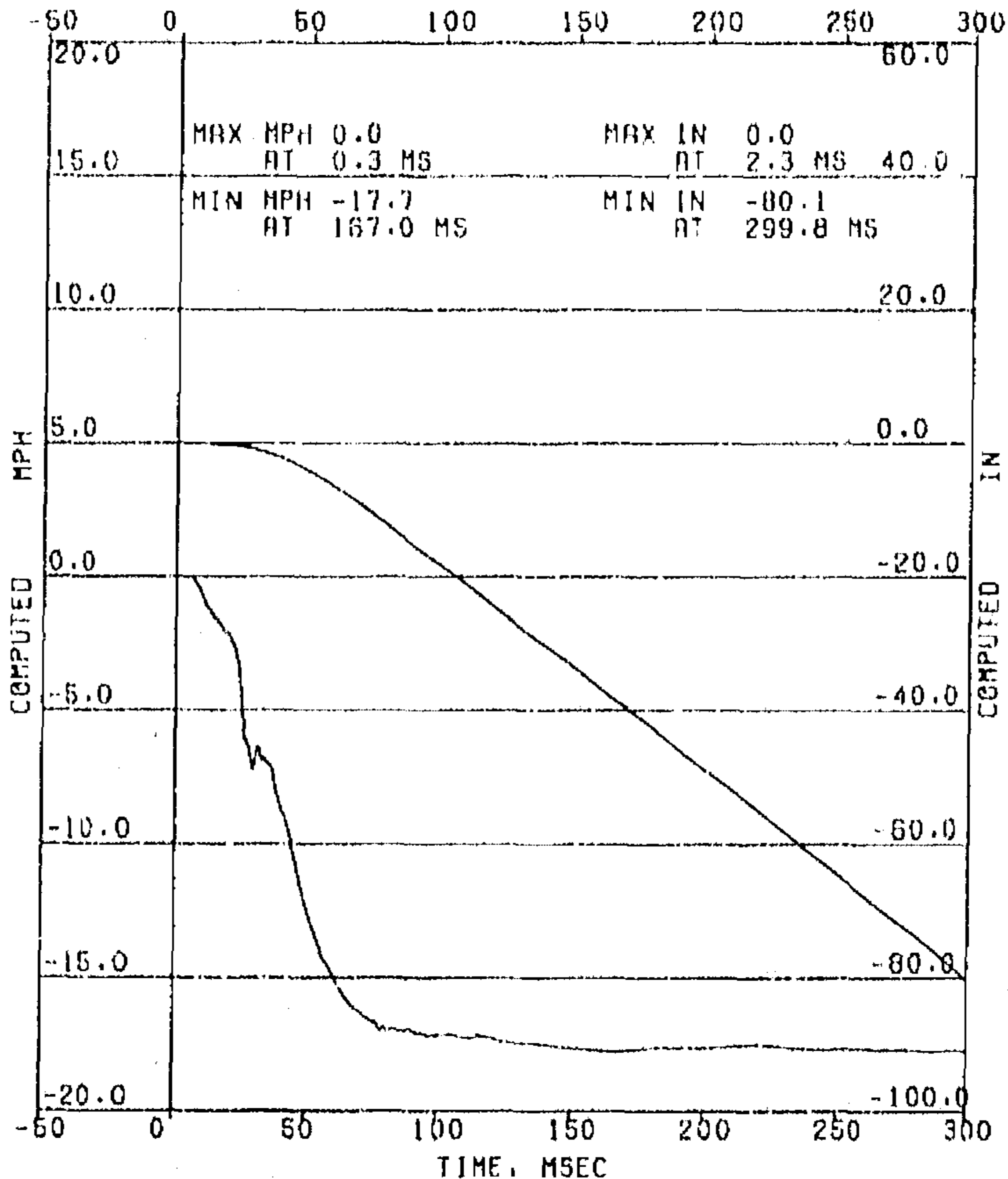




FILTER TYPE: 000AS-111 RESPONSE CORRECTION, CLASS 1000 FILTER(1060)  
FILTER CLASS: 1000

IMPACT ANALYSIS DEPT. 5320  
DEC 14, 1999

DATA SET 12/13/99BA  
ERRATA 1



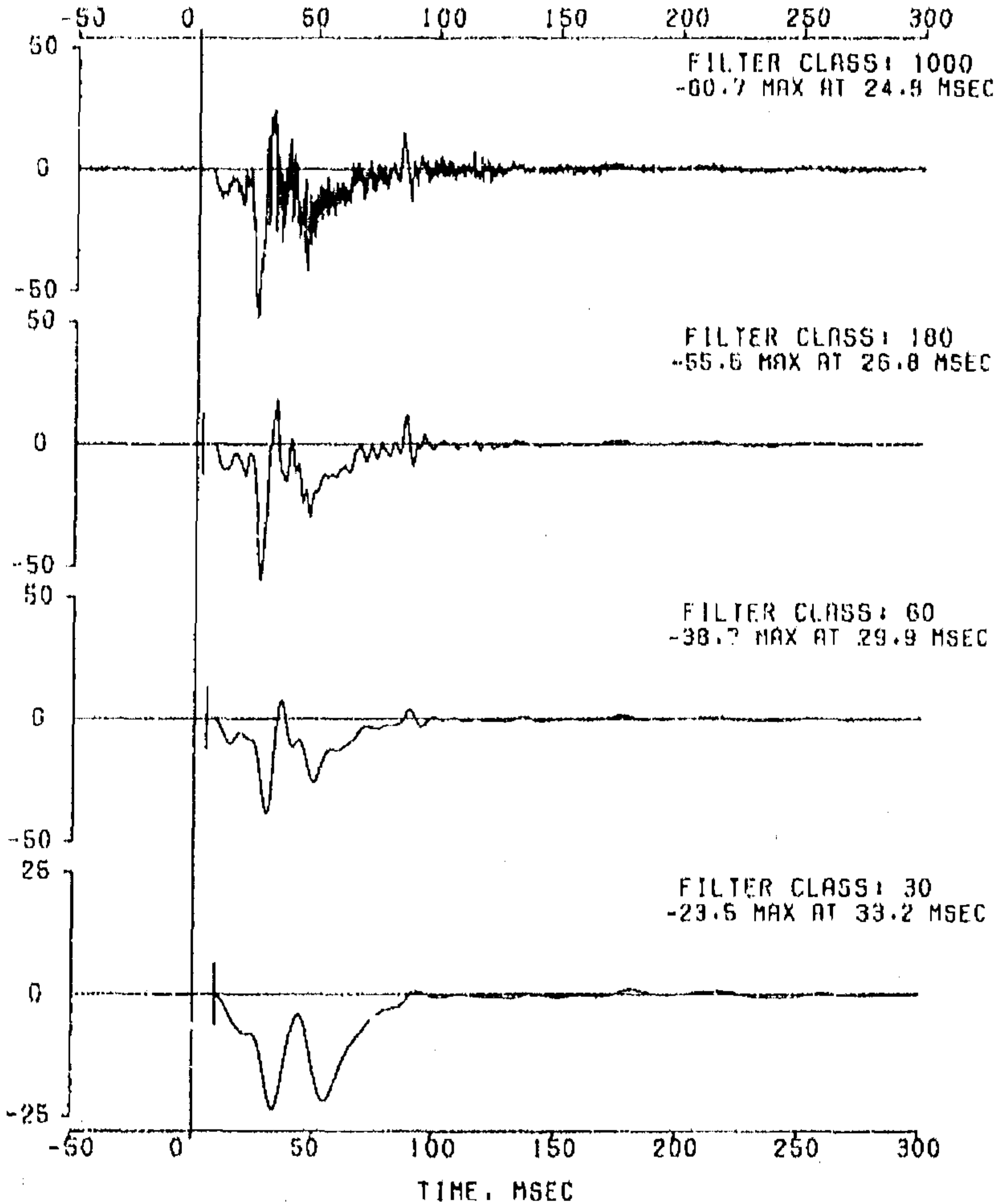
COMPUTED MPH  
COMPUTED IN



YCOB025 30 MPH REAR MOVING BARRIER, KJT-74 ITEM KJ4282R  
2002 MY66 301 REAR IMPACT DEVELOPMENT,  
CHANNEL 007 RT RL UPR 30MM AFT RADX P13169  
FILTER TYPE: ODDAS-III RESPONSE CORRECTION, CLASS 1000 FILTER(1650)  
IMPACT ANALYSIS DEPT. 5320  
DEC 14, 1999

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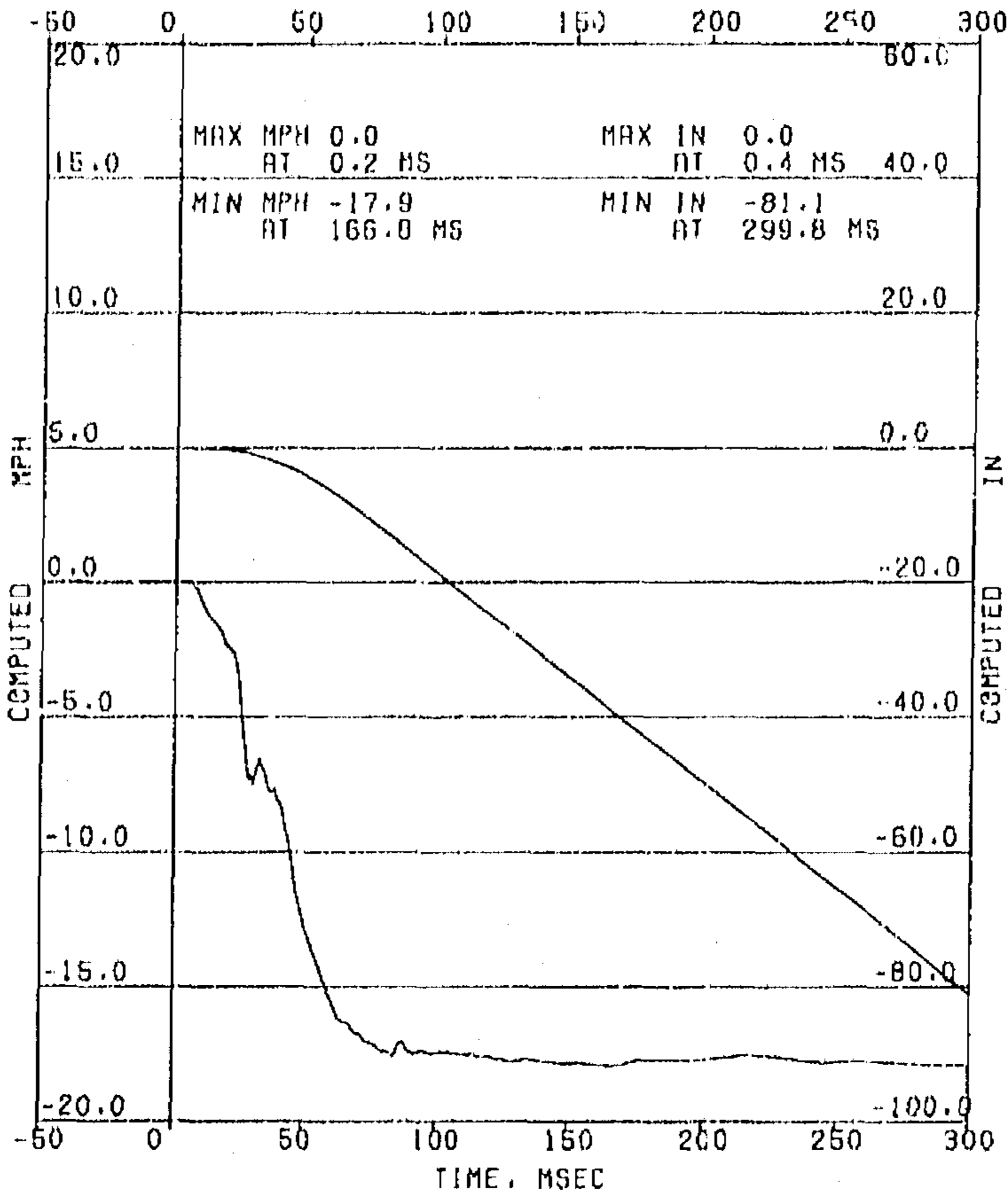
DATA SET 12/13/998A  
ERRATA 1



FILTER TYPE: GDDAS-111 RESPONSE CORRECTION, CLASS 1000 FILTER(1660)  
FILTER CLASS: 1000

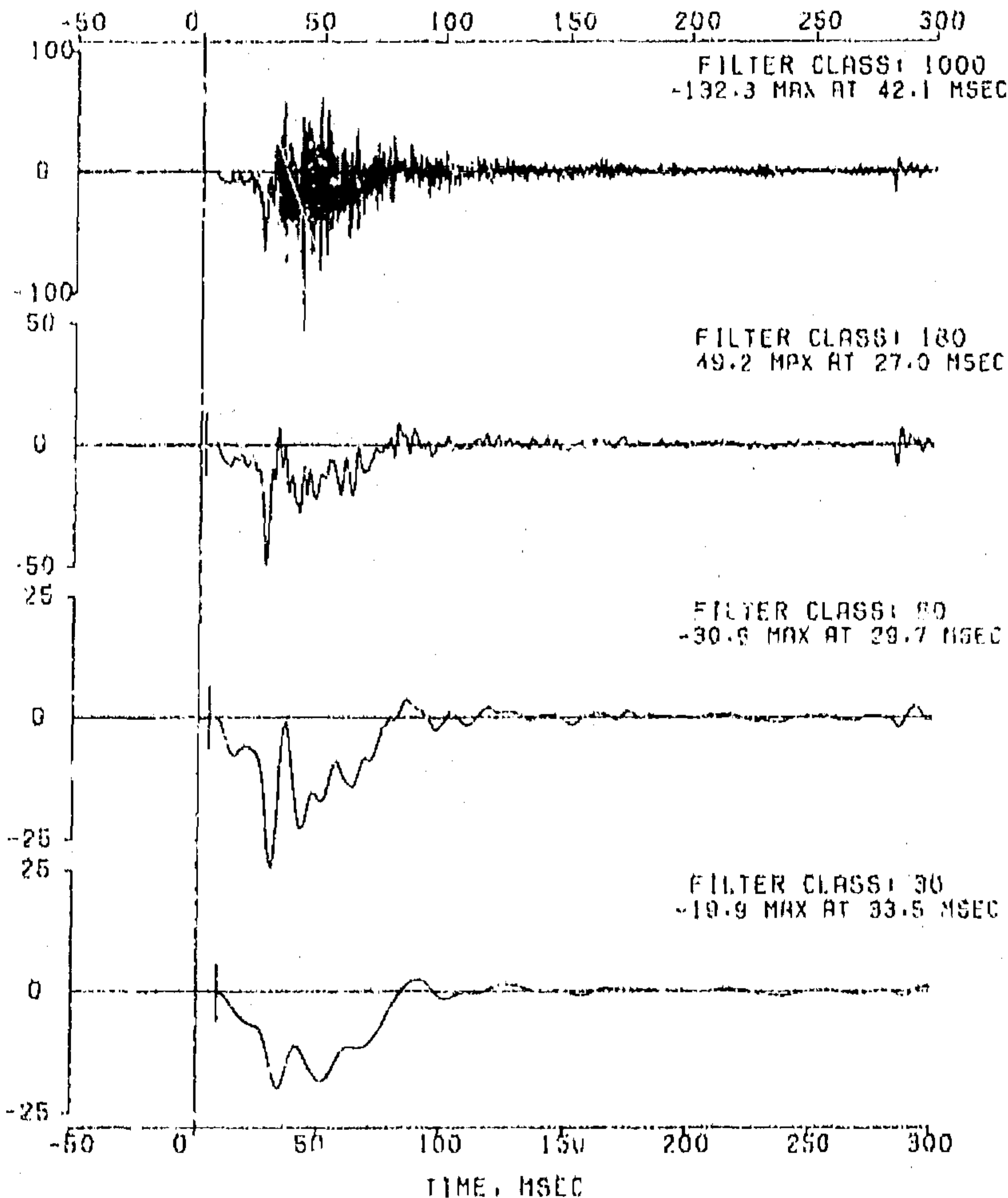
IMPACT ANALYSIS DEPT. 5320  
DEC 14, 1999

DATA SET 12/13/99BA  
ERRATA 1



COMPUTED MPH  
COMPUTED IN

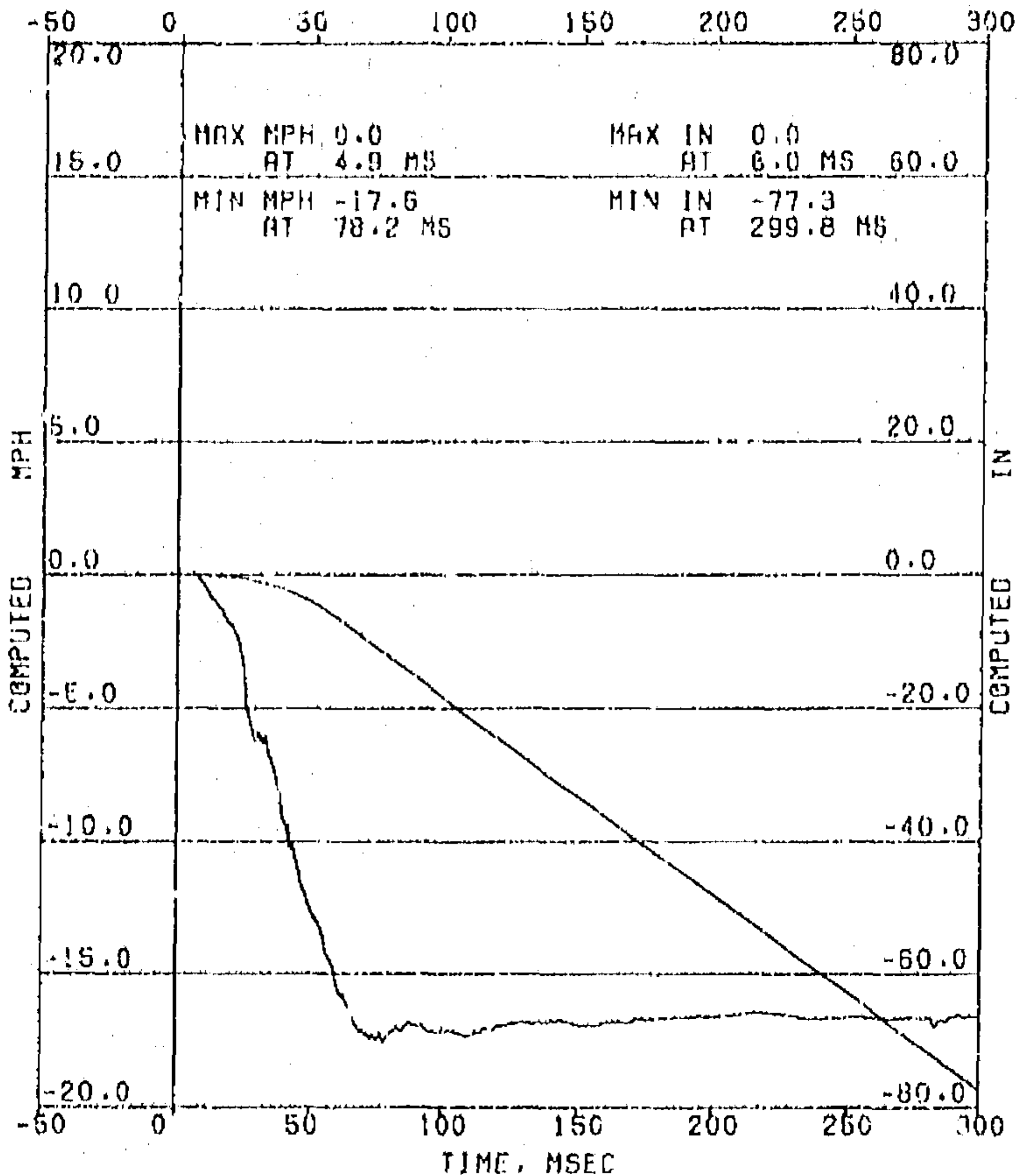




FILTER TYPE: 80DBS-111 RESPONSE CORRECTION, CLASS 1000 FILTER(1050)  
FILTER CLASS: 1000

IMPACT ANALYSIS DEPT. 5320  
DEC. 14, 1993

DATA SET 12/13/99BA  
ERRATA 1



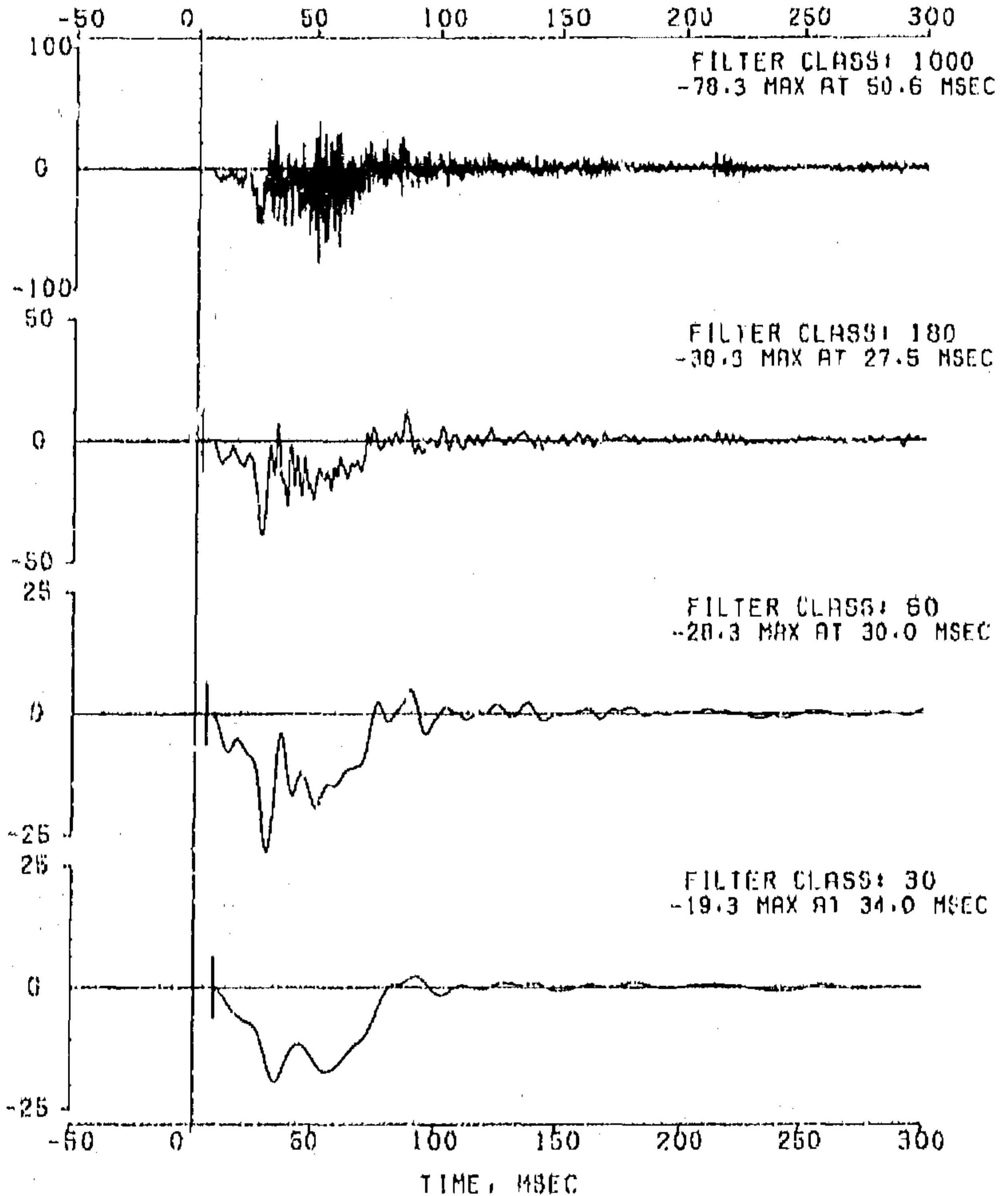
COMPUTED MPH  
COMPUTED IN



VC08025 30 MPH REAR MOVING BARRIER, KJT-74 ITEM KJ4202R  
2002 MY08 301 REAR IMPACT DEVELOPMENT,  
CHANNEL 009 RT RR VERT SURF R20 SUX J11219  
FILTER TYPE: CBOAS-III RESPONSE CORRECTION, CLASS 1000 FILTER(1650)  
IMPACT ANALYSIS DEPT. 5320  
DEC 14, 1999

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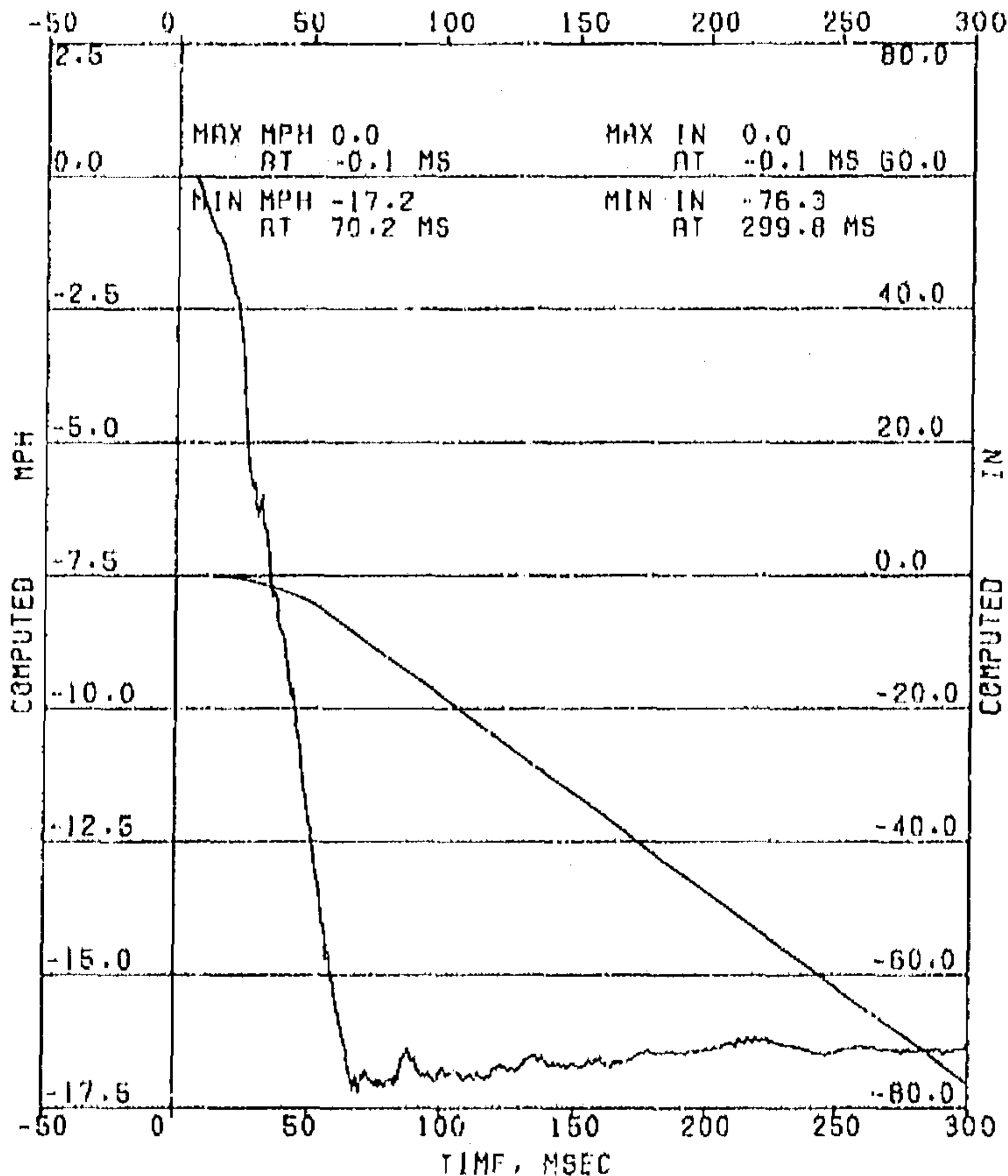
DATA SET 12/13/99BA  
ERRATA 1



FILTER TYPE: GCDAS-111 RESPONSE CORRECTION, CLASS 1000 FILTER(1650)  
 FILTER CLASS: 1000

IMPACT ANALYSIS DEPT. 5320  
 DEC 14, 1999

DATA SET 12/13/99BR  
 ERRATA 1



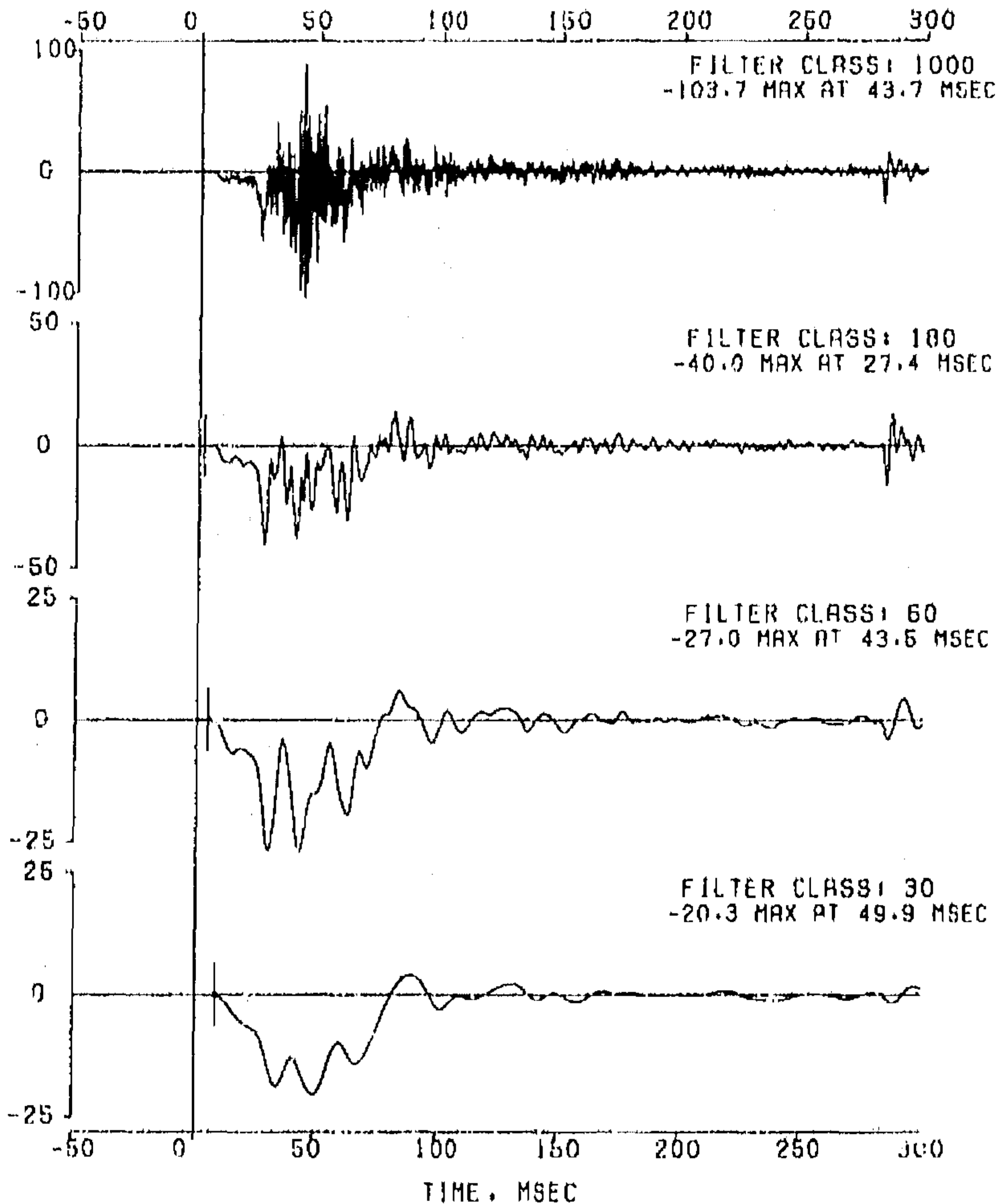
COMPUTED MPH  
 COMPUTED IN



VC00026 30 MPH REAR MOVING BARRIER. KJT-74 ITEM KJ4282R  
2002 MVSS 301 REAR IMPACT DEVELOPMENT.  
CHANNEL 010 LT RR SURF CURVE RAD SX J26098  
FILTER TYPE: 080AS-III RESPONSE CORRECTION, CLASS 1000 FILTER(1)65.,  
IMPACT ANALYSIS DEPT. 5320  
DEC 14, 1999

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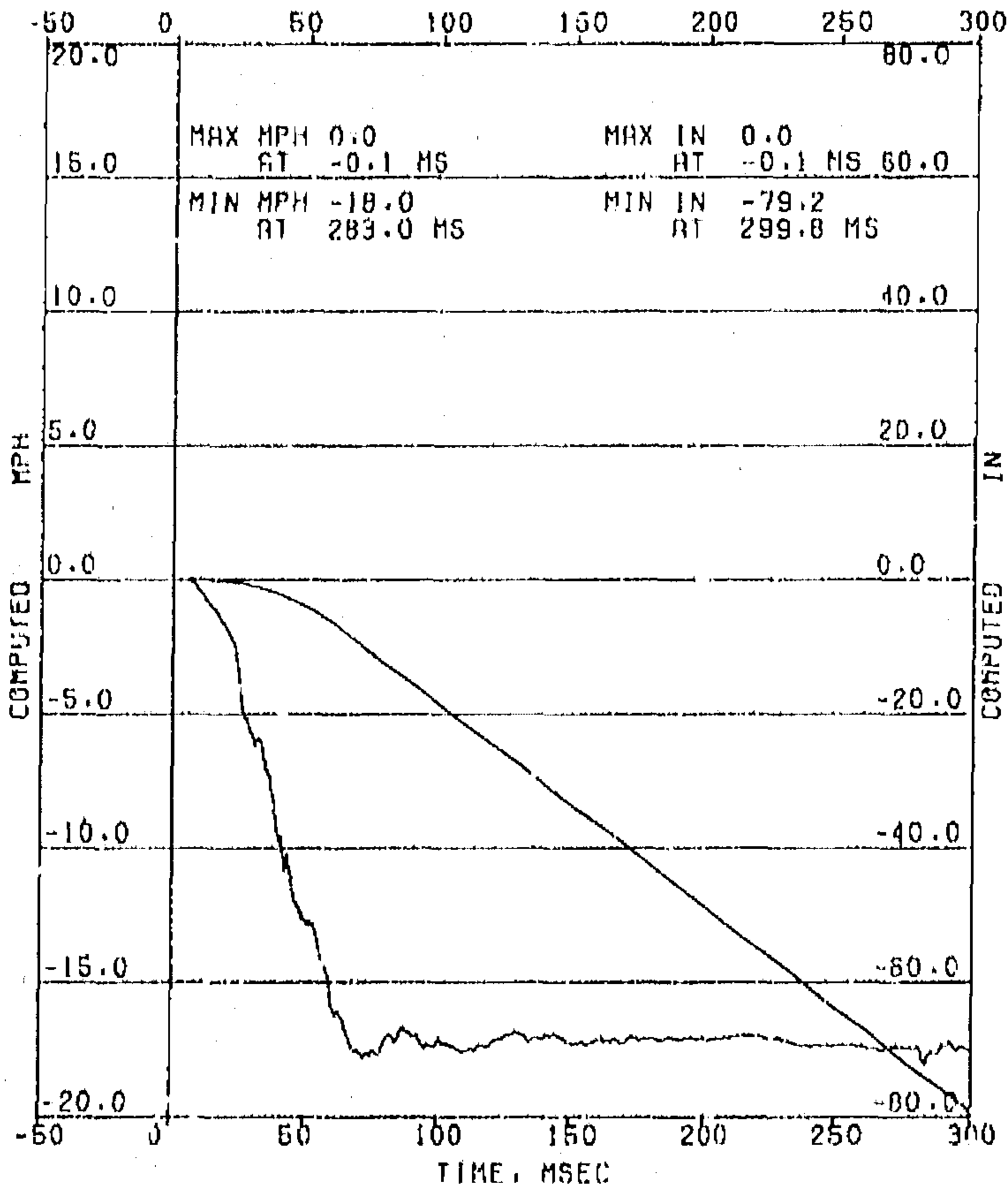
DATA SET 12/13/99DA  
ERRATA 1



FILTER TYPE: OBDAS-111 RESPONSE CORRECTION, CLASS 1000 FILTER(1650)  
FILTER CLASS: 1000

IMPACT ANALYSIS DEPT. 5320  
DEC 14, 1999

DATA SET 12/13/99BA  
ERRATA 1



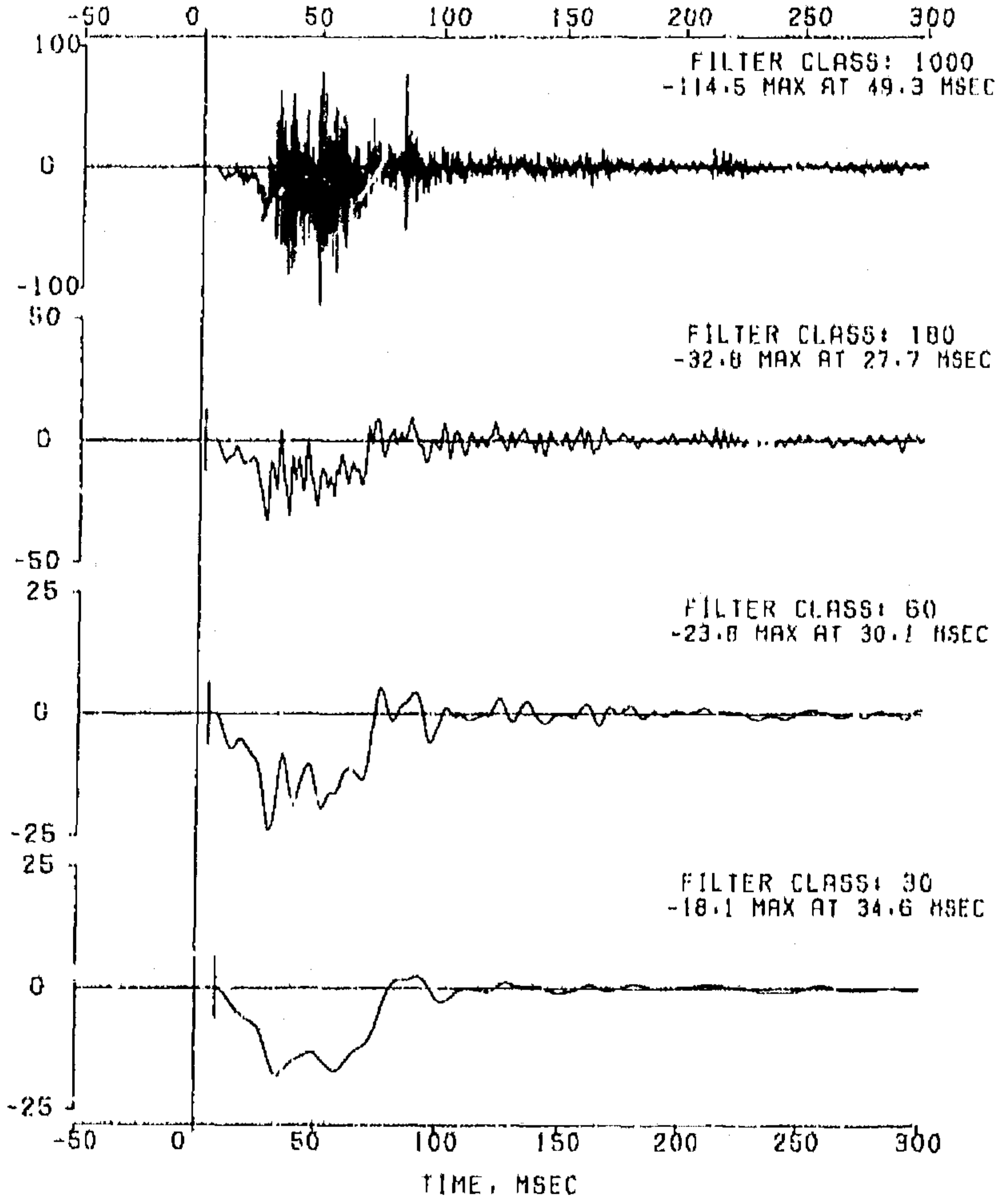
COMPUTED MPH  
COMPUTED IN



VC08026 30 MPH REAR MOVING BARRIER, KJT-74 ITEM KJ4282R  
2002 MVSS 301 REAR IMPACT DEVELOPMENT.  
CHANNEL 011 RT RR SURF CURVE RAD SX J14984  
FILTER TYPE: 08DAS-111 RESPONSE CORRECTION, CLASS 1000 FILTER(1650)  
IMPACT ANALYSIS DEPT. 5320  
DEC 14, 1999

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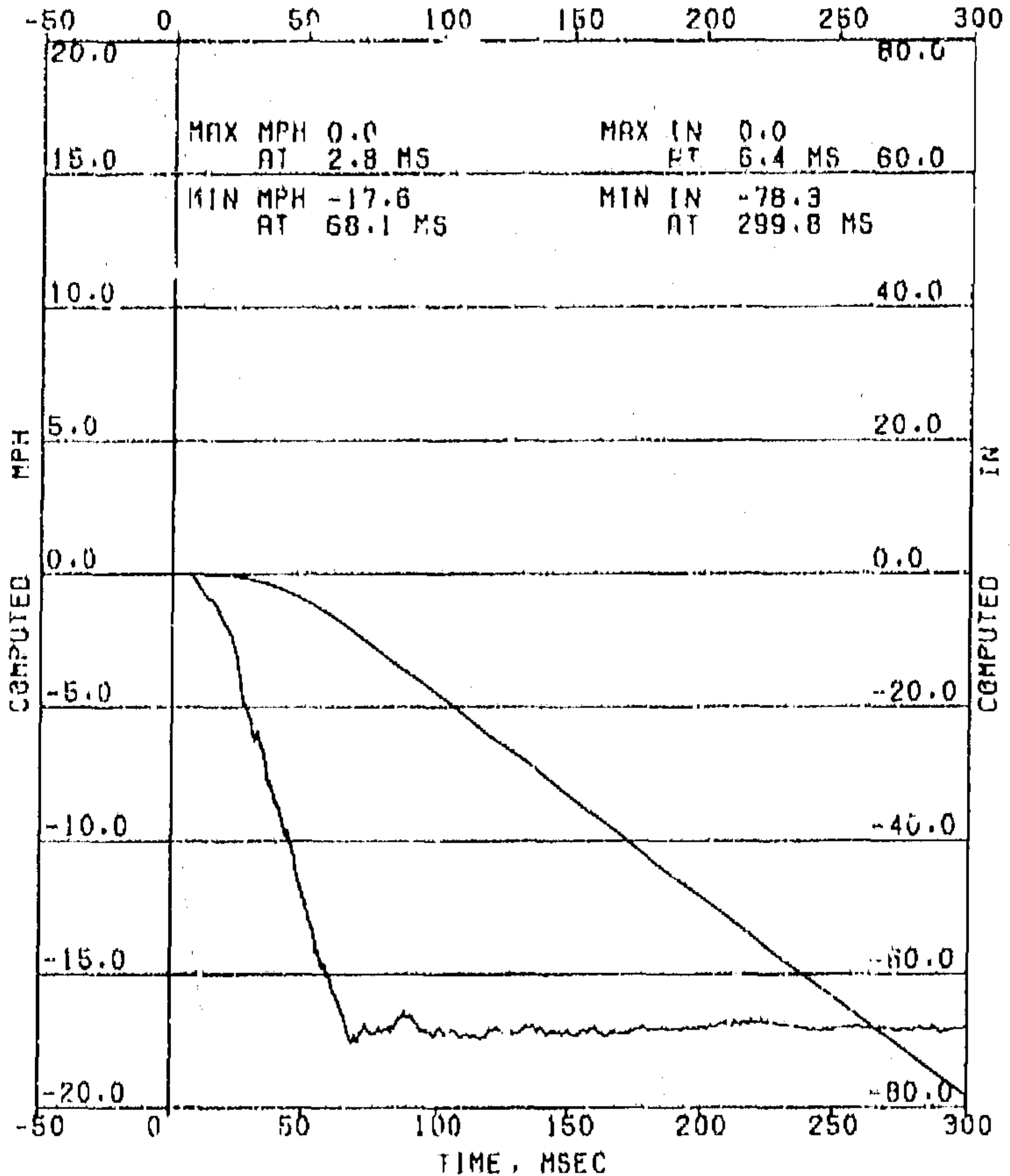
DATA SET 12/13/990A  
ERRATA 1



FILTER TYPE: 00D49-111 RESPONSE CORRECTION, CLASS 1000 FILTER(1650)  
 FILTER CLASS: 1000

IMPACT ANALYSIS DEPT. 5320  
 DEC 14, 1999

DATA SET 12/13/990A  
 ERRATA 1

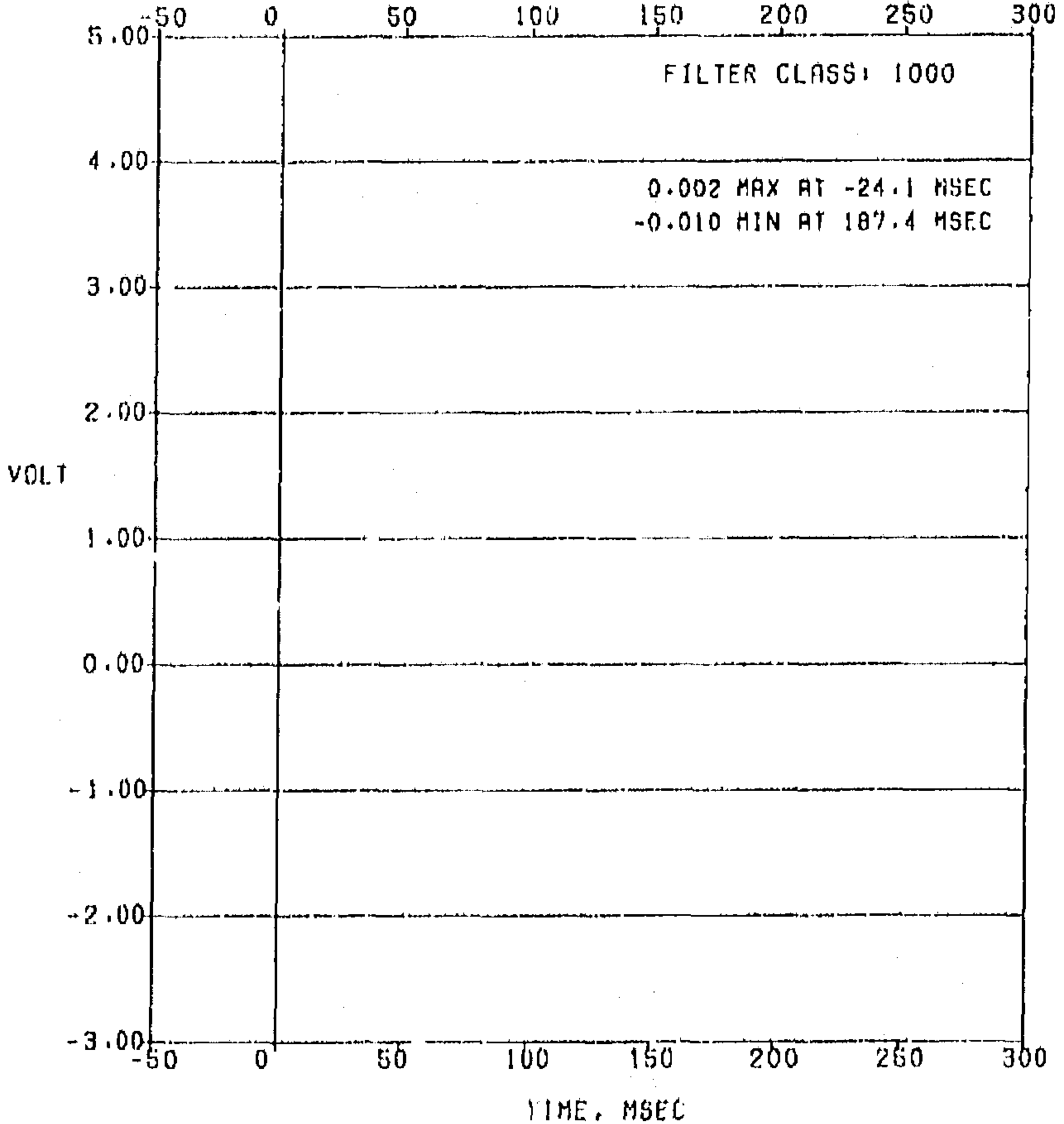


COMPUTED MPH  
 COMPUTED IN



CHANNEL 012 ACM OAB1 SQUID EVENT EE

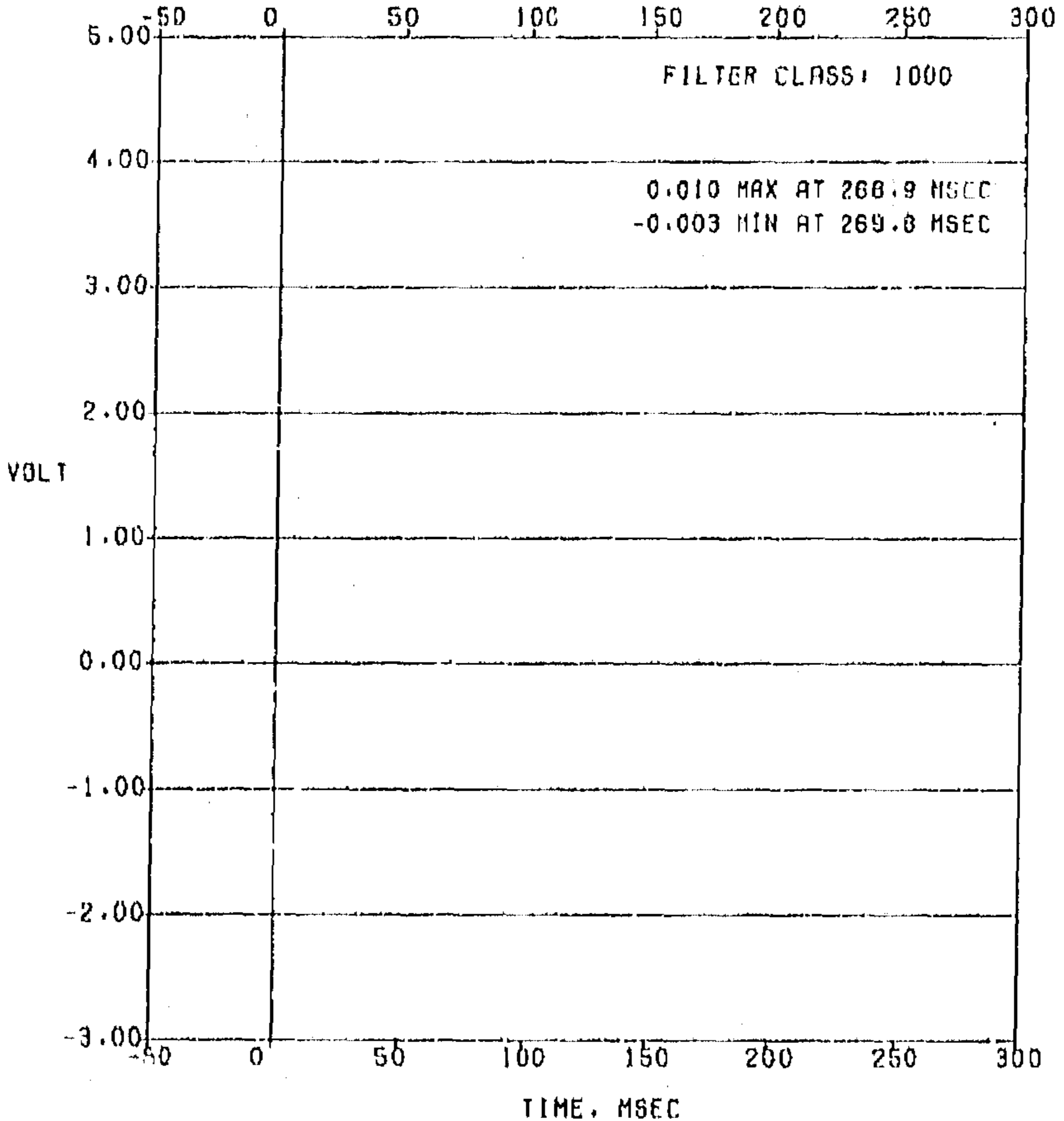
FILTER TYPE: OBDAS-111 RESPONSE CORRECTION, CLASS 1000 FILTER: 16501  
IMPACT ANALYSIS DEPT. 5320 DATA SET 12/13/99BA  
DEC 14, 1999 ERRATA 1



\*\*\*\*\* NOTE \*\*\*\*\*  
\*\*\*\*\* NO EVENT \*\*\*\*\*

CHANNEL 013 ACM 0002 SQUIB EVENT EE

FILTER TYPE: 000AS-111 RESPONSE CORRECTION, CLASS 1000 FILTER(1650)  
IMPACT ANALYSIS DEPT. 5320 DATA SET 12/13/99BA  
DEC 14, 1999 ERRATA 1

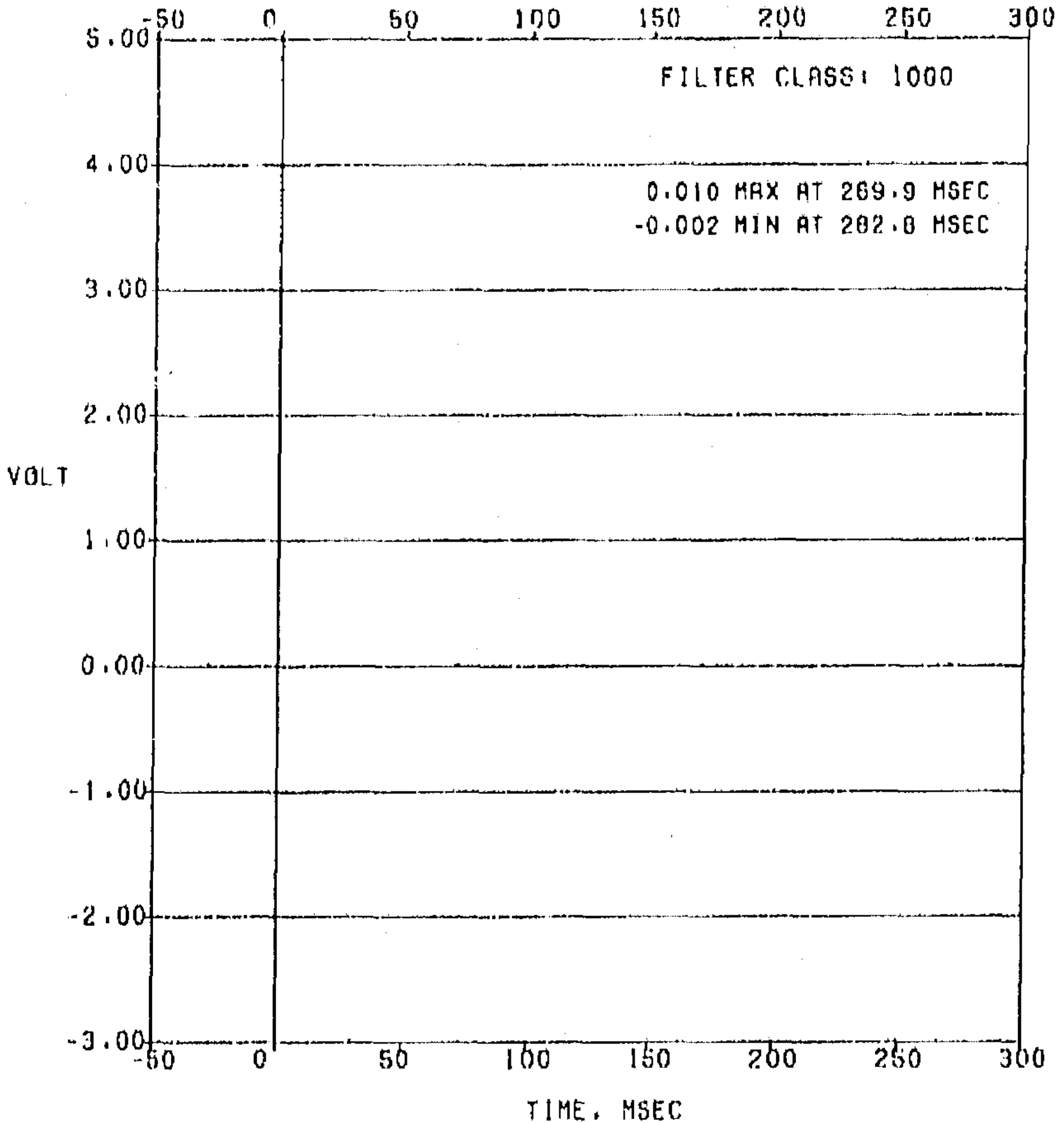


NOTE: NO EVENT



CHANNEL 014 ACM PAB1 SQUIB EVENT EE

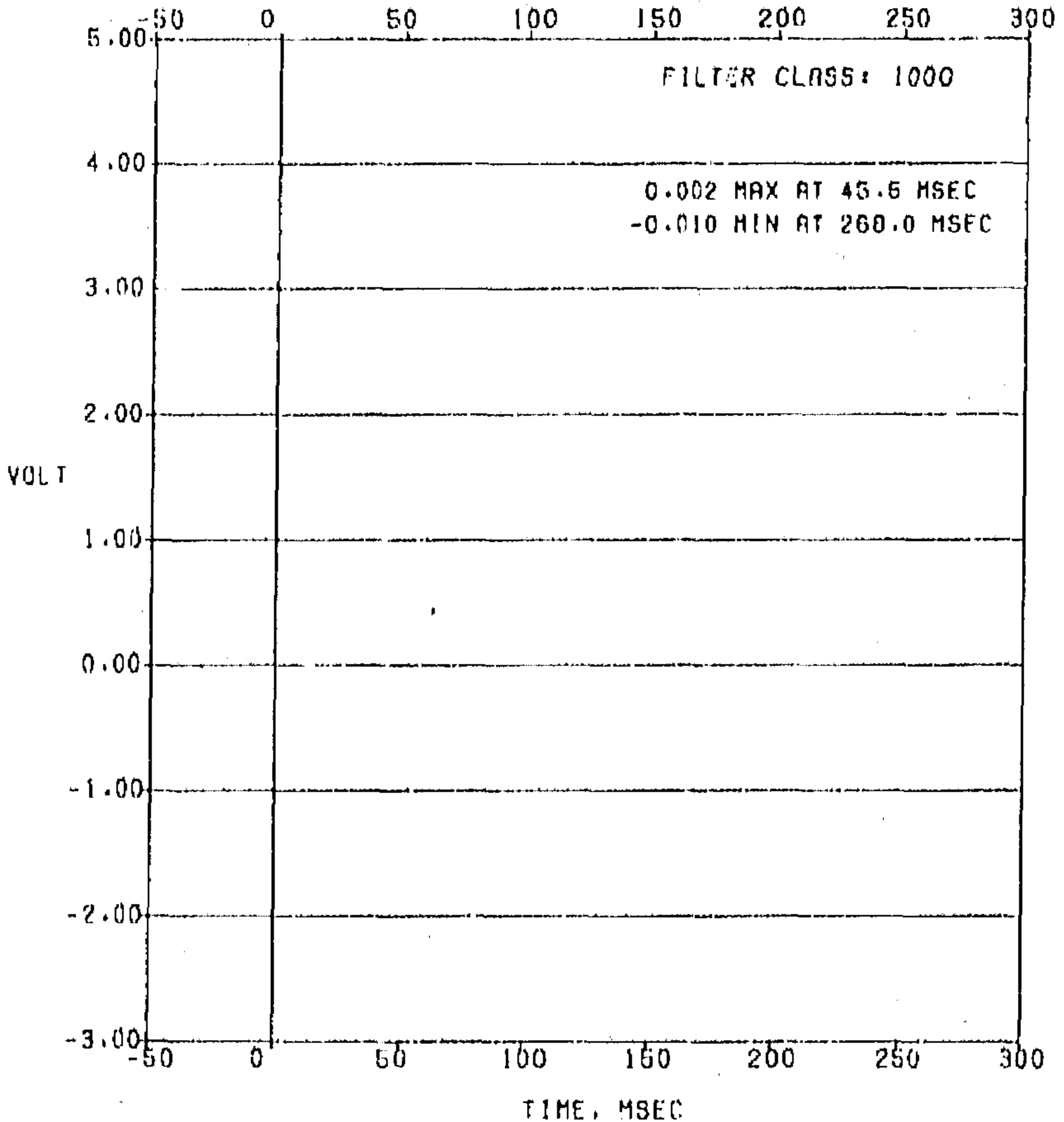
FILTER TYPE: OBDAS-111 RESPONSE CORRECTION, CLASS 1000 FILTER(1650)  
IMPACT ANALYSIS DEPT. 5320 DATA SET 12/13/990A  
DEC 14, 1999 ERRATA 1



\*\*\*\*\* NOTE \*\*\*\*\*  
\*\*\*\*\* NO EVENT \*\*\*\*\*

CHANNEL 015 ACM PAB2 SQUIB EVENT EE

FILTER TYPE: OBDAS-111 RESPONSE CORRECTION, CLASS 1000 FILTER(1650)  
IMPACT ANALYSIS DEPT. 5320 DATA SET 12/13/99BA  
DEC 14, 1999 ERRATA 1

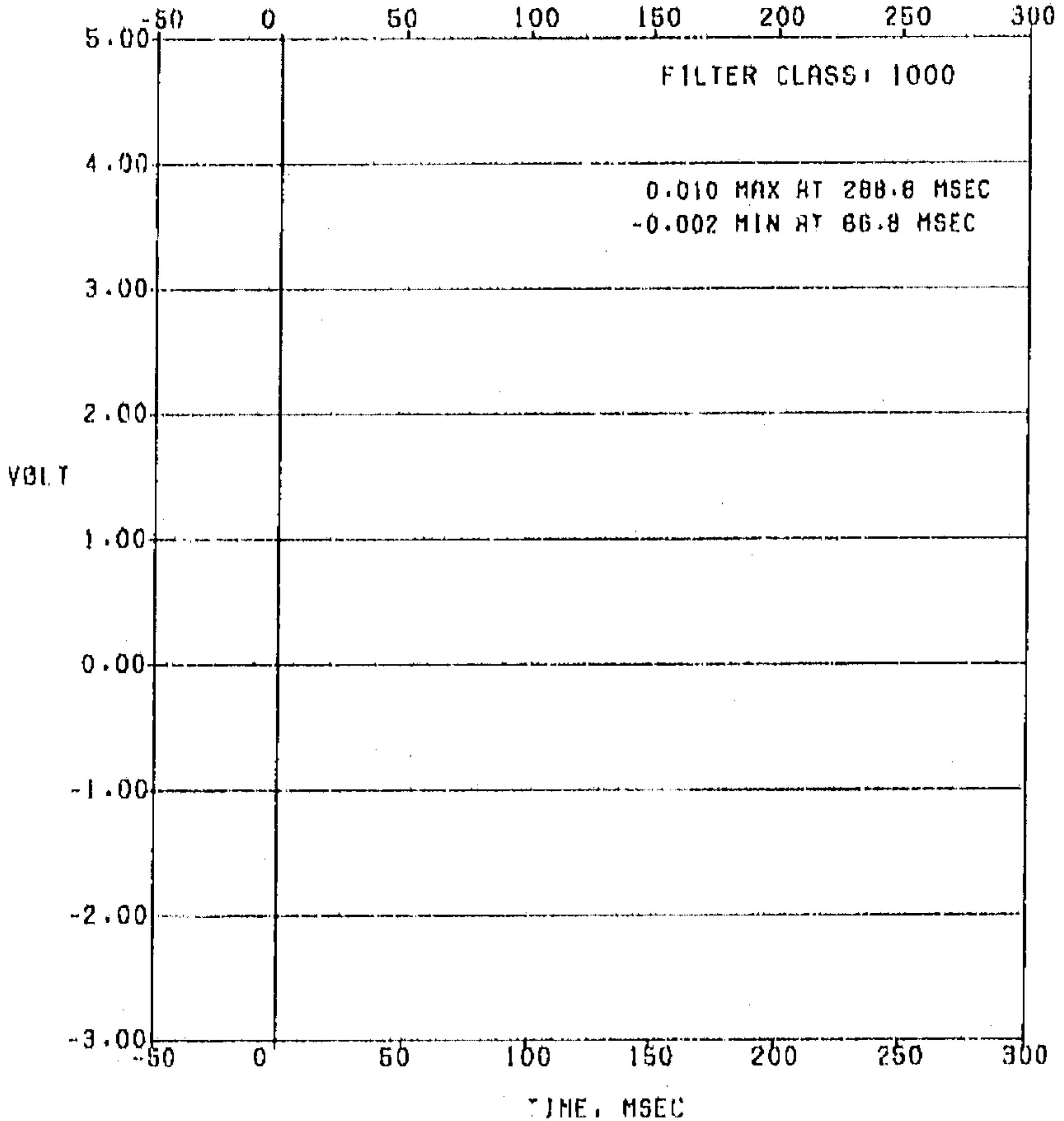


\*\*\*\*\* NOTE \*\*\*\*\*  
\*\*\*\*\* NO EVENT \*\*\*\*\*



CHANNEL 016 DR PRETENS SQUIB EVENT EE

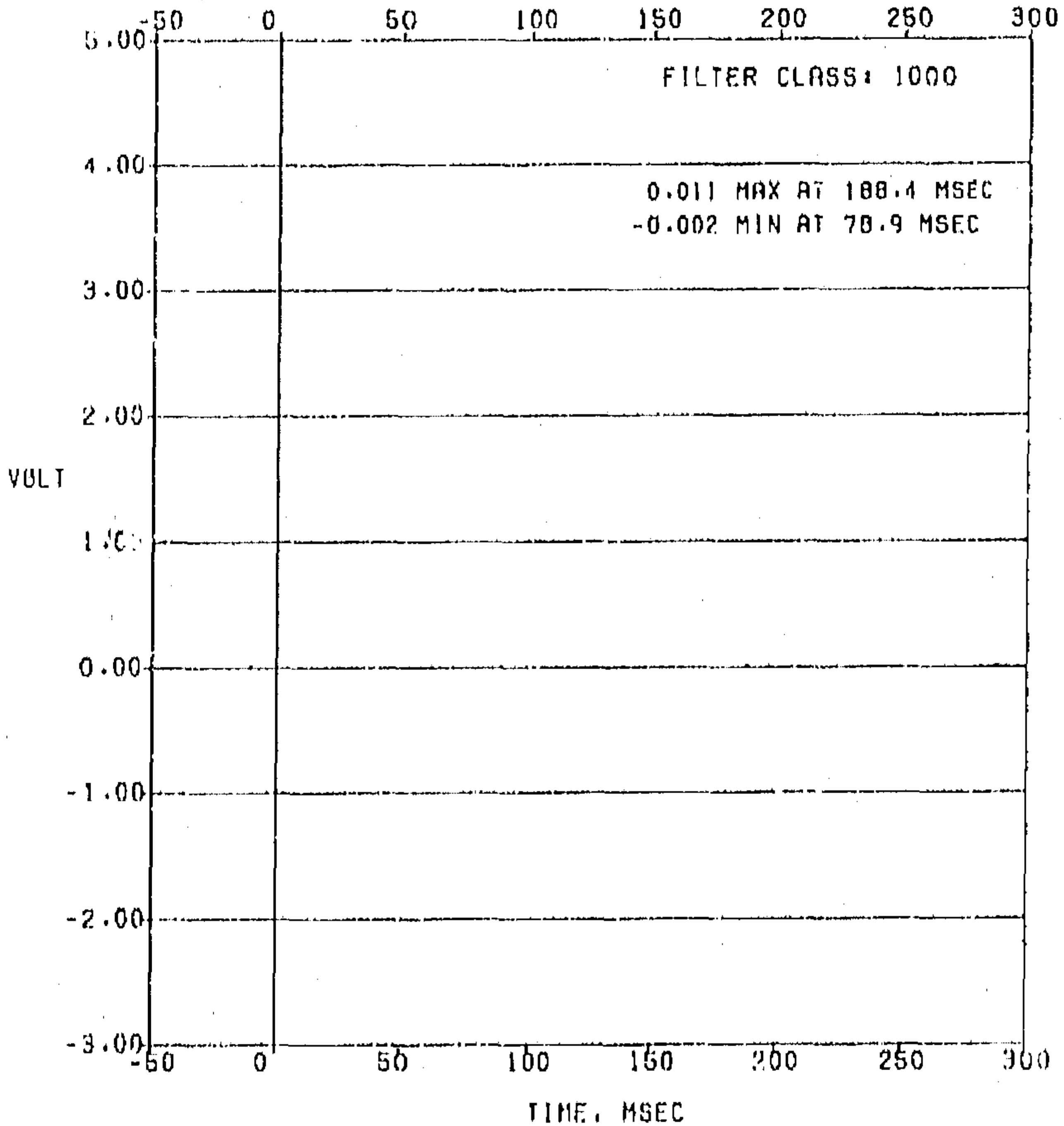
FILTER TYPE: QBDAS-III RESPONSE CORRECTION. CLASS 1000 FILTER(1630)  
IMPACT ANALYSIS DEPT. 5320 DATA SET 12/13/99BA  
DEC 14, 1999 ERRATA 1



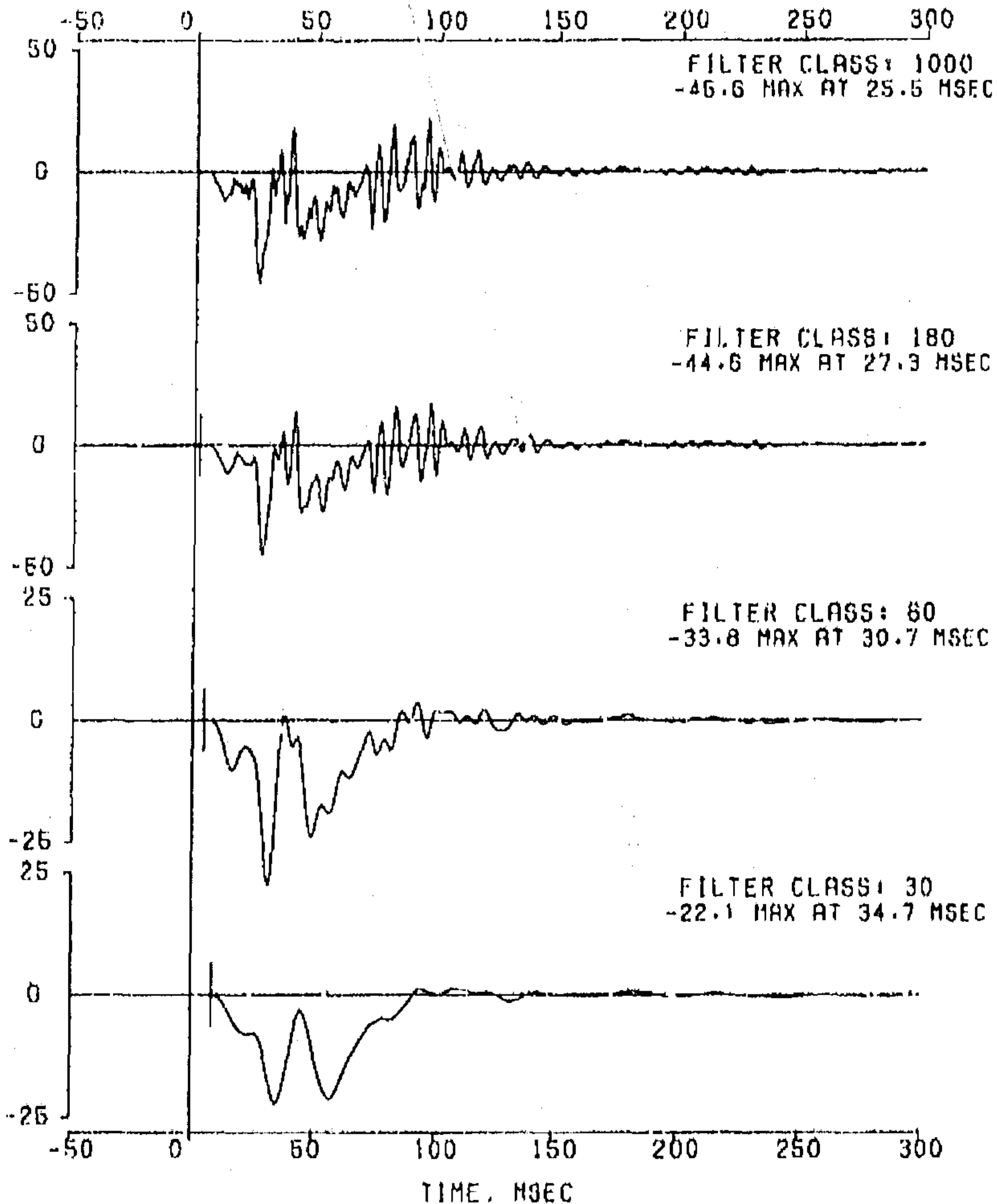
NOTE: NO EVENT

CHANNEL 01) DR KNEEBOO SQUIB EVENT EE

FILTER TYPE: OBDAS-III RESPONSE CORRECTION, CLASS 1000 FILTER(1650)  
IMPACT ANALYSIS DEPT. 5320 DATA SET 12/13/99RB  
DEC 14, 1999 ERRATA 1



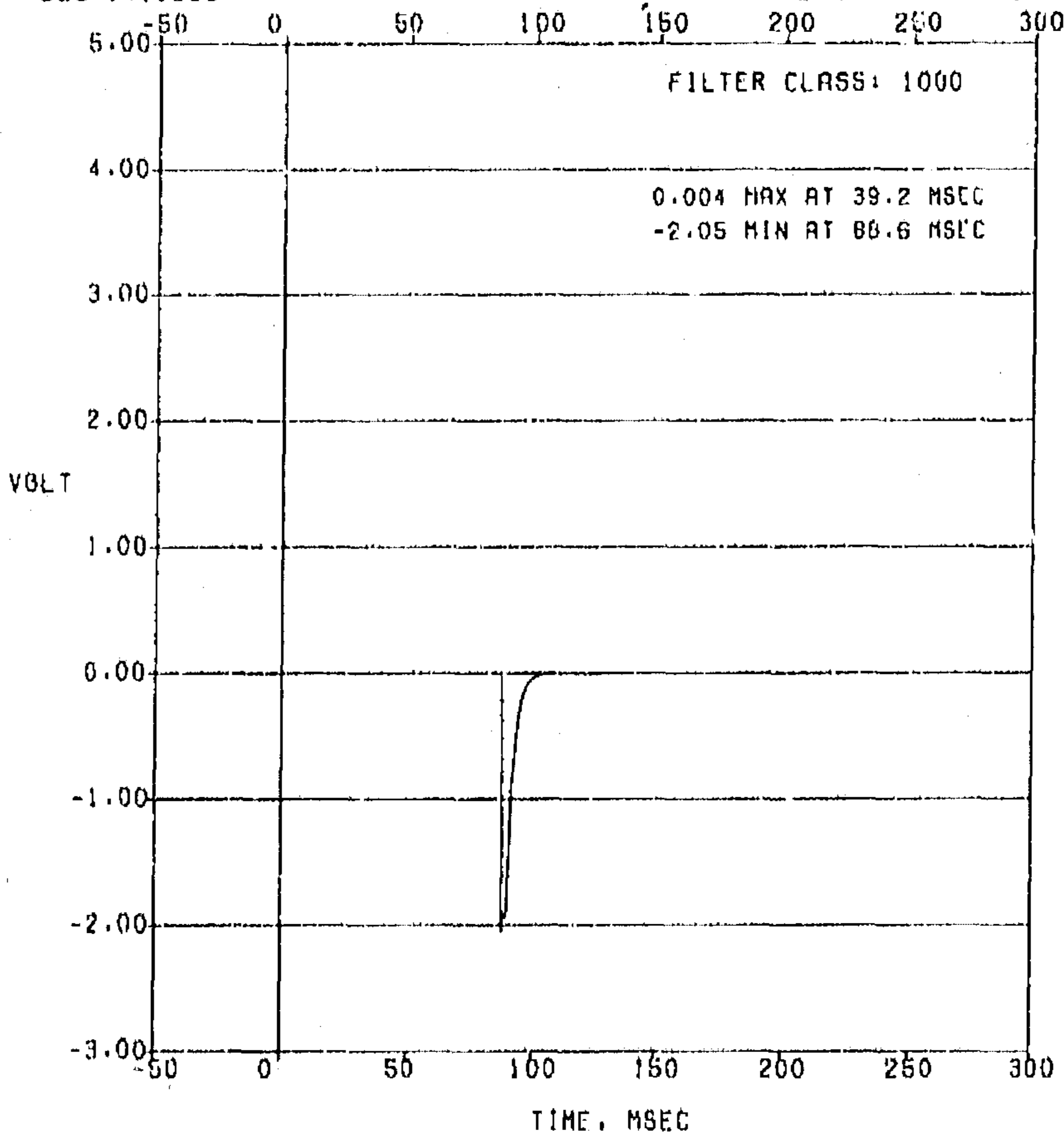
\*\*\*\*\* NOTE \*\*\*\*\*  
\*\*\*\*\* NO EVENT \*\*\*\*\*





CHANNEL 019 ACM SAFINO SENSOR EE

FILTER TYPE: 800AS-111 RESPONSE CORRECTION, CLASS 1000 FILTER(1650)  
IMPACT ANALYSIS DEPT. 5320 DATA SET 12/13/99BB  
DEC 14, 1999 ERRATA 1

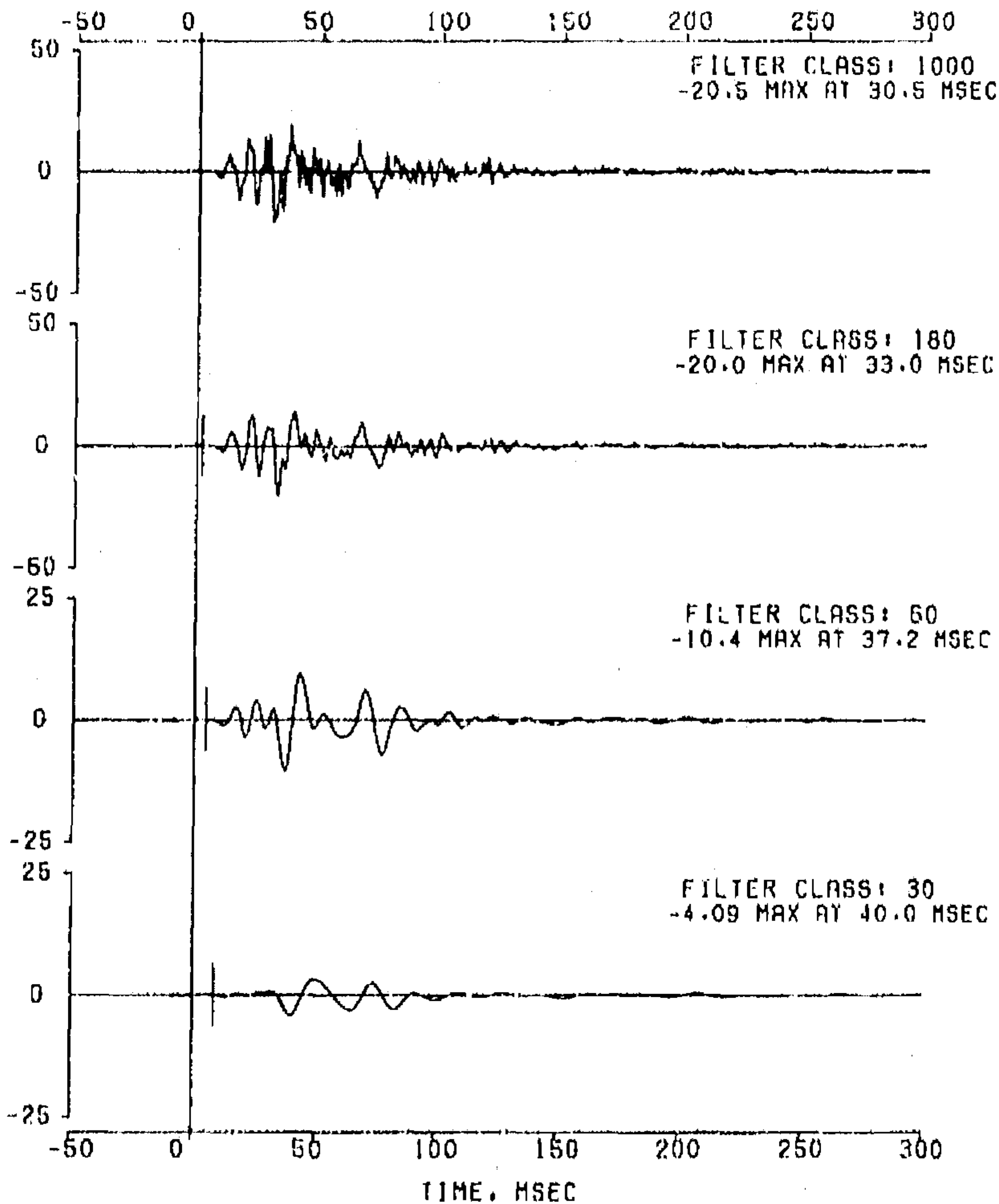


NOTE: EVENT AT 88.3 MS

VC08028 30 MPH REAR MOVING BARRIER, KJT-74 ITEM KJ4282R  
2002 NV88 301 REAR IMPACT DEVELOPMENT.  
CHANNEL 020 LT SIACH INT ACCEL 1 0 EE  
FILTER TYPE: 08DAS-111 RESPONSE CORRECTION, CLASS 1000 FILTER(1650)  
IMPACT ANALYSIS DEPT. 5320  
DEC 14, 1999

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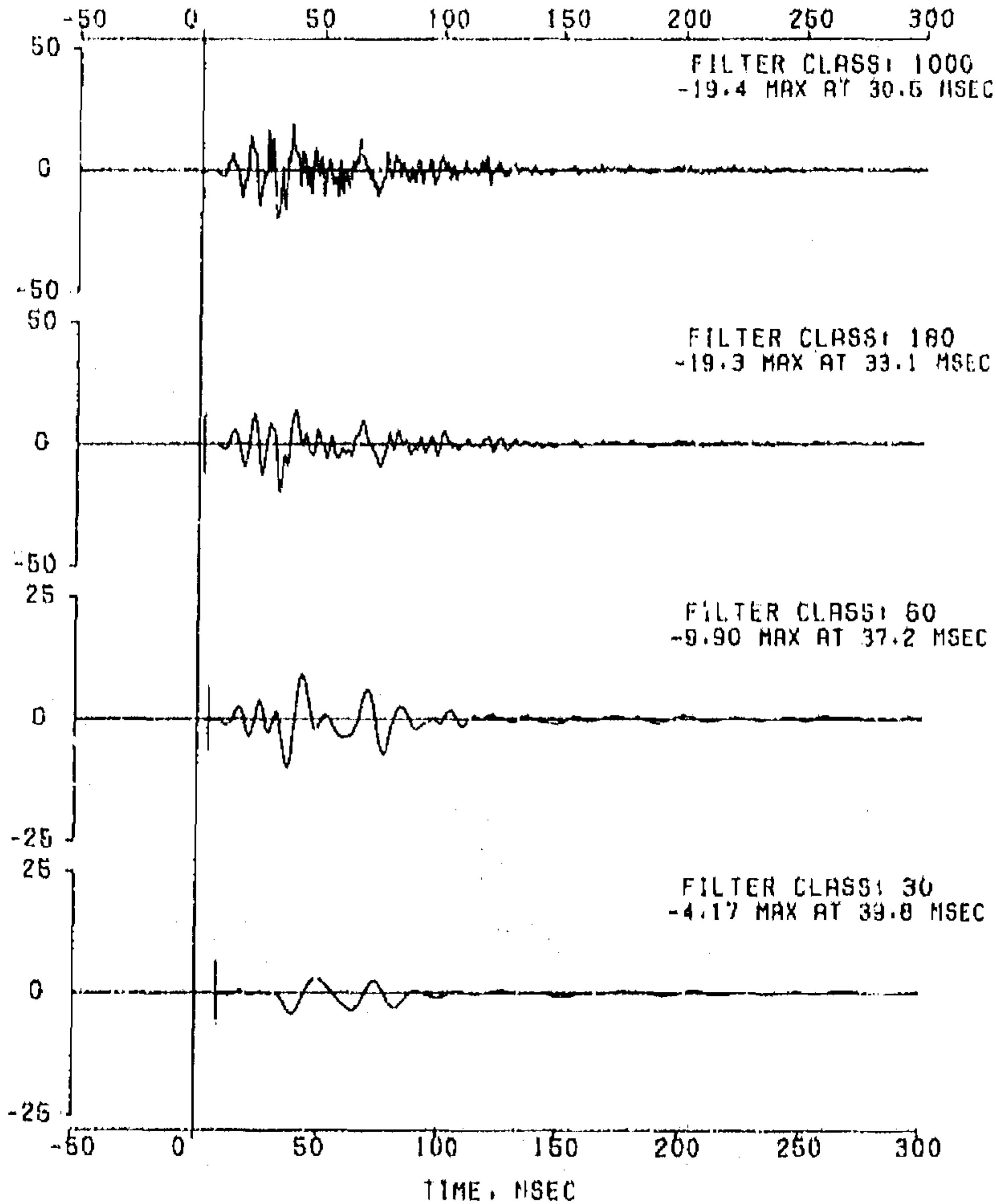
DATA SET 12/13/9908  
ERRATA 1



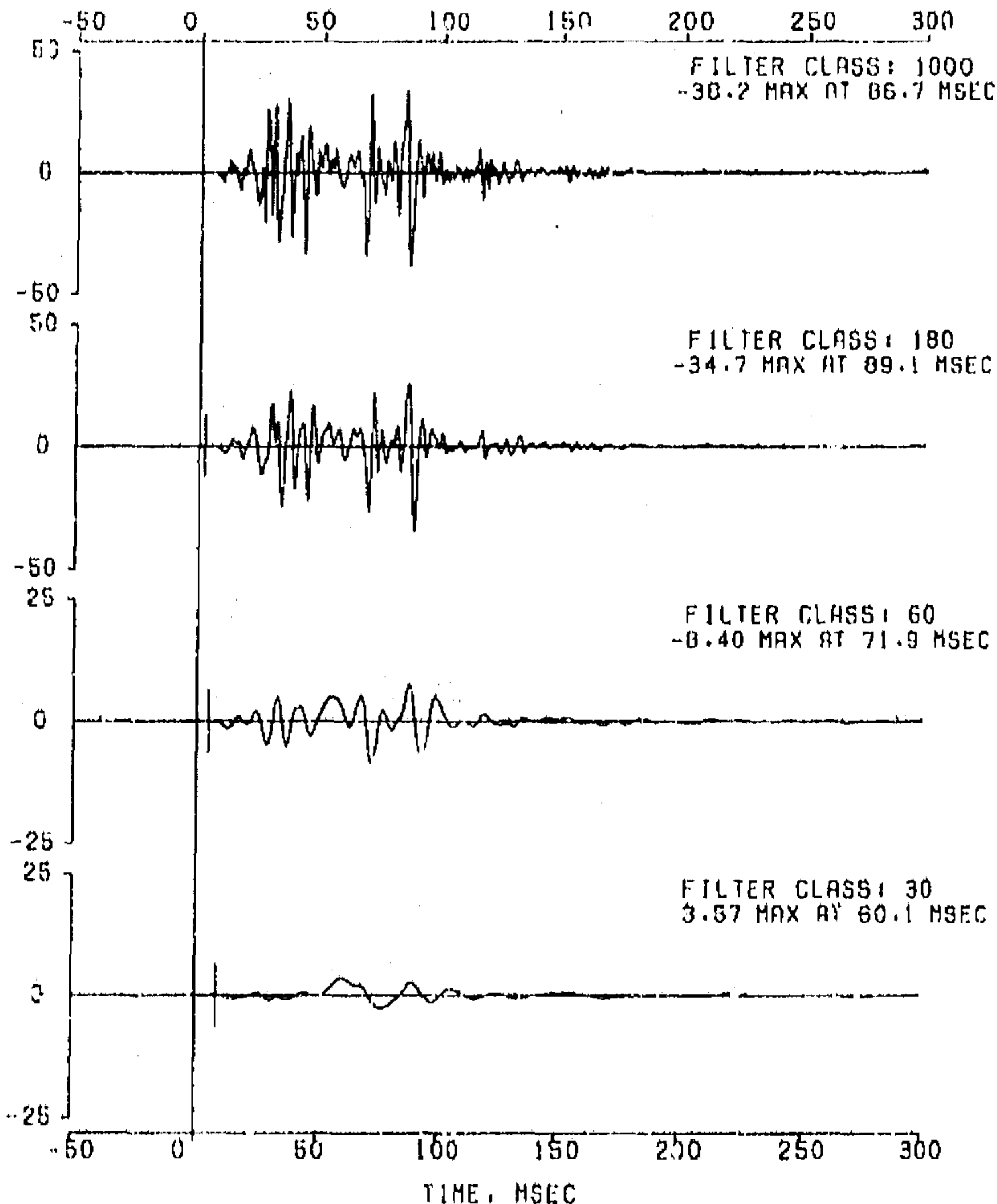
VC00026 30 MPH REAR MOVING BARRIER, KJ1-74 ITEM KJ4282R  
2002 MY98 301 REAR IMPACT DEVELOPMENT.  
CHANNEL 021 LT SIACH INT ACCEL2 0 EE  
FILTER TYPE: 0808-111 RESPONSE CORRECTION, CLASS 1000 FILTER(1650)  
IMPACT ANALYSIS DEPT. 5320  
DEC 14, 1999

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DATA SET 12/13/99BB  
ERRATA 1



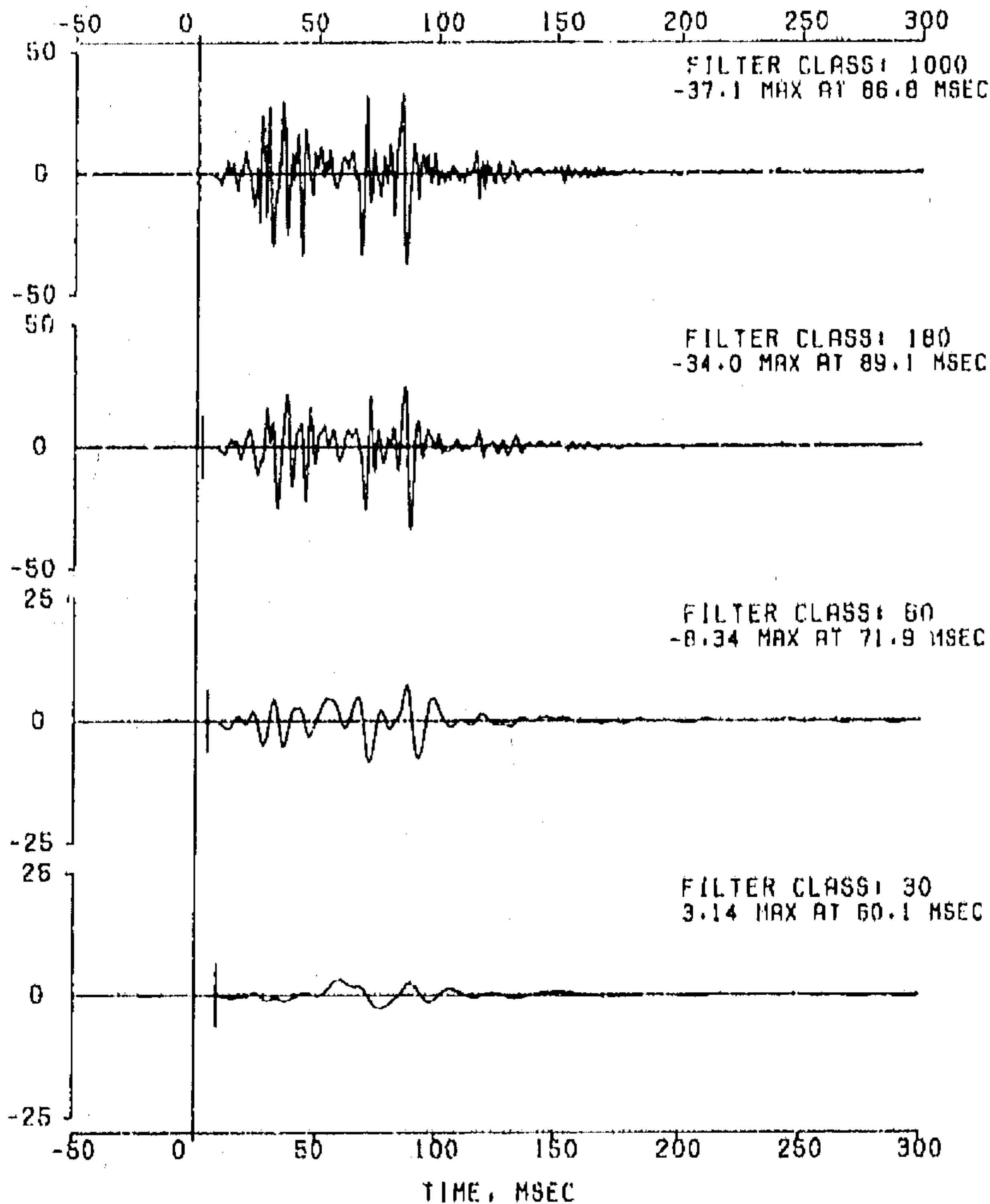




VC08025 30 MPH REAR MOVING BARRIER, KJT-74 ITEM KJ4282R  
2002 NV96 301 REAR IMPACT DEVELOPMENT.  
CHANNEL 023 RT SIACH INT ACCEL2 0 EE  
FILTER TYPE: OBDAS-III RESPONSE CORRECTION, CLASS 1000 FILTER(1850)  
IMPACT ANALYSIS DEPT. 5320  
DEC 14, 1999

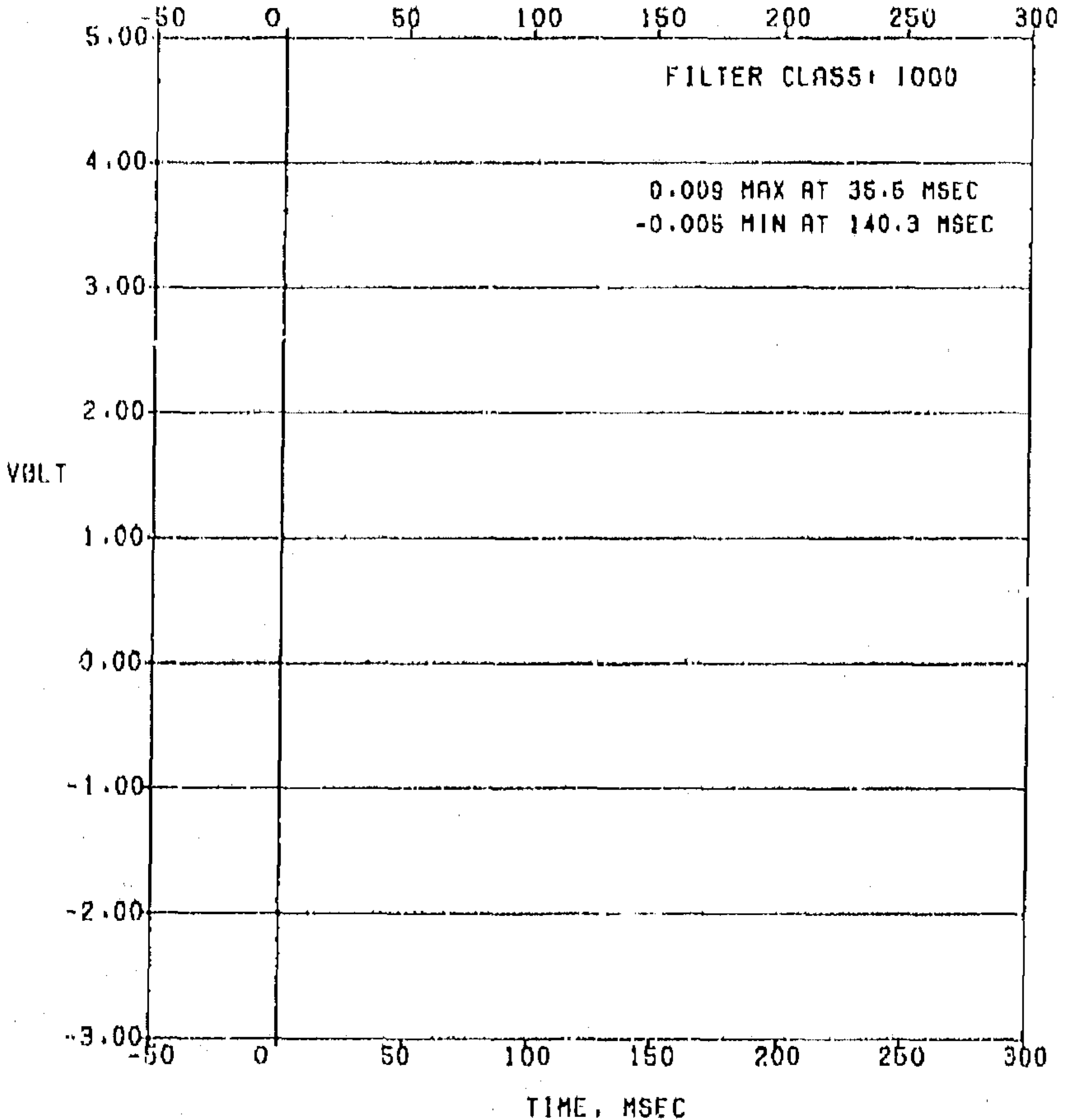
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DATA SET 12/13/99BB  
ERRATA 1



CHANNEL 024 1T SIBCH SQUIB EVENT EC

FILTER TYPE: 080AS-III RESPONSE CORRECTION, CLASS 1000 FILTER(1650)  
IMPACT ANALYSIS DEPT. 5320 DATA SET 12/13/9988  
DEC 14, 1999 ERRATA 1

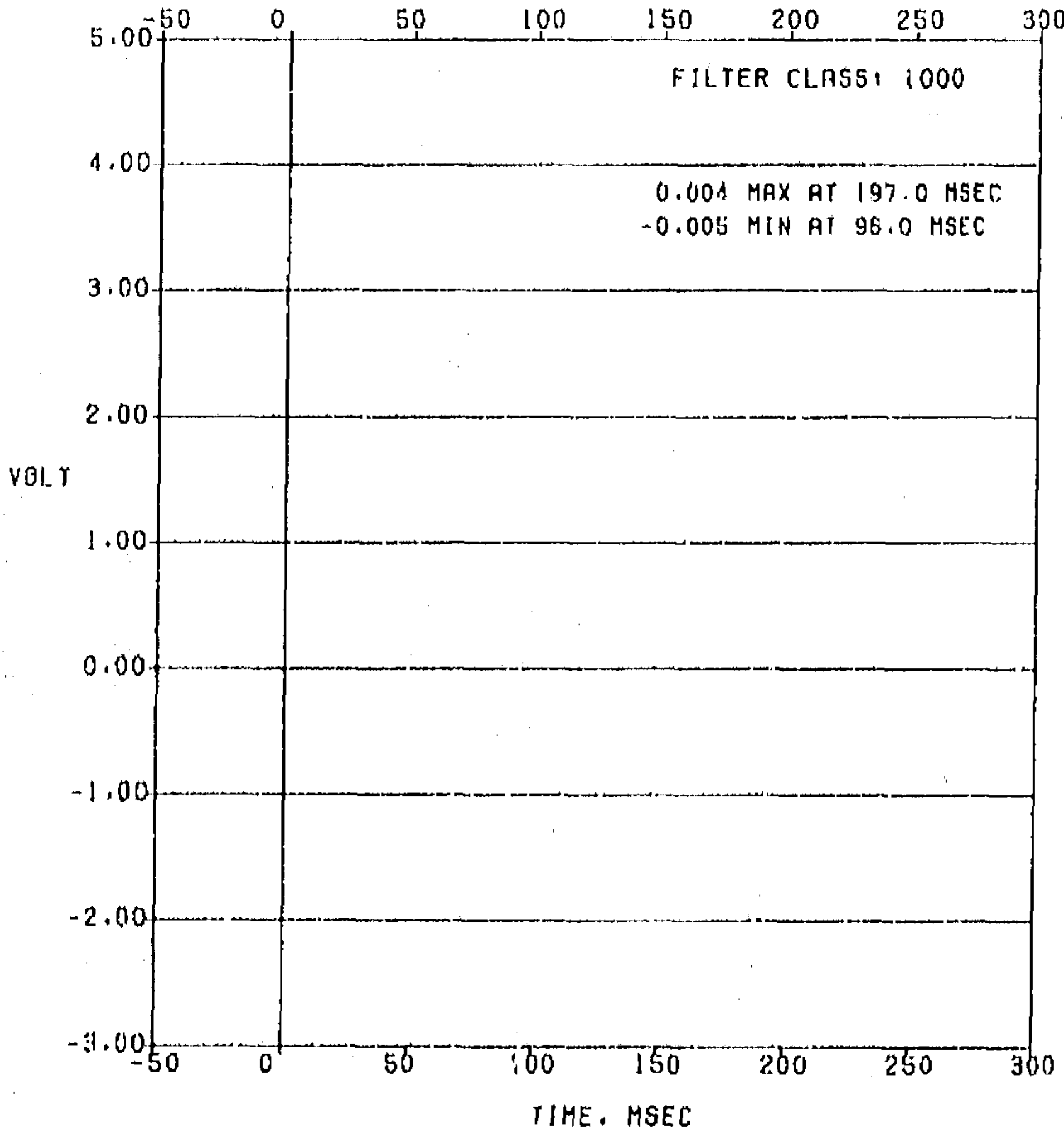


\*\*\*\*\* NOTE \*\*\*\*\*  
\*\*\*\*\* NO EVENT \*\*\*\*\*



CHANNEL 025 RT STACM SQUIB EVENT EE

FILTER TYPE: OBDAS-III RESPONSE CORRECTION, CLASS 1000 FILTER(1650)  
IMPACT ANALYSIS DEPT. 5320 DATA SET 12/13/99BB  
DEC 14, 1999 ERRATA 1



NOTE: NO EVENT

VC08025 30 MPH REAR MOVING BARRIER, KJT-74 ITEM KJ4282K

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2002 MY55 301 REAR IMPACT DEVELOPMENT.

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CHANNEL 026 LT FT XMR SENSOR LOC X J12077

FILTER TYPE: 08DAS-111 RESPONSE CORRECTION, CLASS 1000 FILTER(1650)

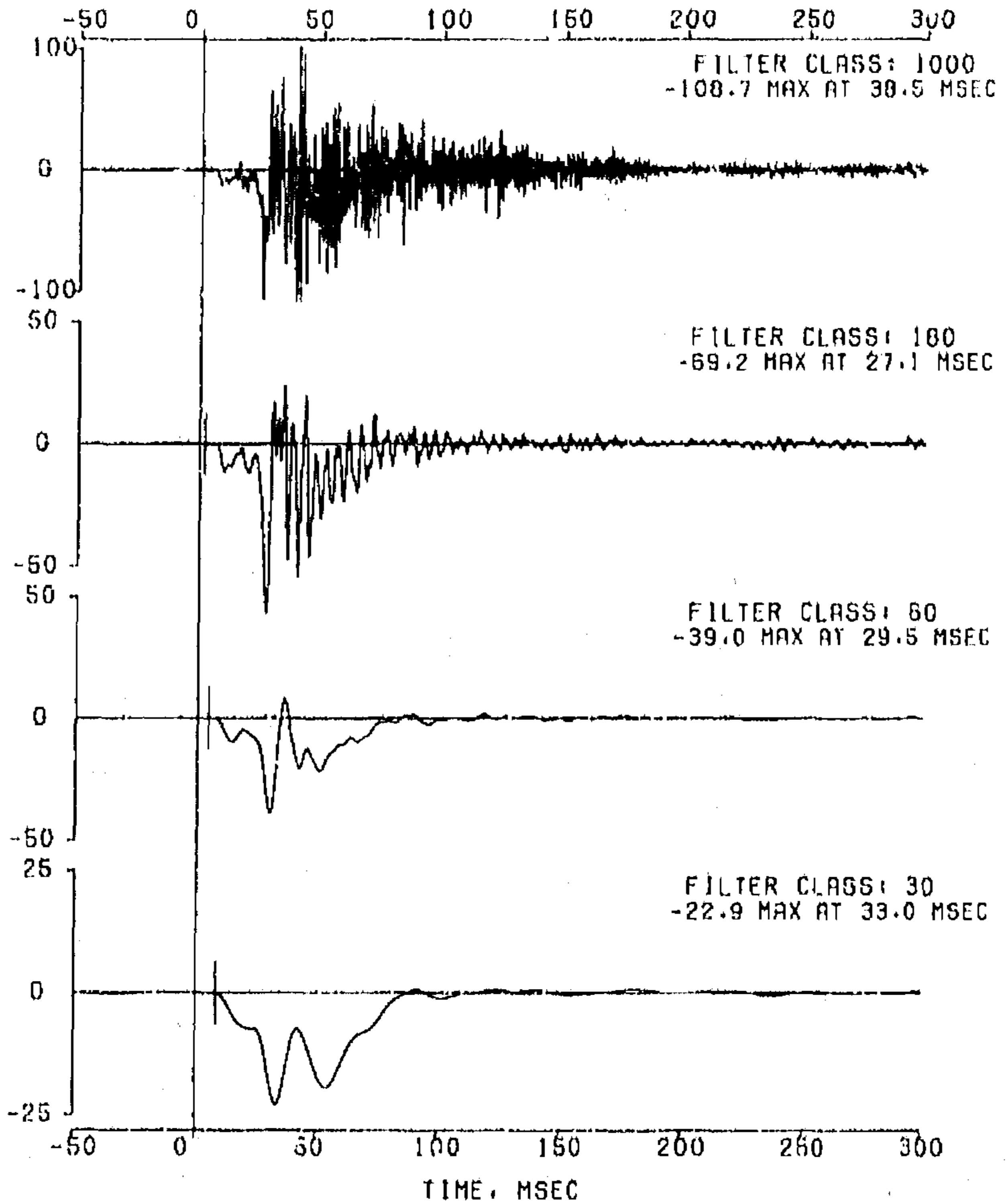
IMPACT ANALYSIS DEPT. 5320

DATA SET 12/13/998B

DEC 14, 1999

ERRATA

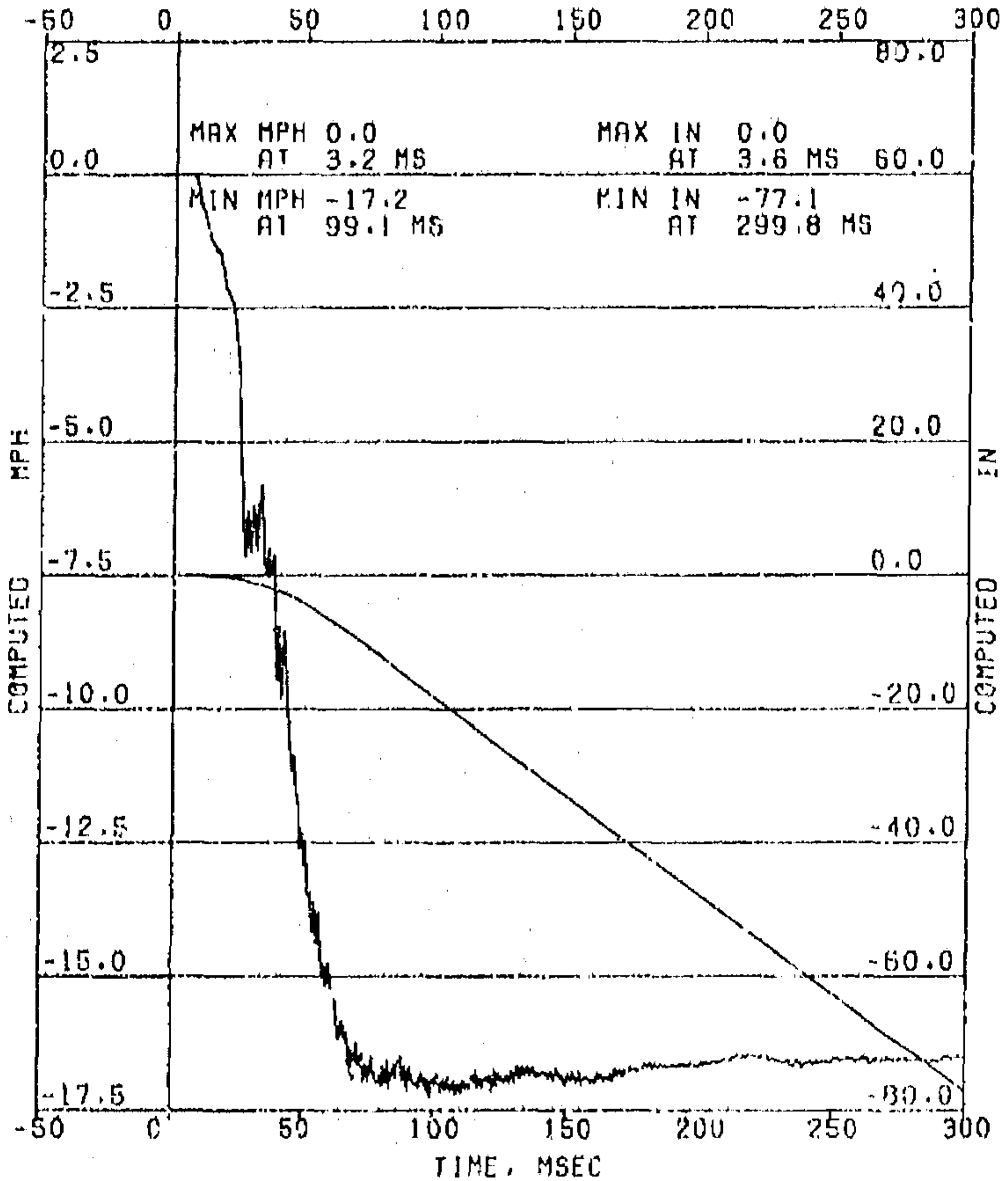
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FILTER TYPE: OBDAS-III RESPONSE CORRECTION, CLASS 1000 FILTER(1650)  
FILTER CLASS: 1000

IMPACT ANALYSIS DEPT. 5320  
DEC 14, 1999

DATA SET 12/13/99BB  
ERRATA 1

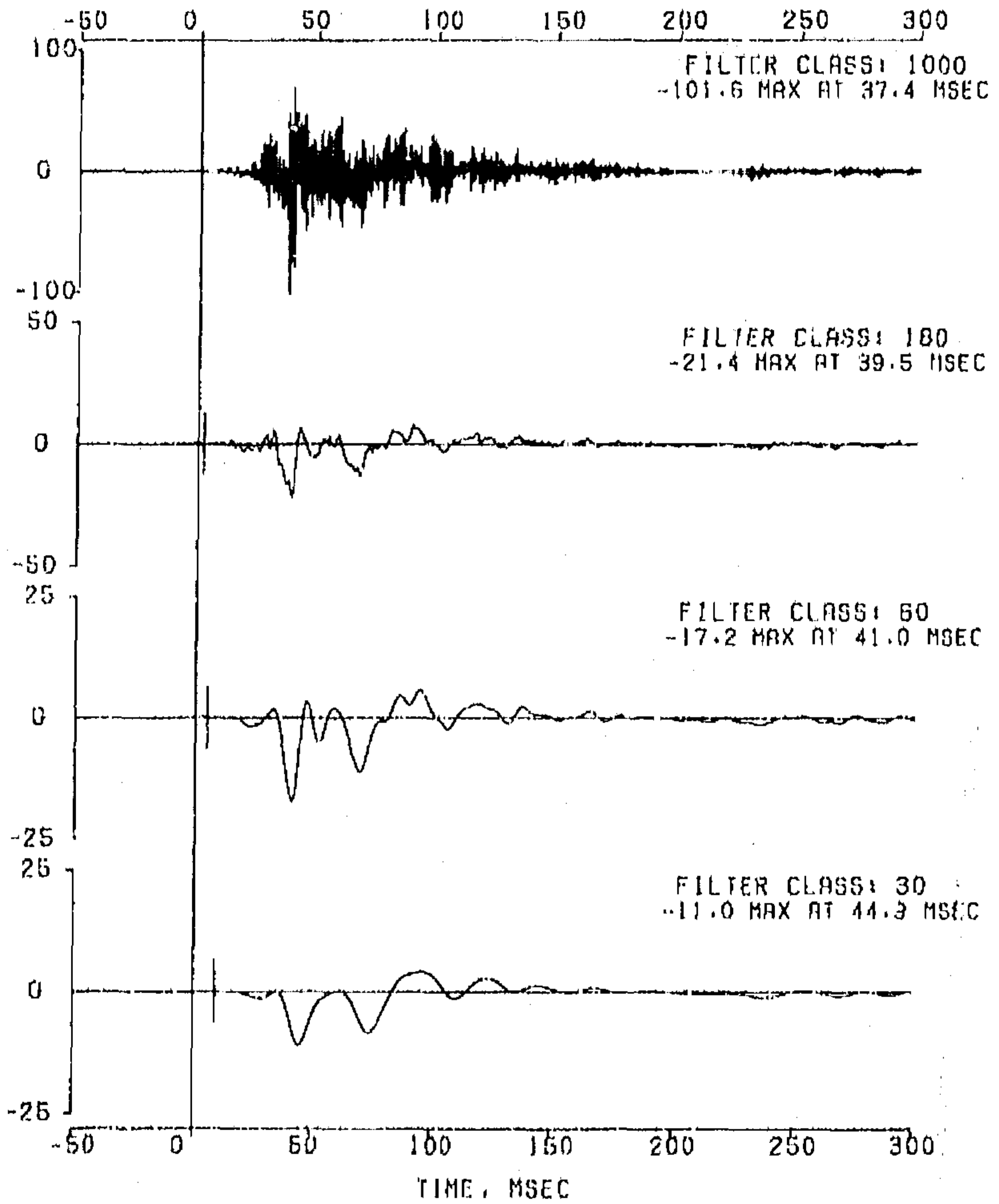


COMPUTED MPH  
COMPUTED IN



VC00026 30 MPH REAR MOVING BARRIER, KJT-74 ITEM KJ4202R  
2002 MY65 301 REAR IMPACT DEVELOPMENT.  
CHANNEL 027 LT FT XMR SENSOR LOC Y P12949  
FILTER TYPE: OBDAS-III RESPONSE CORRECTION, CLASS 1000 FILTER(1650)  
IMPACT ANALYSIS DEPT. 5320  
DEC 14, 1999

DATA SET 12/13/9908  
ERRATA 1



000026 30 MPH REAR MOVING BARRIER, 6J1-74 ITEM KJ4202R

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2002 HV85 301 REAR IMPACT DEVELOPMENT.

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CHANNEL 028 LT FT XMR SENSOR LOC 7 P13199

FILTER TYPE: OBDAS-11A RESPONSE CORRECTION, CLASS 1000 FILTER(1650)

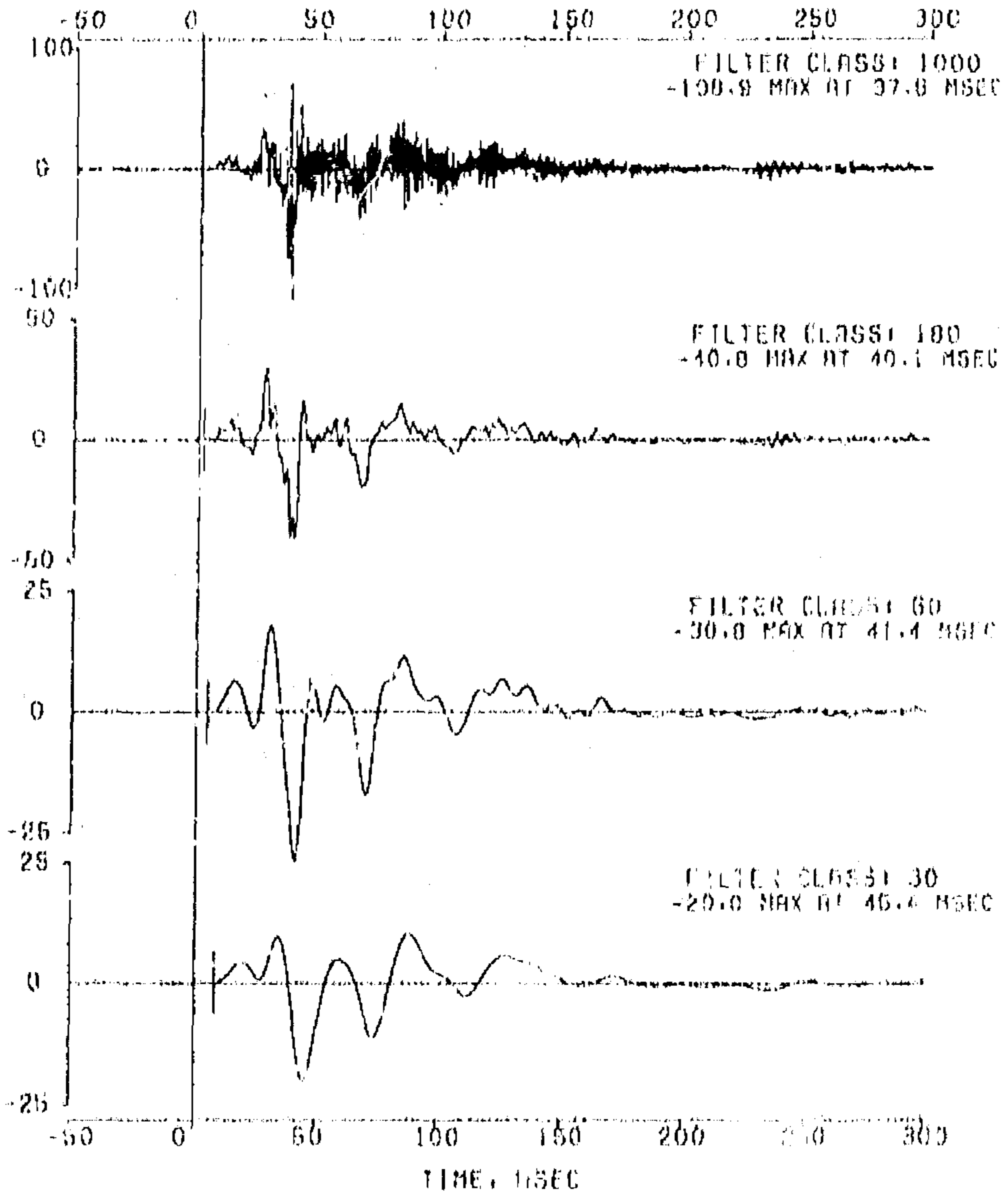
IMPACT ANALYSIS DEPT. 8320

DATA SET 12/13/99AB

DEC 14, 1999

ERRATA

1



VC00025 30 MPK REAR MOVING BARRIER, KJT-74 ITEM KJ4202R

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2002 MY66 301 REAR IMPACT DEVELOPMENT.

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CHANNEL 020 RT FT XMR SENSOR LOC X J17445

FILTER TYPE: 080A9-111 RESPONSE CORRECTION, CLASS 1000 FILTER(1650)

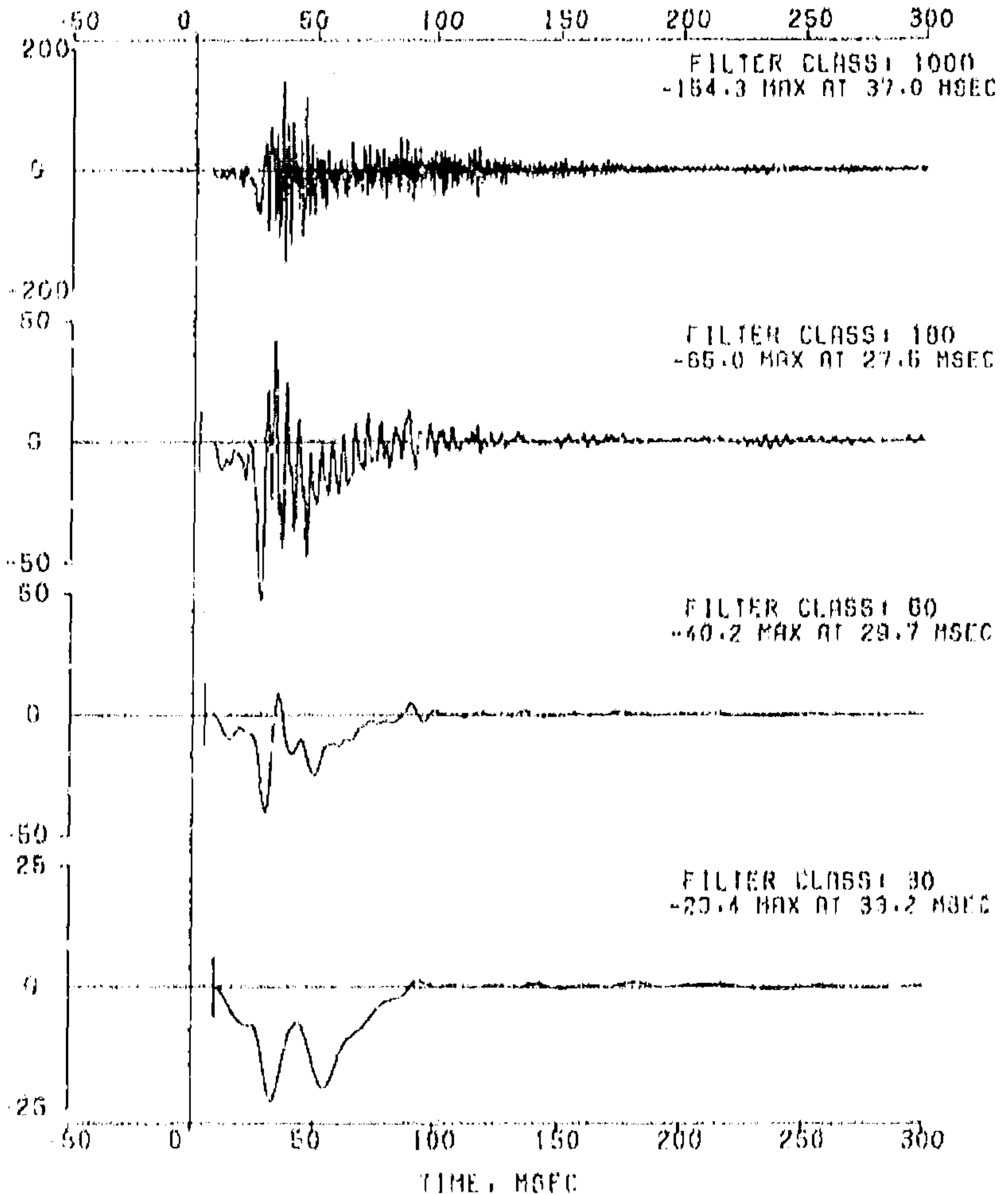
IMPACT ANALYSIS DEPT. 6320

DATA SET 12/13/0906

DEC 14, 1999

ERRATA

1





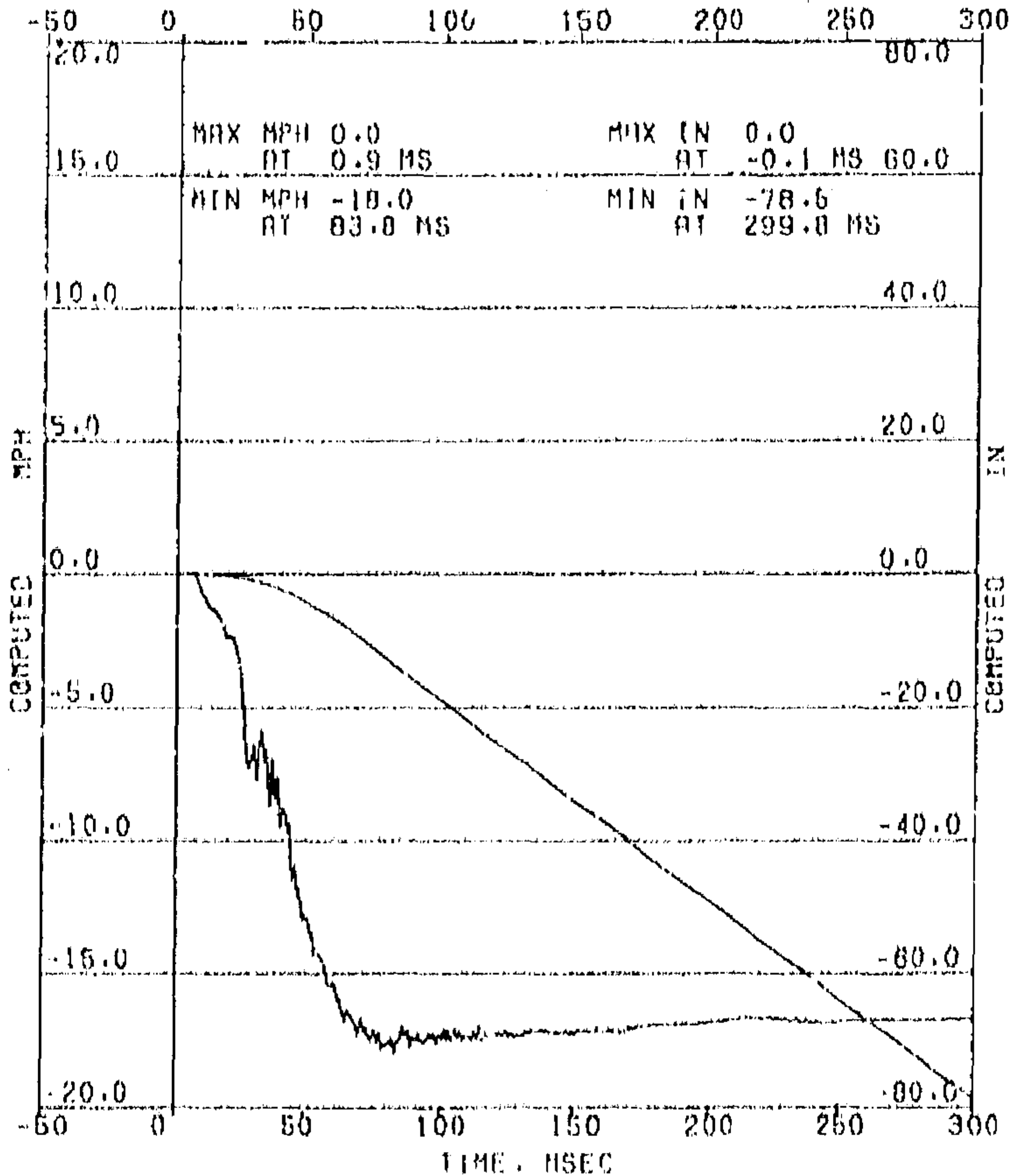
YU00025 30 MPH REAR MOVING BARRIER, KJ1-74 ITEM KJ4202R  
 2002 MY88 301 REAR IMPACT DEVELOPMENT.  
 CHANNEL 029 RT FT XMBR SENSOR LOC X J17446

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FILTER TYPE: 08040-III RESPONSE CORRECTION, CLASS 1000 FILTER(1650)  
 FILTER CLASS: 1000

IMPACT ANALYSIS DEPT 5320  
 DEC 14, 1999

DATA SET 12/13/9988  
 ERRATA 1



COMPUTED MPH  
 COMPUTED IN

V000025 30 MPH REAR MOVING BARRIER, KIT-74 ITEM KJ4202R

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2002 MY03 S01 REAR IMPACT DEVELOPMENT,

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CHANNEL 030 RT FT XMR SENSOR LOC Y J25743

FILTER TYPE: BB009-III RESPONSE CORRECTION, CLASS 1000 FILTER(1650)

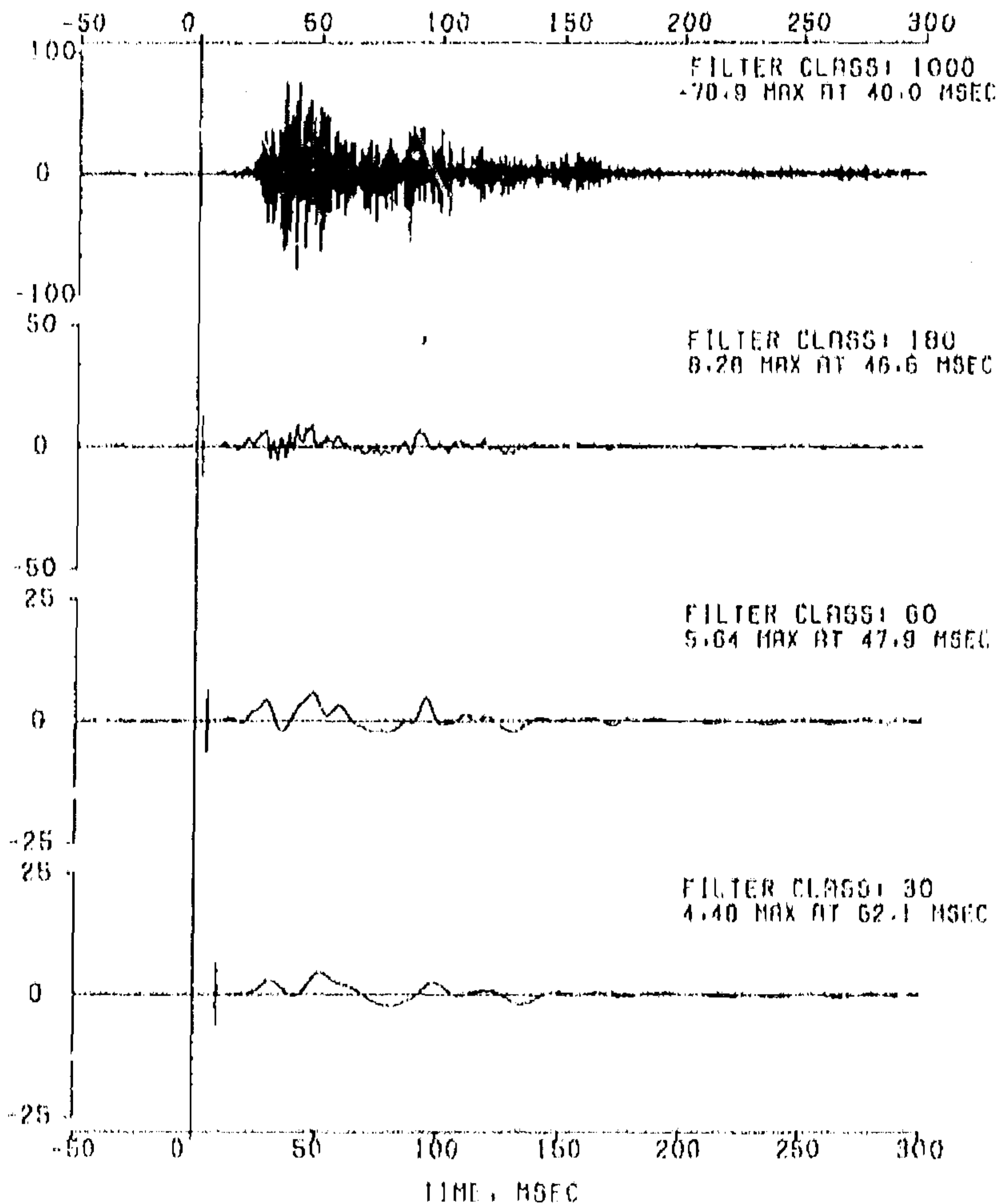
IMPACT ANALYSIS DEPT. 5320

DATA SET 12/13/99BB

DEC 14, 1999

ERRATA

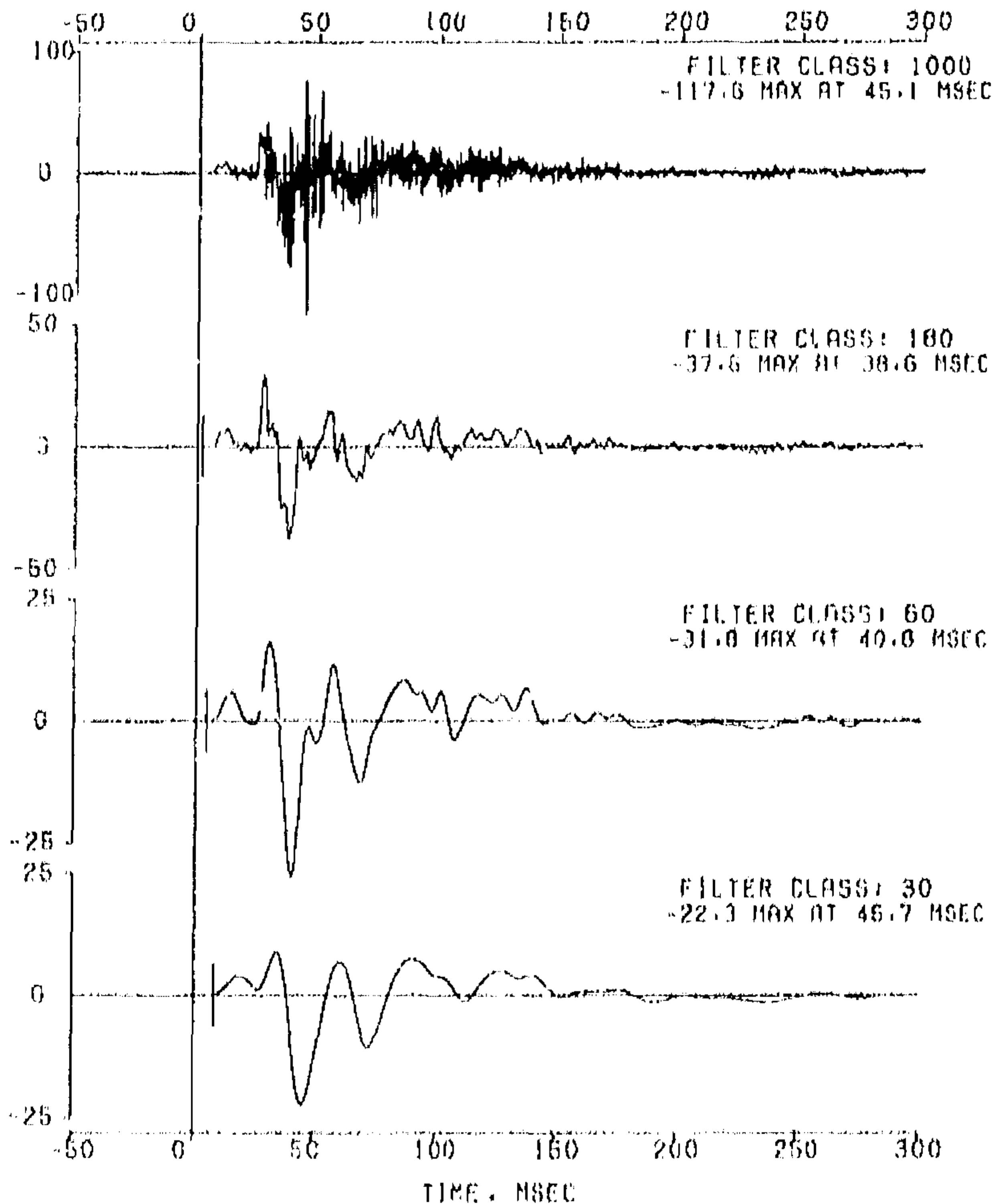
1



VC00026 30 MPH REAR MOVING BARRIER, KJT-74 ITER KJ4202R  
2002 MY88 301 REAR IMPACT DEVELOPMENT,  
CHANNEL 031 RT FT XMR SENSOR LOC 2 J27465  
FILTER TYPE: 00D09-111 RESPONSE CORRECTION, CLASS 1000 FILTER(1850)  
IMPACT ANALYSIS DEPT. 5320  
DEC 14, 1999

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DATA SET 12/13/99BB  
ERRATA 1

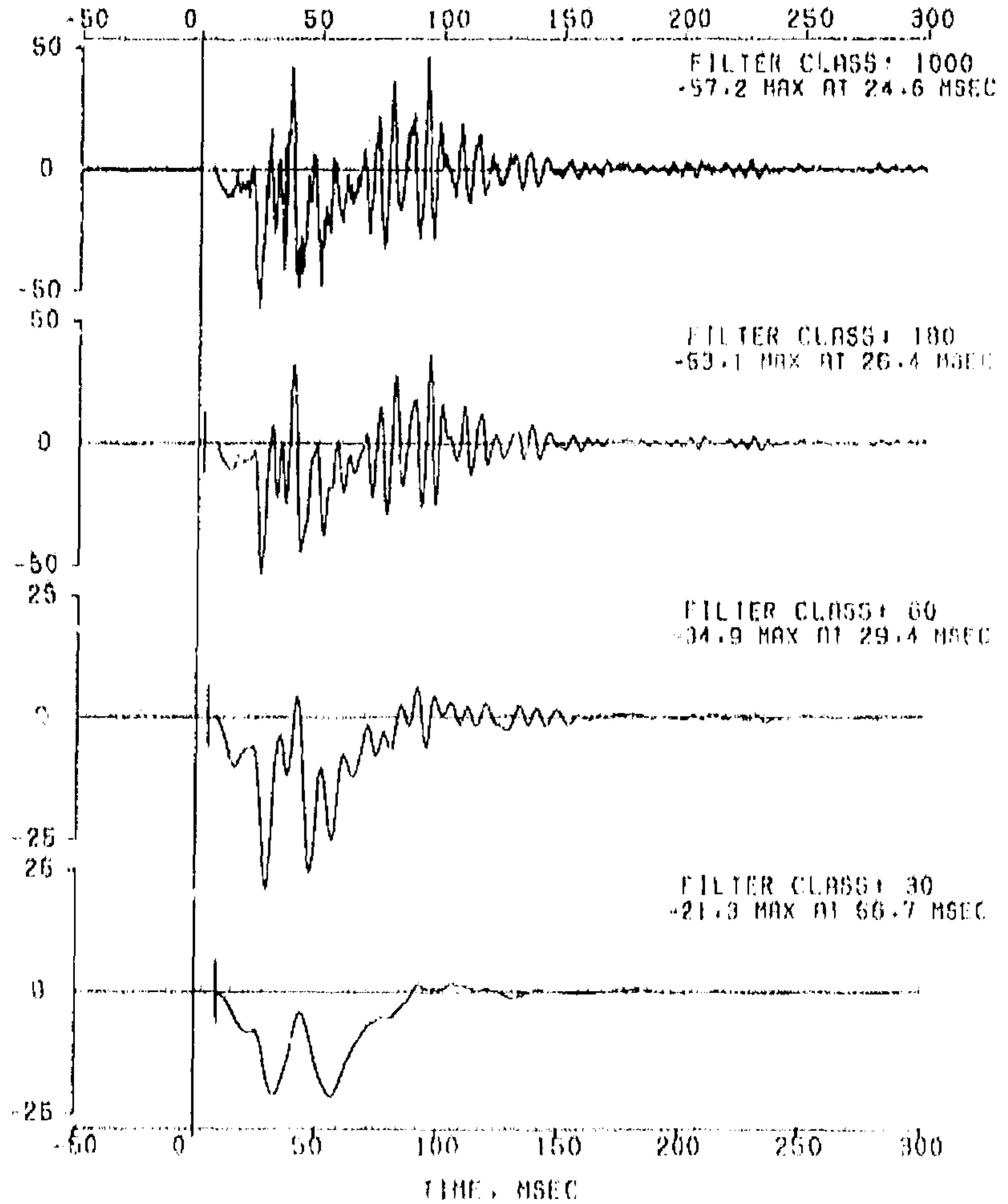




VC08025 30 MPH REAR MOVING BARRIER, KJT-74 ITEM KJ4202R  
2002 HYBR 301 REAR IMPACT DEVELOPMENT.  
CHANNEL 032 ORC TOP FT LT X RON29  
FILTER TYPE: 00003-111 RESPONSE CORRECTION, CLASS 1000 FILTER(1060)  
IMPACT ANALYSIS DEPT. 5320  
DEC 14, 1999

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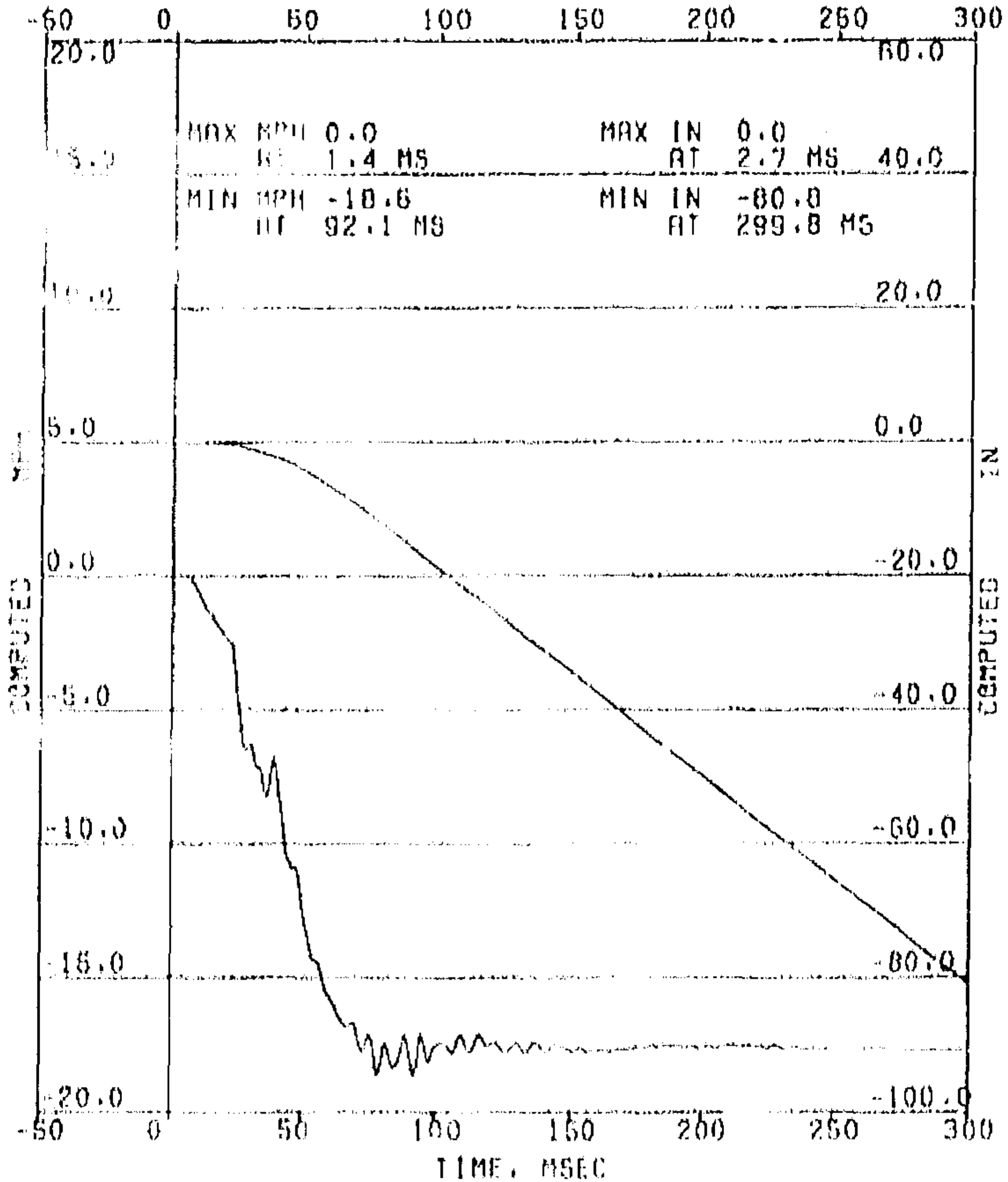
DATA SET 12/13/99BB  
ERRATA 1



FILTER TYPE: 98DAS-111 RESPONSE CORRECTION, CLASS 1000 FILTER(1850)  
 FILTER CLASS: 1000

IMPACT ANALYSIS DEPT. 5320  
 DEC 14, 1999

DATA SET 12/13/99BB  
 ERRATA 1

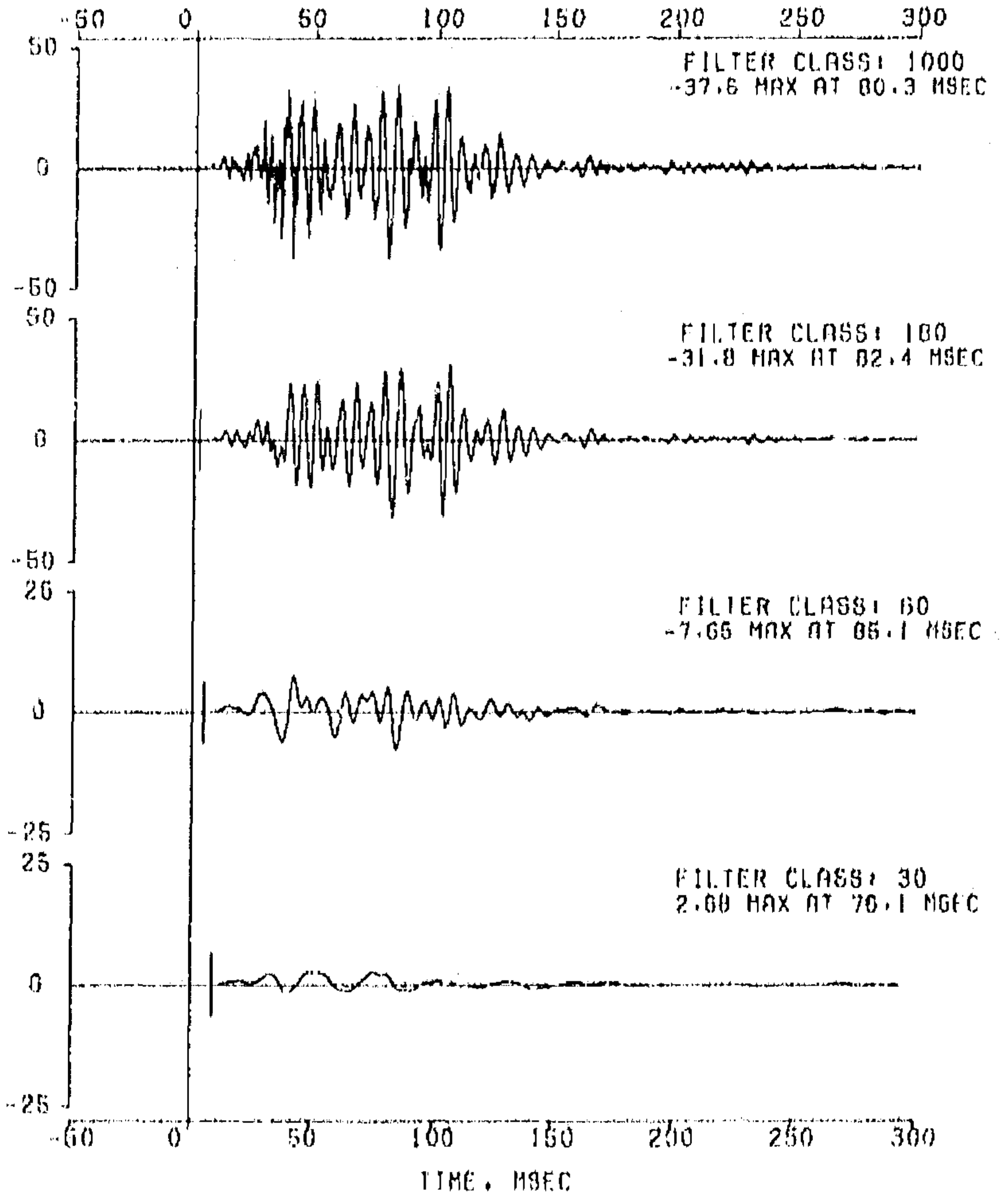


COMPUTED MPH  
 COMPUTED IN

VC00026 30 MPH REAR MOVING BARRIER, KJT-74 ITEM KJ4202R  
2002 HY99 301 REAR IMPACT DEVELOPMENT.  
CHANNEL 033 ORC TOP FT LT Y J18000  
FILTER TYPE: OBDAS-111 RESPONSE CORRECTION, CLASS 1000 FILTER(1650)  
IMPACT ANALYSIS DEPT. 5320  
DEC 14, 1999

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DATA SET 12/13/99BC  
ERRATA 1

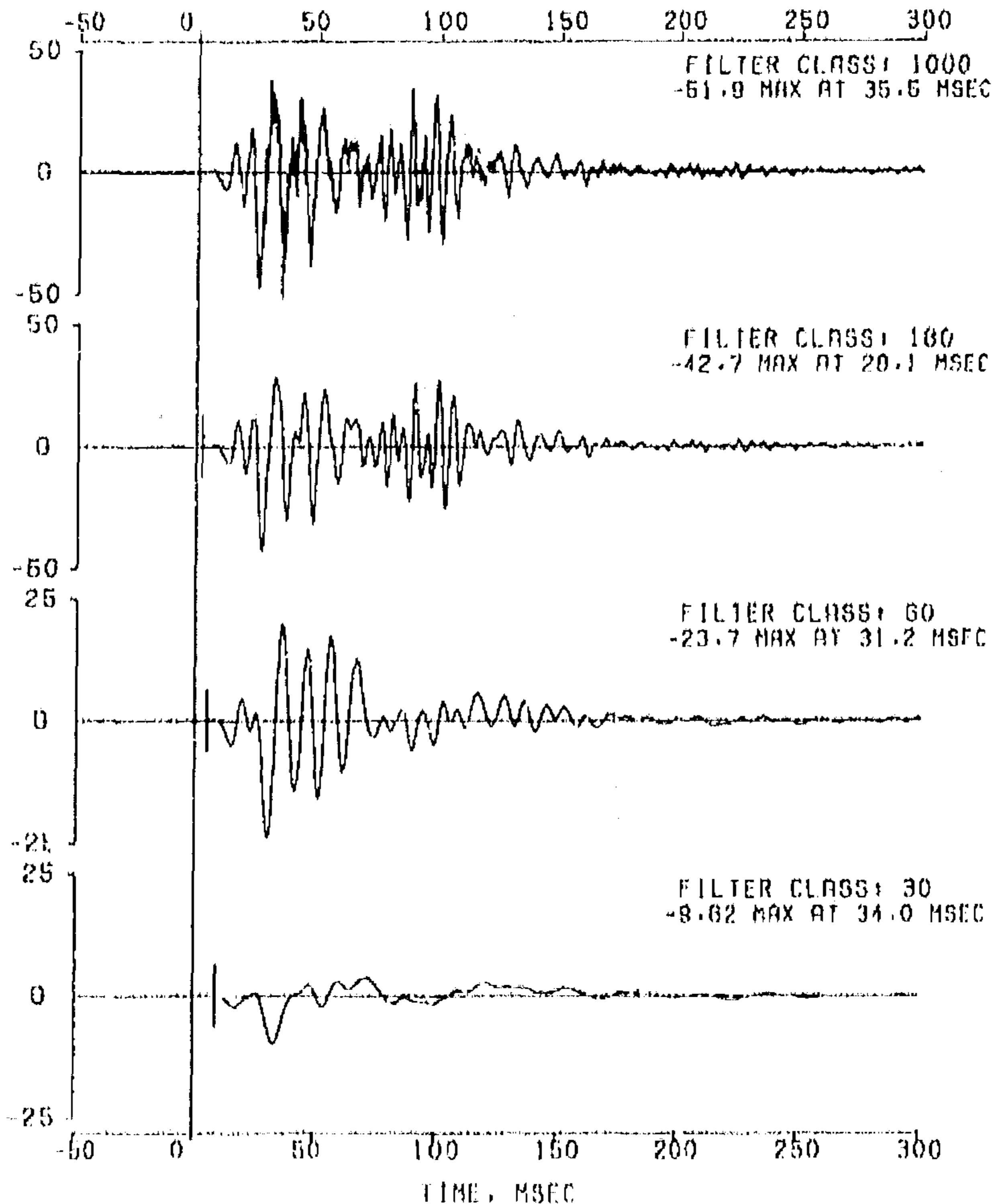




YCOB02G 30 MPH REAR MOVING BARRIER, KJT-74 ITEM KJ4202R  
2002 MY89 301 REAR IMPACT DEVELOPMENT,  
CHANNEL 034 ORC TOP FT LI Z R13373  
FILTER TYPE: 080AS-III RESPONSE CORRECTION, CLASS 1000 FILTER(1850)  
IMPACT ANALYSIS DEPT. 6320  
DEC 14, 1999

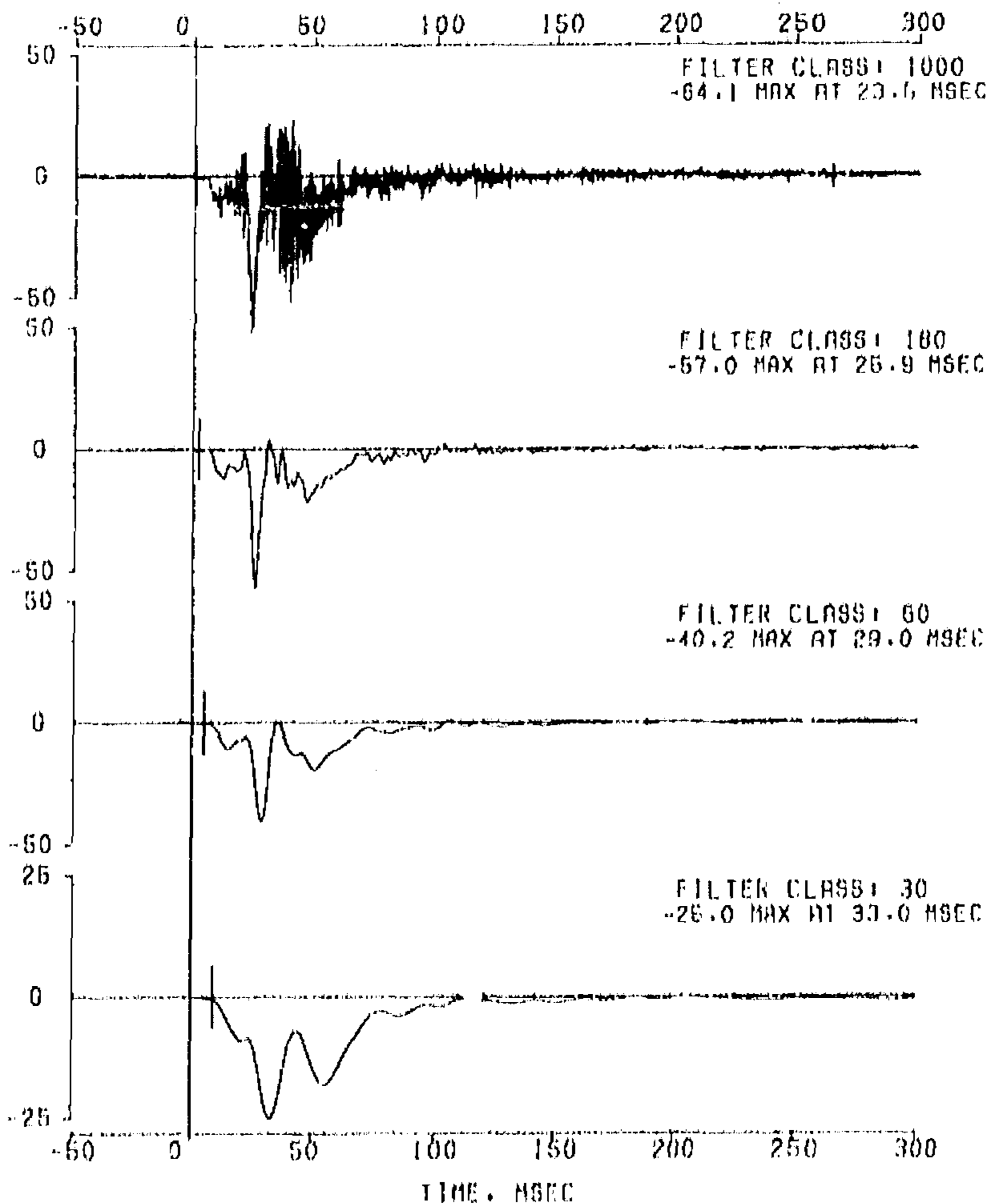
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DATA SET 12/13/99BC  
ERRATA 1



VC08026 30 MPH REAR MOVING CARRIER, KJT-74 ITEM KJA282R  
2002 MYSS 301 REAR IMPACT DEVELOPMENT.  
CHANNEL 035 LEFT FRONT SILL X 705291  
FILTER TYPE: 00D06-111 RESPONSE CORRECTION, CLASS 1000 FILTER(1860)  
IMPACT ANALYSIS DEPT. 5320  
DEC 14, 1999

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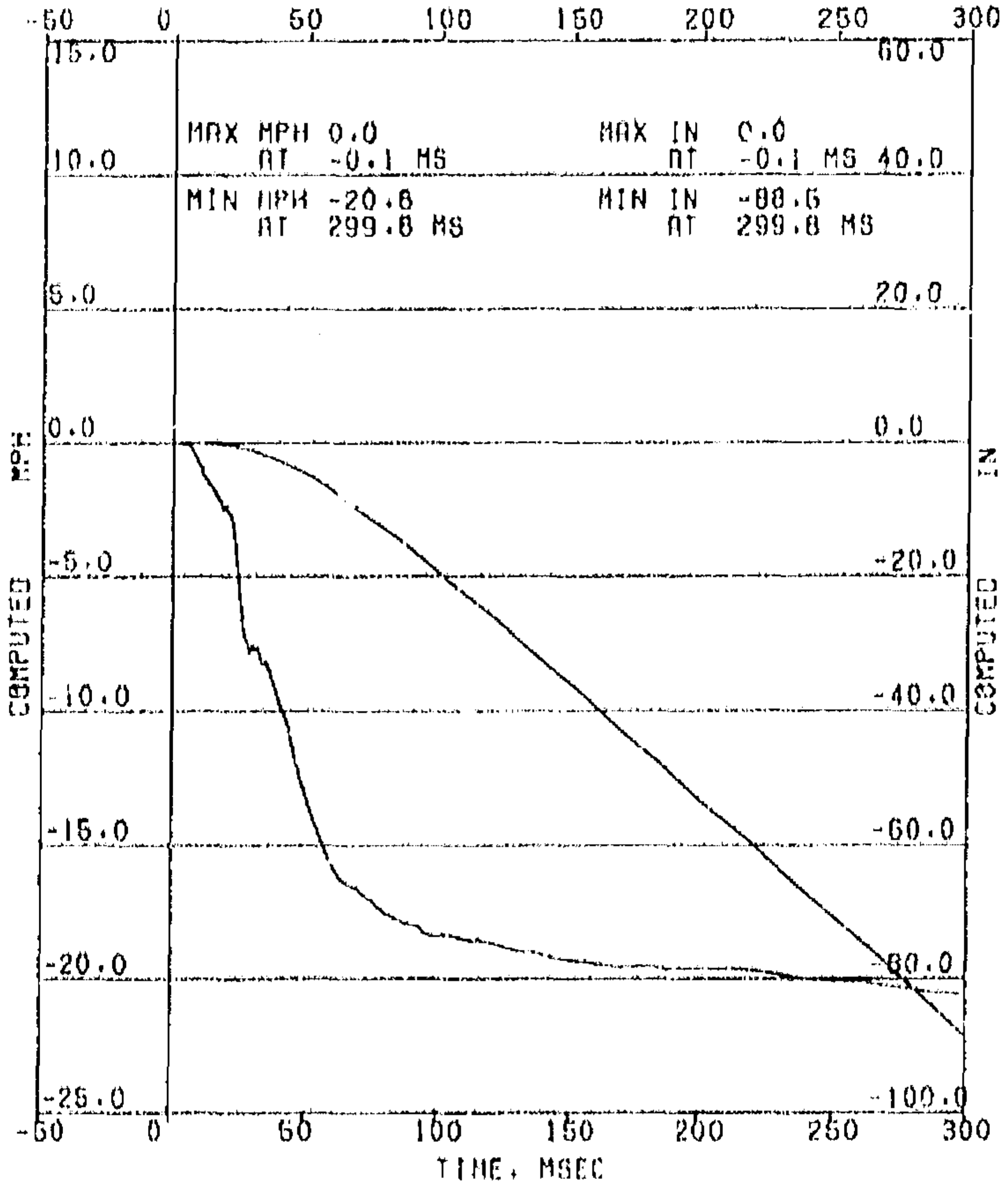
YC08025 30 MPH REAR MOVING BARRIER, KJ4-74 ITEX KJ4202R  
 2002 MY89 301 REAR IMPACT DEVELOPMENT,  
 CHANNEL 036 LEFT FRONT BILL X 705291

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FILTER TYPE: 08009-111 RESPONSE CORRECTION, CLASS 1000 FILTER(1050)  
 FILTER CLASS: 1000

IMPACT ANALYSIS DEPT. 5320  
 DEC 14, 1999

DATA SET 12/13/99BC  
 ERRATA 1



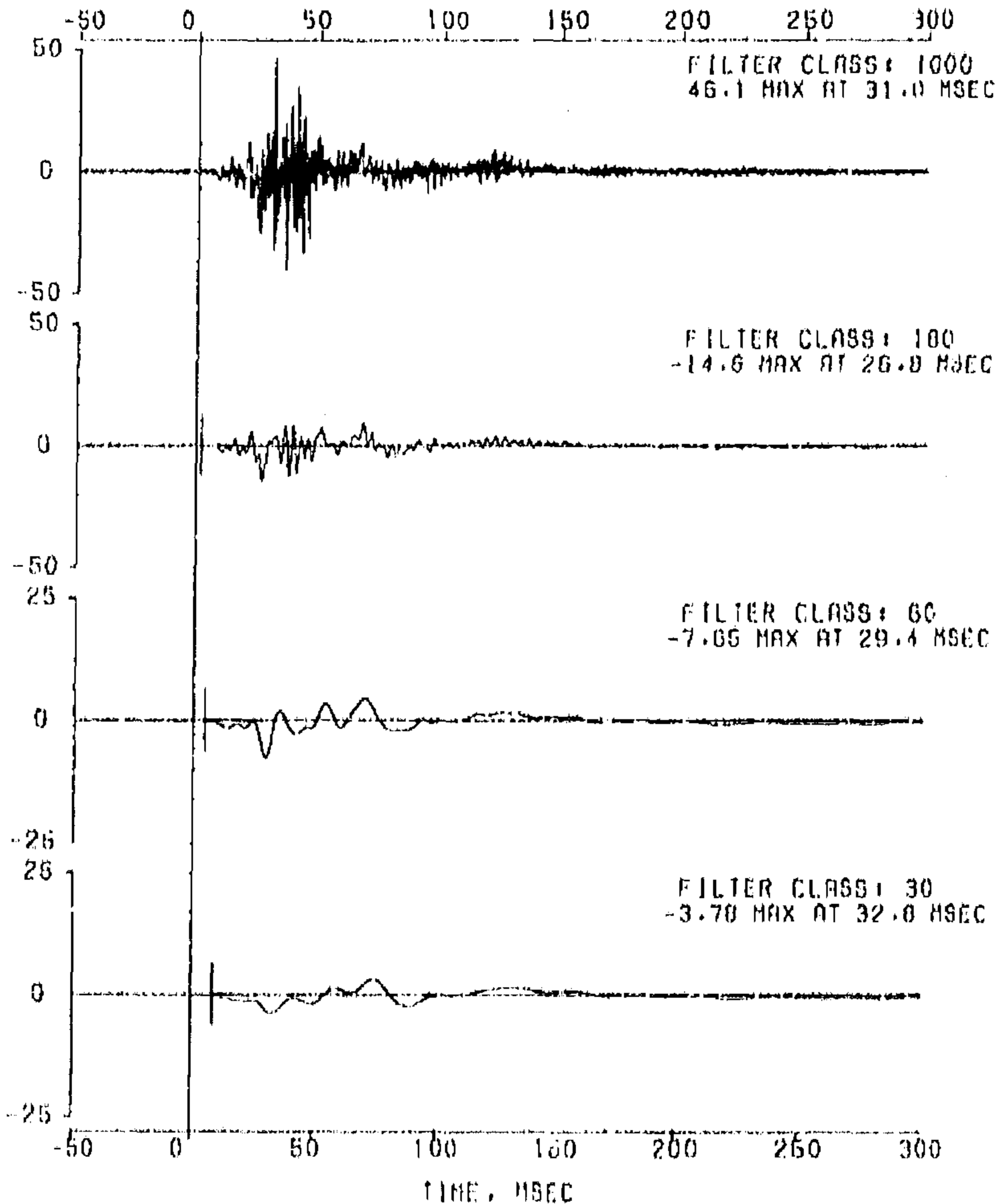
COMPUTED MPH  
 COMPUTED IN



VC00026 30 MPH REAR MOVING BARRIER, KJT-74 ITER KJ4202R  
2002 MVS8 301 REAR IMPACT DEVELOPMENT,  
CHANNEL 036 LEFT FRONT SILL Z 705307  
FILTER TYPE: 08085-111 RESPONSE CORRECTION. CLASS 1000 FILTER(1060)  
IMPACT ANALYSIS DEPT. 5320  
DEC 14, 1999

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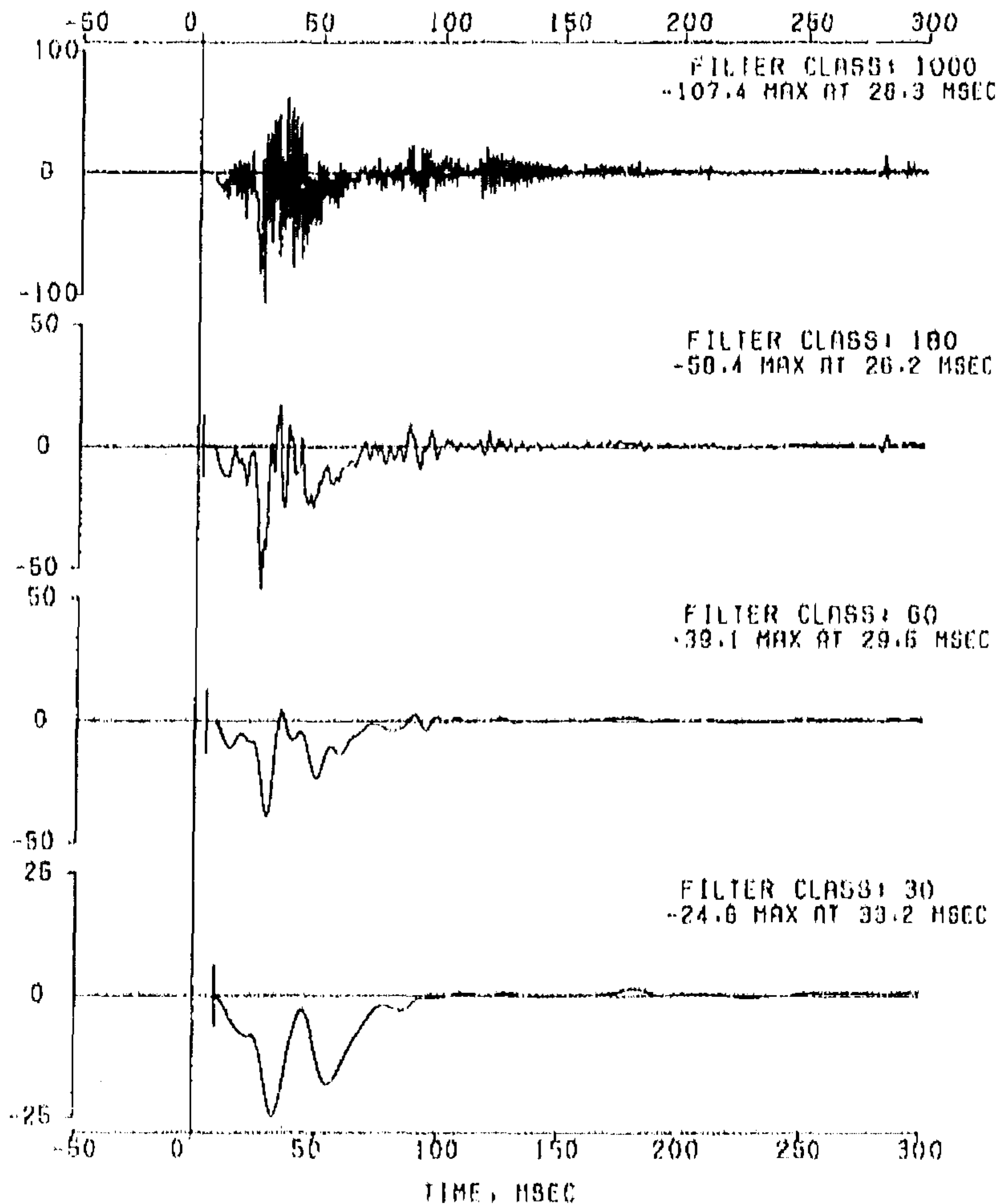
DATA SET 12/13/99DC  
ERRATA 1



VC00025 30 MPH REAR MOVING BARRIER, KJT-74 ITEM KJ4202R  
2002 MY86 301 REAR IMPACT DEVELOPMENT.  
CHANNEL 037 RIGHT FRONT SILL X 050309  
FILTER TYPE: 09008-111 RESPONSE CORRECTION, CLASS 1000 FILTER(1550)  
IMPACT ANALYSIS DEPT. 5320  
DEC 14, 1999

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DATA SET 12/13/99BC  
ERRATA 1



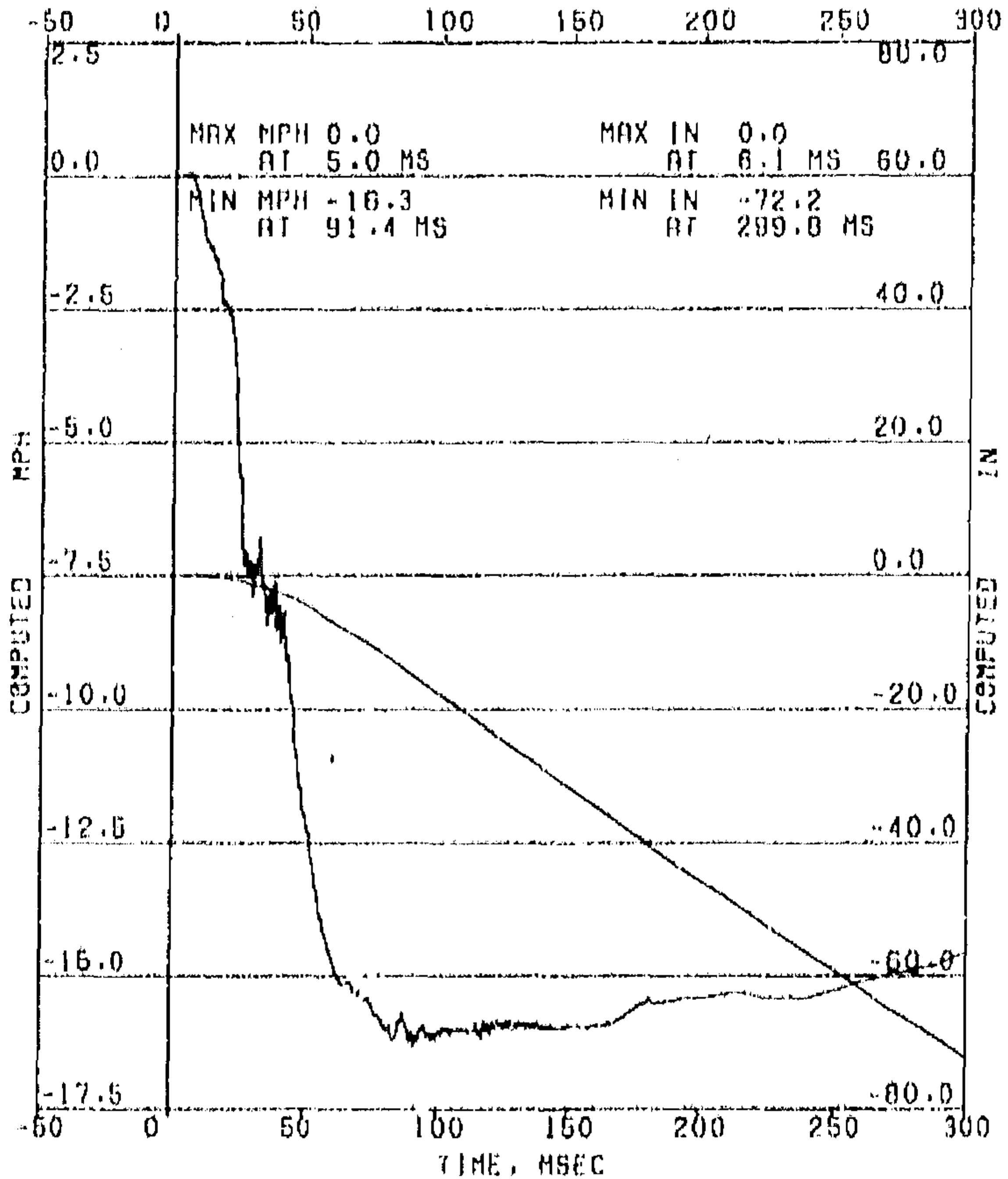
VC00026 30 MPH REAR MOVING BARRIER, KJT-74 ITEM KJ4202R  
 2002 HY88 301 REAR IMPACT DEVELOPMENT.  
 CHANNEL 037 RIGHT FRONT SILL X 658309

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FILTER TYPE: OBDAS-111 RESPONSE CORRECTION, CLASS 1000 FILTER(1650)  
 FILTER CLASS: 1000

IMPACT ANALYSIS DEPT. 6320  
 DEC 14, 1989

DATA SET 12/13/99BC  
 ERRATA 1



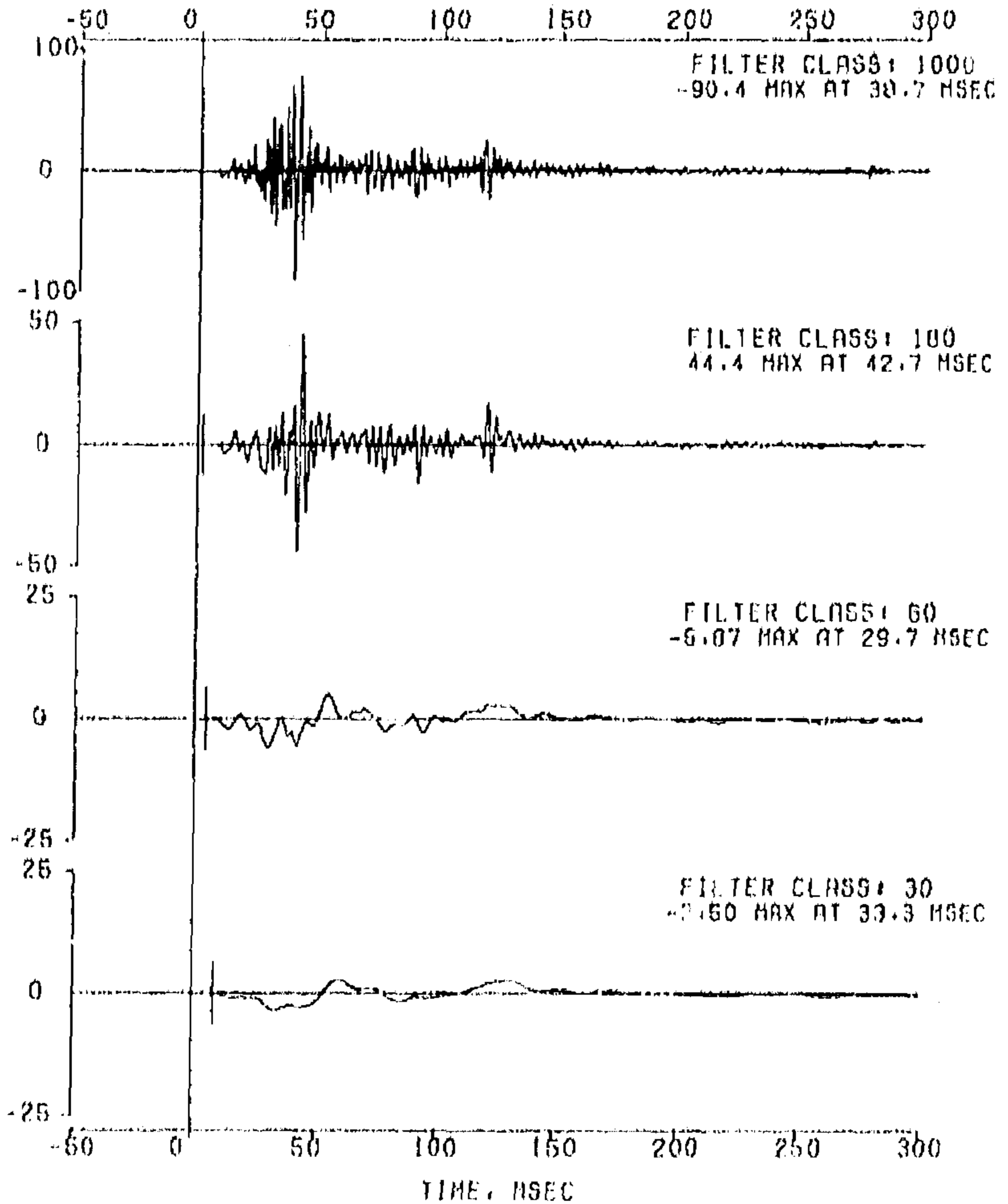
COMPUTED MPH  
 COMPUTED IN



VC08026 30 MPH REAR MOVING BARRIER, KJT-74 ITEM KJ4282R  
2002 NV88 301 REAR IMPACT DEVELOPMENT,  
CHANNEL 038 RIGHT FRONT BILL 2 705278  
FILTER TYPE: OBDAS-III RESPONSE CORRECTION, CLASS 1000 FILTER(1650)  
IMPACT ANALYSIS DEPT. 5320  
DEC 14, 1999

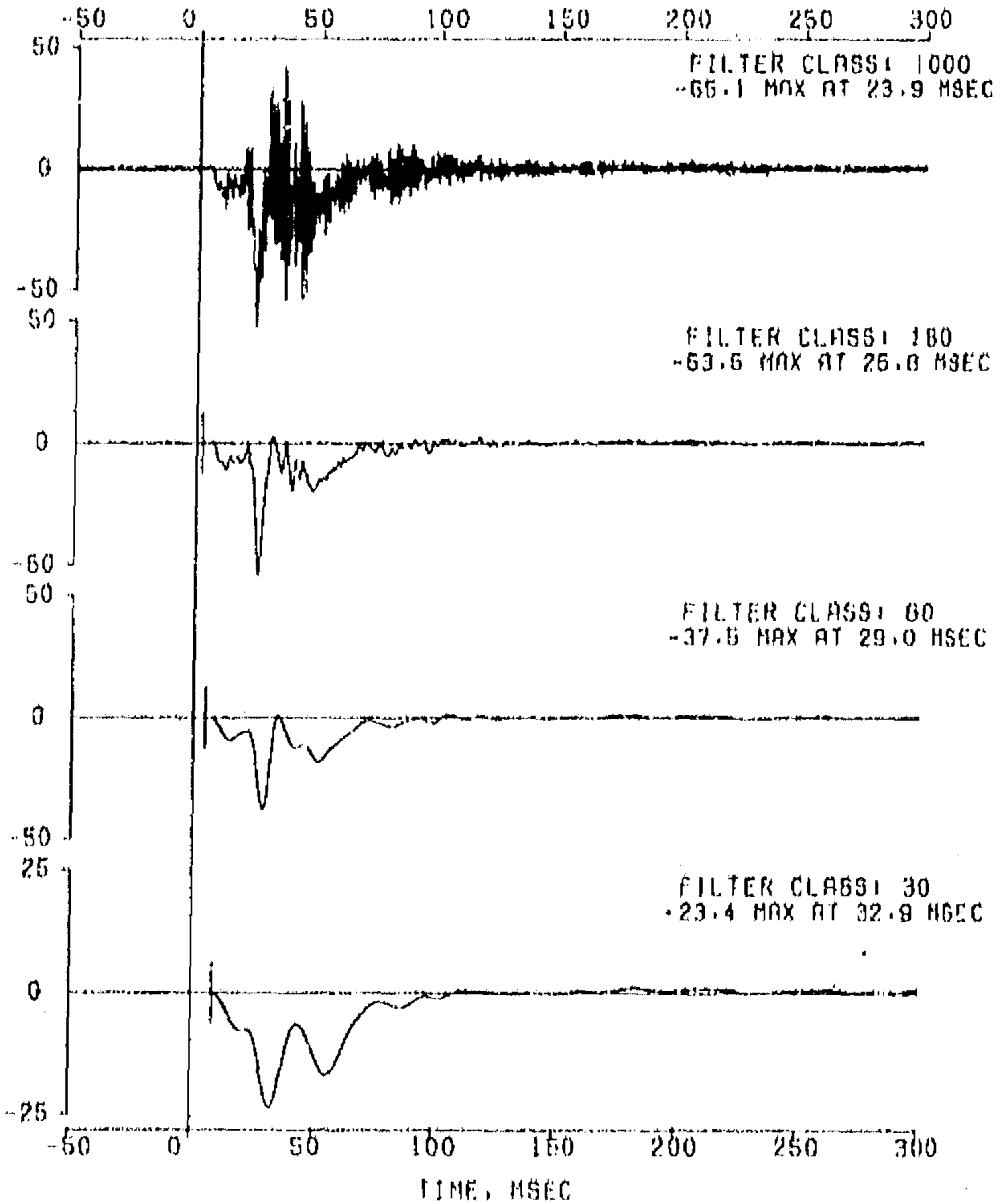
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DATA SET 12/13/99BC  
ERRATA 1



VC00025 36 MPH REAR MOVING BARRIER, KJT-74 ITEM KJ4202R  
2002 HY65 301 REAR IMPACT DEVELOPMENT,  
CHANNEL 039 LEFT MID BILL X 705283  
FILTER TYPE: 080AS-111 RESPONSE CORRECTION, CLASS 1000 FILTER(1000)  
IMPACT ANALYSIS DEPT. 5320  
DEC 14, 1999

DATA SET 12/13/99BC  
ERRATA 1



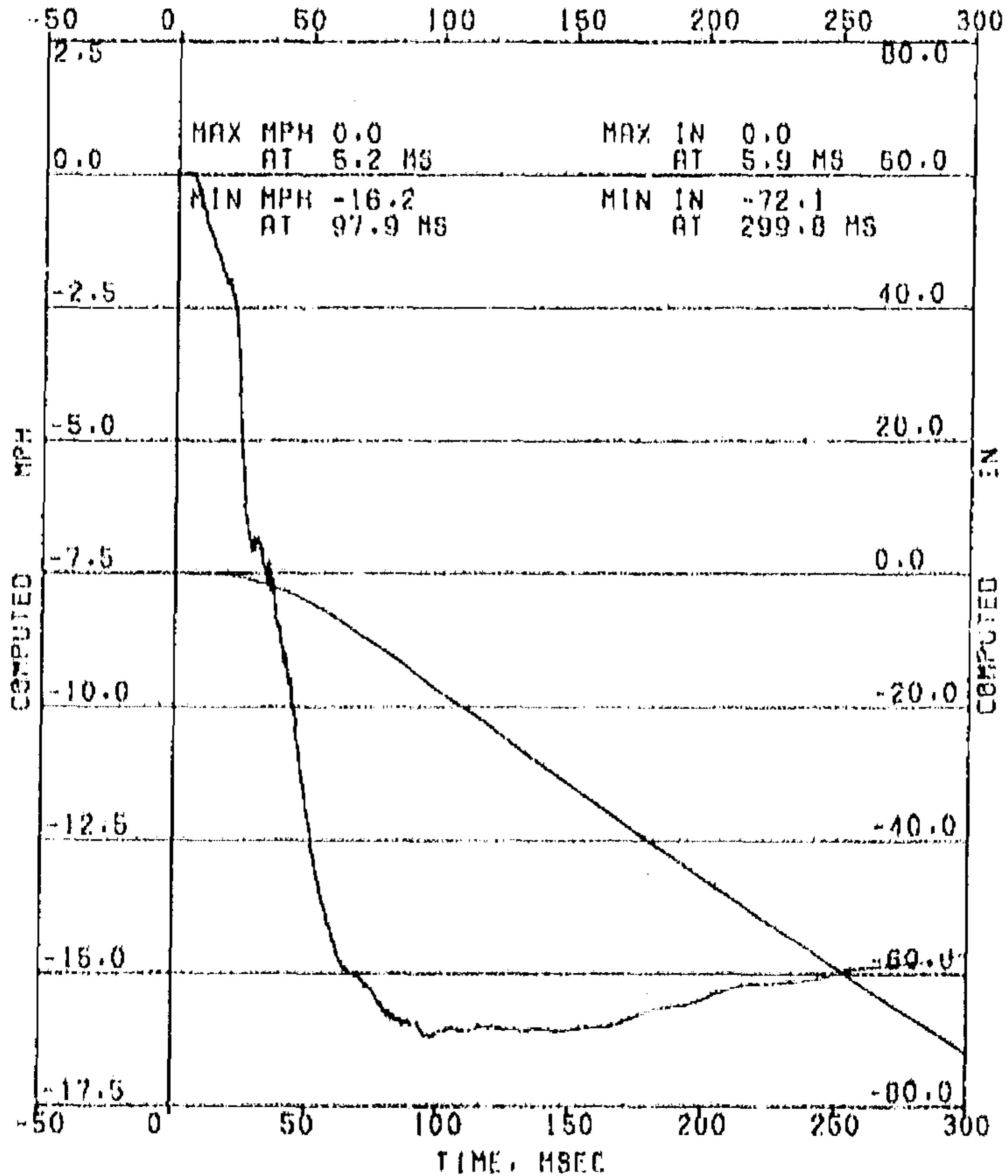
VC08026 30 MPH REAR MOVING BARRIER, KJT-74 ITEM KJ4202R  
2002 MY68 301 REAR IMPACT DEVELOPMENT.  
CHANNEL 039 LEFT MID SILL X 705283

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FILTER TYPE: 0800S-111 RESPONSE CORRECTION, CLASS 1000 FILTER(1650)  
FILTER CLASS: 1000

IMPACT ANALYSIS DEPT. 5320  
DEC 14, 1999

DATA SET 12/13/99BC  
ERRATA 1



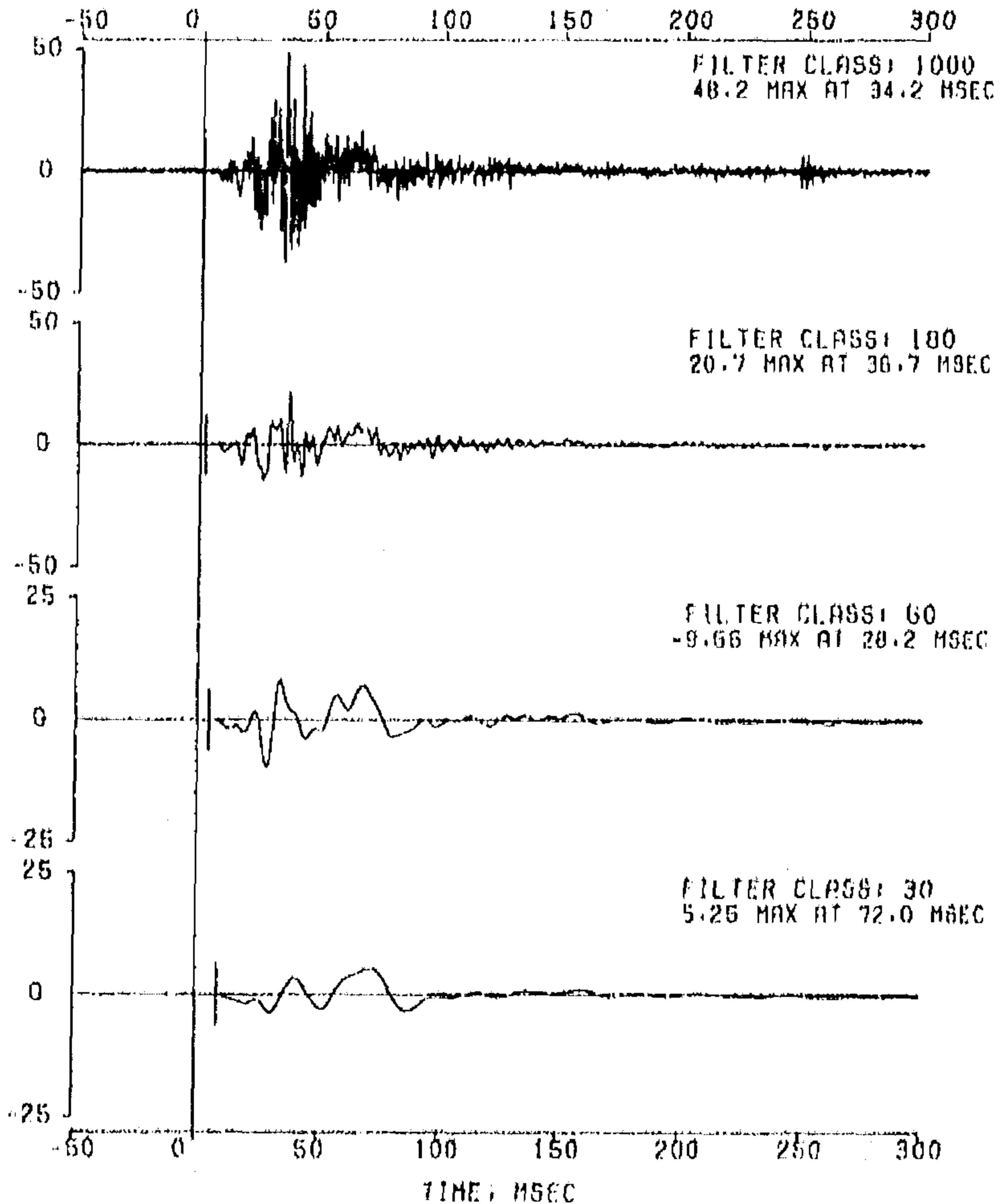
COMPUTED MPH  
COMPUTED IN

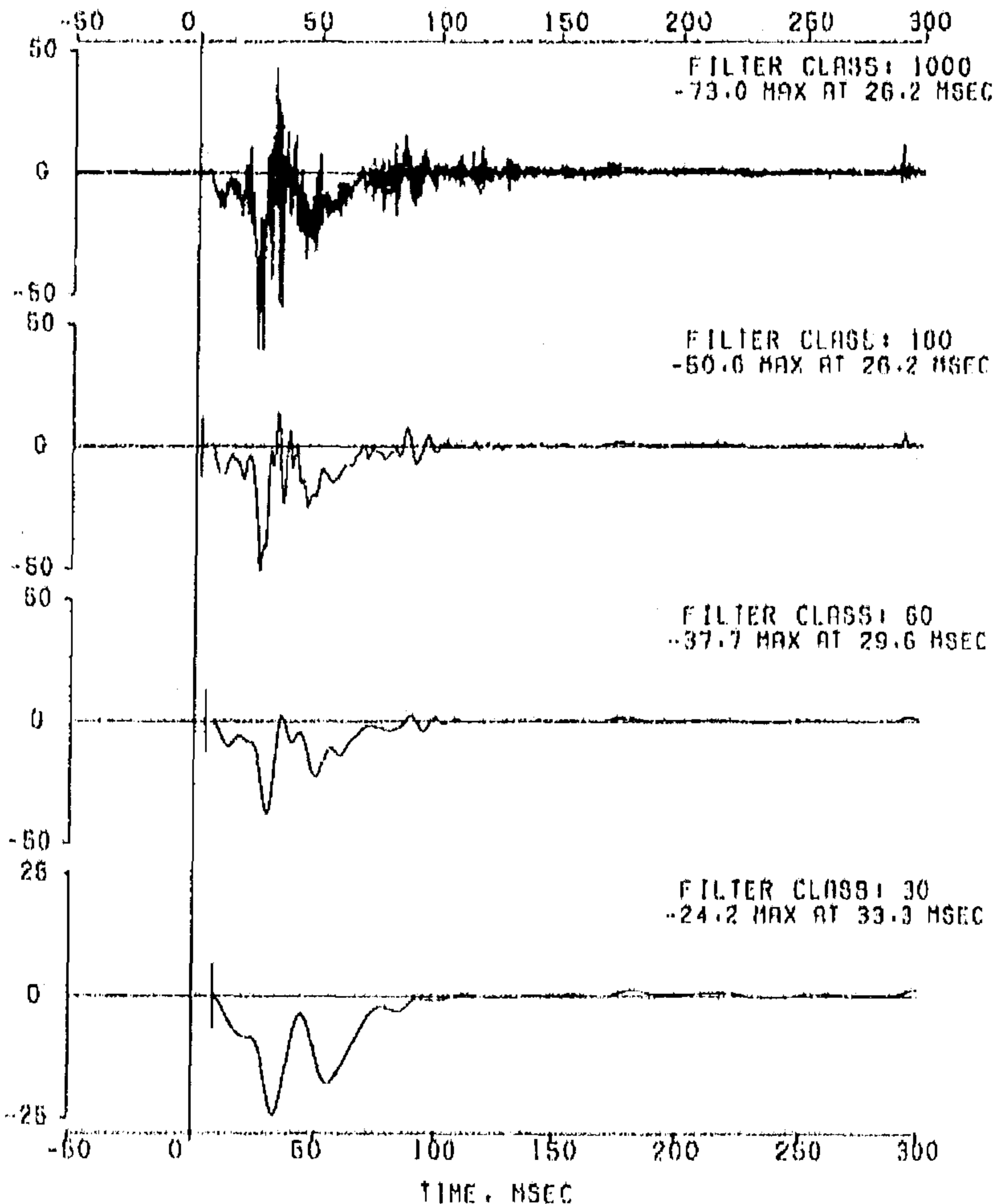


VC09025 30 MPH REAR MOVING BARRIER, KJT-74 ITEM KJ4202R  
2002 HYBR 301 REAR IMPACT DEVELOPMENT,  
CHANNEL 040 LEFT MID SILL 2 650320  
FILTER TYPE: 000AS-111 RESPONSE CORRECTION, CLASS 1000 FILTER(1050)  
IMPACT ANALYSIS DEPT. 5320  
DEC 14, 1999

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DATA SET 12/13/09BC  
ERRATA 1





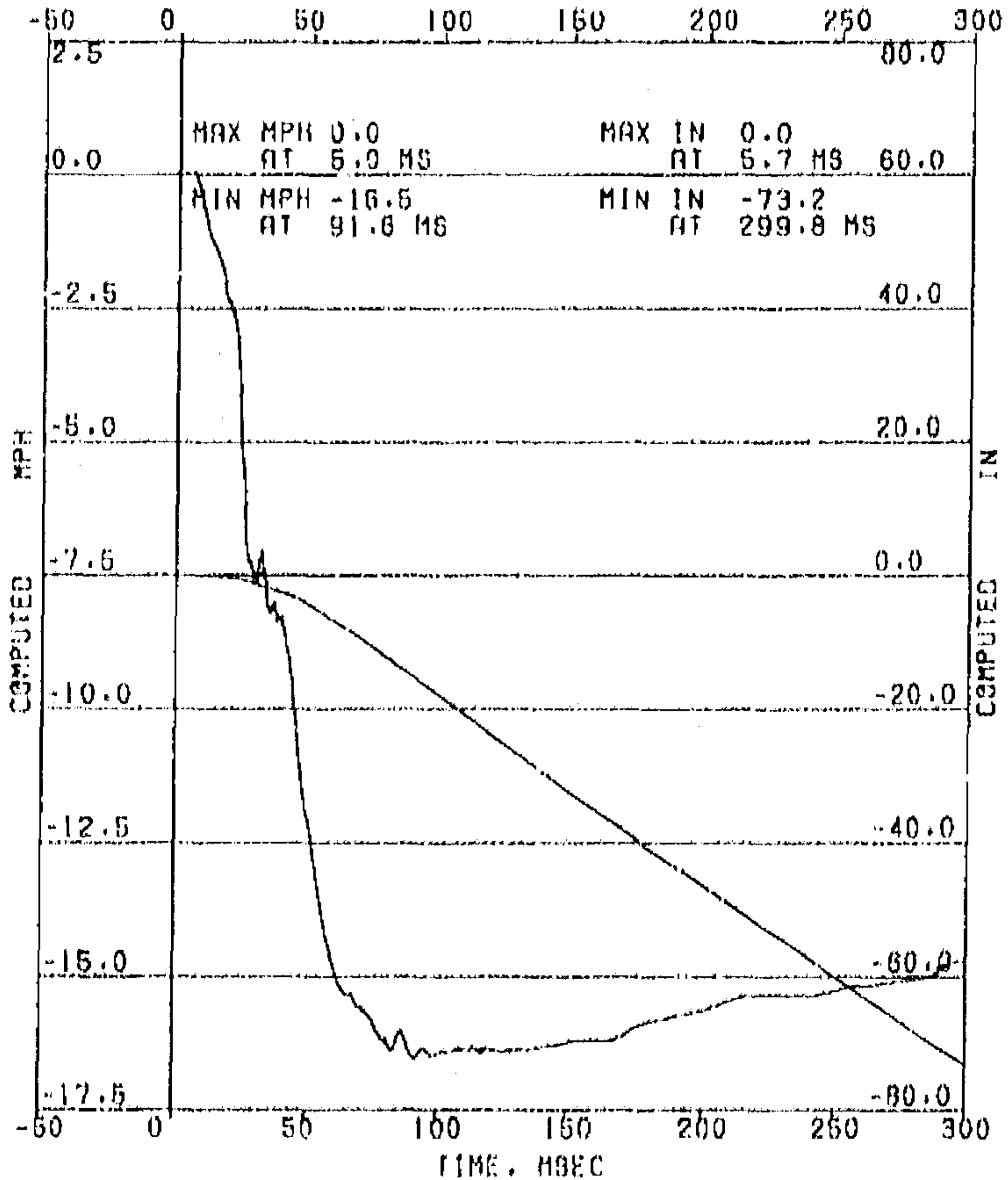
VC08025 30 MPH REAR MOVING BARRIER, KJT-74 ITEM KJ4282R  
 2002 MY85 301 REAR IMPACT DEVELOPMENT.  
 CHANNEL 041 RIGHT MID SILL X 277204

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FILTER TYPE: 000AS-III RESPONSE CORRECTION, CLASS 1000 FILTER(1860)  
 FILTER CLASS: 1000

IMPACT ANALYSIS DEPT. 5320  
 DEC 14, 1999

DATA SET 12/13/99BC  
 ERRATA 1



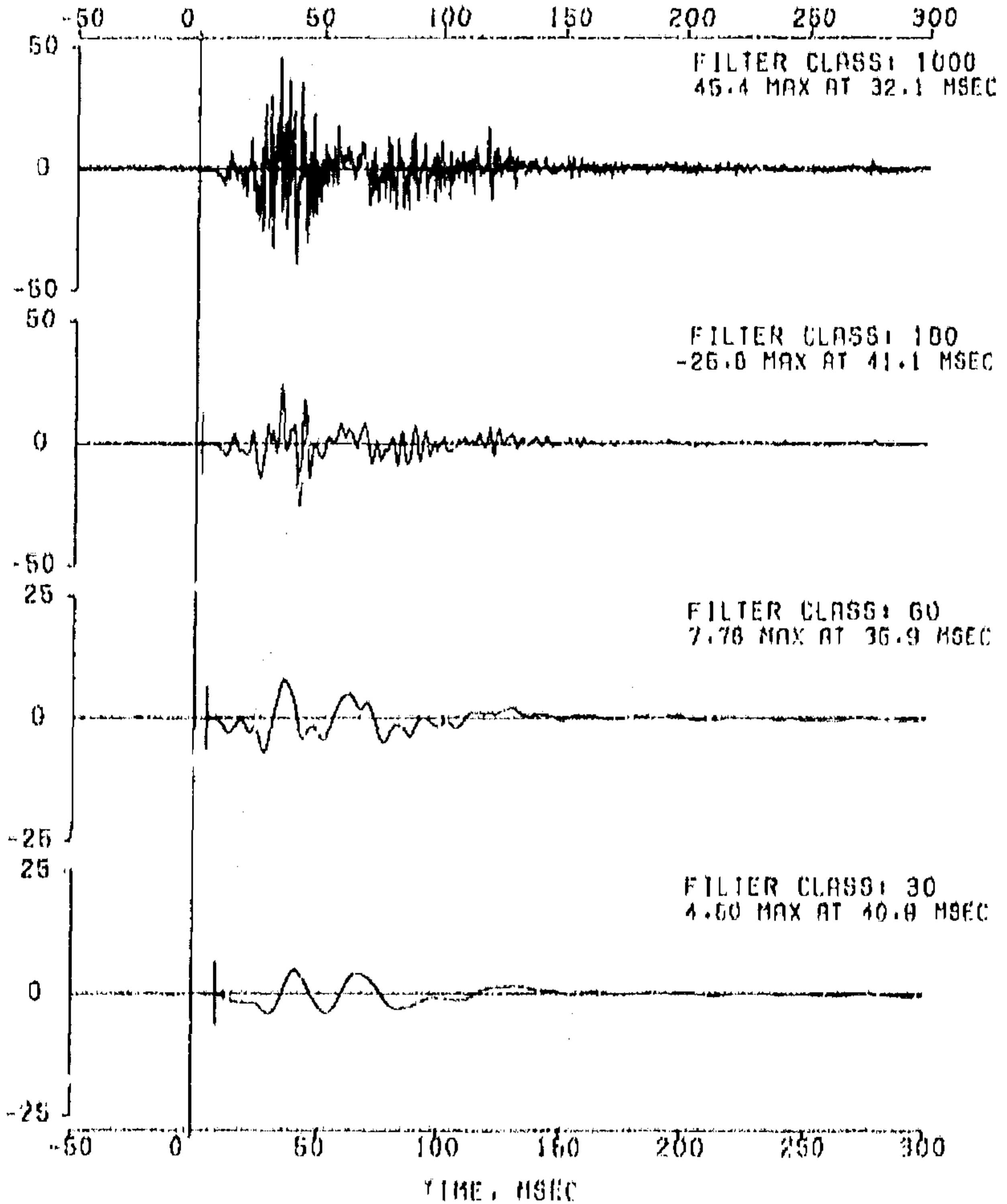
COMPUTED MPH  
 COMPUTED IN



VC08028 30 MPH REAR MOVING BARRIER, KJT-74 ITEM KJ4202R  
2002 HYSS 301 REAR IMPACT DEVELOPMENT,  
CHANNEL 042 RIGHT MID SILL Z 858354  
FILTER TYPE: ODDAS-III RESPONSE CORRECTION, CLASS 1000 FILTER(1850)  
IMPACT ANALYSIS DEPT. 5320  
DEC 14, 1999

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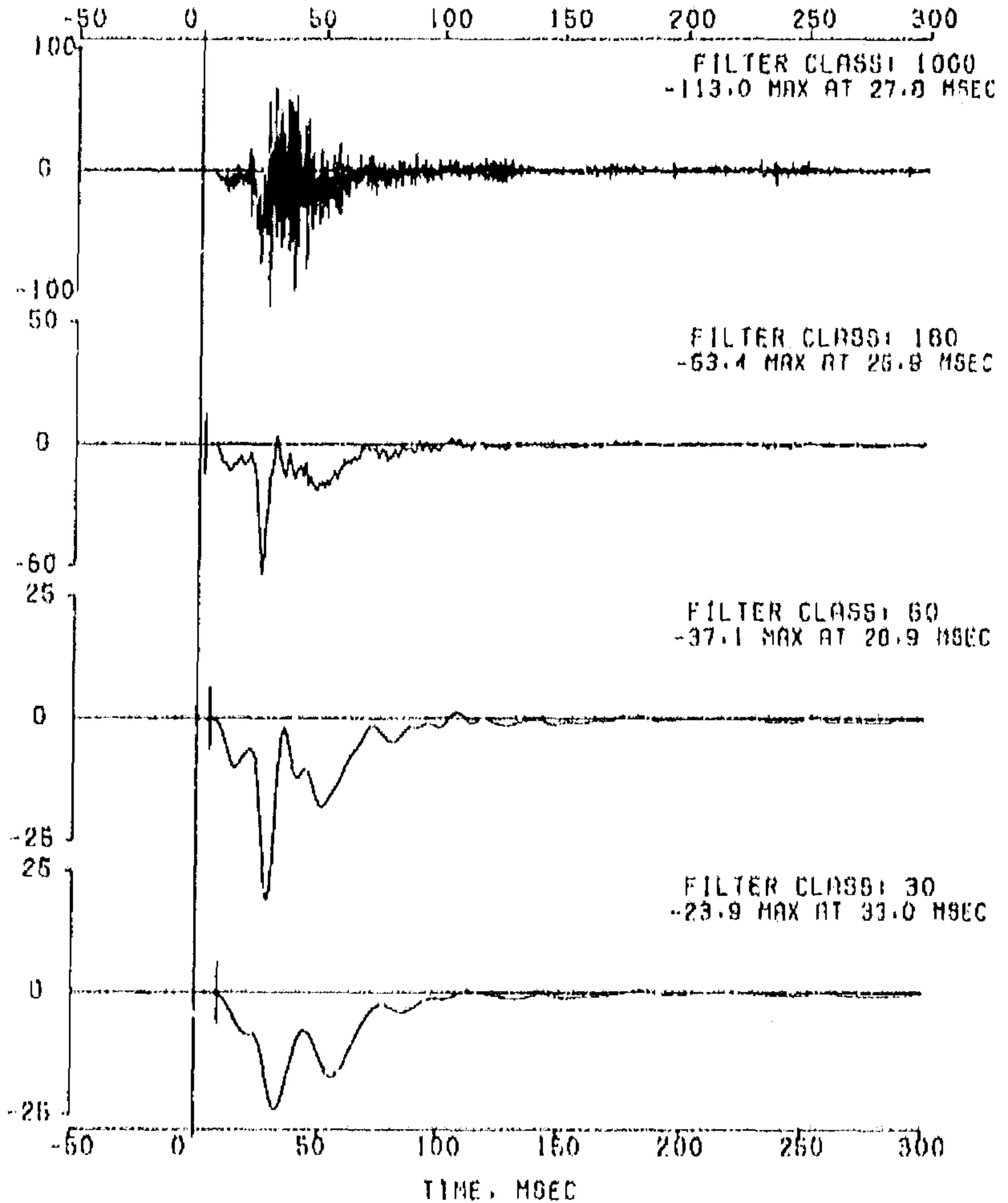
DATA SET 12/13/99BC  
ERRATA 1



VC08026 30 MPH REAR MOVING BARRIER, KJT-,, ITEM KJ4282R  
2002 HYDS 301 REAR IMPACT DEVELOPMENT,  
CHANNEL 043 LEFT REAR SILL X 658964  
FILTER TYPE: QBDAS-III RESPONSE CORRECTION, CLASS 1000 FILTER(1660)  
IMPACT ANALYSIS DEPT. 6320  
DEC 14, 1999

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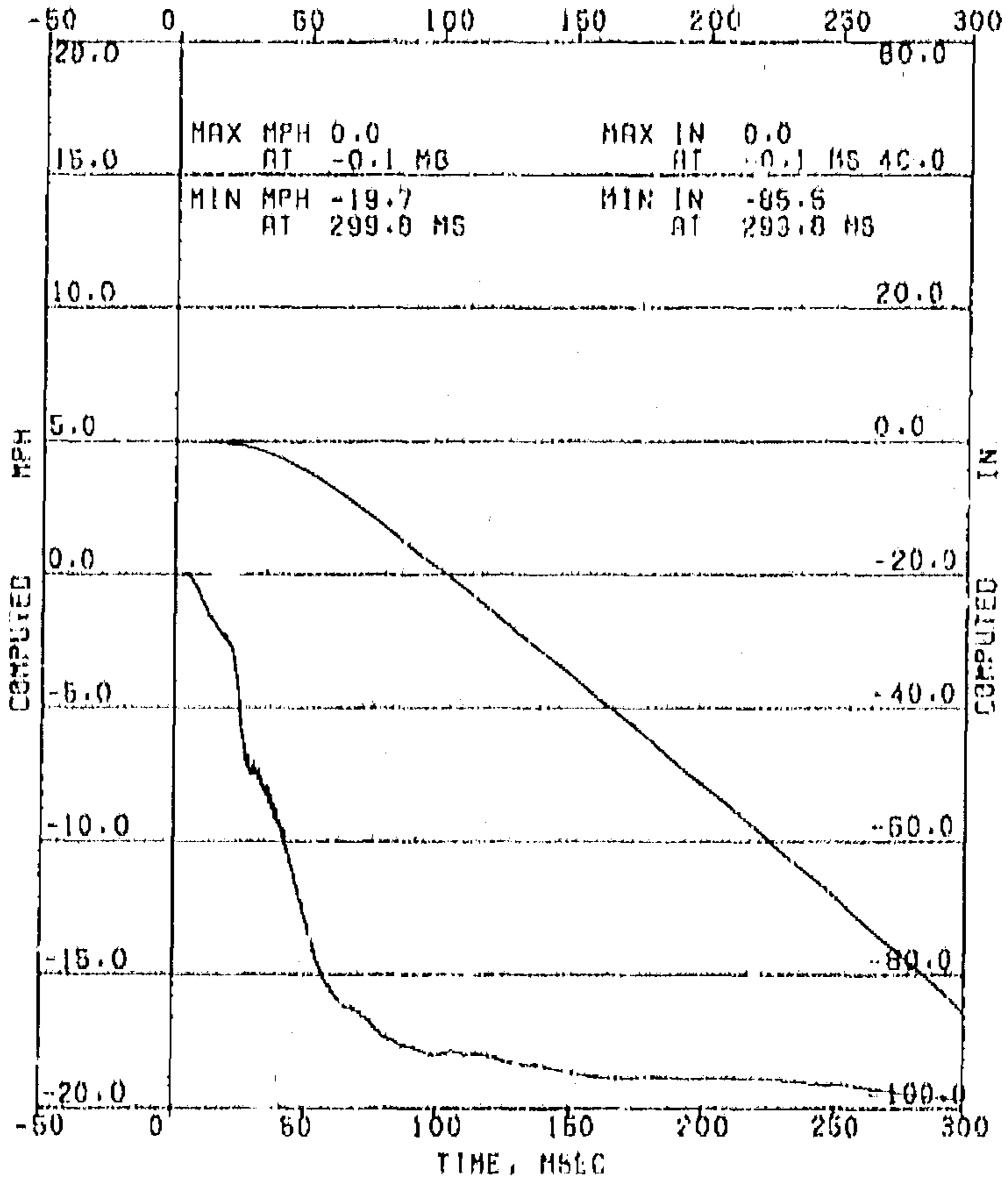
DATA SET 12/13/99BC  
ERRATA 1



FILTER TYPE: 000A8-111 RESPONSE CORRECTION, CLASS 1000 FILTER(1650)  
 FILTER CLASS: 1000

IMPACT ANALYSIS DEPT. 5320  
 DEC 14, 1999

DATA SET 12/13/990C  
 ERRATA 1



COMPUTED MPH  
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VC08025 30 MPH REAR MOVING BARRIER, KJT-74 ITER KJ4202R

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2002 MV88 301 REAR IMPACT DEVELOPMENT.

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CHANNEL 044 RIGHT REAR SILL X 808378

FILTER TYPE: BBDAS-III RESPONSE CORRECTION, CLASS 1000 FILTER(1660)

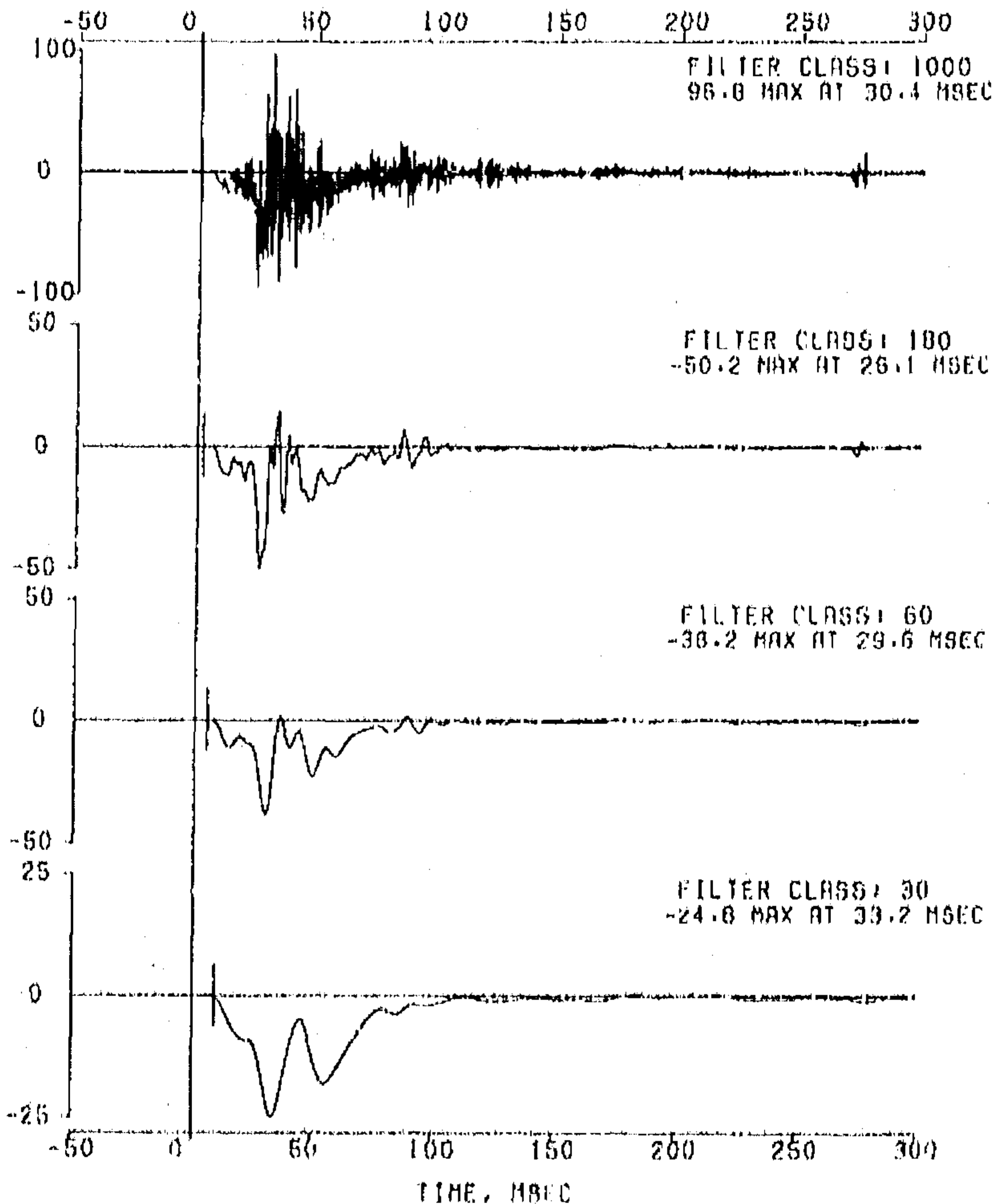
IMPACT ANALYSIS DEPT. 5320

DATA SET 12/13/998C

DEC 14, 1999

ERRATA

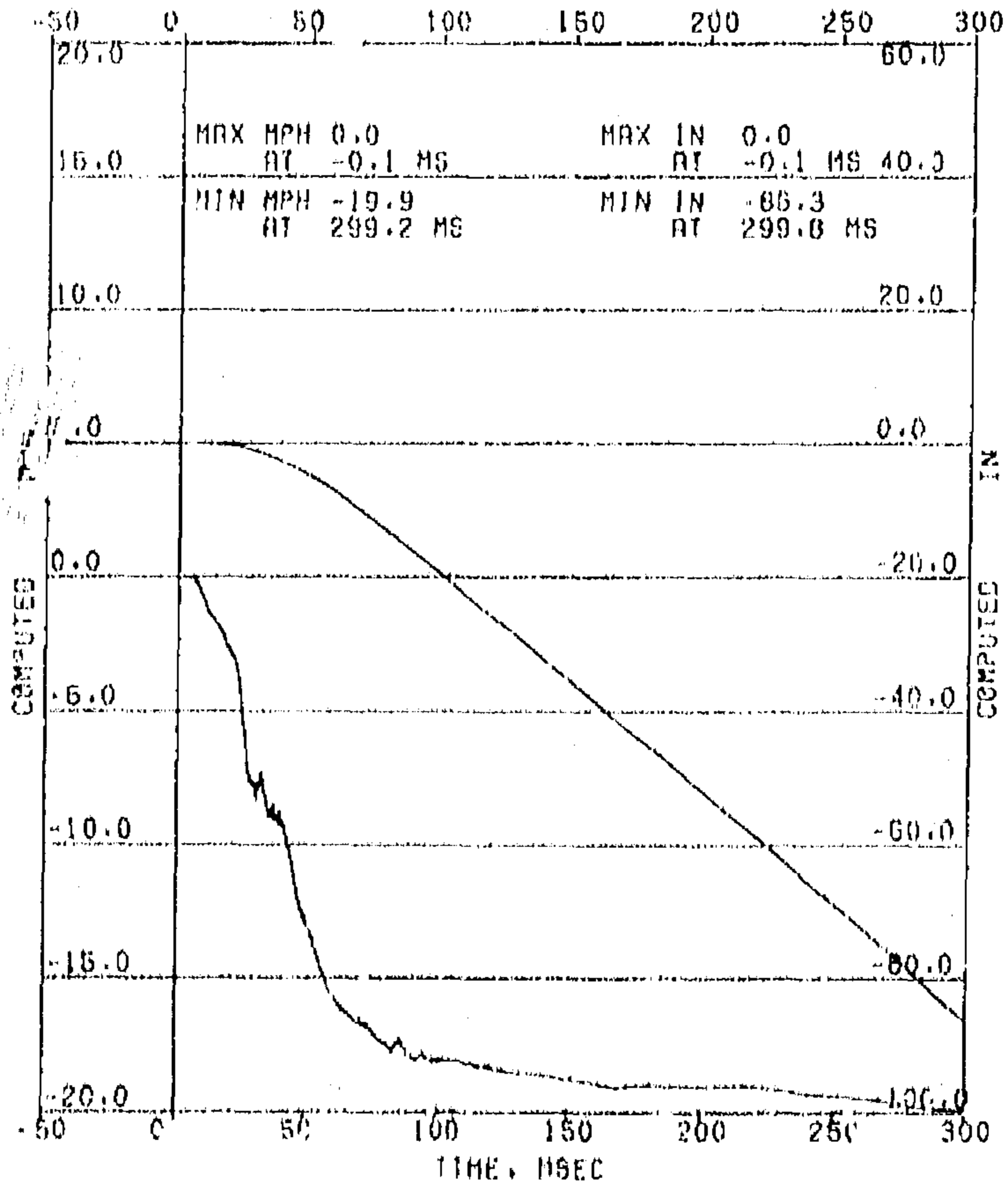
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FILTER TYPE: 00006-111 RESPONSE CORRECTION, CLASS 1000 FILTER(1650)  
 FILTER CLASS: 1000

IMPACT ANALYSIS DEPT. 5320  
 DEC 14, 1999

DATA SET 12/13/99BC  
 ERRATA 1

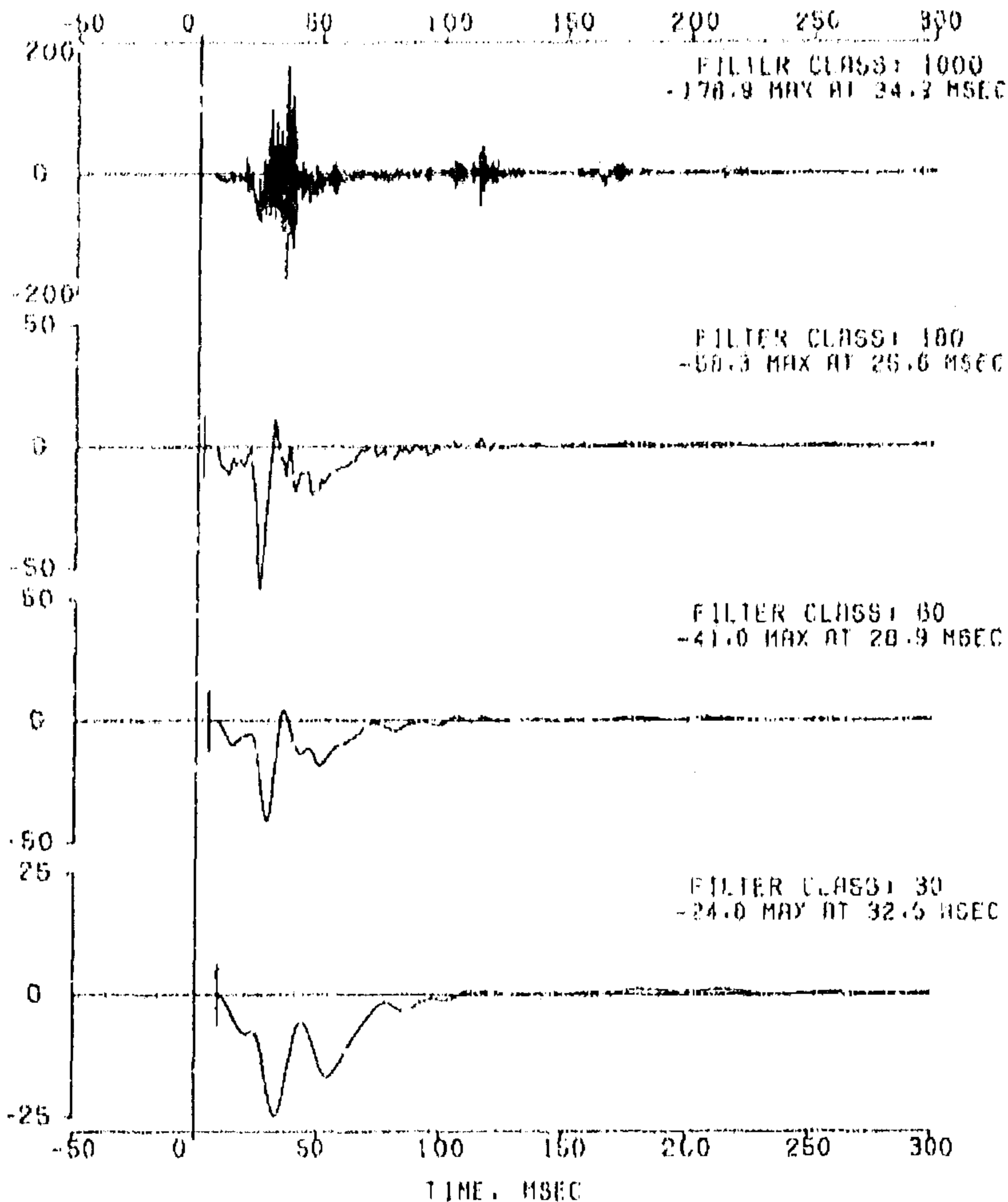


COMPUTED MPH  
 COMPUTED IN

Y000026 30 MPH REAR MOVING BARRELS, KJ1-74 ITEM KJ42620  
2002 HYSS 301 REAR IMPACT DEVELOPMENT.  
CHANNEL 045 CT ROLL TRANS XMOR X 011922  
FILTER TYPE: UB005-111 RESPONSE CORRECTION CLASS 1000 FILTER(1050)  
IMPACT ANALYSIS DEPT. 5320  
DEC 14, 1999

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DATA SET 12/13/9900  
ERRATA 1

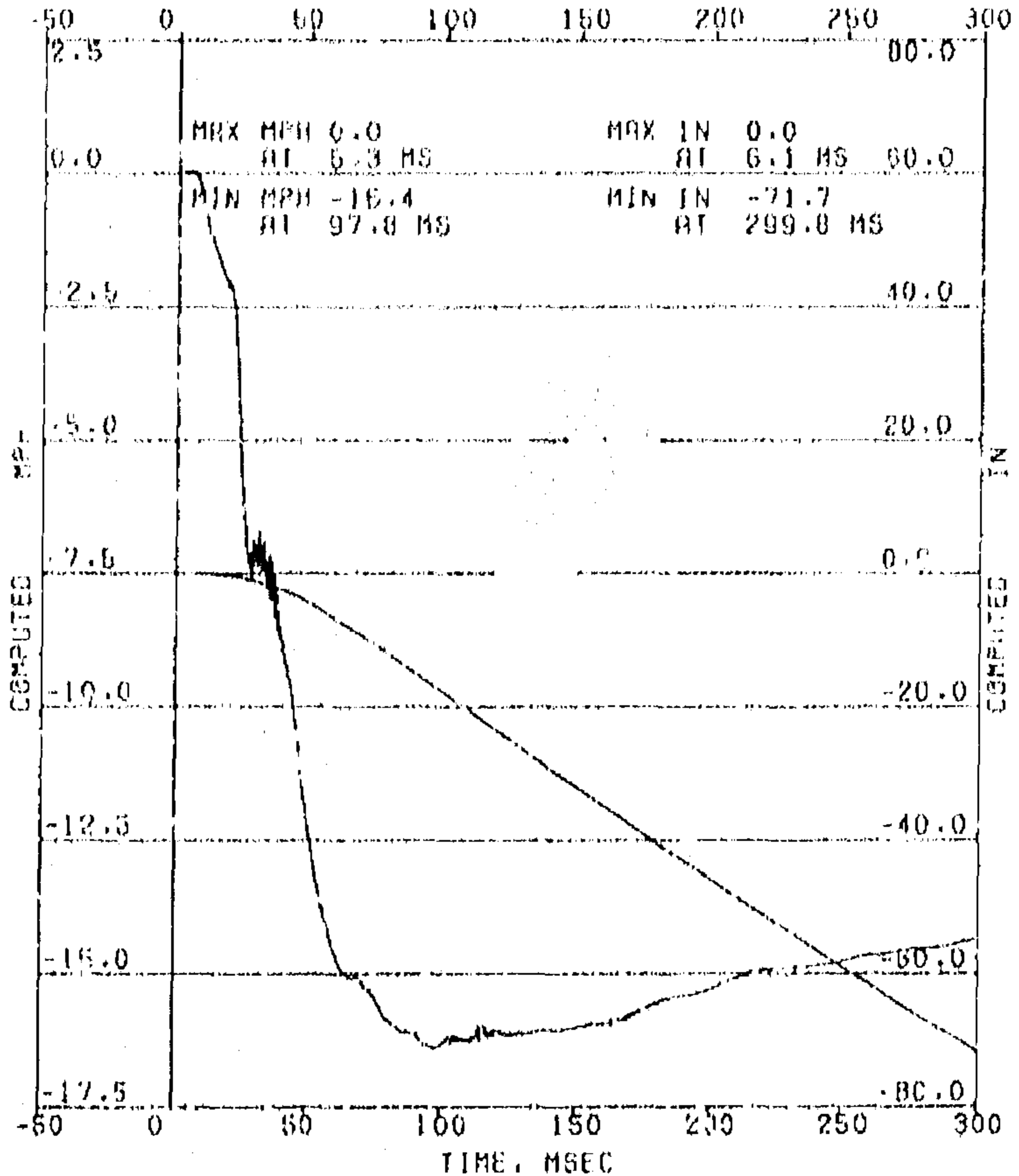




FILTER TYPE: 00003-111 RESPONSE CORRECTION, CLASS 1000 FILTER(1000)  
 FILTER CLASS: 1000

IMPACT ANALYSIS DEPT. 5320  
 DEC. 14, 1999

DATE SET 12/13/9980  
 ERRATA 1

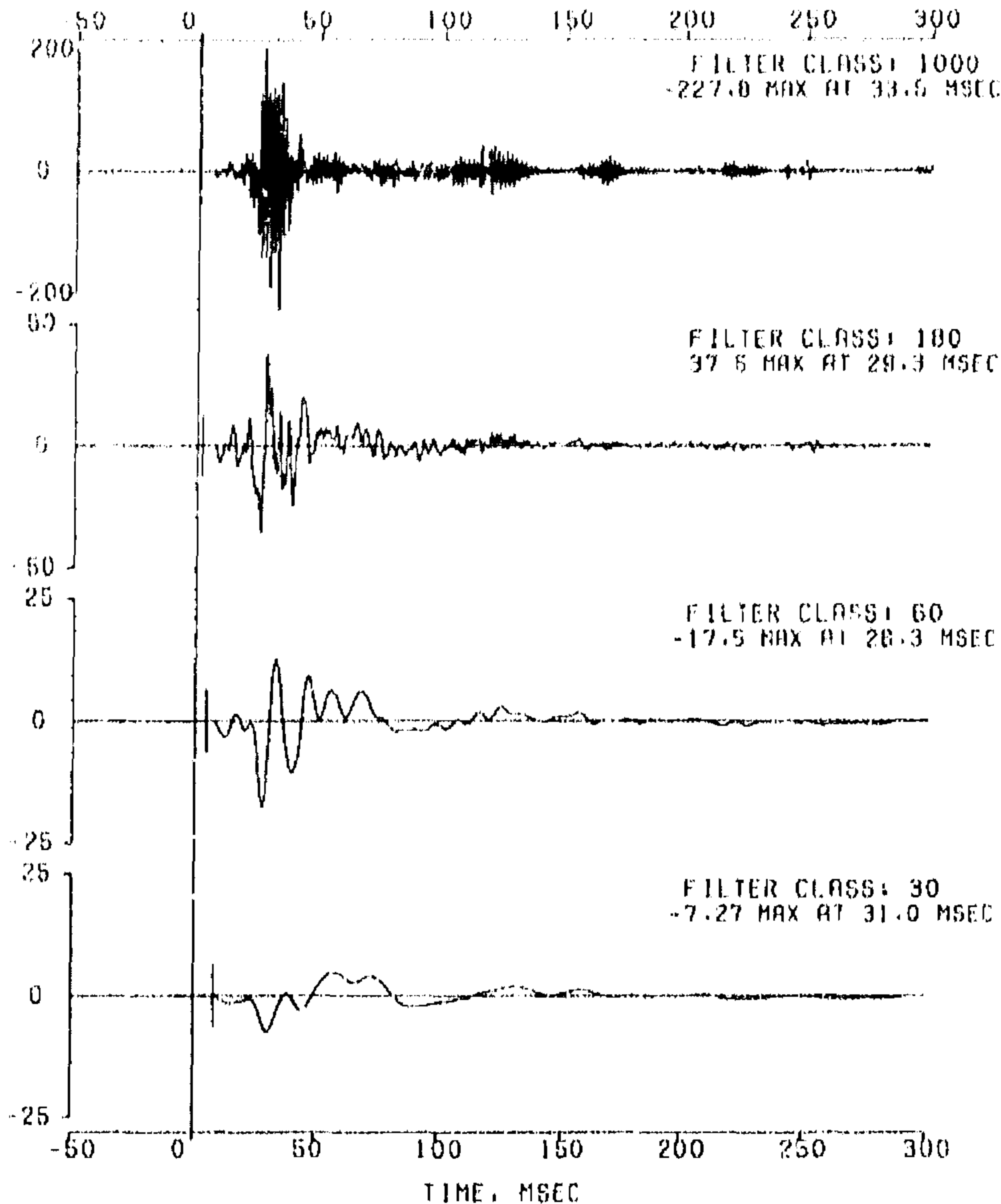


COMPUTED MPH  
 COMPUTED IN

VC08026 30 MPH REAR MOVING BARRIER, KBT-74 ITEM #4202R  
2007 HY55 301 REAR IMPACT DEVELOPMENT.  
CHANNEL 046 L1 RAIL TRANS XMR Z 705322  
FILTER TYPE: UDDAS-111 RESPONSE CORRECTION, CLASS 1000 FILTER(1650)  
IMPACT ANALYSIS DEPT. 5320  
OCT 14, 1999

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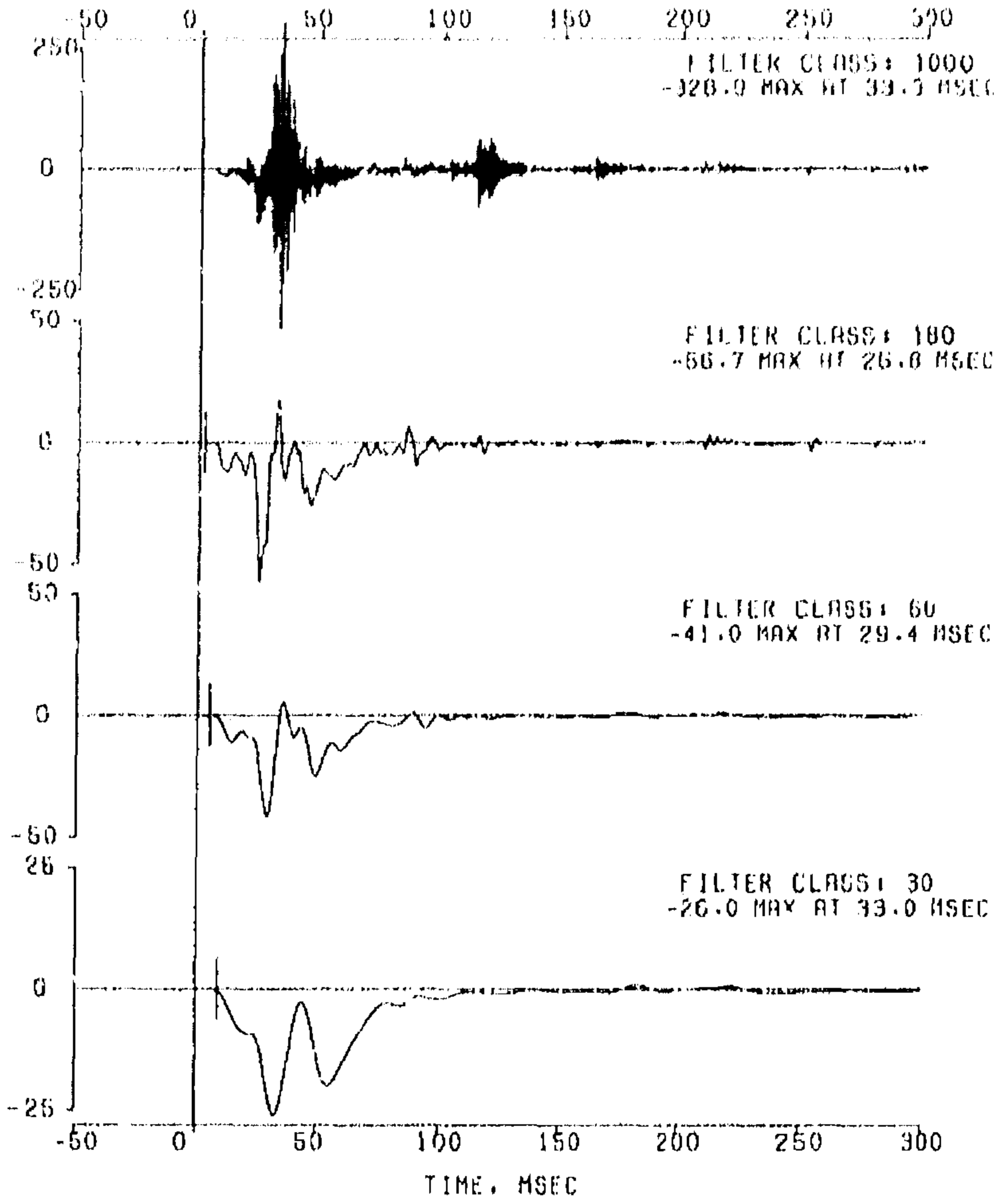
DATA SET 12/13/89BC  
ERRATA 1



VC00026 30 MPH REAR MOVING BARRIER, KJ1-74 ITEM KJ4202P  
2002 HYSS 301 REAR IMPACT DEVELOPMENT.  
CHANNEL 047 RT RAIL TRANS XTRC X 600359  
FILTER TYPE: 0005-III RESPONSE CORRECTION, CLASS 1000 FILTER(1050)  
IMPACT ANALYSIS DEPT. 5320  
DEC 14, 1999

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DATA SET 12/13/98BC  
ERRATA 1

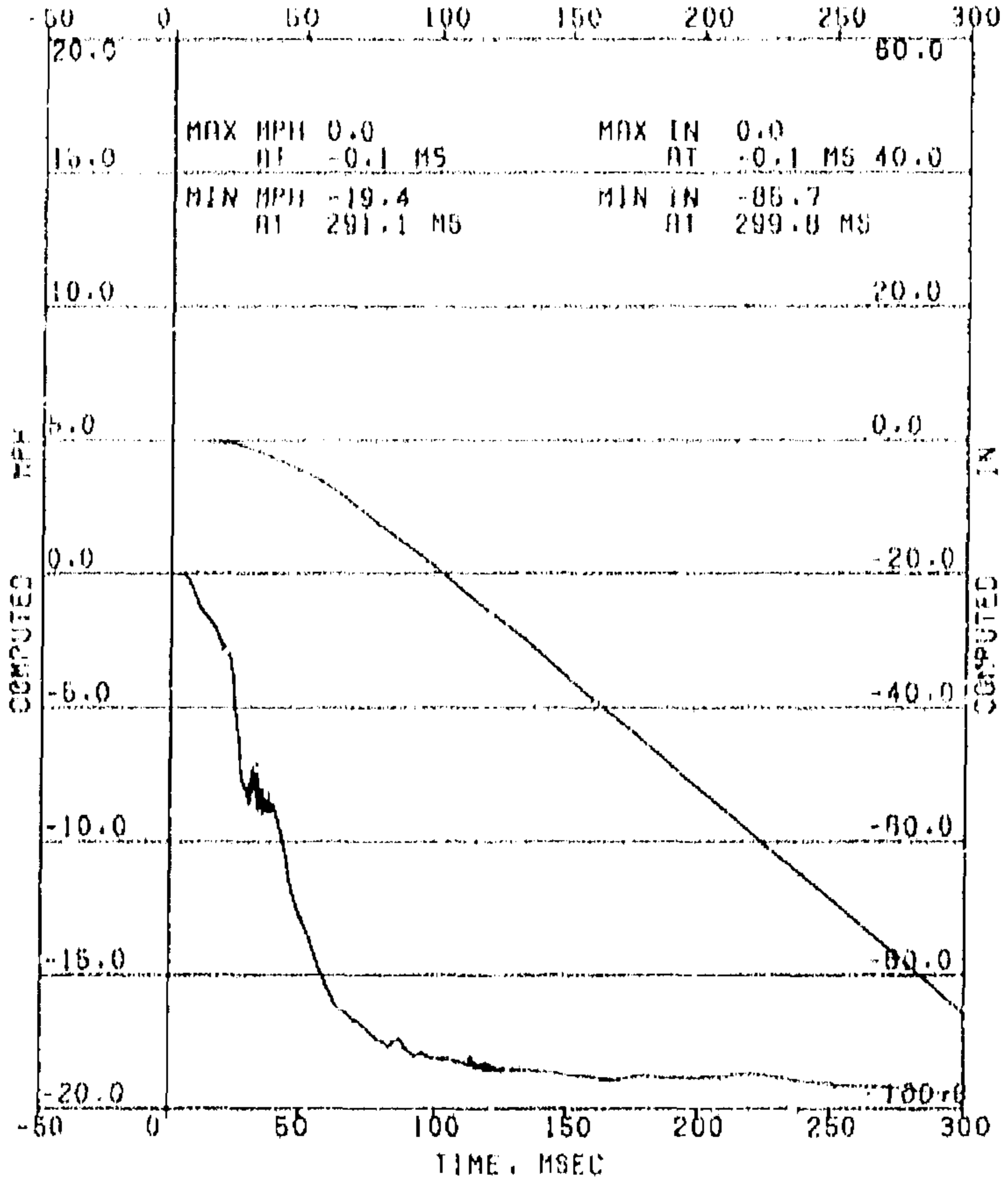




FILTER TYPE: 00045-111 RESPONSE CORRECTION: CLASS 1000 FILTER(1660)  
 FILTER CLASS: 1000

IMPACT ANALYSIS DEPT. 5320  
 DEC 14, 1999

DATA SET 12/13/99BC  
 ERRATA 1

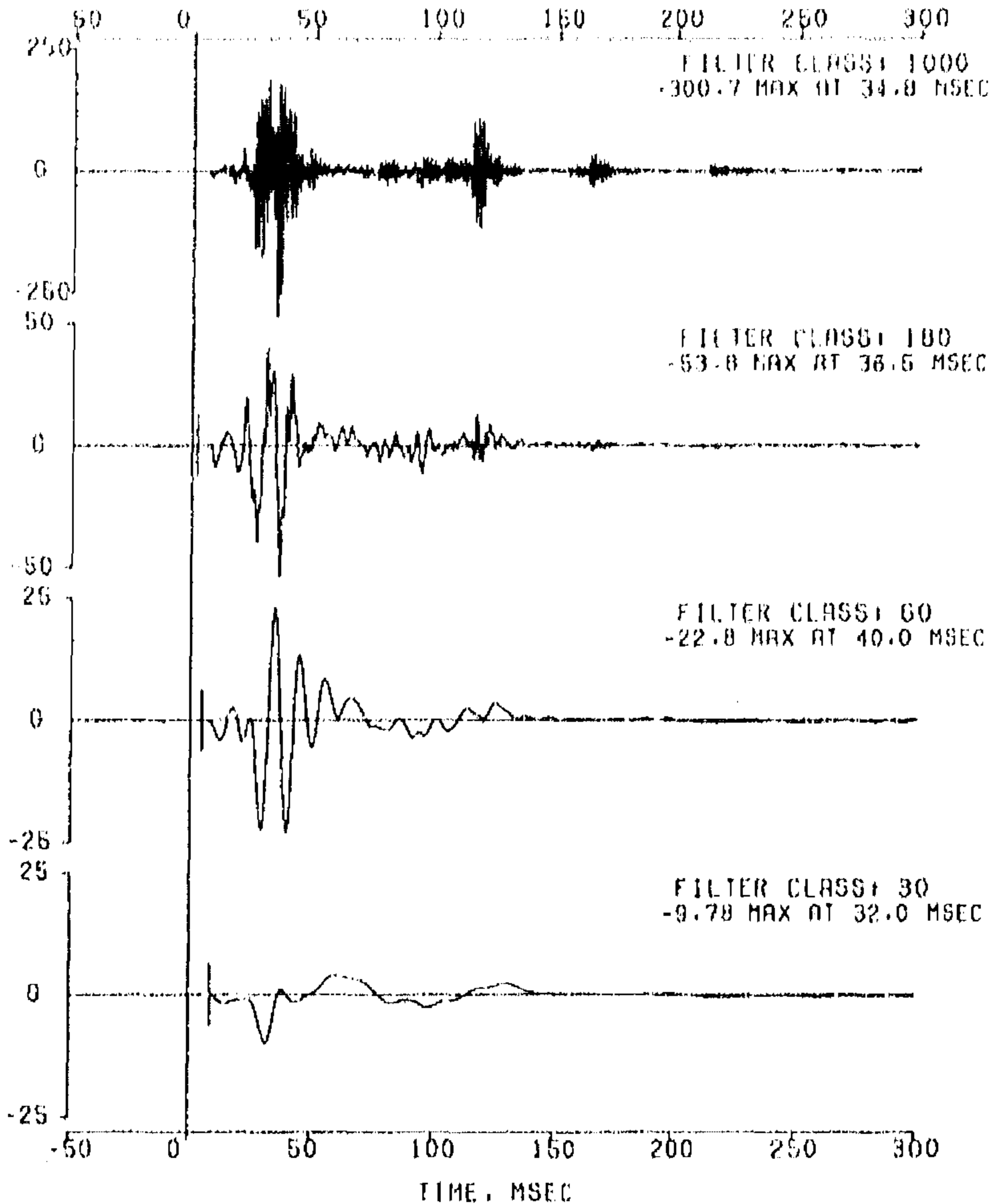


COMPUTED MPH  
 COMPUTED IN

VC08025 30 MPH REAR MOVING BARRIER, KJF-74 ITEM KJ4282R  
2002 MY56 301 REAR IMPACT DEVELOPMENT.  
CHANNEL 040 RT RAIL TRANS XMR 2 139397  
FILTER TYPE: OBOAS-111 RESPONSE CORRECTION, CLASS 1000 FILTER:16501  
IMPACT ANALYSIS DEPT. 5320  
DEC 14, 1999

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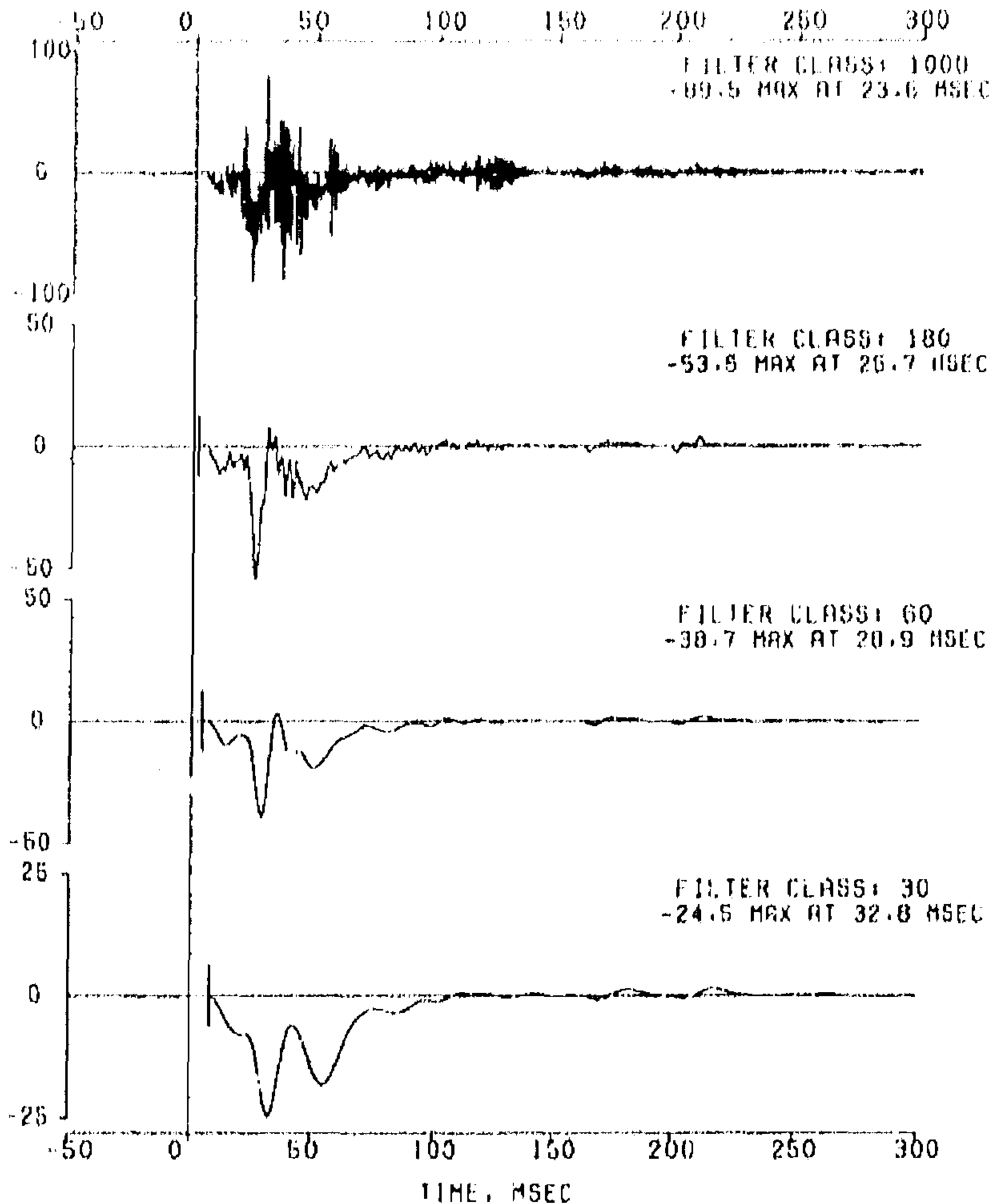
DATA SET 12/13/99BC  
ERRATA 1



YCG026 30 MPH REAR MOVING BARRIER, KJ424 ITEM KJ4202R  
2002 HYUN 301 REAR IMPACT DEVELOPMENT.  
CHANNEL 049 LT RL FWD RR CTRL ARM X 600400  
FILTER TYPE: 00045-111 RESPONSE CORRECTION, CLASS 1000 FILTER(1000)  
IMPACT ANALYSIS DEPT, 5320  
DEC 14, 1999

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DATA SET 12/13/99BD  
ERRATA 1





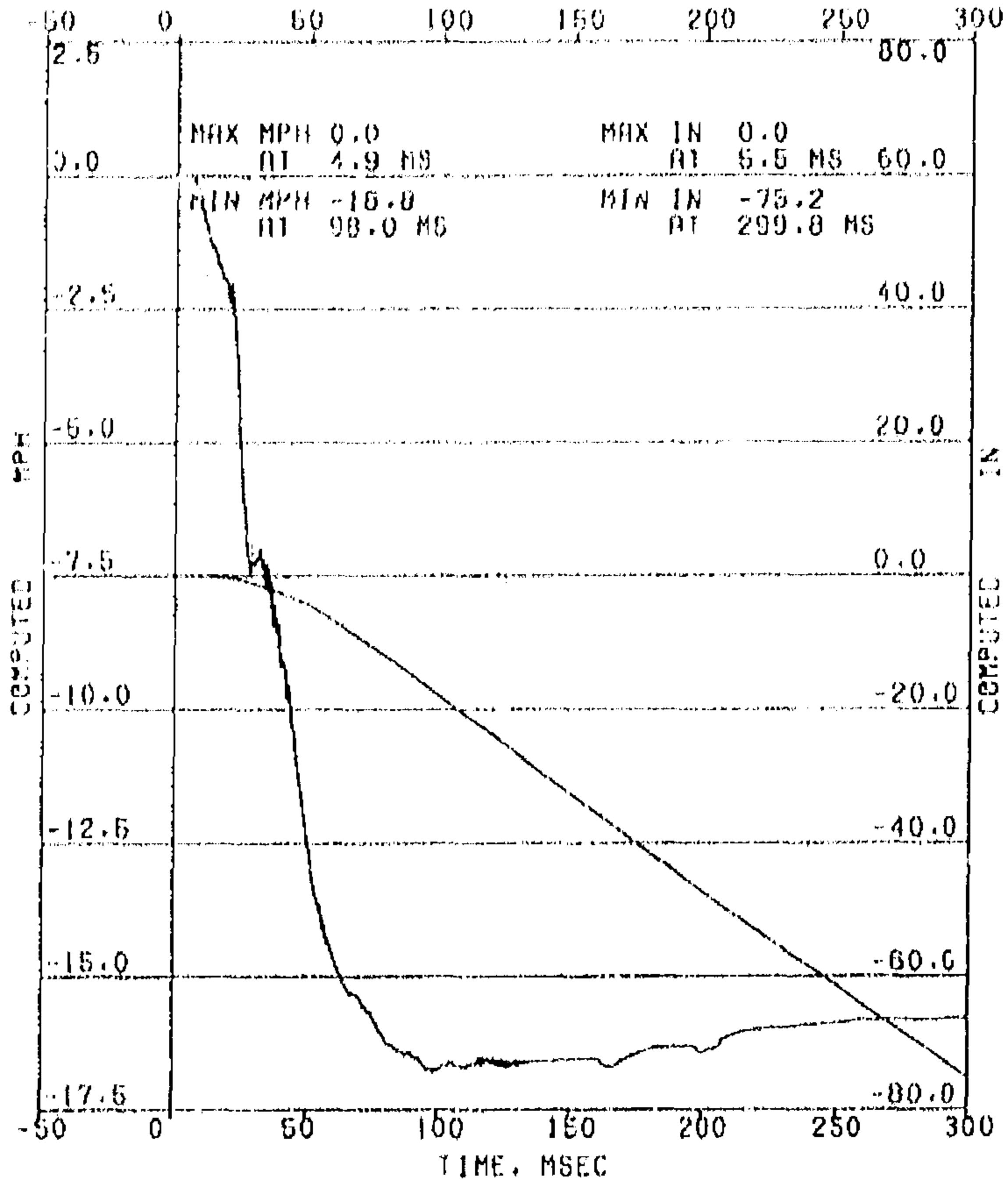
VCOB025 30 MPH REAR MOVING BARRIER, KJ1-74 ITEM KJ4232R  
 2002 HY55 301 REAR IMPACT DEVELOPMENT.  
 CHANNEL 049 LT RL FWD RR CTRM ARM X 608400

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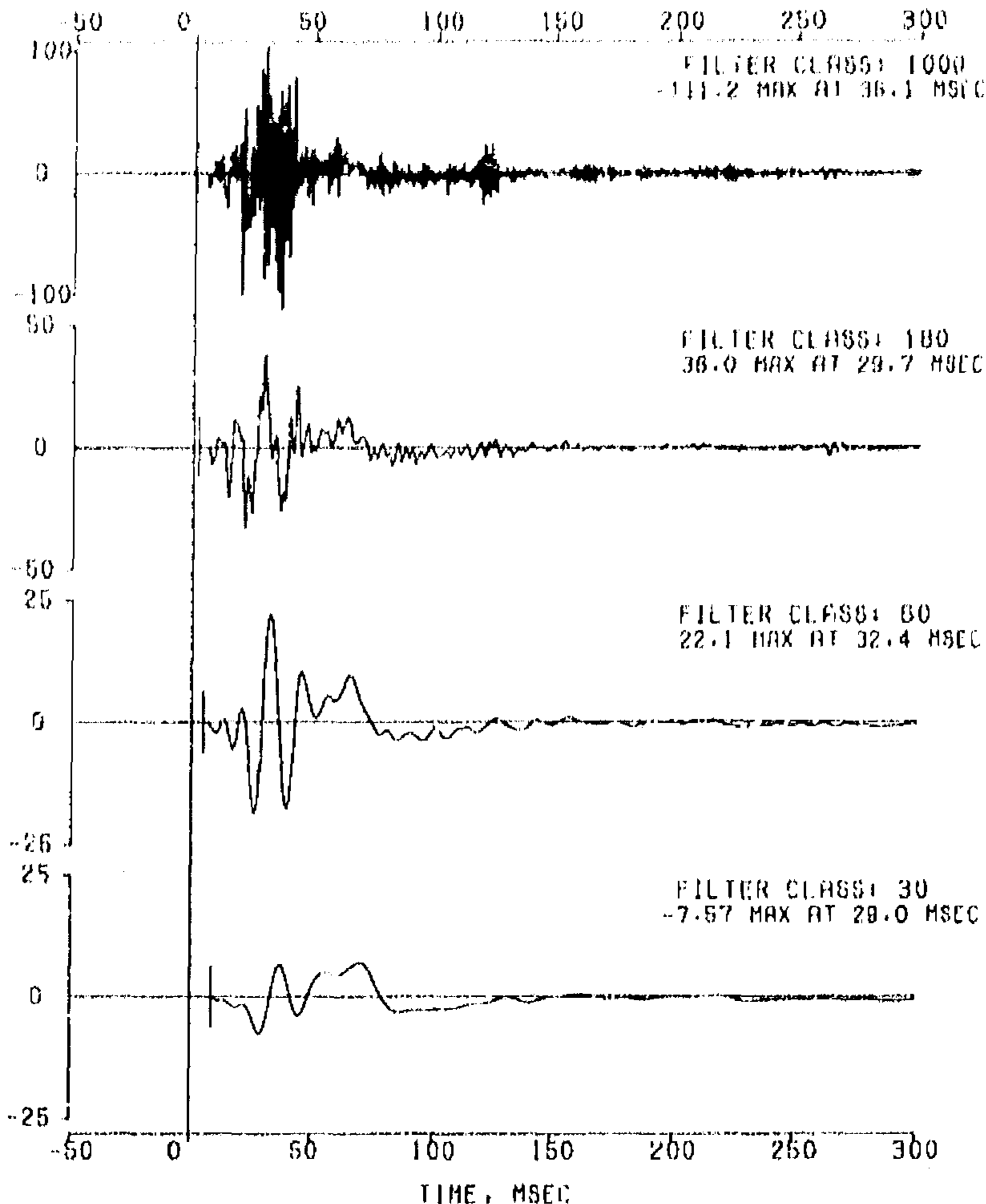
FILTER TYPE: DDAS-III RESPONSE CORRECTION, CLASS 1000 FILTER(1650)  
 FILTER CLASS: 1000

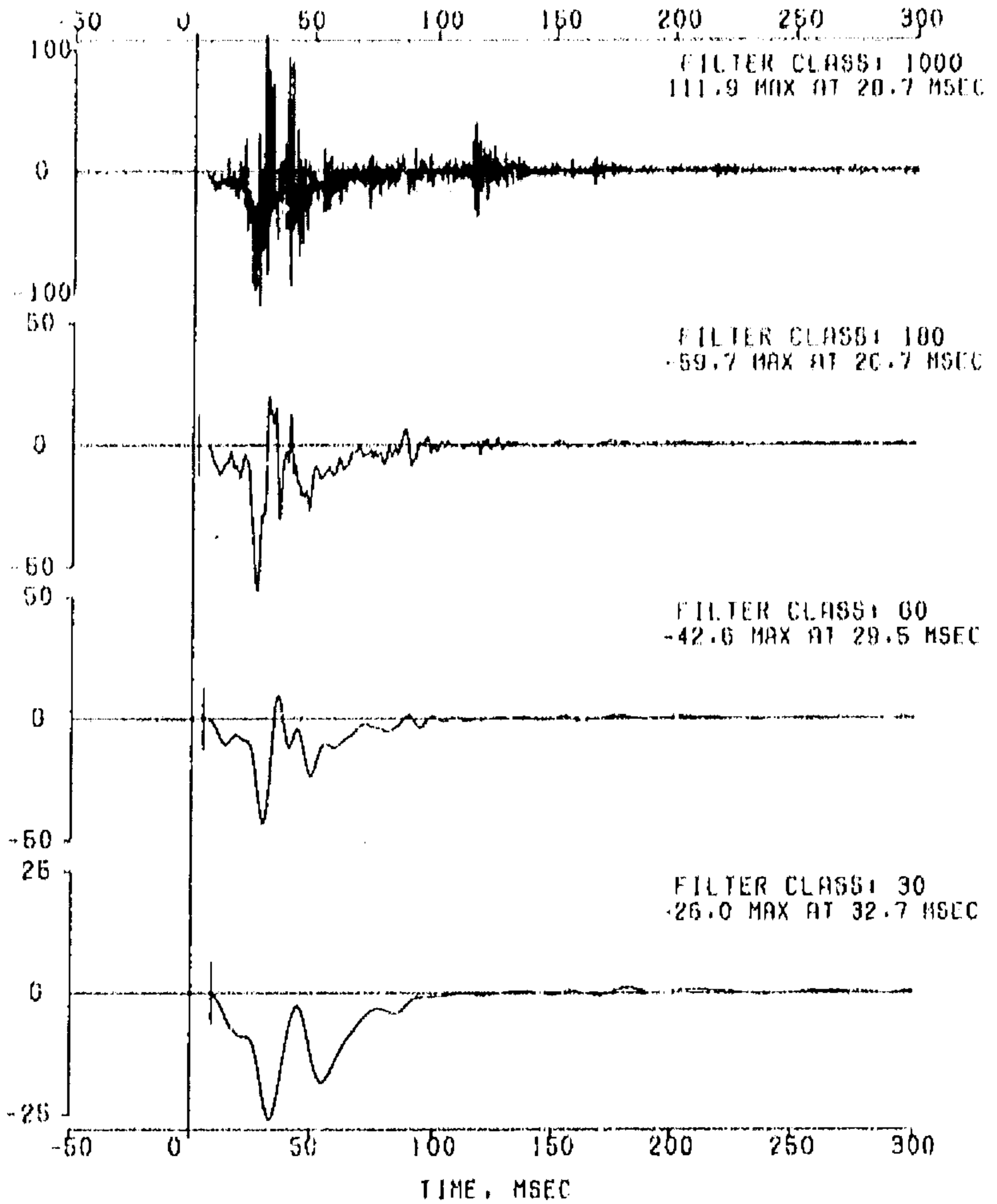
IMPACT ANALYSIS DEPT. 5320  
 DEC 14, 1999

DATA SET 12/13/9980  
 ERRATA 1



COMPUTED MPH  
 COMPUTED IN



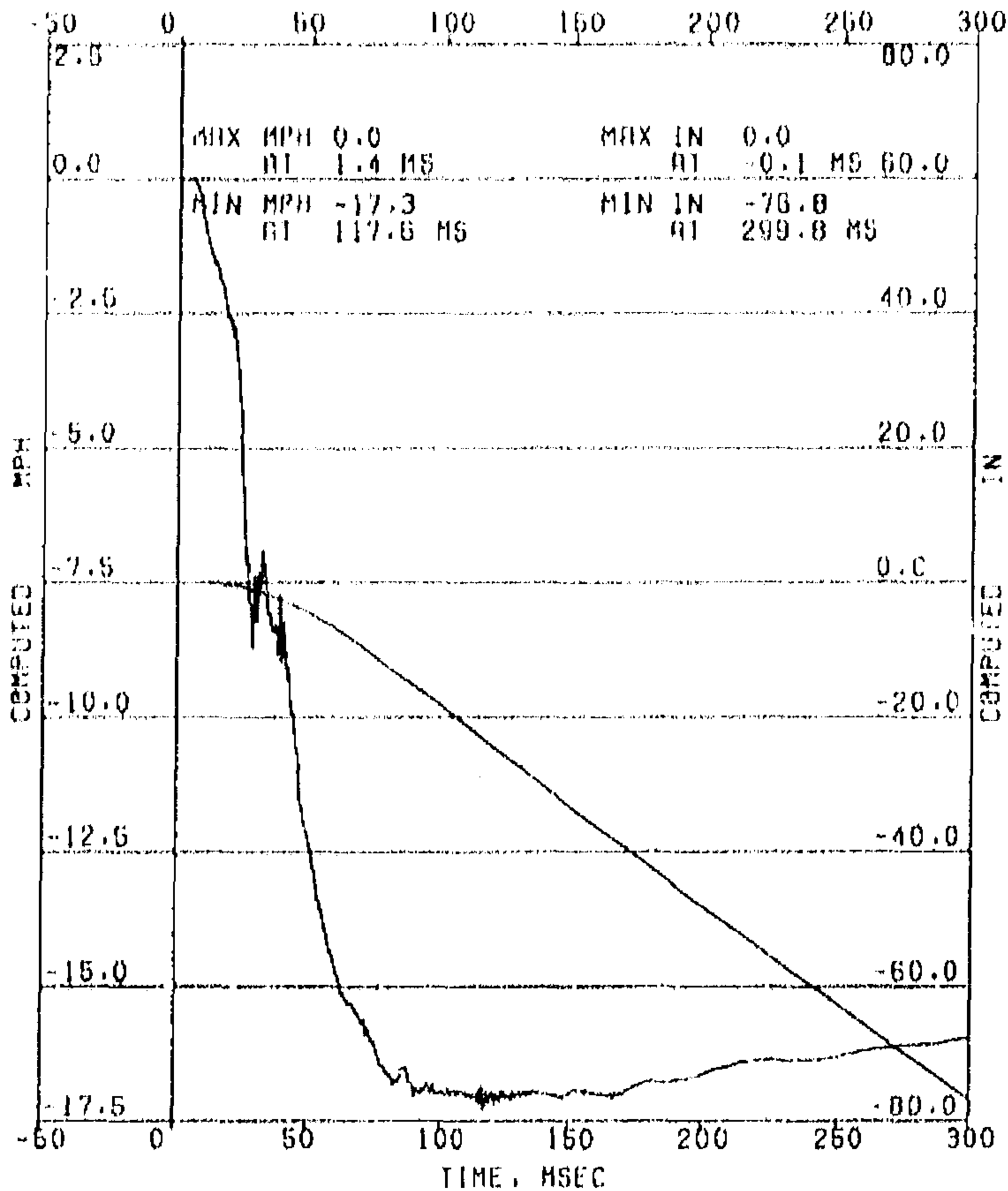




FILTER TYPE: 00005-111 RESPONSE CORRECTION. CLASS 1000 FILTER(1650)  
 FILTER CLASS: 1000

IMPACT ANALYSIS DEPT. 5920  
 DEC 14, 1999

DATA SET 12/13/9900  
 ERRATA 1

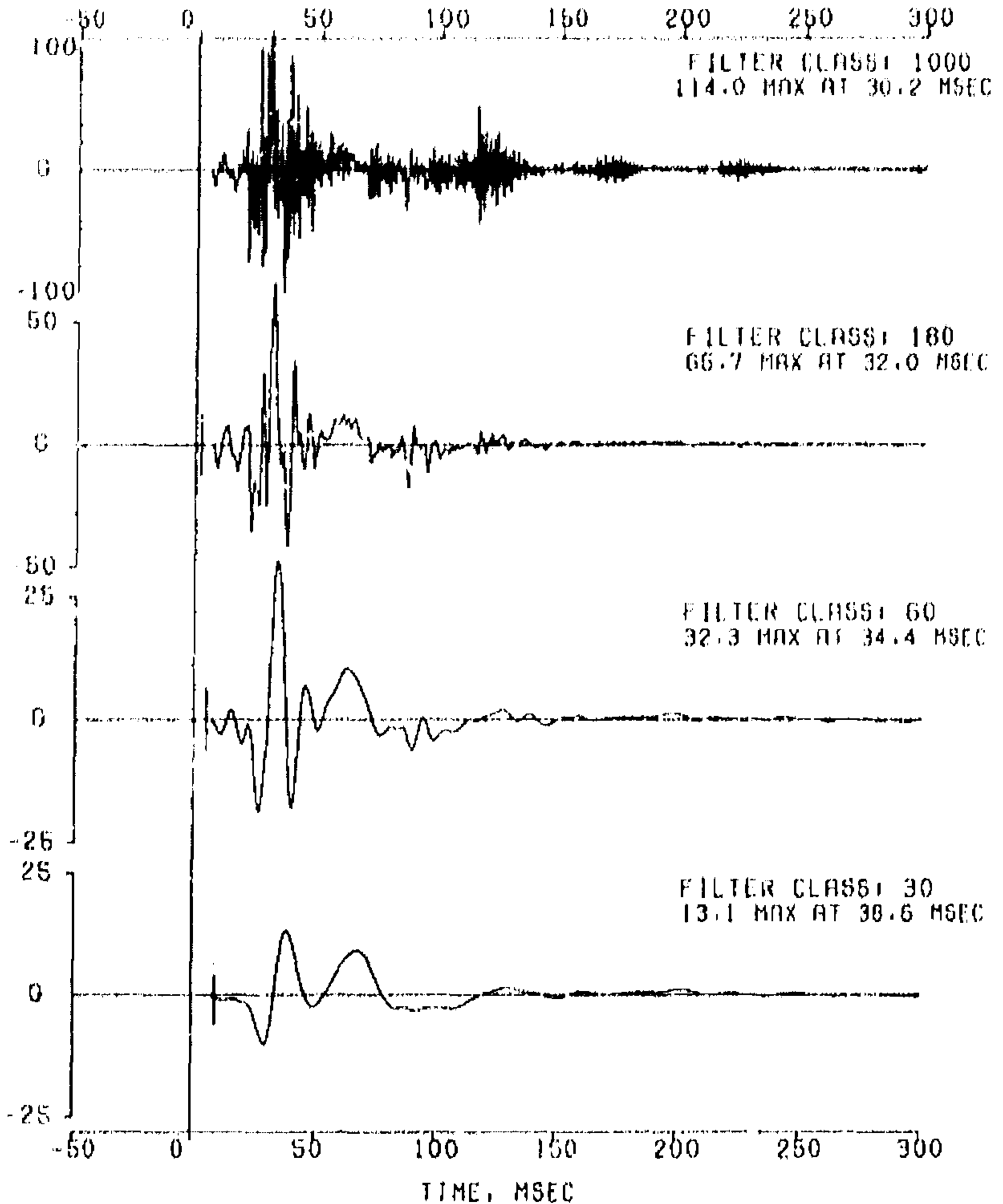


COMPUTED MPH  
 COMPUTED IN

VC08028 30 MPH REAR MOVING BARRIER, KJT-74 ITEM KJ4282R  
2002 HYBR 301 REAR IMPACT DEVELOPMENT,  
CHANNEL 052 RI RI, FWD RR CTRL ARM Z 609378  
FILTER TYPE: BB005-1.1 RESPONSE CORRECTION, CLASS 1000 FILTER(1000)  
IMPACT ANALYSIS DEPT. 5320  
DEC 14, 1999

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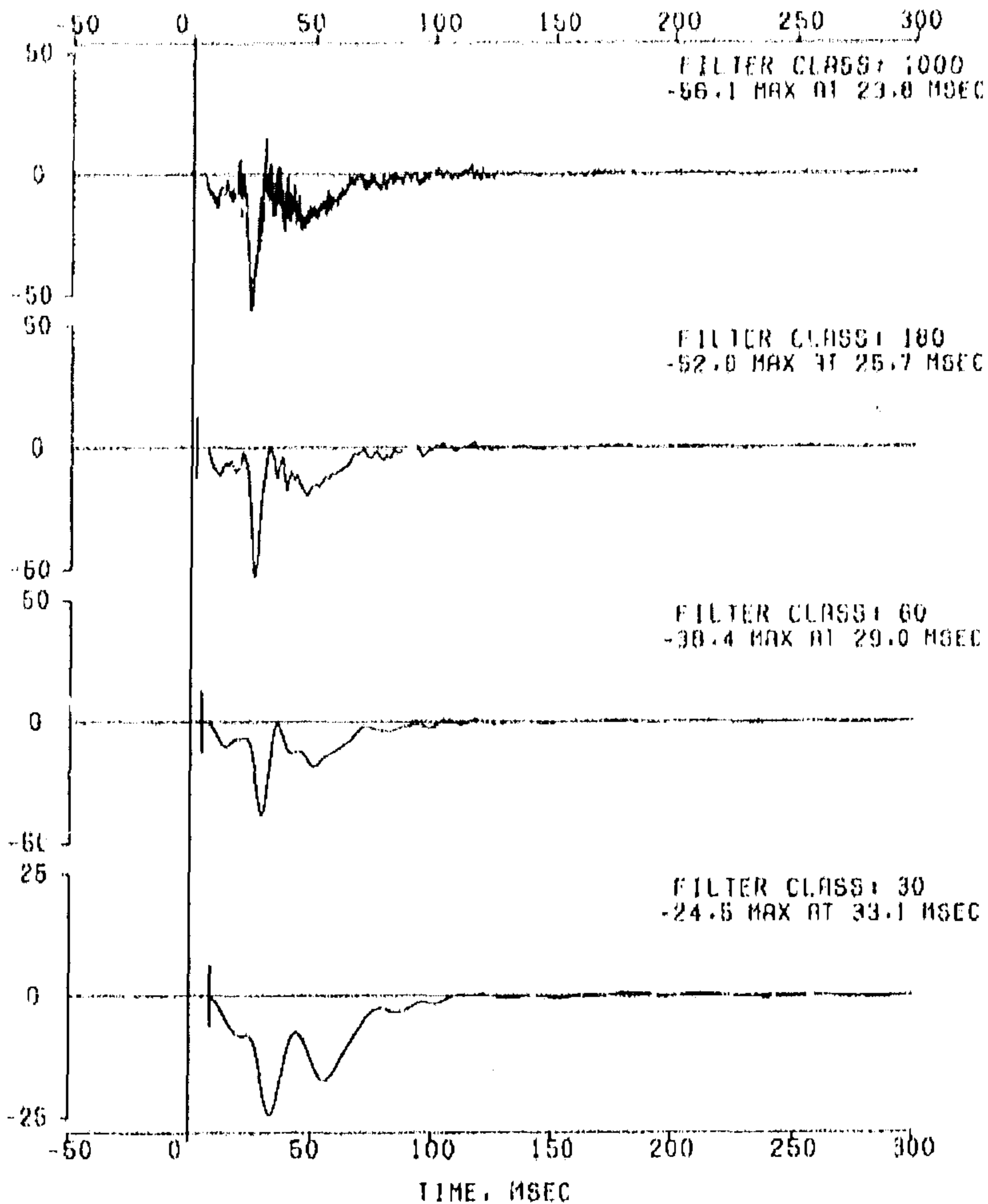
DATA SET 12/13/9800  
ERRATA 1



V00025 30 MPH REAR MOVING BARRIER, KJ1-74 ITEM KJ4202R  
2002 MYSS 301 REAR IMPACT DEVELOPMENT,  
CHANNEL 053 LT FT SILL FWD ST XBRX J21285  
FILTER TYPE: 000AS-III RESPONSE CORRECTION, CLASS 1000 FILTER(1660)  
IMPACT ANALYSIS DEPT. 5320  
DEC 14, 1999

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DATA SET 12/13/9980  
ERRATA 1





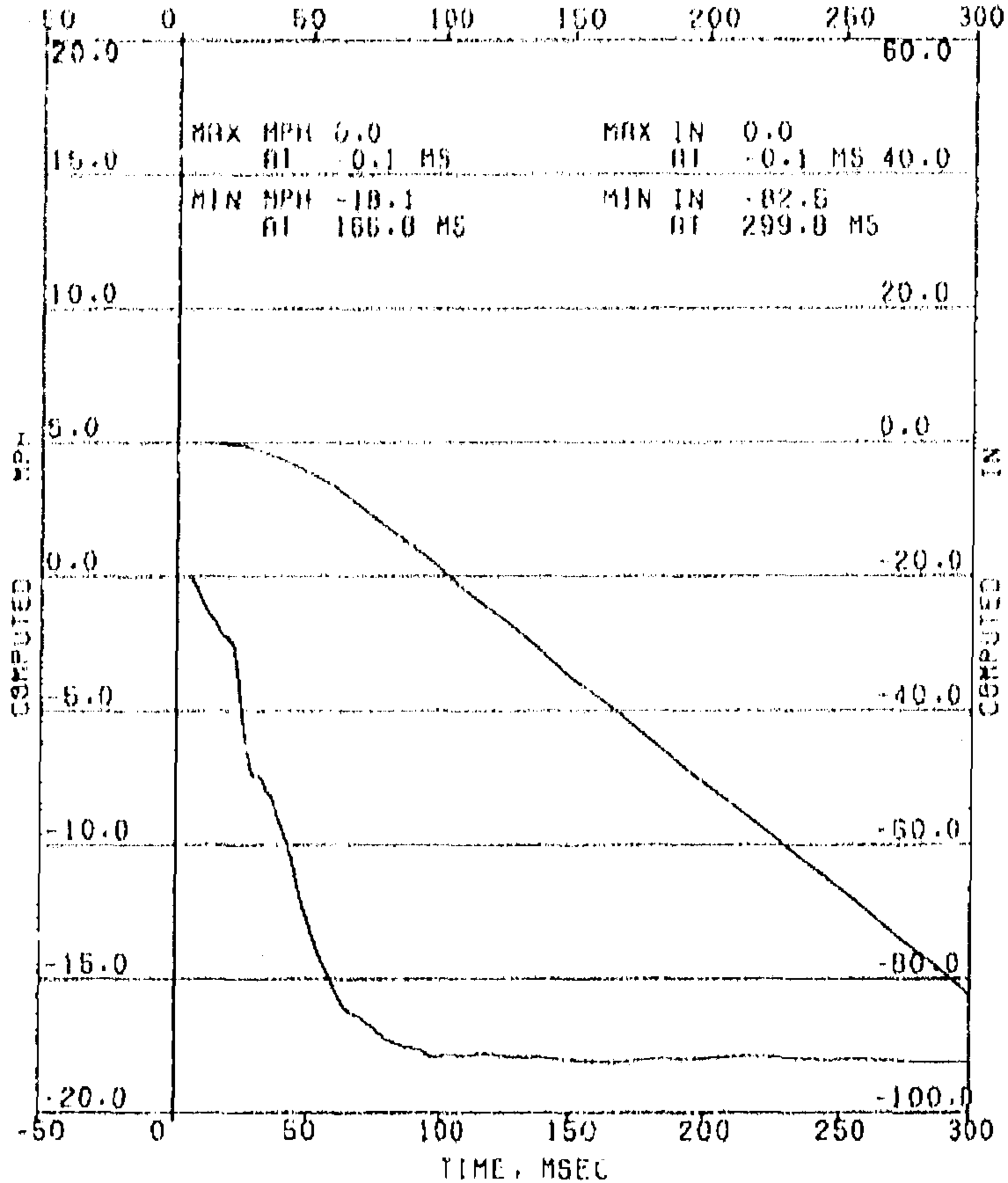
VE08026 30 MPH REAR MOVING BARRIER, R01-74 ITEM KJ4202R  
 2002 HYUN 301 REAR IMPACT DEVELOPMENT,  
 CHANNEL 053 LT FT SILL FWD ST XBRX J21286

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FILTER TYPE: 000AS-111 RESPONSE CORRECTION, CLASS 1000 FILTER(1660)  
 FILTER CLASS: 1000

IMPACT ANALYSIS DEPT. 5320  
 DEC 14, 1999

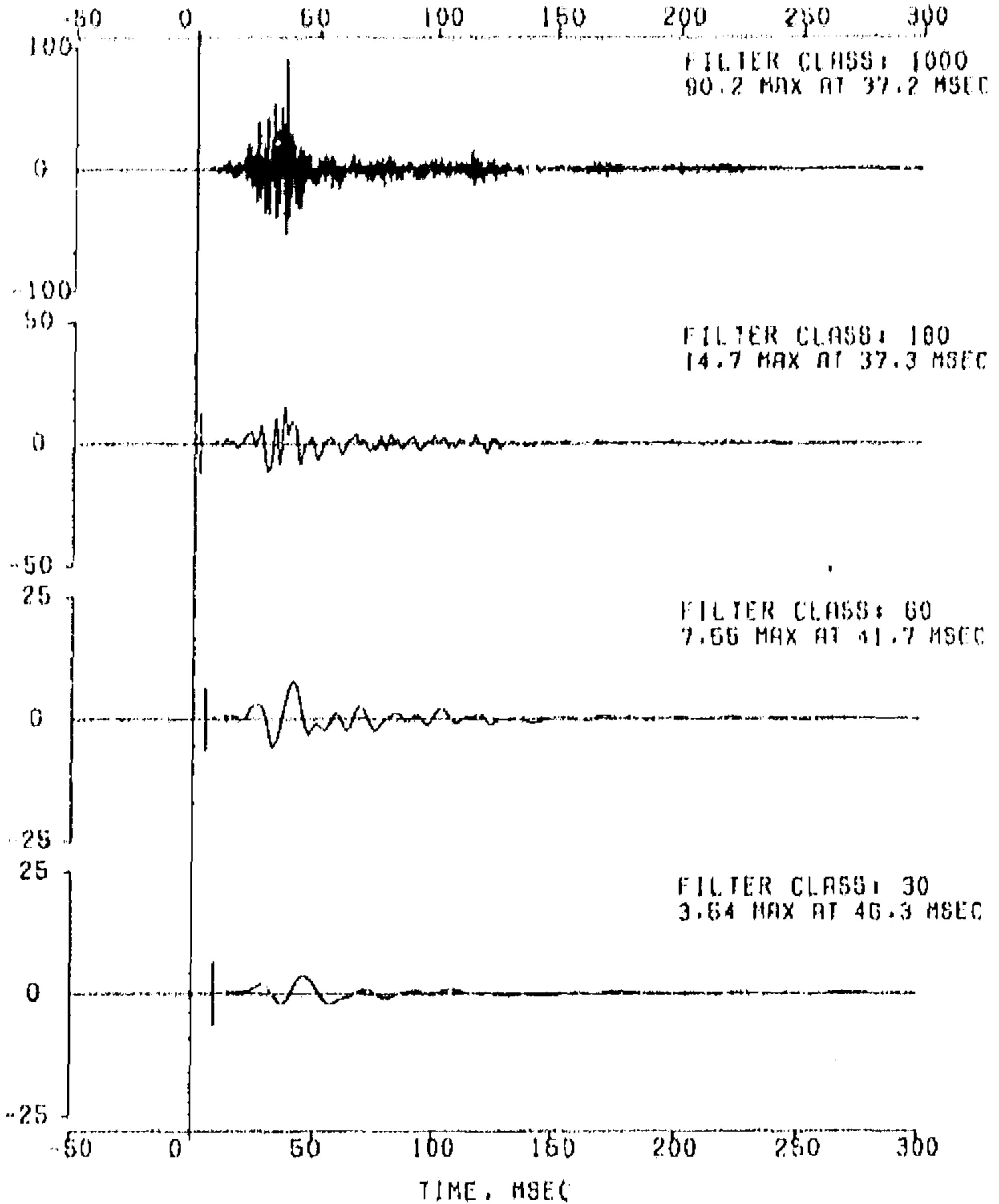
DATA SET 12/13/99BD  
 ERRATA 1



COMPUTED MPH  
 COMPUTED IN

VC08026 30 MPH REAR MOVING BARRIER, KJ1-74 ITEM KJ4202R  
2002 HYSS 301 REAR IMPACT DEVELOPMENT.  
CHANNEL 054 11 FT GILL FWD ST XMBRY J18210  
FILTER TYPE: 000AS-111 RESPONSE CORRECTION. CLASS 1000 FILTER(1650)  
IMPACT ANALYSIS DEPT. 5320  
DEC 14, 1999

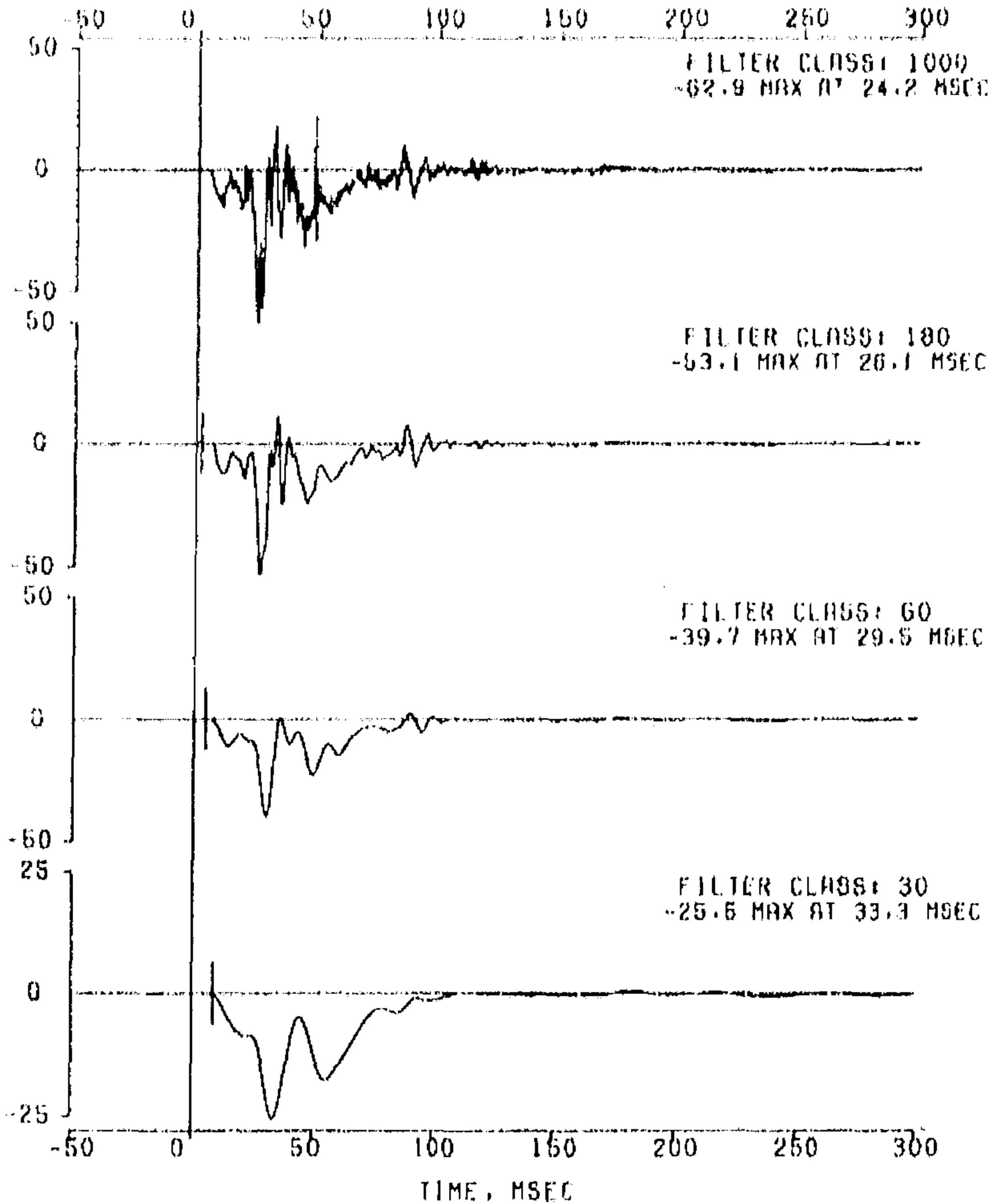
DATA SET 12/19/9900  
ERRATA 1



YC00026 30 MPH REAR MOVING BARRIER, RJT-74 ITEM RJA202R  
2002 MYSS 301 REAR IMPACT DEVELOPMENT.  
CHANNEL 055 RT FT STEEL FWD ST XMRX AMT55  
FILTER TYPE: 00048-111 RESPONSE CORRECTION, CLASS 1000 FILTER(1660)  
IMPACT ANALYSIS DEPT. 8320  
DEC 14, 1999

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DATA SET 12/13/9988  
ERRATA 1

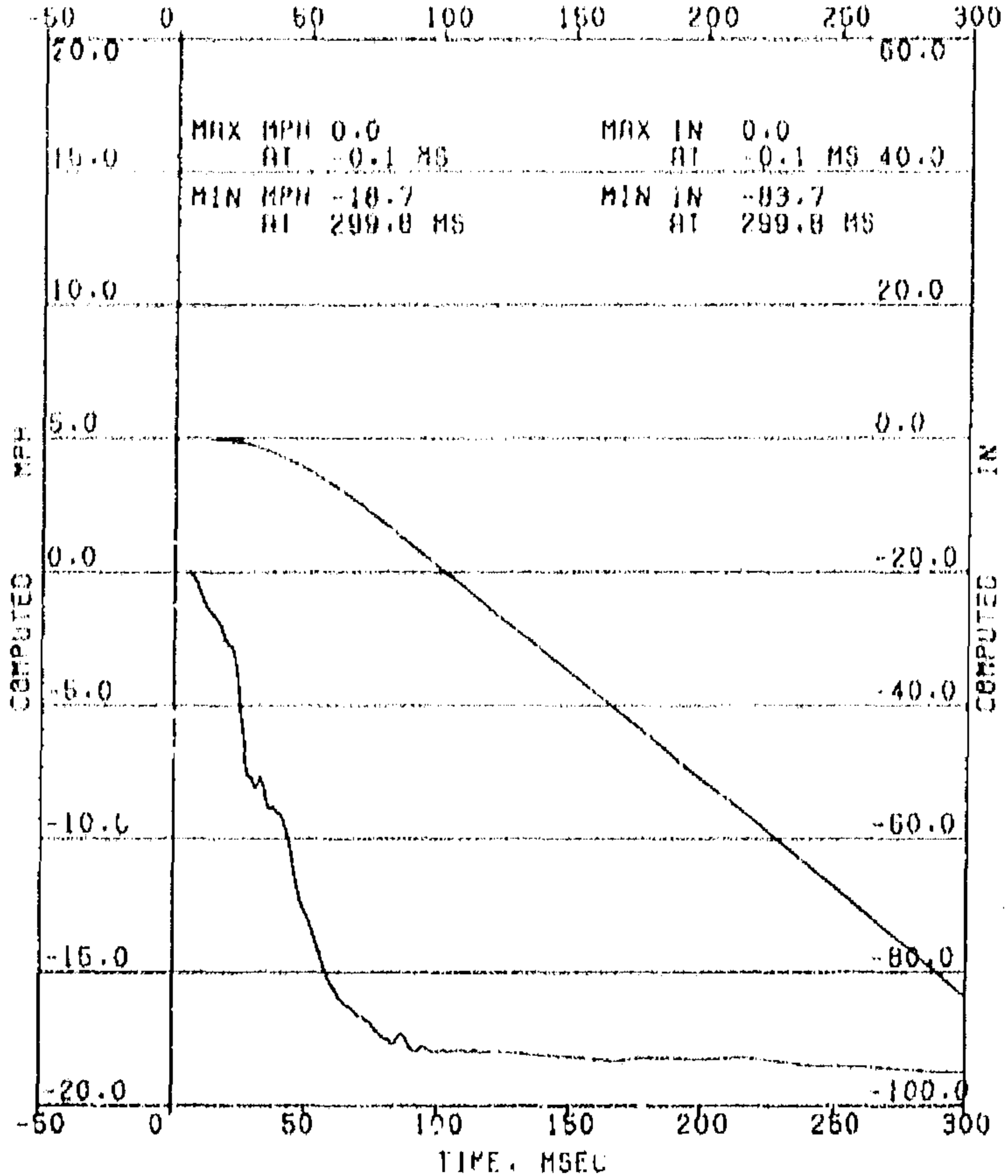




FILTER TYPE: 00005-111 RESPONSE CORRECTION, CLASS 1000 FILTER(1860)  
FILTER CLASS: 1000

IMPACT ANALYSIS OFPT. 5320  
DEC 14, 1999

DATA SET 12/13/9980  
ERRATA 1

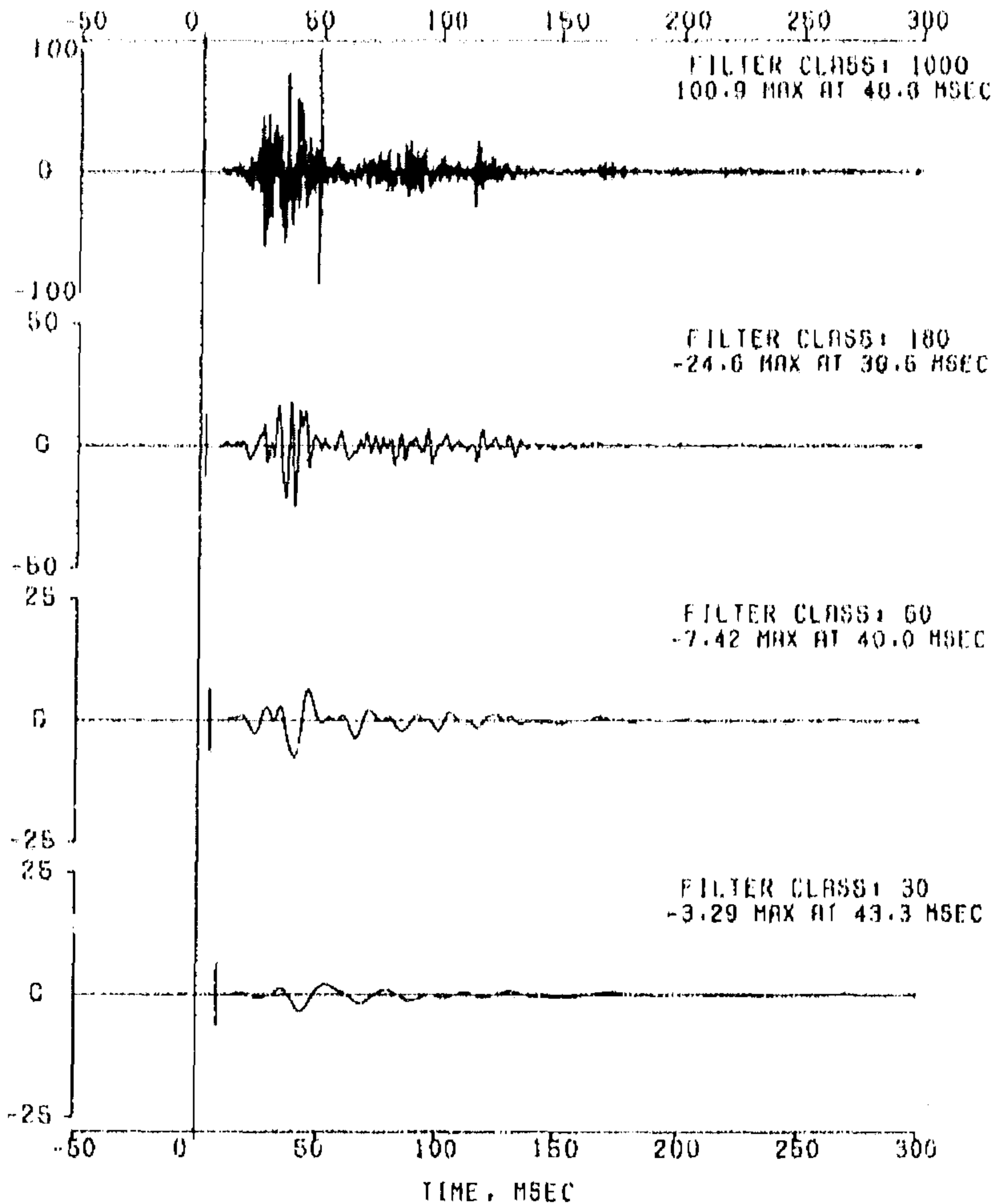


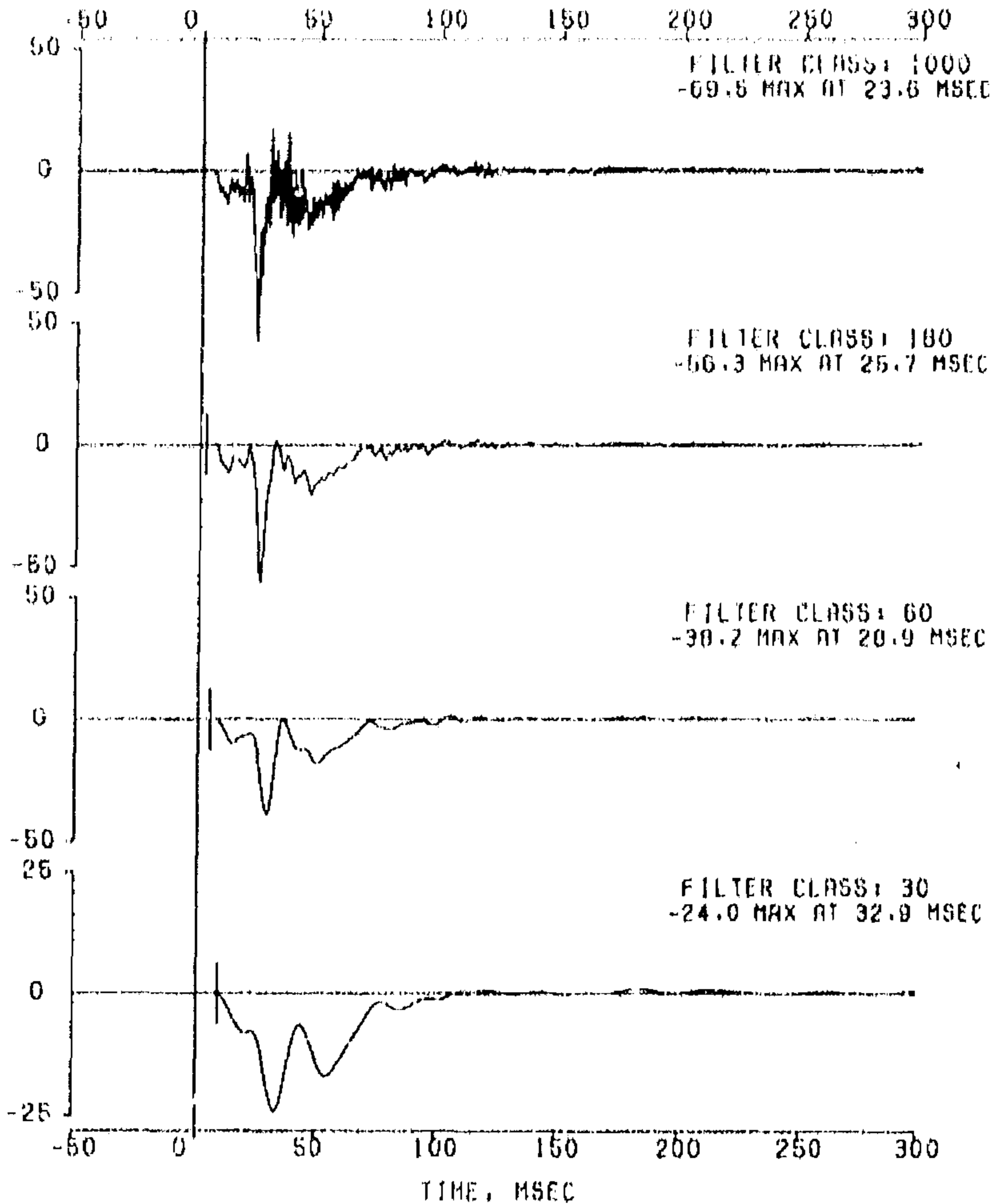
COMPUTED MPH  
COMPUTED IN

VC00028 30 MPH REAR MOVING BARRIER, KJ1-14 ITEM KJ4202R  
2002 MY58 301 REAR IMPACT DEVELOPMENT,  
CHANNEL 056 RT FT BILL FWD ST XMBRY J27532  
FILTER TYPE: 080MS-111 RESPONSE CORRECTION, CLASS 1000 FILTER(1680)  
IMPACT ANALYSIS DEPT. 5320  
DEC 14, 1999

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DATA SET 12/13/99BD  
ERRATA 1

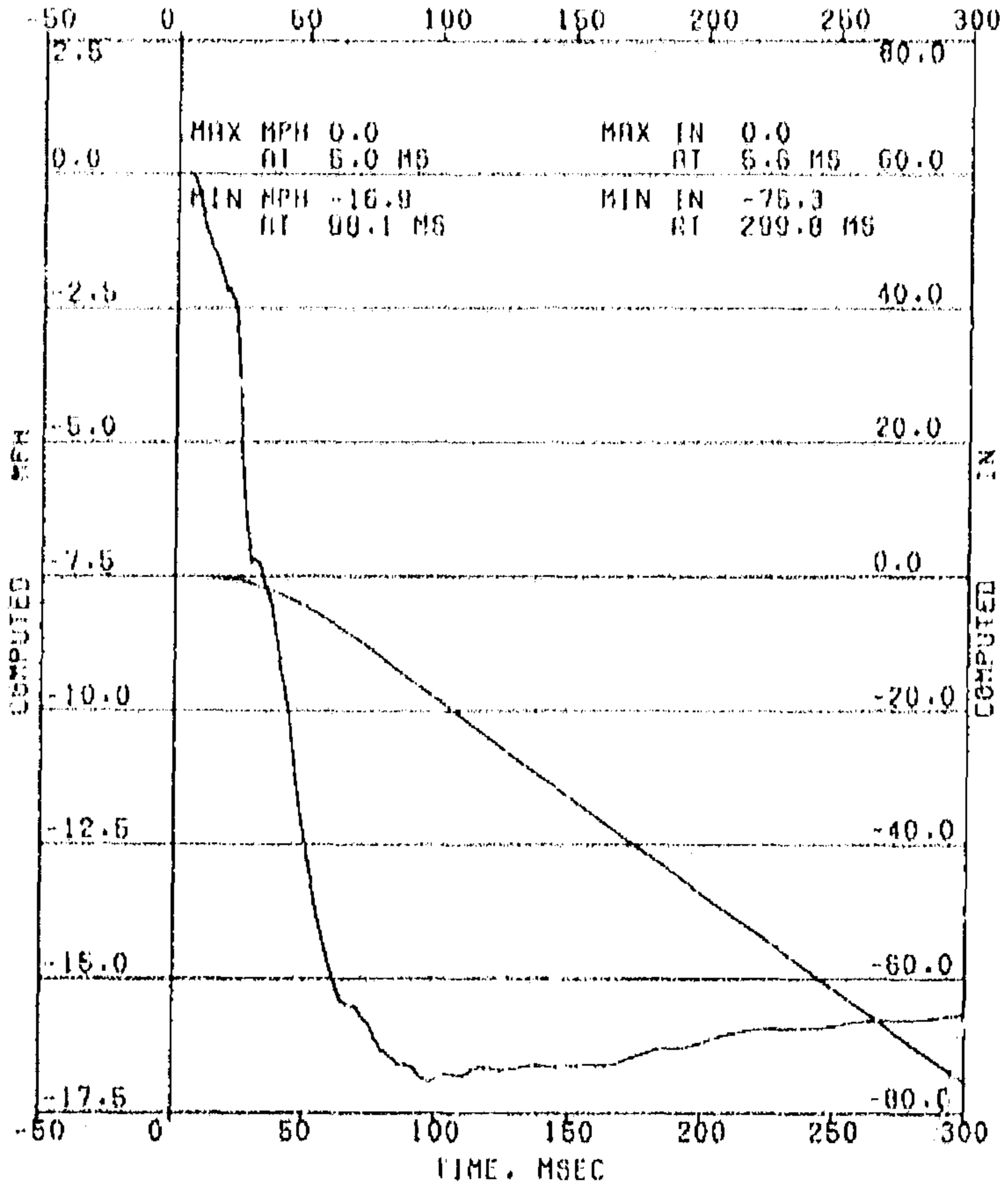




FILTER TYPE: 00048-111 RESPONSE CORRECTION, CLASS 1000 FILTER(1650)  
 FILTER CLASS: 1000

IMPACT ANALYSIS DEPT. 5320  
 DEC 14, 1998

DATA SET 12/13/8800  
 ERRATA 1

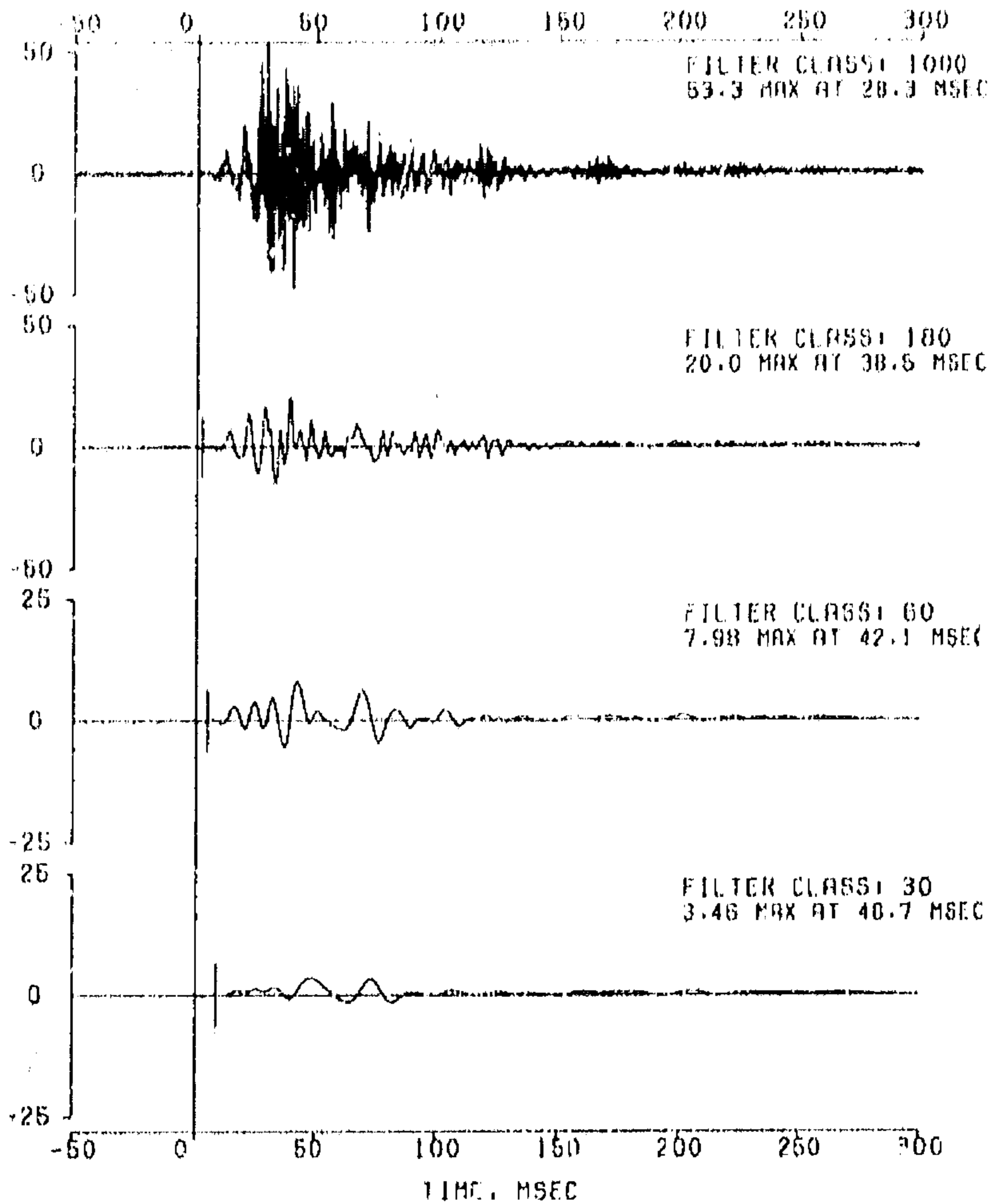


COMPUTED MPH  
 COMPUTED IN



VC08025 30 MPH REAR MOVING BARRIER, KJ3-74 ITEM KJ4282R  
2002 HYBS 301 REAR IMPACT DEVELOPMENT.  
CHANNEL 05B LT BELL AT D-PLP Y J27546  
FILTER TYPE: QW006-III RESPONSE CORRECTION, CLASS 1000 FILTER(1660)  
IMPACT ANALYSIS DEPT. 5320  
DEC 14, 1999

DATA SET 12/13/9900  
ERRATA 1



Y000025 30 MPH REAR MOVING BARRIER, KJY-74 ITEM KJ4282R

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2002 HYSS 301 REAR IMPACT DEVELOPMENT.

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CHANNEL 059 AT STILL AT B-PLR X J17040

FILTER TYPE: OBUS-III RESPONSE CORRECTION, CLASS 1000 FILTER(1650)

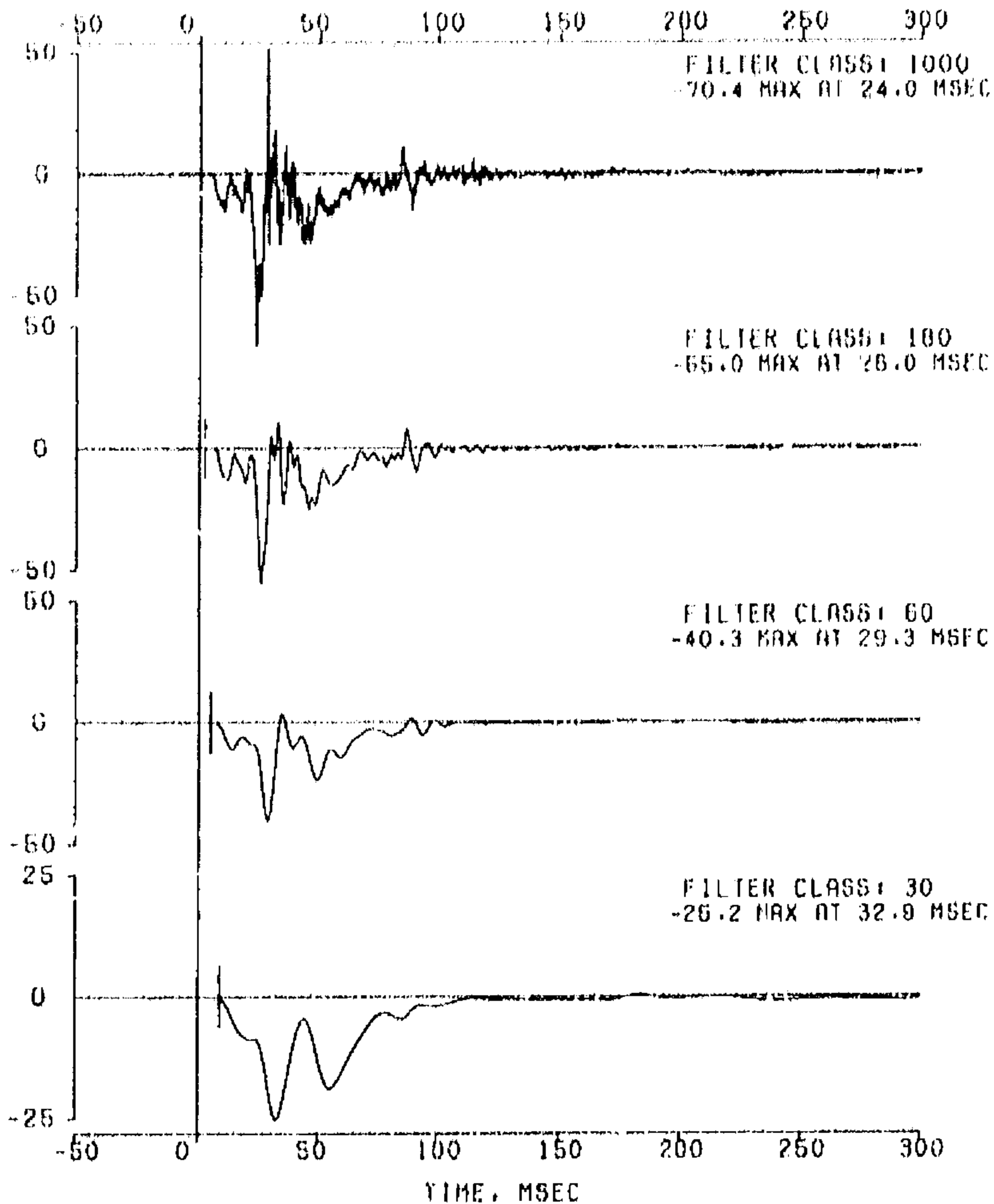
IMPACT ANALYSIS DEPT. 5320

DATA SET 12/13/9980

DEC 14, 1999

ERRATA

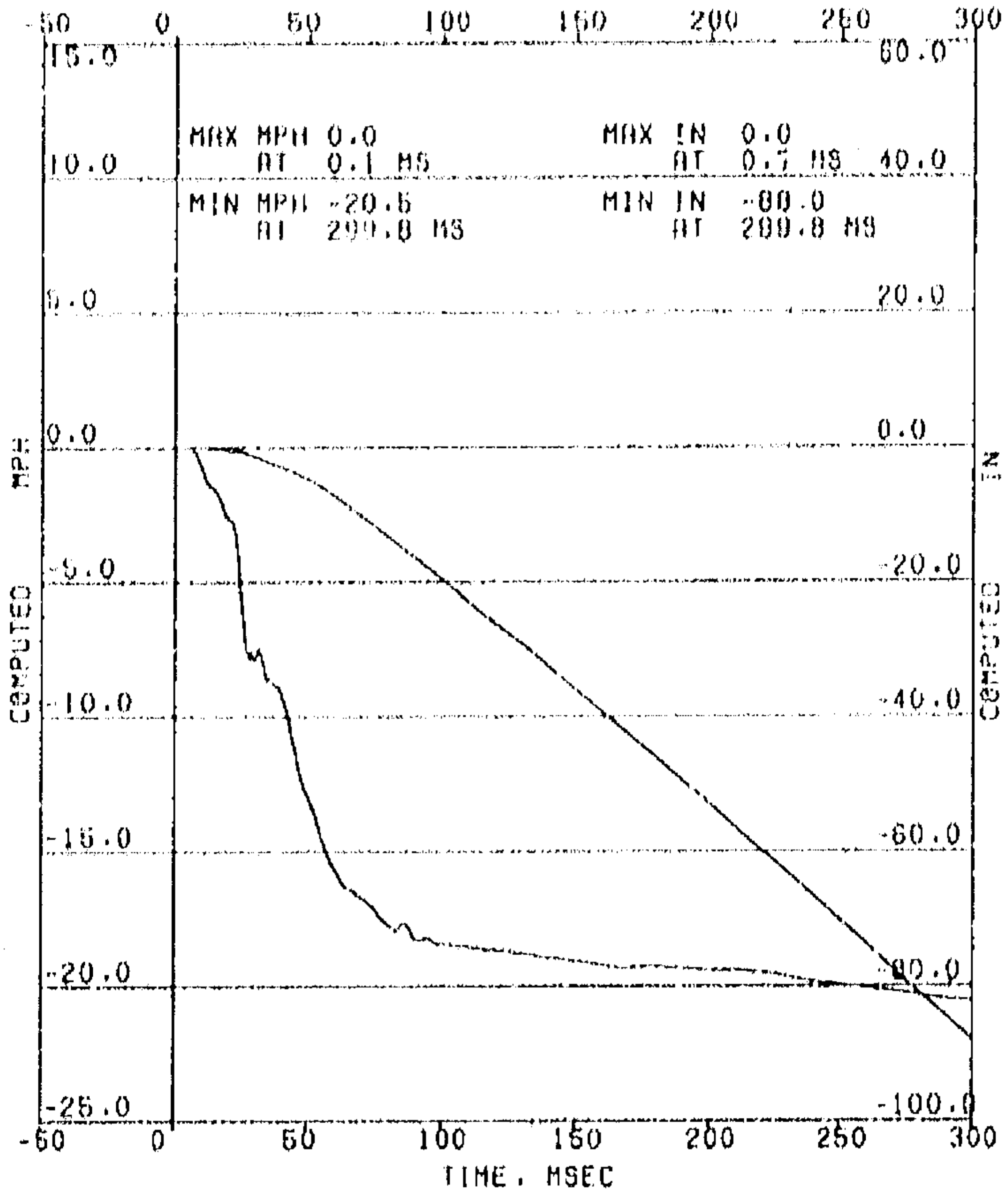
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FILTER TYPE: 0005-FIT RESPONSE CORRECTION, CLASS 1000 FILTER(1600)  
 FILTER CLASS: 1000

IMPACT ANALYSIS DEPT. 5320  
 DEC 14, 1999

DATA SET 12/13/9900  
 ERRATA 1

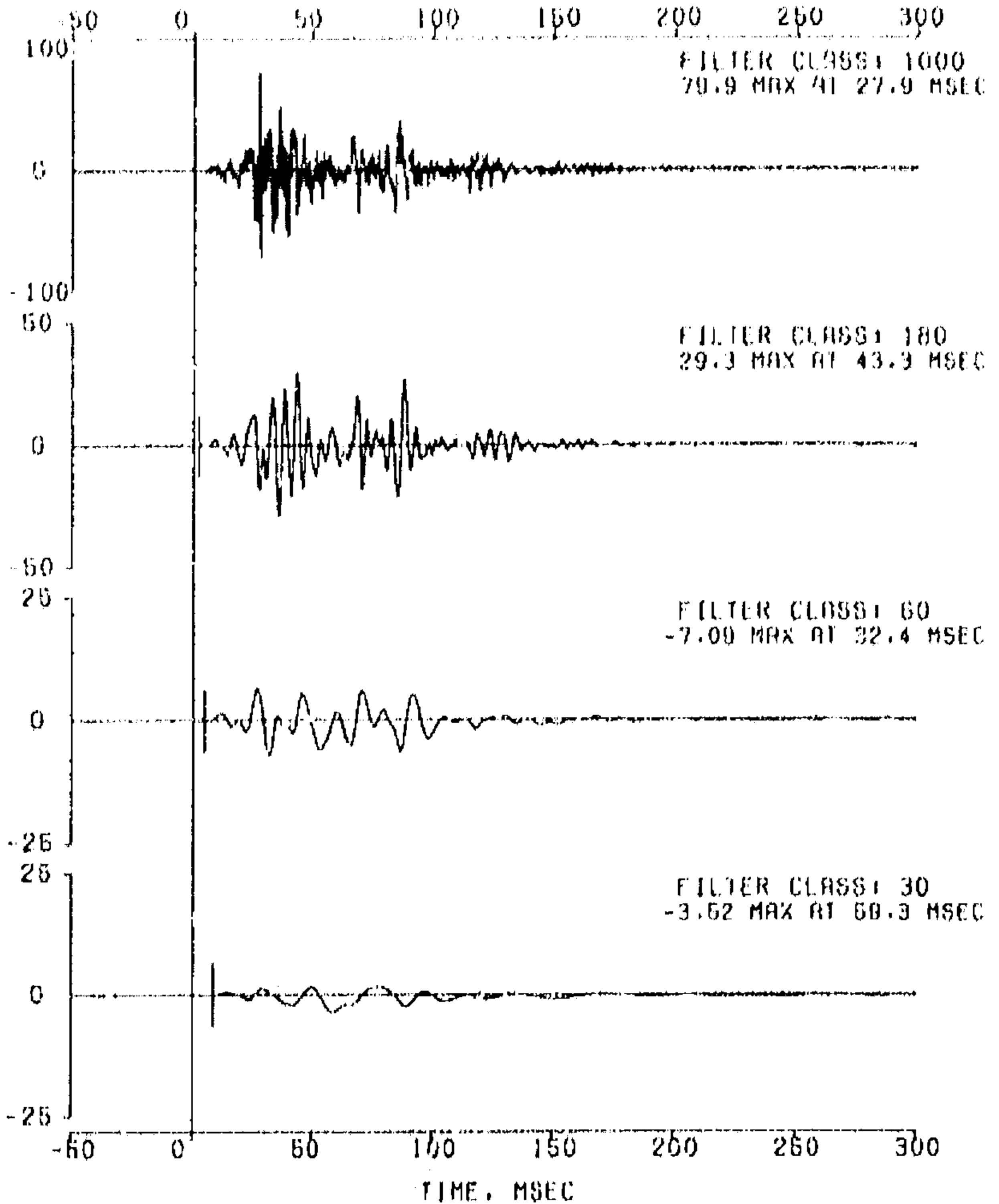


COMPUTED MPH  
 COMPUTED IN

VCO0026 30 MPH REAR MOVING BARRIER, KJT 74 ITEM KJ4202R  
2002 MY55 301 REAR IMPACT DEVELOPMENT.  
CHANNEL 060 RT SILL RT B-PLR Y J19207  
FILTER TYPE: 00005-111 RESPONSE CORRECTION, CLASS 1000 FILTER(1650)  
IMPACT ANALYSIS DEPT. 5320  
DEC 14, 1999

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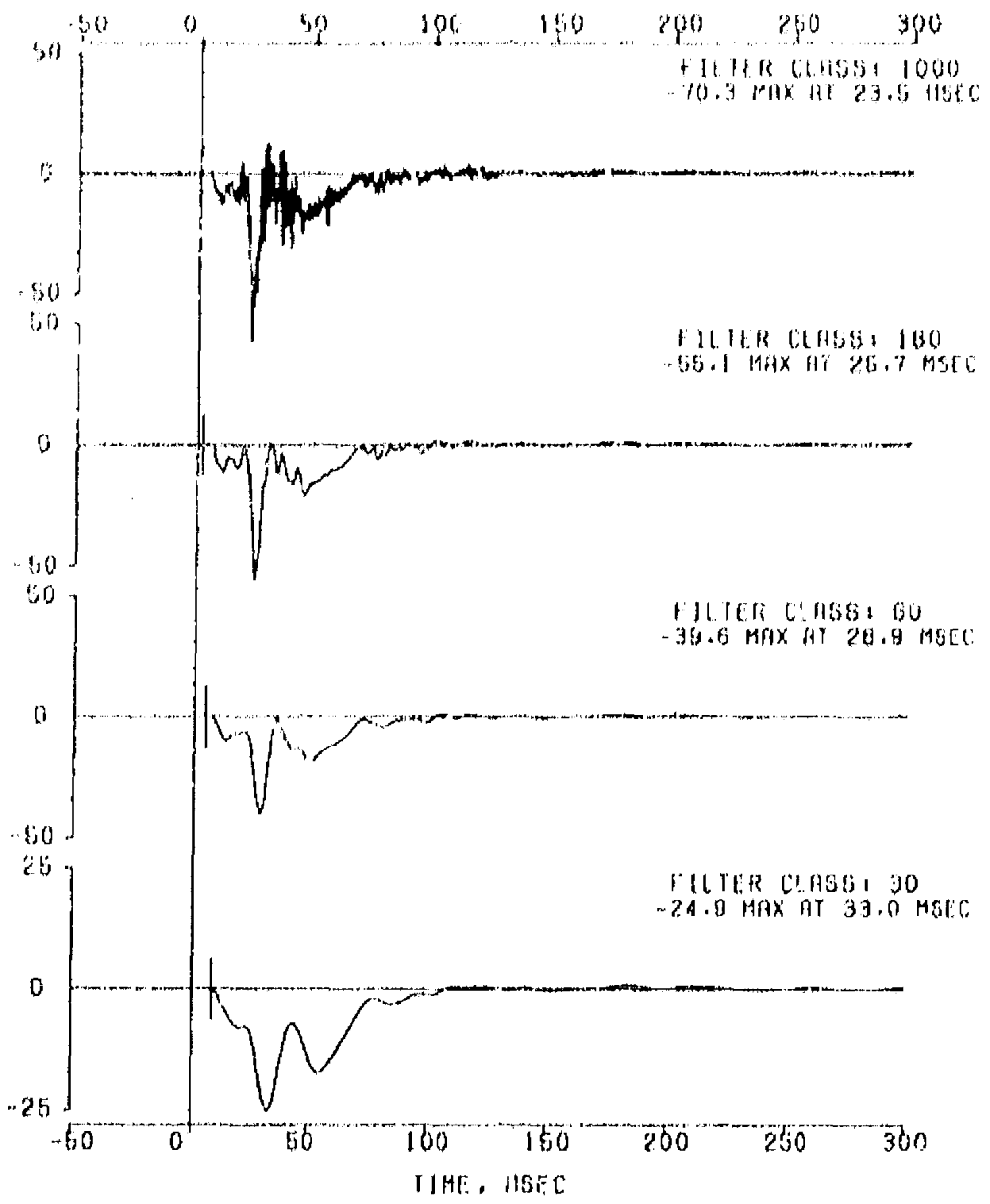
DATA SET 12/13/9906  
ERRATA 1





Y000025 30 MPH REAR MOVING BARRIER, RUT-74 ITEM KJ4282R  
2002 HYUNDAI REAR IMPACT DEVELOPMENT.  
CHANNEL 061 LT RR SIDE FWD ST X-RX J15136  
FILTER TYPE: 08015-111 RESPONSE CORRECTION, CLASS 1000 FILTER: 16501  
IMPACT ANALYSIS DEPT. 6320  
DEC 14, 1995

DATA SET 12/13/9880  
ERRATA 1



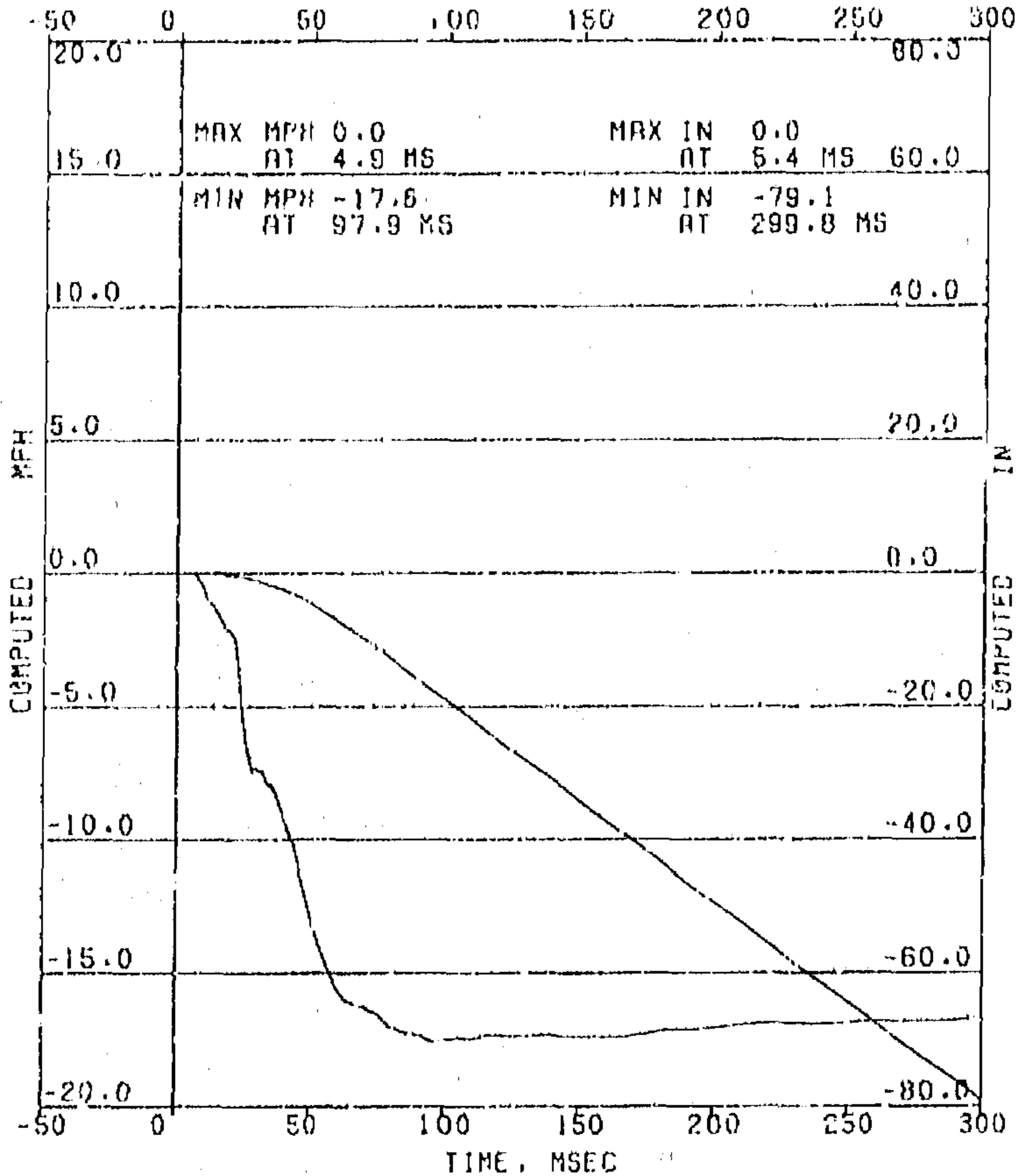
YCOB026 30 MPH REAR MOVING BARRIER, KJT-74 ITEM KJ4202R  
 2002 MV83 301 REAR IMPACT DEVELOPMENT.  
 CHANNEL 061 LT RR SILL FWD ST XDRX J16136

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FILTER TYPE: 000AS-111 RESPONSE CORRECTION, CLASS 1000 FILTER: 1650  
 FILTER CLASS: 1000

IMPACT ANALYSIS DEPT. 5320  
 DEC 14, 1999

DATA SET 12/13/99BU  
 ERRATA 1

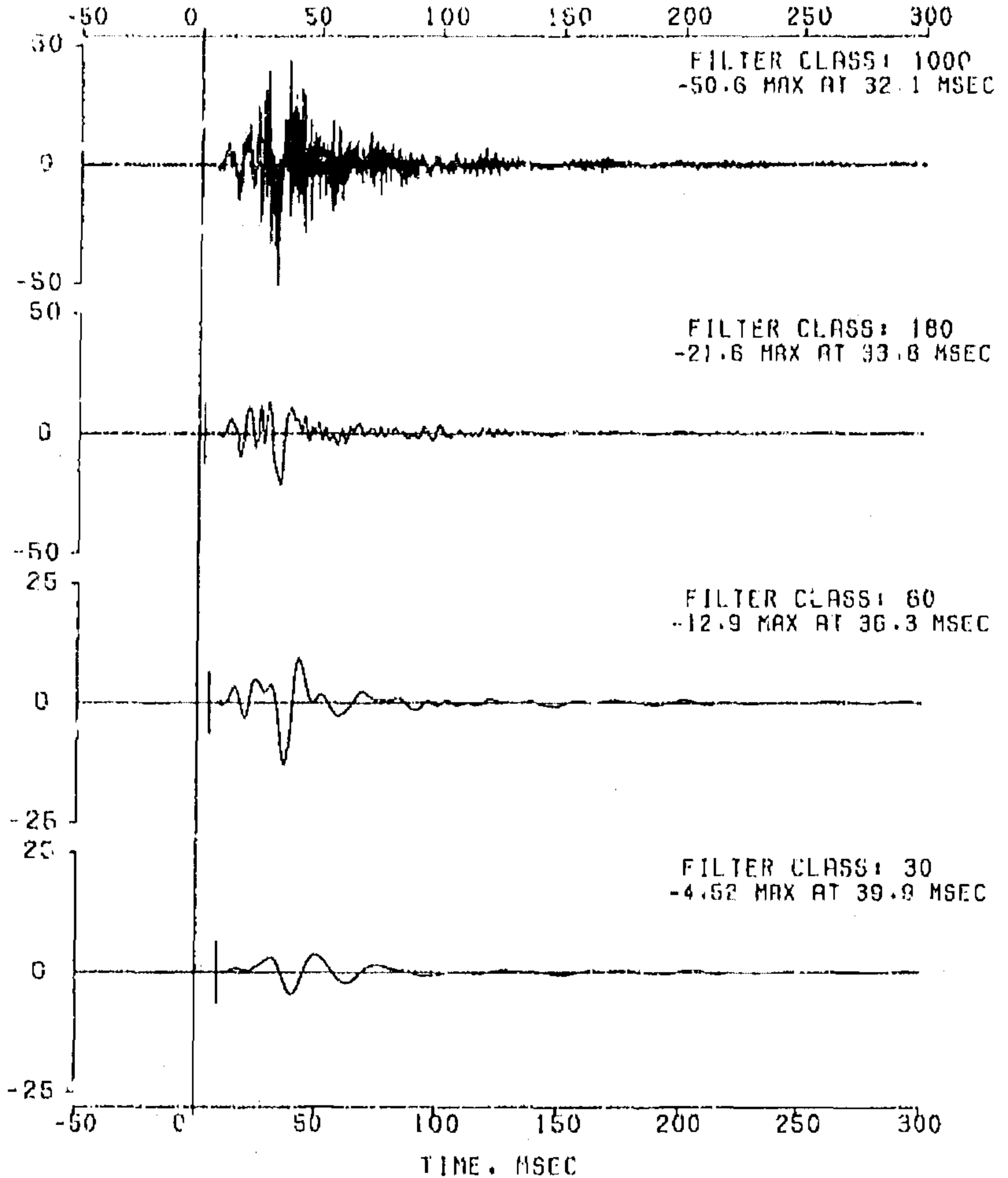


COMPUTED MPH  
 COMPUTED IN

V008025 30 MPH REAR MOVING BARRIER, KJ1-74 ITEM KJ4282R  
2002 HYBR 301 REAR IMPACT DEVELOPMENT,  
CHANNEL 002 LT RR SILL FWD ST XMBRY J26119  
FILTER TYPE: 08008-111 RESPONSE CORRECTION, CLASS 1000 FILTER(1650)  
IMPACT ANALYSIS DEPT. 5920  
DEC 14, 1999

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DATA SET 12/13/99B0  
ERRATA 1



VC08026 30 MPH REAR MOVING BARRIER, KJT-74 ITEM KJ4292R

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2002 MYSS 301 REAR IMPACT DEVELOPMENT.

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CHANNEL 063 RT RR SILL FWD ST XMRX J15576

FILTER TYPE: UBDAS-III RESPONSE CORRECTION, CLASS 1000 FILTER(1660)

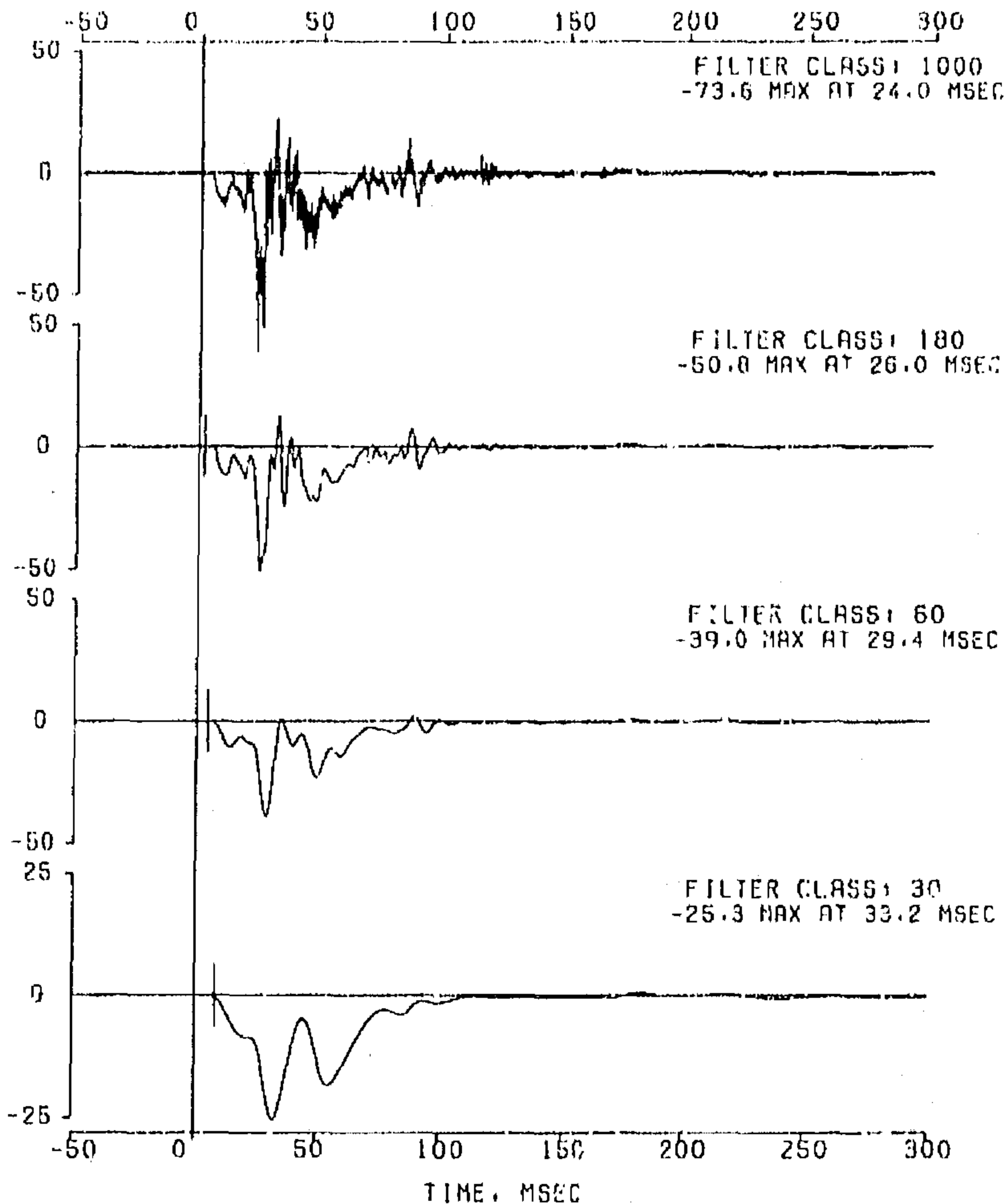
IMPACT ANALYSIS DEPT. 5320

DATA SET 12/13/99BD

DEC 14, 1999

ERRATA

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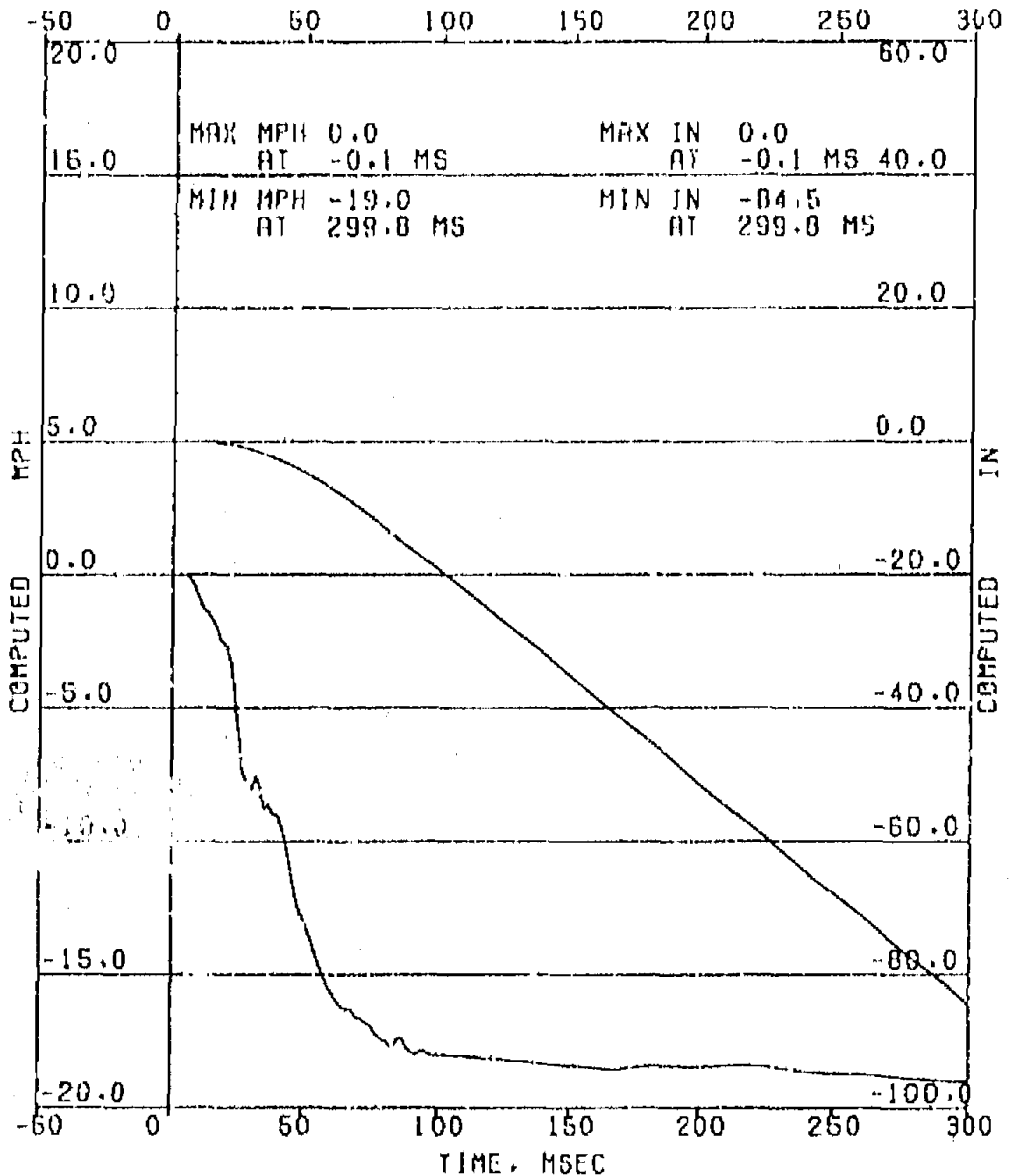




FILTER TYPE: 06005-111 RESPONSE CORRECTION, CLASS 1000 FILTER(1650)  
 FILTER CLASS: 1000

IMPACT ANALYSIS DEPT. 5320  
 DEC 14, 1999

DATA SET 12/13/99B0  
 ERRATA 1

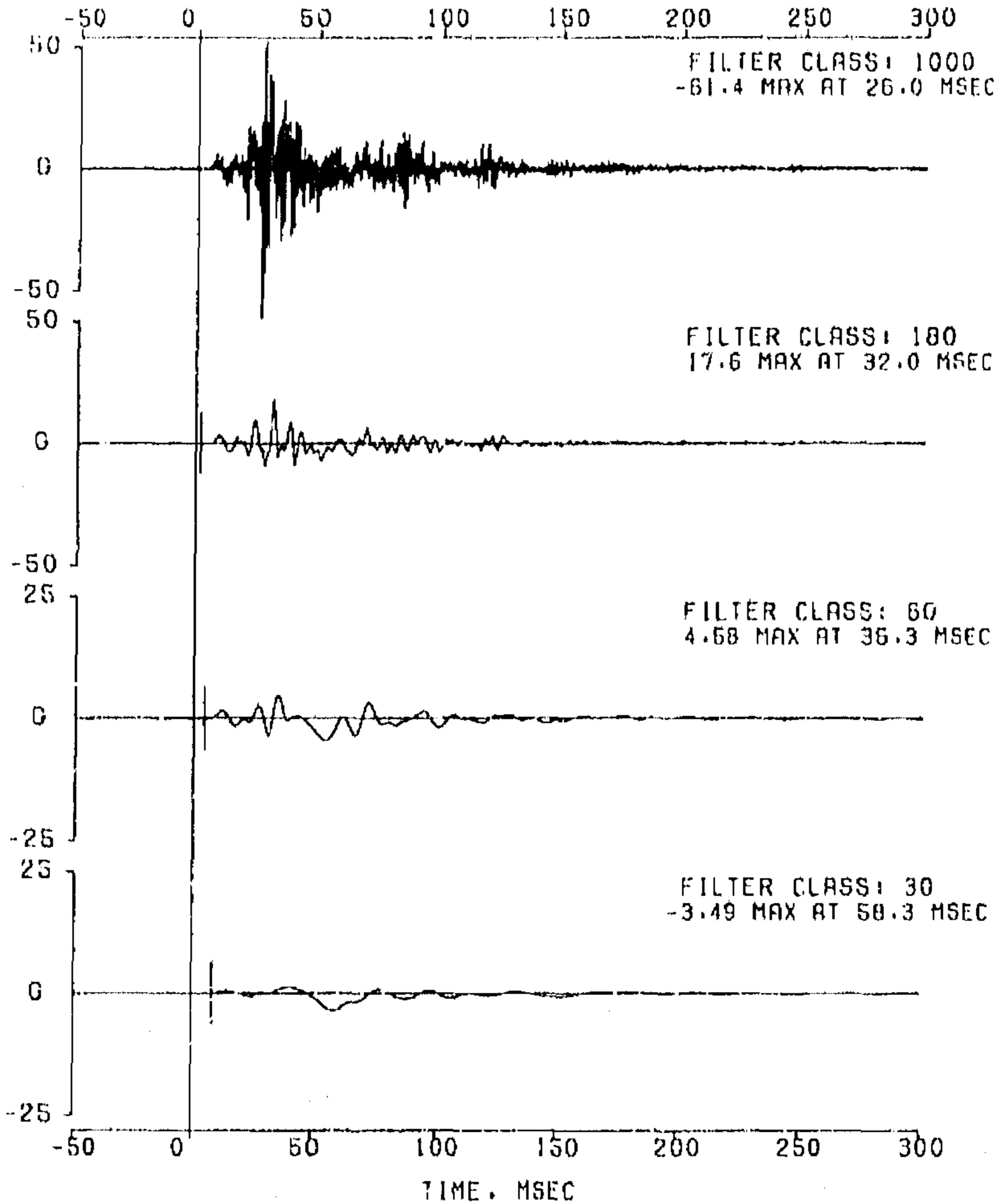


COMPUTED MPH  
 COMPUTED IN

VC00025 30 MPH REAR MOVING BARRIER, KJT-74 ITEM KJ4202R  
2002 HY56 301 REAR IMPACT DEVELOPMENT,  
CHANNEL 064 RT RR SILL FWD ST XMBRY APY24  
FILTER TYPE: 0800S-111 RESPONSE CORRECTION, CLASS 1000 FILTER(1650)  
IMPACT ANALYSIS DEPT. 5320  
DEC 14, 1999

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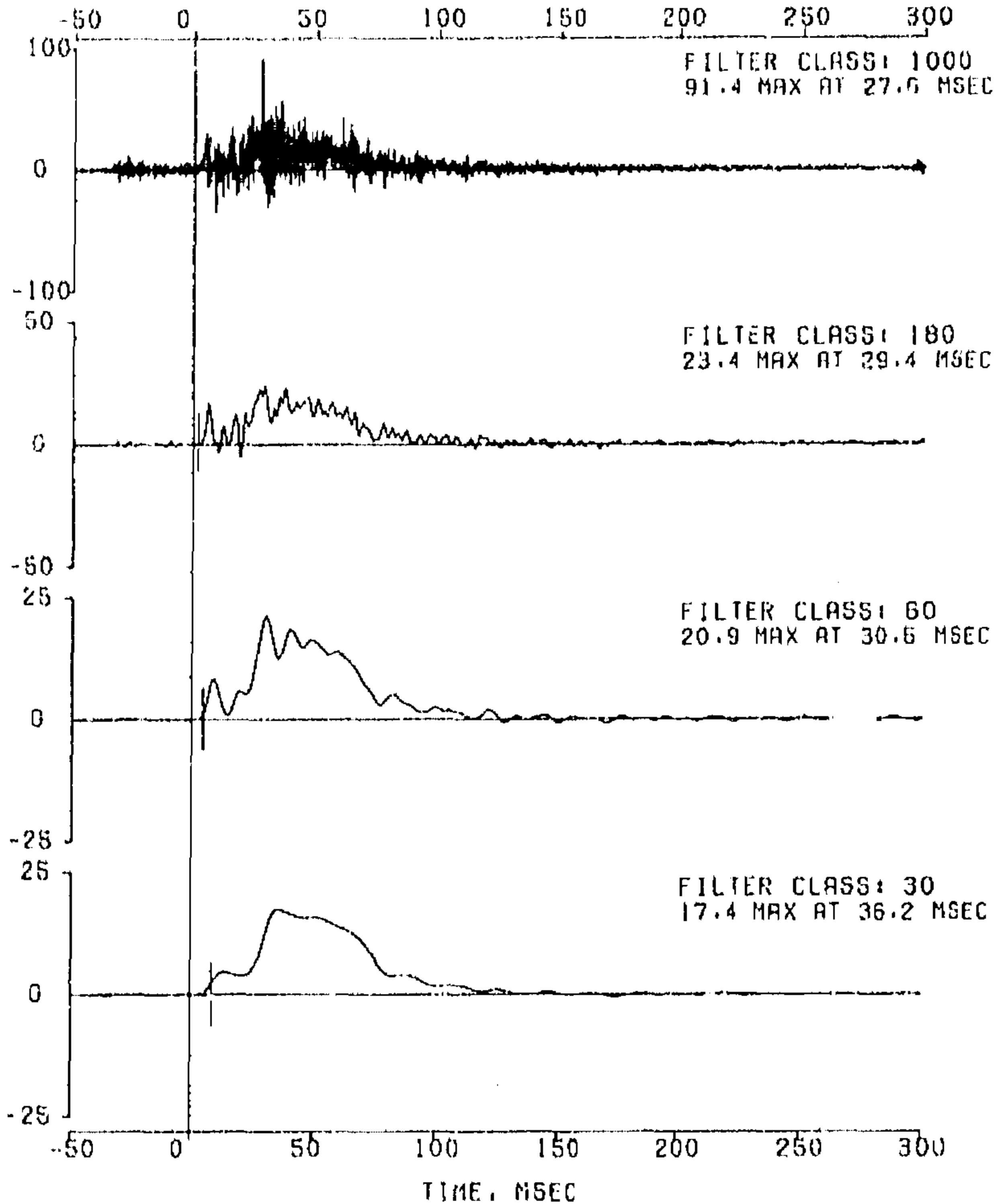
DATA SET 12/13/99B0  
ERRATA 1



V00025 30 MPH REAR MOVING BARRIER, KJT-74 ITEM KJ4202R  
2002 MYSS 301 REAR IMPACT DEVELOPMENT.  
CHANNEL 065 LT RAIL MDR MID X 00418  
FILTER TYPE: ODDAS-III RESPONSE CORRECTION, CLASS 1000 FILTER(1050)  
IMPACT ANALYSIS DEPT. 5320  
DEC 14, 1999

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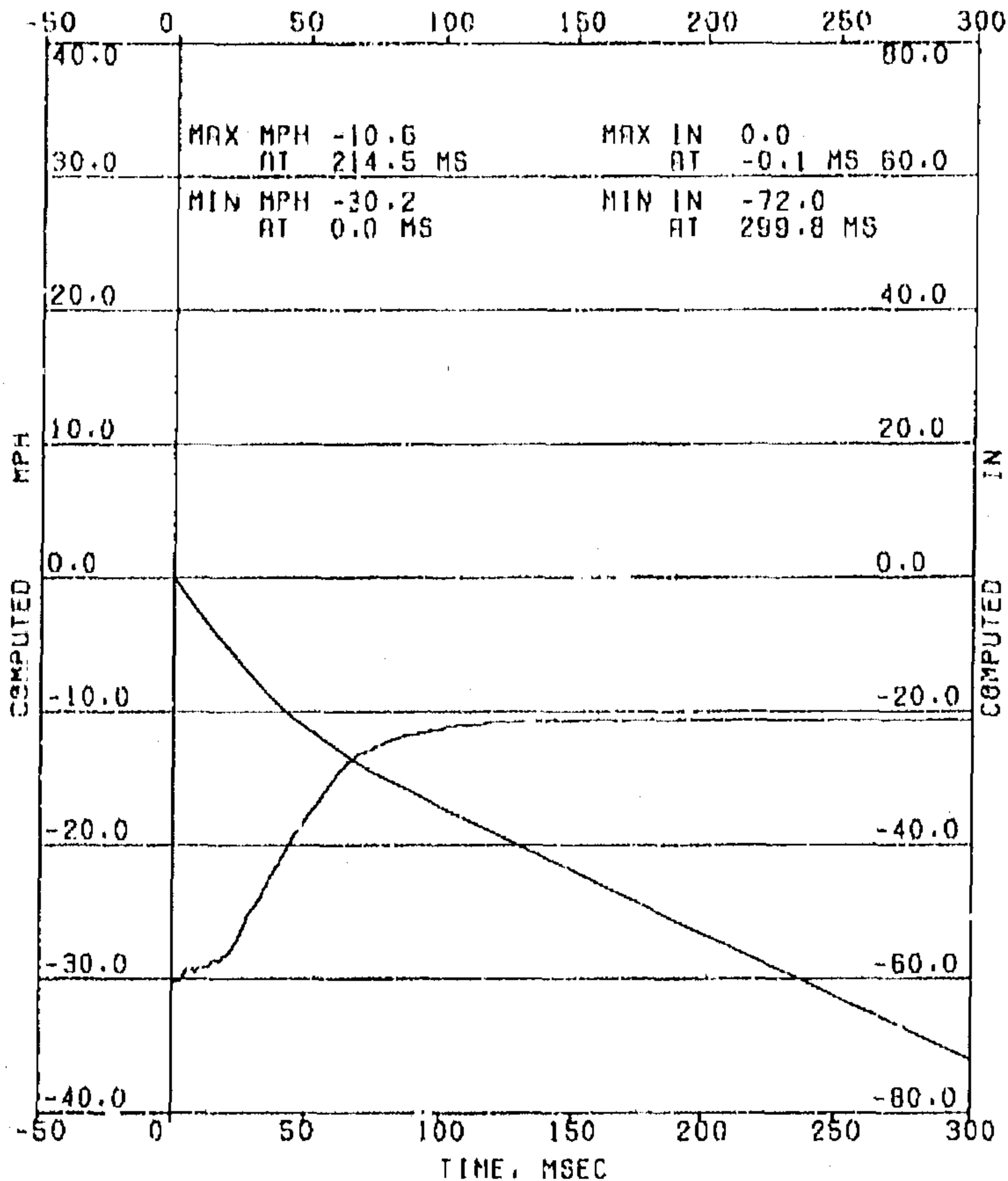
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ERRATA 1



FILTER TYPE: 00DAS-111 RESPONSE CORRECTION, CLASS 1000 FILTER(1650)  
 FILTER CLASS: 1000

IMPACT ANALYSIS DEPT. 5320  
 DEC 14, 1999

DATA SET 12/13/99BE  
 ERRATA 1



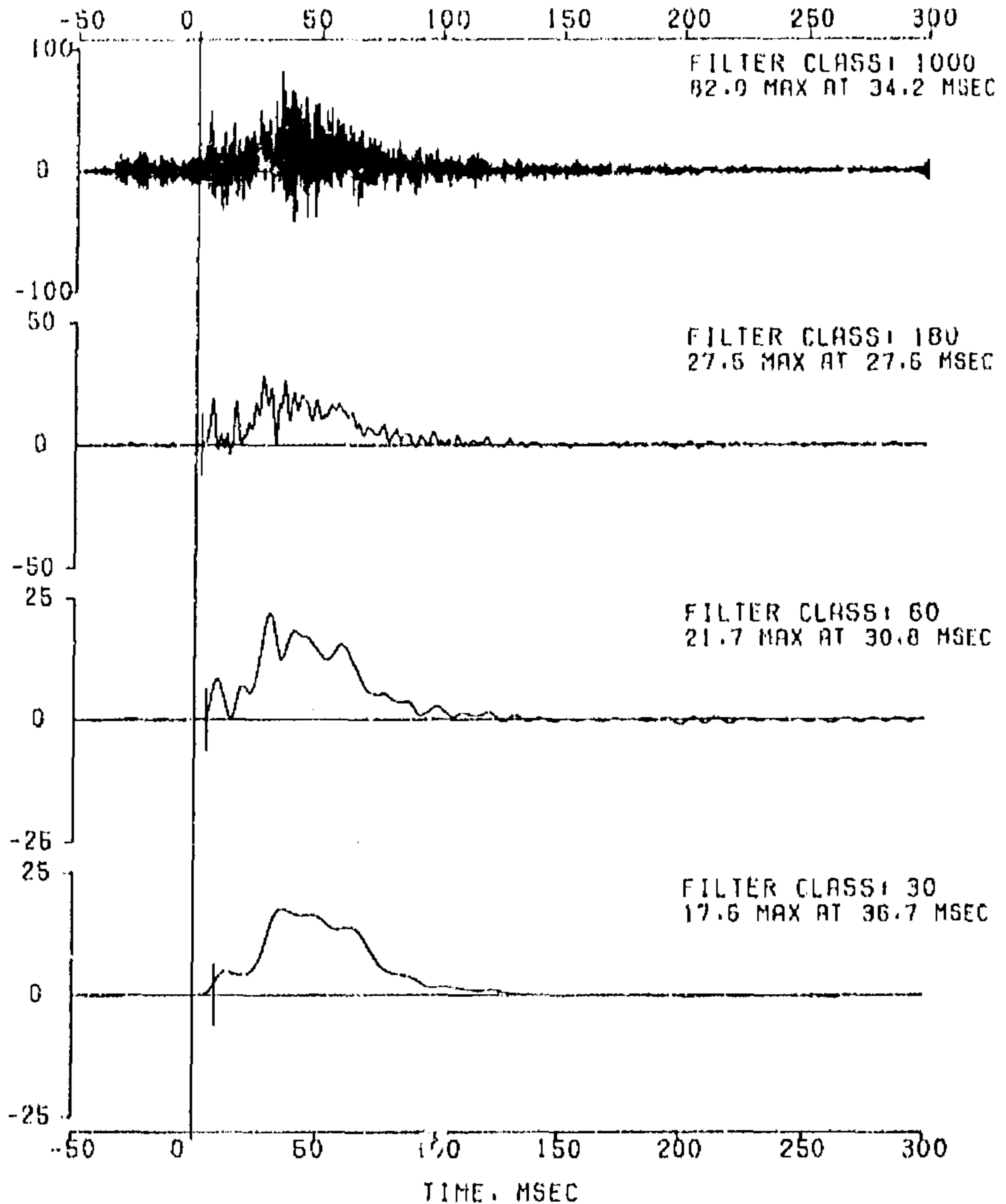
COMPUTED MPH  
 COMPUTED IN



VC08025 30 MPH REAR MOVING BARRIER, KJT-74 ITEM KJ4202R  
2002 MY55 301 REAR IMPACT DEVELOPMENT.  
CHANNEL 066 AT RAIL MBAR MID X 80453  
FILTER TYPE: QBDAS-III RESPONSE CORRECTION, CLASS 1000 FILTER(1650)  
IMPACT ANALYSIS DEPT. 5320  
DEC 14, 1999

PAGE 105  
OF 106

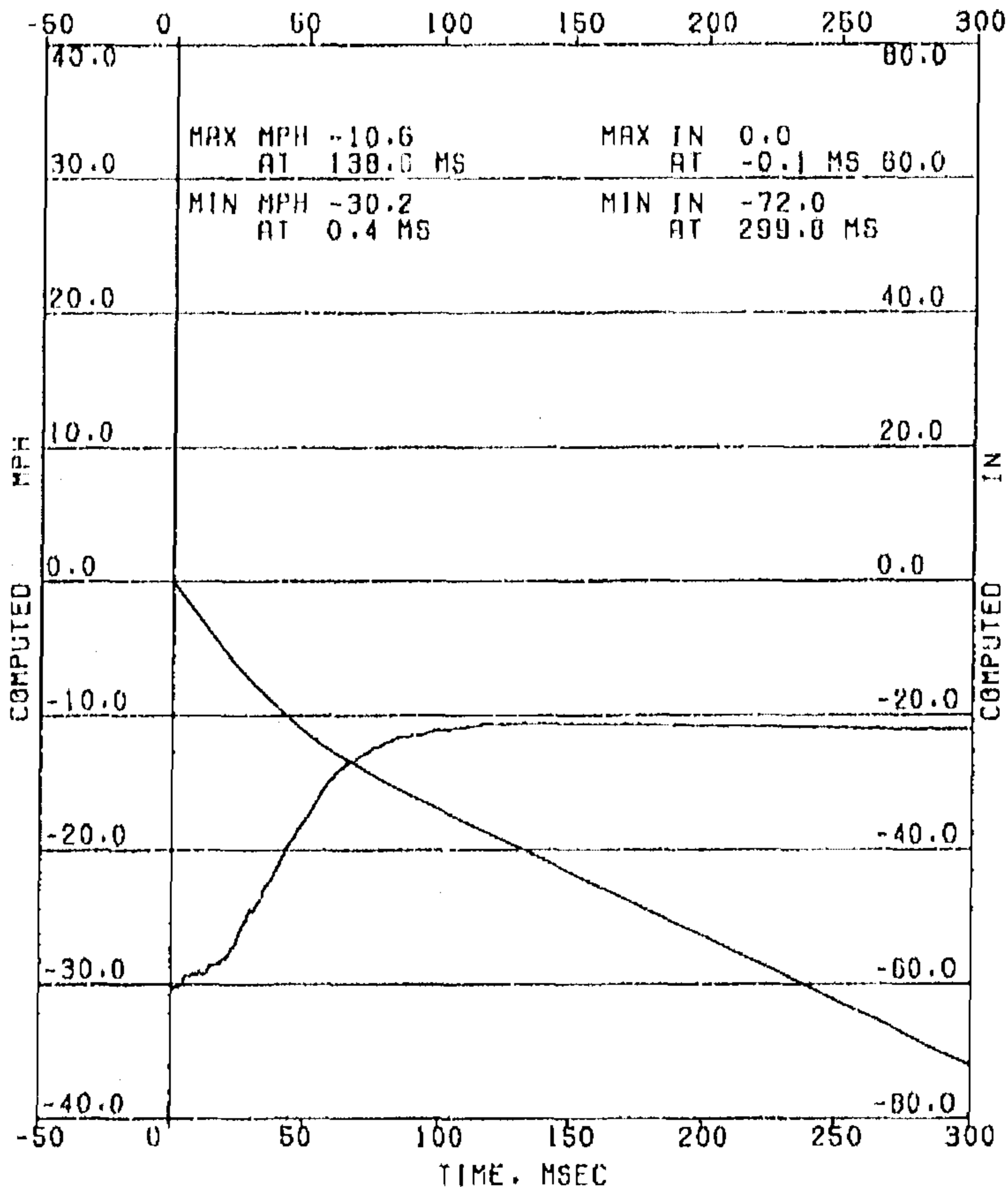
DATA SET 12/13/99BE  
ERRATA 1



FILTER TYPE: 000AS-111 RESPONSE CORRECTION, CLASS 1000 FILTER(1050)  
 FILTER CLASS: 1000

IMPACT ANALYSIS DEPT. 5320  
 DEC 14, 1999

DATA SET 12/13/99BE  
 ERRATA 1



COMPUTED MPH  
 COMPUTED IN

**THE FOLLOWING DOCUMENT(S)  
IS MICROFILMED IN AS IS  
CONDITION.**

Camera Operator: *RANDALL WHYTE*

Date: *05-01-2003*

INTER COMPANY CORRESPONDENCE

DATE 01/27/00

TO  
DISTRIBUTION

FROM  
S. P. FLETCHER

DEPARTMENT  
5920

PLAN OFFICE  
CTL

CIMS NUMBER  
401-00-27

SUBJECT:  
REAR DYNAMIC CRUSH ANALYSIS  
VC08025 30 MPH REAR MOVING BARRIER, KJ-74 ITEM KJ4282R  
2002 MYSS 301 REAR IMPACT DEVELOPMENT.  
TEST DATE 12/13/99

TEST PURPOSE PRIMARY, 2002 USA 301 DEVELOPMENT.  
DETERMINE FUEL SYSTEM INTEGRITY.

IMPACT TYPE TARGET SPEED: 30.1 MPH  
DAMAGE LOCATION: REAR  
BARRIER TYPE: REAR TYPE IV  
BARRIER SURFACE: PLYWOOD

VEHICLE BODY CLASS: KJ  
CAR LINE: J  
BODY: 74  
ENGINE: 2.4 LITRE  
ENGINE NOTE: ELECTRONIC FUEL INJECTION  
TRANSMISSION: 6 SPEED MANUAL  
TRANS. NOTE:  
VIN AS TESTED: 1J4FN58152A [REDACTED] MOD.  
VIN AS BUILT: 1J4FN58152A [REDACTED] MOD.

TEST SPEED 30.2 MPH BY ELECTRONIC TRAP TIMER.

TEST WEIGHT (LBS) 4572 TOTAL, 2434 FRONT, 2138 REAR

OCCUPANTS LEFT FRONT, HYBRID II BALLAST, RD-61  
RESTRAINT-BELTS ONLY.  
RIGHT FRONT, HYBRID II BALLAST, RD-66  
RESTRAINT-BELTS ONLY.

BUILD CONDITION



TARGET WEIGHT (LBS) 3938 TOTAL, 2135 FRONT, 1803 REAR REP BASE OPT. WT  
FOR A 3.7L 4X4 VEHICLE (CHART DATE 3/17/99) W/OUT  
LUGGAGE OR OCCUPANTS.  
FUEL AND BALLAST 17 GALLONS OF STODDARD SOLVENT.  
300 LBS.  
350 LBS SECURED TO REAR FLOORPAN.  
200 LBS IN FRONT SEAT AREA.

DATA FOR THIS ANALYSIS WAS DIGITIZED BY T. J. GEORGE.

REAR DYNAMIC CRUSH, PITCH, AND REAR WHEEL MOTION RELATIVE TO  
THE FRONT SILL HAVE BEEN DETERMINED BY FILM ANALYSIS. TIME  
WAS BASED ON CAMERA TIMING DATA. LATERAL VALUES WERE HELD  
CONSTANT THROUGHOUT THE ANALYSIS.

DYNAMIC CRUSH 18.1 +OR- 1 INCH AT 59. +BR- 5 MSEC.

*Michael W. Fabin*  
-----  
D. D. ANALYST

*S. P. Fletcher*  
-----  
S. P. FLETCHER

GRAPHS - 4

TEST VCOB025 C1/27/00 15:35 PAGE 2 OF 2

# G L O S S A R Y O F T E R M S

## U S E D I N S T A N D A R D R E P O R T S

AD	ANTHROPOMORPHIC DEVICE
ATD	ANTHROPOMORPHIC TEST DEVICE
BASE COORD	BASE COORDINATE SYSTEM
C/L	CENTERLINE
CAR COORD	CAR COORDINATE SYSTEM
CCH	COUNTER CLOCKWISE
CORR-IN	SEPARATION IN INCHES (MINUS INITIAL LENGTH)
CORR-MM	SEPARATION IN MM (MINUS INITIAL LENGTH)
CORR-P	CORRECTED (ZEROED) PITCH
CORR-R	CORRECTED (ZEROED) ROLL
CORR-Y	CORRECTED (ZEROED) YAW
CH	CLOCKWISE
EFI	ELECTRONIC FUEL INJECTOR
ENG	ENGINE
ENOPY	ENGINE PITCH AND YAW
FEM	FRONT END SHEET METAL
FIDUCIAL	REFERENCE POINT OR TARGET
FS	FRONT SILL TARGET
FWD	FORWARD
IP	INSTRUMENT PANEL TARGET
LBS	POUNDS
LCP,LCP	LEFT C-POST & QUARTER PANEL TARGETS
LFS,LMS,LRS	LEFT FRONT SILL, MID SILL, & REAR SILL TARGETS
LT	LEFT
MS	MID SILL TARGET
NORMALIZE	PUT ON A COMMON BASIS
NOSE-DOWN	LEADING END BELOW TRAILING
NOSE-UP	LEADING END ABOVE TRAILING
PERF	PERFORMANCE
REF	REFERENCE
REL	RELATIVE TO (ONE-DIMENSIONAL)
RCP,ROP	RIGHT C-POST & QUARTER PANEL TARGETS
RFS,RMS,RRS	RIGHT FRONT, MID, & REAR SILL TARGETS
ROLL-LEFT	LEFT SIDE LOWER THAN RIGHT
ROLL-RIGHT	RIGHT SIDE LOWER THAN LEFT
RS	REAR SILL TARGET
RT	RIGHT
SEP	SEPARATION OF (THREE-DIMENSIONAL)
SYS	SYSTEM
TBI	THROTTLE BODY INJECTOR
TIME,MS	TIME IN MILLISECONDS
U/D	UNDERBODY
VS	VERSUS
X	LONGITUDINAL AXIS (INCREASING TOWARD TRAILING EDGE)
XF	X-FILTERED
Y	LATERAL AXIS (INCREASING TO THE RIGHT)
YAW-LEFT	LEADING EDGE TO LEFT
YAW RIGHT	LEADING EDGE TO RIGHT
Z	VERTICAL AXIS (INCREASING UPWARD)
ZEROED	SHIFTED TO START AT ZERO
ZERO-IN	ZEROED INCHES
ZERO-MM	ZEROED MILLIMETERS

IMPACT ANALYSIS  
DEPARTMENT 5320  
01/27/00 15:35  
TEST VC08025

VC08025 50 MPH REAR MOVING BARRIER, KJT-74 ITEM KJ4282R  
 2002 MVSS 301 REAR IMPACT DEVELOPMENT-

ZERGED X MOTION OF F3 REL TO LFS IN BASE COORD SYS  
 VERSUS TIME IN MILLISECONDS

REAR DYNAMIC CRUSH AND REAR WHEEL MOTION ANALYSIS

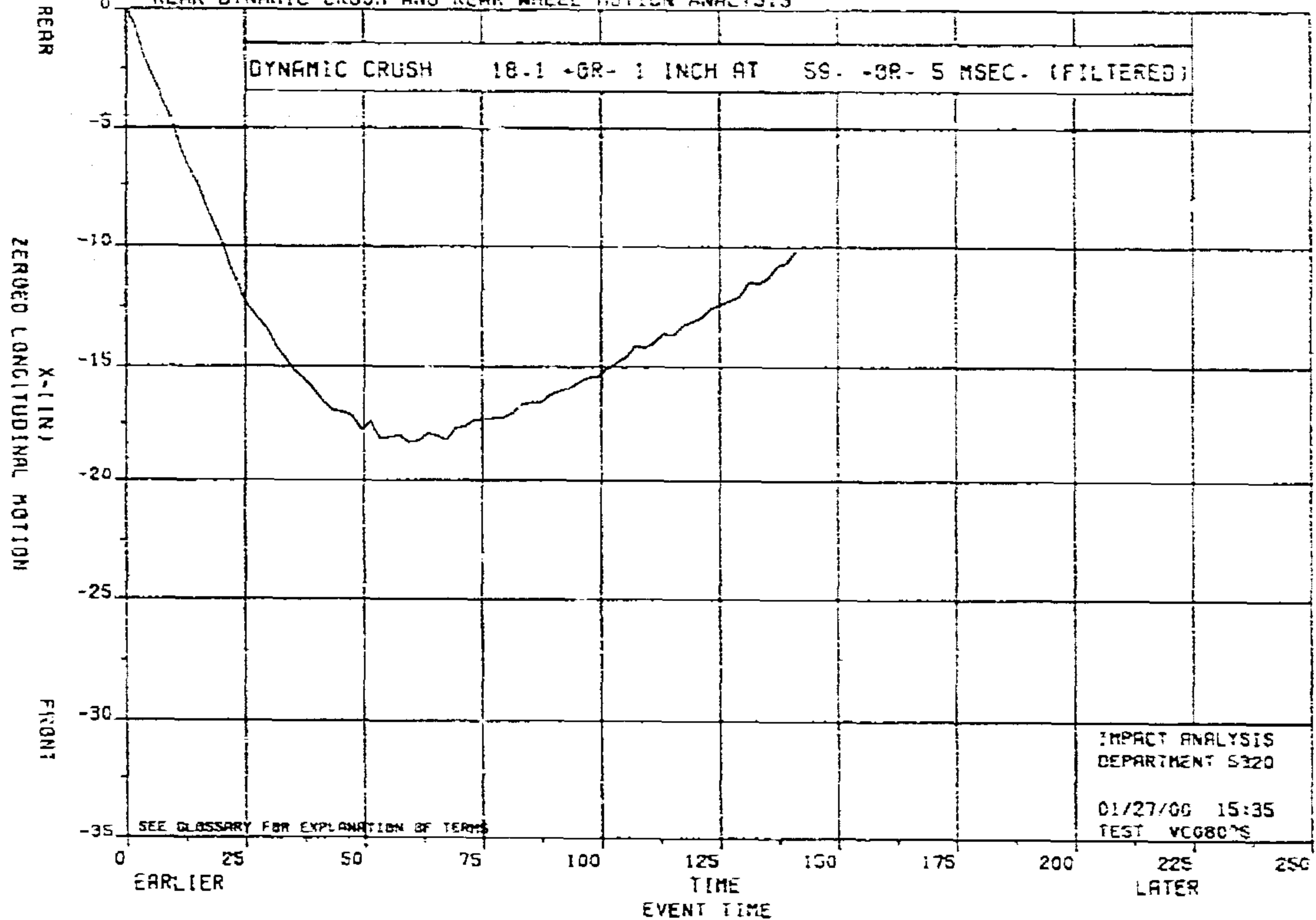


FIGURE 1

VC08025 30 MPH REAR MOVING BARRIER. KJT-74 ITEM KJ4282R  
2002 MYSS 301 REAR IMPACT DEVELOPMENT.

ZERGED Z OF LRV RELATIVE TO LFS IN CAR COORD  
VERSUS ZERGED X OF LRV RELATIVE TO LFS IN CAR COORD  
REAR DYNAMIC CRUSH AND REAR WHEEL MOTION ANALYSIS

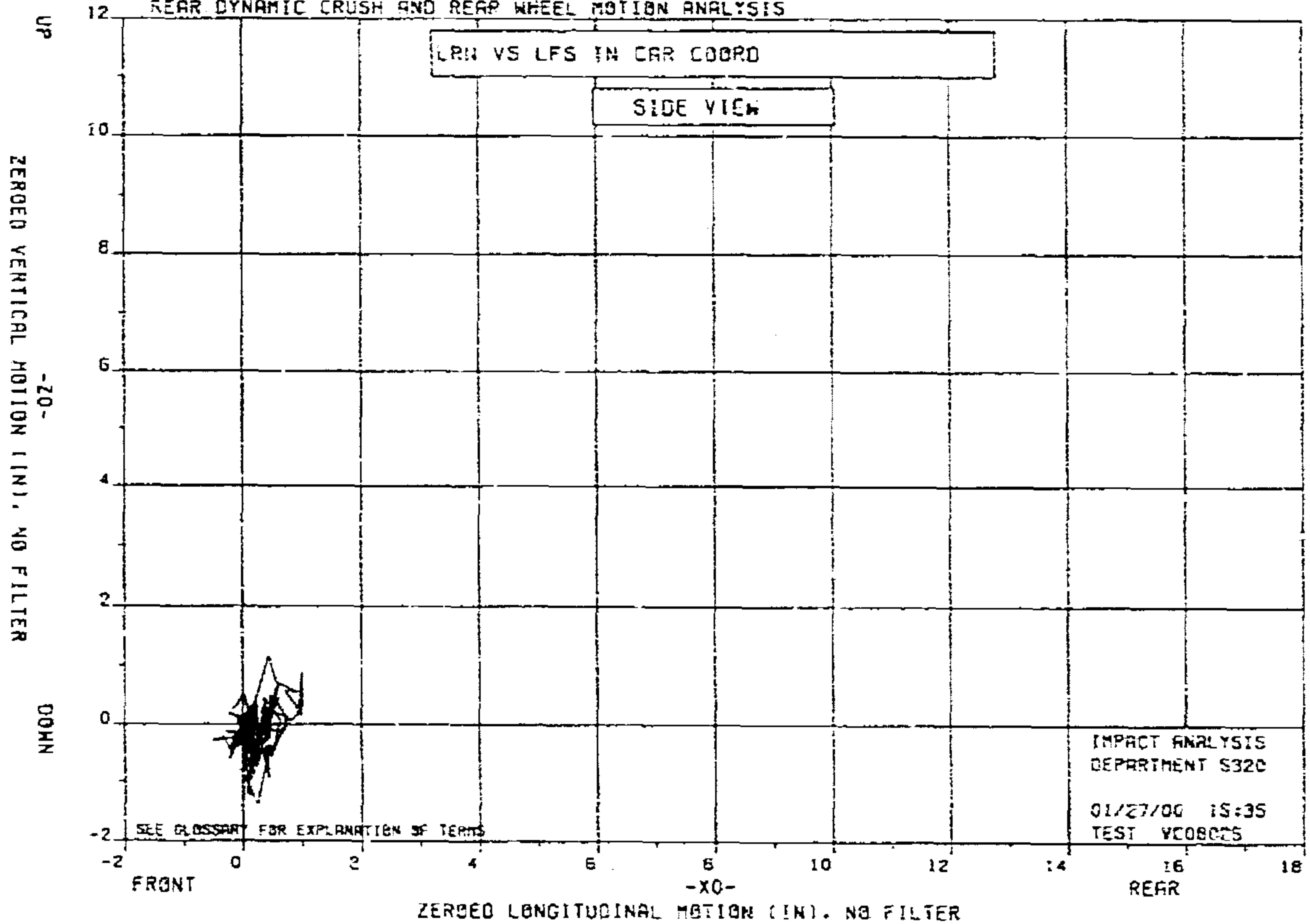


FIGURE 2



VC08025 30 MPH REAR MOVING BARRIER. KJT-74 ITEM KJ4282R  
 2002 HYSS 301 REAR IMPACT DEVELOPMENT.

ZERGED PITCH OF LMS TO LFS IN BASE COORD SYSTEM  
 VERSUS TIME IN MILLISECONDS

REAR DYNAMIC CRUSH AND REAR WHEEL MOTION ANALYSIS

NOSE-UP  
 DEGREES CCM AROUND Y RELATIVE TO X (RT SIDE VIEW) 50HZ FILTER  
 CORR-P  
 NOSE-DOWN

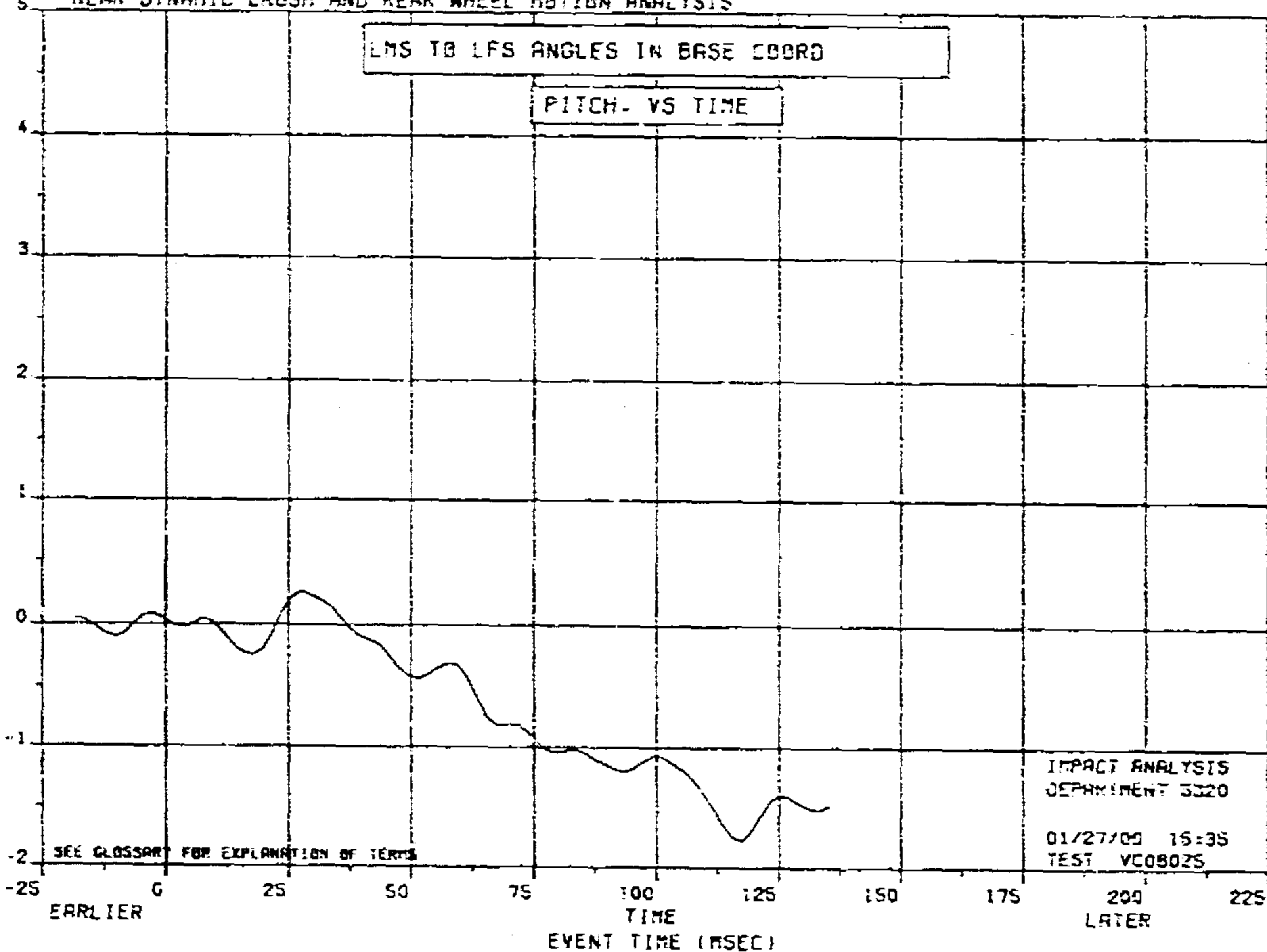


FIGURE 3

VC08025 30 MPH REAR MOVING BARRIER. KJT-74 ITEM KJ4282R  
2002 MVSS 301 REAR IMPACT DEVELOPMENT.

LMS TO LFS DISTANCE -24.19 INCHES (INITIAL DIST) (IN)  
VERSUS TIME IN MILLISECONDS

REAR DYNAMIC CRUSH AND REAR WHEEL MOTION ANALYSIS

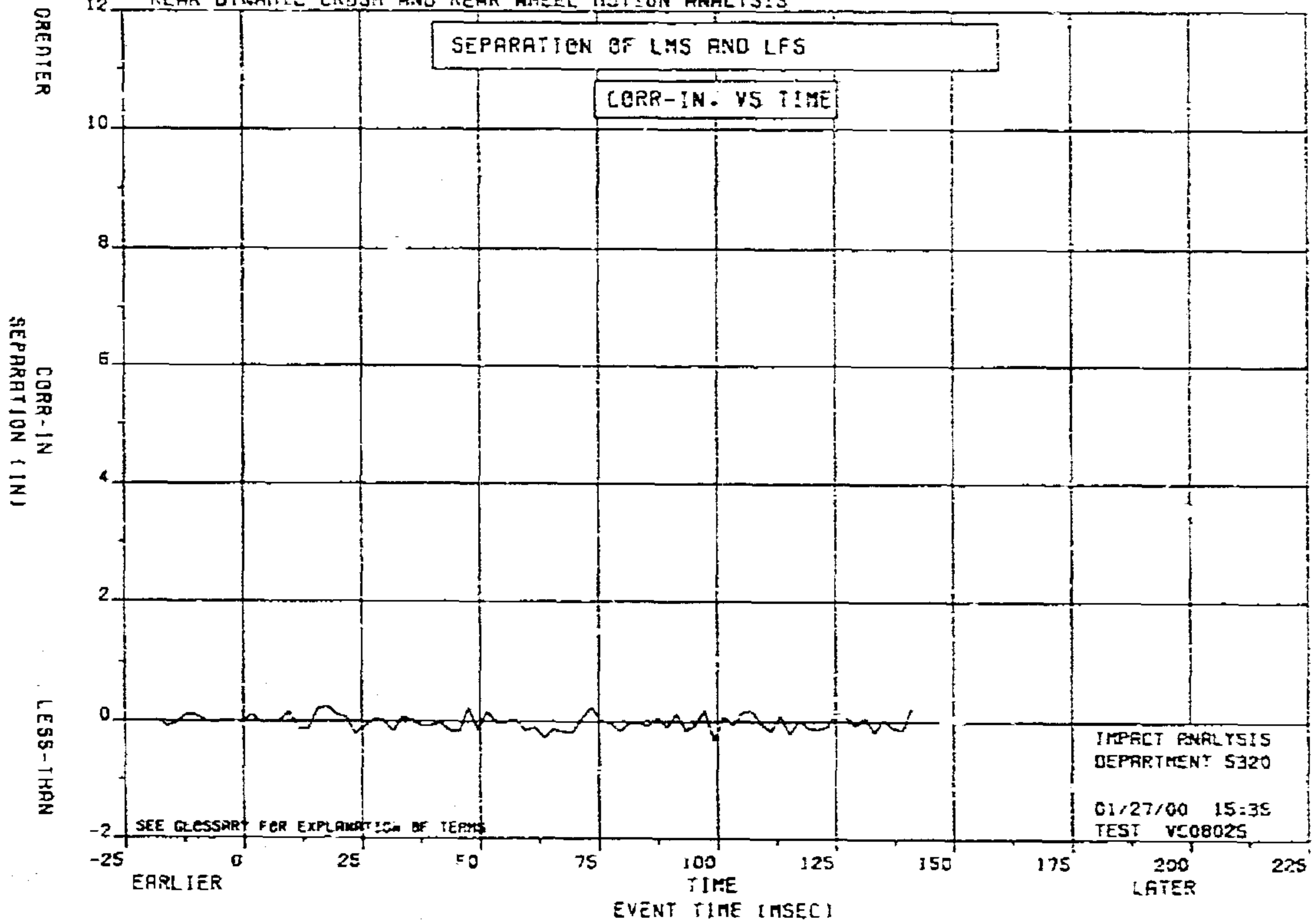


FIGURE 4

**THE FOLLOWING DOCUMENT(S)  
IS MICROFILMED IN AS IS  
CONDITION.**

Camera Operator: *RANDALL WHYTE*

Date: *05-01-2003*

INTER COMPANY CORRESPONDENCE

DATE 02/17/00

TO  
DISTRIBUTION

FROM  
S. P. FLETCHER

DEPARTMENT  
5920

PLANT/OFFICE  
CIC

CIMS NUMBER  
481-00-27

SUBJECT:  
REAR UNDERBODY MOTION ANALYSIS  
VC08025 30 MPH REAR MOVING BARRIER, KJT-74 ITEM KJ42B2R  
2002 MYSS 301 REAR IMPACT DEVELOPMENT.  
TEST DATE 12/13/99

TEST PURPOSE PRIMARY, 2002 USA 301 DEVELOPMENT.  
DETERMINE FUEL SYSTEM INTEGRITY.

IMPACT TYPE TARGET SPEED: 30.1 MPH  
DAMAGE LOCATION: REAR  
BARRIER TYPE: REAR TYPE IV  
BARRIER SURFACE: PLYWOOD

VEHICLE BODY CLASS: KJ  
CAR LINE: J  
BODY: 74  
ENGINE: 2.4 LITRE  
ENGINE NOTE: ELECTRONIC FUEL INJECTION  
TRANSMISSION: 5 SPEED MANUAL  
TRANS. NOTE:  
VIN AS TESTED: 1J4FN58152A [REDACTED] MOD.  
VIN AS BUILT: 1J4FN58152A [REDACTED] MOD.

TEST SPEED 30.2 MPH BY ELECTRONIC TRAP TIMER.

TEST WEIGHT (LBS): 4572 TOTAL, 2434 FRONT, 2138 REAR

OCCUPANTS LEFT FRONT, HYBRID II BALLAST, AD-61  
RESTRAINT-BELTS ONLY.  
RIGHT FRONT, HYBRID II BALLAST, AD-5F  
RESTRAINT-BELTS ONLY.

BUILD CONDITION



TARGET WEIGHT (LBS) 3938 TOTAL, 2135 FRONT, 1803 REAR REP BASE OPT. WT  
FOR A 3.7L 4X4 VEHICLE (CHART DATE 3/17/98) W/OUT  
LUGGAGE OR OCCUPANTS.  
FUEL AND BALLAST 17 GALLONS OF STODDARD SOLVENT.  
300 LBS.  
350 LBS SECURED TO REAR FLOORPAN.  
200 LBS IN FRONT SEAT AREA.

DATA FOR THIS ANALYSIS WAS DIGITIZED BY T. J. GEORGE.

THE RELATIVE MOTIONS OF SELECTED REAR UNDERBODY TARGETS HAVE BEEN  
DETERMINED BY FILM ANALYSIS. TIME WAS BASED ON CAMERA TIMING DATA.

  
Q. C. ANALYST

  
S. F. FLETCHER

GRAPHS - 25

G L O S S A R Y O F T E R M S

U S E D I N S T A N D A R D R E P O R T S

AD	ANTHROPOMORPHIC DEVICE
AD	ANTHROPOMORPHIC TEST DEVICE
BASE COORD	BASE COORDINATE SYSTEM
C/L	CENTERLINE
CAR COORD	CAR COORDINATE SYSTEM
CCW	COUNTER CLOCKWISE
CORR-IN	SEPARATION IN INCHES (MINUS INITIAL LENGTH)
CORR-MM	SEPARATION IN MM (MINUS INITIAL LENGTH)
CORR-P	CORRECTED (ZEROED) PITCH
CORR-R	CORRECTED (ZEROED) ROLL
CORR-Y	CORRECTED (ZEROED) YAW
CH	CLOCKWISE
EFI	ELECTRONIC FUEL INJECTOR
ENG	ENGINE
ENOPY	ENGINE PITCH AND YAW
FESH	FRONT END SHEET METAL
FIDUCIAL	REFERENCE POINT OR TARGET
FS	FRONT SILL TARGET
FWD	FORWARD
IP	INSTRUMENT PANEL TARGET
LBS	POUNDS
LCP,LQP	LEFT C-POST & QUARTER PANEL TARGETS
LFS,LMS,LRS	LEFT FRONT SILL, MID SILL, & REAR SILL TARGETS
LT	LEFT
MS	MID SILL TARGET
NORMALIZE	PUT ON A COMMON BASIS
NOSE-DOWN	LEADING END BELOW TRAILING
NOSE-UP	LEADING END ABOVE TRAILING
PERF	PERFORMANCE
REF	REFERENCE
REL	RELATIVE TO (ONE-DIMENSIONAL)
RCP,RQP	RIGHT C-POST & QUARTER PANEL TARGETS
RFS,RMS,RRS	RIGHT FRONT, MID, & REAR SILL TARGETS
ROLL-LEFT	LEFT SIDE LOWER THAN RIGHT
ROLL-RIGHT	RIGHT SIDE LOWER THAN LEFT
RS	REAR SILL TARGET
RT	RIGHT
SEP	SEPARATION OF (THREE-DIMENSIONAL)
SYS	SYSTEM
TBI	THROTTLE BODY INJECTOR
TIME,MS	TIME IN MILLISECONDS
U/B	UNDERBODY
VS	VERSUS
X	LONGITUDINAL AXIS (INCREASING TOWARD TRAILING EDGE)
XF	X-FILTERED
Y	LATERAL AXIS (INCREASING TO THE RIGHT)
YAW-LEFT	LEADING EDGE TO LEFT
YAW-RIGHT	LEADING EDGE TO RIGHT
Z	VERTICAL AXIS (INCREASING UPWARD)
ZEROED	SHIFTED TO START AT ZERO
ZERO-IN	ZEROED INCHES
ZERO-MM	ZEROED MILLIMETERS

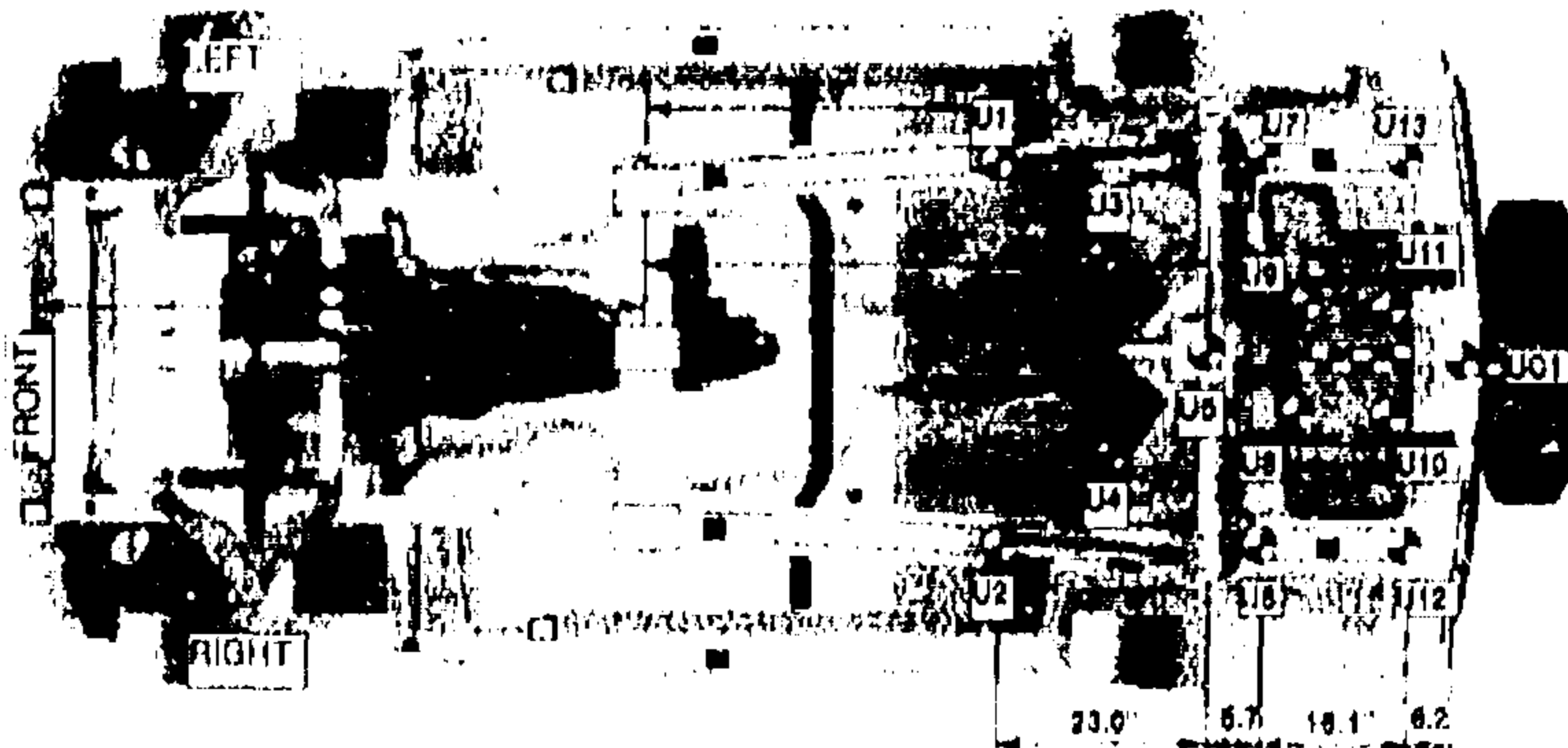
IMPACT ANALYSIS  
DEPARTMENT 5320  
02/17/00 12:22  
TEST VC08025





# VC08025 30-MPH REAR MOVING BARRIER, KJ-T-74 ITEM KJ4282R 2002 MVSS 301 REAR IMPACT DEVELOPMENT.

This Sheet Item 7C

Jeep Cherokee 4x4 KJ

Target and Accelerometer Locations  
For Rear Impact



-  Underbody
-  Side View
-  Single Axis (X) Accelerometer
-  Bistrial (X & Z) Accelerometer

## TARGET NAME

## TARGET DESCRIPTION

UC1	CENTER TARGET, REAR BUMPER CROSSMEMBER
U1	LEFT FOREMOST RAIL TARGET
U2	RIGHT FOREMOST RAIL TARGET
U3	LEFT UPPER SWING-ARM TARGET
U4	RIGHT UPPER SWING-ARM TARGET
U5	REAR DIFFERENTIAL TARGET
U8	RIGHT RAIL TARGET -RWD OF AXLE
U7	LEFT RAIL TARGET -RWD OF AXLE
U8	RIGHT FRONT CORNER FUEL TANK TARGET
U9	LEFT FRONT CORNER FUEL TANK TARGET
U10	RIGHT AFT FUEL TANK TARGET
U11	LEFT AFT FUEL TANK TARGET
U12	RIGHT AFTMOST RAIL TARGET -NEAR REAR RIGHT CORNER FUEL TANK
U13	LEFT AFTMOST RAIL TARGET -NEAR REAR LEFT CORNER FUEL TANK

\*NOT USED FOR THIS ANALYSIS

VC06025 30 MPH REAR MOVING BARRIER. NOT-74 ITEM 404282R  
 2002 MVSS 301 REAR IMPACT DEVELOPMENT.

ZEROED X OF BI RELATIVE TO U1 IN BASE COORD  
 VERSUS TIME IN MILLISECONDS

REAR UNDERBODY MOTION ANALYSIS

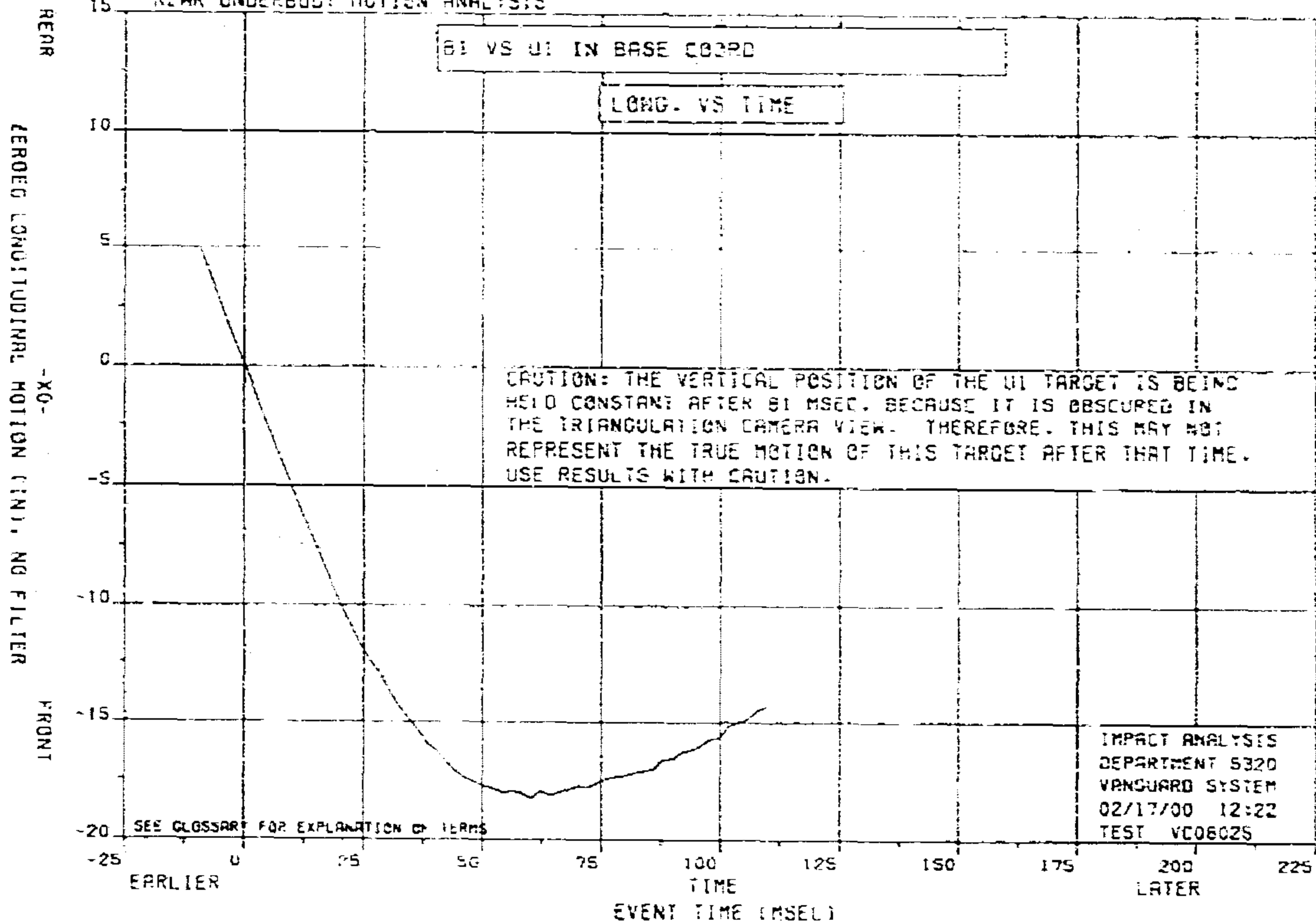


FIGURE 1



VC08025 30 MPH REAR MOVING BARRIER. KJT-74 ITEM KJ4282R  
2002 MVSS 301 REAR IMPACT DEVELOPMENT.

ZEROED X OF B1 RELATIVE TO U13 IN CAR COORD  
VERSUS TIME IN MILLISECONDS

REAR UNDERBODY MOTION ANALYSIS

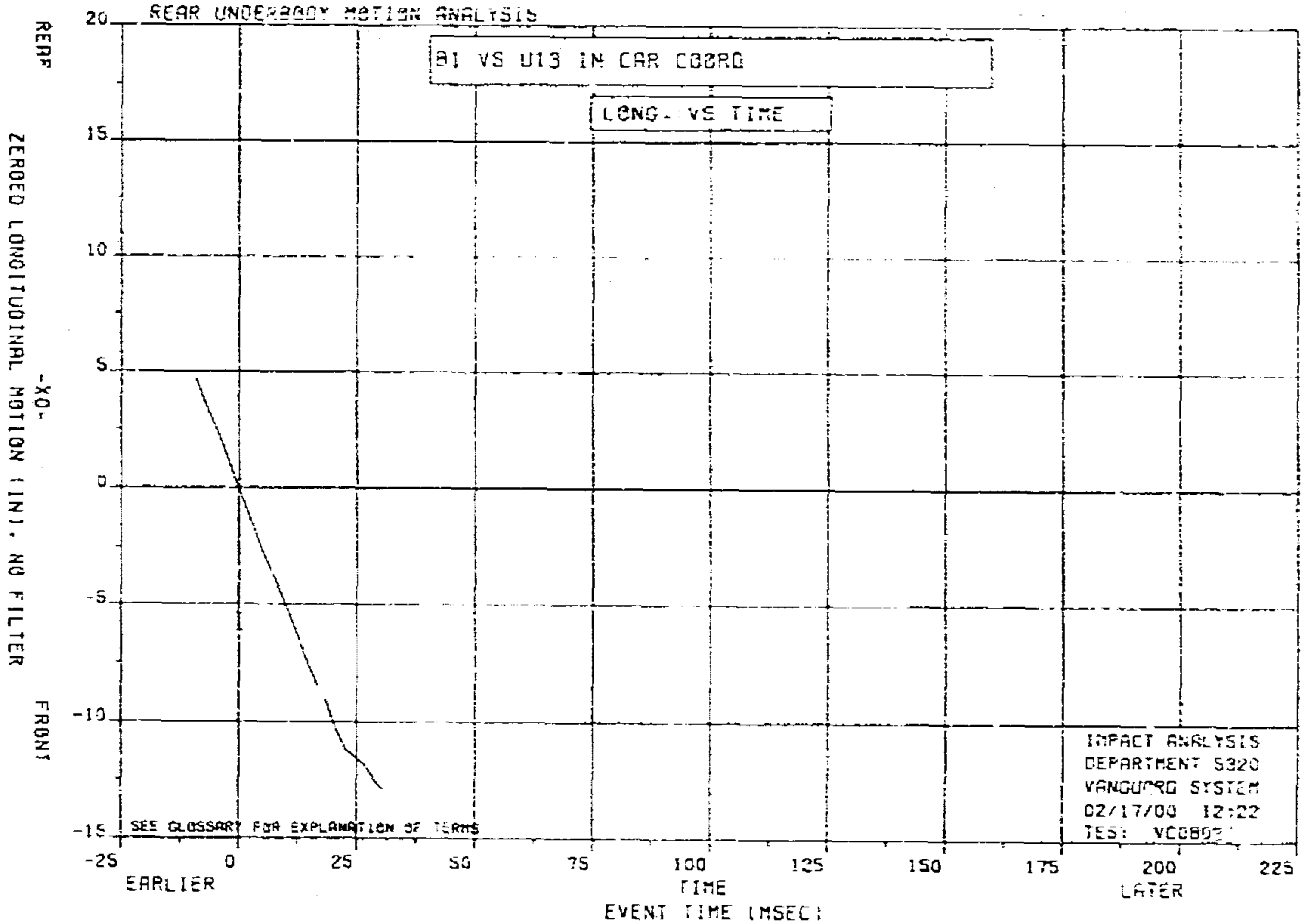


FIGURE 2

V008025 30 MPH REAR MOVING BARRIER. N01-74 ITEM KJ4282R  
2002 MVSS 301 REAR IMPACT DEVELOPMENT.

ZERBED X OF U13 RELATIVE TO U1 IN CAR COORD  
VERSUS TIME IN MILLISECONDS

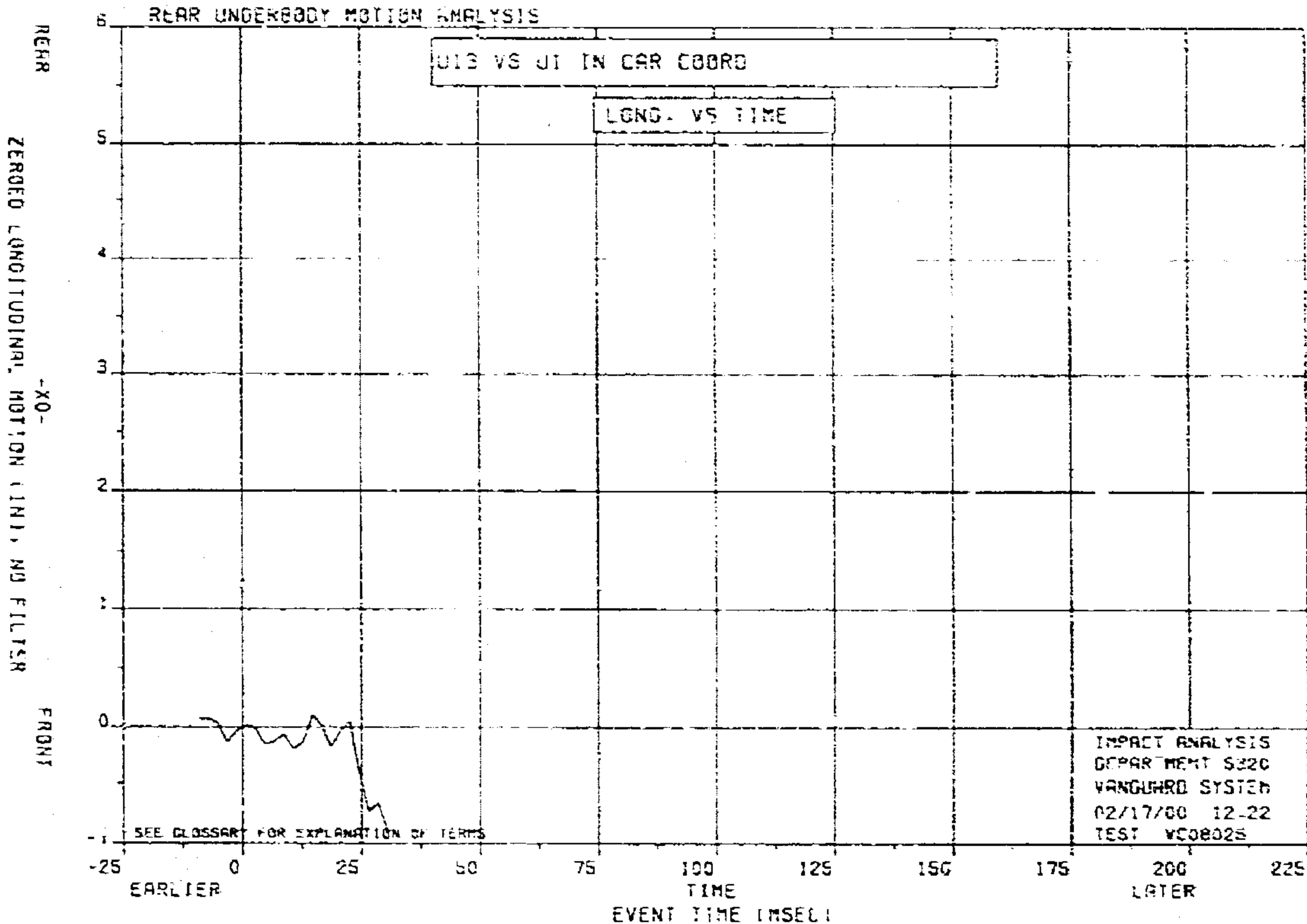


FIGURE 3

VC08025 30 MPH REAR MOVING BARRIER. HSI-74 ITEM #14382R  
 2002 MVSS 301 REAR IMPACT DEVELOPMENT.

ZERGED X OF B2 RELATIVE TO U2 IN BASE COORD  
 VERSUS TIME IN MILLISECOND

REAR UNDERBODY MOTION ANALYSIS

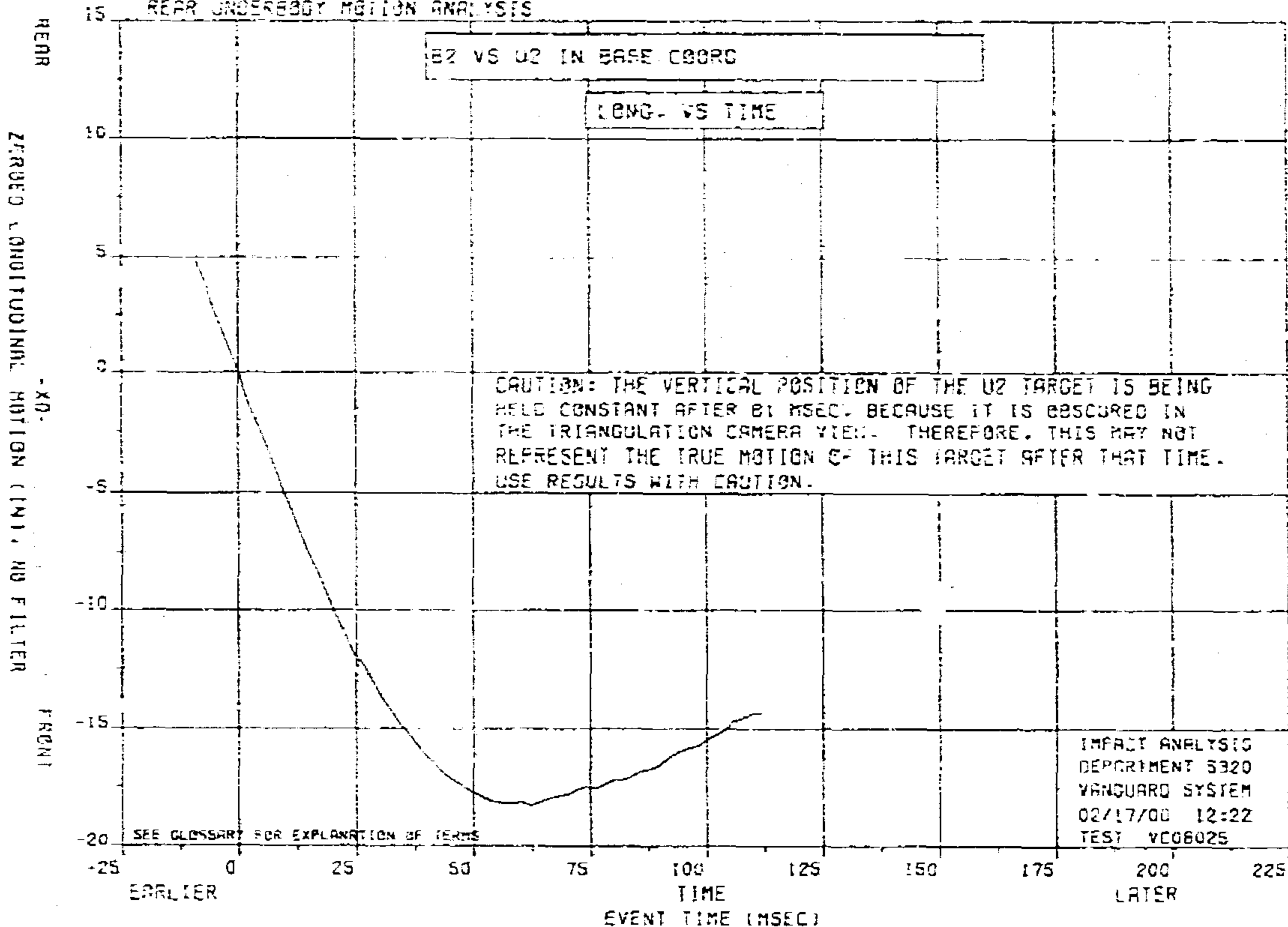


FIGURE 4

VC08025 30 MPH REAR MOVING BARRIER. RUI 74 ITEM KJ4252R  
 2002 HVSS 30: REAR IMPACT DEVELOPMENT.

ZERGED X OF B2 RELATIVE TO B0 IN CAR COORD  
 VERSUS TIME IN MILLISECONDS

REAR UNDERBODY MOTION ANALYSIS

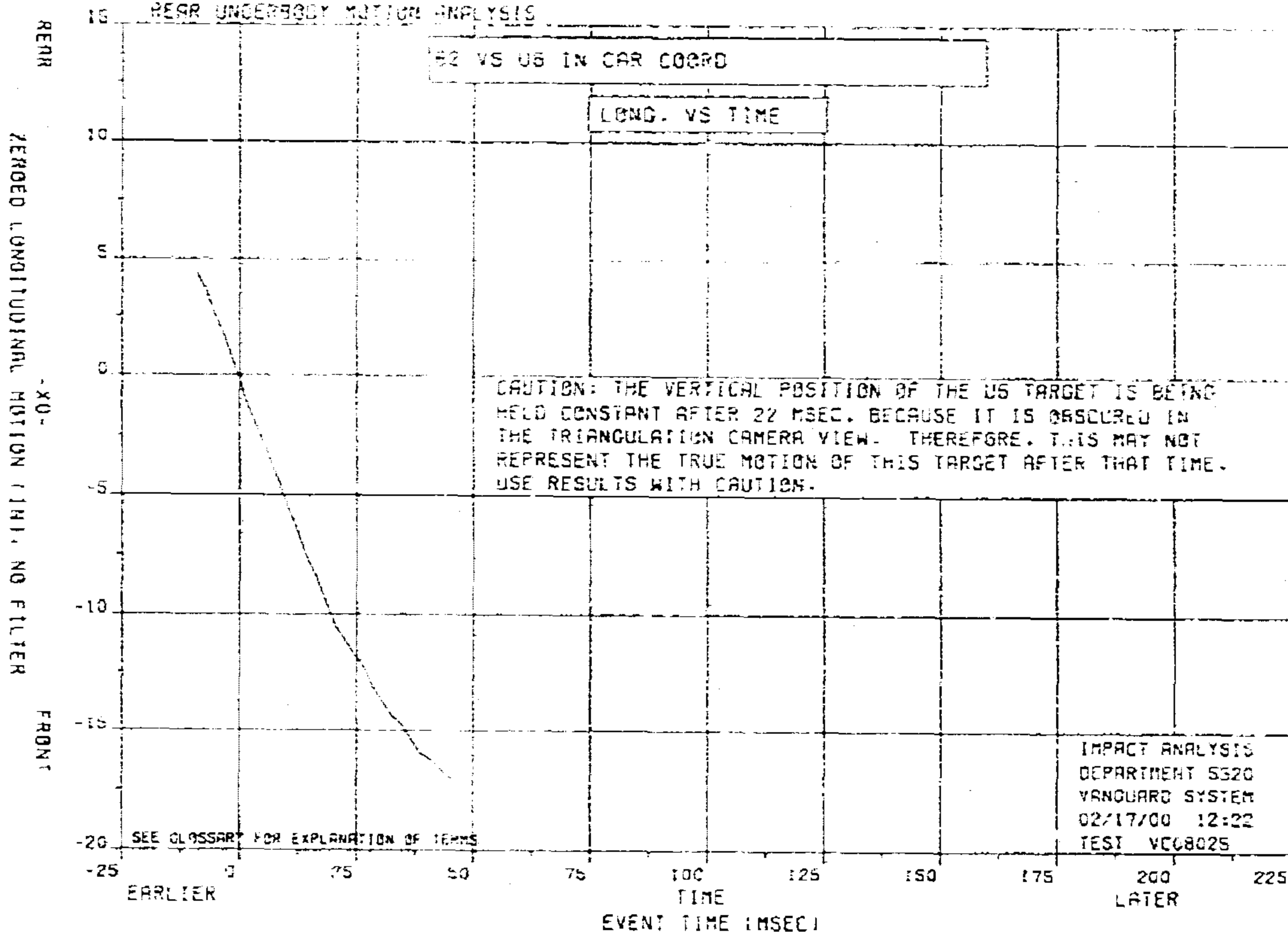


FIGURE 5



VC08025 30 MPH REAR MOVING BARRIER. KJ4-74 ITEM KJ42828  
 2002 MVSS 301 REAR IMPACT DEVELOPMENT.

ZEROED X OF B2 RELATIVE TO U12 IN CAR 00690  
 VERSUS TIME IN MILLISECONDS

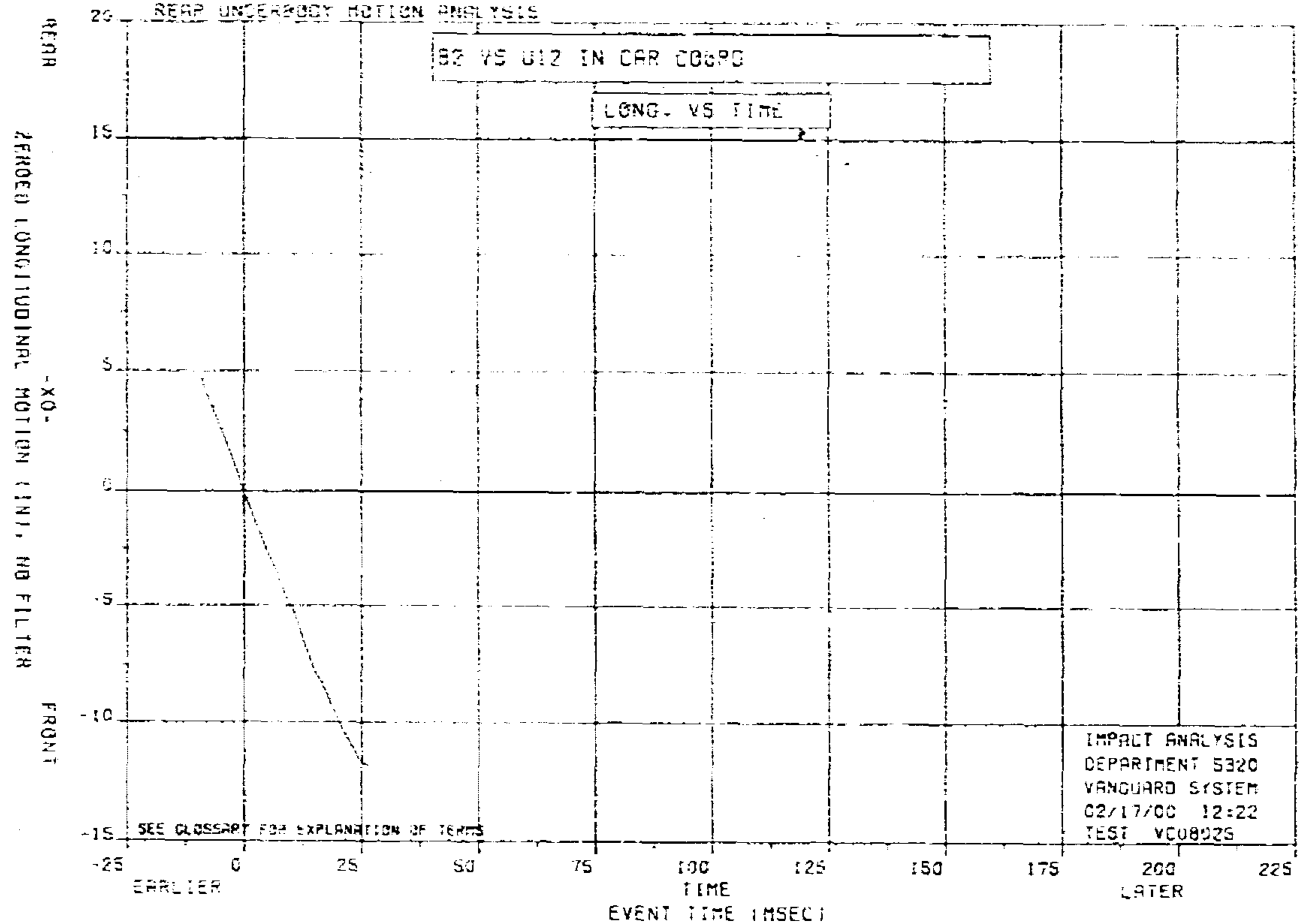


FIGURE 6

VC08025 30 MPH REAR MOVING BARRIER. NHT-74 ITEM KJ4282R  
 2002 MYSS 301 REAR IMPACT DEVELOPMENT.

ZERGED 3 OF U12 RELATIVE TO U6 IN CAR COORD  
 VERSUS TIME IN MILLISECOND

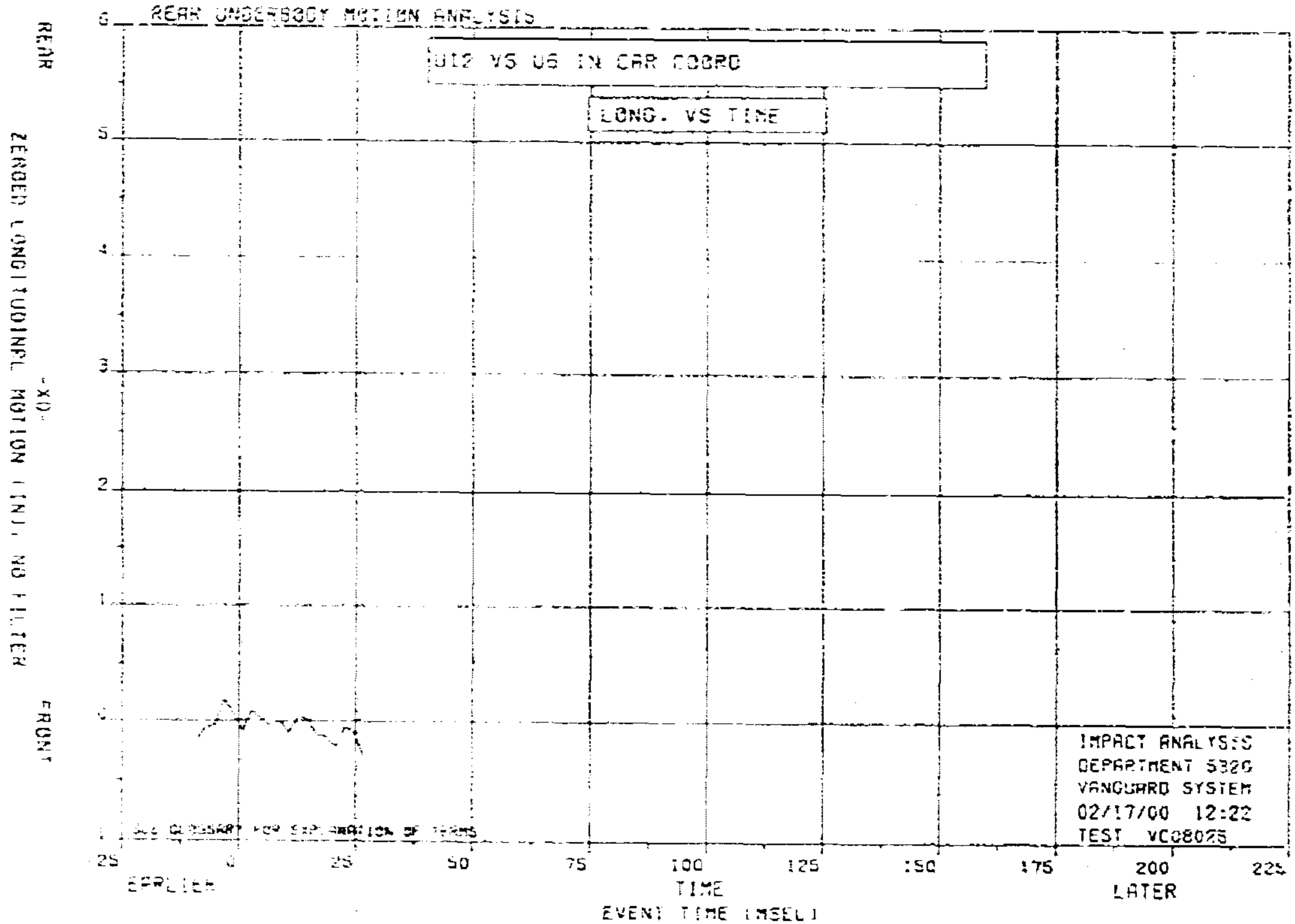


FIGURE 7

VC08025 IS THE FIRST IMPACT OBSERVED AT 115M AS4232R  
 FROM MISSILE IN THE IMPACT DEPARTMENT.

IMPACT IS IN RELATIVE TO U6 IN CAR SCOPE  
 APPROX 10M IN THE 100000S

DATA ANALYSIS FOR IMPACT ANALYSIS

REAR

REAR LONGITUDINAL POSITION LINE, 40 FEET

XU

FRONT

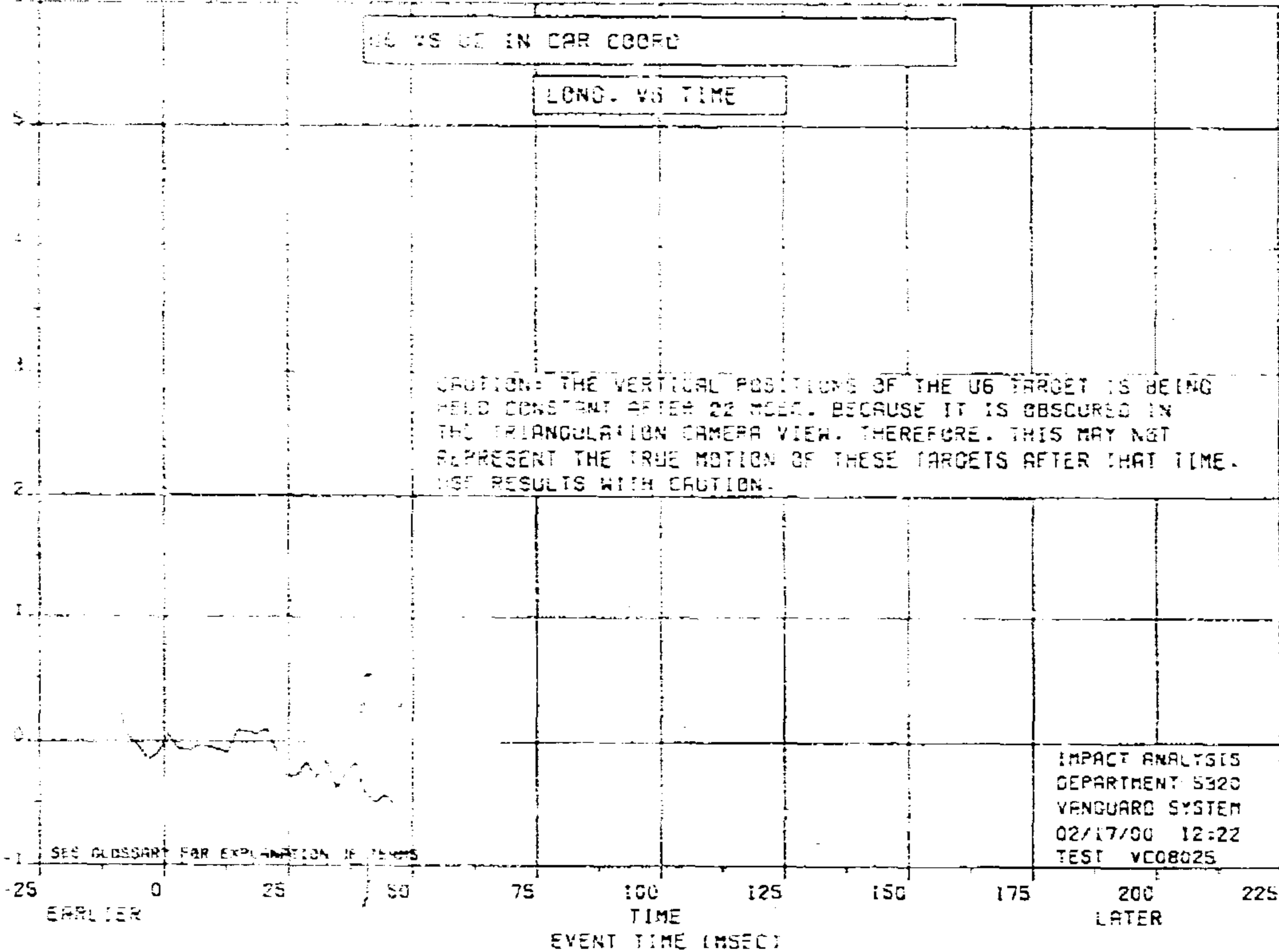


FIGURE 8

VC06025 30 MPH 520- MOVING BARRIER. RUI-74 ITEM KJ4282R  
2002 TV65 301 REAR IMPACT DEVELOPMENT.

ZEROED  $X_0$  VS  $U_1$  RELATIVE TO  $U_1$  IN CAR COORD  
VERSUS  $T$  IN MILLISECONDS

REAR UNDERBODY MOTION ANALYSIS

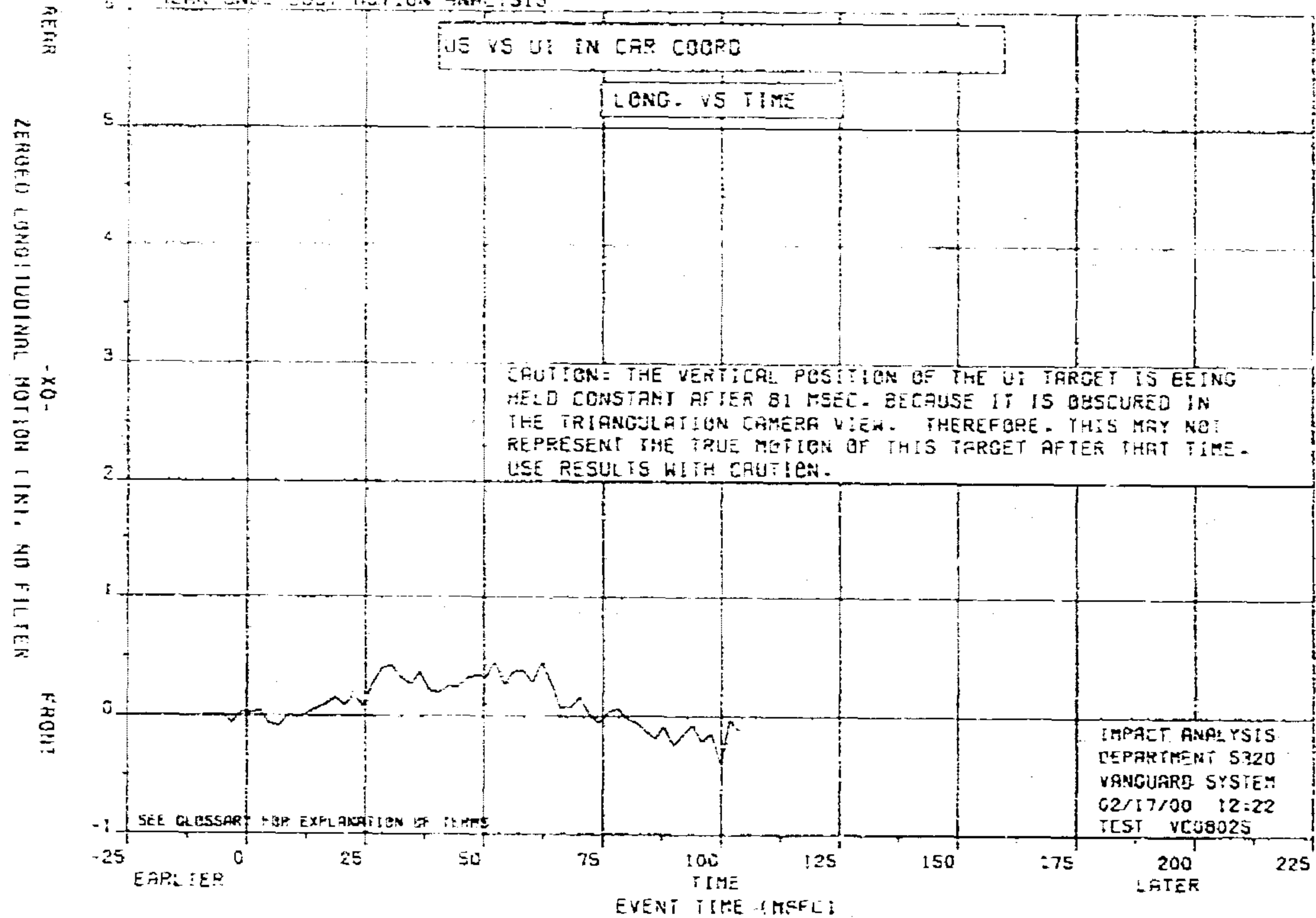


FIGURE 3



VC08025 30 MPH REAR MOVING BARRIER - NJT-74 ITEM K14282R  
 2002 MYSS 301 REAR IMPACT DEVELOPMENT.

ZERGED X OF U2 RELATIVE TO U2 IN CAR COORD  
 VERSUS TIME IN MILLISECONDS

REAR UNDERBODY MOTION ANALYSIS

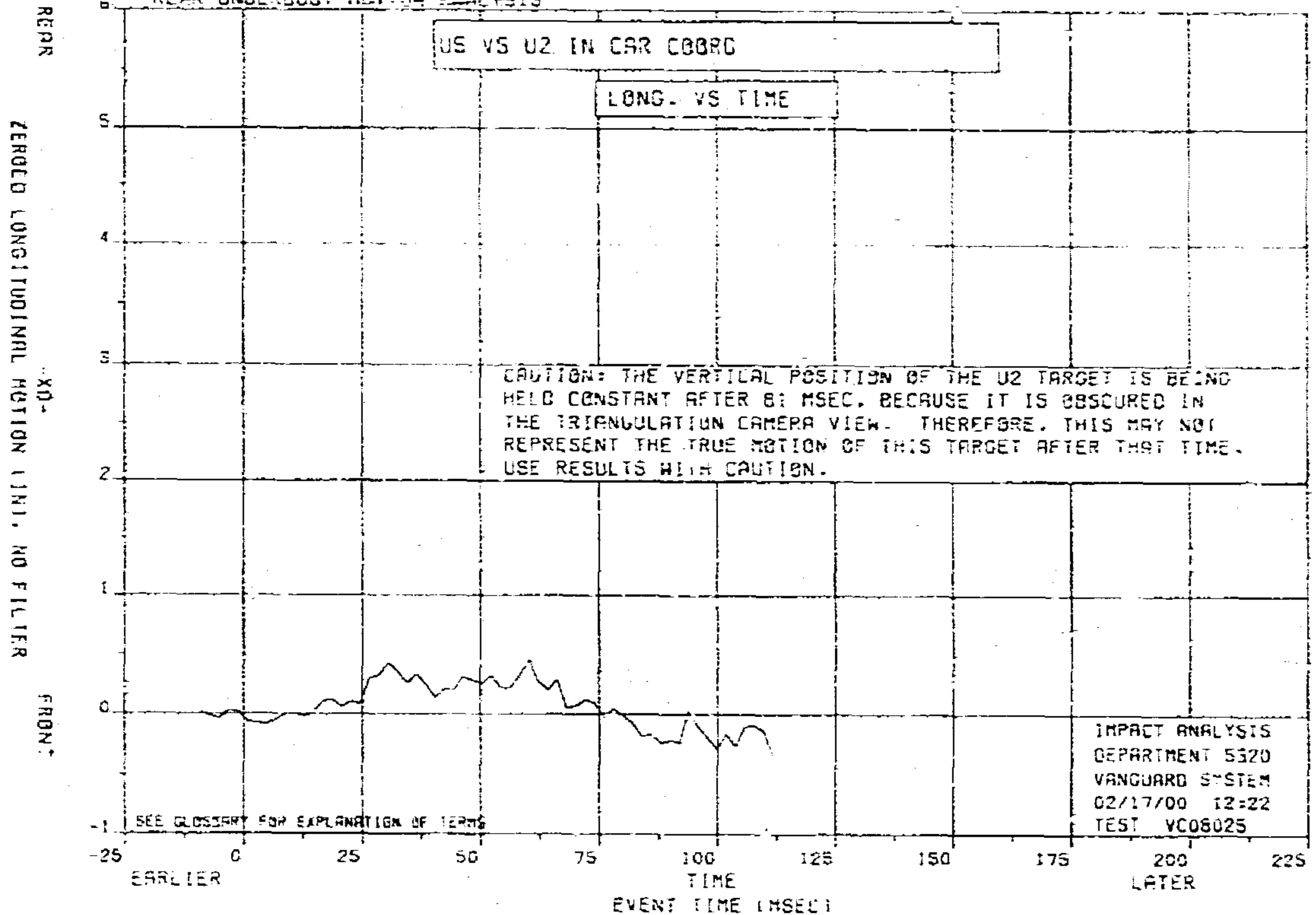


FIGURE 10

VC08025 30 MPH REAR MOVING CARRIER, MJT-74 ITEM KJ4292R  
 2002 MVSS 301 REAR IMPACT DEVELOPMENT.

ZERGED X OF U9 RELATIVE TO U1 IN CAR COORD  
 VERSUS TIME IN MILLISECONDS

REAR UNDERBODY MOTION ANALYSIS

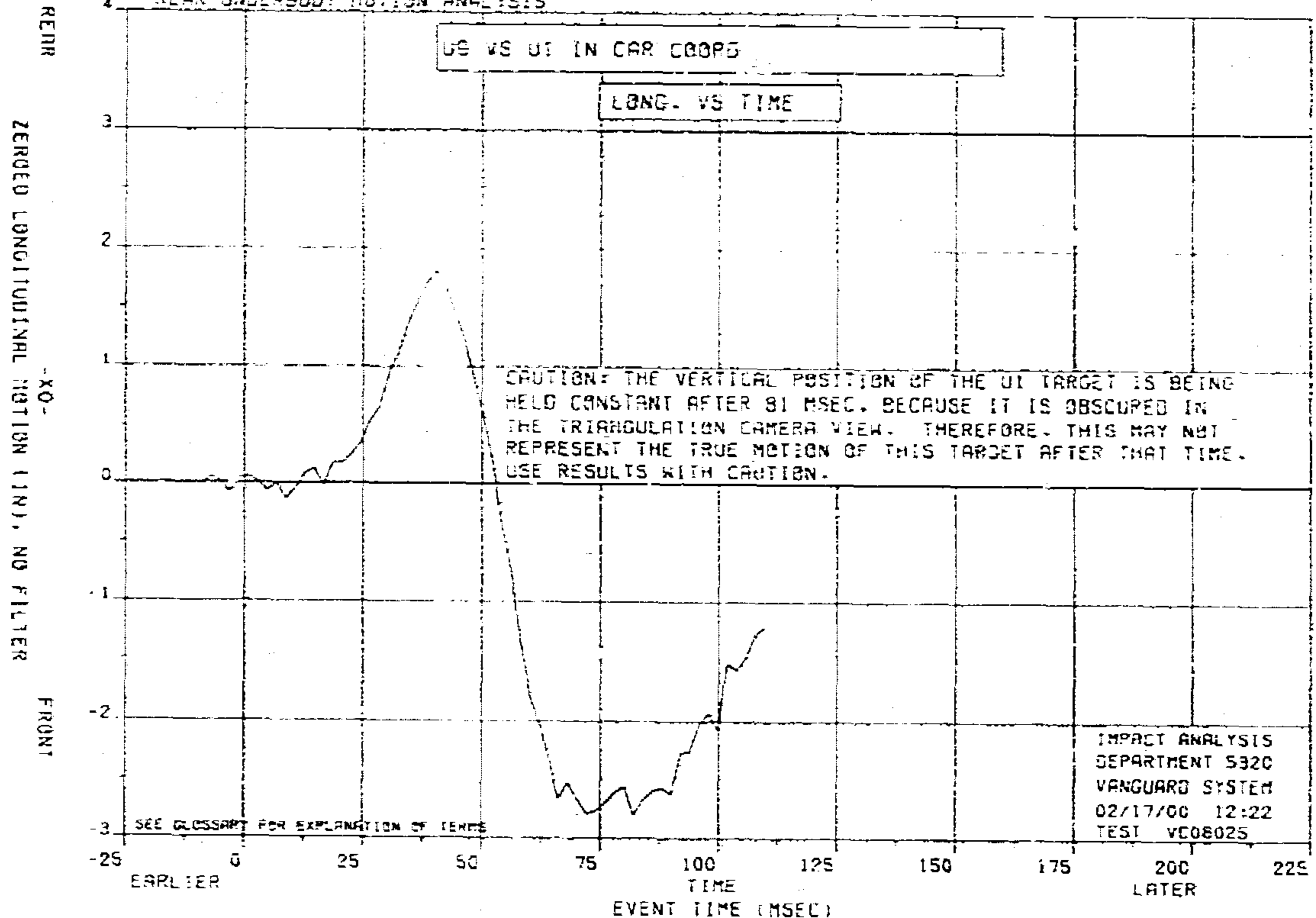


FIGURE 11

VC08025 30 MPH REAR MOVING BARRIER, KJI-74 ITEM KJ4282R  
 2002 MVSS 301 REAR IMPACT DEVELOPMENT.

ZERGED X OF U8 RELATIVE TO U2 IN CAR COORD  
 VERSUS TIME IN MILLISECONDS

REAR UNDERBODY MOTION ANALYSIS

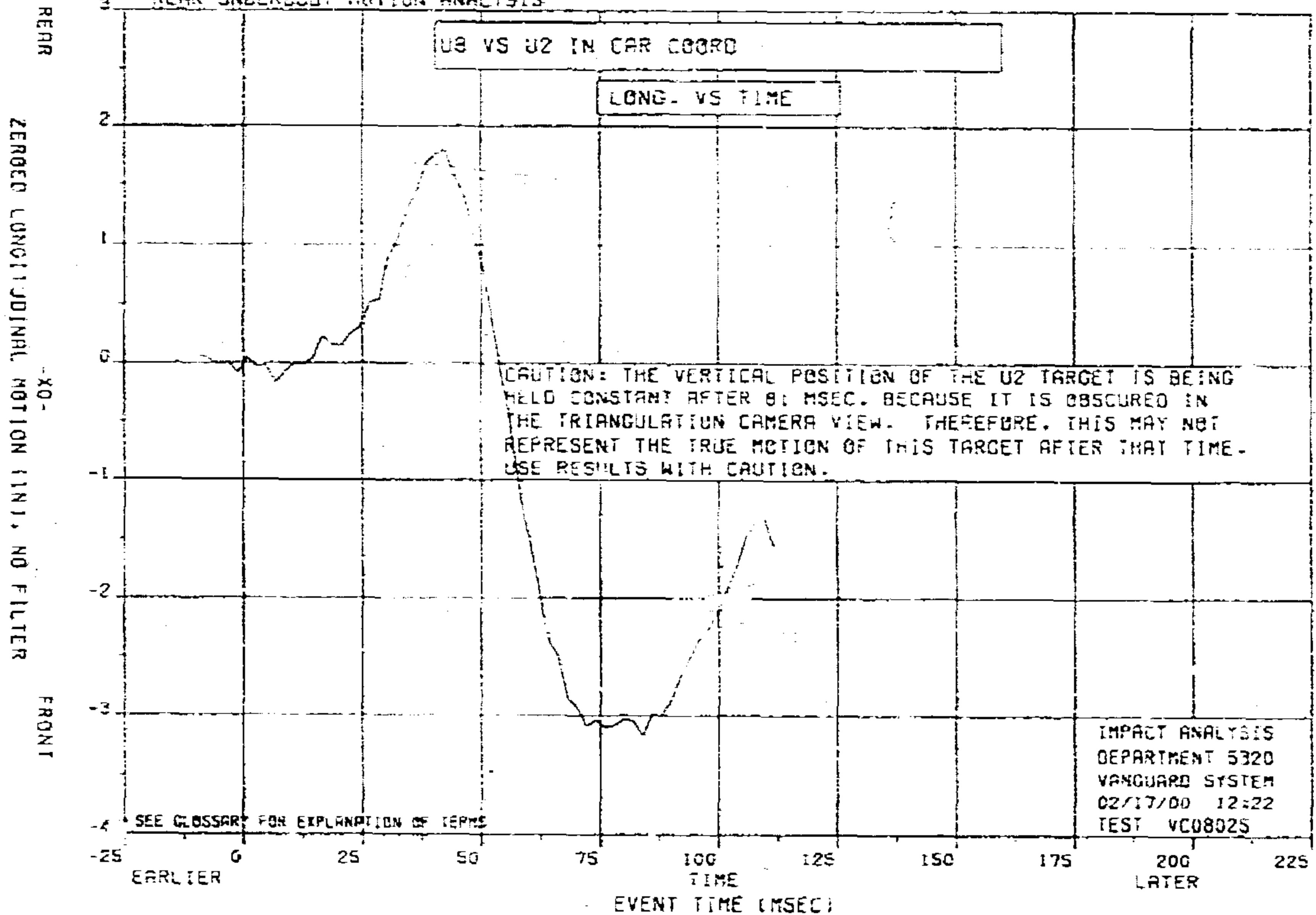


FIGURE 12

VCC025 30 MPH REAR MOVING BARRIER. KJ1-74 ITEM KJ4292R  
2002 MVSS 30: REAR IMPACT DEVELOPMENT.

ZERGED PITCH OF G10 TO U8 IN CAR COORD SYSTEM  
VERSUS TIME IN MILLISECONDS

REAR UNDERBODY MOTION ANALYSIS

NOSE-UP  
DEGREES CCW AROUND Y RELATIVE TO X (RT SIDE VIEW) 50HZ FILTER  
CORR-P  
NOSE-DOWN

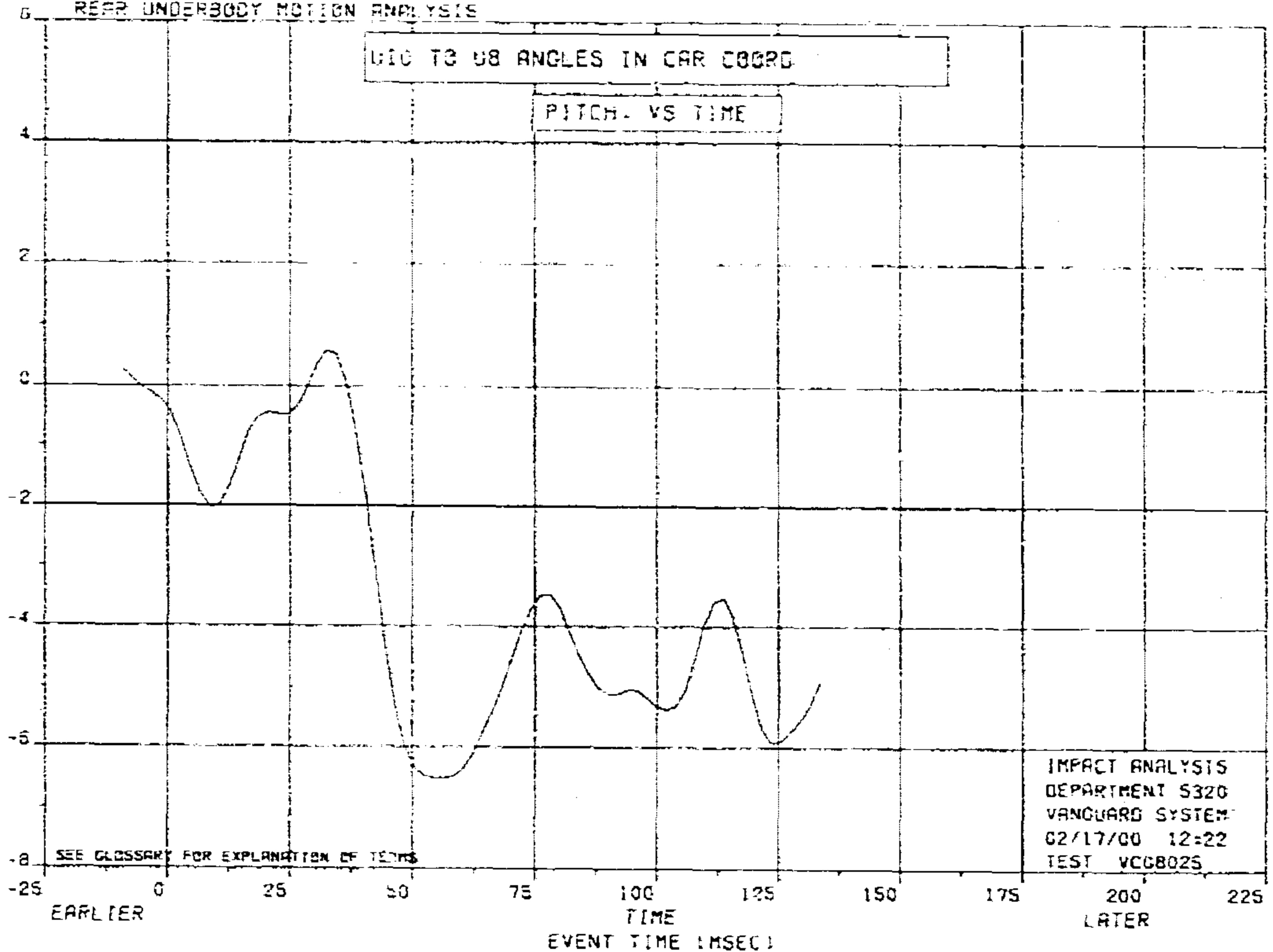


FIGURE 13

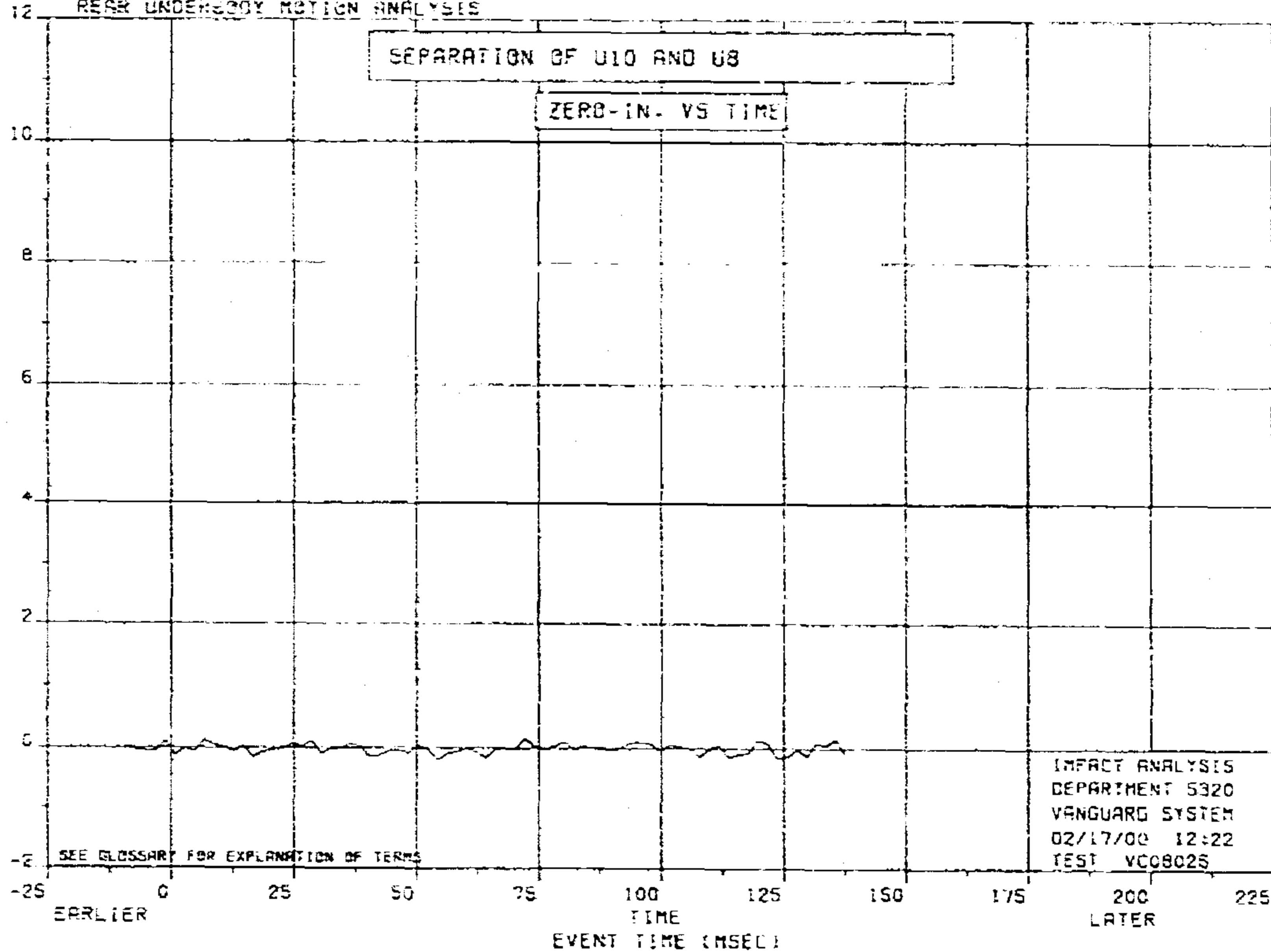


VC08025 20 MPH REAR MOVING BARRIER. KJ1-74 ITEM KJ4282R  
2002 MVSS 301 REAR IMPACT DEVELOPMENT.

ZEROED SEPARATION OF U10 AND U8 (IN)  
VERSUS TIME IN MILLISECONDS

REAR UNDERBODY MOTION ANALYSIS

GREATER



ZERO-IN  
SEPARATION (IN)

FIGURE 14

VC08025 30 MPH REAR MOVING BARRIER. KJF-74 ITEM KJ4282R  
 2002 MVSS 301 REAR IMPACT DEVELOPMENT.

ZERGED PITCH OF U11 TO U2 IN CAR COORD SYSTEM  
 VERSUS TIME IN MILLISECONDS

REAR UNDERBODY MOTION ANALYSIS

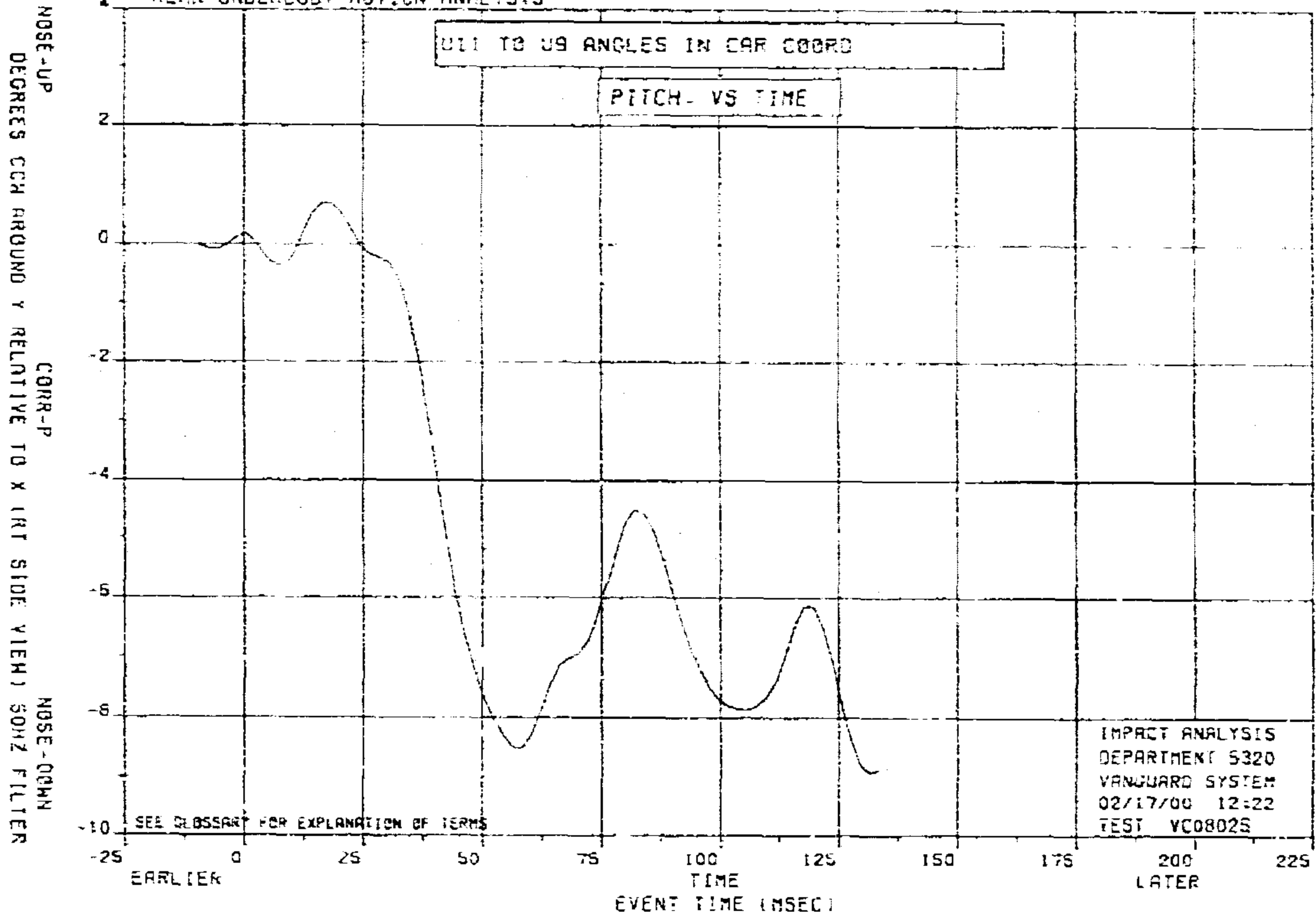


FIGURE 15

VC06025 30 MPH REAR MOVING BARRIER. KJ1-74 ITEM KJ4292F  
2002 MVSS 301 REAR IMPACT DEVELOPMENT.

ZERGED SEPARATION OF U11 AND U9 (IN)  
VERSUS TIME IN MILLISECNS

REAR UNDERBODY MOTION ANALYSIS

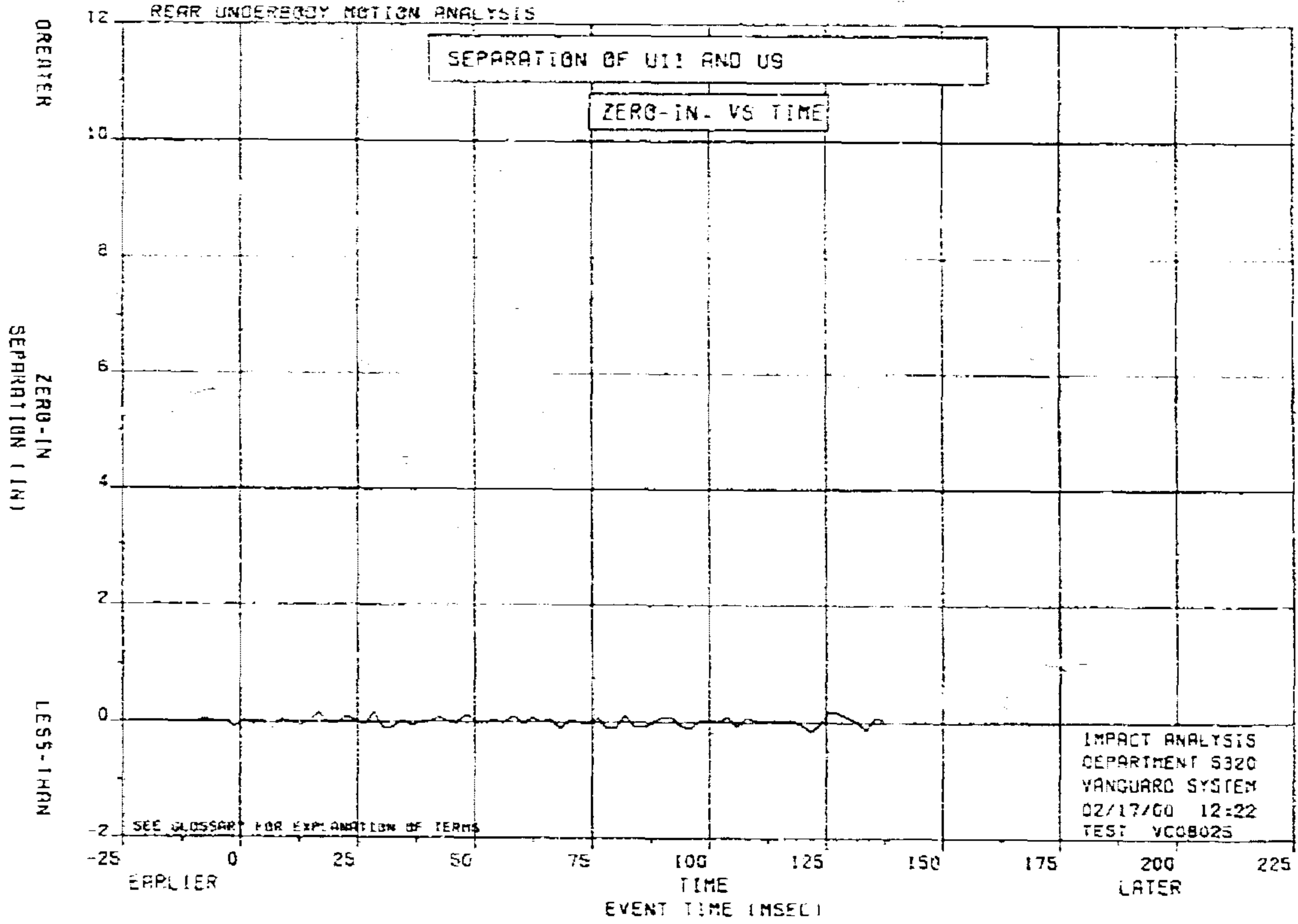


FIGURE 16

VC08025 30 MPH REAR MOVING BARRIER. KUT-74 ITEM KJ4282R  
 2002 MVSS 301 REAR IMPACT DEVELOPMENT.

ZERGED X OF U3 RELATIVE TO U1 IN CAR COORD  
 VERSUS TIME IN MILLISECONDS

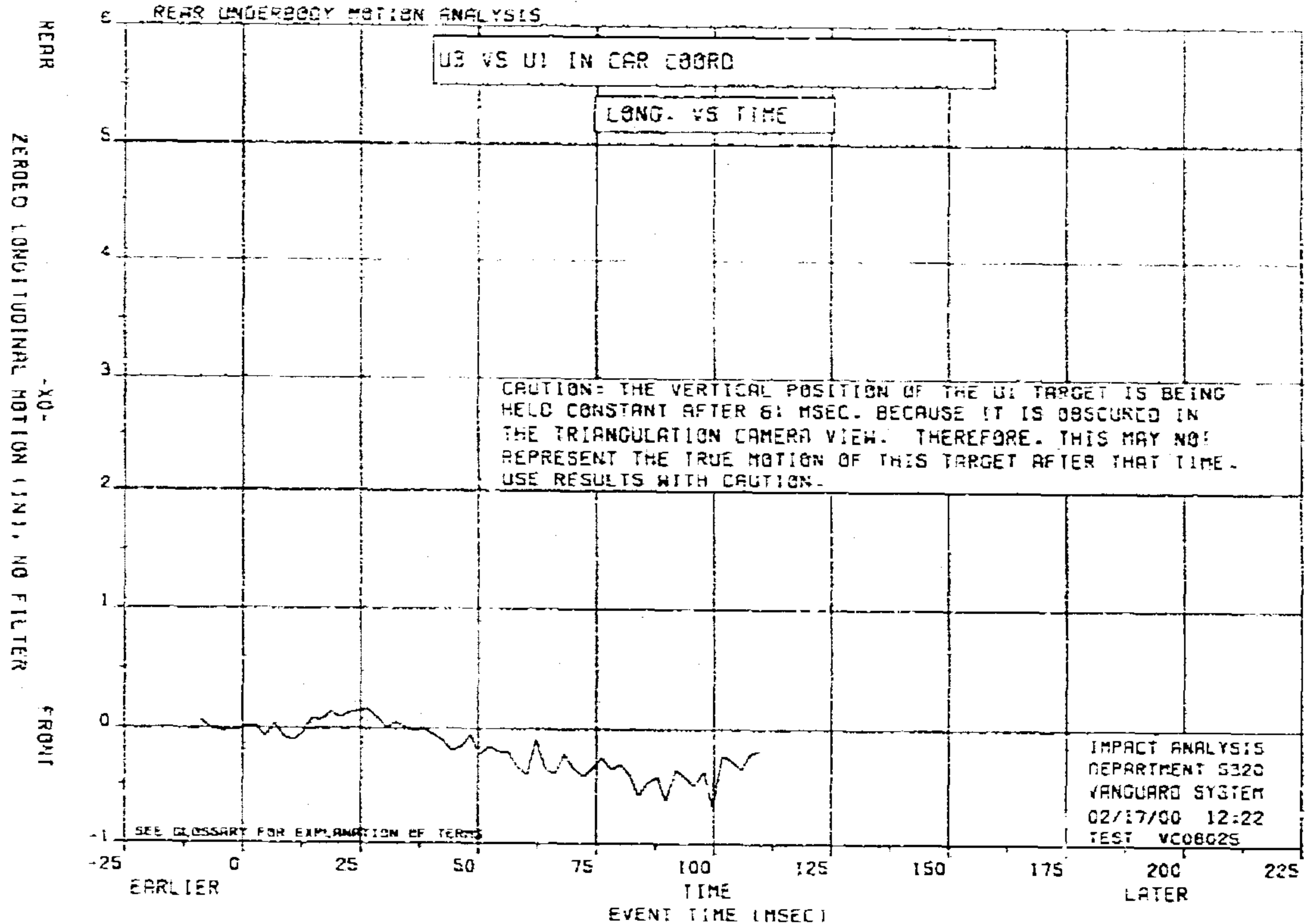


FIGURE 17



VC08025 30 MPH REAR MOVING BARRIER. NJT-74 ITEM KJ42829  
 2002 MYSS 301 REAR IMPACT DEVELOPMENT.

ZERGED X OF U2 RELATIVE TO U2 IN CAR COORD  
 VERSUS TIME IN MILLISEC

REAR UNDERBODY MOTION ANALYSIS

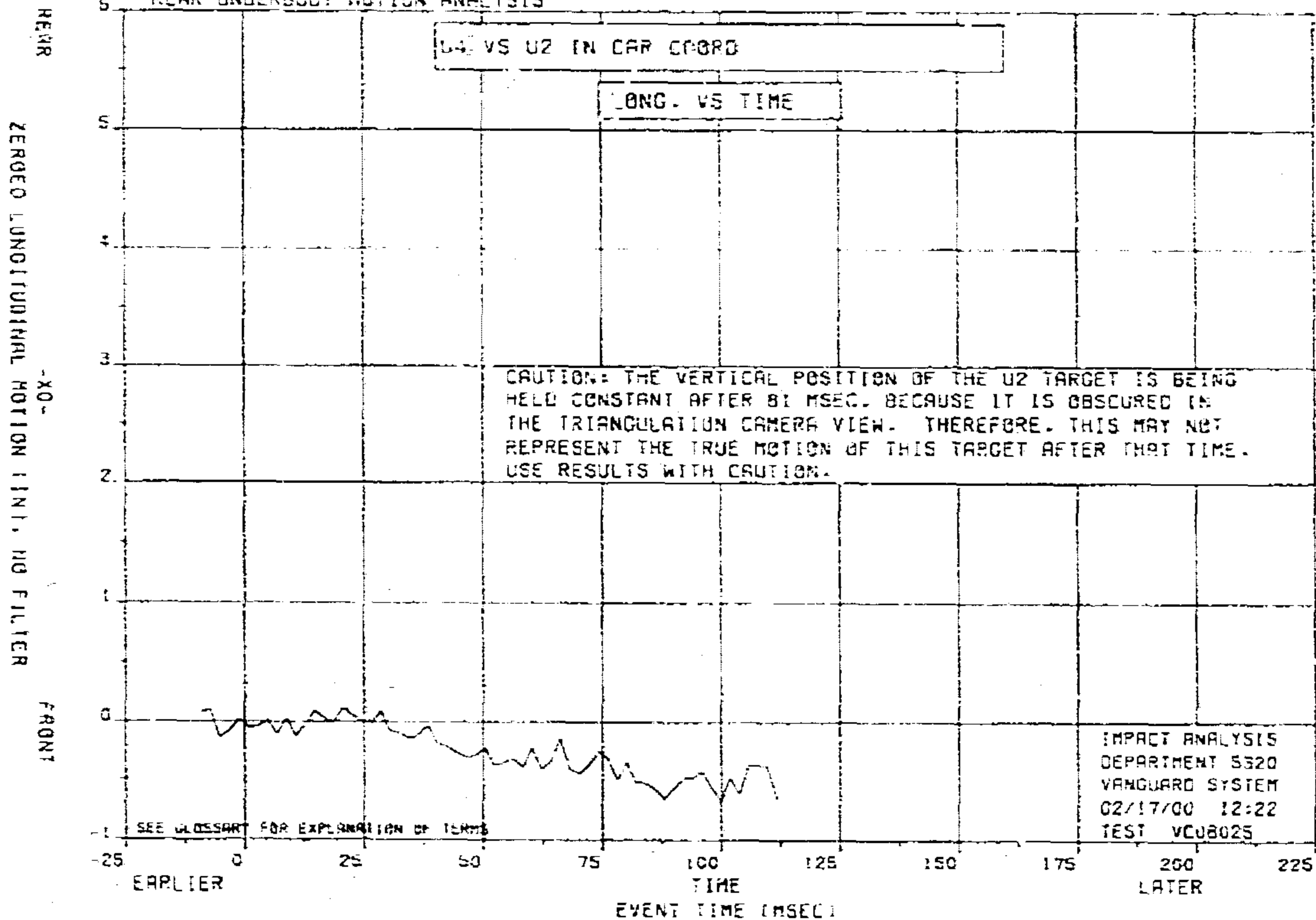


FIGURE 18

VC0802S 30 MPH REAR MOVING BARRIER. KJT-74 ITEM KJ4282R  
 2002 MVSS 301 REAR IMPACT DEVELOPMENT.

ZERGED X OF UC1 RELATIVE TO U1 IN BASE COORD  
 VERSUS TIME IN MILLISECONDS

REAR UNDERBODY MOTION ANALYSIS

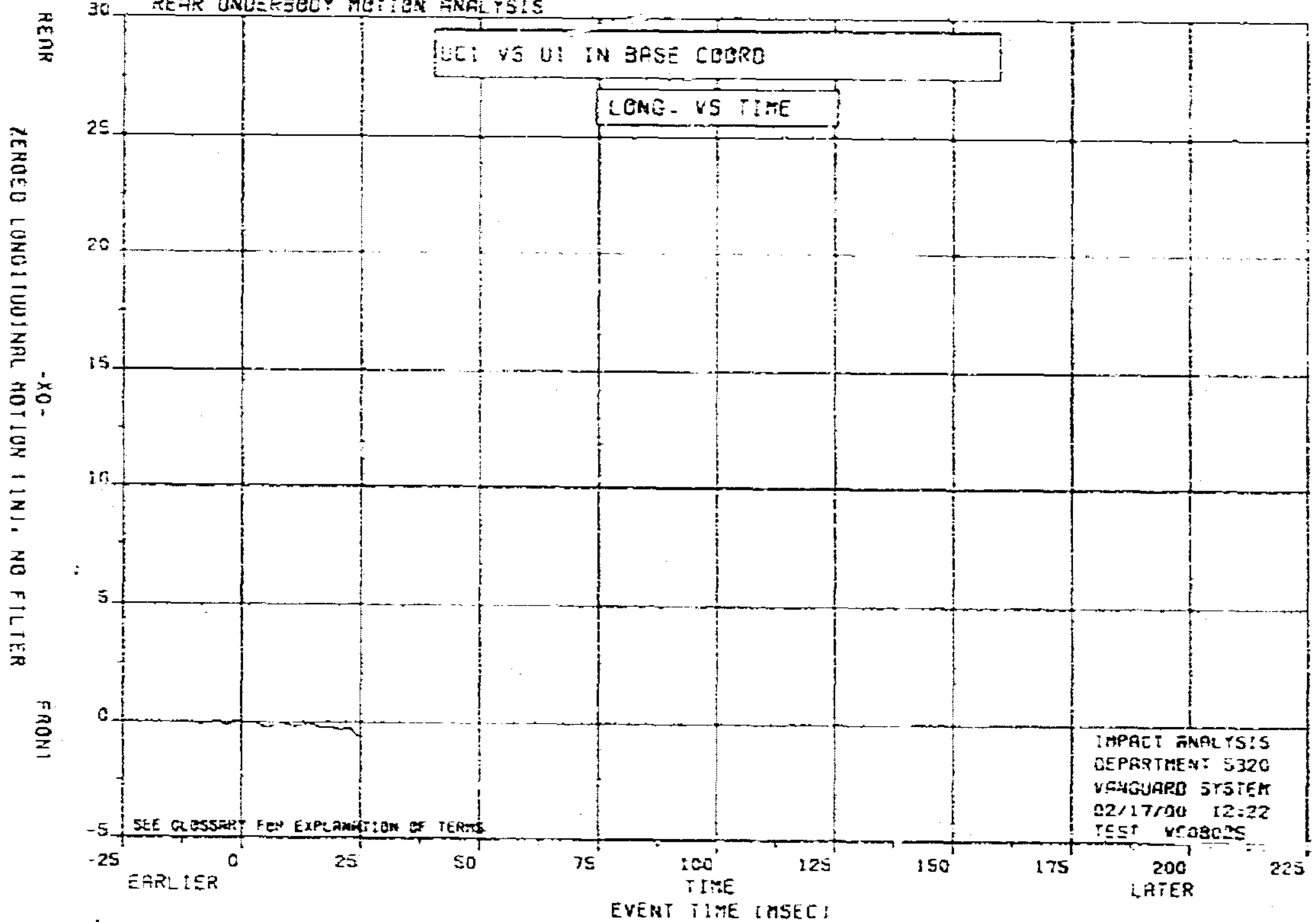


FIGURE 19

VCCB025 30 MPH REAR MOVING BARRIER. KJ1-74 ITEM KJ4282R  
2002 NYSS 301 REAR IMPACT DEVELOPMENT.

ZEROED X OF UCI RELATIVE TO U2 IN BASE COORD  
VERSUS TIME IN MILLISECONDS

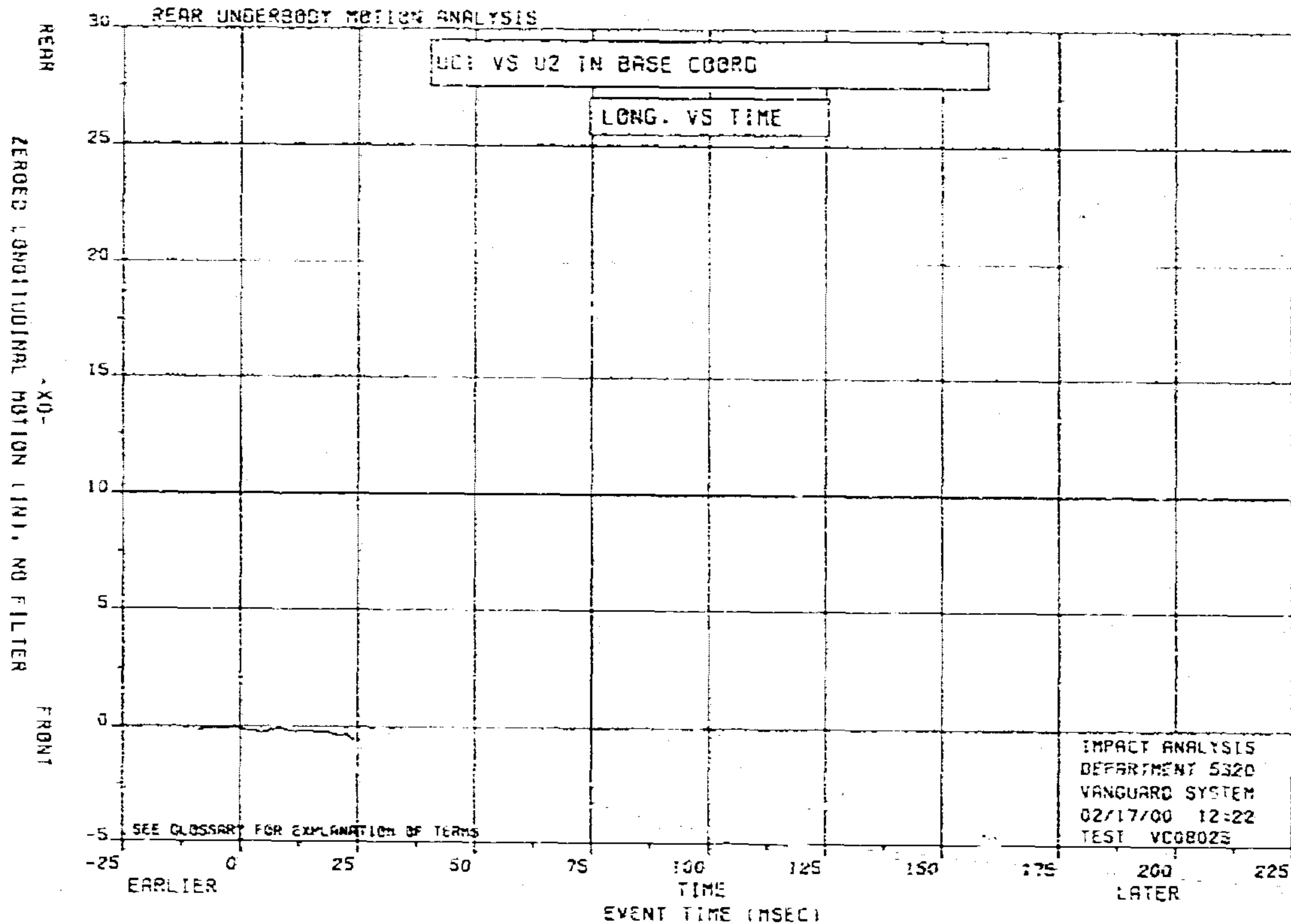


FIGURE 20

VC08025 30 MPH REAR MOVING BARRIER. KJ1-74 ITEM KJ4262R  
 2002 MVSS 301 REAR IMPACT DEVELOPMENT.

ZERGED YAW OF U1 TO U2 IN BASE COORD SYSTEM  
 VERSUS TIME IN MILLISECONDS

REAR UNDERBODY MOTION ANALYSIS

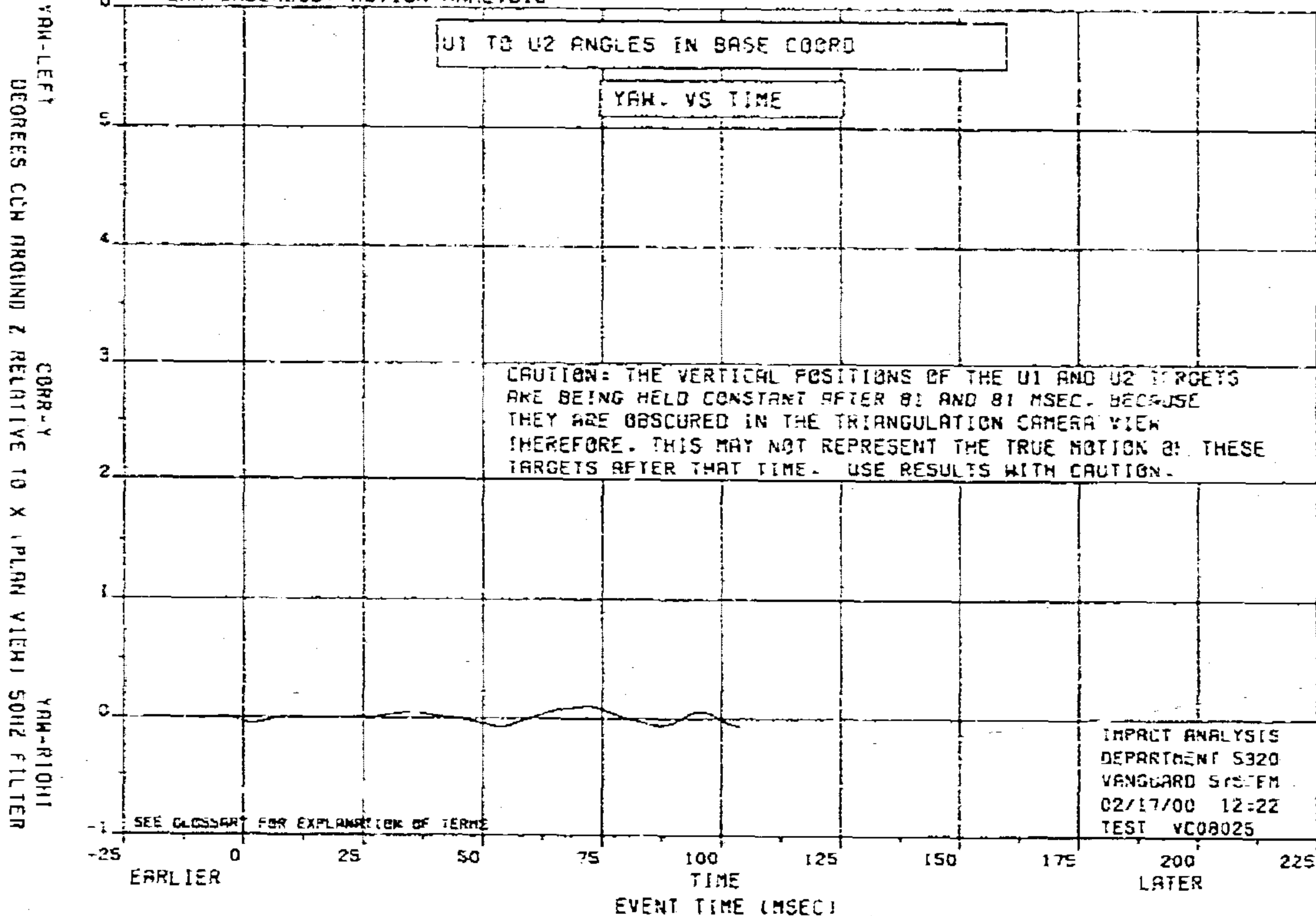


FIGURE 21



VC08025 30 MPH REAR MOVING BARRIER. RUT 74 ITEM KJ4282R  
 2002 MVSS 30. REAR IMPACT DEVELOPMENT.

B1 TO B2 DISTANCE 37.66 INCHES (INITIAL DISTANCE)  
 VERSUS TIME IN MILLISECONDS

REAR UNDERBODY MOTION ANALYSIS

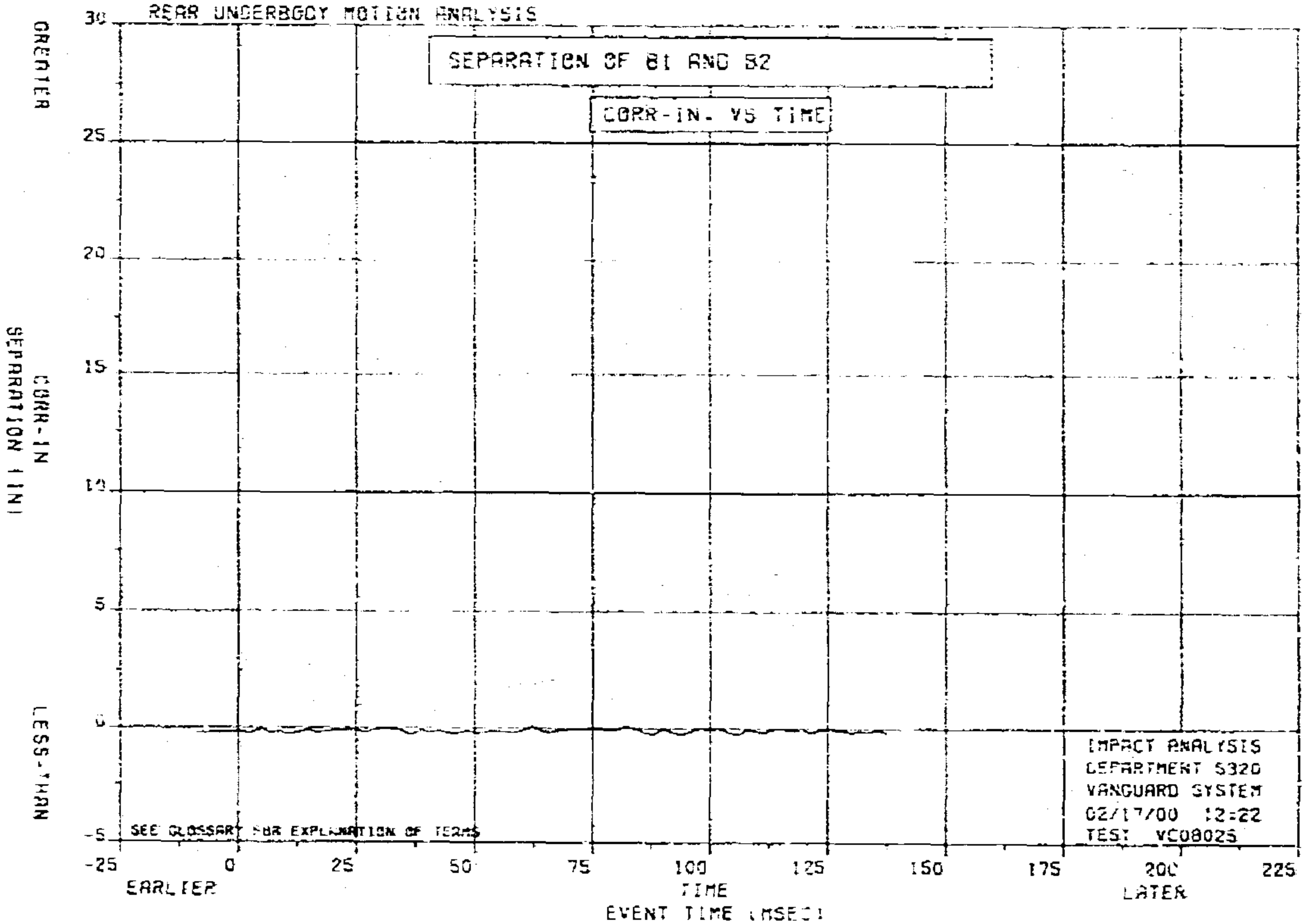


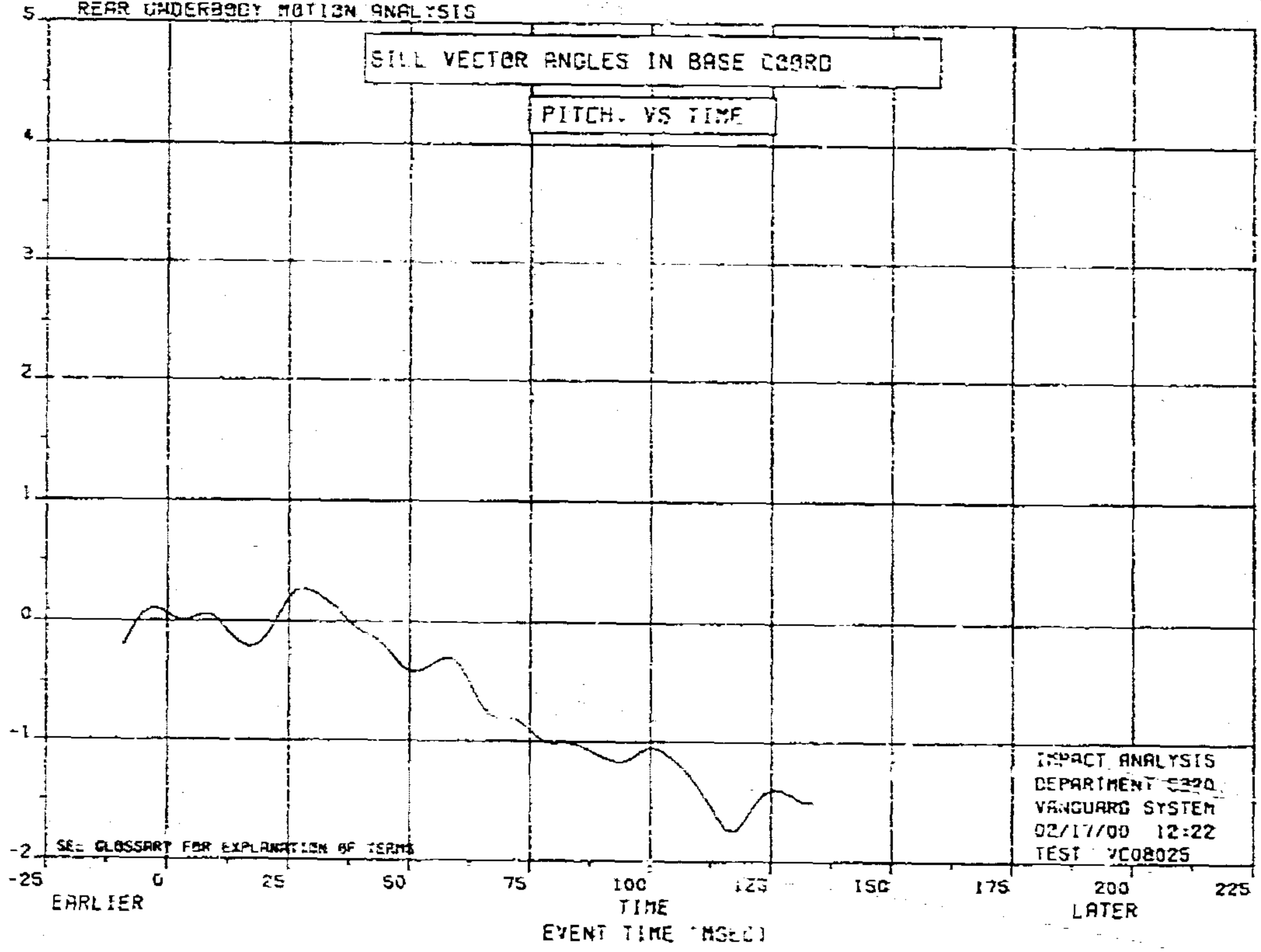
FIGURE 22

VC08025 30 MPH REAR MOVING BARRIER. KJT-74 ITEM KJ4282R  
 2002 HVSS 301 REAR IMPACT DEVELOPMENT.

ZERGED FITCH OF SILL VECTOR IN BASE COORD SYSTEM  
 VERSUS TIME IN MILLISECOND

REAR UNDERBODY MOTION ANALYSIS

NOSE-UP  
 DEGREES CCM AROUND Y RELATIVE TO X (RT SIDE VIEW) 50HZ FILTER  
 COHR-P  
 NOSE-DOWN



SEE GLOSSARY FOR EXPLANATION OF TERMS

IMPACT ANALYSIS  
 DEPARTMENT 5320  
 VANGUARD SYSTEM  
 02/17/00 12:22  
 TEST VC08025

FIGURE 23

VCC8025 30 MPH REAR MOVING BARRIER. KJF-74 ITEM #34292R  
 2002 MV55 301 REAR IMPACT DEVELOPMENT.

U1 TO U2 DISTANCE -37.43 INCHES (INITIAL DISTANCE)  
 VERSUS TIME IN MILLISECONDS

REAR UNDERBODY MOTION ANALYSIS

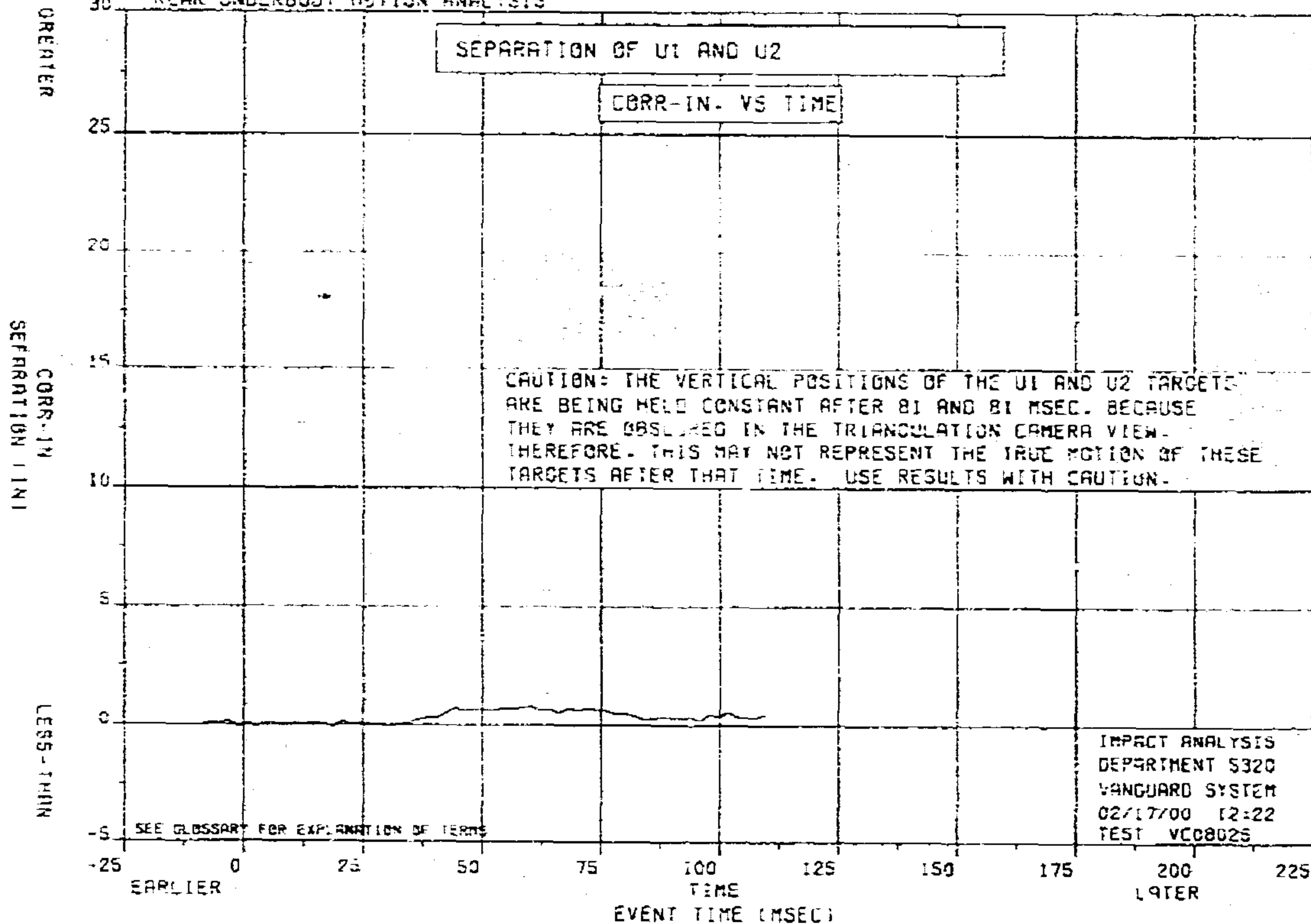


FIGURE 24

VC08025 30 MPH REAR MOVING BARRIER. KJ1-74 ITEM KJ4283R  
 2002 MVSS 301 REAR IMPACT DEVELOPMENT.

LFS TO LMS DISTANCE -24.15 INCHES (INITIAL DIST. LINE)  
 VERSUS TIME IN MILLISECONDS

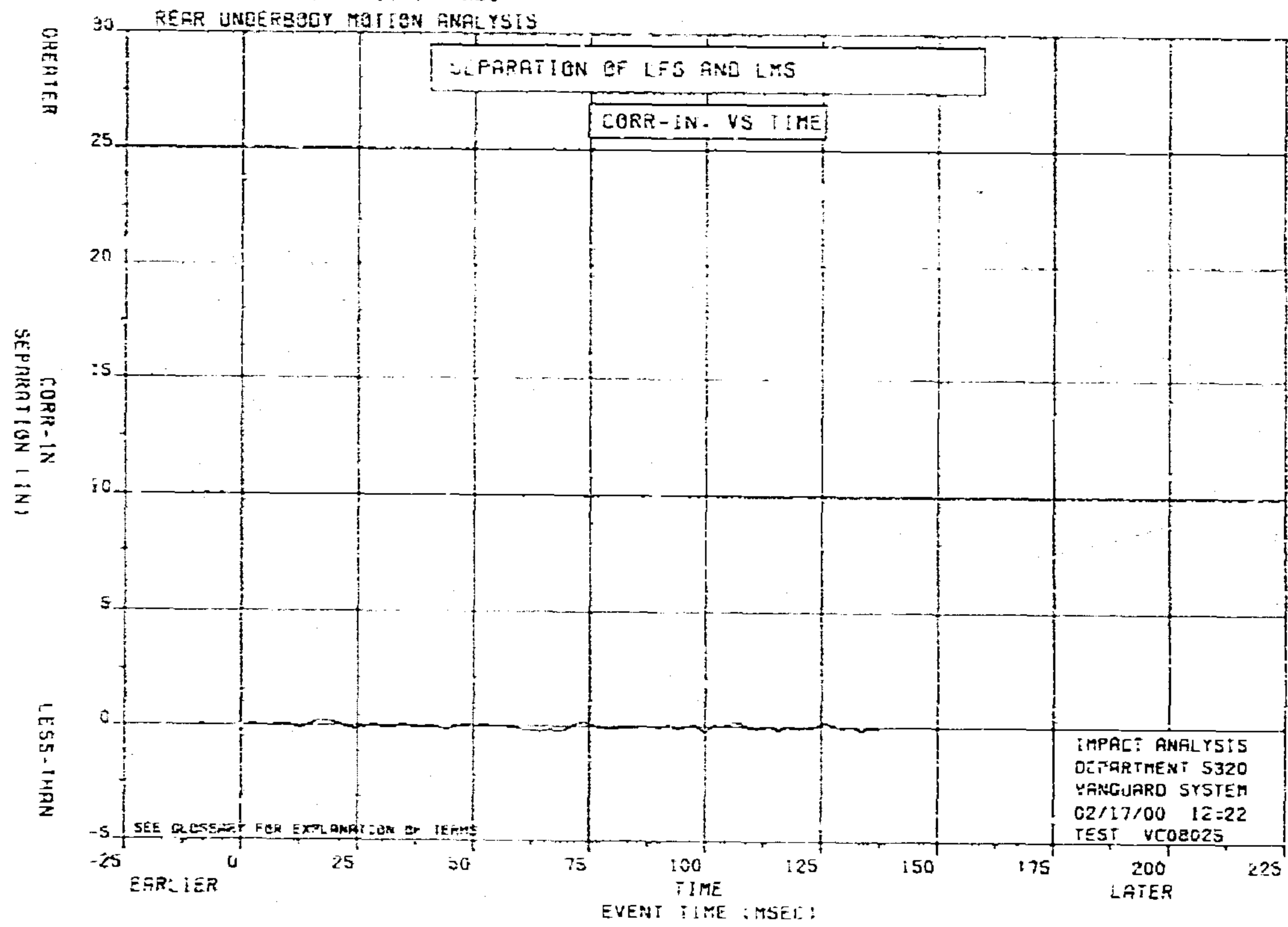
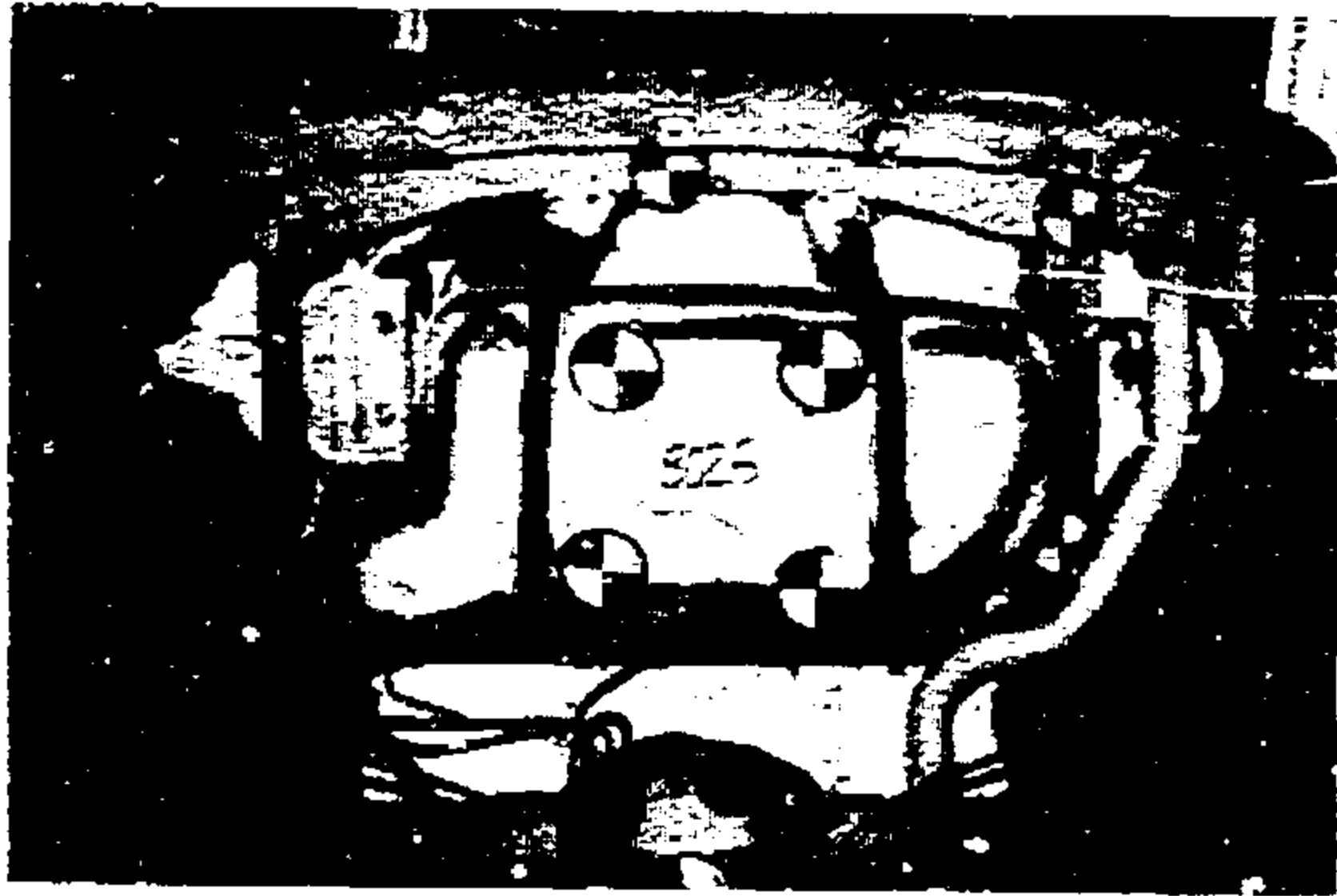


FIGURE 25

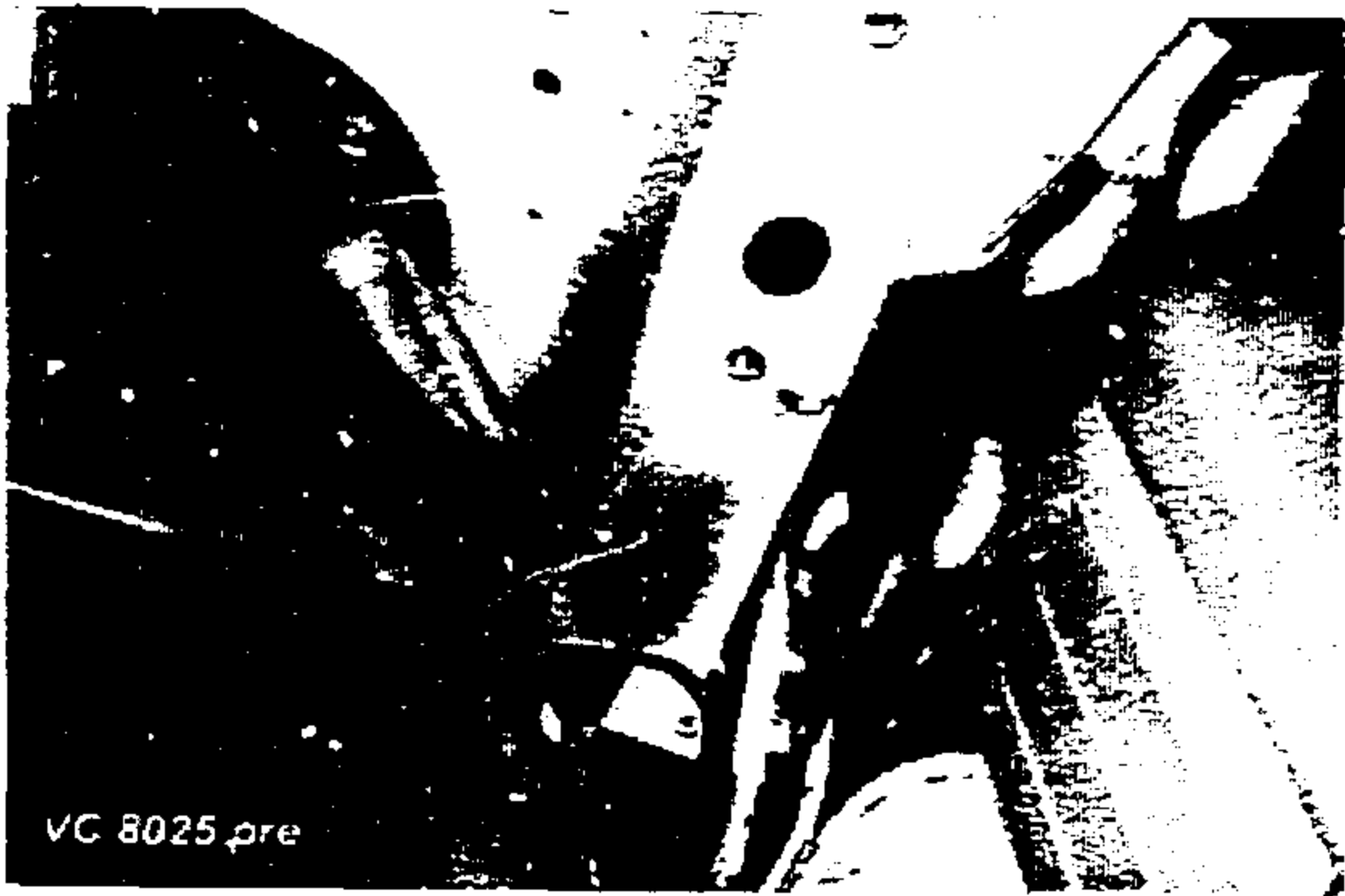




VC 8025 pre

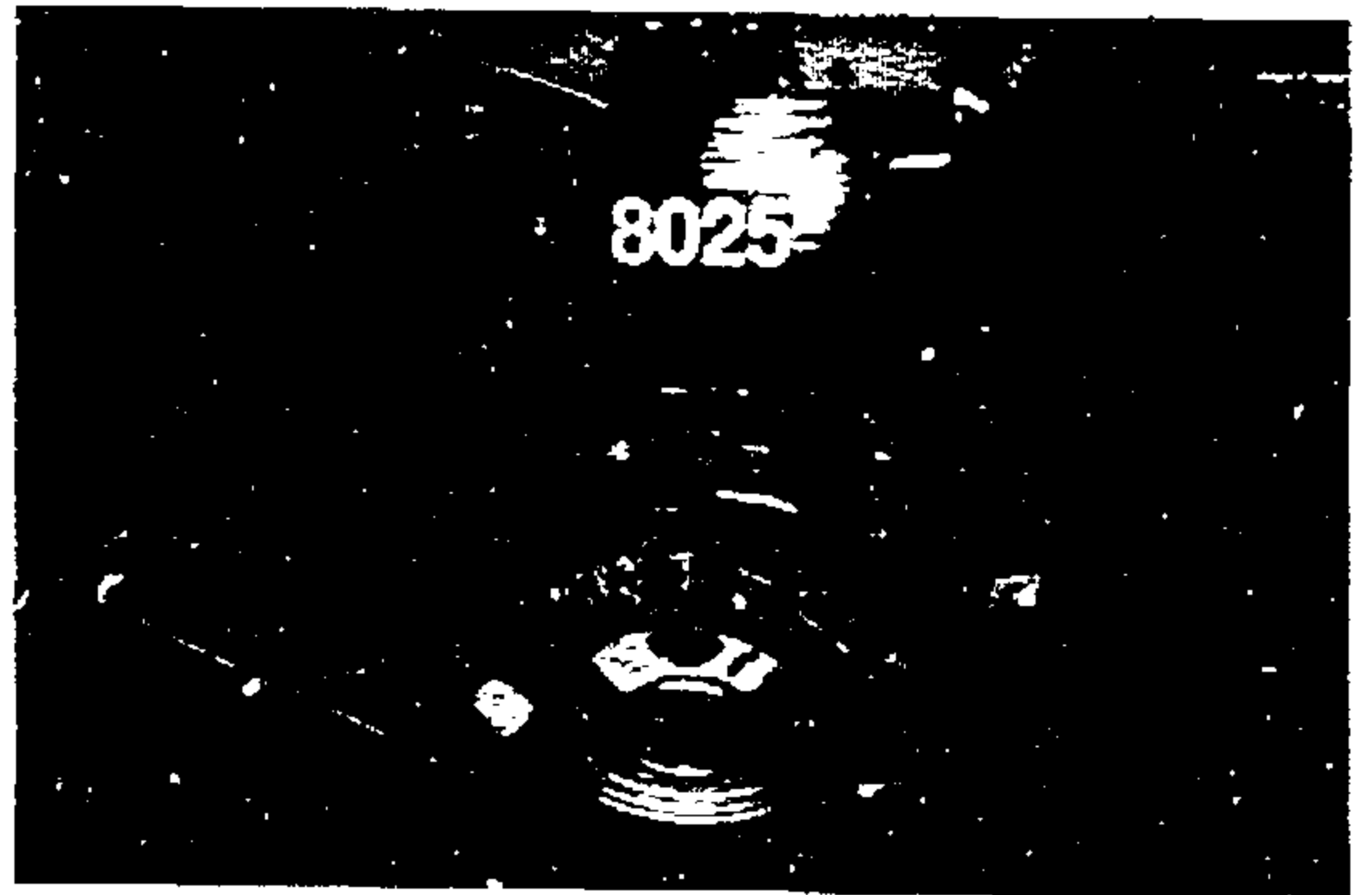


VC 8025 pre



VC 8025 pre

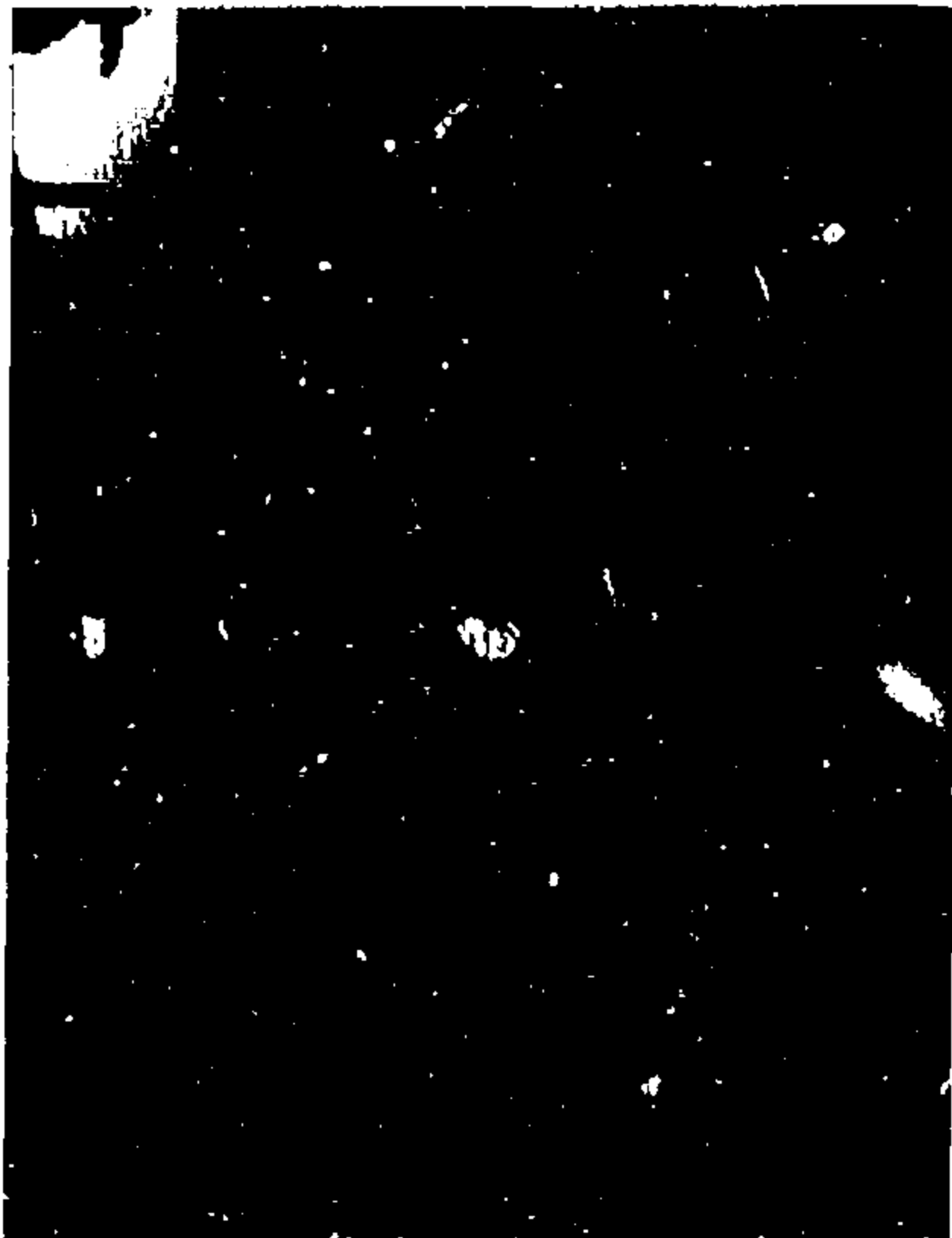
VC 8025 pre



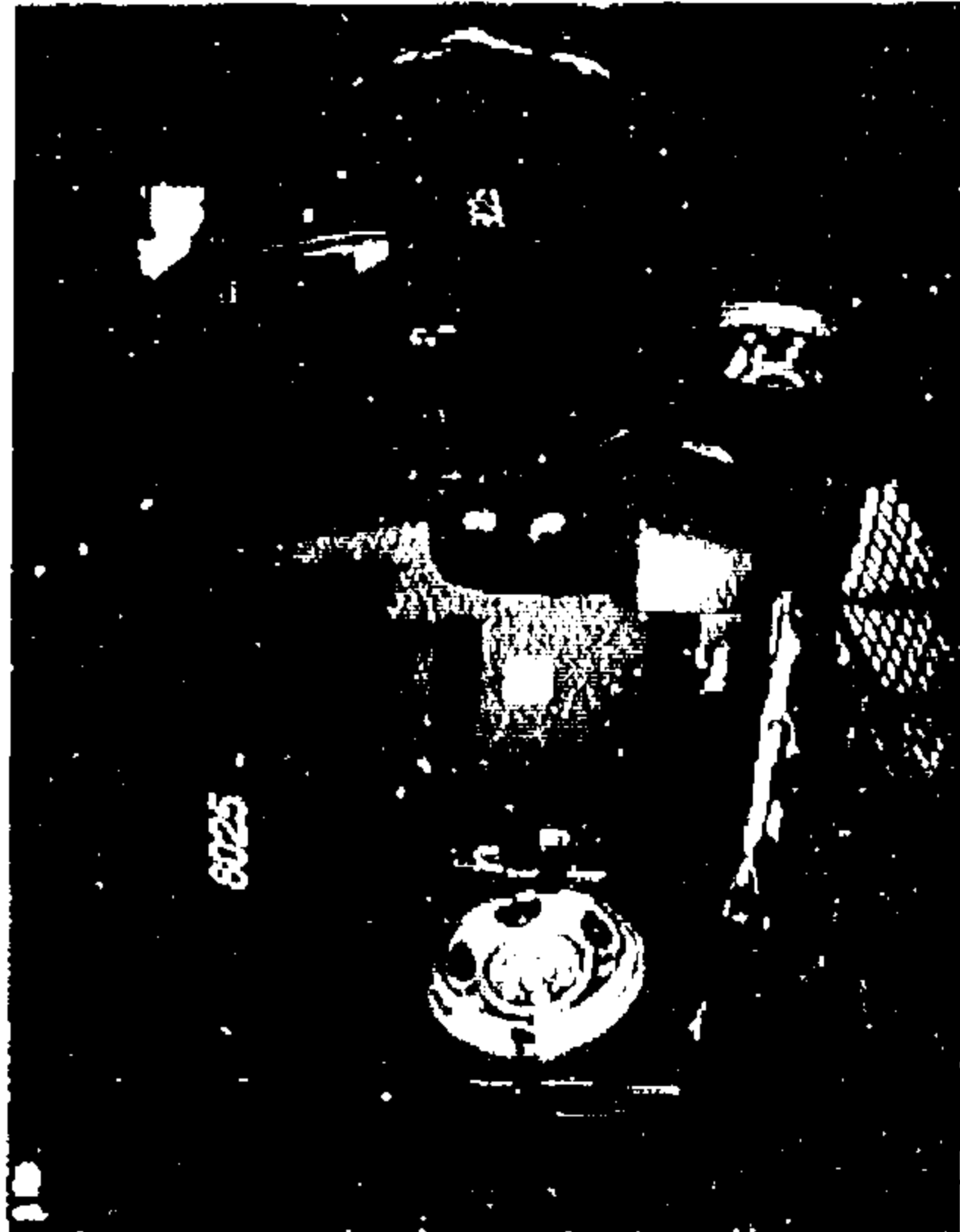
VC 8025 pre



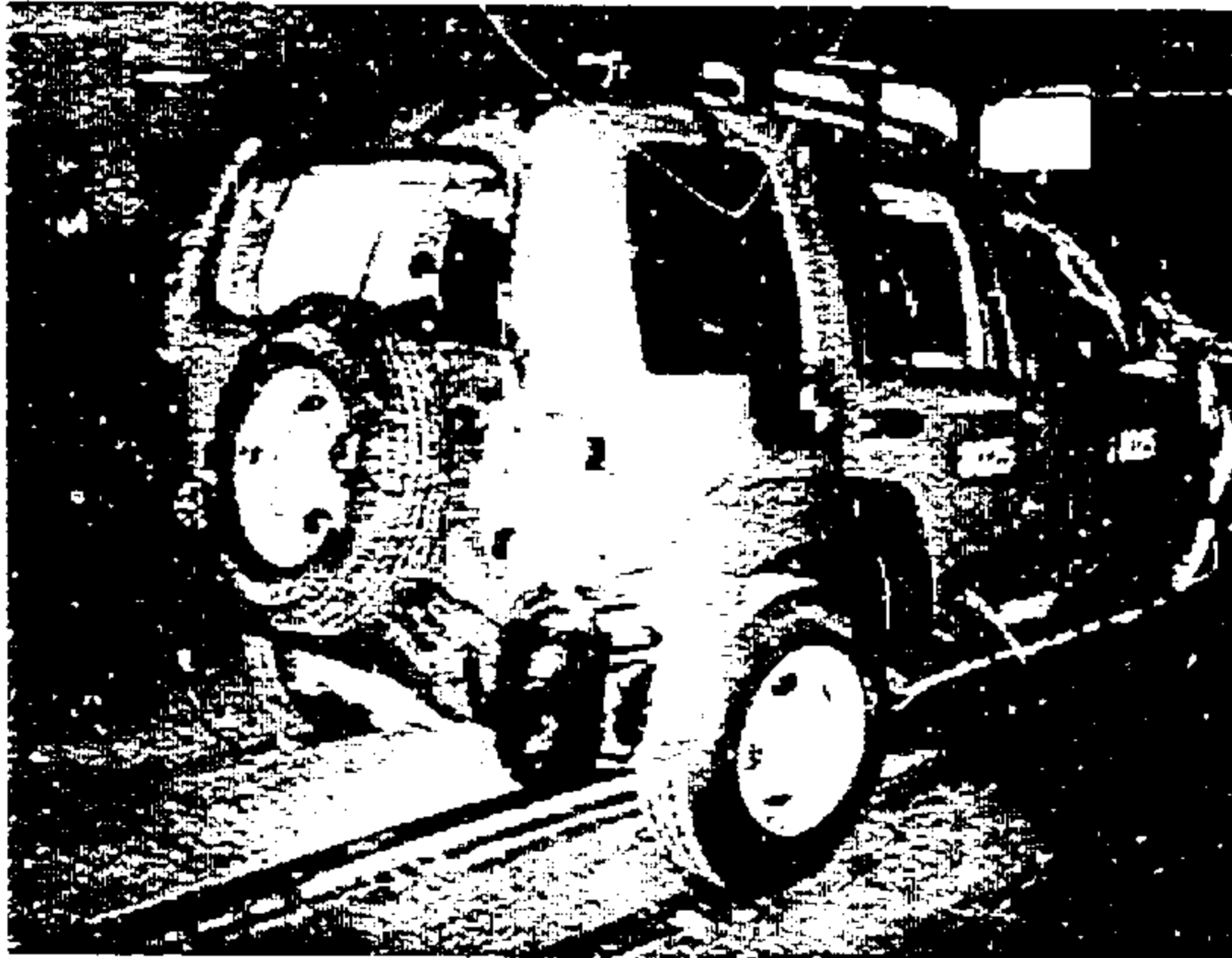
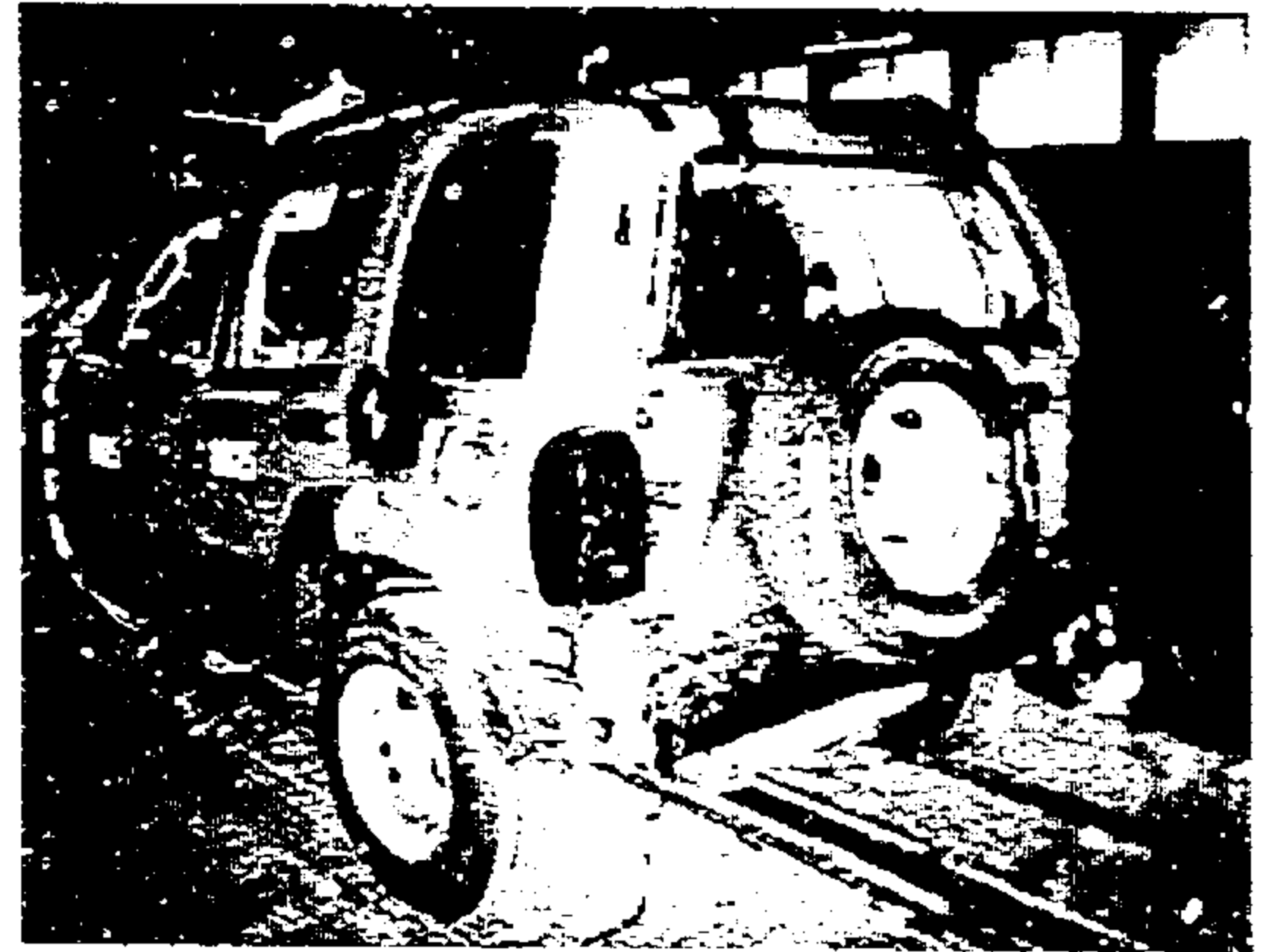
V08025bc.jpg

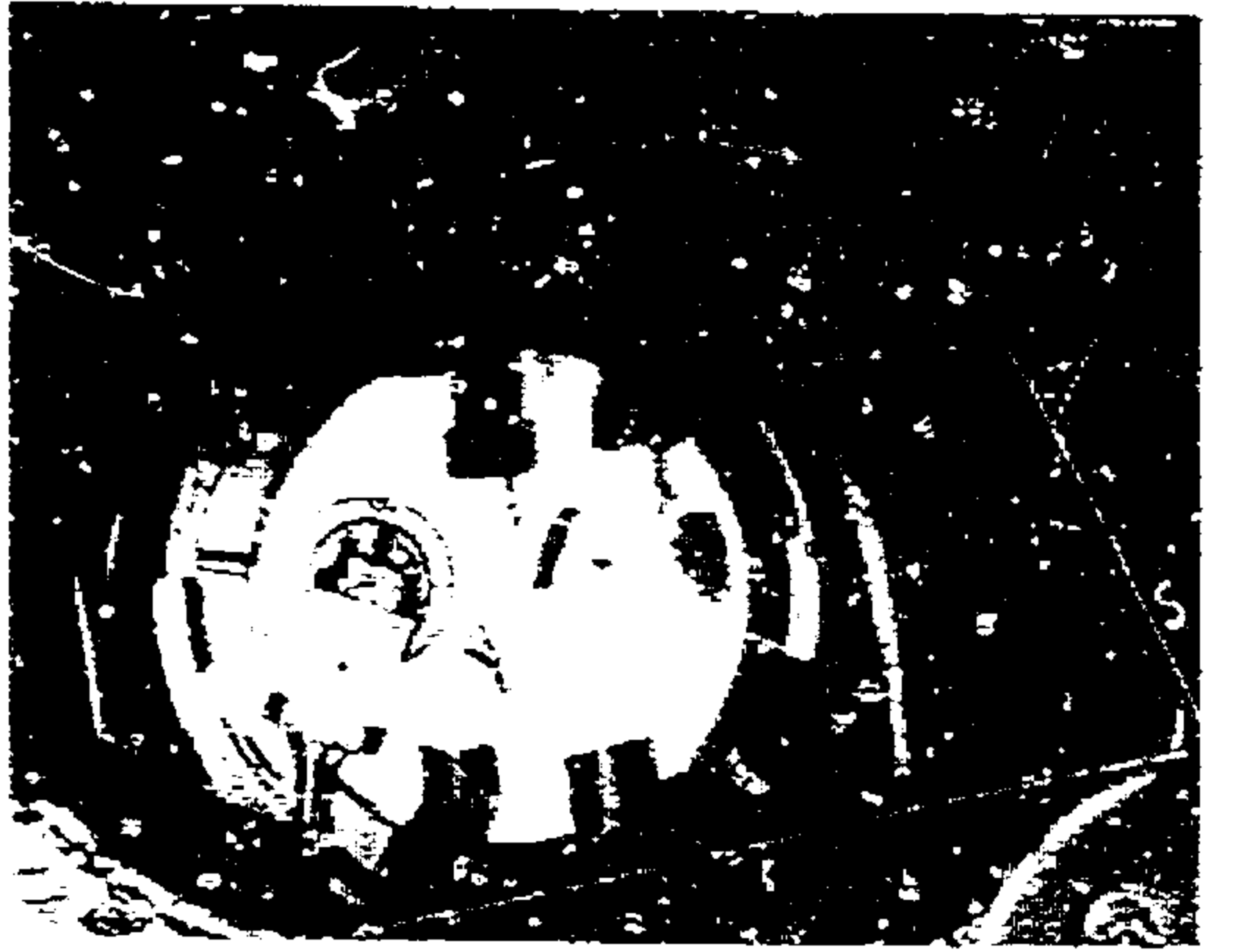


V08025bb.jpg

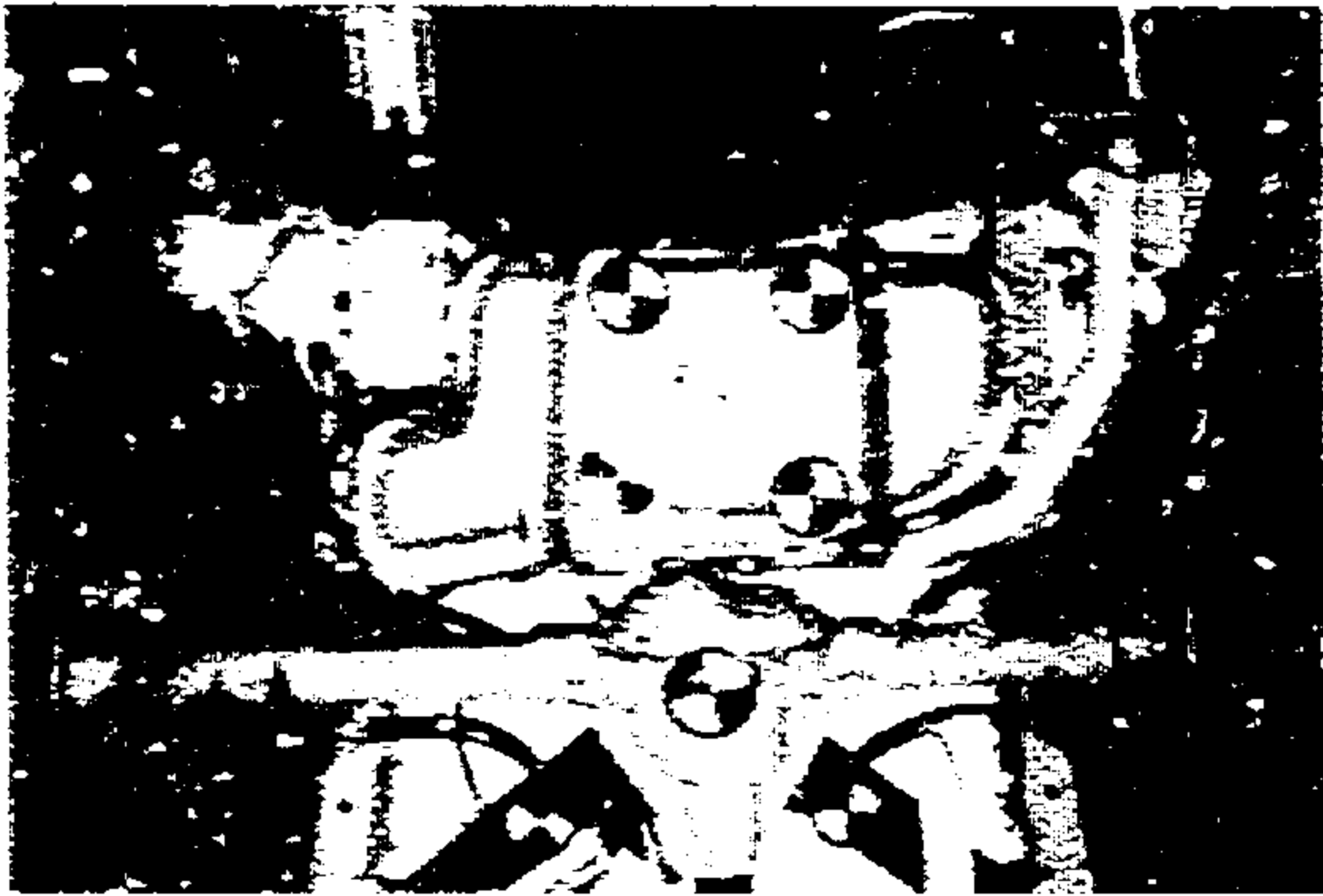


V08025bd.jpg





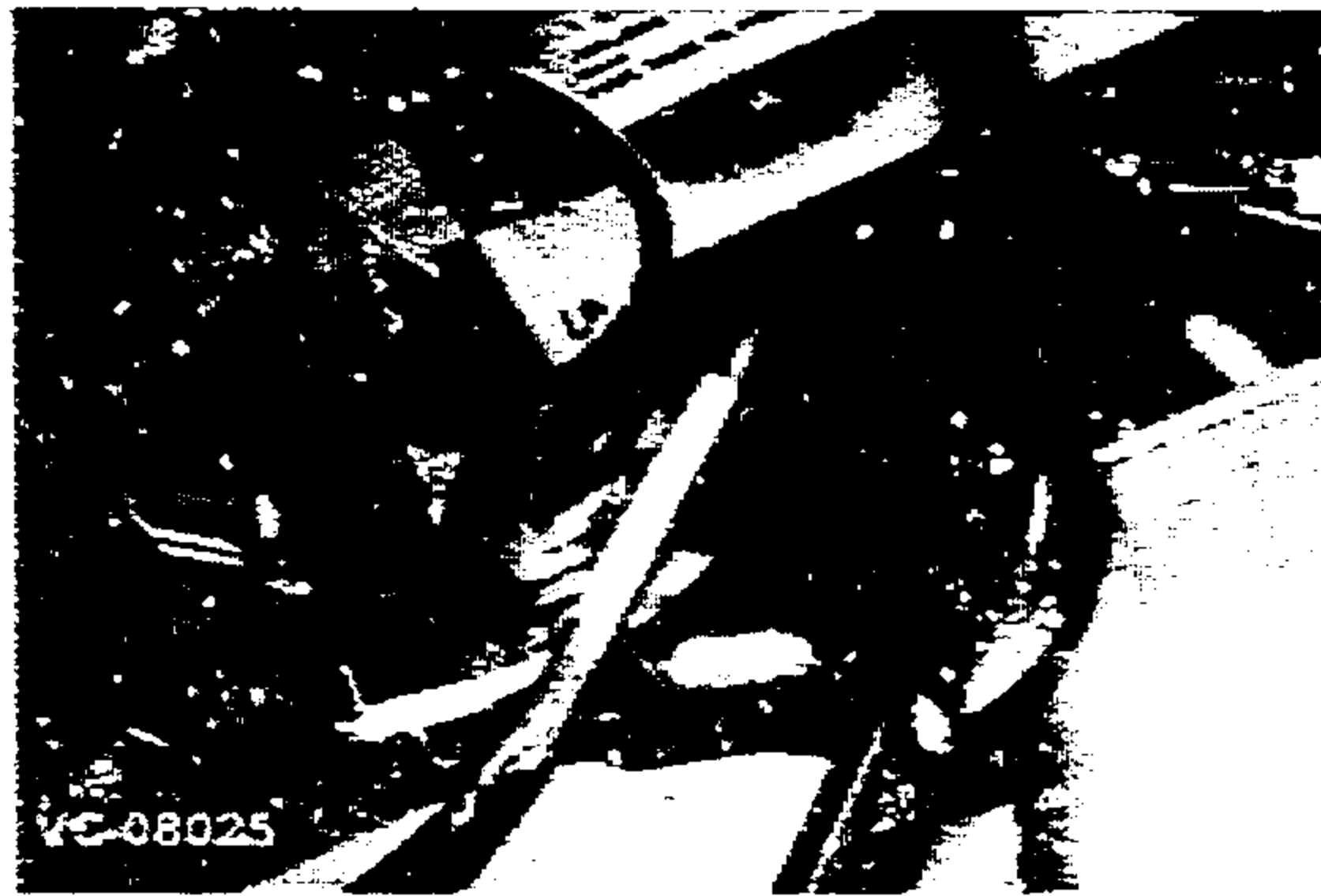




VC-08025.jpg



VC-08025.jpg



VC-08025.jpg

**Retrieval Methods Inc.**  
**1142 E. Big Beaver Rd.**  
**Troy, MI 48083**

**Declaration of Intent and Purpose**

*RANDALL WHYTE*

Employed by Retrieval Methods Inc., do hereby declare that the records microfilmed herein are actual records of DaimlerChrysler Corp. created during its normal course of business and that it is the express intent and purpose of this organization to return all original records microphotographed herein.

Date: *05-01-2003*

Microfiche Operator

*Randall Whyte*