

SANDIA SYSTEMATIC DECLASSIFICATION REVIEW	
1 st Review Date: <u>6/9/98</u>	Determination (Circle Number): Classification Retained: <u>U</u>
Authority: <u>ADD</u>	Classification Changed to: <u>UACCL</u>
Name: <u>W. C. Layne</u>	Contains No (C) Classified Information: <u>0</u>
2 nd Review Date: <u>6-16-98</u>	Coordinate With: _____
Authority: <u>ADD</u>	Contains UCAP: _____
Name: <u>W. C. Layne</u>	Comment: <u>Releasable</u>

T-11575 MAR 4 1966 File: XW-45, 3.2

0	PROGRAM	3	0.173	568	6616
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CATEGORY	8-2	8-2	8-2	8-2	8-2
ORG.					
DATE					

45-Program

SHORT DROP TEST OF
XW-45 MOD 3
(U)

Organization 7300 Environmental Test Report

T. L. Evans, Org. 7342

Approved by:

[Signature]
Project Leader - 7342

Approved by:

[Signature]
7331 Test Project Engineer

RECEIVED
MAR 07 1966
CENTRAL TECHNICAL FILE

- Distribution:
- R. J. Tockey, 8124
 - Attn: S. W. Mayer (3 copies)
 - R. T. Othmer, 1541
 - K. E. Weidner, 2111
 - R. D. Christopher, 2125
 - E. White, 7331
 - Central Technical File, 3428-1
 - Central Technical File, 8232

CENTRAL TECHNICAL FILE	
ACQUISITION CARD	
FILE NO. <u>45-Program</u>	
	<u>302</u>

1439

SANDIA SYSTEMATIC DECLASSIFICATION REVIEW	
CLASSIFICATION CHANGED TO: <u>U</u>	AUTHORITY: <u>W. C. Layne</u>
<u>Emilda Segon</u> 6/18/98	RECORD ID: <u>98SN12424</u>
PERSON CHANGING MARKING & DATE: <u>W. C. Layne</u> 6-18-98	DATED: <u>6/16/98</u>
PERSON VERIFYING MARKING & DATE	

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SHORT DROP TEST OF
XW-45 MOD 3
(U)

Introduction

The object of this test was to determine the response of the XW-45 sub-assembly to mechanical shock resulting from a short drop.

The XW-45 Mod 3 inside an H815 container was dropped from a height of 12 inches onto a horizontal concrete target. The longitudinal axis of the XW-45 was in a horizontal position. Instrumentation consisted of nine piezoelectric accelerometers.

This test was requested by S. W. Mayer, 8124, on January 12, 1966. J. M. Carmichael, 7331, was the Test Coordinator. The test was completed on January 20, 1966.

Summary

The XW-45 was not damaged as a result of this test. Maximum acceleration recorded during the test was 310g on the H815 container in the Z axis at impact. The maximum acceleration that was measured on the subassembly was 64g in the 0°-180° Z axis.

Procedure and Results

The XW-45 was rigged as shown in Figure 1. An electrical quick-release was used to perform the drop test. All rigging methods and checkout procedures were performed in accordance with the procedures outlined in the Tower Operating Handbook which is on file at the Tower Control Building (6505).

Figures 1-3 show the locations of accelerometers and directions of positive acceleration. Sensing directions and basic accelerometer specifications are shown in Table I. The acceleration data were recorded on a C.E.C. type VR2600 tape recorder having a frequency response of DC to 40 Kcps and were played back at the Area III playback center. The acceleration records were filtered using 5000 cps low pass filters during playback. A comprehensive description of the recording and playback equipment is available from file at the Tower Control Building (6505) under the T-number of this report.

The magnetic tapes are kept on file in the Area III Data Storage Center (Building 6540) for a period of six months from the date of the test. The tapes are on file under the T-number of this report.

The acceleration records and tabulated data are presented in Table I. All accelerometer data were interpreted in accordance with the procedures outlined in SC4452C(M), dated July, 1964.

The XW-45 Mod 3 was not damaged as a result of this test.

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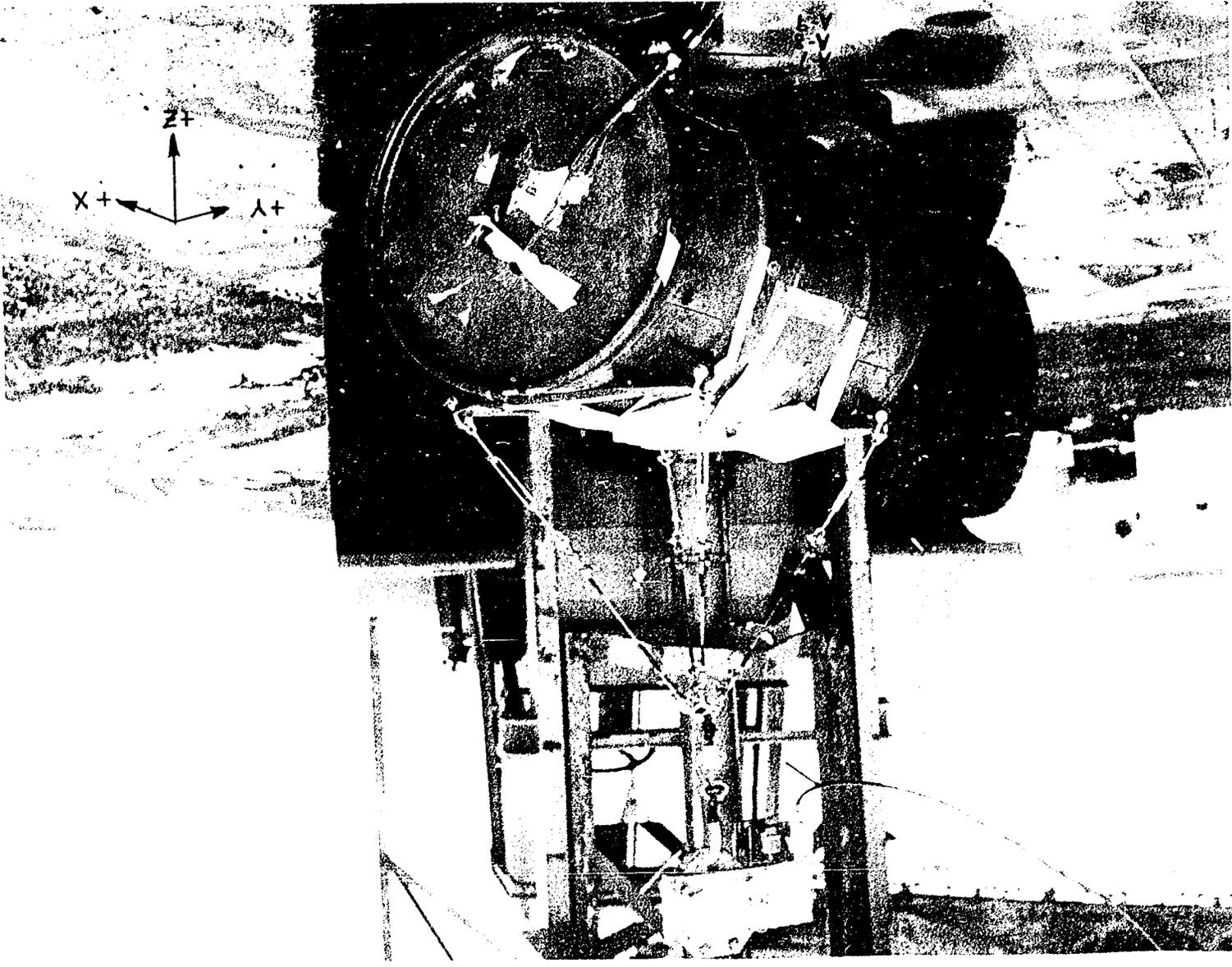
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PLANT 1 WAS POSSIBLE TO DETERMINE THEORIES OF POSSIBLE DAMAGE TO S AND LOCATION OF
ACCELERATIONS ON SHIPPING CONTAINER.

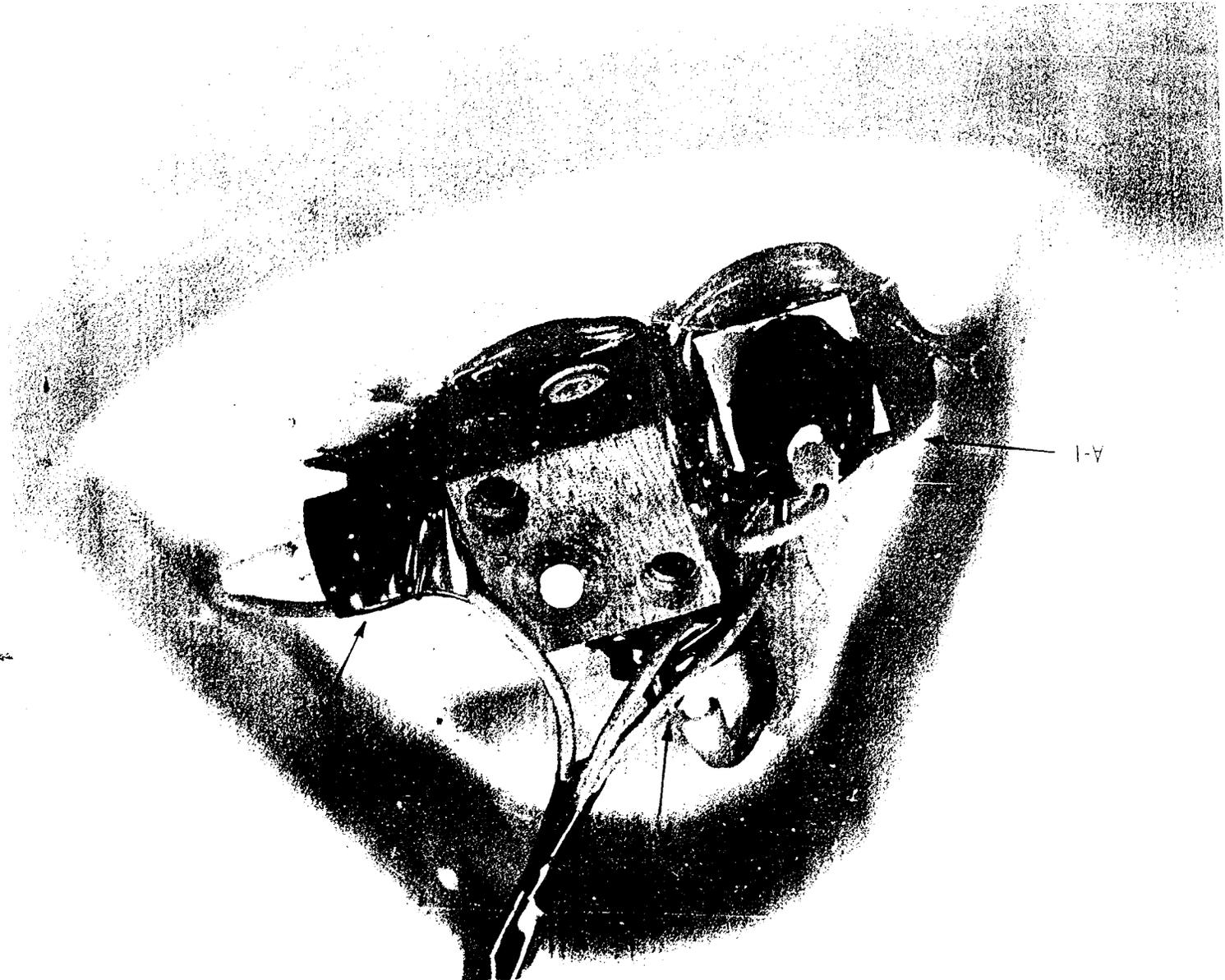
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FIGURE 2 LOCATION OF SCATTER METERS ON X-245



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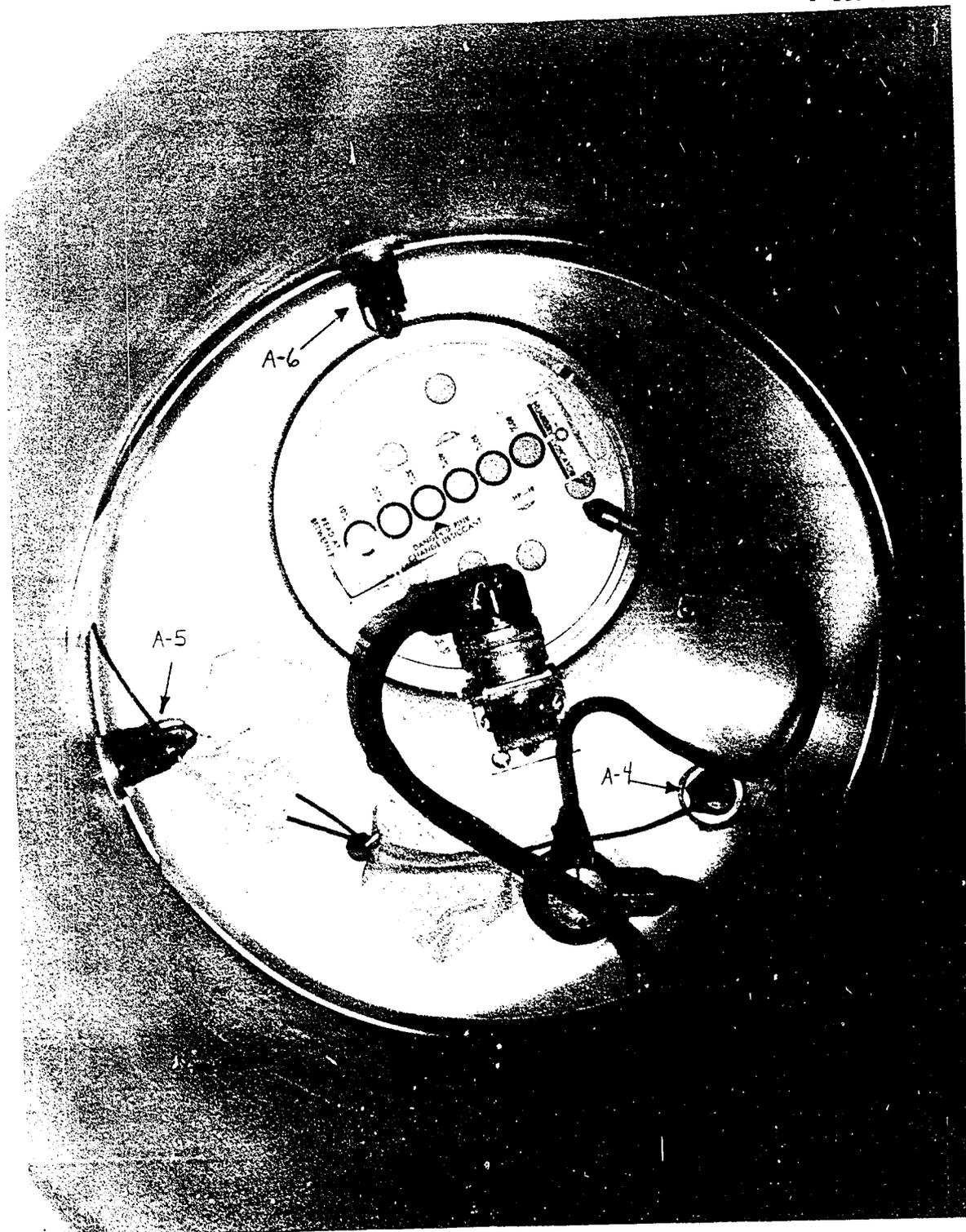


FIGURE 3 LOCATION OF GOLDROMETERS ON PROTECTIVE CASE

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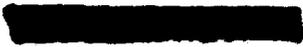
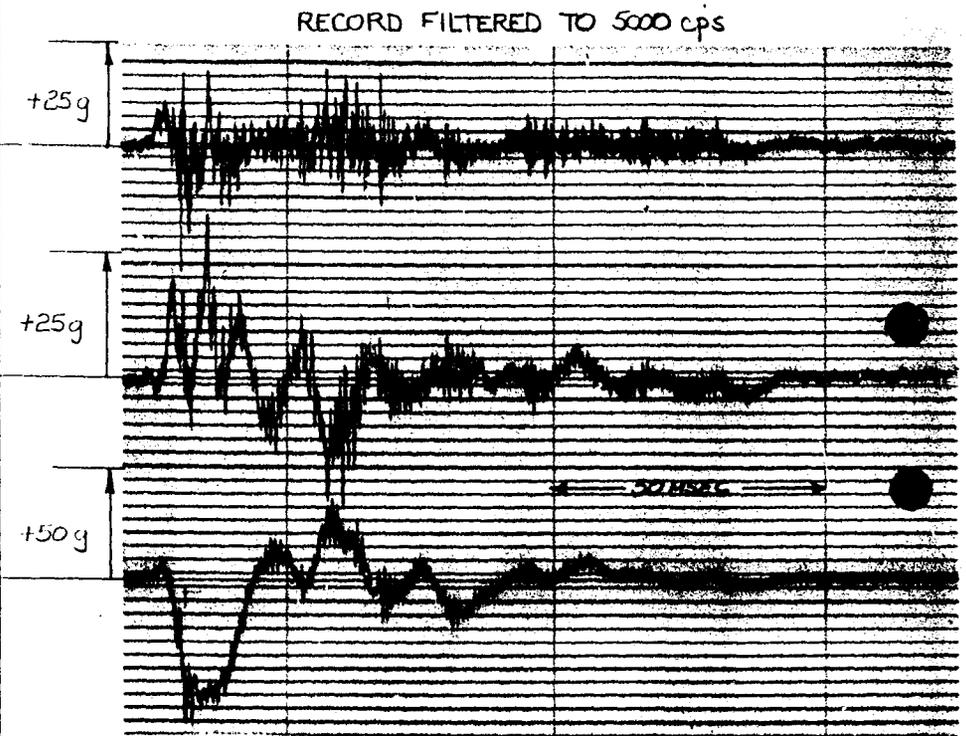


TABLE I
PAGE 1
ACCELERATION DATA
DROP TEST OF KW-45 MOD 3

Make, S/N Range, f_n	Duration (msec)	Rise (msec)	Max. - (g)	Max. + (g)	Faired (g)	Location and Sensing Dir.	Gage No.
ENDENCO 2225MC 5000g 30KC	HA-12	---	30	19	---	WARHEAD LONG. X	A-1
	HA-04	---	25	32	---	WARHEAD 90°-270° Y	A-2
<u>I</u>	HA-46	14.0	23	36	-51	WARHEAD 0°-180° Z	A-3

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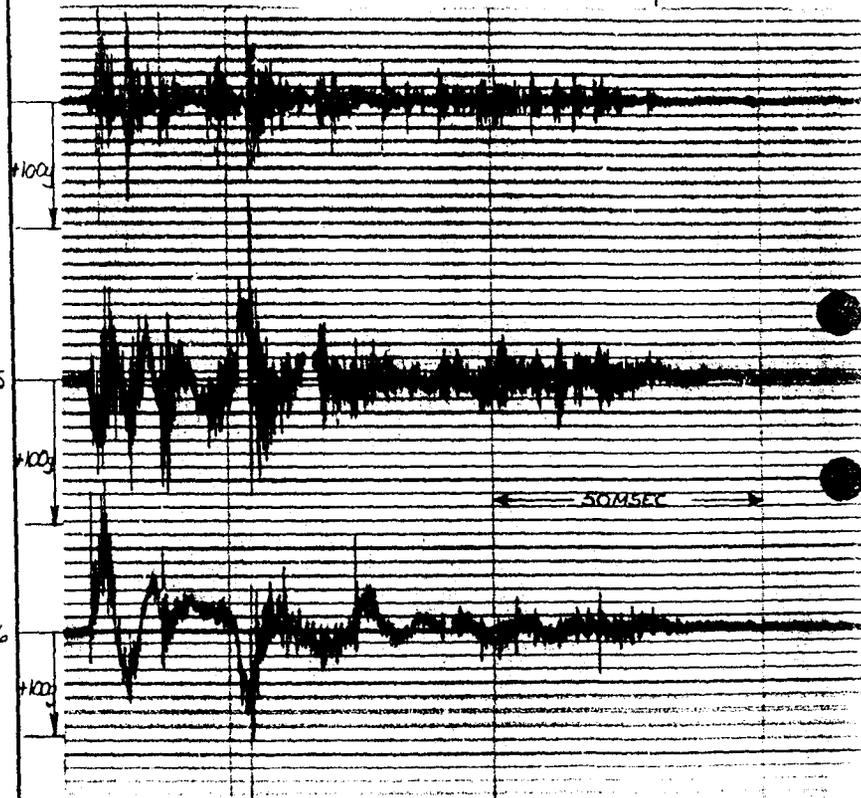
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TABLE I
PAGE 2
ACCELERATION DATA
DROP TEST OF XW-45 MOD 3

Make, S/N Range, f _n	Duration (msec)	Rise (msec)	Max. - (g)	Max. + (g)	Faired (g)	Location and Sensing Dir.	Gage No.
ENDERCO 2225MC 160000 3370			72	115		PROTECTIVE CASE LONG. X	A-4
	IT-43		78	125		PROTECTIVE CASE 90°-270° Y	A-5
	JB-84		148	167		PROTECTIVE CASE 0°-180° Z	A-6

RECORD FILTERED TO 5000 cps.



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TABLE I

PAGE 3

ACCELERATION DATA

DROP TEST OF XM-45 MOD 3

RECORD FILTERED TO 5000 CPS.

Make, S/N Range, f _n	Duration (msec)	Rise (msec)	Max. (g)	Max. + (g)	Faired (g)	Location and Sensing Dir.	Gage No.
EMD VCC 2225M2 10000g 3000			268	280		SHIPPING CONTAINER A-7 LONG X	A-7
			310	160		SHIPPING CONTAINER A-8 0°-180° Z	A-8

+200g

+200g

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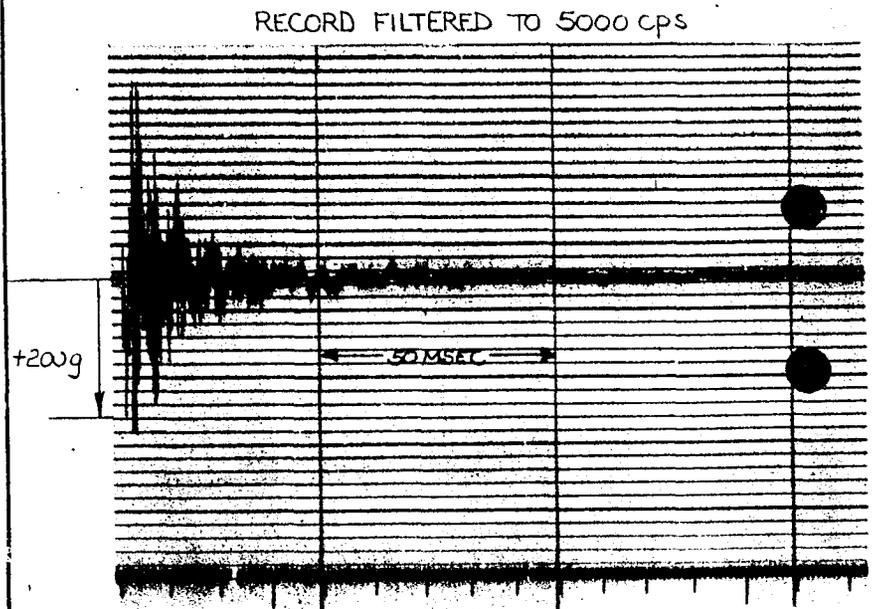
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TABLE I
 PAGE 4
 ACCELERATION DATA
 DROP TEST OF XW-45 MOD 3

Make, S/N Range, f_n	Duration (msec)	Rise (msec)	Max. - (g)	Max. + (g)	Paired (g)	Location and Sensing Dir.	Gage No.
ENDEYCO 2225M2 16000g 80KC	KF-22		285	220		SHIPPING CONTAINER 90°-270° Y	A-9



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