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SANDIA SYSTEMATIC DECLASSIFICATION REVIEW	
1 <sup>st</sup> Review Date: 11/5/98	Determination (Circle Numbers)
Authority: WCL/ADD	1 Classification Retained
Name: P. Blinn	2 Classification Changed to <input checked="" type="checkbox"/>
2 <sup>nd</sup> Review Date: 11/10/98	3 Contains No DOE Classified Information
Authority: ADD	4 Coordinate With: _____
Name: W. L. Payne	5 Contains UCAF: _____
	6 Comments: _____
	_____

RECEIVED  
OCT 31 1957

OCT 29 1957  
Case No. 433.00  
Ref. Sym: 1612 (580)  
Project No. TM-635  
File: H-512, 3-2

TCG-NNT-1 TCG-SAFF-1

TECH REF. FILES

MR. P. E. JOCKLE, JR. - 1281

Attn: Mr. J. O. Davis - 1281-1

Re: Ramp and Drop Tests of the H-512 Container

IBM Control

TECH REF. FILES	
ACQUISITION CARD	SMU
FILE No. H-512	
	3-2

Summary of Results

The H-512 container was twice subjected to a complete series of ramp and drop tests per SCS-5, Sections 3.4.1 and 3.4.2, once containing the Mk 39 Mod 1 warhead-to-bomb conversion components (Condition I) and once containing the Mk 39 spares package (Condition II).

Several skip welds on the H-512 container cover failed during the drop tests and during the time the unit was being transported to the ramp. The forward, round H-512 container cover tie-down rings were deformed during the ramp tests. The contents of the H-512 container were not damaged during the tests.

The maximum faired vertical accelerations obtained during the drop tests, for Condition I were 8.7 g on the XMC-665 baroswitch, 10.0 g on the XMC-832 baroswitch, and 8.2 g on the H-512 cradle and for Condition II 7.7 g on the XMC-665 baroswitch, 8.9 g on the XMC-832 baroswitch and 7.4 g on the H-512 cradle.

The maximum faired vertical accelerations obtained during the ramp tests for Condition I were 10.9 g on the XMC-665 baroswitch, 11.4 g on the XMC-832 baroswitch, 11.8 g on the H-512 cradle and 23.4 g on the H-512 main frame and for Condition II, 11.7 g on the XMC-665 baroswitch, 11.2 g on the XMC-832 baroswitch, 10.4 g on the H-512 cradle and 21.5 g on the H-512 main frame.

The maximum measured deflections of the H-512 cradle with respect to the main frame obtained with Condition II components were 3-5/16 inches vertical for a 12-inch drop test and 4-1/32 inches longitudinal for the 7.01 mph ramp test.

Object of Test

The object of this test was to subject the H-512 container to a complete series of ramp and drop tests, per SCS-5, paragraphs 3.4.1 and 3.4.2, on each of the two possible configurations to be mounted in the H-512 container.

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AUG 6 1964  
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SEP 14 1965

3428-3

SANDIA SYSTEMATIC DECLASSIFICATION REVIEW DOWNGRADING OR DECLASSIFICATION STAMP	
CLASSIFICATION CHANGED TO: U	AUTHORITY: WCL/ADD
PERSON CHANGING MARKING & DATE: Carmela Dally 12/9/98	RECORD ID: 995N041
PERSON VERIFYING MARKING & DATE: W. L. Payne 12/16/98	DATED: 11/10/98

THIS DOCUMENT CONSISTS OF 20 PAGE(S)

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OCT 29 1957

Ref. Sym: 1612 (580)  
Project No. TM-635

Mr. P. E. Jockle, Jr. - 1281

-2-

Reason for Test

This series of tests was requested in a Work Order Authorization from P. E. Jockle, Jr., 1281 to Division 1612, dated June 17, 1957.

Mr. S. Thunborg, 1281-1 was the consultant for the test with J. O. Davis, 1281, substituting during part of the test.

Function of Object Tested

The H-512 container is a shipping and storage container for the rear bomb subassembly used on the Mk 15 and Mk 39 weapons. The H-512 container is also used for a shipping and storage container for the bomb-to-warhead conversion components and warhead-to-bomb conversion components used on the Mk 39 weapon.

Summary of Past Tests

Load-deflection tests of the H-512 container shear pads, Dwg. No. 351840, were conducted per paragraph 2.1.1 TR-351840. The results of these tests and the data obtained are presented in a report titled Load-Deflection Test of H-512 Shear Pads, addressed to Mr. P. E. Jockle, Jr., 1281 from R. L. Buckner, 1612-2, Ref. Sym: 1612 (594), Project No. TM-647, dated July 23, 1957.

The XH-512 container was twice subjected to a complete series of ramp and drop tests per SCS-5, paragraphs 3.4.1 and 3.4.2; once containing the Mk 15 spares package and once containing the warhead-to-bomb conversion components. The XH-512 container was also subjected to two 4-inch drops, two 12-inch drops and one 7.04 mph ramp test while containing the Mk 39 spares package. The details of these tests and the data obtained are presented in a report titled, Ramp and Drop Tests of the XH-512, addressed to P. E. Jockle, Jr., 1281, from G. M. Willson, 1612-1, Project No. TM-536, Ref. Sym: 1612 (474), dated May 15, 1957.

Setup for Test

The H-512 container was tested with two different contained loads, these being:

- Condition I -- Mk 39 Mod 1 Bomb-to-Warhead conversion components.
- Condition II -- Mk 39 spares package.

The drop tests were conducted by suspending the H-512 container to an overhead hoist through a quick release mechanism.

Figure 1 shows the container tied and shored to the ramp dolly ready for the ramp test.

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OCT 20 1957

Ref. Sym: 1612 (580)

Project No. TM-635

Mr. P. E. Jockle, Jr. - 1281

-3-

The various components that were tested along with their drawing and serial numbers are given in Table I.

The following instrumentation, test, and recording equipment were used:

- Eight Statham accelerometers (Table II and Figs. 1, 2, 3, and 4).
- Scratch gage (Fig. 5).
- Ramp Dolly velocity gage (Fig. 1).
- Drop test quick release mechanism.
- Four by four-inch wood impact blocks.
- Engineering test ramp.
- Consolidated amplifiers, Type 1-113B with power supply.
- Consolidated oscillograph, Type 5-114-P3, Serial No. 5084M13.

#### Procedure

The drop tests were conducted by suspending the H-512 container to an overhead hoist through a quick release mechanism.

The H-512 container was then allowed to fall free to the concrete floor.

The first two drops of the H-512 container, containing Condition I components, were made from four inches, the next two drops from twelve inches with oscillograph records being taken for all four drops. While the oscillograph records were being processed, eight 4-inch drops and two 12-inch drops were made. When the records were processed, it was found that a record was not obtained for accelerometer No. 2, vertical XIC-832 baroswitch. Records were then taken for four additional drops, two 4-inch and two 12-inch; however, the record for accelerometer No. 6, vertical, H-512 cradle, was not obtained.

In order to obtain records of all the vertical accelerometers on one oscillograph record two additional 4-inch drops and two 12-inch drops were made.

The Condition I components of the H-512 container were then replaced with the Condition II components.

Two 4-inch drops and two 12-inch drops were then made with oscillograph records being taken. A displacement record of the H-512 container cradle with respect to the main frame was taken on a scratch plate (Fig. 5) during the second 12-inch drop. The remainder of the drops were made per SCS-5, Section 3.4.1.

The H-512 container, containing the Condition II components, was then tied and shored on the ramp dolly as shown in Fig. 1. Ramp tests were then conducted per SCS-5, Section 3.4.2 except for two test runs that were made at 6.5 mph.

UNCLASSIFIED

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OCT 29 1957

Ref. Sym: 1612 (580)

Project No. TM-635

Mr. P. E. Jockle, Jr. - 1281

-4-

A displacement record of the H-512 container cradle with respect to the main frame was taken on a scratch plate (Fig. 5) during the 7.01 mph test.

The Condition II components of the H-512 container were then replaced with the Condition I components and ramp tests were conducted per SCS-5, Section 3.4.2.

### Results

The contents of the H-512 container were undamaged during the ramp and drop tests; however, several skip welds along the top and bottom of the 270° side (Figs. 6 and 7) of the H-512 container cover failed during the drop tests. Several additional H-512 container skip welds were broken when the unit was being transported from the drop test sight to the ramp. The forward round tie-down rings (Fig. 1) were elongated during the ramp tests although there was no visual damage to the pear shaped aft tie-down rings (Fig. 1).

The maximum accelerations obtained during the drop tests are tabulated in Table III. A typical oscillograph record taken during the drop tests is shown in Fig. 8.

The maximum accelerations obtained during the Condition I ramp tests are shown in Table IV. The maximum accelerations obtained during the Condition II ramp tests are shown in Table V. A typical oscillograph record taken during the ramp tests is shown in Fig. 9.

The maximum measured deflections of the cradle with respect to the main frame are given in Table VI.

### Conclusions

All welds on the container cover should be strengthened to lessen the possibility of failure.

All tie-down rings should be made pear shaped to better withstand loading without deforming.

*R. L. Posey*  
R. L. POSEY - 1612-3

*F. C. Low*  
F. C. LOW - 1612-3

UNCLASSIFIED Approved by:

*Paul H. Adams*  
PAUL H. ADAMS - 1612

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OCT 29 1957

Ref. Sym: 1612 (580)

Project No. TM-635

Mr. P. E. Jockle, Jr. - 1281

-5-

RLP:1612-3:as

## DISTRIBUTION:

- 1/6A - P. E. Jockle, Jr., 1281  
Attn: J. O. Davis, 1281-1  
2/6A - W. A. Gardner, 1610  
3/6A - D. M. Bruce, 1282  
4/6A - C. L. Gomel, 5523  
5/6A - R. K. Smeltzer, 7221-3  
6/6A - Tech. Ref. File, 7221-3

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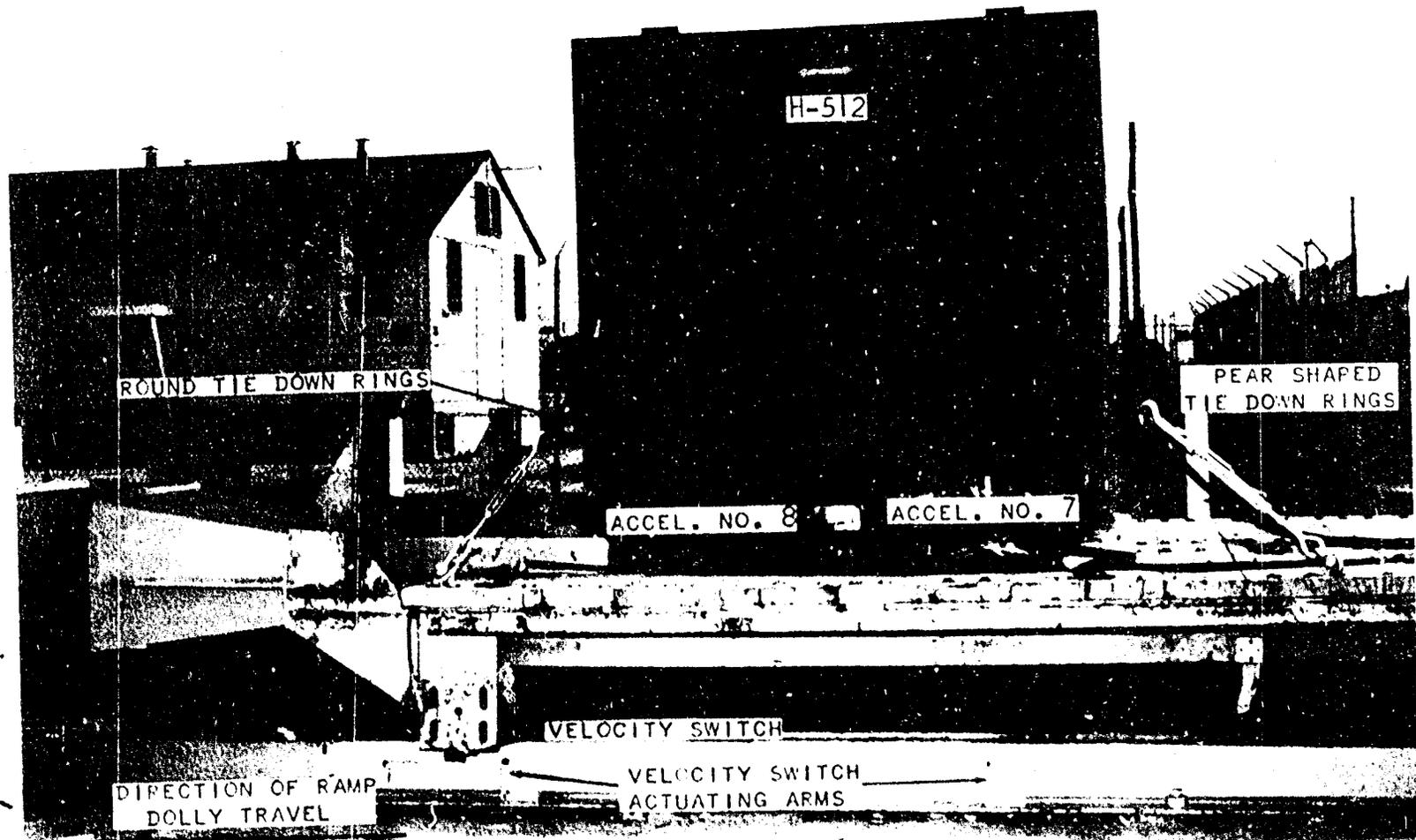


FIG. 1 -- H-512 CONTAINER MOUNTED ON THE RAMP DOLLY -- PART OF TESTS OF THE H-512 CONTAINER.

REF. SYM: 1612 (50)  
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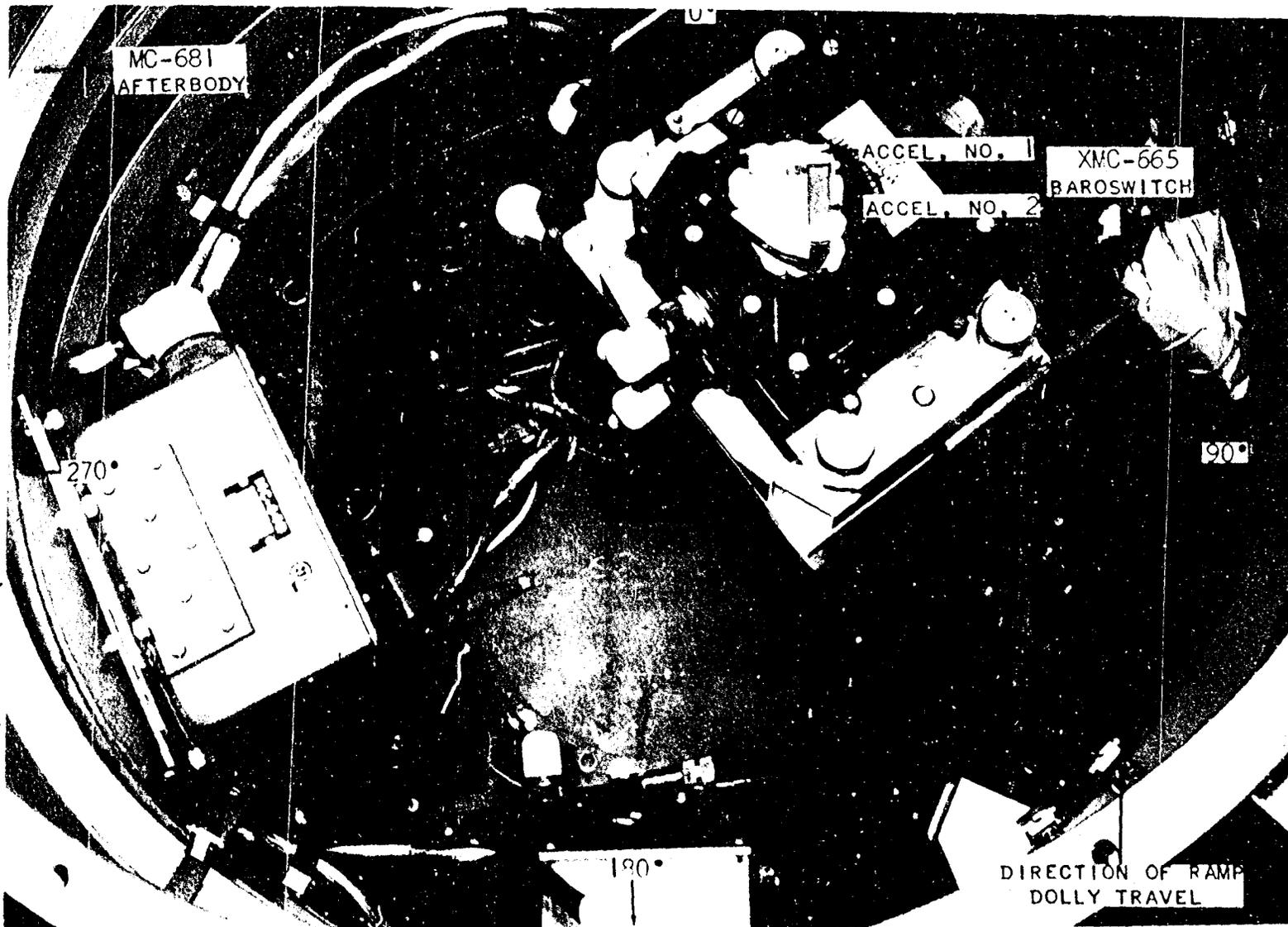


FIG. 2 -- ACCELEROMETERS MOUNTED ON THE XMC-665 BAROSWITCH -- 503" AND DPCP TESTS OF THE H-512 CONTAINER.

REF. SYM: 1612 (580)  
PROJECT NO. TM-635

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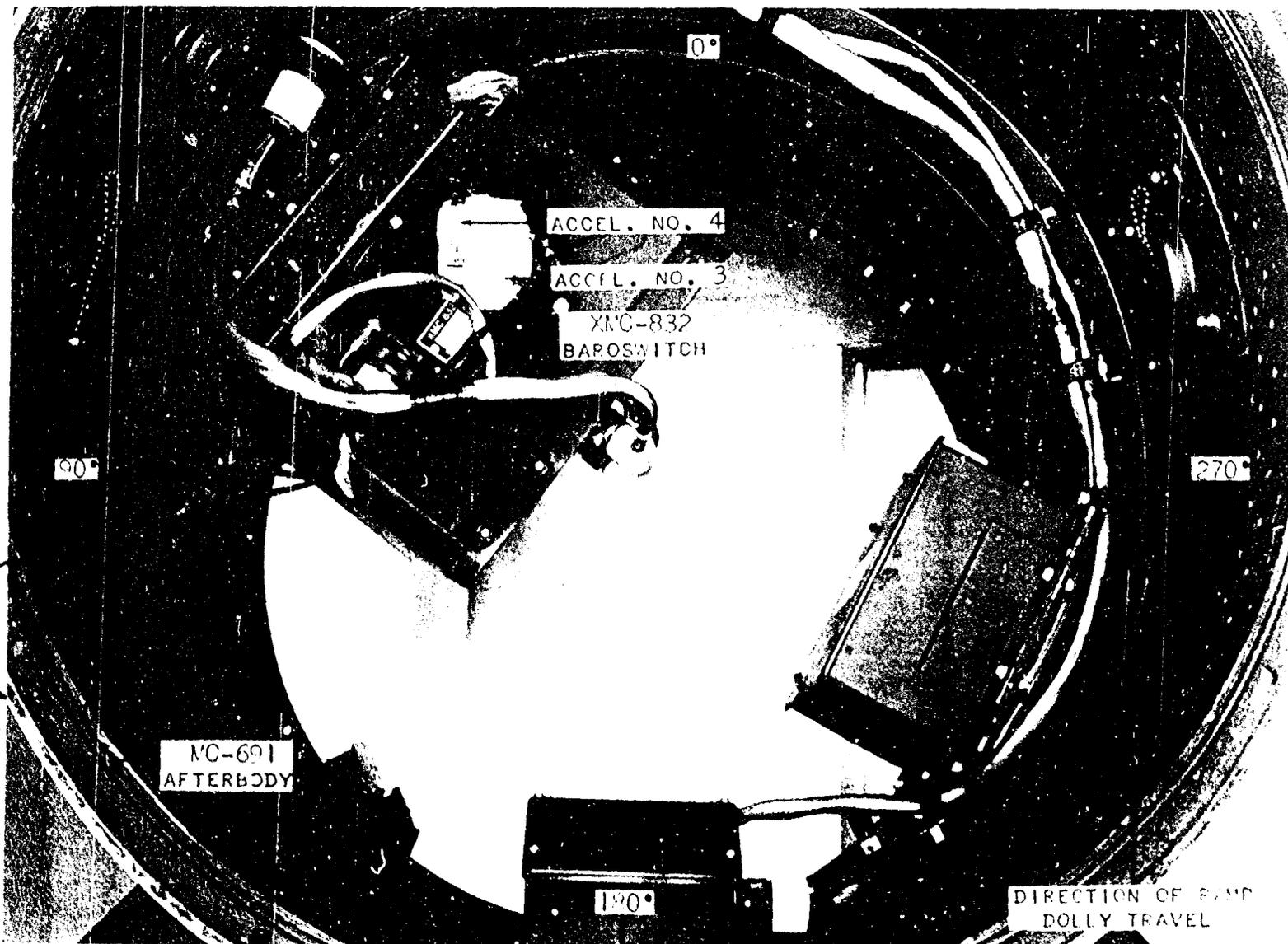


FIG. 3 -- ACCELEROMETERS MOUNTED IN THE XMC-832 POSITION -- TIME AND DIRECTION TESTS OF THE M-51 CONTAINER.

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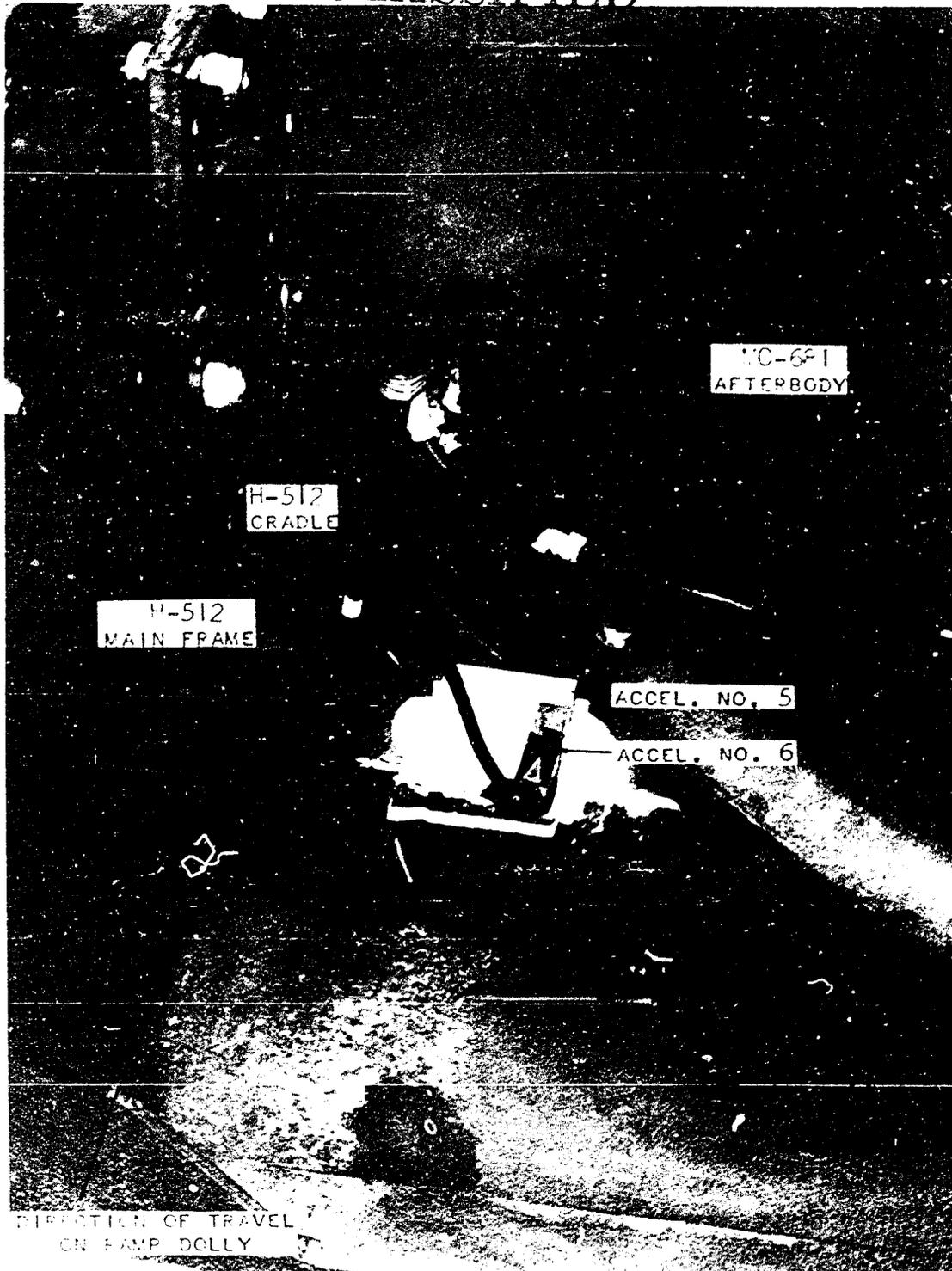


FIG. 4 -- PHOTOGRAPH OF THE H-512 DUTY TEST RIG --  
 PART OF THE TEST RIG OF THE H-512 DUTY TEST RIG.

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THE ABOVE PHOTOGRAPH  
 SHOWS THE TEST RIG

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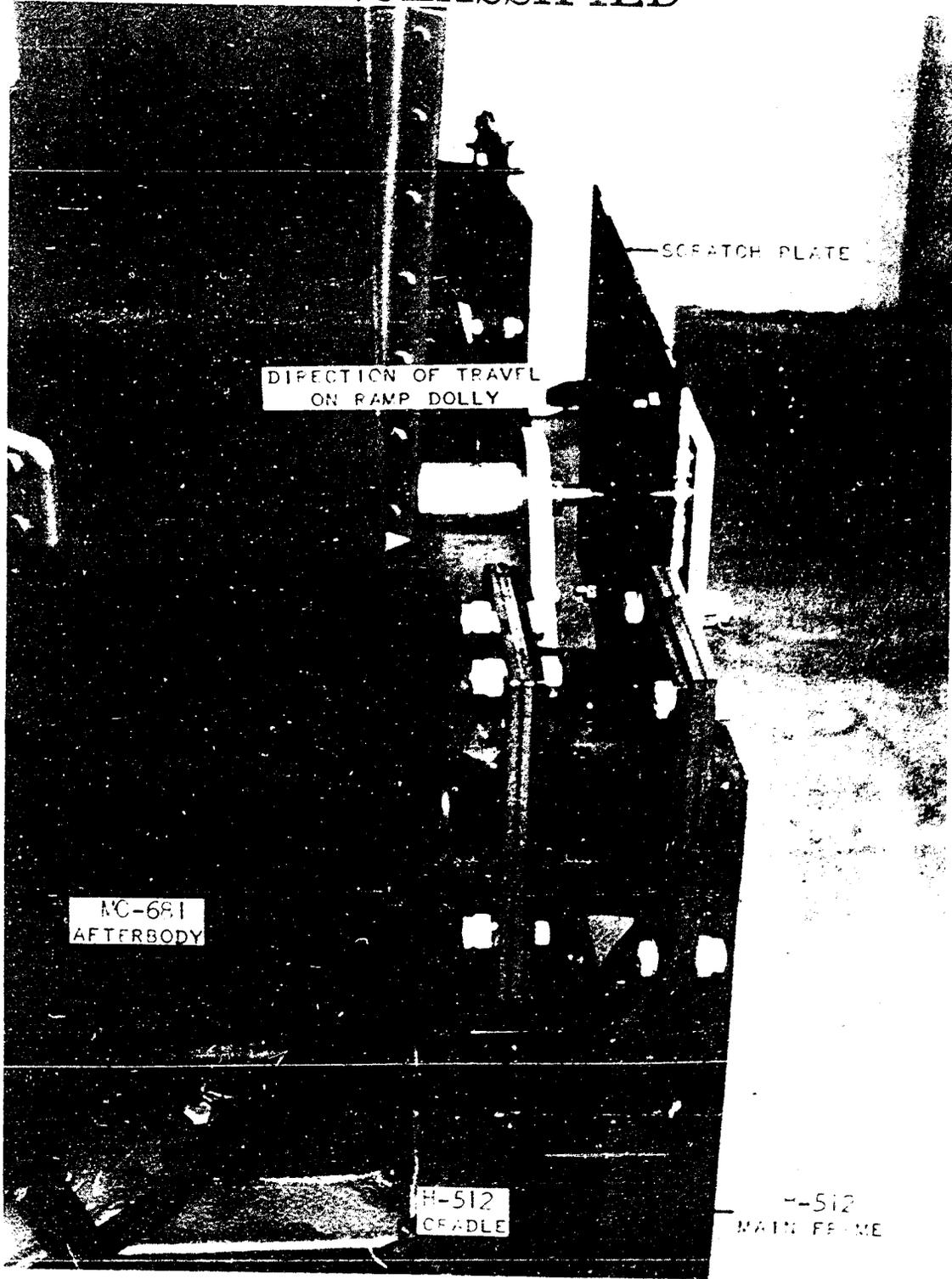


FIG. 5 -- SCRATCH PLATE MOUNTED ON THE #-512 CONTAINER MAIN FRAME --  
FOR THE PROTECTIVE TEST OF THE #-512 CONTAINER.

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REF. TO: 101-100-100  
PROJECT NO. 101-100-100

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D# 96521

SKIP FIELD FAILURES

270

H-512  
CONTAINER COVER

FIG. 6 -- SKIP FIELD FAILURES ALONG THE TOP EDGE OF THE H-512 CONTAINER COVER -- PART AND  
FIELD TESTS OF THE H-512 CONTAINER.

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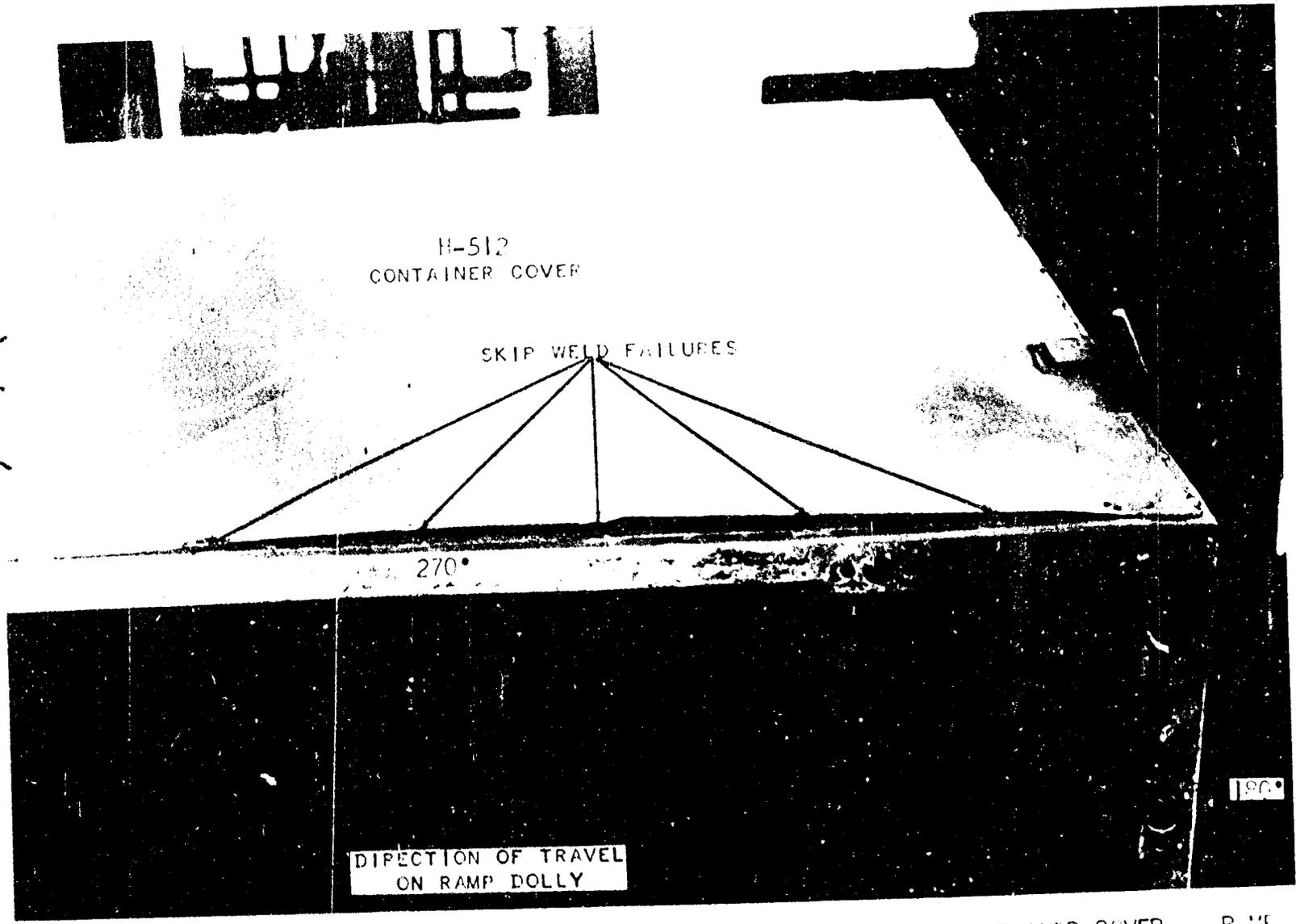


FIG. 7 -- SKIP WELD FAILURES ALONG THE BOTTOM EDGE OF THE H-512 CONTAINER COVER -- RAMP AND DOLLY TESTS OF THE H-512 CONTAINER.

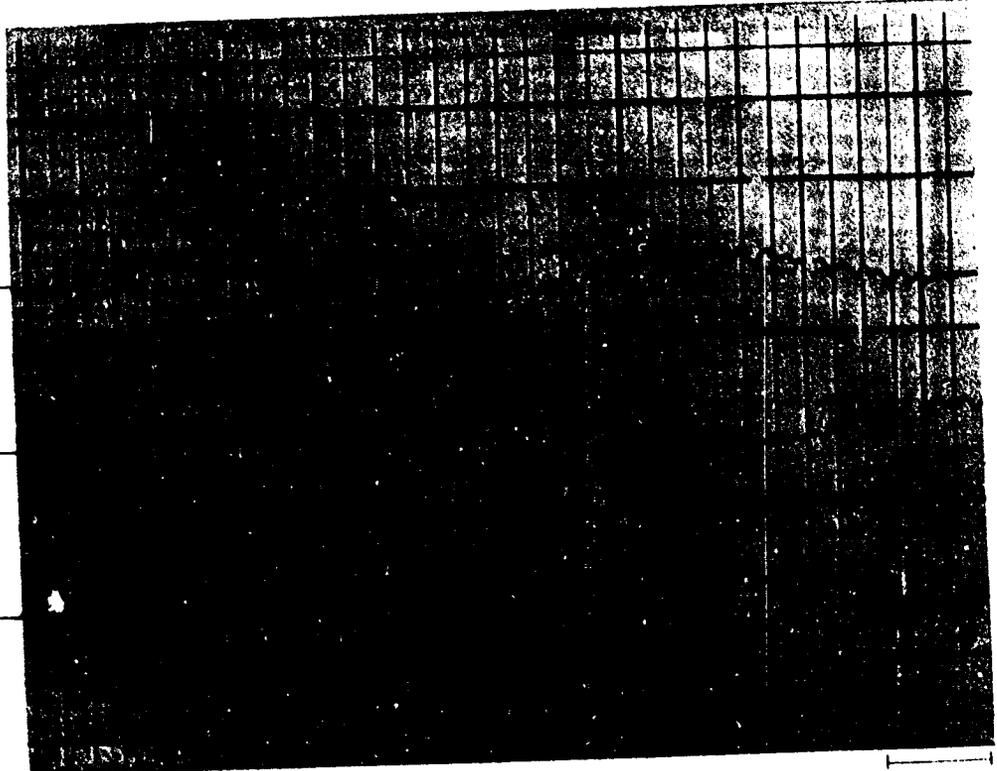
REF. SY: 1612 (58)  
PROJECT NO. TN-C35

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ACCEL. NO.	DIRECTION	LOCATION	CALIBRATE VALUES G/IN.
6.	VERTICAL	H-512 GRADE	2.46
4.	VERTICAL	XMC-832 B. POSWITCH	1.96
2.	VERTICAL	XMC-665 B. POSWITCH	2.02

D#96526



- MAXIMUM AMPLITUDE
- MAXIMUM FAIRED AMPLITUDE
- PULSE DURATION
- RISE TIME
- 0.01 SECONDS

FIG. 8 -- TYPICAL FORCE TEST OSCILLOGRAPH RECORD RECORDED DURING THE 12 INCH DPCF TEST NO. 2, CONTINUED II -- PART AND DPCF TESTS OF THE H-512 CONTAINER.

1 INCH SCALE

REF. SYN: 1612 (SPC)  
PROJECT NO. TM-635

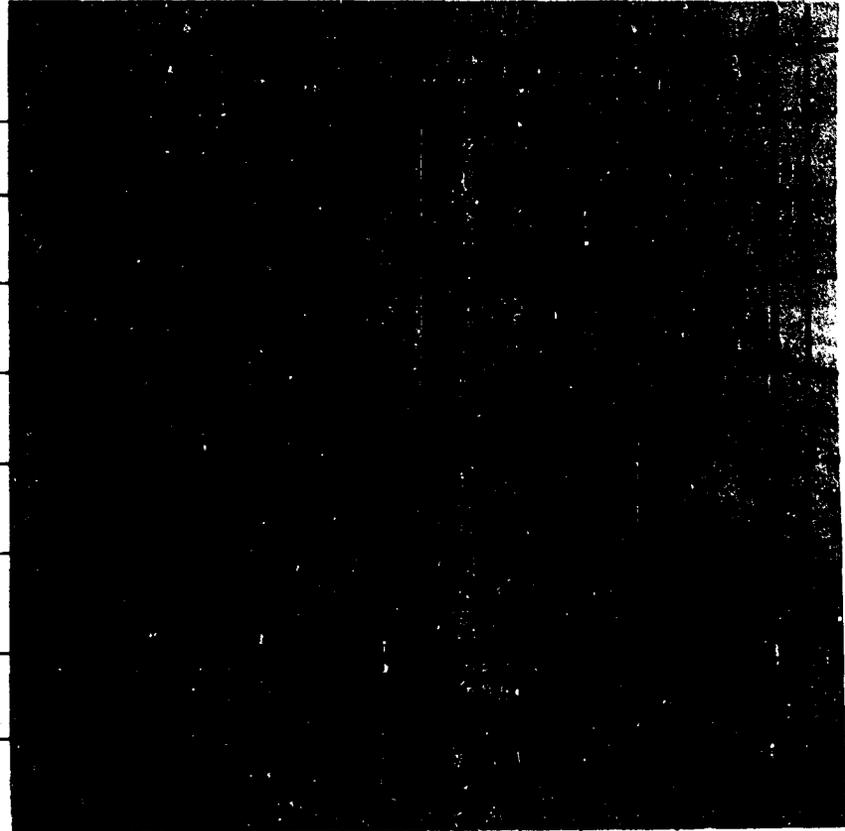
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ACCEL. NO.	DIRECTION	LOCATION	CALIBRATE VALUES G/IN.
8.	VERTICAL	H-512 MAIN FRAME	4.73
7.	LONGITUDINAL	H-512 MAIN FRAME	3.67
6.	VERTICAL	H-512 CRADLE	3.83
5.	LONGITUDINAL	H-512 CRADLE	3.75
4.	VERTICAL	XMC-832 BAROSWITCH	3.12
3.	LONGITUDINAL	XMC-832 BAROSWITCH	3.10
2.	VERTICAL	XMC-665 BAROSWITCH	1.53
1.	LONGITUDINAL	XMC-665 BAROSWITCH	3.86

8  
 # 96525



- A = MAXIMUM AMPLITUDE
- B = MAXIMUM FAIRED AMPLITUDE
- C = PULSE DURATION
- D = RISE TIME
- E = 0.01 SECONDS

1 INCH  
 SCALE

FIG. 9 -- TYPICAL RAMP TEST OSCILLOGRAPH RECORD RECORDED DURING THE 7.01 MPH PAFT TEST, CONDITION II -- RAMP AND DROP TESTS OF THE H-512 CONTAINER.

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Ref. Sys: 1614 (1-1)  
Project No. 1-1-11

## Table I

CONTINUATION OF TABLE I - PART I OF PART I OF TABLE I

Item No.	Description and Location	Quantity	Remarks
60-612	Box, storage for ball, Spherically (containing sugar or c - Part No. 011 - supplied by Tire and Rubber Company)	310114-01	Part No. 2
60-613	Case Section, Pa Plastic, Tall	310115-02	61-3527-86
60-614	Inverter Assembly, Pulse Initiator	310288-01	61-3528-06
60-619	Battery Pack, Thermal	310293-02	61-3529-06
60-665	Barcode, Arming	310229	61-3537-16
60-682	Switch, Pressure, Fixed Differential	310260-01	61-3538-06
60-749	Switch, Rotary, Safing	310340-01	61-3539-87
60-771	Battery Pack, Thermal	310361-02	61-3542-06
60-790	Interconnecting Box	310394-01	61-3546-06
60-781	Fuse Pack, Electrical	310391-01	61-3547-06
60-787	Pulse Circuit, Triggered, Cold Cathode	310359-01	61-35116-16
60-772	Switch, Electrical, Arming-Safing	310374-01	61-3539-06
60-690	Nose Cap	310228	None
60-771	Alignment Plate	310382	None

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Ref. Sym: 1612 (537)  
Project No. T4-635

-16-

TABLE II

STATNAM ACCELEROMETERS USED DURING RAMP AND DROP TEST OF THE H-512 CONTAINER

Accel. No.	Direction and Location*	Fig. No.	Serial No.	Statnam Model No.	Range (g)	Natural Freq. (cps)	Test When Used
1	Long.--W40-665 Baroswitch	2	2604	Fa-50-300	$\pm 50$	300	Ramp Drop
2	Vert.--W40-665 Baroswitch	2	2605	Fa-50-300	$\pm 50$	340	Drop
3	Long.--W40-832 Baroswitch	3	2607	Fa-50-300	$\pm 50$	520	Ramp Drop
4	Vert.--W40-832 Baroswitch	3	2611	Fa-50-300	$\pm 50$	270	Drop
5	Long.--H-512 Cradle	4	2610	Fa-50-300	$\pm 50$	340	Ramp Drop
6	Vert.--H-512 Cradle	4	2606	Fa-50-300	$\pm 50$	360	Drop
7	Long.--H-512 Main Frame	1	2609	Fa-50-300	$\pm 50$	340	Ramp
8	Vert.--H-512 Main Frame	1	2608	Fa-50-300	$\pm 50$	600	Ramp

\* Longitudinal direction parallel to shipping arrow (Fig. 1).

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Ref. Syst. 1412 (520) 1442  
Project No. TR-635

TABLE III

SHIPPING AND DROPPING TESTS OF THE H-512 CRADLE

No.	Accelerometer Direction** and Location	12-Inch Drop No. 1 -- Condition I				12-Inch Drop No. 2 -- Condition I				12-Inch Drop No. 3 -- Condition I				12-Inch Drop No. 4 -- Condition I							
		Max. Accel. (g)	Faired Pulse (g)	Rise Time (ms)	Pulse Duration (ms)	Max. Accel. (g)	Faired Pulse (g)	Rise Time (ms)	Pulse Duration (ms)	Max. Accel. (g)	Faired Pulse (g)	Rise Time (ms)	Pulse Duration (ms)	Max. Accel. (g)	Faired Pulse (g)	Rise Time (ms)	Pulse Duration (ms)				
1	Vert.--XMC-665 Baroswitch	9.1	6.3	+7.3	17	95	9.1	7.3	+7.7	20	95	9.4	8.3	+8.7	13	97	8.8	8.3	+7.3	18	99
2	Vert.--XMC-332 Baroswitch	21.9	13.1	+8.4	29	92	24.2	12.3	+3.9	26	90	Data Invalid					Data Invalid				
3	Vert.--H-512 Cradle	Data Invalid					Data Invalid					17.9	13.5	+7.8	11	97	21.9	10.8	+3.2	14	94
4	Vert.--XMC-665 Baroswitch	9.3	8.6	+7.9	19	97	9.5	8.9	+8.2	18	96	7.3	8.0	+7.7	18	97	9.1	7.0	+7.4	17	98
5	Vert.--XMC-332 Baroswitch	24.0	16.2	+10.0	22	97	24.8	15.0	+3.7	23	97	13.2	8.6	+3.3	27	102	13.6	8.3	+3.9	36	103
6	Vert.--H-512 Cradle	19.2	13.0	+7.8	9	97	18.1	9.5	+7.9	20	95	20.2	12.1	+7.4	30	108	23.4	16.4	+6.3	26	106

\* Positive accelerations are upward and opposite the direction of the jolty motion on the ramp (Fig. 1).

\*\* Accelerations were read as per GCS-10.

\*\*\* Longitudinal direction parallel to shipping arrow (Fig. 1).

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TABLE IV

MAXIMUM ACCELERATIONS\*, RISE TIMES, AND PULSE DURATIONS FOR CONDITION 1 TESTS (TESTS 1-8) AND PULSE TESTS OF THE H-512 CRADLES

Accel. No.	Accelerometer Direction** and Location	4.74 mph					5.74 mph					6.74 mph				
		Max. Accel. (g)		Paired Pulse (g)	Rise Time (ms)	Pulse Duration (ms)	Max. Accel. (g)		Paired Pulse (g)	Rise Time (ms)	Pulse Duration (ms)	Max. Accel. (g)		Paired Pulse (g)	Rise Time (ms)	Pulse Duration (ms)
		+	-				+	-				+	-			
1	Long.--XMC-665 Baroswitch	1.8	0.0	+7.4	21	91	2.1	7.3	+11.7	11	104	13.7	0.7	+21.2	42	91
2	Vert.--XMC-665 Baroswitch	0.3	0.5	--	--	--	0.8	0.5	--	--	--	0.4	0.5	--	--	--
3	Long.--XMC-332 Baroswitch	8.4	11.3	+7.3	34	136	7.8	7.3	+11.7	43	177	11.1	7.4	+21.5	43	192
4	Vert.--XMC-332 Baroswitch	1.1	1.0	--	--	--	1.4	2.7	--	--	--	2.7	3.4	--	--	--
5	Long.--H-512 Cradle	8.0	8.4	+2.7	47	175	6.4	6.9	+11.8	57	117	6.9	6.3	+8.2	45	112
6	Vert.--H-512 Cradle	1.0	1.1	--	--	--	1.6	2.5	--	--	--	1.7	1.7	--	--	--
7	Long.--H-512 Main Frame	11.4	4.4	+10.3	8	92	10.3	5.0	+6.4	9	51	10.9	5.0	+12.3	15	37
8	Vert.--H-512 Main Frame	3.1	3.3	--	--	--	1.1	3.8	--	--	--	3.0	4.3	+7.3	4	7

Accel. No.	Accelerometer Direction** and Location	7.01 mph					7.01 mph					7.01 mph				
		Max. Accel. (g)		Paired Pulse (g)	Rise Time (ms)	Pulse Duration (ms)	Max. Accel. (g)		Paired Pulse (g)	Rise Time (ms)	Pulse Duration (ms)	Max. Accel. (g)		Paired Pulse (g)	Rise Time (ms)	Pulse Duration (ms)
		+	-				+	-				+	-			
1	Long.--XMC-665 Baroswitch	11.6	5.9	+3.7	21	93	13.6	3.9	+11.8	19	91	13.8	11.9	+19.1	13	92
2	Vert.--XMC-665 Baroswitch	0.9	0.7	--	--	--	0.6	0.9	--	--	--	0.5	0.9	--	--	--
3	Long.--XMC-332 Baroswitch	12.3	9.2	+10.5	39	98	12.9	9.4	+12.7	37	102	12.3	9.4	+14.9	38	98
4	Vert.--XMC-332 Baroswitch	2.7	4.1	--	--	--	3.2	4.1	--	--	--	3.2	3.5	--	--	--
5	Long.--H-512 Cradle	18.7	3.4	+10.0	47	193	11.2	4.3	+9.0	49	194	12.4	9.6	+11.2	40	97
6	Vert.--H-512 Cradle	2.3	3.4	--	--	--	2.8	2.5	--	--	--	3.2	4.2	--	--	--
7	Long.--H-512 Main Frame	17.0	6.4	+16.7	8	23	17.4	5.4	+16.3	9	29	22.3	7.8	+20.6	3	23
8	Vert.--H-512 Main Frame	5.1	10.2	--	--	--	15.5	11.9	+24.3	2	16	11.5	16.1	-12.0	2	7

Accel. No.	Accelerometer Direction** and Location	7.01 mph				
		Max. Accel. (g)		Paired Pulse (g)	Rise Time (ms)	Pulse Duration (ms)
		+	-			
1	Long.--XMC-665 Baroswitch	13.5	9.6	+3.9	17	91
2	Vert.--XMC-665 Baroswitch	0.3	0.3	--	--	--
3	Long.--XMC-332 Baroswitch	14.8	9.6	+11.1	27	92
4	Vert.--XMC-332 Baroswitch	5.2	3.5	--	--	--
5	Long.--H-512 Cradle	12.7	9.5	+11.3	43	102
6	Vert.--H-512 Cradle	5.6	6.5	--	--	--
7	Long.--H-512 Main Frame	16.3	9.2	+23.4	6	12
8	Vert.--H-512 Main Frame	20.0	16.4	-14.1	3	12

Positive accelerations are upward and opposite the direction of dolly motion of the ramp (Fig. 1).

\* Accelerations were read per SCS-10.

\*\* Longitudinal direction parallel to shipping arrow (Fig. 1).

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TABLE V

MAXIMUM ACCELERATIONS, PULSE TIMES, AND PULSE DURATIONS OF SHOCKS WHICH OCCURRED DURING THE SHOCK TESTS

Shock No.	Accelerometer Location** and Location	Vertical				Longitudinal				Vertical			
		Max. Accel. (g)	Paired Pulse (g)	Pulse Time (ms)	Pulse Duration (ms)	Max. Accel. (g)	Paired Pulse (g)	Pulse Time (ms)	Pulse Duration (ms)	Max. Accel. (g)	Paired Pulse (g)	Pulse Time (ms)	Pulse Duration (ms)
1	Long.--R-512 Baroswitch	8.7	8.0	47.0	15	11.1	9.7	411.3	15	95			
2	Vert.--R-512 Baroswitch	11.2	1.0	--	--	11.2	1.0	--	--				
3	Long.--R-512 Baroswitch	11.2	8.1	47.0	15	11.2	8.1	411.3	15	95			
4	Vert.--R-512 Baroswitch	11.2	2.5	--	--	11.2	2.5	--	--				
5	Long.--R-512 Cradle	11.2	6.5	47.0	15	11.2	6.5	411.3	15	95			
6	Vert.--R-512 Cradle	11.2	1.4	--	--	11.2	1.4	--	--				
7	Long.--R-512 Main Frame	19.7	6.4	41.0	8	19.7	6.4	411.3	8	42			
8	Vert.--R-512 Main Frame	6.4	2.5	--	--	6.4	2.5	--	--				

Shock No.	Accelerometer Location** and Location	Vertical				Longitudinal				Vertical			
		Max. Accel. (g)	Paired Pulse (g)	Pulse Time (ms)	Pulse Duration (ms)	Max. Accel. (g)	Paired Pulse (g)	Pulse Time (ms)	Pulse Duration (ms)	Max. Accel. (g)	Paired Pulse (g)	Pulse Time (ms)	Pulse Duration (ms)
1	Long.--R-512 Baroswitch	12.3	10.0	47.0	20	15.4	9.7	411.7	15	91			
2	Vert.--R-512 Baroswitch	11.2	1.0	--	--	11.2	1.0	--	--				
3	Long.--R-512 Baroswitch	11.2	8.2	47.0	34	11.2	8.2	411.2	34	97			
4	Vert.--R-512 Baroswitch	11.2	3.5	--	--	11.2	3.5	--	--				
5	Long.--R-512 Cradle	10.3	7.6	47.0	21	11.3	8.1	410.6	21	93			
6	Vert.--R-512 Cradle	11.2	4.5	--	--	11.2	4.5	--	--				
7	Long.--R-512 Main Frame	19.7	6.4	41.0	8	19.7	6.4	410.7	8	42			
8	Vert.--R-512 Main Frame	14.7	10.0	--	--	14.7	10.0	--	--				

Positive accelerations are upward and opposite the direction of shilly motion on the ramp (Fig. 1).

\* Accelerations were read per FCS-11.

\*\* Longitudinal direction parallel to shipping arrow (Fig. 1).

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Ref. Sym: 1417 (5-1)  
Project No. 1-105

Table VI

DISTRIBUTION OF THE H-312 RADIO GLOBE SUBJECT TO THE WIND FORCE  
IN PULL BACK TESTS OF THE H-312 CONTAINER

Test	Up*	Deflection - Inches		Di
		Down	Forward*	
12-Inch Drop (Condition II)	1-15/32	1-5/16	5/8	19/32
7.2 mph Ramp (Condition II)	1/32	11/32	1-1/4	9-7/16

\* Up - toward top of H-312 container.

Forward - in direction of ramp roll travel (Fig. 1).

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