

UNCLASSIFIED

OCT 18 1962

File No: T-14
T-18998
Test Completed: 9-11-62

RECEIVED

OCT 19 1962

CENTRAL RECORDS FILE

MR. T. J. HOBAN - 7212
Attn: M. B. Leeman

Re: Flight Qualification Test of One XW-53 Telemetry Package During Linear Acceleration (U)

Summary of Results

One XW-53 telemetry package (TM) was subjected to a series of sustained acceleration tests to prove the structural integrity and functionality of the components for Flight Qualification. There was no apparent structural damage to the TM Package as the result of this sustained acceleration test and all system checks were satisfactory.

Object of Test

The object of this test was to prove the structural integrity and functionality of this XW-53 telemetry package, when subjected to the sustained acceleration specified in the Flight Qualification Specifications for this unit.

Authorization for Test

This test was authorized in a request from Division 7212, dated 9-7-62. Mr. M. B. Leeman was the consultant.

ACCOUNT CARD	FILE
FILE No. XW 53	3-2

Setup for Test

The hydraulic centrifuge located in Area III was the facility used for this test. See Figures 1, 2 and 3 for photos of test setup. The transmitted signals from the TM Package were picked up at the ground station in Bldg. 6542. There was no other instrumentation required for this test.

Summary of Past Tests

A TM Package was subjected to a modified temperature shock test in ETO 18381. The environmental test consisted of 4 hours at +150°F and -40°F for 4 hours. After this temperature environmental test the components were energized and transmitted satisfactorily.

SANDIA SYSTEMATIC DECLASSIFICATION REVIEW DOWNGRADING OR DECLASSIFICATION STAMP	
CLASSIFICATION CHANGED TO: <u>U</u>	AUTHORITY: <u>R. B. Croner</u>
PERSON CHANGING MARKING & DATE: <u>Emelda Selph 7/21/98</u>	RECORD ID: <u>98SN2817</u>
PERSON VERIFYING MARKING & DATE: <u>MC 7/22/98</u>	DATED: <u>7/13/98</u>

SANDIA SYSTEMATIC DECLASSIFICATION REVIEW	
1 st Review Date: <u>7/06/98</u>	Discretion (Circle Number)
Authority: <input type="checkbox"/> ADC <input checked="" type="checkbox"/> ADD <u>Whip</u>	1 Classification Retained <u>u</u>
Name: <u>Whip</u>	2 Classification Changed to: <u>u</u>
2 nd Review Date: <u>7/13/98</u>	3 Contains No DOE Classified Information
Authority: <u>Whip</u>	4 Coordinate With: <u>no</u>
Name: <u>Whip</u>	5 Contains UCAF: <u>no</u>
	6 Comments: <u>ok for declass</u>

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1430

Mr. T. J. Hoban - 7212

- 2 -

T-18998

Previous sustained acceleration tests were performed on 2 XW-53 TM Packs in ETO-18001, which was accomplished in the same manner as this test. There was no apparent structural damage and the components functioned properly following this environmental test.

Procedure and Results

An XW-53 TM Package was subjected to a series of sustained acceleration tests to prove the structural integrity and functionality for flight qualifications.

The unit was mounted in the launch orientation as shown in Figure 1 and subjected to an acceleration of 12g for a period of 60 seconds. The unit was next mounted in the re-entry orientation as shown in Figure 2 and subjected to an acceleration of 68g. This acceleration was held for 60 seconds.

The unit was then mounted in the lateral orientation as shown in Figure 3 and subjected to an acceleration of 36g for a period of 60 seconds. The unit was rotated 90° about the longitudinal axis so the vertical axis was in the direction of acceleration. It was then subjected to an acceleration of 36g for a period of 60 seconds.

There was no apparent damage to the XW-53 TM Package as a result of this test. All systems checks appeared satisfactory.

No instrumentation was required for the test.

This test was run in accordance with SC-4452A(M).

T. H. Traver

T. H. TRAVER - 7323-2

A. K. Alberts

Test Project Engineer: A. K. ALBERTS - 7331-1

R. S. Hooper
Approved By: R. S. HOOPER - 7331-1

THT:7323-2:msw

Encl: Figs. 1-3

Copy to:

J. M. Wiesen, 1442

D. S. Bliss, 2344

E. H. Copeland, 7331

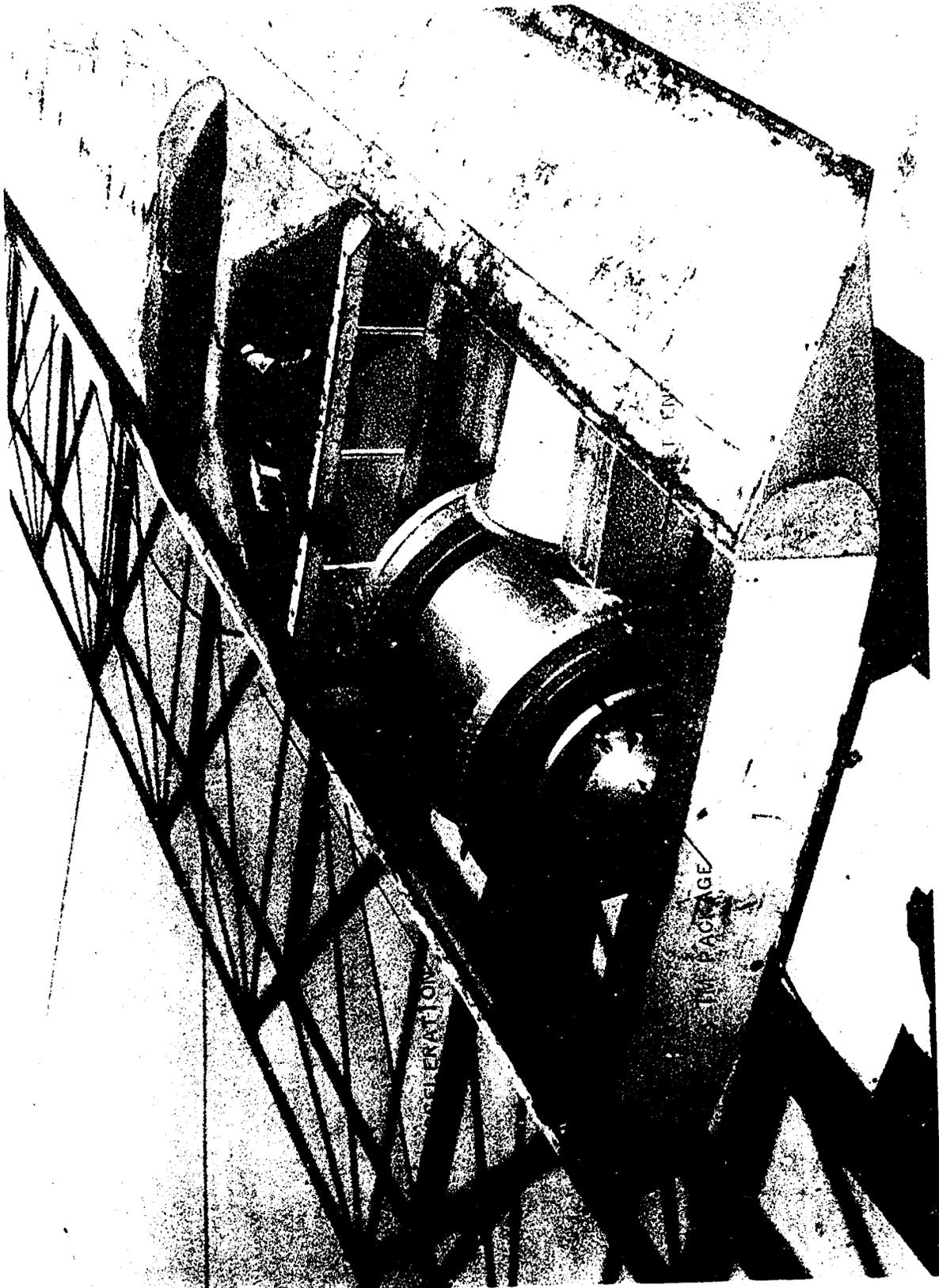
C. L. Johnson, 7523

Central Record File, 3421-3

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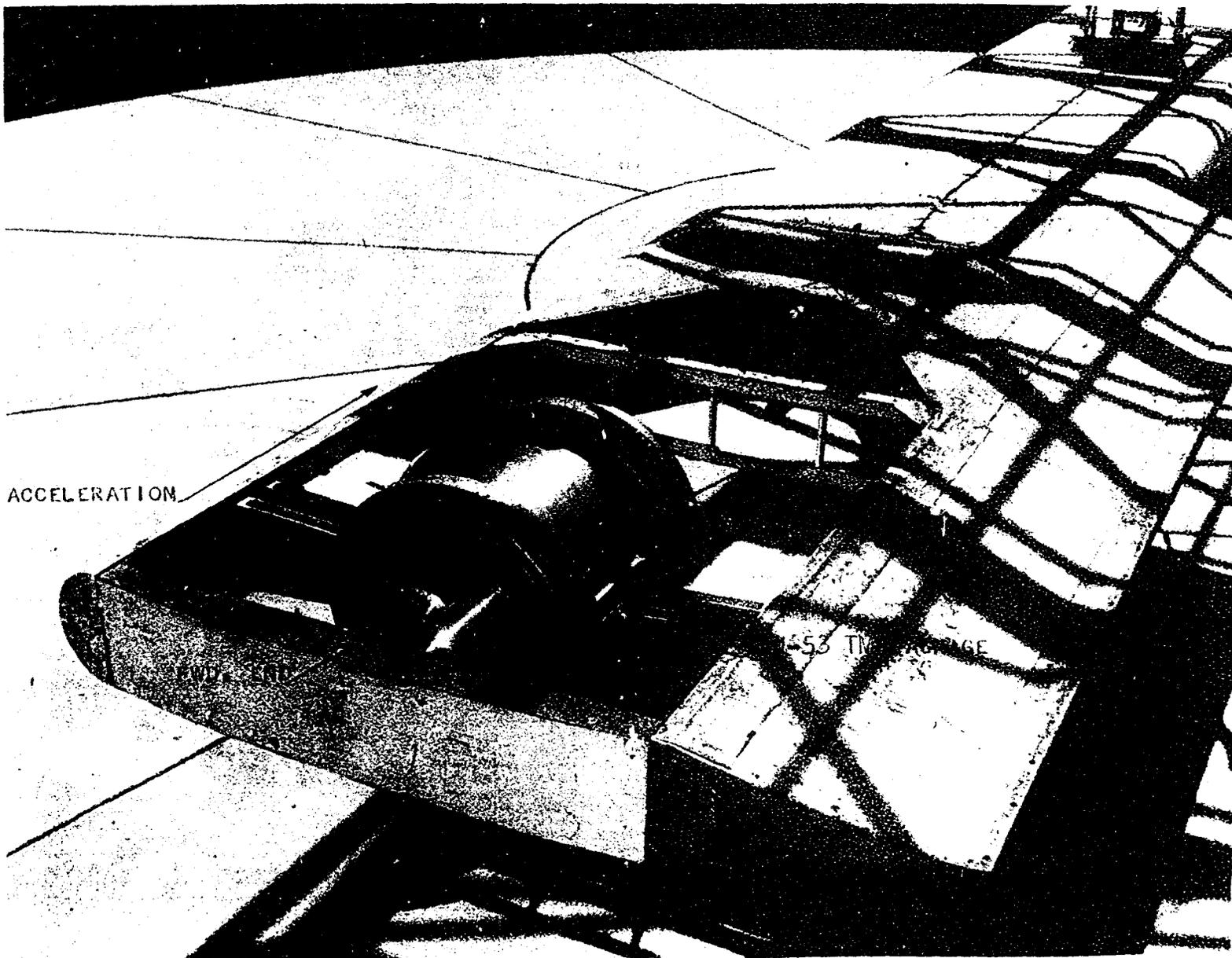
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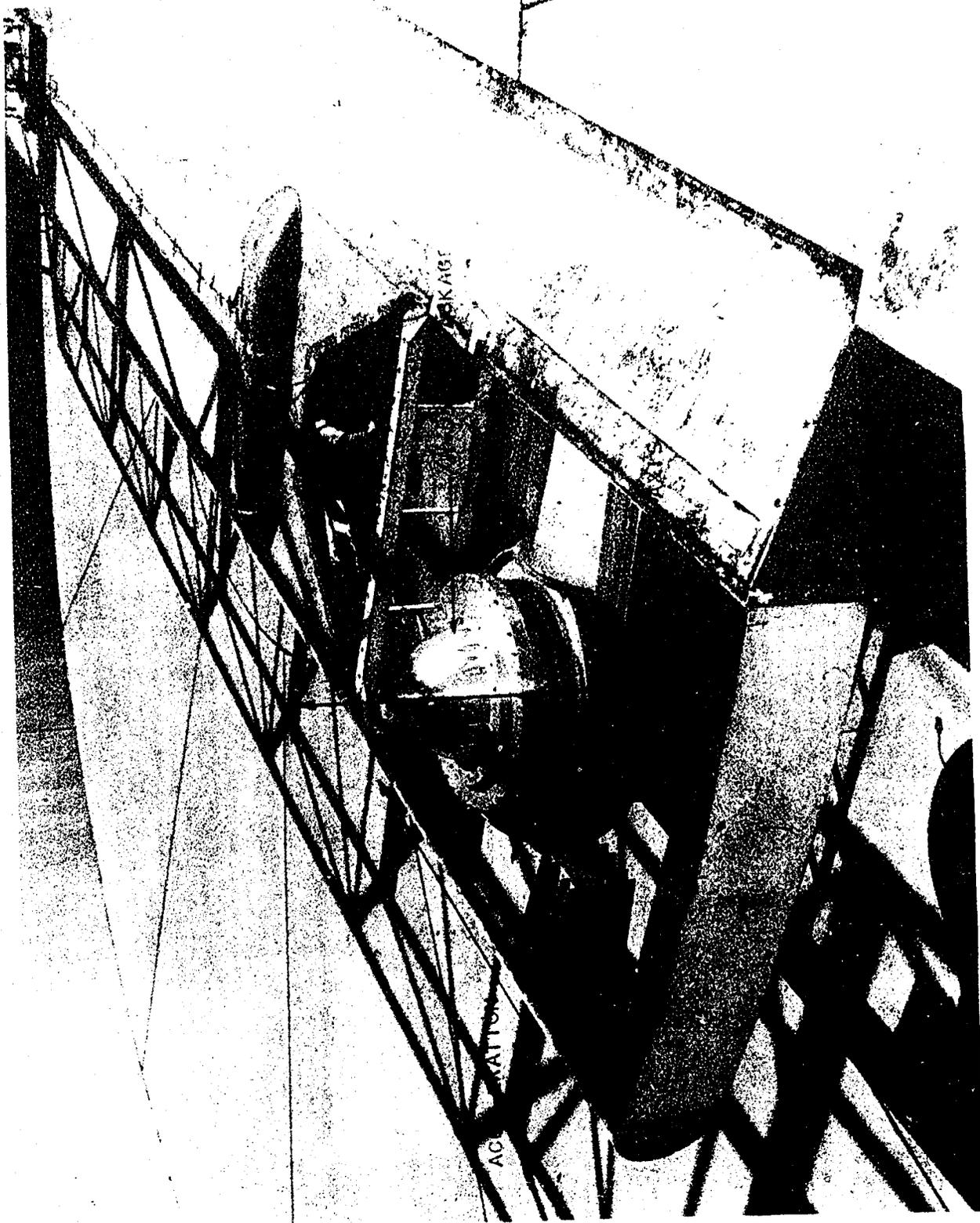
ACCELERATION

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PACKAGE

AG STATION

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