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ARMY AVIATION TEST BOARD FORT RUCKER ALA
PRODUCT-IMPROVEMENT TEST, OH-6A MAINTENANCE PLATFORM.(U)
JUN 68

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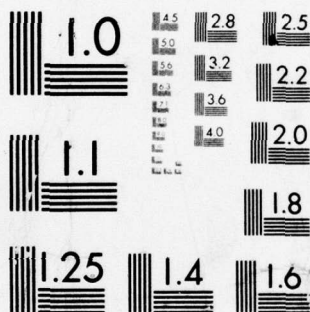
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DEPARTMENT OF THE ARMY
UNITED STATES ARMY AVIATION TEST BOARD
Fort Rucker, Alabama 36360

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JUN 3 1968

SUBJECT: Final Report of Test, Product-Improvement Test, OH-6A
Maintenance Platform, "USATECOM Project No. 4-6-0251-
13

9) Final rept. 12/6p.
18 Mar - 1 May 68

Commanding General
US Army Materiel Command
ATTN: AMCPM-LH-C
P.O. Box 209, Main Office
St. Louis, Missouri 63166

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The purpose of this report was

1. Purpose. To determine the suitability of the maintenance platform for use on the OH-6A Helicopter.
2. Background. Proper performance of daily and preflight inspections of the OH-6A Helicopter requires a safe and effective means of obtaining access to the main rotor head and engine inlet area. The Cayuse Project Manager requested that the US Army Aviation Test Board (USAAVNTBD) test a maintenance platform designed to fill this need.
3. Description of Materiel. The maintenance platform (figure 1, in-closure 2) attaches to the jack point on the right side of the aircraft at the cargo door. This non-adjustable platform is positioned for direct access to areas above the right cargo door and is designed to be stowed internally within the aircraft cargo compartment. The surface of the platform is coated with an antiskid material to permit use during wet weather and to minimize the adverse effects of spilled oil or grease.
4. Scope. The USAAVNTBD conducted the product improvement test of the OH-6A maintenance platform at Fort Rucker, Alabama, and Eglin AFB, Florida, Climatic Hangar during the period 18 March - 1 May 1968. The platform was weighed and measured, then installed on

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an OH-6A. Helicopter mechanics and crewmembers used the platform while performing daily and preflight inspections throughout the test period. Personnel from the US Army Board for Aviation Accident Research (USABAAR) inspected the installation and observed utilization of the platform.

5. Test Objectives. To determine:

- a. Weight and dimensions.
- b. Installation requirements.
- c. Functional suitability.
- d. Safety.
- e. Design deficiencies.

6. Summary of Results.

- a. Weight and dimensions of the platform were:

	<u>Length (in.)</u>	<u>Width (in.)</u>	<u>Height (in.)</u>	<u>Weight</u>
Maintenance platform	29	10	11 1/2	8 lb.
Attachment bracket	1 1/4	1/2	1	2 oz.
Working area	24	10		

b. Special installation hardware consisted of a bracket which attached to the inside right-hand aft cargo door frame (figure 2, inclosure 2). This bracket and the jack point below the door insure rigidity of platform installation. One man-hour, including time required to gain access to the work area, was necessary for bracket attachment.

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c. The maintenance platform allowed limited access to the main rotor and engine inlet areas. However, performance of maintenance tasks in these areas was limited by the inability to adjust platform height.

d. USABAAR personnel found that the platform working area was not sufficiently large to permit safe inspections of both the engine inlet and main-rotor hub areas. Maintenance personnel standing on the platform and attempting to gain access to the engine inlet area had to lean sideward at least 30 degrees toward the rear of the aircraft, remove one foot from the platform, and maintain balance.

e. The following design deficiency was found: Present platform working area and position preclude safe and effective access to both the engine inlet and the main-rotor hub areas (paragraphs c and d, above). An increase of platform working area length to 48 inches should allow safe access to the engine inlet area and decrease the safety hazard associated with the test platform.

7. Conclusion. The maintenance platform in its present configuration is not suitable for use on the OH-6A.

8. Recommendation. It is recommended that the design deficiency be corrected by increasing the platform working area to allow safe and effective access to the engine inlet.

2 Incls

1. References
2. Photographs

Louis A. Williams, Col
DAVID M. KYLE *for*
Colonel, Artillery
President

Copies furnished:

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Aberdeen Proving Ground, Maryland 21005 (2 cys)

REFERENCES

1. Message, AMCPM-LH-T 01-14020, Commanding General, US Army Materiel Command, 24 January 1968, subject: "Evaluation of Prototype Hardware for OH-6A."
2. Letter, AMSTE-BG, Headquarters, US Army Test and Evaluation Command, 7 February 1968, subject: "Test Directive, Product Improvement Test, OH-6A Prototype Hardware."

INCLOSURE 1

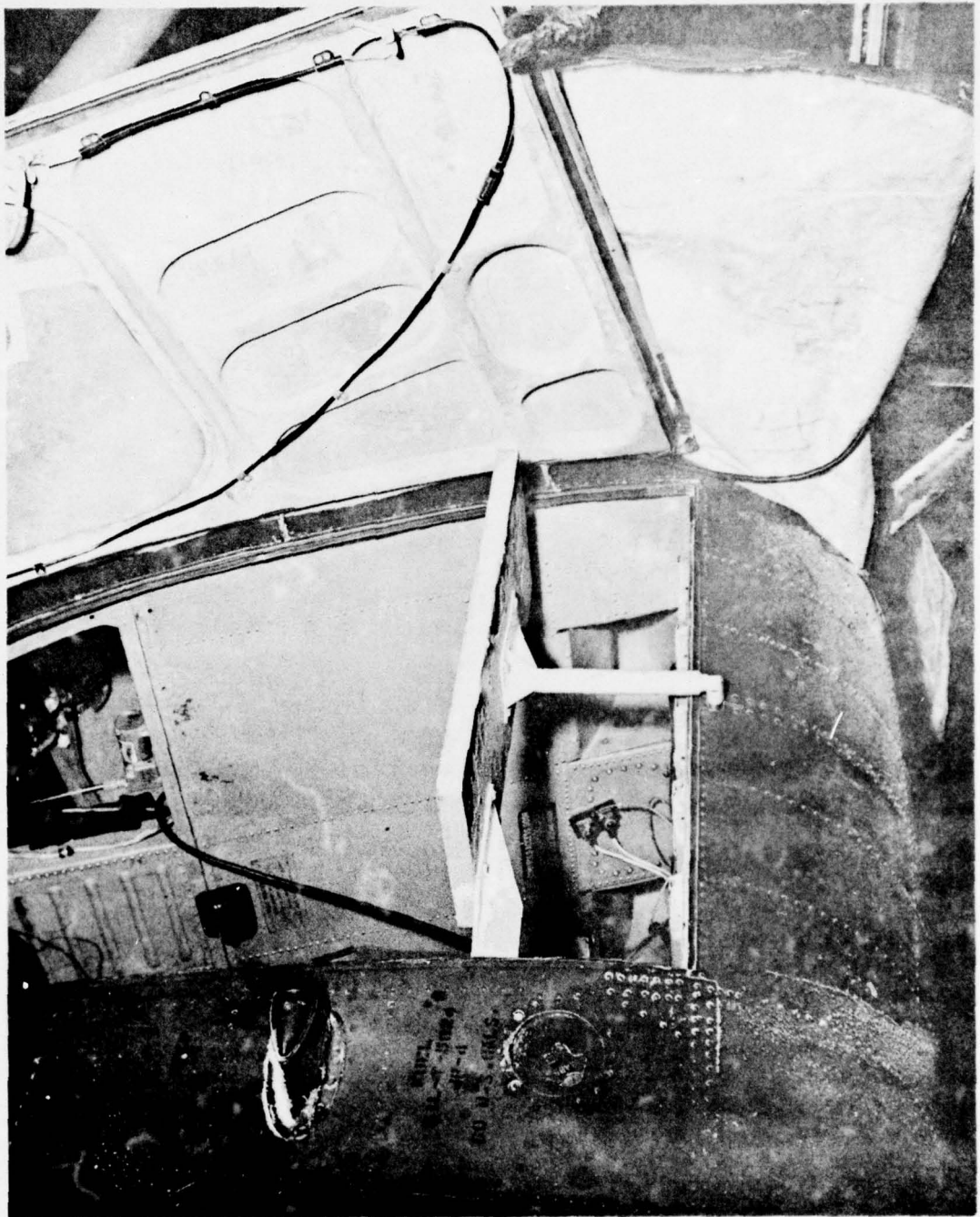


Figure 1.

INCLOSURE 2



Figure 2.