

UNCLASSIFIED

REVIEW DATE: 2/15/98 REVIEWER: R. Blain REVIEW DATE: 6-16-98 REASON: W. Payne	SANDIA SYSTEMATIC DECLASSIFICATION REVIEW Classification (Circle Number): Classification Retained: UNCL Classification Changed to: Contains No DOB Classified Information Contains WFO Contains UCAI?
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FEB 24 1962

File No: W-30, 3-2
 I-No: 17367
 Date Completed: 2-20-61

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FEB 1 1962

MR. W. E. TREIBEL - 7146
 Attn: C. E. Dalton

CENTRAL RECORD FILE

CENTRAL RECORD FILE	
ACCOUNTABILITY CARD	BB
FILE No. <i>Me</i>	30
	3-2

Re: Climatic Tests of a W-30 With a Dow 17 Primer

Summary of Test

The results of psst environmental tests have indicated the need for a more satisfactory exterior finish on the W-30 warhead. One W-30, with an improved finish, was subjected to the following environments in the order given: -65°F for 72 hours; +160°F for 50 hours; temperature shock which consisted of three cycles of +160°F for 8 hours, not more than 5 minutes at room temperature, and -65°F for 8 hours, with not more than 5 minutes at room temperature between cycles; high temperature cycling (desert cycle) as defined in SC-4451 test A2 for 30 days; humidity as defined in SC-4451 test B1 for 20 days; salt fog as defined in SC-4451 test L1. A total of 86 days was required to complete the tests.

The exterior finish on the warhead consisted of Dow 17, a wash primer MIL-C-15328, and Nubelon-S enamel. Proseal 706 per MIL-S-8734, Class B, was used under all washers and connector nuts except the air pressure valve and in all the countersunk bolt holes except those containing Teflon caps.

Figures 1, 2, and 3 are photographs taken after the 20 day humidity test. The finish sustained little degradation during the complete series of environmental tests and appeared to be highly satisfactory.

Prior to the start of the testing the warhead was pressurized to 15 psig with a helium-nitrogen mixture. Either during or after most of the environments the internal pressure was checked and a helium probe test was made to detect if any major leaks were present. No major leaks were noted at any time and the final pressure was 12.7 psig at the end of 86 days.

R. A. Mikkelsen
 R. A. MIKKELSEN - 7321-5

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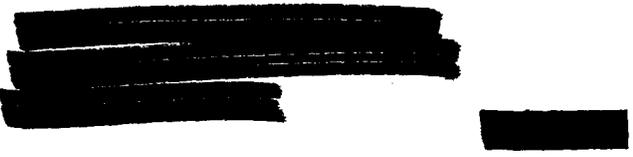
Approved By: *R. S. Hooper* R. S. HOOPER - 7321-5

1836

MAIL: 7321-5:er

Enclosures: Figures 1, 2, & 3

SANDIA SYSTEMATIC DECLASSIFICATION REVIEW DOWNGRADING OR DECLASSIFICATION STAMP	
CLASSIFICATION CHANGED TO: <i>U</i>	AUTHORITY: <i>W. C. Payne</i>
PERSON CHANGING MARKING & DATE: <i>Emelda Selph 6/23/98</i>	RECORD ID: <i>985N2493</i>
PERSON VERIFYING MARKING & DATE: <i>W. C. Payne 6/24/98</i>	DATED: <i>6/17/98</i>



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Mr. W. E. Treibel, 7146

-2-

T-17367

Copy to:

J. M. Wiesen, 1442

D. S. Bliss, 2344

E. H. Copeland, 7321

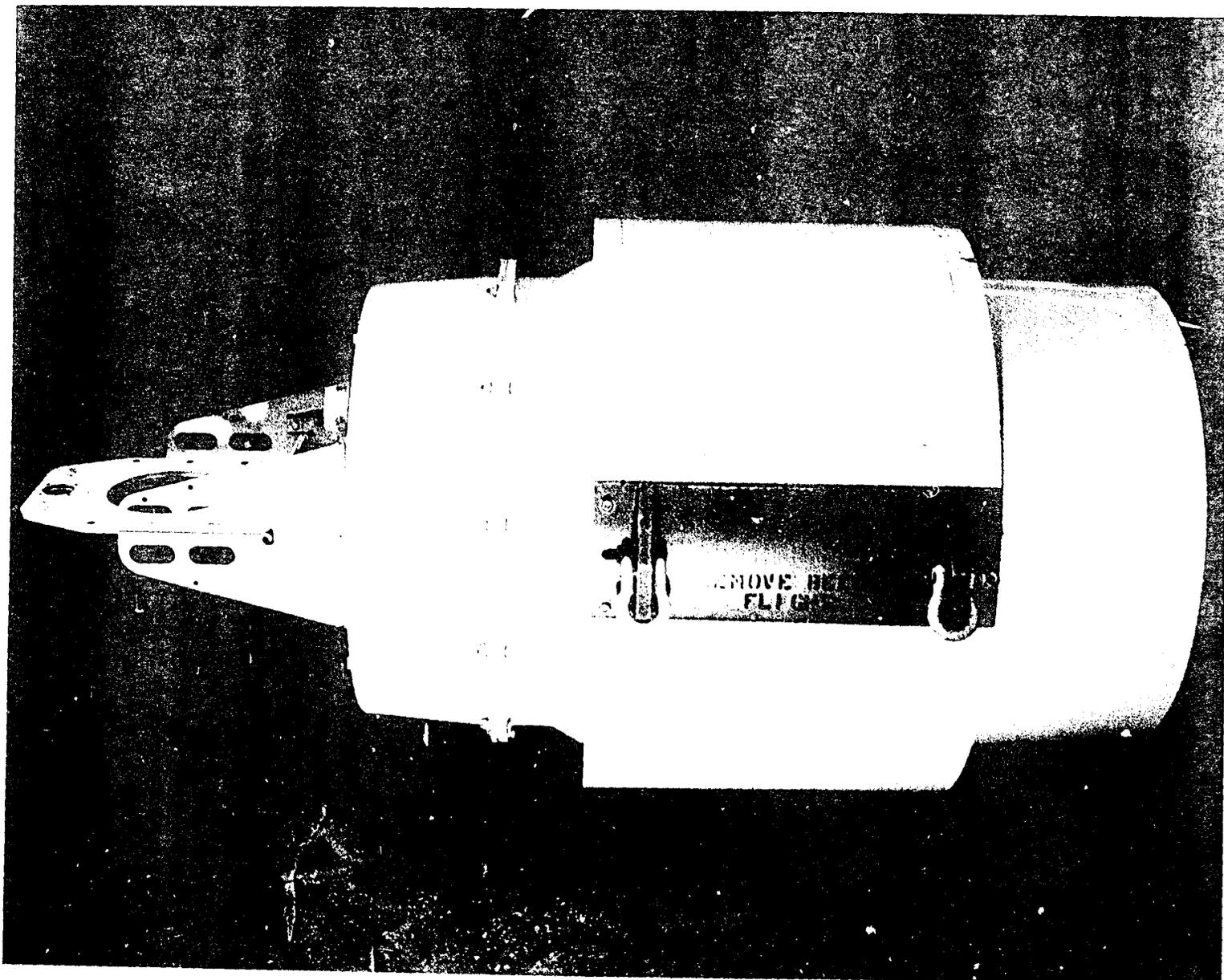
C. L. Johnson, 7523

K. K. Smeltzer, 2421-3

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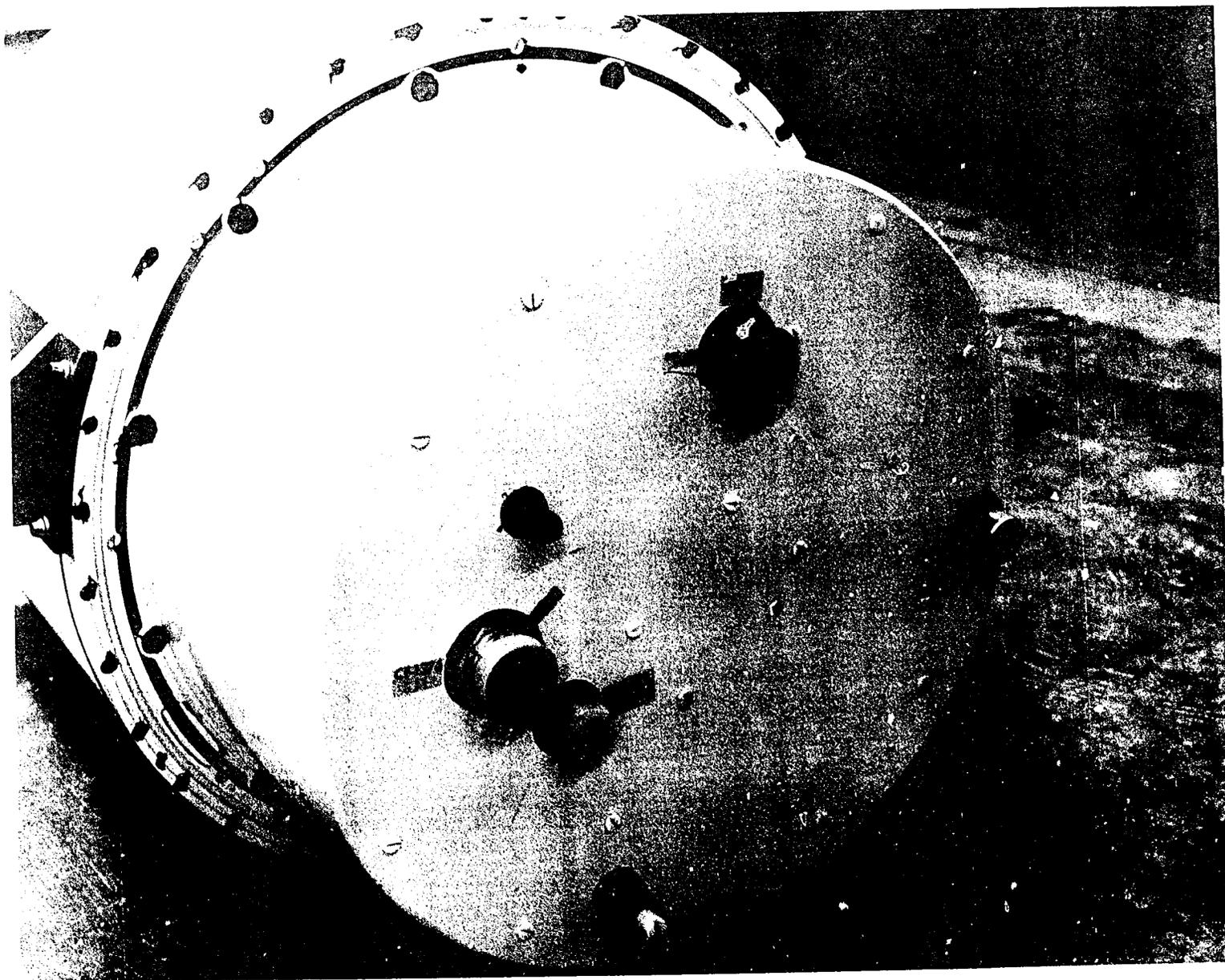


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FIGURE 1 - 30 AFTER HUMIDITY TEST

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FIGURE 2 - W 30 AFTER HUMIDITY TEST

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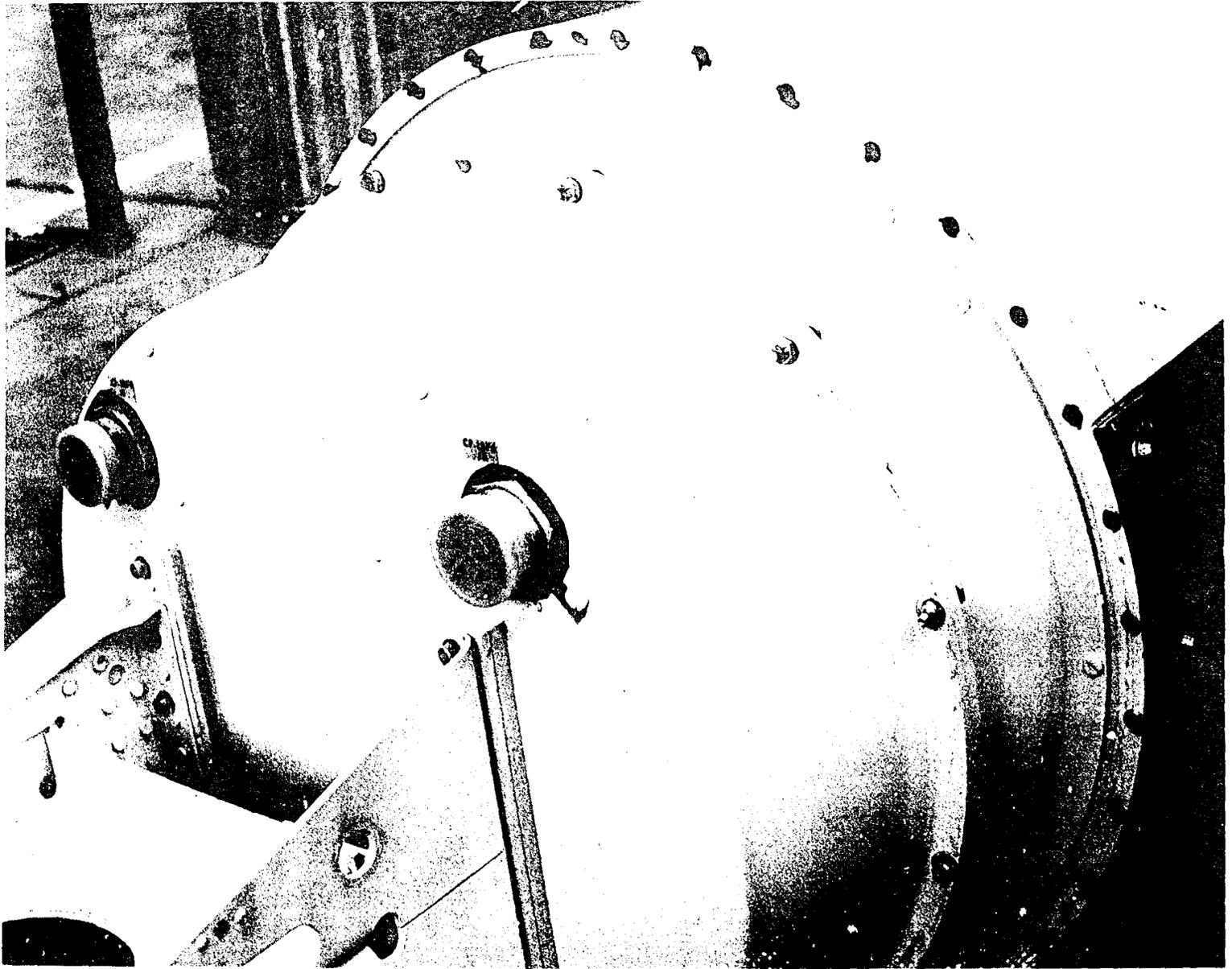


FIGURE 3 - 30 AFTER HUMIDITY TEST

D1-2119

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