[redacted]

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SANDIA SYSTEMATIC DECLASSIFICATION REVIEW	
1st Review Date: 6/25/98	Determination (Circle Numbers):
Authority: ☐ DOC ☒ ADD	1. Classification Retained
Name: KB Craner	2. Classification Changed to: UNCL
2nd Review Date: 6/29/98	3. Contains No DOE Classified Information
Authority: ADD	4. Coordinate With:
Name: WC Layne	5. Contains UCAI?
	6. Comments: Declassify

RECEIVED

MAY 2 2 1968

CENTRAL RECORD FILE

File: TX-54-0, 3-2
T-19511
Completed: 4-11-63

MR. W. E. TREIBEL - 7146

Attn: Mr. J. A. Anderson

Re: Hydrostatic Pressure Test of the Bare B54-0 (SADM) Unit"t", and of the MC1677 Underwater Pressure Resistant Case Containing the B54-0 Unit"t" [redacted]

PROGRAM	CATEGORY	ORG.	DATE
05447	30446	210	6337
11677			

Object of Test

The object of this test was to evaluate the B54-0 (SADM) Unit"t" with a Phase B3, MC1321 Interval Timer, when subjected to the fourth and sixth of a series of environments that duplicate the exposures of Systems Confirmation Test Program Unit No. 4. These tests are hydrostatic pressure tests.

Authorization for Test

This test was requested by Division 7146 in an Environmental Test Order received March 28, 1963. Mr. J. A. Anderson was the consultant. The material for test was received April 4, 1963.

Summary

The B54-0 (SADM) Unit"t", bare and in the MC1677 Underwater Pressure Resistant Case was subjected to a one-hour hydrostatic pressure test.

No water entered the SADM during the test of the bare unit.

Water filled the MC1677 and entered the Dial Cover of the SADM during the test of the MC1677 containing the B54-0.

Functional Measurements and Methods

The weight of the SADM, bare and in the MC1677, was measured initially and following the pressure tests using a Trainer Scale.

The pressure in the hydrostatic tank external to the units was monitored during each test using a Baldwin Pressure Transducer (S-1065) and a Baldwin Strain Indicator (S-53403) See Figure 1.

SANDIA SYSTEMATIC DECLASSIFICATION REVIEW DOWNGRADING OR DECLASSIFICATION STAMP	
CLASSIFICATION CHANGED TO: U	AUTHORITY: W.C. Layne
Emelda Selph 7/1/98	RECORD ID: 98SN2687
PERSON CHANGING MARKING & DATE	
W.C. Layne 7/1/98	DATED: 6/29/98
PERSON VERIFYING MARKING & DATE	

CENTRAL RECORD FILE
ACCOUNTABLE
FILE No. 541 Sadm 3-2

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Procedure and Results

Figure 2 shows the bare B54-0 (SADM) unit"t", and Figure 3 shows the MC1677 Underwater Pressure Resistant Case in which the SADM, unit"t", was placed. These units were each subjected to a hydrostatic pressure test as follows:

Bare B54-0 - Initially the SADM was visually inspected, new grease applied to the O-rings of the MC1466 Lock Secured Cover and Dial Cover (See Figure 4), and the unit weighed. The SADM was then submerged in water in the 18-inch hydrostatic pressure tank and subjected to an external pressure of 24 psig for one hour. A bottle of compressed nitrogen was used to pressurize the hydrostatic tank for this test (See Figure 1). Following completion of this test the SADM was removed from the pressure tank, the external surface of the unit dried, and the unit weighed. There was no change in weight of the unit. The dial cover and MC1466 cover were then removed and the unit visually inspected. This inspection showed no evidence of water under either cover.

MC1677 with SADM - Initially the MC1677 and SADM were visually inspected and new grease applied to the O-rings of the MC1677, Dial Cover, and MC1466 Cover (See Figure 4). The SADM was then placed in the MC1677, and the MC1677 containing the SADM weighed. The unit was then submerged in water in the 18-inch hydrostatic pressure tank and subjected to an external pressure of 94 psig for one hour. The same method was used for this test as for the test of the bare B54-0 (See Figure 1). Following completion of this test the unit was removed from the pressure tank, the external surface of the unit dried, and the unit weighed. The weight of the unit had increased by 8.69 pounds. The MC1677 (See Figure 3), Dial Cover, and MC1466 Cover (See Figure 4) were removed from the SADM, and the SADM and MC1677 visually inspected. This inspection showed that the MC1677 was completely full of water, and that a small amount of water was present under the dial cover of the SADM. There was no evidence of water under the MC1466 Cover of the SADM. The MC1677 and the SADM were dried and again weighed. The weight of the MC1677 and SADM was then as initially measured.

Following this test the MC1677 containing a 50-pound lead weight was subjected to a ten-minute hydrostatic pressure test of 94 psig. The MC1677 did not leak during this test. The source of the leak during the initial test is unknown, but it is felt that either the window seal or MC1677 Cover seal leaked.

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The test was performed in accordance with a safe-operating procedure for hydrostatic pressure tests of the [illegible] at the Area XII 155-MM gun facility revetment written by J. M. Carmichael, 7331-2, and approved by Safety Engineering Division, 3211.

J. M. Carmichael

J. M. CARMICHAEL - 7331-2

R P May

Test Project Engineer: R. P. MAY - 7331-1

[illegible]:7331-2:[illegible]

Enc: Figs. 1-6

Copy to:
[illegible], 1321
J. Aragon, [illegible], LASL
C. S. Williams, 1442
D. S. Bliss, 2344
E. [illegible] Copeland, 7331
[illegible] Johnson, 7325
Central Record File, 3421-3 [illegible]

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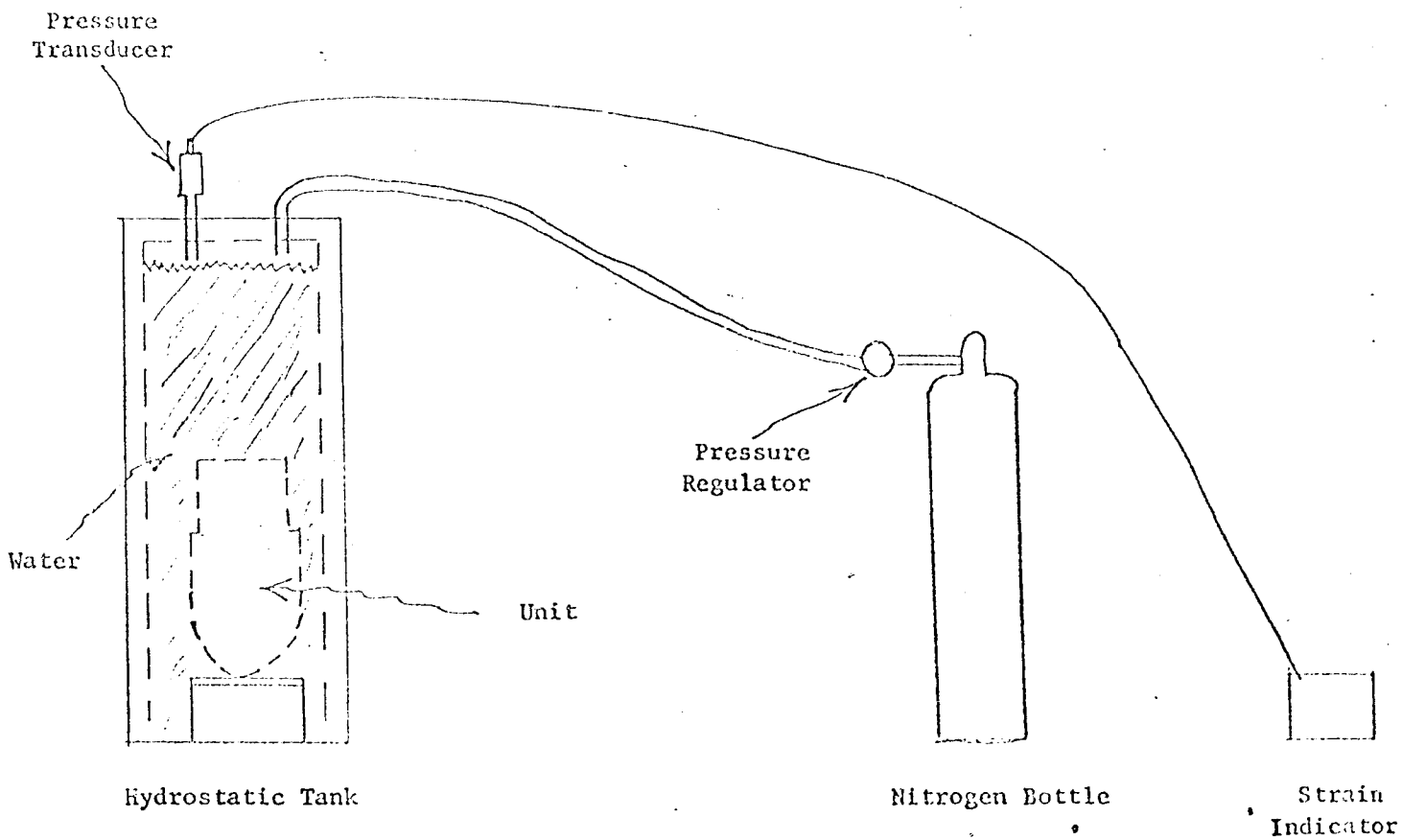

Figure 1

Diagram of the Test Setup Used for the Hydrostatic Pressure Tests of the Bare B54-0 (SADM) Unit"t", and of the MC1677 Underwater Pressure Resistant Case Containing the B54-0, Unit"t"

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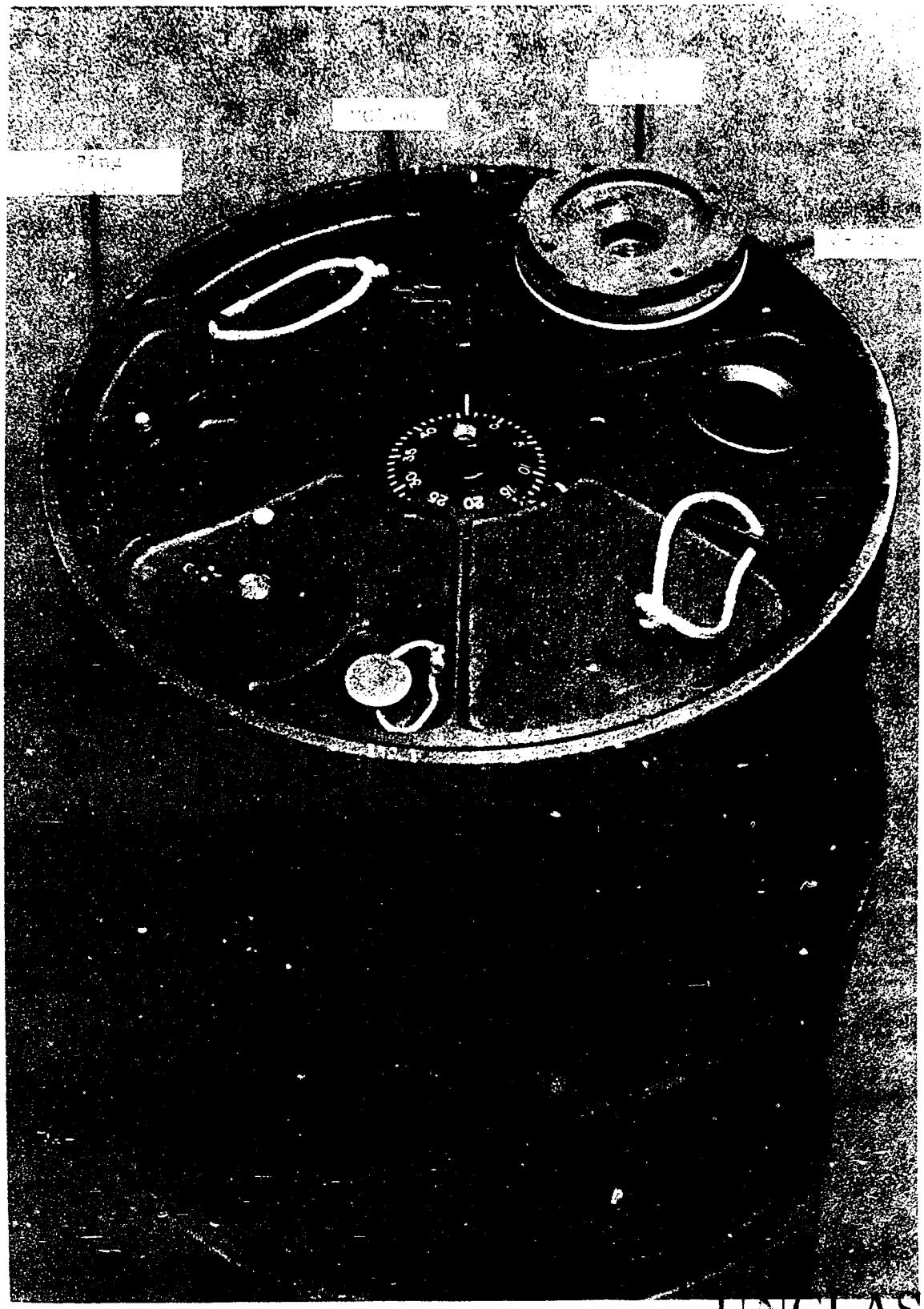

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