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140c

SANDIA SYSTEMATIC DECLASSIFICATION REVIEW	
9/22/98 X W Payne 9/23/98 RBC/ane	Determination (Circle Numbers) Classification Retained <input type="checkbox"/> Classification Changed to <u>U</u> Contains No DOE Classified Information <input type="checkbox"/> Contains With <u>U</u> Contains <u>TS</u> Comments: <u>OK for Opennet</u>

T-12433

JUN 21 1967

File: XW-58

SIX-FOOT BY TWO-HUNDRED FOOT
THUNDERPIPE TEST OF CALIBRATE
RV CTU-15/AAS

Organization 7300 Environmental Test Report

RECEIVED

JUN 21 1967

CENTRAL TECHNICAL FILE

G. H. Bruington-7331

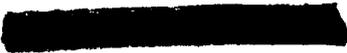
Approved by James E. Bean
7331 Test Project Engineer

CENTRAL TECHNICAL FILE	
ACCOUNTABILITY CARD	<u>[Signature]</u>
FILE NO.	<u>XW58</u>
	<u>3-2</u>

Distribution:
R. H. Schultz, 8124
A. R. Willis, 8146
W. D. Zinke, 8147
E. White, 7331
Central Technical File, 3428-1
Central Technical File, 8232-1

SANDIA SYSTEMATIC DECLASSIFICATION REVIEW DOWNGRADING OR DECLASSIFICATION STAMP	
CLASSIFICATION CHANGED TO: <u>U</u> <u>Emilda Salah 9/28/98</u>	AUTHORITY: <u>R.B. Craner</u>
PERSON CHANGING MARKING & DATE: <u>W.C. Payne 9/28/98</u>	RECORD ID: <u>98SN4399</u>
PERSON VERIFYING MARKING & DATE:	DATED: <u>9/23/98</u>

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SIX-FOOT BY TWO-HUNDRED FOOT
THUNDERPIPE TEST OF CALIBRATE
RV CTU-15/AA5

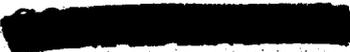
Introduction

This report covers facility setup data recorded during the test of CTU-15/AA5-4. Vehicle instrumentation data recorded during the shot will be reduced by SCLL, and a complete report will be published by Organization 8124.

CTU-15 will be tested one more time before return to SCLL for complete reinstrumentation.

The test was requested by R. H. Schultz, 8124, on May 18, 1967, and was completed on June 8, 1967. C. G. Coalson, 7343 was the Test Engineer.

GHB:7331:vb

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7343 INDIVIDUAL TEST SUMMARY REPORT

EVENT NO. 67-73 T-NO. T-12433 DATE OF TEST 6/8/67

LOCATION Area Y, Coyote Test Field TIME 15:28:55 MDT
 PROGRAM NAME 6x200-Foot Shock Tube
 REQUESTING ORGANIZATION 8124 REQUESTOR R. H. Schultz
 TEST PURPOSES OR OBJECTIVES To determine the response of a CTU to an explosively driven shock wave.

EXPLOSIVE AND FUEL DATA:

TYPE AND AMOUNT 2000 gr/ft primacord. Net weight = minus 180.97 lbs; gross weight = minus 165.5 lbs. Rack length 5.25 feet.

TYPE AND NUMBER OF DETONATORS 2 each SE-1 detonators with $\frac{1}{2} \times \frac{1}{2}$ " tetryl pellets.

FIRING SET Unclassified capacitor discharge unit

SUMMARY OF OPERATIONS

1. Test gas was sulfur-hexafluoride (SF_6) at an initial pressure and temperature of 0.99 psia and 555°R respectively. (Pressure calculated from leak rate) (Thermocouples located at stations 21.2, 132.8 and 199.4 feet) The SF_6 was heated in a 140°F water tank so that the SF_6 was injected at approximately 90°F. The speed of sound in the SF_6 was 463 ft/sec.
2. The driver end of the tube was sealed with a one inch thick steel plate with a 7.5 inch plywood plug attached to the plate inside the tube and a 25,000 lb concrete block placed against the closure plate. The 45° receiver was sealed with a 0.040 inch aluminum diaphragm.
3. The CTU was suspended in the 45° receiver by glass straps. The angle of attack with respect to the yaw and pitch axes was 0° (± 10 minutes).

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- 4. A sawdust recovery assembly, 52 inches deep, was used to cushion the CTU after ejection from the tube. The CTU was found 75 inches from the bottom lip of the tube. The nose of the CTU was facing southeast.
- 5. The attached sketch shows the orientation of the test unit in the receiver.
- 6. The CTU made a good exit from the shock tube without any visible damage.
- 7. Air contamination in the shock tube at zero fidu (detonation) was 4%.

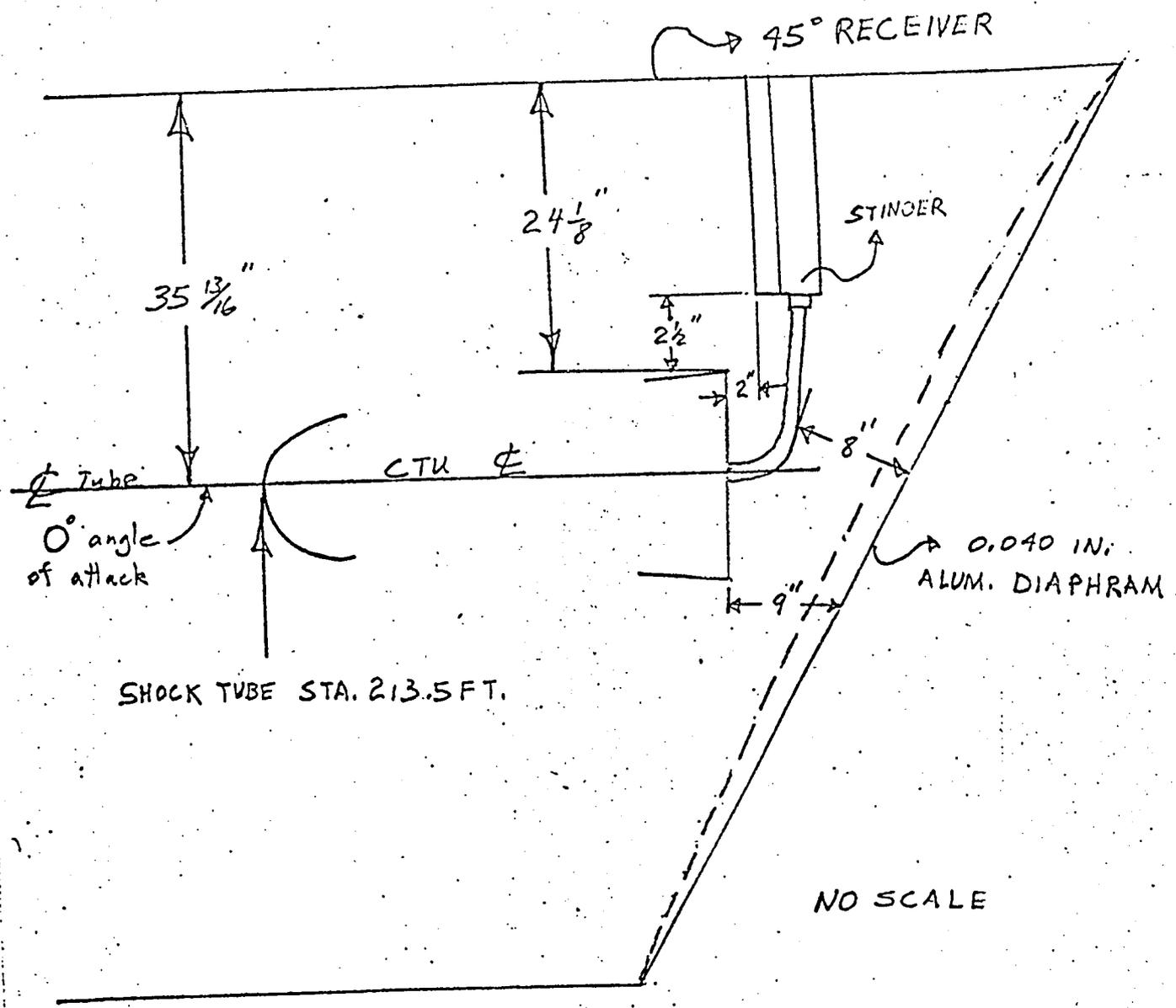
TEST CONDUCTED BY C. G. Coalson REPORT PREPARED BY M. G. Vigil
 SIGNED M. G. Vigil DATE 6-12-67

Copy to:
 J. E. Bear, 7331
 File, 7343 (2)

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LVEN 67-73 140
T-12433



NO SCALE

LOCATION OF CTU-15 IN RECEIVER

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7343 PUMP DOWN AND LEAK CHECK OPERATIONS

EVENT NO. 67-73 T-NO. T-12433 DATE OF TEST 6/8/67

	<u>mm/Hr</u>	<u>TIME</u>
1. Time and pressure at start of pump down	<u>623.0</u>	<u>11:34</u>
2. Time and pressure at START of leak rate check	<u>52.5</u>	<u>12:48</u>
3. Time and pressure at FINISH of leak rate check	<u>54.2</u>	<u>1:03</u>
4. Leak rate is:	<u>1.1</u>	<u>per/min.</u>
5. Evacuate shock tube to lowest obtainable pressure	<u>3.0</u>	<u>3:05</u>
6. START backfill with <u>SF₆</u> gas to <u>1.5</u> psi. (50% above test pressure)	<u>3.0</u>	<u>3:05</u>
7. COMPLETE backfill	<u>78.0</u>	<u>3:15</u>
8. Evacuate pipe to <u>50.0</u>	<u>49.8</u>	<u>3:21</u>
9. CP pressure gage calibration	1. _____	_____
	2. _____	_____
	3. _____	_____
10. Completion of call to CP to start countdown (6 minutes) for (-15 minutes)	_____	_____
11. Calculated pressure at zero time (from leak rate)	<u>51.5</u>	<u>3:30</u>
12. Remote pressure gage reading at zero time	_____	_____

SIGNED C. K. ConnollyDATE 6/8/67

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