

SANDIA SYSTEMATIC DECLASSIFICATION REVIEW DOWNGRADING OR DECLASSIFICATION STAMP	
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PERSON CHANGING MARKING & DATE <u>WS Lane 9/30/98</u>	RECORD ID: <u>98SN4481</u>
PERSON VERIFYING MARKING & DATE	DATED: <u>9/28/98</u>

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T-11977

SEP 27 1966

File: XW-62

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SEP 28

CENTRAL TE

SIX-FOOT BY FIFTY-FOOT THUNDERPIPE TEST
OF CALIBRATION RE-ENTRY VEHICLE
CTU-3/AA2 (U)

Organization 7300 Environmental Test Report

George Bruington, Org. 7331

CENTRAL TECHNICAL FILE	
ACCOUNTABILITY CARD	<i>XC</i>
FILE NO.	<i>XW-6</i>
<i>880</i>	<i>3-2</i>

Approved by:

James E. Scan
7331 Test Project Engineer

Distribution:

- R. J. Tockey, 8124
- A. R. Willis, 8146
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- E. White, 7331
- Central Technical File, 3428-1 ←
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9/28/98	U
<i>Whayne</i>	<i>W</i>
9/28/98	<i>OK for [signature]</i>
<i>R. B. Craner</i>	

TCG-NNT-1

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SIX-FOOT BY FIFTY-FOOT THUNDERPIPE TEST
OF CALIBRATION RE-ENTRY VEHICLE
CTU-3/AA2 (U)

This report covers test setup data recorded during the six-foot Thunderpipe shot of calibration re-entry vehicle CTU-3/AA2. All instrumentation data recorded during the test will be reduced by SCLL and a complete report will be issued by Organization 8124.

This test was requested by R. H. Schultz, 8124, on July 29, 1966. C. G. Coalson, 7343, was the Test Engineer, and the test was completed on September 9, 1966.

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INDIVIDUAL TEST SUMMARY REPORT

COYOTE TEST FIELD 7343

EVENT NO. 66-101

T-NO. T-11977

DATE OF TEST 9/9/66

1. Location Area Y - Coyote Test Field
2. Time 1129 MST
3. Program Name 6x50-Foot Shock Tube
4. Requesting Organization 8124 Requestor R. H. Schultz
5. Test Purposes or Objectives To evaluate a design change in the driver section and its effect on shock tube performance; to determine test vehicle response to an explosively driven shock.
6. Explosive and Fuel Data
 - A. Type and Amount of Explosives and Fuels Used Minus 25 lbs flaked TNT.
 - B. Type and Number of Detonators Used Nine each SE-1 detonators
 - C. Identify Firing Set Used Unclassified CDU (capacitor discharge unit)
7. Summary of Operations
 - A. Test gas was air.
 - 1) Initial pressure in shock tube was .93 psia; initial temperature was 544°R
 - 2) Speed of sound = 1140 ft/sec
 - B. Alignment of test unit: angle of attack about pitch axis, $0^\circ \pm 7'$
angle of attack about yaw axis, $0^\circ \pm 7'$
(measured angle of top ray was $9^\circ 13'$, nose down)
 - C. Nose of CTU-3 was at shock tube station No. + 47.90'
 - D. Face of HE was at shock tube station No. - 4.66'
 - E. Free travel of sliding support tube in stinger was $2\frac{1}{2}''$; $21\frac{1}{2}''$ sq. inches of $1/8 \times .002''$ aluminum honeycomb, $5\frac{1}{2}''$ high, 450 psi strength was used to arrest sliding support tube. Final height of honeycomb was $4\frac{1}{2}''$.
8. Test Conducted by C. K. Connolly (OVER)
9. Report Prepared by C. G. Coalson Date 9/20/66

Copy to:
 J. E. Bear, 7331
 C. G. Coalson, 7343
 M. G. Vigil, 7343
 File, 7343

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- F. An annular water tank with a 6-foot I.D. and a 2-foot thick water jacket was used for radial tamping on the driver. End tamping was the plywood breech cover (750 lbs).
- G. Muzzle end sealed with a .040" thick flat aluminum diaphragm.

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COYOTE TEST FIELD 7343
EVENT NO. 66-101
T-NO. T-11977
DATE OF TEST 9/9/66

PUMP DOWN AND LEAK CHECK OPERATIONS

LIVE RUN

	<u>mm/HG</u>	<u>TIME</u>
1. Time and pressure at start of pump down	<u>631.0</u>	<u>10:16</u>
2. Time and pressure at FINISH of leak rate check	<u>58.0</u>	<u>11:12</u>
3. Time and pressure at START of leak rate check	<u>44.0</u>	<u>10:57</u>
4. Leak rate is:	<u>14.0</u>	<u>15 min.</u>
5. Evacuate shock tube to 5mm/Hg or lowest obtainable pressure	<u>N/A</u>	<u></u>
6. START backfill with _____ to _____	<u>N/A</u>	<u></u>
7. COMPLETE backfill.	<u>N/A</u>	<u></u>
8. Evacuate pipe to <u>38.0</u>	<u>38.0</u>	<u>11:18</u>
9. ZERO time.	<u>48.3*</u>	<u>11:29</u>

* As calculated from leak rate, Item 4.

Signed B. Connolly
Date 9/9/66

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