

SANDIA SYSTEMATIC DECLASSIFICATION REVIEW	
Review Date: <u>8/11/98</u>	Determination (Circle Number):
By: <u>[Signature]</u>	Classification Excluded
Review Date: <u>8/19/98</u>	Classification Changed to: <u>U</u>
By: <u>WC Layne</u>	Contains No DOE Classified Information
	Coordinates With:
	Contains UCAIT: <u>NO</u>
	Comments:
	<u>DECLASSIFY</u>

RECEIVED

OCT 1 1956

R & D FILE

TX-28, 3-2
 Case No. 435.02
 Ref. Sym: 1611 (337)
 Project No. EI-3542
 Completed 8/1/56

CGL No.	
ACCOUNTABILITY CARD	
FILE No.	<u>TX-28</u>
	<u>3-2</u>

3428-3

TO: DISTRIBUTION

Re: Nylon Pellet Test of TX-28 Nose (internal)

Object of Test

The object of this test was to determine the magnitude of voltage generated by the crystal contact fuse networks from the impact of nylon pellets. The pellets were to simulate the effect of the weapon falling through rain or hail.

Authorization for Test

This test was requested by Division 1461 in a Work Order Authorization dated July 30, 1956. Mr. R. P. Guilford was the consultant.

INVENTORIED
 MAR 2 1959
 BY ORG. 4122

Procedure and Results

There were two networks of crystals in the TX-28 nose, each incorporating four crystals. The MC-811 crystal network was arbitrarily designated network A, and the MC-811B network designated B. The total electrical load of each network was two megohms of resistance and 830 micromicrofarads of capacitance.

The pellets were projected against the nose at an approximate velocity of 1000 fps. Figs. 1 and 2 show the shot patterns which were fired against the nose, Fig. 1 being the reverse of Fig. 2. The pellets were fired at one-inch intervals along the indicated lines. Because of the conformation of the nose, it was necessary to tilt the section to fire against the contact fuses near the edge. Figure 2 shows the complete results of the test.

INVENTORIED
 AUG 6 1964

Conclusion

Inasmuch as a voltage output of 75 volts is the maximum allowable limit, the 19-volt maximum obtained from this pellet test gives an adequate safety factor against premature detonation.

3427-1

UNCLASSIFIED

Test Conducted by R. G. HAMILTON - 1611-2

R. G. Hamilton

M. A. Richter

Approved by M. A. RICHTER - 1611-2
 ENTRAL M & R 61288
 CONTROL NO. Q

SANDIA SYSTEMATIC DECLASSIFICATION REVIEW	
DOWNGRADING OR DECLASSIFICATION STAMP	
CLASSIFICATION CHANGED TO: <u>U</u>	AUTHORITY: <u>WC Layne</u>
PERSON CHANGING MARKING & DATE: <u>Emelda Selph 8/25/98</u>	RECORD ID: <u>98SN3753</u>
PERSON VERIFYING MARKING & DATE: <u>WC Layne 8/25/98</u>	DATED: <u>8/19/98</u>

INVENTORIED
 BY ORG. 2143

UNCLASSIFIED

Ref. Sym: 1611 (337)
Project No. ET-3542

To: Distribution

RGH:1611-2:dr

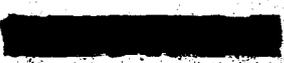
DISTRIBUTION:

- 1/12 A - E. I. Bruce, 1461
 - 2/12 A - W. A. Gardner, 1610
 - 3/12 A - G. C. McDonald, 2530
 - 4/12 A - R. D. Wehrle, 1464
 - 5/12 A - D. Williams, Jr., 1611
 - 6/12 A - R. E. Fisher, 1621
 - 7/12 A - G. J. Hildebrandt, 2552
 - 8/12 A - J. R. Hoffman, 5133
 - 9/12 A - J. R. Harrison, 5522
 - 10/12 A - C. L. Comel, 5523
 - 11/12 A - R. K. Smeltzer, 7222-2
 - 12/12 A - R. K. Smeltzer, 7222-3
- Attn: Tech. Ref. File



"B" Distribution

*1,2/2B Brig Gen. A. D. Starbird, DMA
USAEC Washington, D.C.*



329

UNCLASSIFIED

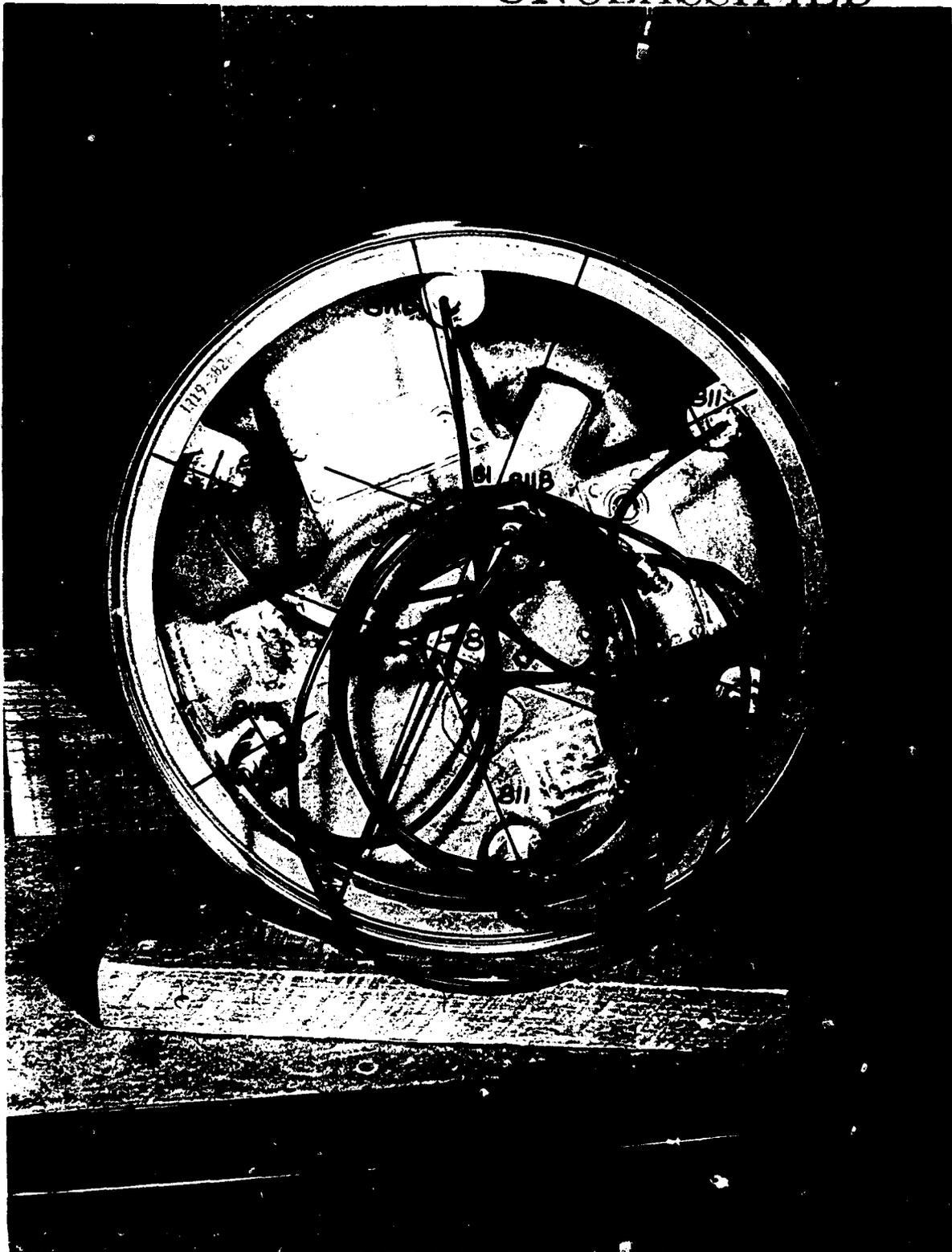


FIG 1-VIEW FROM REAR OF NOSE SHOWING PELLET PATTERN

D# 76926

ET-3542
REF SYM-1611(337)

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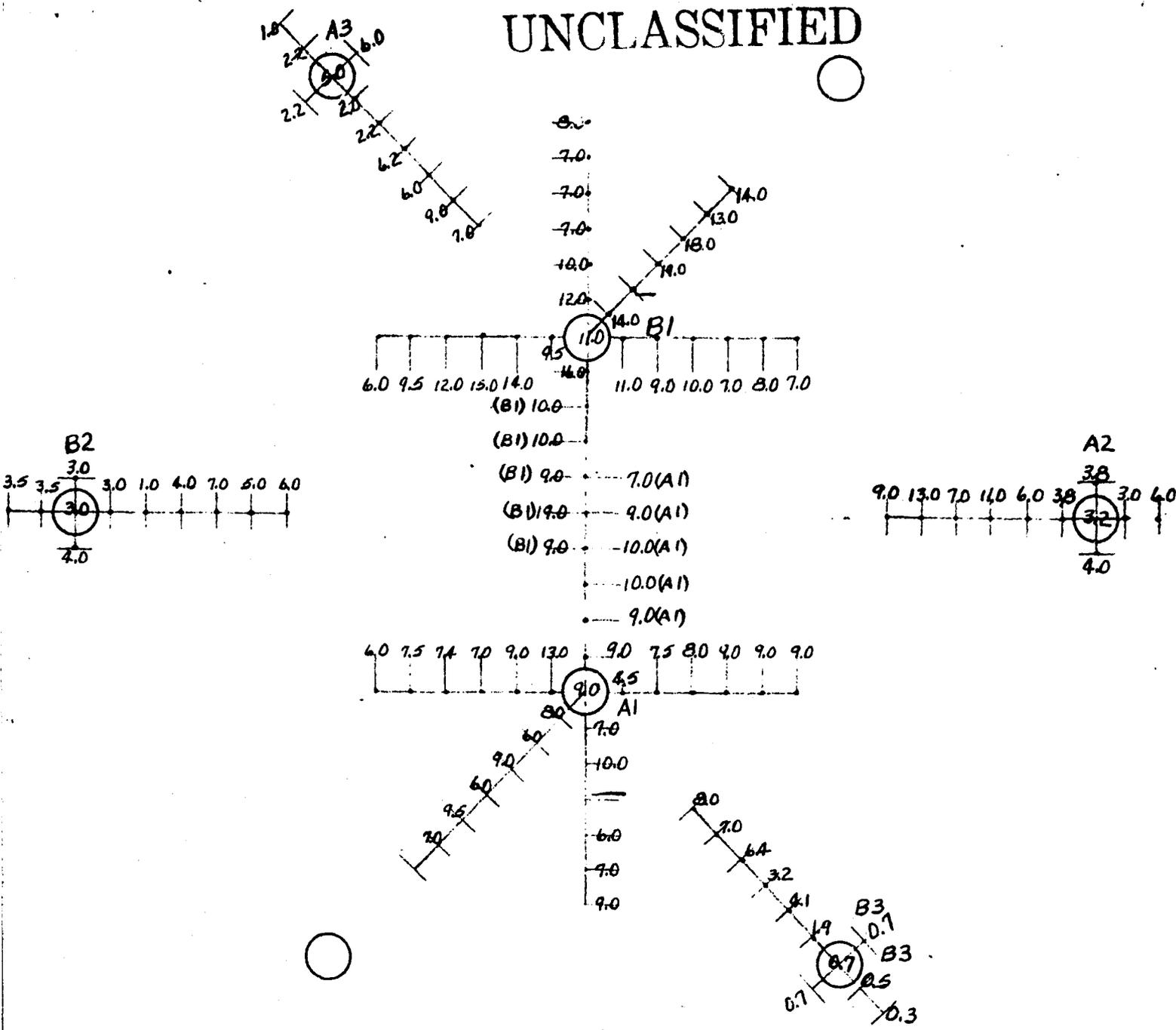


FIG2-REPRESENTATION OF NOSE FRONT, INDICATING PELLET PATTERN & SHOWING VOLTAGE OUTPUT

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ET-3542
REF. SYM. 1611(337)