

~~SECRET~~

TMG-M40

~~SECRET~~

~~SECURITY INFORMATION~~

UNCLASSIFIED

Redacted
VERSION

SAA 200069790000
UNCLASSIFIED DOCUMENT

THIS IS A COVER SHEET FOR A CLASSIFIED DOCUMENT

TRANSMITTAL OF THIS DOCUMENT MUST BE COVERED BY A SIGNED RECEIPT. IT MUST NOT BE LEFT UNATTENDED OR WHERE AN UNAUTHORIZED PERSON MAY HAVE ACCESS TO IT. WHEN NOT IN USE, IT MUST BE STORED IN A LOCKED FILE OR SAFE. WHILE THIS DOCUMENT IS IN YOUR POSSESSION AND UNTIL YOU HAVE OBTAINED A SIGNED RECEIPT UPON ITS TRANSFER TO AN AUTHORIZED INDIVIDUAL, IT IS YOUR RESPONSIBILITY TO KEEP IT AND ITS CONTENTS FROM ANY UNAUTHORIZED PERSON.



RESTRICTED DATA

THIS DOCUMENT CONTAINS RESTRICTED DATA AS DEFINED IN THE ATOMIC ENERGY ACT OF 1946. ITS TRANSMITTAL OR THE DISCLOSURE OF ITS CONTENTS IN ANY MANNER TO AN UNAUTHORIZED PERSON IS PROHIBITED.

WD - Family

UNCLASSIFIED

~~SECRET~~

~~SECURITY INFORMATION~~

Att 54

96SA20A00014

UNCLASSIFIED

Symbol: TM-79

Group Ref: TMG-M40

October 23, 1952

W D - Family

Report Library

MINUTES OF THE FORTIETH MEETING OF THE THEORETICAL MEGATON GROUP

October 22, 1952

1. The fortieth meeting of the TMG convened at 9 a. m., October 22, 1952, in the W Division Conference Room. Those present were:

- W. C. Bright
- A. A. Broyles
- E. D. Cashwell
- Cerda Evans
- Foster Evans
- Burton Freeman
- Richard Garwin
- F. C. Hoyt
- C. L. Longmire
- J. C. Mark, Chairman

- H. L. Mayer
- N. C. Metropolis
- Calvin Potts
- R. D. Richtmyer
- Arianna Rosenbluth
- Marshall Rosenbluth
- P. R. Stein
- S. Ulam
- Edward Zalina

DEPARTMENT OF ENERGY DECLASSIFICATION REVIEW	
DETERMINATION (CIRCLE NUMBER(S))	
1. CLASSIFICATION	RETAINED
2. CLASSIFICATION	CHANGED TO:
3. CONTAINS	NO DOE CLASSIFIED INFO
4. COORDINATE WITH:	
5. CLASSIFICATION	CANCELLED
6. CLASSIFIED INFO	BRACKETED
7. OTHER (SPECIFY):	
1ST REVIEW DATE: 8-15-97	
AUTHORITY: EAO, EAD, EAC, EAD, EAD	
NAME: [Signature]	
2ND REVIEW DATE: 9/13/97	
AUTHORITY: ADI	
NAME: [Signature]	

Topics

- 2.
- 3.
- 4.
- 5.
- 2.

Status Report by Mark.

Radiation Flow Calculations.

Opacity and Compression Measurements.

Status Report by Mark

[Redacted block]

*DOE
b(3)*

Mark reported on the current design proposal as agreed upon by Felt, Garwin, Mark and Ogle at a conference held in Honolulu on October 14 and 15.

[Redacted block]

*DOE
b(3)*

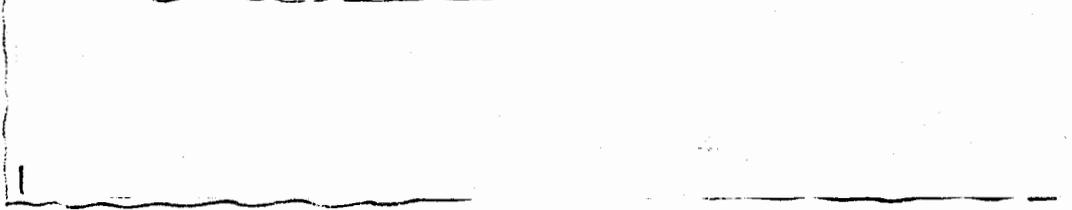
experiments are yet to be designed.

UNCLASSIFIED RESTRICTED DATA

The "case test" end will be lengthened to 2.75 meters and will accommodate the following experimental devices:

a. Radiation arrival time spots (essentially open holes) near the bomb end and at the far end.

b. Four shock transmission spots.



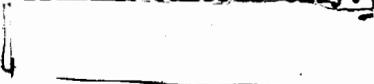
DOE
b(3)

c. Opacity measurement cell. This is a portion of the cylinder which will be designed and manufactured by Los Alamos and can be inserted as part of the ACF case. It will contain a device for measuring the time history of radiation flow through a material of known opacity. This is expected to give a measure of the temperature inside the case.



DOE
b(3)

d. Four radiation flow pipes. These will be mounted in a vertical plane and radiation flow along them can be looked at by framing cameras only.

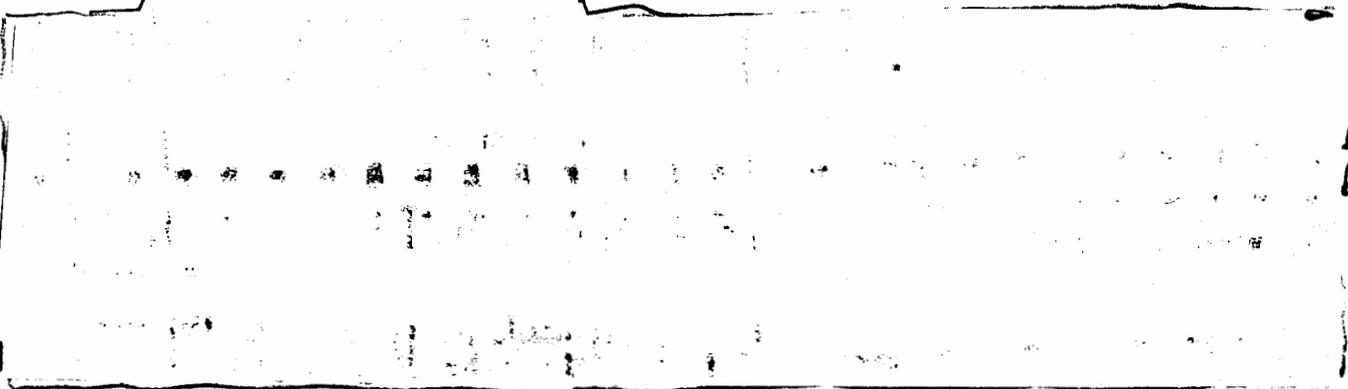


DOE
b(3)

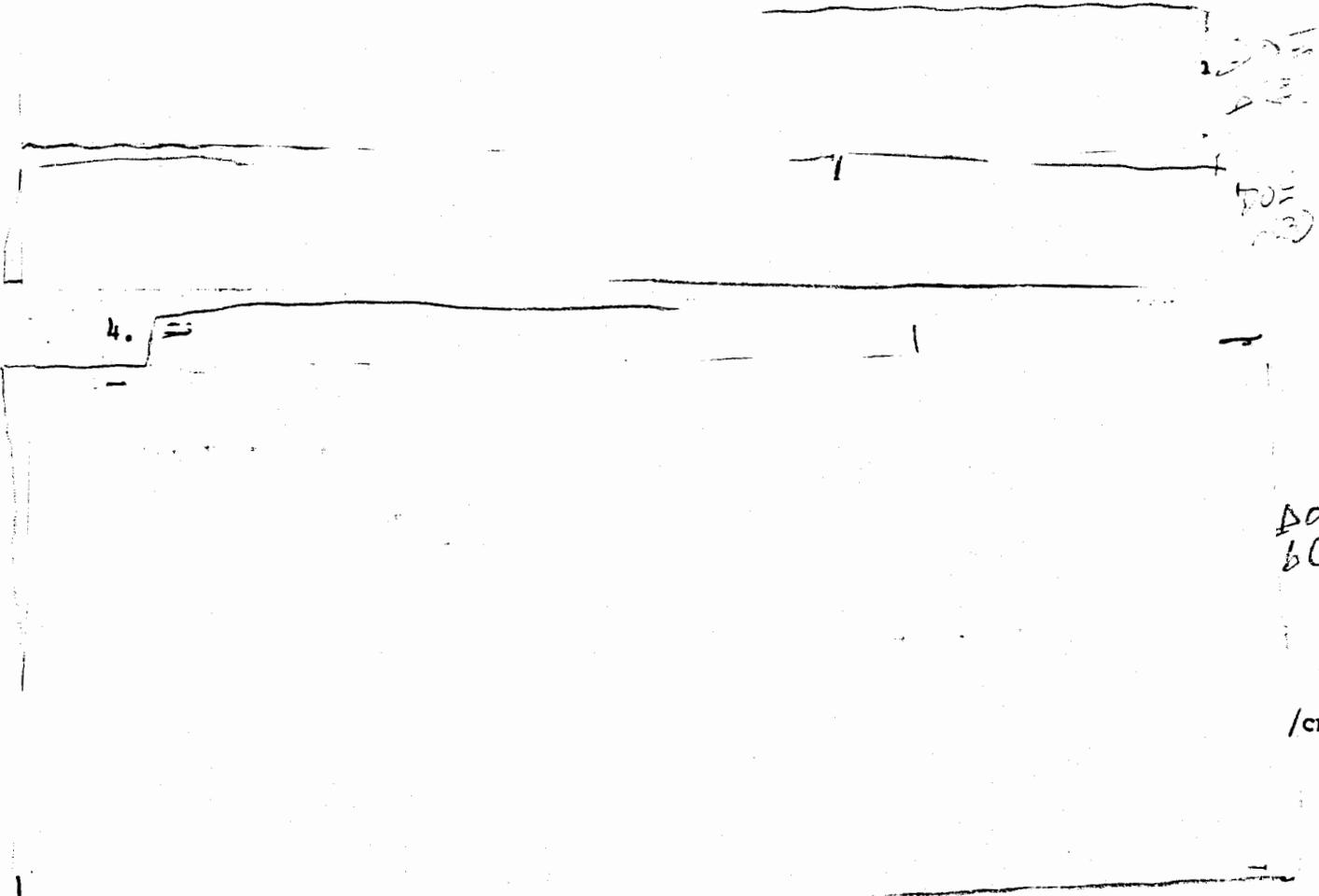
e. Two "Felt Boxes" for photographic observation of case motion in air, vacuum and helium. The intention is to determine by comparison whether photographic observation in air is adequate. They will be cells completely surrounding the cylinder.

3.

Radiation Flow Calculations



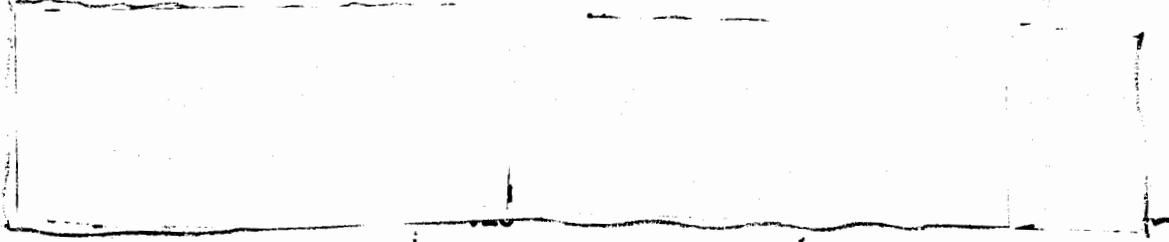
DOE
b(3)



5. Opacity and Compression Measurements.

DOE
b(3)

Harris Mayer presented some opacity values pertinent to the opacity measurements that have yet to be designed in detail.



DOE
b(3)

UNCLASSIFIED

~~SECRET~~
~~SECRET~~

TM-79
Page 4

DDC
b(3)

Frank C. Hoyt
Frank C. Hoyt

FCH:11
Distribution on page 5

UNCLASSIFIED

SECRET-1

~~SECRET~~

Distribution:

- 1A - G. Bell
- 2A - H. A. Bethe
- 3A - W. Bouricius
- 4A - N. E. Bradbury
- 5A - S. W. Burriss
- 6A - J. Calkin
- 7A - B. G. Carlson
- 8A - E. D. Cashwell
- 9A - F. de Hoffmann
- 10A - F. Evans
- 11A - B. E. Freeman
- 12A - D. K. Froman
- 13A - W. Goad
- 14A - A. C. Graves
- 15A - D. B. Hall
- 16A - L. E. Hightower
- 17A - M. G. Holloway
- 18A - F. C. Hoyt
- 19A - E. R. Jette
- 20A - J. M. B. Kellogg
- 21A - R. Landshoff
- 22A - C. L. Longmire
- 23A - J. C. Mark
- 24A - H. L. Mayer
- 25A - N. Metropolis
- 26A - L. W. Nordheim
- 27A - W. E. Ogle
- 28A - J. Pasta
- 29A - F. Reines
- 30A - R. D. Richtmyer
- 31A - M. Rosenbluth
- 32A - R. W. Spence
- 33A - P. R. Stein
- 34A - E. Teller
- 35A - J. L. Tuck
- 36A - S. M. Ulam
- 37A - J. von Neumann
- 38A - M. C. Walske
- 39A - B. E. Watt
- 40A - J. A. Wheeler
- 41A - H. F. York
- 42A - H. F. York
- 43A - E. J. Zadina
- 44A - Report Library ←
- 45A - Report Library
- 46A - File