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DEPARTMENT OF ENERGY DECLASSIFICATION REVIEW	
REVIEW DATE: 05-15-06 REVIEWED BY: <i>Chick</i> REVIEW DATE: 10-30-07 NAME: <i>Chick</i>	OTHER (SPECIFY)

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LAMD-90-

Symbol: ADWD-3-25

Group Ref: TMG-M3

October 24, 1951

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MINUTES OF THE THIRD MEETING OF THE THEORETICAL MEGATON GROUP

18 October 1951

1. The third meeting of the TMG was held on 18 October 1951 at 9:00 AM in the T Division Conference Room. Those present were:

- |                |                      |
|----------------|----------------------|
| W. Bouricius   | R. M. Landshoff      |
| A. A. Broyles  | C. L. Longmire       |
| F. de Hoffmann | J. C. Mark, Chairman |
| B. E. Freeman  | H. L. Mayer          |
| R. L. Garwin   | N. Metropolis        |
| R. W. Goranson | L. W. Nordheim       |
| P. C. Hammer   | L. G. Peck           |
| M. G. Holloway | R. D. Richtmyer      |
| F. C. Hoyt     | E. Teller            |
| H. G. Kolsky   | J. L. Tuck           |

DEPARTMENT OF ENERGY DECLASSIFICATION REVIEW
1. DATE: 2-25-96
2. AUTHORITY: 25 CFR 1.104
3. NAME: SAC/ADDC/DOE
4. 2ND REVIEW DATE: 12-20-91
5. AUTHORITY: ADR
6. NAME: [Signature]
7. OTHER (SPECIFY):

2. Mark discussed the results from his visit to Washington and Princeton.

2.1 The Bureau of Standards has agreed not to move the SEAC machine provided nearby office space can be obtained. It is anticipated that the total operating machine time (about 16 hr/day) will be made available to LASL for some months.

2.2 Matterhorn calculations are carried out on CPC machines in New York; their machines will not become available until December. Forty to 60 hours CPC machine time per problem will be required for burning calculations with sideways hydrodynamics included.

It was decided to run this as a SEAC calculational problem.

The Alarm Clock will be coded for Univac operation. It will be tested either by LASL or by the R. R. people.

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3.

At the present time 20 calculations have been made with mocked-up hydrodynamics and radiation.

A zoned calculation will be ready to run in a few days. A week of 8 hrs/day will be required per calculation and consequently an operational day of more than 8 hours would be desirable.

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4.

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Garwin outlined two proposals which have been suggested:

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Teller thought this argument was too optimistic, particularly in regard to neglect of the multiplicative factors.

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5. Photographic Recording

In order to observe the outward expansion and rupture of the steel case GMX-9 is constructing a framing camera (~4 per usec) which is a prototype of one which is under construction for GMX Division.

Garwin proposed that the TM Group ask also for a continuously writing and self-shuttering smear camera with 0.05  $\mu$ sec or better time resolution, 20  $\mu$ sec active writing time and one-inch resolution at three miles.

The purpose of this additional camera is to observe shock arrival time at the outer surface of the casing as a function of the distance along the case and, from observations at the case surface and adjacent raised bumps, obtain in addition shock velocity and thus the pressure distribution along the length. This is described further in memos ADWD-302 and ADWD-315. A schematic arrangement for one such raised spot is reproduced in the accompanying figure.

It was decided by the TM Group that Ogle be asked to procure a smear camera having the above specifications for the purpose of obtaining the kind of information just discussed.

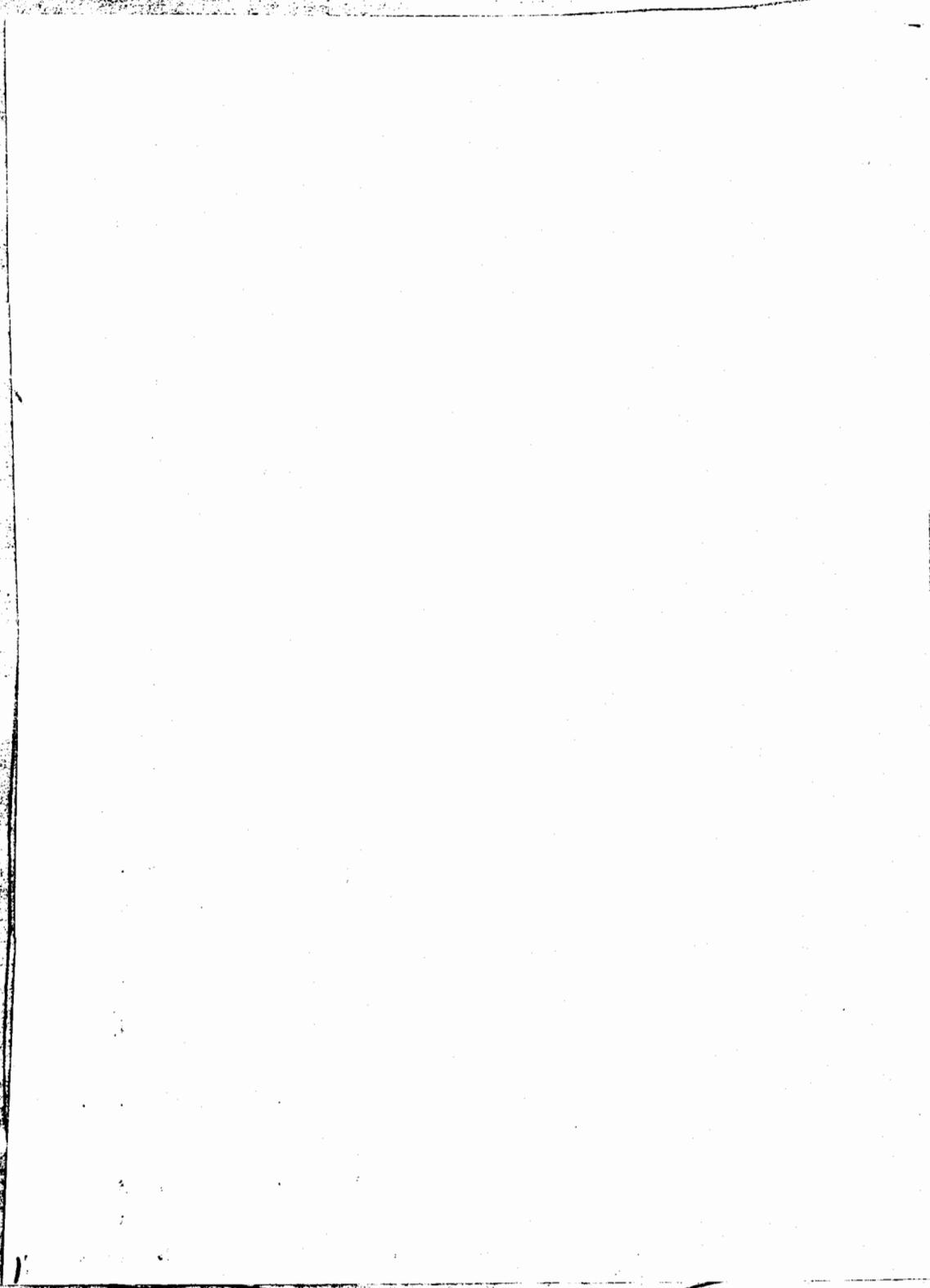
*R. W. Goranson*  
R. W. Goranson

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