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U.S. Engineer Office
P.O. Box 1663
Santa Fe, New Mexico
March 9 1946

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encl*



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Subject: Pilot and Monitor Training over Hot Area.

To : Commander Joint Task Force I, Navy Department Building, Washington, D.C.
(Attention: Deputy Commander for Air)
(Attention: Captain George Lyons, M.C., USNR, X Surgeon General's Office)

1. In response to dispatches from the Deputy Commander for Air, JTF-1 and to instructions from the Officer-in-Charge, Radiological Safety Section, monitoring tests were conducted at the Trinity Bomb Site in L-5 aircraft on 27 February 1946 and 6 March 1946 by medical personnel of the Manhattan District and flight surgeons of the 58th Bombardment Wing (WH).

2. Geiger-Mueller counters and watts meters were employed, and aircraft flight patterns were so arranged as to permit measurements of radioactivity at various levels between altitudes of 15 feet and 1400 feet over the site. Enclosure No. 1 shows the charted metering results of these tests, indicating the practicability of using the Trinity Site for subject training. The latest estimate of radioactivity at the site reveals that an approximate total of 30 curies remain in the crater area.

3. The Surgeon, 58th Wing, has been provided with three Geiger-Mueller counters equipped with headsets, and has assumed responsibility for the proper indoctrination of pilots and co-pilots of his organization in the essentials and significance of radiological metering while airborne, and in the relationship between metering results and health hazards. In a conference following the tests on 6 March, it was suggested that the desired training might be expedited by use of a larger aircraft, such as a C-47; Surgeon, 58th Wing, has investigated this, found it practicable, and has taken necessary action to secure the use of a C-47 aircraft for the training. It is understood that the release of the five L-5 airplanes originally provided for the mission has been recommended to proper authority.

4. In coordination with the Surgeon, 58th Wing, a schedule has been arranged by this office for participation in subject training by the thirty-two officers of the Radiological Safety Section, who are now on temporary duty at Los Alamos, New Mexico.

5. In conclusion it may be stated that the employment of relatively slow-flying aircraft for the monitoring of known radioactive land areas and probably of suspected radioactive land areas appears to be a feasible procedure.

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Classification changed to _____
by authority of the U. S. Atomic Energy Commission,

by *R.A. Krahn* 11/5/41 (Date)
(Person authorizing change in classification)

John K. Talbot, Lt. Col., M.C.
Attached to Radiological Safety Section

by *M.J. Sieder* 12/1/41
(Signature of person making the change, and date)

James F. Nolan, DEPOSITORY (OS AMOS NAT LAB)
Chief of Health Group

encl:
graph

COLLECTION _____

BOX No

TR 5787

FOLDER

Operation Crossroads

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LANL RC

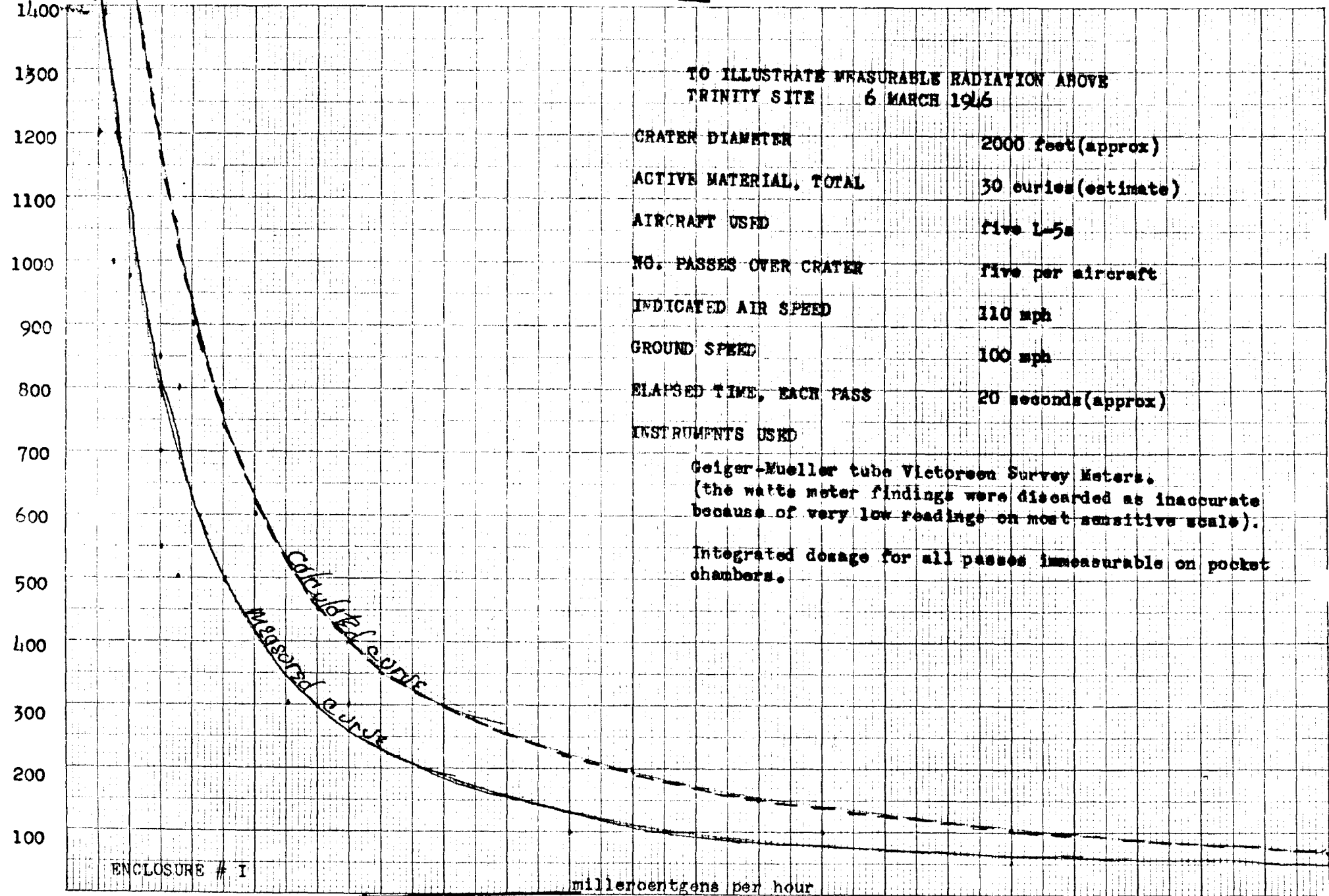
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alt. hgt. over crater, in feet



TO ILLUSTRATE MEASURABLE RADIATION ABOVE TRINITY SITE 6 MARCH 1946

- CRATER DIAMETER 2000 feet (approx)
- ACTIVE MATERIAL, TOTAL 30 curies (estimate)
- AIRCRAFT USED five L-5s
- NO. PASSES OVER CRATER five per aircraft
- INDICATED AIR SPEED 110 mph
- GROUND SPEED 100 mph
- ELAPSED TIME, EACH PASS 20 seconds (approx)
- INSTRUMENTS USED

Geiger-Mueller tube Victoreen Survey Meters.
(the watts meter findings were discarded as inaccurate because of very low readings on most sensitive scale).

Integrated dosage for all passes immeasurable on pocket chambers.

ENCLOSURE # I

milliroentgens per hour

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

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