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Committee on Atomic Energy

3 October 1951

MEMORANDUM FOR CHIEF, AFOAT-1

SUBJECT: Review of Dogface Data

1. At the request of AFOAT-1 certain members of the IO-7 Panel augmented by Drs. Pachar and Gypenshloer of the RDE Committee on Atomic Energy made a preliminary review of the data recently acquired which appears to be associated with Soviet atomic energy activities.

2. On the basis of the acoustic and radiochemical data presented, the conclusions contained in the attached statement have been unanimously approved by the above group.

3. It was most gratifying to the IO-7 Panel to note that due to the satisfactory operation of the acoustic network a fix on the location and time of the explosion was made for the first time. This method of detection preceded nuclear detection and contributed greatly to the collection of samples of bomb debris.

4. This group would be pleased to assist in the interpretation of its technical findings in the event that further public releases are made based on its statement.

Downgrade to Secret Per request of AFOAT
by Charles M. Mattley Per Memo dtd 25 Nov. 55

ARTHUR WILSON
Acting Chairman, Panel on IO-7

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Attachment:
color of Conclusions
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W. H. Mattley
25/11/86

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CONCLUSIONS

a. There was a fission explosion on 24 September 1951 at about 1614Z in the vicinity of Lake Salween. (Approximately 40°N Lat, 80°E, Long)

b. Present preliminary results are very similar to those obtained in 1949 on the occasion of our first detection of a Soviet explosion, and are altogether consistent with the view that an implosion weapon using Plutonium was fired.

c. Present indications reveal no Uranium-235 and are inconsistent with the presence of any large amounts of this material. There are no indications of the effects of very high energy neutrons, such as are produced in thermonuclear reactions, on the fissionable material.

d. Further evidence and further analysis may give information on at least the following points:

1. It may be possible to determine the magnitude and/or efficiency of the explosion.
2. It may be possible to set an upper limit on the amount of Uranium-235 that would have been involved in the explosion.
3. It may be possible to give a limit to the extent (if any) of thermonuclear reactions involved.

It will at best be some time before this information will be forthcoming.

Downgrade to Secret Per Request of AFOAT
By Charles M. Mattley Per Memo Dtd 25 Nov. 55

(Signed) Dr. J. Robert Oppenheimer
 Dr. Athelstan F. Spillane
 Dr. Robert S. Bacher
 Dr. Joseph C. Royce
 Dr. Glenn T. Seaborg

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