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UNITED STATES DEPARTMENT OF COMMERCE
WEATHER BUREAU
WASHINGTON 25

December 2, 1949

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IN REPLY, PLEASE ADDRESS
CHIEF OF BUREAU
AND REFER TO
R-3

AIR MAIL

Dr. Joseph G. Hamilton
Crocker Laboratory
University of California
Post Office Box 528
Berkeley, California

DOCUMENT NUMBER
CLASSIFICATION
DATE 2-26-74
For The U. S. Atomic Commission
<i>RD K...</i>
ation

Dear Dr. Hamilton:

I have just received a report from Mr. Paul A. Humphrey, my representative at Dugway during the second radiological bomb test November 30, 1949. I was quite interested to learn that the bomb cloud dispersed much quicker than before. Mr. Humphrey reports that there was a light southerly wind which moved the cloud parallel to the mountain and that the morning inversion was not as pronounced as during the first test. The cloud apparently disappeared in approximately 10 minutes. From his discussions with personnel in the Air Weather Service airplane, it appears that the activity was quite high in the cloud. The air conductivity apparatus would go off scale as the airplane passed through the cloud, and the filters were definitely hot. The air conductivity records showed the same background values as before the last test, and the actual runs over the target showed that the bomb was as successful as could be hoped. The diameter of the area was approximately 1.6 miles as contrasted to about 1.2 miles for the first bomb, and the activity appeared to be more uniform throughout the area. In spots, surface readings exceeded 50 R. per hour. Mr. Humphrey also reported that the old target plainly shows on the air conductivity records so that it was easy to compare the two areas.

The meteorological observations during this second test did not appear to be as good as during the first test. The four wind masts and rain gauge which were in the target area previously had been removed. The wiresonde which had been ordered, but not received for the first test, was finally located at Hill Field, and was never put into operation. The automatic recorders for the wind equipment had not been received either. The meteorological personnel at Dugway took double theodolite balloon runs, rawinsonde observations, and these were adequate for the preparation of forecasts, but I would like to emphasize that for proper evaluation of the radiological data the additional equipment be placed in operation in any future test work.

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Dr. Joseph G. Hamilton

December 8, 1949

Mr. Humphrey also reported that he had learned that the crew on the Air Weather Service radiological airplane was being dispersed and that there was a possibility that the plane would not be available for future tests of this nature. I recommend that a letter similar to the attached draft be forwarded to General Yates, Chief of the Air Weather Service, regarding this subject:

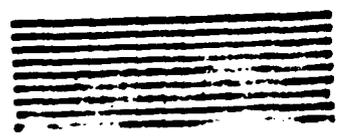
Sincerely yours,

Harry Wexler
Chief, Scientific Services Division
(Member Test Safety Panel)

Attachment

cc: Mr. Paul A. Humphrey, WBO, USAEC, Idaho Falls, Idaho

Dr. C. B. Marquand
Office of the Chief, Chemical Corps
Research Council
Building 330, Room 103
Army Chemical Center, Maryland



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