

UNIVERSITY OF CALIFORNIA

LOS ALAMOS SCIENTIFIC LABORATORY  
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LOS ALAMOS, NEW MEXICO

IN REPLY  
REFER TO:

H-6-77

June 29, 1955

Commanding Officer  
U.S. Naval Radiological Defense Laboratory  
San Francisco 24, California

Attention: Mr. C. F. Ksanda

Dear Mr. Ksanda:

In view of the present diversity in the models and methods used by various organizations to compute radioactive fallout patterns, it is considered desirable that operational forecasting for REDWING should not be limited to a single model and method. At the suggestion of Dr. Graves, I am inquiring about methods that can be counted upon to be proven in for operational feasibility at the start of REDWING. During TEAPOT, we depended considerably on telephone communication and IBM Model 701 calculations. Experience indicates that at Eniwetok, telephone communication to the mainland cannot be relied upon at critical hours. Teletype communication should be adequate for the use of one method of forecasting based in the Z.I., but we expect to rely mainly on analog computers in the forward area, backed up by hand-calculation methods.

As you are doubtless aware, the main requirements for an operational method are:

- (1) It should produce at least one isodose contour within an hour of receipt of a wind forecast.
- (2) Errors inherent in the method should be less than those arising from other sources (e.g. wind and yield forecasting errors).
- (3) It is very desirable that the method should not require more than one man in the forward area.

SAN BRUNO FRC

The plans for fallout prediction at REDWING are still fluid. If you have a suitable method, and would like to participate, I would appreciate opportunity to discuss the matter further.

Very sincerely yours,

BEST COPY AVAILABLE

Thomas H. White, Leader  
Radiological Physics Group  
Health Division

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Distribution:

- cy 1A C. Ksanda
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- 5A A. Graves
- 6A H-6 file

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