UNIVERSITY OF CALIFORNIA

LOS ALAMOS SCIENTIFIC LABORATORY
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P. O. Box 1663
LOS ALAMOS, NEW MEXICO

IN REPLY
REFER TO: H-6-77

June 29, 1955

05306

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.

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(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.

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

Very sincerely yours,

BEST COPY AVAILABLE

Thomas N. White, Leader
Radiological Physics Group
Health Division

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