Status Report:

Dose Reassessment for Populations on Rongelap and Utirik following exposure to fallout from the BRAVO incident (March 1, 1954).

Introduction:

Incidences of thyroid nodules, benign and malignant, in the exposed populations of Utirik and Rongelap has indicated critical differences in correspondence between nodule incidence and thyroid dose for the populations (Table 1). The estimated external dose received from the time fallout began to the time of evacuation shows that the Rongelap population received an external dose (175 rads) which was about 13 times that for the Utirik population (14 rads), and the thyroid dose was about 10 times larger, whereas the incidence of thyroid nodules in the two populations were not significantly different.

A preliminary study has indicated that the critical area of investigation that could shed light is the period during fallout and evacuation for both the islands. In addition, the fact that the Utirik population returned within 120 days following evacuation, whereas the Rongelap population returned only after three years, requires that we look closely at the Utirik population in terms of a longer exposure period, both internal and external. Further studies would, therefore, have to concentrate on the reexamination of all available data in reports issued by various agencies during that period, consultations with scientific personnel involved at that time, identifying the areas of uncertainty, and using appropriate computer programs to analyze the data. The end result will enable us to look for correlations between the incidence of thyroid nodules and the reassessed dose estimates.

Objective:

To examine the external and internal dose estimates to the Rongelap and Utirik populations following the "Bravo" test in order to:

a. increase the confidence in the reported values
b. test the hypothesis that radiation effects can be translated into meaningful dose estimates
c. look for correlationship between the thyroid cancer cases and the reassessment dose estimates (if any).

Method of Study:

1. Literature Search: This would require examining the various research reports such as:

   a. Weapon Test (WT)
   b. Naval Research Defense Laboratory (NRDL) Reports
   c. Reports from various other laboratories (University of Washington, etc).

2. Personnel Contacts: Efforts will be made to contact as many of the scientists and technical persons, who were involved in the early years for information on measurement techniques and analytical procedures.