

Ruth Clusen, ASEV
James Liverman, DASEV
Hal Hollister, SA/ASEV
Bill Burr, OHER
Walter Weyzen, OHER
Del Mayhew, DFS
Mike Dix, OESD
Joe Deal, OESD
Tommy McCraw, OESD

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REQUEST BY THE OFFICE FOR MICRONESIAN STATUS NEGOTIATIONS AND THE
WHITE HOUSE FOR COST PROJECTIONS FOR DOE PROGRAMS IN THE PACIFIC

1) The relevant background documents re the U.S. negotiating position on nuclear claims are attached.

A) Tab A is a draft position paper prepared last December which accommodates the DOE position per Joe Deal's cover memo to Dr. Liverman.

B) Tab B is the position paper which went forward to the White House. Apparently OMB did not concur in the paper.

2) Tab B went forward to the National Security Council and to the White House.

3) The White House, upon inquiry as to the absence of OMB concurrence, requested that funding levels be provided for the continuing programs.

4) Late Thursday, June 14, 1979, this request was relayed to DOE via Mr. Richard Stone, Deputy Assistant General Counsel, Department of Defense, and emphasized via a telecon from Mr. Matthew Nimitz to Mrs. Clusen's office.

5) Mr. Stone requested that the major programs be identified, including costs, number of field trips/year, number of people/samples included in the programs, location of activities, etc. However, great detail was not desired, but enough to give an impression of past and current activities and costs, projected activities and costs, and identification of areas of possible expansion.

6) Although I requested long-range program plans and costs from OECO and OHER (and, through them, from LLL and BNL) some weeks ago, this material has not yet been received or assimilated into an integrated program.

7) In the absence of such a comprehensive plan, we have utilized existing 189 information and information from headquarters staff and from laboratory staffs.

8) The funding levels are actual for FY 77^{FY 78,} and FY 79 and reflect requested levels for FY 80 and FY 81, with some expectation of additional activities. Estimates beyond FY 81 are increased per inflation.

9) The projected figures do NOT provide for a major expanded role for the MPML, either in terms of monitoring/research or as a U.S./Marshallese enclave, as has been advocated by some.

10) This draft response has been prepared for your consideration.

11) Please inform Joe Deal of any comments/corrections you may have.

12) Mr. Stone asked for this information by Tuesday, June 19, if possible, and no later than Thursday, June 21.

13) Whatever we provide will be included as a tab to the position paper.

14) It was suggested that our submission may have a significant (limiting?) impact upon OMB view of this program.

15) The breakdown of the source of the budget figures is attached for your information.

Bruce W. Wachholz, Ph.D.
Office of Environment

	<u>79</u>	<u>80</u>	<u>81</u>	<u>82</u>	<u>83</u>
<u>Medical</u>					
Project funding	1235	1413	2580	3000	3500
Projected deficit		1000			
Research Vessel		1500-2000			
<u>Monitoring/Assessment</u>					
BNL	281	420	465		
UW	53	62	65		
LLL - Robison (dose)	55	400	432		
Copra study		106	92		
LLL - Noshkin	371	400	432		
LLL- Buddemier	65	70	70		
LLL - Robison (garden)	795	795	795		
UH - MPML	210	200	200		
Contingency for Bikini			<u>200</u>		
TOTALS	3065	4866	5331	~ +15%-6100	~ +15%-7000
Equipment	5	150	200	250	300

The Department of Energy program in the Marshall Islands consists of medical, monitoring and assessment components. Past, current and estimated future costs (X 1000) are:

	<u>FY 77</u>	<u>FY 78</u>	<u>FY 79</u>	<u>FY 80</u>	<u>FY 81</u>	<u>FY 82</u>	<u>FY 83</u>
Program cost	1875	2770	3065	4866	5330	6100	7000
Major Equipment Items (Research vessel & whole-body counter)				1600-2100			

Estimated manpower requirements vary between 40-50 mrem-years of effort

depending upon number of trips, specific needs, unanticipated requests, etc.

It must be emphasized that it is extremely difficult to anticipate all possible needs and contingencies in the activities in the Marshall Islands. Past and present experience shows that unexpected findings and unanticipated requests from various sources (e.g., the Marshall Islands Government, legal representatives for various groups of people) may significantly affect, alter or add to the projected program. While these issues have been included herein to the best of our knowledge, additional efforts and requests are not precluded. For these and other reasons, a standing capability of response must be maintained. The projected cost estimates, therefore, should only be considered as tentative.

The two major components of the program are discussed in greater detail below:

Medical Program

The medical program in the Marshall Islands in FY 79 provides medical surveillance of persons on Rongelap and Utirik who were radiologically exposed following testing in the Marshall Islands, plus a matched control population consisting primarily of unexposed Rongelap people. In addition, a limited surveillance has been provided to those persons who were relocated from Bikini. The approximate numbers of Marshallese are:

Rongelap	~ 90
Utirik	~ 160
Matched controls	~ 200
Bikinians	~ 140
TOTAL	~ 590

Depending upon circumstances, usually three of four trips are made each year to these locations. Brookhaven National Laboratory (BNL) Medical Department physicians coordinate and direct these programs. One of these trips consists of a large medical staff (usually 12), the majority of whom are specialists from various leading U.S. medical centers and institutions. At this time the annual physical examinations are given, including hematological, urological, serological and other examinations as appropriate.

During these visits, "sick call" is held for all residents wishing medical attention; this usually results in up to several hundred persons on each atoll seeing the physicians. Included in "sick calls" are physical examinations, blood tests, treatment if possible, and referral to the Trust Territory Health Services.

Other visits during the year are far more specialized examinations (e.g., pediatrics, thyroid, dental, intestinal parasites, etc.) and include BNL staff and appropriate specialists. A resident physician assists in these visits.

Because of the particular concern related to radiation effects on the thyroid, a separate baseline comparison group has been established, consisting of approximately 500 persons on Rongelap and Utirik and a limited number of other atolls. While this group does not receive complete annual physical examinations, they do provide a baseline for a number of thyroid function

tests and thyroid disease incidence rates.

The medical program is expected to be expanded in FY 80:

- 1) Persons who resided on Bikini will be included in the program.
- 2) Baseline medical information will be obtained on persons scheduled to return to Enewetak; this may include in excess of 450 people.
- 3) It may be necessary to conduct a medical survey of approximately 600 persons who were present on Likiep in 1954.

4) It is anticipated that based upon radiological surveillance results other population groups (unknown at present) may need to be included.

The FY 80 budget figure represents this anticipated expansion of the Pacific program.

Depending upon medical findings, the medical program in FY 81 is expected to include persons living on Rongelap, Utirik and Likiep, and Bikinians at their residence locations.

The greater than three-fold increase anticipated in the population under medical surveillance during FY 80 and FY 81 results in a special problem. The ship which is presently under charter for these (and other) visits is only marginally adequate for the present program, and would be totally inadequate for any expansion in the program. If an adequate medical program is to be conducted, it is essential that funds be made available during FY 80 for purchase of a 175-foot ship. An estimated cost for the ship and appropriate outfitting is \$1,500,000 - \$2,000,000.

The past, present and estimated projected funding levels (X 1000) are:

	<u>FY 77</u>	<u>FY 78</u>	<u>FY 79</u>	<u>FY 80</u>	<u>FY 81</u>	<u>FY 82</u>	<u>FY 83</u>
Project Funding	810	1154	1235	1413	2580	3000	3500
Projected Deficit				(1000)			
Vessel				(1500-2000)			

Monitoring and Assessment Program

The radiological monitoring and assessment program in the Marshall Islands consists of field operations, laboratory studies and analyses, exposure assessments, and advisory services.

During FY 79 three trips are being conducted to carry out whole-body counting activities among the Rongelap, Utirik and Bikini peoples, and to begin acquisition of baseline information from Enewetak people planning to return to their atoll. The approximate numbers of people included in this activity are:

Rongelap	~100 plus controls
Utirik	~100 plus controls
Bikinians	~200 plus controls
Enewetak	~100
TOTAL	~500

It is expected that two or three trips a year will be continued, with four or five professional staff participating on each trip. If circumstances require (e.g., including all resettled Enewetak people, other atoll peoples), additional effort may be required.

Environmental monitoring is conducted on the atolls of Enewetak, Bikini, Rongelap and Utirik. Included are studies of radionuclide transport mechanisms and exposure pathways to man (e.g., foods and food chains) from both the terrestrial and the marine environments. Also included are studies of the dietary components on the several atolls. At present, these efforts require four trips per year to the Enewetak and Bikini atolls, and two trips per year to the Rongelap and Utirik atolls. Depending upon the specific purpose of each trip, five to seven professional staff persons participate. These trips result in 2000-3000 samples of various types being returned from analytical examination each year.

It is expected that the current program will be continued, and that some modest expansion may be projected due to (a) additional studies at Enewetak after the people return, and (b) possible increased effort at other atolls (unknown at present) as radiological findings and circumstances dictate.

Individual and population dose assessments are based upon the actual measurements of radionuclides in residents and in the environment. These assessments provide the bases upon which decisions are made with respect to the acceptability or unacceptability of various living patterns, residence locations, food consumed, etc.

The immediate past and current funding levels, together with estimates of projected funding requirements for FY 80-83 are as follow (X 1000):

	<u>FY 77</u>	<u>FY 78</u>	<u>FY 79</u>	<u>FY 80</u>	<u>FY 81</u>	<u>FY 82</u>	<u>FY 83</u>
Project Funding	1065	1616	1830	2453	2800	3100	3500

It is anticipated that a whole-body counter will require replacement during FY 80 at a cost of about \$100 K. Also, replacement of and additions to other laboratory and field equipment will amount to roughly 5-10 percent of the operating budgets.