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\*ADMITTED IN NEW YORK ONLY

October 16, 1980

WRITER'S DIRECT DIAL NUMBER

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Mr. Hal L. Hollister  
 Acting Deputy Assistant  
 Secretary for Research  
 Office of Assistant Secretary  
 for Environment  
 U.S. Department of Energy  
 EV-3 Forrestal Building  
 Washington, D.C. 20585

Dear Mr. Hollister:

As you may recall from the dose assessment meeting on Kili last week, Senator Henchi Balos, the Bikinians' elected representative to the Marshall Island Nitijela, asked DOE scientists why they now believe that people can live on Eneu Island in light of the fact that government officials just two years ago stated that Eneu Island would have to remain off-limits for 20-25 years, due to unexpectedly high levels of radiation on the island. You and Dr. Wachholz replied that DOE had no knowledge of such statements.

Senator Balos was referring to testimony on May 22 and June 19, 1978 before the House Appropriations Committee Subcommittee on the Interior. At the May 22 hearing, for example, Ruth Van Cleve, Director of the Office of Territorial Affairs, stated that her expectation that the Bikinians could be moved to Eneu had been changed by recently-released DOE data declaring Eneu off-limits:

"I must tell you ... that we have suddenly been required to recast our preliminary plans in a very major way. The committee will recall that when we testified before you a month ago, we anticipated, on the basis of the best information then available to us from the Department of Energy, that if it were necessary to move the people of Bikini Island to an alternative,

Mr. Hal L. Hollister  
October 16, 1980  
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safe site, we could expect that the nearby island of Eneu would be available for the purpose.

Last Thursday we learned that tests of a limited sample of food-stuffs growing on Eneu showed an uptake of radionuclides much in excess of those predicted on the basis of the known cesium and strontium content of the soil. Accordingly, we have concluded that we must eliminate Eneu as an alternative site, and we have thus revised substantially the plans for temporary settlement."

Hearings on 1978 Second Appropriations Bill Before the Subcommittees of the House Committee on Appropriations, 95th Cong., 2d Sess. at 866 (1978) (hereinafter "Hearings"). See also High Commissioner Winkel's statement, id. at p. 889.

Following Mrs. Van Cleve's remarks, Joe Deal of DOE submitted data showing that cesium levels on Eneu were 5 to 6 times the previous estimates. He also stated that radiation measurements in six salt water wells on Eneu may have exceeded EPA standards. Hearings at 877.

At the June 19 hearing, High Commissioner Winkel reported that he had met with the people living on Bikini Island and "explained to the people ... that Eneu Island ... was not considered safe enough to allow their living on it at this time...." Hearings at 913. The Statement of Understanding signed by the U.S. Government on Kili on August 16, 1978 reflects this view: "...[o]n the basis of the most recent scientific information, it appears that Eneu Island ... will ... be unavailable for settlement."

Eight months later, by letter dated May 15, 1979, Ruth Clusen, DOE Assistant Secretary for Environment, wrote to Under Secretary of the Interior Joseph stating unequivocally that Eneu could not be resettled for 20-25 years even with imported food:

"The degree of uncertainty in estimating doses on Eneu Island is similar to that for Enewetak Atoll. Assuming, therefore, that Enewetak criteria are applicable to other similar situations

Mr. Hal L. Hollister  
October 16, 1980  
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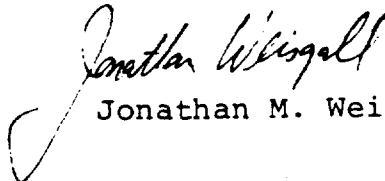
in the northern Marshall Islands, the dose estimates for return of the Bikini people to Eneu Island would be compared to the Enewetak criteria as described above rather than to the FRC guidance. When this is done, it is found that even with imported food the radiation doses to the people on Eneu would not be expected to be in compliance with the Enewetak criteria for about 20-25 years."  
(Emphasis supplied)

I am enclosing copies of Mrs. Clusen's May 15, 1979 letter as well as cited pages from the hearings, the August 16, 1978 Statement of Understanding, and various newspaper articles that reported at the time that a move to Eneu would not be possible.

In light of the above testimony, I believe it would be appropriate to review this matter, and I request that you provide Senator Balos, through me, with a thorough answer to his question. It may be that these 1978 and 1979 statements were based on incomplete data, but this matter should be cleared up.

I look forward to hearing from you soon.

Sincerely,



Jonathan M. Weisgall

JMW:cmf

Enclosures

cc: Henchi Balos (w/enc.)  
Ruth Clusen (w/enc.)  
Steve Gottlieb, Esq.  
Gordon Law (w/enc.)

October 28, 1980

J. Deal, EV-131

T. McCraw, EV-30

Attached is a letter from Jonathan Weisgal. He raises the issue of why Eneu was not considered "safe" at the time of the '78 hearings, whereas in 1980 it is conditionally okay. (The content of the May, 1979, letter to which referral is made is nearly identical with our current position, and I will respond to that portion of his letter). Since you were involved at that time (1978), could you provide a response for that portion of the letter?


Please let me know ASAP.

Thank you.



Bruce W. Wachholz, EV-30

cc: W. Bair, PNL  
W. Robison, LLNL  
R. Ray, NVOO



Department of Energy  
Washington, D.C. 20585

May 15, 1979

Honorable James A. Joseph  
Under Secretary of the Interior  
Washington, D. C. 20240

Dear Mr. Joseph:

I am pleased to reply to your letter of April 12, 1979, regarding the possible return of the Bikini people to Eneu Island.

This response will address both of the issues you raise:

1. Your understanding of previous statements by my staff.
2. More detailed information on estimated dose assessments for people living on Eneu Island, including various assumed living and eating patterns.

With respect to the first point, your understandings are, in general, correct. The more detailed information addressing the second point is included as an enclosure to this letter.

If the guidance of the Federal Radiation Council (FRC) (500 mrem/yr to individuals, and 170 mrem/yr and 5000 mrem/30 yrs to a population) is to be complied with, the people could return to Eneu only if it is assured that adequate imported food would be available to and used by the people for approximately 20 years, that food grown on Bikini Island is not a part of the diet, that residence is restricted to Eneu Island, and that visitation to Bikini Island is effectively controlled.

Since the FRC guides were originally formulated, an Environmental Impact Statement (EIS) was prepared for the resettlement of Enewetak Atoll. In the EIS, recommended criteria which are one-half of the FRC guidance for individuals and 80 percent of the 30-year FRC guidance for populations were proposed for evaluating land use options for use in planning the cleanup and rehabilitation of Enewetak Atoll. These criteria were recommended because of uncertainties in estimating future doses to the people at Enewetak Atoll. However, following the return of people to the Islands, direct radiation exposure measurements would

May 15, 1979

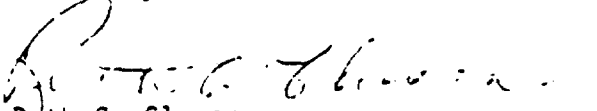
be available and compared with the full FRC guidance of 500 mrem/yr to individuals and 5000 mrem/30 yrs to the population. These criteria for Enewetak were reviewed by interested Government agencies; no objections to these criteria were raised. One of the reviewing agencies, the Environmental Protection Agency (EPA), found the criteria acceptable, but considered them to be "... upper limits ..." and that "... any proposed guideline or numerical values for the dose limits are only preliminary guidance and that a cost-benefit analysis must be undertaken to determine whether the projected doses are really as low as readily achievable and practical before proceeding with the relocation project. On the basis of such analysis it may be prudent to lower dose guidelines for this operation."

The degree of uncertainty in estimating doses on Eneu Island is similar to that for Enewetak Atoll. Assuming, therefore, that Enewetak criteria are applicable to other similar situations in the northern Marshall Islands, the dose estimates for return of the Bikini people to Eneu Island would be compared to the Enewetak criteria as described above rather than to the FRC guidance. When this is done, it is found that even with imported food the radiation doses to the people on Eneu would not be expected to be in compliance with the Enewetak criteria for about 20-25 years.

Several basic combinations of residence and food constraints are discussed in the enclosed, and are illustrated and summarized in the attachments to the enclosed. Other considerations also are addressed. If any further refinement of the data changes these estimates in a significant way, we will immediately inform you.

We trust that this is helpful to you in resolving the issue of the acceptability of Eneu Island as a residence island.

Sincerely,

  
Ruth C. Cluser  
Assistant Secretary for Environment

Enclosure

cc: Dr. William Mills, EPA

there is an immediate danger, then we can pause until the radiological surveys reveal whether the move to Eneu can be made or whether we have to move to a less attractive site.

As we informally advised the committee staff last week, the results of the very recent tests of the body burdens of the people living on Bikini Island show a significant increase in such burdens. While it may be arguable whether the test results show "an immediate danger," we in the Department of the Interior are satisfied that the people should be moved from Bikini Island as soon as it is possible to do so.

We have asked the representatives of the Department of Energy to discuss with you the radiological situation on Bikini and its implications for the people on Bikini Island, and they will do so in a moment. Then the High Commissioner and I want to discuss with you our plans for the move of the people from Bikini Island.

#### NEED TO RECAST BIKINI REHABILITATION PLANS

I must tell you now, however, that we have suddenly been required to recast our preliminary plans in a very major way. The committee will recall that when we testified before you a month ago, we anticipated, on the basis of the best information then available to us from the Department of Energy, that if it were necessary to move the people of Bikini Island to an alternative, safe site, we could expect that the nearby island of Eneu would be available for that purpose.

Last Thursday we learned that tests of a limited sample of food-stuffs growing on Eneu showed an uptake of radionuclides much in excess of those predicted on the basis of the known cesium and strontium content of the soil. Accordingly, we have concluded that we must eliminate Eneu as an alternative site, and we have thus revised substantially the plans for temporary settlement. We will outline those plans to you after the Energy Department discussion of the radioactivity situation on Bikini and Eneu.

To assist us in our discussion of our relocation plans, there are present with me this morning, in addition to High Commissioner Winkel, his District Administrator for the Marshall Islands District, Oscar

Is there anything else contaminated that they eat besides coconuts?

Mr. O. DEBRIUM. Pandanus and other local subsistence crops.

Mr. YATES. Are those infected too?

Mr. O. DEBRIUM. We are told they are infected also.

Mr. YATES. All right, go ahead, Mr. Deal.

Mr. DEAL. The last slide, you asked us to tell you the status of what we knew of Eneu Island.

Mr. YATES. We would like to know what the status of Bikini is as well.

[The charts follow:]

MEASURED RADIATION DOSE—BIKINI ISLANDERS

(REM per year)

	1974	1977	1978
External.....	0.290	0.200	0.200
Internal.....	.003 to .667	.088 to .538	.070 to .980
Total.....	.203 to .267	.288 to .738	.270 to 1.180

Note: Federal standard for individuals equals 0.5 REM per year.

STATUS—ENEU ISLANDS

External radiation: 12 rem/year.

Coconut (16 trees): Cs measurements 5 to 6 times previous estimates.

Other food crops: Samples now being analyzed.

Six water wells: 3 not potable (high salt); 3 may be potable but; radiation measurements may exceed EPA standards.

Mr. YATES. Have you decided that from now on you are not going to permit people to live on Bikini any more? Obviously they can't live there if they are going to continue to be infected, right?

Mr. DEAL. Right, yes, sir.

Mr. YATES. So as far as you know, Bikini Island is through as an area for living.

Mr. DEAL. Yes, sir, probably until we get another 30 years. The half life of cesium is 30 years, so at the end of 30 years there would be one-half the amount of cesium remaining. For every 30-year period thereafter, the cesium decays to one-half its value.

BASIS OF 1968 DECISION ON BIKINI

Mr. YATES. Why were people allowed to go back there in 1972? Who made that decision?

Mrs. VAN CLEVE. Mr. Chairman.

Mr. YATES. Your friend in Interior?

Go ahead, please, Mrs. Van Cleve.

Mrs. VAN CLEVE. The President of the United States made the decision in August 1968.

Mr. YATES. Acting upon whose advice?

Mrs. VAN CLEVE. He announced that the people of Bikini could return on the basis of advice received from experts hired by the Atomic Energy Commission who said that Bikini was safe for human habitation.



STATEMENT OF HIGH COMMISSIONER ADRIAN P. WINKEL BEFORE THE  
 INTERIOR AND RELATED AGENCIES SUBCOMMITTEE, COMMITTEE ON  
 APPROPRIATIONS, HOUSE OF REPRESENTATIVES, CONCERNING  
 RESETTLEMENT OF THE PEOPLE OF BIKINI, MAY 22, 1978

Mr. Chairman, Members of the Committee:

The preceding statements of Mrs. Van Cleve and the presentation of the Department of Energy clearly demonstrate the dilemma we face in dealing with the immediate and longer-range futures of the people now living on Bikini Island.

Until last week, it had been a reasonable presumption based on predictions by the Department of Energy that Eneu in the Bikini Atoll would be a satisfactory place to which the Bikini people could be moved in the immediate short-run period and that it would also serve as a permanent location for the bulk of the larger group still on Kili.

We now know that this is not the case.

We thus have the necessity of a temporary move to a location that most likely will not be the permanent home for these people.

At this point let me say that there are no uninhabited islands or atolls on which these people might make a permanent settlement. Uninhabited islands in the Marshalls are uninhabited because they are incapable of sustaining human life to any extent, particularly the numbers of people we are talking about.

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STATEMENT OF HIGH COMMISSIONER ADRIAN P. WINKEL BEFORE THE  
INTERIOR AND RELATED AGENCIES SUBCOMMITTEE, COMMITTEE ON  
APPROPRIATIONS, HOUSE OF REPRESENTATIVES, CONCERNING  
RESETTLEMENT OF THE PEOPLE OF BIKINI, JUNE 19, 1978

Mr. Chairman, Members of the Committee:

In accordance with the decisions made at your May 22nd meeting, I discussed with the people of Bikini Island their forthcoming move from that island and their preference as to relocation sites. These meetings were held over a period of 24 hours, on Thursday and Friday, June 1 and 2, with virtually all of the people of the Island--men, women, and children--in attendance at the first meeting, and 35 to 40 people (the adult male population) at the succeeding two meetings.

Subsequently, on Monday, June 5, a meeting was held with the people of Kili Island for the same purposes, with about 100 people in attendance.

In the opening remarks at Bikini I explained to the people that I was there to inform them it was necessary that they move from Bikini Island, that Eneu Island also was not considered safe enough to allow their living on it at this time, and that four relocation sites were suggested for their consideration and decision.

At the second meeting on Friday, June 2, various spokesmen outlined the preferences of the people as follows:

- 1) Stay on Bikini Island until further information is available about Eneu food and its levels of radioactivity. The people reasoned that they would have to

# Bikinians Must Quit Island for at Least 30 Years, Hill Told

By Walter Pincus  
Washington Post Staff Writer

The 139 Marshallese living on Bikini Island will have to leave their home atoll within three months and not return for at least 30 years because of radiation remaining from a 1954 U. S. hydrogen bomb test, a House Appropriations subcommittee was told yesterday.

An earlier plan to move them from Bikini Island to Eniwetok, another island in the atoll, was dropped. The subcommittee was told, because Eniwetok's coconuts were showing radioactivity readings five to six times higher than government scientists had previously expected.

As a result, Interior Department officials said yesterday, they could not say where the Bikini residents would eventually end up.

The people now living on Bikini were the first ones to return after a 1969 determination by the Atomic Energy Commission that the atoll was safe from radiation contamination. From 1946 through 1968 it had been the site of 23 U.S. nuclear weapons tests.

Subcommittee Chairman Sidney Yates (D-Ill.) asked witnesses from the Departments of Interior and Energy, "Why were these people allowed to go back?"

"There was no hint in 1969 that there would be a problem with coconuts, vegetables and water," he was told by Ruth G. Van Cleave, director of Interior's Office of Territorial Affairs.

Joe Deal, of Energy's safety branch, said, "There were no coconuts to test and no foodstuff growing. . . . We

used the best instruments available at that time.

Deal outlined to the subcommittee how last month's medical examination showed the Bikini residents had taken radioactive cesium into their bodies at levels up to twice the accepted U.S. standard for the general population.

Dr. Walter Wyzen, also of DOE, told the subcommittee that the 139 men, women and children who have been living on Bikini for the past several years and eating its radioactive coconuts and other foods would have to undergo medical examinations for the next year and perhaps the rest of their lives to keep track of the radioactive matter they have inhaled.

It was the finding of high concentrations of radioactive cesium and strontium—above U.S. standards—in the bodies of the Bikini residents last month that convinced Interior officials that the people had to be moved.

Van Cleave told the subcommittee that although "the tests last month do not reveal an immediate danger," the move from the atoll should be made within 90 days—the time needed to pick a temporary place to live and build plywood homes there with aluminum roofs.

Arthur P. Winkler, high commissioner of the U.S. Trust Territory, told the subcommittee he would try to determine the need for the move and determine their preferences for a place to settle.

At that point, Rep. Frank Evans (D-Cala.) raised the question of what would be done if they did not want to leave Bikini.

"We have no choice but to require them to move," Winkler responded.

The high commissioner added, however, that it might be difficult to make the older people move because they still might prefer to remain.

Two aging Marshallese who own major pieces of land on Bikini Island are patriarchs of the two family groups that make up most of the people now living on the island.

Marshall Islanders who attended yesterday's subcommittee meeting were not sure Winkler could convince them to leave.

Illustrative of the problem was the exchange that took place when a question was asked why the people on Bikini kept eating coconuts after they had been warned they were dangerous and supplied with other food and water from outside the island.

Oscar DeBum, the district representative of the Trust Territory government said, "Coconuts are treasured by the people. They would drink coconut milk even in the face of the warning."

DeBum then noted that when the medical team arrived last month on Bikini, the people offered them the radioactive coconuts as a sign of friendship.

"Either move the people or cut down the coconut tree," DeBum suggested.

Representatives of the approximately 400 former Bikini people who now live on Kili Island told the subcommittee "we see ourselves as the victims of bureaucratic incompetence."

It was questioning by the Kili group about the safety of Bikini four years ago that first raised the possibility that dangerous radiation levels might still exist on the island.

At the time, U.S. officials were preparing to return the entire group to Bikini.

The Kili spokesman, Tomaki Juda, reminded the subcommittee that in 1948 a Navy officer told the Bikinians they had to leave their atoll so "if you could be used for the good of mankind and to end all world wars."

The officer compared the Bikinians to the children of Israel whom the Lord saved from their enemy and led into the Promised Land.

"We are," Juda said, "sadly moving back to the Children of Israel when they left Egypt and wandered through the desert for 40 years. We left Bikini, and have wandered through the ocean for 32 years and we will never return to our Promised Land."

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STATEMENT OF UNDERSTANDING

ON THE PART OF THE

GOVERNMENT OF THE UNITED STATES

AND THE GOVERNMENT OF THE TRUST TERRITORY OF THE PACIFIC ISLANDS

CONCERNING THE

MOVE OF THE PEOPLE OF BIKINI ISLAND, AUGUST, 1978

1. On August 11, 1978, the Undersecretary of the Department of the  
2. Interior, James A. Joseph, the Deputy Undersecretary, Wallace Green, and  
3. the Director of the Office of Territorial Affairs, Ruth G. Van Cleve,  
4. journeyed to Bikini Island to meet with its current residents. The purpose  
5. of their meeting was to convey information on the subject of the forthcoming  
6. move by the people of Bikini Island to Kili Island, and to respond to ques-  
7. tions and hear concerns put to them by the people of Bikini Island. They  
8. had earlier, on August 7, held a similar meeting with former residents of  
9. Bikini who now reside on Kili. The High Commissioner of the Trust Territory  
10. of the Pacific Islands, Adrian P. Winkel, had been prevented by bad weather  
11. in Saipan from joining in the visit to Bikini Island, but he had earlier met  
12. with the people of Bikini, as well as with other Bikinians on Kili.

3.  
4. In 1946, the people of Bikini were removed from their atoll by the  
5. U. S. Navy in order to enable the United States to use the atoll for a  
6. nuclear testing program which lasted until 1958. The islanders were moved  
7. first to Rongerik, then to Kwajalein, and ultimately to Kili. In the late  
8. 1960's, it appeared that levels of radiation on Bikini atoll were such that  
9. the people could return to and use a number of the major islands of the atoll.  
10. Beginning in 1969, a clean-up of the atoll and a rehabilitation program was  
11. begun. In the early 1970's, some Bikini people were employed in the project  
12. and the Bikini Island population increased to approximately 145 in 1976. In  
13. 1977, the intake of radionuclides by the people living on Bikini Island had  
14. increased to alarming proportions, and a major feeding program was insti-  
15. tuted. April, 1978 surveys showed that the feeding program had not resulted

1. decrease in the radionuclide body burden. The Department of the  
2. Interior decided, in the light of the evidence presented by the Department  
3. of Energy, that the people living on Bikini should be moved at the earliest  
4. possible date. An aerial/radiological survey currently underway and other  
5. radiological tests on Bikini being conducted by the Department of Energy  
6. will determine whether Bikini still can, in the foreseeable future, be  
7. considered as a home for the Bikini people.

8.  
9. Among the requests of the people of both Bikini and Kili was a  
10. request for a statement in writing of the understandings that the repre-  
11. sentatives of the United States conveyed during those meetings and of the  
12. commitments that those representatives were willing to make. The follow-  
13. ing are intended to respond to the principal concerns then and there  
14. expressed.\*

15.  
16. Mr. Joseph and Mrs. Van Cleve, on behalf of the Government of the  
17. United States, and Mr. Winkel, on behalf of the Government of the Trust  
18. Territory, offered the following assurances:

19.  
20. I. The Government of the United States considers itself generally  
21. responsible for the well being of the Bikini people and their descendents  
22. and, following consultation with them, the Government of the United States  
23. will seek to arrange their relocation, permanently, in the most satisfactory  
24. manner possible. The Department of the Interior will undertake to obtain  
25. such authority and such resources as may be required in order to meet and

\*On August 14, 1978, soon after the Bikini and Kili meetings, the four officers referred to above were involved in a major airplane accident off the coast of Guam. Although they were among the survivors, their notes taken at the meetings sunk with the airplane. This statement, drafted by Mrs. Van Cleve on August 15 at the Guam Naval Hospital is intended to be as full as recollections permit, but in the circumstances it may not be complete.

1. discharge this responsibility. The Department of the Interior will call upon  
2. other agencies of the United States Government to assist it, particularly the  
3. Department of Energy, so as to assure that, among other things, the medical  
4. needs of the current residents of Bikini Island continue to be met.

5.  
6. II. Because Kili Island has, until recent weeks, been regarded as  
7. solely a temporary relocation site for the people of Bikini, the Governments  
8. have never undertaken to construct permanent facilities there, nor to improve  
9. significantly any of the existing Kili facilities. It is now known that  
10. Bikini Island will not be fit for human habitation for decades to come, and  
11. on the basis of the most recent scientific information, it appears that Eneu  
12. Island, in the Bikini Atoll, will also be unavailable for settlement. In  
13. the circumstances, the Governments understand that some of the Bikini people  
14. will choose to remain on Kili indefinitely, and the Governments will accord-  
15. ingly undertake a program for the permanent rehabilitation of Kili.

16.  
17. III. It is not yet possible to develop a permanent relocation plan  
18. for the people of Bikini. That plan must await completion of the aerial/  
19. radiological survey that is now underway, and that is expected to be com-  
20. pleted no later than the early weeks of 1979. When those survey results  
21. are available and evaluated, and when any remaining scientific tests found  
22. necessary are also completed, all of which developments are expected to  
23. occur in the first months of 1979, it will be possible to identify safe  
24. relocation sites. The Governments will then, following full consultation  
25. with the people of Kili (including the current residents of Bikini Island  
26. who will by then have relocated there), plan in detail for the relocation  
27. of such Kili residents as choose to move elsewhere, affording to them a  
28. choice among the possible relocation sites. Those who choose to remain on  
29. Kili will be accommodated there.

30.

*See page 5  
re Eren*

**U.S. ERRED**

# Bikini Island: Lost Again to Radiation

*When the atomic bomb dropped, I thought Bikini would disappear completely. It would have been better, maybe, if it had. . . . Then we wouldn't have all these troubles.*

*—Nathoo Noto, scribe of the Bikini people, 1978*

BY JERRY BELCHER  
Times Staff Writer

**BIKINI, Marshall Islands**—When the Americans made him leave Bikini for the first time, in 1946, Andrew Jakeo was 34 years old.

When, after using the fragile Pacific atoll for 23 nuclear test blasts, the Americans in the person of President Lyndon B. Johnson assured him, his fellow islanders and the rest of the world that Bikini once again was safe for human life, Andrew Jakeo was 56.

Now Andrew Jakeo is 66 and, above all else, he wants to live out the days that remain to him on this tiny curve of coral, sand and coconut palms with his family and friends.

Then, when his time comes, he wants to be buried here among his ancestors.

But the old man will not be permitted to end his days where he wishes.

For one day next month—federal officials say about Aug. 22, although official plans dealing with this place and these people seem to go awry more often than not—the Americans will remove Andrew Jakeo and the 140 others living on 449-acre Bikini Island, largest of the 26 islets that make up Bikini Atoll.

They will be transported to "temporary" quarters in Kili, a single island with a land area one-sixth that of their 2.2-square-mile home atoll. Kili, without a lagoon, lies nearly 500 miles southeast. It is an island some Bikinians habitually refer to as "the prison."

The Bikinians must leave their ancestral home and its beautiful, fish-limeing lagoon because the Americans, as they themselves now admit, made a regrettable error 10 years ago.

Despite what the scientists and the President said—despite an investment of \$3.25 million for cleanup and rebuilding—Bikini is not safe after all.

Andrew Jakeo and the others living on Bikini Island are being subjected to unacceptably high doses of radiation left behind by atomic and hydrogen bomb blasts that scarred the atoll during 12 years of testing.

Some younger Bikinians may live to see their homeland again, but Andrew Jakeo will not. It may be 50 years before Bikini is fit for human habitation.

Andrew Jakeo is bitter and angry, although like most Marshallese he veils his emotions from outsiders.

"The Americans told us in 1946 that they had come to test a bomb," he said not long ago. "They told us they did not know how much the bomb would hurt Bikini. They told us that after they tested the bomb, and Bikini is good again, they will bring us back. They did not say how long it would be."

But Andrew—Marshallese address one another by first names and expect outsiders to do the same—believed, along with the 165 others the U.S. Navy removed in 1946, that they would be back within a year or so.

Meantime, he was convinced, the Americans would provide for him and the other people of Bikini.

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# Bikini Islanders Lose Again to Radiation

Continued from First Page

Andrew finally came back about eight years ago. He was among the first to return. It was 24 years after the Navy had taken him away, two years after President Johnson's announcement that Bikini was safe.

From the front porch of his concrete block house overlooking Bikini lagoon, the old man recalled the long years between departure and return. There was near starvation, much privation. There was shuttling from one alien island to another and another yet another. There was scattering of family and friends, dislocation, nearly total disruption of a hitherto quiet, untroubled way of life.

"Maybe there were some times when I was not unhappy," he admitted. "But . . . every day I remembered Bikini. And every day I wanted to come back because it is my homeland, because Bikini is a beautiful place."

He was quiet, deferentially polite. But at last, in reply to the stranger's question, Andrew dropped the emotional veil slightly.

How, the stranger asked, will he react when he leaves Bikini once again and forever?

"I will weep," he said. "I will feel anger. . . . I will not go. I will sit

**"You'd have to say the removal was the right of the conqueror."**

here. They will have to carry me away."

He said he also believed some of the others would do the same as he, feel the same as he.

And how, after all that had happened to him and his people since 1946, did he feel now about the Americans?

The old man laughed, perhaps embarrassed by the question and by the fact that the questioner was an American.

Then he leaned close, staring through thick green-tinted glasses that made his dark eyes seem enormous.

"The American is a liar-man," he said. "His promise is not kept."

The first American promise to the Bikini people was made by the U.S. Navy after President Harry S. Truman had, on Jan. 10, 1946, at the recommendation of the Joint Chiefs of Staff, given the go-ahead for Operation Crossroads, the first post-World War II test of nuclear weapons.

In simplest terms, the promise went something like this: We have decided to use your atoll to test a powerful new weapon. For your own safety, you will be moved to another place. We will take care of you there. When we're through using your atoll, we will bring you back.

Few now question that the Navy had the legal right to appropriate Bikini Atoll for military purposes.

Bikini is part of the Marshall Islands, which is part of Micronesia, which in turn was established as a U.N. Trust Territory under U.S. administration by terms of the U.N.

Charter of 1945.

Specifically, it was designated a "strategic trust," which permitted the United States to set aside certain areas of the former Japanese mandate territory for military security purposes.

Bikini seemed a logical choice geographically, too. The idea of Operation Crossroads was to see what the atomic bomb would do to a naval fleet. The three A-bombs of World War II had been exploded in the New Mexico desert and over the Japanese cities of Hiroshima and Nagasaki.

Other sites were considered. But according to Crossroads historian Neal Lines, "Bikini fulfilled all the conditions of climate and isolation. It was . . . 2,500 miles west southwest of Honolulu . . . but it also was accessible. . . . Its inhabitants, who then numbered 162, could be moved to another atoll."

(Most other sources say the population then was 166. Since then there has been a population explosion. Today 860 persons claim land rights in Bikini Atoll—140 now living on Bikini Island, 450 on Kili, and the others scattered throughout the Marshalls.)

There was concern on the part of the U.S. fishing industry that the test blasts might hurt the rich commercial fishing grounds. There also were so many complaints from animal lovers that plans to use dogs as test animals were canceled. But there is no recorded protest against removing the Bikinians from their ancestral homeland.

"In retrospect . . . you'd have to say the removal was the 'right of the conqueror,'" said Jim Wion, a transplanted Kansan who is district attorney of the Pacific Trust Territory's Marshall Islands District.

"Our attitude must have been that we, at the cost of several thousand American lives, took the Marshalls . . . took this whole area of the Pacific from the Japanese. And . . . part of it was the attitude, 'Well, they (the Bikinians) are just little brown people anyway. They don't need their atoll. We'll just move 'em off someplace else.'"

Certainly the Bikinians were in no position to seriously oppose the Navy when, on Feb. 10, 1946, Commodore Ben Wyatt, then the military governor, arrived by seaplane and announced that they must go elsewhere.

In effect, the islanders then and there adopted the United States as their *royal atoll*—their paramount chief, the power over and beyond their local island chief, Juda. And, in Marshallese tradition, this meant that henceforward the United States was responsible for the protection and well-being of the Bikini people.

Although to American eyes the atolls of the Marshalls look much the same, the removal was deeply painful and culturally destructive to the Bikinians.

For, as many anthropologists have observed, there is among Micronesian peoples a profound, mystical attachment to the particular, tiny plots of land owned by their families or clans.

Anthropologist Robert Kiste, author of "The Bikinians: A Study in Forced Migration," said in an interview that the relationship between a



**'HOT BREW'**—Jeladrick Jakeo checks sap from coconut palm. He lets it ferment into jakauru, a mildly alcoholic drink. While coconuts are forbidden, Jakeo says no one has ever banned jakauru.



# Islands Lost Again to Radiation

Continued from Third Page  
man and his land overrides the concept of nationality.

"To say, 'I'm Marshallese,' that is a foreign concept," Kiste said. "Westerners named those islands the Marshalls. So 'Marshallese' has less meaning than 'I'm Bikinian.' And among themselves, they speak not of being Bikinians, but say, 'I'm a person of this particular piece of land.' Land is an expression of who I am—of individual identity."

Or, as fellow anthropologist Jack Tobin, another academic expert with long experience in the Marshalls, expressed it:

"In those islands, a man without land is no man."

By a split vote of the atoll's leaders, the Bikinians chose to go to Rongerik Atoll, 123 miles east of their home atoll. The Navy, which put out press releases at the time indicating that "the natives were delighted" by the move, was only slightly more restrained a year later in its official history of Crossroads, "Bombs at Bikini."

The Bikinians, convinced that the (A-bomb) tests would be a contribution to world peace, indicated their willingness to evacuate," the Navy historian wrote.

It wasn't quite that way, according to Tobin, emeritus professor of anthropology at University of Hawaii.

"They did not go willingly," Tobin said. "They were forced to go. . . . They agreed because they had to, just as they had agreed to do things when the Japanese had bayonets in the background."

"Put yourself in their shoes: You've been told what to do by the Japanese for a quarter-century. . . . and told by the Japanese military the Americans were weak. So when the Americans wiped out the Japanese. . . . all those American ships appearing, the natural reaction. . . . would be to go along with what they are told."

On the afternoon of March 7, 1946, the 166 men, women and children of Bikini were loaded aboard Navy LST 1108. As the awkward landing craft backed off the beach at Bikini Island

and churned out of the blue-green lagoon, the people gathered on the main deck to sing traditional songs of farewell. The next morning they were unloaded at Rongerik.

On the morning of July 1, a B-29 bomber called Dave's Dream dropped a "nominal yield" 20-kiloton (the equivalent of 20,000 tons of TNT) atomic bomb over the fleet of 70 obsolete U.S. and captured Japanese and German warships moored just off Bikini Island. It exploded 500 feet above the fleet, sinking five ships, twisting and crushing others like cheap toys—and initiating the radiation poisoning of Bikini.

Among the 42,000 observers of the awesome blast was Chief Juda, watching as a guest of the Navy from the deck of the amphibious command

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*They thought they could bear up under the hardships of Rongerik.*

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ship Mt. McKinley, several miles away. The Navy used more than 10,000 instruments to record test data.

Chief Juda's reaction was not recorded. The next day he reined his people at Rongerik.

Rongerik was a disaster. It was too small. There was too little food. And, according to legend, it was haunted by an evil witch named Liborka, who poisoned the fish of the lagoon. In fact, certain fish of the lagoon were poisonous which was why Rongerik had been uninhabited for years.

But it was close to Bikini and the people had chosen it for that reason. They thought they could bear up under the hardships until they went back to their home atoll. That, they were convinced, would be in a couple of years at most.

Chief Juda had returned from the first bomb test (the second, an underwater shot, was held July 25, 1946) to tell his people that while there had been great damage to the ships, there

seemed to be little to Bikini itself. The trees were still standing, still bearing coconuts. But the radiation, invisible, was not something he could understand.

Severe food shortages developed during the winter of 1946-47. In spring of 1947, fire destroyed a third of Rongerik's coconut trees. The people pressed for a return to Bikini, but a radiological survey indicated that it was too "hot" for permanent occupancy and would be for many years.

In October, the Navy announced that the Bikinians would be relocated on Ujelang. But two months later, the Pentagon announced a new series of nuclear tests would be held, this time at Eniwetok, another atoll in the Marshalls. The Eniwetok people would go to Ujelang instead of the Bikinians. The Bikinians had to wait.

Andrew Jakco remembered the Rongerik period well. "I was a big man then," he said, "but I got skinny." He held up the little finger of his left hand. "Skinny like this. One old woman died from hunger. . . . For a year and a half, we did not have enough food, (sometimes) got our food by cutting open the coconut tree and eating the heart of the tree. This killed the tree."

Jeladink Jakco, Andrew's 48-year-old brother, was a teen-ager on Rongerik. "It was terrible," he remembered. "We ate things that were not good, gathered coconuts that floated in from the sea. Bad food, we got sick. Arms and legs swelled up, and we got blisters on the arms and we had diarrhea."

Late in January, 1948, the Navy dispatched anthropologist Leonard Mason, now of the University of Hawaii, to investigate. He found the exiles at the point of starvation, living on raw flour diluted with water.

In strong terms, Mason recommended that the people be removed from Rongerik as soon as possible. He also recommended Kili Island, although he admitted it had many disadvantages, as the best available place to relocate the Bikinians.

In March, 1948, they were moved to

camp at Kwajalein. In September, the Bikinians voted to resettle on Kili, and in November, they were finally settled on Kili and began building a new and bigger village than they had had on Bikini.

Kili was without question better than Rongerik. But it also was small and, worse yet, it had no lagoon. The island was constantly pounded by the Pacific. Fishing was far more difficult

than at Bikini. Supply ships could neither land food nor take away coconuts—dried coconut, the only cash crop—for months at a time because of the heavy surf. Sometimes six months passed before a ship could unload.

In an attempt to relieve the isolation, the Navy turned over a 40-foot power whaleboat to the Bikinians. It sank in high seas in 1951.

In the same year, the Navy turned over administration of Micronesia—

and the problems of the Bikinians—to the civilians. A high commissioner was appointed by the President to work with and through the U.S. Department of the Interior.

Matters did not improve right away. But under pressure from the United Nations, the high commissioner pushed a community development plan to improve agriculture on Kili.

In addition, the Trust Territory turned over a copra trade boat to provide

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# Bikini Islanders Lose Out Again

Continued from 8th Page

vide a transportation link to Jaluit Atoll, where a colony of Bikinians had been established as part of the community development project. At first the scheme prospered, morale improved and some thought the Bikinians might learn to adjust to Kili.

Then, late in 1957, and early the next year, typhoons sank the copra boat, destroyed the new agricultural projects and wrecked the Jaluit colony.

After that, according to Tobin, the heart seemed to go out of the exiles.

On March 1, 1954, test shot Bravo, an H-bomb 750 times more powerful than the first atomic bomb, was exploded at Bikini with tragic results.

An unpredicted wind shift after the blast had sent the 20-mile-high cloud of radioactive particles drifting in the wrong direction, across Bikini Island and beyond. The plume stretched 240 miles long and 40 miles wide, over an area far outside the restricted danger zone.

Rongelap, Rongerik and Ulirik atolls, all inhabited by Marshallese and U.S. military personnel, were in the path of the fallout, which in some places fluttered down like snowflakes.

Twenty-eight Americans, 244 Marshallese and—although it was not known until sometime later—23 crewmen of the Japanese fishing boat Fukuryu Maru (Lucky Dragon) were seriously irradiated. One crewman died of complications. The rest spent a year in hospitals.

The Americans and the Marshallese, evacuated and treated in military hospitals almost immediately, did not seem at the time to have suffered permanent harm. No one seems to know what happened to the Americans. But over the years, 47 of the Marshallese have developed thyroid abnormalities, seven of them diagnosed as cancerous. Thirty-five have had their thyroids removed. One has

died of leukemia, another of cancer of the stomach, believed to have been caused by the Bravo fallout.

Bikini Island, although unoccupied, was intensely irradiated, a fact which would have consequences which will be felt for generations.

The Bravo disaster and the worldwide publicity given to it played a part in the eventual suspension of nuclear testing in 1958—the year of the 23rd and final shot at Bikini—and in the nuclear test-ban treaty of 1963, which ended atmospheric testing by the United States, Britain and the Soviet Union.

With the end of testing, pressure mounted to return the exiles to Bikini.

William Norwood, now living in retirement in Hawaii, served as high commissioner of the Trust Territory from 1966 to 1969.

In a recent interview with The Times, he said, "We had, of course,

**The experts warned that the coconut crabs should not be eaten.**

been under pressure from the Bikini people themselves to get them off of Kili. They were constantly asking to be put on some other island. They hoped first and foremost for Bikini.

I remember being introduced to Chief Juda, who very emotionally and persuasively, and almost tearfully, pleaded with me to either get them back to Bikini or, failing that, to get them a better place than Kili."

Norwood said that about the same time a representative of the Atomic Energy Commission—he does not recall his name—told him that monitoring of Bikini's radiation levels indicated it might now be safe once again for permanent reoccupation.

In May, 1967, some time after a formal request by Secretary of the In-

terior Stewart Udall, the AEC sent a team of technologists to make an intensive radiological survey of the atoll.

On Aug. 12, 1968, President Johnson announced that Bikini was safe, that it would be rehabilitated and resettled "with all possible dispatch."

Glenn T. Seaborg, AEC chairman, explained that the President's final decision had been based on the recommendation of "eight of the most highly qualified experts available" after studying the 1967 survey results and unanimously concluding that Bikini Island and Eneu Island, 10 miles away, were radiologically safe enough to allow reestablishment of the Bikinians there.

The experts—all either AEC employees or employees of AEC contractors—warned that the coconut crabs should not be eaten because of their high content of strontium 90. There were no warnings about any other local foods. They recommended that radiological checks be made periodically to determine how much radiation the people were being exposed to from external environmental sources and from their diet.

Chief Juda did not live to hear the news. He had died—shortly before the Johnson announcement—of cancer, which he believed had been caused by his exposure to the first A-bomb test in 1945, a claim scientists are inclined to discount.

Ironically, especially in view of what was to be learned 10 years later, several Bikinians expressed suspicion about the food growing on the contaminated atoll during a tour of the islands a few weeks after the Johnson announcement.

One of the Bikinians, named Jiba, even refused to touch food from the atoll, insisting it was poisonous.

Another, Lajo, made a forecast that, from the perspective of 1978, seems far more acute and accurate than the predictions of any of the U.S. bureaucrats or scientists. "It will take

100 years before the islands are back in shape again," Tobin reported him as saying. "The islands are completely ruined now."

Still, despite their suspicions and the obvious enormity of the job, the Bikinians on the tour apparently were convinced by the officials and scientists that at least the islands of Bikini and Eneu, 10 miles away, could be made livable.

The Bikinians reported the conditions they had seen and the plans that were being made for rehabilitation to their fellow islanders on Kili. Only two or three of the 300 then living there voted against the idea of an eventual return to Bikini.

The cleanup began in February, 1969, using some Bikinians on the work crew. The rest of the rehabilitation project—plowing up Bikini and Eneu Islands, replanting them with food crops, began later the same year. A few families began moving back to Bikini.

By 1974, the \$325,000 cleanup and the \$3 million rehabilitation program was through its first phase. Forty of the planned 80 homes had been erected.

Then, as planning for the second phase was beginning, the Bikinians said they wanted to locate some of the new structures in the interior of the island.

The following year, another AEC radiological survey was made, this time in more detail. It was found that

radiation levels in the interior of the island were too high to permit people to build and live in homes there.

"We didn't really find any surprises in that external radiation field," said Tommy McCraw, who had been involved in both the 1967 and the 1975 surveys.

However, at the same time, it was determined for the first time that locally grown breadfruit and pandanus—two popular items of diet—were too radioactive to be safely consumed over the long term. Coconuts, even

**The internal dose had risen dramatically between 1974 and 1977.**

more of a staple in the local diet, were reported to be safe.

Then last summer, a Lawrence Livermore Laboratory study done for the Energy Research and Development Agency, an AEC successor agency, found that well water on Bikini exceeded federal standards for radioactive strontium 90.

Other levels of radiation on the island were so high, according to the report, that there was little margin for safe absorption of any additional doses from the food chain.

But, at the same time, ERDA environmental safety official Roger Ray

said it would be premature to say that the Bikinians should be moved off their atoll.

By fall, though, there no longer was any question: Ray told a meeting of the Bikini-Kili Council in Majuro that Bikini Island "should no longer be considered a permanent settlement" and advised that consideration be given to moving the settlement to Eneu.

It seemed the scientists had now determined that the Bikinians were absorbing radiation at a rate substantially above the federal safety standard of 5 rem per year, a measurement of radiation dosage of any kind producing biological effects in man.

According to the Department of Energy (successor to ERDA) the external dose on Bikini Island in 1977 was 2, the same as in 1974. But the internal dose, measured by an instrument called the whole body counter, had risen dramatically in three years—from a top reading of .087 in 1974 to a top of .533 in 1977.

And the coconut was named as the radioactive "villain," since it was the only locally grown food then being consumed in any quantity. As one scientist put it, the coconut palms were "sopping up" radioactive cesium 137 and strontium 90 at a much greater rate than anyone predicted.

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L.A. Times 7/23/78

# Bikini Islanders Lose Again to Radiation

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High doses of radiation from these isotopes are known to cause various types of cancer in man, but scientists debate the cancer risk from relatively low doses such as those to which the Bikinians have been exposed. In general, scientists have found that the lower the dose, the lower the risk that cancer will develop over a period of years.

The people living on Bikini were ordered either to eat no coconuts or to ration themselves to one a day. But they were told the coconuts from Eneu were still safe.

The Trust Territory government initiated a feeding program. Except for fish and fowl, the people were to eat nothing but U.S. Department of Agriculture surplus food.

By February of this year, it was official policy: Bikini was unfit for people to live on.

In contrast to 1963, the news was not announced to the world by the President of the United States.

It was rather quietly passed along to Congress in the form of a money request. Undersecretary of the Interior James A. Joseph, in asking Congress for a \$15 million appropriation to relocate the people of Bikini, explained the tragedy in low-key, bureaucratic style.

"It became evident that radionuclide intake in the plant food chain had been significantly miscalculated in terms of human consumption. . . . The restriction on the use of coconut products produced on Bikini Island for food and export make (it) . . . unrealistic as a permanent place of settlement.

He wrote that Eneu Island appeared to be the most feasible alternative place to resettle the 500 persons who had earlier indicated they eventually wanted to live on Bikini Island, but added that a small number would likely choose to remain on Kili.

"Analysis," he wrote "reveals that there Eneu Island coconuts can be used for food and possible future copra export."

Joseph proposed that \$13 million be spent to make Eneu livable and \$2 million be invested in improving conditions at Kili.

In mid-March, Rep. Sidney R. Yates (D-Ill.), chairman of the House interior subcommittee on appropriations, opened the first of a series of hearings on the money bill and the plight of the Bikinians.

At the April 12 session of the Yates subcommittee, Trust Territory officials testified that it was their belief Bikini Island would be off limits for 30 to 50 years but that Eneu, 10 miles away, was likely to be a safe site for permanent resettlement.

Adrian Winkel, current high commissioner of the Trust Territory, testified that, "even knowing of the danger," those already living on Bikini Island wanted to stay there and that there was some indication others from Kili wanted to join them on the condemned home island.

The subcommittee was told that final determination of whether Eneu was safe for permanent relocation could not be made until about Jan. 1, 1979, when radioactivity levels of fruit and vegetables grown in an experimental garden plot on the island would be made known by the Department of Energy.

But the witnesses agreed that the Bikinians could remain where they were without harm until Jan. 1 if they just stuck to the rules and refrained from eating the coconuts—unless, they added in qualification, the medical tests (whole body counts) to be made on the Bikinians later in April showed sharp bumps in internal radiation dosage. And that was not expected.

McCrav, now chief of special projects branch of the Energy Department's division of environmental safety, said in an interview in early

May, "We can show that Eneu is lower (in radioactivity) by a factor of 10 than Bikini Island. . . . Eneu could be a residence island without restrictions, which means you can eat the fish you catch in the lagoon, you can grow any crop. I'm convinced that these Eneu (test) crops are going to show very much lower levels than the Bikini numbers."

At the Department of the Interior, Ruth Van Cleave, chief of territorial affairs, John DeYoung, her top assistant, and High Commissioner Winkel all thought Eneu was the most acceptable second choice of the Bikinians.

But now all three were cautious about the data they were getting from the Energy Department. "All we can do at any stage is listen to what the experts say—and hope they're right," Mrs. Van Cleave said.

"The decisions of 1967-68 (that Bikini was safe for resettlement) were based on available knowledge," Winkel said. "And now we are in virtually the same position. The decisions we make now will be based on available knowledge."

But less than two weeks later, there was bad news for the Bikinians.

The report on the April whole body counts on the Bikinians showed a startling increase in internal radiation doses.

The readings ranged up to 48, nearly double the federal safety standard of 5 rems.

Including the external radiation dosage of 2, the same as in the past, the top reading was 1.18. At the same time, and just as startlingly, preliminary results of testing on coconuts grown on Eneu showed radioactivity levels five to six times higher than had been expected.

Testifying at the May 22 session of the Yates subcommittee, Mrs. Van Cleave said the latest results required a last overhaul of plans.

***'We would like you to keep your promise to the Bikini people, to take care of us.'***

First, she said, although there was no immediate hazard to their health, the people must be removed from Bikini Island within 90 days. Second, it appeared that Eneu must be ruled out as the alternative site of the permanent resettlement.

At the same session, at the head of a small delegation of Bikini leaders, was Magistrate Tomaki Juda, son of the man who was chief in 1946. Although born on Bikini, the 36-year-old Tomaki was too young to remember details of the first removal. But he had heard stories of that time all his life.

He repeated one now to the subcommittee: When the naval officer had told the people they must leave the island a generation ago, he had compared them "to the children of Israel whom the Lord saved from their enemy and led into the promised land."

It had not worked out that way. "We are more akin to the children of Israel when they left Egypt and wandered through the desert for 40 years," the dark-skinned, dignified Bikinian said. "We left Bikini and have wandered through the ocean for 32 years, and we will never return to our promised land."

In fact Tomaki was back on Bikini on June 1, along with High Commissioner Winkel, but only to break the news to the people and to discuss with them where they wanted to go.

Winkel's recommendations were read into the record at the June 19 meeting of the Yates subcommittee. He noted that those living on Bikini Island told him that if they could not remain there, or at least on Eneu, they preferred

to move to "public domain" land in Hawaii or to the mainland of the United States.

He said the majority of those living on Kili apparently preferred to remain there. But, he added, some wanted to join the Bikinians wherever they might be relocated.

Further tests on Eneu foodstuffs would be required before the island could be finally ruled out, Winkel said. But he was not optimistic. And, without quite spelling it out, he seemed to dismiss the thought of relocating the Bikinians in Hawaii or on the mainland.

"On the basis of all the factors," Winkel summed up, "it is my decision that the people of Bikini Island should be relocated to Kili Island at this time."

Winkel's statement to the subcommittee on the Bikinians' preferences was accurate as far as it went.

But, from Times interviews with more than a dozen Bikinians on their condemned island last month, it was apparent the high commissioner failed to convey the depth of their feelings, especially their reluctance to be resettled in the Marshalls, particularly on Kili. "Kili," they said again and again, "is bad, Kili is no good."

With only one exception, they said they wished to be resettled in Hawaii or Florida.

Milton Anien, born on another island but married into a Bikini family, put it this way.

"We would like to be with you in America always. We like you. We would like you to keep your promise to the Bikini people, to take care of us.

"You made a promise to the Bikini people, so we would like to come live with you—and you can support the people of Bikini as much as you can—live with you so the American doctors can watch me and my family because I worry about the radiation, worry about the radiation night after night. . . . Everybody here says this."

Magistrate Tomaki Juda, appearing before the subcommittee once again, said that although there was deep sorrow and bitterness among his people and although "life on Kili is difficult," he concurred in the high commissioner's decision to relocate them at least temporarily on that island.

Then he suggested practical measures which he said were necessary to make Kili livable—construction of a 2,000-foot airstrip and an all-weather, all-season pier, establishment of a medical dispensary, a new school, renovation of homes and community facilities. Consideration also should be given, he said, to relocating some of the people on Jabwor Island at Jalut Atoll.

The Bikini leader also made it clear that in addition to relocating the people, and making their new homeland livable, the United States had further financial obligations.

It was too soon to discuss details, he said, but, "we feel that our people, especially the elderly ones, are entitled to compensation from the United States, for their removal from Bikini and for the virtual destruction of Bikini and other islands."

Congress has now approved the \$15 million for relocating the Bikinians, and building materials are being purchased for the temporary housing for them on Kili.

Plans are under way for the Kili pier, although some persons familiar with the surf conditions do not believe it is feasible.

Planning also goes ahead for the final removal of the people from Bikini next month.

One last matter: Ruth Van Cleave said in Washington that, although old Andrew Jakeo cannot continue to live on Bikini, it is possible that after his death he could be buried there with his ancestors.

But she added, "I think we would want to get firm word on that from the scientists."