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A-Bomb Still Haunts Atoll a Generation After Tests

People of Bikini Absorbing Radiation, Medical Exams Show; Soil, Groundwater Contaminated

BY LARRY REYON

MAJURO, Marshall Islands—The people of Bikini, who were allowed by the U.S. government to return to their atoll, are absorbing radiation nearly two decades after the United States ended its atomic testing program there, medical tests here show.

Surveys conducted since the migration back to the atoll began five years ago have shown also that the soil and water at Bikini contain concentrations of strontium 90, cesium 137 and plutonium 239 and 240, which are readily absorbed by fruit and vegetation.

During the resettlement program, the population at Bikini climbed to as high as 85 persons, but it has since declined to about 60.

"They have been moving off the island because of the concern," said Nathan Note, who as Bikini's "scribe" is the second highest native official on the island.

"This is not the proudest moment in U.S. history," said one official with the federal Energy Research and

Development Administration (ERDA), successor to the old Atomic Energy Commission.

The people of Bikini were displaced from their ancestral lands 31 years ago to make room for the first post-war atomic bomb tests. Their islands became part of the Pacific Proving Ground.

Twenty-three nuclear blasts were set off at Bikini Atoll during the testing program, including the first hydrogen bomb.

"We thought we would be back in a year, probably two," recalled Jamore Aitap, who was 38 when the Bikini people were moved in the first of three unsatisfactory resettlement efforts. Now Aitap refers to himself as a "fojok," Marshallese for displaced person.

The islanders' hopes were raised in 1968 when President Lyndon B. Johnson announced that most of their atoll was safe for human habitation. The return started later, but serious questions have been raised since about levels of radiation at the former test site.

Samples of blood and urine from the first residents to return to Bikini, as well as from workers involved in the resettlement program, show the people are absorbing radiation, although the amount and its significance are in dispute.

"Notwithstanding what anyone says about whether or not these levels are scientifically significant, they are not reassuring," said George H. Allen, an attorney who represents the people of Bikini.

A study published this January by
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BIKINI ATOLL RADIATION PERIL

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The Livermore Lab also found that doses of external radiation to persons living in houses already built on the island would amount to about 70% of the 30-year federal guidance limit.

"This leaves little margin for additional radiation doses that may be potentially received by intake of radionuclides via groundwater and various food chains," the study said. "It is clear that residents in houses built within the interior of Bikini Island will receive 30-year external doses exceeding the guide value."

Although no illnesses due to radiation have been identified on Bikini, the radionuclides found there have all been associated with various forms of cancer, including leukemia, cancer of the bone and of the liver. The long-term effects of low-level radiation are not yet well understood.

Federal officials believe, however, that it would be premature to decide that the islanders should not remain on Bikini.

"It would be a gross injustice to say in a headline that Bikini is not accep-

table as a residence island," said Roger Ray, assistant manager for environmental safety at ERDA's Nevada operations office. Ray is in charge of cleanup operations in the Marshall Islands and has developed a close rapport with the people there.

ERDA plans to resurvey Bikini and other atolls in the northern Marshall Islands later this year in an effort to pinpoint pockets of contamination and assess the possible hazards.

Resettlement hazards at Bikini may be eased, Ray said, once it becomes clear what measures the people can take to reduce radiation exposure to insignificant levels when they return.

But these "options," as federal officials call them, such as not drinking well water or eating food grown on Bikini Island, present enormous social, cultural, institutional, and ultimately political problems for the U.S. government in its role as trustee over Micronesia.

The history of the resettlement program so far indicates the severity of future obstacles.

When the old Atomic Energy Commission was first consulted about the possibility of allowing people to return to Bikini, it replied that resettlement was possible, but made a number of recommendations.

According to a suit filed by the Bikini people in federal court in Hawaii,

the AEC recommended that all be removed from areas surrounding food plantings and be replaced by soil from less radioactive islands. This was not done, the suit said.

The AEC wanted ground surrounding houses to be covered with coral and sand taken from less radioactive areas. It also wanted the material for floor slabs, walls and porches and for cisterns for water to come from uncontaminated islands or reefs. Neither of these recommendations was followed by the Department of Interior or Trust Territory government, the suit said.

"People read the first line of the recommendations that said the people could go back. I don't think there was much recognition of or understanding of the rest of the advice," said Tom F. McCraw, a staff member of ERDA's division of environmental safety.

"We've got to share a lot of the blame because we didn't go around beating the bushes trying to explain," said Joe Deal, assistant director for health protection with ERDA. "We're making a great deal more effort to go around and make sure people know what we're saying."

Deal said the initial resettlement program had too many "dumb assumptions," the first being that island-

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ATOLL RADIATION

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residents would not eat the fruit of the mangoes, trees, even though there was no guarantee of an ample supply of imported food.

Reports from Bikini indicate that during the last year there has been almost a scarcity of the first book of Genesis. They were told not to eat the poisonous and breadfruit, but some of the people are eating these things. Even the temptation is too great, said Oscar DeBorja, administrator for the Trust Territory's Marshall Islands district.

Under the \$20 million cleanup program and \$12 million resettlement program that Congress authorized last year for the people of Bikini, another fact that was heavily radiated from weapons testing the program for the people of Bikini has been, at best, piecemeal.

"The resettlement proceeded in sort of a patchwork way," said Ray, of ERDA. "Never, as far as I'm aware, did an agency of the United States go over to Congress and present a total package for a return."

Even federal officials admit, however, that the plight of the people of Bikini is more serious than the displaced people of Ebewetak, who were

sent to a relatively nearby atoll, thus allowing them to remain together.

The Bikini people have been less fortunate. They are the most dispersed of all the Pacific Island peoples," said their attorney, George Allen. This dispersion, he said, has made it extremely difficult for them to function as a community.

Their hardships started with the misunderstanding that they were giving up their atoll to the Navy in 1946 for only a short while.

Anthropologist Robert C. Kiste said the people of Bikini were told their atoll was needed by scientists for experiments with nuclear devices that would be for the good of mankind and to end all wars.

"The military governor told the people, who were deeply committed to Christianity, that they were like the children of Israel who the Lord saved from their enemy and led from the Promised Land."

Navy press releases and news reports praised the atoll that the people were being shifted to, Rongerik, an uninhabited atoll about 120 miles to the east of Bikini.

"The natives are delighted, enthusiastic about the atomic bomb, which already has brought them prosperity and a new promising future," said one account in a Honolulu newspaper.

Rongerik is much more beautiful and of a much higher fiber than Bikini, said an account in the Los Angeles Times. "Rongerik is about three times larger than Bikini and roughly triangular. Coconuts here are three or four times as large as those on Bikini and food is plentiful."

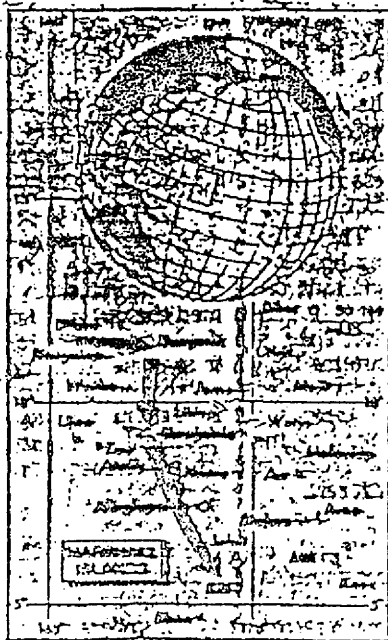
But the people of Bikini knew better. Bikini had 26 islands and 232 square miles of land, while Rongerik had 10 islands with 0.17 square miles of land. There was a reason that it was uninhabited.

It was associated with evil spirits and many species of fish in the lagoon were unaccountably toxic.

Eleven families—about 170 persons—were loaded aboard a Navy landing craft on March 7, 1948, taking with them personal possessions, pirogues, thatch panels and outrigger canoes. Jamore Allap said they had been given about a week to pack.

"Relocation was accomplished swiftly and with little planning," said Kiste. "As soon as the people began to subsist on local foods, it became apparent that Rongerik's resources had been greatly overestimated and were in fact, inadequate."

In 1947 a Navy board of investigation found the people were seriously undernourished and low on fresh water. The Trust Territory administration offered to relocate them on Kili, an island, rather than an atoll, 500 miles to the south. The Bikini council



MIGRATION—Map traces route of islanders displaced during nuclear testing program.

still hoping to return to its home atoll, refused.

In March, 1948, two years after the atomic bomb tests, federal researchers were still unwilling to declare Bikini safe for return. The people from Bikini were moved from Rongerik to a military base at Kwajalein, an atoll about 180 miles to the south, and then to Kili.

skills, and some big disadvantages, not the least of which was that it had no lagoon or sheltered fishing area, which meant that centuries of sailing and fishing skills accumulated by the people of Bikini were useless.

It was an agricultural island, a jobney copra plantation, about one-sixth the size of Bikini atoll. For almost six months out of the year it was cut off from the world by pounding surf.

There were periods of starvation and hardship, including an air drop of food without the aid of parachutes, so that most of the food was smashed and rendered inedible. A devastating typhoon in 1957 killed taro and breadfruit and wiped out a development program.

"Even now, life on Kili is difficult," said Allen. "There is an 80% positive test rate for TB, with several active cases. The overall standard of living and well-being on Kili is low. It's a very lonely, very isolated place."

Over the years, as hardships increased and the population swelled on Kili, the people of Bikini moved to other places in the Marshalls: to an overcrowded island at Kwajalein; in hopes of landing a job at the U.S. Missile Range; to the dank back streets of Majuro, the district capital; and to a number of outlying atolls with euphonious names: Lae, Alinglaplap and Jaluit.

Now there are more than 700 claimants to the original lands of Bikini, but it is becoming doubtful how or

when the rest of the Marshalls will turn.

Much depends on the outcome of the aerial radiation survey that ERDA intends to carry out in the northern Marshalls this fall and winter. The survey will cover Bikini and atolls that were hit by fallout from the hydrogen bomb test, excluding Rongelap, Rongerik and Ujae.

So far, Congress has paid the people of Bikini \$325,000 in 1965 and \$3 million in a trust fund in 1975 to compensate them for hardship.

Allen said he intends to ask for another \$45 million to compensate them for the loss of their land over a long period of time. "This still doesn't get to the final question of compensation for the loss of Bikini Atoll, is that what they now face," he said.

"The biggest fear is that we will be told the whole northern Marshalls are irradiated," said Amata Kabua, member of the Micronesian Senate and chairman of the Marshalls Political Status Commission. "That would be a tremendous loss, both economically and emotionally."

ERDA officials find such an alternative an impossibility, although they acknowledge that it may take a generation to bridge gaps in technology, culture and language to convince people that the islands are safe.

"We made a mess there and we're going to stay and clean it up," said ERDA's Joe Deal. "Let's face it, the people of Bikini were screwed by history, but it wasn't deliberate."

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Unlike the \$20 million cleanup program and \$12 million resettlement program that Congress authorized last year for the people of Enewetak, another atoll that was heavily radiated from weapons testing, the program for the people of Bikini has been, at best, piecemeal.

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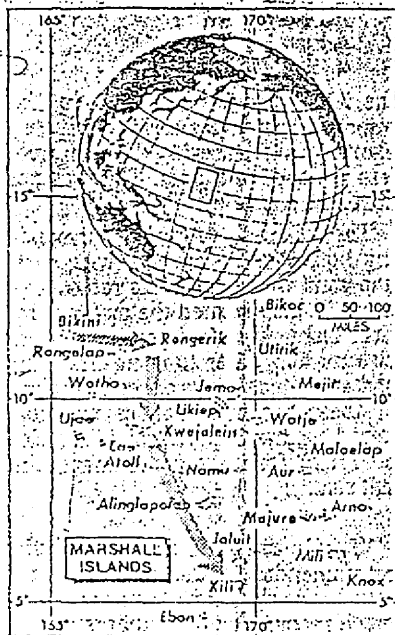
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