

# Marshall Islands: The Radioactive Trust

by Giff Johnson

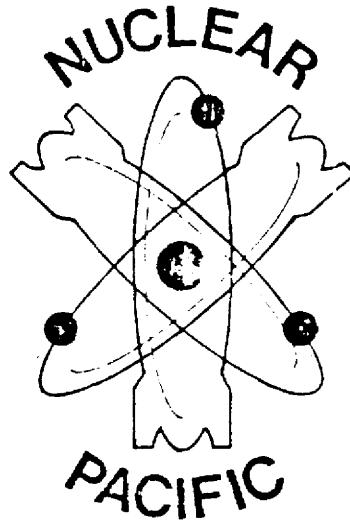
The "Year of the Animal" is how many Marshallese describe the nuclear legacy that has brought them severely retarded and physically deformed children. Women on dozens of the tiny islands are plagued with miscarriages and babies with birth defects, but the United States government has not taken any action to study the possibility of a connection between these problems and radiation exposure.

From 1946 to 1958, sixty-six announced nuclear tests devastated the peaceful atolls of Bikini and Enewetak, whose residents had been moved to other islands in the Marshalls. Forty-three tests were conducted at Enewetak and twenty-three at Bikini.

In 1946, prior to Operation Crossroads—the first series of "small" atomic bomb tests at Bikini—the people from Rongelap Atoll, 125 miles east, were evacuated from their islands as a precaution. On March 1, 1954, the U.S. detonated Bravo, the largest hydrogen bomb tested on Bikini. At fifteen megatons, it was 1,150 times bigger than the Hiroshima atomic bomb which killed 100,000 people. Why the Rongelap people were not evacuated, or even given an official warning that the test was to take place, remains a mystery.

Within hours of the March 1 test, radioactive fallout reached Rongelap and nearby Utrik Atoll. By mid-afternoon the fallout was two inches deep on the ground. Not warned of any precautions to take, the Marshallese were outside as the poisonous ash fell on their arms, feet, and heads. People on Rongelap began to vomit, and their skin itched terribly; within days burns appeared on their skin and many lost some or all of their hair.

Brookhaven National Laboratory reports show that during the first four years after Bravo, the exposed Rongelap women had a miscarriage rate twice that of unexposed women. Nineteen of the twenty-two children under the age of twelve at the time of exposure have had



surgery for removal of thyroid nodules, some cancerous. In 1972, a youth barely a year old when exposed in 1954 died of leukemia. And the health of the people, instead of improving with time, has grown worse. A 1977 government study says: "Recently about 50 percent of the exposed Rongelap people showed hypothyroidism . . . a finding that probably portends trouble ahead."

Just three years after the Bravo test, the Atomic Energy Commission (AEC) said that despite "slight lingering radiation" Rongelap was safe and its people could return. A 1957 Brookhaven medical report for the AEC said: "Even though the radioactive contamination of Rongelap Island is considered perfectly safe for human habitation, the levels of activity are higher than those found in other inhabited locations in the world. The habitation of these people on

the island will afford most valuable ecological radiation data on human beings."

Many Rongelapese who had not been on the atoll during the fallout in 1954 returned in 1957. Living on radioactive islands and consuming local foods, the unexposed people eventually became exposed. Moreover, a little-known 1978 Department of Energy (DOE) study shows islands in Rongelap have higher radiation levels than some islands in Bikini which have been declared unlivable for twenty years. Yet they have been living on Rongelap since the AEC said it was safe in 1957. In early 1979, however, DOE scientists told the people not to use the highly radioactive northern islands in their atoll.

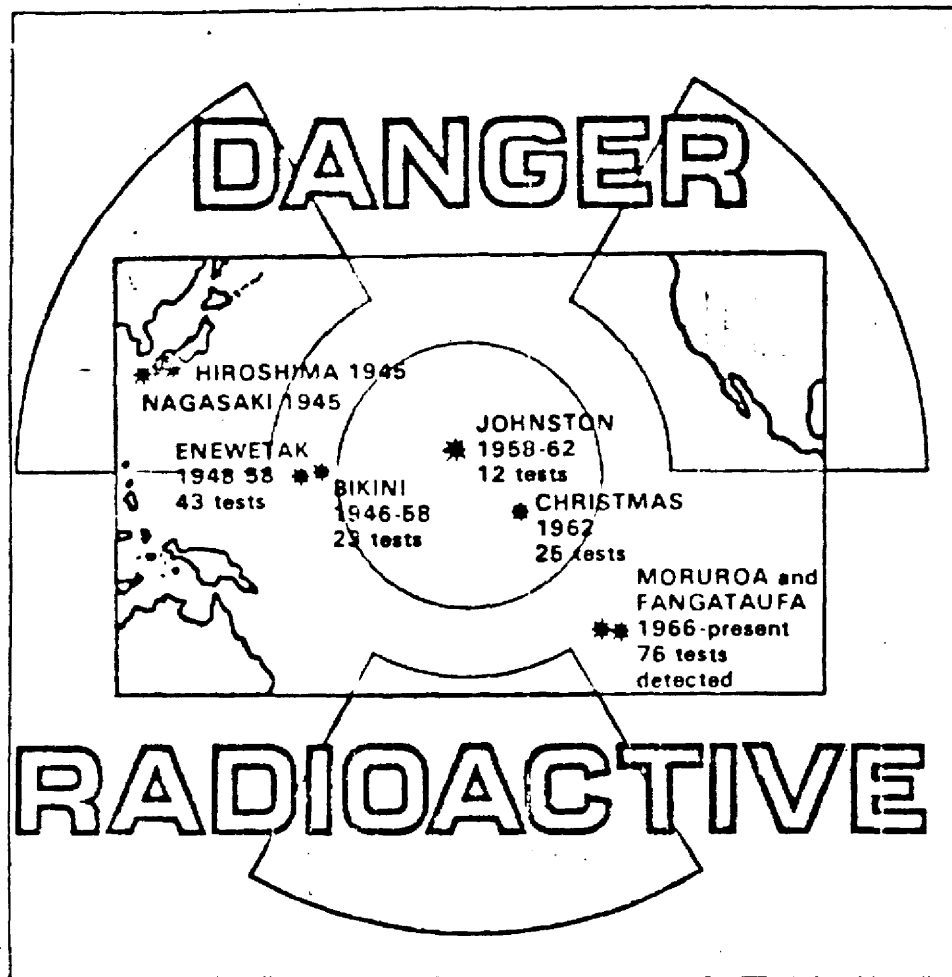
Meanwhile, for twenty years the Utrik people have heard the AEC doctors tell them that their radiation exposure was too low to cause harmful effects. The Utrik people received less than one-tenth the dose of the Rongelapese. Nevertheless, in 1976, twenty-two years after their exposure, the Utrik people's cancer and thyroid disease rate rose sharply to equal that of the heavily exposed Rongelap people. The government now confirms that thyroid cancer is more prevalent in people with lower exposures than those who were highly exposed. The Utrik people angrily responded to this development in a 1976 letter to the AEC, saying the AEC doctors "look at the people of Utrik as if they were merely animals in a scientific experiment. The people feel that the [medical] program is in need of vast changes."

For years the U.S. claimed that only the atolls of Utrik, Rongelap, Bikini, and Enewetak were affected by the nuclear testing. An obscure Department of Energy report in 1978 said, however, that in addition to these four atolls, "eleven other atolls or single islands received intermediate range fallout from one or more of the megaton tests."

One of these atolls is Ailuk, 250 miles east of Bikini, where in a population of

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Giff Johnson has traveled extensively in the South Pacific and Micronesia, and spent three months in the Marshall Islands in 1979 on a research trip, interviewing people from many of the islands. A free-lance journalist, he has written for the *Bulletin of the Atomic Scientists*, the *Progressive*, and *Oceanic Magazine*, among others. Since 1970 he has edited the Micronesian Summit's quarterly *Bulletin*. Honolulu.



about 300, more than 10 percent complain of lime-size growths or tumors on all parts of their bodies. Of nearby Likiep, an article in the June 6, 1980, *Marshallian Independent* said "Out of 400 people who live on Likiep, there are documented reports that list nine women who have given birth to babies with severe mental retardation, one woman who had three 'strange' stillborn babies, 'one completely unrecognizable as human.' Also reported among women on Likiep were ten other babies that were not normal, a quite high percentage of the population."

Aside from the birth defects, which seem at almost epidemic proportions, thyroid tumors are plaguing dozens of people from these and other islands. Indicating that these problems are not isolated events, people from every atoll in the Marshalls assert that arrowroot, a mainstay in the Marshallese diet before the testing, has simply stopped producing.

Little attention has been paid to the twenty-five Christmas Island tests, and the twelve nuclear blasts at Johnston Island, many of which were hydrogen bomb experiments. Wind patterns during these large tests blew generally from east to west, which would have carried fallout over the Marshalls. It took

approximately ten years after exposure in 1954 for the thyroid disease and cancers to begin showing up on Rongelap and Utirik. Many people on other atolls say their health began to deteriorate during the 1970s, pointing to a possible relationship with exposure from the Christmas and Johnston Islands bomb tests. Unlike at Rongelap and Utirik, however, there is no medical program to monitor and treat these populations.

Following a three-year, \$100 million-plus nuclear cleanup of Enewetak, the U.S. government says it is safe for the people to return to certain islands. The government is trying to prove at Enewetak what it couldn't at Bikini: that it is possible for people to return safely to the site of forty-three nuclear weapons tests. But a great deal of controversy has developed over whether or not any of the islands are safe. Nevertheless, on the basis of a scientific study (which has been questioned) and the overwhelming desire to go home, the Enewetak people recently voted to return to their islands.

During the massive cleanup operation, thousands of cubic yards of plutonium-contaminated soil were scraped off the islands and, with other radioactive debris, encased in a massive

cement dome in an atomic bomb crater on Runit Island. The cleanup focused on removing the large quantities of plutonium, a cancer-causing agent dangerous for 240,000 years, on all parts of the atoll.

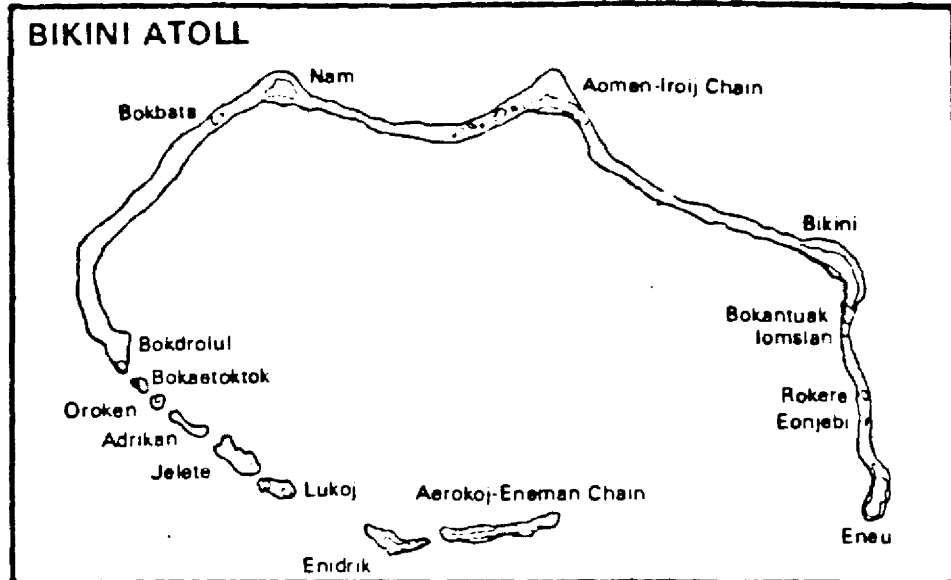
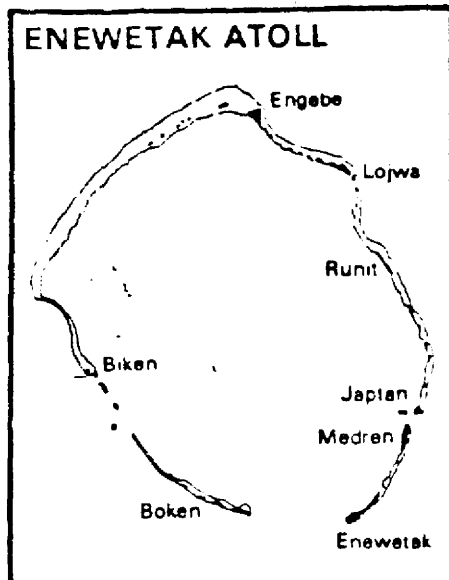
Press visitors to Enewetak in early 1980 reported inconsistencies in government safety standards. "Standing on any part of Runit Island," said one reporter, "you must wear rubber boots and a face mask to prevent breathing plutonium particles. But standing on the concrete dome [a mere fifteen feet away] you are not required to wear any protective gear at all." Moreover, according to sources in Washington, D.C., the National Academy of Sciences is preparing a study on the potential hazards of leaks that have developed in the dome on Runit. A Department of Energy scientific team has been dispatched to reevaluate the hazards, say the sources.

Amid the atmosphere of uncertainty, the 450 Enewetak people are returning home, after living in exile for thirty years on tiny Ujelang Atoll. Runit will be off limits to the Enewetakese, but islands within three miles of it have been designated by the government as safe for "picnics and food gathering." A Marshallese asked, "What will happen if birds, crabs, turtles, and other animals land on off-limits islands and are eaten by people?"

U.S. scientists say that the Enewetak cleanup benefited from the many mistakes made at the expense of the Bikinians during the ill-conceived attempt to resettle Bikini during the 1970s. In 1969 the Atomic Energy Commission had said: "The exposure to radiation of the Bikini people does not offer a significant threat to their health and safety."

As early as 1975, however, the "presence of low levels of plutonium" was discovered in the urine of the more than 100 people who had moved back, but this was not considered "radiologically significant" by the government. (A 1976 Lawrence Livermore Laboratory report described Bikini as "possibly the best available source of data for evaluating the transfer of plutonium across the gut wall after being incorporated into biological systems.") An elevenfold increase in radioactive cesium was recorded in 1977, but still there were no plans to remove the people from a hazardous environment. However, in 1978, the U.S. was in the embarrassing situation of having to relocate the people once again, as they had ingested the largest measurable dose of plutonium of any population.

Of Enewetak, the U.S. government



states that the southern islands are "relatively uncontaminated" and safe to reinhabit. Community facilities and houses have been built on these islands and thousands of coconut trees planted. No houses have been built on the northern islands because the Department of Energy says they are too radioactive for safe habitation for approximately thirty years.

In September 1979 the radiological information about Enewetak was presented by DOE scientists to the people. Two scientists hired by Micronesian Legal Services, a U.S. government funded group representing the Enewetak people, then testified that their study indicated that *all* the islands were safe for habitation, including northern Engebe. In fact, the health risks were so small that "cancer mortality in the lifetime of the population is estimated to be less than a single case," said Doctors Michael Bender and A. Bertrand Brill.

But the objectivity of the study conducted by Bender and Brill, of the government-funded Brookhaven National Laboratory, has been questioned. Dr. Rosalie Bertell, a consultant to the Division of Standard Setting for the U.S. Nuclear Regulatory Commission, said of the study: "They 'reduced' the radiation dose of the inhabitants of Engebe by averaging in the population less exposed. This is like telling one member of a family his or her risk of lung cancer is lowered if the other nonsmoking members are included and an 'average' risk given. It is a scientifically ridiculous approach to public health."

Glenn Alcalay, a former Peace Corps volunteer on Utirik Atoll, said the problem is the "inherent conflict of interest in having Brookhaven researchers assess

U.S. government data," adding that "nongovernment radiation experts" should be included in all such surveys.

Since deporting a team of independent Japanese scientists invited by Marshall Islands leaders to investigate the radiation problems in 1971, the U.S. government has steadfastly refused to allow independent monitoring of the Marshallese people or their environment. To the Marshallese, it is ironic that the United Nations trusteeship

agreement calls on the U.S. to "protect the health of the inhabitants," and yet the U.S. refuses their requests for doctors independent of the government to conduct medical examinations and treat the people's radiation sicknesses.

Until independent medical people become involved in providing medical care in the Marshalls, the mis- and mal-treatment of Marshallese by U.S. government scientists is unlikely to change. □

## Downwind Danger

by Giff Johnson

A United States congressional committee has concluded that the federal government deliberately concealed the dangers of radiation from people living near nuclear test sites in the 1950s and 1960s.

In its August 1980 report, the congressional commerce committee said, "Years after exposure to radioactive fallout, residents living downwind from the test site were found to exhibit unusually high incidences of cancer-related illnesses."

The committee criticized the government, which "espoused the safety of the atmospheric nuclear testing program" while at the same time "also refrained from advertising the health hazards associated with exposure to radioactive fallout. . . . Because the agency charged with developing nuclear weapons was more concerned with that goal than with its other mission of protecting the public from injury, the government totally failed to provide adequate protection for the residents of the area."

The report also pointed out that more than one out of every four tests conducted since 1951 "released radioactivity measured off the test site. . . . The government's program for monitoring the health effects of the tests was inadequate and, more disturbing, all evidence suggesting that radiation was having harmful effects. . . . was not only disregarded, but actually suppressed," the report concluded.

As early as 1959, the Atomic Energy Commission found an abnormally high level of leukemia and thyroid disease among residents living downwind of the Nevada test site. But these reports were quickly hushed up and the government rigidly maintained that the testing was harmless. The AEC opposed further research into these health problems because of "potential problems to the commission: adverse public reaction, lawsuits and jeopardizing the programs at the Nevada Test Site."

The congressional committee advocates compensating the victims of the nuclear testing fairly and without delay.

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