

American Cold War Policies and the Enewetakese: Community Displacement, Environmental Degradation, and Indigenous Resistance in the Marshall Islands

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Volume 22, numéro 2, 2011

URI : <https://id.erudit.org/iderudit/1008982ar>

DOI : <https://doi.org/10.7202/1008982ar>

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Éditeur(s)

The Canadian Historical Association / La Société historique du Canada

ISSN

0847-4478 (imprimé)

1712-6274 (numérique)

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Citer cet article

Smith-Norris, M. (2011). American Cold War Policies and the Enewetakese: Community Displacement, Environmental Degradation, and Indigenous Resistance in the Marshall Islands. *Journal of the Canadian Historical Association / Revue de la Société historique du Canada*, 22(2), 195–236. <https://doi.org/10.7202/1008982ar>

Résumé de l'article

Pendant la Guerre froide, les États-Unis ont effectué 43 essais nucléaires, ont procédé à l'explosion de 12 armes chimiques et ont testé de nombreux missiles dans l'atoll Enewetak dans les îles Marshall. Basé principalement sur des documents d'archives ainsi que sur des audiences tenues au Congrès américain, cette étude de cas aborde les conséquences humaines et environnementales de ces politiques américaines. L'article met d'abord en lumière les intérêts des États-Unis sur les îles Marshalls de même que son autorité sur la région. Les Nations Unies les ayant confiées au soin des Américains après la Seconde Guerre mondiale, ces derniers en ont profité pour procéder à des expériences militaires, conduites en grand secret et sans ingérence du monde extérieur. L'article étudie par la suite l'impact de ces essais sur les Enewetakese et leur déplacement vers Ujelang, un atoll voisin. Cette déportation a marqué le début d'un exil qui a duré plus de trois décennies. L'article traite ensuite des diverses formes de résistances pratiquées par Enewetakese. En mettant à profit nombre d'outils politiques et juridiques, cette petite communauté indigène a attiré l'attention du gouvernement américain et des Nations Unies sur le sort qui leur était réservé. Finalement, l'article se termine par une discussion des tentatives par les habitants des îles pour obtenir compensation du Congrès américain pour les dommages causés par les programmes d'essais militaires. À ce jour, Washington n'a toujours pas dédié suffisamment de fonds pour restaurer l'environnement de l'atoll Enewetak ou pour compenser pleinement les insulaires pour leurs pertes.

American Cold War Policies and the Enewetakese: Community Displacement, Environmental Degradation, and Indigenous Resistance in the Marshall Islands

MARTHA SMITH-NORRIS*

Abstract

During the Cold War, the United States conducted 43 nuclear shots, 12 chemical explosions, and numerous missile tests on the Enewetak Atoll of the Marshall Islands. Based mainly on archival documents and congressional hearings, this case study focuses on the human and environmental consequences of these American policies. To begin with, the essay highlights U.S. interests and authority in the Marshalls. As the United Nations trustee of the region, the United States conducted these military experiments with a great deal of secrecy and little interference from the outside world. Secondly, the essay examines the significance of these tests for the Enewetakese and their removal to Ujelang, a nearby atoll, for more than three decades. Thirdly, the paper emphasizes the various forms of resistance practised by the Enewetakese. By utilizing a number of political and legal methods, this tiny indigenous community drew attention to their plight in Washington and the United Nations. Finally, the essay discusses the islanders' attempts to gain compensation from the U.S. Congress for the profound damages caused by the testing program. To date, Washington has failed to provide enough funds to adequately restore the environment of Enewetak or to fully compensate the islanders for their losses.

* I wish to thank a number of people for the constructive and thoughtful feedback that they provided in the various writing phases of this paper: Justin Bengry, Lesley Biggs, Jim Handy, Angela Kalinowski, Chris Kent, Jim Miller, Rob Norris, and the three anonymous reviewers.

Résumé

Pendant la Guerre froide, les États-Unis ont effectué 43 essais nucléaires, ont procédé à l'explosion de 12 armes chimiques et ont testé de nombreux missiles dans l'atoll Enewetak dans les îles Marshall. Basé principalement sur des documents d'archives ainsi que sur des audiences tenues au Congrès américain, cette étude de cas aborde les conséquences humaines et environnementales de ces politiques américaines. L'article met d'abord en lumière les intérêts des États-Unis sur les îles Marshalls de même que son autorité sur la région. Les Nations Unies les ayant confiées au soin des Américains après la Seconde Guerre mondiale, ces derniers en ont profité pour procéder à des expériences militaires, conduites en grand secret et sans ingérence du monde extérieur. L'article étudie par la suite l'impact de ces essais sur les Enewetakese et leur déplacement vers Ujelang, un atoll voisin. Cette déportation a marqué le début d'un exil qui a duré plus de trois décennies. L'article traite ensuite des diverses formes de résistances pratiquées par Enewetakese. En mettant à profit nombre d'outils politiques et juridiques, cette petite communauté indigène a attiré l'attention du gouvernement américain et des Nations Unies sur le sort qui leur était réservé. Finalement, l'article se termine par une discussion des tentatives par les habitants des îles pour obtenir compensation du Congrès américain pour les dommages causés par les programmes d'essais militaires. À ce jour, Washington n'a toujours pas dédié suffisamment de fonds pour restaurer l'environnement de l'atoll Enewetak ou pour compenser pleinement les insulaires pour leurs pertes.

During the Cold War, the United States conducted 43 nuclear shots, 12 chemical explosions, and numerous missile tests on the Enewetak Atoll of the Marshall Islands. In the race against the Soviet Union for nuclear supremacy, these experiments helped the US develop a wide variety of weapons systems and reinforce its strategy of deterrence. In order to carry out these experiments, however, the Americans displaced the small indigenous community living on Enewetak for more than 30 years and profoundly altered the ecology of the atoll. In response, the islanders utilized a variety of political and legal means to draw attention to their situation and gain redress from the United States. Although Washington eventually accepted responsibility for

the damages caused by the testing program, it failed to provide sufficient funds to adequately restore the environment of Enewetak or to compensate the islanders for their losses.¹

Curiously, Cold War historians have not paid much attention to the consequences of US policies in the Marshall Islands. As J.R. McNeill and Corinna Unger explain, “Like those in the corridors of power whom they have so carefully studied, they [leading Cold War historians] have been too busy with more conventional matters.”² For instance, in his recent book, *The Cold War: A New History*, esteemed historian John Lewis Gaddis emphasizes the roles played by American decision-makers in the conflict, but barely mentions the Marshall Islands or the environmental effects of nuclear testing.³

In contrast to Cold War historians, researchers in disciplines such as anthropology, journalism, law, and science have studied the plight of the Marshall Islanders extensively.⁴ Since the 1950s, anthropologists in particular have conducted important field work in the Marshalls, focusing on the communities most affected by nuclear tests, such as the Bikinians, the Rongelapese, and the Enewetakese. Jack Tobin and Laurence Carucci, for example, have written detailed accounts documenting the social and cultural changes experienced by the Enewetakese as a result of their displacement during the Cold War.⁵

Building on the work of anthropologists and other researchers, this essay examines the human and environmental consequences of American Cold War policies in the Marshall Islands. More specifically, this case study analyzes the implications of the US testing program for the people of Enewetak during and after the Cold War. Based mainly on archival documents and congressional hearings,⁶ this paper addresses a number of important historical themes. To begin with, it highlights American interests and authority in the Marshalls. As the United Nations (UN) trustee of the region, the United States conducted a large number of military tests on Enewetak with a great deal of secrecy and little interference from the outside world. Secondly, this essay examines the significance of these experiments for the Enewetakese and their removal to Ujelang, a nearby atoll, for more than three decades. The displacement of the islanders to this small atoll resulted in a number of deleterious effects,

including food shortages and dismal living conditions. Thirdly, this paper emphasizes the various forms of resistance practised by the Enewetakese. This tiny indigenous community utilized a number of political and legal methods (petitions, newsletters, demonstrations, hearings, and lawsuits) to protest against US Cold War policies. While this resistance resulted in minimal compensation from the Americans, the Enewetakese drew attention to their situation in Washington and the United Nations. Eventually, the United States allowed the islanders to return to Enewetak, but it failed to provide sufficient funds to properly restore the ecology of the atoll. Finally, this paper concludes by discussing the long-term consequences of the American policies and the islanders' ongoing attempts to gain compensation from the United States Congress for the damages caused by the testing program.

United States Interests and Cultural Attitudes

The US presence in the Marshall Islands was influenced by its strategic interests in the Pacific and its cultural attitudes towards the islanders. The Americans seized control of the Marshalls from Japan during the last two years of World War II. After the conflict ended in August 1945, the US Navy became the administrative authority for the larger region of Micronesia (comprised of the Marshalls, the Marianas, the Carolines, and Palau). Two years later, based on an agreement approved by the United Nations Security Council, Micronesia became a UN Trust Territory administered by the United States. Unlike other trust territories established by the United Nations, however, Micronesia was designated a "strategic area." With this designation, the United States not only maintained its control of the region, but it had the authority to close the territory to UN observers (and others) for "security reasons."⁷ Nevertheless, under the trusteeship agreement, Washington also promised to "protect" the land, resources, and health of the islanders and to promote their "economic advancement and self-sufficiency."⁸

Although the trusteeship agreement was not finalized until 1947, the United States began testing nuclear weapons in the Marshall Islands in 1946. From the perspective of leaders in

Washington, the Marshalls were an ideal location for nuclear tests. The islands were already controlled by the Americans and their remote location in the Central Pacific Ocean served the need for secrecy. Perhaps more importantly, given the dangers associated with testing large nuclear weapons in the atmosphere, the Marshalls were located thousands of miles away from the continental United States.⁹

President Harry Truman's decision to go ahead with the first series of nuclear tests in 1946 was reinforced by top military leaders, including Secretary of the Navy James Forrestal and Army Chief of Staff General Dwight D. Eisenhower. On nation-wide radio broadcasts, these influential officials argued that the tests in the Marshall Islands were necessary for "national defense" and to "save American lives."¹⁰ As the United States began to develop a hard-line containment policy against the Soviet Union, these leaders helped convince the American public that nuclear weapons tests were vital to national security.¹¹

When American officials chose the Enewetak and Bikini Atolls as testing sites,¹² they were motivated mainly by strategic considerations. As tensions with the Soviet Union continued to grow in the postwar period, the United States conducted a large number of nuclear experiments on these atolls in order to develop an arsenal of nuclear weapons. However, the decisions made in Washington were also affected by racial assumptions about the islanders. As anthropologist Barbara Johnston points out, many of the decisions made by American leaders regarding the Marshall Islanders were informed by a "hierarchical view of humanity" that presumed the "relative subordinate status of indigenous peoples."¹³ For example, one American official from the High Commissioner's Office described the Enewetakese as "primitive and pre-American."¹⁴ Other decision-makers and politicians in the United States regularly used the term "natives" when describing the islanders.¹⁵ As Jonathan Weisgall, a legal representative for the Marshall Islanders, explained during a hearing in Washington, Americans used this term because they wanted to reinforce the stereotypical Western view of "the native." "What is the image of a native?" he asked, "some sort of peripatetic wanderer Everyone was a native. You couldn't even be called an islander ... that was just the attitude."¹⁶

American attitudes about the indigenous Marshall Islanders were also shaped by federal policies regarding Native Americans in the United States. Going back to the nineteenth century, the United States government had a history of removing indigenous peoples from their ancestral lands and placing them on reservations. In his classic study, historian Francis Paul Prucha emphasizes the attitude of paternalism that influenced these policies. Beginning with the Cherokee Removal of the 1830s, he characterizes the relationship that developed between Native Americans and the federal government as “that of a ward and its guardian.”¹⁷ After the United States took control of the Marshall Islands, a similar attitude of paternalism initially influenced its policies there. When Truman gave the Department of Defense the order to remove the people of Enewetak from their atoll, a memo attached to his directive explained that the community should be “dealt with as wards of the United States for whom this country has special responsibilities.”¹⁸

Nuclear Testing and the Displacement of the Enewetakese to Ujelang

Between 1946 and 1958, the United States conducted 23 nuclear tests at Bikini Atoll and 43 at Enewetak Atoll.¹⁹ These test sites were selected by American officials for a variety of reasons. To begin with, the atolls contained small indigenous populations that could be moved to new locations with a “minimum of trouble.”²⁰ As well, Bikini and Enewetak were comprised of a number of islands²¹ with enough land surface to support the necessary test facilities. Both atolls also had large lagoons (for ship anchorage) and were situated favourably in terms of prevailing winds and ocean currents. In addition, Bikini and Enewetak were located within 400 miles of Kwajalein Atoll, the site of an American naval and air base.²²

The United States began the first series of nuclear tests, “Operation Crossroads,” at Bikini in June 1946. As a precaution, the US Navy evacuated the peoples from Bikini and Enewetak to other atolls (Rongerik and Kwajalein, respectively) for the duration of the “Crossroads” series.²³ In the fall of 1947, when the Americans prepared Enewetak for the second set of explosions, “Operation

Sandstone,” the navy moved the entire community of 145 islanders to a nearby atoll named Ujelang. Apparently, this decision was dictated mainly by expediency. Ujelang was chosen because it was uninhabited and geographically close to Enewetak. Located approximately 130 miles to the southwest, Ujelang was much smaller, with one-third the land surface of Enewetak and a tiny lagoon.²⁴ Later, the Enewetakese described their move to Ujelang in the following way:

Four days before Christmas, 1947, a U.S. military landing craft drove up on the beach of Aomon island at Enewetak Atoll. Everyone was told to gather their personal belongings and get aboard. One of the translators warned us: “You cannot protest or fight. You are like a rabbit fish wriggling on the end of a spear. You can struggle all you want, but there is nothing you can do to escape.” With children crying and women screaming, we were herded onto the LST [Landing Ship, Tank] and taken to Ujelang Ujelang atoll was uninhabited at the time and no one had been living there for many years. Useless brush had grown up everywhere and there were no breadfruit trees. Navy personnel hurriedly put up tents and gave us some canned food. Then they left. There was no means to communicate with the outside world. We were forced to resign ourselves to the fact that we had to start a new life although we were never told when, if ever, we could return to our homeland.²⁵

After the Enewetakese were removed to Ujelang, the United States built a village there, which included homes, meeting houses, a school, a dispensary, and a church.²⁶ The next spring, the United States Atomic Energy Commission (AEC) carried out “Operation Sandstone” on Enewetak.²⁷ By this time, nuclear weapons had begun to play an increasingly significant role in the American Cold War containment strategy. This role was expanded further as a result of international events such as the Berlin Crisis, the Communist victory in mainland China, and the test of the first Soviet atomic bomb. Partly as a result of these developments, in early 1950 President Truman ordered the AEC to build a more powerful hydrogen weapon.²⁸

The outbreak of the Korean War in June of 1950 helped the Truman administration get public support for its new thermonuclear program.²⁹ Two years later, the Americans began preparing for a set of explosions on Enewetak dubbed “Operation Ivy.”³⁰ Since this series included the test of a large thermonuclear device, the AEC decided that the Enewetakese should be moved away from Ujelang for the duration of the experiment. On October 27, an American LST arrived to pick up the islanders; however, weather conditions were poor, with heavy swells occurring, and the Enewetakese boarded the vessel under hazardous circumstances. Once on the ship, the 157 passengers (ranging in age from three months to more than 80 years) were berthed in compartments normally occupied by crew members. Jack Tobin, the district anthropologist for the Marshall Islands, who accompanied them on the vessel, described the experience:

Unfortunately, torrential rains were encountered during the first three days of the trip. This coupled with the rough weather and crowded conditions in the hot berthing compartments caused a great deal of discomfort. Many passengers were sea-sick and unable to eat. In fact, some of them were ill for almost the whole trip. Two pregnant women, who had not been evacuated by plane, were especially uncomfortable.³¹

Rather than transport the Enewetakese to another atoll, American officials decided to keep the islanders on board the ship during “Operation Ivy.” Although the LST was moved a “safe” distance away from the test site on Enewetak, the islanders were close enough to see the thermonuclear explosion (which took place on the morning of October 31), from the deck of their ship. For security reasons, the Enewetakese were not allowed to describe in detail what they saw, but, according to Tobin, the islanders were “much impressed” by what they called the “Big Drop.”³²

This reaction was not surprising since the test on the surface of Enewetak Atoll produced an explosive yield equivalent to 10.4 megatons of TNT.³³ Approximately 700 times more powerful than the Hiroshima bomb, this experiment created a huge nuclear fireball with a diameter of three and one-half miles and a mushroom cloud

which soared to more than 40,000 feet. According to an official document, the explosion resulted in “complete annihilation” within a radius of three miles, causing the entire island of Elugelab to “disappear.”³⁴

After the end of “Operation Ivy,” the Enewetakese returned to Ujelang and tried to adjust to their lives on the atoll. Although the displaced islanders actually consisted of two socio-political groups (the Dri Enjebi of the northern islands of Enewetak and the Dri Enewetak of the southern islands), Jack Tobin reported that the community was well-integrated and “outstanding” in terms of “organization, cooperation, and team work.” By 1954, the Enewetakese had cleared away large areas of overgrown copra (a food staple and export crop) on Ujelang and made other improvements. They planted pumpkins and arrowroot, as well as food trees (pandanus, breadfruit, papaia, and banana) that had been delivered during earlier US Navy and Department of Interior field trips. They also constructed stone fences to protect the food crops from the chickens, ducks, and pigs that they raised. Thus, according to Tobin, “No one could validly report that these people have not tried to help themselves.”³⁵

Nevertheless, the anthropologist reported that the Enewetakese experienced food shortages. In 1954, a health aide named Lombwe from Ujelang visited Majuro (the major centre in the Marshall Islands) for additional training. While there, he attended an open meeting where he told the high commissioner of the Trust Territory, “The people on Ujelang are very hungry and have not been getting enough to eat and ask the American Government for help.” As Lombwe and others made clear, they were not asking for handouts; they only wanted the opportunity “to purchase the things we need in order to live.”³⁶

To help the islanders produce more food, Tobin recommended that the United States increase the quantity of supplies to Ujelang, such as seedlings, livestock, and agricultural equipment. Given Ujelang’s geographical location, with its long distance from the large Marshallese centres of Kwajalein and Majuro,³⁷ Tobin also suggested that the number of field trips made by American ships be increased because six months had gone by since the last such trip to Ujelang. In Tobin’s view, monetary compensation to the displaced Enewetak

people was also “long overdue.” In general, he felt that it would be difficult to maintain the cooperation of the Enewetakese without “more concrete evidence of interest and tangible aid by this [United States] administration.”³⁸

Despite these recommendations, the food and assistance provided by the United States continued to be inadequate and sporadic. As a result, the Enewetakese on Ujelang were increasingly isolated and short of food. Given the infrequency of the field trips and the lack of materials provided, the islanders had difficulty maintaining their fishing canoes. As one Iroj (hereditary chief) explained: “Without the canoes we cannot get to the other islands in the lagoon to harvest coconuts. Without the fishing equipment we cannot catch fish to get enough to eat.”³⁹ Given the challenges of living on Ujelang, many Enewetakese began to think that it would be preferable to return to their home atoll, but this was impossible because the Eisenhower administration was planning to conduct a new series of nuclear tests on Enewetak.

Like his predecessor, President Dwight D. Eisenhower was committed to the testing and development of nuclear weapons. If anything, under his leadership, the development of these weapons came to have an increasingly prominent place in US defense policy. According to Eisenhower’s “New Look” strategy, the Americans needed an arsenal of nuclear weapons to deter the Soviet Union from attacking the United States or Western Europe.⁴⁰ In order to bolster this strategy of deterrence, the Eisenhower administration announced that it would be conducting a new series of tests, “Operation Redwing,” during May and July 1956. As described by the administration, the main purpose of these tests was to improve American military strength and protect the United States “against nuclear attack.”⁴¹ During this series, the AEC detonated 11 nuclear devices on Enewetak Atoll, with yields ranging from 190 tons to 1.85 megatons.⁴² Despite the size of the explosions, the Enewetakese were not evacuated from Ujelang during “Operation Redwing” (as they had been during “Operation Ivy” in 1952).⁴³

In order to ensure American control of Enewetak Atoll for more nuclear testing, and, at the same time, respond to the increasing complaints of the people living on Ujelang, the United States offered a

deal to the Enewetakese in the fall of 1956. In exchange for the full use rights of Enewetak Atoll, Washington proposed to provide the people living on Ujelang with \$25,000 in cash and a trust fund of \$150,000. When this offer was initially discussed, not all of the Enewetakese were happy with its terms. During a council meeting, four Enewetakese (Ismael, Benton, John, and Balik) argued that \$150,000 was “not enough.” Nevertheless, the majority seemed to favour accepting the deal and the “Agreement in Principle Regarding the Use of Enewetak Atoll” was signed by Iroijs Joanej and Ebream, as well as a number of alabs (respected elders), in November 1956. According to the agreement: “The Government of the Trust Territory of the Pacific Islands and/or the Government of the United States of America shall possess the full use rights to Enewetak Atoll until such time as it will not be necessary to occupy and use Enewetak Atoll in the interest of the maintenance of international peace and security.”⁴⁴

Not long after this agreement was signed, the Enewetakese realized that the interest from the trust fund was insufficient for their needs. During a rare visit by a Trust Territory field ship, which occurred in June 1958, the Ujelang council told the visitors that they wanted to withdraw some of the principal from their trust fund in order to “buy more building materials, food and other things that we need.” However, the field trip officer was not sympathetic to these requests. In his report on the visit, the officer complained that “the islanders seemed to lack the interest to develop the island. They are unable to figure out their food and other needs in relation to the money they have on hand and how often the Field Trip Ship visits the atolls.”⁴⁵

Meanwhile, the United States was carrying out its most extensive set of nuclear explosions, “Hardtack 1,” from April to August of 1958. Not coincidentally, this flurry of tests took place just after the Soviet Union declared a moratorium on its nuclear testing program.⁴⁶ During the “Hardtack” series, the AEC conducted 22 nuclear weapons explosions on Enewetak Atoll.⁴⁷ The largest experiment in this series, code-named “Oak,” resulted in a yield of 8.9 megatons (equivalent to 593 Hiroshima-size bombs). Although not acknowledged by the AEC, a later report prepared by the Defense Nuclear Agency (DNA) revealed that “Oak” created a large radioactive cloud that moved

slowly, depositing “some contamination as far south as Ujelang.” Curiously, the report did not mention that the Enewetakese were living on Ujelang at the time of this large explosion.⁴⁸

In late August 1958, the Eisenhower administration followed the Soviet lead and declared a moratorium on the testing of nuclear weapons in the atmosphere. After years of negotiations, the United States, the Soviet Union, and Great Britain finally signed the Limited Test Ban Treaty in 1963. While this accord prohibited the testing of nuclear weapons in the atmosphere, underwater, and in space, it permitted the continuation of underground nuclear testing.⁴⁹

After the signing of the treaty, the United States conducted all of its underground nuclear explosions at its Nevada Test Site. The Marshall Islands remained useful to the US, however, because of the government’s interest in creating an anti-ballistic missile defense system. As the nuclear arms race accelerated, American policy-makers became increasingly concerned about developing a defensive system that could protect the United States against missile attacks from the Soviet Union. Although interest in the anti-ballistic missile system originated in the Eisenhower years, the Johnson administration began testing missiles for its Sentinel program in the mid-1960s.⁵⁰ Given the fact that it still controlled Micronesia, the United States considered the Marshall Islands an ideal place for the testing of these missile defense systems. While Kwajalein Atoll was used as the main testing range, Enewetak was utilized as a “target and impact area” for tests of intercontinental ballistic missiles launched from Vandenberg Air Force Base in California.⁵¹

While the testing of these missiles occurred on their home atoll, the Enewetakese were forced to remain on Ujelang, where their situation continued to deteriorate. In March 1967, almost two decades after their removal to Ujelang, a UN visiting mission noted the abysmal conditions on the atoll. According to the mission’s report, “the residents of Ujelang are starving. Houses which were constructed by the U.S. Navy [in 1947] are now in the advanced stage of dilapidation. Food and water are scarce and the field trip vessels visit the island three times a year at most.”⁵²

When he visited Ujelang, Dwight Heine, the district administrator for the Marshall Islands, emphasized the lack of food on the

atoll. In his memo to William Norwood, the United States High Commissioner of the Trust Territory,⁵³ Heine explained that the people had no fish to eat because they had only one canoe, which was in “inoperable condition.” In addition, Heine found that Ujelang “had no breadfruit, no pandanus, no coconuts (green or ripe) and was overran [*sic*] with rats.”⁵⁴ Jack Tobin, who was by this time the community development advisor for the Marshall Islands (and had lived on Ujelang for a number of years), wrote an even more detailed report about the problems on the atoll. Tobin highlighted some “urgent matters” that the Iroj and other members of the community on the atoll had brought to his attention. In an interview with Tobin, Iroj Lorenji had explained:

We find Ujelang too small. We cannot get enough food from the atoll. We did not complain when the Navy told us we had to leave our atoll of Enewetak, our lamorin [ancestral land] We left Enewetak, we cooperated with the Americans, we helped the Americans. Now we need help badly, we ask America for help in our suffering.⁵⁵

The production of copra on Ujelang had decreased significantly over the years. Supplies of imported rice and flour usually became exhausted “due to the long intervals between field trips,” so the Enewetakese were forced to eat ripe coconuts. Moreover, there was less copra than previously because when it was produced and stored it was usually eaten by the large number of rats. As Lorenji explained: “We cannot make enough copra. The reason for this is that the people have to eat it, and the rats also eat it. All of the people of my group, and the atoll, are facing the same problems.”⁵⁶

The housing situation on Ujelang was also worsening. The population on the atoll had increased to 235, but the housing and other buildings had not only deteriorated but had also shrunk in number. The large council house and copra warehouses that had blown away in a severe typhoon several years before had not been replaced. Concrete cisterns had deteriorated to the point that they could no longer provide enough clean drinking water. The people lived in tiny, cramped, and completely inadequate shacks with leaky roofs.

Although the Enewetakese had attempted to repair their dwellings, there was a limit to what they could do, given the meagre materials and tools on hand. In August 1967, Tobin reported, "Ujelang Village presents an ugly, pathetic, and altogether depressing picture."⁵⁷

As a result of the dismal conditions on Ujelang, the Enewetakese asked for additional financial assistance. According to Iroj Joanej, the trust fund established in 1956 did not provide enough interest for the number of people living on the small atoll. Once the interest was divided among the whole community, each person on Ujelang received only \$3.00 semi-annually. As Tobin concluded: "The amount paid for the use rights ... to Enewetak is ridiculously small, indeed, niggardly. This seems especially apparent when one compares it with the ... astronomical amounts of money which have been spent on the AEC and other military operations on Enewetak."⁵⁸

Although Tobin appeared sympathetic to the plight of the people of Ujelang, other Americans questioned the desirability of providing the Enewetakese with a larger trust fund. Townsend Hoopes, the acting secretary of the Department of the Air Force, wondered whether the Enewetakese had made the best of their possibilities on Ujelang. In his view, the "serious deterioration of housing and an inability to control the rat problem" seemed to "indicate an attitude of lethargy, due possibly to a sort of petrified euphoria related to the original cash settlement."⁵⁹

Enewetakese Protest and Resistance

In reality, however, the Enewetakese were not as apathetic as Hoopes suggested; they protested against the United States in a variety of ways. For example, in October 1967, about 90 percent of the population on Ujelang boarded a visiting field ship, the *Ralik-Ratak*, and went to Majuro Atoll to stage a protest in front of an American administrative building. According to Dwight Heine, the Enewetakese agreed to disembark from the vessel only once they were promised that a field ship would return to Ujelang with adequate food supplies.⁶⁰ In 1968, the Enewetakese sent a petition to the United States demanding an improvement in their situation. This petition began by highlighting their grievances:

For 22 years the people of Enewetak have been living the life of exiles in our own country ... these years have been [characterized by] hardship, poverty and near starvation. Living on an island overrun with rats, agriculturally unable to provide sufficient food and without even the modest modern conveniences of other Marshallese Islands, disease, hunger and fear have been our burdens to bear. Pleas to the Trust Territory Government to alter the situation have gone largely unanswered and unheeded. We feel that the time has come when we can no longer ignore the cries of our children or the demands of life.⁶¹

After this preamble, the Enewetakese described two steps that they intended to take to obtain their “just rights.” To begin with, they planned to hire attorneys to examine previous legal agreements and possibly sue the United States Trust Territory government for damages caused by nuclear testing. Recognizing that their complaints were not only legal but also political, the Enewetakese also threatened to “do everything necessary” to bring as much publicity and embarrassment to the US “at home, in the United Nations, and on the international scene.”⁶²

In response to this pressure, the United States Trust Territory government implemented a number of changes. Field trip service to the atoll was regularized and improved. In November 1968, Jack Tobin reported that field ships delivered supplies (especially rice and flour) approximately every six weeks. In addition, the government, in cooperation with the Peace Corps, supported volunteer programs to encourage the planting of new coconut trees, the rehabilitation of the canoe fleet, and the eradication of the “atoll’s large rat population.”⁶³

Although the Enewetakese welcomed these measures, they remained dissatisfied with the Americans’ “stop-gap” efforts and they sent another letter to the high commissioner’s office. Since the amount of money established in their 1956 trust fund was inadequate, the Enewetakese requested additional compensation from the Americans for the use of their atoll. They also wanted the United States to pay for the ecological restoration of Enewetak and to make sure that it was fit for rehabilitation.⁶⁴ If these demands were not met, the Enewetakese announced their intention to conduct two protest

actions against the United States. While some of the islanders would sail their canoes directly to Enewetak, the remainder would move *en masse* to demonstrate at the district centre in Majuro.⁶⁵

In response to these demands, the new high commissioner, Edward Johnston, met with the islanders in August 1969. Given the hardships experienced by the Enewetakese on Ujelang, Johnston offered them a much better trust fund amounting to a total *ex gratia* payment of \$1,020,000. The Enewetakese accepted and the first quarterly interest payment from this trust (\$15,300) was paid to them in September 1969.⁶⁶

In April 1972, the United States announced that Enewetak, which had been under the control of the American military since 1946, would be returned to the Trust Territory government the following year. In response to requests made by the Enewetakese, the government allowed the islanders to accompany Trust Territory officials on a three day visit to their home atoll in May. On this trip, which was guided by officials from the Department of Defense and the AEC, Deputy High Commissioner Peter Coleman was accompanied by a dozen government specialists in agriculture, planning, and public affairs. Several islanders, "representing the displaced peoples of Enewetak," were invited. This group included Iroij Joannes, Iroij Loranzi, Magistrate Smith Gideon, three members of the Ujelang council, and three of their lawyers.⁶⁷

Perhaps not surprisingly, the representatives from Ujelang had mixed emotions about this trip. On the one hand, the islanders were happy to visit Enewetak (for the first time in 25 years). They were also pleased to hear that the United States was considering the possibility that they might be able to return to live on their home atoll. On the other hand, the Enewetakese were distressed when they observed the results of the American nuclear testing program. After visiting a number of islands in the south of the atoll, such as Enewetak and Japtan, the Enewetakese were taken to the northern part of the atoll where most of the nuclear explosions had occurred.⁶⁸ As reported by one of the trust territory officials:

The most obvious change in geography as a result of the military testing activities has been the obliteration of three islands.

On May 19, ... the small outboard boat from the ship carried the group over the spot where the islands — Elugelab, Teiteiripuchi, and Bogairikk — once had existed. Nothing remains but two deep craters in the reef. The feeling [*sic*] of the Marshallese, particularly the old men, Iroij Joannes and Iroij Loranzi, were not difficult to understand as they gazed on the spot, remembering the islands that had once stood there.⁶⁹

The AEC also agreed to carry out a comprehensive radiological survey of Enewetak in 1972. The main purpose of the survey was to “gain a sufficient understanding of the total radiological environment of Enewetak Atoll to permit judgements as to whether all or any part of the atoll can safely be reinhabited, and if so, what steps toward cleanup should be taken beforehand.”⁷⁰ Studies conducted by the AEC in May and July indicated that radiological contamination levels varied from light for islands on the southern half of the atoll, to intermediate and heavy in the middle and northern portions of the atoll. Based on previous studies, it was probable that dosages of the radioisotopes Cesium-137, Strontium-90, and Plutonium-239 (among others) could be expected to varying degrees, depending on the “the pathway considered and the circumstances.”⁷¹

Although the Enewetakese were pleased that the AEC carried out this radiological survey, they were unhappy to learn that the US Air Force had been conducting secret new tests, the Pacific Area Cratering Experiments (PACE), on Enewetak atoll since 1971.⁷² When the islanders became aware of this program,⁷³ they asked for an explanation. The Air Force provided a “fact sheet,” which concluded that the information derived from PACE would “significantly improve both the strategic posture of the United States and the ability to survive an enemy attack.”⁷⁴

According to the Air Force, three islands already “sorely ravaged” by the nuclear testing program (Aomon, Eberiru, and Runit) had been chosen as the sites for the PACE program.⁷⁵ Phase One involved the measurement and study of craters on these islands (created by the nuclear tests previously conducted on Enewetak) and their surrounding geology. Phase Two involved setting off conventional chemical explosives on the coral surface of the islands. It was hoped that these

high explosive chemical “events,” which simulated nuclear explosions, could be used to predict the ground motion, impact, and cratering capability of megaton nuclear detonations. Although these chemical tests created no new radioactivity, “existing radioactive material deposited by previous nuclear tests could be reintroduced into the air.”⁷⁶

In its report, “Environmental Statement on Pacific Cratering Experiments,” which was written in English only and filed after the experiments had begun,⁷⁷ the Air Force tried to be reassuring about the ecological effects of the tests. Although the 12 chemical explosions already carried out had resulted in a number of effects, including the creation of craters on the islands and large amounts of displaced soil, huge dust clouds, and the contamination of the water, soil, and air by chemicals and radiochemical elements, none of these were expected to “have long-term adverse effect[s] on the environment.” As for the loss of fish, birds, land fauna, and vegetation, it was not really a problem because “none of the species is endangered and only a very small portion of their populations would be affected.”⁷⁸

Concerned by the information provided in the Air Force’s environmental statement, the Enewetakese decided to hire a non-profit legal group, the Micronesian Legal Services Corporation (MLSC), to act on their behalf. In June 1972, the MLSC sent a long letter to the Air Force raising questions about the use of Enewetak for the PACE experiments. As the letter pointed out, the Enewetakese felt that their home atoll had already suffered enough damage as a result of the American nuclear testing program. After all, three islands on the atoll had been “annihilated” by nuclear explosions and others had been seriously damaged.⁷⁹ Although the Air Force downplayed the effects of PACE in its environmental statement, the islanders were convinced that the chemical explosions would result in the further destruction of Enewetak.⁸⁰ As their legal counsel explained:

The Air Force relies upon the past degradation of the Enewetak environment to justify the impact of PACE To the Air Force it seems more harm will not matter because so much harm has been done in the past. To the Enewetakese even a little more damage is far too much The Enewetakese [have the] legal

and moral right to reclaim their homeland, devastated as it may be, without further destruction.⁸¹

Finding the Air Force's response to their letter unsatisfactory, the Enewetakese asked the MLSC to file a lawsuit against the United States on their behalf, "The People of Enewetak et al., Plaintiffs, v. Melvin R. Laird, Secretary of Defense et al., Defendants," in federal court in Hawaii in September 1972. According to the plaintiffs, the PACE program failed to comply with several provisions of the United States National Environmental Policy Act.⁸² In January 1973, the federal judge agreed and issued an injunction that terminated all PACE activities pending a court trial.⁸³

In addition to the lawsuit, the Enewetakese used other methods to protest against the United States.⁸⁴ When PACE personnel visited Ujelang in late March 1973, they were greeted by the whole community (about 300 people) wearing signs that read "ENANA PACE" ("PACE IS BAD"). In response to this protest, Robert Henny, the technical advisor (and former project director) of PACE, tried to reassure the islanders with a slide show about the new experiments being conducted on Enewetak. Some of these slides depicted the explosions produced by PACE as well as the resulting craters. Others showed the areas where birds and marine life were mostly likely to be killed, usually near the explosions.⁸⁵

According to Henny, the PACE program was necessary because it would help protect the "Free World." He acknowledged the 12 chemical "events" that had already taken place on Enewetak and explained that the Air Force was planning to complete 12 more. Although Henny tried to reassure the islanders that PACE would not result in any long-term environmental effects, the Enewetakese were not convinced. As Smith Gideon, the magistrate of Ujelang, put it:

...the pictures I saw ... showed that the PACE program is bad for our atoll We must live from the environment; from the land and the sea and our life is from these. Without these we have nothing. We do not have to explain further that Enewetak with its resources is our homeland. Seeing that you know this, we do not know why you insist on doing these things to Enewetak ...

we want to ask Bob Henny and his group to return and take this word to the Secretary of Defense: Stop PACE immediately.⁸⁶

Another representative from Ujelang named Jaimon also voiced his strong opposition to PACE. He asked the Americans to imagine what it would be like to have bombs exploding close to their homes:

According to Bob Henny, very little damage will result from this [the 12 explosives still to be detonated]. If this is true, if there is no damage, I don't want to get information from scientists or others I want to see it. I want the first bomb to be dropped on the High Commissioner's house I ask that the second bomb be exploded next to the home of Bob Henny ... the third bomb [should] be placed nineteen acres away from the home of the Secretary of Defense ... also, a bomb [should be placed] nineteen acres away from the White House.⁸⁷

While these statements were being given, the Enewetakese supported the speakers by periodically chanting "ENANA PACE." According to Jack Tobin, who was present at the meeting, the PACE program was unanimously and unequivocally denounced and rejected by the Enewetak community on Ujelang. In a report sent to the high commissioner, Tobin concluded, "The actions of the Enewetak People in their confrontation with the Air Force PACE program officials on Ujelang represent a gallant and courageous stand of a people who are powerless (except) morally against a powerful mechanistic organization ... which has shown no regard for the rights, opinions, needs, and desires of the people of Enewetak."⁸⁸

In reality, however, the Enewetakese were not as powerless as Tobin suggested. In April 1973, the head of the MLSC provided a summary statement of the islanders' case during hearings held in Honolulu. As a result, the Department of Defense realized that the Enewetakese opposition to PACE was steadfast and that litigation to remove the federal court's injunction could last for two or three years. Consequently, the department announced in June 1973 that the PACE program would not resume its testing activities on Enewetak.⁸⁹

The “Clean-Up” and Resettlement of Enewetak

One of the primary reasons that the Enewetakese on Ujelang hired the Micronesian Legal Services Corporation was because they hoped to return to their home atoll.⁹⁰ As a representative for the Enewetakese later explained: “It is no surprise that after years of hardship, neglect and isolation we became increasingly insistent that we be returned home.”⁹¹ Responding to pressure from the islanders, the United States announced in early 1973 that the displaced Enewetakese would be allowed to resettle on their home atoll once it was cleaned up and rehabilitated. While the Department of Defense was made responsible for the clean-up operation on Enewetak, the Department of the Interior was put in charge of the rehabilitation and resettlement project.⁹²

In June of 1973, the High Commissioner, Edward Johnston, contracted Holmes and Narver, a California engineering and construction firm, to prepare a master plan for the rehabilitation and resettlement of Enewetak Atoll.⁹³ Following publication of the original plan, reports from the AEC and the DNA made several recommendations. In particular, DNA’s *Draft Environmental Impact Statement* (DEIS), published in September 1974, followed the advice given by the AEC regarding the radiological cleanup of Enewetak, the living patterns of the people, and local food sources.⁹⁴ Since the islands in the northern part of the atoll had a “greater amount of radioactive contamination” and serious “plutonium problems,” the AEC recommended that the Enewetakese be allowed to live on the southern islands, which it considered to be safer for habitation and agriculture.⁹⁵

The findings of the AEC and DNA were presented to the islanders on Ujelang during a meeting held in early September 1974. After carefully reviewing this information, the Enewetakese decided that they would resettle on the southern islands of Enewetak, Medren, and Japtan.⁹⁶ The islanders also demanded that the United States provide financing for the cleanup and rehabilitation of their atoll. In April 1975, they sent Ted Mitchell, the director of the MLSC, to testify on their behalf before a number of committees in Washington. During his testimony, Mitchell pointed out that the

United States could afford to help the Enewetakese with the cleanup operation since it had spent millions of dollars testing nuclear bombs on their atoll.⁹⁷

Eventually, the United States Congress agreed with the arguments made by the Enewetakese and their legal counsel. In order to pave the way for the resettlement of the islanders, the US officially terminated its rights to use and occupy Enewetak Atoll in 1976.⁹⁸ In the same year, Congress appropriated \$20 million dollars to finance the cleanup of the atoll. In 1977, as part of its regular budget for 1978, Congress appropriated \$12.4 million for the Enewetak Rehabilitation and Resettlement Program.⁹⁹ This amount was supplemented in October 1979 with an additional appropriation of \$1.475 million.¹⁰⁰

Between 1977 and 1980, workers hired by the DNA picked up plutonium contaminated soil and other nuclear debris from Enewetak and moved it to “Cactus,” a 350 foot wide crater located on Runit Island. Situated on the north eastern edge of the Enewetak atoll, Runit was chosen as a nuclear waste site because it was already heavily contaminated due to the nuclear and chemical tests conducted there.¹⁰¹ As a result of the DNA’s cleanup operation, more than 100,000 cubic metres of contaminated soil from six different islands on the atoll was moved to Runit. Once the radioactive material was deposited in the Cactus crater, it was mixed with cement and covered with a 25-foot-high concrete dome.¹⁰²

Meanwhile, the Department of the Interior hired the contractor Holmes and Narver to carry out the rehabilitation program on the southern islands of Enewetak.¹⁰³ In order to promote agriculture, thousands of coconut trees and hundreds of breadfruit and pandanus were planted on the islands of Enewetak, Japtan, and Medren. In addition, a total of 116 houses were built on the three islands. Two community centres were constructed — one each on Enewetak and Medren Islands. Each community centre included a council house, church, school, nursery, dispensary, store, teacher’s residence, cistern, and recreation and sanitary facilities.¹⁰⁴

In May 1980, Adrian Winkel, the new high commissioner of the Trust Territory, reported to the United Nations Trusteeship Council that the American clean-up and rehabilitation programs on Enewetak

were near completion. By October, almost all of the Enewetakese (545 men, women, and children) had resettled on the home atoll. The amount of land that they could occupy and use was considerably less than what had been available to them prior to the testing program. When they returned to Enewetak, the islanders were permitted to occupy and use a total of 815 acres on the southern islands of the atoll. Another 950 acres on the northern islands were unusable due to high levels of radioactive contamination. An additional 155 acres had been vaporized by American nuclear tests.¹⁰⁵

Environmental Concerns and the Struggle for Compensation

Although the Enewetakese were permitted to return to the southern islands, they faced a number of environmental challenges. One of the primary concerns for the resettled islanders was their food supply. According to a report prepared by the Loma Linda University School of Health, Enewetak had been “nearly completely denuded of vegetation” during the nuclear and chemical tests. After the clean-up operations and reconstruction of the islands for habitation, very little vegetation remained and it would be several years before the newly planted trees produced food.¹⁰⁶ As a result, the Department of Agriculture needed to provide most of the islanders’ food. The report recognized that this importation of food would have to continue in the future to “keep the people from eating food grown on the atoll until the degree of risk from plant uptake of radionuclides can be properly evaluated.”¹⁰⁷

Due to the challenges of living on their atoll, the Enewetakese sent a petition to the UN Trusteeship Council in May 1981. By this time, the Marshall Islanders had developed their own constitution, created a new government, and adopted a new name, the Republic of the Marshall Islands.¹⁰⁸ Like other peoples of Micronesia, the Marshallese were also in negotiations with the Americans to end the trusteeship agreement. In their petition, however, the Enewetakese made it clear that they did not wish to completely sever their relationship with the United States once the trusteeship agreement was terminated. The islanders explained that there were a number of items of unfinished business that the United States, as the administering

authority of the territory, needed to attend to. Although the Enewetakese were relatively pleased with the cleanup and rehabilitation efforts, they realized that their atoll still could “not sustain human life and will not be able to do so for the next ten years or so.”¹⁰⁹ Therefore, the islanders asked that the United States continue to provide financial aid so that they could purchase food and develop the marine resources of Enewetak. In addition, they requested that the Americans conduct further studies of the residual radioactivity on their atoll and ensure that a comprehensive health care plan be implemented. At the end of the petition, the Enewetakese summed up their case:

As a result of the 43 nuclear tests which were conducted at Enewetak Atoll between 1948 and 1958, the United States was able to develop a formidable nuclear arsenal But, while this nuclear weapons testing program benefited the United States in many ways, it caused us great hardship and disrupted our lives We seek no retribution, nor do we condemn the United States for what it has done. We merely wish to recover our original way of life, to overcome the disadvantages which have been imposed upon us because of our exile and in order to do that, we call upon the United States to extend a special hand of friendship to us for an additional period of time after the trusteeship is ended for the rest of Micronesia We make this request on behalf of all of our people, living and dead, those who were forcibly removed, those who were born in exile, and on behalf of all future generations of our people.¹¹⁰

Although the trusteeship agreement was not terminated until after the Cold War ended, the United States and the Republic of the Marshall Islands signed a Compact of Free Association in 1983. According to this accord, the US maintained the “full authority and responsibility for security and defense matters in, or relating to ... the Marshall Islands.” In return, the islanders were granted the right of self-government and the ability to conduct their own foreign affairs (albeit in consultation with Washington). Additionally, the United States agreed not to test (or dispose of) any nuclear or chemical

weapons anywhere in the Marshall Islands. The compact also included a clause for compensation related to nuclear testing. According to this clause, the United States accepted the “responsibility for compensation owing to citizens of the Marshall Islands ... for loss or damage to property and persons” resulting from the nuclear testing program conducted between 1946 and 1958.¹¹¹

The people of the Marshall Islands approved the Compact of Free Association during a plebiscite held in 1983. The US Congress voted in favour of the accord three years later.¹¹² Following congressional approval of the compact, the United States created a Nuclear Claims Fund which disbursed money to the four Marshallese communities whose atolls were most affected by nuclear tests (Enewetak, Bikini, Rongelap, and Utirik). From this fund, the Enewetakese received a \$48.75 million trust, with a yearly disbursement of \$3.25 million over 15 years.¹¹³ However, as a condition of this payment, the Enewetakese — like other islanders — agreed to terminate any pending legal cases against the United States related to nuclear testing.¹¹⁴

In addition to providing trust funds, Washington supported the creation of a Nuclear Claims Tribunal (NCT). Established in Majuro in 1988, this tribunal was given jurisdiction to “render final determination upon all claims past, present and future, of the ... Marshall Islands which are based on, arise out of, or are in any way related to the Nuclear Testing Program.”¹¹⁵ The United States provided \$500,000 per year to operate the tribunal and \$45.75 million for payment of claims.¹¹⁶

As the Cold War wound down, the Enewetakese brought the first class action case before the NCT.¹¹⁷ In 1990, the people of Enewetak filed a claim with the tribunal for damages resulting from American nuclear tests. In this suit, the islanders asked for additional compensation related to the loss of land use on Enewetak and the suffering caused by their forced exile to Ujelang. They also requested additional financial assistance for the cleanup, rehabilitation, revegetation, restoration, and resettlement of Enewetak.¹¹⁸

While this claim was being considered by the NCT, the islanders brought other environmental issues to the attention of Congress. In 1994, the Enewetakese conveyed their concerns about the nuclear waste site that had been established by the Americans on

Runit Island. As the islanders pointed out, the creation of this waste depository had resulted in serious environmental hazards. According to Tom Kijiner, the minister of foreign affairs for the Marshall Islands, the DNA had not properly completed the cleanup of Runit. Instead of ploughing all of the contaminated material on the island into the crater, the DNA had left “chunks of deadly plutonium metal” on the surface soil of Runit.¹¹⁹ Scientists also noted that the concrete dome was leaking radioactive waste into the surrounding lagoon. Although the island was supposed to remain quarantined indefinitely, it was accessible to the islanders living on Enewetak Island only three or four miles away.¹²⁰ As the minister explained: “The disposal of radioactive waste in this manner would not be permitted in the United States ... there are no fences to keep them [islanders] away, the few warning signs have faded or toppled over, and, since the island has become a nesting place for birds, there is evidence that the birds and eggs are being harvested from this dangerously contaminated site.”¹²¹

In addition to their worries about the nuclear waste site on Runit, the Enewetakese had concerns about the health implications of the contamination on their atoll. Partly as a response to these concerns, the United States agreed to build a laboratory on Enewetak Island.¹²² In 2000, a memo of understanding was signed between the Enewetak/Ujelang Local Atoll Government, the Republic of the Marshall Islands, and the United States Department of Energy to create this lab, which was run by the Lawrence Livermore National Laboratory of California. In particular, scientists monitored the presence of “fission emitting radionuclides,” such as plutonium and cesium-137, in the bodies of the resettled islanders. Whereas cesium-137 entered the bodies of the Enewetakese “through ingestion of locally grown foods,” the main pathway for exposure to plutonium was through the “inhalation of contaminated dust particles in the air that people breathed.”¹²³

In the same year that the laboratory was established, the NCT finally provided its ruling on the case brought forward by the Enewetakese a decade earlier. In 2000, the tribunal awarded more than \$341 million to the claimants to compensate them for: the “hardships suffered as a result of their relocation” to Ujelang; the

“past and future loss of use of Enewetak”; and to help restore Enewetak to “a safe and productive state.”¹²⁴ In its conclusion, the NCT explained:

With this decision, the Tribunal makes its first award for damages to property. Through the process, the Tribunal has heard testimony from the people of Enewetak and from expert witnesses from both Claimants and the Defender of the Fund. It has reviewed voluminous reports and documents. It has had the benefit from the arguments of counsel. The Tribunal has determined that the people of Enewetak, the claimants in this case, have suffered loss and injury to their property and to their persons. While the Tribunal is charged with the determination of damages, the claimants have suffered damage beyond which money can compensate.¹²⁵

In order to restore the ecology of Enewetak, some scientists recommended that all of the contaminated soil be removed from the atoll. After evaluating various options, though, the islanders chose a less expensive method of taking away the most contaminated soil and treating the rest with potassium and monitoring it for radiation.¹²⁶ At the time, the Enewetakese realized that the ecological restoration of their atoll was a long-term project. To ensure the safety of food crops on Enewetak, scientists estimated that the treatment and monitoring of the contaminated soil would be necessary for at least 100 years.¹²⁷

In the end, however, the islanders received only a very small portion of the award granted by the NCT for the environmental restoration of their atoll. Indeed, the decision made by the NCT in 2000 turned out to be a hollow victory for the Enewetakese. There was not enough money in the Nuclear Claims Fund established by the United States and the islanders were paid less than one-half of one percent of the award granted by the tribunal. Davor Pevec, the legal counsel for the Enewetakese, explained that it meant the islanders received only \$1.7 million of the \$341 million awarded by the NCT.¹²⁸

For the next decade, the islanders petitioned the United States to provide the necessary funds for the payment of the awards granted

by the NCT.¹²⁹ In May 2010, representatives from Enewetak traveled to Washington to present their case before the House Foreign Affairs Subcommittee on Asia, the Pacific, and the Global Environment. During this hearing, the Honourable Jack Ading explained that the Enewetakese wished to remain on good terms with the Americans. Like many other Marshallese, Minister Ading's son was a member of the US military and a veteran of the wars in Iraq and Afghanistan. As he put it: "We fight side by side with Americans for values dear to us all."¹³⁰

In their testimonies, Minister Ading and other representatives from the Marshall Islands emphasized the negative consequences of the Cold War. In contrast, historian John Lewis Gaddis encourages readers to view the outcome of this conflict in a more positive light. Indeed, Gaddis concludes that "The world ... is a better place for that conflict [the Cold War] having been fought in the way that it was and by the side that won it."¹³¹ This case study suggests, however, that the human and environmental implications of American Cold War policies deserve further attention by historians.

For the Enewetakese, the costs of the US testing program have been significant and long-lasting. More than two decades after the Cold War ended, the rehabilitation and cleanup operations conducted by the United States on Enewetak remain underfunded and incomplete. On the southern portion of the atoll, where many of the islanders resettled, their food must still be imported due to lack of vegetation and concerns about radiation. The northern islands of the atoll, where many of the Enewetakese had previously lived, are uninhabitable because of the contamination caused by American nuclear and chemical explosions. Moreover, the island of Runit contains a nuclear waste dump that will be dangerous for thousands of years. As Minister Ading testified: "We bore and continue to bear, the burden of a damaged and radiation-contaminated homeland."¹³²

During their visits to Washington, the Enewetakese continue to remind the United States of their contribution to the development of American nuclear weapons in the Cold War era. Given the original promises made by the United States to protect the land and resources of the Marshall Islands, combined with the profound and long-term consequences of the testing program, it is not surprising that the

Enewetakese also continue to demand justice from the US Congress.¹³³ To date, however, Washington has failed to provide enough funds to restore the environment of Enewetak or to fully compensate the islanders for their losses.

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Endnotes:

- 1 J.R. McNeill and Corinna R. Unger, “The Big Picture,” in *Environmental Histories of the Cold War*, eds. J.R. McNeill and Corinna R. Unger (New York: Cambridge University Press, 2010), 3. As the authors explain, this interdisciplinary collection (with essays written by historians, geographers, and scientists) attempts to explore various connections “between the Cold War and the concerns of environmental history,” 5.
- 2 John Lewis Gaddis, *The Cold War: A New History* (New York: Penguin Books, 2007), 62–4, 266. For other important works that also neglect the environmental effects of the Cold War, see Melvyn Leffler, *For the Soul of Mankind: The United States, the Soviet Union and the Cold War* (New York: Hill and Wang, 2007); and Odd Arne Westad, *The Global Cold War: Third World Interventions and the Making of Our Times* (Cambridge: Cambridge University Press, 2005).
- 3 For example, see Jane Dibblin, *Day of Two Suns: U.S. Nuclear Testing and the Pacific Islanders* (London: Virago, 1988); Beverly Ann Deepe Kever, *News Zero: The New York Times and the Bomb* (Monroe: Common Courage Press, 2004); Susan C. Schultz and Vincent Schultz, “Bikini and Enewetak Marshallese: Their Atolls and Nuclear Weapons Testing,” *Critical Reviews in Environmental Science and Technology* 24

- (1994): 33–118; Adam Watkins, et al., “Keeping the Promise: An Evaluation of Continuing U.S. Obligations Arising out of the U.S. Nuclear Testing Program in the Marshall Islands,” *Harvard Law Student Advocates for Human Rights* (April 2006): 1–49; Davor Pevac, “The Marshall Islands Nuclear Claims Tribunal: the Claims of the Enewetak People,” *Denver Journal of International Law and Policy* 35 (Winter 2006): 221–39; Jonathan M. Weisgall, “The Nuclear Nomads of Bikini Atoll,” *Foreign Policy* 39 (Summer 1980); and *ibid.*, *Operation Crossroads: The Atomic Tests at Bikini Atoll* (Annapolis: Naval Institute Press, 1994).
- 4 For example, see Leonard Mason, *Relocation of the Bikini Marshallese: A Study in Group Migration* (Ph.D. diss., Yale University, 1954); Robert Kiste, *The Bikinians: A Study in Forced Migration* (Menlo Park: Cummings Publishing Company, 1974); Barbara Rose Johnston and Holly M. Barker, *The Rongelap Report: Consequential Damages of Nuclear War* (Walnut Creek: Left Coast Press, 2008); Holly M. Barker, *Bravo for the Marshallese: Regaining Control in a Post-Nuclear, Post-Colonial World* (Australia: Thomson Wadsworth, 2004).
 - 5 In their works, these anthropologists document changes in the every day lives of the Enewetakese, such as their diet, water supply, land tenure, marriage patterns, kinship relations, religion, economic activities, and political organizations. See Jack Tobin, “The Resettlement of the Enewetak People: A Study of a Displaced Community in the Marshall Islands” (Ph.D. diss., University of California, Berkeley, 1967); Laurence M. Carucci, “The Transformation of Person and Place on Enewetak and Ujelang Atoll,” in *Globalization and Culture Change in the Pacific Islands*, ed. Victoria Lockwood (Upper Saddle River, NJ: Pearson, Prentice Hall, 2004), 414–38.
 - 6 In addition to secondary sources, the research for this paper is based largely on United States Congressional hearings and official records discovered in the National Archives II (hereafter NA II) in College Park, Maryland. In particular, this paper draws heavily on a rich collection of documents found on microfilm in the archives identified as National Archives Gift Collection, Trust Territories of the Pacific Islands (hereafter NAGC, TTPI). This collection, which includes, memos, reports, letters, telegrams, and petitions, is valuable because it contains both American and Marshallese voices.
 - 7 See Articles 1 and 13 of the Trusteeship Agreement for the Former Japanese Mandated Islands, Agreement Approved by the Security Council of the United Nations, 2 April 1947, Entered into Force, 18 July 1947, Department of State Publication 2992 (Washington, D.C., 1948).
 - 8 See Article 6 of the Trusteeship Agreement, 18 July 1947.

- 9 Weisgall, *Operation Crossroads*, 31; Mark D. Merlin and Ricardo M. Gonzalez, "Environmental Impacts of Nuclear Testing in Remote Oceania, 1946–1996," in *Environmental Histories*, 170.
- 10 Paul Boyer, *By the Bomb's Early Light: American Thought and Culture at the Dawn of the Atomic Age* (New York: Pantheon Books, 1985), 83.
- 11 For discussions of the containment strategy and the emerging Cold War tensions in the early postwar period, see, for example, John Lewis Gaddis, *Strategies of Containment: A Critical Appraisal of American National Security Policy during the Cold War* (New York: Oxford University Press, 2005), 24–86; and Martin McCauley, *The Origins of the Cold War, 1941–1949* (London: Pearson Longman, 2008).
- 12 An atoll is "a series of islands built upward from a coral reef, typically surrounding a central lagoon." See Schultz and Schultz, 37.
- 13 Barbara Rose Johnston, "'More like us than mice': Radiation Experiments with Indigenous Peoples," in *Half-Lives and Half-Truths: Confronting the Radioactive Legacies of the Cold War*, ed. Barbara R. Johnston (Santa Fe: School for Advanced Research Press, 2007), 26. For a similar perspective, see Hal Friedman, *Creating an American Lake: United States Imperialism and Strategic Security in the Pacific Basin, 1945–1947* (Westport, CT: Greenwood Press, 2001), 117–18.
- 14 See NA II, NAGC, TTPI, RG 200, Box 28, Roll 328, Memo and Enclosure, "Eniwetok [*sic*] Events from United States Seizure of Atoll in February 1944 to Present," from Maynard Neas, Acting Chief, Lands and Surveys, Office of the High Commissioner, Saipan, to Deputy High Commissioner, Trust Territory of the Pacific Islands, 21 August 1972, 4.
- 15 For repeated use of the term "natives" to describe the Enewetakese, see Hearing Before the Subcommittee on Territorial and Insular Affairs of the Committee on Interior and Insular Affairs, House of Representatives, 93rd Congress, on H.R. 15963 and S. 3812, "Rehabilitation of Enewetak Atoll," Serial No. 93-68, 1 October 1974, Washington, D.C., 22.
- 16 Statement by Jonathan Weisgall, Oversight Hearing Before the Subcommittee on Natural Resources, House of Representatives, 103rd Congress, on "Radiation Exposure from Nuclear Tests in the Pacific," Serial No. 103-68, 24 February, 1994, Washington, D.C., 51.
- 17 Francis Paul Prucha, *The Great Father: The United States Government and the American Indians* (Lincoln: University of Nebraska Press, 1988), x.
- 18 President Truman's order was given in November 1947. The following month, the chief of naval operations, who had been put in charge of the removal, wrote a despatch indicating that the Enewetakese would be "treated as wards of the United States; and that adequate provision

- would be made for them in their new location.” The documents are found in the Statement of the Enewetak/Ujelang Local Government before the House Committee on Foreign Affairs Subcommittee on Asia, the Pacific and the Global Environment, U.S. House of Representatives, submitted by the Hon. Jack Ading, Senator, Nitijela of the Marshall Islands, 25 July 2007. <<http://www.internationalrelations.house.gov/110/adi072507.htm>>, (viewed 10 August 2010). I first learned about these documents in Pevac, 225.
- 19 United States Department of Energy (hereafter USDE), *United States Nuclear Tests: July 1945 through September 1992*, DOE/NV-209 (Rev.14) (December 1994), 1–8.
 - 20 As Vice Admiral William Blandy explained, “It was important that the local population be small and co-operative so that they could be moved to a new location with a minimum of trouble.” Quoted in Weisgall, *Operation Crossroads*, 31.
 - 21 Bikini Atoll was composed of 22 islands; Enewetak Atoll originally consisted of a ring of 42 islands. See V.E. Noshkin, et al., “Past and Present Levels of Some Radionuclides in Fish from Bikini and Enewetak Atolls,” *Health Physics Society* (1997): 49.
 - 22 Merlin and Gonzalez, 170–1; Weisgall, *Operation Crossroads*, 31–3; Richard G. Hewlett and Francis Duncan, *A History of the United States Atomic Energy Commission: Atomic Shield, 1947/1952* (University Park: Pennsylvania State University Press, 1969), 140–1.
 - 23 “Operation Crossroads” took place from 30 June 1946 to 24 July 1946.
 - 24 NA II, NAGC, TTPI, RG 200, Box 28, Roll 328, Jack Tobin, District Anthropologist and Community Development Advisor, “Brief Report on Ujelang Atoll,” November 1968, 2. According to Laurence Carucci, Ujelang was .67 square miles of land, whereas Enewetak was 2.75 square miles, and the lagoon area of Ujelang was about one-fifteenth the size of the Enewetak lagoon (25.5 square miles versus 387.9 square miles). See Laurence M. Carucci, “The Renewal of Life: A Ritual Encounter in the Marshall Islands” (Ph.D. diss., University of Chicago, 1980), 8.
 - 25 NA II, NAGC, TTPI, RG 200, Box 27, Roll 323, Petition of the People of Enewetak to the Trusteeship Council of the United Nations, May 1981, 3–4.
 - 26 United Nations Archives and Records, New York, UN Visiting Mission to the Trust Territories of Nauru, New Guinea, and the Pacific Islands, Report on the Trust Territory of the Pacific Islands, Trusteeship Council Official Records: 24th Session, 2 June–6 August 1959.
 - 27 USDE, *United States Nuclear Tests, 1*. “Operation Sandstone,” conducted in April and May of 1948, included three nuclear weapons tests with yields ranging from 18 to 49 kilotons.

- 28 Barton J. Bernstein, "Truman and the H-Bomb," *Bulletin of the Atomic Scientists* 40 (March 1984): 12–16; Gregg Herken, *The Winning Weapon: The Atomic Bomb in the Cold War, 1945–1950* (Princeton, NJ: Princeton University Press, 1988), 195–337; Michael D. Gordin, *Red Cloud at Dawn: Truman, Stalin, and the End of the Atomic Monopoly* (New York: Farrar, Straus, and Giroux, 2009), 262, 280–4.
- 29 In 1951, the United States conducted "Operation Greenhouse" on Enewetak Atoll. This series included four weapons-related tests, including a 225 kiloton explosion named "George," the first thermonuclear experiment conducted by the Americans. See USDE, *United States Nuclear Tests*, 1.
- 30 The logistical requirements involved in this series were extensive. By October 1952, there were more than 9,000 American military personnel and 2,000 civilians living aboard ships in the Enewetak area or in tents on the islands. Preparations also included an aircraft carrier, more than 80 aircraft, four destroyers, and a fleet of barges, motorboats, and helicopters. See Richard Rhodes, *Dark Sun: The Making of the Hydrogen Bomb* (New York: Simon and Schuster, 1995), 499–500.
- 31 NA II, NAGC, TTPI, RG 200, Box 28, Roll 328, Jack Tobin, District Anthropologist, Marshall Islands District, "Report on Special Ujelang Assignment," October 1952, 3.
- 32 Ibid.
- 33 USDE, *United States Nuclear Tests*, 2.
- 34 Dwight E. Eisenhower Library (hereafter DDEL), Abilene, Kansas, White House Office: National Security Council Staff Papers, OCB Central Files Series, Background Memo for all Media on Operation Ivy, April 1954. Rhodes provides a more detailed description of the flora and fauna that were destroyed by the "Mike" test, 509–10. The Soviet Union tested its first thermonuclear weapon on 12 August 1953 at the Semipalatinsk test range. See Pavel Podvig, *Russian Strategic Nuclear Forces* (Cambridge, MA: MIT Press, 2001), 441, 485.
- 35 NA II, NAGC, TTPI, RG 200, Box 28, Roll 328, Jack Tobin, Memo to Staff Anthropologist, 25 October 1954, 1–2.
- 36 Ibid., 3.
- 37 Ujelang was located 410 miles from Kwajalein and 640 miles from Majuro. See NA II, NAGC, TTPI, RG 200, Box 28, Roll 328, Jack Tobin, Memo to Community Development Director, 1 November 1968, 17.
- 38 Ibid., Tobin, Memo to Staff Anthropologist, 25 October 1954, 3–4.
- 39 Quoted in Dibblin, 23.
- 40 In an effort to highlight this new strategy, Eisenhower's Secretary of State John Foster Dulles made a speech on 12 January 1954, to the Council of Foreign Relations in New York where he argued that the

- only “way to deter aggression” was for the “free community” to develop a “massive retaliatory power.” See “Highlights of Dulles’ Speech,” in *The Cold War: A History through Documents*, ed. Edward H. Judge and John W. Langdon (Upper Saddle River, NJ: Prentice Hall, 1999), 74–5. For a detailed discussion of Eisenhower’s defence policy, see Saki Dockrill’s *Eisenhower’s New Look National Security Policy, 1953–1961* (New York: St. Martin’s Press, 1999).
- 41 DDEL, Operations Coordinating Board Central File Series, White House Office: National Security Council Staff Papers, Memo, “Review of USIA Guidance on Forthcoming Public Announcements of U.S. Pacific Proving Ground Tests Series,” 12 January 1956.
 - 42 Curiously, the AEC named many of these tests after indigenous groups in the United States, such as the Seminole, Blackfoot, Mohawk, and Apache. See USDE, *United States Nuclear Tests*, 4–5.
 - 43 Memo and Enclosure from Maynard Neas, 21 August 1972, 2.
 - 44 NA II, NAGC, TTPI, RG 200, Box 28, Roll 330, Agreement in Principle Regarding the Use of Enewetak Atoll, 19 November 1956. See also *ibid.*, Memo from Jack Tobin, District Anthropologist, to D.H. Nucker, High Commissioner, Trust Territory of the Pacific Islands, 30 November 1956.
 - 45 *Ibid.*, Memo from Ekpap Silk, Field Trip Officer, to District Administrator, 18 June 1958.
 - 46 The Soviet Union called a moratorium on its nuclear testing program on 31 March 1958.
 - 47 USDE, *United States Nuclear Tests*, 6–8.
 - 48 Keever, 191.
 - 49 “Excerpts from the Limited Nuclear Test Ban Treaty,” 5 August 1963, in *The Cold War*, 129.
 - 50 Whereas the Johnson administration’s Sentinel system was originally designed to provide a “thin” urban defense against Chinese missiles, the Nixon administration’s Safeguard system was intended primarily to protect American ICBM silos from attacks by the USSR. See Missile Defense Agency, *Missile Defense: The First Sixty Years* (15 August 2008) (ms-10463OC), <<http://www.mda.mil>>, (viewed March 2011), 10–11.
 - 51 According to the Micronesian Legal Services Corporation, the United States used Enewetak as an “impact and scoring area for inter-continental ballistic missiles until 1969.” See NAIL, NAGC, TTPI, RG 200, Box 28, Roll 328, Response prepared by the Micronesian Legal Services Corporation for the People of Enewetak to the Draft Environmental Statement: Pacific Cratering Experiments (PACE), A Project Sponsored by the United States Air Force, 16 June 1972, iv. See also Memo and Enclosure from Maynard Neas, 21 August 1972, 2; Carucci, “The Renewal of Life,” 6; and Aenet Rowa, “This Week in Marshall Islands

- History: The Big Bang at Enewetak,” 1 November 2006, *Yokwe Online* <<http://www.yokwe.net/index.php?name=News&file=article&sid=1553>>, (viewed 5 November 2009).
- 52 NA II, NAGC, TTPI, RG 200, Box 14, Roll 164, “UN Visiting Mission — Reports and Correspondence,” Daily Summary Report of Activities of 1967 UN Visiting Mission, 11 March 1967.
- 53 The high commissioners were always American. They were appointed by the president of the United States and responsible to the Department of the Interior. See Michael A. Rynkiewich, “The Underdevelopment of Anthropological Ethics,” in *Ethics and Anthropology: Dilemmas in Fieldwork*, ed. James P. Spradley and Michael A. Rynkiewich (Malabar, FL: Robert E. Krieger Publishing Company, Inc., 1981), 54–5.
- 54 NA II, NAGC, TTPI, RG 200, Box 28, Roll 330, Letter from Dwight Heine, Office of the District Administrator, Marshalls District, to William R. Norwood, High Commissioner of the Trust Territory of the Pacific Islands, 2 July 1968.
- 55 *Ibid.*, Memo from Jack Tobin, Community Development Advisor, to Dwight Heine, District Administrator, “Special Requests and Problems of the Ujelang People: Analysis and Recommendations for Action,” n.d. (Based on Tobin’s “recent visit” to Ujelang, 20–21 August 1967).
- 56 *Ibid.*
- 57 *Ibid.*
- 58 *Ibid.*
- 59 *Ibid.*, Letter from Townsend Hoopes, Acting Secretary, Department of the Air Force, to the Honourable Harry R. Anderson, Assistant Secretary to the Interior, 27 December 1967.
- 60 *Ibid.*, Letter from Congressman Atlan Anien and Senator Amata Kabua, Congress of Micronesia, to Dwight Heine, District Administrator, 26 October 1967. See also *ibid.*, Letter from Dwight Heine, 2 July 1968; and Memo and Enclosure from Maynard Neas, 21 August 1972, 3.
- 61 NA II, NAGC, TTPI, RG 200, Box 28, Roll 328, Petition from the People of Enewetak, 1968, 1.
- 62 *Ibid.*, 2–3.
- 63 *Ibid.*, Tobin, “Brief Report on Ujelang Atoll,” November 1968, 7–10.
- 64 *Ibid.*, Box 29, Roll 337, Letter from N. Neiman Craley, Commissioner for Public Affairs, Trust Territory of the Pacific Islands, to the Under Secretary, Department of the Interior, 1968.
- 65 *Ibid.*, Box 28, Roll 328, Tobin, “Brief Report on Ujelang Atoll,” November 1968, 11. See also *ibid.*, Jack Tobin, Radio Conference with Ujilang [*sic*], 20 November 1968, 4.
- 66 *Ibid.*, Box 29, Roll 337, Letter from Edward Johnston, High Commissioner, Trust Territory of the Pacific Islands, to Elizabeth Farrington, Director, Office of the Territories, Department of the

- Interior, 30 September 1969. See also *ibid.*, Box 28, Roll 328, Letter from C. Brewster, Associate Solicitor, Territories, Wildlife and Claims, to Deputy Assistant Secretary for Territorial Affairs, United States Department of the Interior, Office of the Solicitor, 27 March 1972, 2–3.
- 67 *Ibid.*, Box 228, Roll 334, Telegram (0026) from the Liaison Office, Kwajalein, to the High Commissioner’s Office, Saipan, May 1972.
- 68 For actual test locations on the various islands of Enewetak Atoll, see map in Hearing Before the Subcommittee on Territorial and Insular Affairs, 1 October 1974, Washington, D.C., 22.
- 69 NA II, NAGC, TTPI, Box 228, Roll 334, Telegram (0026). For “before” and “after” photographs of these three islands, see Watkins, et al., 10.
- 70 NA II, NAGC, TTPI, RG 200, Box 24, Roll 277, W.E. Nervik, Eniwetok Radiological Survey Plan, 29 September 1972.
- 71 W.E. Nervik, Eniwetok Radiological Survey Plan, 29 September 1972. Possible pathways included: 1). external radiation; 2). internal radiation (via terrestrial foods, marine foods, and water); and 3). inhalation.
- 72 NA II, NAGC, TTPI, RG 200, Box 28, Roll 330, Tape recording of meeting held on Enewetak, Office of the High Commissioner, Trust Territory of the Pacific Islands, 20 May 1972.
- 73 Apparently, the islanders were first made aware of this program during their visit to Enewetak in May 1972. See “The People of Enewetak et al, Plaintiffs. v. Melvin R. Laird, Secretary of Defense, et al., Defendants,” Civ. No. 72-3649, United States District Court, District of Hawaii, 19 January 1973, <<http://www.hawaii.edu/ohelo/courtdecisions/pdf/PplOfEnewetak73.pdf>>, (viewed 17 September 2010).
- 74 NA II, NAGC, TTPI, RG 200, Box 28, Roll 328, Air Force Fact Sheet: History of PACE (Pacific Cratering Experiments), n.d., 2.
- 75 *Ibid.*, Roll 330, Billy E. Welch, Ph.D., Special Assistant for Environmental Quality, Department of the Air Force, “Draft Environmental Statement on Pacific Cratering Experiments,” sent to the Honourable Edward E. Johnston, United States High Commissioner for the Trust Territory of the Pacific Islands, 13 February 1973. Of these three islands, Aomon was the only one that had been previously inhabited by the Enewetakese.
- 76 *Ibid.* The planned PACE 2 explosions varied from half a ton to five hundred tons.
- 77 Apparently, the draft of the environmental statement was not filed until April 1972. See Response prepared by the MLSC, 16 June 1972, ix, 4. See also NA II, NAGC, TTPI, RG 200, Box 28, Roll 330, Memo from the Deputy Assistant, Secretary of the Interior, Department of the Interior, to the Honourable Philip N. Whittaker, Assistant Secretary of the Air Force, Department of the Air Force, 10 July 1972.

- 78 The test “detonation products” included: carbon dioxide, carbon monoxide, hydrogen cyanide, ethyl alcohol, methyl alcohol, methanol, formaldehyde, nitrogen, ammonia, and formic acid. See Welch.
- 79 Response prepared by the MLSC, 16 June 1972, iv. According to an official United States memo, the combined land mass of the three islands destroyed by nuclear tests totalled 58.24 acres. In addition, the island of Bogon “was cut in two” and another island, Runit, “suffered considerable” damage resulting in huge craters and a loss of ten per cent of its surface area. See Memo and Enclosure from Maynard Neas, 21 August 1972, 4–5. According to Neas, the Enewetakese previously used these islands for the harvesting of important foodstuffs, such as coconuts, copra, fish, and crab.
- 80 NA II, NAGC, TTPI, RG 200, Box 28, Roll 330, Memo from Tony A. De Brum, District Director, to Oscar de Brum, District Administrator, Summary Report of Ujelang PACE Hearings, 3 April 1973.
- 81 Response prepared by the MLSC, 16 June 1972, 8, 29.
- 82 As Kiste points out, “PACE had been initiated before the environmental statement had been filed. The current draft was both incomplete and incomprehensible to the layman. The Enewetakese had not been informed of the project. They had requested but had been denied public hearings that would explore the consequences of PACE.” See Robert Kiste, “The People of Enewetak Atoll vs. the U.S. Department of Defense,” in *Ethics and Anthropology*, 66. The National Environmental Policy Act (NEPA) was a United States environmental law signed on 1 January 1970, by President Richard Nixon.
- 83 “The People of Enewetak v. Melvin R. Laird, Secretary of Defense,” 19 January 1973.
- 84 For example, see NA II, NAGC, TTPI, RG 200, Box 28, Roll 334, Telegram from Magistrate Smith Gideon for the People of Enewetak to Edward E. Johnston, High Commissioner, Trust Territory of the Pacific, Saipan, 1973 (the rest of the date is obscured). This telegram simply stated: “We the people of Enewetak Atoll now living on Ujelang urge your help in preventing the testing of explosives on Enewetak Atoll.”
- 85 *Ibid.*, Roll 330, Jack Tobin, “Notes and Observations on PACE Program Hearings on Ujelang,” 26–28 March 1973.
- 86 *Ibid.*
- 87 *Ibid.*
- 88 *Ibid.*
- 89 Kiste, “The People of Enewetak Atoll,” 75. Kiste, an anthropologist, was called as a witness by the MLSC during the hearings in Honolulu.
- 90 *Ibid.*, 65.

- 91 Statement by the Honourable Jack Ading, Minister of Finance, Republic of the Marshall Islands, Elected Representative of the Enewetak People to the Nitjela (Parliament of the Republic of the Marshall Islands), on Behalf of the Enewetak People before the House Committee on Foreign Affairs Subcommittee on Asia, the Pacific and the Global Environment, U.S. House of Representatives, 20 May 2010, *Yokwe Online* <<http://www.yokwe.net/index.php?name=News&file=article&sid=2590&theme=Printer>>, (viewed 28 July 2010).
- 92 Hearing Before the Subcommittee on Territorial and Insular Affairs, 1 October 1974, Washington, D.C., 6.
- 93 NA II, NAGC, TTPI, RG 200, Box 13, Roll 156, United States Department of the Interior, Office of the Secretary, Fact Sheet: Enewetak Rehabilitation and Resettlement Plan, April 1980, 1.
- 94 U.S. Department of the Interior (hereafter USDI), Enewetak Rehabilitation and Resettlement Plan, April 1980, 1. The AEC completed and published its radiological survey of Enewetak in October 1973. Recommendations based on this survey were published in early 1974.
- 95 NA II, NAGC, TTPI, RG 200, Box 28, Roll 328, Atomic Energy Commission, Summary of Task Group Recommendations: Enewetak Atoll, 9 July 1974, 1.
- 96 USDI, Enewetak Rehabilitation and Resettlement Plan, April 1980, 1.
- 97 NA II, NAGC, TTPI, RG 200, Box 28, Roll 334, Telegram (0016) from the High Commissioner's Office, Saipan, to the Distads Office, Trust Territory of the Pacific Islands, September 1975.
- 98 *Ibid.*, Roll 328, Agreement Terminating Rights, Title, and Interest of the United States to the Enewetak Atoll, 16 September 1976.
- 99 *Ibid.*, Roll 330, LTC Erickson, "Fact Sheet: Dri Enewetak Liaison Activities," 22 June 1979. See also Library of Congress, Congressional Research Service Report for Congress, Republic of the Marshall Islands *Changed Circumstances Petition to Congress*, 14 March 2005, Appendix A, "List of Major Compensation Programs and Authorizations, 1964–2004," 36, <<http://bikiniatoll.com/CRSReportCCP.pdf>>, (viewed July 2005).
- 100 USDI, Enewetak Rehabilitation and Resettlement Plan, April 1980, 1.
- 101 NA 11, NAGC, TTPI, RG 200, Box 28, Roll 330, LTC Erickson, "Fact Sheet: Runit Overview," 15 June 1979 and "Fact Sheet: FIG/QUINCE Cleanup," 20 June 1979.
- 102 Watkins, 12; Barker, *Bravo for the Marshallese*, 46. See also Lawrence Livermore National Laboratory, Marshall Islands Dose Assessment and Radioecology Program, Updated 5 February 2010, <https://marshallislands.llnl.gov/enewetak.php>, (viewed 11 May, 2010).

- 103 NA 11, NAGC, TTPI, RG 200, Box 13, Roll 156, Opening Statement by Adrian Winkel, High Commissioner of the Trust Territory of the Pacific Islands, to the 47th Session of the United Nations Trusteeship Council, 19 May 1980, 14.
- 104 USDI, Enewetak Rehabilitation and Resettlement Plan, April 1980, 1.
- 105 See Opening Statement by Adrian Winkel, 19 May 1980, 14. See also Memorandum of Decision and Order, In the Matter of the People of Enewetak, et al., Claimants for Compensation, Before the Nuclear Claims Tribunal, Republic of the Marshall Islands, (NCT No. 23-0902), April-August 2000, 2, <<http://www.nuclearclaimstribunal.com/final.htm>>, (viewed 14 May 2010).
- 106 NA II, NAGC, TTPI, RG 200, Box 29, Roll 337, Marshall Islands: A Health Care Proposal, prepared by Loma Linda University School of Health, submitted to the Department of the Interior, 3 December 1980. In the same year, Laurence Carucci concluded that “defoliation of the atoll has left few food producing trees ... and it will be nearly ten years before seedlings begin to produce usable fruit.” See Carucci, “The Renewal of Life,” 8.
- 107 NA II, NAGC, TTPI, RG 200, Box 29, Roll 337, Marshall Islands: A Health Care Proposal.
- 108 On 1 May 1979, the United States recognized the constitution of the Marshall Islands and the establishment of the government of the Republic of the Marshall Islands. See U.S. Department of State, “Background Note: Marshall Islands,” <<http://www.state.gov/r/pa/ei/bgn/26551.htm>>, (viewed 7 July 2010).
- 109 Petition of the People of Enewetak to the Trusteeship Council, May 1981, 8.
- 110 *Ibid.*, 8–9.
- 111 NA II, NAGC, TTPI, RG 200, Box 13, Roll 156, Compact of Free Association, 14 January 1980. Although the compact was signed in 1983, it was initialled earlier, in 1980. Its terms applied to the peoples of the Marshall Islands, the Federated States of Micronesia, and Palau. See Section 111 for clauses related to Self-Government; Sections 121-127 for Foreign Affairs; Section 177 for Compensation; Sections 311-313, 315 for Authority and Defense; and Sections 313-314 for American pledges regarding nuclear and chemical weapons.
- 112 In 1986, the United States Congress adopted the Compact of Free Association when it passed as Public Law 99-239. Once the compact was approved, the United States informed the United Nations Security Council that it considered the trust agreement terminated. However, termination was not approved by the Security Council until December 1990, after the dissolution of the Soviet Union. See Gary Smith, *Micronesia: Decolonisation and US Military Interests in the Trust*

- Territory of the Pacific Islands* (Peace Research Centre: Australian National University, 1991), 1, 12, 61, 92.
- 113 Watkins, et al., Table II-D: Required Distributions of Section 177-Created Nuclear Claims Fund in “Keeping the Promise,” 7. With this agreement, the Bikinians received \$75 million, the Rongelapese \$37.5 million, and the Utirikese \$22.5 million.
- 114 Congressional Research Service Report for Congress, 14 March 2005, 32–37, 41. See also “Nuclear Testing in the Marshall Islands: A Chronology of Events,” <<http://www.rmiembassyus.org/Nuclear%20Issues.htm>>, (viewed 5 October 2009).
- 115 Memorandum of Decision and Order, April–August 2000, 2.
- 116 Watkins, et al., in “Keeping the Promise,” 7, 14.
- 117 Dick Thornburgh, Glenn Reichardt, and Jon Stanley, Kirkpatrick and Lockart LLP, “The Nuclear Claims Tribunal of the Republic of the Marshall Islands: An Independent Examination and Assessment of its Decision-Making Processes” (Washington, D.C., 2003), 39, <<http://www.bikiniatoll.com/ThornburgReport.pdf>>, (viewed 27 July 2010).
- 118 Memorandum of Decision and Order, April–August 2000, 3–27. For the evidence presented to the Tribunal regarding these various categories, see Pevac, 231–6.
- 119 Tom Kijiner, Minister of Foreign Affairs, Republic of the Marshall Islands, to U.S. Congressman George Miller, Chairman, Committee of Natural Resources, Oversight Hearing, February 1994, Washington, D.C., 270. Although Kijiner did not attend, his letter was read at the hearing and several members from the Republic of the Marshall Islands were present. Representing Enewetak, for example, were the Hon. Ishmael John and the Hon. Neptali Peter (and his wife). See Oversight Hearing, 264.
- 120 Darlene Keju-Johnson, “For the Good of Mankind,” in *Pacific Women Speak Out for Independence and Denuclearisation*, ed. Zohl dé Ishtar (Christchurch, NZ: The Raven Press, 1998), 18. In addition to providing information about the environmental hazards, this page also provides a photograph of the dome on Runit. See also the photo in Barker, *Bravo for the Marshallese*, 38; and Erickson, “Fact Sheet: FIG/QUINCE Cleanup,” 20 June 1979.
- 121 Kijiner, Oversight Hearing, February, 1994, Washington, D.C., 270.
- 122 Here, it should be noted that the United States had been interested in studying the effects of radiation on human subjects since the beginning of the nuclear testing program. In 1996, the Enewetakese learned that they had been used as subjects in human radiation experiments conducted by the Americans in the Marshalls during the Cold War. At a Senate Hearing in Washington, the new foreign minister for the

- Republic of the Marshall Islands, Phillip Muller, produced evidence indicating that the Enewetakese (and islanders from other atolls) had been utilized in experiments conducted by the Brookhaven National Laboratory (under contract with the AEC) in the 1960s. During these experiments, Brookhaven scientists had injected the Enewetakese with radioactive Chromium 51 and asked them to drink water containing the radioactive isotope Tritium. See Keever, 255–6. See also USDE, BNL-36, “Total Body Water and Hematologic Studies in the Pacific Islanders using Chromium-51 and Tritium,” List of Experiments: Brookhaven National Laboratory, Department of Energy Openness: Human Radiation Experiments Associated with the U.S. Department of Energy and Its Predecessors, July 1995 (Washington, D.C.), 27, <<http://www.hss.doe.gov/healthsafety/ohrc/roadmap/experiments/0491docb.html>>, (viewed 28 May 2008). According to this document: “In 1963, 21 Marshallese islanders were administered Cr51 and 1 millilitre of water labelled with tritium (H3) to determine red cell mass, blood volume, lean body mass, and total-body water. Similar body-water and lean-body-mass studies were conducted on residents of Enewetak Atoll in 1965 and 1966.”
- 123 Scientists used urinalysis to measure plutonium levels in the islanders and a device known as the whole body counter to measure radionuclides such as cesium-137. See Lawrence Livermore National Laboratory, Marshall Islands Dose Assessment and Radioecology Program, Updated 5 February 2010.
- 124 Memorandum of Decision and Order, April–August 2000, 36. As a result of amendments to this decision, which included additional restoration costs and interest, the total amount of the award was increased to \$385,894,500. See Thornburgh, et al., 45, fn. 170; and Pevec, 237.
- 125 Memorandum of Decision and Order, April–August 2000, 27.
- 126 Pevec, 233.
- 127 Congressional Research Service Report for Congress, 14 March 2005, 26, fn. 64. See also Enewetak Decision Summary, Nuclear Claims Tribunal: Claims, <<http://www.nuclearclaimstribunal.com/enewetak.htm>>, (viewed 27 July 2010).
- 128 Pevec, 238.
- 129 Perhaps most important, in September 2000, the Republic of the Marshall Islands government submitted to the United States Congress a *Changed Circumstances Petition* related to American nuclear testing on the Bikini and Enewetak atolls. Submitted pursuant to Section 177 of the Compact of Free Association, this petition requested additional compensation for personal injuries and property damages, restoration costs, medical care programs, health services infrastructure and train-

ing, and radiological monitoring. However, in November 2004, the United States Department of State released an interagency report (written by the Departments of State, Energy, and Defense), which rejected the islanders' petition. See Congressional Research Service Report for Congress, 14 March 2005, Summary.

- 130 Statement by the Honourable Jack Ading, 20 May 2010, *Yokwe Online*.
- 131 Gaddis, *The Cold War*, xi.
- 132 Statement by the Honourable Jack Ading, 20 May 2010, *Yokwe Online*.
- 133 As a postscript, it should be noted that this continued pressure by the Enewetakese produced some results in Washington. Sponsored by Representative Eni Faleomavaega [D-AS], a bill (H.R. 6470) providing for additional compensation to the people of Enewetak (and other atolls) was introduced to the United States House of Representatives on 1 December 2010. This bill was then referred to the chief judge of the United States Court of Federal Claims for review and assessment. As Rowa explains, this action was significant because "this is the first referral by Congress for judiciary review of the [compensation] matter." See Anet Rowa, "U.S. Congressional Reference Legislation Introduced for Review of Marshall Islands Nuke Legacy Claims," 5 December 2010, *Yokwe Online*, <<http://yokwe.net/index.php?module=News&func=display&sid=2725>>, (viewed 30 May 2011).