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The United States' Nuclear Testing Program in the Marshall Islands

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The United States' Nuclear Testing Program in the Marshall Islands

Abstract

From 1946 to 1958, the United States conducted top secret nuclear weapons testing in the Marshall Islands that affects its people and its ecology to this day. The United States has done an injustice to the people of the Marshall Islands by forcing them off their native lands in order to procure testing sites, by knowingly exposing the people to radiation from these tests, by withholding information from the people who are most affected by the testing, and by not restoring the people to their health and to their lands. To date, the United States maintains a presence on the islands, living in conditions far superior to the indigenous peoples. The indigenous population struggles with many health issues to include diabetes, due to processed food aid from the United States, radiation type cancers, and poverty in the extreme.

Keywords

United States, Nuclear Testing, Marshall Islands, Radiation Poisoning, Environmental Contamination, Victim's Compensation

Cover Page Footnote

A special thank you to my father, Charles Augustus Ford, who served in the United States Air Force and was a radio controller on a B-29 for the 57th Weather Reconnaissance Squadron located at Hickham Air Force Base in Hawaii. This team was tasked to Enewetak Atoll (in the Marshall Islands) during Project Ivy and Project Castle. They were charged with gathering weather data before, during, and after the tests. I first learned about the nuclear testing from my father who deeply regretted his participation later on in life.

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From 1946 to 1958, the United States conducted top secret nuclear weapons testing in the Marshall Islands that affects its people and its ecology to this day. The United States has done an injustice to the people of the Marshall Islands by forcing them off their native lands in order to procure testing sites, by knowingly exposing the people to radiation from these tests, by withholding information from the people who are most affected by the testing, and by not restoring the people to their health and to their lands. Furthermore, in recent news, the United States, through President Donald Trump, commented that the United States “had fallen behind on nuclear weapons capacity” and alluded to bring America back to the “top of the [nuclear powers’] pack.”¹ Furthermore, President Trump, ordered the deployment of a naval carrier strike group into the North Korea region in response to U.N. reports that North Korea was resuming its nuclear testing program.² While North Korea is the only nuclear power to conduct testing since 1998, the effects of testing have had devastating consequences for certain people groups to include those who inhabit the Marshall Islands.³

The Marshall Islands are composed of 1,200 islands that make up 29 atolls (an island chain or island that encircles a lagoon) and are in the Pacific Ocean about halfway between Hawaii and Australia.⁴ The atolls are spread out over 11,673 kilometers of water but the total

¹ Round, Sally. “Trump’s Nuclear Ambitions Raised as Marshalls Head to Court Again.” *Radio New Zealand*. March 16, 2017. <http://www.radionz.co.nz/news/pacific/326686/trump's-nuclear-ambitions-raised-as-marshalls-head-to-court-again>

² O’Connor, Tom. “U.N. Spots North Korea Nuclear Weapons Activity as State Media Warns of War.” *Newsweek*. May 5, 2017. <http://www.newsweek.com/north-korea-nuclear-weapons-activity-un-war-595782>

³ Ruff, Tilman A. "The Humanitarian Impact and Implications of Nuclear Test Explosions in the Pacific Region." *International Review of the Red Cross* 97, no. 899 (2015): 775-813. <http://ezproxy.liberty.edu/login?url=https://search-proquest-com.ezproxy.liberty.edu/docview/1802170428?accountid=12085> 810.

⁴ “Marshall Islands.” *CIA World Factbook*. 2016. <https://www.cia.gov/library/publications/the-world-factbook/geos/rm.html>.

land combined is only 181 square kilometers (about the size of Washington, D.C.).⁵ The Marshall Islands have been populated by Micronesians since at least 30 BCE. Prior to 1946, the island group was subject to control from several imperial nations: Spain (1874-1884), Germany (1884-1914), Japan (1914-1945), and the United States (1945-1986).

It is important to understand that the total culmination of imperial occupation of the Marshall Islands helped to contribute to the United States' involvement with this people group and their land. The Marshall Islands' subjection to these individual imperial countries demonstrates a succession of seizure from one imperial country to the next and ending with the seizure of the Marshall Islands by the United States from Japan during World War II. This chain of imperial control led to the United States being able to use the land for its nuclear weapons testing.

The United States took control over the Marshall Islands in 1945 and a year later the military confiscated the Bikini Atoll and relocated its population to nearby Rongelap Atoll (94 miles east of Bikini).⁶ In 1948, the United States began their nuclear testing in the Bikini Atoll; all of the testing done in this area was atmospheric—that is to say the blasts would “release radioactivity directly into the air and water” as opposed to underground testing.⁷

Over the course of twelve years (1946-1958), “the United States conducted 67 tests in the Marshall Islands. If their combined explosive power was parceled evenly over that 12-year

⁵ Marshall Islands, 2016.

⁶ Zak, Dan. “A Ground Zero Forgotten.” *The Washington Post*. November 27, 2015.
http://www.washingtonpost.com/sf/national/2015/11/27/a-ground-zero-forgotten/?utm_term=.6c99bb7fd0e9

⁷ Zak, 2015, 777.

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period, it would equal 1.6 Hiroshima-sized explosions per day.”⁸ Sixty-five of these tests were conducted in the Bikini (23) and Enewetak (42) atolls; the combined estimated total yield of these tests equals 108.5 Megatons (Mt).⁹ In comparison, the total combined yield of the Hiroshima and Nagasaki bombs equals 0.036 Mt.¹⁰

The nuclear energy released from these tests demonstrate the enormity of the tests conducted in the Marshall Islands. This information has been made available to the public; however information regarding the nuclear fallout from these tests is still classified as secret by the United States government. The two islands most effected by the fallout, Rongelap and Utirik, were inhabited at the time of the explosion.¹¹ Furthermore, the United States ignored weather reports that indicated the wind would blow the radioactive fallout in an eastward fashion towards Rongelap and Utirik Atolls.¹² They did not warn the people on these islands nor did they evacuate them until several days later; after the children had played with the “ashy snowflakes” as if it were snow falling from the sky.¹³ In addition to this negligent act, the United States government also conducted secret tests on the Marshallese people to attain radioactive fallout information.

The United States relocated the people off Rongelap Island and moved them to Ebeye Island in the Kwajajien Atoll, nearby the United States military facilities. The did so not for the

⁸ Ruff, 2015, 794.

⁹ Ruff, 2015, 780.

¹⁰ Ruff (2015): 780.

¹¹ Zak, Dan. “A Ground Zero Forgotten.” *The Washington Post*. November 27, 2015.
http://www.washingtonpost.com/sf/national/2015/11/27/a-ground-zero-forgotten/?utm_term=.6c99bb7fd0e9

¹² Zak, 2015.

¹³ Zak, 2015.

benefit of the Marshallese people but to obtain critical scientific data on the effects of nuclear radiation on the people. The scientific experiments were titled “Project 4.1” and it involved “539 women, children and men who did not give informed consent” of the tests that were conducted on them; nor did these participants receive medical attention for their injuries and illnesses.¹⁴ These participants were further injured by giving them “radioisotope injections including chromium-51, radioactive iodine, iron, zinc, carbon-14, and tritiated [normal hydrogen removed and replaced with radioactive hydrogen] water” they were also subjected to “experimental surgeries and procedures that were not carried out for their benefit.”¹⁵ The dose of radiation received from the initial blast on Rongelap was already at “near lethal” levels; the United States added to this injury through Project 4.1.

The immediate and long term health effects from this radiation poisoning include: acute illness (from initial blast), long term genetic mutations (that are passed down through generations), increased risk of certain breast, blood, bone, and thyroid cancers, and chronic respiratory and cardiovascular diseases.¹⁶ The Marshallese people, in fact, have one of the highest rates of thyroid cancer in the world; it is estimated that by 1966, “52% of the exposed children on Rongelap who were under ten years old at the time of the Bravo test, as well as 35% of the total population, had developed thyroid abnormalities.”¹⁷ Of the 167 people evacuated from Rongelap only 29 are still alive¹⁸ and “half of the extra cancers that would occur as a result

¹⁴ Ruff, 2015, 795.

¹⁵ Ruff, 2015, 795.

¹⁶ Ruff, 2015, 801.

¹⁷ de Ishtar, Zohl. "Poisoned Lives, Contaminated Lands: Marshall Islanders Are Paying a High Price for the United States Nuclear Arsenal." *Seattle Journal for Social Justice* No. 2, Vol. 1 (2003): 287-308
<http://heinonline.org.ezproxy.liberty.edu/HOL/Page?handle=hein.journals/sjsj2&collection=journals&id=294>

¹⁸ Zak, 2015.

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of fallout in the Marshalls [are] still to come.”¹⁹ The United States has access to this data yet they have neglected to provide for adequate care for the displaced people on Ebeye Island.

When the people of Bikini were relocated from Rongelap to Ebeye it was to bring them closer to the research facilities located at Kwajalein. The United States has about 1,300 servicemen and women stationed at Kwajalein while there are about 10,000 people on Ebeye Island, which is 15 minutes away by ferry.²⁰ Kwajalein has a health care facility, a golf course, a yacht club and is 1.2 square miles; Ebeye, in stark contrast, is 1/10th of a square mile, has no high school, and is called the “slum of the Pacific.”²¹ The United States leases the island for \$15 million per year from a few wealthy families who live abroad; 900 residents of Ebeye take a 15 minute ferry ride to work on Kwajalein as cooks, cleaners, and shop workers.²² They are paid between \$10-\$12 per hour for their work which is much greater than the wages of other Marshall Islanders.²³ However; the overall well-being of the islanders is in grave trouble according to the Millennium Development Goals (MDGs) established by the United Nations.

The MDGs established by the United Nations measures the overall well-being of a country in order to help eradicate poverty, reduce deprivation, and improve overall economic well-being.²⁴ The Republic of the Marshall Islands (RMI) has some of the worst performance indicators for overall well-being in the world. In 1999, 20 percent of RMI’s population lived below the poverty line and 27 percent of the children under five years of age were classified as

¹⁹ Ruff, 2015, 797.

²⁰ Zak, 2015.

²¹ Zak, 2015.

²² Zak, 2015.

²³ Zak, 2015.

²⁴ Gani, Azmat. "Human Well-being in the Pacific Island Mini States." *Development* 53, no. 1 (03, 2010): 105-13, <http://ezproxy.liberty.edu/login?url=https://search-proquest-com.ezproxy.liberty.edu/docview/216915303?accountid=12085>.

being underweight; furthermore, these numbers are expected to increase in the future due to climate issues as well as decreased funding from the United States.²⁵

In 1986, the United States returned sovereignty to the Marshall Islands and began to compensate victims through a trust fund. From 1986-2001, RMI received \$1 billion in direct aid from the United States and will receive roughly \$1.5 billion more until 2024.²⁶ Aid from the United States constitutes RMI's primary source of Gross Domestic Product and the number two employer for the RMI is the military base at Kwajalein.²⁷ One of the ways that the United States provides aid to the islanders is through food aid; unfortunately, this has also created health problems for the people. According to the World Health Organization, over 70% of Marshall Islanders are overweight and over 20 percent have diabetes.²⁸ This is due to change in diet from indigenous fruit, vegetables, fish, and meat to food provided through the aid program that includes "wheat flour, white rice, sugar, and fatty canned meats such as canned corned beef."²⁹

Aside from radiation sickness and diseases caused by radiation, as well as increase in diabetes, the unborn children and children born post-testing have been affected by birth defects as well as mothers dying during labor at rates higher than before. In 1958, the rate of stillbirths

²⁵ Gani, 2010, 106.

²⁶ "Marshall Islands." *CIA World Factbook*. 2016. <https://www.cia.gov/library/publications/the-world-factbook/geos/rm.html>.

²⁷ "United States Relations with Marshall Islands." *Bureau of East Asian and Pacific Affairs*. Fact Sheet. December 27, 2016. <https://www.state.gov/r/pa/ei/bgn/26551.htm>

²⁸ "Diabetes: Country Profile Marshall Islands." *World Health Organization*. 2016. http://www.who.int/diabetes/country-profiles/mhl_en.pdf?ua=1

²⁹ MacNaughton, Neil S. and Melissa L. Jones. "Health Concerns of Micronesian Peoples." *Journal of Transcultural Nursing*. Vol. 24, No. 3 (2013) 305-312. <http://journals.sagepub.com.ezproxy.liberty.edu/doi/pdf/10.1177/1043659613481675>

and miscarriages rose to twice the rate of those who were not exposed to fallout.³⁰ Some babies were born without any “human shape” and were termed “jellyfish babies.”³¹ The health crises for the Marshallese is evidenced in their total expenditures for healthcare as a percentage of GDP; the RMI spends 17.1 percent of its GDP on healthcare and is only second to the United States in comparison to the rest of the world.³² One of the reasons for such a high rate of obesity and diabetes is lack of physical activity. This proves to be a problem for the people of Ebeye Island as there are 10,000 people inhabiting such a small space. Moreover, more than 36% of the population is unemployed.³³ The lack of employment opportunities in the islands has led many to leave for the United States.

Under the 1986 compact agreement between the United States and the Marshall Islands, citizens of the islands are able to relocate to the United States without obtaining a visa. They are also able to join into the United States military to obtain citizenship. Many from the islands have relocated to Hawaii, the West Coast, and to Arkansas; and those who do relocate are better educated and most do not return to the islands.³⁴ For those who do relocate they often take lower paying jobs, have no health insurance, and many become homeless; it is estimated that 20 percent of those relocated to Hawaii are homeless.³⁵ The costs of relocating these islanders to the state of Hawaii places an added burden on the state to care for the unemployed, uninsured migrants; Hawaii has spent \$140 million to care for these migrants from 1997 to 2002.³⁶ In fact the burden on the state is as such: migrants make up less than 1 percent of the total population of

³⁰ De Ishtar, 2003, 291.

³¹ De Ishtar, 2003, 287.

³² “Marshall Islands.” 2016.

³³ “Marshall Islands.” 2016.

³⁴ Zak, 2015.

³⁵ McNaughton, 2013, 310.

³⁶ McNaughton, 2013, 310.

Hawaii yet use 12.8 percent of the services provided by the state.³⁷ Lastly, these migrants brings with them a specific set of health problems to the state: they bring communicable diseases such as leprosy and tuberculosis that were not previously a problem in Hawaii.³⁸ Many of them come for the free healthcare and perhaps if there were better health care facilities available to them in RMI they would stay.

In the RMI there are people who are working to change the future of the islanders; they advocate for more funding to alleviate the social, economic, environment, and health issues created by the United States nuclear testing program. They also advocate for nuclear disarmament so that no other nation or people group have to experience what they have been through. One of the most outspoken advocates for nuclear disarmament is the former Foreign Minister of the Marshall Islands, Tony de Brum, who was an eyewitness to the Bravo Test (also called Castle Bravo) conducted on the Bikini Atoll on March 1, 1954.³⁹ He travels the world advocating for his people as well as all of humanity; he believes that nuclear testing has directly contributed to global warming and that these tests have had a detrimental effect on the world.⁴⁰ He has directly challenged the United States for full disclosure on the total effects of testing for the RMI and funding to match those effects. He also was instrumental in helping the Nuclear Peace Foundation bring two lawsuits against nuclear powers.

The first lawsuit is against the United States in the federal courts of the United States and the second lawsuit was filed in the international court at The Hague against the nine nuclear

³⁷ McNaughton, 2013, 310.

³⁸ McNaughton, 2013, 308.

³⁹ de Brum, Tony. "Remarks on Bravo Day." *Nuclear Age Peace Foundation*. March 1, 2016.
<https://www.wagingpeace.org/remarks-on-bravo-day/>.

⁴⁰ De Brum, 2016.

nations to include North Korea and the United States. The lawsuits do not seek compensation; rather, they are a plea for the United States and the other eight nuclear powers (Russia, United Kingdom, France, China, India, Israel, Pakistan, and North Korea) to adhere to the 1968 Nuclear Non-Proliferation Treaty (NPT) to pursue negotiations for disarmament.⁴¹ The RMI claims that not only have these nations not pursued negotiations they have in effect increased spending to modernize their weapons and delivery mechanisms.⁴² In October 2016, the United Nations high court ruled, by a vote of 9 to 7, that they did not have jurisdiction to hear the case.⁴³ It is not likely that the United States will actively seek disarmament negotiations as President Trump indicated earlier.

The Marshall Islands is a unique nation group with a first-hand view of the devastating effects of nuclear testing. The tests have had an immediate, current, and will have a future effect on the land, sea, and people for many generations to come. It is hypocritical for the United States to impose sanctions on other nations for nuclear testing when they have not yet answered for their own testing. The United States should invest in the nation of the Marshallese people; these people should have their lands restored to them so that they can resume the quality of life that they had prior to the testing. Moreover, they should help to create new industries for these people so that they can elevate themselves out of a welfare state into a self-sufficient people.

⁴¹ Rhee, Shineh. "Pacific Nation Challenges Nine Nuclear-Armed States in Lawsuits Before the World Court." *Nuclear Age Peace Foundation*. April 24, 2014. Press Release.

⁴² Rhee, 2014.

⁴³ Simons, Marlise. "Marshall Islands Can't Sue the World's Nuclear Powers, U.N. Court Rules." *The New York Times*. October 5, 2016. <https://www.nytimes.com/2016/10/06/world/asia/marshall-islands-un-court-nuclear-disarmament.html>

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