

[Home](#) » [World](#) » Article

Nursing a nuclear test hangover

August 18, 2008

Today, 50 years after the US military's nuclear tests on the Marshall Islands ended, islanders are still fighting to make their environment safe. A US radioactive dump is cracking up, but Washington is refusing to spend any more money on a clean-up. Ivan Broadhead reports.

"The equivalent of 1.6 Hiroshima bombs was dropped on our tiny country every day of the 12-year test period," says Jack Ading, the Marshall Islands Finance Minister and Enewetak's senator. "Two of Enewetak's islands were vapourised," he says.

"Our land was so contaminated with radiation that we were forced into exile for 30 years - the north of our atoll remains uninhabitable. As for the Bikinians, they're still not home 62 years after being removed by the Americans."

Ading and I had met to discuss the tip-off that started this investigation: an aid worker's report that local fishermen believed a US nuclear dump on Runit - one of Enewetak's 40 remaining islands - was cracking apart.

The site, built in 1979, is the repository for 85,000 cubic metres of radioactive debris collected during the US clean-up of Enewetak. The waste was mixed in slurry and dumped inside the crater left by a nuclear bomb blast - codenamed "Cactus" - then capped by a concrete dome that stands nine metres high and 115 metres wide.

Ading cannot confirm or deny the aid worker's claim. Runit is off-limits to non-authorized visitors for the next 24,000 years - the half-life of the plutonium inside the dome.

An expedition was planned to investigate. However, the remoteness that attracted the US to the Marshall Islands to conduct its nuclear tests still hinders travel around the country. The return journey to Enewetak could take a month by ship while Air Marshall Islands, afflicted by financial and technical woes, has been grounded since October.

The transport dilemma is finally solved thanks to some timely geopolitical manoeuvring. The Marshalls is one of only 23 states to recognise Taiwan. With rumours that the President, Litokwa Tomeing, might switch the country's allegiance to Beijing, Taipei is showering the population of 60,000 with gifts, including a recent \$US1.6 million (\$1.84 million) sweetener to relaunch the national airline.

The first flight to Enewetak for more than 18 months - a charter organised by the Ministry of Education to oversee school examinations - finally touches down on the atoll in June.

The prospect of exams does little to curb the children's excitement. They swarm around the aircraft and hand out garlands of flowers as we step onto Enewetak soil. Their joy on greeting the passengers, of breaking their isolation from the outside world, is infectious.

A colourful procession leads us to the pier opposite the island's whitewashed church, where Baliken Jackson and his children are waiting to ferry us the 25 kilometres to Runit.

Out on the sapphire lagoon, we watch as the main island's pristine, palm-lined beaches recede. It

seems ludicrous the US would choose such an idyllic spot to unleash a nuclear arsenal that included the 10 megaton "Ivy Mike", the world's first hydrogen bomb, detonated here in 1952. From 1946 to 1958, 67 atomic and thermonuclear devices were detonated, 43 on Enewetak atoll, the remainder on Bikini. Runit hoves into view. The island measures scarcely 0.3 square kilometres but was the site for eight nuclear blasts. Clambering ashore, hacking through the bush and over a high sand parapet, the dome looms like a stranded flying saucer.

While the views from the top are stunning, it is a sobering experience to climb. Cracks riddle the surface, many water-stained at the edges and crumbling. Some spalls are so large, birds have laid eggs in them. The concrete cap - 45 centimetres thick and peppered with plutonium waste - contains at least two holes 15 centimetres deep. Below lie thousands more cubic metres of radioactive waste.

After studying emailed photographs of the site, one of the world's leading experts on concrete durability, Professor Nick Buenfeld of Imperial College, London, was concerned enough to offer his team's expertise in assessing the structural integrity of the dome.

The US and its agencies are less accommodating. The Department of Energy, instrumental in the dome's construction, explains that "the US has no formal custodial responsibilities for the site".

Nevertheless, an energy department engineer was sent to Runit in June. His preliminary feedback to Washington last month confirms the cracks. However, the department proposes that these already existed when it undertook its last visual inspection of the dome 18 years ago, and are only hairline in nature.

The suggestion that there was cracking in the first 11 years of the dome's life but no deterioration in the last 18 is met with considerable scepticism by Ading, particularly in the light of a 1000-page Pentagon dossier discovered during research for this article.

The dossier - retrieved from a US Department of Defence archive under Freedom of Information and signed-off in August 1980 by Vice Admiral Robert Monroe, then director of the US Defence Nuclear Agency - undermines the credibility of the US nuclear clean-up operation on Enewetak. It reports how US officials questioned both the cost and "the real necessity for absolute [structural] integrity" of the Runit dome.

Such thinking would explain the decision to use the Cactus crater for waste containment. It was "more accessible and could be used more economically" than other potential sites, the dossier explains - despite the fact that the crater extends into Enewetak lagoon and sits on coral foundations that were severely fractured by three other nuclear detonations, thereby posing the considerable risk of radiation seeping into the lagoon.

President Tomeing is concerned. "The islanders subsist on fish from the lagoon. If there are cracks below and seepage of radioactive particulates, then we are in a very big mess," he says. "I hope to God this will never be the case. It would have both national and regional implications."

But the energy department insists that, based on a 2005 environmental study, "there appears to be no measurable or discernable evidence of any leakage of radioactive waste from the dome impacting the marine environment". This directly challenges the Monroe dossier's finding: "All those present seemed to realise radioactive material was leaking out of the crater and would continue to do so."

The dossier describes various shortcuts and errors that occurred during the dome's construction. Among

them is the mysterious disappearance of up to 19,000 cubic metres of radiation-contaminated soil destined for the crater, and a report from a helicopter pilot flying over the dome who noticed that its circular keywall was anything but circular. Thirty-one concrete slabs had to be hauled up and realigned as a result.

On returning from Runit to the Marshall Islands' capital, Majuro, Ading's staff insist on radiation tests to ensure our plutonium levels are within safe limits. The experience is nerve-racking but the results are fine.

Later I meet Lemeyo Abon. She - like 90 per cent of the children from her island of Rongelap who were exposed to radiation during the test era - has cancer, in her case thyroid cancer.

She vividly describes the morning of March 1, 1954, when a flash of light eclipsed the sun and white powder drifted down from the sky.

"It was fallout from Castle Bravo, the largest nuclear bomb the US ever detonated and one of the world's worst radiological disasters," says the 68-year-old grandmother.

Her warm, weathered face speaks of a life lived but not of the anguish. "First, there were lots of miscarriages among the women," she says. "Soon afterwards came the deformed babies - the 'jelly babies' or 'octopus babies' we called them.

"The birth defects have passed down the generations. My own granddaughter was born with a tail," she says, as if this were scarcely out of the ordinary. "She was medevaced to Honolulu for surgery and now she's 14. Sue's her name ... what a smart girl."

Visiting Runit and meeting survivors such as Abon emphasises the Bush Administration's ambivalence towards the Marshall Islands, particularly with regard to continuing decontamination of the land and providing health care. The Congressional Research Service reports that, from 1964 to 2004, Congress legislated to provide \$US400 million in compensation, health care and clean-up costs.

The sum represents less than 20 per cent of the annual budget of Los Alamos National Laboratory, the institution that developed the first atomic bomb and one of 13 national laboratories run by the same energy department that argues it has no custodial responsibility for the Runit dome.

Clyde Bishop, the US ambassador to the Marshalls, explains why his country will not simply provide more funds: In 1986, Washington and Majuro enacted a Compact of Free Association. The treaty provides the Marshallese various benefits including free access to the US, its schools and federal grant programs, and guarantees US defence of the islands.

As part of the agreement, the US also offered a \$US150 million trust fund "in full and final settlement of all past and future claims deriving from the nuclear tests" - a catch-all that would slam the door on any future subsidies to maintain the Runit dome. With no bargaining power and a GDP less than half of East Timor's, the Marshallese had little choice but to accept the deal.

Jonathan Weisgall, the Washington-based lawyer who has represented the islanders since 1974, was dismayed. "It was obvious \$US150 million was never going to be sufficient to provide a just settlement for property loss, as required under the US Constitution," he says.

In April 2000 the Nuclear Claims Tribunal, established by US mandate under the compact to adjudicate on compensation claims, awarded the people of Enewetak \$US341 million for the loss of their atoll,

restoration of the land to a safe state and for the hardship they had suffered. Bikini's compensation was closer to half a billion dollars.

Both awards were meaningless. Most of the \$US150 million trust had already been exhausted in previous payments to the four most contaminated islands and in partial settlement of the first 2000 personal injury claims for death and illness resulting from radiation poisoning. "There was scarcely \$US2 million left in the fund," says Weisgall.

In desperation, the Marshallese turned to Congress. But since 2000, the politicians in Washington refused to progress the islanders' petition for further funding that, as well as supporting health care and land clean-up, could help implement a monitoring and maintenance program for the Runit dome.

Weisgall has little hope that the imminent change of administration in Washington will alter the status quo. In 2006 he launched a joint compensation claim for Bikini and Enewetak in the US civil courts to claim the full tribunal award. That case was rejected; he and the islanders now await a decision on their appeal, which was heard on August 7.

Ading says of the impasse: "We are the only population ever to have been resettled on a nuclear test site. Our simple message to the US Government and courts is that, half a century later, they respect our people's sacrifice to their military cause and establish a long-term monitoring program, as they would if these tests had occurred in the continental United States."

- [Email](#)
- [Print this story](#)
- [Normal font](#)
- [Large font](#)
- [Add to Facebook](#)
- [Add to del.icio.us](#)
- [Digg this story](#)
- [RSS Feed](#)

When news happens:

send photos, videos & tip-offs to 0424 SMS SMH (+61 424 767 764), or [email](#) us.

[Save up to 36% on home delivery of the Herald - subscribe today!](#)

Copyright © 2008. The Sydney Morning Herald.