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Grappling with the Bomb: Opposition to Pacific nuclear testing in the 1950s

Nic Maclellan

In the fifty years from 1946-1996, the United States, France and the United Kingdom conducted over 315 nuclear tests in the Pacific islands. Starting in the 1940s, there was popular opposition to these testing programs across Australia, New Zealand and the Pacific Islands, led by trade unions, churches and indigenous organisations. The author, who was a member of the Nuclear Free and Independent Pacific movement (NFIP) and served in its regional secretariat in Fiji, will discuss the impacts of nuclear testing on the civilian and military personnel who staffed the test sites over fifty years, as well as neighbouring island communities. Using British nuclear testing on Kiritimati (Christmas Island) as a case study, the article will detail ongoing efforts by nuclear survivors to seek recognition and compensation for the health and environmental impacts of testing.

From the beginning of the nuclear age, the United States, Britain and France sought "empty" spaces to conduct their Cold War programs of nuclear testing. For fifty years between 1946 and 1996, the deserts of Australia and the islands of the central and south Pacific were used to conduct over 315 atmospheric and underground tests at ten different sites. From 1946 to 1958, the United States conducted 67 atomic and hydrogen bomb tests at Bikini and Enewetak atolls in the Marshall Islands. In the 1960s, there were 25 further US tests at Christmas (Kiritimati) Island for Operation Dominic and nine more at Johnston (Kalama) Atoll.¹ Britain tested nuclear weapons in Oceania between 1952-58, with 12 tests at the Monte Bello Islands, Maralinga and Emu Field in Australia (1952-57).² These were followed by nine hydrogen bomb tests at Christmas (Kiritimati) Island and Malden Island in the central Pacific (1957-58).³ After conducting 17 nuclear tests in Algeria at Reganne and In Eker between 1960-66, France moved its test sites to the South Pacific. From July 1966 to January 1996, France conducted 193 atmospheric and underground tests at Moruroa and Fangataufa atolls in French Polynesia.⁴

These desert and ocean sites were chosen because they seemed to be vast empty spaces. But the nuclear powers showed little concern for the health and well being of nearby indigenous communities and those civilian and military personnel who staffed the test sites. Many people in the Pacific welcomed the development of nuclear installations across the region, for the economic and employment opportunities created by an influx of military personnel. Political leaders, from Sir Robert Menzies in Australia to Gaston Flosse in French Polynesia, enhanced their political careers through their fawning loyalty to Empire. But significant minorities in countries across the region resisted the nuclear era and continue to campaign for compensation for the health and environmental consequences of more than 300 nuclear tests. Throughout the decades of testing in the Pacific islands, there was widespread popular resistance. Alliances of trade unions, churches, women's organisations and customary leaders in the islands campaigned for an end to nuclear testing and the abolition of nuclear weapons. Support for nuclear disarmament in Pacific Rim countries like Australia, New Zealand, Japan and the United States is well documented, but there is less recognition of the long-standing resistance by Pacific Island peoples to the nuclear weapons programs.⁵

Following its founding conference in Fiji in 1975, the Nuclear Free and Independent Pacific (NFIP) movement was a driving force in this campaign, linking the issues of

environmental damage to indigenous campaigns for self-determination and political independence. The signing of the Rarotonga treaty for a South Pacific Nuclear Free Zone (SPNFZ) on Hiroshima Day 1985 and the end of French nuclear testing in 1996 were important milestones. However, before the revival of Pacific disarmament campaigning in the 1970s and 1980s, there were sporadic protests against nuclear testing in earlier decades across the islands region.

This paper starts with some examples of these islander protests during the 1950s. The paper then details responses to the UK nuclear testing program in the British Gilbert and Ellice Islands Colony, codenamed Grapple, in 1957-8.⁶ Most people recognise the names Maralinga, Bikini and Moruroa as nuclear test sites, but Kiritimati and Malden Island are less well known. For this reason, the paper presents the history of the Grapple tests through a patchwork of letters, archival records and oral testimony for four people: pacifist Harold Steele, businessman James Burns, Gilbertese woman Sui Benan Kiritome, and Fijian sailor Paul Ah Poy. These stories reflect the growing number of personal testimonies about nuclear testing in the Pacific. In recent publications, workers, military personnel and indigenous peoples have told their own history in their own words: women from Yankunytjatjara and Pitjantjatjara communities in South Australia; the Gilbertese workers and Fijian soldiers and sailors who witnessed Britain's H-bomb tests; and the Maohi labourers who staffed the nuclear test sites of French Polynesia for 30 years.⁷

Opposition to nuclear testing across Oceania

One of the earliest indigenous anti-nuclear protests was in French Polynesia in 1950, when the Tahitian leader Pouvanaa a Oopa – a military veteran in both world wars – collected signatures for the March 1950 Stockholm Peace Appeal. According to Marie-Thérèse Danielsson:

Pouvanaa a Oopa, understanding the importance of this document, decided to take the appeal to Tahiti and present it to the local population. He began by having it signed first in Tahiti, then took advantage of the first voyage of the boat *Tuamotu* to travel further afield. The boat, which had been bought by the Tuamotu Islands Cooperative, allowed him to travel to the outermost islands to explain to the islanders the dangers of nuclear arms.⁸

Marie-Thérèse and her Swedish husband, Bengt Danielsson, were newly arrived anthropologists living on the outer island of Raroia in the Tuamotu Archipelago, 740 kilometres northeast of Tahiti. They attended meetings on Raroia organised by Pouvanaa about the horror of nuclear war, which later inspired them to campaign against French nuclear testing, through the publication of their classic polemic *Moruroa mon amour*.⁹ From the earliest days, the issue of nuclear testing was connected to the right to self-determination for the Maohi people of French Polynesia. Pouvanaa a Oopa had founded the *Rassemblement Démocratique des Populations Tahitiennes* (RDPT) in November 1949 - the earliest nationalist formation in French Polynesia - and won a seat in the French National Assembly. However during France's 1958 constitutional referendum, he pushed for independence rather than autonomy within the French Republic. This earned him the enmity of the Gaullist regime, as it prepared to shift France's nuclear testing program from the deserts of Algeria to the Tuamotu archipelago.¹⁰ In a scandal that has been documented by historian Jean-Marc Regnault, Pouvanaa was falsely charged with arson and other crimes, deprived of his civil rights and thrown into prison in France.¹¹ The charismatic leader – known as *the Metua* – was exiled from his home for a decade, removed from public life just as France began to relocate its nuclear testing centre in the early 1960s. Pouvanaa's campaign echoed regional protests that had grown since the nuclear age in the Pacific began with the flight of the *Enola Gay* from Tinian in the Marianas Islands to Hiroshima on 6 August 1945.¹²

Administering the UN strategic Trust Territory of the Pacific Islands (TTPI), the US military began Operation Crossroads in 1946, which led to 67 atmospheric nuclear tests at Bikini and Enewetak Atolls.¹³ The greatest international outcry began after the 1 March 1954 nuclear test codenamed Bravo, which spread fallout across the northern atolls of the Marshall Islands. Anti-nuclear demonstrations were strongest in Japan, because of the irradiation of the 23 crew members of a nearby Japanese fishing boat *Fukuryu Maru* (Lucky Dragon).

While protests were concentrated in the Pacific Rim, Marshall Islanders also expressed their concern, despite the US Navy's control of the United Nations trusteeship. Islanders led by Dwight Heine and customary chief Kabua Kabua lodged a petition with the UN Trusteeship Council just weeks after the Bravo test, which requested that "all experiments with lethal weapons in this area be immediately ceased." The petition said:

The Marshallese people are not only fearful of the danger to their persons from these deadly weapons in case of another miscalculation, but they are also concerned for the increasing number of people removed from their land....land means a great deal to the Marshallese. It means more than just a place where you can plant your food crops and build your houses or a place where you can bury your dead. It is the very life of the people. Take away their land and their spirits go also.¹⁴

In 1956, after the UK government announced that British nuclear testing would commence at Christmas Island, Western Samoa petitioned the UN Trusteeship Council to halt the British tests (at the time, Samoa was still a trust territory of New Zealand). The Trusteeship Council rejected the petition by a vote of 9-1, with only Russia voting in favour.¹⁵ The same year, the Rarotonga Island Council submitted a report to the Cook Islands Legislative Council, expressing concern about the proposed British tests on Christmas Island and asking "that the testing area be situated at some greater distance than the Cook Islands."¹⁶ British forces established a weather station on Tongareva (Penrhyn island) in the Cook Islands, which is located just 550 kilometres south of Malden. British naval vessels later transited through Tongareva and reefs were blasted for shipping access (leading to reports of the disease ciguatera at the time of the tests).

In Australia, Aboriginal activists had joined supporters in 1947-48 to protest the establishment of the Woomera rocket testing range in South Australia. In the early 1950s, Britain's nuclear testing program in South Australia was established within the Woomera Rocket Area (WRA) on the lands of the Yankunytjatjara and Pitjantjatjara peoples. Over time, the anti-Woomera campaign grew into broader indigenous opposition to nuclear testing. Public meetings, radio broadcasts and information leaflets were organised by the newly formed Council for Aboriginal Rights, supported by the Aboriginal Advancement League (AAL), Communist Party of Australia, Women's Christian Temperance Union, and Women's International League for Peace and Freedom (WILPF).¹⁷

In Fiji, there was also popular opposition to the proposed British nuclear testing program to the north. In February 1957, the Indo-Fijian newspaper *Jagriti* editorialised:

People living in the vicinity of the islands where the atom and hydrogen bombs have been tested are afflicted with hazardous diseases. Full information has not been given so far about them. Nations engaged in testing these bombs in the Pacific should realise the value of the lives of the people settled in this part of the world. They too are human beings, not 'guinea pigs'.¹⁸

The *Fiji Times*, the main English language newspaper in the British colony, gave front-page coverage to international protests against the nuclear tests. An April 1957 editorial in the *Fiji Times* noted:

Nobody knows how many people will die or how many children will be born mentally or physically deformed because of atomic or hydrogen bomb tests, past or future. That is why there is so much disquiet in so many countries and among so many peoples of varying political beliefs about the continuation of such tests by the United States and Russia and about the forthcoming tests on Christmas Island...The free nations should seek foreign agreement with Russia to curtail or suspend completely all tests until their effects on the future of mankind can be more accurately assessed. To continue with indiscriminate and unrestricted tests in the present state of uncertain knowledge will be irresponsible folly indeed.¹⁹

Background to Operation Grapple

With the United States' 1946 *McMahon Act* restricting the transfer of nuclear research and technology, the British government developed its own testing program in the 1950s, aiming to follow the US and the Soviet Union in the development of atomic and hydrogen bombs. According to Lord Cherwell – a Conservative politician and Winston Churchill's chief scientific adviser – the development of thermonuclear hydrogen bombs was central to maintaining Britain's status as an imperial power in the post-war era:

If we are unable to make the Bomb ourselves and have to rely entirely on the United States for this vital weapon, we shall sink to the rank of a second class nation, only permitted to supply auxiliary troops, like the native levies who were supplied small arms but not artillery.²⁰

Britain needed an area with little population to test their nuclear weapons and Churchill's Cabinet searched the map for an isolated outpost of the British Empire. Fearful of opposition from the public, planning was conducted in secret for the British testing program in Australia and the Pacific islands. After the testing of atomic bombs in the deserts of Australia, Britain planned to develop the hydrogen bomb. However the agreement with the Australian government stated that H-bomb trials could not be conducted in Australia for "safety reasons", so the British government was forced to seek a new testing site.

The British Cabinet Defence Committee secretly decided to construct an H-bomb at its meeting on 16 June 1954. By the end of 1956, tens of thousands of tons of equipment had been brought from England to establish the military base on Christmas (Kiritimati) Island in the central Pacific. A forward base and airstrip was also established on Malden Island, located 600 kilometres from the Christmas Island base. At the time, these two islands were part of the British Gilbert and Ellice Islands colony - today, they are within the independent island nation of Kiribati. Nearly 20,000 British military personnel, supported by 524 New Zealand sailors and nearly 300 Fijian soldiers and sailors, travelled to the central Pacific for Britain's hydrogen bomb testing program between 1956 and 1962. At the peak of activity in 1957-8, these forces and civilian scientists were living under canvas on Christmas Island.

Overall, nine atmospheric tests codenamed Grapple were held in 1957-58. In May and June 1957, Britain conducted three nuclear tests near Malden Island, codenamed Grapple 1 (Short Granite), Grapple 2 (Orange Herald), and Grapple 3 (Purple Granite). The nuclear devices were detonated high over the ocean after being dropped from a Valiant bomber – by exploding the bomb in the air rather than on land, it was designed to reduce radioactive fallout. A British naval

task force and aircraft flown from Christmas Island monitored the tests at Malden Island. The light aircraft carrier *HMS Warrior* was the command vessel, supported by British warships and two New Zealand frigates, *HMNZS Pukaki* and *HMNZS Rotoiti*. Members of the Fiji Royal Naval Volunteer Reserve joined New Zealand sailors aboard the NZ frigates.²¹ Later, from 1958-60, dozens of Fijian soldiers were deployed on land, often working as labourers around the tent city. Official statements issued in London after the tests argued that there had been no radioactive fallout, although the three tests near Malden did actually contaminate the island with significant fallout.²²

After the tests, the British government announced that it had achieved a thermonuclear explosion in the megaton range. The *Mid-Pacific News* – a newsletter produced for staff and troops on Christmas Island – reported: “Bomb Gone! H-Bomb puts Britain on level terms.”²³ This was a massive political bluff, however, to persuade the United States to review the *McMahon Act* and renew scientific collaboration between the two countries that had been ended after a series of British spy scandals. Privately, UK scientists calculated that the blasts were only 0.2 to 0.7 megatons, and further tests were needed. The bluff was successful, with the amendment of the *McMahon Act* in July 1958.²⁴ Facing moves towards an international moratorium on nuclear testing in 1958, there was pressure on the British task force to rush and develop a hydrogen bomb in the megaton range. Rather than send a naval task force and thousands of men back to Malden Island – hundreds of kilometres from the base of operations – it was decided to conduct further tests at Christmas Island:

Because time is so short, it is been decided to carry out the November tests of the south-east tip of Christmas Island; it would have taken too long to set up Malden again. The trials will be high airburst as before.²⁵

This decision reduced the enormous logistic problems of conducting the tests so far away from the main base, saving over two million pounds. But it brought the tests close to the camp where British, New Zealand and Fijian personnel were stationed. From August 1957, there was a major build-up of the Christmas Island base. Between November 1957 and September 1958, a further six nuclear tests were conducted in the atmosphere near Christmas Island. During these tests, service personnel were ordered to line up in the open, to face away from the explosions, and remain with their backs turned with eyes closed for twenty seconds after the explosion. At sea, crews lined the decks of the naval task force. On land, soldiers and civilian personnel were grouped on the beaches at various points of the island only 25 miles from the centre of the blast. The local Gilbertese population – labourers and plantation workers – were initially taken offshore during the tests, or housed aboard British naval vessels to avoid the blast.

Much of this activity was conducted in secrecy to avoid public opposition. For example, the official British Colonial Office reports on the Gilbert and Ellice Islands Colony from 1956 onwards make no mention of the construction of the massive military base on Christmas Island or the testing of nuclear weapons!²⁶ However, with thousands of personnel involved, there was growing public awareness of the Grapple program. Opinion polls showed that nearly half the UK population were opposed to the tests, and there was growing concern in Australia, New Zealand and Japan. The National Council for the Abolition of Nuclear Weapons Tests (NCANWT) soon had one hundred branches around the United Kingdom (NCANWT was the forerunner of the Campaign for Nuclear Disarmament, which was founded in January 1958). Beyond public advocacy and campaigning in the Labour Party, however, small numbers of socialist and pacifist groups began to plan more direct action against the tests, forming the Emergency Committee for Direct Action against Nuclear War.²⁷ From this point, let us delve into the stories of four figures who grappled with the reality of nuclear testing in the Pacific.

Harold Steele

One way to track the history of peace protests is through the archives of disarmament groups and socialist organisations. Another is through the archives of Special Branch police and the intelligence services. As detailed in recent studies of the Australian Security Intelligence Organisation (ASIO), the secret state maintains a surprisingly comprehensive compilation of statements from groups perceived to be subversive.²⁸ While lacking the rigour of today's cyber monitoring, the UK Public Records Office holds files from the 1950s related to public protests against the Grapple nuclear tests. These include newspaper and wire service clippings, letters, telegrams and diplomatic cables sent between MI5 in London, the Secretary of State for the Colonies, the Governor's office in Fiji, the British Embassy in Tokyo and Foreign Office bureaux in Honolulu and Tahiti.²⁹

In March 1957, a six paragraph article in the *Daily Worker* newspaper sparked MI5's interest, reporting that a 63-year-old "white-haired and keen eyed" ex-poultry farmer from Great Malvern, Worcestershire, intended to "go out to the Pacific and sail into the H-blast area."³⁰ With support from other pacifists around the Peace Pledge Union (PPU), Harold Steele and his wife, Sheila, announced they would travel to Tokyo to join a protest fleet to sail to the central Pacific, aiming to halt the Grapple hydrogen bomb tests. In London, the Emergency Committee for Direct Action Against Nuclear War began to raise funds to support the protests, with sponsors including philosopher Lord Bertrand Russell, playwright Laurence Housman and comedian Spike Milligan.

Steele had a long history of pacifism. While studying at Exeter University during World War One, he refused the offer of a commission if he enlisted. As a conscientious objector, believing that "Christianity and socialism forbade any resort to war", he was court-martialled five times during the war and sentenced to seven years' hard labour.³¹ After three years in prison, he was only released in April 1919, long after the war was over. In March 1957, Steele told the *Sunday Pictorial* newspaper:

The time has come when someone must make a real move to stop the H-bomb tests. My wife and I will willingly sacrifice ourselves to prove to the world the horror of this devilish device. Personal considerations are secondary. My three children – much as I love them – are not important. If I should die, I commend them to the care of my Quaker friends. I believe this demonstration will shake the conscience of man out of its lazy acceptance of the H-bomb and all its horrors.³²

Two other young Britons, David Graham (aged 25) and Ian Dickson (aged 21), were in New Delhi and also planned to go to Japan or Fiji to join the protest. According to correspondence from the British Embassy in Tokyo, both men were war resisters who had refused to be conscripted for national service. Embassy official T.W. Aston reported to London:

According to the *Times of India*, Graham has already spent a term in jail for refusing to be conscripted. I do not know whether this might give the authorities in Fiji an excuse to frustrate their efforts should this be thought desirable or necessary.³³

Steele was initially unable to obtain a Japanese visa and in April, the *News Chronicle* reported that he planned to travel to the Pacific via India. An annotation on the newspaper clipping in the Steele's intelligence file asks: "Any news?" The handwritten response: "Only that he is assessed as a bona-fide pacifist and as a member of the Peace Pledge Union in the past. If he has otherwise subversive links, it would be known. I suggest we write him off."³⁴ Officials in the Asia-Pacific

region remained anxious about whether Steele would manage to travel to the Pacific islands. The archives contain a long series of letters and telegrams between London, Tokyo, Suva, Hawaii and Tahiti trying to track the protesters' movements. A confidential letter from the Foreign Office in London to the British Embassy in Tokyo notes:

In view of the conditions which the Japanese government has imposed for any visit by Steele to Japan, it seemed remotely possible that, if he can raise the necessary funds, this man will try to approach the danger area from some other jumping off point. For this reason we have telegraphed Honolulu and Tahiti asking for news as it comes to notice, since we must take all reasonable measures to prevent Steele from obstructing the tests.³⁵

An article in the *Fiji Times* on 17 April 1957 reported that Steele had booked an air passage to Fiji on 5 May. In a telegram from the Governor's office in Fiji to the Foreign Office on 18 April, marked "immediate and confidential", the Deputy Governor in Suva reported that:

Steele is alleged to have told reporters that he hopes to arouse some kind of protest among the Fijian population against proposed nuclear test in the Pacific area... I should be grateful if you would make appropriate enquiries and inform me whether you consider Steele should be declared to be a prohibited immigrant under section 7(c) of Immigration Ordinance 1947.³⁶

The reply from the Secretary of State for the Colonies to the Governor in Fiji noted:

His resources seem very limited and unless he could obtain local backing in Fiji, it is doubtful whether he could do much harm. As it seems unlikely he will come to Fiji it would only create unnecessary publicity to declare him a prohibited immigrant at this stage. In any case it would seem preferable to take action against him under section 8 (5) (b) of Immigration Ordinance if necessity arises.³⁷

In the end, Harold Steele was unable to reach Fiji before the first Grapple test on Malden Island on 15 May 1957. He did, however, reach Japan and spent weeks conducting public meetings and newspaper interviews to highlight opposition to the Pacific tests. The Fiji media gave prominent coverage to protests in Japan, such as a front-page report and picture in the *Fiji Times* of the 15,000-strong rally in Tokyo following the first test on Malden Island.³⁸ On Steele's return to England, the Emergency Committee for Direct Action against Nuclear War was transformed into the Direct Action Committee Against Nuclear War (DAC) in April 1958. The DAC launched a generation of civil disobedience against nuclear weapons.³⁹

Harold Steele's unfulfilled dream of sailing a boat into the middle of the Pacific nuclear test zone inspired many others: Albert Bigelow's plan to sail the *Golden Rule* to Enewetak Atoll in the Marshall Islands to disrupt the 1958 Operation Hardtack test series; Earle Reynold's 1958 voyage aboard the *Phoenix* to waters off Bikini Atoll; the rusting fishing trawler *Phyllis Cormack* (renamed the *Greenpeace*), which sailed from Vancouver in 1971 against US tests; the *Vega*, *Fri*, *Rainbow Warrior* and other vessels that bedevilled the French State from the 1960s; or Bill and Lorraine Ethell, who mortgaged their home and took three children aboard the *Pacific Peacemaker*, which sailed across the Pacific in 1982 to challenge the regional deployment of nuclear-armed US Trident submarines. But those are all stories for another day.

James Burns

While the tale of pacifist Harold Steele began with a short article in the *Daily Worker*, the story of Australian businessman James Burns begins with the *Sydney Daily Telegraph*. On 20 December 1956, Burns noticed a brief story in the *Daily Telegraph*. It reported that technicians at Edinburgh airfield in Adelaide were fitting 10 Royal Air Force (RAF) Canberra jets with recording instruments, preparing to relocate to Christmas Island to prepare for Britain's hydrogen bomb tests. As noted in the story, "the jets will fly through radioactive cloud."⁴⁰ James Burns was worried because his company Burns, Philp & Co had extensive plantations in the British Gilbert and Ellice Islands colony. As one of the leading businessmen in the Pacific, Burns could express his concerns about nuclear testing straight to the top. The same day as the *Daily Telegraph* story, Burns wrote to Minister for Defence Sir Philip McBride, enclosing the clipping and asking for reassurance about his property near the nuclear test site:

In connection with the British government's decision to carry out hydrogen bomb tests at and around Christmas Island, I would like to draw attention to the fact that we have very large plantation interests in Fanning and Washington islands, under 200 miles away from Christmas Island... We would like to point out that there seems to be a difference of opinion as to how far the effect of the hydrogen bombs will be experienced and we would like to have the assurance of the Australian government – if it is participating by fitting Canberra jets with recording instruments for the hydrogen bomb tests – that the employees of our plantations or the plantations themselves will not suffer any ill effects.⁴¹

Burns, Philp & Co was created by Scottish merchant Sir James Burns (1846-1923), but his son – also named James – joined the family firm at age 17 in 1898. James Burns was appointed a director in 1919 and following his father's death in 1923, he took over as chair and managing director. In the first half of the 20th century, the company expanded operations, with mercantile, shipping, insurance and copra plantations throughout Melanesia, the central Pacific and parts of South-East Asia.⁴² Burns developed a reputation as a buccaneer, as noted by biographer Ken Buckley: "Although conservative-minded, modest and cheerful, Burns was regarded by the administration in Papua-New Guinea as a commercial pirate who sought to use political influence to gain monopolies."⁴³

This political influence came to the fore as Burns sought to protect his investments from Britain's nuclear test program. In a letter to Minister for Supply Howard Beale in January 1957, Burns complained that his company had suffered losses during the Second World War, when ordered to destroy 1,000 tonnes of copra and burn plantation houses in the Solomon Islands so they could not be used by advancing Japanese troops. Noting that his company suffered losses "in the vicinity of £250,000", he complained to Beale that Burns, Philp & Co received "no post-war compensation from the British government for the damage in the Solomon Islands or other Pacific locations."⁴⁴ Burns then pressed Beale for guarantees about potential damage from the British nuclear test series on Christmas Island:

I do hope, if there are any hydrogen bomb 'antics' in the Pacific and our property is damaged, that we will not find ourselves in the same position. I sincerely trust that nothing like this will occur, but there seems to be some diversity of opinion by well-known scientists as to the effect of the hydrogen bomb that I do think we should be assured by the British government, if any damage does occur to our properties in the Pacific from these tests, the payment for such damage will be sympathetically considered.⁴⁵

James Burns was quite right to be concerned, both about the Canberra aircraft and about potential health impacts for his Gilbertese workers. British military authorities tried to hide the fact that the RAF aircraft were contaminated with radioactivity when travelling through Fiji from Australia to Christmas Island. The Canberra bombers from 76 Squadron were used during the Australian nuclear testing program between 1952 - 57. As they collected samples while flying through the mushroom clouds of the atomic tests at Maralinga, the planes' engines were contaminated with radioactivity (The aircrews suffered radiation doses up to six times as high as the current international safety limit for nuclear workers). Then, after the Maralinga tests, five Canberra aircraft flew across the Pacific in October 1957 for the next series of hydrogen bomb tests at Christmas Island. En route, the planes landed at Nadi Airport in Fiji for maintenance and refuelling. A confidential memo from RAF Air Commodore W. P. Sutcliffe – the Commander of the “Antler” nuclear test program in Australia – ordered crews of the RAF bombers not to tell local authorities in Fiji that their engines were radioactive. The memo noted that although the planes had been cleaned on the outside, their engines were still coated with radioactive material on the inside:

Aircraft of the No.76 Squadron flying to Christmas Island and stopping at Nandi [sic] and Canton may be radioactive internally...There appears to be no regulations in force governing the transit of radioactive aircraft through international civil airports such as Nandi and Canton. The fact that an engine may be 'hot' should be concealed from the Nandi authorities unless they ask.⁴⁶

Reports in the British archives also record official attitudes to the indigenous peoples living downwind of the nuclear test sites, highlighting the casual racism that dominated the nuclear era. In November 1956, the Commander of the Grapple Task Force Air Vice Marshall Wilfred Oulton issued a study on the “Danger Area” to be promulgated on 1 January 1957 for the Grapple nuclear tests. The purpose of the study was to define an area to warn off shipping, aircraft or fishing vessels that might intrude in the test zone. It sets “several definitions of levels of radioactivity resulting from fall-out” and looks at the danger of an “accidental surface burst.”⁴⁷ The document reveals that the “acceptable” dosage of radiation was different for British personnel than for the islanders who lived on Christmas Island and on neighbouring inhabited atolls such as Fanning, Jarvis or Penrhyn (Tongareva) in the Cook Islands:

For civilised populations, assumed to wear boots and clothing and to wash, the amount of activity necessary to produce this dosage is more than is necessary to give an equivalent dosage to primitive peoples who are assumed not to possess these habits. For such peoples the corresponding level of activity is called level B'. It is assumed that in the possible regions of fall-out at Grapple there may be scantily clad people in boats to whom the criteria of primitive peoples should apply....The dosage at this [B'] level is about 15 times higher (for primitive peoples) than that which would be permitted by the International Commission on Radiological Protection.⁴⁸

A meeting of officials held a week later to discuss the study agreed “that the levels recommended by the ICRP would necessarily be exceeded.” Officials agreed to inform the Minister, however, that “independent authorities agree that ... only very slight health hazard to people would arise, and that only to primitive peoples.”⁴⁹ The original version of the Danger Area was a 400 nautical mile circle around the drop-zone, the estimated area for explosions equivalent to 150 kilotons (although many of the actual explosions were much larger than this, ranging up to 3 megatons). Noting that “the proposed Grapple Danger Area is considerably larger than that prescribed for

similar American tests", some officials argued that "such an area is patently too large and has been reduced." This meant the boundaries of the Danger Area around Christmas Island were artificially re-drawn to exclude inhabited islands, including places where Burns Philp plantations were located, such as Washington, Fanning, Palmyra and Jarvis Island!⁵⁰

James Burns' lobbying in early 1957 prompted extensive discussions amongst British officials on arrangements to take care of the Gilbertese workers after the tests were relocated from Malden to Christmas Island. In a September 1957 letter from the Secretary of State for the Colonies, officials reported:

The proposal is to remove the Gilbertese from Christmas Island before the bombing aircraft takes off and place them in a ship in the Christmas anchorage, which has immediate notice to steam. They will remain in the ship until after the test when they will be returned to their village. Should an accident occur, either due to a crash on take-off by the bomber or surface burst instead of a high airburst, then there may be a risk to ships lying in the anchorage.⁵¹

As detailed in the next section, the Grapple Y test in April 1958 was indeed a "surface burst instead of a high airburst", with consequences for the "primitive peoples" who witnessed the British nuclear test program on Christmas Island.

Sui Kiritome

Beyond the workers on James Burns' plantations, about 100 Gilbertese men were employed on Christmas Island between 1956 and 1958. Supporting the thousands of British personnel, they worked as general labourers, laundry assistants and for "sanitary duties [i.e. emptying Elsan toilets], a task of relatively short duration for which extra pay would be awarded."⁵² They lived, together with their families, at Port London village on Christmas Island – a total of about 260 men, women and children. With the tests shifting from Malden Island to Christmas Island in late 1957, there was extensive discussion about ways to reduce costs while increasing the labour force. Staff of Headquarters Task Force Grapple and the Resident Commissioner for the Gilbert and Ellice Islands debated the merits of using Fijians soldiers and sailors from the Fiji Royal Naval Volunteer Reserve (FRNVR) or the Royal Fiji Military Force (RFMF) instead of more Gilbertese labour. The Colonial Office leaned towards creating jobs for Gilbertese islanders, while the military liked the discipline of Fijian reservists recruited into the British Army:

The employment of Fijian reservists does not give rise to any difficulties because they live, eat and play with the UK troops and there are no complications about accommodation or messing. As you know only too well from the Estimates exercise, the Treasury here have strict instructions to keep expenditure to the minimum and it would be difficult to persuade them to agree to the construction of special accommodation if the employment of Gilbertese made this essential. There is also the food problem if the Gilbertese have to be given special rations.⁵³

In later meetings, the representative of the Grapple Headquarters Commander "explained that an important consideration was the necessity to evacuate Gilbertese or place them in ships during nuclear tests." However,

The Resident Commissioner stated that his view was that if it was safe for service personnel to stay on the island, it was safe enough for Gilbertese. At the time of the first operation, the High Commissioner had however sought assurances from the Colonial

Office that there was no danger and these were not then forthcoming in sufficiently explicit terms.⁵⁴

If Gilbertese workers were to be evacuated from the island to the naval task force “it would in any case be necessary for women and children to be placed below decks in a ship, as the children could not be expected to carry out the safety drill.”⁵⁵ For the Grapple X nuclear test on 8 November 1957, Gilbertese workers were sent off island to Fanning for three months, except for the teacher, wireless operator and police constables. They had returned to the island, however, in time for the next nuclear test on 28 April 1958, codenamed “Grapple Y”. Christmas Island veterans have long argued that the greatest radiation exposure was created by this Grapple Y test, which was a massive explosion estimated at 2.8 megatons. Many reports suggest that the explosion was lower than expected, and the detonation sucked up quantities of water and debris into the mushroom cloud, irradiating them in the process. Irradiated water and debris then fell to ground, contaminating an area estimated at 50 to 100 miles, with fallout reaching the British naval task force, the military camp on Christmas Island and Port London village.⁵⁶

This 1958 nuclear disaster was witnessed by Sui Benan Kiritome, who arrived on Christmas Island in 1957 with her husband Kiritome Itaia, a teacher posted to the island for the schoolchildren of Gilbertese labourers. Kiritome Itaia also served as an interpreter for the British military to help pass on instructions to the islanders. In an interview translated by her daughter,⁵⁷ Mrs Kiritome described events on the day of the Grapple Y test. Local inhabitants of the island were informed just before the test that it was about to take place. Islanders were told to go aboard a British warship, where a movie was screened and sweets provided for the children.

When the countdown to the blast began, my husband told the people to put their hands to their ears to muffle the sound of the blast. Just after the blast, the captain came to my husband and invited us to accompany him to the deck to see what happened after the blast. We went up on deck and we saw everyone on deck wearing protective clothes ... We went on deck wearing normal clothes. We were watching the black cloud and smoke from the blast, which was drifting towards us. When it came overhead, I felt something like a light shower falling on me. I thought it was rain. Sometime after the test, something happened to my head and face. Every time when I combed my hair, I was losing strands of my hair and something like burns developed on my face, scalp and parts of my shoulder. My face was the worst affected because I was looking up at the black cloud from the blast, which was directly above us when the light shower fell on my face ... The mark remains on my face till today. It has been on my face for the last 40 years or so now.⁵⁸

As she stood on the deck of the British warship, Sui Kiritome was six months pregnant. Given “the black cloud and smoke from the blast”, Mrs Kiritome was anxious about possible health impacts when her daughter Rakieti was born in July 1958:

A strange thing happened during her birth. Blood came out from all cavities in her body - from her eyes, nose, year... I was told by my husband that the doctor was very surprised to see what happened to the child.⁵⁹

As the Grapple series progressed, the Headquarters Task Force Grapple abandoned elaborate safety procedures for the islanders. For two of the smaller Grapple Z tests (“Pennant” on 22 August 1958 and “Burgee” on 3 September 1958), the Gilbertese workers and their families “were marshalled ashore in a safe place” even though the officials acknowledged that anyone who

deliberately or accidentally observed the initial flash of the nuclear test was "likely to have their eyesight temporarily or permanently impaired."⁶⁰

Paul Ah Poy

The Grapple Y disaster was witnessed by another Pacific islander, who later became an active campaigner for the rights of nuclear test survivors - Fijian sailor Paul Ah Poy. He first travelled to Christmas Island in 1956 about *HMNZS Lachlan*, as the NZ warship surveyed the island in the build-up to the test. In July 1957, as a member of the Fiji Royal Naval Volunteer Reserve, he returned to Christmas Island and went on to witness seven nuclear detonations during Operation Grapple.⁶¹ Forty years after the tests, Ah Poy vividly described his recollection of the heat and blast as a nuclear weapon exploded into the sky over the atoll:

I could see the flash of white light through my closed eyelids and the palms of my hands and the searing heat through my shirt on my back. I started squirming, then stood up and turned around. First thing I saw was a big new sun. Then slowly it turned into a giant ice cream cone with white cream dripping over its side. Then into a giant mushroom cloud.⁶²

For many young men, the opportunity to leave Fiji for the first time was a huge adventure, but many former Fijian soldiers who witnessed the Grapple nuclear tests have testified that they were exposed to radiation hazards. As detailed in the book *Kirisimasi*, anxiety about possible long-term effects from radiation exposure continued for decades for the surviving Fijian military personnel who staffed the test sites from 1957 to 1960.⁶³ Some members of the contingent have died from cancer, leukaemia or other serious illnesses and the surviving veterans report a range of medical complaints which they attribute to their service on Christmas Island.

From oral testimony and archival research, there is evidence that the troops were placed in hazardous environments which increased the risk of exposure to ionising radiation. After each nuclear test, Fijian military personnel were involved in clean-up operations, including disposing of thousands of birds that were maimed, blinded or killed by the nuclear explosions. Limited protective gear was issued to some troops for the early tests (such as white cotton suits to reduce the risk of flash burns). Most veterans testified, however, that they never received such gear, and served their term wearing standard army boots, shorts and shirts. The Fijians ignored British regulations that banned fishing and caught fish and crabs that may have been contaminated.⁶⁴

Beyond the clean up after each test, Ah Poy helped to dump drums of radiation-contaminated waste into the ocean from a small boat.⁶⁵ Like other Grapple veterans, he later suffered a number of health problems that he attributed to exposure to radiation in the 1950s. As well as the loss of hair and damage to his fingernails soon after the tests, Paul developed a rare skin disease. After his wife miscarried three times, his second daughter was born physically retarded and died at the age of three and a half. The failure of the British government to conduct medical studies before and after the tests reinforces the difficulty of documenting the changes in the veterans' health. In an interview, Fijian veteran Emori Ligica noted: "We were all medically examined and were healthy when we left for Christmas Island. When we returned we were never medically checked."⁶⁶ The Fijians suggested there was little evidence of racism amongst rank and file troops. This sentiment was echoed by Scottish veteran, Ken McGinley, who said the young Fijian soldiers were popular with the British troops:

The Fijians were the most friendly bunch that you could ever meet and they were really easy to get along with. They weren't allowed any alcohol from the NAAFI, so we always bought them a couple of cases of beer and they, in turn, taught us how to catch crayfish

and lobster. Sometimes they would come over to our tents and sing a few songs for us while one of them strummed a guitar.⁶⁷

The troops' attitude to senior officers, however, was not so enthusiastic. Nuclear veterans across the region complained that they were used as guinea pigs – a claim ridiculed by authorities. Well before the nuclear tests, senior members of the British military bureaucracy clearly saw that personnel could be exposed to radiation as part of the nuclear test program. Documentary evidence from the UK archives shows that one of the purposes of the tests was to study the effects of nuclear detonations on personnel and equipment – similar evidence can be found in the French and US archives. For example, the British Chiefs of Staff had a Defence Research Policy Committee on the Atomic Weapons Trials, looking at the military applications of atomic energy. A memo from the committee, dated 20 May 1953, stated that a series of “tests” needed to be included in future atomic weapons trials:

The Navy requires information on the effects of various types of atomic explosions on ships and their contents and equipment...The Army must discover the detailed effects of various types of explosion on equipment, stores and men, with and without various types of protection⁶⁸

And a memo from the Royal Air Force, dated 29 November 1955, stated: “During the 1957 trials, the RAF will gain invaluable experience in handling the weapons and demonstrating at first hand the effects of nuclear explosions on personnel and equipment.”⁶⁹

From the 1950s to today, the British, New Zealand and Fijian veterans have faced penny-pinching by the British authorities. Files in the UK Public Records Office are full of correspondence from the 1950s between the Grapple Task Force, the Ministry of Supply in London, the commander of the Fiji Military Forces in Suva and the Colonial Office all seeking to shift costs for the employment of islander labour.⁷⁰ In a comical but telling example, a draft letter from the Ministry of Supply to the Governor of Fiji asked “on what grounds it is considered that Fijian newspapers and supplies of kava should be provided at public expense.”⁷¹ Six months later a letter from the Ministry of Supply in London to the Colonial Office noted:

You will recall that we took up with the Commander FMF, among other matters, the question of supplies of yaqona [kava], dalo [taro] and Fijian newspapers to the above troops. We have received a reply which we regard as generally satisfactory on these points with the exception of the proposed man day rate for supplies of yaqona...I should be grateful for a quick reply as I am holding up a further Fijian claim for payment.⁷²

At the time Fijian soldiers were recruited for service on Christmas Island in 1958, the Secretary of State for the Colonies guaranteed the Governor of Fiji that the UK government would undertake the costs. This included any indemnity claims for disability pensions arising from injury. Over the next six months, there was extensive correspondence between the Ministry of Supply, Treasury, the Government Actuary and other officials to clarify this indemnity.⁷³ By June 1958, the Ministry of Supply wrote to the Government Actuary Office clearly stating that:

The Ministry of Supply has undertaken to indemnify the Government of Fiji against claims for pensions to which men of the Fijian Military Forces or their dependants may become entitled to as a result of death or injury sustained by them during their service on the Nuclear Weapons Testing Base at Christmas Island in the Pacific.⁷⁴

Decades later, Paul Ah Poy and other young men who supported God, King and Empire have become bitter about the British government's refusal to recognise their role, let alone provide pensions or even token compensation. Because it was a peacetime operation, Fijian veterans of the Grapple contingent were not eligible for post-independence Fiji's Aftercare Fund, a pension scheme for personnel who served in overseas military operations. This gap was only rectified by Fiji government legislation in 1999, after the publication of the oral history *Kirisimasi* highlighted their plight.⁷⁵ Some veterans have become committed disarmament activists. Ah Poy has travelled to England to lobby Parliamentarians alongside members of the British Nuclear Test Veterans Association (BNTVA). On 20 October 1999, he stood in the British House of Commons at a meeting with MPs, to state:

I have journeyed far from the other side of the world to bring to you the testimony of what is left of the men and family of the Fijian soldiers and sailors and i-Kiribati...I get sick regularly, with pain from my feet to my back, which I believe is related to the nuclear tests. This sickness has troubled me a lot. I have very little time for my gardens. We should be remembered, because we took Fiji's name there, we went as Fiji soldiers.⁷⁶

Ah Poy also travelled to Tahiti, to meet survivors of French nuclear testing. In 2006, he participated in activities commemorating the 40th anniversary of the first French nuclear test on Moruroa atoll, organised by *Moruroa e Tatou*, the association of former Maohi workers who staffed the French nuclear test sites.

Scottish veteran Ken McGinley would go on to be BNTVA Chair and to launch one of the first court cases against the British government, seeking compensation for health issues attributed to exposure to radiation. In 1997, McGinley and another veteran lodged a case before the European Court of Human Rights in Strasbourg, which recognised the merits of their claims but sent them back to the United Kingdom to use all relevant avenues of appeal.⁷⁷ On 23 December 2004, a test case for UK, NZ and Fijian veterans of the Christmas Island nuclear tests was lodged before the British courts, seeking compensation for health effects attributed to exposure to radiation during their military service. In June 2009, High Court judge Mr Justice Foskett ruled that ten test cases out of 1,011 claims could proceed to full trial, allowing Britain's atomic test veterans to claim damages. However the UK Ministry of Defence appealed the Foskett High Court ruling and continues to resist pleas for a negotiated settlement.

Former sailor Pita Rokuratu represented the Fijian veterans in the ongoing test case, having been diagnosed with aplastic anaemia and leucopenia as well as skin growths. Rokuratu had little sentiment left for God, King and Country after witnessing three tests on Christmas Island:

I can say that Britain murdered us. All the illnesses are affecting my children and grandchildren. Britain should do something to thank us. It has achieved its aims. It now has a great deal of power. It has an obligation to those who risked or gave their lives. It's true that we Fijians are always up to any challenge. Colonial days are over now. We have a time of enlightenment. Something should certainly be done.⁷⁸

More than ten years after it began, the still unresolved case has wound its way through the UK High Court, the Court of Appeal and Supreme Court. In November 2014, the veterans won a crucial ruling in the Upper Tribunal, which establishes guidance that could see ex-servicemen involved on Christmas Island and Maralinga in the 1950s receive war pensions after suffering chronic ill health. Most of the veterans, however, have died or are too elderly to benefit from any compensation. Because of this delay, the Fiji government decided to compensate surviving Fijian

soldiers and sailors – and their dependants. In a ceremony in January 2015, Fiji Prime Minister Voreqe Bainimarama highlighted the refusal of successive British governments to address the health and environmental consequences of its nuclear testing program in Australia and Kiribati:

Fiji is not prepared to wait for Britain to do the right thing. We owe it to these men to help them now, not wait for the British politicians and bureaucrats. You may ask: why is Fiji taking responsibility for something that is the fault of Britain? My answer is this. Too much time has passed. The ranks of these survivors are rapidly thinning. Too many men – our fellow Fijians – have gone to their graves without justice.⁷⁹

In his speech on 30 January, Bainimarama – the son of a Christmas Island nuclear veteran – stated:

We salute you for following your orders at the time, the orders of a colonial power pursuing its own agenda in the world. You are a living testament to our determination to never again allow our pristine Pacific environment to be violated by outside powers in such a destructive and terrible manner.⁸⁰

Nic Maclellan works in the Pacific Islands as a correspondent for *Islands Business magazine* (Fiji) and has co-authored three books on nuclear issues in the islands region: *La France dans la Pacifique* (Editions la decouverte, Paris), *After Moruroa - France in the South Pacific* (Ocean Press, New York and Melbourne) and *Kirisimasi* (PCRC, Suva).

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