# FREZONENEVS

SEPTEMBER 1981

Published by Home Base Pacific Pilgrimage, P.O. Box 6736 Wellesley Street, Auckland N.Z.

Cables: FREESQUAD.



We, Pacificans, are blessed with the biggest, the richest and mightiest ocean. In it our islands, big or small, stand as symbols of our common ownership of this Pacific; our ancestors entrusted it to us.

We who are alive today are the trustees of this great Pacific and we are duty bound to pass on this ocean, and the airspace above, free of harmful substances to those who will come after us.

A new chapter in our Pacific history is being written and you are writing it.

Mariano W. Carlos Western Caroline Islands (1980).

### What you can do...

Declare your own body and personal space at home and at work a Nuclear Free Zone.



Invite your relations, friends, neighbours, everyone at work to do the same.

# EDITORIAL...

Through this and following issues of *Freezonenews* we hope to provide information about the Pacific, so that we, the people of the Pacific can begin to better understand the forces which are shaping our lives.

Without such information it is impossible to try to take control and be part of the shaping of our own future.

How little many of us know about the Pacific and the rich diversity of people who live there.

We are concerned that people know what is happening in the Pacific and understand the implications for themselves and their pacific neighbours.

Freezonenews is, as we envisage it, a point from which individuals can begin to independently inform themselves about the struggles of Pacific peoples; about their independence struggles, the reality of nuclear power and nuclear weapons in the Pacific and the economic and political alliances which pay scant regard to their basic rights.

It is intended through the coming issues to have a section giving basic facts about nuclear material and weapons — an area which is beyond the realm of opinion.

We need to listen to voices from the Pacific, voices becoming increasingly more insistent, so that we can act together to allow Pacific peoples to shape their own lives and the lives of their children.

The peoples of the Pacific have long suffered from foreign colonialism. But since 1945 this has taken on a particularly military and nuclear character.

Nuclear weapons testing in Micronesia and Tahiti...the gift of radioactive contamination of Pacific Islanders and their food supply, courtesy of the US. France, Great Britain, and China...the legacy of islands taken for military use, while their indigenous peoples are made outcasts...missiles hurled thousands of miles over the Pacific by the Russian, American and Chinese, to land in the ocean or at the vital testing range at Kwajalein...dozens of nuclear reactors targeted to be sold to Asian and Pacific countries like South Korea and the Philipines...the mining of Aboriginal lands in Australia for the sake of uranium export, inflicting

genocide on the Aboriginal peoples...the employment of Native Americans and the use of their lands without any regard for their health and environment...the projected deployment of the huge and deadly Trident submarine in the Pacific...US aims to take lands in Belau, the Marianas and Marshall Islands for military base expansion...plotting by major powers to dump and store nuclear waste in the Pacific.

This has been part of the history of colonialism and militarism in our Pacific Basin — whole island communities taken over to benefit outside interests and transformed into military bases and targets or sources of wealth and raw materials. Hawaii is a showcase — 24 per cent of O'ahu is controlled by the military, and where over 3000 nuclear weapons are stored.

These past and present outrages have given birth to resistance across the Pacific. NZ is part of the Pacific. part of the resistance. The problems of nuclear and military exploitation are bound to those of political. economic and cultural domination of the Pacific peoples. Self-determination for the Pacific peoples is the key to creating a demilitarised and nuclear free Pacific.

The first world 'rim' people (the countries which are a rim around the Pacific. Australia. NZ. etc.) need to listen very carefully to the third world's perceptions. A sense of solidarity must be built around the conviction that the roots of both development problems and nuclear colonialism must be addressed together. We need to listen carefully to what the indigenous people are saying to us, through the cultural struggles of the Australian Aboriginals. NZ Maoris, Native Americans. Hawaiians, and the independence movements in French Polynesia, New Caledonia and Micronesia, the newly independent nations of Vanuatu (New Hebrides), Kiribati (Gilbert Islands). Papua New Guinea and the fight against martial law in the Philippines.

There is a growing sense as well that the increasing militarism and proliferating nuclear technology is in the deepest sense a threat to first and third world peoples alike. Thus the interaction between those fighting for independence and anti-nuclear activists will flourish in the recognition that, at least in the Pacific region, these problems are inseparable.

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## N-weapons under fire in beachside church camp in suburban ident Kailua. A public panel discussion on ay become a permanent home for those ships visit she said. A few delegat new constitutio LONDON, Sunday. — The biggest lemonstration in Britain since 1960 the build-up of nuclear Susannah York, called for Britain to refuse to accept American cruise missiles and for there to be no evonport wharf LONDON, Monday. — Australia Proposed making its own inquiries into aller proposed ions that France has agreed adioactive nuclear waste in supply Iraq with 72 kilos of higher orth-west Pacific antiched uranium — enough to m The Prime Minister. Mr. or seven atomic bombs — it Muldoon, said the Japanese learn gave assurances that nuclear spectre raise bridging effect." compounding the Fergusson Wharf on the Side of the harbour. This cyminimized by using neutral on the wharf and structures. There would be some teffect on the ecology of the asteps would have to be steps would have to be prevent damage from splichemicals and other matering construction. Consideration should be consideration should be anchorage. accident, people living within a 600-metre radius would need to be evacuated. The lobbyists say the Vernasia out the affected, along with the base affected along with the stands of the stands over the bit of the stands o ng may be blocked ference. Mr Phillip Soljack, nuclear waste in the Mr Catanan branch for the New Zeaiand branch anna Trench may be blocked of the West Zeaiand branch anna Trench may be blocked from the New Zeaiand branch anna Trench may be blocked from the Mr Catanan Branch anna Trench may be blocked from the Landson of the United Nations as ed by Japanese rade under the formation of a for bans on nuclear anna from the Japanese was the United Value of the Mr Catanan and Japanese was the United Value of the Mr Catanan and Japanese was the United Value of the Mr Catanan and Japanese was the United Value of the Mr Catanan and Japanese was the United Value of the Mr Catanan and Japanese plans to did the Mr Catanan Andrews and the Mr Catanan Andrews and Japanese plans to did the Mr Catanan Andrews and Dapanese plans to did the Mr Catanan Andrews and Dapanese plans to did the Mr Catanan Andrews and Dapanese plans to did the Mr Catanan Andrews and Dapanese plans to did the Mr Catanan Andrews and Dapanese plans to did the Mr Catanan Andrews and Dapanese plans to did the Mr Catanan Andrews and Dapanese plans to did the Mr Catanan Andrews and Dapanese plans to did the Mr Catanan Andrews and Dapanese plans to did the Mr Catanan Andrews and Dapanese plans to did the Mr Catanan Andrews and Dapanese plans to did the Mr Catanan Andrews and Dapanese plans to did the Mr Catanan Andrews and Dapanese plans to did the Mr Catanan Andrews and Dapanese plans to did the Mr Catanan Andrews and Dapanese plans to did the Mr Catanan Andrews and Dapanese plans to did the Mr Catanan Andrews and Dapanese plans to did the Mr Catanan Andrews and Dapanese plans to did the Mr Catanan Andrews and Dapanese plans to did the Mr Catanan Andrews and Dapanese plans to did the Mr Catanan Andrews and Dapanese plans to did the Mr Catanan Andrews and Dapanese plans to did the Mr Catanan Andrews and Dapanese plans to did the Mr Catanan Andrews and Dapanese plans to did the Mr Catanan Andrews and Dapanese plans to did the Mr Catanan Andrews and Dapanese pla wice and a silent more wellington wharfs. While people in Wellington chose brotest mainly by night, Christchupeace Groups made their opposition to Peace Groups made their opposition to Trurtun's visit known by day. They marched from Burnside Park to They marched from Burnside Park to Crates Operation Deep Freeze. On the eve of the visit by uclear warship USS Truxtu Vellington, a group of conceptration of the conceptration of ne poor extun is symbol Sacrament in Christchurch has been formally declared a nuclear

# On the local scene...

More and more New Zealanders declare themselves nuclear weapon free.

The Home Base project was introduced in the first edition on Freezonenews along with details of how individuals or groups could declare themselves, their home, their workplace, where they socialise, or even where they worship, nuclear-weapon free.

Over the past months more and more New Zealanders have declared themselves or their property nuclearweapon free so that the free zone sticker is often seen now in suburbs and in inner-city areas.

If you have "declared" or, as you declare, please ensure that your declaration is "registered" either locally or with the Home Base Auckland service office, Box 6736, Wellesley St., Auckland. We want to cover New Zealand with declared nuclear-weapon free people, properties and possessions.

#### More and More Churches

The National Council of Churches offices, the Catholic Cathedral in Christchurch, Auckland Methodist Central Mission, Campbell's Bay Parish, Auckland, and many others have the "nuclear weapon free zone" sticker posted. Waikato Anglicans will be debating whether to join in the scheme officially early in July, also the Auckland Anglican diocese. St John's Theological College Board of Governors, Auckland, has recently agreed that the college properties should be nuclear-weapon free.

#### More stickers

The Home Base Project, which services the nuclear weapon free declaration scheme has run out of stickers and is urgently printing another couple of batches. This second design provides a two-panel sticker with both the nuclear weapon free zone symbol and a panel of wording which explains the meaning of the symbol. Both items retail at \$1. Order from P.O. Box 6736, Wellesley St., Auckland.

Interest Spreads

At Whangarei's Winter Show in the far North there was continual interest in the special 8-day display and sales stall operated by the new Peace Group which has sprung into action over recent weeks. (Contact Lee and Susan Short, 2 Kahiwi St., phone 89596 or 87399, also Maureen Kettlewell, 48 King St., phone 70050.) There is also much interest in Kerikeri. (Ross Forbes, Rangitane, R.D.1 Kerikeri, phone 79449.) Dunedin peace workers are re-organising (contact Harry Evison, 29 Constitution St., phone 773-501 or 771-359.) Wellington contact person is Rachel Bloomfield (Box 11569, Wellington, phone 857-351.)

### PACIFIC PILGRIMAGE

Australians Bill Ethell and family and Ian Gaillard have bought an ocean-going yacht and will sail through Auckland later this year on their way through the Pacific to Bangor, Trident submarine base. One of the group raised a \$40,000 mortgage on his house to finance part of the purchase. Their group is called "Pacific Peacemaker."

In New Zealand our plan is preferably to lease or pay expenses or manage a "delivery run" of available suitable boats. John Boanas and Christchurch people (78 Brockworth Place, Riccarton, phone 41353) are planning fundraising for this.

Pilgrimage and Tahiti

Auckland people are exploring three possible suitable boats. One is currently in Tahiti and could begin its pilgrimage voyage from there: a very appropriate starting point.

After consultation with Tahitian people about their problems and hopes and with some Tahitians aboard as short-haul travellers this boat could sail via the Cooks and Samoa to Vanuatu, thence to New Caledonia and Auckland.

Pacific Island people could — relay style — share in the crewing and consulting, the story-telling and "educating" as the voyage proceeds. The sailing expenses could be covered with 3000 to \$4000 per month

The voyage would play a crucial part in educating New Zealanders with up-to-the-minute despatches of progress, viewpoints, further plans and commitments.

Pilgrimage destinations are Vladivostock (USSR) and

Bangor, Seattle (USA).

# AT THE CROSSROADS

I approach nuclear weapons from a medical point of view. When I did first-year medicine in 1956, we had a very good genetics lecturer, who taught us what radiation does to genes and how it can both damage

future generations and produce cancer.

As I studied for exams at the end of the year. I used to go out every day and get the newspaper. And every day on the front page there would be a big mushroom cloud. with a sort of "Hurray, the Americans have tested another bomb on the Bikini Atoll" or "The Russians have tested another bomb" - you know, it was that era when each country was testing bombs all the time.

I remember being frightened, because I realised what the fallout meant to children and babies and people. I used to speak of it at the university, and nobody took any notice. They thought I was a fanatical nut.

So I stopped talking about it. I just watched, with horror, the gradual escalation and buildup of nuclear weapon forces in the United States, and in England, and in Russia. And, like everybody else, I felt too impotent. as one individual, to do anything about it. Yet I felt. "It's my world as much as that of any politician in the world." And when I decided to have children. I felt I was probably wicked to bring children into this world: yet for selfish reasons, I did. I felt that they probably couldn't have a normal lifespan, or that if they did, their children

Then in 1972 I came back from this country, having been here for three years and learned a little bit how to be political. I used to write to Nixon and Ted Kennedy and people like that. I found out that it's OK to do that in a democracy, and sometimes it brings results: at least

they wrote back to me!

The French were testing bombs in the Pacific, and we got a high fallout in Adelaide, where I lived. They tend to collect rainwater in tanks in Adelaide because there isn't very much water in Australia - it's a very dry country. It was after a drought and the tanks were empty, so the tanks filled up with relatively radioactive

I happened to be invited by a television producer to speak about acupuncture or something, so I did. And afterwards we got into an argument. He said, "Look, I think the Americans are doing a fine job in Vietnam." I was upset about that, and I also said "What are the French doing in the Pacific? What they're doing is very bad." He said, "Why don't you come and talk about that? We've been trying for months to get a doctor to comment about fallout." I said, "Sure.

So I went and I talked about radioactive iodine, and strontium 90, and cancer and leukemia in children. "You all know." I said, "how, when the fallout was occurring in the Northern Hemisphere and your milk was contaminated with radioactive iodine and strontium 90 in the early sixties, that helped to bring about the international test ban treaty.

Every time the French tested another bomb. I was invited back to talk on the television about fallout. People gradually learned that it wasn't really safe for their children and their babies. As a result of education. they started to get cross, and they said, "Why should those French come down to the Southern Hemisphere and test their bombs? Why don't they do it in the

Northern Hemisphere?

Then I went on an Australian delegation to see the French government, and we talked to them. They said. "Our bombs are perfectly safe." So we said. "If they're safe, why don't you test them in the Mediterranean?' And they said, "Oh. mon dieu, there are too many people living near the Mediterranean!" So we knew they were wicked, and they knew they were wicked, and for the first time in my life I knew I was sitting opposite wicked politicians who knew they would probably be killing people, and they didn't give a damn. Anyway, as a result of this, the French did stop testing in the atmosphere. We took France to the world court, and now it tests underground

I went to the House of Commons in London, and I talked to people in the members' bar. They were all old men; they were all about seventy or above. I got a sense of the type of people who control government. And I thought, "These are the sort of guys who are running our

world...our world, and our kids world.

Then in '75, during the oil shortage, our prime minister, Gough Whitlam, went to Europe and said. "Hey, everybody, we've got lots of uranium. We've got 30 per cent of the free world's richest uranium. Who'd like to buy it? We'll sell it to the highest bidder." I didn't know much about uranium.

I knew almost nothing about nuclear power. But I knew uranium had two uses: (1) to make atomic bombs and (2) to run nuclear power plants. I thought, "What gross hypocrisy — after making such an international fuss about the French, to start selling uranium on the open market in the world."

Then I started to read about nuclear power. And the more I read, the more my hair literally stood on end. It is

### HELEN CALDICOTT



Australian-born and educated, Dr Helen Caldicott practises paediatrics at Boston's Children's Hospital Medical Centre.

An environmental activist since 1971, she virtually single-handedly educated and inspired the Australian public to protest - and bring a halt to - French atmospheric testing in the South Pacific.

She later worked tirelessly to inform Australia's labour unions about the medical and military dangers associated with the mining and sale of Australian uranium on the international market.

Married and the mother of three children, Dr Caldicott is now a permanent resident of the United

The following article is reprinted from New Age magazine; it is excerpts from an address she gave to a coalition group — Mobilisation for Survivial — working to end nuclear proliferation.

millions of times more dangerous than fallout from

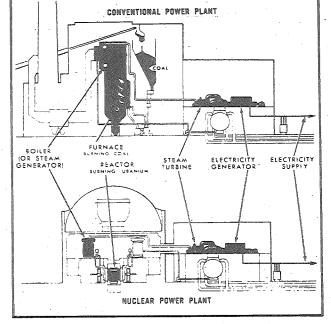
So again I went to the media and the press. They had always been very interested in what I had had to say. In fact, I couldn't get rid of them about the French tests. But this time they said. "That's not interesting, it's not important." And I said. "What do you mean, it's not important? It's terribly important." They said. "We're not interested." And I was very perplexed until I found out that the media had large shares in uranium mines.

So this time I wrote to the unions in Australia and asked if I could talk to them about the dangers of mining uranium — the dangers to the world and their children. They said, "You can talk to us, sure, but you'll never convince us, 'cause we need the jobs." So I went and talked to them, and in ten minutes they were saying. "I don't want my kids growing up in a world like that!" and they sent a telegram to the prime minister.

And gradually - just by going out at lunchtimes. talking to people in factories while they were eating their lunch, and teaching them about basic genetics and radiation and nuclear weapons, et cetera — I taught the unions of Australia that it was dangerous to mine uranium.

I want to teach you a little bit of basic medicine and genetics so that you'll understand why it's dangerous. Let's start talking about nuclear power plants, because this is a step toward understanding what nuclear weapons mean.

Each step of the nuclear fuel cycle is dangerous. When vou mine uranium, it gives off a gas called radon. When



miners breathe it into their lungs, they can get lung cancer, because it irradiates the cells in the lungs. In vears past, 20 to 50 per cent of uranium miners died of lung cancer.

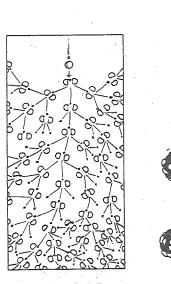
Then, when the uranium is milled and enriched, a lot of the ore is discarded and lies around in big heaps on the ground called tailings. They give off radon gas too, for tens of thousands of years. Now, they don't give off radon if they are buried under the ground, but it's too costly to do that.

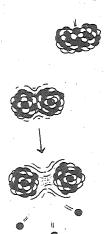
In Grand Junction. Colorado, people didn't know these tailings were dangerous, so they used them to build schools and hospitals and houses and roads. There's an increased incidence of congenital deformities among the babies born in those houses. And they still live there, because it's economically not feasible to pull them down and build new ones.

OK. After the uranium is enriched, it's taken and placed in fuel rods and put in a nuclear reactor. You probably all know what a nuclear reactor looks like. It has a big round dome. Inside the reactor is the reactor core, and inside the core, they pack hundreds and hundreds of long thin fuel rods, all packed with uranium, and it's covered up with water.

At a certain point, the uranium reaches critical mass. Now, it doesn't explode, but it becomes extremely hot and what it does is, it boils the water. This is a very sophisticated way to boil water! The water produces steam. The steam turns the turbine, which produces electricity. That's all there is to it. It's simple. But it's like cutting butter with an electrical saw.

What happens to the uranium when it starts fission? That's the important point. Well, it turns into hundreds of very poisonous radioactive elements. I will just take four as an example.





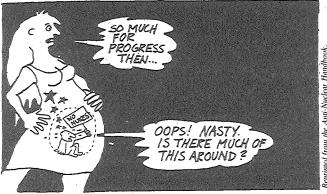
FISSION

First of all, though. I should make two basic points: all radiation is dangerous; no radiation is safe.

The nuclear power industries say "Radiation is OK. We live with it." Now, if you live in Australia, and you sunbathe and you surf...we have one of the highest incidences of skin cancer in the world, because we're exposed to the sun. It's true: we get radiation from the sun all the time, and there's no doubt that the sun produces skin cancer. If you get little amounts of radiation over your lifetime, it's approximately the same as getting one large dose at once.

In other words, it's cumulative: the effect is additive. And of all animals on earth, human beings are the most sensitive to the effects of radiation: we get cancer most easily. I don't know why, but we do.

Of all human beings, it's fetuses, infants, and young children who are the most sensitive to these effects. because their cells are rapidly dividing and growing.



You can see a baby grow, almost literally. It's producing millions and millions of new cells, and the CNA molecules or genes are being synthesised or made, and that's when they're so sensitive to the effects of

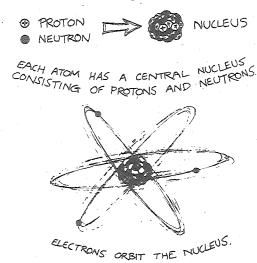
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Now, there are various forms of radiation. There are x-rays, gamma rays, alpha rays, and beta rays. They reall the same. They all do the same thing to the cells. They can all give you cancer. Some of them are more effective than others at giving cancer.

If you have x-rays, each x-ray increases slightly the risk that you might get leukemia or cancer. That's been proven. So if you ever have to have an x-ray, say to your dentist or doctor. "Is this absolutely necessary?" And find out exactly why you're getting it. If you find that it's not entirely necessary, don't have it.

OK, now let's take four examples of the elements that come out of the nuclear reactor; iodine 131, strontium 90, cesium 137, and plutonium.

Now, the first three elements are what are called beta emitters, and plutonium is an alpha emitter. That means that if you have an atom with the nucleus in the middle and the electrons whizzing around it in orbit on the



outside, the beta emitter gives aff an electron. Now, if that little particle of radioactive iodine is sitting in your thyroid gland, this particle will irradiate just a few cells surrounding it. It will probably injure some of these cells; it may produce cancer.

The alpha emitter plutonium, on the other hand, emits a helium nucleus, which is a very large particle—and it is of dense matter and doesn't travel very far, less than a beta particle. But if, indeed, it hits a cell, it will probably kill it, and if it doesn't kill it, it will definitely damage it. That's why alpha emitters—and plutonium, in particular—are the most carcinogenic or cancerproducing substances we have ever known. And plutonium is man-made. It didn't exist before we fissioned uranium. It is appropriately named after Pluto, the god of Hell, because it is incredible carcinogenic.

Plutonium is an interesting metal. If it is exposed to air, it ignites spontaneously, forming tiny aerosolized particles which can be breathed into the lung, and can give you lung cancer.

Now, how does radiation produce cancer? Your body is composed of millions and billions of cells — there are hair cells, eye cells, liver cells, heart cells. Inside each cell is a nucleus, and inside the nucleus are long string things, and arranged on the strings are the genes — the DNA. Well, these DNA molecules are the very essence of life: they control every single thing about us. Everything is passed down from generation to generation.

Now, in every cell in the body, there's a regulatory gene which controls the rate at which that cell divides. And if you have an atom of plutonium sitting next to a cell, giving off its alpha particle, and the particle hits the regulatory gene, it will damage it, but the cell will survive.

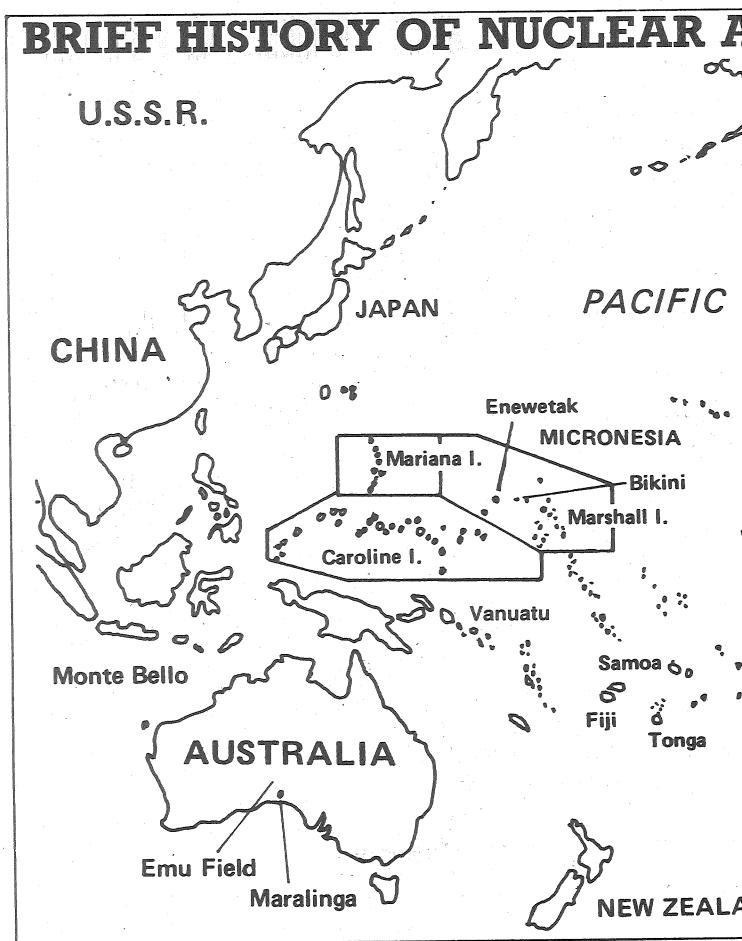
The cell will sit dormant for about fifteen years. (We don't know why this happens at all.) And then one day, instead of just producing two daughter cells when it divides, as a cell normally does, it goes berserk and produces millions and billions of cells. That is a cancer.

So if you inhale one atom of plutonium into your lung and it emits one alpha particle, which damages one cell and one gene, that can kill you, you see, because that produces millions of cells which is a cancerous tumor. Another cell will break off and go into the blood to your liver and produce another tumor, a secondary tumor. This is called secondary or metastatic cancer. These are very virile cells. They tend to live at the expense of the normal body cells, so the body dies.

Now, plutonium is so toxic that people who've worked with it say they can't find a low enough dose which won't give every dog they put it into, lung cancer. Now, that's not normal in medicine. Usually there's a threshold in a drug below which it does no harm and above which it does have an action. It is generally accepted that a millionth of a gram of plutonium will give you cancer.

A gram is a minute amount, a millionth of a gram is something you can't even see. Now, by extrapolation—and this is hypothetical—if you could take a pound of plutonium and put a little piece into every single person's lung on earth, you'd kill every man, woman, and child on earth with a lung cancer. You couldn't do that, but that's how dangerous it is.

Each nuclear reactor makes 400-500 pounds of plutonium every year. By the year 2020, in this country.



netrolio

Nuclear bomb testing in Australia (1952-7) took place at a time when the island continent was still, de facto, a British colony. Her Majesty's man in Canberra. Sir Robert Menzies, enthusiastically went along with everything Britain's defence establishment demanded.

In all 12 nuclear bombs were exploded on Australian soil, the first in the Monte Bello islands off the northwest coasts in October 1952, the last in October 1957 at Maralinga in northwestern South Australia.

Australians in the 1950s, represented by a government more paranoid than Senator Joseph McCarthy, took the tests in their stride. Occasional questioners were assured that there was no risk to anyone. Even Sir Robert himself was probably unaware of the cavalier fashion in which Britain, like the United States and Soviet Union, were conducting their nuclear experiments.

Britain's nuclear legacy really only started to unfold in the late 1970s. Here is a sampling of the evidence of negligence and suffering which has come to light:

Extremely toxic plutonium, under no security at all, had been lying buried a few feet below the ground alongside the airstrip at Maralinga in the South Australian desert since the early 1960s. (Seven bombs were exploded at Maralinga.)

Other small quantities of plutonium, hundreds of drums of liquid waste, large amounts of laboratory equipment and contaminated vehicles lay buried for years at Maralinga, again without security. Worse, unspecified amounts of 'loose' plutonium were spread on the ground surface over an area of 200 hectares at concentrations up to 34 microcuries per kilogram of soil. (One microcurie per kg is regarded as a 'safe' level.)

Evidence from various sources indicates that up to 1000 people involved in Australian nuclear testing have had their health affected. By early 1980 it had been established that at least 50 ex-test workers were dead and many more had cancer.

The Adelaide Advertiser reported last year a 'black smoke' in October 1953 which came 'rolling through the mulga' enveloping 45 people of the Yankunyatjara tribal group of Aborigines. It was a day or so after a test 100 miles to the south. Jim Lester, then a child with that group, recalls having earlier heard a bang 'like a shotgun in the backyard.' He said that within 48 hours of the smoke, 'everyone in the entire camp was debilitated by uncontrollable vomiting and diarrhoea.' Soon after a skin rash 'like measles' covered their bodies. Within 72 hours healthy children were blind. Jim Lester ought to know. He is blind today.

On April 18, 1980, a previously unpublished government report revealed that on October 11, 1956 (after a test at Maralinga), a radioactive plume passed over Adelaide, the South Australian capital, with a reading of 95,000 counts per 100 seconds — 1000 times more than normal. Tests on sheep revealed they had 4000 times more radioactive

Iodine 131 in their thyroids than before the blast. In human readings.

Despite assurances that the Maralinga testing area is

period, firsthand evidence indicates tribal Aborigine
There are other stories of a farmer's lemon trees dy
mist,' of former test workers being warned to keep of
Maralinga, of Aborigines found wandering in the di

The full extent of suffering as a result of nuclear te be revealed. The Australian Government, a coalition ruled during the test years, is stubbornly trying to kee organisations, like the Australian Nuclear Ve associations, a variety of anti-nuclear and peace ground do not intend to let the matter rest.

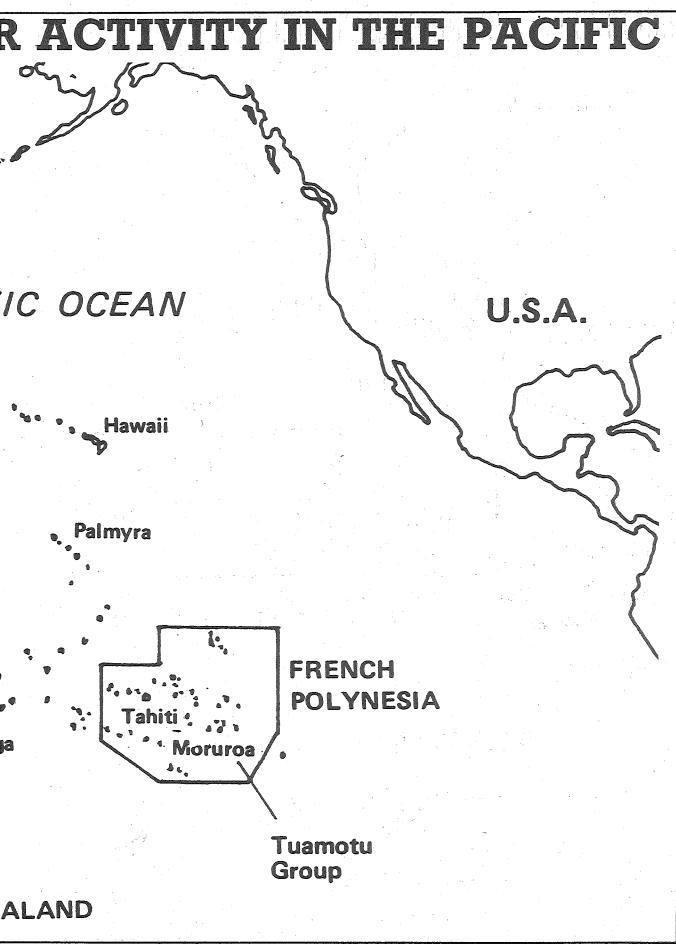
#### Vanuati

The governments of France and Vanuatu, follonegotiations, finally signed an aid and co-operation 10. The agreement provides for French aid equivale. The agreement contains a clause in which each count other's affairs, a clause inserted on the initiative Government support for independence movement especially New Caledonia. On the other hand, the Cathe agreement to protect the well-being and proper country. Behind-the-scenes moves, believed to have Government, to have Australia pick up the tab so French aid, eventually came to nothing. The aid all place it among the top half-dozen recipients of French

#### French Polynesia

The French Government is willing to expose defend dangers it would never dare to inflict on its own of In 1963 France detonated 41 devices into the atmobegan in 1974. These took place at Moruroa and Group of French Polynesia. Although France official evidence suggests that surface tests in concrete Moruroa.

Two neutron bombs have been detonated and for



e blast. No evidence was in the report on

ing area had been cleared during the testing Aborigines were not cleared from the area. n trees dying after the passage of the 'black to keep quiet about what they had seen at in the detonation area.

uclear testing in Australia is never likely to coalition of the conservative parties which ng to keep the lid on the story. But there are lear Veterans Association, Aboriginal ace groups and church-based groups which

atu, following lengthy and often tense peration agreement in Port-Vila on March equivalent to about \$A6.9 million in 1981. ch country pledges non-interference in the nitiative of France, which fears Vanuatu novements in French Pacific territories, nd, the Government of Vanuatu pledges in d property of French citizens living in the ed to have been initiated by the Vanuatu tab so that Vanuatu could dispense with e aid allocation to Vanuatu is reported to is of French aid on a world scale.

e defenceless Pacific Islanders to radiation

he atmosphere before underground testing oa and Fangataufa atolls in the Tuamotu ce officially went underground in 1974 new ncrete bunkers are being conducted on

and four tests have taken place this year.

Micronesia

Between 1946 and 1958, the U.S. detonated 66 nuclear bombs on the atolls of Bikini and Enewetak in the Marshall Islands of Micronesia.

In 1952 a nuclear device code-named "Mike" was tested in the Enewetak Atoll, resulting in the disappearance of an island called Elegalab. The island was vapourised into calcium oxide and sucked up with the wind. A hole one mile in diameter and 175 feet deep was gouged in the reef.

Among those tests was the first hydrogen bomb, detonated on March 1, 1954, a day long to be remembered by the people of Rongelap Island, just to the east of Bikini. A few hours after that first H-blast, radioactive ash began falling on Rongelap.

Water tanks were contaminated; skin burns and loss of hair due to radiation poisoning was immediate. Later there was an outrageously high incidence of miscarriages, thyroid tumours in children (90 per cent of those under 12 in 1954 now have them) and cancer. Contaminated food and water have been blamed.

In 1978, a U.S. Government survey declared Rongelap still heavily radioactive. The dispossessed Bikini people are now suffering the privations of having to live on a much smaller island. An attempt by the U.S. to clean up Bikini between 1970 and 1978 led to some Bikinians returning to their homeland. In 1978 it was found that the atoll was still highly dangerous. Those who returned can now anticipate further health problems because of exposure to radiation.

Marianas

Planned experimental dumping in the Pacific:

The Japanese plan to dump radioactive waste from their 21 nuclear reactors in the Pacific north of the Marianas. Without public announcement Japan indicated in February that it had put off its plan to begin experimental dumping this year.

In January, Japan's Science and Technology Agency said the bulk of its funds for the dumping programme for the coming fiscal year would be for further surveys of ocean radioactivity and tests of pressure proof disposal drums.

Writing in the New York Times, U.S. journalist, Henry Kamm quotes lawyer Jeffery A. Cook, chairman of the Marianas Alliance Against Nuclear Dumping, as saying: "Clearly, the Japanese have a very strong intention of selling their plan this year. They will invite Government leaders to Japan and offer economic aid in return for stopping opposition to dumping.

(Material taken from Pacific Islands Monthly, May 1981 and New Internationalist, March 1981.)

they will have made 30,000 tons of it. It only takes 10 pounds to make an atomic bomb. That means that, theoretically, any country that has a nuclear reactor could make forty atomic bombs every year if they could extract the plutonium. By the year 2020 there will be 100,000 shipments of plutonium transported along the highways of this country annually. Now, plutonium's worth more than heroin on the black market, because it's raw material for atomic bombs. And already trucks with valuable cargoes disappear.

Let me tell you about the half-lives of radioactive substances. Radioactive iodine 131, for example, has a half-life of 8 days. That means that if you start off with a pound of it, in 8 days you will have half a pound: in 8 more days you will have quarter of a pound: in 8 more days you will have one-sixteenth, et cetera....It decays like that. So radioactive iodine is dangerous for a couple of weeks. That's why, after fallout, if you store milk or dry milk for a couple of weeks, it's safe from radioactive iodine contamination.

Strontium 90 has a half-life of 28 years. That means it's dangerous for several hundred years. Cesium has a half-life of 32 years — about the same as strontium. Plutonium has a half-life of 24,400 years. That means it's not safe for half a million years. And it is not biodegradable; you can't get rid of it. And they don't know where to put it: they haven't solved the waste storage problem. But they say, "We're scientists. We'll find the answer. Have faith in us." That's like my saying to a patient. "I'm sorry. I've just diagnosed that you have cancer of the pancreas. You'll probably live for six months, but have faith in me. I'm a doctor, I'm pretty smart, and in twenty years' time I may have found a cure." That's insane!

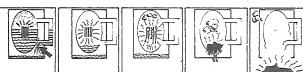
We're talking about a substance that is so incredibly toxic that everybody who comes in contact with it and gets it into their lungs will die of a lung cancer. You don't know you've breathed it into your lungs. You can't smell it, you can't taste it, and you can't see it. Nor can I, as a doctor, determine that you've got plutonium in your lungs. When a cancer develops. I can't say that cancer was made by plutonium. It doesn't have a little flag saying, "Hey, I was made by plutonium."

You'll feel healthy for fifteen to twenty to thirty years while you're carrying around that plutonium in your lung, till one day you get a lung cancer. It's a very insidious thing. We have to teach people that it takes a long time to get the cancer. If I die of a lung cancer produced by plutonium, and I'm cremated, the smoke goes out of the chimney with the plutonium, to be breathed into somebody else's lungs — ad infinitum for half a million years.

When the uranium is fissioned, every year they remove about a third of the radioactive rods from the nuclear reactor core. And they're very hot, thermally and radioactively. Each rod is so radioactive that if you put a single rod on the ground and you drove past it on a motorbike at 90 miles an hour, it would kill you by intense radiation emission.

They're being stored in big ponds beside the nuclear power plants. The ponds are getting full. They have to be packed set apart, because if they get too close, they could melt down — melt right through the bottom of the container and into the earth.

If there is a melt-down in the nuclear reactor, if the cooling stops working, the whole reactor core melts right down through the bottom of the reactor, half a mile into the earth. That's called "the melt-through-to-China



syndrome." But inside each nuclear reactor is as much radiation as in a thousand Hiroshima-type bombs. And if there's a melt-down, a tremendous amount of steam will be liberated. It will blow the reactor container vessel apart, and that radiation will escape. So it's like having a thousand Hiroshima-type bombs around if you live near a reactor.

There are two reactors near New York, called Indian Point No. 1 and No. 2, which are terribly dangerous. If one of them burst open and there was a melt-down (and that's a possibility), thousands of people would dieinstantly. Two weeks later, thousands more would the from what's called acute radiation illness, where all the rapidly dividing cells of the body die.

It was described after the Hiroshima bomb dropped: the hair falls out, the skin sloughs off in big ulcers, you get vomiting and diarrhea, and your blood cells die. So you die of infection and/or bleeding — like you die when you have leukemia. Five years later there would be an epidemic of leukemia. Fifteen to forty years later, there would be an epidemic of cancers — breast, lung, bowel. et cetera. Generations hence, there would almost certainly be increased incidences of genetic and inherited diseases.

So that's the sort of thing you're putting in each city around this country. If you've got a nuclear reactor in your city, your enemy doesn't need a nuclear bomb Continued on next page

anymore; all they need to do is drop a conventional weapon on your nuclear reactor. If Europe had been populated with nuclear reactors in the Second World War, it would be still uninhabitable right now. That's the scenario we're setting up.

Now, these rods are taken, and they're melted down in nitric acid in a reprocessing plant. And what they plan to do, if they go ahead with breeder reactors (Carter says no at this stage), is to remove the plutonium in pure form from the nitric acid and leave all the other two hundred or so elements inside the nitric acid. They've got quite a lot of big containment vessels with this material scattered round the country from the weapons program, when they removed the plutonium. That's how they got the plutonium to make the nuclear bombs, and they've left all this other stuff behind, and it's leaking.

In Hanford, Washington, two years ago, they lost 115,000 gallons of highly radioactive waste containing all these elements. It's a couple of hundred feet above the Columbia River, which supplies the water to a lot of the cities there.

What happens when it gets into the water? Well, all of these things are concentrated in the food chain. They're concentrated thousands of times in fish, and fish swim thousands of miles.

In San Francisco Bay, at Fellon Islands, they have just discovered that there are 45,000 55-gallon drums containing plutonium and other stuff, which were dumped there by the military, and a third to a half of them are ruptured and leaking. And that's where they catch their fish for San Francisco — from the Bay.

There's another area in West Valley, New York, where there are 600,000 gallons of high-level waste—where a plant was run very cheaply, and because they didn't have really good stainless steel to contain the stuff, they turned the nitric acid into a base by adding salt. All the radioactive elements precipitated to the bottom, and it's lying in a big sludge on the bottom.

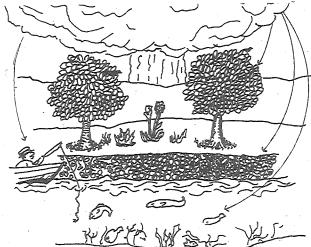
The company went bankrupt and they handed the facility over to New York state, saying, "We can't look after it anymore." The state can't look after it either, and they're very frightened that that stuff will go critical. If it goes critical, there will be an atomic explosion, and Buffalo will go, along with the other cities surrounding it

If it leaks into Lake Erie, there is not enough water in the lake to dilute the waste to safe levels. A congressional committee has been given a million dollars to investigate the matter—just to investigate it: they don't know what to do about it. They don't know what to do. A's so terribly radioactive, you can't go near it.

I heard on the news the other night that the congressional committee said that the problem at West Valley is a gargantuan problem, and time is the essence. It wasn't written up in the press the next day — I think because it's so scary, they don't want to alarm the public. So that's the situation right now.

The radioactive material that leaks out gets into the food chain. It gets in the grass and gets eaten by animals, and then into the milk, the meat, and the vegetables we

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eat. And it's concentrated in breast milk as well, human breast milk, and remember, babies are terribly sensitive to these effects.

Once radioactive material gets out into the environment, you can never get it back. Time and again there will be a report of a leakage or a spill in the *New York Times* or something like that, and they'll say, "Don't worry, it's perfectly safe." They don't explain that it gets into the food chain and is concentrated there. They don't explain that it takes fifteen years to develop cancer. They don't explain that babies and children are terribly sensitive to the effects. They don't tell you any of that. They just say, "Don't worry, it's safe."

If a baby drinks milk with radioactive iodine in it, it gets absorbed through the gut, goes up to the thyroid gland in the neck, where it concentrates, and it irradiates just a few cells, and one day that child may get a thyroid cancer. Strontium 90 works like calcium and is absorbed in the gut, goes to the bone, where it can produce an osteogenic carcoma — like Teddy Kennedy's son had. They re very lethal. It also produces leukemia, because the white blood cells are made in the bone marrow. A white blood cell, irradiated by strontium 90, may divide uncontrollably some years later, and produce cancer of

the white blood cells — leukemia. Cesium concentrates in muscle, and muscle is all over the body.

Now, plutonium is not absorbed from the gut, except — ironically — in the first four weeks of life, because then the gut is so immature, it can't prevent the plutonium getting through. However, by breathing, it is absorbed through the lungs and will concentrate in the liver, producing liver cancer. It will go to the bone and produce, again, an osteogenic carcoma, and/or leukemia.

You see, the body handles plutonium like iron. The body is tricked and, thinking plutonium is iron, it combines it with the iron-transporting proteins, so that it crosses the placenta, the organ that supplies the blood to the developing fetus.

All of the fetus's organs are formed in the first three months after conception; after the first three months, the baby just grows in size. So if a piece of plutonium lodges in that fetus and kills the cell that is going to make the right half of the brain, the baby will be born deformed. Or if it kills the cell that will make the septum of the heart, the baby will have a hole in its heart.

We had a slogan and bumper sticker in Australia that said, "Uranium is Thalidomide forever." Remember that drug that women took for morning sickness, and the babies were born very deformed? They had hands sticking out of their shoulders, et cetera. That's what plutonium can do. But, worst of all, it's concentrated in the testicles and the ovaries, where it can damage the eggs and the sperm, and hence the genes. If a gene is damaged by plutonium, in a dominant mutation, the baby may be born deformed. If the gene is damaged in a weak way, the baby will look OK, because its normal gene is the strong one, but it will carry an abnormal gene.

We all carry abnormal genes. For example, cystic fibrosis, the most common inherited disease of childhood, is controlled by a weak or recessive gene. One in twenty people carries that gene. It's very common. We all carry several hundred nasty genes, and we don't know we carry them until we marry someone with the same gene, and the two genes get together to produce a child with that disease.

Now, because of the background radiation from the sun we've had mutations or changes in the genes which have allowed fish to develop lungs and birds to develop extra wings, and the bad mutations have died. Now doctors are so smart, they can keep people with bad mutations (like diabetes and other diseases) alive to reproduce — because we believe in life. However, this will cause a gradual genetic degradation of the human species. But to have an industry that is going to increase the incidence of genetic diseases and deformed babies by producing plutonium seems to me wicked.

Geneticists say that we probably won't live to see these effects of genetic disease, because these things are all so carcinogenic or cancer-producing that we'll all probably die of cancer before then. Scientists predict epidemics of cancer and leukemia in young people. We may have to get used to living only twenty or thirty years instead of seventy or eighty years. I'm scared stiff that we probably won't survive to the year 2000.

Some of the greatest brains at Harvard say our chances of surviving to the year 2000 are less than 50 per cent. because this country has enough weapons to overkill Russia forty times, and Russia has enough weapons to overkill this country twenty times. If a nuclear war occurred, the whole of the human race would not survive. There's no way we could survive a nuclear war. Even if there were a few survivors, the water and air would be so contaminated they'd get leukemia and cancer later.

Nuclear plants are synonymous with nuclear weapons. Nuclear power plants are becoming unpopular in this country for obvious reasons. People are saying. "I don't want one in my city." But GE and Westinghouse keep making them: you know if you have a product, you've got to sell it. So they're saying to the Third World countries, "Say, would you like to buy a nice nuclear power plant?" And they say, "Well, we don't have enough money." And the companies say, "We'll lend you the money." The more countries that get nuclear power plants, the greater chance that there will be a limited nuclear war somewhere in the world, and that could precipitate a global confrontation.

Now, we all know that the man who had control of the black box several years ago in this country was not completely stable. Brezhnev is apparently being treated with Cortisone, a hormone that can produce acute psychosis. Obviously, he is in charge of the black box in

Russia to a degree.

We are none of us completely sane and stable all our lives. We're all fallible. We're only human. Yet we're dealing with weapons and industries of such magnitude that human beings can't handle them. And they will be used upless we get rid of them.

used unless we get rid of them.

I would contend that nuclear power is not medically indicated: neither is nuclear war — it kills people. I'm here to look after people, to save people's lives, not to kill them. I can't understand the psychology of government people saying, "Oh, we'll have a limited nuclear war." Or the psychology of the people who build these things. If you were a psychiatrist sitting on Mars.

looking down on Earth, you'd say, "The world is being run by lunatics!" — that is, if you were for life and not for death.

What these people seem not to realise is that they won't live either. Most of us, I think, don't like to think about our own death because it's too scary. We sort of deny that we'll ever die. I think particularly of those politicians who have probably never even seen a person die

They've never seen children, age twelve, coming into a hospital, looking slightly pale, with a few bruises, to have a blood picture done, and they've got leukemia, and they're put in an isolated ward all by themselves. And their parents suddenly appear in a gown and a mask. Nobody tells them what's the matter. They have some strange drugs which make them feel funny. They live in a state of abject terror and ignorance for two weeks, and suddenly they die from a haemorrhage from their nose or mouth.

These politicians have never seen the grief of the parents, with their beautiful children dying. Have they ever seen or witnessed anything like that? Because if they had, they wouldn't be doing this, unless they were psychotic.

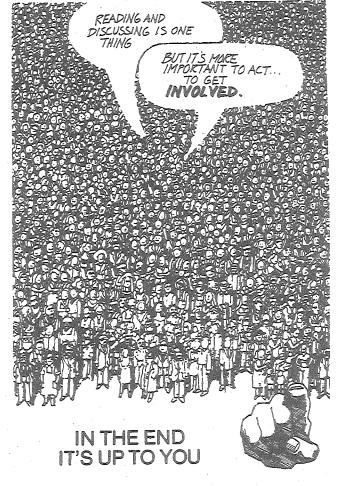
Unless we get rid of all these nuclear weapons, we probably won't survive. It seems such a pity. It's taken billions of years for us to evolve, and we're capable of such great love and fantastic relationships and great creativity and fantastic art. We're a magnificent species. Yet we're so smart, we've learned how to wipe out the whole of life on earth. And we seem to be heading in that direction, like lemmings.

We are the curators of life on earth. We hold it in the palm of our hand. We're at the crossroads of time, right now. If nuclear power plants proliferate in this country and throughout the world, so will nuclear weapons. If we don't get rid of nuclear weapons, we won't survive. Neither will the animals and plants, because what radiation does to us, it does to them: it gives them cancers and produces deformities in them.

So you see, it is imperative that we rise up, each one of us, and take the load on our own shoulders — and not just with money (which is important), because that won't do. That's not enough. We all have to do what I did in Australia and say, "I have to take this responsibility." We've got to rise up for our children and save the human race.

I'll tell you what's happening in Australia now. The present government which is very conservative, wants to export uranium. Recently, 30,000 people marched in Melbourne, and 350 were arrested. The Australian labor party, which is now in opposition but could become government soon, has just passed a resolution for an indefinite moratorium on mining uranium. And if the party does get into government, it will cancel all international uranium contracts that the present government is drawing up — which makes business and multinationals very wary. The whole of the Australian trade union movement has said that if the government doesn't agree within two months to hold a referendum within one year, it won't mine any uranium at all.

So you've got to teach people the facts. I find that once people understand what is happening to their world, they decide to act. It's no use immunising your kids, giving them a good education, loving them when they probably haven't got a future. It's our total responsibility, as parents and grandparents, to allow our children and our grandchildren and our descendants, to have the potential of a fruitful and full life.



# RADIATION CLOUD OVER NUCLEAR POWER

"You've come on a very interesting day," beamed Ernest Sternglass. "There is a news story just out this morning which says there has been a four-fold increase in thyroid damage in children south of the Three Mile Island (TMI) plant."

Dr Sternglass, professor of radiation physics at the University of Pittsburgh School of Medicine, seemed to take a certain delight in sharing these grim findings. They were after all, another piece of evidence to support his claim that the radiation released from TMI will turn out to produce the largest death toll ever to result from an industrial accident.

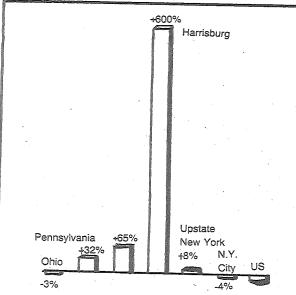
Of course this prediction is in direct conflict with the conclusions of every official investigation of the reactor incident, but that should come as no surprise. Sternglass has been at odds with the nuclear establishment since 1963, when he published the first of a series of controversial papers on the effects of low-level radiation.

According to the President's Commission on TMI, the amount of radiation released during the accident was so low that the number of radiation-induced cancers will be virtually undetectable. In fact, the commission reported that the only significant health effect was mental stress and anxiety among residents nearest to the plant. Stress, say some observers, that was compounded on the second day of the accident by the widely printed statement by Sternglass that the radiation release "corresponded to a major fall-out pattern from a nuclear bomb test."

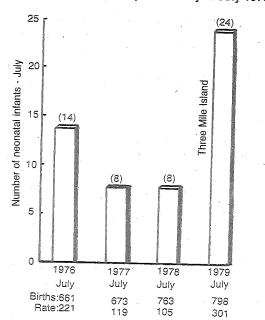
Doesn't such a statement invite public panic? "But it turned out to be correct."

But the U.S. Secretary of Health, Joseph Califano, announced after the accident that residents within eight kilometres of the reactor received no more than 80 millirems, whereas the average Pennsylvanian receives about 100 millirems per year from natural background radiation.

"That's totally false."



The geographical pattern of infant mortality changes at various distances from TMI — changes are between February to April and May to July 1979



Trend in the July infant mortality rate in the Pittsburgh area before and after the TMI accident. Numbers in brackets are infant deaths at Magee hospital, Pittsburgh

(Published in the New Scientist, April 1980. Written by Lee Torrey, a freelance science writer based in Massachusetts who interviewed Professor Ernest J. Sternglass of the University of Pittsburgh School of Medicine.)

You're saying that the nation's leading health authority got his figures wrong?

"He was misled by the staff and the reason they were misleading him is because they thought it was in the best national interest to do so.

"The same thing happened to the soldiers who were hauled in front of the early bomb tests. Those soldiers were told that their radiation badges recorded only a few hundred millirems at most. But the badge reads only the tip of the iceberg. It reads only the external radiation for a brief period of time. What really happened is those men had exposures that were hundreds of times greater than the badges were reading, simply because the Atomic Energy Commission refused to calculate the enormous clouds of fresh fission dust and gases which these men were asked to inhale at the time.

"The same thing is true at Three Mile Island. They recorded 80 millirems on badges within a few kilometres, but what they didn't say is that the internal organs, like the fetal thyroid might have 10 to 100 times that dose.

"Therefore, it was in effect a misrepresentation using numbers that sounded important, accurate and reliable in order to mislead the people who were exposed. And also to mislead people all over the world who are supposed to continue to buy those reactors."

Part of the controversy that surrounded Ernest Sternglass stems from his belief that the biological effect of low level radiation can be best observed through the use of epidemiological techniques, especially correlating anomalies in mortality rates with documented releases of radiation.

'Babies are dying not because of a major radiation exposure to the whole body, but because a slight retardation of thyroid functions leads to a slowing down of growth, so that by the time the nine months is up, they are not quite ready to be born....'

In the TMI study he began by examining the monthly changes in rates in infant mortality in Pennsylvania and nearby states as given in the U.S. Monthly Vital Statistics and he found that infant deaths did rise dramatically after the incident in the exact direction that the radioactive plume was known to have moved.

In Pennsylvania, infant mortality increased by an unprecedented 92 per cent in the summer months when such deaths are usually at their lowest and by September the rates had once again returned to their normal levels. In the four months after the accident there were 240 infant deaths more than normal in Pennsylvania, an increase which moved the state from far below the American average to the highest infant death rate of any state east of the Mississippi River.

One cause of this increase, claims Sternglass, may have been the 14 curies of radioactive iodine released during the first two days of the accident, before the order to evacuate pregnant women was issued. The iodine ingested by cows and passed along to pregnant women in milk was in turn passed through the placenta barrier and concentrated in the fetal thyroid gland.

An important link in the Sternglass hypothesis is the assumption that Iodine 131 will damage the fetal thyroid in minute quantities, impairing the gland's output of growth hormones at a critical period in pregnancy. The result he predicts will be underweight and immature infants, who will suffer from thyroid related symptoms, such as a lack of pulmonary surfactant and pulmonary distress at birth.

Even if a correlation between radioactive iodine and the infant deaths can be shown to be statistically significant, it doesn't imply a causal relationship.

"But that's true for any epidemiological study. The logic dictates that it is reasonable to reject the idea we stop smoking because a detailed causal relationship has never been demonstrated between cigarettes and cancer. No one has ever been able to collect from a cigarette company because they smoked two packs a day and died of lung cancer.

"There are numerous examples of epidemiological studies, dating from John Snow's work with cholera, where the causal factor was not discovered until long after a relationship between the most diverse phenomenon had been shown."

Your critics say the central weakness in all this is that you have absolutely no clinical evidence to back up your correlations

"We just found clinical proof of the mechanism right here at TMI. Just today we have clearly identified from an independent study, carried out by the State of Pennsylvania against its wishes, that indeed infants in the area of TMI have a four-fold increase in hypothyroidism. This then is an additional piece of evidence that corroborates, or at least is consistent with, the idea that babies are dying, not because of a major radiation exposure to the whole body, but because a slight retardation of thyroid functions leads to a slowing down of growth, so that by the time the nine months is up, they are not quite ready to be born...and this is what the infants in area hospitals are dying of today.

"I went to the Magee Women's Hospital (which handles one half of all Pittsburgh deliveries) and to the Harrisburgh Hospital (one-third of the city's births) and went through all the paediatric records one by one and now we have the missing clinical data. They all died, not of infectious diarrhoea or gross congenital defects, but died specifically of prematurity and respiratory distress at birth, which is exactly what I predicted."

In many respects Sternglass is a born-again foe of the nuclear establishment. After receiving his doctorate in engineering physics from Cornell University in 1952, he began work at the research laboratory of the world's largest manufacturer of nuclear reactors — the Westinghouse Electric Corporation in Pittsburgh, Pennsylvania.

Over the next 15 years he developed a wide range of projects for Westinghouse from applying magnetohydrodynamics to gas-cooled reactors to designing the video cameras used in NASA's Apollo missions to the moon.

### LATTER DAY LYSISTRATA

It is late in the day of the world and the evening paper tells of developed ways of dying; five years ago we would not have believed it. Now I sit on the grass in fading afternoon light crumpling pages and guessing at limits of shock, the point of repudiation; my woman's mind, taught to sustain, to support, staggers at this vast reversal. I can think only of the little plump finches that come trustingly into the garden; moving to mysterious rhythms of seeds and seasons: I have no way to conceive the dark maelstrom where men may spin in savage currents of power - is it power? - and turn to stone, to steel, no longer able to hear such small throats' hopeful chirping nor see these tiny domestic posturings, the pert shivering of feathers. They know only the fire in the mind that carries them down and down in a wild and wrathful wind.

I do not know how else the dream of any man on earth can be "destroy all life, leaving buildings whole..."

Let us weep for these men. for ourselves, let us cry out as they bend over their illustrious equations; let us tell them the cruel truth of bodies. skin's velvet bloom, the scarlet of bleeding. Let us show them the vulnerable earth, the transparent light that slips through slender birches falling over small birds that sense in the miniscule threads of their veins the pulses of every creature – let these men breathe the green fragrance of the leaves, here in this gentle darkness let them convince me, here explain their preposterous imaginns.

FREEZONENEWS-7

### MILKING THE NATIVES

- by Moses Ymal Uludong, Micronesian Poet

I never invited you but you came to my island and I welcomed you

You told me I was a savage and I believed you

You told me I was doomed to hell and I was scared you gave me your bible and I prayed

You told me to till my island
I planted coconuts for your profits
you told me to dig holes and bunkers and
I defended you with my life and land
but you bombed my house and my land
and I ran into the woods

You told me you freed me from your war and I should be grateful to you as my liberator

You established your government on my island without my permission

You sent me to your school and I learned your way and I worked for you as an office boy you gave me your dollars and I bought your things

Now you tell me
I cannot live without
your money
your way
your things
and I believe you

But I can only get them if I give you my island and freedom Never!!!

# Tahitian women protest

By David Robie

Five women, all prominent political and social leaders in French Polynesia, have made an impassioned public appeal to France to halt nuclear testing in the Pacific.

The campaigners made their demand through the Papeete newspapers and state-run television only a few days before last week's conference of Pacific women in Suva adopted hard-hitting resolutions on nuclear and independence issues.

"We believe that some of the health problems here, the new illnesses, are linked to radioactivity. There isn't a Tahitian who thinks otherwise," declared Ida Bordes-Teariki, president of Pupu Here Ai'a, one of the two autonomist parties in the governing coalition in the French territory.

"Money from the bomb does not interest us," she told the Papeete daily. Les Nouvelles. "It's better to be poor and in good health than rich and sick."

Bordes-Teariki and other women leaders are concerned at the apparent escalation of nuclear testing at Mururoa Atoll as France continues miniaturisation of nuclear warheads. A record nine tests were triggered last year, according to Sweden's Hagfor's military observatory, and the programme is just as heavy this

Bordes-Teariki and her four colleagues were delegates from Tahiti — comprising the largest South Pacific delegation — to the United Nations Forum for Women in Copenhagan, last July. They have spearheaded a growing militancy among female opinion leaders in French Polynesia.

Her fellow campaigners include Marie-Therese Danielsson, wife of Swedish anthropologist Bengt, and co-author of the book, "Mururoa, Mon Amour." A town councillor of Paea, near Papeete, she represents the Tahitian environmental organisation la Ora Te Natura.

The other delegates are a school teacher Georgette Taerea, who speaks for the fast-growing Socialist party Ia Mana Te Nunaa; Roseline Courbon of the Layworkers Federation; and schoolteacher Tepora Escande.

Through the press and television, they pushed five strong resolutions adopted by Pacific women at Copenhagan, which provided a springboard for last week's Suva conference. They are:

Immediate operation of a nuclear-free zone comprising the whole Pacific and conclusion of an international treaty forbidding nuclear tests, the use of nuclear submarines and the dumping of nuclear wastes. Regular health control of the population in exposed areas by international teams of radiobiologists. Compensation for radiation victims.

Acceleration of the decolonisation process in Micronesia, New Caledonia, French Polynesia, Wallis and Futuna, American Samoa, Easter Island, Western New



Guinea and East Timor. Economic and if necessary, military aid for the legally elected government of Vanuatu.

A halt to the economic exploitation of land and sea resources, such as oil, mineral nodules and fish by foreign and multi-national companies. All economic development should be planned and carried out by the Pacific governments and Islanders themselves.

Protection of all indigenous cultures against commercial exploitation and foreign domination of education.

No more large-scale labour migrations or settlements in the islands by outsiders. Stronger efforts to combat racial discrimination.

Ia Mana Te Nunaa declared that the women of Polynesia protested against "a colonial power which has destroyed our culture and language and made us what we are today — individuals ruled by ruthless economic laws steered by the desire for profit.

"We protest in the name of all those who have no voice, who have been abandoned by this new society without mercy, a society where money decides our future, where the existence of a small minority living in luxury constitutes an insult to the majority living in poverty and degradation."

(Reprinted from The Nation, November 1980, a short-lived national weekly)

