

# NZ worries about Target Australia

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A New Zealand report has studied the consequences for the south-west Pacific of a nuclear war between the superpowers. In Wellington, JOHN KENNEDY writes that the report contains a grim warning for Australia.

At least four major nuclear strikes against Australia — that is part of a chilling set of predictions on the likely effects of a nuclear war between the superpowers.

The predictions are made in an official report that describes a postwar life in which hunger, pain, brutality and death would be commonplace.

The 166-page study, released by the New Zealand Planning Council, was funded from money the French Government paid New Zealand in compensation for the Rainbow Warrior bombing by French secret service agents.

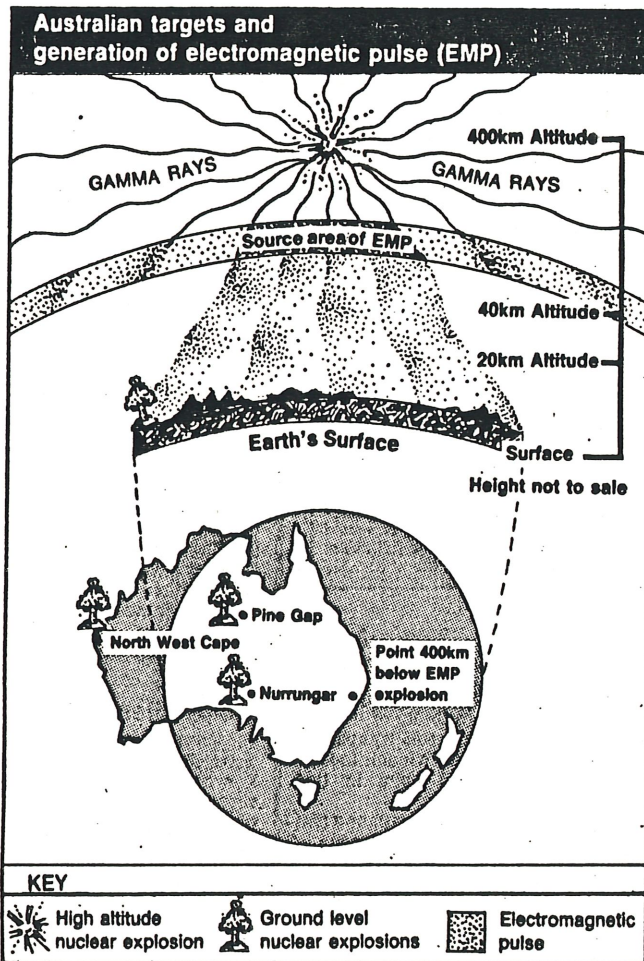
The report examines the effect on New Zealand of a nuclear war in the northern hemisphere. It considers a nuclear strike against New Zealand unlikely but assumes that the Soviet Union would knock out US-Australia communications facilities at Northwest Cape, Pine Gap and Nurrungar.

The report imagines a nuclear explosion 400 kilometres above south-east Australia, subjecting two-thirds of Australia and all of New Zealand to an electro-magnetic pulse that would knock out communications. Although such an impulse would not directly affect human health, its social consequences would be devastating: "An electromagnetic impulse could well mark the end of present social and economic structures and force people into subsistence level."

The report assumes other targets in Australia would be destroyed by direct strikes: the naval base at Cockburn Sound, near Perth; RAAF Darwin; Canberra and another, unnamed, eastern city — presumably Sydney or Melbourne.

The report quotes the defence analyst, Professor Desmond Ball, as saying that there is "now widespread acceptance within the defence community that Australia's hosting of American defence and intelligence installations is likely to involve Australia in a nuclear war in which not just the installations but perhaps also Australia's military bases and facilities, and even cities, might be targets."

All nuclear blasts produce an electromagnetic impulse. The effects were first noted in 1962 when the United States exploded a 1.4 megaton



weapon 400 kilometres above Johnston Island in the Pacific. In Honolulu, 1300 kilometres away, 300 street lights went out, circuit breakers blew and burglar alarms rang. The signing of a nuclear test ban treaty the following year ended the possibility of observing further impulse effects from high altitude tests.

The impulse is electro-magnetic energy produced below a high-altitude nuclear explosion. Gamma rays from the explosion radiate in all directions, travelling at nearly the speed of light in empty space.

The gamma rays which radiate downwards collide with air molecules in the upper atmosphere. The collisions knock free electrons which move on rapidly to cause further collisions.

Each of these electrons can generate tens of thousands of secondary electron-ion pairs. The electrons, leaving the heavy positively charged air-ions behind, cause a charge separation which in effect produces a huge current. This generates an intense field, radiating in all directions.

The report says that the whole

area within line-of-sight of the source region of the explosion would receive these very high field strengths simultaneously. "The only comparable phenomenon is a lightning discharge, but this (lightning) is both slower and more localised."

Lightning appears almost as a steady current compared with the flicker of an electromagnetic impulse, which rises to peak voltage in about five billionths of a second and lasts only one millionth of a second. Lightning rises 50 to 100 times slower and lasts 100 times longer.

The impulses are of strategic importance because they can cripple all communications. They damage or destroy sensitive electrical apparatus, trip out transmission lines, and burn out electronic circuits. Computers, telephone and broadcasting systems and industrial control equipment would all be affected.

Radios, electronic ignition in motor vehicles, micro-wave ovens and any item using micro-chips would be rendered useless. Electricity grids would be blacked out.

The report estimates that New Zealand could take a year to get its grid working properly again, assum-

ing the replacement parts could be obtained.

For a big part of Australia and all of New Zealand, an electromagnetic impulse would instantly cripple communications, energy, banking and transport.

Fall-out and radiation sickness would not be a major worry in New Zealand (although it would be in Australia after direct strikes) but massive social, political and economic upheaval would be real dangers. Health services would be shattered because New Zealand imports nearly all its drugs and medicines. Pain killers and anaesthetics would be severely rationed and medical treatment would have to be reserved for those with a chance of recovery. Medical treatment would revert to the standards of a century or more ago and the report expects that there would probably be a return to ancient Maori methods.

There would be social disruption and upheaval, and a breakdown of the financial system because the impulse would destroy all data processing. How the population copes would depend on its capacity to take blow after blow.

The report could have political repercussions in Australia and North America. It was no secret in New Zealand, even before the report was issued, that the US was increasingly worried that the Lange Government, recently returned with an increased majority, might move to "export" its anti-nuclear initiatives.

There is a more radical tinge to the second Lange ministry and the nuclear debate may also serve to distract attention from the Government's economic austerities.

The Foreign Ministry is in the hands of the former Education Minister, Russell Marshall. Mr Marshall, a former Methodist minister once known as "the Red Reverend" has a long association with the peace movement. He is also Minister for Disarmament.

Also in the cabinet is Mrs Helen Clark, a strong left-winger and a bitter critic of the United States and Anzus. She is Minister of Housing and Conservation, and New Zealand's defence establishment was relieved when she was given her present portfolios instead of defence and disarmament.

Mrs Clark has close contacts with Mrs Clark's close contacts with anti-Anzus and anti-nuclear groups in Australia and is expected to maintain them.

Reports in New Zealand indicate that there is a growing anti-American feeling in Canada and some questioning of the wisdom of remaining under the US defence umbrella. There have already been suggestions that some of Canada's Opposition politicians, who have a good chance of winning the next election, want to talk with Mr Lange.