'New Zealanders are ill-prepared, ill-informed'

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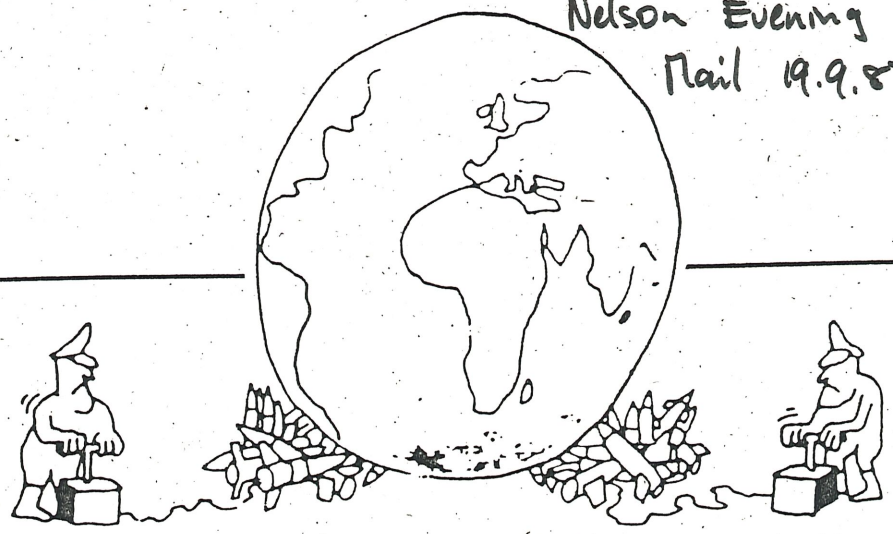
Nuke war study pulls no punches



New Zealand after The Bomb

FORGET *The War Games*, *Threads* and *The Day After* — life after The Bomb in New Zealand won't be much like any of these famous scenarios unless someone is unkind enough to nuke us either by accident or design.

That's the good news. The bad news is that even though we won't be turned into radioactive zombies who glow in the dark, a post-nuclear war New Zealand would still be a tough place in which to live. A just published Planning Council report titled *New Zealand After Nuclear War* reveals how tough. The six-month study, authored by researchers Wren Green, Tony Cairns and Judith Wright, is now being chewed over by the Government, which has invited public comment. It was paid for with $125,000 allocated from reparation the Government received after the Rainbow Warrior sinking.

The study breaks new ground because it examines in detail the massive effects of an electromagnetic pulse blanketing this country as well as discussing the most recent findings on the effect of a nuclear winter. ALISTER BROWNE prepared this analysis for Joint Features.

• Peace studies provide hope for future — p9

PROVIDED New Zealand isn't a target and nuclear war is fought mostly in the Northern Hemisphere, the effects on us will be devastating but different.

That's the key conclusion to the Planning Council's 166-page report.

Radioactive fallout wouldn't be a major threat to health, for instance. It might add 1 per cent to the normal incidence of cancers during the following 70 years.

Nor would we suffer the extreme effects of a nuclear winter. There would be some crop losses, but not to the extent that people starve.

There probably would be fear, if not panic, and widespread feelings of grief, loss of contact and isolation.

The most serious long-term effects would be caused by the loss of imported supplies and the loss of export markets. Our health care is just about totally dependent on imported medicines, vaccines and medical and dental supplies, If local alternatives weren't rapidly developed, a tremendous rise could be expected in diseases and illnesses now controlled by drugs.

A computer system failure could close our only oil refinery and reduce diesel supplies to zero. This in turn would cripple coastal shipping and ferries, diesel trains, much road transport, some manufacturing and food processing industries.

Loss of export markets and imported supplies, components and supplies would make current patterns of farming and forestry unsustainable.

This would cause major disruptions to asset values and prices, to employment and to incomes.

to the general public is vitally important. It is not just government officials and scientists who are affected by the threat of nuclear war."

On point two, the report says the Government needs a plan to cope with the aftermath. Similar planning should be undertaken in areas such as health, the financial and monetary systems, communications, energy and transport.

Point three: Key areas of vulnerability can be identified. Among medical supplies, for example, there may be some which could be produced locally (growing opium poppies for morphine?) In communications and computer technologies there are choices between "hardening" against EMP effects, installing back-up systems or resorting to simpler technologies. Stockpiling trace elements for agriculture and promoting recycling industries are examples of other options.

There is a human dimension to all this as well.

People would be psychologically battered by fear of what might be going to happen next, stricken with grief over the fate of friends and relatives overseas.

Says the report: "Good communications and information services throughout the crisis period would be vital in order to reduce the uncertainties and rumours which lead to panic and looting in a time of stress."

Censorship is seen as a particular danger given the need for credible information at all times.

"The allocation of resources, the huge economic and social problems and the need for new decision-making processes would all demand attention.

"Currently New Zealand society has difficulty resolving problems which are

Getting down to basics ...

FIVE basic questions are posed in the report, highlighted in a separate chapter:

- How likely is nuclear war?
- Would New Zealand be a target?
- What is nuclear winter?
- How many people would die?
- How would the Southern Hemisphere be affected?

A 1982 United Nations' study is cited by the report as the most detailed and thorough public analysis of the likelihood of a nuclear war.

It estimates that during a time of international crisis, combinations of failures and errors could mean a 5 per cent chance of nuclear war.

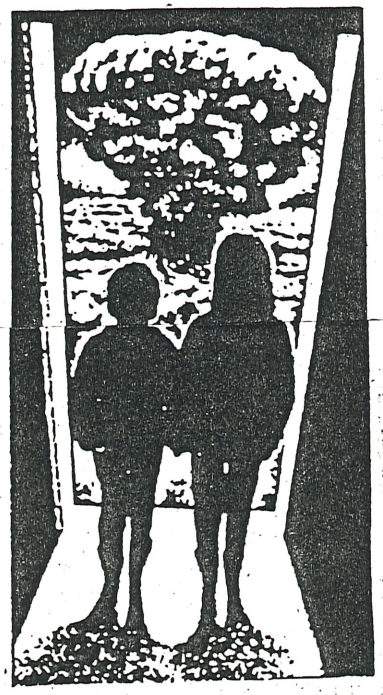
There is no guarantee that a crisis that escalates to a launch-on-warning alert won't — through error, false alarm, system failure or bad judgment — spark a decision to launch missiles.

Scientists in 1986 concluded the most probable initiators of nuclear war were irrational acts, mistakes and malfunctions.

The positioning of medium-range missiles in Europe shortens the time available to make a decision to launch in the face of an apparent attack to a few minutes — compared with 30 minutes for intercontinental missiles — and increases the possibility of error. These developments must increase the likelihood of nuclear war.

• The likelihood of New Zealand being a target is low. The targets of the nuclear powers are not distributed evenly but are heavily concentrated on Nato and Warsaw Pact countries. American targets include around 40,000 bases, facilities and cities in Russia and Eastern Europe.

Most British, French and Chinese nuclear warheads are also aimed at Warsaw Pact countries. Soviet warheads are concentrated on Nato and Chinese targets.



war would be mostly confined to the Northern Hemisphere with Southern Hemisphere targets limited to those of strategic military importance —. the

• The term nuclear winter is a metaphor for the various environmental effects which would follow nuclear war. It includes effects such as disruption to global agricultural systems, as well as darkened skies and freezing temperatures. The trigger would be the thousands of fires started by nuclear explosions. Enormous quantities of smoke mixed with dust from the explosions would girdle the globe.

Latest research indicates the immediate drop in temperature would not be as great as was first suggested. But there is general agreement that there would be major disruption to the earth's climate and that the effects would continue for longer — perhaps years — than was first estimated.

• Estimates of deaths range from 250 million to 1000 million. Even greater numbers would be at risk from starvation because of nuclear winter effects on agriculture. Fatalities in India from starvation, for example, could eventually exceed the number of deaths in America and Russia caused by bombs.

• If it wasn't a target, New Zealand wouldn't suffer the blast and high radiation effects of explosions. Nor would we experience rapid and large drops in temperature. The amount of smoke reaching the Southern Hemisphere would be influenced by the time of year.

A war in the northern summer — between April and October — would result in the maximum amount of smoke reaching this country. Light levels here would then be reduced by about 20 per cent (up to 95 per cent in the Northern Hemisphere).

This would not cuse freezing weather although plant growth rates would be cut and some crops hit.

Radiation fallout levels — even if Australia was bombed — would be only 5 per cent of average Northern Hemi-