

Physicians: respon



Caldicott rallies Canadian peace movement: "It is your moral obligation to educate your politicians here in Canada."

by Gilbert Bouchard

Just what is Physicians for Social Responsibility (PSR)?

We all know that Dr. Helen Caldicott spoke here at the U of A and that she was the president of the American branch of PSR until 1983, but what else do you know about the organization?

Dr. Jan Van Stolk, president of Edmonton's PSR and vice-president of the national PSR says the group is made up of "Doctors who are deeply concerned with nuclear arms."

Von Stolk said that PSR started in the 1950's when doctors organized to study the effects of radiation, but these doctors went through a "natural evolution from radiation hazards to the ghastliness of having all these weapons and the medical and psychological hazards of having those weapons."

"When I worked with Dr. Schwitzer in the African jungle in 1955-1957 he was also concerned with radiation poisoning," said Van Stolk.

"In 1959 the Edmonton Committee Against Radiation Hazards was formed (the predecessor of PSR).

At this time there was no real anti-nuclear movement."

Caldicott's background is similar, said Van Stolk.

"Caldicott practically single-handedly stopped the French from testing nuclear weapons in the Pacific, then she worked with Australian uranium miners."

The primary concern of PSR is "94 per cent with nuclear bombs", said Van Stolk. The subtitle of the group is The Canadian Medical Coalition for the Prevention of Nuclear War, and "a lot of our members want to change that subtitle into our title, but we started out with PSR and the name has stuck. Plus, we have strong affiliations with the American group and it has done a lot of very good work under the name PSR."

PSR has affiliations with similar groups all over the world. Van Stolk himself is a member of the International Physicians for the Prevention of Nuclear War (IPPNW). The IPPNW represents more than 100,000 medical doctors in 59 nations, including the USSR and other iron country nations.

The aims of PSR are straight forward:

Photo Bill St. John

Nuclear winter: a season in hell

by Gilbert Bouchard

Nuclear winter. It's a theory; a theory in which millions of tons of dirt, soot and dust propelled into the atmosphere in the wake of a nuclear attack would plunge the world into a dark and frigid night for months on end. A winter that could well hail the death of all the higher life forms, and could also signal the demise of civilization in the northern hemisphere.

Ian Carr, the national president of Physicians for Social Responsibility, spoke on the ramifications of "Nuclear winter" in a public lecture in Tory turtle last May.

Carr was interviewed by the Gateway. Following is an excerpt from that conversation.

Perhaps you could give us a little background information on the causes of "nuclear winter"?

In the event of a nuclear attack two kinds of dust would be generated. The first, straight forward dust. Surface bursts would raise this dust, pulverized stone, prairie dirt, and hurl it high into the sky. The surface bursts would be needed to destroy hardened targets. Airbursts would raise some dirt, but not as much. The second major type of particles would be soot - soot from the burning cities. There are now more than enough weapons for all the appropriate targets - every community of over 20,000. In our inner city areas there is a lot of combustible material, look around you, plastics, cardboards, etc. The soot particles if there's a firestorm ride straight up to the troposphere and persists there because the particles are very small, a micrometer in diameter. That does two things; stops the light and reduces the surface temperature.

How much dust are we talking about?

A 5000 megaton war (a medium size war) would spew 225 million tons of dust into the atmosphere.

What would be the effect on light?

Again with a 5000 megaton war (major cities and silos) light would be reduced to 10 per cent. It would be twilight at noon. At the best after this kind of war, most of the northern hemisphere would be enveloped in gloom much like twilight, really dark.

How long would this dark last?

A couple months, with a bigger war it might last up to a year.

What effects would this have on plant life?

If light fell to this level photosynthesis would be drastically affected and plant growth would be impaired and many plants would die. The effects would be worse if the war were to take place in the spring and early summer when plant growth is at its maximum. And we also believe that grain production would stop. Drop the mean temperature by one or two degrees and you would cook our prairie goose, and stop grain production.

How far south would grain production be hindered?

Again it would depend on the size of the war, it could be just Canada, or the whole of North America. And remember that the world is fed in the areas immediately to the south of us!

What would the temperatures drop to?

The mean northern hemisphere temperature is now plus 10 degrees C. That mean figure would drop to minus 23 degrees C., and it would be even colder in the areas where is already cold to begin with.

How global would the nuclear winter be? Would the southern hemisphere (who we assume wouldn't be directly attacked) be affected?

They now believe that this nuclear twilight would most probably be global. Carl Sagan's work with the Mariner space probe on Mars (1973) showed that dust storms on Mars became global much faster than people would have thought. More dust would cross over to the southern hemisphere than we previously thought. But again, the scenarios we are discussing here, have been generated by computer models. How accurate are they? The general thinking is that what we've been discussing is an average, it might not be so bad, it might be worse. It is reasonable to suppose that such a war (the 5000 megaton war mentioned before) could lead to the extinction of human civilization in the northern hemisphere. But as far as the southern hemisphere goes, we can't be sure, the bigger the nuclear war, the less chance that people would survive.

When was the nuclear winter theory first proposed?

It was first publicly discussed in a conference in November 1983, and first published in December of the same year. This is a significant breakthrough. But is all hypothesis, it is all the reasonable and educated

reasonings of educated and reasonable men.

How well informed are our politicians about the dangers of nuclear war?

I don't think they are very well informed. I have clear evidence that many of our own parliamentarians have insignificant information. It's up to the electorate to go up to them and tell them that this (the nuclear issue) is very important, and we're talking about the survival of the northern hemisphere and perhaps the species.

Do you think that anybody would be able to survive, perhaps the very distant rural people far from the main Canadian targets?

It's not the cumulative effects of nuclear war we talk about, it's the synergistic effects. The end result may be far worse than any of the individual components. We can assume that all major Canadian cities are to be targeted. The only survivors of the initial attack would be in the rural areas, and these people would have to put up with: fallout (in Canada the fall out would be worse than previously thought); lack of water, both because the existing water sources are disrupted, and a chance that the surface water might all be frozen because of the sudden drop in temperature; food shortages; infection problems; increase of ultraviolet radiation because of the weakening of the ozone; communications and transportation breakdowns. Not to mention that agribusiness is very energy dependant, and all the energy sources are targeted. Also, all the food stocks and seed stocks are held in the cities, and they will have been destroyed.

