

ARIZONA NEWSLETTER Doctors for Disaster Preparedness

March 1989 (vol. 5, #3)

1601 N. Tucson Blvd. Suite 9, Tucson AZ 85716

c 1989 J Orient

GERM WARFARE: PARANOIA OR REALITY?

Improved defenses against bacteriologic warfare (BW) "would almost certainly set off alarm bells around the world, not only in Moscow, making an all-out biological arms race virtually inevitable," wrote Richard Falk of the Center of International Studies at Princeton in a review of *America the Vulnerable: The Threat of Chemical and Biological Warfare* by Douglass and Livingstone (Lexington, 1987). Instead of researching defensive measures, creating a crisis response team, and strengthening our intelligence sources, as this book capably advocates, Falk calls for "restoring confidence in existing legal regimes of prohibition and taking steps to close loopholes" (*Science* 1989;243:552-553).

Unilateral bacteriological disarmament was announced in 1969 by President Nixon. This decision was reached because of the influence of Matthew Meselson of Harvard University, who persuaded Kissinger that bacteriological weapons would not be used by the US military under any circumstances. Even to retaliate for a massive and deliberate biological attack, "the alternative of nuclear weapons was available and would be preferred" (Dyson, F: *Disturbing the Universe*, Harper and Row, 1979). Negotiating from a position of weakness, the US seemed to have persuaded the Soviets that their biological weapons were useless, and Brezhnev signed the Biological and Toxin Weapons Convention of 1972.

US research on defenses against BW is opposed by growing numbers of scientists. More than 500 biomedical scientists have signed pledges not to do work that could lead to the development of BW agents. The arguments may sound familiar: BW is "unthinkable" (but would become less so if the US worked on defenses), there is no feasible defense against an attack, and proliferation will occur if the treaty is perceived as not working.

History

However "unthinkable," BW has a long history. In 1347, the Mongols, afflicted by bubonic plague during their siege of Caffa, used catapults to hurl their dead into the city, spreading the disease to Genoan defenders, who took the Black Death with them when they fled to Italy. In colonial days, the British gave American Indians gifts of smallpox-carrying blankets. During World War II, Churchill briefly considered attacking German livestock with anthrax. (The island used in testing remains uninhabitable because the spores persist in the soil.)

Proliferation

Recently, Indonesia has been accused of deliberately introducing pigs infected with cysticercosis to Papuans, who are waging guerrilla warfare against the Indonesian government

(*Third World Week* 1/6/89). About 10 nations, some in the Middle East, are developing BW agents. Even Japan might turn to a deadly bacteriological deterrent, in preference to a nuclear one (*Wall St J* 9/19/88).

Unlike nuclear weapons, which presently could *not* be manufactured in a garage, billions of infective doses of pathogenic organisms could be quickly brewed up by a terrorist equipped with a high-school level of technology and two dozen chicken eggs. Verification, unreliable enough for nuclear and still worse for chemical weapons, is completely impossible for biological weapons.

Soviet Biological Weapons

Although the Soviet Union has not admitted to possessing or working on bacteriological weapons, Senator Sam Nunn has cited a warning in print from a Soviet official that Moscow might retaliate against an American "Star Wars" system with germs rather than new missiles (*Ibid.*) The US Defense Intelligence Agency claims to have identified a number of installations capable of producing disease agents and toxins on a large scale and placing them in delivery systems (*Soviet Biological Warfare Threat* 1986, DST-1610F-057-86). The Soviets are said to have developed anthrax (see also p. 2), tularemia, plague, and cholera for BW purposes, as well as botulinum toxin, enterotoxin, and mycotoxins. Soviet Chemical Troops, numbering 45,000 in the ground forces alone in peacetime, also are involved in BW activities. (The US has no such special troops.) Standard Soviet protective suits and masks, together with sanitary measures and vaccines or antidotes, are believed sufficient to protect most Soviet soldiers operating in contaminated battlefield conditions.

In 1971, the role that the Soviets envisioned for BW was discussed at a Warsaw Pact scientific conference. It was reported that "the rapid development of biological engineering will make it possible...to produce synthetic or partially synthetic toxins on a large scale. Such toxins represent a combination of the hitherto chemical and biological weapons" (Le Chêne, E: *Chemical and Biological Warfare--Threat of the Future*, Mackenzie Inst, 1989). Trichothecenes, toxins derived from the mold *Fusaria*, are produced at a Soviet facility suspected of being involved in BW activities. Numerous articles in the Soviet literature describe optimum conditions for biosynthesis. Although these compounds were identified in areas of Southeast Asia reporting deaths associated with Soviet helicopter flights, Matthew Meselson persuaded many that "yellow rain" was just bee feces.

The buzzing of the bees has drowned out any alarm bells sounding in the US about the efficacy of Meselson's treaty.

Time's Nuclear Hobgoblin

The Hallowe'en issue of *Time* featured the dreaded hobgoblin of American reactors that produce fuel for nuclear weapons. In a cover story entitled "The Nuclear Scandal" or "They Lied to Us," *Time* exploits human tragedy to fan public fears. One photograph shows an eight year old boy with leukemia, and his two-year-old brother with an artificial leg due to an amputation for bone cancer (presumably osteogenic sarcoma). An unnamed doctor is quoted as saying that the boy's leg contained "ten times more uranium than would be expected to accumulate naturally over a lifetime." Such an amount, he said, could not result from eating dirt; the child must have breathed it.

Just how much uranium would that be? Throughout the article, *Time* avoids mentioning a single actual dose. Marshall Brucer, MD, of Tucson calculates that "100 times the expected amount" of uranium would be measured in femtograms (quadrillionths of a gram, i.e. grams $\times 10^{-15}$). The radiation produced from such a dose of U-235 would be so small that it could be masked by the polonium residue of natural radium in cigarette smoke. Additionally, the latent period for radiation-induced cancers is 15 years or more; a two-year old child is about 13 years too young to develop a solid tumor even from high doses of radiation.

Dr. Brucer noted that the effects of breathing U-235 were tested during the Manhattan Project in 1943 by placing a colony of rats in an atmosphere laden with uranium dust in an amount thought sufficient to kill them fast. A control colony breathed clean air. After several months, nothing had happened. Eventually, the rats lived out their normal life span, with one surprise: the rats who had breathed the uranium dust lived longer and were happier (i.e. had a better reproductive history) than those who had not. Not a single rat developed a tumor.

Cancer is a common disease, affecting nearly 20% of the population at some time during their lives. Thus, clusters of cancer are bound to occur. Some of these occur near a nuclear facility, and some do not -- purely on the basis of chance. In Tucson, there is no conveniently located nuclear facility to "explain" the occurrence of cancer. Here, reporters intent on discovering a man-made cause (and hence, someone to sue), blamed minuscule amounts of trichloroethylene in the drinking water.

Time entertains no doubt about its hypotheses -- the editor saw no need for review by a statistician. However, they did quote an expert, a high school teacher residing in Idaho Falls, who doesn't "believe much of what DOE says is going on" at the Idaho National Engineering Laboratory (INEL). Not many residents would say such a thing, according to Tom L. Schumann, MD, staff physician at INEL. That's because most either work there and *know* what is going on, or rely on a trusted friend or family member who does.

Time clearly recognizes the implications of public fear of nuclear reactors. If tritium production at the Savannah River facility is not resumed within a year or so, "we will begin to disarm unilaterally."

Is *Time* interested in the truth? Watch to see whether letters from Drs. Brucer or Schumann are published.

Panic in Disaster

Many believe that victims of disaster inevitably panic and become shocked, dazed, and unable to cope. This idea is a myth, according to Joseph Scanlon, director of the Emergency Communications Research Unit, Carleton University, Ottawa, Canada.

"People may say they act that way -- but they don't," said Professor Scanlon. After a mudslide that had led to an evacuation, one woman told him that she was so upset that she "ran around screaming in circles." What she actually did was to awaken her husband, alert the emergency services, warn the neighbors, and get herself and her husband into the car and off to safety. Whatever she was screaming was apparently just the right thing.

In the wake of disaster, people help each other (*Civil Protection* Autumn 1988).

Financial Reports

National DDP's checkbook balance as of November 1, 1988, was \$6271.56. Our largest expenditure is \$300 monthly to TACDA for secretarial help.

A copy of the annual report of Physicians for Social Responsibility was obtained from the NY Department of State. Total revenue for the year ended Dec. 31, 1986 was \$2,740,513. The largest expenditure was \$1,040,996 for public and medical education.

Jennifer Leaning, President of PSR, was once heard to ask about DDP: "Where do they get all their money?"

The answer is from membership dues and an occasional individual contribution.

The Education Gap

Under the rubric of peace and global education, children in grades K through 12 in our public schools are being indoctrinated in a radical left perspective. One curriculum guide tells students "Think of the US and USSR as rival street gangs" (Ryerson, *Wall Street Journal* May 31, 1988).

Some say that well-meaning educators have no choice but to use curriculum materials that are available; alternate materials are desperately needed. On a visit to a curriculum center for St. Louis public schools, I could find only two books with a pro-defense orientation, *Soviet Military Power* and another US government publication. Teachers also may be paid to attend seminars about the "new world order."

A book for high school students that counters the propaganda to be found in units such as the NEA's "Choices" is in preparation by Frances Shands, Associate Professor of Education at St. Louis University. A draft copy of *Insight for Peace in a Nuclear Age* can be obtained from Dr. Shands, 6 Portland Dr., St. Louis, MO 63131. Please send \$8 to cover the cost of reproduction and mailing. Comments are invited.