

Bombs, bombs, bombs: Pu diversion threatens

The James Bond (or, earlier, Jules Verne) scenario in which a mad scientist and his followers get hold of horribly devastating weapons and threaten the security of the entire world is wild fantasy. But not so wild as it used to be and getting less wild.

The real problem, of course, is not a single mad scientist but rather the growing potential for a single small country with a grudge or with grounded or ungrounded fears to secure nuclear arms to use against a neighbor and thus perhaps to set off a world holocaust.

The Nuclear Non-Proliferation Treaty which went into effect in March 1970 aims to restrict nuclear arms to the current five countries possessing them: the United States, the Soviet Union, the United Kingdom, France and Communist China. The NPT as now administered has serious deficiencies. And although many nations have ratified the treaty, many of the most important ones have not. Most frightening is the fact that nuclear weapons are getting easier and easier to make. A press conference held in Washington last week by the U.S. United Nations Association detailed efforts of private citizens' groups in both the United States and the Soviet Union to persuade governments to do more about alleviating the deficiencies.

It takes from five to ten kilograms of plutonium to make a nuclear bomb capable of destroying a medium sized city. Some research reactors, although supposedly for peaceful purposes, can make up to 10 kilograms of plutonium a year. An electric power plant reactor using slightly enriched uranium can make 200 to 300 kilograms a year. Both kinds of reactors are increasingly common in both large and small countries, and some estimates are that reactors in countries now without nuclear weapons will produce as much as 20,000 kilograms annually of plutonium by the end of this decade. These estimates are from the U.S. UNA's Policy Panel on Safeguarding the Atom, chaired by former Deputy Secretary of Defense Cyrus R. Vance, the group which sponsored the press conference.

A second problem is enriched uranium fuel in which the proportion of U-235 to U-238 is increased above natural levels. Presently, the gas diffusion technique for manufacturing the enriched fuel requires huge installations and sophisticated technology available only in highly industrialized nations. But a new gas centrifuge technique promises to be simpler and cheaper, and it is likely many of the nonweapon

countries will be able to build the centrifuges. With these, it will be possible to take slightly enriched uranium and convert it to the highly enriched kind—about 20 kilograms of which will make a nuclear bomb.

Although 102 nonweapon countries have signed or ratified the NPT, more than two-thirds of these are at a stage of development where fabrication of nuclear weapons is unlikely anyway. So far only two countries on the verge of weapon capability have ratified the treaty, Canada and Sweden. Four other "threshold" countries have signed the treaty but not yet ratified it. These are West Germany, Italy, Japan and Switzerland. Two threshold countries have not even signed the treaty, let alone ratified it, and both are involved in disputes with neighbors. They are India and Israel, and the UNA panel regards them as the most critical of the threshold countries.

Forty-four nonweapon countries operate 197 nuclear reactors and only 21 of these countries (with 54 reactors) have ratified the treaty. Fourteen countries with a total of 115 reactors have signed but not ratified the treaty, and nine countries with 28 reactors have not even signed it. The nonsigning and nonratifying countries are scattered all over the world. A report by the UNA panel says that India and Israel, already possess, respectively, 95 and 40 kilos of plutonium.

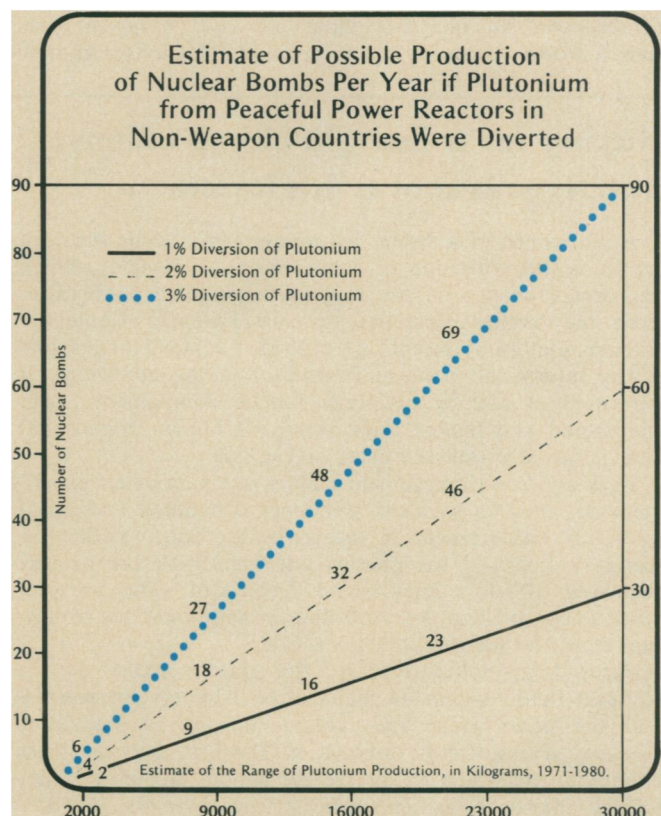
The occasion for the press conference was the announcement of the publication of two reports, the one by

the UNA panel and the other by a counterpart group in the Soviet Union. The two reports are often in substantial agreement on steps necessary to curb nuclear proliferation beyond the safeguards provided in the current treaty. The reports are part of a program called "Parallel Policy Studies" launched by private individuals from the United States and the Soviet Union in 1969. UNA panelists at the press conference pointed out that such private efforts had earlier established the basis for the SALT talks—and thus for the historic arms limitation treaty signed by Presidents Nixon and Podgorny this spring.

But panelist Burke Marshall of the Yale Law School made clear that the U.S. report is not over-sanguine about the recent agreements. Still needed is a "distinctive new level of Soviet-American cooperation" as well as a "substantial advance in the level of understanding with China." The reason is obvious: If the great powers remain in a nuclear arms race, even though one which has been much mitigated with the new agreements, then there is little hope of convincing the smaller nations that they should not get atom bombs for themselves. And the report points to a new opportunity for arms reduction: The five permanent members of the United Nations Security Council are now (with the admission of Mainland China), for the first time also the five nuclear powers. Thus the Security Council may be the ideal place for new arms-control talks.

The U.S. report calls for an ex-

Estimates of possible annual bomb production if "peaceful" plutonium is diverted at various rates.



UNA-USA

panded role for the International Atomic Energy Agency (IAEA). Especially needed are greatly increased inspection powers so as to prevent diversion of reactor plutonium to bombs. IAEA might also monitor all underground nuclear testing, if such testing continues. But the U.S. report suggests nonweapon countries generally believe such testing is aimed primarily at weapons improvement, and it calls to task both U.S. and Soviet governments for not acceding to the nonweapon countries' desire for a total test ban. One panelist also raised the possibility that such testing—as in the Plowshare and Gasbuggy programs—has shown “no real advantage” to use of nuclear explosives for peaceful purposes.

Finally, both reports stress that neither the United States nor the Soviet Union should give peaceful nuclear assistance to any nation whose nuclear facilities are not safeguarded by IAEA. Currently, the United States insists only on safeguarding of nuclear materials it transfers to other nations but not the facilities themselves.

Even if all the recommendations in the two reports should become reality, there is little doubt the situation will be hairy for some years. “As a real matter of fact,” said panelist Harvey Picker, “we are in a somewhat parlous condition.” David Lenefsky, project director for the panel, made clear just how parlous. Under current inspection protocols by IAEA, he said, just a scant two weeks after IAEA inspection of a reactor it would be possible for a nation to be diverting plutonium to bombs—and no one but those concerned would know. □

Nader's Raiders knock NIMH

Insane asylums should be a thing of the past. The horrors of these huge fortress-like prisons for the mentally ill have been documented and described over and over. But they continue to exist. Between 1966 and 1971, the number of state supported mental hospitals increased from 307 to 321; the total number of patients seen annually rose from 802,216 to 836,326; and the maintenance expenditure alone for these hospitals rose from \$1.3 billion to more than \$2 billion.

These figures would be less surprising if it were not for the fact that in the mid-1960's the National Institute of Mental Health started a program aimed at replacing the state mental hospital system with community mental health centers.

The idea behind the community centers was that society should help the mentally ill, not just dispose of them in hidden-away institutions. In a community mental health center an emotionally disturbed patient would receive necessary treatment without the expense of hospitalization in the unfamiliar surroundings of a far-away institution. Staffed by local professionals and citizen volunteers, the community centers would be better able to communicate with the patient and relate to the specific problems of the community. Being easily accessible to all segments of society, the centers would not only treat but help to prevent mental illness.

A report issued this week by Ralph Nader's Center for the Study of Re-

sponsive Law charges that the NIMH-administered community mental health centers program is falling short in accomplishing these goals.

In the fall of 1969 one of Nader's Raiders took part in a citizens' participation conference on mental health at NIMH. When it was suggested that someone do a study of the vast mental health complex, the Nader group volunteered and even expected NIMH to fund the study. When this fell through the New World Foundation in New York City put up the \$10,000 necessary to complete the two-year study.

Part I of the report covers the community mental health centers program. Authors Franklin D. Chu and Sharland Trotter, in a hard-hitting well-documented analysis, discuss the shortcomings of the program point by point. First of all, the centers are not supplanting the state mental hospitals, the report says. When the state hospitals do transfer patients to nursing or foster homes, the authors charge, conditions there are frequently worse than in the state institution.

As for accessibility, the report says community centers routinely exclude persons who present the most troublesome cases—notably, drug addicts, alcoholics, old people, children, ethnic and racial minority groups and the poor in general. Centers located within state hospitals are psychologically inaccessible and many others maintain such low profiles that their impact on the community has been negligible.

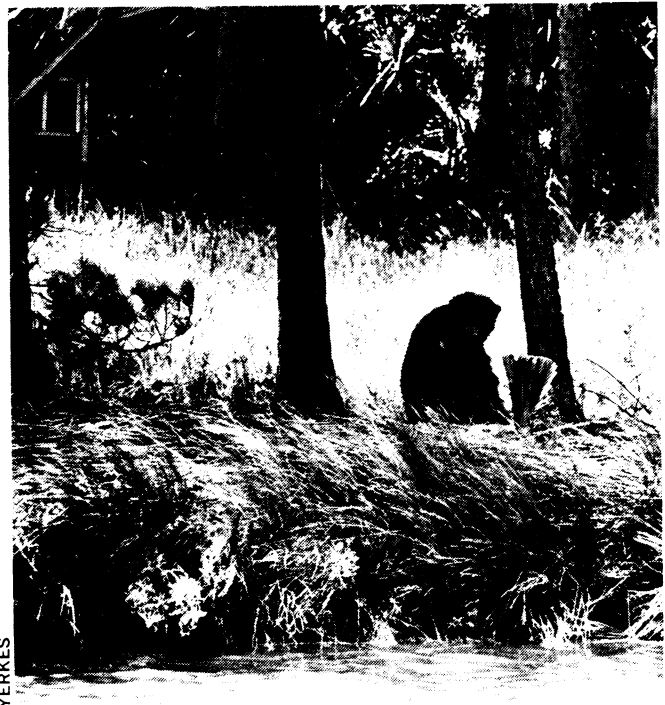
The report accuses the Metropolitan Community Mental Health Center in Minneapolis, Minn., of having an established policy of refusing inpatient care to indigent patients. The report ex-

Hoping for a Georgia chimp colony: But Jiggs is cool to his harem

A real cliché of a dream for many men is to be stranded on an island with one or more receptive females. When this dream came true for Jiggs, a large male chimpanzee from the Yerkes Regional Primate Research Center in Atlanta, Ga. (SN: 6/10/72, p. 381), he failed to respond in the traditional manner. Instead of taking advantage of the situation and of his three female companions, Jiggs whimpered and almost cried when his human friends left him on an island off the coast of Georgia.

Jiggs and the three female chimps are part of an experiment designed to see how well apes can breed and adapt to a wild environment in the temperate zone. Yerkes researchers liberated the chimps last month on the densely vegetated, 100-acre Bear Island. Food and water are provided daily and two A-frame shelters were built for protection from the weather.

After Jiggs' initial reaction the chimps settled into a compact family group. In their native habitats, chimpanzees and the other great apes are in danger of extinction. Geoffrey H. Bourne, director of Yerkes, expects these chimps to breed and to survive the winter. If they do, they will be allowed to develop a family group on the island. □



YERKES