

Laboratories vs. a Nuclear Ban

By Josephine Anne Stein
and Frank von Hippel

PRINCETON, N.J. — The United States committed itself to seek a comprehensive nuclear weapons test ban in 1963 in the Limited Test Ban Treaty and in 1970 in the Nuclear Nonproliferation Treaty. Negotiations between Washington, Moscow and London established agreement on the technical basis for effective verification, including detailed arrangements for in-country monitoring. In the past two years, both houses of Congress have urged President Reagan to negotiate a ban. The Kremlin has shown its seriousness with an eight-month unilateral moratorium on testing, and offered to extend it indefinitely if America refrained from testing, but America didn't. Why is there no agreement?

One of the most important reasons is opposition from the nation's two principal nuclear weapons design laboratories, at Livermore, Calif., and Los Alamos, N.M. On the two occasions when American and Soviet negotiators appeared closest to an agreement on a ban, the laboratories raised objections that dashed hopes of obtaining the two-thirds Senate majority required for treaty ratification.

In 1958, President Dwight D. Eisenhower and Premier Nikita S. Khrushchev halted nuclear testing and began negotiations on a permanent comprehensive test ban. Almost immediately, weapons scientists associated with Livermore argued that the Soviet Union might be able to cheat by testing in an underground cavern. Now, verification experts at Livermore agree that a modern seismic system could detect underground explosions, even if muffled in a cavern, down to a few kilotons — about one percent of the yield of today's strategic weapons.

Nonetheless, the laboratories engendered enough doubts about verifiability so that when President John F. Kennedy and Mr. Khrushchev signed the Limited Test Ban Treaty, it still permitted underground explosions.

In 1977, under the Carter Administration, both superpowers were again close to agreement. The heads of both laboratories claimed that, in the absence of nuclear testing, the reliability of our stockpiled weapons would decline. However, independent experts stated that thorough non-nuclear testing of the arms' components and periodic rebuilding of the arms to their original design specifications could maintain our stockpile's reliability indefinitely. But it would have been virtually impossible to persuade the Senate to ratify a treaty over the laboratories' opposition, and President Jimmy Carter decided not to try.

The key rationale for continued testing under the Reagan Administration also has emerged from the laboratories. Early in President Reagan's first term, Dr. Edward Teller, Livermore's founder, met with him to promote a nuclear explosion powered X-ray laser as a way to protect America from attack. These talks helped convince Mr. Reagan to launch the Strategic Defense Initiative.

The laboratories' changing technical arguments against a ban may conceal a deeper motivation for their opposition. Paul Robinson, director of the lavishly funded nuclear weapons program at Los Alamos, has articulated a possible reason — the intellectual challenge. "At present, the nu-

clear weapons program in total, both in offensive uses, defense suppression, as well as defense, is more exciting than I've ever known it." The designers are developing methods for penetrating and destroying the defenses they are inventing.

Their incessant promotion of new weapons requires that they foster a dangerous illusion — that the next nuclear weapon either nation builds may confer an important advantage. But feeding paranoia and fantasy about nuclear war fighting is not in America's best interest. Despite what Dr. Teller

and President Reagan say, nuclear arms and the threat of nuclear war cannot be eliminated by the invention and development of more weapons.

Nuclear arms, inherently weapons of mass destruction, are unusable for war fighting. Continued nuclear testing is dangerous and a waste of precious resources. The enormous technical talent at Los Alamos and Livermore should be redirected to meet other pressing national needs. America should fulfill its treaty obligations by negotiating and ratifying a comprehensive test ban. □

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