

confidence in weapons that could not be updated.

Among Third World speakers, however, there was a general consensus that the symbolic value of a test ban would be as important as its technical significance. "If Article VI could be changed to include a commitment to a test ban, then a good case would be made in some of the threshold states for joining the treaty" said José Goldemberg, professor of physics at the University of São Paulo in Brazil.

"People use anti-colonialist arguments for not joining the NPT because of the resemblance to colonialism that the treaty contains. If that is removed and the treaty is made more symmetric, the case of civilian authorities in countries such as Brazil would be strengthened." Argentina and Tanzania were quoted as countries that have said they will sign if a comprehensive test ban is agreed, while both China and India have made it clear that they will not sign the NPT in the absence of such a ban.

Given that any proposal to amend the treaty will be opposed by several signatories, the most that Third World countries are hoping for is a strongly worded final declaration. Sri Lanka's Dhanapala suggests that this might even be achieved through numerical superiority, on the grounds that "it is possible that the threat of voting, or even voting itself, could change the position inside the NPT."

Even if this fails, however, the Geneva colloquium, which was organized by the Groupe de Bellerive's President, Prince Sadruddin Aga Khan, the former United Nations High Commissioner for Refugees, highlighted several more concrete, and perhaps more realistic, steps that could be taken toward a test ban. These are likely to be discussed in the corridors of the review conference, if not in the open sessions. Some of these suggestions include:

- The creation of an International Satellite Monitoring Agency to provide satellite-based photographic data to complement seismic observations and thus help verify any ban on testing.

- Increasing the responsibility of the IAEA as the chief verification agency for future arms control agreements. IAEA director Hans Blix described the recent acceptance agreement by several weapons states, including France, the Soviet Union, and the United States, to accept IAEA safeguards on their civilian nuclear power plants as "paving the way for the type of verification which might be required in more far-reaching agreements."

Reagan, Gorbachev Trade Offers

In a move clearly designed to influence the upcoming Nuclear Non-Proliferation review conference, the Soviet Union on 30 July promised to halt all nuclear testing for at least 5 months beginning on 6 August, the 40th anniversary of the bombing of Hiroshima. In a public announcement of the proposal, Soviet premier Mikhail Gorbachev stated that its purpose was to create "favorable conditions" for negotiations on a test ban treaty. But he noted specifically that "undoubtedly a mutual moratorium by the U.S.S.R. and the United States on any nuclear blast would be a good example also for other states possessing nuclear weapons."

The Reagan Administration, which supports a comprehensive test ban only as "a long-term foreign policy goal," rejected the Soviet offer. Instead the President suggested that the Soviets send key scientists to the U.S. test site in Nevada, so that they could directly measure the yield of a U.S. bomb blast. The visit would enable the Soviets to calibrate the scientific equipment to reassure them that the United States is adhering to the existing treaty limiting the yield of nuclear explosions to 150 kilotons. In return, U.S. officials hope to gain access to the Soviet test sites and make similar measurements.

Although the timing of the U.S. proposal made it look like a counteroffer, various officials stated that it had actually been under serious consideration since last October, as one of several options to enhance the verifiability of the treaty limiting nuclear test yields. "This offer, which is unconditional, is

Some weapons scientists are concerned that the Soviets could learn details of U.S. bomb design by monitoring a test in Nevada.

a unilateral step which clearly demonstrates the U.S. intention to go the extra mile," said White House spokesman Larry Speakes. "The Soviet experts are invited to bring any instrumentation devices that the Soviet Union deems necessary" to determine the yield of this test.

The delay may have been caused by resistance at U.S. weapons labs. Specifically, some weapons officials are concerned that the Soviets will take advantage of the open-ended nature of the offer and bring along equipment that could detect the details of U.S. bomb design. At present, for example, the United States ascertains test yields primarily by analyzing radiochemical samples taken from the cavern created by a blast. "If the Soviets did the same, they would learn a lot about the components of the bomb," says a senior U.S. weapons scientist. Instead, the labs want the Soviets to use a device that measures the shock waves created during a detonation.

No detailed policy review preceded the Administration's rejection of the Soviet offer. The labs were asked what tests were planned over the next 5 months, but no effort was made to calculate the cost of returning to the present schedule once the moratorium had ended. Tests of four different warheads—destined for the Trident submarine, the MX missile, new artillery shells, and a new antisubmarine weapon—would have been delayed.

Robert MacFarlane, the President's national security adviser, asserted that the Soviets had prepared for the moratorium by stepping up their own test program. Officials at the Department of Energy are not so sure, however. "If you take [an] average of the number of tests to date you will find, in a legalistic sense, they have done more tests than the average," says one official. "But the problem is that it's this time of the year that they do most of their testing because the Soviet test sites are under snow during the winter. So they are always ramping up in May, June, July, and August. You're talking about the difference of a few tests. The question you have to ask is 'So what if they did four more tests this year than last? Is that a big deal or not?'" —R. JEFFREY SMITH