

## Avoiding Nuclear War

The time has come to put much more emphasis on risk reduction and "confidence-building" measures to supplement arms control agreements, according to speakers at a 10 September congressional seminar organized by the AAAS.

Joseph Nye, director of the Center for Science and International Affairs at Harvard's John F. Kennedy School of Government, observed that there has been an "imbalance in the national debate, which has focused almost entirely on big ticket items." Ronald Lehman of the National Security Council pointed out that this is a particularly important front to push on now that a large portion of the Congress and the public has become disaffected with formal arms control agreements.

The meeting was led by David Hamburg, president of the Carnegie Corporation and chairman of the AAAS board, who noted that improved rapprochement with the Soviets "doesn't have to rely on mutual affection." He outlined four types of measures that need to be taken: improved communications to "avoid nasty surprises"; "rules of the road" such as the U.S.-Soviet Incidents at Sea agreement; clarification of vital interests in sensitive areas; and strengthening of mechanisms for information and consultation—such as the "nuclear risk reduction centers" proposed by Senators Sam Nunn (D-Ga.) and John Warner (R-Va.).

Barry Blechman, founder of Defense Forecasts, Inc., pressed the case for risk reduction centers, saying "there is no real locus in government" where people can contemplate the range of risks and options regarding nuclear war. The centers would be established in both Washington and Moscow to serve as forums to discuss issues such as nuclear terrorism and treaty compliance, to clarify American and Soviet perceptions of the role of nuclear weapons, and to serve as "supplementary negotiating channels."

Lehman, who is serving as deputy U.S. negotiator for strategic nuclear arms, offered tentative Administration support for the idea. He said that although some regard risk reduction measures as "arms control junk food" supplanting needed arms agree-

ments, the President regards the two approaches as complementary. He noted that the Washington-Moscow hot line is being upgraded and that the Accidents Measures Agreement of 1971 has been extended to facilitate communication between the superpowers in the event of terrorist or "unauthorized" use of nuclear weapons. He said the Administration favors an "evolutionary" approach to risk reduction centers, starting with a Joint Military Communications Link between the Pentagon and the Soviet Defense Ministry. The Soviets have so far resisted this idea, although Blechman reported that the Soviet general staff and Prime Minister Gorbachev responded well to overtures made by Nunn and Warner on a recent visit to Moscow.

Nye contributed some additional ideas, which are contained in the first report of his center's Project on Avoiding Nuclear War, called *Hawks, Doves and Owls* (an attempt to inject a new kind of nonpolarized, smart bird into the arms control lexicon). Its recommendations include reduction of reliance on short-range nuclear systems, improved safety devices on nuclear weapons, measures to handle "decapitation" strikes, and crisis training for nuclear decision-makers.

—CONSTANCE HOLDEN

## Congress Urged to Approve China Nuclear Agreement

The People's Republic of China will buy nuclear technology from the West Germans, French, or British, if American vendors are prohibited from selling there. Although there is concern with the lack of specificity on safeguards in the proposed "Agreement for Nuclear Cooperation" proposed by the Reagan Administration on July 23, there is little point seeking further written assurances. The United States, Administration officials say, cannot prevent the Chinese from acquiring the technology.

That was the message delivered by witnesses appearing on 12 September before a special House commerce subcommittee on U.S.-Pacific Rim Trade. This position was largely supported by an interim report issued by Congress' Office of Technology As-

essment. Alan T. Crane, OTA's project director, notes that the technology transfer resulting from dealing with U.S. companies would not be appreciably different from that derived by trading with the French, Germans, British, or Japanese. These countries, Crane notes, in many instances use American technologies under license.

"China has much to lose in future technical assistance and good will," if it applies imported technology to military projects or assists nonnuclear states in developing weapons, says Tao-tai Hsia, Chief of the Library of Congress' Far Eastern law division. Although China has taken a strong stand against nuclear proliferation only in the last 2 years, Hsia asserts that the country is likely to display greater concern in the future.

The Chinese government's refusal to accept International Atomic Energy Agency (IAEA) inspection on imports of U.S. technology needs to be understood in the context of internal political pressures and the country's maturation within the international community, he says. While China as a member of IAEA allows the international safeguards to be imposed on its dealings with nonnuclear countries such as Brazil, Argentina, and Japan, it does not feel compelled to open up its own facilities for inspection because it is already a weapons state.

But members of the Senate Foreign Relations Committee (*Science* 23 August, p. 737), which is scheduled to examine the agreement on 9 October, are concerned about the precedent the China agreement may set. House members also have argued that the vague language of the China agreement may make it impossible to impose tougher standards on nonnuclear nations in the future.

Congressional endorsement of the Agreement for Nuclear Cooperation must come soon if American firms are going to have a shot at the Chinese market, says James R. Phillips, the Commerce Department's deputy assistant secretary for capital goods and international construction. Framatome of France, KWU of West Germany, and GEC of Great Britain have been negotiating for years with the Chinese on two units to be located at Daya Bay and two slated for Sunan.

"It is paramount that U.S. service-related firms be allowed to operate in China at the earliest opportunity,"