

# Negotiators Report No Progress at Arms Talks

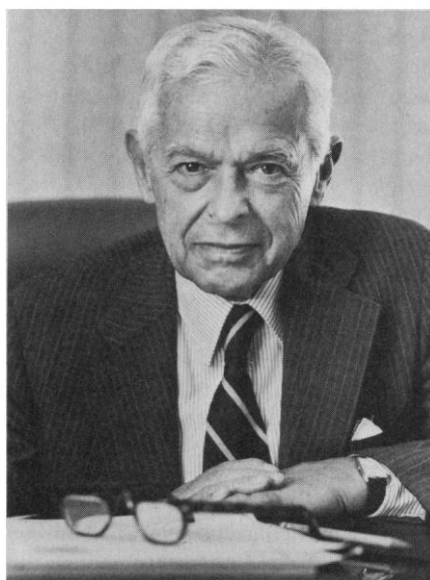
*Recent accounts of round 1 in Geneva indicate that the superpowers are even further apart than expected*

The first round of negotiations between the United States and the Soviet Union on strategic and space weapons, which concluded on 23 April, was utterly unsuccessful, according to recent statements by officials from both countries. Instead of engaging in substantive discussions of arms constraints, the delegations expended virtually all of the session inconclusively debating the aim of the talks. Neither side addressed the principal concerns of the other and each departed with a conviction that the other had bargained in bad faith.

These accounts, made public just before the opening of the second round on 30 May, indicate that the participants are even further apart than previously disclosed. At present, there is no consensus on the agenda for the negotiations, much less on what a treaty might actually contain. There is no consensus on the meaning of such fundamental terms as "arms race" and "space arms." And neither side is willing to abide by a pledge of confidentiality about the talks, thereby averting undue plays for public opinion. As Secretary of State George Shultz said when the first session drew to a close, "I think the likelihood of anything coming out of Geneva in the near future is—I wouldn't say that it's nil—but it's not likely, particularly since we really haven't gotten down to business yet."

Although there are sharp differences between the two sides on several strategic weapons systems, contrasting views on the U.S. effort to develop a comprehensive missile defense, popularly known as "Star Wars," appear to be the central obstacle to progress. To the Reagan Administration, the effort offers an unprecedented opportunity to shield the United States from Soviet attack and must not be constrained if promising technology is to be fully explored. As a senior Administration official told reporters at a background briefing on 30 April, no limitations on the program can even be discussed "until one knows" which defensive technologies will work, a circumstance that will not arise for another 10 years or so. In the meantime, an agreement can be concluded sharply limiting strategic and theater nuclear offensive weapons—which can potentially be used to overwhelm defensive technologies, after all.

Soviet priorities are exactly opposite. As Defense Minister Sergei Sokolov indicated in *Tass* on 4 May, the Soviets' central fear is that "Star Wars" will result in deployment of a shield that could sharply limit the effectiveness of their strategic weapons, thereby rendering them vulnerable to nuclear blackmail. Consequently, they have asked for a mutual moratorium on all "Star Wars" research, to be followed by immediate negotiations on permanent research constraints. Otherwise, they say, no agreement is possible on reductions in offensive strategic and theater weapons.



**Paul Nitze**

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To the Administration, as well as the bulk of the arms control community, a ban on research, as opposed to testing, is clearly an unworkable proposal. "It is difficult to see how one could effectively or verifiably ban research," explained senior U.S. arms control adviser Paul Nitze in a speech before the National Press Club on 1 May. "It would be impossible to monitor the actions and thoughts of all the scientists and technicians in the research institutes and laboratories in every country of both alliances." The Soviet delegation, led by Victor Karpov, has not officially specified how such constraints might be implemented. But unofficially, members of the delegation suggested that both gov-

ernments sharply reduce or eliminate the research budget allocations. And Soviet Foreign Minister Andrei Gromyko, in an interview on Moscow television shortly before the talks began in March, suggested that constraints be imposed on observable tests at "proving grounds" next to laboratories, wherever such laboratories may be. "This is clearly a non-starter for us," says a member of the U.S. delegation. "We presume it's just their opening position."

Significantly, each side has accused the other of failing to abide by an agreement signed by Shultz and Gromyko in January, which ostensibly set the negotiating agenda. Somewhat ambiguously, it commits both sides to talks "aimed at preventing an arms race in space and terminating it on earth," embracing "a complex of questions concerning space and nuclear arms . . . with all the questions considered and resolved in their interrelationships." Focusing primarily on the last phrase, the United States has asserted that the Soviets have improperly emphasized constraints on space arms at the expense of any limitations on strategic and theater nuclear weapons. Pointing to the first phrase, the Soviet Union has attacked the United States for refusing even to discuss "Star Wars" limitations.

The U.S. delegation, chaired by Max Kampelman, has defended its position by asserting that "Star Wars" missile defenses will not create a space arms race so long as the pace of the deployment is agreed upon by both sides. "The term 'arms race' connotes a runaway competition between two sides, with each side piling weapon upon weapon in an unbridled manner," Nitze says. "What we propose is just the opposite—a stable transition to greater reliance on defensive systems, should new technologies prove feasible, managed jointly by the United States and the Soviet Union. Defenses would be introduced at a measured pace, in conjunction with progressively stricter limitations and reductions in offensive nuclear arms."

A member of the delegation adds that "an analogy we've used internally is the proverbial warning of Smokey the Bear: Prevent Forest Fires. This doesn't mean 'prevent all fires.' It doesn't even mean 'prevent all fires in forests.' It means 'prevent raging, runaway fires,' and this

is what we hope to do by reaching an agreement with the Soviets on the details of this transition." The Soviets say this is just a rhetorical trick and note that they are not being offered a veto over the deployment; Nitze and others acknowledge that if an agreement proves impossible, the United States could proceed on its own.

During the first round, the U.S. delegation was willing to negotiate only the method by which existing SALT I constraints on missile defenses might be amended, not the amendments themselves—to talk, in short only about future talks, not about substantive "Star Wars" limitations. A concerted effort to lure the Soviets away from this topic by hinting at the prospect of substantial concessions in strategic and theater nuclear weapons largely failed, according to the senior official who briefed reporters. Included among these concessions

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are tight limits on air-launched cruise missiles, in which the United States enjoys a substantial technological advantage; a tacit understanding that the United States would deploy fewer intermediate-range ballistic missiles in Europe than the Soviet Union; and a willingness to drop any direct limitations on "throw-weight," or total missile payload capacity, where the Soviets now maintain a substantial advantage.

The Soviets failed to take this bait, however, and said little about the U.S. offensive weapons proposals and virtually nothing about their own. By the end, only disappointing clues had emerged: The Soviets wanted tougher constraints on U.S. cruise missiles and intermediate-range aircraft and looser limits on SS-20 ballistic missiles than they had been willing to accept during the negotiations that adjourned in 1983. In general, however, when the United States tried to "sort out each one of these sub-issues," as Nitze put it, the Soviets wanted to discuss only broad concepts, primarily in one area.

Ultimately, the U.S. delegation attempted to force discussion of offensive weapons by defining "space arms" so as to include ballistic missiles, which pass through space and have an inherent capability to destroy satellites. But the

Soviets resisted, and spoke only of "strike space weapons," designed to hit objects in space or from space. They claimed that such weapons are under development only in the United States, and proposed their total abolition. But the United States objected that Soviet research is indeed under way and that anyway it is a weapon's capabilities that matter, not what the designers have in mind. In addition, the delegation said that adequate verification of such a ban would be impossible. There was no discussion of a space weapons test ban favored by many independent arms control experts, and no further progress was made.

Although the Administration is holding its cards extremely close in advance of the second 6-week round, no substantial movement is expected. This is due in part to a widespread conviction within the Administration that the Soviets are not bargaining seriously, and may not be interested in a comprehensive agreement. "What is the point of suggesting concessions from our side if there are no concessions going to come forward from their side?" the senior official told reporters. Some expect progress if Gorbachev gives a speech at the United Nations this fall, and meets with Reagan afterward. But no firm commitment to such a meeting has been made on either side.

The wild card is public opinion, particularly in Western Europe. Nitze believes that the Soviets' principal strategy is to undercut support for the United States through "a hard-nosed propaganda campaign," thereby forcing a one-sided outcome. In particular, he believes that they will attempt to hold an agreement on offensive weapons—which interests the Europeans a great deal—hostage to a resolution of the space weapons issue on their own terms. "Until they realize that their propaganda campaign is not working—that is, that U.S. concessions will not be made unilaterally—the Soviets will not be prepared to negotiate seriously," he says. But neither he nor Administration officials are willing to predict with confidence that the Europeans will side with the United States, as they did in the dispute over the Pershing II and ground-launched cruise missile.

"If it turns out that we have to go for a few more years without a formal agreement limiting offensive nuclear weapons, that is undesirable," Nitze pointedly told the London-based International Institute for Strategic Studies last March. "But let us not panic; we have been living with that situation for some years."

—R. JEFFREY SMITH

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## Illinois Traces Cause of Salmonella Outbreak

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A cross-connection involving a cluster of valves may have linked bacterially contaminated milk and pasteurized milk at an Illinois dairy and caused the nation's worst epidemic of salmonella poisoning, according to a report released on 7 May by investigating authorities. For more than a month, investigators have been probing Jewel food stores' enormous Hill-farm dairy plant near Chicago to try to pinpoint a plausible cause (*Science*, 17 May, p. 829).

The investigative task force, composed of federal, state, and dairy officials, says that they were unable "to reconstruct an unbroken chain of probable events" that led to milk contamination on 20 March, 30 March, and 8 April. But the cross-connection is "the most likely source" of the contamination of the first two episodes, they reported.

The cross-connection was suspected early on as the source, but was disconnected before the contamination occurred on 8 April. As a result, investigators have been puzzled about the chronology of events.

Here is what they speculate happened. In the dairy's 400 miles of stainless steel pipes and hundreds of valves, there is one small section with two air-pressure valves. These two valves—not three as originally reported by a state health official—separate raw milk from pasteurized milk. The valves in this transfer line are normally closed to keep the two milks separate but opened when the whole processing system is regularly cleaned.

Investigators repeatedly subjected these valves to pressure testing with bright red dye, and each time the system worked properly. Then, in one more run of the same test they observed that leaching could have occurred between the two milk lines. Investigators found that when they simulated the flow of milk by pumping clear water through the pasteurized milk line and dyed water through the raw milk line, the air pressure in this section of pipe reversed and became negative. "A mixture of clear and colored water was observed," the report says. The investigation further revealed that milk can sit in this piece of