

First Question in Geneva: What Numbers to Use?

President Reagan announced on 18 November his "zero option" proposal for eliminating nuclear-tipped missiles from Europe, and 2 weeks later talks between the Soviets and the United States began in Geneva. Reagan has asked the Soviets to remove all intermediate-range missiles in return for a promise from America not to deploy its own advanced Pershing and cruise missiles. Although the Soviets proclaimed that they were skeptical, they nonetheless entered into formal negotiations to reduce the nuclear arms buildup in Europe.

Several obstacles must be cleared away before the talks can begin to make any progress. One disagreement that will cause trouble has to do with the concept of parity. American negotiators insist that parity exists when U.S. and Soviet forces are in balance, but the Soviets argue that parity exists when Soviet stockpiles are roughly equivalent to the combined inventories of all potential enemies.

More fundamental than this, however, is the disagreement on how to count weapons. As the staff of the Arms Control Association (ACA) in Washington pointed out last month, the U.S. and Soviet governments cannot agree at this time on what they are negotiating about. Each side has a different method of calculating its forces; as a result, no one can say for certain how many intermediate-range nuclear launchers are stockpiled. To

Medium-range nuclear launchers in Europe: five estimates. [Source: Arms Control Association]

	United States/ NATO	Soviet bloc
Reagan*	560	3825
Brezhnev†	986	975
IISS‡	826	1577
Economist§	864	2442
Air Force Magazine¶	769	1118

*State Department, November 1981. †Der Spiegel, 17 October 1981. ‡International Institute of Strategic Studies, *The Military Balance 1981-1982*. §17 October 1981. ¶March 1981.

illustrate "Why the Geneva talks will be tough," the ACA put together five estimates of the number of nuclear launchers (including bombers) now deployed by NATO and Warsaw Pact members. As this summary makes clear (see Table), the negotiators will have to wage a major battle over definitions before they begin to work on the terms of the agreement.

—Elliot Marshall

145 Congressmen Oppose Solar Research Cuts

"There will be significant bipartisan opposition to any effort to wipe out funding for important solar and conservation programs," Representative Richard Ottinger (D-N.Y.) announced on 21 December, releasing the text of an angry letter he sent to President Reagan that day. Details of some of the proposed cuts in the Department of Energy (DOE) budget had leaked earlier from the Office of Management and Budget (*Science*, 8 January, p. 148).

The leaked information shows, according to Ottinger, that the Administration plans to request \$22 million for energy conservation programs, \$81 million for renewable energy, and \$870 million for nuclear fission.

Ottinger, chairman of the House subcommittee on energy conservation and power, joined with New York Republican Hamilton Fish in drafting the letter of protest. They persuaded 143 other congressmen to endorse it. Their message said, in part: "We are most disturbed that the Administration appears once again to be pursuing a lopsided, inconsistent energy policy which literally decimates every element of DOE's energy research and grant programs except for nuclear. In fact, the nuclear energy budget alone comprises more than 80 percent of the proposed total DOE budget for energy technologies in fiscal year 1983. . . ." The signers say they will not approve cutbacks in funding for nonnuclear projects.

A spokesman for the DOE says the department will have no comment until the DOE budget comes up for congressional review in February.

—Elliot Marshall

Yale Professor Refuses to File Effort Reports

Serge Lang, a professor of mathematics at Yale University, has put his research grant on the line in protest over federal regulations that require recipients of government grants to report in detail how they spend their time. Lang, who has long been an outspoken campaigner against the regulations, has applied for renewal of his grant from the National Science Foundation (NSF), but he has told Yale authorities that he will not abide by the reporting requirements if the grant is awarded. Yale, which would be legally responsible for the grant, may not be able to accept an award under those conditions.

Lang is believed to be the first researcher to flatly refuse to sign so-called effort reports, which are required by the Office of Management and Budget (OMB) under recently revised regulations known as A-21. The regulations have drawn loud protests from the academic community. Lang, who argues that the effort reports fulfill no meaningful accounting function but represent unwarranted bureaucratic control over academic research, proposes instead to sign a statement that says: "I certify that all expenditures reported herein have been made in accordance with the appropriate purposes set forth in the application and award document."

Lang's decision puts Yale in a difficult position. After much deliberation, Deputy Provost Charles Bockelman forwarded the application to NSF with a covering letter to NSF Director John Slaughter asking that the proposal be reviewed in the normal way. "If an award is granted, the university must then decide to accept or decline it, bearing in mind the strictures of the award document and its reference to the then current A-21," the letter states. Bockelman says, however, that in his opinion Yale would have no option but to decline the grant unless the A-21 rules are changed before it is awarded.

OMB is now in the process of revising the A-21 rules, and its proposed changes will be published in the *Federal Register* in late January. It is not expected to eliminate the reporting requirements. —Colin Norman