



Victor Weisskopf (right) presented a statement from the Pope to President Reagan on the dangers of nuclear war. At the center is the President's Envoy to the Holy See, William Wilson.

Baltimore said that Government policy does not seem to recognize adequately the enormous distinction between conventional weapons on the one hand and nuclear weapons, both tactical arms and bombs, on the other.

Reagan agreed that prevention of nuclear war is extremely important but added that negotiations must be carried out from a position of strength, which he said the US lacks in relation to the USSR today.

According to Weisskopf, the visit lasted about 15 minutes. The President did not ask the delegates to sit down. Weisskopf reported that delegations that visited Margaret Thatcher, François Mitterand, and Leonid Brezhnev were given longer meetings, and in France and the USSR, more cordial receptions. Brezhnev, says Weisskopf, related that the Soviet Government, for the first time recognizing the Vatican, was willing to work further with it on this issue.

The Pontifical Academy of Science was founded centuries ago to advise popes on scientific matters. Composed of 70 scientists from all over the world, only a few of whom are Catholic, it ordinarily meets every two years to take up broad topics such as genetic engineering and cosmology. It also sets up study weeks and working groups to investigate immediate problems with the aid of experts.

The Academy has been particularly active during recent years owing to the Pope's interest in it and the leadership provided by Carlos Chagas, a Brazilian

medical biologist, Weisskopf told us.

At the Pope's request Chagas convened the present working group of about a dozen scientists in the spring of 1980 to discuss the consequences of nuclear war and to offer the Pope suggestions for statements and actions. There have been several meetings, including the one in October 1981 that focused on the medical consequences of the use of nuclear weapons. Among the participants, in addition to Chagas, Weisskopf and Hiatt, were Edoardo Amaldi of the University of Rome, Louis Leprince-Ringuet of the Ecole Polytechnique in Paris, Alexander Rich of MIT and Alexander Leaf of Harvard. The content of the discussion was transmitted to the Pope, who decided to ask the heads of government of the four nuclear powers to receive delegations to present the statement of the Academy.

The statement begins by pointing out that

Recent talk about winning or even surviving a nuclear war must reflect a failure to appreciate a medical reality: Any nuclear war would inevitably cause death, disease and suffering of pandemic proportions and without the possibility of effective medical intervention. That reality leads to the same conclusion physicians have reached for life-threatening epidemics throughout history: Prevention is essential for control.

In contrast to widespread belief, much is known about the catastro-

phe that would follow the use of nuclear weapons. Much is known too about the limitations of medical assistance. If this knowledge is presented to people and their leaders everywhere, it might help interrupt the nuclear arms race.

After the statement quotes an eyewitness to the bombing of Nagasaki, it continues:

The suffering of the surviving population would be without parallel. There would be complete interruption of communications, of food supplies and of water. Help would be given only at the risk of mortal danger from radiation for those venturing outside of buildings in the first days. The social disruption following such an attack would be unimaginable.

The exposure to large doses of radiation would lower immunity to bacteria and viruses and could, therefore, open the way for widespread infection. . . .

Our knowledge and credentials as scientists and physicians do not, of course, permit us to discuss security issues with expertise. However, if political and military leaders have based their strategic planning on mistaken assumptions concerning the medical aspects of a nuclear war, we feel . . . we must inform them and people everywhere of the full-blown clinical picture that would follow a nuclear attack and of the impotence of the medical community to offer a meaningful response. If we remain silent, we risk betraying ourselves and our civilization.

The statement concludes with that appeal. —DG

in brief

The National Science Foundation has published *Federal Funds for Research and Development, fiscal years 1979-81, vol. 29, NSF 81-306*. Single copies are available without charge from NSF, Division of Science Resource Studies, Washington, D.C. 20550.

AIP has published *Physics Goes Public*, a 33-page guide to providing science public information. The authors, Audrey Likely and David Kalson of AIP's Public Information Division, explain how to issue a news release, run a news room or publicize a discovery. The guide is available for \$1.25 (\$1 for ten or more copies) prepaid from the Division.

The Council of Engineering and Scientific Society Executives has elected AIP Director H. William Koch to be vice-president for 1981-82. □