

NEWS IN BRIEF

● **DDT IN THE DOCK:** A statewide ban on the use of DDT in any circumstance where it would pollute the "biosphere" is a possible result of hearings begun this week in Madison, Wisconsin. The Wisconsin Department of Natural Resources, which is conducting the hearings, has authority to ban the outdoor use of DDT where it would adversely affect fish and other wildlife. The hearings were requested in a petition from a citizens' group, but a scientific case against DDT is being made by the Environmental Defense Fund (EDF), a national organization of scientists concerned about pollution. EDF sees the Wisconsin case as an opportunity to set a national precedent on pesticide uses.

● **COLUMBIA LABS SHUTDOWN:** Columbia University plans in June 1969 to shut down Hudson Laboratories, a 17-year-old defense-supported underwater acoustics research center, which provides the Navy with information for antisubmarine warfare research. The Navy, which terminated its support of Hudson labs, told *Science* that it plans to reduce all classified work at colleges and universities and to rely on its own facilities; its acoustics research will be continued at the Naval Research Laboratories in Washington. Columbia University officials, who say the university cannot afford to keep the labs open by itself, also commented to *Science* that Columbia administrators "were edgy about doing this type of work" in light of student antimilitary demonstrations on campuses last spring. Since 1951, Columbia has relied almost totally on the Office of Naval Research to provide funds (\$4.8 million in 1968) for the Hudson labs, located near Dobbs Ferry, N.Y.

● **NOISE RESEARCH:** A report on noise shows that the federal government spent about \$11 million for research on noise abatement and control in 1968. (The estimated 1969 expenditure is \$25 million.) "Noise—Sound without Value," prepared by the Federal Council for Science and Technology, discusses the relation between noise and health, recommends steps for future noise control research; it may be obtained for 60 cents from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C.

trol specialists, if the United States and the Soviet Union fail to reach agreements taking advantage of the rough parity or balance of forces currently existing, the arms race may enter a dangerous and enormously costly new phase, of which the antiballistic missile is the harbinger.

The Soviet Union already has an ABM system deployed around Moscow, although this deployment, it is reported, is rather limited and is not now being extended to other cities. The United States also has decided to deploy an ABM system, one which, though described as a "thin" area-defense system designed to counter an eventual Chinese missile threat, could be expanded into a system intended to meet a Soviet attack. Nixon has indicated he favors a deployment oriented toward the Soviet threat.

In a speech in October, William C. Foster, director of the U.S. Arms Control and Disarmament Agency (ACDA), observed that, because the effectiveness of an adversary's defensive missiles cannot be precisely determined, there will be a tendency to compensate by procuring excessively large forces of offensive missiles. Some arms-control specialists worry, too, that, if large ABM systems are developed by the U.S. and the U.S.S.R., in times of crisis each nation may suspect the other of planning to strike first.

Military technology's most emphatic answer to the ABM is the multiple warhead, or "MIRV" (multiple independently targetable reentry vehicle), which is under development by both the United States and the Soviet Union. MIRV's can be launched from underground silos such as those from which U.S. missiles carrying single warheads would now be fired. Consequently, if an adversary deploys MIRV's, the task of judging the size of his missile force becomes much more difficult. Moreover, the accuracy of the MIRV reportedly will be such that these weapons, if either or both sides should possess them, might conceivably provide an incentive for one or the other party to attempt a preemptive first strike against his adversary's offensive missile forces.

Arms-control specialists tend to believe that Nixon will find the Soviets genuinely interested in curbing the arms race and its huge budgetary demands. The Soviet gross national product is less than half that of the United States, and, far more than is the case in the U.S., arms are produced at the ex-

pense of consumer goods. Further, as one official says, "I think the Russians are afraid we will start on a new round of strategic programs in a post-Vietnam-war period, and that, once these are begun, we might not be willing to negotiate arms control agreements." Persuading the Russians, with their long-standing aversion to foreign intrusion, to accept a missile-limitation treaty providing for on-site inspections is expected to be difficult; but for some agreements, existing intelligence techniques, such as the use of reconnaissance satellites, might be deemed an adequate safeguard against cheating.

Some officials in the outgoing administration say that the Nixon administration, faced with the urban problem and other costly domestic needs, will be no more immune from budgetary pressures than the leaders in the Kremlin are. It will not be long, these officials predict, before Nixon and his advisers see the logic of the situation: either arms-limitation agreements will be negotiated or the lid will be off the defense budget, to no purpose. "Superiority is not a real alternative," one official says. "At best you're on a kind of see-saw; first you're up, then down, and all the while arms costs are spiraling."

Nixon will inherit an elaborate set of policy-making machinery in the arms-control field. First, there is ACDA, a small, semiautonomous agency of about 200 employees situated within the Department of State. ACDA represents the U.S. in the annual round of arms-control talks at the Eighteen-Nation Disarmament Conference in Geneva and serves as the government's in-house lobby and center of initiative for arms control.

Though not as bold and aggressive as some arms-control advocates would like, the agency has tried to press the arms-control point of view, even when this conflicted with political or military objectives sought by potent forces within other agencies. For example, at one time ACDA was pressing hard for the nonproliferation treaty, against the desires of State Department people who were promoting the so-called "multilateral force" proposal to establish a nuclear-sharing arrangement in which NATO's nonnuclear powers could join.

The U.S. negotiating position for the prospective missile-limitation talks was not, of course, prepared by ACDA alone. It was developed, subject to President Johnson's approval, within the in-