It is gratifying that in such troubled times it proved possible for 48 scientists from 11 countries to meet in a friendly atmosphere and to examine together carefully the dangers which face the people of the world.

During the previous week the Seventh Conference, devoted to international cooperation in science, had outlined many important areas where cooperative action would be scientifically productive as well as effective in improving international understanding. In this Eighth Conference, a wide range of topics was discussed in plenary session, in separate working groups, and in private conversation.

The subjects of study which related in one way or another to the problems of attaining stable peace, world security, and general and complete disarmament included: cessation of production of fissile materials for military use and destruction of military nuclear stockpiles; elimination and control of means for weapons delivery; demilitarization of outer space; interdependence of international political settlements and disarmament; nuclear weapons tests; military disengagement, and creation of demilitarized and atom-free zones; international security forces; methods of settlement of international disputes; rules of peaceful coexistence; organization and control and inspection over disarmament; and conditions for creating trust and confidence among nations.

A variety of individual views was expressed. These were often quite divergent but were explored in a frank manner. The participants found the discussions helpful in clarifying points of view, and common understanding was reached on a number of important issues. We hope this will open important avenues for constructive action.

The participants of the conference are united in the realization of the danger of unleashing a nuclear war, which would cause untold destruction and bring death to innumerable people. We hope that the desire for peace and the revulsion against war, which are shared by all peoples, will make possible a peaceful resolution of the conflicts which have led to the present deterioration of the international situation, and make possible the attainment of complete and universal disarmament and the establishment of stable peace on earth.

In the present crisis we reaffirm our belief in the general principles enunciated in the Vienna Declaration of September 1958.

This meeting kept open a much-needed informal channel of communication among scientists concerned with the future of civilization.

For this reason it is hoped that similar conferences will be convened by the Continuing Committee at suitable intervals in the future. In addition, plans have been made to form continuing unofficial East-West study groups in order to devote more detailed attention to problems of the nature of those considered at the present conference.

The National Academy of Sciences and the American Academy of Arts and Sciences were hosts to this as well as the preceding conference. Both conferences were organized by the United States Organizational Committee under the aegis of the International Continuing Committee of these conferences.

The following did not join in the resolution: R. R. Bowie, Donald Brennan, Amrom Katz, Henry Kissinger, and Leon Lipson.

The following were absent during the discussion of the statement: Sir John Cockcroft, Trevor Gardner, Charles Lauritsen, and I. Rabi.

# Science and the News

## U.S. Disarmament Plan: It Puts Inspection in First, Rather than Third, Stage

History records numerous attempts by hostile nations to reach disarmament. These searches for the "Holy Grail" have been futile, largely because those setting out on the quest have invariably sought to restrict or eliminate the best weapons of the enemy. "One's own weapons never threaten the peace; they are defensive in character," as William R. Frye wrote in the arms control issue of *Daedalus* last fall.

The present chapter in this history opened in the wake of World War II and the introduction of nuclear weapons. These weapons, their subsequent proliferation, their ease of being hidden plus the development of high-speed delivery systems such as missiles, and the interrelation of these factors have enormously complicated the disarmament situation until now the goal poses not only political but highly difficult technical problems. The latest entry in the chapter was made last week when the United States, following the Soviet nuclear test resumption that has brought the world to "thirty minutes from Armaggedon," presented at the United Nations its most detailed and comprehensive proposal to date for "complete and general disarmament."

To appreciate that proposal, some knowledge of background to disarmament is necessary. Disarmament attempts since World War II have gone through three periods. First, in 1946, the U.S. proposed control of atomic energy. Second, in 1952, a United Nations Disarmament Commission was created and worked on and off for a couple of years. Neither got anywhere.

The third period began in 1955 with general disarmament talks. Since then there have been negotiations with the Soviets on limited disarmament measures, such as the nuclear test ban and reducing the danger of surprise attacks; and in March 1960 on broad disarmament again in a ten-nation (five Communist, five Western) conference under U.N. sponsorship. Within a few months, however, in the aftermath of the U-2 flight and the Paris summit break-up, the conference collapsed, and it has been in recess for 16 months. At this writing, despite the new U.S. proposal and an agreement in principle on disarmament ideals between the Soviet Union and the United

States, the conferees have not agreed on terms for reopening the discussion.

Proposals and counter proposals were put forth during each of these periods. The most detailed of them was made by Premier Khrushchev at the U.N. in 1959. It was quickly dismissed, sometimes with ridicule and satire; but Jerome B. Wiesner, now President Kennedy's science adviser, has described it as "indeed more imaginative than any proposed by responsible leaders of a major nation in the postwar period," and that included the Anglo-French plans of 1954–55.

To be sure, Khrushchev's program had holes in it unacceptable to the West, Wiesner wrote in *Daedalus*. It recognized the need for inspection to verify any disarmament program, but only after extensive disarmament had occurred. It called for an "international control organ" but no supranational security force to maintain the peace after disarmament. The inspection position points up the basic split between the Soviets and the West on disarmament: they want a minimum of inspection, fearing espionage; the U.S. wants a maximum of inspection, fearing surprise attack.

### Soviet Plan

Khrushchev's was a three-stage program to be carried out in a 4-year time span, with each stage to be verified as having in fact been effected before proceeding to the next. The stages were:

1) Reduction of armed forces and the weapons at their disposal. The U.S., the U.S.S.R., and Red China would cut their forces to 1.7 million men, Britain and France to 650,000, and so forth; and the amount of arms in the retained forces would be frozen at present levels.

2) Dissolution of all armed forces and overseas bases.

3) Destruction of nuclear weapons and missiles and air forces; creation of a force to stop production of chemical and bacteriological weapons and destroy existing stockpiles; prohibition of research and development on weapons; establishment of an international control agency to supervise carrying out this program, the agency to "have free access to all objects of control" but only "upon completion of general and complete disarmanent."

Wiesner gives several reasons why this and previous plans never went anywhere. For one, "a serious communication block" which saw proposals "evaluated not in terms of intended meanings but rather in terms of the most threatening alternatives." For another, lack of sincerity on both sides in attempts to reach agreement. Finally, lack of preparation; the Americans "had very inadequate technical preparations to support them in the discussions" plus "a lack of any definite national position" on both general and limited disarmament. And the Russians were no better, and sometimes less well, prepared. "Up to the present (Fall, 1960), there has not been adequate examination of the technical details of any comprehensive system to make possible a really satisfactory evaluation of it," Wiesner concluded.

### United States Proposal

Since then, presumably, this situation has been corrected by thorough studies. The result is the new U.S. proposal. The plan effectively runs together into the first stage of disarmament all of the important steps. In particular, the first and third stages of the Soviet scheme, greatly expanded, are telescoped into the first stage of the U.S. proposal. The U.S. stages II and III call for a "further reduction" in the disarmament already begun.

Stage I calls for establishing a disarmament organization to verify the program, with a single administrator under a board of commissioners of the major powers and neutrals; reducing the armed forces (U.S. and U.S.S.R. levels at 2.1 million, less for other nations); destroying excess arms and limiting arms production; setting up a commission of experts to reduce and eliminate chemical, bacteriological, and radiological weapons; stopping production of fissionable materials and transferring existing materials to peaceful uses; setting up a commission of experts to find and eliminate nuclear stockpiles; reducing strategic delivery vehicles for nuclear weapons to "agreed levels"; destroying or converting the rest of the vehicles to peaceful uses; discontinuing or limiting the production and testing of weapons to counter the strategic vehicles; prohibiting the orbiting of weapons of mass destruction; setting up a U.N. Peace Force; and so forth.

The "logical place to begin" is with a nuclear test-ban treaty, President Kennedy said. He asked for an agreement to stop fallout-producing tests in the atmosphere "without inspection or controls" (the Soviets quickly rejected it); and warned that the U.S. cannot endanger itself with "another long, uninspected ban on testing" of all types.

(For the moment, the U.S. is set against merging the test-ban talks with general disarmament negotiations, fearing the former would be submerged in the existing morass. However, it probably cannot long maintain this position, with the moratorium collapsed and the talks indefinitely recessed.)

The thinking behind the U.S. proposal, if Wiesner's article reflects it, comes from two convictions. First, comprehensive arms control measures will gain acceptance more easily and may require no more inspection of Soviet territory than individual, limited measures. Thus strategic delivery vehicles and nuclear weapons are part of the first stage of the plan. The interrelationship of these two systems allows acceptance of less certainty in verifying the stockpiles of either one.

Second, Wiesner states that "a mutually agreed-upon stable deterrent system"—both powers would have enough missiles with nuclear warheads to be certain they can retaliate successfully—"could provide the basis for comprehensive disarmament because it provides a means of reconciling the Soviet reluctance to permit inspections and the Western fear of clandestine weapons." The arms race in these weapons would stop; disarmament in general could go forward. Neither side would have to trust the other; both are assured adequate forces to strike back.

Soviet reaction to the U.S. plan was not favorable. The Russians insist on bringing the nuclear test-ban deliberations into the general disarmament talks. They want neutrals included in the ten-nation disarmament conference (the U.S. will probably go along). They reject control during the first stage of disarmament. Finally, they insist on "troika" administration, in effect a veto power, over the control agency, over the number and destination of its inspectors, and its other functions.

A U.S. offer at the closing sessions of the Geneva test-ban talks may again be put forth in disarmament talks on the "troika" issue. It would give the board of commissioners power to dismiss the single, neutral administrator of the control agency. It was not acceptable then to the Soviets; chances are it will not be acceptable now.

Unless radical changes are made in the Soviet stand, little real progress can be expected, a high Pentagon official said pessimistically. However, an equally "high" official, this one in the

President's official family, was optimistic. Reaction to the newly accelerated arms race will provide some positive force toward an agreement, he said. But beyond that he was hopeful because, in his unquotable words, you have to be to get anywhere on the problem. Disarmament will come, he felt certain. The question is whether it will come about before or after World War III.—ROBERT TOTH.

*While Howard Margolis is on vacation, his section will be written by guest reporters. Robert Toth, this week's guest, is on the staff of the New York* Herald Tribune.

## U.N. Specialized Agencies: With Few Exceptions, They Are Unaffected by International Political Storms

The turmoil that currently afflicts the United Nations' political organs has had few repercussions in the U.N.'s numerous scientific and technical agencies.

In contrast to the pessimism and uncertainty that envelop the General Assembly and the Security Council, an atmosphere of business as usual exists in such specialized agencies as the United Nations Educational, Scientific and Cultural Organization and the Food and Agriculture Organization. While these and many of the other specialized agencies are closely associated with the United Nations, they are organically and to a large extent financially independent.

Membership is on a voluntary basis, open to nations regardless of whether they belong to the U.N. West Germany, for example, is not a U.N. member, but belongs to virtually all U.N.-associated agencies. The Soviet Union and most Eastern Bloc nations have not chosen to join FAO—presumably to shield agricultural deficiencies from Western eyes. However, the U.N. dues of these nations help provide U.N. supplemental funds for the FAO budget, and FAO has been carrying out its work beyond the range of political shock waves.

Of particular significance for the various agencies' immunity from international strife is the fact that their programs rarely touch raw nerves in the East-West conflict. When they do, however, the possibilities for effectiveness become extremely limited.

UNESCO, with a current biennial budget of $32,514,228 of member funds, plus over $23 million in funds provided by the U.N., has given priority to primary education in Latin America, arid land research, and the promotion of cultural understanding between the Orient and the Occident. These programs step on no one's toes and in many respects parallel foreign-aid efforts by both the Soviet Union and the United States. UNESCO sources say they are being carried out free of the turbulence now buffeting the political bodies of the U.N.

The political weather around the International Atomic Energy Agency is in sharp contrast. The agency, founded in 1957 on the basis of President Eisenhower's atoms-for-peace proposal, has experienced slow growth because of delays in reactor development and East-West differences over nuclear inspection. Last week, in the detailed U.S. disarmament plan issued after President Kennedy's U.N. address, it was proposed that the IAEA exercise safeguards over the international transfer of fissionable materials. In addition, as was pointed out in the New York *Times* several days later, the U.S. was close to completing a bilateral agreement with IAEA for inspection of the experimental reactors at Piqua, Ohio, and Argonne National Laboratory, and of the graphite and medical research reactors at the Brookhaven National Laboratory.

The object of the disarmament proposal and the inspection agreement, according to an American spokesman at the U.N., was to elevate IAEA's standing as an agency for implementing nuclear control agreements, and to establish for it a role as an international instrument for inspection. The proposal for an IAEA role in the East-West dispute over implementation of an arms agreement set the agency at once apart from the political placidity common to most of the other U.N. agencies.

### Vienna Meeting

At IAEA's general conference in Vienna, Vasily S. Yemelyanov, head of the Soviet Atomic Energy Authority, warned against attempting to extend the scope of the agency. He charged that the United States is attempting to use the agency for political purposes, and opposed any steps designed to turn the agency into an instrument of arms control.

While Yemelyanov apparently was reacting to the prospect of IAEA being thrust into the touchy area of nuclear inspection, American delegates were optimistically announcing progress in Soviet-American discussions on joint construction of a gigantic nuclear accelerator. The motivation for these discussions was the desire to share knowledge and costs.

As in the cases of UNESCO, FAO, and other agencies, East-West cooperaton finds fertile ground outside the boundaries of Cold War interests.—D.S.G.

## General Electric, with Prospects Dimmed by FCC, Drops Bid for Communication Satellite

The General Electric Company has formally withdrawn its application for participation in the development of a space satellite communication system. G.E.'s action strengthens the commanding position held in this field by the American Telephone and Telegraph Company, and is certain to intensify congressional misgivings about the FCC's apparent predilection for an ownership arrangement that the Justice Department has charged would give dominance to A.T.&T.

General Electric's bid for participation in the potentially lucrative business of space communications was never warmly received by the FCC. A.T.&T., which got a head start in development of space communication plans, proposed to the FCC last spring that the system be limited to international carriers, that is, firms licensed for overseas communication activities. The proposal was countered by G.E., which sought to have the system opened to equipment manufacturers as well as carriers. In a ruling endorsing the A.T.&T. position, the FCC stated that inclusion of the equipment manufacturers could "result in encumbering the system with complicated and costly corporate relationships, disrupting operational patterns that have been established in the international common carrier industry, and impeding effective regulation of the rates and services of the industry."

General Electric's position, backed by a number of major manufacturing firms, was supported by the Justice Department. The antitrust division argued that with A.T.&T.'s dominance in domestic and overseas telephone service, exclusion of the manufacturers would give A.T.&T. overwhelming control of any system made up solely of carriers.