

Federal Council for Science and Technology; J. Robert Oppenheimer, director of the Institute for Advanced Study, Princeton, N.J.; Allen V. Astin, director of the National Bureau of Standards; and James A. Shannon, director of the National Institutes of Health, U.S. Public Health Service.

Also, Lee A. DuBridge, president of California Institute of Technology; Robert E. Wilson, former chairman of the board, Standard Oil Co. (Ind.); James B. Fisk, president of Bell Telephone Laboratories; C. Guy Suits, vice president and director of research, General Electric Company; and M. A. Tuve, director of the department of terrestrial magnetism at the Carnegie Institution of Washington.

Program

During the first 2 days of the symposium, approximately 250 participants, in addition to session chairmen and discussion leaders, will consider material presented in 12 papers. On the final day a group of 80 to 100—panelists, chairmen, and a small number of participants—will discuss the recommendations that have been made during the preceding days and consider the policies that would best promote basic research. The results of this discussion and the 12 symposium papers will be published.

The 12 basic papers are as follows: "The Importance of New Knowledge," J. Robert Oppenheimer (director, Institute for Advanced Study); "Basic Research in the United States," Alan T. Waterman (director, National Science Foundation); "The Paradox of Choice," William O. Baker (vice president of research, Bell Telephone Laboratories); "Basic Research and the Liberal Arts College," Laurence M. Gould (president, Carlton College); "Basic Research and the State University," Conrad A. Elvehjem, (president, University of Wisconsin); "Basic Research and the Private University," Lee A. DuBridge (president, California Institute of Technology); "Basic Research in Government Laboratories," Allen V. Austin (director, National Bureau of Standards); "Basic Research in Industrial Laboratories," James B. Fisk (president, Bell Telephone Laboratories); "Basic Research in Private Research Institutes," Merle A. Tuve (Carnegie Institution of Washington); "Support of Basic Research from Government," Paul E. Klopsteg (president, American Association for the Advancement of Science); "Support of Basic Research from Industry," Robert E. Wilson [former board chairman, Standard Oil Company (Ind.)]; and "Support of Basic Research from Private Philanthropy," Robert S. Morison (director, medical and natural sciences, the Rockefeller Foundation).

Eisenhower Proposal on Nuclear Test Ban Rejected by Khrushchev

In a letter dated 13 April, the day the Geneva talks on a nuclear test ban were resumed, President Eisenhower made a personal appeal to Premier Khrushchev to work for the success of the negotiations. He stressed the need for a system of inspection and control and suggested that cessation of testing of nuclear weapons in the atmosphere up to a height of about 30 miles might be an acceptable first step toward a complete ban on tests. The Soviet delegation has objected to a step-by-step cessation.

In his reply, dated 23 April, the Soviet Premier rejected the proposal, calling it "an unfair deal." He reiterated the policy of his government, which demands a simultaneous ban on tests "in the atmosphere, underground, under water and at great altitudes."

The texts of the two notes follow.

Eisenhower's Proposal

Today the Geneva negotiations for the discontinuance of nuclear weapons tests are resuming. During the recess I have considered where we stand in these negotiations and what the prospects are for the successful conclusion which I earnestly desire. I have also talked with Prime Minister Macmillan, who reported to me his frank discussions on this matter with you.

The United States strongly seeks a lasting agreement for the discontinuance of nuclear weapons tests. We believe that this would be an important step toward reduction of international tensions and would open the way to further agreement on substantial measures of disarmament.

Such an agreement must, however, be subject to fully effective safeguards to insure the security interests of all parties, and we believe that present proposals of the Soviet Union fall short of providing assurance of the type of effective control in which all parties can have confidence: therefore, no basis for agreement is now in sight.

In my view, these negotiations must not be permitted completely to fail. If indeed the Soviet Union insists on the veto on the fact-finding activities of the control system with regard to possible underground detonations, I believe that there is a way in which we can hold fast to the progress already made in these negotiations and no longer delay in putting into effect the initial agreements which are within our grasp. Could we not, Mr. Chairman, put the agreement into effect in phases beginning with a prohibition of nuclear weapons tests in the atmosphere? A simplified control system for atmospheric tests up to fifty kilometers could be readily derived from the Geneva experts' report, and would

not require the automatic on-site inspection which has created the major stumbling block in the negotiations so far.

My representative is putting forward this suggestion in Geneva today. I urge your serious consideration of this possible course of action. If you are prepared to change your present position on the veto, on procedures for on-site inspection and on early discussion of concrete measures for high-altitude detection, we can of course proceed promptly in the hope of concluding the negotiation of a comprehensive agreement for suspension of nuclear weapons tests. If you are not yet ready to go this far, then I propose that we take the first and readily attainable step of an agreed suspension of nuclear weapons tests in the atmosphere up to fifty kilometers while the political and technical problems associated with control of underground and outer space tests are being resolved. If we could agree to such initial implementation of the first—and I might add the most important—phase of a test suspension agreement, our negotiators could continue to explore with new hope the political and technical problems involved in extending the agreement as quickly as possible to cover all nuclear weapons testing. Meanwhile, fear of unrestricted resumption of nuclear weapons testing with attendant additions to levels of radioactivity would be allayed, and we would be gaining practical experience and confidence in the operation of an international control system.

I trust that one of these paths to agreement will commend itself to you and permit the resuming negotiations to make a far-reaching response to the hopes of mankind.

Khrushchev's Rejection

I have received your message of April 13 in connection with the resumption of the Geneva talks on the discontinuance of nuclear tests. I am pleased to note that you also hold the view that these talks must not be allowed to fail.

You ask whether it is not possible to begin by agreeing on a suspension of the tests of nuclear weapons only in the atmosphere at the heights of up to fifty kilometers, leaving aside, for the time being, the solution of the problem of ending the other nuclear explosions, that is, those at the heights of over fifty kilometers and underground.

The Soviet Government has given most careful and circumstantial consideration to the points made in your message, and considers that the stopping of explosions of nuclear weapons at the heights of up to fifty kilometers will not solve the problem. Suppose we sign such an agreement now. What good, one may ask, will that do the peoples who are anxious for all tests of nuclear weapons

to be banned wholly and entirely? All we would do by this would be to mislead public opinion, for the testing would, in fact, go on underground and at great altitudes.

This means that our objective of preventing the manufacture of new and more destructive types of atomic weapons will not be achieved.

On the other hand, nuclear explosions at heights of over fifty kilometers will be poisoning the air and the soil just as well, by contaminating with radioactive fall-out the vegetation which forms part of the food of animals and penetrates the human organisms, as is the case at the present time.

I think you will agree with me if I say that there is no difference, from the point of view of concern for human health, between radioactive fall-out from explosions made at a height of forty kilometers or say sixty kilometers.

Consequently, from this point of view, too, the objective we must strive to achieve will not be achieved either. Therefore, the peoples would be justified in regarding and condemning the conclusion of an agreement to stop testing only in the atmosphere at heights of up to fifty kilometers as an unfair deal.

Nor is there any need to prove that such an agreement could be concluded only figuring on the lack of knowledge on the part of public opinion.

This is out of the question, however, nowadays, as scientists would at once grasp the meaning of such an agreement and explain that it would not solve the problem, since it would leave things just as they were before the agreement was concluded.

I believe, Mr. President, that we should not flinch in the face of the difficulties, but we should muster the strength of will and show appreciation of the need to conclude an agreement providing for stopping all tests of nuclear weapons—in the atmosphere, underground, under water and at great altitudes.

I think that it is quite possible to find such a solution to the problem of ending tests, on the basis of your proposals and ours, as would meet the interests of the nuclear nations as well as those of all the other countries and to establish such a control system as would insure the strict enforcement of the agreement.

The most essential point of difference between us seems to be the question of sending inspection teams to explore the phenomena suspected to be nuclear explosions.

You know that Mr. Macmillan, Prime Minister of Great Britain, suggested during his visit to Moscow that agreement could be reached on carrying out a predetermined number of annual inspections both on the territory of the

Soviet Union and on the territory of the United States and Great Britain and in their possessions, should the reports of control posts provide evidence of phenomena which may be suspected as nuclear explosions.

There would, naturally, be few such inspections. I do not think, properly speaking, that there will have to be many visits to each country.

The very fact of a possible inspection of areas, where instruments will have indicated phenomena suspected of being nuclear explosions, would check the nations and individuals who would like to stage explosions in violation of the pledges they have assumed.

This is but natural, for in that case no nation, nor any of its organizations, would avoid a true inspection of the areas where nuclear explosions are assumed to be taking place. Such suspicions, naturally, should be based not on the wishful thinking of the men in the control agency, but on the objective instrument readings.

To conclude, I should like, Mr. President, to express the hope that the Soviet Government's proposals herein stated will be appreciated by you and that we shall achieve agreement on what is one of the most important and burning issues of the day. On our part, we shall bend every effort toward achieving an agreement to end nuclear tests, and you may rest assured that if we sign a document we shall punctually abide by the pledges we shall have assumed, even if there is no control, because it is public opinion, the opinion of the peoples, that the Soviet Union values most of all.

Democrats Appoint Science Advisers

The appointment of a 17-member Advisory Committee on Science and Technology to work with the Democratic Advisory Council has been announced by Paul M. Butler, chairman of the Democratic National Committee and of the council. The chairman of the new committee is Ernest C. Pollard, chairman of the biophysics department at Yale University. The committee is composed of 17 outstanding American scientists, including two Nobel Prize winners, covering the following fields: physics, genetics, botany, anatomy, biophysics, zoology, geochemistry, engineering, and geography. The group also includes members who have special competence in the relation of science to modern warfare.

In announcing the formation of the panel, Butler said: "The Council feels that the scientific community has not been consulted sufficiently on national policies in the past six years and has been listened to even less. We want Demo-

cratic policies to be as sound as possible from the scientific and technological points of view."

Pollard pointed out that "It is not intended that the new Committee prepare or issue public statements for purely political purposes. The Democratic Advisory Council and the members of our Committee recognize that scientific and technological facts should not be the property of any political party. At the same time, we are agreed that we must do everything possible to secure the most authoritative advice in these areas to assist in sound policy formation."

Committee Agenda Outlined

Pollard said that at a small organizing meeting of the committee, held in January of this year, there was general agreement on the following tentative and partial agenda for future work of the committee: study of the relation of science to national defense policy; formulation of an adequate national science policy; formulation of legislation to promote the free exchange of nonsecret data between nations; steps to permit freer communication between U.S. and foreign scientists and engineers and to encourage the holding of international conferences in the United States; study of scientific and technical aspects of foreign development programs and foreign aid; study of the technical aspects of disarmament and the feasibility of detecting nuclear and missile tests; evaluation of local and global health hazards resulting from civilian and military uses of atomic energy; conservation of natural resources, including strategic minerals, fossil fuels, and economically useful ores; research to develop new technologies for the future; research in medical science for the welfare of upper age groups, which form an increasingly large segment of the population; analyses of deficiencies in financial or other support of research programs in the United States; projections to forecast the impact of technology upon our society and anticipate problems before present trends make solutions impossible; appraisal of the adequacy of the U.S. national effort in space research; projection of the impact of automation techniques upon society; and recommendations concerning science in relation to education.

Members

The first meeting of the Science and Technology Committee was held in the Washington offices of the council on 26 April. In addition to Pollard, committee members include Samuel K. Allison of the University of Chicago, Harrison S. Brown of California Institute of Technology, Leslie C. Dunn of Columbia University, Louis B. Flexner of the University of Pennsylvania, Trevor