

members of the subcommittee stressed during the hearings. As Senator Gruening said, "The only way we can get these opinions effectively is to have a bill. It is just like trying to get an opinion from the Supreme Court. You cannot go up and ask for it, but if you have a case in court it ultimately gets there, and then you find out what the Supreme Court thinks on the subject."

#### Future Hearings

At the end of the morning sessions on 17 April, Senator Gruening said that the subcommittee would reconvene that afternoon. However, other obligations of the members interfered, and the hearings were adjourned. Additional sessions are expected to take place sometime in May. Before recess, Gruening said that the committee had received letters from many persons indicating their desire to testify. Testimony from this group, which includes Lloyd V. Berkner, Leonard Carmichael, of the Smithsonian Institution, and Vannevar Bush, will probably be heard during the coming sessions.

#### Antarctic Mountain Range Located

A United States research team has found and measured a range of antarctic mountains whose location had been in question for 20 years. The mountains, the Executive Committee Range, were first sighted during the 1939-40 U.S. Antarctic Service Expedition in the

course of a flight from Little America III. Four peaks were reported, but neither the location nor the heights could be determined. A second sighting occurred in 1947, when two Navy aircraft observers taking part in Operation Highjump reported two new peaks, one believed to be 20,000 feet high.

For a decade there was no further opportunity to investigate the range. Then a team participating in the National Science Foundation's United States Antarctic Research Program reported positive location of the mountains after a 3-week, 500-mile oversnow traverse that ended this past March. The expedition was led by John Pirrit of Glasgow, Scotland, station scientific leader at Byrd Station and glaciological project leader for the 1959 Antarctic Program.

The smallest of the ten peaks in the range is 7144 feet high—about 500 feet higher than Mount Mitchell in the Great Smokies, the highest U.S. mountain east of the Rockies. The largest peak of the antarctic range is 13,856 feet high, some 600 feet lower than Mount Rainier in Washington. The range runs north and south for about 60 miles, between 76°20' and 77°20'S. Preliminary geological investigation shows the mountains to be volcanic and about nine-tenths covered by snow and glaciers. Alpine-type glaciers flow down from the peaks to join the vast ice sheet of Marie Byrd Land. Glaciation has modified the mountain craters. Further studies will be made next October by a seven-man party.



Peak G-3, a 10,920-foot mountain in the newly located Executive Committee Range in the Antarctic. [Courtesy U.S. Navy]

#### Strengthening Basic Research

Leaders in science, government, education, and industry will study ways in which basic research in the United States can be strengthened, during a Symposium on Basic Research that will take place at the Rockefeller Institute in New York, 14-16 May. The meeting is being held under the joint auspices of the National Academy of Sciences, the American Association for the Advancement of Science, and the Alfred P. Sloan Foundation. President Eisenhower will address a dinner session on 14 May. Other speakers that evening will be James R. Killian, Jr., special assistant to the President for science and technology, and Alfred P. Sloan, Jr., president of the Sloan Foundation.

#### Grave Concern Expressed

In announcing the program, Warren Weaver, vice president for the natural and medical sciences of the Rockefeller Foundation and chairman of the Arrangements Committee of the symposium, said:

"Our country is literally pouring money and manpower into applied research and development. Many scientists, however, are concerned because we do *not* furnish, either in amount or kind, proper support for *basic research*. It is imaginative and free basic research that is principally responsible for furnishing new knowledge. And it is new knowledge that will make our country strong and our culture rich and satisfying.

"It is the purpose of this 'Symposium on Basic Research' to set forth and examine with candor the facts concerning the support of basic research in our country, to inquire realistically what are the blocks which prevent our doing what we all say we believe is important, to make concrete suggestions as to ways in which the situation can be improved and in general to proclaim the fundamental faith which we have in the importance of free and imaginative basic research."

#### Participation

In order to be sure that the symposium would be geographically representative and also widely representative of the fields of science and of the institutions that support basic research, it was decided that participation would be by invitation only.

Among those who will take part will be Detlev W. Bronk, president of the National Academy of Sciences and of the Rockefeller Institute; Paul E. Klopsteg, AAAS president; and George W. Beadle of California Institute of Technology, 1958 Nobel Prize winner in medicine and physiology. Others include Alan T. Waterman, director of the National Science Foundation and a member of the

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