

tinuation of the test ban. Some U.S. officials are reported to be chafing under the ban which was undertaken in October 1958 to create a favorable atmosphere for the talks. Particularly distressing to these officials, according to reports, is the scientific evidence that indicates that the Soviets, at least theoretically, could be conducting underground tests without any risk of detection. Behind this concern is a report recently made public by the Government indicating that an underground explosion of 300-kilotons could be successfully masked by use of the "big hole" method of muffling the force of an explosion. The report says that if an underground chamber were large enough, the force of an explosion would be contained within it. The report, which was prepared by the RAND Corporation, an Air Force-sponsored research organization, says that, under certain conditions, a 300-kiloton explosion could not be distinguished from a natural earthquake by the detection net that is now proposed for policing the test ban. Explosions in the range of 100-kilotons could not be detected at all by the proposed system, according to the report.

Soviets Ridicule Report

The Soviet view of the data presented by the report was unusually blunt. "The Soviet experts submit that here their U.S. colleagues are on the brink of absurdity . . . their criteria would leave under suspicion the overwhelming majority of earthquakes registered by the control system." Citing what it calls errors in the data with which the United States supports its case, the report went on to say: "The Soviet experts therefore cannot regard these shortcomings as resulting from carelessness or coincidence, and have come to the conclusion that there has been tendentious use of one-sidedly developed material for the purpose of undermining confidence in the control system, whose basic characteristics were determined by the 1958 Geneva conference of experts."

On 28 December Senator Albert Gore urged the Administration to abstain for 3 years from conducting nuclear tests in the atmosphere but to make no commitment about not resuming them underground. Gore is a member of the Joint Congressional Committee on Atomic Energy. His suggestion was essentially the same as the one he made November 1958.

\$300 Million Increase in Space Agency Budget Held Inadequate for Major Acceleration of Program

No new major effort to speed up this country's space program in fiscal year 1961 is planned, according to a newspaper report indicating that the Administration has decided to ask Congress for \$800 million to support the National Aeronautics and Space Administration. The figure, which is \$300 million more than the agency's current budget, was reported in the *New York Times*. Official comment on NASA's proposed budget will not be available until late next month when the national budget is published. A good part of the new funds will be taken up by the newly assigned Saturn booster program with the result that NASA's effort in its other programs will be carried on at about the same rate as last year. This, in effect, indicates that a decision has been taken against accelerating the U.S. space program to match or overtake the Soviet Union in this field. Another indication that such a decision might be forthcoming can be seen, observers suggest, in a speech given early in December by George Kistiakowsky, special assistant to the President for science and technology. Speaking before the American Institute of Chemical Engineers, Kistiakowsky said: "If one separates civilian space science and technology from military missiles, . . . one wonders whether our insistence on superiority in space is of overriding importance." Earlier in his talk he had cited the Administration's argument that the larger size of the Soviet missiles gave them no advantage for strictly military applications.

Substantial Cut Reported

The budget originally requested by the space agency for its activities was cut substantially by the Bureau of the Budget, according to the news report. No definite information on the size of this original request or on the bureau's action will be available until the Congress begins its authorization hearings. Both the Aeronautical and Space Sciences Committee of the Senate and the Science and Astronautics Committee of the House of Representatives must pass on the Administration's request. Last year, congressional action cut the amount the Administration had requested by \$30 million. Also last year, T. Keith Glennan, the administrator of NASA, suggested that new pro-

grams would require a budget of approximately \$100 million. Despite the Congress' action last year, there is reason to believe that the administrator will receive new support from it in his efforts to gain more funds. A number of Soviet successes, particularly the two moon probes of last fall, are expected to weigh heavily in the committees' deliberations. Another consideration may be the widely publicized fact that after the failure of an Atlas firing just before Thanksgiving no second attempt could be made because there were no more Atlases available.

World Forestry Congress Being Organized by United States

The fifth World Forestry Congress is to be held at the University of Washington, Seattle, 29 August–10 September 1960. The United States Government is host to this congress. The Food and Agriculture Organization of the United Nations and other agencies are cooperating in its preparation.

This is the first such congress to be held in the Western Hemisphere. The earlier World Forestry Congresses were held in Rome (1926), Budapest (1936), Helsinki (1949), and Dehra Dun, India (1954).

Although the congress is an official one, and many countries will name official delegations, participation will be open to any individual or technician with interests in this field upon application to the Organizing Committee. Such individuals may attend without special invitation.

Some 80 governments within the United Nations have been invited to take part in the congress. There are indications that it may be the largest World Forestry Congress ever held, with 1500 to 2000 participants from 55 to 60 countries.

Responsibility for making the necessary preparations has been vested in a 44-man organizing committee appointed by the Secretary of State. This committee includes representatives from interested federal departments, forestry schools, forestry associations and societies, conservationists, and forest industrialists. The chief of the Forest Service, Richard E. McArdle, has been named chairman of the organizing committee.

The committee has delegated responsibility for detailed preparations to seven working committees. Their ac-

tivities are under the continuing direction of an executive committee, consisting of the chairmen of the seven committees plus key representatives in the Washington, D.C., area. Some of these committees are quite large; for example, the program committee has 79 members and the tours committee, 66. In all, more than 270 American foresters and individuals engaged in forest industries are now helping in the preparations for the congress.

Some 13,000 to 14,000 copies of a preliminary announcement, in five languages, have been distributed to a special mailing list of key forestry agencies and institutions throughout the world. The foreign mailing list now contains more than 1800 names, about six times as many as any previous list. A more detailed information guide covering application for membership, preparation of program papers, plans for programs and tours, and so on, will be issued early in 1960. Meanwhile inquiries concerning the congress may be made to I. T. Haig, Executive Secretary, Organizing Committee, Fifth World Forestry Congress, Department of State, Washington 25, D.C.

Educators Named To Administer National Aptitude Census among High-School Students

The local officials who will administer Project Talent—a plan to test the aptitudes and abilities of a 5-percent sample of U.S. high-school students—were named recently by the administrator of the project, John C. Flanagan of the University of Pittsburgh. The 90 men, most of whom are educators or administrators at colleges and universities throughout the country, are now beginning to arrange with local school officials for the administering of the 2-day battery of tests next March. About half a million students in approximately 14,000 secondary schools will be tested during the study. One of the program's objectives is to take an accurate inventory of the talents of the nation's secondary-school students. A second, and longer range, objective is to correlate test scores of individuals with their subsequent histories, and thus to provide information for use in school counseling. A third objective is to evaluate the effects of such educational practices as accelerated programs for gifted students.

The tests will seek to assess not only

a student's aptitudes but also his interests, personality, and achievements, especially in reading and mathematics. In addition, a student will be asked questions about his aspirations, family and community background, and health. Also planned are follow-up studies at intervals up to 20 years from the time of the test. The project, which is financed by the U.S. Office of Education and other government agencies, has been timed to coincide with the 1960 population census. It will be carried out in public, private, and parochial schools in both rural and urban areas. The names of the schools will be announced later this month.

Biological Data Handbook

On 1 September 1959, the *Handbook of Biological Data* office, henceforth to be known as the Office of Biological Handbooks, was transferred from the National Academy of Sciences-National Research Council to the Federation of American Societies for Experimental Biology. A new Committee on Biological Handbooks, responsible for policy, has been selected; its chairman is Raymond L. Zwemer of the science adviser's office in the Department of State.

The committee has approved the preparation of a tabular compilation on "Composition of Blood and Body Fluids," which is to be completed in the autumn of 1960. Then work will begin on a handbook on growth. Additional projects were discussed at the first meeting of the committee, which was held on 16 November in the *Handbook* office in the Dupont Circle Building, 1346 Connecticut Ave., NW, Washington, D.C.

Navy Surveys Basic Research

A Navy study of basic research that was released last fall outlines the characteristics of such research in industry, government, and universities and reports some significant facts. After emphasizing that basic research investigators "are exceedingly rare in number," the report points out that most of them have doctoral degrees, although only 2 percent of the nation's college graduates continue their education through the doctoral level. Of this 2 percent, only about one in five remains in basic research work. Studies indicate that not more than half of these have the

outstanding talent necessary for the creative work of basic research and that this half produces 80 percent of the scientific output. At present the United States has about 27,000 basic research scientists, according to the survey; therefore, about 13,500 investigators are producing the country's principal research results.

The leading corporations in the United States are investing an increasingly large proportion of their research and development budgets in basic research, in some cases as much as 20 percent. The report states that the majority of the research directors interviewed for the study thought that some 15 to 20 percent of the Navy's research and development budget should be allocated for basic research. At present the ratio is 6 to 8 percent.

The 2-year study was conducted for the Naval Research Advisory Committee by Arthur D. Little, Inc., of Cambridge, Mass. Headed by Guy Suits, vice president and director of research for the General Electric Company, the committee is the Navy's top advisory group on research. Copies of the two-volume survey may be obtained from the Office of Technical Services, U.S. Department of Commerce, Washington 25, D.C.

Summer Institutes Announced for High-School and College Teachers

Funds will be available in 1960 to help about 18,000 high-school and college teachers of science, mathematics, and engineering to participate in 379 summer institutes sponsored by the National Science Foundation. Grants totaling more than \$21 million will be awarded to support the institute program in 265 educational institutions located in the 50 states, the District of Columbia, and Puerto Rico.

Some 316 of the institutes will be open to high-school teachers only, 37 will be for college teachers only, 24 will be for both high-school and college teachers, and two will be for technical-institute personnel. Approximately 16,000 high-school teachers and 2000 college teachers will participate, with the aid of NSF.

The success of previous summer institutes has contributed greatly to the growth of the program. The first two summer institutes supported by the National Science Foundation were held in 1953. The number has grown each