be brought before Congress, since nothing can be done unless Congress is willing to authorize and then appropriate the money to go ahead.

What makes a controversy of some sort inevitable either way is that the problem is more than complicated enough so that it will be easy to make a case in favor of either approach, and nearly everyone will have no trouble convincing himself that the view he would tend to favor in the lack of any evidence is, by some happy coincidence, precisely the view supported by a careful study of the arguments on both sides.

The Test Ban

The Vienna talks were a "success" within the terms set by the Administration at the outset. No false hopes were raised, and the meetings ended with no illusions of accommodation. The meetings gave Kennedy a chance to size up Khrushchev in person, and vice-versa; Kennedy had apparently made a strong impression on the Europeans; and these limited accomplishments were enough to satisfy most observers that the episode had been, as Administration spokesmen described it, "useful."

The meetings, nevertheless, left the Administration with the problem of how to deal with the test-ban talks, and with no longer much hope that the Russians are going to make the decisions any easier. Khrushchev confirmed the Russian interest in merging the talks with the general disarmament discussions to begin later this year, and, according to reports, he vigorously defended the new Soviet doctrine of three-headed control bodies for international agencies, including those to police disarmament, with the Soviet, Western, and neutral blocks each having a veto. To the West, this is like a court in which either of the opposing attorneys can veto the judge's decisions. For the moment, the Administration's negotiators at Geneva continue to press on day after day, even though there no longer seems much to negotiate about, in order to impress on the world our willingness to reach an agreement, if it is at all possible. At home, the United States Information Agency, under Edward R. Murrow, and other agencies are working on the problem of how to minimize the adverse world reaction that seems inevitable should it become necessary, after all, to resume nuclear testing.—H.M.

Announcements

A vehicle designed to do the work of a diver on the ocean floor is undergoing performance trials at the Scripps Institution of Oceanography, La Jolla, Calif., where it was designed. The machine, called a **remote control underwater manipulator**, or RUM vehicle, has a hand-like manipulator which is controlled from shore through a coaxial cable carrying, simultaneously, 38 sets of commands to the machine and two television signals from it.

The vehicle is driven by an electric motor and is able to withstand water pressures of 10,000 pounds per square inch. Two of its television cameras scan the ocean ahead, one searches behind, and the fourth follows the movements of the manipulator. When ready for operation, the vehicle will be used in various oceanographic research projects.

Britain and Russia have signed a 5-year agreement for collaboration on the **peaceful uses of atomic energy.** The first of a series of exchange visits will take place before the end of the year. The agreement was signed by V. S. Emelyanov, chairman of the State Committee for Atomic Energy of the Soviet Council of Ministers, and Sir Roger Makins, chairman of the United Kingdom Atomic Energy Authority.

A new scientific association, the **International Union of Geological Sciences**, was recently formed after a meeting of geologists from 25 countries held at UNESCO House, Paris. The union, now a member of the International Council of Scientific Unions, was formed on the basis of a proposal adopted at the 1960 meeting of the International Geological Congress. J. M. Harrison, head of the Geological Survey, Ottawa, Canada, has been elected president; vice presidents are I. I. Gorski (U.S.S.R.), L. Hawkes (United Kingdom), Teichi Kobayashi (Japan), Lamego (Brazil), Jean Lombard (France), and B. C. Roy (India).

A new **information and analysis center**, to evaluate reports and publications containing seismic information on explosions and earthquakes, has been established by the University of Michigan's Institute of Science and Technology. Supported by a contract from the Advanced Research Projects Agency (ARPA), the institute's Fluid and Solid Mechanics Laboratory is setting up the VELA Seismic Information Analysis Center (VESIAC). The center will evaluate and disseminate information gathered in the seismic research portion of the ARPA Vela-Uniform program, the national program of research in the detection and identification of underground nuclear tests. It will also be responsible for summarizing current seismic knowledge which may be useful to the program.

Grants, Fellowships, and Awards

Fulbright scholarships for graduate study or predoctoral research in 32 countries will be available to over 800 graduate students for the 1962–63 academic year. In addition, awards for graduate study in Latin America and Ireland will be offered. Requests for application forms must be postmarked not later than *1 October 1961*; applications will be accepted until 1 November. (Information and Counseling Division, Institute of International Education, 1 E. 67th St., New York 21)

Modest grants to assist individuals wishing to study at the Chicago Natural History Museum are available for work in any of the following fields: **anthropology** (with a natural-history orientation), **botany** and **geology** (including paleontology), and **zoology**. An applicant should briefly describe the proposed study, state how long he would like to study at the museum and the amount of money needed, and name one reference. (Chairman, Karl P. Schmidt Fund, c/o Chicago Natural History Museum, Roosevelt Rd. and Lake Shore Dr., Chicago 5)

The National Science Foundation is accepting applications for fellowships under its **postdoctoral fellowship** program *through 5 September*. The awards consist of a stipend of $5000 per year, dependency allowances, and limited travel allowances. Eligibility requirements include U.S. citizenship, special aptitude for advanced training, and a doctoral degree or its equivalent in education and experience. Fellows will be selected on the basis of ability as evidenced by letters of recommendation and other evidence of scientific attainment. (Fellowship Office, National Academy of Sciences–National Research Council, 2101 Constitution Ave., NW, Washington 25, D.C.)