Should need or merit be the deciding criterion? Bills that reflected the Administration view of the matter declared that financial necessity should determine the selection of recipients of aid, whereas the bills introduced by Senator Hill and Representative Elliot stressed the honorary element of the award by which the government recognized those students whose work showed high achievement at the high-school level.

The tenor of the earlier Hill-Elliot bill and its attitude toward the merit basis for award can be seen in the paragraph stating the purpose of the bill: "to strengthen the national defense, advance the cause of peace and assure the intellectual preeminence of the United States especially in science and technology. . . ." In addition to granting scholarships on a merit basis, the earlier Hill-Elliot bill called for Congressional citations to the top 5 percent of high-school graduates. None of these provisions with the general aim of increasing the prestige of intellectual activity succeeded in getting through the welter of Congressional debate. The need-or-merit problem was resolved in favor of need in two steps. First, it was proposed that the successful scholarship applicant would receive $500 a year regardless of need and would be eligible for an additional amount up to $500 a year on the basis of demonstrated need. This was the provision of Representative Elliot's bill, HR 13247. In the second step, merit as the basis for award was eliminated when the provision for scholarships was given up, and federal aid, through the states, to individuals was to be made available on the grounds of need through the loan fund. Associated with this provision was the understanding that applicants would be fully qualified on a minimal merit basis. The dominance of the need school of thought over the merit or honor school can be seen in another way in the absence in the final form of the bill of language dealing with "intellectual preeminence," "outstanding scholastic achievement," and honorary citations.

### Trend of Action

Viewed generally, and over the period of time since last January, the trend of legislative action has been away from an active federal policy, by which the Government, through the states, seeks out, commends, and awards young people who have demonstrated superior intellectual ability, and toward a more passive policy by which the Government simply makes available the machinery and the funds for those students who are qualified and who do need financial aid. Rather than the Government going to the student, the student, under the compromise bill, *may* go to the Government.

## East-West Nuclear Suspension

An East-West scientific conference on the suspension of nuclear tests that has been taking place in Geneva for 7 weeks closed on 21 August with the announcement that a "technically feasible" system for policing a world-wide nuclear test ban had been worked out. The participants in the discussions were scientists from the United States, Canada, Great Britain, France, the U.S.S.R., Poland, Czechoslovakia, and Romania. The group completed a 40-page confidential report, giving details of the recommended control system, that has been forwarded to the respective governments and will be made public later. Meanwhile, the conference members released a communique that said in part:

"In the course of the work of the conference, there was an exchange of opinions on the question of the various methods of detecting nuclear explosions.

"The conference came to the conclusion that the methods of detecting nuclear explosions available at the present time, viz. the method of collecting samples of radioactive debris, the method of recording seismic, acoustic and hydroacoustic waves, and the radio signal method, together with the use of on-site inspection of unidentified events which might be suspected of being nuclear explosions, make it possible, within certain specific limits, to detect and identify nuclear explosions, and it recommends the use of these methods in a control system.

"The conference noted that the combined use of the various methods considerably facilitates detection and identification of nuclear explosions.

"The conference of experts noted that the effectiveness of the methods considered will increase in course of time with improvement of measuring techniques and with study of the characteristics of natural phenomena which cause interference when explosions are detected.

"The conference has adopted an agreed conclusion regarding the technical equipment of the control system necessary for the detection and identification of nuclear explosions.

"The conference of experts reached the conclusion that it is technically feasible to set up, with certain capabilities and limitations, a workable and effective control system for the detection of violations of a possible agreement on the world-wide cessation of nuclear weapons tests.

"It was established in this connection that a network of control posts which were equipped with all the necessary apparatus appropriate to the various methods of detection of nuclear explosions should be disposed on continents and on islands, as well as on a few ships in oceans.

"The experts came to the conclusions that the control system should be under the direction of an international control organ which would ensure the coordination of the activities of the control system and the functioning of the system in such a way that it would satisfy the necessary technical requirements.

"On the 21st of August, 1958, the conference of experts adopted a final report for consideration by Governments. The report will be made public at a time to be determined by Governments."

The leader of the Western participants was United States delegate James B. Fisk, a member of President Eisenhower's Scientific Advisory Committee. In a closing statement he said:

"We on the Western side are gratified that the task set for this conference . . . has been successfully accomplished. . . .

"As scientists we have sought here to establish the facts pertinent to our subject, and to draw from them sound and logical conclusions regarding a system of control. . . .

"I speak for all of those on the Western side when I express our satisfaction at the friendly and cooperative working relationships which we have enjoyed with our colleagues on the other side of the table. . . ."

Evgeny Fyodorov, a leader in the U.S.S.R. satellite program, was spokesman for the Communist countries. His final remarks included the following:

"What is the basic conclusion which can be drawn following the completion of our lengthy task? The conclusion is very simple and very clear.

"A nuclear explosion, including an explosion of small magnitude, can be detected, and the establishment of an effective control system which would make it possible to have an inspection and a checking of the maintenance of an agreement on the universal cessation of nuclear weapons tests is a quite feasible undertaking and one which would not be particularly complicated.

"In certain instances the task of detecting and identifying nuclear explosions of small yields is relatively simple; in others, specific difficulties are involved.

"However, no matter where a possible violator attempted to conceal his atomic explosion–under the water, on the earth or in the cosmic space—100,000 kilometers [62,500 miles] from the earth —he will nowhere be guaranteed from exposure.

"The means by which these problems are to be resolved is indicated in our proposals which we have adopted. As technical experts, we have not discussed factors of a moral or social character."