# News of Science

## Decentralized Science Plan Approved by Soviet Academy

Soviet scientific research, until recently rigidly directed by a central agency, will be decentralized to a greater extent in the future. Only a small number of the most important programs, such as those concerned with controlled fusion and space exploration, will remain under strong central control. Planning and administrative authority for most other programs and projects will be transferred to the research institutes that actually do the work. This change, which resulted from the recent annual meeting of the Soviet Academy of Sciences, reflects a major shift in Soviet policy. Previous policy statements of the academy have stressed the need for centralized direction of science.

Behind these changes is the recent adoption by the academy of a new constitution, which is said to be more democratic than the one it replaces, which dates back to 1935. News of the new constitution was made public in a recent issue of *Vestnik,* the official organ of the academy. The new document and the changes it calls for were endorsed by V. A. Kirillin, head of the Communist Party's science division.

In addition to fusion and space activities, high-temperature metallurgical research, advanced computer developments, and certain areas of chemistry will remain under central direction, according to A. N. Nesmeyanov, president of the academy. However, the presidium, the directing body of the academy, which at one time had, in effect, complete authority over planning of the most important scientific projects, will now be joined by other groups in exercising this function. Authority to develop projects other than the 30 or so "high-priority" ones which will be listed in a document titled "Basic Directions of Scientific Research in the U.S.S.R. will be transferred to the various research centers, of which there are about 1000.

### Centralization Attacked

In a news article in *Pravda,* Kirillin combined approval of the new changes with an attack on past practices in Soviet science management. "It would be difficult to imagine," he said, "that any one central institution, even if it had the most qualified people, could study competently and in a short time the vast amount of material that it would receive from all the scientific organizations." The idea that this could be done, he said, should be rejected at once. The proper function of the central institution that until recently had this role—the Academy of Sciences—is pointedly stressed in the new constitution. The academy is "directly subordinate to the Council of Ministers of the U.S.S.R. to which it submits an annual report of its activities." A number of old practices of the academy have been changed or abolished. New members will be elected annually, rather than irregularly as in the past. There will be no more honorary members, and all future members will have to be working scientists. Meetings of the academy's general assembly will have to be held at least twice a year.

### Plan Reverses 1950 Move

The new constitution is apparently designed to give greater autonomy to the many research institutes scattered around the country. It is an attempt, according to some commentators, to achieve actual democratic operation in matters concerned with all but the most critical research programs. The commentators, however, point out that the 1935 constitution was also nominally democratic but that the academy in fact controlled all scientific programs in disregard of the charter. How the new move will succeed is anyone's guess. One point can be made, however. The plan that was revealed by *Vestnik* represents a major and surprising shift in Soviet policy. Just 9 years ago, according to one student of Soviet organization, the trend was in exactly the opposite direction. The scholar Alexander Vucinich, a research associate at the Hoover Institute at Stanford University, wrote in his study *The Soviet Academy of Sciences,* published in 1956, that "prior to 1950 there was considerable room left for both unplanned research and so-called intrainstitute planning, both of which allowed scholars to participate, at least on a part-time basis, in self-initiated research. Since 1950, an intensive campaign has been under way to eliminate all the areas of independent research and subordinate everything to the plan."

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## Satellite Systems Proposed To Detect Atom Blasts in Space

Scientists representing the three nuclear powers at Geneva have recommended that one of three satellite systems be used to detect atomic blasts in space. The recommendations, if accepted by the United States, Great Britain, and Russia, would become part of a general treaty for a ban on testing nuclear weapons. Negotiations on such a treaty have been under way since last October.

The new proposals, if accepted, would be the basis for a critical detection net which would be used to assure that there would be no violations of a test ban. Controversy over the feasibility of effective controls has been one of the major stumbling blocks of the long-drawn-out Geneva talks.

Under the proposals, satellites weighing several thousand pounds would be put into orbit to monitor and report on atomic blasts in outer space. Three possible systems were proposed by the Geneva experts. One calls for five or six satellites orbiting at altitudes of more than 18,000 miles. These would be equipped with the necessary instrumentation and would be so distributed as to allow for complete surveillance of the earth. Because of the cost of this system, the scientists offered two alternate systems. One would employ six to ten satellites orbiting at an altitude of about 350 miles. This, according to the experts' report, would allow for complete surveillance with the exception of limited and predictable areas. The third system would employ a smaller number of satellites at about the same altitude as those of the second system, and there would be similar blind areas.

Western sources emphasized that the proposed detection system was com-