

F. A. S. NEWSLETTER

FEDERATION OF AMERICAN SCIENTISTS

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National Science Foundation. Another Congressional session has ended without establishment of the National Science Foundation. The power of the House Rules Committee, ostensibly curbed early in the session by a change in House procedure, remained sufficiently strong to block House action. Despite pressure from the President and prominent scientists, the NSF bill was pigeon-holed, reportedly by the same coalition of Republicans and conservative Democrats in the Committee which stymied a number of other forward-looking measures.

Precisely why successful opposition crystallized at this late date is not clear. Among the reasons suggested, and all may be involved, are: (1) economy-mindedness; (2) opposition to government subsidies in general and to additional subsidies in science in particular; (3) lack of evidence of enthusiasm on the part of scientists; (4) a feeling that if we have gone so far without NSF, it cannot be so urgent. In any event, the short-range view prevailed over the long-range one, and a majority, at least of scientists and Congressmen, has been thwarted by an entrenched minority in the Rules Committee.

In the new session, opening in January, the legislation does not need to start anew. It is already passed by the Senate and approved by the House Interstate and Foreign Commerce Committee. It can be brought to the House floor at any time by favorable vote of the Rules Committee. Or, with greater difficulty, it can be brought up by a successful motion on the House floor to discharge the Rules Committee. The latter motion must be made on the second or fourth Monday of the month by the chairman of the Interstate and Foreign Commerce Committee, Representative Robert Crosser of Ohio. Neither of these alternatives is likely to occur unless some convincing demonstration is made by scientists and their organizations. The interval between now and January should be used to put all possible pressure on the Rules Committee and on Representative Crosser.

AEC Hearings. On October 6, in a straight party ballot, the Joint Committee on Atomic Energy voted to drop further investigation of charges of "incredible mismanagement" on the part of the AEC. At the same time the Committee unanimously approved closed inquiries into two other atomic energy problems.

The first of these discussed by the Committee and top Air Force officials on October 7 apparently concerned the method of transferring A-bombs from civilian control to the military in case of emergency. There has been no question that the A-bomb remain in the custody of the Commission, subject to the President's discretion. In Chairman McMahon's comment after the meeting he stated that he was "satisfied that when, as, and if the Air Force has to deliver the bomb, it can get to it instantly." The second problem is thought to concern the state of planning of civilian defense measures in an atomic war.

The release of the Joint Committee's reports on its investigation of the AEC is imminent as this is written. When a preliminary draft of the "majority" report, clearing Mr. Lillienthal and the AEC of most of the accusations leveled by Senator Hickenlooper, was circulated among the members of the Committee, several Republican members complained publicly that it was a whitewash. The position of these legislators appears to be the same as at the start of the hearings.

Senator Hickenlooper also criticized the Truman administration of violating a promise to Congress in discussing a revived atomic partnership with Great Britain and Canada. He pointed out that any cooperative arrangement would require Congressional approval and that clearance from the Congressional atomic group had not been obtained for the recent discussion with the British and Canadians.

USSR and the Bomb. Three and a half years ago, while the world still was officially undivided, there appeared a slim volume entitled One World or None. It deserves re-reading in these disillusioned, cynical days. Parts of it particularly acquire new stature when set beside some of the feverish commentaries which have greeted the news of an atomic explosion in the USSR.

Irving Langmuir of General Electric contributed Chapter 10, entitled "An Atomic Arms Race and Its Alternatives." His analysis was calm, objective, and proved to be remarkably accurate. Writing in early 1946, he anticipated that the Russians would begin to produce atomic bombs "within about three years." He based his estimate on his knowledge of our own efforts and on observations made during a visit to the USSR in 1945. Reactions in high quarters to Russia's success indicate that military intelligence did not achieve the same prescience.

In outlining the course of an atomic arms race, Dr. Langmuir stated: "In the first stage the U.S. alone will have atomic bombs and will accumulate a stockpile. Other nations will be preparing to make them. During this time we are in a secure position. In the second stage one or more other nations will have begun to produce atomic bombs while the U.S. stockpile may become so great that we will have enough bombs to destroy practically all the cities of an enemy country. During this period we are still relatively secure." (Emphasis ours)

Dr. Langmuir did not know, at the time of writing, that during the first period the U.S. would make specific proposals for the international control of atomic energy, and that these proposals would fail to gain the acceptance of the Soviet Union. He did point out that questions of national prestige fed by a possible feeling of insecurity would impel the Russians to undertake the development and production of atomic bombs on a large scale. He warned that "during the early stages in the armament race other nations will act largely according to their understanding and interpretation of American intentions."

Of what still lies in the future, Dr. Langmuir had this to say: "During the third stage (of an atomic arms race), many nations will have enough bombs to destroy practically all the cities of any enemy. During this stage no nation is secure. Since an attack by any nation would almost certainly be followed by retaliation, any lasting advantage of a surprise attack largely disappears."

The fourth stage in the armament race according to Dr. Langmuir will be characterized by an intolerable feeling of insecurity on the part of nations so that the nation which feels that it is best prepared is almost forced to start a war to avoid danger of complete destruction.

This then, is a blueprint of an atomic arms race -- starting with one nation's monopoly and ending with catastrophe for all. In simplest terms the significance of the Soviet atomic explosion is that it marks the entry of the world into the second stage. The American monopoly is broken; only our technological edge remains. The race goes on.

The degree of resignation to this unhappy prospect is frightening. During the first few days after the announcement, nearly everyone (including the FAS) interpreted the new development as confirming his previous views. But, as the news sank in, certain general attitudes began to appear. There are those who see in the Soviet atomic explosion only an indication that we must accelerate and intensify present policies. They would meet the Russian threat with bigger bombs, a larger air force, and a more intransigent diplomacy.

For others, the explosion was very much to be expected and poses no new problems. The Acheson-Lillienthal plan, with

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USSR and the Bomb (Continued from page 1)

possible minor changes, still contains the only possible guarantee of avoiding atomic warfare. They urge re-opening UNAEC negotiations with the hope that the Russians may have mellowed now that they too are atomic property owners.

A third viewpoint, espoused by Lippman and a few others, regards the Russian atomic explosion as making for an entirely new tactical situation. This view calls for a readiness to make major modifications in the American plan for control of atomic energy, for a re-evaluation of our basic foreign policy, and for a realistic appraisal of sacrifices necessary to gain atomic peace. According to this group, whatever our policies have been in the past they must be re-oriented now that we have passed into the second phase of the atomic arms race.

The Presidential announcement raises several points which need to be considered in analyzing our position on international control. One of the new factors to be considered is that the Russians have in progress an extensive and unexpectedly successful atomic energy program. Russia has certain advantages over the U.S. in an atomic arms race. It has a large population which is regimented and willing to make sacrifices for a long-range defense program. It has a deep appreciation of the importance of science to modern society, and has underway a very vigorous and extensive scientific program. Whatever reservations we may have about these advantages and the methods used to achieve them, they apparently have resulted in an unexpected efficiency in promoting atomic energy development. We should also bear in mind the possibility that the Russians regard, more than we are inclined to, the development of atomic power as urgent for their industrial development.

It now seems apparent that Russian opposition to the Baruch plan was not, as was suggested in some quarters, the result of ignorance of the implications and potentialities of atomic energy. They obviously did not, and do not, assign to it only minor importance. The effort which they must have put into their atomic energy program could not have failed to require sacrifices in other areas of their economy. It meant major policy decisions based upon carefully calculated risks. Their tactics in the UNAEC must be reinterpreted against this background. Perhaps their atomic energy policy is reflected into the area of foreign affairs. They would not accept a system of international control of atomic energy which, rightly or wrongly, they interpreted as freezing their unfavorable position in atomic energy relative to the capitalist world. This may explain their insistence upon sovereignty and resistance to the proposed international ownership of atomic energy plants.

What is to be the position of the FAS in this second phase of the arms race? Should we assume that there is no possibility of significant agreement with the USSR, that any apparent Russian concessions are in reality only propaganda moves, that an ever-growing military strength (as expressed in an atom bomb stockpile) can ensure peace? If we make this assumption we have, in effect, disclaimed any hope of achieving international control of atomic energy and have accepted the myth that an arms race can be stopped short of its inevitable result -- war.

Or should we assume that the Russians will now accept a plan (for international control of atomic energy) whose chief attractiveness -- that the U.S. voluntarily surrendered its monopoly of the atomic bomb -- is now completely gone? And what meaning can the plan have without the Russians, now that they have the bomb?

Or is it still possible to believe, in the face of the bitterness of the past three years, that a modus vivendi with the Russians can yet be attained? In view of anti-Communist hysteria, would Congress be prepared to make major concessions to the Russian point of view? And, for ourselves, would we assume the responsibility of spelling out in some detail the extent and nature of the policy revisions we would be prepared to recommend? Would we, for instance, urge dropping the American request to except atomic energy from the unanimity rule of the Security Council? Would we concede to the Russian objection to international ownership of atomic energy facilities? Are we prepared to regard atomic weapons as extremely important but as representing only part of the problem of controlling weapons of mass destruction? Are we willing to bargain on disarmament as part of a general settlement of outstanding issues between the U.S. and the USSR? Should the FAS attempt

(Continued, next column)

Amendments to the Atomic Energy Act. On October 11, the President signed a bill amending Section 2 (c) of the Atomic Energy Act, relating to the Military Liaison Committee. The measure was sponsored by Senator McMahon, Chairman of the Joint Committee on Atomic Energy, in the Senate, and by Vice-Chairman Durham in the House. It provides that the Chairman of the Military Liaison Committee be appointed by the President with the consent of the Senate, and that his salary be increased to that of the Chairman of the Munitions Board, now \$14,000. This is intended to enhance the prestige and attractiveness of the position.

Of particular interest in the amendment is the fact that the appointment of a civilian chairman is not mandatory. In this respect the Act remains unchanged. Earlier bills of McMahon and Durham would have provided that the chairman "be appointed from civilian life." This provision was withdrawn, apparently because of representations by the military. The compromise reached during the Congressional debate in 1946 on civilian versus military control, which makes permissive the appointment of a military officer as chairman, is thereby retained. It seems unlikely, however, that the precedent of appointing a civilian chairman will be disregarded in the near future. Mr. Robert F. LeBaron, a prominent industrial chemist, has been chairman since Sept. 30 of this year.

The earlier bills of McMahon and Durham also included an amendment to the Atomic Energy Act (see Newsletter, July 21, 1949) which required authorization by Congress of the major programs contemplated and of the total amount of money requested by the Atomic Energy Commission. This highly controversial provision was also withdrawn, probably because of the diffusion of responsibility which it would have entailed for AEC programs.

Point Four Program. President Truman, apparently persuaded that passage of his "bold, new program" (see Newsletter, Aug. 9) for aiding the world's underdeveloped areas is more likely after the "atomic explosion" in Soviet Russia, has submitted his proposed legislation to the House of Representatives.

The President's plan envisages the expenditure of about \$85,000,000 to be provided in part by the United States and in part by international agencies and the recipient countries. A main objective is to find appropriate projects for the investment of private capital. The President proposes that the Export-Import Bank guarantee American investors against such risks as confiscation and the restrictions imposed by dollar-short countries.

According to present plans, Latin America is to receive somewhat more than one-third of the proposed budget, with the Near East, Africa, Asia, and the Far East sharing the remainder. The money is to be spent on improvements in basic health, especially in regions subject to endemic diseases, on agricultural developments, and on forestry techniques. Success of the program will depend largely on the number of American engineers, health experts, scientists, and educators that can be recruited for service in the backward areas.

Lengthy hearings have been held on the bill (H.R. 5615) by the House Committee on Foreign Affairs. On October 11, the Committee announced that action on the measure would have to be postponed until the January session of Congress.

to isolate a stand acceptable to all its members?

There is every reason to believe that initial reactions in the U.S. to the news of the Soviet atomic explosion may have little bearing on our final evaluation and course. This final course may not be settled for weeks and months. For, while to members of the FAS and other interested scientists the news brought little surprise, other elements of the population were not nearly so well prepared to face the inevitable but nevertheless very unpleasant fact that the Bomb is not our exclusive possession. For a time the situation again may be expected to be somewhat fluid, and opportunity is thereby afforded for constructive activity on the part of the FAS. The first step required is crystallization of opinion within our own organization. Major policy decisions will have to be made at the November Council meeting in Chicago. It is to be hoped that chapter delegates will come prepared to make such decisions, and that members-at-large will make their views known to the Washington office.

Civil Liberties of Scientists. The preliminary report of the AAAS Special Committee on Civil Liberties for Scientists, published in Science, Aug. 19, embodies conclusions and recommendations concerning three main areas: (1) restrictions on scientific information; (2) clearance of scientists having access to confidential data; (3) "loyalty" investigations of scientific workers in federal employment. The Committee, headed by Maurice B. Visscher of the University of Minnesota, concludes that the operation of "security" procedures, as now conducted, is inimical to scientific progress and therefore endangers the national security.

The Committee endorses the statement of the President's Scientific Research Board that "To be secure as a Nation we must maintain a climate conducive to the full flowering of free inquiry....Security regulations should be applied only when strictly necessary and then limited to specific instruments, machines, or processes." The Committee urges that "improvements be achieved in the policies and procedures of our present security clearance programs as they affect scientists, if national as well as individual interests are to be protected." With regard to the Executive Loyalty Order the Committee states that "Until the Loyalty Order deals with the way employees act, rather than with the way they supposedly think, we shall inhibit the freedom and encourage the insecurity of our public servants. The cost will in the end be borne not by the employees who are deprived of their normal freedom to believe and behave as they wish within the limits the law has set. It will be borne by the nation as a whole."

AEC Fellowships. As a direct result of Hickenlooper's charges of last May, and in accordance with the O'Mahoney amendment to the Independent Offices Appropriations Bill, Atomic Energy Commission fellows in non-secret work will now be required to undergo FBI investigation. As we go to press, it is still an open question whether the National Research Council will continue to administer the program under these conditions. The policy recommended by the FAS Administrative Committee (see Aug. 9 Newsletter) is that (1) the AEC should limit its program to secret fellowships; (2) the NRC should discontinue active administration of AEC fellowships; and (3) efforts be redoubled to secure passage of a National Science Foundation with fellowships subject to no other qualifications than scientific competence.

Scientist X. On September 30, the House Un-American Activities Committee released a report on the Scientist X case. It contained in summary form information which has been leaking out in bits and pieces for the past six months. Briefly, the Committee charges that a Communist cell existed in Berkeley in 1943, that it was organized by Giovanni Rossi Lomanitz, and that it included other personnel of the Berkeley Radiation Laboratory. Members of the cell are reported, on at least one occasion, to have met at the home of Joseph Weinberg together with Steve Nelson, a Communist official, and Bernadette Doyle, his secretary. According to "a very reliable and highly confidential informant" Nelson instructed Weinberg to furnish him with "information concerning the atomic bomb project so that Nelson could, in turn, deliver it to the proper officials of the Soviet government." A meeting between Nelson and Weinberg, during which information was communicated by Weinberg, is described. Similarly, a subsequent meeting between Nelson and a Soviet consulate official, during which Nelson purportedly gave over "an envelope or package" is detailed.

The Committee, having identified Joseph Weinberg as Scientist X, recommended that the Justice Department prosecute him for perjury in denying that he knew Steve Nelson and Bernadette Doyle, or that he was a member of the Communist Party. At time of issue, no action had been taken by the Justice Department.

FAS Meetings. Plans are underway for a meeting sponsored by the FAS on December 29 in New York, during the week-long sessions of the American Ass'n for the Advancement of Science.

New Newsletter. First published last February as "a service for industry, commerce, business, and research," a now bi-weekly Newsletter has come to the attention of the Washington office. Semi-technical in tone, it stresses the practical rather than the theoretical. News briefs appear without slant or bias. (Atomic Energy Newsletter, 509 Fifth Avenue, New York, New York; \$18.00 per year.)

Presidential Commission. The proposal that the President appoint a Special Commission on Science and National Security was published in Science for August 26 (see also Aug. 9 Newsletter). The suggestion took the form of a letter to President Truman from the FAS, and the accompanying endorsement of 142 scientists. The letter pointed out the need for an over-all national policy on how to "safeguard in existing knowledge what is essential to military security, without so debilitating science as to sacrifice the hope of obtaining additional knowledge." The answer to this problem is not clear to scientists, government administrators, or the public. A study leading to a policy statement by a highly responsible group, it is suggested, would ease the present confusion.

To help further the proposal, members can write their ideas to Mr. Truman. Equally important is to have organizations, scientific and otherwise, consider endorsement and communicate with the White House.

The Council on Atomic Implications has recently issued two new publications: "Suggestions for Integrated Research and Educational Programs on the Social Implications of Atomic Energy" and "Thoughts on How to Interest People in Atomic Energy." On the initiative of Dr. Robert B. Pettengill, Director of the Teaching Institute of Economics at the Univ. of Southern California (and an FAS member-at-large), the C.A.I. was set up as a student organization to disseminate information on atomic energy and its implications, and to "see that atomic energy works for peace rather than war." Carrying on an active educational campaign in this field, it has furnished speakers, set up a film library, and evaluated and recommended source materials. The Council supports many of the aims of the FAS, including international control of atomic energy, civilian control domestically, and National Science Foundation legislation.

Membership Drive. Coincidental with publication of this issue of the Newsletter, the FAS is making its first large effort in a campaign to recover old friends and enroll new ones. Many members have moved from active chapters; they will be welcomed as members-at-large. Some chapters have suspended local activity and their members and former members should also affiliate as members-at-large to continue to receive the Newsletter and participate in Federation activities.

Amendments to the FAS constitution and by-laws to provide for participation of members-at-large in elections of officers and Council will be acted on at the November Council meeting in Chicago. The composition of the Council would be based roughly on membership strength. Chapter members would be represented by delegates chosen by the chapter, and members-at-large would elect the remaining members of the Council by mail ballot.

There are two categories of FAS membership -- member and associate member. Members are scientists, associate members are non-scientists interested in the aims of the organization. The FAS constitution provides that the membership be composed of at least two thirds natural scientists.

Application for membership-at-large may be made on the coupon below. Additional application cards and a new descriptive folder on the FAS may be obtained from the national office.

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Annual Dues for members-at-large:
Regular Member: \$5.00; Supporting: \$10.00; Patron: \$25.00
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AEC Clearance Procedures. At the American Chemical Society's symposium last September on "Security Clearance and the Scientists," one of the chief criticisms-voiced was that on the average it takes 60 days to obtain security clearance for a position with an atomic energy project. Carroll Wilson, general manager of the AEC, stated that improvements in clearance methods are underway. Dr. John A. Swartout, scientists' representative on the security review board at the Oak Ridge National Laboratory, said that the AEC had accepted many of the constructive criticisms of its procedures offered by scientists, and that methods of hearing appeals were somewhat better now than in 1947. He pointed out, however, that (1) the procedure still takes too long; (2) there is no way to reimburse a man for the expense he meets in defending himself; (3) there is still no guarantee that personnel clearance, once granted, is final -- as it should be unless subsequent action of the employee renders him a questionable security risk; and (4) there is no way yet for the local review boards to secure additional information, especially about the favorable side of an applicant's character.

Dr. Swartout warned of the "danger inherent in the steadily increasing accumulation and filing of detailed information about individuals....On file already are the records of all employees of the AEC, and of...2 million Federal employees.... To this list it is now proposed to add all applicants for AEC fellowships. If the premise is accepted that public money cannot be used to educate an individual without a prior investigation by the police, the continued extension of the list is not difficult to visualize....The ultimate result is the establishment of the foundation for a police controlled state." Dr. Swartout suggested that "FBI investigation in the future should be limited to a survey of existing police records and a continuation of its investigation of subversive organizations. This procedure should be sufficient to eliminate the recognized security risks and at the same time would not extend the collection of police files about individual citizens."

New Novel. "It's damned obvious to me that from this point on, every lab in the country is going to be put under pressure by the same people who have deliberately confused the bomb with atomic energy. Money is going to flow like water and the labs are going to be asked very nicely to work for the military but eventually there'd be an end to free research. It's in those labs that the fight has to go on, and someone's got to be there to fight back."

With these words, Erik Gorin, hero of Mitchell Wilson's **Live With Lightning**, deserts the Manhattan Project after the war for the relative freedom of the University laboratory. Well written, charged with drama, and technically plausible, this story of a physicist treated as a human being for a change should provide an evening or two of relaxing reading. (Little Brown & Co., \$3.00)

"You and the Atom" is the name of a new syndicated column written by Michael Amrine, former Publications Editor of the FAS, and more recently Public Education director at Brookhaven National Laboratory. The column, distributed by Bell Syndicate, has already appeared in the Washington Post (Oct. 2) and other national dailies. It promises to be an excellent source of authoritative information on atomic energy subjects for the general public.

Moral Responsibility. At Haverford, Pennsylvania, a group of eastern scientists and engineers have organized to foster the moral responsibility for the consequences of professional activity. Emphasizing the "constructive alternatives to militarism" by pledging its members to "abstain from destructive work," the **Society for Social Responsibility in Science** proposes regional, foreign, and functional units. Already German, British, and Swiss scientists have indicated an interest in joining. President of the organization is Victor Paschkis, head of an engineering research laboratory of Columbia University.

Three Nation Conference. The establishment of uniform standards of radiation tolerances for the atomic energy projects of the United States, Great Britain and Canada was one of the primary purposes of a three nation health and safety conference held at Chalk River September 29 - 30. Weapons information was not on the agenda. The United States was represented by 11 leading radiologists and health physicists, including Dr. Shields Warren and Dr. Austin M. Brues, both of the Atomic Energy Commission.

Food for the Mind. Just a reminder to those who can help, that CARE is still soliciting funds in its program for encouraging the educational reconstruction of Europe through the shipment of needed books to libraries, schools, and museums destroyed in the war. Following the technique developed in its food shipments to Europe, one can indicate the country and institution that he wishes to aid with his contribution. Books cannot be sent to individuals. (Some 1200 titles have been selected by a professional committee of the Library of Congress.) Detailed information concerning the program may be obtained from CARE, 50 Broad Street, New York, New York.

UNESCO Projects. In addition to the CARE-UNESCO book plan mentioned above the UNESCO Committee on Educational Reconstruction in the U.S. has several other projects underway. UNESCO fellowships for professional people whose work was interrupted by the war; supplies of laboratory equipment; audio-visual aids and recreation equipment for schools; and rehabilitation of war-handicapped children are four of the activities that the Committee is now pushing.

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