

# F. A. S. NEWSLETTER

FEDERATION OF AMERICAN SCIENTISTS  
November 30, 1949

1749 L Street, N.W., Washington 6, D.C.  
A - 753

**A NEW VIEW OF INTERNATIONAL ATOMIC CONTROL?** From a number of sources in the past month, suggestions came for modification of U.S. policy on control of atomic energy:

## FROM THE CHAPTERS:

**Brookhaven.** An ad hoc committee composed the following draft policy for circulation among FAS members:

1. The U.S. should review its attitude toward world control and avoid an arbitrary attitude in the present negotiations. Our delegation is mistaken to insist on the majority proposals on a take-it-or-leave-it basis.
2. The proposals of the Acheson-Lilienthal Report are still sound and represent as effective and workable a plan as could be devised. They have a positive character and, if possible of adoption, might be an important factor in bringing about a real world community. But they do not appear to be acceptable to all nations. We believe that some alternative proposals may provide sufficient warning of atomic rearmament to be preferable to no control scheme at all.
3. We believe the veto argument to be irrelevant. There is agreement that there should be no veto in the day to day activities of the UN atomic agency. The agency will have served its warning function if an atomic question comes to the point of being vetoed in the Security Council.
4. UN ownership of atomic facilities is not essential providing there is adequate inspection.
5. In any scheme, inspection is essential. This must include both accurate accounting of declared facilities and sufficient general inspection to detect clandestine activities. (Perhaps this would be unacceptable to Russia -- but if so, this should be unambiguously established.)
6. Many details should be spelled out in the treaty which can only be worked out in conference in the UN. These include

(Continued on page 2, Column 1)

## FROM THE COUNCIL:

**The Council** found reformulation of FAS international atomic energy control policies too tough to be completed at one sitting. It felt also that more thinking and discussion on the part of the membership is essential before definitive policies are crystallized. Considerable progress was made by the Council, however, in delineating areas of agreement and in eliminating secondary considerations. The following is tentative and incomplete, but indicates the general line of thinking which was developed and may provide a basis for continued discussion:

Two factors require a complete re-evaluation of American policy in the area of international control of atomic energy:

1. The U.S. and the USSR are no closer to agreement on control of atomic energy than they were 2½ years ago. Continued negotiations, confined to atomic weapons alone, and seeking a perfect solution offer little hope of success.
2. Our efforts to achieve international limitation of atomic weapons are inconsistent with our commitment to defend the nations of Western Europe through maintenance of atomic preeminence. Russian possession of atomic weapons serves but to emphasize these points and to stress the urgency of developing a new approach.

General Romulo, President of the UN General Assembly, has urged nations to look for a new approach to the problem of control. As a response to this request, the Department of State should institute a study and review of the problem of atomic energy at the highest possible level. Earlier studies by the

(Continued on page 3, Column 1)

## FROM THE PRESS:

Said **Chester I. Barnard**, President of the Rockefeller Foundation and one of the authors of the U.S. plan for international control of atomic energy, in the November issue of *Scientific American*: "Now that the Soviet Union apparently has the bomb, there will have to be some changes in our tactics and attitude....The present new situation reduces the significance of some of the points that have been strenuously debated in the past."

Said the *Washington Post* (November 27): "...what the world needs now, even more urgently than it needs the absolute control of all atomic production envisaged in the Baruch Plan, is a checking of the indescribably dangerous atomic armament race now under way. This is essentially a political problem. And even a partial solution of it can be reckoned preferable to no solution at all. Complete agreement, a perfect system of control, is unlikely to be achieved speedily. But what the world must have speedily is some measure of agreement -- some brake upon the competition in manufacturing atomic weapons that will keep this competition from getting wholly out of hand. The most tentative and temporary of agreements between the U.S. and the Soviet Union would give the world a breathing spell and afford a foundation upon which to build a more substantial and enduring accord.

"An agreed limitation on the production of fissionables is admittedly inferior to an absolute internationalization of atomic energy, and a limited system of inspection is undoubtedly less satisfactory than a more comprehensive system; but in the present position of the world these are certainly better than

(Continued on page 2, Column 2)

## FROM OFFICIAL AMERICAN POLICY:

Said the **President** in his UN Day address October 24th: "(The UN Atomic Energy Commission majority plan for international control of atomic energy) is a good plan. It is a plan that can work and, more important, it is a plan that can be effective in accomplishing its purpose. It is the only plan so far developed that would meet the technical requirements of control, that would make prohibition of atomic weapons effective, and at the same time promote the peaceful development of atomic energy on a cooperative basis.

"We support this plan and will continue to support it unless and until a better and more effective plan is put forward. To assure that atomic energy will be devoted to man's welfare and not to his destruction is a continuing challenge to all nations and all peoples. The U.S. is now, and will remain, ready to do its full share in meeting this challenge."

Said **Frederick Osborn**, Deputy U.S. Representative on the UNAEC: "A cooperative plan for the international control of atomic energy is the only plan of control acceptable to the great majority of nations at the present time. Only those nations which refuse to cooperate with the rest of the world in other things are holding out. It requires patience and firmness to wait. But as the *New York Times* said in an editorial a short time ago, there is 'one thing worse even than a race in atomic weapons. That is a sense of false security -- the false security of a method of control which could deprive us of atomic weapons while leaving a loophole for another nation to produce them.'"

Note: Comments are urgently requested from members and chapters to assist formulation of Federation policy.

From the Chapters (Continued from page 1).

the time scale for putting the treaty into operation, the disposition of existing plants and materials, allocation of power plants in the future, staffing of the UN agency, etc. We believe these might be discussed even prior to agreement on principles.

7. Since no plan is likely to achieve unanimous support in the near future, we should give serious attention to the proposals of General Romulo (See "From the Press") and to similar steps which might produce an atmosphere more favorable to the majority proposals.

8. The FAS should acquaint itself with the recent UN discussions on surveys of armaments (conventional and atomic) and disarmament, with a view to understanding the connection of these discussions with the atomic energy problem.

9. We must insist that military preparedness shall not be of such a nature as to prejudice reaching agreements on atomic control or general disarmament.

10. The question of revealing the number of bombs in our stockpile if Russia will reveal hers must be considered.

11. We believe every avenue should be patiently explored which offers any promise of reaching agreement on world control of atomic energy. We especially urge that the relationship between atomic control and general disarmament be fully explored.

Cornell. "Whatever American policy becomes, it must include putting aside one present objective, the absolute control, the final solution, embodied in the Acheson-Lillenthal plan. We need not give up the objective; indeed, the best way of gaining it may be the sacrifice of the form in which we first made it. But the one-step scheme, tying our final goal into a single package, is dead. We ought to recognize that. We cannot gain a solution, as the world stands now, in one stroke. Let us begin with that recognition.

"We now list 6 steps, some of which are actions which the U.S. can take alone, some of which will depend on the outcome of earnest international negotiation. They make up a program -- not the program, but a program -- which seems to have real promise for the peace which the peoples need:

1. The U.S. ought to propose in the UN that all nations undertake a commitment not to use the atomic bomb unless another nation has used it first.

2. The U.S. Atomic Energy Commission ought immediately to begin a high-priority program looking towards the construction in 2 or 3 years' time, of a working reactor of some hundreds of thousands of kilowatts, producing electrical energy for the economic needs of some undeveloped section of the continental U.S. If the U.S. is remembered for the 1st atomic bomb, and the Soviets for the 1st atomic power plant, it is patent whose claim in history and in world politics will be more secure. If the American democracy cannot find a way to turn the atom to good use on large scale, our hour has indeed grown near.

3. We ought to propose in the UN a certification of atomic armaments, either coupled with or separate from the certification of conventional arms.

4. As a corollary of (3), there ought to be set up UN research labs which the inspectors can use as a base. No great gains, no great risks, but a small solid step towards agreement, the tiny germ of UN Atomic Development Authority.

5. If all this went well, then we should undertake atomic disarmament, gradually, based on the certification of step (3), and on a quid pro quo basis. The possibilities for trading off bombs for conventional arms, etc., should not be overlooked here.

6. To discuss these and many other proposals on a level which the public cannot, the U.S. ought to establish a new commission to study the whole problem of international control in the light of events since 1946. This would dramatize the whole issue of a new approach. Even the debate on establishment of such a group would be beneficial."

Mohawk. Mohawk's tentative point of view is summarized from comments of their delegate at Chicago: (1) Continued insistence on the majority UNAEC proposals is now futile; (2) Ineffective proposals should by no means be considered, but international ownership should not be regarded as essential; (3) There should be no moratorium on power applications of atomic energy; (4) Cooperation on atomic energy development with Canada, England, and possibly the North Atlantic states should be encouraged; (5) Consideration should be given to schemes for joint atomic and conventional disarmament.

From the Press (Continued from page 1).

nothing. The situation is no longer one that will permit mere posturing. Let us talk in practical, as distinguished from ideological, terms about feasible compromises as distinguished from unattainable ideals; and let us put to the test Russian protestations about willingness to reach some reasonable accommodation. We owe this much to the world if not to ourselves."

Said Carlos P. Romulo, President of the UN General Assembly, in reference to UN atomic negotiations: "No agreement has been reached and we are stalled at dead centre. We are stalled and immobilized, yet in the meantime the menace of an atomic war grows like a gathering storm. While the atomic bomb stockpiles keep growing, we are at a standstill. In these circumstances, I have felt it to be my duty as President of the General Assembly to make an effort to loosen the deadlock. I have addressed an appeal to the six permanent members of the Atomic Energy Commission to continue by every conceivable means to seek agreement on some effective system of control of atomic energy and prohibition of atomic weapons. Specifically, I have suggested that attention be directed along these 4 lines:

1. The possibility of a short-term atomic armistice, accompanied by a system of inspection.

2. The possibility of an interim prohibition of the use of atomic weapons with adequate safeguards.

3. The possibility of further compromises between the majority and the minority plans for atomic energy control.

4. The possibility of a new approach to the fundamental problem of control."

Said the American Friends Service Committee in their pamphlet, "The United States and the Soviet Union:" "Until recently, the efforts of the U.S. to secure international control of atomic energy have stemmed out of what was believed to be a U. S. monopoly in atomic bomb production. As long as the U.S. believed it had a monopoly it was unwilling to grant immediate international inspection and census of its atomic production and facilities. The Soviet Union has been unwilling to grant immediate inspection and census of its corresponding major weapon -- the Red Army. This impasse is understandable but regrettable. It is to be hoped, now that both countries possess the secret of atomic bomb manufacture, it will be possible to break the deadlock through arrangements for simultaneous inspection and control of all major weapons. We therefore urge the following as first steps:

1. That the interrelationship between atomic and conventional armaments be recognized and that the discussions in the UN be broadened to include both categories of weapons -- with the expectation of signing parallel conventions at the same time;

2. That the U.S. and the Soviet Union agree, as a first step toward a comprehensive system for control and limitation of armaments, to international inspection of all existing armaments, including U.S. and Soviet atomic weapons and facilities.

3. That the U.S. agree to sign, concurrently with the acceptance of (1) and (2) by the 5 major powers, a convention outlawing the atomic bomb and providing for the destruction of the U.S. and Soviet stockpiles of atomic bombs within a specified time after the conventions suggested above come into force.

4. As an interim step we suggest that the present stockpiles of atomic bombs in the U.S. and in the Soviet Union be put under UN seal for a specified time, and that the concentration of fissionable material be halted and verified -- pending the conclusion of the conventions mentioned above."

Said the New Republic (November 7 -- "A Proposal for Atomic Peace"): "...the old proposals now seem obsolete. We believe the President should create a new commission to search for alternative proposals. Meanwhile, it may be that a reformulation of the original plan along the following main lines will provoke further discussion, and it is advanced with this limited objective in view:

1. Immediate cessation of large-scale production of fissionable materials and of the manufacture of atomic bombs.

2. Retention of existing stockpiles of fissionable material with the proviso that these shall be held in escrow by a UN Commission, the escrow to terminate if the compact is violated. Each nation, it should be noted, is to keep physical possession of its stockpile, but under UN supervision.

3. Maintenance of nationally owned plants for the production of fissionables in small quantities, of no military signifi-

(Continued, next column)

From the Council (Continued from page 1).

Acheson Committee and the Lillienthal Board clarified the problems facing us and laid the basis for the U.S. proposals to the UN. The present situation requires an even more extensive study since it is most unlikely that a successful solution to the atomic problem can be found except in conjunction with the solution of many other international issues. A committee of our most eminent citizens should be invited to study this problem. They should be free to consider whatever fields they believe to be relevant and should have full access to all information.

Senator Johnson and the Atom Bomb. Apparently vying with his colleague from Iowa in the blustering art of windmill tilting, Sen. Edwin C. Johnson of Colorado has also set out to break a lance against the atom bomb. In a television interview on November 1, Sen. Johnson, after accusing scientists of having a yen "like some old fisherwoman to tell all we know," released the information he labeled "top secret" that U.S. scientists had already developed a bomb "6 times" more powerful than the one used at Nagasaki, and had made "considerable progress" in obtaining one "a thousand times" more powerful. These facts, he concluded, were the big secret. Three weeks later (a delay caused by difficulties in obtaining a television transcript) the Washington Post accused the Senator of divulging secrets that he learned as a member of the Joint Committee on Atomic Energy and suggested artfully that he "preach what he practices."

On Nov. 27, the Washington Post published a lengthy protest from Sen. Johnson that any secrets he had disclosed were "old stuff" as proved by an appended list of 25 citations -- and his charge that "certain politicians, scientists, and publications in this country, headed by David Lillienthal, are actively engaged in a conspiracy to disclose to England the secret processes relating to the manufacture of the so-called super-bomb." To this the Post replied that to date no official of the AEC, the atomic energy military services group, or the congressional group had declared that America is even working on a super-bomb. As for the alleged conspiracy, the Post pointed out that our defense is bound to that of Great Britain and Canada by solemn treaty.

The FAS Council in a public statement released following its Chicago meeting noted that it is in the public interest that information such as Johnson revealed on the television program be disclosed. The statement was interpreted by headline writers and some areas of the press as support of Johnson's general attack on scientists, while a reading of the statement shows it decidedly was not. The text follows: "Senator Edwin C. Johnson of Colorado is under attack because in a television program on Nov. 1, he stated: (1) that the Russian bomb is a plutonium bomb, (2) that our present bombs are 6 times more powerful than the Nagasaki bomb, and (3) that we are making progress towards a bomb 1,000 times more powerful than the Nagasaki bomb.

"We do not pass judgment on the issue of whether or not Sen. Johnson violated any rules in making these statements. We wish to point out, however, that it is in the public interest that information of this general type be disclosed. In our type of democracy, intelligent evaluation of our over-all foreign and strategic policy is frustrated if the public is denied access to the kind of general information contained in Sen. Johnson's statements.

"For example, a simple calculation indicates that a bomb 1,000 times more powerful than the Nagasaki bomb could destroy by blast an area of about 300 square miles. Clearly, if it should become possible to make such bombs, the knowledge of this possibility might well have a profound effect on the attitude the American people might take with respect to the issues of foreign policy.

"At this time when vastly important decisions have to be made about American foreign policy and about our defense program, it is vital that the American public be given some of the significant real facts about our own position and that of Russia in the atomic armaments race."

cance yet adequate for research and for the development of peacetime uses of atomic energy.

4. A strict inspection system centered primarily on mining operations and designed to maintain established quotas, and a worldwide geological survey to discover major sources of uranium.

5. The compact to run for a limited period at the end of which negotiations are to be resumed for its extension and possible enlargement."

FAS General Meeting, New York City, December 29, at the Hotel Statler, Georgian Room, 8:00 p.m., in conjunction with the Christmas meetings of the American Association for the Advancement of Science. The speaker is to be Dr. Alan T. Waterman, Chief Scientist of the Office of Naval Research, whose topic will be, "Government Support of Research." All FAS members and friends in the New York area, or attending the AAAS meetings, are especially urged to hear an authoritative discussion of a subject important to science and the nation.

Chicago General Meeting of the FAS on November 25 was a forum on the present international situation especially as it concerns the use of atomic weapons. Frederick Seitz, Eugene Rabinowitch, and Harold C. Urey spoke informally and prompted a spirited discussion among FAS members and visiting scientists attending the meetings of the American Physical Society. John Simpson, of the sponsoring Chicago chapter, presided.

The FAS Council, which met in Chicago November 26 - 27 devoted the largest part of its time to the discussion of policy with regard to the international atomic energy situation and to consideration of constitutional changes in the organization of the FAS. Because of its timeliness, the question of release of general information on the U.S. atomic energy effort was also discussed and made the subject of a press release.

Other items on the agenda, only relatively less important, were AEC fellowships, National Science Foundation, resignation of the Chairman of the AEC, Point IV, reports of FAS committees on Biological Warfare and Aid to Foreign Science, and many organization matters, including the membership drive.

Chairman Wolfe presided and was the delegate from the New York chapter. The other delegates were: Higinbotham (Brookhaven), Coryell (Cambridge), Arnold (Chicago), Levinger (Cornell), Sampson (Mohawk), Pomerance (Oak Ridge), Goldfarb (Rochester), Russler (Washington), and Rollefson (Wisconsin). Roberts of the Administrative Committee, Szilard of the Advisory Panel, and Shapley of the Executive Secretariat were observers.

Membership Campaign initiated at the time the last Newsletter appeared has resulted in the enrollment of more than 100 new or renewed members. This issue also goes to many who are not paid-up members, who are hereby reminded of their status. The Federation needs their positive support, passive if not active. The requirements for effective activity by the FAS are modest but they must be satisfied by monetary support in the form of membership dues as well as moral support.

The amendments to the FAS Constitution adopted at the Chicago Council meeting provide for increased participation by members not affiliated with chapters. By making the basic unit in the Federation the member rather than the chapter, the amended Constitution provides for representation on the Council of members in isolated sections of the country as well as for voting by all members for national officers. The new internal organization will be outlined in more detail in a future Newsletter. There are no changes in the preamble to the Constitution outlining purposes and aims.

Join now if you are not a paid-up member; ask a colleague to join if you are. Use the coupon or get in touch with your chapter secretary. Do it now.

MEMBERSHIP APPLICATION  CONTRIBUTION

Name \_\_\_\_\_

Mailing Address \_\_\_\_\_

Highest Degree \_\_\_\_\_ Institution \_\_\_\_\_ Major Field \_\_\_\_\_  
Received \_\_\_\_\_

Present Position \_\_\_\_\_

American Citizen? \_\_\_\_\_

Annual Dues for members-at-large:

Regular Member: \$5.00; Supporting: \$10.00; Patron: \$25.00

(Contributions are not tax-exempt)

Chapters at: Brookhaven, Chicago, Ithaca, Schenectady, Oak Ridge, Los Alamos, Princeton, Rochester, Madison, & Washington.  
Informal branches in other communities.

Lilienthal Resigns. On November 23, the President announced the resignation of David E. Lilienthal as Chairman of the AEC, to take effect December 31st. Lilienthal gave as his reasons his many years as a public servant, financial considerations for his family, and a need for greater latitude to engage in public discussions. There are no grounds whatever to believe that the resignation was prompted by policy disagreement between Lilienthal and the administration. President Truman subsequently stated that he would not make an interim appointment -- that his nominee would be the same for the remainder of Lilienthal's term as for the new term which under the present law starts on July 1, 1950.

Prominently mentioned as successor to Lilienthal are Chester I. Barnard, President of the Rockefeller Foundation, J. R. Oppenheimer, Lee DuBridge, Sen. McMahon, Charles Thomas of Monsanto Corporation, and Wilson Wyatt, former Housing Expediter. It seems clear that the President is this month replanning the composition of the AEC, not for the remainder of the present term, but for the next. It is possible that he may try to reinstitute the overlapping terms for commissioners specified in the Atomic Energy Act of 1946.

Hickenlooper and the Atom Bomb. A statement on November 21 by Senator Hickenlooper (R., Iowa) -- that loose administration by the Atomic Energy Commission had enabled the Russians to advance substantially their atomic bomb timetable -- drew a prompt and blistering reply from the former AEC member, William W. Waymack. Mr. Waymack, a noted editor and one of Iowa's most respected citizens, pointed out that Hickenlooper had not a shred of evidence to support his latest rehashed charge. "I would not dispute," said Mr. Waymack, referring to the Senator, "his apparent conclusion that he desperately needed a headline-grabbing issue for his re-election campaign. It is...illuminating to note that to our senior Senator the first and more significant reaction to the Russian bomb...was the notion that it could be useful to him as a politician."

Political observers are persuaded that the dismal failure of Hickenlooper's attack on the AEC last summer and these damning comments of Mr. Waymack's have created an insurmountable barrier to Hickenlooper's re-election next year.

Atomic Energy Commission Fellowships. The fate of the AEC fellowship program remains in doubt. The National Research Council has so far failed to announce any policy following the passage of the O'Mahoney Amendment requiring FBI investigation of all AEC fellows, whether engaged in secret or non-secret work. It is known that the matter has been discussed extensively in NRC and National Academy of Sciences circles, and that there is strong sentiment for withdrawal of NRC from administration of the program.

Dr. Bush on Science and Democracy. Vannevar Bush in his new book, "Modern Arms and Free Men" (Simon and Schuster, \$3.50, also available as \$1.00 pamphlet), joins the ranks of those who believe that the new powerful weapons which science has put at the disposal of military forces will not spell the doom of civilization as we know it. This opinion expressed by the president of Carnegie Institution of Washington and the wartime leader of American science will carry great weight with both government officials and the general public. For this reason, his arguments and conclusions must be examined carefully by all those who are in a position to evaluate them critically.

Dr. Bush's thesis in brief is that while science has produced for military use weapons of unprecedented destructive power, it is equally capable of creating a defense against these weapons, and that in any contest between democracy and totalitarianism, the inherent strength of a democratic science will always prove superior to the regimented thinking of a dictatorship. In order to reach this conclusion, Dr. Bush examines in detail the techniques of warfare and the changes wrought in them by the scientific advances introduced in the last war. He discusses of the surface navy by guided missiles. Land warfare will end in a stalemate if the antagonists have equal technical skill. Strategic bombing will likewise prove too costly in the face of a skillful guided-missile defense, according to Dr. Bush. Only the submarine remains, but this menace can also be brought to heel in Dr. Bush's estimate through the intensive application of scientific research.

The problem of the atomic bomb in Dr. Bush's analysis is the problem of delivery. Since he had already disposed of the strategic bomber, there remains only the submarine, which we will in time be able to counter, and the trojan-horse merchant ship, which is effective only against coastal cities. Similarly, he holds little promise for the use of biological agents either openly or covertly. For a variety of reasons detailed in his book, Dr. Bush believes that these will be ineffective.

In considering the validity of Dr. Bush's conclusions, it is necessary to remember that they are only one man's opinions. Many of his statements are the product of shrewd thinking and based on years of experience; others are nothing but wishful thinking and blind acceptance of them could easily lead this country to the brink of disaster. To cite only one example, his analysis of the capabilities of Soviet scientists leads him to conclude that they lack the resourcefulness of free men and therefore he believes that it will take them a longer time to produce an atomic bomb than he had previously estimated. The President's announcement of an atomic explosion in Russia has disproved this conclusion. Some of his other conclusions may also be capable of test in the future. We can only hope that his other predictions will prove more accurate.

Federation of American Scientists  
1749 L Street, N.W.  
Washington 6, D.C.

Sec. 34.66 P. L. & R.  
U. S. POSTAGE  
PAID  
WASHINGTON, D. C.  
PERMIT NO. 9124

Postmaster: If addressee has moved and new address is known, please forward and advise of new address on Form 3547. If new address unknown, return to sender. Postage for these services guaranteed.