

F. A. S. NEWSLETTER

FEDERATION OF AMERICAN SCIENTISTS
David L. Hill, Chairman

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ATOMIC POWER BECOMES MAJOR NATIONAL GOAL

NO SECRECY RELIEF IN SIGHT

The hoped for official relief from ambiguities regarding our atomic dilemma has not yet been provided. At fever pitch at the time of the last Newsletter, discussion of a more candid approach has waned without much in the way of public enlightenment. But the confusion in statements by high administration officials has not yet waned. Air Secretary Talbott seems to have been the latest to show the strain on high government officials trying to keep the atom under cover. It took the Secretaries of Defense and State to correct the impression of 20 reporters (UP, Nov. 5) in Spain that the Air Secretary had told them that atomic bombs would be stored there. The Secretary himself denied he had said so when he got to Greece the next day.

STOP THE NARCOTIC A forthright appeal by the FAS Executive Committee for more public information received only minimal attention in the press on Oct. 13. The Committee said that the American people must be released from the "narcotic of secrecy" which has "numbed the nation's faculties of vision, resourcefulness and strength." The statement urged high government officials to reveal frankly the "critical defense and foreign policy issues" confronting the nation, and listed sample questions which need clarification in the public mind.

The questions dealt both with policy decisions facing the US and the arithmetic of the potentials of destruction. Estimates of the vulnerability of our communities and effectiveness of our retaliatory forces, both now and in the future, were asked. A Washington Post editorial saw possible dangers to military security if the sample questions were answered publicly, but laid no stress on the dangers inherent in government decisions on high policy taken in the absence of an enlightened citizenry.

WILEY VIEW In this connection, Sen. Wiley (R, Wis.), Chairman of the Senate Foreign Relations Committee, recently commented: "It is intolerable that public policy should be determined in an atmosphere of almost total ignorance. A factual vacuum will soon be filled by fancies -- rumors, half-truths, and whole lies -- yet hardly ever before in our history has there been such a need for hard-headed rethinking of our foreign policy."

There is still a scattering of conflicting reports on the possibility of even some limited form of Operation Candor. But in general the impression in Washington is that those who have opposed more information for the American people have restricted the possibilities to at best a token payment. There still may be a speech by the President in the next month or two, devoted to atomic issues. But in the main, it appears that in the absence of strong influences to the contrary the American people are to remain narcotized by secrecy.

An **FAS OPEN MEETING** on the "Implications of the H-Bomb" will be held at the time of the American Physical Society meetings in Chicago, on Friday afternoon, Nov. 27, in Eckhart Hall, Room 133, on the University of Chicago campus.

The FAS is a national organization of scientists concerned with the impact of science on national and world affairs. This Newsletter is designed primarily to inform the membership and stimulate discussion of relevant issues. The facts and opinions contained do not reflect official FAS policies unless specifically so indicated. The Newsletter is edited by members of the FAS Washington chapter.

On October 22, at long last, the Atomic Energy Commission announced initiation of a high priority project to realize the potentialities of atomic power. AEC Commissioner Thomas E. Murray said in an historic speech in Chicago, where the first reactor was born, that the AEC will proceed at full-speed with efforts to construct a prototype land-based power reactor. Thus, whatever controversies may remain over means and mechanisms, it appears that the bonds of indecision as to the importance of an atomic power effort have been broken, as repeatedly urged by scientists.

MULTIPLE CAUSES A number of factors contributed to the AEC decision. The Soviet H-bomb and the fear of a Soviet "first" in the power field, with unfavorable reactions among our allies who are uranium-suppliers, were officially credited. Certainly involved is industrial pressure for greater private opportunity to exploit the atom. Probably related, too, are (1) the altered economic prospects as the demand for military hardware levels off, (2) the sufficiency of fissionables on hand, and (3) the clear signs of rising interest and progress in atomic power developments abroad -- particularly in Great Britain.

MULTIPLE PLANS Though Commissioner Murray's announcement centered on the reactor project, led and financed by the government, it is clear that this is only one part of the AEC program. On November 4, James Reston reported in the N. Y. Times on proposed Atomic Energy Act changes being drafted by the AEC. These would, according to Reston, enable private industry to own or rent fissionable material and own and operate power reactors under proper controls; give the AEC greater discretion in the exchange of atomic and thermonuclear information; liberalize the rigid patent system to give greater incentives to private industry; revise the security system to exempt laborers on atomic energy projects from "Q clearance." The proposed changes have yet to gain the approval of the White House and Capitol Hill.

AEC ORIENTATION Important trends in AEC thinking on power development policy are outlined in Murray's Chicago address. He notes that the AEC decision to proceed with a prototype reactor is in disagreement with "a number of competent scientists and engineers who believe we should have continued development efforts and only build a large-scale unit when we are more nearly sure that the power produced would compete in cost with conventional power.... We decided... to 'launch out' into the reactor depths to construct a power producing unit designed according to the technology known now or within reasonable reach of the engineers' grasp." This is justified by the claim that "in all fields engineering goes forward much more rapidly and effectively if addressed to a known construction target."

To allay any fears of premature standardization of less efficient reactor designs, however, Murray emphasized that "in addition, we will continue our general programs of research and development" and "in the immediate future we expect to propose the construction of different types of reactors."

INDUSTRY DECLINES Murray emphasized that before making the decision the AEC determined, "after several years of probing this problem with the help of competent interested industrialists," that "private industry, if permitted to do so

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ADMINISTRATION SCIENCE POLICY EMERGING

Last May, at the height of the controversy over the dismissal by Secretary of Commerce Weeks of Bureau of Standards Director A. V. Astin, FAS called on President Eisenhower "to clarify publicly the attitude of his administration on the relation of science and government." Among other things, assurance was asked that "government will continue to encourage by policy and financial support a high level of scientific productivity."

FAS GOT NO ANSWER The FAS request was never specifically answered or acknowledged. However, in the absence of any full-dress statement on the subject, several straws in the wind are worth noting. In extricating himself from the Astin affair, the Secretary of Commerce endorsed the strong language of the Kelly Committee (see next column) in support of a particular scientific operation in government, the National Bureau of Standards. Said Weeks, "I am in complete accord with the views of the Evaluation Committee of the high level of importance to the nation of the Bureau of Standards and of the need for strengthening the Bureau so that in its performance it measures up to this level. I shall do all in my power to aid...."

DEFENSE FOR RESEARCH Defense Secretary Charles Wilson, who found himself browning in the frying pan because of some off-hand remarks on basic research, recently also provided some clarification of high administration attitudes toward science. A document on Defense research policy handed out at his press conference on Oct. 6 had a distinctly different tone from Wilson's off-the-cuff remarks which drew criticism last spring. The document asserted, "We have taken no steps to de-emphasize basic research....Except for some [shifts of emphasis], we intend to support basic research this coming year at substantially the same levels as we are now doing. This is somewhere between 25 and 30 million dollars per year."

NSF PRIMACY NOTED The document went on to recognize that "Congress has given the primary responsibility to the National Science Foundation for governmental support of basic research for general national needs. It is therefore the policy of the Dept. of Defense to restrict its support of basic research to those fields which have a high probability of providing useful results to the missions of the Dept. of Defense. We work very closely with the NSF. In this respect, Defense support of work in some of the more theoretical sciences has been reduced in favor of NSF support in those fields."

The document took note of "a feeling in university circles that there should be a higher proportion of basic research, without the restrictions of military security, in the government-supported work at universities. We believe, where there is any such divergence of views or conflict of interest, that the research work, if it is government financed, should be sponsored and underwritten by the National Science Foundation."

NOT MUCH CHANGE These second thoughts of the Secretaries of Defense and of Commerce brought them into line with the successful effort of the administration in the last session of Congress to remove the statutory limit on appropriations for the National Science Foundation. Taken together, it appeared that after several false starts -- which took some skin off some noses -- an administration policy on science in government was shaping up which was little different from that of the past. Subject to over-all economy pressure, government apparently will continue as the major financial foundation of scientific research. Federal agencies will give attention to applied research in their areas and to closely allied basic research, but support of basic research in general will continue to shift toward NSF.

JUGGLER NEEDED How rapidly this shift will occur, and how efficiently, is the critical question in the next year or two. The problem is a ticklish one. Close executive-legislative liaison will be required if some eggs are not to be dropped and lost as they are juggled from one basket to the other. If the administration recommends a large increase for NSF with compensating cuts in research budgets for defense agencies, an economy-minded Congress may cheerfully accept the cuts -- but refuse the NSF increase.

KELLY REPORT CLEARS NBS

The Kelly Committee report on the functions and operations of the Bureau of Standards, released October 16 with a strong endorsement by Commerce Secretary Weeks, finds no lack of objectivity on the part of NBS scientists. On the contrary it develops in 109 pages a strong case for a strengthened basic research program with less financial dependence on the Department of Defense. The FAS Executive Committee, in a press release on October 16, called the report and its reception by Weeks "a welcome reassurance on the integrity of the National Bureau of Standards and the prospect that it will remain free of political interference."

CONCLUSIONS SUMMARIZED Several conclusions from the report and its elucidation by Kelly in a talk at the Bureau on November 6 are of particular interest:

(1) With regard to the small amount of commercial product testing at NBS, the Committee recommended that "policy on the technical content of the problem should reside with the Director of the Bureau." On "policies...of a non-technical nature...the Director...should not be required to make the decisions." Among the "non-technical" matters to be handled by the Secretary of Commerce, Mr. Weeks specifically singled out the question of publication of circulars on general test results.

(2) Rejecting a suggestion that the Bureau should be administered by a "policy and administrative" man with a "technical director" serving subordinate to him, the report reaffirms the necessity of the directorship being occupied by a scientist. The report further states, "We are convinced that in the present framework of Government organizations there is no place better suited to the NBS than in the Dept. of Commerce."

(3) Kelly placed strong emphasis on the importance of his committee's recommendation for "advisory committees" to be appointed by the eight scientific societies which nominated members of the evaluation group. These committees would be formed to provide detailed guidance in specific technical areas, improve contact between NBS and the technical societies, and serve as "champions" of the Bureau in efforts for rebuilding to the minimal level of support recommended by the Committee.

(4) The Committee recommended, and Weeks effected, transfer of a large weapons research program from NBS to the Defense Dept. (see NL 53-7). The report specifically disclaimed that the transfer "represented a shift of function from Government laboratories to those of industry." Kelly listed as the two prime reasons for the transfer: (a) the magnitude of the weaponry funds impedes efforts to obtain a direct appropriation from Congress adequate for the Bureau's basic functions; (b) preoccupation with the weapons projects deprives the Bureau's basic functions of "adequate environment, attention, and tilt."

(5) The report gives repeated emphasis to the primary role of basic research in support of NBS activities on standards, constants, and methods of measurement.

JEFFRIES REPORT COMING The final, possibly anti-climactic chapter in the Astin affair will be the report of the Jeffries committee of the National Academy of Sciences, charged with an investigation of the NBS work on battery additives. The report is expected to be in the hands of Secretary Weeks this week and parts of it at least should be released soon thereafter.

EYES ON NSF BOARD In some measure the outcome, in this and the next several critical years, will depend on the wisdom and political know-how of the National Science Foundation, backed by the scientific community. With much at stake the spotlight falls on the National Science Board, whose 24 members, serving part-time, guide the policies of the Foundation. Next May 10, the terms of eight Board members expire. Scientists and their organizations would be well advised, at this juncture, to analyze the operations and future importance of the Board, and give thought to the kind of nominations for new members they would like President Eisenhower to make to the Senate next spring.

INTERNATIONAL AID -- BRIGHT SPOTS & STORM CLOUDS

The past month has brought news of notable local successes in international assistance programs. UN has drained swamps and reduced malaria in the Jordan Valley, and will start work on a dam, water-power, and irrigation project to aid refugees there; the Point IV program of the US (now the Foreign Operations Administration) has helped Thailand to start a dried-fish-meal program; and word has been received of extensive village-scale programs (irrigation, insect control, new house design, improved agricultural methods) in India. The Children's Fund has received permanent status. A counterattack on critics of the UN was launched at the recent UCLA conference on UNESCO, documented by the new film, "World Without End."

STORM CLOUDS Nevertheless, the over-all outlook for international aid has worsened markedly. UN agencies have always suffered from wretchedly inadequate financial support. John Taylor, retiring deputy director of UNESCO, recently pointed out that he had \$8 million to attack illiteracy involving two-thirds of the world's population -- "as effective as a bucket of



water to warm the ocean" (*Christian Science Monitor*, Oct. 14). Now, US budgetary tightening foreshadows cuts in our contributions to the already minuscule (\$24 million) UN Technical Assistance Program. The \$250 million fund proposed by 30 nations for grants-in-aid and long-term low-interest loans to underdeveloped regions will get no US support until general disarmament arrives (*N. Y. Times*, Oct. 15). Gloom is reported widespread among have-not nations, who prophesy that the effort already put into technical training will be wasted unless implementation is possible.

POINT IV LIONIZED The United States' own aid program -- TCA, or Point IV -- is disappearing from view. Already merged with the Mutual Security Agency to form Mr. Stassen's Foreign Operations Administration, it is due to be buried next year in a "single package" of military and economic funds. This climaxes a rising trend of purely military allocation of foreign aid funds (36% in 1952, 63% in 1953).

There is grave doubt whether military supervision can provide the personal, diplomatic, non-political approach so necessary to the success of cooperative self-help projects. The tie-in of economic aid with military or ideological cooperation has many disadvantages. It was the great strength of TCA, as originally conceived, that the aid was long-range, truly cooperative and non-political. That strength is now failing. Needy nations reportedly are inclined to view the altered scheme as substituting political bribery and US imperialism for altruism.

FAS IN ACTION

The FAS Council will hold its fall meeting on Saturday afternoon and evening, Nov. 28, in Chicago. The agenda will include determination of policy with respect to atomic power and the H-bomb and action on many other specific problems. Chairman Hill will preside and a dozen delegates or alternates are expected to attend. * * * * The Executive Committee has a meeting scheduled for Nov. 15 in New York. It issued a press release Oct. 13 on "Operation Candor." Another statement was released simultaneously with the Kelly report, having been authorized at the Committee's September 12 meeting.

CHAPTERS & BRANCHES Application for recognition as the Wisconsin Branch of FAS on behalf of 33 members has come from W. W. Beeman, corresponding secretary. The group has held several luncheon discussions this fall. A Greater Boston Branch was formed at a meeting attended by 70 scientists on October 22. Speaker was Leonard Eyles, recently returned after a year as a science attaché at the US Embassy in Paris. Fay Ajzenberg (Physics, M.I.T.) is corresponding secretary of the group. The Philadelphia Branch has circularized all FAS members in the area and is planning a meeting on UN and US technical assistance. Leo Neuringer (Physics, Univ. of Pennsylvania) is corresponding secretary.

The Mohawk Chapter is continuing its weekly luncheon meetings in Schenectady discussing topics such as technical assistance, European science, the "research mind and the political mentality." The MASE weekly newsletter excels in its brief notes on current issues. Much of the activity of the Chicago Chapter has been channeled into the two FAS committees which it staffs -- on A-power and disarmament. They are planning the general FAS meeting on H-Bomb implications for Nov. 27. The Washington Chapter has set a panel discussion on industrial atomic power for Nov. 17, with W. L. Davidson (AEC), Rep. Holifield, and Leland Olds as participants.

"LISTENING POST" The paid staff of the Washington Office has at least temporarily been increased to two. Among other activities, three Information Bulletins have been issued in the past month: texts of AEC Commissioner Murray's speech (see p. 1), of Secretary Wilson's policy statement on Defense research and development (see p. 2), and a digest of the Kelly report. These Bulletins are prepared for FAS Council, chapters, branches, advisors and a small group of individual and organizational subscribers. FAS committees are kept supplied with documents and current information in their areas.

This increased level of FAS activity has resulted from and in a significant increase in membership in the past 6 months. The greater activity by member groups around the country, however, means an increased load on the volunteer staff at the National Office; some of this has been transferred to the full-time workers. FAS membership will need to be further strengthened, however, if the Office is to carry out its responsibilities to the scientific community. The membership gains have come largely through the initiative of individual members in bringing FAS to the attention of their colleagues. Use the coupon, or extra copies of the FAS brochure, which are still available.

- MEMBERSHIP APPLICATION** -- Dues: Regular - \$5 (with income below \$2500 - \$3); Supporting - \$10; Patron - \$25. New membership and an introductory subscription to Bulletin of the Atomic Scientists - \$7.50 (with income below \$2500 - \$5.50).
- SUBSCRIPTION to INFORMATION BULLETINS** -- \$10 to individuals; \$25 for Societies, etc. (including Newsletter)
- NEWSLETTER SUBSCRIPTION** -- \$2 to non-members (all members receive the Newsletter)

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A-POWER BECOMES NATIONAL GOAL (Cont. from Page 1).
 by law," would not "enter aggressively into the full-scale power reactor construction and testing stage." With reference to dual purpose reactors in some industrial proposals to the AEC, Murray significantly quoted from the AEC's nuclear power policy of 1953: "It is the objective of this policy to further the development of nuclear plants which are economically independent of Government commitments to purchase weapons-grade plutonium." The Commissioner defended this policy on the very practical basis that "today we are organized to take care of present weapons demand for plutonium from reactors either now in operation or nearing completion," whereas "in the early days, before our present weapons producing plutonium reactor complex was initiated, it [the dual purpose reactor] was a realistic idea."

Murray also cautioned that "there has been an illusion, and it is growing, that the present government statutory monopoly is the only substantial block in the road to competitive nuclear power. Any expectation that simply changing the law will solve technological problems is a very grave mistake."

A-POWER AND WORLD POLITICS Murray's plea for national emphasis on attaining industrial atomic power was strongly oriented in terms of world politics.

He expressed the conviction that "the two races -- the atomic arms race and the nuclear industrial power race -- are strangely related" and left the impression that the chief importance of the power race lay in its effect on the arms race. He is concerned that the weaker nations of the world may gravitate, first economically and then more comprehensively, to that nation which first puts A-power into practical use and makes it available to the weaker nations. This alone he sees as a prize worth racing for but, as a pyramiding consequence, the winner would probably corner the uranium ore from small nation suppliers and thereby fortify the depth of its nuclear military position.

STATE DEPARTMENT SCIENCE OFFICE PARED

Economy has hit the Science Adviser's office in the State Department. The professional staff at Washington is down from four to two, and the number of attachés at embassies in Western Europe has been sliced from nine to four.

During the last three years, hard work had translated the principles of the Berkner Report ("Science and Foreign Relations," May, 1950) -- to bring science and diplomacy into profitable cooperation -- at least partially into actual operations. It appears that progress has now been stopped and grave danger of back-sliding exists. Although there seems to be no question of high-level policy considerations, the nation will be the poorer if the present trend is not reversed.

F A S NEWSLETTER

Federation of American Scientists
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SCIENTISTS MUST SPEAK OUT

The Society for Social Responsibility in Science, an organization of scientists formed in this country in 1949 to foster among scientists a tradition of moral responsibility for the consequences of their work, recently called upon scientists everywhere to "strengthen the spirit of free inquiry by clear and courageous public expression of considered opinions concerning the relations of science and society." The Society's resolution urged scientists to "speak out on the problems of the maintenance of scientific integrity, the maintenance of channels of communication and travel and the proper direction of public support of research, as well as on the personal, moral problem of the end results of a scientist's professional work."

The Society maintains that the responsibility of each scientist to consider the end results of his work as far as he can see them "implies a strong insistence on public expression of opinions...It is time that we learned to lose our fear of being 'labeled' for saying things we profoundly believe in. This fear must be overcome if we are to preserve the trust and fellowship, the loyalty to truth and the freedom of inquiry which we recognize as fundamental to science and to a high level of civilization."

Among the signers were: O. Theodor Benfey (President of the Society 1951-53), Anton J. Carlson, Kathleen Lonsdale, Franklin Miller, Jr., Stuart Mudd, Victor Paschkis, and William T. Scott.

* * * * *

Recommended reading: The Antioch Review, Fall, 1953. Several thought-provoking articles on "LIBERTY - Civil and Academic."

AND THEN THERE WERE (N-1456)

1,456 federal employees, confronted by loyalty or security charges in the first four months of the new Employee Security Program, have been fired (863) or permitted to resign (593), the White House announced on Oct. 23. Since the new program makes no distinction between charges concerning loyalty and security, no breakdown of the figures into these categories is available. The fired 963 were presumably recent probationary employees, as permanent employees are entitled to hearings, and no hearings are known to have been held to date under the new program.

DETRICK BW RESEARCH TO MATHIESON

Chemical and Engineering News of Oct. 26 reports that a contract is now being negotiated with the Mathieson Chemical Company to convert the Army Chemical Corps Bacteriological Warfare Research Center at Camp Detrick, Maryland to a private industry, contract-type operation. The Pentagon Public Relations Office confirms that such a move is under consideration, but insists that no final decision has yet been made.

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