F. A. S. NEWSLETTER

FEDERATION OF AMERICAN SCIENTISTS David L. Hill, Chairman

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PRESIDENT TO ASK ATOMIC ENERGY ACT CHANGES BY CONGRESS

U.S. SCIENCE BUDGET DECLINES

The annual Congressional tug-of-war over federal research appropriations began in mid-January with submission of the first budget prepared completely by the Eisenhower administration. The budget, which sets the targets for Congressional sharpshooters by defining administration objectives, calls for a moderate reduction in overall expenditure on research and development in comparison with the current year. For fiscal year 1955 expenditures are estimated at \$2,014 million -- \$113 million below 1954 and \$94 million below 1953. The impression is thus confirmed that 1954 represented a peak of federal research and development expenditure, and that barring new factors the trend will be slowly down toward some as yet undetermined plateau.

DEFENSE DOWN
Bearing the brunt of the R & D budget cut is the Department of Defense which will drop from \$1,425 million in 1954 to \$1,350 million in 1955, if the President has his way. The cut would affect all three departments -- Army, Air Force, and Navy -- approximately equally. Interestingly, the Office of Naval Research is recommended to receive an increase of \$4.7 million (\$55.9 to \$60.6 million) -- largely in its grant program -- to restore in part the unexpectedly severe slash it suffered last year.

AEC research and development also is recommended for a \$5 million increase (\$207.4 to \$212.7 million), although the amount budgeted for construction of new research installations is sharply reduced (\$64.4 to \$48.6 million). The reactor development estimate drops from \$91 to \$87 million, physical research moves up from \$39 to \$42 million, and research in biology and medicine up from \$26 to \$27 million. The budget notes "considerable emphasis" on reactors to generate electrical energy and looks forward to "cooperation of Government and Industry" in this

Both the Agricultural Research Service and the Public Health Service are budgeted for increases in their research and development funds. The agriculture increase is considerable (\$46.2 to \$56 million), the health increase is more moderate (\$53.9 to \$57 million). The National Advisory Committee for Aeronautics also would get a small increase for research operations (\$50.0 to \$52.5 million), but a sizeable reduction for plant expansion (\$41.0 to \$24.5 million).

Among agencies with small research budgets the RECOVERS
National Bureau of Standards, subject of controversy last year, is recommended to receive a \$2 million total increase over 1954. This recommendation essentially will restore the Bureau to its 1953 status, but represents no progress beyond this level as urged by the Kelly Committee, whose studies took place largely in fiscal 1953. Overall R & D budgets in both the Departments of Commerce and Interior show cuts of approximately \$1.5 million, with such agencies as the livil Aeronautics Administration, the Bureau of Mines and the Geological Survey particularly affected by the paring knife.

NSF RISING The National Science Foundation is recommended for the largest percentage increase in the science budget, from a little over 8 to a little over 14 million (Continued on Page 4, Column 1)

President Eisenhower will send to Congress this week specific proposals for amendment of the Atomic Energy Act, according to an announcement by White House Press Secretary James C. Hagerty on February 13. In his budget message to the Congress on January 21, the President had already indicated that legislation was being planned to permit "a greater degree of exchange of classified information with our allies, in order to strengthen their military defenses... and to enable them to participate more fully in the development of atomic power for peacetime purposes." In addition, the proposed changes would permit "transfer of fissionable material to friendly nations to assist them in peacetime atomic power development, particularly those nations which are supplying us with uranium raw materials."

LEGISLATIVE PRIORITY

According to the N. Y. Times of January 24, the bill to implement the President's proposals is expected to go to Capitol Hill sometime during February. Top priority for the President's atomic legislation has been promised by Rep. Cole, Chairman of the Joint Congressional Atomic Energy Committee. Cole has declared that the first order of business will be legislation to permit exchange of information with our allies, and second priority will be given to a program to encourage participation of private industry in the development of atomic power in this country. Although the President stated earlier in his budget message to the Congress that the present recommendations are independent of his international atom pool proposal made before the UN on Dec. 8, the planned amendments of the atomic law could be important steps in clear-

ing the way for US participation in such an international pool.

One of the immediate effects of the President's leg-BELGIAN islation would be to permit US officials to resolve IMPASSE the present impasse in American-Belgian discussions on sharing of atomic information. According to the N.Y. Times (Jan. 17), the US in a World War II agreement contracted to purchase the entire output of uranium ore from the Belgian Congo, considered to be the world's leading source. It appears that it was provided in that agreement that when commercial utilization of atomic energy became feasible Belgium would get the benefit of the US nuclear experience. The Belgian government maintains that commercial utilization of atomic energy is now practicable and has been asking for the promised cooperation. Existing laws bind the hands of US officials, making it impossible to cooperate under the terms of the wartime agreement.

The other nations supplying the US with uranium are Canada, the Union of South Africa, and Australia. The wording of the President's message suggests that the four uranium-exporting nations would be the first to profit from the lowering of existing bars to exchange of information and fissionable material.

A-POOL DISCUSSIONS CONTINUE

The US and the Soviet Union have continued behind closed doors their discussion of President Eisenhower's proposal for an international atomic pool. The preliminary meetings in Washington and Moscow have been followed by secret bilateral discussions in Berlin between Secretary of State Dulles and Foreign Minister Molotov. There have been no public announcements and observers in Berlin doubt that matters have progressed beyond (Continued on Page 4, Column 2)

NSF POLICY FUNCTIONS LAG

The fundamental policy role of the National Science Foundation is restated in President Eisenhower's recent budget message. The President notes that the agency "was created by the Congress in recognition of the need for formulating an adequate scientific research policy for the Nation. It is now engaged in intensive studies to that end, and is giving particular attention to the size and composition of the research activities of the Federal Government."

NSF
REPORTS
The Third Annual Report of the Foundation, made public on January 15, though it indicates a sound approach in its grant and fellowship program, is less

impressive in documenting progress in the policy function of NSF. Most of the section on "Science and Public Policy" is devoted to a recapitulation of the two earlier published reports in the continuing series on "Federal Funds for Science." On its survey of the current status of science in the US, itself only a first step in policy formulation, NSF records only the completion of "preliminary plans" plus several studies in progress in the areas of physiology, psychology, and applied mathematics. Even considering activities announced since the Third Annual Report was written, such as the formation of a committee to look into the effects of federal funds on colleges and universities, the available information does not indicate that the Foundation is tackling seriously the larger issues of national science policy as a high priority task.

DILEMMA For example, the section on "Coordination of Federal Research," a field in which NSF has statutory responsibility "to evaluate scientific research programs undertaken by agencies of the Federal Government" (NSF Act, 1950, Sec. 3a), includes only several minor activities and a statement of the technical difficulties in assembling information on the programs of federal agencies. The cautious approach implied is possibly explained in the foreword to the Report written by Chester I. Barnard, Chairman of the National Science Board which directs the agency. Barnard notes that "the Foundation is essentially an authoritative advisory body" and "can neither police nor direct activities of other agencies, of academic institutions, of industrial research, or of individual scientists.

"The Board believes it important to emphasize this view, because there is, on the one hand, a natural tendency to utilize the Foundation for secondary purposes and immediate administrative convenience and, on the other, a fear that the interposition of government in science will lead to attempts to dominate science and thus to destroy it. The Board is aware of these dangers. It believes that its major function is to operate so as to minimize both dangers."

STATUTORY
RESPONSIBILITY
of the Board will nonetheless wonder whether the \$2 billion research and development

budget of the federal government does not already dominate science, and whether it is not past time to have a comprehensive and authoritative analysis of what effects this essentially expediency-oriented domination has had. It is now nearly four years since the Foundation and the National Science Board were specifically charged by law with the responsibility to perform such a continuing analysis and make recommendations accordingly. Lacking this the US will continue to remain more dependent in this area upon international developments, and their reflection in military appropriations, than on our own evaluation of the national importance of scientific research.

It is time that NSF, having found its feet financially on the blazed path of research support, gave greater priority to its key function of exploring the pressing policy issues in whose solution lies the long-term strength of US science. In this connection the eight new appointments to the National Science Board, to be made by the President by May 10, deserve the immediate attention of scientists to ensure that the Board will be staffed by individuals not only of the highest technical competence but of the broadest perspective on the key role of science in national affairs.

— - C. G.

MONMOUTH and SECURITY

What Physics Today calls the "bombardment" of Fort Monmouth is receiving continued press attention, and there is evidence of "feedback" control on the chief bombardier. In the past month, the N. Y. Times and Christian Science Monitor both have carried extensive analyses of the Monmouth charges and replies, and Sen. McCarthy has been forced to defend his investigation on the Senate floor. During the debate on a new appropriation for McCarthy's investigating committee, Sen. Ellender (D; La.) quoted a letter, dated Jan. 15, from Sec. of the Army Stevens saying that "as far as the Army has been able to determine there is no espionage or other subversive activity" at Fort Monmouth.

SITUATION EXTENDS BEYOND HEADLINES

As the public battle ebbs at the Fort, leaving the casualties both in program and personnel to be patched up in rela-

tive quiet, it is being noted that the situation there, beyond the unsubstantiated charges of espionage, is largely the product of the federal security program initiated by President Eisenhower's Executive Order 10450, dated Mar. 28, 1953. In that order, the President obliterated the distinction between "loyalty" and "security" as they had been defined under the Truman loyalty program. The criterion for separation, which became progressively more inclusive during the Truman loyalty program, has now become simply failure to demonstrate that continued employment is "clearly consistent with the interests of national security." Summary dismissal power in security matters has been extended to all agency heads.

Effects of the new program, slow to appear, are now evident throughout the federal service with Ft. Monmouth only the most spectacular and best publicized example. At Ft. Monmouth, security and Review Board personnel have the additional guidance given by Sec. of Defense Wilson: "Doubtful cases in my view should be resolved in favor of the nation, not the individual."

LOYALTY OF GOV'T TO EMPLOYEES?

The N. Y. Times, referring to its documented series of Jan. 11-13 on the subject, commented editorially

on Jan. 14: "This newspaper's study of the Ft. Monmouth security investigations, summarized by Peter Kihss, must leave any impartial reader with a sense of uneasiness, if not dismay. Sen. McCarthy's shameless scramble for publicity has never been exposed more clearly than in the Monmouth case. But the Army's Security Screening Board is also open to censure for being arbitrary, unreasonable and lacking in loyalty to its employees."

Robert Cowen of the <u>Christian Science Monitor</u> (Feb. 3) views the situation in its wider implications: "...the celebrated Ft. Monmouth case includes an issue much broader than that of the particular suspensions involved; namely, that of the fairness and efficiency of the new over-all security program. In this respect, the Ft. Monmouth case is an example of actions under a general order that are going on quietly in many executive departments of the government."

The extent and effects of the new program may be gauged from the controversy surrounding the now famous figure of 2200 separations under the Republican administration. From this controversy the bitter fact emerges that what began under the aegis of protection of the national interest in sensitive areas has become clearly a tool of partisan politics.

FURRY FOREGOES FIFTH AMENDMENT

The case of Wendell H. Furry, Harvard physics professor, is shaping up as a focal test of Congressional investigative power versus the strength of individual conscience and academic freedom. Forsaking previously claimed protection of the Fifth Amendment, Furry testified on January 15 to past Communist Party membership but continued to refuse to implicate others on grounds of conscience and the First Amendment. Sen. McCarthy said that he will cite Furry for contempt. Harvard must now decide whether Furry's status as a member of the permanent faculty, on 3-year probation resulting from earlier testimony, has been altered by his new stand. In the process the line may be indicated from which the academic community will not retreat in its conflict of prerogatives with legislative investigators.

"NEW" MILITARY STRATEGY DEBATED

There is widening debate on the substance and implications of what is widely labelled the "new look" in US military policy. The essence of the new policy was announced by Secretary of State Dulles before the Council on Foreign Relations on January 12. Said Dulles, "the basic decision was to depend primarily upon a great capacity to retaliate instantly, by means and at places of our choosing." The Secretary described the principles underlying the new policy as "the modern way of getting maximum protection at a bearable cost." Clearly central to the new policy is the concentrated destructive power of the atom -- now "at the very heart of all our plans for military preparedness," in the words of Joint Congressional Committee Chairman Cole, who proposed on Feb. 11 that the Chairman of the AEC be made a member of the National Security Council.

PRESS COMMENT

COMMENT

Derhaps the main point of doubt on the new policy concerns possible adverse effects on current US-USSR conversations which have grown out of Pres-

ident Eisenhower's proposal of an international atomic pool (see NL 54-1). In entering these conversations, the USSR included among its objectives a "ban [on] atomic weapons, together with the establishment of international control over this ban" and "an unconditional pledge not to use these weapons." Roland Sawyer, in the Jan. 20 Christian Science Monitor, notes that "to nearly everyone this [new strategy] means but one thing: the United States threatens to drop atomic bombs 'by means and at places of our choosing.'" According to James Reston (N. Y. Times, Jan. 14), "it is now clear that the 'new strategy' of the Eisenhower administration depends on precisely the weapons the Russians want to ban. … the chances of an international agreement banning or regulating atomic weapons were never more remote than now."

MILITARY
DOUBTS
Other fears concerning the "new look" were summarized in the Christian Science Monitor on Jan. 26. Mentioned were possible dangers of relaxing our build-up of conventional weapons in our greater reliance on atomic and nuclear weapons (see NL 54-1). Concern on this point is said to be high among professional military personnel of the Defense Dept. According to Elie Abel in the Jan. 24 N. Y. Times, "These officers contend [privately] that Fresident Eisenhower and his Defense Secretary, Charles E. Wilson, have been sold an untested and highly dubious proposition that atomic firepower can be an effective substitute for trained manpower.

TOWARD PEACE Whether the new policy provides a workable method of maintaining world peace, or is a further step along the road to atomic war-

fare, is high in the attention of many. On the University of Chicago's Round Table radio broadcast over NBC January 31, Harold Urey expressed the fear that "if we ever get to the place where we use atomic bombs, we can expect World War III with atomic bombs being dropped on us. It's something we should avoid." Marquis Childs said in his column on February 6 that "Dulles . . . seemed to rule out limited wars and say that the next conflict would inevitably be an all-out atomic war. Certain Senators are planning a full dress debate at the earliest opportunity in which they will try to determine whether this was in fact the meaning of the Dulles speech."

Though it is claimed that the US will revise this policy as required if genuine prospects for atomic disarmament develop, it appears that revision would be difficult and is not expected to be required. NATO Commander-in-Chief Gruenther, in a press conference January 11, is reported by the Christian Science Monitor to have noted that a ban on the use of atomic weapons would compel the North Atlantic Treaty Organization to rush a complete restudy of the defense problems of Western Europe. And Secretary Dulles, at his last press conference before flying to Berlin for the January 25 Big Four Foreign Ministers' Conference, said according to the January 26 Christian Science Monitor, that present strategy was based on a present estimate of Soviet intentions. Dulles stated "We believe the USSR has no intention of banning atomic weapons," but added that, if they do really show a willingness to fix safe ironclad controls to the atomic bomb, then we stand ready to revise our strategy."

FAS MEETINGS IN NEW YORK

The Ft. Monmouth investigations and their ramifications were discussed at an overflow FAS meeting January 29, at the time of the New York physics meetings. Prof. Ernest C. Pollard, reporting for the FAS Scientists' Committee on Loyalty and Security, said "reports indicate that morale among the professional staff is very poor and that a high percentage of the scientists not implicated in the present investigation are now planning to seek employment elsewhere." He emphasized that "no charges of actual espionage or real subversive activity have ever been made against any of the nineteen scientists suspended or the ten scientists who have been transferred to unclassified work."

The Council acted the next day on current issues and COUNCIL took steps to strengthen the FAS organization. The Federation is at a new peak of activity, budgeted this year for a total of more than \$8000 including committee work, Newsletter and other information services, and Washington Office maintenance. This compares with \$7400 expended in 1953. The success of the increased budget depends upon the expansion of the current membership growth. A new drive is being readied, to include both mail and personal invitations to prospective members.

Adopted as part of FAS policy on the A-pool plan: US participation in supplying information to implement the Atomic Pool Plan would involve declassification of material in the power field; this would be a desirable step and need not jeopardize the national security. The Council discussed a WAS suggestion that FAS statements not link the atom pool plan with issues of disarmament.

REPORTS After hearing SCLS report on FAS activity on the Monmouth situation, the Council discussed the further dissemination of information developed by the committee and requested it to continue its inquiry. Mohawk Chapter reported interest in dispersal of industry and other aspects of civil defense. Visa Committee reported growing interest in the Gubser resolutions and asked for information from and about anyone having visa difficulties. FAS Elections Committee nominations for 1954-55 have since been distributed to members who were invited to add more names by petition before March 1.

Rotation of FAS committee assignments among chapters and branches was held desirable; Brookhaven to exchange Membership for A-pool plan study. * * * Greater continuity in FAS operations would be achieved in constitutional amendments proposed to extend terms of Council delegates to two years, and to retain past chairmen on Council; details will be circulated before May Council meeting. * * * Two new FAS branches -- Los Alamos and Rochester -- were recognized by the Council.

The FAS is a national organization of scientists and engineers 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.

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TROUBLES in STATE SCIENCE

The Science Adviser's Office in the State Department, established several years ago in accord with recommendations of the Berkner Report on "Science and Foreign Relations," recently has been mentioned in press stories in the incongruous guise of a "stink-hole of out-and-out Communists." Origin of the stories was a "report" in <u>U.S. News and World Report in mid-December quoting an anonymous State Department official.</u> At the end of January, <u>U.S. News</u>, faced by facts and, reportedly, a threatened libel suit by two former members of the Office, published a short retraction and apology.

Seeking to explain the incident, Joseph C. Harsch in the Christian Science Monitor of Jan. 20, notes that the Office interested itself in questions relating to visa difficulties of foreign scientists, many of whom coincidentally have foreign-sounding names. These, and possibly other efforts of the Office on behalf of better integration of science and diplomacy, apparently aroused resentment and suspicion where it rises easily. Says Harsch, "the visa office of the State Department is allergic to foreigners with strange names coming from faraway places...

To an overly zealous, and perhaps job-frustrated, visa officer enyone seeking visas for strange-sounding foreigners must be suspect of something."

In any event the incident, despite its tragi-comic aspects, serves to illustrate the increasing difficulties under which the Science Office is operating. While in its infancy it has had to concern itself with some of the more controversial aspects of State Department policy. In an unsympathetic environment, with little precedent to rely on, and without much assistance from the scientific community outside, it has been something of a "sitting duck." Its increasing frustration endangers the entire concept of the Berkner Report, generally lauded when it first appeared. Those who hailed it will need to make their support concrete if the Science Office is not to be throttled in the cradle.

U.S. SCIENCE BUDGET DECLINES (Cont. from Page 1). dollars. This increase, however, even if accepted by Congress, will still leave the agency a distinctly minor one in the federal research picture and short of the original statutory limit of \$15 million which was removed by Congress last year on administration request. The budget indicates that the recommended increase is intended almost entirely for the NSF grant program in support of basic research. "A large part of the increase," according to the budget, "represents a transfer of the responsibility for certain basic research programs from the Department of Defense to the Foundation. The remainder of the increase is to provide a more adequate level of basic research for the Nation." There is no indication as to the Defense items to be reduced.

A-POOL DISCUSSIONS CONTINUE (Cont. from Page 1). the purely procedural. According to the N.Y. Times of Jan. 25, Britain, France and Canada have been continuously informed as to progress in these atomic discussions but these governments are apparently content to allow the US to carry on the negotiations, at least until they pass on to substantive matters.

Reaction to the President's UN proposal continues to be favorable in most quarters. The Council of the American Assoc, for the Advancement of Science, meeting in Boston last December, adopted a resolution approving and commending the President's plan. The resolution read in part: "Scientists throughout the world will welcome the opportunity to work together on these problems as a service in the interest of peace and a contribution to the welfare of all peoples. Science is a major constructive force in the world. It knows no geographical boundaries. Hence the prospect of bringing scientists from many countries together in a collaborative research and development effort in this promising area provides great hope not only for immeasurable material benefits but especially for better understanding and goodwill among nations."

EMPHASIZED pressed as to the feasibility and foreseeable utility of the President's plan. It is pointed out, for example, that many political and technical problems lie between the proposal and concrete steps to make it of value to the nations needing it most. Roland Sawyer, staff correspondent for the Christian Science Monitor, notes that the countries where atomic power could be used to best advantage are least able to pay for it. If tangible results are to be obtained in the near future, it would appear that the US Congress will have to foot the bill. In a letter to the New Republic of Feb. 15, Eugene Rabinowitch, editor of the Bulletin of the Atomic Scientists, also expresses reservations with respect to the possibility of practical implementation of the Eisenhower proposal. He suggests that more conventional and politically more feasible forms of technical assistance are not receiving the attention they deserve from the present administration and finds "peculiar" its espousal of

In other quarters reservations are being ex-

the "extreme proposal" of atomic cooperation.

Thomas J. Hamilton (N. Y. Times, Feb. 2) suggests that the President's atomic energy speech to the UN may have been instrumental in bringing about the recent change in the Soviet position on prohibition of atomic weapons. Since the end of World War II the Soviet has rigidly insisted on unconditional prohibition of manufacture, possession or use of atomic bombs. According to reports from the Berlin conference, Molotov now calls for a prohibition of use of atomic bombs without the previous invariable demand for cessation of bomb production and destruction of existing bomb stockpiles.

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54 - 2

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