

# F. A. S. NEWSLETTER

FEDERATION OF AMERICAN SCIENTISTS  
David L. Hill, Chairman

1749 L Street, N.W., Washington 6, D.C.  
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## SHARP WARNING ON MONMOUTH BY FAS COUNCIL

"Sensational investigations" like the one now being conducted by Sen. McCarthy's subcommittee at Fort Monmouth, New Jersey, "pose a serious threat to the scientific research which supports our national defense," the FAS Council said in a statement from its Chicago meeting on Nov. 28. After hearing a report of an "on-the-scene" study by the FAS Scientists' Committee on Loyalty and Security, the Council held that a "clarification of the issues" was "badly needed." It continued:

"Press reports have created the impression that the Ft. Monmouth Laboratories are a center of present and continuing espionage through which much secret material has passed into Russian hands. Several important facts have been largely overlooked so far in reports on the situation."

Noting the importance of Fort Monmouth to the nation's defense, the Council pointed out that:

**ESPIONAGE NOT CHARGED** "In spite of strong press implications to the contrary, no charges of actual espionage or subversive activity have been made against any of the approximately 30 scientists implicated or against any of the 11 implicated employees who are not scientists. The majority of the charges so far presented to those suspended has been: slight acquaintance with known or suspected Communists; casual attendance at meetings or social functions; and organizational affiliations of relatives and friends. Many of the charges could have been based only on hearsay. All of those to whom charges have been presented plan to contest their cases vigorously before the 1st Army hearing board.

"Contrary to a widespread impression, none of the present suspendees who have appeared before the investigating subcommittee have invoked the 5th Amendment or otherwise refused to cooperate. Although the possible existence of espionage in any defense laboratory must always be conceded, it is difficult to see how the present suspensions are connected with the implications of espionage. These removals of key scientists, which have had such a serious effect on the operations and morale of the laboratories, would appear in a very different light if actual charges of espionage had been made.

**MORALE AT LOW EBB** "Because of security regulations, it is not possible to estimate the damage to our defense research program which has resulted from the present investigation. The suspensions have hit hardest among the top scientists, and morale is low among the professional staff. Seven out of 29 section chiefs in one of the 3 main laboratories have been removed from their jobs. A shortage of adequately qualified research personnel has long existed at Fort Monmouth and reports indicate that a high percentage of the scientists not implicated in the present investigation now plan to seek jobs elsewhere.

**NET EFFECT ON SECURITY** "The facts of the present international situation clearly require that all reasonable precautions be taken to prevent espionage and security leaks in our country's defense laboratories. This necessary security can be and is now maintained by the little publicized but ever vigilant security agencies which are already established and which operate under well-defined procedural regulations. It is clear that a real maximum of national security can be achieved only by an intelligent balance of security-by-secrecy against security by vigorous military research and continuing achievement. "The point should be clearly made and emphasized that

### RECENT DEVELOPMENTS

Army spokesmen at Fort Monmouth, N.J., according to a UP dispatch on Dec. 4, said that the Army has no evidence that the inquiry there has caused top-level scientists to seek other jobs. Turnover of scientists and engineers was said by a personnel spokesman to have been "less than normal" during the investigation. The Army declined direct comment when queried about the FAS Council statement released on November 29.

**OPEN HEARINGS** Other developments center on 2 days of open hearings conducted by Sen. McCarthy, and changes in the status of some of those suspended earlier. The open hearings were in response to Army Secretary Stevens' Nov. 13 statement that "so far as the Army is concerned, we have no evidence of espionage." They were therefore watched carefully to see whether the Senator would make a case to the contrary.

That the importance of these hearings was recognized by the investigators is clear from statements made by Roy Cohn, counsel for the investigating subcommittee, on a television program on Nov. 22. To charges that the investigation was a "hoax on the public," Cohn was reported by the *N. Y. Times* to have replied: "Wait until Tuesday" when the hearings were to begin. Cohn asserted that the public hearings "will bear out everything that Sen. McCarthy has said," including the subject of "present espionage." He said that the hearings would go on for weeks, and that "every witness who has material testimony, including those working at Fort Monmouth when this investigation started," would be heard at length.

**CASE NOT MADE** There have so far been two days of hearings. They were recessed for the Thanksgiving holiday and did not resume on the following Monday as expected. They are now reportedly to be renewed in Washington on Dec. 8. Summarizing the first 2 days, *Christian Science Monitor* correspondent Mary Hornaday concluded that to date Sen. McCarthy "has been unable to prove current espionage as he promised." No current employees were called, although a number of those under suspension reportedly are anxious to appear. Several witnesses sought refuge in the Fifth Amendment when asked either about espionage or Communist affiliation. When one witness challenged the Senator to produce evidence against him, the reply was that use of the Fifth Amendment "is the best evidence you can get." If so, in the opinion of many observers the best was not good enough.

**TALLY ON SUSPENDEES** Meanwhile, a late tally by FAS' Scientists' Committee on Loyalty and Security shows that in the group of 30 professional personnel originally affected, none has so far been restored to his original job. Fourteen out of 23 originally suspended remain under suspension. Suspension of the others has been lifted to allow them to join a group of 7 originally shifted to what is known locally as the "leper colony," those working in the unclassified area.

investigations which are characterized largely by sensational headlines and wholesale suspensions can, by crippling our defense research, actually result in a net gain for those who work against the interests of the United States. The effect on our national security would be extremely serious if such investigative methods are allowed to spread to other areas of this country's scientific effort."

## COUNCIL MAKES POLICY ON SEVERAL FRONTS

The Chicago meeting of the FAS Council on Nov. 28 was an effective demonstration, in the words of one delegate, that the FAS is "in a vigorous state of activity." Faced by a 10-page agenda with 9 sections, the delegates ground all the way through, producing in the process a public statement on the situation at Ft. Monmouth, two broad policy statements covering development of atomic power and problems of disarmament, and establishing new guide-lines for future FAS activities -- both internal and external. Minutes of the meeting will be available to members on request from the Washington Office. What follows covers only salient points.

### ARMS RACE

The Council's discussion of the atomic arms race brought forth no panaceas. There was a consensus that (1) the situation warrants the deepest concern, (2) there has not been enough plain talk for the people to be able to form sound opinions, (3) disarmament -- the undisputed long-range goal -- must be pursued patiently, but specifically and at high levels, and (4) the adequacy of defense measures is a matter of legitimate current concern.

ATOMIC POLICY & NATIONAL DEFENSE The Council agreed that "the attainment of 'H-bombs' by both the US and the USSR marks the passing of yet another signpost along the all too short road toward disaster. If this finality is to be avoided, a fundamental re-orientation of our thinking on atomic policy and national defense is required."

CANDOR "The wraps must be lifted and the problem exposed. The American people must be told where they stand, plainly, authoritatively and without confusion. Many of the issues which have been wrestled with in closed rooms must be laid in the open for debate. Their resolution will call for sacrifice, of goods, of energy, and -- most difficult of all -- of established ideas. Sacrifice cannot be demanded in the US. It must come willingly, and it cannot come willingly without understanding. If decisions essential to our survival are not to be avoided as politically impossible, the American people must be let in on the facts. Much of the general type of dependable information they need is almost surely already known to the Kremlin, and its disclosure would do much good and no harm."

DISARMAMENT The Council reaffirmed its belief in the need for a special commission to study in detail all aspects of disarmament and atomic control: "There must be new, fresh, determined consideration of measures to break the impasse on international control and reduction of armaments. Pious preachments will not do. Our past disappointments must not indefinitely deter us. . . . We must be prepared for patient revision in a flexible spirit of give-and-take that is at the same time eager to reach sound agreement and alert to the danger of trickery and evasion."

### ATOMIC POWER

Considering changes in the Atomic Energy Act proposed in recent months, the Council reached a consensus summarized below on how best to further the development of atomic power in the US, and on other questions which have been raised.

U.S. SHOULD GO FORWARD The conventional energy resources of the US are so rich that there is no immediate economic incentive to develop a purely domestic nuclear power industry. Nevertheless, because of the large power demands existing in other parts of the world, it is in the best interests of the US to develop nuclear power rapidly. The Council therefore favors an expanded program of research and development toward economically competitive power. It feels that the federal government must bear the financial burden of this program, since recent Congressional hearings have shown that private enterprise cannot afford to undertake the job in expectation of profit.

The repeal of prohibitions on the export of peacetime atomic energy devices, including reactors, is urged. The

Council noted that the burden of the whole development effort on our own economy might be appreciably lessened by the sale of nuclear power plants, which can be built at present and which might yield the cheapest power in countries where coal is scarce, although they would not be competitive in the US.

LESS SECRECY WOULD HELP The project recently announced by the US Atomic Energy Commission in which a peacetime power reactor is to be developed and constructed is viewed as a definite step in the proper direction. However, this project is viewed as only a start, and several other such projects are considered necessary for the early achievement of the goal of economic nuclear power. Considerable relaxation of present secrecy measures in regard to the peacetime uses of atomic energy is favored, since companies not now engaged in nuclear development would be enabled to apply their skills to this field if essential technical and cost data on nuclear reactors were made available to potential designers. It is felt that such information would not jeopardize the security of our weapons program. Exchange of reactor information with other countries, which would require revision of the present law, would be expected to be helpful to our own development.

The interval before nuclear power becomes industrially competitive with other fuels in this country is expected to be a considerable one, with the possible exception of the AEC itself, which is a major consumer of electrical power in some power-short areas of the country. It is expected that private electrical companies will eventually wish to construct and operate power reactors, and the private ownership of such reactors -- when privately financed under proper safeguards to protect the public interest -- is favored.

SAFEGUARDS NEEDED The questions of patents and of the ownership of fissionable material are considered to be of lesser importance. It is felt that the issue of compulsory patent licensing ought to be decided in line with a national patent policy, since it is not uniquely pertinent to the nuclear industry. It is considered feasible to set up a control system whereby private ownership of fissionable material could be allowed without risk of diversion to nuclear weapons and without detriment to public interest. The value of fissionable material as a national resource is viewed as a point for consideration in such a control system. Safeguards against wasteful methods of burning nuclear fuels are considered necessary, and provision of incentives for breeding fissionable material is suggested.

### VISA PROBLEMS -- GUBSER RESOLUTIONS

The Council approved the spirit and intent of the 2 Gubser resolutions, introduced in the House last July, which would facilitate the granting of temporary visas to scholars and scientists.

H. J. Res. 307 provides for prompt decisions by a board which would include scientists and scholars. H. J. Res. 308 provides similarly but also would allow the Secretary of State to grant non-immigrant visas when the national interest so requires, despite some specified technical restrictions of the McCarran Act. Thus he would be able to resolve borderline cases where an applicant's associations might be frowned upon, but where there was little likelihood of the alien's engaging in subversive or illegal activity during his short visit. The potential contribution of the individual would thus be balanced against the possible harm. The statute as it stands is purely negative.

HEARINGS POSSIBLE Rep. Charles S. Gubser (R, Cal.) has here taken the first concrete steps in Congress specifically to alleviate the present unsatisfactory situation in the issuance of visitor's visas.

It appears that if sufficient interest is shown to the House Judiciary Committee, hearings may be held in the coming months. The Council urged that every effort be made to ensure passage of one or the other resolution, or some suitable combination. Copies of the resolutions and explanatory material are available from the Washington Office and the Stanford Chapter.

(Other Council statements on Pages 1 and 4)

## JEFFRIES COMMITTEE REPORT VINDICATES NBS

On Nov. 13, Sec. of Commerce Weeks released the report of the Jeffries Committee, appointed at his request by the National Academy of Sciences "to appraise the quality of the work performed by the National Bureau of Standards in relation to battery additive AD-X2." The judgment of the Jeffries Committee: NBS work in the field of battery additive testing was "excellent" and adequate to support the Bureau contention that AD-X2 "is without merit." Sec. Weeks found this judgment -- practically a complete contradiction of his original charges -- "a source of satisfaction."

### SAMPLE CONTRADICTIONS

In his bill of particulars last Mar. 31 before the Senate Small Business Committee, Mr. Weeks was doubtful of the motives and objectivity of NBS personnel, finding that they "were in touch with and worked closely with individuals and organizations who might have had an interest in the final outcome, submitting their work to them previous to publication and seeking their advice and guidance." Commenting on this kind of complaint, the Jeffries Committee said, "We found no evidence of this but ample evidence of healthy objectivity. Insofar as the contact between the Bureau personnel and 'outsiders' in the field of lead acid batteries is concerned, we found the relationships to be essentially those which could be expected among people having confidence in one another, with the common objective of arriving more nearly at the truth."

The Commerce Secretary cited the manufacturer's complaint that "he has not been able to get NBS to run a test that would show the merit of his product (sic). A test was agreed upon, but 10 modifications in the procedure were made by NBS." The Jeffries report says, "The criticisms of the tests do not relate to major items. It is our opinion that the changes made (by NBS) improved the design of the tests." The Secretary further noted that "The manufacturer had independent tests made by the US Testing Company of Hoboken, N.J. -- controlled field tests extending over a period of 362 days. These tests rendered credible the experience reported by consumers."

### OTHER TESTS FOUND LACKING

The Jeffries Committee analyzed the US Testing Company's report in detail -- after preliminary examination showed that it found "some effects of AD-X2 which might have indicated that it had merit." The final conclusion was that though two statistically significant effects appeared in the data, neither was of any practical significance. "Thus we find [that this and the other two] reasonably well-designed controlled tests carried out with the cooperation of Pioneers or under its auspices and involving 60 batteries or about 180 cells show (with the unimportant exception noted above in the US Testing Co. report) no statistically significant differences between batteries or cells treated with AD-X2 and the untreated controls."

Mr. Weeks noted that tests conducted at MIT, on request of the Senate Small Business Committee, put "believability into the US Testing Company's report." The Jeffries Committee finds the MIT tests "too limited for evaluation purposes," and "not well designed for old batteries differing markedly in the characteristics of the cells" since "in the majority of the cell pairing it happened that the better cells were treated with AD-X2."

### IN RETROSPECT

Turbulent as the Astin affair was while in progress, it is more illuminating in retrospect. The full record is now before us and current events highlight its significance as a kind of model engagement for science in the political arena. The record shows that the facts can catch up with loosely flung charges when those who are accustomed to basing judgments on facts insist upon having them. It shows, too, that in this affair the scientific community made a major contribution to an essentially political struggle, and it did so in an entirely appropriate way -- by insisting on a rational analysis based on the facts. Secretary Weeks almost certainly did not intend to strike at science as such; his motives centered more in his antipathy to federal regulation of business, and in his conception of the identity of business and the national welfare. But he found that science, too, has a conception of its role in the national welfare and will insist upon its equal status with other elements of society in performing it.

### INTERNATIONAL A-EXCHANGE LOOKING UP

Prospects for liberalizing international exchange of nuclear information have apparently been improving during the past few weeks. Recent developments in the US indicate a reasonable chance of a return to the substantial exchange of such information which existed between the US, Great Britain and Canada during World War II. These developments are concerned both with possibilities for limited exchange under present laws, and with discussion of changing them to permit more extensive exchange.

On Nov. 11, AEC Chairman Strauss announced that: "Recently it has been found possible, within existing authority, to extend the area of cooperation [with the United Kingdom and Canada]...in certain limited respects and to our mutual advantage." On Nov. 20, the AEC announced that in line with this Strauss statement, the US, Great Britain and Canada would initiate mutual exchange of "knowledge of the effects of nuclear explosions on personnel, structures, and equipment."

### AMEND ACT FOR MORE EXCHANGE?

Exchange of scientific information on nuclear processes themselves depends on amendment of the Atomic Energy Act.

The possibility of such amendment has been under consideration for some time, and may have received impetus through high-level talks in connection with the "Big Three" conference in Bermuda. Lord Cherwell, long-time personal adviser to Churchill and former head of the British atomic program, and AEC Chairman Strauss were both at the conference.

### EISENHOWER TO SPEAK

According to the Washington Post, of Dec. 7, the two also worked on an important speech to be delivered by President Eisenhower before the UN on Dec. 8. Under the title, "Devils that Confront the World in this Atomic Age," the President reportedly will respond to requests from scientists and others for more candor on atomic weapons. The speech is said to be of a "positive" nature, avoiding the "horror" approach, and emphasizing both the tremendous destructive and constructive potentialities of atomic developments. It will express the hope that the world's leaders will have the good sense to use the atom for the welfare of mankind.

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.

PROSPECTIVE MEMBERS -- New FAS branches have recently been formed in Philadelphia, New Haven, Madison and Greater Boston. Chapters are active at Brookhaven, Chicago, Stanford, Schenectady-Troy, Urbana and Washington, D.C., with signs of growing interest in other scientific and engineering centers. Names of local secretaries available from Washington Office on request. Send for FAS brochure or use the coupon:

- 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).
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### NSF APPOINTMENTS COMING UP

Statement on prospective appointments to the National Science Board, adopted by the FAS Council, November 28, 1953, Chicago, Illinois:

"On May 10, 1954 the terms of office of eight members of the National Science Board, established by the National Science Foundation Act of 1950 as the policy-making group for the Foundation, will expire. Reaffirming its belief, as expressed in the past, that a strong, vigorous National Science Foundation is essential to our continued scientific progress as a nation, the Council urges that the most careful consideration be given to new appointments to the Board. Government officials and scientists and their organizations have joint responsibility to ensure that the nominations presented by the President to the Senate will be of the highest caliber and will give to the Board proper balance and the widest perspective.

PRINCIPLES "The Council believes that, among others, the following principles should be observed in considering nominees:

"1. Incumbents whose terms are expiring should be considered individually for renomination on the basis of their past performance and future promise. Blanket renomination of all incumbents, as seemed advisable in 1952, would now both establish bad precedent and fail to take the opportunity to bring new points of view into the Board. For best working relations between the Foundation and the scientific community, continuous exchange of personnel between them is desirable.

"2. Nominees to the Board should be distinguished for their breadth of view on the relation of science and public affairs as well as for leadership in their particular specialty.

"3. In considering problems of balance within the Board, attention should be given to the proportion of actual working scientists in relation to members engaged mainly in the administration of scientific or other activities. In this connection, it is worth noting that the terms of three of the small number of active working scientists on the 24-man Board expire this year.

"4. In relation to problems of balance, also, attention should be given to the appointment of younger individuals, creatively active and close to the problems of training, selection and encouragement of new scientific personnel.

ALL SCIENTISTS SHOULD HELP "The Council instructs the Executive Committee and the National Office to work toward these objectives in the coming months, and calls upon all scientists and their organizations to study and make their views known on new appointments to the National Science Board."

### F A S NEWSLETTER

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### INTERNATIONAL CULTURAL EXCHANGE

The US position in areas of international exchange still has corners of considerable darkness. One of these corners is the UNESCO-sponsored international agreement for duty-free importation of books, works of art, and other materials of an intellectual, scientific, or cultural nature. Although the treaty was drawn up 3 years ago, the US has never signed the agreement. This failure has been a damper to the whole movement for freer cultural exchange among the nations.

Another dark corner concerns the Universal Copyright Convention, which we signed with 39 other countries at Geneva last year, but have not yet ratified. The US never did subscribe to the Berne Copyright Convention of 1886, and this failure has caused much international confusion in the literary field. A correction of this situation by prompt ratification of the new Universal Copyright Convention would be a step forward in the orderly international exchange of thoughts and ideas.

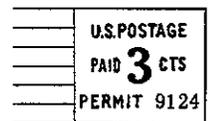
### ANTI-VIVISECTIONISTS ACTIVE

After fighting high-pitched losing battles in many American cities and states, the anti-vivisectionists are now devoting their attention to Washington, D.C., where public hearings are in progress on a proposed order requiring the District Pound to make available for research impounded animals which would otherwise be destroyed. As usual, one of the main activities of the "antis" is the distribution of pictures of "tortured" animals and their "fiendish" scientific "malefactors." Although it appears likely that the new order will be executed, the progress of research is still routinely hindered to an annoying extent by the groups which seem to have as one of their aims the killing of as many dogs and cats as possible to prevent their being made available for research.

### GOVERNMENT-UNIVERSITY RELATIONSHIPS

On Dec. 7, the National Science Foundation announced appointment of an advisory committee on government-university relationships. The Foundation noted that "the extent and scope of financing by government of development projects and research in universities and colleges raises some important questions about the effects of such funds upon the customary teaching and research activities of the institutions." The new committee will study as well such questions as "how the Federal Government, in cooperation with the colleges and universities, may best develop and encourage research and education in the sciences."

Committee chairman will be Chester I. Barnard; other members include: Arthur S. Adams, Vannevar Bush, Harold W. Dodds, T. Keith Glennan, William V. Houston, and J. A. Stratton.



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