

F. A. S. NEWSLETTER

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Donald J. Hughes, Chairman

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CONGRESS HEARS SCIENTISTS ON SECRECY, C D

SECRECY WEAKENS DEFENSE EFFORT

Present security regulations hamper free exchange of basic scientific information, weakening the US defense effort they were intended to strengthen. This was the unanimous opinion of nine scientists and three reporters testifying in Washington Mar. 7-9 before the House Subcommittee on Government Information, headed by Rep. John E. Moss (D, Cal.). Unofficially it was noted that holding hearings concerning availability of scientific information was in itself unique. Official testimony made it "quite clear" that Government controls impede information flow among scientists to the detriment of both, said Malcolm C. Henderson, Catholic University physics professor, in summing up the 3-day discussion at the Subcommittee's request.

AUTOMATIC DECLASSIFICATION

To halt the extension of secrecy, the suggestion was made that a time limit be set on the classified status of scientific data when it originates, and that at the expiration of this limit, the data would automatically become declassified unless continued classification could be justified. "The importance of secrecy becomes very slight in a short period," said physicist Harold Urey.

Although the scientists agreed that the country's basic strength is softened by extreme secrecy, all drew a careful line between secrets of nature and the know-how of weaponry. Developing power from controlled fusion of light elements was cited as an example of basic science that should be open to all by several witnesses, including MIT physics professor and former FAS chairman M. Stanley Livingston; Associated Universities, Inc. president Lloyd V. Berkner; and Case Institute of Technology's dean of the graduate school Elmer Hutchisson.

Testifying as an individual, FAS chairman Donald J. Hughes cited an instance, revealed at the August Geneva conference, when a Russian scientist based his work on an inapplicable physical constant because security regulations kept him unaware of a colleague's identification of the applicable constant.

"CALCULATED RISK"

New ideas and concepts are far more vital than weapons already developed, it was stressed in the course of the hearings, and these come only from free interplay and synthesis of many factors. To speed up research, the scientists urged taking the "calculated risk" of releasing much of the research now kept in locked files. Competent scientists in any country learn the same facts, most witnesses reiterated in various wordings.

Other suggestions included creation of a special corps of scientists to classify what few new research findings required it; classification by projects or subject matter rather than by "need to know" in order to promote essential cross-fertilization; uniform classification standards for all Government agencies, thus eliminating the problem of determining equivalent clearances before discussing mutual problems; relaxation of travel restrictions both into and out of the country by US and foreign scientists; re-establishment of State Department science attaches in the major embassies abroad; and help from the National Science Foundation in translating and disseminating foreign research reports.

In closing this phase of extensive hearings, Rep. Moss said: "There is every indication that the more information there is made available, the greater will be the nation's security."

URGE DEPT. OF CIVIL DEFENSE

An extensive series of hearings covering all aspects of civil defense are being held by the Military Operations Subcommittee of the House Government Operations Committee, under Rep. Chet Hollifield (D, Cal.). The group is considering specifically two resolutions urging the reorganization of our present CD establishment. House Concurrent Resolution 108 would create a Dept. of Civil Defense as a fourth co-equal department of the Defense Dept.; House Joint Res. 98 would set up a separate Dept. of Civil Defense with Cabinet status.

FUTURE HEARINGS

Hearings started the end of January, and have so far included testimony on the general aspects of the problem, the adequacy of our present measures, and some specific recommendations for action by the Federal government. Several representatives of the Defense Dept. have been heard, and currently representatives of other government agencies concerned with various aspects of CD are appearing. The hearings are expected to extend well into April, and the Subcommittee plans to travel to a number of cities throughout the country to determine the present status of CD on the state and local level.

PRESENT PROGRAM INADEQUATE

Many of the witnesses criticized our present civilian defense as totally inadequate. The current concept of leaving the primary responsibility to state and local organizations, with the Federal government acting primarily in an advisory capacity, was called unrealistic. Testimony by Merle A. Tuve, chairman of the Nat. Academy of Sciences-Nat. Research Council Committee on Civil Defense, emphasized this point. He also stated that, while much greater expenditures of both money and effort are called for, a reasonable program should not cost more than 5% of the present Defense Dept. budget. He called for Federal expenditures in the fields of education, warning, shelters, special roads, public utilities in dispersal areas, cover and fallout protection, and emergency reserve supplies.

Willard Bascom, technical director of the NAS-NRC committee, stressed several specific shortcomings of our present CD program. He criticized the present policy of basing all defensive plans on the assumption that a single large bomb will be dropped in the center of a metropolitan area with 2 or 3 hours' warning. He urged that consideration be given now to developing plans for protection against missiles launched from submarines and intercontinental missiles. Bascom stressed the need for a much more adequate shelter program, for reduction of urban vulnerability by proper planning and dispersion, for a radiological defense plan, and for a far more effective warning system.

Volume I of the printed hearings of the Subcommittee are scheduled to be available by the time this Newsletter is distributed. This volume will cover testimony of the first six witnesses (AEC Commissioner Libby; Lloyd Berkner, Pres., Associated Universities, Inc.; James Killian, Jr., Pres. of MIT; Tuve; Bascom; and Albert G. Hill, scientific director of the Joint Chiefs of Staff Weapons Systems Evaluation Group). Your Congressman would be glad to obtain a copy for you, and would no doubt appreciate learning through your request of the interest of his constituents in this question.

A-AGENCY ACCORD NEARS

The 12-nation conference to set up the new UN International Atomic Energy Agency has recessed until Apr. 9 with high hopes of rapid complete accord when talks resume. On Mar. 23, US representative James Wadsworth said that virtual total agreement had been reached on a statute for the agency. The main points of disagreement, which now appear near resolution, were: (1) whether the new agency would be under the control of the UN Security Council, where the veto is effective (Russia finally withdrew her demand for such control); (2) what should be the national composition of the agency's board of governors; and (3) what, if any, inspection prerogatives should be granted to nations supplying A-fuel to others through the agency. The resolution of this last point will apparently determine whether the new agency will distribute the 88,000 pounds of U-235, of which President Eisenhower, on Feb. 22, authorized the sale or lease for peaceful production of A-power in the US and abroad.

EURATOM This new availability of U-235 from the US appears to have stimulated activity on projects aiming at a European atomic energy community (see NL 56-1, 56-2). On Feb. 29, the finance ministers of 17 European nations appointed a special committee to report in 3 months with a draft project for "joint undertakings" in which their countries could participate.

The US, through its International Cooperation Administration, has announced the selection of the Philippines as the site for an Asian atomic center. While the Philippines will furnish the location, the US will supply a reactor and funds for laboratory facilities. The center is to serve the area of Asian member-nations in the British-led Colombo Plan for development of Southeast Asia.

PERSONNEL SECURITY ACTIONS

The NSF's 5th Annual Report (fiscal '55) states: "Unclassified basic scientific research... poses no security problem." From the loyalty standpoint, "The Foundation... will not knowingly support anyone who is, by admission or conviction, disloyal to this country. In the interest of science, however, it will not pass judgment on the loyalty of an individual on the basis of unsupported charges but will rely upon the judgment of those who best know the individual and his qualifications." By "conviction," the NSF means judicial conviction or a crime such as sedition, or "an unappealed determination by the Attorney General or the Subversive Activities Control Act of 1950." The report is available at 50¢ -- Supt. of Documents, Govt. Printing Office, Washington 25, D.C.

AAUP In a report released Mar. 21, recommending censure of 5 schools (U. Cal., Ohio State, Rutgers, Temple, and Jefferson Med. Coll.), a special committee of the Amer. Assoc. of University Professors contended that neither invocation of the 5th Amendment nor Communist Party membership, taken by itself, should be adequate cause for dismissal of a faculty member. Such dismissal should be based only on a judgment by the faculty member's peers of the entire question of his fitness to teach. President Sproul of California said, in answer, that the report was not up-to-date. President Bevis of Ohio State accused the committee of proceeding without notice or hearing.

\$2,000,000? Loyd Wright, chairman of the Commission on Govt. Security, told a House Appropriations Subcommittee that the Commission will need at least \$2 million and 60 to 80 employees for its review of all Federal programs involving personnel and physical security, and will be unable to meet its Dec. 1 deadline. Only \$50,000 was initially voted by Congress.

RIGHT OF EXPOSURE The right of Congressional committees to expose subversive activities for the sake of exposure alone, and irrespective of legislative intent, has been explicitly argued by Asst. US Attorney John D. Lane before the full bench of the US Court of Appeals in a re-hearing of the Watkins Congressional contempt case (see NL 56-2). In attempting to reverse a previous 2-1 opinion of a panel of the same court, Lane argued that specific legislative intent of the committee was thwarted by Watkins' refusal to discuss former associates who have broken Communist affiliations.

PLANNED H-TESTS PROTESTED

No sooner had a new session of the long stalled UN Disarmament Commission met in London and the fledgling UN committee on radiation effects begun its work in New York than reports appeared that the USSR had, within the past few days, exploded "another nuclear device." AEC Chairman Strauss noted on Mar. 21 that this was "the 5th US announcement of Soviet nuclear weapons tests in the past 8 months," while the British Defense Ministry asserted that the Russians had launched a new test series. The US, meanwhile, continued preparations for its own series of bomb tests to begin late in April. According to Hanson Baldwin (N.Y. Times, Feb. 23), the tests next month will be "the most extensive series of atomic tests yet held by the US."

NO PUBLIC OPINION? In a column in the *Washington Post* Feb. 25, Chalmers Roberts reported that Secretary Dulles had told Prime Minister Eden, during the latter's recent visit to this country, that there is no public opinion in the US calling for the limitation of nuclear weapons tests. However, as long ago as February, 1955, the *Post* editorially suggested a moratorium on H-bomb tests, and it has frequently reiterated its arguments for this position in recent months. More recently, groups and individuals here and abroad have called for test control in one form or another.

Recognizing explicitly that the USSR as well as the US has been engaged in nuclear tests, both houses of the Japanese Diet adopted resolutions early last month urging suspension of further tests pending international arrangements to control them. On Mar. 23, the US State Dept. indicated this request had been rejected by our government. William C. Davidson, co-chairman of the FAS Chicago chapter, together with Catholic Bishop Sheil and 17 other Chicago religious, business and education leaders, released on Mar. 17 an appeal urging President Eisenhower to cancel the scheduled H-test series in the Pacific. The appeal was sponsored by the American Friends Service Committee.

INDIA, USSR FAVOR BAN Reports from Moscow and London state that Krushchev's address to the Communist Party Congress in February contained a specific endorsement of a big bomb test ban, and that Prime Minister Eden, speaking before the House of Commons on Feb. 21, favored limiting tests if a reasonable system of controls can be developed.

Speaking before the UN Trusteeship Council on Mar. 2, Indian delegate Krishna Menon threatened to have the US called before the World Court at the Hague unless the US tests were called off. The US had "no right to destroy" the Pacific island testing ground which it holds under a UN trusteeship agreement, said the Indian spokesman. On the previous day, the deputy US representative on the council had reiterated that the US would take "all feasible precautions" to avoid casualties during the coming tests.

The UN Scientific Committee on the Effects of Atomic Radiation, established last fall by unanimous vote of the General Assembly, held its first meeting in New York on Mar. 14. Shields Warren, director of the Cancer Research Inst. at the New England Deaconess Hospital in Boston, is the US representative on this Committee, composed of scientists from 15 nations.

DISARMAMENT CONTROL TEST SUGGESTED

On Mar. 19 the 5-nation Subcommittee of the UN Disarmament Commission reconvened in London. France, England and Canada reintroduced a revised version of last year's 3-stage French-English compromise disarmament plan, which the US had failed to approve because of its provision for a Central European neutrality zone and because it would slow down German rearmament. The Soviets have agreed to consider the plan, but have given no indication they would be willing to accept the sort of inspection required by a meaningful disarmament plan.

INSPECTION TEST AREAS On Mar. 21, the US proposed to the USSR that each power designate an area of 20,000 to 30,000 square miles within its borders where preliminary measures for disarmament control could be tested. Chief US delegate Stassen suggested each area include at least one airfield, one railway terminal, one port, and some military forces
(Continued on Page 3, Column 1)

DISARMAMENT CONTROL TEST (Continued from Page 2). and facilities -- but nothing exceptionally secret, such as nuclear or guided missile installations. He also proposed the trial exchange of technical disarmament missions among the 5 nations now meeting in London.

On the following day, the US offered to cut its military forces to 2 $\frac{1}{2}$ million men, if the USSR will do the same. Other countries would be expected to make proportionate cuts. A Reuters dispatch reported the reductions would be accompanied by equivalent cuts in armaments expenditures.

About two weeks before the London meeting began, President Eisenhower's second letter to Premier Bulganin had broken a modest amount of new ground. Among its proposals were: (1) a freeze on atomic weapons stockpiles, with future nuclear production channeled into a safeguarded A-pool for peaceful purposes; (2) extension of the early-warning aerial inspection plan to countries other than the US and USSR, as well as to American and Russian bases in other countries; and (3) control and progressive reduction of conventional weapons concurrently with the nuclear freeze. The Eisenhower letter was given full publicity within the USSR, and the possibility of agreement is considered by some to be improved by indications that Russia may be abandoning war as an instrument of international policy.

HEARINGS SLATED Following testimony by government officials, Congressional hearings on disarmament will be held throughout the country, beginning in Boston Apr. 14.

Individuals desiring to appear should write Sen. H. H. Humphrey, Chmn., Senate Foreign Relations Subcommittee on Disarmament, Washington 25, D.C. The Committee has already published one staff study and testimony by Messrs. Stassen and Dulles. Others appearing include: Adm. Strauss, US Information Agency Chief Streibert, Secretary Wilson, Adm. Radford, and Sen. Flanders.

KNOW THE OPPOSITION

Last month's Newsletter contained a reminder that Congress deleted all domestic and foreign travel funds from last year's National Science Foundation budget. The pertinence of communications to Congressmen opposing such a deletion from this year's appropriation was pointed out. To emphasize the need for such communication, there appears below a letter inserted by Rep. Craig Hosmer (R, Cal.) in the Congressional Record, Feb. 6 (p. A-1154). Apparently the essential and unique functions of personal contact in scientific communication are not universally recognized by the general public. Lest Congressmen know only the misunderstanding conveyed in the following letter, it behooves scientists to communicate to them a more accurate understanding.

"Dear Sir [Director, Bureau of the Budget]:

"Just recently a convention program prepared by a section of the Amer. Soc. of Civil Engineers was received. It was immediately noted that there appears to be a preponderance of Government employees on this program. These are from various sections of the country and are scheduled to present papers at this convention which will be held at Dallas, Tex., on Feb. 13-17, 1956. The names of these Govt. employees together with their respective titles and departments, as given in the subject program, and one Army officer, are as follows:

[A list of 31 names with titles follows]

"I am constrained to call your attention to this matter and to the participation of these individuals in what appears to be extracurricular matters. People who engage in research work and investigations which constitute contributions to the science of engineering, are certainly to be commended, but such findings and results can be published. It is requested that an investigation be made in the case of each of the above named individuals to determine the authorization of absence from their established and designated places of activity, or station, and just what agency, or who, is paying the expenses of each individual while attending this convention. There certainly appears to be no justification in having travel and all other expenses paid by the American Taxpayer.

Very truly yours, Harry Larson"

(Chairmen of the Senate and House Appropriations Committees are Sen. Carl Hayden and Rep. Clarence Cannon, respectively, Senate and House Office Buildings, Washington 25, D.C.)

MURRAY vs. AEC

The conflict within the AEC was emphasized during recent hearings of the Joint Committee on Atomic Energy. The AEC majority reported reassuringly to Congress that 23 experimental and demonstration nuclear power plants will be built within 6 years, but Commissioner Murray characterized the AEC program as ineffectual. Murray favored an accelerated program of government investment and said private interests could not assume the risks involved in developing nuclear power because of competition from conventional fuels. He noted that private industry had not responded to the AEC's invitation for plans for 5 to 40 megawatt reactors, that only the Shippingport (Pa.) reactor, 90% financed by the government, is actually under construction, and that this project has already reduced power costs from 52 to 12 -14 mills per kw-hr. Sen. Gore (D, Tenn.) has introduced a bill (S. 2725) directing the AEC to build 6 nuclear power facilities.

Another problem recognized as serious is the enormous liability of a nuclear reactor's operator for damages in case of a breakdown. Two other Joint Committee members have sponsored bills to cope with this. One, by Rep. Price (D, Ill.), would indemnify the operator for damages beyond available private insurance, and the other, by Rep. Cole (R, N.Y.), would limit the operator's liability to twice the capital investment.

MEDICAL RESEARCH POLICY REVIEWED

A thorough review of the methods of operation of a government research institution has been made by a committee of non-governmental experts headed by C. N. H. Long, bacteriology professor at Yale Medical School. The committee, appointed by the NSF, concerned itself with the medical research activities of the Dept. of Health, Education & Welfare (HEW) and made sweeping recommendations on the operation of the National Institutes of Health (NIH). HEW Secretary Folsom said the committee's report "will be studied intensively within the Department."

Proposed is a special agency, responsible to the Secretary of HEW and advised by a group of outside specialists, which would grant funds for what is now NIH's extramural program. This includes categorical (i.e., heart, cancer, etc.) research, long-term institutional support, trainee and fellowship programs, and the construction of research and teaching facilities. While acknowledging that many good programs are currently part of the extramural activities at NIH, the committee suggested that "there be no major expansion of the intramural program of medical research and no increase in the number of categorical institutes."

The committee also recommended formation of an advisory board, consisting of non-governmental medical scientists, to approve general policies, appointments and promotions at NIH. The categorical approach to medical research was questioned, because "research programs should be organized around gifted individuals, rather than around specific diseases."

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The FAS is a national organization of scientists and engineers concerned with the impact of science on national and world affairs. The Newsletter is edited by members of the FAS Washington Chapter.

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GUNS, DOLLARS and FRIENDS

On March 19, President Eisenhower sent to Congress his message on foreign aid. Faced by a new Soviet economic drive, the Administration, early in the year, gave evidence of its intention to expand foreign aid and to obtain greater flexibility and continuity in such programs. Powerful opposition, however, immediately developed in Congress, spearheaded by Senate minority leader Knowland and Foreign Relations Committee chairman George. After delaying the President's message from its originally scheduled date of Mar. 5, the Administration has apparently decided to fight on the issue -- although with how much fervor it is not yet clear. The Washington Post on Mar. 20 called the President's message "a logical but not very inspired presentation," and noted that "high officials who have much to do with the administration of the foreign aid program -- Messrs. Humphrey, Hoover and Hollister -- do not seem really to believe in it." On the other hand, the thesis that it is now time to reduce foreign aid because the Soviet threat is abating was "vigorously rejected by the President," according to the N. Y. Times of the same date.

The President asks for a total appropriation of \$4.8 billion, the larger part for military aid. In the economic category the projected increase in expenditures would amount to about \$200 million annually. Special requests cover authority to make loans for up to 10 years to finance capital development projects, an additional \$100 million for a flexible Special Presidential Fund, and similar amounts ear-marked for the Middle East and Africa, and for Asian economic development. In the military category the projected increase in spending also is about \$200 million annually, although the requested authorization is some \$2 billion more than last year's actual spending -- to make up for reduced appropriations in the past two years.

PROGRAM MODEST Though the complexities of budgeting, and the scattered nature of the programs, make assessment difficult, it is clear that the President's request is not extreme by the standards of the more vigorous proponents of foreign economic aid. Following more modestly along lines laid out several years ago by the late Sen. McMahon, Sen. Kefauver on Mar. 10 called on President Eisenhower to urge a joint US-USSR reduction of armaments by 15% -- 1/3rd of the savings to go into "a pool for economic aid to underdeveloped countries." The Committee for Economic Development -- a study group composed of business men -- on Feb. 16 called for increased government aid to underdeveloped countries, estimating "conservatively" that they can use between \$0.5 and \$1.5 billion more than they are getting in help each year. The Newsletter of the Friends' Committee on National Legislation notes that the Administration has yet to indicate willingness to support the Special UN Fund for Economic Development, a fact that emphasizes the primarily unilateral character of most US activities in the foreign aid field.

F A S NEWSLETTER

Federation of American Scientists
1805 H Street, N. W.
Washington 6, D. C.

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ACROSS-THE-CURTAIN VISITS

Despite continued protests by Soviet officials of the US visa requirements of fingerprinting and special questionnaires, a noteworthy amount of scientific, technical and cultural exchange between the two nations has been accomplished since the Geneva conference. Earlier this year, four Russian medical scientists toured major US virus research centers, centering their interest in poliomyelitis and polio vaccine which has not yet been produced in the USSR. The group reported here on the isolation of a fourth type of poliomyelitis virus, and on the 5-year use of an effective "live virus" vaccine against influenza. As an exchange delegation, five US medical scientists, including FAS Advisory Panel member Karl F. Meyer, director, Hooper Foundation, U. of Calif. Med. Center, are touring the USSR.

The Soviets recently invited 20 leading US nuclear scientists to travel at Russian expense to the USSR -- 10 to participate in a conference on high energy physics in May, and the other 10 to attend the unveiling of Russia's new 10-billion-volt supercyclo-tron. INS reports the scientists have referred their invitations to the AEC and State Dept. for official reaction; State said "a few" passports had been issued and others were being processed.

US VIEWS While junkets and invitations continue, a high policy debate on US support for exchange programs is reported underway by Marguerite Higgins (N. Y. Herald-Tribune news service, Jan. 23). The Nat. Security Council is said to have received recommendations that delegations from Iron Curtain countries be rigidly curtailed. Top officials in the Justice and Commerce Depts., and Under Secretary of State Herbert Hoover, Jr., are reportedly urging such a ban. It is argued that our technological advances will be highly useful to the USSR, whereas we stand to gain little in return. The Justice Dept. is said to believe that there is little to justify these delegations, and that we are not set up to keep such groups under adequate surveillance.

State Dept. and Pentagon officials, however, were credited in this report with the position that banning such visits would hurt us in the eyes of our allies, that visits of our experts can give us the best picture of Russian technology, that there is a psychological gain in letting the Russians see the US, that we should encourage Soviet openness, and that by planning visitors' itineraries we can keep a reasonable control over their activities.

While the debate continues, the Advisory Commission on Education Exchange, a State Dept. advisory group appointed by the President, has recommended a \$31 million appropriation for the exchange program. This would be \$13 million more than last year's figure, and \$11 million more than the Administration's request, now before a House Appropriations Subcommittee headed by Rep. John J. Rooney (D., N.Y.). The National Planning Association, a private, non-partisan study group, on Mar. 3 proposed expanded government support for cultural exchange projects.

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