

# F. A. S. NEWSLETTER

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to provide information and to stimulate discussion. Not to be attributed as official FAS policy unless specifically so indicated.

## INTERNATIONAL CONFERENCE URGES JOINT SCIENTIFIC STUDIES

An international conference on Science and World Affairs held at Stowe, Vermont, has unanimously approved a proposal for a major international scientific research program as a means of preventing mankind's "wholesale destruction." (N.Y. Times, 10/10).

The conferees, who attended as private individuals, included principal scientific advisers to both the US and Soviet governments. They urged the creation of a five billion dollar science center, or of several such centers, for the study of high energy physics, molecular biology, and possibly thermonuclear research.

It was agreed that complete scientific cooperation could only be achieved when "the arms race is ended, international tensions are reduced, and complete and general disarmament becomes a reality," and that the purpose of the conference was to find "ways of preventing the misuse of science in the wholesale destruction of mankind."

According to the declaration, "Science misused by nations to foster their competitive interests as world powers makes possible the destruction of mankind. Science used cooperatively by all nations for the increase of human knowledge and the improvement of man's productive capacity can give all men on earth a satisfactory and worthwhile life."

Other major scientific programs recommended include joint space research, joint studies of ocean life, mapping of the ocean floor, and studies of natural resources and methods of aiding underdeveloped countries.

An increase in exchange of scientific personnel and information, and opening of the world's postal systems to unrestricted distribution of scientific information were also urged.

The closing luncheon of the conference was attended by Secretary of Interior Stewart L. Udall.

## GOVERNMENT CONTROL OF SCIENCE IN THE SOVIET UNION REORGANIZED

The Soviet Union has completely reorganized its control of scientific research (Nicholas DeWitt in Science, 6/23/61). A recent decree of the Central Committee of the Communist Party establishes a Central Coordinating Agency for Research and Development. The chairman of this agency will also have the rank of Deputy Chairman of the Council of Ministers, placing him high in the Soviet governmental structure.

The new committee will coordinate the activities of the principal organizations carrying out scientific and technological research in the Soviet Union: The Academy of Sciences of the U.S.S.R., the academies of science of the republics, and the laboratories established by the various ministries and state departments. The committee is particularly charged with supervision of technological advances into production methods. According to Mr. DeWitt, the emphasis upon technology reflects both the needs of the Soviet government for a more vigorous technology and the demands made by some Soviet scientists that the Academy of Sciences be relieved of its responsibility for technological development so that it may concentrate instead on basic research.

The Academy of Sciences of the U.S.S.R. is a state organization directly responsible to the Council of Ministers. It directs the activities of about 200 research institutes, and also guides research in thirteen republic academies of science involving about 350 additional institutes. About 40,000 persons are involved in these enterprises, which are concerned not only with the natural sciences, but with fine arts, humanities, and the social sciences as well. In recent years the Academy had also acquired an increasing responsibility for industrial applications of science and for the coordination

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## ARMS CONTROL AGENCY IMMINENT: BROAD FUNCTIONS LIKELY

House-Senate Conference Settling Differences  
In Congressional Adjournment Rush

Both houses of Congress have now passed, by overwhelming majorities, bills establishing an arms control agency. The Senate 73-14 vote on September 8 was a partial victory for the Administration's proposal—partial in the sense that the Senate Foreign Relations Committee had amended the bill to place the new "Arms Control and Disarmament Agency for World Peace and Security" under a newly-established Undersecretary of State, rather than making the Agency more independent of the State Department.

On September 19 the House, by a 290 to 54 margin, passed a measure much closer to the original Presidential proposal giving the new "Arms Control Agency" independent status, albeit subject to some control and direction of the Secretary of State.

The location of the new Agency within the Executive Branch is deemed important to many as an indicator of how much leverage for funds and how much influence on policy the head of the new Agency will have vis-a-vis other agencies—especially the Department of Defense—and how easily the Agency will be able to recruit qualified professional staff both from inside and outside of the Government. Status may also be important with regard to the ease of getting information from Defense, AEC, CIA, etc.

### Conference Committee Meeting

Differences between the House and Senate versions are—at this writing—being resolved by a House-Senate Conference Committee made up of Senators Fulbright, Sparkman, Humphrey, Symington, Wiley, and Hickenlooper, and Congressmen Morgan, Zablocki, Hays, Bolton and Judd. FAS has long urged that the new Agency be independent of State, but the prognosis that such a bill will emerge from Conference and be passed by both houses of Congress is uncertain: the power of the pro-independent Agency conferees to prevail may be diluted in the rush to adjourn.

### FAS Active for Measure

In accordance with policies set forth at the annual Council Meeting in April, 1961, FAS undertook an active role in bringing the bill to the attention of Congressmen and Senators and in furnishing information on the need for the Agency, especially in the midst of international crisis.

The prime effort of the Washington office was a series of ten briefing breakfasts attended by Congressmen, Senators and members of their staffs. Held in a Hotel across from the House Office Buildings, FAS brought together an average of ten members at each breakfast to hear "briefers" discuss the legislation. Working on the theory that the agency was sought by persons of a wide range of substantive views on arms control policy, FAS brought into Washington the following persons, all of whom differ widely in their views of what arms control measures the U.S. should adopt, but all of whom agreed heartily on the fact that the U.S. needed badly an agency such as proposed by President Kennedy: Dr. Donald G. Brennan, Jerome Springarn, Professor Louis B. Sohn, Mr. Herman Kahn, Professor Henry Kissinger, and Honorable James J. Wadsworth.

In addition, with the cooperation of the Book-of-the-Month Club, FAS distributed to every member of the House and Senate complimentary copies of Dr. Donald G. Brennan's hard-cover edition of the Fall 1960 DAEDALUS issue, entitled "Arms Control, Disarmament and National Security", as well as a copy to each of Arthur T. Hadley's smaller,

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## ARMS CONTROL AGENCY

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less comprehensive work, "The Nation's Safety and Arms Control." Dr. Brennan's book, a special BOMC selection, has received wide critical acclaim, including endorsements from President Kennedy, Vice President Johnson, Secretary Rusk, Ambassador Stevenson, Special Disarmament Advisor McCloy, NATO Commander General Norstad, and Senate Foreign Relations Chairman Fulbright. Copies of both the Brennan and Hadley books were donated by BOMC to every university and college in the U.S. and Canada. Dr. Brennan is a long-time member of FAS and is presently a member of its Executive Committee.

### FAS Chairman Toll Testifies:

The Administration put together a truly astonishing array of witnesses who paraded before the Senate Foreign Relations Committee in mid-August and said, in essence: "The U.S. has needed a disarmament agency for a long time, it needs such an agency now; the bill should be passed as quickly as possible, especially in the face of a disintegrating world situation." The witnesses included: Secretary of State Rusk, Special Advisor to the President on Disarmament John J. McCloy who was responsible for the drafting of the bill, Roswell L. Gilpatric, Deputy Secretary of Defense, General Lyman Lemnitzer, Chairman of the Joint Chiefs of Staff, AEC Chairman Leland Haworth, General Alfred Gruenther, former Defense Secretary Gates, former Assistant Secretary of Defense Trevor Gardner, former Secretary of State Christian Herter, former Defense Secretary Lovett, former UN Ambassador Lodge, former UN Ambassador and Test Ban Negotiator Wadsworth, former Assistant Defense Secretary Dr. Herbert F. York, and former Disarmament Negotiator Frederick M. Eaton. Also in the hearing record is a "Dear Jack" letter from former President Eisenhower to Mr. McCloy supporting creation of the new agency. Most of the foregoing also appeared later before the House Foreign Affairs Committee.

FAS Chairman John S. Toll, Chairman of the Physics Department at the University of Maryland, presented the FAS position in support of an independent agency with adequate research facilities. In concluding his prepared testimony, Professor Toll remarked:

"Our Government now spends 20 times more money annually on the elimination of cancer than is now contemplated for this Agency's initial work in arms control. No one can predict when the cancer research effort will yield a major cure for this dread disease; yet we all agree that this expenditure offers hopes of great benefits to mankind and is well justified. If our generation suffers a thermonuclear war between the major powers, many more of us will die from the effects of nuclear weapons than from cancer. War has indeed become the probable major killer of our time. In a very real sense, our life expectancy has been greatly reduced by the creation of nuclear weapons, and a sensible distribution of our efforts to eliminate the major ills of mankind should give primary emphasis to the reduction of the hazards of war. We can only hope that, by passing S. 2180 at this session, we will be beginning in time."

### Security Provisions Most Stringent

The personnel security provisions of the bill as reported by both House and Senate are bound to cause some irritation and to hamper the speed with which the Agency can become fully operative. As proposed by the Administration, the bill provided the standard language directing the Agency head to "establish such security requirements . . . as he deems necessary in the interest of national security," and authorized the use of State Department, Civil Service, and FBI investigative facilities with respect to both employees and contractors. However, as reported and passed the measure states that "The Agency shall arrange with the FBI for the conduct of a full-field background security and loyalty investigation" of all employees, consultants, contractors and in short, anyone paid with Agency funds, prior to employment. Though few would deny the highly sensitive character of the Agency's work, concern has been expressed that much of the Agency's work will be needlessly delayed for lack of cleared personnel, that even contractors working on unclassified contracts must have only appropriately cleared employees, and that the expense will be unnecessarily great under the circumstances. The denial of discretion in the Agency head to allow interim clearances appears to many to be unnecessarily rigorous.

## PUGWASH CONFERENCES QUESTIONED BY SENATE COMMITTEE STAFF

The Internal Security Subcommittee of the U.S. Senate Committee on the Judiciary (James O. Eastland, Miss., Chairman) has recently conducted an investigation of the Pugwash Conferences. The following conclusions are quoted from a 139-page Staff Analysis prepared for the Subcommittee:

1. The Pugwash Conferences were initiated, in part, by individuals with significant records of support of Communist causes, including one leading member of the Communist Party of France.

2. Among the sponsors and initiators of the Pugwash Conferences were individuals who have displayed a sharp, unreasonable, and sustained hostility to the United States, its representatives, institutions, and policies.

3. The Pugwash Conferences were approved by the Soviet Government and the Soviet delegates were chosen by the Soviet Academy of Sciences, which operates under the discipline of the Communist Party of the Soviet Union.

4. The Pugwash Conferences were made possible through the financial support of Cyrus S. Eaton, who has shown strong and un concealed sympathy for Soviet policies and hostility to American policies and activities of our Government to insure national security.

5. Among the Soviet scientists who attended the Pugwash Conferences were high-ranking, disciplined representatives of the Communist Party of the Soviet Union and of the Soviet military establishment, who were far superior in political, diplomatic, and military experience to the American delegates, who attended merely as individual scientists.

6. Exploiting the natural desire of scientists for international cooperation and exchange of information, the Soviet delegation to the Pugwash Conferences sought to impose upon American scientist-delegates a form of international discipline superior to the obligations of American scientists to their own Government. Strong efforts were made at the Conferences to enforce unanimity of opinion. [Staff indicates this conclusion may not apply to December 1960 conference.]

7. The Soviet delegation sought to exercise ideological leadership at the Pugwash Conferences.

8. From the viewpoint of Soviet interests, the Pugwash Conferences served as an organic part of their cold war design to discredit American nuclear policy and accredit Soviet nuclear policy within the United States and throughout the world.

9. The Soviet Government has extended flattering honors and recognition to some American scientists who attended the Pugwash Conferences and to Cyrus S. Eaton, who made the conferences possible.

10. The general tenor of the Pugwash Conferences, as set by Lord Bertrand Russell and the Soviet delegation, was to weaken the will of American scientists to resist Soviet aggression.

11. The Soviet delegation and others prominently associated with the Pugwash Conferences sought to utilize the meetings for purposes of pressure upon American Government policy in the nuclear field.

12. A veil of secrecy surrounded the proceedings of the Pugwash Conferences. The full proceedings have never been made public in the United States although they have been sent to Soviet Premier Nikita S. Khrushchev.

13. The Pugwash Conferences were utilized politically to open the doors to delegations from Communist countries which have not been recognized by the United States.

14. The Soviet press and the Communist press in the United States were uniformly sympathetic to the proceedings of the Pugwash Conferences.

15. In general the American scientists who participated in the Pugwash Conferences had no clear understanding of the nature of the international Communist conspiracy as it operates in the field of science, or of the relationship between the Soviet Academy of Science and its individual members to the Communist Party of the Soviet Union and to the Soviet government.

Copies of the complete Staff Analysis from which this quotation is taken may be obtained under the title "The Pugwash Conferences," from the U.S. Government Printing Office (Price 40 cents).

## SZILARD SPEAKS

L. Szilard. *The Voice of the Dolphins and other stories.* Simon & Shuster, New York, 1961, 122 p. \$1.

As a leading authority in theoretical and nuclear physics, Szilard worked with Fermi on these pioneering studies on nuclear fission which lead directly to the development of the atom bomb. In fact, it was Szilard who (together with Einstein) persuaded the U.S. Government to launch the research program for the development of atomic energy which became known as the Manhattan Project and it was again Szilard who (with Einstein, Frank and others) made the most desperate efforts to avoid its tragic conclusion at Hiroshima and Nagasaki.

These experiences made Szilard urgently aware of the close interconnections between science and politics, as well as of the social responsibilities of the scientist. After the second world war, he abandoned physics for biology while keeping active in politics, especially in relation to disarmament and international control of atomic energy. His views and proposals on these topics have been published in several articles (e.g. on *The Bulletin of the Atomic Scientists*) and are now presented again in a lighter form under the disguise of science fiction.

One of Szilard's basic tenets is that major political decisions are based upon "reasoned arguments of expediency" and not (or only to a minor degree) upon passions and moral considerations (cf. L. Szilard, *How to live with the bomb—and survive.* Bull. Atomic Sci. 1960, 16, 50-73; p. 62). Peaceful solutions of international disputes can be found if the governments involved in the dispute can be convinced that such solutions are in their interest.

With these premises, the role of scientists, thinkers and scholars will be to find acceptable solutions for the problems which may arise and to suggest them to the governments involved. This role is played in one of Szilard's stories by an international research institute, which was founded in Vienna in 1963. The staff of the Vienna Institute was fortunate in securing the cooperation of creatures endowed with superior wisdom (has not Dr. Lilly suggested that dolphins are more intelligent than men?) and quickly became both rich (through royalties from inventions) and influential.

The suggestions which the Institute proposed in order to solve important problems and disputes were (like those recommended from time to time by Szilard) quite unconventional, and may appear impractical or shocking to many readers. It should be remembered, however, that as Rabinowitch wrote some time ago "Szilard has . . . clearly established his capacity to think years ahead of his contemporaries in a rapidly changing world and this entitles him to attentive consideration however bizarre some of his ideas . . . may appear at first sight." (Bull. Atomic Sci. 1960; 13, 58)

"The Voice of the Dolphins" has some points in common with Anatole France's "Penguin Island" but Szilard's political satire, if equally ironical, is both more urgent and more constructive. The reader interested in political activities may find in this book the inspiration to seek fresh approaches to problems unlikely to be solved by conventional methods; the scientists may be reminded of the responsibilities which accompany their apparently innocent activities.

M. G. F. Fuortes

## GOVERNMENT CONTROL

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of all kinds of scientific research in the U.S.S.R. The new decree of the Central Committee makes some apparent concessions to demands for relief from these administrative and technological burdens; the presidium of the Academy, acting under the decree, has already begun transfer of certain industrial research institutes to other state organizations. At the same time, the decree states that "the work of the Academy should be focused on the most important long-run problems of science undergoing rapid development."

It should be noted that other observers (NY Times, 6/26) view these changes as a downgrading in the authority of the Academy and its basic research interests. The newly formed State Committee on Coordination of Research and Development is composed entirely of men with training in engineering and the applied sciences. Among them is the recently elected President of the Academy of Sciences, M. V. Keldysh. Professor Keldysh is an applied mathematician and expert in aerodynamics and rocket development. He has had much organizational experience.

## HIGH COURT BACKS AEC IN REACTOR SAFETY VIEW

A long legal fight was ended in June when the Supreme Court handed down a decision which upheld the AEC's procedures for issuing construction licenses for large power reactors. The AEC uses a "two-step" procedure in dealing with these reactors. It issues a construction permit allowing the company in question to proceed with advanced design and construction after the AEC is first assured there are no safety problems that are not likely to be resolved during the construction period. An operating license is finally issued if the finished reactor meets the AEC safety standard. In a case involving the construction permit for a nuclear reactor at Lagoona Beach, Mich., a group of labor unions challenged this two-step procedure. They argued that once the AEC had permitted a corporation to invest heavily in a reactor, the Commission would be under heavy pressure to let the reactor operate even if it fell short of the strict safety code. The Court majority rejected this argument on the grounds that the Court cannot assume that the AEC will not live up to its duty to protect public welfare and safety. According to the majority opinion, the AEC had followed the law as outlined by Congress and the courts can require no more than that. (W. Post, 6/13, & Science, 6/16).

Any changes in the AEC's regulatory powers will be up to Congress. The Joint Committee on Atomic Energy has been considering the problem; particular attention is being paid to three separate studies dealing with AEC regulatory procedures and organization (See Newsletter, Vol. 14, No. 4). Hearings were held in June by the Joint Committee to consider these studies as well as the power reactor accident which occurred at the National Reactor Testing Station in Idaho last January (JCAE Release, 6/5).

## ADULT EDUCATION IN THE CIVIL DEFENSE PROGRAM

The U. S. Department of Health, Education and Welfare through two of its Offices is making a determined effort to educate the public in how to conduct itself in the event of a national disaster. The Office of Education has recently been swamped with requests for stepped-up assistance in Civil Defense Training by the States participating in this adult education program. The education program was originated in 1958 and its goal is to provide every community in the nation with a nucleus of informed persons who can provide leadership in planning for individual, family and community survival in time of natural or man-made crisis. Initiation of the program is up to the individual state. Upon request by a State, the Office of Education provides information to the chief State school officer concerning the establishment of a State Civil Defense Adult Education program. If the State wishes it may also request funds for development of the program. Thus far over 100,000 teachers and adults have completed the 12 hour training course.

After getting off to a slow start because of public apathy toward civil defense, the Adult Civil Defense Education Program has suddenly become more popular. Fifteen states are now participating in the program during 1961-62. These states are California, Florida, Kentucky, Louisiana, Minnesota, Nebraska, Texas, Hawaii, Illinois, Mississippi, New Jersey, New Mexico, Oregon, South Carolina and Washington State.

In another part of HEW, the Office of the Surgeon General, Public Health Service is organizing a nationwide Medical Self Help Training program. The aim of the program is to train at least one person in every family in the country in elementary emergency medical techniques. As with the Civil Defense Adult Education Program, the Medical Training Program will be operated at the state level with assistance at the national level. State and local professional health personnel will participate in the actual instruction and leadership will be provided by the local practicing physicians.

The 16-hour course is comprised of 12 lessons which deal with such things as Hygiene, Sanitation and Vermin Control, Water and Food, Shock, Burns, Emergency Childbirth, and so on. It is already projected as far ahead as 1964. Stress is placed upon improvising from materials that are likely to be on hand rather than relying upon stocks of supplies provided for emergency. Students are expected to provide materials from their homes for use in the course.

## THE BATTLE OVER HANFORD

The Administration's attempt to build the world's largest atomic power plant at Hanford, Wash., stirred up a hornet's nest in Congress this summer. The result was one of the hottest public-vs-private power controversies in recent years, with vigorous lobbying on both sides, and the outcome, though undecided at this writing, is dim for approval of the new plant. The 95-million dollar proposal to convert the Hanford plutonium reactor into a dual-purpose reactor for the production of electric power as well as plutonium (see Newsletter, Vol. 14, No. 5) was backed in July by the Senate. The upper chamber rejected by a vote of 54 to 36 a Republican effort to knock the project out of the AEC authorization bill. The Senate's action was opposed to a previous 176-140 House decision to eliminate the project (W. Post, 7/14 & 7/19). Private power companies, the coal industry and the House Republican leadership led the successful fight against the project, whereas Congressmen of both parties from the Pacific Northwest generally supported the proposal (Science, 9/21). The House action presumably left the issue to be settled in conference between the House and Senate but the House first took one more crack at the proposal. It passed an unusual motion instructing House conferees to insist that the Hanford project be left out of the final version of the bill (W. Post, 8/9). A compromise plan worked out by the conference committee and adopted Sept. 5 by the Senate called for one generator costing \$58 million and producing about 400,000 kilowatts, half the power which would have been made available under the original proposal. Under the compromise plan, the power produced would be used only for the AEC's facilities at Hanford. The plan is expected to run into opposition in the House as did its predecessor (W. Post, 9/6).

Another public-vs-private power issue may even overshadow the Hanford controversy. The latest struggle involves the construction of a 2000-mile network of lines to transmit power throughout five western states from three large Federal dams that are nearing completion. Five private utility companies that serve the area want to build about two-thirds of the lines themselves. According to a Washington Post editorial (8/9), "This would mean that after a tremendous Federal investment the Government would pay rental in perpetuity for transmission lines, and would lose the advantage of linking up the basic grid to other regional projects." Funds for the network of power lines are included in a 3.6-billion dollar public works Appropriations Bill which has so far cleared the House Appropriations Committee and will be voted on by the House shortly (W. Post, 9/7).

## ACADEMY GROUP URGES SPACE EXPLORATION

Possibly stimulated by an undercurrent of questioning and doubt in regard to the Administration's decision to pour billions into a "Man on the Moon" space program, the Space Science Board of the National Academy of Sciences issued a statement early in August urging the Administration to declare that the scientific exploration of the moon and the planets was "the ultimate objective of the United States space program."

The Board also stressed that man and not just his instruments would be needed: "... (from a scientific standpoint there seems little room for dissent that man's participation in the exploration of the moon and planets will be essential.) There apparently has been some questioning in scientific circles (e.g. George Kistiakowsky and also Vannevar Bush) as to the desirability of manned flights.

The Board however also warned that plans to put men on the moon "should not be undertaken on a crash basis which fails to give reasonable assurance of success."

They further recommend that a new generation of space vehicles especially designed for lunar and planetary research be developed and not be adaptations of military rockets. Included was a recommendation for the development of nuclear rockets as rapidly as possible. Also, the scientific study of the moon and planets "will involve spacecraft, whether manned or unmanned, ranging in the order of hundreds of tons."

The Board further stated that it "regards man's exploration of the moon and planets as potentially the greatest inspirational venture of this century, and one in which the entire world can share."

## WASHINGTON OFFICE NOTES

### Calendar Year Billings

In order to simplify record-keeping, FAS is adjusting its billing procedures to a calendar year basis. Bills to all members and subscribers for the calendar year 1962 will be mailed out on October 1, 1961. Members whose address plates are coded "M-3" and "M-4" will in effect be forgiven dues for a portion of 1961, and persons with "M-3" plates will be paying twice for the first three months of 1962. We hope you will cooperate by paying promptly.

### FAS Group Life Insurance

FAS is now an official effective group for group life insurance. The added personal protection and, hopefully, augmented revenue and membership for the Federation, appears to make the effort worthwhile. For those members who neglected to join during the initial solicitation, it is expected that the group will reopen periodically.

### Execom and Council

The Executive Committee expects to meet in New York City on October 7. The Council will probably meet in Chicago over Thanksgiving weekend.

### FAS—Bulletin of the Atomic Scientists

The Bulletin is running a full-page back cover advertisement for FAS in the October 1961 issue. Try to interest your friends and colleagues in joining FAS and in taking advantage of the reduced Bulletin subscription rate available to FAS members.

### FAS Chairman Abroad until January

FAS Chairman John S. Toll left the U.S. two weeks ago to teach abroad until January. Peter G. Bergmann, FAS Vice Chairman and Professor of Physics at Syracuse and Yeshiva, will be acting Chairman during Professor Toll's absence.

### Disarmament Agency Hearings Available

Hearings before the Senate Foreign Relations Committee on S. 2180 and before the House Foreign Affairs Committee on H.R. 2136 and H.R. 9118—as well as the Committee reports on the bills—are available from the respective Committees upon written request.

## NEW CIVIL DEFENSE PROGRAM

On August 10, the House and Senate overwhelmingly approved the Administration's Civil Defense plans by endorsing a peace time record Defense appropriation of \$46,662,556,000 that will for the first time provide funds for a nation-wide shelter program for civilians (W. Post 8/11). The bill effectively incorporates the administration of Civil Defense into the Defense Department as was requested by President Kennedy in his report to the nation on July 25 (see Newsletter 14, No. 6). Of the total appropriation, \$207 million was earmarked for the shelter program.

Spurred by the renewal of bomb testing by the Soviet Union, the Defense Department plans to have fallout shelter space ready for use by 20-30 million people by December 1. The program does not provide for the construction of public shelters nor will the Administration subsidize the building of home shelters. Instead, all shelter space will be in basements, hallways and other appropriate areas in large public and private buildings such as schools and apartment houses. These shelter areas will be marked and equipped with emergency water, food and medical supplies.

The first phase of the program was started even before money was appropriated. It began with an intensive 4 week training course for more than 100 engineers in the Army and Navy, most of whom were civilian employees of the two services. These men were graduated on Sept. 1 and upon returning to district offices of the Army Engineers and Navy Bureau of Yards and Docks will commence setting up the nation-wide shelter identification program.

In developing the program, the Administration has decided that it would be impossible to provide protection against a blast itself, since it would take less than 15 minutes for a nuclear missile to reach the U.S. from Russia. Effort is therefore being concentrated upon cheap fallout detectors and the NEAR warning system (see NL 14:6).

Stewart L. Pittman, a Washington, D.C. lawyer, has been appointed Assistant Secretary of Defense in charge of shelters and warning system. His appointment awaits Senate confirmation. (W. Post 9/1; 9/2).



## THE YELLIN CASE

The chronology of the case of Edward L. Yellin, a graduate student in Mechanical Engineering at the U. of Ill., was reviewed in *Science* (30 June 1961). The NSF fellowship he had received for 1961-1962 was revoked by the Executive Committee of the National Science Board "on the ground that there was a possibility that the term would be interrupted".

Yellin's "academic record, although it was interrupted by 8 years of work in a steel mill, was excellent; his recommendations were high; and his application included a properly signed and sworn disclaimer of subversive affiliations. Last March, at the time the award was made, there was no reason for the NSF to suppose that the fellowship was undeserved. Early in April the House Un-American Activities Committee informed the Foundation that in 1958 Mr. Yellin, who had allegedly been a member of the Communist Party, refused to answer any questions about his activities on the basis of the First Amendment. The Committee also charged that Mr. Yellin, in applying for work at the steel mill, had not indicated that he had had two years of college education. Mr. Yellin was cited for contempt of Congress and convicted in 1960. The conviction was upheld upon appeal to a Circuit Court and is now being appealed to the Supreme Court. As a consequence, Mr. Yellin was suspended for 10 days by the U. of Illinois. After an unpublished hearing, at which he is said to have answered all questions fully and frankly, he was reinstated. The clear implication of this action is that the examining committee at Illinois was convinced that Mr. Yellin was morally and intellectually qualified to continue as a student. But the NSF was not informed of any of these actions or conclusions."

The revocation followed hearings at which the members of the HUAC and the House Science and Astronautics committees questioned NSF officials about the case.

Rep. Walter on June 21, 1961 (Cong. Rec., p. 10161) decried the NSF Director's initial refusal to revoke the fellowship and his referral of the case to the Dept. of Justice, which had been involved in the prosecution of Yellin for contempt.

Two bills were subsequently introduced in the House. The first, H.R. 7806, by Rep. O. Brooks, D., La., would change the ground rules under which fellowships are awarded from "solely on the basis of ability" to "on the basis of character, ability, and loyalty to the U.S. and its Constitutional form of government". A second bill, proposed by Rep. J. C. Corman, D., Calif., would change the loyalty affidavit that the fellowship applicant must sign from a negative wording—"he does not believe in" overthrow of the government by violence—to a positive statement—"I will bear true faith and allegiance . . . and support and defend the Constitution. . . ."

According to the article in the NY Herald Tribune (Aug. 1, 1961) it would also require the applicant to specify any felonies of which he had been convicted or which were pending against him. And it would be a crime for any Communist or unreconstructed former Communist who did not disclose all facts concerning his party membership to apply. Violation of these provisions would mean up to \$10,000 fine or five years imprisonment or both. "The NSF considers the Corman measure far more palatable than the Brooks Bill. It hopes for an even more diluted version."

According to the Tribune, "The ACLU called on the NSF to reinstate Mr. Yellin's fellowship, charging the revocation prejudged the Supreme Court's action on the engineer's appeal for a hearing. The court will probably hear the case, the ACLU said, and the slowness of the law would allow Mr. Yellin in any case to finish the academic year for which the fellowship was originally granted."

## INFORMATION ABOUT FALLOUT SHELTERS

- 1) FICTION AND FACTS ABOUT FAMILY FALLOUT SHELTERS—Available from: U.S. Chamber of Commerce, Washington 6, D.C.
- 2) THE FAMILY FALLOUT SHELTER—Available from: Box Home Shelter, OCDM, Battle Creek, Michigan

## AFTER THE BOMB

The following editorial, from the August 7 issue of the *Washington Post*, is reprinted with permission.

Civil defense has been for years a captive of our national inclination to solve problems with reinforced concrete. There has been much talk, but in the past it has rarely gone very far beyond bomb shelters, whistles, and sirens.

There has been an effort to prepare for the day a bomb might strike. But what about the six months that would follow that day? The most urgent requirement of civil defense now is imaginative planning to keep the economy operating under attack. Our cities are very delicately balanced organisms. The failure of an electric substation throws mid-Manhattan into blackout and turmoil; three inches of snow means chaos in Washington. For the citizen, surviving atomic attack means not only living in a shelter for two weeks, but finding food, fuel, water and medicine when he comes out. In the big cities, disruption of freight traffic is a menace of the same scale as fallout.

For the Nation, survival in atomic war means not only striking back; it means feeding and clothing people while factories continue to turn out weapons. A decade ago it seemed that such a war would last no longer than a blow and a counter-blow. This appears to be an oversimplification. One must assume that sustained economic production during any war will continue to be, as it always has been, the essential foundation of military power.

Fortunately, the Federal Government has begun to plan for recovery. It has set up a National Resources Evaluation Center, a staff of analysts with computers, to develop a refined system of input-output economics. They are attempting to list precisely what each significant production center makes, what supplies it needs, and where its output goes. If a factory should then be crippled, the computers would be asked to identify its customers, estimate how badly they would be hurt by shortages, and suggest alternative sources of supply.

But in its three years of existence the Office of Civil and Defense Mobilization insisted on devoting its energy disproportionately to the shelters-and-sirens ends of its job. Shelters must certainly be built and sirens must be set up. But the agency was given plodding leadership and inadequate funds; it was never equal to any part of its massive assignment. Now President Kennedy has broken it up.

It will no longer attempt the building and the operating. It will be renamed the Office of Emergency Planning, and planning is what it will do. The rest of the work is being undertaken by the existing Federal agencies, each taking the emergency responsibilities closest to its normal day-to-day functions. The President gave the Defense Department responsibility for shelters and warning; with its engineering staffs and its communications networks, the Department is vastly better equipped for it than the OCDM could ever have been. The President has also shown wisdom in asking the Agriculture Department to move surplus food stocks closer to the cities, and in directing the Department of Health, Education and Welfare to begin building up reserves of medical supplies.

Since it will supervise these activities for the President, the new Office of Emergency Planning has an opportunity to do much more constructive work than the OCDM ever accomplished. Civil defense will cost more than it has in the past. But at last the country can hope to see some examples of genuinely useful precautions for its money.

## FAS NEWSLETTER

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Chairman ..... John S. Toll

The FAS Newsletter is prepared in Washington by FAS members. The staff for this issue were: Editor—G. Felsenfeld; Writers—N. Felsenfeld, F. K. Millar, E. Shelton, D. Singer.

The FAS, founded in 1946, is a national organization of scientists and engineers concerned with the impact of science on national and world affairs.

## KHRUSHCHEV REJECTS ATMOSPHERE TEST BAN

Premier Khrushchev has stated the only Western acceptance of complete disarmament will bring an end to Soviet nuclear testing (NY Times, 9/10). In a message to President Kennedy and Prime Minister Macmillan, the Soviet Premier also rejected a Western proposal to prohibit nuclear testing in the atmosphere. The following excerpts (NY Times, 9/10) are from a Tass English translation of the message:

Each line of the statement by the President of the United States and the Prime Minister of Great Britain reveals a desire to insure, cost what it may, for the Western powers and their Allies in aggressive military blocs, unilateral military advantages to the detriment of the security interests of the Soviet Union and the other Socialist states.

\* \* \* \*

It is not very difficult to guess the meaning of the proposal. We are offered that the United States and Britain, let alone France, which remains altogether outside this proposal, should retain the opportunity to go on improving their nuclear weapons. But even this is not enough for them. They want to try and see whether it is possible or not to tie the hands of the Soviet Union even stronger in the raising of its defense potential.

In other words they want to kill two birds with one propaganda stone: to sanctify, by the Soviet Union's consent, their war preparations in the sphere of nuclear armaments, at the same time tripping up their partner in the negotiations the Soviet Union.

Indeed, it is common knowledge that the program of developing new types of nuclear weapons, which has been drawn up in the United States, now requires precisely underground tests, that is, the kind of experiments to which the American-British proposal is to give the green light.

For several years, the United States has striven at the Geneva negotiations of the three nuclear powers to legalize underground nuclear blasts, which has been one of the main obstacles to the conclusion of a treaty on the complete discontinuation of nuclear tests.

\* \* \* \*

In the face of the feverish war preparations of the NATO powers spearheaded against the Soviet Union and the Socialist countries, we had no other alternative but to take measures which are prompted by the necessity to counter the threats, by the necessity to be ready to take up arms against aggression.

\* \* \* \*

The Soviet Union has resumed nuclear weapon tests because it would border on thoughtlessness in the obtaining situation to disregard the possibility of aggression against it.

Weighing all the pros and cons, the Soviet Government with an aching heart had to resume test explosions.

The joint American-British statement touches upon the question of the growing danger of contamination of the atmosphere with radioactive substances. It goes without saying that these are undesirable phenomena. The Soviet Union is taking all measures to reduce to a minimum the harmful effects of tests on living organisms.

\* \* \* \*

It is common knowledge that the Soviet Union has held several-times-fewer nuclear tests than the United States, Britain and France. And yet, we have every reason—both from the standpoint of morality and from the standpoint of safeguarding our national interests—to hold as many tests as the Western powers.

The leaders of the Western powers themselves often say that while the arsenals of nations are bursting with a stock-piled arms, the security of each of them depends to a large extent on the balance of forces, and there is much truth in this.

Those who can squarely face the truth will recognize that nuclear tests can now be ended everywhere and forever only on the basis of general and complete disarmament.

In reply to the proposal to limit ourselves to renouncing the holding of nuclear tests in the atmosphere, we can only say to the President of the United States and the Prime Minister of Great Britain:

Let us direct the minds and energy of our people not to military preparations, not to quests for spurious propaganda moves, but to getting down together to settle the main problem of our time—general and complete disarmament.

Let us seek seriously, in good faith, a solution to the question of a German peace treaty in order to arrest in time the sliding of states into the chasm of nuclear rocket war.

## HIDING PLACE

Comment on a report that a frozen food locker is the safest place in the event of a nuclear explosion:

Move over, ham  
and quartered cow,  
My Geiger says  
The time is now.  
Yes, now I lay me  
Down to sleep,  
And if I die  
At least I'll keep.

—Richard Armour (Reprinted from  
"Light Armour", McGraw-Hill, publisher)

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