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NEW FAS LEADERS NAMED; COUNCIL MEETS APRIL 23 IN D.C.

Dr. Freeman J. Dyson and Professor Bernard T. Feld were elected last week as Chairman and Vice-Chairman respectively of the Federation of American Scientists for the coming year.

In the balloting, FAS members also named the following to two-year terms on the national Council:

Michael Amrine, Peter G. Bergmann, Owen Chamberlain, John T. Edsall, Marvin Kalkstein, Herbert J. Kouts, Jay Orear, Robert S. Rochlin, Hans J. Morgenthau, Jack Orloff, Arthur H. Rosenfeld and Matthew Sands.

The newly-elected Delegates-at-Large will join the following present Delegates-at-Large:

Peter Axel, Donald G. Brennan, William C. Davidon, Sergio De Benedetti, L. C. Dunn, W. A. Higinbotham, M. Stanley Livingston, Seymour Melman, Philip Morrison, Alexander Rich, Louis B. Sohn and Hugh C. Wolfe.

Council Meets April 23

The new Council and Officers will meet at 7:00 P.M. on Monday, April 23, 1962, in the **Franklin Room** of the **Sheraton-Park Hotel** in Washington. The hotel is also the headquarters of the American Physical Society, which will be meeting there during the week of April 23.

Franklin Long Will Speak

On Tuesday evening, April 24, Dr. Franklin Long, Assistant Director of the Arms Control and Disarmament Agency for Science and Technology, will address an FAS-sponsored public meeting at the Sheraton-Park Hotel.

U.S. - SOVIET COOPERATION IN SPACE

The prospects of a joint U.S.-Soviet space effort moved forward significantly this past month after an encouraging exchange of letters between President Kennedy and Premier Khrushchev. Technical discussions between scientists are now under way and optimism has risen for a cooperative effort in several areas of space research.

Previous efforts toward cooperation had bogged down principally because of the Soviet insistence on a general disarmament agreement first. Present developments apparently stem from a suggestion for cooperation by Premier Khrushchev in his message of congratulation on Feb. 20 after the flight of Lt. Col. John H. Glenn, Jr. Pres. Kennedy responded on Feb. 22 informing Premier Khrushchev that he was asking officials to "prepare concrete proposals for immediate projects of common action" and in a subsequent communication, on March 7, specific proposals were presented to Khrushchev.

President Kennedy made the following five proposals calling for:

1) "The joint establishment of an early operational **weather satellite system** . . . to provide global weather data for prompt use by any nation." It is proposed that the U. S. and the Soviet Union each would launch a satellite "in near-polar orbits in plans approximately perpendicular to each other."

2) Each country to "establish and operate **a radio tracking** station in each other's territory to provide tracking services to the other . . ." Thus the U. S. would provide its equipment for a station in the Soviet Union to be operated by Soviet technicians. The U. S. would operate a station utilizing Soviet equipment.

3) Cooperation "in mapping the **earth's magnetic field** in space by utilizing two satellites, one in a near earth orbit and the second in a more distant orbit. The U. S. would launch one of these satellites, while the Soviet Union would launch the other. The data would be exchanged throughout the world scientific community."

4) Cooperation in the field of **communications by satellite**

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PRESIDENT ASKS OFFICE OF SCIENCE AND TECHNOLOGY

President Kennedy has proposed to Congress his plan for establishing an Office of Science and Technology "as a new unit within the Executive Office of the President". Submitted as a reorganizational plan subject to congressional approval, the new office would provide the President with "adequate staff support in developing policies and evaluating programs in order to assure that science and technology are used most effectively in the interests of national security and general welfare". Mr. Kennedy singled out three broad areas in which the Office of Science and Technology would assist him: (1) major policies, plans and programs of the various Government agencies as they relate to national security and foreign policy; (2) the relation of selected scientific and technical developments as they impinge upon national policies; (3) coordination of governmental science activities as they affect non-Federal resources and institutions.

The Office of Science and Technology will be on an organizational par with such other presidential advisory bodies as the Bureau of the Budget and the Council of Economic Advisers. The new office will be headed by a director and deputy director, subject to Senate confirmation. Like the Budget director, the officials of the new office will be outside the official White House family and, therefore, will be available for congressional appearances. Congress is thus expected to endorse the change primarily because it would enable Congressmen for the first time to evaluate the Government's

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UN LOAN APPROVED BY SENATE

On April 6 the Senate gave its approval to authorization of $100,000,000 to help the United Nations. The final vote was 70-22.

This vote gave Senate support to the Mansfield-Dirksen substitute agreed upon by Bourke B. Hickenlooper (R-Iowa), and the Majority and Minority Leaders. This substitute eliminated the words "UN Bonds" and spoke of a loan to the UN, but it was agreed that a loan could be in the form of UN Bonds if the President determines that that is the best way to assist the UN and to conform to concern over fiscal responsibility expressed in the Senate. It gives the President greater flexibility in determining exactly how the U.S. will assist the UN. It is probable that President Kennedy will decide to purchase UN Bonds in view of the strong case made by the Executive Branch for U.S. participation in the UN Bond Issue.

Four attempts were made to amend the bill. Senator Jack Miller (R-Iowa) tried to deny U.S. foreign aid funds to UN members who were more than a year in arrears: Lost 78-15. Senator Richard B. Russell (D-Ga.) tried to void any loan by merely forgiving UN debts to U.S. and to require a joint act of Congress before any men or supplies could be used for UN purposes: Lost 72-21. Senator Frank Lausche (D-Ohio) tried to limit our matching funds to actual purchases by others, not to their promises: Lost 64-29. Senator Karl E. Mundt (R-S.D.) tried to reduce our matching to a one to two basis: Lost 67-24. Finally, Senator Bourke B. Hickenlooper (R-Iowa) asked for a record vote on the original Aiken-Hickenlooper-Morton proposal for a 3-year loan at about 2.9%: Lost 72-20.

Just before the vote on this last amendment, Minority Leader Everett Dirksen (R-Ill.) made a speech in which he berated those who had called the Mansfield-Dirksen substitute "specious", calling that an "affront" to him. Senator Dirksen said, "I would not charge my conscience with any act or deed which would contribute to the foundering of the United Nations, because I do not know how I would then be able to expiate that sin of commission to my grandchildren."

THE FUTURE OF FAS

by Michael Amrine

What will or should be the future of the Federation of American Scientists?

No one can doubt that scientists have a great deal to contribute to society, in a special role in which they are scientists and citizens at the same time. But today scientists—by which we may mean all in the community of science, all the technically informed—may do this in many different ways. Federation members and delegates, it seems to me, must be more clear as to the unique or most useful ways in which the Federation can be of service to society and to science.

When the Federation was founded, almost any physical scientist, through his appreciation of technical facts, had advantages over the less technically informed in thinking about man's new circumstances. A physical scientist was able to lead other citizens to a better understanding of the new facts. Space will not permit elaboration of other factors in this leadership. The physicist of 1945 usually had more than information; he had a kind of maturity of opinion, mainly because he had known of man's new dimensions for a longer time. Thus he had had more time in which his thinking could mature. This is far from saying that he was a professional at thinking about social implications of the A-bomb, or of weapons or of science. He had the advantages and disadvantages of being an amateur at politics and public education. In some respects the strange forcing-house of the Manhattan Project had its most extraordinary effect in this unusual time-lead it gave for the thinking of an elite to blossom.

In the past 17 years, several major things have changed in the general area in which the Federation operates. Today scientists can contribute in many different ways to public understanding of these problems, by many other means than the Federation. Scientists may sponsor public issues through dozens of means, including committees of the National Academy, the NSF, the Committee on Science and Human Welfare in the AAAS, and advisory committees to all kinds of research agencies.

In more political arenas, one has always been able to work for FAS goals through world government groups, academic freedom groups, etc. But now there is a whole range of groups which welcome scientists to their forums, from the Air Force Association to SANE. There are scientific advisory groups not only to the President and to Cabinet members, but to the major political parties. Thus the scientists' expertise and scientist-citizen concerns, are being channelled into society in many new ways.

Meanwhile a group of more-or-less professional speakers for science—or for science-and-policy, have come into being. Some are ex-scientists. Some are not, but may nonetheless know a great deal of science. Such men, administrators, or editors, or lawyers by profession, may have spent ten years studying shelters, or science education, or some aspect of science information or secrecy. The FAS needs to be quite honest about "the competition". In what way is the opinion of sixteen men on an FAS committee equal to, better than, or worse than the opinion of sixteen other men who have been thinking professionally about these issues for years?

It seems to me the FAS must again think through its objectives. This communication is not an attempt to hint that FAS has served its purposes. It is an attempt to ask the question, aloud. Are its purposes what they have always been? How are they uniquely or distinctively served by FAS?

Amateurs are better than professionals in many matters. The issues of war and peace are too large to be left to any group of professionals. The community of science has a tradition, and a code, a body of information, and a library of methods useful to the persons working in the areas where scientists wish to be citizens. But how does FAS uniquely serve these others? Just what does the Federation have, beyond our memories and our mimeograph?

Let's take one example. When our Council voted to ask the President not to resume nuclear tests, we did so quite openly, knowing that he could and probably did have information—as well as councils of scientific discussion—not open to us. Just what is it that we, the FAS brains, knew that the President might not? What special virtues do our councils possess?

These views are written by one who knows that some of the most effective instruments of social action defy analysis and definition. Many organizations seem to work better if one just takes the results of their work as good and avoids asking logical questions of organization and ultimate mission. But it is written by one who saw the Federation born, and who believes that in those days there was a clearer consensus among its members than exists today. There was also, I believe, a clearer margin of advanced thinking, as regards the FAS thinking and that of the public. The FAS head, so to speak, was likely to be better on its subjects of concern than the heads of persons who were making decisions. Today the average Senator, Mayor or editor—even, let us say—the average President, is far better educated in **something** of science than he was in 1945. And he has plenty of scientist-citizens at his elbow. Is it necessary and desirable that there always be plenty of "amateurs" advising the Presidents?

It is a curious fact, I believe, that FAS statements have a wider readership now than ever before. To me that does not prove the social worth of our enterprise since publicity is not an end in itself. It only heightens our responsibility to make what is said really worthwhile. When we say FAS has become an excellent amplifier we simply must ask **of what?**

And since good organizations are really persons and not masks or totems, we must ask **of whom?**

My own conviction is that unless we get more clear we are going to be more cloudy, or perhaps see some clear-headed minority capture the strange little machine which gives perhaps a greater gain than any other such amplifier on the market today.

KENTUCKY TO SHARE AUTHORITY OVER ATOMIC MATERIALS

The AEC has entered into an agreement with the Commonwealth of Kentucky for the transfer to the state of certain of AEC's present regulatory authority over radioisotopes, the source materials, uranium and thorium, and small quantities of fissionable materials. Kentucky, the first state to assume this authority under a 1959 amendment to the Atomic Energy Act, will have responsibility for rulemaking, licensing, inspection and enforcement in the use of these radioactive materials within the Commonwealth. The Commission has found that Kentucky's radiation control program is compatible with that of AEC and that it is adequate to protect public health and safety in the areas covered by the agreement.

As required by law, the Commission earlier published a proposed agreement with Kentucky in the Federal Register for four consecutive weeks for public comment. The Commission particularly invited public comment on the alternatives available to it with respect to transfer of authority over (1) land burial of low-level atomic wastes and (2) transfer by manufacturer to user of products containing radioactive material. The AEC took no position on the alternatives available to it, pending receipt of these comments. Comments were received from 51 organizations or individuals, including the US Public Health Service, the American Medical Association and the Nuclear Energy Committee of the National Association of Manufacturers. Following careful study of the public comments received, the Commission concluded that it will transfer to the states with which it may reach agreement (in this case, Kentucky) authority over land burial of low-level atomic waste as well as authority over transfer from manufacturer to user of industrial devices such as precision thickness gauges. The AEC will retain its authority over the disposal of high-level radioactive wastes. (These wastes all are stored at the present time.) The Commission also will retain jurisdiction over the transfer from the manufacturer to the general public of consumer products, whose use would not be controlled after they reached the public. Watch faces and lock illuminators containing tritium to provide luminosity are examples of such products. By law, the Commission retains regulatory control over the construction and operation of nuclear reactors and other production and utilization facilities, the disposal of radioactive wastes into the ocean and the import and export of radioactive materials. (AEC Release, 2/2).

Other states are now on the way toward entering into agreements with the AEC concerning regulatory authority. Programs have been formally presented by California and Mississippi and are under preparation by New York, Texas and New Jersey (AEC Release, 2/9).

CONCERNING SHELTERS: A LETTER TO THE EDITOR

Sir:

Regarding the negative story about fallout shelters in the March '62 Newsletter, I would like to point out some of the positive aspects as well as indicate the rationale used in establishing the fallout shelter at the American Chemical Society, one of the first to be activated in the country. We all agree that a shelter is something everyone hopes will never have to be used. Yet, until international tensions cases or a solution is found to the age old problem besetting mankind since Cain killed Abel, a precaution such as shelters seem prudent for our time. In part, the Society's shelter (where I am a floor warden) is a direct response to the President's suggestion that shelters, especially community shelters, be constructed. It also illustrates how an existing building, originally constructed without a shelter in mind, can be adapted for protection against fallout, chemical and biological agents (CBR). In the opinion of the ACS Board Committee on Civil Defense, which advised extensively on this shelter and originally suggested it be built to show how little additional cost or effort would be needed for a CBR fallout shelter—a filter system capable of removing aerosols, especially biological, one micron in size might be acceptable but a half micron would be preferred. This shelter has 100% filtration of half micron particles. Otherwise, the shelter is quite ordinary and is built with the best available information extant. Only secondarily was it built at this time with an eye to protection of building employees. The shelter is actually the lower level basement where cars are parked. The shelter is completely sealable and has adequate CBR filters but no blast protection is claimed. It is worth noting that the 700 person shelter was built and provisioned (two week period) for less than $44,000 ($63/person). The ACS believes an adequate, although in some instances extremely spartan, existence can be maintained in the shelter for the amount expended. It is also worth noting, says ACS, that CBR provisions can in a real degree nonviolently negate a potential aggressor's inclination to use such weapons. This is because chemical and biological defenses can be quite positive ones, whereas those for nuclear blasts cannot be of the same degree without excessive expense. A 32-page booklet on the ACS Fallout Shelter, its program and initial experiences, will shortly be available to interested individuals. The booklet takes you to the point where the shelter is basically secured. The ACS is now working up post-sealing procedures including arrangements for toilet facilities, food distribution, preparation of sleeping areas, exercise, recreation, establishing warden watches and removal of parked cars to upper levels. Every shelter occupant will have extensive manual tasks to perform in the first few hours after an alert. Hopefully, this will reduce hysteria.

Irving Shapiro,
(former National Secretary of FAS, 1957-60)
Division of Engineering and Industrial Research
National Academy of Sciences

P.S. The first familiarization drill was held last week and the eight floor building was cleared in five minutes and 23 seconds; we had expected it to take 20 minutes or more since perhaps 85% of the building personnel had not seen the shelter prior to the drill.

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—Gary Felsenfeld; Writers: L. Gellert, F. K. Millar, N. Seeman, E. Shelton.

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

GENEVA SUMMARY

At the end of March, the "Big Three" Foreign Ministers left the Geneva Conference on Disarmament, having failed to reach visible agreement on anything except that the full Conference, and the Great Powers, should continue to talk. The main result of their meetings was reported to be an improved atmosphere for further discussion of the Berlin situation.

Concerning a test ban agreement, private talks of the American, British, and Russian Ministers made no headway, with the Soviet Union refusing to consider any form of international control and inspection. The three Powers will continue to talk in a "test ban" subcommittee of the Disarmament Conference, but it was assumed that both the U.S. and the Soviet Union would go ahead with a series of atmospheric tests. (NY Times, 3/25, 4/4)

The "Big Three" and other Foreign Ministers also participated in opening meetings of the seventeen-State Conference, featuring general statements on disarmament. It appeared that the Conference would now settle down to lengthy discussion of the procedure and substance of disarmament. The Soviet Union has been pressing for consideration of its draft of a treaty for "general and complete disarmament," and the U.S. apparently will respond by presenting a treaty outline. However, the U.S. is seeking Conference action on specific problems and "limited" agreements, such as safeguards against surprise attack and an agreement to prevent the spread of nuclear weapons to countries which do not now have them. (NY Times, 3/26, 4/1)

SHELTER BUBBLE BURSTS

The private fallout shelter has gone the way of the hula-hoop, and it was a lot less fun while it lasted. The shelter boom started last July after Kennedy's warning to the television audience that Russia's drive for a show-down over Berlin posed a threat to peace. Throughout the country new businesses were created to satisfy the immediate clamor for fallout protection, and well-established businesses put up large sums of money to expand their "line" to include fallout shelters. In late September and early October of 1961, Dallas issued building permits for 105 shelters, Philadelphia issued 50. But since that time things have cooled off and so far this year Dallas has issued 5 permits and Philadelphia 3.

Last year's interest in shelters seemed to promise a thriv-

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OFFICE OF SCIENCE AND TECHNOLOGY

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scientific undertakings by questioning a single and presumably all-knowing representative of the Administration. Establishment of the new office will not affect the position of special assistant to the President for science and technology, and, in fact, if the new plan is approved, it is expected that President Kennedy will appoint his present science adviser, Dr. Jerome B. Wiesner, to the position of director of the new office. Thus, as Special Assistant, Dr. Wiesner will retain his immunity from congressional appearances, while as Director of the Office of Science and Technology, he will come under congressional scrutiny.

The Administration's primary interest in the reorganization was the practical need to increase and to strengthen the scientific advice available to the President on a continuing basis. Nevertheless, there were other considerations too, including the feeling of some officials that such a reorganization would placate those persons in Congress who clamor for the creation of a Department of Science with Cabinet status.

The new office would take over some of the coordinating duties of the National Science Foundation. In particular, the Office of Science and Technology would undertake the Foundation's present assignment of evaluating scientific research programs of other Government agencies. According to the President's reorganization message, the Foundation has been unable effectively to coordinate the Federal science effort because it is at the same organizational level as the Government science agencies. The Foundation will continue to originate policy proposals and recommendations concerning support of basic research and education in the sciences.

The President's reorganization plan takes effect 60 days after it was submitted unless it is vetoed by either house of Congress, an event held to be extremely unlikely. (NY Times and W. Post, 3/30, & Science, 4/6)

U.S. - SOVIET COOPERATION IN SPACE
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towards a goal of a global communications system available to all nations.

5) Cooperation in **space medicine** . . . "to pool our efforts and exchange our knowledge"—to insure man's ability to survive in space.

The President further suggested that all agreements reached should be reported to the United Nations Space Committee (on Peaceful Uses of Outer Space) and that the U.S. and Soviet representatives who were shortly to attend the forthcoming meeting of the U.N. Space Committee (March 19) should meet privately to discuss the proposals set forth in his letter.

On March 21, Premier Khrushchev responded—quite favorably. He agreed in principle with President Kennedy as to the areas of common interest (weather, communications, etc.) and suggested in addition the "pooling of efforts by states for the purpose of expediting scientific progress in the studies of the physics of interplanetary space and celestial bodies . . ."; also the drafting of a legal code for space and an international agreement providing for the search and rescue of space ships, satellites and capsules.

The Soviet leader also indicated that their representatives to the U.N. Space Committee (already in session) would be instructed to meet with the U.S. representatives to discuss concrete proposals.

During the interchange of letters the twenty-eight nation U.N. Committee on the Peaceful Uses of Outer Space got off to a promising start on March 19 with the election of officers (Dr. Franz Matsch, of Austria, re-elected chairman) and a pledge by the Soviet representative, Platon D. Morozov, on March 20, that the Soviet Union would cooperate "by deeds" with the committee. (The committee, organized in 1959, was boycotted by the Soviet Union for its first two years.) Mr. Morozov informed the members that Soviet scientists were already working with the World Meteorological Organization, the International Telecommunications Union and the Committee on Space Research (Cospar).

On March 27, a "preparatory and exploratory" meeting was held between U.S. and Soviet scientists on cooperation in space efforts. Dr. A. A. Blagonravov of the Soviet Academy of Sciences (here to attend the U.N. Space Committee meetings) and Dr. Hugh L. Dryden, deputy administrator of NASA (and technical adviser to Mr. Francis T. P. Plimpton, our representative to the U.N. Space Committee) met for an hour and twenty minutes at the U.S. mission to the U.N. U.S. spokesmen indicated that the next meeting would be held shortly—presumably at the Soviet mission.

Thus far the only restrictive note to these developments is contained in Khrushchev's letter, where, in reference to cooperative efforts beyond these first suggestions, he writes . . . "the prospects for cooperation for pooling our scientific and technological achievements up to and including **joint development of space ships** for reaching other planets . . . the moon, Venus, Mars, will be considerably greater when agreement on disarmament is reached." In reference to this he points out that "the principles of designing and production are the same for both military and space rockets.

UNIVERSITY OF OREGON FACULTY STATEMENT ON CAMPUS SPEAKERS

At its regular meeting on March 7, 1962, the University of Oregon faculty approved by a unanimous vote the following statement of policy recommended by the Faculty Senate:

A university is by definition a place of free inquiry. Without freedom to seek information in the library, in the classroom, in the laboratory, in field studies, and in the words of campus speakers, the objectives of a university cannot be achieved. In accordance with this basic principle of freedom to seek information wherever it may be found, the University of Oregon makes this specific statement of policy with respect to the appearance of campus speakers who are not members of the University community:

(1) Any faculty or recognized student group may invite to the campus any speaker the group would like to hear.

(2) The appearance of an invited speaker on the campus does not involve an endorsement of his views by the University.

President Flemming stated that he concurred wholeheartedly in this formulation of longstanding University policy.

SHELTER BUBBLE BURSTS
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ing business for the fast-moving entrepreneurs, but what actually happened is typified by the experience of one midwest firm. They placed a half-page advertisement in the local paper and got 300 inquiries during the first week. Hastily, they shifted one fiber glass product shop to full time shelter construction, started a double shift and hired 10 extra workers. In 3 weeks they had built 50 shelters. Today they still have 43 of these on hand and four of the seven they sold were for display purposes. Another business man in Portland, Oregon, said that he had wasted $20,000 and 3 months time trying to make a go of the fallout shelter business. There were lots of inquiries but when it came to putting down the cash people backed off.

What was the cause of the decline, this crazy bust before the boom was well started? Business men blame it on several factors. A shift in Federal emphasis toward community shelters was a large factor, as was the cooling off of the international crisis. But the get-rich-quick sharks also injured the reputable business man because the public quickly became shy of the shelters that did not measure up to specifications. Another factor that played a large role in the public rejection of the shelter was the moral issue involved—the question of "neighbor shooting". The mere thought of possessing something that would give rise to such a situation made many people think twice before building. (Wall Street Jour., 3/28)

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