

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.

FRESH OUTLOOK IN U. S. DISARMAMENT POLICY

Various actions of the incoming U.S. Administration indicate that President Kennedy's interest in disarmament negotiations is a serious one and that attempts will be made to formulate new national disarmament policies and concrete plans for such negotiations. First among the more promising actions are a number of appointments to specific government posts. Appointed to head the Disarmament Administration is John Z. McCloy, former president of the World Bank and lately chairman of the Ford Foundation and the Council on Foreign Relations. It has been pointed out that choosing a Republican of high personal prestige for this position will probably serve to focus even more attention on this post and so increase its influence (*Science*, 1/13). In a preface to Henry Roberts' *Russia and America*, published in 1956, Mr. McCloy wrote "U. S. Policy planning should devote utmost energy to devising . . . a break-through [in the race for armaments]. . . . We must be ready to consider the most far-reaching proposals, including those for total disarmament—universal, enforceable, and complete with international control and inspection." (*I. F. Stone's Weekly*, 1/16). President Kennedy also plans to expand the Disarmament Administration staff from its present 43 to 100 or more. (*N. Y. Times*, 1/25). Among other Kennedy appointments, the new Assistant Secretary of Defense for International Affairs will be Paul Nitze who is also "a man with a strong interest in the problem of disarmament." (*Science*, 1/13).

Wiesner's Role

The new science adviser to the President, M.I.T. Prof. Jerome B. Wiesner, will likely give even stronger and more concrete support for disarmament. Wiesner's concern for "the growing threat" of weapons stockpiles and of the possibility of nuclear war are well-known (*W. Post*, 1/12; Foreword to *Daedalus* issue for Fall, 1960); he "favors arms control (including a nuclear test ban) and he believes the technical problems are not insuperable" (*W. Post*, 1/12, 1/25). He has set forth details of his thinking on disarmament in a number of articles, including one in the *Daedalus* issue on Arms Control (see Newsletter, Vol. 14, No. 1). For "this kind of thinking" to get "an adequate hearing from the President is unique" and may well "give disarmament a massive psychological push" (*W. Post*, 1/25). Wiesner was one of the U. S. scientists who attended the Pugwash Conference (6th International Conference of Scientists) held in Moscow Nov. 27-Dec. 5, 1960. At least some Western delegates who attended seem to have felt that the Russians gave evidence of sincerity in their desire for practical arms control. Louis Sohn states that one of his major impressions "was that the Russians are more flexible in their attitude toward disarmament and controls than is generally understood. . . . They seem willing to accept substantial controls in a first stage if that stage includes a substantial amount of disarmament" and is not "limited to 'studies' and minor arms-control measures". (*The Nation*, 1/14, emphasis the writers'). The logic of such a viewpoint has also been emphasized in a recent article by Keith Kyle (*New Republic*, 1/2). Mr. Kyle believes that probably the most serious obstacle to negotiation in Western circles is an apparent lack of conviction that disarmament is desirable. (See also article by Higinbotham elsewhere in this issue.)

Kennedy Will Clarify U. S. Position

In his first press conference, President Kennedy announced that the U. S. had asked that a resumption of the Geneva negotiations on an atomic test ban be put off until late March to allow "time to prepare a clear American position" (*W. Post* 1/26). The talks were recessed on December 5 and were scheduled to resume early in February; the other participant-

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FAS COUNCIL APPROVES THREE STATEMENTS

The FAS Council met on February 4, 1961 in New York City. The following statements were approved for release to the press:

No First Use of Nuclear Weapons

We urge the United States Government to decide and publicly declare as its permanent policy that the U.S. shall not use nuclear weapons of any kind under any circumstances except in response to the use of nuclear weapons by others. We urge that the strategic plans and the military deployments of the U.S. and its allies be brought as rapidly as possible into a condition consistent with the over-all policy of not using nuclear weapons first.

No Transfer of Nuclear Weapons to Non-Nuclear Powers

Unless prompt action is taken, it is probable that nuclear weapons will spread to a growing number of countries, such as China, Germany, Japan, and Sweden. To achieve increased security and to keep open future opportunities for worldwide disarmament, the Federation of American Scientists urges that the United States now seek a treaty agreement between the U.S., U.S.S.R., Great Britain, and France providing that these nations shall not give nuclear weapons or nuclear weapons technology to any other country.

Disarmament

The Federation of American Scientists strongly supports the policy of comprehensive disarmament of all weapons of mass destruction, under a world of law with an international police force to provide inspection and control. Until this goal is achieved, the grave danger of massive destruction will continue to threaten mankind. In working toward this goal, an extensive effort is required to understand and evaluate the many economic, technical, military, and political factors which lead to international misunderstanding and strife. We urge our government to stimulate and support a greatly expanded program of study of these factors, one which is commensurate with the scope and urgency of the problems involved. Specifically, we propose detailed analyses of the technical problems of systems of inspection and enforcement of disarmament agreements, and of their effectiveness and cost. We advocate international negotiations to clarify areas of concern and mistrust, and to formulate plans to remove or minimize legitimate sources of distrust. We advise our government to act quickly in several areas where agreements are potentially within reach, in order to test the sincerity of ourselves and other nations; we advise this even if it involves some short-term risks of small unbalance of military capabilities. We believe that some risk is justified in view of the greater risk of failing to act.

We urge that major emphasis be given to those arms control agreements that are most likely to contribute to the further evolution of arms control and disarmament arrangements. We recognize the need to build confidence in the United Nations as a forum for the discussion of international problems, and to establish the authority of international police forces for the maintenance of peace.

Above all we urge that the ultimate goal of comprehensive disarmament under a world of law be made the real, as well as the nominal, purpose of U.S. policy. To this end, we urge that the U.S. government initiate at once thorough studies of the implications of comprehensive disarmament. These studies should include political, economic, and technical aspects of disarmament. They should lead to a clear statement of the conditions under which the successive stages of a disarmament program might be implemented and of the kind of international order in which the U.S. would be willing to disarm completely. Such comprehensive studies are important both to clarify our own objectives and to keep demonstrating to others our sincerity in seeking these objectives.

IDAHO POWER REACTOR ACCIDENT

A violent explosion at the AEC's National Reactor Testing Station near Idaho Falls, Idaho, early in January resulted in the deaths of three men. While investigation into the cause of the accident has been slow and difficult owing to high radiation levels in the reactor building, it has been established that the reactor sustained an uncontrolled nuclear reaction (Science 1/27). Ironically, the explosion, which was the first fatal accident in the history of U. S. reactor operation, occurred at the facility where AEC scientists have purposely caused reactors to run wild as part of research on accidents and accident prevention (Wall St. Journal 1/5). In the aftermath of the accident, Walter P. Reuther, president of the Industrial Union Department, AFL-CIO, charged that the explosion would have over-exposed "thousands of people" had it occurred in a thickly populated area. (The union has been fighting construction of a fast breeder reactor in the populous Toledo-Detroit metropolitan area). Reuther released a compilation of 40 reactor accidents and their causes in this country and abroad, prepared without AEC guidance by his Department's Atomic Energy Technical Committee (W. Post 1/13). Following the Idaho Falls explosion, the AEC started a safety survey of all reactors and allied equipment licensed by it, asking the licensees for information on procedures used in operating and maintaining power, research and training reactors (N. Y. T. 1/12).

Dual Role of AEC

With regard to the regulatory function of the AEC, there have been complaints for several years about the dual role of the Commission as both promoter of civilian uses of atomic energy and as a regulatory agency whose duty it is to prevent the use of atomic energy where undue hazards might be involved. Critics have pointed out, and the AEC has agreed, that this dual role provides a built-in conflict of interest within the agency. The formation of a separate regulatory agency seems unlikely at this time, if only for the practical reason that only the AEC is presently equipped to handle the regulatory functions. The solution to this problem may lie in a compromise plan presented by the AEC, whereby the regulatory functions would be separated from the rest of the agency, with the chief regulatory officer reporting directly to the five commissioners. The AEC general manager, who now has over-all supervision of all activities, would no longer control the regulatory side of the agency under the new plan. The planned changes have support from the AEC and the Joint Congressional Committee on Atomic Energy and apparently will be put into effect promptly pending approval by the newly appointed AEC chairman, Dr. Glenn T. Seaborg (Science 1/27).

FRESH LOOK AT DISARMAMENT

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ing countries have agreed to the delay. The current state of progress in the talks has been officially reviewed by William Gehron in the Department of State Bulletin for Sept. 26, 1960, and more completely set forth by the U. S. Senate Subcommittee on Disarmament, "Conference on the Discontinuance of Nuclear Weapons Tests, Analysis of Progress and Positions of the Participating Parties, October 1958-August, 1960 (U. S. G. P. O. No. 59734, October, 1960). The White House has also announced that a 13-member panel of experts has been organized to work out the U. S. position on nuclear tests (N. Y. Times, 1/26). The group will be headed by Dr. J. B. Fisk, president of Bell Telephone Laboratories, and will also include Dr. Hans Bethe, Gen. Austin Betts, Dr. Harold Brown, Spurgeon M. Keeny, Jr., Dr. Richard Latter, Gen. Herbert B. Loper, Dr. J. Carson Mark, Doyle Northrup, Dr. Wolfgang Panofsky, Dr. Frank Press, Gen. Alfred Starbird, and Dr. Herbert York. (N. Y. Times, 1/26).

Meanwhile, the AEC annual report to Congress again emphasized the "advances . . . possible through further nuclear testing". The Commission also "indicated its belief in the possibility that the Soviet Union may have been conducting . . . sneak tests . . . during the current moratorium" (W. Post, 1/31). In a talk before an A.A.A.S. symposium on December 28, Dr. Ralph Lapp also stated that "within a year . . . pressure in this country for resumption of weapons testing will be too heavy to permit agreement" on a test ban (N. Y. Times, 12/29). However, the incoming Chairman of the AEC under the new Administration, Nobel-Prize winner Glenn T. Seaborg, has stated that he has "an open mind" on the test ban (W. Post, 1/18).

ARMS CONTROL

Arms Control: Fall, 1960, issue of *Daedalus*, Volume 39, No. 4, of the Proceedings of the American Academy of Arts and Sciences. Editor-in-chief, G. Holton. Special advisory editor for Arms Control issue: D. Brennan. 400 pp. \$2.00. Wesleyan University Press, 356 Washington St., Middletown, Conn.

Reviewed by F. S. Ham and R. S. Rochlin

By assembling in this single volume articles on arms control by 21 different authors which treat with respect many aspects of the subject and reflect several diverse viewpoints, the editors have produced an "arms control handbook" that should be read by all serious students of international relations and all those interested in the survival of man.

Implementation of Arms Control

In a paper entitled "Inspection Techniques of Arms Control" MIT physicist B. T. Feld surveys the work done to date on the technical problems which arise in seeking arms limitation agreements. He finds that many promising approaches have been proposed for detecting evasions of such agreements. These proposals range from sophisticated methods of physical surveillance, such as reconnaissance earth satellites, to the establishment of conditions under which a significant fraction of the general population would be willing and able to report suspected evasions to an international authority. It is pointed out that a combination of many inspection techniques, both physical and non-physical, can help to offset the limitations inherent in any one technique.

On the other hand, Feld concludes that research on arms control inspection has so far been painfully inadequate. There have been a few small studies by dedicated individuals, but most aspects of the problem have been sadly neglected by the United States government. It is earnestly hoped that this neglect will soon be remedied.

Louis B. Sohn, professor of international law at Harvard and co-author of "World Peace through World Law", has contributed a brief but cogent essay on "Adjudication and Enforcement in Arms Control". He suggests a system of about eight special disarmament courts, geographically distributed, with the right of appeal to the International Court of Justice. He discusses how to set up safeguards against possible abuses of power by the international inspection agency, and how to facilitate revision of disarmament treaties when technical or political developments make them obsolete. Finally, he proposes a system of sanctions which could be invoked to enforce arms-control treaties; the system is based on the principle that the sanctions should be proportionate to the violations.

In "Arms Control through World Law", Arthur Larson, director of the World Rule of Law Center at Duke University, describes a series of gradual steps whereby the world might feasibly evolve towards a system of law such as that envisaged by Clark and Sohn. The now fragmentary body of world law can be augmented by creating law-making treaties in troublesome new areas of international relations, and by research to establish the "general principles of law recognized by civilized nations." The machinery of international law can be strengthened by creating boards of enquiry, developing injunction procedures, and forming panels of judges of the International Court to hear special categories of cases or to sit in different regions. A permanent U.N. police force can be built up gradually under the Secretary-General. All these steps appear possible, according to Larson, within the present U.N. Charter and Court Statute. Thus even without amendment to the Charter, a system of world law can and should be formed and should grow in step with a gradual development of a comprehensive system of arms control.

T. C. Schelling, a Harvard economist, discusses the implications of those arms-control measures which do not lead toward disarmament. In a paper entitled "Reciprocal Measures for Arms Stabilization," he assumes military deterrence to remain the keystone of U.S. security policy, and explores ways in which such deterrence might be "stabilized"; i.e., made less likely to lead to war. He examines the possibilities for collaborating with potential enemies, formally or tacitly, to reduce the likelihood of accidental war by such measures as agreeing to channel most of their military effort into building invulnerable "second-strike" forces. He also discusses the problems of communicating with an enemy

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EUROPE SEEKS SPACE ACCORD AND PROGRESS

The European nations have taken their first shaky steps toward the establishment of a cooperative organization for space research, hopefully following the pattern of the very successful joint effort achieved in nuclear research by CERN (European Organization for Nuclear Research). A series of meetings have been held within the past half year in an attempt to lay the foundation for a common European effort in the exploration of space.

Preliminary meetings were held last June in Paris and were followed by a four day major inter-governmental meeting at Meyrin, Switzerland in late November (NYT, Nov. 29). This meeting was attended by scientists officially representing the governments of Belgium, Denmark, France, West Germany, Italy, the Netherlands, Norway, Sweden, Britain and Switzerland (with Spain as an observer). The principal tasks of the Meyrin conference were to set up a preparatory committee to write a constitution to be submitted to member nations and to outline the general scope of the organization.

The latest conference, called at the invitation of the French government took place in Strasbourg in early February (NYT, Jan. 18). No definite conclusions have been announced. A major problem under discussion was whether the cooperating nations should limit themselves in outer space research to satellite instrumentation and experiments using foreign rocket launching facilities, or whether they should work jointly to develop a complete launching facility themselves. Britain offered its Blue Streak booster rocket (originally an intermediate range ballistic missile) as a first stage and the French Veronique was considered for the second stage (NYT, Dec. 16, 29). It was anticipated that the development of a complete vehicle would take five years and cost about 200 million dollars.

Although there is a general feeling among these nations that a joint effort is necessary to end the space monopoly of the United States and the Soviet Union, the high cost involved in the development of a complete launching facility is causing some nations to examine the aims of the group closely and also to push forward in other directions. The newly formed French Commission for Special and Scientific Research has been negotiating with the U.S. National Aeronautics and Space Agency to launch a French built scientific satellite or for French instruments to be included in one of the NASA satellites (NYT, Jan. 16).

In England, the entire space program of the British government has come under sharp criticism from some conservative party members of Parliament. Concern has been voiced in regard to the proposed "give away" of the British developed Blue Streak rocket and in the general complacency of the British effort. They see the U. S. and Russia forging ahead toward a world-wide communications system while Britain gets bogged down in the organization of a cooperative European effort. In criticising the government program, it was argued that immense profits would be going to the American Telephone and Telegraph Company and that a British communication system based on satellites would earn some 1.26 billion dollars in twenty years.

Here in the U.S. on January 19, A.T.&T. received government authorization to set up the first commercial space link between the U.S. and Europe on an experimental basis. The FCC restricted the company to experimental transmissions only and made it clear that it was not granting a commercial service at this time (NYT, Jan. 19).

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Chairman M. Stanley Livingston

The FAS Newsletter is prepared in Washington by FAS members. The staff for this issue were: Editors—E. Shelton and L. Rodberg; Writers—E. Anderson, E. Leonard, F. K. Millar, and N. Seeman.

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

REPORT ON PUGWASH

By W. A. Higinbotham

The sixth Pugwash conference of scientists (Pugwash Conference on Disarmament and World Security) was held in Moscow, USSR, from November 27 through December 5, 1960. There were 34 in the American party including eight wives. Twenty-nine participants came from 12 other nations (Australia, Austria, Canada, People's Republic of China, Czechoslovakia, France, Federal Republic of Germany, German Democratic Republic, Hungary, Netherlands, Poland, United Kingdom). Twenty-one of the Soviet Union's most distinguished academicians participated. All visitors were guests of the Soviet Academy of Sciences, while in Moscow.

The hosts went out of their way to make the meeting pleasant and profitable. We ate in a private dining room at the Metropole. We were provided with guides and interpreters. We attended the theater and the ballet. There was a banquet the first evening and a reception at the Soviet Academy the night before we left. All the visitors were invited to have a dinner at the home of one of the academicians. The translation and secretarial service at Friendship House were excellent.

This meeting was originally scheduled for September but was postponed at the request of the American participants until after the election. Most of the participants prepared papers which were translated and made available for study. At the opening session messages were read from Premier Khrushchev, Dr. Detlev Bronk and Lord Bertrand Russell. Two or three papers were presented at each session with about equal time allotted to discussion. There were many opportunities for informal discussions. The principal topics were: History of the arms race; dangers of the arms race; test ban negotiations; general disarmament; limited and balanced deterrence; limited disarmament steps; technical factors in inspection; non-physical inspection; biological and chemical warfare; problems of surprise attack and of accidental war; economic repercussions of disarmament; political problems; and the responsibilities of scientists.

The meetings were deliberately not publicized to avoid external pressures and to encourage a free exchange of personal views. Some of the papers will be published in the Bulletin of the Atomic Scientists, and the complete record will be available, as before, to heads of governments and to interested individuals. At the end, the conference approved a statement which reaffirmed the principles enunciated in the Kitzbuhel Statement and noted the additional mutual understanding achieved in Moscow.

Although many limited arms control measures and confidence building steps were considered, the main topic was comprehensive disarmament. Prof. Jerome Weisner introduced this subject with a paper presenting the arguments for total disarmament on Tuesday morning. He was followed by Acad. V. M. Khvostov who summarized the proposal for complete disarmament which Premier Khrushchev presented to the United Nations in September 1959, and again last fall. Many of the Soviet speaker urged the conference to support these proposals at least in principle. Westerners asked many questions and noted some of the new problems which will arise if large scale disarmament is achieved. Mr. R. Leghorn and Dr. Kybal explained the theory of limited, balanced deterrence the following day. This was followed by a very enlightening discussion, accompanied by diagrams on the blackboard of the relationship between arms reduction, degree of inspection and limited deterrence. Later in the meeting Profs. David Frisch and L. B. Sohn presented a draft disarmament proposal which related these elements and spelled out successive stages. This paper, like several others, were products of the Study on Arms Control conducted by the American Academy of Arts and Sciences in Boston last summer. Non-physical inspection techniques and public participation in inspection received considerable attention.

Toward the end of the meeting several proposals were made for broadening participation in the Pugwash movement and for increasing its activity, which were referred to the Continuing Committee for consideration.

Perhaps the most important conclusion of the Western participants is that the Soviet scientists have made a good case for general and total disarmament. Hopefully, they learned from us that limited, balanced deterrence is being considered as a sort of mutual insurance for transition from the current high level of armaments to the very low level which all agree is a desirable goal. I think all involved felt this was a very useful meeting.

OUR NATIONAL WATER SUPPLY

Saline water conversion, no more than a curiosity to many of us, achieved a new status recently when it was cited in the President's State of the Union message. This is one aspect of the increasing interest in our water resources, stimulated by the burgeoning demands of a growing population. Senator Kerr's Committee on National Water Resources has published 28 reports, from which information on water demand and supply will be presented here. (Reports available on request from Kerr Committee). Subsequently, the Kerr Committee material will be used for an FAS article on water quality and pollution.

Water Needs in the U. S.

In the not very distant future the U.S. will be using about half of its available water supply. Current use is about 250 billion gallons per day, and the projected increase by 1980 is 600 billion gallons per day. Of this large amount of water, only 8% is for ordinary public consumption. The rest is divided about equally for industrial purposes and for irrigation. Irrigation is the major use in the West, whereas in the East most of the water is used for industry.

Water Storage Problems

The natural underground reservoir (aquifer), from which water can be removed by pumping, is a valuable resource that must be protected from the dangers of pollution and of "mining", i.e. the removal of water from the aquifer faster than it is replenished. The latter is a particular problem near seacoasts where excessive pumping allows sea water to flow into ground reservoirs.

Tapping the Oceans

The challenge of obtaining fresh water from the oceans continues to evoke efforts in research and in pilot plant development. Research has included a search for marine algae that selectively accumulate sodium, the development of ion-selective membranes for use in electrodialysis, studies on the growth of ice crystals related to the problem of achieving water-salt separation by freezing, and plans for studying a conversion process based on the formation of solid hydrocarbon-water hydrates from which the brine could be separated.

Several conversion processes are at the pilot plant or operational stage. Distillation of sea water has been practiced for many years, and millions of gallons per day of fresh water have been produced in areas where water is at a premium (Kuwait, Curacao). Flash distillation processes are now at the pilot plant stage. One of the leading processes for demineralization of brackish waters is electrodialysis, which utilizes a cell containing a cathode and anode at opposite ends and alternating cation and anion perm-selective membranes within the cell. A small community in California now obtains drinking water by this process, and several electrodialysis plants abroad are in commercial operation. In some areas solar distillation of sea water may be practical. Small units are already in operation in Algeria and Australia, and development of improved designs is in progress at a solar research station in Florida.

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during limited war or general war. For example, he points out that during a major future war, even an unconditional surrender by either side may be impossible to arrange before both sides have fired virtually all their nuclear weapons against each other.

Wiesner on Disarmament

"Comprehensive Arms-Limitation Systems" by Jerome B. Wiesner, is one of the most valuable articles in the book, both because it is an excellent treatment of a major problem, and because it reveals the thinking of the man who now holds the important posts of Special Assistant to the President for Science and Technology and Chairman of the President's Science Advisory Committee. His 36-page paper includes discussions of such topics as: obstacles to achieving arms-control agreements, objectives of such agreements, possible forms of such agreements, specific techniques of inspection and control, stable mutual deterrence and comments on some previous official proposals for comprehensive disarmament.

Wiesner proposes a new comprehensive disarmament system based upon stable deterrence. He introduces his proposal with these words: "... the ultimate objective of an arms-control system should be to achieve arms reductions to the levels required for internal police action, but, like most other Americans who have examined this problem, I believe that this condition can be achieved only if an adequate international security force exists, controlled by an adequate system of law, or alternatively, if the international tensions can be greatly reduced before disarmament to that level is undertaken. The attainment of either of these goals in a single step appears to be extremely ambitious and therefore it appears desirable to proceed toward this utopian goal in smaller steps. . . . In selecting this particular system, I have consciously attempted to limit the amount of inspection needed during the early period of implementation in order to meet Soviet fears. I believe that the arrangement will provide adequate security for the West. The following four phases are included in this plan: preparatory phase, implementation phase, build-up of International Authority, and the final elimination of national forces."

In "Public Opinion and the Control of Armaments", Ithiel de Sola Pool, professor of political science at M.I.T., develops the thesis that "an effective system of arms limitation should embody the conscious use of propaganda as an instrument of control." Russian public opinion is of great importance to the Kremlin, he concludes, and the West can utilize this fact to compel Soviet leaders to further open up Soviet society. An effective propaganda strategy by the West can reduce the possibility that the Soviets can successfully evade an arms control agreement. Such measures to plug technical loopholes in an agreement deserve serious study in the Kennedy administration's efforts to formulate an arms control program.

(This is the second of two reviews of the Arms Control Issue of *Daedalus* prepared by members of the MASE Chapter of FAS. The first of the reviews appeared in the January issue of the NEWSLETTER.)

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FAS ELECTIONS—1961-1962

Invitation for Additional Nominations by the Membership

Listed below are the nominations for FAS Chairman and Vice-Chairman for 1961-1962, prepared by the Elections Committee (Charles C. Price, Chairman; Walter Selove and Jules Halpern). In accordance with the By-Laws, FAS members may nominate by petition containing the endorsing signatures of 10 members and the consent of the nominee to serve if elected. Additional nominations should be sent by March 1 to the FAS Elections Committee, c/o Charles C. Price, Chem. Dept., U. of Penna., Philadelphia 4, Penna. Ballots will be mailed about March 21.

The FAS membership will also elect 12 delegates-at-large for two-year terms on the national council. The Elections Committee's proposed nominees for delegates-at-large are listed below. FAS members may make additional nominations by petition containing five signatures and the nominee's consent. Additional nominations should be sent to the Elections Committee (at the above address) by March 1.

The terms of the following delegates-at-large will not expire until the spring of 1962: Peter G. Bergmann, Owen Chamberlain, Waldo Cohn, Charles Coryell, Freeman Dyson, John Fowler, Marvin Kalkstein, Jay Orean, John Phelps, Charles C. Price, Walter Selove, and Emma Shelton.

In addition to the 24 delegates-at-large, the FAS Council will consist of the Chairman, Vice-Chairman, 2 past chairmen, and 1 delegate from each of the eight chapters: Brookhaven, Chicago, Los Alamos, Los Angeles, Philadelphia, Schenectady-Troy, Stanford, and Washington. Chapter members will also vote for delegates-at-large.

NOMINEES FOR CHAIRMAN

Prof. John S. Toll, Chairman, Physics Dept., Univ. of Maryland
Prof. L. C. Dunn, Geneticist, Columbia Univ.

NOMINEES FOR VICE-CHAIRMAN

(None)

NOMINEES FOR DELEGATE-AT-LARGE

Dr. Sidney A. Bludman, Physicist, Lawrence Radiation Lab.
Dr. Donald G. Brennan, Mathematician, Lincoln Laboratory
Dr. William C. Davidon, Physicist, Argonne National Lab.
Prof. Jules Halpern, Physics Dept., U. of Penna.
Dr. Frank S. Ham, Physicist, General Electric Co., Schenectady
Dr. Arthur Rosenfeld, Physicist, Lawrence Radiation Lab.

Also nominated are the losing candidates for chairman and vice-chairman. The elections committee suggests that any voter who wishes to have both candidates for each office serving FAS, may so indicate on his ballot.

Memo From Acting Editor of the FAS Newsletter To All Members of FAS

As the Acting Editor of the FAS Newsletter, I would like to ask your assistance in maintaining the high standards established by the previous Editor, Emma Shelton. The wide coverage of news events of interest to members of FAS will be continued, and the number of special features will be expanded. FAS members, and their Chapters and Branches around the country, can help by supplying the following kinds of material:

1. Articles and statements of opinion. These may be concerned with issues which have been debated within FAS or with problems which should be brought to the attention of the membership.
2. Book reviews. Books of particular interest to the members of FAS should be reviewed and analyzed.
3. Reports of FAS Committees. I hope that the availability of this forum will encourage groups to form FAS Committees, conduct studies, and present their findings and conclusions for the enlightenment of the membership and possible action by the FAS Council.
4. Reports of meetings of FAS groups. Often lectures or discussions are held under the auspices of local FAS groups which are of interest to the general membership. I hope that reports of these meetings will be sent to the Newsletter so that they may be shared with the entire membership.
5. Announcements of meetings of FAS groups. Brief reports of the subjects, speakers, and program formats used by individual groups will be of assistance to other groups in planning their programs, and will inform the membership of the issues which are being discussed.

In order to facilitate the transmission of this material, I would like to ask each Chapter and Branch to appoint a Reporter (he might be simply the Secretary) whose responsibility would be to submit a monthly report on the group's activities. Full and prompt coverage of local activities will enable the Newsletter to perform a useful service to the members of FAS.

All material to be submitted for publication in the Newsletter should be sent to

FEDERATION OF AMERICAN SCIENTISTS
1700 K Street, N.W.
Washington 6, D. C.

The Editor, of course, reserves the right to select the material which appears in the Newsletter, but he will attempt to include as much material as space and financial resources permit.

I want to thank you in advance for your cooperation and urge you to send, also, with material for the Newsletter, any suggestions you may have for its improvement.

Leonard S. Rodberg