

F. A. S. NEWSLETTER

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----- to provide information and to
stimulate discussion.

NEW IMPROVED FEDERATION MANAGEMENT

HERBERT F. YORK BECOMES CHAIRMAN

In April, America's first Director of Defense Research and Engineering, Herbert F. York, became Chairman of the Federation. Dr. York was the Pentagon's chief engineer under President Eisenhower and is one of only three persons who have held this position; his successors were Dr. Harold Brown and Dr. John Foster, the present incumbent. He had previously been the first Director of the Livermore Nuclear Laboratory in California.

No American scientist has testified more eloquently than Herbert York on the dangers of the arms race and the technological hazards that it presents. In 1969, he joined with Dr. Wolfgang K. H. Panofsky as the first two opposition witnesses to appear before the Senate Armed Services Committee in many years. The committee split its votes on the ABM that year (11-7) and was visibly impressed. In 1969 and 1970 before the Gore subcommittee of the Senate Foreign Relations Committee, and before the House of Representatives subcommittee on National Security Affairs, York emphasized the trend toward automaticity of control of nuclear weapons.

A former vice-chairman of the President's Science Advisory Committee, York was Chancellor of the University of California at San Diego from 1964-67 and is again its interim Chancellor. From 1967-1970, he was first Chairman of its Department of Physics, and then Dean of its Division of Graduate Studies.

Dr. York's recent testimony before the Gore Committee appeared in *Science* magazine on July 17, 1970. His recent book *Race to Oblivion: A Participant's View of the Arms Race* has been widely and favorably reviewed in *Life* magazine and elsewhere. York received the Ernest Lawrence Memorial Award of AEC in 1962.

Participating actively in the affairs of the Federation, Dr. York is perhaps the most distinguished Chairman the Federation has ever had. His election marked a new beginning for FAS.

JEREMY J. STONE BECOMES FIRST DIRECTOR IN TWO DECADES

On July 1, Dr. Jeremy J. Stone became the Federation's first full time director in many years. Trained as a mathematician, Dr. Stone has 8 years' experience as an observer and analyst of the arms race. His experience includes two years at Hudson Institute, and two years as a research associate at the Harvard Center of International Affairs where he wrote *Containing the Arms Race*. This book was called a "challenge to the seminar tradition in arms control" and an "indispensable guide to thinking about today's strategic balance," in a review in the Institute for Strategic Studies' *Survival* magazine. Stone has also done post-doctoral study in economics as a Social Science Research Council Fellow. Last year he was International Affairs Fellow, working on arms control, at the Council on Foreign Relations.

Dr. Stone has written widely on the arms race, including monographs for the Institute for Strategic Studies ("The Case Against Missile Defenses"), an article in *Foreign Affairs* ("When and How to Use SALT") and articles in such journals and newspapers as *The New Republic*, *Commonweal*, *The New Leader*, *War & Peace Report*, *The Washington Post*, *The Los Angeles Times*, *The Boston Globe*, and *The Chicago Sun Times*.

Stone has been a member of the Federation of American Scientists since 1962, on its Council since 1966 and a member of its Executive Committee in 1967, 1969 and 1970. He was, in 1968, Chairman of the Nominating Committee that persuaded Dr. York to run for Vice-Chairman (then Chairman-elect) of the Federation. This committee also secured the services on the Council, among others, of Matthew Meselson, George W. Rathjens, and Gerald Holton.

NEW ACTIVITIES PLANNED

The existence of a Washington director makes possible a variety of Federation activities designed to increase its effectiveness not only on Capitol Hill but throughout the Nation.

Issue Committees: FAS is organizing small (e.g., three man) issue committees on the many different issues of importance to it. These committees will produce reports from time to time with a view to setting FAS policy and to advising legislators. Present issue committee chairmen include. MIRV - Prof. Leo Sartori, MIT; Defense Department Reorganization - Dr. Morton Halperin, Brookings Institute; Chemical and Biological Warfare - Prof. Matthew Meselson, Harvard University; Ph.D. Surplus - Prof. Lee Grodzins, MIT; International Law - Prof. Richard Falk, Princeton University; Public Education (Arms Race) - Prof. Henry Kendell, MIT. Others will be announced in later newsletters.

Technical Advisory Committees to Influence Congress (TACTIC): The Federation is organizing a nationwide network of scientists and engineers to advise and inform Congress on matters of arms control, the environment, and science policy. In each Congressional District a Technical Advisory Committee to Influence Congress (TACTIC), consisting of about a half-dozen scientists and engineers, will be recruited. With the Issue Committees providing position papers and suggesting other references, each TACTIC group will contact its

Congressman and advise him on issues of concern to the scientific community.

Through continuing correspondence and periodic discussions with the Congressman when he visits the District, the TACTIC group will urge him to take a personal interest in these issues. With the help of the Issue Committees, TACTIC will provide a source of information to Congress other than the interested government agencies and special interest groups. From time to time, TACTIC groups will be alerted by the Washington office about pending legislation of particular importance.

It is hoped that such a concerted national program will enable FAS to influence more effectively events in Washington. Anyone who is willing to participate as a representative in his District should contact the TACTIC Coordinator, Prof. Barry M. Casper, Physics Dept., Carleton College, Northfield, Minnesota, 55057.

FAS Consulting Service: Under the Tax Reform Act of 1969, research institute personnel are precluded from any lobbying whatsoever. FAS intends to seek non-tax-exempt funds with which to pay per diem fees to academic specialists who would not otherwise be able to provide their services to interested Congressmen. Expenses of university academics would also be defrayed from the fund. Larger

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REPORT ON THE ABM DEBATE

The opposition to the anti-ballistic missile has traditionally had its greatest successes in deterring Administration proposals rather than in defeating them. The fact that, in September, 1967, Secretary McNamara called for an anti-Chinese ABM, rather than an anti-Soviet ABM, was an initial success for the opponents. In February 1969, citizen opposition to the ABM sites near their cities, coupled with Congressional opposition, forced review of the Sentinel program, and led to its re-emphasis as a defense of missiles. As a part of this review, President Nixon announced on March 15, as no President had before, that an anti-Soviet defense was not technically feasible.

Early in 1970, faced with analyses that showed ABM defense of Minuteman was not cost-effective except as a low-cost add-on to an anti-Chinese defense of the entire country, President Nixon trial-ballooned at a press conference that he would propose the Phase II anti-Chinese defense this year. But the threat of a loss in the Senate prompted key ABM supporters to protest and led to the Administration proposal for a modified Phase IIa. Phase IIa called for no more than two additional sites to protect Minuteman missiles and only for advanced preparation for area defense sites at four other points around the country. Again the threat of victory by ABM opponents forced a cut in the proposal. The Senate Armed Services Committee voted to delete the preparations for an area defense, and, significantly, reported "no compelling need" for such a defense.

During 1969 and 1970, opposition to the ABM has also been encouraging our SALT negotiators to negotiate a no-ABM agreement (with possible exceptions for defense of the capitol cities). On March 15, 1969, President Nixon had said that he felt neither side would look with "much favor" upon agreements that prevented anti-Chinese defenses. But in the face of the evident inability to secure Senate approval for such a defense, the Administration has begun to state: "As President Nixon has said, all U.S. systems are subject to negotiation." (Secretary of Defense Melvin Laird, March 12, 1970) Indeed, as indicated below, the Administration purchased approval of its ABM proposal this year by arguing that it was a "bargaining chip". This implication that the ABM will be given up if SALT is successful was an important by-product of the debate.

The Administration in power has the legislative advantage that it can test what the Congressional market will bear before submitting its proposals. And having shaped a proposal with a reasonable chance of passage, the Administration has broad powers to coerce, or to buy, political support. Under these circumstances, opposition to its proposals is rarely successful on the floor of the Senate. But this opposition can be, and has been, critical in forcing a reduction of Administration demands. All this is to say that the history of the last few years reveals a highly successful effort to nudge the country out of the city defense ABM business.

* * * * *

This year's debate focused upon the question of adding two additional Minuteman defense sites to the two approved last year. Despite unequivocal analyses showing that Minuteman defense was not worth the required funds if ABM was, indeed, not to be extended to an area defense, many anti-ABM Senators did not feel that they could

reopen the question of the first two sites. The most hotly contested amendment, offered by Senator John Sherman Cooper and Senator Philip A. Hart sought to delete the two additional sites and approximately \$300 million. This amendment lost 52-47 through the defection of Cook of Kentucky, Pearson of Kansas, and, especially, McIntyre of New Hampshire. This is the second year that Senator Anderson has publicly announced (on different occasions) that he would vote for both sides and then voted for the ABM. This pattern of behavior raises serious questions. An earlier amendment offered by Senator Harold E. Hughes proposed to stop all deployment of Safeguard but failed 33-62.

Frantic, but fruitless, last minute maneuvers occurred repeatedly during the last 24 hours of the debate, after Senator McIntyre announced that he would vote only for a Brooke back-up amendment giving more money but limiting the system geographically to two sites. Last year, after its 50-50 loss, the anti-ABM coalition refused to vote for a Brooke-McIntyre amendment. The Brooke amendment failed 53-45 on August 19. The Federation urged still further back-up measures, such as the deletion of one of the two new sites, but the anti-ABM coalition lacked the stamina to continue.

During the debate, the Federation devoted virtually all of its time to the ABM. We presented approximately 70 Senators - all who might vote with us - summaries of the testimony on ABM before the Armed Services and Foreign Relations Committees. These were also sent to the press. And because MIRV touched upon the debate, we presented summaries of remarks made on MIRV from over 30 volumes of testimony. A further summary entitled "Congressional Testimony Bearing Upon ABM Defense of Washington" was held in reserve but used to prepare Senators about to hold secret hearings on SALT. These summaries were prepared by the Director.

On July 20, Professor Barry M. Casper came to Washington to devote his full volunteer time to the Federation in general and ABM in particular for six weeks. Nine charts were prepared - wall poster size - and slightly more than 100 each printed. These were distributed, one or two a day, to each Senate office. They contained choice pieces of Congressional testimony, usually drawn from the Congressional summaries, and often illustrated with drawings. Too large to fit in a desk drawer, and sometimes on paper too thick to permit filing in a wastebasket, they were universally acclaimed as effective. One despairing aide whose backsliding Senator finally voted wrong called them a "humming bird in winter." Smaller copies of them were made and given to the press. In a debate less intense than last year, the Federation charts and summaries made it clear that someone was watching. The Federation played a significant role in planning strategy.

It became evident that the Senate had lost sight of the fact that Safeguard was worthless even if it worked perfectly. To drive this point home, three sentences of testimony by W. K. H. Panofsky were put together and agreement to these sentences was secured from Jerome B. Wiesner, Herbert F. York, Herbert Scoville, Jr., Marvin L. Goldberger, and (later) Donald F. Hornig. A press release of August third announced their agreement to this statement:

The protection offered by Safeguard for the Minuteman force is negligible. Even if Safeguard functions perfectly it offers significant protection to Minuteman only over a very narrow band of threats; if the threat continues to grow as rapidly as it is at present, Safeguard is obsolete before deployed; if the threat levels off, Safeguard is not needed. For Safeguard to have any significant effectiveness at all in protecting Minuteman, the Soviets would have to "tailor" their threat to correspond to it.

On August 11, a day before the debate, Senator Henry Jackson attacked this press release, and the Federation for circulating it, using a statement signed by Albert Wohlstetter, Charles M. Herzfeld, Willard Libby and William G. McMillan. Senator Jackson, and the pro-ABM scientists, charged that the FAS statement was based on the "absurd assumption" that the Soviets would try to destroy only 700 of the 1000 Minutemen.

A Federation press release of the same day denied the charge completely, as did telegrams to the Senator (and to leading Senatorial opponents of the ABM) from the scientists at issue. Shortly before the vote, Senator Jackson repeated his charges and Senator John Sherman Cooper placed these telegrams in the *Congressional Record*. Jerome B. Wiesner had called the charges "based on a misconception", i.e., that the FAS statement depended on the assumption that the Soviets want to destroy only 700 U.S. Minuteman missiles. Chairman Herbert F.

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Chairman Herbert F. York
Director Jeremy J. Stone
Newsletter Editor Rosetta M. Dymond

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

York called the Wohlstetter calculations "misleading and irrelevant." Vice Chairman Marvin L. Goldberger had called the Jackson statement "technically wrong and extremely misleading." Council Member Sidney Drell - whose name was not on the FAS statement but who had been attacked in the Jackson response - called the response "totally wrong as well as inconsistent with the Pentagon's own calculations of the Safeguard effectiveness."

Earlier, the Federation had been attacked by Senator Tower (August 6) and Senator Murphy (August 10). The attacks had pretended not to know that the Federation was 25 years old and a reputable organization. Senator Cranston set the record straight in the *Congressional Record* (August 12, S13278). He called Federation efforts to dig through the public record in search of conflicting official comments a "vital service," and called FAS expertise "invaluable" in the Safeguard debate.

Earlier in the debate, the Federation mailed to each of the first 1,000 (thousand) Physics departments, a copy of the statement on Safeguard discussed above and a copy of the Panofsky chart urging scientists to send telegrams. This letter was also sent to our members. Volunteer help, organized by Dr. Earl Callen of American University, was most helpful here and the mailing to Physics departments was made possible through the labor and ingenuity of Professor Alex Dragt of the University of Maryland. Dr. Callen wrote to another list of 350 scientific activists.

ADVISORY BOARD EXPANDED TO BOARD OF SPONSORS:

**Wiesner, Kistiakowsky, and Galbraith
Become Sponsors.**

In an effort to broaden the backing of the Federation and to strengthen its links with all fields of interest to it, the Federation secured the agreement of its Advisory Board members to turn the Advisory Board into a Board of Sponsors. It then solicited new Sponsors. Among new members accepting the FAS invitation were Dr. Jerome B. Wiesner, Dr. George B. Kistiakowsky, and Professor John Kenneth Galbraith.

Dr. Jerome Wiesner, Presidential Science Adviser to Presidents Kennedy and Johnson, is surely the most vigorous high level opponent of the arms race in this country, and he has anchored the search for an enlightened national security policy since 1960.

Dr. George B. Kistiakowsky, Presidential Science Adviser to President Eisenhower, now Professor of Chemistry at Harvard, is also Vice President of the National Academy of Sciences. Outspoken and energetic, Dr. Kistiakowsky is highly respected, and in great demand, on Capitol Hill where he testifies regularly on ABM, MIRV, Science Policy, and many other issues.

Professor John Kenneth Galbraith of Harvard University has also agreed to join the Board of Sponsors. An internationally famed economist, an especially close adviser to President Kennedy, and a former Ambassador to India, Professor Galbraith is respected throughout the world for his insightful and articulate social criticism, issued with startling and productive regularity in articles and books.

MARVIN L. GOLDBERGER ELECTED VICE-CHAIRMAN

Professor Marvin L. Goldberger defeated Dr. Victor Sidel in a close contest for Vice-Chairman. Dr. Sidel was elected to the Council. Professor Goldberger is Professor of Physics and Chairman of the Department of Physics of Princeton University. For seven years Chairman of the Jason Division of the Institute for Defense Analyses,

Dr. Goldberger was a member of the President's Science Advisory Committee from 1965 to 1969.

Dr. Goldberger played a leading role in the 1970 debate over the anti-ballistic missile. With Dr. Sidney Drell, Deputy Director of the Stanford Linear Accelerator, and also elected to the Council, Dr. Goldberger served on the O'Neill Ad Hoc Panel on SAFEGUARD convened by Dr. John Foster, Director of Defense Research and Engineering. When Dr. Foster testified that this panel had concluded that SAFEGUARD would "do the job" intended for it, Drs. Drell and Goldberger wrote the Foreign Relations Committee and subsequently testified before it that this was inaccurate. Together they responded to an article on the ABM by Henry Cabot Lodge in *Reader's Digest*. Later each responded with exceptional vigor to accusations made by Senator Henry Jackson at the 11th hour of the ABM debate (See ABM DEBATE).

COUNCIL MEMBERS ELECTED

Elected to the Council in 1970 were:

Sidney Drell (Stanford Linear Accelerator, Stanford, California)
Michael H. Goldhaber (Rockefeller University, New York City)
Morton Halperin (Brookings Institution, Washington, D.C.)
S. E. Luria (Dept. of Biology, MIT)
Philip Morrison (Dept. of Physics, MIT)
Joel Primack (Stanford Linear Accelerator Center, Stanford, Calif.)
Leonard S. Rodberg (Institute for Policy Studies, Washington, D.C.)
Cameron B. Satterthwaite (Dept. of Physics, Univ. of Illinois, Urbana, Ill.)
Herbert Scoville, Jr. (Formerly Assistant Director, Arms Control and Disarmament Agency)
Victor W. Sidel (Social Medicine, Montefiore Hospital, New York City)
Jeremy J. Stone (FAS Director, Washington, D.C.)
Victor Weisskopf (Dept. of Physics, MIT)
The full 24 man Council includes also the following 12 members elected for a term 1969-1971:
Dan I. Bolef (Washington University, St. Louis, Missouri)
Richard A. Falk (Woodrow Wilson School, Princeton Univ.)
Bernard T. Feld (Physics Dept., MIT)
Arthur W. Galston (Biology Dept., Gibbs Research, Yale Univ.)
Gerald Holton (Physics Dept., Harvard Univ.)
David R. Inglis (Univ. of Massachusetts, Amherst, Mass.)
Marvin Kalkstein (State Univ. of N.Y. at Stony Brook)
Matthew S. Meselson (Biology Labs, Harvard Univ.)
George W. Rathjens (Political Science Dept., MIT)
Arthur H. Rosenfeld (Radiation Lab., Univ. of Calif., Berkeley)
William M. Capron (J. F. Kennedy School of Government, Harvard Univ.)
Lincoln Wolfenstein (Physics Dept., Univ. of Michigan, Ann Arbor, Mich.).

A Council-approved amendment to lengthen Council terms to four years in place of two, and to replace one-fourth rather than one-half of the Council each year, passed by a decisive margin.

NEW ACTIVITIES *From Page 1*

fractions of time would be secured from in-residence generalists capable of discovering and evoking useful situations in which specialists and Congressmen should be brought together.

FAS Meaningful Quotes: Congress continues to be overwhelmed with information. FAS intends, for important votes, to compile the most meaningful bits and pieces of Congressional testimony and official pronouncements. Often whole volumes of testimony contain only a few paragraphs or phrases of use to the aide who wants to make a case, or the Senator who needs that revealing insight into official obfuscation.

FEDERATION LAUNCHES MEMBERSHIP DRIVE

In order to support a national director in its Washington office, the Federation will require three or four thousand members. This requires doubling the present membership, and it must be done during the academic year 1970-71, before the deficit overcomes the existing FAS surplus. In short, FAS is in a race against time to become self-sustaining at a level of activity that will support a full-time Washington office.

The membership drive will include large mailings, advertisements, and meetings. In particular, the director will visit Chapters across the country. Other leading members of the Federation, including the Chairman, will engage in similar activities.

Among a variety of other enticements to new members, FAS will offer new and renewing members a copy of Chairman Herbert York's new book *Race to Oblivion* at the reduced rate of \$5.00 plus \$.50 for handling. Members are urged to seek new members, to circulate this and later copies of their newsletters, and to post newsletters on bulletin boards. If each member of FAS recruited one new member, FAS' financial problems would be resolved.

WANTED: FAS STATE CHAIRMEN TO ORGANIZE RAPID RESPONSE NETWORK

Besides expanding its membership, the Federation is interested in developing a network of FAS members ready and willing to express their views on matters of FAS interest in letters and telegrams to Government officials. Members interested in being considered for state chairman, and prepared to undertake related responsibility for raising and organizing membership, should write the Director in the FAS national office, and send a copy of their letter to: Dr. Earl Callen, Membership Committee Chairman, Department of Physics, American University, Massachusetts and Nebraska Avenues, N.W., Washington, D.C.

PROJECT CBW AND FAS JOIN FORCES

In July, upon the urging of Project CBW, and with its assistance, FAS mailed letters to most of the 5,000 signers of the 1969 Scientists' petition to the President against CBW asking the signers to support Amendment 784 directed against "environmental warfare." The amendment prohibited the "military application of antiplant chemicals."

Project CBW, based in Baltimore, an active and energetic opponent of chemical and biological warfare, has featured non-violent demonstrations, including tree planting, at Ft. Detrick and Edgewood Arsenal and peaceful marches to these and other locations, to dramatize its opposition.

ANNOUNCEMENTS

DECEMBER COUNCIL MEETING

FAS will hold its Winter Council meeting December 27, in conjunction with the Christmas meeting of the American Association for the Advancement of Science (AAAS), in Chicago. The meeting is scheduled for the 27th at noon in the Conrad Hilton's Dining Room #79 and will take most of the day as necessary. But there will be no second day meeting and only important issues will be taken up for discussion. Council members are encouraged to attend, and the meeting will be open to FAS members.

SCIENCE AND HUMAN VALUES SYMPOSIUM

Society for Social Responsibility in Science is holding an open meeting on "Science and Human Values in a Technological Society" from October 16-18, 1970, at Boston University. Among the speakers will be Howard Zinn, Salvador Luria, Josue de Castro, and the Federation's Director, Jeremy J. Stone. For further information, contact the Society for Social Responsibility, 221 Rock Hill Road, Bala-Cynwyd, Pa. 19004.

PHD SURPLUS SYMPOSIUM

On Sunday, December 27, at 2 pm, at the AAAS meeting in Chicago, Professor Lee Grodzins of MIT will convene an FAS-sponsored symposium entitled "Ph.D Surplus." The symposium will be held in the Conrad Hilton's Bel Air Room. This is an issue of special interest to the Federation. More information on the symposium, and on the problem itself, will appear in the December Newsletter.

OFFICE MOVED TO CAPITOL HILL

On July 1, the Federation moved into an office on Capitol Hill, one block behind the New Senate Office Building. At the corner of 2nd and C Streets, North East, the Federation is now housed in a single medium sized room in a building owned and operated by the American Friends Committee on National Legislation. A half-time secretary shares the office with the Director and any volunteers who may be in residence.