

F. A. S. NEWSLETTER

FEDERATION OF AMERICAN SCIENTISTS—Founded 1946—
A national organization of natural and social scientists and
engineers concerned with problems of science and society.

THE SOVIET THREAT, CONGRESS,
AND THE BUDGET

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FAS CHARGES ADMINISTRATION MISREPRESENTS SOVIET THREAT*

Three years have passed since the Administration alarmed the Nation with the specter of a Soviet threat to our deterrent. Today, a careful reading of the Administration's own facts show these threats fading further into the future, or vanishing. But the Administration continues to alarm the public. It has quietly switched its rhetoric from the strategic apprehensions of 1969, to political concern about Soviet "momentum." The tone has remained the same and, as a result, the public is misled.

Consider, for example, that the Soviet large missiles were supposed to grow at 50 a year. But only 25 were started between August 1969 (when there were 275 operational or under construction) and February 1972 (when there were about 300). And last year, as Secretary Laird noted, there was "very little construction" on the standard SS-9, SS-11, and SS-13 missiles; thus the Soviet land-based missile force — SS-9 included — shows signs of tapering off.

In 1969, a Soviet MIRV was supposed to be developed "in the next few years." Three years later, no MIRV test is known, nor even a MRV test since late 1970. In 1969, a Soviet SS-9 was said to have been tested with multiple warheads which had a "footprint" which threatened Minuteman. The footprint thesis has now been shown to be the product of a fertile imagination. (We are at least four years ahead of the Soviet Union in MIRVs.) Since the SS-9, and its projected MIRV, were the main elements of the threat to Minuteman, the Administration should be explaining to the public that the projected threat to Minuteman is receding.

It is doing so as little as possible. Instead, only a month after issuing the Posture Statement, as this newsletter was in press, DOD quietly released an un-

*Statement of FAS Executive Committee and Strategic Weapons Committee (credentials of the latter appear on page 3).

classified statement on the occasion of a secret debate before the Senate Armed Services Committee between an outside ABM opponent and Dr. John S. Foster, Director of DDR&E. It effectively conceded that Minuteman forces would not be threatened until the early 1980's or beyond. Why was this not openly admitted in the Posture Statement — or by the President in his State of the World Message — instead of justifying new programs on the "alarming" increases in Soviet Weapons?

In 1969, the Administration worried about a Soviet ABM that would neutralize our strategic weapons. It might be built as an extension of the Moscow system or arise through the use of the SA-5 Tallinn system in an ABM "role." In the succeeding years, the ABM has not been built, and agreement not to build such an ABM is evidently forthcoming. The technical concerns about Tallinn have declined almost to the vanishing point. This is a most important fact. Without an ABM, no surprise attack is possible. Too many residual missiles could survive and retaliate and reach Russian cities — especially those at sea which cannot be destroyed in a coordinated first-strike attack. Why is not the Administration explaining that fears of strategic surprise attack have never been smaller?

Instead, the Administration looks for other reasons for raising alarm: "political meanings to sufficiency," Soviet momentum, the suggestion of an R&D Gap, and all the rest. Alarm without threat can only undermine public confidence. We ought to buy whatever we need to keep our deterrent secure. And we have! The Administration's effort to force new unnecessary, and expensive, strategic weapons into the budget is misguided, deceptive, wasteful, and wrong.

CONGRESS AND THE BUDGET

Can Congress regain control over the defense budget — control lost almost a quarter century ago? The next few years will tell. Much depends upon a few personalities.

Between 1948 and 1969, Congress simply abdicated its responsibility to review the budget. Not a single defense authorization or appropriation received more than a few votes of opposition on the floor. Inside the Appropriation and authorization committees, the budget was generally shaved by a few to several billion. But in anticipation of such cuts, it was normally already padded. Otherwise the scrutiny followed traditional patterns: fragmented and nonprogrammatic scrutiny of isolated and minor budget

items; general acquiescence in major items; periodic flurries of exaggerated concern followed by superficial investigations; ritualistic (but privately contemptuous) deference by Executive Branch employees.

The latent will to reimpose Congressional oversight now exists. But how to do it? The Congressional tools have never been developed.

In the first place Congress needs friends, advice, assistance, and support. And in the second place, it must begin to assert its authority. For the latter, it needs especially, options and more options. We refer to these questions on pages 2 and 3. □

FOR CONGRESS, HELP MIGHT MAKE THE DIFFERENCE

In a famous article "Congressional Responses to the Twentieth Century", the Chairman of the Harvard Government Department, Samuel P. Huntington, said Congress would either have to reform itself, or adapt to a future in which "constituent service and control over the Governmental bureaucracy" became its main functions. He pinpointed insularity, and dispersion of power, as critical Congressional weaknesses.

But there may be another possibility — the reshaping of the Congressional orbit to include institutional and organizational assistance to Congress. This assistance might counteract the insulation from American life about which Huntington complained. At the same time, it would help generate a consensus on individual issues that would otherwise be defeated at the hands of the second problem, the dispersion of power.

A resurgence of interest in helping Congress is already abroad in the land. It only needs encouragement. The Armed Services Committees have now, for the second straight year, scheduled time for outside witnesses. Senator Allen J. Ellender, the patient, ingenious, and tireless Chairman of the Senate Appropriations Committee presided over no less than four days of hearings on the budget and national priorities during which time outside groups were heard in abundance.

Congress also needs institutionalized help. Observers often unconsciously assume that it is a natural aspect of life that the Executive Branch should have dozens of research institutes, investigatory agencies, and information seeking entities etc. while Congress operates by itself. In Government Organization Manuals, the Legislative Branch is now seen to consist in its entirety of: Senate; House of Representatives; Architect of the Capitol; U.S. Botanic Garden; General Accounting Office (GAO); Government Printing Office (GPO); and the Library of Congress. For the protection of its own prerogatives, Congress needs other institutions, a matter beyond the scope of this newsletter but one deserving of continuing study.

In the meantime, Congressional committees ought to give contracts or commission work to analyse problems that its staff either have not the time or the training to work out. The time is past when Congress can implicitly assume that their (political) judgment need no more informed advice than that which can be provided by an all-purpose and over-worked staff aide.

Congress would do well to authorize the expenditure, by its individual members, of a fixed fund earmarked for the commissioning of needed research or expert advice. Why should all the think tanks and consultants be helping the Executive Branch? This is especially important for individual Senators and Congressmen. Some organizations that want to help Congress prefer to help its Committees, rather than its members, lest their advice be considered "political" — with all the implications this might generate for their tax-exemption or foundation status. Even the National Academy of Sciences has an unwritten rule that it responds only to requests of Committees not of indi-

vidual members of Congress. And the Academy was chartered a century ago by the Congress. In the Government Organization Manuals of only a few decades ago, it was listed as a part of the legislative branch. (Today the NAS is simply listed as a "quasi-official" governmental body.)

But Committees of Congress need help also in the form of better staffs. Often their aides have made the Committee their career; while they know their subject in one sense, they have no special expertise in the new weapons or other projects at issue. With an expenditure of very little money on advice, much expenditure on Government funds might be saved. □

GUESS WHAT? — ABM COSTS UP 80% IN THREE YEARS!

In March, 1969, according to Lt. Gen. Alfred Starbird, Safeguard was estimated at \$9.1 billion for full deployment of 12 sites — without nuclear warheads. Early 1971 estimates were \$13.7 billion — an increase of 55% in two years. On February 24, the Secretary of the Army testified that the cost would be \$16.3 — a further increase of 19% in a year. At these annual increases of almost \$2.5 billion, the thin ABM will eventually cost more than double the estimates given Congress in 1969. The *four* site program currently authorized is now scheduled to cost \$8 billion or 88% of the original estimated cost (\$9.1 billion) for the entire *twelve* site system!

Meanwhile, recent reports suggest that DOD is planning to use the few sites permitted under an anticipated U.S.-Soviet ABM agreement to build a nationwide defense against small attacks with missiles of extended range. (*New York Times*, February 26.) □

FAS

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The Federation of American Scientists is a 26-year old organization of natural and social scientists and engineers concerned with problems of science and society. Democratically organized with an elected National Council of 26 members, FAS is non-profit but has never sought a tax-exemption. Thus freed to lobby in support of its views, FAS is sponsored by world-famous scientists of all kinds. Members of FAS include more than 20 Nobel Prize winners and former science-related officials of the highest possible rank from the major Government agencies.

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AUTHORITY MUST BE ASSERTED

Immediately after Robert S. McNamara became Secretary of Defense, he began sending questions to relevant parts of the Defense Department. These requests filtered down in such magnitude that they were called "snowflakes". And when the answers were not sufficiently "comprehensive or complete", they were returned for further work. The questions ranged from "why do we have a Navy" at one extreme of generality and worked down from there.

This is one way that authority asserts itself. One makes a department work in response to ones own questions rather than permitting it to spend all of its time devising its schemes and pressing them upon a surprised, and defenseless, leadership.

The Armed Services Committees of Congress ought to follow the same strategy. They ought to ask the big questions and to do so in large number — as if the military budget were being built up from scratch. And they ought to ask for more than brief answers. Indeed, it is only recently that these Committees have learned to use the technique of presenting witnesses with carefully prepared questions "for the record", and letting the witnesses take them back for careful if only paragraph length responses. The Committees should go further. Short studies ought to be requested where relevant. If, for example, the Defense Department will not give the Congress its study of the relative merits of maintaining B-52's vs. buying a B-1 bomber, the Committee should ask for such a study, and have it made anew — just for the Committee.

Options, Options, Options

There is nothing important that the Armed Services Committees can do unless they are presented with options. This is why the Defense Department never offers options! DOD prefers to say: "Would you like to buy the B-1 bomber or, alternatively, would you like America to be defenseless?"; "Buy 48 F-14 aircraft or we will have to break the contract and we have no idea what will happen"; and so on.

Congress has been a sucker for these age-old techniques of manipulation. Without live choices, it must acquiesce in whatever is proposed to it. This is why strong management of the McNamara variety always emphasizes options — the options are the *sine qua non* of the managerial right to choose.

As a method for strengthening his power to make decisions, Secretary McNamara used three kinds of decision making processes. He required a five year projection of costs. He used the technique of preparing a draft presidential memorandum as a way of getting a consensus on what was to be done. And for monitoring research and development projects, he required Development Concept Papers (DCP) that summarized their progress and expectations.

These are the kind of documents that Congress ought to insist upon. As our last newsletter showed, there is very little justification in history, and even less in theory, for Executive Branch denial of papers of this kind (or almost any other kind) to the Legislature. There is no justification — except perhaps in "might makes right" — for the Ex-

ecutive Branch to deny to Congress papers that explain why it is presenting to Congress one weapon possibility rather than another. And if these documents are denied, as we mention again elsewhere, Congress should simply ask that studies be done for its benefit that would provide the same information.

Today, the five year plans evidently still exist. The draft presidential memorandum were discontinued with the Nixon Administration. But requests for weapons, with their justifications, must be made somewhere. And decisions must be made in response. The papers containing these explanations would be most useful to the Armed Services Committees.

The Development Concept Papers have sometimes been provided to the Armed Services Committees but not as a matter of course. Why not? The progress of R&D projects is one of the single most important things the Committee needs to review.

The Budget Is Needlessly Obscure

The Posture statements do not yet reveal the kind of summarized meaningful information with which Congress is best able to grapple. Except in answer to isolated queries, and then with much difficulty, the Defense Department does not answer such questions as: How much is it costing us to defend Europe? How much money is being spent on carrier task forces in one region or another? What is the annual cost of the Polaris strategic retaliatory mission compared to that of the Minuteman and the Bomber retaliatory forces?

One possibility would have a representative of the staffs of the two Defense Appropriations Subcommittees and two Armed Services Committees jointly work out a list of changes they would like to see in the defense budget presentation. These changes should be presented to the Secretary of Defense with the full authority of their four committees behind them. The required unanimity of concern exists. For example, in response to Federation letters complaining about the classification of cost, the Chairmen of three of these Committees provided FAS with sympathetic responses indicating what they had done and would try to do about it. □

CREDENTIALS OF CO-SIGNERS

Marvin L. Goldberger: Chairman, Department of Physics, Princeton University; Chairman, JASON Division of Institute for Defense Analyses, 1959-65; formerly Chairman, Strategic Weapons Panel, President's Science Advisory Committee (PSAC). (FAS Chairman.)

Herbert Scoville, Jr.: Deputy Director for Research, Central Intelligence Agency (CIA) under Presidents Eisenhower and Kennedy; Assistant Director for Science and Technology in the Arms Control and Disarmament Agency under Presidents Kennedy and Johnson. (FAS Secretary and Chairman of its Strategic Weapons Committee.)

Morton H. Halperin: Deputy Assistant Secretary for Policy Planning and Arms Control in the Defense Department under President Johnson; Senior Staff Member of the National Security Council (NSC) under President Nixon. (Elected Member, FAS National Council.) □

ARMED SERVICES COMMITTEE HEARS FAS ON BUDGET

On March 9, the Federation views on major items in the Fiscal 1973 defense budget were presented to the Armed Services Committee. FAS Strategic Weapons Committee Chairman Herbert Scoville, Jr. and Director Jeremy J. Stone were on hand to field questions. Scoville's opening remarks summarized FAS complaints about the Administration presentation of the Soviet threat. Senator William B. Saxbe joined Senator John Stennis in questions.

The FAS statement argued that the United States had sufficient strategic weapons now so that it could afford to move most cautiously in committing itself to more. It argued:

Our strategic force decisions are overreacting to such Soviet weapon possibilities as: an ABM about to be definitely limited by treaty; a MIRV whose tests have not begun and are long delayed; an improved bomber defense unlikely ever to be built; and a now insignificant anti-submarine warfare capability that would require unbelievable and unforeseeable improvements even to be a problem.

The statement went on to note that, over the last decade, attack scenarios have become more and more absurd until they have finally disappeared from DOD statements. For example, in the Fifties, in principle, a gutsy aggressor might have tried to destroy U.S. bombers with enemy missiles if he had the missiles. But, by the Sixties, the same aggressor not only had to destroy bombers and land-based missiles, he also had to depend upon an untested ABM to destroy sea-based missiles in flight. Such reliance would have been lunacy. By the Seventies, DOD has given up scenarios. It simply talks of "technological surprise," the need to show we have the "will and the resources" to match the other side, and so on. Sometimes, it mentions ever more isolated vulnerabilities in different arms of our strategic systems. But no surprise attack scenario can now be raised.

FAS made four general recommendations:

1. The Defense Department should be asked to state what requirements for deterrence it is seeking to fill (in terms of population and industry to be destroyed in retaliation) and how programmed and proposed U.S. forces are fulfilling that objective.
2. The Defense Department should be asked to distinguish between the forces that it is requesting primary for international (or domestic) political reasons and those being requested primarily for strategic reasons.
3. The Defense Department should be required to release much more information about projected costs and numbers of its proposed forces. This material is kept classified simply and solely to prevent public criticism of DOD proposals.
4. The Defense Department should be sharply restrained, by sharp criticisms, from pursuing its policy of selective release of partially digested intelligence information. The Defense Department is not playing fair with the public or Congress when it suppresses facts about Soviet slowdowns and releases only what helps the DOD case.

Turning to specific programs, FAS opposed 8 weapons systems whose Fiscal 1973 requests are indicated in parentheses: SAFEGUARD (\$1,483.2 million); MINUTEMAN III — multiple warheads for land-based missiles — (\$837.4 million); POSEIDON — warheads for sea-based missiles — (\$751.4 million); CVAN 70 — new carrier — (\$299 million); F-14A — carrier-based naval aircraft — (\$734.8 million); AWACS — new air defenses against bombers — (\$469.9 million); B-1 Bomber (\$44.5 million); ULMS — longer range submarine-launched missiles and new follow-on to Polaris submarine — (\$942 million).

The total cost of these programs for Fiscal 1973 was \$6 billion. Thus the cuts in these programs alone would bring the defense budget back to the Fiscal 1972 level.

FAS discussed three of these systems in somewhat greater detail than the others and said about ULMS:

ULMS: "Politically Motivated, Strategically Unnecessary, Dangerously Premature, and Wasteful"

In the spring of 1971, FAS had argued that the \$110 million request for the new Undersea Long-Range Missile System (ULMS) was premature and would freeze the design of a solution before the antisubmarine warfare threat to which it responded could be seen. FAS called for \$25 million devoted to broader based R&D.

Our worst fears were realized this year when ten times as much was requested, 40% of which was for long lead-time *production* items. The Comptroller himself, Robert C. Moot, admitted that one does not move this fast "unless you intend to build submarines and new missiles."

Secretary Laird's posture statement made it very clear that the Administration had simply become convinced of the "need to undertake a major strategic initiative" to signal the Soviets that we "had the will and the resources" to continue the arms race. DOD had decided ULMS was the best place to invest the money for the needed new initiative.

FAS gave other indications, from Administration statements, that no strategic threat required ULMS. FAS noted that the multiple warheaded Poseidon missile already was strengthening the Polaris submarine deterrent and the retrofitting had not even been completed. Why worry now when one or two surviving Poseidon submarines were a better deterrent than we had in the mid-Fifties, and we would soon have 30. Polaris was not near wearing out. And the ULMS commitment would freeze the U.S. into a design that might be as vulnerable to new anti-submarine warfare devices as Polaris, when and if such a threat arose.

The waste at issue in ULMS is literally unbelievable. It will cost more than the ABM. Each ULMS submarine will cost \$1 billion — as much as an aircraft carrier, and 30 are desired. It is especially absurd to argue that a commitment to ULMS will dissuade the Soviets from building more missile-firing submarines of their own. If they want a larger deterrent, will they fear the growth of U.S. overkill? Our ULMS submarines will, in no way, complicate or inhibit the Soviet development of more Y-class submarines if they intend to build them.

FAS will provide copies of this testimony, so long as the supply lasts, for \$1.00. □

FAS OFFICERS NOMINATED**(Ballot on Reverse Side)**

Vote for no more than six candidates for Council delegates.

FAS CHAIRMAN

MARVIN L. GOLDBERGER: Higgins Professor of Theoretical Physics, Princeton University; Ph.D. University of Chicago, 1948. Member, President's Science Advisory Committee 1965-69; Member, National Academy of Sciences, and American Academy of Arts and Sciences; Fellow, American Physical Society; Vice-Chairman FAS, 1970-71; Chairman FAS, 1971-72.

Dr. Goldberger has played an active role not only in the ABM debate, and in determining arms policy generally, but also in the creation of new institutions for the resolution of problems of the environment. The Council has proposed Dr. Goldberger as its sole candidate for Chairman.

FAS VICE CHAIRMAN

FRANKLIN A. LONG: Ph.D. (Chemistry) Berkeley, 1935. Chairman Cornell Department of Chemistry, 1950-60; Assistant Director of the Arms Control and Disarmament Agency for Science and Technology during the negotiation of the Test Ban Treaty, 1962-63; Vice-President, for Research and Advanced Studies, Cornell, 1963-69; Chairman, Committee on Chemistry and Public Affairs of the American Chemical Society; presently Director of the Program on Science, Technology and Society (and Professor of Chemistry) Cornell.

PHILIP MORRISON: Ph.D. (Physics) Cornell Professor, 1946-64. Professor, MIT, 1964-present. A founding Member of Association of Los Alamos Scientists and FAS. Editor Book Reviews, Scientific American. Professor Morrison has for many years been active in Federation activities.

CANDIDATES FOR COUNCIL**(Alphabetical Order)**

RICHARD BELLMAN: Ph.D. (Mathematics) Princeton, 1946; Professor of Mathematics, Electrical Engineering and Medicine, University of Southern California, 1965-present. A world famous authority on the application of mathematics, Dr. Bellman has taught at Princeton and Stanford and is Editor of the "Journal of Mathematical Analysis and Applications."

NINA BYERS: Ph.D. (Physics) University of Chicago, 1956; now Professor of Physics at UCLA and Janet Watson Visiting Fellow at Somerville College, Oxford. Dr. Byers is perhaps the Federation's most active woman member at this time and chairs the Federation Committee on Recruitment of Women. Dr. Byers has been a member of FAS for 17 years.

ARTHUR W. GALSTON: Ph.D. (Biology) University of Illinois, 1943. Now Professor of Biology at Yale, Dr. Galston has been Chairman of Yale's Biology Department, President of the American Society of Plant Physiologists and President of the Botanical Society of America. He has often testified before Congress on such matters as the Geneva Protocol and the use of herbicides in Vietnam.

After a trip to Hanoi, Dr. Galston became the first American Scientist to visit the People's Republic of China in twenty years. Upon his return, he became Chairman of the Federation's Committee on Sino-American scientific exchanges. Through this committee and in many other ways, he has furthered the goal of such scientific contracts. Dr. Galston has been a long-time member, often a council member, of FAS.

JAMES J. MacKENZIE: Ph.D. (Nuclear Physics) Minnesota, 1966; lecturer, MIT and Brandeis 1971-72; Research staff, Massachusetts Audubon Society; Chairman, Union of Concerned Scientists (FAS Boston Chapter). Dr. MacKenzie devotes his full time to environmental concerns and has been a leader in investigations of reactor safety.

GEORGE WILLIAM RATHJENS: Ph.D. (Chemistry) 1951. Now Professor of Political Science at MIT, Dr. Rathjens has worked in the Office of Science and Technology (White House) and been Deputy Director of the Advanced Research Projects Agency (DOD); Director of the Weapons Systems Evaluation Division (IDA); and Deputy Assistant Director for Science and Technology (ACDA). He is nationally known for his vigorous and effective testimony on strategic weapons systems.

ANTHONY Z. ROISMAN: LLB, Harvard Law School, 1963. Justice Department (Tax Division) 1964-67, presently public interest law firm (Berlin, Roisman and Kessler); Attorney for successful plaintiffs in *Calverts Cliffs vs. Atomic Energy Commission*. Mr. Roisman is one of the country's foremost specialists in AEC matters and is also a specialist on tax exemption issues for public interest organizations.

JOHN S. SALOMA, III: Ph.D. (Political Science) Harvard, 1962; now Associate Professor of Political Science (MIT). Dr. Saloma was the first President (1962-1967) and founding member, of the Ripon Society — the national movement of young liberal Republicans. He has published widely in the field of his specialty — the American political process, and plays an active role in public interest political affairs.

JOSEPH L. SAX: LLB, University of Chicago Law School; now University of Michigan Law School, specializing in environmental law. Author "Defending the Environment" and "Water Law, Planning and Policy". Principal architect of the Hart-McGovern bill permitting citizen class actions on the substance of environmental issues — versions of this bill are passed or pending in many state legislatures. Chairman, Committee on Public Lands and Waters of the American Bar Association, 1969-71. Professor Sax holds many advisory and consultant positions to the U.S. Congress, to environmental groups and publications, and public interest law firms.

VIGDOR TEPLITZ: Ph.D. (Physics) University of Maryland, 1962; now Associate Professor of Physics, MIT; A founding member of the Boston Chapter of the Federation, Dr. Teplitz is Massachusetts coordinator of FAS Tactic groups there. He was Chairman of Scientists and Engineers for Congressman Drinan's successful election and has been an active participant in the Federation's activities in Cambridge, including especially its work on MIRV.

Members: Detach this page, fill in ballot and mail

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DEFENSE BUDGET ONE THIRD TOO LARGE?

No less than three different budgets based on an analysis of U.S. needs suggest that the Defense Budget may be about one-third too large. This shows the urgency of having Congress examine the Defense Budget from scratch rather than only shaving proposed increments separately. Thus the McGovern Budget suggested that U.S. defense expenditures could be 54.8 billion in 1975 dollars when the proposed budget is already 75.5 billion in 1975 dollars without Vietnam costs. The Urban Coalition suggested reductions to \$50 billion by 1975 (in 1971 dollars). In "Agenda For The Nation" (Doubleday), Carl Kaysen, Deputy Special Assistant for National Security Affairs under President Kennedy, proposed a rough budget of about \$50 billion (1969 dollars) for the seventies.

FEDERATION OF AMERICAN SCIENTISTS — 1972 BALLOT

Your vote cannot be counted unless you are a member whose dues have been paid for Calendar year 1972. All members have been billed — once in the Fall and once in March. If you have misplaced our request, simply fill in the box on the newsletter and send it to us with your check, along with this ballot.

TEAR THIS PAGE OUT OF YOUR NEWSLETTER. SIGN YOUR NAME BELOW IN THE INDICATED PLACE. CHECK OFF YOUR PREFERENCE FOR CHAIRMAN, VICE CHAIRMAN. CHECK NO MORE THAN SIX OF THE CANDIDATES FOR COUNCIL MEMBERS. THEN FOLD THIS PAGE, AS INDICATED, TAPE OR STAPLE IT CLOSED, PUT A STAMP ON IT, AND MAIL IT TO US. ALL BALLOTS MUST ARRIVE HERE BY MAY 20 TO BE COUNTED.

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McGOVERN PRESENTS A DEFENSE BUDGET

On January 19th, Senator George McGovern released an "Alternative National Defense Posture" which was 25% as long as the Defense Department's own posture statement. It discussed strategic and general purpose forces, modernization and manpower, and put together a proposed defense budget. The budget started from scratch looking at what was needed rather than what existed. It concluded that an approximate $\frac{1}{3}$ cut in the defense budget was feasible and desirable.

The McGovern proposal highlighted the notion that we should "buy only what we need." It deplored using shifts in aggregate military spending as a measure of national will; buying weapon systems as bargaining chips; using negotiations as excuses for buying more than we need; and the assumption that military might was the only method whereby we could fulfill our international responsibilities.

It called for recognition of prior investments as a base upon which to build, rather than as a target. It suggested retaining and constructing forces only for threats for which it was reasonable to remain actively prepared.

McGovern suggested that realistic ceilings on military forces would produce leaner and tougher armed forces through fiscal discipline; simple admonitions would not correct the waste and inefficiency now known to exist.

Strategic Forces

The McGovern proposal noted that 200 one-megaton weapons would destroy all targets which it could be said to be worth attacking in either China or the Soviet Union. But U.S. forces had far more than this in survivable weapons. The report concluded that there was "not the slightest cause for hysteria" over the status of the U.S. deterrent.

The plan urged that the existing triad of strategic forces not be seen as a set of three strategic forces, each of which had to be able to satisfy our requirements *separately*. It suggested that these forces made it possible for us to avoid new deployments while we saw whether they were indeed necessary — thus we could avoid long leadtime problems. The report deplored a quest for "nuclear superiority" measured in relative numbers of weapons. In a discussion of counterforce, it saw no practical alternative to reliance on deterrence and some danger in following our natural instincts to seek the neutralization of enemy weapons.

The report called for: reducing air defenses "leaving essentially a surveillance capability;" discontinuing deployment of Minuteman MIRV warheads; cancelling the Safeguard program; stopping prototype development of the B-1 which would be made unnecessary by maintenance of the B52/FB-111 force; and halting the conversion of the Poseidon submarines. On ULMS, it called for maintaining a production option on longer range sea-based missiles while continuing to examine the new ULMS submarine.

General Purpose Forces

The study suggested that a very low risk was involved in the assumption that we would not be involved in major conflicts in both Europe and Asia at the same time. It thought relatively little force required for the defense of the United States against conventional attack — "perhaps

all but 30 billion in our budget was designed to assist other countries."

In Europe, McGovern argued that Warsaw Pact and NATO forces were in rough balance, not only in present deployments but in the manpower which could be brought to bear after 15 days and after 30 days; indeed, NATO would likely have the edge after thirty days. NATO also had the edge in weaponry (quality and quantity combined) and would have advantages of morale and defensive strategy. Moreover, the numbers of U.S. forces stationed on European soil were not critical so long as sufficient numbers remained to convince the Warsaw Pact that the U.S. was committed to European security and so long as other soldiers could be airlifted later. Thus many troops in Europe could be brought home.

Manpower

The McGovern report noted that, in 1969, there was one officer for every 8 enlisted men and more colonels and captains than at the peak of World War II, when manpower was 350% higher. It noted that wasted time was programmed into Army and Navy budgets and suggested that a \$1 billion cut in manpower would be desirable along with a scaling in the officer pool. The report called the military draft in peace time a fundamental contradiction to the premises of a free society.

Conclusions

The report concluded that two and $\frac{1}{3}$ divisions in Europe should be returned — leaving two divisions or 130,000 men. It called for the return of U.S. forces in Thailand and Indochina as quickly as possible, contingent only upon release of prisoners; the return of the division in Korea was also urged. Six carrier-based tactical air wings were provided for. The U.S. should build toward 84 nuclear attack submarines. In total, 10 Army divisions and two marine divisions would be maintained.

Total manpower would be: 1,735,000 (648,000 Army, 471,000 Navy, 476,000 Air Force, and 140,000 Marines). With proportional cuts for numbers of civilian employees, the budget would be \$54.8 billion in 1975 dollars compared to the Administration's 1972 program of \$75.5 billion (in 1975 dollars). Strategic forces would cost \$14.1 billion. □

FAS COMMENDS McGOVERN FOR DEFENSE BUDGET

On March 15, FAS Chairman Marvin L. Goldberger wrote Senator McGovern, called the McGovern Defense Budget discussed on this page "thoughtful, comprehensive and useful", and said it would elevate the Congressional debate.

He noted that it was unprecedented for a U.S. Senator or Congressman to develop his position on the defense budget in such detail. And he pointed out that FAS was in agreement with "many indeed of the decisions" advocated. Dr. Goldberger emphasized that FAS was non-partisan and did not endorse political candidates. (Through the Presidential Campaign, as in other times, FAS intends to praise and deplore public statements, on matters of concern to it, without fear or favor or considerations of political partisanship.) □

PRO AND ANTI-ABM SCIENTISTS COMMENT ON ORSA REPORT

On February 17, Senators Hart, Cooper, and Symington introduced comments on the ORSA dispute with anti-ABM scientists into the *Congressional Record*. Comments came from Edward Teller, Harold Agnew, other ABM supporters, ORSA Council members, and anti-ABM scientists.

Harold Agnew, who next to Wohlstetter was the most influential outside proponent of ABM, commented scathingly on operations research as a discipline. He agreed with the anti-ABM scientists that they were outside the jurisdiction of ORSA — which he felt “leaned toward” support of Wohlstetter when in doubt in their analysis. In his opinion, operations research was, in general, a “form of debate using mathematics.”

He felt that operations researchers were often used simply to get the results desired, and that the ORSA proposed guidelines actually licensed operations researchers to defend decisions in which they might not believe.

Harvey Brooks, Dean of the Harvard Engineering School, felt that the ORSA Committee had gone from a narrow investigation to a much more sweeping conclusion, “a proceeding which could be characterized as either consciously or unconsciously dishonest.” He saw no excuse for ORSA’s failure to omit discussion of much pro-ABM testimony and suggested that the “implicit assumption” was that the burden of proof lay with the anti-ABM scientists. (Dean Brooks is also Chairman of the Public Policy Committee of the National Academy of Sciences.)

Morton H. Halperin suggested that it was “difficult to overestimate the triviality” of the issues upon which ORSA had focused and called the report “worthless.” He suggested as an analogy a situation in which a dissenter to the Vietnam War provides a wide-ranging, prolonged, and complete denunciation of the War ending with the minor observation that bombing will not work anyway because the forces in the South need only 25 tons which can be carried in 15 trucks. A critic objects that it is 40 tons and 20 trucks. Years later, an ORSA Committee looks only at the ton/truck issue, concludes that the critic’s assumptions were the appropriate ones, that it is 40 tons and 20 trucks, and condemns the original dissenter.

Former Presidential Science Adviser J. R. Killian expressed the view that the ORSA report was “hurtful rather than helpful in seeking to uphold high standards of professional participation in national debates.” He noted: “After reviewing the ORSA report, I can only conclude that it does not accord with what I conceive to be the professional standards which should characterize so serious an inquiry of this kind.”

However, Edward Teller called the document “remarkable for its competence and objectivity.” Philip Morse, founder and first President of ORSA, added to an earlier denunciation of the report. He noted that there was no way of “experimentally determining” parameters at issue and suggested that, under the circumstance, “anyone who argues about a possible 5 or 25% error in the calculations of missile vulnerability” is “not arguing scientifically.”

Minerva Article Submitted

A lengthy reply was made by Paul Doty of the Harvard Chemistry Department in the form of an article forthcoming in *Minerva*. The article comments first on “what appears to be a lack of impartiality and comprehensiveness in the investigation.” It documents indications of “dual standards” in which Wohlstetter is treated leniently and even helped by the Committee, while Rathjens is taken to task for much more minor errors. Doty notes also that the errors charged are not really errors in operations research, but errors in such trivial matters as reading a graph or doing arithmetic. Why, he asked, “is a group who are not members of an operations research society investigated by a group who are, on matters that do not require an expertise in operations research?”

Doty concludes by noting that Wohlstetter and the anti-ABM scientists have been engaged for two decades in a kind of doctrinal dispute over the delicacy of the balance of terror. He argued that ORSA was either naive or political in trying to resolve this dispute by a contest over the explicitness of the uncertain assumptions.

Other scientists whose responses appeared in this submission to the record were: George B. Kistiakowsky, Hendrik W. Bode, Abram Chayes, Sidney Drell, Alexander H. Flax, Richard L. Garwin, M. L. Goldberger, Robert E. Machol, Lawrence H. O’Neill, Wolfgang K. H. Panofsky, and Herbert Scoville, Jr. □

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