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THIRD WORLD
DEVELOPMENT

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THE ARMS RACE, ENERGY, AND DEVELOPMENT: THE ISSUES MERGE

FAS has little chance of achieving its goals of arms control and an energy secure future if the focus of its attention excludes the developing countries, the so-called Third World. Why? The world in the decade of the 1980s is no longer one divided by the two superpowers and their allies into a "West" and an "East." Instead, a third unaligned focus of power, the "South," consisting of three-quarters of this planet's population, has emerged as an entity all its own.

This region has already demonstrated it can play a major role in the well-being of the planet. Its wars threaten world peace. Its financial difficulties play havoc with the international economic system. It is a major supplier of one of the world's most utilized energy sources—oil. And many of the problems it is struggling with (e.g. population explosion, desertification) threaten the continued viability of the planet's fragile ecosystem.

Nuclear Proliferation

With regard to nuclear weapons control specifically, the issue can no longer afford to be viewed in only an East-West context as the prospect of weapons proliferation to the Third World increases each day. Although at this time India remains the only Third World country to have officially joined the Nuclear Club, others—Israel, Pakistan, Argentina, Brazil, and Taiwan, to name a few—are considered to be potentially only a few years away from membership. While proliferation has progressed at a rate much slower than initially feared, it could well expand to more and more developing countries in the coming years, particularly to those with nuclear programs providing the necessary fissile materials.

Third World expenditures on conventional weapons are of concern as well. Not only do these purchases increase the destructiveness of wars, but they also reduce the amount of money going directly to development, thus lessening the likelihood these countries will be able

to bring themselves out of their poverty, and thereby preserving a potential cause of war. Global defense expenditures now total an unprecedented half a trillion dollars. While the U.S. and the Soviet Union together account for more than half of this bill, it is the developing countries where the military budgets are rising the fastest. And, particularly worrisome to U.S. scientists, it is this country that has the dubious distinction of being the largest arms supplier abroad. Our foreign military sales, often cloaked under the rubric of foreign aid, have risen from just under \$1 billion (current dollars) in 1970 to probably over \$20 billion in 1983.

Energy and the Third World

The Third World figures just as prominently in the energy picture as it does in arms control. With the two oil shocks of the last decade, developing countries have had to direct increasing amounts of their capital to pay for energy. In the 1980-81 time period, for example, 50 percent of Brazil's export earnings went to pay for oil, 64 percent of Ethiopia's, and an unbelievable 78 percent of India's. Since the Third World purchases nearly one-quarter of the industrialized world's exports and over one-third of U.S. exports, the industrialized "North" stands to lose if the purchasing power of the developing world is diminished by its oil obligations.

The North also has a stake in the energy future of the Third World. In its quest for industrialization, the Third World's energy use will need to grow, as it has continued to do even during the oil shocks; the degree of growth, of course, will depend upon how energy efficient these countries become as they develop. To meet its increased energy needs, the Third World could increase its present reliance on oil, but this would undoubtedly mean a tighter oil market and higher oil prices, a situation desired by neither the industrialized nor developing countries. Alternatively, developing countries could turn to more abundant and cheaper

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THE FREEZE & GLOBAL DEVELOPMENT

The front of this newsletter expresses the ever more urgent necessity for scientists to become involved in third world problems. At the same time, the on-going problems of the industrialized world are taking up the time and energies of those same scientists. We solicit the views of members as to how we should cope with this dilemma, and what issues seem the most actionable in Science and Technology for Global Development.

Meanwhile, on the freeze, with legal help from the ACLU, we pried out of the Government the Nixon Ad-

ministration freeze plan which President Nixon vetoed (see page 6). And FAS is documentably the source of at least one spreading compromise between the freeze, SALT II and the Reagan plan (see page 7).

As this newsletter is going to press, FAS conceived also a SALT II-related method for coping with the hotly contested MX missile, which it is now spreading around Congress. We wrote the President on November 18 suggesting that the U.S. should not go ahead with MX so long as the

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fossil fuels, particularly coal. But this would not meet the Third World's goal of greater self-reliance; it would merely substitute one undesirable dependence for another, albeit less expensive, one. Moreover, it would exacerbate the carbon dioxide problem.

Another option for the Third World would be to increase its commitment to nuclear power. However, this would increase the risk of nuclear proliferation, a danger for both the North and the South. Finally, developing countries could develop indigenous fuel sources (e.g. hydro, solar, biomass). It is with this choice that the developing and industrialized worlds stand to gain the most, the former with increased self-reliance and a stronger economy, and the latter with improved trade prospects.

The interdependencies between the North and South just cited in the arms and energy arenas exist in other areas as well—agriculture, trade, environmental preservation, to name a few. Yet, the United States, particularly under the Reagan Administration, has yet to recognize the importance of the Third World. So preoccupied has this country been with seeing global relations as the East versus the West, it has failed to see that its Third World policy (or lack thereof) is adding to and exacerbating a new set of strains that promise to be just as threatening to world peace—the strains between the North and South.

Third World Needs

Just what are the needs of the Third World? Simply stated, they are acquiring the means, skills, and education to enable these countries to throw off their yokes of poverty, become increasingly self-reliant, and share the benefits now enjoyed by the industrialized world. There are no easy answers as to how the Third World can meet these goals. Many of the solutions devised in the past will no longer work. However, one fact is certain: the Third World cannot meet its needs alone; the active participation of the industrialized world and particularly of the United States is required.

For FAS the choice is clear. Not only is the plight of the majority of humanity, living in the Third World, a worthy focus for the attention of the scientific community on its merits alone, but it must also, as noted, be solved to secure FAS's other goals. Just as important, raising the issue of Third World development may be a way of leading the superpowers to transcend their quarrel with each other in the face of a broader and more general problem: the fate of the earth. Perhaps we can only solve one problem by transforming its nature and restructuring its formulation, so that it can be solved in other terms.

In sum, we see synergisms at many different levels in having FAS work on—and point to—problems that are at once North-South, East-West, and global; problems that are as human as the arms race is inhuman; problems that are as real as nuclear war ought not to be. □

—Reviewed and Approved by the FAS Council

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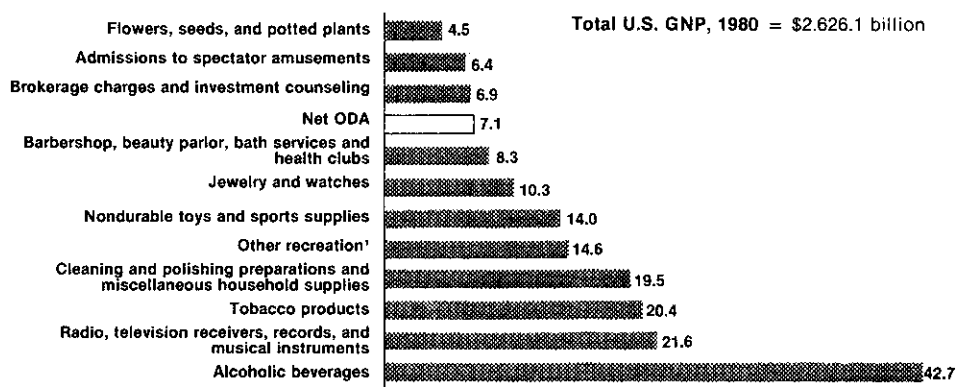
*Nobel Laureate

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Soviet Union did not procure or deploy the one new missile which it is permitted under SALT II. We propose, accordingly, that the Congress save billions of dollars, stop a Soviet missile, and strengthen SALT II by passing this resolution:

No funds shall be spent to produce or deploy operational versions of the one new land-based missile permitted the United States under the SALT II agreement, whether it be the MX or some other substitute, unless and until the President certifies to the Congress that the Soviet Union is producing or deploying operational versions of the one new land-based ICBM which it is, likewise, permitted. □

Selected U.S. Consumption Expenditures and Net ODA, 1980
(\$ billions)



PUTTING THINGS IN PERSPECTIVE

For those who are concerned with the amount of official development assistance (ODA) flowing overseas, this graph compares those expenditures with that spent domestically on personal luxury items.

*Expenditures on pets and pet care, cable television, lotteries, camping, photo studios, and film processing.

THIRD WORLD DEVELOPMENT POLICY UNDER REAGAN—A STEP BACK

When the Reagan Administration first entered office, it sounded three themes to its forthcoming development policy: 1) U.S. government aid must be deemphasized in favor of greater investment in developing countries by the private sector, particularly from commercial banks and multinational corporations; 2) to the extent that direct government aid is given to the Third World, the bilateral route is preferable to the multilateral (e.g. the World Bank, the United Nations) approach; and 3) the priorities in bilateral aid must be changed to place more emphasis on direct military aid and less on development assistance. Examining the record two years later, it is clear that the Administration has changed the course of U.S. development policy, reversing much of the progress, meager as it was, this country has made in meeting the development needs of the Third World. At the same time, harsh realities, brought on by the precarious state of many Third World economies, have caused the White House to put aside some of its most ideological policies.

Development Vs. Military Assistance

Perhaps the area of greatest concern in the present development policy, both because it is a reversal of previous Administration's policies and because this Administration has been totally unwilling to re-examine its current position, has been the increased emphasis on military over development assistance. If Congress accepts the Administration's 1983 foreign aid appropriations request, the percentage of aid going to military assistance will have more than doubled from 8.5 percent as recently as 1981 to 19.5 percent in 1983. Authority for arms sales credits will have risen almost \$1 billion in one year (from \$.75 billion in 1982), and authority for arms sales loan guarantees will have risen \$900 million. In contrast, development assistance (including multilateral and bilateral aid) will have dropped from more than 63 percent of all assistance in 1981 to less than 52 percent in 1983.

The implications of these changes cannot be underestimated. While the U.S. has always played a major role in arms transfers to the Third World (during the 1970s, it accounted for 45 percent of the value of all major

weapons transfers to the region), there has been a sensitivity on the part of the government to limit excesses. In 1968, the Arms Export Control Act was enacted openly stating that intention: "it is the sense of the Congress that the President maintain adherence to a policy of restraint in conventional arms transfers and that, in implementing this policy worldwide. . . particular attention should be paid to controlling the flow of conventional arms to the nations of the developing world." The Carter Administration, regardless of questions about the effectiveness of its policy, also strongly endorsed curbs on weapons transfers to the Third World. The Reagan Administration's policies provide a sharp contrast to these historical sensitivities, embracing weapons sales as "an essential element of (U.S.) global defense posture and an indispensable component of U.S. foreign policy."

Multilateral Vs. Bilateral Aid

The Administration's preference for bilateral over multilateral aid has also remained strong and unbending. The reason for this preference is clear: there is less direct U.S. control over where and how capital is allocated with multilateral aid than with bilateral assistance, thus making it more difficult for the U.S. to influence the policies of Third World nations. The White House has yet to recognize, however, that the amounts involved in the U.S. bilateral aid program are just too small to leverage much development in the Third World and thereby, in the eyes of the Administration, to gain the U.S. some influence among those countries. Total U.S. bilateral aid in 1982 will only be about \$7 billion; in contrast, the new development loans provided by the largest multinational development bank (MDB), the World Bank, were in excess of \$7 trillion (for July 1981 through June 1982).

The level of U.S. contributions to multilateral aid has decreased since the Reagan Administration assumed office in 1980, while the level of bilateral assistance has stayed roughly the same (not correcting for inflation). Within the multilateral category itself, funding for MDBs has fared better than for other international organizations and programs, with the exception of the International Atomic Energy Agency which has enjoyed an increasing budget due to the Administration's enthusiasm for nuclear power.

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Major targets for the Administration's budget ax have been no surprise considering its public rhetoric on developmental and environmental issues—the U.N. Children's Fund (UNICEF), the U.N. Development Program (UNDP) and the U.N. Environmental Program (UNEP). While the Congress succeeded in thwarting many of the proposed cuts in 1981 and 1982, particularly for UNICEF, it must now deal with a 1983 budget request containing a 16 percent cut for UNDP (below 1982 funding levels), a 37 percent decrease for UNICEF, and a 62 percent cut for UNEP. Funding prospects for the future look no better. Richard McCall, staffer for the Senate Democratic Policy Committee, predicts there will continue to be a "squeeze down on U.N. accounts." The MDBs will fare better but U.S. contributions as a percentage of GNP will probably remain on the low end of the scale, when compared with other countries.

Private Sector Investment

It is in pursuit of its development goal emphasizing the role of commercial banks in the Third World where the Administration has most rapidly been forced to face reality as it deals with the turmoil among these institutions following the Mexican near-bankruptcy. Says George Ingram, congressional staffer for the House Foreign Affairs Committee, "The Reagan Administration is beginning to realize that the monetary difficulties of such countries as Mexico can best be handled by the MDBs, and that, in fact, these institutions are as conservative in their lending practices as commercial banks." While U.S. commitment to the MDBs remains weak, recent developments do show the White House is re-examining some earlier positions. For example, when the Administration first entered office, it refused to consider raising the level of U.S. commitment above its present amount in the next replenishment of the International Monetary Fund (IMF). Recently, however, it has indicated a willingness to accept "quota" increases of up to 40 percent. While a forty percent increase is still disappointing to many Western European and Third World nations who see the need at least to double quotas in order to meet the expected demand for IMF loans, this new position does show some willingness on the Administration's part to reexamine earlier negative assessments of MDBs.

As much as the Administration's initial championing of commercial bank investment has undergone some reassessments, its rhetoric on corporate investment has tended to outweigh its actions. Only two concrete programs have materialized—the Caribbean Basin Initiative, aimed at only a small fraction of the Third World, and the Bureau of Private Enterprise within the Agency for International Development (AID), a small program in the earliest stages of implementation. The Caribbean Basin Initiative, a package of economic aid, trade incentives, and investment incentives for U.S. business, aimed at the Caribbean region, is expected to face tough going in the Congress. The investment incentives (which would extend the same 10 percent investment tax credit now applicable to domestic new plant and equipment purchases to ven-

ON THE ARMS RACE AND THE THIRD WORLD

"At the same time, we have new problems arising. I think the most dangerous one to me is the Third World problem.

This is not a Communist problem or a Soviet Union problem. It is an independent serious problem of our relationships with three-quarters of humanity. In the 1800s you could dismiss those areas because they really did not have power. But today power can come in very small packages. It no longer has to depend upon a great economy and a great population. . . But as these people, this great mass of humanity, see our affluence and their poverty and the gap between them growing, rather than lessening, we are going to have substantial problems to our strategic interests and our security from this area..."

—*Testimony by William E. Colby, former Director of the CIA, before the Senate Foreign Relations Committee, March 16, 1977*

"In the matter of military force—as in many other matters in life—more is not necessarily better. Beyond a prudent limit, more can turn out to be very much worse.

And if we examine defense expenditures around the world today—and measure them realistically against the full spectrum of actions that tend to promote order and stability within and among nations—it is obvious that there is a very irrational misallocation of resources. . .

There are many alternatives available to an arms race. There are many far better ways of contributing to global security. I suggested a number of those ways in my address in Montreal in 1966, pointing out the importance of accelerating economic and social progress in the developing countries...Is the problem of absolute poverty in these nations solvable at all?

It is. And unless there is visible progress towards a solution we shall not have a peaceful world. We cannot build a secure world upon a foundation of human misery."

—*Speech by Robert S. McNamara, former President of the World Bank, May 22, 1979*

tures in this region) will face particularly stiff opposition because of doubts about their effectiveness and resentment by the public at having to subsidize investments abroad by wealthy corporations.

Reaction to the Bureau of Private Investment has been mixed. Its goal, according to AID, is to foster the growth of private sectors in developing countries "using the financial, technological, and management expertise of the U.S. private sector, indigenous resources, multilateral institutions, and Agency resources where appropriate." Many applaud this effort to promote what is widely agreed to be underdeveloped private sectors within the Third World. However, others wonder whether the private sectors selected for development by this program will be those that meet the needs of Third World nations or will instead

merely be extensions of U.S. business interests abroad. In addition, there is concern that such a program will concentrate almost exclusively on the middle-income Third World countries, which have existing, albeit fledgling, private sectors, and thus ignore the needy poorer nations.

In conclusion, today's U.S. policy towards the Third World is one that is greeted with dismay by the developing and industrialized worlds alike. While many aspects of this policy have existed long before this Administration entered the White House, the Reagan Administration can claim credit for reversing much of the progress made during the last decade. U.S. contributions to multilateral agencies have been cut back. Arms sales to the Third World have grown, as have the incentives that accompany them. And new Administration initiatives in development have largely amounted to rhetoric. At a time when the problems facing the Third World are mounting, this is not a policy to be proud of. □

THE 1980s— A CRITICAL JUNCTURE FOR DEVELOPING COUNTRIES

There is no doubt that the lot of the developing countries has improved since the world began seriously addressing their needs in the post-World War II era. Nevertheless, much obviously remains to be done. During the next decade, a range of critical issues facing these countries will have to be confronted and resolved.

What follows is a list of some of those issues and the questions concerning them. Interested FAS members are encouraged to send in letters with ideas on how these issues could be resolved, as well as suggestions on the role the U.S. scientific community could play in developing those solutions.

Maintaining Strong Third World Economies

The Third World has been hit hard by the present worldwide recession. Its export earnings have declined, and high real interest rates have increased its level of debt. Moreover, as the recession lingers, the likelihood grows that industrialized countries will enact trade barriers in an effort to control the decline in their own economies, thereby further diminishing Third World export earnings. Prolonging of this situation would threaten development prospects, which depend on strong economic growth. Could changes in international trade policy improve the economic horizon for the Third World? Could changes in the domestic economic structure of developing countries leave them more self-reliant and less dependent on export income?

Increasing Investment by the North

Further development by the Third World hinges on increased investment in this region by the industrialized world. For the middle-income and many low-income countries, this largely comes down to a question of whether private direct investment and commercial borrowing will continue to increase, the latter despite today's high level of Third World debt, and high real interest rates. What actions can both the North and international institutions take to ensure this type of investment does increase?

For the poorest low-income countries, some forty by



World Bank President A. W. Clausen

World Bank estimates, the investment questions will remain one of direct assistance, so-called official development assistance or ODA, because these countries still lack the resources and infrastructure to attract private investment. Are the existing international organizations, particularly the multinational development banks, adequate to meet these increased needs, or is there a need for new institutions? What policies and/or incentives must be instituted to encourage the North and OPEC (which plays an ever increasing role in ODA) to continue to increase their commitments to development assistance?

Resolving Social Inequities

Another hindrance to development in the Third World has been its social structure—"dual societies" in which a small fraction of its citizens hold a disproportionate amount of its wealth and power, while the remaining majority tends to be both poor and powerless. Such a structure wastes the human resource base that is available for the drive to industrialization. Moreover, much of the development assistance to the Third World never benefits this majority. What policies can be instituted to encourage the leaders of these countries to deal with these social inequities and thereby increase productivity? How can existing development aid programs be changed to ensure that they are indeed meeting the needs of the poor in these countries?

Slowing Population Growth

Improvements in health care and nutrition in the developing world have had one unintended consequence—higher rates of population growth. Population growth in many of these countries has reached 2.6 percent and is accelerating, compared with a growth rate in the industrialized world of .7 percent. Such high growth checks progress that has already been made, most notably the "Green Revolution", by providing that many more mouths to feed, bodies to care for, and homes to provide. Moreover, it poses an increasing threat to this planet's finite resources. What policies and programs by both the North and South can slow this unparalleled rate of growth?

Increasing Agricultural Production

Agricultural development is a necessary first step to industrialization for the Third World. And FAS has explored this area in the past. In 1976, for example, it

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published an editorial calling for world food reserves as a way to mitigate famine. Other issues have arisen since then where scientific input would also be useful. What paths should the developing world follow to achieve the goal of self-sufficiency in food production? Are the nutritional needs of the Third World's citizens being met, and, if not, how can they be? Are there any circumstances that would justify the use of food as a political weapon, and if so, what consequences could result?

Slowing Depletion of Resources

Resource depletion is an issue the scientific community has looked at for some time. How can the loss of the world's forests be arrested? What can be done to mitigate increasing desertification? What are the consequences of depleting global fossil fuel reserves? Are potable water supplies adequate to meet food, agricultural, and industrial needs?

Controlling the Export of Toxic Substances

This is an issue that both the Carter Administration and the U.S. Congress have struggled with. In shipping toxic substances (e.g. pesticides) abroad, most of the controls that govern domestic use of these substances are not applicable. Congress has recently required a modified environmental impact statement to be filed on such substances when they are exported, but many believe it does not begin to solve the problem. What should be done about controls on the export of toxic substances? And are there circumstances where their use is justified, despite their danger, because the consequences of their non-use are worse?

Promoting Education and Technology Transfer

A key ingredient for development is acquiring necessary technical skills. Since a large fraction of Third World students are educated in the North, their training is usually oriented towards problems facing the industrialized world. How can education curricula for these students be modified to address the problems facing their own countries? How can the quality of technical training in the

academic institutions within the Third World be improved? What can be done to encourage Northern experts in technologies necessary for the Third World to transfer their expertise to those countries? How can patent rights necessary for Third World industrial development be transferred and at what cost?

Understanding the Role of the New Technologies

As the developing world makes its way to industrialization, the developed world, with the advent of such new technologies as computerization and biotechnologies, is following a path beyond industrialization towards a services-oriented economy. Will the Third World once again be left behind, only to catch up later? How can these new technologies be introduced into the Third World now as it pursues its path to development? Viewing the social difficulties that industrialized countries are having in adjusting to the implications of the new technologies, what social impact will these technologies have on the developing world?

Promoting Energy Development

As mentioned in the editorial, the Third World will be demanding more energy as it pursues development. And of the options open to it, developing indigenous energy sources appears to be the best path to follow. But how can those sources be developed, especially in resource-poor nations? Does regional development of energy resources make sense? What can the industrialized world do, both in its own energy use at home and in the resources it can offer abroad, to help the developing world meet its energy needs?

Slowing the Arms Race

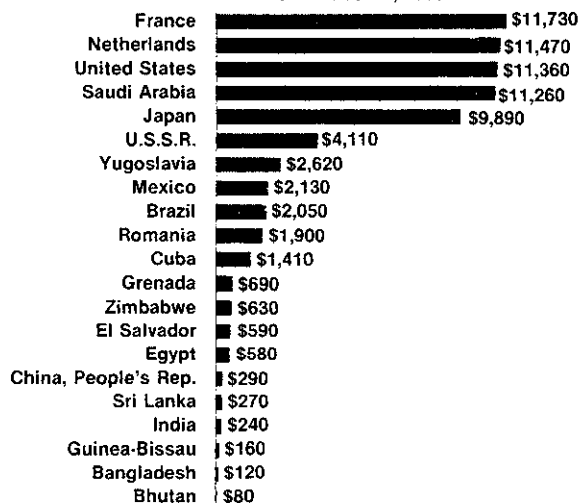
Again, as stated in the editorial, Third World expenditures on arms divert needed resources away from development. How can the security concerns of developing countries be met without this diversion of resources? What can be done to limit the nuclear proliferation risk to the Third World? What role should the industrialized world assume as far as supplying arms abroad? □

FAS WINS RELEASE OF FREEZE ANALYSIS

Responding to an ACLU lawsuit initiated by FAS, the Government released, on October 29, declassified portions of a 1969 analysis prepared by the Arms Control and Disarmament Agency (ACDA) in support of a freeze. Initiated by Gerard Smith, then the ACDA Director, the paper was the basis of an ACDA appeal to President Nixon to propose a freeze to the Soviet Union under the rubric "Stop Where We Are."

To secure the document, the Federation had turned to its Council Member Morton Halperin, now Director of the Center for National Security Studies, which specializes, among other things, in Freedom of Information Act (FOIA) suits. Halperin's Center, which is affiliated with the ACLU, was doubly well suited to pursue the suit since, at the time of the paper, Halperin had been a key staff member of the Nixon White House National Security Council and had lived through the period when Nixon refused this appeal.

PER CAPITA GNP, 1980



A WORLD OF CONTRASTS

Can a world of such contrasting wealth remain peaceful for long?

The Government first refused any release both on initial request (March 12, 1982) and on appeal. But after the suit was filed in District court, and pursued by ACLU attorney Susan Shaffer, who works with Halperin, the Defense Department decided to release such portions as might placate Judge Richey in subsequent hearings.

Although the paper appears to have at least 14 pages, only about 2 pages worth of text were released. But as Halperin readily spotted, the first two lines of the introduction carried the key conclusions. The paper began:

"This paper examined the implications of a quantitative and qualitative freeze on all aspects of strategic offensive and defensive forces that are subject to adequate verification by national means. In view of the extent of our present and projected national intelligence resources, this essentially amounts to a proposal to "Stop Where We Are" (SWWA) with respect to strategic forces."

In short, there was, even in 1969, enough in the way of intelligence resources to monitor a freeze on strategic forces.

The paper noted that the SWWA proposal would:

1. "preserve the present stable strategic balance in which both sides have a confident second-strike capability and are far from achieving a first-strike capability";
2. "virtually eliminate the potential Soviet counterforce threat against U.S. Minuteman force...";
3. "improve our confidence that the Soviets were not developing MIRV's...";
4. "...improve our confidence that existing Soviet SAM's (surface to air missiles) would not be clandestinely improved."
5. "...would provide the U.S. with far greater budgetary savings, both short-term and long-term, than any alternative which permits substantial new strategic weapons programs."

The sections of the paper on "verification", "strategic analysis", "safeguards", "negotiability" and "economic implications" were completely blank. But the analysis ends by seeming to encourage a moratorium during negotiations:

"some of the advantages of a SWWA agreement to the U.S. would be reduced if the Soviets continued to build ICBM silos and SLBM submarines and carry on MRV or MIRV flight testing during the SALT negotiations."

The paper was precisely what we desired: concrete proof that a freeze could be conceived. Speaking for the Federation, Director Stone said:

"We had to sue to secure this document because we knew and the Administration knew, that it would show the freeze was not a pipedream."

The paper was turned over to an AP reporter and, because it had been released only four days before the election, seemed important news at least in those nine states where the freeze was on the ballot. Some of the media with larger audiences played the story down or ignored it because it was too close to the election; they prefer not to print news that seems to require a response too near an election. But after the election, the *Washington Post*

printed a 2,000 word piece by Stone entitled: "The Experts Can't Ignore Demands for a Nuclear Freeze Forever" which included reference to it. Only the *New York Times* appears to have ignored the issue. Its editorials have not only opposed the freeze but done so with real venom.

A few days later, the Defense Department released further information in response to our suit: the first public description of the SWWA proposal, still highly relevant! It follows:

Description of SWWA Proposal

A. Basic Proposal

1. The number of operational ICBM, IRBM, MRBM, SLBM, SLCM, and ABM launchers on each side shall be limited respectively to the number in each category which are operational at the time the agreement is negotiated.¹

2. There shall be a complete prohibition of flight testing or deployment of MIRV's and mobile land-based strategic offensive and ABM missiles.

3. Changing or improving the characteristics of deployed strategic missiles and missile launchers shall be prohibited, except for minor internal changes, such as those designed to improve missile reliability or RV hardening, or to provide exoatmospheric penetration aids. Prohibited changes shall include those involving throw-weight, accuracy, range, and external launcher, missile, and RV characteristics.

4. Flight tests of strategic offensive missiles and ABM missiles shall be limited to an agreed number of pre-announced confidence firings of only previously tested types of strategic missiles on agreed ranges. Both sides shall agree to announce two weeks in advance all firings of both military and non-military rockets which are intended to exit the atmosphere (achieve altitudes exceeding 200 kilometers). There shall be a complete prohibition of further flight testing of multiple reentry vehicles (MRV's), maneuvering reentry vehicles (MaRV's), post-boost maneuvering, fractional and multiple orbital weapon systems (FOBS and MOBS), ICBM's which reenter the atmosphere at elevation angles less than 10 degrees, and endo-atmospheric penetration aids.

5. The introduction of new types of missile-firing submarines, or changes in the size or external configuration of existing types, shall be prohibited. However, one-for-one replacement of such submarines with new units of the same type, under agreed procedures for verification of submarine destruction, shall be permitted.

6. The number of ABM-associated radars shall be limited to those which are operational at the time the agreement is negotiated.

7. The number of strategic bombers and SAM launchers on each side shall be limited to those operational at the time the agreement is negotiated. The introduction of new types of strategic bombers or air defense systems, or changes in the size or external configuration of existing types or systems, shall be prohibited. However, one-for-one replacement of aircraft with new units of the same type, under agreed procedures for verification of aircraft destruction, shall be permitted. □

¹Launchers are deemed operational when their external appearance indicates that they could be operational.

WHAT KIND OF FREEZE IS FAS FOR ANYWAY?

As befits a scientific society, FAS has been putting out information on how *various* freeze proposals might be put together; there seems to be no particular point, especially at this time, in trying to produce a consensus on any particular approach since we have not the capacity to effect the compromise. Perhaps more important, the freeze is insufficiently well-studied to justify compromises based on technical judgments. In this connection, the FAS Public Interest Report prepared by Thomas Karas and Christopher Paine on verification and the favorable reactions to it in our community, reveal clearly how little is known and understood about that critical feature of a treaty.

In the meantime, FAS is working, or has worked, on three fronts. On the general freeze proposition of deployment, testing and production, FAS will be holding its own hearings in the Spring to discuss the more difficult aspects of the freeze. Proposals will be put forward by a team led by our Chairman Frank von Hippel and Vice Chairman John Holdren.

Earlier, in December, we will be holding such hearings on what we call a SALT II-based freeze. Here one would try simply to close the loopholes in SALT II and to extend its scope. Members will read about it in the January Report.

Still earlier, immediately after the Reagan START proposal was made on May 8, Director Stone—trained as a mathematician—discovered the surprising fact that, with suitable side conditions, the newly minted Reagan plan could get most of what it wished to achieve (on the Soviet side that is) through the method of percentage reductions of SALT II limits, which FAS had urged publicly since 1978 (See *Washington Post*, December 31, 1978). The calculations, somewhat involved, were given in testimony to the Foreign Relations Committee on May 13, five days after the Reagan proposal was first described and required cutting the SALT limits by 50%.

On examination, former Secretary of State Edmund Muskie announced, on May 22, that a 50% reduction in SALT II limits would “bring the Soviets into the ballpark

of the Reagan plan.” And after a May 25 briefing of the calculations to a Brookings Seminar chaired by John Steinbrunner, Steinbrunner adopted the precise notion (but without giving the complicated proof) in the Fall 1982 *Brookings Review* saying:

“If the weapons allowed within each of these [SALT II] categories were reduced in half, most of the President’s objectives would be met or approximated, and Soviet insistence on preserving the main provisions of SALT would be honored as well.”

In an irony characteristic of Washington, a Washington Post editor had lauded “Steinbrunner’s” compromise to the skies and complained that pro-freeze forces had not come up with something like it. The last straw in this confusion, however, was the realization that the Washington Post had accepted an FAS article conveying the idea, delayed for weeks in printing it, and then sent us a “kill fee” for not doing so on the grounds it was no longer timely. Such is life in Washington where the pundits can’t tell the ideas without the player’s names being attached and where a compromise, no matter how it works—so long as it surfaces from the “center”—is the name of the game. □

FREEZE WINS ON NOVEMBER 2

The freeze won in 8 of the 9 states in which it was on the November 2 ballot and secured, overall, 60% of the 19,000,000 votes cast. It also won in 34 out of 37 city and county votes. As a consequence of the election, the House of Representatives is believed to have a pro-freeze majority of approximately 30 seats; in August a freeze resolution lost by 202-200.

ENERGY COALITION ELECTS BLEVISS PRESIDENT

On November 19, 1982, FAS staffer Deborah Bleviss was elected President of the Energy Conservation Coalition (ECC). Created more than 2 years ago, ECC is now composed of 16 national consumer, environmental, and other public interest groups, with memberships in excess of 10 million. The Energy Conservation Coalition has played a major role in keeping energy conservation in the public eye and on the national policy agenda.

FAS PUBLIC INTEREST REPORT (202) 546-3300

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