Missile Defense: LBJ's Bid To Curb Arms Race Gains Support

Although difficulties may lie ahead, President Johnson's proposal that U.S. and Soviet negotiators seek an agreement to refrain from, or limit, deployment of antimissile missiles thus far has considerable bipartisan support on Capitol Hill. Moreover, there is now evidence of greater caution on the part of some leading Republicans whose initial reaction to the news last year (*Science*, 25 November) of a Soviet ABM deployment was to make provocative noises about a missile defense "gap."

Notably, Governor George Romney of Michigan, a front-runner for the GOP presidential nomination next year, is taking instruction on the subtleties of ABM development and its possible effects on arms control and on stability of relations among the nuclear powers. During a visit to Harvard recently, Romney is reported to have met with several noted scholars and theorists on military-political matters for a long discussion of the ABM question. The meeting was confidential, but the participants are believed to have included Thomas C. Schelling of Harvard and Donald Brennan, former president of the Hudson Institute and now a senior researcher there. Governor Romney no doubt picked up some ideas about the ABM issue a good deal more sophisticated than any he may have gotten from such advisers as Leonard Hall, former chairman of the Republican National Committee, whose expertise on warfare is confined largely to the arena of partisan conflict. The views of Brennan and Schelling are not identical but tend to overlap. Neither regards missile defense as necessarily incompatible with arms control. But both feel that, if destabilizing effects are to be avoided, much depends on the nature of the ABM deployment and on the size and makeup of U.S. and Soviet strategic offensive forces.

Evidence that many Capitol Hill Republicans look sympathetically on President Johnson's diplomatic initiative regarding the ABM issue lies in a number of things said and unsaid. Some whose sympathies are uncertain probably are wary lest the Republican Party appear indifferent to the hazards of the arms race. Thomas H. Kuchel of California, the Senate Republicans' assistant minority leader, proposed U.S. Soviet negotiations on ABM deployment in December, a month before President Johnson indicated he would seek an agreement with the Russians. Senator Everett M. Dirksen, Republican minority leader, has endorsed the diplomatic initiative and has said a greater effort in the disarmament field is needed. His attitude is no doubt in harmony with that of the newly elected crop of liberal Republican senators (Percy of Illinois, Hatfield of Oregon, and Brooke of Massachusetts) who favor "bridge-building" between East and West.

The leader of the House Republicans, Gerald R. Ford of Michigan, late last year predicted that congressional Republicans would seek a large ABM deployment. But in January, after Johnson had announced the diplomatic effort, Ford adopted a line more likely to please both hawks and doves. While noting the Soviet ABM deployment and criticizing the administration for letting the Russians steal a march, Ford said, "We, too, seek to avoid a costly new round in the nuclear arms race. But the least the Nation must do now is to speed up its readiness to deploy antiballistic missiles in a hurry if our survival requires it."

In sum, the Republicans have kept their options open. The great fear of the Council for a Livable World, a group of scientists and other academicians which lobbies for arms control on Capitol Hill, has been that the Republicans would get locked into a position of demanding ABM deployment. The Council believes that, even if the Soviets carry out a large-scale deployment, the U.S. should not follow suit. In the Council's view, ABM deployment by both the U.S. and the Soviet Union would be dangerously destabilizing. "An ABM system works better against a ragged, disorganized attack from an opponent who has already been hit than against a concerted, well-organized attack by an opponent who is striking first," a current Council document says. In a crisis, the Council adds, each side would perceive that the other side was tempted to strike first and would keep a nervous finger on the button.

Given the abundance and variety of weapons of mass destruction possessed by the U.S. and the U.S.S.R., the Council's argument that deterrence would be undermined by ABM deployment is not necessarily convincing. But neither is the argument of the Joint Chiefs of Staff, who contend that deployment would inhibit a Soviet first strike, stabilize the nuclear balance, and demonstrate to the Russians and to the United States' allies that the U.S. is not "first-strike minded."

Failure of LBJ's diplomatic initiative could mean a resurgence of demands by Republicans and others for ABM deployment. This means that the present moratorium of sorts on such demands could be short-lived, for the outcome of the negotiations is highly uncertain. The negotiations represent an ambitious attempt to control the arms race, especially since the U.S. has accepted Premier Kosygin's suggestion to discuss a limitation on offensive as well as defensive forces.

On 2 March, President Johnson said that the negotiations would be initiated in Moscow by Ambassador Llewelyn Thompson. Thompson and Soviet Foreign Minister Andrei Gromyko met briefly last week for "preliminary discussions." According to some Washington sources, the U.S. will approach the negotiations with two broad objectives in mind. First, the hope is that, through extensive private talks, the Soviets can be convinced that ABM deployment could precipitate a costly new upward spiraling in arms competition, resulting in a heightening of world tension without any gain in security for either side.

Remarks made on the ABM question by Premier Kosygin and other Russian leaders tend to support the view that the study and analysis of arms control problems are far less advanced in the Soviet Union than in the U.S. Therefore, if the Moscow discussions contribute to a greater Soviet awareness of the implications of ABM deployment for arms control, this will be considered a significant gain in itself and an essential step toward realization of the second objective—an arms limitation agreement. The agree-

ment could be reached through a formal treaty, or through an informal understanding.

United States officials, from the President on down, are saying as little as possible publicly about the negotiations, for the obvious reason that to do otherwise could jeopardize the entire undertaking. In the past, the Soviets have tended to insist on strict privacy for all serious arms control discussions. The more productive discussions at Geneva have not been those conducted in plenary sessions of the 17-Nation Committee on Disarmament, but those held privately by the U.S. and Soviet co-chairmen.

The Untied Knot

Disagreement over the need for on-site inspections as a safeguard against cheating has been a knot which U.S. and Soviet negotiators have been unable to untie in such previous arms control discussions as those on banning underground tests and declaring a "freeze" on strategic weapons. The on-site-inspection issue seems virtually certain to arise in the Moscow talks, and the knot could be as unyielding this time as before. The advent and improvement of reconnaissance satellites has stirred the hope among arms control specialists and others that, for some arms limitation agreements, the on-site-inspection problem can be avoided. But the conservative view is, of course, that the external evidence obtainable by satellite often will not indicate reliably the nature of the potential enemy's installations.

It seems altogether possible that—should the Soviets really want an agreement but not enough to accept on-site-inspections—a major dispute will arise within the U.S. government, and in the Congress over whether U.S. security requires such inspections. Thus far, some of the evidence obtained by U.S. intelligence about the Soviet deployment of defensive systems has been ambiguous. According to U.S. officials, an ABM system with the "Galosh" missile is being deployed around Moscow, possibly to provide a regional defense as well as to protect the Moscow vicinity.

This system, officials say, probably will not be operational for a couple of years. Installation of another defensive system, being deployed near Tallinn, Estonia, and elsewhere, is reportedly in various stages of construction, though in late January Defense Secretary McNamara said no units were operational. McNamara believes the Tallinn system is not designed primarily as protection against ballistic missiles, but General Earle G. Wheeler, chairman of the Joint Chiefs of Staff, believes that it is.

In the U.S. Senate, where ratification of an arms limitation treaty would require the support of two-thirds of the senators, any agreement failing to provide for on-site inspections may encounter strong opposition. Richard B. Russell, the Georgia Democrat who chairs the Senate Armed Services Committee, and Senator Strom Thurmond of South Carolina, the most vocal Republican champion of ABM deployment, already have indicated that they will insist on such a safeguard. Both of these senators believe it unlikely that any arms limitation acceptable to the Russians will protect the security interests of the United States.

Russell is the most influential of the Senate's cold war hard-liners, who number more than a few. Twenty-eight senators recently voted against the consular treaty. Senators who can see a threat to the national security in a few Soviet consular officials' coming to the U.S. are likely to be filled with foreboding at the thought of an uninspected arms limitation agreement.

Reaching agreement on a limitation of strategic offensive forces could be even more difficult than overcoming, or avoiding, the inspection problem. Kosygin undoubtedly hopes to lessen the disparity between U.S. and Soviet striking power. Indeed, given the heavy emphasis on defense of the homeland in Russian military history and thinking, the Soviet Union may well insist on a substantial redressing of the strategic balance if it is to stop its ABM deployment.

The United States has a three-to-one advantage over the U.S.S.R. in the size of its ICBM and sea-based missile forces. For the administration to agree to an improvement in the Soviets' relative position, either through an increase in Soviet forces or through a reduction in U.S. forces, would surely bring on great controversy.

That failure of the negotiations would raise anew the possibility of U.S. deployment of an ABM system is clear from President Johnson's budget. In addition to $440 million for continued R & D work on the ABM, the new budget contains $377 million for ABM production, to be used at the President's discretion. Obviously, if the negotiations do not succeed, Johnson will be under pressure to proceed with ABM production and deployment.

The ABM issue has major budgetary implications which neither Johnson nor the Republicans who aspire to take over his job can ignore. According to Secretary McNamara, an ABM deployment (together with related fallout shelter and bomber defense programs) designed to protect U.S. cities against a heavy Soviet attack is likely to cost at least $40 billion. Senator Russell calls this figure a "deterrent" used by McNamara—who feels that antimissile defense for cities would be useless against the Russians—to discourage Congress from seeking such a deployment. But McNamara's argument is that more and more cities would demand to be defended.

An episode on the Senate floor last week suggested that the question of which cities will get under the ABM umbrella is at least touchy. Senator Joseph Clark of Pennsylvania, who thinks an ABM deployment would be not only useless but so costly that it would snatch money away from the anti poverty war and other welfare programs, observed that Charleston, South Carolina, was on the Pentagon's tentative list of protected cities, whereas some larger cities were not. "I wonder why," he said. "Everybody in this chamber knows why—Charleston is the hometown of Chairman Mendel Rivers of the House Armed Services Committee." Senator Thurmond, not amused at this cut at a fellow South Carolinian, demanded that Clark be called to order and that his remark about Rivers be stricken from the record.

Marked for Extinction

A few weeks earlier, however, another South Carolinian, Congressman William Jennings Bryan Dorn, who represents an inland district, also had criticized the list of protected cities as callously discriminatory. "It is my understanding," said Dorn, "that these cities marked for protection were selected by a computer. . . . The rest of us are marked for a fiery and sudden extinction." Dorn said ABM defense was a bad idea, no sounder than that of the Chinese who built the Great Wall.

In McNamara's judgment, the best U.S. response to an ABM deployment is an improvement of the U.S. capa-

bility to penetrate Soviet defenses. He would achieve this by continued development of more sophisticated missiles such as the submarine-launched Poseidon and the land-based Minuteman III. By the same token, he is convinced that U.S. deployment of an ABM system to defend its cities would merely lead the Soviets to increase their offensive forces accordingly, with the result that no U.S. lives would be saved. McNamara rejects the view of the Joint Chiefs of Staff that the Soviets would not invest the resources necessary to create a force capable of overwhelming and nullifying the U.S. defenses.

The Secretary has indicated that an ABM deployment, if undertaken at all, should provide a "thin" defense of the entire U.S. and a "point" defense of some Minuteman offensive missile squadrons in the West. Such a deployment would be expected to provide an additional safeguard for the U.S. deterrent force and offer some protection against an accidental attack or against the kind of light, unsophisticated attack which Red China might be capable of launching in the 1970's. The deployment desired by the Joint Chiefs and by Senator Russell would be designed to protect U.S. missile-launching sites and 50 major cities.

If a large number of voters suddenly began living in daily fear of nuclear attack, President Johnson clearly would be in trouble on the ABM issue, which, in the abstract, may be too technical to arouse much emotion. Despite the possibility of a great-power conflict over Vietnam, most people appear to behave as though assured that peace, three good meals a day, and 72-degree central heating will be their lot forever. Thus, political pressure for ABM deployment may not become compelling, even if Congress does as it has in the past and appropriates money for production of an ABM system that the administration doesn't want.

Some believers in the "military-industrial complex" theory hold that the interests of ABM contractors and the localities in which their plants are located can generate irresistible pressures. In the event of an attempt some day to bring about general disarmament, the "complex" may indeed reveal itself as a formidable beast. But on questions of deploying or phasing out individual weapon systems, even very costly ones, the economic interests seem too localized to be a dominant political factor

NEWS IN BRIEF

● **HEALTH PROFESSIONALS PROTEST WAR**: More than 5000 doctors, nurses, social workers and other health professionals signed a petition addressed to President Johnson protesting the war in Viet Nam and the resultant diversion of funds from domestic U.S. programs. The petition was presented last week to Dr. Philip Lee, assistant secretary of Health, Education, and Welfare. The petition advocates U Thant's three-point program: cease bombing North Viet Nam, de-escalate our military activity, and negotiate with all parties, including the National Liberation Front. It also condemns "the huge number of military and civilian casualties, the multitude of napalm-burned children, the use of chemical warfare, the epidemics ravaging millions of refugees, and other human tragedies of the war." The health professionals further state: "We protest our government's diversion of funds and energies from health, anti-poverty, and other pressing domestic programs in pursuit of the war." Among the sponsors of the protest are Leon Eisenberg, Lewis Fraad, Hudson Hoagland, John Holloman, Louis Lasagna, Arthur Kornberg, Salvatore E. Luria, Jean Mayer, Pitirim Sorokin, Benjamin Spock, and Albert Szent-Györgyi.

● **ANTARCTIC TREATY INSPECTIONS**: United States observers inspected seven stations at Antarctica in February and March, under provisions of the Antarctic Treaty of 1959, and found no evidence of any violations. The treaty outlaws military use of the South Polar continent and allows the 12 member nations to inspect the area to insure that treaty provisions are obeyed. The scientific programs and support activity, the five-man team reported, "gave every appearance of being carried out in consonance" with the treaty. Stations inspected were those of Argentina, Australia, France, Japan, South Africa, United Kingdom, and the Soviet Union.

● **MEDICAL SCHOOL FACULTIES**: The full-time faculty membership in the nation's 88 medical colleges continues to grow faster than the number of students but forecasters say that competition for faculty will increase in the period ahead. The annual report of the American Medical Association Council on Medical Education shows that the student-teacher ratio in 1965–66 was 1.9 to 1, compared with 2.7 to 1 in 1960–61. The number of full-time faculty members in 1965–66 was 10.5 percent greater than the previous academic year. The report notes that teachers are doing an increased amount of research and have expanded instruction responsibilities including interns, residents, predoctoral and postdoctoral graduate students, and paramedical trainees. Even with the increase of faculty members, the number of vacancies climbed to a record 1115 in the last academic year. The report predicts the search for full-time faculty will be accelerated by the development of 16 new medical colleges, the proposed expansion of present ones and possible establishment of federal projects requiring medical personnel.

● **PEN BEATS HARVARD**: A Crimson team was defeated by one in black and white stripes recently in a "college bowl" type quiz. Five inmates at the Norfolk (Massachusetts) State Prison answered their way to a 96 to 82 victory over a panel of Harvard students. This marked the third year in a row that the Ivy League school dropped a quiz contest to the pedantic prisoners. As one Harvard student said: "They're sharper than we are." Each side makes up the questions for the other using a wide range of trivia. For example: "Name the only country to rid itself of Communist government. (San Marino)", and "Who said '*Après moi le déluge*'? (Louis V)." The immates answered these two readily and proved quite knowledgeable on mythology, fish, French, and Renaissance music and literature. The Norfolk prison, which is proving itself to be quite an educational institution, also has a debate society which has defeated such opponents as the Oxford Union. A well-stocked prison library and courses taught at Norfolk by Harvard volunteers help make the prisoners more than a match for the students. A Harvard team will return to Norfolk next year but is not too confident of winning unless one of the prison experts is ruled ineligible because of solitary confinement, which has happened.

nationally. Although $2.8 billion in R & D contracts have been awarded in the ABM program since it began 10 years ago, fewer than a dozen localities have felt a major impact. Some 15,000 persons are now participating in the R & D effort.

Of course, once a decision to deploy Nike X was made, political pressures arising from the program's economic impact would increase. According to qualified Army sources, spending for production and deployment probably would reach a peak of about $1 or $2 billion a year, depending on the nature of the deployment. Roughly estimated, the peak manpower requirement for achieving a "thin" deployment might be about 80,000 persons, 20 percent of them scientists and engineers. A deployment providing some point defense for 25 cities might require 160,000 people. Manpower for producing and deploying a system providing comparatively intensive defenses for 50 cities—the largest program the Army now contemplates—would require still more personnel, but the outer limit would be about 200,000, or half the civil servants that were working for NASA at the peak of the Apollo program.

Douglas Aircraft and the Martin Company would do the missile airframe work, but work on the radar and other electronics equipment would be widely dispersed through invitation of competitive bids and proposals. Without a doubt, the economic impact of the Nike X program would be significant for a sizable number of firms and localities.

Nevertheless, suggestions that the ABM program can be put over on the strength of its economic appeal stand up poorly. Among the 14 senators who voted against the appropriation of $168 million in unrequested ABM "pre-production" funds last year were four from states where major Nike X work is in progress—Joseph Clark of Pennsylvania, Harrison Williams of New Jersey, Robert F. Kennedy of New York, and Edward M. Kennedy of Massachusetts. The majority supporting the extra apropriation probably was deceptively large, for voting on defense spending bills has tended to become *pro forma*, with most members of Congress accepting what the Armed Services and the appropriations committees recommend.

Congressman Alphonzo Bell, a Republican moderate who represents the Santa Monica area, recently polled his constituents on the ABM question and found that, of the more than 10,000 respondents, a majority opposed deployment. Though Bell's district embraces the Douglas facilities where the air frame for an ABM interceptor missile is being developed, it takes in much besides, including part of the U.C.L.A. campus. Statewide, the diversity of political influences at play is still greater. Kuchel of California was the first senator to publicly propose the negotiations with the Soviets. In short, the politics of a major industrial state such as California, with its welter of economic interests, educational institutions, and enormously varied groups championing everything from world peace to abolishment of the income tax, is too complex for any simplistic military-industrial-complex, or merchants-of-death, theory to hold true.

The national constituency appears to be the one that really counts on the ABM issue, and it is to this constituency that President Johnson will have to look in the months ahead as the question comes to a point of decision. Regardless of the outcome of the negotiations with the Soviets, Johnson should be able to deal with the issue on its merits, without being unduly bothered by political pressures.

—LUTHER J. CARTER

Their Decision-Making Process Bothers Some of the British

London. The British have their hands full with the wage freeze, the technology gap, and the brain drain, but they are engaged also in a serious search for longer-term solutions to these immediate problems through finding better ways to employ science and technology in the national interest.

A minor sign of the times is the January–March *Political Quarterly*, which is a special issue on "The Politics of Science." Science-policy questions have been getting increasing attention in both scholarly and popular publications here and, as the *Quarterly*'s editors say in their introduction, the "special issue forms part of a widespread effort to reconcile the interests of science with the needs of society."

The Political Quarterly, a London-based journal, has no direct American equivalent. It is not published under the sheltering wing of a professional society or university, as are almost all American journals. While the academic credentials of its editors are impeccable, the *Quarterly* has on its board such nonprofessorial types as Kingsley Martin, former editor of the *New Statesman*, and Leonard Woolf, both of whom represent the radical, reformist, humane Left in Britain.

Articles in the special issue cover a range of subjects and are soundly informative without saying anything startlingly new. For an American reader the surprising thing is that, in an issue devoted to the politics of science, hardly an allusion is made to politics in the functional sense of who gets what and how.

The explanation may well be that, in Britain, political scientists and others interested in how science policy is made and carried out have limited acquaintance with the workings of policy-making machinery. The American preoccupation with the "decision-making process" seems only now to be infecting the British.

In part, this may be due to differing academic tendencies in Britain and the United States. Political scientists in the United States have expended greater energy in trying to make political science more scientific, and this has led to the prominence, if not the ascend-