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DISCRIMINATE DETERRENCE

Report of

The Commission On Integrated Long-Term Strategy

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January 1988

COMMISSION ON INTEGRATED LONG-TERM STRATEGY

January 11, 1988

MEMORANDUM FOR:

THE SECRETARY OF DEFENSE
THE ASSISTANT TO THE PRESIDENT FOR NATIONAL SECURITY AFFAIRS

We are pleased to present this final report of our Commission. Pursuant to your initial mandate, the report proposes adjustments to U.S. military strategy in view of a changing security environment in the decades ahead.

Over the last fifteen months the Commission has received valuable counsel from members of Congress, the Chairman of the Joint Chiefs of Staff and the Service Chiefs, and the President's Science Advisor. Members of the National Security Council Staff, numerous professionals in the Department of Defense and the Central Intelligence Agency, and a broad range of specialists outside the government provided unstinting support. We are also indebted to the Commission's hardworking staff.

The Commission was supported generously by several specialized study groups that closely analyzed a number of issues, among them: the security environment for the next twenty years, the role of advanced technology in military systems, interactions between offensive and defensive systems on the periphery of the Soviet Union, and the U.S. posture in regional conflicts around the world. Within the next few months, these study groups will publish detailed findings of their own.

The Commission's charter lapses next October. Until that time, Commission members will remain on call to deliberate further on aspects of this report and related issues. All the members endorse the conclusions of this report and stand ready to assist in implementing them.

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The Commission's Main Points

Our strategy must be designed for the long term, to guide force development, weapons procurement, and arms negotiations. Armaments the Pentagon chooses today will serve our forces well into the next century. Arms agreements take years to negotiate and remain in force for decades.

Our strategy must also be integrated. We should not decide in isolation questions about new technology, force structure, mobility and bases, conventional and nuclear arms, extreme threats and Third World conflicts. We need to fit together our plans and forces for a wide range of conflicts, from the lowest intensity and highest probability to the most apocalyptic and least likely.

The Next Twenty Years

The decades ahead are likely to bring drastic changes: China, perhaps Japan and other countries, will become major military powers. Lesser powers will acquire advanced weaponry, diminishing the relative advantages of both U.S. and Soviet forces. Arms agreements may have a sizable impact on nuclear and conventional forces.

Major U.S. interests will continue to be threatened at fronts much closer to our adversaries than to the United States. Our ability to deter aggression at these distant places will be impaired by uncertainty about allies and friends granting us access to bases and overflight rights, or joining us in defense preparations to respond to ambiguous warning signals. Our difficulties of access may worsen as a result of Third World conflicts that jeopardize U.S. bases or lead to Soviet expansion in areas previously free of Soviet forces.

Military technology will change substantially in the next 20 years. We have depended on nuclear and other advanced weapons to deter attacks on our allies, even as the Soviets have eliminated our nuclear advantage. If Soviet military research continues to exceed our own, it will erode the qualitative edge on which we have long relied.

An Integrated Strategy for the Long Haul

The strategy is built on a number of principles, some calling for radical adjustments, some reaffirming key elements in the current defense effort.

- **We should emphasize a wider range of contingencies than the two extreme threats that have long dominated our alliance policy and force planning: the massive Warsaw Pact attack on Central Europe and an all-out Soviet nuclear attack. By concentrating on these extreme cases, our planners tend to neglect attacks that call for discriminating military responses and the risk that in these situations some allies might opt out.**

- **To help defend our allies and to defend our interests abroad, we cannot rely on threats expected to provoke our own annihilation if carried out. In peacetime, a strategy based on such threats would undermine support for national defense. In a crisis, reliance on such threats could fail catastrophically for lack of public support. We must have militarily effective responses that can limit destruction if we are not to invite destruction of what we are defending.**

- **We must diversify and strengthen our ability to bring discriminating, non-nuclear force to bear where needed in time to defeat aggression. To this end, we and our allies need to exploit emerging technologies of precision, control, and intelligence that can provide our conventional forces with more selective and more effective capabilities for destroying military targets.**

- **Both our conventional and nuclear posture should be based on a mix of offensive and defensive systems. To help deter nuclear attack and to make it safer to reduce offensive arms we need strategic defense. To deter or respond to conventional aggression we need a capability for conventional counter-offensive operations deep into enemy territory.**

- Control of space in wartime is becoming increasingly important. In a conventional war, our space capabilities—critical for communications, intelligence, and control of our forces—must be made survivable or replaceable. The enemy must be prevented from using space freely to support his targeting of our forces.

- We will need capabilities for discriminate nuclear strikes to deter a limited nuclear attack on allied or U.S. forces, and if necessary to stop a massive invasion. Improvements in British and French nuclear forces can contribute to the common defense.

- To help protect U.S. interests and allies in the Third World, we will need more of a national consensus on both means and ends. Our means should include:
  - Security assistance at a higher level and with fewer legislative restrictions that inhibit its effectiveness.
  - Versatile, mobile forces, minimally dependent on overseas bases, that can deliver precisely controlled strikes against distant military targets.
  - Allies that help us defend common interests beyond alliance boundaries.
  - In special cases, U.S. assistance to anti-Communist insurgents who are resisting a hostile regime imposed from the outside or a regime that threatens its neighbors. The free World will not remain free if its options are only to stand still or retreat.

- Our arms control policy should give increasing emphasis to conventional reductions. Carefully designed reductions in nuclear arms could lead to a safer balance of offensive and defensive forces. Elimination of the large Soviet advantage in tanks, artillery, and other heavy equipment would help both NATO's security and the Soviet economy, and hence be in the interest of both sides. In order to deter violations, compliance with an arms agreement must be verifiable and backed by an industrial mobilization capacity and the political will to respond effectively in the event the agreement breaks down.

- Given the perils and uncertainties facing our nation and our allies in the future, the defense and security assistance budgets should grow at a steady rate commensurate with our growing economy. U.S. defense budgeting in the years ahead should be guided by the strategic priorities outlined, permitting economies in some areas and providing needed enhancement in others. In periods when the U.S. defense budget does not increase, we must support continued growth in the equipment that makes our ships, aircraft and other "platforms" more effective—such as advanced non-nuclear munitions, conventionally armed tactical missiles, sensors and communications systems.

The principles above imply change. But our strategy also includes many things that will not change:

- We must maintain a mix of survivable strategic offensive arms and command and control capabilities that can, in all circumstances, respond to and thus deter a massive nuclear attack intended to eliminate our nuclear forces and other targets.
- In the future, even more than in the last forty years, the United States will need its allies to share the risks and burdens of the common defense.
- We will seek to contain Soviet expansion in any region of the world.
- We will need forward deployed forces in some critical, threatened areas.
- We will maintain as a reinforcement capability mobile active and reserve components in the United States.
- With forces much smaller than those of the Soviets, we must not only continue to field better equipment, but we must also maintain the high quality, superior training and excellence in leadership of the men and women who serve in our armed forces. ◆

I

The Changing Security Environment

Defense planning in the United States has centered for many years on a grand strategy of extraordinary global sweep. The strategy can be stated quite simply: forward deployment of American forces, assigned to oppose invading armies and backed by strong reserves and a capability to use nuclear weapons if necessary. Resting on alliances with other democratic countries, the strategy aims to draw a line that no aggressor will dare to cross.

The durability of U.S. grand strategy is remarkable.

The durability of this strategy is remarkable. American forces have now been deployed in Central Europe for 40 years. They have been in the Republic of Korea for 35 years. The Atlantic Alliance has now outlasted all multilateral peacetime alliances in modern history.

The strategy has had considerable success. All the Alliance members are still free countries. Soviet forces have not attacked Western Europe, and North Korean forces have not again attacked South Korea.

The basic strategy remains valid but needs to take account of contemporary realities and guide long term defense plans.

But the strategy has also had some setbacks. Soviet power has bypassed the lines we drew and has pushed into Southern Asia, the Middle East, Africa, the Caribbean, and Central America. In a world that is less bipolar than it once was, the strategy has not helped much in dealing with hostile countries (Iran, for example) outside the Soviet bloc. In Europe itself there are signs of severe strain. The Alliance has not succeeded in matching Soviet conventional forces on the continent, and for many contingencies our threat to use nuclear weapons against them has become progressively less credible in light of the growth in Soviet nuclear forces.

The Commission is not proposing to replace the strategy. We believe in forward deployment of American forces, in backing them with strong reserves, and in retaining the nuclear threat to help defend our allies. But we also believe that the strategy needs to be brought into line with contemporary realities.

The revised strategy proposed in these pages is meant to guide our defense planning for many years into the future—at least twenty. We need to look far ahead not just because Alliance

policy takes time to change. Our planning has to be long-term because many of the decisions on defense policy cast shadows into the future. The Pentagon must choose today among armaments that will be in service well into the next century. Arms control agreements may remain in force for decades.

As the Commission's name indicates, we believe that strategy has to be more "integrated" than it is today. That term refers in part to the never-ending trade-offs in defense planning. It also refers to the ramifying effects of our core concepts, which call for credible responses to aggression (and not a posture based on threats of indiscriminate destruction). Those concepts should affect the way we procure weapons, the priority we assign to scientific research, the policy we adopt on arms control, and the force structures we create. A major purpose of this report is to lay out the interconnections between these decisions.

In taking a long-term perspective, the Commission is not assuming the permanence of today's international security environment. Indeed, we believe that the environment may change dramatically. Twenty years hence America may confront a vastly more complex environment, including some new major powers and new kinds of weaponry and alliances. Some possible changes are already discernible at several points on the strategic landscape, and several in particular seem worth focusing on:

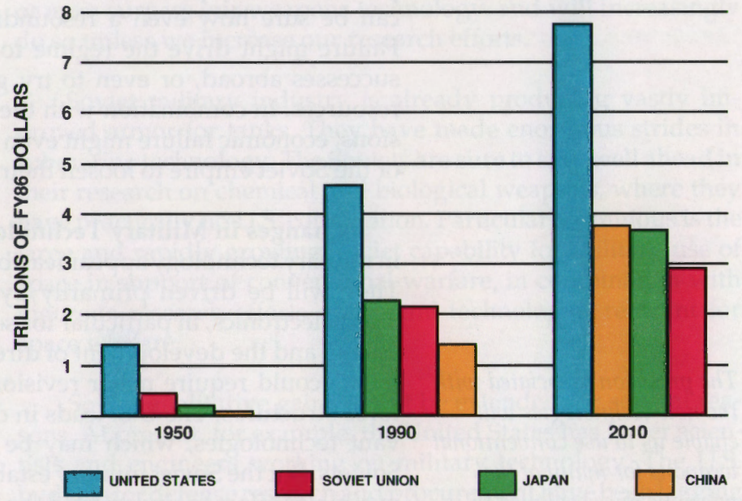
A key question affecting the strategic balance will be whether Japan exercises its option to become a major military power.

The Rise of Japan and China. In some measure, military power reflects economic power. Japan's economy is now the second largest in the world and is apt to continue growing. In the decades ahead, a key question affecting the strategic balance will be whether Japan exercises its option to become a major military power. Even if it does not, it may be influencing the strategic environment simply by its investment decisions. A Japanese decision to help in the development of Soviet technology, for example, could help to increase the Soviet military potential. On the other hand, additional Japanese economic assistance to U.S. allies and friends (e.g., the Philippines, Turkey, Egypt) would benefit our security.

Over the next 20 years, the Chinese economy may well grow faster than those of the United States, Europe, or the Soviet Union. By 2010 China may have the world's second or third largest economy (the Soviet Union is now third). It may well become a superpower, in military terms, though still behind the Soviet Union and the United States. Large uncertainties attach to China's future.

GROSS NATIONAL PRODUCTS OF SELECTED COUNTRIES

By 2010, China and Japan will have the economic capacity to act as major world powers. Unless "restructuring" produces startling new gains, the Soviet Union's share of the world economy will shrink. The GNPs of middle regional powers like India and Korea (not shown) are likely to grow substantially relative to those of Western Europe.



A world with three or four major, global military powers would confront American strategic planners with a far more complicated environment than does the familiar bipolar competition with the Soviet Union. In any such multipolar world, the United States would have to manage relations with several different global powers and form appropriate coalitions with them. Wars might break out between powerful nations not aligned with the United States. Alliances might shift. The next twenty years will be a period of transition to this new world of several major powers.

A world with three or four major, global military powers would confront American strategic planners with a far more complicated environment.

Soviet Economic Difficulties. The U.S.S.R.'s persistent economic difficulties, and the regime's efforts to deal with them via "restructuring," are huge imponderables for U.S. defense planners. Whatever the long-term prospects for Soviet economic growth, progress in the near term is apt to be modest. It is also unclear what, if anything, higher rates of economic growth would imply for Soviet foreign policy. In any event, we cannot base our long-term strategy on uncertain forecasts about a more benign Soviet foreign policy. Change is possible, but it would have to show itself in concrete actions that reduce the dangers to our interests.

What about the possibility that continuing economic weakness might mean a reduced Soviet threat? In the long run, the Soviet leaders would have difficulty maintaining the country's present military position if economic reform fails. Still, nobody can be sure how even a resounding failure would play out. Failure might drive the regime to seek legitimacy in military successes abroad, or even to try gaining control over foreign resources. In combination with the USSR's growing ethnic tensions, economic failure might even trigger efforts by some parts of the Soviet empire to loosen their bonds.

Changes in Military Technology. Dramatic developments in military technology appear feasible over the next twenty years. They will be driven primarily by the further exploitation of microelectronics, in particular for sensors and information processing, and the development of directed energy. These developments could require major revisions in military doctrines and force structures. The U.S. leads in developing many of the relevant technologies, which may be a source of concern to the Soviets. But the Soviet military establishment is already engaged in a major effort to understand the military implications of new technologies, and appears to have concluded that revolutionary changes in the nature of war will result. The much greater precision, range, and destructiveness of weapons could extend war across a much wider geographic area, make war much more rapid and intense, and require entirely new modes of operation. Application of new technologies to both offensive and defensive systems will pose complicated problems for designing forces and assessing enemy capabilities.

The precision associated with the new technologies will enable us to use conventional weapons for many of the missions once assigned to nuclear weapons.

The precision associated with the new technologies will enable us to use conventional weapons for many of the missions once assigned to nuclear weapons. The new technologies will work to strengthen the ability of our ground and air forces to defeat invasions. Particularly important in this connection is the prospective use of "low-observable" (Stealth) technology in combination with extremely accurate weapons and improved means of locating targets. In the years beyond 2000, this combination will provide new ways to stop invading forces at great distances from the front lines.

But high tech is not an American monopoly.

But high tech is not an American monopoly. Since the mid-1960s, Soviet gains in nuclear weapons have gradually deprived us of a strategic edge that served to compensate for the Soviet advantage in conventional forces threatening Western Europe. In light of this revolutionary change it became increasingly important for the Atlantic Alliance to counter the Soviet numerical superiority in tanks, armored personnel carriers, artillery pieces and other equipment with the broad qualitative superiority of its systems. But the Soviet military establishment is striving to match or even surpass our weapons technology, and will increasingly do so unless we increase our research efforts.

The Soviet military establishment is striving to match or even surpass our weapons technology, and will do so unless we increase our research efforts.

Soviet military industry is already producing vastly improved armor for tanks. They have made enormous strides in submarine technology. The Soviets are sure to stay well ahead in their research on chemical and biological weapons, where they have practically no U.S. competition. Particularly ominous is the large and rapidly growing Soviet capability for military use of space in support of conventional warfare, in combination with vigorous research efforts on several technologies relevant for space warfare.

Soviet qualitative gains might be extended for several reasons. At present, for example, the United States has fewer scientists and engineers working on military technology. The U.S. budgets for defense research and procurement have been lagging the Soviet effort and may continue to do so. Western controls on the transfer of technology (the effectiveness of which has varied over time) might again become less effective. And, based on past performance, we can assume that any agreements limiting the testing of military technology would be observed far more rigidly in the United States than in the Soviet Union.

The Worldwide Diffusion of Advanced Weapons. The relationship between the major and minor powers will change by the early 21st century. Today the United States and the Soviet Union can often decisively influence the military postures of smaller states by making weaponry available or denying it. In the years ahead, weapons production will be much more widely diffused, and the superpowers (especially if there are three or four) will have less control over transfers of advanced systems. Many lesser powers will have sizable arsenals. These will often include chemical weapons and short-range or even medium-range missiles. Several large and mid-sized countries that used to be listed among the less-developed countries—India, Brazil, South and North Korea, Egypt—are now building sizable arms industries.

Many lesser powers will have sizable arsenals. These will often include chemical weapons.

The next twenty years could also see the production of atomic bombs in many countries not now possessing them. Because of the spread of nuclear reactors and the technology

associated with nuclear energy, many countries are in possession of fissile material or the means to produce it. This creates a potential for some of the countries, including several that are relatively poor and less industrialized, to build arsenals of a dozen or more atomic bombs. In the next century, forty or more countries in Europe, Asia, the Middle East and elsewhere will have the technical wherewithal to build such arsenals within a few years. Today, fortunately, nearly all countries other than the five avowed nuclear powers hesitate to launch programs for building nuclear weapons. (A few go about it furtively and slowly.) In some regions, increasing arms competition or a prolonged war might undermine this extraordinarily important restraint and might even bring to a shattering end a half-century of non-use of nuclear weapons.

The advanced weapons of the lesser powers will affect the U.S. ability to support its allies around the world.

The arsenals of the lesser powers will make it riskier and more difficult for the superpowers to intervene in regional wars. The U.S. ability to support its allies around the world will increasingly be called into question. Where American intervention seems necessary, it will generally require far more cooperation with Third World countries than has been required in the past. Furthermore, American efforts to influence military outcomes in regional wars will call for use of our most sophisticated weaponry, even though this could compromise its effectiveness in a US-Soviet war.

Deteriorating U.S. Access. One long-term trend unfavorable to the United States concerns our diminishing ability to gain agreement for timely access, including bases and overflight rights, to areas threatened by Soviet aggression. We have found it increasingly difficult, and politically costly, to maintain bases in the Third World. Many of our friends there become vulnerable to nationalist charges that they are surrendering sovereignty by allowing us to use ports, airfields and other territory; even overflight rights for U.S. aircraft have become controversial in some friendly countries. Our current basing agreement with the Philippine government expires in 1991, at which point our stay there becomes subject to a one-year termination notice. The 1979 Panama Canal treaty and its supporting agreements specify that all U.S. bases in the area be closed down by 1999. Both treaties allow for renegotiation, but it is far from certain that we will be able to retain a base support structure in either country. The use of our bases in the Azores may also become more restricted.

We will continue to need bases to deter or defeat agressors at distant points overseas.

The United States will continue to need bases because the need will remain to deter or defeat aggressors at distant points overseas—typically at points much closer to our adversaries than to us. Meanwhile, the Soviet Union, which begins with the

advantage of greater proximity, has enormously strengthened its airlift and sealift capabilities; in addition, it now meets little resistance to its overflights in many parts of the world. Reversing the relationships of the fifties, the Soviets could now put large forces into the Middle East quite rapidly, while the United States cannot do so without more help than we have been getting from our allies there.

The Emergence of New Threats in the Western Hemisphere. The absence of significant security threats close to home has helped free the United States to play a global military role in the years since 1945. This situation might change if more pro-Communist regimes come to power in the hemisphere. If the Sandinista regime consolidates its power in Nicaragua and continues to receive Soviet support, hostile Communist regimes might gradually become established elsewhere in Central America—for example, in El Salvador, Honduras, and Panama. Any such trend could be expected to endanger control of the Panama Canal and threaten the political stability of Mexico. These developments would force the United States to divert far more of its foreign policy resources and defense assets to the Caribbean region, leading to a reduced American role in NATO.

One overriding message in all these imponderables is the need for flexibility in the U.S. defense posture. We will presumably continue to face Soviet challenges at various points on the periphery of the U.S.S.R., but we must also expect a broader range of challenges in the Third World. The demands on U.S. forces may well be growing at a time when budgetary constraints are limiting the size of those forces. The challenge will be to defend our interests in many different places, even while lacking the resources to offer much peacetime support to our allies and friends there. Plainly the Pentagon must give preference to more mobile and versatile forces—forces that can deter aggression by their ability to respond rapidly and discriminately to a wide range of attacks. ◆

II

Third World Conflicts and U.S. Interests

In the past forty years all the wars in which the United States has been involved have occurred in the Third World.

Nearly all the armed conflicts of the past forty years have occurred in what is vaguely referred to as the Third World: the diverse countries of Asia, the Middle East, Africa, Latin America, and the Eastern Caribbean. In the same period, all the wars in which the United States was involved—either directly with its combat forces or indirectly with military assistance—occurred in the Third World. Given future trends in the diffusion of technology and military power, the United States needs a clear understanding of its interests and military role in these regions.

The overarching common feature of our military involvement in the Third World has been rancorous disagreement about the nature of our interests. We have disagreed not only about whether we should be involved (as in Nicaragua), but even about whether we were supporting the right side (as in Mozambique). Our failure in Vietnam still casts a shadow over U.S. intervention anywhere, and other setbacks—notably those we suffered in Lebanon—have left some predisposed to pessimism about our ability to promote U.S. interests in the Third World. Our ability to persevere in such wars is always questionable.

The tools and tactics of American involvement are severely circumscribed. In addition, we are sometimes constrained by the need to "save" forces or advanced technologies for a possible confrontation with the Soviet Union—even though our potential adversaries in the Third World are themselves acquiring increasingly sophisticated weaponry.

Conflicts in the Third World are less threatening than any Soviet-American war would be, yet they can undermine our ability to defend our most vital interests.

These conflicts in the Third World are obviously less threatening than any Soviet-American war would be, yet they have had and will have an adverse cumulative effect on U.S. access to critical regions, on American credibility among allies and friends, and on American self-confidence. If this cumulative effect cannot be checked or reversed in the future, it will gradually undermine America's ability to defend its interests in the most vital regions, such as the Persian Gulf, the Mediterranean and the Western Pacific.

In the coming decades the United States will need to be better prepared to deal with conflicts in the Third World. The preparations will not be expensive. But they require new kinds of planning, since they often call for missions, force structures, and equipment not now available in the U.S. inventory.

U.S. difficulties in dealing with this violence constitute a major reason for its persistence. Our adversaries tell themselves that they often run little risk when they attack U.S. interests or allies in the Third World, especially if the warfare is of low intensity and protracted, and if they use guerrilla forces, paramilitary terrorist organizations, or armed subversives. If we do not improve our ability to counter this lesser violence, we will surely lose the support of many Third World countries that want to believe the United States can protect its friends, not to mention its own interests. Violence in the Third World threatens our interests in a variety of ways. It can imperil a fledgling democracy (as in El Salvador), increase pressures for large-scale migration to the United States (as in Central American wars), jeopardize important U.S. bases (as in the Philippines), threaten vital sea lanes (as in the Persian Gulf), or provide strategic opportunities for the Soviet Union and its proxies.

The Soviet Union and its allies have often backed terrorism and insurgency around the world. They have skillfully exploited pervasive poverty and nationalist resentments in many regions, and their methods of political control provide a useful model for Third World dictatorships seeking to gain and hold power. Still, the Soviets have problems of their own in these regions. It is increasingly well understood that Communist economics offers no passport to development: the contrast between North and South Korea carries a powerful message, and so do the economic disasters of Ethiopia, Angola, Mozambique, and Cambodia. Right now something like 500,000 insurgents have taken up arms against Soviet-supported regimes (which are in the aggregate supported by perhaps 400,000 Soviet, Cuban, and Vietnamese troops).

Right now something like 500,000 insurgents have taken up arms against Soviet-supported regimes.

Many of our problems in the Third World are centered on what is now called "low intensity conflict." The term refers to insurgencies, organized terrorism, paramilitary crime, sabotage, and other forms of violence in a shadow area between peace and open warfare involving large units. To defend its interests properly in the Third World, the United States will have to take low intensity conflict much more seriously. It is a form of warfare in which "the enemy" is more or less omnipresent and unlikely ever to surrender. In the past we have sometimes seen these attacks as a succession of transient and isolated crises. We now have to think of them as a permanent addition to the menu of defense planning problems.

Thinking of low intensity conflict as protracted war should lead us to a number of changes, some fairly obvious. We will have to make sure that our security assistance is targeted on countries that face long-run threats, and we will need to be seen as reliable in providing them with steady amounts of aid over time. In security assistance, as in defense spending generally, consistency over time is often more important than the actual budgetary level.

Low intensity conflict is not a problem just for the Department of Defense.

We also need to think of low intensity conflict as a form of warfare that is not a problem just for the Department of Defense. In many situations, the United States will need not just DoD personnel and materiel, but diplomats and information specialists, agricultural chemists, bankers and economists, hydrologists, criminologists, meteorologists, and scores of other professionals.

Because so many Americans are predisposed to pessimism about our role in the Third World, it is worth pointing to one recent example of a U.S. intervention that, against high odds, did very well: the saving of democracy in El Salvador. In 1980 it seemed quite possible that the country would fall to guerrillas supported from Nicaragua by the Sandinistas and Cubans. Many Americans assumed that the government would soon be toppled by the Communist insurgents. Congress severely limited the security assistance our government could make available to it. And yet by 1985 there was a democratic government in place in El Salvador, and Congress became committed to supporting it.

The transformation in large measure reflects ideas that are applicable elsewhere. American technology gave the Salvadoran government a new tactical intelligence capability, which became a prod to action for the military (while also giving it constant feedback on the effectiveness of its operations). The war also became a model of sorts for cooperative efforts: under American leadership, other Latin American countries proved willing to offer military training and some economic aid of their own to El Salvador. Our security assistance program helped the Salvadoran military to acquire weapons systems that made possible more discriminate attacks on enemy troops and reduced civilian casualties. We also did a lot for the morale of our allies by introducing medical programs that drastically reduced death rates among wounded Salvadoran troops (from around 45% to around 5%). The long-term outcome in this nation, of course, still depends on developments in Central America.

The strategic concepts laid out here to deal with low intensity conflict could be funded with about 4 percent of the defense budget, requiring annual outlays of perhaps $12 billion. This amount could be provided under current Defense Department budget levels without significantly impairing our ability to prosecute higher-intensity wars. Indeed, in the long run, any such shift in emphasis would enhance our situation relative to that of the Soviet Union.

Full funding of our proposals for dealing with low intensity conflict need not significantly impair our ability to prosecute higher intensity wars.

Third World conflicts in the future will call for many different responses by the United States, but it is possible to specify some guidelines for U.S. strategy. We see a strategy built on six basic propositions:

❶ **U.S. forces will not in general be combatants.** A combat role for U.S. armed forces in Third World conflicts has to be viewed as an exceptional event. Some exceptions will doubtless occur, as in 1983 in Grenada and 1986 in Libya, and it would be self-defeating for the United States to declare a "no use" doctrine for its forces in the Third World. But our forces' principal role there will be to augment U.S. security assistance programs. Mainly that means providing military training, technical training and intelligence and logistical support.

❷ **The United States should support anti-Communist insurgencies.** In carefully selected situations, where important U.S. objectives would be served and U.S. support might favorably affect outcomes, the United States should help anti-Communist insurgencies, especially those against regimes threatening their neighbors.

Supporting such rebels is usually difficult and demanding. Many of those we support will be ill-trained, unlike their Soviet supported enemies, and will be primitive in their strategies, inept in their tactics and logistics. They will badly need help with intelligence and strategy, and with tactics, communications, intelligence operations and routine field operations.

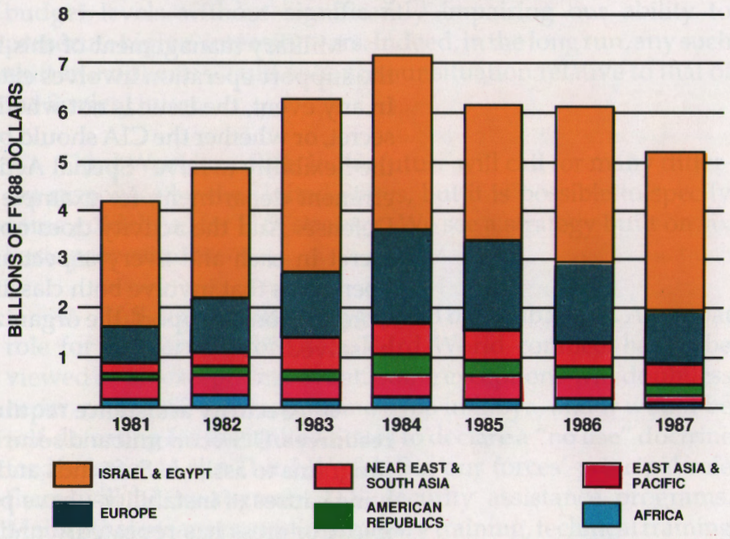
If the U.S. support for these insurgents is a large and continuing effort, it is bound to be referred to in the press. Nevertheless, neighboring countries that provide access to or bases for the freedom fighters often prefer that the U.S. Government role not be officially acknowleged. By designating the U.S. support as a "Special Activity" (also known as a "covert action"), the U.S. Government can maintain official silence. The laws governing "Special Activities" provide for a great deal of flexibility. They make it possible to assign the task of supporting the insurgents to a military command, under cognizance of the commander-in-chief of the U.S. combatant command in whose region the insurgency is located.

Military management of this kind may have advantages if the support operation involves extensive training and supplies. In any event, the issue is not whether the operation can be kept secret, or whether the CIA should be involved. The President has the flexibility to have "Special Activities" managed by any government department, for example the Departments of State or Defense. And the activity does not necessarily have to be kept secret in each and every aspect any more than other military operations that involve both classified and open matters. Given Congressional support, the organizational problems can readily be solved.

❸ **Security assistance requires new legislation and more resources.** U.S. economic and security assistance—the foreign aid programs to assist U.S. friends and allies in reducing the underlying causes of instability—have proven inadequate and inflexible. Congress has repeatedly underfunded Administration requests, and has earmarked as much as 86 percent of military assistance for five countries. For example, out of the 1987 budget of five billion dollars for worldwide security assistance, Congress reserved 62 percent for Egypt and Israel, 17 percent for Greece and Turkey and 6 percent for Pakistan. With an obvious need to provide funds for El Salvador, Honduras and the Philippines, the Administration had less than 10 percent for the rest of the world. And even here, Congress circumscribed the President's flexibility to deal with conflicts that threaten U.S. interests.

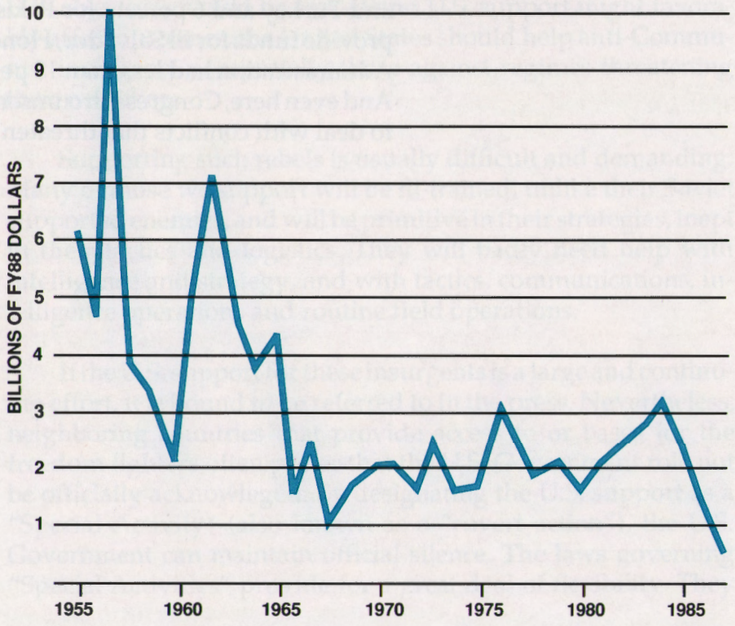
WHERE THE MILITARY AID GOES

More than half of security assistance funding has been earmarked by Congress for Israel and Egypt, and much of the remainder for Europe.



SECURITY ASSISTANCE FUNDS NOT EARMARKED BY CONGRESS

Non-earmarked funds are the true measure of flexibility to use security assistance to promote U.S. interests in the Third World. They have been dropping and fluctuate sharply from year to year, undercutting efficient use of these funds by recipients.

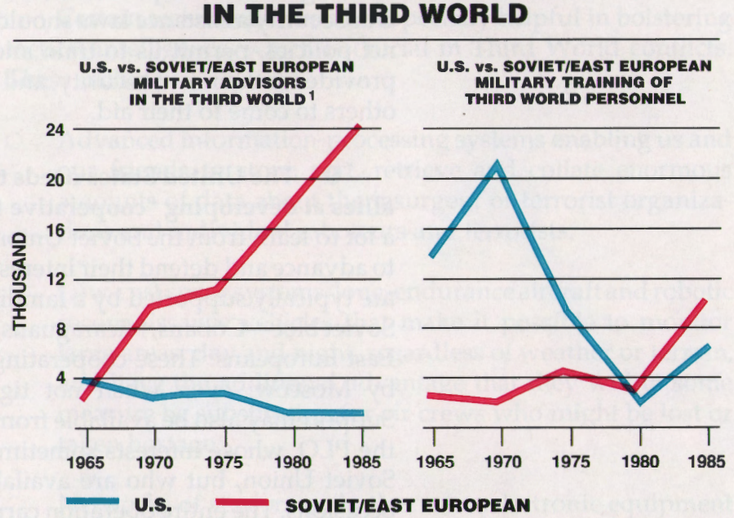


Ordinarily the most effective kind of military assistance we can offer is training. Our training missions are critically dependent on the quality of the people we station abroad. We know from experience that a few well chosen, well educated military professionals can transform the security establishment of a friendly country. But current law reflects a desire by Congress to limit the duties of these professionals to the task of auditing U.S. aid, and to index their numbers to the dollar volume of aid. These provisions represent a self-inflicted strategic wound. They discourage competent men and women from seeking such assignments and severely handicap our Ambassadors and regional Commanders-in-Chief.

The number of U.S. military officers in friendly Third World countries has declined severely. Today the Soviet Union has far more military advisers in the Third World than we do. Even in Latin America, the number of Soviet military advisers exceeds ours by far. We also fall short in another important form of security assistance: training of foreign military in U.S. service schools. The Soviet Union has a much larger program than the United States, and as a result we are losing valuable links to the new generation of military officers in many Third World countries.

THE GROWING SOVIET ROLE IN THE THIRD WORLD

The U.S.S.R. now has over thirty times as many military advisors in the Third World as the United States. We now train about one-third as many Third World people per year as in 1970. The Soviets passed us in 1980 and now train almost twice as many people as we.



[1] SOVIET/EAST EUROPEAN FIGURES DO NOT INCLUDE 118,000 TROOPS CURRENTLY IN AFGHANISTAN, THE 2,800 MEMBERS OF THE SOVIET BRIGADE IN CUBA, THE 2,100 SIGNALS INTELLIGENCE PERSONNEL IN CUBA, AND SOVIET PERSONNEL AT CAM RANH BAY, ADEN, AND DEHALAK DOING PURELY SOVIET TASKS. U.S. FIGURES DO NOT INCLUDE TROOPS THAT WERE STATIONED IN VIETNAM.

Moreover, Congress prohibits the training of officers from countries that have not brought their nuclear technology programs under international control. The law thus works to isolate military officers in those countries, leaving them less accessible to our arguments and perhaps more inclined to pursue a nuclear weapons program. In short, the legislation achieves the opposite of what Congress intended.

Legislation from the post-Vietnam era unwisely continues to bar U.S. training for police forces. The legislation forced U.S. combat forces to remain in Grenada long after their role was completed. We had to plead with the Canadian, British, and other governments to help in training a small police force for Grenada.

Most U.S. aid money buys materiel. While some U.S. high technology equipment is entirely appropriate for low-intensity conficts, a great deal of our standard materiel is altogether too complex and expensive for our Third World friends and allies. To fill their requirements, the United States may have to revive obsolete systems, to support or enhance foreign-manufactured systems, or to develop equipment designed expressly for such purposes.

Security assistance for the Third World is not yet well understood by the American public, and therefore has no constituency in Congress. Yet improvement requires Congressional action. Our security assistance laws should underwrite sensible personnel policies, permit us to train and equip friends and allies to provide for their own security, and also to provide incentives for others to come to their aid.

❹ **The United States needs to work with its Third World allies at developing "cooperative forces."** Regrettably, we have a lot to learn from the Soviet Union in this regard. Soviet efforts to advance and defend their interests in less developed countries are typically supported by a familiar cast of characters from the Soviet bloc—Cubans, Nicaraguans, Vietnamese, North Koreans, East Europeans. These cooperating forces are led and financed by Moscow, even when not tightly controlled from there. Support may also be available from quasi-allies such as Libya or the PLO, whose interests sometimes diverge from those of the Soviet Union, but who are available for heavy duty on other occasions. The entire operation carries enormous advantages for the Soviet Union, both in minimizing its own risks of confrontation with the West and in making available troops that blend readily into the environment.

In this area, the United States has some large competitive disadvantages. Because they are dictatorships, Soviet client states can secretly order aid missions and military units abroad and disguise their missions there. The United States and its friends and allies cannot ordinarily move troops around so cavalierly.

Still, some allies have substantial reasons for joining in a cooperative-forces program. They can point to our mutual interests in open societies and in containing or reversing Soviet gains in the Third World. They will expect to improve their own military capabilities, and perhaps their regional political and economic influence, in the process. We could hope to develop some mobile forces available for duty in particular regions, or even outside them—somewhat on the model of the Republic of Korea troops or the Philippine Task Force that helped the United States in Vietnam.

❺ **In the Third World, no less than in developed countries, U.S. strategy should seek to maximize our technological advantages.** In some cases, technologies developed for fighting the Soviets will be enormously useful. Here too we will want to use smart missiles that can apply force in a discriminate fashion and avoid collateral damage to civilians. Advanced technologies for training will also offer us more effective ways to help friends cope with terrorism and insurgency.

Certain technologies can be especially helpful in bolstering tactical intelligence, which is crucial in Third World conflicts. These include:

- Advanced information-processing systems enabling us and our friends to store, sort, retrieve and collate enormous amounts of data about the insurgent or terrorist organizations and individual saboteurs and terrorists;

- Low-cost space systems, long-endurance aircraft and robotic reconnaissance vehicles that make it possible to monitor large areas, day and night, regardless of weather or terrain, and have the additional advantage that they will in some measure be substituting for air crews who might be lost or taken hostage;

- Networks of sensors and other microelectronic equipment that will help in monitoring the movements of enemy forces;

- Bio- and micro-mechanical sensors with vastly expanded capabilities for detecting explosives (and also narcotics);
- Vivid digital graphics of dangerous areas (or areas denied to U.S. advisers) to permit reconnaisance, rehearsal of plans, and training for specific operations.

High tech is not always the answer. Some Air Force transports and Army helicopters are far too big, expensive and complex for many allies. Providing canned field rations and a means of manufacturing boot soles may be more important to the mobility of a Third World army than advanced aircraft.

❻ **The United States must develop alternatives to overseas bases.** In some contexts, to be sure, bases will continue to be critically important—especially when our problem is to defend against possible Soviet aggression. But we should not ordinarily be dependent on bases in defending our interests in the Third World. We have found it increasingly difficult, and politically costly, to maintain bases there.

Here again our technology can help us. Low-cost satellites in space can in some measure replace the communication and intelligence-gathering functions of overseas bases. We can build very long-endurance aircraft for surveillance, manned or unmanned. We also have some impressive naval options. Located in international waters, or in an ally's territorial waters but still out of view, our operations can be far more secure than those on land bases. Among the approaches studied, one of the most interesting is the use of standard merchant container ships to support specially configured units, with the containers carrying all military equipment needed. ◆

III Wars on the Soviet Periphery

The conventional forces of the Soviet Union, like its nuclear forces, represent awesome power. Nowhere on the periphery of the country today is it credibly threatened by invasion. At several points around the periphery, the U.S.S.R. and its satellites could plausibly expect to win conventional wars and occupy other countries' territory. The prospects of its neighbors in any such wars would vary with their prior defense efforts, with their alliance ties (especially to the United States), and with geographical differences.

Soviet neighbors in the Far East are in some ways best off. Japan is favored by geography (and also helped by the relative modesty of Soviet amphibious-warfare capabilities). The Republic of Korea is strongly defended, and its ability to resist conventional attacks from North Korea should increase; but the defense of South Korea will have to be achieved under the shadow of possible Soviet intervention. U.S. assistance will continue to be required to deter such outside intervention in support of a North Korean attack.

At other points on the periphery, the conventional balance will continue to favor Soviet forces. They would be favored in an attack on Northern China, say, or one limited to the Nordic areas of Europe. A broad attack on Western Europe would be more problematical, but there too the balance of conventional forces favors the Soviet Union. It would be more in the Soviets' favor if they attacked in the Persian Gulf area.

It is sometimes assumed that the Soviet Union would never attack in the Gulf region alone without involving Europe. The assumption is unwarranted.

It is sometimes assumed that the Soviet Union would never attack in the Gulf region alone—that any such attack would surely be part of a larger assault on Europe, or that it would inevitably spread there. The assumption is unwarranted. The turbulence of the region, the importance of its oil to Western countries for the foreseeable future, the severe limitations of countervailing force in the region—all these factors combine to make it plausible that Soviet leaders might seize an opportunity to intervene—for example, by taking advantage of an "invitation" to support a new revolutionary regime. Success would confer a major economic and geostrategic advantage on the Soviet Union and deal a possibly decisive blow to the unity of the

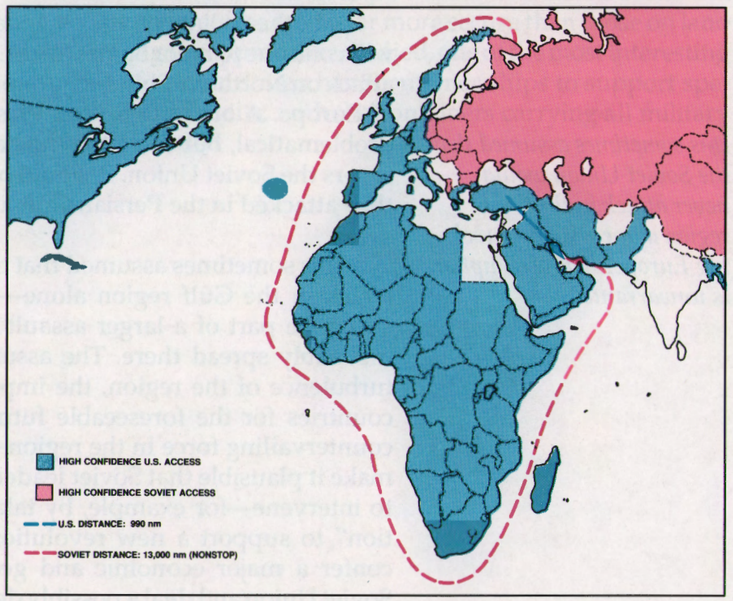
Western alliances. History and common sense both suggest that if indeed they attacked, the Soviets would try to limit the war to one or a few of the Gulf states, where their strategic advantages are greatest. The Soviets have not in the past attacked all their objectives at the same time; in 1939 they attacked Poland, then occupied the Baltic States, then attacked Finland; and Stalin ended the Berlin blockade before the Soviet-supported attack by North Korea on South Korea.

The West's ability to counter threats to the Gulf area has declined substantially since the 1950s, even as the area's strategic importance has grown. Thirty years ago, the United States and Britain could respond to a crisis there with overwhelming power. A broad Alliance consensus, combined with our superior airlift and access to bases in the region and along the way, would have enabled us to move in our forces (mostly from Europe) well before the arrival of Soviet forces. Their airlift capabilities then were relatively primitive, and their aircraft were routinely denied the right to fly over Iran and other countries in the region.

In a crisis today, the situation would be quite different. The Soviets have invested heavily in an infrastructure enabling them

TRENDS IN U.S. AND SOVIET ACCESS TO AIRFIELDS OR AIR SPACE—MID 1950s

In the mid-1950s, the United States had base access and overflight rights that allowed it to send forces quickly from Europe to the Persian Gulf or other nearby areas, while Soviet airlift to the Near East or South Asia was not feasible.

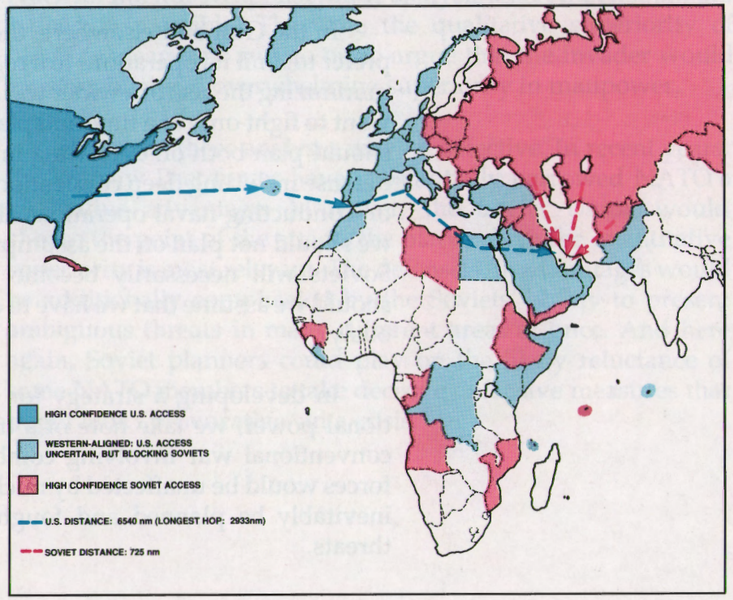


to move forces around within their country. Their airlift is far more capable than in the past; today, furthermore, most countries in the region are unlikely to challenge Soviet overflights. If they stay in Afghanistan, Soviet forces will in any case be much closer to the Gulf. Meanwhile, the available Alliance forces are much farther away: they would be coming from North America and require refueling and staging along the way. And some of the bases most useful in any such operations (in Spain and the Azores) might again be jeopardized by controversies over U.S. access.

Not all the trends are unfavorable. In the past seven years, U.S. airlift and sealift capabilities have increased by roughly 50 percent. There are ways for us to build on this improvement and increase our ability to defend the Gulf. However the defense will depend critically on our having substantial air power in the region. Having bases close to the Gulf will increase our ability to concentrate tactical air forces in addition to those which could be provided from our aircraft carriers. American air power would in fact present a formidable threat to the Soviet troops invading a Gulf state, who would necessarily be massed at various points in Iran, Afghanistan, or their bases in the Trans-Caucusus.

TRENDS IN U.S. AND SOVIET ACCESS TO AIRFIELDS OR AIR SPACE—1987

Today, access to airfields and airspace has changed dramatically. The United States must use intercontinental airlift to send ground forces to the Gulf, but enroute staging is uncertain. The Soviet Union can airlift forces quickly from nearby, without staging or refueling. Even U.S. allies such as Turkey have on occasion allowed the Soviet Union to transit their airspace when resupplying client states in a crisis.



Present strategy recognizes the potential of our air power but requires us to depend on an uncertain prospect: that if an attack seemed imminent, we could then get the needed bases. But hints of an attack, and the intimidating crisis atmosphere presumably accompanying them, could make our allies more reluctant than ever to call us in. Our major problem, then, is that, except for carrier-based aircraft and long-range land-based aircraft, we have no assured timely access for our air power. The challenge is to get some.

Turkey, a NATO member, adjoins the major Soviet military area threatening the region. Building up Turkey's defense capabilities, particularly those for air defense, would cast a strong shadow over any Soviet planning for operations in the Gulf region. The other NATO allies, by clearly demonstrating an ability and resolve to resist a Soviet attack on Turkey, can further intensify this Soviet dilemma.

The threat we will face in the region is that the Soviet Union will be able to put enormous forces on the ground rapidly, before we have a chance to block them.

In addition, we should continue to encourage other friends there—Saudi Arabia, for example—to help improve U.S. access and make bases available in an emergency for the only power that can defend them. Considerable progress has been made along these lines in recent years, but more is needed. The threat we will face in the region is that the Soviet Union will be able to put enormous forces on the ground rapidly, before we have a chance to block them.

In the Gulf and elsewhere, the Soviet Union will generally prefer to limit its operations to a region in which it can win while minimizing the risk of a wider war. The United States should not want to fight only at a time and place selected by the enemy. We should plan both on defending in the region attacked,with the defense including deep conventional air and missile strikes, and on conducting naval operations elsewhere. On the other hand, we should not plan on the assumption that any conflict with the Soviets will necessarily become worldwide or nuclear. Nor should we assume that we have to defend everything simultaneously.

In developing a strategy for dealing with Soviet conventional power, we take note of a truism: in the nuclear age, no conventional war involving combat between U.S. and Soviet forces would be unaffected by nuclear weapons. The war would inevitably be planned and fought in the shadow of nuclear threats.

Strategies for conventional war in Europe return repeatedly to this theme. The U.S. and its allies have frequently stated that their forces in Europe are not equipped to sustain themselves in combat beyond a certain number of days, and that they would then have to turn to nuclear weapons.

However, a fateful ambiguity enshrouds this declaration. Sometimes it has seemed as though NATO plans to use battlefield or even theater-wide nuclear weapons for their direct effect in repelling the Soviet invasion. At other times, NATO officials posit a different strategy—that what NATO really intends in threatening to use nuclear weapons is to point up the perils of escalation and, in effect, concentrate the minds of Soviet leaders on the apocalypse at the end of that road.

If the latter is really the Alliance's message,would it remain credible? Can NATO rely on threats of escalation that would ensure its own destruction (along with that of the Soviet Union) if implemented? These disturbing questions, which are scarcely new, have again been raised squarely in recent European debates, many of them triggered by the negotiations to eliminate intermediate nuclear forces from the continent. NATO plainly needs a coherent strategy that will be viable for the long haul.

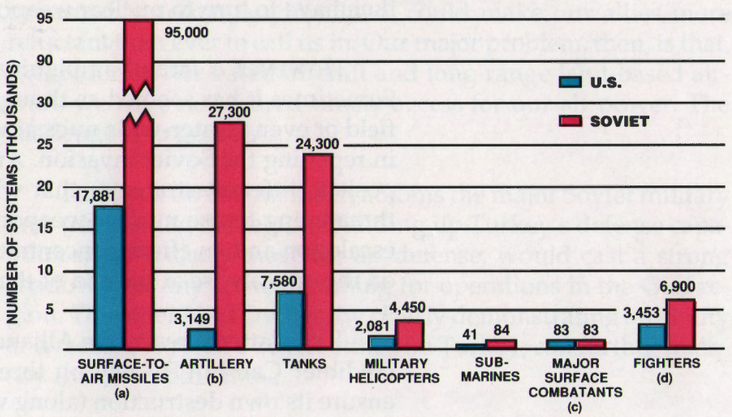
Can NATO rely on threats of escalation that would ensure its own destruction if implemented?

What about the possibility that the Alliance could defeat the Soviet Army, or at least fight it to a standstill, without having to reach for nuclear weapons? Many analysts assert that this should indeed be possible. They cite the qualitative superiority of NATO's weaponry and go on to argue that the invader would presumably need overwhelming superiority in manpower.

However, these analyses may be defective. In recent years, the Warsaw Pact forces have substantially narrowed NATO's qualitative advantage. Moreover, the Soviet Union would choose the point of the attack, the place where the quantitative superiority is most relevant. The defense's disadvantages would be additionally complicated by the Soviets' ability to present ambiguous threats in many different areas at once. And here again, Soviet planners could play on the likely reluctance of some NATO members to take decisive defensive measures that might look "provocative" in a crisis.

The Soviet Union produces significantly more weapon systems than the United States. During the past decade, it has turned out almost nine times as many artillery pieces, five times as many SAMs, over three times the number of tanks, and twice as many fighters, helicopters and submarines as we.

U.S. vs. SOVIET PROCUREMENT OF MAJOR WEAPONS SYSTEMS 1978 – 1987 (e)



NOTES:
(a) Includes Naval Surface-to-Air Missiles, Excludes Hand-Held Surface-to-Air Missiles
(b) Field Artillery, MLRS, and Mortars (all over 99 mm)
(c) Excludes Auxiliaries
(d) Excludes ASW and Combat-Capable Trainers
(e) 1987 Estimated

The Pact is now well positioned to launch a surprise attack, and in the coming decade it could enhance this capability. Its forces are arrayed so that they do not need a great deal of final preparation or reinforcement from the Soviet Union. Speed is emphasized in Pact combat training. The attackers would be aiming for a blitzkrieg, expecting to break through forward defenses quite rapidly and destroy much of NATO's nuclear force before it could be used. A number of analyses suggest that the Pact's forces could move deep into Western Europe within ten days or so, before many, or perhaps any, U.S. troop reinforcements were on the continent.

To be sure, there would be several disadvantages to the Soviets in a surprise attack organized along these lines. In particular, it requires them to depend heavily on East European forces. This dependence should work to deter Moscow, and the deterrent effect could be enhanced if NATO took more advantage of the fact that most of Eastern Europe would be an unwilling accomplice in any Warsaw Pact attack.

So the Soviets might mobilize before an invasion and rely much more heavily on their own forces, even if this meant that the attack lost an element of surprise. In that case, a critical

question would be whether the Alliance took advantage of the warning signals, which would doubtless be ambiguous—or declined to react promptly for fear of exacerbating the crisis.

Significant improvements have been made in recent years in U.S. capabilities for conventional defense in Europe.

Significant improvements have been made in recent years in U.S. capabilities for conventional defense in Europe. The most important of these have been the higher readiness and improved morale of military personnel. In addition, we have strengthened command and control systems and introduced some advanced munitions. Other equipment has been upgraded significantly—for example, the introduction of 4000 M-1 tanks, 1000 new helicopters (AH-64 and UH-60), and 1200 new F-16 fighters. For the future, the strengthening of a non-nuclear defense of Europe should be centered on the vigorous procurement of advanced conventional weapons and advanced technology for training. NATO must move again to reassert the technological superiority that has always been a major "comparative advantage" of the Western powers.

The Alliance's posture could be transformed by new military technologies. Among the most important: those distributed, advanced processors promising new effectiveness for command and intelligence functions, those involved in accurate stand-off weapons, in new target acquisition systems for these weapons, in "low-observables" (Stealth) systems for aircraft and other vehicles, and for improved ballistic missile and air defenses. The number of advanced stand-off weapons required if they are to have a decisive effect on a full scale engagement between NATO and the Warsaw Pact would be substantially greater than those we now plan to acquire; they would, however, replace many of the hundreds of thousands of "dumb" bombs that would be required in their absence. Smaller numbers could be highly effective in more restricted engagements, particularly on NATO's flanks or other regions on the periphery of the Soviet Union, where the density of targets would be far lower than in NATO's central region. These advanced weapons do not come cheaply; still, their cost would remain only a small fraction of current Alliance spending—small enough so that their acquisition could be accomplished by reallocating funds among NATO's programs, if necessary.

The advanced weaponry would help NATO implement its plans for the so-called Follow-on Forces Attack (FOFA), a doctrine formally embraced by the Alliance in 1984. The central idea of FOFA is that a purely static and shallow defense has no hope of repelling an invasion—that the Alliance must instantly launch

air strikes against the enemy's follow-on forces in the rear. But air strikes would not be enough. A credible conventional defense must also include plans for NATO ground forces to mount counter-offensives across the NATO-Warsaw Pact border (which would, of course, have been violated by the Pact's invasion). Even more important, Alliance preparations for war should include specific plans to exploit Eastern Europe's potential disaffection from the Soviet Union.

The Alliance will still need an ability to use nuclear weapons effectively and discriminately.

Even if NATO makes dramatic improvements in its conventional defenses, the Alliance will still want nuclear weapons (including weapons based in Europe) for at least two reasons. First, because nuclear weapons discourage the massing of forces in any attack. Second, because NATO's ability to respond with controlled and effective nuclear strikes would minimize the Soviets' temptations to use such weapons in discriminate attacks of their own on key elements of the Alliance's conventional capability.

However, there should be less ambiguity about the nature of this deterrent. The Alliance should threaten to use nuclear weapons not as a link to a wider and more devastating war—although the risk of further escalation would still be there—but mainly as an instrument for denying success to the invading Soviet forces. The nuclear weapons would be used discriminately in, for example, attacks on Soviet command centers or troop concentrations. The Alliance's nuclear posture, like its posture for conventional war, will gain in deterrent power from new technologies emphasizing precision and control.

The Alliance's nuclear posture, like its posture for conventional war, will gain in deterrent power from new technologies emphasizing precision and control.

There would be powerful incentives for Soviet planners to make sure that any nuclear attack on NATO forces was selective and discriminate. An attack of this kind would seek to exploit the fact that NATO forces, unlike the Soviet forces, are not prepared to fight a combined nuclear-conventional war. In particular, the Alliance is dependent on a small number of air bases and its vulnerable command system.

Although Soviet military power in East Asia is less formidable than in the Gulf region or Europe, it has been growing and, in combination with North Korean forces, poses a threat to South Korea. The threat is also of deep concern to Japan and other countries. The growing Soviet military presence in South Vietnam, together with uncertainty about the future of the U.S. bases in the Philippines, raises the possibility of a major strategic shift in Southeast Asia.

The U.S. force presence in this region is an important deterrent against attack; it contributes to discouraging Soviet aggression in other regions; and it has the virtue of not being highly costly. The bulk of our strength is in flexible naval forces, usable in any theater. As in the case of forces for Europe, these will benefit from the addition of smart, standoff weapons based on new technology. While the numbers required for possible wars in Asia would be less than those in Europe, an extended reach for these weapons would be even more critical in Asian contingencies.

The ability of the Japanese and South Korean forces to contribute to a conventional defense is steadily improving, and they complement U.S. forces in important ways. Japan's air defenses and ability to control the straits through which the Soviet Pacific fleet must move could bolster our ability to deal with a wide range of contingencies in the Pacific. And improving Japanese air defenses, increasingly coordinated with our naval force operations, enhance the effectiveness of those forces. ◆

IV

The Extreme Threats

United States defense planning has long been dominated by two extreme contingencies. The first is a massive conventional attack against NATO by the Warsaw Pact, directed primarily at taking over Western Europe. The second, even more apocalyptic, is an unrestrained Soviet nuclear attack on US strategic forces and other military targets in the West, many of which are located in or near cities. The first contingency leaves essentially no ally the chance to opt out, the second leaves the United States no incentive to exercise restraint.

Many NATO officials see a crucial connection between the two extreme contingencies. In the event of a conventional attack by the Warsaw Pact, they envisage an Allied conventional defense backed by the threat to use nuclear weapons. While the outcome of the conventional campaigns would of course affect the terms for ending the war, these officials do not expect these campaigns to be decisive in halting a Soviet attack. What they ultimately count on to stop the invasion, and make possible a peace on terms acceptable to the Alliance, is Soviet fear of an ever-widening nuclear war. They see the prospect of a "nuclear exchange"—one that would destroy both the Soviet Union and the United States—as NATO's ultimate leverage in defending against conventional attack. In the last analysis, then, the deterrent against the massive conventional attack is the same as the deterrent against the all-out nuclear attack.

An excessive focus on extreme contingencies diverts defense planners from more plausible situations in which threats of nuclear annihilation would not be credible.

A strategy that depends on this "nuclear exchange" has serious limitations. At best, it is useful only in dealing with those extreme contingencies. An excessive focus on these contingencies diverts defense planners from trying to deal with many important and far more plausible situations in which threats of nuclear annihilation would not be credible.

Apocalyptic showdowns between the United States and the Soviet Union are certainly conceivable in the nuclear age, but they are much less probable than other forms of conflict. Even when Soviet forces move into other countries, Soviet leaders are likely to indicate that their objectives are limited. They will try to behave in ways that give the West a stake in restraint and prudence. Over

the last forty years, the Soviet regime has shown no signs of gravitating toward all-or-nothing gambles, much preferring instead to make gains by successive, incremental advances, below the threshold at which nuclear war would be a possibility.

Over the last 40 years, the Soviet regime has shown no signs of gravitating toward all-or-nothing gambles.

To be sure, some situations remain untested. Soviet aggression has not yet led to combat between Soviet and American forces. We cannot be sure what would happen in any such conflict, say, one triggered by a Soviet invasion of the Persian Gulf region. The outcome of the invasion would probably be determined by air, land, and sea battles, while the nuclear threat would remain in the background, functioning as a distant monitor and reminder to both sides of the need for restraint.

The Alliance must obviously plan for the extreme contingencies. But excessive emphasis on them can leave us unprepared for other and more likely kinds of aggression. The massive, worldwide, conventional attack by the Soviet Union is frequently characterized as a "worst case" scenario, and many assume that if we can defend against such attacks then surely we can also handle the "lesser included cases." But such reasoning misleads us. A geographically limited attack could exploit advantages that the Soviets gain from their internal lines of communication; they could bear down on one or more weakly defended U.S. allies while providing incentives to opt out for those not attacked. The attack would not look like a lesser case, but like a quite different case, in some ways much more difficult to deal with.

An emphasis on massive Soviet attacks leads to tunnel vision among defense planners. Assuming that any attack would rapidly become worldwide and necessarily involve most of our allies, planners have neglected the problem of Alliance disunity in a selective attack (the opting-out problem). They have not given enough thought to our prospects for exploiting tension within the Soviet empire (and giving the East Europeans some reasons to think about opting out). They have overemphasized war on Europe's central front, where the threat to use nuclear weapons might be more credible, and neglected planning for the possibility of Soviet assaults on the flanks, in Norway or Turkey.

Because they are so ingrained in the traditional thinking about defense, the extreme contingencies also warp decisions at a deeper level. They provide an inadequate conceptual framework for the Pentagon's decisions on defense priorities, requirements for weapons systems, or arms control criteria.

The dominant role of the extreme contingencies became especially perverse when they were packaged together in public debates with certain other ideas about nuclear deterrence. These ideas became influential in the West by the end of the 1960s. The core idea: that nuclear forces of the United States and the Soviet Union could be locked into a relationship of "stability" in which "mutual deterrence" made any war between the two sides quite impossible. There could be no war because war would inevitably lead to the use of nuclear weapons, which would mean the destruction of the two sides, which meant in turn that neither side would ever start a war. Nuclear weapons were inherently unusable.

If deterrence really depended on mutual vulnerability, then NATO's foundation idea—that an attack on one is an attack on all—would be overboard.

This doctrine presents large difficulties. If deterrence really depended on mutual vulnerability, then NATO's foundation idea—that an attack on one is an attack on all—would be overboard. In the long run, the doctrine could not even deter selective attacks on the United States. It would be seen as a bluff, and the bluff would be called.

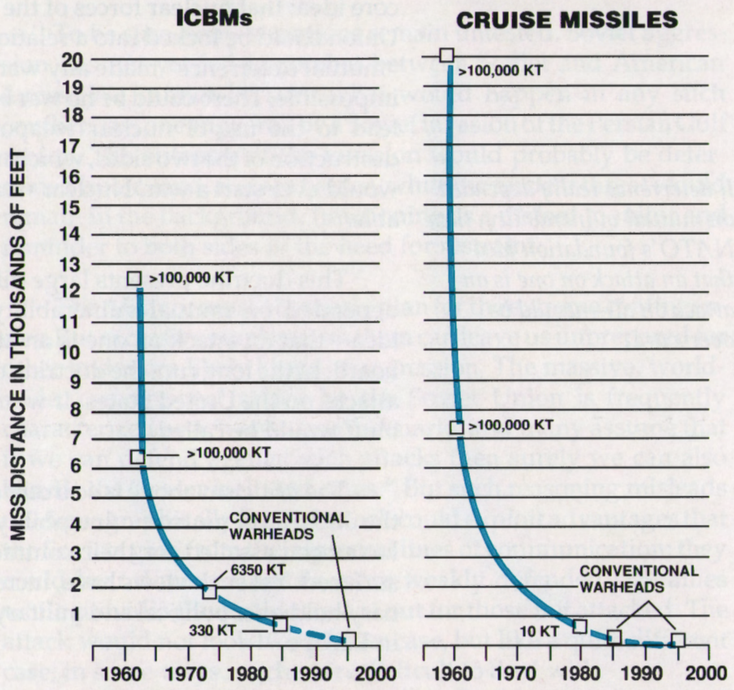
The criticism above is scarcely original. Extreme versions of the doctrine of mutual vulnerability as a guarantor of "stability" have been assailed for their contradictions ever since they first surfaced. Yet such views have, incredibly, retained an extraordinary hold over political and military elites in the West, especially in Europe.

We have argued here that the most extreme threats are also the least likely. It is obviously essential to keep them that way—to continue the inverse relationship between the intensity and the probability of the threats. However, this relationship is not a law of nature: it depends on things we do, or fail to do. If we slide into postures leaving us weak at higher levels of warfare—or leaving us with no higher-level response that leaders of democratic countries could reasonably make in a crisis—then our adversary will be encouraged to raise the level of violence, or to threaten to do so. Threats against us of mass destruction would look much more plausible.

What should the United States do to minimize the likelihood that the more extreme case—the all-out nuclear attack—will come to seem more probable? The answer is reasonably clear. Deterrence against any such attack requires the assured survival not only of powerful retaliatory forces, but also of the command and communications system that controls them. We must

GAINS IN ACCURACY BOLSTER THE CASE FOR DISCRIMINATION

Technology has improved missile accuracy dramatically. As accuracy improves, the nuclear yield needed to destroy hardened military targets also drops dramatically, to the point where conventional warheads could do the job with some of today's cruise missiles and—in the next decade—with some ICBMs. This means that fewer weapons are needed to attack military targets, and collateral damage to civil society can be held to very low levels or totally avoided.



☐ INDICATES YIELD NEEDED FOR 90% PROBABILITY OF DESTROYING A 1000 psi POINT TARGET WITH ACCURACY SHOWN

continue to ensure that Soviet leaders will never think they could launch a surprise nuclear attack of such effectiveness that it would prevent even a "dying sting" by a mortally wounded United States. For the U.S. retaliatory response to such a Soviet attack, our surviving forces need not be capable of destroying the entire range of military targets in the Soviet Union. If our civil society were destroyed, it would not matter much whether Soviet military targets were destroyed promptly or comprehensively.

To deter more plausible Soviet nuclear attacks, however, we also need survivable forces that could respond with discriminating attacks against military targets. The Soviet military has made clear its enormous interest in the new technologies of guidance and precision, and will have the capability to destroy military targets in the United States with low-yield nuclear weapons. We plainly cannot be caught without a similar capability.

V

If our civil society were destroyed, it would not matter much whether Soviet military targets were destroyed promptly or comprehensively.

In addition, we should continue moving toward a posture that includes defenses against ballistic and cruise missiles. Too much of the national debate about the Strategic Defense Initiative centers on the degree of perfection attainable in a system finally deployed. Even partial ballistic missile defenses can reduce an attacker's confidence in the success of his missile attack on our command centers and military forces. Relatively thin defenses may be effective against missile attacks by minor powers, many of which may have nuclear weapons in the years ahead. Such defenses might also help to forestall catastrophe in the event of an accidental missile launch, since retaliatory threats will not work against accidents. We should recognize that a limited initial deployment of ballistic missile defenses can be of value for several important contingencies, and we should pursue research and development aimed at such initial capabilities.

To deter the more plausible Soviet attacks, we must be able not only to respond discriminately, but must also have some prospects of keeping any such war within bounds—of ensuring that it does not rapidly deteriorate into an apocalypse. The revolution in micro-electronics (and photonics), along with advances in certain space technologies, have multiplied the modes of telecommunications available to command centers and generally made survivable command and control much more achievable. They have made possible the creation of a command system based on multiple centers, protected by its redundancy. The image of a "decapitated" nuclear force should become extinct. The assumption that command and control would instantly collapse in a nuclear war has led some proponents of "stability" through mutual vulnerability to favor launches of our strategic missiles as soon as U.S. warning systems signaled a Soviet missile launch. The concept involves a reckless gamble with fate. It must be banished from our long-term strategy. ◆

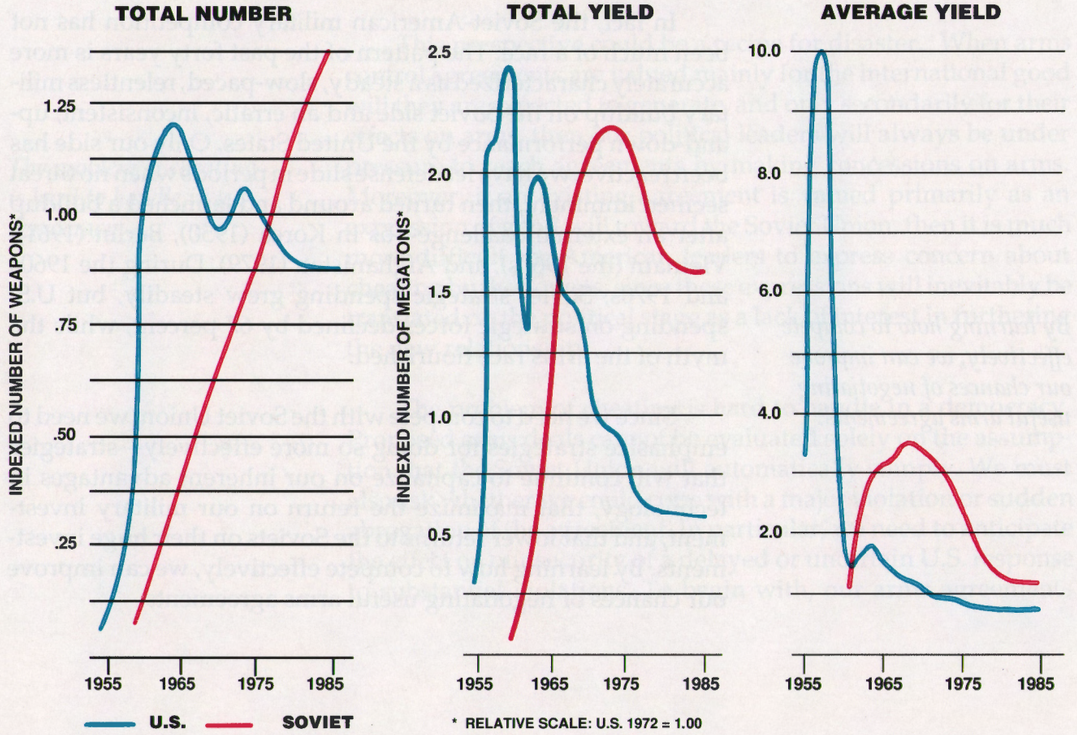
V

Influencing Soviet Arms Policy

For the foreseeable future, the United States will have to compete militarily with the Soviet Union. Oddly enough, some Americans regard that statement as controversial. They see our past efforts to compete as part of an "action-reaction cycle" that has triggered a mindless and futile "arms race," leading to ever greater numbers of increasingly destructive weapons.

The facts are in sharp contrast with this view: in 1967 the U.S. had a third more nuclear weapons than it does today. The total explosive power of U.S. nuclear weapons today is only one quarter of the peak reached in 1960. The average warhead yield of U.S. nuclear weapons today is only one-fifteenth its 1957 peak.

U.S. vs. SOVIET NUCLEAR WEAPONS



Even on the Soviet side, while the total number of nuclear weapons has been steadily increasing, the total explosive power and average warhead yield have both been declining since the mid-1970s.

It should not be thought that the decline in the U.S. nuclear arsenal was achieved at the cost of military effectiveness. Rather, it resulted mainly from technical innovations that made it possible to substitute conventional weapons for nuclear weapons in most anti-air and anti-submarine roles. Additional reductions should be achievable as new technology makes it practical to use conventional weapons to attack many ground targets that currently require nuclear weapons. This trend runs exactly counter to the notion of a "qualitative arms race" which sees innovation as the principle cause of the "nuclear arms race."

The Soviet-U.S. military competition has not been much of a race: a steady military buildup on the Soviet side and an erratic, up-and-down performance by the United States.

As we integrate our national security strategy and our arms negotiation policy, it is worth remembering that past reductions in the U.S. nuclear stockpile, undertaken in pursuit of our unilateral strategic objectives, have been larger than the total reduction in the number of Soviet warheads that would be accomplished together by the INF treaty and the 50 percent reduction hoped for from START.

In fact, the Soviet-American military competition has not been much of a race. The pattern of the past forty years is more accurately characterized as a steady, slow-paced, relentless military buildup on the Soviet side and an erratic, inconsistent, up-and-down performance by the United States. Only our side has been reactive: we have let defense slide in periods when no threat seemed imminent, then turned around and launched a buildup after an external challenge—as in Korea (1950), Berlin (1961), Vietnam (the 1960s), and Afghanistan (1979). During the 1960s and 1970s, Soviet strategic spending grew steadily, but U.S. spending on strategic forces declined by 67 percent, while the myth of the arms race flourished.

By learning how to compete effectively, we can improve our chances of negotiating useful arms agreements.

Since we need to compete with the Soviet Union, we need to emphasize strategies for doing so more effectively—strategies that will continue to capitalize on our inherent advantages in technology, that maximize the return on our military investment, and that lower returns to the Soviets on their huge investments. By learning how to compete effectively, we can improve our chances of negotiating useful arms agreements.

We need to promote military programs in which the United States has a special competitive advantage vis-a-vis the Soviets. One example is "low-observables" (Stealth) technology, which will make aircraft and other military vehicles harder to target. The "competitive" case for investing heavily in Stealth is not just that we are ahead in the technology but that deploying it will render obsolete much of the enormous Soviet investment in air defense. Following on Secretary Weinberger's 1987 initiative, the Defense Department should seek out other programs that offer the United States a special competitive advantage.

The military strategy described throughout these pages has to include an arms control strategy. The link between national security and arms control might seem obvious and noncontroversial: good arms control agreements will give us more security, possibly at lower cost. But many people prefer to think of arms control as somehow taking place on a different plane from that of defense planning. A great deal of political rhetoric encourages them to believe that the ultimate point of arms control is not so much military as political. For many Americans and Europeans, the lure of the agreements is that they enable us to engage Soviet leaders in a "process," expected to develop a "momentum" of its own, that will lead to understanding about other contentious matters and serve broadly to reduce international tensions.

The problem of cheating is hard to handle in a democracy.

This perspective could be a recipe for disaster. When arms control agreements are valued mainly for the international good will they are expected to generate, and only secondarily for their effects on arms, then our political leaders will always be under pressure to reach agreements by making concessions on arms. Moreover, if an existing agreement is valued primarily as an expression of good will toward the Soviet Union, then it is much more difficult for American leaders to express concern about cheating by the Soviets, since these expressions will inevitably be translated on the political stage as a lack of interest in furthering the new relationship.

The problem of cheating is hard to handle in a democracy. Proposed arms deals cannot be evaluated solely on the assumption that the Soviet Union will automatically comply. We must also ask whether we could cope with a major violation or sudden abrogation of the agreement. In particular, we need to anticipate the effect on our security of a delayed or uncertain U.S. response to substantial violations. To begin with, our arms agreements

must be capable of yielding evidence, in the event of a major violation, that will be sufficiently unambiguous to enable the U.S. Government to decide on an adequate response. Such a decision would be painful for both Congress and the Executive Branch, for it would mean that our hopes for arms control had been set back and that costly remedies were urgently needed. The more significant the arms agreement, the more important a U.S. capability to deter violations, or promptly to redress the damage arising from major violations. To this end we must maintain a standby capacity for surging defense production.

For the foreseeable future it will not be realistic to pursue agreements to eliminate all nuclear weapons, or all chemical weapons.

A good arms agreement will be consistent with our long-term military strategy. This means we want agreements that **(a)** do not assume nuclear vulnerability is a desirable condition for the American people, **(b)** do not assume that accuracy is an undesirable attribute for American weapons, and **(c)** do not assume that defense against nuclear attacks is more threatening than offense. Agreements should be negotiated with an awareness that they could restrict our forces and technologies for decades.

For the foreseeable future, it will not be realistic to pursue agreements to eliminate all nuclear weapons, or all chemical weapons. The huge Soviet advantage in conventional forces makes it likely that the Alliance will need some nuclear weapons to defend Europe for many years to come. A ban on chemical weapons could not be verified.

The United States relies on technological advantages to compensate for quantitative inferiority, so test limitations would rarely work in our favor.

Soviet arms control proposals often favor limits on testing of new technology. Such limits impede us in maintaining our technological advantage. Mutual testing restraints, even if enforceable, must be examined carefully to make sure they would indeed serve our interest. The United States relies on technological advantages to compensate for quantitative inferiority, so test limitations would rarely work in our favor. The ultimate problem about such limitations is that they make it harder to continue developing the new technologies associated with accuracy and precision. Tests of less destructive but more accurate conventional arms can help us to develop forces that will reduce our reliance on nuclear weapons.

Nuclear arms agreements should be centered on verifiable reductions in offensive weapons. A substantial reduction in the nuclear missile forces of the U.S.S.R. and the United States would make it much easier for both sides to develop and deploy effective

missile defenses. Such a long-term reduction in nuclear weapons could serve the security of all nations, provided at least two conditions are met:

① For the foreseeable future, the U.S. verification system and the U.S. capability for responding to violations must be able to prevent (or be able to cope with) major Soviet cheating.

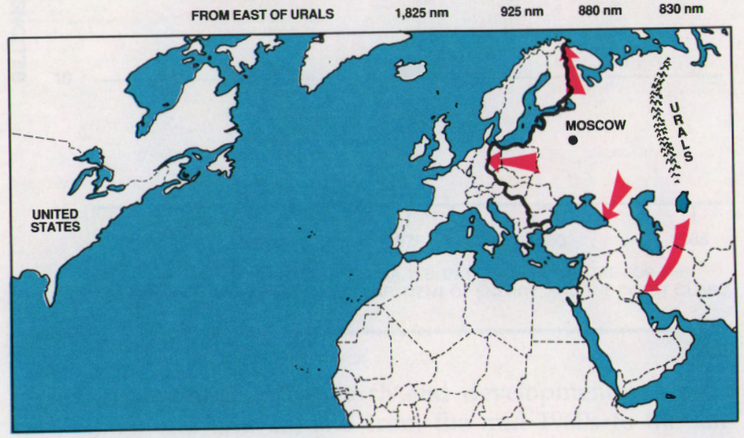
② The threat of nonnuclear aggression against our allies and other vital areas must be greatly reduced, in part, perhaps, through conventional arms reductions.

The United States might gain substantially from arms agreements focused on conventional forces. Agreements to reduce U.S. and Soviet forces stationed in Europe might improve Alliance security. Their value would depend on the readiness and ability of the Alliance to respond promptly to a reintroduction of Soviet forces, even under ambiguous circumstances and considering Soviet geographic advantages in bringing force to bear, not only on NATO's central front, but in particular at the flanks. However, to make significant cuts in defense budgets, it is necessary to demobilize conventional forces, not merely to remove them from Europe. Indeed, such agreements are the only kind that might lead to significant cuts in defense budgets. Agreements limited to nuclear weapons affect only a small fraction of U.S. and Soviet military expenditures.

IMPACT OF SOVIET SHIFTS TO EAST OF THE URALS

An arms control agreement that moved Soviet forces from Eastern Europe to east of the Urals would leave them only about 800-900 nautical miles from strategic areas on NATO's Northern and Southern Flanks and on the Persian Gulf. U.S. forces relocated to the United States would have to travel twice as far as Soviet forces to return to Central Europe and four to eight times as far as the Soviets to reach these other strategic areas.

AIR DISTANCE TO:	INTER-GERMAN BORDER	NORTHERN NORWAY	EASTERN TURKEY	SOUTHWEST IRAN
FROM UNITED STATES	3,500 nm	3,500 nm	5,900 nm	6,400 nm
FROM EAST OF URALS	1,825 nm	925 nm	880 nm	830 nm



An agreement that imposed considerably larger cuts on the preponderant Soviet conventional forces, and mandated the destruction of their heavy equipment (tanks and artillery), could improve Alliance security unambiguously. Such an agreement would work to reduce the Soviet geographic advantage and avoid excessive dependence on NATO's ability to respond quickly to ambiguous warning. It is conceivable that Soviet leaders might agree to some such deal to reduce the pressures of defense spending on their beleaguered economy. ◆

VI Managing Technology

Although U.S. strategy has depended heavily on our technological superiority since World War II, American technology today is less superior than it used to be. Even some Third World countries are becoming independent producers and users of high tech. The Soviet Union is gaining in a number of areas, while continuing to acquire Western technology both legally and illegally. In addition, the Soviets have worked hard at ensuring that their acquisitions are applied rapidly to priority military missions. Their military research budgets have exceeded those of the United States and have continued to increase steadily.

The Soviet Union invested $63 billion more than the United States in RDT&E during 1970-1985.

U.S. vs. SOVIET MILITARY RESEARCH, DEVELOPMENT, TEST, & EVALUATION

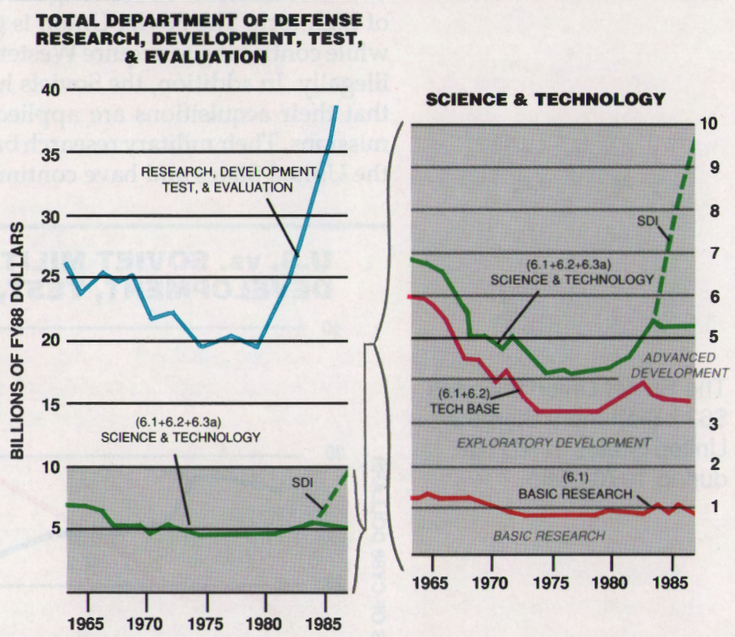
FOR COMPARABILITY WITH SOVIET DATA, U.S. DATA INCLUDES RDT&E FOR THE DEPARTMENT OF DEFENSE, THE DEPARTMENT OF ENERGY, AND THE COAST GUARD

U.S. budgeting for research and development has been constrained and uneven, and from the mid 1960s to the late 1970s, the technology base was substantially eroded. During the

period 1965-1980 U.S. spending on military research and development declined about 20 percent. In 1965, estimated Soviet spending on military research and development was about 65 percent of the U.S.'s, but by 1980 it had grown to more than 150 percent of U.S. spending. In the 1980s, a turnaround for the United States began, but more recently our spending on the technology base was cut back again.

A WEAKNESS IN MILITARY RESEARCH

Even though U.S. RDT&E has increased sharply since 1981, almost all of this increase was for development and testing of new weapons. Substantial increases are needed in DOD science and technology spending in order to once again offset Soviet numerical force superiority with qualitative advantages.



At the same time, the substantial R&D undertaken by U.S. defense industry (reimbursed in part by the Department of Defense) has changed significantly in its character. While this effort was highly innovative in the 1950s and 1960s, it has become increasingly conservative in the 1970s and 1980s. Today, it has become far more an effort to reduce technical risk than to innovate. In some measure the Pentagon is responsible for the new emphasis. The main criterion for reimbursement used to be the innovativeness of the work; today the controlling question is apt to be whether industry's R&D is sufficiently related to an ongoing weapons program.

The underlying trends are disturbing. In a growing number of basic technologies with important military applications, the United States may lose its superiority over the Soviet Union. Moreover, in translating scientific knowledge into deployed military systems, the Soviet Union has recently been far more successful than we have. Our current approach is piecemeal and haphazard. The procurement process is rigid, slow, confrontational, and micro-managed in ways that endlessly work against the efficient use of our resources.

Even more important is the difference between the U.S. and the Soviet approach in relating decisions on new weapons systems to a long-term strategy. It has become apparent from Soviet arms control decisions over the last 20 years, as well as from the way in which Soviet arms have been fielded, that Moscow's decisions on new military systems have been guided by a long-term strategy to a far greater extent than ours.

Throughout the acquisition process, risk is avoided by focusing on today's technologies and on familiar operational concepts.

Defense Department officials try to minimize program risk by writing excessively detailed specifications, which unfortunately guarantee that compliance will be expensive, technically conservative, and uncreative. Throughout the acquisition process, such risk is avoided by focusing on today's technologies and on familiar old operational concepts—even though the system being procured will typically be needed for many years into the future. To be sure, conservatism in procurement has also been fostered by the past absence of an integrated long-term strategy. In its absence, the system keeps responding to only a few standard contingencies and overlooking many likely demands on U.S. forces in the future.

Fixed-price R&D contracts have been another obstacle to advanced technology. Such contracting has several pernicious effects. It leads contractors to commit themselves without a proper plan for follow-up, which greatly increases the likelihood of overruns and slipped schedules. These in turn lead the harried Defense Department program manager to minimize technological risk in a project, which he typically does by steering clear of the cost and schedule uncertainties associated with leading-edge technologies.

For the coming years, we will need an acquisition process that fosters cohesion, speed, and incentives for innovation. The Defense Department has made a fair amount of progress toward revitalizing the acquisition process by implementing the recommendations of the Packard Commission. But the reforms need to be moved further, preferably with Congress a partner in the process—and exhibiting some self-restraint on micromanagement.

Conservatism in procurement has meant a dearth of "new-new" projects—efforts to develop systems incorporating both new technologies and new operational concepts. Successful past examples of such efforts are the long-range bombers, nuclear submarines, and solid-propellant missiles of the 1950s. (Stealth may turn out to be a more recent example, provided it will be coupled with new operational concepts.) These were all highly successful, but a defining characteristic of new-new efforts is that success surely cannot be predicted with much certainty. Which is precisely why such projects have been rare in today's age of micro-management.

The main reason for the dearth of projects incorporating both new technologies and new military operations is the way in which the Pentagon tends to establish requirements for military systems. A few major innovations, combining both new strategic concepts and new technologies, have recently been instituted from the top down—that is to say they have been driven by a Presidential decision, or a decision of the Secretary of Defense. An example of the former is SDI in 1983; examples of the latter are Stealth and cruise missile development in the 1970s, and conventionally armed cruise missiles in the 1980s. But the majority of R&D and procurement projects originate at the working level of the Services. The CINCs (Commanders in Chief of Unified and Specified Commands) can identify needs related to their missions. This role of the CINCs has recently been strengthened, but the dominant role in setting new requirements still rests with the Service staffs.

The process of generating requirements for R&D and procurement must be guided by a long-term view of strategy and technological opportunities.

The process of generating requirements for R&D and procurement must be guided by a long-term view of U.S. strategy and of the technological opportunities. The process should not only tolerate but actively seek out new concepts for meeting our basic strategic needs through new systems and new operational tactics. We must overcome the "horse cavalry syndrome" familiar from military history. A number of options are available to the Secretary of Defense for encouraging strategic innovation and imparting a long-term perspective in the requirements process. For example, when we have identified an innovative, high priority project that combines new technology with new operating concepts, we may want to set up a special "fast track" on which risk-takers suffer fewer penalties.

We cannot assume that all programs currently planned for the 1990s will in fact be fully funded. This means that defense planners will likely face some wrenching decisions about trade-offs. They will want to maintain spending on many systems now

in engineering development, yet they will also find it difficult to cut personnel-related costs. All of which suggests that the Defense Department will have trouble in fully replacing its aging capital stock. It is not yet possible to predict how these trade-offs will play out and whether (to mention a particularly tough decision) they will result in force-level cutbacks.

We can, however, decide now which programs should be given the highest priority in the new long-term strategy. In general, these include programs that strengthen our ability to respond to aggression with controlled, discriminate use of force. They also include programs that in diverse ways work to promote flexibility and widen the options available to future Presidents. We would also assign a high priority—higher than it has been getting in recent years—to spending in the accounts for basic research and advanced development.

Among the programs meeting these criteria, four seem especially urgent:

① the integration of "low-observables" (Stealth) systems into our force posture;

② "smart" weapons—precision-guided munitions that combine long range and high accuracy;

③ ballistic missile defense; and

④ space capabilities needed for wartime operations.

Returns to national security will be especially high in these areas, and Congress and DoD must work to ensure that the systems have adequate funding and become operational as soon as possible.

❶ **Getting Stealth into place.** Low-observable technology is revolutionary. Radar systems for detecting, following, and attacking air and surface vehicles are relatively cheap and enormously effective—except when the vehicles incorporate Stealth. Military vehicles that incorporate enough low-observable technology make existing radars rather ineffective. Replacing those radars with systems that can detect, track, and attack stealthy vehicles is technically difficult, expensive, and time-consuming (the more so since low-observable technology is still evolving).

Stealth operates on a major Soviet vulnerability: the central role assigned to radar-based air defense in protecting not only the Soviet Union but Warsaw Pact theater forces. Low-observable

aircraft can help disrupt a Soviet invasion. The contribution of our non-stealthy aircraft would be limited in stopping an invasion today, since in an air strike so many of them would be devoted entirely to jamming and defense suppression. If the strike force included Stealth vehicles, the fraction of aircraft given over to attacks on primary targets could rise as much as four-fold. Low observable aircraft would also make possible a number of other military missions now generally considered beyond Alliance capabilities, for example, search-and-attack forays on enemy missiles or on forces whose location is not precisely known.

A major effort is needed to make Stealth fully effective. Introducing it involves not just deploying a new technology. Also required will be a certain number of adjunct programs for munitions development, friend-foe identification systems and electronic warfare systems. Stealth will call for new operational concepts. It will require sophisticated force planning to determine the appropriate mix of Stealth/non-Stealth systems. We recommend that the Defense Department continue these programs as a high priority and accelerate efforts to generate truly operational forces and doctrine.

❷ **Accurate, long-range smart munitions.** Extended-range, accurate smart conventional weapons can make a major contribution to halting Soviet attacks anywhere on the perimeter of the U.S.S.R. These weapons can delay and inflict heavy losses on advancing forces. By delivering heavy firepower on critical targets, they can make breakthroughs difficult for invading troops and give time for defenses to be deployed.

By the standards of a decade ago, the accuracies are extraordinary. Current technology makes it possible to attack fixed targets at any range with accuracies within one to three meters. These accuracies and modern munitions give us a high probability of destroying a wide variety of point and area targets with one or a few shots without using nuclear warheads. They make practical attacks on heavily defended military targets deep in enemy territory. Airfields well inside the Soviet Union could be put out of commission with warheads designed to attack infrastructure (fuel and maintenance facilities, say) and command-and-control facilities. Bridges, surface-to-air missile sites, intelligence facilities, rail lines, electric generating plants, petroleum refineries—all are suddenly much more vulnerable in the emerging age of smart munitions.

Long range is likely to be increasingly necessary for our weapons, particularly in the Asian and Pacific theater. Given the growing importance of that theater, the Pentagon should look ahead by choosing systems with ranges significantly beyond those needed in the European theater.

For the last twenty years, the Defense Department has been moving too slowly at making such potentialities real. As always, the Pentagon must look hard at the trade-offs bearing on the appropriate missions and best delivery systems for the munitions. Yet it is already clear that we will need tens of thousands of the weapons, and we should be closer than we are to solving the problem of production. To get the munitions in the desired quantity, we will need to bring down unit costs through standardization. Large production runs of only a few different systems seem indicated. We do not want the kind of overdesign that leads to highly demanding specifications. The final cost of the weapons will also be affected heavily by their sensor, computer, and artificial intelligence components. To the greatest extent possible, we would hope to see these subsystems designed generically, that is to say making them usable in many types of smart weapons.

❸ **Ballistic missile defense.** The issue of missile defense is raised urgently by the Soviet acquisition of ballistic missiles accurate enough to threaten many critical European targets with conventional warheads or chemical weapons. Among the targets under the gun: operating bases for tactical aircraft, command-and-control centers, and major supply centers.

We need both active and passive defenses against the missiles. Passive measures should include hardening, dispersal, multiplication of critical facilities and stockpiling of rapid-repair equipment. The active defenses should probably include some directed at tactical ballistic missiles (ATBM systems), although the INF treaty should help reduce the threat from them. Assuming that we opt for ATBM, upgrading current air defenses would look like a useful first step, but only that. More capable "extended" air defense, now under study in NATO, would require advanced endo-atmospheric interceptors and probably airborne optical sensors. Components with these capabilities can be derived from existing technology for defense against strategic missiles.

Ballistic missile defense is important in a broad range of situations. Active defenses with even moderate capabilities can contribute to deterring Soviet attacks on many different theater targets, and also on targets in the continental United States. In

this country, ballistic missile defense, complemented in some measure by air defense and a cruise missile defense, can improve the protection of the U.S. National Command Authorities, increasing confidence in the country's ability to keep control of its forces in a war, and thus making it easier to ensure that our nuclear deterrent is not hair-triggered.

The evolutionary development of missile defenses should be continued. Improving missile and air defense will eventually make possible a real reduction in the terrors of the nuclear age. It might also serve to moderate our concerns about the breakdown of an arms control agreement providing for deep cuts in offensive missiles.

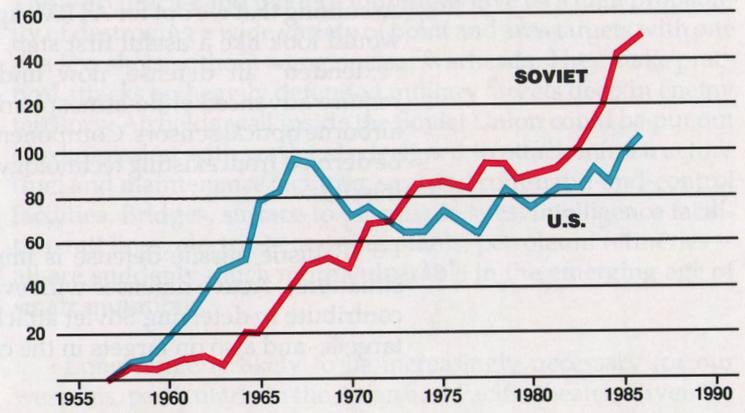
❹ **Space capabilities.** Space systems, in principle, can acquire and distribute information about an adversary's preparation for and initiation of attacks, about the location, status, and movements of allied and enemy forces over-the-horizon and at great distances, about the weather affecting military operations, and much more. An aggressor would have large incentives to attack them. The United States needs military satellite systems that will continue to function or can at least be reconstituted speedily, not only in peacetime, but also to support our forces in resisting attack by Soviet land, sea and air forces.

In conducting a conventional attack, the Soviets would use their own satellites as an essential support for their military operations. So we need the means to degrade Soviet satellites, not simply in reaction to Soviet attacks on our satellites, but because they will use theirs to acquire and distribute information in support of land, sea and air forces attacking our air, land and sea forces. Just as we need both tanks and anti-tank missiles, so we will want active and passive defense of our satellites, means of replenishing them in wartime and ways of degrading an enemy's satellites. In a war with the Soviet Union we cannot count on space being a sanctuary; more likely it would be a critical battlefield.

Carefully designed arms agreements governing the peacetime distribution and operation of satellites might enhance measures of self-protection. But arms agreements cannot prevent an adversary from attacking a vulnerable system in wartime. A nominally complete ban on anti-satellite weapons (ASAT) would not save satellites, since the enemy's satellites themselves could be used as ASATs. And with changes in their guidance logic, ICBMs and SLBMs can also be converted for use against satellites (as the Soviets have used their SS-9s for their co-orbital ASAT). In any case, we need relatively robust space systems for a well designed arms agreement to be helpful.

Our military satellites were designed from the outset to perform important and exacting tasks primarily in peacetime, or to warn of the outbreak of war. Hence many of them are large, heavy, hard to protect, and very expensive. Both the space and ground elements of many satellite systems tend to be concentrated in a few points, thus readily targetable by non-nuclear weapons.

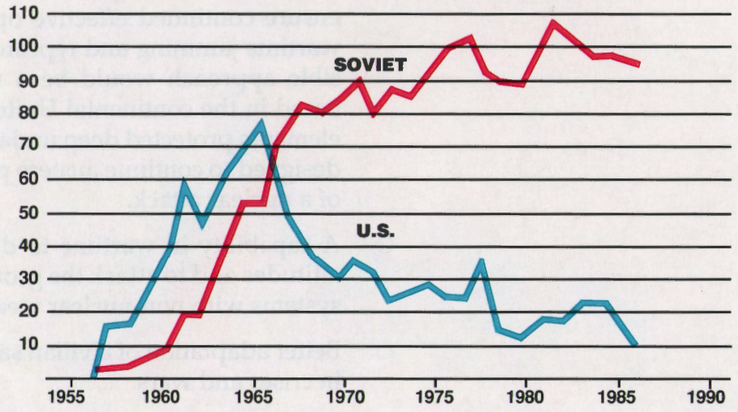
U.S. vs. SOVIET OPERATIONAL SATELLITES IN ORBIT



Since the early 1970s the Soviet Union has kept more satellites on orbit than the United States. At least ninety percent of Soviet satellites and about two-thirds of ours have military roles, so the Soviets now have twice as many military satellites on orbit as we—about 140 to 75. This Soviet proliferation would help keep their satellite systems operating while under attack in wartime.

Launch capability is another important way to enable a satellite system to operate in wartime. For the last two decades the frequency of Soviet space launches, as well as their payload weight to orbit (not shown), far exceeded ours. In addition to these advantages for wartime operations, the Soviets are deploying SS-25 road-mobile ICBMs and, in the near future, SS-X-24 rail-mobile ICBMs, some of which could easily be adapted to provide a highly survivable means to launch additional satellites or replace those destroyed in wartime.

U.S. vs. SOVIET SPACE LAUNCHES



More recently, important progress has been made in protecting key satellite functions. However, for a wide range of the most plausible conflicts—meaning those short of global, unrestrained nuclear war—the Soviets, far more than we, have designed their space systems for support of military operations in wartime. Many of their systems are far more proliferated than our own. Also, they can surge and replenish their satellites more easily than we can during a crisis or a war. They have a co-orbital ASAT ready to be deployed against our satellites at low earth orbits. With their pending or even current technologies, they can generate attacks at all altitudes. In the United States, on the other hand, there is no consensus on the need for a wartime capability against Soviet space systems. Tests of our one ASAT design directed at low earth orbits are still prohibited by Congress.

To remedy our weakness in space, we need at least the following:

- A surveillance and tracking system, capable of operating in plausible wartime contingencies, that can warn us of impending attacks on our satellites. (This system should not be delayed by the added performance requirements and costs of space surveillance and tracking for ballistic missile defense.)
- More distributed satellite systems designed to survive in wartime, including the use of smaller, lower cost satellites, that can be replaced by austere spare satellites (which, unlike our peacetime satellites, need not last for many years).
- A wartime capability, including mobile satellite launchers, to replace damaged and spent satellites.
- A satellite control system that could serve as a backup and ensure continued effective operation under conditions of wartime jamming and repeated physical attacks. One possible approach would be a mobile, proliferated system, based in the continental United States, perhaps with some elements protected deep underground, and which could be designed to continue austere performance even in the event of a nuclear attack.
- A capability in wartime to disable hostile satellites at all altitudes and to attack the ground elements of enemy space systems with non-nuclear weapons.
- Better adaptation of civilian satellite systems to military use in crises and wars.
- Better education and training (complemented by simplified systems) for personnel working on space operations.

- Exploration of a possible tacit understanding or even explicit agreement with the Soviets on self-defense zones around many of the satellites in the key space systems of either side, on the same grounds used to justify the self-defense of ships at sea against intrusions that can have no purpose other than a hostile one. Such an arrangement might permit some entries into the self-defense zones and would not affect normal, non-threatening satellite operations, including perhaps some inspections.

The technologies mentioned above are by no means the only ones needing extensive development, but they afford a powerful reminder of the extent to which our long-term strategy depends critically on investments in military science. The "rusting" of the technology base in the past couple of decades is a deeply disturbing trend. The United States badly needs an aggressive effort, informed by a long-term strategy, to strengthen science and technology programs. ◆

VII

Managing the Defense Budget

Budgeting for national security is apt to be especially difficult in the decades ahead. The integrated long-term strategy proposed in these pages will provide a guide to some difficult budget decisions the country will be making in this period.

The resources available for defense will probably be constrained more than in the past, principally by concern over the national debt and pressures for social spending (the latter driven, for example, by the aging of the U.S. population). These constraints are likely to increase risks to our national security. The United States came into the Eighties suffering from the cumulative effects of many years in which our military investment was below that of the Soviet Union. Despite our spending turnaround in the first half of this decade, we have yet to eliminate the gap that opened up in the 1970s.

U.S. vs. SOVIET MILITARY CAPITAL STOCKS

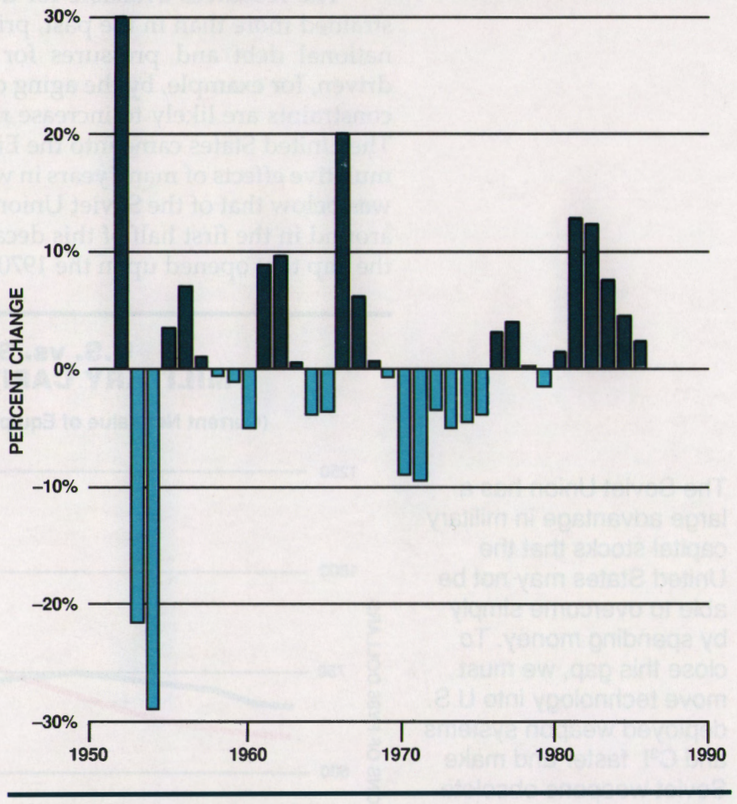
(Current Net Value of Equipment and Structures)

The Soviet Union has a large advantage in military capital stocks that the United States may not be able to overcome simply by spending money. To close this gap, we must move technology into U.S. deployed weapon systems and C³I faster and make Soviet weapons obsolete at a higher rate.

National security does not have much of a "natural constituency" in the United States, and Congress has repeatedly demonstrated that in the absence of a crisis it is prone to cut back on defense—and then to spend heavily when the next crisis comes along. In the years since World War II, the United States has never had a period of more than six years in which defense spending increased in real terms every year. Defense dollars will continue to buy less so long as we remain in this stop-go mode.

ANNUAL CHANGE IN DOD TOTAL OBLIGATIONAL AUTHORITY

The DOD budget frequently has changed up or down by ten to twelve percent, with occasional changes of twenty to thirty percent.



Congress and the Executive Branch should aim at steady, moderate growth in the defense budget and avoid these extreme fluctuations. As a modest first step toward smoothing out our spending, the Defense Department has been supporting a move to a two-year budget cycle, and the Congressional committees concerned with the armed services and with the budget have

agreed that the proposal makes sense. Such a budget would help both government and industry to plan more realistically for procurements. It should also help to make various defense accounts less vulnerable to changes resulting from short-term political considerations. It would still not give the United States the formidable stability that has long marked Soviet defense investment, but it would be a highly positive development.

Given the continuing threat represented by large Soviet forces with the advantage of interior lines of communication, our current defense budget is none too large. The spending required to sustain that posture has recently absorbed around 6 percent of our country's output, which is at the lower end of the historic defense/GNP ratio. Only in the mid-1970s has spending fallen below 6 percent. In the 1950s the share exceeded 11 percent, in the 1960s it exceeded 8 percent; in the early 1980s it reached 7 percent. Yet we now face the prospect of the spending levels again declining below 6 percent. In fiscal 1987, outlays fell from $302 billion to $294 billion, and they are virtually certain to fall again in fiscal 1988. (The figures are in constant 1988 Fiscal Year dollars.)

If we hold at around a 6 percent share of GNP, the United States will be able to increase real defense spending at the long-term growth rate of the economy—3 percent or so a year. At that rate, we could acquire the systems needed to maintain the current worldwide posture, cope with some occasional new threats, and retain some needed flexibility. We could also incorporate the capabilities called for in this report. But if defense cutbacks continue, and we drift to lower levels of GNP share, something will have to give.

Precisely because the years ahead are likely to be austere, we need a long-term strategy that tells us how to rank our priorities.

Precisely because the years ahead are likely to be austere, we need a long-term strategy that tells us how to rank our priorities. We need to be clear about which programs we want to protect in periods when budgets are being cut. Meanwhile, we also need to plan better for the occasional periods of expansion. So long as the country remains afflicted by stop-go spending, the Pentagon will need plans for taking maximum advantage of the next crisis-driven surge in spending.

Defense budgeting decisions inescapably require resource allocations to deal with present and future risks. A decision to invest incremental dollars in operations and maintenance rather than to initiate procurement of complex weaponry is implicitly a judgment that near-term threats outweigh those for the long

term. These abstract considerations are especially relevant to budgetary decisions in periods of cutbacks. When spending decisions are not clearly linked to a strategic vision, then there will be heavy pressures to maintain force size and take the cuts out of modernization. Any steady pattern of that sort would be incompatible with the strategy we propose, which depends heavily on procurement of advanced weaponry. The preceding chapter described several of the programs we believe to be especially important to our proposed strategy. As indicated in the chapter, heavy investment in basic research—the longest lead-time item of all—is essential.

In past years, defense planners have generally identified ships, aircraft, and other major platforms as the long lead-time items requiring the most protection in periods of budget stringency. More recently these "platforms" have become enormously expensive and are being introduced less and less often. The Air Force introduced ten new fighters in the 1940s, six in the 1950s, two in the 1960s and two in the 1970s; we now look for only one fighter to be introduced in the 1980s and 1990s combined.

If indeed we can afford fewer major weapons "platforms," then we must equip those we have so as to maximize their effectiveness and flexibility.

To a considerable extent, then, we recommend that modernization in the years ahead take new forms, with a particular emphasis on the auxiliary systems which can be changed more frequently than can the expensive major "platforms." These systems include the intelligent subsystems and munitions carried on the platforms. Not necessarily carried on the "platforms," but helpful in informing and directing their use, will be modernized sensors, command, control, and communications. If indeed we can afford fewer major weapons "platforms," then we must equip those we have so as to maximize their effectiveness and flexibility. U.S. forces are small relative to those of the Soviet Union. To maximize their effectiveness, we should ensure that our active forces are prepared to deter or resist the most plausible kinds of Soviet attacks—those that are highly selective and have limited objectives—and are not configured only against massive and widespread attacks on the West as a whole. We must maintain the readiness, sustainability, and mobility of active forces sufficient, at least, to meet the likeliest attacks. With the over-all size of the active forces possibly being reduced, we may have to rely more heavily on cadre units and reserves as a base for mobilization.

A case can be made that a dollar spent on security assistance buys more security for the United States than a dollar spent anywhere else.

As noted elsewhere in this report, security assistance programs are of great importance, and we must get rid of the endless restrictions placed on the dwindling amounts of available funds. A case can be made that a dollar spent on security assistance buys more security for the United States than a dollar spent anywhere else. In comparison to the amounts involved in supporting our own forces or procuring new weapons, security assistance is cheap, and we call on Congress to recognize that modest expenditures in many Third World countries can dramatically improve our long-term strategic position.

Our budgetary strategy should also provide for continuing and strengthening the Defense Department's planning for a "surge capability." In a world of stop-go budgeting, we need better ways of spending the money when the light suddenly turns green—when, say, Congress responds to some sudden threat or crisis by making substantial new funds available. The Defense Department should continue its advance planning to make the best use of such a surge. It should develop the capacity to expand production of critical equipment, for example, and to stockpile long-lead items that might represent bottlenecks in a buildup. It should also try to assemble "human resource" inventories pointing to expertise of various kinds that would be needed at such times. With planning, we can develop sizable surge capabilities with relatively modest investments. ◆

VIII Connecting the Elements of the Strategy

The Enduring Aims of U.S. Policy. We live in a world whose nations are increasingly connected by their economies, cultures, and politics—sometimes explosively connected as in the repeated vast migrations since World War II of refugees escaping political, religious and racial persecution. It is a world in which military as well as economic power will be more and more widely distributed and in which the United States must continue to expect some nations to be deeply hostile to its purposes.

The United States does not seek to expand its territory at the expense of the Soviet Union or any other country. Nor do any of our allies present a danger of an invasion of the Soviet Union or the territories it dominates. The Soviets, nonetheless, insist that we, our allies and other countries, the weak as well as the powerful, do threaten attack. Such Soviet suspicions or assertions have been inherent in their system of rule: they need to posit a hostile world to establish the legitimacy of their regime. We would, needless to say, welcome a basic change in their antagonistic stance.

However, even if *perestroika* and *glasnost* signal an intention to make that change, it will not be easy to accomplish. Moscow's suspicion and hostility are rooted in 70 years of Soviet and 400 years of Tsarist history. Relaxing their hold on the countries they dominate on their borders can threaten their control of dissident nationalities within their borders. We should not deceive ourselves. The Western democracies cannot do much to advance the process simply by persuading the Soviets that we are not about to attack them, or by trying to shed any capability for offense—and thus for counterattack. Such efforts would merely reflect misunderstandings of the internal role played by external threats in Soviet rule; and might encourage aggression. The Soviets feel threatened by the autonomy of the free countries on their border.

The United States has critical interests in the continuing autonomy of some allies very distant from us—in Europe and the Mediterranean, in the Middle East and Southwest Asia, in East Asia and the Pacific, and in the Western Hemisphere. We use bases, ports and air space in helping these allies defend themselves and one another. In some cases, where the danger to them from an adversary close by is especially great, it has been a durable element of U.S. strategy to deploy our forces forward. We do this, however, at the invitation of allies who are sovereign and independent of us and on conditions that they name. They can always ask us to leave. In some cases they have; and unlike the Soviets, we have always complied.

The fact that we lead sovereign allies who can differ from us in their interests in various circumstances and places has direct implications for defense; it means that even where there are gathering but ambiguous signs of danger to our common interests, getting a cohesive allied response and bringing it to bear in time to block the danger may be difficult. A dictator, or an involuntary coalition dominated by a dictatorship, has less trouble in preparing to launch military operations. And the Soviets are not, and will not be, the only danger to our interests.

In the changing environment of the next 20 years, the U.S. and its allies, formal and informal, will need to improve their ability to bring force to bear effectively, with discrimination and in time to thwart any of a wide range of plausible aggressions against their major common interests—and in that way to deter such aggressions.

We need to bring a longer view to the necessary day-to-day decisions on national security. The next two decades are likely to exhibit sharp discontinuities as well as gradual changes with effects that are cumulatively revolutionary: major new military powers, new technology, new sources of conflict and opportunities for cooperation. To cope with these changes, we will need versatile and adaptive forces.

An Integrated Strategy. Because our problems in the real world are connected and because budgets compel trade-offs, we need to fit together strategies for a wide range of conflicts: from the most confined, lowest intensity and highest probability to the most widespread, apocalyptic and least likely. We want the worse conflicts to be less likely, but that holds only if our weakness at some higher level—or the lack of a higher level response that democratic leaders would be willing to use—does not invite such raising of the ante. For genuine stability, we need to assure our adversaries that military aggression at any level of violence against our important interests will be opposed by military force.

More violent wars grow out of less violent ones, and locally confined aggression (e.g., a Soviet invasion of the Persian Gulf) could drastically alter the correlation of forces. And one cannot completely separate "internal" and "external" conflicts. The shadow of Soviet intervention could affect the outcome of an internal succession crisis in Iran for example. (In the past the Soviets have used a puppet "Free Azerbaijan" to cloak their preparations for intervention in Iran and Eastern Turkey, which they appear to regard as strategically linked). Even terrorism can have a large effect on our ability to meet greater dangers by destabilizing vulnerable allies, dividing allies from each other, and dividing public opinion at home.

Policy statements on deterring and on fighting aggression should fit together. We cannot dissuade an attacker if he believes we are not willing as well as able to fight back. Our will is called into question by frequent statements about "mutual deterrence" that imply that we want the Soviets to be able to deter the United States unless the United States has been attacked. Such statements undermine the essential pledge that we will use conventional, and if they fail, nuclear weapons in

response to a Soviet attack directed solely at an ally. Similarly, the Soviet leadership might be misled by statements, heard in Europe, that even winning a conventional war would be "unacceptable." If such statements mean that fighting with nuclear weapons would do less harm to civilians than precisely delivered conventional weapons, or that such conventional weapons would cause "more harm to civilians than World War II," they are plainly wrong. If they mean that the West would be unwilling to use either non-nuclear or nuclear weapons, then they suggest we would not respond at all and so erode our ability to deter an attack. The issue is about how effectively to deter a non-nuclear or a nuclear attack. We and our allies would rather deter than defeat an aggression, but a bluff is less effective and more dangerous in a crisis than the ability and will to use conventional and, if necessary, nuclear weapons with at least a rough discrimination that preserves the values we are defending.

Offense and defense (both active and passive) complement each other at any level of conflict. Just as our offensive capabilities can discourage an adversary from concentrating to penetrate defenses, so active defense and passive defenses (such as concealment and mobility) are mutually reinforcing.

Decisions on military systems are interconnected and ought not to be dealt with piecemeal. The connections must be reflected in arms negotiations, in force planning and in the definition of military "requirements" during the acquisition process.

The Need to Consider a Wider Range of More Plausible, Important Contingencies. Alliance policy and weapons modernization, as already mentioned, have focused largely on the two extreme contingencies of a massive Warsaw Pact conventional attack and an unrestrained Soviet nuclear attack aimed at widespread military targets, doing mortal damage. The first contingency diverts allied attention from obligations underlying the basic premise of the Alliance—that an attack on one possibly vulnerable ally is an attack on all—and it ignores the Soviet interest in inducing other allies to opt out. The second contingency assumes the Soviets would have little concern about inviting their own self-destruction, since it would leave us no incentive to exercise discrimination and restraint.

However, Soviet military planners have shown an awareness that if the Politburo uses military force, it has a strong incentive to do so selectively and keep the force under political control. They do not want their nuclear attack to get in the way of their invading forces or destroy what is being taken over. And above all, they do not want to risk the destruction of the Soviet Union. They recognize as revolutionary for the nature of war the ongoing revolution in microelectronics which makes possible the strategic use of non-nuclear weapons. Their 40 years of investment in protecting their national command system, as well as their careful attention to the wartime uses of space and other means of command and control, show they are serious about directing force for political ends and keeping it under control. If we take the extreme contingencies as the primary basis for planning, we will move less rapidly toward a more versatile, discriminating and controlled capability.

It will always be possible to slip mindlessly toward such an apocalypse, so we will always need to deter the extreme contingencies. But it does not take much nuclear force to destroy a civil society. We need to devote our predominant effort to a wide range of more plausible, important contingencies.

Changes in the Security Environment. Our central challenge since World War II has been to find ways, in formal and informal alliances with other sovereign states, to defeat and therefore deter aggression against our major interests at points much closer to our adversaries than to us. "Military balances," i.e., matching numbers of NATO and Warsaw Pact tanks, guns, anti-tank weapons, etc. (even adjusted for qualitative differences in technology) fail to reveal the problem. The issue is not simply one of distance, but of timely political access en route to and in a threatened area, and of getting cohesive, preparatory responses by sovereign allies in answer to ambiguous signs of gathering danger.

The Atlantic Alliance has a problem of cohesion. In dealing with countries like Nicaragua or Libya,it is perhaps not surprising that the allies differ in how they conceive their interests. But even on NATO's flanks and in the Persian Gulf, where the vital interests of our European allies in blocking a Soviet takeover are more direct and massive than ours, the problem has been worsening. In recent base negotiations, Spain and Portugal have shown little concern for their role in reinforcing Turkey or allied forces in the Gulf. And some NATO countries on the Northern Flank, with small military forces of their own, have opposed measures that would help timely reinforcement for themselves; they justify this opposition on the far-fetched grounds that the Soviets need reassurance that they will not be the victims of an unprovoked attack. The increasing number of European advocates of "Non-Offensive Defense" would carry reassurance further by eschewing all "offensive" weapons. That would not prevent enemy attack, but it would prevent counter-attacking.

While our timely access has deteriorated sharply since the 1950s, the Soviets have used their internal lines of communication to improve greatly their ability to bring conventional force to bear quickly at points on their periphery and have systematically improved their access to air space and bases near their periphery. As a result, in some vital theaters such as the Persian Gulf, their ability to bring force to bear has improved dramatically while ours has declined in absolute terms. In the next 20 years and in other theaters of conflict, increasingly well equipped smaller powers as well as new major military powers are likely to give us still stronger incentives to develop a more versatile and discriminate force.

We have developed a variety of precise weapons, both long and short range, and have taken important steps to improve the robustness and effectiveness of our command, control, communications and intelligence as well as the training of our forces. Cumulative advances in microelectronics have already had a revolutionary impact on the possibility of increasing the effectiveness of attacks on military targets while confining effects largely to these targets. The advances have

enormously improved the possibilities of large scale battle management and the maintenance of political control. In the next decade or two, they will do so even more. Most importantly, these cumulative changes have made a single, or a few, nonnuclear weapons effective for many missions previously requiring thousands of nonnuclear weapons, or nuclear ones.

As stated elsewhere in this report, we would depend heavily on space systems for the control and direction of our conventional forces needed to defeat a Soviet invasion, and the Soviets would use their own satellites as an essential support for their invasion. Each side would have strong reasons to defend its own space system and to degrade the other side's.

The dynamism of our private sector gives us an inherent advantage in realizing the benefits offered by the new technologies. Nevertheless, we and our allies have often lagged in actually fielding the capabilities needed to meet the increasingly formidable dangers presented by the growing strength of the Soviets and other potential antagonists.

Wars on the Soviet Periphery and in the Third World. We and the Soviets will have very large incentives to exploit the greater effectiveness and discrimination of conventional weapons afforded by the new information technologies and to confine destruction so as to give the other side a stake in keeping destruction within bounds. If nuclear weapons were used, both sides would have even larger incentives to rely on technologies of control, since losing control then would be most disastrous. Both sides have devoted growing efforts to ensure the survivability of their command and control under wartime conditions.

The equipment, training, uses of intelligence, and methods of operation we have developed mainly for contingencies involving massive worldwide attacks by the Soviet Union do not prepare us very well for conflicts in the Third World. Such conflicts are likely to feature terrorism, sabotage, and other "low intensity" violence. Assisting allies to respond to such violence will put a premium on the use of some of the same information technologies we find increasingly relevant for selective operations in higher intensity conflicts. The need to use force for political purposes and to discriminate between civilian and legitimate targets is even more evident here. In particular, we will need optical and electronic intelligence, communications and control, and precise delivery of weapons so as to minimize damage to noncombatants. We will need advanced technologies for training local forces. These will be important both for obtaining local political support and support in the United States and elsewhere in the West.

The Northern and Southern Flanks of NATO are more weakly defended than the Center. Both are of critical importance for the Center's defense, but both suffer from political problems which inhibit reinforcement in a timely manner. Defense of the Northern Flank depends critically on rapid reinforcement from the U.S. and the rest of NATO; yet increased restrictions on U.S. and NATO activities in Norway

limit our ability to bring force to bear quickly in defense of the region. In the south, Turkey is of key importance both in the defense of U.S. and other naval forces in the Eastern Mediterranean and defense of our interests in the Persian Gulf. Turkey's critical importance should be recognized by increasing security assistance from the U.S. and from other members of NATO as well as countries such as Japan that have a vital interest in the areas Turkey would help to defend.

In the Persian Gulf itself, the great distances and political difficulties involved in obtaining timely access must be overcome to mount a credible defense of the region. Improvements in technology, and a greater allied willingness to share the political risks of getting such access, would greatly improve our ability to deter attacks.

Both South Korea and Japan will be increasingly able to defend themselves against a conventional invasion. The U.S. presence in both countries works to discourage possible dangers, such as Soviet (or Chinese) intervention or use of nuclear weapons, and should be continued, not least because it is also of great importance in increasing our capability to deal in a timely way with threats elsewhere in the Western Pacific.

It has long been the policy of the Atlantic Alliance that if non-nuclear force proves inadequate, we must be prepared to use nuclear force to stop a conventional invasion. But this force should be effective and discriminate—kept under control rather than a suicidal bluff. We need in any case the ability to deter plausible nuclear attacks on U.S. and allied forces. This should include a large role in defending common interests outside national boundaries and outside Alliance boundaries where, as in the Persian Gulf, allied critical interests clearly coincide with our own. A larger nuclear role in the defense of other European allies, which has been suggested for the British and French, will require, as in our own case, an effective and discriminate nuclear force capable of use to defeat a Soviet invasion into allied territory. The French and British now have options to move in that direction.

The Coherent Use of Resources for Security. We have lagged in fielding weapons systems needed to cope with the increasingly capable forces of the Soviet Union and lesser adversaries of the Third World. As the Packard Commission has stressed, this lag has to do with cumbersome and unstable acquisition and R&D funding procedures and the lack of adequate and early testing. To overcome this lag, we should turn to faster prototyping and testing of systems that would make our forces more versatile and discriminate.

Equally important, however, will be clearly defined "requirements" that are related to a coherent national strategy. "Requirements" guided by a long-term strategy are critical to getting the most out of a given budget.

The increasingly widespread latent dangers with which we and our allies must cope do not justify the belief that we can safely hold our defense budget level, much less reduce it. However, if tighter budgets impose an increase in risks, we should, for the near term, accept a greater risk of the unlikely extreme attacks, in order to

bring about a reduced risk of the more probable conflicts, both now and in the future. Instead of giving priority to buying various types of large "platforms," we should seek continued improvement in the sensors and command, control and intelligence systems which can multiply the effectiveness of our ships and aircraft. And we must provide the resources needed to maintain the training, morale, and excellence in leadership of the men and women in the armed forces.

Arms Agreements and the Continuing Problem of Bringing Discriminate and Timely Force to Bear Against Aggression. Carefully designed and enforceable arms agreements can help reduce the risk of war by diminishing military threats for a range of plausible contingencies while preserving, or facilitating, our capability to keep the application of force discriminate and effective. Recent proposals by the Soviets and some in the West to stop the testing of missiles, nuclear warheads, anti-satellite systems and active defenses have been based on the premise that this would slow the qualitative arms race that is assumed to drive a quantitative arms race. However, such restraints frequently would have the opposite effect to that intended; they would make the job of getting a credible deterrent harder. As explained elsewhere in this report, a well-designed agreement on self-defense zones in space could make it easier to protect the space-borne sensors, and command, control and communications systems. An agreement that would drastically reduce the Soviet advantage in non-nuclear force has been proposed by leaders in both American Parties and by many prominent Europeans. Its purpose would be to make more equal the ability of NATO and the Warsaw Pact to bring timely, effective force to bear at critical danger points. It would thus address the basic East-West asymmetries due to geography and the greater Soviet conventional effort.

The strategy recommended in this report should guide arms negotiations as well as national and Alliance decisions on defense. Such a strategy of discriminate deterrence seems in any case more capable of building a community of interests with adversaries over the long run than reckless threats to annihilate their populations. Our arms control policy must be connected coherently to a viable, long term Alliance strategy. ◆◆

Follow-On Reports

The work of the Commission will result in a number of follow-on reports.

The Commission was supported by four working groups, whose reports will be made available shortly. They will address the security environment for the next two decades, conflicts of low intensity and in the Third World, the role of offense and defense in wars on the Soviet periphery, and future military technology.

In addition, the following papers will be released in the next few months:

- Sources of Change in the Future Security Environment
- Security Assistance
- The Role of Advanced Conventional Standoff Weapons
- Future Options for Forward Deployment of U.S. Forces
- Recommended Changes in our Military Space Policies and Programs
- The R&D Budget and National Security
- The Systems Acquisition Process
- Technology and National Security