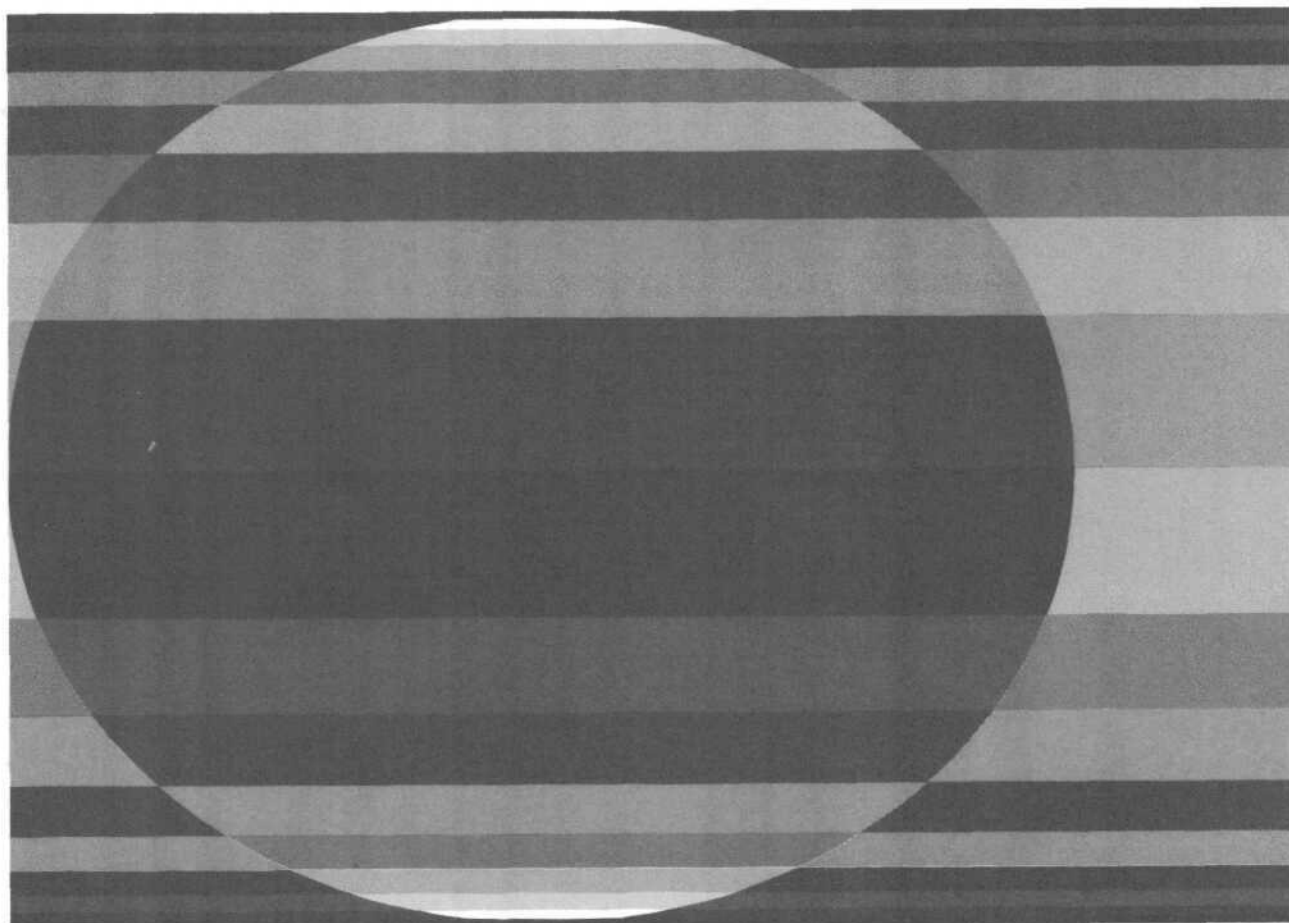


BACKGROUND PAPER

Force Planning and Budgetary Implications of U.S. Withdrawal from Korea

May 1978



Congress of the United States
Congressional Budget Office

**FORCE PLANNING AND BUDGETARY IMPLICATIONS
OF U.S. WITHDRAWAL FROM KOREA**

**The Congress of the United States
Congressional Budget Office**

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PREFACE

The withdrawal of U.S. ground combat troops from South Korea (principally the 2nd Division), scheduled to begin later this year, provides the Congress with an opportunity to re-examine planning priorities for U.S. conventional forces. Decisions concerning the disposition of the returning troops are likely to affect the U.S. defense posture and defense spending in the next few years. This study, prepared at the request of the House Budget Committee, addresses the implications of the Korea withdrawal for U.S. force planning. It proceeds from the assumption that the troops will be withdrawn in accordance with President Carter's announced policy decision. The paper discusses the relationship between broad defense policy approaches and the disposition of the 2nd Division, and provides estimates of the costs or savings of alternative policy options. In accordance with CBO's mandate to provide objective analysis, the study offers no recommendations.

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Director

May 1978

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SUMMARY

Since 1950, the United States has maintained a major military presence in South Korea as part of its larger force structure in the Western Pacific. Early in 1977, President Carter announced his decision to withdraw U.S. combat forces (primarily the 2nd Infantry Division and support units) from South Korea by 1982. The President's plan calls for a phased withdrawal of all U.S. ground forces from Korea over a five-year period, with the first group returning to the United States by the end of 1978. U.S. air and naval units will remain in South Korea, as will some intelligence and logistics support elements.

Although the initial phases of the withdrawal from Korea may only minimally affect the current defense budget, several unresolved but related issues are likely to affect future budgets and to require Congressional review:

- o Should the 2nd Division be retained in the force structure?
- o Should the division be mechanized, either in place of or in addition to other divisions slated for conversion?
- o Should new base facilities be built to accommodate all or part of the division? If so, where should they be built?
- o Would retention of these forces require procurement of additional strategic mobility and logistics assets?
- o Should the level of compensatory military aid to South Korea be the same as that recommended by the President or should it be more or less?

The answers to these questions involve decisions that will shape the defense posture and defense spending priorities of the United States. The departure of U.S. ground forces from Korea affords the Congress, therefore, an important opportunity to re-examine priorities for U.S. conventional forces. The question of the disposition of these forces after their withdrawal is one of how best to allocate defense resources to meet changing U.S. security needs. This study examines the implications of different defense policy approaches for the future role of the

2nd Division in the overall force structure. Several options for its disposition are presented, along with estimates of the costs or savings that might accrue from each.

The United States plans its general purpose forces to fight one-and-one-half wars simultaneously, and it can deploy 19 active ground combat divisions in support of that objective. For force planning purposes, a war between NATO and the Warsaw Pact is considered the major contingency. The Middle East, the Persian Gulf, and Korea are seen as likely spots for a "half war" to develop. The fiscal year 1979 defense budget submitted to the Congress indicates growing concern over the military balance in Central Europe and provides for certain U.S. initiatives to upgrade its NATO-committed forces. But there is no clear consensus among defense analysts or in the Congress either about the military balance or about which aspects of U.S. NATO forces should be improved. Recent planning scenarios stress the importance of rapid reinforcement for NATO and suggest that buying larger and more heavily armored forces may prove futile if they cannot be deployed in time to affect the outcome of a war in Europe.

The Defense Department (DoD) has announced its intention to convert the 2nd Division from an infantry to a mechanized division as it returns from Korea. Although a basing decision is not expected until mid-summer 1978, DoD is reportedly considering distributing the returning forces among three bases in the north-eastern United States. A reduction in the active strength of the division, relying instead on a reserve component, is also under consideration. But conflicting statements about the future mission of the 2nd Division have been made, and a number of issues with potential budgetary impact await action by both the Executive Branch and the Congress.

A decision on the level of compensatory aid to South Korea is associated with the withdrawal of the 2nd Division. Although U.S. withdrawal plans reflect a judgment that South Korea will soon be able to defend itself on the ground, U.S. forces could be called upon to intervene in case of renewed conflict in Korea. The United States possesses enough forces--without the 2nd Division--to handle a range of possible contingencies in Korea. In more demanding cases, however, a simultaneous crisis in Central Europe could present difficulties for U.S. military planners. Thus, continued military assistance in order to help ensure that South Korea is able to maintain its side of a stable military balance may be desirable. The Administration has proposed a five-year program of foreign military sales (FMS) totaling \$1.4 billion,

supplemented by a grant of approximately \$800 million worth of equipment left behind by departing U.S. troops.

The options presented in this paper are categorized according to three policy orientations. The choice of one of those approaches tends to imply the outcome of a number of separate but associated decisions regarding the disposition of the 2nd Division: in particular, its configuration (infantry or mechanized, full strength or reserve components, split up or stationed together), where and how it is based, mobility and logistics support available to it, and the level of compensatory aid to South Korea.

Option I would delete the 2nd Division from the force structure. Proponents of deactivating the division judge that the United States currently possesses adequate forces to meet likely contingencies both in NATO and elsewhere. Despite some initial costs to implement the plan, this option would generate savings of approximately \$1.28 billion from fiscal year 1979 through fiscal year 1983. Nevertheless, deleting a division from the force structure might imply a higher level of military assistance for South Korea, largely to counter perceptions of waning American interest in Asia.

Another policy approach to this issue would be to reconfigure the 2nd Division and designate it for NATO warfare in Central Europe. The options discussed in this second category embody three different strategies. All three would, however, entail mechanizing the 2nd Division to meet the demand for more heavily armored forces for NATO. All three options would also require that the division be stationed where it could easily and quickly be transported to the European battlefield. In some cases, additional strategic mobility forces--principally airlift--might be necessary. The emphasis on Europe implied by this approach argues for a moderate to high level of compensatory military aid for Korea.

Option II-A would split up the 2nd Division and substitute the troops for reserve units now used to "round out" other active divisions. A principal advantage of this option would be the increased readiness of the overall ground forces and relatively low additional military construction costs. It would, however, mean the loss of one Army divisional command structure. Total costs of Option II-A could approach \$1.48 billion. Option II-B calls for the reduction of the 2nd Division to two active brigades, rounding it out with reserves. This would yield some

savings in manpower costs, but base construction and support costs for a NATO mission might be substantial. Option II-B could cost \$790 million cumulatively. Option II-C would keep the division together as a full-strength division. This option would enhance U.S. NATO capabilities because the force could be trained and deployed rapidly as a single unit. Nevertheless, it could be a very expensive option, costing as much as \$1.79 billion.

Option III would designate the 2nd Division for deployment in a half-war contingency in Asia or elsewhere. The division would be re-equipped as a light infantry division capable of rapid response in a crisis. Proponents of this option argue that it would have a high political value and would provide a hedge against "half-war" scenarios calling for relatively high force levels. Despite that advantage, this option would tend to duplicate already existing forces; thus, it might contribute only marginally to overall U.S. capabilities. Option III would entail relatively low costs, including a lower level of military aid for South Korea, and could be expected to cost about \$1.32 billion from fiscal year 1979 through fiscal year 1983.

The budgetary impact of these options is summarized in the following table.

COST EFFECTS OF POLICY OPTIONS: CHANGES TO FISCAL YEAR 1979-1983 FIVE-YEAR DEFENSE PROGRAM: BY FISCAL YEAR, IN MILLIONS OF FISCAL YEAR 1979 DOLLARS a/

Policy Options	1979	1980	1981	1982	1983	Total	New Base Cost Add-On <u>b/</u>
Option I: Delete from Forces <u>c/</u>	-60	-110	-240	-370	-500	-1,280	--
Option II-A: Split Up and Substitute for Reserves	290	500	440	150	100	1,480	--
Option II-B: Reduce Size and Round Out with Reserves	260	500	320	-120	-170	790	350
Option II-C: Keep Together at Full Strength	290	730	580	130	60	1,790	550
Option III: Designate as Contingency Force	270	540	480	40	-10	1,320	450

a/ Estimates of the costs of each option assume that the 9th Division will be mechanized (see "U.S. Shapes Goals for NATO Summit," Aviation Week and Space Technology (May 8, 1978), p. 18). The costs of strategic mobility programs and military assistance to South Korea are excluded.

b/ Estimates of the costs of each option assume that basing for the 2nd Division will not require construction of extensive military facilities. If, however, the division were based at a site with only limited facilities, additional construction costs would be incurred. The total new base cost add-on would vary according to option.

c/ Option I assumes that the division being deleted is an infantry division.

U.S. interests in the Korean peninsula--where American combat troops have been stationed since 1950--reflect both its strategic significance and its historic role in Asian great-power politics. American involvement in the Korean War served to cement an enduring U.S. commitment to the security of the Republic of Korea (ROK). Recent developments in Asia, principally the end of the Vietnam War and the opening of relations with the People's Republic of China, have led to a re-examination of the U.S. military presence in Asia and the Western Pacific.

Early in 1977, President Carter announced plans to withdraw the remaining U.S. ground forces from South Korea. Discussing his decision, the President stated:

I think it is accurate to say that the time has come for a very careful, very orderly withdrawal over a period of four or five years of ground troops, leaving intact an adequate degree of strength in the Republic of Korea to withstand any foreseeable attack and making it clear to the North Koreans, the Chinese, the Soviets, that our commitment to South Korea is undeviating and is staunch.

We will leave there adequate intelligence forces, observation forces, air forces, naval forces, and a firm, open commitment to our defense treaty, so there need not be any doubt about potential adversaries concerning our support of South Korea. 1/

The withdrawal of U.S. ground forces from South Korea affords the Congress an opportunity to reassess certain aspects of the conventional force posture of the United States in Asia and elsewhere. Although our ground forces in Korea represent only a small fraction of U.S. military might, this study focuses on their

1/ Press conference of President Carter, May 26, 1977.

place in the overall force structure. The question of what to do with the departing troops can be settled in a variety of ways, depending upon differing policy orientations. This study seeks to illuminate the relationship between broad defense policy choices and the eventual disposition of the U.S. troops in Korea and to provide some estimates of the costs of alternative policies.

This study does not discuss the advantages and disadvantages of the withdrawal of U.S. troops from Korea. Rather, it begins with the assumption that they will be withdrawn in accordance with President Carter's announced decision. Similarly, related but essentially political issues--for example, such questions as a specific U.S. location for these troops and South Korean cooperation with U.S. government investigations--are not addressed here because they do not bear directly on the national security policy questions under consideration.

When the Vietnam war ended in the early 1970s, many Americans expected a "peace dividend" in the form of lower defense budgets. Similarly, there are those who anticipate that the withdrawal of U.S. ground forces from Korea will mean a savings for U.S. taxpayers. Whether or not such savings materialize depends, of course, upon what is done with the troops once they return home. If they were disbanded, savings could prove substantial. If they remained in active status, real savings would be unlikely. If they were committed to more demanding missions than Korea, Department of Defense (DoD) costs could rise. On the other hand, however, the forces withdrawn from Korea could indeed represent a dividend, in the sense that they could provide DoD with additional resources to meet challenges that might otherwise generate even higher defense budgets.

Plans for the initial phases of the troop withdrawal from Korea may only minimally affect the fiscal year 1979 defense budget now before the Congress, but alternative options for the future of these troops could have widely varying budgetary implications over the next five years. Several key issues associated with the withdrawal plans remain undecided, though they are certain to require Congressional review. Taken as a whole, those decisions enable the Congress to play a significant role in shaping both U.S. force posture and future defense budgets.

It is unlikely, however, that the key spending decisions identified here will be pending in the Congress simultaneously. Because of the phased nature of the withdrawal, the Defense Department may be able to postpone final decisions in some

areas without seriously disrupting withdrawal plans. Other decisions may require prompt attention. And some may depend on prior actions. Indeed, the Defense Department and the Congress may wish to preserve the maximum degree of flexibility during the withdrawal in order to monitor and assess its military and political consequences.

Approximately 40,000 U.S. military personnel are currently stationed in Korea. 2/ Of these, about 7,000 are Air Force personnel, and there is a small complement of Navy and Marine Corps personnel as well. Only about half of the 32,000 Army personnel are ground combat troops; the rest perform various support functions.

The bulk of the American forces leaving Korea will be the 14,000-man 2nd Division and associated support units. The President has announced that the first group of troops (800 combat and 2,600 support troops) will leave Korea by the end of calendar year 1978. 3/ Much of the weaponry belonging to the division will be turned over to the Koreans. The equipment slated for transfer has been valued at approximately \$800 million by the Administration. Selected air defense and long-range artillery will also be transferred to South Korea, and some U.S. units will be disbanded. As

2/ Major components of the U.S. military presence in South Korea are: the 2nd Infantry Division; a major logistics support element (19th Support Brigade); the 38th Air Defense Artillery Brigade (Improved Hawk surface-to-air missile units); the Fourth Missile Command (long-range artillery support to the South Korean army); command, control, and communications units; tactical intelligence units; one U.S. Air Force wing, including three squadrons of F-4 tactical fighters; and Air Force support elements for maintenance of two air bases in "caretaker" status for potential deployment of additional U.S. tactical aircraft.

3/ "President Slows U.S. Pullout from Korea," The Washington Post (April 22, 1978). The manpower reduction will actually be managed by an advance cutoff of replacements. Thus, in order to meet the timetable established for the first phase of the withdrawal, personnel replacement cutoffs would begin by mid-summer 1978. The U.S. withdrawal from South Vietnam was handled in a similar manner. See "Army to Feel Pullout Effect by Summer," Army Times (March 27, 1978).

the President indicated, U.S. tactical air and naval forces will remain in place, as will intelligence units. Secretary of Defense Brown has further stated that the United States will maintain some logistics support forces in South Korea as part of the compensatory package. 4/

Since the American troops will leave behind much of their weaponry, they will have to be re-equipped if they are retained as part of the active Army. The current active Army force structure includes seven "light" and nine "heavy" divisions. The Army plans to convert two of its light (infantry) divisions to heavier mechanized divisions. At issue is whether to mechanize the 2nd Division, either in place of one or in addition to both of them. Because of the long lead time involved in the production of tanks, armored fighting vehicles, and other heavy equipment required to outfit an entire division, the Army has requested \$99 million in procurement funds in the fiscal year 1979 budget to begin conversion of the 2nd Division and its support units.

Recent base closures and the addition of three active divisions to the force structure have left the Army without a domestic U.S. base capable of accommodating an additional full-strength division. No existing base installation has the requisite combination of adequate housing, training grounds, and support facilities for the entire 2nd Division. Maintaining the division as a single entity would require building extensive new facilities, perhaps by expanding an existing installation. Splitting the division into brigade-sized units and stationing them separately would probably also require some base construction. Substituting some reserve units for active units could ease the demand for permanent base facilities (and save manpower costs), but this alternative would be feasible only if the division's home base were accessible to reservists.

An additional consideration in selecting a U.S. base for the 2nd Division is the suitability of its geographical location. Proximity to the 2nd Division's most likely theater of action and, in particular, to available strategic mobility assets will be important planning factors. Mechanization could also affect both

4/ Statement of Secretary of Defense Harold Brown before the House International Relations Committee concerning the withdrawal of U.S. ground forces from Korea (February 22, 1978; processed).

the selection of a base and the level of military construction, because of additional demands for space in training and equipment storage.

The fiscal year 1979 budget contains no funds to support restationing of the 2nd Division. A decision on final stationing is not expected until mid-summer 1978. A supplemental request or some reprogramming of military construction authority will probably be required to accommodate the first returning troops.

Depending upon the post-Korea mission of the 2nd Division, changes in the level of U.S. mobility forces and logistics support may also be implied. If these troops were no longer deployed as part of U.S. forward-based forces, airlift or sealift assets would be needed to transport them to overseas battlefields. In certain more demanding scenarios, additional strategic--that is, trans-oceanic--mobility forces might be needed to deploy an extra division in a timely fashion. Alternatively, airlift requirements for rapid deployment could be reduced by pre-positioning equipment for the division in or near the theater. Although the fiscal year 1979 budget submission makes no explicit connection between withdrawal from Korea and the level of U.S. strategic mobility and logistics procurement programs, the Congress may wish to examine that question closely in its review of this and subsequent defense budgets.

The issue of military aid for Korea will be considered by the Congress independently of the issue of the future role of the 2nd Division. Nevertheless, different options for the troops may imply different levels of military aid, primarily because of political perceptions, both here and abroad. The special military assistance package negotiated with the South Koreans and now pending approval in the Congress is intended to compensate for the withdrawal of U.S. ground forces in two ways. First, an aid program might compensate for any loss in military ground capabilities resulting from the U.S. withdrawal and thereby stabilize the military balance between North and South Korea. Secondly, an aid program might serve as a political signal that the United States remains firmly committed to the defense of South Korea.

Chapter II of this study examines the implications of the withdrawal from Korea for U.S. general purpose force posture and planning. More specifically, it addresses critical issues in U.S. ground force planning for two contingencies. The first contingency is a war in Europe between NATO and the Warsaw Pact.

NATO has a high priority in the fiscal year 1979 defense budget, and this study presents some of the advantages and disadvantages of assigning the 2nd Division a NATO mission. The second contingency is a smaller conflict, involving U.S. forces elsewhere in the world. Korea could exemplify such a contingency, and this study discusses the contributions the United States might need to make in the event of future hostilities there. The Administration's proposed military aid package for South Korea is discussed within that framework. (An Appendix briefly examines the military balance between North and South Korea as background for this discussion.) The section closes with a discussion of DoD plans for the 2nd Division and raises a number of issues for Congressional consideration.

Chapter III presents the Congress with a range of policy options for the future of the 2nd Division and their estimated cost impact. Four key variables, each one of which may have significant budgetary impact, are identified and discussed within the framework of each option: configuration, basing, mobility and logistics, and compensatory aid. The options described here conform to three distinct policy approaches. One would disband the 2nd Division. A second set of options would designate the division for NATO reinforcement. A third would earmark it as a contingency force oriented primarily toward Asia.

CHAPTER II. IMPLICATIONS OF THE KOREA WITHDRAWAL FOR U.S.
GENERAL PURPOSE FORCES PLANNING

U.S. DEFENSE POSTURE AND GROUND FORCES

In considering what to do with the 2nd Division once it has been withdrawn from Korea, the Congress confronts choices that may affect the defense posture and the overall force structure of the United States. The withdrawal from Korea thus provides the Congress with an opportunity for reexamining priorities for U.S. conventional forces. What U.S. forces are needed to meet our NATO obligations? What kinds of forces would be required in a NATO war? Does the United States have enough--or too many--light divisions in its force structure for Asian--or other--contingencies? Do combined force requirements justify present force levels?

As Secretary of Defense Brown has detailed in his annual report to the Congress, the United States plans its general purpose forces in terms of their ability to fight one-and-one-half wars simultaneously. A war between the Warsaw Pact and NATO is defined as the major contingency; hence it receives primary emphasis in military planning. For force planning purposes, the Middle East, the Persian Gulf, and Korea are viewed as the most likely alternatives for a "half war." ^{1/} Other specialized forces are also maintained as hedges against unforeseen minor contingencies elsewhere in the world.

The United States can field 19 active ground combat divisions, 16 Army and 3 Marine. Of those, 10 are so-called "light" divisions, including 7 Army infantry, airborne, and airmobile divisions, and all the Marine divisions. Light infantry divisions are characterized by a relatively low ratio of firepower to manpower and by a traditional reliance on the individual foot soldier for mobility on the battlefield. Because its heavy airlift requirements are comparatively small, a light division can be deployed overseas with relative ease and speed. The light

^{1/} Department of Defense, Annual Report, Fiscal Year 1979, pp. 80-81.

buying expensive new strategic assets, there are numerous practical and political difficulties associated with it. 8/

The nature of a NATO war--particularly its timing--also bears on the question of the right mix of active and reserve units for NATO reinforcement. When the Army added three divisions, it did not increase the number of its troops, in part because it is relying more heavily on the reserves. The Army's affiliation program, in which some reserve units are associated with active units, is indicative of current defense planning, designed to deploy at least some of the reserves at an early stage of a European war. At the same time, however, the reserves have encountered difficulties in maintaining their readiness. 9/

THE FUTURE ROLE OF U.S. FORCES IN KOREA

A new outbreak of hostilities in Korea is regarded by the Defense Department as one of the most plausible and demanding scenarios for the "half war." Despite important asymmetries, the military balance between North and South Korea now seems even enough to present substantial risk to North Korea that an attack could fail. 10/ In recent years, the disparity between North and South Korea has diminished, as the forces on both sides have grown and been modernized. In 1971, after the withdrawal of one of the two U.S. infantry divisions then deployed in Korea, South Korea

8/ For a discussion of strategic mobility force options, see Congressional Budget Office, U.S. Air and Ground Conventional Forces for NATO: Mobility and Logistics Issues, Background Paper (March 1978). An alternative to deploying heavy armored forces against Warsaw Pact tank divisions might be to equip some U.S. light divisions with less expensive but highly effective and more easily transportable antitank weapons, such as precision-guided munitions.

9/ For discussion of reserve issues, see Congressional Budget Office, Improving the Readiness of the Army Reserve and National Guard: A Framework for Debate, Budget Issue Paper (February 1978).

10/ See the Appendix for a more detailed discussion of the military balance between North and South Korea.

embarked upon a major effort to improve its armed forces. In 1976, South Korea began a second five-year Force Improvement Plan (FIP). The United States now plans to withdraw the remaining infantry division and its combat support units during the next several years. That decision reflects an estimate that South Korea will be able to defend itself against North Korea without U.S. ground forces.

The U.S. 2nd Infantry Division and its support units--which account for less than 5 percent of all U.S. and South Korean troops--do not appear to materially affect the balance, given the level of forces maintained by North and South Korea. Although they possess useful capabilities, U.S. ground forces are stationed in Korea primarily for political and deterrence purposes, not as critical resources in defending South Korea against North Korean attack. Thus, the problem of offsetting the withdrawal of U.S. ground forces is primarily a political one whose solution necessarily implies judgments as to what constitutes an effective deterrent.

U.S. officials have been careful to emphasize that, despite the planned withdrawal of ground troops, the American commitment to South Korea remains firm. ^{11/} Such statements of intent have been supplemented by actions designed to demonstrate their seriousness. The United States plans to augment its tactical air forces in Korea, adding 12 F-4s to the 60 already there. ^{12/} And in March 1978, U.S. and South Korean armed forces participated in a well-publicized joint exercise, reported to be the largest peacetime exercise ever staged by American forces overseas. ^{13/} A continued pattern of such activity can be expected to have an impact throughout Northeast Asia.

^{11/} See, for example, Secretary of Defense Brown's statement to the National Press Club, May 25, 1977; President Carter's remarks to newspaper editors as reported in the Washington Post (January 15, 1978).

^{12/} U.S. Department of State, Report on Korea: 1977, p. 10; "President Slows U.S. Pullout from Korea," The Washington Post (April 22, 1978).

^{13/} "U.S. Moves to Show Ability to Rush to Seoul's Aid," Washington Post (March 16, 1978).

Nevertheless, should deterrence fail in Korea, U.S. forces would probably be called upon to intervene. Their role would vary across a range of possible scenarios. Given a continued fairly stable military balance between North and South Korea, the escalation of a low-level incident into a full-scale war through a series of miscalculations could be as likely to occur as a premeditated attack. To bolster deterrence and preserve the balance, a rapid response by U.S. forces in the Pacific might be necessary. The Secretary of Defense has identified the forces immediately available to respond to a Korean crisis: nine squadrons of land-based fighter/attack aircraft (three squadrons in Korea), the two brigades of the Third Marine Amphibious Force (including its tactical air wing) in Japan (Okinawa), and the 20 to 25 combat ships of the Seventh Fleet, including two aircraft carriers. 14/

In the case of an unaided North Korean attack across the Demilitarized Zone (DMZ), South Korean ground forces appear capable of maintaining their own defenses. That assessment underlies the decision to withdraw the 2nd Infantry Division. The reintroduction of the 2nd Division--or a similar unit--appears to be redundant of South Korean capabilities, and it would probably add only marginally to the military effort against the attackers. In those circumstances, the most valuable U.S. contribution would be additional tactical air power, brought in as necessary from elsewhere in the Pacific or from the continental United States (CONUS). U.S. logistics support might also be

14/ Department of Defense, Annual Report, Fiscal Year 1979, p. 91. To illustrate, the United States responded swiftly to the August 1976 tree-cutting incident near Panmunjom, in which two American officers were killed. A squadron of F-4s from Okinawa was deployed to Korea the day after the incident occurred. Within 15 hours of a decision, a squadron of F-111s arrived in Korea from Mountain Home AFB, Idaho. Within three days, the aircraft carrier MIDWAY and its Task Group arrived on station in the Korea Strait. See statement of Gen. George S. Brown, in Military Posture and H.R. 5068: Department of Defense Authorization for Appropriations for Fiscal Year 1978, Hearings before the House Committee on Armed Services, 95:1 (February, March, and April 1977), Part 1, p. 164.

required. Nevertheless, the Department of Defense plans to maintain the capability to reintroduce the 2nd Division "should conditions so dictate." 15/

In the event of a major war in Korea in which Chinese or Soviet troops participated, South Korean forces would require major ground reinforcements from the United States. The reintroduction of a single infantry division would in itself make little difference. At the height of the Korean War, for example, the United States deployed eight divisions in Korea. Although there are adequate forces in the U.S. force structure, without the 2nd Division, to meet a North Korean attack aided by Soviet or Chinese forces, a simultaneous crisis in Europe--or the threat of one--could force a difficult choice.

The character and level of U.S. force requirements needed to meet a conflict in Korea would depend in part on South Korean defense capabilities. The United States has an interest in ensuring that South Korea can maintain its side of a stable military balance. To the extent that the South Koreans are unable to accomplish that by themselves, a continued program of U.S. military assistance may be warranted.

U.S. MILITARY AID FOR SOUTH KOREA

In 1971, following the withdrawal of a U.S. infantry division, the United States and the Republic of Korea (ROK) developed a five-year modernization plan for the South Korean armed forces, financed by \$1.5 billion in U.S. military assistance. The program was largely a success, although its completion was delayed. In mid-1975, South Korea initiated its own Force Improvement Plan (FIP), with a price tag of \$5.5 billion. President Park's stated goal at that time was independence of U.S. support within five years. The FIP included substantial increases in modern fighter aircraft, air defense improvements, an upgraded tank force and acquisition of TOW antitank missiles, improved artillery, and improvements in logistics and war reserve stocks.

President Carter's decision to withdraw U.S. ground forces prompted the South Koreans to revise the FIP, an effort which is

15/ Department of Defense, Annual Report, Fiscal Year 1979, p. 91.

11

still underway. The FIP is being financed by substantial increases in the South Korean defense budget, made possible by the continuing high rate of growth of the South Korean economy. Nevertheless, the South Korean government is likely to encounter difficulties in financing the foreign exchange requirements for the kinds and amounts of weapons in the FIP, and it has sought substantial foreign military sales (FMS) credits from the U.S. government. In fiscal year 1978, the Congress approved \$275 million in FMS credits for South Korea. The President has requested \$275 million for fiscal year 1979, and the Administration expects to ask for a similar amount for each of the next few years.

In addition, the U.S. withdrawal plan includes provisions for turning over to the South Korean armed forces, on a grant basis, much of the equipment belonging to the 2nd Division. President Carter has requested the Congress to approve legislation authorizing the transfer of approximately \$800 million worth of that equipment, including tanks, TOW antitank missiles, long-range artillery, and surface-to-air missile batteries. 16/ The division's inventory of about 100 M60 tanks will return with the unit, and the Koreans will instead be given some 200 older M48s, which will be modernized and equipped with bigger guns. U.S. and South Korean officials have announced that such "compensatory measures will be implemented in advance of or in parallel with the withdrawals." 17/

Consistent with its goal of self-reliance, South Korea has built up an impressive indigenous arms industry over the last

16/ The \$800 million calculation is the replacement cost, depreciated for the age and estimated condition of the equipment at the anticipated time of transfer. The total equipment value will depend on the inflation rate at the time of actual transfer as well as on the condition of the equipment and attrition. Also, under the "special authority" provision of the proposed legislation, the items projected for transfer could change somewhat in type and quantity.

17/ "Joint Statement of the Tenth Annual Republic of Korea--United States Security Consultative Meeting" (July 26, 1977; processed).

decade, with U.S. technical assistance. 18/ The Koreans handle all their own vehicle overhaul and repair, and they manufacture many of their own heavy trucks. They rebuild M47 and M48 tanks and manufacture many of their own spare parts. A fledgling helicopter industry exists, and naval construction (mostly fast patrol boats) is being developed. The South Korean defense industry reportedly produces its own smaller hardware, such as mortars, M16 rifles, grenade launchers, and submachine guns, as well as heavier armaments and some ammunition. 19/ Today, 50 percent of all military equipment used in South Korea is produced locally. Some observers believe that, by the early 1980s, South Korea will be able to manufacture enough equipment to meet all its military needs, with the exception of highly specialized electronic equipment and aircraft. This appears, however, to be an optimistic assessment. 20/

The South Korean armed forces are still hampered by an inefficient communications and command structure. U.S. advisory assistance is focused on management systems to combat those problems. A joint U.S.-ROK command structure, now being created, will remain in place after U.S. ground forces leave, for both technical and political reasons. The South Koreans are not yet able to operate much of the advanced electronic equipment used for intelligence purposes by U.S. support units in Korea. Skilled technicians to operate and maintain a range of advanced weapons systems are also in short supply. Thus, the withdrawal of some U.S. combat support units will probably increase the demand for U.S.-supported military training of South Koreans. The fiscal

18/ North Korea has its own well-established arms industry, producing much of its own equipment, apart from tanks, aircraft, and some types of missiles. Most of North Korea's locally manufactured weapons are built to Soviet design. Though the South Korean arms industry is less well developed, South Korea's strong economic and technological base should provide a decided advantage over time.

19/ "War-Conscious South Korea is Growing as a World Supplier of Military Goods," The Wall Street Journal (January 10, 1978); "South Korea Builds a Defense Industry," New York Times (October 10, 1977).

20/ "Seoul in Weapons Race," Far Eastern Economic Review (June 10, 1977), p. 10.

year 1979 military assistance budget submission contains \$2 million to cover initial training costs.

DEFENSE DEPARTMENT PLANS FOR THE 2ND DIVISION

The Army has begun its plan to convert two infantry divisions (the 24th Infantry at Ft. Stewart, Georgia, and the 9th Infantry at Ft. Lewis, Washington) into mechanized divisions. This program is consistent with reorienting the U.S. defense posture toward a stronger primary emphasis on the possibility of a conventional war in Europe against a heavily armored adversary. Earlier this year, the Defense Department announced its intention to mechanize the 2nd Division upon its withdrawal from Korea and to delay the previously planned conversion of the 9th Division. 21/

A decision about where to base the returning troops is not expected until summer 1978. Nevertheless, the Defense Department is reportedly considering distributing the forces among three bases in the northeastern United States, where the climate and terrain are more comparable to conditions in Europe than they are at other available basing sites. 22/ Other options include bases in the South, which could also involve transferring some units or activities among installations. 23/ These arrangements could entail some problems for readiness, since the division would be split and brought together only periodically for training. Furthermore, current facilities at most northeastern bases could not easily accommodate mechanized units because of a relative shortage of space for both equipment storage and maneuvers. The Army is reportedly planning to retain two active brigades of the 2nd Division and to replace the third brigade with a reserve component. 24/

21/ Department of Defense, Annual Report, Fiscal Year 1979, pp. 141-142.

22/ "Shift Sought of Troops in Korea to 3 Northeast Bases," New York Times (January 5, 1978), p. 11.

23/ "Stateside Shifts Seen in Second Division Move," Army Times (April 24, 1978), p. 20.

24/ "Twenty Sites in Line as 2nd Division Home," Army Times (January 16, 1978), p. 10.

President Carter has said that the 2nd Division will be used as a reserve for a NATO conflict. 25/ At the same time, the Defense Department has singled out the 2nd Division for redeployment to Korea if the need should arise. 26/ Although those two statements are not necessarily contradictory (to the extent that the forces are fungible assets), the future mission of the 2nd Division remains unclear. It appears, however, that these troops are being reconfigured for NATO warfare, possibly leaving the 9th Division on the West Coast as a light force for a Korean contingency.

A number of issues stemming from the Korean troop withdrawal remain unsettled. Many of these issues could significantly affect the defense budget over the next few years. For example, although the Army might shift procurement funds for mechanizing another infantry division from the 9th to the 2nd Division, thereby avoiding additional expenditures in fiscal year 1979, the question of the proper light/heavy mix in the force structure would still be unresolved. If additional divisions were to be mechanized, additional funding would eventually be required. 27/ Associated issues merit close attention as well; for example, strategic mobility requirements for a significantly heavier force could add to defense costs.

25/ "South Korea Still 'Strong Ally,' Carter Says," Washington Post (January 15, 1978).

26/ Department of Defense, Annual Report, Fiscal Year 1979, p. 91.

27/ Recent reports suggest that DoD budget guidance for the Army may include plans to mechanize the 9th Division by fiscal year 1982. See, for example, "U.S. Goals for NATO Summit," Aviation Week and Space Technology (May 8, 1978), p. 18.

CHAPTER III. POLICY OPTIONS AND COST IMPACTS

In considering the fiscal year 1979 and subsequent defense budgets, the Congress will have an opportunity to shape the disposition of the forces being withdrawn from Korea. Options for these forces can be grouped into three categories according to policy orientation; cost impact is measured against DoD's current five-year defense program. Option I would delete the 2nd Division from the force structure, which could result in considerable savings over the next five years. Options II-A, II-B, and II-C, though differing in detail, would transfer the 2nd Division into the pool of forces intended primarily for use in a NATO war. Depending upon how this objective was accomplished, the cost impact could vary from modest savings to large additional expenditures. Option III would maintain the 2nd Division as a light force for contingencies, which would entail relatively low costs.

The choice of an overall policy option would logically tend to dictate the outcome of a number of separate, but associated, decisions. Four of those decisions are likely to have significant budgetary impact: the future configuration of the 2nd Division, where and how it is to be based, mobility and logistics support, and the level of compensatory military aid to South Korea (see Table 1).

Each option described here assumes a phased withdrawal of U.S. ground forces from South Korea, to be accomplished over a five-year period (1978-1982), in accordance with President Carter's announced decision. These options are to some extent illustrative and are not exhaustive of the range of possible choices. Table 2 shows the impact of these options on the Army force structure.

Under different circumstances, different combinations of policies may be warranted, since the four key variables identified here are responsive in different degrees to different pressures. For example, the level of military aid to South Korea may depend more heavily on U.S. foreign relations or on unrelated domestic political factors than on the future orientation of the 2nd Division. Indeed, the options presented here do not include specific details for alternative military aid packages. Rather, they are framed in terms of relative levels, using the Administration's proposed package as a baseline.

TABLE 1. POLICY OPTIONS, BY KEY VARIABLES

Policy Options	Configuration	Basing	Mobility and Logistics	Military Aid to South Korea
Option I: Delete from Forces	N/A	N/A	N/A	Higher level
Option II-A: Designate for NATO-- Split Up and Substitute for Reserves	Mechanize troops affiliated with mechanized divisions; re-equip others as infantry	Station in U.S.; utilize existing base facilities; upgrade as necessary to accommodate active-duty forces instead of reserves	Current program levels	Moderately high level
Option II-B: Designate for NATO-- Reduce Size and Round Out with Reserves	Mechanize two active brigades and the reserve round-out brigade	Station in U.S.; utilize existing base facilities; renovate and expand as necessary	Additional strategic airlift or pre-position equipment in Europe	Moderately high level
Option II-C: Designate for NATO-- Keep Together at Full Strength	Mechanize entire division	Station in U.S.; utilize existing base facilities if possible; build new base facilities as necessary to receive entire division	Additional strategic airlift or pre-position equipment in Europe	Moderately high level
Option III: Designate as Contingency Force	Re-equip entire division as infantry	Station in U.S.; upgrade existing base facilities to accommodate entire infantry division	Current program levels	Lower level

TABLE 2. EFFECT OF POLICY OPTIONS ON ARMY FORCE STRUCTURE

Policy Options	Active Divisions		Reserve (National Guard) Divisions	Total
	Armored and Mechanized ("Heavy")	Infantry ("Light")		
Fiscal Year 1979 DoD Programmed Forces	10	6	8	24
Option I: Delete from Forces	11	4	8	23
Option II-A: Split Up and Substitute for Reserves	11	4	9	24
Option II-B: Reduce Size and and Round Out with Reserves	12	4	7-2/3	23-2/3
Option II-C: Keep Together at Full Strength	12	4	8	24
Option III: Designate as Contingency Force	11	5	8	24

OPTION I: DELETE THE 2ND DIVISION FROM THE FORCE STRUCTURE

This option is designed to realize maximum savings from the planned troop withdrawal. Instead of relocating the troops as they leave Korea, this option would phase them out of the force structure altogether, reducing the size of the Army from 16 to 15

active divisions. Deactivation would be completed by 1982, proceeding apace with the withdrawal timetable.

The policy basis for a decision to deactivate the 2nd Division would be a judgment that the United States has sufficient defense capabilities to meet likely and foreseeable threats without that division. More specifically, such an evaluation would conclude that, once the 2nd Division left Korea, other U.S. forces for Asia would be adequate in the event of a conflict and that U.S. forces currently earmarked for NATO warfare are adequate.

This option would generate substantial savings over a five-year period. Although there would be costs associated with closing down military facilities and discharging military personnel, the level of savings would rise as units were phased out. From fiscal year 1979 through fiscal year 1983, net savings could be expected to reach a total of \$1.28 billion (see Table 3 at the end of this chapter).

This option would avoid major expenditures for new equipment, refurbished basing facilities, and additional mobility and support forces for the division. Option I would, however, imply relatively high levels of military aid to South Korea, in part because of an increased need for self-reliance on the part of the South Korean armed forces. That is, there would be fewer U.S. forces available to perform an unchanged global mission. In particular, however, a large aid package would bolster political confidence (on all sides) in the U.S. commitment to the defense of South Korea under these altered circumstances.

Components of such an aid package, beyond the \$800 million proposed by the President, might include increased levels of foreign military sales (FMS) credits during the withdrawal period to finance such programs as an improved air defense capability, increased tank inventories, and enlarged war reserve stocks for South Korea. More FMS credits could amount to a total of \$41 million in direct annual appropriations, or \$205 million over the five-year period. ^{1/} An increase in the level of U.S. tactical air forces in Korea--deploying another squadron of F-4s or substituting more advanced F-16s for some or all of the F-4s now

^{1/} Direct appropriations are required for 10 percent of the total value of FMS credits granted by the United States to a foreign nation.

deployed in South Korea--would be consistent with this option. Deployment of an additional tactical squadron to Korea would cost about \$15 million annually. Thus, the savings realized by eliminating the 2nd Division could be partially offset by these aid-related expenditures, and the net budgetary impact of Option I over five years could be less than otherwise anticipated.

OPTION II: RECONFIGURE THE 2ND DIVISION AND DESIGNATE IT FOR NATO WARFARE

Three different approaches to implementing this policy choice are described here. Many proponents of a NATO-oriented defense policy argue that the United States requires additional forces to meet its NATO objectives and that the withdrawal of U.S. ground forces from Korea offers an opportunity of adding an "extra" division to U.S. NATO capabilities. Yet the 2nd Division, as now constituted, may not be optimal for European warfare. For example, some analysts argue that an additional infantry division would add only marginally to U.S. and allied capabilities against heavily armored Warsaw Pact forces. A principal issue, then, is whether to convert the 2nd Division from an infantry to a mechanized force. A decision to mechanize that division would be most clearly consistent with selection of a NATO-oriented policy option.

This option would also require that the division be stationed where it could move expeditiously to the European battlefield. Adequate training grounds for NATO-type warfare should also be available. This would probably necessitate construction of new base facilities or renovation of existing ones. Current strategic mobility and logistics programs would have to be evaluated to determine whether they would be able to accommodate another NATO division. In addition, a NATO-oriented option would argue for a moderate to high level of military aid for South Korea, given the implicit shift away from Asian concerns to the European military balance.

Option II-A: Split Up the 2nd Division and Substitute for Reserve Round-Out Brigades

Under this option, the 2nd Division would be withdrawn from Korea in brigade-sized groups. Each brigade would be used to round out one of three CONUS-based divisions that now use

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reserve round-out brigades. 2/ The effect of substituting active for reserve units would be to delete a division from the force structure but to maintain currently authorized active manpower levels.

Key decisions consistent with this option would be to:

- o Mechanize units that would be affiliated with mechanized infantry divisions and re-equip as infantry troops that would round out infantry divisions.
- o Upgrade some existing base facilities to accommodate active-duty forces instead of part-time reserve units.
- o Maintain the currently programmed level of strategic mobility forces, since this option would substitute active for reserve forces but would not add to the size of the total force to be mobilized for a NATO war.
- o Furnish a moderately high level of military aid to South Korea; for example, undertake the proposed equipment transfer package and continue current levels of FMS credits during the withdrawal period.

The principal advantage of this option is that it should improve the overall readiness and effectiveness of existing forces. Military construction costs would probably be relatively low, and support structures would probably require only minimal expansion. If necessary, the reserve round-out units replaced by elements of the 2nd Division could be retained.

On the other hand, the "splitting-up" option would entail the loss of some flexibility on the part of the Army, because one divisional command structure would be disbanded. In addition, substituting active units for reserve round-out brigades would

2/ The Army has four divisions that have only two active brigades. Reserve units are used to "round out" the divisions and bring them up to full strength when necessary. Divisions having round-out brigades are the 24th Mechanized Infantry Division at Ft. Stewart, Georgia, the 5th Mechanized Infantry Division at Ft. Polk, Louisiana, the 7th Infantry Division at Ft. Ord, California, and the 25th Infantry Division in Hawaii.

dilute the Army's "total force" concept, which has emphasized increased reliance on the reserves.

This option can be expected to generate moderate costs, which are estimated to total \$1.48 billion from fiscal year 1979 through fiscal year 1983 (see Table 3).

Option II-B: Reduce the 2nd Division to Two Active Brigades and Round It Out with Reserves

This option would create another reserve-affiliated division, but it would not change the total number of active divisions in the Army force structure. Assuming that the authorized slots from the deactivated third brigade were not allocated elsewhere, this option could reduce overall active manpower levels and costs. The reserve round-out brigade could be assigned from the pool of existing unaffiliated reserve units.

Consistent with Option II-B would be decisions to:

- o Mechanize the remaining two active brigades and the reserve round-out brigade.
- o Station the division in the central or eastern continental United States, utilizing existing base facilities which would be renovated and expanded as necessary.
- o Procure additional strategic mobility assets (aircraft) or pre-position a division set of equipment in Europe.
- o Provide a moderately high level of military aid to South Korea.

This option would generate considerable associated expenditures, despite reduced manpower costs. Although an additional mechanized division may be the best choice in view of NATO battle-field requirements, it would be virtually useless in the event of a war unless it could be transported to the European theater in time to make a difference in the allied effort. Hence, procuring heavy weapons for a mechanized infantry division might not prove cost-effective unless sufficient airlift capacity were also programmed. Pre-positioning a division set of equipment in Europe would, however, drastically reduce airlift requirements

for this division in time of war. Military construction costs for this option could also be substantial, depending upon the base site.

Proponents of this option contend that it would significantly increase U.S. capabilities in a NATO war, at a tolerable cost. Adding another mechanized division might provide a hedge against the possibility that a NATO war would not end quickly but would instead require U.S. reinforcements over a period of many months. By cutting the active component of the division to two brigades, manpower and support costs could be reduced. At the same time, additional reserve units would have a chance to upgrade their capabilities by training with an active division. Nevertheless, the reserve affiliation would probably lead to a lower level of readiness for the 2nd Division than would otherwise be the case.

Net costs of this option for the five-year period from fiscal year 1979 through fiscal year 1983 can be expected to total \$790 million (see Table 3).

Option II-C: Keep the 2nd Division Together at Full Strength

This option would imply phasing out the 2nd Division from Korea, as planned, and gradually reassembling it as a complete active division by the end of the five-year period. The ultimate effect of this option would be to maintain the current number of active Army divisions and the same level of active manpower. Although the transition period could cause some dislocation, resulting in a somewhat lower level of force readiness, the overall capability for NATO warfare would be improved by the time the plan was completed. As in Option II-B, the addition of another division designated for NATO reinforcement would require a reevaluation of strategic airlift capabilities, to ensure that a larger and heavier force could be transported rapidly in the event of war.

Option II-C suggests decisions to:

- o Mechanize the entire division.
- o Station the division in one location in the central or eastern continental United States, utilizing existing base facilities to the extent possible and building new ones as necessary.

- o Procure additional strategic mobility assets (aircraft) or pre-position a division set of equipment in Europe.
- o Provide a moderately high level of military aid to South Korea.

The chief advantage of Option II-C is that it would make an entire additional active mechanized division available for NATO reinforcement. Because the division would be kept together, it could be trained and deployed as a single unit. This kind of efficient organization would be important in a NATO situation that demanded rapid response.

Nevertheless, this option could be quite expensive. Not only would the Army incur the one-time outlay for re-equipping the 2nd Division as a mechanized division, but it would also continue to bear high manpower costs. In addition, the problem of finding base facilities large enough to accommodate the entire division would be a difficult one. And the solution would probably entail substantial military construction costs, as well as continuing high maintenance and support costs.

Total costs for Option II-C can be expected to run as high as \$1.79 billion from fiscal year 1979 through fiscal year 1983 (see Table 3).

OPTION III: DESIGNATE THE 2ND DIVISION FOR DEPLOYMENT IN A "HALF-WAR" CONTINGENCY

Under this option, the withdrawal of U.S. ground forces from Korea would proceed as planned over a five-year period, with the 2nd Division reassembled as a complete division by the end of that period. Once reassembled, the 2nd Division would be earmarked as a light contingency force. The contingency of primary concern might be a renewal of hostilities on the Korean peninsula, but this force could be useful in other situations as well. As in Option II-C, overall capabilities would be somewhat diminished during the transitional years because of problems of dislocation.

Consistent with this option would be decisions to:

- o Re-equip the 2nd Division as an infantry division, merely replacing the weapons left behind for the South Koreans.

- o Station the division in CONUS (perhaps on the West Coast, if an Asian contingency is to be stressed) and upgrade base facilities if necessary.
- o Maintain the currently programmed level of strategic mobility forces.
- o Furnish less military aid to South Korea than those proposed by the Administration.

Undoubtedly, the strongest argument in favor of this option is that it would provide a hedge against "half-war" contingencies that could call for relatively high force levels. If accompanied by specific actions, it could also serve as a clear signal of U.S. intent to recommit ground forces to Korea if that became necessary. Thus, some Administration Asia experts maintain that basing the 2nd Division on the West Coast would help quell Asian fears that the United States is turning its back on the Pacific. Other steps could be taken to bolster the impression of continued strong U.S. resolve in Korea. For example, equipment for a U.S. division could be pre-positioned in South Korea in order to facilitate the rapid return of American combat troops and increase the credibility of the U.S. commitment to its defense.

Despite the high political value of this policy, it is not clear that it would be cost-effective from a military standpoint. Sufficient U.S. forces appear to be available at present to respond to foreseeable contingencies, including a political crisis or low-level incident between North and South Korea. In the case of a new Korean war involving either the Soviet Union or China, one U.S. infantry division would contribute only marginally to the large force requirements that would be generated. In the face of such a serious threat, the United States would have to draw upon other forces in strategic reserve as well.

Option III is likely to be fairly low in cost. Procurement costs to outfit an infantry division would be considerably less than for a mechanized division. A major expenditure under this option could be base construction costs, since there do not appear to be facilities on the West Coast that can adequately house an entire division. Additional mobility forces (principally airlift) would probably not be needed to deploy an extra light division overseas in time of crisis--unless that crisis were to occur simultaneously with a major airlift operation to the NATO front. Substantially less military aid for South Korea could be tolerated.

Over the five years from fiscal year 1979 through fiscal year 1983, Option III would cost a total of approximately \$1.32 billion (see Table 3).

TABLE 3. COST EFFECTS OF POLICY OPTIONS: CHANGES TO FISCAL YEAR 1979-1983 FIVE-YEAR DEFENSE PROGRAM: BY FISCAL YEAR, IN MILLIONS OF FISCAL YEAR 1979 DOLLARS a/

Policy Options	1979	1980	1981	1982	1983	Total	New Base Cost Add-On <u>b/</u>
Option I: Delete from Forces <u>c/</u>	-60	-110	-240	-370	-500	-1,280	--
Option II-A: Split Up and Substitute for Reserves	290	500	440	150	100	1,480	--
Option II-B: Reduce Size and Round Out with Reserves	260	500	320	-120	-170	790	350
Option II-C: Keep Together at Full Strength	290	730	580	130	60	1,790	550
Option III: Designate as Contingency Force	270	540	480	40	-10	1,320	450

a/ Estimates of the costs of each option assume that the 9th Division will be mechanized (see "U.S. Shapes Goals for NATO Summit," Aviation Week and Space Technology (May 8, 1978), p. 18). The costs of strategic mobility programs and military assistance to South Korea are excluded.

b/ Estimates of the costs of each option assume that basing for the 2nd Division will not require construction of extensive military facilities. If, however, the division were based at a site with only limited facilities, additional construction costs would be incurred. The total new base cost add-on would vary according to option.

c/ Option I assumes that the division being deleted is an infantry division.

A P P E N D I X

Measurement of relative military capabilities is difficult and, to some degree, it is always conjectural. There are several reasons why this is so.

First, information about weapons, force structure, the state of unit training, leadership capabilities, and the quality of tactical planning is incomplete. In Korea this is true not only for the North Korean forces but, to a lesser degree, for the South Korean forces as well. Although we know a great deal about South Korean weapons and units, we know less about South Korea's plans for its own defense once U.S. ground forces have been withdrawn. And, notwithstanding South Korean battle achievements in Vietnam, it is extremely difficult to predict the caliber of South Korean military leadership.

Second, we are measuring not only weapons and units, but also the probable outcome of battles and campaigns between North and South Korean armed forces. There are no methods of analysis capable of predicting battle outcomes with much certainty. Further, it is inherently impossible to predict the impact of superior leadership, unexpected weather, or just plain luck. History is replete with instances in which smaller forces defeated larger ones credited with superior combat power. Thus, it is no surprise that military experts disagree about the combat significance of various force and weapon asymmetries between the military forces of North and South Korea.

Third, the relationship between relative warfighting capabilities and deterrence remains mystifying and ambiguous. We do not know why the North Koreans have refrained from attacking South Korea thus far.

1/ This section on the military balance is drawn largely from a previous CBO study, "The Military Balance Between North and South Korean Forces and Its Policy Implications" (May 13, 1977). Estimates in this appendix have, however, been updated and the analysis has been amplified.

Nonetheless, the problem is by no means hopeless. Counting weapons and forces and estimating the relative effectiveness of new versus old weapons systems does yield a strong sense of the probabilities in combat. Moreover, in recent years, the Department of Defense has made great strides in developing analytical techniques for predicting the outcome of battles between modern forces. The results of computer simulation are cross-checked with independent, traditional analysis by senior military officers experienced in combat. This analysis of the military balance between North and South Korea reflects a review of recent classified Defense Department studies as a check on the conclusions reached here.

Key indicators of the present balance between North and South Korea are shown in Table A-1.

North Korea's advantages lie in the following areas:

- o Large numbers of tanks (although not the latest Soviet models);
- o Large numbers of artillery pieces, mortars, and rocket launchers;
- o An extensive air defense system with large numbers of weapons but virtually no modern radar-controlled mobile guns or late-model surface-to-air missiles (SAMs);
- o Greater numbers of, but less capable, tactical aircraft; and
- o Extensive unconventional warfare (commando) forces.

South Korea's strengths are:

- o Superior ground force manpower, particularly with respect to division staying power and reserves;
- o Superior technical capability in tactical aircraft, anti-tank guided missiles, and probably tanks; and
- o Prepared defense positions on advantageous terrain.

TABLE A-1. KEY MILITARY INDICATORS, NORTH AND SOUTH KOREAN ARMED FORCES, CALENDAR YEAR 1977

	North Korea	South Korea
Population	16,720,000	35,200,000
Total Active Forces	500,000	635,000
Total Reserve Forces	Not Available	1,240,000
Ground Forces		
Combat divisions <u>a/</u>	25	20
Marine divisions <u>a/</u>	0	1-2/3
Tanks	1,950	1,100 <u>b/</u>
Armored personnel carriers	750 <u>b/</u>	500 <u>b/</u>
Artillery	3,024	2,000
Rocket launchers	1,200	0
Mortars	9,000	3,000
Surface-to-air missiles	250	120
Anti-aircraft guns	5,500 <u>b/</u>	1,000 <u>b/</u>
Air Forces		
Combat aircraft	630	335
Airlift aircraft	225	46
Helicopters	50	13
Navy		
Combat vessels	425-450	80-90 <u>b/</u>

SOURCE: International Institute for Strategic Studies, The Military Balance, 1977-1978 (London: 1977), pp. 60-61; U.S. Troop Withdrawal from the Republic of Korea, Report to the Senate Committee on Foreign Relations by Senators Hubert Humphrey and John Glenn, 95:2 (January 1978), p. 27.

a/ North Korean divisions are modeled after USSR/PRC divisions, and number about 10,000 men each--roughly 65 percent of the strength of South Korean divisions, which follow U.S. division organization. Most of the manpower differences, however, lie in combat support and logistics troops. Actual deployed combat strength in a North Korean division, including weapons, is roughly the same as that of a South Korean division.

b/ These figures may be much lower than actual inventories.

South Korea's Force Improvement Plan (FIP) calls for more and better tanks, tactical aircraft, antitank weapons, and artillery. Its older weapons--M47 tanks, F-86F fighters, Nike-Hercules SAMs, and 106 mm. antitank recoilless rifles--combined with new systems like F-4 and F-5 fighters roughly match North Korean counterparts but do not offset the larger inventories of the latter. Currently, the FIP is being restructured to take account of the U.S. withdrawal by shifting priorities and adding new programs. 2/

Were these forces positioned in Europe, one might conclude that the North Korean armed forces, though smaller, would be capable of generating significantly more combat power--especially in terms of armored forces, air defense, and close air support--than South Korea. However, the geography of Korea--particularly near the DMZ--tends to lessen some of those advantages. North Korean armored forces, though numerous, cannot be used to maximum effect in the hills and ridges that dominate the DMZ approaches to South Korea. 3/ The South Korean army has recently taken steps to exploit this geographical advantage, restructuring defense

2/ Department of State, Report on Korea: 1977 (submitted in accordance with Section 668 of the Foreign Assistance Act of 1961, as amended), p. 7.

3/ The Korean War illustrates the importance of geography for the structure of South Korean defenses. In June 1950, North Korean forces attacked South Korea and, despite good defensive terrain in the rugged Korean hills near the 38th Parallel, South Korean forces quickly collapsed--a fact of some concern regarding the prospects of a North Korean attack today. In 1950, however, North and South Korean forces were one-fifth the size they are today, and there were insufficient infantry to exploit the defensive character of the ridges and mountains. Moreover, the North Korean force was substantially stronger than South Korea in every respect--a situation very different from today. In April 1951, after seesaw campaigns up and down the Korean peninsula, a North Korean/PRC force of 700,000 attacked across the 38th Parallel again, opposed by a UN force of 555,000 (an army very similar to that of South Korea today). That attack failed; UN forces held Seoul, gave up 35 miles of ground, counterattacked, and captured what is now the DMZ. The April 1951 campaign indicates that, with forces of proper size, the character of the terrain distinctly favors the defense.

units to match the terrain they defend. ^{4/} Moreover, South Korean defenses below the DMZ include extensive and well-constructed tank barriers and prepared defense positions that enhance South Korean combat capabilities.

North Korea's air defense capability is relatively unsophisticated and, without access to modern Soviet air defense systems, North Korean forces cannot expect to provide a mobile, well-integrated battlefield air defense system. This is also true of South Korean air defenses, although improvements are planned. Because both air forces are reasonably well sheltered and protected by anti-aircraft weapons and because battlefield air defenses are not particularly strong on either side, aircraft attrition would result mainly from air-to-air combat. Here, the technological superiority of South Korean aircraft could, over time, provide an edge. ^{5/}

Another significant asymmetry whose impact is difficult to measure is the North Korean numerical advantage in artillery, mortars, and rocket launchers. Under fluid battle conditions, those advantages could be significant. On the other hand, however, South Korean defensive positions are built to withstand artillery fire and North Korean forces must expose themselves in an attack, making the North Korean advantage in artillery less significant. This also means that improvements in South Korean artillery, such as those in the revised FIP, could have a high payoff.

^{4/} "The Jitters on 'Freedom's Frontier'," Far Eastern Economic Review (May 6, 1977), p. 27.

^{5/} The relatively small number of aircraft on both sides (as compared to 1951) probably means that tactical air power would not play as large a role in the ground battle as it did in April 1951. This implies that if U.S. tactical air assets were committed in substantial numbers in support of South Korea, they could have a powerful impact. Senators Humphrey and Glenn concluded in a report to the Senate Foreign Relations Committee that U.S. fighter planes in Korea could, if fully committed, achieve air superiority over the ground battle within the first few days of a conflict. See U.S. Troop Withdrawal from the Republic of Korea, Report to the Senate Committee on Foreign Relations by Senators Hubert Humphrey and John Glenn, 95:2 (January 1978), p. 31.

A key issue is the defense of Seoul, South Korea's capital, which is vulnerable because of its close proximity (30 miles) to the DMZ. Some military analysts are concerned that, in a surprise attack against the South, North Korea could mass its firepower in support of infantry attacks to break through South Korean forward defenses and launch a high-speed armored drive toward Seoul. The South Korean FIP and current U.S. security assistance programs are designed to reduce this risk by improving South Korean firepower, antitank, mobility, and communications capabilities in order to contain North Korean penetration north of Seoul.

Overall, the military balance between North and South Korea appears stable, despite some important asymmetries. North Korea is thus confronted with a substantial risk that an attack against the South could fail. The present advantages favoring the north do not appear to be decisive, given South Korean capabilities and geographical factors.