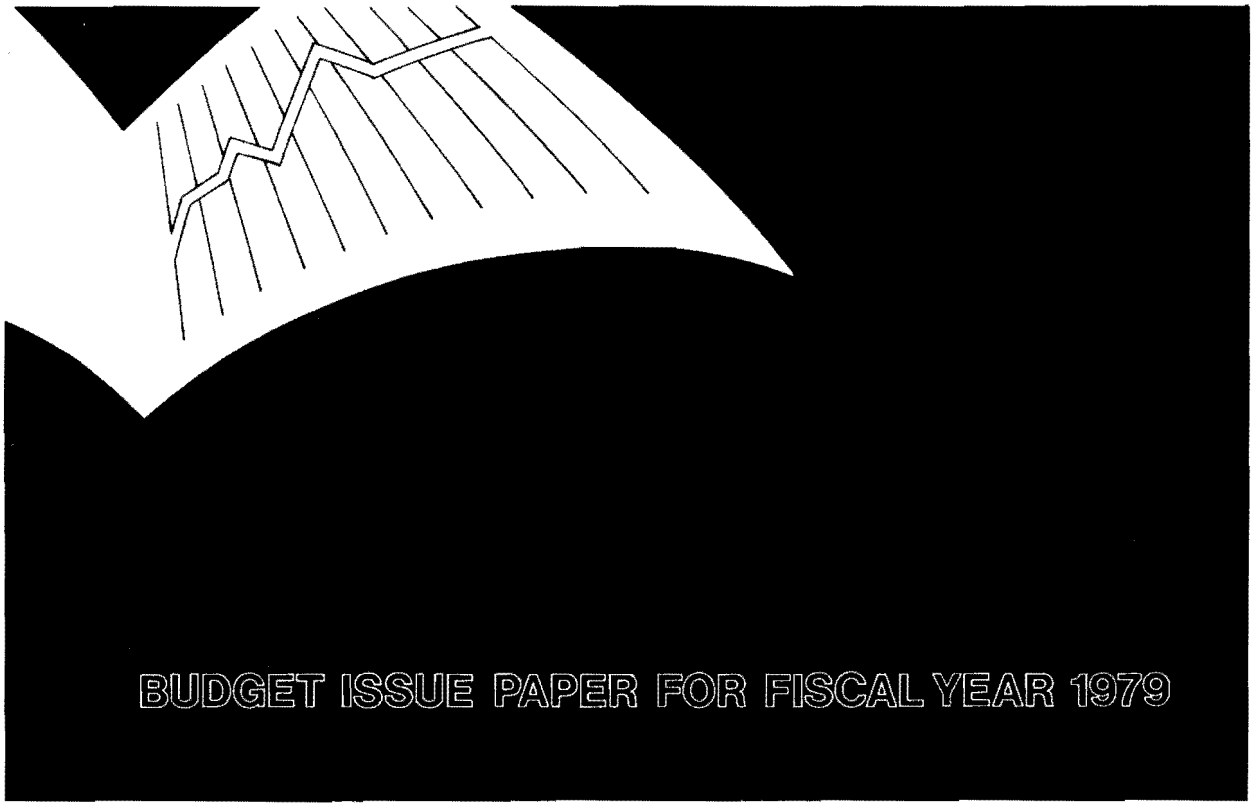
Improving the Readiness of the Army Reserve and National Guard: A Framework for Debate

FEBRUARY 1978



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IMPROVING THE READINESS OF THE ARMY RESERVE AND NATIONAL GUARD: A FRAMEWORK FOR DEBATE

The Congress of the United States
Congressional Budget Office

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PREFACE

In the past few years, numerous proposals have been put forth to devote more resources to improving the readiness of the Army reserve components. The array is likely to grow as the Administration completes several studies now under way. Because of the importance of Army reserve components, and because acceptance of the proposals could mean a substantial increase in the U.S. defense budget, Congressional debate on this topic is likely to be vigorous. Improving the Readiness of the Army Reserve and National Guard, prepared at the request of the Senate Budget Committee, is intended to provide a framework for this debate.

Whether this increased spending is desirable depends on what role the Army reserve components should play in an overall U.S. defense strategy. That question suggests three others: What should be considered in choosing a role for the Army reserve components? Of what value would improved readiness be? And how much would improved readiness cost? These questions are the focus of this study. In accordance with CBO's mandate to provide nonpartisan and objective analysis, the study offers no recommendations.

Robert F. Hale of CBO's National Security and International Affairs Division wrote the study under the supervision of John E. Koehler and James Blaker. The force projections were done by Richard A. Kuzmack of the Mathtec Corporation, and a portion of the paper is based on earlier work by the author and Nancy J. Bearg. The author wishes to acknowledge the assistance of Michael A. Miller of the Budget Analysis Division, who did part of the costing, Martha B. Roberts and Johanna Zacharias, who edited the manuscript, and Patricia J. Minton, Nancy J. Swope, and Connie S. Leonard, who aided in its production for publication.

Alice M. Rivlin
Director

February 1978

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SUMMARY

Today the defense force of the United States includes about 820,000 paid, part-time reservists. Another 950,000 are generally not paid but have some reserve commitment. The primary role of all these reservists is to help defend this country and her allies during a major war. Formalization of the Department of Defense's Total Force Policy in 1973 and recent trends in thinking about the possible nature of a future war make this role increasingly important.

But the reserves have problems. The difficulties are particularly acute among the Army National Guard and Army Reserves, which have about one million reservists (including 544,000 of the paid reservists) and are the subject of this study. These Army reserves are short of people. 1/ They are also sometimes short of equipment, and of time and places to train. As a result, the Army reserves today might not be ready to meet the increasing demands placed upon them.

The Congress and the Executive Branch have considered numerous proposals for improving the Army reserves' readiness to support the active forces in defeating an enemy. This study concentrates on those proposals that require increased resources since they are likely to be of most importance in the budget. Suggestions include higher reserve pay to attract more reservists and so meet manpower targets, increased full-time assistance by active military personnel or civilians to free more reserves for training, and more time for training. Taken together, these proposals could be expensive, perhaps eventually raising annual costs by as much as $750 million, or about 20 percent more than the $4 billion the United States will spend on the Army reserves in fiscal year 1978.

The defense capability provided by this extra spending depends in part on the role assigned to the Army reserves. Where would they fight? How many would be needed? When would they

1/ Throughout this study Army reserves--with a lower-case "r"--refers to both the Army National Guard and the Army Reserve.

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enter a war? A major purpose of this study is to formulate alternative roles for the Army reserves and discuss their appropriateness by applying three criteria: costs, the nature of a war they might help fight, and their ability to fight effectively.

At the least, the role chosen suggests the relative value of the readiness improvements: the more the role demands high peacetime readiness, the greater the payoff from proposed improvements in readiness. But the value of the proposals also depends on whether they improve readiness enough to meet the demands of the role assigned to the reserves. Unfortunately, it is difficult to assess this. Readiness is hard to measure. Even more difficult is predicting in advance how more resources--such as larger numbers of reservists or more training--would improve readiness, and whether the improvements could be sustained. This uncertainty suggests that trying out the readiness improvements on a limited scale might be desirable before investing heavily.

CRITERIA FOR CHOOSING THE ROLE OF THE ARMY RESERVES

Costs

On a man-for-man basis, Army reserves are about five times as cheap as active forces. Even with all the readiness improvements discussed in this study, the reserves are unlikely to be more costly on a man-for-man basis. Thus the more Army reserves that can be included in the active/reserve mix and still accomplish the military mission, the cheaper the mix is likely to be. How many can be included in the mix? That depends on their effectiveness, which in turn depends on the nature of wars they must help fight and whether they can be ready.

Nature of a War

Although the Army reserves have many possible jobs, the greatest demand on them is to help deter a major war centered in Europe, or to help win such a conflict if it should occur. The size and structure of the reserves therefore are based in large part on assumptions--albeit highly uncertain--about the nature of such a war. The postulated conflict would pit the USSR and her allies among the Warsaw Pact nations against the United States and her NATO allies. For the reserves, the most important assumptions about this contingency are the warning NATO would have before such a war began, its intensity, and its length. Many observers have assumed that a war would begin after several weeks of warning. It

would be intense, at least initially, and probably would not last very long, perhaps as little as a few weeks. Against this general background, the Army reserves in the past have been seen largely as a hedge against the possibility that the war would last many months.

The Army reserves are still viewed as insurance against a longer war. But recently, trends of thought about the nature of the conflict and the strength of the Warsaw Pact forces have stressed earlier use of the Army reserves. According to current Defense Department assumptions about a war, some Army reserve units would be needed in its first few weeks. The Administration's stated objective would be to get all the Army reserves to Europe within about three months. These goals suggest the need for a good deal of readiness in peacetime, particularly among units that must fight or provide combat support within the first month or so.

Reserve Readiness

Can the Army reserves be sufficiently ready? Without much knowledge about the effects of proposed readiness improvements, the answer has to be uncertain. A judgment, however, should start by considering the reserves' current readiness and how that situation may change.

Standard reports rate the average Army reserve unit as marginally ready, which, given today's limited funding, is the goal for most reserve units. Yet a marginally-ready rating means the unit has major readiness deficiencies. The key, early-deploying Army reserve units have somewhat higher readiness, but many of them are still rated marginally ready or not ready. These ratings and other indicators of readiness suggest that many units would have difficulty deploying and effectively assisting the active forces, particularly during the first month or so of a NATO/Warsaw Pact war.

Lack of personnel to man units is a major problem that holds down readiness. The paid, or "selected," part of the Army reserves is 8 percent short of its authorized strength and 18 percent short of what the reserves say they need. Even larger shortages exist among the unpaid reserves who would provide combat replacements. Nor are personnel problems the only ones. Training time is limited to about 38 days a year, and some units lack facilities for training.

The readiness of the Army reserves has improved in recent years, and it may continue to get better. For example, probably--even without additional pay or bonuses--the numbers of selected Army reservists will stop declining and start a gradual increase over the next five years, although the numbers are unlikely to grow enough to meet the Army's peacetime strength objectives. Also, as has been mentioned, the Army reserves may receive additional resources aimed at improving their readiness.

Nevertheless, there are constraints on readiness--such as limits on training time available to part-time reservists--that added resources cannot eliminate. Thus the question about whether the Army reserves can be ready to deploy and effectively assist the active forces, particularly in the first month or so of a NATO war, remains unanswered. This uncertainty underscores the desirability of testing the effects of the readiness improvements before investing heavily.

ALTERNATIVE ROLES FOR THE ARMY RESERVES

Different notions about these criteria--costs, the nature of a war the reserves might help fight, and particularly, their ability to be effective in such a war--suggest three broad choices of role for the Army reserves. The United States could seek a highly ready reserve capable of assisting in all phases of a war. The nation could emphasize the reserves intended for use early in a war. Or, the reserves could be limited to acting as a hedge against a long war.

Highly Ready Reserve for Use in All Phases of a War

This option would increase the size of the Army reserve substantially above present levels, with the selected reserves attempting to reach their peacetime objective strength of 660,000. The larger Army reserve would be intended to provide some reinforcement in the first month or so of a NATO war, with a few units deploying in the first weeks. The remaining Army reserves would attempt to meet the Administration's objectives that call for getting all Army reserves into a NATO war within about three months.

Choice of this option would be consistent with a judgment that Army reserves must enter a war early to counter the strength of the Warsaw Pact forces, particularly their ability to attack quickly and intensely. The option would also be consistent with

other possible changes in defense policy--such as prepositioning more equipment in Europe for U.S. active forces--which could speed up deployment schedules for all U.S. forces, including reserves. And this option would be most consistent with the emphasis on the reserves stemming from the Administration's Total Force Policy, which established the reserves as the initial and primary backup for the active forces.

The readiness improvements offer the highest payoff for the Army reserve that assumes this demanding role. But these improvements would increase costs. By 1983, depending on the scope of the improvements, this approach could increase annual spending above current levels by as much as $750 million a year. This increased spending would pay the salaries for larger numbers of drilling reserves and raise pay and bonuses enough to attract more of them. The higher costs would also add to the size of the nondrilling reserves, provide additional full-time personnel so that reserves can spend more time training, and allow longer summer training periods for some reserves.

Besides higher costs, this option has other drawbacks. Perhaps most important, it would invest heavily in readiness improvements on the assumption that, with the improvements, the Army reserve would be able to contribute substantially early in a war. Yet until planners know how ready the reserves can be, a more selective option may be desirable.

Emphasis on Early-Deploying Reserves

This second option would emphasize the early-deploying reserve units, made up mostly of those units intended to go into action within the first month or so of a war. These early-deploying units would be given the readiness improvements discussed in the first option, including additional reserve personnel, bonuses, added full-time assistance, and longer summer training periods. Only the early-deploying units would be the recipients of these improvements.

Because not all units would get readiness improvements, this approach would lessen the likelihood that the Army reserves could meet the Administration's goal of getting all units into a European war within three months. The option therefore represents some retreat from the emphasis on the reserves suggested by the Total Force Policy.

This option, however, would be consistent with trends in strategic thinking that stress a short, intense war. Such a war would put a premium on getting some reserves into the conflict within the first month or so. Perhaps more important, this option would provide a large-scale test of how ready reserve units could be.

Such an approach would accomplish the goals outlined above at considerably less cost than the first option. The increased costs of providing the readiness improvements to the early-deploying units would eventually be about $80 million a year in today's dollars.

Reserves as a Long-War Hedge

Given limited training time and other constraints, getting the Army reserves sufficiently ready in peacetime to deploy on short notice and effectively assist the active forces may be impossible, no matter what steps are taken. This situation would argue for relying on the Army reserves only in the later stages of a long war. Readiness improvements would yield a lower payoff, since the reserves would have time after mobilization to achieve adequate readiness. Thus improvements previously discussed are excluded from this option, although some selective improvements might still be desirable in the few small units intended for early use.

One response to this role for the Army reserves would be to replace early-deploying reserves with active-duty personnel. The active forces would be more likely to be ready to fight on short notice, making this choice consistent with the notion that a NATO war would call for an early U.S. presence. But the switch to active forces would increase costs. For example, there are about 54,000 selected reservists now assigned to reserve units affiliated with active forces; many of these reserve units are early-deploying. Replacing these 54,000 selected reservists with active forces, and dropping the 54,000 from the paid reserves, would eventually increase overall manpower costs by about $800 million above their present level. (The choice of 54,000 is for illustration. Units other than those affiliated with active forces might be selected for the switch.)

Another response would cut the number of Army reservists without adding active forces. This action would be consistent with a judgment that the early phases of a Warsaw Pact attack could be contained with U.S. active forces and manpower supplied by our NATO allies, and that a smaller Army reserve could achieve

full manpower after mobilization. This action would cut costs. If, for example, 54,000 reservists (the number now in affiliated units) were eliminated, savings in 1983 could amount to about $140 million a year.

The following table summarizes the elements of these three options. The choice among them depends on costs and the demands of a NATO war, and particularly as on the ability of the Army reserves to meet those demands.

ALTERNATIVE ROLES FOR ARMY RESERVE COMPONENTS

Roles	Changes to Reserve Resources	Criteria for Choice: Nature of NATO/ Warsaw Pact War	Criteria for Choice: Can Reserves Be Ready to Fight Early?	Costs (1983)
1. Highly Ready Reserve for All Phases of War	Make numerous changes to improve readiness, including more reservists, higher pay, more full-time support, and longer training	Intense war that demands heavy U.S. presence in first few months	Confident that extra resources will lead to adequate readiness	Up as much as $750 million a year
2. Emphasis on Early-Deploying Reserves	Make changes to improve readiness of early-deploying units	Similar to Role 1 but emphasis on war that ends more quickly	Not convinced; desire inexpensive test of whether extra resources will lead to adequate readiness	Up $80 million a year
3. Emphasis on Reserves for Long-Run War				
Fewer Reserves, Replace With Active Troops	No readiness improvements; substitute active forces for early-deploying reserves	Similar to Role 2	Reserves unable to fight effectively early in war	Up $800 million a year
Fewer Reserves	No readiness improvements; reduce size of selected reserve by numbers in early-deploying units	Similar to Role 2, but level of threat suggests U.S. active forces plus NATO manpower are adequate in early stages	Same as above	Down $140 million a year

CHAPTER I. INTRODUCTION

The United States currently employs about 820,000 paid reservists. These personnel generally hold full-time civilian jobs but serve about 38 days a year as military members. An additional 950,000 persons have various reserve commitments but do not usually serve in the military during peacetime. The primary mission of these paid and unpaid reservists is to help defend this country and its allies during a major national emergency. This study focuses on the roughly one million reserves--including about 544,000 of the paid reserves--who are in the Army Reserve and Army National Guard.

In recent years, the role of the Army reserves--and particularly of the paid reserves--has become increasingly more prominent. 1/ In 1973, the Department of Defense formalized the Total Force Policy, which treated the active and reserve forces as a whole and which formalized reliance on the reserves as the initial and primary backup for active-duty personnel. In 1973, the United States also ended conscription and placed the Selective Service System in a standby status; in a crisis, the time required to reinstitute the draft would heighten dependence on the reserves by lengthening the time before draftees would be available. Also over the last several years, the Army created three additional active divisions without increasing the number of its active personnel; this was done in part by heavier reliance on the reserves. Finally, in recent years, the perceptions of the growing strength of our potential enemies have emphasized the need for military strength--including reserves--early in a war.

This increasing prominence of Army reserves is reflected in the affiliation program, in which some reserve units are associated with active Army units in peacetime and might be deployed with them in the event of war. The Army reserves currently have about 54,000 of their 544,000 paid reservists assigned to affiliated units. The numbers in affiliated units may suggest the

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1/ Throughout this study, Army reserves--with a lower-case "r"--refers to both the Army National Guard and the Army Reserve.

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commitment to getting the reserves into a war earlier than was thought necessary a decade ago.

At the same time that their importance is increasing, the Army reserves are having problems which could delay their entry into a war. The reserves are short of people. They often lack persons with needed military skills. They have suffered high turnover. They have limited time to train, and they are sometimes short of equipment and places to train. These and other types of problems may limit the reserves' ability to mobilize, to achieve needed training, and to deploy to assist the active forces in defeating an enemy. In other words, these problems hold down reserve readiness.

These problems, coupled with the growing emphasis on the reserves, have prompted the Executive Branch and the Congress to consider numerous proposals and actions to improve readiness. Mirroring the numerous aspects of readiness, these efforts have taken many forms: attempts to improve the management of the reserves by increasing cooperation between the active and reserve forces and by improving the reserves' ability to mobilize and integrate with active forces; attempts to improve the organization of the reserves by pruning out nonessential units and revamping the size and structure of others; and concern over key intangibles that affect readiness, such as morale and leadership.

Another set of proposals to improve reserve readiness deals with the resources provided to the reserves--that is, manpower, equipment, and paid time for training. Since these resource proposals have important budgetary effects and are most under the control of the Congress, they are the focus of this study. Among such proposals are suggestions to employ more reservists so that all units would be fully manned, to increase reserve pay to attract these added reservists, to provide more full-time civilians or military personnel so that the part-time reserves could concentrate on training, to fill reserve equipment needs in order to improve the realism of training, and to provide more time for training.

The defense capability added by these readiness improvements would depend in part on the role assigned to the Army reserves in U.S. strategy. Where would they fight? How many would be needed? When must they fight? One purpose of this study is to provide a context for evaluating readiness improvements by laying out alternative roles for the reserves. The roles suggest the relative value of readiness improvements. The more the reserves'

assigned role demands high peacetime readiness, the higher the potential return to improving their readiness.

But the defense capability that would be added by readiness improvements also depends on how much reserve readiness is improved and on whether the improvements would allow the reserves to meet the demands of their assigned role. Unfortunately, this question has no sure answer. It is difficult to measure readiness and even harder to predict how much additional resources--such as more reservists and better training--would improve readiness. And some constraints on the reserves' peacetime readiness--such as limits on training time--would not likely be eliminated by additional resources. The uncertainty about how much improvement would come from readiness proposals suggests that it would be desirable to test before investing heavily. This study develops one option that would provide such a test.

Although this study focuses on the reserves in the Army Reserve and Army National Guard, it is useful to begin with an overview of the entire reserve structure.

U.S. RESERVE STRUCTURE

Table 1 describes the universe of United States reserves. Reservists serve in one of three categories: ready, standby, or retired. About 1.2 million, or 70 percent, of all reserves are in the ready reserve. These are the reserves that are most available for call-up. Upon a declaration of a national emergency, up to one million ready reservists can be called to active duty for as long as two years.

The ready reserve is in turn divided into two subcategories: the selected reserve and the individual ready reserve. The 819,100 members of the selected reserve include those reservists who are paid in units or who are paid for drilling on weekends and for attending a two-week summer camp. Almost all selected reservists are assigned to specific units that are intended to assist active forces in a war. The rest of the ready reserve are in the individual ready reserve (IRR). Most of the 383,500 IRR personnel are not assigned to specific units and are generally not paid. In a major war, the IRR pool would be used to fill out active and reserve units and later would be a source of combat replacements.

All 275,300 members of the standby reserve are unpaid and cannot be called to active duty unless the Congress gives its

TABLE 1. RESERVE STRENGTHS AS OF SEPTEMBER 30, 1977: IN THOUSANDS

	Ready Reserve		Standby Reserve	Retired Reserve	Total
	Selected	Individual			
Army National Guard	354.7	10.7	152.8	139.3	996.3
Army Reserve	189.4	149.4			
Navy Reserve	90.2	106.1	48.7	108.2	353.2
Marine Corps Reserve	31.0	45.3	28.8	NR a/	105.1
Air National Guard	91.8	0.3	44.2	42.0	292.1
Air Force Reserve	50.4	63.4			
Total DoD	807.5	375.2	274.5	289.5	1,746.7
Coast Guard Reserve	11.6	8.3	0.8	--	20.7
Total	819.1	383.5	275.3	289.5	1,767.4

a/ Not reported.

explicit approval. Composed mostly of individuals who are completing their reserve obligation after performing a combination of active and ready reserve service, their numbers are declining as a result of the longer active service associated with the all-volunteer force. In any event, this group has little impact on the defense budget and receives little attention in strategic planning.

The 289,500 retired reservists are individuals who have qualified for military retirement through length of service or through disability. They can be called to active duty in time of war or by a Congressional declaration of emergency, but they represent a low potential for mobilization.

Reserves in these three major categories--ready, standby, and retired--can be further divided among seven reserve components. Each of the four military Services, plus the Coast Guard, has a reserve component. The Army and Air National Guard bring the total to seven. The National Guard components grew out of the state militia of the eighteenth and nineteenth centuries. During peacetime, the Guard components have the same federal mission as

other reserve components but are under the control of the state governors and are used by them to deal with domestic crises, natural disasters, and other contingencies.

Most reservists are in the Army National Guard or Army Reserve--collectively referred to in this paper as the Army reserve components or simply as the Army reserves. The Army reserves have 56 percent of all U.S. reservists and 66 percent of all selected reservists. These Army selected reservists are organized into many types of units. The Army National Guard's selected reserves serve in about 3,300 units, including five infantry divisions, one mechanized infantry division, two armored divisions, 21 separate brigades, four armored cavalry regiments, two special forces groups, about 130 separate battalions, and over 900 other companies and detachments. The Army Reserve has 12 training divisions, three separate brigades, and about 3,200 company- or detachment-sized units.

COSTS OF ALL U.S. RESERVES

Reservists do not come free. Table 2 shows how much the federal government will spend on reserves in fiscal year 1978. The table includes not only costs in the specific reserve appropriations but also costs of active-duty personnel who directly support the reserve and costs of training overhead (that is, training and instructional materials) that can be attributed to the reserves. In fiscal year 1978, the reserves will cost the federal government a total of about $7.8 billion. The Army reserves will account for 52 percent of the total costs.

In addition, several states have established re-enlistment and educational bonuses for their National Guardsmen, which usually are not associated with the costs of the reserves yet are paid for by the taxpayers of the states. Other state support to the National Guard includes low-cost loans, administrative support from state departments, and construction of training facilities. These state costs may amount to roughly 10 percent of the total federal cost.

Taken together, then, the annual costs for reserves in fiscal year 1978 will probably run somewhere between $8 billion and $9 billion.

TABLE 2. RESERVE COSTS, FISCAL YEAR 1978: IN MILLIONS OF DOLLARS

	Army Reserve and Army National Guard	Air Force Reserve and Air National Guard	Navy Reserve	Marine Corps Reserve	Coast Guard Reserve	All Components
Personnel a/	1,315	422	217	82	23	2,059
Operations and Maintenance a/	1,161	1,234	319	17	16	2,747
Construction a/	101	55	22	--	--	178
Procurement b/	1,099	389	47	40	--	1,575
Active-Duty Support a/	76	22	217	47	--	362
Training Base Overhead c/	275	203	36	16	--	530
Retirement d/	N/A e/	N/A	N/A	N/A	4	354
Total	4,027	2,325	858	202	43	7,805

a/ From The Budget of the United States Government (Fiscal Year 1979).

b/ From Five-Year Defense Plan (Fiscal Year 1978).

c/ From Five-Year Defense Plan (Fiscal Year 1978) and training loads supplied by the Department of Defense.

d/ CBO projection. Estimates by reserve component are not available.

e/ Not available.

SCOPE OF THE STUDY

This study focuses on the two Army reserve components. The emphasis on the Army reserves stems in part from their size; they contain 66 percent of all selected reservists and over half the total dollars. The Army reserves also are the source of the most important budget issues. Unlike the air units, which are generally agreed to be relatively ready, the Army reserves have readiness problems that could require large increases in funding.

Within the limits of the Army reserves, this paper concentrates on the broad issue of the role of the reserves and how that role affects the need for readiness improvements. Chapter II

develops the criteria that should determine the role of the Army reserves. Based on differing notions about these criteria, Chapter III sets out alternative roles for the Army reserves and analyzes the value of the readiness improvement proposals within the context of these roles. The Appendix examines the details and costs of some of the proposals that have been made to improve reserve readiness.

CHAPTER II. CRITERIA FOR CHOOSING A ROLE FOR THE ARMY RESERVE COMPONENTS

Three criteria should be applied to determine the role of the Army reserves: costs, the nature of a war they must help fight, and their ability to carry out their missions.

COSTS

In recent years, both the Congress and the Executive Branch have exerted pressure to hold down the costs of defense manpower to enable the United States to have a better-equipped military within a constant defense budget. Improving the readiness of the reserves could drive up manpower costs; so the cost of alternative reserve strategies is a key basis for choosing a role for the reserves.

Two questions regarding reserve costs should be considered. The first is whether, on a man-for-man basis, the Army reserves are cheaper than the active forces. Clearly they are. The average selected reservist in the Army reserve will receive pay and allowances of about $1,900 in fiscal year 1978, versus $10,500 for the average active-duty soldier in the Army. Adding in other personnel costs, plus the costs of operations and maintenance that include civilian assistants, does not greatly change the relative costs. With these added dollars, the cost per average selected reservist in 1978 will be $4,200 versus $21,800 for the average active-duty soldier. Even with the added costs of readiness improvements discussed in Chapter III, the reserves will still be cheaper.

The key question, then, is not whether they are cheaper on a man-for-man basis but rather how many Army reserves the United States can include in its mix of forces and still accomplish the military mission. This depends on the nature of a war the reserves must help fight and on their readiness, which are discussed below. Clearly, the more reserves in the mix, the cheaper it is likely to be.

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NATURE OF A WAR

Army reserves are used in domestic crises and could be used in many kinds of foreign conflicts. The conflict that would demand the most of them--and the one that is typically considered in planning Army reserve forces--is a major, non-nuclear war in Europe. Such a war would pit the United States and its NATO allies against the USSR and its Warsaw Pact allies. 1/ Since U.S. strategy revolves around the reserves as reinforcements in such a war, it is useful to describe how that reinforcement might be carried out. Then this section turns to the scenario of a NATO war.

The Concept of Reinforcement

In the event of mobilization for a major NATO war, the entire U.S. force structure--active and reserve--would be alerted, and all units destined for employment in Europe would begin a three-stage process of preparation, deployment, and, ultimately, reception in Europe. The time spent in each of these stages would vary, depending primarily on the type of unit involved and the kind of strategic mobility assets--airlift or sealift--that would be used to move the unit across the Atlantic. In nearly all cases, the preparation phase would take longer for reserve than for active units. The sequence calls for assuring that the unit is manned, equipped, and trained sufficiently to perform its wartime mission prior to deployment. And most reserve units are, by design, behind active units in each of these categories.

Exactly when the Army reserves would enter a war as reinforcements depends on their role, which is the subject of the next chapter. To make clearer one possible sequence, this section discusses the deployment schedule currently envisioned by the Administration.

The exact schedule is classified. It also changes, depending on requirements perceived by U.S. commanders in Europe and on the

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1/ The NATO allies include the United States, Belgium, Britain, Canada, Denmark, France, Greece, Iceland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Turkey, and West Germany. The Warsaw Pact allies include the Soviet Union, Bulgaria, Czechoslovakia, East Germany, Hungary, Poland, and Romania.

readiness of the various units in the force structure. The general pattern, however, can be laid out. Active divisions, especially those with much of their equipment already prepositioned in Europe, would be sent first. Because their personnel would be airlifted, they could arrive in Europe within the first few weeks after the decision to send them. Other active Army units would be prepared for movement and be dispatched as soon as airlift and sealift resources were available.

Some small reserve units with support missions would be sent at about the same time; they would be needed early to make the necessary arrangements to receive combat units arriving later. Reserve combat units and other support units would probably be sent later. Among the first to arrive--perhaps sometime in the first month or so of a war--might be the brigades that "round out" or provide the third brigade for an active Army division. These round-out brigades are part of the Army's affiliation program. Under this program, high-priority reserve units are assigned to active Army units both to augment the units and to benefit from the technical advice available from active soldiers. The Army now has about 54,000 of its 544,000 selected reservists in affiliated units. This might provide some indication of the numbers of reserves likely to deploy in the first few months.

The remainder of the Army reserves, with the exception of some units that would remain in the United States to assist in deployment processing, would deploy in later months. In recent Congressional testimony, the Deputy Assistant Secretary of Defense for Reserve Affairs stated that the goal is to have all Army reserves in Europe within 90 days after mobilization. 2/ This is a demanding goal that could be difficult to attain, particularly for division-size reserve units that must perfect their command and control before entering combat.

Under the Administration's current deployment schedule, therefore, the first few weeks after mobilization for a NATO war would primarily see the movement of active units; deployment of reserve units would be limited to a few small support troops.

2/ Fiscal Year 1978 Authorization for Military Procurement, Research and Development, and Active Duty, Selected Reserve, and Civilian Personnel Strengths, Hearings before the Senate Committee on Armed Services, 95:1 (March and April 1977), Part 4, p. 2436.

Reserve combat units would then begin deploying, probably beginning with those in the affiliation program. Of course, the exact timing would depend heavily upon the progress of the war, the availability of airlift and sealift, and the readiness of reserve units. 3/

The NATO Scenario

The general outline of deployment described above would probably take place regardless of the exact nature of a war, but the precise timing of deployment--and the importance of meeting those schedules--would depend upon the nature of a war between NATO and the Warsaw Pact. Today, the likelihood of such a conflict is thought to be low and its nature highly uncertain. Nonetheless, assumptions about the nature of such a war are important to choosing a role for the Army reserves. Such assumptions begin with assessments of the overall balance of strength between NATO and the Warsaw Pact.

Analysts disagree on the military balance between the NATO allies and the Warsaw Pact in Central Europe--the area considered key in a conflict. 4/ Reasons for disagreement include differing assessments about whose forces should be counted on each side, whether some nonregular forces should be counted, the effectiveness of forces on either side, and assumptions about the timing of a war. But a review of these differing appraisals suggests that optimistic assessments are optimistic only in comparison with

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3/ Reserve units could, of course, be deployed regardless of their combat readiness. But there are important military reasons for not deploying reserve units until they have been judged to be combat effective. The presence of ineffective units in combat could be more detrimental than their absence, since their relative ineffectiveness could create exploitable gaps along a military front or dilute the effectiveness of better units as they try to compensate for the reserves' weakness. Thus, in an actual crisis, the desire to get forces to Europe rapidly would be balanced against the desire to assure that those forces would be effective.

4/ Congressional Budget Office, Assessing the NATO/Warsaw Pact Military Balance, Budget Issue Paper (December 1977).

pessimistic ones. Few, if any, assessments demonstrate a clear NATO advantage. Plans for the desired total of U.S. forces, including reserves, must be considered with this NATO balance in mind.

How many Army reserves should be included within the total depends critically upon both the length of time NATO would have to prepare for a Warsaw Pact attack and the length of the war. Until recently, a common planning scenario assumed that NATO would detect Warsaw Pact preparations for an attack shortly after they began, would being mobilizing roughly a week later, and would have about three weeks to mobilize prior to the beginning of a conflict. 5/ The war, it is commonly assumed, would be intense because of the nature of the Soviet military--a large, powerful military structured for rapid advances. Such a war, or at least its first phases, might also end quickly--perhaps in just a few weeks. The quick end could come in part because the Soviet military may have sacrificed a capability to sustain combat in favor of a capacity to mount an intense initial attack. 6/

This scenario emphasizes the importance of getting reserves to Europe within the first month or so, while putting less emphasis on reserves as a backup for a war that lasts many months. In recent years, however, this planning scenario has been much debated. Although it is still a possibility, different combinations of assumptions have been suggested that could lead to emphasis on different roles for the Army reserves.

For example, a war might last for many months. Under such circumstances, the Army reserves would be needed as a backup. The Warsaw Pact--particularly the USSR--has a large pool of reserves, numbering in the millions. 7/ Consequently, U.S. reserves would

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5/ Ibid., pp. 21-22.

6/ Jeffrey Record, Sizing Up the Soviet Army (Brookings Institution, 1975), pp. 43-45.

7/ Since Soviet conscripts, most of whom go to the ground forces, have a reserve obligation until age 50, the total number of Soviet reservists--at least in legal terms--could be as high as 25 million. Only about one-sixth of these, however, have had military service within the last five years. See the International Institute for Strategic Studies, The Military Balance, 1977-1978 (1976), p. 10.

probably be needed in a longer war to match the total strength levels of the Warsaw Pact.

Backup for long wars has historically been a key role for the Army reserves, and it remains an important one today. Over the last several years, however, interest has grown in getting the reserves to Europe faster. This reflects concern over the speed of a potential Warsaw Pact strength buildup.

Many analysts believe that the Warsaw Pact could mobilize very rapidly. It has a force structure featuring units--particularly Soviet Category II and III divisions--that are equipped fully (or close to it) but manned at low levels. These units could be filled out rapidly. This structure, and the relative proximity of these units to Europe, have led observers to postulate a rapid buildup once a mobilization began.

The strength buildup of many Western European forces--particularly those of the West Germans--would be very similar in pattern to the rapid Pact buildup. Entities like the German territorial forces could mobilize quickly once a decision to mobilize had been made. But it is often assumed that, after the Warsaw Pact began mobilizing, NATO would take a few days to muster its collective resolve to mobilize. If NATO were delayed in starting its mobilization, the Warsaw Pact--in the absence of early U.S. support--might be able to obtain enough of an early edge in strength to enable it to start the war and attack successfully. For example, if the Warsaw Pact ever gained an overall strength edge of, say, two to one, some analysts believe this would enable the Pact to bring enough force to bear at some part of the war front to break through NATO's defenses. 8/ This concern has emphasized the importance of getting U.S. forces, including Army reserves, into a conflict in the first month or so.

But even the first month or so may not be soon enough. One Congressional study asserted a war could begin with as little as

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8/ See Department of Defense, Annual Department of Defense Report, Fiscal Year 1976, p. III-15; and Department of Defense, Annual Department of Defense Report, Fiscal Year 1978, p. 94.

a few days' warning. 9/ And a war could end quickly, perhaps in a few weeks. Under these circumstances, the role of the Army reserves would be quite limited. At most, only a few small support units could be mobilized and deployed in time to have any effect on the outcome.

The great uncertainty about a future war--both its likelihood and its nature--suggests that the role of the reserves should be determined after considering a variety of possible scenarios. Nonetheless, emphasis on a particular scenario does suggest certain roles for the reserves. If, for example, a war began and ended in a week or so, the Army reserves would have only a minimal role. If a war lasted many weeks or months, the reserves would have an important backup role. Increasingly, the Army reserves are being thought of as important in the early stages of a war that would last at least a month. This emphasis on early participation puts a premium on the peacetime readiness of the Army reserves, particularly on the units that must deploy in the first month or so.

CAN THEY MEET THE NEED: THE READINESS OF THE ARMY RESERVES

How ready can the Army reserves be in peacetime? That question has no sure answer, largely because of the difficulties in measuring and predicting readiness. A judgment about this critical question, however, can be formed by an assessment of current readiness and likely future trends.

Current Readiness

This study defines reserve readiness as the ability of the reserves to mobilize, accomplish any needed training, deploy, and assist active forces in defeating an enemy. Readiness thus depends both on what enemy the reserves must help fight and on the timing of a war. The preceding section showed that, for purposes of planning reserve structure, the reserves are intended for use in a major, intense European war. And they may have to fight early. Current Administration plans suggest that the

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9/ NATO and the New Soviet Strength, Report of Senator Sam Nunn and Senator Dewey F. Bartlett to the Senate Committee on Armed Services, 95:1 (January 24, 1977), p. 4.

Army reserves may have to fight or provide support in the first month or so of a war, and the goal would be to get all Army reserves into a war within about three months.

The breadth of the definition of readiness implies that it is difficult to measure. The only true test is a war. Fortunately, reserves have not entered a war in large numbers since the Korean War. The assessment of the readiness of today's Army reserves must therefore rely on indirect measures: readiness reports, exercise results, and other indicators. A frank assessment of these measures suggests that many of today's Army reserves have readiness problems that would make it difficult for them to mobilize, achieve needed training, deploy, and effectively assist the active forces, particularly in the first month or so of a major NATO war.

Readiness Reports. Readiness ratings for reserve components are submitted to the Joint Chiefs of Staff and are included in part of the Force Status and Identity Report, or FORSTAT. Under this system, each military Service reports the readiness of its reserves in terms of "C-ratings" for the unit's personnel, equipment, and training, as well as a summary rating for the unit as a whole. There are four levels of C-ratings, ranging from "fully ready" (C-1) to "not ready" (C-4). Although the system has important problems that limit its usefulness in accurately gauging reserve readiness, it still provides the most comprehensive measure of how well a unit could deploy and perform its wartime mission. 10/

The FORSTAT system shows that, on average, the units of the Army reserve components are rated "marginally ready" (C-3). Given limitations on personnel and equipment imposed by current funding, a rating of marginally ready is the target for most reserve units. Such units certainly have some capability to fight, but by definition, they have major deficiencies of such magnitude as to limit severely their capability to accomplish the mission for which they are organized and designed. Moreover, a substantial number of units are rated "not ready" (C-4). Although most of the more detailed data are classified, information released to the Congress in 1976 showed that 43 percent of all Army

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10/ For a full discussion of these problems, see Congressional Budget Office, Reserve Readiness, Staff Working Paper (September 1977), pp. 4-33.

National Guard units and 54 percent of all Army Reserve units were rated "not ready." 11/

A key finding emerging from a review of the FORSTAT readiness ratings is that Army reserve units that by reserve standards are intended to deploy relatively early--within 60 days of mobilization--show higher readiness than later-deploying units. Nevertheless, a substantial number of these important, early-deploying units are still rated as only "marginally ready" or "not ready." This suggests they might not be able to deploy and perform their missions within the 60 days called for by military requirements.

Readiness also appears to be a function of a unit's size. Larger units--divisions and brigades--generally have lower readiness because of the difficulty of coordinating their many subunits. This finding suggests that early-deploying units should be small if these small units can be integrated into active units and meet wartime requirements.

The C-rating system is not the only readiness report used by the Army. The Army also uses the Reserve Evaluation System (RES), which includes an evaluation of training readiness conducted by active-duty officers during the reserve unit's annual two-week training period. The RES training ratings have not been systematically correlated with the C-ratings that indicate training readiness. Army personnel, however, have indicated that RES ratings are often lower than those portrayed by the C-system. RES may therefore paint a slightly less encouraging picture of whether Army reserves are adequately trained to perform their wartime missions.

Exercises. Although graded combat exercises would also be a useful way to assess Army reserve readiness, little data are available from such exercises. 12/ But exercises have tested

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11/ Military Posture and H.R. 11500: Department of Defense Authorization for Appropriations for Fiscal Year 1977, Hearings before the House Committee on Armed Services, 94:2 (February and March 1976), Part 3, p. 560.

12/ The Army is currently designing and implementing the Army Training and Evaluation Program (ARTEP). ARTEP consists of a series of mission-essential tasks designed to evaluate, against specific standards, the capabilities required of

another important reserve capability: their ability to mobilize. Mobilization includes all the steps--assembling personnel, getting needed equipment, achieving needed training, and moving units to a port--that must be accomplished before a reserve unit can deploy.

In November and December of 1976, the Army conducted an extensive test of reserve mobilization--called MobEx76--which simulated mobilization of about 590 Army reserve component units. MobEx76 revealed serious problems with Army mobilization planning and procedures. The exercise suggested that if a war started today, many Army reserve component units could not mobilize and deploy within 30 days; some might not be able to deploy within 60 days. MobEx76 revealed a lack of planning for movement of units and their equipment, a lack of integration of active and reserve computer systems that is vital to speedy mobilization processing, a misunderstanding of administrative procedures necessary during processing, and a lack of screening to eliminate persons who could not deploy because of health or critical civilian jobs. The Army has underway a program to correct the problems revealed during MobEx76 and plans another mobilization exercise in October of this year.

Although MobEx76 tested the ability of the Army reserve components to mobilize, it did little checking of their ability to integrate with the active forces in Europe. The exercises that will be conducted this October will begin testing this key capability.

Other Indicators. In Congressional testimony last year, Administration witnesses identified personnel problems as a key factor that constrains readiness. 13/ Indeed, the Army reserve components are short of people. At the beginning of fiscal year 1978, the Army reserve components had 544,000 selected

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every type of Army unit. As yet there is little data on reserve performance on ARTEP, but the reserves may eventually be evaluated by a formal, graded ARTEP every three years. For a more thorough description of ARTEP, see Congressional Budget Office, Reserve Readiness, pp. 38-40.

13/ 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 and March 1977), Part 5, p. 633.

reservists versus a fiscal year 1978 authorization of 593,300 and a peacetime objective of 660,000. 14/ The Army is also short of enlisted men in the nondrilling, individual ready reserve that would fill out active units in wartime and would provide combat replacements. It now has about 140,000 individual ready reserves, a number that the Army expects will decline to about 120,000 by the early 1980s as losses of active-duty personnel decline under the all-volunteer force. According to one Army estimate, this will be more than 250,000 short of their requirement. 15/

The Army reserve components are not only short of personnel but have also suffered high turnover. In 1976, they lost 33 percent of their enlisted reservists in drilling units. And the personnel that do stay often do not work in jobs for which they were formally trained. Fully 36 percent of Army enlisted reservists are working outside their "Military Occupational Specialty," a code used to define the jobs in the Army and the training they require.

The Army reserve components are also sometimes short of equipment needed to train. In Congressional testimony last year, Administration witnesses reported that, relative to their authorized equipment levels, the reserves were short of the following key types of equipment: tanks, 898 (35 percent of their authorization); M88 recovery vehicles, 291 (55 percent of authorization); 8-inch howitzers, 65 (19 percent of authorization); 155 millimeter howitzers, 135 (17 percent of authorization), M113 personnel carriers, 2,403 (67 percent of authorization). 16/ They also are

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14/ The 593,300 is a fiscal year 1978 authorized average strength. The 660,000 is based on peacetime objectives stated in Fiscal Year 1978 Authorization for Military Procurement, Research and Development, and Active Duty, Selected Reserve, and Civilian Personnel Strengths, Hearings, Part 4, pp. 2835-37.

15/ Department of Defense Appropriations for 1978, Hearings before a Subcommittee of the House Committee on Appropriations, 95:1 (March 1977), Part 5, p. 36. Further studies are underway, and estimates may change.

16/ Military Posture and H.R. 5068: Department of Defense Authorization for Appropriations for Fiscal Year 1978, Hearings, Part 5, p. 561. Percentages based on total authorizations submitted to CBO by the Army reserve components.

short large amounts of communications equipment. Moreover, not all reserve equipment is up-to-date, though the Services are working toward that goal.

Problems with equipment, coupled with the large numbers of new reserves entering each year, place a premium on training time. Training time, however, is a scarce commodity for reserves. Their monthly weekend drills, plus two weeks of summer training, offer them only about 38 workdays per year compared to more than 200 days for active forces. Furthermore, a substantial part of reserve worktime is devoted to administration, inspections, preparation for training, and travel. Army personnel estimate that only 22 to 28 of these workdays are spent in mission-essential training. An independent observer has estimated that as few as 14 of the 38 days may be spent in actual, mission-related training. 17/

Other problems interfere with training. During the key two-week summer training periods in 1976, 25 percent of all Army selected reservists did not attend training with their units. Of these 25 percent, however, 10 percent received training in schools or with other units and 7 percent were new recruits awaiting entry into basic training. The other 8 percent were excused or no-shows.

The monthly weekend training periods may suffer even greater problems. A greater proportion of weekend training is eaten up by preparation and administration. It may be difficult to remember where training left off 30 days earlier. And training facilities are often inadequate. In 1976, reserve commanders reported that 43 to 58 percent of all reserve units that require them did not have adequate artillery or gunnery qualification ranges within two hours' travel time of their weekend base, while 70 percent did not have adequate tank qualification facilities. Moreover, units are often dispersed, making it difficult for them to train as a unit on weekends. According to an article in Army magazine, 20 percent of company-size National Guard units are spread among two or more towns; 90 percent of the National Guard battalions are spread among three or more towns. 18/

17/ Irving Heymont, "Today's Citizen Soldier: Ready for Tomorrow's War?" Army (January 1974), pp. 16-22.

18/ Ibid.

The lack of training time and facilities might be ameliorated by frequent exercises with active forces. During these joint exercises, reserves benefit from the technical advice, current knowledge, and generally better training facilities possessed by the active forces. Relatively few reserves, however, exercise with active troops. During fiscal year 1977, the Army held 11 major exercises involving approximately 23,000 Army selected reserves--or 4 percent of the total number of Army Reserve and National Guard personnel. 19/ These numbers seem consistent with a rough estimate by Army officials that even over a three-year period fewer than 10 percent of all reserve units participate in an exercise with the active force.

Nor is the history of Army reserve mobilizations reassuring. The lessons of this history must, of course, be viewed with caution, since the emphasis on the reserves in recent years may have created a more ready reserve. During the Korean buildup, however, two National Guard divisions required seven months of stateside training before deployment. Upon deployment they were rated as 40 to 45 percent combat effective and required another seven to eight months of training before entering combat. A report by the House Armed Services Committee found serious deficiencies among units recalled during the Berlin Crisis in 1961. They were short of equipment, had insufficient numbers of personnel assigned to units, and could not mobilize many who were assigned. During the Vietnam conflict only about 37,000 reservists were mobilized. An unpublished report by the General Accounting Office reviewed a sample of these units and found that 17 percent of all reservists who were called up were totally unqualified for their assigned positions, while 49 percent had deficiencies in skills or availability for mobilization. There were also shortages of equipment. 20/

The various indicators discussed in this section show that today's Army reserves do have readiness problems. Taken together, the problems suggest that the Army reserves would probably have

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19/ These figures are based on Army estimates as of the fall of 1977 but should still be roughly correct today.

20/ All references in this paragraph are from Herman Boland, "The Reserves," in Studies Prepared for the President's Commission on an All-Volunteer Armed Force (Gates Commission), Volume II (November 1970), pp. IV-2-1 to IV-2-30.

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difficulty mobilizing, achieving needed training, deploying, and effectively assisting active forces, particularly in the first month or so of a major NATO war.

Not all the indicators are discouraging, however. Reserve readiness has improved in recent years. Most of the detailed measures are classified, but Congressional testimony in 1976 showed that the percentage of Army National Guard units rated "marginally ready" (C-3) or better increased from 37 percent in 1975 to 57 percent in 1976. The percentage of Army Reserve units rated C-3 or better rose from 42 percent to 46 percent. 21/ And reserve readiness--particularly equipment readiness--has probably continued to improve in recent years.

Also, in early 1974, the Army began affiliating reserve units with active units. Under this program the active unit assists the reserve unit by providing facilities and technical advice, and the reserve unit usually spends its two-week active-duty period with its affiliated active unit. The affiliated reserve units are generally early-deploying units and in some cases are intended to deploy as an integral part of the active unit in case of mobilization.

Today some eight brigades and about 50 separate battalions of the Army Reserve and Army National Guard are affiliated with active units. Affiliated units include about 10 percent of all Army personnel in the selected reserve. The program is expected to grow through the addition of 70 or more smaller units. As yet little information exists on the differences in readiness between these affiliated units and other units, although the information may soon be available when the Army Reserve Evaluation System distinguishes between affiliated and other units.

Future Readiness Trends

Reserve readiness may continue to improve in the next few years. As the introduction pointed out, many factors could influence future readiness--management, organization, resources, and such intangible factors as morale and leadership. In the absence of a theory that predicts how much changes in these many

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21/ Military Posture and H.R. 11500: Department of Defense Authorization for Appropriations for Fiscal Year 1977, Hearings, Part 3, p. 560.

variables influence readiness, trends are suggestive. This section discusses trends in two factors that could influence reserve readiness--personnel levels and equipment. Congressional hearings have emphasized the importance of these two factors.

Personnel. Lack of adequately manned units makes unit training difficult. It may also mean that available reserves must spend more time administering rather than training. Lack of personnel would also probably delay preparations for deployment. Thus full manning is important to readiness. And, as has been noted, the Army reserves are short of selected reservists.

But CBO projects that selected reserve strengths will soon bottom out and will then begin a gradual increase, even without any additional pay or bonuses (Table 3). Over the next five years, the increase may return the Army reserves to about 97 percent of their currently authorized strength of 593,300, although they are unlikely to achieve their peacetime objective strength of 660,000. The projections are uncertain since only limited analysis has been made of how many reserves would enlist and stay in under various circumstances. 22/ These projections are therefore not sufficiently conclusive to say the Army's selected reserves will "get well" without added pay, but the projections do suggest caution and flexibility in increasing reserve pay. Flexibility could be achieved, for example, by targeting any added pay on high-priority units to limit costs while providing more information on how reserves will respond, and by providing the Department of Defense with the authority to vary the size of any extra pay in response to changing conditions.

In reaching these conclusions, CBO projected only enlisted strengths. Officer levels, which have not declined significantly in recent years, are assumed to remain constant at their current level. CBO's projections reflect enlisted loss behavior during the period September 1976 to September 1977, the latest 12-month period for which data are available. The projections assume that the reserves will be able to recruit the same percentage of 18 and 19-year-olds as in fiscal year 1977; thus the projections reflect a downward trend in accessions without prior active-duty military

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22/ The Department of Defense is currently testing the effects of a reeenlistment bonus. The results of this test, which should be available in early 1978, may provide more information.

TABLE 3. SELECTED RESERVE STRENGTH FOR ARMY RESERVE COMPONENTS

Fiscal Year	End-Year Strength
1977	544,000
1978	537,000
1979	547,000
1983	575,000
1985	579,000
1990	586,000

experience ("non-prior-service" accessions) as the number of 18 and 19 year olds in the U.S. population declines over the next decade. 23/ The projections also assume that the reserves will be able to recruit the same percentage of recent losses from Army active duty as they did in 1977. The projections therefore also reflect a downward trend in accessions with prior active-duty military service ("prior-service" accessions) as Army active-duty losses decline under the all-volunteer force.

These projections may be conservative. The reserves will soon get extra full-time recruiters, which may increase accessions. And losses may reduced. Losses of new reservists that occur during initial basic training may decline. Also, the fraction of non-prior-service reservists who stay in after the end of their initial six-year obligation may increase, as the last of the draft-induced volunteers leave. And planners are seeking ways to reduce losses that occur before the end of the initial six-year obligation. Currently only about one-third of all non-prior-service accessions complete their initial obligation.

On the other hand, some factors that could cause these projections to be optimistic. Reduced unemployment could hamper recruiting. Personnel might be staying in the reserves just to see if pay and bonuses will increase and could leave in large

23/ These non-prior-service people are sent through basic training and sometimes formal training beyond basic training, but then go to a reserve unit without serving further time on active duty.

numbers if they do not. Furthermore, these are aggregate projections that may mask problems in particular geographic areas or in particular types of reserve units, such as combat units. Nor do the projections assume any policy changes. But the Army has indicated a desire for policy changes that could make it more difficult to reach desired personnel levels. For example, the Army wants to increase the proportion of recruits without prior military experience, a policy that is discussed more fully in the Appendix.

Equipment. Equipment certainly has an important effect on reserve readiness. An adequate amount of modern eqipment improves the realism of training. It may also make reserves feel their work is meaningful and interesting, thus improving morale and retention.

As with personnel deficiencies, the equipment problems of the Army reserves may improve in the next five years. Administration witnesses have testified that Army reserve components will have their authorized levels of major types of equipment by the early 1980s. 24/ Fulfillment of this promise is not certain, however. The Army buys equipment for reserves and actives together and, once the equipment arrives, allocates it based on a priority list. Many reserve units fall near the bottom of that list. Consequently, changes in the needs of higher-priority units could, in the absence of increases in Army procurement funds, reduce the amount of equipment given to the reserves and so delay their "getting well." For example, it is possible that a decision may be made to preposition additional equipment in Europe for high-priority, active-duty units. Such a decision could reduce the equipment that the reserves would actually get.

How Much Can They Improve: The Key Question

Although improvements in reserve readiness may be in sight, a key question remains. Even with added resources, can the Army reserve components achieve sufficient readiness to be able to deploy and fight effectively, particularly in the first month or

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24/ Military Posture and H.R. 5068: Department of Defense Authorization for Appropriations for Fiscal Year 1978, Hearings, Part 5, p. 561. Funding constraints limit the authorized equipment levels for many reserve units to about 80 percent of wartime requirements.

so of an intense NATO war? An optimistic answer notes the improvements in reserve readiness in recent years and projects continued improvement, especially if readiness improvement proposals are implemented. The pessimistic reply notes constraints that added resources are not likely to eliminate: the part-time nature of reserve duty that limits the time most reserves can devote to training; recruiting from local areas that makes it difficult to get persons with all needed skills, even with added pay; and the likelihood that some reserve units are too far from active bases to have adequate training facilities for weekend drills. The pessimistic reply also notes the major mobilization problems revealed in MobEx76; these must be corrected before reserve units--even those in a high state of peacetime readiness--will be able to get into a NATO war in the first month or so.

Some information is available to help judge between the pessimists and optimists. Tests in the 1960s suggested that more weekend training would not necessarily result in sustained improvements in readiness. In the 1960s certain reserve units were placed in the Selected Reserve Force and drilled up to 18 weekend days a year (72 drills), versus 12 weekend days today (48 drills). Some observers judged that units in the Selected Reserve Force did achieve higher readiness, but the idea was abandoned in 1969 because the extra drills caused serious morale and retention problems among part-time reservists. 25/

Other tests suggest that it will be difficult to sustain high readiness in reserve units of battalion-size or larger. Maintaining high readiness in battalion-size units (maneuver battalions typically have 850 to 1,000 members) requires very favorable circumstances and great additional effort, according to a study that reviewed tests of readiness improvements--including added drills and more full-time assistance--conducted by the Department of Defense in the early 1970s. 26/ The Defense Manpower Commission reached a similar conclusion. 27/ Yet most

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25/ Wallace C. Magathan, et al., Tailoring of Reserve Component Unit Training Assemblies and Unit Manning Levels (General Research Corporation, March 1974), Volume I, pp. 5-6.

26/ Ibid., pp. 7-10.

27/ Defense Manpower Commission, Defense Manpower: The Keystone of National Security, Report to the President and the Congress (April 1976), p. 110.

of the reserve units now among the early-deploying, affiliated units are battalions or larger.

The study that reviewed the tests also noted that generalizations from these tests should be made with caution. Thus the tests have not resolved many of the uncertainties. And the uncertainties may suggest a gradual approach to implementing readiness improvements. For example, the improvements could be implemented for selected units, perhaps the early-deploying units. This would limit cost increases, while at the same time allowing a large-scale test of whether the extra resources would lead to adequate readiness. In Congressional testimony last year, the Assistant Secretary of Defense for Manpower, Reserve Affairs, and Logistics endorsed the idea of a test. 28/ One of the options discussed in the next chapter would provide a test.

28/ Statement of the Honorable John P. White on Military Readiness in the Reserve Components during hearings before the House Committee on Armed Services (September 29, 1977; processed), p. 8.

CHAPTER III. ALTERNATIVE ROLES FOR THE ARMY RESERVE COMPONENTS

Among the numerous proposals to devote more resources to the Army reserves to improve their readiness are suggestions to employ more reservists, employ more full-time assistants, improve training, and add more equipment. These proposals are discussed in more detail in the Appendix.

Evaluation of these proposals presents two major problems. One is that readiness improvements are often proposed to the Congress without reference to how the Army reserves might be used. Without this context it is difficult to determine the importance of improved readiness and how much the improvements would add to U.S. defense capability.

The second problem is that even if all the readiness improvements were implemented, it is not clear how much readiness would be improved and whether this improvement would be enough to allow the Army reserves to assist effectively the active forces in the first month or so of a NATO war. Yet one's judgment on this issue could have a major influence on the desirable role for the reserves and hence on the value of the readiness improvements.

To address these problems, this chapter describes three alternative roles for the Army reserves consistent with differing notions about costs, the nature of a NATO war, and particularly the ability of the reserves to be highly ready in peacetime. The first of these roles would emphasize a highly ready Army reserve that would be used in all phases of a war. Specifically, it would attempt to make some reserves ready to fight effectively in the first month or so of a NATO war, while also attempting to ready all the remaining reserves to enter a war within the first three months. Another role would emphasize only the readiness of those reserves that must fight early, in the first month or so of a war. A third role would rely on the reserves only as a hedge against a war that lasted many months. These alternative roles suggest the relative value of the readiness improvements; the more the reserves' role demands high peacetime readiness, the greater the payoff from the readiness improvements.

But would readiness improve enough to allow the Army reserves to carry out their assigned role? Given the uncertainties,

this question could be answered by a large-scale test that holds down costs while determining how much the various proposals would increase the readiness of the Army reserves. The second of the three alternative roles would provide such a test.

A HIGHLY READY RESERVE FOR USE IN ALL PHASES OF A WAR

Under this role the size of the Army reserve would increase. Some units of this larger reserve would be expected to assist active forces in the first month of a NATO war. Those intended to deploy in the first two months of a war might inlude the roughly 10 percent of the Army selected reservists now in affiliated reserve units. And members of the Army reserves would be expected to enter a war within about three months, which is the Administration's stated goal for the Army reserves. 1/

This option would be consistent with a judgment that a major NATO war would be a demanding scenario that would require more personnel and that paid reservists could be an increasing part of the total force that meets that need. This option would also be consistent with several other trends in defense policy. It would emphasize the reserves, which has been a theme in recent years under the Total Force Policy. This option would also emphasize the need for participation of U.S. forces, including Army reserves, early in a NATO war, a policy consistent with concern about the ability of the Warsaw Pact to mobilize quickly. Finally, the option would be consistent with a U.S. strategy of emphasizing reinforcement of NATO, as outlined in a recent CBO study of U.S. forces for NATO. 2/ This strategy would, among other changes, preposition equipment in Europe for three additional U.S. active divisions, thus allowing these divisions to get to Europe more quickly in the event of a war. Some of

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1/ Fiscal Year 1978 Authorization for Military Procurement, Research and Development, and Active Duty, Selected Reserve, and Civilian Personnel Strengths, Hearings before the Senate Committee on Armed Services, 95:1 (March and April 1977), Part 4, p. 2436.

2/ Congressional Budget Office, U.S. Air and Ground Conventional Forces for NATO: Overview, Budget Issue Paper (January 1978), pp. 34-39.

these active divisions may depend on reserves for part of their fighting force or at least for support, and the additional prepositioning would speed up deployment schedules for all other units, including reserves. This policy of additional prepositioning of equipment would therefore put more pressure on the reserves to be ready early.

A policy emphasizing a highly ready Army reserve, coupled with concern about their current readiness, suggests that defense capability could be substantially improved by actions to improve their readiness. These might include all of the key readiness proposals summarized in Table 4 and discussed in detail in the Appendix. These proposals would involve hiring additional paid reservists to reach or at least move toward the Army's peacetime strength objective of 660,000 selected reservists. Reaching this objective would provide full manpower for all reserve units, thereby improving team training and readiness for war. The proposals would also feature additional pay and bonuses to attract these personnel into the selected reserves. Based on CBO projections, achieving a selected reserve of 660,000 members by 1983 would not only require the educational assistance and re-enlistment bonus authorized by the Congress for fiscal year 1978, but also an additional cash bonus of about $500 per enlistee. Still other proposals to improve readiness would attempt to attract as many as 50,000 persons a year into the individual ready reserve in order to meet Army requirements for wartime fillers for active and reserve units as well as to provide adequate numbers of combat replacements. And, based on requirements determined in a recent Army study, the proposals would provide reserve units with as many as 9,200 additional full-time assistants, either active-duty military or civilians. 3/ These added full-time personnel could assist in routine paperwork so that reservists would have more time to train; the experience of these assistants could also improve the quality of training. Finally, the proposals would provide longer summer training periods for selected reserves.

The costs of these added resources could be substantial. As the Appendix shows, by 1983 the various readiness improvements could increase costs by $400 million to $750 million per year, a 10 to 20 percent increase over the amount the United States now spends on Army reserves. Assuming the proposals are gradually

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3/ Department of the Army, Full Time Personnel Requirements of Reserve Components (December 31, 1977), p. C-10.

TABLE 4. SUMMARY OF READINESS IMPROVEMENTS

Reserve Role	Personnel Strengths: Selected Reserve	Personnel Strengths: Individual Ready Reserve	Personnel Strengths: Active Duty
Highly Ready Reserve for All Phases of War			
Higher-Cost Case	660,000 by 1983 (vs. 544,000 today)	50,000 more recruits per year	No change from current policy
Lower-Cost Case	616,000 by 1983	25,000 more recruits per year	No change from current policy
Emphasis on Early-Deploying Reserves	15,000 more than today's levels to man early-deploying units fully	No change from current policy	No change from current policy
Emphasis on Reserves for Long War			
Fewer Reserves, Replace with Actives	54,000 fewer than today	No change from current policy	54,000 more than today
Fewer Reserves	54,000 fewer than today	No change from current policy	No change from current policy

(continued)

TABLE 4. CONTINUED

Additional Pay/Bonuses	Additional Full-Time Assistance	Additional Summer Training
Educational assistance and re-enlistment bonus in form authorized by the Congress plus special $500 bonus to achieve 660,000 strength	9,200 more civilians or military	Three weeks for up to 10 percent of all reservists (vs. two weeks today)
Educational assistance and re-enlistment bonus in form authorized by the Congress	4,500 more civilians or military	None
Same as higher-cost case above but only for early-deploying units	About 1,200 more civilians or military for early-deploying units	Same as higher-cost case above
None	None	None
None	None	None

implemented beginning in fiscal year 1979, total costs over the next five years could go up by $1.3 to $2.4 billion over their levels if today's spending were maintained. The range of costs would depend on the size of readiness improvement programs that were chosen. (All costs are in constant 1978 dollars that assume no growth in prices or wages beyond 1978.)

In addition to increasing costs, these readiness improvement proposals would have some other drawbacks. Although the proposals would probably increase the chance of the Army reserves' fighting effectively in the first month or so of a NATO war, it is less likely that these proposals--or any other readiness improvements--would allow many reserves to assist active forces if a NATO war began with very little notice, perhaps only a few days, and ended in a few weeks.

More important, this role for the reserves assumes that these additional resources would improve the readiness of the reserves sufficiently so that some could fight effectively in the first month or so of a major war, and all could enter within three months. As Chapter II pointed out, however, this is an uncertain judgment. It may be desirable to hold down cost increases while gaining more information about how ready the Army reserves could be. This may suggest a more selective option.

EMPHASIS ON EARLY-DEPLOYING UNITS

The Congress could choose to emphasize the capacity of the Army reserves to participate in the first month or so of a NATO war. In this approach, efforts to improve readiness would be concentrated on those units designated as early-deploying rather than stressing readiness for the entire Army reserve.

Although this option is not a widely discussed strategy for the Army reserves, various aspects of its approach are already part of recent policy changes and discussions. The Army has recently raised the personnel and equipment authorized to early-deploying units from 80 to 100 percent of wartime requirements, thus acknowledging the importance of these high-priority units. Also, in Congressional hearings on the fiscal year 1978 defense budget, General Henry Mohr, Chief of the Army Reserve, underscored the need to emphasize early-deploying units by stating that recruiting and retention incentives--while important for all

reserve units--were critical for early-deploying units. 4/ This year's report of the House Committee on Armed Services pointed to emphasis on early-deploying units by suggesting that increases in full-time support for the reserves might be funded by "a deactivation of existing units of questionable value for utilization early in a mobilization." 5/

This option would implement the readiness improvement programs described in the Appendix, but only for those in early-deploying Army reserve units. The exact number in these units is classified. As a rough approximation this study assumes that numbers of reservists in early-deploying units equal the 54,000 reservists now in affiliated reserve units. 6/ The readiness improvements would add paid reservists to these early-deploying units to bring them up to their wartime requirements; this would require adding about 15,000 additional enlisted personnel to the selected reserves. The early-deploying units would also get bonuses to attract these added personnel, increased full-time support to free more time for training, increased periods of active duty for training, and priority assignment of equipment. The option to increase numbers in the nondrilling, individual ready reserves would not be implemented, since the major role

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4/ 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 and March 1977), Part 5, p. 641.

5/ Report to Accompany H.R. 5970, Department of Defense Authorization Bill, Fiscal Year 1978, H. Rept. 95-194, 95:1 (April 7, 1977), p. 87.

6/ Units in the affiliation program are currently being reviewed, and hence this number may change. Eventually most units intended to deploy or assist active forces within two months after a decision to deploy may be affiliated. But today affiliated units are limited to some of the larger units intended to deploy within two months; smaller units have not yet been added. Thus as of today the 54,000 reservists in the affiliated units do not include all units intended to deploy or assist active forces within two months; but they may represent an unclassified approximation of those intended to deploy early, that is, within the first month or so of a war.

of the individual ready reserves would probably come later in a war. Table 4 summarizes these changes.

This option would offer several significant advantages. It would provide resources to the reserve units that would be involved in the earliest fighting and, therefore, would be consistent with the current strategic emphasis on the importance of withstanding an initial blitzkrieg attack by the Warsaw Pact forces. By emphasizing improved readiness for the early-deploying units, it would be consistent with decisions discussed above to reinforce our NATO allies by speeding up deployment of U.S. troops.

Perhaps the greatest advantage of this option is that it would test whether additional resources devoted to the reserves would enable them to be effective in the first month or so of a NATO war. Previous discussion of uncertainty about improvements in reserve readiness support the need for such a test, and that need has been acknowledged in Congressional hearings by the Assistant Secretary of Defense for Manpower, Reserve Affairs, and Logistics. 7/ Based on the results of the test, it may be desirable to provide readiness improvements to all Army reserve units, thereby moving the Army reserves toward the first role discussed above, or to limit the reserves' role to acting as a hedge against a long war, which is discussed below.

Another advantage is that this strategy would hold down cost increases. Under the previous option, costs of readiness improvements for the whole Army reserve drove up spending in 1983 by between $400 million and $750 million. But if the readiness improvements were applied only to those in the early-deploying reserve units, costs in 1983 would go up by only about $80 million above what is being spent now. 8/

7/ Statement of the Honorable John P. White on Military Readiness in the Reserve Components during hearings before the House Committee on Armed Services (September 29, 1977; processed), p. 8.

8/ This cost increase assumes that 15,000 enlisted selected reserves would be added to early-deploying units. Costs for these added reserves are based on average factors (see footnote 9). All personnel in these early-deploying units would

This option has some disadvantages. It would not add resources to the later-deploying reserve units, and so would not tend to improve their readiness above current levels. This may make it more difficult to achieve the Administration's goal of getting all reserve units into a major European war within 90 days. Also, emphasis on the early-deploying units may lead the later-deploying units to regard themselves as "second-class," which could reduce their readiness. This problem could be minimized, however, by allowing individual members to apply to join the early-deploying units, a competition that should insure the early-deploying units the best people as well as promoting individual motivation.

RESERVES AS A LONG-WAR HEDGE

Chapter II of this paper suggested that given their current readiness, many Army reserves would have difficulty in mobilizing, deploying, and effectively assisting active forces in the first month or so of a NATO war. It may be that even with large amounts of additional money, certain constraints on U.S. reserves would make most of them unable to meet war requirements during the early stages of a NATO war. This judgment would suggest that the United States should rely on Army reserves only in the later stages of a war that lasts many months. By then the reserves would have had time to overcome readiness problems that existed at mobilization.

This role for the reserves would suggest a low payoff to the readiness improvements outlined in the Appendix. The readiness improvements therefore would not be implemented under this option, although it might still be desirable to implement a few improvements for some small reserve units that would continue to have a role early in a war.

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be authorized three weeks of summer training (see Appendix for costing). Early-deploying units would also receive bonuses, educational assistance, and full-time assistance discussed above; costs of these are assumed to be proportional to the total costs for all reserve units, which are estimated in the Appendix. The proportionality factor is the ratio of wartime strengths in the affiliated reserve units to total strengths in the entire Army reserve.

Fewer Reserves

Given this general orientation, the Congress could take two directions. The first would be consistent with a judgment that the early phases of a Warsaw Pact attack could be contained by today's U.S. active forces and the manpower supplied by our NATO allies. The U.S. Army reserves--limited to fighting in the later stages of a war that lasts many months--would, according to this judgment, have time to acquire their full manpower after mobilization. This option would thus save money by accepting lower reserve strengths. To illustrate the effects on costs, this study assumes that the size of the Army's selected reserves would be reduced below today's levels by about 54,000 reservists, the number currently assigned to affiliated reserve units that are likely to deploy early. The reductions might be accomplished by cutting out some lower-priority reserve units rather than by reducing the manpower of all units or eliminating the affiliated units. Such an action would reduce costs in 1983 by about $140 million. 9/

Although it would reduce costs, this option would contradict the notion that a NATO war would demand large numbers of U.S. soldiers early. It would represent a retreat from emphasis on the Army reserves under the Total Force Policy. And, as was noted in Chapter II, relatively little evidence is available as to how much additional resources would improve the reserves' readiness. It may therefore be reasonable to postpone a far-reaching action such as this until more information is available.

Fewer Reserves, More Active Forces

A key conclusion of the discussion of strategic roles in Chapter II was that many assessments of NATO strength emphasize

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9/ Costs are based on average factors per selected reservist. The factor includes drill pay, schooling, travel, and other personnel costs. The factor also includes operating costs; these assume that operation and maintenance costs in three object classifications--supplies and materials, travel and transportation of persons, and purchases from industrial funds--are proportional to numbers of selected reservists. Costs are in constant 1978 dollars that assume no growth in wages or prices beyond 1978.

the need for assistance early in a war. Thus, if the Congress judged that the Army reserves are not likely to be ready to fight effectively in the first month or so of a NATO war, it may want to replace the early-deploying units with active forces.

To illustrate the effects on costs, this study assumes that the 54,000 selected reservists in early-deploying, affiliated units are eliminated from the selected reserve. These reserves are assumed to be replaced by an equal number of active troops in similar units. (The 54,000 number is for illustration; detailed study might suggest a different number and might suggest that units other than those in the affiliation program should be involved in the switch.) None of the reserve readiness improvements discussed in Chapter II would be implemented, since the remaining Army reserves--limited to a role as a hedge against a longer war--would have time to achieve higher readiness after mobilization. Nonetheless, this option would increase costs. Costs for pay and operations in 1983 would go up by about $800 million above what is now being spent because the added active troops would cost more than the reserves they would replace. 10/ These cost increases may be conservative. Added costs of recruiting more active troops are not included. The additional active troops would also need equipment. The cost increases assume that the active troops would get equipment from the selected reserve units that were dropped from the force, but some additional equipment might be needed.

In addition to increasing costs, this option would run counter to the momentum of the Total Force Policy, which emphasizes reliance on reserves. The option would be consistent, however, with the judgment that currently planned levels of effective U.S. troops must be available early in a NATO war. Like the first two options in this study, then, this one would follow the trend in strategic thinking that emphasizes a Warsaw Pact attack that occurs with little warning and great strength and is decided early. This option should also be a manpower action that is consistent with possible policy changes on the equipment side.

10/ Costs for increased active forces are based on average factors that include pay and allowances, operating costs, and recurring procurement (mostly ammunition). Costs for decreases in selected reserves are the same as those used above (see footnote 9). All costs are in constant 1978 dollars that assume no wage or price growth beyond 1978.

If the Army prepositions more equipment in Europe, as it may propose doing, then it would be important to insure that divisions deploying to Europe are fully ready from a personnel standpoint. If reserves that are planned for early deployment cannot be fully ready, then this option of replacing them with active troops may be a sensible policy.

SUMMARY

This chapter developed three broad roles for the Army reserves (summarized in Table 5). They differ in their notions about the nature and demands of a NATO war and in their costs. Perhaps most important, they differ in their assumptions about how ready the Army reserves can be, even if the readiness improvement programs are implemented.

In terms of added defense capability, the relative payoff to readiness improvements differs depending on the choice of role. The highest payoff would arise if the United States desired a highly ready Army reserve for use in all phases of a NATO war. The lowest payoff from reserve readiness improvements would be for Army reserves intended primarily for use later in a war that lasts many months, since in this case they would have time to improve their readiness after mobilization. Emphasis on the Army reserves early in a war would be a middle-ground option that also offers the advantage of a large-scale test of how much the various readiness improvements would increase the ability of the Army reserves to fight effectively in the first month or so of a NATO war.

TABLE 5. ALTERNATIVE ROLES FOR ARMY RESERVE COMPONENTS

Roles	Changes to Reserve Resources	Criteria for Choice: Nature of NATO/ Warsaw Pact War	Criteria for Choice: Can Reserves Be Ready to Fight Early?	Costs (1983)
1. Highly Ready Reserve for All Phases of War	Make numerous changes to improve readiness, including more reservists, higher pay, more full-time support, and longer training	Intense war that demands heavy U.S. presence in first few months	Confident that extra resources will lead to adequate readiness	Up $400 to $750 million a year
2. Emphasis on Early-Deploying Reserves	Make changes to improve readiness of early-deploying units	Similar to Role 1 but emphasis on war that ends more quickly	Not convinced; desire inexpensive test of whether extra resources will lead to adequate readiness	Up $80 million a year
3. Emphasis on Reserves for Long-Run War				
Fewer Reserves, Replace With Active Troops	No readiness improvements; substitute active forces for early-deploying reserves	Similar to Role 2	Reserves unable to fight effectively early in war	Up $800 million a year
Fewer Reserves	No readiness improvements; reduce size of selected reserve by numbers in early-deploying units	Similar to Role 2, but level of threat suggests U.S. active forces plus NATO manpower are adequate in early stages	Same as above	Down $140 million a year

APPENDIX

APPENDIX. IMPROVING RESERVE READINESS: THE KEY PROPOSALS AND THEIR COSTS

The increasing interest among strategic planners in using Army reserves early in the event of a major conflict in Europe and a concern with their readiness has prompted a long list of recommendations on how to improve the readiness of the Army reserves. Of course, the desirability of the proposals depends on the role of the Army reserves, as well as on how much the proposals would increase readiness. These questions have been discussed in previous chapters; this Appendix describes the proposals in more detail and estimates their costs.

As earlier sections of the study have pointed out, reserve readiness could be improved in many ways. This study concentrates on those involving increased resources--such as added reservists or more full-time personnel--because these remedies are most under the control of the Congress and most important in the budget. These proposals are discussed first. A subsequent section of this Appendix briefly discusses some other changes that might improve the readiness of the reserves.

THE KEY RESOURCE PROPOSALS

Additional Personnel

The earlier discussion of reserve readiness pointed out general agreement that personnel problems are key. People are needed to man selected reserve units. The Army reserves entered fiscal year 1978 some 49,000 persons (or 8 percent) below the 593,300 selected reserves they are authorized for fiscal year 1978. Moreover, the reserves' peacetime objectives call for 660,000 selected reserves. 1/ This was their authorized strength

1/ Fiscal Year 1978 Authorization for Military Procurement, Research and Development, and Active Duty, Selected Reserve, and Civilian Personnel Strengths, Hearings before the Senate Committee on Armed Services, 95:1 (March and April 1977), Part 4, pp. 2836-37.

in fiscal year 1972, before they suffered the post-draft decline in recruits.

Projections discussed in Chapter II showed that under current policies selected reserve strengths may stabilize and then gradually improve in the next few years. This is likely to occur because of decreased losses, as the last of the large numbers who joined the reserves during the draft era leave.

On the other hand, this improvement may not occur in all geographical areas nor in all units. Even more important, the Army has said that it wants to increase the proportion of reserve recruits who do not have prior military experience, which could halt or reverse the improvement in strength. 2/ Furthermore, loss rates remain high among reservists (particularly among those without prior military experience), making it difficult to sustain a large reserve. About two-thirds of all enlisted men who join the Army reserves without prior military experience never complete their first six-year obligation, and only about 10 percent of the initial entrants complete their first obligation and remain longer in the reserves. Some of those leaving before completing their initial obligation--about 10 percent of all such losses--do so to enlist in the active forces, which may be desirable. But substantial numbers simply leave. Further research is needed on the causes and possible remedies for early losses from the selected reserves.

Re-enlistment Bonus and Educational Assistance

For all these reasons, an increase in numbers of selected reservists, particularly enough of an increase to get back to the service peacetime objectives over the next five years, may require extra pay. Last year the Congress authorized educational assistance for new reserve enlistees and a cash bonus for reserve re-enlistees. The authorization was limited. It expires at the end of fiscal year 1978; and even in fiscal year 1978 the Congress appropriated funds only for a limited test of the re-enlistment bonus. This test is currently being conducted by the Department of Defense. Further implementation of the proposals may be debated again this year.

2/ 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 and March 1977), Part 5, p. 441.

As authorized for this year, the educational assistance for enlistees would consist of up to 50 percent of educational expenses, to a maximum of $500 a year and a maximum of $2,000 for any one enlistee. Educational assistance would be available to all high school graduates without prior military experience who join a selected reserve unit as an enlisted person for at least six years and attend a college or training program. The re-enlistment bonus would pay $300 per year of re-enlistment, up to a maximum of $1,800. The bonus would be available to all those enlisted persons in the selected reserve with less than 10 years of total reserve service; candidates must have had no prior military experience and must re-enlist or extend their enlistment for either three or six additional years. Both these bonuses would have recoupment provisions that would allow the government to recover all or part of the bonus if the reservist did not fulfill his commitment.

The specific form of these bonuses raises important questions. It is not clear whether educational assistance or a cash bonus would be more effective as an enlistment incentive. This question is currently being addressed by the Department of Defense through surveys and by evaluation of state educational assistance programs available to National Guard personnel. Another question about the form of the bonus is whether it should be limited to high school graduates. Although this might cut down on increases in accessions, the restriction may improve the quality of reservists.

A question also arises as to whom the bonuses should try to attract. The Congressionally authorized educational assistance for new enlistees would be limited to those without experience on active duty. This would be in keeping with the Army reserves' desire to increase the fraction of these non-prior-service accessions. More non-prior-service accessions would keep the number of junior personnel in reserve units large. This may be desirable to avoid a reserve filled with senior personnel who would be accustomed to supervising, with few persons accustomed to more junior roles. More non-prior-service accessions would also hold down costs--at least pay costs--and maintain promotion opportunities because non-prior-service accessions come in at the junior paygrades. Non-prior-service accessions, however, have no practical experience and only 38 training days a year during which to acquire experience. More non-prior-service accessions thus could reduce training proficiency. Also the reserves must pay to train non-prior-service accessions, and they may become increasingly expensive to recruit as the pool from which most of

them come--those at ages 18 to 19--declines in the 1980s. These factors suggest a careful evaluation of bonus and pay policies to insure that the reserves attract a proper mix of those with and without military experience. This review may be part of the Reserve Compensation System Study now being conducted by the Department of Defense.

The Congressionally authorized version of the re-enlistment bonus is also restricted to those without prior military service. This restriction appears to have less merit than the same restriction on educational assistance for new enlistees. Whether or not they have prior service, re-enlistees will not be junior personnel. This appears to be the major reason why the Army wants non-prior-service accessions. And re-enlistees without prior active-duty experience may well be less qualified than their more experienced, prior-service counterparts.

Although many questions remain about the form of the assistance and bonuses, this study discusses the form authorized by the Congress for fiscal year 1978, since it is clearly defined and may well be debated again this year. As authorized, the enlistment educational assistance and re-enlistment bonus are likely to improve recruiting and retention. Unfortunately, little analysis is available as a basis for evaluating how much improvement will occur. As a rough guide, CBO has projected the effects of the assistance and bonus assuming that a 1 percent increase in compensation leads to a 1 percent improvement in continuation rates or numbers of enlistments. This assumption is consistent with the limited analysis in this area. 3/ Under this assumption the combined effect of the educational assistance for new enlistees and the re-enlistment bonus would boost the Army reserve components to a level of about 616,000 by the end of fiscal year 1983, assuming the bonuses began in fiscal year 1979. Part of this increase in strength would come from the larger number of enlistments and re-enlistments that the educational assistance and bonus would induce. Strength would also increase because more people would stay in the selected reserves to avoid having to repay part or all of their added pay under the recoupment provisions of the law. This should improve retention, which was cited above as a major problem. The projections assume the

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3/ Empirical response of secondary labor market participation to the secondary job wage was estimated by Robert Shishko and Bernard Rostker, "The Economics of Multiple Job Holding," American Economic Review (June 1976), pp. 298-308.

recoupment provisions would be enforced; failure to do so would probably reduce the improvement in retention.

If these projections are correct, the educational assistance and re-enlistment bonus would not achieve the peacetime objective strength of 660,000 selected reservists. The peacetime objective may be realized by the end of 1983, however, if--in addition to the educational assistance to new enlistees and the re-enlistment bonuses--a $500 cash enlistment bonus were offered. This special bonus would be available to high school graduates without prior military experience who joined for at least one year in the selected reserve as enlisted men. Like the estimates above, this estimate of the additional bonus necessary to reach 660,000 assumes that a 1 percent increase in pay increases enlistments by 1 percent. Even though it is consistent with the limited analysis in this area, this assumption must be regarded as uncertain.

Expansion of the Individual Ready Reserves

The Army is not only short of selected reservists; it is also short of individual ready reserves (IRR). Currently, these IRR personnel usually do not drill or receive pay. In the event of a major war, though, they would fill out active and reserve units and later would provide combat replacements. The Army estimates it will be short more than 250,000 individual ready reserves by 1982. 4/ This estimated shortfall depends on numerous detailed assumptions, including uncertain estimates of combat losses in the early days of a major war. To the extent the shortfall is valid, though, it may require additional resources.

The Army is studying a variety of programs to increase the size of the IRR. One of the major ones would recruit high school or college students, provide them two six-week training periods over two summers, and pay them an annual stipend of perhaps $200. 5/ In return, these individuals would agree to

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4/ Department of Defense Appropriations for 1978, Hearings before a Subcommittee of the House Committee on Appropriations, 95:1 (March 1977), Part 5, p. 36.

5/ Department of Defense, Manpower Mobilization Requirements: Army Individual Ready Reserve Issues (October 1976), pp. 4-21 to 4-22. Studies now being completed may recommend bonuses and tax exemptions rather than the $200 stipend.

stay in the individual ready reserve for a period of six years and to undergo one two-week refresher training course after three years. Meeting the IRR shortfall with these individuals could require as many as 50,000 IRR recruits a year, depending on how much of the shortfall can be met through other policy changes the Army is considering. 6/

Could these people, who on average would have had no training at all for a year and a half, be effective soldiers? The continuing interest in the program suggests the Army feels they would be effective.

Increase in Full-Time Assistance

In addition to more people, the reserves may need better training. Because of their part-time status, reserves now can devote only the equivalent of 38 days a year to training. Much of this time may be consumed by administrative and recruiting work, which could be done by full-time workers. The reserves may also need the technical guidance that can best be supplied by full-time personnel. The Army reserves already have about 53,000 personnel who provide them support either full time or part time. More may be needed. A study recently completed by the Department of the Army found a need for 4,500 to 9,200 additional full-time technicians. According to the study, the increase of 4,500 would be the "minimal" needed increase, while the 9,200 additional full-time technicians would provide "adequate" manpower. 7/

Longer Training Periods

Another way to improve reserve readiness would be to increase the length of training. Since time spent on active duty for training is generally the most productive, it might be reasonable to extend this period. In Congressional testimony last year, the Army National Guard Bureau agreed that a three-week period of

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6/ Ibid., Chapter 4.

7/ Department of the Army, Full Time Personnel Requirements of Reserve Components (December 31, 1977), pp. C-1 to C-10. The study found that optimal technican manning would require 18,700 additional technicians, but the study group labeled this optimistic.

active duty would clearly produce a better-trained reservist. But because of possible reluctance on the part of reservists and their employers (as well as increased costs), the Bureau indicated they would put a three-week training period to a test in 1978. 8/

Procurement of Equipment

As Chapter II pointed out, the Army reserve components are currently short of their authorized equipment. The Administration contends that shortages of all key types of equipment will be met by the early 1980s. As also pointed out, though, the Army buys equipment for both actives and reserves together and then distributes it based on a priority list. Many reserve units are at the lower end of this list. Thus changes in policy--such as prepositioning additional equipment in Europe for high-priority, active-duty units--could divert part of the new procurement from the Army reserves. This means either the timetable for the reserves to "get well" would slip, or additional money would have to be added for procurement aimed at reserves. CBO has not undertaken the detailed analysis that would be necessary to identify the added procurement expenditures (if any) that would be necessary, under varying assumptions about the needs of active duty forces, to fully supply reserve equipment requirements. Therefore, no estimates of added procurement costs are included in this study.

Other Proposals

Although this menu of proposals to improve readiness by adding resources is extensive and includes the key proposals that can be foreseen now, even it is not complete. There may be far-reaching changes in reserve pay proposed by the Reserve Compensation System Study, now under way. Moreover, in last year's Congressional testimony, the Army reserve components suggested a series of proposals not discussed above--including tax exemptions, extra retirement credits, and additional training. The Army estimates these proposals would eventually increase costs

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8/ Fiscal Year 1978 Authorization for Military Procurement, Research and Development, and Active Duty, Selected Reserves, and Civilian Personnel Strengths, Hearings, Part 4, p. 2896.

$160 million a year for the Army reserves alone. 9/ Of course, numerous more minor proposals could also affect reserve readiness. Incomplete though it may be, the list discussed above could be expensive, as the next section suggests.

COSTS OF KEY PROPOSALS

Table A shows estimates of the increases over spending planned for fiscal year 1978 that would be necessary to pay for the key readiness proposals discussed above. All estimates are in constant 1978 dollars that assume no price or wage growth beyond fiscal year 1978. Increases are limited to the Army reserve components and would be higher if the proposals were applied to reserve components in the other services.

Since the size of many of these programs has not been determined, Table A first estimates costs under a higher-cost case, assuming programs are fully implemented, and then under a lower-cost case, assuming a more modest implementation.

Higher-Cost Case

The higher-cost case assumes that the Army reserve components would attempt to meet their peacetime objective of 660,000 selected reservists by 1983. In order to do this, the re-enlistment bonus and the educational assistance for new enlistees would be offered in the form authorized by the Congress for fiscal year 1978. In addition, a special $500 cash enlistment bonus, discussed above, would be offered. As noted earlier, the effects of extra pay are uncertain, but the best estimate in this study is that the extra bonuses and educational assistance would move close to a strength of 660,000 selected reservists by 1983.

The bonuses and educational assistance would also move in other directions the Army has said are desirable. With them, about 58 percent of all accessions in 1983 would have prior military service, versus 65 percent in 1977. For reasons discussed above, the Army reserves desire to move toward fewer

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9/ Military Posture and H.R. 5068: Department of Defense Authorization for Appropriations for Fiscal Year 1978, Hearings, Part 5, pp. 1004-8.

recruits with prior military service. 10/ Also, since the enlistment bonuses would be limited to high school graduates, the fraction of non-prior-service accessions who are high school graduates would go up from 46 percent in 1977 to about 62 percent in 1983. This should improve the quality of the reserve force and may improve retention, since high school graduates--at least those in the active force--tend to stay in longer.

In addition to attempting to meet the peacetime strength objectives for the selected reserves, this higher-cost case would bring enough recruits into the individual ready reserve by 1983 to meet the Army's estimate of a shortfall in excess of 250,000. This would involve recruiting some 50,000 persons a year. The higher-cost case would also provide the 9,200 additional full-time technicians called for in a recent study by the Department of the Army. This number would bring technicians up to the level deemed adequate by the study group. 11/ In addition, the higher-cost case would provide a three-week summer camp for 69,000 selected reservists, which could be used to provide extra active-duty training for all personnel--officers and enlisted--required in wartime by the high-priority, affiliated units.

As Table A shows, by 1983 this higher-cost case would increase annual expenditures on the reserves by about $760 million. This would represent a 20 percent increase in money spent on the Army reserve components. In 1979 costs would increase by $215 million, and the total increase over the next five years would equal $2.4 billion. Cost increases assume that the bonuses are fully implemented at the beginning of fiscal year 1979, which results in immediate increases in reserve strengths and hence their costs. In particular, the re-enlistment bonus shows a large first-year cost as all those with six to ten years of reserve service take advantage of the bonus. Beyond 1979 the bonus would primarily be of interest to those reaching six years of service. Although costs for bonuses, pay, training, and operating expenses show a first-year jump that is larger than subsequent increases, the other changes--increases in recruits into the individual ready reserve, more technicians, three-week summer camp--are phased in over five years in equal increments.

10/ Ibid., p. 441.

11/ Department of the Army, Full Time Personnel Requirements, p. C-2.

TABLE A. ADDITIONAL COST OF IMPROVING ARMY RESERVE COMPONENT READINESS: SELECTED FISCAL YEARS, MILLIONS OF CONSTANT 1978 DOLLARS a/

	1979	1983	Total 1979-83
Higher-Cost Case			
660,000 Selected Reserves			
Pay, training, operating b/	95	275	955
Bonuses and Other Pay			
Re-enlistment bonus c/	30	5	60
Enlistment educational assistance d/	20	55	210
Enlistment bonus ($500 Cash)	20	20	95
50,000 Annual IRR Recruits e/	30	245	660
9,200 Additional Full-Time Technicians f/	15	145	395
Three-Week Summer Camp for 69,000 g/	5	15	40
Total	215	760	2,415

(Continued)

a/ Costs assume no wage or price growth beyond fiscal year 1978.

b/ Costs include added pay for drills, active duty for training, other schooling, travel, and other expenses for additional selected reservists plus training costs for additional accessions. Costs are based on a detailed model rather than on average factors per reservist. Costs also include an estimate of increases in operating and maintenance costs; these assume that operating and maintenance costs in three object classifications--supplies and materials, travel and transportation of persons, and purchases from industrial funds--are proportional to average numbers of selected reservists.

c/ Costs assume that re-enlistees choose to re-enlist for three years. Costs are net of savings from recoupment.

d/ Costs assume that all accessions with high school degrees take advantage of the full $500 worth of benefits for four years. Costs are net of savings from recoupment.

TABLE A. (Continued)

	1979	1983	Total 1979-83
Lower-Cost Case			
616,000 Selected Reserves			
Pay, training, operating	50	175	595
Bonuses and Other Pay			
Re-enlistment bonus	30	5	60
Enlistment educational assistance	15	40	150
25,000 Annual IRR Recruits	15	125	330
4,500 Additional Full-Time Technicians	10	70	195
Total	120	415	1,330

e/ These costs include costs of advertising, recruiting, and entrance (AFEES) processing for additional recruits; these estimates are based on costs for average recruits into the active Army. Costs also include expenses for travel and initial clothing based on average rates in the Army reserve components, plus $200 a year per IRR recruit. Costs include average costs of training based on average factors for recruit training in all services; factors are based on data in the Department of Defense report on training for fiscal year 1978. These costs may be high if selected reserves can assist in IRR training. On the other hand, costs ignore any start-up expenses associated with opening new training bases.

f/ These costs assume that the additional technicians have the same average cost as the civilian technicians now in the two Army reserve components.

g/ Costs are based on average cost per day of active duty for training.

The estimates of cost increases include changes in reserve pay, training, travel, and other expenses. Cost increases also include increases in operating costs. The notes to Table A describe the costing methodology more fully.

Lower-Cost Case

The lower-cost case in Table A assumes that beginning in 1979 the reserves would be granted the educational assistance and re-enlistment bonuses authorized in 1978 by the Congress, but the special $500 cash enlistment bonus discussed above would not be offered. Estimates by CBO suggest this would lead to a selected reserve strength of about 616,000 by the end of 1983. This would be above the currently authorized average strength (593,300) but lower than the peacetime objective strength (660,000). The lower-cost case also assumes that only 25,000 recruits are brought in each year into the individual ready reserve--the rest of any shortfall being met through other policy changes. And only 4,500 additional full-time technicians are authorized. This would bring the total of full-time technicians to the "minimal" acceptable level as determined by a recent Army study. 12/

Under the lower-cost case, reserve costs would increase by $415 million in 1983. In 1979 costs would go up by $120 million, with increases over the next five years totaling $1.3 billion.

The costs in Table A do not reflect some interactions that could influence total costs. For example, annual recruiting of 25,000 to 50,000 high school and college students into the individual ready reserves (IRR) could interfere with recruiting for the active forces or the selected reserves by competing for the same recruits. This inteference would be minimal, the Services hope, because most of the students interested in summer-only training would not normally join the active Army or the selected reserves. To the extent that interference occurs, though, costs of recruiting for the selected reserve and active forces could go up. On the favorable side of the interactions, some of the IRR recruits--once they are finished with their initial, full-time training--may join the selected reserves. Although this would necessitate more recruits to build up the IRR, it would beef up the selected reserve strengths and reduce the need for bonuses.

12/ Ibid.

AVOIDING COST INCREASES: NATIONAL SERVICE AND THE DRAFT

Although they have not been discussed in detail in this study, certain alternatives could avoid some of the cost increases in Table A while still attracting more reserve personnel. One of these would be a draft, perhaps one limited to the reserves. A reserve-only draft would pose major problems. It would be highly selective. In 1976 all the reserve components took only about 75,000 recruits without prior military service. Under a reserve-only draft, fewer than 75,000 persons (some would still volunteer) would be drafted, probably out of a pool of about 4 million men and women who reach age 18 each year. Reserve duty might restrict the draftee's ability to move in order to find work or go to school, even though the reserves are only a part-time job. For these and other reasons, the Department of Defense has indicated that it wants to try proposals such as those discussed above before considering a reserve draft.

Another alternative to current policy would implement some form of national service that consolidates domestic youth and military accession and training programs. While national service might be too costly to justify solely on the grounds of defense manpower needs, national service could assist the selected or individual ready reserves if implemented to solve broader social and economic problems. For example, linking domestic national service benefits such as training and education grants with a requirement for military service could significantly assist the reserves in reducing their manpower shortages.

OTHER PROPOSALS

As this study has noted, reserve readiness has many aspects. This readiness may well be affected by changes other than increases in resources. This section briefly discusses some examples of these changes.

A key to reserve readiness is the relationship between the active Army and the reserves. The reserves need the technical support and facilities that cooperation can make available. The Army has taken important steps toward improving this support through the affiliation program. Any further improvements would no doubt improve reserve readiness.

Reserve morale is certainly another key to readiness. Morale may be influenced by changes in some of the resources dis-

cussed above. For example, improvements in equipment and additional full-time assistance may improve the amount and quality of training, both likely influences on reserve morale. Morale, however, is certainly also influenced by intangibles not directly affected by additional resources--for example, the quality of reserve leadership, the attitude of youth toward the military, and the cooperation accorded the reserves by employers.

Improvements in organization could also enhance reserve readiness. For example, the Army might be asked to consider breaking some large reserve units into units of company size or less. It is generally agreed that reserves training 38 days a year are more able to maintain skills and integration required of a company than they are able to achieve the integration and command and control necessary for a larger unit. The switch to company-size units would, however, mark a major change in reserve policy, which now features substantial numbers of larger combat units, especially in the National Guard. It would also have to be done with care. Active units could absorb some additional companies during a mobilization, but too many would disrupt their command and control. And some higher-level units may be necessary to coordinate peacetime activities and provide reserve officers with command opportunities. Nonetheless, to the extent it is feasible, the change might substantially increase the probability that reserve units--particularly early-deploying units--would be able to meet their deployment goals.

Another way to improve the readiness of early-deploying units would be to designate as early-deploying more units that are located near active Army bases. This would allow the units to use the facilities of the active base as well as increasing their chances of benefiting from the technical guidance of active personnel stationed at the base. The Congress might also consider authorizing a "variable drilling" concept for these early-deploying units. This would allow the President to increase the number of drills required of the units during periods of high international tension, without actually calling up the units. This should increase the readiness of the units at the very times when they are likely to be called up, though the extra drills must be limited in number and duration to avoid retention problems caused by attempts to increase drills in the 1960s.

These ways to improve reserve readiness apart from increases in resources are just examples. The process of creating a ready reserve must address both additional resources and these other policy changes.

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