

CBO TESTIMONY

Statement of
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NOTICE

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Mr. Chairman, I appreciate the opportunity to testify today about approaches that increase reliance on reserve forces in the U.S. military.¹ The United States already relies heavily on its reserve forces. For every two people on active duty today, another person is training part time in the reserves. In the Army, the ratio is roughly one to one.

But changes in threats to U.S. security, coupled with downward pressure on the defense budget, suggest that the reserves may take on even greater importance. Reduced security threats are likely to lead to substantial reductions in active-duty forces, which may lead the United States to rely more heavily on reserves in order to retain flexibility to rebuild forces quickly.

At the same time, reserve forces are not without their critics. Large reserve forces may be less useful now that a major war in Europe has become much less likely. Also, the reserves compete with active-duty forces for scarce budgetary resources.

These contending views ensure that increased reliance on reserves will be hotly debated. CBO's role is not to anticipate the outcome of that debate and specify the numbers of reserves and their missions in future U.S. military forces. Nor is it our role to specify a particular military strategy and derive from it the forces--active and reserve--that are appropriate to carry it out.

1. This testimony is based in part on ongoing analyses being performed at the request of the Senate Budget Committee.

Instead, our role is to stimulate thinking about a variety of approaches that involves reserves. To that end, after presenting some background information about U.S. forces, I will outline a number of approaches that would increase reliance on the reserves--approaches that could fit within many different military strategies. In the second part of my testimony, these approaches will be combined into two options that will illustrate the costs and effects of using reserves to retain the flexibility to rebuild U.S. forces quickly in the event security threats change.

BACKGROUND

Today, about 2.1 million people are on active duty in the U.S. military. These people train full-time during peacetime. Roughly one-third are deployed on ships or in foreign countries in order to deter conflict and to be near potential trouble spots. Most of the rest are available on relatively short notice to help protect U.S. interests.

Another 1.2 million people serve in the military selected or drilling reserves. They are organized into six components--separate National Guard and Reserve components in the Army and Air Force, and Reserve components in the Navy and Marine Corps. Many of the personnel in the selected reserves have already served on active duty for a period. But most selected reserves do not work full time in the military. Instead, they are paid

to train part time--usually during drill periods that take place at least 36 days a year. In the event of conflict, 200,000 of these selected reserves can be called to active duty for a limited period on the order of the President. All of them would be available in the event of a declared war.

Another type of reserves that is relevant for this debate is the individual ready reserve (IRR). Almost all of the 524,000 people who serve in the IRR have completed periods of active-duty service and, in some cases, have also served in the selected reserves. IRR personnel usually are not paid and do not train in peacetime. These nondrilling reserves could, however, be called to active duty in the event of a major war.

APPROACHES THAT WOULD INCREASE RELIANCE ON THE RESERVES

The U.S. military could increase its reliance on reserves either through more use of selected reserves, operating as they do today, or through new approaches such as "nested" ships in the Navy, stored aircraft in the Air Force, or cadre units in the Army.

Increased Use of Selected Reserves

Placing greater reliance on selected reserves would offer several advantages. Compared with active-duty forces, selected reserve units cost less to operate. The Congressional Budget Office (CBO) estimates that typical selected reserve units cost only 20 percent to 80 percent as much to operate as similar units in the active forces, depending on the type of unit (see Table A-1 in the Appendix to this testimony). Ground combat reserve units in the Army and Marine Corps are relatively cheaper; ship and aircraft reserve units are relatively more costly.

Reserve units cost less to operate because they train less, which for most types of units means that, compared with active-duty units, a longer period of training would be required in the event of mobilization. But this reduced readiness may well be consistent with recent changes in the threats to U.S. security. Those changes suggest that substantial warning would precede a future war. If so, then forces that would be needed primarily in a major land war--including some ground combat units and tactical air units--could reasonably be transferred to the reserves. Changes in threats may also permit reductions in the pace of peacetime naval deployments, a shift that would facilitate increased reliance on reserve ships.

Increasing reliance on the reserves would require improving what the Chairman of this Committee has termed the accessibility of the selected

reserves. The selected reserves have been called to active duty sparingly in recent years and were not used extensively in the Vietnam War. If the military services are to rely more heavily on selected reserves, they will have to have confidence that reserve units will be available when they are needed. That may require more reserve call-ups during minor contingencies, perhaps on a voluntary basis such as occurred recently during "Operation Just Cause" in Panama. Also, as the Chairman has noted, accessibility requires the will to use the reserves when appropriate--as was the case with the reserve minesweepers in the Persian Gulf.

Improving Existing Units. How might the military increase its reliance on the selected reserves? The services could increase the capability of selected reserve units that already exist. For example, the military could add aircraft to the reserves and use them to increase the number of planes in existing reserve squadrons--an approach the Pentagon terms "robusting." Today, wings and squadrons in the air reserves often contain fewer aircraft than their counterparts on active duty. Among the so-called general-purpose squadrons in the Air Force, about half of all reserve squadrons contain 18 aircraft compared with the 24 aircraft typically found in active squadrons. Often even fewer aircraft are in reserve tanker squadrons that provide aerial refueling and in airlift squadrons that transport military cargo.

Adding aircraft to these squadrons would be efficient because it would increase combat power without incurring the overhead associated with

creating a new unit. Last year, CBO analyzed the effects of eliminating about 300 aircraft from active duty and using them to increase the number of aircraft in reserve squadrons. We concluded that this approach would retain much of the military capability now offered by the active-duty aircraft while eventually reducing operating costs by about \$300 million a year.

Other opportunities may also exist to improve the capability of reserve units. Today, some reserve units train with active-duty units. Indeed, some reserves--such as those in the Army's "roundout" units--are closely allied with their active-duty counterparts and are expected to be deployed with them in the event of a major war. This close partnership seems likely to enhance reserve capability and could be expanded to other Army reserve units as well as to reserve units in other services.

Avoiding Reserve Cuts. Not cutting selected reserves would be another way to increase reliance on these forces. Secretary of Defense Cheney has said that over the next several years the Army will eliminate several divisions and the Air Force several tactical fighter wings. Cuts in the forces of the other military services may take place as well. If most or all of these reductions come out of active-duty units, and few or none out of the selected reserves, then reliance on the reserves would increase.

However, the Army may not be planning such an approach to personnel cutbacks. In documents submitted along with the 1991 President's budget,

the Army indicated that it would reduce the numbers of active and selected reserve forces by equal numbers. It is not yet clear how the other military services are treating reserves in this period of planned cuts. Moreover, the Secretary of Defense has yet to review or approve any of the service plans.

Adding Units. Even greater reliance on reserves could be achieved if particular types of reserve units were increased in numbers while active forces are being cut. The Air Force, for example, could add several tactical fighter wings to its reserve forces at the same time that it is eliminating wings from active duty.

New Approaches to Increasing Use of Reserves

Placing greater reliance on selected reserves would offer important advantages. Yet, during this period when the United States is reappraising all aspects of its military plans, one could also consider new approaches to increasing reliance on the reserves. These new approaches could avoid some of the limits associated with selected reserves, such as the problem of recruiting enough personnel who are willing to attend weekend drills. New approaches may also be appropriate if the United States decides that, in some cases, it does not need the capability for relatively rapid mobilization offered by the selected reserves.

Nested Ships. One new concept is "nested" ships in the Navy, an approach the Chairman suggested in his recent speech dealing with carrying out a new military strategy. This concept could, for example, involve stationing four or five ships of a similar type together, including one mother ship. Except for the mother ship, all the vessels would be in a stored status. They might go to sea for training but would not be deployed overseas in peacetime. Older ships of various types might be candidates for this nested concept, including amphibious vessels, frigates, cruisers, destroyers, and ships that conduct underway replenishment.

As with ships now in the selected reserves, the peacetime manning of the mother ship would consist of reserve personnel on active duty--who would man about 65 percent of the billets--and a complement of part-time reservists. The mother ship would also be assigned extra personnel for each of the other ships in stored status, bringing the total active manning of the mother ship up to about 100 percent of the level found on ships now on active duty. In peacetime, the active and reserve crew of the mother ship would train for war and would maintain the stored ships.

During mobilization for war, the ships would be removed from storage. The personnel on the mother ship would split up and form the core crew for the stored ships. Manning would be increased to wartime levels using non-drilling reserves (that is, those in the individual ready reserve). In cases where jobs on the nested ships require recent active-duty experience, the

jobs could be filled by active-duty personnel who, at the time of mobilization, were filling jobs ashore. Nondrilling reserves would be used to fill the shore positions vacated by those manning the stored ships.

Nested ships could not, of course, be used to carry out peacetime deployments. Moreover, a substantial period of time might be required to convert these ships from stored status to assets that could be used in combat. But nested ships could certainly be activated in much less time than would be required to build and man a new ship.

Stored Aircraft. In the Air Force, an approach analogous to nested ships might involve storing aircraft in flyable but nonoperating status. Planes could be stored at Davis Monthan Air Force Base in Arizona, a desert repository where the Air Force already keeps planes for itself and the Navy. Alternatively, the aircraft could be maintained in nonoperating status at reserve sites. The stored aircraft would be provided with maintenance similar to that now provided by the Air Force for aircraft it maintains in "contingency status." Aircraft in contingency status receive checks every 90 days and are overhauled annually to bring them up to operational condition. The Air Force currently maintains some older Navy attack aircraft in this contingency status.

Experienced personnel to man these stored aircraft would be maintained in peacetime at selected reserve squadrons that operate the same

types of aircraft. In peacetime, manning levels in the selected reserve squadrons would be increased by about 25 percent, with the extra positions assigned to jobs that require long periods of training. During mobilization for war, aircraft would be removed from storage, and the core crew for the stored aircraft would be drawn from the selected reserve squadrons. Most of the remaining personnel needed to bring the new squadron to full wartime manning would be drawn from nondrilling reserve personnel who have been off active duty for less than two years. Some pilot positions, however, would require up-to-date skills that are maintained only by active-duty personnel. These positions would be filled by active-duty pilots who, at the time of mobilization, are serving in nonflying billets. Nondrilling reserves would be used to fill nonflying jobs vacated by the pilots.

This concept for stored aircraft would most probably be used for older planes, perhaps including attack, airlift, or bomber aircraft. Because of the plan for wartime manning, it would be important to store only those aircraft that were being operated by the selected reserves.

As with nested ships in the Navy, stored aircraft could not meet peacetime needs and would require a substantial period to become fully ready for combat. But they would provide a capability to rebuild forces in much less time than would be required to build and man a new aircraft.

Cadre Units. The Army could consider using a cadre concept similar to one now being tried by the Federal Republic of Germany. For each Army division, the concept would retain on active duty a cadre of about 3,000 senior noncommissioned officers (pay grades E-6 and above) and officers (pay grades O-2 and above). In peacetime, these personnel would remain ready to fight a war in Europe by maintaining up-to-date war plans, performing limited training, and maintaining equipment. In the event of war, the cadre divisions would be filled out with nondrilling reserves who had been off active duty for fewer than 18 months. Cadre units would exhibit advantages and limitations similar to those for nested ships and stored aircraft.

CBO has made specific suggestions of new approaches to relying on reserves in order to foster debate and to permit us to analyze costs, a topic I will discuss next. The military services would, of course, have to formulate the detailed plans before creating these or other new types of reserve units.

COST AND EFFECTS OF USING RESERVES TO RETAIN FLEXIBILITY TO REBUILD MILITARY FORCES

It is one thing to suggest ways to increase reliance on reserves; it is another to assess the feasibility of these options and the effects they might have on costs and on the capability of the United States to rebuild its military forces

quickly in the event security threats change. To help provide these assessments, CBO analyzed two illustrative alternatives--one that retains flexibility to rebuild by adding selected reserves and a second that does so using new approaches to reserve forces. CBO compared these alternatives with a base case that assumes substantial reductions in active-duty forces.

Base Case

In all probability, the United States will reduce the size of its active-duty military. But the amount of the reduction is still being debated. Recommendations from the Department of Defense (DoD) may well not be available until early next year, and those recommendations could be modified by the Congress.

However, to provide a specific context for assessing the effects of greater reliance on reserves, CBO had to assume a specific reduction. For the sake of illustration, this testimony assumes that active-duty ground forces in the Army and tactical air forces in the Air Force that are designed primarily to defend Europe are reduced by about 50 percent--roughly the reduction in total capability required of the Warsaw Pact under the proposed conventional forces in Europe (CFE) treaty. Such a reduction would leave the United States with 11 Army divisions and 14 fighter wings on active duty, a reduction of 7 divisions and 10 tactical fighter wings relative to the 1990 level (see Table 1).

Compared with these reductions in ground and tactical air forces, reductions in the military threat and peacetime commitments facing naval forces are less clear. Since some naval forces are committed primarily to the defense of Europe, where threats have abated, this alternative assumes cuts in some naval forces, though they are smaller relative to those in the Army and tactical Air Force.

TABLE 1. CHANGES IN THE NUMBER OF FORCES

	1990 Level	Base Case Level	Additions to the Base Case Under Alternatives	
			I	II
Army Divisions				
Active	18	11	0	0
Reserve or cadre	10	10	2 ^a	5 ^b
Air Force Tactical Wings^c				
Active	24	14	0	0
Reserve or stored	12	12	5 ^a	7 ^d
Navy Ships^e				
Active	518	429	0	0
Reserve or stored	33	33	35 ^a	14 ^a /54 ^d
Marine Corps Brigades				
Active	9	7	0	0
Reserve or cadre	3	3	1 ^a	1 ^b

SOURCE: Congressional Budget Office.

NOTE: The base case would make large reductions in active forces. Alternative I would retain flexibility by adding selected reserve units. Alternative II would retain flexibility with new approaches to reserves.

- a. Selected reserve units.
- b. Cadre units in peacetime.
- c. The base case and Alternatives I and II also delete nine airlift squadrons. Alternatives I and II add seven airlift squadrons to the Air Force reserve components.
- d. The equipment associated with these force elements would be stored in rapidly retrievable status in peacetime.
- e. The base case deletes three carrier air wings from the active Navy. Each alternative adds one air wing to the Naval reserves.

Specifically, under the base case, the Navy is assumed to have 429 active-duty ships--a reduction of 89 vessels. Included among the reductions are 2 of today's 14 aircraft carriers, plus their associated surface combatants and three air wings. After this change, the total number of air wings would equal the number of deployable carriers. In addition, this alternative assumes that all 4 battleships, 15 attack submarines, 31 amphibious ships, and other support vessels would be retired. Two Marine Corps brigades would also be eliminated.

How quickly could these far-reaching changes in active forces be carried out? Although answering that difficult question is not the focus of this testimony, changes of this magnitude could clearly not be carried out in an orderly manner in just a year or two. Carrying out these changes over five years might be reasonable. But, even if spread over five years, active-duty cuts of the size assumed in this alternative would probably require substantial involuntary separations of career personnel, particularly in the Army. Selected civilian communities would also be adversely affected, particularly those near military bases or factories that would be closed or reduced in size.

Effects on Military Capability. Once fully carried out, the active-duty reductions under this base case would substantially reduce U.S. military capability. The capability of Army ground forces would fall by about 24 percent, while tactical air capability would be reduced by about 30 percent (see Table 2 and Table A-2). These estimates of ground and tactical air

capability are based on a scoring method that takes account of both the quantity and quality of weapons.

While substantial, these reductions in ground and tactical air capability may be acceptable in view of reductions in the threats to U.S. security. A key reason for maintaining ground and tactical air forces is to deter--or, if necessary, fight--a war in Europe. But the proposed CFE treaty, coupled with the movement toward democracy in Eastern and Central European nations, makes war much less likely and reduces the military threat if war should occur. For example, in 1988 the ratio of Warsaw Pact to NATO

TABLE 2. EFFECTS OF ALTERNATIVES ON U.S. MILITARY CAPABILITY ASSUMING FULL MOBILIZATION RELATIVE TO 1990 AND THE BASE CASE (In percent)

	Reductions Below 1990 Level Under Base Case	Additions to the Base Case Under Alternatives	
		I	II
Army Ground Forces	-24	9	22
Air Force (Tactical)	-30	23	32
Navy Ships	-16	8	15

SOURCE: Congressional Budget Office.

NOTES: The base case would make large reductions in active forces. Alternative I would retain flexibility by adding selected reserve units. Alternative II would retain flexibility with new approaches to reserves.

Estimates of Army ground capability are based on weapon effectiveness indices and weighted unit values (WEI/WUV) scores. Estimates of Air Force tactical air capability are based on scores derived by using a technique for assessing comparative force modernization (TASCFORM). Estimates for the Navy compare numbers of ships. For further discussion, see "Meeting New National Security Needs: Options for U.S. Military Forces in the 1990s" (CBO Paper, February 1990).

forces in Central Europe was about 1.6 to 1 in favor of the Pact, a ratio that some viewed as unacceptable (see Table A-3). Today, however, NATO might have to be concerned only about the forces of the Soviet Union, and Soviet forces would be substantially fewer in number after the CFE treaty is carried out. Thus, even with the large reductions in U.S. forces assumed under this alternative, coupled with proportional reductions on the part of all the NATO allies, the ratio of Soviet to NATO forces in Central Europe in a post-CFE environment would be about 1.1 to 1. This ratio would be a marked improvement, compared with the earlier ratio of 1.6 to 1, and it should be acceptable to a defensive alliance like NATO.

Budgetary and Manpower Effects. Under this base case, the annual budgets for the Army, Navy, Air Force, and Marine Corps would total about \$227 billion, a reduction of about \$43 billion compared with the 1990 level (see Table 3). Almost half of the total savings would stem from changes in the Army.

Once fully in place, this base case would leave the United States with about 1.6 million personnel on active duty, a reduction of about 463,000 below the current level (see Table 4). Since there would be no reduction in the number of reserves, the reserve share of the total force (active-duty and selected reserves) would rise from 36 percent today to about 42 percent (see Table A-4). DoD civilian manning would decline to 838,000.

TABLE 3. LONG-RUN BUDGETARY EFFECTS
(In billions of 1990 dollars)

Service	1990 Level	Base Case Level	Additions to the Base Case Under Alternatives	
			I	II
Army	77.6	58.0	2.6	3.2
Air Force	92.9	83.1	4.2	2.1
Navy	87.6	76.6	3.3	2.6
Marine Corps ^a	12.0	9.5	0.4	0.3
All Services ^b	270.1	227.2	10.6	8.3

SOURCE: Congressional Budget Office estimates from Department of Defense Budget data.

NOTES: The base case would make large reductions in active forces. Alternative I would retain flexibility by adding selected reserve units. Alternative II would retain flexibility with new approaches to reserves.

Numbers may not add to totals because of rounding.

- a. Some Marine Corps funding is provided by the Navy. Marine Corps budget authority is \$9.1 billion. The difference of \$2.9 billion is a CBO estimate of funding for the Marine Corps in the Navy budget.
- b. Includes only the funding for the four services.

The lower costs under this base case reflect reductions in both operating and procurement costs. Operating savings assume reductions in the direct costs of operating military units, as well as in the indirect costs and overhead associated with the units.² CBO has not estimated the specific weapons that could be eliminated under this alternative. Instead, we assume that long-run procurement savings would be proportional to the number of major units (divisions, wings, or ships) that were eliminated.

2. Direct operating funds pay for personnel and operating costs of the unit itself. Indirect funds pay for combat support that is not part of the unit, as well as for portions of training, medical care, repair facilities, and other support needed by the unit. Overhead is defined as total operating costs less those that can be associated directly or indirectly with military units. Overhead savings associated with eliminating a particular military unit are assumed to be proportional to the direct and indirect savings generated by that unit.

TABLE 4. LONG-RUN MANPOWER EFFECTS
(In thousands of personnel)

	<u>End Strength</u>		<u>Additions to the</u> <u>Base Case Under Alternatives</u>	
	1990	Base Case	I	II
Active-Duty Personnel				
Army	744	507	5	35
Air Force	545	460	12	6
Navy	591	490	17	10
Marine Corps	197	157	4	5
Total	2,076	1,613	38	57
Selected Reserves				
Army	756	756	75	0
Air Force	201	201	25	14
Navy	153	153	11	7
Marine Corps	44	44	14	0
Total	1,155	1,155	125	20
Individual Ready Reserves				
Army	330	330	0	90
Air Force	47	47	0	28
Navy	102	102	0	34
Marine Corps	45	45	0	12
Total	524	524	0	163
DoD Civilian Personnel				
Army	334	223	22	14
Air Force	249	226	17	7
Navy/Marine Corps	337	290	10	4
Total	1,018	838	48	24

SOURCE: Congressional Budget Office estimates from Department of Defense Budget data.

NOTES: The base case would make large reductions in active forces. Alternative I would retain flexibility by adding selected reserve units. Alternative II would retain flexibility with new approaches to reserves.

Numbers may not add to totals because of rounding.

Ability to Rebuild Quickly. The active-duty cuts under the base case would reduce costs and might be acceptable in view of the lowered threat to U.S. security. But the forces eliminated from active duty could not be rebuilt quickly in the event of an increase in the threat. Units that had been eliminated would have to be rebuilt with draftees, and new equipment would have to be purchased. This process could take years. Moreover, the base case cuts do not "stockpile" any of the talent that has been assembled in today's military. During the 1980s, the U.S. military recruited personnel of unparalleled quality and provided them with extensive training. With these cuts, as many as one-fifth of those personnel would simply be sent home.

Alternative I: Retain Flexibility to Rebuild with Selected Reserves

If the United States made large reductions in its active forces of the sort that are assumed in the base case, but wanted to retain flexibility to rebuild its forces quickly, it could transfer some of the active units that were eliminated to the selected reserves. Specifically, this alternative assumes that, to offset partially the active-duty cuts under the base case, the United States would add 2 Army divisions, 5 Air Force tactical fighter wings, 35 Navy ships, and 1 Marine Corps brigade to the selected reserves (see Table 1). The exact numbers of added reserve units were selected for illustration, but they are intended to reflect recruiting limitations that I will address later in this testimony.

As with the base case, this alternative would take some time to carry out. Not only would the base-case cuts in active-duty units have to be put in place; new reserve units would have to be established and their members recruited. Thus, it seems reasonable to assume that this alternative would require longer to put in place than would the base case by perhaps five years or more.

Effects on Military Capability. Compared with the large active-duty cuts assumed in the base case, this alternative would eventually provide greater military capability. Once mobilized, the new selected reserve units created under this approach would provide about 9 percent more Army ground capability, and 23 percent more tactical air capability in the Air Force, than would be available under the base case (see Table 2). There would also be about 8 percent more Navy ships.

Looked at another way, the reserves maintained under this alternative would offset between one-third and three-quarters of the reductions in capability caused by the active-duty cuts under the base case. Thus, once mobilized, the selected reserve units created under this alternative would provide substantial capability to rebuild military forces quickly.

But how quickly could these selected reserve forces be available in the event of war? Also, how ready would the units be to fight? Because the new selected reserve forces would be similar to those now in place, their

mobilization times and readiness should also be similar. For some units--particularly those in the air reserves--that would mean mobilization at about the same time as active-duty air units that are based in the United States. In contrast to air units, reserve ground units would take longer to mobilize than active-duty ground units--perhaps several months compared with active-duty units that could be available in days or weeks. Clearly, in any event, selected reserve units would be available in much less time than would be required to build an entirely new unit, which could take years.

Budgetary and Manpower Effects. The increased flexibility to rebuild forces quickly that is inherent in this alternative comes at a price. Compared with costs under the base case, with its large active-duty cuts, the annual DoD budget would eventually be higher by about \$10.6 billion.

Looked at another way, this alternative would reduce DoD's annual budget by \$32 billion below the 1990 level, compared with a reduction of \$43 billion under the base case. Thus, the flexibility to rebuild quickly reduces savings by only about one-quarter.

Establishing new reserve units under this alternative would involve some one-time costs--principally for military construction. The Army estimated these one-time costs at roughly \$400 million, though it later estimated that costs of construction and leasing could be as high as \$1 billion for this option if no existing facilities could be used. The Navy and Air Force

could not supply any estimates without more detailed information about the location of new reserve units than CBO could provide. Because of these uncertainties, and because they are one-time expenses, these costs are not reflected in the annual savings in this testimony.

There would, of course, be more personnel in the selected reserve under this alternative. Selected reserves would increase by about 125,000-- a gain of 11 percent compared with either the base case or the current level. Compared with the base case, there would also be an increase of about 38,000 active-duty personnel because the new reserve units would be manned in part by full-time personnel. These shifts would cause the reserve share of the total force to rise from 36 percent today to 42 percent under the base case, with further growth to 44 percent under the combination of the base case and this alternative.

Recruiting Limitations. Adding selected reserve units would provide the capability to rebuild U.S. forces quickly, but this approach might also create recruiting challenges. Selected reserve units would have to be manned by people within driving distance of the units so that the reservists could train on weekends, which makes reserve recruiting difficult. The Navy has expressed particular concern with this problem because, to avoid large construction costs, new reserve ships would have to be located at existing ports. The reserve units at many of these ports may already have exhausted the local pool of people willing to join the reserves.

The large reductions in the size of the active-duty forces envisioned under this option would initially aid reserve recruiting efforts, but eventually would harm them. While the reductions were taking place, many personnel would be leaving active duty, and some of these would no doubt join the new reserve units. However, once the new, lower level of active-duty personnel was reached, fewer people would be leaving active duty, which would exacerbate reserve recruiting problems.

In recognition of these potential recruiting limitations, the long-term savings under this alternative reflect added costs of about \$0.6 billion for additional reserve recruiting incentives. The added funds could be used to increase educational benefits or to add recruiters. The extra funds could also be used to seek ways to reduce the high loss rates among reserve recruits who have not completed their initial term of service.

Added funds, and significant recruiting efforts, might well make it feasible to add the number of new reserve units assumed under this alternative. But if the United States wants to maintain the flexibility to rebuild a large number of military units quickly, it will have to consider new approaches.

Alternative II: Retaining Flexibility to Rebuild Using New Reserve Approaches

If the United States made the large active force cuts assumed under the base case, but wanted the flexibility to rebuild a large number of forces quickly, it could put in place some of the new approaches to reserves mentioned above. The Navy could add 54 nested ships, the Air Force could add 7 wings of stored aircraft, and the Army could add 5 cadre divisions. As with the numbers of selected reserves added under Alternative I, these specific numbers are chosen for the sake of illustration. This alternative is also similar to Alternative I in that it would require several years--perhaps five or so--to carry out.

Effects on Military Capability. Once all reserves had been mobilized, capability under this alternative would be substantially larger than what would be available if the United States only carried out the large active-duty cuts assumed under the base case. After mobilization of all reserves, this alternative would provide 22 percent more Army ground capability and 32 percent more Air Force tactical air capability than would be available if no new reserve units were created. The Navy would have 15 percent more ships.

The fully mobilized military under this approach would have substantial capability even against a formidable military foe. For example, assuming that the provisions of the proposed CFE treaty had been carried out, the U.S.

forces under this alternative--coupled with those of our NATO allies--would have modestly more ground and tactical air capability than would all the forces of the Soviet Union (see Table A-3). Thus, after full mobilization, this alternative would provide a substantial hedge against the resurgence of major security threats.

Mobilization might occur less quickly for some of the reserve forces created under this option than it would for selected reserves. Cadre divisions in the Army might be available about as rapidly as selected reserve divisions, because the jobs to be filled by nondrilling reserves in the cadre divisions require little training. For the Air Force and the Navy, however, the stored equipment would not be available as rapidly as equipment in selected reserve units, nor would the personnel. Because neither concept has been tried, the extra time required for mobilization is hard to estimate, but it could amount to several months or more.

Longer mobilization periods might be acceptable, however, in view of diminished security threats. Moreover, the time required to mobilize stored units would be considerably shorter than the time required if the units were eliminated and their equipment scrapped.

Budgetary and Manpower Effects. Compared with the base case, the annual DoD budget would be about \$8.3 billion larger under this alternative. This increase is smaller than the one under Alternative I, with its emphasis on

selected reserves, even though this approach provides the flexibility to rebuild more units. The smaller added costs stem in part from the assumption that nondrilling units would keep equipment longer than reserve or active-duty units, which would result in larger procurement savings.

Compared with the base case, about 20,000 additional selected reserve personnel would be added in the Navy and Air Force. An additional 163,000 nondrilling reserves would be required, though they would only serve on active duty in time of war. Under this alternative, reserves as a percent of the total force--defined in this case as all those on active-duty, in the selected reserve, or in the nondrilling reserves--would grow from 45 percent today to 53 percent.

Other Advantages. In addition to providing flexibility to rebuild, the units created under this alternative would offer other advantages. One-time costs should be modest because few if any new units would be created. Also, recruiting problems should be minor since most of the reserves added under this alternative would not drill in peacetime. This alternative would also permit the United States to retain access to the services of many of the highly capable, well-trained personnel who are now on active duty.

Special Problems with Nondrilling Reserves. The alternative does, however, pose some important problems. The active-duty military--smaller by about 20 percent--would have to revamp its personnel policies significantly in order

to build up the pool of nondrilling reserves with recent active-duty experience. For example, the Army might have to accept more of the shorter, two-year enlistments and restrict the number allowed to reenlist. Doing so could add to training and other costs related to personnel turnover, but these additional costs would be largely offset by lower payroll costs associated with the increased number of junior personnel. Alternatively, the increased number of nondrilling reserves could be provided through some form of national service.

Perhaps more important, the military services have expressed many reservations about these approaches during informal conversations with CBO. For example, service officials expressed concern that the active-duty military might unfavorably view an assignment to a cadre unit that, in peacetime, had few troops. This attitude could lead to low morale and the assignment of less than the best-qualified officers. It also might be difficult to maintain nested ships and stored aircraft in usable condition.

Some of these concerns may reflect a distaste on the part of active-duty leaders for any approach that appears to retain substantial military capability while eliminating active-duty forces. But these approaches may also have important drawbacks. In any event, little historical experience exists with which to evaluate the validity of the services' concerns.

This lack of historical experience suggests the need for more information. To obtain it, DoD could be asked to assess approaches of this sort during the Total Force Policy Study that is now under way. Moreover, the Congress could require a test of these approaches. Rather than simply eliminating active divisions, the Congress could direct the Army to create one or two cadre units and evaluate the success of the concept. Similarly, the Navy and Air Force could be required to experiment with storing equipment and creating methods to man the equipment in war.

CONCLUSION

In conclusion, if the United States chooses to increase reliance on reserve forces, it could do so in many ways. Some approaches would involve adding more units to the selected reserves or making better use of the units now in place through techniques such as adding aircraft to existing squadrons (robusting). Other approaches would be new, including nested ships in the Navy, stored aircraft in the Air Force, and cadre units in the Army. Compared with keeping units on active duty, these approaches would save money. All of them would also retain the ability to rebuild forces quickly in the event of a change in threats to U.S. security.

What approach would be best if the United States decided to increase reliance on the reserves? Selected reserves are the time-tested approach

and offer important advantages. The number of selected reserves that could feasibly be added to U.S. forces would, however, be limited by the difficulties of recruiting enough reserves who live sufficiently close to units to permit them to drill regularly.

Thus, if the United States wants to retain the flexibility to rebuild a large number of forces quickly, it will probably have to make more use of new approaches to reserve forces. But risks are inherent in any new concept, which suggests the need for additional information. The Defense Department could obtain information through formal reviews or through a test of these new approaches.

APPENDIX TABLES

TABLE A-1. ESTIMATED ANNUAL OPERATING AND SUPPORT COSTS FOR SELECTED ACTIVE AND RESERVE FORCES
(In billions of 1990 dollars)

Service/Force Element	Component	Direct and Indirect ^a	Overhead ^b	Total	Reserves as a Percentage of Active Forces ^c
Army					
European Heavy Division	Active	2.3	1.6	4.0	
CONUS Heavy Division (ARNG)	Reserve	0.4	0.3	0.7	20
Navy					
10 FFG Frigates	Active	0.2	0.1	0.3	
10 FFG Frigates	Reserve	0.2	0.1	0.2	80
Air Wing (86 aircraft)	Active	0.4	0.2	0.5	
Air Wing (86 aircraft)	Reserve	0.2	0.1	0.3	55
Marine Corps					
CONUS Division	Active	1.6	0.8	2.4	
CONUS Division	Reserve	0.4	0.2	0.6	25
Air Force					
European F-16 Wing (72 aircraft)	Active	0.3	0.2	0.6	
CONUS F-16 Wing (72 aircraft)(ANG)	Reserve	0.2	0.2	0.4	70

SOURCE: Congressional Budget Office computations based on budget data.

NOTES: Numbers may not add to totals because of rounding.

CONUS = Continental United States; ARNG = Army National Guard; FFG = Fast-Frigate Guided; ANG = Air National Guard.

- a. Direct operation and support (O&S) costs are those tied closely to individual units. Examples include civilian and military pay, fuel, some supplies and spare parts, modifications, and munitions. Indirect O&S costs pay for items that are necessary to support units, but are not linked as closely to particular units. Examples include funds for operating bases, depot maintenance, training, management support, medical care, personnel support, logistics, and other centralized support functions.
- b. Represents a proportional reduction in that portion of the service's budget for military personnel and for operation and maintenance not covered by direct and indirect factors. The proportion is based on a ratio of O&S costs for the units eliminated to the total estimated O&S costs for combat units. CBO assumed that these costs would not change with small changes in the number of active and reserve forces.
- c. Rounded to the nearest five percentage points.

TABLE A-2. EFFECTS OF ALTERNATIVES ON U.S. MILITARY CAPABILITY ASSUMING FULL MOBILIZATION RELATIVE TO 1990 LEVELS (In percentages)

	Reductions from 1990 Levels		
	Base Case	I	II
Army Ground Forces	-24	-18	-8
Air Force (Tactical)	-30	-14	-7
Navy Ships	-16	-10	-4

SOURCE: Congressional Budget Office.

NOTES: The base case would make large reductions in active forces. Alternative I would retain flexibility by adding selected reserve units. Alternative II would retain flexibility with new approaches to reserves.

Estimates of Army ground capability are based on weapon effectiveness indices and weighted unit values (WEI/WUV) scores. Estimates of Air Force tactical air capability are based on scores derived by using a technique for assessing comparative force modernization (TASCFORM). Estimates for the Navy compare numbers of ships. For further discussion, see "Meeting New National Security Needs: Options for U.S. Military Forces in the 1990s" (CBO Paper, February 1990).

TABLE A-3. EFFECTS OF ALTERNATIVES ON SELECTED INDICATORS OF MILITARY CAPABILITY ASSUMING FULL MOBILIZATION

	1990 Levels ^{a,b}	Base Case ^d	Alternatives ^c	
			I ^e	II ^e
Army Ground Forces				
Warsaw Pact/NATO Ratio	1.6 : 1	1.4 : 1	1.3 : 1	1.2 : 1
Soviet/NATO Ratio	1.2 : 1	1.1 : 1	1.0 : 1	0.9 : 1
Tactical Air Forces				
Warsaw Pact/NATO Ratio	1.2 : 1	1.1 : 1	0.9 : 1	0.8 : 1
Soviet/NATO Ratio	1.0 : 1	0.9 : 1	0.8 : 1	0.8 : 1
U.S. Navy Ships	551	462	497	530

SOURCE: Congressional Budget Office.

NOTE: The base case would make large reductions in active forces. Alternative I would retain flexibility by adding selected reserve units. Alternative II would retain flexibility with new approaches to reserves.

- a. These levels ignore the unilateral force reductions currently being carried out by the Soviet Union.
- b. Ground force ratios based on Warsaw Pact forces available in 1988.
- c. All estimates of the effects of alternatives assume that NATO's proposed version of the CFE treaty has been fully carried out.
- d. These estimates assume proportional reductions by the NATO allies.
- e. These estimates assume NATO allies reduce their forces in proportion to active reductions.

TABLE A-4. RESERVE PERSONNEL AS A PERCENTAGE OF TOTAL MILITARY END STRENGTH

	1990 Level	Base Case Level	Additions to the Base Case Under Alternatives	
			I	II
Percentages Including Only Selected Reserves in Total Force				
Army	50	60	62	58
Air Force	27	30	32	32
Navy	21	24	25	24
Marine Corps	18	22	27	21
Total	36	42	44	41
Percentages Including Nondrilling and Selected Reserves in Total Force				
Army	59	68	68	68
Air Force	31	35	37	38
Navy	30	34	34	37
Marine Corps	31	36	39	38
Total	45	51	52	53

SOURCE: Congressional Budget Office.

NOTE: The base case would make large reductions in active forces. Alternative I would retain flexibility by adding selected reserve units. Alternative II would retain flexibility with new approaches to reserves.