

# **CBO PAPERS**

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**MEETING NEW  
NATIONAL SECURITY NEEDS:  
OPTIONS FOR U.S. MILITARY FORCES  
IN THE 1990s**

**February 1990**



**CONGRESSIONAL BUDGET OFFICE  
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## PREFACE

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The United States and the Soviet Union, along with a number of other nations, are currently negotiating two major arms control treaties that would limit various types of military forces. At the same time, political changes are reducing general military tensions. In response, the Congress is beginning a debate over major reductions in U.S. military forces that is likely to last for several years. To provide information for this debate, this CBO Paper analyzes the costs and military effects of a wide range of possible changes in U.S. forces.

The paper documents analyses presented in testimony requested by the Subcommittee on Military Personnel and Compensation of the House Armed Services Committee. Portions of the analysis dealing with the costs and effects of the Strategic Arms Reduction Talks (START) treaty and the conventional forces in Europe (CFE) treaty were performed at the request of the Ranking Minority Member of the Senate Budget Committee. Further information on these analyses is available in the CBO Special Study, *Budgetary and Military Effects of a Treaty Limiting Conventional Forces in Europe*, January 1990, and the CBO Staff Memorandum, "Budgetary and Military Effects of the Strategic Arms Reduction Talks (START) Treaty," February 1990. The analysis of reserve transfers is being done at the request of the Chairman of the Senate Budget Committee. In keeping with the mandate of the Congressional Budget Office (CBO) to provide objective analysis, this paper makes no recommendations.

Preparation of this paper was done under the general supervision of Robert F. Hale and John D. Mayer. Frances M. Lussier performed the analysis of the effects of the CFE treaty, with assistance from Jonathan E. Ladinsky, while Bonita J. Dombey prepared the analysis of the effects of the START treaty. V. Lane Pierrot analyzed the effects of reserve transfers with assistance from Corey D. Luskin. Richard L. Fernandez worked on the manpower analyses under the general supervision of Neil M. Singer. Michael B. Berger provided assistance on naval and other issues. William P. Myers and Amy Plapp of CBO's Budget Analysis Division provided costing assistance. The paper was edited by Paul L. Houts. Gail D. Madison provided typing assistance. Robert T. Whitney prepared the final draft for production.

Robert D. Reischauer  
Director

February 1990

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The United States and the Soviet Union are currently negotiating a treaty to reduce the number of strategic nuclear weapons that each would be allowed to deploy (the Strategic Arms Reduction Treaty or START). At the same time, the North Atlantic Treaty Organization (NATO) nations and the nations of the Warsaw Pact are negotiating a treaty to reduce the number of weapons and personnel deployed in Europe (the conventional forces in Europe or CFE treaty). In addition, many of the Warsaw Pact nations have recently undergone far-reaching political changes that have moved them toward democratic governments.

Unless the treaty negotiations fail or the political changes are reversed, these events will eventually make the world a safer place in which to live and reduce the requirement for U.S. military capability. This CBO Paper examines five alternative force "structures" (that is, numbers and types of forces) that reflect widely differing judgments about the desirable amount of reduction. It assesses the cost and effects of each alternative on manpower as well as its effects on military capability.

One alternative structure (Alternative I) analyzed in this paper would entail making a minimum set of changes in the U.S. force structure in response to the proposed CFE treaty. It would involve withdrawing from Europe and demobilizing 2 of the Army's 18 active divisions and 2 of the Air Force's 24 active tactical fighter wings. The alternative would respond to the proposed START treaty by making the minimum required reductions in warheads while maintaining an aggressive program of weapons modernization. This approach would mean retiring older strategic systems but continued modernization of all the remaining strategic forces with Trident submarines, rail MX missiles, small ICBMs, and B-2 bombers. The resulting force structure would eventually reduce the annual defense budget by about \$9 billion and would result in 107,000 fewer people on active duty (see Summary Table). (Except where noted, all savings are expressed in 1990 dollars of budget authority and are relative to the 1990 budget.) While it would not reduce the defense budget by a large percentage, such a

minimum response would substantially reduce the military risk facing the United States and its allies, particularly the risk of a successful invasion of NATO by the conventional military forces of the Warsaw Pact. Under this alternative, to use Secretary of Defense Cheney's words, peace is the dividend.

This paper also discusses a far-reaching alternative that would reduce the annual defense budget by \$80 billion and the size of the active-duty military by 594,000 people (Alternative V). Under this approach, there would be large reductions in active-duty military units including the elimination of 8 Army divisions, 10 tactical fighter wings, and 108 Navy ships. There would also be reductions in other active forces, in reserve forces, and in research funds and other budget categories not directly related to military units. Under some pessimistic assumptions about future threats to U.S. security, these large

SUMMARY TABLE. SELECTED EFFECTS OF ALTERNATIVES

|                                                                | Savings                                    |                                  | Personnel                                    |                   |
|----------------------------------------------------------------|--------------------------------------------|----------------------------------|----------------------------------------------|-------------------|
|                                                                | Annual Savings<br>(In billions of dollars) | Annual Percent Cuts <sup>a</sup> | Reductions(-)/Additions(+)<br>(In thousands) |                   |
|                                                                |                                            |                                  | Active Duty                                  | Selected Reserves |
| I. Minimum Changes Required by Treaties                        | 9                                          | 0.6                              | -107                                         | 0                 |
| II. Possible Administration Cuts                               | 26                                         | 1.8                              | -251                                         | -130              |
| III. Large Cuts but Maintain Flexibility with Cadres           | 43                                         | 3.2                              | -401                                         | 0                 |
| IV. Large Cuts but Maintain Flexibility with Selected Reserves | 43                                         | 3.2                              | -491                                         | +125              |
| V. Large Cuts                                                  | 80                                         | 6.4                              | -594                                         | -169              |

SOURCE: Congressional Budget Office.

a. Assumes reductions made in even increments over five years.

force reductions would produce a balance of conventional military forces similar to the one the United States faced in recent years, a balance that some viewed as unacceptable. But under more optimistic assumptions, which seem well on the way to becoming the most realistic assumptions, the balance would be much more favorable and may well be acceptable to a defensive alliance like NATO.

In between the two extremes of Alternatives I and V are several intermediate force structures. Based mainly on testimony by the Secretary of Defense, the Congressional Budget Office (CBO) has constructed an alternative intended to illustrate the Administration's possible long-term defense plan. This alternative assumes the elimination of 5 Army divisions (3 active and 2 reserve), 5 active Air Force tactical fighter wings, and 50 ships including an aircraft carrier. Older strategic forces would be retired to comply with START, but modernization of all types of strategic forces would continue. Such a proposal would eventually reduce the annual defense budget by \$26 billion and eliminate 251,000 personnel from the active-duty military.

Also in between the smallest and largest changes examined in this paper are two alternatives that make large reductions in active forces but seek to retain the ability to build up those forces quickly should events require. Flexibility could be retained either by use of cadre divisions (Alternative III) or by increased use of selected reserves (Alternative IV). For the United States, cadre divisions would be a new concept that features divisions manned only partially with active-duty personnel in peacetime; selected reserve divisions are an existing type of military unit manned mostly by personnel who drill part-time in peacetime. Both of these alternatives offer the possibility of retaining the capabilities of some of the high-quality, experienced personnel who are now in the U.S. military. The two alternatives embodying these changes would each save \$43 billion a year. Depending on whether cadres or selected reserves are employed for flexibility, reductions in the active-duty military would be 401,000 or 491,000. These alternatives represent a potential compromise in a period that matches great promise for a safer world with daunting uncertainty about the course of future events.

**MEETING NEW NATIONAL SECURITY NEEDS:  
OPTIONS FOR U.S. MILITARY FORCES  
IN THE 1990s**

## INTRODUCTION

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Recent dramatic political changes in Eastern Europe, coupled with the more likely prospect of major arms limitation treaties, have raised the issue of whether the number of U.S. military forces (often referred to as force structure) can be significantly reduced. To reflect the wide range of possibilities, this paper examines five alternative force structures resulting from the following changes:

- o The minimum changes in forces required by the CFE and START treaties;
- o Possible Administration plans for reductions in active and reserve forces;
- o Large active-duty reductions coupled with use of cadre divisions to maintain flexibility to rebuild quickly;
- o Large active-duty reduction coupled with greater use of selected reserves to maintain flexibility to rebuild; and
- o Large active-duty reductions, plus reductions in reserve forces, that assume a major decrease in security threats.

Because the Congress needs to make judgments about the eventual size and nature of U.S. military forces, this paper focuses primarily on the long-run effects of alternative force structures--that is, effects after changes in the numbers of forces have been fully made and procurement programs have been adjusted to reflect changed numbers. But the paper also discusses how quickly the manpower changes might be realized.

The long-run analysis assumes that the CFE and START treaties are in place. Both are currently being negotiated. Where important issues are in contention, this paper assumes that the NATO and U.S. versions of the treaties--including the lower troop ceilings proposed by President Bush in his 1990 State of the Union message--are negotiated, ratified, and implemented.<sup>1</sup>

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1. The analysis of the effects of the CFE treaty on tactical aircraft is based on the NATO proposal submitted in July 1989. More recent NATO proposals contain modifications to the July submission that may exclude some trainer and interceptor aircraft. But details of this latest proposal were not available when this paper was prepared.

### Force Structure Alternatives and Military Strategy

It is beyond the scope of this paper to lay out an alternative military strategy for the United States. Nevertheless, adopting the alternatives in this paper would imply changes in some aspects of U.S. military strategy. Consistent with the reduced security threats implied by the CFE treaty and recent political changes, all of the alternatives assume proportionally larger reductions in the capability of U.S. military forces most oriented toward the defense of Europe. Thus, percentage reductions are larger in the budgets of the Army, whose primary mission involves the defense of Europe, than in the forces of the Navy and Marine Corps. All of the alternatives are also designed to provide adequate numbers of active-duty military personnel to handle smaller military contingencies, such as the recent action in Panama. Moreover, all of the alternatives are intended to provide adequate active and reserve forces to permit mobilization for a future, large war.

The alternatives examined in this paper differ in the amount of flexibility they retain to rebuild U.S. military forces quickly in the event of a major war. The alternatives differ most in the total amount of reductions they assume can prudently be made, a difficult strategic decision that must be made by the Congress and the Administration.

#### ALTERNATIVE I: MAKE CHANGES REQUIRED TO CARRY OUT TREATIES

The United States could decide to respond to the proposed CFE treaty by making the minimum changes in force structure required by the treaty and to the START treaty by making the minimum required reductions in warheads while maintaining an aggressive program of weapons modernization. Such an approach would be consistent with the view that, while the reductions in threats to U.S. national security appear to be far-reaching, they could be transitory. Thus, according to this argument, the United States should only make the minimum required changes in its military forces until the CFE and START treaties have been fully carried out and until it is clear that recent political changes will not be reversed.

Many changes in force structure would accommodate the limits in the proposed treaties. (Tables A-1 and A-2 in Appendix A detail the assumptions about the proposed treaties.) CBO assumed one such change in order to illustrate the effects on costs and manpower. To comply with the proposed CFE treaty, CBO assumed that the United States would withdraw two heavy Army divisions and two Air Force

**TABLE 1. CHANGES IN SELECTED CONVENTIONAL FORCE STRUCTURES**

| Category                 | 1990 Level | Reductions(-)/Additions(+) Under Alternatives |                                    |                             |                               |                 |
|--------------------------|------------|-----------------------------------------------|------------------------------------|-----------------------------|-------------------------------|-----------------|
|                          |            | I. Required Cuts Only                         | II. Possible Admin- istration Cuts | III. Large Cuts with Cadres | IV. Large Cuts, More Reserves | V. Large Cuts   |
| Army Divisions           |            |                                               |                                    |                             |                               |                 |
| Active                   | 18         | -2                                            | -3                                 | -7                          | -7                            | -8              |
| Reserve/cadre            | 10         | 0                                             | -2                                 | +5 <sup>a</sup>             | +2 <sup>b</sup>               | -3 <sup>c</sup> |
| Air Force Tactical Wings |            |                                               |                                    |                             |                               |                 |
| Active                   | 24         | -2                                            | -5                                 | -10                         | -10                           | -10             |
| Reserve                  | 12         | 0                                             | 0                                  | 0                           | +5                            | -5              |
| Navy Ships               |            |                                               |                                    |                             |                               |                 |
| Active                   | 518        | -11                                           | -50                                | -72                         | -103                          | -108            |
| Reserve                  | 33         | 0                                             | 0                                  | 0                           | +35                           | 0               |
| Marine Corps Brigades    |            |                                               |                                    |                             |                               |                 |
| Active                   | 9          | 0                                             | 0                                  | -1                          | -2                            | -3              |
| Reserve                  | 3          | 0                                             | 0                                  | 0                           | +1                            | 0               |

SOURCE: Congressional Budget Office.

- a. These would be cadre divisions in peacetime.
- b. These would be reserve divisions.
- c. While the equivalent of three divisions would be eliminated, only two headquarters would be eliminated.

tactical fighter wings from Europe (see Table 1 and Table A-3). These units are assumed to be demobilized and appropriate numbers of equipment destroyed.<sup>2</sup> To comply with the proposed START treaty, CBO assumed that the United States would retire its older strategic forces--including land-based missiles, submarines, and bombers--but carry out its planned program of modernization in all three legs of the strategic triad (see Table 2). That would mean eventual purchase of the rail MX missiles, small ICBMs, B-2 bombers, and continued purchases of Trident submarines.

Except for some changes in strategic submarines associated with START, there would be no changes in Navy forces, and there would be none at all in the forces of the Marine Corps. Budgetary categories not tied directly to force structure (research and development, military construction, family housing) are assumed to remain at their 1990 level of budget authority in real terms.

### Budgetary and Manpower Effects

Eventually, these force changes would result in a real reduction in the annual budget of the Department of Defense (DoD) of about \$9 billion. This would leave the DoD with a budget of \$282 billion, roughly 3 percent below the 1990 level of \$291 billion (see Table 3). (Except where noted, all savings are specified in 1990 dollars of budget authority and are relative to defense budget authority in 1990.) About \$6.6 billion of these savings (rounded to \$7 billion elsewhere in this paper) would result from conventional reductions under the CFE treaty. Another \$2.5 billion (rounded to \$3 billion elsewhere in this paper) would result from strategic cuts under the START treaty (see Table A-4).

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2. NATO's proposed CFE treaty--as modified by President Bush in his 1990 State of the Union message--may not require that all troops withdrawn from Europe be demobilized. Equipment removed from Europe to meet the ceilings proposed by the treaty would still have to be destroyed. Thus, it is possible that the United States could relocate some of its troops to stateside bases and furnish them with some new equipment. That would involve substantial added one-time costs with minimal recurring savings. The Secretary of Defense, however, has said he would reduce U.S. forces once the treaty is in place. Therefore, it did not seem reasonable to associate with the proposed CFE treaty the cost of transferring any of the 80,000 troops from European to stateside bases.

This \$9 billion in long-run savings includes reductions in operating costs, both direct and indirect, and in procurement costs. 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 the training, medical care, repair facilities, and other support needed by the unit. The savings of \$9 billion also include estimates of reductions in procurement, which are based on the numbers of conventional military units (divisions, wings, or ships) or

TABLE 2. STRATEGIC FORCE LEVELS

| Category            | 1990<br>Level | Alternatives                   |                                                |                                         |                                           |                     |
|---------------------|---------------|--------------------------------|------------------------------------------------|-----------------------------------------|-------------------------------------------|---------------------|
|                     |               | I.<br>Required<br>Cuts<br>Only | II.<br>Possible<br>Admin-<br>istration<br>Cuts | III.<br>Large<br>Cuts<br>with<br>Cadres | IV.<br>Large<br>Cuts,<br>More<br>Reserves | V.<br>Large<br>Cuts |
| Land-Based Missiles |               |                                |                                                |                                         |                                           |                     |
| SICBM               | 0             | 500                            | 500                                            | 250                                     | 250                                       | 0                   |
| Rail MX             | 0             | 50                             | 50                                             | 50                                      | 50                                        | 0                   |
| Silo-Based MX       | 50            | 0                              | 0                                              | 0                                       | 0                                         | 50                  |
| Minuteman III       | 500           | 0                              | 0                                              | 295                                     | 295                                       | 500                 |
| Minuteman II        | 450           | 0                              | 0                                              | 0                                       | 0                                         | 0                   |
| Bombers             |               |                                |                                                |                                         |                                           |                     |
| B-2                 | 0             | 132                            | 132                                            | 66                                      | 66                                        | 15                  |
| B-1                 | 97            | 97                             | 97                                             | 97                                      | 97                                        | 97                  |
| B-52                | 186           | 0                              | 0                                              | 0                                       | 0                                         | 23                  |
| Submarines          |               |                                |                                                |                                         |                                           |                     |
| Trident             | 11            | 23                             | 23                                             | 20                                      | 20                                        | 17                  |
| Poseidon            | 23            | 0                              | 0                                              | 0                                       | 0                                         | 0                   |

SOURCE: Congressional Budget Office.

strategic systems that are eliminated. For example, if a particular reduction in force eliminates 2 Army divisions, the Army's procurement budget is assumed to be reduced by two twenty-eighths (2 divided by the total of 28 active and reserve divisions in the Army). Appendix B describes the costing methods.

Savings under this alternative and the others in this paper do not reflect the added costs of verifying the proposed treaties. While these added costs could be substantial, it is difficult to predict their magnitude. Indeed, key decisions that will affect these verification costs are still being debated and negotiated.

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

| Category                                 | Alternatives                   |                                                |                                         |                                           |                     |
|------------------------------------------|--------------------------------|------------------------------------------------|-----------------------------------------|-------------------------------------------|---------------------|
|                                          | I.<br>Required<br>Cuts<br>Only | II.<br>Possible<br>Admin-<br>istration<br>Cuts | III.<br>Large<br>Cuts<br>with<br>Cadres | IV.<br>Large<br>Cuts,<br>More<br>Reserves | V.<br>Large<br>Cuts |
| Operating Costs                          |                                |                                                |                                         |                                           |                     |
| Direct and Indirect                      | 7                              | 13                                             | 20                                      | 20                                        | 31                  |
| Overhead                                 | <u>a</u>                       | <u>8</u>                                       | <u>13</u>                               | <u>13</u>                                 | <u>19</u>           |
| Subtotal <sup>b</sup>                    | <u>7</u>                       | <u>21</u>                                      | <u>33</u>                               | <u>33</u>                                 | <u>50</u>           |
| Procurement                              | 2                              | 5                                              | 10                                      | 9                                         | 18                  |
| RDT&E                                    | 0                              | 0                                              | 0                                       | 0                                         | 10                  |
| Military Construction/<br>Family Housing | <u>0</u>                       | <u>1</u>                                       | <u>1</u>                                | <u>1</u>                                  | <u>2</u>            |
| Total                                    | 9                              | 26                                             | 43                                      | 43                                        | 80                  |

SOURCE: Congressional Budget Office.

NOTES: Numbers may not add to totals because of rounding.  
RDT&E = Research, Development, Test, and Evaluation.  
See Appendix B for a discussion of costing methods.

- a. Because reductions are assumed to be made in a manner that responds to the treaties with only minimum changes, no overhead reductions are assumed.
- b. Operating costs include funding for some spare parts that are bought out of procurement funds.

As Table 4 shows, Alternative I would also eventually result in a reduction below the 1990 level of about 107,000 in the number of active-duty military personnel (5 percent of the 1990 level) and 16,000 in the number of DoD civilian employees (2 percent). Thus, under this approach, personnel reductions would be relatively modest.

Indeed, the Administration's budget proposal for 1991 would impose manpower and budgetary reductions that would accomplish a substantial portion of the long-run changes considered under this alternative. Active-duty manpower reductions under the Administration's proposals for 1991 would total 38,000 below the 1990 level, about 36 percent of the cuts assumed under Alternative I. Real reductions in budget authority below the 1990 level total roughly \$8 billion under the Administration plan for 1991, nearly equal to the savings under Alternative I.

### Effect on Military Capability

The response to the CFE and START treaties envisioned under this alternative would substantially reduce military risk, particularly the risk associated with conventional forces. In 1988, before any of the unilateral force reductions now being made by the Soviet Union and other Warsaw Pact nations, the Warsaw Pact had an advantage of roughly 1.6 to 1 in ground forces in the central region of Europe (see Table 5). The ratio assumes that both sides had mobilized fully for war and is based on a scoring method that accounts for both the quantity and quality of major weapons (see Appendix C for a discussion of the method). After the CFE treaty is fully implemented, the ratio under Alternative I would fall to 0.95 to 1. Thus, NATO would actually have a very slight advantage in a post-CFE environment because the treaty would require equality in the number of weapons in Europe. But NATO's weapons are modestly better in quality than those of the Pact, and U.S.-based forces that would be deployed to Europe in the event of war are not constrained by the treaty.

After the CFE treaty has been carried out, the balance of tactical air forces would be even more favorable to NATO than the balance for ground forces. Currently, the ratio of Pact to NATO air forces in the Atlantic-to-the-Urals region is about 1.2 to 1 after both alliances have

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

| Category                            | 1990<br>End<br>Strength | Reductions(-)/Additions(+) Under Alternatives |                                                |                                         |                                           |                     |
|-------------------------------------|-------------------------|-----------------------------------------------|------------------------------------------------|-----------------------------------------|-------------------------------------------|---------------------|
|                                     |                         | I.<br>Required<br>Cuts<br>Only                | II.<br>Possible<br>Admin-<br>istration<br>Cuts | III.<br>Large<br>Cuts<br>with<br>Cadres | IV.<br>Large<br>Cuts,<br>More<br>Reserves | V.<br>Large<br>Cuts |
| Active-Duty Personnel               |                         |                                               |                                                |                                         |                                           |                     |
| Army                                | 744                     | -77                                           | -132                                           | -199                                    | -240                                      | -272                |
| Air Force                           | 545                     | -22                                           | -61                                            | -101                                    | -115                                      | -139                |
| Navy                                | 591                     | -9                                            | -57                                            | -82                                     | -99                                       | -127                |
| Marine Corps                        | <u>197</u>              | <u>0</u>                                      | <u>0</u>                                       | <u>-20</u>                              | <u>-36</u>                                | <u>-56</u>          |
| Total                               | 2,076                   | -107                                          | -251                                           | -401                                    | -491                                      | -594                |
| Selected Reserves                   |                         |                                               |                                                |                                         |                                           |                     |
| Army <sup>a</sup>                   | 756                     | 0                                             | -130                                           | 0                                       | +75                                       | -149                |
| Air Force <sup>a</sup>              | 201                     | 0                                             | 0                                              | 0                                       | +25                                       | -19                 |
| Navy                                | 153                     | 0                                             | 0                                              | 0                                       | +11                                       | 0                   |
| Marine Corps                        | <u>44</u>               | <u>0</u>                                      | <u>0</u>                                       | <u>0</u>                                | <u>+14</u>                                | <u>0</u>            |
| Total                               | 1,155                   | 0                                             | -130                                           | 0                                       | +125                                      | -169                |
| DoD Civilian Personnel <sup>b</sup> |                         |                                               |                                                |                                         |                                           |                     |
| Army                                | 334                     | -15                                           | -79                                            | -103                                    | -89                                       | -132                |
| Air Force                           | 249                     | -1                                            | -8                                             | -15                                     | -6                                        | -44                 |
| Navy                                | 337                     | 0                                             | -18                                            | -29                                     | -33                                       | -49                 |
| Marine Corps                        | <u>c</u>                | <u>0</u>                                      | <u>0</u>                                       | <u>-2</u>                               | <u>-4</u>                                 | <u>-7</u>           |
| Total                               | 1,018 <sup>d</sup>      | -16                                           | -105                                           | -149                                    | -132                                      | -231                |

SOURCE: Congressional Budget Office.

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

- a. Includes changes to both the Reserves and National Guard components.
- b. Reductions in civilian personnel do not include cuts made as a result of reductions in strategic forces, which were not estimated.
- c. Included in Navy numbers.
- d. Includes civilians in the defense agencies.

fully mobilized (see Table 5). This ratio, like the one for ground forces, is based on a scoring method that accounts for both the quantity and quality of aircraft (see Appendix C). After full implementation of the proposed CFE treaty, that ratio would fall to 0.7 to 1.

TABLE 5. EFFECTS OF ALTERNATIVES ON SELECTED INDICATORS OF MILITARY CAPABILITY

| Category                                             | 1990<br>Levels <sup>a</sup> | Alternatives                   |                                                |                                         |                                           |                     |
|------------------------------------------------------|-----------------------------|--------------------------------|------------------------------------------------|-----------------------------------------|-------------------------------------------|---------------------|
|                                                      |                             | I.<br>Required<br>Cuts<br>Only | II.<br>Possible<br>Admin-<br>istration<br>Cuts | III.<br>Large<br>Cuts<br>with<br>Cadres | IV.<br>Large<br>Cuts,<br>More<br>Reserves | V.<br>Large<br>Cuts |
| Strategic Forces                                     |                             |                                |                                                |                                         |                                           |                     |
| Soviet/U.S Ratio<br>of On-Line<br>Warheads           | 0.9:1                       | 0.9:1                          | 0.9:1                                          | 0.9:1                                   | 0.9:1                                     | 0.9:1               |
| U.S. Number<br>of Surviving<br>Warheads <sup>b</sup> | 8,400                       | 7,500                          | 7,500                                          | 6,600                                   | 6,600                                     | 5,800               |
| Conventional Forces                                  |                             |                                |                                                |                                         |                                           |                     |
| Ground Forces <sup>c</sup>                           |                             |                                |                                                |                                         |                                           |                     |
| WP/NATO Ratio                                        | 1.6:1                       | 0.95:1                         | 1.0:1                                          | 1.2:1                                   | 1.3:1                                     | 1.4:1               |
| Soviet/NATO Ratio                                    | 1.2:1                       | 0.7:1                          | 0.8:1                                          | 0.9:1                                   | 1.0:1                                     | 1.1:1               |
| Tactical Air Forces                                  |                             |                                |                                                |                                         |                                           |                     |
| WP/NATO Ratio                                        | 1.2:1                       | 0.7:1                          | 0.8:1                                          | 1.0:1                                   | 0.9:1                                     | 1.1:1               |
| Soviet/NATO Ratio                                    | 1.0:1                       | 0.6:1                          | 0.7:1                                          | 0.8:1                                   | 0.8:1                                     | 0.9:1               |
| Navy Ships                                           |                             |                                |                                                |                                         |                                           |                     |
| Total                                                | 551                         | 540                            | 501                                            | 479                                     | 483                                       | 443                 |
| Carriers <sup>d</sup>                                | 14                          | 14                             | 13                                             | 12                                      | 12                                        | 10                  |

SOURCE: Congressional Budget Office.

NOTE: See Appendix C for discussion of methods used here.

- a. Ground force ratios based on Pact forces available in 1988, before any of the ongoing unilateral reductions.
- b. Estimates assume warning of an attack.
- c. Estimates assume enough time has elapsed so that most forces are in place.
- d. This represents deployable carriers.

Finally, this alternative would probably maintain the rough parity in numbers of strategic warheads that exists today between the United States and the Soviet Union, but at a lower level. Today, the ratio of on-line warheads is close to even (actually, as Table 5 shows, it is 0.9 to 1 in favor of the United States).<sup>3</sup> Once all changes under Alternative I are in place, the ratio would still be close to parity, but the total number of U.S. warheads would probably be roughly one-quarter smaller.

The precise numbers of warheads are uncertain because of possible Soviet responses to the treaty and because of counting rules in the START treaty. The numbers assume that the Soviets choose to retire older systems in order to maximize their own modernization. Even under this assumption, numbers could vary depending on changes in bomber and submarine forces that, under START, either do not count or count only partially (see Table A-2 for a description of the counting rules). Warheads that do not count also explain why the percentage reductions in on-line warheads are less than the 50 percent reduction often associated with the proposed START treaty.

In addition to changes in the number of on-line warheads, there would be a decline of about 11 percent in the number of U.S. warheads that survived a Soviet attack in what is viewed as the most likely scenario--an attack that occurs after sufficient warning to allow U.S. systems to be deployed in ways that increase their chances of surviving (see Table 5). With fewer surviving warheads, the United States would be able to destroy fewer targets, which could reduce deterrence. Nevertheless, under this alternative, about 7,500 warheads would still survive. This substantial total would exceed by one-third the surviving warheads that would have existed had an attack occurred as recently as 1982, before the effects of the strategic buildup of the 1980s (see Table A-5).

These shifts in the balance of military forces, particularly conventional ground and air forces, should greatly reduce the risk that the Warsaw Pact could successfully invade NATO countries.

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3. On-line warheads include all warheads in the inventory less those whose delivery vehicles are in the maintenance pipeline or in overhaul.

## ALTERNATIVE II: IMPLEMENT POSSIBLE ADMINISTRATION PROPOSALS

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Reduced military risk may permit the United States to make reductions in forces larger than the minimum ones required by the treaties. The Department of Defense (DoD) itself may propose larger reductions. DoD has not yet submitted a long-range plan that fully reflects the proposed treaties and recent political changes. However, based mainly on recent testimony by the Secretary of Defense, CBO has constructed an alternative intended to illustrate the Administration's possible long-term plan. This possible Administration plan is consistent with a strategy that emphasizes reductions in the U.S. ground and tactical air forces that would be most tied to a major war in Europe. Reductions in strategic forces would respond to the START treaty by reducing warheads but maintain an aggressive modernization program. Cuts in Navy and Marine Corps forces would be relatively modest because the reduction in commitments for these forces is less clear than for ground and tactical air forces.

### Specific Force and Budgetary Changes

If a CFE treaty is in place and political changes in Europe are not reversed, Secretary of Defense Cheney has said that the United States could reduce its forces below 1990 levels by five Army divisions and five Air Force tactical fighter wings. Army documents state that three of those five divisions would be active divisions; the other two would be reserve divisions. In the absence of any firm information, this alternative assumes that all five Air Force wings would come out of the active forces.

Secretary Cheney has also suggested that, even with a START treaty in place, he would favor an aggressive program of strategic modernization. Thus, this alternative assumes the same strategic program as in Alternative I--retirement of older systems coupled with continued modernization in all three legs of the strategic triad.

Secretary Cheney has not discussed what specific changes might be made in naval forces, though he has suggested that some changes could be made. For the sake of illustration, this alternative assumes that the United States eliminates one aircraft carrier and the escort

vessels and support ships associated with the carrier. In addition, this alternative assumes the elimination of 10 submarines and all 4 battleships. Together these changes would result in a reduction of 39 conventional ships from current levels. As the older Poseidon strategic submarines retire and are replaced with Trident submarines, there would eventually be 11 fewer strategic submarines, bringing the total reduction in ships to 50 (see Table 1 and Table A-6 for details).

Under this alternative, spending for research and development is assumed to remain at its 1990 level in real terms, while spending for military construction and family housing is cut in proportion to reductions in the rest of the DoD budget.

### Budgetary and Manpower Effects

Eventually, this possible Administration plan would reduce the annual defense budget by about \$26 billion. The resulting DoD budget would be about \$265 billion, roughly 9 percent below the 1990 level. If accomplished in even increments over five years, these savings would result in an annual real reduction in the defense budget of nearly 2 percent a year--the target adopted by the Administration in its budget proposal submitted in January 1990.

About \$23 billion of the \$26 billion in savings would be achieved through cuts in conventional forces; the rest would result from reductions in strategic forces. Percentage reductions in the budgets of the Army and tactical Air Force would be significantly larger than those in the budgets of the Navy and Marine Corps.

These total savings of \$26 billion include savings in procurement and in direct and indirect operating costs. In addition, about \$8 billion of the total savings are achieved through reductions in "overhead." CBO defines overhead as total operating costs less those operating costs that can be associated directly or indirectly with military units (divisions, wings, ships).<sup>4</sup> Thus, overhead includes portions of training, medical care, base operating support, and logistics facilities,

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4. For this paper, CBO also excluded from overhead the operating costs for intelligence and communications on the assumption that these costs would not change as the United States responded to arms limitation treaties and political changes.

which are often assumed not to vary in size as the number of operating units changes, especially if such changes are small.

Overhead costs might vary significantly, however, with larger changes such as some of those envisioned under this alternative. To illustrate the potential for savings, CBO estimated overhead savings from a particular reduction in military forces assuming that overhead is reduced in proportion to the direct and indirect operating costs for those forces. For example, if a particular reduction in forces cuts direct and indirect costs by 10 percent, that reduction in force is assumed to save 10 percent of total overhead costs. (See appendix B for discussion of the costing method.)

These overhead savings raise an important issue for the Congress. Achieving reductions in overhead will require choices beyond the decision to eliminate a military unit. For example, proportional reductions in overhead would certainly require closing and realigning military bases. It may also be difficult to achieve reductions in overhead--particularly the proportional reductions assumed by CBO--for relatively small force changes, such as the cut in the Navy fleet assumed in this alternative. For relatively small changes in forces, part or all of overhead may indeed be fixed. However, if substantial reductions in overhead are not achieved when larger reductions are made in military units, then cost savings from force cuts would be significantly smaller, and more military units would have to be eliminated to achieve the same total amount of savings.

Alternative II would reduce military manpower. Active-duty manpower would be reduced by 251,000, about 12 percent of the 1990 level. About 30 percent of this cut would be associated with reductions in overhead. Civilian personnel would be cut by 105,000 or 10 percent. Almost three-quarters of these reductions in civilian personnel would come from overhead positions. Finally, under these possible Administration proposals, there would be a reduction of 130,000, or 11 percent, in the number of personnel in the Army components of the selected reserves (that is, in the reserves who are paid to drill on a part-time basis in peacetime).

### Effects on Military Capability

The effects of this alternative on strategic forces would be identical to those described under Alternative I. This alternative would, however, forgo some of the improvements in the balance of Pact and NATO conventional forces that would be available to NATO if it followed Alternative I and simply carried out the treaty. For example, after full mobilization of forces, the ratio of Pact-to-NATO ground forces in the central region of Europe would be slightly greater than 1 to 1 under this alternative, less favorable for NATO than the ratio of 0.95 to 1 if NATO only made cuts required by the treaty. This analysis assumes that all the NATO allies make reductions in their ground forces proportional to those made by the United States but that the Warsaw Pact makes only the changes required by the treaty.

While less favorable than the ratio that would result from carrying out the treaty, the one under this alternative would still be substantially better than the 1988 Pact-to-NATO ratio of 1.6 to 1. Moreover, political changes in Eastern Europe may mean that NATO would only have to be concerned about the threat from Soviet forces. Under this assumption, the ratio of ground forces under this alternative is a favorable 0.8 to 1.

The balance of tactical air forces suggests a similar story. The ratio of Pact-to-NATO capability would be about 0.8 to 1 under this alternative. This ratio would be substantially more favorable than the current balance of 1.2 to 1 but not as favorable as the ratio of 0.7 to 1 that would exist if NATO made only the minimum changes required by the proposed CFE treaty. If NATO need concern itself only with the Soviet threat, however, then under this alternative the ratio returns to the favorable level of 0.7 to 1.

### **ALTERNATIVE III: MAKE LARGE ACTIVE FORCE REDUCTION BUT RETAIN FLEXIBILITY TO REBUILD WITH CADRE DIVISIONS**

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This alternative assumes that the world becomes, and remains, a safer place to live and that military forces can be reduced much more substantially than the reductions currently suggested by the Administration's statements. Reductions under this approach would remain

relatively larger in ground and tactical air forces, where the reduction in threat is clearest, and more modest--but still substantial--for strategic forces and for Navy and Marine Corps forces.

This alternative also assumes that the political situation in the Soviet Union and Eastern Europe, while not returning to the pre-Gorbachev era, remains uncertain for many years. In this environment, the United States may want to retain the flexibility to rebuild its military forces in less time than would be required if all the trained personnel and equipment associated with demobilized active-duty units were to be eliminated. To retain this flexibility, this alternative proposes to establish cadre divisions in the Army.

### Specific Force and Budgetary Changes

Specifically, this alternative, like all those in this paper, assumes that the United States would retain the rough numerical parity of strategic warheads it enjoys today, but at the lower levels consistent with START. Under this alternative, however, procurement of new systems would be reduced in all legs of the triad by buying fewer B-2 bombers, fewer Trident submarines, and fewer small ICBMs than were assumed to be purchased under the preceding two alternatives. To maintain total numbers of warheads, the United States would retain some of its older Minuteman III land-based missiles.

For conventional forces, this alternative assumes that active ground and air forces designed primarily to defend Europe could be reduced by about 50 percent--roughly the reduction in total capability required of the Warsaw Pact by the proposed CFE treaty. That would mean a reduction of 7 Army divisions (including  $2\frac{1}{2}$  of the divisions in Europe, half of the total) and 10 tactical fighter wings (including 4 of the wings in Europe, half of the total). Five Army divisions would be converted to cadre status.

Because the reductions in military threat and peacetime commitments are less clear, the percentage reduction in Navy and Marine Corps forces is assumed to be smaller than those for Army and tactical Air Force units. Some of these Navy and Marine Corps forces are designed to maintain U.S. military presence in peacetime and to defend against contingencies other than a war in Europe, missions

whose importance may not have been altered by the proposed treaties and political changes in Europe. Nevertheless, other Navy and Marine Corps forces are committed to defending Europe, and therefore some reductions are likely. By way of illustration, CBO assumes a reduction of 58 conventional Navy ships (including 2 aircraft carriers and all 4 battleships) in addition to the eventual net reduction of 14 strategic submarines associated with the addition of Trident submarines and the retirement of the older Poseidon submarines. One Marine expeditionary brigade (one-third of a division) would be eliminated from active service. In keeping with the reduced likelihood of a European war, the mission of this brigade--assisting in the defense of Norway in the event of a major war--is assumed to be taken over by existing Marine reserve units. The method for determining costs for other budgetary categories (research and development, military construction, family housing) remains the same as in Alternative II.

Flexibility to Rebuild with Reserves. These large cuts in active forces, particularly in the Army and Air Force, would reduce U.S. ability to rebuild its military forces quickly in the event of an increase in security threats. To avoid further loss, this alternative does not reduce the size of the selected reserves in any service.

Flexibility to Rebuild with Cadre Divisions. Flexibility to rebuild under this alternative is enhanced by keeping in cadre status five Army divisions that are eliminated from full active-duty status under this alternative. This approach would involve retaining on active duty a cadre of about 3,000 senior non-commissioned officers (paygrades E-6 and above) and officers (paygrades O-2 and above) for each division. Their mission would be to remain ready to fight a war in Europe by maintaining up-to-date war plans, performing limited training, and maintaining equipment.<sup>5</sup> In the event of war, the unit would be filled out with individual ready reservists (people who have had active duty service but are not in the selected or drilling reserve). Only those individual ready reserve (IRR) personnel who have been off active duty

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5. Training under this concept would involve individual leadership training, physical fitness, instructor training, and unit training in the form of command post exercises. The purpose of the training would be to ensure that the cadre is prepared to train individual reservists in the event of mobilization for war and knows how to conduct combat operations. Because these forces are unlikely to be required to fight anywhere other than in Europe against a Warsaw Pact force, all training would be conducted based on that scenario.

for fewer than 18 months would be assigned to fill out these cadre divisions.

The Federal Republic of Germany currently maintains cadre units and apparently plans to expand their use. German cadre units are quite similar in concept to those proposed here, though they differ in some of the details of their design.

This cadre concept has some potential drawbacks. Individual ready reservists would be located all over the United States in peacetime, and it might be difficult for all of them to respond immediately to a mobilization call. Thus, to ensure rapid ability to mobilize, more IRR personnel may have to be assigned to units than there are spaces. The peacetime cadre of 3,000 persons might not be large enough to maintain all of the equipment adequately, thus requiring civilian funding beyond what is assumed in this alternative. The active-duty military might take an unfavorable view of assignment to these cadre units in peacetime because there would be few if any soldiers to lead. This situation might lead to the assignment of less than the best qualified active-duty officers to the cadre divisions.

Finally, the active Army--smaller by about 25 percent under this alternative--would have to revamp its personnel policies significantly in order to build up the pool of IRR personnel who have had active-duty experience. For example, the Army might have to accept more of the shorter, two-year initial enlistments and restrict the number allowed to reenlist. Doing so could add to training and other costs related to higher personnel turnover. But these additional costs would be largely offset by lower payroll costs caused by the increase in junior personnel. An extra \$130 million is included in this alternative to cover CBO's estimate of the net addition to costs.

Despite the added costs and potential drawbacks, cadre divisions, once mobilized, should offer at least as much military capability as selected reserve divisions. The IRR personnel who would fill out the cadre divisions in wartime would not have trained together before mobilization as would those in selected reserve units. But all IRR and other personnel in the cadre division would have the experience that comes with service on active duty. In contrast, only about half the personnel in a typical ground division of the selected reserve would have served a substantial period in an active-duty unit.

Moreover, cadre divisions offer a means of retaining--at least for a number of years--the capability of some of the high-quality, well-trained personnel who are now in the U.S. military. Should world events shift in a way that requires a return to a large peacetime military, the talents of these individuals would provide a basis for rebuilding U.S. military forces.

Finally, because of recruiting problems, cadre divisions may be the only way to maintain some ability to rebuild as many as five divisions. Selected reserve units must recruit in small geographic areas so that personnel can travel to units for weekend drills. Adding a large number of selected reserve divisions may not be feasible in view of the limited number of areas where additional recruiting potential would be favorable. Moreover, about half of the recruits entering the Army's selected reserves have served on active duty. If the active Army is reduced by seven divisions, as this alternative assumes, then in the long run fewer of these recruits with prior service would be available, further exacerbating recruiting problems.

The potential advantages of cadre divisions, coupled with the risks inherent in what for the United States would be a new concept, suggests the need for some form of test. The Army might, for example, create one or two cadre divisions and evaluate the success of the concept before attempting to create five of them.

### Budgetary and Manpower Effects

In the long run, Alternative III would reduce the annual DoD budget by about \$43 billion. This cut would leave DoD with a budget of about \$248 billion, a reduction of roughly 15 percent below the 1990 budget level. Most of these savings (about \$33 billion) would stem from changes in conventional forces, with strategic forces contributing the remainder. Savings would be larger in percentage terms in the budgets of the Army and tactical Air Force and smaller in the Navy and Marine Corps.

These savings would be significantly larger than the roughly \$8 billion of real reductions proposed by the Administration for 1990 and larger than the \$26 billion in long-run savings associated with Alternative II, which represents one possible version of the Administration's long-run plan.

As for manpower changes, Alternative III would eventually reduce the size of the active-duty forces by 401,000 personnel, a reduction below the 1990 level of about 19 percent. Civilian personnel would be reduced by 149,000 or 15 percent. As with costs, these reductions are substantially larger than those proposed by the Administration for 1991 and are larger than the reductions in Alternative II.

### Effects on Military Capability

Under Alternative III, the United States would be likely to maintain the rough numerical parity of strategic warheads with the Soviet Union that it enjoys today, though at lower START levels. Compared with 1990 levels, however, there would be a reduction of about one-quarter (22 percent) in the number of strategic warheads likely to survive a Soviet attack that occurred after a period of warning. This lower number of warheads could reduce U.S. ability to cover targets during a retaliatory strike and so could adversely affect deterrence.

Nevertheless, the United States would still have about 6,600 surviving warheads after an attack with warning, a substantial number that exceeds the number available in 1982. Moreover, under this alternative, surviving warheads would be divided more evenly among the three legs of the strategic triad, a balance that could enhance deterrence by minimizing the risk associated with a sudden technological breakthrough that threatens one or two legs of the triad.

Under some assumptions, the balance of conventional ground capability would not be as favorable to NATO under this alternative as it would be under the proposed CFE treaty. Assume that the Warsaw Pact makes only the force reductions required by the CFE treaty. Assume also that U.S. allies in NATO reduce their forces by 50 percent, similar to the U.S. reduction. In this case, the ratio of ground forces after full mobilization would stand at 1.2 to 1. That would be

less favorable to NATO than what would exist under the proposed CFE treaty (0.95 to 1).

Moreover, the cadre divisions that are assumed to be created under this alternative would be slower to mobilize than active forces. The ratios cited in this paper assume that both sides have mobilized most of their divisions. U.S. active-duty divisions could mobilize for war within a few weeks. The cadre divisions created under this alternative would require several additional weeks. Thus, slower mobilization under this alternative would adversely affect military capability in the early days of a war.

While the ratio after mobilization is less favorable under this alternative than the one under Alternative I, it is substantially more favorable than the 1988 ratio of 1.6 to 1. Moreover, certain factors could make the ratio under this alternative more favorable to NATO. The recent political changes in the Eastern European nations suggest that they may not join the Soviet Union in any attack on NATO. If only Soviet forces are assumed to oppose NATO, then the ratio of ground forces is a favorable 0.9 to 1 under this alternative. If the NATO allies create cadre divisions of their own, rather than just eliminating forces, the ratio would also be more favorable. Trends in ratios of tactical aircraft tell a similar story.

As for naval forces, the number of deployable ships would decline by about 13 percent below the expected 1990 level under this Alternative III. As was noted above, there is no simple measure that would permit calculating the shift this would cause in the balance of U.S. and Soviet naval forces.

#### **ALTERNATIVE IV: MAKE LARGE ACTIVE FORCE REDUCTION BUT RETAIN FLEXIBILITY TO REBUILD WITH SELECTED RESERVES**

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This alternative adopts the same view as Alternative IV. The world is a safer place to live, which permits substantial reductions in active-duty forces and particularly in the ground and tactical air forces. But the United States needs to retain the flexibility to rebuild its military forces reasonably quickly. In contrast to Alternative III

with its cadre divisions, this alternative retains flexibility by transferring some active-duty units to the selected reserves.

Specifically, this alternative makes the same changes in strategic forces as were made under the preceding alternative. It also assumes the same reductions in active-duty forces in the Army and tactical Air Force. But, to retain flexibility, this alternative transfers two divisions to the Army selected reserve components and five tactical fighter wings to the Air Force selected reserve components. Reflecting the reduced requirements for moving materiel, this alternative also assumes the elimination of nine active-duty airlift squadrons (whose planes are designed to transport materiel). About half of the planes eliminated from active duty are assumed to be used to add seven reserve squadrons.<sup>6</sup>

Changes in the Marine Corps are larger than those in the preceding alternative so that, after mobilization, the same number of units would be available. Two Marine expeditionary brigades are eliminated from active service, one of which is transferred to the reserves. Thus, after mobilization, the net reduction of one brigade is the same as the reduction under Alternative III.

The reduction in active-duty Navy ships is also larger under this alternative than under Alternative III so that the number of units available after mobilization is roughly the same. Some 89 conventional ships (103 including the submarines eliminated in response to the retirement of older Poseidon submarines and START) are eliminated from the active-duty Navy, 35 of which are transferred to the selected reserves. Therefore, after mobilization, the net reduction of ships is similar to that under Alternative III.

### Budgetary Effects

Eventually, this alternative would reduce the annual DoD budget by about \$43 billion. This would leave DoD with a budget of about \$248 billion, roughly 15 percent below the 1990 budget level. These savings

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6. Reserve squadrons frequently have fewer planes assigned to them than active-duty squadrons. As a result, the addition of seven reserve squadrons employs only about half of the aircraft eliminated from the active force.

are identical to those under the preceding alternative. As under Alternative III, most savings stem from reductions in conventional forces (\$33 billion of the total), and percentage reductions are larger in the budgets of the Army and tactical Air Force than in the Navy and Marine Corps.

Some substantial one-time costs could result from creating additional reserve units. Reserve units must be dispersed geographically so that enough personnel can be recruited. That requires building new armories and new facilities at airfields and ports. CBO is currently working with the military services to develop estimates of the size of these added one-time costs. Preliminary results suggest that several billion dollars of one-time costs could be incurred. One-time expenditures would be incurred in the first year or two after this alternative was implemented. In contrast, savings from eliminating active-duty units would be relatively small in the first year or so as units were demobilized, which suggests that near-term savings associated with this alternative would be smaller than those associated with Alternative III.

#### Effects on Manpower and Reserve Recruiting

Under this alternative, reductions in active-duty personnel would eventually total 491,000, a 24 percent reduction below the 1990 level. Civilian cuts would amount to 132,000, about 13 percent. This alternative would add 125,000 personnel to the selected reserves, an increase of 11 percent.

It would be difficult but probably feasible to recruit these added reserve personnel if the transition to a larger reserve were done over a number of years. The required number of new recruits would increase substantially. For all reserve components, increases in required enlisted recruits would average 16 percent above 1988 recruit levels (the latest year for which detailed data are available) if the reserve forces were increased in size in even steps over a period of five years. An increase of 11 percent over 1988 enlisted recruit levels would be required to sustain the larger number of reserve personnel once it is achieved.<sup>7</sup>

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7. Percentage increases vary by service. For example, percentage increases for recruits into the Navy's selected reserve are somewhat lower than those for the other services because changes in naval forces are smaller under this alternative.

Moreover, recruits would have to be increased in geographical areas where new reserve units were located. This requirement would pose problems for all reserve components, but the problems would be especially difficult for the Navy, which can locate reserve ships only at selected ports that have adequate facilities.

Reserve recruiting efforts would initially be aided, but eventually would be harmed, by the large reductions in the size of the active-duty forces envisioned under this option. While they were taking place, many personnel would be leaving active duty. Some of these personnel would no doubt join the reserves, which would help increase their numbers. However, once the new, lower level of active-duty personnel is reached, fewer people would be leaving active duty than is the case today. This situation would exacerbate the long-run problem of reserve recruiting.

Despite these potential problems, the Army has indicated to CBO that it could recruit enough additional reserves to add two reserve divisions. Moreover, in recognition of potential recruiting problems, especially the problems that would occur after all the reductions in the active-duty forces had been carried out, the long-term savings under this alternative reflect added costs of about \$600 million for additional reserve recruiting incentives. This amount represents a rough estimate of added recruiting costs that would be required under reasonable assumptions about the response of reserves to higher pay. The added funds could be used to increase educational benefits or to pay larger cash bonuses to recruits. Added funds could also be used to increase the numbers of recruiters or to seek ways to reduce the high loss rates among recruits who have not yet completed their first term of service.

#### Effects on Military Capability

The effects of this alternative on strategic forces are identical to effects under the preceding alternative. Once forces have mobilized fully for war, there would be some differences in ground capability between this alternative and the preceding one with its cadre divisions, but the differences would not be large. After mobilization, ground capability under this alternative would be modestly less favorable for NATO than capability under Alternative III because only two of the seven divisions

eliminated from active duty are converted to reserve status under this alternative, whereas Alternative III converted five to cadre status. Consequently, after 75 days of mobilization, the ground ratio under this alternative would be 1.3 to 1 compared with the ratio of 1.2 to 1 under Alternative III.

It is less clear how the alternatives would compare in ground capability while mobilization was taking place. The selected reserve divisions under this alternative would have the advantage of having trained together (at least in groups as large as Army companies) in peacetime and so might be able to mobilize more quickly. But the cadre divisions would also have advantages that could speed their mobilization: all their senior leaders would have current active-duty experience and more of their personnel would have had some active-duty experience.

In contrast to ground forces, after full mobilization, tactical air forces would be modestly more capable under this alternative than under Alternative III because this alternative places about half of the wings cut from the active force structure into the reserves; Alternative III does not place any Air Force wings in the equivalent of cadre status.<sup>8</sup> Thus, the ratio of Warsaw Pact to NATO forces would be 0.9 to 1 under this alternative compared with 1.0 to 1 under Alternative III.

In sum, Alternatives III and IV offer two means of retaining flexibility to rebuild forces that do not differ greatly in their cost or in the capability they would provide after full mobilization. Both offer a possible means of retaining the skills of at least some of the high-quality, well-trained personnel who are now in the military. Alternative IV relies on selected reserve divisions to retain flexibility to rebuild in the event of war. Reserves have been used for many years and so provide a proven basis for retaining capability to rebuild forces

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8. CBO is currently assessing the costs and effects of establishing the equivalent of "cadre" wings. This approach would involve placing aircraft in peacetime storage with periodic inspections to ensure that the planes could be reactivated quickly. Personnel for these wings might be made available by a combination of use of individual ready reserves and by overmanning of selected reserve units in peacetime. (Overmanning would be the preferred alternative in cases where the time required to acquire a skill exceeded the time expected to be available after mobilization.) In the case of larger planes where flying skills are more comparable to those available among commercial pilots, pilots for the cadre wings would be supplied by individual ready reserve personnel. Fighter pilots for the cadre divisions would come from active-duty pilots who occupy non-flying positions during peacetime. CBO is also examining a concept analogous to cadre units for the Navy and Marine Corps.

in war. But recruiting problems may prevent converting large numbers of forces to reserve status. Alternative III with its cadre divisions presents an alternative approach to retaining capability for Army forces that would avoid many of the recruiting problems. But cadre divisions represent a new concept for the United States that should be tested before it is used extensively.

## **ALTERNATIVE V: MAKE LARGE CUTS**

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The United States could begin now to make large reductions in its active forces and some accompanying reductions in reserve forces. This alternative would be consistent with a judgment that political changes in the Soviet Union and Eastern Europe are far-reaching and could not be reversed without substantial warning. Large cuts would also be consistent with the seemingly high probability that the proposed CFE and START treaties will be negotiated and ratified within a year or so. Finally, large cuts would be consistent with a desire to realize large savings in the defense budget. Percentage cuts under this alternative are larger in the ground and tactical air forces, where the reduction in military threat is most clear, but reductions are substantial in all categories of forces.

Despite substantial cuts, this alternative should still provide sufficient active forces to handle smaller military contingencies, such as the recent operation in Panama. The active forces and reserves are also designed to be sufficient in size to provide a base for mobilization in the event of future major war. Under pessimistic assumptions, the reductions envisioned under this alternative could make the balance of conventional forces in Europe almost as unfavorable as the current balance. But under more optimistic assumptions, which are becoming the most realistic assumptions, the balance may be acceptable.

### **Specific Force and Budgetary Changes**

This alternative would immediately halt further procurement of new strategic weapons systems including rail MX missiles, small ICBMs, B-2 bombers (beyond the 15 already under contract), and Trident submarines (beyond the 17 already purchased). Older systems--including the Minuteman III land-based missiles and B-52 bombers--

would be retained in sufficient numbers to remain at the START limits and to retain rough numerical parity with the Soviet Union in total strategic warheads.

As for Army divisions, this alternative would recognize reduced security threats in Europe by eliminating the same seven active divisions that were cut under the previous two alternatives. In addition, one more active Army division would be eliminated from the Pacific theater in recognition of the increased ability of nations in that region to defend themselves.

Moreover, this alternative begins with the same assumption about reductions in Army reserves that was made under the possible Administration plan (Alternative II): two Army reserve divisions would be eliminated plus enough additional reserve personnel to bring the total reduction in reserves to 130,000. In addition, this alternative would eliminate the roundout units associated with the active divisions that would be eliminated. (Roundout units are in the selected reserve during peacetime but would join their active unit in time of war.) Thus, the total reduction in Army selected reserves is 149,000, the equivalent of about three divisions.

This alternative would also impose the same cut of 10 active-duty tactical fighter wings that was assumed under the previous two alternatives. In addition, there would be a proportional cut in the reserves, leading to a reduction of about five reserve wings.

Navy ship cuts would be proportionally smaller than cuts in Army and tactical Air Force units because the reduction in military commitments is less clear. However, in recognition of reduced security threats and in an effort to achieve large budgetary reductions, this alternative would eliminate 91 conventional Navy ships including 4 carrier battle groups. Retiring older Poseidon submarines and the response to the START treaty would result in 17 fewer strategic submarines, bringing the total reduction in Navy ships to 108. One full expeditionary force--that is, a combat division (three brigades) plus a wing of aircraft--would be eliminated from the Marine Corps. Also, because of reduced airlift requirements that could accompany a lower probability of war in Europe, this alternative would eliminate 9 of the 73 airlift squadrons in the U.S. military (see Table A-6). (Airlift squadrons include

transport aircraft designed to move high-priority military equipment quickly in the event of war or crisis.)

In contrast to the first four alternatives in this paper, this one would also assume reductions in funding for research and development below the real 1990 level of budget. Research funds would be reduced in proportion to cuts in the rest of the DoD budget, as would funds for military construction and family housing, resulting in a real dollar reduction of about \$12 billion below the 1990 level (see Table 3).

The United States could, of course, consider reductions in forces and budgetary categories larger than those imposed under this alternative. Private analysts have in fact discussed larger cuts. However, this paper did not consider larger reductions because under some pessimistic assumptions about threats to U.S. security, larger reductions--even if coupled with the proposed CFE and START treaties--could create a Pact-to-NATO balance of ground and tactical air forces substantially worse than the one that exists today.

#### Budgetary and Manpower Effects

In the long run, the far-reaching changes under Alternative V would reduce the annual DoD budget by about \$80 billion. DoD would have a budget of about \$210 billion, roughly one-quarter lower than the 1990 level. Most of the reductions (\$64 billion) would come from reductions in conventional forces. Budgets of the Army and the tactical Air Force would be cut by larger percentages than those of the Navy and Marine Corps, but all would be substantially reduced.

Reductions in numbers of personnel would also be large. Eventually 594,000 personnel would be eliminated from active duty, a reduction of 29 percent below the 1990 level. Civilian personnel reductions would total 231,000 or 23 percent. The selected reserve would also be reduced in size by 169,000 people or 15 percent.

The savings under this and other alternatives would be altered, but not greatly, by changes in the proportion of troops withdrawn from Europe. Roughly one-quarter or 150,000 of the active-duty troops eliminated under this alternative are assumed to be withdrawn from Europe (see Table A-3). This withdrawal would reduce U.S. troop

levels in Europe to about one-half their current level. If the Congress requires a reduction of the same total number of troops, but fewer or more are assumed to be based in Europe, then cost savings would only change slightly because the difference in cost to maintain a military person in Europe or the United States is relatively small. In terms of costs, the key decision is the number of units and troops that are eliminated, not their peacetime location.

### Effects on Military Capability

Alternative V would have significant effects on forces for strategic, ground, tactical air, and naval missions. It could also affect the ability of the United States to meet the needs of smaller military interventions or to mobilize for major war.

Strategic Forces. Under this alternative, the United States should continue to retain rough numerical parity with the Soviet Union in total numbers of strategic warheads but at the lower START level. Warheads likely to survive a Soviet attack, however, would fall to the lowest level among all the alternative approaches in this paper. In the most stressful situation for U.S. forces--a Soviet attack that occurred without any substantial warning--surviving warheads would fall to a level about 37 percent below the level that would exist after such an attack today and about 13 percent below the level that would have been available in 1982 (see Table A-5).

Moreover, under this alternative, the United States would rely on significantly older strategic forces than those under the previous alternatives. Relying on older forces may require accepting reduced flexibility and effectiveness in attacking certain types of Soviet targets--for example, targets that are heavily hardened against nuclear attacks or those that are well defended. Older forces, particularly the bomber force, may also be less able to survive these Soviet defenses. This shortcoming is not reflected in counts shown in this paper of warheads surviving a Soviet attack.

Finally, some older weapon systems may eventually require modification programs--such as "reskinning" the wings of B-52 bombers--to extend their service lives. Because of their uncertain size, additional costs for this purpose are not reflected in the savings for this

alternative. But any additional costs are not likely to be incurred until well beyond the year 2000.

Despite shortcomings under this alternative, U.S. strategic forces would still have substantial capability. Even after an attack without notice, the United States under this alternative would have about 2,900 surviving warheads to use in retaliation, a substantial number. In the less stressful but more likely case of a Soviet attack that occurs after some warning, the United States would have about 32 percent fewer surviving warheads under this alternative than it would have today. But the 5,800 surviving warheads would still represent a substantial capability and would be roughly equal to the 5,600 warheads that would have been available if an attack with warning had occurred in 1982.

Ground and Tactical Air Forces. Under certain assumptions, Alternative V would leave NATO with a disadvantage in ground capability similar to the one it faces today. If, in response to these large U.S. cuts, all the NATO allies make proportional cuts in their forces, but the Warsaw Pact nations make only the cuts required by the proposed CFE treaty, then the ratio of Pact-to-NATO ground forces in Central Europe would rise to 1.4 to 1, almost as unfavorable as the 1988 ratio of 1.6 to 1. This 1988 ratio was viewed by some as unacceptable.<sup>9</sup> Moreover, under these assumptions NATO would probably not have enough forces to maintain adequate geographic coverage of its border with the Warsaw Pact and so could not mount a forward defense near the border between East and West Germany. Therefore, the alliance could face greater military risk on the ground than it faces today.

But this situation may be substantially less worrisome in view of political changes in Eastern Europe. For example, nations in that region might not join the Soviet Union in any attack on NATO. If only Soviet forces are considered, then after a CFE treaty the ratio of ground forces is about 1.1 to 1 even after the large force reductions assumed under this alternative. That ratio would be significantly less

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9. Military commanders--notably General Bernard Rogers, former Supreme Commander of NATO--have long argued that, in the face of a balance of conventional forces such as the one that existed in 1988, they would have had no choice but to resort quickly to the use of nuclear weapons to defend Western Europe in the event of a Warsaw Pact attack.

than the 1.6 to 1 ratio that NATO faces today and might well be acceptable to a defensive alliance such as NATO.

The story for tactical aircraft is similar. Under some assumptions, Alternative V could lead to ratios of forces similar to the ones that exist today. But if only Soviet tactical air forces are assumed to oppose NATO, then the ratios under Alternative V may be acceptable to a defensive alliance.

Navy and Marine Corps Forces. This alternative would reduce Navy and Marine Corps capability. No simple ratios are available to use in assessing the balance of Navy and Marine Corps forces. But the reduction of about 20 percent in numbers of ships (including the elimination of 4 of today's 14 aircraft carriers) and the reduction of one-third in active Marine divisions would clearly leave the United States with substantially less capability than it has today. In peacetime, for example, the United States would be able to keep only about three aircraft carriers deployed overseas compared with the four to five carriers deployed today. This smaller number could be a problem in periods of crisis, when carriers are often needed at distant places on short notice.

But the Navy could plan on using other types of ships--perhaps including larger amphibious ships--for missions aimed primarily at "showing the flag." Aircraft carriers could be reserved for missions that demand the presence of highly capable fighter aircraft based at sea.

Ability to Meet Smaller Contingencies. In addition to a specific discussion of the capabilities of each type of military force, the Congress must ask if, under Alternative V, the U.S. military could meet the requirements of lesser military contingencies that seem likely to continue to occur. These include operations such as the recent one in Panama.

The answer should be yes. Since World War II, all military interventions (excluding the Korean and Vietnam Wars) at most required only a tiny fraction of the active-duty personnel who would be available under this alternative. In the largest of these operations, the recent military action in Panama, the troops attributable to the operation numbered 27,000. Under Alternative V, the United States

would have 1.5 million people on active duty. Of course, many of these personnel would not be in the right place or have the right skills to meet the immediate needs of a particular military intervention. But it seems reasonable to assume that an active-duty military of 1.5 million could handle contingencies of the sort that have occurred in the last 45 years.

Ability to Mobilize for a Major War. The large reductions imposed by Alternative V may raise more difficult questions about the ability of the United States to mobilize for a major war. Unlike other alternatives in this paper, this one makes large cuts in active-duty forces that are not offset by increases in cadre divisions or selected reserves. Indeed, the selected reserves are also reduced. Could the United States respond if world conditions changed and a major war loomed?

If it chooses the forces of Alternative V, this country would clearly be less able to mobilize a large fighting force than would be the case today. It would also be less able to mobilize than would be true if this country maintains the larger forces described under other alternatives in this paper.

Under Alternative V, however, the United States would still have about 1.5 million personnel on active duty, about the same number of personnel on active duty as it had in 1950 when the United States began mobilizing for the Korean War.<sup>10</sup> It would equal more than four times the roughly 350,000 personnel on active duty in 1939, just before the United States began to build up its forces in anticipation of World War II. Thus, this country would not be without a base for possible mobilization.

The key issue would be warning time. Presumably, the United States would not put in place the smaller forces defined by Alternative V until it judges that the Soviet military threat is much diminished. But if that threat begins to build up again someday, or if some other country emerges as a major security threat, would the United States recognize that change and allow itself the substantial time that would be required to reestablish a significantly larger military?

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10. In one important respect, the experience of 1950 might not be a guide to future mobilization problems. Because of World War II, the portion of the military and the population that had combat experience was considerably higher in 1950 than it would probably be in some future year.

No one can know for sure. The risk of failing to build up again must be weighed against the substantial costs of retaining a large military in a period when it may not be needed.

## **TIMING OF MANPOWER EFFECTS**

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So far this paper has focused on savings and manpower effects in a future year when force reductions associated with the CFE and START treaties have been fully carried out and procurement programs have been adjusted to reflect the smaller forces. But the Congress must put together a budget each year, and it needs to know when these savings and manpower effects might be realized.

Unfortunately, this paper cannot provide a precise answer about appropriate timing because it depends on answers to many complex questions that are not fully covered in the proposed treaties or in current Administration plans. For example, when will the CFE and START treaties be signed, ratified, and implemented? What pace of manpower and other reductions are appropriate in view of uncertainty about future developments in the Soviet Union? Would rapid manpower and budget reductions jeopardize the NATO alliance? What pace of manpower reduction would be fair to military employees and to defense industries and affected communities in the civilian sector?

### **History of Past Personnel Drawdowns**

Given this uncertainty, the history of past personnel drawdowns might be one source of insight. Unfortunately, however, history does not provide much guidance about the potential problems associated with future drawdowns.

The drawdowns of active-duty personnel that seem likely over the next five years would probably be small compared with the drawdowns that followed previous post-war periods. If accomplished in equal increments over five years, the largest reduction in this paper would involve reductions of about 120,000 a year in active-duty personnel. In the six years of drawdown that followed the Vietnam War, the annual reduction in active-duty personnel averaged about 230,000 a year. In

the three years after the Korean War, the annual reduction averaged 250,000 a year.

But these wartime periods may not provide much guidance for today. After these past wars, the U.S. military contained large numbers of draftees who presumably were anxious to leave the military. Today's force is entirely composed of volunteers, many of whom want to make a career of military service.

Moreover, today's military force is more senior, which may make large reductions in personnel more difficult and costly. Today, about 53 percent of all military personnel have four or more years of service compared with 39 percent in 1974. Most of these career personnel will not want to leave, raising the specter of large involuntary separations of personnel that would be painful to carry out and could be costly in terms of separation payments.

### Alternative Approaches and Effects on Outlays

The effects of these problems can be illustrated by examining three approaches to a drawdown. Such an analysis can also establish the potential for outlay reductions in 1991. Each drawdown assumes a reduction of 100,000 a year in enlisted personnel "end strength" (numbers at the end of the year) for each of the next five years. A roughly proportional reduction of 15,000 officers a year is also assumed. All reductions are assumed to begin in 1991. The three cases illustrate the effects of alternative policies regarding accessions, involuntary separations, and timing of manpower changes.

These results are preliminary findings from an ongoing analysis. CBO has not yet completed five-year estimates of the effects of cutbacks; nor has it examined alternative policies regarding separation pay and other issues. Moreover, CBO has not examined the problems associated with officer reductions in any detail. Thus, the discussion in this section will focus on enlisted personnel, though the costs include those associated with officers.

Case 1: Emphasize Accession Cuts. One way to reduce the number of personnel is to emphasize reductions in accessions. Under this approach, attempts would be made to increase losses of career personnel by tightening reenlistment standards. Specifically, about 25,000 enlisted personnel are assumed to be denied reenlistment in 1991. But there would be no involuntary separations, and 75 percent of the total reduction in end strength would come through reduced accessions. Total enlisted accessions in 1991 would fall to 217,000, a reduction of about 28 percent below the level that would have prevailed in the absence of any cut in end strength.

CBO has not examined officer reductions in detail. By way of illustration, this option assumes that officer accessions in 1991 are reduced by the same percent as enlisted accessions. The remainder of the reductions required to eliminate 15,000 officers in 1991 would be accomplished through involuntary separations.

Several important assumptions influence cost savings under this approach. To allow for orderly management, only one-half of the full annual savings from reduced accessions and personnel denied reenlistment are assumed to be realized in 1991. Full savings would, of course, be achieved in subsequent years. Also, those denied reenlistment are assumed to be eligible for travel at government expense under permanent change of station (PCS) orders and for reimbursement for unused annual leave. Although the government would have to pay these costs whether or not personnel were denied reenlistment, they occur in an earlier year for those who are not allowed to reenlist.

With these assumptions, 1991 outlay savings under Case 1 would total \$1.1 billion compared with costs under the CBO baseline, which assumes no reductions in end strength (see Table 6). (To ensure comparability with the budget, savings in this section of the paper are expressed in 1991 dollars.) Outlay savings of about \$0.4 billion are already assumed in the Administration budget proposal for 1991. Thus, compared with the Administration's proposal, additional savings under Case 1 would total only about \$0.7 billion in 1991.

Case 2: Make More Balanced Cuts. Achieving reductions primarily through reduced accessions would lead to an even more senior military than the one that now exists. Moreover, the reductions in accessions

may not provide enough recruits to sustain the military over the long term, even if that military is substantially smaller.<sup>11</sup>

To minimize these problems, the military could decide to rely less on reduced accessions to accomplish reductions in end strength. Instead, the military could tighten enlisted reenlistment standards as in the previous approach and, in addition, involuntarily separate 23,000 career enlisted personnel in 1991. This approach would limit the reduction in 1991 enlisted accessions to 17 percent of the level assuming no cuts in end strength. Looked at another way, under this Case 2, reductions in accessions would account for only about 47 percent of the personnel cut in 1991.

For officers, this case assumes that accessions are cut in proportion to the total reduction in officer strength. The remainder of the reduction of 15,000 officers is assumed to be accomplished through early retirements and involuntary separations.

Under these assumptions, outlay savings in 1991 would total about \$0.9 billion compared with CBO baseline costs that assume no cuts in end strength. Compared with the Administration's proposal, savings would total about \$0.5 billion. Savings are more modest than those under Case 1 because the reduction in payroll costs is offset by travel costs, payments for unused leave that must be made to career personnel who are separated, and severance pay for officers.

This case could lead to even more modest savings in 1991 if the Congress authorizes enlisted separation pay. Currently, the law requires no severance payments to enlisted personnel who are involuntarily separated. The Congress may, however, consider providing such separation payments. If payments are made to enlisted personnel based on the current officer formula (defined in Section 1174 of Title 10), then in 1991 the reduction under Case 2 would result in outlay savings of only \$0.4 billion compared with the CBO baseline.

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11. Continued emphasis on reducing accessions could result in very large reductions in accessions. After several years, the smaller number of accessions entering the military would mean fewer people leaving the military. Thus, a higher percentage of each year's personnel reduction would have to be carried out through cuts in accessions. Assume, for example, that reductions of 100,000 enlisted personnel a year were made in each of the next five years and that reductions were all made with an emphasis on cuts in accessions. By the fifth year, enlisted accessions would have to be reduced by more than 50 percent below the accession level that would prevail assuming no changes in end strength.

Compared with the Administration's proposal, Case 2 with enlisted separation payments would result in almost no savings.

**Case 3: Seek Large First-Year Savings.** To realize larger first-year savings, or to minimize added costs, the Congress could follow the same pattern of forcing out career personnel and reducing accessions associated with Case 2. But it could urge DoD to force out personnel quickly. This approach might be difficult to carry out and would result in less notice being given to those who are involuntarily separated. However, budget-year savings would be larger.

For example, assume that first-year savings associated with those denied reenlistment and involuntarily separated equal three-quarters of the total annual savings instead of one-half, as was assumed in the first two cases. This amount would be consistent with average invol-

TABLE 6. SAVINGS UNDER ALTERNATIVE MANPOWER REDUCTIONS  
(Compared with the CBO Baseline)

|                                                                  | Percentage<br>of Enlisted<br>Cuts Through<br>Accessions | Savings<br>(In billions of 1991 dollars) |                                        |
|------------------------------------------------------------------|---------------------------------------------------------|------------------------------------------|----------------------------------------|
|                                                                  |                                                         | 1991                                     | Second-Year<br>Effects of<br>1991 Cuts |
| <b>Current Law</b>                                               |                                                         |                                          |                                        |
| Emphasize Accessions                                             | 75                                                      | 1.1                                      | 2.1                                    |
| Make Balanced Reductions                                         | 47                                                      | 0.9                                      | 2.3                                    |
| Emphasize Savings                                                | 47                                                      | 1.3                                      | 2.3                                    |
| <b>Current Law Plus Enlisted Separation Payments<sup>a</sup></b> |                                                         |                                          |                                        |
| Emphasize Accessions                                             | 75                                                      | 1.1                                      | 2.1                                    |
| Make Balanced Reductions                                         | 47                                                      | 0.4                                      | 2.3                                    |
| Emphasize Savings                                                | 47                                                      | 0.9                                      | 2.3                                    |

SOURCE: Congressional Budget Office.

a. Assumes enlisted separation payments are made based on the current officer formula.

untary separations occurring three months after the beginning of 1991, a rapid pace. Under this assumption, 1991 outlay savings without separation payments for enlisted personnel would total \$1.3 billion compared with the CBO baseline assuming no cut in end strength. With separation payments, outlay savings in 1991 would total \$0.9 billion.

It is important to note that, under all three of these cases, outlay savings would be substantially larger in the second year than in the budget year. Even if no further personnel changes were made in 1992, outlay savings in that year resulting from the 1991 cuts would total between \$2.1 billion and \$2.3 billion (see Table 6). Thus, the second-year savings would often be several times the size of the first-year savings.

As was noted earlier, the Congress must assess the desirability of a particular rate of manpower and budgetary reduction taking into account U.S. security interests. However, these illustrative cases make it clear that it will be difficult to use personnel cuts to achieve large outlay savings in 1991, especially compared with the Administration's plan that already assumes some reductions.

## APPENDIXES

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**APPENDIX A****TABLES****TABLE A-1. PROVISIONS OF NATO'S PROPOSED TREATY  
LIMITING CONVENTIONAL FORCES IN EUROPE**

|                               | Proposed<br>Ceiling              | Proposed Reductions |         |             |         | Ratio<br>NATO:Pact |
|-------------------------------|----------------------------------|---------------------|---------|-------------|---------|--------------------|
|                               |                                  | NATO                |         | Warsaw Pact |         |                    |
|                               |                                  | Number              | Percent | Number      | Percent |                    |
| Main Battle Tanks             | 20,000                           | 2,224               | 10      | 37,300      | 65      | 1:17               |
| Armored Personnel<br>Carriers | 28,000                           | 600                 | 2       | 35,235      | 56      | 1:59               |
| Artillery                     | 16,500                           | 828                 | 5       | 29,770      | 64      | 1:36               |
| Helicopters                   | 1,900 <sup>a</sup>               | 699                 | 27      | 1,980       | 51      | 1:3                |
| Aircraft                      | 5,700                            | 1,006               | 15      | 6,892       | 55      | 1:7                |
| Troops <sup>b</sup>           | 195,000/<br>225,000 <sup>c</sup> | 80,000              | 3       | 405,000     | 12      | 1:5                |

SOURCE: Congressional Budget Office based on Congressional Research Service, "Conventional Armed Forces in Europe (CFE) Negotiations: Facts and Figures" (October 30, 1989).

NOTE: Except where specified, these numbers are based on NATO proposals submitted before October 30, 1989.

- a. The ceiling on helicopters and the current NATO inventory reported by NATO (2,599) are inconsistent with a 15 percent reduction.
- b. U.S. and Soviet troops only.
- c. These numbers reflect the proposal made by the President in his 1990 State of the Union message, which included a limit of 195,000 U.S. and Soviet troops in Central Europe. Another 30,000 U.S. troops would be permitted in Europe but outside the central region.

TABLE A-2. PROVISIONS OF PROPOSED START TREATY

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|                                     | Limits |
|-------------------------------------|--------|
| Total Accountable Warheads          | 6,000  |
| Strategic Nuclear Delivery Vehicles | 1,600  |
| Ballistic Missile Warheads          | 4,900  |
| ICBM Warheads <sup>a</sup>          | 3,300  |
| Heavy ICBM Warheads (SS-18 type)    | 1,540  |

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**Special Counting Rules**

Penetrating Bombers Count as One Warhead

Bombers Carrying Cruise Missiles Count as 10 Warheads<sup>a</sup>

Seventy-Two Submarine-Based Launchers in Overhaul Do Not Count<sup>a</sup>

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SOURCE: Congressional Budget Office based on U.S. government sources.

a. U.S. proposal apparently not yet accepted by the Soviet Union.

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TABLE A-3. ACTIVE UNITS AND ACTIVE-DUTY PERSONNEL IN EUROPE

| Category                                 | 1990 Level       | Reductions Under Alternatives |                                  |                             |                               |                 |
|------------------------------------------|------------------|-------------------------------|----------------------------------|-----------------------------|-------------------------------|-----------------|
|                                          |                  | I. Required Cuts Only         | II. Possible Administration Cuts | III. Large Cuts with Cadres | IV. Large Cuts, More Reserves | V. Large Cuts   |
| Army Divisions                           | 44               | 2                             | 2                                | 2½                          | 2½                            | 2½ <sup>a</sup> |
| Air Force Wings                          | 8                | 2                             | 2                                | 4                           | 4                             | 5 <sup>a</sup>  |
| All Services End Strength (In thousands) | 325 <sup>b</sup> | 80                            | 80                               | 100                         | 100                           | 150             |

SOURCE: Congressional Budget Office.

- a. These alternatives assume sufficient changes in headquarters and noncombat personnel to reduce the total number of Army and Air Force personnel in Europe by one-half.
- b. This number does not reflect any effects of the legislative requirement that personnel in Europe be reduced to 312,000 by the end of 1991.

**TABLE A-4. LONG-RUN BUDGETARY SAVINGS ASSOCIATED WITH STRATEGIC AND CONVENTIONAL FORCES** (In billions of 1990 dollars)

| Category               | Alternatives                   |                                                |                                         |                                           |                     |
|------------------------|--------------------------------|------------------------------------------------|-----------------------------------------|-------------------------------------------|---------------------|
|                        | I.<br>Required<br>Cuts<br>Only | II.<br>Possible<br>Admin-<br>istration<br>Cuts | III.<br>Large<br>Cuts<br>with<br>Cadres | IV.<br>Large<br>Cuts,<br>More<br>Reserves | V.<br>Large<br>Cuts |
| <b>Strategic</b>       |                                |                                                |                                         |                                           |                     |
| Army                   | 0                              | 0                                              | 0                                       | 0                                         | 0                   |
| Air Force              | a                              | b                                              | 5                                       | 5                                         | 10                  |
| Navy                   | 3                              | 3                                              | 5                                       | 5                                         | 5                   |
| Marine Corps           | <u>0</u>                       | <u>0</u>                                       | <u>0</u>                                | <u>0</u>                                  | <u>0</u>            |
| Subtotal               | 3                              | 4                                              | 10                                      | 10                                        | 16                  |
| <b>Conventional</b>    |                                |                                                |                                         |                                           |                     |
| Army                   | 5                              | 14                                             | 17                                      | 18                                        | 27                  |
| Air Force <sup>c</sup> | 1                              | 4                                              | 7                                       | 5                                         | 17                  |
| Navy                   | 0                              | 5                                              | 8                                       | 8                                         | 17                  |
| Marine Corps           | <u>0</u>                       | <u>0</u>                                       | <u>1</u>                                | <u>2</u>                                  | <u>3</u>            |
| Total                  | 9 <sup>d</sup>                 | 26                                             | 43                                      | 43                                        | 80                  |

SOURCE: Congressional Budget Office.

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

- a. Annual costs of less than \$500 million.
- b. Annual savings of less than \$500 million.
- c. Most reductions are in the budget of the tactical Air Force.
- d. Excludes overhead savings.

TABLE A-5. DETAILS OF EFFECTS OF ALTERNATIVES ON U.S. STRATEGIC CAPABILITY

| Category                             | 1990 Level | Alternatives          |                                  |                             |                               |               |
|--------------------------------------|------------|-----------------------|----------------------------------|-----------------------------|-------------------------------|---------------|
|                                      |            | I. Required Cuts Only | II. Possible Administration Cuts | III. Large Cuts with Cadres | IV. Large Cuts, More Reserves | V. Large Cuts |
| Total On-Line Warheads               | 11,800     | 8,900                 | 8,900                            | 8,600                       | 8,600                         | 8,600         |
| Surviving Warheads                   |            |                       |                                  |                             |                               |               |
| Attack with warning                  | 8,400      | 7,500                 | 7,500                            | 6,600                       | 6,600                         | 5,800         |
| Attack without warnings <sup>a</sup> | 4,600      | 3,700                 | 3,700                            | 3,200                       | 3,200                         | 2,900         |
| 1982 Levels for Reference            |            |                       |                                  |                             |                               |               |
| Total On-Line Warheads               |            |                       |                                  | 8,100                       |                               |               |
| Surviving Warheads (With warning)    |            |                       |                                  | 5,600                       |                               |               |
| Surviving Warheads (Without warning) |            |                       |                                  | 3,300                       |                               |               |

SOURCE: Congressional Budget Office.

NOTE: Limitations on Sea-Launched Cruise Missiles (SLCMs) are not being considered as part of the START negotiations. Therefore, SLCMs are not included in this analysis.

a. Calculations are based on the assumption that SICBMs are dispersed and therefore largely survive an initial attack.

TABLE A-6. NAVY AND AIRLIFT FORCE LEVELS

| Category                              | 1990<br>Level | Reductions(-)/Additions(+) Under Alternatives |                                                |                                         |                                           |                     |
|---------------------------------------|---------------|-----------------------------------------------|------------------------------------------------|-----------------------------------------|-------------------------------------------|---------------------|
|                                       |               | I.<br>Required<br>Cuts<br>Only                | II.<br>Possible<br>Admin-<br>istration<br>Cuts | III.<br>Large<br>Cuts<br>with<br>Cadres | IV.<br>Large<br>Cuts,<br>More<br>Reserves | V.<br>Large<br>Cuts |
| Navy                                  |               |                                               |                                                |                                         |                                           |                     |
| Total Deployable<br>Ships             | 551           | -11                                           | -50                                            | -72                                     | -68                                       | -108                |
| Trident/Poseidon<br>Submarines        | 34            | -11                                           | -11                                            | -14                                     | -14                                       | -17                 |
| SSN Submarines                        | 92            | 0                                             | -10                                            | -15                                     | -15                                       | -20                 |
| Aircraft Carriers                     | 14            | 0                                             | -1                                             | -2                                      | -2                                        | -4                  |
| Battleships                           | 4             | 0                                             | -4                                             | -4                                      | -4                                        | -4                  |
| Amphibious Ships                      |               |                                               |                                                |                                         |                                           |                     |
| Active                                | 61            | 0                                             | 0                                              | 0                                       | -31                                       | 0                   |
| Reserve                               | 3             | 0                                             | 0                                              | 0                                       | +16                                       | 0                   |
| Other Combatants and<br>Support Ships |               |                                               |                                                |                                         |                                           |                     |
| Active                                | 313           | 0                                             | -24                                            | -37                                     | -37                                       | -63                 |
| Reserve                               | 30            | 0                                             | 0                                              | 0                                       | +19                                       | 0                   |
| Air Wings                             |               |                                               |                                                |                                         |                                           |                     |
| Active                                | 13            | 0                                             | -1                                             | -2                                      | -3                                        | -4                  |
| Reserve                               | 2             | 0                                             | 0                                              | 0                                       | +1                                        | 0                   |
| Airlift                               |               |                                               |                                                |                                         |                                           |                     |
| Squadrons <sup>a</sup>                | 73            | 0                                             | 0                                              | 0                                       | -2                                        | -9                  |

SOURCE: Congressional Budget Office.

a. Includes active and reserve squadrons.