

March 1996

# CONTINGENCY OPERATIONS

## Defense Cost and Funding Issues







United States  
General Accounting Office  
Washington, D.C. 20548

National Security and  
International Affairs Division

B-271388

March 15, 1996

The Honorable Strom Thurmond  
Chairman  
Committee on Armed Services  
United States Senate

The Honorable Floyd D. Spence  
Chairman  
Committee on National Security  
House of Representatives

The Department of Defense (DOD) participated in contingency operations in several places during fiscal year 1995, including Haiti, Southwest Asia, and the former Yugoslavia. To help cover the incremental costs<sup>1</sup> of these operations, Congress provided DOD with a supplemental appropriation. As requested, we are providing information on (1) the extent that the supplemental appropriation fully covered DOD's reported incremental costs and the impacts on the services from any funding shortages or overages and (2) the accuracy of the methods of estimating incremental costs in comparison to actual costs and potential improvements to better estimate costs. We plan to further examine DOD's reported fiscal year 1995 costs, as explained below, and will provide a report on our findings.

## Background

DOD received appropriations of \$253 billion for fiscal year 1995, of which \$92 billion was for operation and maintenance (O&M). Through fiscal year 1996, DOD's annual appropriations have not included funds for possible contingency operations. DOD has not budgeted for the incremental costs of military operations or contingencies. It has budgeted to be ready to conduct such operations.

When the services have had to conduct these operations, the planned budget execution cycle was disrupted. DOD then had to absorb the incremental costs of these operations, which were mostly O&M items, within its existing appropriations or seek supplemental appropriations.<sup>2</sup>

<sup>1</sup>As used in this report, incremental costs are those costs that would not have been incurred except for the operation. This is the same definition contained in the Omnibus Budget and Reconciliation Act of 1990 (P.L. 101-508).

<sup>2</sup>The Air Force has included funds in its military personnel appropriation account for the payroll cost of reserve volunteers participating in contingency operations.

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In the Emergency Supplemental Appropriations and Rescissions for the DOD to Preserve and Enhance Military Readiness Act of 1995 (P.L. 104-6), Congress in April 1995 provided DOD \$2,235 million for incremental costs associated with ongoing operations in a variety of locations, including Somalia, Rwanda, the former Yugoslavia, Haiti, Cuba, Southwest Asia, and Korea.

Contingency operations begin when the President decides to commit U.S. military forces to respond to developing world conditions that he judges affect U.S. interests. Some of these operations carry over from one year to the next. For new operations, DOD's requests for supplemental funds are based on cost estimates that are developed before the actual deployment of military forces or early in the deployment. Developing the estimate involves (1) making assumptions about a variety of factors such as the operation's expected duration and (2) costing out the assumed requirements, using standard cost factors that are in turn based on historical costs and, where there are no cost factors, military judgment. For existing operations, DOD projects costs based on costs incurred in the previous year unless it expects an operation to change in size, scope, or duration.

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## Results in Brief

DOD reported fiscal year 1995 contingency operations-related incremental costs of \$2,223 million. While DOD ended the fiscal year with supplemental funding of \$12 million above its reported incremental costs, some of the services and DOD agencies had reported costs that were in excess of their portion of the supplemental appropriation while other services and DOD agencies reported costs that were below their portion of the supplemental appropriation.

The Air Force, the Marine Corps, the Defense Intelligence Agency, and the U.S. Special Operations Command collectively received fiscal year 1995 supplemental funding of \$133 million in excess of their reported incremental costs for contingency operations. The Air Force and the Marine Corps used the excess funding for a variety of otherwise unfunded operational needs, such as runway repairs (Air Force) and equipment maintenance (Marine Corps). The Army, the Navy, the Defense Health Program, and the Defense Mapping Agency, on the other hand, collectively reported costs that exceeded supplemental funding by \$120 million.<sup>3</sup> Army officials believed that the Army covered its funding shortfall by reductions

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<sup>3</sup>The differences between the reported incremental costs and funding do not add due to rounding.

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in areas such as training and travel. The Navy absorbed its shortfall by realigning funding from lower priority programs.

Through August 1995, DOD had reported costs of \$1.9 billion. Projecting August costs to September, we estimate that had September costs approximated August costs, DOD's full fiscal year 1995 reported costs would have been \$266 million below appropriated funding. However, reported September costs were about 4 times more than the costs of the previous month and over \$120 million more than the sum of the prior 3 months—June through August. We are continuing to review the September costs to determine the reasons for this surge.

Accurately estimating the cost of contingency operations, particularly those involving uncertain situations such as the one in Bosnia, is difficult. DOD has to make judgments about a variety of factors, such as the duration of operations, before operations begin. Events, however, may differ from the assumptions. For example, in the case of Vigilant Warrior, the deployment of military forces to Southwest Asia in response to Iraqi troop movements, DOD originally estimated that the operation would cost \$462 million in fiscal year 1995. However, the operation had reported costs that were about \$200 million below the estimate because the operation concluded sooner than expected as the Iraqis pulled their troops back. In costing out its assumptions, one of the services, the Army, uses a mathematical model to some extent. Because the model was not designed for contingency operations, it has some limitations, such as the lack of worldwide transportation rates, and the data are sometimes up to 3.5 years old.

While some improvements can be made to estimating methodologies, cost estimates, by their inherent nature, will often be inexact. Therefore, it will often be difficult for Congress to know how much funding it should authorize for contingency operations. There are steps Congress can take, however, to deal with the uncertainty.

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## Matters for Congressional Consideration

If Congress does not want emergency supplemental funds authorized and appropriated for contingency operations to be spent for other purposes, it may want to clearly specify in supplemental appropriation legislation that supplemental funds provided for contingency operations may only be used for (1) the expenses incurred in support of contingency operations and (2) the reimbursement of accounts initially utilized to fund those operations. In instances where initial funding proves to be inadequate and

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Congress considers providing further funding, it may also wish to require DOD to reprogram or transfer excess funds among the services if some services have costs below their funded level while others have costs above it before providing additional funds.

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## Scope and Methodology

To analyze DOD's incremental costs and funding for contingency operations, we compared its reported incremental costs to approved supplemental funding. To do this, we reviewed DOD's contingency operations cost reports, supplemental funding legislation, and DOD documents distributing funding to the military services and other DOD agencies. We also interviewed officials in DOD, each of the service headquarters, and selected major commands.

To obtain information on the impact of funding shortfalls and overages, we reviewed service documents and met with officials in the military services, including selected major commands. We also discussed these matters with officials from the Office of the Secretary of Defense.

To obtain information on the methodology for estimating costs, we reviewed service documents and interviewed relevant officials in DOD, each service headquarters, and selected major commands. We discussed the kinds of assumptions that must be made in developing estimates and how these assumptions are costed out. Where models were used for costing, we discussed the primary use of these models and their adaptability for costing contingency operations. We focused our work on the Army's use of models because it makes the most use of models in estimating contingency costs.

We have previously reported that when considering the cost of operations it should be recognized that DOD's financial systems cannot reliably determine costs. Systems are classified as high risk and cannot easily capture actual incremental costs. Only the total obligations are captured by the accounting systems. The services use various management information systems to identify incremental obligations and to estimate costs.

We performed our work between January and March 1996 in accordance with generally accepted government auditing standards. We reviewed the information in this briefing report with DOD officials and made changes where appropriate.

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We are providing copies of this report to the Chairmen and Ranking Minority Members of the House and Senate Committees on Appropriations and the Ranking Minority Members of the Senate Committee on Armed Services and the House Committee on National Security. We are also sending copies to the Secretaries of Defense, the Army, the Air Force, and the Navy and the Director, Office of Management and Budget. Copies will be made available to others upon request.

If you or your staff have any questions about this report, please contact me at (202) 512-3504. The major contributors to this report are listed in appendix I.

A handwritten signature in black ink that reads "Richard Davis". The signature is written in a cursive style with a prominent "R" and "D".

Richard Davis  
Director, National Security  
Analysis

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## Abbreviations

DOD	Department of Defense
OMB	Office of Management and Budget
O&M	operation and maintenance
LOGCAP	Logistics Civil Augmentation Plan

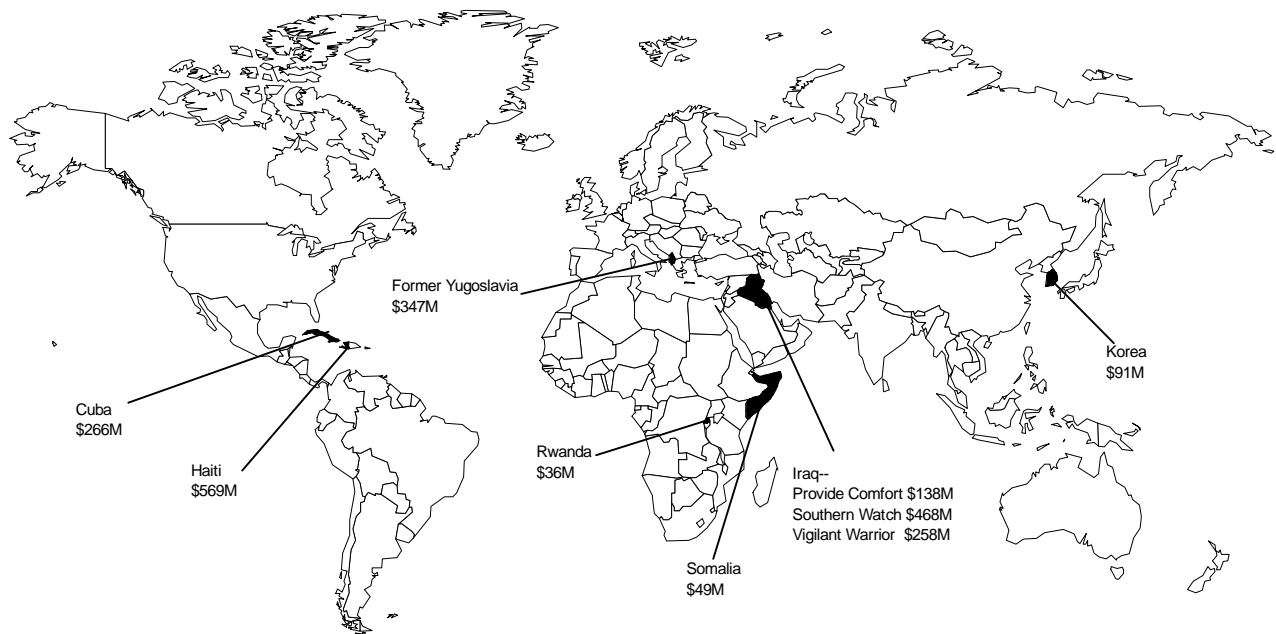


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# Background

## GAO Reported Incremental Costs for Fiscal Year 1995 Contingency Operations



The Secretary of Defense's 1995 Annual Report to the President and the Congress describes contingency operations as military operations that go beyond the routine deployment or stationing of U.S. forces abroad but fall short of large-scale theater warfare. U.S. military forces participated in several contingency operations during fiscal year 1995. These operations included (1) the activities in support of United Nations peace operations in Haiti, Southwest Asia, and the former Yugoslavia; (2) the increased deployment of military capability to South Korea in response to heightened tensions; (3) the deployment of additional military forces to Kuwait and Saudi Arabia in response to the threat of renewed Iraqi aggression against Kuwait; and (4) the enforcement of a revised U.S. policy designed to prevent Cuban migrants from reaching the United States. The map shows where these operations occurred and the Department of Defense's (DOD) reported incremental costs for each operation.

Most of DOD's reported incremental costs were for operations in four areas—Southwest Asia, Haiti, Cuba, and the former Yugoslavia. These costs totaled about \$2 billion, or 92 percent of DOD's total reported incremental costs. Within Southwest Asia, DOD participated in operations to (1) enforce United Nations sanctions against Iraq, (2) enforce the no-fly zone over both northern and southern Iraq, and (3) provide humanitarian relief to the population of northern Iraq.

# Cost and Funding

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## GAO Summary of Incremental Costs and Funding During Fiscal Year 1995

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Dollars in millions

Reported incremental costs	\$2,223
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Supplemental funding in April 1995	<u>2,235</u>
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Funding overage	12
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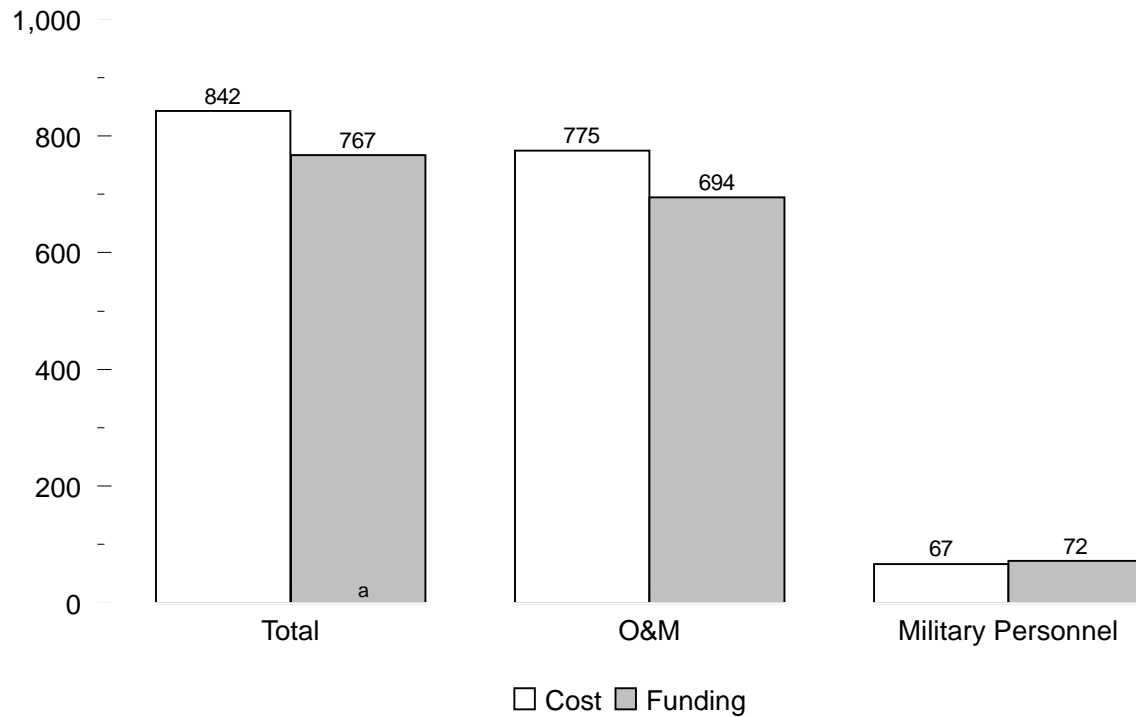
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In April 1995, Congress provided DOD with an emergency supplemental appropriation of \$2,235 million to fund contingency operations occurring in fiscal year 1995. The vast majority—91 percent—of the appropriation was for operation and maintenance (O&M), which funds the operating costs of a deployment, such as transportation and contractor support. The balance of the appropriation was for military personnel accounts, which fund the cost of incremental pay, such as imminent danger pay. Through the end of fiscal year 1995, DOD reported about \$2,223 million for contingency operations-related incremental costs. Therefore, DOD ended the fiscal year with supplemental funding of \$12 million above its reported incremental costs. Some of the services and other DOD agencies, however, had reported costs that were in excess of their portion of the supplemental appropriation, while other services and DOD agencies reported costs that were below their share of the supplemental appropriation.

Congress appropriates funds to the military services and other DOD components by appropriation accounts. Reprogramming large sums within an appropriation requires congressional approval. Transferring funds across appropriations accounts requires statutory authority. In comparing reported costs with funding, it is necessary to examine not only the total appropriation but also its individual components. The overages and underages we found in total and by service and appropriation account are discussed in more detail later.

# GAO Army Incremental Costs and Funding During Fiscal Year 1995

Dollars in millions



<sup>a</sup>Totals do not add due to rounding.

The Army had a \$75-million shortfall between its reported incremental costs and its portion of the supplemental appropriation. Within appropriation accounts, the Army had an \$81-million shortfall in O&M funding compared to reported costs and a \$6-million<sup>4</sup> excess in military personnel funding.

The Army had to absorb its O&M shortfall within its fiscal year 1995 appropriations. Army officials told us that they could not specifically identify what expenditures were reduced to absorb the shortfall. They were, however, able to tell us that there were no reductions in base operations. They believed that reductions were made in areas such as training and travel. We were unable to document the impact of reductions at this time, but we plan to pursue this matter further.

The Army's reported shortfall may not be as great as its reported costs suggests. In related work we are doing on the reliability of DOD's reported incremental costs for contingency operations at the request of the Chairmen of the House Committees on International Relations and National Security, we are finding that some Army O&M costs are overstated. The Army has not offset its reported incremental costs to reflect costs that it does not incur when soldiers are deployed for contingency operations, such as normal base operations or training that cannot be attended. For example, in fiscal year 1995, the U.S. Army Forces Command estimated that military units did not incur about \$11 million in normal operating costs as a result of deploying to contingency operations. Consequently, this estimate would reduce reported costs by that amount. While there were instances of underreporting of costs in fiscal year 1994, we are not aware of any such instances in fiscal year 1995.

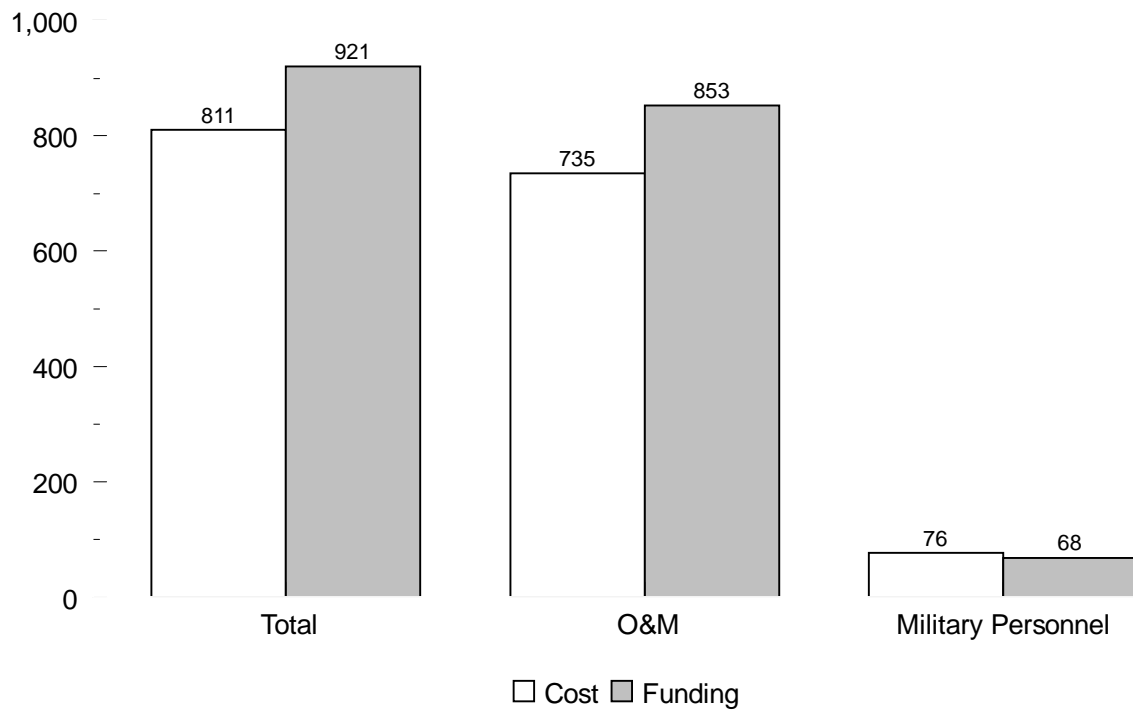
The Army received \$6 million more in its portion of the supplemental military personnel appropriation than it reported in military personnel costs. According to the Army, it used these excess funds to help cover an overall funding shortage in its total military personnel appropriation.

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<sup>4</sup>The Army reported \$66.7 million in incremental military personnel contingency costs and received funding of \$72.4 million, for a difference of \$5.7 million. The slide and text differ by \$1 million due to rounding.

# GAO Air Force Incremental Costs and Funding During Fiscal Year 1995

Dollars in millions





The Air Force's portion of supplemental funding was \$110 million above its reported incremental costs. Within its O&M appropriation account, the Air Force received \$118 million more in supplemental funding than it reported in costs. At the same time, it reported that military personnel costs exceeded its supplemental military personnel appropriation by \$8 million.

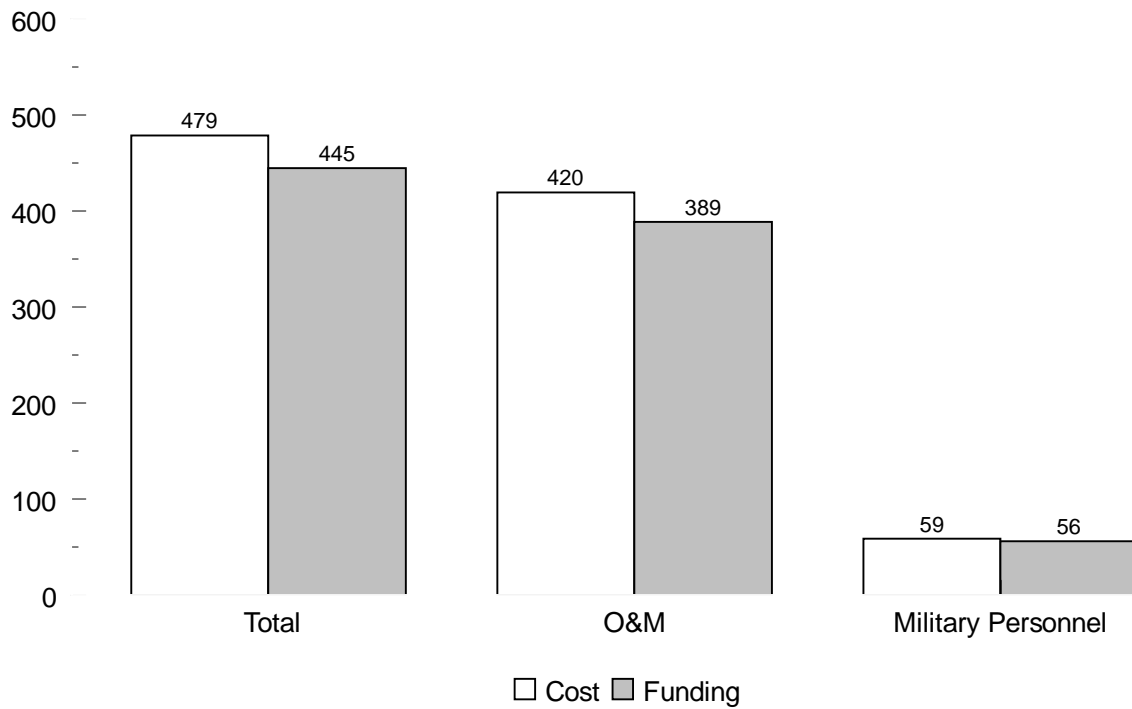
Our related ongoing work suggests that the Air Force's O&M overage may be even greater than the amount reported. For example, we found that the Air Force overstated its fiscal year 1995 incremental flying hour costs by \$7 million at one command because of the way flying hour costs are calculated. According to Air Force officials, the Air Force calculates flying hours by multiplying reported flying hours by a budgeted flying hour cost factor reflecting historical costs. Actual costs for flying hours may be above or below the budgeted factor. In this example, actual costs were lower than the reported costs.

Excess O&M funding was used for a variety of otherwise unfunded operational needs, such as (1) runway repairs; (2) roof repairs; (3) heating, air conditioning, and ventilation projects; and (4) quality-of-life projects, such as repairs to child development centers and dormitories. These projects were categorized by the Air Force as "unsatisfactory" real property maintenance requirements for fiscal year 1995. Excess funding was also used to support depot maintenance requirements, command and control communication systems, and underground fuel storage tanks in the Pacific theater.

To partly cover the military personnel funding shortfall of \$8 million, the Air Force reprogrammed \$156 million in fiscal year 1995 within its military personnel appropriation. According to an Air Force official, the reprogrammed funds covered the shortfall in supplemental appropriations for incremental military pay.

# GAO Navy Incremental Costs and Funding During Fiscal Year 1995

Dollars in millions



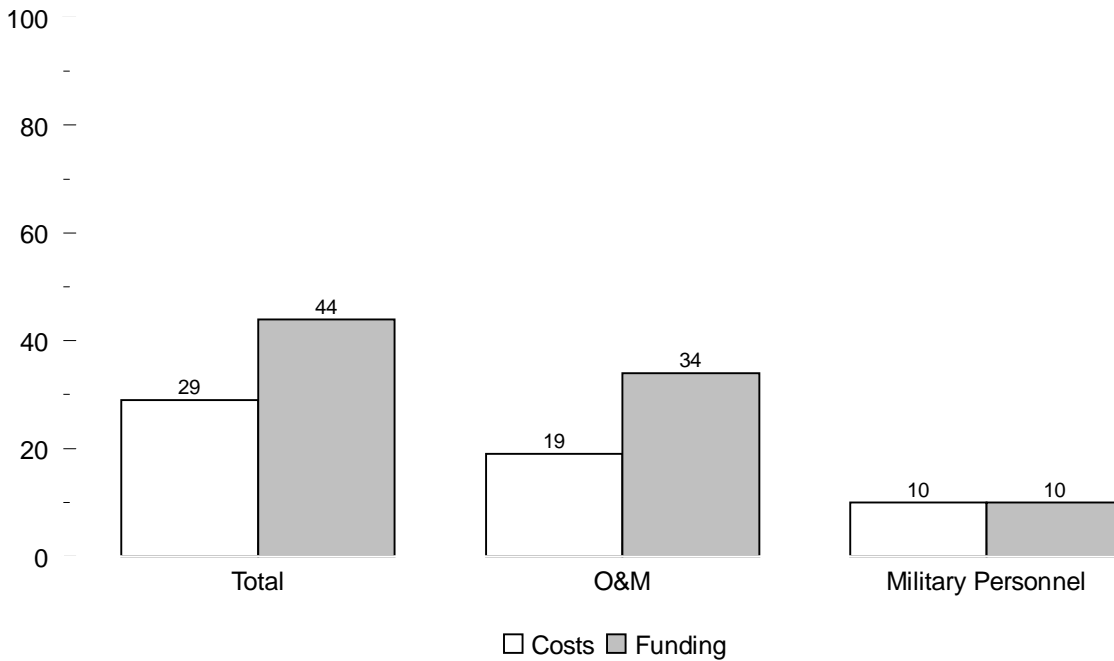
The Navy had a \$34-million shortfall between its reported incremental costs and its portion of the supplemental appropriation. The Navy had reported shortfalls in both its o&m and military personnel accounts.

The reported o&m shortfall was \$31 million. Navy officials stated that the Navy absorbed its shortfall by realigning funding from lower priority programs, but they could not identify the affected programs. Our related ongoing work, however, suggests that the shortfall may not be as great as the reported costs suggest. We found an instance where the Navy may have overstated its costs in fiscal year 1995 because it did not adjust incremental flying hour costs to reflect over \$1 million worth of free fuel received. While the Navy has advised us that it does account for free fuel in its flying hour cost factors, it did not provide any documents to support this position.

The Navy's reported military personnel costs were \$3 million below its share of the supplemental military personnel appropriation. According to a Naval Reserve Force official, this shortfall was absorbed within the reserve military personnel appropriation.

# GAO Marine Corps Incremental Costs and Funding During Fiscal Year 1995

Dollars in millions



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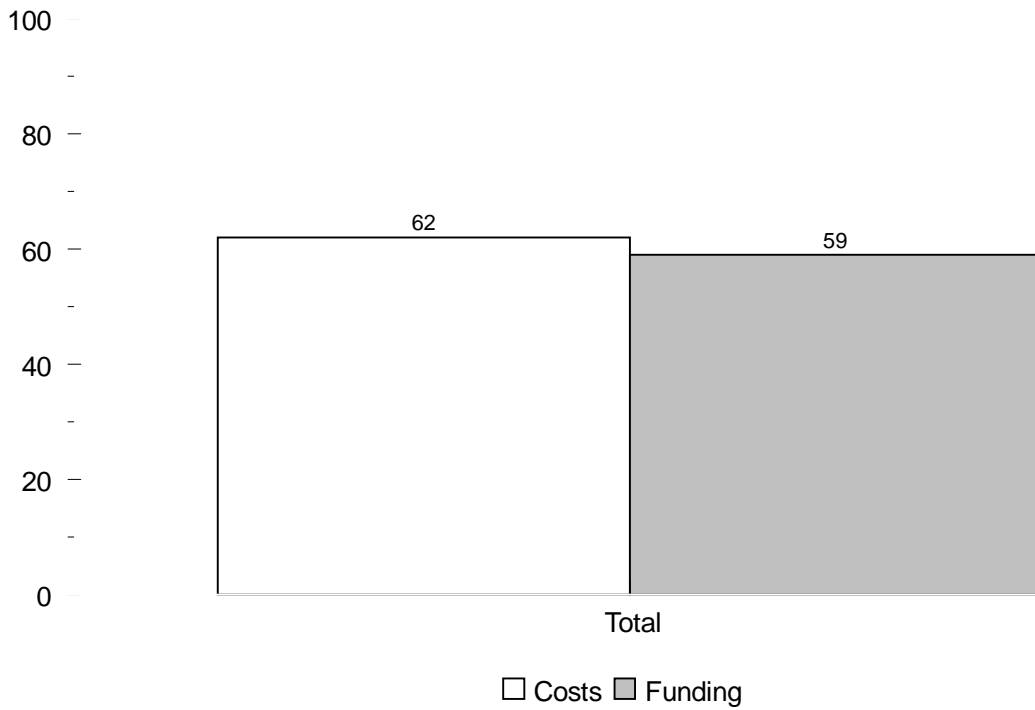
**Briefing Section II**  
**Cost and Funding**

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The Marine Corps' portion of the supplemental appropriation was \$15 million above its reported incremental costs. The Marine Corps applied the additional o&m funds toward the Fleet Marine Forces' fiscal year 1995 depot level reparables, corrosion control, and equipment maintenance requirements.

# GAO Other DOD Incremental Costs and Funding During Fiscal Year 1995

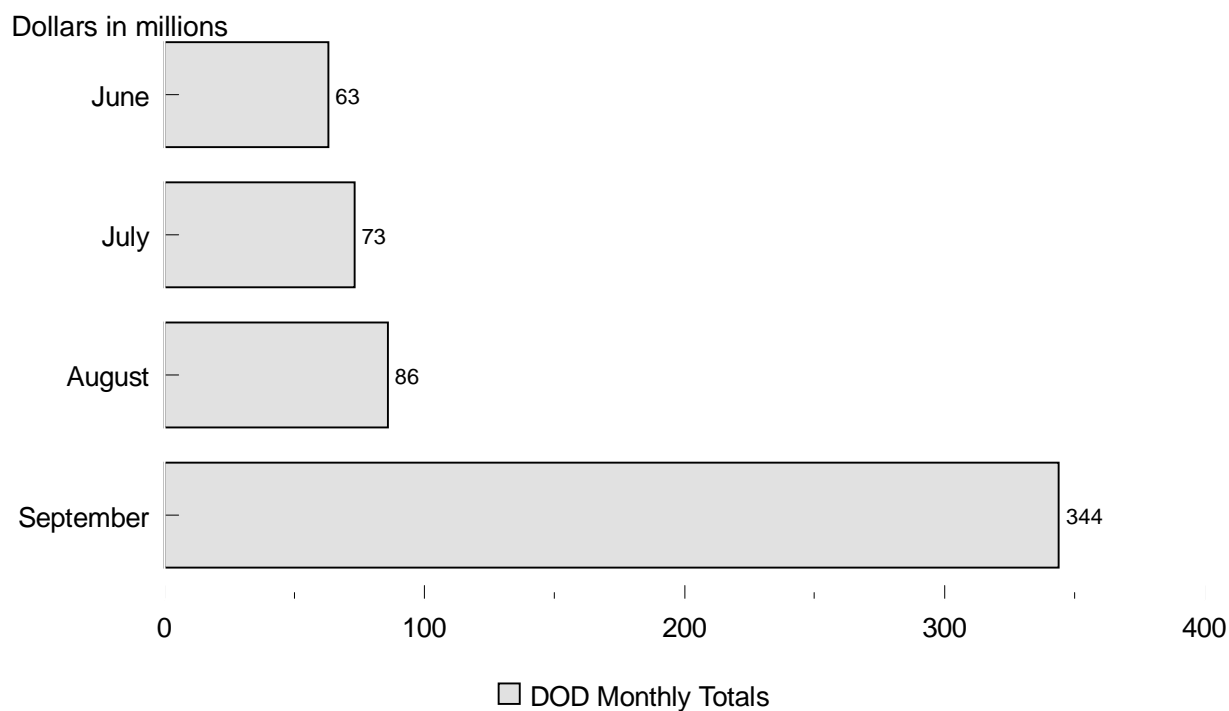
Dollars in millions



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Other DOD agencies, such as the U.S. Special Operations Command, the Defense Health Program, the Defense Intelligence Agency, and the Defense Mapping Agency, collectively reported \$62 million in incremental costs. They received \$59 million from the supplemental appropriation, resulting in a funding shortfall of \$3 million. However, some agencies had reported costs in excess of their portion of the supplemental appropriation, while other agencies had reported costs below their portion of the supplemental appropriation. The Defense Intelligence Agency and the U.S. Special Operations Command together reported costs that were \$8 million below their portion of the supplemental appropriation. The Defense Health Program and the Defense Mapping Agency together reported costs that were \$11 million above their portion of the supplemental appropriation. We do not know at this time how the agencies that had funding shortfalls absorbed these costs and how the agencies that had remaining funding utilized those funds.

## GAO Reported Incremental Costs Surged in Late Fiscal Year 1995





Through August 1995, DOD had reported costs of \$1.9 billion. Projecting August costs to September, we estimate that had September costs been the same as August costs, DOD's full fiscal year 1995 reported costs would have been \$266 million dollars below appropriated funding. However, reported costs surged in September to bring reported costs within \$12 million of the funding provided through the supplemental appropriation. The reported September costs were about 4 times more than the costs of the previous month and over \$120 million more than the sum of the prior 3 months—June through August. This surge was related to \$134 million in reported costs for Operation Southern Watch and \$75 million in reported costs for operations involving the former Yugoslavia.

We are continuing to review these September costs for fiscal year 1995 to determine the reasons for this surge. The amount of costs reported in any reporting period can vary due to the pace of operations or the advent of new operations. For example, reported fiscal year 1994 costs surged in late fiscal year 1994 largely because of the U.S. intervention in Haiti, which began in September 1994. We are not aware of any similar surge of operations in late fiscal year 1995 other than the bombing campaign in Bosnia, which began in late August and ended September 22, 1995. However, we do not believe that the campaign by itself was of sufficient magnitude to account for the surge in reported costs.

# Estimating Methodology

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## GAO Contingency Operation Cost Estimating

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- Estimates for new operations developed before or early in deployment
- Cost estimates tend to increase
- Actual costs can vary from estimates

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Contingency operations begin when the President decides to commit U.S. military forces to respond to developing world conditions that he judges affect U.S. interests. Some of these operations carry over from year to year. For new operations, DOD's requests for supplemental funds are based on cost estimates that are developed before the actual deployment of military forces or early in the deployment. Developing the estimate involves (1) making assumptions about a number of factors, including military personnel for the operation, its expected duration, and the

logistical requirements to support operations and (2) costing out the assumed force, using standard cost factors that are in turn based on historical costs and, where there are no cost factors, military judgment. For existing operations, DOD projects costs based on costs incurred in the previous year unless it expects an operation to change in size, scope, or duration.

Cost estimates tend to increase. For example, within DOD, in developing the cost estimate for fiscal year 1995 contingency operations, the overall estimate increased by \$104 million. Within this amount, DOD's Comptroller's office reduced proposed funding for part of one operation, Cuba migrant operations, by \$3 million and increased funding by a total of \$107 million for several other operations, including those operations in Haiti. Cost estimates have also increased as a result of reviews at the Office of Management and Budget (OMB), which examines them when the administration seeks supplemental funding. For example, OMB increased the estimate by a total of \$126 million over the amount proposed by DOD.

In developing the cost estimate for operations in and around Bosnia for fiscal years 1996 and 1997, the estimated cost increased by \$164 million between the preliminary and final estimates submitted to the Deputy Secretary of Defense. In approving the final decision document, the Deputy Secretary added \$96 million to the amount proposed in the final program budget decision to reflect December 1995 special pay for military personnel deployed in and around Bosnia and command and control augmentation initiatives, which had not been included in the estimate. In developing the plan for financing the operation, DOD further increased the estimated cost by almost \$82 million based on more recent information.

Actual costs can vary from the estimate as changes occur to an operation. For example, DOD estimated that the operation in Haiti would cost \$465 million in fiscal year 1995, but through the end of fiscal year 1995, DOD had reported costs of \$569 million. This was in part due to unforeseen requirements associated with Operation Uphold Democracy and the United Nation's effort.

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## GAO Assumptions

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- Estimating involves making assumptions
  - Events may differ from assumptions
    - duration of operations
    - logistical support
    - force size
    - special pay and allowances
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Events may differ from the assumptions used to estimate costs. Examples of potential differences between events and assumptions include the duration of operations, logistical support requirements, environmental factors, force size, and eligibility for special pay and allowances. The nature of contingency operations makes it particularly difficult to have good assumptions. Initial estimates are developed before or during the outset of an operation and are frequently “best guess” estimates.

In the case of Vigilant Warrior, the deployment of military forces to Southwest Asia in response to Iraqi troop movements, DOD originally estimated that the operation would cost \$462 million in fiscal year 1995. However, the operation ended with reported costs of only \$258 million. This amount was about \$204 million below the estimated amount because the operation concluded sooner than expected as the Iraqis pulled their troops back.

Actual logistical support requirements may also differ from assumptions. For example, in the Bosnia deployment it was assumed that rail would be the predominant mode of deployment transportation. Because of time pressures, adverse weather conditions, and rail delays, more airlift was used than originally anticipated. Through January 1996 Bosnia deployment transportation costs were currently exceeding DOD's estimate by \$84 million.

The Logistics Civil Augmentation Program's (LOGCAP) support in Bosnia is also far more than what was originally assumed. DOD estimated the cost of LOGCAP at \$191.6 million. The LOGCAP contractor had originally estimated the cost at \$350 million, but DOD reduced the estimate to \$191.6 million because it believed that there was duplication between the services the contractor would provide and the services military personnel would provide. Through February 1996, the Army, which manages LOGCAP and pays the contractor, had already spent \$247.3 million for LOGCAP, or \$55.7 million more than DOD estimated for the entire operation. Estimated LOGCAP costs have been rising rapidly. At the end of January 1996, the contractor was estimating that total LOGCAP costs would be \$371 million, whereas by the week ending February 10, 1996, the contractor's cost estimate had reached \$422 million, and Army officials told us that they thought the cost could go as high as \$500 million. Several factors have contributed to the increase. The geography of the U.S. sector in Bosnia and force protection concerns did not allow for the 10 to 12 large base camps originally planned and so the number of camps has increased to 23. The number of feeding locations also increased from the 12 originally planned to 24. Muddy ground conditions and the number of camps required more extensive site preparation and construction, which cost more than originally anticipated.

Force size may be greater or less than what is initially assumed in a cost estimate. For example, the President authorized the activation of up to 4,300 reservists to support operations in Bosnia. The 4,300 and an estimated 300 volunteers, not counted as part of the call-up, were used as

the basis for calculating the incremental military personnel salary cost of \$196 million estimated for the Bosnia operation. Fewer reservists have been called up than were authorized, but more reservists have volunteered for active duty. On balance, it appears that between 165 and 340 fewer reservists will be on active duty than was assumed. Using DOD assumptions and actual deployment figures, we estimate that the salary costs for the reserve activation, including volunteers, could be over \$20 million less than DOD estimated.

Personnel deployed to contingency operations may be eligible to receive a variety of special pays and allowances, such as imminent danger pay, certain places pay (formerly called foreign duty pay), and family separation pay. Eligibility for these special pays and allowances vary by location and individual circumstance. For example, in the case of the Bosnia cost estimate, DOD did not take these variations into account. Only those personnel deployed to, traveling into, or flying over Bosnia, Croatia, Serbia, Montenegro, and Macedonia are eligible to receive the \$150 per month for imminent danger pay. This excludes most of the 7,000 personnel scheduled to be deployed to Hungary and Italy. As a result of not taking this and other variations into account, DOD overestimated special pays by about \$43 million.

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**Briefing Section III  
Estimating Methodology**

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## GAO Use of Models

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- Army Force cost model sometimes used to cost assumptions
- Model does not contain worldwide transportation rates
- Some fuel and transportation rates are outdated

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DOD and each of the services have models that can be used to develop costs of potential force structure changes. The Army also uses its model as an aid in developing contingency operation cost estimates, making the most use of models among the services in this regard. According to Army officials, in developing the Bosnia cost estimate, this model was used to estimate deployment and some operating costs, such as fuel and repair parts. The model estimates costs based on factors such as the types of



units, the number of personnel and equipment to be deployed, the deployment location, and the modes of transportation.

According to Army officials, the Army's cost model was not originally designed to provide cost estimates for contingency operations. Since it is one of the few models available that provides good planning numbers, as noted above the Army uses it as an aid in developing contingency operation cost estimates. We found limitations with the model related to its use in developing the Bosnia cost estimate. One limitation is that the model does not contain worldwide transportation rates. It only contains data on those countries in which the United States expects to or has previously conducted operations. In developing the Bosnia cost estimate, officials assumed German rail rates in their estimates when they lacked information on rates in countries through which the rail movement would transit, such as Hungary and Austria. During the deployment, the Army found in a number of instances that rail rates in Austria and Hungary were much higher than German rail rates. For example, the Army's analysis of rail charges to move 35 railcars with oversized cargo showed that while Austria accounted for 26 percent of the rail distance traveled it accounted for 43 percent of the actual rail cost.

Army officials stated that the cost model has been updated to include rail rates for Bosnia, but it still does not include rail rates for countries enroute to Bosnia from Germany, such as Austria, Croatia, and Hungary. The lack of worldwide information could affect future contingency cost estimates should U.S. forces deploy to other locations in which the United States has no previous experience.

The second limitation is that the model does not have current prices and rates for such items as non-U.S. fuel and transportation, although it can be updated by the user at any time. In developing the Bosnia estimate in late 1995, Army officials stated that due to time constraints and the unavailability of current information they used existing data in the model. In 1995 the model contained a fuel price of 73 cents a gallon for fuel in Germany. Actual fuel prices in Bosnia in 1996, the year in which most of the operation is occurring, are between 85 cents and 96 cents a gallon—16 to 32 percent more. In addition, transportation rates used in the model may be based on information that is up to three and one-half years old. For example, the Army calculated costs of the Bosnia operation using a 1995 version of its cost model. Army representatives told us the model had been updated in 1994 based on 1993 published transportation rates. The 1993 rates were developed by the Military Traffic Management Command using

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cargo projections that were up to 18 months old. Army officials stated that they are looking into developing an independent cost model that will provide more accurate contingency cost estimates.

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**Briefing Section III  
Estimating Methodology**

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## GAO Improving Cost Estimating

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- Need for funding flexibility
- Possible funding guidelines
- Methodological improvements possible

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The major difficulty in preparing contingency operation cost estimates is the need to make assumptions before or in the early stages of an operation. Generally, as an operation progresses and the services both gain operating experience and reporting of costs actually incurred begins, the cost estimate becomes more refined. While there are methodological improvements that can be made to improve estimating, because of the uncertainty in cost estimating, it is difficult to know how much funding

Congress should appropriate. Therefore, in considering funding levels we have identified the following guidelines Congress may wish to consider.

- Any supplemental funding provided should only be available for (1) expenses incurred in support of contingency operations and (2) reimbursement of accounts initially utilized to fund those operations. In fiscal year 1995, some of the military services ended the year with contingency costs below the amounts appropriated by Congress for contingency operations in that year, while other services had costs that exceeded those appropriations. Because the supplemental appropriations were not earmarked for contingency operations, those services with excess funds used the funds for other needs that otherwise would have gone unfunded.
- If initial contingency operation funding proves to be inadequate, but some services have costs below their funded level while others have costs above it, excesses earmarked for contingencies should be redistributed by transfer before Congress provides additional funds. DOD's plan for funding Bosnia operations, for example, which involves an initial reprogramming, followed by supplemental appropriations, and then a second reprogramming for any remaining costs, lends itself to redistributing funds at the time of the second reprogramming.
- Appropriation levels should be reevaluated as more experience and actual cost data become available. The second reprogramming in the Bosnia funding plan would lend itself to a reevaluation.

There are some methodological improvements that can be made in the cost estimating process. These involve estimating special pays and allowances. Cost estimators should be able to improve this part of the estimate by first establishing which special pays and allowances apply for a contingency operation and the approximate number of people eligible for them. Longer term improvements include developing independent cost models or adapting existing models to better reflect contingency operations.

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