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FORCE STRUCTURE

Projected Requirements for Some Army Forces Not Well Established

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Abbreviations

DOD Department of Defense
TAA Total Army Analysis

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The National Military Strategy calls for U.S. forces to fight and win two nearly simultaneous major-theater wars. The biennial Total Army Analysis is the Army's process for determining the forces needed to execute this strategy. This process involves first determining the number and type of forces needed, comparing this requirement with the Army's present force structure,[1] and finally reallocating forces to minimize the risks associated with any identified shortfalls. The analysis focuses on the Army's future needs. For example, Total Army Analysis 2007, which was completed in fiscal year 2000, projects requirements for fiscal year 2007 and identifies any shortfalls that would exist if authorized personnel levels remain the same.

Previous versions of the analysis focused on determining the forces needed for the two-war scenario. However, the current version, Total Army Analysis 2007, is more comprehensive because it assesses, for the first time, all the military forces, civilian personnel, and contractors needed to meet all of the Army's requirements — not just those military units that would actually deploy to the war efforts.[2] In addition to determining the war-fighting units, Total Army Analysis 2007 determines the forces committed to small-scale contingency operations by treaty; those forces needed as Strategic Reserves or for Homeland Defense and Domestic Support;[3] and all U.S.-based and overseas-based military and civilian personnel required to organize, train, equip, and maintain Army forces. (These latter forces are referred to as Base Generating Forces and Base Engagement Forces, respectively, and as "institutional forces" collectively.) After determining these requirements, Army officials then reallocate currently authorized personnel to fill these requirements in

[1]"Force structure" is the number and types of units that comprise the force, their size, and their composition (e.g., divisions, brigades, and companies).

[2]For this report, we used the Army's final revised report, referred to as Total Army Analysis 2007.1, which was completed in July 2000.

[3]Strategic reserves are forces needed to augment the forces assigned to the two major-theater wars. The terms Homeland Defense and Domestic Support generally refer to protecting the U.S. homeland and responding to incidents involving weapons of mass destruction.

ways that they believe will minimize war-fighting risks. Through Total Army Analysis 2007, the Army established a requirement for 1.717 million positions to meet all of the its requirements. After reallocating all 1.53 million authorized personnel[4] among these requirements, the Army identified a 45,000-position shortfall in the war-fighting element of its force structure and a 142,000-position shortfall in its institutional forces.

The National Defense Authorization Act for Fiscal Year 1996 mandated that we annually analyze, through 2001, each new version of Total Army Analysis.[5] This report addresses two questions: (1) Does the Army have a sound basis for its projected force requirements for fiscal year 2007? (2) What actions might the Army take to further reduce or otherwise mitigate risks associated with any identified shortfalls in its war-fighting forces?

Results in Brief

Although the Army has made significant progress in developing a more rigorous and comprehensive process for determining force requirements—especially for the war-fighting element of its force structure—the process has not yet matured enough to provide a sound basis for all Army requirements. The Army has created a sounder basis for its war-fighting requirements by incorporating more realistic scenarios and assumptions and integrating its current plans and innovations into the analysis. However, the lack of rigor in establishing requirements for the Army's strategic reserves and institutional forces raises questions about the basis for these requirements. First, the Army did not establish criteria for estimating its requirements for the Strategic Reserve/Domestic Support/Homeland Defense forces and simply sized this force at 88,000 positions to equal six National Guard divisions. Without mission criteria, a sound basis does not exist for these requirements. Second, requirements for the institutional force may be substantially overstated because the Army used unreliable data from major Army commands to establish these requirements. Independent Army assessments indicate that the major commands reviewed to date have overstated their requirements by about

[4]These forces include the Army's authorized endstrength for fiscal year 2000 of 480,000 active duty personnel; 387,000 National Guard; 205,000 Army Reserve; 182,000 civilian employees; and 199,000 contractors. The Army allocated 47,000 Guardsmen to two separate missions and counted 30,000 military technicians as both civilian employees and Guard or Reserve unit members.

[5]The reports that we issued in response to this mandate (Section 552 of Pub. L. 104-106) are listed in "Related GAO Products," which appears after the appendixes in this report.

20 percent (16,000 personnel). While this percentage of overstatement cannot be statistically projected to the remaining commands, we used hypothetical percentages to estimate their effect on the Army's reported 142,000-position shortfall in its institutional forces. We calculated that if further reviews at the remaining commands reveal an overstatement of 17.7 percent the reported shortfall would be completely eliminated. Such overstatements may carry over into future analyses, since the organization tasked with conducting these independent assessments is currently behind schedule. Furthermore, even when the results of the assessments are available, it is unclear how the Army plans to use them to increase the accuracy of institutional requirements. Considering these actual and potential overstatements, there may not be a sound basis for the entire shortfall that the Army identified in its institutional forces. Finally, the Army's methodology for reporting requirements does not accurately reflect the number of personnel actually needed by the Army. In some instances, two requirements are met by one person, but both requirements are included in the total requirements reported by the Army. This methodology was used to report requirements for military technicians (about 30,000) in the institutional force and some National Guard positions (about 47,000) in the Strategic Reserve/Domestic Support/Homeland Defense forces.

The Army could pursue several alternatives to reduce or otherwise mitigate the risks associated with the identified 45,000-position shortfall in its war-fighting forces, but each would pose certain implementation and budgetary challenges. In deciding whether to pursue these options, the Army would need to weigh whether the risk posed by the remaining shortfalls warrants the additional funding that would likely be required, particularly since this is the lowest level of war-fighting shortfall the Army has reported in the last three cycles of Total Army Analysis. If the Army determines that further risk reduction is needed, it could pursue three initiatives to make additional forces available. First, accelerated conversion of the Army's plan to convert National Guard divisions to support forces could bring 28,000 additional support positions to the force sooner than the projected date of 2009. Second, based on the Army's own assessment, about 12,000 military positions in the institutional force might be converted to positions filled by civilian and contractor personnel. These military personnel could then be shifted to meet war-fighting requirements. This action might require the Army to seek funding to hire additional civilians or contractors. However, if institutional force positions are truly overstated and could be further reduced, the resulting savings might be used for this purpose. Lastly, the Army believes that host nations may be able to meet some support needs in the war-fighting force. Better

information on these potential resources from regional commanders would be useful to the Army in assessing risk during Total Army Analysis.

To provide a sounder basis for the Army's requirements, we are recommending that the Secretary of Defense direct the Secretary of the Army to incorporate the following changes in future versions of Total Army Analysis: (1) establish criteria for its Strategic Reserve, Domestic Support, and Homeland Defense requirements; (2) use the results of the latest independent Army assessments of command requirements to adjust institutional force requirements and, related to this action, explore alternative means for expediting the completion of these studies at the remaining commands; and (3) establish a methodology for more accurately portraying the requirements for some National Guard positions and for military technicians, thereby preventing potential misunderstanding of the Army's actual personnel needs. Because some of the options we outline for reducing war-fighting risk may require substantial funding, we are recommending that the Army evaluate these options within the context of cost and risk and decide if such mitigating actions should be taken.

The Department of Defense concurred with our recommendations, stating that the Army will take specific actions to strengthen the manpower requirements determination for the institutional force. Defense stated that it is currently reviewing requirements for the Strategic Reserve/Domestic Support/Homeland Defense missions, and that the Army will incorporate these results into its planning process. Also, the Army will footnote its total requirements to acknowledge the dual-status nature of military technicians. Finally, options available to mitigate risk associated with shortfalls in the war-fighting force will be evaluated within the limits of policy, end strength and budget. (See app. III.)

Background

The Total Army Analysis process has evolved from one that determined the requirements for and allocated authorized personnel to units involved in war-fighting to one that does this for the entire Army. Although Total Army Analysis 2005 included some analysis of requirements for the "institutional Army," the current version is the Army's first attempt to identify requirements for the total Army. This analysis includes units required to fight two major-theater wars, forces needed to meet treaty requirements, and the institutional forces needed to augment and support these operations. The Army's expanded analysis is an acknowledgment that its entire force structure supports its war-fighting element in one way or another. To quantify and communicate these requirements, Total Army

Analysis 2007 determined the forces it needs by summing its requirements in five categories:

War-fighting — This category includes combat and support forces that would deploy to fight two nearly simultaneous major theater wars. The Army starts with the combat forces specified in the Department of Defense (DOD) guidance and then determines the support forces needed to support its combat troops through quantitative analysis using computer modeling. For the first time, the Army also determined the requirements for a post-hostilities phase of the war in addition to the actual conflict stage. Subject matter experts were used to determine these post-hostilities requirements by analyzing the forces needed to perform an agreed-upon list of mission tasks.

Small Scale Contingencies —This category includes those forces needed to meet certain treaty commitments since these missions would need to continue even in wartime.[6] The Army assumes that all other forces engaged in contingencies would be re-deployed to war-fighting if a conflict arose and therefore does not calculate additional requirements for such contingencies as part of its Total Army Analysis.[7]

Strategic Reserve, Domestic Support, and Homeland Defense Operations —These are the forces needed to augment the major theater war requirements, conduct post-hostility operations, perform jobs left vacant by deploying forces, provide national missile defense, respond to incidents involving weapons of mass destruction, protect critical infrastructure, and provide military assistance to civilian authorities.

Base Generating Force —This category includes those U.S.-based institutional force positions whose personnel provide for, access, organize, train, equip, maintain, project, redeploy, and restore Army forces. Military, civilian, and contractor personnel fill these positions.

[6]The 1979 Middle East Peace Treaty and Article 5 of the North Atlantic Treaty Organization Treaty, April 4, 1949. These forces are currently committed to carry out missions in the Sinai Peninsula and Europe.

[7]We conducted a separate analysis to determine the size of these requirements through a different methodology and is the subject of another report *Force Structure: Army Lacks Units Needed for Extended Contingency Operations* (GAO-01-198, Feb. 15, 2001). It deals specifically with the issue of whether the Army has adequate forces to conduct multiple contingency operations.

Base Engagement Force —This category includes those positions needed to meet the continuous/long-term forward presence that shapes[8] the theater in support of U.S. interests. It includes all overseas institutional force positions currently filled by military, civilian, and contractor personnel.

Once the Army sums up its force structure requirements from these five categories, it then compares its currently authorized force with these requirements to identify shortfalls. The Army then prepares a plan for reallocating forces to fill some unmet requirements in a manner that is expected to reduce war-fighting risk. This plan may include converting some types of forces into other types where critical shortfalls are projected. These reallocations and conversions will be made from fiscal year 2002 through fiscal 2007. Table 1 shows the results of Total Army Analysis 2007, including the distribution of the Army's requirements among the five categories, the Army's allocation of forces to meet these requirements, and the specific shortfalls that were identified.

Table 1: Results of Total Army Analysis 2007 by Requirement Category

Requirement category	Number of personnel required	Number of personnel authorized	Shortfall in required personnel
War-Fighting	725,000	680,000	45,000
Small-Scale Contingencies (treaty requirements only)	17,000	17,000	0
Strategic Reserve/Domestic Support/Homeland Defense	88,000	88,000	0
Base Generating Force (U.S.-based)	789,000	647,000	142,000
Base Engagement Force (overseas)	98,000	98,000	0
Total	**1,717,000**	**1,530,000**	**187,000**

Source: Army data.

[8]DOD's 1997 Quadrennial Defense Review emphasized the continuing need to maintain overseas presence in order to shape the international environment. This includes strengthening and adapting alliances and coalitions that serve to protect shared interests and values.

Current Process Is More Comprehensive but Does Not Provide a Sound Basis for Some Requirements

The Army has made significant progress toward making the Total Army Analysis a more credible and comprehensive process for determining requirements and identifying shortfalls in planned force structure. In the most recent analysis, the Army made the scenarios in its models for war-fighting forces more realistic, revised some assumptions to reflect more current data, and integrated the latest Army plans and innovations for reorganizing forces and modernizing logistics. To make the analysis more comprehensive, the Army calculated requirements for the entire Army to include civilian personnel and contractors—not just the military personnel associated with war-fighting. However, the Army is still refining the process and will need to address certain shortcomings before it has a sound process in place for determining all requirements.

Army Has Made Its War-Fighting Analysis More Rigorous

Over time, the Army has enhanced its analysis to provide a sounder basis for its war-fighting requirements. It has done this by incrementally incorporating more realistic and stringent assumptions and planning factors. During the most recent analysis, the Army included several changes that made Total Army Analysis 2007 more realistic and complete, some of which are related to our past recommendations.[9] The major changes are as follows:

- In our review of Total Army Analysis 2005, we recommended that the Army develop more realistic scenarios to use in assessing its ability to win the two major-theater wars and in calculating the required force structure. Total Army Analysis 2007 uses more realistic scenarios, taking into account, for example, the effects of the enemy's use of chemical and biological weapons, including those delivered by theater ballistic missiles. As a result, the Army identified the need for about 5,000 more medical personnel to treat casualties caused by chemical and biological weapons. In addition, the analysis allowed the Army to gauge the impact of these weapons on the ability of the United States to move personnel and cargo through seaports and airfields.
- In our reviews of the Army's 2003 and 2005 analyses, we noted that the Army had not assessed how war-fighting might be affected by DOD guidance to redeploy forces from contingency operations to the war-fight. Thus, it did not know if disengaging units from ongoing contingency

[9] We have examined the last two iterations of this analysis and has recommended a number of improvements to the process. A list of the more significant changes is at appendix II of this report.

operations would present an obstacle to carrying out the National Military Strategy or if its force structure contained the numbers and types of units needed for the contingency operations. We found that the Army addressed both questions in Total Army Analysis 2007.

- We also recommended in our review of Total Army Analysis 2005 that the Army include in its analysis all phases of the wars. In Total Army Analysis 2007, the Army added a requirement for the post-hostilities phase of the wars. This phase was needed to recognize that, once the war was over, there would be a continuing need for forces to provide security, handle prisoners of war, and exercise control over the local population. In its 2007 analysis, the Army assessed the requirements for this phase and added about 12,000 personnel to its war-fighting requirements.

The analysis has also been modified to integrate more current Army plans and initiatives. For example, advances in digital technology under the Army's Force XXI[10] initiative improved the lethality of Army tank units and allowed the Army to reduce the number of tanks per unit. Fewer crews, along with fewer vehicles to maintain, reduced the number of personnel required for an armored division. Also, the Army is currently pursuing a major initiative to transform the Army into a force that is more strategically responsive to the complete spectrum of operations. Although this transformation is still in its early stages and operational and logistical plans have not been fully developed, the analysis did include the known characteristics of the transformed force.

The Army has also incorporated a number of logistics planning factors and improvement initiatives that together have reduced requirements for military support personnel by about 7 percent, or 17,000 personnel. These factors and improvements include the following:

- Revised medical planning factors specify that 80 percent of patients will be evacuated directly to the United States or other out-of-theater medical facilities, thereby reducing the number of medical personnel required in the theater.
- The logistics community is fielding digitized control systems, satellite-based movement tracking systems, and improved cargo-handling equipment that Army officials estimate will allow a 15 percent reduction in theater stockage levels and the personnel required to manage them.

[10]Force XXI is the Army's reorganization of its divisions to incorporate new operational and organizational concepts.

- Improved vehicle engines are expected to reduce fuel consumption in theater by about 25 percent, thus requiring fewer people to transport, dispense, and guard fuel stocks.

Total Army Analysis 2007 determined that 725,000 personnel were required to fight the two major theater wars, down from the 747,000 total reported in Total Army Analysis 2005. The 45,000-position shortfall in the war-fighting element of its force structure is also less than the 72,000-position shortfall identified in Total Army Analysis 2005. Army officials believe that this represents a reduction in war-fighting risk.

Army Incorporated Requirements for Certain Small-Scale Contingency Operations

Previous Army planning analyses did not include a requirement specifically to meet the needs of contingency operations because Army officials believed that DOD guidance did not allow the Army to create new units for such purposes.[11] This is because it was presumed that these forces would disengage and redeploy to conflicts if they arose and therefore did not represent additive requirements. During Total Army Analysis 2007, however, the Army determined that two contingency operations would need to continue even if conflicts arose, since they represented U.S. treaty commitments. These commitments are for operations in the Sinai to satisfy agreements under the 1979 Middle East Peace Treaty and for a rapid reaction force in Europe to satisfy Article 5 of the North Atlantic Treaty Organization Treaty. Accordingly, 17,000 personnel needed to satisfy these two treaty obligations were included in the Army's total requirements.

Army Lacked Criteria for Strategic Reserve/Domestic Support/Homeland Defense Requirements

Also included in the Army's determination of total requirements was a requirement for Strategic Reserve/Domestic Support/Homeland Defense forces, but the Army had not yet developed criteria for determining these requirements. DOD guidance allows force structure for these purposes but does not specify how the size of the force should be determined. Lacking criteria, the Army made the requirements for these missions equal to six National Guard divisions (about 88,000 personnel), which had not been given a specific mission in the war-fighting element.

[11]Contingency operations encompass such operations as shows of force, interventions, limited strikes, noncombatant evacuation operations, peacekeeping, humanitarian assistance, and disaster relief.

These National Guard forces have historically been treated as a hedge against larger-than-expected major conflicts. However, the appropriate size of the Strategic Reserve, and the National Guard divisions themselves, have been debated by DOD and others. DOD's 1997 Quadrennial Defense Review and a subsequent congressionally mandated review panel found that the need for a large strategic reserve had declined.[12] The Quadrennial Defense Review identified other missions for the National Guard divisions, such as supporting the mobilization of early deploying units and performing crisis response for floods, hurricanes, or civil disturbances. Later, DOD assigned the Army National Guard a role in responding to attacks using weapons of mass destruction. However, without appropriate criteria for determining the size of the forces needed to carry out these additional missions, the Army has no assurance that its requirement for these missions is valid or that the forces assigned could not be better used elsewhere.

Base Generating and Engagement Force Requirements Are Overstated

In Total Army Analysis 2007, the Army made its first attempt to include its institutional force requirement as part of the Army's overall requirement. However, the Army's process for determining these requirements is still evolving and, as a result, does not yet provide a sound basis for these requirements. Because the Army used questionable data to develop some requirements, we believe that the overall requirement for the institutional force is, at a minimum, substantially overstated.

In general, the institutional force performs a broad range of functions for the Army, enabling combat and support units to deploy to and fight the theater wars. These forces support Army activities such as training, doctrine development, base operations, supply, and maintenance. In Total Army Analysis 2007, the institutional force requirements are in two separate categories: (1) the Base Engagement Force for overseas requirements and (2) the Base Generating Force for U.S.-based requirements. Both of these forces include military, civilian, and contractor personnel.

Base Generating Force requirements were overstated because of questionable data provided by the major commands, which are responsible for determining their own requirements. To aggregate these requirements, the Army convened a series of panels composed of

[12]See the National Defense Panel Assessment of the May 1997 Quadrennial Defense Review.

representatives of each command to provide their respective requirements. This process yielded a total requirement of about 800,000 institutional positions, which was entered into the Total Army Analysis 2007 process. Army officials told us that the panels reviewed the requirements and brought about some limited changes to the requirements. However, the panels generally accepted the requirements as submitted by the major commands, relying on the methodologies and processes used by each of the major commands to ensure their validity.

Historically, the Army has had difficulty arriving at valid institutional requirements. In DOD's fiscal year 1997 Annual Statement of Assurance to the Congress, provided pursuant to the Federal Managers' Financial Integrity Act of 1982 (Pub. L. 97-255, Sept. 8, 1982),[13] the Army reported a material weakness in its ability to properly identify institutional force requirements. The report said that the current system lacks the ability to link workload to manpower requirements and is not capable of determining institutional requirements based on workload. To address the material weakness, the Army's Manpower Analysis Agency in April 1998 initiated a program to certify the methodologies that major Army commands use to determine their manpower requirements. To date, the agency has endorsed the manpower assessment methodologies used by each command, and it is currently assessing the accuracy of the commands' institutional manpower requirements by conducting on-site reviews. It does this by applying an Army-approved requirement determination process to activities within the commands. The agency is reviewing 100 percent of the institutional requirements at each major command headquarters and a random sample of the commands' subordinate field activities. Where problems are found at major command headquarters, the agency's findings are binding and requirements must be adjusted. Recommended changes to the requirements of each command's field activities are advisory.

We used the results of the Manpower Analysis Agency's reviews to obtain an indication of the accuracy of major commands' requirements. These results indicate that some of the institutional requirements used in Total Army Analysis 2007 were overstated. As of January 2001, the agency had assessed three major command headquarters and two of the commands'

[13]This act requires that the head of each executive agency provide an annual statement of assurance to the President and the Congress stating whether the goals of the act are being achieved. The Army reported its material weakness in manpower requirements determination in the fiscal year 1997 report.

field activities.[14] These results show that one activity understated its requirements by about 9.5 percent, while the other activities overstated their requirements by percentages ranging from about 5 to 22 percent. Table 2 shows the activities reviewed and the results of the Manpower Analysis Agency's assessments.

Table 2: Manpower Analysis Agency's Assessments of Command Requirements

Activity reviewed	Commands' estimate of requirement	Manpower Analysis Agency's estimate of requirement	Commands' overstatement (understatement)	Percentage of overstatement (understatement)
Forces Command				
Headquarters	1,574	1,499	75	4.8
Field Activities[a]	806	647	159	19.7
Training and Doctrine Command				
Headquarters	1,460	1598	(138)	(9.5)
Field Activities[a]	1,551	1,207	344	22.2
National Guard				
Headquarters	1,340	1,049	291	21.7

[a]The findings are from a random sample of work centers in the command's field activities.

Source: Data provided by the Army Manpower Analysis Agency.

We projected the results from the sample of field activities in table 2 to the modified population of field activities in the two commands reviewed by the Manpower Analysis Agency.[15] We then combined these projections with the agency's findings related to its 100-percent review of headquarters requirements. In this way, we determined that the three commands reviewed had overstated their overall institutional force requirements by about 16,000 personnel positions, or about 20 percent.

The Manpower Analysis Agency's on-site analyses varied from the commands' own requirements determination for various reasons. For one activity, the agency reported that manpower standards had not been updated in a timely manner, the activity had not applied the standards in several years, workloads had increased/decreased since the last standards

[14]The Manpower Analysis Agency has yet to complete on-site reviews of overseas institutional forces (Base Engagement Force) but plans to do so in the future.

[15]The findings can be projected to only a portion of each command's field activities because many work centers were excluded from the studies. The excluded work centers are likely to be considered for A-76 contracting. Appendix I provides details on the projections and precision levels.

application, and work center missions had changed since the standards had been developed. In another instance, the agency noted that manpower standards had not been updated in 10 years. Another reason why the Manpower Analysis Agency's results varied from the Commands' results is that the agency assessed whether realignments or more efficient work procedures would save positions. For example, in one study report, the agency recommended a realignment of two activities on the grounds that like-type functions should not be separated if the result is additional overhead positions.

Given these known overstated requirements and the Army's acknowledged weakness in determining these requirements, we assessed the potential effect of such inaccuracies on the reported 142,000-position shortfall in institutional forces. Recognizing that the results of the Manpower Analysis Agency's reviews could not be statistically projected to the remaining commands not yet reviewed, we used three hypothetical levels of overstated requirements to estimate the effect. As shown by the first column of table 3, if the 20 percent overstatement that the Manpower Analysis Agency found in five activities were applied to the remaining Base Generating Force, the remaining commands may have overstated their requirements by about 143,000 personnel. Together with the 16,000-positions already found to be in error, these latter adjustments would be more than enough to totally eliminate the shortfall and actually result in a 16,000-position excess. The second column shows this same comparison if one assumes that the institutional force requirements were overstated by only 10 percent (one-half the percentage of overstatement found to date). It results in a shortfall of only 55,000. Finally, the third column shows a breakeven point. That is, we calculated that if the remaining commands' estimates turned out to be overstated by 17.7 percent, the shortfall would be completely eliminated.

Table 3: Comparison Showing the Effect of Three Scenarios on the Size of the Base Generating Force Shortfall Identified in Total Army Analysis 2007

	Scenario 1: Assumes hypothetical 20-percent overstatement (same as found by Manpower Analysis Agency) applies equally to remaining commands	Scenario 2: Assumes hypothetical 10-percent overstatement is found by Manpower Analysis Agency in remaining commands[a]	Scenario 3: Assumes overstatement of 17.7 percent (GAO-computed breakeven point)
Shortfall in Base Generating forces identified in Total Army Analysis 2007	142,000	142,000	142,000
Less: • Adjustment for overstated requirements in commands reviewed by Manpower Analysis Agency	-16,000	-16,000	-16,000
Adjusted shortfall	**126,000**	**126,000**	**126,000**
Less: • Adjustment to total requirements in commands not yet reviewed	-143,000	-71,000	-126,000
Shortfall or excess after adjustment	-16,000[b] (excess forces)	55,000 (shortfall)	0

[a]One-half the percentage of overstatement found to date.

[b]Does not add because of rounding.

Source: Our analysis of Army data.

In general, the requirements data resulting from the Manpower Analysis Agency's assessments were not available in time to be included in Total Army Analysis 2007. Army force planners agreed that there were inaccuracies in the institutional requirements used in Total Army Analysis 2007, but the data were used because they were the best available. Army planners told us that the requirements may be reduced in future analyses as the Manpower Analysis Agency completes additional reviews of the major commands' requirements determination processes. Although these officials expected these reviews to result in better data from the major commands in time for use in Total Army Analysis 2009, the Army has no firm plans for adjusting requirements on the basis of these results.

Furthermore, the Manpower Analysis Agency has made limited progress in reviewing the major commands. The Army's original plan said it would complete all actions necessary to ensure valid institutional requirements by March 2000. Army officials determined that this goal was ambitious, and in the 1999 Annual Assurance Statement the Army revised the completion date for all manpower studies to March of 2002. However, as of January 2001, the Manpower Analysis Agency had completed reviews of

only two major commands, and Army officials told us that because of staffing limitations and the volume of workload, they do not expect to complete their work by the scheduled date. In our 1998 report on the Army's institutional forces, we noted that a lack of staff could delay the completion of the Manpower Analysis Agency's quality assurance reviews.

Army Reporting Methodology for Some Requirements Lacks Clarity

The total requirements (1.717 million positions) and total resources (1.530 million) reported in Total Army Analysis 2007 do not accurately reflect the actual number of personnel needed by the Army. For example, a military technician employed by a National Guard unit fills a requirement for a civilian employee in that unit. However, the technician is also required to be a member of the Guard unit, and thus also fills a military requirement in that unit.[16] Thus, when requirements are totaled, they include both requirements, even though only one person fills both positions. As a result of this methodology, Total Army Analysis 2007 showed that the Army needed about 30,000 more personnel (the approximate number of military technicians employed by the reserve components) than the actual number of people required for the Base Generating Force. A similar situation exists in the Strategic Reserve/Domestic Support/Homeland Defense category, where about 47,000 National Guard personnel are "dual tasked" to meet requirements in that category as well as in one of the other categories. These special situations were not fully discussed in the Army's presentation of requirements and resources, potentially leading to misunderstandings as to the number of personnel the Army needs to fully meet its requirements. However, this methodology does not affect the reported 142,000-position shortfall, because the Army also allocated these resources twice when matching available forces against requirements.

Various Actions Might Be Taken to Mitigate Risk in the Army's War-Fighting Force

In reviewing the Army's analysis, we identified several actions that the Army could take to lessen the risk that is seemingly posed by the 45,000 gap between requirements and resources in the war-fighting category. While this is the lowest shortfall the Army has identified in the last three cycles of Total Army Analysis, we believe there is even greater potential for reducing this gap or mitigating the risks it entails. These actions include (1) accelerating the Army's plan to convert some Army National

[16]Military technicians are dual-status employees of the reserve component. The technician is a full-time civilian employee of a unit, and is required to also be a military member of the unit. See 10 U.S.C. 10216 (d).

Guard combat forces to support forces; (2) converting about 12,000 military positions to civilian positions, as the Army has already identified; and (3) examining more fully how host nations could meet some of the unmet support requirements. Each of these actions would pose certain implementation and budgetary challenges, and the Army's leadership would need to carefully weigh whether the risk reduction it achieves by reducing these shortfalls further is worth the extra resources required. Since the Army takes war-fighting risk into account when deciding what requirements should be filled, the Army may determine that it has already met its most critical needs and that driving down the remaining 45,000-shortfall to even lower levels, via these options, is not the best investment the Army can make with its available resources.

Explore Feasibility of Accelerating Conversion of National Guard Forces

One action that the Army could take to fill some of the requirements represented by the war-fighting shortfall would be to accelerate its plan to convert some National Guard combat forces to support forces. The Army is in the process of implementing Phases I and II of the plan, which, together, will convert six National Guard combat brigades to support forces to help meet a chronic shortfall in certain types of forces.[17] These conversions are expected to be completed by fiscal 2007 and were included in Total Army Analysis 2007. As a result, the war-fighting shortfall was reduced by about 20,000 positions. Under current plans, the Army would not complete Phases III and IV of this program—representing a conversion of about 28,000 additional combat positions—until 2009.

In order to accelerate its conversion schedule, the Army would need to budget additional funds as well as overcome some implementation challenges. Currently, the Army has not identified the units it intends to convert under Phases III and IV. Army officials said that three points must be addressed before additional units can be converted. First, the Army's initiative to transform itself into a lighter, more mobile force makes it likely that the specific types of support units needed will change significantly in the near future, making it difficult to identify the types of conversions needed. Second, the National Guard is concerned that converting combat units to support units may decrease the rank structure (the number of senior vs. junior positions available in the units) and limit

[17]These conversions stemmed from the National Guard Division Redesign Study, which the Secretary of the Army approved in May 1996. The plan contains four phases and converts up to 12 combat brigades and elements of 2 divisions to the types of support units required for war-fighting.

the potential for progression of its officers and enlisted personnel. The concern is that this might make it harder for the National Guard to attract and retain personnel. Third, the Army's ability to convert combat units to support units hinges, to a large extent, on the willingness of state National Guard officials to accept conversion to the specific types of units the Army needs. With respect to funding, the Army would need to budget additional funds to carry out the variety of tasks related to these conversions, such as procurement of equipment and construction of facilities. While the Army has not estimated the total costs of all conversions, it budgeted about $2.4 billion to pay for conversions under Phases I and II. The costs for Phases III and IV would likely be of a similar magnitude.

Converting Military Positions to Civilian Positions Could Free End-Strength to Meet War-Fighting Requirements

The Army may be able to reallocate some military end-strength to fill positions in the war-fighting element if it follows through in converting identified military positions in commercial-type activities to civilian or contractor positions. Defense guidance states that the services should reduce forces not required to support missions envisioned by the National Military Strategy and minimize the number of military personnel assigned to support organizations. The guidance further states that positions that do not meet military essential requirements will be eliminated or converted to civilian positions. In fiscal year 1998, the Deputy Secretary of Defense issued Department of Defense Reform Initiative Directive No. 20, which, among other things, directs the services to identify military positions that are candidates for conversion to civilian/contract employee jobs.

During the Total Army Analysis 2007 process, the Army identified 11,757 active duty military positions at 15 major Army commands that were conversion candidates. Army officials told us that they had already converted about 582 of these positions, freeing this military end-strength to meet other Army needs. Officials said that more analysis might be needed before proceeding with more conversions, since varying degrees of risk are associated with the conversion candidates. Moreover, officials estimated that about $1.04 billion in additional funding would be necessary to hire the civilians and contractors needed to replace the military positions. Assessing the risks associated with the conversions is important, however, this much additional funding may not be required if further Manpower Analysis Agency reviews yield more overstated requirements in the Army's institutional force, thereby allowing personnel to be reallocated.

Fuller Analysis of Host Nation Support Is Needed

A final factor that could mitigate the Army's reported shortfall is the potential for host nations to provide some unmet support requirements. While some positions could be filled only by U.S. personnel, Army and theater command officials agree that, in the event of war, host nations can provide some types of war-fighting support. Also, DOD guidance and Army regulations[18] state that the Army should consider the availability of this support to reduce unmet requirements. However, only a small portion of the host nation support estimated to be available was included in Total Army Analysis 2007. Specifically, the Army concluded that anticipated host nation support would offset the need for about 1,300 positions in its war-fighting requirement and factored this into its analysis. This is a small proportion of the 30,000 positions that Army officials have estimated that host nations might be able to provide in the two most likely areas for war.

The issue of how host nation support should be treated with respect to requirements is one of continuing debate within DOD. Regional commanders generally consider such support as potentially available to augment U.S. forces but do not believe it prudent to rely on host nation support as a substitute for Army units in case the support does not materialize. Army officials said that they would not consider host nation support as filling requirements without the concurrence of the regional commanders. Currently, at least one regional commander is attempting to produce validated lists of host nation support commodities and services available from host nations.[19] The Army would need to fully weigh the risk that anticipated host nation support may not materialize in deciding whether to offset more positions. However, better information on these potential resources from all regional commanders would be useful in assessing risk during Total Army Analysis.

Conclusion

The Army has made progress in developing a sound basis for its force structure requirements. It has improved the rigor of its analysis through more realistic scenarios and the integration of Army plans and initiatives, and made the analysis more comprehensive by expanding it to include requirements for the entire Army. However, the weaknesses we identified suggest that the Army still does not have a sound basis for its institutional force requirements or the forces needed for the Strategic Reserve,

[18]Total Army Analysis (Army Regulation 71-11, Dec. 29, 1995), para.2-2.

[19]For example, U.S. Central Command has an ongoing effort to produce a validated list of host nation support commodities and services required from host nations, organized by location and operations plan.

Domestic Support, and Homeland Defense. Our analysis of the institutional force requirements casts doubt on their accuracy, and, by extension, the accuracy of the shortfall that the Army identified in this element of the force. By developing more accurate estimates of institutional forces, this shortfall might be entirely eliminated. The fact that the Manpower Analysis Agency has already identified an average overstatement of 20 percent in three commands is significant, as it suggests that inaccuracies remain in the institutional force requirements, which comprise over half of the Army's total requirements. It is, therefore, important that the agency expeditiously complete its review of major commands and that the Army resolve its material weakness in requirements determination. Because the program to accomplish this lags well behind schedule, additional staff or contractors might be needed to complete these reviews by 2002 as planned. The sooner these reviews are completed, the sooner the Army will know whether it can reduce positions in the institutional forces and apply any savings to cover some of the shortfall in its war-fighting forces. Furthermore, this significant potential to improve the accuracy of requirements data can be realized only if the results of the Manpower Analysis Agency's reviews are actually used in the Total Army Analysis process to adjust requirements. A stronger Army commitment to use these results in this way is needed if the Army is to overcome the material weakness it has identified in establishing institutional force requirements.

A sound basis for requirements is also hampered by the lack of criteria for the Strategic Reserve, Domestic Support, and Homeland Defense element of the Army's force structure. A clearer definition of the missions involved is needed to accurately estimate the forces needed for these missions. The risk of not setting criteria for this force is that the Army may not have enough of these forces or the right types. Conversely, if too many forces have been committed for this purpose, the Army may be unnecessarily diverting forces to this mission that could be better used elsewhere.

The Army's method of portraying the requirements for military technicians and some National Guard positions needs to more accurately reflect the actual number of personnel needed. Because one person fills more than one requirement, the actual number of personnel needed is misstated by about 77,000.

The actions suggested in this report to mitigate the risks of the identified 45,000-position shortfall in war-fighting forces must be considered within the context of both cost and risk. A clear understanding of the risks that this shortfall represents is necessary to decide what actions should be

taken or whether actions should be taken at all. Accelerating the conversion of National Guard combat forces to support forces may pose challenges for the Army and would require added funding. Similarly, converting additional military positions to civilian positions should be done only after a careful consideration of the risks. This action may or may not require added funding, depending on the Army's success in achieving more accurate estimates for its institutional force requirements. Fully identifying and acknowledging all available resources, including potential support from host nations, would provide a more accurate portrayal of the risks associated with the shortfall and allow Army planners to be better equipped to decide the types of units to build or maintain.

Recommendations for Executive Action

To improve the accuracy of the Army's force structure requirements, we recommend that the Secretary of Defense direct the Secretary of the Army to incorporate the following changes into future versions of the Total Army Analysis process:

- Use the results of completed Manpower Analysis Agency reviews to adjust requirements for the Base Generating Force and Base Engagement Force. Furthermore, explore alternative means of expediting the completion of these studies at the remaining Army commands, whether by expanding the existing Manpower Analysis Agency team or through the use of contractor personnel.
- Establish mission criteria to provide a firmer basis for Strategic Reserve, Domestic Support, and Homeland Defense requirements.
- Establish a methodology for more accurately portraying requirements for military technicians and other National Guard positions where one person is filling more than one requirement, thereby precluding a potential misunderstanding of the personnel needed.

We also recommend that the Secretary of Defense direct the Secretary of the Army to examine the options we outlined to address the 45,000-position shortfall in the Army's war-fighting force within the context of costs and risks, and decide if mitigating actions should be taken. These actions include the accelerated conversion of National Guard forces to support forces, the conversion of military positions to civilian or contractor positions, and the consideration of how host nations could meet some unmet support needs.

Agency Comments and Our Evaluation

In written comments on a draft of this report, the Department of Defense concurred with our recommendations. Recognizing a need for improvement, the Department said it would advise the Army to strengthen the manpower determination process, regularly update manpower standards, review institutional requirements more frequently, and incorporate the re-sized requirements into Total Army Analysis. The Department commented, however, that we used the Army's limited review findings to estimate the total number of requirements overstated, and that extending the results of the Army's sample across the institutional force might be misleading. To clarify, we did not project the results of the Army's two samples to the entire institutional force. Rather, we projected these results only to selected work centers within the two commands from which the sample was drawn. Concerning the lack of criteria for estimating its requirements for the Strategic Reserve, Homeland Defense, and Domestic Support missions, the Department of Defense said that it has an ongoing strategic review to establish such requirements and that the results will be incorporated into the Army's planning process. In order to be of value to Total Army Analysis, we believe Defense's study will need to provide enough specificity that the Army can project the number and types of units that will be needed to carry out these missions. To improve reporting of requirements, the Department will advise the Army to footnote the results of its planning process to acknowledge the dual-status nature of the manpower requirements associated with military technicians. We believe this footnote should clearly identify those instances where two requirements may be filled by one person. The Department also agreed to assess the options for mitigating the risk of shortfalls in war-fighting forces that were outlined in the report, stating that it will continue to optimize war-fighting capabilities within the limits of policy, end strength and budget. We believe these actions by Defense and the Army, once implemented, will improve the Army's process for determining and reporting its force structure requirements and the allocation of resources against those requirements. Defense's comments are reprinted in appendix III.

Scope and Methodology

To assess the basis for the Army's projected force requirements and the validity of reported shortfalls, we reviewed pertinent documents related to the Total Army Analysis 2007 process, including the total requirements it identified, the forces available to meet those requirements, and the shortfall in forces reported by the Army. We also obtained data on the key assumptions and factors used in the analysis, and identified improvements in the process. We visited the Center for Army Analysis at Fort Belvoir, Virginia, to document the incorporation of these factors into the analysis.

We also visited the Combined Arms Support Command at Fort Lee, Virginia, to discuss its input to the Army's analysis.

To assess the validity of the shortfall in institutional forces and explore alternatives for reducing it, we visited the Office of the Assistant Secretary of the Army, Manpower and Reserve Affairs to discuss efforts to resolve the material weakness previously reported in this area. We also visited the Army's Manpower Analysis Agency at Fort Belvoir, Virginia, and obtained the results of manpower assessments they had completed. We analyzed the agency's data and used it to assess the validity of the Army's institutional force requirements.

To identify factors that could mitigate the risk posed by shortfalls in war-fighting forces, we met with Army National Guard officials responsible for implementing the Army National Guard Division Redesign Study recommendations, and with the Army force planning officials who tracked decisions reached during the Total Army Analysis process.

We conducted our review from March 2000 through February 2001 in accordance with generally accepted government auditing standards. For further information on our scope and methodology, see appendix I.

We are sending copies of this report to the Honorable Donald H. Rumsfeld, Secretary of Defense; the Honorable Joseph W. Westphal, Acting Secretary of the Army; and the Honorable Mitchell E Daniels, Jr., Director, Office of Management and Budget. We will also make copies available to others upon request.

Please contact me at (202) 512-5140 if you or your staff have any questions concerning this report. GAO contact and staff acknowledgements are listed in appendix IV.

Carol R Schuster

Carol R. Schuster
Director, Defense Capabilities
and Management

List of Congressional Committees

The Honorable John W. Warner
Chairman
The Honorable Carl Levin
Ranking Member
Committee on Armed Services
United States Senate

The Honorable Tim Hutchinson
Chairman
The Honorable Max Cleland
Ranking Member
Subcommittee on Personnel
Committee on Armed Services
United States Senate

The Honorable Bob Stump
Chairman
The Honorable Ike Skelton
Ranking Democratic Member
Committee on Armed Services
House of Representatives

The Honorable John M. McHugh
Chairman
The Honorable Martin T. Meehan
Ranking Minority Member
Subcommittee on Military Personnel
Committee on Armed Services
House of Representatives

Appendix I: Methodology for Estimating the Accuracy of Army Requirements

In fiscal year 1997, the Secretary of the Army declared that the Army's manpower requirements determination for its institutional force was a material weakness under the Federal Manager's Financial Integrity Act. As a result of the declared weakness, the Army is using its Manpower Analysis Agency to certify the requirements-determination process in all Army major commands. As part of the certification, the Manpower Analysis Agency is (1) examining all requirements at the headquarters and (2) examining all requirements in a randomly sampled 2 percent of the work centers in most major functional areas below the headquarters level. For each command the agency has reviewed, the Army provided the requirements originally stated by the major command and the subsequent requirements that the Manpower Analysis Agency recommended while certifying the major commands' requirements-determination process. Such information is available for only the headquarters-and-below level of the Training and Doctrine Command and Forces Command, and the headquarters for the National Guard Bureau.

Training and Doctrine Command

The agency sampled all 1,460 requirements for the Training and Doctrine Command headquarters. Data gathered as part of the certification process showed that the agency recommended 1,598 requirements. That is, the agency recommended increasing the command's requirements by 138, or 9.5 percent, from the level originally reported by that major command. Because all headquarters requirements were sampled, no sampling error is associated with the agency's recommended 1,598 requirements.

Table 4 shows the population and sample for the work centers below the Training and Doctrine Command headquarters level. Although the command reported 19 major areas with 6,474 work centers and 80,162 requirements, 7 major areas were not included in the certification process (indicated by the shaded areas in table 4). The largest number of work centers and requirements eliminated from the certification process were in base operations, an area that will be reviewed later because of concerns about some of the jobs possibly being privatized. After the 7 major areas were eliminated, there were 3,337 work centers and 49,123 requirements in the modified population.

Table 4: Training and Doctrine Command Work Centers and Requirements Below the Headquarters Level

	Work centers		Requirements		
Major area	**Population**	**Sampled**	**Population**	**Sample: original**	**Sample: recommended**
Base Operations	2,535		27,185		
Battle Labs	27		281		
Combat Development	317	7	3,693	163	68
Confinement Facility	82	4	998	57	48
Foreign Military Sales/Security Assistance	90	3	853	26	17
HQ-AMHA	135		1,056		
Intelligence	6		28		
Military Entrance Processing	395		2,053		
Modernization	7	1	178	5	0
Provost Marshal	37		434		
Reception Station	44	5	468	55	58
Reserve Officers Training Corps	353	5	3,953	68	67
Training Development	248	7	3,970	91	61
Training Event Support	4	1	26	9	7
Training Support-Units	158	6	3,805	54	49
Training Support	2		2		
Training-Reserve Unit/Personnel	83	4	526	42	40
Training	1,592	34	25,782	745	602
Training Support	359	13	4,871	236	190
Total Command	**6,474**	**90**	**80,162**		
Excluded major areas	-3,137	0	-31,039		
Total Manpower Analysis Agency Study	**3,337**	**90**	**49,123**	**1,551**	**1,207**

Training and Doctrine Command records show there were 1,551 requirements in the 90 sampled work centers. After completing its certification process, the Manpower Analysis Agency recommended staffing the 90 work centers with 1,207 requirements—a decrease of 22.2 percent. When the sample-based recommendations were weighted and projected to the modified population, we found that the Training and Doctrine Command needs 37,923 requirements (with a precision of ±3,562 requirements) for the subgroup of work centers in the modified population. No projection can be made to the 3,137 work centers and 31,039 requirements that were excluded from the Manpower Analysis Agency's certification study.

Forces Command

The agency sampled all 1,574 requirements for the Forces Command headquarters. The data gathered as part of the certification process showed that the agency recommended 1,499 requirements—a reduction of 75, or 4.8 percent, from the requirements originally reported by that major command. Because all headquarters requirements were sampled, no sampling error is associated with the agency's recommended 1,499 requirements.

Table 5 shows the population and sample for the work centers below the Forces Command headquarters level. The 2-percent sampling was performed somewhat differently for Forces Command than for the Training and Doctrine Command. All major functional areas except Training Support Brigade were included in the sample, but work centers subject to possible privatization were excluded from almost every functional area. As shown in the table 5 (next to the last line), 2,107 of the 4,711 Forces Command work centers and 19,026 of its 42,222 requirements were excluded from the Manpower Analysis certification study.

Table 5: Forces Command Work Centers and Requirements Below the Headquarters Level

	Work centers		Requirements		
Major area	**Population**	**Sampled**	**Population**	**Sample: original**	**Sample: recommended**
Army Signal Command Brigade	96	4	515	15	12
Army Signal Command Battalion	256	11	2,539	88	75
Army Signal Command Company	162	3	803	16	16
Augmentation	114	3	801	22	16
Command Group/Support Staff	238	10	2,043	60	36
Civilian Personnel Advisory Center	22	1	295	9	10
Combat Training Center	16	1	262	44	48
Directorate for Community Activities	163	2	1,766	46	40
Directorate for Contracting	40	2	547	21	20
Directorate for Information Management	125	2	1,235	26	21
Directorate of Logistics	110	3	1,358	35	20
Directorate of Plans, Training, Mobilization, and Security	223	7	2,353	66	50
Directorate of Public Works	85	1	1,205	36	36
Directorate for Resource Management	84	3	673	30	24
Adjutant General Staff	133	3	1,276	46	39
Mission Unit	141	4	1,051	33	10
Non-Commissioned Officer Academy	66	1	486	17	20
Other	115	2	862	18	18
Provost Marshall	126	5	1,902	42	22
Subordinate Headquarters	289	4	1,944	136	114
Total Manpower Analysis Agency	**2,604**	**72**	**23,916**	**806**	**647**
Excluded work centers in major areas	2,107		19,026		
Total Command	**4,711**		**42,222**		

Forces Command records show there were 806 requirements in the 72 sampled work centers. After completing its certification process, the Manpower Analysis Agency recommended staffing the 72 work centers with 647 requirements—a decrease of 19.7 percent. When the sample-based recommendations were weighted and projected to the modified population, we found that the Forces Command needs 19,801 requirements (with a precision of ±1,538 requirements) for the subgroup of work centers in the modified population. No projection can be made to the 2,107 work centers and 19,026 requirements that were excluded from the Manpower Analysis Agency certification study.

National Guard Bureau

The agency sampled all 1,340 requirements for the National Guard Bureau headquarters. The data gathered as part of the certification process showed that the agency recommended 1,049 requirements—a reduction of 291, or 21.7 percent, from the requirements originally reported by that major command. Because all headquarters requirements were sampled, no sampling error is associated with the agency's recommended 1,049 requirements.

Appendix II: Army Actions to Improve Total Army Analysis

In progressing from its Total Army Analysis (TAA) 2003 through its TAA 2007 analyses, our reviews show that the Army has improved its process for determining its force structure requirements and for alleviating force shortfalls. Notwithstanding the problem areas identified in our report, the Army has taken a number of steps to more accurately reflect the Army forces needed to carry out the National Military Strategy of fighting and winning two major-theater wars. The Army has also found ways to make better use of existing resources to minimize war-fighting risks. Table 6 summarizes some of the actions the Army has taken.

Table 6: Army Actions to More Accurately Depict Requirements and Shortfalls in Its Total Army Analysis Process

Process improvements	Description
TAA 2007 Determined Total Army Requirements	The TAA 2003 and 2005 processes only determined the forces needed to fight and win the two major theater wars. They did not consider the Army as a whole—the forces and activities in other theaters and in the United States that would be needed to deploy and sustain the forces engaged in the two wars. TAA 2007 determined requirements for the entire Army and allocated all authorized military, civilians, and contractors among five categories of forces encompassing all Army requirements.
Institutional Force Requirements Determination Declared a Material Weakness	In our report on the TAA 2003 process we noted that the Army, despite numerous initiatives, was still unable to allocate its Table of Distribution and Allowances, or "institutional Army" personnel, on the basis of the workload to be performed.[a] While the Army was taking action to streamline and reduce its institutional force, the lack of workload-based requirements hampered those actions. The Army subsequently reported the deficiencies in its manpower requirements determination system as a material weakness under the Federal Managers' Financial Integrity Act. It first reported the weakness in its fiscal year 1997 report, and it has provided the Congress updates on it progress each year since.
Updated Inputs And Assumptions Were Used	Our review of the TAA 2003 process[b] indicated that not all computer model inputs were scrutinized to ensure their accuracy. Participants in the process detected errors in inputs such as water and fuel consumption rates that brought into question the accuracy of some results. Additionally, our separate review of the Army's process for developing logistical support data showed that the process lacked adequate procedures for developing and reviewing the logistic support data used in the TAA process.[c] We noted that the Army more rigorously reviewed its data for TAA 2005. Model inputs were reviewed and approved by a General Officer Advisory Group, a Study Advisory Group, and consultants prior to the Vice Chief of Staff of the Army's review and approval. In addition, the Army obtained input from the regional commanders-in-chief. Additionally, the Army published specific guidance on how logistics data for the force planning process should be validated and maintained.
Hostile Chemical Weapons Effects Were Taken Into Account	According to the Quadrennial Defense Review, an adversary's use of chemical or biological weapons is likely in future warfare. U.S. forces, if unprepared, could suffer higher casualties. Also, because of the contamination such weapons would cause, U.S. forces could be denied ready access to the seaports and airfields necessary for the buildup and sustainment of U.S. forces. However, our review of TAA 2005 found that the Army assumed enemy forces would make only limited use of chemical weapons in both theaters and, thus, did not increase war-fighting requirements.[d] Additionally, the analysis assumed that U.S. forces would have immediate and unrestricted access to seaports and airfields. In TAA 2007, the Army modified its analysis to take into account the effects of the enemy's use of chemical weapons. The analysis considered the effects of these weapons delivered

Process improvements	Description
	both by theater ballistic missiles and by other means. As a result of the analysis, the Army identified the need for about 5,000 more medical personnel to treat the casualties caused by the chemical weapons. In addition, the analysis allowed the Army to gauge the impact of chemical weapons on the United States's ability to move personnel and cargo through the seaports and airfields.
The Analysis Included All Campaign Phases	In TAA 2005,the Army modeled requirements for three campaign phases.[e] It did not determine the forces needed in the last two phases. As a result, it did not know the total forces needed to fight and win the two major-theater wars and could not fully assess its risk in implementing the National Military Strategy. The Army included all campaign phases in its TAA 2007 determination of the forces needed for the two major theater wars, including the forces required for the post-hostilities phase.
TAA 2007 Addressed the Effect of Contingency Operations	Since the end of the Cold War, the Army has been, and will continue to be, engaged in contingency operations, using forces justified for fighting the two major-theater wars. If the two major-theater wars were to occur, the forces engaged in contingency operations would have to be withdrawn from those operations, retrained for their wartime mission, and deployed to the major-theater wars. However, as we noted in our review of the TAA 2003 and TAA 2005 analyses,[f] the Army had not assessed the impact of these operations on its ability to fight two major-theater wars. Additionally, it had not analyzed the force requirements to determine if the numbers and types of units needed for contingency operations could be drawn from those required for the two major wars. Thus, it did not know if disengaging units from ongoing contingency operations would present an obstacle to carrying out the national military strategy or if its force structure contained the numbers and types of units needed for the contingency operations. We found that the Army addressed both questions in TAA 2007.[g] The Army analyzed the impact of withdrawing forces engaged in contingency operations on its ability to fight the two major-theater wars as an excursion to the normal modeling process. While Army officials said the excursion was not a definitive study, they indicated the Army would still be able to carry out the national military strategy. Additionally, on the basis of Defense guidance, the Army identified the numbers and types of units needed for seven contingency operations. However, the Army did not then compare the numbers and types of units required for those operations with the numbers and types of units in the Army's force structure.
TAA 2007 Incorporated Some Force XXI Concepts	Under its Force XXI redesign, the Army sought to create a more deployable and sustainable force using emerging technologies and incorporating new operational and organizational concepts to increase its capabilities. The process also included the redesign of institutional forces. The Army found that it could reduce the size of its heavy divisions while also increasing the area covered by those divisions. However, the TAA 2005 modeling did not include redesigned divisions or corps as envisioned in Force XXI, even though two divisions and one corps were to be redesigned by 2005. In its TAA 2007 analysis, the Army incorporated the planned Force XXI divisions in its campaign modeling. However, Force XXI concepts for corps and higher levels had not yet been developed. Thus, TAA 2007 only addressed Force XXI at the division level.
TAA 2007.1 Incorporated Transformation Concepts	In late 1999, the Army announced a long-term "Transformation" initiative with the goal of transforming the Army's forces into forces that are more rapidly deployable, yet still lethal and survivable. A key component of the effort is the formation of five to eight Interim Brigade Combat Teams, which have a new force composition, by 2008. The Army had essentially completed its TAA 2007 analysis when the Transformation initiative was announced. However, it conducted a supplemental analysis incorporating the interim brigades expected to be in the force by 2007 into the combat models. Based on the results of that analysis, the Army revised its TAA 2007 requirements and was able to reduce the number of forces required for the two major-theater wars.
Actions to reduce the shortfall	
Army National Guard Divisional Units Assigned To Fill War-fight Shortfalls	Total Army Analysis is a two-step process. The first determines the requirements, and the second matches available resources to those requirements. However, our TAA 2003 review

Process improvements	Description
	found that the Army had not considered all available units when making its resourcing decisions. Notwithstanding that the TAA process resulted in a personnel shortfall for the two major-theater wars, the Army did not take advantage of units and personnel in the eight existing National Guard divisions to fill some of those requirements.[h] Since then, the Army has moved on two fronts to allocate some of those personnel to meet war-fighting needs. In the TAA 2005 process, the Army identified and assigned about 3,600 personnel in the National Guard divisions to war-fighting. As part of Total Army Analysis 2007, the Army identified an additional 2,200 personnel within the Guard Divisions to be used for war-fighting missions. The units involved include attack helicopter battalions, field artillery battalions, and chemical companies. The second front concerns converting combat units in the divisions to the types of support units needed to alleviate the two-major-theater war-fighting shortfall. Under the Army National Guard Division Redesign program, the Army plans to convert about 48,000 positions in up to 12 Guard combat brigades from non-war-fighting missions to war-fighting support by fiscal year 2009. We noted in our March 1999 report that if successful, the program will halve the Army's reported support force shortfall. The first two phases of the program are under way and, when completed by the end of fiscal year 2005, should result in the conversion of about 20,000 of the planned 48,000 personnel support spaces that the plan is expected to provide. Phases three and four of this program are to be completed by 2009, thereby adding another 28,000 positions to the Army's support forces.
Military Positions That Could Be Filled by Civilian or Contractor Personnel Have Been Identified	Our March 1999 report noted that, in TAA 2005, the Army did not assess whether civilian personnel or contractors could perform the functions of institutional or unique military forces. By reducing the number of military institutional forces, more military personnel could be allocated to alleviate shortfalls in the forces needed to support the war-fighting mission. During the TAA 2007 process, the Army identified about 12,000 active military positions in institutional forces whose duties could be performed by civilian personnel or contractors. The military personnel thus freed up could have been used to fill unresourced war-fighting positions or to fill some of the early deploying war-fighting positions. However, the Army converted only about 582 positions. Officials said the Army could not currently fund the remaining conversions.

[a]The institutional force conducts Army support activities, including training, doctrine development, base operations, supply, and maintenance. These forces, in general, do not deploy to a war-fighting operation.

[b]*Force Structure: Army Support Forces Can Meet Two-Conflict Strategy With Some Risk* (GAO/NSIAD-97-66, Feb.28, 1997).

[c]*Force Structure: Army's Support Requirements Process Lacks Valid and Consistent Data* (GAO/NSIAD-95-43, Jan. 30, 1995).

[d]*Force Structure: Opportunities for the Army to Reduce Risk in Executing the Military Strategy* (GAO/NSIAD-99-47, Mar.15, 1999).

[e]GAO/NSIAD-99-47, Mar.15, 1999.

[f]GAO/NSIAD-97-66, Feb.28, 1997 and GAO/NSIAD-99-47, Mar.15, 1999.

[g]*Force Structure: The Army Lacks Units Needed for Extended Contingency Operations* (GAO-01-198, Feb. 15, 2001).

[h]The eight divisions are not part of the forces designated to fight the two major-theater wars.

Appendix III: Comments From the Department of Defense

OFFICE OF THE UNDER SECRETARY OF DEFENSE
4000 DEFENSE PENTAGON
WASHINGTON, D.C. 20301-4000

PERSONNEL AND READINESS

APR 30 2001

Ms. Carol R. Schuster
Director, Defense Capabilities and Management
U.S. General Accounting Office
Washington, DC 20548

Dear Ms. Schuster:

This is the Department of Defense (DoD) response to the General Accounting Office (GAO) draft report GAO-01-485, "FORCE STRUCTURE: Projected Requirements for Some Army Forces Not Well Established," dated April 11, 2001, (GAO Code 702051/OSD Case 3072).

The Department acknowledges receipt of the draft report and generally concurs with the report. Specific comments related to each recommendation are enclosed. The Department appreciates the opportunity to review and comment on the draft report.

My point of contact is Colonel Al Nelson. He can be reached at 703-614-5133 or via e-mail at Al.Nelson@osd.mil.

Sincerely,

Jeanne B. Fites
Deputy Under Secretary of Defense
(Program Integration)

Enclosure
As stated

GAO CODE 702051/OSD CASE 3072

"FORCE STRUCTURE: PROJECTED REQUIREMENTS FOR SOME ARMY FORCES NOT WELL ESTABLISHED"

DEPARTMENT OF DEFENSE COMMENTS TO THE RECOMMENDATIONS

RECOMMENDATION 1: The GAO recommended that the Secretary of Defense direct the Secretary of the Army to use the results of completed Manpower Analysis Agency reviews to adjust requirements for the Base Generating Force and Base Engagement Force in future versions of the Total Army Analysis process. Further, explore alternative means of expediting completion of these studies at the remaining Army commands, whether by expanding the existing Manpower Analysis Agency team or through the use of contractor personnel into future versions of the Total Army Analysis (TAA) process.

DOD RESPONSE: Concur with comment. The Army is improving the TAA process to better capture total Army requirements. Inclusion of the institutional forces was the Army's first attempt to consider its total workforce requirements to include military, Government civilian and contractor manpower. The manpower certification reviews had just begun at the time of the TAA-07 requirements build. The GAO used the Army's limited review findings to estimate the total number of requirements overstated. We believe that extending the results of the Army sample across the institutional Army may present a misleading picture. However, the GAO estimate is a useful tool to identify the need for improvement. Therefore, DoD will advise the Army to strengthen the manpower requirements determination process, to regularly update manpower standards, to perform more frequent reviews of institutional requirements, and to incorporate the resized requirements into the TAA process.

RECOMMENDATION 2: The GAO recommended that the Secretary of Defense direct the Secretary of the Army to establish mission criteria to provide a firmer basis for Strategic Reserve, Domestic Support, and Homeland Defense requirements in future versions of the Total Army Analysis process.

DOD RESPONSE: Concur with comment. The Department of Defense has an ongoing, overarching strategic review to establish the requirements for the Strategic Reserve, Homeland Security (Homeland Defense) and Domestic Support. The strategy decisions and associated force structure requirements will be integrated into the Army planning process.

RECOMMENDATION 3: The GAO recommended that the Secretary of Defense direct the Secretary of the Army to establish a methodology for more accurately portraying requirements for military technicians and other National Guard positions where one person is filling more than one requirement; thereby precluding a potential misunderstanding of the personnel needed, in future versions of the Total Army Analysis process.

DOD RESPONSE: Concur with comment. DoD agrees that the Army total force requirement includes dual-status military technicians in both a military and a civilian environment. However, we also believe that the Army's process for determining requirements is acceptable. DoD will advise the Army to footnote the results of the Total Army Analysis (TAA) process to acknowledge the dual-status nature of the manpower requirements associated with military technicians.

RECOMMENDATION 4: The GAO recommended that the Secretary of Defense direct the Secretary of the Army to examine the options the GAO outlined to address the 45,000 position shortfall in the Army's war-fighting force within the context of costs and risks, and decide if mitigating actions should be taken. These actions should include the accelerated conversion of National Guard forces to support forces, the conversion of military positions to civilian or contractor positions, and consideration of how host nations could meet some unmet support needs.

DOD RESPONSE: Concur with comment. DoD will continue to use the National Strategy, the Unified Commands' statement of requirements, and the annual guidance to optimize war-fighting capabilities within the limits of policy, end strength and budget.

Appendix IV: GAO Contact and Staff Acknowledgments

GAO Contact

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Acknowledgments

In addition to the name above, James Mahaffey, Leo Jessup, Ron Leporati, Tim Stone, Jack Edwards, and Susan Woodward made key contributions to this report.

Related GAO Products

Force Structure: Army Support Forces Can Meet Two-Conflict Strategy With Some Risks (GAO/NSIAD-97-66, Feb. 28, 1997).

Force Structure: Army's Efforts to Improve Efficiency of Institutional Forces Have Produced Few Results (GAO/NSIAD-98-65, Feb. 26, 1998).

Force Structure: Opportunities for the Army to Reduce Risk in Executing the Military Strategy (GAO/NSIAD-99-47, Mar. 15, 1999).

Force Structure: Army Is Integrating Active and Reserve Combat Forces, but Challenges Remain (GAO/NSIAD-00-162, July 18, 2000).

Force Structure: Army Lacks Units Needed for Extended Contingency Operations (GAO-01-198, Feb. 15, 2001).

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