

March 1999

# FORCE STRUCTURE

## Opportunities for the Army to Reduce Risk in Executing the Military Strategy



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**National Security and  
International Affairs Division**

B-281688

March 15, 1999

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

The Honorable Floyd D. Spence  
Chairman  
The Honorable Ike Skelton  
Ranking Minority Member  
Committee on Armed Services  
House of Representatives

The fiscal year 1996 National Defense Authorization Act requires us to annually assess, through 2001, the Army's plans to allocate its end strength to meet the force structure requirements of its combat and support forces.<sup>1</sup> This is the third in a series of reports to respond to this congressional mandate.<sup>2</sup>

The Army's force structure requirements are based on the national military strategy to fight and win two nearly simultaneous major theater wars. In 1996, the Army completed its biennial force structure review and concluded that it faced a moderate risk in carrying out the strategy because of significant shortfalls in support forces.<sup>3</sup> This report addresses the Army's risks after completing its 1998 force structure review. To respond to the act's requirement, we (1) compared the Army's 1996 and 1998 reviews to determine if there were changes in the Army's risk of not having sufficient forces to implement the national military strategy and (2) assessed the Army's potential for mitigating risk by reallocating its existing end strength. To assess risk for the 1998 review, we considered factors that

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<sup>1</sup>End strength is the total number of positions authorized annually by Congress. Force structure is the Army's organization of its forces into units.

<sup>2</sup>Our two previous reports were Force Structure: Army Support Forces Can Meet Two-Conflict Strategy With Some Risk (GAO/NSIAD-97-66, Feb. 28, 1997) and Force Structure: Army's Efforts to Improve Efficiency of Institutional Forces Have Produced Few Results (GAO/NSIAD-98-65, Feb. 26, 1998).

<sup>3</sup>Support forces deploy to sustain combat forces in wartime and include specialties such as chemical, engineering, quartermaster, and transportation.

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the Army used to measure risk in its 1996 review, including support force shortfalls, the number of support forces not expected to arrive on time, and challenges expected if a second war were to occur. We also assessed the Army's underlying assumptions for determining its war-fighting requirements using available criteria such as the Quadrennial Defense Review (QDR).

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## Results in Brief

The Army did not assess risk in its 1998 force structure review, but our analysis shows that the Army's risk in implementing the national military strategy increased since its 1996 review. A comparison of both reviews shows that war-fighting requirements for two wars increased at the same time the Army's forces decreased; support force shortfalls are higher; and the number of support forces arriving late has increased. Further, risk is higher in a second war because few active forces are planned to be deployed in the second war and support force shortfalls are higher in the second war.

The Army's risk may be even higher than this comparative analysis indicates for two reasons. First, the Army's 1998 force structure review was based on the following "best case" assumptions which are consistent with defense guidance—limited chemical use by the enemy; immediate access to ports and airfields; and immediate redeployment of forces involved in contingencies to a major theater war. In contrast, the (QDR) stated that U.S. forces should be prepared to encounter adverse conditions such as enemy use of chemical weapons. Second, support force shortfalls may be higher than Army data indicates because the Army's analysis did not include all the QDR reductions in reserve component end strength. Finally, the 1998 analysis assumed that the National Guard will convert nonwar-fighting positions to war-fighting support forces. Shortfalls will be higher if the conversions do not occur as planned.

Although the risk of not having sufficient forces to implement the strategy has increased, the full extent of the increase is unknown since the Army did not perform all the analyses needed to assess and quantify its risks. According to defense guidance, Army components are encouraged to conduct analyses to explore the implications of different assumptions. Such analyses may assist the Army in identifying and reducing the risk involved in carrying out the strategy. The Army did perform sensitivity analyses in its 1996 review that concluded additional support forces would be needed if these "best case" assumptions did not occur.

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The Army has several options to mitigate its risks. The Army's end strength exceeds its war-fighting requirements, yet the Army has allocated significant end strength to nonwar-fighting missions. One option to mitigate risk is its plan to convert nonwar-fighting positions in two National Guard divisions to war-fighting support forces. This would reduce shortfalls if implemented as planned. Another option is to analyze the extent to which nonwar-fighting missions may be performed by civilians or contractors rather than by military personnel. If the Army used civilians or contractors to perform more nonwar-fighting missions, it could then allocate a larger proportion of military positions to meet war-fighting support requirements. Lastly, if the Army had more current data on the type and availability of host nation support, it could use such resources to reduce shortfalls.

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## Background

The 1993 Bottom-Up Review and the 1997 QDR require that U.S. forces be able to fight and win two nearly simultaneous theater wars. The QDR also determined that this strategy could be implemented with a smaller force at an acceptable level of risk and, for the Army, recommended reductions of 60,000 military positions. Accordingly, the Army plans to eliminate 35,000 positions by fiscal year 2000: 15,000 active, 17,000 National Guard, and 3,000 Army Reserve positions. These reductions will bring the Army's end strength to 1,035,000. The remaining 25,000 reductions will be allocated to the National Guard and Army Reserve as part of the Army's next force structure review, Total Army Analysis (TAA) 2007, which will be completed in November 1999.

The Army performs TAA every 2 years to determine the number and types of support forces needed by combat forces and to allocate end strength to these requirements. The TAA process focuses on support forces because combat forces are defined in defense guidance and allocated 100 percent of their end strength requirements.<sup>4</sup> The combat and support force structure is projected to be maintained within the resources available in the Department of Defense's (DOD) Future Years Defense Plan. The TAA force structure drives development of the Army's Program Objective Memorandum (POM), which is the Army's input into the Future Years Defense Plan.

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<sup>4</sup>The combat force is defined in defense and Army guidance and consists of 10 active Army divisions, 2 active cavalry regiments, and 15 National Guard enhanced brigades.

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In its TAA, the Army uses a series of models to simulate the two nearly simultaneous major theater wars described in the national military strategy. The defense guidance describes the various phases of the campaign, including the buildup of support forces, launching the counteroffensive, and post-hostility stability. The models also include assumptions about campaign conditions (see app. I). The Army models project support force requirements based on the simulated campaigns and the defined combat force. The Army then matches existing force structure units to the requirements until the inventory is exhausted. Shortfalls occur when the requirements exceed the available inventory. The Army calls these shortfalls unresourced requirements.

According to defense guidance, Army components are encouraged to conduct analyses to explore the implications of different assumptions. Such analyses may assist the Army in identifying and reducing the risk involved in carrying out the strategy. The Army made the following "best case" assumptions which are consistent with defense guidance—limited chemical use by the enemy; immediate access to ports and airfields; and immediate redeployment of forces involved in contingencies to a major theater war. In its 1996 force structure review, the Army performed various analyses that identified the effects on support force requirements if these assumptions changed.

The Army completed its most recent TAA (TAA 2005) in March 1998 and projected total combat and support war-fighting requirements of 747,000 positions through fiscal year 2005 for a two-war scenario. The Army initially projected support force shortfalls of 91,300 positions but reduced them to 72,500 because it plans to convert almost 19,000 nonwar-fighting positions in National Guard divisions by 2005 to meet war-fighting support requirements. The Army plans to convert an additional 26,000 nonwar-fighting positions in National Guard divisions by the end of fiscal year 2009, for a total of 45,000 converted positions.

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## The Army's Risk Has Increased

The Army's risk in its ability to implement the national military strategy has increased since its force structure review in 1996, when the Army assessed its risk as moderate. Risk increased for the following reasons:

- Army war-fighting requirements increased at the same time that the QDR planned significant force reductions.

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- Army requirements would have been even higher had the Army included requirements for all campaign phases and accounted for adverse conditions such as enemy use of chemical weapons.
  - Army support force shortfalls have increased since the 1996 review and may increase further if the conversion of National Guard nonwar-fighting positions to war-fighting support positions does not take place as planned.
  - The number of support forces arriving late in the first 30 days of the first war has increased since the 1996 review.

Further, risk is higher in a second nearly simultaneous war because fewer active forces are planned to be deployed in the second war and support force shortfalls are higher in the second theater.

Despite these indicators, the full extent of the Army's risk is not known because the Army has not performed all the analyses needed to assess and quantify risk. A risk assessment should include analyses of adverse conditions to determine their effect on requirements and analyses of effects on war-fight timelines under more severe conditions than those identified in defense guidance.

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## Requirements Increased as the Force Decreased

The Army's war-fighting requirements increased by 75,000 positions from 672,000 in the 1996 analysis (TAA 2003) to 747,000 in TAA 2005. At the same time, the Army began implementing QDR reductions, which decreased its end strength by 35,000. The growth in requirements is mostly attributable to defense guidance changes and increases in the Army's requirements to support other services. For TAA 2005, defense guidance directed the Army to include all the National Guard enhanced brigades, which added about 40,000 combat positions. In addition, Army requirements to support other services increased by about 25,000 positions, including 13,000 positions to provide chemical decontamination for the Navy and the Air Force. In response to theater commander plans and defense guidance, the Army included four corps<sup>5</sup> in TAA 2005 compared with three in TAA 2003. Although some support decreased,<sup>6</sup> the net change

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<sup>5</sup>Some support forces are assigned to a corps that provides nondivisional support for two to five divisions. Each theater is assigned two corps.

<sup>6</sup>Support requirements for medical, equipment use, and some classes of supply decreased but, overall, support requirements increased.

from TAA 2003 to TAA 2005 was an increase in combat and support requirements of 75,000 positions as shown in table 1.

**Table 1: Army War-Fighting Requirements**

	<b>TAA 2003</b>	<b>TAA 2005</b>	<b>Increase</b>
Combat	199,031	240,006	40,975
Support	440,850	449,723	8,873
Support to other services	32,119	57,447	25,328
<b>Total</b>	<b>672,000</b>	<b>747,176</b>	<b>75,176</b>

Source: GAO analysis of Army data.

In fiscal year 1998, the Army's congressionally authorized end strength was 1,070,000 and consisted of 495,000 active, 367,000 National Guard, and 208,000 Army Reserve. In TAA 2005, the Army assumed an active end strength reduction of 15,000 and a decrease in reserve component end strength of 20,000 by fiscal year 2000. Assuming Congress authorized an end strength consistent with the QDR recommendations to reduce Army end strength by a total of 60,000 positions, the Army will need to allocate an additional 25,000 reduction to the reserve components.

The QDR asserted that the Army would be able to implement these reductions because of more efficient support through the redesign of its heavy divisions and implementing "just in time" logistics. But until Army doctrine is revised and TAA models are updated to reflect the new concept of operations, no estimate can be made of future support force efficiencies. TAA 2005 modeling did not include redesigned divisions or corps as envisioned in Force XXI,<sup>7</sup> even though two divisions and one corps will be redesigned by 2005. The two digitized active divisions will save only about 2,500 active combat positions, but the active force will be reduced by 15,000 positions by the end of fiscal year 1999. According to an Army official, the full effect of digitization on Army force structure may not be known until TAA 2011, since the Army will be in various stages of transition until then.

<sup>7</sup>Force XXI is the Army's reorganization of its divisions to incorporate new operational and organizational concepts.



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**TAA Assumptions Limited Support Force Requirements**

War-fighting support force requirements would have been higher had the Army included all the campaign phases of both theaters and accounted for adverse conditions. For example, the Army did not calculate or include additional support forces that would be required if opponents use chemical weapons. Also, the Army did not assess the effects on support force requirements of U.S. forces being denied immediate access to ports and airfields. Finally, the Army assumed that forces deployed in ongoing contingency operations would be available immediately for redeployment to a major theater war and did not assess the effects on support force requirements if this were not the case.

**The Army Did Not Include Requirements for Two Campaign Phases**

During TAA 2005, the Army modeled requirements for only three of five campaign phases. Army officials stated that defense guidance does not clearly require the Army to identify requirements for the last two campaign phases. Army officials believe the defense guidance is very vague on the fifth phase and that the extent of the Army's role and involvement in this phase is unclear. The Army therefore never attempted to identify requirements for the final phase. The Army did calculate 14,000 support force requirements for the fourth phase but, consistent with its interpretation of the guidance, did not include them in the total requirement for 747,000 war-fighting positions. By not incorporating requirements for all five campaign phases for both theaters, the Army does not know its total requirements and cannot fully assess its risks in implementing the strategy.

Theater commanders, on the other hand, develop war-plans for the entire campaign. We found that one theater commander had identified requirements for nearly 30,000 additional support positions needed in the last two phases. Most of these spaces were for the engineering, field artillery, medical, and transportation specialties.

**The Army Did Not Include Requirements for a Chemical Environment**

Support force requirements would also have been higher had the Army included the additional forces required in a chemical environment. However, TAA 2005 assumed enemy forces would employ only limited use of chemical weapons in both theaters and thus did not increase war-fighting requirements. The Army later modeled more intense chemical use in one theater but did not identify or include additional support requirements in TAA 2005 results. According to Army officials, the chemical analysis was not completed until after the TAA requirements phase, and the Army did not accomplish all of the study goals. The Army

did not complete this analysis sooner because it redirected its resources toward performing QDR analyses.

Even though the Army followed defense guidance, the QDR stated that U.S. forces must plan to fight and win theater wars in which adversaries use chemical or biological weapons because this is a likely condition of future warfare. The QDR also stressed the importance of increased investment in capabilities to prevent and defend against the use of chemical and biological weapons.

**The Army Did Not Include Requirements Needed if U.S. Forces Are Denied Immediate Access to Ports and Airfields**

In TAA 2005, the Army assumed that U.S. forces would have immediate and unobstructed access to ports and airfields in both theaters. The Army did not identify the effects on support force requirements if access were denied, although it initially planned to do so. Army officials said they did not have time to perform this analysis. As a result, TAA 2005 requirements do not include forces that may be needed if the U.S. does not have access to primary ports and airfields.

In TAA 2003, the Army did assess the effects on support force requirements if U.S. forces were denied immediate access to primary ports and airfields in a one theater war. The results showed a requirement for additional positions above that needed for two nearly simultaneous wars. Ninety percent of the increase was in the transportation and quartermaster specialties.

Officials at one theater command stated that their current war-plans are consistent with defense guidance—the plans assume immediate access to primary ports and airfields. However, the officials recognized there could be significant effects if U.S. forces are denied access. In a 1997 memo, the theater commander stated that the use of weapons of mass destruction against airports or seaports would delay the buildup of forces and would severely impede the ability to blunt an initial attack. As a result, the command is planning analyses to identify the impact of such events on U.S. forces.

**Army Assumed Forces Can Be Redeployed Immediately From Contingency Operations**

In TAA 2005, the Army initially planned to analyze the effects that redeploying forces from a contingency operation to a major theater war would have on requirements, but, according to officials, the Army did not complete this analysis because it redirected its efforts to support the QDR. The assumption that forces involved in contingency operations can be immediately redeployed to a major theater war is consistent with defense guidance. However, we reported in 1997 that this assumption is risky

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because the critical support forces needed in the early stages of a major theater war are needed to facilitate the redeployment of military forces from the contingency operation.<sup>8</sup> DOD agreed that the assumption used in TAA 2003 that made all units involved in contingencies immediately available for war-fighting is “flawed and overly optimistic.” One Army study on strategic risks assumed that 20,000 Army active component resources would be committed to one or more contingency operations and would not be available to participate in the two-war scenario.

The Army does not know how many additional support forces would be required to extract forces from a contingency operation and redeploy them to a major theater war or how such a redeployment would affect war-fighting timelines, according to Army and theater command officials. The European Command Deputy for Operations has estimated that it would take 90 days to disengage forces from Bosnia and redeploy them to a major theater war. Further, the President's 1998 National Security Strategy for a New Century and defense guidance state that U.S. forces must be prepared to withdraw from contingency operations to deploy to a major theater war.

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### Support Force Shortfalls Increased but May Be Understated

The Army's estimate of its support force shortfalls<sup>9</sup> increased by 14,000 to 72,500 positions since TAA 2003 but may still be understated. The Army has accepted most of its risk in three support specialties—transportation, quartermaster, and chemical—which account for 75 percent of the shortfalls.<sup>10</sup> For example, TAA 2005 includes a requirement for nearly 13,000 spaces for the Army to provide chemical support to other services. This resulted in a requirement for 110 chemical decontamination companies, but the Army allocated end strength to only 36 of these units. Therefore, the Army's overall chemical support requirement is significantly under resourced, with only about 12,300 of 23,600 required positions allocated end strength during TAA 2005.

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<sup>8</sup>Force Structure: Army Support Forces Can Meet Two-Conflict Strategy With Some Risks (GAO/NSIAD-97-66, Feb. 28, 1997).

<sup>9</sup>Shortfall refers to units that are not allocated any end strength and exist only on paper.

<sup>10</sup>Appendix II shows the number of positions the Army requires in each specialty in a two-war scenario and the end strength allocated to each specialty.

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TAA 2005 support force shortfalls of 72,500 positions may be understated for two reasons. The Army had initially estimated shortfalls of 91,300 but then reduced the estimate because it plans to convert 19,000 nonwar-fighting positions in National Guard divisions to war-fighting support positions. However, similar conversion plans that were part of TAA 2003 (66,400 active and reserve positions were supposed to be converted to higher priority support units) were never implemented. Army officials said the conversions did not take place because the National Guard announced it would convert combat positions to support positions. If the conversions planned in TAA 2005 are delayed, shortfalls will increase.

Second, the Army allocated end strength as of 2000, not 2005 when the Army expects it will have completed the QDR reductions. By not including the remaining 25,000 reductions in TAA 2005, the Army has allocated 25,000 more positions than DOD plans to request in congressional end strength authorizations for fiscal year 2005. Implementing these reductions will increase support shortfalls if the cuts are allocated to the National Guard and Army Reserve war-fighting support force structure. In contrast, allocating the reductions to the reserve components' 228,000 position nonwar-fighting structure will not increase war-fighting support force shortfalls. If Congress chose not to reduce reserve force levels further, the Army would not necessarily have more support forces because it would still have to convert nonwar-fighting positions to war-fighting support positions.

The Army relies heavily on reserve components for support force structure. As table 2 shows, over 70 percent of the resourced war-fighting support force requirement is met with reserve end strength allocations in the civil affairs, public affairs, quartermaster, transportation, chemical, ordnance, and engineering specialities.

**Table 2: Support Specialties Predominately in the Reserve Components**

Specialty	Active component		Reserve components	
	End strength allocation	Percent	End strength allocation	Percent
Civil Affairs	131	2.49	5,139	97.51
Public Affairs	108	7.61	1,312	92.39
Quartermaster	6,757	16.79	33,482	83.21
Transportation	12,206	20.91	46,173	79.09
Chemical	3,356	27.25	8,961	72.75
Ordnance	12,186	27.96	31,405	72.04
Engineering	20,764	28.90	51,077	71.10

Source: GAO analysis of Army data.

**Support Forces Required in the First 30 Days Arrive Late, Increasing Risk**

Defense and Army guidance stipulate that support units needed in the first 30 days of the first theater war should be predominately active forces. Army officials stated that they do not expect most reserve component units to be able to begin moving to the theater until about 30 days after they are mobilized because of the time needed to call up, train, and begin moving forces. The Army estimated in TAA 2005 that over 105,000 support forces would not arrive in the first 30 days as required. This estimate is higher than the 79,000 support forces that TAA 2003 estimated would arrive late. Furthermore, the requirements for several support specialties will probably not be met within the first 30 days because significant portions of these forces are in the reserve components. For example, about 71 percent of engineering forces, 58 percent of ordnance forces, 57 percent of quartermaster forces, and 54 percent of the transportation forces needed in the first 30 days are in the reserve components.

We compared one theater commander's requirements to execute the first 30 days of the campaign, against the Army's TAA requirements for the same theater. The theater commander's requirements for the first 30 days were less than the TAA requirements and were met mostly with active forces. The commander's support force requirements were about 37,500 positions, of which 80 percent were active Army. In contrast, the TAA 2005 requirements for this theater, were about 177,000 positions of which only about 40 percent were active Army. Whereas TAA uses the doctrinally correct force flow—the number, mix, and sequencing of forces needed to support combat forces—the theater commander may stagger the flow of forces and plan to have some support forces arrive after the first 30 days.

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Theater command officials stated that, given limitations in lift, the priority in the first 30 days is to move combat forces into the theater. However, both the TAA models and the theater commander's plans achieve sufficiency of support forces at about the same time.

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### Risks in the Second Theater Are Higher

Risks in implementing the national military strategy are higher in the second of two theaters because shortfalls are higher and the proportion of active support forces is significantly less in the second theater. TAA 2005 showed that support shortfalls are 11,500 spaces higher in the second theater than the first. Also, active forces comprise only 15 percent of the total required support forces in the second theater compared with 36 percent in the first. Fewer active forces in the second theater increases risk if the mobilization of reserve forces is delayed or if the second war occurs with little warning time. The significance of the second theater was highlighted by the QDR, which asserted that maintaining forces capable of winning two nearly simultaneous wars is essential to the credibility of the overall national security strategy. The QDR also stated that a one theater war capacity would undermine the deterrence and credibility of U.S. commitments.

Another indication that risk in the second theater is higher came from one theater commander who estimated higher shortfalls if his forces are involved in the second of two wars. The theater commander stated that if his theater was second, he was concerned about the lack of support forces to sustain the fight and delays in execution that may be caused by support force shortfalls.

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### Full Extent of Army's Risk Is Not Known

The Army does not know the full extent of its risks in implementing the national military strategy because it did not perform a risk assessment in TAA 2005. Even though TAA 2005 used assumptions that were generally consistent with defense guidance, the guidance also encourages analyses to identify risks under conditions different from these best case assumptions. In TAA 2003, the Army performed sensitivity analyses that concluded additional support forces would be needed if (1) an adversary used chemical weapons, (2) access to ports and airfields was denied, and (3) forces deployed in a contingency operation were not immediately available. Officials at one theater command stated they routinely perform analyses to identify the effects of worst case conditions. The Army planned to perform some of these sensitivity analyses in TAA 2005 but, according to Army officials, did not do so because resources were shifted to support

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QDR analyses. As a result, the Army does not know the full extent of its risk. We believe sensitivity analyses are essential in assessing risk. Without them, the Army cannot specify the additional support forces required under adverse conditions.

For example, in TAA 2005, the Army did not run the transportation, campaign, and support models with the resourced force<sup>11</sup> to determine the impact of support force shortages on war-fighting timelines. The Army did run the transportation and support models with the TAA 2005 required forces and, according to Army officials, determined that there was no significant change in combat and support unit arrival dates and therefore, the Army did not re-run the campaign models. While this "relook" analysis is a positive change from TAA 2003, re-running the transportation model using the required force does not assess the effects on war-fighting timelines or identify risks resulting from support force shortfalls that could be assessed if the Army re-ran the campaign models with the resourced force. As many as 72,500 support force positions are unresourced with many shortages falling in specialties such as transportation, quartermaster, and chemical. Re-running the models with the resourced force would identify any effects on war-fighting timelines because the models' transition to counteroffensive is based on the level of support forces in the theater. Also, re-running the campaign models with the resourced force would enable the Army to better assess risks of shortages in specific specialties such as transportation, quartermaster, and chemical.

Army officials stated that the objective of TAA modeling is to identify the required forces. While the Army has modeled deployments with the resourced force on special requests from the theater commanders, it has not included such analyses in TAA. Army officials agreed, however, that re-running TAA models with the resourced force would improve the Army's ability to assess risk.

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## Options to Mitigate Risk

The Army has several opportunities to mitigate its risks in executing the national military strategy. The Army's total end strength exceeds its requirements to fight two wars, but the Army has allocated 417,000 end strength positions to force structure that does not have a war-fighting mission, such as for institutional or unique positions. In TAA 2005, the

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<sup>11</sup>The resourced force is that portion of the required force for which the Army allocated end strength.

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Army did not determine whether the military end strength allocated to institutional or unique force structure was essential. If this structure could be filled with civilians or contractors, then more military end strength would be available to meet war-fighting requirements. The Army could also reduce shortfalls by converting military positions that do not have a war-fighting mission to war-fighting support positions. If implemented, the Army's National Guard Division Redesign Program will convert 45,000 positions in two National Guard divisions to war-fighting support positions by 2009. But, the conversion program is not effectively managed. Finally, the Army could consider support from host nations to help meet its war-fighting requirements, but theater commanders will need to provide more current data on how much support will be available and when.

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### Significant Portion of End Strength Does Not Have War-Fighting Mission

The Army's congressionally authorized end strength exceeds war-fighting requirements, yet the Army still has support force shortfalls because a significant portion of its end strength is allocated to nonwar-fighting missions. In TAA 2005, the Army projected its end strength in fiscal year 2000 would total 1,035,000, which exceeds the war-fighting requirement of 747,000. For purposes of TAA, the Army actually allocated 1,073,000 spaces, which includes additional spaces for the National Guard. But the Army has allocated about 417,000 end strength spaces to nonwar-fighting structure, leaving 656,000 spaces to allocate to war-fighting requirements. The nonwar-fighting structure includes institutional positions, National Guard divisions, trainees, transients, holdees, students, uniques, and uncommitted forces (see table 3). As a result, the Army initially projected 91,300 unresourced positions before accounting for the National Guard conversions. Table 4 shows how the Army allocated end strength in TAA 2005.



**Table 3: End Strength Allocated to Nonwar-Fighting Force Structure**

<b>Nonwar-fighting force structure</b>	<b>Active</b>	<b>National Guard</b>	<b>Army Reserve</b>	<b>Total Army</b>
Institutional <sup>a</sup>	115,000	36,000	63,000	<b>214,000</b>
TTHS <sup>b</sup>	61,000	0	0	<b>61,000</b>
Guard divisions (strategic reserve)	0	112,517	0	<b>112,517</b>
<b>Subtotal</b>	<b>176,000</b>	<b>148,517</b>	<b>63,000</b>	<b>387,517</b>
Uncommitted <sup>c</sup>	0	2,719	0	<b>2,719</b>
Uniques <sup>d</sup>	12,932	10,853	3,103	<b>26,888</b>
<b>Total</b>	<b>188,932</b>	<b>162,089</b>	<b>66,103</b>	<b>417,124</b>

<sup>a</sup>The Institutional force is generally nondeployable and supports Army infrastructure activities such as training, doctrine development, base operations, supply, and maintenance.

<sup>b</sup>TTHS = trainees, transients, holdees, and students. TTHS make up the portion of the active force in temporary status.

<sup>c</sup>The uncommitted force structure, consisting primarily of engineering units, is not required for war-fighting.

<sup>d</sup>Force structure that did not match war-fighting requirements but that the Army has retained to meet nonwar-fighting needs such as joint, DOD, and alliance commitments.

Source: GAO analysis of Army data.

**Table 4: Army Force Structure Allocations**

	Active	National Guard	Army Reserve	Total
End strength (as of fiscal year 2000)	480,000	388,000 <sup>a</sup>	205,000	<b>1,073,000</b>
Minus nonwar-fighting force structure	188,932	162,089	66,103	<b>417,124</b>
Force structure available for war-fighting requirements	291,068	225,911	138,897	<b>655,876</b>
Minus war-fighting requirements				<b>747,176</b>
Initial support force shortfalls <sup>b</sup>				<b>91,300<sup>c</sup></b>
Minus National Guard conversions by 2005				<b>18,846</b>
Remaining shortfalls				<b>72,454</b>

<sup>a</sup>The Army assumed end strengths as of fiscal year 2000. However, in the case of the National Guard, the Army allocated 388,000 force structure Guard spaces rather than the 350,000 assumed end strength.

<sup>b</sup>The Army has units that are under resourced, i.e., the units are not allocated all required positions. However, when mobilization occurs, the Army fills these vacancies using the Individual Ready Reserves or recruits.

<sup>c</sup>These shortfalls should be reduced by converting positions in two National Guard divisions to war-fighting support positions.

Source: GAO analysis of Army data.

**Army Process for Allocating End Strength Is Not Consistent With Defense Guidance**

The Army's process for allocating 417,000 spaces to nonwar-fighting functions is not consistent with defense guidance. 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. The QDR also addressed this topic, stating that DOD should improve the efficiency of support activities and consider nonwar-fighting support functions as candidates for outsourcing.

Army officials stated they did not assess, as part of the TAA 2005 process, whether civilians or contractors could perform the functions of institutional or unique military forces. Army institutional functions in particular have received increasing scrutiny in recent years because the Army has been unable to support requirements based on workload and ensure that these functions are carried out in the most efficient and cost-effective manner. As shown in table 3, 214,000 military positions are

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allocated to institutional functions. A previous GAO report found that the Army's efforts to establish workload-based requirements and redesign institutional functions had not been very successful.<sup>12</sup>

If the Army reduced the number of military institutional forces, then more would be available to meet war-fighting requirements. The Force XXI Institutional Army Redesign Pamphlet 100-1, published in March 1998, acknowledged the potential benefits of reducing military forces that perform institutional functions. The pamphlet states that many of the services currently being performed at all levels of the institutional force, "support military missions, but, are not uniquely military in nature." It states that privatization on an Army-wide basis, if done with proper analysis, could achieve the objective of greater cost savings for more efficient operations.

#### Army Could Reduce Allocation of Military Positions to Nonwar-Fighting Unique Structure

According to Army officials, there were nearly 27,000 unique force structure positions left after TAA 2005 matched the existing structure with war-fighting requirements (excluding the strategic reserve). The officials stated that much of the 27,000 unique structure is required to meet joint, DOD, and alliance commitments. However, they acknowledged that they have not assessed this structure to determine whether unique positions require military personnel or could be filled by civilians or contractors. The Army could reduce unfilled war-fighting support requirements by allocating unique force structure to war-fighting missions. Some of the unique structure is in the same specialty as unfilled war-fighting requirements, although it does not provide the same capability. For example, unique structure in the transportation specialty contains minimum equipment, and its units contract for port services. In contrast, some of the unresourced transportation requirements are for units with heavy equipment such as cranes and forklifts. The Army has not identified the additional training or equipment modifications that would be needed in order to convert these units to fill war-fighting requirements. Table 5 shows Army unique force structure by component.

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<sup>12</sup>Force Structure: Army's Efforts to Improve Efficiency of Institutional Forces Have Produced Few Results (GAO/NSIAD-98-65, Feb. 26, 1998).

Table 5: Army Unique Force Structure

Force structure	Unique spaces	Percentage of total
Active	12,932	48.1
National Guard	10,853	40.4
Army Reserve	3,103	11.5
<b>Total</b>	<b>26,888</b>	<b>100.0</b>

Source: GAO analysis of Army data.

Potential Exists to Apply Nonwar-Fighting National Guard Division Assets to Meet War-Fighting Support Requirements

The Army may be able to reduce its support shortfalls and thus its risk by using resources in the National Guard divisions to meet war-fighting requirements. In 1997, we recommended that the Army determine whether war-fighting support missions could be assigned to the National Guard division force structure.<sup>13</sup> As a result, in TAA 2005 the Army assigned war-fighting missions to a few units in National Guard divisions that did not previously have a war-fight mission. These units—totaling about 3,600 spaces—consist of two National Guard division aviation companies, one attack helicopter battalion, seven chemical companies, and three field artillery battalions.

In addition, the National Guard gave us a list of about 21,800 Guard division spaces that are currently on theater commanders' deployment rosters. These represent the theater commanders' assessment of the units needed for war-fighting. We compared this list to the TAA 2005 unresourced requirements and found over 1,800 spaces in 11 aviation units that closely or exactly matched the 2,400 space aviation war-fighting shortfall. This illustrates the potential for the Army to further reduce its unresourced requirements by assigning war-fighting missions to units in National Guard divisions.

National Guard Conversions Can Reduce Support Shortages, but Program Is Not Effectively Managed

As part of the National Guard Division Redesign program the Army plans to convert about 45,000 positions in two Guard divisions from nonwar-fighting missions to war-fighting support between 2000 and 2009. If the program is successful, it will halve the TAA 2005 support force shortfall from 91,300 to

<sup>13</sup>Force Structure: Army Support Forces Can Meet Two-Conflict Strategy With Some Risks (GAO/NSIAD-97-66, Feb. 28, 1997).

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46,300 spaces by the end of fiscal year 2009.<sup>14</sup> Even though about 68 percent of the spaces will convert to specialties with the largest number of unresourced requirements—transportation, quartermaster, and chemical—only 25 percent are planned to convert by 2003. Further, the program's success will depend on buying new equipment according to Army officials. In 1997, the Army estimated the program to cost about \$5 billion, which does not include costs to upgrade facilities. However, only \$1.9 billion are programmed in the Army's fiscal year 2000-05 POM, most of it (66 percent) is programmed for fiscal years 2004-05. Army officials stated that they have not updated the program's costs since 1997 when they prepared the 1999-2003 POM, and do not have a current estimate of how much money will be needed to convert all 45,000 positions.

Most Spaces to Convert After 2003

About 75 percent (almost 34,000) of the conversions are planned to take place in 2004 or later. Table 6 shows near-term and long-term planned conversions by support specialty.

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<sup>14</sup>In 1996, we reported that the National Guard combat divisions were not needed for the two-war strategy and recommended that some be converted to support roles or eliminated if the forces exceeded validated requirements.

**Table 6: Planned National Guard Conversions**

Specialty	Fiscal years 2000-03	Fiscal years 2004-09 <sup>a</sup>	Total
Air Defense	406	4,488	4,894
Army-level headquarters	32	0	32
Aviation	0	1,448	1,448
Chemical	720	3,021	3,741
Engineer	92	1,008	1,100
Field Artillery	0	1,305	1,305
Military Police	647	0	647
Ordnance	965	1,330	2,295
Quartermaster	3,628	8,810	12,438
Signal	624	2,131	2,755
Transportation	4,196	10,113	14,309
<b>Total</b>	<b>11,310</b>	<b>33,654</b>	<b>44,964</b>

<sup>a</sup>According to Army officials, the conversions planned for fiscal years 2006-09 may change as a result of subsequent TAAs and POM programming decisions.

Source: GAO analysis of Army data.

The Army's fiscal year 2000-05 POM shows the planned conversion of 18,846 spaces from six brigades. However, as of December 1998, the Army had identified only three of the six brigades and only about half the spaces it budgeted to convert in the POM. Army officials stated that the next three brigades may be identified in February 1999.

### The Army Did Not Convert 66,000 Positions as Planned in TAA 2003

Prior Army efforts to reduce support force shortfalls have not been implemented as planned. In February 1997, when we reported on the results of TAA 2003, the Army had two major plans to significantly reduce unresourced requirements. The first was to shift 66,000 active and reserve positions from support units excess to the war-fight to higher priority support units. Converting these positions was estimated to cost \$2.6 billion. The second plan was to convert 42,700 positions in National Guard divisions from combat to support. This plan was estimated to cost an additional \$2.8 billion. In total, both plans would eliminate 108,700 unresourced requirements and cost \$5.4 billion. We also reported in January 1997 that procurement for converting the 66,000 spaces was to be fully funded before any of the National Guard redesign would be undertaken. However, Army officials stated that none of the 66,000 spaces have been converted and that the Army currently plans to implement only

the National Guard division redesign. Table 7 shows the changes in the Army's plans.

**Table 7: Changes in Army Plans to Reduce Support Shortfalls**

	Plan as of TAA 2003	Plan as of TAA 2005	Difference
Spaces to convert	108,700	45,000	63,700
Conversion cost	\$5.4 billion	\$1.9 billion through fiscal year 2005 <sup>a</sup>	\$3.5 billion
Conversion timeline	1998-2012 (15 years)	2000-2009 (10 years)	5 years

<sup>a</sup>Total cost unknown. This amount does not include all equipment, training, and facilities costs expected during fiscal years 2006 through 2009.

Source: GAO analysis of Army data.

**Total Cost for National Guard Redesign Program Is Unknown**

The total program cost is unknown because the Army's fiscal year 2000-05 POM did not include an estimate for facilities costs, and Army officials said that procurement costs for fiscal years 2006-09 have not been updated. However, the Secretary of the Army in August 1997 wrote that the Army was committed to the conversions and that meeting this objective would require about \$586 million per year through 2007 to buy equipment. If funding is provided at this level, procurement costs would add \$1.17 billion to the \$1.9 billion programmed in the POM. However, Army officials stated that the costs for the years beyond the POM can change depending on how the composition of unresourced requirements is changed by subsequent TAAs and which brigades are identified for conversion. For example, converting a unit to aviation (combat support) is much more expensive than converting a unit to quartermaster.

Although the largest cost is for equipment procurement, the conversions will also require funding for training and facilities. But the Army's most recent POM did not include any funding for facilities. Military construction to upgrade facilities will be needed to support the change in units. For example, Army officials stated that an armor unit may not have the facilities or infrastructure needed to support an aviation or truck company. The National Guard has estimated that facilities costs for converting the first 3 brigades would total \$130 million and that facilities costs for all 12 brigades could be as high as \$590 million. However, National Guard officials cautioned that, because only the first three brigades have been identified, facilities cost estimates for the remaining nine brigades are very

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preliminary. Estimates can change depending on units selected and the type of units to which they are converting.

The POM shows a total training cost estimate of \$85.5 million, of which \$76.7 million has been programmed. The Army estimates that training costs for fiscal years 2006-09 will total \$214 million, which means that the POM only funds 26 percent of the total estimated training cost.

### Redesign Program Not Effectively Managed

It is difficult for the Army to monitor the program's progress because no office provides consolidated, periodic reporting on the program's status. For example, Army officials agreed that no office is responsible for monitoring or reporting periodically on all program costs, including for equipment, training, and facilities expected between 2000-09; unfunded requirements; comparisons between planned converted units and unresourced requirements to show whether the most critical shortfalls are being addressed first; risk assessments if conversions are delayed; and comparisons between actual conversions and conversion plans to assess progress.

The only current program oversight is provided by a Process Action Team, which has been tasked with identifying total resource requirements through 2009.<sup>15</sup> The Secretary of the Army approved the redesign program in May 1996, yet the team has only met three times since then and has not yet identified the total resource requirements. According to Army documents, the team agreed that it would be prudent to give visibility to the total program costs to avoid giving the impression that the POM will cover all the costs. However, because there is no separate budget line item or project code for the program, the program's costs can not be identified in the POM, according to Army officials.

Further, fragmentation of program oversight among the many different offices that have representatives on the team creates ambiguity concerning who is responsible for program implementation issues such as ensuring that the most urgent conversions take place first. For example, only 8 percent of the total program spaces are in the chemical specialty, even though 48 percent of the chemical war-fighting requirement is unresourced.

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<sup>15</sup>An Army Headquarters office chairs the team, which consists of 32 members representing 10 different offices.



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## Host Nations Can Provide Some Support, Potentially Reducing Army Shortfalls

Both Army and theater command officials agree that host nations can provide some types of war-fighting support, potentially helping to reduce Army support force shortfalls. According to Army guidance, the Army should consider the availability of host nation support to reduce unmet requirements. However, Army officials told us that theater commanders had not provided updated host nation support data for use in TAA 2005 because agreements were still being negotiated. As a result, the Army only matched 1,300 spaces of host nation support against its war-fighting requirements, although Army "best estimates" suggest as many as 30,000 spaces of host nation support could potentially be available in the two theaters.

According to Army officials, since the end of the Cold War, theater commanders have found it difficult to determine how much host nation support would be available in their theaters and when. For example, the Secretary of Defense has repeatedly told Congress that at least one theater commander has had significant problems with the host nation support program because the command has few assurances that host nation support will be available when or where it is needed. The theater commander has begun to review host nation capabilities, but command officials told us that validating available resources from host nations will be a long-term process.

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## Conclusions

The Army's risk in carrying out the national military strategy has increased since the Army's TAA 2003 force structure review because requirements have increased, optimistic assumptions about war-fighting conditions have limited requirements, and support force shortfalls have increased. In addition, a higher number of support forces would not be expected to arrive at a major theater war within the first 30 days as required, and few active support personnel would be available to deploy to the second war.

The Army does not know the full extent of its risk because it did not perform the analyses needed to do so. For example, the Army did not re-run its models with the resourced force. Doing so would provide the Army information on how force structure decisions affect the war-fighting, including the availability of support forces and how the late arrival of support units affects war-fighting timelines. Another reason the Army does not know the full extent of its risk is because the Army did not include requirements for all campaign phases and did not identify what effects varying war-fighting conditions contained in defense guidance would have

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on requirements. For example, the Army did not identify requirements in cases where the adversary uses chemical weapons or for the redeployment of forces from a contingency operation to a major theater war, even though the guidance encourages such analyses. It is important to quantify the effects of including all phases and adverse conditions on support requirements since this data could influence Army force structure decisions and could be used to modify future defense guidance and modify force structure decisions to mitigate risk.

Since the Army still has substantial forces in excess of its war-fighting requirements, it can mitigate risk by converting positions from nonwar-fighting to war-fighting structure without increasing the force. Converting the two National Guard divisions from nonwar-fighting structure to war-fighting support positions as planned is a sound concept that would increase the proportion of end strength performing war-fighting missions and help reduce shortfalls. However, the program requires careful management, and the Army has not yet identified the total cost. Also, the Army could further mitigate risk by assessing whether other nonwar-fighting structure—such as institutional and unique—must be filled by military personnel. If these positions were filled by civilians or contractors, more military structure could be used to reduce support force shortfalls. Lastly, as theater commanders develop more current data on the availability of host nation support, the Army could consider such support when filling war-fighting requirements, as called for in Army guidance.

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## Recommendations

To improve the Army's ability to accurately determine war-fighting requirements, we recommend that the Secretary of Defense clarify guidance to require that the Army include all campaign phases in determining its war-fighting requirements.

To determine the risks in implementing the national military strategy, we recommend that the Secretary of the Army include the following as part of the next TAA:

- an analysis of the number of support forces needed under a range of conditions such as the small, medium, or large use of chemical agents by an adversary;
- a re-run of TAA models using the resourced force to assess the effects of end strength allocation decisions on war-fighting, including the late arrival of critical support forces;

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- an assessment of the differences between TAA models and theater commanders' plans in support force requirements in the first 30 days of a conflict; and
  - an analysis of the support forces required to extract forces from ongoing contingency operations and redeploy them to a major theater war and the effects of such redeployment on war-fighting timelines.

To improve the Army's ability to effectively monitor the progress of its National Guard Division Redesign program, we recommend that the Secretary of the Army require the Process Action Team to prepare a periodic report on the program that includes: (1) total program costs (including equipment, training, and facilities); (2) unfunded requirements; (3) a comparison of planned converted units with unresourced requirements to determine whether the most critical shortfalls are being addressed first; (4) an assessment of the risks arising from delays in conversion; (5) a comparison of actual conversions with plans; and (6) identification of obstacles.

To allocate end strength to nonwar-fighting force structure consistent with defense guidance, we recommend that the Secretary of the Army identify which nonwar-fighting positions could be filled by civilians or contractors, fill them with either civilians or contractors, and allocate the military positions saved to reduce war-fighting support force shortfalls.

To more accurately identify support force requirements, we recommend that the Secretary of the Army expedite the incorporation of Force XXI concepts into doctrine that would provide the necessary information to update TAA models.

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## Agency Comments and Our Evaluation

In written comments on a draft of this report, DOD concurred with the report and indicated that the Army plans to incorporate several of our recommendations in the ongoing TAA 2007. Overall, DOD said it was confident that the Army's initiatives would yield the right mix of trained and fully equipped ground forces to support the national strategy. DOD's comments are reprinted in full in appendix IV.

In response to our recommendations relating to TAA requirements determination and risk analysis, DOD stated that the Army plans to capture the projected land force requirements generated in all phases of both campaigns for inclusion in TAA 2007 requirements. DOD also stated that the Army would focus its efforts on the most likely weapons of mass

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destruction employment case in TAA 2007, based upon the best available intelligence estimates of enemy capabilities. We believe this will be an improvement over TAA 2005, but continue to recommend that the Army conduct additional analyses to better assess the risks of war-fighting conditions that are different than expectations. DOD also said the Army plans to implement our recommendation to rerun TAA models with the resourced force to assess the effects of available end strength on war-fighting. The Army will also assess the differences between theater commanders' and Army support force requirements. In conducting this analysis, we encourage the Army to fully consider the theater commanders' war-plan troop lists to ensure, for example, that the Army is able to resource, with predominantly active forces, the theater commanders' requirements for early arriving support forces. Last, DOD noted that TAA 2007 will consider the forces required to disengage from on-going contingencies and redeploy forces to a major theater war.

DOD also concurred with our recommendation to improve the Army's monitoring of the National Guard Division Redesign program and stated the program will be focused on determining the total costs and benefits of this effort. To ensure the conversion program is successful, we believe it is imperative that the Army implement our recommendation immediately, to include identifying total costs through fiscal year 2009, identifying unfunded requirements, and assessing risks if the program is delayed. DOD also noted that the Army is participating in a rigorous program to identify military positions for potential conversion to civilian or contractor positions. A successful conversion program could make more military personnel available to alleviate support force shortfalls; however, at the time of our review, the Army was unable to tell us how many military positions were candidates for conversion. With respect to updating Army models to reflect Force XXI concepts, DOD stated that the Army is continuing to develop doctrine and to design the force structure necessary to support the Force XXI digitized division and corps organizations and that this work is proceeding in a disciplined manner. We recognize that updating Army doctrine to incorporate Force XXI concepts is a challenging process but note that the intent of TAA is to focus on the Army's future force structure requirements (i.e., 2005) and any delays in incorporating Force XXI logistics or war-fighting concepts will result in a force structure that is linked more to past concepts than to the Army's future direction.

DOD further noted that, according to the Joint Staff, theater commanders are responsible for assessing the availability and appropriate use of host nation support to offset a portion of the Army's requirement. We agree that

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theater commanders are responsible for validating host nation support and for assessing the potential risks of host nation support offsets to war-fighting. But as our report notes, neither theater commander has been able to provide the Army with current host nation support data for use in TAA and one theater commander has reported significant deficiencies in his host nation support program. According to TAA guidance, the Army should consider host nation support during its resourcing process, and the Army has attempted to do this to some extent in both TAA 2003 and TAA 2005, despite shortcomings in the data.

Our scope and methodology are described in appendix III.

We conducted our review from April to December 1998 in accordance with generally accepted government auditing standards.

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We are providing copies of this report to Senator Wayne Allard, Senator Robert C. Byrd, Senator Max Cleland, Senator Pete V. Domenici, Senator Daniel K. Inouye, Senator Frank R. Lautenberg, Senator Joseph I. Lieberman, Senator Ted Stevens, and Senator Fred Thompson, and to Representative Neil Abercrombie, Representative Rod R. Blagojevich, Representative Dan Burton, Representative Stephen E. Buyer, Representative John R. Kasich, Representative Jerry Lewis, Representative John P. Murtha, Representative David R. Obey, Representative Christopher Shays, Representative John M. Spratt, Jr., Representative Henry A. Waxman, Representative C. W. Bill Young in their capacities as Chair or Ranking Minority Member of Senate and House Committees and Subcommittees. We are also sending copies of this report to the Honorable William Cohen, Secretary of Defense; the Honorable Louis Caldera, Secretary of the Army; and the Honorable Jacob Lew, Director, Office of Management and Budget. Copies will also be made available to others upon request.

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If you or your staff have any questions concerning this report, please contact Gwendolyn Jaffe at (202) 512-4691. Major contributors to this report are listed in appendix V.

A handwritten signature in black ink that reads "Henry L. Hinton, Jr." with a stylized flourish at the end.

Henry L. Hinton, Jr.  
Assistant Comptroller General

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## Abbreviations

DOD	Department of Defense
QDR	Quadrennial Defense Review
POM	Program Objective Memorandum
TAA	Total Army Analysis
TTHS	Transients, Trainees, Holdees, and Students



# Key TAA 2005 Assumptions

TAA 2005 Assumption	Army Rationale
By fiscal year 2000, Army end strengths will be 480,000 active, 205,000 Army Reserve, and 350,000 National Guard.	These end strengths reflect QDR reductions of 15,000 active and 20,000 reserves. TAA 2005 did not include 25,000 reductions recommended by the QDR for reserve components because the Army had not decided how the reductions would be apportioned between the National Guard and Army Reserve.
The Army will deploy all 10 of its active divisions and make available all enhanced brigades in the two-war scenario. Army force structure will also contain eight National Guard divisions as strategic reserve.	Consistent with defense guidance, all 10 active divisions and all 15 enhanced brigades will flow into the two-war scenario. Previously, the Army only deployed those enhanced brigades that could arrive before cessation of hostilities. The National Guard divisions are a strategic reserve to respond to adverse situations.
The Army will employ four corps--two in each theater. Each corps will have a doctrinal war-fighting mission. The Army will source the 4th corps as much as possible in accordance with doctrine.	Defense guidance lists four corps.
Presidential Selected Reserve Callup occurs on the day of unambiguous warning of the first war.	This is consistent with defense guidance.
The Army will have immediate access to ports and airfields in the theaters of operation.	This is consistent with defense guidance.
There will be limited use of chemicals by adversaries consisting of both persistent/nonpersistent agents which will have limited operational/tactical effects.	Defense guidance contains conflicting statements about the level of enemy chemical use U.S. forces can expect. Army interpretation of defense guidance was "limited use" which meant that no force structure was added to the 747,000 war-fighting requirement.
Army requirements will be based on the first three phases of the campaign.	Army interpretation of defense guidance is not to add requirements for the last two phases of the theater campaign.
Units due to arrive in the first 30 days of the first war will be composed predominately of active forces.	This is consistent with defense and Army guidance. The Army determined that time delays associated with the mobilization of reserve forces generally preclude their arrival in the first 30 days.
The Army will begin the counteroffensive of a major theater war when adequate support forces arrive in the theater.	Army models and one theater commander's plans are consistent in their estimate of when adequate support forces would arrive.
There will be no delays or degradation of capability resulting from the transfer of support forces from a contingency operation to a major theater war.	Defense guidance assumes that U.S. forces assigned to a contingency operation are immediately available to redeploy to a major theater war.

# Army Requirements for Two Wars, Resourced and Unresourced

Specialty	Required	Resourced <sup>a</sup>	Unresourced <sup>b</sup>	Percent resourced
Logistics	45,136	45,136	0	100.00
Public Affairs	1,420	1,420	0	100.00
Army Level Headquarters	4,538	4,538	0	100.00
Brigade & Division Headquarters	7,693	7,693	0	100.00
Civil Affairs	5,270	5,270	0	100.00
Psychological Operations	2,556	2,556	0	100.00
Armor	37,965	37,965	0	100.00
Infantry	71,116	71,116	0	100.00
Medical	39,352	39,154	198	99.50
Military Police	35,606	35,425	181	99.49
Personnel Service Support	17,617	17,501	116	99.34
Special Operations Forces	4,719	4,677	42	99.11
Field Artillery	69,337	68,032	1,305	98.12
Military Intelligence	16,122	15,704	418	97.41
Engineering	75,104	71,841	3,263	95.66
Aviation	41,551	39,125	2,426	94.16
Signal	34,235	31,840	2,395	93.00
Ordnance	46,932	43,591	3,341	92.88
Air Defense	25,285	21,203	4,082	83.86
Quartermaster	57,289	40,239	17,050	70.24
Transportation	84,749	58,379	26,370	68.88
Chemical	23,584	12,317	11,267	52.23
<b>Total</b>	<b>747,176</b>	<b>674,722</b>	<b>72,454</b>	<b>90.30</b>

<sup>a</sup>Resourced units are those allocated end strength and the Army assumes in TAA that these units are at 100 percent of wartime strength. During peacetime, some support units are authorized fewer positions than required. In TAA 2005, these shortfalls totaled 17,843 positions.

<sup>b</sup>These are positions in units that are not authorized end strength and exist only on paper. The shortages in this column assume successful conversion of 18,846 nonwar-fighting spaces in National Guard divisions between fiscal year 2000 and 2005.

Source: GAO analysis of Army data.

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# Scope and Methodology

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To determine if there were changes in the Army's risk of not having sufficient forces to implement the national military strategy, we compared the Army's 1996 and 1998 force structure reviews. We obtained and reviewed the Army's documentation on its Total Army Analysis (TAA) processes, assumptions, and results at Department of Army Headquarters, Washington D.C.; Concepts Analysis Agency, Bethesda, Maryland; U.S. Army Training and Doctrine Command, Fort Monroe, Virginia, and Fort Leavenworth, Kansas; Army National Guard Bureau; and Office of the Chief of Army Reserve. To better understand how the requirements of the joint war-fighting commands are considered in the TAA process and how theater commands are affected by TAA results, we requested information from the Commanders in Chief of the U.S. Central Command and the U.S. Pacific Command.

Our review of TAA 2005 included analyses of the risks associated with the number and type of active and reserve support forces allocated to support war-fighting requirements including comparisons with TAA 2003 results and theater commander war-plans; the Army's assumptions compared with those in defense guidance, TAA 2003, theater commander war-plans, and more recent Department of Defense (DOD) assessments; and the major assumptions used in TAA and how they affect force structure outcomes (including measures of risk). We did not evaluate logistical data used in the TAA process, however, prior GAO recommendations to establish valid and consistent data have been implemented.

We compared the Army's TAA 2005 reported results with automated data from the Army's MERLIN system. MERLIN is an analytical tool that allows programmed resources to be aligned against war-fighting requirements. The programmed resources are imported from the Army's official force structure data base (SAMAS). Based on our analysis, we were satisfied that the Army's automated data and reported results were in substantial agreement. We did not test the Army's management controls over its automated system.

To assess the Army's potential for mitigating risk by reallocating its existing end strength, we obtained the Army's justification for its nonwar-fighting force structure, including institutional forces; transients, trainees, holdees, and students; and National Guard divisions (strategic reserve). We considered the Army's recently reported material weakness and corrective action plan to determine if the plan included steps to ensure that the Army's institutional force is efficiently organized and comprises the minimum number of personnel. We also reviewed Army Pamphlet 100-1, which

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provides the redesign objectives for the institutional force. We also ascertained whether the Army determined that these institutional forces, as well as other support forces such as its unique force structure, are military essential.

# Comments From the Department of Defense



PERSONNEL AND  
READINESS

THE OFFICE OF THE UNDER SECRETARY OF DEFENSE  
4000 DEFENSE PENTAGON  
WASHINGTON, DC 20301-4000



FEB 16 1999

Mr. Richard Davis  
Director, National Security Analysis  
National Security and International Affairs Division  
U.S. General Accounting Office  
Washington, DC 20548

Dear Mr. Davis:

This is the Department of Defense (DoD) response to the GAO draft report "Force Structure: Opportunities for the Army to Reduce Risk in Executing the Military Strategy," dated January 14, 1999 (GAO Code 701140), OSD Case 1736. Several of the initiatives proposed by the GAO report are already under study within the Army Staff and will be incorporated into the Army's Total Army Analysis 2007 (TAA-07). The Department has carefully reviewed the draft GAO report and concurs with the following comments.

GAO Recommendation #1: To improve the Army's ability to accurately determine warfighting requirements, the GAO recommended that the Secretary of Defense clarify its guidance to require the Army to include all campaign phases in determining its warfighting requirements.

Response: Concur with Comment. The Army is working with its Service component staffs to derive requirements for operational phases not identified by CINC war plans or supported by current modeling methodologies. TAA-07 will capture the projected land force requirements generated by all theater campaign phases.

GAO Recommendation #2: To determine the risks to implement the National Military Strategy, the GAO recommended that the Secretary of the Army include the following analyses as part of the next Total Army Analysis (TAA):

- Sub-Recommendation #2a. Determine the number of support forces that would be needed to combat a range of conditions such as small, medium, or large use of chemical agents by an adversary.

Response: Concur with Comment. In similar fashion, the revised TAA-07 modeling methodology will also address the effects of weapons of mass destruction (WMD). We believe, however, that time and resource availability constraints will require these efforts to focus on the most likely WMD employment case, based upon the best available intelligence estimates of enemy capabilities.



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**Appendix IV**  
**Comments From the Department of Defense**

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- Sub-Recommendation #2b. Rerun its minimum TAA models with the resourced force to assess effects of the end strength allocation decisions on the warfight.

Response: Concur. The TAA models will be recomputed with the “resourced force” to assess effects of available end strength on the warfight.

- Sub-Recommendation #2c. Assess the differences in support force requirements in the first 30 days between TAA models and theater commanders’ plans:

Response: Concur with Comment. The TAA models will be recomputed with the “resourced force” to assess effects of available end strength on the warfight. This assessment will also capture the differences between the CINCs’ “ideal case” requirements and the resource constrained fighting force.

- Sub-Recommendation #2d. Determine the effect on the warfight timelines and identify the support forces required to extract forces from on-going contingency operations and to redeploy them to a major theater war:

Response: Concur with Comment. TAA-07 will also capture the forces required to disengage from on-going contingencies and redeploy forces to a major theater war.

GAO Recommendation #3: To improve the Army’s ability to effectively monitor the progress of its National Guard Division Redesign program, the GAO recommended that the Secretary of the Army require the Process Action Team to prepare a periodic report on the Guard conversion program to include: (1) total program costs (including equipment, training, and facilities); (2) identification of unfunded requirements; (3) comparison of planned converted units to unsourced requirements to show the most critical shortfalls are being addressed first; (4) assessment of risks if conversions are delayed; (5) comparison of actual conversions to plans to assess progress; and (6) identification of barriers to conversion.

Response: Concur with Comment. The Army National Guard Division Redesign study, nearing full implementation, will be focused on determining the total costs and benefits of this complex reorganization effort.

GAO Recommendation #4: To allocate end strength to non-warfight force structure consistent with Defense guidance, the GAO recommends that the Secretary of the Army identify non-warfight positions that could be filled by civilians or contracts, and fill them with either civilians or contractors, and allocate the military positions to alleviate warfight support force shortfalls.

Response: Concur with Comment. To maximize the effectiveness of our fighting forces, the entire DoD is participating in a rigorous program to identify military billets for potential conversion to civilian or contractor billets. This effort will provide funds to

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modernize Defense systems while targeting military end strength to satisfy critical operational shortfalls.

GAO Recommendation #5: To more accurately identify support force requirements, the GAO recommends that the Secretary of the Army expedite incorporating Force XXI concepts into doctrine which could provide the necessary information to update the TAA models.

Response: Concur with Comment. Finally, the Army continues to develop the doctrine and design the force structure necessary to support Force XXI Division and Corps organizations. They are continuing to progress in a disciplined manner to ensure the resulting force structure is functional, feasible and affordable. We are confident the efforts addressed above and discussed in the attached detailed response will yield the right mix of trained and fully equipped ground forces to support the National strategy.

General Comments: The Joint Staff also identifies your recommendation that the Army should have "more current data on the type and availability of host nation support...to reduce shortfalls" as a critical concern. In brief, the Theater CINC sizes the warfight requirement and assesses the availability and appropriate use of host nation support to offset a portion of that requirement. The Services, in turn, properly react to the CINCs' statement of requirements. We share the Joint Staff's concern that, in the war planning process, the Services perform essential "organize, train and equip" functions in response to CINC-determined priorities; the Services neither identify the priorities nor size the requirement. Toward that end, we strongly recommend that your final document properly reflect the relative roles of OSD, the Joint Staff, the CINCs and the Services.

The Department appreciates your interest in Defense matters and looks forward to the final report with our comments. My point of contact is Lieutenant Colonel Sid Evans, USAF. He can be reached at 703-614-5133 or via e-mail at EvansS@pr.osd.mil.

Sincerely,



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

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