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**Impact of the Wars in  
Iraq and Afghanistan on  
the US Military's Plans,  
Programs and Budgets**

BY TODD HARRISON



# **IMPACT OF THE WARS IN IRAQ AND AFGHANISTAN ON THE US MILITARY'S PLANS, PROGRAMS AND BUDGETS**

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## **About the Author**

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## CONTENTS

vii	Executive Summary
1	Introduction
3	Chapter 1. Impact on Troop Quality
13	Chapter 2. Impact on Size and Shape of the US Military
21	Chapter 3. Impact on Modernization Plans
27	Chapter 4. Impact on Readiness
31	Conclusions





# EXECUTIVE SUMMARY

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The conflicts in Iraq and Afghanistan have taken a toll on the US military over the past seven years. The strain is being felt throughout the Services, in terms of wear and tear on the troops, their families, and their equipment. Now the United States faces the daunting challenge of resetting the force while continuing to fight two wars and preparing for future adversaries — all in an era of unprecedented economic and budgetary uncertainty. This report addresses the impact of the wars in Iraq and Afghanistan on the plans, programs, and budgets of the US military, specifically those of the US Army, since it has carried much of the burden of fighting these wars.

The wars have had a negative impact on both Army recruiting and retention. While each of the Services has managed to meet recruiting goals each year, the Army has been forced to reduce standards for enlistees and to draw on the Delayed Entry Pool of candidates already in the pipeline. As a result, the quality of Army recruits has diminished significantly — as measured by scores on the Armed Forces Qualifying Test, the percentage of enlistees with high school diplomas, and the number of moral character waivers granted. On the positive side, many key indicators are roughly similar to those of the 1980s, which yielded the Army that performed well in the conflicts of the 1990s. Retention has also suffered, due in large part to the stress created by long and repeated deployments. Efforts to improve retention, particularly the sharp increase in non-cash benefits, much of which was enacted before 2001, have been costly and not well targeted. However, the use of targeted cash bonuses for enlistment and reenlistment does appear to be effective.

The past seven years of conflict have also led to decisions to alter the size and shape of the Army. The force is growing by 65,000 soldiers, and the Army is being reorganized into a more modular force structure centered on Brigade Combat Teams (BCTs). The new BCT force structure will have fewer maneuver

battalions and companies than before, with the promise that the addition of Armored Reconnaissance Squadrons and Reconnaissance Surveillance and Target Acquisition Squadrons will serve as combat multipliers to offset this reduction—a proposition that is being tested now in BCT deployments to Iraq and Afghanistan. Although specialized units would be more efficient and effective at conducting irregular warfare operations, and at training and advising indigenous forces, the Army has opted not to develop them, instead focusing on fielding BCTs with “full-spectrum” capabilities.

The impact of the wars on the Army’s modernization plans has not been what one would expect. The Future Combat Systems (FCS) was the Army’s main modernization program, with a price tag projected at upwards of \$160 billion. The program’s high cost limited projected fielding of FCS systems to only one third of the active force, with the rest receiving less-capable upgrades to existing equipment. The FCS also suffered from technical risk; many of the technologies essential to its performance are far from mature. Furthermore, the program appeared greatly weighted toward addressing traditional, or conventional, threats in what has become an era of persistent irregular conflict. Recognizing these problems, Secretary of Defense Robert Gates recently terminated the program’s eight ground combat vehicles. It remains to be seen whether a restructured program will represent an improvement.

Overall materiel readiness has also been affected by the wars. The cost of “re-setting” the force—overhauling the existing inventory of equipment, which has seen much higher usage rates in Iraq and Afghanistan—is significant but appears to be sufficiently funded. However, the increased maintenance and repair requirements along with the deteriorating condition of equipment and previously existing shortages combine to worsen the materiel readiness situation further.

Taken together, the impact of the wars on troop quality, force structure, modernization plans, and materiel readiness poses a serious challenge for overall Army readiness. Eroding troop quality, a force structure that is not optimized for irregular warfare, and weapons that are too expensive to field in sufficient quantity risk having devastating consequences on overall military effectiveness. While the challenge may be daunting, it also presents a unique opportunity for the Army to remake itself into a fighting force better suited for the challenges ahead.

## INTRODUCTION

For over seven years the United States has been at war. As with all wars, the human cost has been substantial, with over 4,998 Americans killed and 34,321 wounded to date.<sup>1</sup> The Congressional Research Service estimates the financial cost of the wars at \$864 billion, with an additional cost of \$440 billion to \$865 billion expected over the next ten years.<sup>2</sup> The strain is being felt throughout the military, in terms of wear and tear on the troops, their families, and their equipment. Seven years of war have taken a toll.

As a result, the United States now faces the daunting challenge of resetting the force while continuing to fight two ongoing wars and preparing for future adversaries—all in an era of unprecedented economic and budgetary uncertainty. The nation went to war in 2001 with a military caught in the middle of a transformation into a faster, lighter, more network-centric force. Today the military finds itself reorienting once again, this time to focus on irregular warfare and the full range of threats likely to emerge in the near future. In order to address the challenges of both resetting and reorienting the force, the true impact of the wars on the military must first be understood.

The purpose of this report is to analyze the impact of the wars in Iraq and Afghanistan on the military's future plans, programs, and budgets, focusing primarily on the Army since this is where much of the burden for fighting the wars has fallen. It begins by first looking at the quality of troops being recruited and the cost-effectiveness of strategies to improve recruiting and retention. The second chapter analyzes the impact of recent decisions to increase the size of the force and plans to move to a more modular force structure. The third chapter

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<sup>1</sup> Based on officially released totals from the Department of Defense as of June 6, 2009. Accessed at: [http://siadapp.dmdc.osd.mil/personnel/CASUALTY/gwot\\_component.pdf](http://siadapp.dmdc.osd.mil/personnel/CASUALTY/gwot_component.pdf)

<sup>2</sup> Amy Belasco, *The Cost of Iraq, Afghanistan, and Other Global War on Terror Operations Since 9/11*, updated October 15, 2008.

examines current modernization programs and their suitability for fighting irregular versus conventional wars. The final chapter focuses on readiness and the interdependencies between troop quality, force structure, and equipment modernization.

## CHAPTER 1 > **IMPACT ON TROOP QUALITY**

The wars in Iraq and Afghanistan have had an impact on all of the Services, but perhaps most notably on the US Army. Recruitment and retention of qualified personnel have been challenging, and some key indicators of troop quality have declined. This decline is clearest in the case of the Army's recruitment efforts. Though more difficult to measure, it also appears that the Army has encountered problems in some areas of personnel retention. Although various factors have played a role in creating a more difficult recruiting and retention environment, it appears that the stress created by long and repeated deployments to Iraq and Afghanistan has been the most important factor.

The need to attract and retain the best personnel possible in such a stressful wartime environment has contributed to the substantial growth that has occurred in the Army's (and the other Services') personnel budgets in recent years. However, much of the growth in per-capita military personnel costs that has occurred over the past decade stems from policy changes that pre-date the wars in Iraq and Afghanistan. The other Services have generally been much more successful in meeting their recruitment and retention targets in recent years. In the case of the Navy and Air Force, a major factor appears to be that these Services have been much less heavily strained by the wars.

This chapter provides an overview of trends in Army personnel quality since the beginning of military operations in 2001; discusses the extent to which the Service's problems with recruitment and retention appear to be linked to the stress caused by its intensive engagement in military operations; and describes the cost growth that has influenced military personnel budgets over this period, and the extent to which that cost growth has been driven by the wars in Iraq and Afghanistan (vice other factors).

## THE ALL-VOLUNTEER FORCE IN WARTIME

In October 2001, the US military began operations against al Qaeda and the Taliban government in Afghanistan. In March 2003, the Bush Administration launched the invasion of Iraq. Today, US forces remain heavily engaged in both countries. In terms of personnel recruitment and retention, the trends of the past seven years have been mixed. The Navy, Air Force and Marine Corps appear to have weathered this period relatively well.

In each of these years, all three of these Services have met or exceeded both their quantitative goals for active-duty recruits and their benchmarks for active-duty recruit quality.<sup>3</sup> The three Services have also maintained continuation rates comparable to those sustained in the 1990s. The success of Navy and Air Force recruitment and retention efforts over the past six years has been facilitated by two important considerations. First, over the past several years both Services have been cutting their end strength, allowing them to reduce their recruitment and retention requirements as well as permitting them to be more selective in terms of the personnel they accept and retain. Second, while Navy and Air Force personnel have played a significant supporting role in Iraq and Afghanistan, the Army and (to a lesser extent) the Marine Corps have borne primary responsibility for operations in those countries. Thus, the Navy and Air Force have largely been spared the much higher personnel tempo (PERSTEMPO) rates that have affected the Army and Marine Corps.

By contrast, the Army, especially over the past five years, has experienced some problems meeting its personnel recruitment and retention goals. In the first few years after 9/11, the Army was able to meet both its quantitative and qualitative goals for recruits. The quality of active-duty Army recruits actually increased between 2000 and 2003. Indeed, in 2003 the share of active-duty Army recruits scoring above the median on the Armed Force's Qualification Test (AFQT)<sup>4</sup> reached 71 percent. This was not only well above the Army's benchmark goal of 60 percent, but the largest share achieved since the early 1990s, which were the Army's best recruiting years ever. In 2004, however, the Army began to experience some problems: both quantitative and qualitative goals for recruits were met that year; however, this was possible only because the Army drew upon its delayed-entry pool (DEP).<sup>5</sup> Normally, the Army tries to maintain a DEP equivalent

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<sup>3</sup> In the case of Navy, Air Force and Marine Corps reserve personnel, the picture is more mixed. The Marine Corps Reserve and Air Force Reserve have consistently been able to meet both their quantitative and qualitative goals for recruits. By contrast, the Navy Reserve and Air National Guard have missed their quantitative targets for recruits several times in the past seven years, and experienced some decline in quality.

<sup>4</sup> The AFQT assesses both basic verbal and mathematical abilities. It is benchmarked against the eighteen to twenty-three-year-old civilian population.

<sup>5</sup> Heidi Golding and Adebayo Adedeji, *Recruiting, Retention and Future Force Levels of Military Personnel*, accessed at <http://www.cbo.gov/ftpdocs/76xx/doc7626/10-05-Recruiting.pdf>, p. 4.

to about one third of the next year's recruiting goal. In 2004, it drew the pool down to only about 19 percent of projected 2005 requirements.<sup>6</sup> Over the next few years, the Army's efforts began to falter more seriously.

By 2007, the share of Army recruits with high school degrees had dropped to 79 percent. This was below the benchmark goal of 90 percent and the Service's lowest level in some twenty-five years. The share of Army recruits with high school degrees increased slightly in 2008. However, at 83 percent, the share remained at its lowest level since the early 1980s.

Another indication that Army recruit quality has suffered is the decline in share of recruits scoring above average on the AFQT. From the early 1990s through 2004, the share of Army recruits scoring above average was typically between 65 and 70 percent — reaching (as noted above) a recent high of 71 percent in 2003. By comparison, over the past four years the share has remained in the 61–62 percent range. While this is still above the Service's benchmark goal of 60 percent, it is quite close. A further indication of the Army's personnel problems is suggested by its increasing use of “moral character waivers” for past criminal behavior.

Over most of the past several years, the Army has been able to meet its quantitative goals only because it resorted to stopgap measures (such as drawing down its DEP) which cannot continue to work indefinitely. Trends of the Army National Guard and Army Reserve have been similar to those of the active-duty Army in terms of recruit quality.

The Army's recent track record in personnel retention has been healthier. The Army has met or exceeded its overall retention goals for active duty enlisted personnel in each of the last seven years. The best available data suggest that, since 9/11, the Army has also been able to keep retention levels reasonably high among enlisted personnel in the Army National Guard and Army Reserve. The Army's stop-loss policy — through which the Army retains service members beyond the length of their obligations if they serve in a unit that is deployed, or scheduled to be deployed within ninety days — distorts recent continuation rate data to some extent. However, the distortion appears to be fairly small.

As for officers, the Army is experiencing a number of personnel problems related to both producing officers and retaining them. Today, the active-duty Army suffers a shortage of about 3,700 officers, particularly captains and majors. This shortage has been caused primarily by two factors: the failure to access (i.e., recruit and train) sufficient numbers of new officers in the 1990s, and the significant increase in officer requirements caused by the Army's initiative, begun in 2004, to shift to a “modular” brigade-centric force structure. Worse yet, this

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<sup>6</sup> Ibid. The DEP is composed of individuals who have enlisted in the military, but have not yet been inducted into the force (i.e., reported for basic training). The purpose of the DEP is to add some predictability and stability to the Army's recruitment and training efforts, and to improve the prospect that it will be able to meet its recruitment goals for the coming year.

**It is widely understood that the greatest source of the Service's recruitment and retention problems is the frequency and duration of deployments in Afghanistan and, especially, Iraq.**

shortage is likely to be exacerbated by current plans to expand the permanent active-duty end strength of the Army by some 65,000 troops (discussed in the next chapter of this report).

In order to address its officer shortage, the Army has increased the number of officer accessions and promotion rates. The former has been accomplished by greatly expanding the use of the Officer Candidate School (OCS) program, from just 10 percent of commissions in the 1990s to over 40 percent of commissions today.<sup>7</sup> Since OCS has traditionally represented a surge capability intended to quickly produce officers, this figure may raise some quality concerns.<sup>8</sup>

The other principal method the Army has used to attempt to address its officer shortage is increasing officer promotion rates and opportunities. In 1997 the promotion rates for Lieutenant Colonels and Majors were 60 percent and 75 percent of eligible officers, respectively. By 2007, these rates had risen to over 90 percent.<sup>9</sup> In other words, the Army has retained officers who, in past years, would have been passed over for promotion and (because the US military is an “up-or-out” system) involuntarily separated from service.<sup>10</sup> These officers are now being given higher ranks, and in a few years could be part of the senior officer corps. This, too, raises quality concerns.

## **ROLE OF THE WARS IN IRAQ AND AFGHANISTAN**

As with earlier periods in which the Army experienced problems with recruitment and retention, it is difficult to identify conclusively the sources of those problems. A number of factors shape an individual's decision to join or stay in the military, including the state of the economy, the military's pay and benefits, family considerations, and society's views concerning military service. In the case of the Army today, however, it is widely understood that the greatest source of the Service's recruitment and retention problems is the frequency and duration of deployments in Afghanistan and, especially, Iraq.

Since the invasion of Iraq in 2003, the US military has sustained continuously the deployment of roughly 150,000 to 200,000 military personnel in Iraq, Afghanistan, and elsewhere in the region. By comparison, during the preceding thirty years of the All Volunteer Force, the US military was involved in operations that were either much smaller (e.g., the deployment to Bosnia, which consisted

<sup>7</sup> Colonel Casey Wardynski, Major David S. Lyle, and Lieutenant Michael J. Colarusso, *Towards A U.S. Army Officer Corps Strategy For Success: A Proposed Human Capital Model Focused Upon Talent* (Washington, DC: Strategic Studies Institute, 2009), p. 7.

<sup>8</sup> Historically, the Army has relied primarily on its Service academy (West Point) and the Reserve Officer Training Corps (ROTC), operated at US colleges, to produce most of its new officers.

<sup>9</sup> Wardynski, Lyle, and Colarusso, *A U.S. Army Officer Corps Strategy for Success*, p. 4.

<sup>10</sup> Since 2001, the Army's promotion rates for mid-level officers have consistently exceeded the goals set out in the Defense Officer Personnel Management Act (DOPMA) of 1981.



of a maximum of 20,000 troops) or much shorter (e.g., the 1991 Gulf War which involved some 500,000 troops, but required deployments of less than one year for most troops and included only four days of ground combat). The Army has provided the majority of the troops deployed in these operations.

The Army's goal is to have three active-duty units in the force for each active-duty unit deployed in military operations.<sup>11</sup> In practice, however, many units have had only one year between deployments in recent years, equating to a ratio of 2 to 1.<sup>12</sup> The size and duration of these conflicts means that many Army personnel have now experienced multiple deployments.

In 2006, RAND published a study that examined the impact of the recent increase in PERSTEMPO on intentions to reenlist.<sup>13</sup> The study found that, while involvement in military operations did not decrease the intention to stay in the military for members of the other Services, it did for Army personnel. In the case of the Navy and Air Force, the difference presumably reflects the fact that the operations in Iraq and Afghanistan — while supported in important ways by the Navy and Air Force — have been primarily ground campaigns. It is less clear why trends in recruitment and retention for the Marine Corps — which, like the Army, has been heavily engaged in these operations — appear to be less negatively affected.<sup>14</sup>

According to the RAND study, which was based on 2002–03 data, the long workdays, uncertainty, and family separation associated with military deployments — and preparing for such deployments — negatively affected service members' intention to reenlist. The study also found that personnel who do not actually deploy to these operations may nevertheless be affected by them, because they are often required to work longer hours to compensate for personnel shortages at home bases.

The war in Iraq also appears to have led to a significant decline in the share of adults likely to recommend military service to youths, with the Army and Marine Corps — the Services most heavily engaged in military operations — being recommended the least often.<sup>15</sup> Likewise, in 2005, a survey of adults and youths showed that, for both groups, the wars in Iraq and Afghanistan had reduced their likelihood of joining the military, or recommending military service.<sup>16</sup> In the end, though it is impossible to *prove* that the higher PERSTEMPO caused by

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<sup>11</sup> Congressional Budget Office, "An Analysis of the US Military's Ability to Sustain an Occupation in Iraq: An Update," October 5, 2005, p. 4.

<sup>12</sup> Ibid.

<sup>13</sup> James Hosek, Jennifer Kavanagh and Laura Miller, *How Deployments Affect Service Members* (Santa Monica, CA: RAND, 2006).

<sup>14</sup> One factor may be that Marine Corps tours are generally shorter than Army tours (six months versus twelve to fifteen months).

<sup>15</sup> Golding and Adedeji, *Recruiting, Retention and Future Force Levels of Military Personnel*, p. 26.

<sup>16</sup> Ibid., p. 27.

the deployments in Iraq and Afghanistan has been the main cause of the Army's recent personnel problems, it appears to be a reasonable conclusion — especially, perhaps, given how much easier the two Services least affected by those wars (the Navy and the Air Force) have found it to be to meet their goals for recruitment and retention.

It seems reasonable to conclude that absent the large increases in military compensation provided in recent years the Army would have had had even greater difficulty with recruitment and retention.

## TRENDS IN MILITARY COMPENSATION

Military compensation has increased dramatically over the past decade. Average compensation for active duty military personnel is about 40 percent higher today in real terms than it was in 1999. By the late 1990s the average service member received greater cash compensation than 75 percent of workers in the civilian economy of the same age and possessing the same level of education. Moreover, the non-cash benefits received by military personnel were generally significantly more generous than those afforded civilian workers. Since the late 1990s military pay has grown more rapidly than wages in the overall economy. Thus, not surprisingly, a recent study by CBO found that (as of 2006), on average, service members continue to make more than 75 percent of their civilian counterparts.<sup>17</sup> When non-cash benefits — which, as discussed below, have been greatly expanded for military personnel since 1999 — are included, the differential has widened even more.

It seems reasonable to conclude that absent the large increases in military compensation provided in recent years the Army would have had had even greater difficulty with recruitment and retention. The other Services might also have experienced problems. Although the level of cash and non-cash compensation provided is by no means the only consideration that goes into an individual's decision to join or stay in the military, it is an important one. To many, the growth in compensation helped offset, to some extent at least, the negative impact of the Army's recently high PERSTEMPO.

However, the increases in military compensation that have been implemented since 1999 have not been especially well targeted toward improving recruitment and retention. Studies indicate that most potential recruits and military personnel, like people generally, are motivated much more by immediate cash benefits than by deferred non-cash benefits (e.g., healthcare and commissary privileges), because in the former case the individual can choose how to allocate the resources, thus maximizing the value to him or her. Moreover, individuals tend to underestimate the cost (and thus the value) of non-cash benefits provided by employers.<sup>18</sup>

<sup>17</sup> Carla Tighe Murray, *Evaluating Military Compensation* (Washington, DC: CBO, 2007), p. 14.

<sup>18</sup> One study, for example, found that on average private sector employees believe their non-cash benefits packages are worth only about 70 percent of what they actually cost their employers to provide. Edward E. Lawler, III, *Rewarding Excellence: Pay Strategies for the New Economy* (San Francisco, CA: Jossey-Bass, 2000), p. 99.

Likewise, people tend to heavily discount the value of deferred benefits.<sup>19</sup> The cost-effectiveness of deferred benefits provided only to military retirees is especially questionable as a means of attracting and retaining military personnel, since only about one in five people who join the military remain in service for the twenty years needed to qualify for retiree benefits.

Notwithstanding these findings indicating that immediate cash benefits tend to be the most cost-effective form of compensation, the increases in military compensation implemented since 1999 have been heavily weighted toward non-cash benefits, and especially deferred benefits directed at military retirees. For example, cash benefits (e.g., basic pay and the allowances for food and housing) accounted for about 42 percent of the increase in compensation provided between 1999 and 2005, while non-cash benefits accounted for some 58 percent of the growth.<sup>20</sup> And programs for military retirees accounted for three quarters of this increase in non-cash benefits. Overall, cash compensation for the average active-duty service member increased by about 40 percent between 1999 and 2008, while non-cash benefits grew by some 50 percent.<sup>21</sup>

The cost-effectiveness of the increases in military compensation provided since 1999 was also diminished by the fact that, for the most part, the compensations were implemented across the board, rather than targeted to those types of personnel the Services were having the most difficult time attracting and retaining. For the military as a whole over the 1999–2004 period, targeted special pay and incentives (e.g., enlistment and reenlistment bonuses), accounted for less than 10 percent of the increase in cash benefits provided.<sup>22</sup>

Whatever one may think about the significance of the increases in military compensation provided over the past decade in terms of mitigating the negative consequences of the wars in Iraq and Afghanistan on recruitment and retention, it is important to note that the most costly of these were provided—or at least set in motion—prior to 9/11. In 1999, Congress enacted a more generous pension plan for military retirees and set in law a requirement that, through 2006, military pay raises exceed the employment costs index (ECI, a measure of wage growth in the overall economy) by at least half a percentage point each year. In 2000, it enacted the “Tricare for Life” program, which provided expanded healthcare benefits for military retirees sixty-five years of age and older, and began increasing the military housing allowance. Although the lion’s share of the increases in compensation provided over the past decade pre-date the wars in Iraq and Afghanistan, some benefits were improved or further expanded after these wars began.

**Over the past several years in particular, the Army has greatly increased its spending on both enlistment and reenlistment bonuses.**

<sup>19</sup> Steven M. Kosiak, *Military Compensation: Requirements, Trends and Options* (Washington DC: CSBA, 2005), p. 46.

<sup>20</sup> *Ibid.*, p. 27.

<sup>21</sup> Author’s estimate based on update of estimates for the 1999–2005 period provided in *Ibid.*

<sup>22</sup> *Ibid.*

**The average Army recruit today appears to be of lower quality than his or her counterpart of the preceding ten to fifteen years but compares favorably to the All Volunteer Force of the early to mid 1980s.**

Over the past several years in particular, the Army has greatly increased its spending on both enlistment and reenlistment bonuses. For the Army overall (including both active and reserve components), total spending on enlistment bonuses rose from \$135 million in 2000 to \$366 million in 2005, while spending on selective re-enlistment bonuses increased nearly five-fold over this same period, from \$105 million to \$506 million. This shift towards greater use of enlistment and re-enlistment bonuses may have played an important role in preventing the emergence of even more troubling trends in recruitment and retention over the past few years. Studies have consistently shown that such bonuses are among the most cost-effective forms of military compensation.<sup>23</sup>

The Services, and the Army in particular, have also made use of special combat-related pays to help mitigate the impact on retention of extended and frequent deployments in Iraq and Afghanistan. Service members in those countries can earn an extra \$325 a month in imminent danger and hardship-duty pay.<sup>24</sup> Other special pays that may be available to deployed personnel include the family-separation allowance (\$250 a month) and overseas tour-extension pay (\$80 a month). In addition, all income earned by enlisted personnel deployed in combat zones is exempt from federal income tax. In the case of officers, this benefit is capped at the highest level of enlisted pay plus any imminent-danger or hostile-fire pay received.<sup>25</sup> For 2009, plans called for spending a total of more than \$150 billion on military compensation—exclusive of special war-related compensation, such as imminent-danger pay and the cost associated with activating reserve personnel.

## **THE US MILITARY TODAY**

As the discussion in this chapter shows, the US military has, in recent years, had a mixed record in terms of personnel recruitment and retention. As measured by traditional benchmarks, since 2001 the Navy, Air Force and Marine Corps have generally met both their quantitative and qualitative goals for recruits. Although the military's retention data is more difficult to evaluate, it appears that these Services have also been relatively successful at retaining the military personnel they need.

By comparison, the Army has experienced some problems in both its recruitment and retention efforts. However, it is important not to overstate the extent of decline. Measured by the broad range of indicators discussed above, the average Army recruit today appears to be of lower quality than his or her counterpart

<sup>23</sup> See, for example, Golding and Adedeji, *Recruiting, Retention and Future Force Levels of Military Personnel*, p. 21.

<sup>24</sup> For a discussion of the Services' use of such pays, see Murray, *Evaluating Military Compensation*, pp. 18–19.

<sup>25</sup> Ibid.

of the preceding ten to fifteen years. However, in many ways the Army's recent recruitment efforts still compare relatively favorably to what it achieved during the early years of the All Volunteer Force—through the early to mid 1980s. For example, the percentage of active-duty Army recruits with high school degrees in 2008 was substantially higher than the share achieved in 1980 (52 percent), or earlier years—when the term “hollow Army” was sometimes used to describe the state of the Service.

Similarly, the share of active-duty Army recruits scoring above the median on the AFQT was higher in 2008 than it was in 1984 (54 percent) or previous years. And the share of Category IV recruits (the lowest category accepted by the Army) in 2008, although high compared to the 1990s, was comparable to the percentages sustained in the late 1980s, and much lower than shares typically accounted for by such recruits through the mid 1980s.<sup>26</sup> Furthermore, the Army that fought successfully in the 1991 Gulf War was made up of individuals who, for the most part, joined the Service in the mid-1980s or earlier.

The problems the Army has experienced with retention over the past few years also need to be kept in perspective. The continuation rate for enlisted personnel has remained at relatively high levels, comparable to those sustained during the 1990s. Likewise, the Army's current officer shortage, while unfortunate, may be manageable. The shortage amounts to only about a 6 percent shortfall, and some analysts have argued that a shortfall of this magnitude should not pose a significant operational problem for the Army.<sup>27</sup> The downturn in the economy is another factor mitigating some of the recruiting and retention issues experienced by the Army. In the past year the size of the Army has actually risen slightly above the authorized end strength. As the unemployment rate continues to rise (recently exceeding 9 percent), a career in the military may look attractive to more young people.

Nevertheless, the recent trends in Army recruit quality are unsettling, particularly when viewed cumulatively. By itself, a decline in the share of recruits with high school degrees, or with above average scores on the AFQT, or an increase in the share of recruits granted moral waivers, or recruits allowed to slip through basic training because of lower standards, might not be too disconcerting. However, taken together, they paint a more troubling picture. Similarly, the trends in officer production and promotion rates discussed in this chapter raise some serious concerns about the quality of the Army's officer corps. In the case of both Army enlisted personnel and officers, these trends are of especially great concern in terms of what they may portend for the long term, if they are not reversed over the next few years.

**The recent trends in Army recruit quality are unsettling, particularly when viewed cumulatively.**

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<sup>26</sup> As late as 1985, for example, Category IV recruits accounted for 9 percent of the active Army's total.

<sup>27</sup> Charles A. Henning, “Army Officer Shortages: Background and Issues for Congress,” accessed at <http://fas.org/sgp/crs/natsec/RL33518.pdf>, p. 3.



## CHAPTER 2 > **IMPACT ON SIZE AND SHAPE OF THE ARMY**

The Army is in the midst of a substantial expansion and restructuring of its forces. As noted earlier, in 2007 the Bush Administration announced that it would increase the permanent active-duty end strength of the Army by 65,000 — ultimately bringing the Service’s total active-duty end strength to about 547,000. Concurrent with this expansion, under a plan announced in 2004, the structure of the Army is being changed from a force organized primarily around divisions to one organized around a larger number of smaller brigade combat teams (BCTs) capable of operating independently. The wars in Iraq and Afghanistan appear to be largely (although perhaps not solely) responsible for the decisions both to expand the Army and embrace this new “modular” force structure.

By expanding the Service’s rotation base, the planned expansion of the Army could allow a reduction in the length of combat tours in Iraq and Afghanistan, or in other future stability operations. Alternatively, if the length of these tours were not shortened, the expansion could allow the Army to increase the size of its deployments in such operations. As discussed in the last chapter, however, this expansion could also exacerbate the Army’s already difficult personnel recruitment and retention challenges, and possibly lead to a reduction in the quality and effectiveness of the Army’s forces.

In the case of the Army’s modularity plan, it seems likely that this restructuring will improve the Service’s ability to mobilize for large-scale, long-term stability operations. That said, there is considerable uncertainty concerning just how much this initiative will improve the Army’s capability for such operations. Moreover, the Army has so far resisted efforts at making other organizational changes that might be needed to significantly improve the Service’s ability to effectively carry out stability operations. In particular, the Army has foregone the creation of specialized units focused on irregular warfare and the development of a substantially expanded training and advising capability. Both the

**The Army has so far resisted efforts at making other organizational changes that might be needed to significantly improve the Service’s ability to effectively carry out stability operations.**

planned expansion of the Army and the decision to adopt a modular force structure organized around independent BCTs has increased the Service's budgetary requirements.

## THE ARMY'S MODULARITY INITIATIVE

In February 2004, the Bush Administration announced its plan to restructure the Army through its modularity initiative. Prior to this plan, the Army's active-duty forces were organized around ten divisions, each of which consisted of three combat brigades, plus several separate brigades and regiments—for a total of thirty-three combat brigades. Under the Army's new plan, a fourth brigade was to be created in each division, and the target for the total number of combat brigades was raised to forty-two. These BCTs were also to be manned and equipped so that they could operate independently more effectively. The extra troops needed for these BCTs were to be provided by shifting personnel from missions and functions for which the Army currently has excess capability (e.g., field artillery and air defense) and by making other changes—rather than by increasing Army end strength.

In early 2007, the Bush Administration announced plans to increase the permanent active-duty end strength of the Army by 65,000. Subsequently, the Army indicated that it would use these additional troops, in part, to increase the number of BCTs to be fielded from forty-two to forty-eight. Under the Army's restructuring plan, the Army National Guard is to be similarly reorganized into twenty-eight modular brigades, bringing the total number of active and reserve BCTs to seventy-six. Recently Defense Secretary Robert Gates announced that the number of BCTs in the active force would be reduced from forty-eight to forty-five.

The Army claims that its planned restructuring will increase by some 50 percent the readily available combat power it can deploy to military operations,<sup>28</sup> and thus substantially improve its ability to sustain large-scale military operations such as those in Iraq. In the case of the active-duty component alone, the Army argues that the modularity plan will allow the Service to increase its combat power by 30 percent or more.<sup>29</sup> But others have raised questions about whether, or by how much, the Army's modularity plans will actually improve its ability to sustain such operations.

Although the Army's restructuring initiative will increase the number of brigades that can be deployed, and allow those brigades to operate independently more effectively, each BCT will incorporate only two maneuver battalions, a

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<sup>28</sup> 2006 Quadrennial Defense Review, p. 43.

<sup>29</sup> Department of Army, *Army Strategic Guidance 2005* (Washington, DC: Department of the Army, January 15, 2005), p. 9.



reduction from the three maneuver battalions normally assigned to brigades under the pre-modular force. As a result, when the modularity plan is fully implemented, the Army will actually include fewer maneuver battalions and maneuver companies (there are typically three companies per battalion) than did the pre-modular force. Prior to announcing the decision to expand the Army in 2007, the Service estimated that the modular force would contain a total of 161 maneuver battalions (active and reserve) and 541 maneuver companies, compared to 233 maneuver battalions and 699 maneuver companies under the pre-modular force.<sup>30</sup> The addition of three more BCTs to the planned force structure would help narrow this gap, but by no means eliminate it.

The Army argues that the benefits of “combat multipliers,” such as the Armored Reconnaissance Squadron and Reconnaissance, Surveillance, and Target Acquisition (RSTA) Squadron that will be incorporated into each modular BCT, will more than offset the projected reduction in maneuver battalions and companies. According to one estimate, when these and other types of forces are included, the number of combat units available in the modular Army will actually be about 27 percent greater than in the pre-modular force.<sup>31</sup> The validity of this contention is currently being tested in Iraq and Afghanistan, where the Army has begun to deploy the first modular BCTs.

## COST ESTIMATES

DoD has estimated that the planned restructuring of the Army will cost some \$48 billion over the FY 2005–11 period. Much of this cost stems from the need to buy the additional equipment required to permit the modular BCTs to operate independently rather than being dependent on equipment and other assets held at the division level or above. However, this estimate may substantially understate the cost of the effort.<sup>32</sup> The planned increase in the size of the Army alone has added about \$77 billion to the cost of DoD’s plans for the FY 2007 to FY 2013 period.<sup>33</sup>

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<sup>30</sup> Andrew Krepinevich, *An Army at the Crossroads* (Washington, DC: CSBA, November 2007), p. 14.

<sup>31</sup> Adam Talaber, *Options for Restructuring the Army* (Washington, DC: CBO, May 2005), p. 8.

<sup>32</sup> Sharon Pickup and Janet St. Laurent, “Force Structure: Preliminary Observations on Army Plans to Implement and Fund Modular Forces,” Testimony before the Subcommittee on Tactical Air and Land Forces, Committee on Armed Services, US House of Representatives, March 16, 2005, p. 2.

<sup>33</sup> Congressional Budget Office, “Estimated Cost of the Administration’s Proposal to Increase the Army’s and Marine Corps’s Personnel Levels,” April 16, 2007, p. 1.

## RESTRUCTURING OPTIONS FOREGONE

Although the Army's decisions to restructure and expand its forces clearly represent, in large part, responses to the Service's experience in Iraq and Afghanistan, the Army has failed to take a number of other steps that could dramatically improve its ability to carry out large-scale stability operations, and do so in a cost-effective manner. These options include developing specialized irregular warfare units and substantially expanding the Service's training and advising capacity.

**The Army's track record in reorienting general purpose forces—which have traditionally focused on conventional warfare—to irregular warfare missions is not encouraging.**

## DEVELOPING SPECIALIZED IRREGULAR WARFARE FORCES

Under current plans, the modular Army will be composed entirely of “full-spectrum-capable” units. As the name suggests, these units are intended to carry out the full range of conventional and irregular warfare missions US forces might be called upon to perform. This is similar to the approach taken with the pre-modular Army, which was dominated by “general purpose” forces. Army leadership argues that given limits on size imposed by resource constraints, it has no choice—the Army simply cannot afford to divide its forces into units oriented primarily on either conventional or irregular warfare missions.

Some critics, however, have questioned the wisdom and validity of this conclusion.<sup>34</sup> Conventional warfare and various forms of irregular warfare differ substantially in terms of the equipment, skill sets and training required to perform the missions effectively. The Army argues that, despite these significant differences, units can be swung from one type of mission to the other. But the Army's track record in reorienting general purpose forces—which have traditionally focused on conventional warfare—to irregular warfare missions is not encouraging. Twice in the last half-century the Army has had to adapt its forces to conduct large-scale irregular warfare campaigns, first in Vietnam and more recently in Afghanistan and Iraq. In both cases, the Service required at least three years to adapt its general purposes forces to this kind of warfare. Notwithstanding the change in terminology, there may be little reason to believe that modular full-spectrum units will have any greater capacity for switching between different missions.

There is also reason to believe that the US military, and the Army specifically, may have more conventional warfighting capability than is likely to be needed for the foreseeable future. This conclusion is suggested, among other things, by the US experience in Iraq in 2003. The US military deployed the equivalent of about

<sup>34</sup> See, for example, Krepinevich, *An Army at the Crossroads*.

four divisions, including only one heavy Army division in its 2003 invasion of Iraq, out of a total of ten active Army and three active Marine Corps divisions.<sup>35</sup> If the Army does, indeed, have excess capability in the area of conventional warfare, the Service's argument that it cannot afford to field specialized warfare units would seem misplaced.

Personnel and units specifically equipped, trained, and organized to carry out stability operations and other types of irregular warfare will be more efficient and effective in performing such missions than full-spectrum-capable units. Holding all else constant, this means that to the degree that US forces – and US ground forces in particular – are optimized for irregular warfare, they should be able to “do more with less.” In other words, such a military should be able to conduct stability operations with fewer troops than a force comprised of full-spectrum-capable forces. This, in turn, would reduce the military's manpower and force structure requirements.

Just how much more efficient and effective specialized troops would be in carrying out stability operations and similar missions is difficult to estimate with any precision. However, even if the level of effectiveness per troop were improved by a relatively modest amount (say 10–15 percent), the impact on personnel requirements could be significant. For example, if such an increase in effectiveness allowed the Army to reduce its end strength – and, thus, its annual accession goal – by a comparable percentage, it might permit the Service to bring the share of recruits with high school degrees back up from the lows it has experienced over the past few years (around 80 percent) to its long-term goal of 90 percent. Thus, the payoff of shifting toward ground forces that include some number of specialized irregular warfare units could be substantial.

Another potential advantage of converting some BCTs to specialized irregular warfare units is that they would likely cost less to equip. In 2005, CBO released a study that examined a variety of different options for reorganizing the US Army.<sup>36</sup> One of those options involved eliminating six full-spectrum BCTs, plus supporting forces, and replacing them with five “Stability and Reconstruction” (S&R) divisions. CBO estimated that this move would yield savings of some \$32 billion through 2022. In large part this is because such units would not need to be equipped with the same costly high-technology weapons full-spectrum BCTs require (primarily to conduct conventional combat operations).<sup>37</sup>

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<sup>35</sup> A drawback to developing specialized irregular warfare forces is that if the United States ever did become engaged in a conventional war requiring large ground forces, such specialized units would, of course, be less effective than full-spectrum BCTs.

<sup>36</sup> Adam Talaber, *Options for Restructuring the Army*.

<sup>37</sup> *Ibid.*

## CREATING IMPROVED TRAINING AND ADVISING CAPABILITIES

**An approach that includes a larger capacity for training and advising might represent the only way the US military could hope to effectively carry out large-scale stability operations in countries larger than Iraq and Afghanistan.**

Rather than attempting to lower US manpower requirements by shifting to ground forces that include more specialized irregular warfare units (which are better suited to carrying out stability operations), another option would be to develop improved training and advising capabilities, and to use those capabilities to build up the capacity of other countries to carry out counterinsurgency and related operations effectively themselves. Alternatively, these two options might be pursued simultaneously—as complements to each other. These training and advising capabilities could be used to expedite the expansion of both indigenous and allied security forces. This approach could substantially reduce the number of US military personnel that would have to be deployed to military operations, since it would allow indigenous and allied security forces to substitute for US “boots on the ground.”

The US military is currently training and advising Iraqi and Afghan security forces. Traditionally, Army Special Forces (i.e., “Green Berets”) units are the only Army units specially trained and equipped to conduct training and advising missions. However, there are only a limited number of such elite units and, increasingly, they have been needed to carry out “direct-action” missions (e.g., attacking high-value targets in Iraq and Afghanistan). Thus, the training and advising mission in these countries has, for the most part, been performed by training and advisory teams created on an ad hoc basis.<sup>38</sup> Over the past year, some 4,800 US military personnel have gone through a ten-week training course to prepare them to work as trainers and advisors in Iraq and Afghanistan. These troops, organized into 135 teams in Iraq and 55 teams in Afghanistan, typically deploy for about one year, after which they receive other assignments.<sup>39</sup>

The Army argues that this approach has worked well. But others have complained that the approach is very inefficient because, once established, it takes a period of four to six months for these teams to become proficient in their duties, and only six to eight months later they are essentially disbanded.<sup>40</sup> Given this deficiency, the importance of this mission to the success of the wars in Iraq and Afghanistan, and the extent to which plans to expand the size of the US Army and Marine Corps seem to be driven by the perceived need to expand our capacity for stability operations, some have argued that the US military should create specialized training and advising units. For example, John A. Nagl (a recently retired Army officer who participated in developing the Army’s and Marine Corps’

<sup>38</sup> Andrew Feickert, “Does the Army Need a Full-Spectrum Force or Specialized Units? Background and Issues for Congress,” CRS, January 18, 2008, p. 15.

<sup>39</sup> *Ibid.*, p. 9.

<sup>40</sup> *Ibid.*

latest Counterinsurgency Field Manual and in the training of advisors and training units), has proposed that the Army establish a permanent 20,000 member Advisory Corps, organized into 750 twenty-five-member teams.<sup>41</sup>

A standing Advisory Corps of this size — composed of personnel proficient in foreign training and combat advisory skills — might allow the Army to build the capacity of indigenous and allied military forces far more quickly in some future conflict than it has in the cases of Iraq and Afghanistan. In turn, this could substantially reduce the amount of time US combat forces would need to be deployed — at least in large numbers — in such operations. Moreover, an approach that includes a larger capacity for training and advising might represent the only way the US military could hope to effectively carry out large-scale stability operations in countries larger than Iraq and Afghanistan (e.g., Pakistan or Nigeria).

The Army has rejected the idea of forming specialized training and advising units. Instead, it is reviewing a proposal to elevate the training and advising mission to a “core” mission of the Army’s full-spectrum-capable BCTs.<sup>42</sup> Doing so might lead to some improvement in capability. But DoD has already directed the Services to raise stability operations to the status of a core mission, on par (in theory at least) with their traditional focus on conventional combat operations. Adding still another mission to the level of “core” might raise concerns that the Army may be becoming a “jack of all trades, and master of none.” On the other hand, developing a standing Advisory Corps is not the only possible approach to substantially expanding the Army’s capacity for training and advising. Another option would be to embed the personnel needed to perform this function in the “institutional Army” (e.g., at headquarters, training facilities and schools), and surge these individuals when needed.<sup>43</sup>

One potential downside of expanding the Army’s training and advising capabilities is that, given the nature of the mission, such capabilities (whether in a standing force or embedded in the institutional Army) would likely require a higher proportion of officers and NCOs than are needed in other units. In theory, this might exacerbate the Army’s personnel problems. However, because it would facilitate the substitution of indigenous or allied security forces for American troops, it seems likely that expanding the Services’ training and advising capabilities would, on balance, do far more to reduce (than expand) the Army’s personnel requirements.

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<sup>41</sup> Ibid., p. 15.

<sup>42</sup> Ibid., p. 16.

<sup>43</sup> Krepinevich, *An Army at a Crossroads*, p. 63.



## CHAPTER 3 > **IMPACT ON MODERNIZATION PLANS**

The centerpiece of the Army's modernization plans is the Future Combat Systems (FCS). The FCS program consists of a family of fourteen different combat vehicles and other systems, including UAVs and sensors. Until recently, plans called for FCS equipment sufficient to arm about one third of the active Army, to be procured over roughly the next two decades, with the first fully-equipped FCS brigade deployed around 2015. At some \$161 billion, the FCS program was by far the most costly element in the Army's modernization plans. The remainder of the Army was to be modernized on a much more limited scale, largely through the upgrading of existing equipment such as the fleets of M-1 tanks and Bradley Fighting Vehicles.

As in the case of the planned expansion of the Army discussed in the preceding chapter of this report, the Army argued that the FCS program was consistent with the lessons learned over the past several years of operations in Iraq and Afghanistan. In fact, however, the FCS appeared likely to do little to improve the US Army's ability to carry out the kind of irregular warfare operations that have been the focus of the Service's efforts in those countries. In other words, to date at least, the wars in Iraq and Afghanistan appear to have done relatively little to change the shape of the Army's most important — and costly — modernization plans. Secretary Gates recently singled out the FCS program for major restructuring, saying:

I have concluded that there are significant unanswered questions concerning the FCS vehicle design strategy. I am also concerned that, despite some adjustments, the FCS vehicles — where lower weight, higher fuel efficiency, and greater informational awareness are expected to compensate for less armor — do not adequately reflect the lessons of counterinsurgency and close quarters combat in Iraq and Afghanistan...

**The Army's modernization plans appear to assume that in the future such irregular warfare operations will represent a secondary mission for US forces.**

Because the vehicle part of the FCS program is currently estimated to cost over \$87 billion, I believe we must have more confidence in the program strategy, requirements, and maturity of the technologies before proceeding further.<sup>44</sup>

This chapter provides a brief overview of the FCS program, including a description of its major components, and various areas of technical and cost risk associated with the program, as well as a discussion of the general unsuitability of the FCS program for irregular warfare operations. Rather than closely reflecting lessons drawn from Iraq and Afghanistan, the Army's modernization plans — like its plans for expanding the Service — appear to assume that in the future such irregular warfare operations will represent a secondary mission for US forces, and that US ground forces should be principally designed to conduct offensive operations in a conventional warfare environment.<sup>45</sup>

## **FCS COMPONENTS**

As structured by the Army, the FCS would comprise eight manned ground vehicles, four unmanned ground vehicles (UGVs) and two unmanned aerial vehicles (UAVs).<sup>46</sup> It would include a Non-Line of Sight Launch System (NLOS-LS), and various types of sensors — all of which are designed to be linked by a state-of-the-art network. The eight different manned ground vehicles, which have been singled out by Secretary Gates for termination, are:

- > Mounted Combat System (MCS). A combat vehicle equipped with a 120mm cannon that is intended to be as survivable and lethal as the Army's existing 72-ton M-1A2 tank, while weighing only one third as much.<sup>47</sup>
- > Infantry Carrier Vehicle (ICV). A vehicle capable of carrying a nine-person squad, armed with a 30mm cannon and 7.62mm machine gun.
- > Reconnaissance and Surveillance Vehicles (RSVs). To be equipped with a range of new sensors and unmanned systems, the vehicle is intended to operate as the units' "eyes and ears" on the battlefield.

<sup>44</sup> Robert Gates, *Defense Budget Recommendation Statement*, (Arlington, VA, April 6, 2009). Accessed at <http://www.defenselink.mil/speeches/speech.aspx?speechid=1341>

<sup>45</sup> For a more detailed discussion of the FCS program, see Krepinevich, *An Army at the Crossroads* pp. 35–46.

<sup>46</sup> The original FCS program included a total of eighteen different components.

<sup>47</sup> For a more detailed description of the FCS's components, see <https://www.fcs.army.mil/systems/mcs/index.html>.



- > Non-Line of Sight Cannon (NLOS-C). This self-propelled howitzer would provide extended-range indirect fire support employing, among other things, guided munitions.
- > Non-Line of Sight Mortar (NLOS-M). A vehicle equipped with a 120mm mortar to provide short- to mid-range indirect fire support.
- > Recovery and Maintenance Vehicle (FRMV). This vehicle is intended to perform recovery and maintenance support for the unit.
- > Medical Vehicles (MV-T and MV-E). Vehicles designed for casualty evacuation and treatment.
- > Command and Control Vehicle (C2V). A command vehicle intended to act as the hub of the unit's battle network.

In addition to the ground vehicle component of the FCS program—which would have been its most expensive element—the program included a range of UGVs and UAVs. The former consists of a Multifunctional/Logistics and Equipment (MULE) Vehicle and a countermine variant, the MULE-CM, as well as a Small Unmanned Ground Vehicle (SUGV) designed to conduct operations in urban terrain, tunnels and similar environments. Associated UAV programs include the platoon-level Class I UAV, which will have both reconnaissance and laser target-designation capabilities, and the Class IV UAV, designed to support brigade-level operations.

The Army intends to begin deploying individual FCS technologies to operating units beginning around 2010. Some of these “spin-outs” are already being evaluated by the 5<sup>th</sup> Brigade, 1<sup>st</sup> Armored Division, which is serving as an Army Evaluation Task Force. Under the Army's previous schedule, it sought to deploy the first fully equipped FCS brigade in 2015. There are, unfortunately, substantial technological and cost risks associated with the FCS program, which likely led to Secretary Gates' decision to cancel the program's fleet of ground combat vehicles.

The Government Accountability Office, among others, has raised serious concerns about the FCS's level of risk. In a 2008 report, the GAO noted that “The FCS program is recognized as being high risk and needing special oversight.”<sup>48</sup> Specific areas of technical risk identified by the GAO include:

**There are substantial technological and cost risks associated with the FCS program, which likely led to Secretary Gates' decision to cancel the program's fleet of ground combat vehicles.**

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<sup>48</sup> Testimony, Paul L. Francis, General Accountability Office, “2009 Review of Future Combat System Is Critical to Program's Direction,” Subcommittee on Air and Land Forces, Committee on Armed Services, House of Representatives, April 10, 2008, p. 3.

- > Software coding requirements for the program, which have tripled to over 95 million lines since 2003, exceed the requirements of any other US weapons program by a wide margin.
- > The schedule for demonstrating the FCS network, which was set for 2012, would have occurred only one year before the Army intended to begin production.
- > The incomplete nature of the design for the FCS battle network means that projected capabilities were based largely on modeling and simulations.
- > The vast majority of key technologies associated with the FCS program are at a low level of maturity.<sup>49</sup>

Nor is the GAO the only entity that has expressed concerns about FCS's technical feasibility. Earlier studies by the Army Science Board, the Defense Science Board and CBO raised similar concerns.<sup>50</sup>

Equally disconcerting are the price of the FCS program, and the potential for cost growth. As CBO has noted, "The FCS program is by far the most expensive modernization effort planned by the Army over the next 20 years."<sup>51</sup> The Army's most recent estimates were that the FCS program would cost about \$160 billion. The Government Accountability Office believes the program could run to as much as \$200 billion.<sup>52</sup> Two other independent cost estimates, one undertaken by the Institute for Defense Analysis (IDA), and the other by the Office of the Secretary of Defense's Cost Analysis Initiatives Group (CAIG) show results significantly higher than those presented by the Army. These estimates use historical cost growth rates for defense programs, whereas the Army estimates do not.<sup>53</sup>

Even without any further cost growth, the FCS program threatened to starve efforts to modernize the remainder of the Service's forces—including the two thirds of Army active brigades, and 100 percent of its National Guard brigades, that would have had to continue to rely on existing and upgraded equipment, since they were not projected to be equipped with the FCS. It would be difficult to

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<sup>49</sup> According to the Army's own assessment, only two of the FCS's forty-four critical technologies have achieved maturity levels that should have been demonstrated at program start, according to best practices standards.

<sup>50</sup> See, for example, Office of Program Analysis and Evaluation, *Army Transformation*, Briefing, July 26, 2001; "Objective Force and Future Combat Systems Independent Assessment Panel," Briefing (May 2, 2003), pp. 59–60; and Francis Lussier, *The Army's Future Combat Systems Program and Alternatives* (Washington, DC: CBO, 2006).

<sup>51</sup> Lussier, *The Army's Future Combat Systems Program and Alternatives*, p. 29.

<sup>52</sup> Andrea Shalal-Esa, "Army Defends Progress on Modernization Program," Reuters.com. May 13, 2008.

<sup>53</sup> Testimony, Paul L. Francis, General Accountability Office, "2009 Review of Future Combat System Is Critical to Program's Direction," Subcommittee on Air and Land Forces, Committee on Armed Services, House of Representatives, April 10, 2008, p. 10.

overstate the extent to which the Army risked mortgaging its future on the success of the FCS program. In a 2009 report, CBO noted that:

Beginning in 2015, the Army's plans call for purchasing one full brigade's worth of [FCS] equipment each year at an annual cost of \$6 billion to \$8 billion. CBO's projection indicates that all funding associated with FCS, including that used to insert FCS technology into existing systems and units [i.e. spin out]...could compose more than 50 percent of the Army's investments in ground combat vehicles in the period from 2014 to 2026.<sup>54</sup>

The technical and cost risks discussed above are enough to raise serious questions about the wisdom of moving forward with the FCS program as structured by the Army. But perhaps the most troubling type of risk associated with the program is *operational* risk — specifically, the risk that, as noted earlier, the FCS may not be optimized for the most likely or demanding future missions. According to Andrew Krepinevich, for example, the design of the FCS appears to be focused first and foremost on the open battle against an enemy with conventional forces, “even though there is no compelling evidence that any current or prospective rivals have fielded, or plan to field, forces that would present this kind of challenge.”<sup>55</sup> Although he does not dispute the need for some such capability, he raises questions about whether the Army's current FCS-focused modernization plans over-emphasize these kinds of capabilities. “To be sure,” Krepinevich notes, “the Army may confront a contingency in which it must deploy substantial numbers of BCTs rapidly and sustain them in an anti-access, area-denial (A2/AD)<sup>56</sup> threat environment, to include cases where the enemy has a small nuclear arsenal. However, if the Air Force and Navy are able to promptly suppress an enemy's A2/AD capabilities to enable the Army to deploy rapidly into the combat zone at an acceptable level of risk, it is not clear that a ground force along the lines envisioned by the Army would be necessary.”<sup>57</sup> This is because, as was demonstrated clearly in the Second Gulf War, US air power is likely to prove highly effective at destroying any enemy seeking to concentrate ground forces and engage in traditional conventional combat operations.

As Krepinevich concludes, the irony is that “the Army's Future Force, configured around the FCS, will likely be deployable only against an A2/AD threat that

**The design of the FCS appears to be focused first and foremost on the open battle against an enemy with conventional forces.**

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<sup>54</sup> Adam Talaber, *Long-Term Implications of the Fiscal Year 2009 Future Years Defense Program* (Washington, DC, January 2009), p. 14.

<sup>55</sup> Krepinevich, *An Army at the Crossroads*, p. 43.

<sup>56</sup> Anti-access/area-denial is a strategy aimed to prevent US forces entry into a theater of operations or to prevent their freedom of action in the more narrow confines of the area under an enemy's direct control. For a more detailed discussion of A2/AD threats, see Andrew Krepinevich, Barry Watts, and Robert Work, *Meeting the Anti-Access and Area-Denial Challenge* (Washington, DC: CSBA, 2003).

<sup>57</sup> Krepinevich, *An Army at the Crossroads*.

has already been defeated by air and maritime forces.” But those same forces are likely, in any case, to be capable of defeating enemy conventional forces operating in the open — without the help of FCS-equipped Army forces.<sup>58</sup> Worse yet, the FCS, as envisioned by the Army, appears to be somewhat ill-suited for operating in an irregular warfare environment — precisely the kind of environment for which air and maritime forces are also likely to prove rather ineffective, and the kind of warfare adversaries are likely to turn to in the future, as they have in Iraq and Afghanistan, to counter the US military’s advantage in conventional operations.

Among other things, the FCS’s costly and technologically risky reconnaissance and networking capabilities may prove ill-suited to the irregular warfare mission. According to the Army, FCS units will rely on “networked sensors and unmanned vehicles [to] allow companies and platoons to develop the situation with far greater precision before making contact with the enemy” and “these capabilities are essential in irregular warfare typically fought among the population.”<sup>59</sup> In reality, however, while these capabilities may work in detecting conventional enemy forces, it is difficult to see how they would be the primary means of identifying insurgent elements, unless they were massed for attack. A far better use of resources, it would seem, would involve human intelligence teams working among the population and with local security forces (e.g., the police).

Beyond the questionable utility of many FCS capabilities for the irregular warfare mission is the compounding problem that — as noted earlier — the Army’s planned FCS program is so costly that it would be difficult to adequately modernize the Service’s remaining brigades. As the wars in Iraq and Afghanistan have made clear, important irregular warfare missions, such as stability operations, tend to be very labor-intensive operations. It is no exaggeration to say that, including rotation-base requirements, the conflicts in Iraq and Afghanistan currently absorb all but a small fraction of the Army’s force structure (as well as much of the Marine Corps’). If the focus on the FCS caused the Army to short-change its plans to modernize and upgrade the remainder of its forces — which, by definition, are likely to bear the brunt of any future stability operations — the consequences could be severe. In light of these considerations, Secretary Gates’ decision to terminate the FCS’s eight ground combat vehicles seems prudent.

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<sup>58</sup> Ibid., p. 44.

<sup>59</sup> LTG Stephen M. Speakes, *2008 Army Modernization Strategy* (Washington, DC: Department of the Army, July 25, 2008), p. 70.

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## CHAPTER 4 > **IMPACT ON READINESS**

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The first chapter of this report described the impact the wars in Iraq and Afghanistan have had on the personnel quality of the US Army. Specifically, it explained how the higher PERSTEMPO caused by the Service's large-scale, long-term deployments in those countries had led to recruiting difficulties as well as retention problems in certain areas for the Army. Having sufficient numbers of quality military personnel is one key requirement for maintaining a ready military; it is by no means the only requirement. Also critical is the ability to keep forces adequately equipped with effective weapon systems, the ability to keep such equipment in good working condition, and the ability to keep US personnel and forces effectively trained.

This chapter focuses on these other readiness requirements, and examines the question of how much the ongoing operations in Iraq and Afghanistan have affected these elements of military readiness, with a focus on material readiness and the Army's (and, to a lesser extent, the other Services') "reset" requirements. As in the case of military personnel quality, it is easier to show that these wars have had a negative impact than it is to determine precisely how significant the impact has been. Nevertheless, it seems clear that, overall, the impact has been significant, both in terms of readiness and dollars.

Moreover, the effect of declines in personnel quality and other types of readiness are additive—that is, however significant such problems are when considered individually, their impact is likely to be substantially more troubling when combined. Put another way, quality military personnel operating inadequately maintained equipment, or lower quality troops operating well-maintained equipment may be problematic—but combining lower troop standards with (again, even modestly) lower equipment readiness standards could prove far more detrimental and troubling to military effectiveness.

## FUNDING FOR EQUIPMENT RESET

One indication of the extent to which weapon systems and other military equipment have been stressed by the wars in Iraq and Afghanistan is the more intensive rates at which they have been operated in those conflicts compared to normal peacetime rates.<sup>60</sup> To date, by far the most comprehensive and rigorous assessment of the impact of ongoing military operations on equipment readiness has been produced by CBO. In budgetary terms, as measured by CBO, the costs associated with increased equipment maintenance and repair requirements resulting from the wars in Iraq and Afghanistan do not appear overwhelming.

Even if costs associated with upgrading existing equipment, or making good on shortages of equipment identified (or pre-dating) these conflicts are included, the budgetary requirements are arguably modest. In addition, the Services, and the Army in particular, seem to have received funding sufficient to cover these costs in recent years.

The above analysis would seem to suggest that the impact of the wars in Iraq and Afghanistan on materiel readiness has been relatively modest and manageable, but this may also oversimplify the existing situation for a variety of reasons. First, it does not take into account the degree to which—even where adequate budgetary resources are provided—there is a lag between the time a piece of equipment is taken out of the field to be overhauled or upgraded and putting it back into the field. And in some cases, repair and maintenance facilities may not be able to fully keep up with requirements.

Second, it does not take into account the extent to which the Army went to war with existing shortages in a variety of areas—with trucks, perhaps, being the most notable example. As a result, the only way units were able to deploy with their full complement of equipment was, in many cases, to draw on equipment stocks of non-deploying units. It also ignores the fact that to be judged fully ready a unit must have adequate inventories of well-maintained equipment for each type of equipment in its table of organization—if it is short in even one area, that unit is not fully ready.

## EQUIPMENT CONDITION

The increased operational tempo and the repeated deployment of units to Iraq and Afghanistan have left many types of military equipment in a deteriorated condition. In an October 2005 GAO report on selected military equipment, twenty

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<sup>60</sup> Fancis Lussier, *Replacing and Repairing Equipment Used in Iraq and Afghanistan: The Army's Reset Program* (Washington, DC: CBO, September 2007), p. xii.

of the thirty types of equipment assessed were rated as either red or yellow,<sup>61</sup> indicating problems that need the attention of DoD and/or Congress.<sup>62</sup> The report noted a decline in equipment readiness between 1999 and 2004, which was due in part to the wars.<sup>63</sup> While the Navy and Air Force had a number of items rated as yellow or red, none of them were attributed primarily to the wars in Iraq and Afghanistan. However, all of the Army and Marine Corps equipment rated as yellow or red were attributed to the increased tempo of operations in Iraq and Afghanistan.<sup>64</sup>

Rotary wing aircraft, trucks, and ground combat vehicles were particularly affected by the increased usage in Iraq and Afghanistan. For rotary wing aircraft, the decline in condition is due to the combination of elevated flying levels and the harsh desert environment. The Army's CH-47D/F Chinook helicopter, for example, is being flown at three times the rate planned for peacetime operations, and the platform's mission-capable rates have been consistently low as a result. Ground vehicles, such as the Abrams Tank and Bradley Fighting Vehicle, have also experienced a decline in mission-capable rates. In many cases the decline in readiness is due to a shortage of spare parts and trained technicians.<sup>65</sup>

Because of these considerations and complications, the materiel readiness of Army forces today appears to be more troubling than might otherwise be assumed based simply on an analysis of funding requirements for reset. The readiness rates of deployed units seem to be consistently high, but this appears to have been achieved largely by taking equipment from non-deployed units in order to enable deploying units to be fully equipped.<sup>66</sup> Although overall readiness levels are classified, press reports indicate that the vast majority of non-deployed Army brigades are rated low in terms of materiel readiness, meaning these units are not functionally available to respond to additional contingencies that may arise unexpectedly.

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<sup>61</sup> A red rating is defined as "a problem or issue that is prevalent and severe enough to warrant immediate attention" and a yellow rating is defined as "the existence of a problem or issue that warrants attention."

<sup>62</sup> GAO-06-141, *Military Readiness: DOD Needs to Identify and Address Gaps and Potential Risks in Program Strategies and Funding Priorities for Selected Equipment*, October 2005, p. 11.

<sup>63</sup> *Ibid.*, p. 10.

<sup>64</sup> *Ibid.*, p. 12.

<sup>65</sup> *Ibid.*, pp. 12–13.

<sup>66</sup> Sharon L. Pickup, *Military Readiness: Impact of Current Operations and Actions Needed to Rebuild Readiness of U.S. Ground Forces* (Prepared testimony before the Armed Services Committee House of Representatives, February 14, 2008), p. 5.





## CONCLUSIONS

Seven years of conflict and two concurrent wars have had a significant effect on the US military, and particularly on the Army. The stress created by long and frequent deployments overseas has hurt recruiting and retention efforts, reducing the quality of troops coming into the Service to levels not seen in more than twenty years. At the same time, the Army is expanding the force and transitioning to a more modular force structure centered on BCTs. While there is a growing need for units specialized in irregular warfare and advisory and training-type missions, the Army has decided not to develop such specialized units and instead to focus on developing BCTs with “full-spectrum” capabilities.

The Army also embarked on one of the costliest modernization initiatives in its history with the FCS program. However, due to rising costs, the Army would only be able to equip about one third of the active force with the new capabilities provided by FCS, with the rest of the Army receiving lesser capable upgrades to existing equipment. Despite the cost, the program appeared to be geared more toward conventional threats while generally underemphasizing what is needed to succeed in irregular warfare. The program is currently undergoing a fundamental restructuring in the wake of Secretary Gates’ decision to terminate the eight ground combat vehicles in the fourteen-system FCS program. It remains to be seen whether a revised modernization effort by the Army will be an improvement on what had become a troubled program.

The impact of the wars can also be seen in the Army’s inventory of equipment. The increased usage rates of equipment deployed to Iraq and Afghanistan have created a growing demand for maintenance and overhaul support. While the investment required is significant, the Army appears to be adequately funded to cover these reset costs. While the impact of the wars on troop quality, force structure, modernization plans, and materiel readiness may not each be sufficient to cause alarm when considered separately, when added together they pose a

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serious challenge for the Army. Less qualified troops, operating in a force structure not optimized for irregular warfare, and equipped with weapons too expensive to field in sufficient quantity can have significant consequences for overall readiness and capability.

These challenges, while daunting, present an opportunity for the US military, and the Army in particular, to remake itself into a more capable fighting force. With the right leadership and decision-making, the most lasting impact of the wars in Iraq and Afghanistan on the US military could be its transformation into a force that is better suited to meet both the threats faced today and those likely to emerge in the future.



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