

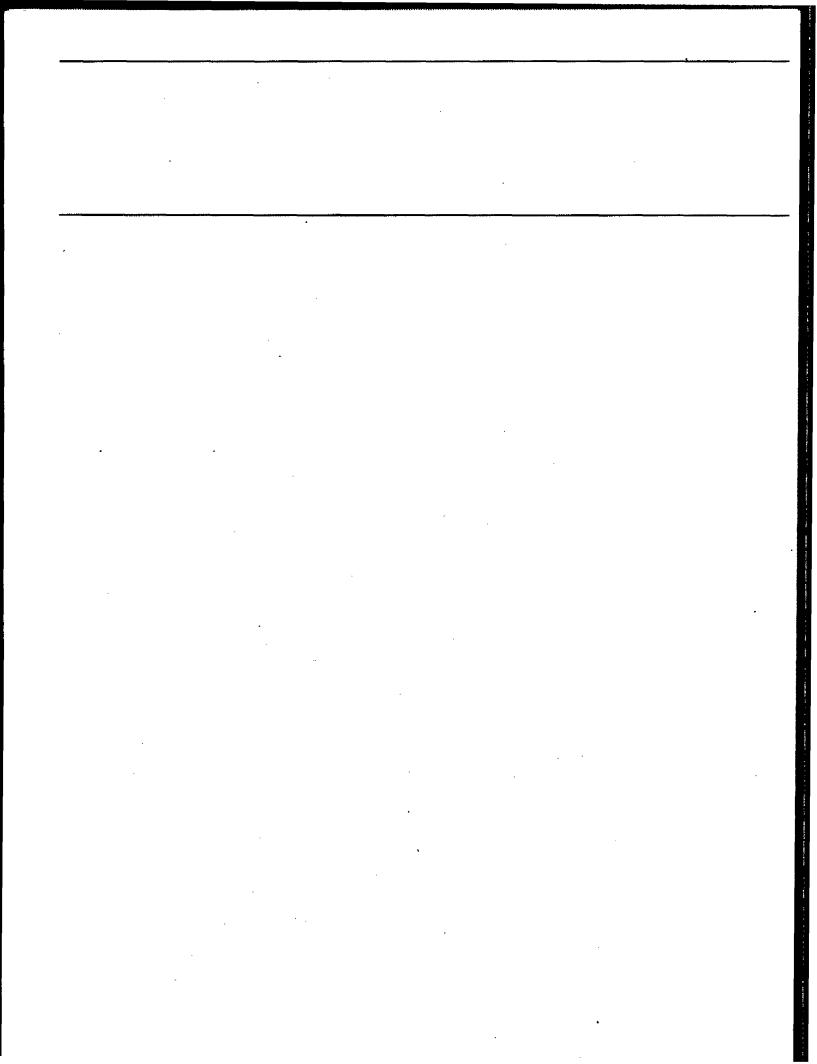
Report to Congressional Committees

May 1994

# AIR FORCE FIGHTERS

More Reliance on Reserves Increases the Need to Know Their Capabilities







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

National Security and International Affairs Division

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May 9, 1994

The Honorable Sam Nunn Chairman, Committee on Armed Services United States Senate

The Honorable Daniel K. Inouye Chairman, Subcommittee on Defense Committee on Appropriations United States Senate

The Honorable Ronald V. Dellums Chairman, Committee on Armed Services House of Representatives

The Honorable John P. Murtha Chairman, Subcommittee on Defense Committee on Appropriations House of Representatives

This report discusses the relative capabilities of active and reserve Air Force fighter forces and the adequacy of current reporting mechanisms to identify differences between those forces. The information in this report should be useful to Congress in its deliberations on appropriate roles and missions for those forces, particularly as the size of the total fighter force declines and a larger share of some capabilities shifts to the reserves.

We are sending copies of this report to the Secretaries of Defense and the Air Force, the Director of the Office of Management and Budget, appropriate congressional committees, and other interested parties on request.

Please call me at (202) 512-3504 if you or your staff have any questions concerning this report. Major contributors to this report are listed in appendix III.

Richard Davis

Director, National Security

Kichard Davis

**Analysis** 

## **Executive Summary**

### Purpose

In response to the changing national security threat and decreasing defense budgets, the Secretary of Defense recommended in October 1993, as part of the Bottom-Up Review, that the Air Force's fighter wing equivalent force<sup>1</sup> be reduced to 20 by 1999. Because most of the reduction would be in the active force, GAO initiated this review to assess the Air National Guard and Air Force Reserve (the reserve force's) capability for more rapid and direct involvement in future conflicts and the differences between active and reserve fighter forces' capabilities as indicated by Air Force assessments.

### Background

Until recently, the Air Force expected to meet most contingencies, with the exception of a global war, with active forces. In the late 1980s, the Air Force focused on defeating the Soviet threat with over 38 fighter wing equivalents, one-third of which were in the reserve forces. Due to the collapse of the Soviet Union and growing fiscal constraints, the Department of Defense (DOD) directed the Air Force in 1990 to reduce to 26 fighter wing equivalents by 1995 primarily by eliminating more costly active forces. According to the Bottom-Up Review, the Air Force is to reduce to 20 fighter wing equivalents (13 active and 7 reserve) by 1999.

### Results in Brief

The reserve force's fighter aircraft units are generally less capable in terms of their aircraft, level of training, and availability than corresponding active fighter aircraft units. Since the projection of forces is now a crucial element of the U.S. military strategy, more reliance on reserve forces as part of a smaller total force increases the risk that forces will be unable to deploy in a timely manner and accomplish the same range of missions as active forces. The degree of risk depends on how rapidly hostilities escalate; the enemy's capability; and the reserve forces' availability, equipment status, and level of training.

Reserve force fighter aircraft will likely be more rapidly and directly used in future regional conflicts and peacetime operations. For example, winning one major regional conflict is estimated to require 10 fighter wing equivalents, which equals nearly half the active fighters based overseas plus almost all of the active fighters based in the United States. The Air Force is unlikely to use only active fighter forces in response to a major contingency because only reserve forces would be available if a second conflict were to emerge. Additionally, the Air Force has already called upon the reserve forces to participate in peacetime operations, such as

<sup>&</sup>lt;sup>1</sup>A fighter wing equivalent is generally comprised of 72 combat aircraft.

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Operation Provide Comfort II in Southwest Asia. Increased use of these forces for peacetime operations will also require more funds and reduce their cost advantage over active forces.

The capability of reserve fighter forces to deploy and fight upon arrival is unclear because current Air Force indicators do not uniformly assess the relative capabilities of reserve and active units. The Air Force's Status of Resources and Training System (SORTS) and other assessments indicate reserve forces are as prepared as active forces to meet future contingencies; however, several factors that these assessments do not measure could affect decisions about crises response, missions, and training. For example, reserve fighter force units generally have (1) older, fewer, and less capable aircraft; (2) lower pilot combat capability ratings, and train for fewer types of missions; and (3) fewer joint training opportunities. In addition, reserve forces have limitations on their availability and need more time to train before they deploy.

### GAO's Analysis

#### Force Reductions Increase Reliance on the Reserves

Active forces are assigned forward presence, crisis response, and contingency roles because of the length of deployments and the need for a quick response with fully trained, highly ready, and initially self-sufficient forces. Reserve forces were considered a less costly way to assist and augment active units if needed. However, as the fighter force is reduced, primarily by eliminating active aircraft, and fewer active units are based overseas, the Air Force will depend more on reserve forces.

By 1995, under a proposed 26-wing force, the Air Force was expected to consist of 9 active and 11 reserve force fighter wing equivalents based in the United States and approximately 6 active fighter wing equivalents based overseas. Reserve forces were expected to operate half of the A-10s designated for Army close air support, most of the Air Force's multirole F-16s, and many of the Air Force's F-4Gs and F-15s. Of the 20 fighter wing equivalent force proposed by the Secretary of Defense for 1999, 5 to 6 fighter wing equivalents might be based overseas and 7 to 8 active and 7 reserve force fighter wing equivalents could be based in the United States.

To provide the estimated 10 fighter wing equivalents considered necessary to win a major regional conflict, the Air Force will likely rely more on

reserve forces. During Operation Desert Storm, the Air Force deployed eight fighter wing equivalents from the United States along with more than two fighter wing equivalents from its overseas bases to the Persian Gulf area. Approximately one of these fighter wing equivalents was from the reserve forces, and it deployed 1 month before the war began. If the United States becomes involved in a similar-sized conflict after the force draws down to 20 fighter wings, deploying nearly half of the 5 to 6 active fighter wing equivalents based overseas and almost all of the 7 to 8 active fighter wing equivalents based in the United States would be a risk due to the possibility of a second contingency. The alternative would be to increase reserve force involvement. For example, on the basis of the types of aircraft used during Operation Desert Storm, the reserve forces would have to deploy all of their A-10s and F-4Gs and perhaps some F-16s to a similar-sized conflict.

Peacetime operational demands on the reserve forces may also increase. Because these forces may operate nearly half of the U.S.-based fighters by 1999, the Air Force recognized that they could also be increasingly called on to perform peacetime operations. Additionally, the Bottom-Up Review recognized that reserve force fighters would occasionally need to rotate overseas to help reduce demands on the active forces. Air Force Reserve fighters have already performed a 45-day rotation in Turkey, and the Air National Guard's F-4Gs are planning to deploy to support commitments to Southwest Asia. Additionally, the Air National Guard has offered up to 25 percent of its fighters for 30-day deployments.

Reserve forces, however, will require additional funding to carry out their increased responsibilities. For example, the Air National Guard estimates that deploying 6 reserve force fighters overseas for 60 days and 18 others for 45 days could cost over \$7 million. Therefore, such activities, if frequent or extensive, could significantly reduce the approximately \$70 million per year operating cost advantage of reserve force fighter wing equivalents.

Assessments Do Not Reveal Differences Between Active and Reserve Forces

sorts measures the number of personnel, their training levels, and the availability and condition of equipment. However, that system and other such indicators do not always uniformly measure the relative capability of the active and reserve forces. Therefore, even though the active and reserve forces' equipment and training status appear equivalent on the basis of the assessments, reserve forces are generally not as capable as their active counterparts.

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The reserve forces have older, fewer, and less capable aircraft. Most of these aircraft lack important technology improvements, such as night navigation and targeting, electronic countermeasures, and some weapon capabilities. Reserve forces fly less, maintain lower pilot combat capability ratings, and are assigned fewer missions than active forces. Reserve force units generally train for only one theater, whereas active units train for virtually all missions and theater commanders. In addition, reserve forces participate less frequently in joint and overseas exercises than active forces. For example, their participation in Joint Chiefs of Staff exercises has averaged once every 8.5 years compared to every 2.2 years for active units.

Additionally, there are constraints to accessing reserve force units. By law, members of the reserve forces voluntarily participate in peacetime deployments unless there is a presidential call-up. The voluntary tours are generally up to 30 days. However, Air National Guard leaders do not encourage individuals in the fighter forces to volunteer because they want to maintain the entire squadron's capability.

Reserve forces may also take more time to deploy fully trained. Reserve force personnel have up to 72 hours to mobilize their unit and may take about 14 to 21 days to be fully trained before deployment. Active fighter forces are generally expected to be fully capable and able to deploy as a fully trained force on extremely short notice (i.e., 1 day).

### Matters for Congressional Consideration

Since the Air Force's reserve forces will be increasingly relied on to fulfill an early combat role, Congress may wish to consider having the Air Force, Air National Guard, and Air Force Reserve discuss how they intend to minimize the risks from increased reliance on reserve fighter forces in terms of their relative availability and time needed to deploy, ability to undertake a broader range of missions, and training opportunities. Also, Congress, when debating the appropriate mix of reserve and active fighter forces and requirements for 20 fighter wing equivalents responding to two major regional contingencies, may also wish to consider requesting that the Air Force provide relevant indicators of relative capability.

### **Agency Comments**

pop partially concurred with the issues discussed, but did not concur with the recommendation in a draft of this report to develop a uniform measurement system that identifies the (1) relative capabilities of active and reserve forces, (2) risks associated with their differences, and

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(3) reserve units most capable of combat and peacetime operations. DOD partially concurred with a proposed matter for congressional consideration suggesting Congress consider having the Air Force, the Air National Guard, and the Air Force Reserve discuss their relative capabilities, how they intend to minimize the risks arising from increased reliance on reserve fighter forces in terms of the reserves' availability, time needed to deploy, and training opportunities, and the ability of the reserves to undertake a broader range of missions (see app. II). DOD noted that, as it continues to downsize and restructure, active and reserve forces need to be ready to accomplish their assigned missions and that sorts accurately assessed the ability of these forces to do so. Therefore, a uniform measurement system that would identify relative capabilities, risks associated with their differences, and the reserve units most capable of combat and peacetime operations is unnecessary.

GAO continues to believe the differences between active and reserve fighter force capabilities and additional risks associated with increased reliance on the reserve forces are not as apparent or well understood as DOD concluded. As highlighted in this report and DOD's comments on the draft, differences in aircraft, equipment, and training are not clearly evident. However, in light of DOD's concern, GAO deleted the recommendation in the draft report. It was not GAO's intention that another, separate system be developed, but that the current reporting systems be adapted to clearly show relative differences and capabilities. Nevertheless, as an alternative, GAO broadened the matter for congressional consideration in the draft report to suggest that Congress may wish to consider requesting the Air Force provide relevant indicators of relative capabilities, as it debates appropriate roles and missions for active and reserve forces.

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#### **Abbreviations**

DOD	Department of Defense
FWE	fighter wing equivalent
GAO	General Accounting Office
MRC	major regional contingency
SORTS	Status of Resources and Training System

### Introduction

The Air National Guard and Air Force Reserve were formed under 10 U.S.C. 261 to provide trained units and qualified personnel for active duty when more military units are needed for national security than are in the active force. The respective roles of the active and reserve forces were further defined in 1970, when the Secretary of Defense proposed the "total force concept" for manning, equipping, and employing National Guard and Reserve forces. Two tenets in the policy were that reserve forces should be the primary augmentation to active forces and that the use of all forces (active, reserve, civilian, and allied) should be integrated.

In 1973, the Secretary of Defense implemented the total force policy, which integrated the active, National Guard, and Reserve forces into one force. Subsequent Secretaries of Defense also endorsed the policy along with the expectations that the reserve forces be fully manned, well trained, well equipped, and capable of rapid mobilization and integration into active forces in times of national emergency.

Recognizing the role of the Air National Guard, Air Force Reserve, and active force as part of the total force, the Air Force's regulations state it is essential these forces be staffed, trained, and equipped with the resources required to meet their wartime tasking. Therefore, the Air Force is ultimately responsible for ensuring that the Air National Guard and Air Force Reserve fighters are ready to function effectively when mobilized.

Recent Assessments to Address the Appropriate Active/Reserve Force Mix

Congress has repeatedly expressed concerns about the appropriate mix of active and reserve forces in the total force. In the National Defense Authorization Acts for Fiscal Years 1990 and 1991, Congress directed the Department of Defense (DOD) to report on how well reserve and active forces are being integrated into a total force. However, the House and Senate Armed Services Committees found that the DOD report issued in December 1990<sup>1</sup> and reflected in the fiscal year 1992 defense budget proposal was inadequate in addressing reserve force roles and missions because it did not address reserve taskings and personnel levels. As a result, Congress, as part of the National Defense Authorization Acts for Fiscal Years 1992 and 1993, specified that another study be conducted by a federally funded research and development center independent of the military departments. That report, Assessing the Structure and Mix of Future Active and Reserve Forces: Final Report to the Secretary of Defense, which was issued by the RAND National Defense Research Institute in December 1992, identified and evaluated alternative force

<sup>&</sup>lt;sup>1</sup>Total Force Policy Report to the Congress, DOD, December 1990.

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mixes and structures by considering the requirements for future military missions and constraints on reserve forces meeting them.

In February 1993, the Chairman of the Joint Chiefs of Staff issued a report, Roles, Mission, and Functions of the Armed Forces of the United States, in accordance with the requirements of the 1986 Goldwater-Nichols Department of Defense Reorganization Act. The Secretary of Defense's October 1993 Report on the Bottom-Up Review also addressed roles, missions, and expectations for reserve force fighters. Both reports considered reserve forces essential to the implementation of the defense strategy. The Secretary's report suggested making better use of the reserve forces by adapting them to new requirements, assigning them new missions, and funding them consistent with expectations for their use during a crisis or war.

Contributing to this debate was the use and effectiveness of the reserve forces during Operations Desert Shield and Desert Storm. Air Force Reserve volunteers from the Air Mobility Command were relied on from the first day of deployment in August 1990 and flew 42 percent of the missions that month. However, reserve force's fighter units were not used as significantly, deploying in December 1990 and comprising only about 10 percent of the Air Force fighters in the Persian Gulf.

### The New Defense Strategy and Resulting Reductions in the Total Force

The collapse of the Soviet Union changed the basis for planning the size and content of U.S. forces. Instead of planning for global war, containing the spread of communism, and deterring Soviet aggression, the defense strategy now focuses on responding to regional crises and fielding forces in concert with allies capable of winning two major regional conflicts that occur nearly simultaneously.

Recognizing the changing dangers and domestic fiscal constraints, the Congressional Budget Office estimated that the Air Force's budget could decline from \$104 billion in 1990 to \$72 billion by 1997.<sup>3</sup> This decrease would reduce the number of fighter wing equivalents (FWE) from approximately 38 in 1988 to over 26 by the end of 1995. If the results of the Secretary of Defense's Bottom-Up Review are implemented, this force would be further reduced to 20 FWES by 1999. An estimate of the budget to

<sup>&</sup>lt;sup>2</sup>Desert Shield/Storm: Air Mobility Command's Achievements and Lessons for the Future (GAO/NSIAD-93-40, Jan. 25, 1993).

<sup>&</sup>lt;sup>3</sup>Structuring U.S. Forces After the Cold War: Costs and Effects of Increased Reliance on the Reserves, Congressional Budget Office, September 1992.

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support these forces, however, has not been provided by the administration.

As shown in table 1.1, most of the reduction would be in the active fighter aircraft force. One reason for not proportionally reducing reserve forces is that they are less expensive to maintain than active forces. The September 1992 Congressional Budget Office report, for example, estimated that operating a reserve F-16 FWE for 1 year costs almost \$70 million less than its active counterpart.

### Table 1.1: Air Force Fighter Wing Equivalents, Fiscal Years 1988-99

Fighter forces	1988	1995	1999
Air National Guard	9	8	6
Air Force Reserve	3	3	1
Active	26	15	13
Total	38	26	20

# Objectives, Scope, and Methodology

We initiated this review to assess the reserve forces' capability for more rapid and direct involvement in future conflicts and the differences in active and reserve fighter forces' capabilities. To assess the potential for increased reliance on reserve fighter forces, we compared the base force described in the Joint Chiefs of Staff National Military Strategy with Operation Desert Storm data and other war scenarios used in the Congressional Budget Office's September 1992 study, Structuring U.S. Forces After the Cold War: Costs and Effects of Increased Reliance on the Reserves; the RAND National Defense Research Institute's December 1992 assessment, Assessing the Structure and Mix of Future Active and Reserve Forces: Final Report to the Secretary of Defense, and its 1993 assessment, The New Calculus, Analyzing Airpower's Changing Role in Joint Theater Campaigns; the Secretary of Defense's October 1993 Bottom-Up Review; and other studies.

We compiled information on the relative status of active and reserve forces from the Air Force's Status of Resources and Training System (SORTS); training, logistics, aircraft capability, and mission data; and after-action and other reports. However, we did not verify the accuracy of the data in these reports.

We interviewed officials and reviewed information at the Office of the Assistant Secretary of Defense for Reserve Affairs, U.S. Air Force Headquarters, and National Guard Bureau, all in Washington, D.C.; and Air Chapter 1 Introduction

Force Reserve Headquarters, Robins Air Force Base, Georgia; Air Force Air Combat Command, Langley Air Force Base, Virginia; Air National Guard Readiness Center, Andrews Air Force Base, Maryland; 9th Air Force and 363rd Fighter Wing, Shaw Air Force Base, South Carolina; 169th Fighter Group, McEntire Air National Guard Base, South Carolina; 10th Air Force Headquarters, Bergstrom Air Force Base, Texas; 46th Fighter Squadron, Barksdale Air Force Base, Louisiana; and 301st Fighter Wing, Carswell Air Force Base, Texas.

We performed our review from June 1992 to November 1993 in accordance with generally accepted government auditing standards.

# Force Reductions Increase Reliance on the Reserves

The Air Force's increasing reliance on air reserve fighter forces to accomplish national military objectives will challenge the reserves' augmentation role to active forces as described in the Joint Chiefs of Staff's National Military Strategy. The possibility of responding to two major regional conflicts and national interests other than war with fewer active and total fighter forces will likely result in the reserve forces being used more rapidly and directly in contingency and peace operations. Also, because the reserve forces' lower cost compared to active forces is primarily based on their lower level of peacetime activity, more peacetime operations could require additional funds and thereby reduce their cost differential.

### The Current Strategy Regards the Reserves as Augmenting Forces

The current Joint Chiefs of Staff's National Military Strategy presents how the military is expected to be used against the uncertain dangers facing the United States. To respond decisively to future regional conflicts with potential adversaries such as North Korea, Iraq, and Iran, the strategy states the United States will depend on the strategic deterrence and defense, forward presence, crisis response, and reconstitution of fighting units. It further states that the projection of power through forward presence and crisis response with sufficient strength to defeat any aggressor is crucial and that active forces are expected to be predominantly used for this purpose. The strategy primarily emphasizes the role of the active forces because they are fully trained, highly ready forces that are rapidly deployable and initially self-sufficient for responding to spontaneous, unpredictable crises.

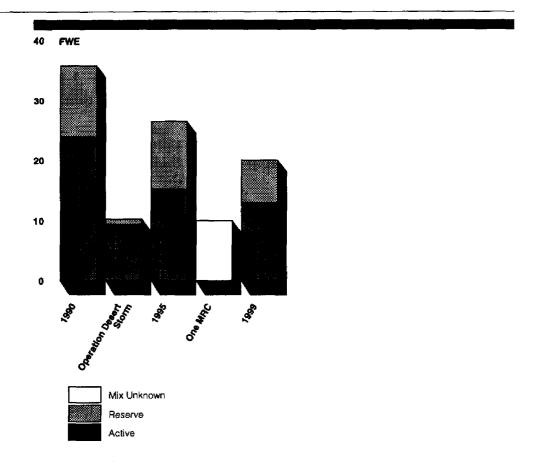
If these crises become larger or more protracted, the strategy states that the United States should increasingly rely on reserve forces. Air National Guard leaders reinforce this relationship, citing that in the initial stages of a contingency "shooters" (i.e., combatants) should be available in the active forces and those reserve fighter units called up if the crisis escalates or becomes prolonged. However, the strategy also acknowledges that certain reserve capabilities, such as airlift (of which more than 50 percent is in the reserve force), must be able to deploy and augment responding active units.

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### A Smaller Fighter Force Will Likely Rely More on Reserve Forces

The Air Force's future fighter force will depend more on reserve forces to meet national objectives because active units alone may not be sufficient. Figure 2.1 shows the past and possible future size and mix of active and reserve air fighter forces compared with the Air Force's fighter forces in Operation Desert Storm and for one major regional contingency (MRC), as envisioned by the Secretary of Defense's Bottom-Up Review.

Figure 2.1: Comparison of Air Force Fighters



Historically, an average of 10 FWEs were employed in the three major post-World War II conflicts: Korea, Vietnam, and Iraq. This is the same size force considered necessary to win one MRC. During Operation Desert Storm, for example, the Air Force deployed about eight FWEs from the United States and more than two FWEs from overseas bases to the Persian Gulf. Only one of these FWEs was from the reserve forces. By the end of

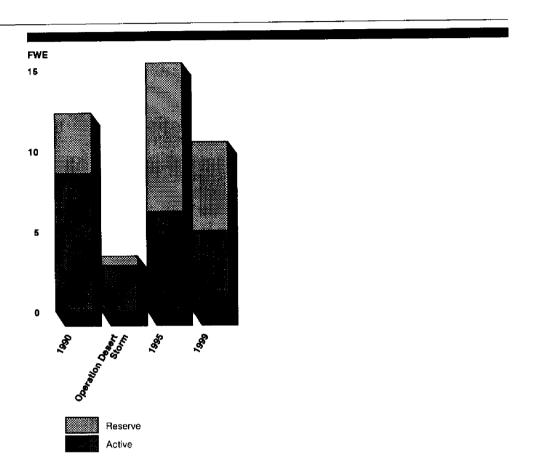
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1999, if the United States were to become involved in a similar conflict, the Air Force would unlikely be able to deploy half of its five to six active FWES based overseas and virtually all seven to eight active FWES in the United States because of the possibility of a second contingency. Therefore, the Air Force would have to rely more quickly and significantly on the reserve forces.

### Some Reserve Fighter Aircraft Will Be More Likely Needed Than Others

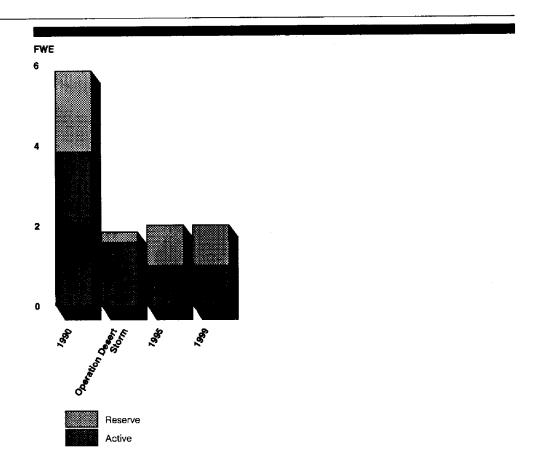
Because of the Air Force's increased reliance on reserve forces, possible demands on specific aircraft types are particularly important to anticipate because some types of fighters could be almost totally committed to a future conflict similar to the Persian Gulf War. Figures 2.2 through 2.5 show comparisons of the F-16, A-10, F-4G, and F-15 A/B/C/D aircraft operated by the reserve forces in 1990, during Operation Desert Storm, and projected for 1995 and 1999.

Figure 2.2: Comparison of the F-16 Force



Note: The F-16 is the Air Force's predominant multirole fighter for air-to-ground and air-to-air combat.

Figure 2.3: Comparison of the A-10 Force

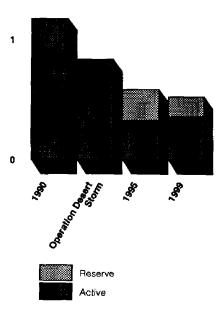


Note: The A-10 is generally designated to provide close air support to the Army.

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Figure 2.4: Comparison of the F-4G Force

2 FWE



Note: The F-4G destroys enemy air defenses. It was considered vital to successful air strikes during the Gulf War.

Figure 2.5: Comparison of the F-15 A/B/C/D Force

10 FWE

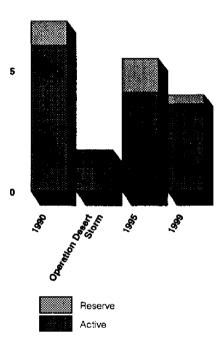


Figure 2.2 shows that there will be a sufficient number of F-16s in the active fighter force to meet requirements similar to those of the Gulf War. However, by 1995, when the F-16 will constitute the majority of the Air Force's fighter capability, over one-half will be in the reserve forces. Figures 2.3 and 2.4 show that virtually all A-10 and F-4G reserve forces would be needed to meet a future Gulf War-type operation. Figure 2.5 shows that there will be an ample number of F-15A/B/C/Ds in the future active fighter force to meet a Gulf War-sized air superiority requirement.

In 1990, the Report of the Ad Hoc Committee on Force Mix for the Air National Guard concluded that, due to the total force policy, the Guard was receiving more pressure to accept expanded and new missions and units as well as mirror the Air Force in peacetime availability and wartime performance. The 1993 Air National Guard Long-Range Plan acknowledges that Guard forces must be available to meet the Air Force's needs. For

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example, in the early stages of a contingency, Guard fighter pilots may need to volunteer before a presidential call-up to fly aircraft, such as the F-4G to suppress enemy air defenses.

### Air National Guard Peacetime Experiences and Initiatives Recognize Increasing Demands

Since the reserve forces own a significant portion of the fighter aircraft, the Secretary of Defense, the Air Force's Air Combat Command, and the Air National Guard and Air Force Reserve expect their fighters will be called on to perform peacetime contingency operations and help support overseas rotations of active forces. Guard leaders acknowledge that Air National Guard fighter forces will need to be organized, trained, and equipped to respond quickly and capably to any crisis. The Bottom-Up Review also announced that reserve forces would undertake occasional short-duration peacetime fighter deployments overseas to help reduce demands on active personnel. To demonstrate their commitment, reserve forces have supported the Air Force by meeting overseas rotation needs, and they anticipate giving similar support in the future.

In November 1992, one Air Force Reserve fighter squadron deployed six F-16s to Turkey for 45 days. The squadron flew combat air patrol and reconnaissance missions in support of Operation Provide Comfort II, the United Nations directive to enforce a no-fly zone in Northern Iraq. Even though all members of the fighter group volunteered to deploy for the entire 45-day period, three teams of pilots and other personnel rotated every 2 weeks to allow maximum participation.

An Air National Guard unit volunteered to deploy F-4Gs and personnel to Southwest Asia during the last 6 months of fiscal year 1994 to replace active F-4Gs. This unit is able to support this effort because it possesses half of the less than one FWE of the Air Force's F-4Gs, and approximately 44 percent of its pilots are full-time personnel compared to about 32 percent in most Air National Guard units.

In 1993, the Air National Guard leadership briefed commanders on the availability of its forces to meet peacetime forward presence or contingency operational requirements. Because major commands may not be aware of the reserve fighter force's capabilities and, as a result, may be reluctant to consider them as a peacetime operational option, Guard leaders have been offering up to 25 percent of its forces for 30 days with a response time of 72 hours.

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Meeting Higher Expectations May Require More Operating Funds for Reserve Forces Increasing reliance on reserve fighter forces will decrease their cost advantage. In 1992, the Congressional Budget Office estimated that a Guard F-16 FWE costs approximately \$300 million per year to operate and support compared with about \$370 million for an active F-16 FWE. However, expectations for the reserve forces are increasing. For example, although it did not cite the amount of additional funding needed, a recent Air National Guard assessment of inhibitors stated that the Air National Guard lacked sufficient fighter flying hours, maintenance personnel, and air crew workdays to support the operating tempo demanded by today's missions and newer, more capable aircraft.

In addition, reserve forces will need more resources to train and meet an increased pace of operations so they can be used during peacetime to supplement or replace active forces. Resources would be needed for increased travel, per diem expenses, increased flying hours, and airlift operating and support costs. For example, the Air National Guard recently estimated that sending 6 fighters overseas for 60 days and 18 more fighters to another overseas location for 45 days would cost over \$7 million. Approximately \$5 million would be for the additional military personnel, and operating and maintenance costs related to fighter aircraft; the remainder would be for airlift and tankers. Depending on how frequently reserve forces are utilized, increased operations could significantly reduce the approximately \$70 million per FWE annual operating cost advantage the reserves have over active forces.

Systems, such sorts, were not designed to identify differences that exist between active and reserve forces' capabilities. Further, there is no objective and uniform system for assessing and reporting unit capabilities. sorts, logistics, inspection, and safety reports being collected by the Air Force and reserves describe the training, personnel, and equipment status, but they do not measure the relative capabilities of active and reserve fighter forces. In addition, reserve forces are accessed and deployed differently, and some of these differences may limit reliance on reserve forces.

### Active and Reserve Air Fighter Forces Do Not Report Against the Same Standards

Active and reserve units are required to report their ability to perform assigned wartime missions through sorts. Units are to use one of six categories (see app. I) to report on the status of their personnel, equipment on hand, equipment condition, and training. In addition, unit commanders can assign a subjective rating based on their opinion of the units' abilities. According to SORTS guidance, the National Military Command uses this system to make command decisions, assign resources and missions, and monitor resources and training in peacetime. The SORTS documents we reviewed showed that Air Force active and reserve units are comparably able to perform their assigned missions. However, this information should not be used to conclude they are equally capable. For example, F-15 and F-16 reserve units generally have older and fewer aircraft that are less capable than active forces. In addition, although reserve force pilots, in many cases, are more experienced, they fly fewer hours, thus sustaining lower pilot combat capability ratings; have fewer assigned missions; and participate in fewer joint training exercises. Some differences in aircraft may be eliminated as the active force is further reduced and newer model aircraft are reassigned to the reserve force.

### Reserve Units Have Older, Fewer, and Less Capable Fighters

Although sorts indicates that active and reserve forces' equipment are comparably able to perform their assigned missions, there are differences in the age, number, and technology of their assigned aircraft. For example, reserve units' F-15s and F-16s are generally earlier models (A/Bs vs. C/Ds) and are on average nearly twice as old, as shown in table 3.1. The Air Force considers it appropriate for the reserve forces to report at high status levels if their less modern aircraft can still perform assigned missions.

Table 3.1: Comparison of Active and Reserve Fighters, Fiscal Year 1993

		Act	tive	Reserves		
Aircraft	Model	Percent of fleet	Average age (years)	Percent of fleet	Average age (years)	
F-15	A/B	6	19	100	19	
	C/D	94	10	0	0	
F-16	A/B	0	N/A	47	11	
	C/D	100	4	53	6	

Generally, reserve squadrons are also assigned 18 aircraft compared with 24 aircraft in active squadrons. Therefore, to deploy an FWE, the reserves must mobilize four squadrons, whereas the active must mobilize only three squadrons. Also, to report at the highest level, between 75 and 100 percent of the aircraft must be ready to perform assigned missions. Our assessment of SORTS data on selected active and reserve units revealed that the reserve forces were more frequently at the lower end of this aircraft availability range. In comparison, active units were at the higher end of the availability range.

Additionally, the peacetime mission capability standards (i.e., whether the aircraft can meet at least one wartime mission) are lower for most reserve aircraft. According to the Air Force, this disparity reflects the reserve forces' part-time maintenance capability. After full mobilization, however, DOD expects reserve mission capability rates most likely will be the same as active units. Table 3.2 shows the percent of aircraft considered mission capable for active and reserve force F-15s and F-16s.

Table 3.2: F-16 and F-15 Mission-Capable Standards

Figures in percent							
Aircraft	Model	Active force	Air National Guard	Air Force Reserve			
F-16	C/D	85	76	80-85			
F-16	A/B	N/A	70	70			
F-15	C/D	83	N/A	N/A			
F-15	A/B	83	70	N/A			

Many reserve squadron aircraft do not have the latest technology found on active squadron aircraft. For example, unlike active force F-15 C/Ds, reserve force F-15 A/Bs that have not gone through a multistage improvement program lack (1) upgraded radar, which would have improved their target detection, identification, and tracking; (2) upgraded central computers with radar display improvements, which would have enhanced the pilots' awareness of tactical situations; (3) launch capability

for the Advanced Medium Range Air-to-Air Missile, which will limit their air-to-air combat capability relative to the F-15C; (4) tactical electronic warfare upgrades, which would have enabled them to detect and jam the latest threat radars, although not as well as the improved F-15 C/Ds; or (5) chaff and flare dispensers, which would have enhanced their defense against enemy weapons. Also, most of the reserve forces' F-16s do not have the Low Altitude Targeting Infra-Red Night system, which would have allowed them to navigate and acquire targets at night or launch capability for weapons such as the HARM Missile.

Air National Guard officials reported that units did not have the necessary protective equipment to conduct their wartime missions during Operations Desert Shield and Desert Storm. For example, one Air National Guard F-16 unit did not have authorized electronic countermeasure pods or related support equipment. Therefore, the squadron's deployment was delayed because the equipment had to arrive from other active and reserve units, pilots had to be trained, and maintenance personnel had to be provided from other units. Guard officials also said their F-15s were not mobilized for Operations Desert Shield and Desert Storm because they lacked chaff and flare dispensing and other capabilities to be provided by an improvement program.

Specifically, in one instance, we found that 96 percent of an active unit's 24 authorized F-15 C/D aircraft were mission available and 93 percent of that unit's pilots were considered proficient in the unit's and unit commander's specialized mission assignment (combat capability level B, which is discussed in the next section). In comparison, only 70 percent of an Air National Guard unit's 18 authorized F-15A aircraft were mission available, and only 32 percent of that unit's pilots were at that level of mission proficiency.

In another instance, we found active units in which 100 percent of their 24 authorized F-16 C/D aircraft were available to perform their assigned mission and 100 percent of the units' pilots were proficient at their assigned mission and commander's specialized mission (combat capability level B). In comparison, only 89 percent of an Air National Guard unit's 18 authorized F-16A aircraft were available to perform their assigned mission, and 29 percent of the unit's pilots were at that level of mission proficiency.

According to an Air National Guard report, during Operations Desert Shield and Desert Storm, SORTS did not accurately reflect the status of

items, such as war repair supply kit levels, or report upgrades to aircraft and weapon systems. The report further stated that higher headquarters did not have all data needed to make command decisions. The Air Force and the reserves are now beginning to compile other data for their fighter units that may indicate their capability. For example, the Air National Guard is beginning to develop data on recent deployments, inspection history, manning levels, special capabilities, and the safety record of the units. Also, the Air Combat Command has been tracking data on the experience of personnel, accuracy of weapons delivery, and amount of flying since October 1991 as quality performance measures. In addition, active and reserve forces are monitoring maintenance indicators.

#### Reserve Pilots Fly Less and Are Assigned Fewer Mission Taskings

Although reserve and active squadrons may report high levels of pilot training, the amount of flying they do and their mission qualifications and taskings are significantly different. Reserve force pilots are generally prior active duty Air Force personnel and, as a result, many have greater overall flying experience than many of their active counterparts. They also can fly less to achieve the same capability rating as active duty pilots. However, even with the reduced flying requirement, fewer reserve force pilots achieve the higher capability ratings.

The Air Force uses a Graduated Combat Capability scale that reflects the number and type of flights pilots should accomplish to demonstrate their ability to perform assigned wartime taskings. Depending on the level of experience, reserve pilots can fly from 16 to 37 percent less to attain comparable combat capability qualifications as active pilots. Table 3.3 shows the number of flights for active and reserve F-15 and F-16 pilots.

	Graduated combat capability level								
	Α		В		С				
Level of pilot experience	Active	Reserve	Active	Reserve	Active	Reserve			
F-15 inexperienced	43	36	58	45	83	60			
F-16 inexperienced	48	36	70	45	92	60			
F-15 experienced	37	30	48	38	70	50			
F-16 experienced	42	30	60	38	78	50			

Note: Level A pilots are proficient in employing the primary operational capabilities of the weapon systems worldwide. Level B pilots are proficient in level A and in specific unit taskings and unit commander's specialized tasking. Level C pilots are qualified and proficient to meet all tasks associated with the full operational capability of the weapon system.

Despite the lesser flying requirements to demonstrate level B and level C capabilities, not as many reserve pilots attain those capabilities as their active counterparts. For example, according to Air Combat Command reports, 82 percent of F-15 pilots and 71 percent of F-16 pilots in active squadrons are achieving level B training, whereas the Air National Guard reports about 47 percent of its F-15 pilots and 48 percent of its F-16 pilots are trained to level B or higher.

The Air National Guard and RAND note that reserve force pilots will need additional training to ensure their proficiency before deployment. RAND reported this additional training might take 14 to 21 days once a reserve unit is mobilized.

Active units train to support virtually all theater commanders, whereas reserve units generally support only one. Additionally, active units generally maintain qualification in more mission areas. For example, active pilots in F-16 squadrons are generally proficient in five of seven air-to-air and air-to-ground mission areas such as defensive counter air, nuclear warfare tactics, close air support, and air interdiction. In contrast, the pilots in Air National Guard and Air Force Reserve units, on average, are responsible for only about three of these mission areas.

Even though upgrading or updating reserve aircraft could narrow the differences between active and reserve forces' capabilities and mission areas, Air National Guard officials have expressed concern that unless the amount of flying time is increased, their pilots cannot train at the level demanded by today's taskings and the newer, more capable aircraft. In addition, the amount of flying and training time required is also a concern of the Air National Guard as it assesses whether to take on new roles and missions. The Air National Guard considers the training requirements for full-time versus the traditional part-time reservist in its analysis of Air Force missions suitable for reserve forces and cites a ratio of 25 percent full-time to 75 percent part-time as desirable. According to RAND, reserve force units average 25 percent full-time personnel, who are either technicians under the administration of the State Adjutants General or reservists on full-time duty to support the unit. The remainder of the unit is comprised of part-time reservists required to attend at least 15 days of annual training and 48 unit training assemblies each fiscal year. Therefore, missions requiring initial training in excess of 45 days or continuous training in excess of 97 days a year are not recommended for traditional guard aircrews.

Reserves Participate Less Frequently in Overseas and Joint Training Exercises The current National Military Strategy stresses the importance of training with allies to build relationships, develop standard operating procedures, and demonstrate commitment to both friends and aggressors. In addition, the Reserve Forces Policy Board and Air National Guard acknowledge that overseas and joint training opportunities enhance capabilities and mobilization. Furthermore, these organizations stated that the reserves needed to increase their participation in this type of training.

The Reserve Forces Policy Board believes that overseas training provides some of the most effective training opportunities for reservists because it allows them to practice actual mobilization and deployment plans and gain experience in flying over foreign land. Joint training provides opportunities for different military services to work together and increase commanders' and staffs' experience with other services to enhance mobilization and planning. However, in a 1987-90 assessment of reserve and active forces' participation in joint training, the Air Force determined that reserve units participate significantly less frequently. Table 3.4 shows the average amount of time between active and reserve forces' participation in Joint Chiefs of Staff directed exercises, Flag exercises, and Checkered Flag exercises.

Table 3.4: Average Yearly Intervals for Active and Reserve Forces' Participation in Exercises

Exercises	Active	Reserves
Joint Chiefs of Staff	2.2	8.5
Flag	1.4	14.0
Checkered Flag	5.0	7.7

The length of travel (usually 2 weeks) limits the reserves' participation in joint and flag training. According to a study of Red Flag training for F-16 reserve pilots, most of those participating in this training are full-time reservists. The 2-week attendance requirement for Red Flag exercises limits part-time reservists' participation because the training becomes more difficult and builds on earlier lessons throughout the 2-week period.

<sup>&</sup>lt;sup>1</sup>Flag exercises consist of Red Flag exercises, which are sponsored by the Air Combat Command and provide training in a simulated combat environment; Maple Flag exercises, which are sponsored by Canada and are similar to Red Flag exercises; and Green Flag exercises, which are sponsored by the Air Combat Command and provide aircrews with training in a simulated electromagnetic threat environment and planning staff experience for becoming senior officers.

<sup>&</sup>lt;sup>2</sup>Checkered Flag exercises train units to operate from assigned deployment locations.

### Reserve Fighter Pilots Are Less Available and Take Longer to Deploy

Unlike active fighter squadrons, which can be called on to deploy within extremely short notice (i.e., 1 day) to meet combat emergencies, the Air Force must initially rely on reservists to volunteer until they are officially called up. Once mobilized, the reserves generally have up to 72 hours to report to their unit and additional training time as necessary to be mission ready before deployment.

The reserve call-up process also imposes legal limitations on the number of personnel and duration of active duty. The President has authority under 10 U.S.C. 673(b) to call up reservists for 90 days with an additional 90-day extension and activate reservists who volunteer for active duty. However, that authority is limited to activating reserve forces to augment active forces for any operational mission other than war or national emergency.

Air National Guard leaders do not advocate volunteerism for personnel in fighter units, even though it does for airlift, air refueling, and communication units. The Guard asserts that, because fighters operate in force packages, the need for unit integrity to ensure optimum, effective employment generally overrides the desire for early involvement. However, even the Air Force's Air Mobility Command experienced some difficulty with the extent and duration of reserve volunteerism during Operation Desert Shield: some units had critical personnel vacancies because many reservists had volunteered before their units were officially activated.<sup>3</sup>

### Conclusions

In the absence of a uniform capability measurement system, the Air Force is collecting information from numerous sources on the status of its active and reserve forces. However, these sources do not always use the same standards to indicate reserve and active forces' capabilities and reveal their differences. Even though the Air Force and Office of Secretary of Defense decision makers may be generally aware of these differences and able to quickly resolve some, a clear understanding of the impact of each difference is necessary to avoid placing more demands on the reserves' capabilities than is warranted. For example, updating reserve aircraft could narrow the gap in capability and the mission tasking, but the risks associated with the differences in mission tasking, training time, training status, access to joint training, access to reservists, and their deployment time are not easily identified and resolved. Furthermore, these differences

<sup>&</sup>lt;sup>3</sup>Desert Shield/Storm: Air Mobility Command's Achievements and Lessons for the Future (GAO/NSIAD-93-40, Jan. 25, 1993).

need to be clearly understood by Congress as additional roles and missions are transferred to the reserves.

### Matters for Congressional Consideration

Since the Air Force reserve forces will be increasingly relied on to fulfill an early combat role, Congress may wish to consider having the Air Force, Air National Guard, and Air Force Reserve discuss how they intend to minimize the risks from increased reliance on reserve fighter forces in terms of their relative availability and time needed to deploy, capability, ability to undertake a broader range of missions, and training opportunities. Also, Congress, when debating the appropriate mix of reserve and active fighter forces and requirements for 20 FWEs and responding to two MRCs, may also wish to consider requesting that the Air Force provide relevant indicators of relative capability.

# Agency Comments and Our Evaluation

DOD partially concurred with the issues discussed in a draft of this report, but did not concur with the recommendation that the Air Force develop a uniform measurement system that identifies the relative capabilities of reserve and active units, risks associated with those differences, and reserve units most capable of combat and peacetime operations. DOD partially concurred with a matter for congressional consideration that suggested Congress consider having the Air Force, the Air National Guard, and the Air Force Reserve discuss how they intend to minimize risks arising from increased reliance on reserve fighter forces in terms of their availability, time needed to deploy, capability, ability to undertake a broader range of missions, and training opportunities. In light of DOD's comments, we deleted the recommendation, but expanded the matter for congressional consideration to provide Congress an option of requiring such information from the Air Force, if needed, as they debate the appropriate mix of active and reserve forces and the roles and missions assigned to those forces. DOD's comments appear in appendix II.

Concerning specific issues discussed in the report, DOD commented that the Bottom-Up Review validated 20 FWES and 100 bombers as a portion of the force required to win two MRCS and that the reserve forces (Air National Guard and Air Force Reserves) were a critical part of the force meeting that commitment. DOD further stated that as it continues to downsize and restructure and the services evaluate requirements for active and reserve components, both active and reserve forces need to be ready to accomplish their assigned mission. In addition, DOD believed that SORTS data indicated the air reserve fighter forces were very capable of

meeting the taskings and missions called for and that additional analyses for reporting of the relative status and capabilities of active and reserve fighter forces was unnecessary.

We believe there are differences between active and reserve fighter force capabilities and additional risks associated with increased reliance on the reserve forces as the size of the Air Force is reduced and roles and missions are reassigned. As DOD pointed out, for example, the SORTS system could identify that an active fighter unit and reserve fighter unit were both highly capable of performing their assigned combat missions. However, we do not think that it is readily apparent that the reserve forces' ability is being measured against fewer missions and that they have older aircraft, different types of equipment, less annual training, and significantly less joint overseas training opportunities than their active counterparts.

As the Air Force and Dod assess how to prepare to engage in two nearly simultaneous MRCs, meet peacetime operational requirements with a smaller force, and stay within affordability limitations, the relative capability of reserve fighter forces will likely become increasingly important to Congress and others. Dod acknowledged that reserve forces possess older and less capable fighter aircraft than the active force. Consequently, even when these reserve units are maintained at equally high readiness levels, their mission versatility and combat capability within a given mission will generally be less than that of active units equipped with more advanced aircraft. For these reasons, we do not believe that the differences and increased risks are as apparent or well understood as DOD concludes.

DOD agreed that the lower operating cost advantage of the air reserve force was due primarily to its significantly lower peacetime operations tempo and part-time nature. However, DOD only partially concurred with our conclusion that higher utilization of reserve forces might require more operating funds. In DOD's view, the cost of using reserve forces in support of active missions does not reduce their cost advantage because the cost of utilizing reserve forces, such as the additional personnel and flying hour costs cited by DOD, are absorbed by funds initially allocated to active forces. We believe that if the Air Force uses funds that were originally intended for active forces to support increased use of reserve forces in peacetime, the cost advantage of reserve forces versus active forces is narrowed.

Regarding our finding that reserve force pilots flying less than active pilots, DOD noted that the Air Combat Command reviewed and approved the training requirements and that reserve pilots could take advantage of their greater experience to remain qualified with fewer flying hours and still meet their mission tasking. However, according to the Air Combat Command, the experience level of reserve force pilots is not a determining factor in proposing their levels of training. Instead, the level of training proposed for reserve versus active pilots is determined by the missions assigned, response time, and event requirements derived from a detailed analysis of taskings, historical data, and several studies.

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# Category Definitions Used in the Status of Resources and Training System

- C-1: Unit possesses required resources and is trained to perform its assigned mission.
- C-2: Unit possesses resources and training necessary to perform the bulk of its wartime mission.
- C-3: Unit possesses resources and training necessary to perform major portions of its wartime mission.
- C-4: Unit requires additional resources or training to perform its wartime mission, but if the situation dictates, it could undertake portions of its wartime mission with resources on hand.
- C-5: Unit is undergoing a service-directed resource action and is not prepared to perform its wartime mission.
- C-6: Unit has measured resource areas designated as not applicable by the service.

## Comments From the Department of Defense



#### ASSISTANT SECRETARY OF DEFENSE 2100 DEFENSE PENTAGON WASHINGTON, DC 20301-2100

2 4 FEL 1994

Mr. Frank C. Conahan Assistant Comptroller General National Security and International Affairs Division U.S. General Accounting Office Washington, DC 20548

Dear Mr. Conahan:

This is the Department of Defense (DoD) response to the General Accounting Office (GAO) draft report, "AIR FORCE: Most Active Fighter Units Are More Capable Than Similar Reserve Units," dated January 7, 1994 (GAO Code 392724), OSD Case 9596. The DoD partially concurs with the report but does not concur with the GAO recommendation or matter for congressional consideration.

The draft National Military Strategy requires the Department to be capable of conducting two nearly simultaneous major regional conflicts. The DoD Bottom-Up Review validated twenty fighter wing equivalents and 100 bombers as a portion of the force required to win two major regional conflicts under the most plausible conditions, provided numerous programming enhancements are accomplished. The Air Reserve Component (Air National Guard and Air Force Reserves) is a critical part of the force in meeting that commitment.

As the Department continues to downsize and restructure, the Services continue to evaluate the requirements of both their active and reserve components. It is imperative both components be ready to accomplish their assigned missions. The Status of Resources and Training System accurately assesses the ability of the active and reserve fighter units to perform their assigned missions. The proposed measurement system recommended by the GAO is unnecessary.

The detailed DoD comments on the draft report findings and recommendation and matter for congressional consideration are provided in the enclosure. The DoD appreciates the opportunity to comment on the GAO draft report.

Sincerely,

Edward L. Warner II

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Enclosure

#### GAO DRAFT REPORT - DATED JANUARY 7, 1994 (GAO CODE 392724) OSD CASE 9596

## "AIR FORCE: MOST ACTIVE FIGHTER UNITS ARE MORE CAPABLE THAN SIMILAR RESERVE UNITS"

#### DEPARTMENT OF DEFENSE COMMENTS

#### **FINDINGS**

FINDING A: Force Reductions Increase Reliance on the Reserves.

The GAO observed that, in the past, active forces were assigned forward presence, crisis response, and contingency roles because of the length of deployments and the need for a quick response with fully trained, highly ready, and initially self-sufficient forces. The GAO further observed that the reserves were considered a less costly force to assist and augment active units if needed. The GAO concluded, however, that as the fighter force is reduced and fewer active units are based overseas, the Air Force will need to depend more on the reserves. The GAO further concluded that the increasing reliance on air reserve fighter forces to accomplish national military objectives will challenge the traditional role of the reserves.

The GAO found that, by 1995, the Air Force is expected to consist of nine active and 11 reserve fighter wing equivalents based in the U.S.—and approximately six active fighter wing equivalents overseas. The GAO also found that the reserves are expected to operate (1) half of the A-10s designated for Army close air support, (2) most of the Air Force multirole F-16s, and (3) many of the Air Force F-4Gs and F-15s. The GAO noted that, of the 20 fighter wing equivalent force proposed by the Secretary of Defense, about five fighter wing equivalents might be based overseas, and eight active and seven reserve fighter wing equivalents could be based in the United States. The GAO concluded that, to provide the nearly ten fighter wing equivalents considered necessary to win a major regional conflict, the Air Force will likely rely more on the reserves.

The GAO also observed that, during OPERATION DESERT STORM, the Air Force deployed eight fighter wing equivalents from the United States, along with more than two fighter wing equivalents from its overseas bases to the Persian Gulf area. The GAO noted that approximately one of the fighter wing equivalents was a reserve unit sent 1 month before the war began. The GAO concluded that, if the United States becomes involved in a similar sized conflict after the drawdown of the force, deploying nearly half of the five to six active fighter wing equivalents based overseas, and almost all of the eight to nine active fighter wing equivalents based in the

Enclosure

United States would be a risk due, to the possibility of a second contingency. The GAO indicated that an alternative would be to increase reserve forces involvement. For example, the GAO observed that based on the DESERT STORM experience, the reserves would have to deploy all of their A-10s and F-4Gs and perhaps some F-16s to a similar-sized conflict. Although noting the current National Military Strategy emphasizes the role of active forces, the GAO pointed out that the strategy also indicates the U.S. should increasingly rely on the reserves if the crises become larger or more protracted—and that certain reserve capabilities must be capable of deploying and augmenting responding active units. (pp. 4-6, pp. 15-17/ GAO Draft Report)

DOD RESPONSE: Partially concur. Extensive wargamming analysis of future major regional conflicts suggests the Air Force requirement to defeat potential enemy forces is ten fighter wing equivalents per major regional conflict. According to the latest Defense Planning Guidance, the DoD current strategy calls for the capability to fight and decisively win two nearly simultaneous major regional conflicts. For the bulk of the Air Force general purpose fighter forces, fielding sufficient forces to meet the two major regional conflict requirement involves duplicating the ten fighter wing equivalent. Consequently, under the 20 fighter wing equivalent force structure plan, all active and air reserve component fighter units are specifically tasked to at least one major regional conflict. Because the DoD strategy calls for the capability to win nearly simultaneous major regional conflicts, some unique or specialized assets are dual tasked to fight in both major regional conflicts, thus they would be employed in the first conflict and then subsequently redeployed to fight in the second.

The GAO statement that, by 1995, the Air Force will consist of 26 fighter wing equivalents—six active duty overseas, with nine active and 11 reserve fighter wings in the Continental United States—is factually incorrect and overstates the Air Force fighter capability. The target force mix will be 13 active and seven air reserve component wings. By 1995, the Air Force will be well on the way to achieving those figures.

• FINDING B: Some Reserve Fighter Aircraft Will Be More Likely Needed Than Others. The GAO concluded that, because the Air Force might need to rely more on the reserves, possible demands on specific aircraft types, such as the F-16, the A-10, the F-4G, and the F-15A/B/C/D, are particularly important to anticipate—since some types of fighters could be almost totally committed to a future conflict similar to the Persian Gulf War. The GAO found that there will be a sufficient number of F-16s in the active fighter force to meet requirements similar to those of the Gulf War. The GAO concluded, however, that by 1995, when the F-16 will constitute the

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Now on pp. 5-6 and pp.

14-15.

majority of the Air Force fighter capability, over one-half of the F-16s will be in the reserve forces. The GAO also concluded that virtually all A-10 and F-4G reserve forces would be needed to meet a future Gulf War-type operation; however, there would be an ample number of F-15A/B/C/Ds in the future active fighter force to meet a Gulf War-sized air superiority requirement. In addition, the GAO observed that as early as 1990, an Air National Guard Ad Hoc Committee on Force Mix concluded the Guard was receiving more pressure to accept expanded and new missions and units, as well as mirror the Air Force in peacetime availability and wartime performance. (pp. 18-22/ GAO Draft Report)

**DOD RESPONSE:** Partially concur. Given a single major regional conflict, nearly all mission specialized aircraft, such as the F-117 and the F-4G are tasked, whereas only half the general purpose fighters are tasked. However, if two near simultaneous major regional conflicts are ongoing, all active and air reserve component fighter units are tasked to the major regional conflicts.

FINDING C: Meeting Higher Expectations May Require More Operating Funds for the Reserve Forces. The GAO found that, because the reserves will operate most of the U.S.-based fighters by 1995, peacetime operational demands on the reserves may also increase. In addition, the GAO observed the Bottom-Up Review recognized that reserve fighter forces would occasionally need to rotate overseas to help reduce demands on the active forces. The GAO also noted that Air Force Reserve fighters have already performed a 45-day rotation in Turkey—and that Air National Guard F-4Gs are planning to deploy to support commitments to Southwest Asia during 1994. In addition, the GAO observed that the Air National Guard had offered up to 25 percent of its fighters for 30-day deployments.

The GAO found, however, that the reserves will require additional funding to carry out their increased responsibilities—thereby decreasing their cost advantage. The GAO noted that, in 1992, the Congressional Budget Office estimated that a reserve fighter wing equivalent cost approximately \$300 million per year to operate and support, as compared with about \$370 million for an active fighter wing equivalent. The GAO observed that sending only six reserve fighters overseas for 60 days and 18 others for 45 days could cost over \$7 million. The GAO concluded, therefore, that such activities, if frequent or extensive, could significantly reduce the approximately \$70 million per year operating cost advantage of a reserve fighter wing equivalent. The GAO also observed that a recent\_Air National Guard assessment of capability inhibitors indicated the Guard lacked (1) sufficient fighter flying hours, (2) maintenance personnel, and (3) air crew workdays to support the operating tempo demanded by

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Now on pp. 15-20.

Now on pp. 6 and 21.

today's mission and newer, more capable aircraft. The GAO further observed that the reserves would need more resources to train and meet an increased pace of operations so they could be used during peacetime to supplement or replace active forces. (pp. 5-6, pp. 22-24/GAO Draft Report)

**DOD RESPONSE:** Partially concur. The advantage of the air reserve component is its lower operating cost, due primarily to its significantly lower peacetime operations tempo and part-time nature (approximately 65 percent of the personnel are part-time). The cost of using either active or air reserve component assets in support of an active mission does not increase the cost or funding requirement for the air reserve component. Day-to-day operational missions are an active requirement to fundwhether the Air Force uses an active or air reserve component asset, the cost is fully absorbed by active accounts. Air reserve component funds are, by law, solely utilized to support training. While some deployments meet that requirement as a by-product of the deployment, many do not and are, therefore, an active responsibility to fund. The \$7 million cost for deploying an air reserve component unit includes airlift and tanker costs - that would be the same for a deploying active unit. The additive costs for air reserve deploying units are operational mandays, flying hours, etc. However, a given amount of added funding will be required to support operational missions no matter which type unit--active or air reserve component-is assigned to accomplish those missions.

• FINDING D: Air Force Capability Assessments Do Not Reveal Differences Between Active and Reserve Fighters. The GAO found that there is no objective and uniform system for assessing and reporting unit capabilities. The GAO observed that the Status of Resources and Training System and other logistics, inspection, and safety reports being collected by the Air Force and reserves do not use uniform standards to measure the capabilities of active and reserve fighter forces. As a result, the GAO concluded that even though the level of active and reserve fighter force capability reported in the Status of Resources and Training System reports may appear to be comparable—significant differences exist. In addition, the GAO concluded that the reserve forces are accessed and deployed differently and some of the differences may limit Air Force reliance on reserve forces.

The GAO observed that active and reserve units are required to report their capabilities for performing assigned wartime missions through the Status of Resources and Training System reports, using one of six categories to report on the status of their personnel, equipment on hand, equipment condition, and training. In addition, the GAO observed that unit commanders can assign a subjective rating based on their opinion of the units' capabilities. The GAO noted that the National Military

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Commands use the system (1) to make command decisions, (2) to assign resources and missions, and (3) to monitor resources and training in peacetime. The GAO found, however, the reports showed that the Air Force active and reserve units are at the same level of capability—even though F-15 and F-16 reserve units generally have older and fewer aircraft than their active counterparts—aircraft that are less capable. In addition, the GAO noted that, although reserve pilots are in many cases more experienced, they fly fewer hours; thus, sustaining lower pilot combat capability ratings with fewer assigned missions and participating in fewer joint training exercises.

The GAO found that, in the absence of a uniform capability measurement system, the Air Force is beginning to collect information from numerous sources on the capabilities of its active and reserve forces. The GAO observed, however, that the sources do not always use the same standards to indicate reserve and active forces capabilities and/or to reveal their differences. The GAO concluded that a clear understanding of the impact of each difference is necessary to avoid placing more demands on reserve capabilities than is warranted. The GAO also concluded that the differences need to be clearly understood by the Congress as additional roles and missions are transferred to the reserves. (pp. 3-4, pp. 6-7, pp. 25-26, p. 35/GAO Draft Report)

<u>DOD RESPONSE</u>: Partially concur. The Department agrees with the GAO that the Status of Resources and Training System is not a capability assessment tool and never was designed to be—it is a readiness tool used within the Department. However, Status of Resources and Training System does use uniform standards to measure the status of current resources and training levels for both active and reserve forces. The DoD also disagrees that active and reserve fighter forces do not report against the same standards. The same Status of Resources and Training System standards and procedures equally apply to both active and air reserve component forces.

Active and air reserve component forces are assigned a category level of 1 through 6 in each of four measured resourced areas: personnel, equipment and supplies, training, and equipment condition. Those category levels highlight how closely that unit's four measured resourced areas match the resources identified in its designed operational capability statement to its wartime tasking. The designed operational capability statement provides specific measurement standards for unit C-level readiness reports and it only summarizes taskings and requirements found in war plans or other directives.

The DoD also disagrees that the "Status of Resources and Training System indicates that active and reserve forces' equipment are at the same level of

Now on pp. 5, 6, 7, 22, and 28.

capability." The Status of Resources and Training System is not a capability statement. Rather, the Status of Resources and Training System measures the unit's ability to perform its assigned designed operational capability statement. The designed operational capability statement provides a specific measurement standard for unit readiness reporting. The Status of Resources and Training System is unable to measure technological sophistication of weapon system and equipment. Readiness C-levels do not measure the impact of qualitatively different weapon systems (e.g., B-l, versus B-52H) or even evolutionary improvements (e.g., F-16A versus F16C). It is not feasible to compare an active duty F-15 or F- 16 unit to a reserve unit, without first looking at the designed operational capability statement and considering the elements and sections of that designed operational capability statement. The mission identification section of the designed operational capability statement provides a very salient mission narrative statement. It is the mission narrative statement that provides the details of the tasked mission. The statement lists the major tasks to be performed and their purpose (e.g., provide air interdiction, offensive and defensive counterair, suppression of enemy air defenses, or close air support). Only taskings and requirements from approved operations plans and other directives will appear in that section. Also within the designed operational capability statement are the mission specifics, which provide the units response time, the type and number of aircraft the unit is required to maintain, and other war planning details.

The DoD realizes that a similar C-1 rating for different units is not a valid comparison of capability. For example, a B-52 squadron that is rated C-1 has completely different capabilities than a tank battalion that is rated C-1. Similarly, an active F-16 unit rated C-1 by the Status of Resources and Training System is understood by the DoD to have different capabilities than an air reserve component F-16 unit. This understanding encompasses such things as the differences in types of equipment, numbers of aircraft assigned, and missions assigned during peace and war.

• FINDING E: Reserve Units Have Older. Fewer, and Less Capable Fighters. The GAO found that, although the Status of Resources and Training System reports indicate active and reserve force equipment are at the same level of capability, there are differences in the age, number, and technology of their assigned aircraft. For example, the GAO observed that the F-15s and F-16s in reserve units are generally earlier models and are, on average, at least twice as old as the active forces. The GAO indicated that the Air Force considers it appropriate for the reserves to report high levels of capability because their less modern aircraft are still considered able to perform assigned missions. The GAO also observed that reserve squadrons are usually assigned 18 aircraft compared with 24 aircraft in

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active squadrons; therefore, to deploy a fighter wing equivalent, the reserves must mobilize four squadrons, whereas the active must bring to bear only three squadrons. Also, the GAO noted that the reserves were more frequently at the lower end of the availability range compared to the active units, which were at the higher end of the availability range.

The GAO also found that the mission capability standards, are lower for most reserve aircraft--that is, whether the aircraft can meet at least one wartime mission. The GAO indicated that the disparity reflects the reserves older aircraft and part-time maintenance capability. The GAO also noted that many reserve squadron aircraft do not have the latest technology found on active squadron aircraft. For example, the GAO observed that the reserve F-15 A/Bs do not have (1) upgraded radar, which would improve their target detection, identification, and tracking, (2) upgraded central computers with radar display improvements, which would enhance the pilots' awareness of tactical situations, (3) launching capability for the newest model of the Advanced Medium Range Air-to-Air Missile, which limits their air-to-air combat, (4) tactical electronic warfare upgrades, which would improve their ability to detect and jam radars, or (5) chaff and flare dispensers, which would enhance their self protection against enemy missiles. Also, the GAO found that most of the reserve F-16s do not have the Low Altitude Targeting Infra-Red Night system, which would allow them to navigate and acquire targets at night or launch capability for the latest weapons.

In addition, the GAO found that the Air National Guard reported during OPERATIONS DESERT SHIELD/DESERT STORM the Status of Resources and Training System reports did not accurately reflect the status of items, such as war repair supply kit levels, or report upgrades to aircraft and weapon systems. Further, the GAO observed that the Air National Guard report indicated higher headquarters did not have all the data needed to make command decisions. The GAO further reported that, according to Air National Guard officials, the units did not have the necessary protective equipment while flying combat missions during DESERT SHIELD/ DESERT STORM. (pp. 3-4, pp. 6-7, pp. 26-29/GAO Draft Report)

**DOD RESPONSE:** Partially concur. The DoD agrees that, generally, the air reserve component does possess older and less capable fighter aircraft than the active force. That was primarily the result of the doctrine of "first to fight, first to equip." Consequently, even when these reserve units are maintained at equally high readiness levels, their mission versatility and combat capability within a given mission will generally be less than that of active units equipped with more advanced aircraft. These differences would be reflected in the differing designed operational capabilities statements assigned to the active and reserve units. However, since our strategy calls for greater reliance on the air reserve component in the years

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ahead, the Air Force recognizes the need for more modern more capable fighters for the reserves. Accordingly, as the Air Force draws down towards a force of 20 fighter wing equivalents, the air reserve component F-16 will be modernized. By FY97, the air reserves will no longer fly the older model F-16A/B in the general purpose forces. Moreover, select Air National Guard units have taken or will take delivery of new block F-16s. Furthermore, the Air National Guard F-15A fleet is programmed to receive the multi-stage improvement program modification, which will upgrade the older avionics to be equivalent with the newer F-15C. The DoD agrees that the air reserve component has lower mission capability rates than the active force. It should be recognized, however, that mission capability rates are set by the individual Major Commands as management goals and are not a direct measure of the weapon system's operational peacetime or wartime requirement. Consequently, the air reserve component establishes a lower mission capability rate for its units to reflect the part-time nature of their peacetime maintenance. Following full mobilization, reserve mission capability rates most likely will be the same as the active units.

• FINDING F: Reserve Pilots Fly Less and Are Assigned Fewer Mission Taskings. The GAO found that, although reserve and active squadrons may report high levels of pilot training, the amount of flying they do and their mission qualifications and taskings are significantly different. The GAO observed that reserve pilots are generally prior active duty Air Force personnel and are considered more experienced than their active counterparts. The GAO also observed that reserve pilots have a lower flying hour requirement to achieve the same capability rating as active duty pilots. The GAO found, however, that even with the reduced flying hour requirement, fewer reserve pilots achieved the higher capability ratings. The GAO also noted that the Air Force limited mission taskings for reserve pilots.

The GAO explained the Air Force uses a Graduated Combat Capability scale—one that reflects the number and type of flights pilots should accomplish to demonstrate their ability to perform assigned wartime taskings. Depending on the level of experience, the GAO indicated that reserve pilots can fly from 16 to 36 percent fewer training flights to attain comparable combat capability qualifications as active pilots. The GAO found that, nonetheless, despite the lower flying requirements to demonstrate level B and C capability, not as many reserve pilots attain those capabilities as their active counterparts. The GAO also observed that active units train to support virtually all theater commanders, whereas reserve units generally support only one, and active units generally maintain qualification in more mission areas. For example, the GAO noted that active pilots in F-16 squadrons are generally proficient in five of

about three mission areas. The GAO concluded that, unless the amount of flying time is increased for the reserve and guard pilots, they cannot train at the level needed to be proficient with the newer, more capable aircraft and the new roles and missions. (pp. 6-7, pp. 29-32/GAO Draft Report)

<u>DOD RESPONSE</u>: Partially concur. Training is determined by personnel availability, expected Operations Plan tasking, and the overall experience levels of the force. The Graduated Combat Capability requirements are reviewed and approved by the gaining Major Command (the Air Combat Command) and reflect the training operations tempo the force provider has requested. Reservists can take advantage of their greater experience to remain qualified with fewer flying hours and still meet the unit designed operational capability statement.

seven air-to-air and air-to-ground mission areas, whereas Air National Guard and Air Force Reserve pilots, on average, are responsible for only

The DoD does not agree that an additional 14 to 21 days of training are required after mobilization for air reserve component aircrews. Air reserve component crews are trained and capable of deploying into a theater with the active component and employing immediately. That was illustrated during DESERT STORM when air reserve component fighter units were deployed in expectation of immediate employment, with no additional training scheduled. Air reserve component training sorties "in-theater" were no different than their active counterparts. That philosophy is further illustrated in current Operations Plans, which do not include any post-mobilization training time for an air reserve component unit.

FINDING G: Reserves Participated Less Frequently in Overseas and Joint Training Exercises. The GAO observed that the current National Military Strategy stresses the importance of training with allies (1) to build relationships, (2) to develop standard operating procedures, and (3) to demonstrate commitment to both friends and aggressors. In addition, the GAO noted that the Air Combat Command, the Reserve Forces Policy Board, and the Air National Guard acknowledged overseas and joint training opportunities enhance capabilities and mobilization-and all stated that the reserves needed to increase their participation in that type of training. The GAO found, however, that in a 1987-1990 Air Force assessment of reserve and active forces' participation in joint training, the reserve units participated significantly less frequently. The GAO also observed that the length of travel (usually 2 weeks) and associated travel costs limit participation by the reserves in joint and flag training. According to a study of Red Flag training for F-16 reserve pilots, the GAO noted that most of the participants were full-time reservists, and that the 2-week attendance requirement for Red Flag exercises limited the part-

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time reservist participation because the training becomes more difficult and builds on earlier lessons throughout the 2-week period.(p. 6, pp. 32-33/GAO Draft Report)

DOD RESPONSE: Partially concur. Two of the main reasons for reduced participation in overseas and joint training exercises are unit availability and funding—however, neither the length of travel required nor the 2-week attendance requirement for Red Flag exercise limits participation by reservists. The air reserve component must be invited to participate in training exercises by the host agency and with enough lead time (approximately 6 months) to allow for proper participation planning. In addition, the host agency must provide funding—for example, mandays, travel and per diem, flying hours, etc. As the recently reconfigured United States Atlantic Command assumes responsibility as the joint training integrator, and as the numbers of joint exercises increase both overseas and in the Continental United States, the air reserve component should be provided greater opportunity to participate in overseas and joint training.

FINDING H: Reserve Fighter Pilots Are Less Available And Take Longer to Deploy. The GAO found that, unlike active fighter squadrons (which can be called on to deploy within 24 hours to meet combat emergencies), the Air Force must initially rely on reservists to volunteer until they are officially called up. The GAO also found that, once called up, the reserves generally have 72 hours to report to their unit and for additional training time, as necessary, to be mission-ready before deployment. The GAO also observed that the reserve call-up process imposes legal limitations on the number of personnel and duration of active duty. The GAO noted that the President has the authority to call up reservists for 90 days with an additional 90-day extension and activate reservists who volunteer for active duty. However, the GAO indicated that the authority is limited to deploying forces during the initial stages of a crisis. The GAO also found that Air Guard leaders do not advocate volunteerism for personnel in fighter units--even though it does so for airlift, air refueling, and communication units. The GAO reported that, according to the Guard, because fighters operate in force packages, the need for unit integrity to ensure optimum, effective employment generally overrides the desire for early involvement. The GAO observed, however, that even the Air Mobility Command experienced difficulty with the extent and duration of reserve volunteerism during OPERATIONS DESERT SHIELD/ DESERT STORM--i.e., some units had critical personnel vacancies because many reservists had volunteered before their units were officially activated. (p. 34/GAO Draft Report)

<u>DOD RESPONSE</u>: Partially concur. The DoD acknowledges a call up of reserve forces involves additional factors to those that are involved in a call up of active forces. The DoD does not agree, however, that reserve

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forces are less capable or necessarily take longer to deploy that active forces. The report is factually incorrect when it states that reserves have 72 hours to report and then require additional training to become mission ready prior to deploying. Air reserve component units have the same response time as the active, except for an additional 24 hours of mobilization time to account for bringing members into Federal status. The Department does not plan for post mobilization training for air reserve component fighter crews or for any air reserve component mission area. Volunteerism from the reserve forces has successfully been used by the Air Force, as part of its Total Force Policy, to fill shortfall requirements, particularly, in tanker and strategic airlift operations. Historically, that figure has averaged approximately 25 percent of the total requirements. However, the requirement for reserve component fighter unit participation, although critical, is not as time sensitive as the tanker/airlift missions, due to the timing that these units have in the planned deployment flows.

#### RECOMMENDATION

 RECOMMENDATION 1: Because the Air Force will depend more on reserve fighters to meet future national contingencies and will need to more rapidly and frequently access their combat capability, the GAO recommended the Secretary of Defense direct the Secretary of Air Force to develop a uniform measurement system that identifies the (1) relative capabilities of reserve and active forces, (2) risks associated with their differences, and (3) reserve units most capable of combat and peacetime operations. (p. 7, p. 35/ GAO Draft Report)

**DOD RESPONSE:** Non concur. As discussed in the response to Finding D, the Status of Resources and Training System accurately assesses the ability of the active and reserve fighter units to perform their assigned missions set forth in their designed operational capability statements. The current Status of Resources and Training System data indicates the air reserve component is very capable of meeting the taskings and missions called for in the designed operational capability statements of its various units. The DoD does not believe that it is necessary or advisable to create another detailed information system for tracking the status and capabilities of its active and reserve units. The DoD is convinced that existing systems are sufficient for DoD use. Information describing the capabilities of the full range of Air Force combat units is currently available.

Paragraph 3 on page 10 of the GAO report states, "Recognizing the roles of the Air Force National Guard and Air Force Reserve as well as the active

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force as part of the total force, the Air Force's regulations state that it is essential that these forces be staffed, trained, and equipped with the resources required to meet their wartime tasking." The designed operational capability statement for each unit is a critical document in this regard since it identifies the wartime missions that are assigned. The Status of Resources and Training System measures those variables and determines how well the active and air reserve component fighter units are manned, trained, and equipped to meet those wartime taskings, equally applying the same standards for both. The DoD also disagrees with developing a system that identifies air reserve component units as most capable for combat and peacetime operations.

#### MATTER FOR CONGRESSIONAL CONSIDERATION

MATTER 1: Since the Air Force reserves will be increasingly relied on to
fulfill an early combat role, the GAO suggested the Congress consider having
the Air Force, the Air National Guard, and the Air Force Reserves discuss
how they intend to minimize the risks arising from increased reliance on
reserve fighter forces in terms of their (1) relative availability and time needed
to deploy, (2) capability, (3) ability to undertake a broader range of missions,
and (4) training opportunities. (p. 7, p. 36/GAO Draft Report)

<u>DOD RESPONSE</u>: Partially concur. The DoD does not believe that additional congressional direction is required but stands ready to discuss important matters such as these at any time in order to improve the combat capability of forces.

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# Major Contributors to This Report

National Security and International Affairs Division, Washington, D.C. Richard J. Herley, Project Director

Norfolk Regional Office Richard G. Payne, Project Manager Jeffrey L. Overton, Jr., Deputy Project Manager Carleen C. Bennett, Evaluator Patricia W. Lentini, Computer Programmer/Analyst

Atlanta Regional Office Alphonse R. Davis, Regional Management Representative Beverly J. Brooks Hall, Deputy Project Manager Maria Storts, Evaluator

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