

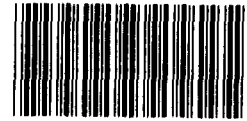
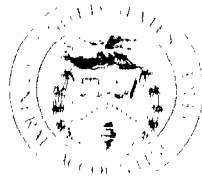
GAO

Report to the Honorable
James H. Bilbray, House of
Representatives

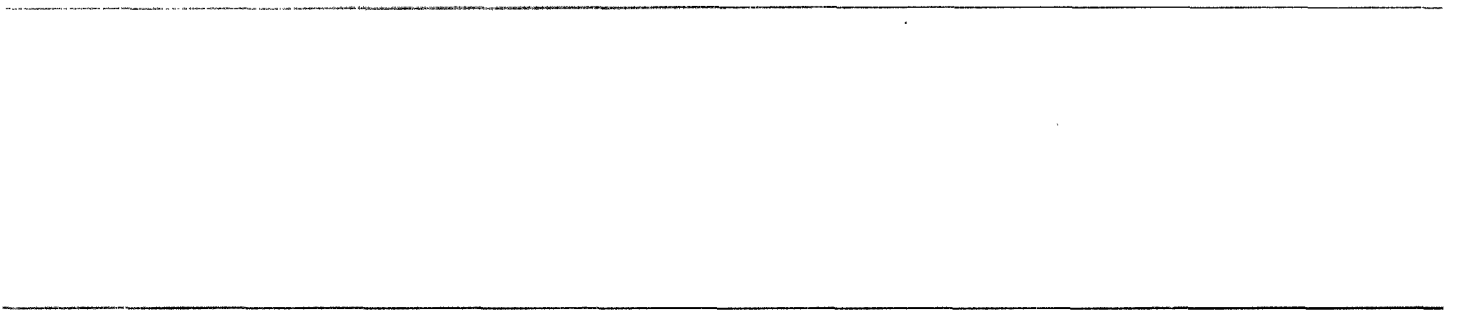
August 1990

ARMY RESERVE READINESS

Allegations of Degraded Readiness of the 5th Battalion/ 159th Aviation Regiment



142124



National Security and
International Affairs Division

B-240566

August 30, 1990

The Honorable James H. Bilbray
House of Representatives

Dear Mr. Bilbray:

In your November 15, 1989, letter, you expressed concerns about the readiness of U.S. Army Reserve and Army National Guard aviation units. You specifically asked us to address allegations that the 5th Battalion/159th Aviation Regiment, an Army Reserve unit located at Fort George Meade, Maryland, (1) had received helicopters from the active forces that were unready and unsafe to fly, (2) lacked the necessary spare parts to maintain its helicopters in a ready condition, (3) did not know its wartime mission, and (4) did not have its full complement of instructor pilots and aviation safety officers. You also asked us to compare the readiness condition of the battalion to that of other aviation units in the reserve and active forces.

On May 16, 1990, we briefed you on the results of our work. This report summarizes the information discussed at that meeting.

Results in Brief

Between December 1987 and December 1988, the battalion received 12 CH-47C helicopters from the active forces. At the time the battalion took possession of the aircraft, 11 of the 12 aircraft were considered by the battalion to be in a flyable condition.¹ The battalion did not perform a receiving inspection, as required; however, later routine maintenance inspections identified corrosion and/or engine problems on eight of the helicopters. The nature of the deficiencies identified during the later inspections indicates that these deficiencies probably existed at the time the aircraft were transferred to the battalion.

The battalion has experienced problems maintaining its aircraft in a ready condition over the past 2 years. As a result, the battalion's fully-mission-capable rates ranged from 6 to 61 percent, as compared with the Army's goal of 65 percent fully mission capable. These problems stem principally from a significant backlog of unscheduled and scheduled maintenance rather than, as alleged, a lack of spare parts.

¹One helicopter was not flyable because it had an inoperable transmission.

Battalion officials told us that since September 1989, they have not known the battalion's wartime mission, that is, when it would be required to deploy, the theater of operation to which it would deploy, or which other units it would be required to support. The officials also told us that attempts to determine the battalion's wartime tasking by requesting this information from higher level headquarters had not been successful. As a result, the battalion is not training for a specific wartime mission.

The battalion has had its full complement of instructor pilots since April 1988 and safety officers since March 1989. We did find, however, that the battalion did not have a written safety program, as required, until June 1989 when the safety officer developed the battalion's program.

The overall readiness condition of the battalion is typical of that of other CH-47C units in the reserves. The units are in the process of changing over to the CH-47D model helicopter and, as a result, are categorized for readiness reporting purposes as undergoing reorganization. As compared to active Army aviation units, Army reserve component aviation units are generally less ready.

Background

The 5th Battalion/159th Aviation Regiment is an Army Reserve aviation unit that flies CH-47C helicopters. The battalion's organization includes a headquarters, a headquarters company, and a CH-47 aviation company. The battalion's general mission is to transport personnel, weapons, ammunition, equipment, and other cargo in general support of combat, combat-support, and combat-service support units.

The battalion expects to complete its transition from CH-47C to CH-47D aircraft by August 1993. From the time the battalion was established in April 1988,² it has been reporting a readiness status that reflected the fact that the unit was undergoing a reorganization or a major equipment transition.

²Prior to April 1988, the unit was referred to as the "60th Aviation Battalion."

Condition of Aircraft Received by the Battalion

From December 1987 through December 1988, the battalion received 12 CH-47C helicopters from the active forces—11 from units in Germany and 1 from a unit in Fort Rucker, Alabama. According to battalion officials, with one exception, the helicopters were in flyable condition upon receipt. However, no transfer or acceptance inspections were performed at the time they were transferred to the battalion, and later periodic maintenance inspections disclosed numerous problems, including structural corrosion damage and damage to engines by foreign object debris.

Army Technical Manual 1-1500-328-25 establishes requirements for transfer and acceptance inspections of aviation equipment to ensure that aircraft meet serviceability standards. However, the Aviation Systems Command and the U.S. Army, Europe, agreed to waive the requirement for a transfer inspection prior to shipping the helicopters to the United States because a CH-47D fielding team had performed safety-of-flight maintenance on the helicopters prior to shipping. The battalion and its aviation support facility also did not perform acceptance inspections, which are to be accomplished by the activity receiving the aircraft as soon as possible after they are received to ensure that all systems function properly.

After the aircraft were received by the battalion and had been in operation for varying lengths of time, it identified maintenance problems, on eight of the helicopters, during periodic inspections. The problems included (1) severe structural damage caused by corrosion, (2) damage to engines by foreign object debris, and (3) worn oil cooler lines.

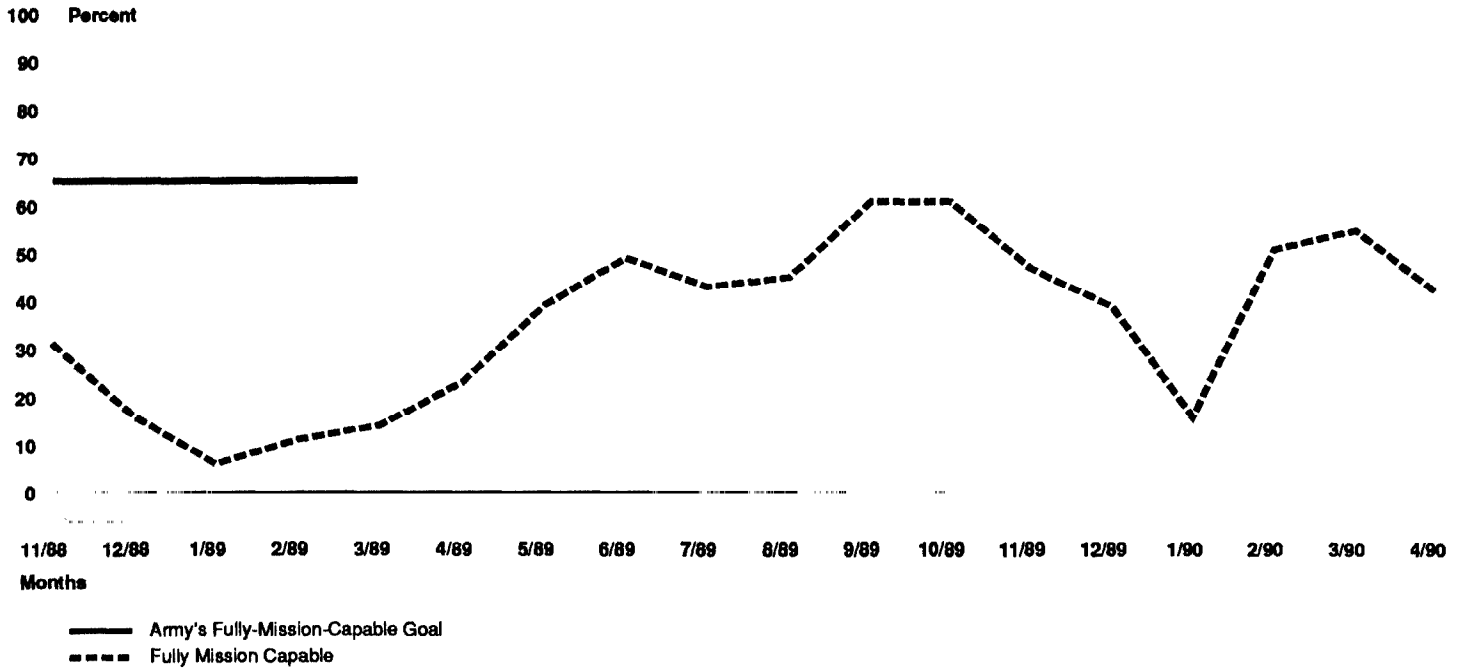
Although inspections had not been performed at the time of transfer, the nature of the problems indicates that the deficiencies probably existed at the time of the transfer.

Maintenance Problems Are the Primary Cause of Degraded Readiness

According to Army regulations, the fully-mission-capable goal for CH-47 A, B, and C model aircraft is 65 percent. That is, these aircraft must be fully mission capable 65 percent of the time. The Army defines an aircraft as “fully mission capable” when it can perform all of its combat missions. An aircraft is considered “non-mission capable” when it is not flyable due to scheduled or unscheduled maintenance or a lack of spare parts.

Figure 1 shows that from November 1988 through April 1990, the battalion never achieved the Army’s goal for fully-mission-capable aircraft.

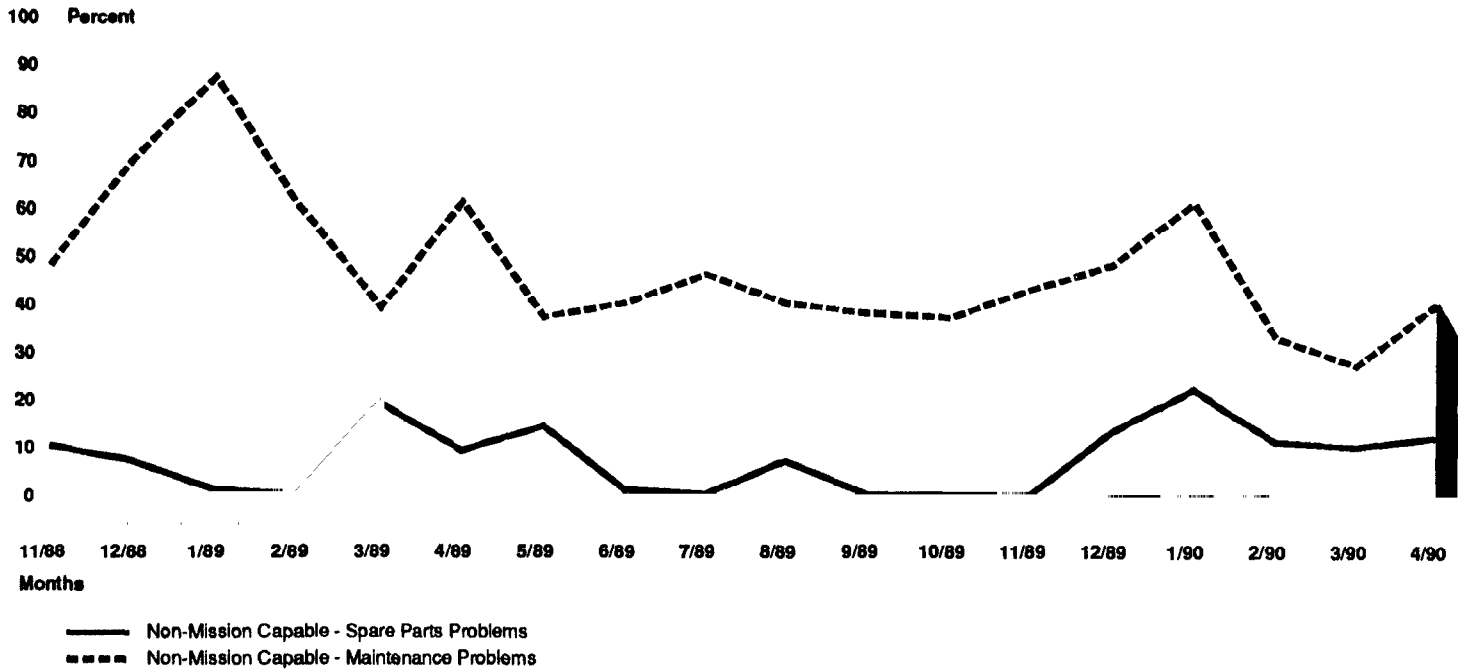
Figure 1: Mission-Capable Rates for the 5th Battalion/159th Aviation Regiment



Source: GAO analysis of the battalion's mission capability data.

As shown in figure 2, maintenance rather than the lack of spare parts was the principal reason for the relatively high percentage of aircraft that were non-mission capable during the 18-month period.

Figure 2: Reasons That 5th Battalion/159th Aviation Regiment Aircraft Were Non-Mission Capable



Source: GAO analysis of the battalion's mission capability data.

According to battalion officials, the battalion has experienced a significant number of unexpected maintenance problems with the aircraft. These problems, coupled with the fact that the battalion's aircraft are serviced at the same maintenance facility as other units' aircraft, often cause battalion aircraft to be out of service for prolonged periods.

Battalion Does Not Know Its Wartime Mission

Battalion officials told us they do not know the unit's current wartime mission taskings. They do not know the theater of operation to which the battalion will deploy, the time frame in which it will deploy, or the units it will be required to support. As a result, the battalion does not train to a specific wartime mission. Instead, its training has been directed toward general aviation rather than mission-specific training.

In September 1989, the 31st Combat Aviation Group advised the battalion that it was no longer assigned to the Group in wartime.³ Since then, the battalion has made limited attempts to determine its wartime

³This Group was the active-duty organization to which the battalion was assigned in the event of mobilization.

tasking. After we completed our review in June 1990, battalion officials told us that they had sent a letter to U.S. Army Forces Command, through command channels, explaining the situation and requesting assistance in determining the battalion's wartime assignment and taskings.

Battalion Has Its Full Complement of Instructor Pilots and Safety Officers

The battalion has had its full complement of three instructor pilots since April 1988 and its full complement of two aviation safety officers since March 1989.

An instructor pilot was first assigned to the battalion in September 1987. Between then and April 1988, two other instructor pilots were assigned, and in February 1989, a fourth instructor pilot was assigned.

The battalion's roster has also included an aviation safety officer since September 1987. However, shortly after the safety officer was assigned, the individual was sent to a maintenance school. After completing the school, the individual was reassigned to another unit. Battalion officials told us that the battalion's aviation safety programs were nonexistent until about September 1988 when another aviation safety officer was assigned. A second aviation safety officer was assigned in March 1989. Between September 1988 and June 1989, the safety officers developed company- and battalion-level safety programs.

Even though the battalion has not always had its full complement of instructor pilots or safety officers, it has never had an aviation accident or failed any command-level safety inspections.⁴ In fact, the 97th Army Reserve Command commended the battalion in October 1989 on its safety training.

⁴This fact also holds true for the period when the unit was the 60th Aviation Battalion.

Aviation Units in the Active Forces Generally Report Higher Readiness Levels Than Those in the Army Reserve Components

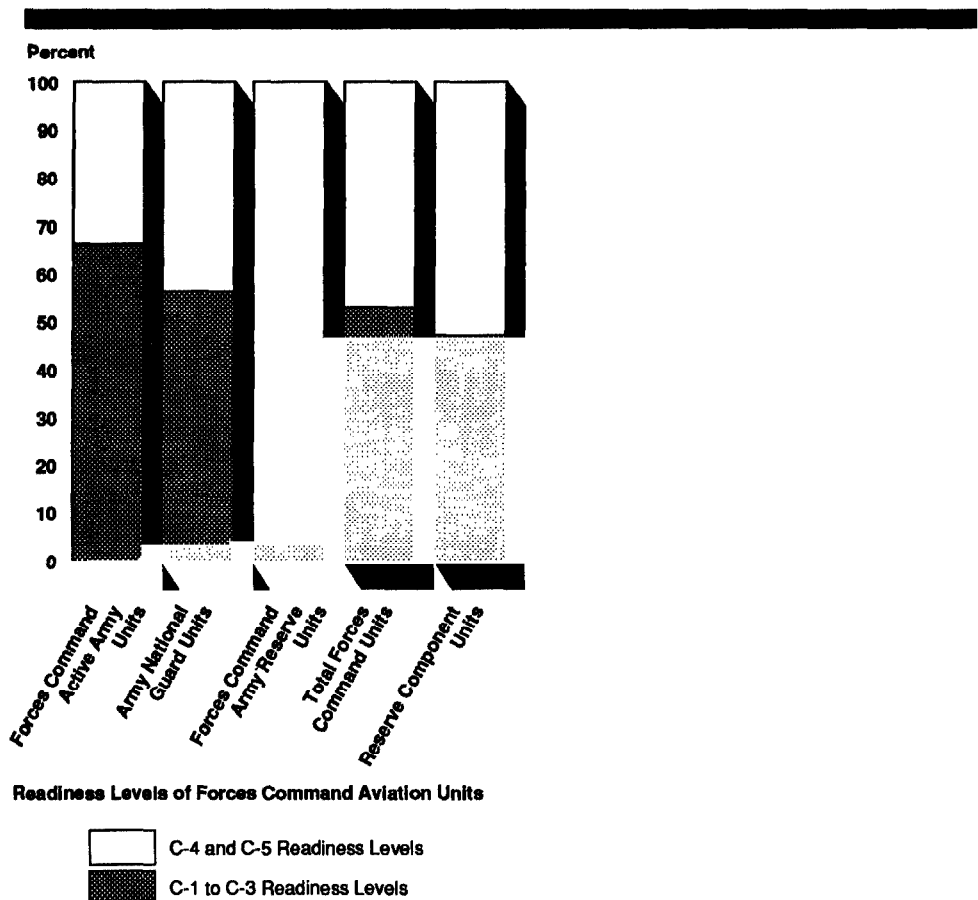
In August 1986, the Joint Chiefs of Staff established the Status of Resources and Training System as the criteria for the services to use in reporting unit training levels and the condition of personnel, supplies, and equipment. Each active and reserve component unit reports an overall unit resource and training rating (a "C-rating") based on the lowest of the C-ratings for personnel, equipment on hand, training, and equipment readiness.⁵ As a general rule, those Army aviation units in the active forces assigned to U.S. Army Forces Command report higher readiness ratings than do the aviation units in the Army Reserve and National Guard. For example, as of May 15, 1990, 66 percent of the active Army aviation units assigned to U.S. Army Forces Command reported that they could perform at least a major portion of their assigned wartime missions, whereas only 47 percent of the aviation units in the reserve components reported that capability.

To put the issue in perspective, it should be recognized that about 60 percent of all Army aviation units are assigned to U.S. Army Forces Command and about two-thirds of these units are in the reserves. Therefore, the degraded readiness of reserve component aviation units could have a significant effect on the ability of the Army to accomplish its assigned wartime aviation missions. As shown in figure 3, the lowest readiness levels occurred in the Army Reserve, where only about 4 percent of the units reported the ability to perform a major portion of their wartime missions. The low percentage is largely due to the fact that about 90 percent of the Army Reserve units were undergoing some form of reorganization.

⁵"C" levels are defined as follows:

- C-1: The unit can undertake its full wartime mission.
- C-2: The unit can undertake the bulk of its wartime mission.
- C-3: The unit can undertake a major portion of its wartime mission.
- C-4: The unit requires additional resources or training to undertake its wartime mission.
- C-5: The unit is undergoing a service-directed resource change or is authorized personnel and/or equipment at a level that does not allow it to achieve a C-3 or higher rating.

Figure 3: Readiness Levels Reported for U.S. Army Forces Command Aviation Units (As of May 15, 1990)

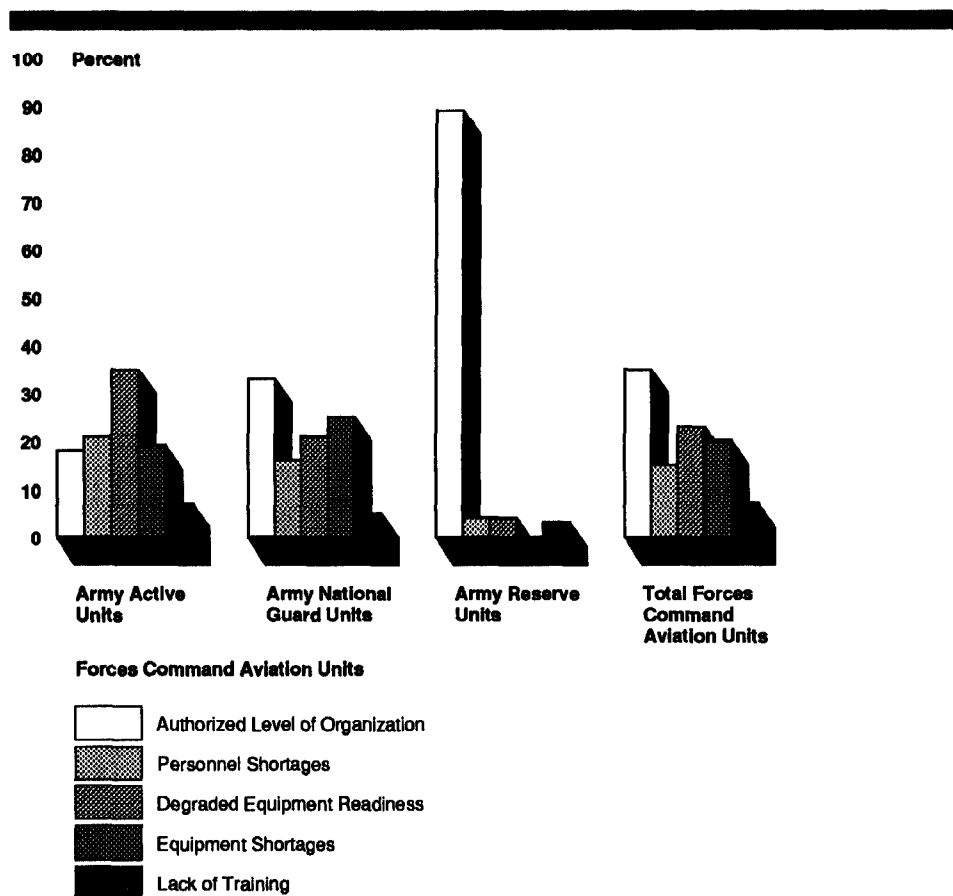


Note: In peace time, Army National Guard units report their readiness status to Forces Command. Upon mobilization, these units may or may not be assigned to Forces Command.

Source: GAO analysis of Status of Resources and Training System data.

Our analysis of the reasons that units were unable to achieve C-1 readiness levels showed that the primary reason was that the units had been categorized as undergoing a reorganization and therefore had been authorized personnel and equipment levels that precluded them from achieving C-1 readiness ratings. The second most prevalent reason was poor condition of equipment on hand, and the third was a shortage of equipment as compared to what was authorized. To a lesser extent, personnel shortages and lack of training were cited as reasons for not achieving a C-1 readiness rating. Figure 4 shows the percentage of active and reserve aviation units that cited each of the above reasons for not achieving a C-1 readiness rating as of May 15, 1990.

Figure 4: Primary Reasons Cited for Units' Inability to Achieve C1 Readiness Ratings



Note: "Authorized level of organization" applies to units that are authorized personnel and equipment levels that preclude them from achieving C-1 readiness levels. Also included are units that are undergoing reorganization.

Source: GAO analysis of Status of Resources and Training System data.

Our review indicated that the battalion's overall readiness posture is typical of the posture of all CH-47C units. There are six CH-47C units under the U.S. Army Forces Command—three in the Army Reserve and three in the Army National Guard. All six units are changing over to the CH-47D model aircraft, and all except one are reporting readiness levels that show the units are undergoing reorganization. The one unit that did not report that readiness level reported a higher readiness level based on the commander's judgment.

Scope and Methodology

We performed our review at U.S. Army Forces Command, Fort McPherson, Georgia, and First Army Headquarters, 97th Army Reserve Command, 1st Combat Aviation Brigade, Aviation Support Facility, and 5th Battalion/159th Aviation Regiment, Fort George Meade, Maryland.

We discussed each allegation with the person who made it and with officials at the battalion; the Army Reserve Command; Headquarters, Department of the Army; and Headquarters, U.S. Army Forces Command. We also reviewed maintenance inspection reports as well as other records and documents.

Concerning the allegation that the battalion lacked spare parts to properly maintain its aircraft, we reviewed mission capability reports for a recent 18-month period to determine whether the low percentage of fully-mission-capable aircraft indicated a spare parts or a maintenance problem.

To address the allegations that the battalion did not know its wartime mission taskings and that it lacked instructor pilots and aviation safety officers, we held discussions with battalion officials and officials at the Army Reserve Command. We also reviewed personnel roster reports to determine when the authorized personnel had been assigned to the battalion and whether it had its full complement of authorized instructor pilots and safety officers.

We reviewed Status of Resources and Training System data reported by aviation units as of May 15, 1990, to determine their reported readiness levels and the primary reason units identified as contributing to less than fully ready conditions.

We conducted our review from April to June 1990 in accordance with generally accepted government auditing standards. As requested, we did not obtain official agency comments on this report. However, we discussed its contents with Army headquarters and Department of Defense officials and incorporated their views where appropriate.

We are sending copies of this report to the appropriate congressional committees, other interested Members of Congress, and the Secretaries of Defense and the Army. We will make copies available to other parties upon request.

If you or your staff have any questions concerning the information presented in this report, please call me at (202) 275-4141. Other major contributors are listed in appendix I.

Sincerely yours,

A handwritten signature in cursive script that reads "Richard Davis".

Richard Davis
Director, Army Issues

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