

GAO

Report to the Chairman, Subcommittee  
on Readiness, Committee on Armed  
Services, House of Representatives

---

September 1993

# ARMY TRAINING

## Prioritizing and Following Up on Lessons Learned Should Minimize Recurring Weaknesses



---

---



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

National Security and  
International Affairs Division

B-253884

September 15, 1993

The Honorable Earl Hutto  
Chairman, Subcommittee on Readiness  
Committee on Armed Services  
House of Representatives

Dear Mr. Chairman:

The Army assesses the performance of units during their rotations at the combat training centers, identifies the lessons learned from their battlefield experience, and disseminates this information so that training and doctrine can be modified to avoid repeating the same mistakes during training exercises. As requested, we determined whether the Army has an effective program for using these lessons learned to correct the problems identified at the training centers.

## Background

The Army's forces train at four combat training centers. Heavy forces participate in exercises at the National Training Center at Fort Irwin, California, and its smaller counterpart, the Combat Maneuver Training Center at Hohenfels, Germany, where mechanized infantry and armored battalions can engage in free-play maneuvers against an opposing force. A third training center, the Joint Readiness Training Center at Fort Chaffee, Arkansas, is used primarily by light forces. The fourth training center, the Battle Command Training Program at Ft. Leavenworth, Kansas, is used to provide command and control training to division and corps battle staffs.

The Army has come to rely increasingly on these training centers to train its combat units and assess their capabilities. The training centers enable units to train and maneuver in an environment that closely parallels that of actual warfare. With their electronic instrumentation, they provide the capability to objectively document units' performance and provide information on their strengths and weaknesses.

Under Army Regulation 11-33, the Training and Doctrine Command (TRADOC) has overall responsibility for the Army's lessons learned program. TRADOC has assigned responsibility for lessons learned at the training centers to its Combined Arms Command, which carries out the program through its Center for Army Lessons Learned.

---

The Center for Army Lessons Learned is responsible for identifying systemic training strengths and weaknesses of units that participate in major operations and exercises, including exercises at the training centers. To accomplish this task, the Center uses information from a variety of sources, including “after action” reports, audio and video transmissions that occur during the exercises, and evaluations from observers at the training centers. After documenting the lessons learned, the Center consolidates them and analyzes trends and deficiencies. It then publishes the results of its analyses in bulletins and newsletters that are sent to TRADOC’s schools and to other organizations throughout the Army.

TRADOC has 18 schools that serve as proponents for their own area and develop training programs for Army personnel in their military specialty. Included are the Infantry School, the Armor School, the Aviation School, and the Engineer School. Ultimately, the schools are responsible for using the lessons learned analyses to modify training and doctrine and to validate and assess the adequacy of solutions to training problems.

---

## Results in Brief

Despite the lessons learned program, Army units repeat many of the same mistakes during maneuver exercises at the combat training centers. Some of these mistakes could have serious consequences on a real battlefield. For instance, when hostilities erupted during the Persian Gulf War, Army officials sought to resolve problems in Army training that could contribute to fratricide incidents. The Center for Army Lessons Learned had identified most of these same problems about 2 years earlier, but they had not been corrected.

The Army is not achieving the full benefits of the lessons learned at the training centers because TRADOC’s program lacks procedures for assigning priorities to the lessons and for tracking the schools’ use of them. The lessons are essentially provided to the schools as information to use as they wish. Consequently, the schools lack guidance on which problems the TRADOC leadership considers most serious. While the schools use the lessons learned, neither TRADOC nor the schools keep track of the extent to which the schools modify their training and doctrine to incorporate the lessons. Further, the schools are not held accountable by TRADOC for ensuring that problems identified by the Center for Army Lessons Learned are resolved.

---

## Units' Performance at Training Centers Reveals Recurring Deficiencies

Over the course of many years at the combat training centers, the Center for Army Lessons Learned has identified a number of recurring problems in units' performance. These problems are in such areas as battlefield planning; development and use of intelligence data, reconnaissance, and communications; performance under chemical threats; and integration of effective fire support into unit mission planning. In September 1992, for instance, the Center identified the following recurring problems in units' performance: battles were not tracked properly; direct fire was not synchronized effectively; reconnaissance and surveillance plans were not well coordinated, managed, or focused; communications with higher headquarters were not properly planned and executed; many fire support plans did not support the scheme of maneuver; and operations in a chemical environment were not satisfactory.

Problems relating to fratricide have also been recurring at combat training centers and firing ranges. For example, in August 1988, an M1 tank participating in gunnery exercises on a firing range in Germany inadvertently shot several rounds outside of its firing perimeter, hitting two M2 infantry fighting vehicles and causing several casualties. This accident prompted the TRADOC Commander to direct the Center for Army Lessons Learned to conduct a follow-up study on fratricide at the National Training Center. The Center found problems with fratricide—that is, units firing weapons via an instrumented laser device were “destroying” tanks and other weapon systems on their own side. On the basis of this analysis, the Combined Arms Command issued a plan in February 1989 to correct deficiencies in six areas: risk assessment, land navigation, target assessment, target identification, fire planning, and fire control.

The plan established specific actions to be taken and assigned responsibilities for these actions to various TRADOC organizations, including the proponent schools. However, the responsible organizations either did not carry out the actions in the plan or did not document what actions they did take. During 1990, the Center for Army Lessons Learned continued to identify fratricide-related problems at the National Training Center.

The issue began to receive renewed interest because of Operation Desert Storm. Army officials raised concerns about the possibility of fratricide, and the Combined Arms Command issued a new plan in December 1990 for correcting fratricide-related deficiencies in unit training. This plan addressed the same six areas as the 1989 plan, plus two others. We found that the Army has more aggressively implemented the 1990 plan, and

---

recent data shows improvements in fratricide-related problems since that time.

Other examples of recurring deficiencies involve battlefield supply procedures and the construction of fortifications. The Combined Arms Command reported in 1988 that combat units at the combat training centers were bogged down waiting for engineering construction support materials to reach them and had weaknesses in their basic fortification skills. The Combined Arms Command, believing that these problems increased the risk that units could not conduct successful defensive operations, issued a corrective action plan in 1988. In spite of the plan, these problems were not completely resolved. Training center data reported in October 1992—4 years later—showed that similar deficiencies remained. According to Combined Arms Command officials, the lack of progress in resolving these deficiencies was caused by the tasks' complexity and competing demands that limited training at home stations. We believe that another contributing factor may have been the Combined Arms Command's failure to adequately monitor the plan's implementation.

TRADOC officials told us that even though the Center for Army Lessons Learned had continued to identify recurring deficiencies in exercises conducted at the training centers, the deficiencies were not as severe as they were in the past. Furthermore, officials said that some deficiencies will never be eliminated entirely because (1) the Army is continuously training new soldiers and it is reasonable to expect them to make mistakes as they learn their profession and (2) some tasks are particularly complex and difficult to master. These officials may be correct in their view that recurring problems are less severe, as indicated in fratricide data. However, as discussed below, we believe an effective assessment in such critical areas—as well as whether more can or should be done to modify training and doctrine—requires a more disciplined process.

---

## TRADOC'S Lessons Learned Program Has Weaknesses

TRADOC's lessons learned program has two primary weaknesses that hamper its effectiveness. First, TRADOC does not systematically rank the lessons identified by the Center for Army Lessons Learned on the basis of their significance. The schools thus choose the problems they will address, with no direction from TRADOC leadership on which ones merit greatest attention. Second, TRADOC lacks formal follow-up procedures for tracking the use of lessons learned and holding the schools accountable for correcting deficiencies. Absent such procedures, TRADOC has limited

---

knowledge as to whether and to what extent the lessons are being used to resolve the problems identified by the Center for Army Lessons Learned.

---

### Lessons Learned Are Not Ranked on the Basis of Their Priority

When the Center for Army Lessons Learned publishes the results of its analyses in bulletins and newsletters, it does not list the deficiencies according to their significance. This judgment is left instead to the individual proponent schools. Thus, the schools are not systematically provided guidance on which problems the TRADOC leadership considers most serious. Senior school officials also do not prioritize the lessons learned. Rather, they rely on their school staff—instructors, doctrine writers, and department heads—to incorporate the lessons as they see fit in their training and doctrinal modifications.

In 1988, TRADOC attempted to take a more systematic approach to correcting the problems identified at the combat training centers. It developed a “priority issue list” to rank the importance of each of 28 problems that had been identified collectively by the senior leadership of TRADOC, the Combined Arms Command, and the schools. TRADOC officials intended to prepare plans detailing the specific actions required to resolve the most important problems on the list within a 6-month to 2-year period. The Commander of the Combined Arms Command had previously endorsed the concept of a priority issue list. He stated that such a list would enable the TRADOC leadership to establish clear priorities for those problems it deems most serious, to identify the participants involved and establish accountability, and to estimate the resources required to resolve problems.

The TRADOC Commander approved the priority issue list in April 1988, stating that the list would be used to focus training exercises during 1989. However, the plan was never implemented, and many issues identified on the list were left unresolved. TRADOC officials could not provide an explanation for this. All of the individuals involved had left TRADOC, and records were not kept to document the plan’s status.

The former Director of the Center for Army Lessons Learned told us he believed the priority issue list concept still had merit, and he planned to develop another priority issue list. The Center planned to select about five top issues of recurring deficiency, determine the reasons for these problems, and obtain suggestions on how to solve them. The plan would require the approval of the Combined Arms Command and TRADOC headquarters. The Deputy Commanding General for Training at the

---

Combined Arms Command also told us he plans to reestablish a priority issue system.

---

## TRADOC Lacks Follow-Up Procedures for Tracking Use and Impact of Lessons Learned

Regulation 11-33 requires TRADOC to track the actions taken to resolve training deficiencies. TRADOC assigned this responsibility to its Combined Arms Command in May 1989. However, the Combined Arms Command has not established formal tracking procedures. Consequently, TRADOC does not know to what extent the lessons identified by the Center for Army Lessons Learned are incorporated in the schools' revisions to training and doctrine.

Moreover, TRADOC does not hold the schools accountable for resolving the problems identified by the Center for Army Lessons Learned. A key reason for this is that no feedback mechanisms exist to provide information on the impact of the schools' training and doctrinal revisions—that is, whether they succeeded or failed in correcting the identified deficiencies.

Like TRADOC, the schools we visited also did not track their use of lessons learned. Officials at the Engineer School, Chemical School, and Armor School told us that the staff who make critical decisions concerning changes to training and doctrine are experienced in their work and rely on the Center for Army Lessons Learned as just one source of information. For instance, the staff have frequent telephone conversations with observers at training events, and many have served as observers themselves. These staff also review much of the same raw data used by the Center for Army Lessons Learned in its analyses, including after action reports and audio transmissions from the training exercises.

The Deputy Commanding General for Training at the Combined Arms Command acknowledged the lack of formal and systematic follow-up procedures. However, he was satisfied that the schools were aware of the problems identified by the Center for Army Lessons Learned and that they took the appropriate steps to address them. He also said TRADOC's leadership and other senior Army officials, including the Chief of Staff, Army, were aware of the recurring deficiencies in unit training because the deficiencies are discussed at Army conferences, seminars, and meetings. He believes that the current or informal approach works well.

We disagree that the informal approach has been effective. The recurring deficiencies at the combat training centers indicate that the problems identified by the Center for Army Lessons Learned are not systematically



---

resolved. Even when the Combined Arms Command has issued a plan to correct specific problems—such as the 1989 plan to correct fratricide-related problems—the Command has no assurances that the plan has been implemented. According to officials at the Center for Army Lessons Learned, it took the Gulf War to prompt the Army into developing and implementing a revised fratricide action plan.

Moreover, the reliance on an informal approach to correct training and doctrine deficiencies is not compatible with the Army's practice of periodically rotating military personnel assigned to TRADOC. As a result of personnel turnover, we found that there was little institutional knowledge among TRADOC officials on either the use made of lessons learned information or the progress made to minimize recurring deficiencies. For example, Engineer School officials had little knowledge about specific actions taken to address deficiencies involving battlefield supply procedures and the construction of fortifications. Moreover, it took these officials several days to locate a copy of the original action plan.

---

## Recommendations

We recommend that the Secretary of the Army direct the Commander, TRADOC, to establish a system for placing priorities on the problems identified at the combat training centers. A starting point for this effort may be the new priority issue list being formulated by the Center for Army Lessons Learned.

We further recommend that the Secretary of the Army direct the Commander, TRADOC, to establish procedures for tracking the schools' use of lessons learned and for holding the schools accountable for resolving the identified problems.

---

## Agency Comments and Our Evaluation

The Department of Defense agreed with our findings and recommendations. It said that while the lessons learned program had provided important information to the Army, improvements could be made. In response to our recommendations, the Department said that Army headquarters will provide guidance to TRADOC regarding the interpretation of and compliance with Army Regulation 11-33. More specifically, it said that the guidance would direct TRADOC to establish (1) a system to assign priorities to the problems identified at the combat training centers and (2) procedures for tracking lessons learned and assigning accountability for problem resolution. We believe that effective

---

implementation of these initiatives should significantly improve the lessons learned program.

---

## Scope and Methodology

To accomplish our objectives, we reviewed Army regulations related to the lessons learned program, as well as directives from the TRADOC headquarters. We also reviewed information on recurring deficiencies developed by the Center for Army Lessons Learned, priority issue lists of problem areas, plans for addressing deficiencies, and other pertinent documents.

We interviewed Army officials responsible for the management of the lessons learned program at the Center for Army Lessons Learned, the Combined Arms Command, and TRADOC. We also obtained the views of Army officials who have oversight of the program. We interviewed officials at several TRADOC schools and centers to obtain their views on how lessons learned at the training centers are identified and used to correct training and doctrinal deficiencies. We also interviewed battalion, brigade, and division leadership in two active Army divisions to determine how they use lessons learned information to correct deficiencies identified during rotations through the National Training Center.

We performed our work at the Center for Army Lessons Learned and the Combined Arms Command at Fort Leavenworth, Kansas; TRADOC headquarters at Fort Monroe, Virginia; the Office of the Deputy Chief of Staff for Operations and Plans at the Pentagon, Washington, D.C.; the National Training Center at Fort Irwin, California; the Army Research Institute at the Presidio of Monterey, California; the Armor School at Fort Knox, Kentucky; the Engineer School at Fort Leonard Wood, Missouri; the Chemical School at Fort McClellan, Alabama; the 1st Infantry Division (Mechanized) at Fort Riley, Kansas; and the 1st Cavalry Division at Fort Hood, Texas.

We conducted our review from April 1992 to April 1993 in accordance with generally accepted government auditing standards.

---

We are sending copies of this report to the Chairmen, Senate and House Committees on Armed Services and on Appropriations; the Director, Office of Management and Budget; the Secretary of Defense; and the Acting Secretary of the Army. We will also make copies available to others upon request.

---

Please contact me at (202) 512-5140 if you or your staff have any questions concerning this report. Major contributors to this report are listed in appendix I.

Sincerely yours,

A handwritten signature in black ink that reads "Mark E. Gebicke". The signature is written in a cursive, flowing style.

Mark E. Gebicke  
Director, Military Operations  
and Capabilities Issues

# Major Contributors to This Report

---

**National Security and  
International Affairs  
Division, Washington,  
D.C.**

Norman J. Rabkin, Associate Director  
Charles J. Bonanno, Assistant Director  
Thomas W. Gosling, Reports Analyst

---

**Kansas City Regional  
Office**

James S. Moores, Evaluator-in-Charge  
George N. Lundy, Jr., Site Senior

---

### Ordering Information

The first copy of each GAO report and testimony is free. Additional copies are \$2 each. Orders should be sent to the following address, accompanied by a check or money order made out to the Superintendent of Documents, when necessary. Orders for 100 or more copies to be mailed to a single address are discounted 25 percent.

**Orders by mail:**

**U.S. General Accounting Office  
P.O. Box 6015  
Gaithersburg, MD 20884-6015**

**or visit:**

**Room 1100  
700 4th St. NW (corner of 4th and G Sts. NW)  
U.S. General Accounting Office  
Washington, DC**

**Orders may also be placed by calling (202) 512-6000  
or by using fax number (301) 258-4066, or TDD (301) 413-0006.**

**Each day, GAO issues a list of newly available reports and testimony. To receive facsimile copies of the daily list or any list from the past 30 days, please call (202) 512-6000 using a touchtone phone. A recorded menu will provide information on how to obtain these lists.**

**For information on how to access GAO reports on the INTERNET, send an e-mail message with "info" in the body to:**

**[info@www.gao.gov](mailto:info@www.gao.gov)**

---

**United States  
General Accounting Office  
Washington, D.C. 20548-0001**

**Bulk Rate  
Postage & Fees Paid  
GAO  
Permit No. G100**

**Official Business  
Penalty for Private Use \$300**

**Address Correction Requested**

---

