
BY THE U.S. GENERAL ACCOUNTING OFFICE

Report To The Secretary Of The Army

The Army Needs To Reevaluate Its Extended Basic Training Program

In October 1981, the Army extended its basic training from 7 to 8 weeks. As a result, in fiscal year 1982 Army will spend nearly \$40 million; about 4,400 additional new soldiers, trainers, and support staff will be assigned to training rather than to operational units.

Although Army has added more time, it has never fully determined whether this time is necessary to correct training problems or whether less costly alternatives are available. Equally, if not more important, Army has not provided the number and quality of trainers necessary for the new program. Although the Army has recently initiated action to address program effectiveness and trainer questions, GAO is recommending that Army develop and implement plans to justify its extended program and resolve these problems.



117659

FPCD-82-II
MARCH 3, 1982

072810

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UNITED STATES GENERAL ACCOUNTING OFFICE
WASHINGTON, D.C. 20548

FEDERAL PERSONNEL AND
COMPENSATION DIVISION

B-205045

The Honorable John O. Marsh, Jr.
The Secretary of the Army

Attention: The Inspector General
DAIG-AI

Dear Mr. Secretary:

This report summarizes our review of the Army's extension of basic training. The report shows that the service has not yet demonstrated what its basic training program should contain nor how long the program should last to effectively meet training objectives. Of equal, and perhaps more importance, is the fact that a key issue to successful training--the quantity and quality of trainers--has not been resolved. This report is recommending that the basic training program be re-evaluated to determine the most effective length of training time and that the trainer issue be resolved in order to justify the expanded program in future budgets.

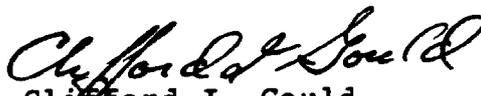
As you know, section 236 of the Legislative Reorganization Act of 1970 requires the head of a Federal agency to submit a written statement on actions taken on our recommendations. This written statement must be submitted to the House Committee on Government Operations and the Senate Committee on Governmental Affairs not later than 60 days after the date of the report. A written statement must also be submitted to the House and Senate Committees on Appropriations with an agency's first request for appropriations made more than 60 days after the date of the report.

We are sending copies of this report to the Secretary of Defense; the Director, Office of Management and Budget; the Chairmen, House and Senate Committees on Appropriations and Armed Services; and the Chairmen, House Committee on Government Operations and the Senate Committee on Governmental Affairs.

B-205045

We wish to acknowledge the courtesy and cooperation extended to us by your staff during our review.

Sincerely yours,


Clifford I. Gould
Director

Enclosure

D I G E S T

On October 1, 1981, the Army extended basic training from 7 to 8 weeks for all recruits entering the service. The cost of the 1-week additional training will be about \$40 million in fiscal year 1982 and about \$50 million in each of the 2 subsequent years. This additional training will require an increase in the Army budget of nearly \$20 million each year. The Army predicts that the additional training will help form the foundation for improving training throughout the service and will enhance combat survival. Additional emphasis is being placed on discipline, physical fitness, and survivability skills in an effort to improve recruits' performance of basic skills.

The Army has not increased its total force end-strength for fiscal year 1982. Therefore, in this year the expansion requires more people (approximately 4,400 trainees, trainers, and support staff) in the basic training program rather than in the operational units. To justify the manpower and resources, the Army's new program must provide effective training.

GAO wanted to determine how the program was developed and what the Army has done to assure decisionmakers that program goals could be accomplished in the most effective manner. Further, GAO wanted to determine whether the Army would have the necessary personnel resources to fully implement the program. The Army has not adequately identified what is causing poor performance. Consequently, it has little assurance whether additional training time is necessary or whether less costly alternatives are available. Equally, if not more important, the Army has not

provided the resources (primarily trainers) that are necessary to fully implement the extended program.

ARMY NOT PREPARED TO EXTEND
BASIC TRAINING

In developing the extended program, the Army relied on information gained from a survey of operating and training units. However, this mechanism did not identify what was causing training problems and was further hampered by technical deficiencies. GAO found that the questionnaires used in the survey were not

- adequately constructed or analyzed to address course length and/or yield valid responses (see p. 8), and
- administered utilizing a sampling plan which would produce projectable and unbiased results. (See p. 9.)

The Army has used the new program of instruction on a limited test basis since January 1981 but has never adequately validated whether it was producing better trained soldiers. Without validation, the Army has little knowledge of whether instruction is effective and provided in sufficient amounts. Further, it cannot measure the benefits or cost effectiveness of the extended program. (See p. 12.)

In a separate action, the Army Research Institute evaluated a major instructional block--basic rifle marksmanship--of the 7-week basic training program. The Institute showed that, by changing the instructional methodology and restructuring the time devoted to this component, recruits' marksmanship could be improved by 29 percent. The Army has incorporated this restructured component in its new 8-week program. However, similar evaluations have not been performed for other components. (See pp. 12 and 13.)

In March 1981, almost 2 years after validation was directed by the Army's Training Command,

the Army initiated actions to validate the program. GAO found, however, that valid conclusions about program effectiveness could not be drawn because data could not be compared. (See p. 13.)

In obtaining information about the 8-week program, some trainers told the Army that the graduates are better motivated and trained. However, many trainers said there was no difference in performance between 7- and 8-week graduates. For example, 76 percent of 119 respondents commenting on a particular training area that represented about a 250 percent increase in training time said there was no difference between graduates. (See pp. 14 and 15.)

TRAINER QUANTITY AND QUALITY PROBLEMS NEED ATTENTION

The Army has historically lacked the number of trainers authorized to carry out its mission under the 7-week program. As an example, officials at one training center estimated that, on the average, 70 percent of authorized instructor positions have been filled at any one time since 1978 for those who teach combat survival subjects. (See p. 16.)

While shortfalls in the number of trainers has been a continuing problem, the extension of basic training may have created a greater problem. Overall, in fiscal year 1981, the training centers were authorized about 600 fewer trainer positions than required. For the extended program the Army says it will need 1,200 more personnel (primarily noncommissioned officer trainers). However, the Army has approved authorization for only about 900. These authorizations alleviate shortages for the old program, but fall drastically short of what the new program requires.

In September 1981, the Army redistributed manpower authorizations and provided the Training Command 375 additional spaces to support the extended training program for fiscal year

1982. Since the Army estimated that it would be at least March 1982 before these spaces could be filled, the service advised its training centers to divert manpower from other mission requirements in the interim. (See p. 17.)

Overall shortages have been aggravated by shortages of experienced and qualified trainers necessary for training recruits. Noncommissioned officer trainers in the right occupations and at the right skill levels have not been provided to the training centers. At one training center, trainers had to operate at about 74 percent of the experienced trainers authorized during October 1979 through May 1981. At this and another center infantry occupations needed for teaching combat survival tasks were only filled at 69 and 58 percent, respectively.

Because of these shortages, the Army to some extent has relied on less experienced trainers who may themselves have been inadequately trained in the tasks they are expected to teach. For instance, a recent Army evaluation of the basic training centers concluded that drill sergeants were inadequately schooled in the basic subjects most needed in their training role. (See pp. 19 and 20.)

In August 1981, the Army announced plans to improve training programs. However, these efforts will not address all skills nor cover all instructors. Further, officials at the two installations GAO visited had differing views on the need for a formal training program. Where it was recognized as necessary, officials indicated that it would probably be several years before such a program is developed. (See p. 20.)

The Army needs to know how well the basic training program is providing its soldiers with the skills needed to perform effectively. But, the Army does not know, nor does GAO know, how well the extended basic training program is doing this or whether it is better than the previous program. In fact, the only certainty is the program's increased costs. Moreover, it

is unlikely that improvements will result without the necessary number of qualified trainers. The Army is taking actions to determine program effectiveness and to improve the training of instructors. However, GAO believes these efforts will not answer critical questions and that a detailed plan to answer these questions be developed and implemented.

RECOMMENDATIONS

The Secretary of the Army should reevaluate the basic training program to determine the most effective and efficient length of training and resolve trainer quantity and quality problems. Further, because of expressed congressional interest for timely and accurate decisionmaking information and the longstanding nature of unanswered program effectiveness and trainer questions, GAO recommends that Army present initial results of such actions to Congress in its fiscal year 1984 budget. Future fiscal year budgets should reflect final results. (See pp. 23 and 24.)

AGENCY COMMENTS

The Army generally agreed with GAO's findings and recommendations and has initiated and/or taken actions to reevaluate the entire basic training program and to resolve trainer quantity and quality problems discussed in this report. The Army's evaluation is more comprehensive than what GAO originally proposed; therefore, GAO modified its recommendation to recognize this effort. (See p. 24.)

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ABBREVIATIONS

ARI	The Army Research Institute
GAO	General Accounting Office
NCO	Noncommissioned officer
OSUT	One Station Unit Training
TRADOC	United States Army Training and Doctrine Command

CHAPTER 1

INTRODUCTION

In the fall of 1980, the United States Army announced plans to increase the length of basic training from 7 to 8 weeks for all recruits entering the Army beginning in fiscal year 1982. Shortly thereafter (January 1981) the Army began implementing an extended basic training program (8 weeks) at two of its nine training centers--Fort Leonard Wood, Missouri; and Fort Knox, Kentucky. The Army believes that lengthening basic training will help improve training throughout the service. Some of the specific expectations the Army envisions are improving soldiers' combat survival through additional emphasis on discipline, physical toughness, and survivability skills. The resources devoted to this additional training will be about \$40 million in fiscal year 1982 and about \$50 million in each of the 2 subsequent years. The Army estimates that the program costs require an increase in its budget of about \$20 million each year.

Army Headquarters' concern about the trained capability of the Army is what motivated the Army to expand its basic training. Likewise, congressional oversight and appropriation committees shared this concern. For example, during hearings on the Army's fiscal year 1982 budget, members of the Subcommittee on Defense, House Committee on Appropriations, highlighted readiness reports showing that soldiers could not perform basic soldier tasks. Also, committees have expressed specific interest in the need for accurate information not later than the January-March 1983 time frame to be considered for the fiscal year 1984 budget.

ARMY BASIC TRAINING: OBJECTIVES AND DELIVERY SYSTEM

Basic training comprises the first of two phases of the Army's Initial Entry Training program for new enlisted personnel. Basic training provides for an orderly transition from civilian to military life and instills in new soldiers the motivation to become dedicated and productive members of the Army. To build this vital foundation needed for a cohesive and effective force, Army basic training emphasizes physical conditioning, combat survival skills, discipline, military courtesies and customs, and pride in being a member of the Army. In the second phase of the program--individual skill training--the new soldiers acquire the job skills necessary to contribute to their initial unit assignment.

Traditionally, basic and skill training have been conducted at separate installations. However, in recent years, the Army has added One Station Unit Training (OSUT). In OSUT, basic and skill training are conducted at the same installation. The Army uses OSUT for "high density" military occupational specialties such as the infantry, armor, field artillery, air defense artillery, and combat engineering career fields.

The extended basic training program started in January 1981 and was only used in basic training units. However, in October 1981, the additional week of basic training was added to all basic, as well as OSUT programs. For basic, the week will be used to provide more training in basic soldiering tasks. For the OSUT programs, the additional week will be devoted to basic soldiering and individual skill training.

The following table shows the expected numbers of trainees for fiscal years 1982 through 1984.

Accessions Into Training (note a)

<u>Category</u>	<u>FY 1982</u>	<u>FY 1983</u>	<u>FY 1984</u>
Active Army	140,588	153,794	143,119
Army Reserve	37,130	37,352	37,197
Army National Guard	<u>51,467</u>	<u>54,061</u>	<u>53,868</u>
Total	<u>229,185</u>	<u>235,207</u>	<u>234,184</u>

a/Includes basic training and OSUT accessions.

Source: Department of Army.

ARMY DECIDES TO EXPAND BASIC TRAINING TIME

The Army's plan to extend basic training by 1 week evolved from several key events and management decisions dating back to the summer and fall of 1978. At that time, the United States Army Training and Doctrine Command (TRADOC) observed that the basic training program had been developed from consensus views among training center commanders and had not been systematically analyzed to determine specifically what should be taught in basic training. TRADOC also recognized that training centers lacked standard methods to assure that all new soldiers acquired common soldiering skills.

In October and November 1978, TRADOC directed its infantry school at Fort Benning, Georgia, to analyze the basic training program, identify tasks and information that must be taught and mastered by all soldiers, and determine the optimum length of basic training and a method of incorporating common soldiering tasks into OSUT programs.

Fort Benning developed a new program of instruction for basic training which TRADOC approved in the fall of 1980. This new program of instruction added 1 week onto basic and OSUT programs. The formal hours of instruction per training day were increased from 8 to 9.2 hours, with a total increase in training time of 97 hours as follows:

--64.5 hours are devoted to additional subjects, expansion of existing subject matter training, and additional time for a comprehensive end-of-course test. These hours are devoted primarily to combat survival tasks to improve subject mastery and enhance discipline and motivation.

--25 hours represent recognition of time previously spent in the 7-week program but not formally documented on equipment maintenance for weapons, other assigned individual equipment, and physical conditioning courses.

--7.5 hours are devoted to additional administrative time.

Appendix I highlights the major changes between the old and new program.

EXTENDED PROGRAM HAS INCREASED
COSTS AND MANPOWER

The new program has increased costs and manpower. For fiscal year 1982, resources devoted to the additional week of training will be about \$40 million. In addition, trainer and base operations authorizations will be increased by 888 personnel. Major resources and military manpower planned for the additional training for fiscal years 1982-84 follow.

Resources Devoted to the Additional
Week of Training

	<u>1982</u>	<u>1983</u>	<u>1984</u>
	-----millions-----		
Resources:			
Operations and maintenance (note a and e)	\$ 5.1	\$ 5.5	\$ 5.3
Military pay and allowances:			
Trainers and base operations (note b)	6.5	13.1	13.1
Trainers and base operations required but not available before 1983 (note b)	<u>c/</u>	<u>c/2.7</u>	5.5
Recruit pay (1 week) (note d and e)	<u>26.5</u>	<u>28.4</u>	<u>27.1</u>
Total: (note e)	<u><u>\$38.1</u></u>	<u><u>\$49.7</u></u>	<u><u>\$51.0</u></u>

a/Army estimates.

b/Our estimate using cost factors provided by Army.

c/If these trainers and base operations personnel become available in 1982, total resources will increase by \$2.7 million. Also, 1983 resources will increase by \$2.7 million because original estimate was made based on half the cost factors provided by Army.

d/Our estimate based on base pay for a recruit as of October 1980 and accession data provided by Army.

e/In commenting on our report, Army stated that some of this cost would be incurred without the additional week of training and that the budget increase for the Army would be about \$20 million each year. Operations and maintenance and recruit pay for reserve components account for the budget increases.

Manpower Devoted to Additional Week of Training

	<u>1982</u>	<u>1983</u>	<u>1984</u>
Military Manpower: (note a)			
Recruits	3,500	3,100	2,863
Trainers	760	1,114	1,114
Base operations	<u>128</u>	<u>136</u>	<u>136</u>
Total	<u>4,388</u>	<u>4,350</u>	<u>4,113</u>

a/Represents recruits held in training longer and personnel shifted from operational units in force structure and/or from force structure changes. We estimated recruit numbers for fiscal years 1983 and 1984 assuming no change in total force end-strength.

OBJECTIVES, SCOPE, AND METHODOLOGY

The Army decided to fully implement the extended basic training program at all training centers beginning in fiscal year 1982. We assessed

- how the Army developed the program,
- what the Army has done to assure decisionmakers that program goals could be accomplished in the most effective manner, and
- whether the Army had the manpower (qualified trainers) necessary to fully implement the program beginning October 1, 1981.

To accomplish these objectives, we evaluated the Army's actions in developing the extended program and the survey methods used to justify the extension. This included a technical evaluation of questionnaires, data analysis efforts, and sampling strategy. We also evaluated recent Army verification and validation efforts for the new program to determine whether its efforts demonstrate program improvements. With regard to manpower we reviewed unit manning reports, manpower briefing documents, manpower authorization requests for the extended program, and instructor course training results to determine if the Army had adequately provided the manpower to implement the program. We did not independently verify the

information obtained from these documents. Our assessment also included reviewing program decision documents, issued during development of the new program; training effectiveness analyses; course testing results; training schedules; and internal training evaluations. Our work was performed in accordance with our current "Standards for Audit of Governmental Organizations, Program, Activities, and Functions."

We performed our work from March through September 1981 at Department of Army Headquarters; TRADOC; Fort Benning, the installation that developed the new program; Fort Leonard Wood and Fort Knox installations where the program was implemented in January 1981; and the Army Research Institute (ARI) which has done research and experimentation in basic training. At these locations, we held discussions with responsible officials, including 30 brigade, battalion, company officers, and noncommissioned officer (NCO) trainers. We selected officials by their availability at the time of our field visits; NCO trainers were selected for us by training officers. Thus, their opinions may not represent those of trainers as a whole.

CHAPTER 2

ARMY NOT PREPARED TO EXTEND BASIC TRAINING

The Army began implementing a program to extend basic training from 7 to 8 weeks at two Army training centers in January 1981, and in October 1981 it began using the extended program for all Army recruits. While the Army has reported on numerous occasions that graduates of its 7-week training program were deficient in some basic soldiering skills, it never fully analyzed the program to identify problems and the alternatives to correct them.

Initial entry training has cost over \$400 million a year, and adding 1 week will increase costs by nearly \$40 million in fiscal year 1982 and over \$50 million in each of the following 2 fiscal years. Thus, it is imperative that the Army have a training program which will clearly address problems and meet objectives to improve training effectiveness.

We found that, in developing its 8-week program, the Army surveyed individuals in operating and training units without fully analyzing either training content and effectiveness or the training deficiencies reported. We have identified technical deficiencies in the Army's survey which indicate that the results should not be used as a reliable source for defining causes of training problems and extending the length of training. In addition, the Army has never demonstrated how adding an additional week would improve training.

CAUSES OF RECRUIT TRAINING PROBLEMS NOT ADEQUATELY IDENTIFIED AND ANALYZED

In April 1981, the Army Chief of Staff testified before the Subcommittee on Defense, House Committee on Appropriations, that the cutback in basic training to 7 weeks some years before was inappropriate and that the correct training period is about 10 weeks. He further testified that the basic training program was being increased to 8 weeks in 1981 to make some improvements, and the Army would have to correct the training program gradually because of the effects on personnel. (See chapter 3.) Army officials told us that feedback from operating units indicated that new soldiers were not performing basic soldiering tasks properly and that they lacked discipline and motivation. According to these officials, poor performance resulted in the decision to extend basic training sooner than the planned date of October 1981.

Support for the Army's decision to extend basic training was for the most part based on a survey performed by its Fort Benning infantry school in late 1978. According to Army officials, the extended program was overwhelmingly endorsed by field and Army training center commanders. The survey objective according to the Army was to evaluate the following for certain basic training tasks: (1) Were tasks critical enough to remain in basic training? (2) Should hours devoted to tasks be increased, decreased, or deleted? (3) Was current performance of new soldiers adequate? The survey provided the following results:

--Officers and enlisted personnel from operating units reported being dissatisfied with the capabilities of new soldiers reporting to their first unit of assignment to perform certain tasks. These respondents felt that additional training was necessary in certain common soldiering tasks and that new soldiers lacked discipline, pride, and motivation.

--Trainers at training centers generally reported that they were teaching the right basic subjects, but they needed additional time for teaching, and recruits needed additional time for learning.

While this survey showed dissatisfaction with soldiers' performance and provided subjective indications of basic training problems, it never identified the specifics causing basic training problems. For example, the survey only asked individuals whether training time was adequate. It never asked what other factors (such as adequacy of teaching methods or adequacy of numbers and quality of trainers) were causing training deficiencies. Additionally the survey was hampered by technical deficiencies and lack of a reliable sampling strategy.

On the basis of this survey, Fort Benning developed a program of instruction for an 8-week basic training program.

Army survey questionable as basis
for defining training deficiencies

We found the survey used by the Army as a basis to revise the basic training program of instruction was hampered by technical problems. As a result, it did not provide an adequate basis for determining course content or length. Specifically we found that the survey questionnaires

--were not adequately constructed or analyzed to address course length and/or yield valid responses, and

--were not used in a sampling strategy that would produce projectable and unbiased results.

Questionnaires not
adequately developed

One of the primary purposes of the questionnaire, which gathered data from about 1,500 individuals at training centers and operational units, was to aid decisionmakers in determining the appropriate amount of time to be devoted to each basic training task. Trainers and recruits at the training centers were asked to respond to the following question: "The time devoted to this task in the program of instruction is (a) more than adequate, (b) adequate, (c) marginal, (d) totally inadequate, and (e) not presently taught."

While this question was asked for each of 100 tasks, the time being devoted to teaching tasks was not standardized among the training centers. Therefore, respondents' answers to this question could only be based upon the training times with which they were familiar. As a result, when a respondent said that training time was "adequate" for a particular task, analysts could not tell the number of training hours that were "adequate." In addition, they could not readily determine the training method or teaching expertise that would render them "adequate" because questions addressing these topics were never asked.

A task selection board composed of officers from the training centers and subject matter experts from other TRADOC schools reviewed the survey data. But the findings in terms of appropriate training time could not be justified because results were not analyzed to link specific responses to specific basic training programs or to isolate why time was or was not adequate. Also, the length of the questionnaire was a concern. It required more than 700 separate answers from each respondent. Generally, experts in the field of experimentation in social psychology have stated that answering lengthy questionnaires detracts from their reliability because respondents become fatigued. As fatigue increases, respondents are more likely to answer randomly or carelessly.

Scientific sampling
strategy not used

Army documents showed that the survey sample of over 1,100 officers and enlisted personnel from operational units was supposed to be random to produce statistically valid and projectable results. Yet the Army did not follow a random

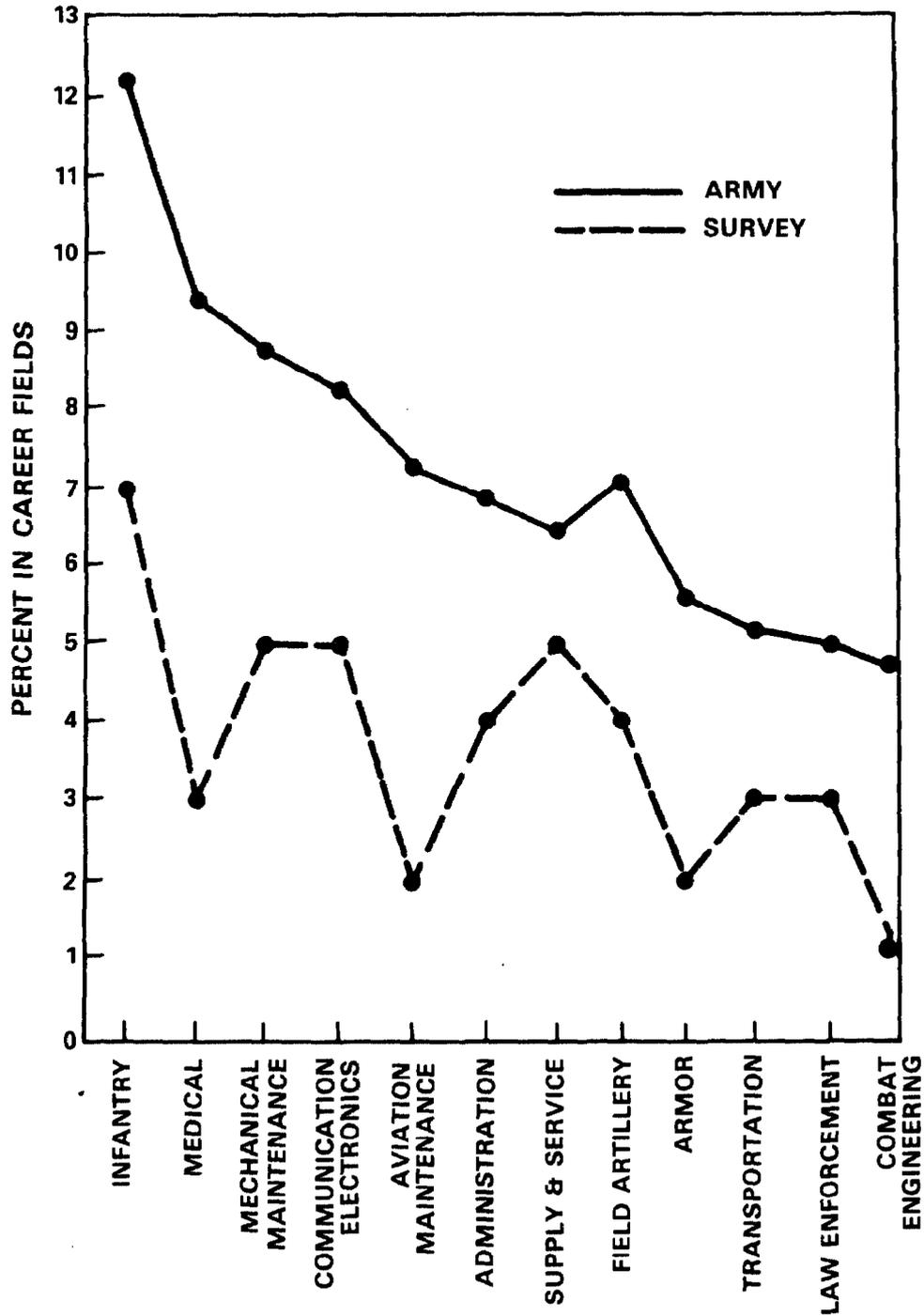
sampling strategy. Individuals and units were not randomly selected by the analysis team who administered the questionnaire. Instead, major operating commands were allowed to select units that would be surveyed. Within the units, commanders were allowed to select individuals who would answer the questionnaire. Such a procedure could result in a biased sample.

In addition, the Army sample was to be proportional to geographical areas and occupational groupings, but was not. For instance, the distribution of individuals in the sample surveyed was not related to actual distribution of troops by major command. The following table demonstrates the disparity.

<u>Major command</u>	<u>Percent of personnel by command</u>	<u>Sample percent</u>
Korea	5%	23%
U.S. Army Europe	38%	27%
U.S. Forces Command	57%	50%

Also, as the chart on page 11 illustrates, the Army's sample was not proportional to occupational groupings, such as the infantry or combat engineering occupations.

COMPARISON DISTRIBUTION OF CAREER MANAGEMENT FIELDS IN THE ARMY AS A WHOLE¹ AND IN PROJECTED SURVEY POPULATION



¹ONLY FIELDS WITH 4 PERCENT OR MORE OF THE TOTAL POPULATION ARE SHOWN.

EXTENDED BASIC TRAINING
PROGRAM NEVER VALIDATED

The Army has never adequately determined whether the revised program of instruction (instructional material and length) is sufficient and effective.

As early as August 1979, TRADOC directed Fort Benning to validate the basic training program of instruction before implementing it. Officials at Fort Benning told us that, even though TRADOC had provided additional guidance in November 1979 for validating the program, it was not done because of a lack of resources and because it would have taken 2 to 3 years to perform. Instead, the Army decided to implement the program sooner than planned.

Validation was to include a pilot test where groups of recruits representing the target population were to be subjected to the major subject blocks to determine whether the instruction achieves its objectives within the time allotted. Without this type of validation, the Army has little knowledge of whether instruction is effective and provided in adequate amounts; further, it cannot measure the benefits or cost effectiveness of the instruction.

ARI validated a major component of the 7-week basic training program--basic rifle marksmanship--between March 1978 and June 1980. While this effort was not a specific attempt to validate the Army's program of instruction for extending basic training, it demonstrates what can be achieved through validation. ARI's work was part of a continuing program to improve marksmanship training and included more than 12,000 soldiers. The results showed that marksmanship scores could be improved by 29 percent at little increased cost for ammunition. Performance was improved by restructuring the total time (57 hours) allocated for marksmanship instruction and changing the instructional methodology to put more emphasis on the fundamentals of rifle marksmanship. ARI was able to accomplish this in the Army's 7-week basic training program, and the Army now has such a rifle marksmanship instructional component in its extended basic training program.

While the Army is using ARI's new marksmanship component for the extended program, it has not validated any other components of the extended program. To the contrary, some of the training centers commented that several components of the 8-week training program were inadequate. Examples of their comments follow:

- One training center indicated that the time devoted to nuclear, biological, and chemical training was excessive.
- One training center indicated that weapons familiarization training was excessive.
- Two training centers stated that insufficient training time was devoted to map reading.

Army Headquarters officials became concerned about validation shortly after we began examining the program in March 1981. On March 31, 1981, Army Headquarters officials directed TRADOC to take both short- and long-term actions necessary to determine the new program's effectiveness. According to Army officials, short-term results were to be available by July 1981. However, TRADOC had not reported on its actions as of October 1981 when the Army began implementing the program at all training centers.

Results of TRADOC's recent evaluation efforts

TRADOC officials told us their actions in part focused on gathering and comparing first-time pass rates 1/ based on end-of-course tests from the 8-week program during 1981 at Forts Knox and Leonard Wood, with first-time pass rates based on end-of-course tests from 7-week programs completed during 1980 at the same training centers. Because the programs are not comparable, it is not possible, in our opinion, to draw valid conclusions about program effectiveness from TRADOC's actions. Specifically, we noted:

1. Differences in number and content of tasks on which trainees were tested. For example, at Fort Leonard Wood, graduates from the 7-week program were tested on 5 tasks while 8-week graduates were tested on 30 tasks.
2. Differences in 7- and 8-week program content. Eight-week graduates are taught added subjects, such as map reading and communications.

1/Represents total number of tasks passed on the first attempt divided by total number of tasks tested.

3. Differences in trainee populations. Reserves and National Guard recruits were included in 7- but not 8-week programs during the Army's data collection efforts.

We also noted that TRADOC did not use controlled testing-- where one group participates in a program while another group with similar characteristics does not, and both groups are administered the same test designed to measure program impact. Program evaluation experts consider this necessary if conclusions about effectiveness are to be acceptable.

While we question the validity of TRADOC's efforts, the results of its actions could raise even greater concerns about program effectiveness. For example, at Fort Leonard Wood, the first-time pass rates based on end-of-course tests for 7- and 8-week program graduates were 85 and 83 percent, respectively. However, at Fort Knox, the pass rates were 66 and 92 percent respectively.

The Army plans to continue with more extensive data comparison efforts. In July 1982 it will have data on 7- and 8-week graduates from additional training centers as well as graduates of OSUT programs under the previous and newly extended programs. The total population to be included in this analysis will be over 25,000 graduates. However, these efforts still suffer from many of the same shortfalls mentioned earlier. In commenting on our report, Army officials stated that although trainee performance statistics cannot be used to validate the program of instruction, these statistics can be of some value as a comparison of trainee performance.

Another part of TRADOC's evaluation effort included obtaining feedback from training units on whether the new program is producing better motivated and trained graduates. The survey was sent to 193 people at skill training schools who were teaching occupational skills to both 7- and 8-week graduates. Some results indicated that 8-week graduates are better motivated, disciplined, and physically fit. For example, 31 percent of the 130 trainers who responded to this question said that the 8-week graduates were better in these areas than the 7-week graduates. However, 65 percent of the respondents felt there was no difference. Finally, on the only question dealing with a major training area (250 percent increase in time devoted to nuclear, biological, and chemical training), 76 percent of 119 respondents believed there was no difference between graduates of either program in performing these tasks.

TRADOC recently evaluated initial entry training at all nine training centers. TRADOC concluded that training objectives under both the 7- and 8-week programs were being met and that

--standardization of basic training is making considerable progress,

--a shortage of qualified personnel is a major problem in providing basic training, and

--a significant number of training commanders lack the ability to critically evaluate training even though they are in the best position to influence training quality.

CHAPTER 3

QUANTITY AND QUALITY OF TRAINERS

NEED ARMY ATTENTION

Increasing the length of basic training in itself may not improve its effectiveness. Paramount to effective training are the quantity and quality of trainers. For the basic training program, the Army has not taken necessary actions to provide sufficient trainers. Further, if NCOs are to function effectively as trainers, they will need to improve their training. These shortfalls are known to the Army and they remain an unresolved issue.

The Army training centers have been short the numbers and quality of trainers required to properly carry out the training mission under the 7-week program. To some extent, they have relied on trainers with less experience who may, themselves, need more training. The additional trainers being provided for the extended program will alleviate existing trainer shortages, but will fall drastically short of the trainers necessary to operate the new program. For the Army to improve its basic training program, it needs to resolve the issue of the quantity and quality of trainers.

TRAINER SHORTAGES HAVE EXISTED FOR SOME TIME

Shortages of trainers have existed for some time at the training centers. For example, at Fort Leonard Wood, officials told us that, on the average, 70 percent of authorized trainer positions for those who teach combat survival subjects have been filled at any time since 1978. At Fort Knox, records dated back to October 1979 showed that these trainer positions were filled at about 86 percent of authorized strength.

Shortages of drill sergeants have also been a problem. Data at Fort Leonard Wood for the period July 1980 to May 1981 showed that about 80 percent of these positions were filled by drill sergeants. At Fort Knox, officials estimated from current records that, during October 1980 to July 1981, 83 percent of such positions were filled by drill sergeants.

Army records show that in fiscal year 1981, the basic training program was authorized about 600 fewer trainer positions than required. In fiscal year 1980 the basic training program was short about 1,000 trainer positions.

TRADOC estimated that over 1,200 additional personnel (primarily NCOs who would be trainers) would be required to implement the extended training program. To meet this added requirement, NCO positions in Europe will no longer be filled to maintain the previously assigned 5 percent overstrength. From this source, the Army believes it can provide 888 additional personnel (trainers and base operations support) to the training centers. However, because the training centers were already short about 600 trainer positions, such actions will not solve the trainer shortage problem.

THE ARMY HAS NOT PROVIDED THE
MANPOWER NEEDED FOR THE EXPANSION

The training centers have not been authorized the additional manpower they say is needed to implement the extended program in fiscal year 1982.

One area that will remain critically short is trainers. As part of the total, only 200 of the 400 trainers required to teach new or expanded subjects have been authorized for fiscal year 1982. Also, 160 positions required for the new end of course test have not been provided. Although TRADOC requested more personnel, they were not provided to meet the October 1, 1981, implementation date. Because of these shortages, TRADOC officials stated that the training centers would remain staffed at about 75 percent of necessary strength and that some subjects may not be presented in the 8-week program because of manpower shortages.

The Army, in September 1981, redistributed authorizations and authorized TRADOC 375 additional spaces in support of the basic training program extension for fiscal year 1982. Army officials estimated, however, that it will be at least 6 to 7 months before these spaces will be filled. In the meantime, TRADOC directed the training centers to implement the program beginning October 1, 1981, and advised them to take needed manpower from other mission requirements.

Lack of experienced and qualified
trainers aggravates shortages

Shortage problems have been aggravated because NCOs in the right occupations and at the right skill levels are not being provided to the training centers. Further, there are indications that trainers may not be able to provide effective training because they too may have been inadequately trained in common soldier tasks.

According to the 15 drill sergeants we spoke with, these problems have resulted in less individual attention being given to each recruit. Further, they stated that they had to rely on recruits to provide training to peers having a harder time understanding combat survival subjects.

Drill sergeants and officers we spoke with also stated that they have had to rely on drill sergeant candidates to provide training, even though they believed that these individuals lack the ability to effectively train recruits. Candidates are personnel assigned to authorized drill sergeant positions who have not completed the drill sergeant course. At Fort Leonard Wood during July 1980 through May 1981, candidates assigned to the basic training brigade accounted for about 15 percent of the operating drill sergeant strength. At Fort Knox, available data for the period October 1979 to July 1981 showed that candidates accounted for about 12 percent of the operating strength.

In commenting on this report, Army officials stated that the policies affecting assignment of drill sergeant candidates to training centers will be changed. When these proposals are adopted, officials stated that the number of drill sergeants available to provide training will increase to 100 percent of authorized strength.

The training centers are also not getting NCOs in the right occupations or at the right skill levels necessary for training recruits. A recent TRADOC evaluation concluded that the personnel shortages in grades E-6 and E-7 continues to be a problem. TRADOC officials stated that it is likely that the training centers would remain staffed with less experienced NCOs, even if levels are maintained at only 75 percent.

At Fort Knox, data obtained between October 1979 and May 1981 showed that the center had to operate at about 74 percent strength of E-6s and E-7s, although the installation alleviated the shortage by being overstrength in the E-5 category about 242 percent. The center also was short occupations needed for training combat survival subjects. Infantry occupational specialties constitute about 182 of the total 288 enlisted authorizations for fiscal year 1981. As of July 1981, however, only 126 infantry positions, or 69 percent, had been filled. At Fort Leonard Wood, infantry specialties were also short as of July 1981. Of the 129 authorized, only 75, or 58 percent, had been filled.

Occupations authorized for drill sergeants were also lacking. As of May 1981, Fort Leonard Wood was authorized

382 drill sergeants with infantry and combat engineering specialties. However, only 266 of these positions, or 70 percent, were filled with these specialties.

Army officials agreed that in the training base there is an overall shortage of NCOs with the right occupations and skill levels. They explained that this shortage was caused by an overall Army NCO shortage, especially E-6s with combat occupational specialties. And where shortages exist, the Army utilizes NCOs who do not have the proper occupation and skill level in basic training units because these individuals could use their leadership skills without adverse consequences.

Trainers may be inadequately trained

When trainers cannot perform tasks in which they are expected to train, a likely effect is that recruits will not learn. For example, the importance of qualified and competent trainers was highlighted as part of several studies done by ARI from 1978 to 1980 on development of the new marksmanship program. ARI's overall observation was that there were too few competent instructors and the Army was relying on instructors with limited marksmanship knowledge and skills who were unable to correct shooting weaknesses. ARI reported that the most serious instructional problem focused on drill sergeants who comprise the majority of the instructor pool during marksmanship training. According to ARI, poor quality trainers result from the fact that trainers themselves were earlier products of a substandard marksmanship training program and, as a result, they could not be expected to impart knowledge and skills which they did not possess.

Our review also indicated that drill sergeants may not be able to provide effective training. For example:

--Leonard Wood statistics showed that of the 363 candidates attending the drill sergeant course from January 1980 to May 1981, 84, or 23 percent, failed it. Of the overall course failures, 36 failed for academic reasons. Despite such high attrition, however, a Fort Leonard Wood official stated that overall attrition should be about 40 percent, or almost double the current rate.

--Fort Knox statistics on drill sergeant school attrition for 1981 showed that 19 percent failed the course. While the major cause was failure to pass the physical fitness test, basic training officials indicated that

academic abilities of drill sergeants may be a problem. As evidence of this, they pointed to a recent test in which all drill sergeants in the basic training brigade were not able to pass the end-of-course test given to recruits.

The recent TRADOC evaluation of all the training centers also supported this view. This evaluation concluded that drill sergeants were inadequately schooled in the basic subjects most needed on a daily basis.

In commenting on our report, Army officials stated that the Army expects a high attrition rate at drill sergeant schools due to the nature of the job. They further stated that standards will not be reduced to fill positions.

ARMY EFFORTS TO ADDRESS INSTRUCTOR TRAINING PROGRAMS

In August 1981, TRADOC announced plans to improve these training programs by

- providing more instruction to training commanders on how to conduct training evaluations; and
- increasing training to drill sergeant candidates on how to coach basic rifle marksmanship.

ARI officials also stated that, as a part of this effort, they are revising the drill sergeant course on marksmanship training.

Field studies and experiments conducted by ARI from 1978 to 1980 have shown that the quality of instruction must be improved for all instructors, not just drill sergeants. In this regard, their reports concluded that formal "train the trainer" classes are probably needed for new personnel. ARI officials told us that, although their work focused on marksmanship training, it is very possible that instructors may not be well trained in other areas.

Leonard Wood officials agreed with this view and in June 1981 approved a formal training program for their instructors. However, officials said that, because of limited resources, it would probably be several years before the program is developed.

In contrast, however, officials at Knox believed that there was no need for any additional formal training for instructors.

In their view, prior experience and on-the-job training provide adequate knowledge and skills for all instructors.

In commenting on our report, Army officials stated that as a result of a recent review by TRADOC to identify and correct training deficiencies, the Army has changed instructor training programs to improve qualifications of trainers.

CHAPTER 4

CONCLUSIONS, RECOMMENDATIONS,

AND AGENCY COMMENTS

The Army has added 1 week to basic training for all new recruits entering the service after October 1, 1981, and resources will total about \$40 million in fiscal year 1982 and over \$50 million per year in the 2 subsequent years (\$20 million annual budget increase). Also, nearly 4,400 more people (new soldiers, trainers, and support staff) will be in training rather than in operational units because of the additional week. Although the extended program is targeted at improving recruit performance in basic soldiering tasks, the Army has not adequately identified, isolated, or analyzed what is causing performance problems. Without isolating causes of performance problems, the Army cannot be certain whether additional training time is necessary or whether restructuring the existing program could improve training.

In justifying its new program, the Army used survey information from operational and training units to revise its existing program. The greatest failure of this survey, however, was that it did not define causes of the training problems. Also, it was hampered by technical deficiencies, such as shortcomings in sampling strategy. As a result, we believe it cannot be used as a reliable justification for the extended program. In addition, the Army has yet to demonstrate--validate--that the new training program would be effective--even though direction to do so was provided almost 2 years before the program was fully implemented. Without such effort, the Army has little assurance about how much basic training is enough to field a well trained force.

Recent Army efforts to begin collecting data on the benefits of its new program raise more concern about program validation because controlled testing procedures are not being used and the results therefore, even though extensive, may not be very useful in evaluating program effectiveness. The Army also has some recent indications that the new program is no more effective than its predecessor.

In conclusion, then, we believe that the Army has not yet defined the causes of its training problems or determined what is necessary in terms of the length or content of training to eliminate the causes. As the Army implements its extended program, we also believe that it is still necessary to identify and eliminate the causes of basic training problems.

Important to an effective basic training program is the number and quality of trainers. The Army has historically operated its basic training program with less than the authorized number of trainers and in more recent times has relied to some extent on using less experienced trainers who may themselves be inadequately trained in the tasks they are assigned to teach. This important issue was cited as a deterrent in the 7-week training program; and the Army has now moved to an 8-week program without resolving this issue. The Army has also taken actions to improve trainers' ability. However, these immediate efforts do not address all the skills necessary nor cover all instructors. Therefore, we believe that the Army can only expect to effectively implement a 1-week extension and improve training after it resolves this trainer issue and then takes appropriate action to fully staff the training activities.

The Army needs to know how well the basic training program is providing its soldiers with the skills needed to perform effectively. But, the Army does not know, nor do we, how well its extended basic training program is doing this or whether it is better than the previous program. In fact, the only certainty is the new program's increased costs. Moreover, it is unlikely that improvements will result without the necessary number of qualified trainers.

The Army is taking actions to determine program effectiveness and to improve the training of instructors. However, we believe these efforts will not answer these critical questions and that a detailed plan to verify program effectiveness and solve the trainer issue should be developed and implemented. Further, because of specific congressional interest for timely and accurate decisionmaking information on this issue and because program effectiveness and trainer questions have gone unanswered for a long time, we believe the Army should present the initial results of such actions to Congress in its fiscal year 1984 budget. Manpower and training fund requests for future fiscal year budgets should reflect final results.

RECOMMENDATIONS

We recommend that the Secretary of the Army (1) evaluate the basic training program to determine the most effective and efficient length of training and (2) resolve trainer quantity and quality problems. Comprehensive plans for accomplishing these actions should include:

- How to demonstrate the effectiveness of the new program and measure improvements.

- How to demonstrate the skills and abilities needed for trainers to meet the basic training requirement.
- Specific actions and timetables for providing the qualified trainers.
- Identifying organizational responsibility for program evaluation components.
- Specific resources (personnel and funds) required to accomplish this analysis.
- Milestones for completing various steps.

Once skills and abilities of trainers are determined, the necessary priority among competing Army demands should be established to assure continued authorization and assignment of the quantity and quality of trainers needed for basic training.

Initial results of these actions should be presented to the Congress in its fiscal year 1984 budget. Manpower and training fund requests for future fiscal year budgets should reflect final results.

AGENCY COMMENTS

The Army generally agreed with the findings and recommendations in this report. In our draft report we proposed that plans for completing program evaluation be completed by July 1982 and that the Army use control testing environments to determine program effectiveness. Army officials stated that in October 1981, the Army directed the infantry school at Fort Benning, Georgia, to evaluate the entire basic training program. The Army agreed that the training requirement must first be determined which will then determine the optimum length of the course and resources necessary for providing effective and efficient basic training. They stated plans and milestones for doing the program reevaluation will be completed by October 1, 1982. Since Army's efforts are more comprehensive and will include a determination of program effectiveness, we changed our proposal accordingly.

Army officials also stated that the Army is changing its policies regarding assignment of drill sergeant candidates to training centers. Once these proposals are adopted, officials said that the number of qualified drill sergeants in the training units will be increased to 100 percent of authorized levels. Additional comments have been incorporated throughout the report.

MAJOR CHANGES BETWEEN THE 7-WEEK AND
8-WEEK BASIC TRAINING PROGRAMS OF INSTRUCTION

<u>Subject area</u>	<u>7-week hours</u>	<u>8-week hours</u>	<u>Changes</u>
Nuclear, Biological, and Chemical (NBC)	4	14	Expanded time for current tasks; new tasks added for first aid; 1 hour of maintenance time recognized.
Basic Rifle Marksmanship	57	70	10 hours maintenance time recognized; 2 new hours for firing in an NBC environment; 1 hour for mechanical and preparatory marksmanship training.
U.S. Weapons Training	7	12	Preparatory training (mechanical and practical exercises) increased.
Individual Tactical Training	29	39	Night Offensive Training added; training time expanded for other tasks.
Marches and marches	17	25	Additional time for tactical foot march. Recognized (6 hours) time for maintenance of individual equipment.
Conditioning and Confidence Obstacle Courses	0	8 (4 hrs each)	Recognition of time previously spent.

APPENDIX I

APPENDIX I

Basic Military Communications	0	8	New subject.
Map Reading	0	8	New subject.
Opposing Forces (Threat) Orientation	0	3	New subject.



DEPARTMENT OF THE ARMY
OFFICE OF THE ASSISTANT SECRETARY
WASHINGTON, D.C. 20310

12 FEB 1982

Mr. Clifford I. Gould
Director
Federal Personnel and Compensation Division
United States General Accounting Office
Washington, D.C. 20548

Dear Mr. Gould:

This is in reply to your letter to the Secretary of the Army, dated 21 December 1981, concerning your draft report, "The Army Needs to Reevaluate its Extended Basic Training Program," OSD Case #5845, FPCD-82-11.

The Army agrees with the need to reevaluate its extended basic training program and is currently developing plans to reassess the course content of the Basic Training (BT) program of instruction to determine what is required in BT.

The Army also agrees that there are trainer quantity problems. Consistent with National Strategies, priority for fill of all grades and specialties must be given to forward deployed forces. As a result, shortages are reflected in the operating strengths of CONUS units in FORSCOM and TRADOC. Given the worldwide shortages of NCO's, grade and MOS substitutions are often required.

A recent study reveals that instructor authorizations are sufficient to support BT/One Station Unit Training in FY 82 despite overall shortages in the training base. With regard to the shortage of Drill Sergeants, the Army will provide 100% of fill of Drill Sergeant authorizations to the training base by 1st Quarter, FY 83.

In reference to the trainer quality problems, the Army believes that current training programs, management actions and periodic cadre evaluations will resolve those problems.

Many of these specific comments and others were provided your representatives at a 22 January 1982 meeting hosted by the Director of Training, ODCSOPS.

Sincerely,

A handwritten signature in cursive script that reads "William D. Clark".

William D. Clark
Principal Deputy Assistant Secretary
(Manpower and Reserve Affairs)

(967011)

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