

Research & Development Program 3.]

AD-A259 843

FY 1992

Research- Based Personnel and Training Study and Analysis Program



①
S C D
ELECTE
JAN 15 1993
C



United States
**Army
Research
Institute**

DISTRIBUTION STATEMENT A

Approved for public release
Distribution Unlimited

June 1991

93-00819



23
PP

93 1 13 062

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

1a. REPORT SECURITY CLASSIFICATION Unclassified			1b. RESTRICTIVE MARKINGS		
2a. SECURITY CLASSIFICATION AUTHORITY			3. DISTRIBUTION / AVAILABILITY OF REPORT Approved for public release; distribution is unlimited		
2b. DECLASSIFICATION / DOWNGRADING SCHEDULE					
4. PERFORMING ORGANIZATION REPORT NUMBER(S) Research & Development Program 3.1			5. MONITORING ORGANIZATION REPORT NUMBER(S)		
6a. NAME OF PERFORMING ORGANIZATION U.S. Army Research Institute for the Behavioral and Social Sciences		6b. OFFICE SYMBOL (If applicable) PERI-POP	7a. NAME OF MONITORING ORGANIZATION		
6c. ADDRESS (City, State, and ZIP Code) 5001 Eisenhower Avenue Alexandria, VA 22333-5600			7b. ADDRESS (City, State, and ZIP Code)		
8a. NAME OF FUNDING / SPONSORING ORGANIZATION		8b. OFFICE SYMBOL (If applicable)	9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER		
8c. ADDRESS (City, State, and ZIP Code)			10. SOURCE OF FUNDING NUMBERS		
PROGRAM ELEMENT NO. 65801		PROJECT NO. MM15	TASK NO. N/A	WORK UNIT ACCESSION NO. N/A	
11. TITLE (Include Security Classification) FY 1992 Research-Based Personnel and Training Study and Analysis Program					
12. PERSONAL AUTHOR(S) ARI Corporate Authors					
13a. TYPE OF REPORT Final		13b. TIME COVERED FROM 1991 TO 1992		14. DATE OF REPORT (Year, Month, Day) June 1991	
15. PAGE COUNT 23					
16. SUPPLEMENTARY NOTATION POC: James A. Bynum					
17. COSATI CODES			18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)		
FIELD	GROUP	SUB-GROUP	Study Manpower		
			Analysis Training		
			Personnel		
19. ABSTRACT (Continue on reverse if necessary and identify by block number) This document describes the ARI Research-Based Personnel and Training Study and Analysis program to be initiated in FY92. Behavioral and social science expertise, knowledge and data bases will be used to conduct short-term studies and analysis that will directly aid decision/policy/doctrine makers in making more informed, more timely decisions affecting the Army's most costly resource, personnel.					
20. DISTRIBUTION / AVAILABILITY OF ABSTRACT ☒ UNCLASSIFIED/UNLIMITED ☐ SAME AS RPT. ☐ DTIC USERS			21. ABSTRACT SECURITY CLASSIFICATION Unclassified		
22a. NAME OF RESPONSIBLE INDIVIDUAL Robert T. Root			22b. TELEPHONE (Include Area Code) (703) 274-8840		22c. OFFICE SYMBOL PERI-POP

Research-Based Personnel and Training Study and Analysis Program

Objective

Provide recommendations from studies and analyses using behavioral and social sciences data and information to support personnel and training decisions, policies and doctrine.

Potential Payoff

Better informed personnel and training decision/policy/doctrine makers means better decisions and policies

Introduction

The ARI Research-Based Personnel and Training Study and Analysis program is new for Fiscal Year 1992. Behavioral and social science expertise, knowledge and databases will be used to conduct short-term studies and analyses that will directly aid decision/policy/doctrine makers in making more informed, more timely decisions affecting the Army's most costly resource, personnel. This program has the following characteristics.

- o Provides answers to critical issues using available knowledge and/or tools of the behavioral and social sciences*
- o Uses existing data (e.g., from the National Training Center) or generate new data (e.g., survey)*
- o Short Term (0-2 years)*
- o Planned and prioritized for the Budget Fiscal Year (BFY)*
- o Responsive to changing requirements*
- o Risk: Low*

DTIC QUALITY INSPECTED 8

Accession For	
NTIS UNCLASS	☒
DTIC TAB	☐
Unannounced	☐
Justification	
By	
Distribution/	
Availability Codes	
Dist	Avail and/or Special
A-1	

Policy

- * Each study or analysis request must be signed by a general officer or member of the Senior Executive Service.
- * Each study or analysis in the approved program will be documented by a Memorandum for Record (MFR) detailing ARI's approach and the sponsoring agency's resource commitment and intended utilization of the study or analytic product.
- * Requests for studies and analyses approved by the DCSPER will be funded by appropriated funding in order of priority. This will represent the "core" program.
- * Requests falling outside the "core" program approved by the DCSPER will be met if in-house ARI and/or contract personnel with required expertise are available and the requester provides the necessary funding.
- * The DCSPER/ADCSPER will approve all major changes to the approved program.

Procedures

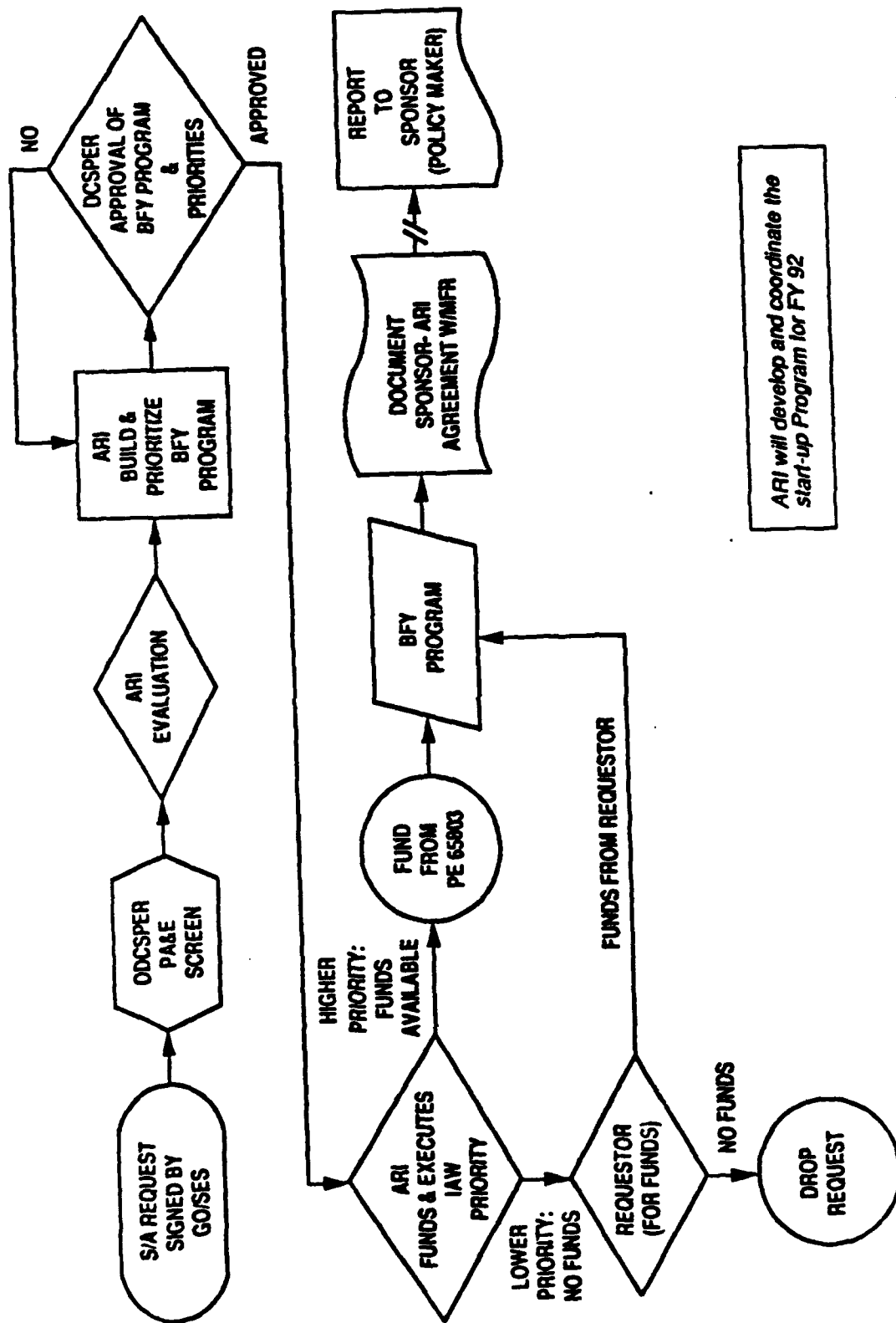
ARI developed and submitted the first year's baseline program (FY92) for approval by the DCSPER. The procedure to be followed in developing the program for subsequent years is described below and shown schematically in Figure 1.

The program for the budget fiscal year (BFY) and the target fiscal year (TFY) will be developed annually. Each February/March a memorandum will be distributed to the ARSTAF, MACOMs, and to OSD describing the program and procedures for requesting a study or analysis.

Requests will be submitted to ODCSPER PA&E by a general officer or a member of the Senior Executive Service. The PA&E Office will screen requests for suitability and those requests deemed appropriate for the program will be forwarded to ARI for evaluation.

ARI will accept or reject requested study or analysis based on availability of qualified behavioral and social science personnel. For each accepted request, ARI will submit a one page Study & Analysis Plan that outlines the approach and provides an estimate of personnel and other resources required.

RESEARCH-BASED PERSONNEL AND TRAINING STUDY AND ANALYSIS PROGRAM



The ARI Commander and Technical Director will annually approve inclusion of individual study or analysis efforts in the proposed BFY program and draft a prioritized program. The SORD-PT GOSC will review the draft program and recommend disposition to the DCSPER. The DCSPER will approve the final program.

Requests falling outside the "core" program will be met if personnel with required expertise are available and the requester provides required funding. PP&O will provide information to each requester through the ODCSPER PA&E on the status of the request and any funding requirement.

Proposed studies and analyses which cannot be performed because of lack of qualified in-house or contract personnel or unavailability of funds will be dropped from the final BFY program.

An MFR will be signed by ARI and the sponsoring agency for each approved study or analysis.

Unprogrammed, out-of-cycle studies or analyses may be requested during the CFY. However, such requests can only be met if: a) the request is approved by the DCSPER/ADCSPER, b) in-house or contract personnel with the required expertise are available, and, c) the DCSPER prioritizes the study above the funding line or the requester provides necessary funding.

Proposed FY92 Program

Table 1 shows the initially approved program for Research-Based Personnel and Training Study and Analysis for FY92. The seven tasks that comprise the program, their associated work units, funding, and initial work unit priorities that have been approved by the DCSPER are also included. Subsequent pages describe each task and work unit in detail.

TABLE 1. ARI FY92/93 STUDY AND ANALYSIS WORK UNITS

		(\$000)	
<u>Rank-Order</u>		<u>FY92</u>	<u>FY93</u>
Task: 2106 MANPOWER PLANNING			
1	Work Unit: Impact of Economic and Demographic Variables on Enlistment (2106H01)	499	488
3	Work Unit: Costs of Alternative Force Mixes (2106C01)	150	210
13	Work Unit: Army College Fund Database (2106C02)	11	11
9	Work Unit: Survey of Civilian Nurses (2106C03)	268	-
Task: 2107 MARKETING AND ADVERTISING			
11	Work Unit: Marketing and Advertising Strategies(2107H01)	165	-
5	Work Unit: Transitioning of Soldiers to Civilian Life (2107C01)	321	114
7	Work Unit: 1991 Survey of High School Youth (2107C02)	161	-
Task: 2215 JOB-SPECIFIC SELECTION AND CLASSIFICATION			
15	Work Unit: Improved Classification with Existing Tests (2215H01)	93	-
		<u>93</u>	<u>0</u>

<u>Task: 2216 IMPLEMENTATION OF NEW PREDICTOR TESTS</u>				<u>124</u>	<u>108</u>
17	Work Unit:	Recommendations for Improved Testing (2216H01)		54	34
16	Work Unit:	Fairness Analyses (2216C01)		70	74
 <u>Task: 2217 REENLISTMENT AND PROMOTION ISSUES</u>				<u>214</u>	<u>136</u>
4	Work Unit:	Retaining High Performing Soldiers During Build Down (2217C01)		214	136
 <u>Task: 3408 LEADERSHIP DEVELOPMENT</u>				<u>379</u>	<u>-</u>
8	Work Unit:	Leader Development Requirements Identified in Desert Storm (3408H01)		204	-
12	Work Unit:	Effectiveness of Leadership Development Practices (3408H02)		175	-
 <u>Task: 3414 ANALYSES OF COMBAT TRAINING CENTER (CTC) PERFORMANCE</u>				<u>986</u>	<u>685</u>
14	Work Unit:	Recommendations for Improving CSS Data Collection (3414H01)		148	
2	Work Unit:	Profiles of Unit Performance Strengths & Weaknesses on the Maneuver Battlefield Operating System (BOS) Across the CTCs (3414H02)		254	260
10	Work Unit:	Lessons Learned by Observer/Controllers at CTCs (3414H03)		180	90
6	Work Unit:	Strengths & Weaknesses in Indirect Fire, Air Defense, & Mobility/Counter mobility Battlefield Operating Systems (BOS) Across the CTCs (3414C01)		404	335

TASK 2106: MANPOWER PLANNING

OBJECTIVE: To determine the impact of economic/demographic variables on enlistment, reenlistment, attrition, and separation; forecast future enlistments; determine efficient allocation of recruiting resources; determine costs of alternative enlisted force mixes.

FUNDING: **FY92:** \$928K **FY93:** \$710K

Work Unit: Impact of Economic and Demographic Variables on Enlistment
(2106H01)

Issue: How to recruit sufficient numbers of high quality soldiers at least cost.

Sponsor: ODCSPER (DMPM)

Start Date: 1st Quarter FY92 **End Date:** 4th Quarter FY93

Est. Cost: \$987K **FY92:** \$499K **FY93:** \$488K

Description: To determine impact of economic/demographic variables on enlistment, and forecast future enlistments and race/ethnic composition of the force. Determine efficient allocation of resources to maintain accession quality.

Impact: Assist in determination and defense of the recruiting budget, defense of the race and ethnic composition of the force, and defend the All Volunteer Force against the draft.

Work Unit: Costs of Alternative Force Mixes (2106C01)

Issue: How to efficiently downsize the active enlisted force.

Sponsor: ODCSPER (DMPM): BG Stroup

Start Date: 2nd Quarter FY92 **End Date:** 4th Quarter FY93

Est. Cost: \$360K **FY92:** \$150K **FY93:** \$210

Description: To build an operational active Enlisted Personnel Inventory, Cost, and Compensation (EPICC) model to "grow" and cost alternative forces of varying characteristics.

Impact: Will provide the Army with least-cost alternatives for active enlisted force manning.

Work Unit: Army College Fund Database (2106C02)

Issue: Army College Fund usage and cost-effectiveness.

Sponsor: ODCSPER (DMPM)

Start Date: 3rd Quarter FY92 **End Date:** 2nd Quarter FY93

Est. Cost: \$22K **FY92:** \$11K **FY93:** \$11K

Description: To build and update a database on Army College Fund usage combining VA, Army, and actuarial records.

Impact: Assist in determination and defense of recruiting budget; monitor ACF program costs assessed by DOD actuary; estimate usage and costs of any enhancements to existing ACF program. Provide the Army with least-cost incentives for recruiting nurses.

Work Unit: Survey of Civilian Nurses (2106C03)

Issue: The Army has not achieved its nurse recruiting objectives. The shortfall is extremely serious for both the active and reserve components.

Sponsor: USAREC: MG Wheeler

Start Date: 1st Quarter FY92 **End Date:** 4th Quarter FY92

Est. Cost: \$268K

Description:

To administer a survey to employed civilian nurses, nursing students and nurse who applied to the Army but declined a commission.

Impact:

Provide the Army with least-cost incentives for recruiting nurses.

TASK 2107: MARKETING AND ADVERTISING

OBJECTIVE: Resolution of active and reserve recruit marketing issues for the sustainment of a quality force. Immediate issues include labor market competition and negative influences from the Gulf War.

FUNDING: **FY92:** \$647K **FY93:** \$114K

Work Unit: Marketing and Recruiting Strategies (2107H01)

Issue: How to best reach the recruiting market to enlist sufficient numbers of high quality soldiers (Active and Reserve).

Sponsor: ODCSPER (DMPM)

Start Date: 1st Quarter FY92 **End Date:** 4th Quarter FY92

Est. Cost: \$165K

Description: Recruitment of women and minorities are currently important issues as are parental influences and the recruitment of reserves and medical personnel.

Impact: More effective marketing strategies and incentive and advertising programs.

Work Unit: Transitioning of Soldiers to Civilian Life (2107C01)

Issue: Determine how to best transition soldiers to civilian life.

Sponsor: USAREC: MG Wheeler

Start Date: 1st Quarter FY92 **End Date:** 4th Quarter FY93

Est. Cost: \$435K **FY92:** \$321 **FY93:** \$114K

Description: The Army is facing the first transition of large numbers of RIFFed soldiers and combat veterans of an all recruited Army. Monitoring this transition is vital for future recruitment efforts.

Impact: More effective transitioning programs resulting in more "good will" for the Army and increased propensity for enlistment.

Work Unit: 1991 Survey of High School Youth (2107C02)

Issue: Determine the impact of Operation Desert Storm on youth enlistment intentions.

Sponsor: ODCSPER (DMPM)

Start Date: 1st Quarter FY92 **End Date:** 4th Quarter FY92

Est. Cost: \$161K

Description: The enlistment intentions of youth for service in the Regular Army and the Army Reserve may have changed as a result of Operation Desert Storm. Collection of these data will permit assessment of change in intentions by component, as well as analysis of the cost effectiveness of various incentives.

Impact: More effective marketing strategies, enlistment incentives and advertising strategies.

TASK 2215: SELECTED SELECTION AND CLASSIFICATION ISSUES

OBJECTIVE: To conduct studies which will provide recommendations leading to improvement of current procedures for enlisted selection and classification.

FUNDING: **FY92:** \$93K **FY93:** \$0K

Work Unit: Improved Classification with Existing Tests (2215H01)

Issue: Should there be a change in the current Mechanical Maintenance ASVAB Aptitude Area composite used to determine eligibility of soldiers for that job grouping?

Sponsor: ODCSPER (DMPM)

Start Date: 1st Quarter FY92 **End Date:** 2nd Quarter FY92

Est. Cost: \$93K

Description: One of the ASVAB Aptitude Area composites used in soldier classification is known as the Mechanical Maintenance (MM) composite. This effort will conduct analyses to determine if proposed changes to the Mechanical Maintenance composite will result in a better matching of soldiers to jobs.

Impact: Improved classification of thousands of soldiers annually in critical maintenance MOS, with substantial performance benefits to the Army.

TASK 2216: IMPLEMENTATION OF NEW PREDICTOR TESTS

OBJECTIVE: To resolve issues concerning the appropriate use of new temperament, psychomotor and spatial tests in the existing enlisted selection and classification system.

FUNDING: **FY92:** \$124K **FY93:** \$108K

Work Unit: Recommendations for Improved Testing (2216H01)

Issue: What new predictor tests will provide the greatest benefit to the Army if added to the current selection and classification system?

Sponsor: ODCSPER (DMPM)

Start Date: 1st Quarter FY92 **End Date:** 2nd Quarter FY93

Est. Cost: \$88K **FY92:** \$54K **FY93:** \$34K

Description: The central component of the current selection and classification system is the Armed Services Vocational Aptitude Battery (ASVAB). By late 1992, recommendations for new tests to be included in the ASVAB, if any, will be needed. The Army has conducted extensive analyses showing the validity of its tests for selection and classification purposes. The objective of this work unit is to conduct additional analyses and to formulate recommendations for ASVAB changes.

Impact: Will be instrumental in ensuring that the new selection and classification system provides optimal performance benefits to the Army.

Work Unit: Fairness Analyses (2216C01)

Issue: What impact will the new predictor tests have on different racial and gender subgroups?

Sponsor: ODCSPER (DMPM)

Start Date: 1st Quarter FY92 **End Date:** 4th Quarter FY93

Est. Cost: \$144K **FY92:** \$70K **FY93:** \$74

Description: The performance of selected racial and gender subgroups on composites formed from currently operational tests and new tests proposed for operational use will be determined. Subgroup scores on performance measures will also be computed as a basis for comparison. Analyses will be conducted to address the question: how fair are the new tests to each subgroup examined?

Impact: Will ensure that issues of test fairness have been thoroughly evaluated before recommendations regarding implementation of new selection and classification test composites are generated.

TASK 2217: REENLISTMENT AND PROMOTION ISSUES

OBJECTIVE: To address issues associated with the improvement of reenlistment and promotion procedures.

FUNDING: **FY92:** \$214K **FY93:** \$136K

Work Unit: Retaining High Performing Soldiers while Building Down
(2217C01)

Issue: What personnel policies will ensure that high quality soldiers are retained during the projected "build down" of Army forces?

Sponsor: ODCSPER (DMPM)

Start Date: 1st Quarter FY92 **End Date:** 3rd Quarter FY93

Est. Cost: \$350K **FY92:** \$214K **FY93:** \$136

Description: Selection, classification, reenlistment and promotion policies must be managed to insure that the Army does not lose its high quality soldiers during the projected build down. This effort will determine which current measures of first tour performance best predict second tour performance. Results will guide recommendations for use of these measures in making reenlistment and promotion decisions.

Impact: Will help ensure that the performance of the junior NCO corps is maintained at a high level during the build down process.

TASK 3408: LEADERSHIP DEVELOPMENT

OBJECTIVE: To provide information for decisions about leader development programs for current and future leadership requirements.

FUNDING: FY92: \$379K FY93: \$0K

Work Unit: Leader Development Requirements Identified in Desert Storm (3408HO1)

Issue: What do experiences in Operation Desert Storm indicate about the leadership factors important to leader and unit combat effectiveness?

Sponsor: TRADOC (CGSC)

Start Date: 1st Quarter FY92 **End Date:** 4th Quarter FY92

Est. Cost: \$204K

Description: Assemble questionnaire data from surveys conducted by various Army agencies about Operation Desert Storm. Augment with interviews of unit leaders deployed to Saudi Arabia. Analyze data to identify the leadership factors important to leader and unit effectiveness. Specify leadership requirements to emphasize in developing leaders for effective combat performance.

Impact: Improved specification and validation of combat critical leadership development requirements.

Work Unit: Effectiveness of Leadership Development Practices (3408H02)

Issue: How effective are current leadership assessment and development programs?

Sponsor: TRADOC (CGSC)

Start Date: 1st Quarter FY92 **End Date:** 3rd Quarter FY92

Est. Cost: \$175K

Description: Collect data on implementation of leadership development programs by review of current practices, analysis of trainees' performance records, and interviews of program participants (trainers and trainees). Evaluate program consistency and adherence to doctrinal guidelines and established principles for leader development.

Impact: Empirical basis for improving and defending leadership development programs.

TASK 3414: ANALYSES OF COMBAT TRAINING CENTER (CTC) PERFORMANCE

OBJECTIVE: To provide answers to critical issues for the Combined Arms Training Strategy (CATS) and unit readiness assessment.

FUNDING: **FY92:** \$986K **FY93:** \$685K

Work Unit: Recommendations for Improving CSS Data Collection (3414H01)

Issue: What is the capability of the Logistics System to support combat forces in meeting operational needs?

Sponsor: TRADOC (CAC-T)

Start Date: 1st Quarter FY92 **End Date:** 4th Quarter FY92

Est. Cost: \$148K

Description: The CTCs provide the opportunity to fully execute CSS activities in a realistic environment which is not available during home station training. Consequently, they can provide information not available elsewhere. Data currently being collected will be compared to information needs of the CSS community to identify adequacy of current data and recommendations for improvement will be made.

Impact: Assist the Combined Arms Logistics Center in improving CSS doctrine and training using CTC data.

Work Unit: Profiles of Unit Performance Strengths and Weaknesses in the Maneuver Battlefield Operating System (BOS) Across the Combat Training Centers (CTC) (3414H02)

Issue: What are current performance strengths and weaknesses in the maneuver BOS demonstrated at the CTCs?

Sponsor: TRADOC (CAC-T)

Start Date: 1st Quarter FY92 **End Date:** 4th Quarter FY93

Est. Cost: \$514K **FY92:** \$254 **FY93:** \$260

Description: A series of analyses of existing data from the NTC, JRTC, and CMTC will be performed to determine major areas of common unit maneuver performance strengths and weaknesses, with an emphasis on weaknesses, for Active Components and Reserve Components.

Impact: CAC-T will use this information for development of the Combined Arms Training Strategy (CATS) for the Active and Reserve components.

Work Unit: Lessons Learned by Observer/Controller at CTCs (3414H03)

Issue: What Doctrine, Training, Organizational, Materiel, and Leadership (DOTML) Lessons Learned can be obtained from the oral histories of experience observer/controllers at the National Training Center?

Sponsor: TRADOC (CAC-T)

Start Date: 1st Quarter FY92 **End Date:** 2nd Quarter FY93

Est. Cost: \$270K **FY92:** \$180K **FY93:** \$90K

Description: A database of O/C oral histories has been collected in routine O/C debriefings at the conclusion of their tour at the National Training Center. This database should provide a rich source of DOTML information from some of the most experienced trainers in the Army.

Impact: CAC-T will incorporate the results of this study in their Army Lessons Learned Program.

Work Unit: Strengths and Weaknesses in Indirect Fire, Air Defense and Mobility/Counter mobility Battlefield Operating Systems (BOS) Across the CTCs (3414C01)

Issue: What are current major unit performance strengths and weaknesses in these BOSs as demonstrated at the CTCs?

Sponsor: TRADOC (CAC-T)

Start Date: 2nd Quarter FY92 **End Date:** 4th Quarter FY93

Est. Cost: \$739K **FY92:** \$404 **FY93:** \$335K

Description: A series of analyses of existing data from the NTC, JRTC, and CMTC will be performed to determine major areas of common unit performance strengths and weakness, with an emphasis on weaknesses, for Active Components and Reserve Components.

Impact: CAC-T will use this information for development of the Combined Arms Training Strategy (CATS) for the Active and Reserve components.

DISTRIBUTION:

ASSISTANT SECRETARY OF THE ARMY (RDA), ATTN: SARD-ZT
ASSISTANT SECRETARY OF THE ARMY (M&RA), ATTN: SAMR
COMBINED ARMS CENTER AND FORT LEAVENWORTH, ATTN: CAC-T
DEPUTY CHIEF OF STAFF FOR PERSONNEL, ATTN: DAPE-ZA
DEPUTY CHIEF OF STAFF FOR PERSONNEL, ATTN: DAPE-ZB
DEPUTY CHIEF OF STAFF FOR PERSONNEL, ATTN: DAPE-MP
DEPUTY CHIEF OF STAFF FOR OPERATIONS AND PLANS, ATTN: DAMO-TR
DEPUTY UNDER SECRETARY OF THE ARMY, (OR), ATTN: SAUS-OR
U.S. ARMY TRAINING AND DOCTRINE COMMAND, ATTN: ATTG
U.S. ARMY RECRUITING COMMAND, ATTN: RCCG
U.S. ARMY COMMAND AND GENERAL STAFF COLLEGE, ATTN: ATZL-SW