



DEPARTMENT OF THE ARMY HEADQUARTERS COMBINED ARMS CENTER AND FORT LEAVENWORTH FORT LEAVENWORTH KANSAS 66027

ATZL-SWU-E

7 JUL 1983

SUBJECT: TRADOC After Action Report - Joint Training Exercise (JTX) Gallant Knight 83

SEE DISTRIBUTION

1. Enclosed is the JTX GALLANT KNIGHT 83 After Action Report.

2. This is one in a series of reports published by the Combined Arms Center, reflecting concerns of field commanders and TRADOC observers in regard to TRADOC products. The widest possible dissemination is made in an effort to stimulate thought and action on current training and doctrinal issues as well as to keep field units informed.

3. TRADOC agencies are requested to review this report for proponent assignments upon receipt. Proponents are additionally requested to notify this headquarters of their point of contact for followup action once their review is complete. The suspense for proponent followup action is **1-Sep** VDEC 1983. While this is a TRADOC After Action Report designed to resolve doctrinal issues by the TRADOC proponents, comments from the field are encouraged but not required.

4. Points of Contact at this headquarters are LTC Fred Meyers and MAJ(P) Cliff Reed, AirLand Battle Training Division, Unit Training Support Directorate, CGSC, AV 552-3839/4317.

FOR THE COMMANDER:

TIMOTHY J: DECKER MAJ, GS ISST Ad uter t G-reral

l Encl as

DISTRIBUTION:

See Inside Back Cover

APPROVED FOR PUBLIC RELEASE: DISTRIBUTION UNLIMITED.

83-CAORA-4738

TABLE OF CONTENTS GALLANT KNIGHT 83

551

ITEM	PAGE
Table of Contents	
PART ONE: TRADOC Participation in Major Exercises; Background, Objectives, and Concepts	1
PART TWO: JTX GALLANT KNIGHT 83	
SECTION I: Exercise Summary	3
SECTION 11: TRADOC Observations GK 83	5
PART THREE: Followup Status of TRADOC Observations: GALLANT KNIGHT 82 and GALLANT EAGLE 82	
SECTION I: JTX GALLANT KNIGHT 82	23
SECTION 11: JTX GALLANT EAGLE 82	30
PART FOUR: Recapitulation of Status of TRADOC Observations: GK 82, GE 82, and GK 83	31
DISTRIBUTION:	32



i

PART ONE TRADOC PARTICIPATION IN MAJOR EXERCISES BACKGROUND, OBJECTIVES, AND CONCEPTS

1. References:

The second se

a. Message, CDR, USACAC and Fort Leavenworth, ATZL-CG, 261620Z Aug 80, subject: TRADOC Participation in Joint Readiness Exercise.

b. Message, HQDA, DAMO, 151307Z Sep 80, subject: TRADOC Participation in Joint Readiness Exercises.

c. Message, CDR TRADOC, ATTG, 191945Z Sep 80, subject: TRADOC Participation in Joint Readiness Exercises.

d. USAREUR/FORSCOM/TRADOC Regulation 11-11, 1 May 1981.

e. FORSCOM/TRADOC Regulation 350-20, 1 December 1981.

f. Army Regulation 350-28, Final Draft, 20 January 1983.

2. General Background: TRADOC participation in Joint Training Exercises (JTX) was directed by the Chief of Staff, Army, in August 1980. CAC was tasked to assume proponency for the program management. Since its inception, TRADOC subject matter experts (SME) have participated in all USREDCOM JTX and provided assistance to HQ IX Corps, USARJ, for YAMA SAKURA exercises.

3. Program Objectives:

a. To improve the TRADOC-FORSCOM interface as established by USAREUR/FORSCOM/TRADOC Regulation 11-11.

b. To allow TRADOC SME to evaluate the existence, soundness, and application of doctrine.

c. To assist REDCOM and FORSCOM in scenario development.

d. To assist FORSCOM and the ARRED action agent in the development of Army objectives for each exercise.

e. The focus of TRADOC participation is the evaluation of TRADOC products. TRADOC participants have viewed this program as an excellent means of providing support to the exercising headquarters, as well as providing insight to the doctrinal development process. Any reluctance to participation stems from personnel and appropriate subject matter expert shortages. Additionally, this program provides an opportunity to discuss ongoing TRADOC projects with field commanders and to solicit input for these projects. 4. Report Organization:

a. The intent of this report is the identification, followup, and resolution of TRADOC issues surfaced during the exercise.

b. Part Two of this report contains TRADOC observations noted during JTX GALLANT KNIGHT 83 (GK 83).

c. Part Three of this report contains the followup status of observations noted during JTX GALLANT KNIGHT 82 (GK 82) and GALLANT EAGLE 82 (GE 82).

d. The term "observation" is intentionally used to enable field concerns to be informally addressed. As such, "observations" do not necessarily represent command positions, but provide a sensing of field perceptions.

e. This report has been edited to eliminate redundancy and establish proponent for actions that fall within TRADOC's area of responsibility.

5. Program Management: A management program has been developed to track issues from identification to resolution. Following each exercise, the Combined Arms Center will publish a report providing an update on observations associated with that exercise. Approximately six months later, a followup report will be issued which will provide an update on all unresolved observations. This will be repeated at six month intervals until all identified issues are resolved.

PART TWO SECTION I EXERCISE SUMMARY JTX GALLANT KNIGHT 83 18-22 March 1983

1. <u>General</u>: JTX GALLANT KNIGHT 83 was a Joint Chiefs of Staff coordinated Command Post Exercise (CPX) sponsored by United States Readiness Command (USREDCOM). The exercise was conducted at Fort Bragg, North Carolina, from 18-22 March 1983.

2. <u>Purpose</u>: Exercise the United States Central Command (USCENTCOM) and its components.

3. Evaluation Areas: Within the framework of the exercise, TRADOC SME conducted a formal doctrinal evaluation of the following areas:

a. Joint Attack of the Second Echelon (J-SAK).

b. Joint Force Sustainability.

4. TRADOC SME Support for JTX GALLANT KNIGHT 83:

US Army War College

•

COL Huba Wass de Czege

Team Chief, J-SAK Evaluation Team

USA Command and General Staff College

LTC Fred L. Meyers, Jr.

LTC Howard A. Murray

LTC Ronald E. Osimo

LTC Gene A. Teany

MAJ John R. McCutchon

CPT Douglas S. Phillips

CPT Herman T. Sheppard

CPT Daniel Ward

Ground Operations Evaluator, J-SAK Evaluation Team

FIRST BATTLE Instructor

TRADOC Program Manager

Ground Operations Evaluator, J-SAK Evaluation Team

FIRST BATTLE Instructor FIRST BATTLE Instructor FIRST BATTLE Instructor

FIRST BATTLE Instructor

83-CAORA-4738

CPT James L. Werkmeister CPT Clay C. White

US Army Combined Arms Combat Development Activity

LTC John W. Knox

.

ことと言語ができたたたとう。 このではない こうかんたん たたい アイマングロシスト 美国たわれたもの きょう シングシング

US Army Institute for Military Assistance

MAJ Jeffrey Fletcher

US Army Missile and Munitions School

CPT(P) Robert T. Wiley

US Army Transportation School

MAJ Rolland R. Montgomery

CPT Ann J. Morrison

US Army Quartermaster School

MAJ Jay A. McCormick

FIRST BATTLE Instructor

J-SEAD Evaluator, J-SAK Evaluation Team

Threat

Unconventional Warfare Operations, J-SAK Evaluation Team

Logistics Evaluator (Ammo/NBC) Sustainability Team

Logistics Evaluator (TRANS), Sustainability Team

Logistics Evaluator (TRANS), Sustainability Team

Logistics Evaluator (POL), Sustainability Team



PART TWO SECTION II TRADOC OBSERVATIONS GK 83

OBSERVATION: GK 83-1

SOURCE: USACAC

There was no clear delineation of responsibilities among ground commanders for that part of the J-SAK effort involving targets beyond the corps area of influence.

<u>DISCUSSION</u>: Although the USCENTCOM commander provided general guidance through the apportionment process, there was no clear division of labor between component commanders in the overall Air Interdiction (AI) effort. This was especially true for the area beyond the corps area of influence.

1. It was clear that all Battlefield Air Interdiction (BAI) was to be in direct support of the corps effort and the corps area of influence was clearly defined. BAI was clearly identified and carved out for corps tactical targeting in the apportionment process by the USCENTCOM commander and effectively used by the corps commander. It was not clear, however, whether the Echelon Above Corps (EAC) commander had an input in this process, or even whether he should have input in a single corps environment.

2. It was not clear who would identify ground interest targets (in a tactical rather than technical sense) for the remaining AI assets to be employed beyond the corps area of influence. As the exercise progressed, targets of ground interest in this area were nominated by Third US Army (TUSA), by XVIII Airborne Corps, by the JUWTF, and by 9th Air Force. These piecemeal target nominations were ultimately prioritized by 9th Air Force officers in the TACC based on the Joint Commander's very general guidance, with little evidence of any overall land force single integrated set of priorities.

3. The JUWTF effort was not always integrated with other interdiction actions. In some instances, JUWTF conducted or initiated interdiction actions within the corps area of influence without corps knowledge or approval. Unity of effort requires that corps approve such actions. Likewise, although JUWTF action beyond the corps area of influence was coordinated at the USCENTCOM level, it was difficult to evaluate whether JUWTF actions were integrated for unity of effort within an overall interdiction plan.

<u>RECOMMENDATION</u>: That TRADOC/TAC address the delineation of responsibility for AI tactical targeting beyond the corps area of influence, and determine how best to involve the land component commander in the designation of priorities for attack of targets of ground interest in this area.

PROPONENT FOR ACTION: CGSC in conjunction with DCSDOC TRADOC



そういいいいと、「「人人人人人人」」でいた。

SOURCE: USACAC

The Air Support Operations Center (ASOC), besides performing its current missions, could also assist the corps in BAI management.

<u>DISCUSSION</u>: The ASOC was located at the corps forward command post and controlled only Close Air Support (CAS) activity, as is current doctrine. Due to their proximity to the division areas and the distance from the corps main, the ASOC personnel are ideally situated to provide accurate and up-todate knowledge of enemy second echelon activity (from Air Force Forces (AFFOR) sources) and status of the BAI effort. This is a valuable resource for Army planners and should be better utilized.

<u>RECOMMENDATION</u>: That the role of the ASOC be expanded, when appropriate, in the planning and management of BAI, and that this be institutionalized in existing manuals.

SOURCE: USACAC

Army BAI targeteers were not completely familiar with tactical air capabilities.

DISCUSSION: The XVIII Airborne Corps FSE (main) targeteers were not targeting armor in BAI because they believed A-10s were the only aircraft that could destroy tanks. They should have listed the desired result and let the Air Force decide the methodology and feasibility of attack.

<u>RECOMMENDATION</u>: That the Army targeteers not assume an Air Force incapability and request mission in terms of results. This procedure should be included in the J-SAK Operations manual. However, types of targets should be carefully assessed based on their value to the ground scheme of maneuver.

PROPONENT FOR ACTION: DCSDOC TRADOC in conjunction with CGSC.

SOURCE: USACAC

Attack helicopters and airmobile Lance raids were used effectively against the attack of the follow on echelons during GK 83.

DISCUSSION: Attack helicopters were employed in conjunction with BAI and CAS to fight the attack of the follow on echelons. Employment of the helicopters was determined by the suitability of targets. The type target determined whether it was attacked by BAI or attack helicopters, while JAAT operations were an integral part of CAS. In one attack of the follow on echelon, A-10 aircraft were planned to protect the attack helicopters from Soviet HIND helicopters. In addition to attack helicopters, airmobile Lance raids were planned and executed. Lance missiles were air lifted by CH-47 to firing positions forward of the FLOT, executed their mission, and then extracted by air. Incorporating these Army elements into the attack of the follow on echelon represents innovative planning and contributes to the successful execution of J-SAK.

RECOMMENDATION: That emphasis continue to be placed on how to integrate Army and Air Force in J-SAK.

1.1.1.1.1

SOURCE: USACAC

Battlefield Air Interdiction (BAI) target nominations by divisions invariably required retargeting.

DISCUSSION: Divisions can effectively fight second echelon regiments of first echelon divisions using maneuver forces and CAS. However, the effective incorporation of BAI target nominations into division level attack of the follow on echelon schemes appears to be difficult. It now takes 48 hours from the time a division nominates a "target" for BAI until the requested mission is flown. Normal division planning horizons are no more than 24 hrs, thus targets that are 48 hours old are often invalid. These targets must then be revalidated by the BCE. This revalidation process takes place 8 hours and again 4 hours prior to BAI mission execution. During revalidation the original division targets are retargeted by the BCE and TACC against current higher priority targets. The time and resources employed in initial BAI nominations would be more effective if the initial BAI request came to corps in more general terms and corps submitted prioritized BAI requests in sufficient detail to the BCE to allow the BCE to communicate Army requirements to the Air Force in the TACC.

RECOMMENDATION: That current BAI planning procedures be streamlined.

SOURCE: USACAC

Rear Area Protection (RAP) doctrine is non-existent.

DISCUSSION: Lack of RAP doctrine resulted in confusion within the corps headquarters with regard to the most appropriate method of execution. Specifically, Level I (Threat-controlled agents, sabotage by threat sympathizers, and activities conducted by terrorist organizations) and Level II (Diversionary operations, sabotage and reconnaissance missions conducted by tactical units of less than battalion size) rear area threats were the responsibility of the COSCOM CDR. Level III rear area threats (Airmobile operations, airborne insertions, amphibious operations and infiltration operations) were controlled by the Corps G3. This technique was determined to be the preferred method after considerable discussion. For the duration of the exercise the COSCOM CDR, Rear Area Operations Center and G3 controlled RAP operations simultaneously, depending on the level of threat and depending on the situation.

RECOMMENDATION:

That publication of RAP doctrine be given increased priority.

That the procedure employed during GK 83 be reviewed, and if determined feasible, be included in RAP doctrine.

SOURCE: USACAC

Communications support for the Battlefield Coordination Element (BCE) during GK 83 was inadequate to perform its mission in a real situation.

DISCUSSION:

Sector Sector

1. The BCE is a relatively new concept and the communications requirements are still being defined.

2. Currently XVIII Abn Corps has defined the following sole-user communications requirements for the BCE:

a. BCE Chief to Army Forces (ARFOR) (Forward) Fire Support Element/ Coordinator: secure voice.

b. BCE Chief to ARFOR (Main) Fire Support Element/Assistant Coordinator: secure voice.

c. BCE (Enemy Situation Correlation Division) to ARFOR (Main) G2: secure voice.

d. BCE (Combat Plans) to ARFOR (Main) Target Cell: secure voice.

e. BCE (Combat Operations Intelligence Division) to ARFOR (Main) All-Source Intelligence Center (ASIC): secure voice.

f. BCE (Combat Operations) to ARFOR (Forward) FSE: secure voice.

g. BCE to ARFOR (Forward and Main): secure facsimile.

h. BCE to ARFOR (Main): secure radio teletypewriter (RATT).

3. In addition to the above requirements, sufficient common-user connectivity is required between the BCE, ARFOR (Main), ARFOR (Forward), TACC, and other ARFOR units. The following XVIII Abn Corps requirements may be satisfied by currently planned common-user networks:

a. BCE (air defense artillery/airspace management) to ARFOK (Main): secure voice.

b. BCE airlift control center to ARFOR movements control center (Corps Support Command (COSCOM)): secure voice.

c. BCE (Combat Operations) to ARFOR (Forward) FSE: secure voice.

d. BCE (Combat Operations) to ground liaison officers with each deployed USAF airlift/fighter/reconnaissance wing: secure voice.

e. Record traffic capability (AUTODIN).

4. The transmission systems (TRC-145s) supporting the above requirements between the ARFOR (Main) and ARFOR (Forward) to the BCE have been authorized but are significantly limited over the distances they must operate. This equipment operates on line-of-sight, and even with appropriate relay equipment, which is not authorized, cannot operate beyond 50 miles. Current scenarios envision distances between the BCE and ARFOR elements far greater than the capability of this equipment.

5. Presently, the ARFOR negotiates for communications channels with Air Force and joint transmission systems. This fulfills a few requirements, but leaves the remainder to be satisfied by common-user systems. The situation will continue until corps and Army units are provided adequate transmission equipment and the personnel to provide their own communications capabilities to the BCE. The result is that doctrine and actual implementation of the BCE concept has outpaced commensurate communications doctrine and support.

RECOMMENDATIONS:

That CGSC review the BCE concept for use Army wide and inclusion in doctrine.

That an adequate operational test and evaluation be conducted by CACDA to clearly define the communications requirements of the BCE. Consideration should be given to reestablish a corps artillery headquarters battery capable of providing the communications resources to satisfy BCE needs.

PROPONENT FOR ACTION: CGSC in conjunction with CACDA

SOURCE: USAQMS

There exists possible command and control voids in non-combat zone for petroleum operations.

DISCUSSION: Theaters are normally assigned one petroleum group to conduct POL operations in the theater to include support to other services. The GK 83 scenario played the group in the combat zone and didn't provide command and control for host nation support and other POL distribution functions in the non-combat zone.

<u>RECOMMENDATION</u>: That TRADOC review doctrine to recommend best doctrinal solution.

PROPONENT FOR ACTION: USAQMS













SOURCE: USAQMS

A need exists for an improved rapidly installed off-shore bulk fuel discharge system.

DISCUSSION: There is a need for a more easily deployed bulk fuel discharge system than the current tactical Marine terminal. A couple of existing commercial methods may prove to fit this need. One is a flexible float/sink hose system that could be deployed from a ship or shore, another a ship that can roll steel pipe on a drum and deploy the pipe.

RECOMMENDATION: That this need be verified and a requirement established by USCENTCOM through TRADOC. Contracting for this type effort may be the most viable way to accomplish this.

PROPONENT FOR ACTION: USAQMS in conjunction with CACDA.

SOURCE: USAQMS

Lack of pipeline play in exercise.

DISCUSSION: The US Army currently has no tactical pipeline. The petroleum distribution mission accomplishment is in serious doubt without use of pipelines in the combat zone.

<u>RECOMMENDATION</u>: That TRADOC support tactical pipeline developmental programs as well as the procurement of pipeline systems. Tactical pipeline deployment training for units who must deploy systems should be established.

PROPONENT FOR ACTION: USAQMS

SOURCE: USAQMS

During the exercise host nation fixed crude oil storage tanks were used to store refined fuel.

DISCUSSION: Before crude oil storage tanks can be used to store refined products, they must be cleaned. Quartermaster units have only a limited capability to clean storage tanks at this time, and therefore will require access to modern cleaning equipment and chemicals required for crude tank cleaning.

<u>RECOMMENDATION</u>: That provisions be made to provide adequate tank cleaning capabilities in Quartermaster units. Additionally, host nation support or commercial contracting should be considered as a backup measure.

PROPONENT FOR ACTION: USAQMS in conjunction with CACDA.

ヘック 見たいいい

SOURCE: USAMMCS

US Army ammunition units which receive deployed toxic munitions still do not possess an organic capability to detect, decontaminate, and seal possible chemical leakage within an Ammo Supply Point.

This problem was addressed in GK-82 and was an unresolved DISCUSSION: issue in the TRADOC Followup Report for GK-82 (Observation GK-82-13). It remains unsolved in Army Doctrine to date. For this exercise (GK-83) and for a short term fix to a real-life problem, FORSCOM has agreed to allow Explosive Ordnance Disposal (EOD) Technicians from deployed EOD units to be located at ASP's which handle and store chemicals in the war zone. EOD units are not designed or manned to routinely perform the task of supplementing ASP assigned personnel. The TRADOC Followup Report stated "the capability does exist to provide detection and decontamination services" since AR 611-201, with change 17, says a 55B has been trained. The fact is the 55B currently receives little chemical training and does not currently have the capability to detect or decontaminate large quantities of Class V stocks. In discussing this problem with numerous knowledgeable persons in the area of chemicals and logistics during GK 83, the general feeling is that chemical munitions in the combat zone should be handled as other conventional munitions. If there is a damaged munition call EOD. If the ASP comes under chemical attack and stocks are contaminated call the Chemical Decontamination Company as any other class of supply would do. The Conventional Ammo Company which stores and handles chemicals should have the capability to detect, but perhaps no special capability to seal leaks or decontaminate.

<u>RECOMMENDATION</u>: That the problem of handling chemical munitions in the combat zone be analyzed and that the capability of Conventional Ammunition Company be determined.

PROPONENT FOR ACTION: USAMMCS in conjunction with USACMLS.

SOURCE: USATRANS

Ammunition Transfer Points (ATP) were not established in accordance with current doctrine, (FM 9-6), and Theater transportation may be inadequate to deliver the required tonnages of Class V material and other commodities.

DISCUSSION: Current doctrine (FM 9-6) describes the use of Ammunition Transfer Points (ATP). The distances used as examples in the document are 100km from the Corps Storage Area (CSA) to the Ammunition Supply Point (ASP); the ATP's are some 30km forward of the ASP; and the combat battalions are 10-15 km forward of the ATP. The distances within the USCENTCOM Theater are much greater. For example, it may be 500km or more from the CSA to the ASP and it may be over 150 km from the ASP to the combat battalions. The Army Divisions deployed in the Theater do not have sufficient semitrailers to implement the ATP concept which is to push high usage, high tonnage items from the CSA forward to the brigade rear area. By not using the ATP concept, COSCOM transportation assets must be used to transport Class V material from the port facilities to the CSA, from the CSA to the forward ASP, and in some cases, from the ASP to the using unit. In discussions with the COSCOM Transportation Coordinators it was apparent there may be a shortage of transportation assets to fulfill the overall transportation requirement.

<u>RECOMMENDATION</u>: That an in-depth analysis be conducted to determine if adequate transportation assets are available to move the required tonnages of Class V within the Theater and that a determination be made if ATP should be used in this Theater.

PROPONENT FOR ACTION: USATRANS

SOURCE: USATRANS

The 7th Transportation group, acting as a Water Terminal Clearance Authority (WTCA), does not have adequate resources.

DISCUSSION: The 7th Transportation Group does not have the qualified personnel slots that are required to perform all the functions required of a WTCA. There is also a void in the required communications equipment for communicating with the various other transportation organizations (MCC, MCA, JMC & MSC). There is no training base established to exercise the functions of a WTCA, so a proper plan may be developed to rectify any possible problem and train unit personnel.

RECOMMENDATION: That personnel and equipment required for the 7th Group to function as a WTCA should be provided. Also, a training vehicle should be developed to prepare the unit for its WTCA function.

PROPONENT FOR ACTION: CACDA in conjunction with USATRANS.

The backlog of vessel and capabilities of the port throughput system significantly effects the sustainability of transportation support. The port discharge capability exceeds the movements capability creating a backlog of cargo on the shore.

DISCUSSION: Previous GK exercises did not find vessel and cargo backlogs as significant. However, GK 83 has, and the backlog will effect the sustainability of support/logistics. The fact that vessels are in the stream waiting to be discharged compounds the problem of what cargo should be delivered first and how long it will take to get these supplies forward to the troops. The fact that the discharge capability exceeds the transportation movement capability equates to a continuous backlog, before the operation receives the largest flow of supplies, etc.

<u>RECOMMENDATION</u>: That a detailed analysis be made of the port throughput distribution system, including backlogs, to insure the transportation assets for this operation are available. Also, that the capabilities of transportation movement and discharge be equalized to reduce the probabilities of frustrated/backlog cargo.

PROPONENT FOR ACTION: USATRANS

SOURCE: USAIMA

PSYOP delivery means were inadequate to insure total integration of PSYOP into J-SAK.

<u>bISCUSSION</u>: The PSYOP detachment at the JUWTF planned for the use of various broadcast means and leaflet missions aimed at obtaining partisan support against the enemy second echelon. Leaflet dissemination was conducted by special operations aircraft at low levels, severely limiting the size of the target area. On the other hand, the XVIII Abn Corps used PSYOP principally as a refugee control means as it lacked the delivery systems to employ PSYOP against the enemy second echelon. In particular, the 24th Infantry Division (Mechanized) had no leaflet delivery system available as it is equipped with 155mm medium artillery and leaflet rounds are only available for the 105mm howitzer.

<u>RECOMMENDATION</u>: That adequate delivery means be developed to permit PSYOP use in deep battle (i.e., remotely piloted vehicles, 155mm leaflet rounds, balloons etc.)

PROPONENT FOR ACTION: USAIMA

SOURCE: USACAC

TASCIM Interface.

DISCUSSION: Mission results obtained from satellite, national, USAF, and Army Corps intelligence assets were generated by the TACSIM computer. Intelligence reports were downlinked to users in the proper format, within realistic time constraints, and contained appropriate data for the type report. Enemy attrition reflected bomb damage results from attack of the follow on echelons by USAF and Army assets. As the enemy units entered divisions areas of influence, they were placed on the FIRST BATTLE (FB) battle boards and subjected to FB rules. At this point, attrition was manually applied based on FB movement rates. TACSIM continued to generate intelligence information per requests and available assets. To assure the TACSIM information included FB combat results and OPFOR unit battle board locations, a TACSIM LNO cell was organized. The LNO's submitted update reports to the TACSIM cell at the end of each FB game turn. The LNO system appeared to resolve potential interface problems between the manual and computer systems with two exceptions. In both exceptions, enemy divisions were placed on the battle boards in an area between the screening and covering forces. As a result, the normal reports and actions of the screening forces were bypassed.

RECOMMENDATIONS:

That TCATA continue the TACSIM LNO network in future JTX employing First Battle and TACSIM.

That GK Exercise Controllers be alert to potential problems during transition of enemy units from TACSIM to FB battle boards to avoid the "magic" appearance of enemy units on the battle boards.

PROPONENT FOR ACTION: CGSC in conjunction with TCATA

PART THREE SECTION I JTX GALLANT KNIGHT 82

OBSERVATION: GK 82-5

SOURCE: USACAC

The joint procedures for attack of second echelon forces were generally those recommended by the J-SAK study and seemed to work well.

<u>RECOMMENDATION</u>: That the Army expedite the final review of the J-SAK study and model, and then press on to work out the details of Army peculiar doctrine on procedures and techniques necessary to fight the deep battle.

PROPONENT FOR ACTION: DCSDOC TRADOC

FOLLOWUP STATUS (1982): Distribution of the draft J-SAK concept and procedures pamphlet was delayed pending TAC/CC and TRADOC CG approval of the J-SAK concept. The TAC-TRADOC approved J-SAK concept and draft J-SAK procedures will be distributed upon concept approval for worldwide comment.

FOLLOWUP STATUS (1983): The US Readiness Command, US Army Training and Doctrine Command, and US Air Force Tactical Air Command document dated 13 Dec 82, sets forth the operational concept for J-SAK.

The concepts describes responsibilities and coordination required to accomplish J-SAK operations. The conceptual target selection and planning process presented in the concept are broad in scope and rely on interfaces and communications inherent in the Tactical Air Control System (TACS) and the Army Air Ground System (AAGS). The concept is applicable to US Readiness Command forces during training, exercises, and contingency operations. Detailed procedures for J-SAK operations will be published in a trilateral USREDCOM-TRADOC-TAC concept and procedure pamphlet.

<u>CURRENT ACTION</u>: Working group of TRADOC, CGSC and TAC has been formed to develop specific tactics, techniques and procedures for Army - AF attack of foilow-on echelons.

SOURCE: USACAC

Corps staffs are so large and cumbersome that they may not be able to react to modern battlefield situations as rapidly as they should.

DISCUSSION: There are so many people in a corps headquarters that the normal staff information flow which occurs in a smaller division command post is dissipated and staff elements find themselves working in isolation and many layers removed from the source of command guidance. This produces a remoteness and a lessened sense of urgency.

RECOMMENDATIONS:

That TRADOC conduct an intense study on how to reduce the size of these headquarters.

That new deep battle functions not be allowed to increase the size of headquarters.

That the use of microcomputers be examined for application in streamlining staff procedures and reducing the overall size of the staff.

PROPONENT FOR ACTION: CACDA.

FOLLOWUP STATUS (1982): Previous work/efforts to reduce the size of corps headquarters have, for the most part, resulted in only fractional decreases with a disproportionate loss in effectiveness. The indications are that modern C^2 requires most of the personnel and equipment dedicated to it. Though automation offers personnel economies in some areas (information receipt, storage, retrieval, and display), these savings tend to be off-set by the increase in maintenance and ADP equipment support personnel. While further reductions may be possible through a change in operational concepts, this area is not within the primary responsibilities of C^3I . Recommend that CDD take the lead, and working in conjunction with C^3I , develop the operational concepts which may provide a reduction in corps CP size.

CACDA does believe that automation offers large potential advantages in streamlining the corps operations.

The current CACDA C³I program involves III, V, VII and XVIII Corps. The thrust of the program is to automate the staff functions and associated information handling procedures. The program consists of the following steps:

1. Develop test beds in each corps using off-the-shelf technology.

2. Develop through an interactive and evolutionary program the system requirements in terms of both generic hardware and software.

3. Incorporate system requirements into DARCOM program and initiate new starts where approprate.

4. Develop O&O concepts to facilitate integration of support requirements for the new system in terms of personnel, logistics, training and system integration.

The program is currently in steps 1 and 2. Progress into step 3 should begin after REFORGER 82.

FOLLOWUP STATUS (1983): CACDA, $C^{3}I$ through the Army Command and Control Initiatives Program (TACIP) is evaluating the impact that automated support of C^{2} functions might have on both streamlining procedures and reducing the overall size of Corps and Division Staffs.

To date, test beds have been established in III, V, VII, and XVIII Abn Corps, 3d ID, 8th ID, 9th ID, 24th ID, 82d Abn Div and 101st Abn Div. Evaluations are ongoing in each of these units. Results of these evaluations will be used to further define the organizational structure and operational procedures of both corps and division HHC's.

In addition, CGSC should examine the training and procedures required to create high performing staffs, units and individuals.

SOURCE: USACAC

The XVIII Abn Corps demonstrated the impressive capability of microcomputer technology to assist in staff functions.

DISCUSSION: The advantage of these computers is that information can be transmitted by digital burst through our antiquated communications system. Each terminal has a storage capability and can pass information to another terminal. Not only can such a system be useful in keeping a commander updated but guidance also can be passed to all staff sections. Staff coordination can also be speeded. Each working element of the staff could tap into the same information. Care must be taken to format the information so that not more than what is needed, is passed between terminals. This system can also be used to pass operations orders and plans to subordinate units and to render reports to higher headquarters. This system portends a quantum leap in combat capability if it results in faster and more informed decisionmaking. But at the same time it must not exacerbate a tendency to micro-manage. This may be the key to the "synchronization" and "agility" the new doctrine addresses, provided we don't interfere with the "initiative" it also stresses.

<u>RECOMMENDATION</u>: That TRADOC continue to evaluate XVIII Abn Corps' use of microcomputers with the goal of developing an automated corps CP.

PROPONENT FOR ACTION: HQ TRADOC and CACDA

FOLLOWUP STATUS (1982): CACDA $C^{3}I$ is incorporating products of the XVIII Abn Corps initiative into an overall program plan aimed at automating staff functions and information distribution system from corps thru squad level. A draft CEP Resume Sheet has been developed and is currently being staffed which will initiate this effort.

Off-the-shelf microprocessors augment Army effort such as the SIGMA program and Military Computer Family (MCF) and are being incorporated into the design of a system which will expedite and streamline the decision making process.

FOLLOWUP STATUS (1983): CACDA, C³I is incorporating products of the XVIII Abn Corps initiative into an overall program plan aimed at automating staff functions and information distribution systems from corps thru squad level. A CEP Resume Sheet has been approved and actions are underway to acquire and install sufficient automation to evaluate the XVIII Abn Corps concept of operations.

26

SOURCE: USAICS

EW assets were not effectively integrated into tactical maneuver plans.

<u>DISCUSSION</u>: EW assets must be considered as a combat force and as such be integrated into offensive and defensive plans. Specialty Code (SC) 37A and Combat Arms Officers must be trained in EW tactics and their employment on the battlefield as a combat force multiplier.

RECOMMENDATIONS:

That EW "How to Fight" doctrine and a "How to Fight" manual be developed.

That the concept of EW as a combat force multiplier be incorporated in combat arms Basic and Advanced Officer Courses.

That 37A officers be taught EW tactics.

PROPONENT FOR ACTION: USAICS

FOLLOWUP STATUS (1982): EW "How to Fight" Doctrine and Manual are currently being developed. The manual (FM 34-1) is in coordination draft, Oct 82.

In Oct 80, the then EW office, Directorate of Training Developments, USAICS, was directed via back channel MSG from LTG Richardson, Dep Cdr, TRADOC to standardize EW training throughout TRADOC schools. The EW office wrote the following lesson plans:

Introduction to EW Threat/Radio Electonic Combat (REC) Defensive EW

Electronic Counter Counter Measures (ECCM)

The lesson plans included narratives, slides, ETV and was nine hours in length. Sixteen copies were sent to all TRADOC schools around Apr 81. This nine hour course was an interim action. A two week course is being developed and should be available third quarter, FY 83.

SC 37A officers are currently being taught limited EW tactics. This instruction is limited due to a lack of approved doctrine. This situation should be rectified when FM 34-1 is approved and fielded. The Review of Education and Training for Officers (RETO) branch will conduct a Task Selection Board which will determine what 37A and 37B officers will be taught based on a world wide survey conducted by that office. The need for teaching 37As EW tactics will be reviewed by the board and related training will be incorporated in a revised SC 37A course which will begin in May 1984.



SOURCE: USAMMCS

US Army ammunition units which receive deployed toxic munitions do not possess the capability to detect, decontaminate, and seal possible chemical leakage within an Ammo Supply Point.

DISCUSSION: Army conventional ammunition companies do not receive training and are not equipped to detect chemical leakage and to decontaminate, seal, and repackage defective toxic munitions. With the advent of binary chemical munitions this deficiency will not exist. In the short term, however, a special type chemical handling augmentation team should be deployed with toxic chemical stocks thus providing the specific services required.

<u>RECOMMENDATION</u>: That HQ TRADOC analyze the above proposal and, if accepted, develop the training and unit support package.

PROPONENT FOR ACTION: USACMLS in conjunction with DCST TRADOC.

FOLLOWUP STATUS (1982): Army ammunition units which receive deployed toxic munitions have ammunition specialists, 55B, assigned to them. This soldier's duties, as described by AR 611-201 w/Change 17, require the performance of detection and decontamination procedures involving chemical agents; therefore, the capability does exist to provide detection and decontamination services.

HQ, TRADOC is currently considering a proposal submitted by USAMMCS to organize a special type chemical handling augmentation team which would be deployed with toxic chemical stock. This team would augment the conventional ammunition company and should be manned with 55B MOS personnel rather than MOS 54E, since they are required to detect and decontaminate chemical agents.

Since USAMMCS trains the ammunition specialist, 55B, and has submitted the proposal for a special type chemical handling augmentation team, recommend that the proponency be changed from USACMLS to USAMMCS in conjunction with HQ TRADOC and USACMLS.

FOLLOWUP STATUS (1983): During JTX GALLANT KNIGHT 82 and GALLANT EAGLE 82, it was noted the Army conventional ammunition companies do not have trained personnel nor the equipment necessary to detect chemical leakage and to decontaminate, seal, and repackage defective toxic munitions.

AR 611-201 W/Change 17 states that MOS 55B personnel perform detection and decontamination procedures involving chemical agents. The position of MMCS is that this statement should be deleted from AR 611-201 as it pertains only to self, individual, and unit equipment detection and decontamination. This training is provided for each soldier during basic training and at the unit level and consequently is contained in the common task soldier's manual. The necessary documentation is being submitted from MMCS to effect the removal of this <u>common skill</u> from AR 611-201.

28

As part of Army 86 effort, MMCS is developing a chemical ammunition company, DC/GS TOE 9-88J which will receive, store, and issue chemical ammunition. A decon platoon is organic to the company to provide the capability for detection and decontamination of leaking chemical munitions. The decon platoon consists of four decon sections comprised of 74A chemical officers and 54E NBC specialist. The proposed concept for TOE 9-88 has been approved as part of Echelon Above Corps 86; however, this TOE has not been approved or fielded.

Until such time as TOE 9-88J is approved and fielded, there exists no capability for detection and decontamination of leaking toxic chemical munitions within ammunition units.

PART THREE SECTION II JTX GALLANT EAGLE 82

OBSERVATION: GE 82-11

SOURCE: USACAC

The Battlefield Control Element (BCE) does not have an approved table of organization and equipment (TOE).

<u>DISCUSSION</u>: The AirLand Forces Interface (ALFI) document provides the organizational and operational concept for the BCE. To date, this concept has been utilized in several CONUS JTX; however, the BCE supported only one Army corps in each of them.

RECOMMENDATION: That a table of organization and equipment be established for the BCE.

PROPONENT FOR ACTION: DCSCD (ATCD-OT) TRADOC

FOLLOWUP STATUS (1982): A draft plan TOE 51-002J3, Army Liaison Detachment, Battlefield Coordination Tactical Air Control Center has been developed. The DPTOE has been sent to the field for final coordination.

The DPTOE is based on the AirLand Forces Interface (ALFI) document as changed on 11 Jun 82. The final approved version of the TOE should be ready for implementation in early 1983.

FOLLOWUP STATUS (1983): An updated version of DPTOE 51-002J3 was forwarded to the field for an area of interest review on 23 February 1983. The final approved version of the TOE should be ready for implementation in late 1983.

TOE of BCE must fit the soon to be developed tactics, techniques and procedures being written by TRADOC-CGSC-TAC.

PART FOUR RECAPITULATION STATUS OF OBSERVATIONS GK 82, GE 82 and GK 83

OBSERVATION	STATUS	PROPONENT
GK 82-1	Closed	
GK 82-2	Closed	
GK 82-3	Closed	
GK 82-4	Closed	
GK 82-5	CLosed	
GK 82-6	Closed	
GK 82-7	Closed	
GK 82-8	Closed	
GK 82-9	Closed	
GK 82-10	Closed	
GK 82-11	Closed	
GK 82-12	Closed	
GK 82-13	Closed	
GK 82-14	Closed	
GR 02-14	010000	
GE 82-1	Closed	
GE 82-2	Closed	
GE 82-3	Closed	
GE 82-4	Closed	
GE 82-5	Closed	
GE 82-6	Closed	
GE 82-7	Closed	
GE 82-8	Closed	
GE 82-9	Closed	
GE 82-10	Closed	
GE 82-11	Closed	
	••••	
GK 83-1	Open	CGSC/DCSDOC TRADOC
GK 83-2	Open	CGSC
GK 83-3	Open	DCSDOC TRADOC
GK 83-4	Open	CGSC/DCSDOC TRADOC
GK 83-5	Open	CGSC
GK 83-6	Open	CGSC
GK 83-7	Open	CGSC
GK 83-8	Open	CACDA
GK 83-9	Open	USAQMS
GK 83-10	Open	USAQMS
GK 83-11	Open	USAQMS
GK 83-12	Open	USAQMS/CACDA
GK 83-13	Open	USAMMCS
GK 83-14	Open	USAMMCS/USACMLS
GK 83-15	Open	USATRANS
GK 83-16	Open	CACDA/USATRANS
GK 83-17	Open	USATRANS
GK 83-18	Open	USAIMA
GK 83-19	Open	TCATA
	-	

きょうき

31

DISTRIBUTION GALLANT KNIGHT 83

ARMY STAFF

Ì

と言葉を エイ・ストス 重要 アインシンシン 生まれたたたたた 二利 アイト たいため たまたかたたい (14) あいたんたん (14)

DAMP-TRF (2), DAMO-ODE (2), DAMO-ZO (2), DAMO-SSM (2), DAMO-SSW (2), DAMO-C4C (2), DALO-PLO (2), DAEN-CWO-E (2), DAAG-PLM-P (2), DASG-HCO (2), DAAR-OTR (2), DAPE-PSC (2), DAMI-ISI (2), DAMO-ODO (2), DAMA-PPM-P (2), NGB-ARO-T (2), DAMO-RQS (5), WASH DC 20310

MACOM and DA Agencies

CINCUSAREUR	AEAGC-EX (5) AEAGC-TRADOC (5)	APO New York 09403
USCINCRED	J5, RCJ5-E (10)	Mac Dill AFB, FL 33068
CINCPAC	J3 (5)	Camp H.M. Smith,
	IG (5)	Hawaii 96861
CDR FORSCOM	AFOP-OCJ (5)	Ft McPherson, GA 30330
CDR USAAHS	HSOP-SO (5)	Ft Sam Houston, TX 78234
CDR INSCOM	IAOPS-PL (5)	Arlington Hall Station, VA 22212
CDR TRADOC	ATCS-P (25)	Ft Monroe, VA 23651
CDR WESTCOM	APOP-SP-M (5)	Ft Shafter, HI 96858
CDR USACC	CC-OPS-01 (5)	Ft Huachuca, AZ 85613
CDR USAEIGHT	CJ-ED (5)	APO San Francisco 96301
CDR DARCOM	DRCRE-PM (5)	5001 Eisenhower Avenue,
		Alexandria, VA 22333
CDR MILPERCEN	DAPC-MOC (5)	200 Stovall Street,
		Alexandria, VA 22332
CDR MTMC	MT-PLO (5)	WASH DC 20315
CDR RCPAC	AGUZ-RO (5)	9700 Page Blvd,
		St Louis, MO 63132
CDR TRADOC COMB ARMS	ATCT-BA-SPS (5)	Fort Hood, TX 76544
TEST ACTV		•
CDR USACIDC	CIPP-TS (5)	5611 Columbia Pike,
		Falls Church, VA 22041
CDR USACSC	ACSC-POP (5)	Ft Belvoir, VA 22060
CDR USACE	DAEN-CWO-E (5)	Pulaski Bldg, WASH DC 20314
CDR USAAVC	MOAV-MO (5)	Rm 5A462, Pentagon,
		WASH DC 20310
CDR MDW	ANOPS-OP (5)	Bldg 46, Ft McNair,
		WASH DC 20319
CDR USARJ	AJGC-OT (5)	APO San Francisco 96343
CDR USAFAC	FINCA-I (5)	Bldg #1, Ft Benjamin Harrison,
		IN 46249
CDR USALEA	DALO-LEP (5)	New Cumberland Army Depot,
		New Cumberland, PA 17070
CDR MEPCOM	MEACRM-FM (5)	Ft Sheridan, IL 60037

UNIT

CDR USATHIRD	AFRD-DT (5)	Ft McPherson, GA 30330
AND 1007	AFRD-DTO (5)	
		Ft Clayton, PN, APO Miami 34004
CDR I CORPS	G3 (5)	Ft Lewis, WA 98433
CDR III CORPS	G3 (S)	Ft Hood, TX 76544
CDR V CORPS CDR VII CORPS CDR XVIII ABN CORPS CDR 1ST ARM DIV	G3 (5)	APO New York 09079
CDR VII CORPS	G3 (5)	APO New York 09107
CDR XVIII ABN CORPS	AFZA-DPT-EX (5)	Ft Bragg, NC 28307
CDR 1ST ARM DIV	G3 (5)	APO New York 09326
CDR 2D ARM DIV	G3 (5)	Ft Hood, TX 76544
CDR 3D ARM DIV	G3 (5)	APO New York 09039
CDR 1ST INF DIV	G3 (5)	Ft Riley, KS 66442
CDR 2D INF DIV	G3 (5)	APO San Francisco 96224
CDR 3D INF DIV	G3 (5)	APO New York 09036
CDR 4TH INF DIV	G3 (5)	Ft Carson, CO 80913
CDR 5TH INF DIV	G3 (5)	Ft Polk, LA 71459
CDR 7TH INF DIV	G3 (5)	Ft Ord, CA 93941
CDR 8TH INF DIV	G3 (5)	APO New York 09111
CDR 9TH INF DIV	G3 (5)	Ft Lewis, WA 98433
CDR 24TH INF DIV	G3 (5)	Ft Stewart, GA 31313
CDR 25TH INF DIV	G3 (5)	Schofield Barracks, HI 96857
CDR 1ST AIR CAV DIV	G3 (5)	Ft Hood, TX 76544
		The Denset NO 00007
CDR 82D ABN DIV	G3 (5)	NT KT900, NU /A3U/
	G3 (5) G3 (5)	Ft Bragg, NC 28307 APO New York 09326 Ft Hood, TX 76544 APO New York 09039 Ft Riley, KS 66442 APO San Francisco 96224 APO New York 09036 Ft Carson, CO 80913 Ft Polk, LA 71459 Ft Ord, CA 93941 APO New York 09111 Ft Lewis, WA 98433 Ft Stewart, GA 31313 Schofield Barracks, HI 96857 Ft Hood, TX 76544 Ft Bragg, NC 28307 Ft Campbell, KY 42223
CENTERS AND SCHOOLS		
CENTERS AND SCHOOLS CMDT USAWC	AWCM (10)	Carlisle Barracks, PA 17013
CENTERS AND SCHOOLS CMDT USAWC	AWCM (10) Atzl-SWU-E (100)	Carlisle Barracks, PA 17013
CENTERS AND SCHOOLS CMDT USAWC CDR USACAC	AWCM (10) Atzl-swu-e (100) Atzl-cad-ac (50)	Carlisle Barracks, PA 17013 Ft Leavenworth, KS 66027
CENTERS AND SCHOOLS CMDT USAWC CDR USACAC CDR USALOGC	AWCM (10) Atzl-SWU-E (100) Atzl-Cad-AC (50) Atzl-LPE (25)	Carlisle Barracks, PA 17013 Ft Leavenworth, KS 66027 Ft Lee, VA 23801
CENTERS AND SCHOOLS CMDT USAWC CDR USACAC CDR USALOGC CDR USALOGC CDR USASSC	AWCM (10) Atzl-SWU-E (100) Atzl-Cad-AC (50) Atzl-LPE (25) Atzl-DCD-CD (25)	Carlisle Barracks, PA 17013 Ft Leavenworth, KS 66027 Ft Lee, VA 23801 Ft Benjamin Harrison, IN 46249
CENTERS AND SCHOOLS CMDT USAWC CDR USACAC CDR USALOGC CDR USASSC CMDT USAENS CMDT USAENS	AWCM (10) ATZL-SWU-E (100) ATZL-CAD-AC (50) ATZL-LPE (25) ATZI-DCD-CD (25) ATZA-DTL (25) ATSH-B-TD (25)	Carlisle Barracks, PA 17013 Ft Leavenworth, KS 66027 Ft Lee, VA 23801 Ft Benjamin Harrison, IN 46249 Ft Belvoir, VA 22060 Ft Benning GA 31905
CENTERS AND SCHOOLS CMDT USAWC CDR USACAC CDR USALOGC CDR USASSC CMDT USAENS CMDT USAENS	AWCM (10) ATZL-SWU-E (100) ATZL-CAD-AC (50) ATZL-LPE (25) ATZI-DCD-CD (25) ATZA-DTL (25) ATSH-B-TD (25)	Carlisle Barracks, PA 17013 Ft Leavenworth, KS 66027 Ft Lee, VA 23801 Ft Benjamin Harrison, IN 46249 Ft Belvoir, VA 22060 Ft Benning GA 31905
CENTERS AND SCHOOLS CMDT USAWC CDR USACAC CDR USALOGC CDR USASSC CMDT USAENS CMDT USAENS	AWCM (10) ATZL-SWU-E (100) ATZL-CAD-AC (50) ATZL-LPE (25) ATZI-DCD-CD (25) ATZA-DTL (25) ATSH-B-TD (25)	Carlisle Barracks, PA 17013 Ft Leavenworth, KS 66027 Ft Lee, VA 23801 Ft Benjamin Harrison, IN 46249 Ft Belvoir, VA 22060 Ft Benning GA 31905
CENTERS AND SCHOOLS CMDT USAWC CDR USACAC CDR USALOGC CDR USASSC CMDT USAENS CMDT USAENS	AWCM (10) ATZL-SWU-E (100) ATZL-CAD-AC (50) ATZL-LPE (25) ATZI-DCD-CD (25) ATZA-DTL (25) ATSH-B-TD (25)	Carlisle Barracks, PA 17013 Ft Leavenworth, KS 66027 Ft Lee, VA 23801 Ft Benjamin Harrison, IN 46249 Ft Belvoir, VA 22060 Ft Benning GA 31905
CENTERS AND SCHOOLS CMDT USAWC CDR USACAC CDR USALOGC CDR USASSC CMDT USAENS CMDT USAENS	AWCM (10) ATZL-SWU-E (100) ATZL-CAD-AC (50) ATZL-LPE (25) ATZI-DCD-CD (25) ATZA-DTL (25) ATSH-B-TD (25)	Carlisle Barracks, PA 17013 Ft Leavenworth, KS 66027 Ft Lee, VA 23801 Ft Benjamin Harrison, IN 46249 Ft Belvoir, VA 22060 Ft Benning GA 31905
CENTERS AND SCHOOLS CMDT USAWC CDR USACAC CDR USALOGC CDR USASSC CMDT USAENS CMDT USAIS CMDT USAADS CMDT USATRANS CMDT USASIGS CMDT USAARMS	AWCM (10) ATZL-SWU-E (100) ATZL-CAD-AC (50) ATZL-LPE (25) ATZI-DCD-CD (25) ATZA-DTL (25) ATSH-B-TD (25) ATZC-P-O-TA (25) ATSP-DT-DL (25) ATZH-DTO (25) ATZK-CSD-D (25)	Carlisle Barracks, PA 17013 Ft Leavenworth, KS 66027 Ft Lee, VA 23801 Ft Benjamin Harrison, IN 46249 Ft Belvoir, VA 22060 Ft Benning, GA 31905 Ft Bliss, TX 79916 Ft Eustis, VA 23604 Ft Gordon, GA 30905 Ft Knox, KY 40121
CENTERS AND SCHOOLS CMDT USAWC CDR USACAC CDR USALOGC CDR USASSC CMDT USAENS CMDT USAIS CMDT USAIS CMDT USATRANS CMDT USASIGS CMDT USAARMS CMDT USAQMS	AWCM (10) ATZL-SWU-E (100) ATZL-CAD-AC (50) ATZL-LPE (25) ATZI-DCD-CD (25) ATZA-DTL (25) ATSH-B-TD (25) ATZC-P-O-TA (25) ATSP-DT-DL (25) ATZH-DTO (25) ATZK-CSD-D (25)	Carlisle Barracks, PA 17013 Ft Leavenworth, KS 66027 Ft Lee, VA 23801 Ft Benjamin Harrison, IN 46249 Ft Belvoir, VA 22060 Ft Benning, GA 31905 Ft Bliss, TX 79916 Ft Eustis, VA 23604 Ft Gordon, GA 30905 Ft Knox, KY 40121 Ft Lee, VA 23801
CENTERS AND SCHOOLS CMDT USAWC CDR USACAC CDR USALOGC CDR USASSC CMDT USAENS CMDT USAIS CMDT USAADS CMDT USAATRANS CMDT USAARMS CMDT USAARMS CMDT USAARMS CMDT USAAMS CMDT USAMPS	AWCM (10) ATZL-SWU-E (100) ATZL-CAD-AC (50) ATZL-LPE (25) ATZI-DCD-CD (25) ATZA-DTL (25) ATSH-B-TD (25) ATSC-P-O-TA (25) ATSP-DT-DL (25) ATZH-DTO (25) ATZK-CSD-D (25) ATSM-TD (25) ATSM-MP-C (25)	Carlisle Barracks, PA 17013 Ft Leavenworth, KS 66027 Ft Lee, VA 23801 Ft Benjamin Harrison, IN 46249 Ft Belvoir, VA 22060 Ft Benning, GA 31905 Ft Bliss, TX 79916 Ft Eustis, VA 23604 Ft Gordon, GA 30905 Ft Knox, KY 40121 Ft Lee, VA 23801 Ft McCLellan, AL 36205
CENTERS AND SCHOOLS CMDT USAWC CDR USACAC CDR USALOGC CDR USASSC CMDT USAENS CMDT USAENS CMDT USAADS CMDT USAATRANS CMDT USAARMS CMDT USAARMS CMDT USAAMS CMDT USAAMS CMDT USAAMS CMDT USAAMS CMDT USAAMS	AWCM (10) ATZL-SWU-E (100) ATZL-CAD-AC (50) ATZL-LPE (25) ATZI-DCD-CD (25) ATZA-DTL (25) ATSH-B-TD (25) ATZC-P-O-TA (25) ATZH-DTO (25) ATZH-DTO (25) ATZK-CSD-D (25) ATSM-TD (25) ATSM-MP-C (25) ATZQ-CS-O (25)	Carlisle Barracks, PA 17013 Ft Leavenworth, KS 66027 Ft Lee, VA 23801 Ft Benjamin Harrison, IN 46249 Ft Belvoir, VA 22060 Ft Benning, GA 31905 Ft Bliss, TX 79916 Ft Eustis, VA 23604 Ft Gordon, GA 30905 Ft Knox, KY 40121 Ft Lee, VA 23801 Ft McCLellan, AL 36205 Ft Rucker, AL 36362
CENTERS AND SCHOOLS CMDT USAWC CDR USACAC CDR USALOGC CDR USASSC CMDT USAENS CMDT USAIS CMDT USAADS CMDT USATRANS CMDT USATRANS CMDT USAARMS CMDT USAARMS CMDT USAMPS CMDT USAAVNS CMDT USAFAS	AWCM (10) ATZL-SWU-E (100) ATZL-CAD-AC (50) ATZL-LPE (25) ATZI-DCD-CD (25) ATZA-DTL (25) ATZA-DTL (25) ATZC-P-O-TA (25) ATZP-DT-DL (25) ATZK-CSD-D (25) ATZK-CSD-D (25) ATSM-MP-C (25) ATSM-MP-C (25) ATSF-T-D (25)	Carlisle Barracks, PA 17013 Ft Leavenworth, KS 66027 Ft Lee, VA 23801 Ft Benjamin Harrison, IN 46249 Ft Belvoir, VA 22060 Ft Benning, GA 31905 Ft Bliss, TX 79916 Ft Eustis, VA 23604 Ft Gordon, GA 30905 Ft Knox, KY 40121 Ft Lee, VA 23801 Ft McCLellan, AL 36205 Ft Rucker, AL 36362 Ft Sill, OK 73508
CENTERS AND SCHOOLS CMDT USAWC CDR USACAC CDR USALOGC CDR USASSC CMDT USAENS CMDT USAENS CMDT USAADS CMDT USAATRANS CMDT USAARMS CMDT USAARMS CMDT USAARMS CMDT USAARS CMDT USAARS CMDT USAARS CMDT USAARS CMDT USAANS CMDT USAANS CMDT USAAANS CMDT USAAANS CMDT USAFAS CMDT USACMLS	AWCM (10) ATZL-SWU-E (100) ATZL-CAD-AC (50) ATZL-LPE (25) ATZI-DCD-CD (25) ATZA-DTL (25) ATSH-B-TD (25) ATSC-P-O-TA (25) ATSP-DT-DL (25) ATZK-CSD-D (25) ATSM-TD (25) ATSM-MP-C (25) ATSM-MP-C (25) ATSF-T-D (25) ATSF-T-D (25)	Carlisle Barracks, PA 17013 Ft Lee, VA 23801 Ft Benjamin Harrison, IN 46249 Ft Belvoir, VA 22060 Ft Benning, GA 31905 Ft Bliss, TX 79916 Ft Eustis, VA 23604 Ft Gordon, GA 30905 Ft Knox, KY 40121 Ft Lee, VA 23801 Ft McCLellan, AL 36205 Ft Sill, OK 73508 Ft McClellan, AL 36205
CENTERS AND SCHOOLS CMDT USAWC CDR USACAC CDR USALOGC CDR USASSC CMDT USAENS CMDT USAIS CMDT USAADS CMDT USAARMS CMDT USAARMS CMDT USAARMS CMDT USAARMS CMDT USAARS CMDT USAARS	AWCM (10) ATZL-SWU-E (100) ATZL-CAD-AC (50) ATZL-LPE (25) ATZI-DCD-CD (25) ATZA-DTL (25) ATSH-B-TD (25) ATSC-P-O-TA (25) ATSP-DT-DL (25) ATZK-CSD-D (25) ATZK-CSD-D (25) ATSM-TD (25) ATSM-MP-C (25) ATSF-T-D (25) ATSF-T-D (25) ATSN-CM-A (25) ATSU-CDD-CSD (25)	Carlisle Barracks, PA 17013 Ft Leavenworth, KS 66027 Ft Lee, VA 23801 Ft Benjamin Harrison, IN 46249 Ft Belvoir, VA 22060 Ft Benning, GA 31905 Ft Bliss, TX 79916 Ft Eustis, VA 23604 Ft Gordon, GA 30905 Ft Knox, KY 40121 Ft Lee, VA 23801 Ft McCLellan, AL 36205 Ft Rucker, AL 36362 Ft Sill, OK 73508 Ft McClellan, AL 36205 Ft Bragg, NC 28307
CENTERS AND SCHOOLS CMDT USAWC CDR USACAC CDR USALOGC CDR USASSC CMDT USAENS CMDT USAENS CMDT USAADS CMDT USAATRANS CMDT USAARMS CMDT USAARMS CMDT USAARMS CMDT USAARS CMDT USAARS CMDT USAARS CMDT USAARS CMDT USAARS CMDT USAARS CMDT USAARS CMDT USAFAS CMDT USAFAS CMDT USAINA CMDT USAINA	AWCM (10) ATZL-SWU-E (100) ATZL-CAD-AC (50) ATZL-LPE (25) ATZI-DCD-CD (25) ATZA-DTL (25) ATSH-B-TD (25) ATSC-P-O-TA (25) ATSP-DT-DL (25) ATZK-CSD-D (25) ATZK-CSD-D (25) ATSM-TD (25) ATSM-TD (25) ATSF-T-D (25) ATSF-T-D (25) ATSN-CM-A (25) ATSU-CDD-CSD (25)	Carlisle Barracks, PA 17013 Ft Leavenworth, KS 66027 Ft Lee, VA 23801 Ft Benjamin Harrison, IN 46249 Ft Belvoir, VA 22060 Ft Benning, GA 31905 Ft Bliss, TX 79916 Ft Eustis, VA 23604 Ft Gordon, GA 30905 Ft Knox, KY 40121 Ft Lee, VA 23801 Ft McCLellan, AL 36205 Ft Rucker, AL 36362 Ft Sill, OK 73508 Ft McClellan, AL 36205 Ft Bragg, NC 28307 Ft Huachuca, AZ 85613
CENTERS AND SCHOOLS CMDT USAWC CDR USACAC CDR USALOGC CDR USASSC CMDT USAENS CMDT USAENS CMDT USAADS CMDT USAADS CMDT USATRANS CMDT USASIGS CMDT USAARMS CMDT USAARMS CMDT USAAMPS CMDT USAAVNS CMDT USAAVNS CMDT USAAVNS CMDT USAAKS CMDT USAAKS CMDT USAAMS CMDT USAAMS CMDT USAAMS CMDT USAAMS CMDT USAAMS CMDT USAAMS	AWCM (10) ATZL-SWU-E (100) ATZL-CAD-AC (50) ATZL-LPE (25) ATZI-DCD-CD (25) ATZA-DTL (25) ATSH-B-TD (25) ATSC-P-O-TA (25) ATSP-DT-DL (25) ATZK-CSD-D (25) ATSM-TD (25) ATSM-TD (25) ATSM-TD (25) ATSF-T-D (25) ATSF-T-D (25) ATSU-CDD-CSD (25) ATSI-TP-AD (25) ATSI-TP-AD (25)	Carlisle Barracks, PA 17013 Ft Leavenworth, KS 66027 Ft Lee, VA 23801 Ft Benjamin Harrison, IN 46249 Ft Belvoir, VA 22060 Ft Benning, GA 31905 Ft Bliss, TX 79916 Ft Eustis, VA 23604 Ft Gordon, GA 30905 Ft Knox, KY 40121 Ft Lee, VA 23801 Ft McCLellan, AL 36205 Ft Rucker, AL 36362 Ft Sill, OK 73508 Ft McClellan, AL 36205 Ft Bragg, NC 28307 Ft Huachuca, AZ 85613 Ft Devens, MA 01433
CENTERS AND SCHOOLS CMDT USAWC CDR USACAC CDR USALOGC CDR USASSC CMDT USAENS CMDT USAIS CMDT USAADS CMDT USATRANS CMDT USATRANS CMDT USAARMS CMDT USAAMS CMDT USAAMS CMDT USAMPS CMDT USAAVNS CMDT USAFAS	AWCM (10) ATZL-SWU-E (100) ATZL-CAD-AC (50) ATZL-LPE (25) ATZI-DCD-CD (25) ATZA-DTL (25) ATSH-B-TD (25) ATSC-P-O-TA (25) ATSP-DT-DL (25) ATZK-CSD-D (25) ATZK-CSD-D (25) ATSM-TD (25) ATSM-TD (25) ATSF-T-D (25) ATSF-T-D (25) ATSN-CM-A (25) ATSU-CDD-CSD (25)	Carlisle Barracks, PA 17013 Ft Leavenworth, KS 66027 Ft Lee, VA 23801 Ft Benjamin Harrison, IN 46249 Ft Belvoir, VA 22060 Ft Benning, GA 31905 Ft Bliss, TX 79916 Ft Eustis, VA 23604 Ft Gordon, GA 30905 Ft Knox, KY 40121 Ft Lee, VA 23801 Ft McCLellan, AL 36205 Ft Rucker, AL 36362 Ft Sill, OK 73508 Ft McClellan, AL 36205 Ft Bragg, NC 28307 Ft Huachuca, AZ 85613
CENTERS AND SCHOOLS CMDT USAWC CDR USACAC CDR USALOGC CDR USASSC CMDT USASSC CMDT USAENS CMDT USAADS CMDT USAADS CMDT USATRANS CMDT USAARMS CMDT USAARMS CMDT USAARMS CMDT USAARS CMDT USAARS CMDT USAARS CMDT USAARS CMDT USAARS CMDT USAARS CMDT USACMLS CMDT USAIMA CMDT USAISD	AWCM (10) ATZL-SWU-E (100) ATZL-CAD-AC (50) ATZL-LPE (25) ATZI-DCD-CD (25) ATZA-DTL (25) ATSH-B-TD (25) ATSC-P-O-TA (25) ATSP-DT-DL (25) ATZK-CSD-D (25) ATSM-TD (25) ATSM-TD (25) ATSM-TD (25) ATSF-T-D (25) ATSF-T-D (25) ATSU-CDD-CSD (25) ATSI-TP-AD (25) ATSI-TP-AD (25)	Carlisle Barracks, PA 17013 Ft Leavenworth, KS 66027 Ft Lee, VA 23801 Ft Benjamin Harrison, IN 46249 Ft Belvoir, VA 22060 Ft Benning, GA 31905 Ft Bliss, TX 79916 Ft Eustis, VA 23604 Ft Gordon, GA 30905 Ft Knox, KY 40121 Ft Lee, VA 23801 Ft McCLellan, AL 36205 Ft Rucker, AL 36362 Ft Sill, OK 73508 Ft McClellan, AL 36205 Ft Bragg, NC 28307 Ft Huachuca, AZ 85613 Ft Devens, MA 01433 Aberdeen Prooving Grounds,

83-CAORA-4738-1000-15 Aug 83