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REVIEW OF LOGEX. MAI.. REPORT AND APPENDIXES A-I

Army Logistics Center

Prepared for:

Army Training and Doctrine Command

May 1975

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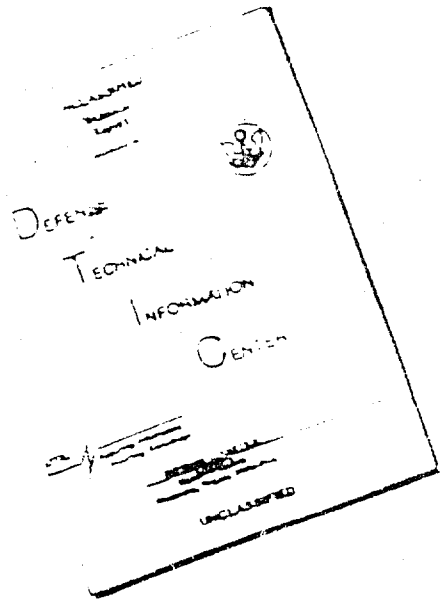

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REVIEW OF LOGEX

FINAL REPORT

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MAIN REPORT AND APPENDIXES A-I

DEPARTMENT OF THE ARMY

HEADQUARTERS UNITED STATES ARMY TRAINING AND DOCTRINE COMMAND

FORT MONROE, VIRGINIA 23651

UNITED STATES ARMY LOGISTICS CENTER

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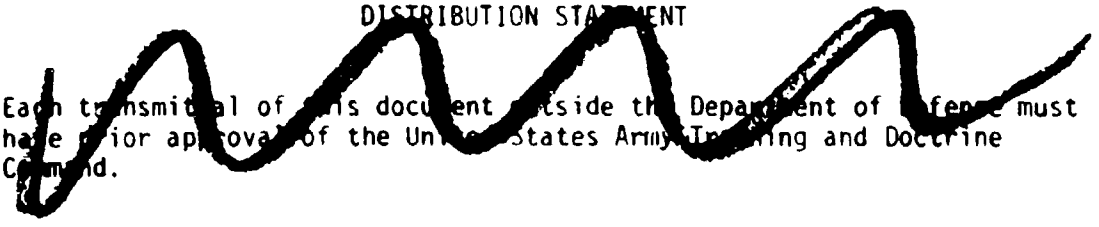

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The findings in this report are not to be construed as an official Department of the Army position, unless so designated by other authorized documents.

ACKNOWLEDGMENT

This study was initiated and sponsored by DCSLOG, HQDA, and performed by the U.S. Army Logistics Center (LOGC) at Fort Lee, Virginia.

This report has been approved by the Commander, LOGC, and the Commander, U.S. Army Training and Doctrine Command.

The conclusions and recommendations of this study are those of the Commander, LOGC. They are based on data gathered and analyzed by a LOGC Study Team.

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FOREWORD

Within the confines of the tasking directive from Department of the Army, this study has addressed the effectiveness of, alternatives to, and potential resource savings in a family of CPX known as LOGEX. The conclusions and recommendations of the study are sound and workable. Review of the draft version of the study by the major headquarters involved revealed reservations in the following areas:

THE CONDUCT OF THE NATIONAL EXERCISE BY ELEMENTS OF THE UNITED STATES ARMY FORCES COMMAND (FORSCOM). The discussion on this issue revolves around whether any resource savings or increased efficiency would result from such a transfer of responsibility or, if in fact it would be just a transfer of resource requirements from one command to another with loss of continuity and experience as a potential result.

PREPARE PORTIONS OF THE NATIONAL EXERCISE MATERIALS FOR USE IN REGIONAL AND MUTA-LOG EXERCISES. This point may arise from a misunderstanding of what is meant by "prepare" a Regional. The intent of the study is that the preparation consists of extracting portions of the National Exercise Materials which apply to the type units in the force structure to be played in the Regional. No development as such is involved.

These reservations were received when the study was in final print and this means is being utilized to address these issues. The following modifications to the study recommendations are made to resolve the reservations noted above.

a. That Commander, TRADOC, be designated as the Exercise Director and that TRADOC continue to conduct the National Exercise (modifies recommendation m, page 8-2).

b. That the LOGC extract packets from the National Exercise Materials to be used in conduct of Regionals and LOCALS and furnish these with technical guidance to RC units designated by FORSCOM to conduct these exercises. The same procedure will be followed for provision of exercise materials to be used in MUTA-LOG as the concept is developed (modifies recommendation g, page 8-1).

These recommendations will have impact upon the potential savings identified in the study and implementation of the study recommendations. This must be kept in mind by the reader as he reviews the study results.

Erwin M. Graham Jr.

ERWIN M. GRAHAM, JR.
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(U) ABSTRACT

The objective of the study was to examine the effectiveness of, alternatives to, and potential resource savings in the current logistical exercises prepared and conducted by the Logistics Exercise Directorate of the US Army Logistics Center, Fort Lee, Virginia. The study recommends a training plan for the CPX training of Reserve Component combat support and combat service support units of Group size and larger and further recommends that a new exercise be prepared every third year as opposed to the current annual preparation. The study concludes that there are potential resource savings associated with the preparation and conduct of logistics exercises which can be realized by varying the frequency of exercise preparation, restricting participation and reducing transportation costs through the increased use of Regional exercises. Other recommendations on assignment of responsibilities for preparation and conduct of the various forms of CS and CSS exercises to DA, TRADOC, and FORSCOM are included in the study.

SUMMARY

A study/review of LOGEX was directed by the Deputy Chief of Staff for Logistics, Department of the Army in late 1974. The US Army Logistics Center (LOGC) performed the study as study agency for the US Army Training and Doctrine Command (TRADOC). The review of LOGEX in its current configuration examined the effectiveness, alternatives and potential resource savings which could be applied to the 16 division force.

LOGEX has existed as a command post exercise since the early days of World War II. It started at the US Army Quartermaster School, expanded to include other schools, and in recent years has involved two exercises, LOGEX for service school advanced course students and LOGEX RC for Reserve Component (RC) units. They are now "JCS scheduled and directed" major command post exercises, each of two weeks duration, and have grown to the point that during the two exercises conducted in Calendar Year 1974, a total of approximately 5,600 individuals participated representing 70 RC units and 14 service schools as well as representatives from the Air Force, Navy and Marine Corps. Of the 70 RC units participating in 1974, 66% were Combat Support (CS) type units and 34% were Combat Service Support (CSS) units.

An in-depth study of the need for continuation of the exercise reveals strong support among RC units but a lack of support from active Army schools.

With few exceptions, a new exercise has been written each year by a full-time active Army staff assigned this mission. Currently functioning as the LOGEX Division, Logistics Exercise Directorate, United States Army Logistics Center, Fort Lee, Virginia, this group also has responsibility for conduct of the national exercise and the preparation of materials drawn from the national exercise into local packets for use by RC units at home stations. Basic objectives of the exercise continue to be sound: The provision of command and staff training to exercise participants. The Study Group recommends that "participants" be further defined as command and key staff elements of major Combat Support and Combat Service Support units in the Reserve Components. Major units are considered by the Study Group to include units of Group size and larger as well as certain unique organizations necessary to make the overall CS and CSS system function, such as Inventory Control Centers, Materiel Management Centers and Movement Control Centers.

The exercise also offers the opportunity to train certain battalion size units, such as Personnel and Administration Battalions, in command and staff activities. However, neither the scope of the exercise nor its frequency of play should be written with any attempt to cover the battalion level training audience. Other adequate means

of providing command and staff training exist for battalion and lower size units, such as Army Training Tests (ATT), Army Subject Schedules (ASUBSCHD) and the recently adopted Army Training and Evaluation Program (ARTEP).

While traditionally held at Fort Pickett, Virginia, due to its proximity to Fort Lee, there is no valid reason why LOGEX type exercises cannot be held throughout CONUS, resulting in a substantial savings in travel and TDY costs.

Automatic Data Processing (ADP) support for the exercise in recent years has been adequate. It is desirable that such ADP support continue since it provides Reserve Component personnel with their only opportunity to be exposed to the products of standard systems. However, the ADP exercise support software package is currently configured to run on RCA Spectra 70 hardware, a constraining factor in multiple use of the software since this type of hardware is not readily available. Conversion of this ADP support package to commonly available ADP hardware would permit universal ADP support of this exercise throughout CONUS.

A careful review of the present LOGEX Division organization reveals the present staff is at a minimum for adequate exercise preparation and the equivalent number of man-years should continue to be dedicated to the preparation of the exercise package. The preparation of a new exercise should be phased from an annual basis to a tri-annual basis. Conduct of the national exercise should be assigned to FORSCOM starting with the 1977 exercise.

The Study Group recommends the formalization of CPX training in a four-year cycle, the designation of a Training Manager, increased participation by Reserve Component units in the conduct of the exercise, increased emphasis on Regional, MUTA-LOG and Local exercises (Regionals and MUTA-LOGs are concepts at this time), and the conversion of the ADP package to fit commonly available hardware.

The recommended assignment of responsibilities is as follows:

Joint Chiefs of Staff: Schedule and direct the national exercise.

Department of the Army:

1. Designate and charter a Training Manager to direct the resource allocation for and planning and coordination of the CS and CSS exercise outlined in the training plan.

2. Provide a charter for the preparation of each new exercise which outlines the exercise parameters.

FORSCOM:

1. Designate elements to conduct Regionals and MUTA-LOGs commencing immediately.

2. Conduct the national exercise (less technical assistance) starting in FY 1977.

3. Provide to the exercise preparing activity (LOGEX Directorate) direction concerning the force structure to be played and the active and Reserve Component units to be trained in the national exercise with an 18-month lead time.

TRADOC:

1. Prepare an exercise package of materials to support a national exercise which can be adapted to provide materials for lower exercises.

2. Provide technical assistance to all exercises through the end of FY 1976.

3. Provide technical assistance for the national exercise on a continuing basis.

4. Conduct a further study on provision of LOGEX type training to service school advanced course students. The study should identify resource requirements for the training if such training is determined to be necessary.

5. Conduct a yearly review of the implementation of the study recommendations to insure that the resource estimates for LOGC personnel are valid.

Adoption of these recommendations will result in a more efficient exercise preparation activity. It will provide continuity throughout the training cycle for Reserve Components. It will permit the savings of certain resources involved in TDY and travel. It will also result in modest reductions in active Army personnel assigned to the preparation function. The only immediate space savings available would represent those achieved by a freezing of personnel strengths at the present level of fill. Care must be taken to maintain the assigned personnel strength of the LOGEX Division at the present level through the preparation period for the 1976 exercise.

All other potential savings are predicated on assumptions of responsibilities by FORSCOM elements and extending the exercise preparation cycle. Any assignment of missions to the LOGEX Division not allowed for in the training plan will require resources in addition to those identified. Detailed information on potential savings is contained in Appendix H.

To more accurately reflect the composition of participants in what have been known as LOGEX exercises, a new name is suggested for future exercises -- "SUSSEX" (Support and Service Support Exercise). Thus, the national exercise would be known as SUSSEX National, the Regional as SUSSEX Regional, and so forth. Other descriptive acronyms are possible, but whatever title is ultimately selected should be representative of exercise participants.

CHAPTER 1

GENERAL

1-1. INTRODUCTION.

a. Problem. Identify resources which can be applied against a 16 division active Army.

b. Background. LOGEX, in its various forms, has existed as an exercise since WWII. Over the years it has come to include Combat Support (CS) and Combat Service Support (CSS) type units from the Reserve Components as well as Advanced Course students from CS and CSS branch schools. A review of LOGEX in its current configuration was conducted, to determine effectiveness, alternatives and resource savings.

c. Tasking. The review was directed by the Office of the Deputy Chief of Staff for Logistics (ODCSLOG), Department of the Army (DA), which as proponent agency, tasked Headquarters, US Army Training and Doctrine Command (HQ, TRADOC), to conduct the study/review. TRADOC in turn tasked the US Army Logistics Center (LOGC) to act as study agency and perform the review.

1-2. ASSUMPTIONS.

a. The tasking directive states as its sole assumption "that the capability exists to provide required training by alternative means." Examination of this assumption led to the following conclusion: That since the tasking directive is aimed at a review of LOGEX, the required training referred to is the Command Post Exercise (CPX) command and staff training provided by LOGEX to its audience. Further analysis shows that while this type training is available through other means, i.e., Field Training Exercises (FTX), officer advanced courses, etc., it is not available to the primary audience served by LOGEX, namely, the Reserve Components. Therefore, the assumption is invalid.

b. Additional assumptions were considered desirable by the study group. They are:

(1) Some form of CPX is necessary to support training of CS and CSS command and control units in the Reserve Components. By approving the continuance of the LOGEX exercises on a yearly basis, TRADOC and the US Army Forces Command (FORSCOM) have subscribed to this necessity.

(2) FORSCOM has the capability of performing some portion of the LOGEX role (exercise preparation and conduct) and this capability will increase with time.

(3) By varying the frequency with which new exercises are written and conducted, resource savings will be realized.

c. These four assumptions provided a basis from which the study group could proceed.

CHAPTER 2

NEED FOR EXERCISE

2-1. SURVEY.

a. The first step in approaching the problem was to determine whether there was a real need for the exercise. If no need was found and the total exercise activity could be eliminated, the resource savings would be major in nature. Therefore, the first step for the Study Group involved a "survey." All active Army schools which had previously sent advanced course students to the exercise were contacted as discussed in more detail in Section III, Appendix I, Discussion and Analysis. Additionally, a sample of 47 Reserve Component units of all sizes, types and geographic locations was undertaken (see Table 1). This sample included units which had participated in either LOGEX or LOGEX RC in 1974; which had participated in the Regional held in that same year; or which had received LOGEX Local packages as directed by FORSCOM.

b. A consensus of the schools surveyed indicated that the required training could better be provided as a normal part of the Programs of Instruction at the respective schools. This position constitutes a major change from previous years and is undoubtedly the result of two factors: Reduction in length of the advanced courses from 36 weeks to 26 weeks and the increased emphasis on training of advanced course students to be company commanders and battalion staff officers upon leaving the course.

c. On the other hand, input from the Reserve Components indicated a clear need for the exercise. While constructive comments were submitted relating to potential improvements in the exercise content and conduct, the Reserve Component units were unanimous in their statement of need for the exercise. Many units included words to the effect, "This is the only means available to train command and staff elements of our unit."

d. In addition, the Study Group contacted the US Air Force, US Marine Corps and the Military Sealift Command, all of which participated with modest representation in the LOGEX exercises during 1974. The Air Force indicated little training benefit for its personnel and regarded its participation in the exercise more as a service to the Army than as a training medium. The Air Force pointed out, however, that there was training benefit in the ability to expose its personnel to joint service activity, terms, and Army doctrine.

e. The Marine Corps reported the exercise as a "valuable training vehicle," particularly for its reserve personnel. The Marine Corps Doctrine and Education Center is currently investigating the possibility of increased participation in future National LOGEXs, especially from members of its senior course.

TACLE 1

Reserve Component Units Contacted
for Training Value Input

	No. Units
ARCOMs	10
State Adjutant Generals	9
Theater Army Area Command (TAACOM)	1
Support Brigades	2
Support Groups	4
Transportation Groups	2
Transportation Brigades	2
Signal Group	1
Engineer Groups	2
Engineer Command	1
Personnel & Administration Battalion	1
Medical Battalion	1
Supply and Service Battalion	1
Quartermaster Battalion	1
Hospital Center	1
Petroleum Battalion	1
Ordnance Battalion (Ammo)	1
Inventory Control Center	1
Psychological Operations Company	1
Support Centers (RAO)	2
Stock Control Company	1
Data Processing Unit (DPU)	1
TOTAL	47

f. The Military Sealift Command was the most enthusiastic of the other services and held the LOGEX exercise in high regard as a training medium for its reserve personnel. In fact, Military Sealift Command has recommended additional participation from other segments of the Navy to the Chief, Naval Operations, and it is anticipated that Naval observers will be present at LOGEX 75 to evaluate the training benefits.

2-2. SUMMARY.

a. The Study Group finds that the primary training audience for the exercises has changed completely within the Army from the original concept of preparing an exercise for advanced course students and following it shortly thereafter with an exercise for Reserve Component units. The primary target would now appear to be 180 CS and CSS Reserve Component units of Group size and larger. This is an important finding impacting directly on both the location and the timing of the exercise. Traditionally, the exercise has been held on the eastern seaboard due to the proximity of the logistics schools and it has been timed for early summer to fit the schedules of training at these schools. By recognizing the shift in the training audience for the exercise, future exercise planners can be relieved of two constraints, timing and geography.

b. The current exercise objectives are sound, but need refinement to define "participants" as key command and staff elements of CS and CSS units.

c. The Study Group recommends that the exercise continue, that future plans recognize the shift of audience emphasis and that the geographical location of the exercise be further studied.

CHAPTER 3

ALTERNATE MEANS TO PROVIDE TRAINING

3-1. ALTERNATIVES. The next logical step in such an investigation involves a determination of whether there is an alternative means which might provide the required training. Clearly there are alternate means of providing training to military units and individuals. The Study Group looked at many of these alternatives in some detail, to include: (a) preparation of basic "how-to" field manuals and other publications, (b) sending appropriate Reserve Component unit commanders and staff to service schools, and (c) affiliation programs with active Army units. Each of these was discarded in favor of the CPX as the most appropriate training medium. It is difficult if not impossible to write a "how-to" manual which describes and exercises command and staff activities and procedures. The human element and the interface between functioning units represent the most critical aspects of this type of training and it is difficult to articulate these into written words. The potential of sending RC commanders and their staffs to service schools was discarded due to the difficulty of the citizen soldier adjusting his business and personal life to conform to service school schedules and course lengths.

3-2. AFFILIATION PROGRAM. The affiliation program would clearly be the most advantageous means of providing such training, however the number of CS and CSS units in the active Army is being reduced to the point that implementation of an affiliation program for CS and CSS Reserve Component units is essentially impractical.

3-3. CONCLUSION. The Study Group concluded and the Study Advisory Group (SAG) concurred in its 19 February 1975 meeting, that the command post exercise was the only currently available means of providing the needed command and staff training experience for RC CS and CSS units.

CHAPTER 4

IMPROVEMENT OF PRESENT EXERCISE

4-1. GENERAL. Given the requirement for the present exercises and the lack of suitable alternatives, the next logical question is: "Can we improve the present product?" Implicit in an answer to this question must be attention to the basic task given the Study Group, namely, potential resource savings. The Study Group looked at many versions of the present exercise, discussed the problem with many knowledgeable people both in the active Army and in Reserve Component positions, and generally agrees that there are four potential variations of the basic LOGEX exercise which can be used in providing the needed training: National, Regional, MUTA-LOG and Local. It should be noted that the Regional and MUTA-LOG variations considered by the study are conceptual in nature.

4-2. VARIATIONS.

a. The four variations can be grouped generally into two subcategories. The National and Regional exercises can properly be grouped together since the Study Group feels that with modifications to the present concept of a regional exercise, it could provide a major portion of the training benefits available in the national exercise. On the other hand, the MUTA-LOG and the LOGEX Local cannot be substituted either for the National or the Regional but should be regarded as complementary to them. In essence, the MUTA-LOG and Local might be considered as the "Basic Level Course" and the National and Regional could be considered as the "Advance Level Course" for CPX activity for CS and CSS units.

b. The National exercise provides maximum training benefits but when compared to cost the Regional exercise appears to be the "best buy." The only real difference between the two exercises when the Regional includes ADP would be the ability to achieve interservice training and the realistic but unquantifiable benefits derived from mixing with other officers from CS and CSS units on a nation-wide basis. This led the Study Group to the general conclusions that increased attention should be paid to the Regional, that the basic exercise material should be written in the future to provide the ability to alter it to fit a regional configuration and that the supporting ADP package should be developed to permit its application on commonly available ADP hardware.

c. The LOGEX Local package offers excellent material for the unit commander to exercise his own staff at home station and possibly to exercise his subordinate units. With a minimum of effort the unit commander can convert the LOGEX Local package to suit his own needs thus providing him with a valuable training tool.

d. The MUTA-LOG approach is somewhat more complex than the local and offers an excellent training method to the unit commander with essentially no additional cost. It will involve the staffing of one or more centralized "LOGEX War Rooms" during weekend periods in order to conform to Reserve Component unit training schedules.

e. All forms of the exercise appear equally appropriate for CS and CSS units of the active Army. They would provide valuable reinforcement training for active units.

4-3. ADP SUPPORT PACKAGE.

a. Perhaps the most important improvement suggested for the present exercise material involves the ADP support package. The present national LOGEX ADP support package has traditionally been developed on an RCA Spectra 70 machine located at the Army Logistics Management Center, Fort Lee, Virginia. This was undoubtedly an outstanding step when ADP support for the exercise was first initiated. However, in retrospect, the selection of the RCA Spectra 70 was unfortunate since subsequent events have largely eliminated this machine from the Army inventory.

b. The study group feels ADP support for regional exercises will add much realism to the training although the study group concedes that an adequate regional exercise could be conducted with the use of manual systems.

c. The study group has determined that it is possible to develop an exercise ADP support package which emulates standard systems for future LOGEX exercises on equipment which appears to be commonly available throughout the Army inventory, the federal government inventory and the commercial market. Preparation of the ADP package for such equipment would thus allow ADP support of a LOGEX Regional at almost any location throughout CONUS.

d. The study group recommends that beginning with LOGEX 76 all future LOGEX packages be developed to include an ADP support package to fit commonly available hardware.

4-4. CONVERSION.

a. The Study Group investigated the feasibility of converting LOGEX 74 or LOGEX 75 ADP support packages from RCA Spectra 70 to commonly available hardware. It was ascertained that the resource capability exists at the Logistics Center to make this conversion, that it would require 5-6 months to complete, and that the manpower involved would equate to approximately 8 personnel expending 34 man-months. For details see Annex 1 to Appendix I.

b. The study group recommends the immediate conversion of the LOGEX 75 ADP support package to commonly available hardware. This would permit the conduct of ADP supported regional exercises by late 1975 or early 1976. It would also provide an inventory of two types of regional exercises available in the future: The LOGEX 75 package which could exercise CS and CSS units at Corps level and below and the LOGEX 76 package which would be available to exercise the COMMZ units.

CHAPTER 5

TRAINING PLAN

5-1. GENERAL. Based upon discussions of the four variations of LOGEX contained in chapter 4, with additional detail as provided in the Discussion and Analysis Appendix, a logical training plan begins to evolve. On the assumption that the material for the National exercise can be written in a manner to permit its economic conversion to the variations mentioned, it appears appropriate to offer the LOGEX local package to all CS and CSS Reserve Component units. This represents a change of procedure. In the past, the LOGEX Division requested a distribution list from FORSCOM and this request resulted in a distribution of 225 local packages from the LOGEX 74 material as illustrated in Table 2. The distribution appears to have been somewhat limited in that it did not cover the entire CS and CSS troop list.

a. The units that received the local package praised it, stated that it was a valuable training tool and assisted them in preparing for attendance at the National exercise.

b. The Study Group suggests that the only additional cost to a nationwide distribution of LOGEX local materials would be in paper and printing costs, and that a larger number of copies of this material should automatically be printed each year and a substantial inventory of these materials be maintained.

5-2. PYRAMIDAL TRAINING.

a. A unit would be in a better position to play the MUTA-LOG after it has completed play of the appropriate LOGEX Local package.

b. The MUTA-LOG would involve an exercise by the unit which is driven from a central management point and would in fact test the command and staff elements of the unit to a substantially greater degree than the local package.

c. The regional exercise would represent a major step forward over the MUTA-LOG exercise and should normally follow completion of the MUTA-LOG.

d. The national exercise should be regarded as a "capstone" of the training cycle and only those units should attend the National which have successfully completed portions of the less complex exercises.

e. Thus, a pyramidal structure begins to suggest itself in this approach to CPX training: a broad base of units involved at their own discretion in LOGEX Locals; a smaller number of units engaged in a MUTA-LOG over a period of several months; a still smaller number of

units engaged in appropriate regional exercises throughout the country; and a select group of units being finally selected to attend the national exercise.

f. Inherent in such a training plan is the necessity to formalize it within the unit's overall training plan on a multi-year basis as well as the necessity to "certify" to the successful completion of the various steps.

g. Figure I-1 portrays this pyramidal training plan graphically and suggests a four-year training cycle necessary to achieve attendance at the national exercise.

h. The study group recommends early implementation of a four-year formalized training program for all CS and CSS units of Group size and larger in the Reserve Components.

TABLE 2

FORSCOM Designated Recipients of LOGEX

Local Packets in CY 1974

Signal Groups/TACC	10
Civil Affairs Brigade/Groups	22
Corps Support Commands	4
Engineer Commands	2
Military Police Brigades/Camps (PW)	5
Military Police Groups	4
Personnel and Administration Battalions	5
Ordnance Groups (Ammo)	10
Petroleum Groups/Battalions	5
Engineer Brigades (Const)	4
Engineer Brigades (Cbt)	3
Engineer Groups (Cbt)	15
Engineer Groups (Const)	13
Field Depots	9
Hospital Centers	4
Medical Groups	12
Area Support Groups	6
Support Groups	17
Transportation Groups/Battalions (TML)	10
Transportation Groups/Battalions (MT)	24
Division Support Commands	10
Supply and Transport Battalions	15
Divisional Maintenance Battalions	16
	225*

*Of the 225 packages shipped:
83 were shipped through ARCOMs
69 were shipped through State AGs
20 were shipped through Army Readiness Regions

20 of the packages could be identified as shipped to active Army units.

CHAPTER 6

ASSIGNMENT OF RESPONSIBILITIES

6-1. GENERAL. In order for the training plan discussed in the previous chapter to be successfully applied and to realize the potential resource savings proposed in Chapter 7, it is necessary that clear assignments of responsibility be made to DA, TRADOC and FORSCOM. Proposed responsibilities for each are discussed in following sections.

6-2. DEPARTMENT OF THE ARMY. DA should:

a. Proposed to the Joint Chiefs of Staff (JCS) the scheduling of a national exercise and act as sponsor for the exercise as directed by JCS.

b. Designate and charter FORSCOM as the Training Manager to direct the resource allocations for and planning and coordination of the CS and CSS exercises outlined in the training plan.

c. Provide a charter for the preparation of each new exercise which outlines the scope of the exercise, the geographical location to be played and any new or amended doctrine to be included.

6-3. FORSCOM. FORSCOM should:

a. Designate elements to conduct Regionals and MUTA LOGS commencing immediately. (See paragraph 6-5)

b. Conduct the national exercise (less technical assistance) starting in FY 1977.

c. Provide to the exercise preparing activity (LOGC's LOGEX Directorate) direction concerning the force structure to be played and the active and Reserve Component units to be trained in the national exercise. An 18 month lead time is required.

6-4. TRADOC. TRADOC should:

a. Prepare an exercise package of materials to support a national exercise which can be adapted to provide materials for lower level exercises.

b. Provide technical assistance to all exercises through the end of FY 76.

c. Provide technical assistance for the national exercise on a continuing basis.

d. Conduct a further study on provision of LOGEX type training to service school advanced course students. The study should identify resource requirements if such training is determined to be necessary.

e. Conduct a yearly review of the implementation of the study recommendations to insure that the resource estimates for LOGC personnel are valid.

6-5. UTILIZATION OF RESERVE COMPONENT UNITS FOR PREPARATION AND CONDUCT.

a. The Study Group agrees completely with the basic philosophy that "wherever possible the reserves should train themselves." A review of the workloads currently assigned to Maneuver Area Commands and Maneuver Training Commands indicates some difficulty in their undertaking responsibility for preparation and conduct of Regional LOGEXs. Additionally, great mission training benefit would accrue to a CS or CSS RC unit assigned the mission of preparation and conduct of training exercises.

b. The Study Group recommends that appropriate Reserve Component Units (Group size or larger) be tasked by Letter of Instruction to undertake the mission of preparation and conduct of Regionals and smaller exercises. The assignment of such a mission to one unit on the East Coast, one in the Midwest and one on the West Coast would provide meaningful mission training to these three units and also develop a training base for the exercising of other Reserve Component logistical units. The assignment of such a mission to these units would utilize the materials prepared by the LOGEX Division for the National exercise and for a transitional period would require much technical guidance and informal assistance from the LOGEX Division.

6-6. EVALUATION. Evaluation of exercises and unit participation therein is a function of FORSCOM. TRADOC, through the LOGEX Division, LOGC, could provide materials to be used as a basis for such an evaluation as amplified in Section V of the Discussion and Analysis Appendix.

CHAPTER 7

RESOURCE SAVINGS

7-1. GENERAL. The Study Group's basic mission was to determine the possibility of resource savings to assist in the development of the 16 Division Force. In order to properly address this possibility, it was necessary to consider alternate approaches to the problem.

a. After careful review of all elements of the LOGEX exercises, the Study Group believes that the following five possible alternative approaches, individually or in some combination, will provide a guide to potential resource savings:

(1) Write the exercise less frequently.

(2) Conduct the exercise less frequently.

(3) Modify the exercise from a national exercise to a Regional/ MUTA-LOG/Local exercise.

(4) Assign portions of the workload for preparation and conduct of exercises to Reserve Component units.

(5) Eliminate non-essential participation.

b. The Study Group does not recommend the elimination of LOGEX. The Study Group feels that the national exercise might be reduced to one week and strongly believes that the previous practice of bringing excessive numbers of players to the exercise can be more adequately controlled. It appears valid at this time to continue a national exercise on an annual basis, but with considerably reduced numbers of personnel participating.

c. There appears to be little, if any, value in the tradition of preparing a new exercise annually. Therefore, as discussed previously, it is recommended that the basic exercise package be prepared on a tri-annual basis. As discussed below, this permits the maximum savings in active Army personnel for potential reassignment.

d. The Study Group feels the reduced participation of units and individuals at the National exercise level can be supplemented by the conduct of regional exercises. As discussed previously, the plan envisions Reserve Component units eventually having full responsibility for the preparation and conduct of these Regionals.

7-2. PROPOSED RESOURCE SAVINGS PLAN.

a. By combining the approaches set forth in paragraph 7-1, it is possible to develop alternative missions for the LOGEX Division.

b. The Study Group developed a series of 16 "alternative missions" for the LOGEX Division. These missions varied from a "maximum savings" mission involving immediate elimination of LOGEX and the LOGEX Division to a "zero savings" mission involving no change in its present mission. The alternatives between these two extremes can be varied based upon assignment for preparation of the exercise package; for conduct of the various exercises and for frequency of exercise package preparation.

c. Based upon careful study of these various alternative missions, a time phasing plan involving six of these missions is shown in Table 3. Mission #1 assumes the LOGEX Division will continue with its present manpower and both prepare and conduct the national exercise in FY 75 and FY 76.

d. At some point during FY 76, Mission #2 would be implemented involving a change to the tri-annual preparation of the exercise as well as a continuation of technical assistance to FORSCOM in its conduct of the national exercise. The Study Group recommends that the strength of the LOGEX Division should be at 47 personnel by the end of FY 76, to include ADP personnel dedicated to exercise preparation.

e. Missions 3, 4, 5 and 6 represent a further phasing down of the LOGEX Division responsibilities and are predicated upon a tri-annual preparation of the exercise package by the LOGEX Division and the ultimate assumption of all other exercise related responsibilites by FORSCOM.

f. The Study recommends an ultimate strength level for the LOGEX Division of 24 personnel. It should be emphasized that this strength level will provide 72 manyears for one-time preparation of an exercise package and its interim update as compared to the present capability of 61 manyears to prepare and conduct the exercise.

g. A summary of resource savings possible through implementation of this phasing plan is included at Appendix H and shows that by Fiscal Year 1980, a potential savings of 46 personnel spaces can be implemented within the LOGC.

h. It should be emphasized that this may not represent total net savings Army-wide, even though the plan envisions an increased level of activity by RC units. Refinement of the proposed training plan, and the proposed approach to these exercises may indicate the need for a small number of full-time key personnel at strategic points in the training base: FORSCOM, CONUSA, or Army Readiness Regions.

i. It should be further emphasized that savings in LOGC personnel are totally dependent upon assumption of exercise responsibilities by FORSCOM elements.

TABLE 3. LOGEX Missions

NO	NATIONAL PREPARATION	NATIONAL TECHNICAL** ASSISTANCE	REGIONAL PREPARATION	REGIONAL TECHNICAL ASSISTANCE	MUTA-LOGS PREPARATION	MUTA-LOGS TECHNICAL ASSISTANCE	END OF FY	MANPOWER REQUIREMENTS
	1/Year		3/Year		48/Year			
1	A	A			A(-)	A(-)	75	61
2	A	A	T	A	T	A	76	47
3	T	A	T	*	T	*	77	28
4	T	A	*	*	*	*	78	24
5	T	A	*	*	*	*	79	24
6	T	A	*	*	*	*	80	24

*Performed by others
**LOGEX DIVISION CONDUCTS NATIONAL IN 1975 and 1976

T = TRI-ANNUAL

A = ANNUAL

CHAPTER 8

SUMMARY AND RECOMMENDATIONS

8-1. SUMMARY. The Study Group believes the CPX to be the best available method of providing command and staff training to CS and CSS units. Substantial savings can be effected both in active Army personnel and in total financial resources by the formalization of a training plan; by an increased emphasis on Regional exercises in addition to a smaller National; and by the assignment of increased responsibilities to Reserve Component units. These savings are possible within the 1975-1980 time frame, and will permit the continuation of this valuable command and staff training based upon the present objectives of LOGEX which the Study Group finds to be sound.

8-2. RECOMMENDATIONS. The Study Group recommends that:

a. Though LOGEX objectives are sound as presently written, they should be amended to define "participants" as key command and staff elements.

b. LOGEX type training be recognized as the best training medium currently available for the command and staff elements of major RC CS and CSS units.

c. Units of the Reserve Components participate with and affiliate with active Army units in training of all types wherever and whenever possible to the maximum practical extent.

d. Participation by Advanced Course students from service schools be stopped. A separate study should be conducted to determine the training requirements for this portion of the training audience.

e. LOGEX materials be made available to combat support units and combat service support units of the active Army for their use in training at home station and in large field exercises and CPX's and that such use be encouraged.

f. Interservice participation be continued in National Exercise and included in Regionals where feasible.

g. Exercise materials continue to be prepared by TRADOC to support a national exercise, and that these materials be so designed that Regionals and Locals can be easily extracted from the national package and serve as the basis for further development of MUTA-LOG concepts.

h. A new package of exercise materials be prepared every three years and updated as required.

i. .he proposed training plan or a version thereof be adopted to allow long range planning to include a four-year training cycle for RC units.

j. HQ, FORSCOM designate RC units to (1) conduct Regionals and LOCALS starting in FY 1976 and (2) to validate the MUTA-LOG concept in FY 76.

k. Sufficient Regional exercises of the type described in the training plan be held yearly to train approximately one-fourth of the RC units in the training audience.

l. FORSCOM provide guidance to the exercise preparers with a minimum of 18 months lead time concerning the force structure to be played in the exercise, units available as players, and the proposed location for the National exercise.

m. Commander, FORSCOM, be designated as Exercise Director and conduct the National exercise to include site support beginning with the 1977 exercise.

n. Units be designated to play Regional or National exercises only if they can fill an equivalent role to their mission assignment.

o. That DA designate FORSCOM as the central training management agency with responsibility for CS and CSS exercises.

p. An evaluation form be developed for use in evaluating the performance of commanders and key staff in CPX training exercises.

q. The LOGEX 75 ADP support package be immediately converted to other available types of hardware. Further that instructions be issued to the effect that beginning with LOGEX 76 all future LOGEX packages be developed to fit multiple hardware configurations.

DEPARTMENT OF THE ARMY
HEADQUARTERS UNITED STATES ARMY TRAINING AND DOCTRINE COMMAND AUTOVON
FORT MONROE, VIRGINIA 23351 680-3771

ATORI-OP-OP .

3 JAN 1975

SUBJECT: Study-Review of LOGEX (Project LEAP, Issue #145)

Commander
US Army Logistics Center
Fort Lee, VA 23801

1. PURPOSE. To initiate a TRADOC Study of LOGEX to identify all possible resource savings in manpower, funds and materiel to contribute to the attainment of a 16 Division Force.

2. Reference is made to:

a. AR 5-5, The Army Study System, 26 Jun 74.

b. CSM 74-5-73, Resources for a 16 Division Active Army (Project 16-78), 13 Aug 74 (S).

c. Task Directive - Project 16-78 (Resources for a 16 Division Active Army) HQDA DCSLOG, 27 Aug 74 (FOUO).

d. Letter, DA staff responsibility for fiscal year 1975, JCS directed and JCS coordinated exercises, TAGO, 22 May 1974.

3. Study Sponsor. Office of the Deputy Chief of Staff for Logistics, HQDA.

4. Study Agency. The US Army Training and Doctrine Command will coordinate the study. The US Army Logistics Center, as the TRADOC proponent, will conduct the study in accordance with the guidance prescribed herein and/or as modified in process by the study sponsor.

5. Terms of reference. The Army goal of a 16 Division Active Force within current resource constraints has been firmly established by the Army Chief of Staff (OCSA). There may be potential savings in LOGEX which could be applied in support of this goal.

a. Problem. Determine the desirability and potential resource savings possible through a redefinition of LOGEX objectives and its validity in terms of a training medium.

ATORI-OP-OP
SUBJECT: Study-Review of LOGEX (Project LEAP, Issue #145)

b. Objectives.

(1) Reduce costs associated with the exercise.

(2) Provide training to a larger number of Reserve Component logistic units by concentrating efforts on LOGEX-Regionals and locals as opposed to one large centralized exercise.

(3) Reduce LOGEX personnel staffing requirements by examining space savings alternatives.

(4) Eliminate non-essential participation by individuals.

c. Scope. This study will address specific objectives of the exercise, its parameters, player participation and training value.

d. Time frame. 1975-1980.

e. Limits. Study should consider Active Army and Reserve Component Training requirements.

f. Assumptions. The capability exists to provide required logistic training by alternative means.

g. Essential elements of analysis.

(1) What personnel savings could be effected by reorganization or elimination of LOGEX?

(2) What are total exercise costs to include site support, TDY costs, transportation costs of participants/units, pay and allowances for individual ready reserve - annual duty for training participants, LOGEX full time staffing of both military and civilian personnel and ADP support?

(3) What is the impact of exercise reduction or elimination on other services. (Navy, Marine Corps, and Air Force)?

(4) Can LOGEX objectives be achieved by alternate means?

(5) Are the preplanned scenario and play conducive to realistic player participation?

(6) If training is considered appropriate and essential for career course students - why not all students, especially those from the Log schools?

(7) Could student participation be scheduled to include use of remote terminals at school sites to eliminate costs associated with active participation at the LOGEX site?

(8) Are the numbers of players from the various sources proportionate to the amount of participation developed in the scenario? Why such a disproportionate number of students from the Chaplain School?

(9) Can the exercise objectives be attained by conduct of LOGEX on a regional basis as opposed to one large exercise? Regionals could be conducted by RC Maneuver Area Commands (MAC) and evaluated by FORSCOM with material support by TRADOC (LOGEX Directorate).

(10) Is computer support adequate and feasible? Why train company and battalion level units on management systems when RC units do not have computer capabilities during home station training periods? Would the stock control (manual system) be more realistic? If so, can the RC units be successfully integrated into the automated environment during mobilization?

(11) Does training insure a RC unit of a capability to perform its mission under mobilization and readiness improvement requirements? Does participation enhance logistics readiness and professionalism?

(12) Is it realistic to introduce proposed changes in CS and CSS doctrine as an exercise objective, if primary purpose of LOGEX is to train junior career course participants and the Reserve Components?

h. Models. To be determined by the study agency and study advisory group.

6. Support and resource requirements.

a. The Office, Deputy Chief of Staff for Operations, Readiness and Intelligence, HQ TRADOC is the study proponent. Major C. Womble, AUTOVON 680-3771/3708 is the DCSORI point of contact.

b. The Directorate for Logistics Plans, Operations and Systems, HQDA ODCSLOG, is the DA study proponent. Chief, Readiness and Structure Division, Room 2D569, The Pentagon, OX 71813/78002 is the ODCSLOG point of contact.

ATORI-OP-OP
SUBJECT: Study-Review of LOGEX (Project LEAP, Issue #145)

c. It is intended that the Log Center use existing capabilities and available resources in conducting the study effort. Additional resource requirements, if any, will be reported promptly to this headquarters.

d. Addressees will provide input data as requested by the study agency, and DCSORI will provide an observer to the Study Advisory Group (SAG). TRADOC has requested HQ FORSCOM to provide a point of contact to the study agency.

7. Administration.

a. Study title. Review of LOGEX (Project LEAP, Issue #145).

b. Study schedule. Study agency will prepare a study plan to include a milestone schedule within 30 days of the publication of this letter for approval by the study sponsor. A draft final report will be submitted to TRADOC HQ by 15 April 1975.

c. Reports:

(1) A one time total cost report indicating data compiled for paragraph 5g(2) will be submitted NLT 15 January 1975.

(2) An in-process review will be scheduled approximately midway through study period (3d week in Feb 75).

(3) A copy of the study plan and a copy of each study report submitted during the study will be furnished to: Commander, US Army Logistics Evaluation Agency, ATTN: DALO-LEP, New Cumberland Army Deport, New Cumberland, Pennsylvania 17070.

(4) A draft final report will be submitted to this headquarters NLT 25 April 1975.

(5) A final report will be submitted to study proponent by 23 May 1975. The final report will contain a summary of quantifiable costs and savings in the format at Incl 8 to CSM 74-5-B, Resources for a 16 Division Army, 13 August 1974.

FOR THE COMMANDER:

B. E. HUFFMAN, JR.
Major General, GS
Chief of Staff

CF:
Cmdts, TRADOC Svc Schools
Cmdr, US Army Forces Command

DEPARTMENT OF THE ARMY
HEADQUARTERS UNITED STATES ARMY TRAINING AND DOCTRINE COMMAND AUTOVON
FORT MONROE, VIRGINIA 23651 680-3771

S-10 Jan 75

ATORI-OP-OP 8 JAN 1975

SUBJECT: Study Review of LOGEX

Commander
US Army Forces Command
Fort McPherson, GA 30330

1. TRADOC is tasking the US Army Logistics Center to study LOGEX to identify all possible resource savings in manpower, funds and materiel to contribute to the attainment of a 16 Division Force. A copy of the tasking letter is at inclosure 1.

2. One of the objectives is to provide training to a larger number of Reserve component logistic units through LOGEX-Regionals and Locals as opposed to one large centralized exercise. This will dictate that the Logistics Center investigate all aspects of LOGEX and LOGEX-RC to include TDY and transportation costs of all RC participants.

3. In view of the above, request that you provide the Commander, Logistics Center, and this headquarters by 10 January 1975 a point of contact to facilitate coordination with your headquarters.

FOR THE COMMANDER:

B. E. Huffman

B. E. HUFFMAN, JR.
Major General, GS
Chief of Staff

1 Incl
as

CF:
Cdr, US Army Log Ctr

DEPARTMENT OF THE ARMY
UNITED STATES ARMY LOGISTICS CENTER
FORT LEE, VIRGINIA 23801

ATCL-LTG 27 January 1975

SUBJECT: Study Plan: Review of LOGEX (Project LEAP, Issue # 145)

THRU: Commander
US Army Training & Doctrine Command
ATTN: DCSORI-OP-OP
Fort Monroe, Virginia 23651

TO: HQDA (DALO)
WASH DC 20310

1. PURPOSE. To initiate a TRADOC Study of LOGEX to identify all possible resource savings in manpower, funds and materiel to contribute to the attainment of a 16 Division Force.

2. REFERENCES:

a. AR 5-5, The Army Study System, 26 June 1974.

b. CSM 74-5-73, Resources for a 16 Division Active Army (Project 16-78), 13 August 1974 (S).

c. Task Directive - Project 16-78 (Resources for a 16 Division Active Army), HQDA, DCSLOG, 27 August 1974 (FOUO).

d. Letter, DA Staff responsibility for fiscal year 1975, JCS directed and JCS coordinated exercises, TAGO, 22 May 1974.

e. Task Directive - Study, Review of LOGEX (Project LEAP, Issue # 145), HQ USATRADOC, 2 January 1975.

3. STUDY SPONSOR. Office of the Deputy Chief of Staff for Logistics, HQDA.

4. STUDY AGENCY. US Army Logistics Center.

5. TERMS OF REFERENCE. The Army goal of a 16 Division Active Force within current resource constraints has been firmly established by the Army Chief of Staff (OCSA). There may be potential savings in LOGEX which could be applied in support of this goal.

ATCL-TTG 27 January 1975
SUBJECT: Study - Review of LOGEX (Project LEAP, Issue # 145)

a. Problem. Determine the desireability and potential resource savings possible through a redefinition of LOGEX objectives and its validity in terms of a training medium.

b. Objectives.

(1) Reduce costs associated with the exercise.

(2) Reduce LOGEX personnel staffing requirements by examining space savings alternatives.

(3) Eliminate non-essential participation by individuals.

c. Scope. This study will address specific objectives of the exercise, its parameters, player participation and training value.

d. Limits. Study should consider Active Army and Reserve Component Training requirements.

e. Time-frame. 1975-1980.

f. Assumptions. The capability exists to provide required logistics training by alternative means.

g. Essential Elements of Analysis:

(1) What personnel savings could be effected by reorganization or elimination of LOGEX?

(2) What are total exercise costs to include site support, TDY costs, transportation costs of participants/units, pay and allowance for individual ready reserve - annual duty for training participants, LOGEX full time staffing of both military and civilian personnel and ADP support?

(3) What is the impact of exercise reduction or elimination on other services (Navy, Marine Corps and Air Force)?

(4) Can LOGEX objectives be achieved by alternate means?

(5) Are the preplanned scenario and play conducive to realistic player participation?

(6) If training is considered appropriate and essential for career course students, why not all students, especially those from the LOG schools?

(7) Could student participation be scheduled to include use of remote terminals at school sites to eliminate costs associated with active participation at the LOGEX site?

(8) Are the numbers of players from the various sources proportionate to the amount of participation developed in the scenario? Why such a disproportionate number of students from the Chaplain School?

(9) Can the exercise objectives be attained by conduct of LOGEX on a regional basis as opposed to one large exercise? Regionals could be conducted by RC Maneuver Area Commands (MAC) and evaluated by FORSCOM with material support by TRADOC (LOGEX Directorate).

(10) Is computer support adequate and feasible? Why train company and battalion level units on management systems when RC units do not have computer capabilities during home station training periods? Would the stock control (manual system) be more realistic? If so, can the RC units be successfully integrated into the automated environment during mobilization.

(11) Does training insure an RC unit of a capability to perform its mission under mobilization and readiness improvement requirements? Does participation enhance logistics readiness and professionalism?

(12) Is it realistic to introduce proposed changes in CS and CSS doctrine as an exercise objective if primary purpose of LOGEX is to train junior career course participants and the Reserve Components?

(13) Can training be provided to a larger number of Reserve Component logistic units by concentrating efforts on LOGEX-Regionals and locals as opposed to one large centralized exercise?

(14) Are the proposed alternate means as effective, efficient, and cost-effective?

6. SUPPORT AND RESOURCE REQUIREMENTS.

a. The Office, Deputy Chief of Staff for Operations, Readiness and Intelligence, HQ TRADOC, is the study proponent.

b. The Directorate for Logistics Plans, Operations and Systems, HQDA, ODCLOG, is the DA study proponent.

c. The US Army Logistics Center will conduct the study.

d. The Director of the Training and Education Directorate is responsible for the conduct of the study.

e. The following personnel from the US Army Logistics Center will be members of the study group:

COL Paul A. Vnencak, Study Chairman, Training and Education
LTC Lemuel Wallace, Member, Concepts and Doctrine
LTC Robert Henry, Jr., Member, Logistics Training Board
MAJ Patrick Riley, Project Officer, Training and Education
CPT Kenneth J. Utecht, Jr., Member, Training and Education
Mr. Charles LeCraw, Member, Logistics Exercise
Mr. Brian P. Carman, Member, Operations Analysis
Mr. Dominic T. Arcuri, Member, Training and Education

f. US Army Logistics Center will use existing capabilities and available resources in conducting the study effort.

7. ADMINISTRATION.

a. Study title. Review of LOGEX (Project LEAP, Issue # 145)

b. Study schedule:

(1) Initiation Date - 9 January 1975

(2) Study Plan - 1 February 1975

(3) Total Cost Report - 4 February 1975

(4) In-Process Review - 19 February 1975

(5) Draft Final Report to HQ, TRADOC - 15 April 1975

(6) Final Report to HQDA - 23 May 1975

c. A Study Advisory Group has been established with the following members:

COL Henry G. Allard, Chairman, Training and Education, USALOGC
Mr. Walter L. McDowell, Alternate

COL Herbert T. Casey, Member, Concepts and Doctrine, USALOGC
Mr. Carshall C. Carlisle, Jr., Alternate

COL Henry T. Jackson, Member, Operations Analysis, USALOGC
Mr. Frank May, Alternate

ATCL-TTG 27 January 1975
SUBJECT: Study - Review of LOGEX (Project LEAP, Issue # 145)

COL Raymond G. Rennebaum, Member, Logistics Exercise, USALOGC
Mr. James E. Coberly, Alternate

COL Hugh H. Johnson, Member, Logistics Training Board, USALOGC
LTC Robert Henry, Alternate

MAJ Patrick E. Riley, Executive Secretary, Training and Education
Mr. Dominic T. Arcuri, Alternate

MAJ Columbus M. Womble, Member, DCSORI-OPS, TRADOC
Mr. Warren Harris, Alternate, DCSORI-OPS-Plans, TRADOC

MAJ Robert E. Scott, Member, Reserve Component Training Division, FORSCOM

d. The study project officer is Colonel Paul A. Vnencak, Training and Education Directorate (AUTOVON 687-2500/5815). ACN 23172 is applicable.

FOR THE COMMANDER:

PAUL A. VNENCAK
Colonel, GS
Chief, Training Division
Training & Education Directorate

2 Incl
1. Study Outline
2. Milestone Chart

CF:
USALEA, ATTN: DALO-LEP w/Incl
SAG-LOGC w/Incl

STUDY OUTLINE

1. Define the LOGEX purpose, its stated objectives and player participation.

2. Is such an exercise desired by HQ TRADOC/FORSCOM? If so, define the degree of participation by service schools/FORSCOM units.

3. Determine cost as follows:

   a. Exercise preparation costs

      (1) Logistics Exercise
      (2) CS and CSS Exercise

   b. Cost to conduct exercise

      (1) Logistics schools only
      (2) All TRADOC schools
      (3) Logistics units
      (4) CS and CSS units
      (5) Combinations of above

4. Develop alternate means of providing Logistics training.

   a. Active Army

      (1) Central location - Fort Pickett
      (2) At one of the Logistics schools
      (3) Remote play - students in place

   b. Reserve Components

      (1) Regionals

         (a) Facility requirements
         (b) Personnel requirements
         (c) Effectiveness

      (2) Local

         (a) Facility requirements
         (b) Personnel requirements
         (c) Effectiveness

      (3) LOGEX - Multiple Unit Training Assembly (MUTA) (a serialized exercise)

         (a) Cost above existing resources
         (b) Effectiveness

5. Cost Effectiveness Analysis

	LOGEX	LOGEX RC	LOGEX REGIONAL	LOGEX LOCAL	LOGEX MUTA	LOGEX SCHOOL
Exercise Preparation Cost						
Costs to Conduct Exercise						
Pay & Allowances						
(a) Players						
(b) Controllers/Reactors						
Travel/TDY						
Communications						
ADP Support						
Site Support						
Miscellaneous						
Total Exercise Cost						
Number Individuals Trained						
Cost Per Trainee						
Relative Training Effectiveness						
Relative Cost Effectiveness						

6. Active Army Input

a. Service Schools

(1) Exercise preparation

(a) Assigned to LOGEX Directorate
(b) Remain at school

b. Readiness Regions

(1) Players
(2) Controllers/Reactors

7. Ascertain training benefits - Army

   a. Advance Course students

      (1) Three Logistics Center associated schools
      (2) Other CS and CSS Schools

   b. Reserve Components

      (1) Units

         (a) Logistics types (Ordnance, Quartermaster, Transportation, Composite Service, Logistical Command)

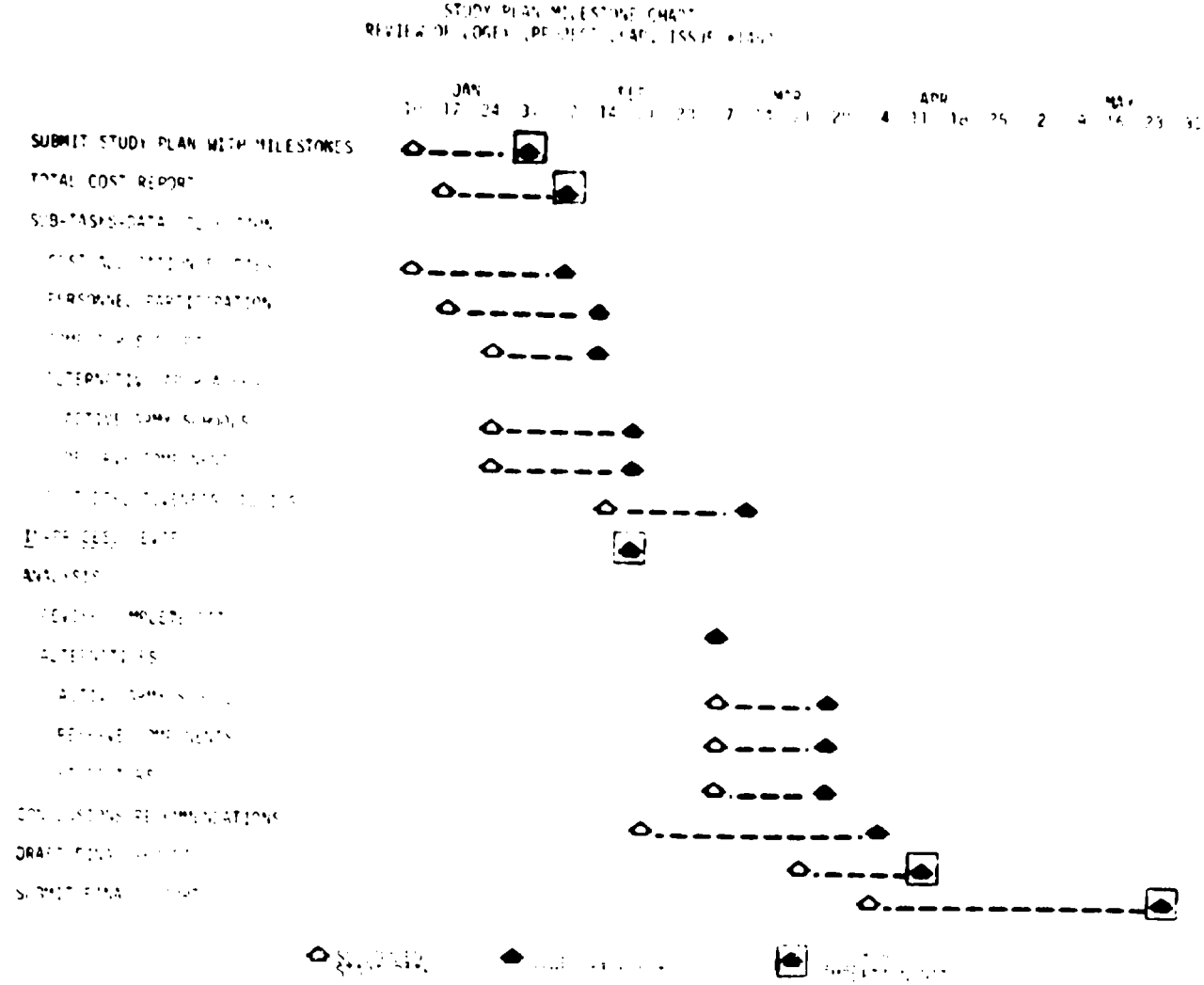
         (b) Other CS and CSS

      (2) IRR - MOB DES

   c. Command General Staff College

8. Ascertain training benefits - other services

   a. Navy
   b. Marine Corps
   c. Air Force


SUBMIT STUDY PLAN WITH MILESTONES
TOTAL COST REPORT
DRAFT
SUBMIT FINAL

APPENDIX B

ESSENTIAL ELEMENTS OF ANALYSIS

B-1. EEA #1, WHAT PERSONNEL SAVINGS COULD BE EFFECTED BY REORGANIZATION OR ELIMINATION OF LOGEX?

a. It is possible to effect personnel savings through a reorganization of the LOGEX Division as well as a realignment of the exercise itself.

b. A four phase reorganization plan for the LOGEX Division is submitted for implementation in the time frame 1975-1980. The various steps in the phasing plan involve modification in the frequency of exercise preparation from annual to tri-annual, and also involve reassignment of certain current LOGEX Division responsibilities to FORSCOM (Reserve Component units).

c. Potential overall savings amount to 46 spaces based upon full implementation of the four-phase plan which assumes acceptance of major responsibilities by FORSCOM.

B-2. EEA #2, WHAT ARE TOTAL EXERCISE COSTS TO INCLUDE SITE SUPPORT, TDY COSTS, TRANSPORTATION COSTS OF PARTICIPANTS/UNITS, PAY AND ALLOWANCE FOR INDIVIDUAL READY RESERVE - ANNUAL DUTY FOR TRAINING PARTICIPANTS, LOGEX FULL TIME STAFFING OF BOTH MILITARY AND CIVILIAN PERSONNEL AND ADP SUPPORT?

Estimated total exercise costs for calendar year 1974, for LOGEX 1974 and LOGEX RC 1974 are as follows:*

TABLE B-1. Estimated Total Cost

Site Support	$ 228.9
TDY	328.9
Estimated TDY for Non-Reporting Units	28.2
Unit Transportation	686.8
Estimated Unit Transportation for Non-Reporting Units	100.0
RC Pay and Allowances (ADT)	2,098.7
EST RC P&A (ADT) for Non-Reporting Units	257.1
RC Pay and Allowances (Contract)	52.3
LOGEX Full Time Staffing	1,161.1
ADP	28.4
Unit/School Staffing and Preparation	916.2**
Services	182.0
TOTAL	$6,068.6***

*Costs in thousands
**Includes $732,000 active duty pay (students, faculty, non-LOGEX dedicated LOGC personnel)
***Inadequate audit trail prevents further refinement of data.

B-3. EEA #3, WHAT IS THE IMPACT OF EXERCISE REDUCTION OR ELIMINATION ON OTHER SERVICES (NAVY, MARINE CORPS AND AIR FORCE)?

a. The Air Force indicated little training benefit for its personnel and regarded its participation in the exercise more as a service to the Army than as a training medium. The Air Force pointed out, however, that there was training benefit in the ability to expose its personnel to joint activity, terms and Army doctrine.

b. The Marine Corps reported the exercise as a "valuable training vehicle", particularly for its reserve personnel. The Marine Corps Doctrine and Education Center is currently investigating the possibility of increased participation in future LOGEXs, especially from members of its senior course.

c. The Military Sealift Command was the most enthusiastic of the other services and held the LOGEX exercise in high regard as a training medium for its reserve personnel. In fact, Military Sealift Command has recommended additional participation from other segments of the Navy to the Chief, Naval Operations, and it is anticipated that Naval observers will be present at LOGEX 75 to determine the adequacy of this recommendation.

B-4. EEA #4, CAN LOGEX OBJECTIVES BE ACHIEVED BY ALTERNATE MEANS?

a. Numerous alternate means to the CPX approach were considered to include: training manuals, training films, seminars, refresher courses, use of school facilities such as ALMC and C&GSC and it was concluded that the CPX package is the only fully viable means to provide adequate command and staff training for CS and CSS units. These types of units are so interdependent, one upon another, for their actions and reactions in their mission assignments as to make it difficult, if not impossible, to provide realistic command and staff mission training in isolation.

b. With regard to active Army school advanced course students, responses from 14 schools which replied indicate that for the most part, the objectives, as far as the students are concerned, can be met at the resident courses. This is particularly valid in view of recent command guidance that advanced course students will be trained to meet the requirements of company level commanders and battalion staff officers and the general objectives of LOGEX have traditionally been addressed to command and staff positions in the Army's organization structure considerably above this level. School responses are reflected in Table B-2.

B-5. EEA #5, ARE THE PREPLANNED SCENARIO AND PLAY CONDUCIVE TO REALISTIC PLAYER PARTICIPATION?

a. Since two audiences have traditionally been addressed in LOGEX, the answer to this question must necessarily be both "Yes", and "No."

From a reserve component point of view, the answer is "Yes." RC units contacted confirmed this since most of them have been assigned player positions identical or closely related to their mission assignment.

b. From the point of view of active Army students, the answer is "No." In past years students have been given assignments well above their grade level and while this is broadening to the student, from an overall training point of view, the training effectiveness of such an approach leaves much to be desired.

B-6. EEA #6, IF TRAINING IS CONSIDERED APPROPRIATE AND ESSENTIAL FOR CAREER COURSE STUDENTS, WHY NOT ALL STUDENTS, ESPECIALLY THOSE FROM THE LOG SCHOOLS? All TRADOC service schools concerned were contacted to determine their interest in continued participation in LOGEX for advanced course students. Table B-1 summarizes the responses to seven specific questions. Generally these responses can be regarded as negative and it would appear that advanced course students should no longer be considered a primary target for the exercise. This position constitutes a major change from previous years and is undoubtedly the result of two factors: reduction in length of the advanced courses, and the increased emphasis on training of advanced course students to fill company and battalion level positions.

B-7. EEA #7, COULD STUDENT PARTICIPATION BE SCHEDULED TO INCLUDE USE OF REMOTE TERMINALS AT SCHOOL SITES TO ELIMINATE COSTS ASSOCIATED WITH ACTIVE PARTICIPATION AT THE LOGEX SITE?

a. It is entirely possible to develop a LOGEX-type exercise involving the use of remote terminals at school sites. It is anticipated, however, that such a plan for the 14 schools involved in the full spectrum of CS and CSS activities would be quite expensive.

b. If the three LOGC associated schools offering advanced courses (Ordnance, Transportation, Quartermaster) are considered, it would be considerably less expensive to tie these groups together and relate them to a central exercise headquarters (presumably at Fort Lee, VA). By the same token, the proximity of these three schools to the national exercise site (Fort Pickett, VA) is such as to make the travel and TDY costs minimal and the Study Group believes the overall cost might be less by bringing the students to the national exercise. The reader's attention, however, is directed to EEA #5 which relates directly to this subject.

B-8. EEA #8, ARE THE NUMBERS OF PLAYERS FROM THE VARIOUS SOURCES PROPORTIONATE TO THE AMOUNT OF PARTICIPATION DEVELOPED IN THE SCENARIO? WHY SUCH A DISPROPORTIONATE NUMBER OF STUDENTS FROM THE CHAPLAIN SCHOOL?

a. The LOGEX Division has traditionally developed a "minimum manning level" for each unit to be played in the exercise. This has

TABLE B-1. RESPONSES OF SERVICE SCHOOLS

School	Training Value	Use 2 Wks More Profitably	Tng Obj by Alt Means	Stu Asg Realistic	Tng Ess For All	LOGEX Objs Achieved	Should LOGEX Objs be Modified
CGSC	Questionable	Yes at Sch	CPX at Sch	No	No	Yes	No
IMA	Yes S&F	N/A	N/A	N/A	N/A	N/A	N/A
ENG	Little	Yes at Sch	PE at Sch	No	No	Yes	Little benefit if modified
INTEL	Limited	Yes at Sch	CPX at Sch	Yes	No	Yes	Not addressed
MP	Yes	No Ext Crs	At school	No	No	Yes conditionally	Down to Bn/Co level
MMS	Not addressed	Not addressed	Not addressed	No	Not addressed	Not addressed	Down to Jr Off
OD	Valuable	Not addressed	Difficult to provide at Sch	No	Funds & time Restr	Not addressed	Not addressed
QM	Marginal	Yes at Sch	CPX at Sch	No	Not necessary for all	Doubtful	No
SIG	Limited	Yes	CPX at Sch	No	Yes Funds & Time Restr	Yes	No
TC	Valuable	Yes	Obj met in POI Adv Crs	Yes	Not addressed	Yes	Not addressed
CHAP	Useful	Yes at Sch	No	No	Not possible	Yes	Not addressed
Health Acd	Yes	No	Yes	Yes	Yes	Yes	No
AG & FIN	Limited	Yes	Yes	No	No	Yes	No

represented the LOGEX Division's best judgment as to the number of players, both officers and enlisted men, who could receive meaningful training from the volume of exercise play developed.

b. RC units have constantly violated this manning level and brought substantially more individuals to the exercise than were required. In the case of LOGEX 74, total individuals involved in the play were approximately 100% in excess of the minimum player levels.

c. In some cases this is justified: to a degree it should be the unit commander's prerogative to determine whether his unit will benefit from "double desking" which involves the assignment of two or more individuals to play a single position. Generally, however, the Study Group feels this practice should be discouraged. One of the problems in discouraging this practice, however, is the requirement in current regulations that 80% of the unit must be present at the training if the unit is to receive "technical credit" for that period of training. A means must be found to reconcile the opposing forces of (a) credit for training and (b) cost effective conduct of the exercise. A Regional approach to the exercise might permit Reserve Component units to bring the full unit strength to a given post and conduct appropriate unit training concurrently with the conduct of LOGEX.

B-9. EEA #9, CAN THE EXERCISE OBJECTIVES BE ATTAINED BY CONDUCT OF LOGEX ON A REGIONAL BASIS AS OPPOSED TO ONE LARGE EXERCISE? REGIONALS COULD BE CONDUCTED BY RC MANEUVER AREA COMMANDS (MAC) AND EVALUATED BY FORSCOM WITH MATERIAL SUPPORT BY TRADOC (LOGEX DIRECTORATE).

a. Exercise objectives can be largely attained by conduct of LOGEX on a regional basis. Results of the Delphi study of training effectiveness when combined with available cost data tend to verify that the regional approach is the "best buy."

b. The regional approach offers the flexibility of tailoring an exercise to fit the number and type units in a given geographical area. This tailoring, however, requires the availability of manpower resources and is discussed in more detail in EEA #1.

c. ADP support of a Regional is mandatory <u>if</u> training benefits are not to be degraded. This is discussed in more detail in EEA #10.

d. The study group agrees completely with the basic philosophy that "wherever possible the reserves should train themselves." A review of the workloads currently assigned to Maneuver Area Commands and Maneuver Training Commands indicated some difficulty in their undertaking responsibility for preparation and conduct of regional LOGEX. Additionally, great mission training benefit would accrue to a <u>logistical</u> Reserve Component unit assigned the mission of preparation and conduct of training exercises. It is recommended that appropriate logistical RC units (Group size or larger) be tasked by Letter of Instruction to

undertake the mission of preparation and conduct of Regionals and smaller exercises. It is suggested that the assignment of such a mission to one unit on the East coast, one in the Midwest, and one on the West Coast would provide meaningful mission training to these three units and also develop a training base for the exercising of other RC CS and CSS units. The assignment of such a mission to these units would allow them to utilize the materials prepared by the LOGEX Division for the national exercise and for a transitional period would require technical guidance and informal assistance from the LOGEX Division.

e. Evaluation of exercises and unit participation therein is a function of FORSCOM but TRADOC, through the LOGEX Division, LOGC, could provide materials to be used as a basis for such evaluation.

B-10. EEA #10, IS COMPUTER SUPPORT ADEQUATE AND FEASIBLE? WHY TRAIN COMPANY AND BATTALION LEVEL UNITS ON MANAGEMENT SYSTEMS WHEN RC UNITS DO NOT HAVE COMPUTER CAPABILITIES DURING HOME STATION TRAINING PERIODS? WOULD THE STOCK CONTROL (MANUAL SYSTEM) BE MORE REALISTIC? IF SO, CAN THE RC UNITS BE SUCCESSFULLY INTEGRATED INTO THE AUTOMATED ENVIRONMENT DURING MOBILIZATION?

a. Computer support to previous LOGEX exercises has been both adequate and feasible. With minor exceptions, attempts have been made to emulate standard Army systems in order that the players could gain familiarity with management information which would be provided them by ADP in their mobilization mission assignments.

b. The availability of computer capability at RC home stations did not appear to be the critical question. Of greater importance was the relationship between the RC unit in its mobilization assignment and its ADP support. If the RC unit is expected to mobilize in an automated environment, it should be exposed to the product of ADP at some stage during its training. It is not important what type of hardware provides this "print-out." What is important is that the RC unit learn both the capabilities and the weaknesses of the ADP systems proposed to support the Army in its combat mission. The Study Group assumed that RC CS and CSS units receive a thorough indoctrination in manual systems as a regular part of their training cycles. Obviously, if this is not the case, immediate attention should be given to the inclusion of such training for appropriate units.

c. Thus, if the RC unit receives meaningful training on manual systems during IDT and receives appropriate exposure to automated systems during participation in major exercises, the unit should be reasonably prepared to function in either a manual or an automated environment.

d. Future planning for LOGEX should include the preparation of its ADP support package to fit commonly available hardware. The investigation revealed that common equipment is installed at Army installa-

tions throughout CONUS, in large numbers at other federal government installations and is almost universally available for commercial lease. Thus, if the ADP support package for future LOGEXs is configured to the commonly available hardware, it would permit the conduct of LOGEX in the vicinity of any major Army installation or metropolitan center throughout CONUS. It is also possible to restructure existing ADP support packages for both 74 and 75 to permit them to be run on common equipment. Existing manpower resources at LOGC are capable of undertaking this mission and such manpower costs are estimated to be 34 man-months for each exercise and would require six months which would give an immediate "inventory" of software for potential regional exercise use with adequate ADP support.

B-11. EEA #11, DOES TRAINING INSURE AN RC UNIT OF A CAPABILITY TO PERFORM ITS MISSION UNDER MOBILIZATION AND READINESS IMPROVEMENT REQUIREMENTS? DOES PARTICIPATION ENHANCE LOGISTICS READINESS AND PROFESSIONALISM? No "training" short of actual mission fulfillment will "insure" an RC unit of a "capability to perform its mission under mobilization and readiness improvement requirements." However, CPX type training does indeed enhance both logistics readiness and professionalism. Most CS and CSS units function as relatively small cogs in much larger machines. Their activities are driven by actions of others. Their actions in turn influence actions of still others. Thus, the CPX provides the only opportunity for them to interface one with the other in order to learn first hand the command and staff relationships so important to their success.

B-12. EEA #12, IS IT REALISTIC TO INTRODUCE PROPOSED CHANGES IN CS AND CSS DOCTRINE AS AN EXERCISE OBJECTIVE IF THE PRIMARY PURPOSE OF LOGEX IS TO TRAIN JUNIOR CAREER COURSE PARTICIPANTS AND THE RESERVE COMPONENTS?

a. AR 220-5 states that the introduction of new doctrine is a secondary objective of all CPXs. Such exercises do provide DA managers with an outstanding opportunity to test new concepts and doctrine. It should be made quite clear, however, that the continuous introduction of new doctrine will cause the continuous rewriting of the basic exercise and this in turn is directly counterproductive to a cost effective approach. Certainly in the case of Reserve Component units, using a single exercise for three years would in no way jeopardize the doctrinal updating of the units and would serve to substantially reduce the required manpower for exercise preparation.

b. With regard to active Army school advanced course students, these officers receive complete doctrinal update during the normal programs of instruction at the various schools.

c. As in all management situations, final decision regarding inclusion of doctrinal changes in the exercise should rest at the appropriate management level in DA. The present LOGEX Division (exercise preparers) has been staffed to a level designed to write a new

exercise each year and this is not cost effective. It would be more appropriate to staff an exercise preparation unit to write on a tri-annual basis and supplement it when changed doctrine requires an updated exercise in the interim period. Organizing a staff for "normal production" and supplementing it as needed for "peak production" is good management practice.

B-13. EEA #13, CAN TRAINING BE PROVIDED TO A LARGER NUMBER OF RESERVE COMPONENT LOGISTIC UNITS BY CONCENTRATING EFFORTS ON LOGEX-REGIONALS AND LOCALS AS OPPOSED TO ONE LARGE CENTRALIZED EXERCISE? Training can be provided to a larger number of Reserve Component units by the development of an overall training program relating to LOGEX which includes Locals and Regionals and culminates in a National of reduced size. As discussed elsewhere, there are four levels of LOGEX exercises with complexity of play ranging from the Local package which is relatively simple to the National exercise. Section VIII, Appendix I details a suggested training plan which would include progressive steps through these increasingly complex exercises culminating in attendance at tne National exercise. A formalized training plan to include "certification" of completion of the various stages would greatly enhance the mission readiness of command and staff elements of CS and CSS units. EEA #14, which follows, amplifies this training plan.

B-14. EEA #14, ARE THE PROPOSED ALTERNATE MEANS AS EFFECTIVE, EFFICIENT, AND COST-EFFECTIVE?

a. Although there are four types of LOGEX exercises, they should be subdivided into two categories. The first category would include the national exercise and the regional exercise. These could be considered alternatives for each other. The MUTA-LOG and LOGEX Local could in no way be considered as alternatives for the National or Regional but rather should be considered as lower level exercises which would prepare a unit for play in the more complex ones.

b. The Delphi method was used to develop relative training effectiveness of the four types of exercises as discussed in Section VI, Appendix I. It shows the National to be the most training effective with the Regional approximately 95% as effective as the National. The other two exercises are rated somewhat lower with MUTA-LOG being in third position and Locals being the least training effective.

c. Based upon available cost data, it is clear that the LOGEX Regional can probably be conducted for somewhat less cost than the National. It is also clear that considerably less transportation would be involved and in the event of major energy shortages, this could be a major consideration.

d. Certain training benefits accrue from attendance at the national exercise which cannot be achieved at the Regional. The very fact of being a part of a "national exercise" permits the reservist the oppor-

tunity to spend two weeks in an environment from which he stands to learn much about his military assignment. The word "opportunity" is stressed because much of his learning capability during the exercise is informal and to some degree can be achieved during periods of off-duty activity.

e. The national exercise should not arbitrarily be eliminated but rather should be carefully monitored both from a cost point of view (reduce excessive travel such as units from Hawaii) and from a training point of view (select only the best or highest priority units to attend).

f. At some point in the future as Regional LOGEXs become more efficient and as Reserve Component units designated to conduct them become more sophisticated in this art, it is entirely possible that National LOGEXs could be eliminated or certainly could be conducted at less frequent intervals. For example, the basic training program for RC units could culminate in appropriate regional exercises with a national exercise being scheduled only when DA management wishes to introduce new major doctrine. It should be made clear that elimination of the national exercise would not reduce the manning level of the exercise preparing unit since essentially the same level of effort would be required to prepare the regional exercise on a tri-annual basis.

APPENDIX C

FOLLOW-ON ACTIONS

This appendix is omitted

APPENDIX D

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APPENDIX E

GLOSSARY

A

ACN - Action Control Number

ADP - Automatic Data Processing

ADT - Active Duty for Training

ALMC - US Army Logistics Management Center

AMMO - Ammunition

AR - Army Regulation

ARCOM - United States Army Reserve Command

ARR - Army Readiness Region

AUTOVON - Automatic Voice Network

B

C

CAAO - Central Active Army Organization

CBT - Combat

COMMZ - Communication Zone

CONST - Construction

CONUS - Continental United States

CONUSA - Continental United States Army

CPX - Command Post Exercise

CS - Combat Support (except Field Artillery and Air Defense)

CSS - Combat Service Support

CY - Calendar Year

D

DAMPL - Department of the Army Master Priority List

DCSORI - Deputy Chief of Staff for Operational Readiness and Intelligence

DELPHI - A technique of systematically combining individual judgment to obtain a reasoned concensus.

DISCOM - Division Support Command

DPU - Data Processing Unit

E

FEA - Essential Elements of Analysis

F

FASCOM - Field Army Support Command

FORSCOM - US Army Forces Command

FTX - Field Training Exercises

FY - Fiscal Year

G

H

I

IBM - International Business Machine

ICC - Inventory Control Center

IDT - Inactive Duty Training

IPR - In-Process Review

IRR - Individual Ready Reserve

J

JCS - Joint Chiefs of Staff

K

L

LEAP (Project LEAP) - Logistics Efficiencies to Increase Army Power

LOGC - US Army Logistics Center

LOCAL - A Logistics Exercise conducted by a unit for internal training

LOGEX - Logistical Exercise

LOGEX/RC - Logistical Exercise/Reserve Component

LOG SCHOOL - The Quartermaster, Transportation and Ordnance Schools

M

MAC - Maneuver Area Command

MCC - Movement Control Center

MMC - Materiel Management Center

MPA - Military Pay and Allowances

MPAR - Military Pay and Allowances - Reserve

MT - Motor Transport

MTC - Maneuver Training Command

MUTA - Multiple Unit Training Assembly

MUTA-LOG - A Logistics Command Post Exercise Conducted on an individual unit basis with activity driven by a central management point

N

NATIONAL - A Logistics Exercise which provides inter-action between the Command and Staff elements of the Services, Combat Support and Combat Service Support Units

NGB - National Guard Bureau

O

OCAR - Office of the Chief Army Reserves

OCONUS - Outside Continental United States

OCSA - Office, Chief of Staff, US Army

ODCSLOG - Office, Deputy Chief of Staff for Logistics

OMA - Operations and Maintenance, Army

OMAR - Operations and Maintenance, Army Reserve

OPCON - Operational Control

P

PW - Prisoner of War

Q

QM - Quartermaster

R

RAO - Rear Area Operations

RBI - Relative Benefit Index

RC - Reserve Component

RCA - Radio Corporation of America

REGIONAL - A Logistics Exercise conducted for Command and Staff elements of Combat Support and Combat Service Support units which is tailored primarily for the players available in a Region

RESEX - Reserve Exercise

ROIC - Resident Officer in Charge

S

SAG - Study Advisory Group

T

TAACOM - Theater Army Area Command

TACC - Tactical Air Control Center

TASTA - The Administrative Support Theater Army

TC - Transportation Corps

TDY - Temporary Duty

TML - Terminal

TRADOC - US Army Training and Doctrine Command

U

USAR - United States Army Reserve

US CONARC - United States Continental Army Command

V

W

X

Y

Z

APPENDIX F

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APPENDIX H

COST ANALYSIS OF LOGEX

1. DCSLOG Issue: Determine potential resource savings which might be applied to the 16 Division Force.

2. Summary of Exercise Costs for LOGEX and LOGEX/RC (Millions):

LOGEX 74 AND LOGEX/RC 74 COSTS

	CY 74
OMA	.61
OMAR	1.07
MPA	1.79
MPAR	2.61
TOTAL	6.08

TABLE 1

All costs are estimates based on gathered data for LOGEX 74 and LOGEX/RC 74. Gathered data is incomplete due to the lack of response from 6% of the field units.

3. Alternative Courses of Action:

a. Continue LOGEX as currently programmed. (No Savings).

b. Eliminate LOGEX for FY 76 and beyond. (Savings at Annex 1).

c. Reduce National Exercise participants to commanders and key staff elements, prepare exercise less frequently, and conduct Regional and MUTA-LOG exercises as required. (Estimated costs and savings at Annex 2 if study recommendations are approved).

4. Recommendations: Reduce National Exercise participants to commanders and key staff elements, prepare exercise less frequently, and conduct Regional and MUTA-LOG exercises as required.

5. Estimated Costs and Savings if Implemented: These figures are a composite of the costs and savings in Annex 2. All potential costs and savings are predicated on assumption of recommended responsibilities by FORSCOM elements and extending the exercise preparation cycle. Any assignment of missions to the LOGEX Division not allowed for in the

training plan will reduce savings and increase costs. Costs and savings are incremental to the 1974 costs listed in the study.

a. Additional Costs (Millions):

	FY 78-80
MPAR	.02 per yr

Table H-2. Estimated Net Savings

APPROPRIATIONS ($M)				CIVILIAN REDUCTIONS		ACTIVE MILITARY REDUCTIONS	
FY	OMA	OMAR	MPA*	LOGC SPACES	LOGC MY	LOGC SPACES	MY**
76	.38	.15	.88			9	54.5
77	.40	.15	1.11			23	68.5
78	.41	.15	1.43	1	1	42	87.5
79	.41	.15	1.46	2	2	44	89.5
80	.41	.15	1.46	2	2	44	89.5

*Not actual dollars saved - only spaces and student manyears.

**Active Military MY includes 45.5 Service School Student MY.

6. Estimated costs and savings are based on 1 National and 3 Regional Exercises per year. Mission changes as to the number or types of exercises would necessitate changes to these estimates.

7. Cost savings should be re-evaluated yearly in light of current missions. Figures should be adjusted if missions change.

ANNEX H-1

1. Eliminate LOGEX for FY 76 and beyond:

   a. One time costs: None.

   b. Estimated Net Savings if implemented:

Table H-3. Eliminate LOGEX

APPROPRIATIONS ($M)					CIVILIAN REDUCTIONS		MILITARY REDUCTIONS		
FY	OMA	OMAR	MPA	MPAR	SPACES	MY	RC MY	ACTIVE SPACES	ACTIVE MY*
76	.43	.72	1.79	.05	7	7	2.6	63	108.5
77	.43	.72	1.79	.05	7	7	2.6	63	108.5
78	.43	.72	1.79	.05	7	7	2.6	63	108.5
79	.43	.72	1.79	.05	7	7	2.6	63	108.5
80	.43	.72	1.79	.05	7	7	2.6	63	108.5

*Active MY includes 45.5 Student MY.

2. Explanation of Savings:

a. OMA:

$100,000	Student TDY and Transportation
45,800	LOGC TDY & Controller TDY
14,000	Active Duty Transportation
116,000	Civilian Pay (7 Spaces)
12,400	ADP Support
116,100	Services
24,400	Part-Time Civilian Pay to support exercise
$428,700	

b. OMAR:

$128,200	RC TDY
45,600	LOGC TDY & Controller TDY
488,000	RC Unit Transportation
16,000	ADP Support
41,500	Services
$719,300	

c. MPA:

$1,045,100	LOGC Full-Time Military Staffing (63 Spaces) including Service School Representatives
742,700	Service School Students (equivalent to 45.5 MY)
$1,787,800	

d. MPAR:

$ 52,300 RC Pay and Allowances (Contract) (2.6 MY)

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d. MPAR:

$ 52,300 RC Pay and Allowances (Contract) (2.6 MY)

$ 52,300

3. Explanation of spaces/MY:

a. Civilian:

7 spaces/MY (based on proposed USALOGC LOGEX TDA dated March 1975).

b. Reserve Component:

2.6 MY Contract RC personnel working for USALOGC during CY 74.

2.6

c. Active Duty Military:

63 Spaces/MY (based on proposed USALOGC LOGEX TDA dated March 1975, and assigned service school representatives.)

45.5 MY (based on student/school exercise participation for LOGEX 74)

108.5

ANNEX H-2

1. Reduce National Exercise participants to commanders and key staff elements, prepare the exercise less frequently, and conduct Regional and MUTA-LOG exercises as required:

a. Costs (Millions):

Table H-4. Estimated Costs

	APPROPRIATIONS ($M)			
FY	OMA	OMAR	MPAR	RC MY
76	.02	.27		
77		.27		
78		.27	.02	1
79		.27	.02	1
80		.27	.02	1

b. Savings (Millions):

Table H-5. Estimated Savings ($M)

	APPROPRIATIONS			CIVILIAN REDUCTIONS		ACTIVE MILITARY REDUCTIONS	
FY	OMA	OMAR	MPA	SPACES	MY	SPACES	MY
76	.40	.42	.88			9	54.5
77	.40	.42	1.11			23	68.5
78	.41	.42	1.43	1	1	42	87.5
79	.41	.42	1.46	2	2	44	89.5
80	.41	.42	1.46	2	2	44	89.5

2. Explanation of Costs:

a. OMA:

$ 19,800	One time phone installation cost for Regionals (200 lines per post at $33 per line for 3 posts)

b. OMAR:

$146,300	Site support cost transferred to RC from Active Army
100,300	Services cost transferred to RC
9,600	ADP cost transferred to RC (student cost has been extracted from above 3 costs)
15,000	ADP cost for Regionals ($5,000 per Regional)
$271,200	

c. MPAR:

$20,000	One RC MY to modify 3 Regional exercises from 1 National exercise (based on 84 man-days to assemble 1 Regional)

3. Explanation of Savings:

a. OMA:

$100,000	Service School Student Travel and TDY
16,700	LOGC Civiliar staffing for LOGEX (2 spaces)
169,200	Active Army portion of site support
116,100	Active Army portion of services cost
12,400	Active Army portion of ADP
$414,400	

b. OMAR:

$416,900	RC unit transportation.

c. MPA:

$732,200	Service School Students (45.5 MY)
729,700	LOGC military staffing for LOGEX (44 spaces) including Service School Representatives
$1,461,900	

ANNEX H-3

ATCL-RB (10 Feb 75)
SUBJECT: LOGEX Costs, CY 74

TO Chmn, LOGEX Study Committee FROM C, Admin Spt Office DATE 31 Mar 75 CMT 2

1. Report requested per Comment 1, inclosure 2 is submitted as inclosure 8.

2. This report is comprised of data collected from 66 of 70 reportable units pertaining to LOGEX and LOGEX/RC for a 94.3 per cent of reportable units. The 310th FASCOM was the only unit to submit data for the LOGEX/REGIONAL. Fifteen percent of units participating in LOGEX locals responded, two units submitted data and 12 submitted negative replies.

3. Pay and allowances for Individual Reserve Replacements (IRR's) and contract reservists were not reported and, consequently, not included in this report. Pay and allowances for active duty personnel, other than the LOGEX staff, were reported by only a minute percent of reportable units.

4. A large number of units involved with Logistics Exercises are physically located within the First Army area. Only a very small percentage of these units have responded to our request to date. First Army has refused to comply with our request for data (Incl 9). Consequently, this office has requested assistance from FORSCOM (Incl 10) pertaining to First Army's noncompliance to furnish USALOGC with requested data. It should be noted that should First Army comply, total reportable cost will increase substantially.

JAMES B. BICKLEY
LTC, GS
Chief, Admin Spt Office

10 Incl
Added 3 incl
8. LOGEX CY 74 Cost Report
9. Msg CDRUSAONE/AFKA-RM-M 211845Z Feb 75
10. Msg CDRUSALC/ATCL-R 112010Z Mar 75

ATCL-TTG | LOGEX Costs, CY 74

Chief, Admin Spt Office | Chairman, LOGEX Study Committee | 10 Feb 75 CPT Utecht/BG/5159/6080

1. References:

a. Letter, HQ, TRADOC, ATORI-OP-OP, subject: Study-Review of LOGEX (Project LEAP, Issue # 145), dated 2 January 1975.

b. Conference: USALOGC Deputy Commander's Officer, 1700 hours, 3 February 1975.

c. Message, CDRUSALC, ATCL-TT, 042230ZFEB75, subject: Study-Review of LOGEX (Project LEAP, Issue # 145).

2. Reference 1a tasked USALOGC to conduct a study of LOGEX to identify possible resource savings to contribute to the attainment of a 16 Division Force.

3. At conference cited in reference 1b, decisions were made to base cost data on CY 74 instead of FY 74, and ASO was tasked to refine the cost data.

4. Reference 1c stated that further refined cost data would be included with the final draft study report.

5. Inclosure 1 (FOUO) is the format in which the final cost report, cited in Para 7c(5) of reference 1a, should be submitted.

6. Inclosure 2 is the cost data needed by the LOGEX Study Committee to conduct cost-effectiveness studies.

7. Request Administrative Support Office gather CY 74 cost data in the formats specified in Inclosure 1 and Inclosure 2 for LOGEX 74, LOGEX/RC 74, LOGEX 75, LOGEX/RC 75, LOGEX Regional conducted during CY 74 and LOGEX Locals conducted during CY 74. Any other cost data identified with logistical exercises conducted during CY 74 should be included.

8. Completed cost data in Inclosure 2 format should be provided the LOGEX Study Committee NLT 7 March 1975. Completed cost data in Inclosure 1 format should be provided the LOGEX Study Committee NLT 31 March 1975.

9. Units participating in LOGEX 74, LOGEX/RC 74, and the LOGEX Regional conducted in CY 74 are listed in Inclosures 3 through 5, respectively. Units receiving LOGEX Local packets during CY 74 are listed in Inclosure 6. Other units and organizations which may have cost data on above cited exercises are listed in Inclosure 7. Inclosure 7 may not be complete but Study Committee personnel have reviewed it for completeness.

ATCL-TTG 10 February 1975
SUBJECT: LOGEX Costs, CY 74

10. Request Administrative Support Office present progress report to the SAG at the IPR scheduled for 19 February 1975.

11. LOGEX Study Committee POC is CPT Kenneth J. Utecht, Jr., Extension 5159/6080.

7 Incls
as

PAUL A. VNENCAK
Colonel, GS
Chairman, LOGEX
Study Committee
US Army Logistics Center

Inclosures 1 through 7 removed.

Table H-6. LOGEX CY 74 Cost Report ($ Thousands)

	LOGEX 74	LOGEX/RC 74	REGIONAL	LOGEX LOCALS	LOGEX 75	LOGEX/RC 75	TOTAL CY 74 COST
Site Support	174.3	54.6					228.9
TDY Costs	201.6	121.3	1.3	.2	5.0	1.0	330.4
Transportation Costs	203.9	482.9		.2			687.0
Pay & Allowances	2148.9	1135.3	166.4				3450.6
Unit/School Preparation	92.9	79.1	.8				172.8
Unit/School Staffing of Pub	128.8	9.2					136.0
Miscellaneous	106.2	28.2	.6		22.3	29.3	186.6
	3056.6	1910.6	169.1	.4	27.3	30.3	5194.3

ZZYUZYUW RUECPIA1571 0521952-UUUU--RUCLAIA.
ZNR UUUUU
P R 211845Z FEB 75
FM CDRUSAOME FT MEADE MD//AFKA-RM-M//
TO RUCLHTA/CDR FORCES CMD FT MCPHERSON GA
INFO RUCLAIA/CDR TRADOC FT MONROE VA//ATORI-OP-OP//
RUCLAHA/CDR USALC FT LEE VA//ATCL-RB//
RUEDGEA/CDR ARR I FT DEVENS MA
RUEOFTA/CDR ARR II FT DIX NJ
ZEN/CDR ARR III FT MEADE MD
RUCIEVA/CDR ARR IV FT GILLEM GA
BT
UNCLAS
SUBJ: STUDY-REVIEW OF LOGEX (PROJECT LEAP, ISSUE NO 145)
A. LTR DA, DALO-PLH, SUBJECT AS ABOVE, 21 NOV 74.
B. LTR HQ TRADOC, ATORI-OP-OP, SUBJECT AS ABOVE, 2 JAN 75.
C. LTR HQ TRADOC, ATORI-OP-OP(ADDRESSED TO HQ FORSCOM),"STUDY REVIEW OF LOGEX," 2 JAN 75.
D. FORSCOM STUDY "REDUCTION IN THE ADMINISTRATIVE WORKLOAD WITHIN USAR UNITS, "MAY 1974.
E. LTR LOGISTICS CENTER, FT LEE, ATCL-RB, SUBJECT AS ABOVE, 12 FEB 75.

PAGE 2 RUECPIA1571 UNCLAS
1. REF E ABOVE, RECEIVED THIS HQ 20 FEB 75, REQUEST COMPREHENSIVE COST AND MANPOWER DATA ON SEVERAL UNITS THIS COMMAND NOT LATER THAN 26 FEB 75. EXTENSIVENESS OF DATA REQUEST OF USAR ELEMENTS AND OTHER SOURCES WITHIN TIME ESTALBISHED IS NOT POSSIBLE AND CONTRARY TO SPIRIT AND INTENT OF REF D ABOVE.
2. REQUEST THIS HQ BE RELIEVED FROM SUBJECT REPORT REQUIREMENT.
BT
#1571

NNNN

75 FEB 21 19 37

1 1 RR RR UUUU

NO

CDRUSALC FT LEE VA//ATCL-R//

CDRUSAFORSCOM FT MCPHERSON GA//AFLG-OM//

INFO: CDRTRADOC FT MONROE VA//ATORI-OP
ATTN: MAJ WOMBLE //

CDRFORSCOM FT MCPHERSON GA//AFCO-PB//

UNCLAS

Subj: Study - Review of LOGEX (Project Leap, Issue # 145)

A. Ltr [illegible] DALO-PLH, Subject as above, 21 Nov 75.

B. Ltr, HQ, TRADOC, ATOPI-OP-OP. Subject as above, 2 Jan 75.

C. Ltr Logistics Center, Ft Lee, ATCL-RB, Subject as above,
12 Feb 75.

D. MSG CDRUSAONE, ARKA-RM-M, Subject as above, 21 Feb 75.

1. Request all possible assistance (Ref D) NLT 14 Mar 75,
in order that this Center may comply with above referenced
DA/TRADOC directives.

DOLORES J. GARRISON, C, Bud Br,
ATCL-RB, 2088 11 Mar 75 Minimize considered

JAMES B. BICKLEY, LTC, GS, ATCL-R, 6226

UNCLASSIFIED

APPENDIX I

DISCUSSION AND ANALYSIS

Section I. THE PROBLEM

I-1. GENERAL. The problem as given in the tasking directive (see Appendix A) is to: "Determine the desirability and potential resource savings possible through a redefinition of LOGEX objectives and its validity in terms of a training medium."

I-2. SUBTASKS. There are three distinct but interrelated subtasks included in the problem statement.

a. Determine the desirability of redefining LOGEX objectives.

b. Determine the potential resource savings possible through redefinition of LOGEX objectives.

c. Determine the validity of LOGEX in terms of a training medium. Implicit in the study directive is the identification of resource savings that can be applied toward the achievement of the current DA goal of a 16-division force.

I-3. LOGEX OBJECTIVES. The current stated objectives for LOGEX, as reflected, are excellent attempts on the part of the exercise writers to satisfy training needs as they, the writers, perceive the needs. These objectives as stated in TRADOC Cir 350-6, dated 20 December 1974, are:

a. Train the participants in combat support (CS) and combat service support (CSS) command and staff techniques in a short duration nonactive nuclear war emphasizing interdependence among military services operating as an armed forces team within the theater of operations.

b. Emphasize the need for interface between combat, combat support, and combat service support organizations, activities, and functions.

c. Introduce existing CS and CSS doctrine and proposed CS and CSS concepts. The objectives are, and have historically been, developed for the most part without guidance such as an agreed upon set of guidelines and purposes from HQDA, TRADOC, and FORSCOM. This raises the questions "What do HQDA, TRADOC, and FORSCOM want the exercise to do and what audience do these commands want the exercise to address?"

d. To answer these questions, FORSCOM, as the trainer, and RC units as the audience were asked to comment on the adequacy of the LOGEX objectives as currently stated. Respondents replied unanimously that the objectives were adequate and sound as written. The study group

decided that to be in keeping with the training plan suggested subsequently in this appendix the objectives of the exercise should be amended to define "participants" as key command and staff elements of the training audience.

I-4. CONSIDERATIONS. Questions arise as to the frequency of the exercise, how often the exercise must be rewritten, and who will conduct the exercise. The answers to these questions will shed some light on possible resource savings.

a. Validity of the exercise as a training medium was determined by inquiring of the exercise sponsors and past exercise audiences what training was achieved, whether it was worthwhile and needed, and whether the training could have been achieved somewhere else at a lesser cost.

b. These aspects of the problem could be approached in terms of possible alternatives to the current national exercise which in turn must be based on the training requirements identified by FORSCOM. Inherent in such an approach would be the validity of LOGEX objectives in terms of identified training requirements.

c. The framework within which the one assumption of the tasking directive was contained (the capability exists to conduct the required logistics training by alternate means) implies that the "training" in question is that provided by a national logistics CPX. Doubt was cast on the validity of this assumption after analysis by the study group and comments made by the Study Advisory Group (SAG) members at the 19 Feb 75 meeting. If, in fact, the training audience to be served includes the command and staff elements of reserve component CS and CSS units, no other means exists for accomplishing the required logistics training which will serve a majority of this audience.

Section II. HISTORY

I-5. LOGEX.

a. LOGEX had its beginning in a series of map exercises conducted by the Quartermaster School at Camp Lee, Virginia, during World War II. These exercises gave the students of the advanced classes practical experience in the operation of logistical headquarters and subordinate units supporting a field army. In 1948, the Quartermaster School invited the Transportation School to participate in order to inject realistic supply transport play into the exercise and to introduce interbranch play. The exercise then became known as LOGLEE. Its success was such that plans were made to expand the exercise to include other army schools.

b. On 25 October 1948, the Director of Organization and Training, DA, directed that a combined logistical exercise be conducted by the

technical and administrative service schools. The Commandant of the Quartermaster School (designated as Maneuver Director), his staff, and representatives from each of the participating schools prepared and supervised the 1949 exercise, again held at Camp Lee.

c. In 1949, the Chief of Army Field Forces directed that an annual combined exercise be conducted under general guidelines furnished by that command. Responsibility for development and conduct of the exercise was rotated in succeeding years among the technical service schools. In 1950, when the exercise was conducted by the Engineer School at Fort Belvoir, Virginia, LOGLEE became LOGEX. No LOGEX was held in 1951 because of the Korean conflict.

d. For the next three years, LOGEX was conducted at Camp Pickett, Virginia, under the Ordnance School in 1952, the Transportation School in 1953, and the Signal School in 1954.

e. Conventional Army logistics doctrine was used for LOGEX prior to 1955, but in that year, LOGEX was used to test a new concept for logistical support. This concept envisioned replacing the conventional staff with a modified, functional staff. LOGEX 55 was prepared by the 1st Logistical Command at Fort Bragg, North Carolina, and played at Fort Lee under the direction of the Medical Field Service School.

f. Following play in 1955, the 1st Logistical Command was given responsibility for preparing future logistical exercises, and the Commanding General of the 1st Logistical Command was named the Maneuver Director.

g. LOGEX 56 utilized the Atomic Field Army (ATFA) organization of service and support units, modified and designated ATFA-1. Based upon guidance from USCONARC, subsequent exercises reverted to established doctrine and organization as a basis.

I-6. US ARMY RESERVE AND NATIONAL GUARD PARTICIPATION.

a. In 1957, for the first time, US Army reserve personnel participated in the play of LOGEX. In 1960, the First Army reserve units attended the exercise. National guard units made their first appearance in the play of LOGEX 64.

b. In October 1961, the Exercise Director (Commanding General, Second US Army) assigned the responsibility for preparation of LOGEX 62 and succeeding exercises to the 2d Logistical Command at Fort Lee. Upon the overseas deployment, in October 1965, of the 2d Logistical Command and upon the activation at Fort Lee of the 22d Field Army Support Command, the latter headquarters was assigned, by Commanding General, US Continental Army Command, responsibility for planning and conduct of LOGEX 66. With the relocation of Headquarters, First US Army, to Fort George G. Meade, Maryland, and assumption of missions relinquished by

inactivation of Headquarters, Second US Army, effective 1 January 1966, the Exercise Director for LOGEX 66 became the Commanding General, First US Army. The Commanding General, US Army Quartermaster Center and Fort Lee was designated Deputy Exercise Director.

I-7. JOINT SERVICES PARTICIPATE.

a. Players and exercise staff for LOGEX 68 included representatives from the Department of State, Navy, and Air Force, 22d Field Army Support Command, Command and General Staff College, selected reserve officers, USAR units, and student and faculty members of the Army branch schools. The number of participants was 3,500.

b. LOGEX 69 players and staff included representatives from Department of State, reserve component units, Navy, Air Force, 22d FASCOM individual reservists, Command and General Staff College, and students and faculty members of the Army branch service schools. The exercise was attended by approximately 4,342 personnel including visitors. LOGEX 70 was not held due to lack of funding.

c. LOGEX 71 was played on a greatly reduced scale, again due to funding restrictions. US Army service schools provided 400 players, Command and General Staff College provided 20 personnel and the Logistics Executive Development Course at the US Army Logistics Management Center provided 30 personnel. Sixteen special visitors were invited. Visitor allocations to other commands/agencies totaled 37. LOGEX 71 encompassed a general war situation in Western and Northern Europe based on US participation in the allied (NATO) defense of Western/Northern Europe against aggression. The exercise portrayed a field army with supporting FASCOM organized under TASTA-70 concepts with the emphasis on the functional areas of supply, maintenance, and movements.

d. Reserve Exercise (RESEX) 71 was held at Camp Pickett, Virginia, for units of the reserve components during the period 7-21 August 1971. Material produced for LOGEX 71 was utilized as a vehicle for RESEX 71. Based on a new concept, 1st FASCOM prepared and controlled the exercise and evaluated the participating units. This coverage permitted the reserve components combat service units to devote scheduled inactive duty drills to meaningful unit mission training and to receive a more accurate evaluation of each units combat service support readiness posture by knowledgeable evaluators. The number of participants was approximately 3,000.

e. LOGEX-LOGEX/Reserve Component 72 encompassed a general war situation in South Korea. LOGEX 72 and LOGEX/RC 72 were held at Camp Pickett, Virginia, during the periods of 24 April through 5 May and 20 May through 3 June 1972, respectively. The US and ROK forces were grouped under a combined United Nations Command structure. The US forces included a 10-division, 2-corps field army supported by a TASCOM

and FASCOM, organized under TASTA-70 concepts, and Air Force participants. Approximately 7,350 individuals participated in the exercises. 1972 was the first year that tactical headquarters were player-manned.

f. LOGEX-LOGEX/RC 73 encompassed a nonactive nuclear general war situation in Central Western Europe with US and Allied forces employed under the NATO structure. The exercises portrayed a 3-corps, 13-division equivalent, US field army headquarters, supported by TASCOM and corps support command (COSCOM) organizations under modified TASTA-70 concepts.

(1) The organization of the theater of operations provided for common COMMZ, under control of host country governments, with US forces as tenants. US and Allied tactical forces in the combat zone (CZ) were under the operational control of Commander-in-Chief, Allied Command Europe (ACE). In the COMMZ, the TASCOM primary installations were in Belgium, the Netherlands, and the Federal Republic of Germany (FRG), with contiguous off-shore logistic bases in the United Kingdom.

(2) Play of the exercise was focused on intratheater army combat service support and interservice support requirements to emphasize the need for interface between combat, combat support, and combat service support organizations in a theater of operations. The play of the tactical portion of the exercises by the field army headquarters, the corps headquarters, and the aggressor control center, was semi-free rather than being "canned." LOGEX-LOGEX/RC 73 were conducted during the periods 28 April through 12 May and 19 May through 2 June 1973, respectively. Total participation was approximately 9,200.

g. LOGEX and LOGEX/RC 74 encompassed a nonactive nuclear general war situation in Western Europe with US and Allied forces employed under the NATO structure. The exercise portrayed two US corps consisting of eight divisions supported by a TASCOM.

(1) The Supreme Allied Commander Europe (SACEUR) held a ninth US division as strategic reserve. The US corps were organized under the Echelons Above Division (EAD) concept. Both US corps were under OPCON of Northern Army Group (NORTHAG) consisting of four corps; two US, one German, and one Netherland. The organization of the theater of operation provided for a shared COMMZ under the control of host country governments, with US forces as tenants. US and Allied tactical forces in the CZ were under the operational command of SACEUR. COMMZ was split between the continent (Belgium and the Netherlands) and the United Kingdom (UK).

(2) Play of the exercise was focused on intratheater army combat service support and interservice support requirements to emphasize the need for interface between combat, combat support, and combat service support organizations in a theater of operations. The play of the

exercise was semi-free rather than being wholly planned. An aggressor control center was established to portray aggressor actions. For the first time, the interface with CONUS wholesale logistics was played. Exercise dates for LOGEX-LOGEX/RC 74 were 4 through 17 May and 1 through 14 June 1974, respectively. Total participation numbered approximately 6,100.

h. LOGEX currently consists of a CPX framework designed to provide material to support two large national exercises, LOGEX and LOGEX/RC. These exercises are directed and coordinated by the Office of the Joint Chiefs of Staff and sponsored by the Department of the Army.

(1) LOGEX is designed to train advanced course students from CS and CSS service schools with some player/controller/reactor positions filled by members of the individual ready reserve (IRR) or reserve component (RC) units. Approximately 60 of this exercise's participants were RC personnel in LOGEX 74.

(2) LOGEX/RC is a second exercise using the same material where all players are from the reserve components. Both exercises have been conducted recently at Fort Pickett, Virginia, each lasting for a two-week period with approximately 52 hours of actual exercise play. Portions of the material prepared for the national exercise (LOGEX-LOGEX/RC) which apply to particular types of units have been extracted and furnished to RC units, and to a limited extent to active army units, for use by them in training at their home station. These extracted packages are known as LOGEX-LOCALS.

(3) In CY 74, materials were extracted from the national exercise which applied to several different type units and furnished to two RC headquarters elements (310th TAACOM, 197th Support Command) which in turn acted as controllers/reactors for four subordinate units playing at Fort Stewart, Georgia. This variation was called a Regional Exercise. Personnel from the LOGEX Directorate of the US Army Logistics Center (LOGC) furnished technical guidance for conduct of the Regional. These three variations of LOGEX form the present CPX materials available from the LOGC.

Section III. ALTERNATIVES

I-8. GENERAL. The possibilities of providing training of equal value by other means was the next issue discussed by the study group.

a. All agreed that a field training exercise (FTX) for complete units would be a preferred alternative. When the numbers of personnel are considered along with the geographical locations of potential participating units and the costs of travel for personnel and transport of the unit's equipment, the FTX is not considered a viable alternative to a CPX for the majority of RC units.

b. Another desirable alternative is the pairing of like units in the RC and the active army or the affiliation program. Such a program is not a viable alternative for all RC units in the training audience of LOGEX because there are many RC units which have no active army counterpart.

c. Current regulations encourage participation by RC units in active army exercises. This and the two possibilities mentioned above should be utilized whenever and wherever practical. During the time frame with which the study is concerned (FY 75-80) it does not appear that any of these methods will provide training to the commanders and the key staffs of all RC units in the training audience. It thus appears that the requirement to prepare materials for conduct of a national exercise and possible further variations and uses of these materials is valid until 1980. Alternatives which appeared viable at this point were CPX variations using the national exercise material.

I-9. NATIONAL.

a. This denotes a logistic command post exercise conducted at a single location. It includes representative play developed for the command and staff elements of combat support and combat service support units. The level of play provides player interaction within and among the various units and between appropriate units and command and staff elements of other military services. The play requires the command and staff elements of specific units to interface with standard systems which are computer simulated for the exercise. The exercise requires play conducted over a maximum period of two weeks.

b. Exercise control and evaluation is accomplished by an Army logistical training activity.

I-10. REGIONAL.

a. This denotes a logistic command post exercise conducted at a location within a given area or "region." It includes representative play developed for the command and staff elements of combat support and combat service support units which has been tailored for the players available in the region. The level of play provides player interaction with and among the various units. Where players are not available to man all units which would normally interact, reactors play the role of the remaining units to maintain realistic play.

b. If available, command and staff elements of other military services participate when the play is appropriate. The play requires the command and staff elements of specific units to interface with standard systems by manual methods unless computer support can be made available within the region to simulate the systems. The exercise requires play conducted over a maximum period of two weeks. Exercise control and evaluation is accomplished by an Army organization within

the region with assistance provided by an Army logistical training activity.

I-11. MUTA-LOG.

a. This denotes a logistic command post exercise conducted on an individual unit basis. It includes representative play developed for the command and staff elements of that unit which has been derived and refined from a larger logistical exercise by an Army logistical training activity. If available, sister and higher headquarters units provide reactors to play the role of other units with which it would normally interact.

b. An Army logistical training activity maintains a "war room" for the exercise and provides reactors, control, and evaluation via telephone communications to the exercise location. When appropriate, system familiarity is gained through the use of manual methods. The exercise is conducted in a serialized format over a sequence of Multiple Unit Training Assemblies (MUTA).

I-12. LOCAL. This denotes a logistical command post exercise conducted by a unit for internal training purposes. It includes representative play developed for the command and staff elements of that unit which has been derived from a larger exercise by an Army logistical training activity. The level of play is refined and amplified by the unit to meet its particular needs. The unit furnishes reactors from within its own resources to play the role of other units with which it would normally interact. System familiarity is gained through the use of manual methods when the mission of the unit and level of play warrant. Exercise duration and evaluation are determined by the unit commander. These alternatives along with the potential of extending the training audience of LOGEX to attendees at the Support Command Refresher Course at the US Army Command and General Staff College (CGSC) and to units in the active Army were presented to the SAG and agreed upon. The CGSC alternate appeared to be a valid adjunct to the CS-CSS Exercise but because of its limited audience (approximately 100 personnel maximum) it is not a viable alternate to the CS-CSS Exercise.

I-13. ADP SUPPORT.

a. ADP support for the various forms of the exercise has been a troublesome issue to the study effort. ADP support of the national exercise is feasible and is desirable. If the national is envisioned as a capstone of staff training for CS and CSS units, it must include the latest standard systems or an acceptable emulation thereof. There are further ADP requirements in an exercise support role; that of time compression, responsiveness to player actions, and the insertion of control and reaction influences in the least disruptive and most realistic manner.

b. ADP support for regional exercises is also desirable, particularly in a support role, but should not be a driving factor in deciding whether or not an exercise will be conducted. The one Regional to date was conducted without ADP, with manual play and was a worthwhile experience which provided valuable training for participants. Unit responses indicated that while ADP is desirable in regionals, it is not mandatory and the slower manual play is an acceptable alternative. However, the reserve logistic unit will be expected to mobilize into an environment which may involve ADP activity. RC logistic units, except for DISCOMs, have no access to ADP-type training during their home station drills. Thus, it is important that such units be given maximum appropriate exposure to ADP matters during their annual training.

c. It is not necessary for the logistician to have more than a casual knowledge of the hardware which provides him his management information. It is important that he be able to work with management information during annual training that closely approximates the management information he will use upon mobilization.

d. Future plans should include the use of ADP support for regional exercises. In order to do this, the ADP support package for LOGEX must be written in the future so it can be used on "standard hardware." Currently, the LOGEX ADP package is configured to an RCA Spectra 70 machine, few if any of which exist throughout the Army inventory. Thus, the presently available exercise (LOGEX 74 and LOGEX 75) could not be "taken on the road" with ADP support. It was determined the ADP support package for either exercise (74 or 75) could be converted from the Spectra 70 configuration to that of compatibility with the most commonly available equipment either in the Army inventory, in a government-wide inventory, or commercially in any major city. This conversion would involve a one time cost of 34 man-months and would require eight personnel over a six-month period. (See Annex 1 to Appendix 1.)

e. It is recommended that beginning with LOGEX 76 all future LOGEX packages be developed to include an ADP support package to fit the most commonly available ADP equipment.

f. The study group recommends the immediate conversion of the LOGEX 75 ADP support package to this configuration. This would permit the conduct of ADP supported regional exercises by late 1975 or early 1976. It would also provide an inventory of two types of regional exercises available in the future: The LOGEX 75 package which could exercise a substantial number of COSCOM and lower units and the LOGEX 76 package which would be available to exercise the COMMZ units.

Section IV. ANALYSIS OF PRESENT LOGEX

1-14. VALUE. Information with which the alternatives could be addressed was requested from the service schools, which historically have provided

student participants in LOGEX; a statistical sampling of FORSCOM units which have played some form of LOGEX/RC, a regional or a local; HQ, FORSCOM; the National Guard Bureau and the Chief of the Army Reserve. The information requested was in two parts, training value and requirements, and costs incurred during CY 74. Information provided to the study group by the service schools indicated that:

a. The true value of LOGEX varies from little value to valuable training for the advanced course students.

b. Participation in LOGEX is not essential to the accomplishment of the service school mission.

c. In most schools the two weeks which are devoted to LOGEX could be used more profitably since officer resident courses are being reduced in length and the students are being trained primarily as company commanders with excursions to battalion level staff.

d. In many instances the student assignments during LOGEX have not been realistic with respect to grade, position, or immediate assignment of the student.

e. In some instances command post exercises are being conducted at the schools in which the student receives similar experiences to those obtained during LOGEX. The similarity does not include the interservice relationships, new concepts and doctrinal characteristics as extensively as received through LOGEX.

f. It would be difficult to provide local training with all of the characteristics of a LOGEX at the respective service schools.

g. Participation in LOGEX serves as a reinforcing vehicle for instruction. This comment is applicable to the Command and General Staff College student participation.

I-15. RESERVE COMPONENT PARTICIPATION. The other part of the training audience, much larger in terms of individual participants, consists of the command and staff elements of RC CS and CSS units of battalion size and larger. Responses from this part of the audience indicated that:

a. The LOGEX type exercise was a valuable training vehicle due to the absence of mission-type training for major CSS units (support group, COSCOM, brigade, TAACOM, etc.) through other means.

b. Much more stringent training management is required by the trainer in selecting RC units to participate in the exercise.

c. Training should be cyclic, coordinated, comprehensive, and centrally controlled.

d. The desired frequency of attendance varied from once every three years to once every five years.

I-16. NOMINATION OF RESERVE COMPONENT UNITS. To identify and select Army RC units for participation in LOGEX, FORSCOM chairs a working meeting with TRADOC and the LOGC. During this conference units are allegedly nominated for participation based on the following considerations:

a. Units which have not played LOGEX or have not participated in two or three years.

b. Unit needs for LOGEX training.

c. Readiness priority of units considered.

In actuality the selection process seems much less precise. The actual process of selection of units to participate in LOGEX appears to lack coordination and logic of selection notwithstanding the criteria stated above. Some units seem to be continuous participants, i.e., 310th TAACOM, 311th Support Brigade, 103d Support Brigade, etc., while others participate occasionally if at all. This would seem to invalidate the claim that selection criteria a and b above were used. In LOGEX-LOGEX/RC 74 there were a total of 19 and 51 RC units, respectively, participating. In order to avoid wasting extensive preparation effort and to achieve maximum training benefits the trainer (FORSCOM) must make firm decisions at least 18 months before the exercise is to be conducted concerning participants and site.

I-17. READINESS PRIORITY COMPARISON.

a. Table I-1 indicates that readiness priority did not play a major role in selecting units to participate in LOGEX. For a LOGEX type training vehicle to be meaningful, there must be rational selection criteria developed to choose units to participate and those criteria must be applied honestly during the selection phase. Planning for attendance by units of the RC in the past appears to have been done on a year by year basis, thus providing little opportunity to schedule and/or manage any training progression.

Table I-1. Exercise Participants Related to Readiness Priority, LOGEX-LOGEX/RC 74.

EXERCISE	TOTAL RC UNITS	D+15-30	D+30-59	D+60-89	D+90-179	D+180
LOGEX	19			16	5	79
LOGEX/RC	51	4	17	4	24	51

b. With FORSCOM responsible for unit training of active Army and USAR units and supervision of National Guard training and with TRADOC being responsible for service school training and preparation and conduct of the national logistics exercise, a curious void in training management has resulted in this very vital area. This is especially true of the training of command and staff elements of RC logistical control headquarters.

c. Current doctrine specifies that TRADOC has responsibility for preparation of training materials for RC units to include manuals, ADP, ARTEP, etc. On the other hand, FORSCOM has overall responsibility for unit training in accordance with AR 350-1 and AR 10-42.

d. LOGEX as it has historically been conducted appears to fall squarely in an area between the two commands. On the one hand the exercise preparers need to be at the logistics doctrinal center of the Army since this permits them access to the best available resources for exercise preparation. On the other hand, the exercise preparers are constantly faced with the need for training oriented decisions, more and more of which appear to be a FORSCOM responsibility. A clear and continuing interface between the trainers of FORSCOM and the exercise writers is essential if the void is to be eliminated.

e. As discussed earlier, the training audience served by the national logistical exercises is composed of two distinct groups, the advanced course students from CS and CSS service schools with a small representation of students from CGSC, and CS and CSS units of the reserve components. Players from the service schools in the past have been from any advanced class in session when the exercise is played. Depending on the schools this could range from 100% participation for a school with only one class per year, to 33% with a school having three classes per year with one in session at the time of the exercise, to 0% if no class was in session. The average appears to be about 50% of the advanced course students at the respective schools playing in the exercise.

f. A lack of identified concrete training requirements in terms of goals and training audience has necessitated the use of very broad exercise objectives. Numerous changes in the units to attend the exercise and an uncertainty in what personnel should be brought by a unit playing the exercise have also been common. Minimum manning positions identified by the LOGEX Directorate, LOGC, reflect the number of positions for which meaningful exercise play has been developed. Actual attendance at LOGEX/RC 74 exceeded these positions by 100%.

g. It is not proposed to take away a unit commander's prerogative of bringing those command and staff elements in his unit which require training. In some cases this could well be in excess of the minimum identified positions; however, bringing two to three times the number required not only increases unduly the cost of the exercise but degrades

the quality and amount of training each attendee can receive. Table . 5, page J-20, shows the variation between minimum manning positions and exercise attendees as well as the travel involved. Exercising management to control the participation and to insure that those attending can knowledgeably participate through prior training and/or experience is essential.

Section V. EVALUATION

I-18. GENERAL.

a. In attempting to evaluate the effectiveness of LOGEX 74 and LOGEX/RC 74, the Study Group evaluated the FORSCOM Form 480-R, Report of Yearly Training Evaluation of Reserve Components, for units participating in LOGEX 74 and LOGEX/RC 74. Based on that evaluation, the Form 480-R is not a viable evaluation device for a LOGEX-type CPX. The 480-R is designed to provide a unit evaluation and as such is inherently incapable of evaluating adequately the performance of separate segments of that unit or of individuals. Of 63 total reports evaluated, only 9 listed training deficiencies or training which should be stressed during Training Year (TY) 1975. Evaluations did not indicate degree of attainment of LOGEX objectives or shortcomings based on training requirements. FORSCOM has revised the evaluation form. The new form is now designated FORSCOM Form 1-R. The FORSCOM Form 1-R has been reviewed and also does not appear to be a viable CPX evaluation device. It would appear that by adding to the existing instructions of the new form 1-R to accommodate those elements reflected in para I-19 and I-20, this new form could be utilized for CPX evaluation.

b. One or more evaluation devices are required for LOGEX type CPXs which adequately measure the attainment of training objectives by the commander and his staff as well as students and IRR. This would allow units/schools to insure training in those areas which showed shortcomings. Evaluation devices of this type would also allow the agency preparing the CPX to modify future CPX to overcome shortcomings in past CPXs. This evaluation device(s) could be an annex to the existing FORSCOM Form 480-R (Form 1-R) or could stand by itself.

I-19. AN EVALUATION OF UNIT PLAY DURING THE CPX. This evaluation should include future training recommendations for the unit as well as specific staff sections or individuals within the unit. Specific elements which should be addressed in this section are:

a. Functioning of the command elements.

b. Functioning of the staff elements.

c. Realism injected into play of the CPX.

d. Technical training provided during the CPX.

e. Functioning of the unit with higher, lower, and equivalent units.

f. Information flow within the unit.

g. Integration of student and IRR personnel into the unit.

h. Prior exercise preparation by the commander and his staff.

I-20. EVALUATION OF THE EXERCISE ITSELF. This should include an evaluation of the attainment of CPX objectives. Specific elements which should be addressed are as follows:

a. The amount of realism involved in the CPX to include player positions as well as exercise play.

b. The extent to which the exercise familiarizes participants with current systems.

c. The extent to which the CPX updates participants on current doctrine and new concepts.

d. The amount of emphasis placed on play between various Army units.

e. The amount of emphasis placed on play between the services.

f. The extent to which the exercise requires the use of technical expertise.

Section VI. TRAINING VALUE AND COST DETERMINATIONS

I-21. TRAINING EFFECTIVENESS.

a. One of the research techniques used by the Study Group was the Delphi Technique. This is a method of gathering expert opinion in a given subject area. It consists of a series of questionnaires sent to selected respondents who are knowledgeable in the area being surveyed. Through the use of sequential questionnaires, the attitudes and opinions of the respondents are analyzed and presented to them in subsequent questionnaires.

b. The Delphi Technique seeks to take full advantage of the committee approach to analysis while avoiding some of its negative factors. For example, there is no problem with the "aggressive expert" who feels called upon to defend his publicly stated opinion, or the executive with whom subordinates are reluctant to differ. Each respondent receives

feedback on the group's responses as well as new ideas presented by other participants. The technique permits all of the information to be presented in a manner that allows one to rationally analyze the information in privacy. Each recipient is assured that his opinion will be recognized and evaluated.

c. The Study Group selected 20 Delphi Group participants from the Fort Lee, Virginia, area. The prerequisites for selection of participants included the following:

(1) Experience in unit command and staff functions.

(2) Experience with unit training to include command post exercises.

(3) Experience in platform instruction.

d. In addition, an attempt was made to insure that the branches of Delphi Group participants were representative of the Army branches commonly playing LOGEX and LOGEX/RC. Participants included both RC and active duty officers. Application of the technique by the Study Group involved four major steps.

(1) Definition of the problem, alternatives (feasible logistical command post exercise methods), and pertinent characteristics of the alternatives (logistical training benefits).

(2) Quantitative weighting of the training benefits in terms of importance.

(3) Quantitative scoring of the training alternatives in terms of achievement of the training benefits.

(4) Analysis of response information including calculation of a relative figure of merit or relative benefit index for each alternative.

e. These steps were accomplished through three successive questionnaire/response iterations from the participants. Of the 20 participants initially selected, 17 completed the information required in all three iterations of the questionnaire.

f. The questionnaires were designed to provide the following information to the Study Group with respect to RC and service school training.

(1) A critical review of the adequacy and completeness of the logistical CPX alternatives being considered by the Study Group. This resulted in the elimination of one alternative for service school training and clarification of other definitions.

(2) A critical review of the adequacy and completeness of the training benefits. Ten benefits were originally developed by the Study Group based on stated LOGEX objectives and past LOGEX experiences. Two of these 10 were rejected by the participants as being ill-defined and beyond the scope of realistic training objectives. Analysis of quantitative responses also clearly indicated that a third training benefit, "readiness," did not apply to service school training. Comments supplied by the participants indicated that service school personnel participating in a CPX do so on an individual basis and do not improve in "readiness" which normally has unit connotations.

(3) Quantitative judgment factors. These were of two types: A benefit importance weight which would allow the Study Group to determine a ranking of training benefits, and a benefit achievement score which would allow the Study Group to determine the potential each alternative possessed in providing the training benefits.

g. Taken together, the quantitative factors provided the information required to develop a relative figure of merit for each training alternative. The computation procedure followed was the calculation of a weighted average which the study group termed the Relative Benefit Index (RBI). This index is similar to the type developed in many trade-off processes, notably the National Security Industrial Association Trade-Off Technique.

h. The analytical results obtained from the questionnaires are summarized in Tables I-2 and I-3. All figures presented are averages or weighted averages. Importance factors were obtained on a scale of 0-10; achievement factors on a scale of 0-100. Table I-2 contains RC training results. The benefit importance factors provide an indication of the relative ranking of training benefits as viewed by the respondents. The RBI for each alternative is shown on the last line of the chart. Statistical analysis has shown that these figures are significantly different with 90% confidence. In other words, the difference in the RBI between the National CPX and Regional CPX, for example, results from actual differences in the training rather than variability of questionnaire information. This can be further reinforced by inspecting the achievement factors for these two alternatives. This shows the Regional CPX to be deficient in concept and doctrine update, interbranch training, and interservice training when compared with the National CPX. Similar comparisons can be made between other alternatives.

i. Service school training results are contained in Table I-3. Again, the benefit importance factors provide an indication of the relative ranking of training benefits. It should be noted that this ranking differs from the ranking resulting from RC training, Table I-2.

(1) The RBI for each alternative is shown on the last line of the chart. However, caution should be exercised in reviewing these

Table I-2. Reserve Component Training

TRAINING BENEFITS	IMPORTANCE	METHOD OF ACHIEVEMENT			
		LOCAL CPX	MUTA-LOG CPX	NATIONAL CPX	REGIONAL CPX
Command Training	6.5	61.7	59.1	57.3	59.2
Concept & Doctrine Update	5.8	41.9	51.0	64.1	55.7
Staff Training	7.6	64.7	68.1	71.0	68.3
Systems Familiarization	3.4	20.5	31.8	58.9	54.4
Technical Training	3.0	42.9	47.4	39.0	42.7
Interbranch Training	5.4	18.3	21.9	64.5	49.1
Interservice Training	3.0	13.0	15.5	69.4	35.5
Readiness	4.9	46.7	49.7	44.9	47.4
Relative Benefit Index (RBI)		43.03	46.94	60.03	54.08

Table I-3. Service School Training

TRAINING BENEFITS	IMPORTANCE	METHOD OF ACHIEVEMENT		
		LOG-SCHOOL CPX	NATIONAL CPX	REGIONAL CPX
Command Training	3.3	33.1	36.5	33.3
Concepts & Doctrine Update	3.3	61.8	56.8	44.1
Interbranch Training	6.0	40.8	62.5	52.2
Interservice Training	3.0	30.9	64.0	40.4
Staff Training	7.3	69.2	64.3	57.2
Systems Familiarization	4.4	65.9	56.9	48.2
Technical Training	3.9	57.7	32.1	31.9
Relative Benefit Index (RBI)		53.7	55.12	46.22

figures. Statistical analysis has shown that these figures are not significantly different. A large portion of the differences in the RBI can be attributed to variability of the questionnaire information.

(2) A review of comments received in the questionnaire indicates a concern over the feasibility of adequate service school participation at a Regional CPX to make it a meaningful alternative for comparison with a School CPX or a National CPX. In addition, achievement factors for the School and National CPX showed a wide dispersion in individual responses. An inspection of the achievement factors in Table I-3 representing the average group responses also indicates that some training benefits can be achieved in the school environment and others by a National CPX. This was confirmed by comments which indicated a belief that the School CPX has the potential of being more directly suited to student participation.

j. The logistics school CPX has not previously been defined and was explained to members of the Delphi as:

> "LOG SCH CPX. Denotes a logistics command post exercise conducted simultaneously at the service schools as a modification of the program of instruction for advanced courses. The exercise includes representative play for the command and staff elements of combat support and combat service support units which has been derived and refined from a larger exercise by an Army logistical training activity. Course attendees play positions reflecting potential assignments where possible. Faculty from the schools assist in the exercise by providing reactors to play the role of other units required to maintain realism. An Army logistical training activity maintains a "war room" for the exercise, provides reactors, and controls the exercise via telephone communications to the schools. Interaction between the various units is provided through telephone communications between schools. Where appropriate, systems familiarity is gained through the use of manual systems except at schools where computer support is available to simulate standard systems. Exercise evaluation is accomplished by the schools and the Army logistical training activity."

I-22. COST EFFECTIVENESS.

a. Cost data included in the study has been received from LOGEX, LOGEX/RC, LOGEX Regional, and LOGEX-LOCAL participating units and headquarters. No cost data was received from some units, leaving a gap in cost data. However, an approximation of cost per unit trained has been derived. The cost per unit does not include exercise preparation cost since this is considered sunken cost and can be used for all alternatives discussed above. RC pay and allowances were also disregarded since the RC must attend annual duty training. Approximate costs per

unit for LOGEX and LOGEX/RC are $14,000. Based on this cost, estimated cost per unit for a Regional Exercise is $9,000. No data is available to cost a MUTA-LOG or Local Exercise. A rough estimate of $2,000 per unit for a MUTA-LOG and $1,000 per unit for a LOCAL is being used. The above cost figures can only be used as a guide due to incomplete data from the field and difficulty of gathering data.

b. One cost which varies significantly by Army area is transportation costs. Table I-4 shows the differences in unit transportation by Army area. Table I-5 shows the spectrum of distances traveled by RC units involved in LOGEX-LOGEX/RC 74.

Table I-4. Travel Cost, LOGEX 74 and LOGEX/RC 74

ARMY AREA	NUMBER OF UNITS	AVERAGE UNIT COSTS	NUMBER OF INDIVIDUALS	AVERAGE NUMBER OF INDIVIDUALS PER UNIT	AVERAGE INDIVIDUAL COSTS
1st	32	$ 4,238	2,305	72	$ 59
5th	11	19,750	894	81	243
6th	12	22,430	880	73	306
Hawaii	1	48,475	57	57	850
	56				

Table I-5. RC Units Attending LOGEX-LOGEX/RC 74

UNIT	MINIMUM MANNING LEVEL	PERSONNEL ATTENDING	DISTANCE FROM HOME STATION (ONE WAY)
24th Spt Cen (RAO)	24	60	528
30th Engr Bde	22	105	106
31st Spt Cen (RAO)	24	54	879
32d ICC	74	153	1,194
105th Engr Gp (HHC)	15	64	277
114th Area Spt Gp (HHC)	69	154	911
135th Engr Gp (HHC)	15	79	828
143d TC Bde (HHC)	55	78	755
167th Spt Gp (HHC)	69	36	654
171st Spt Gp (HHC)	14	73	106
297th S&S Bn (HHC)	64	57	5,275

Table I-5. RC Units Attending LOGEX-LOGEX/RC 74 (CONT)

UNIT	MINIMUM MANNING LEVEL	PERSONNEL ATTENDING	DISTANCE FROM HOME STATION (ONE WAY)
300th Area Spt Gp (HHC)	77	189	43
303d CA Gp (HHC)	51	160	350
310th TAACOM	110	347	168
332d Ord Bn (HHC)	8	57	541
350th PSYOP Co	14	146	526
371st Spt Gp (HHC)	74	80	523
416th ENCOM (HHC)	48	116	790
475th Petrl Gp (HHC)	8	10	461
29th Spt Cen	24	25	203
32d TC Gp (HHC)	16	20	779
43d MP Bde (HHD)	23	55	565
49th Med Bn (HHD)		14	2,827
53d Sig Gp (HHD)	27	28	680
103d Spt Cen (RAO)	24	18	474
111th TC Gp (HHC)	14	49	1,299
115th Engr Gp (HHC)	22	71	2,149
125th Ord Bn (HHC)	8	52	2,011
139th Ord Bn (HHC)	8	78	2,568
156th Area Spt Gp (HHC)	46	179	1,832
158th MP Bn (HHD)	9	31	2,169
160th MP Bn (HHD)	4	6	680
164th Engr Gp (HHC)	16	20	1,632
164th Spt Gp (HHC)	23	71	2,242
173d Med Gp (HHD)		35	528
175th Med Gp (HHC)		43	2,800
223d MI Co	25	37	175
259th Petrl Bn (HHD)	8	110	2,160
300th TC Gp (HHC)	33	51	460
300th Ord Bn (HHC)	8	9	582
300th ICC	74	113	168
301st Area Spt Gp (HHC)	80	141	407
305th PSYOP Bn	14	46	790
307th Med Gp (HHD)		22	491
310th MP Bn (HHD)	14	25	388
311th Spt Bde (HHC)	89	173	2,579
315th Fld Dep (HHC)	64	107	790
318th Trans Cen HQ	33	40	388
319th TC Gp (HHC)	11	34	2,879
324th PWIC	4	6	800
335th Sig Gp (HHC)	17	30	484
335th P&A Bn (HHD)	45	33	380
336th TC Gp (HHC)	11	40	790

Table I-5. RC Units Attending LOGEX-LOGEX/RC 74 (CONT)

UNIT	MINIMUM MANNING LEVEL	PERSONNEL ATTENDING	DISTANCE FROM HOME STATION (ONE-WAY)
344th DPU	50	73	272
346th S&S Bn (HHC)	14	31	2,177
353d CA (Area) (HHC)	51	106	360
359th Sig Gp (HHD)	29	62	526
400th PW Gp (HHC)	4	15	680
412th ENCOM (HHC)	50	53	1,121
415th MMD	14	25	2,886
421st MMD	16	37	1,105
425th TC Bde (HHC)	45	70	803
458th Stk Con Co	25	124	2,169
493d Engr Gp (HHC)	34	65	1,240
800th MP Gp (HHD)	9	56	388
817th P&A Bn	47	38	400
865th MMD	14	9	170
916th Fld Dep (HHC)	72	69	2,579
4030th Spt Cen	24	18	100
TOTAL	2,750	5,613	

I-23. COST VS TRAINING EFFECTIVENESS.

a. Referring back to the Delphi results discussed previously, the following general observations can be made concerning this critical subject of training/cost effectiveness. The RBI developed in the Delphi ranked the four types of exercises as follows with respect to RC training.

(1) National - 60.0.

(2) Regional - 54.0.

(3) MUTA-LOG - 46.9.

(4) LOCAL - 43.0.

b. If these relative measures of training benefits are then used as divisors of the variable cost for each unit which participates in the exercise, a general indicator is derived which might be called "cost per unit of training effectiveness." Table I-6 below gives such a derivation and is based upon very rough cost information. Regrettably, returns from the field did not provide complete and accurate cost data and,

therefore, Table I-6 must be taken merely as a guide subject to much management analysis.

Table I-6. Benefit Analysis

	COST/UNIT	RELATIVE BENEFIT INDEX	RELATIVE COST EFFECTIVENESS INDEX
National	$14,000	60.0	233
Regional	9,000	54.0	167
MUTA-LOG	2,000	46.9	43
LOCAL	1,000	43.0	25

c. It should be pointed out quite forcefully that the study group believes LOGEX 74 was probably the "worst case" from the point of view of overall cost effectiveness. A major unit was flown from Hawaii to attend the exercise and numerous other units came from distant points. In addition, as discussed previously, there was about a 100% overstrength permitted of actual attendees in relation to the minimum manning levels recommended. Again, therefore, Table I-6 should not be taken literally but needs much management interpretation.

d. Applying that type of management interpretation to Table I-6 reveals that the relative cost effectiveness of a Regional appears to be the "best buy." It was the Study Group's judgment that neither the LOCAL nor the MUTA-LOG are suitable substitutes for a Regional or National but are merely complementary thereto. Thus, the real comparison needs to be made and management judgment needs to be applied between the Regional and the National exercise.

e. On the basis of pure cost effectiveness, the rough data shows the Regional to be the "best buy." However, there are clearly benefits to be derived from attendance at a National which can probably not be derived from a Regional. The mere act of attendance which brings with it the opportunity to mix with fellow logisticians from nationwide is bound to have some training benefit. The opportunity for interservice activity presents a potential benefit at the larger unit levels such as group, brigade, and area command levels, which will probably not be available at the Regional.

f. Analysis of the Delphi Group responses support the Study Group's judgment in this regard.

g. Thus, the Study Group concluded that increasing emphasis should be put upon Regionals with perhaps one National being held per year upon

direction from higher headquarters. It is possible that this National might be rotated geographically throughout CONUS, that it might be conducted on alternate years and that it might be either one week or two weeks in duration. All these factors should be considered early by higher headquarters and command guidance provided to those responsiole for the preparation and conduct of the National.

h. A similar "cost per unit of training effectiveness" was not derived for service school students due to the variability of Delphi Group responses in this area. However, as discussed earlier, most service schools feel the student training time could be utilized more effectively at the service school than at LOGEX. In addition, several elements of total exercise cost would be reduced by the elimination of service school student participation.

Section VII. POTENTIAL SAVINGS

I-24. ECONOMIES. The Study Group considered the present mission of the LOGEX Division of the Logistics Exercise Directorate, LOGC, and its current staffing based on a proposed TDA dated 5 March 1975 (due for implementation in the near future). The conclusions of the group are that economies are possible which will result in reduced manning requirements. Basically, the proposal is as follows with the actual numbers reflected in Table I-7.

Table I-7. Space Saving Steps

LOGEX DIVISION

	AUTH	ASG	FREEZE	ELIM BRANCH NCO	ELIM* SCHOOL REP	ELIM SPT BRANCH	TOTAL SAVINGS	AUTH STR
Officers	13+	17+	1			1	2	16+
School Rep	8	3			5		5	3
NCO	21+	17+	4	3		3	10	11
School Rep	1	1			1		1	0
Professional Civilians	3	4						3
Clerical Civilians	4	4						4
ADP	15	10	5				5	10
TOTALS	61+	52+	10	3	6	4	23	44+**
School Rep	9	9						3

*Retain Ord & MM School Rep (QM School Rep now 50 QM School).
**Does not incl 3EM asg to Print Shop.

a. Step 1. Freeze the division and its dedicated ADP support at its current assigned strength. Where assigned strength exceeds authorized in any particular category, reduce the excess down to authorized strength. The general rationale being that the mission is being accomplished using present assets, without an inordinate amount of overtime being incurred.

b. Step 2. Eliminate the NCOIC from the branches within the division. These apparently are holdovers from the time that the exercise was prepared by a troop unit and are no longer essential contributing factors in preparing an exercise.

c. Step 3. Eliminate the school representatives from the Signal, Engineer, Transportation, Military Police, Chaplain, and Institute for Military Assistance Schools. Their function of insuring correct doctrine and of advising exercise participants can be done by the schools concerned with perhaps a total of 30 days TDY to Fort Lee or wherever the exercise is prepared each year.

d. Step 4. Eliminate the Support Branch of the LOGEX Division with the exception of the offset press operators and one professional civilian. The Support Branch exists primarily to provide the administrative support required to physically conduct the exercise at Fort Pickett each year and appears staffed for the peak requirement occurring during a 90-day period culminating in the exercise. Liberal use of RC man-day spaces for this task would seem eminently feasible.

If adopted, these economies should be effected by the end of FY 76.

I-25. FREQUENCY OF PREPARING NEW MATERIAL.

a. Currently a new exercise is prepared each year. None of the responses from schools or units indicated a need for a different exercise each year. Several of the unit responses proposed training cycles with the overall timing of each cycle varying from two to five years. Using the same exercise scenario for a three-year period would satisfy the training requirements thus far identified. The exercise preparation function would thus be spread over a three-year period requiring less personnel.

b. It must be noted, however, that updating the exercise in use to reflect current doctrine must also be accomplisned while the new exercise is being written and packaged. One disadvantage to the increased time over which the same exercise would be used is a reduced opportunity to test new concepts. When the value of the exercise as a training vehicle is taken in context with the austere environment within which the Army must operate, the economy of utilizing the same exercise for three years more than offsets a loss in testing opportunity.

c. Table I-8 indicates the transitional phases wherein the exercise would be shifted from annual preparation and conduct with LOGEX personnel providing conduct of the National and assistance to Regionals, to preparation once every three years with FORSCOM elements assuming full responsibility for conducting the Regionals. This table assumes that the potential economies described in Table I-7 have been realized.

Table I-8. Responsibility Assignment

END FY	NATIONAL PREP	NATIONAL CONDUCT(1)	REGIONAL PREP	REGIONAL CONDUCT(2)	M-L PREP	M-L CONDUCT(2)	LOGC MANPOWER
75	A/L	A/L	A/L	A/F	A/L	A/F	61
76	A/L	A/L	A/L	A/F	A/L	A/F	47
77	T/L	A/F	T/L	A/F	T/L	A/F	28
78	T/L	A/F	T/F	A/F	T/F	A/F	24
79	T/L	A/F	T/F	A/F	T/F	A/F	24
80	T/L	A/F	T/F	A/F	T/F	A/F	24

A - Annual; T - Tri-Annual; L - LOGC; F - FORSCOM Element

(1) Changes to technical assistance by LOGC in 1977
(2) Limited to technical assistance by LOGC

Section VIII. TRAINING PLAN

I-26. PLANNING.

a. A review of pertinent regulations as well as previous LOGEX activities revealed a substantial lack of planning and organization as pertains to the implementation of command post exercises for logistical headquarters units. Most, if not all, written material on the subject is directed toward combat arms type units, and there is little if any formalization of this type of training required. This omission is unfortunate, since many logistics units, although individually quite small, function as "small cogs" in a large machine. It is particularly critical that these units be given an opportunity to "practice" their mobilization assignments, and for the command and staff elements this can only occur in a CPX environment.

b. It is also important to discuss the criticality of ADP support for such exercises. If a reserve logistical unit is expected to function upon mobilization in an automated environment, then there exists an

obligation to provide that unit an "automated environment" for some portion of its annual training. To do otherwise would be comparable to mobilizing a tank crew without its ever having seen a tank. Most RC units do not have access to ADP equipment at home station, and the opportunity to function in an automated environment is largely restricted to annual training, and specifically to participation in large-scale CPXs.

c. It is important to state that all references to "ADP" are intended to refer to the "product" of the ADP system and not the hardware aspects of the system. The "basic weapon" of the logistician is the periodic printout which gives him the status of various items/actions he must manage. So long as that "printout" is accurate and timely, the logistician cares no more about the "hardware" that provides it to him than the infantryman cares about the name of his rifle's manufacturer. Both the logistician and the infantryman want and deserve the very best "weapon/management tool" we can provide, and the reservist, no less than the active Army soldier deserves an opportunity to become familiar with the basic implements of his trade in a training environment before being called upon to perform with that implement in his mission assignment.

d. However, before the infantryman "fires for record" with his weapon, he undergoes extensive "basic training" and the same "progressive training" approach is herewith suggested for consideration in the training of logisticians. Thus the reserve logistics units would start with a simplified "exercise" involving command and staff management, decision making, and move progressively through a training cycle, normally four years, in which each successive exercise becomes increasingly more difficult than the preceding one.

e. The training plan which follows is based upon the following criteria:

(1) A "Centralized Active Army Organization" (CAAO) will be needed on a continuing basis to prepare a "family of CS and CSS command post exercises."

(2) Appropriate regulations are needed formalizing CPX activity in training activities of logistical RC units.

(3) FORSCOM should increasingly assume responsibility for supervision and conduct of CS and CSS CPXs.

(4) The RC should train themselves to the maximum feasible extent.

(5) RC unit training in CPX activities must be "certified" before the unit can undertake the more sophisticated exercises envisioned in the training plan.

(6) A "progressive training plan" is suggested, which permits a unit to undertake a simplified version of a CS and CSS CPX and then move progressively up the scale of exercises in terms of degree of difficulty.

I-27. TRAINING.

a. In order to adequately provide command and staff training for CS and CSS RC units, a single "exercise preparation unit" for LOGEX type CPXs is required. This function is currently being performed by the LOGEX Division, Logistics Exercise Directorate, LOGC, Fort Lee, Virginia. A more functional title, "Central Active Army Organization," is given this mission for purposes of this discussion, for the following reasons:

(1) It must be centralized, in order to be cost effective.

(2) It should be active Army rather than RC for purposes of doctrinal input.

(3) It must be an "organization" rather than an Ad Hoc group for purposes of continuity.

b. The Centralized Active Army Organization would have the following general mission assignments.

(1) Prepare a "family of CS and CSS command post exercises" at prescribed periodic intervals (every one, two, or three years).

(2) Update CS and CSS CPX as needed in interim years.

(3) Conduct LOGEX-National at specified frequencies and locations.

(4) Prepare and distribute LOGEX-LOCAL packages for use by RC units at home station.

(5) Operate LOGEX-War Room for AUTOVON hook-up to RC units for conduct of MUTA-LOG on weekend drills.

(6) Provide technical guidance to specified number of LOGEX-Regionals. Since FORSCOM has overall responsibility for RC unit training, the following potential mission assignments are envisioned for Army readiness regions/groups or similar FORSCOM elements.

(a) Insure some type of LOGEX training in unit training program each year for CS and CSS units.

(b) Assist RC unit commander in preparation and conduct of LOGEX-LOCAL.

(c) Serve as controllers/reactors/instructors for unit play of MUTA-LOG.

(d) Certify to unit's successful completion of LOGEX-LOCAL and/or MUTA-LOG.

(e) Assists Centralized Active Army Organization in conduct of LOGEX-Regionals.

(f) Creates and operates LOGEX-War Room at Army Readiness Region (ARR) HQ or similar location for conduct of MUTA-LOG via AUTOVON hook-up to RC units on MUTA drills.

c. It should be noted that a new requirement of "certification" is suggested. It is felt that more formalization of the CPX activity within the overall training program is in order and the requirement that active Army advisors "certify" to the completion of certain activities will provide added realism to and interest in those particular functions.

d. Also of interest is suggestion (6f) dealing with the creation and operation of a LOGEX-War Room at ARR HQ. This appears to duplicate mission assignment (5) suggested for the Centralized Active Army Organization (CAAO). It is suggested that the CAAO should be given this mission initially with a phased reassignment of the mission to ARR at some appropriate future date. RC would be charged with mission assignments as follows:

(1) Include LOGEX training of some type in each unit's annual training program.

(2) Conduct LOGEX-LOCAL for subordinate units as needed.

(3) Participate in MUTA-LOG.

(4) Assist in conduct of regionals as directed.

(5) Create, staff, and implement one or more logistically-oriented maneuver training commands.

e. Para d(5) above involves the creation of a new unit-type in the RC; a "logistically-oriented maneuver training command." There is increasing reliance upon reserve logistic units as the active Army "tooth to tail" ratio improves and there appears to be a sufficient number of logistic units to justify the creation of one or more "LOG MTC."

f. It is suggested that one or more area support groups might be given the MTC mission but retained in their present unit configuration.

g. Figure I-1 presents a schematic training plan which would provide for an orderly progression of the 180 group size and larger RC CS and CSS units identified from the RC troop lists, through the various levels of CPX training based upon the criteria discussed previously. Units would normally begin the cycle by conducting a LOGEX-LOCAL; progress through a MUTA-LOG which would be somewhat more complicated, and then complete the three to four year training cycle by participation in a Regional or National version of LOGEX of at least one week duration.

h. This suggested training plan is only one of many which could be developed; the combinations available are numerous. The principal point to be emphasized is that command elements, much like weapons crews or tank crews, need the opportunity to "work together" in practice before they can be expected to work together effectively during and following mobilization. Following this point it should also be emphasized that each command element should play a unit similar to itself. This would permit a more realistic and effective training program enhancing the unit program toward mobilization posture.

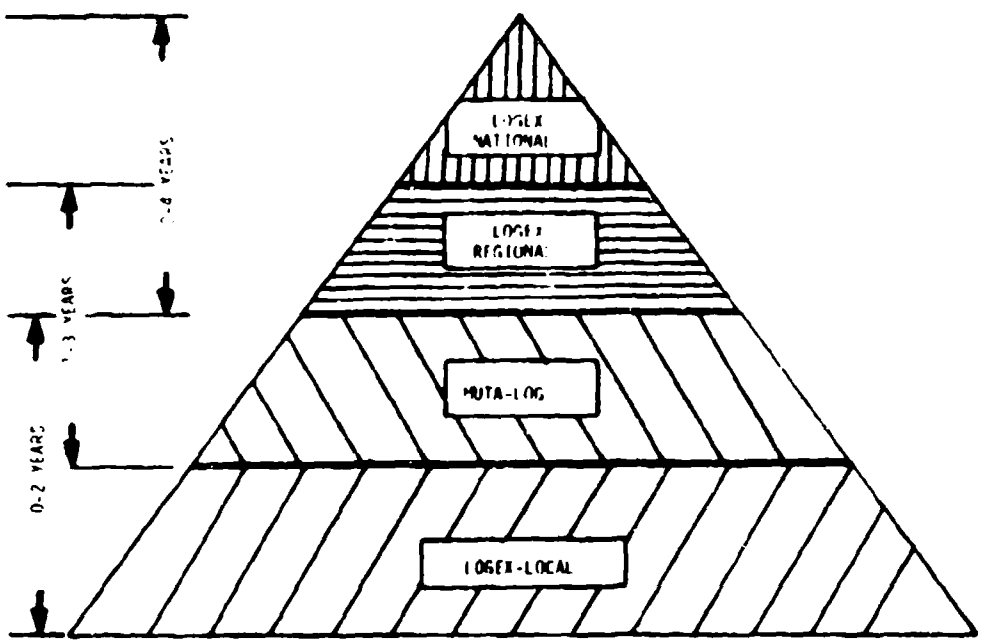
Section IX. TRAINING EXTENSION

I-28. ACTIVE ARMY APPLICATION. In the course of the study a possible benefit to active Army units has been identified.

a. Currently, once the LOGEX-LOGEX/RC exercises are finished the exercise package including scenario, messages, maps, overlays, etc., are broken out into packages relating to the activities of a particular unit, i.e., transportation group, engineer group, S&S battalion, etc. These packages called LOGEX-LOCALS, of which there are 25 various types, are then mailed to 225 addressees identified by FORSCOM to receive the packages and approximately 60 other addressees. Very few of the addressees are active Army units.

b. It appears that valuable additional reinforcement training could be achieved by active Army units using the LOGEX-LOCAL packages as training guides. This thought is particularly appropriate for CONUS stationed units due to the units almost total involvement, in many instances, in installation support activities vice unit mission training activities.

c. These packages could be used by the unit commanders to conduct internal unit CPXs or could feasibly be used to parallel regularly scheduled Army training exercises which are historically combat arms oriented with little meaningful CS or CSS play. This is one way to make the exercise more interesting and profitable for CS and CSS units, while enriching the training these units get from training exercises. Additionally, for OCONUS units, particularly larger (groups) CS and CSS units stationed in Europe, the use of LOGEX-LOCALs would add significant



1) Units must have some form of "LOGEX training" in each year's training program.
2) Units must successfully complete LOGEX-LOCAL or MUTA-LOG before eligible for regional
3) Units must successfully complete any two of lower three before eligible for national

Figure 1-1. (Draft) Training Plan (Schematic) for Training of CS & CSS Units in Command and Staff Operations (Reserve Components)

enrichment to high level NATO exercises which contain only minimal CS and CSS play and do not permit sufficient unit work loading to make play a meaningful training experience.

Section X. CONCLUSIONS

I-29. CONCLUSIONS.

a. The LOGEX objectives are sound as presently written; however, they should be amended to define "participants" as key command and staff elements.

b. CPX type training is the best available medium to provide mission oriented training for command and staff elements of group size or larger logistics units.

c. There are insufficient active Army logistic units with missions and functions comparable to logistic units in the RC to permit total utilization of the affiliation program as a viable alternative to LOGEX. Regional exercises should be combined with active Army exercises where possible.

d. Participation by active Army advanced course students in National or Regional exercises is not essential.

e. Participation by active Army units in National and Regional LOGEX exercises is desirable. LOGEX materials should be made available to active Army units for training purposes.

f. Participation or representation by the Air Force, Navy, and Marine Corps is desired during Regional exercises and required during National exercises.

g. TRADOC should continue to write CS and CSS exercises. The preparation of the exercise materials should be phased from an annual basis to a tri-annual basis. Exercise materials prepared should be adaptable to all types of exercises, i.e., LOGEX-LOCAL.

h. There are potential savings associated with the preparation and conduct of logistics exercises which can be realized by varying the frequency of exercise preparation, restricting the participants, reducing transportation costs by increased use of Regionals, and analyzing the current organization of LOGEX Division.

i. There is a definite lack of a formalized training plan for command and staff elements of CS and CSS RC units. The study group proposes the Training Plan at Section VIII to meet this need.

j. FORSCOM should begin to conduct Regional and lower logistics exercises starting in FY 1976, utilizing selected reserve headquarters, and conduct National CS/CSS exercises in 1977. In the conduct of these Regional exercises, TRADOC can provide FORSCOM with technical assistance through 1976. Beginning with 1978, FORSCOM should prepare MUTA-LOG, LOCALS, and Regional exercises, utilizing the National exercise material prepared by TRADOC.

k. A sufficient number of exercises should be held to provide a training opportunity for the 180 group-size and larger RC CS and CSS units to attend a National or a Regional at least once every four years.

l. FORSCOM must make a firm determination on a National exercise 18 months prior to the conduct of the exercise to avoid waste of sunken exercise preparation cost.

m. TRADOC should continue to conduct a National exercise every year through 1976. This exercise should be at least one week in duration and should include the latest concepts and doctrine. An investigation by HQ, FORSCOM, should be made to determine the cost-effectiveness of rotating the site location, i.e., in each of the Army areas. Participants for this exercise should be essential command and staff personnel.

n. Units required to participate in exercises (to include tactical units) should be played by units from the RC commensurate with their mission assignment.

o. Central management of logistics exercises is mandatory. Selection of units should be closely related to the DAMPL and participation of units should be limited to key command and staff personnel.

p. Currently, evaluation procedures for the CS and CSS CPX type annual training are inadequate.

q. The ADP package developed to support exercises should fit commonly available hardware.

Section XI. RECOMMENDATIONS

I-30. RECOMMENDATIONS. Based on the conclusions of the study, it is recommended that:

a. The LOGEX objectives are sound as presently written; however, they should be amended to define "participants" as key command and staff elements.

b. LOGEX-type training be recognized as the best training medium currently available for the command and staff elements of major RC CS and CSS units.

c. Units of the RC participate with and affiliate with active Army units in training of all types wherever and whenever possible to the maximum practical extent.

d. Participation by advanced course students from service schools be stopped. A separate study should be conducted to determine the training requirements for this portion of the training audience.

e. LOGEX materials be made available to combat support units and combat service support units of the active Army for their use in training at home station, in large field exercises and CPXs, and that such use be encouraged.

f. Interservice participation be continued in National exercise and included in Regionals where feasible.

g. Exercise materials continue to be prepared by an active Army element to support a National exercise, and that these materials be so designed that Regionals and LOCALS can be easily extracted from the National package and serve as the basis for further development of MUTA-LOG concepts.

h. A new package of exercise materials be prepared every three years and updated as required.

i. The proposed training plan or a version thereof be adopted to allow long range planning to include a four-year training cycle for RC units.

j. HQ, FORSCOM designate RC units to (1) conduct Regionals and LOCALS starting in FY 1976 and (2) to validate the MUTA-LOG concept in FY 76.

k. Sufficient Regional exercises of the type described in the training plan be held yearly to train approximately one-fourth of the RC units in the training audience.

l. FORSCOM provide guidance to the exercise preparers with a minimum of 18 months lead time concerning the force structure to be played in the exercise, units available as players, and the proposed location for the National exercise.

m. Commander, FORSCOM, be designated as Exercise Director and conduct the National exercise to include site support beginning with the 1977 exercise.

n. Units be designated to play Regional or National exercises only if they can fill an equivalent role to their mission assignment.

o. That DA designate FORSCOM as the central training management agency with responsibility for CS and CSS exercises.

p. An evaluation form be developed for use in evaluating the performance of commanders and key staff in CPX training exercises.

q. The LOGEX 75 ADP support package be immediately converted to other available types of hardware. Further that instructions be issued to the effect that beginning with LOGEX 76 all future LOGEX packages be developed to fit multiple hardware configurations.

ADP Consultation Report
to
LOGEX Study Group

1. Requirement: Provide ADPE support to Logistics Exercises.

2. Constraints:

a. Reserve forces playing wartime systems.

b. Free-play management decisions.

c. Cost.

3. Facts:

a. Reserve forces will use active Army standard systems in combat.

b. Active Army standard systems will be supported by IBM 360 Computers.

c. Reserve forces will play systems at regional or national level.

d. ADPE subject to combat knock-out.

e. Contingency ADPE cannot support reserve forces exercises.

4. Recommendations:

a. Add ADPE knock-outs to reserve forces exercises.

b. Use active Army standard systems supported by IBM 360 Computers.

c. Convert non-standard systems from Spectra 70 to IBM 360 Computer.

d. Use government owned IBM 360 Computers to support exercises.

e. Use government excess remote terminals linked to government owned IBM 360 Computers.

f. If 4e above is not feasible, use couriers for input and output transmission between exercise sites and government owned IBM 360 Computers.

/s/Robert J. Burfeind
ROBERT J. BURFEIND
GS-13, DAC
Computer Specialist

/s/ Carl E. Swain
CARL E. SWAIN
GS-13, DAC
Computer Specialist

Copies Furnished:

Director, Systems Design
Chief, Control Division
Chief, Supply Division
Director, Logistics Exercises

ANNEX I-2

ATCL-OC (26 Feb 75)
SUBJECT: ADP Information for the LOGEX Study

TO Chairman, LOGEX Study Group FROM D, OA DATE 7 mar 75 CMT 2
E. J. McCloskey/bj/1117

1. EEA #10 poses four questions which could be treated separately, depending on the context in which discussed. However, for the purpose of this analysis they are considered related; and, although addressed individually below, the relationship to the total EEA is established.

a. Is computer support adequate and feasible?

(1) In the context of present LOGEX/RC endeavors the answer is yes, wherein the excercise is being conducted at Fort Pickett. However, in relation to the next question the implication is that computer support should be available during home station training periods by RC units.

(2) In answer to this implied question, computer capability is available at certain RC units (See Incl 1) and should become available to all major RC units within the future.

(3) Whether this computer capability is adequate and, more specifically, whether computer support in the sense of LOGEX/RC Fort Pickett exercise is adequate cannot be determined at this time even if one properly assumed that an exercise at a home station would amount to a significant reduction of computer support needed (in relation to a Pickett exercise).

(4) Possibilities for computer support with the dimensions of a Fort Pickett exercise are: The use of remote terminals and telecommunications to a large scale computer at Ft Lee, another DOD installation or leasing time from commercial computer service centers; programming LOGEX on standard Army computers located in CONUS Army installations which can provide direct computer support to an RC unit or group or units.

(5) However, it is not considered absolutely critical that <u>any</u> degree of computer <u>support</u> is essential at home training periods because of two factors:

(a) The LOGEX is intended to train logisticians and not computer analysts and programmers.

(b) Although, it is necessary for the logistician to understand what inputs to and outputs from a given MIS, this can be simulated using the latest applicable MIS in the form of pre-defined or "canned exercise".

b. Why train company and battalion level units on management systems when RC units do not have computer capabilities . . .?

(1) This portion is answered at 1a(2), 1a(3), 1a(4) and 1a(5) above.

c. Would the stock control (manual system) be more realistic?

(1) Considering the proliferation of standard MIS systems now active in the logistics area within the Army the answer to this question becomes obvious -- it is definitely not realistic to train reserve units on systems or procedures that are not operating in the active Army. The question then, is how to train units on these systems. The answers range from an individually small packaged exercise which will fit the specific unit(s) computer (and computer support capability) to a totally pre-defined manual simulation of existing standard systems to computer supported methods indicated in 1a(4) above.

d. Can the RC units be successfully integrated into an automated environment during mobilization?

(1) This question relates directly to the previous question and is for the most part answered above.

(2) In addition, it is envisioned that during a mobilization period reserve units will be combined with or satellited on active units who are working on a day-to-day basis with the latest standard MIS. With this situation and the prior training of the type discussed above, integration of RC logistic units during mobilization should take place with a minimum of problems related to use of real-world systems.

ATCL-OC 7 March 1975
SUBJECT: ADP Information for the LOGEX Study

2. The above analysis has been coordinated with personnel in the Directorate for Systems Design.

1 Incl
as

HENRY T. JACKSON
Colonel, GS
Director, Operations Analysis

UNIT	STATE	STATUS
157th Inf Bde (USAR)	PA	Completed
81st Inf Bde (ARNG)	WA	Completed
205th Inf Bde (USAR)	MN	Completed
67th Inf Bde (ARNG	NE	Completed
32nd Inf Bde (ARNG)	WI	Completed
45th Inf Bde (ARNG)	OK	Completed
256th Inf Bde (ARNG)	LA	Completed
49th ARMD Div (ARNG)	TX	Completed
30th ARMD Bde (ARNG)	TN	Completed
155th Armd Bde (ARNG)	MS	Completed
40th Inf Div (ARNG)	CA	Completed
31st Inf Bde (ARNG)	AL	Completed
30th Inf Bde (ARNG)	NC	Completed
118th Inf Bde (ARNG)	SC	Completed
69th Inf Bde (ARNG)	KA	Conversion begins 6 Jan 75
39th Inf Bde (ARNG)	AR	" " 13 Jan 75
48th Inf Div (ARNG)	GA	" " 1 Apr 75
38th Inf Div (ARNG)	IN	
53d Inf Bde (ARNG)	FL	
33d Inf Bde (ARNG)	IL	
26th Inf Div (ARNG)	MA	
47th ARMD Div (ARNG)	MN	
50th ARMD Div (ARNG)	NJ	
42d ARMD Div (ARNG)	NY	
41st Inf Bde (ARNG)	OR	
28th Inf Div (ARNG	PA	
71st Inf Bde Abn (ARNG)	TX	
92nd Inf Bde (ARNG)	PR	

Incl 1

ATCL-TT

ADP Information for the LOGEX Study

D, O&A

Chairman, LOGEX Study Group

26 Feb 75
Mr. Arcuri/bg/5159/6080

1. Reference SAG Meeting for Review of LOGEX Study, 19 February 1975.

2. Your offer to assist the study group by providing information to be used in addressing Essential Elements of Analysis (EEA) #10 in the study effort is greatly appreciated. The EEA as given to the study group is as follows:

(10) "Is computer support adequate and feasible?" Why train company and battalion level units on management systems when RC units do not have computer capabilities during home station training periods? Would the stock control (manual system) be more realistic? If so, can the RC units be successfully integrated into the automated environment during mobilization.

3. Request the efforts of your AD HOC Group be provided the study group by COB 7 March 1975.

/s/ Paul A. Vnencak
PAUL A. VNENCAK
Colonel, GS
Chairman, LOGEX
Study Group

DISPOSITION FORM

For use of this form, see AR 340-15; the proposent agency is General's Office.

REFERENCE OR OFFICE SYMBOL	SUBJECT
ATCL-OCP	ANNEX I-3 Study Team Requirements

TO: Chairman, Logex Study Team ATCL-T

FROM: D, OA

DATE: 5 Mar 75

CMT 1: Mr. Jackson/isl/6138

In accordance with your request the following information is submitted: Incl 1, Time to convert present system to IBM 360 system; Incl 2, Army computers within 100 miles of furnished sites; Incl 3, Estimated ADP cost incurred in conducting a regional exercise.

3 Incl
as

HENRY T. JACKSON
COL, GS
Director, Operations Analysis

DD FORM 2496 REPLACES DD FORM 96, EXISTING SUPPLIES OF WHICH WILL BE USED UNTIL 1 FEB 68 UNLESS SOONER EXHAUSTED.

Estimate time required for conversion from Spectra 70 to IBM 360 for the systems indicated (OS or DOS) are given below. Time estimates include program testing and systems testing and verification but no time is included for pre-play programs or attempts to meet any documentation standards.

OS

System	Personnel Required	Time Required	Total Man Months Effort	Manpower Cost
Supply	2	4 months	8 man months	10,320
Maintenance	2	5 months	10 man months	12,900
Transportation	1	4 months	4 man months	5,160
Military Police	1	4 months	4 man months	5,160
Signal	1	4 months	4 man months	5,160
Chaplain	1	4 months	4 man months	5,160
Total	8		34 man months	43,860

DOS

Supply	2	3 months	6 man months	7,740
Maintenance	2	4 months	8 man months	10,320
ansportation	1	3 months	3 man months	3,870
Military Police	1	3 months	3 man months	3,870
Signal	1	3 months	3 man months	3,870
Chaplain	1	3 months	3 man months	3,870
Total	8		26 man months	33,540

Note: All programming manpower cost estimates considered the working level of a GS-11 programmer. (1290. per mo)

The following assumptions are made in regard to the conversion effort:

a. Computer time will be made available for conversions, testing, and exercise support.

b. The system to which the RCA Spectra 70 programs will be converted will be either IBM DOS or IBM OS.

c. The converted system will not include Data Communication capabilities.

d. There are no requirements to comply with Documentation Standards.

e. An operator will be supplied by LOGC to oversee the machine operations during an exercise.

f. The IBM computer will consist of the following minimum configurations:

(1) IBM 360-30 or larger.

(2) 128K bytes core w/at least 100K available for programs.

(3) 5 tape drives with required work tapes.

(4) 3 disk drives and 3 disk packs (exclusive of operating system requirements).

(5) Card reader.

(6) Card punch.

(7) A 132 print position, high speed printer.

g. Training in IBM JCL and either OS or DOS will be conducted locally by government resources at no cost.

h. The required machine time on IBM 360 machines will be available.

The following table gives the locations furnished CSD as the sites at which exercises may be conducted and the Department of Army IBM 360 computers within 100 miles of that site. (Source: Inventory of Automatic Data Processing Equipment in the US Government for Fiscal Year 1974.)

Site	Computer Location	Office, Command Bureau	Model
Fort Dix, NJ	Fort Hamilton, NY	First US Army	360-30
	Fort Dix, NJ	USATRADOC	360-30
	Fort Monmouth, NJ	US Army Electronics Command	360-30
	Madison, NJ	Office of CofS	360-50 360-65 370-165
	Morristown, NJ	Office of Chief of Research Development	360-65
	Morris Plains, NJ	Office of CofS	370-165
	Aberdeen Proving Ground, MD	US Army Test & Eval Command	360-30
Fort Chaffee, AR	None within 100 miles		
Fort Bragg, NC	Fort Bragg, NC	Third US Army	360-40 (2)
	Greensboro, NC	Office of CofS	360-65
Fort McPherson, GA	Fort Benning, GA	USATRADOC	360-30
	Fort McPherson, GA	Third US Army	360-30
Fort Hood, TX	Fort Hood, TX	Office of CofS	360-40
		Fifth US Army	360-30 (2) 360-40 (2)
Fort Ord, CA	Fort Ord, CA	USATRADOC	360-30
	Presidio of SF, CA	Sixth US Army	360-40
	San Francisco, CA	US Army Material Command	360-50
Fort Lewis, WA	Fort Lewis, WA	Sixth US Army	360-40
Fort Carson, CO	Fort Carson, CO	Sixth US Army	360-40
Fort Sheridan, IL	Joliet, IL	US Army Munitions Command	360-65
	Fort Sheridan, IL	Fifth US Army	360-30
Fort McCoy, WI	Sparta, WI	Fifth US Army	360-30
Fort Meade, MD	Washington, DC	Office of CofS	360-65
	Fort Belvoir, MD	Office of CofS	370-155

Fort Meade, MD	Fort Belvoir, MD	USATRADOC	360-44
	Fort Myer, VA	USA Military District of Wash	360-40
	APG, MD	US Test & Eval Command	360-30 360-65
	Cascade, MD	USACC-CONUS	360-30
	Fort Meade, MD	First US Army	360-40
	Olney, MD	USACC-CONUS	360-30

No attempt has been made to ascertain if these machines meet the minimum requirements to run the LOGEX system.

The estimated ADP costs incurred in a LOGEX exercise are given in the following table:

	Cost
ADP Equipment Rental	$1119.00
ADP Supplies	1517.00
TDY	2305.00
Total	$4941.00

The breakdown of these estimated costs is given below:

ADP Equipment Rental

3 VIP Keypunches (UNIVAC 1710 or IBM 129)	$ 495.00
8 IBM 029	624.00
Total	$1119.00

ADP Supplies

42 cases 6 part paper	$1470.00
5 cases of general purpose card stock	47.00
Total	$1517.00

TDY (for estimating travel St. Louis, MO was used as site)

Pre-exercise coordination trip to site, one person, 5 days, transportation to and from site	$ 210.00
Per diem	125.00
Transportation in and around site	50.00
Total	$ 485.00

Exercise

Three people for 14 days (1 programmer analyst, 1 computer operator, 1 key punch operator)	
Transportation to and from site	$ 630.00
Per diem	1050.00
Transportation in and around site	140.00
Total	$1820.00
Total TDY costs	$2305.00

Note: No salary costs are given in the ADP estimate because it was assumed that the current staff would be utilized. For the same reason no system maintenance costs are given. It was further assumed that the exercise will be run on government owned computers therefore no computer costs would be incurred.