

Research Report 1466

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**National Training Center Performance Trends
for the Maneuver Operating System:
Relationship to Training Doctrine**

Carol A. Johnson and Richard K. Williams, Jr.

**ARI Field Unit at Presidio of Monterey, California
Training Research Laboratory**



U. S. Army

Research Institute for the Behavioral and Social Sciences

April 1988

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for the Maneuver Operating System:
Relationship to Training Doctrine**

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Education and Training

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FOREWORD

The Army Research Institute (ARI) has a major research program in support of the National Training Center (NTC). The purpose of this program is to support improved training at the NTC and development of Lessons Learned methodologies for training, doctrine, organization, personnel, and equipment.

The NTC provides the most realistic engagement simulation and live-fire battalion task force training available. Battalions spend 14 days in a simulated combat environment against a well-trained opposing force. They are closely observed by observer/controllers who hold an After Action Review (AAR) for each mission. The results of these AARs, along with performance trends for the entire rotation, are contained in a Take Home Package (THP) for each unit.

This report describes an analysis of the NTC THPs Performance Trends in the Maneuver Operating System for 26 battalions. Identified issues were referenced to tasks in ARTEP 71-2.

The research described in this report was conducted by ARI's Presidio of Monterey Field Unit, whose mission is to increase Army unit combat performance capabilities by improving unit performance measurement and evaluation methods, unit training programs and management tools, and the NTC and home station data base.

The Program Task that supports this mission is entitled "Field Feedback from National Training Center to Improve Collective and Individual Training" and is organized under the "Maintain Force Readiness" program area. This research was sponsored by the Combined Arms Training Activity under the Letter of Agreement entitled "National Training Center (NTC) and Unit Home-Station Training and Feedback System," dated 16 September 1985. The Combined Arms Training Activity Lessons Learned Division was briefed in May 1986 on the information in this document, and indicated its intention to use the results. The work described in this report can be used for the NTC Lessons Learned program; for home station training, by providing guidance for training managers to focus training in areas where units have shown consistent weaknesses; and for improved feedback to units at the NTC.



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NATIONAL TRAINING CENTER PERFORMANCE TRENDS FOR THE MANEUVER OPERATING
SYSTEM: RELATIONSHIP TO TRAINING DOCTRINE

EXECUTIVE SUMMARY

Requirement:

The Army Research Institute is conducting analyses of all types of National Training Center (NTC) data to assist in the development of NTC Lessons Learned and to support improvements in training at the NTC and home station. This report describes an analysis of NTC Take Home Packages (THPs) and the relationship of the results to Army Training and Evaluation Program (ARTEP) tasks.

Procedure:

Twenty-six THPs were examined to assess the feasibility of determining specific training needs and to link needs directly to ARTEP tasks. A detailed analysis of Performance Trends in the Maneuver Operating System was made. The results are reported by type of task force (Mechanized Infantry and Armor) and year (1984 and 1985).

Findings:

Consistent strengths and weaknesses in unit performance were identified. The lack of standardization in topics that were commented upon in the THPs causes problems both for analysis of lessons learned and for use of the THPs as guidance for home station training. The translation of comments from the Operating System categories of the Trends to ARTEP tasks used in home station training is difficult and time consuming, both for researchers and unit trainers. The Operating System structure of the trend data does not consist of mutually exclusive categories, a fact that leads to redundancy, with the same information being placed in more than one category.

Utilization of Findings:

The results of this analysis have value for the NTC Lessons Learned program; for home station training, by providing guidance for training managers to focus training in areas where units have shown consistent weaknesses; and for improved feedback to units at the NTC. Recommendations for restructuring the THPs and for standardization of observations and decision rules have implications for improving the utility of the THPs.

NATIONAL TRAINING CENTER PERFORMANCE TRENDS FOR THE MANEUVER OPERATING SYSTEM: RELATIONSHIP TO TRAINING DOCTRINE

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NATIONAL TRAINING CENTER PERFORMANCE TRENDS
FOR THE MANEUVER OPERATING SYSTEM:
RELATIONSHIP TO TRAINING DOCTRINE

INTRODUCTION

The Army Research Institute is conducting analyses of all types of National Training Center (NTC) Lessons Learned data in support of the program of the Combined Arms Training Activity. This report describes an analysis of NTC Take Home Packages (THPs).

Battalion task forces receive feedback at the NTC during After Action Reviews (AAR) after each exercise. This information is synthesized in the THP, as is a summary of Performance Trends for the entire fourteen day rotation. The THP is authored by analysts in the Core Instrumentation Subsystem, in conjunction with the observer/controllers (OCs). The Performance Trend section is intended to be a summary of the AAR material and, according to the Operations Group Organization and Functions Manual (July, 1985), the THP Coordinator is responsible for coordinating and editing this section. The compilation of the THP is an on-going process throughout the rotation and must be completed prior to unit departure.

The Performance Trends in the THPs are organized by the seven Operating Systems (Command and Control, Fire Support, Maneuver, Intelligence, Air Defense, Mobility/Counter mobility, and Combat Service Support) and their subsystems. Table 1, for example, shows how the Maneuver Operating System is further subcategorized.

THPs potentially serve two useful purposes: 1. a THP defines training needs of a particular unit so that the unit leader can consider these needs when developing unit training plans, and 2. the Army can look across THPs to identify performance trends with Army-wide training implications. Shackelford (1985), for example, analyzed 14 THPs from 1984 to determine whether performance in each of the categories of the Performance Trends was predominantly adequate or poor.

The extent to which the first potential application of THPs is realized depends upon how easy it is to interface the information taken from a THP with other sources of information used in developing training plans. The most important additional source of information is the unit's Army Training and Evaluation Plan (ARTEP) document which describes training requirements in terms of missions and subordinate collective tasks.

The extent to which the potential of the THPs for identifying performance trends with Army-wide training implications is realized depends upon which specific issues are consistently addressed in the THPs.

Table 1

Maneuver Operating System Categories as Presented in the NTC THP

See the Battlefield

- Mission
- Enemy
- Terrain
- Troops and time available

Fight as a Combined Arms Team

- Armor
- Infantry
- TOWs
- Attack helicopters
- Scouts

Concentration of Combat Power

- Mutual support/overwatch
- Movement techniques
- Actions on contact
- Direct fire
- Indirect fire

Use Defenders' Advantage

- Terrain and position selection/preparation
- Routes of withdrawal
- Maximum weapons range
- Counterattack
- Alternate and supplementary positions

NBC Defense

- Reaction
- Reporting
- Detection
- Decontamination

The Army is currently experimenting with the content of and procedures for preparing THPs to enable THPs to better serve the two applications described above. The purpose of this research is to support this improvement effect through the following objectives:

1. A more detailed analysis within one of the categories was conducted for 26 battalions to determine whether specific training needs and strengths might be identified. This analysis also provides baseline data regarding the consistency with which specific issues are addressed.

2. As the ARTEPs are the basic training guidance provided to units by TRADOC proponents and feedback tied to it is likely to have more direct relevance and meaning for home station training, the issues identified through the analysis were referenced back to the tasks in ARTEP 71-2 for task force through platoon level. Problems in interfacing THP information with the ARTEP

will be identified.

The results of this analysis have value for: 1. the NTC Lessons Learned program; 2. for home station training, by providing guidance for training managers to focus training in areas where units have shown consistent deficiencies; and, 3. for improving the formatting of feedback to units at the NTC.

METHODOLOGY

The 14 THPs (from 1984) included in the Shackelford report were examined, as were 12 THPs from 1985. Half of these were for armor units and half for mechanized infantry units. In order to assess the feasibility of determining specific training needs and linking them to ARTEP tasks, a detailed analysis was made of trends in the Maneuver Operating System. Each comment in the THPs was listed separately. Compound statements were broken into separate statements. Information on the year and task force were retained to examine differences between type of task force and whether changes in trends had occurred over time. Essentially identical statements were tallied. Issues and problems in conducting this analysis were noted and will be discussed.

The Maneuver Operating System categories used in the THP (see Table 1) were used to categorize trends across units. The information was further broken down into specific training issues. Table 2 shows how this categorical system is structured and the number of issues or subcategories at each level. Linkages found with ARTEP tasks are delineated for each of the subcategories (see Appendix A). Appendix B is a matrix which further links each of the issues in the subcategories to ARTEP tasks.

Table 2

Structure of Category System

OPERATING SYSTEM: I. Maneuver

CATEGORY (5):* A. See The Battlefield

SUBCATEGORY (23): 1. Mission

ISSUES (113): a. Understood Mission

b. MBTT-T

* Numbers in parentheses are the total number at each level

The linkage with ARTEP tasks was accomplished by interpreting what actions, by whom, and at what organizational level could have prompted the observation. This resulted in identifying activities and personnel responsible for their initiation and execution. Based on knowledge of staff procedures and leader responsibilities, coupled with an understanding of the organization of an ARTEP, ARTEP 71-2 was scanned to identify tasks that applied to each statement. Each task was reviewed to determine if the statement applied to the task, condition, or standard. This could either be explicitly stated or be an outcome of performing the task to the standard. References listed in the ARTEP were checked to further validate the linkage. If the statement fit the above criteria, it was linked with that ARTEP task. In some cases, the OC intent was clearly directed at only one level within the unit. In these cases, only ARTEP tasks at the intended level were identified, although there were tasks at other levels that were also applicable. This provided a very conservative analysis of the data with a minimum of interpretation.

RESULTS

ARTEP Linkage

Establishing linkages between the performance trend data in the THP and ARTEP tasks was not easily done. Many of the trends are, by definition, very general in nature. For example, the use of the word "inconsistent" is prevalent in the THPs. It apparently means something varied across missions and/or across subelements of the task force. Its lack of specificity makes it almost a meaningless statement, however. Similarly, a trend may not be identified as being specific to the offense or defense (e.g., "poor execution at company level") or as specific to a level in the battalion (e.g., "command and control lacking"). The ARTEP, however, is organized by level and type of mission.

For example, the trends cited under the Enemy portion of "See the Battlefield" relate to the following general ARTEP tasks:

- 3-I-1-3 Conduct physical reconnaissance
- 3-I-3-3 Submit spot report

Relevant platoon level tasks are:

- 3-IV-17-3 Reconnoiter a route
- 3-IV-17-4 Reconnoiter an area
- 3-IV-17-5 Reconnoiter a zone
- 3-IV-17-6 Collect and report terrain information
- 3-IV-17-7 Collect and report enemy information
- 3-IV-17-8 Reconnoiter an obstacle
- 3-IV-17-9 Reconnoiter a bridge
- 3-IV-17-10 Reconnoiter a built-up area
- 3-IV-17-11 Reconnoiter a contaminated area

And, task force level ARTEP tasks include:

- 3-VII-2-1 Prepare analysis of area of operation (S-2)
- 3-VII-2-2 Prepare intelligence estimates (S-2)
- 3-VII-2-4 Obtain information and intelligence (S-2)
- 3-VII-2-6 Coordinate within the battalion task force headquarters (S-2)
- 3-VII-3-1 Prepare operations estimates (S-3)
- 3-VII-4-6 Conduct troop-leading procedures
- 3-VII-4-7 Conduct commander and staff planning procedures

As stated above, this is a conservative list of tasks. Currently, training managers at home station must determine which additional tasks need to be included in training programs in order to correct deficiencies at other levels. Appendixes A and B contain the results of this analysis. These appendixes are only a partial reference because of the lack of standardization of the events observed and recorded by the OCs at each level of the unit. This creates an added burden at home station to fully consider all of the possible training implications.

Given the difficulty of relating the performance trends data to ARTEP tasks, it is unlikely that this portion of the THP has a great deal of value for home station training since the ARTEP is the basic training document. In fact, interviews with battalion commanders and staff indicate that this is the case.

Related to the difficulty of linking the data to the ARTEP is the Operating System structure of the trend data. A categorical system, to be functional, should contain mutually exclusive categories into which data can unambiguously be sorted into one, and only one, category. That is not the case for the Operating System category system. A problem, e.g., maintaining mutual support, was frequently cited in a variety of places in a THP which may give an unrealistic picture of task force performance.

Categories should also be approximately equal in terms of scope. This is also not true in this case. A much wider variety of information can be put into the subcategories of the "Fight as a Maneuver Force" category (e.g., armor), much of it overlapping with other categories. The more narrowly defined categories contain more standardized information which has the advantage of making comparisons meaningful.

Therefore, a restructuring of the categorical system to explicitly relate it to the ARTEP and the way units train at home station would greatly improve the utility of the THPs for units and make the THP more useful for obtaining lessons learned across units.

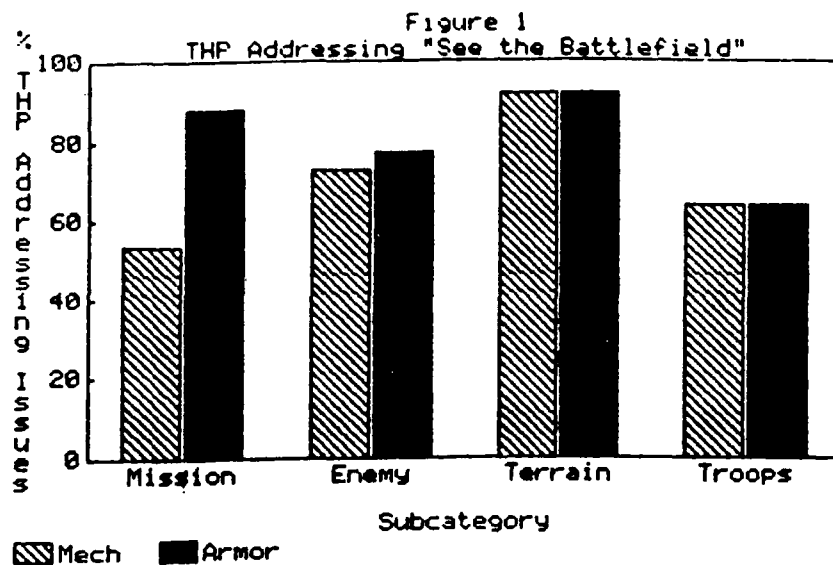
Performance Trends

The information within each subcategory is discussed in order of most frequently to least frequently commented upon

across THPs. The actual number of times an issue was commented upon, either positively or negatively, and the number of THPs in which it was omitted is summarized in tables in Appendix C.

See the Battlefield

The subcategories under See the Battlefield are the METT-T factors: mission, enemy, terrain, troops and time available. Figure 1 shows the completeness of coverage of the issues for each of the subcategories. The percentages were obtained by multiplying the number of issues in a subcategory by the number of THPs, thus obtaining as a denominator the total number of possible THP comments in that subcategory. The numerator was the total number of comments made. For example, in the Mission subcategory, the issues were Understood Mission and METT-T: 13 THPs x 2 issues = 26 possible comments for the mechanized infantry task forces and 26 for the armor task forces. The number of comments made for the mechanized infantry was 14 (14/26 = 54%). The number of comments made for armor task forces was 23 (23/26 = 89%). The raw data for these calculations can be found in Appendix C.



Mission. The OCs were concerned with whether the commander and staff had "analyzed all aspects of the mission" when developing their plans. They were expected to "understand the doctrinal aspects of specified and implied tasks". This was the only factor that both mechanized infantry and armor OCs consistently commented on for every battalion. During 1984, some of the battalions were identified as having problems in this area. During 1985, all of the battalions received only positive comments. The OCs also commented upon whether METT-T factors were always "considered in sufficient detail". This information is summarized in Table 3 in Appendix C.

Enemy. Both armor and mechanized infantry OCs were concerned about the "extent to which enemy doctrine was understood". This was fairly consistently commented on by both groups. During 1984, over half of the mechanized infantry battalions "understood enemy doctrine and communicated their capabilities". The "inability to analyze enemy intentions and most probable courses of action" accurately were problems for the others. Some of the armor battalions also received favorable comments regarding this area. Among the problems cited was "not understanding how the enemy would adjust based on terrain and weather" and the "timeliness" of the analysis. In one battalion, analysis was "inconsistent".

Most of the mechanized infantry task forces "understood OPFOR doctrine" according to the 1985 THPs, although one "did not fully analyze the potential threat" and it was a problem for the others. It was not commented upon as consistently by the armor OCs, but problems were reported for a couple of task forces while one received positive comments.

The OCs also commented upon whether or not "intelligence was effectively utilized". During 1984, the armor battalions were reported to "not effectively utilize intelligence" or to "fail to use all intelligence gathering assets" more frequently than the mechanized infantry battalions. During 1985, "reconnaissance did not gain detailed information about the enemy" in most of the armor battalions. During 1984, one mechanized infantry battalion was reported to have "reliable intelligence based on reconnaissance". Another was cited for "aggressively seeking information pertaining to the enemy". It appears that the mechanized infantry OCs tended to comment on the use of intelligence if it were done well, but didn't focus on problems in this area.

The armor OCs provided much more detail regarding problems in this category. Over half of the armor battalions had "difficulty in verifying and analyzing information from division and brigade". In most of these, the task force was also "unable to sort out erroneous reports". Whether or not the task force "analyzed the enemy's impact on its own courses of action" was commented upon negatively for a number of the battalions. These issues never surfaced in the mechanized infantry THPs. This information is summarized in Table 4 in Appendix C.

Terrain. Most of the battalions conducted an adequate to excellent terrain analysis. Those that didn't "did not fully consider OKOCA (observation/fields of fire, key terrain, obstacles, cover and concealment, and avenues of approach) factors in developing their scheme of maneuver". The armor OCs were much more conscientious about giving more detail regarding which aspects of the terrain analysis were deficient. The most consistent problem identified was that armor task forces "identified battalion-sized avenues of approach, but not company-sized". "Not sufficiently considering observation and fields of fire and obstacles" was the next most frequently cited deficiency.

The mechanized infantry OCs focused on whether the "information was disseminated in a timely manner" to all subordinate elements. Problems in this area were cited for a few of the task forces. This information is summarized in Table 5 in Appendix C.

Troops and Time Available. In this category, the OCs most consistently focused on whether the "commander was aware of his available combat power". Most of the armor task forces received positive comments in this regard. About half of the mechanized infantry task forces received positive comments, but half were "not aware of the troops available" to them. Related to understanding available combat power is "basing plans on the number of platoons, not company/ teams needed". The armor OCs reported some task forces violating this principle and a few adhering to it. One mechanized task force received positive comments on this.

The next most common comment concerned whether the task force "understood the time available" and "allocated sufficient planning time to subordinate elements". The use of time was a problem for a number of the task forces, a few received positive comments, and it was not mentioned in some of the THPs.

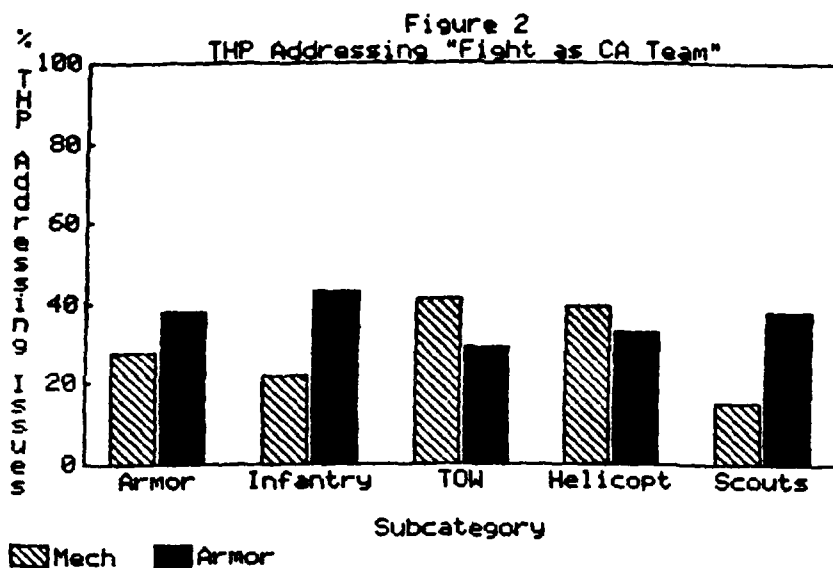
Whether the "task organization was sufficient to support execution of plans" was commented on less frequently. A few task forces either did not do so or "did not adjust the task organization based on changes in combat power". A few mechanized infantry battalions made "effective plans to task organize". Most THPs did not comment on the task organization. This information is summarized in Table 6 in Appendix C.

Fight as a Combined Arms Team

The trends reported under the subcategories of this category are even less standardized than those in the subcategories of See The Battlefield. That is, the nature of these subcategories, e.g., Armor, is much broader. This results in there being fewer factors that are consistently commented upon and many idiosyncratic issues. Figure 2 shows the extent of consistency.

Armor. The issue most consistently commented upon by the OCs was whether "the task force commander and staff effectively planned for and employed armor assets to take advantage of their

mobility, shock effect, and survivability". During 1984, there was mixed performances on the part of the task forces; however, during 1985, most of the task forces received positive comments on this. No comments were made in a few of the THPs.



The "inability to mass fires" was the most common problem for the task forces. Some of the armor THPs were more specific, relating this problem to the fact that "sector sketches and fire plans did not coordinate and concentrate the fires". Only one mechanized infantry unit received positive comments on massing fires.

The "positioning of assets" was also a problem. Tanks "did not always take advantage of cover and concealment", "were not positioned to defend armor avenues of approach", or "did not take advantage of their mobility, survivability, and rate of fire". They were also placed so that the "terrain prevented firing at maximum range" or "were slow in repositioning". Whether or not the "tanks engaged the enemy at long range" was mentioned in almost half of the 1984 THPs, but only once during 1985.

The armor OCs commented upon whether the "tanks and infantry provided each other mutual support" much more frequently than the mechanized infantry OCs. It was not commented upon in most of the THPs and in only one case did tanks "operate close enough to infantry to provide mutual support".

During 1984, the "ability of tank commanders to acquire and engage targets" was sometimes commented upon. However, this was not the case during 1985. The mechanized infantry occasionally commented upon "armor assets being employed piecemeal". During 1985, an occasional positive comment was that "tanks appro-

priately led" in movement. During 1984, a couple of armor task forces were found "not to have boresighted and zeroed their tanks". This information is summarized in Table 7 in Appendix C.

Infantry. The most frequently reported problem with the use of infantry involved "dismounted actions," particularly during 1984. The infantry were reported to have "dismounted at inappropriate times" or "did not control and coordinate dismounted actions with tanks". There were more negative comments regarding dismounted actions for the mechanized infantry than for the armor task forces. Over half of the armor task forces "made good use of their infantry".

Infantry and tanks were frequently "not in position to provide mutual support". However, there is a lot of redundancy with this problem being reported under the "armor" category for the same task forces. Again, as under "armor", the armor OCs focused on mutual support much more frequently than did the mechanized infantry. The "preparation of fighting positions" was a problem of equal frequency. "Lack of overhead cover" was specifically cited as a problem.

On the positive side, only favorable comments were received regarding the task force "planning the use of mechanized infantry teams effectively" and "assigned them doctrinally sound missions". The armor OCs found a number of units who "lacked range cards and fire plans" or whose "fire plans did not coordinate and concentrate fires". Again, these were the same units who were reported under the "armor" category to have this problem.

During 1985, the mechanized infantry OCs commented on whether or not "missions were executed well at company level". Also occasionally commented upon was whether the "infantry led when tanks should have led". This information is summarized in Table 8 in Appendix C.

TOWs. The most frequently addressed issue was whether "TOWs were positioned to engage at maximum range" and whether they, in fact, occupied those positions and/or "took advantage of their standoff distance". While there were occasional positive comments, most of the task forces for which comments were made did not do well at this. Related to this is the selection of positions, particularly whether "overwatch of maneuver elements was maintained". There were mixed positive and negative comments on this during 1984, but only unfavorable comments during 1985.

Command and control received the next highest number of comments, all but one of which was negative. TOWs under the control of company teams were sometimes not supervised or employed.

Whether or not "planning for the use of TOWs was effectively accomplished" was an issue focused on more frequently by the mechanized infantry OCs than the armor OCs. On the positive side, during 1985, half of the mechanized infantry task forces

"assigned doctrinally sound missions to the antitank company".

"Target acquisition" and "gunnery accuracy" were commented on occasionally. Whether or not the task force "employed proper movement techniques" was commented on much more frequently in 1984 than in 1985. The least frequently mentioned problem area concerned fire control measures. "Priorities of engagements were not always directed at all levels of the task force" and "fire control planning was sometimes weak". This information is summarized in Table 9 in Appendix C.

Attack Helicopters. The most frequently mentioned issue in the THPs was whether or not "coordination between the battle captain and the task force was satisfactory". For the most part, attack helicopters were "effectively employed and coordinated".

An issue that surfaced more during 1985 than during 1984 was whether the "attack helicopters were integrated into the task force plan". The armor units had more positive comments on doing this than the mechanized infantry. "Disseminating fire control measures to enhance command and control" was commented on in a few THPs. This information is summarized in Table 10 in Appendix C.

Scouts. The scouts were, generally, assigned doctrinally sound missions by the task force. Problems occurred when assigned missions were too vague or they were not given follow-on missions.

Closely following this, in terms of frequency, was whether or not the scouts provided timely and detailed information. This level of generality in the THPs contrasts with the specificity of tasks in the ARTEP regarding reconnaissance. Providing information could relate to a large number of the above ARTEP tasks.

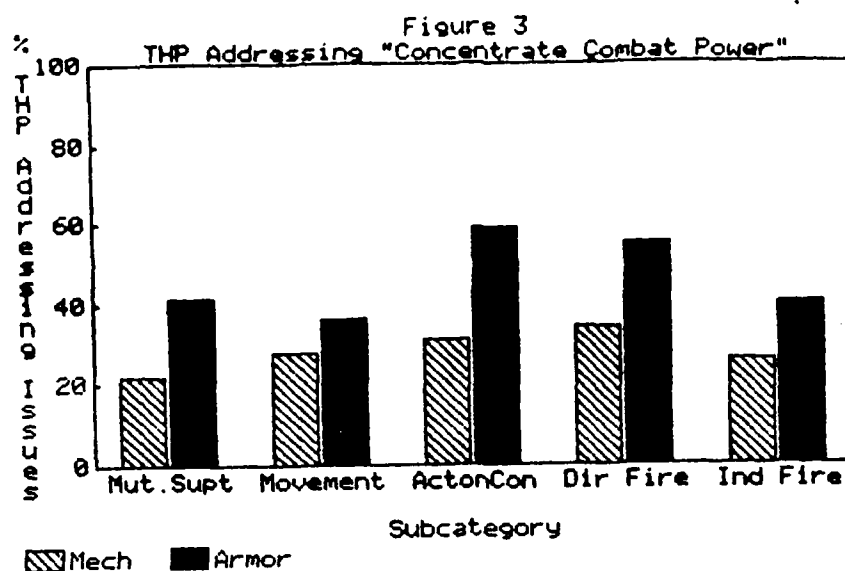
Poor leadership or command and control was a problem for some units, while other units had comments in the THP that simply said that they executed their assigned missions. Some units had problems with land navigation and a few had problems with maintenance and becoming decisively engaged. Finally, a few units received positive comments on occupying a well-positioned observation post. This information is summarized in Table 11 in Appendix C.

Concentration of Combat Power

The consistency with which issues were addressed in this category is shown in Figure 3.

Mutual Support/Overwatch. A number of THPs reported problems with mutual support and overwatch both here and in the above "armor" and "infantry" categories. Only two of the 26 task forces were reported to have "maintained mutual support". The most frequently cited problem, by far, was with positions. "Positions did not permit observation and fire on targets", "the

anti-tank company was not in position to overwatch", or "positions were occupied out of sequence".



Communication problems also "interfered with maintaining mutual support". "Poor FRAGOs", "lack of responsiveness to task force directions", a "lack of reporting", and "inaccurate situation reports" were all cited as problems.

The next most frequently cited problem was that "company teams were committed piecemeal, without suppressive fires". This was reported to be more of a problem with armor units than with mechanized infantry units.

Movement techniques were also a cause of mutual support not being maintained, with "lack of bounding overwatch" being specifically cited as a reason. Only one mechanized infantry unit was reported to have "positive control" of company/team movement.

"Lack of adequate control measures" or "failure to follow graphic control measures" was also a cause of lack of mutual support. Again, this was reported more frequently for armor task forces. Units also had "land navigation" and "terrain association problems" which led to a failure to maintain mutual support. This information is summarized in Table 12 in Appendix C.

Movement Techniques. There were more positive comments regarding movement techniques during 1985 than in 1984. The most common problem cited during 1984 was that "bounding techniques were not employed near enemy forces". This was reported for different units than in the mutual support/overwatch category. Perhaps because the two categories are immediately adjacent, there was less redundancy than in other cases.

Many units experienced problems with "adequate dispersion". "Large gaps between teams" were reported. Whether or not "movement was supported by graphic control measures" was reported in this category. However, even when it was, "execution of the scheme of maneuver was not adequate" in a number of cases.

The mechanized infantry OCs reported on command and control within the task force, with mixed positive and negative comments. The "adequacy of formations for the type of mission and terrain" was also commented upon. A few units were "unable to navigate using checkpoints" and "a lack of mastery of night navigational techniques by leaders" was a problem in one unit.

Finally, "terrain driving techniques" were commented upon in a few THPs, with more units receiving positive comments than negative. This information is summarized in Table 13 in Appendix C.

Actions on Contact. Almost all of the task forces were "slow to return fire, deploy, report, and develop the situation" when coming into contact with the enemy. Only one mechanized infantry unit was reported to have done this well.

Problems with effective fires were also frequently mentioned. Units were "not positioned to deliver long range fires," "did not engage targets that were in range", or "did not effectively coordinate or mass fires".

The armor OCs focused on whether "elements of the task force were committed piecemeal", and found problems in 10 of the 13 task forces. Whether or not "company/teams chose a course of action" and "made recommendations to the task force commander" was also commented upon in this category. The armor OCs also observed companies who were "halted by obstacles" or "flanked themselves to the enemy". This information is summarized in Table 14 in Appendix C.

Direct Fire. Two major problems were reported with equal frequency: the ability to mass direct fires and when and how they engaged. All of the mechanized infantry units had "problems massing fires". This was due to "lack of mutual support", "unavailability of tanks", "task organization", or "control". Only one mechanized infantry unit was able to "concentrate the fires of its dismounted infantry".

Engagement problems included "not engaging the enemy at long range" or "trying to engage him at extremely long range". It also included "difficulty with delivering high volumes of fires" and "firing at friendly forces". During 1984, one armor and one mechanized infantry unit were commended for "good tank gunnary".

Comments regarding fire control measures were the next most frequent. Range cards and fire plans were found to be "inadequate". Whether or not the "company/teams and platoons consolidated their fire plans into a task force plan to ensure coverage

and mutual support" was also commented upon.

The armor OCs focused on two other problems: whether the "scheme of maneuver and occupation of overwatch positions were executed as planned" and how "visibility impacted on task force performance". Effectiveness of long range or direct fires was frequently "degraded by enemy smoke" in the 1985 THPs. During 1984, "darkness" and "limited visibility" caused problems. This information is summarized in Table 15 in Appendix C.

Indirect fire. "Poor targeting techniques", "lack of responsiveness of indirect fires", and "problems with accuracy" were the predominant issues regarding indirect firing. "Failure to observe and adjust fires" and a "low volume of calls for fire" also degraded effectiveness. The adequacy of the artillery was mentioned with equal frequency. Some units were successful at "suppressing objectives with artillery" but, in other units, "artillery fires lacked quantity and accuracy and/or timeliness".

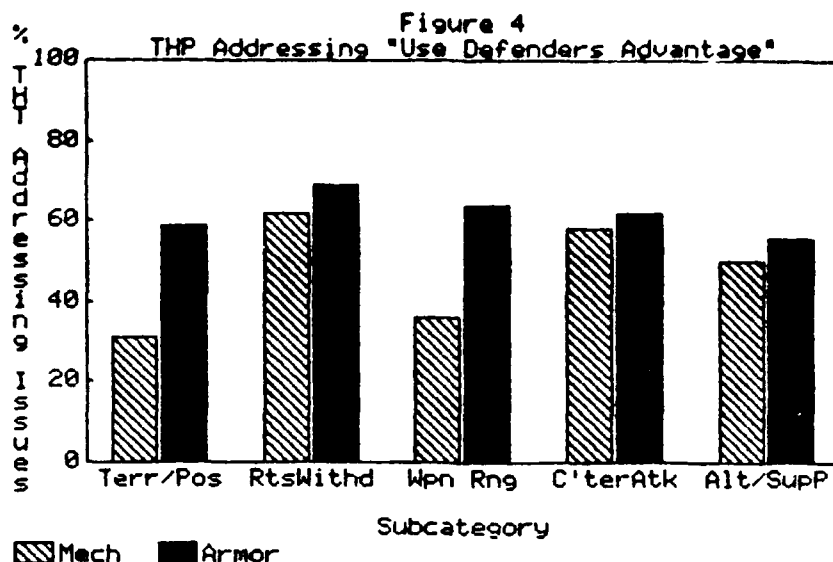
The "inability to mass CAS, mortars, and field artillery" and the "employment of mortars" were also problem areas. Only one unit did an "outstanding job of massing indirect fires to destroy OPFOR armored vehicles". There were problems with mortars being "adequately controlled" and being "in range to deliver calls for fire", but some units did an "excellent job of using their mortars".

Problems with the "FIST chiefs adequately supporting their teams" formed the final category of issues for the armor OCs. They sometimes "supplied inaccurate and insufficient situation reports". This information is summarized in Table 16 in Appendix C.

Use Defenders Advantage

The subcategories under using the defenders' advantage are narrowly defined. There is, therefore, less variation in the information contained in each which makes comparisons somewhat more meaningful than in the previous two categories (see Figure 4).

Terrain and Position Selection/Preparation. Most of the task forces did a good job of selecting positions which "fit weapons to the terrain". There were only a few cases of units "not adequately considering the use of terrain for cover and concealment". It was in the "preparation of the positions" that units had problems. In some cases, "company/teams did not occupy the planned positions". "Dispersion of the positions" was sometimes inadequate and units "failed to reinforce their positions with obstacles". "Utilization of engineer assets were inefficient and not coordinated". In a few cases, "vehicles were skylined with no active local security".



The planning phase of using the defender's advantage was commented on. Units sometimes "did not select positions to cover company avenues of approach" or "to minimize the effects of obscuration". "Movement and withdrawal were not planned in detail and rehearsed". "Obstacles, direct, and indirect fires were not integrated".

The adequacy of "fire plans and range cards" was observed. Problems were reported during 1984, but two units received praise for their fire plans during 1985. During 1984, the mechanized infantry OCs commented on the use of time by the task forces. They found units which "wasted time during preparation of the defense", "actions in assembly area being slow", and "slow preparation and occupation of positions". This information is summarized in Table 17 in Appendix C.

Routes of Withdrawal. Only two issues were commented upon in this category. One that was consistently commented upon was whether "routes of withdrawal were effectively planned, rehearsed, reconnoitered, and executed". During 1984, all units had problems doing this. Sometimes they were planned but not used or not reconnoitered. Most units still had problems in the 1985 THPs, although a few units did receive positive comments. The other issue commented upon was whether "disengagement criteria were established, disseminated, and met". This information is summarized in Table 18 in Appendix C.

Maximum Weapons Range. The most common reason why "units did not engage the enemy at maximum range" was that they were not positioned to do so. In some cases, they were "masked by the terrain". The next most common problem was a "lack of fire control measures" or "uncoordinated fire plans". Finally, "poor-

ly prepared sector sketches degraded execution". This information is summarized in Table 19 in Appendix C.

Counterattack. In this category, the OCs reported whether counterattacks were planned and executed. More units executed their plans during 1985 than 1984, but there were still significant deficiencies. Overall, half of the 26 task forces did not adequately plan counterattacks. Of those that did, most were not executed. This was due to a variety of reasons: "coordination and no rehearsal", "timing and friendly minefield", and "no FRAGO being issued". This information is summarized in Table 20 in Appendix C.

Alternate and Supplementary Positions. Most of the task forces "did not rehearse fire distribution, control, routes, and movement between positions". Only one mechanized infantry unit received positive comments for "rehearsing and reconnoitering routes between positions". The "selection and preparation of alternate and supplementary positions" was also usually inadequate.

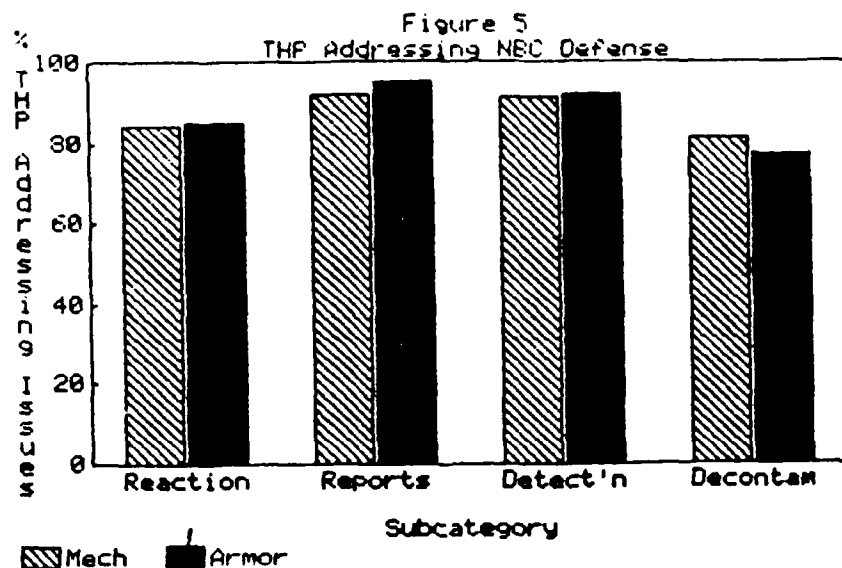
During 1984, the OCs observed whether or not "alternate and supplementary positions had been planned for in depth". Again, most units did not do so or planned them inappropriately. They also observed that "planned positions were not taken advantage of during the battle". This information is summarized in Table 21 in Appendix C.

NBC Defense

The information in this category is the most consistent of all of the categories (see Figure 5). It is almost as though the OCs had a checklist of items that they observed. This allows for some meaningful comparisons between type of task force and between years.

Reaction. Whether or not "MOPP levels were directed prior to the mission" and "implemented" was commented on in all of the THPs. There was no real difference between the armor and mechanized infantry task forces in whether this was done, but it appeared to be more of a problem during 1985 than in 1984. In most of these cases, "MOPP levels were directed prior to the mission" but "were not enforced throughout the task force".

Most of the units were "inconsistent" in "masking in response to chemical attacks". This is difficult to interpret, but evidently means that some elements of the task force did it poorly or that it was done poorly for some missions and not for others. The command group was singled out for "masking slowly or not at all" in two mechanized infantry units. This was commented on in all of the THPs, but there were no differences between type of unit or year.



"Self and buddy aid was not performed" or "was done incorrectly" by almost all of the units. In one case, although "self aid was poor, buddy aid was good". In some cases, many "personnel were not aware of correct procedures" or it "was performed only by medics". MOPP levels were usually "not downgraded in accordance with the type of agent". Overboots and gloves were specifically cited as problems after chemical attacks. "Proper unmasking procedures" were not followed by most personnel.

"NBC casualties were not properly tagged prior to evacuation" or were "not tagged or evacuated". Only one mechanized infantry task force did a "good job tagging and evacuating casualties". "Nuclear protective measures were not directed or implemented" by most units. In some cases, they were planned and directed, but not implemented. They were implemented, belatedly, in only one case.

Whether or not "chemical and NBC hazard areas were plotted" was commented on in almost all of the THPs. In some cases, they "were disseminated, but were not avoided by all personnel". Whether these "hazard areas were considered in subsequent planning" was also an issue.

The commander was usually "not advised of NBC hazards in a timely manner". This was always commented on during 1984, but less consistently during 1985. During 1984, the utilization and skills of the chemical officer was occasionally commented upon. This information is summarized in Table 22 in Appendix C.

Reporting. "Submission of NBC-1 reports within the task force" and "to higher headquarters" was poor in most of the task

forces. In some cases, they were "initiated by company/teams and submitted to the task force, but were not passed on to the brigade". This was commented on in all of the THPs.

The THPs all also contained information regarding NBC-2, 3, 4, and 5 reports. The task forces showed improvement from 1984 to 1985. During 1984, all of the task forces had problems. Most "chemical attacks were not reported" or the reports were "slow", "incomplete", or "incorrect". "NBC-3 reports were not disseminated to subordinate units". During 1985, while there were still some problems, NBC-2, 3, and 5 reports were "processed rapidly and disseminated to subordinate elements" by many of the units.

Most of the units did not "routinely pass the initial NBC attack alarm within the task force". This improved a little from 1984 to 1985, but was still a major problem. Chemical "all clear" reports were also "not routinely submitted prior to unmasking", and no improvement was shown in 1985.

"Radiological monitoring and radiation status reports were not submitted to higher headquarters" or "were not submitted in a timely manner". "Correct Operational Exposure Guides were not made and disseminated". This improved slightly in 1985.

During 1984, "units did not report or requisition expenditures of NBC supplies". This improved for the mechanized infantry task forces in 1985, but not for the armor. This information is summarized in Table 23 in Appendix C.

Detection. All of the THPs reported on the use of chemical detector kits and paper. It was often "not attached to personnel and vehicles to determine the presence of agents" or, if attached, "was not replaced when unserviceable". Some improvement was shown from 1984 to 1985, when most units did a good job.

Problems with radiological surveys were also always commented upon. Usually, "assigned survey teams were not utilized". Surveys were "not completed in a timely manner" or "not submitted in a timely manner". Sometimes, "the radiological team did not know how to conduct the survey" and sometimes "the survey was not conducted because they could not find the equipment".

None of the units received positive comments regarding the use of automatic chemical alarms. They "were not deployed", "were non-operational", or "were improperly employed". Most of the units "did not adequately define and mark NBC hazard areas". In a few cases, "areas were defined but not marked".

"Radiological monitoring was not implemented" in many cases. In some cases, it "was directed, but not implemented". A "lack of instruments" caused problems in a few cases. This information is summarized in Table 24 in Appendix C.

Decontamination. Personnel and vehicle decontamination was usually done "poorly" by the units. There was a slight improve-

ment in 1985 with personnel decontamination. "Requesting decontamination support in a timely manner" and "performing it with brigade assets" significantly improved during 1985.

"Radiological decontamination was not performed" in most of the units. During 1985, it "was conducted by the ground survey team" in a few mechanized infantry units. "Problems with decontamination apparatuses" were frequent. There was either an "insufficient number of apparatuses available", "they were not filled", or "were improperly utilized".

While confusion often existed in "coordination between task force and brigade regarding decontamination support", "coordination between supporting and supported unit was frequently good". Finally, some of the THPs commented upon clothing exchange procedures. Some "personnel could not adequately conduct clothing exchange procedures" or "did not follow correct undressing procedures". This information is summarized in Table 25 in Appendix C.

Summary of Performance Trends

The small number of cases in individual categories and the inconsistency with which an issue was commented upon make statistical analyses of the above data inappropriate. However, for those issues which had little missing data, some conclusions regarding training needs and strengths can be drawn. It is also possible to make some comparisons of the armor and mechanized infantry THPs as well as changes in the comments over time.

The one consistent strength for both mechanized infantry and armor units in both 1984 and 1985 was that they understood all aspects of the mission they were given. The armor units also consistently did a good job in conducting a terrain analysis and in being aware of their available combat power.

The planning, rehearsal, reconnoitering, and execution of routes of withdrawal were consistent problems for both types of units in both years. This is also the case for a great many of the problems cited in the entire NBC Defense category. For the armor units, the effective utilization of intelligence assets, poor positioning for providing mutual support, and providing effective fires were problems in both years. The armor units consistently committed their forces piecemeal, had problems engaging the enemy at appropriate ranges, and did not adequately prepare their positions.

The mechanized infantry units were consistently slow to return fire, deploy, report, and develop the situation when coming into contact with the enemy. They also had problems massing fires in both years.

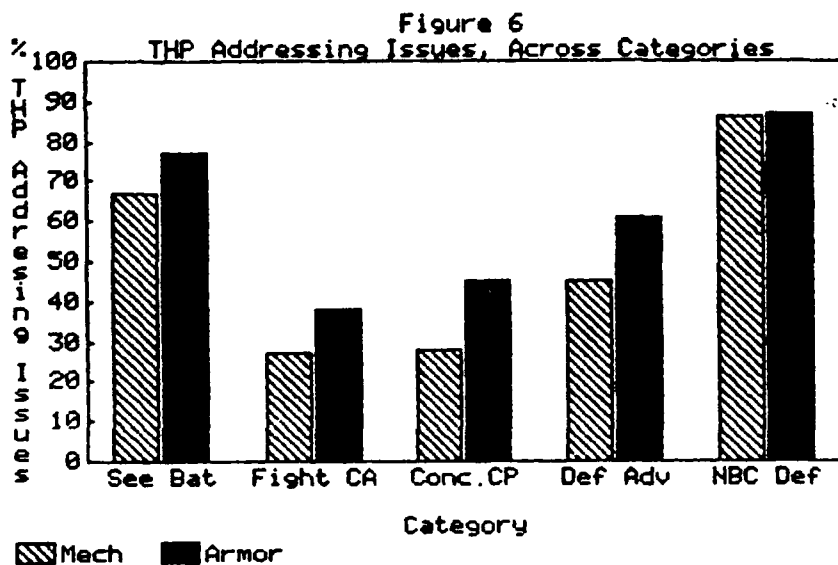
Units had a larger proportion of positive comments on submitting complete and correct NBC-2, 3, 4, and 5 reports in a timely manner in 1985 than in 1984. The mechanized infantry

units improved in requesting decontamination support in a timely manner from the brigade and in the reporting and requisitioning of expenditures of NBC supplies. The mechanized infantry did a better job in requisitioning NBC supplies during 1985 than the armor task forces.

In examining mechanized infantry and armor performance, mechanized infantry had more positive comments than armor units in executing counterattacks during 1985.

CONCLUSIONS AND RECOMMENDATIONS

The above summary of the trend data illustrates the value for lessons learned when data have been collected in a consistent, standardized fashion. The lack of standardization in what was commented upon in the THPs precludes many conclusions with the Trend data. For example, one armor task force failed to engage with their TOWs at maximum range during 1984 and five failed to do so during 1985. The conclusion cannot be drawn that performance declined, however, since it was simply not mentioned in five of the 1984 THPs. Figure 6 summarizes the consistency with which issues are identified in the THPs, across categories. The NBC Defense category is the most consistent. Fight as A Combined Arms Team, Concentration of Combat Power, and Using the Defender's Advantage are the least consistent.



Related to this is the fact that there is variation depending on whether the THP was written for the armor battalion or the mechanized infantry battalion. For example, whether or not METT-T was considered important enough for comment points out a significant difference between the comments in the mechanized

infantry and armor THPs. During 1985, METT-T factors were always commented upon in the armor THPs; they were never commented upon in the mechanized infantry THPs. That this was due to fundamental differences in the requirements of the task forces seems unlikely. More probably, it is due to differences in what the OCs focused on, or the emphasis placed by the senior OC.

This lack of standardization makes it impossible to make any meaningful comparisons between the performance of mechanized infantry and armor battalions. It also makes it impossible to determine if performance changes over time.

The problem is not just one for offline analysis of lessons learned. Equally important is the difficulty it causes units to have in use of the THP as guidance for home station training since if an issue is not addressed, it is unclear whether it is not a problem or it was not observed.

A solution to both of these problems would be to obtain agreement on what the critical tasks and events are for each mission and, thus, what needs to be observed. The routine use of an observation and/or reporting guide by the OCs would ensure standardization and facilitate interpretation by the unit.

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APPENDIX A

ARTEP TASKS RELATED TO MANEUVER CATEGORIES

SEE THE BATTLEFIELD

Mission.

The general ARTEP tasks which are relevant to this category are:

- 3-I-1-1 Evaluate mission
- 3-I-1-2 Formulate a tentative plan

The relevant task force level ARTEP tasks are:

- 3-VII-2-1 Prepare analysis of area of operation (S-2)
- 3-VII-2-2 Prepare intelligence estimate (S-2)
- 3-VII-3-1 Prepare operations estimate (S-3)
- 3-VII-4-6 Conduct troop-leading procedures
- 3-VII-4-7 Conduct commander and staff planning procedures
- 3-VII-4-7-A Conduct preliminary mission analysis
- 3-VII-4-7-C Complete mission analysis

Enemy.

The general ARTEP tasks relevant to the Enemy category are:

- 3-I-1-3 Conduct physical reconnaissance
- 3-I-3-3 Submit spot report

Relevant platoon level tasks are:

- 3-IV-17-3 Reconnoiter a route
- 3-IV-17-4 Reconnoiter an area
- 3-IV-17-5 Reconnoiter a zone
- 3-IV-17-6 Collect and report terrain information
- 3-IV-17-7 Collect and report enemy information
- 3-IV-17-8 Reconnoiter an obstacle
- 3-IV-17-9 Reconnoiter a bridge
- 3-IV-17-10 Reconnoiter a built-up area
- 3-IV-17-11 Reconnoiter a contaminated area

Task force level ARTEP tasks are:

- 3-VII-2-1 Prepare analysis of area of operation (S-2)
- 3-VII-2-2 Prepare intelligence estimates (S-2)
- 3-VII-2-4 Obtain information and intelligence (S-2)
- 3-VII-2-6 Coordinate within the battalion task force headquarters (S-2)
- 3-VII-3-1 Prepare operations estimates (S-3)
- 3-VII-4-6 Conduct troop-leading procedures
- 3-VII-4-7 Conduct commander and staff planning procedures

Terrain.

One general ARTEP task is related to this category:

- 3-I-1-2 Formulate tentative plan

Task force tasks are:

- 3-VII-2-1 Prepare analysis of area of operation (S-2)
- 3-VII-2-2 Prepare intelligence estimate (S-2)
- 3-VII-2-4 Obtain information and intelligence (S-2)
- 3-VII-2-6 Coordinate within the battalion task force headquarters (S-2)
- 3-VII-3-1 Prepare operations estimate (S-3)
- 3-VII-4-6 Conduct troop leading procedures
- 3-VII-4-7 Conduct commander and staff planning procedures
- 3-VII-4-7-E Prepare estimates

Troops and Time Available.

General ARTEP tasks relevant to this category are:

- 3-I-1-1 Evaluate mission
- 3-I-1-2 Formulate tentative plan

Task force tasks are:

- 3-VII-3-1 Prepare operations estimate (S-3)
- 3-VII-3-2 Develop task organization/concept of the operation (S-3)
- 3-VII-4-6 Conduct troop-leading procedures
- 3-VII-4-7 Conduct commander and staff planning procedures
- 3-VII-4-7-E Prepare estimates
- 3-VII-4-7-F Prepare plan/order

FIGHT AS A COMBINED ARMS TEAM

Armor

The general ARTEP tasks relevant to Armor are:

- 3-I-1-1 Evaluate mission
- 3-I-1-2 Formulate a tentative plan
- 3-I-1-5 Plan direct fire
- 3-I-1-7 Coordinate with higher, adjacent, and supporting units
- 3-I-1-15 Control direct fire

Platoon level tasks which are relevant are:

- 3-IV-2-3 Employ direct fire (Attack)
- 3-IV-2-9 Support/attack by fire
- 3-IV-3-2 Occupy battle positions
- 3-IV-3-6 Employ direct fire (Defend)
- 3-IV-3-7 Defend a battle position

Company/Team level tasks and associated missions are:

- 3-V-1-8 Conduct tactical movement (Move)
- 3-V-1-12 Provide Overwatch

- 3-V-2-1 Move (Attack)
- 3-V-2-3 Conduct a movement to contact (Attack)
- 3-V-2-4 Employ direct fire
- 3-V-2-5 Employ supporting fire
- 3-V-2-8 Conduct fire and maneuver
- 3-V-2-11 Support/attack by fire
- 3-V-3-1 Move (Defend)
- 3-V-3-2 Occupy a sector/battle position (Defend)
- 3-V-3-3 Prepare a sector
- 3-V-3-4 Prepare battle positions
- 3-V-3-7 Employ direct fire (Defend)

Relevant task force tasks are:

- 3-VI-1-8 Conduct tactical movement (Move)
- 3-VI-2-1 Move (Attack)
- 3-VI-2-3 Conduct a movement to contact (Attack)
- 3-VI-2-4 Employ direct fire (Attack)
- 3-VI-2-5 Employ supporting fire (Attack)
- 3-VI-2-8 Conduct fire and maneuver (Attack)
- 3-VI-2-11 Support/attack by fire (Attack)
- 3-VI-3-1 Move (Defend)
- 3-VI-3-2 Occupy a sector/battle position (Defend)
- 3-VI-3-4 Prepare battle positions (Defend)
- 3-VI-3-7 Employ direct fire (Defend)
- 3-VII-3-2 Develop task organization/concept of the operation (S-3)
- 3-VII-3-3 Develop fire support plans (S-3)
- 3-VII-3-4 Coordinate joint air attack team operations (S-3)
- 3-VII-4-6 Conduct troop leading procedures
- 3-VII-4-7 Conduct commander and staff planning procedures
- 3-VII-4-7-B Prepare estimates
- 4-VII-4-7-F Prepare plan/order
- 3-VII-4-8 Control and coordinate battalion task force operations

Infantry

The general ARTEP tasks related to the Infantry category are:

- 3-I-1-1 Evaluate mission
- 3-I-1-2 Formulate tentative plan
- 3-I-1-5 Plan direct fires
- 3-I-1-6 Plan fire support
- 3-I-1-7 Coordinate with higher, adjacent, and supporting units
- 3-I-1-15 Control direct fire

Relevant platoon level tasks are:

- 3-IV-7-9 Support/attack by fire
- 3-IV-8-2 Occupy battle positions
- 3-IV-8-3 Prepare battle positions

The company/team tasks are:

3-V-1-8	Conduct tactical movement (Move)
3-V-1-12	Provide overwatch
3-V-2-1	Move (Attack)
3-V-2-3	Movement to contact (Attack)
3-V-2-9	Conduct a hasty attack (Attack)
3-V-2-13	Assault (Attack)
3-V-3-1	Move (Defend)
3-V-3-2	Occupy a sector/battle position (Defend)
3-V-3-3	Prepare a sector
3-V-3-4	Prepare fighting positions (Defend)
3-V-3-7	Employ direct fire (Defend)

Relevant task force tasks are:

3-VI-1-8	Conduct tactical movement (Move)
3-VI-2-1	Move (Attack)
3-VI-2-3	Movement to contact (Attack)
3-VI-2-4	Employ direct fire (Attack)
3-VI-2-9	Conduct a hasty attack
3-VI-2-13	Assault
3-VI-3-1	Move (Defend)
3-VI-3-2	Occupy a sector/battle position (Defend)
3-VI-3-3	Prepare a sector
3-VI-3-4	Prepare fighting positions (Defend)
3-VI-3-7	Employ direct fire (Defend)
3-VII-3-2	Develop task organization/concept of the operation (S-3)
3-VII-3-3	Develop fire support plans
3-VII-4-7	Conduct commander and staff planning procedures
3-VII-4-7-F	Prepare plan/order

TOWs

General ARTEP tasks related to TOWs are:

3-I-1-1	Evaluate mission
3-I-1-2	Formulate tentative plan
3-I-1-4	Plan maneuver control measures
3-I-1-5	Plan direct fire
3-I-1-11	Control unit maneuver and fires using graphic control measures
3-I-1-12	Control unit movement and fires using visual signals
3-I-1-15	Control direct fire

Antiarmor platoon tasks relevant to this category are:

3-IV-20-1	Move
3-IV-20-2	Provide overwatch
3-IV-20-5	Select firing positions
3-IV-20-7	Prepare fire plan

Task force tasks are:

- 3-VII-3-2 Develop task organization/concept of the operation (S-3)
- 3-VII-4-7-F Prepare plan/order

Attack Helicopters

The general ARTEP tasks are:

- 3-I-1-2 Formulate tentative plan
- 3-I-1-5 Plan direct fire
- 3-I-1-7 Coordinate with higher, adjacent, and supporting units
- 3-I-1-8 Issue OPORD

Task force tasks related to attack helicopters are:

- 3-VII-3-2 Develop task organization/concept of the operation
- 3-VII-3-3 Develop fire support plans
- 3-VII-3-4 Coordinate joint air attack team operations
- 3-VII-3-7 Prepare and issue orders
- 3-VII-4-7-F Prepare plan/order

Scouts

Relevant general ARTEP tasks are:

- 3-I-1-1 Evaluate mission
- 3-I-1-4 Plan maneuver control measures
- 3-I-1-10 Maintain orientation
- 3-I-1-11 Control unit maneuver and fires using graphic control measures
- 3-I-1-12 Control unit movement and fires using visual signals
- 3-I-3-7 Operate an observation post
- 3-I-6-6 Perform operator maintenance/emergency repairs

Scout platoon tasks are:

- 3-IV-17-3 Reconnoiter a route
- 3-IV-17-4 Reconnoiter an area
- 3-IV-17-5 Reconnoiter a zone
- 3-IV-17-6 Collect and report terrain information
- 3-IV-17-7 Collect and report enemy information
- 3-IV-17-8 Reconnoiter an obstacle
- 3-IV-17-9 Reconnoiter a bridge
- 3-IV-17-10 Reconnoiter a built-up area
- 3-IV-17-11 Reconnoiter a contaminated area
- 3-IV-17-15 Take action on contact
- 3-IV-17-21 Disengage
- 3-IV-18-1 Move
- 3-IV-18-4 Screen the flank of a moving force
- 3-IV-18-15 Disengage

S-2 tasks related to this category are:

- 3-VII-2-3 Identify intelligence requirements
- 3-VII-2-4 Obtain information and intelligence
- 3-VII-4-7-F Prepare plan/order

Mutual Support/Overwatch

General ARTEP relevant to this category are:

- 3-I-1-9 Issue FRAGOs
- 3-I-1-10 Maintain orientation
- 3-I-1-11 Control unit maneuver and fires using graphic control measures
- 3-I-1-12 Control unit movement and fires using visual signals
- 3-I-1-13 Establish and maintain radio communications
- 3-I-3-3 Submit spot reports

Platoon level tasks are:

- 3-IV-2-1 Move (Tank)
- 3-IV-7-1 Move (Mechanized Infantry)
- 3-IV-17-1 Move (Scout, Reconnaissance)
- 3-IV-18-8 Occupy fighting positions (Scout)
- 3-IV-19-2 Move (107mm Mortar)
- 3-IV-20-1 Move (Antiarmor)

Company/team tasks related to mutual support and overwatch are:

- 3-V-1-8 Conduct tactical movement (Move)
- 3-V-1-11 Move in bounding overwatch (Move)
- 3-V-1-12 Provide Overwatch
- 3-V-2-1 Move (Attack)
- 3-V-3-1 Move (Defend)
- 3-V-3-2 Occupy a sector/battle position (Defend)
- 3-V-3-3 Prepare a sector
- 3-V-3-4 Prepare battle positions

The task force tasks are:

- 3-VI-1-8 Conduct tactical movement (Move)
- 3-VI-1-11 Move in bounding overwatch (Move)
- 3-VI-2-1 Move (Attack)
- 3-VI-2-7 Take action on contact (Attack)
- 3-VI-2-8 Conduct fire and maneuver (Attack)
- 3-VI-2-11 Support/attack by fire (Attack)
- 3-VI-3-1 Move (Defend)
- 3-VI-3-2 Occupy a sector/battle position (Defend)
- 3-VI-3-3 Prepare a sector
- 3-VI-3-4 Prepare battle positions
- 3-VII-1-4 Plan and control combat operations
- 3-VII-1-5 Monitor operations
- 3-VII-3-2 Develop task organization/concept of the operation (S-3)

- 3-VII-3-7 Prepare and issue orders (S-3)
- 3-VII-3-8 Monitor operations (S-3)
- 3-VII-4-7-F Prepare plan/orders
- 3-VII-4-8 Control and coordinate battalion task force operations

Movement Techniques

General ARTEP tasks related to movement are:

- 3-I-1-4 Plan maneuver control measures
- 3-I-1-10 Maintain orientation
- 3-I-1-11 Control unit maneuver and fires with graphic control measures
- 3-I-1-12 Control unit movement and fires using visual signals

Platoon level tasks are:

- 3-IV-2-1 Move (Tank)
- 3-IV-7-1 Move (Mechanized Infantry)
- 3-IV-16-6 Conduct tactical movement (Scout)
- 3-IV-17-1 Move (Scout, Reconnaissance)
- 3-IV-18-1 Move (Scout, Screening)
- 3-IV-19-2 Move (107mm Mortar)
- 3-IV-20-1 Move (Antiarmor)

Relevant company/team tasks are:

- 3-V-1-8 Conduct tactical movement
- 3-V-1-11 Move in bounding overwatch (Move)
- 3-V-2-1 Move (Attack)
- 3-V-3-1 Move (Defend)

The related task force tasks are:

- 3-VI-1-8 Conduct tactical movement
- 3-VI-1-11 Move in bounding overwatch (Move)
- 3-VI-2-1 Move (Attack)
- 3-VI-3-1 Move (Defend)
- 3-VII-1-4 Plan and control combat operations
- 3-VII-1-5 Monitor operations
- 3-VII-3-7 Prepare and issue orders (S-3)
- 3-VII-3-8 Monitor operations (S-3)
- 3-VII-4-7-F Prepare plans/orders
- 3-VII-4-8 Control and coordinate battalion task force operations

Actions on Contact

No general ARTEP tasks relate to this category. Relevant platoon level tasks are:

- 3-IV-2-6 Take action on contact (Tank)
- 3-IV-2-10 Breach minefields and obstacles (Tank)
- 3-IV-7-6 Take action on contact (Mechanized Infantry)

- 3-IV-7-10 Breach minefields and obstacles (Mechanized Infantry)
- 3-IV-20-5 Select firing positions (Antiarmor)
- 3-IV-20-6 Occupy and prepare firing positions (Antiarmor)

Company/team tasks for actions on contact are:

- 3-V-2-7 Take action on contact (Attack)
- 3-V-2-12 Breach minefields and obstacles (Attack)
- 3-V-3-2 Occupy a sector/battle position (Defend)
- 3-V-3-7 Employ direct fire (Defend)

ARTEP tasks for the task force are:

- 3-VI-2-3 Movement to contact (Attack)
- 3-VI-2-7 Take action on contact (Attack)
- 3-VI-2-12 Breach minefields and obstacles
- 3-VI-3-2 Occupy as sector/battle position (Defend)

Direct Fire

General ARTEP tasks relevant to this category are:

- 3-I-1-5 Plan direct fires
- 3-I-1-6 Plan fire support
- 3-I-1-11 Control unit fires with graphic control measures

Platoon tasks are:

- 3-IV-1-6 Conduct tactical movement (Tank)
- 3-IV-2-3 Employ direct fire (Tank)
- 3-IV-3-3 Prepare battle positions (Tank)
- 3-IV-6-6 Conduct tactical movement (Mechanized Infantry)
- 3-IV-8-3 Prepare battle positions (Mechanized Infantry)
- 3-IV-16-6 Conduct tactical movement (Scout)

At the company/team level, relevant tasks are:

- 3-V-1-8 Conduct tactical movement (Mechanized Infantry)
- 3-V-1-12 Provide overwatch (Move)
- 3-V-2-4 Employ direct fire (Attack)
- 3-V-2-11 Support/attack by fire
- 3-V-3-7 Employ direct fire (Defend)

Task force tasks are:

- 3-VI-1-8 Conduct tactical movement
- 3-VI-1-12 Provide overwatch (Move)
- 3-VI-2-4 Employ direct fire (Attack)
- 3-VI-2-8 Conduct fire and maneuver (Attack)
- 3-VI-3-7 Employ direct fire (Defend)
- 3-VII-3-3 Develop fire support plans (S-3)
- 3-VII-3-8 Monitor operations (S-3)
- 3-VII-4-8 Control and coordinate battalion task force operations

Indirect Fire

The general ARTEP task for indirect fire is:

3-I-1-16 Control fire support

ARTEP tasks for company/team level are:

3-V-2-5 Employ supporting fire (Attack)

3-V-3-6 Employ supporting fire (Defend)

Relevant task force tasks are:

3-VI-2-5 Employ supporting fire (Attack)

3-VI-3-6 Employ supporting fire (Defend)

3-VII-3-8 Monitor operations (S-3)

3-VII-4-8 Control and coordinate battalion task force operations

USE DEFENDERS ADVANTAGE

Terrain and Position Selection/Preparation

General ARTEP tasks related to terrain and position selection and preparation are:

3-I-1-2 Formulate tentative plan

3-I-1-4 Plan maneuver control measures

3-I-1-5 Plan direct fire

Platoon level ARTEP tasks related to this category are:

3-IV-8-2 Occupy battle positions (Mech Infantry, Defend)

3-IV-8-3 Prepare battle positions (Mech Infantry, Defend)

3-IV-19-5 Occupy and prepare a firing position (107mm Mortar)

ARTEP tasks for the company/team are:

3-V-3-2 Occupy a sector/battle position

3-V-3-3 Prepare a sector

3-V-3-4 Prepare battle positions

Task force tasks which are relevant are:

3-VI-3-2 Occupy a sector/battle position

3-VI-3-3 Prepare a sector

3-VI-3-4 Prepare battle positions

3-VII-3-2 Develop Task Organization/Concept of the Operation (S-3)

3-VII-3-3 Develop fire support plans (S-3)

3-VII-3-5 Coordinate engineer support (S-3)

3-VII-4-6 Conduct troop-leading procedures

3-VII-4-7-B Prepare estimates

3-VII-4-7-F Prepare plan/order

Routes of Withdrawal

Company/team level tasks are:

- 3-V-2-15 Disengage (Attack)
- 3-V-3-3 Prepare a sector (Defend)
- 3-V-3-4 Prepare battle positions
- 3-V-3-11 Disengage (Defend)

Relevant task force tasks are:

- 3-VI-2-15 Disengage (Attack)
- 3-VI-3-3 Prepare a sector (Defend)
- 3-VI-3-4 Prepare battle positions
- 3-VI-3-12 Disengage (Defend)
- 3-VII-4-6 Conduct troop-leading procedures
- 3-VII-4-7-F Prepare plan/order

Maximum Weapons Range

General ARTEP tasks related to maximum weapons range are:

- 3-I-1-4 Plan maneuver control measures
- 3-I-1-11 Control unit maneuver and fires with graphic control measures
- 3-I-1-12 Control unit movement and fires using visual signals

Platoon ARTEP tasks related to this category are:

- 3-IV-8-2 Occupy battle positions (Mech Infantry)
- 3-IV-8-3 Prepare battle positions (Mech Infantry)
- 3-IV-19-5 Occupy and prepare a firing position (107mm Mortar)

Relevant company/team level tasks are:

- 3-V-3-2 Occupy a sector/battle position (Defend)
- 3-V-3-3 Prepare a sector
- 3-V-3-4 Prepare battle positions

Associated task force tasks are:

- 3-VI-3-2 Occupy a sector/battle position (Defend)
- 3-VI-3-3 Prepare a sector
- 3-VI-3-4 Prepare battle positions
- 3-VII-4-7-F Prepare plan/order

Counterattack

Tasks relevant to counterattack are as follows:

- 3-I-1-9 Issue FRAGOs (General)
- 3-V-3-12 Counterattack (Company/Team)
- 3-VI-3-13 Counterattack (Task Force)
- 3-VII-4-7-E Prepare estimates (Task Force)

3-VII-4-7-F Prepare plan/order

Alternate and Supplementary Positions

The platoon ARTEP task related to this is:

3-IV-19-5 Occupy and prepare a firing position (107mm Mortar)

Company/team tasks relevant to this category are:

3-V-3-2 Occupy a sector/battle position
3-V-3-3 Prepare a sector
3-V-3-4 Prepare battle positions
3-V-3-12 Counterattack

Related task force tasks are:

3-VI-3-2 Occupy a sector/battle position
3-VI-3-3 Prepare a sector
3-VI-3-4 Prepare battle positions
3-VII-4-6 Conduct troop-leading procedures
3-VII-4-7-E Prepare estimates
3-VII-4-7-F Prepare plan/order

NBC DEFENSE

Reaction

General ARTEP tasks relevant to NBC reaction are:

3-I-1-8 Issue OPORD
3-I-4-1 Prepare for operations in an NBC environment
3-I-4-2 Prepare for nuclear attack
3-I-4-11 Prepare for a chemical attack
3-I-4-12 Respond to a persistent toxic chemical agent attack
3-I-4-14 Respond to a nonpersistent chemical agent attack

One company task is relevant:

3-V-1-2 Conduct NBC defense operations

The following task force tasks are also relevant:

3-VI-1-1 Prepare for operations
3-VII-1-5 Monitor operations (Company/Team Headquarters)
3-VII-3-8 Monitor operations (S-3)
3-VII-4-7-F Prepare plan/order

Reporting

The general ARTEP tasks which are relevant are:

3-I-4-3 Respond to the initial effects of a nuclear attack
3-I-4-4 Respond to the residual effects of a nuclear attack
3-I-4-12 Respond to a persistent toxic chemical agent attack

3-I-4-14 Respond to a nonpersistent chemical agent attack

A relevant platoon task is:

3-IV-19-3 Conduct NBC defense operations (107mm Mortar)

For the company/team, the following task is relevant:

3-V-1-2 Conduct NBC defense operations (Move)

Task force tasks are:

3-VI-1-2 Conduct NBC defense operations

3-VII-1-5 Monitor operations

Detection

The following general ARTEP tasks are relevant:

- 3-I-4-1 Prepare for operations in an NBC environment
- 3-I-4-3 Respond to the initial effects of a nuclear attack
- 3-I-4-4 Respond to the residual effects of a nuclear attack
- 3-I-4-6 Conduct radiological reconnaissance
- 3-I-4-11 Prepare for a chemical attack
- 3-I-4-12 Respond to a persistent toxic chemical agent attack

The relevant company and task force tasks are:

- 3-V-1-2 Conduct NBC defense operations (Company)
- 3-VI-1-2 Conduct NBC defense operations (Task Force)

Decontamination

The relevant ARTEP tasks that apply to all levels are:

- 3-I-4-1 Prepare for operations in an NBC environment
- 3-I-4-2 Prepare for nuclear attack
- 3-I-4-5 Cross a radiologically contaminated area
- 3-I-4-8 Perform radiological decontamination without assistance from an NBC defense unit
- 3-I-4-12 Respond to a persistent toxic chemical agent attack
- 3-I-4-13 Cross an area contaminated by a persistent chemical agent
- 3-I-4-15 Perform partial decontamination without assistance from an NBC defense unit
- 3-I-4-16 Perform partial decontamination with assistance from an NBC defense unit
- 3-I-4-17 Coordinate for complete decontamination of personnel and equipment

Platoon level ARTEP tasks are:

- 3-IV-1-2 Conduct NBC defense operations (Tank)
- 3-IV-6-2 Conduct NBC defense operations (Mechanized Infantry)

- 3-IV-16-2 Conduct NBC defense operations (Scout)
- 3-IV-19-3 Conduct NBC defense operations (107 mm Mortar)

Company level tasks are:

- 3-V-1-1 Prepare for operations
- 3-V-1-2 Conduct NBC defense operations

The associated battalion task is:

- 3-VI-1-1 Prepare for operations

APPENDIX B
MATRIX OF ARTEP TASKS AND IDENTIFIED ISSUES

This appendix is composed of the issues listed in tables 3 through 25 and the ARTEP tasks listed under the general categories in the text. An "X" in the matrix indicates that a specific issue is implied in carrying out an ARTEP task. This eliminates the redundancy in the text of tasks being listed under more than one category and provides a more detailed linkage between issues and tasks.

Each set of ARTEP tasks covers three and a half pages. The issues are then repeated for another set of ARTEP tasks. This appendix can be detached from the report for use by training managers at home station.

ARTEP TASKS

GENERAL

	3	3	3	3	3	3	3	3	3	3	3	3
	I	I	I	I	I	I	I	I	I	I	I	I
	1	1	1	1	1	1	1	1	1	1	1	1
ISSUES	1	2	3	4	5	6	7	8	9	10	11	12

MISSION:

Understood Mission X

METT-T X

ENEMY:

Enemy Doctrine X

Utilize intel X

TERRAIN:

Terrain Analysis X

TROOPS/TIME:

Combat power X X

Time available X X

Task Organization X X

ARMOR:

Planning X X X

Mass fires

Positioning

Long range fires

Mutual support X

Engage targets

Piecemeal

Tanks led

Boresight/zero

INFANTRY:

Dismounted

Mutual support X

Positions

Planning X X X

Range cards X X

Co execution

Led appropriate

TOWs:

Maximum range

Positions

Command/control X X

Planning X X X

Gunnery

Movement

Fire control X X X

ARTEP TASKS

GENERAL

	3	3	3	3	3	3	3	3	3	3	3	3
	I	I	I	I	I	I	I	I	I	I	I	I
	1	1	1	1	1	1	1	1	1	1	1	1
ISSUES	1	2	3	4	5	6	7	8	9	10	11	12

ATTACK HELICOPTERS:

Coordination							X					
Integrated		X			X		X					
Fire control								X				

SCOUTS:

Missions	X											
Timely												
Command/control				X						X	X	
Executed missions												
Navigation									X			
OPs												
Maintenance												
Decisively engaged												

MUTUAL SUPPORT:

Positions												
Communication							X		X	X	X	
Piecemeal												
Movement												
Graphic controls									X	X		
Navigation								X				

MOVEMENT:

Techniques												
Dispersion												
Graphic controls				X					X			
Command/control				X					X	X		
Formations												
Navigation								X				
Terrain driving												

ACTIONS ON CONTACT:

Return/deploy												
Fires												
Piecemeal												
Recommend actions												
Breach Obstacles												

DIRECT FIRE:

Mass fires												
Engagement												
Fire plans					X	X			X			
Overwatch												
Visability												

ARTEP TASKS

GENERAL

	3	3	3	3	3	3	3	3	3	3	3	3
	I	I	I	I	I	I	I	I	I	I	I	I
	1	1	1	1	1	1	1	1	1	1	1	1
ISSUES	1	2	3	4	5	6	7	8	9	10	11	12

INDIRECT FIRES:

Firing
 Artillery
 Mass fires
 Mortars
 FIST

TERRAIN/POSITION:

Use of terrain
 Preparation
 Planning X
 Fire plan X X
 Timeliness

ROUTES WITHDRAWAL:

Planned, used
 Disengagement

WEAPONS RANGE:

Position
 Fire control
 Sector sketches

COUNTERATTACK:

Planning
 Execution X

ALT/SUPP POSITIONS:

Rehearsal
 Selection/prepare
 Planning
 Occupy positions

NBC REACTION:

MOPP directed X
 Masking
 Self/buddy aid
 Downgrading MOPP
 Casualties
 Nuclear protection
 Hazards plotted
 Planning
 Commander informed
 Chemical officer

ARTEP TASKS

GENERAL

	3	3	3	3	3	3	3	3	3	3	3	3
	1	1	1	1	1	1	1	1	1	1	1	1
	1	1	1	1	1	1	1	1	1	1	1	1
ISSUES	1	2	3	4	5	6	7	8	9	10	11	12

NBC REPORTING:

NBC-1 reports

Other reports

Initial alarm

All clear reports

Monitoring status

Equipment

NBC DETECTION:

Detector paper

Radiological survey

Chemical alarms

Hazards marked

Monitoring

DECONTAMINATION:

Personnel/vehicle

Brigade support

Radiological decon

Decon apparatus

Coordination

Clothing Exchange

ARTEP TASKS

GENERAL

	3	3	3	3	3	3	3	3	3	3	3	3
	I	I	I	I	I	I	I	I	I	I	I	I
	1	1	1	3	3	4	4	4	4	4	4	4
ISSUES	13	15	16	3	7	1	2	3	4	5	6	8

MISSION:

Understood Mission

METT-T

ENEMY:

Enemy Doctrine

X

Utilize intel

X

TERRAIN:

Terrain Analysis

TROOPS/TIME:

Combat power

Time available

Task Organization

ARMOR:

Planning

X

Mass fires

Positioning

Long range fires

Mutual support

Engage targets

Piecemeal

Tanks led

Boresight/zero

INFANTRY:

Dismounted

Mutual support

Positions

Planning

Range cards

X

Co execution

Led appropriate

TOWs:

Maximum range

Positions

Command/control

X

Planning

Gunnery

Movement

Fire control

ARTEP TASKS

GENERAL

	3	3	3	3	3	3	3	3	3	3	3	3
	I	I	I	I	I	I	I	I	I	I	I	I
	1	1	1	3	3	4	4	4	4	4	4	4
ISSUES	13	15	16	3	7	1	2	3	4	5	6	8

ATTACK HELICOPTERS:

Coordination

Integrated

Fire control

SCOUTS:

Missions

Timely

Command/control

Executed missions

Navigation

OPs

X

Maintenance

Decisively engaged

MUTUAL SUPPORT:

Positions

Communication

X

X

Piecemeal

Movement

Graphic controls

Navigation

MOVEMENT:

Techniques

Dispersion

Graphic controls

Command/control

Formations

Navigation

Terrain driving

ACTIONS ON CONTACT:

Return/deploy

Fires

Piecemeal

Recommend actions

Breach Obstacles

DIRECT FIRE:

Mass fires

Engagement

Fire plans

Overwatch

Visability

ARTEP TASKS

GENERAL

	3	3	3	3	3	3	3	3	3	3	3	3
	I	I	I	I	I	I	I	I	I	I	I	I
	1	1	1	3	3	4	4	4	4	4	4	4
ISSUES	13	15	16	3	7	1	2	3	4	5	6	8

INDIRECT FIRES:

Firing

Artillery

Mass fires

X

Mortars

FIST

TERRAIN/POSITION:

Use of terrain

Preparation

Planning

Fire plan

Timeliness

ROUTES WITHDRAWAL:

Planned, used

Disengagement

WEAPONS RANGE:

Position

Fire control

Sector sketches

COUNTERATTACK:

Planning

Execution

ALT/SUPP POSITIONS:

Rehearsal

Selection/prepare

Planning

Occupy positions

NBC REACTION:

MOPP directed

X

Masking

Self/buddy aid

Downgrading MOPP

Casualties

Nuclear protection

X

Hazards plotted

Planning

Commander informed

Chemical officer

ARTEP TASKS

GENERAL

	3	3	3	3	3	3	3	3	3	3	3	3
	I	I	I	I	I	I	I	I	I	I	I	I
	1	1	1	3	3	4	4	4	4	4	4	4
ISSUES	13	16	16	3	7	1	2	3	4	5	6	8

NBC REPORTING:

NBC-1 reports								X				
Other reports								X				
Initial alarm												
All clear reports												
Monitoring status									X			
Equipment												

NBC DETECTION:

Detector paper					X							
Radiological survey											X	
Chemical alarms					X							
Hazards marked											X	
Monitoring							X	X				

DECONTAMINATION:

Personnel/vehicle									X			X
Brigade support												
Radiological decon									X			X
Decon apparatus					X	X						
Coordination												
Clothing Exchange												

ARTEP TASKS

	GENERAL								PLATOON			
	3	3	3	3	3	3	3	3	3	3	3	3
	I	I	I	I	I	I	I	I	IV	IV	IV	IV
	4	4	4	4	4	4	4	6	1	1	2	2
ISSUES	11	12	13	14	15	16	17	6	2	6	1	3

MISSION:

Understood Mission

MBTT-T

ENEMY:

Enemy Doctrine

Utilize intel

TERRAIN:

Terrain Analysis

TROOPS/TIME:

Combat power

Time available

Task Organization

ARMOR:

Planning

Mass fires

Positioning

Long range fires

Mutual support

Engage targets

Piecemeal

Tanks led

Boresight/zero

X

INFANTRY:

Dismounted

Mutual support

Positions

Planning

Range cards

Co execution

Led appropriate

TOWs:

Maximum range

Positions

Command/control

Planning

Gunnery

Movement

Fire control

ARTEP TASKS

	GENERAL								PLATOON			
	3	3	3	3	3	3	3	3	3	3	3	3
	I	I	I	I	I	I	I	I	IV	IV	IV	IV
	4	4	4	4	4	4	4	6	1	1	2	2
ISSUES	11	12	13	14	15	16	17	6	2	6	1	3

ATTACK HELICOPTERS:

Coordination
Integrated
Fire control

SCOUTS:

Missions
Timely
Command/control
Executed missions
Navigation
OPs
Maintenance
Decisively engaged

X

MUTUAL SUPPORT:

Positions
Communication
Piecemeal
Movement
Graphic controls
Navigation

X

MOVEMENT:

Techniques
Dispersion
Graphic controls
Command/control
Formations
Navigation
Terrain driving

X

X

ACTIONS ON CONTACT:

Return/deploy
Fires
Piecemeal
Recommend actions
Breach Obstacles

DIRECT FIRE:

Mass fires
Engagement
Fire plans
Overwatch
Visability

X

X

ARTEP TASKS

	GENERAL								PLATOON			
	3	3	3	3	3	3	3	3	3	3	3	3
	I	I	I	I	I	I	I	I	IV	IV	IV	IV
	4	4	4	4	4	4	4	6	1	1	2	2
ISSUES	11	12	13	14	15	16	17	6	2	6	1	3

INDIRECT FIRES:

Firing
 Artillery
 Mass fires
 Mortars
 FIST

TERRAIN/POSITION:

Use of terrain
 Preparation
 Planning
 Fire plan
 Timeliness

ROUTES WITHDRAWAL:

Planned, used
 Disengagement

WEAPONS RANGE:

Position
 Fire control
 Sector sketches

COUNTERATTACK:

Planning
 Execution

ALT/SUPP POSITIONS:

Rehearsal
 Selection/prepare
 Planning
 Occupy positions

NBC REACTION:

MOPP directed		
Masking	X	X
Self/buddy aid	X	X
Downgrading MOPP	X	X
Casualties	X	X
Nuclear protection		
Hazards plotted		
Planning		
Commander informed		
Chemical officer		

ARTEP TASKS

	GENERAL								PLATOON			
	3	3	3	3	3	3	3	3	3	3	3	3
	I	I	I	I	I	I	I	I	IV	IV	IV	IV
	4	4	4	4	4	4	4	6	1	1	2	2
ISSUES	11	12	13	14	15	16	17	6	2	6	1	3
NBC REPORTING:												
NBC-1 reports		X		X								
Other reports												
Initial alarm		X		X								
All clear reports		X		X								
Monitoring status												
Equipment												
NBC DETECTION:												
Detector paper												X
Radiological survey												
Chemical alarms												
Hazards marked		X										
Monitoring												
DECONTAMINATION:												
Personnel/vehicle		X	X		X	X				X		
Brigade support							X					
Radiological decon										X		
Decon apparatus												
Coordination							X					
Clothing Exchange					X	X						

ARTEP TASKS

PLATOON

	3	3	3	3	3	3	3	3	3	3	3	3
	IV	IV	IV	IV	IV	IV	IV	IV	IV	IV	IV	IV
	2	2	2	3	3	3	3	6	6	7	7	7
ISSUES	6	9	10	2	3	6	7	2	6	1	6	9

MISSION:

Understood Mission

MBTT-T

ENEMY:

Enemy Doctrine

Utilize intel

TERRAIN:

Terrain Analysis

TROOPS/TIME:

Combat power

Time available

Task Organization

ARMOR:

Planning

Mass fires

Positioning

Long range fires

Mutual support

Engage targets

Piecemeal

Tanks led

Boresight/zero

X

X X

X

X X

INFANTRY:

Dismounted

Mutual support

Positions

Planning

Range cards

Co execution

Led appropriate

X

TOWs:

Maximum range

Positions

Command/control

Planning

Gunnery

Movement

Fire control

ARTEP TASKS

PLATOON

	3	3	3	3	3	3	3	3	3	3	3	3
	IV	IV	IV	IV	IV	IV	IV	IV	IV	IV	IV	IV
	2	2	2	3	3	3	3	6	6	7	7	7
ISSUES	6	9	10	2	3	6	7	2	6	1	6	9

ATTACK HELICOPTERS:

Coordination

Integrated

Fire control

SCOUTS:

Missions

Timely

Command/control

Executed missions

Navigation

OPs

Maintenance

Decisively engaged

MUTUAL SUPPORT:

Positions

Communication

Piecemeal

Movement

X

Graphic controls

Navigation

MOVEMENT:

Techniques

X

Dispersion

X

Graphic controls

Command/control

Formations

Navigation

Terrain driving

ACTIONS ON CONTACT:

Return/deploy X

X

Fires X

X

Piecemeal

Recommend actions

Breach Obstacles

X

DIRECT FIRE:

Mass fires

Engagement

Fire plans

X

Overwatch

X

Visability

ARTEP TASKS

PLATOON

	3	3	3	3	3	3	3	3	3	3	3	3
	IV	IV	IV	IV	IV	IV	IV	IV	IV	IV	IV	IV
	2	2	2	3	3	3	3	6	6	7	7	7
ISSUES	6	9	10	2	3	6	7	2	6	1	6	9

INDIRECT FIRES:

Firing
 Artillery
 Mass fires
 Mortars
 FIST

TERRAIN/POSITION:

Use of terrain
 Preparation
 Planning
 Fire plan
 Timeliness

ROUTES WITHDRAWAL:

Planned, used
 Disengagement

WEAPONS RANGE:

Position
 Fire control
 Sector sketches

COUNTERATTACK:

Planning
 Execution

ALT/SUPP POSITIONS:

Rehearsal
 Selection/prepare
 Planning
 Occupy positions

NBC REACTION:

MOPP directed
 Masking
 Self/buddy aid
 Downgrading MOPP
 Casualties
 Nuclear protection
 Hazards plotted
 Planning
 Commander informed
 Chemical officer

ARTEP TASKS

PLATOON

	3	3	3	3	3	3	3	3	3	3	3	3
	IV	IV	IV	IV	IV	IV	IV	IV	IV	IV	IV	IV
	2	2	2	3	3	3	3	6	6	7	7	7
ISSUES	6	9	10	2	3	6	7	2	6	1	6	9

NBC REPORTING:

NBC-1 reports

Other reports

Initial alarm

All clear reports

Monitoring status

Equipment

NBC DETECTION:

Detector paper

Radiological survey

Chemical alarms

Hazards marked

Monitoring

DECONTAMINATION:

Personnel/vehicle

X

Brigade support

Radiological decon

X

Decon apparatus

Coordination

Clothing Exchange

ARTEP TASKS

PLATOON

	3	3	3	3	3	3	3	3	3	3	3	3	3
	IV	IV	IV	IV	IV	IV	IV	IV	IV	IV	IV	IV	IV
	7	8	8	16	16	16	17	17	17	17	17	17	17
ISSUES	10	2	3	1	2	6	1	3	4	5	6	7	8

MISSION:

Understood Mission

METT-T

ENEMY:

Enemy Doctrine

X X X X X X

Utilize intel

X X X X X X

TERRAIN:

Terrain Analysis

TROOPS/TIME:

Combat power

Time available

Task Organization

ARMOR:

Planning

Mass fires

Positioning

Long range fires

Mutual support

Engage targets

Piecemeal

Tanks led

Boresight/zero

INFANTRY:

Dismounted

Mutual support

Positions X X

Planning

Range cards X X

Co execution

Led appropriate

TOWs:

Maximum range

Positions

Command/control

Planning

Gunnery

Movement

Fire control

ARTEP TASKS

PLATOON

	3	3	3	3	3	3	3	3	3	3	3	3	3
	IV	IV	IV	IV	IV	IV	IV	IV	IV	IV	IV	IV	IV
	7	8	8	16	16	16	17	17	17	17	17	17	17
ISSUES	10	2	3	1	2	6	1	3	4	5	6	7	8

ATTACK HELICOPTERS:

Coordination

Integrated

Fire control

SCOUTS:

Missions

Timely

X X X X X X

Command/control

Executed missions

Navigation

OPs

Maintenance

Decisively engaged

MUTUAL SUPPORT:

Positions

Communication

Piecemeal

Movement

X

Graphic controls

Navigation

MOVEMENT:

Techniques

X

Dispersion

X

Graphic controls

Command/control

Formations

Navigation

Terrain driving

ACTIONS ON CONTACT:

Return/deploy

Fires

Piecemeal

Recommend actions

Breach Obstacles X

DIRECT FIRE:

Mass fires

Engagement

Fire plans

X

Overwatch

X

Visability

ARTEP TASKS

PLATOON

	3	3	3	3	3	3	3	3	3	3	3	3	3
	IV	IV	IV	IV	IV	IV	IV	IV	IV	IV	IV	IV	IV
	7	8	8	16	16	16	17	17	17	17	17	17	17
ISSUES	10	2	3	1	2	6	1	3	4	5	6	7	8

INDIRECT FIRES:

Firing
 Artillery
 Mass fires
 Mortars
 FIST

TERRAIN/POSITION:

Use of terrain
 Preparation
 Planning X X
 Fire plan
 Timeliness

ROUTES WITHDRAWAL:

Planned, used
 Disengagement

WEAPONS RANGE:

Position
 Fire control X X
 Sector sketches X X

COUNTERATTACK:

Planning
 Execution

ALT/SUPP POSITIONS:

Rehearsal
 Selection/prepare
 Planning
 Occupy positions

NBC REACTION:

MOPP directed
 Masking
 Self/buddy aid
 Downgrading MOPP
 Casualties
 Nuclear protection
 Hazards plotted
 Planning
 Commander informed
 Chemical officer

ARTEP TASKS

PLATOON

	3	3	3	3	3	3	3	3	3	3	3	3	3
	IV	IV	IV	IV	IV	IV	IV	IV	IV	IV	IV	IV	IV
	7	8	8	16	16	16	17	17	17	17	17	17	17
ISSUES	10	2	3	1	2	6	1	3	4	5	6	7	8

NBC REPORTING:

NBC-1 reports

Other reports

Initial alarm

All clear reports

Monitoring status

Equipment

NBC DETECTION:

Detector paper

Radiological survey

Chemical alarms

Hazards marked

Monitoring

DECONTAMINATION:

Personnel/vehicle

X

Brigade support

Radiological decon

X

Decon apparatus

Coordination

Clothing Exchange

ARTEP TASKS

PLATOON

	3	3	3	3	3	3	3	3	3	3	3	3
	IV	IV	IV	IV	IV	IV	IV	IV	IV	IV	IV	IV
	17	17	17	17	17	18	18	18	19	19	19	20
ISSUES	9	10	11	15	21	1	4	15	2	3	5	1

MISSION:

Understood Mission

METT-T

ENEMY:

Enemy Doctrine X X X

Utilize intel X X X

TERRAIN:

Terrain Analysis

TROOPS/TIME:

Combat power

Time available

Task Organization

ARMOR:

Planning

Mass fires

Positioning

Long range fires

Mutual support

Engage targets

Piecemeal

Tanks led

Boresight/zero

INFANTRY:

Dismounted

Mutual support

Positions

Planning

Range cards

Co execution

Led appropriate

TOWs:

Maximum range

Positions

Command/control

Planning

Gunnery

Movement

Fire control

X

ARTEP TASKS

PLATOON

	3	3	3	3	3	3	3	3	3	3	3	3
	IV	IV	IV	IV	IV	IV	IV	IV	IV	IV	IV	IV
	17	17	17	17	17	18	18	18	19	19	19	20
ISSUES	9	10	11	15	21	1	4	15	2	3	5	1

ATTACK HELICOPTERS:

Coordination
Integrated
Fire control

SCOUTS:

Missions

Timely X X X X

Command/control

Executed missions

Navigation

OPs

X

Maintenance

Decisively engaged

X

X

MUTUAL SUPPORT:

Positions

Communication

Piecemeal

Movement

X

X

X

Graphic controls

Navigation

MOVEMENT:

Techniques

X

X

X

Dispersion

X

X

X

Graphic controls

Command/control

Formations

Navigation

Terrain driving

ACTIONS ON CONTACT:

Return/deploy

Fires

Piecemeal

Recommend actions

Breach Obstacles

DIRECT FIRE:

Mass fires

Engagement

Fire plans

Overwatch

Visability

ARTEP TASKS

PLATOON

	3	3	3	3	3	3	3	3	3	3	3	3
	IV	IV	IV	IV	IV	IV	IV	IV	IV	IV	IV	IV
	17	17	17	17	17	18	18	18	19	19	19	20
ISSUES	9	10	11	15	21	1	4	15	2	3	5	1

INDIRECT FIRES:

Firing
Artillery
Mass fires
Mortars
FIST

TERRAIN/POSITION:

Use of terrain X
Preparation X
Planning
Fire plan
Timeliness

ROUTES WITHDRAWAL:

Planned, used
Disengagement

WEAPONS RANGE:

Position X
Fire control
Sector sketches

COUNTERATTACK:

Planning
Execution

ALT/SUPP POSITIONS:

Rehearsal
Selection/prepare X
Planning
Occupy positions

NBC REACTION:

MOPP directed
Masking
Self/buddy aid
Downgrading MOPP
Casualties
Nuclear protection
Hazards plotted
Planning
Commander informed
Chemical officer

ARTEP TASKS

PLATOON

	3	3	3	3	3	3	3	3	3	3	3	3
	IV	IV	IV	IV	IV	IV	IV	IV	IV	IV	IV	IV
	17	17	17	17	17	18	18	18	19	19	19	20
ISSUES	9	10	11	15	21	1	4	15	2	3	5	1

NBC REPORTING:

NBC-1 reports

X

Other reports

Initial alarm

All clear reports

Monitoring status

Equipment

NBC DETECTION:

Detector paper

Radiological survey

Chemical alarms

Hazards marked

Monitoring

DECONTAMINATION:

Personnel/vehicle

X

Brigade support

Radiological decon

X

Decon apparatus

Coordination

Clothing Exchange

ARTEP TASKS

	PLATOON					COMPANY						
	3	3	3	3	3	3	3	3	3	3	3	3
	IV	IV	IV	V	V	V	V	V	V	V	V	V
	20	20	20	1	1	1	1	1	2	2	2	2
ISSUES	2	5	7	1	2	8	11	12	1	3	4	5

MISSION:

Understood Mission

METT-T

ENEMY:

Enemy Doctrine

Utilize intel

TERRAIN:

Terrain Analysis

TROOPS/TIME:

Combat power

Time available

Task Organization

ARMOR:

Planning

Mass fires

X X

Positioning

Long range fires

Mutual support

X X X

Engage targets

Piecemeal

Tanks led

X

Boresight/zero

INFANTRY:

Dismounted

Mutual support

X X X

Positions

Planning

Range cards

Co execution

Led appropriate

X

TOWs:

Maximum range

X X

Positions

X X

Command/control

Planning

Gunnery

Movement

Fire control

X

ARTEP TASKS

	PLATOON						COMPANY					
	3	3	3	3	3	3	3	3	3	3	3	3
	IV	IV	IV	V	V	V	V	V	V	V	V	V
	20	20	20	1	1	1	1	1	2	2	2	2
ISSUES	2	5	7	1	2	8	11	12	1	3	4	5

ATTACK HELICOPTERS:

Coordination
Integrated
Fire control

SCOUTS:

Missions
Timely
Command/control
Executed missions
Navigation
OPs
Maintenance
Decisively engaged

MUTUAL SUPPORT:

Positions	X		X
Communication			
Piecemeal			
Movement	X	X	X
Graphic controls			
Navigation			

MOVEMENT:

Techniques	X	X	X
Dispersion	X		X
Graphic controls			
Command/control			
Formations	X		X
Navigation			
Terrain driving			

ACTIONS ON CONTACT:

Return/deploy
Fires
Piecemeal
Recommend actions
Breach Obstacles

DIRECT FIRE:

Mass fires			X
Engagement			X
Fire plans			
Overwatch	X	X	
Visability			

ARTEP TASKS

	PLATOON						COMPANY					
	3	3	3	3	3	3	3	3	3	3	3	3
	IV	IV	IV	V	V	V	V	V	V	V	V	V
	20	20	20	1	1	1	1	1	2	2	2	2
ISSUES	2	5	7	1	2	8	11	12	1	3	4	5
INDIRECT FIRES:												
Firing												X
Artillery												X
Mass fires												X
Mortars												X
FIST												X
TERRAIN/POSITION:												
Use of terrain												
Preparation												
Planning												
Fire plan												
Timeliness												
ROUTES WITHDRAWAL:												
Planned, used												
Disengagement												
WEAPONS RANGE:												
Position												
Fire control												
Sector sketches												
COUNTERATTACK:												
Planning												
Execution												
ALT/SUPP POSITIONS:												
Rehearsal												
Selection/prepare												
Planning												
Occupy positions												
NBC REACTION:												
MOPP directed												
Masking												
Self/buddy aid												
Downgrading MOPP												
Casualties												X
Nuclear protection												
Hazards plotted												
Planning												
Commander informed												X
Chemical officer												

ARTEP TASKS

	PLATOON						COMPANY					
	3	3	3	3	3	3	3	3	3	3	3	3
	IV	IV	IV	V	V	V	V	V	V	V	V	V
	20	20	20	1	1	1	1	1	2	2	2	2
ISSUES	2	5	7	1	2	8	11	12	1	3	4	5
NBC REPORTING:												
NBC-1 reports						X						
Other reports						X						
Initial alarm						X						
All clear reports						X						
Monitoring status												
Equipment												
NBC DETECTION:												
Detector paper												
Radiological survey												
Chemical alarms						X						
Hazards marked												
Monitoring						X						
DECONTAMINATION:												
Personnel/vehicle						X						
Brigade support												
Radiological decon												
Decon apparatus					X							
Coordination												
Clothing Exchange												

ARTEP TASKS

COMPANY

	3	3	3	3	3	3	3	3	3	3	3	3
	V	V	V	V	V	V	V	V	V	V	V	V
	2	2	2	2	2	2	2	3	3	3	3	3
ISSUES	7	8	9	11	12	13	15	1	2	3	4	6

MISSION:

Understood Mission

METT-T

ENEMY:

Enemy Doctrine

Utilize intel

TERRAIN:

Terrain Analysis

TROOPS/TIME:

Combat power

Time available

Task Organization

ARMOR:

Planning

Mass fires

Positioning

Long range fires

Mutual support

Engage targets

Piecemeal

Tanks led

Boresight/zero

INFANTRY:

Dismounted

Mutual support

Positions

Planning

Range cards

Co execution

Led appropriate

TOWs:

Maximum range

Positions

Command/control

Planning

Gunnery

Movement

Fire control

ARTEP TASKS

COMPANY

	3	3	3	3	3	3	3	3	3	3	3	3
	V	V	V	V	V	V	V	V	V	V	V	V
	2	2	2	2	2	2	2	3	3	3	3	3
ISSUES	7	8	9	11	12	13	15	1	2	3	4	6

ATTACK HELICOPTERS:

Coordination

Integrated

Fire control

SCOUTS:

Missions

Timely

Command/control

Executed missions

Navigation

OPs

Maintenance

Decisively engaged

MUTUAL SUPPORT:

Positions

X X X

Communication

Piecemeal

Movement

X

Graphic controls

Navigation

MOVEMENT:

Techniques

X

Dispersion

X

Graphic controls

Command/control

Formations

X

Navigation

Terrain driving

ACTIONS ON CONTACT:

Return/deploy X

Fires X

Piecemeal X

Recommend actions X

Breach Obstacles X

DIRECT FIRE:

Mass fires X

Engagement X

Fire plans

Overwatch

Visibility

ARTEP TASKS

COMPANY

	3	3	3	3	3	3	3	3	3	3	3	3
	V	V	V	V	V	V	V	V	V	V	V	V
	2	2	2	2	2	2	2	3	3	3	3	3
ISSUES	7	8	9	11	12	13	15	1	2	3	4	6

INDIRECT FIRES:

Firing												X
Artillery												X
Mass fires												X
Mortars												X
FIST												X

TERRAIN/POSITION:

Use of terrain								X	X	X
Preparation								X	X	X
Planning								X	X	X
Fire plan										
Timeliness										

ROUTES WITHDRAWAL:

Planned, used						X			X	X
Disengagement						X				

WRAPONS RANGE:

Position								X	X	X
Fire control								X	X	X
Sector sketches										

COUNTERATTACK:

Planning										
Execution										

ALT/SUPP POSITIONS:

Rehearsal										X
Selection/prepare										X
Planning								X	X	
Occupy positions										

NBC REACTION:

MOPP directed										
Masking										
Self/buddy aid										
Downgrading MOPP										
Casualties										
Nuclear protection										
Hazards plotted										
Planning										
Commander informed										
Chemical officer										

ARTEP TASKS

COMPANY

	3	3	3	3	3	3	3	3	3	3	3	3
	V	V	V	V	V	V	V	V	V	V	V	V
	2	2	2	2	2	2	2	3	3	3	3	3
ISSUES	7	8	9	11	12	13	15	1	2	3	4	6

NBC REPORTING:

NBC-1 reports

Other reports

Initial alarm

All clear reports

Monitoring status

Equipment

NBC DETECTION:

Detector paper

Radiological survey

Chemical alarms

Hazards marked

Monitoring

DECONTAMINATION:

Personnel/vehicle

Brigade support

Radiological decon

Decon apparatus

Coordination

Clothing Exchange

ARTEP TASKS

	COMPANY					TASK FORCE							
	3	3	3	3	3	3	3	3	3	3	3	3	3
	V	V	V	VI	VI	VI	VI	VI	VI	VI	VI	VI	VI
	3	3	3	1	1	1	1	1	2	2	2	2	2
ISSUES	7	11	12	1	2	8	11	12	1	3	4	5	5

MISSION:

Understood Mission

MBTT-T

ENEMY:

Enemy Doctrine

Utilize intel

TERRAIN:

Terrain Analysis

TROOPS/TIME:

Combat power

Time available

Task Organization

ARMOR:

Planning

Mass fires X

X X

Positioning X

Long range fires X

Mutual support X

X

X

Engage targets

Piecemeal

Tanks led

X

X

Boresight/zero

INFANTRY:

Dismounted

Mutual support X

X

X

Positions X

X

Planning

Range cards

Co execution

Led appropriate

X

X

TOWs:

Maximum range

Positions

Command/control

Planning

Gunnery

Movement

Fire control

ARTEP TASKS

	COMPANY					TASK FORCE							
	3	3	3	3	3	3	3	3	3	3	3	3	3
	V	V	V	VI	VI	VI	VI	VI	VI	VI	VI	VI	VI
	3	3	3	1	1	1	1	1	2	2	2	2	2
ISSUES	7	11	12	1	2	8	11	12	1	3	4	5	5

ATTACK HELICOPTERS:

Coordination
Integrated
Fire control

SCOUTS:

Missions
Timely
Command/control
Executed missions
Navigation
OPs
Maintenance
Decisively engaged

MUTUAL SUPPORT:

Positions
Communication
Piecemeal
Movement
Graphic controls
Navigation

X X X

MOVEMENT:

Techniques
Dispersion
Graphic controls
Command/control
Formations
Navigation
Terrain driving

X X X
X X
X X

ACTIONS ON CONTACT:

Return/deploy
Fires
Piecemeal
Recommend actions
Breach Obstacles

X

DIRECT FIRE:

Mass fires X
Engagement X
Fire plans
Overwatch
Visability

X X

X
X

ARTEP TASKS

	COMPANY					TASK FORCE						
	3	3	3	3	3	3	3	3	3	3	3	3
	V	V	V	VI	VI	VI	VI	VI	VI	VI	VI	VI
	3	3	3	1	1	1	1	1	2	2	2	2
ISSUES	7	11	12	1	2	8	11	12	1	3	4	5
INDIRECT FIRES:												
Firing												X
Artillery												X
Mass fires												X
Mortars												X
FIST												X
TERRAIN/POSITION:												
Use of terrain												
Preparation												
Planning												
Fire plan												
Timeliness												
ROUTES WITHDRAWAL:												
Planned, used												X
Disengagement												X
WEAPONS RANGE:												
Position												
Fire control												
Sector sketches												
COUNTERATTACK:												
Planning												X
Execution												X
ALT/SUPP POSITIONS:												
Rehearsal												
Selection/prepare												
Planning												
Occupy positions												
NBC REACTION:												
MOPP directed												X
Masking												
Self/buddy aid												
Downgrading MOPP												X
Casualties												
Nuclear protection												X
Hazards plotted												
Planning												
Commander informed												X
Chemical officer												

ARTEP TASKS

	COMPANY					TASK FORCE							
	3	3	3	3	3	3	3	3	3	3	3	3	3
	V	V	V	VI	VI	VI	VI	VI	VI	VI	VI	VI	VI
	3	3	3	1	1	1	1	1	2	2	2	2	2
ISSUES	7	11	12	1	2	8	11	12	1	3	4	5	5
NBC REPORTING:													
NBC-1 reports												X	
Other reports												X	
Initial alarm													
All clear reports													
Monitoring status												X	
Equipment													
NBC DETECTION:													
Detector paper													
Radiological survey													
Chemical alarms													
Hazards marked													
Monitoring												X	
DECONTAMINATION:													
Personnel/vehicle													
Brigade support													
Radiological decon													
Decon apparatus												X	
Coordination													
Clothing Exchange													

ARTEP TASKS

TASK FORCE

	3	3	3	3	3	3	3	3	3	3	3	3
	VI	VI	VI	VI	VI	VI	VI	VI	VI	VI	VI	VI
	2	2	2	2	2	2	3	3	3	3	3	3
ISSUES	7	8	9	11	12	13	15	1	2	3	4	6

MISSION:

Understood Mission

METT-T

ENEMY:

Enemy Doctrine

Utilize intel

TERRAIN:

Terrain Analysis

TROOPS/TIME:

Combat power

Time available

Task Organization

ARMOR:

Planning

Mass fires

Positioning

Long range fires

Mutual support

Engage targets

Piecemeal

Tanks led

Boresight/zero

INFANTRY:

Dismounted

Mutual support

Positions

Planning

Range cards

Co execution

Led appropriate

TOWs:

Maximum range

Positions

Command/control

Planning

Gunnery

Movement

Fire control

ARTEP TASKS

TASK FORCE

	3	3	3	3	3	3	3	3	3	3	3	3
	VI	VI	VI	VI	VI	VI	VI	VI	VI	VI	VI	VI
	2	2	2	2	2	2	2	3	3	3	3	3
ISSUES	7	8	9	11	12	13	15	1	2	3	4	6

ATTACK HELICOPTERS:

Coordination
Integrated
Fire control

SCOUTS:

Missions
Timely
Command/control
Executed missions
Navigation
OPs
Maintenance
Decisively engaged

MUTUAL SUPPORT:

Positions X X X
Communication
Piecemeal X X X
Movement X
Graphic controls
Navigation

MOVEMENT:

Techniques X
Dispersion X
Graphic controls
Command/control
Formations X
Navigation
Terrain driving

ACTIONS ON CONTACT:

Return/deploy X
Fires X
Piecemeal X
Recommend actions X
Breach Obstacles X

DIRECT FIRE:

Mass fires X
Engagement
Fire plans
Overwatch
Visability

ARTEP TASKS

TASK FORCE

	3	3	3	3	3	3	3	3	3	3	3	3
	VI	VI	VI	VI	VI	VI	VI	VI	VI	VI	VI	VI
	2	2	2	2	2	2	3	3	3	3	3	3
ISSUES	7	8	9	11	12	13	15	1	2	3	4	6

INDIRECT FIRES:

Firing												X
Artillery												X
Mass fires												X
Mortars												X
FIST												X

TERRAIN/POSITION:

Use of terrain								X	X	X		
Preparation								X	X	X		
Planning								X	X	X		
Fire plan												
Timeliness												

ROUTES WITHDRAWAL:

Planned, used						X			X	X		
Disengagement						X						

WEAPONS RANGE:

Position								X	X	X		
Fire control								X	X	X		
Sector sketches												

COUNTERATTACK:

Planning												
Execution												

ALT/SUPP POSITIONS:

Rehearsal												X
Selection/prepare												X
Planning								X	X			
Occupy positions												

NBC REACTION:

MOPP directed												
Masking												
Self/buddy aid												
Downgrading MOPP												
Casualties												
Nuclear protection												
Hazards plotted												
Planning												
Commander informed												
Chemical officer												

ARTEP TASKS

TASK FORCE

	3	3	3	3	3	3	3	3	3	3	3	
	VI	VI	VI	VI	VI	VI	VI	VI	VI	VI	VI	
	2	2	2	2	2	2	3	3	3	3	3	
ISSUES	7	8	9	11	12	13	15	1	2	3	4	6

NBC REPORTING:

NBC-1 reports

Other reports

Initial alarm

All clear reports

Monitoring status

Equipment

NBC DETECTION:

Detector paper

Radiological survey

Chemical alarms

Hazards marked

Monitoring

DECONTAMINATION:

Personnel/vehicle

Brigade support

Radiological decon

Decon apparatus

Coordination

Clothing Exchange

ARTEP TASKS

TASK FORCE

	3	3	3	3	3	3	3	3	3	3	3	3
	VI	VI	VI	VII	VII	VII	VII	VII	VII	VII	VII	VII
	3	3	3	1	1	2	2	2	2	2	3	3
ISSUES	7	12	13	4	5	1	2	3	4	6	1	2

MISSION:

Understood Mission

METT-T

X X X

ENEMY:

Enemy Doctrine

Utilize intel

X X X X X X X X X

TERRAIN:

Terrain Analysis

X X X X X

TROOPS/TIME:

Combat power

Time available

Task Organization

X X X X X

ARMOR:

Planning

Mass fires

Positioning

Long range fires

Mutual support

Engage targets

Piecemeal

Tanks led

Boresight/zero

X X X X X X

INFANTRY:

Dismounted

Mutual support

Positions

Planning

Range cards

Co execution

Led appropriate

X X X

TOWs:

Maximum range

Positions

Command/control

Planning

Gunnery

Movement

Fire control

X

ARTEP TASKS

TASK FORCE

	3	3	3	3	3	3	3	3	3	3	3	3
	VI	VI	VI	VII	VII	VII	VII	VII	VII	VII	VII	VII
	3	3	3	1	1	2	2	2	2	2	3	3
ISSUES	7	12	13	4	5	1	2	3	4	6	1	2

ATTACK HELICOPTERS:

Coordination

Integrated

Fire control

X

SCOUTS:

Missions

Timely

Command/control

Executed missions

Navigation

OPs

Maintenance

Decisively engaged

X X

MUTUAL SUPPORT:

Positions

Communication

Piecemeal

Movement

Graphic controls

Navigation

X X

X X

X

MOVEMENT:

Techniques

Dispersion

Graphic controls

Command/control

Formations

Navigation

Terrain driving

X X

X X

ACTIONS ON CONTACT:

Return/deploy

Fires

Piecemeal

Recommend actions

Breach Obstacles

DIRECT FIRE:

Mass fires

Engagement

Fire plans

Overwatch

Visability

X

X

ARTEP TASKS

TASK FORCE

	3	3	3	3	3	3	3	3	3	3	3	3
	VI	VI	VI	VII	VII	VII	VII	VII	VII	VII	VII	VII
	3	3	3	1	1	2	2	2	2	2	3	3
ISSUES	7	12	13	4	5	1	2	3	4	6	1	2

INDIRECT FIRES:

Firing
 Artillery
 Mass fires
 Mortars
 FIST

TERRAIN/POSITION:

Use of terrain
 Preparation
 Planning
 Fire plan
 Timeliness

X

ROUTES WITHDRAWAL:

Planned, used X
 Disengagement X

WEAPONS RANGE:

Position
 Fire control
 Sector sketches

COUNTERATTACK:

Planning X
 Execution X

ALT/SUPP POSITIONS:

Rehearsal
 Selection/prepare
 Planning
 Occupy positions

NBC REACTION:

MOPP directed
 Masking
 Self/buddy aid
 Downgrading MOPP
 Casualties
 Nuclear protection
 Hazards plotted
 Planning X
 Commander informed X
 Chemical officer

ARTEP TASKS

TASK FORCE

	3	3	3	3	3	3	3	3	3	3	3	3
	VI	VI	VI	VII	VII	VII	VII	VII	VII	VII	VII	VII
	3	3	3	1	1	2	2	2	2	2	3	3
ISSUES	7	12	13	4	5	1	2	3	4	6	1	2

NBC REPORTING:

NBC-1 reports X
 Other reports X
 Initial alarm
 All clear reports
 Monitoring status X
 Equipment

NBC DETECTION:

Detector paper
 Radiological survey
 Chemical alarms
 Hazards marked
 Monitoring

DECONTAMINATION:

Personnel/vehicle
 Brigade support
 Radiological decon
 Decon apparatus
 Coordination
 Clothing Exchange

ARTEP TASKS

TASK FORCE

	3	3	3	3	3	3	3	3	3	3	3	3
	VII	VII	VII	VII	VII	VII	VII	VII	VII	VII	VII	VII
	3	3	3	3	3	4	4	4	4	4	4	4
ISSUES	3	4	5	7	8	6	7	7A	7C	7E	7F	8
MISSION:												
Understood Mission						X	X	X	X			
MBTT-T						X	X					
ENEMY:												
Enemy Doctrine						X	X					
Utilize intel						X	X					
TERRAIN:												
Terrain Analysis						X	X			X		
TROOPS/TIME:												
Combat power						X	X			X	X	
Time available						X	X				X	
Task Organization						X	X				X	
ARMOR:												
Planning						X	X			X	X	
Mass fires	X	X										X
Positioning											X	
Long range fires												
Mutual support											X	
Engage targets												
Piecemeal												
Tanks led											X	
Boresight/zero												
INFANTRY:												
Dismounted												
Mutual support											X	
Positions												
Planning							X				X	
Range cards	X											
Co execution												
Led appropriate												
TOWs:												
Maximum range												
Positions												
Command/control												
Planning											X	
Gunnery												
Movement												
Fire control												

ARTEP TASKS

TASK FORCE

	3	3	3	3	3	3	3	3	3	3	3	3
	VII	VII	VII	VII	VII	VII	VII	VII	VII	VII	VII	VII
	3	3	3	3	3	4	4	4	4	4	4	4
ISSUES	3	4	5	7	8	6	7	7A	7C	7E	7F	8
ATTACK HELICOPTERS:												
Coordination		X									X	
Integrated	X										X	
Fire control				X							X	
SCOUTS:												
Missions											X	
Timely												
Command/control												
Executed missions												
Navigation												
OPs												
Maintenance												
Decisively engaged												
MUTUAL SUPPORT:												
Positions										X		
Communication					X						X	
Piecemeal												
Movement												
Graphic controls				X						X		
Navigation												
MOVEMENT:												
Techniques												
Dispersion												
Graphic controls				X						X		
Command/control					X						X	
Formations												
Navigation												
Terrain driving												
ACTIONS ON CONTACT:												
Return/deploy												
Fires												
Piecemeal												
Recommend actions												
Breach Obstacles												
DIRECT FIRE:												
Mass fires					X						X	
Engagement												
Fire plans	X											
Overwatch												
Visability												

ARTEP TASKS

TASK FORCE

	3	3	3	3	3	3	3	3	3	3	3	3
	VII	VII	VII	VII	VII	VII	VII	VII	VII	VII	VII	VII
	3	3	3	3	3	4	4	4	4	4	4	4
ISSUES	3	4	5	7	8	6	7	7A	7C	7E	7F	8
INDIRECT FIRES:												
Firing												
Artillery												
Mass fires					X							X
Mortars					X							X
FIST												
TERRAIN/POSITION:												
Use of terrain												
Preparation				X								
Planning	X		X							X	X	
Fire plan	X											
Timeliness						X				X		
ROUTES WITHDRAWAL:												
Planned, used						X				X		
Disengagement										X		
WEAPONS RANGE:												
Position												
Fire control										X		
Sector sketches												
COUNTERATTACK:												
Planning									X	X		
Execution										X		
ALT/SUPP POSITIONS:												
Rehearsal					X							
Selection/prepare												
Planning									X	X		
Occupy positions												
NBC REACTION:												
MOFP directed										X		
Masking												
Self/buddy aid												
Downgrading MOFP												
Casualties												
Nuclear protection												
Hazards plotted												
Planning					X							
Commander informed					X							
Chemical officer					X							

ARTEP TASKS

TASK FORCE

	3	3	3	3	3	3	3	3	3	3	3	3
	VII	VII	VII	VII	VII	VII	VII	VII	VII	VII	VII	VII
ISSUES	3	3	3	3	3	4	4	4	4	4	4	4
	3	4	5	7	8	6	7	7A	7C	7E	7F	8

NBC REPORTING:

NBC-1 reports

Other reports

Initial alarm

All clear reports

Monitoring status

Equipment

NBC DETECTION:

Detector paper

Radiological survey

Chemical alarms

Hazards marked

Monitoring

DECONTAMINATION:

Personnel/vehicle

Brigade support

Radiological decon

Decon apparatus

Coordination

Clothing Exchange

APPENDIX C
SUMMARY TABLES OF PERFORMANCE TRENDS

The information in each subcategory is summarized in a table. Each table lists the major topics (printed in bold face type within the text) covered by the observer/controllers (OCs) in the subcategory. The table indicates, for 1984 and 1985 mechanized infantry (M) and armor (A) task forces, the number of task forces with positive and negative comments and the number of THPs in which the topic was not mentioned.

Table 3

Summary of Mission Subcategory

ISSUES	84M	85M	TOT M	84A	85A	TOT A	TOT
Understood Mission							
positive	4	6	10	6	6	12	22
negative	3	0	3	1	0	1	4
not mentioned	0	0	0	0	0	0	0
MEET-T							
positive	0	0	0	2	2	4	4
negative	1	0	1	2	4	6	7
not mentioned	6	6	12	3	0	3	15

Table 4

Summary of Enemy Subcategory

ISSUES	84M	85M	TOT M	84A	85A	TOT A	TOT
Enemy doctrine							
positive	4	4	8	3	1	4	12
negative	3	2	5	2	2	4	9
not mentioned	0	0	0	2	3	5	5
Utilize intel							
positive	2	1	3	0	1	1	4
negative	1	2	3	6	5	11	14
not mentioned	4	3	7	1	0	1	8

Table 5

Summary of Terrain Subcategory

ISSUES	84M	85M	TOT M	84A	85A	TOT A	TOT
Terrain Analysis							
positive	2	4	6	5	6	11	17
negative	4	2	6	1	0	1	7
not mentioned	1	0	1	1	0	1	2

Table 6

Summary of Troops and Time Available Subcategory

ISSUES	84M	85M	TOT M	84A	85A	TOT A	TOT
Combat power							
positive	4	3	7	5	6	11	18
negative	3	3	6	2	0	2	8
not mentioned	0	0	0	0	0	0	0
Time Available							
positive	1	2	3	2	2	4	7
negative	2	3	5	3	3	6	11
not mentioned	4	1	5	2	1	3	8
Task Organization							
positive	1	2	3	0	0	0	3
negative	1	0	1	2	0	2	3
not mentioned	5	4	9	5	6	11	20

Table 7

Summary of Armor Subcategory

ISSUES	84M	85M	TOT M	84A	85A	TOT A	TOT
Planning							
positive	2	5	7	4	5	9	16
negative	2	0	2	3	0	3	6
not mentioned	3	1	4	0	1	1	5
Mass fires							
positive	0	1	1	0	0	0	1
negative	4	2	6	7	5	12	18
not mentioned	3	3	6	0	1	1	7

Table 7 (Continued)

Summary of Armor Subcategory

ISSUES	84M	85M	TOT M	84A	85A	TOT A	TOT
Positioning							
positive	0	1	1	0	2	2	3
negative	2	0	2	4	2	6	8
not mentioned	5	5	10	3	2	5	15
Long range fires							
positive	1	0	1	0	0	0	1
negative	3	0	3	2	1	3	6
not mentioned	3	6	9	5	5	10	19
Mutual Support							
positive	0	1	1	0	0	0	1
negative	0	0	0	3	2	5	5
not mentioned	7	5	12	4	4	8	20
Engage targets							
positive	1	0	1	0	0	0	1
negative	2	0	2	2	0	2	4
not mentioned	4	6	10	5	6	11	21
Piecemeal employment							
positive	0	0	0	0	0	0	0
negative	2	1	3	0	0	0	3
not mentioned	5	5	10	7	6	13	23
Tanks led							
positive	0	2	2	0	1	1	3
negative	0	0	0	0	0	0	0
not mentioned	7	4	11	7	5	12	23
Boresight/zero							
positive	0	0	0	0	0	0	0
negative	0	0	0	2	0	2	2
not mentioned	7	6	13	5	6	11	24

Table 8

Summary of Infantry Subcategory

ISSUES	84M	86M	TOT M	84A	85A	TOT A	TOT
Dismounted movement							
positive	1	0	1	4	0	4	5
negative	5	1	6	3	1	4	10
not mentioned	1	5	6	0	5	5	11
Mutual support							
positive	0	0	0	0	0	0	0
negative	1	0	1	4	6	10	11
not mentioned	6	6	12	3	0	3	15
Positions							
positive	0	0	0	0	0	0	0
negative	2	0	2	4	5	9	11
not mentioned	5	6	11	3	1	4	15
Planning							
positive	1	4	5	1	4	5	10
negative	0	0	0	0	0	0	0
not mentioned	6	2	8	6	2	8	16
Range cards/fire plans							
positive	0	0	0	0	0	0	0
negative	0	0	0	4	4	8	8
not mentioned	7	6	13	3	2	5	18
Company execution							
positive	0	1	1	0	0	0	1
negative	0	3	3	0	0	0	3
not mentioned	7	2	9	7	6	13	22
Led appropriately							
positive	0	0	0	0	0	0	0
negative	1	0	1	2	1	3	4
not mentioned	6	6	12	5	5	10	22

Table 9

Summary of TOW Subcategory

ISSUES	84M	85M	TOT M	84A	85A	TOT A	TOT
Maximum range							
positive	1	1	2	1	0	1	3
negative	3	2	5	1	5	6	11
not mentioned	3	3	6	5	1	6	12
Positions/Overwatch							
positive	2	0	2	1	0	1	3
negative	2	2	4	2	4	6	10
not mentioned	3	4	7	4	2	6	13
Command and control							
positive	0	1	1	0	0	0	1
negative	3	2	5	4	1	5	10
not mentioned	4	3	7	3	5	8	15
Planning							
positive	1	3	4	0	0	0	4
negative	2	1	3	1	0	1	4
not mentioned	4	2	6	6	6	12	18
Gunnery							
positive	1	1	2	0	0	0	2
negative	1	1	2	1	2	3	5
not mentioned	5	4	9	6	4	10	19
Movement							
positive	2	0	2	0	0	0	2
negative	1	1	2	2	0	2	4
not mentioned	4	5	9	5	6	11	20
Fire control							
positive	0	0	0	0	0	0	0
negative	2	1	3	0	1	1	4
not mentioned	5	5	10	7	5	12	22

Table 10

Summary of Attack Helicopter Subcategory

ISSUES	84M	85M	TOT M	84A	85A	TOT A	TOT
Coordination							
positive	3	2	5	3	3	6	11
negative	2	2	4	1	0	1	5
not mentioned	2	2	4	3	3	6	10
Integrated into plan							
positive	0	2	2	0	4	4	6
negative	0	2	2	1	0	1	3
not mentioned	7	2	9	6	2	8	17
Fire control measures							
positive	0	0	0	1	0	1	1
negative	1	1	2	0	0	0	2
not mentioned	6	5	11	6	6	12	23

Table 11

Summary of Scout Subcategory

ISSUES	84M	85M	TOT M	84A	85A	TOT A	TOT
Appropriate missions							
positive	1	2	3	3	4	7	10
negative	1	0	1	1	0	1	2
not mentioned	5	4	9	3	2	5	14
Timely information							
positive	0	3	3	0	3	3	6
negative	0	0	0	3	2	5	5
not mentioned	7	3	10	4	1	5	15
Command and control							
positive	0	1	1	0	1	1	2
negative	0	0	0	3	4	7	7
not mentioned	7	5	12	4	1	5	17
Executed missions							
positive	0	2	2	3	2	5	7
negative	0	0	0	0	0	0	0
not mentioned	7	4	11	4	4	8	19

Table 11(Continued)

Summary of Scout Subcategory

ISSUES	84M	85M	TOT M	84A	85A	TOT A	TOT
Navigation							
positive	0	0	0	0	1	1	1
negative	2	2	4	0	1	1	5
not mentioned	5	4	9	7	4	11	20
Observation posts							
positive	0	1	1	2	1	3	4
negative	0	0	0	0	0	0	0
not mentioned	7	5	12	5	5	10	22
Maintenance							
positive	0	0	0	0	0	0	0
negative	0	1	1	0	2	2	3
not mentioned	7	5	12	7	4	11	23
Decisively engaged							
positive	0	0	0	0	0	0	0
negative	0	0	0	1	2	3	3
not mentioned	7	6	13	6	4	10	23

Table 12

Summary of Mutual Support/Overwatch Subcategory

ISSUES	84M	85M	TOT M	84A	85A	TOT A	TOT
Positions							
positive	0	0	0	0	0	0	0
negative	3	4	7	5	5	10	17
not mentioned	4	2	6	2	1	3	9
Communication							
positive	0	0	0	0	0	0	0
negative	0	1	1	5	2	7	8
not mentioned	7	5	12	2	4	6	18
Piecemeal commitment							
positive	0	0	0	0	0	0	0
negative	1	0	1	3	4	7	8
not mentioned	6	6	12	4	2	6	18
Movement techniques							
positive	0	1	1	0	0	0	1
negative	3	1	4	1	0	1	5
not mentioned	4	4	8	6	6	12	20

Table 12 (Continued)

Summary of Mutual Support/Overwatch Subcategory

ISSUES	84M	85M	TOT M	84A	85A	TOT A	TOT
Graphic controls							
positive	0	0	0	0	0	0	0
negative	1	0	1	2	2	4	5
not mentioned	6	6	12	5	4	9	21
Navigation							
positive	0	0	0	0	0	0	0
negative	1	1	2	2	1	3	5
not mentioned	6	5	11	5	5	10	21

Table 13

Summary of Movement Techniques Subcategory

ISSUES	84M	85M	TOT M	84A	85A	TOT A	TOT
Movement techniques							
positive	0	1	1	0	3	3	4
negative	2	2	4	4	1	5	9
not mentioned	5	3	8	3	2	5	13
Dispersion							
positive	2	0	2	0	0	0	2
negative	3	1	4	1	2	3	7
not mentioned	2	5	7	6	4	10	17
Graphic controls							
positive	0	1	1	1	1	2	3
negative	0	0	0	2	4	6	6
not mentioned	7	5	12	4	1	5	17
Command and control							
positive	2	1	3	0	0	0	3
negative	2	3	5	0	0	0	5
not mentioned	3	2	5	7	6	13	18
Formations							
positive	1	0	1	0	0	0	1
negative	1	0	1	4	2	6	7
not mentioned	5	6	11	3	4	7	18
Navigation							
positive	0	0	0	0	0	0	0
negative	2	1	3	3	1	4	7
not mentioned	5	5	10	4	5	9	19

Table 13 (Continued)

Summary of Movement Techniques Subcategory

ISSUES	84M	85M	TOT M	84A	85A	TOT A	TOT
Terrain driving							
positive	1	0	1	2	0	2	3
negative	0	0	0	1	1	2	2
not mentioned	6	6	12	4	5	9	21

Table 14

Summary of Actions on Contact Subcategory

ISSUES	84M	85M	TOT M	84A	85A	TOT A	TOT
Return, deploy, report							
positive	0	1	1	0	0	0	1
negative	6	5	11	3	6	9	20
not mentioned	1	0	1	4	0	4	5
Fires							
positive	0	0	0	0	0	0	0
negative	4	0	4	5	4	9	13
not mentioned	3	6	9	2	2	4	13
Piecemeal employment							
positive	0	0	0	0	0	0	0
negative	0	0	0	6	4	10	10
not mentioned	7	6	13	1	2	3	16
Recommend actions							
positive	0	2	2	0	0	0	2
negative	2	0	2	3	1	4	6
not mentioned	5	4	9	4	5	9	18
Breach obstacles							
positive	0	0	0	0	0	0	0
negative	0	0	0	2	4	6	6
not mentioned	7	6	13	5	2	7	20

Table 15

Summary of Direct Fire Subcategory

ISSUES	84M	85M	TOT M	84A	85A	TOT A	TOT
Mass fires							
positive	0	1	1	0	0	0	1
negative	7	5	12	2	4	6	18
not mentioned	0	0	0	5	2	7	7
Engagement							
positive	1	0	1	1	0	1	2
negative	1	4	5	5	5	10	15
not mentioned	5	2	7	1	1	2	9
Fire plans							
positive	1	0	1	0	1	1	2
negative	0	2	2	1	3	4	6
not mentioned	6	4	10	6	2	8	18
Overwatch							
positive	0	0	0	0	0	0	0
negative	0	0	0	4	3	7	7
not mentioned	7	6	13	3	3	6	19
Visability							
positive	0	0	0	0	0	0	0
negative	0	0	0	5	2	7	7
not mentioned	7	6	13	2	4	6	19

Table 16

Summary of Indirect Fire Subcategory

ISSUES	84M	85M	TOT M	84A	85A	TOT A	TOT
Firing							
positive	0	1	1	0	0	0	1
negative	2	0	2	4	3	7	9
not mentioned	5	5	10	3	3	6	16
Artillery							
positive	0	1	1	1	2	3	4
negative	1	3	4	2	0	2	6
not mentioned	6	2	8	4	4	8	16
Mass fires							
positive	0	1	1	0	0	0	1
negative	3	4	7	0	1	1	8
not mentioned	4	1	5	7	5	12	17

Table 16

Summary of Indirect Fire Subcategory

ISSUES	84M	85M	TOT M	84A	85A	TOT A	TOT
Mortars							
positive	0	1	1	1	2	3	4
negative	0	0	0	3	2	5	5
not mentioned	7	5	12	3	2	5	17
FIST							
positive	0	0	0	0	0	0	0
negative	0	0	0	3	2	5	5
not mentioned	7	6	13	4	4	8	21

Table 17

Summary of Terrain and Position Selection/Preparation Category

ISSUES	84M	85M	TOT M	84A	85A	TOT A	TOT
Use of terrain							
positive	4	4	8	4	3	7	15
negative	2	1	3	1	1	2	5
not mentioned	1	1	2	2	2	4	6
Position preparation							
positive	0	1	1	1	1	2	3
negative	2	1	3	6	5	11	14
not mentioned	5	4	9	0	0	0	9
Planning							
positive	0	0	0	0	1	1	1
negative	0	1	1	5	4	9	10
not mentioned	7	5	12	2	1	3	15
Fire plan							
positive	0	1	1	1	1	2	3
negative	0	0	0	4	0	4	4
not mentioned	7	5	12	2	5	7	19
Timeliness							
positive	0	0	0	0	0	0	0
negative	5	0	5	0	0	0	5
not mentioned	2	6	8	7	6	13	21

Table 18

Summary of Routes of Withdrawal Subcategory

ISSUES	84M	85M	TOT M	84A	85A	TOT A	TOT
Planned, rehearsed, used							
positive	0	2	2	0	1	1	3
negative	7	4	11	7	5	12	23
not mentioned	0	0	0	0	0	0	0
Disengagement criteria							
positive	0	2	2	0	0	0	2
negative	0	1	1	3	2	5	6
not mentioned	7	3	10	4	4	8	18

Table 19

Summary of Maximum Weapons Range Subcategory

ISSUES	84M	85M	TOT M	84A	85A	TOT A	TOT
Position							
positive	2	3	5	3	0	3	8
negative	4	2	6	2	6	8	14
not mentioned	1	1	2	2	0	2	4
Fire control measures							
positive	0	0	0	0	0	0	0
negative	2	1	3	4	4	8	11
not mentioned	5	5	10	3	2	5	15
Sector sketches							
positive	0	0	0	0	0	0	0
negative	0	0	0	2	4	6	6
not mentioned	7	6	13	5	2	7	20

Table 20

Summary of Counterattack Subcategory

ISSUES	84M	85M	TOT M	84A	85A	TOT A	TOT
Planning							
positive	0	0	0	0	0	0	0
negative	2	4	6	4	3	7	13
not mentioned	5	2	7	3	3	6	13
Execution							
positive	0	4	4	1	0	1	5
negative	3	2	5	4	4	8	13
not mentioned	4	0	4	2	2	4	8

Table 21

Summary of Alternate and Supplementary Positions Subcategory

ISSUES	84M	85M	TOT M	84A	85A	TOT A	TOT
Rehearsal							
positive	0	1	1	0	0	0	1
negative	6	1	7	4	6	10	17
not mentioned	1	4	5	3	0	3	8
Selection/preparation							
positive	0	1	1	1	0	1	2
negative	0	4	4	3	6	9	13
not mentioned	7	1	8	3	0	3	11
Planning							
positive	0	0	0	1	0	1	1
negative	7	0	7	5	0	5	12
not mentioned	0	6	6	1	6	7	13
Occupy positions							
positive	0	0	0	0	0	0	0
negative	6	0	6	3	0	3	9
not mentioned	1	6	7	4	6	10	17

Table 22

Summary of NBC Reaction Subcategory

ISSUES	84M	85M	TOT M	84A	85A	TOT A	TOT
MOPP directed							
positive	3	2	5	3	1	4	9
negative	4	4	8	4	5	9	17
not mentioned	0	0	0	0	0	0	0
Masking							
positive	2	1	3	1	2	3	6
negative	5	5	10	6	4	10	20
not mentioned	0	0	0	0	0	0	0
Self/buddy aid							
positive	0	0	0	0	0	0	0
negative	7	6	13	7	6	13	26
not mentioned	0	0	0	0	0	0	0
Downgrading MOPP							
positive	0	1	1	1	2	3	4
negative	7	5	12	6	4	10	22
not mentioned	0	0	0	0	0	0	0
Casualties							
positive	0	1	1	0	0	0	1
negative	7	5	12	7	6	13	25
not mentioned	0	0	0	0	0	0	0
Nuclear protection							
positive	0	1	1	0	0	0	1
negative	7	4	11	7	6	13	24
not mentioned	0	1	1	0	0	0	1
Hazard areas plotted							
positive	1	2	3	1	3	4	7
negative	5	4	9	5	3	8	17
not mentioned	1	0	1	1	0	1	2
Planning							
positive	1	2	3	1	1	2	5
negative	6	0	6	6	2	8	14
not mentioned	0	4	4	0	3	3	7
Commander informed							
positive	0	0	0	0	1	1	1
negative	7	1	8	7	1	8	16
not mentioned	0	5	5	0	4	4	9

Table 22 (Continued)

Summary of NBC Reaction Subcategory

ISSUES	84M	85M	TOT M	84A	85A	TOT A	TOT
Chemical officer							
positive	0	0	0	1	0	1	1
negative	3	0	3	1	0	1	4
not mentioned	4	6	10	5	6	11	21

Table 23

Summary of NBC Reporting Subcategory

ISSUES	84M	85M	TOT M	84A	85A	TOT A	TOT
NBC-1 reports							
positive	0	1	1	0	0	0	1
negative	7	5	12	7	6	13	25
not mentioned	0	0	0	0	0	0	0
Other reports							
positive	0	5	5	0	4	4	9
negative	7	1	8	7	2	9	17
not mentioned	0	0	0	0	0	0	0
Initial alarm							
positive	0	2	2	1	1	2	4
negative	7	4	11	6	5	11	22
not mentioned	0	0	0	0	0	0	0
All clear reports							
positive	1	1	2	2	1	3	5
negative	5	5	10	5	4	9	19
not mentioned	1	0	1	0	1	1	2
Monitoring status							
positive	0	1	1	1	2	3	4
negative	6	3	9	6	4	10	19
not mentioned	1	2	3	0	0	0	3
Equipment							
positive	0	4	4	0	1	1	5
negative	6	1	7	4	5	9	16
not mentioned	1	1	2	3	0	3	5

Table 24

Summary of NBC Detection Subcategory

ISSUES	84M	85M	TOT M	84A	85A	TOT A	TOT
Detector paper							
positive	3	5	8	4	4	8	16
negative	4	1	5	3	2	5	10
not mentioned	0	0	0	0	0	0	0
Radiological surveys							
positive	1	1	2	1	2	3	5
negative	6	4	10	6	4	10	20
not mentioned	0	1	1	0	0	0	1
Chemical alarms							
positive	0	0	0	0	0	0	0
negative	7	6	13	7	5	12	25
not mentioned	0	0	0	0	1	1	1
Hazards marked							
positive	0	0	0	0	2	2	2
negative	7	4	11	7	3	10	21
not mentioned	0	2	2	0	1	1	3
Radiological monitoring							
positive	2	0	2	0	0	0	2
negative	5	3	8	7	3	10	18
not mentioned	0	3	3	0	3	3	6

Table 25

Summary of NBC Decontamination Category

ISSUES	84M	85M	TOT M	84A	85A	TOT A	TOT
Personnel/vehicle decon							
positive	0	1	1	0	2	2	3
negative	7	5	12	7	4	11	23
not mentioned	0	0	0	0	0	0	0
Brigade support							
positive	2	5	7	4	6	10	17
negative	5	0	5	3	0	3	8
not mentioned	0	1	1	0	0	0	1

Table 24 (Continued)

Summary of NBC Decontamination Category

ISSUES	84M	85M	TOT M	84A	85A	TOT A	TOT
Radiological decon							
positive	0	2	2	0	0	0	2
negative	7	4	11	6	4	10	21
not mentioned	0	0	0	1	2	3	3
Decon apparatus							
positive	0	0	0	0	0	0	0
negative	7	5	12	4	5	9	21
not mentioned	0	1	1	3	1	4	5
Coordination							
positive	6	1	7	3	4	7	14
negative	1	1	2	3	2	5	7
not mentioned	0	4	4	1	0	1	5
Clothing exchange							
positive	1	1	2	2	0	2	4
negative	1	1	2	1	0	1	3
not mentioned	5	4	9	4	6	10	19