TRAINING CIRCULAR
No. 25-10

HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, DC, 26 August 1996

A LEADER'S GUIDE TO LANE TRAINING

Table of Contents

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Preface

Lane training is a process for training company-size and smaller units on one or more collective tasks (and prerequisite soldier and leader individual tasks and battle drills) supporting a unit's mission-essential task list (METL). Lane training culminates in a lane training exercise (LTX) conducted under conditions replicating the unit's operational mission and environment. Although an LTX is usually conducted as a live training simulation of one or more collective tasks, it can be also conducted as a constructive or virtual simulation. Like all training, the goal of lane training is to ensure soldiers, leaders, and units become tactically proficient and technically competent.

This circular describes lane training (Chapter 1), its principles (Chapter 2), its procedures (Chapters 3-5), and simulations support (Chapter 6). Appendices provide additional information concerning lane training responsibilities, materials, and supporting techniques.

Although this training circular addresses training for company-size and smaller units, it is intended as a lane training job aid for all leaders and staffs at brigade level and below within combat arms (CA), combat support (CS), and combat service support (CSS) units of the Active Component (AC) and Reserve Components (RC). Lane training techniques are also applicable to collective training for small groups. The intent of the circular is to be descriptive, not prescriptive. Commanders may establish lane training policies and procedures to meet their particular needs.

This circular complements and assists implementation of Field Manuals (FMs) 25-4, FM 25-100, and FM 25-101 concerning the planning, conduct, and assessment of training while expanding on procedures used by leaders to support lane training. Users of this training circular may notice differences between it and the three FMs it complements. These discrepancies will be corrected upon revision of the three field manuals.

This circular was developed in close coordination with the U.S. Army National Guard (ARNG) and the U.S. Army Reserve (USAR). Both the ARNG and USAR were sources for some of the procedures and examples included in the circular.

The proponent for this publication is the Office of the Deputy Chief of Staff for Training, Headquarters, U.S. Army Training and Doctrine Command. Submit comments and recommendations on DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to Commander, TRADOC, ATTN: ATTG-C, Fort Monroe, VA 23651-5000.

Unless this publication states otherwise, masculine nouns and pronouns refer to both men and women.

Chapter 1
Lane Training

1-0. Chapter Overview.

Introduction

a. This chapter provides an introduction to lane training.

Chapter Index

b. This chapter covers the following:

1-1. General.

Training Need

a. Training today's Army demands a battle-focused, structured, and innovative training process which maximizes availability of training time by orienting on specific tasks derived from a unit's METL. Lane training satisfies this need. It simulates battle conditions to train soldiers, staffs, leaders, and units in their wartime missions while helping them develop, maintain, and enhance their tactical proficiency and technical competence.

Value

b. Lane training is a systematic, battle-focused, performance-oriented training process used to plan, execute, and assess unit training to achieve maximum training results with limited time and resources. The rigor of the lane training process enables units to quickly and efficiently attain proficiency in tactical and technical tasks while training in a simulated military operation's environment (e.g., war, peace operations, humanitarian assistance, and operations in aid of civil authorities). It enables training to be effectively structured, administered, supported, and assessed by limiting the number of tasks, time, terrain, facilities, or other resources involved. Lane training provides a path to mission proficiency.

Purpose is Training

c. The primary purpose for lane training is training; i.e., to develop, maintain, regain, or enhance proficiency for METL-driven soldier and leader individual tasks, collective tasks, and battle drills.

Assessment and Evaluation

d. Evaluation of task proficiency is an essential element of any training process. Accordingly, lane training results are an important part of training evaluation and unit assessment.

1-2. Lane Training Uses.

Benefits

a. Lane training enables leaders to--

- Conduct initial, developmental, sustainment, refresher, and enhancement training and assessment for METL-driven tactical and technical tasks.
- Train similar units to the Army standard, simultaneously or sequentially, using mission-related scenarios.
- Test, standardize, and train tactics, techniques, and procedures (TTP).
- Develop and refine unit standing operating procedures (SOP) that adequately support the METL.
- Efficiently control training objectives (e.g., tasks, conditions, and standards (TCS)) during training and both formal and informal assessment.
- Vary training conditions to the training level of the unit (i. e., initial, refresher, sustainment) and to support prerequisite training and retraining.
- Integrate (both vertically and horizontally) METL-driven common or branch-specific task training, battle drills, and exercises from different functional areas (i.e., CA, CS, CSS) into unit training programs.
- Achieve proficiency on multiechelon, multi-unit, combined, joint, and multinational procedures or other difficult, infrequent, or teamwork-based tasks.
- Achieve maximum results when training soldiers and units to Army standards while efficiently leveraging limited resources (e.g., land, facilities, personnel, equipment).
- Prepare for internal and external evaluations.
- Conduct competitions.

Appropriate Situations

b. Lane training may be appropriate for use when--

- Training assessment determines there may be changes or performance deficiencies in team, squad, section, platoon, or company collective critical tasks. Potential situations or indicators include changes in--
  - Doctrine.
  - Organization.
  - Materiel.
  - Personnel.
  - Training.
  - Leader development.
  - Task performance.
- There is a need to prepare units for missions or environments of military operations.
- There is a need to prepare soldiers and units for major training events (e.g., annual tank gunnery, combat training center (CTC) rotation, other exercises, annual training).
- Sustainment training is needed; i.e., when task proficiency is perishable.

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- There is a need to further evaluate performance on collective and supporting individual tasks.
- There is a need for integrated multiechelon or multifunctional training.
- Training requires significant planning, management, or resource support.
- The use of other training techniques would be more expensive.
- Required training time, planning time, training areas, training equipment, and other resources are expected to be available.
- Lane training is directed by higher headquarters.

1-3. Lane Training Description.

Lane Training a. A definition and brief description of lane training follows:

Definition	**Lane training -** A process for training company-size and smaller units on collective tasks (and prerequisite soldier and leader individual tasks and battle drills) supporting a unit's METL. The process consists of planning, execution, and assessment phases. The execution phase is a battle-focused LTX.
Description	Lane training is a systematic process for training small groups using battle-focused training principles from FM 25-100 and FM 25-101 while augmenting them using lane training techniques (paragraph 1-3I, pages 11-12) and principles (Chapter 2). Its planning phase emphasizes pre-exercise-- • Training and verification of all lane participants. • Validation of training plans and materials. • Rehearsals.

STX b. A definition and brief description of a situational training exercise (STX) follows:

Definition	**Situational training exercise -** A short, scenario-driven, mission-oriented, limited exercise designed to train one collective task, or a group of related tasks or battle drills, through practice.
Description	• An STX usually contains multiple collective tasks linked to form a realistic scenario of a military operation, sometimes incorporating freeply. • STX are used for training and evaluation, especially sustainment of task proficiency. • STX are developed by Army service schools and published in Army Training and Evaluation Program (ARTEP) mission training plans (MTP).

LTX

c. A definition and brief description of an LTX follows:

Definition	**Lane training exercise (LTX) -** The execution phase of the lane training process. It is an exercise used to train company-size and smaller units on one or more collective tasks (and prerequisite soldier and leader individual tasks and battle drills) supportiing a unit's METL; however, it usually focuses on one primary task. An LTX consists of assembly area (AA), rehearsal, lane execution, after-action review (AAR), and retraining activities which culminate the lane training process. An LTX is an STX conducted using lane training principles and techniques.
Description	• An LTX usually is a mini-STX; it focuses on fewer collective tasks to enhance training efficiency. • It has no freeplay. • Its primary purpose is training, especially the development of task proficiency. • LTXs are developed by units. • A unit may train on several LTXs (several primary tasks) within a few days at one major training area.

LTX Area

d. A definition and brief description of an LTX area follows:

Definition	**LTX area -** A training area selected and designed to train one LTX (i.e., one primary task).
Description	An LTX area is where the five LTX activities take place; i.e., assembly, rehearsal, lane execution, AAR, and retraining.

Lane

e. A definition and brief description of a lane follows:

Definition	**Lane -** A standardized and structured training exercise or simulation used to train on one or more collective tasks. Also, a designated area, terrain, or facility used to replicate a unit's wartime mission or environment during an LTXs lane execution.
Description	A lane is designed to create the situation or conditions required for lane execution. An LTX can include one or more lanes, with each lane being used to train the same primary task. Ideally, different lanes are used for rehearsals, lane execution, and retraining on the same primary task.

Small Groups

f. Although lane training is defined as a technique for training primarily company-size and smaller units (e.g., platoons, sections, squads, crews, and teams), the emphasis is on the size unit, not the unit echelon. Lane training can be used to train small groups, elements, or staffs of any organization.

Varied Applicability

g. Historically, lane training has usually been associated with tasks requiring movement over terrain (e.g., conduct movement to contact, assault); however, movement is not required. Lane training is appropriate for most small unit CA, CS, and CSS collective tasks requiring teamwork and practice, whether they are conducted in fixed facilities or in a field environment.

Performance-Oriented Training

h. Lane training is performance-oriented training. Since performance-oriented training requires training to the task performance standard, an inherent element is performance evaluation; i.e., verification (or certification) that soldiers, leaders, and units can perform tasks under required conditions and standards.

Simulation

i. Effective lane training requires replication of missions and environments of military operations. Although lane training can be either a live, virtual, or constructive training simulation, it is normally considered a live simulation (i.e., conducted in the field or job site environment). However, the use of virtual or constructive simulations to prepare for or to conduct lane training can dramatically enhance its effectiveness. Simulations are addressed in paragraph 1-10 and Chapter 6.

LTX Clarification

j. To ensure standardization, LTXs are developed to teach the doctrinally preferred way to perform specific missions or tasks.

- Although LTXs are mission-oriented, they are more task-oriented. Since their emphasis is on training, LTXs tend to focus on fewer tasks and exclude related tasks that may distract soldiers from learning. However, once a unit's elements are proficient in related tasks, more tasks may be included in more comprehensive LTXs to increase realism.
- Although LTXs focus on collective tasks or battle drills, they also include individual tasks such as leader tasks and soldier tasks.
- Although LTXs strive for realism, realism is delayed when its inclusion would interfere with the unit's achievement of task proficiency.
- An LTX can consist of multiple lanes (in the LTX area) training the same task, but with different conditions.
- LTXs are more flexible than drills and may be tailored to meet a unit's METL or special mission requirements.

Lane Scenario

k. The LTX lane, while oriented on one or more primary collective tasks, is composed of a series of events requiring performance of task steps or supporting (or prerequisite) collective tasks and battle drills, with associated individual soldier and leader tasks. A scenario or sequence of events is designed by sequencing supportlng tasks, countertasks, and task steps in the order they are performed in combat or other military operations.

Lane Training Characteristics and Techniques

1. Lane training usually has the following characteristics:

Note: These characteristics may also be referred to as lane training techniques. Some of these characteristics or techniques have evolved into lane training principles and guidelines described in subsequent chapters.

Characteristic	Description: Lane training has ...
Small unit focus	A training unit of company size or below, although its focus is on units of platoon size or below (including staffs and small groups).
Disciplined scenario	A disciplined scenario concentrating on battle-focused tasks and providing structured stimuli to prompt friendly force behavior.
Battle focus	A battle focus on a limited number of collective tasks for each LTX to improve effectiveness (i.e., frequently only one primary task). These key or primary tasks are supported by prerequisite soldier and leader individual tasks, collective tasks, and battle drills that support the commander's training assessment and the unit's approved METL.
Validated tasks	Doctrinally and technically correct tasks and training objectives (i.e., TCS) which have been validated against current doctrine and Army standards. Sources of doctrinally correct training information include-- • FMs. • Training circulars (TCs). • MTPs (especially training and evaluation outlines (T&EOs)). • Battle drill manuals. • Soldier training publications (STPs) (including soldier's manuals (SMs) and Officer Foundation System manuals). • Technical manuals (TMs). ***Note:*** Unit SOPs tailor doctrine and TTP to specific missions of the unit.
Controlled tasks and events	Highly controlled tasks, countertasks, and events which are structured to provide specific stimuli and elicit specific responses from the unit being trained.
Trained OCs	Observer-controllers (OCs) trained and verified on specific OC and LTX tasks.
Trained OPFOR	Opposing forces (OPFOR) trained and verified on the specific OPFOR countertasks required for the LTX in appropriate force ratios (when an OPFOR is needed).
Support from outside unit trained	Support (including OCs, OPFOR, and resources) provided from sources other than the unit being trained.
LTX	An LTX conducted using lane training principles and techniques.

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Lane Training Characteristics and Techniques

l. *(Continued)*

Characteristics	Description: Lane training has ...
Pre-LTX leader training	A pre-LTX leader training program to develop and verify the unit leaders' task proficiency and ability to execute the lane. Pre-LTX means pre-exercise or prior to arrival at the LTX area.
Pre-LTX unit training	A pre-LTX unit training and verification period, after the leader training period, during which the unit's subordinate elements and personnel develop proficiency (i.e., through training and rehearsals) on the prerequisite soldier, leader, and collective tasks and battle drills required for the lane.
Pre-LTX rehearsals	OC, OPFOR, leader, and unit rehearsals prior to the exercise.
Pre-LTX validation	Tentative validation of training plans and materials prior to the exercise.
Leader and unit rehearsals	Leader and unit rehearsals in the LTX area (e.g., assembly area, rehearsal area) just prior to lane execution.
Lane	A task execution lane which focuses on one collective task or a group of related or supporting collective tasks which are conducted to the task performance standard (not time) at combat speed under conditions replicating the unit's mission and environment. The lane is located or conducted in a specific training area (i.e., designated terrain or facilities) within the LTX area. Frequently, an LTX has two or more lanes which train the same task, sometimes with different conditions, within the same LTX area.
Training multipliers	Lane preparation and execution supported by appropriate training multipliers such as training aids, devices, simulators, and simulations (TADSS). Simulations may be designed and used to conduct preparatory training (pre-LTX), rehearsals, lane execution, or retraining.
Task performance evaluation	An evaluation of whether tasks were performed to standard. The performance evaluation is conducted by the senior OC in coordination with the leader of the unit being trained.
AARs	AARs conducted immediately following lane execution to provide feedback. AARs are conducted or facilitated by OCs, supported by the unit's leaders and OPFOR, and involve all unit participants. The unit may conduct lower level informal AARs before or after a formal AAR.
Retraining opportunity (if required)	An opportunity after the AAR to conduct retraining until standards can be achieved. After retraining, the unit should have an opportunity to re-execute the same tasks on a different lane, possibly with additional tasks or different conditions.
Post-LTX validation	Subsequent validation of training and training materials after each iteration of the LTX.

1-4. Lane Training Management.

Management Structure

a. The minimum organizational structure for lane training includes--
- The unit to be trained.
- Support structure conducting the training.
  - OC teams.
  - OPFOR, if appropriate.

ECC

b. An exercise control center (ECC) may be created to manage lane training for one or more LTXs or units. The ECC is supervised by the exercise director. It may be composed of operations, communications, administration, and logistics cells. The ECC is organized consistent with the exercise's tactical environment. FM 25-4 describes the ECC.

Management Level

c. Management of lane training is usually performed by the unit two levels higher than the unit on the lane; e.g., brigade manages company lanes, battalion manages platoon and CS/CSS company section lanes, company manages squad and platoon section lanes.

Personnel

d. Some of the key personnel involved in managing lane training are listed below:

Personnel	Description
Exercise director	The individual responsible for managing all LTXs. This duty position is sometimes called chief controller or senior OC team chief.
Senior OC	The individual responsible for managing a specific LTX or LTX area. There is one senior OC for each LTX.
Other OCs	Other personnel responsible for assisting senior OCs or the exercise director. There may be an OC for each leader in a unit and each key event on each lane.
OPFOR leaders	Leaders of the element responsible for performing lane countertasks.
LTX resource managers	Personnel responsible for administrative or logistical support for each LTX. They are sometimes called "lanemeisters."
Unit leaders	The leaders responsible for the unit's training and for directing the unit during training.
Chain of command	The leaders responsible for supporting the planning, execution, and assessment of the unit's training.

Note: Appendix A describes the lane training responsibilities of these personnel.

Other Personnel

e. Other personnel involved in lane training (and therefore generating management or coordination requirements) include--
- Exercise planners.
- Unit soldiers.
- OPFOR soldiers.
- CS/CSS unit customers; i.e., personnel from other units receiving services from a CS/CSS unit undergoing lane training.
- Role players.
- Higher headquarters' commanders, staffs, or representatives.
- Personnel from other units providing support.

1-5. Lane Training Concept.

Crawl-Walk-Run

a. The lane training concept is based on the crawl-walk-run training process. This process is described below (procedures are described in paragraph 2-9c).

Phase	Description
Crawl (Explain and Demonstrate)	The leader describes the task step-by-step, indicating what each individual must do.
Walk (Practice)	The leader directs the unit to execute the task at a slow, step-by-step pace.
Run (Perform)	The leader requires the unit to perform the task at full speed, as if in combat under realistic battlefield conditions.

Process Duration

b. Normally, the entire crawl-walk-run process occurs within a short time frame of only a few hours or days for the soldiers undergoing training, although this is determined by the tasks selected and the number of soldiers to be trained. However, for lane training, the crawl-walk-run process can occur over a period of several weeks, months, or years (especially within the RC).

Process

c. The lane training concept can be briefly described using the crawl-walk-run process:

Crawl

- Each soldier receives instruction from unit leaders on the common and specific individual tasks supporting the collective tasks that will be conducted during the LTX.
- Leaders review training objectives to demonstrate and discuss tasks, conditions, standards, and supporting tasks for the collective tasks, battle drills, and T&EOs to be trained both prior to and during the LTX. Leaders demonstrate "a way" to perform each task.
- Junior leaders train their units on common and job-specific individual tasks. After meeting the standards for all required tasks, junior leaders explain the smaller units' collective tasks and drills.
- Individual and prerequisite collective training should be completed at home station prior to departing for the training area to participate in the LTX.

Walk

- Leaders conduct individual tasks and drills.
- Leaders train on each collective task until each unit meets the standard. This phase is usually conducted without combat effects or OPFOR.
- When possible, units complete the supporting individual and collective training at home station so these tasks can be immediately performed at a "run" speed during the LTX to support the primary collective tasks to be trained.
- At the LTX area (in an AA or rehearsal area)--
  Unit leaders rehearse the primary collective tasks.
  Leaders and soldiers rehearse supporting individual and collective tasks and drills.

Run

- On a lane, the unit conducts training at combat speed under tactical conditions. Training multipliers such as TADSS, OPFOR, or live munitions may be used to enhance training.
- The training integrates CA, CS, and CSS activities.
- OCs conduct (or facilitate) scheduled AARs at the end of the run phase. Although OCs normally avoid stopping lane execution, OCs may halt any phase of training to conduct an AAR at logical breaks in the training, whenever standards are not being met, or to address safety and environmental issues.
- If training standards are not achieved, the unit retrains until the standards are achieved.

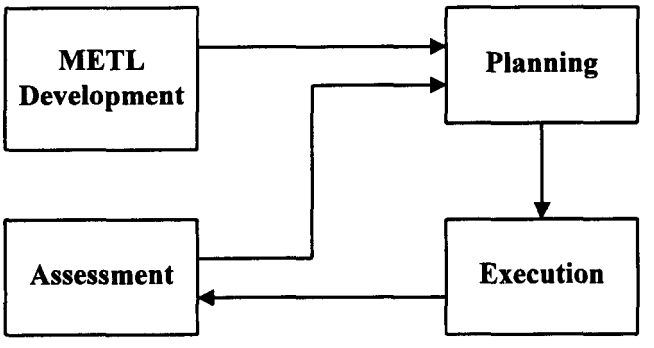
1-6. Battle-Focused Training Process.

Lane Training Derivation

a. The lane training process is derived from the battle-focused training process described in FM 25-100 and FM 25-101.

Battle-Focused Training Process

b. The following figure graphically illustrates the battle-focused training process:



Procedure

c. The general procedure for the battle-focused training process follows:

Phase	Step	Procedure
METL Development	1	Review wartime missions and support requirements.
	2	List all specified and implied collective tasks.
	3	Select collective tasks essential to accomplish the unit's wartime mission; i.e., establish the METL.

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Procedure *(Continued)*

Phase	Step	Procedure
METL Development *(Continued)*	4	Develop the individual (i.e., soldier and leader) task list supporting the selected collective tasks (source: MTP, STP).
	5	Develop training objectives; i.e., establish supporting conditions and standards for each task.
Planning	1	Conduct long-range planning.
	2	Conduct short-range planning.
	3	Conduct near-term planning.
Execution	1	Prepare to train.
	2	Present training.
	3	Perform training task or event.
Assessment	1	Select type of evaluation.
	2	Develop an evaluation plan.
	3	Conduct evaluation of training.
	4	Conduct AAR.
	5	Assess unit training proficiency.
	6	Provide feedback to chain of command for corrective action.

1-7. Lane Training Process.

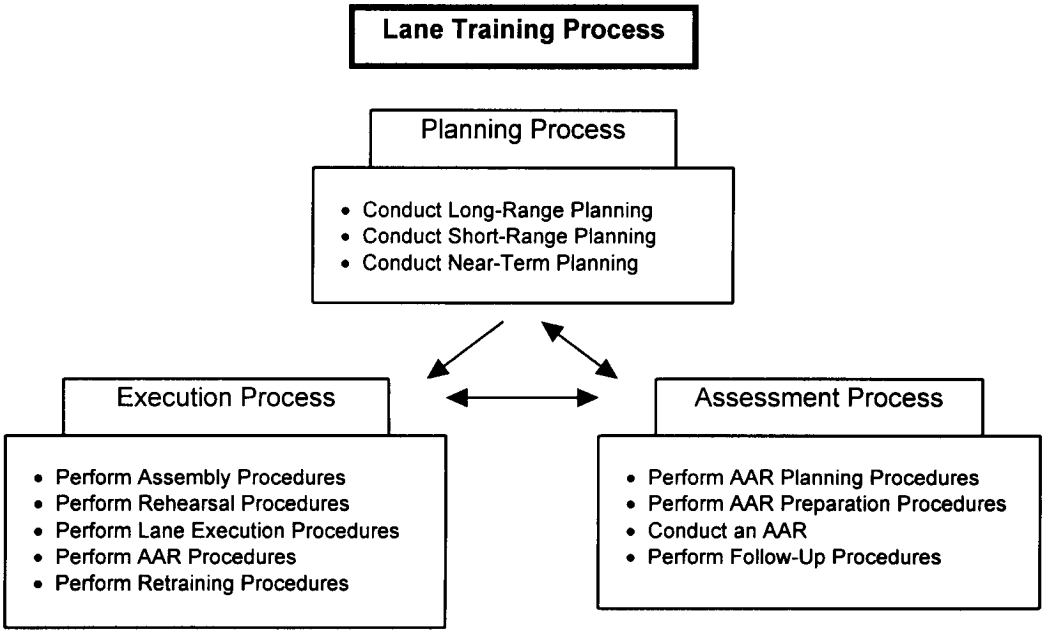
General Process

a. The lane training concept is implemented using a systematic lane training process which is part of the battle-focused training process. The lane training process consists of the last three of the four phases of the battle-focused training process; i.e., it excludes METL development but includes planning, execution, and assessment. The METL, tasks, and training objectives produced by METL development are inputs to the lane training process. The three lane training phases include the following activities:

Lane Training Phase	Activities Included
Planning (i.e., pre-LTX)	Actions involving unit assessment, training assessment, analysis, design, development, scheduling, resource acquisition, support coordination, pre-training, and preparation for training.
Execution (i.e., LTX)	Actions involving preparation, presentation, and performance of collective tasks to desired standards.
Assessment (i.e., after LTX lane execution or post-LTX)	AARs and follow-up actions (e.g., update SOPs). Although frequently considered to be a post-exercise phase, assessment consists primarily of AARs that are conducted during or immediately after LTX lane execution.

Detailed Process

b. The following diagram illustrates how the lane training process is composed of the three subordinate processes of planning, execution, and assessment:



Note: Although these processes generally occur sequentially, activities for different processes can occur simultaneously. For example, the execution phase's fourth activity (Perform AAR Procedures) actually consists of the same procedures as the assessment phase's second activity (Perform AAR Preparation Procedures) and third activity (Conduct an AAR). Also, the first assessment phase activity (Perform AAR Planning Procedures) takes place during the planning phase.

Lane Training Decision

c. To conduct future training, exercise planners must perform long-range planning to acquire training resources and arrange for training support. Accordingly, the lane training planning process begins with a decision to conduct lane training. This may occur even before determining which tasks to train or identifying if there is a specific training need.

1-8. LTX Process and Scenarios.

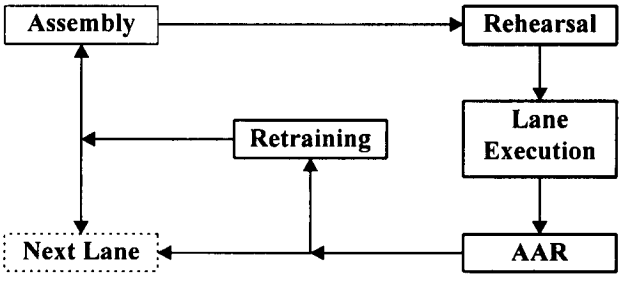
LTX Process

a. The execution process (or LTX stage) of the lane training process has the following five phases which occur in the LTX area:

LTX Phase	Activities Included
Assembly	Actions involving unit in-briefing, leader preparation, and troop leading procedures (TLP) (including issuance of the unit's operations order (OPORD)). ***Note:*** These activities are normally conducted in an AA.
Rehearsal	Actions involving rehearsal of unit tasks to be performed on the lane (or to execute the OPORD), normally at a "crawl" or "walk" speed. ***Note:*** These activities may take place in a rehearsal area, AA, or on a lane (i.e., rehearsal lane).
Lane Execution	Actions required to perform specific collective tasks on the lane (or to execute the OPORD), normally at a "run" speed. ***Note:*** These activities take place on a lane.
AAR	Actions required to provide-- • A structured, interactive, group-oriented review and evaluation of the unit's task performance on the execution lane. • Suggestions on how to improve future performance. ***Note:*** These activities usually take place in an AAR area or on a lane.
Retraining	Actions required to enable the unit to perform lane tasks to desired standards. ***Note:*** These activities normally take place in a retraining area, rehearsal area, or on a lane (i.e., retraining lane).

Diagram

b. A diagram of the execution process (or LTX stage) of the lane training process looks as follows:



Note: Rehearsal, lane execution, and retraining activities may take place on different lanes within the LTX area.

Use	c. An LTX (or LTX area) is used to train one collective task or a group of related tasks.
Name	d. The name of the LTX is the title of the primary collective task to be trained.
Structure	e. Exercise planners have great flexibility in designing the structure of LTX lanes. The lane training structure can vary depending upon the tasks trained, number of lanes and LTXs conducted, number of units to be trained, and size of the training area. Usually more than one LTX is set up at a training area. This creates additional possibilities for LTX structures and improved efficiency, especially when several units are to be trained and transportation is available.
Scenario or Diagram	f. A lane is usually illustrated using a graphic scenario or lane diagram representing a series of events on the lane (i.e., in the lane execution area).
Events	g. The series of events usually area series of sequential supporting tasks or task steps for the primary lane collective task, although the events may include related tasks.

Unit Events	All unit events-- • Are conducted and assessed in the order they are normally performed in combat. • Support the overall collective mission.
OPFOR Events	OPFOR events required for the lane may also be indicated (i.e., tasks or countertasks). They are prefixed by a ">>."

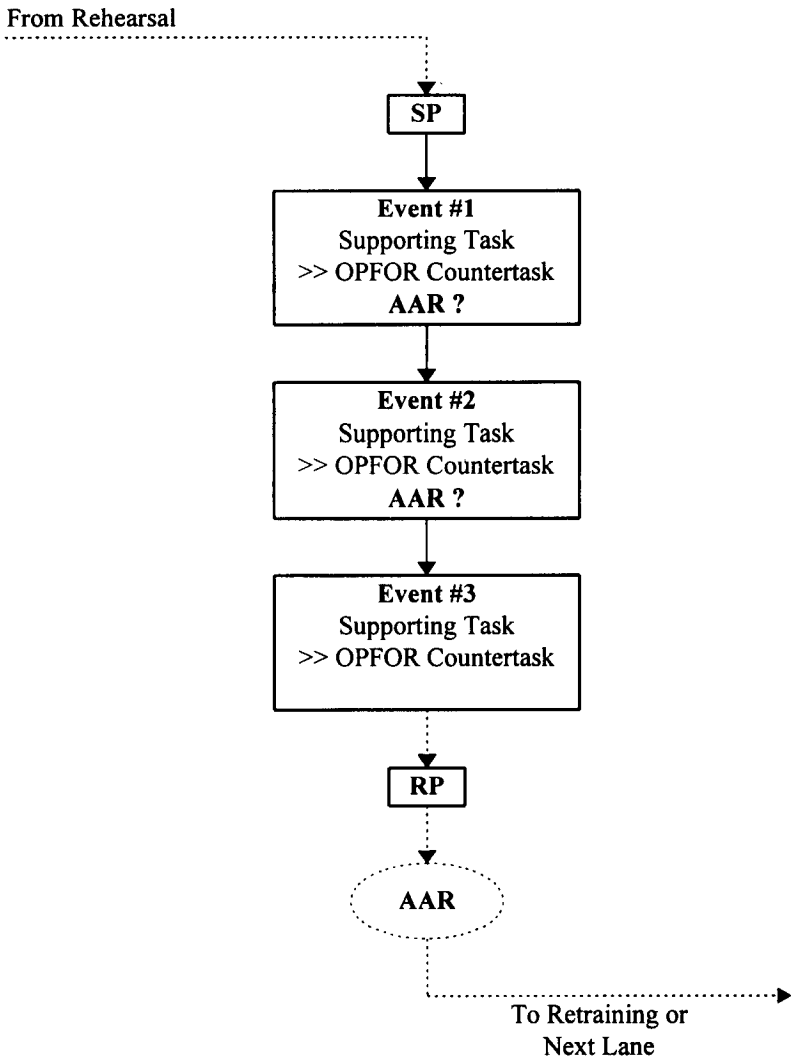
Note: Key unit and OPFOR events to be performed on the lane are indicated in the graphic scenario or lane diagram.

AARs	h. Although AARs are usually planned to follow completion of lane execution, they also may follow key supporting tasks or events occurring during lane execution. AAR events may also be indicated in a graphic scenario or lane diagram.
Control	i. The following graphic control measures are frequently used for a lane involving unit movement: • AA. • Start point (SP). • Line of departure (LD). • Phase lines (PL). • Boundaries (represented by lines with unit information). • Objective (OBJ). • Release point (RP).

Example: Generic Scenario

j. This is an example of a generic scenario for an LTX lane. A lane has one primary collective task (lane title) for a specific type of unit and one or more supporting collective tasks or task performance steps structured as events. This example of a lane consists of three events for supporting collective tasks.

Unit: Type and size
LTX Title: *Title (task number)*

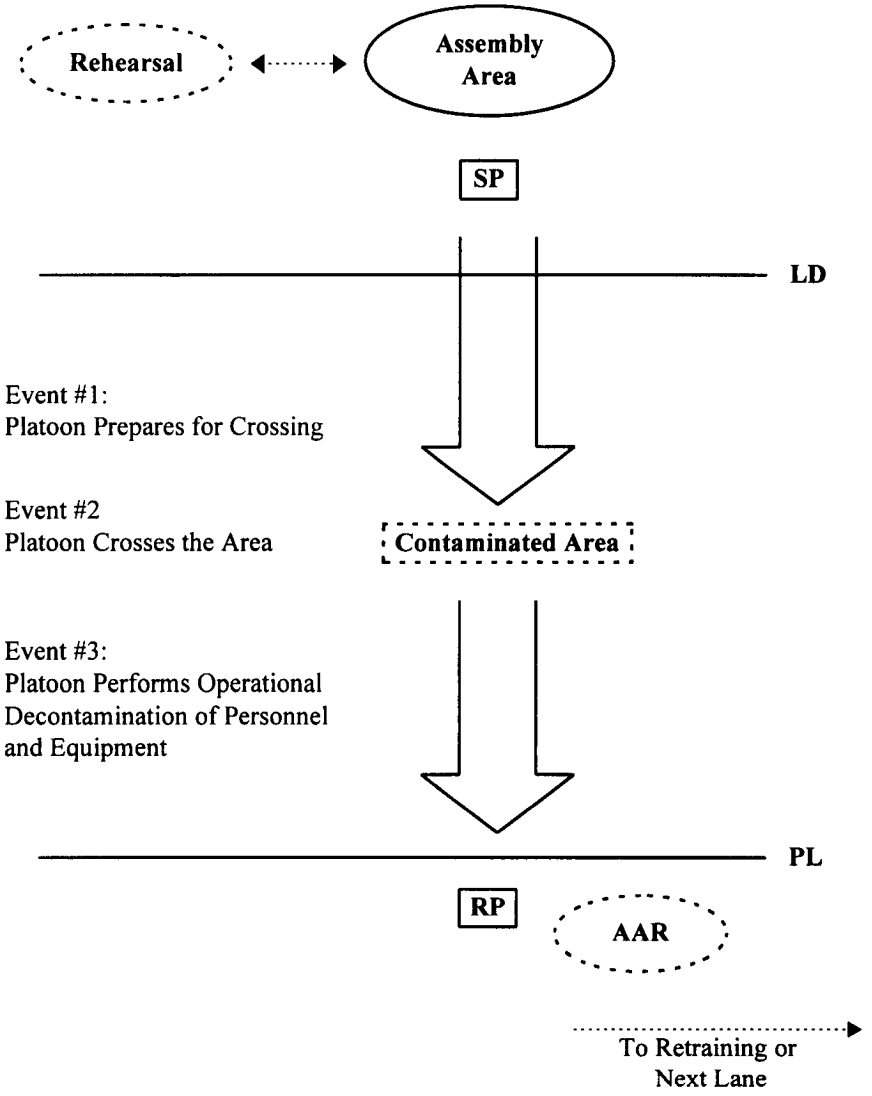


Note: An AAR is scheduled at the end of an LTX lane. Normally, an AAR is scheduled at the end of events for major collective tasks but not scheduled after events for task performance steps.

Example: Single Task Scenario

k. This is an example of a scenario for one collective task with three task steps as events:

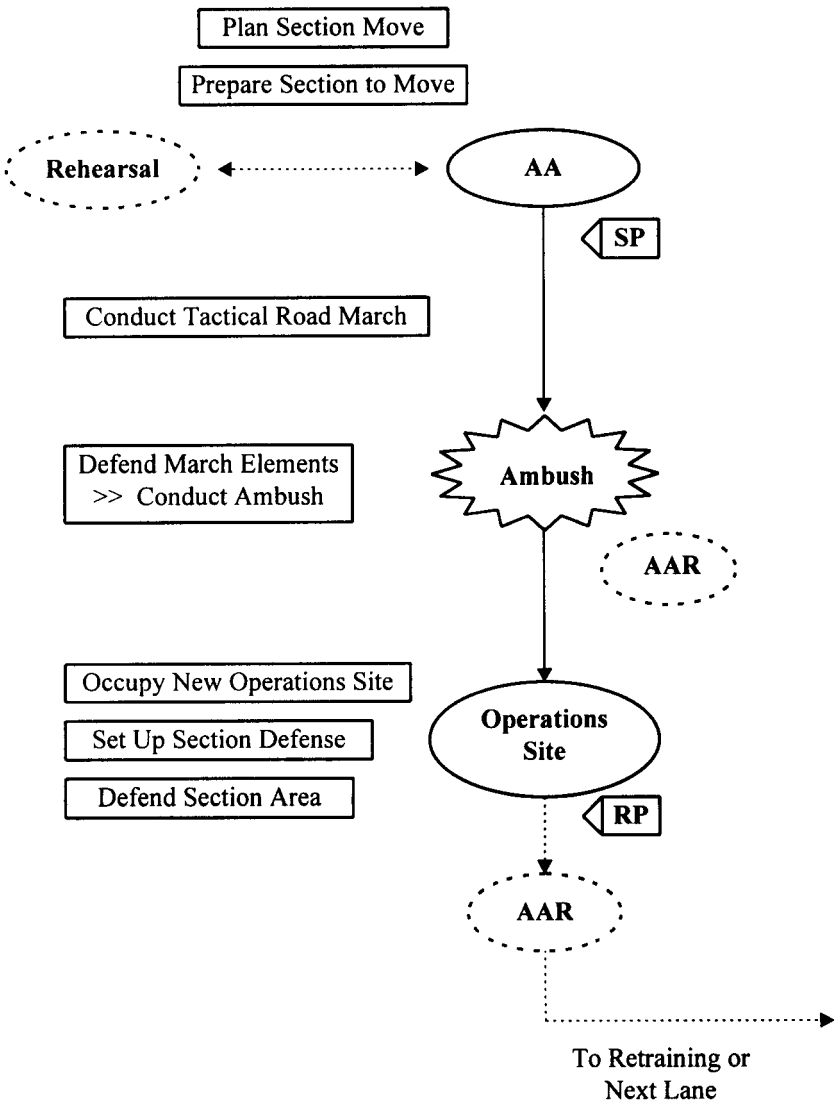
Unit: (Type) Platoon
LTX Title: Cross a radiologically contaminated area *(task number)*



Example: Multiple-Task Scenario

l. This is an example of a scenario with several supporting or related collective tasks for a petroleum, oil, and lubricants (POL) section. The scenario also has one OPFOR counter-task. Normally, the unit should be proficient on each supporting or related collective task before the tasks are combined into one lane.

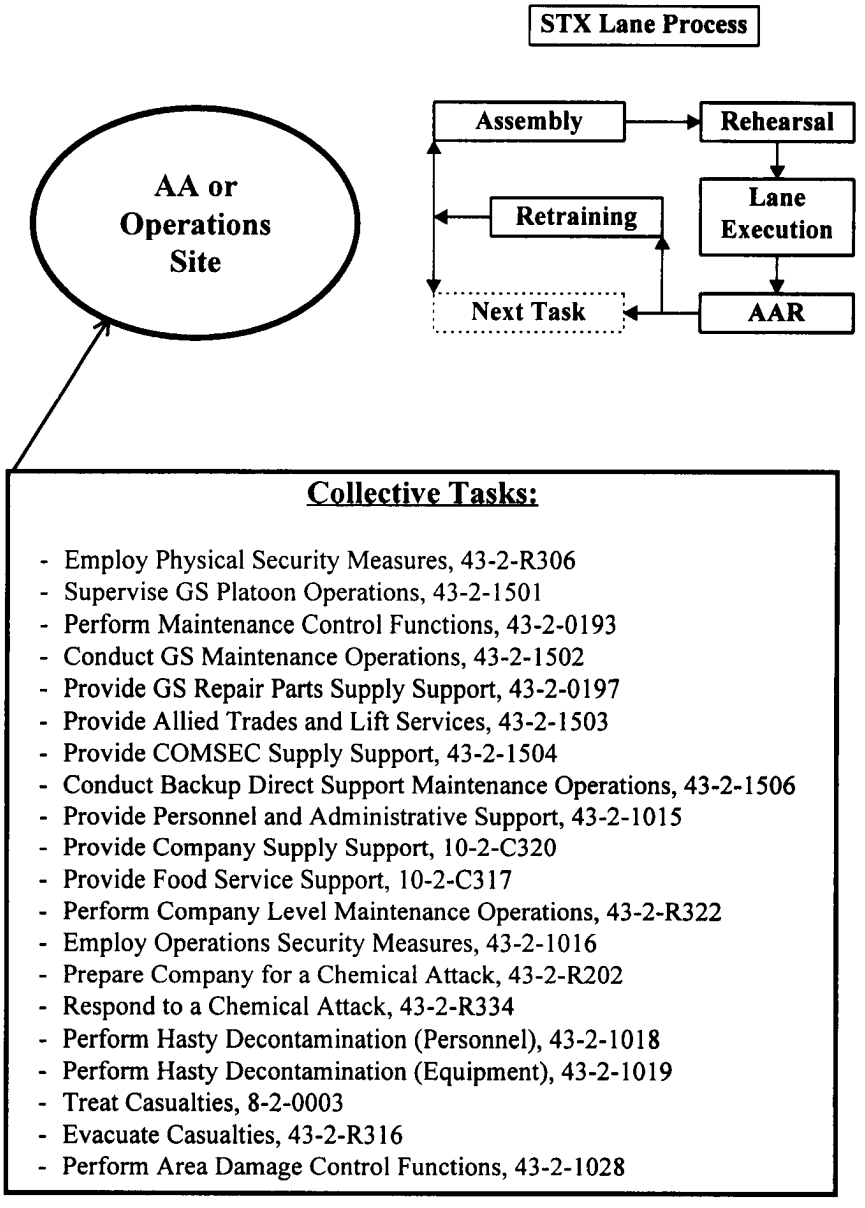
Unit: POL Platoon, Forward Support Company
LTX Title: Relocate POL Area



Example: Stationary Scenario

m. This is an example of a scenario for a stationary unit i.e., no movement involved. Although the entire company is participating in the LTX, each element (platoons or sections) is training and performing its own tasks in support of the company's higher level task. Note this example indicates task numbers.

Unit Ordnance Maintenance Company (General Support (GS))
LTX Title: Conduct GS Maintenance



1-9. LTX Categories.

Three Categories

a. LTXs (or lanes) may be classified into three categories:
- Stand-alone.
- Integrated.
- Mission support.

Stand-Alone

b. A stand-alone LTX is a single-function exercise requiring only one branch (e.g., chemical) to accomplish a collective task. Characteristics:
- Frequently executed at the lowest unit levels (e. g., platoon, section, squad, team) by units needing to develop proficiency.
- Gives OCs maximum flexibility and control over stopping the lane, resuming the lane, conducting AARs, and repeating the lane.
- Several lanes may be designed to repeat identical tasks (sometimes with different conditions).
- More flexible because it has fewer constraints.

Integrated

c. An integrated LTX is a multifunctional exercise requiring the integrated employment of two or more branches (e.g., infantry-armor company team) to accomplish **a** collective task. Characteristics:
- Normally executed by units that exhibit high degrees of proficiency at the platoon or section level.
- Multiple units interact, often interdependently, and are fully dedicated to training on the lane while participating under a master scenario.
- Difficult to restart any one unit because it is a role player for another unit executing its task.
- OCs have less flexibility and control because it is more structured, complex, and time-phased.

Mission support

d. A mission support LTX is an exercise in which the unit undergoes lane training while performing a mission on behalf of, or associated with, other units (some may not be participating in the LTX); e.g., a POL platoon performing a refueling mission. Characteristics:
- Difficult to stop and restart the lane because the unit may be performing a real mission in support of other units.
- Limits the OCs' control, requires more evaluation, is more complicated, limits controlled stimuli, and has less repeatability.

1-10. Simulations and Simulators.

Enhance Training

a. The effectiveness of lane training can be enhanced through the use of simulations and simulators during lane training planning and execution.

Applications b. Following are only some of the many ways simulations and simulators can be employed during lane training:

- Prior to the LTX by --
  - The exercise director and lane planners to develop effective scenarios.
  - OCs to refresh or enhance their proficiency on lane tasks and prerequisite tasks in preparation for conducting the LTX.
  - The training unit or the OPFOR to develop, maintain, or enhance soldier, leader, and unit proficiency on LTX tasks or prerequisite tasks.
- During the LTX to--
  - Rehearse tasks trained on the lane.
  - Conduct the lane within a simulation or simulator.
  - Conduct the lane with the use of weapons simulators to enhance realism.
  - Provide feedback during an AAR; e.g., statistics, replay of events.
  - Retrain the unit after an AAR.
- Simultaneously with the LTX--
  - To provide training to staffs or other personnel or units not training on the lane,

TADSS c. Simulators, simulations, and other TADSS are training multipliers. They--

- Enhance the realism of pre-LTX training.
- Increase proficiency on prerequisite and LTX tasks through practice and repetition.
- Enhance the realism of both force-on-force and force-on-targetry LTX.
- Reduce safety and environmental hazards.

Planning d. Exercise planners and leaders should integrate simulations, simulators, and other TADSS into their lane training process. The use of TADSS can enhance the replication of the wartime environment and increase training effectiveness. However, the use of TADSS normally requires very long-range planning.

1-11. Support.

Requirements a. Effective lane training requires availability of the following support requirements-

- Time.
- Personnel; e.g., lane planners, OCs, OPFOR, customers, role players.
- Doctrine and training publications (i. e., TTP); e.g., training information.
- Training areas; e.g., maneuver areas, bivouac areas, ranges, facilities.
- Materiel; e.g., vehicles, weapons, communications equipment, TADSS, tools, special equipment.
- Supplies; e.g., ammunition; food; fuel; POL.
- Funds.
- Operating tempo (OPTEMPO) allocation.
- Other resources.

Time

b. Sufficient time is required to conduct adequate planning, execution, and assessment.

Variables

Variables affecting the time required include the following:
- Planning requirements.
- Number of METL tasks and supporting tasks to be trained.
- Difficulty and complexity of tasks.
- Number of lanes to be conducted.
- Number of units to be trained.
- Size and echelon of the units trained.
- Task proficiency of units trained.
- Distances involved between--
  - **Unit's** home Station and training area.
  - Unit's bivouac areas and LTXs in training area.
  - Lane start points and release points.
- Safety and environmental issues.
- Available resources.
- Component of unit (AC, RC); i.e., RC units have significantly fewer available workdays per month than AC units (2 days for RC versus about 22 days for AC).
- Quality of lane training. Quality is dependent upon effective planning and resource support.

Planning

The lane training planning process is significantly affected by whether the unit's component is AC or RC. Due to time constraints, planning in the RC must begin earlier than for the AC.

Execution

The time required to conduct an LTX may range from a few hours to several days, primarily depending upon the layout of the LTX area, nature of LTX tasks, and number of tasks trained on a lane.

Assessment

- Although the time required to conduct an AAR can range from 30 minutes to 2 hours, the time required for planning and preparation is much longer.
- The time required to perform follow-up procedures depends upon the number and nature of issues identified during lane execution and subsequent AARs.

Personnel

c. Lane training, especially for company or platoon-size lanes, can be very manpower intensive for any size unit due to the large numbers of personnel involved in management of the planning, execution, and assessment of the lane training process.

Information d. Training information is also an important resource.

Publications	Sources of training information include MTPs, battle drill manuals, STPs, FMs, TCs, TMs, regulations, and SOPs. ***Note:*** MTPs area key source for information concerning TCS and resource requirements, although they do not address requirements for lane experts.
Automated Systems	Several automated systems contain training information which can be used to support lane training. Among them are the Standard Army Training System (SATS) and the Reserve Component Automated System (RCAS). Automated systems provide access to unit and collective training information (e. g., MTPs, exercises, battle drills) in electronic form. They can also be used to develop METL, individual task lists, strategies, plans, training and evaluation outlines, resource status/allocation, training calendars, training schedules, briefings, and assessments.

1-12. Internal and External Support.

Unit Self-Support a. The unit on a lane should not provide its own support this would prevent full participation in the LTX by all of the unit's members.

Support Categories b. The lane training process and LTXs are categorized based on the primary source of resource support as one of the following:
- Internally supported.
- Externally supported.

Internal c. Internally supported training is described below:

Definition	**Internally supported training -** Training for which resource support is provided from within the unit responsible for managing training.
When needed	Internally supported lane training is normally used when-- • Several units are undergoing training on one or more LTXs. In this situation, the supporting headquarters (two echelons up) identifies and obtains resources from units within the command. • Only one unit is undergoing lane training. In this situation, support functions frequently can be accomplished adequately by the next higher unit.

External

d. Externally supported training is described below:

Definition	**Externally supported training -** Training for which resource support is provided from outside the unit responsible for managing training.
When needed	Externally supported lane training is normally required when several units are undergoing training on one or more LTXs and resource support cannot be provided from within the command responsible for managing the training. In this situation, the supporting (or management) headquarters identifies desired resource requirements and obtains resources from outside the command.

Note: Compared to single lanes, multiple lanes require much more planning, scheduling, coordination, and resources.

Resource Sources

e. Resource support for lane training may be available from a variety of sources, such as--

- Adjacent units.
- Higher headquarters.
- Installations.
- Service schools or training proponents.
- Readiness groups (RGs), regional training teams (RTTs), resident training detachments (RTDs), and the Ground Forces Readiness Enhancement (GFRE) Program.
- AC regional training brigades (RTBs); i.e., for OCs.
- USAR exercise divisions; i.e., for OCs.
- Regional training sites (RTSs).

Note:

- USAR exercise divisions provide a "turn key" lane training capability for USAR and ARNG units by providing a complete support package of training materials and services to units planning to conduct lane training.
- The above sources can assist units in developing battle-focused leader training and in verifying doctrinal and training proficiency of leaders, OCs, and OPFOR. Once verified, leaders train and verify their soldiers on selected tasks.
- RTBs, RGs, RTTs, and RTDs can assist units in developing battle-focused leader training and validating leader proficiency.

Guidance

f. Long-range planning and coordination are essential to ensure adequate support for lane training. When external support is not available, conduct internally supported lanes.

Chapter 2
Training Principles

2-0. Chapter Overview.

Introduction

a. Lane training applies battle-focused training principles and lane training principles to collective training. Use of these principles will improve the effectiveness of lane training.

Chapter Index

b. This chapter covers the following:

Section I
Battle-Focused Training Principles

2-1. Section Overview.

Introduction

a. Battle focus is the concept used to derive and prioritize peacetime training requirements from wartime missions. Battle-focused training results from applying the battle-focus concept to the training management process; i.e., to the planning, execution, and assessment of training.

Section Index

b. This section covers the following:

2-2. Battle-Focused Training Principles.

General

a. Nine training principles guide the application of the battle-focused training concept. Lane training is a process which applies these battle-focused training principles.

Principles

b. These nine principles are listed below and are described in both FM 25-100 and FM 25-101:

#	Battle-Focused Training Principle
1	Train as a combined arms and services team.
2	Train as you fight.
3	Use appropriate Army doctrine.
4	Use performance-oriented training.
5	Train to challenge.
6	Train to sustain proficiency.
7	Train using multiechelon techniques.
8	Train to maintain.
9	Make leaders the primary trainers.

2-3. Performance-Oriented Training.

Key Principle

a. Although all of the battle-focused training principles are important, the principle "Use performance-oriented training" is critical for lane training.

Definition

b. **Performance-oriented training** - Training in which learning is accomplished through performance of a task under specific conditions until an established standard is met.

Process

c. The performance-oriented training process consists of the following three phases:
- Skill demonstration phase.
- Skill practice phase.
- Skill evaluation phase.

Application

d. Performance-oriented training is the best way to objectively evaluate soldier, leader, and unit performance.

Section II
Lane Training Principles

2-4. Section Overview.

Introduction

a. Successful lane training relies on application of fifteen lane training principles, which are listed and described in this section:

Section Index

b. This section covers the following lane training principles:

2-5. Plan Long Range to Resource Training.

Planning is Essential

a. Lane training is resource intensive. Commanders and planners must maximize its benefit. Long-range planning is essential to permit adequate time for resource acquisition, support scheduling, and training material development. Commit resources for training well in advance of planned LTXs. Success lies in planning and resourcing effectively.

Consider Resources

b. Planning must consider all resources required to accomplish the lane training mission (paragraph 1-1 la lists some of the resources which may be required).

Briefings

c. Brief lane training plans and resource information at quarterly or yearly training briefings. LTXs are major projected training events.

Maximize Training Time

d. Maximize the use of training time.
- Design short, standardized scenarios which focus on the most essential tasks.
- Plan for over-training or several repetitions of a task (on different lanes) for each unit.
- Plan for multiple units to rotate through the LTX.
- Consider planning for more than one unit to be in a large, multiple-lane, long-duration LTX at the same time.
- Plan for opportunity training.
- Avoid training distracters.
- Avoid wasting soldiers' time.

2-6. Select Battle-Focused Tasks.

Battle Focus

a. Although an LTX is mission-oriented, it may not train all tasks required for a mission. Since an LTX is resource-intensive, leaders must limit task selection to a realistic number of high-payoff tasks which support their most important METL or wartime missions. Commanders select only the most essential tasks for training. They train for the appropriate proficiency or skill level.

Possibilities

b. Consider--
- Battle tasks and battle drills.
- High payoff critical soldier and leader individual tasks, collective tasks, and drills.
- Tasks not already performed to standard.
- Collective tasks at section and above, especially for CSS units.
- Other tactical and technical tasks.

Prioritize

c. Prioritize tasks based on METL analysis, commanders' training assessments, and available resources.

Focus LTXs

d. Limit the number of supporting tasks to be trained during a single LTX to permit focus on performance of specific tasks. For developmental training, exclude related tasks that may distract soldiers from learning. However, once a unit's elements are proficient in related tasks, these tasks may be combined to form more comprehensive LTXs to increase realism. Limiting the number of tasks trained during a single LTX increases repeatability, effectiveness, and throughput (i.e., number of units trained).

2-7. Design Progressive and Structured Training.

Progressive

a. Design progressive training; i.e., use the "building block" approach.

Prerequisite Tasks

Train prerequisite tasks and skills before proceeding to higher-level tasks and skills.

	Individual Tasks	Train individual (soldier and leader) tasks before collective tasks and drills. Develop proficient soldiers and leaders before developing proficient units.
	Collective Tasks	Develop collective task proficiency in smaller units before developing a proficiency in larger units.
	Missions	Train missions after developing proficiency for prerequisite individual and collective tasks.
	Conditions	Tailor lane training conditions to the appropriate training level of the unit (e.g., initial, refresher, sustainment). Modify conditions to add variety and improve proficiency; e.g.-- • Speed. • Light; e.g., day, night. • Terrain; e.g., plain, mountain, desert, swamp, forest, jungle. • Temperature. • Weather e.g., clear, rain, snow, ice, fog. • Weapons training; e.g., Multiple Integrated Laser Engagement System (MILES), live fire. • Nuclear, biological, and chemical (NBC) environment; e.g., mission-oriented protective posture (MOPP) 4.
Structured	b. Design structured training.	
	Boundaries	Plan training so it has definite starting and ending points.
	Details	Plan each lane in detail so the proper conditions and standards are attained.
	Scenarios	Plan complete scenarios so each OPFOR task is doctrinally correct and elicits or counters the desired task to be performed by the unit being trained on the lane. Avoid freeplay.
	T&EOs	Use T&EOs from MTPs and other sources.

2-8. Make Training Realistic.

Goal	a. The goal of lane training is to achieve realistic training replicating the unit's operational missions and environments. Although LTXs strive for realism, realism can be delayed until the unit has achieved the desired standard under less demanding conditions.
METT-T	b. Design an LTX scenario based on the primary, supporting, and associated collective tasks, tailored to the mission, enemy, terrain, troops, and time available (METT-T) requirements of probable military operations.

OPFOR c. Use a doctrinally correct OPFOR, based on the scenario, to create stimuli to prompt or respond to tasks to be trained during lane execution.

TADSS d. Use TADSS to--
- Enhance the realism of pre-LTX training and force-on-force LTXs.
- Avoid omitting any essential condition, portion of a task, or event that should be included in the LTX (e.g., use MILES to simulate live-fire events).

Simulations e. Adapt simulations for use in pre-LTX and LTX training to simulate the unit's operational missions or environments. Simulation candidates include terrain and weapons' casualty-producing effects. See Chapter 6 (Simulations).

Pyrotechnics & Simulations f. Consider using pyrotechnics and tactical engagement simulations such as MILES to simulate combat or normal task performance conditions.

Customers g. Use customers. Some CS/CSS collective training requires customers so the unit can perform technical tasks on a doctrinally correct lane.

Conditions h. Vary conditions during retraining or practice.

2-9. Apply the Crawl-Walk-Run Training Process.

Training to Standard a. This process is an effective method of training to standard for individual tasks, battle drills, collective tasks, and lane training. It produces well-trained soldiers, leaders, and units.

Process b. The normal crawl-walk-run process was described in paragraph 1-5.

Procedures c. To use the crawl-walk-run process for individual or collective training, follow these procedures:

Phase	Step	Action
Crawl		The trainer describes the task step-by-step, indicating what each soldier (and the unit) must do, using the following procedure:
	1	Describe the task in general, its purpose, and its importance.
	2	Describe the cue, command, or context in which the task occurs.
	3	Describe the standards of performance; i.e., training objectives; tasks, conditions, and standards; and evaluation methods.
	4	Demonstrate the task performance steps by performing the steps in the proper sequence.
	5	Describe the performance measures of each step of the task in detail.
	6	Discuss the role of supporting individual (or collective) tasks within the task.
	7	Answer questions.

(Continued on next page)

Procedures c. *(Continued)*

Phase	Step	Action
Walk		The trainer directs the soldiers (or unit) to execute the task at a slow, step-by-step pace, using the following procedure:
	1	Produce the cue that initiates the task.
	2	Have each soldier (or unit element) perform actions required by each step at a slow pace.
	3	Coach and critique performance during each practice iteration.
	4	When the task is performed incorrectly, stop training, provide correction, and resume training.
	5	Direct each soldier to practice an individual task until the soldier can perform it to standard without coaching.
	6	Direct the unit to practice a collective task until the unit can perform it to standard without coaching.
Run		The trainer requires the soldier (or unit) to perform the task at full speed, as if in combat (under realistic battlefield conditions) or in the normal mission or task performance environment, using the following process:
	1	Produce the cue that initiates the task.
	2	Allow the task to be performed without interruption until completion (unless there are safety or environmental issues).
	3	Have the soldiers (or unit) repeat the task until it can be performed properly at full speed.
	4	Revert to the walk phase if the soldiers (or unit) cannot perform the task correctly.
	5	Vary the conditions under which the task is performed; e.g., different MOPP levels, different terrain, different duty positions.
	6	Incorporate OPFOR, MILES, or live fire to assist in performance feedback.
	7	Conduct an AAR to summarize the results of training: a. Identify strengths and weaknesses. b. Obtain feedback. c. Emphasize key training points.

Note: Upon completion of crawl-walk-run procedures, the trainer should be able to verify the task proficiency of all soldiers trained. The trainer retrains any soldiers that are not proficient.

Application d. Normally, the process is used during a short time frame of a few minutes to a few hours. However, it can also be applied to longer periods.

Desired Proficiency e. Ideally, before arriving for an LTX, units should be able to perform--
- Prerequisite tasks with a "running" proficiency.
- Lane tasks with a "walking" proficiency.

2-10. Employ the Over-Training Technique.

Definition	a. **Over-training** - A training technique which uses task repetition to increase task proficiency; i.e., accuracy, speed of execution, and skill retention.
Description	b. Over-training is employed by having soldiers repeat task performance several times. For example, a unit may conduct several repetitions of an LTX (on one or more lanes) or perform the same task in several different LTXs (i.e., as a supporting task).
Repetition	c. Experience indicates at least three repetitions of a task should be performed within a short time frame to achieve a sustained improvement in task proficiency.
Application	d. Consider using over-training for essential, mission-critical tasks.

2-11. Use OCs and OPFOR.

Ocs a. Use OCs.

Definition	**Observer-controller (OC)** - An individual tasked to provide administrative control, evaluate task performance, and provide constructive feedback to participants during a training exercise.
Duties	OCs are trainers. As trainers, they serve as planners, controllers, observers, umpires, evaluators, coaches, mentors, facilitators, and subject-matter experts. OCs have a responsibility to observe, evaluate, and provide feedback on task performance to unit commanders (so unit commanders can assess their units).
Senior OC	Each lane must have one senior OC who has proven knowledge and ability to properly execute the lane to the Army standard.
Other OCs	In addition to a senior OC for each lane, OCs may be needed to-- • Observe locations for key events. • Accompany leaders or key elements of a unit. • Observe events or locations having the potential to create safety or environmental hazards so the OCs can warn participants.
AARs	Each OC conducts (facilitates) the AAR for the element observed and provides input to the AAR for the next higher echelon.
Accompany Units	OCs may be assigned to accompany units or specific elements of units for all LTXs (i.e., they may rotate from one LTX to another with the supported unit).
Trained and Verified	OCs must be trained. Their task proficiency must be verified on the tasks to be trained on their assigned lane.

Experience Preferred	The senior OC should be of at least equal rank to the leader of the unit training on the LTX lane; however, if required to choose between rank and experience, experience is preferred.
Exercise Director	When several LTXs will be conducted simultaneously, an exercise director is used to manage all LTXs.
Training	Paragraph 3-35e lists some of the training needed by OCs.

OPFOR

b. Use OPFOR.

Definition	Opposing forces (OPFOR) - An organized force created from U.S. Army units trained, organized, and equipped to portray the doctrine, tactics, and configuration of a potential adversary armed force during U.S. Army forces training.
Trained and Rehearsed	OPFOR soldiers must be trained (with their proficiency verified to standard) and carefully rehearsed prior to lane execution on the required counter-tasks for tasks trained during the LTX.
No Freeplay	The OPFOR for an LTX should follow a detailed scenario without freeplay to create a precise training effect for the unit being trained. The exercise planner has a specific purpose and task for the OPFOR support of an LTX.
Threat Equipment and Doctrine	Ideally, OPFOR should be American soldiers with threat equipment, using threat doctrine and tactics. If threat equipment is not available, use trained substitutes; i.e., American soldiers with American equipment, using threat doctrine and tactics.

OC and OPFOR

c. Issues pertaining to both OCs and OPFOR include--

Prerequisites	Although OCs and OPFOR are not required to be from a specific branch or MOS, some should-- • Be branch or MOS qualified in the appropriate branch or MOS for the task trained during the LTX and any counter-tasks. • Have experience in performing the task or counter-task. • Be knowledgeable in the current doctrine.
Prohibitions	OCs and OPFOR should not-- • Be members of the unit being trained during the LTX. • Have other duties which detract from performance of their LTX duties. ***Note:*** However, this does not preclude unit leaders from exercising their responsibilities to train, coach, and mentor their subordinates during lane execution, especially for lane training with limited external resources.

2-12. Train Leaders First.

Training Proficiency

a. Verify the training proficiency of leaders and trainers to the Army standard before they train their subordinates.

Key Leaders

b. The primary leaders which require the earliest training are the--
- Key leaders of the unit training on the LTX lane.
- Senior OC for the LTX.
- Senior OPFOR leader for the LTX.

Duties

c. Leaders--
- Must become lane experts capable of training, coaching, and mentoring subordinates.
- Are trainers; senior leaders train their junior leaders, and junior leaders train their soldiers.
- Develop junior leader initiative and innovation.
- Promote learning by doing; they set the example.
- Use troop-leading procedures in training subordinates.

Primary Trainer

d. The trained unit leader, not the OC, is the primary trainer of the unit before, during, and after the LTX.

2-13. Use a Training and Proficiency Verification Process.

Definitions

a. Key definitions are as follows:

Verification	The act of confirming that a soldier (or leader) can perform a task to standard by demonstration and comparison of performance with the standard or by examination of recent performance.
Certification	Written verification that soldiers can perform a task to the standard.

Use

b. These terms are normally used as follows:

Verification	The exercise director and leaders verify that their soldiers, leaders, and units can perform their assigned individual and collective tasks to the desired standards. ***Note:*** For lane training, the preferred verification method is demonstration of task performance and comparison of performance with the desired standard.
Certification	Unit leaders may certify to the exercise director or senior OCs that their soldiers and units can perform individual and collective tasks to desired standards.

Certify

c. Commanders or exercise directors who feel training verification is insufficient may require leaders to certify the training proficiency of their soldiers, leaders, OPFOR, or OCs.

Responsibility

d. Training and proficiency verification is a commander's and leader's responsibility.

Train and Verify

e. Prior to the LTX, train and verify personnel involved in lane training on the following tasks, procedures, and techniques to be used during the LTX--

What Covered:	Who Trained:			
	Leaders	OCs	OPFOR	Unit Soldiers
Leader and collective tasks.	X	X	(Some)	
Leader and collective counter-tasks.	(Useful)	X	X	
Technical and tactical collective tasks.	X	X	X	(Introduction)
Technical and tactical individual tasks.	X	X	X	X
Prerequisite tasks for LTX tasks.	X	X	X	X
Doctrine and TTP.	X	X	X	X
LTX procedures.	X	X	X	X
AAR techniques.	X	X	X	X

Leader Training

f. Conduct leader training and verification prior to pre-LTX unit training and rehearsals. This provides time for leaders to train and verify proficiency of--

- Junior leaders on leader tasks.
- Junior leaders and soldiers on lane and prerequisite tasks.

Note: Recommended time frame for conducting leader training and validation is 3-4 months prior to scheduled LTXs for AC or 10-12 months for RC.

Leader Verification

g. Verify leaders' proficiency before beginning soldier or collective training to-

Ensure leaders--

- Understand doctrine and TTP for the tasks being performed.
- can perform the leader tasks that support collective tasks.

- Enable unit and OC leaders to uniformly and consistently apply Army task performance standards.
- Build--
  - Confident leaders.
  - Soldier confidence in leaders.

Pre-LTX Training

h. Complete the unit's individual and collective training and verification prior to scheduled LTXs. Prior training and verification--

- Avoids loss of valuable training time.
- Forces the unit to plan long range, identify training deficiencies, and retrain leaders prior to the LTX to avoid training delays.

Note: Reverify task proficiency and conduct rehearsals at the LTX immediately prior to lane execution.

Schedule

i. Include leader training and verification as part of the short-range plan and schedule.

Source Documents

j. Source documents for verification are MTPs, battle drills, STPs, FMs, TCs, TMs, unit SOPs, and commanders' guidance.

Training Techniques	k. Useful leader training techniques include the use of sand tables, rock drills, tactical exercises without troops (TEWTs), and leader rehearsals. Leaders should demonstrate task proficiency, not merely describe task performance procedures.

2-14. Validate Training, Plans, and Materials.

Definition	a. **Validation** - An evaluation of training, plans, and materials. It is the process used to determine if training accomplishes its intended purpose.
Purpose	b. Validate training, plans, and materials to-- • Verify training effectiveness in achieving the training objectives. • Identify and correct deficiencies. • Improve the efficiency and effectiveness of training objectives, plans, sequence, materials, and execution.
What is Evaluated	c. In the lane training context, validation is the process used by the exercise director to evaluate training objectives, sequence, materials, plans, and training for completeness, compliance with doctrine, and technical accuracy.
Time Frames	d. The lane training process includes-- • Tentative or partial validation during the conduct of pre-LTX rehearsals by the exercise director and senior OCs as part of the lane training planning process. • Subsequent full validation after each iteration of the LTX as part of the follow-up procedure of the lane training assessment process.

2-15. Employ a Multifunctional and Multiechelon Training Strategy.

Purpose	a. Use multifunctional and multiechelon training strategies to-- • Maximize efficient use of time and resources. • Control conditions for formal or informal evaluations. • Simultaneously train leaders at all levels.
Supporting Tasks	b. Incorporate appropriate supporting tasks. ***Caution:*** Don't include so many supporting tasks that the training loses battle focus (i.e., fails to emphasize high-priority tasks).
Maximum Integration	c. Integrate as many military occupational specialties (MOSs), types of units, and unit echelons in lane training as possible; i.e., use a systems approach.
Maximum Soldiers	d. Employ the maximum number of soldiers and units simultaneously in one or more LTX lanes.

2-16. Rehearse Training Prior to Execution.

Definition	a. **Rehearsal** - An event in which one or more members of a unit practice, recite, recount, repeat, or drill a set of tasks or procedures to prepare for a formal performance.
Description	b. A rehearsal is a training technique used to ensure each member of a team understands what they and other members of the team must accomplish to perform a task successfully.
Benefits	c. Rehearsals-- • Refresh TTP. • Identify and correct mistakes prior to execution. • Avoid wasting valuable training time.
When to Rehearse	d. Rehearse all appropriate personnel (e.g., OCs, OPFOR, unit leaders and soldiers) prior to each training activity.
Techniques	e. Employ a variety of rehearsal techniques; e.g.-- • Map. • Sand table or terrain model. • Rock drill. • Communications. • TEWT.

2-17. Train to the Army Standard.

Doctrine	a. Use Army doctrine to train battle-focused tasks to the Army task performance standard, not to the time available. As indicated earlier, sources of Army doctrine include FMs, TCs, MTPs (e.g., T&EOs), battle drills, STPs, and TMs. ***Note:*** • The standards for tasks found in MTPs and STPs are minimum Army standards; they may be increased but not lowered. • Although the goal is to achieve at least minimum Army standards, the lane training process uses over-training (repetitions) and AARs to achieve consistent improvement in performance and attain task mastery.
Safety	b. Train safely. • Conduct a risk assessment of scheduled training events prior to the training execution. • Identify and report potential unsafe conditions or acts.
Environment	c. Protect the environment. • Be aware of environmental constraints that affect the use of training areas. • Apply sound judgment regarding the preservation and protection of natural resources and threatened species. • Properly dispose of hazardous waste.
Realism	d. For new tasks, set achievable and realistic standards.
Progression	e. Concentrate on achieving the standard for each task, one task at a time.

Evaluation	f. For pre-LTX training, leaders evaluate task performance against predetermined and consistent standards for each LTX task, prerequisite task, and associated task. For the LTX, OCs evaluate task performance to the desired standard.
Retraining	g. Conduct retraining to the Army standard, if needed.

2-18. Provide Feedback on Training Proficiency Using an AAR.

Definition	a. **After-action review (AAR)**- A professional discussion of an event, focused on performance standards, that enables soldiers to discover for themselves what happened, why it happened, and how to sustain strengths and improve on weaknesses. It is a tool leaders, trainers, and units can use to get maximum benefit from every mission or task.
Primary Technique	b. AARs are the primary means for providing soldiers and units feedback on mission and task performance in training and combat.
Purpose	c. AARs identify deficiencies, explain how to correct deficiencies, describe how to sustain strengths, and focus on performance of specific LTX lane training objectives. This feedback is used after the AAR to revise or improve SOPs, battle drills, and task execution.
When Conducted	d. AARs are scheduled to occur at the end of lane execution, but they may occur at logical breaks in the scenario (i.e., after the conclusion of key events, tasks, or drills), when standards are not being met, or when there is a need to address safety or environmental issues.

2-19. Institutionalize Lessons Learned.

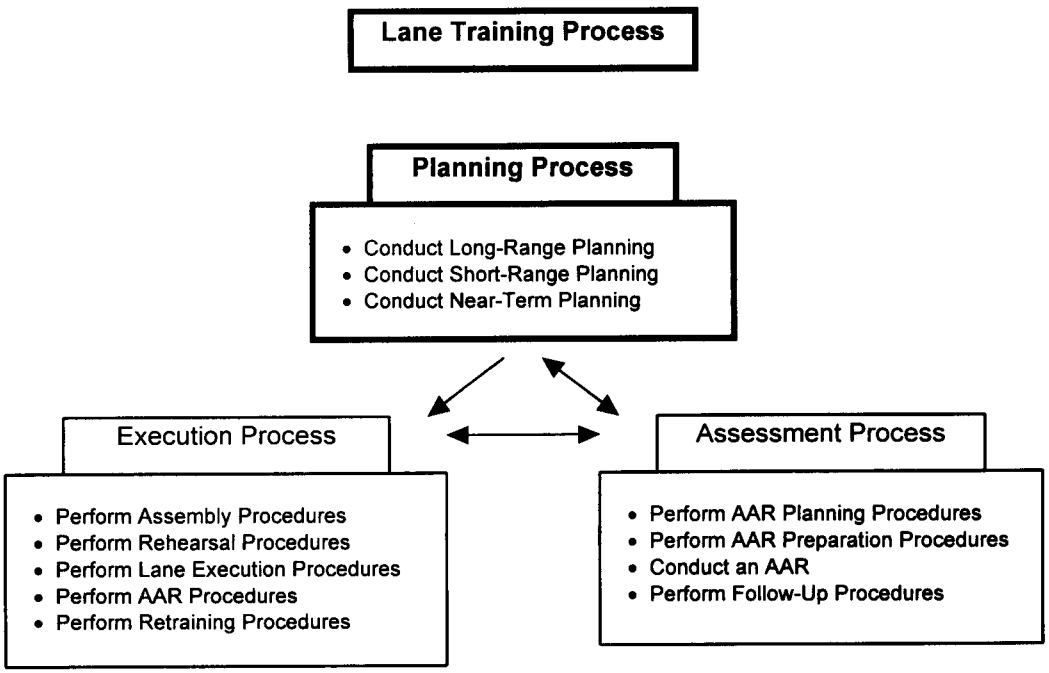
Lessons Learned	a. Many lessons are learned by all personnel involved during the planning, execution, and assessment of the lane training process. These lessons may be lost and have to be relearned through trial and error unless appropriate personnel-- • Take corrective action. • Record and report the lessons learned.
Corrective Action	b. Potential areas requiring corrective action may include-- • Lane management. • Lane planning and associated materials. • Task execution with associated MTPs, battle drills, STPs, and SOPs.
Reporting	c. Report lessons learned to the unit and OPFOR leaders, exercise director, exercise planners, commanders, training proponents, and Center for Army Lessons Learned.

Chapter 3
Planning Phase: Process and Procedures

3-0. Chapter Overview.

Introduction

a. This chapter provides procedures for the lane training planning process.



Chapter Index

b. This chapter covers the following:

Section I
General

3-1. Section Overview.

Section Index

This section covers the following:

3-2. Planning.

Purpose

a. Planning links the unit METL with execution of battle-focused training. It ensures training supports wartime missions.

Initiation

b. The lane training planning phase begins with a commander's decision to use the lane training process to satisfy a training requirement. The decision may be--

- Provided as training guidance or a requirement before specific tasks have been identified.
- Developed as part of a training strategy after the commander has conducted a unit or training assessment.

Plan Long Range

c. To conduct future training, commanders must perform long-range planning to--

- Battle-focus the training.
- Identify resource requirements.
- Schedule, arrange, and acquire training resources and support.

Integrated Planning

d. Lane training planning may involve planning for only one LTX or for several LTXs, conducted either simultaneously or sequentially. The conduct of training on multiple lanes is not only resource intensive, it also requires intricate and integrated planning, scheduling, and coordination.

References

e. FM 25-4, FM 25-100, and FM 25-101 provide more information on exercise planning requirements not addressed by this circular.

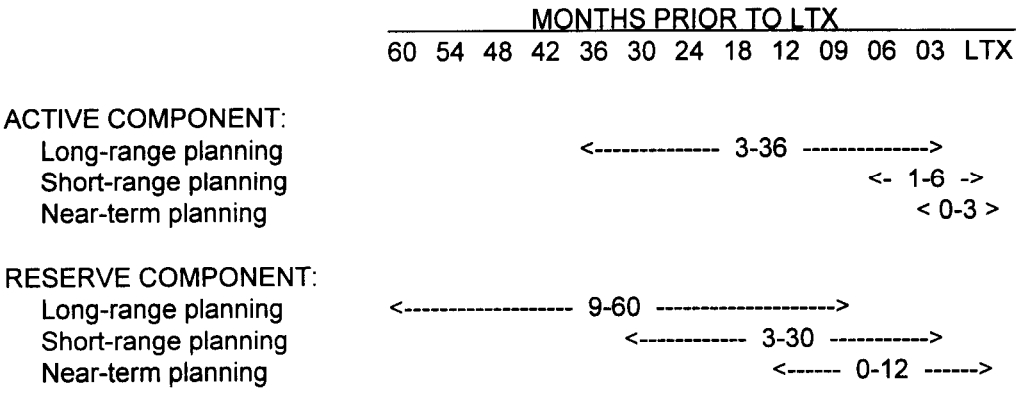
3-3. Guidelines.

Prior Planning

a. Organizations responsible for planning training schedules and use of training areas and facilities should start planning lane training events at least 3 years prior to execution for AC units and at least 4 years in advance for RC units.

Planning Time Frames

b. Approximate time frames for planning phases are indicated below:



Note:

- The above time frames vary depending upon the echelon of the unit performing the planning.
- Early long-range planning (12-60 months) deals primarily with scheduling events on long-range planning calendars and with arranging for training areas and facilities. Most long-range planning actions occur during the 12 month period prior to the LTX.

Training Schedules c. Plan to publish detailed training schedules 4-6 weeks prior to the LTX for AC units and 3 months in advance for RC units.

Logistics d. Identify key logistic events or activities to the supporting headquarters approximately 6-12 months prior to the LTX.

Training Design e. Design training so the tasks to be trained will be achievable, battle-focused, realistic, well-structured, sequential, progressive, safe, and effective.

Orders f. Plan to direct training using mission-type orders.

Performance g. Plan for performance-oriented, hands-on training.

Efficiency h. Train similar units or personnel simultaneously or sequentially on mission-related scenarios to optimize the use of resources.

Time Allocation i. Plan to allocate one-third of available time to assembly and rehearsal activities, one-third to lane execution and AAR activities, and one-third to retraining activities. Adjust time allocation if needed.

Contingency j. Be prepared to conduct concurrent or opportunity training if retraining or over-training are not required.

Distracters k. Reduce training and mission distracters.

3-4 Lane Training Planning Process.

Process The planning phase of the lane training process consists of the following three phases or activities

Phase	Activities Included	
Long-range planning	Actions involving-- • Unit assessment. • Training strategy. • Exercise directive.	• Planning guidance and calendars. • Planning meetings.
Short-range planning	Actions involving-- • Training assessment. • Training requirements. • Training plan. • Exercise guidance. • Plan refinement. • Supporting plans and materials. • T&EOs. • Outline plans. • AAR plans. • Exercise control plans.	• Training support packages (TSPs). • Administrative and logistic support plans. • Training and proficiency verification. • Coordination of training events and plans. • Training guidance and calendars.
Near-term planning	Actions involving-- • Acquisition of training materials and resources. • Training site reconnaissance. • Risk management. • Coordination of training events and resources. • In-process reviews (IPRs). • Exercise briefing.	• Pre-LTX training. • Unit familiarization. • Rehearsals. • Validation of training plans and materials. • Final coordination. • Pre-execution checks.

Section II
Conduct Long-Range Planning

3-5. Section Overview.

Section Index

a. This section covers the following long-range planning procedures. In general, these procedures are performed sequentially.

Importance

b. During the long-range planning phase, the commander identifies general training needs and initiates the lane training planning process.

3-6. Review Training Guidance.

Action

a. Commanders review command training guidance from higher headquarters.

Description

b. Training guidance may include information concerning--
- Assessment of METL proficiency.
- METL or battle tasks to be trained.
- Training strategy, objectives, and priorities.
- Direction to use the lane training process.
- Future training events.
- Allocation of resources.
- Impact of new equipment.
- Evaluation and feedback.

3-7. Conduct a Unit Assessment.

Definition

a. **Unit assessment** - An evaluation of a unit's training proficiency level in terms of training strengths and weaknesses.

Purpose

b. The unit assessment identifies general training strengths and weaknesses, allowing the commander to plan training which sustains unit strengths and improves unit weaknesses.

Procedures

c. The commander conducts a unit assessment. Procedure:

Step	Action
1	Analyze evaluations, reports, records, assessments by commanders, and observations by leaders such as-- • Training Assessment Model (TAM) data. • External evaluations. • Take-home packages. • Annual training reports. • Leader books.
2	Consider-- • Recent and future events: •• New missions or METL tasks. •• Force structure changes. •• New equipment fielding. •• Personnel turnover. • Resource availability.
3	Identify general areas of training strengths and weaknesses. Potential training needs include-- • Tactical training. • Technical training. • Command and control training: •• Battle staff training. •• Combined arms training. •• Joint services training.

3-8. Develop a Training Strategy.

Definition

a. **Training strategy -** A general description of the methods and resouroes required to implement a training concept. It lays out the "who, what, where, when, why, and at what cost" for training.

Purpose

b. The purpose of a training strategy is to determine major training events and activities to improve or sustain proficiency on mission essential tasks.

Training Need

c. The training strategy determines whether the lane training process will be used to satisfy the training need.

Situations

d. Paragraph 1-2b lists situations which are appropriate for using lane training.

Guidance

e. The Combined Arms Training Strategy (CATS) provides guidanoe for development of unit training strategies.

Procedures

f . The commander develops a general training strategy. Procedure:

Step	Action
1	Review training guidance (e.g., CATS), METL, level of training readiness, operating tempo (OPTEMPO), and available resources.
2	Confirm the training need; i.e., the "why."
3	Determine who, what, where, and when to train.
4	Determine the logical sequence in which to execute the training.
5	Determine the types of training exercises to be used; e.g., LTX.
6	Determine frequencies for each task.
7	Coordinate major training events; e.g., exercises.
8	Match projected resources to the training requirements.
9	Provide input to the commander's training guidance.

3-9. Issue an Exercise Directive.

Importance

a. The exercise directive initiates the exercise development process.

Procedure

b. The commander, higher headquarters, exercise division, or regional training brigade issues an exercise directive. Procedure:

Step	Action
1	Appoint an exercise director and planners to manage exercise planning and execution.
2	Specify the type of exercise to conduct; e.g., LTX.
3	State the exercise objectives. Objectives should be-- • Specific (to the extent possible). • METL-focused. • Relevant. • Realistically attainable. • Measurable. • Organized. A good organizational technique is to list objectives by functional area or battlefield operating system (BOS); i.e.: •• Intelligence. •• Maneuver. •• Fire support. •• Mobility, countermobility, and survivability. •• Air defense. •• Combat service support. •• Command and control.
4	Indicate the time frame for the exercise, its tentative location, and its expected duration.
5	Identify critical events and milestones.
6	Prescribe the types and numbers of participating units.
7	Identify the types and quantities of special equipment required.
8	Provide additional information such as funding, safety, environment, and pertinent assumptions.

Exercise Director	c. The exercise director is responsible for managing all exercises during a specific training period. The director is normally assigned by the leader two levels above the unit on the lane (or by an exercise division or regional training brigade).
Planners	d. Exercise planners serve as staff for the exercise director.
Coordination	e. The exercise director coordinates the exercise directive with all participants.

3-10. Include Lane Training Activities in Guidance and Calendars.

Action	Brigade and battalion commanders include lane training activities in commanders' training guidance and long-range planning calendars (e.g., master or yearly training calendars).

3-11. Paticipate in Lane Training Planning Meetings.

Action	a. During long-range, short-range, and near-term planning, the exercise director, commanders, staffs, and advisors participate in lane training planning meetings and IPRs.
Topics	b. Planning meetings address actions, milestones, and their status.

Section III
Conduct Short-Range Planning

3-12. Section Overview.

Section Index

a. This section covers the following short-range planning procedures. In general, these procedures are performed sequentially, but some may be performed simultaneously.

Importance

b. During the short-range planning phase, the commander, exercise director, and exercise planners select tasks for lane training and produce the detailed plans and training materials needed to support the LTX.

Key Product

c. One of the key products produced during short-range planning is a TSP used to plan for, conduct, and assess an LTX.

3-13. Conduct a Training Assessment.

Definition

a. **Training assessment -** A detailed evaluation of the unit's METL training proficiency which focuses on training deficiencies. It compares individual (soldier and leader) and collective task proficiency with Army standards.

METL Tasks

b. The company is the lowest level unit to have a METL. The METL tasks should have been identified during the commander's METL development process which precedes the planning phase of the lane training process. FM 25-101 provides guidance on how to develop METL tasks.

Procedure

c. The commander conducts a training assessment of the unit's current and projected MFTL proficiency. Procedure:

Step	Action
1	Identify training strengths and weaknesses for each high payoff METL task and battle task. Procedure:
	a. List missions.
	b. List METL tasks resulting from the METL development process.
	c. Analyze available training evaluations; e.g.-- • Internal and external evaluations. • Operational readiness evaluations. • Take-home packages. • Gunnery results. • Lessons learned. • TAM data. • Annual training reports. • AAR. • Leader books and battle rosters. • Observations and assessments by leaders.
	d. Consider training issues. For example: • Individual and collective tasks, conditions, and standards. • Individual and collective task proficiency. • Unit goals and objectives. • Higher headquarters' command training guidance. • Recent or future events; i.e., changes in-- •• Doctrine. •• Organizations. •• Equipment. •• Personnel. •• Proficiency or performance. •• Training. • Types of training needs: •• Tactical training. •• Technical training. •• Command and control training: ••• Battle staff training. ••• Combined arms training. ••• Joint services training.
	e. Assess proficiency on METL tasks using automated systems or locally developed worksheets (using the BOS as a guide). Rate each task as either-- • "T" (trained) - The unit can successfully perform the task to standard. Only sustainment training is needed. • "P" (needs practice) - The unit can perform the task with some shortcomings, which are not severe enough to require complete retraining. Only refresher training is required. • "U" (untrained) - The unit cannot perform the task to standard. The unit requires training on the task.
2	Identify a strategy for each METL task to improve or sustain training proficiency (e.g., type of training, type of exercise, SOP).

3-14. Determine Training Requirements.

Definition

a. **Training requirements -** The critical tasks units and soldiers must be able to perform to the standard required if they are to be able to fight, win, and survive during military operations. Training requirements are the differences between demonstrated and desired levels of proficiency for mission essential or battle tasks.

Procedure

b. The commander, with support of the exercise director and exercise planners, determines training requirements. Procedure:

Step	Action
1	Select priority METL tasks. Consider-- • Battle tasks of next higher echelon. • Tasks which support the METLs of parent units. • The level at which the tasks are accomplished. • Tasks which are battle-focused. • Higher headquarters' guidance. • Commander's METL analysis. • Commander's training assessment. • Integration of CA, CS, and CSS assets. Use the BOS to plan integration.
2	Select tasks for training and evaluation. Procedure:
	a. List supporting collective, leader, and other individual tasks (resulting from the METL development process) that support the selected METL or primary tasks. • If they have not been identified previously, use the following sources to identify these supporting tasks: MTPs, battle drills, FMs, TCs, STPs, TMs, unit leaders, subject matter experts, training proponents, and other sources. Review the mission-to-collective task matrices and training and evaluation outlines (T&EOs) in MTPs. Appendix B and FM 25-101 provide guidance on how to identify supporting tasks for METL. • Conduct a task support check; i.e., ensure each METL or primary task has at least one collective, leader, or other individual task that supports it.
	b. Consider other tasks: • High payoff tasks for training; i.e., tasks which support more than one METL task or are major collective tasks. • Prerequisite tasks for which proficiency is considered low. • Tasks requiring the involvement of several MOSs (e.g., CA, CS, and CSS), units, and levels of the chain of command. • New contingencies. • Specific training needs.
	c. Consider sampling soldier proficiency on prerequisite tasks to determine if those tasks require pre-training or selection as tasks for separate or prerequisite lanes.
	d. Consider selecting tasks for training based on difficulty, importance, or frequency of performance (see Appendix C).
3	Review task performance standards. Increase them if needed.
4	Change conditions for tasks to meet METT-T requirements.
5	Review task steps and performance measures. Modify them if needed.

NOTE: The procedures listed above determine not only training requirements in terms of tasks, but also training objectives (tasks, conditions, standards), task steps, and performance measures. This information will be used later to evaluate existing T&EOs or develop new ones.

3-15. Develop the Training Plan.

Definition

a. **Training plan -** A description of the actions, milestones, and resources required to implement a training strategy.

Procedure

b. The exercise director develops a training plan for the LTX in coordination with the training unit commander and exercise planners. Procedure:

Step	Action
1	List actions required to train and evaluate the tasks selected as training requirements.
2	Identify associated milestones.
3	Identify who is responsible for completing the action.
4	Estimate the resources required to support OCs, OPFOR, and the training units. Sources of information include modified tables of organization and equipment (MTOEs), tables of distribution and allowances (TDAs), MTPs, STPs, and files concerning previous exercises.
5	Confirm the availability of training resources.
6	Adjust the plan to accommodate projected resources.
7	Brief the plan to the appointing authority.

Resources

c. Resources which may be required include the following:

Category	Example
Operations	• Time.
Administrative	• Administration. • Doctrinal and training publications (e.g., FMs, TCs, MTPs, battle drills, STPs, and TMs). • Field post exchange. • Finance. • Mess. • Medical. • Quarters. • Shower points.
Personnel	• OCs. • OPFOR. • Customers. • Role players.
Logistics	• TADSS (e.g., MILES). • Equipment and supplies (e.g., vehicles, radios, phones, computers). • Other supplies (e.g., maps, paper, rations, water). • Weapons. • Ammunition and pyrotechnics. • POL. • Maintenance (e.g., special tools and equipment, TMs).
Facilities and training areas	• Maneuver areas. • Training facilities and ranges. • Operations facilities and areas. • Motor pools. • Maintenance areas.

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Resources c. *(Continued)*

Category	Example
Facilities and training areas *(Continued)*	• Logistics areas (e.g., ammo supply point, logistics release points). • Administrative buildings. • Billets.
Funds	• Funds for items listed previously. • Travel. • Transportation.

Note: An LTX for some units may require pre-positioning a complete set of organizational equipment (to include special tools, repair parts, and reference materials) to permit "turnkey" training execution upon arrival of unit personnel at the LTX area. This pro-positioned package can be used by several units rotating through the LTX.

MOA d. The planning and coordination meetings may result in a memorandum of agreement (MOA) between units being trained and supporting units (e.g., exercise divisions).

MOA Contents e. The MOA should address--
- Units to be trained.
- Supporting units.
- Collective tasks and battle drills.
- OPFOR counter-tasks.
- Dates of the exercise.
- Training areas, ranges, and facilities to be used.
- Safety and environmental issues.
- Resource commitments.
- Responsibilities.
- TADSS.
- Special support requirements.

3-16. Receive Exercise Guidance.

Action a. The exercise director receives exercise guidance from the appointing authority.

Contents b. The guidance includes the following information:
- Changes to the training and evaluation plan.
- Confirmation of the decision to use the lane training technique.
- Scenario focus; i.e., potential threats, environment.
- Tasks to be conducted under unique conditions; e.g., limited visibility, live fire, NBC environment.
- Available resources.
- Other guidance, such as--
  - Integration of CA, CS, and CSS assets.
  - OPFOR training.
  - OC training.
  - AAR execution.

3-17. Refine the Training Plan.

Procedure The exercise director, exercise planners, and unit commander refine the training plan. Procedure:

Step	Action
1	Organize selected collective tasks into LTXs. Procedure:
	a. Use an existing LTX, if the LTX adequately addresses a collective task selected for training.
	b. Create a new LTX for each primary collective task or group of tasks selected for training (for those tasks not already addressed by an LTX). • Each LTX lane may consist of one or more steps (supporting tasks) or training events. • Consider STX plans, T&EOs, and task descriptions (i.e., TCS) from existing materials (e.g., LTX TSPs, MTPs, STPs, FMs, TCs, TMs, unit SOPs, commanders' guidance, and similar sources). LTX TSPs, T&EOs, or task descriptions may have been developed for previous exercises, may be available from other units, or may be included in lane training reference materials. • Sequence lanes and events within lanes so the tasks trained are progressive, sequential, and based on a "building block" approach.
	c. Develop a list of selected LTXs from existing and proposed LTXs.
2	Identify units or elements to be trained on each LTX. ***Note:*** This step may precede step 1, especially for CS/CSS units. This information also may be included in exercise guidance.
3	Consider integrating CA, CS, and CSS units. Use the BOS to plan integration.
4	Consider using simulators or simulations for pre-LTX preparation (i.e., pre-training, verification, rehearsals, plans and materials validation) or LTX training.
5	Consider using simulations as training opportunities for staffs when most subordinate units are involved with LTXs. However, commanders and their staffs will require time to observe their units perform lane training.
6	Conduct a general safety and environmental risk management assessment of conditions under which LTXs will be conducted. See guidance in appropriate MTP and Appendix E.
	a. Decide whether to perform a hasty or deliberate risk assessment.
	b. Conduct risk assessment.
	c. Identify potential risk control options to eliminate or reduce each hazard. Risk-reduction options include eliminating the hazard, controlling the hazard, changing operational procedures, educating, and motivating.
	d. Make risk decisions.
	e. Implement risk control actions.
	f. Supervise the implementation of controls throughout the operation or training execution.
	g. Assess the effectiveness of risk management during both planning and execution.
	h. Take corrective action if needed.
7	Obtain approval of LTX plans by the commander and higher headquarters.
8	Provide planned LTX tasks to subordinate units.

3-18. Plan for Supporting Plans and Materials.

Written Documentation

a. Effective lane training requires thorough planning. Planning is primarily a thought process; however, written plans document and help communicate decisions reached during planning.

Minimize Preparation Requirements

b. Although detailed planning is essential, exercise planners should minimize administrative documentation requirements. The planning documentation objective is to prepare only those plans, training, and assessment materials needed.

Requirements Vary

c. The degree of planning documentation required varies depending upon the--

- Type (or organizational level) of the unit conducting exercise planning or the units being trained.
- Number of LTXs, units, and personnel involved.
- Guidance from the commander.

Procedure

d. The exercise director and the training unit's chain-of-command plan for supporting exercise plans and materials. Procedure:

Step	Action
1	Decide what plans and materials will be required.
2	Assign responsibility and milestones for completion of exercise plans and materials. ***Note:*** A milestone schedule is frequently used to list the plans and materials required for an exercise along with their preparation start dates, completion or approval dates, and the organizations or personnel responsible for completion.
3	Approve plans and materials.

Plans and Materials

e. Recommended lane training plans or materials are listed below; however, some may not be essential for each LTX:

- T&EO (for each collective task).
- Outline plan (for each LTX, addressing each lane).
- Control plan (for each LTX or group of LTXs).
- TSP, including lane book (for each LTX).
- Training and verification plan (for each LTX or group of LTXs).

Note:

- Internally supported lane training may require only extracts of T&EOs from MTPs and task descriptions from STPs.
- Externally supported lane training may require more elaborate and documented plans.
- FM 25-4 describes numerous plans required for exercises. Potential plans are listed below; however, many may not be needed for LTXs, Although there are issues associated with these plans which may need to be addressed during LTX planning, many of the plans may be omitted or incorporated into other plans, operational orders, or SOPs:
  - Administrative/logistics plan.
  - Civil-military operations plan.

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- Claims plan.
- Communications plan.
- Comptroller plan.
- Contingency plan.
- Emergency or readiness measures plan.
- Evaluation plan.
- Information plan.
- Intelligence plan.
- Maneuver damage control plan.
- Movement plan.
- Operations plan.
- Orientation and AAR plan.
- Records and reports plan.

3-19. Select T&EOs.

T&EO

a. Following is a definition and description for a T&EO:

Definition	**Training and evaluation outline (T&EO) -** A summary document, prepared for each training activity, that provides information on collective training objectives, related individual training objectives, resource requirements, and applicable training procedures. They form the basis for training, internal evaluations, and formal external evaluations.
Description	A T&EO provides the training objective (i.e., TCS) for a collective task which supports unit critical military operations in terms of a specific mission or task for a given size and type unit. T&EOs for some collective tasks are included in MTPs. They are the foundation for lane training.

Contents

b. A T&EO contains the following information:

- Element (unit).
- Task.
- Conditions.
- Task standard.
- Task steps and performance measures, including references.
- Areas for evaluation information (e.g., GO/NO GO).
- Supporting individual tasks (i.e., soldier and leader).
- OPFOR tasks and standards.

Prepare Early

c. T&EO selection or preparation must occur before the near-term planning phase for battle-focused training. T&EOs are needed to conduct detailed LTX planning, prepare TSPs, and identify resource requirements early enough to acquire them prior to the conduct of training.

Training Outline

d. Following is a definition and description for a training outline:

Definition	**Training outline -** An organized outline of the training material to be presented. It may identify tasks, conditions, standards, task steps, performance measures, references, resources required, facilities required, safety factors, environmental considerations, and risk factors.
Description	For lane training, the training outline supplements a T&EO by providing the OC or trainer additional information needed to plan and conduct training. Although it may have the same types of information as a T&EO, a training outline adds specificity and focus.

Procedure

The exercise director selects a T&EO for each task. Procedure:

Step	Action
1	Compare the previously developed training requirements with T&EOs, training objectives, task steps, and performance measures from MTPs, battle drills, STPs, TMs, or similar publications.
2	Select an existing T&EO if it adequately addresses the task selected.
3	If a T&EO does not exist or is not adequate, then do one of the following: • If a T&EO does not exist, develop a new T&EO. • If an existing T&EO is not adequate, do one of the following: •• Modify the T&EO by annotating changes or revising it. •• Develop a training outline to supplement the existing T&EO. ***Note:*** • Use the guidance in Appendix D and FM 25-101. • Use automated capabilities (e.g., SATS, RCAS), if available. • The standards for tasks found in MTPs and STPs are minimum Army standards; they may be increased, but not lowered.

3-20. Develop Outline Plans.

Outline Plan

a. Following is a definition and description for an outline plan:

Definition	**Outline plan -** The framework used to build the scenario.
Description	For an LTX, the outline plan is the framework used to build the scenario for each lane in the LTX area. The plan addresses-- • Sequence of events. • Each lane's location, key events, control features, and AARs. • Tentative schedules. • Control measures.

Procedure b. The exercise director develops an outline plan for each LTX. Procedure:

Step	Action
1	Select an LTX to develop. ***Note:*** Use available automated systems.
2	Determine what must be done. Analyze the following-- • Exercise directive and other guidance. • Training objectives. • Collective and individual task lists for the LTX. • Additions or deletions to the recommended task lists. • Specific tasks to be conducted under unique conditions; e.g., limited visibility; live fire; NBC. • T&EOs and task descriptions. • Scenario focus (for situation development). • Integration of CA, CS, and CSS assets. • Supporting OPFOR tasks (i.e., counter-tasks). • Supporting and related plans, T&EOs, and materials (e.g., MTPs, drill books, STPs, FMs, TCs, TMs, unit SOPs, commanders' guidance). • Outline plans and TSPs for similar LTXs.
3	Review resource availability. • Check the annual and quarterly unit training guidance. • Consider the resource requirements listed in paragraph 3-15c. • Use available automation support to forecast and schedule resources.
4	Select the general area (land or facilities for the exercise). • Coordinate with installations for training areas. • For land, study maps and photos to identify terrain suitable for each LTX lane. Analyze the land to determine its military features (e.g., observation and fields of fire, cover and concealment, obstacles, key terrain, avenues of approach). • For facilities, study floor plans or blueprints to identify space suitable for each LTX lane.
5	Develop a tentative scenario (i.e., sequence of events for tasks or task steps).
6	Conduct a reconnaissance of potential training areas.
	a. Coordinate with installations for training areas.
	b. Consider-- • Activities, terrain, and facilities required to satisfy T&EOs. • The use of chemical agents and decontamination requirements. • The impact of tactical engagement simulations. • The effect of low visibility operations. • Maneuver damage, environmental considerations, and safety.
	c. Visualize military operations (i.e., enemy/OPFOR and unit actions) and possible locations. Determine how the terrain or facilities will affect each sequence.
	d. Identify possible locations for key events and control features; e.g., OBJ, PL, AA, SP, LD, RP.
	e. Identify possible locations for OPFOR activities or positions where specific actions are to take place.

(Continued on next page)

Procedure b. *(Continued)*

Step	Action
	f. Identify possible locations for AARs. Determine when AARs will be conducted, based on the scenario. Consider-- • A scheduled AAR immediately after completion of lane execution, after change of mission, or after key events. However, avoid scheduled stop points for AARs during lane execution. They interrupt the natural flow of events, thereby reducing realism. They also may require restarting the lane, not just resuming execution. If too many events are in one lane (or LTX) for the training level of the unit, consider breaking the LTX up into several LTXs with fewer tasks. • Potential (unscheduled) stop points during lane execution for AARs (e.g., after difficult events). • Where the majority of the action occurs. • Where the most critical events take place. • Where the soldiers can observe the lane. • Where the soldiers will be comfortable. • Time for subordinate elements of the unit to conduct AARs prior to higher level AARs (e.g., platoon AARs prior to company AARs). • The need for an AAR at the end of a series of LTXs.
7	Select lane, event, and AAR locations. Adjust the event sequence if needed. Recommended techniques: • Select a final objective and schedule other events and locations using backward planning. • Select a final objective and schedule other events and locations starting from the initial assembly area.
8	Refine the scenario to accommodate the above decisions.
	a. Consider the following: • Sequence of events. • Each lane's location, key events, control features, and AARs. • Tentative lane or LTX schedules. • Control measures.
	b. Use these guidelines: • Tailor the tasks, conditions, and standards to the desired METT-T. • Tailor the scenario to suit the unit, METT-T, resources, and tasks to be trained. • Design training so the tasks to be trained will be achievable, realistic, progressive, sequential, and based on a "building block" approach. • Consider multiechelon training. • Consider multifunctional training. •• Incorporate CA, CS, and CSS activities; e.g., refueling operations, rearming operations, vehicle and weapon system evacuation, casualty evacuation procedures. •• Consider the BOS functions and associated slices of CA, CS, and CSS unit assets. • Consider the use of TADSS. • Plan for performance-oriented, hands-on training.

(Continued on next page)

Procedure b. *(Continued)*

Step	Action
	c. Incorporate OPFOR-related information from the S2/G2 such as-- • Theater of operations and country names based on unit operation plans and world events. • OPFOR situation, units, tactics, responsibilities, and special instructions. • Intelligence information distribution.
	d. Confirm the training sequence for each LTX lane.
	e. Confirm the control measures used to guide the exercise. Control measures, such as boundaries and phase lines, are essentially the same as those for actual operations.
	f. Guide the progress of the exercise by using a lane or LTX timeline (sequence and duration of events), simulated enemy actions, situation reports, and mission orders for the training unit and the OPFOR; e.g., OPORDs, fragmentary orders (FRAGOs), or warning orders.
9	Anticipate problems that may prevent the exercise from progressing as outlined; e.g., effects of adverse weather, unavailability of special personnel or equipment.
10	Review the outline plan to ensure accuracy and consistency.

Note: When there will be a series of LTXs, consider using a common general scenario to link them (e.g., same enemy units, same major systems or equipment to service or repair).

3-21. Plan for AARs.

Description a. AAR planning supports the conduct of AARs during the execution phase of the lane training process. It includes the AAR planning that takes place during development of outline plans. Chapter 5 provides additional information on AARs.

Procedure b. The exercise director conducts PAR planning for each LTX (considering each lane). Procedure:

Step	Action
1	Answer the following questions: • When and where will AARs be conducted? If scheduled during lane execution, ensure they are at logical breaks in the scenario. • Who will attend the AAR? • Who will observe the training? • Who will conduct the AAR? • What will OCs evaluate? •• Will some focus on specific portions of the T&EOs? •• Will some focus on other portions of the T&EOs? •• Will some focus on actions at specific locations? • What training aids will be used during the AAR (e.g., maps and overlays, terrain models, equipment and personnel models, charts, slides, viewgraphs, video or voice recordings)? Include formats for charts, slides, and viewgraphs. • Will there be AARs for unit elements before the unit's AAR? Where, when, and by whom will they be conducted?

(Continued on next page)

Procedure b. *(Continued)*

Step	Action
	• How long will the AAR take? •• Plan up to one hour for platoon-level AARs. •• Plan up to two hours for company-level AARs. • How many OCs will be required for the LTX lane? Consider OCs needed to-- •• Observe locations for key events (i.e., be stationed at the event location). •• Accompany each leader or element of a unit. •• Alert participants to potential safety or environmental hazards. • Which OCs will observe which events? • What will be the content for AAR performance worksheets (i.e., matrix of events vs. tasks, task steps, or techniques with space for recording evaluation of performance)? • What statistics should OCs collect? • What will be the structure of the AAR? • What training will OCs receive? • When and where will AAR rehearsals be held? • What is the format of the after-action report?
2	Determine what actions are required to support each LTX's AARs.
3	Determine milestones for completion of actions.
4	Take action. Monitor status of actions.

3-22. Plan for Exercise Control.

Action a. The exercise director plans for exercise control for all LTXs.

Description b. Synchronization of exercise activities, especially for several LTXs or units, requires thorough planning. Planning for exercise control normally involves preparation of control plans for each LTX and for overall management of all LTXs. Exercise control plans provide instructions for controlling and evaluating one or more LTXs and for organizing the exercise control center's control group. Exercise control plans can include--

- A description of the organization for training.
- Command and control organization chart.
- OC organization chart.
- OPFOR organization chart.
- Tables of manpower and equipment requirements.
- Tables of personnel assigned by duty position.
- Responsibilities.
- Training and verification plans (for key leaders, OCs, and OPFOR).
- Transportation.
- Training schedules; e.g., master exercise schedule, LTX schedules, lane schedules (if not included elsewhere).
- Communications; e.g., nets, equipment.
- Uniform markings, color control, and exercise rules.
- Rules of engagement (ROE).
- Safety and environmental instructions.
- Reports and formats.
- Take-home package contents and formats.

Net Users

c. The potential users of communications nets are as follows:

Net	Potential User
Unit command and administration	Training unit
Fire request	Training forward observers
Exercise control	OCs
Fire marker control	Fire markers
Exercise administration and logistics	All

3-23. Prepare LTX Training Support Packages (TSPs).

Definitions

a. Following are key definitions:

TSP	A complete, exportable package integrating training products, materials, and information needed to train one or more critical tasks.
LTX TSP	A TSP containing information used to plan, execute, and assess an LTX. ***Note:.*** • An LTX TSP includes information needed by OCS, OPFOR, and the training unit to plan and execute lane training for a single LTX, although each group only needs a portion of the TSP. • It may contain information pertaining to a single lane or to more than one lane. • It includes the plans or materials developed during short-range planning and refined during near-term planning.
Exercise TSP	A TSP containing general information used to conduct exercises. It includes information needed by the ECC, OCs, and OPFOR. ***Note:*** For lane training, an exercise TSP usually pertains to several LTXs (e.g., master exercise schedule, handbooks). It augments LTX TSPs.
Lane Book	A reference document containing information needed to train a unit on one specific LTX. It includes a portion of the information contained in an LTX TSP. A lane book may be tailored to the specific user of the document; e.g., unit lane book, OC lane book, OPFOR lane book.
Handbook	A reference document or job aid which provides guidance on responsibilities, procedures, or other essential information for a specific group of users. ***Note:*** For lane training, handbooks usually provide guidance applicable to all LTXs. Handbooks may be tailored to the specific user of the document; e.g., OC handbook, OPFOR handbook.

Purpose for LTX TSP

b. An LTX TSP provides the means to standardize task training and reduce the training development workload by preparing a product one time and either using it repetitively or sharing its use.

Procedure

c. The exercise director prepares TSPs to guide the execution of training. Procedure:

Step	Action
1	Determine the type of TSP to be developed; e.g.,-- • LTX TSP (one for each LTX). • Exercise TSP (one to augment several LTX TSPs).
2	Determine which materials will be prepared or included in the TSP.
3	Prepare the selected material for the TSP. • The elements of each document may vary, depending upon the LTX tasks selected, training area, number of LTXs, and needs of the unit. • Extract appropriate information from existing materials; e.g., outline plans, lane books, TSPs, MTPs, battle drills, STPs, FMs, TCs, TMs, unit SOPs, and similar doctrinal, training, or technical publications. • Prepare additional information considered essential.
4	Confirm the lane book satisfies training requirements and constraints.
5	Verify doctrinal accuracy.

LTX TSP Contents

d. The potential contents for a TSP for one LTX are listed below. Note the minimum LTX TSP contents are components of the lane book (the primary component of an LTX TSP).

Recommended Minimum LTX TSP Contents (Lane Book)

- Lane book (generic):
  - Introduction (description of LTX).
  - List of collective tasks trained.
  - List of supporting individual tasks.
  - General and special situations (scenario).
  - Operations orders (OPORDS); i.e., initial OPORD, fragmentary orders (FRAGOs), and warning orders.
  - Lane diagram.
  - Lane or LTX timeline or schedule.
  - Task summary status sheet for each unit.
  - T&EOs.
  - Safety and environmental guidance.
  - Risk assessment model and worksheet.
  - ROE.

Other Potential Contents for LTX TSPs or Lane Books

- Training outlines.
- List of OPFOR collective countertasks.
- List of supportng individual tasks for the OPFOR.
- Individual task descriptions.
- Control plan.
  - Organizational diagram for the LTX's OCs and OPFOR.
  - List of OC team duty positions for LTX (perhaps with names of assigned personnel).

(Continued on next page)

- Map extract for specific LTX lane (i.e., one for each lane in the LTX area).
- Training and verification plan.
- Lane training planning timeline.
- Matrix of collective tasks vs. suppoting soldier tasks.
- Maps and overlays.
- AAR plan.
- Master scenario events list.
- Event guide.
- Training schedule.
- Retraining plan.
- LTX lane site preparation.
- Resource requirements (see paragraph 3-15c).
- TADSS instructions.
- OC or OPFOR special instructions.
- MOA (between units involved in the LTX) addressing support.
- Reference materials; e.g., handbooks, SOPs.
- Take-home package contents and information display formats.

Exercise TSP Contents

e. The potential contents for an exercise TSP supporting several LTX and units includes the following:

- Master exercise schedule.
- List of LTX TSPs supported.
- Schedules for each supported LTX.
- Handbooks.
- Schedules for use of critical resources during the LTXs (e.g., OPFOR, TADSS, training areas or facilities).
- MOA (between units involved in the exercises).
- Other plans, if needed but not incorporated in other materials.
  - Administrative and logistic plan or handbook.
  - Civil-military operations plan.
  - Claims plan.
  - Communications.
  - Comptroller plan.
  - Contingency plan.
  - Emergency or readiness measures plan.
  - Evaluation plan.
  - Information plan.
  - Intelligence plan.
  - Maneuver damage control plan.
  - Movement plan.
  - Operations plan.
  - Orientation and AAR plan.
  - Records and reports plan.
- Other information (e.g., visitor control).

Packaging

f. The exercise director determines the contents of the exercise TSP, LTX TSPs, lane books, and handbooks. This information can be organized and packaged in a variety of ways depending upon the needs of the user and the frequency of revision. One method for packaging the information is as follows:

(Continued on next page)

Unit Lane Book	This material is usually provided to the training unit several months prior to the scheduled LTX. It may include the information previously described for a generic lane book plus the following: • MOA between units involved in conducting and training in the LTX area. • LTX planning timeline. • Guidance on related subordinate leader and collective training that the unit leader may wish to consider for training before conduct of the LTX. • Tips that will aid the unit leader in preparing and executing the lane. ***Note:*** This is normally part of a pre-LTX package provided the training unit to aid it in preparing for the LTX. This package may also include an orientation guide to the training area, maps and overlays, demonstration videos (e.g., simulators, units conducting successful LTX), TADSS operator manuals, and lessons learned from previous LTX.
OC Lane Book	This lane book is used by OCs (and possibly OPFOR) to conduct a specific LTX. It usually contains the same information as in the generic lane book plus additional information as follows: • Special instructions to OCs and OPFOR; e.g., timing of actions, AARs. • List of OPFOR collective countertasks (with T&EOs) and supporting individual tasks (with task descriptions). • Lane diagram (one for each lane in the LTX area). • LTX communications network diagram. • LTX or lane schedule.
OC Handbook	This is an OC reference document, usually containing OC SOPs and general information which pertains to any LTX, or even other types of exercises. Possible contents includes general information concerning-- • OC duties, responsibilities, and procedures. • AAR procedures. • General safety and environmental guidance. • First aid procedures. • Comprehensive ROE.
OPFOR Handbook	This is an OPFOR reference document, containing OPFOR SOPs and general information which can pertain to any LTX. Possible contents includes general information concerning-- • OPFOR duties, responsibilities, and procedures. • AAR procedures • Safety and environmental guidance. • First-aid procedures. • Comprehensive ROE.

Lane Book Contents

g. The recommended contents for a lane book for one LTX are indicated below:

Component	Description
Cover sheet	Includes: • LTX title (primary task trained). • The type unit for which the lane book is prepared.
Table of contents	Lists major components with page numbers.
Introduction	Normally addresses-- • The type unit the LTX is designed to train. • LTX title (primary task trained). • Training objective. • The military operations the LTX supports.
List of collective tasks trained	Lists collective tasks and battle drills trained. Includes primary collective tasks, battle tasks, prerequisite tasks, and associated tasks trained. Indicates task numbers and titles by MTP or drill book. This may include tasks for habitually attached and supporting units that may be trained with the LTX. Optionally includes lane book page numbers for each T&EO included.
List of collective tasks for OPFOR	Includes the same information as above for OPFOR collective tasks and battle drills. It may be included on the same page as tasks for the training unit.
List of individual tasks	Lists supporting individual (leader and soldier) tasks. Indicates STP number, task number, and task title. The lists may include tasks for members of habitually attached and supporting units that may be trained with the LTX. Optionally includes lane book page numbers for each task description included. OPFOR individual tasks may be included at the end of the list or on a separate page.
General and special situations	Includes: • Description of the general situation. • Description of the special situation or scenario. ***Note:*** See MTP STX plans for examples.
Orders	Sample OPORDs, FRAGOs, or warning orders for the training unit and the OPFOR. May be developed for each lane. ***Note:*** See MTP STX plans for examples.
Lane diagram	A graphic scenario or sketch of events (tasks or task steps) and control features. May be developed for each lane. ***Note:*** See paragraph 1-8 and MTP STX plans for examples.
Lane or LTX timeline or schedule	A list of sequential events (e.g., task steps or tasks) with estimated duration of events (timeline) or estimated times for starting and completing events (schedule). May be developed for each lane. ***Note:*** See MTP STX plans for examples.
Unit task summary sheet	A list for one unit of collective task titles, T&EO numbers, task steps (optional), and evaluations (as "GO" or "NO GO").
T&EOs for training	T&EOs for the training unit's tasks trained during the LTX. ***Note:*** May be extracted from MTPs. See Appendix D and MTPs for examples.
T&EOs for OPFOR	T&EOs for OPFOR counter-tasks.

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Lane Book Contents

g. *(Continued)*

Component	Description
Individual task descriptions	Individual task descriptions for the unit's soldiers and the OPFOR (or references to specific sources; i.e., STPs, FMs, TCs, TMs). ***Note:*** May be extracted from STP.
Safety and environmental guidance	Safety and environmental guidance tailored to the specific LTX or lane. This guidance emphasizes or supplements general guidance included in OC handbooks supporting all LTXs. ***Note:*** See Appendix E for examples.
Risk assessment model and worksheet	Risk assessment model and blank worksheets. One may be completed for each lane. ***Note:*** See Appendix E.
Rules of engagement	ROE guidance tailored to the specific LTX or lane. This guidance emphasizes or supplements general guidance included in OC handbooks supporting all LTXs. ***Note:*** See Appendix F for examples.

Note: The exercise director determines the contents of lane books.

3-24. Plan for Administrative and Logistic Support.

Definition

a. **Administrative and logistic plan -** A plan which provides CS and CSS for operations or exercises.

Action

b. All participating units (primarily their G4/S4 and G1/Sl staffs) plan for administrative and logistic support and prepare plans, if needed.

Contents

c. Administrative and logistic plans address the following information (much of this information may already be included in an administrative and logistic handbook or documented plan):

Possible Contents	Possible Contents
• CS/CSS exercise play. • Training of CS/CSS units. • Personnel strengths and turnover. • Traffic control. • List of mandatory supply items. • Procedures for obtaining and maintaining training supplies. • Available supply rates for munitions. • Logistic requirements for special items: •• Decontamination materials. •• Fog oil. •• NBC simulators. • Increment travel schedules. • Travel arrangements; e.g., convoy, bus, aircraft. • Enroute emergency telephone numbers. • Strip maps to cantonment area.	• Vehicle parking and motor pool areas. • Wash racks. • Strip map to the lane from the garrison area. • Maintenance and repair parts. • Class I to X. • Lodging and shower facilities. • Laundry services. • Morale support: •• Mail. •• Field post exchange trucks. • Religious support. • Safety and environmental information. • Routine medical care. • Medical evacuation. • Facilities engineer support. • Financial resource considerations.

3-25. Plan for Training and Proficiency Verification.

Definition

a. **Training and verification plan -** A plan that describes the actions and milestones required to train personnel on primary and prerequisite collective and individual tasks prior to a military operation or exercise.

Action

b. The exercise director and the unit commander develop separate training and proficiency verification plans.

Focus

c. Training and verification plans address the training required for--
- Unit, OC, and OPFOR leaders.
- OCs.
- OPFOR.
- Personnel and units to be trained on the lane.
- Other personnel required to support the lane.

Contents

d. This plan can consist of a matrix listing tasks versus categories of personnel and indicating--
- How and when the training will be provided.
- How and when task proficiency will be verified.

Note: Consider the use of simulations for staffs, leaders, and others.

3-26. Coordinate Training Events and Plans.

Procedure for Exercise Director

a. The exercise director coordinates training events and plans. Procedure:

Step	Action
1	Integrate plans and requirements for all lanes to be conducted.
2	Prepare an OPLAN (possibly verbal orders), warning orders, or FRAGOs to initiate, continue, change, or halt operations.
3	Issue a memorandum of instruction (MOI) to all participants. It provides essential pre-LTX orientation information. The MOI may refer to plans, materials, or SOPs already distributed. It may include portions of the TSP.
4	Determine number, type, and duration of lane training events to accomplish METL training.
5	Prepare a detailed, coordinated master exercise schedule addressing all LTXs and all units to train on them.
6	Coordinate CA, CS, and CSS integration.
7	Select personnel and units to serve as OCs, OPFOR, and CS/CSS customers in support of the LTXs.
8	Estimate resource requirements for each event, considering requirements for OCs and OPFOR. See paragraph 3-15c for examples of types of resources possibly required.
9	Identify key events, activities, and requirements to the supporting headquarters.
10	Arrange for resource support. Confirm resource availability.

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Procedure for Exercise Director

a. *(Continued)*

Step	Action
11	Prepare MOAs between organizations involved in supporting the LTX, if needed. MOAs may address LTX dates, locations, missions, collective tasks and battle drills to be trained, command and control, OPFOR roles and tactics, and responsibilities.
12	Delete tasks from the planned training list if required resource support will not be available.
13	Conduct periodic IPRs.
14	Resolve issues.

Note: Some of these steps may occur earlier in the planning process.

Procedure for Unit Leader

b. The unit leader coordinates training events and plans. Procedure:

Step	Action
1	Develop supporting plans in coordination with other organizations and subordinate leaders.
2	Estimate resource requirements for each event. See paragraph 3-15c for examples of types of resources possibly required.
3	Identify key events, activities, and requirements to the supporting headquarters.
4	Arrange for resource support.
5	Coordinate modification to LTX if required resource support will not be available.
6	Coordinate refined plans.
7	Conduct periodic IPRs.
8	Resolve issues.

3-27. Include Lane Training Activities in Guidance and Calendars.

Action Commanders include lane training activities in annual and quarterly training guidance and calendars.

Section IV
Conduct Near-Term Planning

3-28. Section Overview.

Section Index

a. This section covers the following near-term planning procedures. In general, these procedures are performed sequentially, but some may be performed simultaneously.

Importance

b. During the near-term planning phase, the commander, exercise director, exercise support elements, unit leaders, and the unit's soldiers finalize exercise planning, coordination, and pre-LTX training in preparation for the LTX.

3-29. Acquire Training Guidance, Resources, and References.

Action

a. The exercise director and unit leaders acquire training guidance, resources, and references.

Purpose

b. The result of proper planning and coordination during the previous planning phases is the acquisition of all the guidance, training materials, and resources needed to prepare exercise support elements and the unit for the LTX.

Pre-Positioning

c. The exercise director should consider temporarily or permanently pre-positioning resources at the LTX site so units can begin training immediately after arrival.

3-30. Conduct a Reconnaissance of the Training Site.

Action

a. The exercise director, key OCs, and OPFOR leaders conduct a reconnaissance of the training site; i.e., LTX area.

Purpose b. The purpose of this reconnaissance is to--
- (Confirm the adequacy and accuracy of prior planning.
- I Prepare for rehearsals prior to the LTX.
- I Prepare for activities during the LTX.

3-31. Conduct Risk Management.

Procedure a. The commander, exercise director, and senior OC of each lane conduct risk management.

Purpose b. The purpose of risk management is to identify potential hazards and implement control measures to prevent--
- Injury or loss of life to personnel.
- Damage to equipment, facilities, and the environment.

Requirement c. Conduct a risk assessment of each scheduled training event and LTX lane prior to training execution.

Continuous d. Risk management is a function that must be performed throughout the planning, execution, and assessment process for training. However, it is at this point in the planning process that the use of risk management procedures is the most critical. This is the point at which sufficient information is available about the planned LTX that risk management planning can be the most effective.

Guidance e. Follow guidance in Appendix E, appropriate publications, and SOPs.

3-32. Coordinate Training Events, Activities, and Resources.

Procedure The exercise director and leaders coordinate training events, activities, and resources.

Step	Action
1	Review doctrinal and training material (e.g., MTPs, battle drills, exercises, T&EOs, FMs, TCs, STPs, TMs, SOPs).
2	Provide guidance and references to OCs, OPFOR, and unit members.
3	Ensure unit elements have been integrated into training.
4	Schedule time for pre-execution checks.
5	Publish detailed schedules; e.g., lane or LTX schedule, master exercise schedule. Consider the sequence of unit rotations through all LTXs.
6	Confirm verification of leader, OC, and OPFOR task proficiency during pre-LTX training (1-3 months for AC or 4-6 months for RC prior to the LTX).

(Continued on next page)

Procedure *(Continued).*

Step	Action
7	Gather and prepare training support items, equipment, and supplies; e.g., communications equipment, MILES equipment, other TADSS, Class III and IX items.

3-33. Conduct IPRs.

Action a. The exercise director conducts IPRs with the unit and exercise support element.

Participants b. IPR participants include the OPFOR leader, the senior OC for each LTX, the OIC of the ECC, staff personnel, unit leaders, advisors (e.g., RG, RTD, RTT), and other appropriate personnel.

Purpose c. The purpose of the IPRs is to confirm plans and preparations, including--
- OC team structure, training, and verification.
- OPFOR organization, training, and verification.
- Unit training and verification plans and status.
- LTX task lists.
- OPFOR task lists.
- LTX scenarios.
- Training resource availability.
- Milestones and status of actions.
- Other issues.

3-34. Conduct a Commander's Exercise Briefing.

Action a. The exercise director conducts an exercise briefing for the commander of the unit to be trained.
Note: This may be accomplished during IPRs.

Purpose b. The purpose of the briefing is to confirm plans and preparations, including--
- Training objectives and expectations.
- LTX task lists.
- Leader training.
- Resource requirements and limitations.
- Training guidance.
- ROE.
- Safety and environmental issues.

3-35. Conduct Pre-LTX Training for Trainers.

Action

a. The commander and exercise director conduct pre-LTX training and verification for trainers using lane training techniques.

Personnel Trained

b. The trainers to be trained include--
- Key unit leaders.
- OCs.
- OPFOR.

Procedure

c. The exercise director, senior OCs, OPFOR leader, and unit leader conduct pre-LTX training for OCs, OPFOR, unit leaders, and supporting personnel. Procedure:

Step	Action
1	Prepare to conduct pre-LTX training. • Review appropriate materials for the group to be trained; e.g., lane books, TSP, exercise plans, FMs, TCs, TMs, maps, orders. • Conduct training rehearsals for leaders and trainers (OCs and OPFOR personnel).
2	Conduct pre-LTX training. • Confirm safety and environmental considerations are met; i.e., conduct risk management. • Use the crawl-walk-run training process. • Use simulations, simulators, and other TADSS. • Use progressive training.
3	Verify task proficiency.

Methods

d. Potential training methods for conducting trainer training include--
- Professional development sessions.
- Classroom instruction.
- Map exercises.
- Fire coordination exercises.
- Command post exercises.
- Operations order preparation drills.
- Backbriefs.
- Reduced force rehearsals for specific tasks.
  - Map.
  - Sand table.
  - Rock drill.
  - Communications.
  - TEWT.
- Full force rehearsals.
- Simulations and simulators.
- Courses; e.g., service schools, U.S. Army Reserve Forces Schools, regional training sites.

OC Training

e. Potential topics for OC training include the following:

All LTX

Training applicable to all LTXS:
- I Lane training: roles, principles, and guidance.
- I Lane training management process and procedures.

(Continued on next page)

- OC role, responsibilities, and procedures (including pre-LTX, LTX, and post-LTX).
- OPFOR role, responsibilities, and procedures.
- Leader training.
- TLP.
- Rehearsal techniques.
- AAR process and procedures.
- Communications equipment and its operation.
- TADSS use and its operation; e.g., MILES.
- ROE.
- Exercise safety, environment, and risk assessment.
- LTX demonstration, rehearsal, and practical exercise.

Specific LTX Training applicable to a specific LTX or series of LTXs:
- LTX or lane scenarios.
- LTX tasks.
- OPFOR's counter-tasks.
- The training area and its regulations and restrictions.
- Safety and environmental protection requirements.
- Medical treatment and evacuation procedures.
- Administrative and logistical procedures.
- Control measures and communications.
- OC reporting responsibilities and report formats.
- Specific AAR procedures.

TADSS f. Pre-LTX training for trainers should incorporate the use of TADSS (especially simulations and simulators) for the training of OCs, OPFOR, and unit leaders.

Feedback g. If deficiencies in lane training plans or materials are noticed, inform exercise planners so deficiencies can be corrected. Feedback supports training validation of training, plans, and materials.

3-36. Conduct Pre-LTX Training for Unit Personnel.

Procedure a. Unit leaders conduct pre-LTX training for unit personnel. Procedure:

(Continued on next page)

Procedure a. *(Continued)*

Step	Action
2	Conduct pre-LTX training. • Confirm safety and environmental considerations are met; i.e., conduct risk management. • Use the crawl-walk-run training process. • Use simulations, simulators, and other TADSS. • Use progressive training.
3	Verify task proficiency.

Training b. The training addresses--
- Doctrine.
- TTP.
- Tasks to be performed; e.g., METL, collective tasks, battle drills, and soldier and leader individual tasks.
- Training objectives; i.e., TCS.
- SOPs.
- Rehearsal techniques.
- AAR techniques.
- Lane execution.

3-37. Refine Knowledge About the Unit to be Trained.

Action a. Leaders, OCs, and OPFOR refine knowledge about the unit to be trained.

Review b. To refine knowledge, they review the training unit's--
- Wartime mission.
- MTOE or TDA.
- METL.
- Battle rosters, personnel status, and personnel turnover.
- Leader fill.
- Training status.
- Equipment status.
- SOPs
- External evaluations.

3-38. Conduct Rehearsals.

Purpose a. Conduct rehearsals for all LTX participants to--
- Review effective training techniques.
- Ensure safety and environmental considerations are met.
- Prepare OCs, OPFOR, and soldiers for the LTX.
- Determine how the OCs will evaluate the soldier, leader, or unit performance for compliance with the training objective.

(Continued on next page)

- Confirm each OC is tactically proficient and technically competent.
- Verify unit task proficiency.
- Ensure personnel can operate TADSS; e.g., MILES.
- Identify weak points in the LTX plans and materials (to support training validation).

Procedure b. The exercise director and OC, OPFOR, and unit leaders conduct rehearsals, Procedure:

Step	Action
1	Confirm safety and environmental considerations are met; i.e., conduct risk management.
2	Execute missions in accordance with the LTX plans and materials.
3	Verify leader, OC, and OPFOR task proficiency.

Note: Additional information on rehearsals is provided at Appendix G.

Guidelines **c.** Apply the following guidelines--
- Use the actual LTX lanes; if not possible, consider using an alternate site or simulations.
- Ensure each element (OCs, OPFOR, unit leaders) participates fully with the personnel and equipment required for the actual mission.

3-39. Tentatively Validate Training Plans and Materials.

Description a. At this point in the lane training planning process, validation is an evaluation of the training plans and materials to tentatively determine if they are adequate to accomplish the training objectives. This is a partial validation since the exercise director cannot complete or confirm validation until after the training unit has completed lane execution and successfully performed lane tasks to the desired standards.

Purpose b. Validate plans and materials to--
Verify their training effectiveness in achieving the training objectives.
Identify training product deficiencies.
Improve efficiency and effectiveness of training objectives, sequence, products, materials, and execution.

Procedure c. The exercise director and senior OCs conduct a tentative validation of training plans and materials. Procedure:

Step	Action
1	Evaluate the following to assess their adequacy in training LTX tasks to desired standards: • Training objectives; i.e., TCS. • Task lists for LTX tasks and prerequisite or supporting collective (training unit and OPFOR) and individual (soldier and leader) tasks. • T&EOs and training outlines for collective tasks. • Task descriptions for individual tasks. • Lane scenarios, general and special situations, and LTX events. • LTX lane diagrams, sketches, and map overlays. • TADSS.

(Continued on next page)

Procedure c. *(Continued)*

Step	Action
	• The LTX area, including assembly, rehearsal, lane execution, AAR, and retraining sites. ***Note:*** Each lane execution site (or lane) in the LTX area addresses the same primary tasks. • Other plans and materials; e.g., planning for AARs and OPFOR. ***Note:*** Evaluate the above to ensure they are-- • Complete. • Appropriate. • In compliance with doctrine. • Technically accurate.
2	Identify deficiencies.
3	Revise plans and materials to eliminate deficiencies.
4	Conduct additional rehearsals to ensure existing deficiencies have been corrected and the modifications (to plans and materials) have not created new deficiencies.

Subsequent Validation d. After the first and each subsequent iteration of the LTX, the exercise director and senior OCs conduct a full validation of training and training materials as part of the follow-up procedure of the lane training assessment process. This validation confirms that the lane training plans and materials effectively support the training objectives and accurately reflect the actual tasks performed individually and collectively to accomplish unit mission requirements.

3-40. Conduct Final Coordination.

Action a. The exercise director and unit leaders conduct final coordination.

Purpose b. The purpose of this final coordination is to ensure all outstanding issues are resolved.

3-41. Conduct Pre-Execution Checks.

Action a. The exercise director and unit leaders conduct pre-execution checks.

Definition b. **Pre-execution checks -** Procedures, usually using checklists, employed to ensure that all planning and prerequisite training (soldier, leader, and collective) has been conducted prior to the execution or conduct of training.

References **c. In addition to this circular,** review--
- FM 25-101.
- FM 25-4.
- Other requirements.

Pre-Execution Checks

d. **Sample pre-execution checks are listed** below. Modify the list to apply to the planned LTX and unit.

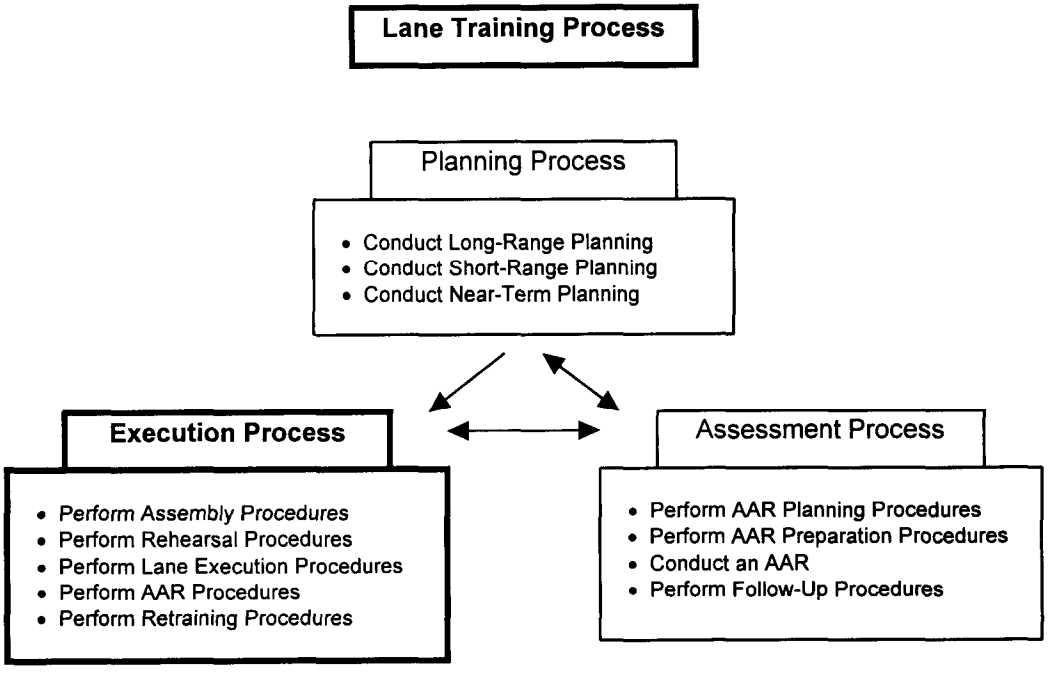
Sample Pre-Execution Checks
• Have previous lessons learned been integrated?
• Have leaders identified and eliminated training distracters?
• Have simulations, simulators, and other TADSS been included?
• Have T&EOs and training outlines been acquired or prepared?
• Have lane books been prepared?
• Have TSPs been prepared?
• Have SOPs been updated?
• Have leaders identified and eliminated training distracters?
• Have leaders been trained and their proficiency verified on leader and collective tasks?
• Have OCs been identified, equipped, and trained?
• Has the OPFOR been identified, equipped, and trained?
• Have OCs and OPFOR been verified on their task proficiency?
• Have soldiers been trained and verified on prerequisite individual (soldier and leader) tasks, collective tasks, and battle drills prior to execution?
• Have pre-LTX rehearsals been conducted?
• Has rehearsal time been programmed during each LTX?
• Are slice elements of other units integrated into planning and execution of training?
• Have sufficient AARs been scheduled?
• Is adequate time programmed for AARs?
• Has a risk assessment been completed?
• Have safety considerations been incorporated?
• Have leaders been briefed on environmental protection rules and considerations?
• Have training ranges and facilities been requested and approved?
• Has a reconnaissance been conducted?
• Are range or maneuver area books on hand?
• Are leaders certified to conduct range operations?
• Have convoy clearances been submitted and approved?
• Has transportation been arranged?
• Are organizational equipment and special tools on-hand?
• Have TADSS been identified, requested, and acquired?
• Can trainers operate all equipment, to include TADSS and targetry?
• Has all equipment been tested, to include communications equipment?
• Has Class I (rations) been requested and arranged?
• Has Class III (POL) been requested and allocated?
• Has Class IV (construction and barrier materials) been requested and picked up?
• Has Class V (ammunition) been requested and pickup and turn-in times coordinated?
• Has Class IX (repair parts) been requested and pick-up times coordinated?
• Are latrine facilities adequate? Have portable toilets been pre-positioned?
• Are sufficient expendable supplies on hand? If not, have they been requested and arranged?
• Has a back-brief to the chain of command been coordinated?

Chapter 4
Execution Phase: Process and Procedures

4-0. Chapter Overview.

Introduction

a. This chapter provides procedures for the lane training execution process.



Chapter Index

b. This chapter covers the following:

4-1. General.

Planning Results a. The execution of effective training to standard is the payoff for the successful completion of the planning phase of the lane training process.

Execution Results b. The payoff for effective training execution is a unit trained to accomplish its wartime mission.

4-2. Guidelines.

Objective a. Make training doctrinally accurate, well-structured, efficient, relevant, realistic, safe, and effective.

Support b. Identify time frames for support activities to occur during integrated lanes; e.g., ration breaks, refueling windows.

Integration c. Integrate collective and individual tasks throughout the training process. All leaders should use the same training process for integration; however, commanders focus on collective mission-essential tasks and junior leaders focus on the supporting individual tasks.

Distracters d. Reduce or eliminate training and mission distracters.

4-3. Execution Process.

Process a. As indicated earlier, the execution phase of the lane training process is an LTX composed of the following five activities which take place in an LTX area:

- Assembly.
- Rehearsal.
- Lane execution.
- AAR.
- Retraining.

Note: The rehearsal, lane execution, and retraining activities may take place on different lanes within the LTX area.

Time Frames b. The time frames for execution phase activities vary significantly between tasks, units (due to size and proficiency levels), and training areas. The total range could be from a few hours to several days. However, a general guide for planning purposes is to allocate one-third of the execution phase time for assembly and rehearsal activities, one-third for lane execution and AAR activities, and one-third for retraining. This guideline can be modified to fit the specific training situation anticipated.

4-4. Perform Assembly Procedures.

Procedures

a. Assembly procedures are as follows:

Step	Action
1	Senior OC conducts unit in-briefing. • Introduction. • LTX lane scenario. • T&EOs; e.g., TCS. • ROE. • Safety and environmental issues, cautions, and controls. • Administrative and logistical issues. • Identification of counterparts.
2	Senior OC (or higher headquarters) issues mission or OPORD to unit leader. Unit leader backbriefs senior OC. ***Note:*** Receipt of mission or OPORD prompts unit leader to initiate TLP. As task proficiency is developed, time to conduct TLP may be constrained to add realism. • Unit leader issues warning order to junior leaders.
3*	Key leaders proceed to the leader training area for leader preparation.
	a. Senior OC reverifies unit leader's task proficiency (including TLP). • Unit leader makes a tentative plan and the unit's OPORD while the unit prepares. • Unit leader briefs tentative plan and OPORD to senior OC. • Unit leader conducts a reconnaissance. • Unit leader completes the plan and OPORD. • Unit leader rehearses plan with senior OC. • Unit leader receives concurrence from senior OC to continue.
	b. OCs reverify key leaders' task proficiency (including TLP). • Unit leader issues OPORD to junior leaders. Junior leaders backbrief unit leader and OCs. • Junior leaders develop tentative plans and OPORDs. • Junior leaders brief tentative plans and OPORDs to OCs. • Junior leaders conduct reconnaissance. • Junior leaders complete plans and OPORDs. • Junior leaders brief plans and OPORDs to senior leader and OCs. • Junior leaders rehearse plans with OCs. • Junior leaders receive concurrences from OCs to continue.
	c. Unit leader rehearses tasks with junior leaders.
	d. Unit leader receives senior OC's approval to leave the leader training area.
4*	Leaders continue TLP to prepare unit for rehearsals and LTX lane execution. • Receive mission (already completed). • Issue warning orders (already completed). • Make tentative plans. • Prepare unit to move. • Reconnoiter. • Complete plan. • Issue unit's OPORD (after the senior OC's approval).

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Procedures a. *(Continued)*

Step	Action
	• Supervise. •• Rehearse (e.g., leaders, smaller units). ***Note:*** Unit rehearsals are performed in the next phase. •• Inspect. Conduct precombat checks. ***Note:*** Complete TLP if not already accomplished.
5	Unit leader backbriefs OC (or higher headquarters) on order.
6	Senior OC directs unit leader to begin unit rehearsals.

Note: Steps 3 and 4 can be simultaneous.

Definition b. **Precombat checks -** Detailed final checks that all units conduct before and during execution of training and combat operations as part of the troop leading procedures.

Precombat Checks c. Sample precombat checks are listed below. Modify the list to apply to the planned TX and unit.

Sample Precombat Checks
• Security maintained (e.g., ground, NBC).
• Weapons, vehicles, and equipment issued and camouflaged.
• MILES mounted, operational, and zeroed.
• Other required TADSS on hand and operational.
• Personnel camouflaged.
• OPORD briefed. Leaders and soldiers know the mission, their commander's intent, and what is expected of them.
• Individual and small element task rehearsals conducted; e.g., synchronization drills.
• Safety checks and briefings completed.
• Safety equipment on-hand.
• Medical support present and prepared.
• Environmental concerns and controls identified.
• Leaders' equipment inspected; e.g., compasses, strip maps, and binoculars.
• Soldiers and equipment inspected; e.g., weapons, load-bearing equipment, ID tags, driver's licenses, and meal cards.
• Soldier packing lists checked and enforced.
• Compasses, maps, and strip maps present (with graphics posted).
• Communications checks completed (higher, lower, adjacent, and range control).
• Class I (rations) drawn and issued.
• Class III (POL) drawn and vehicles topped off.
• Class IV (construction and barrier materials) on-hand.
• Class V (ammunition) drawn, issued, prepared, and accounted for.
• Class IX (repair parts) on-hand.
• Reference material available (e.g., TMs, SOPs).
• Motor pool gate opened and transportation present on time.
• Precombat (before operations) and combat (during operations) preventive maintenance checks and services completed on vehicles, weapons, communications, and NBC equipment.
• Vehicle load plans checked and confirmed; cargo secured.
• Convoy route and plan briefed.
• Quartering party briefed and dispatched.
• Slice (CA, CS, and CSS) elements integrated.
• OPFOR soldiers deployed and ready to execute their OPORD.

4-5. Perform Rehearsal Procedures.

Procedures Rehearsal procedures are as follows:

Step	Action
1	Unit leader conducts unit rehearsals. • Briefs the unit's OPORD. • Uses the crawl-walk-run training method. • Rehearses the entire unit; i.e., conducts map reviews, sand tables, radio drills, rock drills, walk-throughs, dry runs, or battle drills.
2	Senior OC directs the unit leader to end rehearsals.

Note: Additional information on rehearsals is provided at Appendix G.

4-6. Perform Lane Execution Procedures.

Procedures Lane execution procedures areas follows:

Step	Action
1	Senior OC confirms safety and environmental considerations are met; i.e., conducts risk management.
2	Senior OC directs the unit leader to execute the unit's OPORD.
3	Leaders move the unit through the execution phase.
4	Unit performs tasks to desired standards.
5	OCs evaluate task performance against desired standards.
6	Senior lane OC conducts scheduled AARs at logical stop points during lane execution (i.e., key task step or event completion, change of mission order), if needed.
7	When the task is performed incorrectly or there are safety or environmental issues, OCs-- • Stop the training. • Conduct unscheduled AARs. • Correct errors. • Restart or resume lane execution.
8	Senior OC directs the unit leader to move to the formal AAR area upon completion of lane execution.

4-7. Perform AAR Procedures.

Procedures Abbreviated AAR procedures are as follows:

Step	Action
1	Senior OC conducts a formal AAR immediately after lane execution. • OCs facilitate, leaders support, and unit members actively participate in AARs. • Senior OC discusses evaluation of task performance against desired standards (after previously evaluating whether the unit is trained to standard). • OCs, OPFOR, and unit members provide feedback. ***Note:*** Formal AARs may be preceded by or followed by informal AARs for smaller elements of the unit.
2	If the unit is not trained to standard, the senior OC and unit leader diagnose the training shortfall as either a leader problem or soldier problem.
3	Senior OC directs the unit leader to-- • Conduct retraining if-- •• The unit did not achieve the training standard. •• There were weaknesses in task performance the unit needs to correct. • Proceed to the next LTX area if the unit achieved the training standard.

Note: Detailed AAR procedures are provided in Chapter 5 and TC 25-20. Additional information is provided in FM 25-101.

4-8. Perform Retraining Procedures.

Procedures Retraining procedures are as follows:

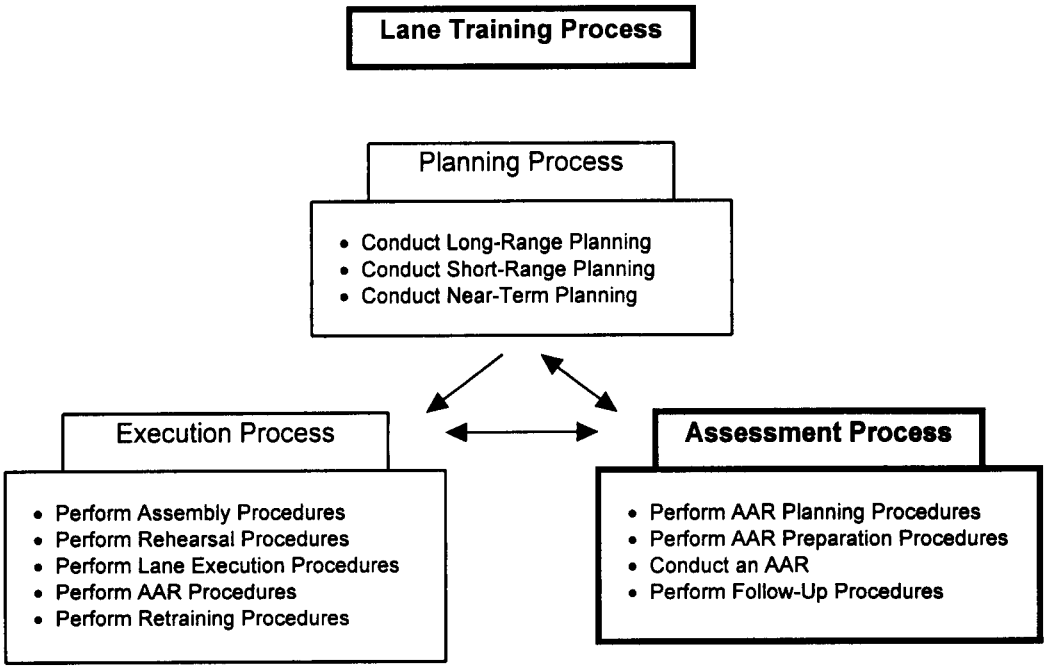
Step	Action
1	Senior OC retrains the leader if the training shortfall was a leader problem. • Correct weaknesses noted during AAR. • Modify OPORD. • Recommend changes to unit SOPs.
2	Unit leaders conduct retraining. • Correct weaknesses noted during AAR. • Modify unit SOPs. • Retrain (and rehearse) until the unit-- •• Can achieve desired task standards. •• Has improved areas of weakness.
3	Unit leaders conduct concurrent opportunity training for personnel not requiring retraining.
4	Senior OC directs the unit leader to do one of the following: • Return to the AA, rehearsal area, or lane execution area to repeat the lane if the LTX tasks were not performed to standard during lane execution. ***Note:*** The lane may be repeated using different conditions or terrain. • Move to the next LTX area.

Chapter 5
Assessment Phase: Process Procedures

5-0. Chapter Overview.

Introduction

a. This chapter provides procedures for the lane training assessment process.



Chapter Index

b. This chapter covers the following:

5-1. General.

Linkage

a. Assessment links training execution to planning for future training.

Method	b. The AAR is the primary assessment method for lane training.
Feedback	c. AARs provide feedback or input to the commander's training assessment, which occurs in the planning phase of the next planning, execution, and assessment cycle.
Reference	d. TC 25-20 provides additional information on AARs.

5-2. AAR

Definition	a. **After-action review (AAR)**- A professional discussion of an event, focused on performance standards, that enables soldiers to discover for themselves what happened, why it happened, and how to sustain strengths and improve on weaknesses. It is a tool leaders, trainers, and units can use to get maximum benefit from every mission or task.
Objective	b. The objective of an AAR is to improve individual (including leader) and collective task performance by providing immediate feedback about how the training or tasks could have been performed better.
Purpose	c. The purpose of an AAR is to-- • Improve the accuracy and detail of feedback available to unit leaders and soldiers. • Identify collective and individual training strengths and how to leverage them. • Identify collective and individual training deficiencies and how to correct them. • Reinforce and increase the learning that took place during lane execution. • Increase interest and motivation. • Guide the unit towards achieving training objectives. • Identify lessons learned so they can be applied to subsequent training or task performance. • Increase confidence in unit leaders. • Increase proficiency of all participants. ***Note:*** This feedback is used by the unit after the AAR to revise or improve SOPs, battle drills, and task execution.
Description	d. The AAR is a structured, interactive, group-oriented review process or teaching method which uses a question-and-answer format to evaluate task performance. The AAR encourages training participants to discover for themselves-- • What should have happened; i.e., the mission or plan. • What actually happened; i.e., a description of the event. • How it happened; i.e., key facts which led up to the event. • Why it happened; i.e., inferences about probable causes. • How to improve performance next time; i.e., alternative courses of action.
Technique	e. The AAR is a method of providing feedback to units by involving participants in the training diagnostic process to increase and reinforce learning. By asking questions, the senior OC guides participants in identifying deficiencies and seeking solutions. AAR participants provide the answers.

Participants

f. Formal AARs are normally conducted (facilitated) by OCs and supported by OPFOR and player leaders, with active participation by a unit's soldiers. The OPFOR, players, and customer units, or their representatives, should also participate in AARs.

Note: For company-size AARs, insufficient space may preclude some unit soldiers from attending. In this situation, informal AARs may be conducted prior to formal AARs to solicit feedback from unit personnel. Informal AARs may also be conducted after formal AARs to provide feedback to unit personnel.

Participation

g. Participation is the key to increasing the teaching effectiveness of AARs. Participation--

- Makes soldiers feel a part of the process.
- Increases motivation.
- Surfaces different points of view.
- Provides many sources of information.
- Creates synergism.
- Promotes unit cohesion.

Types

h. There are two types of AARs: formal and informal. General characteristics are as follows, although they may vary:

Formal AAR Characteristics	Informal AAR Characteristics
• Conducted (or facilitated) by external OCs.	• Conducted by internal chain of command.
• More time to prepare.	• Less time to prepare.
• More time to conduct.	• Less time to conduct.
• Complex training aids.	• Simple training aids.
• Scheduled before-hand.	• Scheduled or held when needed.
• Conducted where best supported.	• Conducted at training site.
• Conducted to gain maximum training benefit.	• Conducted when resources are limited.
• Normally for company-level and above.	• Normally for soldier, crew, squad, and platoon-level training.
	• Support higher-level formal AAR.
	• Held prior to higher-level formal AAR.

AAR Occurrence

i. AARs may occur as follows:

- AARs are normally scheduled to occur immediately after completion of lane execution, after change of mission, or after key events.
- An AAR may also be scheduled at the end of a series of LTXs.
- Lane execution may be stopped for unscheduled AARs when the OC, leader, or commander determines--
  - Tasks are not being performed to standard and retraining is clearly needed.
  - There are safety or environmental hazards.

Note:

- AARs should occur as often as necessary to ensure soldiers learn from the training conducted.

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- Avoid scheduled stop points for AARs during lane execution. They interrupt the natural flow of events, thereby reducing realism. They may also require restarting the lane, not just resuming execution.
  - If too many events are in one LTX for the training level of the unit, consider breaking the LTX up into several LTXs with fewer tasks.
  - If the unit does not meet the standard on one event, consider having the training unit repeat the LTX with all events included.
- Plan sufficient time for subordinate elements of the unit to conduct AARs prior to higher-level AARs (e.g., platoon AARs prior to company AARs).

AAR Essentials

j. AARs and subsequent training plans require--
- Objective appraisals and evaluations of task performance.
- Candid and constructive feedback.
- Frank and professional discussions of unit performance.
- Commitment to change and improve.

5-3. Guidelines.

Guidelines

OCs should use the following guidelines when conducting AARs:
- Maintain order and discipline.
- Focus on each training objective. Avoid detailed discussion of events that are not directly related to the major events, training objectives, or teaching points.
- Emphasize the goal is to achieve Army task performance standards.
- Focus on soldier, leader, and unit performance.
- Determine performance strengths and weaknesses.
- Link performance to subsequent training.
- Achieve active participation of the unit's soldiers.
- Address safety and environmental issues throughout.
- Make AARs positive in nature.
- Avoid--
  - Lecturing.
  - Critiquing, criticizing, or judging performance.
  - Embarrassing soldiers or leaders.
  - Comparison of performance of specific units, although comparison of different techniques is recommended.
  - Unnecessarily long AARs.

5-4. AAR Process.

Process

a. As indicated earlier, the lane training AAR process is composed of the following four phases:
- Planning.
- Preparation.
- Conduct.
- Follow-up.

Procedures b. AAR procedures for the above phases are provided in the following paragraphs. For more information, see FM 25-101 and TC 25-20.

5-5. Perform AAR Planning Procedures.

Procedure The exercise director and senior OCs conduct AAR planning. Procedures for the AAR planning phase are described in Chapter 3 (primarily in paragraph 3-21).

5-6. Perform AAR Preparation Procedures.

Procedure a. The exercise director and lane OCs conduct AAR preparation. Procedure:

Step	Action
1	Review the training objectives, T&EOs, scenario, mission, orders, and doctrine.
2	Review the unit's plans and SOPs.
3	Prepare the selected AAR sites.
4	Observe the training. Take notes.
5	Evaluate task proficiency. Consider the unit's performance of each mission essential task and any other collective task included in the lane.
	a. Identify the T&EO for the task.
	b. Use the T&EO standard to evaluate the unit's performance of the task.
	c. Record on the T&EO a "GO" for each task step performed to standard (performance measure) and a "NO GO" for each task step not performed to standard. Annotate reasons for "NO GO" evaluations.
	d. Record the unit's overall capability to perform the task by using the task standard information and recorded "GO" or "NO GO" task step information from the T&EO. ***Note:*** For the overall evaluation of capability, use a locally-approved rating scale (e.g., "GO" or "NO GO," "train to sustain" or "train to improve").
6	Develop a good understanding of the LTX. Become thoroughly knowledgeable about all aspects of the lane before the AAR.
	a. Discuss lane execution with the unit's leaders and soldiers.
	b. Conduct a lane execution debriefing. • Discuss observations and notes from the OPFOR and other OCs to reconstruct what happened, in what sequence it happened, and why it happened. • Answer these questions: •• Did everyone understand what the mission was? •• How much of the OPORD issued to the unit leader got down to the squad leaders and unit members? •• What happened during execution and when did it happen? •• What was done well? • Consolidate observations.

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Procedure a. *(Continued)*

Step	Action
	c. Review notes concerning movement routes, times, locations, key communications, and reactions to events. Identify all kills/casualties and their sources. Identify significant events or persons.
7	Develop a discussion outline to guide the AAR.
	a. Plan to address the topics listed in paragraph 5-6b.
	b. Organize observations. Rank the critical events by importance to the training objective or their contribution to the LTX outcome. Address-- • Tactics. • Survivability. • Communications. • Combined arms employment. • Command and control. • Personnel and logistics support.
	c. Identify key discussion or teaching points. Select as many critical events as can be covered in the time allowed for the AAR (ideally, less than 2 hours). If it is necessary to constrain the AAR, limit the events covered to those that the-- • Unit performed extremely well or extremely poorly. • AAR leader has a relatively complete and clear understanding of causes and consequences.
	d. Determine a discussion sequence to use. Examples include-- • By chronological order. • By key event or issue. • By BOS.
8	Organize the selected AAR sites.
9	Conduct rehearsals.

Topics b. Topics may be sequenced as follows:

Topics Addressed:	Addressed By:
• Introduction and rules.	OC
• Objectives and intent.	
•• Training objectives.	OC
•• Commander's mission and intent.	Unit leader
•• OPFOR commander's mission and intent.	OPFOR leader
•• Relevant TTP.	Leaders/All
•• Orders (warning, FRAGO, OPORD).	Unit/OPFOR leaders
• Plans; e.g., offensive, defensive, workload, priorities.	All
• Events and actions; i.e., sequence, stimulus and response.	All
•• Key issues or actions before, during, and after execution events (chronological or by BOS).	
•• Summary of events and actions.	
•• Results of events and actions.	
•• Assessment of results (right or wrong).	
•• How events occurred.	
•• Why events occurred.	
•• Other courses of action.	
•• How performance should be improved.	

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Topics

b. *(Continued)*

Topics Addressed:	Addressed By:
• Other issues:	All
•• Soldier/leader skills (strengths and weaknesses).	
•• Tasks to sustain or improve.	
•• Statistics.	
•• Safety (force protection).	
•• Environment.	
• Lessons learned.	All
• Specific soldiers making unusual or significant contributions.	All
• Summary: Results versus objectives.	OC

5-7. Conduct an AAR.

Procedure

a. The senior OC conducts the AAR for an LTX. As a facilitator, the OC orchestrates the AAR using the above guidelines and techniques to address the AAR topics. Procedure:

Step	Action
1	Assemble and organize AAR participants. • Arrange the unit and OPFOR in separate groups so they can see the terrain model, map, diagram, sketch, or video. • Have all unit and OPFOR players present for a squad or platoon AAR. • Have key participants, unit leaders, and OPFOR leaders present for a company-level AAR. • Create conditions so the soldiers will be comfortable and relaxed.
2	Provide introduction, AAR guidelines, and basic AAR rules; e.g., only one person talks at a time.
3	Review training objectives.
4	Review what was supposed to happen. • Address the training unit commander's mission, intent, and plan. Address METT-T. • Address the OPFOR commander's mission, intent, and plan. • State whether the mission was accomplished.
5	Establish what happened. • Solicit discussion of recent events; i.e., what, when, and where. Address the time frame before, during, and after each event. • Focus on facts; don't be judgmental. • Focus on task steps. • Address OC and OPFOR actions. • Address unit responses. • Provide any useful statistics.
6	Determine what was right or wrong with what happened. Guide discussion to-- • Solicit views and reasons. • Relate events to subsequent results.

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Procedure a. *(Continued)*

Step	Action
7	Identify how it happened. • Prompt soldiers to reveal key facts which led up to the event. • Encourage participants to relate prior events to subsequent results or consequences.
8	Identify why it happened. • Encourage soldiers to suggest probable causes for the event. • Surface key performance issues, actions, or factors.
9	Determine how the task should be done differently the next time. Guide discussion to-- • Solicit ideas on how tasks could have been performed better. • Reveal alternative courses of action. • Identify advantages and disadvantages for each course of action. • Achieve consensus on the best course of action. • Discover important lessons from the training event.
10	Create an opportunity for general discussion of other important issues.
11	Guide summarization of the AAR results by unit leaders. • Organize discussion by chronological order of events, key events (or issues), or BOS. • Address the following: •• What went well (which tasks)? •• What needed improvement (which tasks)? •• What was learned? •• What needs to be done to-- ••• Sustain performance? ••• Improve performance? •• Who is responsible for accomplishing what needs to be done?
12	Provide closing comments.
13	Permit the unit leader to hold an informal AAR with the unit to review lessons learned, if desired.
14	Meet privately with the unit leader to-- • Jointly identify training weaknesses and tasks requiring retraining. • Diagnose the training shortfall as either a leader or soldier problem. • Provide personal feedback.
15	Direct the unit leader to-- • Proceed to the next LTX if the unit achieved the training standard. • Conduct retraining if-- •• The unit did not achieve the training standard. •• There were weaknesses in task performance the unit needs to correct.
16	Conduct a final AAR after a series of AARs or LTXs have been completed. ***Note:*** Consider inviting representatives from higher headquarters.
17	Conduct a separate AAR for OCs and OPFOR to-- • Assess their performance. • Improve plans, LTX content, or conduct of the lane. • Address modifications required to lane training materials; i.e., TSP. • Improve their performance during future exercises.

Techniques

b. OCs should apply the following techniques when conducting AARs:

- Set the tone of the AAR as a group problem-solving session among professionals. This minimizes hostility and defensiveness.
- Encourage self-discovery and self-evaluation. Have soldiers describe what happened in their own terms and from their own point of view. Soldiers who identify what went right and wrong learn much more than when lessons are dictated.
- Generate discussion to involve all participants. Seek the maximum participation of the unit's leaders and soldiers.
- Use terrain models, maps, diagrams, sketches, or videos to help players visualize exercise development; i.e., the sequence of events or the locations of events, unit elements, and key equipment.
- Encourage soldiers to use diagrams or sketches to illustrate teaching points and show routes, phase lines, and objectives.
- Ask leading, thought-provoking, or open-ended questions to encourage participants to self-discover important lessons from the training event.
- Ask what went well, what went wrong, and why.
- Guide discussion so the soldiers understand how events are related to subsequent results.
- Ask the right questions.
  - At lower echelons, the right questions are usually related to execution or to what the unit did.
  - At higher levels, the right questions are usually related to what the leaders knew about the situation and what decisions they made (e.g., ask what METT-T factors influenced their decisions and what decisions were made).
- Ask questions in a logical sequence. Ask questions to help the group--
  - Identify an important event or problem. Typical questions:
    - What was the first thing that you saw?
    - What else happened?
    - What did we learn about ...?
  - Expand and clarify the circumstances, causes, and results of the event. Typical questions:
    - Then what happened?
    - Do you know why?
    - What was the result?
    - What else did you learn?
  - Explore alternative courses of action. Typical questions:
    - How else could you have achieved that?
    - Can anyone think of another way?
- Ask why certain actions were taken, how personnel reacted to situations, and when actions were initiated or completed.
- Guide discussion so that important tactical, technical, individual, and collective skills are learned.
- Constantly review teaching points. Summarize.
- Have unit leaders summarize teaching points. Ask them to address what they will do to--
  - Sustain proficiency.
  - Improve proficiency.

5-8. Perform Follow-Up Procedures.

Procedure

a. At the conclusion of the LTX, the exercise director, senior OC, and unit and OPFOR leaders perform follow-up procedures:

Step	Action
1	Leaders record proficiency assessments in leader books.
2	The senior OC and unit leader direct corrective actions to respond to tasks requiring retraining. Potential solutions include-- • Retrain the unit on the task. • Revise SOPs, drills, and T&EOs. • Integrate lessons learned into future training.
3	The senior OC provides the exercise director an after-action report of T&EO and AAR results for each unit trained during the LTX. The report format is normally specified in pre-exercise guidance. It may address the information listed in paragraph 5-8b.
4	The exercise director provides an after-action report to unit leaders and commanders for use in developing commanders' training assessments of their units. ***Note:*** This report may be part of a take-home package.
5	The senior OC and exercise director validate the LTX.
	a. Review whether the training unit achieved the task proficiency for which the LTX was designed.
	b. If task proficiency was not achieved-- • Identify the performance deficiency. • Determine the probable causes of the performance deficiency. Potential causes include-- •• Threat. •• Doctrine. •• Organization. •• Materiel; e.g., wrong or inoperable equipment, inadequate support. •• Training and leader development; e.g., unit, OC, or OPFOR training and verification of proficiency on LTX and prerequisite collective and individual (soldier or leader) tasks. •• Soldier support. •• Resources; e.g., insufficient personnel, support, or resources. •• Management; e.g., inadequate synchronization. • For non-LTX deficiencies, coordinate to resolve the issue. • If the cause was related to a deficiency in the LTX, identify the deficiency, determine the solutions, and initiate corrective action.
6	The senior OC and exercise director direct corrective actions to improve the efficiency and effectiveness of the LTX. Potential solutions include-- • Integrate lessons learned into future training. • Revise LTX TSPs, lane books, and handbooks.
7	The exercise director provides an internal lessons learned report to the commander to improve future performance of the OC and OPFOR. It addresses internal planning, execution, assessment, LTX validation, and administrative and logistical problems along with recommended solutions. It does not address the supported training unit's performance.

(Continued on next page)

Procedure

a. *(Continued)*

Step	Action
8	The exercise director provides significant lessons learned to the Center for Army Lessons Learned. For each observation, information is provided in the following format: • Observation title. • Observation. • Discussion. • Lesson learned. • Recommended action (i.e., implications for doctrine, organization, materiel, training, leader development/leadership, or soldier support). ***Note:*** Use an automated system, if available.
9	Commanders update unit METL assessments.

After-Action Report

b. After-action reports are frequently prepared after completion of the AAR. This report provides information such as--

- Exercise objectives.
- Exercise conditions.
- Exercise results; i.e., rating results by task (e.g., "GO" or "NO GO," "train to sustain" or "train to improve").
- Unit strengths and weaknesses.
- Problems encountered.
- Lessons learned.
- Conclusion.
- Recommendations for changes in training strategy to improve or sustain proficiency.

Take-home Package

c. This is a collection of material provided to the training unit after completion of all LTXs. It may include--

- Consolidated training task summary status by unit element.
- Completed T&EOs (with "GO' or "NO GO" observations) for each unit element.
- Observations by OCs or OPFOR.
- Videos of lane execution or AARs.
- Tape extracts of sound recordings of radio or phone communications.

Chapter 6
Simulations

6-0. Chapter Overview.

Introduction

a. This chapter provides information concerning the use of simulations for lane training.

Chapter Index

b. This chapter covers the following:

6-1. General.

Enhance Training

a. The effectiveness of lane training can be dramatically enhanced through the use of **simulations and simulators during lane training planning and execution.**

- The Army's training goal is to execute tough and realistic training exercises as the primary means of training. However, decreasing resources, increasing weapons system ranges and lethality, and environmental constraints can limit the ability to train.
- Although TADSS are generally used to supplement live training, TADSS can provide the trainer with mission rehearsal capabilities and options to train segments of the force to standard before entering a high resource or safety constrained environment.
- Simulators and simulations can be used both to prepare for an exercise and to conduct an exercise.

Note: Due to safety or environmental issues or constraints hampering the use of live or constructive simulations, it may be more effective to conduct an LTX's lane execution using a virtual simulation.

Definitions

b. Following are important definitions:

System	A set or arrangement of things so related or connected as to form a unity or organic whole. Also a set of facts, principles, or rules classified or arranged in a regular or orderly form so as to show a logical plan linking the various parts.
Model	A representation of a system.
Simulation	The operation or exercise of a model of a system.
Simulator	A physical model and simulation of a weapons system or piece of equipment that is not a prototype, but which replicates some major aspects of the equipment's operations. It may include elements of embedded computer hardware and software associated with these operations. The linking of two or more simulators in a common, interactive scenario is one kind of simulation.

Description of Simulation

c. A simulation is a representation or imitation of reality. Simulating pad of a system, simulating the operation of a system, and simulating the environment in which a system will operate are three common types of simulations.

Description of Simulator

d. A simulator is a training device, machine, or apparatus which emulates or synthetically reproduces the functions and environment of an actual process, equipment, or system. A training simulator is a relatively complete item of training equipment which uses electronic or mechanical means to reproduce conditions necessary for an individual or a crew to practice operational tasks in accordance with training objectives. It represents the operational equipment physically and functionally to varying degrees.

Benefits

e. The use of simulators and simulations in lane training provides the following benefits:

- Increases safety of the force by reducing safety hazards; e.g., eliminates lethality in weapons systems (since weapons' effects are simulated).
- Reduces or avoids environmental damage.
- Increases realism, since high cost or dangerous activities can be simulated rather than not performed at all.
- Saves time and cost in moving personnel and equipment to distant training sites. May even be able to avoid moving equipment.
- Reduces demand for training areas, maneuver space, and ranges.
- Increases ability to--
  - Integrate command and control, communications, and intelligence systems.
  - Train combined and joint force operations.
  - Follow doctrine and train units to function as they would during military operations.
  - Measure accomplishment of training objectives.
  - Rapidly change and restart scenarios.
  - Employ and evaluate new equipment and doctrine.

6-2. Types of Simulations.

Types of Simulations

a. There are three types of simulations:

- Live.
- Virtual.
- Constructive.

Live Simulations

b. Live simulations permit combatants to use real or surrogate tactical systems to conduct training exercises at homestations, major training areas, and the CTCs.

Definition

Live simulation - A representation of military operations using military personnel and equipment to simulate experiences achieved during actual combat conditions.

Description	Live simulations are associated with operational testing, field exercises, training exercises, and force-on-force and force-on-targetry exercises. Live simulations include training events where soldiers physically deploy as units (usually against an OPFOR) and use simulators (e.g., weapons simulators) to replicate certain parts of combat. Live simulations can take place almost anywhere the maneuver space is available. The simulators used often replicate weapons systems interaction and damage.
Examples	• CTCs. • Multiple Integrated Laser Engagement System (MILES). • Precision Range Integrated Maneuver Exercise (PRIME). • Air Ground Engagement System II (AGES II).
CTCs	The CTCs are designed to provide joint service and combined arms training under realistic battlefield conditions. The CTCs include the National Training Center, Joint Readiness Training Center, and Combat Maneuver Training Center.
MILES	MILES is a family of training simulators which simulate the effects of direct-fire weapons at their operational ranges and operates in a fully integrated tactical training environment.
PRIME	PRIME is an infantry and armor tactical trainer or simulator which trains fire and maneuver, command and control, target detection, identification, and engagement.
AGES II	AGES II is an air defense simulator which simulates vulnerability and weapon characteristics to include weapon effects.
Application	LTXs can use tactical engagement simulation methodology and supporting TADSS such as MILES to simulate combat under force-on-force or force-on-targetry task performance conditions. MILES permits the simulation of weapons' casualty-producing effects in player real time and on actual terrain.

Virtual Simulations

c. Virtual simulations are used with distributed and interacting manned simulators to support individual, crew, and unit collective training on a common synthetic battlefield.

Definition	**Virtual simulation -** A synthetic representation of warfighting environments patterned after the simulated organization and operations of actual military units. Differences in the representation of the simulated battlefield (i.e., whether real world, computer generated, or interactive players in simulators) are transparent to the participants who interact with their particular representation of the warfighting environment.

Description	Virtual simulations are often associated with crew-served weapons systems and focus on training devoted to emphasize familiarity, practice, and skill. These simulations are simulators that closely replicate all or part of tanks, armored personnel carriers, aircraft, and other equipment. They are often referred to as simulators because they are either a single part or complete replicas of individual or crew-served weapon systems, vehicles, and crafts.
Examples	• Conduct of Fire Trainer (COFT). • AH-64 Combat Mission Simulator (AH-64 CMS). • Close Combat Tactical Trainer (CCTT). • Aviation Combined Arms Tactical Trainer (AVCATT). • Fire Support Combined Arms Tactical Trainer (FSCATT). • Engineer Combined Arms Tactical Trainer (ENCATT).
COFT	The COFT is a stand-alone tank gunnery simulator.
AH-64 CMS	AH-64 CMS is a pilot and copilot/gunner cockpit simulator used to train individual and crew gunnery tasks.
CCTT	CCTT is a simulation which networks simulated infantry and armor combat vehicles, weapons systems, and command and control elements.
AVCATT	AVCATT is an aviation simulation which trains and sustains individual, crew, collective, and combined arms skills.
FSCATT	FSCATT is a simulation used to train the field artillery gunnery team: the forward observer, fire direction center, and howitzer crew.
ENCATT	ENCATT is an engineer simulation used to train individual and collective combat engineer tasks.
Application	• Major constraints for conducting lane training include restrictions on and shortages of local training areas. To avoid these constraints, virtual simulations permit the simulation of the battlefield including both weapons' casualty-producing effects and terrain. • Using virtual simulations, it may be possible for units without nearby training areas to prepare for or participate in an LTX without leaving their unit's post or homestation.

Constructive Simulations

d. Constructive simulations use computer models to conduct exercises that allow man-in-the-loop input to support command and control training.

Definition	**Constructive simulation** - A wargame, model, or analytical simulation that typically involves aggregated software representations of units, their behavior, and associated outcomes.

Description	Constructive simulations are usually identified with large scaled, complex computer-driven models associated with exercises dealing with battalions, brigades, divisions, corps, and echelons above corps. The primary training audience is the commander, subordinate commanders, and battle staffs associated with that echelon of command. Adjacent, higher, and lower units are "played" in computer workstations transparent to the primary training audience.
Examples	• SPECTRUM. • JANUS (Battle-Focused Trainer). • Brigade/Battalion Battle Simulation (BBS). • Corps Battle Simulation (CBS). • Tactical Simulation (TACSIM). • Combat Service Support Training Simulation System (CSSTSS). • Warfighters' Simulation (WARSIM) 2000.
SPECTRUM	SPECTRUM is a simulation which trains squad through strategic collective tasks associated with a wide spectrum of military operations.
JANUS	JANUS is the Army's battle-focused training simulation for leader development at company and team level. JANUS trains current tactics and doctrine to company level officers and NCOs via a wargaming system which models both friendly and enemy weapons systems.
BBS	BBS is a battle simulation for command post exercises. BBS supports the collective training of the commander, battle staff, command posts, and headquarters of CA and CS battalions and brigades.
CBS	CBS is a simulation which supports training of the corps commander, battle staff, major subordinate commands, and major subordinate elements' headquarters in the conduct of deep operations.
TACSIM	TACSIM is the intelligence driver for CBS. It trains corps and division command posts and their associated military intelligence assets.
CSSTSS	CSSTSS is a simulation used to provide training for CSS commanders and staffs from theater Army to battalion level.
WARSIM 2000	WARSIM is a simulation used to support the training of unit headquarters, command posts, and battle staffs (from battalion through theater levels) in joint and combined scenarios.

Application	Constructive simulations can be used during pre-LTX and post-LTX training to enhance skills and proficiency.

Note: Although BBS is not normally associated with company-level training, BBS can be used to train brigade or battalion staffs while other units are participating in lane training. Also, company-level participants in BBS can enhance the unit's ability to execute LTXs.

6-3. Simulations and Lane Training.

Training Simulation

a. Effective lane training replicates the environment of military operations. Although lane training can be conducted as either a live, virtual, or constructive simulation, it is normally conducted as a live simulation (i.e., conducted in the field or job site environment). However, due to safety or environmental constraints hampering the use of live or constructive simulations, it may be more appropriate or effective to conduct an LTX using a virtual simulation. The use of live, virtual, or constructive simulations to prepare for or to conduct lane training can dramatically enhance its effectiveness; however, their use normally requires very long-range planning.

Mutual support

b. Lane training and simulations complement each other. Live, virtual, or constructive simulations can be used to prepare for an exercise (pre-LTX training and verification, training validation, or rehearsals) or as a way of conducting an exercise (LTX rehearsals, lane execution, retraining). The opposite also is true; an LTX can be used to prepare for other simulation exercises.

Example Simulation

c. An example of how virtual simulation could be employed during an LTX for a selected METL task is as follows:

- The unit assembles at the LTX area (a virtual simulations training area).
- The OC reviews the task with the unit and shows how the task could be performed (perhaps using a recording of a previous lane execution).
- The unit rehearses the task, eventually employing a virtual simulation for a "dry run."
- The unit executes the lane using the virtual simulation.
- The OC conducts (or facilitates) an AAR addressing unit performance.
- The unit retrains using a virtual simulation until it can execute the lane to standard.

Note: The unit must complete prerequisite training prior to reporting for the LTX (this could also be conducted using virtual simulations).

Integrate TADSS

d. Exercise planners should integrate simulations, simulators, and other TADSS into their lane training process. Simulations and simulators can dramatically increase the effectiveness of training while simultaneously reducing training costs.

Appendix A
Lane Training Responsibilities

Introduction

a. This appendix identifies some of the lane training management personnel and their responsibilities.

Commander's Responsibility

b. Lane training is a unit commander's responsibility, but many personnel have responsibilities to support lane training.

Leaders

c. All leaders will- -

- Be tactically proficient and technically competent.
- Foster a command climate that is conducive to good training.
- Develop and communicate a clear vision.
- Establish effective communication between command echelons.
- Assess soldier, leader, and unit performance.
- Involve themselves personally in planning, executing, and assessing training.
- Centralize training planning and decentralize training execution.
- Train one level (echelon) down and access two levels down.
- Train all elements to be proficient on their mission-essential tasks.
- Develop and verify their subordinates' task proficiency.
- Provide the resources required for training.
- Protect subordinate unit training from distracters.
- Enforce established training schedules.
- Require their subordinates to understand and perform their roles in training.
- Use risk management procedures for all scheduled training to achieve realistic and safe training while protecting the environment. Conduct risk assessments. Implement risk management control measures.
- Ensure pre-execution and pre-combat checks are completed.
- Demand training standards are achieved. Personally check that planned training is conducted to standard.
- Evaluate training using T&EOs, drills, or task summaries supporting training objectives.
- Ensure training resources are properly used.
- Direct corrective actions to respond to deficiencies identified during the lane training process.

Unit Leaders

d. Unit leaders (of the unit to be trained on the lane) will--

- Be the primary trainers.
- Account for their soldiers.
- Know their units' and soldiers' training needs.
- Plan appropriate time to train tasks to standards.
- Develop expertise in all LTX tasks.
- Ensure lane training activities (including prerequisite training) are reflected on training schedules.

(Continued on next page)

- Conduct rehearsals.
- Ensure training is conducted to standard.
- Retrain soldiers and units when standards are not met.
- Be prepared to conduct opportunity training whenever time is available.
- Assist OCs in facilitating the AAR.
- Brief lane training plans as part of the quarterly (for AC) or yearly (for RC) training briefing.

Junior Leaders

e. Junior leaders (junior to the unit leader) will--

- Move soldiers and units to the training sites.
- Ensure--
  - Soldiers are at the right location, in the right uniform, with the right equipment, at the right time.
  - The number of tasks scheduled to be trained is realistic.
  - Leaders are trained and prepared to train their sections, squads, teams, or crews. They train the trainers.
  - Prerequisite training is completed so that soldiers' time is not wasted.
  - Prerequisite training for sections, squads, teams, and crews has the right focus and is executed to Army standard.
  - Soldiers are present or accounted for, especially during prime-time training.
  - Detailed inspections and checks are conducted prior to execution of training.
  - Soldiers are properly motivated and led well.
  - Training is conducted to standard and meets the training objectives.

Exercise Director

f. The exercise director will--

- Provide command and control of OCs.
- Provide operational control of OPFOR, player customers, and other supporting units or activities in the lane.
- Orchestrate planning, execution, and assessment of lane training.
- Plan, schedule, and coordinate lane training events.
- Use risk management procedures to achieve realistic and safe lane training while protecting the environment.
- Conduct (or facilitate) a final AAR for the supported unit after completion of a series of lanes.

Exercise Planners

g. Exercise planners will--

- Develop battle-focused LTX based on T&EOs using lane training principles.
- Ensure the LTX achieves the training objectives. Establish clear and definitive training objectives for each LTX.
- Develop, coordinate, and support plans for lane training.
- Coordinate requirements early.
- Ensure adequate time is scheduled to repeat tasks not performed to standard the first time.
- Validate lane training, TSPs, and other training materials--
  - After their development or revision.
  - After each LTX.

Senior OC

h. The senior OC for the lane will--

- Ensure lane OCs and leaders understand the doctrine and TTP.
- Ensure the LTX is conducted as designed to facilitate training to the Army standard.
- Follow the tactical and field SOPS for the unit being evaluated.
- Receive the leader's backbrief prior to execution of the lane.
- Control unit advancement through a lane and movement to subsequent training sites.
- Ensure events occur at the right time and place as planned by the scenario and schedule.
- Determine outcomes of engagements, fires, obstacles, and support activities.
- Ensure all OCs identify major training strengths and weaknesses that occurred during lane execution and the LTX.
- Evaluate the task proficiency of the unit executing the lane to the Army standard (in full compliance with doctrine and TTP) and provide feedback to the unit leader using AARs.
- Conduct AARs where needed.
- Direct retraining when the standard has not been achieved.
- Assist in development of the commander's training assessment.

Unit Leaders, OCs, OPFOR

i. Unit leaders, OCs, and OPFOR will--

- Know how to perform the LTX tasks (i.e., master the task).
- Know how to train others to perform the tasks.
- Brief the chain-of-command on their training plans and apply the feedback received.
- Rehearse training the way it will be presented.
- Ensure training is performance-oriented.
- Conduct themselves in a confident manner in front of their soldiers.
- Know enough to accurately answer their soldiers' questions.
- Train an assistant who can conduct the training to standard in the primary trainer's absence.
- Know how to set up and conduct an AAR.
- Prepare the resources.
  - Identify and request TADSS.
  - Get equipment and materials before the rehearsal.
  - operate the equipment to become familiar with it and check it for completeness and spare parts during the rehearsal.
- Prepare training support personnel.
  - Ensure they understand their roles.
  - Ensure they are equipped and prepared to perform the tasks to standard.
  - Ensure they conduct reconnaissances and rehearsals.
- Prepare the soldier.
  - Identify the soldier to be trained.
  - Assess the level of training proficiency for each soldier (may use pretests).
  - Train any prerequisite tasks or skills first.
  - Motivate soldiers. (Tell them the tasks to be trained and the expected performance standards. Tell them why the task is important and how it is related to their unit's wartime mission.)
- Provide feedback during AARs.

LTX Resource Managers

j. LTX resource managers will--
- Ensure the leader training site, rehearsal area, lanes, and AAR areas are equipped with all the resources needed for training.
- Ensure the lane replicas (e.g., sand table, rock drill site) match the terrain of the lane and the tasks to be performed.
- Control movement of units entering and departing the LTX area.
- Control access to the LTX area to ensure that it is free of distracters; i.e., no unauthorized personnel or equipment on the lane while the training unit is conducting lane execution or participating in AARs.
- Ensure the OCs, OPFOR, and training unit have the resources needed to perform their missions on the lane.

Commander One-Level Above Unit

k. The commander one level above the unit to be trained by the LTX will--
- Assess the unit's METL and corresponding capabilities.
- Approve task selection for each LTX.
- Monitor exercise planning IAW FM 25-100 and FM 25-101.
- Provide and coordinate unit resource requirements.
- Ensure junior leaders understand tasks.
- Assist in preliminary training for junior leaders.
- Monitor the unit as it proceeds through the LTX.
- Retrain the unit.
- Issue orders, based on higher-level orders.
- For RC units, ensure the unit dedicates time on scheduled inactive duty training weekends for training on selected tasks in support of lane training.

Commander Two-Levels Above Unit

l. The commander two levels above the unit to be trained by the LTX will-
- Ensure exercises and prerequisite activities are scheduled during long-range planning.
- Approve the METL tasks or supporting tasks to be trained.
- Ensure leader and soldier training takes place.
- Train and verify leaders' and evaluators' proficiency.
- Arrange for trained OCs who have had their task proficiency verified.
- Provide resources available at his level.
- Issue orders.
- Monitor training.
- Assess training.

Appendix B
Identify Supporting Tasks for METL

B-0. Appendix Overview.

Introduction

a. This appendix describes how to identify supporting tasks for METL tasks.

Appendix Index

b. This appendix covers the following:

B-1. General.

METL Tasks

a. The company is the lowest level unit to have a METL. METL tasks are normally identified during the commander's METL development process, which precedes the planning phase of the lane training process. If they have not been identified prior to the lane training planning process, they must be identified by the commander during long-range planning. FM 25-101 provides guidance on how to identify METL tasks.

Supporting Tasks

b. To develop lane training, the exercise director needs to know all tasks that support the METL. If supporting collective and individual (leader and soldier) tasks for METL were not identified by the commander, they need to be identified by the exercise director.

Identify Tasks

c. To identify supporting tasks for METL, select a task and derive lower level or subordinate collective and individual tasks performed by the unit's subordinate elements, leaders, and soldiers.

Sources

d. Sources for deriving supporting tasks for METL tasks are listed below. Note MTP and STP are the primary sources.

- Primary sources for collective tasks:
  - MTP mission-to-collective task matrix.
  - MTP publications reference-to-collective task matrix.
  - MTP mission outlines.
  - MTP STX plans.
  - MTP T&EOs (task steps).
  - Automated tools; e.g., SATS.
- Primary sources for leader or soldier individual tasks:
  - MTP collective task-to-individual task matrix.
  - MTP T&EOs (task steps).
  - STP.
  - Automated tools; e.g., SATS.

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- Other sources:
  - Table of organization and equipment mission statement.
  - Mobilization or contingency plans.
  - Drills.
  - FMs.
  - TCs.
  - Common task manuals.
  - TMs.
  - LTX TSPs.
  - Lane books.
  - Lane training reference material.
  - SOPs.
  - TTP.
  - Unit leaders.
  - Subject matter experts.
  - Training proponents.
  - Other Department of Defense, service, or major command publications.

Methods e. The methods used to derive, organize, and display tasks include flowcharts, outlines, and pyramids.

Uses f. In addition to being used to develop lane training plans, the task lists or displays can be included in LTX TSPs to help leaders and soldiers understand how supporting tasks are related to higher-level tasks and missions.

B-2. Identify Supporting Tasks for METL Tasks.

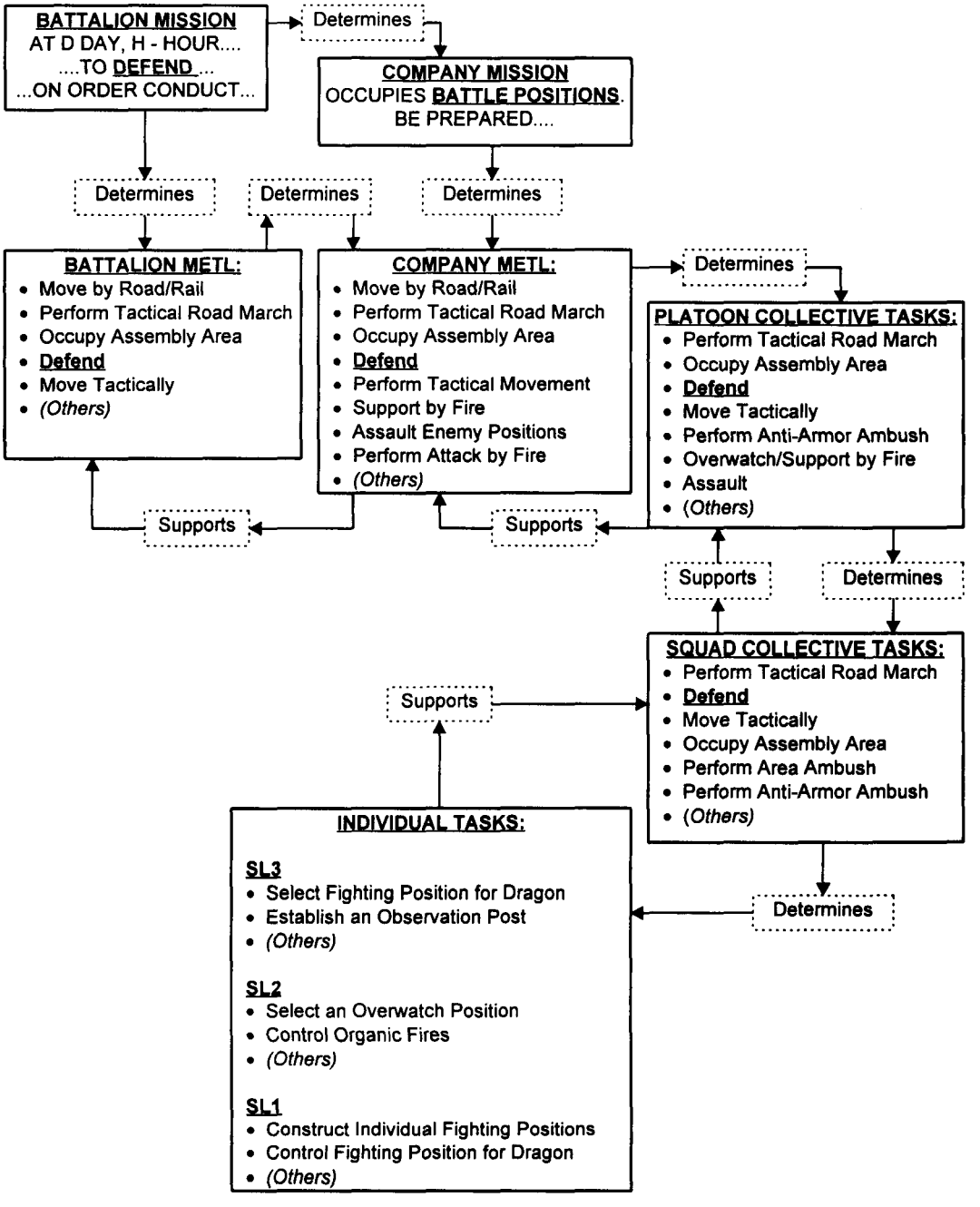
Procedure Identify supporting tasks for METL tasks by using the following procedure:

Step	Action
1	List METL tasks or battle tasks.
2	Derive (or crosswalk) tasks from higher-level echelons to lower-level echelons by listing supporting collective and individual (leader and soldier) tasks along with task numbers and references to sources; e.g., FMs, STPs, TMs. • For the higher echelon, select a METL task or mission essential task. • List supporting collective and individual tasks for the same echelon. • List supporting collective and individual tasks for the next (first) lower echelon. • List supporting collective and individual tasks for the next (second) lower echelon. • Repeat for lower echelons, if needed. ***Note:*** • Methods include developing flowcharts, outlines, and pyramids. • To ensure the list is accurate and complete-- •• Select a specific higher level task. •• Ensure all supporting tasks required to perform the higher level task are listed.

B-3. Sample Derivation of Supporting Tasks - Flowchart.

Flowchart Example

This is a flowchart example of a crosswalk from a higher to a lower echelon for an infantry mission of "Defend." This illustrates how to derive METL tasks from missions and supporting collective and individual tasks from METL tasks.



B-4. Sample Derivation of Supporting Tasks - Outline.

Outline Example

Following is an outline example of how to derive supporting collective and individual tasks (indicated by bullets) for elements of a general support maintenance company. For this example, the supporting collective tasks listed in paragraph B are derived for a selected higher level task. Paragraphs after paragraph B would be added for each element of the company. This example focuses on tasks for a repair platoon (paragraph D). Tasks for other specialties (e.g., MOS) should also be included.

Unit: Ordnance (Maintenance) Company (GS)

A. METL Tasks (Missions):
- Relocate Company to a New Operating Site
- Establish Company Area of Operations
- Conduct General Support (GS) Maintenance (* Task Selected)
- Defend Assigned Area

B. Supporting Collective Tasks (From Mission-to-Collective Task Matrix)
- Perform Maintenance Control Functions (43-2-0193)
- Supervise GS Platoon Operations (43-2-1 501)
- Conduct GS Maintenance Operations (43-2-1502)
- Provide GS Repair Parts Supply Support (43-2-0197)
- Provide Allied Trades and Lift Services (43-2-1503)
- Provide COMSEC Supply Support (43-2-1504)
- *(Others Omitted)*

C. Unit: Maintenance Control Section *(omitted)*
Task: Perform Maintenance Control Functions (From T&EO 43-2-0193)

D. Unit: Repair Platoons
Tasks:
- Supervise GS Platoon Operations (43-2-1501)
- Conduct GS Maintenance Operations (43-2-1 502)

1. Supporting Leader Tasks
   a. From T&EO 43-2-1502
      - Section chiefs supervise shop operations
      - Section chief performs internal production control
      - *(Others Omitted)*
   b. From STP 9-63H34-SM-TG
      - Establish and Operate Maintenance Facility (091-309-0611)
      - Plan Work Flow (091-362-0601)
      - Supervise the Repair of Compression Ignition Engines (091-362-9852)
      - Supervise the Repair of Track Vehicle Cross Drive Transmission (091-362-9854)
      - Inspect and Troubleshoot Compression Ignition Engine (091-362-9861)
      - Inspect and Troubleshoot Track Vehicle Cross Drive Transmission (091-362-9863)
      - Supervise the Maintenance of TMDE (09 1-309 0626)
      - Administer QA/QC Program (09 I -462-0608)

2. Supporting Element Collective Task
   a. Repair sections perform repairs on equipment (from T&EO 43-2-1502)
      - Repair team repairs BV92TA *engine*
      - Repair team repairs 8V71 engine
      - Repair team repairs M1A1 transmission
      - Repair team repairs HMPT-500 transmission
      - *(Others Omitted)*
   b. *(Others Omitted)*

3. Supporting Soldier Tasks (from STP and TM)
   a. From STP 9-63H12-SM
      - Repair Compression Ignition Engine (091-162-9852)
      - Repair Track Vehicle Cross Drive Transmission Assemble (091-162-0708)
      - Maintain TMDE (091-109-0001)
      - Maintain Assigned Tools (091-109-0003)
      - Review/Annotate Maintenance Request DA 5504 (09 1- 109-0002)
   b. From TM *(Omitted)*

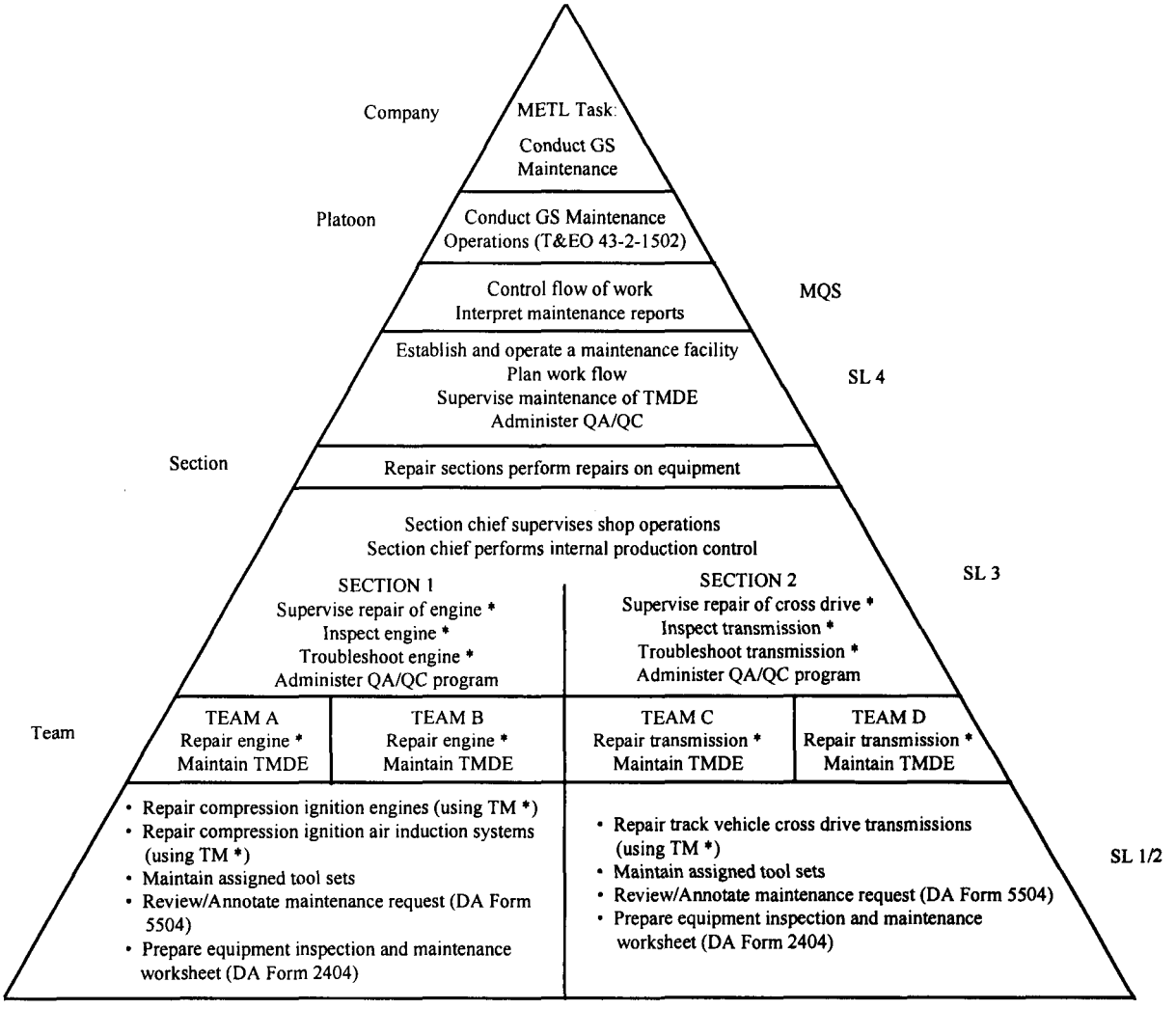
E. *(Other Unit Elements Omitted)*

B-5. Sample Derivation of Supporting Tasks - Pyramid.

Pyramid Example

The following figure is a pyramid example of how to identify or derive supporting collective and individual (leader and soldier) tasks for elements of a general support maintenance company. Some elements of the unit and some tasks are omitted from this example due to lack of space. This example could be improved by adding more detail or specificity; e.g., identifying other unit elements, identifying specific models of equipment, listing more tasks, listing lower level supporting tasks.

Unit: Ordnance (Maintenance) Company (GS)
LTX Task: Conduct GS Maintenance



* Identify model

Appendix C
Select Tasks for Training

C-0. Appendix Overview.

Introduction

a. This appendix describes the difficulty -importance-frequency (DIF) model, a method for prioritizing tasks for training.

Appendix Index

b. The appendix covers the following:

C-1. General.

Background

a. Appendix B described how to identify tasks supporting METL. Although it is important to identify all collective and individual tasks supporting METL, it usually is impractical to train all of them. Paragraph 2-6 explains why one lane training principle is "Select battle-focused tasks"; i.e., selecting high priority tasks for training. Paragraph 3-14 describes how to determine training requirements, essentially battle-focused or high-priority tasks. Among the considerations in determining training requirements are task difficulty, importance, and frequency of performance. This appendix describes a modified version of the DIF model for prioritizing tasks for training.

DIF Value

b. A simple decisionmaking process for selecting tasks for training can be based on the difficulty and importance ofthe task. For example:

- If a task is both difficult and important, it is probably a high-priority task for training.
- If a task is either difficult or important, it is probably a medium-priority task for training.
- If a task is neither difficult nor important, it is probably a low-priority task for training.

However, this simple decision-making process ignores the impact of task performance frequency on the need for sustainment training; i.e., frequent task performance may reduce the need for sustainment training. The use of the DIF model will reduce the number of high and medium-priority tasks selected for training.

C-2. The DIF Model.

Definition

a. **DIF Model** - A technique for prioritizing tasks for training based on their difficulty, importance, and frequency.

Application

b. Although the technique can be applied by a single task expert to categorize tasks, the utility and validity of the technique can be improved by sampling the opinions of several experts. Sampling can be conducted using interviews, panels, or surveys.

Characteristics

c. The DIF model has the following characteristics:

- Compares key characteristics of tasks.
- Quickly prioritizes tasks.
- Can validate tasks by sampling opinions of leaders and soldiers performing tasks.
- Sampling characteristics:
  - Ease of administration.
  - Flexible in terms of complexity desired.
  - Permits cross-section of sources.
  - Small sample size.
  - Quick turnaround.
  - Simple analysis of data.
  - Simple unambiguous questions.
  - Permits rank ordering by category.
- Has three questions about each task to be answered by task experts:
  - What is the task's difficulty in terms of learning and performance?
  - What is the importance of the task to the unit's mission or job?
  - How frequently is the task performed?

Training Options

d. The training options considered by the modified DIF model used in this appendix are as follows:

High Priority	This task is a high-priority task for training. The unit, leader, or soldier must be trained so as to instantly react and perform automatically. This may require use of the over-training technique.
Medium Priority	This task is a medium-priority task for training. The unit, leader, or soldier must be able to demonstrate proficiency in performing the task at the speed required on the job.
Low Priority	This task is a low-priority task for training. The unit, leader, or soldier must be able to demonstrate proficiency in performing the task at the speed required on the job; however, this task probably does not require formal or sustainment training.

Interpretation

e. The DIF model is one tool that can be used to help prioritize tasks for training; however, the rating levels, rating priorities, and training options resulting from use of the model do not have absolute validity; they are only general guides. The user of the model should still consider other factors described in paragraph 3-14 before selecting tasks for lane training.

Procedure f. Exercise planners use the modified DIF model to select tasks for training. Procedure:

Step	Action	
1	Use the indicators in the following table to determine the difficulty in learning or performing the task in terms of the following difficulty levels: High = Very difficult. Medium = Moderately difficult. Low = Not difficult. ***Note:*** Select the next lower difficulty level if a good job aid is available and can be used.	
	If this indicator applies:	**Then this difficulty level applies:**
	• Task requires outside assistance or expertise.	High
	• Task has unique activities.	High
	• Task requires considerable concentrated effort.	High
	• Task requires considerable decisionmaking.	High
	• Task has a lot of concurrent activities.	High
	• Ability to perform task gets better with practice, but task does not get easier.	High
	• Task requires constant practice or performance to maintain proficiency.	High
	• Task requires some practice to maintain proficiency.	Medium
	• Task gets easier with practice.	Medium
	• Task requires some concentrated effort.	Medium
	• Task requires some decisionmaking.	Medium
	• Other than above; e.g., easy to perform, little concentrated effort or decisionmaking required.	Low
2	Use the indicators in the following table to determine the importance of the task in terms of the following importance levels: High = Very important. Low = Less important.	
	If this indicator applies:	**Then this importance level applies:**
	• Cost of task performance failure is high (e.g., money, manpower, equipment, time).	High
	• Task failure may cause failure to accomplish unit mission.	High
	• Task failure may hinder mission accomplishment of other units.	High
	• Task failure may hinder the unit's mission or function accomplishment.	High
	• Poor performance will cause damage and losses.	High
	• Other than above; e.g., no real harm done, missions not affected, unit functions still performed.	Low

(Continued on next page)

Procedure f. *(Continued)*

<table>
<tr><th>Step</th><th colspan="4">Action</th></tr>
<tr><td>3</td><td colspan="4">Use the indicators in the following table to determine the frequency of the task in terms of the following frequency levels during normal operations not specifically designed for training:
High = Very frequent.
Medium = Moderately frequent.
Low = Not frequent or infrequent.</td></tr>
<tr><td></td><td colspan="3">If this indicator applies:</td><td>Then this frequency level applies:</td></tr>
<tr><td></td><td colspan="3">• Performed at least once every 2 weeks.</td><td>High</td></tr>
<tr><td></td><td colspan="3">• Performed at least once every 8 weeks.</td><td>Medium</td></tr>
<tr><td></td><td colspan="3">• Performed less frequently than once every 8 weeks.</td><td>Low</td></tr>
<tr><td>4</td><td colspan="4">Select a training option using the following decision table:</td></tr>
<tr><td></td><td>If the task difficulty is ...</td><td>And the task importance is ...</td><td>And the task frequency is ...</td><td>Then the training priority is ...</td></tr>
<tr><td></td><td rowspan="6">High</td><td rowspan="3">High</td><td>High</td><td>Medium</td></tr>
<tr><td></td><td></td><td>Medium</td><td>High</td></tr>
<tr><td></td><td></td><td>Low</td><td>High</td></tr>
<tr><td></td><td rowspan="3">Low</td><td>High</td><td>Medium</td></tr>
<tr><td></td><td></td><td>Medium</td><td>Medium</td></tr>
<tr><td></td><td></td><td>Low</td><td>Low</td></tr>
<tr><td></td><td rowspan="6">Medium</td><td rowspan="3">High</td><td>High</td><td>Medium</td></tr>
<tr><td></td><td></td><td>Medium</td><td>High</td></tr>
<tr><td></td><td></td><td>Low</td><td>High</td></tr>
<tr><td></td><td rowspan="3">Low</td><td>High</td><td>Low</td></tr>
<tr><td></td><td></td><td>Medium</td><td>Low</td></tr>
<tr><td></td><td></td><td>Low</td><td>Medium</td></tr>
<tr><td></td><td rowspan="6">Low</td><td rowspan="3">High</td><td>High</td><td>Low</td></tr>
<tr><td></td><td></td><td>Medium</td><td>Low</td></tr>
<tr><td></td><td></td><td>Low</td><td>Medium</td></tr>
<tr><td></td><td rowspan="3">Low</td><td>High</td><td>Low</td></tr>
<tr><td></td><td></td><td>Medium</td><td>Low</td></tr>
<tr><td></td><td></td><td>Low</td><td>Low</td></tr>
</table>

Appendix D
Develop a T&EO

D-0. Appendix Overview.

Introduction

a. This appendix describes how to develop T&EOs.

Appendix Index

b. This appendix covers the following:

D-1. General.

Definitions

a. Following are key definitions:

Training and Evaluation Outline (T&EO)

A summary document, prepared for each training activity, that provides information on collective training objectives, related individual training objectives, resource requirements, and applicable training procedures. They form the basis for training, internal evaluations, and formal external evaluations.

Training Outline

An organized outline of the training material to be presented. It may identify tasks, conditions, standards, task steps, performance measures, references, resources required, facilities required, safety factors, environmental considerations, and risk factors.
Note: For lane training, the training outline supplements a T&EO by providing the OC or trainer additional information needed to plan and conduct training. Although it may have the same general types of information as a T&EO, a training outline adds specificity and focus.

T&EO Sources

b. MTPs are the normal source for T&EOs. If a T&EO for the desired task is not in the MTP for the unit, it may be included in related MTPs, TSPs, lane books, or lane reference materials. When the tasks to be trained are not addressed or covered adequately by an existing T&EO, develop a new or revised T&EO. Alternatively, develop a training outline to supplement the T&EO by providing additional information needed by the OC.

After T&EO Development

c. If a new or revised T&EO was developed, furnish a copy to the training proponent for the appropriate MTP. This feedback will allow the training proponent (usually an Army service school) to consider whether this task should be assigned an official number and included in future MTPs or training documents.

D-2. Format.

Format

This table lists the components of the T&EO format and their purpose in the order they would smear. See the samples at paragraphs D-5 and D-6.

Component	Description
Element	Identifies the organizational echelon or element for which the T&EO is developed.
Task	Identifies the T&EO task title, number, and applicable references.
Iteration	Indicates the number of times the task was performed during a training exercise. When an "M" is listed, it means the task can be trained in MOPP4. If an "M" is listed, at least one iteration of the task should be trained in MOPP4.
Commander/ Leader Assessment	Records the unit leader's training assessment of the unit's ability to accomplish the task to wartime standards. The leader circles one of the following letters: "T" -- Trained. "P" -- Needs Practice. "U" -- Untrained.
Conditions	Describes the situation or environment in which the unit performs the task. It also identifies the initiating cue.
Task Standards	Describes the overall task outcome that must be met for successful execution of the task. Identifies risk management design controls for safety and prevention of fratricide.
Task Steps	Provides the sequential steps or actions that are required to perform the task. Includes risk assessment and implementation of safety and fratricide prevention controls.
Performance Measures	Describes how well the task step must be performed.
Go / No-Go	Records the trainer's or evaluator's evaluation of the results achieved during the execution of each task step.
Task Performance Summary Block	Records, by iteration, the total number of task steps and performance measures evaluated, the number evaluated as a "GO," and the unit's overall training status as either "GO" or "NO-GO."
Supporting Individual Tasks	Refers to a list of individual tasks, numbers, and titles grouped by STP (or other appropriate task list). Optionally, lists tasks.
OPFOR Tasks and Standards	Lists OPFOR tasks (countertasks), conditions, and standards supporting the T&EO.

D-3. Procedure.

Procedure Develop or revise T&EO (or supporting training outlines, if needed) using the following procedure:

Step	Action
1	Select a task or T&EO. ***Note:*** Use available automated systems.
2	Review the T&EO format. • Review required format components. See paragraph D-2. • Review existing T&EOs to determine how to display each component's information. ***Note:*** Training outlines have no specific format. They are structured to augment and tailor T&EOs by adding essential information needed to satisfy specific training requirements.
3	Review task information from appropriate sources: • Primary sources: •• MTP for collective and individual tasks. •• STP for individual tasks. • Alternate sources: •• Drills. •• FMs. •• TCs. •• Common task manuals. •• TMs. •• TSPs. •• Lane books. •• Standard operating procedures. •• Tactics, techniques, and procedures. •• Unit leaders. •• Subject matter experts. •• Training proponents.
4	Write the T&EO using the T&EO format (paragraph D-2), guidelines (paragraph D-4), and samples (paragraphs D-5 and D-6).
5	Develop a training outline, if needed, to support a T&EO (see sample at paragraph D-7).
6	Verify content accuracy. • Compare content with doctrinal sources. • Coordinate the content with subject matter experts to confirm technical accuracy.
7	Coordinate with the training unit.

D-4. Guidelines.

Guidelines Follow these guidelines to write T&EOs.

Item	Component	Guideline
1	Element	• Enter the organizational echelon or element for which the T&EO is designed. • Capitalize each word in the element title.
2	Task	• Enter the task title (Capitalize each word.) • Enter the task number in parentheses. Use the task number listed in MTPs, drill manuals, or STPs for tasks recognized by training proponents. • For tasks not listed with task numbers in Army publications, recommend the following numbering technique be used to create a three-part number: •• First part: Use the unit's five-digit unit identification code. •• Second part: Assign a one-digit echelon identification number using the table below:
		ID Number / Echelon 1 Battalion (Squadron) 2 Company (Troop, Battery, Detachment) 3 Platoon 4 Squad/Section 5 Crew/Team 6 Brigade (Group, Regiment) 7 Division 8 Corps
		•• Third part: Assign a different three digit (001-999) number for each new task •• Example: xxxxx-3-058 = A platoon level task. • List primary and supporting references in parentheses. If more than one reference is used, list the primary reference first and underline it. If only the primary reference is used, do not underline it.
3	Iteration	There are three possible iteration lines to use depending upon whether or not the task is performed in MOPP. Follow the guidelines below and select the iteration line appropriate for your task. • Task not performed in MOPP4. Use: "ITERATION 1 2 3 4 5 (circle)" • Some iterations of task should be performed in MOPP4. Use: "ITERATION 1 2 3 4 5 M (circle)" • Every iteration of task should be performed in MOPP4. Use: "ITERATION 1M 2M 3M 4M 5M (circle)"
4	Commander/ Leader Assessment	• Immediately under iteration, include the following line: "COMMANDER/LEADER ASSESSMENT T P U (circle)"

(Continued on next page)

Guidelines *(Continued)*

Item	Component	Guideline
5	Conditions	• The conditions statement sets the stage for the performance of the task. • Tailor the conditions to the desired training environment and to the METT-T of potential military operations. • Include all pertinent information such as orders or special tactical situations, equipment, and METT-T. • Include one of the following statements: •• "This task should not be trained in MOPP4." •• "Some iterations should be performed in MOPP4." •• "This task is always performed in MOPP4."
6	Task Standards	• Standards describe the minimum acceptable level of task performance. • Standards must be objective, observable, and measurable. • Review the condition statement to determine the parameters of standards. The standards cannot address anything outside the parameters set by the condition. • Review a higher echelon's T&EO for the same or related task to determine how it may influence the standards. • Review the task steps. Task steps are the basis for development of task standards. Ask the question, "What is the ultimate outcome of the performance of these task steps?" • If the task must be trained under MOPP conditions, include specific differences between MOPP and non-MOPP standards (if there are any). • Include specific reference to risk management for tasks that include planning or implementation of controls for safety or force protection. ***Note:*** The standards for tasks found in MTPs and STPs are minimum Army standards; they may be increased, but not lowered.
7	Task Steps and Performance Measures	• Task steps are required unit actions that support collective tasks (performed by subordinate echelons) or individual tasks executed in performance of the T&EO. Each step should be specific and contain only one event. • Review the condition statement to maintain a clear understanding of the parameters of the task. • Review information sources to determine how the task is performed. • Sequence all task steps as they should be performed. • Start the task step with who or what element of the unit performs the task step (e.g., "The company commander supervises..."; "Class I Section performs...."). • If the task step is a leader task, then enter an asterisk ("*") before the task step number. • If the task step is a critical collective task with a corresponding T&EO, identify the T&EO number and task title following the task step's description.

(Continued on next page)

Guidelines *(Continued)*

Item	Component	Guideline
		(Continued) • If the task step is a drill, identify the drill manual (or the MTP appendix) and drill number in parentheses following the task step description. • If the task step is performed in MOPP4, then include any specific differences in performance measures. • For each task step, indicate the behaviors, products, and characteristics that the scorer observes to determine if the task step has been performed correctly. Performance measures must-- •• Begin with an action verb. •• Be written as action phrases and listed in their order of accomplishment. •• Include only one event per measure. •• Be observable and measurable. •• Include reference to the planning or implementation of safety, environmental protection, and fratricide prevention controls, if appropriate. • References for task steps may be listed after each task step. • Graphics may be included to illustrate a task step.
8	GO/NO GO Columns	• Locate the "GO" and "NO GO" columns to the right of the task steps.
9	Task Performance/ Evaluation Summary Block	• Follow the format of a sample MTP T&EO and include these subheadings: •• ITERATION. •• TOTAL TASK STEPS EVALUATED. •• TOTAL TASK STEPS "GO". •• TRAINING STATUS GO/NO-GO. • The iteration line under the task performance summary block must match the iteration line under the task title at the beginning of the T&EO.
10	Supporting Individual Tasks	• Refer to a list of common and MOS-specific individual tasks. Indicate the list's number for each individual task by skill level. • Optionally, list individual tasks by reference (e.g., STP 21-1-SMCT), task number, and task title.
11	OPFOR Tasks and Standards	• If OPFOR tasks are applicable, then: •• Review related tasks or OPFOR countertasks in an MTP to see if they are applicable and can be used without modification. •• Develop OPFOR tasks, conditions, and standards that specify the overall OPFOR performance for the T&EO-level collective task. •• OPFOR task standards must specify what must be accomplished, not how it must be done. • If OPFOR tasks are not applicable, then indicate "(None)" under the heading.

Note: Capitalize and bold all topic headings. See the sample T&EOs at paragraphs D-5 and D-6.

D-5. Sample T&EO (CA).

Sample CA T&EO Following is a sample of a CA T&EO (information may be fictional):

(Start of sample)

ELEMENT: PLATOON/SQUAD

TASK: DEFEND AGAINST AIR ATTACK (7-3/4- 1301)
(FM 7-8, AR 40-5, FM 21-10, FM 44-8)

ITERATION 1 2 3 4 5 M (Circle)

COMMANDER/LEADER ASSESSMENT T P U (Circle)

CONDITIONS: The platoon is tactically deployed separately or as part of a larger unit. Hostile aircraft have been operating in the area. The platoon must provide its own security. Any member alerts the platoon of approaching aircraft or aircraft fires on the unit. Some iterations should be performed in MOPP4. Civilians, government organizations, NGOs, PVOs, and the international press are present on the battlefield. The U.S. forces are operating under a restrictive ROE.

TASK STANDARDS: All personnel start and stop tire on order, or start fire within three seconds of being fired on, and stop on order. All personnel use the engagement technique ordered by the leader. The platoon destroys hostile aircraft or disrupts the attack. The platoon continues follow-on operations. The U.S. forces comply with the ROE. Collateral damage is limited.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
1. The platoon takes action against hostile aircraft firing on the unit. a. (Any member) Alerts the platoon of approaching aircraft. b. If fired on by the aircraft, without order or signal, immediately returns fire, using the appropriate engagement technique. c. If not fired on, leaders order personnel to freeze. Platoon members: •Use all available cover and concealment •Use dispersion techniques. •Prepare to engage enemy aircraft on order. d. Tracks aircraft.		
*2. The platoon leader identifies aircraft as enemy. a. Selects an engagement technique based on the type of aircraft and direction of attack. b. Orders the platoon to fire using the selected engagement technique, if the aircraft is to be engaged.		
3. On order, platoon members fire at enemy aircraft (cyclic rate of fire), using directed engagement technique.		
*4. The platoon leader orders platoon members to cease fire.		
*5. The platoon leader reports enemy aircraft (type, location, course) to the company CP.		
6. The platoon consolidates and reorganizes based on T&EO 7-3/4-1607, Perform Consolidation and Reorganization.		

(Continued on next page)

Sample T&EO (CA) *(Continued)*

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
7. The platoon continues the mission. • Resumes the proper formation, if moving.		

"*" Indicates a leader task step.

TASK PERFORMANCE/EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO/NO-GO"							

SUPPORTING INDIVIDUAL TASKS

See Appendix A for task numbers and titles that correlate to the numbers listed below by STP and skill level.

Common Tasks

Skill Level 1: 24,25,41,55,68,72,96,97
Skill Level 2: 9,25,26
Skill Level 3: NONE
Skill Level 4: NONE

MOS 11B Tasks

Skill level 1: 14, 17, 21, 41, 42, 43
(Portions omitted from sample)

OPFOR TASKS AND STANDARDS

TASK: PERFORM AIR ATTACK

CONDITIONS: The OPFOR fixed- or rotary-wing aircraft detect enemy forces and are ordered to engage the enemy.

STANDARDS:
1. The OPFOR surprises the unit with an air attack.
2. The OPFOR inflicts casualties on the platoon.
3. The OPFOR does not lose any aircraft to ground fire.

(End of sample)

D-6. Sample T&EO (CSS).

Sample CSS Following is a sample of a CSS T&EO (information may be fictional):
T&EO

Sample CSS T&EO *(Start of sample)*

ELEMENT: REPAIR PLATOONS

TASK: CONDUCT GENERAL SUPPORT MAINTENANCE OPERATIONS (43-2-1502)
(DA Pam 738-750, FM 43-11, FM 63-1, FM 63-3, FM 63-4)

ITERATION 1 2 3 4 5 (Circle)

COMMANDER/LEADER ASSESSMENT T P U (Circle)

CONDITIONS: The company is providing GS maintenance in support of the TA supply system from its established field or MOUT location. The MCS has obtained all parts necessary to repair the equipment and has distributed assignments to appropriate repair sections for repair. Priorities for repair are set by the MCS. SOP, TSOP, and required technical publications are available in MCS. Maintenance control procedures may be manual or automated. The platoon receives messages from higher, adjacent, and lower echelons by radio, telephone, and courier. This task is performed under all environmental conditions during the day or night. The company is subject to NBC, air, and Level I ground attack. This task should not be trained in MOPP 4.

TASK STANDARDS: Required repairs are accomplished IAW appropriate technical publications standards. Maintenance management and procedures are performed IAW the internal maintenance SOP.

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
*1. Section chief supervises shop operations. a. Coordinate repair section operations with MCS to ensure highest priority jobs are completed first. b. Provide technical assistance to repairer. c. Identify method of repair to be used based on type of equipment to be repaired and facilities available in coordination with the MCS. d. Maintain accountability of tools and test equipment to minimize pilferage. e. Request approval from the MCS to perform controlled exchange when required repair parts are not available in the supply system. f. Verify bench stock replenishment requests. g. Forward bench stock replenishment requests to MCS. h. Enforce safety procedures.		
*2. Section chief performs internal production control. a. Verify maintenance requests received from MCS to ensure that repair assets are on hand to complete repairs. b. Distribute workload to mechanics IAW MCS priorities. c. Realign personnel based on workload. d. Forward status of equipment being repaired to MCS.		

(Continued on next page)

Sample T&EO (CSS) *(Continued)*

TASK STEPS AND PERFORMANCE MEASURES	GO	NO-GO
3. Repair sections perform repairs on equipment. a. Perform repairs IAW appropriate technical publications. b. Request approval from the section chief to perform controlled exchange. c. Perform controlled exchange, when directed. d. Request bench stock replenishment. e. Employ safety procedures.		

"*" Indicates a leader task step.

TASK PERFORMANCE/EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL TASK STEPS EVALUATED							
TOTAL TASK STEPS "GO"							
TRAINING STATUS "GO/NO-GO"							

SUPPORTING INDIVIDUAL TASKS

See Appendix A for task numbers and titles that correlate to the numbers listed below by STP and skill level.

MOS 44B Tasks
Skill Level 1: *(Portions omitted from sample)*

MOS 44E Tasks *(Portions omitted from sample)*

MOS 63B Tasks *(Portions omitted from sample)*

MOS 63H Tasks *(Portions omitted from sample)*

MOS 63S Tasks *(Portions omitted from sample)*

MOS 63W Tasks *(Portions omitted from sample)*

MOS 63Z Tasks
Skill Level 5: *(Portions omitted from sample)*

OPFOR TASKS AND STANDARDS

(None)

(End of sample)

D-7. Sample Training Outline.

Sample Training Outline

Following is a sample training outline which supplements the T&EO at paragraph D-6 (information may be fictional):

Sample Training Outline *(Start of sample)*

(63 W)
TRAINING OUTLINE

T&EO SUPPORTED: CONDUCT GENERAL SUPPORT MAINTENANCE OPERATIONS (43-2-1502)

TRAINING STATEMENT: REPAIR ENGINE - DETROIT 8V71T
MODEL 7003-7396 NSN 2815-01-040-3120
USED IN M 109/M992, Ml 10/M578 FAMILY OF VEHICLES
Perform complete disassembly, cleaning, inspection, repair, and final assembly,

TASKS:
#091-164-9901 REPAIR COMPRESSION IGNITION ENGINES (GS)
#091-169-03 17 REPAIR COMPRESSION IGNITION AIR INDUCTION SYSTEMS
#091-109-0003 MAINTAIN ASSIGNED TOOL SETS
#09 1-109-0005 PREPARE EQUIPMENT INSPECTION AND MAINTENANCE WORKSHEET (DA FORM 2404)
#091- 109-0012 REVIEW/ANNOTATE MAINTENANCE REQUEST (DA FORM 5504)

CAUTION STATEMENT: All personal safety equipment will be used. Use available hoisting equipment to help prevent back injuries, Compressed air for cleaning should not exceed 30 psi. Follow safety procedures in TM.

TASK STEPS: Follow procedures as directed in TM 9-2815-202-34. (Identify and perform tasks on Model 7083-7396 only.)

1. Remove engine from container and prepare for removal of accessories. page 3-8 thru 3-29

2. Remove engine accessories prior to installing engine onto maintenance stand. page 3-30 thru 3-39

3. Install engine onto maintenance stand. page 3-42,3-43

4. Perform all listed general engine maintenance/repair procedures consisting of removal, disassembly, cleaning/inspection, repair, assembly, and installation. page 5-2 thru 5-33
(Most of these tasks are referred back to chapter 4 repair procedures as they are identical to those done on engine model 7083-7395)

Turbocharger remove/install	page 5-3
Exhaust manifold and tube replacement	page 5-5
Fuel lines replacement	page 5-8
Engine lift brackets replacement	page 5-10
Water manifolds replacement	page 5-12
Air box heater replacement	page 4-22

(Portions omitted from sample)

(Continued on next page)

Sample Training Outline *(Continued)*

5. Engine block maintenance: disassemble, inspect, repair, and assemble block components.
(Refer to Chapter 4)

Piston and connecting rod maintenance	page 4-132
Cylinder liner maintenance	page 4-144
Crankshaft maintenance	page 4-152
Cylinder block maintenance	page 4-162

6. Component repairs Model 7083-7396 page 5-33
(Refer to Chapter 4, as required)

Turbocharger repair	page 4-175
Cylinder head repair	page 5-34

(Portions omitted from sample)

7. Assembly of all components and accessories will follow the procedures described in each section previously covered in the repair guidelines covered above.

RESOURCES REQUIRED:

Training area: Shop area with parts cleaning equipment, compressed air

TMs: TM 9-2815-202-34, TM 9-2015-203-34P

Tools/Special Tools:

Chain hoist 1.5 ton minimum	
Stand, maintenance	4910-00-795-0189
Cradle	4910-00-795-0918
Sling, multiple	3940-00-977-7398
Sling, four legged	4910-00-140-6876
Wrench, torque 300 LB-IN	5120-00-247-2536

(Portions omitted from sample)

Other:

Clean rags	
Crocus cloth (ea)	5330-00-221-0872
Anti-seize compound (Mil-A-907)(lb.)	8030-00-597-5367
Sealant, loctite RC-620 (50) (cc.)	8030-00-181-7603
Sealant, RTV1O (oz.)	8040-00-941-9984
Sealant, 567-47 (oz.)	8030-01-166-0675
Silicone lubricant (can)	6850-01-265-3155

(Portions omitted from sample)

Parts: (Following are usable on Code B8V)

Gasket set OH	PN5 19634 (ea)	5330-00-751-8883
Gasket, valve cover	PN5 104081 (ea)	5330-01-078-7186

(Portions omitted from sample)

(End of Sample)

Appendix E
Conduct Risk Management

E-0. Appendix Overview.

Introduction a. This appendix describes safety and environmental risk management for lane training.

Appendix Index b. This appendix covers the following:

E-1. General.

Purpose a. Application of the risk management process--
- Supports force protection.
- Promotes safety and environmental protection.
- Identifies potential hazards.
- Implements controls to minimize the risks caused by hazards

Definitions b. The following definitions apply:

Safety	The condition of being free from danger, injury, or damage. Maintaining safety means to practice proper procedures designed to protect-- • Personnel from accidental injury or loss of life. • Equipment or facilities from accidental damage or loss.
Environmental Protection	The practice of procedures designed to avoid or minimize damage to land, air, water, or life.
Hazard	A condition with the potential for causing injury to personnel, damage to equipment or structures, loss of materiel, or reduction of ability to perform a prescribed function (e.g., mission, task, learning objective)
Risk	An expression of possible loss over a specific period of time or number of operational cycles. Also, a hazard, danger, or peril; exposure to loss or injury; or the degree of probability or loss.

Risk Management	The process whereby management decisions are made and actions implemented to reduce the effects of identified hazards. It is a systematic process for making military operations and training safer and more effective.
Risk Assessment	The process of detecting hazards and systematically assessing their overall risk. Also, it is an expression of potential loss in terms of hazard severity of effect and hazard probability. It is a part of the risk management process.
Operations Analysis	A description, normally in time sequence, of the events that are expected to occur during an operation (e.g., training, lane execution).

Goal

c. Reduce risks without unnecessarily degrading mission objectives or training effectiveness.

Key Rules

d. Following are key rules to remember:
- No unnecessary risk should ever be accepted.
- Risk decisions must be made at the appropriate level.
- The benefits of taking a risk must outweigh the possible cost of the risk.

Advantages of Risk Management

e. The advantages of risk management include the following:
- Detects risks before losses.
- Quantifies risk.
- Provides risk control alternatives.
- Improves integration of safety.
- Increases mission capability.

Responsibilities

f. Safety and environmental protection and compliance are important responsibilities of all commanders, leaders, and individuals. These responsibilities are listed in the following table and in the following paragraph concerning guidelines.

Who	Responsibilities
Commanders	• Plan and resource for safety. • Establish and enforce safety standards. • Set command climate for safety.
Leaders	• Lead in safety by example. • Minimize the severity and frequency of accidents. • Control safety hazards, including fratricide. • Plan and conduct safe operations. • Train individual and unit safety. • Manage accident risks in unit operations. • Motivate subordinates to practice safe behavior. • Assess and manage risks.
Individuals	• Take personal responsibility. • Practice safe operations. • Recognize unsafe acts and conditions. • Take action to prevent accidents. • Report unsafe acts and conditions. • Work as a team.

General Guidelines

g. Guidelines for safety and environmental risk management:

- Ensure safety and environmental considerations are incorporated into the training process.
- Integrate risk management, with appropriate controls, into mission operations and the planning, execution, and assessment of training.
- Identify safety and environmental risks and controls for each operation (e.g., LTX, lane) by considering each task and task step.
- Prevent, eliminate, or minimize the risks involved while maintaining viable and realistic training.
- Consider the use of TADSS to minimize risks.
- Accept risks if mission or training benefits outweigh the costs.
- Accept no unnecessary risks; i.e., risks that would unnecessarily jeopardize lives, equipment, facilities, or the environment.
- Make risk decisions at the appropriate level. Surface high risk and extremely high-risk training plans to the appropriate commander.
- Modify training missions, guidance, plans, materials, training areas, and training to achieve prudently safe levels of safety and environmental protection.
- Incorporate risk prevention considerations, controls, statements, cautions, notes, and warnings into training plans, materials, procedures, checklists, orders, standards, rehearsals, and training.
- Ensure LTX participants are aware of potential hazards and follow procedures designed to avoid or minimize risks.
- Ensure OCs, leaders, and all training participants enforce and comply with safety and environmental rules, regulations, and procedures; e.g., endangered species protection, oil and hazardous waste disposal.
- Provide risk management feedback to LTX planners and commanders.
- Conserve and preserve resources.
- Include appropriate safety considerations and caution statements into training plans, products, and materials.
- Include appropriate environmental considerations and protection statements, cautions, notes, and warnings into training plans, products, and materials.
- Coordinate safety issues with the appropriate safety manager.
- Coordinate with the local environmental coordinator for technical advice on environmental issues.
- Supervise and enforce safety controls and standards at all times.

RISK FACTORS

h. Safety and environmental protection shortcomings usually are related to the following risk factors:

- Standards; i.e., inadequate tasks, conditions, standards, or procedures.
- Training; i.e., lack of job skills or knowledge.
- Support; i.e., lack of sufficient resources.
- Leadership; i.e., lack of guidance, teaching, oversight or enforcement of task conditions, standards, or procedures.
- Individual self-discipline; i.e., lack of dependability due to attitude, haste, overconfidence, or self-induced fatigue.

E-2. Risk Management Process.

Process

a. The risk management process can be considered to parallel the lane training process as follows:

Planning Phase	Includes those risk management procedures used prior to an operation (such as the LTX); e.g., identify hazards, assess hazards, identify and select risk control options, control planning actions.
Execution Phase	Includes those risk management procedures used during an operation or training.
Assessment Phase	Includes those risk management procedures used after an operation or training.

Planning

b. There are two types of risk management planning.

Hasty	A rapid, mental application of the planning process. It is used-- • When there is insufficient time for more thorough planning. • When deliberate planning can be conducted at later date, prior to the operation, when more or better information may be available.
Deliberate	A thorough and detailed application of the planning process. It is characterized by the use of worksheets. If high risks are expected and sufficient time is available, more detailed qualitative and quantitative techniques may be used.

Procedure

c. The exercise director conducts risk management and assessment for safety and environmental protection. There are many different techniques for conducting risk management and risk assessment. If a specific technique has been prescribed for your unit, use it instead of this technique. The following procedures can be followed twice; once while focusing on safety risk management and once while focusing on environmental risk management; however, sometimes it may be more appropriate to consider both areas simultaneously.

Phase	Step	Action
Planning	1	Decide which of the following types of risk assessment planning will be performed: • Hasty. • Deliberate.
	2	Conduct the risk assessment.
		a. Conduct an operations analysis. • Break the operation (e.g., LTX, lane) down into bite-size chunks. • Consider outlining the sequence of events, tasks, or steps.

(Continued on next page)

Procedure c. *(Continued)*

Phase	Step	Action
		b. Identify potential hazards; i.e., conduct a preliminary hazard analysis. List the hazards that could occur and result in accidents or damage during the operation. • Consider using brainstorming, terrain walk, trial run, or other techniques to identify hazards. • Consider the following: •• METT-T. •• Environment (e.g., terrain, weather, animal and plant life). •• Standards. •• Training. •• Support. •• Leadership. •• Individual self-discipline. • Examples of potential hazards include-- •• Adverse weather conditions; e.g., extreme temperatures, rain, snow. •• Laser or directed energy operations. •• Emergency operations. •• Low visibility or night operations. •• Maintenance of vehicles. •• Movement of personnel and vehicles. •• River crossing operations. •• Sustained high-tempo operations. •• Use of explosives or ammunition. •• Use of petroleum products or chemicals. •• Use of unreliable or damaged equipment. •• Air pollution. •• Archeological and historical sites. •• Hazardous material and waste. •• Noise pollution. •• Threatened and endangered species. •• Water pollution. •• Wetlands protection. ***Note:*** The hazards identified form the basis for operational and training standards.
		c. Assess the risk of each hazard. • Assess the probable severity of each hazard; e.g., catastrophic, critical, marginal, negligible. If the hazard does cause a loss, how severe will that loss be? Consider-- •• Injury or death to personnel. •• Damage or destruction to equipment. •• Damage to environment. •• Degradation of mission accomplishment.

(Continued on next page)

Procedure c. *(Continued)*

Phase	Step	Action
		• Assess the probability (frequency) of each hazard's occurrence; e.g., frequent, likely, occasional, remote, unlikely. How likely is the hazard to cause loss? Consider the conditions (or other hazards) associated with the hazard. For example: •• Have the soldiers done the training before? •• Will the training be done for the first time with low visibility or night operations? •• Will the soldiers be fatigued? ***Note:*** Use the procedures prescribed for the unit. If none have been prescribed, consider using the technique in paragraph E-3.
		d. Assess the risk for each operation (e.g., LTX, lane). • Consider all potential hazards for the operation with their estimated risks from the preceding step. ***Note:*** The output of this step is a risk assessment level describing the impact of the combined hazards; e.g., extremely high, high, medium, low.
	3	Identify potential risk control options to eliminate or reduce each hazard. Risk-reduction options include the following: • **Eliminate the hazard:** Eliminate the hazard totally, if possible, or substitute a less hazardous alternative. • **Control the hazard:** Reduce the magnitude of the hazard or provide containment or barriers. • **Change operational procedures:** Modify operational procedures to minimize risk exposure consistent with mission needs. • **Educate:** Train personnel to recognize and properly react to hazards. • **Motivate:** Motivate personnel to use effective hazard avoidance actions.
		a. List potential risk control options for each hazard.
		b. Identify the resulting risk assessment if the control options are used.
		c. Identify advantages and disadvantages of each option; e.g., cost, mission degradation, training degradation, realism degradation).
	4	Make risk decisions.
		a. Select risk controls. Choose those risk controls that will reduce the risk to a practical minimum consistent with mission objectives.
		b. Assign a risk assessment level for each task (or lane or LTX) based upon implementation of the selected risk control.
		c. Accept the resulting risk level or elevate the decision to the appropriate command level.

(Continued on next page)

Procedure

c. *(Continued)*

Phase	Step	Action
	5	Implement risk control actions.
		a. Modify missions, guidance, plans, procedures, checklists, training area, training, and support levels to incorporate or respond to risk controls.
		b. Inform all participants of potential hazards and controls.
	6	Assess the effectiveness of risk management planning prior to the operation; e.g., during pre-execution or pre-combat checks. • Confirm the above planning procedures were completed successfully.
Execution	7	Supervise implementation of controls throughout the operation (or training execution).
		a. Implement (or follow) controls.
		b. Monitor controls.
		c. Assess the effectiveness of controls. • Confirm controls-- •• Have been implemented. •• Are being followed. •• Are working; i.e., there are no accidents, injuries, or damages. • If controls are not working-- •• Determine what happened. •• Determine why it happened. •• Decide how to resolve the deficiency.
		d. Modify controls, if they are not effective. • Take immediate corrective action. • Consider stopping the operation if corrective action cannot be implemented immediately.
		e. Enforce controls. • Take immediate corrective action if controls are not being followed.
Assessment	8	Assess the effectiveness of risk management during both planning and execution. Consider: • Were there any damages or injuries during execution? • Were controls implemented as planned? • Were participants informed of the hazards and controls? • Were improper procedures or practices observed?
	9	Take corrective action, if needed. Examples: • Provide feedback to managers and participants; e.g., AAR, lessons learned. • Revise SOPs. • Repeat risk management planning process.

Note: Consult unit or installation safety or environmental protection coordinators for assistance, if needed.

Risk Assessment Procedure

d. There are many models or techniques for estimating the degree of risk associated with a potential hazard. Planners should use the model prescribed for their unit. A general risk management model is described in paragraph E-3 and in MTP.

E-3. General Risk Management Model.

Risk Assessment Procedure

Assign a risk assessment level to each potential risk incident using the following matrix which assigns a risk level based on the potential severity of a risk incident and the probability of the incident's occurrence.

- ***Note 1:*** Only rarely should training have a residual risk that makes it high risk or extremely high risk (e.g., waiving a mandatoty/regulatory safety requirement).
- ***Note 2:*** Controls imposed should normally bring risk down to a medium or low rating.
- ***Note 3:*** The safety manager should review plans and provide recommendations.
- ***Note 4:*** The risk levels indicated on the following worksheet should be used as a general guide. Commanders and staffs responsible for the design and conduct of training may be aware of other factors that could substantially reduce or increase the level of risk. Risk assessment worksheets should be considered tools, not absolute criteria. Common sense, logic, and operational experience must play a key role in making a risk assessment.

SEVERITY	**FREQUENCY**				
Potential Severity of a Risk Incident	**Probability of Occurrence**				
How to use: 1. Move down the left column to the line indicating the potential severity level of a risk incident if it occurred; i.e., catastrophic, critical, marginal, negligible. 2. Move to the right along that line to the column for the probability of occurrence of the risk incident. 3. The resulting level of risk is determined using the following codes: E = EXTREMELY HIGH H = HIGH M = MEDIUM L = LOW	**FREQUENT**	**LIKELY**	**OCCASIONAL**	**REMOTE**	**UNLIKELY**
EFFECT I: CATASTROPHIC: • Death or permanent total disability, system loss, major property damage, or major environmental damage. • Loss of ability to accomplish assigned mission.	**E**	**E**	**H**	**H**	**M**
EFFECT II: CRITICAL: • Severe injury, permanent partial disability, temporary total disability in excess of 3 months, major system damage, significant property damage, or significant environmental damage. • Significantly degrades mission capabilities in terms of required mission standards.	**E**	**H**	**H**	**M**	**L**
EFFECT III: MARGINAL: • Minor injury, lost workday accident, compensable injury or illness, minor system damage, minor property damage, or minor environmental damage. • Degrades mission capabilities in terms of required mission standards.	**H**	**M**	**M**	**L**	**L**
EFFECT IV: NEGLIGIBLE: • First aid or minor supportive medical treatment, minor system impairment, or minimal environmental damage. • Little or no impact on mission accomplishment.	**M**	**L**	**L**	**L**	**L**

E-4. Safety and Environmental Protection Guidance.

General

a. Safety and environmental guidance is included in handbooks, lane books, or TSPs as described in paragraph 3-23; i.e., guidance common to many exercises is included in handbooks, guidance tailored to a specific LTX or requiring emphasis is included in the lane book or TSP for that LTX.

Examples

b. Following are typical examples of safety and environmental instructions included in lane books, TSPs, or handbooks:

Field Safety

1. OCs and leaders will conduct a risk assessment prior to conducting each lane.
2. OCs will conduct a safety briefing before each lane attempt.
3. OC will familiarize themselves with the terrain on their lanes. OCs must be able to identify hazardous terrain, assist lost soldiers, direct medical evacuation efforts, and avoid off-limits areas - posted or otherwise.
4. Convoy commanders will brief all drivers before each movement.
5. Ground guides will be used while backing any vehicle and during any movement near troops at night.
6. Only personnel with a current military license will operate military vehicles or equipment.
7. Blackout markers will be used while operating a vehicle at night in the field.
8. The use of seat belts is mandatory in vehicles equipped with them.
9. The speed limit in the field is 25 mph. The cantonment area speed limit varies from 5 to 30 mph and is posted. Maximum speed in an assembly area is 5 mph.
10. Live ammunition, to include training rounds, will not be required or allowed in the LTX area. No soldier will possess any live ammunition at any time during the LTX. Any live ammunition discovered during the conduct of the LTX will be reported to an OC immediately.
11. Artillery and grenade simulators will be under the control of an OC at all times.
12. Safety always takes precedence over ROE. Never hesitate to take safety actions just because you may become a MILES casualty. Anyone who becomes a MILES casualty while reacting to or preventing a real casualty or damage to equipment will not be assessed as a casualty.
13. Contact with wildlife in the training area, especially bears and snakes, should be avoided. Do not feed the wildlife.
14. A red star cluster and/or red smoke will only be used for real emergencies.

Shop Safety:

1. Safety briefings will be conducted daily.
2. Safety glasses will be worn by personnel operating in the shop.
3. Hearing protection will be worn in designated areas and when operating tools and equipment that specify a need for hearing protection.
4. Fitted respirators will be worn when working with equipment that has an asbestos hazard.
5. Safety boots or toe caps will be worn by personnel working in the shop.
6. Safety helmets will be worn by personnel working in the proximity of overhead lifts in operation.
7. Personnel will be oriented on location and use of eye wash facilities.
8. Personnel will be oriented on location and use of fire extinguishers.
9. No watches or rings will be worn in the shop area.

Hazardous Material (HAZMAT) Issues

1. Each person operating in the shop will be required to receive a HAZMAT briefing appropriate to the duty position assigned.
2. All shop personnel will be briefed on the location of used filter, antifreeze, and oil collection points.
3. All personnel will be oriented on the location and use of HAZMAT crash carts.
4. Shop rags are regarded as HAZMAT items and will be accounted for and handled accordingly.
5. Any HAZMAT spills greater than one quart will be reported to the shop office.
6. Personnel will not operate in the axle room without fitted respirators and will be briefed on the use of the axle room when working on components with an asbestos hazard.

Appendix F
Rules of Engagement

F-0. Appendix Overview.

Introduction

a. This appendix describes ROE for lane training.

Appendix Index

b. This appendix covers the following:

F-1. General.

Purpose

ROE provide instructions to exercise players on--
- Rules of behavior in the exercise area.
- Conduct of the exercise.
- Use of special equipment; e.g., MILES.
- How violations of ROE will be treated.

F-2. ROE - Examples.

Examples

Following are typical examples of ROE included in lane books, TSPs, or handbooks:

- Exercise ROE are in effect and all personnel will wear operative MILES from the time the unit arrives at their AA until the start of the AAR.
- Safety of soldiers always takes precedence over ROE. Never hesitate to take safety actions just because a MILES casualty may occur. Any soldier who becomes a MILES casualty, while reacting to or preventing a real casualty or damage to property or equipment, will not be assessed as a casualty.
- Blanks will never be fired at personnel within 20 feet.
- This exercise will not evaluate a unit's ability to search enemy casualties or enemy prisoners of war, or to physically detain and control prisoners. Consequently, there is no need for physical contact between friendly and OPFOR soldiers.
  - No searches.
  - No physical contact or restraint.
  - No confiscation or commandeering of equipment, food, water, or ammunition.
- At the end of the exercise, weapons will be cleared and remain with the assigned soldiers. Artillery and grenade simulators will be under the control of OCs at all times. Carelessly handled training equipment will be assessed by the OC as damaged, If it is ordnance, personnel casualties may also be assessed.
- MILES casualties that occur due to friendly mishaps while not in contact are still casualties.

(Continued on next page)

Examples *(Continued)*

- Soldiers will be assessed as casualties only by enemy or friendly action, a violation of the ROE, or an action that would clearly result in a casualty such as mishandling ordnance or walking into a minefield. Soldiers will not be subjectively assessed as casualties by the OC for taking tactically inappropriate actions.

Violations

- OCs will make every attempt to take corrective actions as problems occur. Soldiers who accidentally break a ROE or cross a lane boundary will be assessed by the OC as a casualty. Soldiers who intentionally cheat will be assessed as casualties and returned administratively to their unit's chain of command for disciplinary action.
- MILES will be worn by all participants at all times and will be tested frequently by the OC. Soldiers who have tampered with their MILES will be ejected from the exercise. The unit will provide key leaders with enough batteries to provide spares on the lane. Soldiers with inoperative MILES due to maintenance problems cannot continue participation in the exercise. The rule is: If you can't be killed, you cannot kill.
- MILES sensors may not be covered or concealed in any way.
- All soldiers must have a casualty card. Unless assessed as killed-in-action by the OC, all soldiers who become casualties will IMMEDIATELY deactivate their MILES with the yellow weapon key, remove their headgear, and open their casualty cards. Wounded soldiers may not communicate with or assist fellow soldiers in any way until after opening their casualty card, and then they may assist only as directed by the card. Any soldier who communicates in any way with, or is assisted by, another soldier violating this rule will become a casualty.

Appendix G
Conduct Rehearsals

G-0. Appendix Overview.

Introduction

a. This appendix describes how to conduct rehearsals.

Appendix Index

b. This appendix covers the following:

G-1. General.

Definition

a. Rehearsal - An event in which one or more members of a unit practice, recite, recount, repeat, or drill a set of tasks or procedures to prepare for a formal performance.

Purpose

b. Rehearsals are training techniques used to ensure team members understand what they and other members of the team must accomplish to perform a task successfully.

Lane Training

c. With respect to the lane training process, a rehearsal is--

- Used during the lane training planning phase by--
  - OCs, OPFOR, and unit leaders to prepare to conduct LTX and prerequisite training.
  - The unit's soldiers to practice LTX tasks and supporting (or prerequisite) individual (soldier and leader) and collective tasks.
- Used during the LTX lane execution phase by--
  - Unit leaders to practice lane Ieader tasks and troop leading procedures.
  - The unit's leaders and soldiers to practice LTX tasks which will be performed at full speed during lane execution.

Synchronization

d. Successful military operations are characterized by agility, depth, flexibility, initiative, synchronization, and versatility. Of these, one of the most difficult to attain and achieve is synchronization.

Rehearsals e. Rehearsals are one of the techniques used by the commander to achieve synchronization both in military operations and in training.

Benefits f. Rehearsals provide the following benefits:
- Rehearsals ensure personnel know--
  - What the commander intends to accomplish.
  - How he intends to accomplish it (concept of operation).
- Rehearsals enable synchronization by--
  - Verifying specific responsibilities.
  - Coordinating timing of actions.
  - Confirming backup procedures.
- Rehearsals enhance battlefield success.

TADSS g. Simulators, simulations, and other TADSS are training multipliers or tools which can be used to assist in the conduct of rehearsals.

G-2. Categories.

Categories a. There are three categories of rehearsals:
- Backbrief.
- Reduced force.
- Full force.

Backbrief b. Backbrief rehearsals area common category of rehearsal. While they are very useful, they are not as effective as reduced-force or full-force rehearsals.

Description A backbrief is an event that occurs when subordinates--
- Repeat what the leader wants them to do, . . .
- Repeat why the leader wants them to do it, and . . .
- Tell the leader how they are going to accomplish the mission.

Content Backbriefs address--
- Mission (specified and implied).
- Commander's intent.
- Concept.
- The roles of subordinates in terms of tasks and timing required.

Objective The objective of a backbrief is for the leader, through verbal communications, to ensure subordinates understand the commander's intent and the required synchronization of actions

	What They Accomplish	Backbriefs identify problems and disconnects in execution, but to a lesser degree than a hands-on type of rehearsal.
	Guideline	Use backbriefs as frequently as possible and in conjunction with other rehearsals involving the physical act of replicating the plan.

Reduced Force

c. Reduced-force rehearsals are economical.

Description	This is a rehearsal in which-- • Not all personnel attend the rehearsal. • Units replicate their actions on mockups; e.g., sand tables, rock drills (i.e., smaller pieces of terrain than the actual operation).
Guidelines	Conduct a reduced-force rehearsal-- • Prior to a full-force rehearsal. • When time is limited. • When everyone cannot attend a full-force rehearsal. • When operations security or the enemy situation do not permit a full-force rehearsal.

Full Force

d. Full-force rehearsals are more expensive, but they can be more effective.

Description	This is a rehearsal in which-- • All personnel are available and can attend. • Units at each level replicate their actions as closely as possible under realistic conditions.
Guidelines	Follow these guidelines when using full-force rehearsals: • When time is available, rehearse in good visibility on open terrain before gradually increasing the realistic conditions or standards. • When at full speed, conduct rehearsals with full combat loads in the expected conditions of terrain and visibility.

Comparison

e. Following is an illustration of the relative degree of time or resources required by category of rehearsal. This is the rehearsal category continuum.

G-3. Principles.

Principles

a. Successful rehearsals rely on application of the following rehearsal principles:

#	Rehearsal Principle
1	Schedule rehearsals and prioritize tasks/events.
2	Conduct multiechelon combined arms rehearsals.
3	Develop a detailed SOP.
4	Tie mission orders to a purpose or an intent.
5	Establish high standards and ensure they are met.
6	Provide feedback to the commander or unit leader.

Schedule/ Prioritize

b. Leaders schedule rehearsals and prioritize tasks/events.

Allocate Time

Rehearsals should be as complete as allowed by available time. In time-constrained situations, abbreviate the rehearsal to focus on only the most critical portions of the operation, as prioritized by the commander.

Prioritize

METT-T influences the type or extent of a rehearsal. A good time schedule in the warning order will identify and assist in the prioritization of tasks to be rehearsed.

Example

Following are examples of critical phases, events, or tasks to be prioritized (but not in priority):

Offense	Defense
• Actions on the objective. • Actions at danger areas. • Actions on enemy contact. • Breaching. • Medical evacuation. • Movement techniques. • NBC decontamination plan. • Passage of lines. • Resupply. • Departing ("unloading") the AA.	• Counterattack plan. • Direct fire plan. • Engagement areas. • Fire support plan. • Medical evacuation. • NBC decontamination plan. • Obstacles. • Positions. • Resupply. • Security operations. • Trigger points.

Multiechelon Rehearsals

c. Conduct multiechelon combined arms rehearsals.

- Allow enough time for subordinates to conduct their own rehearsals.
- Individuals, teams, squads, sections, platoons, and staff sections should conduct full-force rehearsals.

SOP

d. Develop a detailed SOP.
- Develop rehearsal SOPs and proficiency prior to the LTX.
- SOPs should address the following questions--
  - Who is responsible for making training aids or building a sand table?
  - What levels of rehearsals are established?
  - Which category of rehearsal will be used?
  - Who will participate in the rehearsal?
  - What type of rehearsal technique will be used?
  - Where will the rehearsal occur?
  - What materials are carried where and by whom?
  - Who announces the type of rehearsal?
  - When will the rehearsal be announced?

Mission Orders

e. Rehearsals provide the practice required to implement mission or combat orders.

Content

Mission orders address--
- Situation.
- Mission.
- Execution.
  - Concept of operations; i.e., commanders intent, results desired, what the command is expected to do.
  - What is expected of subordinates.
  - What adjacent and supporting leaders are expected to do.
  - Control measures.
- Service support.
- Command and signal.

Leader Requirements

Mission orders require the leader to--
- Understand what must be done.
- Understand how he will do it.
- Express this in clear and concise language to subordinates.

Flexibility

Mission orders do not constrain subordinates' actions by telling them how to accomplish a task. Orders state the leader's intent so that subordinates have a greater freedom of action to accomplish the mission.

Types of Orders

There are three types of mission orders:
- Warning orders.
- Operations orders.
- Fragmentary orders.

Note: Synchronization of actions is achieved by implementing orders using SOPs supplemented by brief amendments.

Standards f. Establish high standards and ensure they are met.
- Establish a standard for measuring effectiveness.
- Identify and resolve problems in achieving standards. Identity and validate solutions.
- Evaluate and critique rehearsals to achieve standards and improve performance.
- Rehearse to higher standards than normally required to improve the chances for mission accomplishment.

Feedback g. Provide feedback to the commander or unit leader.
- Feedback on problems identified during rehearsals permits leaders to develop solutions or plan alternate courses of action.
- Feedback permits leaders to refine plans to improve the probability of success.

G-4. Guidelines.

Guidelines Guidelines for rehearsals include the following:
- Know the desired outcome of rehearsals and establish rehearsal standards.
- Use the best technique for the time and assets available, whether a sand-table exercise or a full unit walk-through.
- Conduct rehearsals using conditions similar to those of the actual mission; i.e., visibility, terrain, weather.
- Prioritize tasks to be rehearsed, based on METT-T.
- Keep rehearsals interesting.
- Keep them simple.
- Keep them informal.
- Execute contingency plans and war-game the unexpected.

G-5. Procedure.

Procedure Conduct rehearsals using the following procedure:

Step	Action
1	Orient participants to the training aid and terrain. Ideally, rehearsals are conducted on actual terrain. If this is not possible, use similar terrain.
2	Define the standard. What will the commander accept as satisfactory performance for the rehearsal?
3	Verbally and visually "walk through" the concept of operations. All participants must have the commander's intent in mind if they are to be able to act on their own initiative when necessary. Leaders interactively verbalize their elements' actions using synchronization; i.e., all at the same time.
4	Focus on key events, timing, and achieving the desired impact on the enemy.

(Continued on next page)

Procedure *(Continued)*

Step	Action
5	Consider each enemy course of action. Identify contingencies (e.g., repositioning, counterattack).
6	If the standard is not met and time permits, rehearse again.
7	Provide feedback.
8	Adjust plans. Feedback may result in changes to-- • Locations or positions. • Timing. • Decision points.

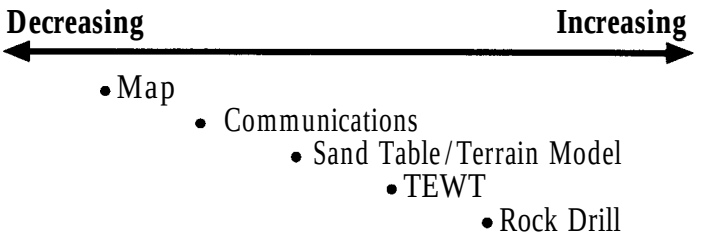
Note: Updating plans is an immediate benefit of a good rehearsal.

G-6. Techniques.

Techniques a. The following table lists five of the many techniques for conducting rehearsals, along with their characteristics.

Techniques	Description/Characteristics
Map	• May be conducted with a single map with overlays. • May limit the number of participants. • Used when time and space constraints are very limited.
Sand Table or Terrain Model	• Uses a model of the terrain or facility in which training or an actual operation will take place. • Includes graphic features; e.g., phase lines, trigger points, objectives. • Normally conducted without actual vehicles or equipment, although small replicas may be used. • Is conducted with training aids which are large enough for all personnel to observe. • May limit the number of participants. • Used when time constraints are limited.
Rock Drill	• Conducted over limited terrain (i.e., an extended sand table). • Conducted with participants either moving themselves or rocks, sticks, or anything else to replicate their actions or their unit's actions.
Communications (radio or telephone)	• Used when time or the situation do not allow for the gathering of personnel. • Used to test radios, phones, or backup systems.
Tactical Exercise Without Troops (TEWT)	• Usually conducted on the actual terrain. • Requires very few assets, normally just key leaders.

Comparison b. Following is an illustration of the relative degree of time or resources required by each type of rehearsal technique. This is the rehearsal technique continuum.



G-7. Training Aids and Expedients.

Importance a. Training aids and expedients are essential for conducting rehearsals.

Aids b. The following items are useful in replicating actual terrain and facilities:
- String.
- Chalk (various colors).
- Stakes.
- Engineer tape.
- Miniature vehicle replicas.
- Cans of spray paint (various colors).

Expedients c. The following list is a small sample of some field expedients:
- Chalk on the side of a vehicle.
- Rocks or pebbles.
- Wood; i.e., limbs, branches, sticks.
- Leaves or vegetation.
- Cans.
- Boxes.
- Vehicles.

Glossary

Section I - Abbreviations.

AA	Assembly Area
AAR	After-Action Review
AC	Active Component
ARNG	Army National Guard
BBS	Brigade and Battalion Battle Simulation
BOS	Battlefield Operating System
CA	Combat Arms
COMSEC	Communications Security
CS	Combat Support
CSS	Combat Service Support
CTC	Combat Training Center
DIF	Difficulty-Importance-Frequency
ECC	Exercise Control Center
FM	Field Manual
FRAGO	Fragmentary Orders
GFRE	Ground Forces Readiness Enhancement
GS	General Support
HAZMAT	Hazardous Material
IAW	In Accordance With
IPR	In-Process Review
LD	Line of Departure
LTX	Lane Training Exercise
METL	Mission Essential Task List
METT-T	Mission, Enemy, Terrain, Troops, and Time Available
MILES	Multiple Integrated Laser Engagement System
MOA	Memorandum of Agreement
MOI	Memorandum of Instruction
MOPP	Mission-Oriented Protective Posture
MOUT	Military Operations on Urbanized Terrain
MTOE	Modified Table of Organization and Equipment
MTP	Mission Training Plan
NBC	Nuclear, Biological, and Chemical
NSN	National Stock Number
OBJ	Objective
OC	Observer-Controller
OPFOR	Opposing Forces
OPORD	Operations Order
OPTEMPO	Operating Tempo
PL	Phase Line
POL	Petroleum, Oil, and Lubricants
PSI	Pounds Per Square Inch
QA	Quality Assurance

QC	Quality Control
RC	Reserve Components
RCAS	Reserve Component Automated System
RG	Readiness Group
ROE	Rules of Engagement
RP	Release Point
RTB	Regional Training Brigade
RTD	Resident Training Detachment
RTS	Regional Training Sites
RIT	Regional Training Team
SATS	Standard Army Training System
SM	Soldier's Manual
SOP	Standing Operating Procedures
SP	Start Point
STP	Soldier Training Publications
STX	Situational Training Exercise
T&EO	Training and Evaluation Outline
TA	Theater Army
TADSS	Training Aids, Devices, Simulators, and Simulations
TAM	Training Assessment Model
TC	Training Circular
TCS	Task, Conditions, and Standards
TDA	Table of Distribution and Allowances
TEWT	Tactical Exercise Without Troops
TLP	Troop Leading Procedures
TM	Technical Manual
TMDE	Test, Measurement, and Diagnostic Equipment
TSOP	Tactical Standing Operating Procedures
TSP	Training Support Package
TTP	Tactics, Techniques, and Procedures
USAR	United States Army Reserve

Section II - Terms.

Administrative and logistic plan
A plan which provides combat support and combat service support for operations or exercises.

After-action report
A report, provided to unit leaders and commanders, which indicates exercise results and the overall training status by unit element. It is used by commanders to develop training assessments.

After-action review (AAR)
A professional discussion of an event, focused on performance standards, that enables soldiers to discover for themselves what happened, why it happened, and how to sustain strengths and improve on weaknesses. It is a tool leaders, trainers, and units can use to get maximum benefit from every mission or task.

Assessment
The lane training process phase following execution and consisting of after-action reviews (AARs) and follow-up actions, Although frequently considered to be a post-exercise phase, assessment consists primarily of AARs which are conducted during or immediately after a lane training exercise's lane execution.

Backbrief
An event that occurs when subordinates repeat what the leader wants them to do, repeat why the leader wants them to do it, and tell the leader how they are going to accomplish the mission.

Battle drill
A critical collective task at squad or platoon level executed without the application of a deliberate decision-making process. It is initiated on cue, is a standard throughout the Army, and requires minimal leader orders. See drill.

Battle focus
A concept used to derive and prioritize peacetime training requirements from wartime missions.

Battle roster
A listing of individuals, crews, or elements that reflects capabilities, proficiencies on critical tasks, and other information concerning war fighting abilities.

Battle task
A task which must be accomplished by a subordinate organization if the next higher headquarters is to accomplish a mission-essential task. Battle tasks are selected by the senior commander from the subordinate organization's mission-essential task list.

Battlefield operating system (BOS)
One of seven major functions which occur on the battlefield. The seven functions areas follows: intelligence; maneuver fire support; mobility, countermobility, and survivability; air defense; combat service support; command and control.

Certification
Written verification that soldiers can perform a task to the standard.

Concurrent training
Scheduled training designed to train groups of soldiers simultaneously on different tasks, which mayor may not be related.

Condition
See "Task condition."

Constructive simulation
A wargame, model, or analytical simulation that typically involves aggregated software representations of units, their behavior, and associated outcomes.

Crew drill
A collective task that a crew of a weapon or piece of equipment must perform to use the weapon or equipment successfully in combat or to preserve life.

Critical task
A task selected for training.

Customers or customer units
Personnel or units receiving support (i.e., supplies, services) from a unit undergoing lane training.

Difficulty-Importance-Frequency (DIF) Model
A technique for prioritizing tasks for training based on their difficulty, importance, and frequency.

Distributed interactive simulation (DIS)
A synthetic environment within which humans may interact through simulation or simulators at multiple networked sites using comparable architecture, modeling, protocols, standards, and databases.

Drill
A disciplined, repetitious exercise to teach and perfect a skill or procedure; e.g., fire, man overboard, abandon ship. A standardized, instantaneous, and instinctive action or procedure which is a trained response to a stimulus; e.g., enemy action, leader's order. See battle drill.

Environmental protection
The practice of procedures designed to avoid or minimize damage to land, air, water, or life.

Event guide
A list of sequenced events describing actions required by observer-controllers, opposing forces, and the training unit.

Execution
The lane training process phase following planning and consisting of actions involving preparation, presentation, and performance of collective tasks to desired standards.

Exercise control center (ECC)
A temporary exercise organization created to manage lane training for one or more lane training exercises or units. The ECC is supervised by the exercise director. It may be composed of operations, communications, administration, and logistics cells.

Exercise director
The individual responsible for managing all exercises during a specific time frame (e.g., all lane training exercises). This duty position is sometimes called chief controller, senior controller, senior observer-controller team chief, or lanes unit commander.

Exercise planning conference (EPC)
A meeting between the supported commander (of the units to be trained), exercise director, and other organizations which will provide exercise support. The purpose of the conference is to identify pre-exercise and exercise actions, assign responsibilities, and establish milestones.

Exercise training support package (TSP)
A TSP containing general information used to conduct exercises. It includes information needed by the exercise control center, observer-controllers, and opposing forces. For lane training, an exercise TSP usually pertains to several lane training exercises (LTXs) and augments LTX TSPs by providing additional or consolidated information (e.g., master exercise schedule, handbooks).

Externally supported training
Training for which resource support is provided from outside the unit responsible for managing the training.

Handbook
A reference document or job aid which provides guidance on responsibilities, procedures, or other essential information for a specific group of users. For lane training, handbooks usually provide guidance applicable to all lane training exercises.

Hazard
A condition with the potential for causing injury to personnel, damage to equipment or structures, loss of materiel, or reduction of ability to perform a prescribed function (e.g., mission, task, learning objective).

In-process review (IPR)
A periodic coordination meeting between organizations participating in the exercise (as a player or supporter) to review the status of actions required to prepare for or conduct the exercise. External IPRs are meetings between the supported commander (of units undergoing lane training), exercise director, and other organizations which will provide exercise support. Internal IPRs are meetings between the exercise director, exercise developers, and possibly other observer-controllers.

Integrated lane training exercise
A multi-functional exercise requiring the integrated employment of two or more branches (e.g., infantry-armor company team) to accomplish a collective task.

Internally supported training
Training for which resource support is provided from within the unit responsible for managing the training.

Lane
A standardized and structured training exercise or simulation used to train on one or more collective tasks. Also, a designated area, terrain, or facility used to replicate a unit's wartime mission or environment during a lane training exercise's lane execution.

Lane book
A reference document containing information needed to train a unit on one specific lane training exercise (LTX). It includes a portion of the information contained in an LTX training support package, A lane book may be tailored to the specific user of the document e.g., unit lane book, observer-controller lane book, opposing forces lane book.

Lane diagram
A graphic scenario or sketch indicating the sequence of events (unit tasks and opposing forces countertasks) and control features for a lane.

Lane reference catalog
A reference source for the planning and development of doctrinally correct lane training. It provides easy access to technical and tactical doctrine described in Army publications (e.g., mission training plans, soldier training publications, field manuals, training circulars, technical manuals) and used to develop lane training exercise training support packages.

Lane schedule
A list of the sequence of events and timeframes for conducting one lane.

Lane training
A process for training company-size and smaller units on collective tasks (and prerequisite soldier and leader individual tasks and battle drills) supporting a unit's mission-essential task list. The process consists of planning, execution, and assessment phases. The execution phase is a battle-focused lane training exercise.

Lane training exercise (LTX)
The execution phase of the lane training process. It is an exercise used to train company-size and smaller units on one or more collective tasks (and prerequisite soldier and leader individual tasks and battle drills) supporting a unit's mission essential task list; however, it usually focuses on one primary task. An LTX consists of assembly area, rehearsal, lane execution, after-action review, and retraining activities which culminate the lane training process. An LTX is an situational training exercise conducted using lane training principles and techniques.

Lane training exercise (LTX) area
A training area selected and designed to train one lane training exercise (i.e., one primary task).

Lane training exercise (LTX) resource manager
The observer-controller team member responsible for administrative or logistical support for each lane. This duty position is sometimes called Ianemeister.

Lane training exercise (LTX) schedule
A list of the sequence of events and timeframes for conducting one LTX. See master scenario events list.

Lane training exercise (LTX) training support package (TSP)
A TSP containing information used to plan, execute, and assess one LTX. It may contain information pertaining to a single lane or to more than one lane. It includes information needed by observer-controllers, opposing forces, and the unit's leaders and soldiers, although each group only needs a portion of the TSP. It includes the plans or materials developed during short-range planning and refined during near-term planning.

Leader book
A leader tool maintained at crew level and above for recording and tracking soldier proficiency on mission-oriented tasks.

Live simulation
A representation of military operations using military personnel and equipment to simulate experiences achieved during actual combat conditions.

Master exercise schedule
A list of the sequence of events and timeframes for conducting several lane training exercises during a specified time frame. See master scenario events list.

Master scenario events list
A list of sequenced events that indicates what will happen during the exercise, where it will happen, when it will begin and end, and its code word. It permits training time, resources, and people to be used efficiently and realistically.

Mission
A series of related tasks that comprise the major capabilities and requirements imposed on a unit by its parent organization.

Mission-essential task list (METL)
A compilation of collective mission-essential tasks which must be performed if an organization is to accomplish its wartime mission.

Mission-essential task or METL task
A collective task in which an organization must be proficient to accomplish an appropriate portion of its wartime mission.

Mission-support lane training exercise
An exercise in which the unit undergoes lane training while performing a mission on behalf of, or associated with, other units (some may not be participating in the lane); e.g., a petroleum, oil, and lubricants platoon performing a refueling mission.

Model
A representation of a system.

Multiechelon training
The simultaneous training of more than one echelon on different tasks.

Multifunctional training
The simultaneous training of several military occupational specialties or branches as a team or "slice" for major collective tasks.

Observer-controller (OC)
An individual tasked to provide administrative control, evaluate task performance, and provide constructive feedback to participants during a training exercise.

Observer-controller (OC) handbook
An OC reference document, usually containing OC standing operating procedures and general information which can pertain to any exercise. Possible contents include general information concerning: OC duties, responsibilities, and procedures; after-action review procedures; general safety and environmental guidance; first-aid procedures; comprehensive rules of engagement.

Observer-controller (OC) lane book
A lane book used by OCs (and possibly opposing forces (OPFOR)) to conduct a specific lane training exercise (LTX). It usually contains the same information as the generic lane book plus additional information as follows:
- Special instructions to OCs and OPFOR; e.g., timing of actions, after-action reviews.
- List of OPFOR collective countertasks (with training and evaluation outlines) and supporting individual tasks (with task descriptions).
- Lane diagram (one for each lane in the LTX area).
- LTX communications network diagram.
- LTX or lane schedule.

Operations analysis
A description, normally in time sequence, of the events that are expected to occur during an operation (e.g., training, lane execution).

Opportunity training
Training conducted by section, squad, team, or crew-level leaders which is pre-selected, planned, and rehearsed, but not executed until unprogrammed training time becomes available; for example, while waiting for transportation, after completing scheduled training early, or when a break occurs in a training exercise.

Opposing force (OPFOR)
An organized force created from U.S. Army units trained, organized, and equipped to portray the doctrine, tactics, and configuration of a potential adversary armed force during U.S. Army forces training.

Opposing forces (OPFOR) handbook
An OPFOR reference document, usually containing OPFOR standing operating procedures and general information which can pertain to more than one lane. Possible contents includes general information concerning the following: OPFOR duties, responsibilities, and procedures; after-action review procedures; general safety and environmental guidance; first aid procedures; comprehensive rules of engagement.

Outline plan
The framework used to build the scenario. For a lane training exercise (LTX), the outline plan is the framework used to build the scenario for each lane in the LTX area. The plan addresses the following: sequence of events; each lane's location, key events, control features, and after-action reviews; tentative schedules; and control measures.

Over-training
A training technique which uses task repetition to increase task proficiency; i.e., accuracy, speed of execution, and skill retention.

Performance measures
Those behaviors, products, and characteristics that the trainer or observer-controller observes to determine if the soldier has performed a task correctly. Successful accomplishment of these measures results in meeting the task standard. Performance measures must begin with an action verb; be written as action phrases and listed in their order of accomplishment include only one event per measure; and be observable and measurable.

Performance-oriented training
Training in which learning is accomplished through performance of a task under specific conditions until an established standard is met.

Planning
The lane training Process phase consisting of actions involving unit training assessment, analysis, design, development, scheduling, resource acquisition, support coordination, pre-training, and preparation for training.

Planning timeline
A milestone schedule for completion of major planning tasks and key events. It indicates responsible organizations or elements, planned actions, and timeframes.

Pre-execution checks
Procedures, usually using checklists, employed to ensure that all planning and prerequisite training (soldier, leader, and collective) has been conducted prior to the execution or conduct of training.

Precombat checks
Detailed final checks that all units conduct before and during execution of training and combat operations as part of the troop leading procedures. They are also conducted at the beginning of each event or exercise. Although precombat checks start in garrison, some checks may be completed in the assembly area or in the battle position; for example, applying camouflage, setting radio frequencies, and distributing ammunition.

Rehearsal
An event in which one or more members of a unit practice, recite, recount, repeat, or drill a set of tasks or procedures to prepare for a formal performance. It is a training technique used to ensure team members understand what they and other members of the team must accomplish to perform a task successfully.

Retraining plan
A list of those actions that may cause restart of the lane with a description of the retraining technique and the restart point.

Risk
An expression of possible loss over a specific period of time or number of operational cycles. Also, a hazard, danger, or peril; exposure to loss or injury; or the degree of probability or loss.

Risk assessment
The process of detecting hazards and systematically assessing their overall risk. Also, it is an expression of potential loss in terms of hazard severity of effect and hazard probability. It is a part of the risk management process.

Risk management
The process whereby management decisions are made and actions implemented to reduce the effects of identified hazards. It is a systematic process for making military operations and training safer and more effective.

Rock drill
A walk-through rehearsal conducted over limited terrain (i.e., an extended sand table).

Role player
A person or unit simulating an activity which supports the scenario; e.g., higher headquarters, adjacent units, civilians on the battlefield.

Safety
The condition of being free from danger, injury, or damage. Maintaining safety means to practice proper procedures designed to protect --
- Personnel from accidental injury or loss of life.
- Equipment or facilities from accidental damage or loss.

Sand table
A rehearsal using a model of the terrain or facility in which training or an actual operation will take place.

Schedule
A list of sequenced events with estimated start and stop times.

Senior observer-controller (OC)
The individual responsible for managing a specific lane training exercise lane. There is one senior OC for each lane. This duty position is sometimes called senior lane OC.

Simulation
The operation or exercise of a model of a system.

Simulator
A physical model and simulation of a weapons system or piece of equipment that is not a prototype, but which replicates some major aspects of the equipment's operations. It may include elements of embedded computer hardware and software associated with these operations. The linking of two or more simulators in a common, interactive scenario is one kind of simulation.

Situational training exercise (STX)
A short, scenario-driven, mission-oriented, limited exercise designed to train one collective task, or a group of related tasks or drills, through practice. An STX which uses lane training principles and techniques to support the lane training process is called a lane training exercise.

Situational training exercise (STX) plan
A plan which describes the scenario and requirements for conducting an STX. It contains an objective, task steps and performance measures, training guidance, training enhancers, general scenario, special situation, support requirements (resources), and training and evaluation outline sequence. STX plans are included in mission training plans developed by Army service schools.

Stand-alone lane training exercise
A single-function exercise requiring only one branch (e.g., chemical platoon) to accomplish a collective task.

Standard
A statement which establishes a criteria for how well a task or learning objective must be performed. The standard specifies how well, completely, or accurately a process must be performed or a product must be produced. The task standard reflects task performance requirements on the job. The learning objective standard reflects the standard that must be achieved in the formal learning environment.

System
A set or arrangement of things so related or connected as to form a unity or organic whole. Also a set of facts, principles, or rules classified or arranged in a regular or orderly form so as to show a logical plan linking the various parts.

Systems approach
A logical process for effectively and efficiently planning which considers all elements of a system.

Take-home package
A collection of material provided to the training unit after completion of all lane training exercise lanes. It may include a consolidated training task summary status by unit element, completed training and evaluation outlines (with “GO” or “NO GO” observations) for each unit element, observations by observer-controllers or opposing forces, videos of after-action reviews or of the unit executing key tasks, and recorded intercepts of radio or phone communications.

Task
A clearly defined and measurable activity accomplished by individuals and organizations. A task is the lowest behavioral level in a job or unit that is performed for its own sake. It must be specific; usually has a definite beginning and ending; may support or be supported by other tasks; has only one action and is described using only one verb; generally is performed in a relatively short time (however, there may be no time limit or there may be a specific time limit); and it must be observable and measurable. The task title must contain an action verb and object; it may contain a qualifier. See “Training objective.”

Task condition
A description of the field conditions under which the task will be performed. The condition expands on the information in the task title by identifying when, where, and why the soldier performs the task and what materials, personnel, and equipment the soldier must have to perform the task.

Task standards
See "Task" and “Standard.”

Task steps
The required unit or individual actions that must be performed to accomplish the critical task. Each step must be specific and detailed and contain only one action or unit of work. Note: A collective task step can be a supporting individual or collective task.

Task summary status sheet
A page that summarizes the results for each task in the lane. It is a list for one unit of collective task titles, training and evaluation outline numbers, task steps (optional), and evaluations (as "GO" or "NO GO"). It may be displayed as a matrix listing lane tasks and task steps vertically (in rows), listing days horizontally (in columns), and with blank blocks to record "GO" or "NO GO" task performance proficiency ratings for leader proficiency verification (V), crawl phase (CR), walk phase (W), run phase (R), and completed to standard (C). It may include space for signatures of the senior observer-controller and the unit leader.

Timeline
A list of sequenced events with estimated durations.

Training and evaluation outline (T&EO)
A summary document, prepared for each training activity, that provides information on collective training objectives, related individual training objectives, resource requirements, and applicable training procedures. They form the basis for training, internal evaluations, and formal external evaluations.

Training and evaluation requirements
A list of tasks, conditions, and standards selected for training, practice, or assessment,

Training and verification plan
A plan that describes the actions and milestones required to train personnel on primary and prerequisite collective and individual tasks prior to a military operation or exercise.

Training assessment
A detailed evaluation of the unit's METL training proficiency which focuses on training deficiencies. It compares individual (soldier and leader) and collective task proficiency with Army standards.

Training exercise
A method of training which involves the use of a maneuver, operation, or series of drills. Exercises are used in units to train teams or units to accomplish their combined arms and services missions on the battlefield.

Training objective
A statement that describes the desired outcome of a training activity in the unit. A training objective consists of the following three parts:
- Task - A clearly defined and measurable activity accomplished by individuals or organizations. See "Task,"
- Condition - The circumstances and environment in which a task is to be performed. See "Task condition."
- Standard - The minimum acceptable proficiency required in the performance of a particular training task. See "Standard."

Training outline
An organized outline of the training material to be presented. It may identify tasks, conditions, standards, task steps, performance measures, references, resources required, facilities required, safety factors, environmental considerations, and risk factors. For lane training, the training outline supplements a

training and evaluation outline (T&EO) by providing the trainer additional information needed to plan and conduct training. Although it may have the same types of information as a T&EO, a training outline adds specificity and focus.

Training plan
A description of the actions, milestones, and resources required to implement a training strategy.

Training proponent
The organization designated to exercise supervisory management of all combat and training development aspects of a materiel system, functional area, or task. This is normally an Army service school.

Training requirement
The critical tasks units and soldiers must be able to perform to the standard required if they are to be able to fight, win, and survive during military operations. Training requirements are the difference between demonstrated and desired levels of proficiency for mission essential or battle tasks.

Training strategy
A general description of the methods and resources required to implement a training concept. It lays out the "who, what, where, when, why, and at what cost" for training.

Training support package (TSP)
A complete, exportable package integrating training products, materials, and information needed to train one or more critical tasks.

Troop leading procedures (TLP)
Procedures used by leaders to prepare a unit to execute a mission. The procedures areas follows: receive mission; issue warning order make a tentative plan; start movement; reconnoiter complete plan; issue plan; supervise.

Unit assessment
An evaluation of a unit's training proficiency level in terms of training strengths and weaknesses.

Validation
An evaluation of the training products and materials. It is the process used to determine if training accomplishes its intended purpose. Validate products and materials to--
- Verify their training effectiveness in achieving the training objectives.
- Identify training product deficiencies.
- Improve efficiency and effectiveness of training objectives, sequence, products, materials, and execution.

Verification
The act of confirming that a soldier (or leader) can perform a task to standard by demonstration and comparison of performance with the standard or by examination of recent performance.

Virtual simulation
A synthetic representation of warfighting environments patterned after the simulated organization and operations of actual military units. Differences in the representation of the simulated battlefield (i.e., whether real world, computer generated, or interactive players in simulators) are transparent to the participants who interact with their particular representation of the warfighting environment.

References

FM 25-4	*How to Conduct Training Exercises,* 10 September 1984
FM 25-100	*Training the Force,* 15 November 1988
FM 25-101	*Battle Focused Training,* 30 September 1990
TC 25-20	*A Leader's Guide to After-Action Reviews,* 30 September 1993
TC 25-30	*A Leader's Guide to Company Training Meetings, 27* April 1994

Index

☆ U.S. GOVERNMENT PRINTING OFFICE:1996-728-027/60001

TC 25-10
26 AUGUST 1996

By Order of the Secretary of the Army:

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Genera/, United States Army
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DISTRIBUTION:

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