



We are the premier mounted maneuver force comprised of the best trained, best led, best equipped, and most lethal Tankers and Scouts in the world. Soldiers first, we are experts in the art of maneuver warfare; mounted and dismounted reconnaissance and security operations; and the employment of combined arms and joint capabilities on the battlefield.

Armor and cavalry troopers thrive in conditions of ambiguity, uncertainty, and complexity; comfortable away from the main body --- out front or on the flanks --- and decisive when leading it. We operate with a mission command mentality always seeking opportunities to seize, retain, and exploit the initiative; creating and preserving freedom of action for our force while denying the enemy options.

Armor and cavalry leaders combine the superior capabilities of our equipment with the ingenuity of our Troopers to find, fix, close with and destroy the enemies of our nation through combinations of mobility; precise, lethal, and overwhelming firepower; and devastating shock effect.

Armor branch is a team of teams ready to fight and win anytime, anywhere, under any conditions of battle.

FORGE THE THUNDERBOLT!



Thunderbolt 7

Thunderbolt 6

FOREWORD

The US Army Armor School (USAARMS) trains, develops, educates and inspires the world's most agile and adaptive Armor and Cavalry leaders, Soldiers and formations to win in complex environments by closing with, and destroying our Nation's enemies using fire, maneuver and shock effect. The Armor School achieves our desired end state by progressively adapting to ensure our formations are educated and well led to fight and win the nation's wars.

The USAARMS oversees 23 courses with 33 associated programs of instruction, manages ten additional skill identifiers, and provides subject matter expertise on projects that are vital to the future of the Armor Branch. We are committed to providing world-class support to the Armor Warfighter in every possible regard.

This year's Training and Leader Development Strategy is different from previous versions. This year's strategy focuses on preparing leaders at the Company/Troop level for a successful rotation at the National Training Center (NTC) or other Combat Training Centers. Company level leaders must understand how to integrate and synchronize all assets at their disposal to achieve their mission. This document highlights tactics, techniques, and procedures to support leader development, regardless of your units' training progression.

Forge the Thunderbolt!

BG Kevin D. Admiral 52nd Chief of Armor

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CHAPTER 1 Armor School Vision, Mission, and Key Tasks

1-1. The Armor School Vision

The USAARMS supports TRADOC and FORSCOM by delivering Leaders and Soldiers who are confident, proficient, disciplined, and ready to accomplish any mission and win.

1-2. The Armor School Mission

The USAARMS trains, develops, educates, and inspires the world's best Armor and Cavalry Leaders and Soldiers to win in complex environments by providing quality instruction from the right leaders and under the right conditions.

Through initial training for new Armor Soldiers, educating the future leaders of these Soldiers, and leading Army efforts on force design, the Armor School's focus is on increasing the leader development and lethality of the operating force. Close communication between the operating force and the Armor School is vital to ensure Soldiers, leaders, doctrine and force-design updates (FDU) the school produces meet Armor and Cavalry units' mission requirements.

USAARMS' primary purpose is to enable the operating force. We provide training, doctrine, and leader development that enable the warfighter to win in any environment. Ultimately, the Armor Branch and USAARMS support the operating force by providing leaders, Soldiers, and force updates to maneuver commanders, enabling them to fight and win the Nation's wars. Everything in this strategy focuses toward that end state.

We cannot afford to lose the combat experience we have gained during the last two decades but must advance our learning to face the challenges of large-scale combat operations. We must capitalize on and reinvest this experience into future training while focusing on the fundamentals of maneuver warfare, so our experienced force dominates through complex and operationally relevant training.

1-3. The Armor School Intent and Key Tasks

USAARMS is the premier institution for developing agile and adaptive Armor and Cavalry leaders and Soldiers who master the fundamentals and are capable of operating in any environment. We are leaders on the battlefield, skilled in the art of mounted warfare and reconnaissance and security missions; we also lead in integrating enablers at echelon and across all domains.

- 1-3.1. Key Task 1: Develop the doctrine and capabilities of the future maneuver force. Continue to develop and optimize capabilities (platform and organizational) for the mounted force that permit our Armor and Cavalry formations to dominate and win across the range of military operations.
- 1-3.2. Key Task 2: Build civilian volunteers into disciplined, competent, confident Soldiers who are masters of the fundamentals and prepared to become valued members of the Profession of Arms.
- 1-3.3. Key Task 3: In conjunction with the operating force, train individual Soldiers who are grounded in the fundamentals, experts in mounted and dismounted Combined Arms Maneuver (CAM), and capable of executing R&S missions across varying environments.
- 1-3.4. Key Task 4: Improve the lethality and functional capabilities of our Soldiers and operational units.
- 1-3.5. Key Task 5: Support all Army Futures Command modernization and DOTMLPF-P efforts.
- 1-3.6 Key Task 6: Conduct Quarterly Training Briefs and POI Review Boards (PRB) semi-annually to highlight the constraints, successes, and status of all training conducted by subordinate units in the USAARMS.
- 1-3.7 Key Task 7: Inspire Soldiers to Leadership and the relentless pursuit of excellence, dedicated to serving the Army and the Nation in peacetime and war.
- 1-3.8 Key Task 8: Demonstrate leadership and loyalty while displaying the appropriate values.

1-4. Armor Training and Leader Development Framework

The ATLDS Framework demonstrates how we operationalize the strategy across the force. The framework ties together the means (resources) and ways (lines of effort) to achieve the end state, build combat readiness in the operating and generating forces. Our leaders and formations are prepared, equipped, and ready to deploy, fight, and win. Leader Development is the main effort for the Armor Branch, as it will ensure a current and future Armor force capable of achieving the end state.



Armor School Campaign Plan



Fort Benning, Home of the MCoE Mission: The USAARMS trains, develops, educates and inspires the world's best Armor and Cavalry Leaders and Soldiers to win in complex environments by providing quality instruction from the right Leaders and under the right conditions.

Vision: The USAARMS supports TRADOC and FORSCOM by delivering Leaders and Soldiers who are confident, proficient, disciplined and ready to accomplish any mission and win.

USAARMS Priorities

- Armor Branch Modernization (Platform, Ammunition and Instruction)
- Develop Experts of Combined Arms Operations/Multi-Domain Operations
- Improve Lethality in our Brigade Combat Teams (A/S/I)
- Sullivan Cup & Gainey Cup Competitions

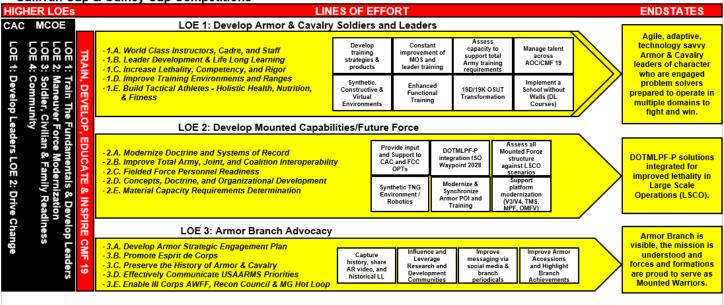


Figure 1.1. Operational Framework

1-5. Training and Preparation for the CTC

For this edition of the Armor Training and Leader Development, USAARMS provides "a way" to prepare for a CTC rotation. Before developing strictly rotation preparation, this document highlights the key building blocks to enable rotation preparation, building readiness and leader development through training all the way to the execution of the rotation.

CHAPTER 2 Building Readiness

The art of achieving readiness prioritizes requirements within a limited timeframe and resources. How do you fit everything into a training year? How do you prioritize? How do you adjust to emerging and evolving requirements? The ATLDS identifies ways in which commanders, staffs, and senior NCOs can develop courses of action (CoAs) to achieve readiness.

2-1. Evaluating Readiness

Our Soldiers are the Army's most valued assets. Army units without the required deployable personnel are unable to conduct the full range of military operations. Personnel readiness is a combination of administrative and medical factors that determine if an individual is ready to deploy. Commanders should diligently strive to ensure their Soldiers meet required personnel readiness standards. Commanders must empower their NCOs to help manage and enforce personnel readiness. In a situation where time and resources are limited, leaders should focus on individual Soldier readiness. Units that execute personnel readiness as a unit operation often end up with more time for training with a higher number of Soldiers present for training, annotating shortfalls in Unit Status Reports (USRs).

- 2-1.1 Company Training Meetings are an important recurring event to create shared understanding for all Leaders and Soldiers in the Company, The Company/Troop Executive Officer (XO) chairs the training meeting to allow the Commander to focus on the meeting substance. This section describes a company-training meeting with notes to explain: possible approaches, topics for discussion, and recommended primary briefers. It was developed utilizing the "Leader's Guide to Company Training Meetings." These products can and should be refined to synchronize use with your Battalion/Squadron training meeting slides to avoid producing redundant slides. The training schedules serves as a contract between the leaders and the led. Training meetings also set the stage for pertinent information briefed at Battalion/Squadron Training Meetings and the Brigade's Quarterly Training Briefs (QTBs).
- 1) Roll Call The following should attend the meeting: CO, 1SG, XO, PLT Leaders and PSGs, HQ SGT, Supply SGT, CBRN SGT, and any enablers that habitually work with or support your formation.
- 2) Combat Power Review The XO prepares and briefs this portion of the meeting, briefing the status on faults, ETA for repair parts, and any other pertinent information so platoons can have people in place to assist hanging parts. Units evaluate equipment statuses by functionality (i.e. Shoot, Move, Communicate, Optics, and Specialty such as CBRN) or by task organization, so each platoon's status is grouped together. A benefit to reviewing equipment status by functionality is that it may be easier to identify trends and develop solutions that minimize a negative trend.
- 3) Personnel Readiness Review should include the following:
 - Medical Readiness Key topics briefed by HQ SGT and PSGs:
 - Deployable Readiness Rate
 - o Profile
 - Individual Medical Readiness
 - Administrative Actions and Awards briefed by HQ SGT and PSGs
 - SGLI/DD93 and PRR/FRR Status briefed by HQ SGT and PSGs
 - Schools and NCOES tracker briefed by schools action NCOIC
- 4) T-1 Review and T-Week Training Review
 - Overdue tasks briefed by XO using task tracker
 - Upcoming Tasks briefed by XO using task tracker, 1SG assists with aligning manpower to short suspense tasks
 - T-1 Training Not Conducted, Retraining required, and Training Lessons Learned Platoon Leaders and Platoon Sergeants brief any training that was not conducted, the retraining they assess their units need, and lessons learned from the previous week's training
 - o This is an opportunity to discuss updates to unit SOPs and resourcing plans
 - METL Assessment Company training should orient on their METL and each training meeting should briefly discuss the impact from the previous training on the unit's METL assessment. This is a conversation between subordinate leaders and the commander
 - Deployable Readiness Rate

- 5) Future Planning providing your company long-term visibility and predictability is critical for ensuring future success. The Command Team should discuss the following topics using the same format as the battalion:
 - Long Range Calendar (Quarter Overview) highlight major events and field time that will separate Soldiers from their families IOT provide visibility and predictability
 - Mid-Range Calendar (T+13 through T+10) this can utilize battalion long range training calendar, but should involve more details about training dates and potential tasks to start planning for the training
 - Draft Training (T+9 through T+7) Starting at T+9, the XO should brief any company level training events. and the CDR should assign a PLT Leader and PSG to be the primary planners for the event. The CDR should provide initial guidance and intent at this time for company events. For T+8 and T+7, PLs and PSGs should develop their individual training plans and brief the group. The CDR ensures these plans meet intent. The XO and PLT Leaders should discuss the training events to ensure all resourcing needs are feasible. Individuals should insert and brief the CONOPs for these individual training events
 - Coordination and Pre-Execution Checks (T+6 through T+1) training schedules should be locked starting NLT T+6. Therefore, this portion of the training meeting should only highlight anything that forces changes to training plans. The XO and PLT Leaders should update resourcing statuses for the upcoming events and resolve any outstanding coordination issues. NLT T+2, individuals in the company should be tasked to provide support or requirements to training events
- 2-1.2. After Action Reviews (AARs), AARs improve unit performance and are a key element of training, ADRP 7-0, Chapter 3-73, and FM 7-0, Appendix D, detail how AARs develop critical thinking in leaders and provide "guided analysis of an organization's performance during training events." AARs are more effective when conducted by certified knowledgeable leaders; nothing can substitute for the input of a unit commander on a subordinate unit's performance. While every effort should be made to make the AAR as complete as possible, an informal AAR on the objective during a break in training can have a lasting impact on unit and leader performance going forward. Commanders can then direct retraining as required.

If resourced, units should take advantage of Home Station Instrumentation Training Systems (HITS), Common Thru-Sight Video - Crew Module Unit Recorder (CTSV-CMUR) and DRTS to enhance training-event AARs. These systems are detailed in Appendix G, Training Resources. DRTS provides the digital infrastructure on which digital multi-purpose ranges are built. HITS can provide units with on-the-spot maneuver and force-on-force data to support AARs.

2-1.3 Increasing Reconnaissance and Security (R&S) proficiency. Recent decisive-action CTC rotations have demonstrated that BCTs and below lack proficiency in R&S missions. To increase R&S proficiency, commanders should work to include special emphasis on R&S as they develop UTPs. Building training plans that include early and continuous emphasis on R&S helps train leaders, staffs, and units how to plan for and execute R&S missions. R&S missions should be embedded in maneuver training plans at all levels. By using multi-echelon training events, units can increase the number of opportunities for higher-level CPs and staff to manage the information collection process. Beyond multi- echelon maneuver training events, units can also focus unit professional development programs on R&S, participate in division-level R&S summits, and ensure leaders at all echelons have attended the appropriate R&S functional courses at Fort Benning. Section 4-1 in Chapter 4 goes into more details about the MCoE efforts to increase R&S proficiency.

2-2. Equipment readiness

Operational readiness is a training resource that sets the conditions for sustained readiness at echelon. In the force today, Soldier maintenance proficiency has atrophied due to deployment force-manning levels and a recent history of high use of contract maintenance. Commanders develop maintenance programs that not only build combat power and maintain readiness, but also build Soldier and leader maintenance skills to enable units to conduct high operational tempo (OPTEMPO) expeditionary operations under austere conditions anywhere in the world. Commanders will no longer be able to rely on contract maintenance to achieve readiness and must ensure that operators and maintainers are trained and employed for vehicle maintenance to sustain their fleet and equipment readiness levels.

Additionally, our forces, in future conflicts, will not have an established and secured footprint and logistical lines of communication to maintain a garrison-style maintenance program. Unlike the forward operating bases of Afghanistan and Iraq, our units must be prepared to conduct expeditionary maintenance operations for extended periods using organic equipment and lift in field environments. Given this limitation, commanders should develop maintenance programs and procedures that are efficient and effective in both expeditionary and garrison environments, vice programs that only operate efficiently in a garrison cantonment.

Commanders should ensure their maintenance programs are planned, resourced, and executed with the same detail

and focus that dedicated to training events. Employing the 8-Step Training Model or TLPs ensures that maintenance operations are focused, resourced, and executed with a clear end state.

Key to this process is the weekly battalion/squadron maintenance meeting. Chaired by the battalion or squadron commander with all subordinate unit commanders present, this meeting ensures that commanders are not only aware of but directing maintenance operations and statuses within the formation. The meeting's goal is to provide a clear picture of the unit's current maintenance posture and to set the conditions needed to ensure equipment readiness for the next mission. Several factors determine how effective a maintenance meeting will be, but none has more positive effect than the attendance of battalion/squadron and subordinate commanders.

Equipment readiness is the key in bridging operational readiness to combat readiness. The four pillars to equipment readiness are before/during/after Preventative Maintenance Checks and Services (PMCS), After Operations Recovery (AOR), command maintenance, and dedicated services. All four pillars should be considered, planned, resourced, and integrated in the planning for all collective training events and times in between training.

2-2.1. Command maintenance. Command maintenance is scheduled weekly and is based on PMCS doctrine and schedules. To better improve equipment readiness and the efficiency of unit command and control systems, command maintenance periods will be transformed into training events, which focus not only on "to standard" maintenance but also on conducting multi-echelon training with selected gunnery/combat-related tasks. Through effective, consistent implementation, both the unit operational readiness rate and combat readiness will increase.

Another best practice is that units conduct maintenance operations as assembly area operations. Main Command Posts, Combat Trains Command Posts (CTCP), and Unit Maintenance Collection Points (UMCP) should be established to test mission command connectivity and proficiency at all levels, and to track and control the execution of the maintenance program. Unit staffs will have the opportunity to conduct concurrent training on battle tracking, while conducting daily staff operations in an expeditionary posture. To be successful, integrating mission command and training into maintenance operations requires enhanced command presence and usage of the full suite of mission command systems. Figure 2.2 shows the typical flow of the DA Form 5988E (Equipment Maintenance and Inspection Worksheet); DA Form 5988E is completed during Command Maintenance and allows units to adequately track and repair faults.

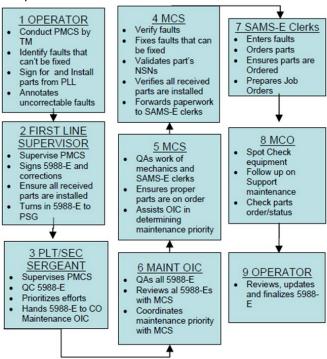


Figure 2.1. DA Form 5988E Flow

It is important to maintain all systems during command maintenance, to include conducting long-range radio checks as well as standing up and exercising Force XXI Battle Command Brigade and Below Blue Force Trackers (BFT) and Joint Capabilities Release systems. When conducted periodically during command maintenance, units can prevent discovery of communications equipment failure when executing missions.

During extended collective training events (i.e. gunnery, FTXs, external evaluations, unit staffs should coordinate with brigade support battalions (BSBs) to deploy their forward support companies (FSCs) to the field. This enables

the FSCs to train and practice maintenance and battle-damage assessment and repair (BDAR) in an expeditionary environment, and it enables the FSCs to train recovery, logistic resupply, convoy escort, and security tasks while exercising both digital and analog sustainment reporting and tracking systems.

- 2-2.2. Preventative Maintenance Checks and Services (PMCS). PMCS is the care, servicing, inspection, detection, and correction of minor faults before these faults cause serious damage, failure, or injury. When PMCS is conducted in conjunction with the Conditions-Based Maintenance Plus Program, equipment condition variances will be noted from standard checks and combined with diagnostics and prognostics to determine what and when maintenance actions are taken on equipment. Commanders must provide adequate time in training and operations schedules for Soldiers to perform proper PMCS; this is critical for success. This must be followed by time diagnosis and correction of equipment faults and the forecast of future serviceability of the items.
- 2-2.3. After Operations Recovery (AOR). After initial recovery from field training is complete, Soldiers will begin recovery operations on their equipment (lasting from 3-10 days depending on the unit, duration, and type of training). Recovery includes maintenance on **ALL** assigned equipment, including weapons, vehicles, and all associated and ancillary components. Each crew is responsible for the care of its respective platforms, and the vehicle commander will coordinate any requirements for higher echelons of maintenance with the motor sergeant. No matter the duration of the allocated AOR density, units should schedule formal company/troop AOR inspections.

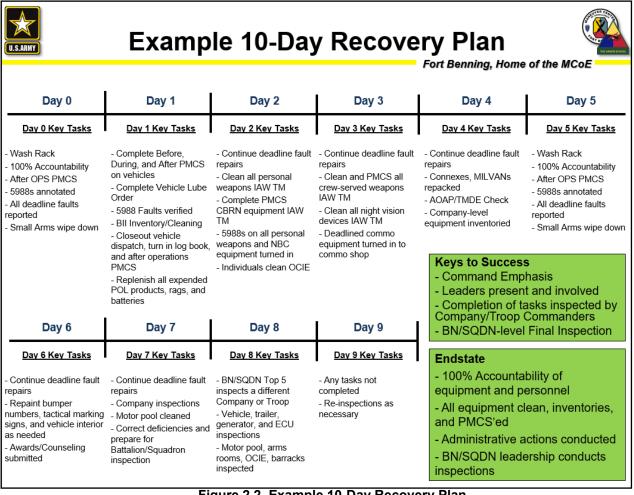


Figure 2.2. Example 10-Day Recovery Plan

2-2.4. Services. Scheduled services are training and performed at the service interval required by the applicable technical publication for each piece of equipment. Units are authorized a 10-percent time variance when performing scheduled services to account for competing mission requirements. For combat platforms, the integration of the unit's master gunners is critical to ensure the weapons are both mechanically sound and within the published lifecycles for the weapons components. Failure to follow required service intervals can result in nonmission- capable vehicles, increasing repair man-hours and Class IX costs while possibly rendering the vehicle unusable for training or missions. Although managed by the Company/Troop Commander, the Platoon Leaders

A good services program includes the following principles:

- In-brief to the battalion/squadron commander
- Out-brief to the battalion/squadron commander/executive officer
- Battalion/squadron review with company/troop first sergeant and platoon sergeants
- Treated as a training event
- Distributed throughout the year
- Scheduled on the training schedule by unit (not bumper)
- Operators are present
- Platoon and section chain of command are present
- Service material ordered and on hand (ordered more than 90 days out and controlled)
- Conducted in dedicated bays
- Includes all ancillary equipment
- Trailers, generators, and radios are serviced at the same time as the prime mover

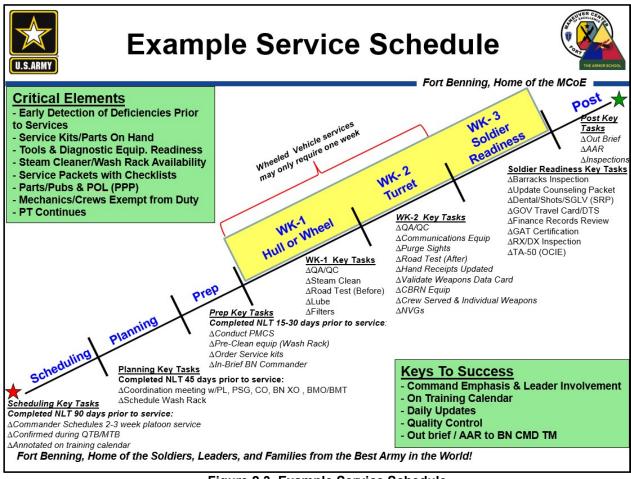


Figure 2.3. Example Service Schedule

- **2-2.4.1. Tank services and maintenance schedule.** For each tank company, services are conducted on a semi-annual, annual, and bi-annual rotation. Services take approximately three weeks for one company. Each tank platoon is divided among turret week, hull week, and ancillary equipment week. The commander and executive officer's tank are typically split between two different platoons, so two platoons have five tanks and the other platoon has four tanks. During ancillary equipment week, Soldier readiness processing services are conducted, including Soldiers Group Life Insurance (SGLI), DD Form 93 updates, TA-50 inspections, and any other service the commander deems necessary. During turret week, the armament shop conducts borescope and recoil of the main gun (see Appendix D for an example service schedule).
- **2-2.4.2. Borescope and recoil.** Main Gun utilization has several criteria that trigger the need to conduct a borescope, every 180 days, after 150 equivalent full charges (rounds fired) or when borescope data is missing during equipment fielding/draw. The recoil operation is conducted every 180 days and is done during semi-annual services or during turret week of annual services. Borescoping takes approximately 30 minutes per tank, and recoil takes approximately 10 minutes per tank.

- 2-2.4.3. Armament Accuracy Checks (AAC). AACs are conducted once a month during command maintenance at the motor pool. Typically, the platoons rotate the operation throughout the month. This is not part of the GST but is essential during prep-to-fire checks, as outlined in the technical manual.
- 2-2.4.4. Bradley services and maintenance schedule. Services are conducted on a semi-annual and annual basis for each Bradley. Services take approximately three weeks for a company. Each Bradley platoon is divided among turret week, hull week, and ancillary equipment week. Critical checks and maintenance are performed on the M242 25mm main gun, the tube-launched, optically tracked, wire-guided (TOW) missile system, and the fire-control system during turret week. Hull week consists of engine, transmission, and drivetrain maintenance. This includes removing the engine and transmission, changing filters and fluids, and cleaning the vehicle thoroughly inside and out. Ancillary week consists of machine gun maintenance, personnel file updates, organizational clothing and individual equipment inventories, and communications equipment checks and services.
- 2-2.4.5. Stryker services and maintenance schedule. Stryker services are performed on both a semi-annual and annual basis and take approximately three weeks for a company-sized unit to complete. The three weeks include turret, hull, and ancillary weeks. Due to the large variety of Stryker platforms, including the Mobile Gun System (MGS), Anti-Tank Guided Missile (ATGM) system, and the Nuclear, Biological and Chemical Reconnaissance variant, many of the maintenance checks and services outside the hull are unique to the various platforms. The checks and services performed during the hull and ancillary weeks tend to be similar across platforms and include many of the same checks as the Bradleys and tanks, including changing component filters and oil; removing the power pack and thoroughly cleaning the vehicle; maintaining weapons and communications equipment; and completing the various individual Soldier readiness checks and inspections.

2-3. Command Supply Discipline Program

The unit's Command Supply Discipline Program is a Commander's program that directs supply discipline through its organization. The program ensures the appropriate care and accountability of all organizational equipment. In order for the program to be effective, members of the Company must execute certain roles and responsibilities. There are also certain procedures that the unit must use to ensure that same accountability, which are outlined in this section.

The unit's CSDP is a program that should encompass all of the actions taken by the unit and assigned individuals to maintain proper accountability.

The unit Commander ensures that the CSDP mirrors his or her expectations for the unit, and ensures understanding throughout the formation through the publication of policy letters and regular counseling with the appropriate subordinates.

- 2-3.1. Roles and Responsibilities. The Commander and numerous subordinate leaders each have specific roles and responsibilities in the development and execution of an effective Command Supply Discipline Program.
 - 2-3.1.1. The Company Commander is directly responsible for his or her unit's logistics program and for the care, safekeeping, and accountability of all unit property. Those roles and responsibilities include:
 - Unit commanders are responsible for implementing procedures and monitoring supplies to prevent fraud, waste, and abuse
 - Unit commanders will establish serviceability inspections and inventory programs within their units to ensure all authorized equipment and components are on hand or on request IAW para 2-6a, AR 710-2. He/She will report supply constraints through command channels
 - Unit commanders are responsible for their Command Supply Discipline Program (CSDP) and for ensuring CSDP standards are enforced
 - Unit commanders will review and approve supply requests
 - Unit commanders will account for and accept responsibility for all property by signing hand receipts
 - Unit commanders will ensure all supplies belonging to, arriving in, or departing from their unit are accounted for, cared for, and safeguarded (supervisory responsibility)
 - Unit commanders will ensure that up-to-date signature cards are on hand at the Property Book Office and other supporting agencies
 - Unit commanders will check due-in status on open requisitions

- 2-3.1.2. The Supply Sergeant aides the Commander in the development and execution of an effective Command Supply Discipline Program. The Supply Sergeant's roles and responsibilities are:
 - Maintain and review the Primary Hand Receipt monthly for all unit property to ensure accuracy of changes
 - Prepare and forward property book adjustments within five days to the Property Book Office as required
 - · Post all changes to the working copy of master sub-hand receipt as they occur
 - Prepare, maintain, and update sub-hand receipts and component lists
 - Serve as the Troop Commander's subject matter expert on all supply issues
 - Prepare and maintain Soldier issue files for all personnel assigned to their unit
 - Ensure all authorized equipment is on-hand or on order and in serviceable condition
 - Request all expendable and durable supplies and equipment for the unit and submit requests to the appropriate agency
 - Maintain an audit trail for all property assigned to the unit
 - Maintain a system to track requests for supplies and equipment
 - · Maintain files for weapons and equipment
 - Maintain unit GSA expendable supplies
 - Prepare, maintain, and submit relief/adjustment documents
 - Call in service orders to the facilities engineers at Department of Public Works (DPW)
 - Safeguard, inventory, turn-in, and maintain files for clothing and equipment for absentee baggage of AWOL personnel
 - Establish procedures for the storage of property, to prevent damage, theft, and pilferage
 - Assist the Troop Commander on all inventories and maintain files on the same
 - Report all excess property no longer required to the Property Book Office (PBO)
 - Establish and maintain arms room procedures IAW applicable regulations and policies
 - Mentor and train supply clerk by providing him/her with up most date training and GCSS-Army system
- 2-3.1.3. The Supply Clerk aides the Supply Sergeant with his or her duties and has the following roles and responsibilities:
 - · Hand receipt management
 - Requisition and issue of supplies
 - Clothing records
 - Installation turn-ins and lateral transfers
 - SSA receipts and turn-ins
 - Use of the GCSS-Army system to account for and the ordering of property
 - Absentee Baggage procedures
 - Be trained and prepared to take on the duties as the unit armor or supply sergeant
 - Understanding the standards of the CSDP, program and applying its principles
 - Maintain and review the Primary Hand Receipt monthly for all unit property to ensure accuracy of changes
- 2-3.2. Property Book Operations. The following section will outline the operations undertaken by the Commander and his subordinate leaders through the Command Supply Discipline Program.
 - 2-3.2.1. The following references can be useful for obtaining additional information on this section:
 - AR 710-2
 - AR 735-5
 - DA PAM 710-2-1
 - 2-3.2.2. Global Combat Support System-Army (GCSS-Army). The GCSS-Army system was developed to provide an automated property accounting system capable of operating in a centralized or decentralized mode, and to provide asset visibility to all unit level commands. The GCSS-Army system has automated all supply operations, which are covered IAW AR 710-2 and DA PAM 710-2-1.
 - 2-3.2.3. Types of Properties. The types of properties for which records accountability are established are defined in AR 710-2 and DA PAM 710-2-1. These consist of, as a minimum, expendable, durable, and nonexpendable, which may be covered under organizational and/or installation property. With the GCSS-ARMY system, various types of properties are supported with the following property book identification codes (PBIC).
 - 0 ADP/WPE (Automated Equipment)
 - 1 Class I Basic Load
 - 2 OCIE
 - 3 POL
 - 4 TDA Equipment

- 5 Class V Basic Load
- 6 Leased Equipment
- 7 Installation Reserve Equipment
- 8 Organizational MTOE Equipment
- 9 Installation Equipment
- 2-3.2.4. Hand Receipt Listings. Hand receipt listings are documents used to record acceptance of and responsibility for assigned property. When the Primary Hand Receipt Holder (PHRH) receives the hand receipt listings, they are verified for accuracy prior to signing. When it is discovered that the on hand quantity, size, etc., listed on the hand receipt differs from the actual quantity, the PHRH will notify the PBO. The PBO will correct discrepancies that are generated at their level. If the discrepancies are at the PHRH level, the unit must prepare the necessary adjustment documents. The PHRH will keep one signed copy of the hand receipt as the unit activity record. The unit supply will keep one copy as a working copy monthly to post transactions as they occur. The original signed copy will be maintained by the PBO.
- 2-3.2.5. Hand Receipt Shortages. Hand receipt shortages will be recorded on DA Form 2062 or the automated equivalent. The PBO will maintain the nonexpendable shortage annex. The PHRH will maintain the durable and/or expendable shortage annexes.
- 2-3.2.6. Inventories. An inventory is a physical count of property on hand. PHRH will conduct inventories IAW AR 710-2, DA PAM 710-2-1 and AR 700-84 (Clothing). There are eleven types of inventories. The first ten inventories are managed by the PBO and the eleventh is managed by the unit:
 - Receipt and issue of property inventories
 - Change of responsible officer inventories
 - Change of hand receipt holder inventories
 - Annual responsible officer inventories
 - Cyclic inventories
 - Change of PBO inventories
 - Annual property book inventories
 - Sensitive items inventories
 - Ammunitions inventories
 - Command directed inventories
 - Clothing, absentee, hospitalization, and TA-50 inventories
- 2-3.2.7. Lateral Transfers. Lateral transfers are transfers of property from one unit to another. These transfers are made when property is excess in one unit and short in another. Lateral transfers are approved by the PBO. The PBO provides a listing of items authorized for lateral transfers. Lateral transfers are prepared on a DA Form 3161, IAW DA PAM 710-2-1.

2-4. Risk management

Leaders should use the risk-management process as an integral part of their decision-making and planning processes. This will result in increased readiness because of safer, smarter, and more beneficial training, and increased survivability on the battlefield. Department of the Army Pamphlet (DA PAM) 385-30: Risk Management defines the five-step risk-management process. ATP 5-19: Risk Management focuses on operational risk. Local commanders and installations have location- and activity-specific risk guidance and policies. Refer to Figure 3.2 for a representation of how risk management ties into different planning processes.

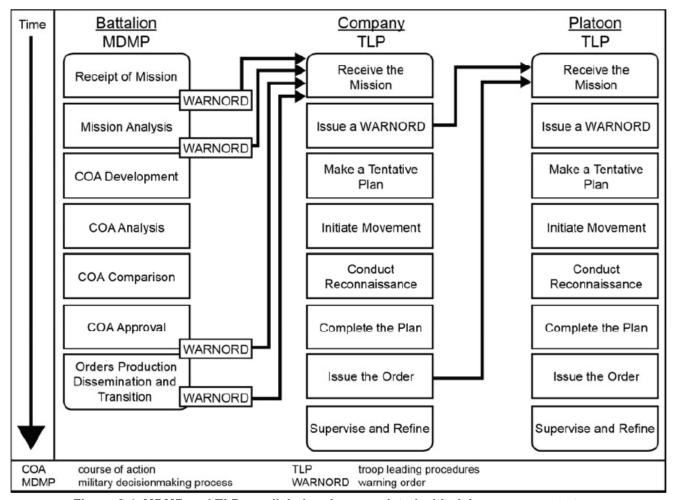


Figure 2.4. MDMP and TLP parallel planning correlated with risk management steps.

It is imperative that maneuver leaders make risk decisions at the appropriate level; when the risk is too great, leaders should send the decision up to the appropriate level commander. DA PAM 385-30 states, "Risk can only be accepted by the commander with the resources and/or authority necessary to control, eliminate, or correct the hazard in an appropriate timeframe." ATP 5-19 is a good source for maneuver units, as it discusses risk management techniques for TLPs and MDMP.

Every member of the chain of command has a role in risk management and protecting the force from unnecessary risk. A well-designed UTP that effectively leverages the LVCG training environments will help mitigate risk. It ensures individuals and crews enter training events with the appropriate level of proficiency.

Management of available resources, and knowing when to request more from higher, is an important part of managing mission risk. The No. 1 resource constraint reflected by unit commanders is available time — too many requirements and not enough time to accomplish them. Commanders at echelon share in the risks associated with making tough decisions about what can and cannot be accomplished with available time.

Leaders have a responsibility to mitigate risk as it pertains to realistic training and to mitigate risks for actions of Soldiers during non-duty hours. Appendix E of DA PAM 385-30 addresses the role of all leaders to help mitigate the negative impacts of risks in other areas:

"The effects of criminal acts, suicide, sexual assault, domestic violence, substance abuse, child abuse, and other high risk reckless behaviors can also cripple an organization's morale and destroy its combat effectiveness. Commanders and leaders must establish and maintain a command environment that fosters cohesion, team work, and performance to standard while caring for the well-being of the individual." -DA PAM 385-30, Appendix E

CHAPTER 3 Leader Education, Training and Self-Development

3-1. Ensuring leaders are trained and ready

As described in the Army Operating Concept (AOC), dated December 2018, future-armed conflict will require maneuver units to present enemies with multiple dilemmas in multiple domains. This will require maneuver leaders who thrive in environments of uncertainty.

Leader development strategies and plans are important tools for organizations. They enhance the Key System Attributes (KSAs) demanded by the evolving OE and increase the operational experience of leaders. These strategies and plans directly tie an organization's leader-development efforts into Unit Training Plans (UTPs), enabling synthesis between development programs and operational training experiences. In-person leader development from an operational unit commander can have an enduring impact on a young leader while reinforcing performance expectations for an organization.

This chapter shows how Armor Branch aligns PME courses with follow-on units of assignment to ensure that maneuver leaders are prepared for the operational experience that will follow their assignment at Fort Benning. Additionally, this chapter provides units with ways to mitigate key-leader turbulence as leaders move in and out of the operating force, working with Divisions and units.

Refer to DA PAM 600-25, DA PAM 600-3 and Appendix M of this publication for additional details regarding timelines for officers and NCOs to take advantage of these courses with respect to their career progression.

- 3-1.1. Operating force leader development. Commanders, leaders, and staffs should create and maintain leader development programs across the Army Leader Development Strategy LoEs. The three LoEs in the Army Leader Development Strategy are training, education, and experience. These programs should be integrated into the UTP, and focused to continue the development of leaders.
 - 3-1.1.1. Training. Properly executing training events that achieve the higher commander's training goals is the best way to develop maneuver leaders. Progressive training, combined with deliberate and timely AARs, build adaptive and agile maneuver leaders.

Through progressive and more rigorous training, leaders can develop the communication skills required to develop trust within themselves and the organization.

3-1.1.2. Education. Leader development programs focus on building the "know" aspects required of leaders.

One method is to use education programs to enhance unit training. When synchronized within a UTP, these programs can reinforce upcoming unit training objectives, helping develop the "intellect" attribute within young Army leaders. Training-focused programs should be balanced with the other educational areas.

3-1.1.3. Experience. Units conduct leader development within the "experience" LoE through deliberate and progressive developmental assignment timelines. It is imperative that these timelines nest with training and operational milestones. Assignment progression should balance the Army's needs with the officer's developmental requirements.

Leaders should be encouraged to take advantage of broadening opportunities to vary their experiences, as these are an important part of leader development. DA PAM 600-25, U.S. Army Noncommissioned Officer Professional Development Guide, and DA PAM 600-3, Commissioned Officer Professional Development and Career Management provide recommended leader career maps (see Appendix M of this publication for 19A, 19D and 19K career map examples). Additionally, the Army Career Tracker Website (available at https://actnow.army.mil) is a great resource for leaders to view career-related data, create individual development plans, receive career recommendations from leaders and mentors, track career information, goals, and plan career paths.

Experience in operating and generating force assignments will give Armor leaders a greater understanding of how the Army operates and equip these leaders with a more diverse set of capabilities for future positions.

Across all three LoEs, leader development programs should seek to encourage junior leaders to conduct selfdevelopment. ADRP 6-22, Army Leadership, puts the responsibility for self-development on the leader.

Leaders now have the obligation to identify and seek out self-development to increase knowledge and skills in an area. Chapter 6 goes into more detail about self-development opportunities for leaders.

There is no substitute for one-on-one feedback for developing leaders. Whether in a formal counseling session, a post-range huddle, or at a brown-bag lunch, candid, timely, and relevant feedback can leave a lasting impact on junior leaders. Counseling is quintessential to leader development.

Geared to junior leaders (corporal through staff sergeant and lieutenant through captain), the goals for Armor junior leader development programs are to increase combat readiness by preparing leaders to influence and train their formations. Typically led by the unit commander or senior NCO, these programs should include leader certification efforts to ensure leaders are proficient in the requisite KSAs their current duties require. Additionally, these programs should educate and develop leaders for future organizational positions.

3-1.2. Armor PME. While the bulk of the training and experience leaders receive is operational, the MCoE and Armor School's PME/functional courses provide an important facet of Soldiers' leader development needs.

3-1.2.1. Officers

Armor Basic Officer Leaders Course (ABOLC) — ABOLC's purpose is to produce physically fit, mentally agile, technically proficient Armor leaders grounded in the Army Values and capable of decisive operations as part of a combined arms team. ABOLC further provides the Armor lieutenant the baseline skills necessary to function as a tank leader. Failure to complete this course may result in separation from service. Upon completion of ABOLC, Armor Lieutenants will attend Scout Leader's Course (SLC), and have the opportunity to attend the Maneuver Leader Maintenance Course (MLMC), and/or Ranger School, depending on factors such as first unit of assignment and time available.

Maneuver Captains Career Course (MCCC) — MCCC provides maneuver captains an education on the fundamentals of combined arms warfighting at the tactical level across the range of military operations. It uses small group instruction of no more than 16-20 students. Students are evaluated on visualization of company-level tactical operations, expression of that visualization in oral and written form, mastery of TLPs, performance as a battalion staff officer in MDMP, and application of the fundamentals of battalion and brigade operations. All Armor Captains will have the opportunity to attend Cavalry Leader's Course (CLC) upon successful completion of MCCC.

Intermediate Level Education (ILE) — Armor majors complete ILE through the Command and General Staff College (CGSC), sister-service-equivalent in-residence courses, or through distance learning. In addition to Army and sister-service ILE programs, officers can also compete for foreign and interagency fellowship positions. In accordance with the December 2014 DA PAM 600-3, all Armor majors attending resident ILE at Fort Leavenworth, Kansas, are required to take A331, Cavalry elective and P940, Branch Week. As of 30 September 2016, the CGSC added the course to the mandatory electives that current Staff Officer Course (CGSOC) students started taking in spring 2017 and in all follow-on CGSOC iterations. In conjunction with HRC, USAARMS is working to determine opportunities for officers attending satellite, sister service, and fellowship ILE courses to attend critical functional training in a TDY status prior to arrival at their next duty station following graduation.

School of Advanced Military Studies Advanced Military Studies Program (SAMS - AMSP) — The AMSP is for majors and junior lieutenant colonels who have completed their ILE requirement or equivalent, with the majority coming to AMSP from CGSC. SAMS has one AMSP education program (up to nine seminars), which begins in June 2019 and graduates in May 2020. The applications window generally opens during the summer prior to enrollment.

Pre Command Course (PCC) — Officers selected to command at company, battalion, and brigade level will attend appropriate-level command courses. Pre-company command courses are generally conducted at the command's installation level. For commands, officers will attend PCC at Fort Leavenworth. Additionally, maneuver officers will attend the Maneuver PCC (MPCC) at Fort Benning and other pre-command courses for different subcategory command levels.

3-1.2.2. NCOs

Basic Leader's Course (BLC) —The BLC is a non-MOS-specific, field-oriented leadership course built around warrior leader tasks. It trains eligible Soldiers on the values, attributes, skills, and actions needed for team and squad leadership responsibilities at the rank of sergeant.

Armor Advanced Leader's Course (ALC) — ALC consists of technical training that is "hands-on," performanceoriented, and specific to the MOS. The purpose of the course is to train tank commander and scout squad

leaders. The level of training received at ALC progressively and sequentially improves on the previous instruction received during BLC and operational assignments.

Maneuver Senior Leader's Course (M-SLC) — M-SLC has proponent phases that include hands-on and performance-oriented training that emphasizes warfighting skills. M-SLC is a seven-week course that consists of approximately 289 hours of small-group instruction. The POI combines CMFs 11 and 19 to educate Infantry and Armor NCOs and challenge their mental acuity. The course creates arms NCOs with the technical, tactical, administrative, and logistical skills necessary to serve successfully at the platoon and company levels. NCOs leave M-SLC with a foundational understanding platoon sergeant and battle-staff NCO duties.

Master Leader's Course (MLC) — MLC is a branch-immaterial course that provides an opportunity for Soldiers selected for promotion to master sergeant to acquire the leader skills required for success at both troop and staff assignments throughout the defense establishment.

Pre Command Course (PCC) — NCOs selected to assume duties as first sergeants and battalion- and brigade-level command sergeants major will attend appropriate-level command courses. PCC courses are generally conducted at the command's installation level. Command Sergeants Major attend PCC at Fort Leavenworth. Additionally, depending on the type of command, NCOs may attend the MPCC at Fort Benning and other PCCs for different subcategory command levels.

United States Army Sergeants Major Academy Sergeants Major Course (USASMA - SMC) — SMC educates senior NCOs from our Army, sister services, and allied militaries to be agile and adaptive senior NCOs through the study of leadership, the conduct of ULO, and the application of joint, interagency, intergovernmental, and multinational (JIIM) organizations in an era of persistent conflict. USASMA is the consummate institution that prepares them to execute at all command levels throughout the Department of Defense.

3-1.2.3. PME follow-on functional course offerings. To ensure Armor officers and NCOs possess the requisite KSAs to be successful as leaders in ABCTs, SBCTs, and IBCTs, the Armor School is developing critical functional education paths tailored to the follow-on BCT type. These paths will efficiently align courses within a leader's timeline at Fort Benning to ensure he or she receives the training and education required to lead organizations specific to the follow-on assignment BCT type.

Once Armor Lieutenants graduate ABOLC, their primary PME course, the priority for functional-course attendance is SLC. To make the follow-on assignment more efficient, the Armor School is mapping the SLC start dates with ABOLC graduation dates. USAARMS is also mapping CLC and MLMC start dates with the MCCC graduation dates. These efforts will reduce required time for functional-course attendance for officers at the MCoE.

Refer to Appendix P for recommended PME assignment training strategies. It is important to note that at this time, NCO Education System students are TDY and return; coordination for additional follow-on must happen between the school and unit for directed PME follow-on course training requirements.

3-1.2.4. Armor School functional courses

In addition to PME taught at the MCoE, the Armor School provides an array of relevant and demanding functional courses to improve the KSA of maneuver leaders across the force.

The following courses hosted or endorsed by the Armor School are available for Armor leaders within any BCT to attend:

- Scout Leader's Course (Recommended after ABOLC for Armor Lieutenants)
- Cavalry Leader's Course (Recommended after MCCC for Armor Captains)
- Master gunner (common core, Abrams, Bradley, Stryker)
- **Gunnery Simulations Training Management Course**
- Stryker Leader's Course
- MGS Commander Course
- Tank Commander's Course
- Bradley Commander's Course
- Maneuver Leader Maintenance Course
- Airborne School
- Ranger School

- 3-1.3. Key-leader turbulence. As leaders take advantage of these schools and further their education, units can experience turbulence in operations because of decreased personnel. Leaders at all echelons must anticipate future constraints and requirements, make necessary personnel moves early, and prudently certify and fill crew, team, staff, and leader positions. An example is Master Gunner (MG) positions. A method to provide continuity is to ensure MGs complete their (Key Development) KD time before serving in a stand-alone MG Billet, and then stabilize the NCO for 15 months beyond that KD time to serve in a MG billet. Changeover of personnel can be a significant challenge for organizations as they execute training plans. Therefore, commanders should look to reduce key-leader changeover, as this will maintain overall unit readiness for the maximum amount of time. Crew management, leader turbulence, and reduction of non-deployable personnel affect Objective T levels. Some techniques to reduce changeover turbulence are:
 - Closely manage key personnel groups. Platoon leader/platoon sergeant and vehicle commander/vehicle gunner are examples of key leader groupings. Senior leadership within an organization should closely monitor and change out personnel within these groupings at low-impact time in the training schedule
 - Certify alternates. Train alternate personnel when possible for key positions to cover leader changes during a training cycles
 - Establish policies to utilize SMEs. Units should identify leaders with potential as an SME (to include career progression considerations), send those individuals to training, stabilize them within the unit, and use them as the SMEs
 - 3-1.3.1 Command and leadership transition planning. Changes in leadership need must be planned. No event is as transformative for a unit than a change of command or senior leader.

A deliberate command transition process mitigates the risk in leader transitions, as it ensures a complete orientation to the unit and post. Senior leaders should provide guidance during the transition through in- and out-briefs. The aforementioned facilitates higher-level-leader focus areas (administrative concerns, manning and personnel, training and operations, and logistics). The command transition process should also account for time needed for command-climate surveys and equipment accountability. This allows incoming leaders to review and participate in weekly battle rhythm events both internally and externally. It also enables the incoming leader to tour unit facilities, key training areas, update policy letters, receive introductions from key leaders and staffs, meet family readiness group leaders, meet with adjacent unit commanders and ensure that the change of command or responsibility ceremony (if required) is resourced and rehearsed. Appendix H provides an example of a command transition model for units to use for planning considerations.

3-2. Self-development

The Army defines self-development as planned, goal-oriented learning that reinforces and expands the depth and breadth of an individual's knowledge base, self-awareness, and situational awareness. The three types of selfdevelopment are:

- Distributed Leaders Course (DLC) required learning that continues throughout a Soldier's career and is synchronized with classroom and on-the-job learning
- Guided Self-Development (GSD) recommended but optional learning that will help keep a Soldier prepared for the changing technical, functional, and leadership responsibilities throughout his/her career
- Personal Self-Development (PSD) Self-initiated learning where the Soldier defines the objective, pace, and process
- 3-2.1. Distributed Leaders Course (DLC). A clearly defined set of required content progressively sequenced across a Soldier's career and synchronized with the operational and institutional domains, setting conditions for continuous growth as both a warrior and a warrior leader.
 - 3-2.1.1. DLC Level I. The DLC Level I teaches initial-term Armor Branch Soldiers communication skills, lessons in character and values, and a framework for tactical and technical competence. DLC Level I also encourages Soldiers to take the initiative to become a lifelong learner by exploring personal and professional interests and pursuing a civilian education. This DLC is a prerequisite for BLC.
 - 3-2.1.2. DLC Level II. The DLC Level II prepares Armor sergeants to react to cultural dynamics in the JIIM environment; develop self and subordinates to use sound and ethical judgement; be an agile and a multiskilled leader in the OE even when information is ambiguous and uncertain; and be accountable with moral and ethical character when managing programs. This DLC is a prerequisite for ALC.
 - 3-2.1.3. DLC Level III. The DLC Level III prepares Armor Branch staff sergeants by providing them with opportunities to improve themselves as professionals and as individuals. Additionally, it will provide an opportunity to acquire the "be-know-do" model skills needed to lead a platoon-sized element. Students will

analyze and apply leadership development, mission command, cognitive dominance, and Army programs. This DLC is a prerequisite for SLC.

- **3-2.1.4. DLC Level IV.** DLC Level IV prepares Armor Branch staff sergeants and sergeants first class by providing them with an opportunity to improve as individuals and as professionals. Students will enhance their ability to apply cognitive dominance, while preparing professionally for MLC. Soldiers will study organizational leadership, functions of a joint staff, principles of sustainment, the exercise of mission command, and the problem solving process. This DLC is a prerequisite for MLC.
- **3-2.1.5. DLC Level V.** DLC Level V prepares Armor Branch master sergeants by providing them with an opportunity to improve as individuals and as professionals. Students will enhance their ability to apply cognitive dominance while preparing professionally for SMC. Students will analyze leading change in an organization, receive an introduction to contracting and funding, understand the capabilities of multinational and inter-governmental agencies and study contemporary legal issues. This DLC is a prerequisite for SMC.

19D Talent Development Model 10 12 16 20 30 Years of Service Team Squad Leader / Platoon First Sergeant BN/BDE CSM Key Leadership Position Driver, Leader Section Leader Sergeant MQ rating and highly numerated ranking 24 Months DLC 4 DLC 3 DLC 5 DLC 6 Military/Civilian Education Associate's Degree Bachelor's Degree Master's Degree SEJPME P1 Senior Enlisted Joint Professional Military Education SEJPME P2 Senior Enlisted Joint Professional Military Education The Armor Branch only recognizes Key Leadership Positions and Broadening Opportunities Development Battalion Master Gunner, Seni Assistant Operations Division Master Gunner. Gunner, Assistant Operations Sergeant Drill Sergeant, Recruiter, TAC NCO, Career MGT NCO, Career Advisor, Senior Career Advisor, ROTC, IG NCO, EOA, ROTC Development SGM, OCOA Sergeant / Operations Broadening SGM, USASMA Faculty NCO, Instructor, Opportunities / Operations NCO. HRC. Project Warrior, AWG Advisor, Instructor, Senior Observe Controller Trainer (OC/T), Advisor, BN/BDE CSM Security Force Assistance Brigade Observer Controller Trainer (OC/T), Recruiter, Instructor Advisor, SFAB OCOA 19K Career Management NCO SFAB. OCOA 19Z Caree Military Training Master Gunner, SLC, BCC, CLC, SARC, MRT, MFT, Battle Staff, SAFETY, HAZMAT, UPL, Master Driver, CBRNE, Ammo Command Sergeant Major Legal

Figure 3.1. 19D NCO Talent Development Model

19K Talent Development Model

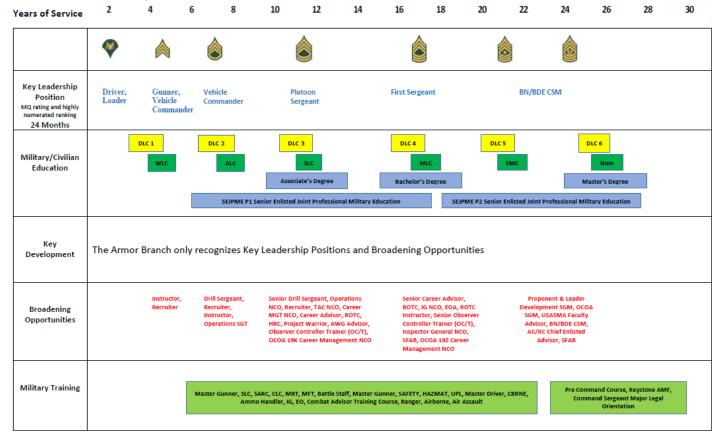


Figure 3.2. 19K NCO Talent Development Model

3-2.2. Guided Self Development (GSD). To enhance the institutional training and operational experience Soldiers receive in the Army, it is important for Armor leaders to broaden their understanding of technical, tactical, functional, leadership, and maneuver elements of the branch. GSD can assist Soldiers through programs that provide structure but allow Soldiers to pick topic areas and focuses.

GSD is a defined set of recommended content and topics progressively sequenced across a Soldier's career that encourages the individual's continuous growth. The GSD, while encouraged, is optional and not required for continued advancement. The GSD focuses on a recommended set of common individual development goals that challenge the individuals to continue to expand their competence across a wide spectrum of topics related to, but not limited to, the military profession. The GSD includes the pursuit of civilian education goals, licensure, and certification; an expanded understanding of world languages and culture; governance; the history and evolution of conflict; Army and unit-level reading lists; and participation in relevant communities of practice. The GSD provides guidance to participants, while reinforcing their persistence and commitment to lifelong learning.

Other areas of guided self-study include the Global Combat Support System – Army (GCCS-A) training program available at https://www.gcss.army.mil . While this training is required for those who use the GCCS-A in their dayto-day duties, Armor leaders can gain valuable insight into the Army's sustainment systems by completing training on this important system.

- 3-2.3. Personal Self-Development (PSD). The Army Handbook for Self-Development. Provides guidance on creating a self-development program. In addition to these resources, the Armor Branch recommended reading list is provided in Appendix E and is broken up by institutional, platform, and combat operations categories.
 - 3-2.3.1.The Army Leader Development Strategy. This tool provides vision and guidance for developing leaders of all cohorts and components that exercise mission command while executing ULO. Additional resources can be found at http://usacac.army.mil/core-functions/leader-development.

3-2.3.2. The Virtual Improvement Center (VIC). VIC is a collection of instructional media designed to assist leaders in increasing their leadership skills. The site includes a vast amount of resources, including stories, relevant Websites, and multimedia (such as simulations) that are separated and focused solely on individual improvement in each Army leader competency. A catalog of material available in the VIC can be found at http://usacac.army.mil/organizations/mccoe/cal/ldrdevelopment.

3-3. Leader Professional Development (LPD) Program

An effective method of leader development outside of training events can be a robust LPD program to develop the key leaders in an organization, to include leaders and staff at echelon. The key here is to help develop these leaders in how the organization fights and wins in both DA and SFA environments.

- 3-3.1. A Method for LPD. One method for developing an LPD program is to break it up into series based on subordinate leader populations. For example, an organization can have series built for each subordinate leader population within the organization. In a Battalion, the Battalion Commander can develop a series for PLs, a series for Commanders, and a series for the BN staff. The same can be accomplished with the Battalion Command Sergeant Major establishing similar series for the BN's NCOs. These should involve scheduled events that are treated as part of the training calendar, and thus protected and prioritized. Furthermore, it can be beneficial to schedule regular "how we fight" seminars based on the unit's mission, METL assessment, readiness, task organization, tactics, techniques, and procedures, etc. This series could also include "how they fight" seminars to evaluate these same factors for the enemy, whether that be 11th ACR at the NTC, or preparing for an upcoming deployment. When developing these series, the participating leaders should bring forth information on each warfighting function as outlined by their role in the organization. This allows all leaders in the organization to see how they contribute to the organization's overall mission success, such as giving the BN S2 section extra repetitions in IPB in order to improve efficiency and produce technically and tactically competent leaders.
- 3-3.2. LPD Tools. Countless tools can be used to develop an effective LPD program within an organization. Many of these can be used at any echelon and help provide a unit commander with a baseline for building an effective program within his or her organization. This is not an all-inclusive list, and leaders should be encouraged to think of new ways to develop their subordinates.
 - **3-3.2.1. Professional Reading.** Professional reading can be geared on either the unit's organizational or mission type, on a specific rotation or deployment, or on a historical battle that demonstrate how the effective application, or lack thereof, of various warfighting functions contributed to the outcome of the battle. This can help to develop lessons learned to ensure the success of the unit on their future mission.
 - **3-3.2.2. Written or Oral Presentations.** Subordinate leaders can be assigned written assignments like essays to demonstrate an understanding of the topic at hand. They can also be assigned oral presentations that they can then present to the fellow leaders in their series. This demonstrates understanding of the topic and ensures that leaders are internalizing the material.
 - **3-3.2.3. Staff Rides.** A staff ride is a historical study of a campaign or battle that envisions a systematic preliminary study phase, an extensive field study phase on the actual historical site (or virtually, on maps, etc. if not possible), an integrations phase to capture the lessons derived from each (The Staff Ride: A Guide to Planning and Conducting Unit-level Staff Rides). These events can often be completed in conjunction with the aforementioned professional reading and written/oral presentations. They provide leaders with the ability visualize the battle or campaign in question. The Army Staff Ride has prebuilt packages available for units, as well as an article to provide some initial guidance and additional resources for units conducting a staff ride at the links below.
 - Staff Ride Packages https://www.armyupress.army.mil/educational-services/staff-ride-teamofferings/
 - The Staff Ride: A Guide to Planning and Conducting Unit-level Staff Rides https://www.armyupress.army.mil/Portals/7/educational-services/staff-rides/the-staff-rideoverview-2-august-2013.pdf
 - 3-3.2.4. Counseling Sessions. Leaders should counsel LPD participants throughout the process to support their continued learning and development during all phases of the program.
 - 3-3.2.5. Physical Training Events. These events allow leaders in each cohort to socialize and participate in events together, while also improving their physical fitness and giving leaders another touchpoint in evaluating talent, strengths, and weaknesses.

- 3-3.2.6. Professional Military Discussions. Unit leadership can gather for professional military discussions, such as the aforementioned regular seminars. This could be internal discussions, or involve inviting subject matter experts on an area. For example, if deploying to a certain region, a local educational institution may have historians that specialize in that region or country, and can provide a wealth of information to the unit's leadership.
- 3-3.3. LPD Outcomes. An effective LPD program allows commanders at each echelon to evaluate talent and determine strengths and weaknesses. This can help with the placement of leaders in the correct positions based on those determinations, or even determining which leader to give a specific mission during events like a NTC rotation or deployment. Finally, an LPD program can be one of the factors involved in evaluating leaders. Some key trends seen at the National Training Center are that lethal squads, crews, and platoons gain positional advantage through mastery of transitions between movement to maneuver. Conducting regular evaluations of these capabilities improves overall unit success. Leaders and Soldiers at NTC get an impartial evaluator in their Observer, Coach, and Trainer (OC-T). This impartial and fair assessment provides leaders at echelon to continue to develop and improve.
- 3-3.4. Addition leader development resources from the Combined Arms Center are below:

3-3.4.1. Commander's Handbook for unit leader development

https://usacac.army.mil/sites/default/files/documents/cal/CommandersHandbook.pdf

3-3.4.2. Self-Development Handbook

https://usacac.army.mil/sites/default/files/documents/cal/SDev_Handbook20.pdf

3-3.4.3. Army Leader Transition Handbook

https://usacac.army.mil/sites/default/files/documents/cal/LeadershipTransition.pdf

3-3.4.4. Study book- Improving Judgment

https://usacac.army.mil/sites/default/files/documents/mccoe/Improving%20Judgment%20Exercises%2 Ofillable%2020160613%20resized%20optimized.pdf

3-3.4.5. Character and Ethical Leadership Self Reflection Guide

https://caccapl.blob.core.usgovcloudapi.net/web/repository/pdf-files/character-ethical-leadership.pdf

3-3.4.6. Leader Development Improvement Guide

https://rdl.train.army.mil/catalog-ws/view/100.ATSC/4F980832-1E35-4C5B-9DD8-D39849111457-1519242707165/MSAFxLDIGxOY1xxFinalxx180131.pdf

3-3.4.7. Developing Leadership During Unit Training Exercises

https://usacac.army.mil/sites/default/files/documents/cal/DevelopingLeadership.pdf

3-3.4.8. Command Climate Navigator

https://rdl.train.army.mil/catalog-ws/view/100.ATSC/3C53601F-9158-40D9-AACD-F4EA9A72523D-1538164956401/index.html#/

3-3.4.9. Army Team Building

https://rdl.train.army.mil/catalog-ws/view/100.ATSC/A5D5F75B-C472-4759-83D6-91BB9D1B9EEA-1446205982463/atp 6-22x6.pdf

3-3.4.10. Study book – Producing Alignment & Leading Collectively

https://usacac.army.mil/sites/default/files/documents/mccoe/CL%20Intervention_20160613%20-%20resized%20optimized.pdf

CHAPTER 4 Training

4-1. Training Aids, Devices, Simulators, and Simulation (TADSS)

Training Aids, Devices, Simulators, and Simulation (TADSS) allows leaders flexibility and increased capabilities to conduct demanding, realistic, METL-focused, and multi- echelon training at home station. TADSS enables time and budget savings, and it is an accurate assessment of proficiency. By blending live training with one or more of the available training enablers, leaders can expand both the size of the training area and the complexity of the OE to maximize training effectiveness. These are critical to building readiness at echelon.

The Army's Training Support Service provides the networked, integrated, and interoperable training support necessary to enable an operationally relevant training environment for warfighters, across all three domains (operational, institutional and self-development) and all components (Active, Army National Guard (ARNG), and U.S. Army Reserve (USAR)) from the individual level to echelons above corps.

Depending on Army Component type and location, access to Army-provided HST enablers will vary. U.S. Army Installation Management Command's Directorate of Plans, Training, Mobilization and Security is the primary management agent for Army-provided TADSS.

Another critical resource that unit leadership can use to obtain information about local TADSS resources is ATN. ATN's TADSS page provides a quick access link for limited searches in the Army's Training Support Materiel Army-wide Tracking System.

4-2. Live training

Live training is conducted by real people operating real systems in a real environment and is enhanced by adding training support enablers to improve realism and complexity. Live training enhancements may include simulation and gaming-enabled rehearsals prior to conducting a live iteration; MILES supported situational training exercise (STXs) lanes: maneuver exercises to provide real-time monitoring and post-mission AAR capability; and visual modification kits applied to unit equipment or portable targets emplaced in the maneuver area to provide realistic threat-system replication. Refer to Appendix G for more information on simulators and tracking systems that support a unit's live training.

4-3. Virtual training and gaming

Virtual training and gaming is real people training on simulated systems. These systems place the operator in a virtual environment that looks, feels, and reacts like the actual platform. The computer-generated terrain views, weapons characteristics and threat systems provide realism. Simulated systems can be used to mitigate constraints in time, level of realism, and resources. Simulated systems enable more repetitions in the same amount of time as live training, and it allows for near-realistic conditions that cannot otherwise be attained because of safety conditions. Simulated systems also avoid some of the resource costs and time required to train in live conditions. They provide incremental resources and training environments that bridge gaps when facilities or conditions are unavailable at the locations, and during the times, personnel and units require the training. Refer to Appendix E for more information on virtual training and gaming systems to support training.

4-4. Constructive training

Constructive training is simulated people and equipment operating in a simulated environment. Role players make inputs to the simulation but are not involved in determining the outcomes (i.e., the constructive simulation determines the speed of movement, the effect of the engagement with the enemy and any battle damage that may occur). Constructive training enables the commander to expand the training area. Constructive simulations create the complex OE to drive mission command, providing synthetic units and terrain in the computer to stimulate information in missioncommand information systems (MCIS), making the training environment appear much larger. Personal-computer-like workstations, manned by unit leaders, control the movement of units. Computer screens display map contours and unit/individual/equipment icons that workstation operators maneuver. Brigade/battalion commanders and their staffs conduct mission-command training in or close to a mission training complex (MTC) using constructive simulations to stimulate the MCIS, allowing individual MCIS operators to use the simulation/stimulated data to create a COP for the commander on Command Post of the Future. Refer to Appendix E for more information on constructive training systems that can support unit Blended Training Environment (BTE) and Integrated Training Environment (ITE).

4-5. Integrated Training Environment (ITE)

ITE brings technologies, systems, data, and information together in Live, Virtual, Constructive, and Gaming (LVCG) training environments to simulate unit MCIS. By integrating LVCG enablers, commanders can expand their OEs through technology rather than being limited to physical terrain and forces. LVCG – Integrating Architecture (LVCG-IA) enables interoperability between simulated systems and simulators across LVCG as well as MCIS to conduct brigadeand-below combined arms collective training. Unlike any other HST capability available to commanders, ITE affords units and commanders the means to conduct near-seamless training events using these enablers to achieve readiness. It provides them the ability to train on multiple tasks, including mission command functions, joint/interagency, Special Forces integration, and ULO simultaneously in a distributed manner. The ITE is efficient and effective, enabling training at echelon and it is capable of supporting individual through multi-echelon collective

An essential strength of the ITE is its ability to replicate the OE, so commanders can challenge their formations with complex problem sets that force leaders, and units to train as they fight and prepare for ambiguity. In the Resource-constrained environment, the ITE is able to stress BCT-sized formations across the breadth of the warfighting functions with more fidelity and at a fraction of the cost (money, land, and time) of pure live training. An illustrative example is found in the brigade-designed, battalion-executed ITE exercise described as follows:

A battalion is conducting an operation to clear its 60-kilometer OE and has a supporting-effort company conducting cordon-and-search operations in a high-fidelity gaming environment. The main-effort company is conducting an attack to clear an objective 30 kilometers away (notional). One platoon is operating in ground combat virtual simulators (Close-Combat Tactical Trainer (CCTT)) at the MTC. The other two platoons are attacking live, on the ground, but outfitted with HITS. The battalion's third company is conducting a combat logistics patrol along a 50kilometer main supply route to facilitate logistics operations and is conducting this in a constructive environment. The battalion commander is able to view all his forces through his mission-command suite at his Main CP, which is being stimulated by the three LVCG environments. Additionally, his units operating within the virtual and constructive environments are all able to see their adjacent unit activity through their BFTs, JBC-Ps, or JCRs.

With the exercise encompassing an OE that is more than 60 kilometers in size, fully populated with a hybrid enemy and a civilian population, the resources required would be expected to be extremely costly. However, in reality, the only training area needed is a maneuver box large enough to accommodate the two maneuvering platoons to clear the objective and the opposing force (OPFOR)/civilians on the battlefield required on those objectives. The rest of the resources are embedded in the simulation at high fidelity and low cost, and ready for numerous iterations.

Additionally, simulated combat multipliers such as unmanned aerial systems, aviation, close air support (CAS), artillery, etc., are all available all the time in the simulations, which allows for repetition of their use, so that the battalion can maximize the limited time it has the live assets. Finally, with the exception of the live element, the conditions can be tailored to meet differing levels of mastery and objectives. The natural conditions of day vs. night, terrain, and weather can all be modified within a very short period. Man-made conditions — including enemy and population equipment, size, location, disposition, etc. — are all easily tailored as well. All these factors achieve the complexity we need to build readiness in a volatile and uncertain world.

4-6. Incorporating the ITE into unit training

Commanders consider the ITE by integrating and synchronizing the components that enable LVCG environments as appropriate to enhance training, improve realism, and save resources. Simulators and simulations do not replace live training. They supplement, not replace training. Commanders should understand how to employ TADSS effectively and optimally to enhance live training. Apart from integrating TADSS, commanders should also consider using MCIS and factor in refresher training for individuals in key positions of responsibility prior to ITE exercises, since most of these systems are not used during normal operations in garrison.

In the weeks leading up to key events, units can integrate multiple TADSS to conduct training in LVCG environments.

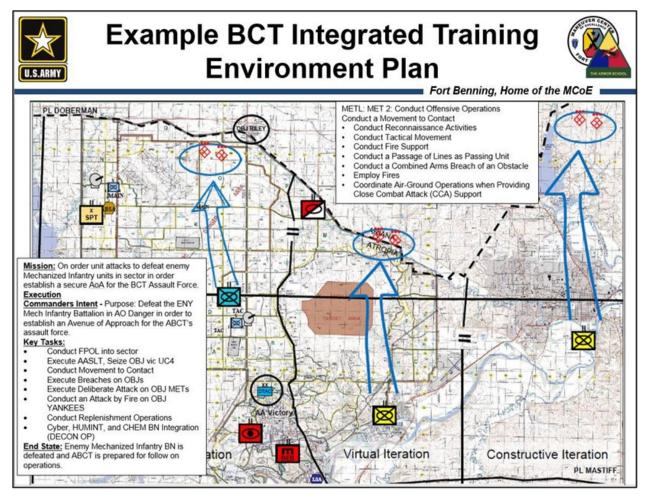


Figure 4.1. Example BCT Integrated Training Environment Plan

4-7. Planning for ITE exercises

Commanders and senior leaders need a systematic approach to employ the many training enablers contained within the elements of the ITE. The key to effectively leveraging ITE capabilities lies in leaders creating a task-based, echelon-appropriate exercise that can be reliably evaluated. TC 7-101, *Exercise Design* (November 2010), defines the steps in designing and tailoring an exercise to the commander's training objectives. Collective training is part of unit training. It is performance-oriented and a command responsibility executed by leaders at all echelons. Appendix I provides an example ITE training plan to assist units. This example demonstrates how to align subordinate units across different training environments and training areas. It also depicts training events synchronized on a schedule.

Employing the ITE provides an excellent means to execute "a crawl-walk-run approach [that] reaches across all training domains and integrated [LVCG] training environments" (TC 7-101).

- 4-7.1. Task-based approach. The commander determines the training objectives for the exercise and ensures the unit's training objectives support the approved METL. After METs are selected, the senior trainer identifies supporting training objectives for each task. According to ADRP 7-0, each training objective has three parts:
 - 4-7.1.1. Task. A clearly defined and measurable activity accomplished by individuals and organizations. Tasks are specific activities that contribute to the accomplishment of encompassing missions or other requirements. Not all elements or enablers within the ITE train all tasks equally well. Some train tasks fully; others only partially.
 - 4-7.1.2. Condition. Those variables of an OE or situation in which a unit, system, or individual is expected to operate and may affect performance. One of the ITE's strengths is its ability to modify the conditions under which tasks are trained and to offer more timely and cost-effective iterations of the training under variable conditions.

- 4-7.1.3. Standard. A quantitative or qualitative measure and criterion for specifying the levels of performance of a task (FM 7-0). Choice of an ITE environment or enabler should not significantly alter the standard of performance.
- 4-7.2. Echelon. Once leaders (staff and senior trainer) identify the key missions and critical tasks, they focus upon the echelon that will be the primary training audience. Will the platoon from one or more companies be the targeted training audience? Will tasks like "platoon assault a building" be the focus, or will it be company-level tasks such as "company attack in an urban area?" Next, leaders determine a prioritized list of training objectives by echelon. Only after the leader has identified the key training audience and the secondary training audience can he or she then move to the next step of selecting what mix of training environments will best service the training objectives.

	Atta	ck	Def	end	Scr	een	css	
Crew/ Squad		Conduct direct-fire engagement	React to indirect fire		Position and monitor with LRS3			
PLT	Secure an Objective			Defend a battle position	Establish a	Checkpoint	Establish a refuel point	
со	Attack in an Urban Environment	Conduct Cordon & Screen		Defend a battle position	Conduct	a Screen	Establish a Water Purification Point	Conduct Resupply by land
BN Staff	Synchronize IC across the BN	Targeting Cell- Conducting Target Planning			Develop an Ma	_	Synchronize Air Resupply Operations	
BDE Staff	Synchronize IC across the BDE		Dynamically re-task a UAS asset				Integrate BDE resupply operations	

Table 4.1. Menu Selection for Training Objectives by Echelon

4-7.3. Environment-based approach. Not all training environments work equally well to fully or partially train tasks. Leaders establish what tasks can be trained in the available ITE environments. The exercise director determines which training environment (or mode) a task is "best trained." He/she considers OPTEMPO costs, environmental impacts, safety mitigation, and the existing skill level of the training audience. The exercise director synchronizes training areas and facilities, training support systems, OPFOR, OC/Ts, and all other resources necessary to achieve training objectives (TC 7-101).

Live training is the start-point of any ITE exercise analysis. Leaders determine collective and individual tasks to train and mitigating factors that prevent tasks from being trained live. One mitigating factor may be the OPTEMPO costs of establishing the battalion staff in a field headquarters, jumping multiple times, and providing timely feedback. The commander may need less information about the staff's capabilities to set up and tear down the Command Post, and more information about their competency at managing information within a dynamic operation. These factors may lead him or her to select a constructive exercise instead of a live exercise that includes the deployment of the headquarters to a distant training area.

The unit leader, having identified "gaps" in the capability to train some tasks live (perhaps based upon time, money, environment, safety, etc.), will develop an exercise using virtual and constructive enablers to fill the "gaps" in live training. The exercise, or exercises, that the leaders construct will be scenario/vignette-driven and focused around the key training tasks and the primary training audience.

4-7.4. Scenario/vignette-based approach. Having identified the key missions to train, and the critical collective and individual tasks inherent in those missions, and having selected the best training environmental enabler to train those tasks, the exercise planner must now construct the exercise or exercises using scenarios and vignettes as the building blocks. "The exercise planner is typically an officer tasked with the actual creation of the exercise and its conditions. He or she incorporates the training objectives, desired training conditions, resources available, commander's evaluation, and guidance from the exercise director into a cohesive exercise design" (TC 7-101).

The exercise planner will:

- Develop the exercise scenario
- Determine the setting for operational variables
- Develop all orders, plans and instructions for the exercise

Task-based, echelon-appropriate, scenarios and vignettes are combined to produce a Master Scenario Event List (MSEL), which is assigned against O/C/T responsibilities, BLUFOR and OPFOR roles, the type of operation to be conducted, and the events executed under the management of an exercise director. This creates the framework for an ITE exercise that can be observed, controlled, reviewed in an AAR, and retrained as required.

4-7.5. Prepare, Execute, Assess

4-7.5.1. Prepare. Determination of the essential equipment and personnel needed to accomplish the training is based on the type of exercise conducted. Time should be set aside to conduct back-briefs and rehearsals among the training unit, agencies, and enablers that will participate in the exercise. Conducting site surveys of field locations, meeting with staff personnel at the MTC on post, and visiting the simulation training facility is essential in understanding the abilities and limitations of each training environment. The planner, S-6 representative, and a simulations operations officer (FA-57) should be on this survey team to ensure that the architecture, personnel, and systems are able to effectively support the exercise and meet training requirements.

Confirm and lock in these resources: land, ranges and ammunition; TADSS requirements; gaming Virtual Battle Space 3 (VBS3); virtual enablers (CCTT, Aviation Combined Arms Tactical Trainer (AVCATT), CCTT-Reconfigurable Vehicle Simulator (RVS)); OPFOR personnel and training; leader and O/C/T instruction; and role players.

Complete the detailed scenario support products: OE environment road to war, graphics, and operations orders; PMESII-PT products; MSEL injects and storyline for higher control; O/C/T training plan; thread-testing network connectivity; and support personnel training ("pucksters" on constructive network systems).

- 4-7.5.2. Execute. Having a synchronized observation plan ensures key events are observed and the results briefed to the commander. As such, during the execution phase, adjustments to the training plan may be recommended based on leader or O/C/T observations. Following are examples of issues that may require adjustment to the exercise:
 - If tasks were not completed to standard, the commander may choose to retrain those tasks prior to the end of the exercise;
 - If an MSEL did not adequately stimulate the training required, it may be repeated, or refined and repeated:
 - If a resource is not available or does not create the training effect expected, the commander may choose to redo or try another approach to meet the training objective.

Continuous feedback is gathered to ensure the exercise is meeting the training objective. If shortfalls are identified, rapid corrections are made.

Daily reporting:

- Updates to the commander on the exercise
- Battle-update briefs to the exercise director
- Exercise updates (MSEL inject issues, simulation thread issues, simulator issues)
- TTP capture
- Battle rhythm review
- Exercise huddle (review next 24/48 hours
- **4-7.5.3. Assess.** When assessing training, commanders consider:
 - Their own observations and those of subordinate leaders and other individuals
 - · Feedback from AARs
 - Results of unit evaluations

The primary tool for capturing data in an ITE event is the Enterprise AAR (EAAR) tool. EAAR collects data from the entire LVCG-IA network, including information on what is happening in the LVCG environments. EAAR operators are assigned to the MTC and provide data products (slides, charts, graphs, voice recording, 3D video captures, etc.) to support a unit's AAR data-collection team. The EAAR operator can export all EAAR products into standard Microsoft Office and video player formats for the unit to use during its AAR brief. Once

EAAR products are exported, the unit can conduct its AAR at whatever location they desire.

The CCTT, AVCATT, HITS, and VBS3 AAR systems are embedded within the respective systems and can provide a playback of the unit's mission that occurred during the training. This AAR is facilitated by the system operators at the installation and takes place in the designated AAR room.

4-8 Future training environment

The Army's future collective training capability is the synthetic training environment (STE). Currently in the early acquisition process, the STE will enable units and leaders to conduct realistic multi-echelon / multi-domain operations, CAM, and mission command training at the point of need from squad through Army Service Component Command. STE provides a convergence of virtual, constructive, and gaming environments into a single synthetic environment with augmented reality and modular open systems architecture to link with live. This will increase the realism of live training and reduce dependency on brick-and-mortar training sites. The STE will be capable of training units across the full range of ULO in multiple domains (land, maritime, air, space, and cyber) that can support regionally aligned forces and missions.

The STE will use artificial intelligence enabled attributes to replicate operational complexity and uncertainty, increasing the realism and intricacy of training scenarios. This will lower costs by replacing some human role players with avatars. It will also include automated tools to generate scenarios to customize training goals as well as adaptive, intelligent tutors to support instruction and evaluation in a holistic-training COP.

The STE provides an immersive, reconfigurable air and ground training capability to represent numerous rotary wing aircraft, ground/amphibious track and wheeled vehicles. It also provides close-combat squads and immersive simulation capability for STE squad capability), weapons-skills development (WSD), Joint fires, and use of force (UoF) that support individual and squad collective-training tasks. Additionally, the STE provides the foundational core crosscutting capabilities of training simulation software (TSS), One World Terrain, and training management tool.

This STE will enable all aspects of the operations process to capture the seamless planning, preparation, execution, and assessment of synthetic-live training. The AAR and assessment tools are linked to execution outcomes, providing commanders with useful information and benchmarks to evaluate training exercises.

The goal of the STE is a 24/7, low-overhead capability worldwide at home stations, combat training centers, and deployed locations that will require fewer contractors. This could provide training at the point of need while reducing costs.

4-9. Training readiness

Commanders and leaders at echelon must drive rigorous, relevant, and Mission Essential Training List (METL)-focused training. Army Doctrinal Reference Publication (ADRP), Operations 3-0 (October 2017) states, "Effective training must be commander driven, rigorous, realistic, and to the standard and under the conditions that units are expected to fight." Units have multiple tasks to train that contribute to building readiness, and it is a leader requirement to identify the right tasks that produce units that will fight and win. Leaders must maximize their unit's training at home station, at Combat Training Centers (CTCs), and while operationally deployed to build training readiness.

A battle-focused unit trains selectively. It cannot train to standard on every task at once, due to either time, personnel availability, or resource constraints. The battle-focused concepts to plan, execute, and assess training to build readiness helps in this process. Battle-focused planning aligns a Unit Training Plan (UTP) to support the METL so commanders can allocate time and resources to conduct Unit Training Management (UTM). As units prepare for a NTC rotation, they incorporate any initial guidance from their units' senior trainer, Operations Group, or their Brigade Combat Team (BCT) Commander. This ensures that the unit is trained and ready in accordance with the developed scenario.

Field Manual (FM) 7-0, Train to Win in a Complex World (5 October 2016), provides commanders and staffs a wealth of information to develop training plans and conduct training events. The document provides a summary of the key training resources available.

ATLDS 2020-2021 includes overviews of progressive training, the METL method, how to use Combined Arms Training Strategy (CATS), how to develop a UTP, gunnery training program requirements, the importance of After Action Reviews (AARs), training readiness reporting, and equipment readiness management as well as NTC-specific quidance.

As units plan, prepare, execute, and assess unit training, they should apply principles of quality training from Army Doctrinal Publication (ADP) 7-0, *Training*, to ensure it is relevant, rigorous, realistic, challenging, and properly resourced. These guiding principles for training are:

- Train as you fight
- Train to standard
- Train to sustain
- Train to maintain

4-9.1. Progressive training. Prior to attending NTC, all units must verify that they are at a high state of readiness and have achieved all tasks listed in Table 2.2 FORSCOM Regulation 350-50-1 October 29, 2018 BCT Prerequisite Worksheet. The path to readiness is through progressive and gated events that culminate in a combined arms collective live-fire training event for each unit size. Commanders should integrate maneuver and combat arms partners into training events and training plans as early as possible. Sections 2-2.3 and 2-2.4 outline METL methodology and CATS in depth. Units integrate training resources, such as CATS and ATN, to develop plans that progress from individual to crew to section to platoon and then to company/troop training events. Units should exhibit proficiency at a specific MET proficiency level during a field training exercise (FTX) before progressing to a corresponding live-fire exercise (LFX) event.

Units should complete all prerequisite and progressive live-fire tables before conducting the combined arms livefire exercise (CALFEX). Units usually execute tables in a prescribed sequence, but commanders have the flexibility to execute tables as safety, training, resources, and other synchronization requirements demand. External evaluators ensure impartiality as units execute FTXs and CALFEXs to evaluate leaders and unit tactics, techniques, and procedures (TTPs).

CTC Prerequisites

BCT
Complete environmental/safety requirements IAW paragraph 3-2 of FC Reg 350-50-1/2.
Environment
All Soldiers qualify on assigned weapon within 9 months.
All weapon crews qualify on crew-served weapon within 9 months.
All main weapon system crews complete gunnery within 9 months.
Conduct Plt/Co STX.
Conduct Co CALFEX (within 12 months).
Conduct a Bn FTX.
Conduct a BCT CPX.
Conduct a BCT FTX. FTX to occur after LTP.
Participate in CTC Leader Training Program.
Action complete Action scheduled and on track to complete Action will not be completed NOTE: Any action not complete by the start of the rotation requires a waiver To conduct a BCT-level live-fire, unit must complete a BCT FCX at homestation. ** RC units only enter the rotation at PLT LFX proficience.

Table 4.2 FORSCOM Regulation 350-50-1, October 2019

4-9.2. METL methodology. A METL represents the doctrinal framework of a unit's designed fundamental tasks. Department of the Army (DA) standardized METLs and standardized reporting allow the Army to accurately assess available capabilities and identify current unit readiness status. For examples of DA standardized METLs, refer to Appendix B for updated METL task numbers. Due to emerging global requirements, units with assigned missions review their METL to ensure METs support mission accomplishment. If the METL does not support accomplishment of the assigned mission, commanders develop additional METs for approval by the next higher commander.

Other collective tasks, called supporting collective tasks (SCTs), support METs and identify complementary or enabling capabilities that are essential to mission accomplishment. SCTs can be common to multiple METs and serve as fundamental building blocks to decisive action capability. Units demonstrate and assess proficiency in key SCTs identified in the METL as part of determining overall MET proficiency in objective readiness reporting.

4-9.3. ATN Overview. The Army Training Network is a single, we-based portal that provides resources to help Commanders and Leaders train their formation. The CATS is the Army's overarching strategy for training the force. The Armor CATS is comprised of collective training products developed and approved by the Armor proponent and provided to maneuver commanders through the ATN as part of the Army Training Management System. See Figure 4.1.

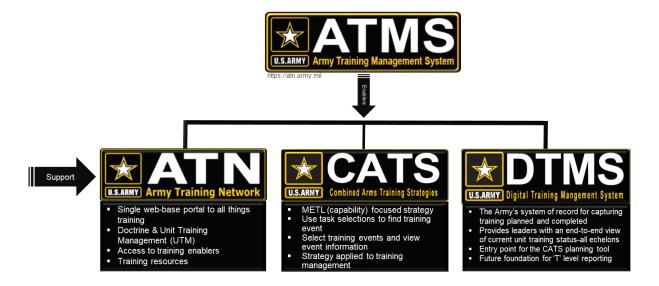


Figure 4.2. Army Training Management System Network

CATS support all maneuver units with a current Headquarters, Department of the Army (HQDA)-approved modified table of organization and equipment (MTOE). The unit CATS lists recommended iterations, training environments (Live, Virtual, Constructive, and Gaming), Training and Evaluation Outlines (T&EOs), and the time and resources required to train a task. Each unit's CATS support the missions, functions, and capabilities of the specific maneuver MTOE.

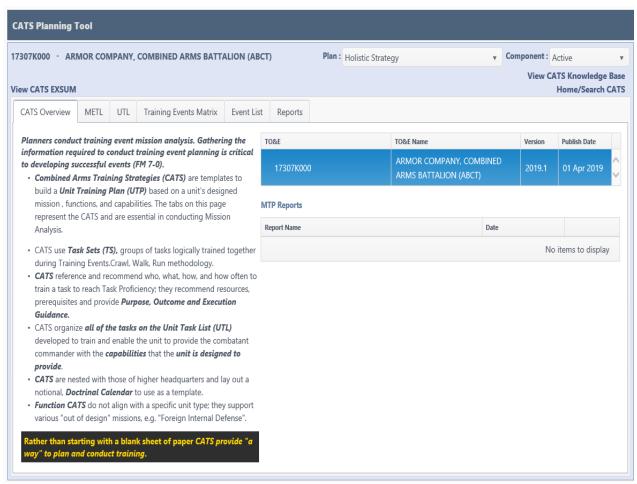


Figure 4.3 CATS Planning Tool

4-9.4 CATS. CATS assists the commander and staff in developing the UTP. When determining the key tasks to train, commanders can choose to select specific collective tasks or start with the proponent-approved CATS product tailored for their MTOE and METL. Reference Figure 2.3 for a snapshot of the CATS planning tool and its capabilities.

Accessing CATS through the Digital Training Management System (DTMS) is unit-specific and provides users with the full range of system planning and tracking capabilities. DTMS further facilitates the ability to plan and assess training, maintain a record of collective task proficiency and compile AAR reports.

CATS provides proponents the recommended resources (e.g. fuel, ammo, training aids and devices, facilities/training areas) to support training, event planning and execution. The training strategies provide units a starting point for determining their resource requirements. Historic documentation from previous training events and experience from the commander and staff refine/improve CATS-provided data and enable accurate forecasting of unit requirements.

Leaders at all levels must understand CATS' capabilities and dictate their use to support selection of the appropriate training environment and the correct tasks, conditions, and standards to achieve training objectives. Using CATS when developing the training plan assists leaders integrating all LVCG enablers to maximize training benefits. The more resource-constrained the training environment, the more critical the optimum use of virtual, constructive, and gaming capabilities becomes to achieving mission readiness. The CATS knowledge base on the ATN Website provides tutorials, briefs, and information on how to use CATS.

CATS also provides the objective framework for assessing training and T&EOs. T&EOs provide the proponent approved task, condition, standards, and performance criteria necessary to develop and assess training events. Indepth information on CATS and T&EOs is available at https://atn.army.mil.

Using realistic and increasingly challenging conditions during training progression increases unit proficiency. As conditions become more challenging, the increased difficulty induces a positive learning environment and builds confidence to master tasks. Once a unit achieves proficiency on a task, leaders should continually change the conditions. Leaders change the tactical scenario, higher and subordinate participation, the physical environment, and the time of day. Units should change the chemical, biological, radiological, and nuclear (CBRN) conditions, as well as the cyber-electromagnetic activities (CEMA) conditions of training environments.

Adding CEMA conditions to the training environment allows commanders to develop within their formations an appreciation for the threats within the cyberspace environment -- with priority to building the capacities to identify, respond to, and neutralize cyber and electronic warfare threats. Just like CBRN, commanders should train to fight in degraded cyber environments. Critical to cyber readiness is the mastery of the tools available to conduct defensive cyber operations such as Assured Compliance Assessment Solution, Host-Based Security System, and Enterprise Security Manager. CTC rotations will include contested cyber and electromagnetic spectrum environments.

4-9.5. Unit Training Management (UTM). UTM is the process commanders, leaders, and staffs use to plan, prepare, execute, and assess unit training and leader development (Reference Appendix N). UTM helps identify the events and resources needed to conduct effective, performance-based training and leader development. It is a cyclical process that involves direct commander engagement. Commanders will:

- · Determine key tasks to train
- Develop a plan to train
- · Certify leaders
- · Resource and conduct training
- · Evaluate and assess training
- · Conduct necessary retraining

4-9.5.1. Determine key tasks to train. The planning process is doctrinally aligned with the operations process (plan, prepare, execute, and assess), and it begins with receipt of the mission and an understanding of the unit's METL. The commander and staff develop a clear understanding of the mission and the endstate for training to identify the key collective tasks to train. For subordinate units to initiate the operations process and develop their UTP. the next-higher commander must provide the following:

Commander

Figure 4.4 Army Operations Process

- Higher headquarters' (HQ) mission statement
- Higher commander's training and leader development guidance
- The expected OE
- Planning horizon (the time period allotted to train the unit to meet mission requirements)
- Required readiness endstate

Commanders initiate the Military Decision Making Process (MDMP) for battalions and higher, or Troop Leading Procedures (TLPs) for company-sized units and below. Commanders and their staffs conduct mission analysis to determine the specified/implied tasks and the METs that determine the training focus. Factors the commander should consider when determining which tasks the unit trains on include the following:

- · Unit's current METL readiness assessment
- Higher commander's guidance
- Unit METL
- · Time available to train
- Expected OE
- Risks involved in not training collective tasks the mission may require
- Any resources needed for training that are not readily available at home station
- Input from subordinates

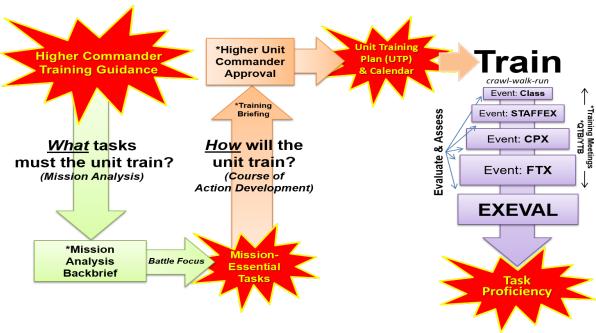


Figure 4.5 Training Mission Analysis

The commanders' dialogue is the back brief and discussion of the results of mission analysis to the higher commander. This is a formal dialogue conducted at company level and above. In this briefing, the two commanders discuss:

- Supporting Collective Tasks (SCTs) selected to train
- Commander's assessment (trained/needs practice/untrained) of the selected SCTs
- Amount of time required to train to proficiency
- Potential risk of not training other tasks associated with the mission and risk mitigation steps
- Training/OE selected
- Unique resources that may require assistance from higher HQs
- Significant readiness issues

Once the dialogue is complete and the higher commander approves the results of the mission analysis, the unit commander can begin the process of CoA development. (Reference Appendix N for more on the commander's dialogue)

4-9.5.2. Develop a plan to train. Following the commander's dialogue, the staff develops COAs. If time or resources do not allow for multiple COAs, commanders may direct development of only one CoA for consideration. The NTC prerequisites specified in FORSCOM 350-50-1 provide basic requirements for units. Once the advantages and disadvantages of each CoA are considered, the commander, with input from kev personnel, determines which CoA to present at the training brief.

During the training brief, the commander briefs the CoA to the commander two levels higher. Company-level commanders brief the brigade commander, and battalion-level commanders brief the division commander. This process ensures the commander completes the training as planned and the higher commander agrees to protect the unit from unnecessary distractions and provide the resources for execution.

Next, the commander and staff refine the selected CoA and develop a training plan. The commander then determines the training events that will train each MET.

Commanders use the "crawl-walk-run" process when determining the training events needed and the number of task iterations. The process of systematically determining key training objectives that support mission capability and identifying the associated training events culminates in the publication of the UTP.

Commanders should optimize the use of TADSS in training plans as an effective means to add realism to training, mitigate risk, and build low-cost proficiency prior to entering live training. Using TADSS also provides opportunities to identify and mitigate risks prior to live execution, and it enhances AARs. TADSS improves training efficiency, allowing access to varying levels of complexity and increased iterations.

- 4-9.5.3. Certify leaders. Junior Leader certification in the basics of maneuver, prior to collective training, ensures all teams have the expected proficiency level. Units should also build time for leader certification events into training plans. This should include recertification events and make-up certification for leadership transitions.
- 4-9.5.4. Plan and conduct training. After approval of the training plan, the detailed work of planning and conducting training events begins. Planning a training event is no different than planning an operation. Resource coordination, rehearsals, pre-combat checks, trained leaders, and commander involvement are critical to success.

Understanding the time horizon for the various resources and services required enables timely coordination to minimize conflicts with other installation users who compete for training resources such as TADSS, ranges, and maneuver land and airspace. Plans must include personnel and equipment recovery following every training event to ensure both personnel and equipment are ready for subsequent missions and training. The training event planning process follows the 8-Step Training Model in FM 7-0.4-9.5.5. 8-Step Training Model. At the company and platoon levels, training models are developed and used as a simple and effective planning and execution tool for small-unit/individual training events. Training models do not provide a sufficient level of detail to develop a UTP, training events, or coordinate training events. Instead, they serve as a useful tool for subordinate leaders to ensure major activities and steps are accomplished. Units modify training models in the number of steps and procedures based on experience and the efficiencies gained by their use. One useful training model is the 8-step training model, which provides a flexible and reliable vehicle for creating continuity for planning and managing simple training events.

- 4-9.5.6. Multi-echelon training. Multi-echelon training enables units to incorporate Command Posts into maneuver collective training events. It maximizes time and space allocation while strengthening command and control tactics, techniques, and procedures (TTPs).
- 4-9.5.7 Deployment readiness training. Commanders should codify deployment readiness proficiency for organizations in training guidance. A crawl-walk-run approach to deployment exercises is necessary to develop a unit's plans, checklists, procedures, and validation events. Combining deployment readiness exercises with maneuver training events is an effective way to determine the proficiency of an organization.

Deployment Readiness Exercises (DREs) test the unit's ability to conduct an alert, assemble personnel, and conduct Soldier prep-to-deploy checks. Level II DREs test a unit's proficiency in conducting equipment staging and load-out operations. Level III DREs are the most difficult because they require units to move personnel and equipment from an installation to a seaport or airport.

8-Step Training Model Worksheet	8-Step Training Model Worksheet
NAME TRAINING EVENT EVENT DATE 1) PLAN THE TRAINING: What is to be trained: What is the METL assessment: Who is to be trained: I dentify an instructor/assistant instructor: Date training was planned: Date training will be executed: Is the training site coordinated: Are all resources coordinated: Materials/training aids required: Has a Risk Assessment been done: 2) TRAIN THE TRAINERS: Has the trainers training outcome been reviewed: Is the trainer technically and tactically proficient: Does the trainer have/understand the task, conditions, and standards: Review references (i.e. FMs, ARTEPs, TMs) Is the trainer's evaluation procedure in compliance with the training objective:	3) RECON THE SITE: - Location of training: - Is the site suitable for training: - Is it easily accessible for emergency cases: 4) ISSUE THE ORDER: - Has an OPORD been issued for the training: - Has the uniform for the training been briefed: 5) REHEARSE THE TRAINING: - Identify weak points in the training plan: - Does the training flow: - Is there sufficient time for the training: - Are training aids/material present and operational: - Did you preview pre-execution and pre-combat checks: 6) EXECUTE THE TRAINING: - Is the training conducted to standard: - Are Soldiers for training accounted for: - Is everyone in uniform:

` E\/A! !!ATE	THE TRAINING	Fort Benning, Home of the MCoE
	THE TRAINING:	
Was there ar	n evaluation done after the training	
0.1001	ning objectives/standards met:	
	METL assessment:	
Were the ma trainir	terials/training aids sufficient for the	
Was an After	Action Review executed:	
Are the traini	ng results recorded in the leaders bo	pok:
) RETRAIN A	S NECESSARY:	
,	for opportunity training:	
Review refer	ences (i.e. FMs, ARTEPs, TMs):	
	,	

Figure 4.6. 8-Example 8-Step Training Model Worksheet

Army Regulation 525-92 "Deployment and Redeployment Operations" published October 2019 offers units a guideline for building a deployment plan and includes useful checklists. Table C-1 identifies Company/Troop level deployment responsibilities. The regulation also provides information on introducing increasing difficulty in deployment readiness training.

Units can increase the difficulty for all three DRE levels by not announcing the exercises.

Deployment readiness also includes family readiness group and rear-detachment readiness. Good opportunities to develop these groups are when units deploy to displaced training locations and CTCs. Rear-detachment personnel decisions are generally made later in a training cycle, commanders should also plan for the training progression of these organizations in their long-range training plans.

4-9.5.8 Evaluate and assess training. There is no substitute for a leader's presence during training for a personal assessment of unit readiness. Commanders and leaders enforce standards; determine if further iterations are required; and coach, teach, mentor, and assess subordinate leaders. Personal observation of the training environment, leader actions, and unit responsiveness provide unmatched situational understanding of a unit's capabilities.

Commanders and leaders will conduct both formal and informal AARs to get a bottom-up/top-down assessment of task execution. This facilitated "self-analysis" compares performance against standards and desired outcomes with the goal of increasing unit and leader proficiency. Formal AARs conducted after the event should have all participating subordinate-element key individuals present. Informal AARs conducted during training focus on the collective, individual or leader level. Training and evaluation outlines must be used to assess training.

4-9.5.9 Retraining. If a training event does not achieve a desired outcome or if inadequate personnel participated in the training event, commanders conduct retraining. When identifying training not conducted to standard, commanders should ensure retraining is accomplished at the earliest opportunity, but it must be before follow-on training occurs. If necessary, restart or redo an event before executing the next training event.

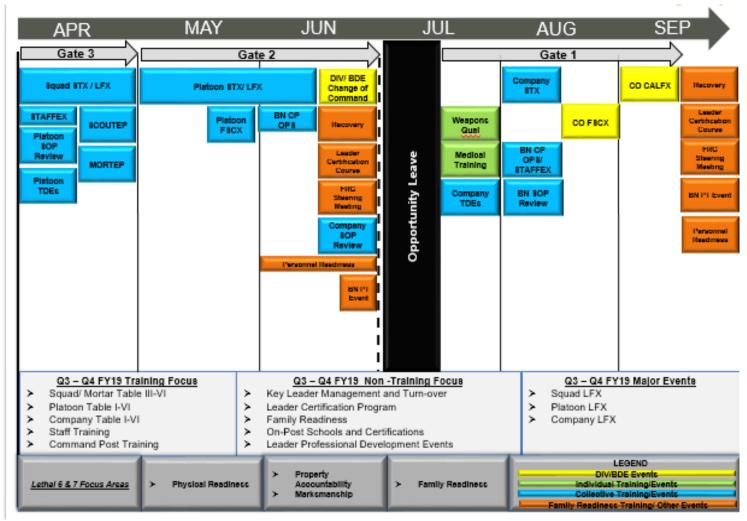


Figure 4.7. Example Training Glide Path

												777			
		Prerequi	site Train	ing - Comp	leted T-6 t	hrough T (30 training	days total), with Co	mmander	Flexibility	(See Fact	s and Ass	umptions)	
Training Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
SQDN/BN Staff	TACSOP	TACSOP													
ABCT Cav TRP (Bradley)		SOP		G	ST (5 days	i)		SEC V/G	PLT V/G	Sims GTLF	Sims GTLF	Sims GTLF	Sims GTLF	Sims GTLF	
ABCT Tank Co (Abrams)		SOP		G	ST (5 days	;)		Sims GTLF	Sims GTLF	Sims GTLF	Sims GTLF	SEC V/G	PLT V/G	Sims GTLF	
(UnStab)		SOP		G	ST (5 days	;)		SEC V/G	PLT V/G	Sims GTLF	Sims GTLF	Sims GTLF	Sims GTLF	Sims GTLF	
SBCT Cav TRP (RV)		SOP		G	ST (5 days	6)		Sims GTLF	Sims GTLF	Sims GTLF	Sims GTLF	SEC V/G	PLT V/G	Sims GTLF	
	Prerequisite Training - Completed T-6 through T (30 training days total), with Commander Flexibility (See Facts and Assumptions)														
Training Day	16 17 18 19 20 21 22 23 24 25 26 27 28 29													29	30
SQDN/BN Staff	STAFFEX V/G	STAFFEX V/G	STAFFEX V/G	STAFFEX V/G	STAFFEX V/G	STAFFEX V/G	STAFFEX V/G	STAFFEX V/G			1				
ABCT Cav TRP (Bradley)	CO V/G	CO V/G				PROFICIENCY						Field	1 Pre		
ABCT Tank Co (Abrams)					CO V/G	CO V/G		PROFICIENCY					176	þ	
(UnStab)	CO V/G	CO V/G				PROFICIENCY								7	
SBCT Cav TRP (RV)					CO V/G	CO V/G		PROFICIENCY							
						Le	gend								
SOP	10000000	LDR gi		STX		ational				FEX			rms Liv		
V/G		ual/Gam		FTX		ield Tra				FFEX			V Staff I		
GTLF		to Live		FCX	Fir	e Coord	dination	Ex	C	PX	Comr	mand P	ost Exe	rcise	
	Gur	nery SI	kills												

Figure 4.8. Example UTP

- **4-9.6. Gunnery training.** Follow a logical progression for Gunnery training programs in all three BCTs (Armored, Infantry, or Stryker) and conduct the training in three phases: individual, crew, and collective gunnery. A revised version of Training Circular (TC) 3-20.0, **Integrated Weapons Training Strategy** was updated in June 2019 to reflect improvements to the gunnery training programs for all three BCTs. The current version of TC 3-20.0 is located on-line at the Army Publishing Directorate, https://army.mil
 - **4-9.6.1 Individual.** The individual gunnery phase develops individual and crew skills needed to operate individual weapons systems. Individual gunnery training focuses on individual primary and in some cases secondary weapon proficiency, the technical aspects of gun theory, and device-based training. The trainers use classroom instruction, hands-on-training and simulators to provide each Soldier with knowledge of the capabilities, limitations, and characteristics of their weapon, as well as training.

Individual marksmanship. Individual weapon marksmanship is a fundamental for Armor and Cavalry Soldiers. Qualification with their assigned rifle or pistol ensures Soldiers are prepared to move to crew-served weapons and vehicle gunnery programs. While ensuring our Soldiers can protect themselves and their equipment, personal weapon marksmanship also gives Soldiers a basic understanding of detecting, identifying and classifying threats, and fratricide prevention. Additionally, individual marksmanship ranges develop leaders and organizations as they provide units with opportunities to execute range operations. All these principles are also necessary for crew and collective gunnery.

4-9.6.2 Crew Platform Training. The crew gunnery phase trains crew skills developed in individual gunnery, and it allows leaders to evaluate crew coordination and proficiency during qualifications through direct-fire engagements. This phase is conducted primarily using the live training method; however, qualification tables must be conducted live using full-caliber ammunition for all weapon systems platforms. The commander may choose to use device-based training to conduct practice tables. Device-based gunnery includes the Crew Proficiency Course (CPC). This is conducted in local training areas or ranges using the Multiple Integrated Laser Engagement System (MILES) or Precision Gunnery System (PGS). PGS is the primary device for Bradley Fighting Vehicle (BFV) gunnery training. Thru-Sight Video (TSV) enhances this training with its ability to provide recorded feedback on target acquisition, sight picture, and engagement technique. The commander may choose to use the live training method for the CPC and fire sub-caliber ammunition – providing that crews conduct a dry run first to demonstrate mastery of the basic skills and safety principles, including the firing of sub-caliber devices. Once CPC has been completed and qualified dry, the commander may re-fire CPC with full-caliber ammunition if the range and ammunition resourcing permits.

4-9.6.3 Collective. The collective gunnery phase trains squad, section, and platoon leaders and company commanders to fight their maneuver element, and it enhances the crew's gunnery skills by applying those skills during tactical scenarios as part of a section or platoon. Collective gunnery training focuses on accomplishing collective tasks in support of a maneuver element's mission. The collective gunnery phase is conducted using the device-based training method for proficiency exercises and practice tables. The live training method is required for all qualification tables. Qualification tables must be conducted live with fullcaliber ammunition for all weapon systems platforms. Additional virtual and/or device-based training may be necessary for sections and platoons to facilitate successful completion during this phase.

		Table I	Table	II	Table III	Table IV	Table V	Table VI
Echelon		PREREQ	PRERE	Q	PREREQ	Collective Task Proficiency	COORD / Rehearsal / Practice	Live-Fire Proficiency Gate
		CRAWL	CRAW	L	WALK	RUN	RUN	RUN
Battalion		TEWT	STAFFE	X	CPX	FTX	FCX	CALFEX
Battalion		Live	Blende	d	Live	TADSS	Blended	Live-Fire
0		TEWT	STX-V	1	STX	FTX	FCX	CALFEX
Company		Live	Virtua	I	TADSS	TADSS	Live-Fire	Live-Fire
Platoon		CLASS						
Section		SOP	STX-V	1	STX	FTX	FCX	LFX
Section		Live	Virtua	I	TADSS	TADSS	Live-Fire	Live-Fire
Squad		Live						
						FTX		
Mortar Formati	on	GST	STX-V	/	STX	TADSS	Practice	Qualification
C DI		Live	Virtua	I	TADSS	Basic	Live-Fire	Live-Fire
Crew Platforn	n					Live-Fire		
Special Purpos Weapons	se .							
Crew-Served Wea	apons	PMI&E Live	PLFS Virtua		Drills TADSS	Basic Live-Fire	Practice Live-Fire	Qualification Live-Fire
Individual Weap	ons							
Legend:						•	•	
CALFEX com	nbined a	arms live-fire e	xercise	PL	FS	preliminary live	-fire simulation	ıs
COORD coo	rdinatio	n		PM	II&E	preliminary mar evaluation	rksmanship ins	struction and
CPX com	nmand p	oost exercise		PR	EREQ	prerequisite		
EXEVAL exte	ernal ev	aluation		SO)P	standard opera	ting procedure	
FCX fire	coordin	ation exercise		ST	AFFEX	staff exercise		
FTX field	l trainin	g exercise		ST	X	situational train	ing exercise	
GST gun	nery sk	ills test		TA	DSS	training aids, de simulations	evices, simulat	ors, and
LFX live-	-fire exe	ercise		TE	WT	tactical exercise	e without troop	S
		Table 4		٧		virtual training		

Table 4.3 IWTS Structure, June 2019

4-9.6.4. Essential warfighting skills. Crews must achieve proficiency in certain skills critical to maintaining their warfighting capabilities.

All platform systems. (Gunnery Skills Test [GST] tasks in TC 3-20.31-1, Chapters 7 and 8)

- Engage stationary and moving targets from a stationary and moving combat vehicle.
- Engage targets in a CBRN environment
- Engage targets at night
- Engage targets from a short halt
- Detect, identify, classify, and discriminate targets as friendly, neutral, or threat
- Acquire and engage targets in an urban, woodland, or desert environment
- Call for indirect fire
- Call for medical evacuation
- Call for support
- Engage targets under digital conditions (applies to digitally equipped platforms only)
- Engage targets using the appropriate technique for the target type
- Engage multiple and successive targets

Abrams, Bradley, and Stryker Main Gun System (MGS). (GST tasks in TC 3-20.31-1 Chapters 2 through 5)

- Engage multiple targets using the auxiliary sight
- Engage targets using manual controls
- Engage multiple targets with multiple weapon systems from multiple stations
- Engage multiple and successive targets, requiring different ammunition types
- Engage targets using hunter-killer techniques. (M1A2 SEP v2 and M2A3 variants only)
- Conduct a fire-mission task (applies to Bradley Fire Support Team and reconnaissance only)

Sections and platoons. Sections and platoons must achieve proficiency in the following skills:

- Execute collective tasks as a section or platoon
- Engage multiple targets using fire control and distribution
- Engage targets while maneuvering as a section or platoon
- Use digital capabilities during a tactical scenario
- Maintain SA and ensure personnel protection

4-9.6.5. Training requirements. Training must conform to Army doctrine. Complete the following requirements to standard to maximize success during gunnery training. (TC 3- 20.31, **Training and Qualification, Crew**):

- Schedule crew/squad skills training monthly, concurrent with PMCS, prepare-to-fire checks, armament accuracy checks (AAC) (Abrams only), and tactical training
- The GST evaluates the individual crewmember's ability to execute selected fundamental gunnery-related skills. Table I evaluates the entire crew's ability to execute selected tasks that are critical to safe, successful live-fire training. Table I is a mandatory prerequisite for any live-fire event, including zeroing procedures, live-fire accuracy screening test, sub-caliber or in-bore training, or any live-fire maintenance procedure. Crews must successfully complete Table I of the GST within training window T-6 though T-week for both AC and RC units
- Schedule gun tube recoil exercise and borescope semi-annually (Abrams)
- The master gunner oversees and supports all armament maintenance checks and services as required. This includes a detailed review of any DA Form 2408-4, Weapon Record Data Cards, to ensure sufficient tube life remains to support the upcoming live-fire events, recoil exercises, optics purging, and AAC for main gun platforms as required. For the mounted machine gun (MMG) platforms, the master gunner should verify that any gauging requirements, optics purging, and other services are completed
- Successfully complete Table II, "simulations gate to live-fire," on the authorized training system
- Crews must qualify on Crew Table VI before conducting higher-level collective gates
- The master gunner certifies the instructors and evaluators for the GST period. Subordinate units should be prepared to support the GST with their most experienced NCOs
- Trained and experienced evaluators must be used to achieve the goals and objectives of the weapons-platform-training program and to determine the level of proficiency of the firing crews. Vehicle crew evaluators (VCEs) are key to successful weapons training density that builds on crews' previous performance, increased competence and confidence. Selecting, certifying, and effectively using these evaluators enable a high proficiency standard. The VCE's primary method of instruction to the crews is an effective AAR. The VCE, if selected correctly, is a large contributor to the overall success of the unit during the live-fire events as he collects data and facilitates the AAR process
- A VCE team must be trained and certified prior to live fire to evaluate a gunnery density correctly. Once
 completed, the unit must ensure sufficient VCEs are available to support the live-fire event. Evaluations of
 crew gunnery always come from outside the firing platoon element. For qualification purposes, VCEs
 external to the battalion are required
- Evaluators external to the firing unit's battalion must conduct a coordination meeting with the firing unit prior to the live-fire density to ensure consistency of evaluation. This ensures current standards are used by all evaluators and reduces confusion, particularly during the qualification tables. The external lead evaluator also is required to attend the day and night safety brief and evaluate the conduct of the range briefing the day of firing. The brigade S-3 typically tasks external evaluators for qualification tables. The lead VCE, generally a master gunner, serves as a quality assurance/quality control NCO for the duration of the live-fire density
- VCEs are expected to be certified or recertified no earlier than T-6 (AC) or T-9 (RC) and no later than T-1
 of evaluating the training event. VCEs should be knowledgeable and certified on the use of Digital Range
 Training Systems (DRTS) to improve individual crew and collective unit lethality

4-9.6.6. Master gunner. The mission of the master gunner is to assist with the development of training for gunnery. He or She is an institution-trained and certified subject matter expert (SME) on direct-fire weapons, ammunition, maintenance of weapon systems, and training programs. The master gunner advises commanders at all echelons and assists with the planning, development, execution, and evaluation of all gunnery-related training (individual, crew, and collective).

Candidate Identification. Units must identify Master Gunner candidates no later than 11 months prior to their anticipated utilization and reserve their course slot in ATRRS. This is critical because it enables the brigade to stabilize the identified candidate prior to the next movement cycle. Once the unit stabilizes their selected NCO, the next step is to send the NCO to SABOT or M242 Academy.

SABOT or M242 Academy. Once a unit identifies a Master Gunner candidate, they must place the candidate in a developmental pipeline. The first step is mandatory SABOT or M242 academy at home station. The proper echelon for the Academy is at the Division level to ensure uniformity across the installation.

The Bradley Master Gunner. The Bradley master gunner is the commander's principal BFV gunnery adviser and resource manager. He is responsible for advising the commander on the training and evaluation of Bradley crews, squads, platoons, and evaluators, including all preliminary gunnery tasks as well as advisement to the commander on the development of a UTP for Armored BCT (ABCT) gunnery and maneuver training. In addition to these responsibilities, the Bradley master gunner also must maintain the following skills and responsibilities:

- Manages simulation training programs and TADSS
- Serves as the organization's knowledge and training authority on all BFV related matters
- Serves as the unit's senior instructor operator for the Bradley Advanced Training System (BATS) and is the organization's simulations training expert

For tools or products go to: https://www.milsuite.mil/book/groups/bradley-master-Gunner

The Abrams Master Gunner. The Abrams master gunner is an accomplished Armor NCO trained in advanced gunnery methodology, turret weapon systems maintenance, and gunnery training management. The acquired skills and knowledge will allow him to advise the commander through assessments, planning development, implementation, instruction, evaluation, and reassessment through all phases of gunnery and combatreadiness training. The Abrams master gunner advises commanders on advanced gunnery methodology, doctrinal and technical procedures to assess crew proficiency, gunnery training management, and integration of TADSS. For tools or products go to: https://www.milsuite.mil/book/groups/abrams-master-gun

The Stryker Master Gunner. The Stryker master gunner is the SME for all weapon system platforms in the Stryker BCT. The Stryker master gunner advises commanders at all echelons and assists with the planning, development, execution, and evaluation of all combat and gunnery-related training (individual, crew, and collective). The Stryker master gunner also has the following roles and responsibilities:

- Is the expert adviser and planner on Stryker gunnery training and advanced gunnery methodology; and
- Can assist the commander in the development of a maneuver and gunnery program that provides supervised training on key collective tasks; warfighting skills; preliminary gunnery training; and the integration of TADSS, individual and crew-served weapons training/qualification, ammunition forecasting/management, and direct-fire sustainment plan
- 4-9.7. Gunnery Tables. Each element has up to six training events within their strategy that culminate in their demonstration of proficiency. Crew platform training consists of all the training events along the critical path to proficiency for the following crew platforms:
 - Abrams series
 - Bradley series
 - Track series mortar carrier vehicle
 - Stryker ICV
 - Stryker MCV
 - Stryker MGS
 - Stryker 30-mm Dragoon
 - Scout Trucks

		Table I	Table II	Table III	Table IV	Table V	Table VI
		PREREQ	PREREQ	PREREQ	Collective Task Proficiency	COORD / Rehearsal / Practice	Live-Fire Proficiency Gate
		CRAWL	CRAWL	WALK	RUN	RUN	RUN
Crew Platfor	m	GST <i>Liv</i> e	STX-V Virtual	STX TADSS	Basic Live-Fire	Practice Live-Fire	Qualification Live-Fire
Legend:							
COORD	coordinatio	n		PREREQ	prerequisite		
FCX	fire coordin	ation exercis	se	SOP	standard ope	rating procedu	ure
FTX	field trainin	g exercise		STX	situational tra	ining exercise	,
GST	gunnery sk	ills test		TADSS	training aids, simulations	devices, simu	llators, and
LFX	live-fire exe	ercise		V	virtual training	g environment	t

Table 4.4. Crew Platform Table Structure, example TC 3-20.0, June 2019

Units should maximize their time and resources by designing their training plans such that dismounted teams and squads train through proficiency while crew platforms train on separate facilities. This level of synchronization enables the unit to transition to maneuver collective training seamlessly during a training density. (TC 3-20.0, June 2019, 7-1) Below is a table from TC 3-20.0, Integrated Weapons Training Strategy (IWTS), which illustrates an example of the amount of time required to be dedicated to the execution of each Gunnery Table.

	Table I	Table II	Table III	Table IV	Table V	Table VI
Crew Platform	GST	STX-V	STX	BASIC	PRACTICE	QUAL
Days Required	0.5	0.5	2.0	3.0	3.0	3.0
Training Days Remaining on Critical Training Path	11.5	11.0	9.0	6.0	3.0	Live-Fire Proficiency Gate
Legend:						
GST gunnery s	kills test		STX-V	situational trai	ning exercise	– virtual
STX situationa	I training exerc	cise	QUAL	qualification		

Table 4.5. Crew Platform Training Strategy Structure

4-9.7. Live fire exercise certification. Properly conducted maneuver LFXs are essential to realistic training. LFXs should be the culmination of deliberate, progressive training programs. The purposes of LFX certification programs are to ensure leaders are prepared to properly plan and safely conduct these challenging exercises. They also develop leaders. These programs should go beyond installation range officer in charge (OIC) and safety officer (RSO) certification.

Units are encouraged to establish a battalion-level formal LFX certification program with oversight from BCT-level commanders. Battalion-level commanders certify their leaders two levels down in the planning and conduct of an LFX. The audience for certification can be squad leaders though company commanders and key personnel and staff within the battalion/squadron and companies/troops. Key to these programs is ensuring that personnel are qualified on their individual weapons and assigned platforms (M1, M2, etc.) and familiar with all enabling unit capabilities.

Certification programs can consist of four phases:

- Phase I, range safety and orientation briefings. Installation-specific range OIC and RSO certification is sufficient to cover this phase
- Phase II, individual study/written exam. Battalions/Squadrons administer a written exam that covers the certification, validation, and execution of LFXs. They ensure leaders understand the protocol for switching between blank as well as live ammunition and ammunition supply-point procedures
- Phase III, practical application. In this phase, company commanders, platoon leaders, and senior enlisted

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leaders plan maneuver LFXs under the guidance and supervision of the battalion commander. Battalion-level commanders provide a block of instruction on the five-step risk-assessment process. Leaders then conduct a concept back-brief and walk-through of the LFX scenario on the terrain with the battalion commander or designated representative

• Phase IV, execute the range. Ensure rehearsals are conducted per command guidance and local policy

CHAPTER 5 National Training Center Preparation

Selected U.S. Army Forces Command (FORSCOM), U.S. Army Pacific Command (USARPAC), and Army National Guard (ARNG) BCTs conduct an NTC rotation as part of their training cycle in order to build and maintain sustainable readiness. FORSCOM regulation 350-50-1 provides information about NTC preparation, execution, and recovery. This section provides points of friction or success for units to consider in conjunction with a thorough understanding of FORSCOM Regulation 350-50-1.

5-1. NTC Preparation

There are three phases to a NTC rotation: planning and preparation at home station, training execution, and closeout/final reporting. Phase I (Planning and Preparation) begins when the BCT receives notification they will conduct a rotation and concludes when the BCT deploys to the NTC to conduct their rotation. Phase II (Rotation Execution) begins when the BCT deploys to the NTC and ends when the BCT redeploys from the NTC at the conclusion of their rotation. Phase III (Closeout and Final Reporting) begins when the BCT redeploys from the NTC and ends when all closeout reports are submitted. These phases are equally important and help leaders determine a unit's readiness and their ability to prepare for combat operations. See Figure 5.1 for a graphic depiction of an NTC rotation timeline.

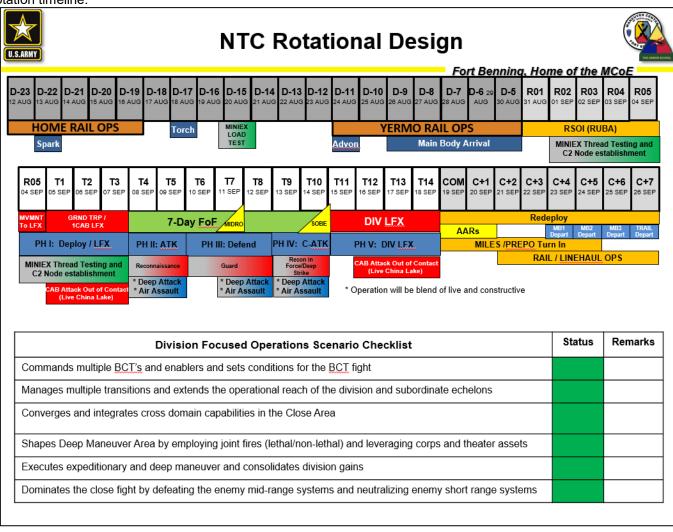


Figure 5.1. Example NTC Timeline

5-1.1. Phase I - Prepare. Units begin their NTC training progression in the prepare phase and conduct their required home station training to accomplish all specified tasks in the FORSCOM 350-50-1 identified in Table 2.2 FORSCOM Regulation 350-50-1 October 29, 2018 BCT Prerequisite Worksheet. These tasks include the major training gates, but do not highlight the training that units accomplish prior to conducting those training events.

The planning effort prior to arriving at Ft Irwin, CA sets the tone for the rotation by ensuring that the unit is

prepared and ready to train. There are three critical components for planning a NTC rotation: solidifying a crew roster, accomplishing all 350-50-1 and NTC prerequisites, and ensuring equipment is fully mission capable.

- 5-1.1.1. Solidifying a Crew Roster. Maintaining collective live fire qualifications requires units to track personnel and qualification timelines. Table 2.2 highlights the key timelines when qualifications expire. Any crew instability negatively affects the Company/Troop and Battalion/Squadron ratings. The key to ensuring a unit remains current is to identify time horizons for when crews destabilize, which is inevitable with a sustainable readiness model. Units can fence Soldiers and Leaders six-months prior to a NTC rotation to stabilize crews and maximize the training opportunity.
- 5-1.1.2. Accomplishing all 350-50-1 and NTC Prerequisites. During the NTC planning, units receive training objectives from the Senior Trainer (usually the Division Commander or Deputy Division Commander) and the BCT Commander. It is critical that units understand those objectives and use available training time to accomplish the assigned objectives. Units also have to ensure that all personnel are licensed to operate necessary vehicles, qualified on required weapon systems, trained to complete their designated function and additional duties. Table 5.2 is an example worksheet for tracking the BCT requirements in 350-50-1

CTC Prerequisites Complete environmental/safety requirements IAW paragraph 3-2 of FC Reg 350-50-1/2. Environment MOUT Sites Convoy Ops NVG Training Flash Flood Field Sanitation Elec/Coms Lines Reduced Vis UXO/Pyro MEDEVAC Proc Steep Terrain CO Awareness Fighting Pos Driver License Rollover/Fire Hazmat Cert All Soldiers qualify on assigned weapon within 9 months. All weapon crews qualify on crew-served weapon within 9 months. All main weapon system crews complete gunnery within 9 months. Conduct Plt/Co STX. Conduct Co CALFEX (within 12 months). Conduct a Bn FTX. Conduct a BCT CPX. Conduct a BCT FTX. FTX to occur after LTP. Participate in CTC Leader Training Program. Action complete Action scheduled and on track to complete Action will not be completed NOTE: Any action not complete by the start of the rotation requires a waiver

Table 5.1. FORSCOM Regulation 350-50-1 October 29, 2018 BCT Prerequisite Worksheet

* To conduct a BCT-level live-fire, unit must complete a BCT FCX at homestation. ** RC units only enter the rotation at PLT LFX proficiency.

5-1.1.3. Equipment Readiness. One of the secondary purposes of NTC is to build Soldiers and Leaders' confidence in their assigned equipment. Although NTC has a prepositioned vehicle fleet with additional issue items, units must deploy all of their pacing items at a 90% Operational Readiness (OR) rating. Although they are not tracked as closely, the ancillary equipment items that are subcomponents of pacing items become critical to sustain operations throughout the rotation. Ensure prior to equipment load out that operators conduct preventive checks and maintenance on all equipment to ensure its serviced and ready for operations.

During Phase I, there are multiple touch points with NTC leadership through VTCs and phone calls. Timelines that must be met to keep the rotation on track. It is imperative that units adhere to the given suspenses to support the rotation.

- 5-1.2. Phase II Rotation Execution. Phase II (Execution) begins when the unit arrives at the NTC and ends when the unit departs from NTC after completing the rotation. There are three main stages during this phase: RSOI, Training Operations, and Redeployment Activities.
 - 5-1.2.1. RSOI. RSOI is one of the major "fights" at NTC and successful units plan and rehearse RSOI tasks. It begins when the torch party arrives at the NTC and ends on D-Day. Several of the main events during this phase include the deployment of personnel and equipment to the NTC, drawing Prepositioned Fleet

equipment, preparing equipment for operations, and opening accounts to activate installation and logistics support. The personnel that deploy the Torch and ADVON set the conditions for establishing operational momentum during RSOI by validating the BCT's common operating picture and initiating necessary movement. NTC limits the amount of personnel that travel both Torch and ADVON, so RSOI has to be carefully planned during Phase I.

5-1.2.2. Training Operations. This event begins on D-day and ends when the Rotational Training Unit (RTU) completes their final mission and redeploys from the training area. Units typically prepare for this phase months before deploying. The keys to success for successful training operations are established during the pre-rotation training. Units should arrive at NTC knowing their crew drills and battle drills. Staffs should be proficient at the Military Decision Making Process (MDMP) and able to support their subordinate units. The extended distances in the NTC training area naturally stress units' logistics, command and control, and fortitude.

Logisticians are critical to this phase because of the heavy burden placed on the unit's equipment due to the high operational tempo. Successful units have sustainment Standard Operating Procedures (SOPs) in place to ensure maintenance happens during the rotation.

During this section, the unit interacts with two external forces, the Opposing Force (OPFOR) and the OCTs. The OPFOR are unit of solid professionals that test units regularly by serving as a trained opponent. The NTC OCTs focus on providing feedback to units to help them progress to achieve higher readiness. Figure 5-2 depicts an example Battalion Commander Training Objectives for a NTC rotation.



NTC Battalion Training Objectives



1) Individual Soldier Skills:

Effectively employ camouflage for individual Soldiers, equipment, vehicles, fighting positions, etc.

Dig fighting positions.

Use stealth and counterreconnaissance to increase advantage on the battlefield.

Sustain Individual Soldiers in a contested environment.

Identify and improve small unit techniques and discipline to increase lethality.

2) Mission Command:

Employ a system of communication that enables Company Commanders to exercise disciplined initiative.

Maintain situational understanding with both analog systems and JBCP Operations and Maneuver Graphics on JBCP.

Team and Squad Leaders understand talent, take disciplined initiative, enforce unit standards, and hold the line at critical points.

Develop Battle Rhythm that informs in all directions: Higher, Lower, and Laterally.



NTC Battalion Training Objectives



Fort Benning, Home of the MCoE

3) Fires and Intelligence:

Develop and execute a flexible ISR plan that allows us to get ahead of the enemy's decision cycle.

Continually update the red COP throughout the operation analog and JBCP.

Effectively integrate air and ground fires with maneuver.

Detect and engage HPTs to achieve a position of advantage on the battlefield.

4) Movement and Maneuver:

Defeat multiple types of enemy formations (infantry, armor, motorized, etc.).

Execute distributed operations down to the platoon level.

Synchronize maneuver using graphic control measures.

Intelligent and realistic route planning.

5) Sustainment:

Synchronize tactical resupply with operations.

Actively forecasting/planning sustainment from the platoon through the battalion level. JBCP LOGSTAT Daily.

JBCP PERSTAT Daily.

Effectively managing the Soldiers load based off METT-TC.

Figure 5.2. Example BN Training Objectives for NTC

5-1.2. Phase III - Closeout and Redeployment Activities. This section begins when the RTU completes their final mission and redeploys from the training area and ends when the RTU Trail Party departs the NTC. Key actions include turning in PREPO Fleet equipment, uploading unit equipment for return to home station, closing accounts and clearing the installation, and the redeployment of all personnel to home station. Units need to rehearse and synchronize this phase just like combat operations. The main key to success is establishing all RSOI nodes on schedule. The second key is rapidly restoring the units' fleet, including prepositioned vehicles, to FMC to support departing NTC on time.

5-2. Available Tools

The NTC Operations Group MILSUITE site provides a repository for lessons learned, input from OCTs, and relevant rotational information. It is available at https://www.milsuite.mil/book/groups/ntc-operations-group

The Center for Army Lessons Learned publishes quarterly CTC trend analysis and other useful information designed to support the operational force. It is available at https://call2.army.mil

The Asymmetric Warfare Group provides a unique skill set to TRADOC as the only operational unit in the formation. Their MILSUITE is available at https://www.milsuite.mil/book/groups/asymmetric-warfare-group-knowledge-center

APPENDIX A Acronyms, References and Terms

A-C

AAC – armament accuracy check

AAR - after-action review

ABCT - armored brigade combat team

ABOLC - Armor Basic Officer Leader's Course

AC - Active Component

ACFT - Army Combat Fitness Test

ADP - Army doctrinal publication

ADRP - Army doctrinal reference publication

AFC - Army Futures Command

AG - assistant gunner

AGTS - Advanced Gunnery Training System

ALC - Advanced Leader's Course

AOC – area of concentration

AOR - after-operations recovery

APD - Army Publications Directorate

AR – Army regulation

ARDP - Army doctrinal reference publication

ARTB - Airborne and Ranger Training Brigade

ATGM - anti-tank guided missile

ATN - Army Training Network

ATP - Army technical publication

AVCATT - Aviation Combined Arms Tactical Trainer

BATS - Bradley Advanced Training System

BCC - Bradley Commander's Course

BCT - brigade combat team

BES - Battle Effects Simulator

BFV - Bradley Fighting Vehicle

BFT - Blue Force Tracker

BLC - Basic Leader's Course

BLUFOR – Blue Forces (friendly)

BSB – brigade support battalion

BTE - blended training environment

BUB - battle-update brief

CAB - combined-arms battalion

CALFEX - combined arms live-fire exercise

CAM – combined arms maneuver

CAS – close air support

CASCOM - Combined Arms Support Command

CATS - Combined Arms Training Strategy

CBRN - chemical, biological, radiological, and nuclear

CCTT - Close-Combat Tactical Trainer

CDID - Capabilities Development and Integration Directorate

CEMA – cyber electromagnetic activities

CFFT – Call-for-Fire Trainer

CFDP-IC - Common Faculty Development Program - Instructor Course

CG – commanding general

CGSC - Command and General Staff College

CGSOC – Command and General Staff Officer Course

CLC – Cavalry Leader's Course

CMF - career management field

CoA - course of action

CoE - center of excellence

COFT-SA - Conduct of Fire Trainer - Situational Awareness

COIN – counterinsurgency

COP - common operational picture

CP - command post

CPC – Crew Proficiency Course

CRM – composite risk management

CSA - Chief of Staff of the Army

CTC - combat training center

CTSV-CMUR - Common Thru-Sight Video-Crew Module Unit Recorder

CVTESS - Combat Vehicle Tactical Engagement Simulations System

CWfF - Cavalry Warfighter Forum

D-I

DA - Department of the Army

DA PAM - Department of the Army pamphlet

DATE – decisive-action training environment

DCTD - Doctrine and Collective Training Division

DLC - Distributed Leader's Course

DoTD - Directorate of Training and Doctrine

DOTMLPF-P - doctrine, organization, training, materiel, leadership and education, personnel, facilities, and policy

DRE – deployment-readiness exercise

DRTS - Digital Range Training System

DTMS – Digital Training Management System

DXTRS - Division Exercise Training and Review System

EAAR – enterprise after-action review

EIA - Excellence in Armor

EST - Engagement Skills Trainer

FCS - fire-control system

FDU - force-design update

FM - field manual

FOB - forward operating base

FoT - force on target

FSC - forward support company

FTX - field training exercise

FUA – first unit of assignment

FY - fiscal year

GCSS-A - Global Combat Support System-Army

GNR -- gunner

GSD - guided self-development

GST - Gunnery Skills Test

HITS - Home Station Instrumentation Training System

HPDT – high-physical-demand task

HQ - headquarters

HQDA – Headquarters, Department of the Army

HRC - Human Resources Command

HST - home-station training

IBCT - Infantry brigade combat team

IC - information collection

IDS - in bore device sub-caliber

IET - initial-entry training

ILE - intermediate-level education

ITE - integrated training environment

IWTS - Integrated Weapons Training Strategy

J-O

JCATS - Joint Conflict and Tactical Simulation

JIIM - joint, interagency, intergovernmental, and multinational

JLCCTC – Joint Land Component Constructive Training Capability

JLCCTC-ERF - Joint Land Component Constructive Training Capability-Entity Resolution Federation

KSA - knowledge, skills, and abilities

LFPG - Live-Fire Proficiency Gate

LFX - live-fire exercise

LoE - line of effort

LRS3 - Long-Range Advanced Scout Surveillance System

LVCG - live, virtual, constructive, and gaming

LVCG-IA - Live, Virtual, Constructive, and Gaming - Integrated Architecture

MCCC - Maneuver Captains Career Course

MCDID -- Maneuver Capabilities Development and Integration Directorate

MCoE – Maneuver Center of Excellence

MCIS - mission-command information system

MDMP - military decision-making process

MET - mission-essential task

METL - mission-essential task list

MGS - Mobile Gun System

MILES - Multiple Integrated Laser Engagement System

MLC - Master Leader's Course

MLMC - Maneuver Leader's Maintenance Course

MMG - mounted machineaun

MOS - military occupational specialty

MOUT - military operations in urban terrain

MPCC - Maneuver Pre-Command Course

MSEL - Master Scenario Event List

M-S LC - Maneuver Senior Leaders Course

MTC - mission training complex

MTOE - modified table of organization and equipment

MTT – mobile training team

NAI - named area of interest

NCO - noncommissioned officer

O&O – operational and organizational

OCOA - Office of the Chief of Armor

OCS - Officer Candidate School

O/C/T - observer/coach/trainer

OE - operational environment

OIC - officer in charge

OSUT - one-station unit training

OSUT-T - one-station unit training transformation

OPFOR – opposing force

OPTEMPO – operational tempo

P-S

PCC - Pre-Command Course

PCC - pre-combat check

PCI - pre-combat inspection

PDSI - project-development skill identifier

PGS - Precision Gunnery System

PIR - priority information requirement

PLFS – Pre-Live Fire Simulations

PMCS – preventative maintenance checks and services

PME - professional military education

PMESII-PT - political, military, economic, social, infrastructure, information, physical environment, and time

Pol – program of instruction

PSD - personal self-development

PT - physical training

QTB - quarterly training brief

R2C - Ready and Resilient Campaign

R&S - reconnaissance and security

RC - Reserve Component

ROTC - Reserve Officer Training Corps

RSO - range safety officer

RVS - Reconfigurable Vehicle Simulator

RVTT - Reconfigurable Vehicle Tactical Trainer

SA - situational awareness

SAMS - AMSP - School of Advanced Military Studies - Advanced Military Studies Program

SBCT - Stryker brigade combat team

SCT – supporting collective task

SEP - System Enhanced Package

SFA - security force assistance

SFAB – security force assistance brigade

SGLI – Service members Group Life

Insurance SLC - Scout Leaders Course

SMC – Sergeants Major Course

SME - subject-matter expert

SOP - standard operating procedure

SOPI&E - standard operating procedures instruction and evaluation

SSPC – Scout Squad Proficiency Course

STE – synthetic training environment

STX - situational training exercise

SVCT - Stryker Virtual Collective Trainer

T-Y

TADSS - training aids, devices, simulators, and simulations

TC - training circular

TCM – TRADOC capability manager

TCM-ABCT - TRADOC Capability Manager - Armored Brigade Combat Team

TCM-ITE – TRADOC Capability Manager – Integrated Training Environment

TCM-Recon - TRADOC Capability Manager - Reconnaissance and Security

TCM-SFAB - TRADOC Capability Manager - Security Force Assistance Brigade

TDY - temporary duty

T&EO - training and evaluation outline

TESS - tactical engagement simulation system

TLDS – Training and Leader Development Strategy

TLP – troop-leading procedures

TOC - tactical operations center

TOW - tube-launched, optically tracked, wire-guided

TRADOC - (U.S. Army) Training and Doctrine Command

TSV - Thru Sight Video

TTP - tactics, techniques, and procedures

TTP&E - tactics, techniques, procedures, and evaluation

UAS - unmanned aerial system

ULO - unified land operations

UoF - use of force

USAARMS - United States Army Armor School

USASMA - SMC - United States Army Sergeants Major Academy - Sergeants Major Course

USMA – United States Military Academy

UTM – unit training management

UTP – Unit Training plan

VBS3 - Virtual Battlespace 3

VCE - Vehicle Crew Evaluator

VIC - Virtual Improvement Center

WfF - warfighting function

WSD - weapons-skills development

YTB - yearly training brief

APPENDIX B HQDA Standardized METLs

METL represents the doctrinal framework of fundamental collective tasks (MET and associated SCTs) for which the unit was designed to perform decisive action in support of ULO.

All METL tasks are available through DTMS at https://dtms.army.mil.

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Armored Brigade Combat Team ABCT METL Tasks

- 07-BDE-1272 Conduct Area Security BCT
 - 01-BDE-0436 Coordinate Air-Ground Operations when Providing Attack Aviation Support
 - 06-BDE-5066 Employ Fires
 - 07-BDE-6084 Conduct Survivability Activities BCT
 - 17-BDE-1007 Conduct Reconnaissance Activities Brigade
 - 17-BDE-9225 Conduct a Screen Brigade
 - 71-BDE-5100 Conduct the Mission Command Operations Process for Brigades
 - 71-BDE-8600 Establish Civil Security for Brigades
- 17-BDE-1030 Conduct an Area Defense ABCT
 - 01-BDE-0436 Coordinate Air-Ground Operations when Providing Attack Aviation Support
 - 06-BDE-5066 Employ Fires
 - 07-BDE-6084 Conduct Survivability Activities BCT
 - 17-BDE-1007 Conduct Reconnaissance Activities Brigade
 - 63-BDE-4021 Provide Internal Sustainment (Brigade)
 - 71-BDE-5100 Conduct the Mission Command Operations Process for Brigades
- 17-BDE-1074 Conduct a Movement to Contact ABCT
 - 01-BDE-0436 Coordinate Air-Ground Operations when Providing Attack Aviation Support
 - 06-BDE-5066 Employ Fires
 - 07-BDE-6082 Conduct Mobility Activities BCT
 - 17-BDE-1007 Conduct Reconnaissance Activities Brigade
 - 17-BDE-1254 Conduct a Combined Arms Breach of an Obstacle ABCT
 - 63-BDE-4021 Provide Internal Sustainment (Brigade)
 - o 71-BDE-5100 Conduct the Mission Command Operations Process for Brigades
- 17-BDE-1094 Conduct an Attack ABCT
 - 01-BDE-0436 Coordinate Air-Ground Operations when Providing Attack Aviation Support
 - 06-BDE-5066 Employ Fires
 - 07-BDE-6082 Conduct Mobility Activities BCT
 - 17-BDE-1007 Conduct Reconnaissance Activities Brigade
 - 17-BDE-1254 Conduct a Combined Arms Breach of an Obstacle ABCT
 - 63-BDE-4021 Provide Internal Sustainment (Brigade)
 - 71-BDE-5100 Conduct the Mission Command Operations Process for Brigades
- 55-BDE-4800 Conduct Expeditionary Deployment Operations at the Brigade Level
 - 12-BDE-0004 Prepare Personnel for Deployment (S1)
 - 55-BDE-4801 Conduct Actions Associated with Force Projection at the Brigade Level
 - 55-BDE-4804 Conduct Deployment Activities at the Brigade Level
 - 71-BDE-5100 Conduct the Mission Command Operations Process for Brigades

HHC CAB METL Tasks

- 07-CO-5135 Operate a Command Post Company
 - o 07-PLT-9016 Establish Observation Posts Platoon
 - 07-PLT-9022 Conduct a Security Patrol Platoon
 - 19-PLT-2203 Conduct Command Post (CP) Security
 - 71-CO-5100 Conduct Troop Leading Procedures
 - 55-CO-4830 Conduct Expeditionary Deployment Operations
 - o 55-CO-4801 Perform Deployment Alert Activities 55-CO-4826 Conduct Staging Activities
 - 55-CO-4828 Plan Unit Deployment Activities Upon Receipt of a Warning Order
 - 71-CO-5100 Conduct Troop Leading Procedures
- 63-CO-4574 Conduct Sustainment Support Operations (Company)
 - o 63-CO-4000 Coordinate Replenishment/Sustainment Operations
 - 63-CO-4546 Conduct Logistics Package (LOGPAC) Support
 - 71-CO-5100 Conduct Troop Leading Procedures

Armor Company CAB METL Tasks

- 07-CO-1272 Conduct Area Security Company
 - o 07-CO-1450 Secure Routes Company
 - 07-CO-3036 Integrate Indirect Fire Support Company
 - 07-CO-4054 Secure Civilians During Operations Company
 - 07-PLT-9022 Conduct a Security Patrol Platoon
 - 19-PLT-2406 Conduct Roadblock and Checkpoint
 - 71-CO-5100 Conduct Troop Leading Procedures
- 17-CO-1030 Conduct an Area Defense Armor & Mechanized Infantry Company Team (ABCT)
 - 07-CO-1396 Employ Obstacles Company
 - 07-CO-3027 Integrate Direct Fires Company
 - 07-CO-3036 Integrate Indirect Fire Support Company
 - 07-CO-6045 Employ Deception Techniques Company
 - 71-CO-5100 Conduct Troop Leading Procedures
- 17-CO-1074 Conduct a Movement to Contact Armor & Mechanized Infantry Company Team (ABCT)
 - 07-CO-3000 Conduct Support by Fire Company
 - 07-CO-3027 Integrate Direct Fires Company
 - 07-CO-3036 Integrate Indirect Fire Support Company
 - 71-CO-5100 Conduct Troop Leading Procedures
- 17-CO-1094 Conduct an Attack Armor & Mechanized Infantry Company Team (ABCT)
 - 07-CO-1256 Conduct an Attack by Fire Company
 - 07-CO-3000 Conduct Support by Fire Company
 - 07-CO-3027 Integrate Direct Fires Company
 - 07-CO-3036 Integrate Indirect Fire Support Company
 - 71-CO-5100 Conduct Troop Leading Procedures
- 55-CO-4830 Conduct Expeditionary Deployment Operations
 - o 55-CO-4801 Perform Deployment Alert Activities
 - 55-CO-4826 Conduct Staging Activities
 - 55-CO-4828 Plan Unit Deployment Activities Upon Receipt of a Warning Order
 - 71-CO-5100 Conduct Troop Leading Procedures

Cavalry Squadron ABCT METL Tasks

- 07-BN-1272 Conduct Area Security Battalion
 - o 06-BN-5076 Synchronize Fires
 - 07-BN-6084 Conduct Survivability Activities Battalion
 - 17-BN-0308 Synchronize Close Air Support Battalion
 - 17-BN-1007 Conduct Reconnaissance Activities Battalion
 - 17-BN-9406 Conduct Lines of Communication Security Battalion
- 17-SQDN-9225 Conduct a Screen Squadron
 - o 71-BN-5100 Conduct the Mission Command Operations Process for Battalions
 - 17-SQDN-9222 Conduct a Guard Squadron
 - 06-BN-5076 Synchronize Fires
 - 07-BN-6082 Conduct Mobility Activities Battalion
 - 17-BN-0308 Synchronize Close Air Support Battalion
 - 63-BN-4878 Provide Internal Sustainment for Battalion.
 - 71-BN-5100 Conduct the Mission Command Operations Process for Battalions
- 17-SQDN-9225 Conduct a Screen Squadron
 - 06-BN-5076 Synchronize Fires
 - 07-BN-6082 Conduct Mobility Activities Battalion
 - 17-BN-0308 Synchronize Close Air Support Battalion
 - 63-BN-4878 Provide Internal Sustainment for Battalion.
 - 71-BN-5100 Conduct the Mission Command Operations Process for Battalions
- 17-SQDN-9314 Conduct Zone Reconnaissance Squadron
 - 06-BN-5076 Synchronize Fires
 - 17-BN-4025 Conduct a Reconnaissance Handover Battalion
 - 17-SQDN-9320 Conduct Reconnaissance In Force Squadron
 - 63-BN-4878 Provide Internal Sustainment for Battalion.
 - 71-BN-5100 Conduct the Mission Command Operations Process for Battalions
- 17-SQDN-9315 Conduct Area Reconnaissance Squadron
 - 06-BN-5076 Synchronize Fires
 - 17-BN-4025 Conduct a Reconnaissance Handover Battalion
 - 17-SQDN-9320 Conduct Reconnaissance In Force Squadron
 - 63-BN-4878 Provide Internal Sustainment for Battalion.
 - 71-BN-5100 Conduct the Mission Command Operations Process for Battalions
- 55-BN-4800 Conduct Expeditionary Deployment Operations at the Battalion Level

- 12-BN-0004 Prepare Personnel for Deployment (S1)
- 55-BN-4801 Conduct Actions Associated with Force Projection at the Battalion Level
- 55-BN-4804 Conduct Expeditionary Deployment Activities at the Battalion Level
- 71-BN-5100 Conduct the Mission Command Operations Process for Battalions

HHT Cavalry Squadron ABCT METL Tasks

- 07-CO-5135 Operate a Command Post Company
 - 07-PLT-9016 Establish Observation Posts Platoon
 - 07-PLT-9022 Conduct a Security Patrol Platoon
 - o 19-PLT-2203 Conduct Command Post (CP) Security
 - o 71-CO-5100 Conduct Troop Leading Procedures
- 55-CO-4830 Conduct Expeditionary Deployment Operations
 - o 55-CO-4801 Perform Deployment Alert Activities
 - o 55-CO-4826 Conduct Staging Activities
 - o 55-CO-4828 Plan Unit Deployment Activities Upon Receipt of a Warning Order
 - o 71-CO-5100 Conduct Troop Leading Procedures
- 63-CO-4574 Conduct Sustainment Support Operations (Company)
 - o 63-CO-4000 Coordinate Replenishment/Sustainment Operations
 - 63-CO-4546 Conduct Logistics Package (LOGPAC) Support
 - 71-CO-5100 Conduct Troop Leading Procedures

Cavalry Troop Cavalry Squadron ABCT METL Tasks

- 07-CO-1272 Conduct Area Security Company
 - o 07-CO-1450 Secure Routes Company
 - 07-CO-3036 Integrate Indirect Fire Support Company
 - 07-CO-4054 Secure Civilians During Operations Company
 - 07-PLT-9022 Conduct a Security Patrol Platoon
 - 19-PLT-2406 Conduct Roadblock and Checkpoint
 - 71-CO-5100 Conduct Troop Leading Procedures
- 17-TRP-4000 Conduct Route Reconnaissance Cavalry Troop
 - 17-PLT-4012 Reconnoiter an Obstacle Platoon
 - 17-TRP-4011 Conduct Area Reconnaissance Cavalry Troop
 - 71-CO-5100 Conduct Troop Leading Procedures
- 17-TRP-4010 Conduct Zone Reconnaissance Cavalry Troop
 - o 17-TRP-4000 Conduct Route Reconnaissance Cavalry Troop
 - 17-TRP-4011 Conduct Area Reconnaissance Cavalry Troop
 - 17-TRP-4025 Conduct Reconnaissance Handover Troop
 - 71-CO-5100 Conduct Troop Leading Procedures
- 17-TRP-4011 Conduct Area Reconnaissance Cavalry Troop
 - o 17-PLT-4012 Reconnoiter an Obstacle Platoon
 - 17-TRP-4000 Conduct Route Reconnaissance Cavalry Troop
 - 17-TRP-4025 Conduct Reconnaissance Handover Troop
 - o 71-CO-5100 Conduct Troop Leading Procedures
- 17-TRP-9225 Conduct a Screen Troop
 - o 07-CO-3036 Integrate Indirect Fire Support Company
 - 07-PLT-9016 Establish Observation Posts Platoon
 - 17-TRP-2625 Displace To Subsequent Screen Troop
 - 17-TRP-4010 Conduct Zone Reconnaissance Cavalry Troop
 - 71-CO-5100 Conduct Troop Leading Procedures
- 55-CO-4830 Conduct Expeditionary Deployment Operations
 - o 55-CO-4801 Perform Deployment Alert Activities
 - 55-CO-4826 Conduct Staging Activities
 - 55-CO-4828 Plan Unit Deployment Activities Upon Receipt of a Warning Order
 - 71-CO-5100 Conduct Troop Leading Procedures

Infantry Brigade Combat Team **IBCT METL Tasks**

- 07-BDE-1028 Conduct an Area Defense IBCT
 - 01-BDE-0436 Coordinate Air-Ground Operations when Providing Attack Aviation Support
 - 06-BDE-5066 Employ Fires
 - 07-BDE-6084 Conduct Survivability Activities BCT
 - 17-BDE-1007 Conduct Reconnaissance Activities Brigade
 - 63-BDE-4021 Provide Internal Sustainment (Brigade)

- 71-BDE-5100 Conduct the Mission Command Operations Process for Brigades
- 07-BDE-1072 Conduct a Movement to Contact IBCT
 - 01-BDE-0436 Coordinate Air-Ground Operations when Providing Attack Aviation Support
 - 06-BDE-5066 Employ Fires
 - 07-BDE-1252 Conduct a Combined Arms Breach of an Obstacle IBCT
 - 07-BDE-6082 Conduct Mobility Activities BCT
 - 17-BDE-1007 Conduct Reconnaissance Activities Brigade
 - 63-BDE-4021 Provide Internal Sustainment (Brigade)
 - 71-BDE-5100 Conduct the Mission Command Operations Process for Brigades
- 07-BDE-1092 Conduct an Attack IBCT
 - 01-BDE-0436 Coordinate Air-Ground Operations when Providing Attack Aviation Support
 - 06-BDE-5066 Employ Fires
 - 07-BDE-1252 Conduct a Combined Arms Breach of an Obstacle IBCT
 - 07-BDE-6082 Conduct Mobility Activities BCT
 - 17-BDE-1007 Conduct Reconnaissance Activities Brigade
 - 63-BDE-4021 Provide Internal Sustainment (Brigade)
 - 71-BDE-5100 Conduct the Mission Command Operations Process for Brigades
- 07-BDE-1262 Conduct an Air Assault Stryker/Infantry BCT
 - 01-BDE-0436 Coordinate Air-Ground Operations when Providing Attack Aviation Support
 - 06-BDE-5066 Employ Fires
 - 07-BDE-1012 Establish Lodgment BCT
 - 07-BDE-6082 Conduct Mobility Activities BCT
 - 17-BDE-1007 Conduct Reconnaissance Activities Brigade
 - 71-BDE-5100 Conduct the Mission Command Operations Process for Brigades
- 07-BDE-1272 Conduct Area Security BCT
 - 01-BDE-0436 Coordinate Air-Ground Operations when Providing Attack Aviation Support
 - 06-BDE-5066 Employ Fires
 - 07-BDE-6084 Conduct Survivability Activities BCT
 - 17-BDE-1007 Conduct Reconnaissance Activities Brigade
 - 17-BDE-9225 Conduct a Screen Brigade
 - 71-BDE-5100 Conduct the Mission Command Operations Process for Brigades
 - o 71-BDE-8600 Establish Civil Security for Brigades
- 55-BDE-4800 Conduct Expeditionary Deployment Operations at the Brigade Level
 - o 12-BDE-0004 Prepare Personnel for Deployment (S1)
 - 55-EAC-4801 Conduct Actions Associated with Force Projection at Echelon Above Corp
 - 55-EAC-4804 Conduct Deployment Activities at Echelon Above Corp
 - 71-BDE-5100 Conduct the Mission Command Operations Process for Brigades

Cavalry Squadron IBCT METL Tasks

- 07-BN-1262 Conduct an Air Assault Infantry BN (Stryker/Infantry BCT)
 - 06-BN-5076 Synchronize Fires
 - 07-BN-6082 Conduct Mobility Activities Battalion
 - 17-BN-0308 Synchronize Close Air Support Battalion
 - 17-BN-1007 Conduct Reconnaissance Activities Battalion
 - 71-BN-5100 Conduct the Mission Command Operations Process for Battalions
- 07-BN-1272 Conduct Area Security Battalion
 - 06-BN-5076 Synchronize Fires
 - 07-BN-6084 Conduct Survivability Activities Battalion
 - 17-BN-0308 Synchronize Close Air Support Battalion
 - 17-BN-1007 Conduct Reconnaissance Activities Battalion
 - 17-BN-9406 Conduct Lines of Communication Security Battalion
 - 17-SQDN-9225 Conduct a Screen Squadron
 - 71-BN-5100 Conduct the Mission Command Operations Process for Battalions
- 17-SQDN-9222 Conduct a Guard Squadron
 - 06-BN-5076 Synchronize Fires
 - 07-BN-6082 Conduct Mobility Activities Battalion
 - 17-BN-0308 Synchronize Close Air Support Battalion
 - 63-BN-4878 Provide Internal Sustainment for Battalion.
 - 71-BN-5100 Conduct the Mission Command Operations Process for Battalions
- 17-SQDN-9225 Conduct a Screen Squadron
 - 06-BN-5076 Synchronize Fires
 - 07-BN-6082 Conduct Mobility Activities Battalion
 - 17-BN-0308 Synchronize Close Air Support Battalion
 - 63-BN-4878 Provide Internal Sustainment for Battalion.
 - 71-BN-5100 Conduct the Mission Command Operations Process for Battalions

- 17-SQDN-9314 Conduct Zone Reconnaissance Squadron
 - 06-BN-5076 Synchronize Fires
 - 17-BN-4025 Conduct a Reconnaissance Handover Battalion
 - 17-SQDN-9320 Conduct Reconnaissance In Force Squadron
 - 63-BN-4878 Provide Internal Sustainment for Battalion.
 - 71-BN-5100 Conduct the Mission Command Operations Process for Battalions
- 17-SQDN-9315 Conduct Area Reconnaissance Squadron
 - 06-BN-5076 Synchronize Fires
 - 17-BN-4025 Conduct a Reconnaissance Handover Battalion
 - 17-SQDN-9320 Conduct Reconnaissance In Force Squadron
 - 63-BN-4878 Provide Internal Sustainment for Battalion.
 - 71-BN-5100 Conduct the Mission Command Operations Process for Battalions
- 55-BN-4800 Conduct Expeditionary Deployment Operations at the Battalion Level
 - 12-BN-0004 Prepare Personnel for Deployment (S1)
 - 55-BN-4801 Conduct Actions Associated with Force Projection at the Battalion Level
 - 55-BN-4804 Conduct Expeditionary Deployment Activities at the Battalion Level
 - 71-BN-5100 Conduct the Mission Command Operations Process for Battalions

Motorized Cavalry Troop IBCT METL Tasks

- 07-CO-1272 Conduct Area Security Company
 - o 07-CO-1450 Secure Routes Company
 - 07-CO-3036 Integrate Indirect Fire Support Company
 - 07-CO-4054 Secure Civilians During Operations Company
 - 07-PLT-9022 Conduct a Security Patrol Platoon
 - 19-PLT-2406 Conduct Roadblock and Checkpoint
 - 71-CO-5100 Conduct Troop Leading Procedures
- 17-TRP-4000 Conduct Route Reconnaissance Cavalry Troop
 - 17-PLT-4012 Reconnoiter an Obstacle Platoon
 - 17-TRP-4011 Conduct Area Reconnaissance Cavalry Troop
 - 71-CO-5100 Conduct Troop Leading Procedures
- 17-TRP-4010 Conduct Zone Reconnaissance Cavalry Troop
 - 17-TRP-4000 Conduct Route Reconnaissance Cavalry Troop
 - 17-TRP-4011 Conduct Area Reconnaissance Cavalry Troop
 - 17-TRP-4025 Conduct Reconnaissance Handover Troop
 - 71-CO-5100 Conduct Troop Leading Procedures
- 17-TRP-4011 Conduct Area Reconnaissance Cavalry Troop
 - 17-PLT-4012 Reconnoiter an Obstacle Platoon
 - 17-TRP-4000 Conduct Route Reconnaissance Cavalry Troop
 - 17-TRP-4025 Conduct Reconnaissance Handover Troop
 - 71-CO-5100 Conduct Troop Leading Procedures
- 17-TRP-9225 Conduct a Screen Troop
 - 07-CO-3036 Integrate Indirect Fire Support Company
 - 07-PLT-9016 Establish Observation Posts Platoon
 - 17-TRP-2625 Displace To Subsequent Screen Troop
 - 17-TRP-4010 Conduct Zone Reconnaissance Cavalry Troop
 - 71-CO-5100 Conduct Troop Leading Procedures
- 55-CO-4830 Conduct Expeditionary Deployment Operations
 - 55-CO-4801 Perform Deployment Alert Activities
 - 55-CO-4826 Conduct Staging Activities
 - 55-CO-4828 Plan Unit Deployment Activities Upon Receipt of a Warning Order
 - 71-CO-5100 Conduct Troop Leading Procedures

Dismounted Cavalry Troop IBCT METL Tasks

- 07-CO-1272 Conduct Area Security Company
 - 07-CO-1450 Secure Routes Company
 - 07-CO-3036 Integrate Indirect Fire Support Company
 - 07-CO-4054 Secure Civilians During Operations Company
 - 07-PLT-9022 Conduct a Security Patrol Platoon
 - 19-PLT-2406 Conduct Roadblock and Checkpoint
 - 71-CO-5100 Conduct Troop Leading Procedures
 - 17-TRP-4000 Conduct Route Reconnaissance Cavalry Troop
 - 17-PLT-4012 Reconnoiter an Obstacle Platoon
 - 17-TRP-4011 Conduct Area Reconnaissance Cavalry Troop
 - 71-CO-5100 Conduct Troop Leading Procedures
- 17-TRP-4010 Conduct Zone Reconnaissance Cavalry Troop

- 17-TRP-4000 Conduct Route Reconnaissance Cavalry Troop
- 17-TRP-4011 Conduct Area Reconnaissance Cavalry Troop
- o 17-TRP-4025 Conduct Reconnaissance Handover Troop
 - 71-CO-5100 Conduct Troop Leading Procedures
- 17-TRP-4011 Conduct Area Reconnaissance Cavalry Troop
 - o 17-PLT-4012 Reconnoiter an Obstacle Platoon
 - 17-TRP-4000 Conduct Route Reconnaissance Cavalry Troop
 - 17-TRP-4025 Conduct Reconnaissance Handover Troop
 - 71-CO-5100 Conduct Troop Leading Procedures
- 17-TRP-9225 Conduct a Screen Troop
 - 07-CO-3036 Integrate Indirect Fire Support Company
 - 07-PLT-9016 Establish Observation Posts Platoon
 - 17-TRP-2625 Displace To Subsequent Screen Troop
 - 17-TRP-4010 Conduct Zone Reconnaissance Cavalry Troop
 - 71-CO-5100 Conduct Troop Leading Procedures
- 55-CO-4830 Conduct Expeditionary Deployment Operations
 - o 55-CO-4801 Perform Deployment Alert Activities
 - 55-CO-4826 Conduct Staging Activities
 - 55-CO-4828 Plan Unit Deployment Activities Upon Receipt of a Warning Order
 - 71-CO-5100 Conduct Troop Leading Procedures

Stryker Brigade Combat Team **SBCT METL Tasks**

- 07-BDE-1029 Conduct an Area Defense SBCT
 - 01-BDE-0436 Coordinate Air-Ground Operations when Providing Attack Aviation Support
 - 06-BDE-5066 Employ Fires
 - 07-BDE-6084 Conduct Survivability Activities BCT
 - 17-BDE-1007 Conduct Reconnaissance Activities Brigade
 - 63-BDE-4021 Provide Internal Sustainment (Brigade)
 - 71-BDE-5100 Conduct the Mission Command Operations Process for Brigades
- 07-BDE-1073 Conduct a Movement to Contact SBCT
 - 01-BDE-0436 Coordinate Air-Ground Operations when Providing Attack Aviation Support
 - 06-BDE-5066 Employ Fires
 - 07-BDE-1253 Conduct a Combined Arms Breach of an Obstacle SBCT
 - 07-BDE-6082 Conduct Mobility Activities BCT
 - 17-BDE-1007 Conduct Reconnaissance Activities Brigade
 - 63-BDE-4021 Provide Internal Sustainment (Brigade)
 - 71-BDE-5100 Conduct the Mission Command Operations Process for Brigades
- 07-BDE-1093 Conduct an Attack SBCT
 - 01-BDE-0436 Coordinate Air-Ground Operations when Providing Attack Aviation Support
 - 06-BDE-5066 Employ Fires
 - 07-BDE-1253 Conduct a Combined Arms Breach of an Obstacle SBCT
 - 07-BDE-6082 Conduct Mobility Activities BCT
 - 17-BDE-1007 Conduct Reconnaissance Activities Brigade
 - 63-BDE-4021 Provide Internal Sustainment (Brigade)
 - 71-BDE-5100 Conduct the Mission Command Operations Process for Brigades
- 07-BDE-1262 Conduct an Air Assault Stryker/Infantry BCT
 - 01-BDE-0436 Coordinate Air-Ground Operations when Providing Attack Aviation Support
 - 06-BDE-5066 Employ Fires
 - 07-BDE-1012 Establish Lodgment BCT
 - 07-BDE-6082 Conduct Mobility Activities BCT
 - 17-BDE-1007 Conduct Reconnaissance Activities Brigade
 - 71-BDE-5100 Conduct the Mission Command Operations Process for Brigades
- 07-BDE-1272 Conduct Area Security BCT
 - 01-BDE-0436 Coordinate Air-Ground Operations when Providing Attack Aviation Support
 - 06-BDE-5066 Employ Fires
 - 07-BDE-6084 Conduct Survivability Activities BCT
 - 17-BDE-1007 Conduct Reconnaissance Activities Brigade
 - 17-BDE-9225 Conduct a Screen Brigade
 - o 71-BDE-5100 Conduct the Mission Command Operations Process for Brigades
 - o 71-BDE-8600 Establish Civil Security for Brigades
- 55-BDE-4800 Conduct Expeditionary Deployment Operations at the Brigade Level
 - o 12-BDE-0004 Prepare Personnel for Deployment (S1)
 - 55-BDE-4801 Conduct Actions Associated with Force Projection at the Brigade Level
 - 55-BDE-4804 Conduct Deployment Activities at the Brigade Level

71-BDE-5100 Conduct the Mission Command Operations Process for Brigades

Cavalry Squadron SBCT METL Tasks

- 07-BN-1262 Conduct an Air Assault Infantry BN (Stryker/Infantry BCT)
 - o 06-BN-5076 Synchronize Fires
 - 07-BN-6082 Conduct Mobility Activities Battalion
 - 17-BN-0308 Synchronize Close Air Support Battalion
 - 17-BN-1007 Conduct Reconnaissance Activities Battalion
 - 71-BN-5100 Conduct the Mission Command Operations Process for Battalions
- 07-BN-1272 Conduct Area Security Battalion
 - 06-BN-5076 Synchronize Fires
 - 07-BN-6084 Conduct Survivability Activities Battalion
 - 17-BN-0308 Synchronize Close Air Support Battalion
 - 17-BN-1007 Conduct Reconnaissance Activities Battalion
 - 17-BN-9406 Conduct Lines of Communication Security Battalion
 - 17-SQDN-9225 Conduct a Screen Squadron
 - 71-BN-5100 Conduct the Mission Command Operations Process for Battalions
- 17-SQDN-9222 Conduct a Guard Squadron
 - 06-BN-5076 Synchronize Fires
 - 07-BN-6082 Conduct Mobility Activities Battalion
 - 17-BN-0308 Synchronize Close Air Support Battalion
 - 63-BN-4878 Provide Internal Sustainment for Battalion.
 - 71-BN-5100 Conduct the Mission Command Operations Process for Battalions
- 17-SQDN-9225 Conduct a Screen Squadron
 - 06-BN-5076 Synchronize Fires
 - 07-BN-6082 Conduct Mobility Activities Battalion
 - 17-BN-0308 Synchronize Close Air Support Battalion
 - 63-BN-4878 Provide Internal Sustainment for Battalion.
 - 71-BN-5100 Conduct the Mission Command Operations Process for Battalions
- 17-SQDN-9314 Conduct Zone Reconnaissance Squadron
 - 06-BN-5076 Synchronize Fires
 - 17-BN-4025 Conduct a Reconnaissance Handover Battalion
 - 17-SQDN-9320 Conduct Reconnaissance In Force Squadron
 - 63-BN-4878 Provide Internal Sustainment for Battalion.
 - 71-BN-5100 Conduct the Mission Command Operations Process for Battalions
- 17-SQDN-9315 Conduct Area Reconnaissance Squadron
 - 06-BN-5076 Synchronize Fires
 - 17-BN-4025 Conduct a Reconnaissance Handover Battalion
 - 17-SQDN-9320 Conduct Reconnaissance In Force Squadron
 - 63-BN-4878 Provide Internal Sustainment for Battalion.
 - 71-BN-5100 Conduct the Mission Command Operations Process for Battalions
- 55-BN-4800 Conduct Expeditionary Deployment Operations at the Battalion Level
 - 12-BN-0004 Prepare Personnel for Deployment (S1)
 - 55-BN-4801 Conduct Actions Associated with Force Projection at the Battalion Level
 - 55-BN-4804 Conduct Expeditionary Deployment Activities at the Battalion Level
 - 71-BN-5100 Conduct the Mission Command Operations Process for Battalions

HHT Cavalry Squadron SBCT METL Tasks

- 07-CO-5135 Operate a Command Post Company
 - o 07-PLT-9016 Establish Observation Posts Platoon
 - 07-PLT-9022 Conduct a Security Patrol Platoon
 - 19-PLT-2203 Conduct Command Post (CP) Security
 - 71-CO-5100 Conduct Troop Leading Procedures
- 55-CO-4830 Conduct Expeditionary Deployment Operations
 - 55-CO-4801 Perform Deployment Alert Activities
 - 55-CO-4826 Conduct Staging Activities
 - 55-CO-4828 Plan Unit Deployment Activities Upon Receipt of a Warning Order
 - 71-CO-5100 Conduct Troop Leading Procedures
- 63-CO-4574 Conduct Sustainment Support Operations (Company)
 - o 63-CO-4000 Coordinate Replenishment/Sustainment Operations
 - 63-CO-4546 Conduct Logistics Package (LOGPAC) Support
 - 71-CO-5100 Conduct Troop Leading Procedures

Cavalry Troop SBCT METL Tasks

- 07-CO-1272 Conduct Area Security Company
 - o 07-CO-1450 Secure Routes Company
 - 07-CO-3036 Integrate Indirect Fire Support Company
 - 07-CO-4054 Secure Civilians During Operations Company
 - 07-PLT-9022 Conduct a Security Patrol Platoon
 - 19-PLT-2406 Conduct Roadblock and Checkpoint
 - 71-CO-5100 Conduct Troop Leading Procedures
- 17-TRP-4000 Conduct Route Reconnaissance Cavalry Troop
 - 17-PLT-4012 Reconnoiter an Obstacle Platoon
 - 17-TRP-4011 Conduct Area Reconnaissance Cavalry Troop
 - 71-CO-5100 Conduct Troop Leading Procedures
- 17-TRP-4010 Conduct Zone Reconnaissance Cavalry Troop
 - 17-TRP-4000 Conduct Route Reconnaissance Cavalry Troop
 - 17-TRP-4011 Conduct Area Reconnaissance Cavalry Troop
 - 17-TRP-4025 Conduct Reconnaissance Handover Troop
 - 71-CO-5100 Conduct Troop Leading Procedures
- 17-TRP-4011 Conduct Area Reconnaissance Cavalry Troop
 - 17-PLT-4012 Reconnoiter an Obstacle Platoon
 - 17-TRP-4000 Conduct Route Reconnaissance Cavalry Troop
 - 17-TRP-4025 Conduct Reconnaissance Handover Troop
 - 71-CO-5100 Conduct Troop Leading Procedures
- 17-TRP-9225 Conduct a Screen Troop
 - 07-CO-3036 Integrate Indirect Fire Support Company
 - 07-PLT-9016 Establish Observation Posts Platoon
 - 17-TRP-2625 Displace To Subsequent Screen Troop
 - 17-TRP-4010 Conduct Zone Reconnaissance Cavalry Troop
 - 71-CO-5100 Conduct Troop Leading Procedures
- 55-CO-4830 Conduct Expeditionary Deployment Operations
 - 55-CO-4801 Perform Deployment Alert Activities
 - 55-CO-4826 Conduct Staging Activities
 - 55-CO-4828 Plan Unit Deployment Activities Upon Receipt of a Warning Order
 - 71-CO-5100 Conduct Troop Leading Procedures

APPENDIX C Maneuver Center of Excellence (MCoE) Functional Courses **Armor School proponent**

SLC - Develops higher-level fundamental R&S skills through courses in navigation, communications, and reporting. Students graduate the course better equipped to understand BCT, squadron, and troop commanders' information requirements, and how to find and communicate battlefield information about terrain, enemy, and local populations to enhance mission effectiveness.

CLC - This course trains officers, chief warrant officers, and NCOs who are involved in the planning and execution of reconnaissance collection and tactical security tasks at the troop and squadron level, as well as Joint asset planners and operators who support ground operations.

Master Gunner - Divided into two phases: 1) common core and 2) platform-specific instruction. Phase I: Common core provides students a common skill set for IWTS with a UTP focus on unstabilized machine gun weapon platform gunnery and training scenario development. Phase II: Platform-specific instruction (Abrams, Bradley, or Stryker) trains accomplished armor NCOs in advanced gunnery methodology, weapons systems maintenance, and gunnery training management for their respective platforms. These acquired skills and knowledge will allow him to function as the unit's master of gunnery, the commander's technical mentor, and the commander's gunnery technical adviser.

Tank Commander's Course - This course focuses on technical rather than tactical instruction, with emphasis on crew stations and duties, tank maintenance, unit gunnery management, bore sighting, AACs, plumb and synchronization, tank ammunition and weapons, screening, and tank gunnery. Students train using conventional methods, stand-alone training devices, and simulators, and they graduate with the skills needed to function as a M1A1 or M1A2 SEP tank commander.

Bradley Commander's Course - Trains Active and Reserve Component officers and NCOs in combat critical Bradley commander and gunner skills and knowledge needed to supervise, train and lead subordinates. Successful completion of this course awards the B9 ASI.

MLMC - This 10-day course trains maneuver leaders in the fundamentals of Army maintenance management and battalion-, squadron- and company-level maintenance management regardless of platform. All officers assigned to an ABCT will attend this course. It is highly recommended for officers assigned to an SBCT.

Infantry School proponent

Bradley Leader's Course - Trains newly assigned officers (second lieutenant through captain) and NCOs (staff sergeant to sergeant major) serving in a BFV leadership position. This is a career progression and a leader development course to teach higher fundamental mechanized platoon/section leader skills, practical knowledge of the M2 platform, competence in the duties of a BFV commander, higher planning and communication skills, confidence with mission-context problem-solving, and the Army Training Management process at the platoon level.

Ranger School - The Ranger Course, a functional course in the U.S. Army Infantry School, is the premier small unit leadership school in the Army. All Armor officers should strive to attend and complete the course. If not Ranger-qualified, Armor officers assigned to IBCTs and SBCTs will attend following attendance at ABOLC or MCCC. Attendance at the Warrior Training Center's Ranger Training Assessment Course is encouraged, but the officer and the officer's chain of command must determine if this is required and what is the appropriate timeline to ensure successful preparation for the Ranger Course. This analysis should ensure that the officer's time at Fort Benning is not extended.

Reconnaissance and Surveillance Leaders Course - A 29-day program that teaches the fundamentals of dismounted reconnaissance, surveillance, and target acquisition to Soldiers, NCOs, and officers focusing on long-range surveillance operations, mission command, Airborne operations, special insertion/extraction techniques, and covert collection of commander's PIR.

Stryker Leaders Course - During this three-week resident course, the future Stryker leader is trained in maintenance, training management, and tactics of the Stryker platform. Upon completion of this course, the graduates will be fully capable of performing in a Stryker unit leadership position.

APPENDIX D **Training Resources**

Simulators and tracking systems

HITS - This system is a live force-on-force and force-on-target (FoT) HST capability that supports platoon through battalion task force level collective maneuver training. It is a transportable, stand-alone system that operates with current combat tactical-Engagement simulation systems (TESS), e.g., MILES or Combat Vehicle (CV) TESS, providing position location and weapons effects data for real-time exercise monitoring and battlefield adjudication for AAR development. HITS provides a live environment real-time training capability that can be used in stand-alone mode or in conjunction with virtual and constructive enablers through the use of the LVCG-IA to enhance home station training and ITE. It supports all BCT formations (armored, Stryker, and infantry) with associated OPFOR and O/C/Ts.

Battlefield Effects Simulator (BES) - This simulator provides real-time feedback to units conducting FoT tactical training and realistic battlefield effects. It can be used in day and night range exercises for visual and acoustic target recognition at stationary range positions with a target mechanism, or it can be mounted on a moving target platform. BES is designed to produce flash/bang and smoke signatures using the M34 (hostile fire) cartridge and/or M35 (target hit) cartridge, which simulates/replicates a largecaliber weapon fire of a hostile threat and/or an impact round on an armor target. The system is a core feature in support of live-fire ranges throughout the Army as identified within TC 25-8.

TESS - This is offered in Stryker (MGS TESS) and CVTESS (Abrams and Bradley CVTESS) variants to provide laser-based forceon-force training. These systems provide a full-fire control interface that allows crews to train reinforcing tactical, crew, and engagement skills. The main and secondary weapons are simulated and integrated through the fire-control system (FCS). TESS interfaces with the vehicle with brackets and connectors, and to the crew with audio and visual signals.

CTSV-CMUR - The CMUR is compatible with a wide range of combat vehicles, including M1 variants, M2 variants, and Stryker vehicle variants. The system also supports a host of wheeled vehicles and their fire-control platforms. The CMUR is an on-board recording device used to support ranges without infrastructure to support a fully instrumented range and is able to support up to eight video feeds from the thru-site and crew cameras.

Sub-Caliber Inbore 105mm Semi-Automatic, Stryker Device - This in bore device sub-caliber (IDS) is designed for use with the Stryker MGS 105mm M68A1E8 cannon for live-fire gunnery or urban gunnery training with full- or half-scale targets. The device is also used in conjunction with MGS TESS to provide full- and half-scale sub-caliber live-fire gunnery and urban (military operations in urban terrain, or MOUT) warfare training.

Sub-Caliber Inborne 120mm Training Device - This IDS is an integral component to CATS for Abrams crew gunnery training. It is used to conduct sustainment and remedial training. It consists of a single-shot bolt-action receiver, solenoid actuated trigger, which is activated through a single connection on the right side of the breechblock assembly, and interfaces with and uses the vehicle's firing circuits. Also known as the .50-caliber Advanced Inborne Marksmanship Training Enhancement System for Tanks.

Digital Range Training System (DRTS) - DRTS provides the infrastructure and instrumentation for Abrams, Bradley, Stryker, and aviation platform live-fire gunnery training and qualification, and the ability to conduct CALFEX. It also facilitates individual, collective live-fire training and qualification with enhanced training data collection and AAR capabilities.

Virtual training and gaming

Advanced Gunnery Training System (AGTS) - This is a family of gunnery training simulators for vehicle commander/gunner teams to use for M1A2 SEP, M1A2, M1A1, M1A1 SA, M1A1 FEP and LAV-25 vehicles. It is rapidly transportable and deployable; features a high-fidelity crew compartment replicating the vehicle's turret; and has FCS in both physical and functional aspects. The system trains both operational and degraded-mode gunnery techniques under a variety of conditions. The pre-programmed, computer-controlled exercises vary in target type and number, range, vehicle and target motion, and visibility. AGTS-based systems are capable of networking to provide section, platoon, and company collective gunnery training. An AAR capability is also provided for exercise management.

MGS AGTS - This is a gunnery-training simulator for vehicle commander/gunner teams to use for the Stryker MGS vehicle. It is rapidly transportable and deployable; features a high-fidelity crew compartment that replicates the vehicle's turret; and has FCS in both physical and functional aspects. The system trains both operational and degraded-mode gunnery techniques under a variety of conditions. The pre-programmed, computer-controlled exercises vary in target type and number, range, vehicle and target motion, and visibility. The MGS AGTS-based system is capable of networking to provide section, platoon, and company collective gunnery training. An AAR capability is also provided for exercise management.

BATS - BATS simulates the functionality of the M2A3 BFV system used to train and sustain a vehicle crew's ability to perform critical gunnery skills required for direct-fire engagements. It comprises a crew station, an instructor/operator station and a remote monitoring station. The system provides precision and degraded-mode gunnery simulation training, and the latest update includes urban operations exercises. The BATS system will be replaced by the Conduct of Fire Trainer - Situational Awareness

(COFT-SA). The COFT-SA trainer replicates the performance of the M2A2 ODS-SA and M2A3 BFV, enabling the crew to operate in a synthetic environment.

CCTT (ground trainer) – A collective training program that supports the training of Infantry, Armor, Mechanized Infantry, Cavalry, and Armored Reconnaissance units from squad through battalion/squadron level, including their staffs. The primary training audience operates from full crew simulators, mock-up CPs and live battalion CPs to accomplish their combined arms training tasks. CCTT can also be linked to AVCATT to conduct small unit air-ground operations (AGO) to support AGO training with CAM teammates. The Reconfigurable Vehicle Tactical Trainer (RVTT) is a system within CCTT that includes the RVS. The RVTT simulator provides training for select combat and tactical wheeled vehicles, including multiple variants of the High-Mobility Multipurpose Wheeled Vehicle and the Heavy Expanded Mobility Tactical Truck.

Engagement Skills Trainer II (EST II) - EST II provides audio and visual presentations and feedback during training scenario exercises that simulate the operation of a variety of small-arms weapons. The simulator uses visual display systems, audio system(s), aiming detection system(s), and/or modified real weapons with the weapon power source interfaced by computer to provide marksmanship and shoot/don't shoot decision training scenarios. These trainers safely replicate weapon-training events that lead to live-fire individual and weapon crew qualification, and they contribute to increased weapon, crew, fire team, and squad combat effectiveness training in Army defined scenarios.

Call-for-Fire Trainer III (CFFT III) - A training system that provides a simulated battlefield for training forward observer tasks at the institutional and unit level. CFFT III will train Soldiers in the basic 19-series "call for fire" tasks for artillery, mortars, and naval surface-fire support. It will train Joint fires observers to conduct Joint CAS Types II and III as well as Army attack aviation and the integration-of-fires planning, CFFT III operates in a stand-alone mode to train from one to 30 Soldiers.

Stryker Virtual Collective Trainer (SVCT) - An interim bridging solution using VBS3 for Stryker rifle and Cavalry platoons to conduct virtual collective training until STE Increment 2 is fielded. The SVCT will integrate the Stryker platform with the dismounted squads and will allow fluid transition between mounted and dismounted operations both in game and at the physical training site. SVCT provides Stryker platoons opportunities to train repetitively as a system of vehicle crews and dismounted infantry while at home station.

VBS3 – The U.S. Army's flagship gaming simulation, VBS3 is a three-dimensional, first-person gaming platform that provides realistic, semi-immersive environments, dynamic terrain, hundreds of simulated military and civilian entities, and terrain areas as actual geo-specific terrains. Equipment from the U.S. Army, U.S. Marine Corps, U.S. Air Force and multinational forces are modelled within the platform.

Constructive training

Joint Land Component Constructive Training Capability-Entity Resolution Federation (JLCCTC-ERF) - This training capability is a federation of simulations, data collection, and AAR tools that stimulates mission command networks and systems to facilitate battle-staff collective training by requiring staff reaction to incoming digital information while executing the commander's tactical plan. The targeted training audience comprises brigade and battalion battle staffs, functional CP training and full CP training. JLCCTC-ERF will be retired at the end of FY19 to be replaced by the Joint Land Component Constructive Training Capability (JLCCTC).

JLCCTC - This training capability is a federation of simulations, data collection, and AAR tools that stimulate mission command systems to facilitate battle-staff collective training by requiring staff reaction to incoming digital information while executing the commander's tactical plan. The targeted training audience comprises battalion through corps battle staffs, functional CP training, and full CP training.

Division Exercise Training and Readiness System (DXTRS) - This system is a low-overhead staff trainer for staff officers and NCOs at the battalion through corps levels. It is focused on major combat operations. DXTRS is a constructive simulation that is also being released in a new version known as the brigade/battalion (B2) release. This version is designed for use at the advancedcourse level in TRADOC schools and it is also available on the Army's "Milgaming" site for use at the unit level. DXTRS has proven to be an outstanding "war gaming" tool. It also allows units to train using their organizational real-world mission-command equipment. The system provides for the "construction" of full-spectrum scenarios involving small or major combat operations to train staff officers, and NCOs as individuals or in small groups.

Joint Conflict and Tactical Simulation (JCATS) - This simulation provides computer simulation support of command and staff training at all operational levels. JCATS is an interactive, multi-sided, multi-service, high-resolution (entity level) conflict simulation. It supports exercises at the Joint task force level across the spectrum of war, including littoral naval operations, ground combat. associated air operations, amphibious operations, and specialized operations. It is capable of modeling small group, rural, urban, and day/night operations with very high resolution. Several AAR methods are available within the system. It replicates individual weapons and weapon platforms, mines, smoke, radars, sensors, and fixed-wing aircraft for air-to-air and CAS missions. It also trains complete MOUT operations. Multiple databases are available. Users are able to create and tailor scenarios to meet training objectives.

Future training systems

STE - The STE is a Soldier-centric training environment that optimizes human performance. It converges the virtual, constructive, and gaming environments into a single synthetic environment. The STE provides a common training simulation for the operational, institutional, and self-development domains across all echelons. Leveraging current technologies, the STE blends virtual, augmented, and physical realities, providing commanders with multiple options to train operational complexities. Transported via operational networks, the STE delivers training as a service on-demand from the cloud to the point of need. It is capable of operating in a disconnected mode for training under limited or degraded network conditions. The STE supports train-as-you-fight, commander-driven, unit mission-oriented decisive action training in support of ULO. The STE provides intuitive, composable applications and services that enable embedded training with mission command workstations and select platforms.

D-1. Training Resources and Related Training Events

T/	ADSS	Individual	Crew/Section/Squad	Platoon & Above	Examples of Training Event(s)
		Х			
	ССТТ		Х	Х	STX, FTX, MC
	EST II	Х	х		WSD/Crew Skills
	CFFT III	Х	х		WSD/Crew Skills
	CDT	Х	Х		Ind./Crew Skills
	Gaming VBS3		Х	Х	STX, FTX
Current Non-	JCATS			Х	FTX
Systems	LVCG-IA			Х	STX, FTX, MC
	HITS		х	Х	STX, FTX
	IMILES-IWS	х	х	х	WSD/Crew Skills, STX, FTX
	APPs	Х			WSD
	SVT	Х	х		WSD, CFFT, UoF
	STE (Incr. II)		х	Х	STX, FTX, MC
	STE (Incr. III)		х	Х	STX, FTX, MC
Future Non- Systems	Virtual Reality	Х	х		Ind./Crew Skills, STX, FTX
	Augmented Reality	Х	х	Х	Ind./Crew Skills, STX, FTX
	Inborne Devices		х		IWTS (Table II) Gunnery
	COFT-SA		х	Х	IWTS (Table II) Gunnery
Current	AGTS	х	х	Х	IWTS (Table II) Gunnery
Systems	MGS-AGTS	х	х	Х	IWTS (Table II) Gunnery
	MMR TSV		Х	Х	IWTS Gunnery

APPENDIX E Unit Gun Lines

E-1. Example Armor Combined Arms Battalion Gunline

						Pro	erequisite	Training	- Complete	ed T-6 thro	ugh T (30 t	raining day	/s total), w	ith Comma	ander Flexil	oility					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1st AR CAB Staff	BN Table I TEWT	BN Table I TEWT	BN Table I TEWT										BN Table II STAFFEX	BN Table II STAFFEX	BN Table II STAFFEX	BN Table II STAFFEX	BN Table II STAFFEX	BN Table II STAFFEX	BN Table II STAFFEX		
A (Bradley)	CO Table I TEWT	SEC/PLT Table I SOP			Crew Table I GST (5 days	;)		SEC/PLT Table II STX-V	SEC/PLT Table II STX-V	Crew Table II STX-V	Crew Table II STX-V	Crew Table II STX-V	Crew Table II STX-V	Crew Table II STX-V	CO Table II STX-V	CO Table II STX-V	Crew Table III STX	Crew Table III STX		Crew Table IV Basic	Crew Table IV Basic
B (Abrams)	CO Table I TEWT	SEC/PLT Table I SOP		C	Crew Table I GST (5 days	;)		Crew Table II STX-V	Crew Table II STX-V	SEC/PLT Table II STX-V	SEC/PLT Table II STX-V	Crew Table II STX-V	Crew Table II STX-V	Crew Table II STX-V	CO Table II STX-V	CO Table II STX-V	Crew Table III STX	Crew Table III STX		Crew Table IV Basic	Crew Table IV Basic
C (Abrams)	CO Table I TEWT	SEC/PLT Table I SOP		C	Crew Table I GST (5 days	;)		Crew Table II STX-V	Crew Table II STX-V	Crew Table II STX-V	Crew Table II STX-V	SEC/PLT Table II STX-V	SEC/PLT Table II STX-V	Crew Table II STX-V		CO Table II STX-V	CO Table II STX-V	Crew Table III STX	Crew Table III STX		Crew Table IV Basic
MTR				Table I (Me	Crew ounted Mac GST (5 days			Tal	TR ole I NR Exam	MTR Table II CfFT	MTR Table II CfFT	MTR Table III STX	MTR Table III STX	Crew Table III STX	Crew Table III STX					Crew Table IV Basic	Crew Table IV Basic
SCT		SEC/PLT Table I SOP	T Crew					SEC/PLT Table II STX-V	SEC/PLT Table II STX-V	Crew Table II STX-V	Crew Table II STX-V	Crew Table II STX-V	Crew Table II STX-V	Crew Table II STX-V	CO Table II STX-V	CO Table II STX-V	Crew Table III STX	Crew Table III STX		Crew Table IV Basic	Crew Table IV Basic
SCT SQD		SEC/PLT Table I SOP	Squad Table II STX-V	Squad Table III STX	Squad Table III STX	Squad Table III STX	SEC/PLT Table II STX-V	SEC/PLT Table II STX-V												Squad Table VI LFX	Squad Table VI LFX
A Dismount		SEC/PLT Table I SOP	Squad Table II STX-V		Squad Table III STX	Squad Table III STX	Squad Table III STX	SEC/PLT Table II STX-V	SEC/PLT Table II STX-V											Squad Table VI LFX	Squad Table VI LFX
	1	2	3	4	5	6	7	8 Training	9	10	11	12	13	14	15	16	17	18	19	20	21

				Crew,	Squad, an	d FDC								Section a	nd Platoon				
	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
1st AR CAB Staff													BN Table III CPX	BN Table III CPX	BN Table III CPX				
A (Bradley)	Crew Table IV Basic	Crew Table V Practice	Crew Table V Practice	Crew Table V Practice	Crew Table VI Qual	Crew Table VI Qual	Crew Table VI Qual	SEC / PLT Table III STX	SEC/PLT Table VI Platoon LFX	CO Table III STX	CO Table III STX								
B (Abrams)	Crew Table IV Basic	Crew Table V Practice	Crew Table V Practice	Crew Table V Practice	Crew Table VI Qual	Crew Table VI Qual	Crew Table VI Qual	SEC / PLT Table III STX		SEC / PLT Table III STX	SEC / PLT Table III STX		SEC/PLT Table VI Platoon LFX	CO Table III STX	CO Table III STX				
C (Abrams)	Crew Table IV Basic	Crew Table IV Basic	Crew Table V Practice	Crew Table V Practice	Crew Table V Practice	Crew Table VI Qual	Crew Table VI Qual	Crew Table VI Qual	SEC / PLT Table III STX		SEC/PLT Table VI Platoon LFX	CO Table III STX							
MTR	Crew Table IV Basic	Crew Table V Practice	Crew Table V Practice	Crew Table V Practice	Crew Table VI Qual	Crew Table VI Qual	Crew Table VI Qual	MTR Table IV FTX	MTR Table IV FTX	MTR Table IV FTX	MTR Table V Practice	MTR Table V Practice	MTR Table V Practice	MTR Table VI Qual	MTR Table VI Qual	MTR Table VI Qual			
SCT	Crew Table IV Basic	Crew Table V Practice	Crew Table V Practice	Crew Table V Practice	Crew Table VI Qual	Crew Table VI Qual	Crew Table VI Qual												
SCT SQD																			
A Dismount																			
	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
				Crew,	Squad, an	a FDC								Section a	nd Platoon				

											Com	pany and	Multi-echel	on										
	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
1st AR CAB Staff					BN DEPEX	BN DEPEX	BN DEPEX	BN DEPEX	BN Table IV FTX		BN Table V FCX	BN Table V FCX	BN Table V FCX	BN Table V FCX										
A (Bradley)	CO Table III STX	CO Table III STX	CO Table IV FTX	CO Table IV FTX	CO Table IV FTX	CO Table IV FTX	CO Table IV FTX												CO Table V FCX	CO Table VI CALFEX	CO Table VI CALFEX			
B (Abrams)	CO Table III STX	CO Table III STX	CO Table IV FTX	CO Table IV FTX	CO Table IV FTX	CO Table IV FTX	CO Table IV FTX												CO Table V FCX		CO Table VI CALFEX	CO Table VI CALFEX		
C (Abrams)	CO Table III STX	CO Table III STX	CO Table III STX	CO Table IV FTX											CO Table V FCX				CO Table VI CALFEX					
MTR																								
SCT																								
SCT SQD	·													·	·	·	·							
A Dismount																								
	41	42	43	44	45	46	47	48	49	50	51	52 pany and l	53	54	55	56	57	58	59	60	61	62	63	64

E-2. Example Infantry Combined Arms Battalion Gunline

			Pre	requisite	Training -	- Complete	ed T-6 thro	ugh T (30 t	raining day	s total), wi	th Comma	ınder Flexil	oility		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1st IN CAB Staff	BN Table I TEWT	BN Table I TEWT	BN Table I TEWT										BN Table II STAFFEX	BN Table II STAFFEX	BN Table II STAFFEX
A (Bradley)	CO Table I TEWT	SEC/PLT Table I SOP		(Crew Table I GST (5 days)		SEC/PLT Table II STX-V	SEC/PLT Table II STX-V	Crew Table II STX-V	Crew Table II STX-V	Crew Table II STX-V	Crew Table II STX-V	Crew Table II STX-V	CO Table II STX-V
B (Bradley)	CO Table I TEWT	SEC/PLT Table I SOP		(Crew Table I GST (5 days)		Crew Table II STX-V	Crew Table II STX-V	SEC/PLT Table II STX-V	SEC/PLT Table II STX-V	Crew Table II STX-V	Crew Table II STX-V	Crew Table II STX-V	
C (Abrams)	CO Table I TEWT	SEC/PLT Table I SOP		(Crew Table I GST (5 days)		Crew Table II STX-V	Crew Table II STX-V	Crew Table II STX-V	Crew Table II STX-V	Crew Table II STX-V	SEC/PLT Table II STX-V	SEC/PLT Table II STX-V	CO Table II STX-V
MTR					Crew ounted Mad GST (5 days			Tal	TR ble I NR Exam	MTR Table II CfFT	MTR Table II CfFT	MTR Table III STX	MTR Table III STX	Crew Table III STX	Crew Table III STX
SCT		SEC/PLT Table I SOP		(Crew Table I GST (5 days)		SEC/PLT Table II STX-V	SEC/PLT Table II STX-V	Crew Table II STX-V	Crew Table II STX-V	Crew Table II STX-V	Crew Table II STX-V	Crew Table II STX-V	CO Table II STX-V
SCT SQD		SEC/PLT Table I SOP	Squad Table II STX-V	Squad Table III STX	Squad Table III STX	Squad Table III STX	SEC/PLT Table II STX-V	SEC/PLT Table II STX-V							
A Dismount		SEC/PLT Table I SOP	Squad Table II STX-V		Squad Table III STX	Squad Table III STX	Squad Table III STX	SEC/PLT Table II STX-V	SEC/PLT Table II STX-V						
B Dismount		SEC/PLT Table I SOP	Squad Table II STX-V			Squad Table III STX	Squad Table III STX	Squad Table III STX	SEC/PLT Table II STX-V	SEC/PLT Table II STX-V					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
			Pre	requisite	Training	- Complete	ed T-6 thro	ugh T (30 t	raining day	s total), wi	th Comma	ınder Flexil	oility		

			Pre	erequisite	Training	- Complete	ed T-6 thro	ugh T (30 t	raining day	/s total), wi	th Comma	ınder Flexik	oility		
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
1st IN CAB Staff	BN Table II STAFFEX	BN Table II STAFFEX	BN Table II STAFFEX	BN Table II STAFFEX											
A (Bradley)	CO Table II STX-V	Crew Table III STX	Crew Table III STX		Crew Table IV Basic	Crew Table IV Basic	Crew Table IV Basic	Crew Table V Practice	Crew Table V Practice	Crew Table V Practice	Crew Table VI Qual	Crew Table VI Qual	Crew Table VI Qual	SEC / PLT Table III STX	SEC / PLT Table III STX
B (Bradley)	CO Table II STX-V	CO Table II STX-V	Crew Table III STX	Crew Table III STX		Crew Table IV Basic	Crew Table IV Basic	Crew Table IV Basic	Crew Table V Practice	Crew Table V Practice	Crew Table V Practice	Crew Table VI Qual	Crew Table VI Qual	Crew Table VI Qual	SEC / PLT Table III STX
C (Abrams)	CO Table II STX-V	Crew Table III STX	Crew Table III STX		Crew Table IV Basic	Crew Table IV Basic	Crew Table IV Basic	Crew Table V Practice	Crew Table V Practice	Crew Table V Practice	Crew Table VI Qual	Crew Table VI Qual	Crew Table VI Qual	SEC / PLT Table III STX	SEC / PLT Table III STX
MTR					Crew Table IV Basic	Crew Table IV Basic	Crew Table IV Basic	Crew Table V Practice	Crew Table V Practice	Crew Table V Practice	Crew Table VI Qual	Crew Table VI Qual	Crew Table VI Qual	MTR Table IV FTX	MTR Table IV FTX
SCT	CO Table II STX-V	Crew Table III STX	Crew Table III STX		Crew Table IV Basic	Crew Table IV Basic	Crew Table IV Basic	Crew Table V Practice	Crew Table V Practice	Crew Table V Practice	Crew Table VI Qual	Crew Table VI Qual	Crew Table VI Qual		
SCT SQD					Squad Table VI LFX	Squad Table VI LFX									
A Dismount					Squad Table VI LFX	Squad Table VI LFX									
B Dismount						Squad Table VI LFX	Squad Table VI LFX								
1	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

			Crew,	Squad, an	d FDC						Section a	nd Platoon			
	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
1st IN CAB Staff				BN Table III CPX	BN Table III CPX	BN Table III CPX									BN DEPEX
A (Bradley)	SEC / PLT Table III STX	SEC / PLT Table III STX	SEC / PLT Table III STX	SEC/PLT Table VI Platoon LFX	CO Table III STX	CO Table III STX	CO Table III STX	CO Table III STX	CO Table IV FTX	CO Table IV FTX	CO Table IV FTX				
B (Bradley)	SEC / PLT Table III STX	SEC/PLT Table VI Platoon LFX	CO Table III STX	CO Table III STX	CO Table III STX	CO Table III STX	CO Table IV FTX	CO Table IV FTX							
C (Abrams)	SEC / PLT Table III STX	SEC / PLT Table III STX	SEC / PLT Table III STX	SEC/PLT Table VI Platoon LFX	CO Table III STX	CO Table III STX	CO Table III STX	CO Table III STX	CO Table IV FTX	CO Table IV FTX	CO Table IV FTX				
MTR	MTR Table IV FTX	MTR Table V Practice	MTR Table V Practice	MTR Table V Practice	MTR Table VI Qual	MTR Table VI Qual	MTR Table VI Qual								
SCT															
SCT SQD															
A Dismount															
B Dismount															
	31	32	33 Crew.	34 Squad, an	35 d FDC	36	37	38	39	40	41 Section a	42 nd Platoon	43	44	45

								Con	npany and	Multi-eche	lon							
	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63
1st IN CAB Staff	BN DEPEX	BN DEPEX	BN DEPEX	BN Table IV FTX		BN Table V FCX	BN Table V FCX	BN Table V FCX	BN Table V FCX									
A (Bradley)	CO Table IV FTX	CO Table IV FTX												CO Table V FCX	CO Table VI CALFEX	CO Table VI CALFEX		
B (Bradley)	CO Table IV FTX	CO Table IV FTX	CO Table IV FTX											CO Table V FCX		CO Table VI CALFEX	CO Table VI CALFEX	
C (Abrams)	CO Table IV FTX	CO Table IV FTX												CO Table V FCX			CO Table VI CALFEX	
MTR																		
SCT																		
SCT SQD																		
A Dismount																		
B Dismount																		
	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63
								Con	npany and	wulti-eche	ion							

E-3. Example ABCT Cavalry Squadron Gun line

						Prerequisi	to Trainin	a Complet	ed T 6 thro	ugh T (30 tr	aining days	total) with	Command	ler Elevihilit	v					
	1	2	3	4	5 6		te i rainin	g - Complet	10 1-6 thro	11 11	12	13	14	15	y 16	17	18	19	20	21
1st CAV SQDN Staff	SQDN Table I TEWT	SQDN Table I TEWT	SQDN Table I TEWT												SQDN Table II STAFFEX	SQDN Table II STAFFEX	SQDN Table II STAFFE		<	
A (Bradley)	TRP Table I TEWT	SEC/PLT Table I SOP	Crew Table I GST (5 days)						Crew Table II STX-V	Crew Table II STX-V	Crew Table II STX-V	Crew Table II STX-V	Crew Table II STX-V	TRP Table II STX-V	TRP Table II STX-V		Crew Table II STX	Crew Table III STX	Crew Table IV Basic	Crew Table IV Basic
B (Bradley)	TRP Table I TEWT	SEC/PLT Table I SOP		Ta	rew ble I 5 days)		Crew Table I STX-V		SEC/PLT Table II STX-V	SEC/PLT Table II STX-V	Crew Table II STX-V	Crew Table II STX-V	Crew Table II STX-V	TRP Table II STX-V	TRP Table II STX-V			Crew Table III STX	Crew Table III STX	Crew Table IV Basic
C (Bradley)	TRP Table I TEWT	SEC/PLT Table I SOP		Ta	rew ble I 5 days)		Crew Table I STX-V	Crew Table II STX-V	Crew Table II STX-V	Crew Table II STX-V	SEC/PLT Table II STX-V	SEC/PLT Table II STX-V	Crew Table II STX-V		TRP Table II STX-V	TRP Table II STX-V			Crew Table III STX	Crew Table III STX
D (Abrams)	TRP Table I TEWT	SEC/PLT Table I SOP		Ta	rew ble I 5 days)		Crew Table I STX-V		Crew Table II STX-V	Crew Table II STX-V	SEC/PLT Table II STX-V	SEC/PLT Table II STX-V	Crew Table II STX-V		TRP Table II STX-V	TRP Table II STX-V	Crew Table II STX	Crew Table III	Crew Table IV Basic	Crew Table IV Basic
MTR			т	able I (Mounte	rew ed Machine (5 days)	Gun)	Т	MTR able I GNR Exam	MTR Table II CfFT	MTR Table II CfFT	MTR Table III STX	MTR Table III STX	Crew Table II STX-V	Crew Table II STX-V	Crew Table II STX-V		Crew Table II STX	Crew Table III	Crew Table IV Basic	Crew Table IV Basic
A (MMG)		SEC/PLT Table I SOP	Table I				SEC/PLTable I		Crew Table II STX-V	Crew Table II STX-V	Crew Table II STX-V	Crew Table II STX-V	Crew Table II STX-V				Crew Table II STX	Crew Table III	Crew Table IV Basic	Crew Table IV Basic
B (MMG)		SEC/PLT Table I SOP	Crew Table I GST (5 days)				Crew Table I STX-V	Crew Table II STX-V	SEC/PLT Table II STX-V	SEC/PLT Table II STX-V	Crew Table II STX-V	Crew Table II STX-V	Crew Table II STX-V					Crew Table III	Crew Table III STX	Crew Table IV Basic
C (MMG)		SEC/PLT Table I SOP	Crew Table I GST (5 days)					Crew Table II STX-V	Crew Table II STX-V	Crew Table II STX-V	SEC/PLT Table II STX-V	SEC/PLT Table II STX-V	Crew Table II STX-V						Crew Table III STX	Crew Table III STX
	1	2	3	4	5 6		8	9 Complet	10	11	12	13	14 Commond	15	16	17	18	19	20	21
					C '	Prerequisi	ce irainin	g - Complet	ed 1-0 trif0	agii i (30 tr	aning days	iotaij, with	Command			4				
	22	23	24	Crew,	Squad, an	d FDC 27	28	29	30	31	32	33	34	Sectio 35	n and Pla		37	38	39	40
1st CAV SQDN Staff													SQDN Table I CPX	II Table	III Tabl	e III				
A (Bradley)	Crew Table I Basic				Crew Table VI Qual	Crew Table VI Qual	Crew Table VI Qual	SEC / PLT Table III STX			/I Table	VI Table	e VI Ta		SEC/PLT Table VI Platoon LFX	TRP Table III STX	TRP Table III STX			
B (Bradley)	Crew Table I Basic				Crew Table V Practice	Crew Table VI Qual	Crew Table VI Qual	Crew Table VI Qual	SEC / PLT Table III STX	SEC / PLT Table III STX	SEC / PLT Table III STX	SEC / PL Table II STX			VI Table	e VI Ta		SEC/PLT Table VI Platoon LFX	SEC/PLT Table VI Platoon LFX	TRP Table III STX
C (Bradley)	Crew Table I Basic			Crew Table V Practice	Crew Table V Practice	Crew Table V Practice	Crew Table VI Qual	Crew Table VI Qual	Crew Table VI Qual	SEC / PLT Table III STX	SEC / PLT Table III STX			-	III Table	e VI Ta		SEC/PLT Table VI Platoon LFX	SEC/PLT Table VI Platoon LFX	SEC/PLT Table VI Platoon LFX
D (Abrams)	Crew Table I Basic				Crew Table VI Qual	Crew Table VI Qual	Crew Table VI Qual	SEC / PLT Table III STX	T SEC / PL Table III STX		/I Table	VI Table	e VI Ta		SEC/PLT Table VI Platoon LFX	TRP Table III STX	TRP Table III STX			
MTR	Crew Table I Basic				Crew Table VI Qual	Crew Table VI Qual	Crew Table VI Qual	MTR Table IV FTX	MTR Table IV FTX	MTR Table IV FTX	MTR Table V Practice	MTR Table V Practice			VI Table	e VI 🛮 Ta	MTR ble VI Qual			
A (MMG)	Crew Table I Basic				Crew Table VI Qual	Crew Table VI Qual	Crew Table VI Qual													
B (MMG)	Crew Table I Basic				Crew Table V Practice	Crew Table VI Qual	Crew Table VI Qual	Crew Table VI Qual												
C (MMG)	Crew Table I Basic			Crew Table V Practice	Crew Table V Practice	Crew Table V Practice	Crew Table VI Qual	Crew Table VI Qual	Crew Table VI Qual											
	22	23	24	25 Crew,	26 Squad, an	27 d FDC	28	29	30	31	32	33	34	35 Sectio	30 n and Pla		37	38	39	40
	Crew, Squad, and FDC																			

											Com	pany and I	Multi-echel	on										
	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
1st CAV SQDN Staff						SQDN DEPEX	SQDN DEPEX	SQDN DEPEX	SQDN DEPEX	SQDN Table IV FTX		SQDN Table V FCX	SQDN Table V FCX	SQDN Table V FCX	SQDN Table V FCX									
A (Bradley)	TRP Table III STX	TRP Table III STX	TRP Table IV FTX	TRP Table IV FTX	TRP Table IV FTX	TRP Table IV FTX	TRP Table IV FTX													TRP Table V FCX	TRP Table VI CALFEX	TRP Table VI CALFEX		
B (Bradley)	TRP Table III STX	TRP Table III STX	TRP Table III STX	TRP Table IV FTX	TRP Table IV FTX	TRP Table IV FTX	TRP Table IV FTX	TRP Table IV FTX												TRP Table V FCX			TRP Table VI CALFEX	
C (Bradley)	TRP Table III STX	TRP Table III STX	TRP Table III STX	TRP Table III STX	TRP Table IV FTX											TRP Table V FCX			TRP Table VI CALFEX	TRP Table VI CALFEX				
D (Abrams)	TRP Table III STX	TRP Table III STX	TRP Table IV FTX	TRP Table IV FTX	TRP Table IV FTX	TRP Table IV FTX	TRP Table IV FTX													TRP Table V FCX	TRP Table VI CALFEX	TRP Table VI CALFEX		
MTR																								
A (MMG)																								
В (ММС)																								
С (ММС)																								
	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
											Com	pany and I	Multi-echel	on										

