

U.S. ARMY SERGEANTS MAJOR ACADEMY (BSNCOC)

W110

JUN 99

COMBAT SUPPORT OPERATIONS

PRERESIDENT TRAINING SUPPORT PACKAGE

WAR FIGHTERS



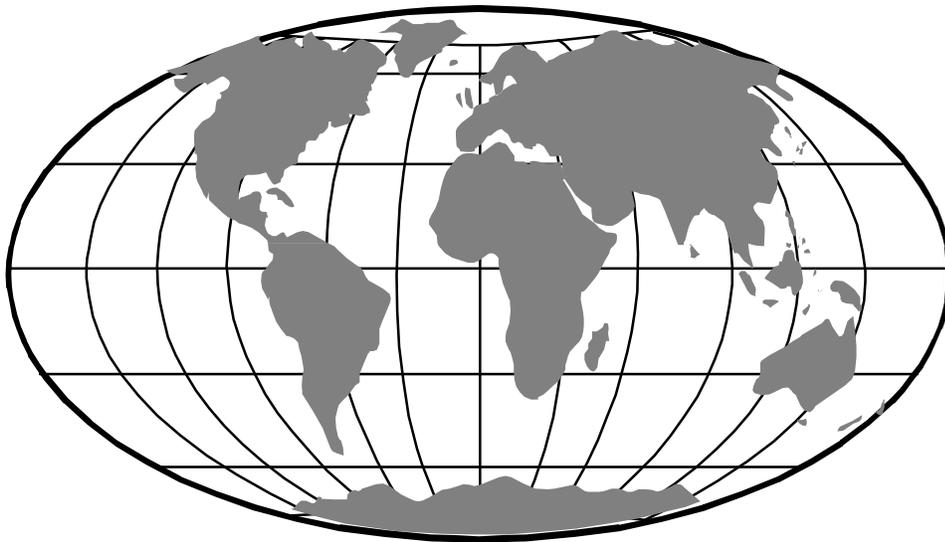
Sergeant Major



Master Sergeant



Sergeant First Class



Staff Sergeant

OF THE 21ST CENTURY

PRERESIDENT TRAINING SUPPORT PACKAGE

TSP Number/ Title	W110 Combat Support Operations
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Effective Date	JUN 1999
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Supersedes TSPs	This supersedes Preresident Training Support Package W110, May 96 and Training Support Package W110, Oct 95, Training Support Package W110, Dec 98.
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**This TSP
Contains**

The following table lists the material included in this TSP.

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	C. Student Handouts	Not Used

**Gender
Disclaimer**

Unless this publication states otherwise, masculine nouns and pronouns do not refer exclusively to men.

SECTION I ADMINISTRATIVE DATA**Task(s)
Trained**

This lesson trains the tasks listed in the following table(s):

Task Number:	None.
Task Title:	Assist in the planning of the employment of combat support assets.
Conditions:	While serving as a Battle Staff NCO in a battalion/brigade Tactical Operation Center.
Standard:	In accordance with FM 71-2 w/Change 1, FM 71-3, and FM 71-123.

**Task(s)
Reinforced**

This lesson reinforces the task(s) listed in the following table:

Task Number	Task Title
031-503-3008	Implement Mission-Oriented Protective Posture
031-507-3003	Supervise Hasty Decontamination
031-510-4000	Plan NBC Operations.
071-900-0001	Prepare an Operations Plan
441-091-3001	Direct Unit Air Defense

Prerequisite Lesson None.

Clearance and Access There is no security clearance or access requirement for this lesson.

Copyright Statement No copyright material reproduced for use in this lesson.

References The following table lists the reference for this lesson. You will receive these references in Phase II.

Number	Title	Date	Paragraph No.	Additional Information
FM 71-2 w/Change 1	The Tank and Mechanized Infantry Battalion Task Force	Sep 88 C 1, Aug 94	NA	NA
FM 71-3	Armored and Mechanized Infantry Brigade	Sep 96	NA	NA
FM 71-123	Tactics and Techniques for Combined Arms Heavy Forces: Armored Brigade, Battalion/Task Force, and Company/Team	Sept 92	NA	NA

Equipment Required None.

Materials Required Pencil and writing paper.

Safety Requirements None.

Risk Assessment level Low.

Environmental Considerations None.

Lesson Approval The following individuals have reviewed and approved this lesson for publication, and incorporation into the Battle Staff NCO Course.

Name/Signature	Rank	Title	Date Signed
Herbert T. Haskett	CIV	Training Developer, BSNCOC	20 October 1999
William D. Adams	SGM	Chief Instructor, BSNCOC	20 October 1999
Alan R. Tucker	SGM	Course Chief, BSNCOC	20 October 1999

SECTION II INTRODUCTION

Terminal Learning Objective

At the completion of this lesson, you will-

Action:	Assist in the planning of the employment of combat support assets.
Conditions:	In a self-study environment using the material presented in this lesson.
Standard:	In accordance with FM 71-2 w/Change 1, FM 71-3, FM 71-123, and the material provided in this Preresident Training Support Package.

Evaluation

Prior to being enrolled into Phase II of the Battle Staff Course you must take a Phase I Exam that includes questions on material from this lesson. You must correctly answer 70% of the multiple choice questions to receive a "GO" on the Phase I exam. A "GO" is required for enrollment into Phase II.

Instructional Lead-in

This lesson familiarizes you with the Combat Support Operations and prepares you for duties as a staff NCO at a battalion/task force or brigade level.

During W121- the Division, you will identify the major subordinate elements that make each of the Army's divisions. You need to pay particular attention to those elements that provide direct support to each unit.

These are examples of combat support units; the engineer brigade, the field artillery brigade (commonly called DIVARTY), air defense artillery battalion, the military intelligence battalion, the signal battalion, the chemical company, and military police company

The ability of any military unit to accomplish a mission depends a great deal on the unit's capabilities to use its equipment for its intended purpose.

SECTION III PRESENTATION

ELO 1

Action	Define the mission of fire support.
Conditions:	In a self-study environment using the material presented in this lesson.
Standard:	In accordance with, FM 71-2 w/ Change 1, FM 71-3, FM 71-123, and the material provided in this Preresident Training Support Package.

**Learning Step/
Activity (LS/A)
1, ELO 1,
Introduction to
Fire Support (FS)**

Fire support is the collective and coordinated use of indirect-fire weapons, armed aircraft, naval gunfire, and other lethal and nonlethal means in support of a battle plan. Lethal FS includes:

- Mortars.
- Field artillery.
- Naval gunfire.
- Air-delivered weapons.

Nonlethal means available to FS are:

- Electronic warfare (EW) capabilities of military intelligence (MI).
- Illumination.
- Smoke.

The force commander employs these means to support the scheme of maneuver, to mass firepower, and to delay, disrupt, or destroy enemy forces in depth. FS planning and coordination exist at all echelons of maneuver. FS destroys, neutralizes, and suppresses enemy weapons, enemy formations or facilities, and fires from the enemy rear area.

**Fire Support: An
Enhancement to
Combat Power**

FS enhances the maneuver commander's combat power through the following actions:

- Destroying, suppressing, and neutralizing enemy targets.
- Obscuring the vision of enemy forces.
- Isolating enemy formations and positions.
- Slowing and canalizing enemy movement.
- Killing or disabling the enemy at ranges greater than those of direct-fire weapons.

LS/A 1, ELO 1,
Fire Support: An
Enhancement to
Combat Power,
continued

- Screening with smoke or isolating areas with scatterable mines.
 - Reducing the effect of enemy artillery by active counterfire.
 - Interdicting following or follow-on enemy echelons.
-

FS in Support
of Heavy
Forces

The FS system supporting the heavy force is the collective body that includes the following components:

- Target acquisition and battlefield surveillance.
 - Attack systems (lethal and nonlethal) and munitions.
 - Command and control (C2) and coordination systems and facilities.
 - Technical support (meteorological and survey).
 - Personnel required to manage FS.
-

FS Assets

FS assets normally available at brigade level and below are:

- Field artillery.
- Mortars.
- Tactical air (TACAIR) support.
- Communications jammers.
- Naval gunfire.

Air defense artillery (ADA) and engineer assets may also become important components of the FS system.

Field Artillery
Mission

The mission of the field artillery is to destroy, neutralize, or suppress the enemy by cannon, rocket, and missile fire, and to help integrate all FS into combined arms operations. Normally, one field artillery battalion is in direct support (DS) of a maneuver brigade.

NOTE: Lesson W109 , Combat Fire Support identifies fire support in detail.

LS/A 2, ELO 1,
Mortars

Mortars are the only organic indirect fire support (FS) assets in the maneuver arms arsenal. Mortars provide responsive high-angle fires that can:

- Kill the enemy.
- Suppress enemy fires.
- Conceal the movement of friendly forces.

Therefore, it is extremely important to include mortar fires in the FS plan. The limit of the fire support officer's (FSO) doctrinal responsibility is recommending the integration of mortars into the FS plan. The FSO has to concern himself with the high rate of fire and ammunition availability.

**Characteristics
and Capabilities
of Mortar
Platoon**

The maneuver battalion mortar platoon consists of six 107-mm (4.2-inch) mortars (two sections with three mortars each). The mortars are track-mounted and are accompanied by 88 rounds of ammunition. When planning mortar fires, the FSO must consider the high rate of rate of fire and ammunition availability. A mortar platoon can fire over 300 rounds in less than 5 minutes.

**Support and
Command
Relationships**

Support and command relationships are means by which the commander can designate priorities for mortar fires or establish command relationships. Because mortars are organic to the battalion, the assignment of such missions is not necessary. However, the commander must be able to clearly establish priorities and command relationships.

The commander may specify support by assigning priority of fires and/or priority of targets to a subordinate unit. There are situations when the mortar platoon cannot support all of the battalion while remaining under battalion control. This may occur when a separation occurs between a maneuver unit and its parent unit. In those situations, a platoon or section can become OPCON or attached to the supported unit.

**Operational
Control**

Operational control (OPCON) gives a commander the authority to direct forces provided him to accomplish specific missions, usually limited by function, time, or location. The commander controls the tactical employment, movement, and mission of the mortars. The commander is not responsible for logistical or administrative support.

LS/A 2, ELO 1, Attachment Temporary attachment gives the commander receiving the attachment the same degree of command and control (C2) as he has over units organic to his command. The commander selects the general location of the attached mortar element and controls its deployment as well as its fires. The commander is also responsible for providing logistical support and security of the mortars for attachments. Attachment is appropriate when the units have independent missions.

Planning and Employment of Mortar Support, Employment Options The commander has three options when considering how to employ the battalion mortar platoon:

- Platoon with all six mortars.
- Two sections of three mortar each.
- Three sections of two mortar each.

FSOs advise the command based on METT-T and the priority of fires. The FSO must be prepared to advise the commander on which option to use.

Employment Considerations When employing mortars, the FSO must consider the following:

- Mortars are most effective against soft-skinned targets.
- Their high-angle trajectory makes mortars effective against targets that are masked or in defilade.
- Enemy radars can easily detect high-angle fires.
- Strong winds will adversely effect high-angle fires.
- The units seldom survey mortar positions, creating the need for more adjustments and a loss of surprise when attacking targets. (To overcome this problem the units can request for field artillery survey support).
- Mortars are effective in military operations on urbanized terrain (MOUT).
- In the offense, one-half to two-thirds of the maximum range should be in front of lead elements.
- In the defense, one-third to one-half of the maximum range should be in front of the lead elements.
- Units should select positions to minimize the number of moves required.
- The mortars must be able to displace rapidly and provide continuous support.

LS/A 2, ELO 1, Mortar Platoon Employment	<p>The platoon operates from one or two firing positions and fires as one unit. A platoon located in a single area enhances C2 and local security but is more vulnerable to enemy counterfire.</p> <p>For this reason, it is advisable to disperse the mortar sections at least 300 meters apart. This distance varies with the terrain, the ability to cover the sector, and limits in C2. Fire direction centers (FDCs) train to mass fires from separate locations onto a single target.</p>
Mortar Section Employment	<p>Deploying as sections (separate firing units) allows the mortar platoon to cover wider frontages. The position of each section determines its capability to provide fires within the zone of action of the supported maneuver element. When employed by section, each section has an FDC or a computer. Depending on the range to target and separation of sections, more than one section may be able to mass fires on the same target.</p>
Mortar Squad Employment	<p>This method places one or more mortar squads on the battlefield as separate firing units. This is usually done to support special requirements, such as:</p> <ul style="list-style-type: none"> • One-mortar illumination missions. • Roving mortar adjustments. • Antiarmor ambushes. • Operations to support a very wide front. • The maneuver element being required to cover a large front. • Rear combat operations to support critical installations.
LS/A 2, ELO 1, Displacement	<p>It is essential that mortars displace rapidly and maintain their flexibility to provide continuous fire support. Based on the scheme of maneuver, the mortar platoon leader develops a displacement plan. This is a map overlay which designates the following features:</p> <ul style="list-style-type: none"> • Initial positions. • Subsequent positions. • Routes between the positions. • Control measures in effect.
LS/A 3, ELO 1, Lesson Exercise 1	<p>Click here to go to Lesson Exercise 1.</p>

ELO 2

Action	Identify air defense support operation.
Conditions:	In a self-study environment using the material presented in this lesson.
Standard:	In accordance with, FM 71-2 w/Change 1, FM 71-3, FM 71-123, and the material provided in this Preresident Training Support Package.

**Learning Step/
Activity (LS/A)
1, ELO 2,**

Introduction to Air
Defense Combat
Support
Organization

The air defense combat support for a brigade uses a combination of Bradley Stinger fighting vehicles (BSFVs), Avengers, and HMMWV-mounted Stinger crews.

The brigade's mission and the commander's air defense priorities will dictate the type of weapon mix. The air defense sensors and the division early warning net provide early warning.

Allocation of
ADA Assets

Allocation of ADA assets within the brigade depends on the unit's mission. Based on the brigade commander's intent, scheme of maneuver, air preparation of the battlefield (IPB), and air defense priorities, the ADA commander may recommend retaining all assets under brigade control or allocating assets to subordinate units.

Organization of
an Air Defense
Battalion

The air defense battalion organic to an armored division consists of :

- Headquarters.
- Headquarters and Headquarters Battery (HHB).
- Three BSFV batteries.
- One Avenger battery.

Total equipment in the battalion consists of:

- 24 BSFVs.
- 6 BFVs.
- 40 HMMWV-mounted MANPAD teams.
- 24 Avenger fire units.
- 6 ground-based sensors.

LS/A 1, ELO 2, Organization of an Air Defense Battery	<p>A BSFV battery's organic equipment is:</p> <ul style="list-style-type: none"> • Two BFVs. • 8 BSFVs. • 10 HMMWV-mounted Stinger crews.
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Avenger Battery	An Avenger battery consists of 6 platoons of 4 fire units for a total of 24 fire units.
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Division ADA Battalion, Organizations and Responsibilities	<p>ADA battalions organic to divisions have five organic batteries comprised of:</p> <ul style="list-style-type: none"> • 24 Avenger Systems. • 72 Stingers missiles. • Eight forward area alerting radars (FAARS).
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Avenger	<p>The Avenger platoon is organic to divisional ADA battalions, armored cavalry regiments (ACRs), and nondivisional ADA brigades. The Avenger weapon system is a lightweight, day or night, limited adverse weather fire unit for countering low-altitude aerial threat. The fire unit consists of:</p> <ul style="list-style-type: none"> • Two turret-mounted Stinger missile pods. • A machine-gun. • Forward looking infrared (FLIR). • Laser range finder (LRF). • Identification friend or foe (IFFR) systems. <p>The fully stable, gyrostabilizer turret mounts onto a high mobility multi-purpose wheeled vehicle (HMMWV).</p>
<hr/>	
Stinger	<p>The Stinger is a man-portable, shoulder-fired, IR-homing (heat-seeking) air defense guided missile. The Stinger design allows it to counter high-speed, low-level ground attack aircraft, and transport aircraft.</p> <p>A Stinger section includes:</p> <ul style="list-style-type: none"> • A headquarters element with a section chief and driver, and • Five crews of two soldier each. <p>Each crew has a HMMWV with six Stinger missiles.</p>

LS/A 1, ELO 2, Senior Air Defense Officer	The unit's senior air defense officer performs as a special staff officer during the planning process. Based on the maneuver commander's intent, scheme of maneuver, and air preparation of the battlefield (IPB), the develops air defense priorities. The maneuver commander must then approve these priorities before task organizing air defense assets.
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Brigade Staff Responsibilities	In order to perform his duties for the maneuver commander, the senior ADA officer requires a myriad of information from the brigade staff, specifically, the S-2, S-3, and S-4.
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S-2 Responsibilities	The S-2 provides information on the ground and air threats, and the unit's priority intelligence requirement (PIR).
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S-3 Responsibility	<p>The S-3 provides the unit operation order or operation plan and tactical standing operating procedure (TSOP). This TSOP includes:</p> <ul style="list-style-type: none"> • Overlays. • Preplanned locations. • Commander's intent, concept of operation, and follow-on operations. • Assets which are most critical, most vulnerable, and easiest to recover and replace. • Special or modified brevity or operations codes, key words, or emergency procedures. • Points the supported unit commander wants covered in daily briefings. • Signal operation instructions (SOI). • Resupply. • Supported unit's mission-oriented protection posture (MOPP). • Dissemination of changes.

LS/A 1, ELO 2, S-4 Responsibility	<p>The S-4 provides the following resupply information:</p> <ul style="list-style-type: none"> • Class I pickup points, times, and feeding cycles. • Class II resupply of nuclear, biological, chemical (NBC) suits, gear, and batteries. • Class III refueling locations and times. • Class V arrangements for supply of specialized ammunition. • Class IX procedures for ordering and receiving parts, and locations and times for pickup. <p>The S-4 also determines how to handle resupply for air defense units, as well as the names and locations of the support units that will maintain the ADA unit's nonsystem-peculiar equipment.</p>
Roles of the ADA Commander	<p>The ADA commander has two roles:</p> <ul style="list-style-type: none"> • Commander of ADA forces. • Brigade air defense coordinator.
ADA Commander Responsibilities	<p>The ADA commander (with the assistance of his staff) performs the following responsibilities:</p> <ul style="list-style-type: none"> • The commander recommends active, passive, and other combined arms air defense measures in the air defense estimate. • After approval and staff coordination, develops the air defense annex to the maneuver plan. • The commander coordinates with ADA elements at higher and lower echelons and with adjacent units. • Recommends to the ground commander use of other combat arms or air defense based on careful target value analysis and estimate of the air threat. • Serves as the early warning link to brigade and can thus monitor the early warning net and relay information to the brigade main command post (CP). This information is in turn passed to maneuver forces over the command or operations and intelligence (O&I) net.

LS/A 1, ELO 2, ADA Fire Coordination Team	<p>Each maneuver brigade has an air defense fire coordination team consisting of a staff sergeant, sergeant, and a driver in a HMMWV. The responsibilities of this team are as follows:</p> <ul style="list-style-type: none"> • Provide the staff with planning input for air defense employment and tactics. • Provide advice concerning passive air defense measures. • Provide guidance on use of all arms for air defense (AAFAD). • Provide ADA unit dispositions and missions, changes in established rules of engagement, and near real-time information on air battle intelligence.
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Weapons Control	<p>Higher headquarters establishes weapons control status. Weapons control status describes the relative degree of control exercised over air defense weapons. Weapons control status falls into three categories. They are:</p> <ul style="list-style-type: none"> • Weapons free. May fire at any aircraft not positively identified as friendly (least restrictive). • Weapons tight. May fire only at aircraft positively identified as hostile. • Weapons hold. Do not fire except in self-defense or in response to a formal order (most restrictive). <p>NOTE: The task force commander has the authority to impose a more strict weapons control status than that dictated by higher headquarters; however, he may not go to a less restrictive status.</p>
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Early Warning	<p>The ADA early warning system is standard throughout and appears in the task force SOP. Standard air defense warnings (alert postures) are:</p> <ul style="list-style-type: none"> • Red. Attack by aircraft or missiles is imminent or in progress. • Yellow. Attack by aircraft or missile is probable. • White. Attack by aircraft or missile is improbable. <p>When ADA elements are in direct support or attached to the TF they assist in early warning since they monitor the division early warning net. The senior air defense officer or NCO enters the TF command net to pass early warning information.</p> <p>To obtain early warning for the taskforce over the brigade command and operations/intelligence nets, the air defense liaison officer at the brigade TOC monitors the division early warning net and relays information and early warning of enemy air activity in the brigade area.</p>
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LS/A 1, ELO 2, The main CP on the task force command net immediately broadcasts early
Early Warning warning to task force subordinate elements.

The first person who observes a hostile aircraft must initiate early warning by passing it over the task force command net to higher and lower headquarters.

LS/A 2, ELO 2, Click here to go to [Lesson Exercise 2](#).
Lesson
Exercise 2

ELO 3

Action	Identify the role of an engineer unit during combat operations.
Conditions:	In a self-study environment using the material presented in this lesson.
Standard:	In accordance with, FM 71-2 w/Change 1, FM 71-3, FM 71-123, and the material provided in this Preresident Training Support Package.

**Learning Step/
Activity (LS/A)
1, ELO 3,**
Introduction to
Engineer Combat
Support
Functions

You will briefly identify engineer combat support missions. Combat engineers are an integral part of the combined arms team. Engineers adapt terrain to enhance the battle effectiveness of fire and maneuver. The orientation of engineers in support of a brigade is forward; they design their efforts to support the forward fights.

The combat engineers provide five primary engineer functions, shown in the following table:

Mission	Explanation
Mobility	Mobility enables the commander to maneuver tactical units into positions of advantage over the enemy.
Countermobility	Countermobility reinforces terrain with obstacles to hinder enemy operations and maximize the effectiveness of direct and indirect fire.
Survivability	Survivability reduces the effectiveness of enemy weapon systems by developing protective positions in favorable locations.

LS/A 1, ELO 3,
Engineer Combat
Support Functions,
continued

The combat engineers provide five primary engineer functions, shown in the following table continued:

Mission	Explanation
General Engineering	General engineering provides the force with the following: <ul style="list-style-type: none"> • Construction., • Line of communications (LOCs) maintenance and repair. • Battle damage restoration. • Minefield clearing to sustain the operations.
Topographic Engineering	Topographic Engineering provides the commander with terrain analysis to aid in the planning and conduct of combat operations.

Task
Organization
of Combat
Engineers

The heavy division has one organic divisional combat engineer brigade. The combat engineer brigade commander will normally commit one engineer battalion to each maneuver brigade for direct support. METT-T analysis will determine the actual level of engineer support that the brigade will receive.

Divisional
Combat
Engineer
Battalion

This unit is organic to the engineer brigade with one engineer battalion per maneuver brigade. The engineer battalion performs engineer battlefield functions support for the maneuver brigade in the heavy division in the following:

- Area of operation (AO).
- Focusing on mobility.
- Countermobility
- Survivability

Each divisional engineer battalion has the following:

- Three combat engineer line companies.
- One headquarters company.
- One support platoon.

LS/A 1, ELO 3, Divisional Combat Engineer Company	The divisional combat engineer company has two engineer platoons and an assault and obstacle platoon. The assault and obstacle has two assault sections and one obstacle section that augment the line platoons.
Corps Combat Engineer Company	The corps combat engineer company has two line platoons and an assault and obstacle platoon. The corps combat engineer company (mechanized) only has six armored combat earthmovers (ACEs), whereas the divisional combat engineer company has seven ACEs.
Separate Brigade/ Armored Cavalry Regiment Engineer Battalion	The separate maneuver brigade has an organic engineer battalion. The separate brigade's engineer battalion organization is the same as the divisional combat engineer battalion.
Direct Support Engineer Battalion Commander Responsibility	<p>The direct support engineer battalion commander is responsible for all engineer planning and coordination for the maneuver brigade. The engineer battalion commander provides an assessment of current and future capabilities of his unit and other mobility/survivability assets supporting the brigade.</p> <p>The brigade engineer positions himself where he can best accomplish the intent of the brigade commander. In addition to supporting the brigade, he is responsible for the following:</p> <ul style="list-style-type: none"> • Training his battalion to accomplish all assigned and implied tasks that support the brigade missions. • Updating and articulating his assessment of the current and future capabilities and status of all mobility/survivability assets. • Approving the mobility/survivability support plan.
Command and Control of Engineer Units	<p>Engineer platoons work most efficiently under the control of an engineer company, and engineer companies work most efficiently under the control of an engineer battalion. This permits close control and the most productive use of all engineer assets. The engineer commander continuously monitors the progress of assigned tasks and shifts elements where the need is greatest throughout his AO.</p> <p>On the other hand, the maneuver commander at the lowest level gets greater responsiveness when the engineer company is under his control. The maneuver commander determines the task organization and gives missions directly to the engineer elements under his control.</p>

LS/A 1, ELO 3,
Command and
Control of
Engineer Units,
 continued

The decision whether to provide engineers in a command or support relationship to a subordinate maneuver headquarters is an important one. The higher maneuver commander must weigh his need for flexibility and his option to task organize engineer forces against the most efficient use of scarce engineer assets.

Command Versus
Support

A good rule of thumb to determine whether engineers should be in a command relationship or support relationship is as follows:

- Engineers should be in a command relationship when supported units are already in contact (or when contact is imminent). Command relationships typically occur during offensive operations or counterattacks.
 - Engineers will typically remain in a support relationship when supported units are not in contact with the enemy (For example, defensive preparation operations).
-

Combat Engineer
Support:
Employment
Principles

The following principles apply when employing combat engineers:

- Task organize the engineer force to the requirements of the mission. Mixing corps and divisional assets and units to accomplish the mission is frequently appropriate.
 - Give priority to the main effort. Avoid piecemealing engineers to provide every unit a "slice." Provide the main effort with enough engineer support to succeed, and distribute the remaining engineers.
 - Integrate engineers with maneuver and fire.
 - Do not hold engineers in reserve.
 - Augment engineers logistically to support the plan. Engineers may need additional time, material, and transportation assets to execute the maneuver plan.
 - Plan to exploit local resources. You may use commercial equipment and materials to support military mobility, countermobility, and survivability operations.
-

Combat Engineers
Fighting as
Infantry

Any commander who controls engineers in a command relationship, unless otherwise prohibited, has the authority to employ them as infantry. In his decision to do so, he must carefully weigh the gain in infantry strength against the loss of engineer support.

Because of the long-term impact, the commander employing an engineer unit as infantry has the responsibility to notify the next higher headquarters of his action.

LS/A 1, ELO 3,
Engineer
Equipment

The following table lists and briefly describes the major equipment systems organic to divisional combat engineer companies in support of maneuver units.

Equipment	Description
D-7, Bulldozer	The D-7 dozer is the primary earthmover for construction of survivability positions and antitank ditches. The engineer's transport their D-7s by tractor-trailer due to its poor mobility.
M9, Armored combat earthmover (ACE)	The ACE is a highly-mobile, armored, amphibious earthmover. It can construct obstacles, such as antitank ditches, and survivability positions. It can also assist in mobility operations by reducing enemy obstacles, such as antitank ditches, and improving natural terrain (preparing ford sites, for example).
M728, Combat engineer vehicle (CEV)	The full-tracked, armored CEV is a basic M60A1 tank with a hydraulically operated debris blade, 165-mm turret-mounted demolition gun, retractable booms, and winch.
Ground employed mine scattering system (GEMSS)	The GEMSS is the ground delivery system for family of scatterable mines (FASCAM) mines. It holds 800 antitank and antipersonnel mines. A truck, an armored personnel carrier (APC), or vehicle track recovery (M548) can tow it.
M58A4, Mine clearing line charge (MICLIC)	The MICLIC is a rocket-projected, explosive line charge providing "close-in" breaching capability of enemy minefields. It is either trailer-mounted or armored-vehicle mounted.
M60, Armored vehicle launch bridge (AVLB)	The AVLB is the heavy force assault bridge. It is capable of carrying maximum load capacity (MLC) 60 track loads across a 17-meter gap and MLC 70 track loads across a 15-meter gap.
M60, Armored vehicle launched MICLIC (AVLM)	This is the armored-vehicle launched version of the M58 A4, mine clearing charge (MICLIC).
Small emplacement excavator (SEE)	The SEE has a backhoe, bucket loader, and other attachments such as a handheld hydraulic rock drill chain saw, and pavement breaker.

LS/A 1, ELO 3,
Brigade
Engineer

The organic engineer battalion provides a brigade engineer to each ground maneuver battalion/brigade. A staff officer with no command responsibilities, this individual integrates combat engineer capabilities into the brigade planning process and coordinates current engineer operations in the brigade area. The brigade/battalion engineer provides early warning of future brigade operations through engineer channels.

The brigade engineer receives required reports from divisional and corps engineer units in the brigade area to keep the brigade staff and the division engineer informed on current engineer operations. He passes brigade tasking to engineer units on behalf of the brigade commander. Separate maneuver brigades and ACRs have a staff engineer organic to the brigade or regiment.

Brigade
Engineer Duties

The brigade engineer works with all members of the battle staff, but he has an especially close working relationship with the S-2, S-3, and FSCOORD to effectively incorporate the terrain component into the close combat triad (fire, maneuver, and terrain). Specific duties of the brigade engineer include:

- Developing the brigade obstacle plan based on the commander's intent.
 - Employing specific mine field belts and critical individual obstacles.
 - Planning artillery-delivered FASCAM obstacles and recommending target areas of interest (TAI) and decision points.
 - Adjusting engineer assets according to brigade priorities.
 - Monitoring all engineer activity in the brigade area.
 - Preparing a survivability plan based on the commander's intent.
-

LS/A 2, ELO 3,
Lesson
Exercise 3

Click here to go to [Lesson Exercise 3](#).

ELO 4

Action	Identify the role of a chemical unit during combat operations.
Conditions:	In a self-study environment using the material presented in this lesson.
Standard:	In accordance with, FM 71-2 w/Change 1, FM 71-3, FM 71-123, and the material provided in this Preresident Training Support Package.

**Learning Step/
Activity (LS/A)
1, ELO 4,**
Introduction to
Brigade/Battalion
Chemical Support

The brigade/battalion chemical section consists of:

- The brigade/battalion chemical officer (captain), and
- A chemical operations NCO (SFC; MOS 54B40).

Equipment in the chemical section includes:

- Appropriate doctrinal manuals.
- Map boards.
- Overlays.
- A work station.
- Hazard templates.
- Status charts.

Forward-
Deployed
Brigades/
Battalions

Organization of forward-deployed brigades/battalions may be somewhat different. However, their duties and functions are similar to those of a divisional brigade.

The brigade/battalion chemical officer also works as an assistant operations officer in the main CP of the brigade/battalion. By modification table of organization and equipment (MTOE), the headquarters company or troop has authorizations for chemical officer and NCO positions.

NBC Field
Operations

The brigade/battalion chemical personnel provide 24-hour NBC operations capability. The commander or the S-3 designates a workstation in the SOP for the main CP where processing and dissemination of chemical information occurs. The chemical officer is available to cover shift changes within the main CP and provide chemical continuity for tactical operations.

The chemical section operates with two distinct, flexible shifts. Upon movement of the main CP, one person can move to the tactical CP to continue the battle or move with the tactical CP in anticipation of a main CP relocation, allowing for one person at each site.

LS/A 1, ELO 4,
Chemical Support
for Tactical
Planning

Chemical personnel are instrumental in the planning cycle of all tactical operations. They provide assistance to the S-2 in the intelligence preparation of the battlefield (IPB) process, develop support for courses of action based on the commander's intent, and integrate chemical and smoke operations based on the operation order.

LS/A, ELO 4, Main Command Post (CP) Duties	<p>Duties and responsibilities of chemical personnel in the brigade/battalion main CP are not all-inclusive and can change to meet changing situations. In addition to specific NBC duties, chemical officers and NCOs perform a myriad of operational duties according to their abilities and unit requirements.</p>
Chemical Officer/NCO Intelligence Functions	<p>In performing intelligence duties, the chemical officer/NCO performs the following functions:</p> <ul style="list-style-type: none"> • Analyzes the NBC threat. • Assists the S-2 with the NBC IPB. • Develops priority intelligence requirement (PIR) and threat information. • Assists subordinate units in threat analysis.
Chemical Officer/NCO Training Functions	<p>In performing training duties, the chemical officer/NCO performs the following functions:</p> <ul style="list-style-type: none"> • Monitors, and evaluates training. • Determines training requirements. • Plans and coordinate training. • Conducts NBC battle focus training. • Evaluates status of training. • Aids in professional development of subordinate chemical personnel. <p>Provide NBC expertise as:</p> <ul style="list-style-type: none"> • Evaluator. • Analyze results and present facts. • Develop solutions to correct deficiencies.
Chemical Readiness	<p>The chemical officer/NCO consolidate and provide data to the command group; assist S-4 with NBC stocks and resupply; monitor contingency stocks.</p>
Logistics for Chemical	<p>Account for NBC expenditures; follow up requisitions and maintenance; balance equipment on hand and requisitions.</p>

LS/A 1, ELO 4,
Administration
for Chemical

In fulfilling his responsibility to conduct NBC battle focus and evaluate the status of training, the chemical officer performs the following functions:

- Writes and updates NBC annex to unit SOP.
- Maintains current publications.
- Remains proficient in current doctrine.
- Maintains liaison with subordinate units and higher headquarters.

Chemical
Officer
Functions
During Field
Operations

During field operations, the chemical officer performs the following functions:

- Executes the NBC warning and reporting system.
- Maintains the current NBC operations overlay.
- Posts the NBC attack overlay.
- With the S-4, develops the contaminated main supply route (MSR) overlay.
- Maintains decontamination overlay and posts NBC unit symbols.
- Conducts the NBC vulnerability analysis.
- Maintains the radiation status charts and recommends MOPP levels and employment of chemical assets.

NBC as a
Planning
Consideration

When planning offensive or defensive operations, the commander must recognize that NBC weapons can significantly affect his scheme of operations. All threat forces train extensively for NBC operations on the battlefield. They carry a complete array of individual and vehicular NBC protective gear.

LS/A 2, ELO 4,
Lesson
Exercise 4

Click here to go to [Lesson Exercise 4](#).

ELO 5

Action	Identify the role of a military intelligence unit during combat operations.
Conditions:	In a self-study environment using the material presented in this lesson.
Standard:	In accordance with, FM 71-2 w/Change 1, FM 71-3, FM 71-123, and the material provided in this Preresident Training Support Package.

<p>Learning Step/ Activity (LS/A) 1, ELO 5, Introduction to Divisional Military Intelligence (MI) Battalion</p>	<p>Electronic warfare (EW) is an essential component in winning the information battle. EW helps the commander seize and maintain the initiative by providing real time knowledge of the enemy's intent, disposition, and readiness. EW defends friendly information systems by degrading or neutralizing the effects of enemy EW activity. EW denies the enemy effective use of his information systems by degrading or destroying his communication and targeting systems.</p>
<p>EW Major Components</p>	<p>The three major components of EW are:</p> <ul style="list-style-type: none"> • EW support. • Electronic attack. • Electronic protection. <p>The MI battalion integrates EW into unit operations regardless of the type of unit, level of war, or the scope of the mission. It complements other destructive systems in the context of overall strategy.</p>
<p>Division Military Intelligence (MI) Battalion</p>	<p>The division Military Intelligence (MI) battalion directly supports the commander and G-2 by providing dedicated multidiscipline battlefield intelligence and EW support to the division and its subordinate maneuver brigades. At this echelon the focus is on the intelligence products and services for the commander to plan, fight, and win battles at the tactical level.</p>
<p>Brigade S-2 Responsibilities</p>	<p>The brigade S-2 is the commander's focal point for intelligence. He assists the brigade commander in identifying intelligence requirements that support the brigade mission. The S-2 also provides information to the commander for making tactical decisions by fully employing brigade intelligence and electronic warfare (IEW) assets as part of the intelligence battlefield operating system (BOS). Through the S-3, the S-2 directs the activity of the direct support (DS) MI company. The direct support MI company provides multidiscipline intelligence support to the brigade commander.</p>
<p>Separate MI Brigade S-2 Responsibilities</p>	<p>The separate brigade S-2's responsibilities are broader than those of the divisional brigade S-2 and more reasonably compare to the responsibilities of the division G-2. Although the unit is smaller and the mission more limited, the separate brigade S-2 performs all functions that the division G-2 performs.</p>

LS/A 1, ELO 5, MI Battalion Commander Responsibilities	<p>The MI battalion commander attempts to establish and main a habitual relationship between the brigade and the direct support company. The direct support company capabilities include the following:</p> <ul style="list-style-type: none"> • Automated multidiscipline intelligence and combat information processing. • Analytical control team (ACT). • Unmanned aerial vehicle (UAV) control. • Interrogation of prisoners of war (IPW) and limited document exploitation. • Counterintelligence support. • Command and control of organic and reinforcing IEW assets. • Joint surveillance target attack radar system (JSTARS) coverage and product dissemination.
Separate MI Company	<p>The separate MI company mission focuses on developing, assessing, and disseminating the combat information and intelligence for the combat commander to accomplish his mission.</p> <p>The separate MI company's structure includes the following:</p> <ul style="list-style-type: none"> • Company headquarters. • Three collecting and jamming (C&J) platoons. • Communication section. • IEW platoon.
Ground Surveillance Radar (GSR) Teams	<p>The MI battalion normally attaches ground surveillance radar (GSR) teams to the maneuver brigade to provide a 24-hour battlefield surveillance capability. The MI battalion employs GSR teams with patrols or at observation posts (OPs) equipped with night observation devices (NODs).</p> <p>Assignment of one or more GSR teams to a task force is the norm in order to meet the task force's surveillance responsibilities. Battalion S-2 teams employ the task force GSR attached to them from brigade. Each team passes on collected combat information to the battalion S-2, who analyzes and disseminates it to the commander, S-3, fire support element (FSE), and subordinate units in the task force.</p>
GSR Equipment	<p>GSR equipment, for either vehicle-mounted or ground-mounted GSR, complements other combat surveillance and target acquisition means in the battalion. GSRs support patrols and observation posts with infrared and other sensory devices.</p>

LS/A 1, ELO 5,
Radar Planning
Considerations

The primary advantage of radar is its ability to detect objects and provide accurate target locations when other surveillance means cannot do so. Use of radar is primarily for operations during limited visibility (darkness, haze, fog, or smoke). Radar can penetrate light camouflage, smoke, haze, light rain, light snow, darkness, and light foliage.

The major drawback to radar is that it functions only by line of sight. Heavy rain or snow restricts radar detection capabilities; however, a well-trained operator can minimize the effects of these weather factors.

Ground surveillance radar is ineffective against air targets unless the air target is flying close to the ground. GSR can only detect moving targets in the presence of a background. This radar is vulnerable to direction finding and jamming by enemy electronic combat and other deception means.

Surveillance
Missions

Commanders can use ground surveillance radar in all types of tactical missions. The two types of surveillance missions employed by radar personnel are:

- Search.
 - Monitor.
-

Radar Section
Capabilities

The radar section is capable of performing a variety of tasks, including:

- Searching avenues of approach, possible enemy attack positions, assembly areas, or other sectors or areas on a time schedule, at random, or continuously to report location, size composition, and nature of enemy activity.
 - Monitoring point targets, such as bridges, defiles, or road junctions; and reporting quantity, type, and direction of movement of targets through the point.
 - Monitoring and searching final protective fire areas for brigade or battalion locations to permit timely firing.
 - Extending the observation capabilities of patrols by enabling them to survey distant points or areas of special interest.
 - Assisting the visual observation of units during daylight by making initial detection of partially obscured (hazy) targets at long ranges.
 - Assisting in the movement control of units during limited visibility operations.
-

LS/A 1, ELO 5,
Radar Section
Capabilities,
continued

- Increasing the effectiveness of fire support. When GSRs detect enemy units with reasonable certainty by radar, the fire support means may immediately take the target under fire. Well-trained radar operators can estimate the density of enemy activity in a given area and the rate of enemy movement, thereby assisting in weapons selection.
 - Determining rate of movement of a target by plotting the location of the target at two known points and the time it takes the target to move from one point to the other.
-

GSR Coverage

In order for radar teams to provide good coverage, they must understand:

- The mission.
- Scheme of maneuver of the supported unit.
- Most likely targets expected in the area of operation.

The S-2 or S-3 must assign these teams a specific sector of surveillance, to the desired degree of overlapping coverage, and frequency of coverage. To prevent detection by enemy direction finding equipment and enemy electronic countermeasures, operators turn on their equipment only when needed.

LS/A 2, ELO 5,
Lesson
Exercise 5

Click here to go to [Lesson Exercise 5](#).

ELO 6

Action	Identify the role of a military police unit during combat operations.
Conditions:	In a self-study environment using the material presented in this lesson.
Standard:	In accordance with, FM 71-2 w/Change 1, FM 71-3, FM 71-123 and the material provided in this Preresident Training Support Package.

**Learning Step/
Activity (LS/A) 1,
ELO 6,**

Introduction to
Military Police
Battlefield
Mission

Military Police (MP) operations play a significant role in assisting the brigade commander to meet the challenges associated with combat. Military police provide support through their four primary missions.

- Battlefield circulation control.
- Security.
- Enemy prisoners of war operations.
- Law and order operations.

Battlefield
Circulation
Control

Military Police (MP) support the maneuver and mobility functions by expediting forward and lateral movement to combat resources. The use of MPs in the battlefield circulation control (BCC) role might include:

- Route reconnaissance and surveillance (R&S) would include continually monitoring the condition of the Main Supply Routes (MSRs); Identifying restricting terrain; effects of weather on routes, damage to routes, NBC contamination, the presence of the enemy; and identifying alternate MSRs. MPs should report all observations, maintain surveillance, and develop the enemy situation.
- MSR regulation enforcement and security. This would include enforcing the command's highway regulation and traffic circulation plans to keep MSRs free for resupply operations. To expedite traffic on MSRs, use the following measures: traffic control points (TCP), roadblocks, checkpoints, holding areas, defiles at critical points, and temporary route signs. MPs should also gather information on friendly and enemy activity by use of mobile teams.
- Refugee and straggler control. Refugee control operations are the responsibility of G-5/S-5 and / or host nation authorities. MPs should assist, direct, or deny the movement of civilians whose location, direction of movement, or actions may hinder operations. In the area of straggler control, MPs performing their BCC mission would return stragglers to military control. Mobile patrols, traffic control points (TCP), and checkpoint teams do this as part of their day-to-day operation, and traffic control.
- Police intelligence collecting and reporting. In carrying out their support of the brigade's maneuver and mobility, MPs collect police intelligence (both tactical and criminal) on a continual basis. While conducting area reconnaissance, MSR regulation enforcement, and security operations, MPs routinely interface with soldiers, local police, and the indigenous population as well as gather information on the terrain, weather, and activities in the brigade area of operations (AO)). The MPs represent a human intelligence (HUMINT) source that the brigade can integrate into their overall intelligence collection plan.

LS/A 1, ELO 6,
Battlefield
Circulation
Control,
continued

-
- Information Dissemination. MPs provide information to soldiers, units, and other road users in the course of all MP missions. MPs inform personnel moving through their AO of recent enemy activity there. They provide directions, give locations of supply points, medical facilities, give information about MSRs, critical points, contaminated areas, and holding areas, as well as the general location of major units.
-

Military Police
Security

Military police assist the commander in addressing security and force protection in the rear by conducting security operations that may include the following:

- Area security. This mission would assist in gaining information to guard against unexpected enemy attacks in the rear area. MPs monitor likely avenues of approach and landing zones or drop zones to give early warning of rear area enemy activity. They provide coverage of named areas of interest within the brigade's rear area. Military police also have the capability to recon routes and bridges and provide detailed overlays.
 - Security of designated critical assets. This might include security of key personnel and facilities. This could be done by operating a mobile screen. This standoff protection detects and defends against the threat before it can move within direct fire range of facilities. MPs may provide protective services to key personnel visiting the brigade area. The MPs accomplish this by using access control measures in the command post, by providing close-in personal security, or by using around the clock static and intransit security measures. The military police may provide convoy security for units transporting critical supplies to tactical forces.
 - Base response force operations. MPs help apprise the commander of enemy activity in the rear. MPs train to defeat threat levels I and II as well as to delay a level III threat and hand over the battle to a tactical combat force.
 - Area damage control. MP units take measures to support area damage control before, during, and after hostile action or natural and man-made disasters. MPs provide support that includes, but is not limited to, BCC, refugee control, straggler control, NBC detecting and reporting, and some local physical security.
 - NBC detecting and reporting. MPs have the capability to detect, monitor, and report the presence of NBC hazards. They do this in the course of performing any of their MP missions.
-

LS/A 1, ELO 6,
Enemy Prisoners
of War (EPW)
Operations

Military police support tactical commanders by undertaking enemy prisoners of war operations. They relieve the tactical commander of the need to use his combat forces to do this. MPs in direct support (DS) of brigade units and those assigned to separate brigades establish an EPW collection point (normally in the brigade support area). EPW operations include the following:

- EPW collection operations. MPs collect EPWs and civilian internees from combat units and from other MP units in an area of operation (AO). MPs make these collections as far forward as possible.
- EPW evacuation operations. MPs evacuate EPWs from the EPW collection points and holding areas as soon as possible.

Law and Order
Operations

Military police conduct these operations when necessary to extend the combat commander's discipline and control. This would include law enforcement and criminal investigations. Close coordination with host nation civilian police can enhance combating terrorism (antiterrorism and counterterrorism measures), law and order, and control of civilian populations.

Any one of the above missions can easily require an entire MP platoon and more; therefore, it is important to consider the factors of METT-T when using MP support. It is best to keep MPs mobile, acting as the eyes and ears of the commander. During offensive operations, MPs best support the brigade's maneuver and mobility by facilitating route movement and refugee/straggler/EPW evacuation and control, and by controlling road traffic.

Military Police
platoon Support
within a Brigade

The military police platoon providing direct support to the maneuver brigade has an AO coinciding with the brigade's boundaries. The platoons headquarters locates within the BSA.

To accomplish its missions, a direct support platoon must have at least three squads. One squad operates the EPW collecting point. The two remaining squads provide BCC and area security within the brigade rear area.

Platoon assets performing EPW operations locate in the BSA. The remainder of the platoon disperses throughout the brigade rear area. The direct support platoon conducts BCC and area security within its resources. They also receive and hold EPWs for evacuation to the division rear area.

LS/A 1, ELO 6, Employment of Military Police Platoon in a Separate Brigade	<p>The MP platoon supporting a separate brigade can perform any of the four military police battlefield missions.</p> <p>The brigade HHC provides the support to the platoon and to the provost marshal section. The platoon must compete with other brigade HHC assets for priority of repair for weapons, vehicles, and communications equipment.</p>
Military Police Platoon Organization	<p>The provost marshal has a small section that operates out of the brigade main CP.</p> <p>A separate provost marshal cell within the brigade HHC serves as the command and control element for the platoon.</p> <p>The MP platoon supporting a separate brigade has four squads instead of the three found in the division platoon. One squad operates the EPW collecting point while another provides security at the brigade's main CP. The remaining two squads conduct BCC and control and area security operations throughout the brigade's rear area.</p>
Military Police Command and Control	<p>The command and control of MP units supporting separate brigades extends downward from the tactical commander. The separate brigade provost marshal has OPCON of division MP assets. The brigade provost marshal also has OPCON of any MP assets that corps provides. The military police platoon leader directs the execution of his platoon missions.</p>
Military Police Staff Relationships	<p>The provost marshal advises the commander of a separate brigade on matters pertaining to Military Police operations.</p>
Military Police Support Relationships	<p>The support relationships of MP units supporting separate brigades differ with the type of brigade to which the platoon supports. In an armored separate brigade, the MP platoon employs all of its squads to provide general support (GS) to the entire brigade area of operation (AO).</p> <p>Thus the support relationship of an MP platoon supporting an separate armored brigade and that of an MP company supporting a light infantry division are the same. The number of squads employed will vary with on the brigade's size and the needs of the brigade's missions.</p>

LS/A 2, ELO 6, Click here to go to [Lesson Exercise 6](#).
Lesson
Exercise 6

ELO 7

Action	Identify the role of a signal unit during combat operations.
Conditions:	In a self-study environment using the material presented in this lesson.
Standard:	In accordance with, 71-3, FM, and the material provided in this Preresident Training Support Package.

**Learning Step/
Activity (LS/A)
1, ELO 7,**
Brigade Signal
Support

The following provide signal support to the divisional brigade:

- A communications team from the division signal battalion.
 - The small extension node (SEN) team provides mobile subscriber equipment (MSE) service for telephone and packet switch access.
 - Telephones, terminals digital nonsecure voice terminal/digital subscriber voice terminal (DNVT/DSVT), facsimiles, and automated terminals/systems are brought and hooked up by the unit.
 - The signal officer has supervisory responsibility over the teams and incorporates them into the unit's planning process.
-

Signal Battalion
Communication
Responsibility

The division signal battalion has the mission to provide a communications grid to ensure area coverage for MSE communication. The brigade S-3, brigade signal officer (BSO), and divisional signal unit will work together during the planning phase of the operation to ensure communications are effective.

The packet switch capability that the signal battalion and the supporting small extension node team provide is critical to hooking the brigade's automated systems into the packet switching network. The network is a large mobile local area network (LAN). When hooking up to a network via coaxial cable, the unit is capable of conducting large data transfer actions in seconds that a few years ago took hours in the tactical environment. We also refer to the packet as the tactical packet network (TPN) that overrides MSE.

LS/A 1, ELO 7,
Brigade External
Communications

Brigade external communications may consist of the following:

- Area common user (ACU) network. The MSE and possibly some multichannel tactical satellite (TACSAT) assets make up the ACU. The network carries both voice and packet (TPN) data. The network may span several continents or be very small.
 - TACSAT communications network has both single channel and multichannel and can employ separate from the MSE network.
 - Divisional or task force FM and AM voice nets.
 - Commercial telephones, leased lines, host nation communications, portable phones, car phones, pagers, beepers, and commercial hand-held radios, which depend on the threat during an operation.
-

Brigade internal
Communications

Brigade internal communications consist of the following:

- ACUs, MSEs, and TPNs.
 - Circuit switched.
 - Packet switched—
 - * ATCCS devices on TPN.
 - User owned automation devices.
 - Combat net radio (CNR)
 - FM radio (single channel ground and airborne subsystem [SINCGARS]).
 - Single channel TACSAT.
 - AM radio, IHFR.
 - Automated systems in brigade hooked to MSE/TPN network.
-

Brigade Signal
Section

The organic signal section of the brigade HHC provides the following communications services to the brigade command posts (CPs):

- Network management for all systems in the brigade exchanging digital information.
 - Frequency and spectrum management for all systems in the brigade AO.
 - Limited FM radio maintenance.
 - FM radio range extension capability.
 - Communications training and training facilitators.
-

LS/A 1, ELO 7,
Brigade Signal
Officer
Responsibilities

The brigade signal officer is responsible for many aspects of communications planning to support the brigade's operations; The two most important areas of communication planning for the brigade are ACU Networks and CNR.

The key to successful ACU support is keeping the supporting signal battalion in the planning loop on what the brigade communications requirements (include slice) are for each mission and include any special requirements during each phase of an operation.

LS/A 2, ELO 7,
Lesson
Exercise 7

Click here to go to [Lesson Exercise 7](#).

SECTION IV SUMMARY

Review/
Summarize
Lesson

During your study of this PTP you have learned the various combat support assets available to the brigade/ battalion task force.

In this PTP you identified the following combat support requirements necessary for a battalion/brigade to operate in combat effectively: Fire support, air defense, air support, intelligence, engineers, signal, chemical, military police, and mortars.

Knowing what assets are available, their capabilities and limitations, and how to utilize them to their fullest extent will allow you as a battle staff NCO to advise and assist the commander in development of his plans and ensure victory on the battlefield.

Check on
Learning

The seven lesson exercises that you completed during this lesson serve as the check on learning for the TLO.

Transition to
Next Lesson

None.

SECTION V STUDENT EVALUATION

**Testing
Requirements**

Prior to being enrolled into Phase II of the Battle Staff Course you must take a Phase I Exam that includes questions on material from this lesson. You must correctly answer 70% of the multiple choice questions to receive a "GO" on the Phase I exam. A "GO" is required for enrollment into Phase II.

**Feedback
Requirement**

None



Lesson Exercise 1: Instructions

The following six questions will test your knowledge of the materials covered in ELO 1. There is only one correct answer for each item. When you answer each question, you will be given immediate feedback. If you answer any question incorrectly, study that part of the ELO again.





Fire support planning and coordination occur at:

- A. All levels of command.
- B. Brigade level only.
- C. Company level and below.
- D. Division level and above.





Complete the following statement.

The mission of the _____ is to destroy, neutralize, or suppress the enemy by cannon, rocket, and missile fire, and to help integrate all fire support into combined arms operations.

- A. Armored division
- B. Field artillery
- C. Mechanized infantry
- D. Tank battalion





An example of a nonlethal method available to fire support is:

- A. Mortars.
- B. Naval gunfire.
- C. Smoke.
- D. TACAIR.





What are the only organic indirect fire support assets in the maneuver arms arsenal?

- A. Howitzers.
- B. Light anti-tank weapons.
- C. Mines.
- D. Mortars.





Which of the following is an option that a commander can use when employing the battalion mortar platoon?

- A. Four sections of three mortars each.
- B. Two sections of three mortars each.
- C. Three sections of three mortars each.
- D. Two sections of four mortars each.





Complete the following statement.

A mortar platoon can fire over_____ rounds in less than five minutes.

- A. 100
- B. 200
- C. 300
- D. 400



INCORRECT

The correct answer is A.

Fire support planning and coordination occur at all levels of command. PTP, Page 6.



CORRECT



INCORRECT

The correct answer is B.

The mission of the field artillery is to destroy, neutralize, or suppress the enemy by cannon, rocket, and missile fire, and to help integrate all fire support into combined arms operations. PTP, Page 7.



CORRECT



INCORRECT

The correct answer is C.

An example of a nonlethal means available to fire support is smoke. PTP, Page 6.



CORRECT



INCORRECT

The correct answer is D.

Mortars are the only organic indirect fire support asset in the maneuver arms arsenal.
PTP, Page 8.



CORRECT



INCORRECT

The correct answer is B.

Two sections of three guns each is an option that a commander can consider when employing the battalion mortar platoon. PTP, Page 8



CORRECT



INCORRECT

The correct answer is C.

A mortar platoon can fire over 300 rounds in less than five minutes. PTP, Page 8.



CORRECT





Lesson Exercise 2: Instructions

The following five questions will test your knowledge of the materials covered in ELO 2. There is only one correct answer for each item. When you answer each question, you will be given immediate feedback. If you answer any question incorrectly, study that part of the ELO again.





Complete the following statement.

The air defense combat support for a brigade uses a combination of the Bradley Stinger fighting vehicles (BSFVs), _____ , and HMMWV mounted Stinger crews.

- A. Avenger
- B. Chapparel
- C. Titan
- D. Vulcan





What staff officer is responsible for providing information on the ground and air ADA threats, and the unit's priority intelligence requirement (PIR)?

- A. S-1.
- B. S-2.
- C. S-3.
- D. S-4.





What staff officer is responsible for ADA arrangements for supply of specialized ammunition?

- A. S-1.
- B. S-2.
- C. S-3.
- D. S-4.





How many stinger missiles does a Stinger crew carry?

- A. Five.
- B. Four.
- C. Six.
- D. Ten.





Which weapons control status describes a situation when ADA units may fire only at aircraft positively identified as hostile?

- A. Weapons focused.
- B. Weapons free.
- C. Weapons hold.
- D. Weapons tight.



INCORRECT

The correct answer is A.

The air defense combat support for a brigade uses a combination of Stinger fighting vehicles (BSFVs), Avenger, and HMMWV-mounted Stinger crews.
PTP, Page 11.



CORRECT



INCORRECT

The correct answer is B.

The S-2 is responsible for providing information on the ground and air ADA threats, and the unit's priority intelligence requirement (PIR). PTP, Page 13.



CORRECT



INCORRECT

The correct answer is D.

The S-4 is responsible for arrangements for supply of specialized ammunition.
PTP, Page 14.



CORRECT



INCORRECT

The correct answer is C.

Each stinger crew has six stinger missiles. PTP, Page 12.



CORRECT



INCORRECT

The correct answer is D.

Weapons tight is the weapons control status that describes a situation when ADA units may fire only at aircraft positively identified as hostile. PTP, Page 15.



CORRECT





Lesson Exercise 3: Instructions

The following four questions will test your knowledge of the materials covered in ELO 3. There is only one correct answer for each item. When you answer each question, you will be given immediate feedback. If you answer any question incorrectly, study that part of the ELO again.





There are five types of engineer combat support functions. They are: mobility, countermobility, survivability, general engineering, and:

- A. Construction operations.
- B. Damage control operations.
- C. Maneuver support operations.
- D. Topographic engineering.





An example of a general engineering task is:

- A. Camouflage.
- B. Minefield clearing to sustain the operation.
- C. Deception.
- D. Obstacle construction.





Engineer platoons work most efficiently under control of a(n):

- A. Engineer battalion.
- B. Engineer company.
- C. Maneuver battalion.
- D. Maneuver company.





Which of the major engineer equipment systems is the primary earthmover for construction of survivability positions and antitank ditches?

- A. Armored combat earthmover.
- B. Combat engineer vehicle.
- C. D-7, bulldozer.
- D. MICLIC.



INCORRECT

The correct answer is D.

There are five types of engineer combat support functions. They are mobility, countermobility, survivability, general engineering, and topographic engineering.
PTP, Page 16.



CORRECT



INCORRECT

The correct answer is B.

Minefield clearing to sustain the operation is an example of a general engineering task.
PTP, Page 17.



CORRECT



INCORRECT

The correct answer is B.

Engineer platoons work most efficiently under control of an engineer company.
PTP, Page 18.



CORRECT



INCORRECT

The correct answer is C.

The D-7, Bulldozer is the primary earthmover for construction of survivability positions and antitank ditches. PTP, Page 20.



CORRECT





Lesson Exercise 4: Instructions

The following three questions will test your knowledge of the materials covered in ELO 4. There is only one correct answer for each item. When you answer each question, you will be given immediate feedback. If you answer any question incorrectly, study that part of the ELO again.





Complete the following statement.

The brigade/battalion chemical officer also works as an _____ in the main CP of the brigade/battalion.

- A. Assistant operations officer
- B. Assistant personnel officer
- C. Assistant maintenance officer
- D. Assistant supply officer





During field operations, with which other staff officer does the chemical officer develop the contaminated MSR overlay?

- A. S-1.
- B. S-2.
- C. S-3.
- D. S-4.





How many shifts does the chemical section use to perform NBC operations in the field?

- A. Four.
- B. One.
- C. Three.
- D. Two.



INCORRECT

The correct answer is A.

The brigade/battalion chemical officer also works as an assistant operations officer in the main CP of the brigade/battalion. PTP, Page 22.



CORRECT



INCORRECT

The correct answer is D.

The chemical officer develops the contaminated MSR overlay with the S-4.
PTP, Page 24.



CORRECT



INCORRECT

The correct answer is D.

During NBC field operations, the chemical section performs operations with two shifts.
PTP, Page 22.



CORRECT





Lesson Exercise 5: Instructions

The following three questions will test your knowledge of the materials covered in ELO 5. There is only one correct answer for each item. When you answer each question, you will be given immediate feedback. If you answer any question incorrectly, study that part of the ELO again.





The two types of surveillance missions employed by Ground Surveillance radar (GSR) personnel are search and:

- A. Detection.
- B. Monitor.
- C. Overwatch.
- D. Seizure.





Ground surveillance radar major operational drawback is it's:

- A. Bulkiness.
- B. Inability to penetrate darkness.
- C. Lack of mobility.
- D. Line of sight function.





The MI battalion integrates EW into unit operations regardless of the type of unit, level of war, or the _____

- A. EW support.
- B. Electronic attack.
- C. Scope of the mission.
- D. Brigade S-2 focal point for intelligence.



INCORRECT

The correct answer is B.

The two types of surveillance missions employed by radar personnel are search and monitor. PTP, Page 27.



CORRECT



INCORRECT

The correct answer is D.

Radar's major operational shortcoming is that it functions by line of sight only.
PTP, Page 27.



CORRECT



INCORRECT

The correct answer is C.

The MI battalion integrates EW into unit operations regardless of the type of unit, level of war, or the scope of the mission. PTP, Page 25.



CORRECT





Lesson Exercise 6: Instructions

The following three questions will test your knowledge of the materials covered in ELO 6. There is only one correct answer for each item. When you answer each question, you will be given immediate feedback. If you answer any question incorrectly, study that part of the ELO again.





Which Military Police (MP) function supports the maneuver and mobility by expediting forward and lateral movement to combat resources?

- A. Area security.
- B. Battlefield circulation control.
- C. EPW responsibilities.
- D. Law and order operations.





Which Military Police function assist the commander in addressing security and force protection in the rear by conducting security operations?

- A. Area security.
- B. Battlefield circulation control.
- C. EPW responsibilities.
- D. Law and order operations.





Which element in the divisional brigade conduct EPW collection and evacuation operations?

- A. Brigade S-3 section.
- B. Brigade S-4 section.
- C. The military police.
- D. The support platoons.



INCORRECT

The correct answer is B.

Battlefield circulation control is one of military police (MP) support operation for maneuver and mobility functions by expediting forward and laterals movement to combat resources. PTP, Page 29.



CORRECT



INCORRECT

The correct answer is A.

Area security is a military police support to assist the commander in addressing security and force protection in the rear by conducting security operations. PTP, Page 30.



CORRECT



INCORRECT

The correct answer is C.

The military police conducts EPW collection and evacuation operations in a divisional brigade. PTP, Page 31.



CORRECT





Lesson Exercise 7: Instructions

The following three questions will test your knowledge of the materials covered in ELO 7. There is only one correct answer for each item. When you answer each question, you will be given immediate feedback. If you answer any question incorrectly, study that part of the ELO again.





Complete the following statement.

_____ provides signal support to the divisional brigade.

- A. A communications security element
- B. A communications support element
- C. A communication team from the division signal battalion
- D. Two signal company from the division signal battalion





Complete the following statement.

The division signal battalion has the mission to provide _____ to ensure area coverage for MSE communication.

- A. A communication grid
- B. A communication site
- C. A signal company
- D. Seven signal teams





Complete the following statement.

The organic signal section of the brigade HHC provides communication services to _____

- A. A battalion command post. (CP).
- B. A company command posts (CP).
- C. A division tactical operation center (TOC).
- D. The brigade command posts (CPs).



INCORRECT

The correct answer is C.

A communication team from the division signal battalion provides the signal support to the divisional brigade. PTP, Page 33.



CORRECT



INCORRECT

The correct answer is A.

The division signal battalion has the mission to provide communication grid to ensure area coverage for MSE communication. PTP, Page 33.



CORRECT



INCORRECT

The correct answer is D

The organic signal section of the brigade HHC provides communication services to the brigade command posts (CPs). PTP, Page 34.



CORRECT



