Air Cavalry Combat Brigade

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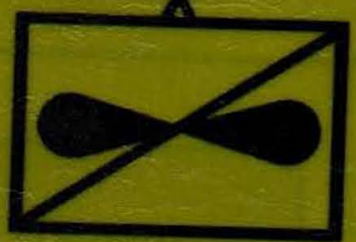

FM 17-47

PREFACE

THE AIR CAVALRY COMBAT BRIGADE

The ACCB is organized primarily as a highly mobile force to destroy tanks and other armored vehicles. In describing how the ACCB fights, this manual will discuss employment of attack helicopter battalions and air cavalry squadrons. For additional details about how attack helicopter battalions fight, the reader should refer to FM 17-50, *Attack Helicopter Operations;* for additional details about how air cavalry squadrons fight, see FM 17-95, *Cavalry Operations.*

The ACCB may fight independently as a part of a corps, or all or part of the ACCB may be placed under operational control of a division, a ground combat brigade, or an armored cavalry regiment. It may fight as a brigade, or subordinate units of battalion size may be employed to counter multiple threats in division and ground combat brigade operational areas. How a division fights is described in FM 71-100, *Brigade and Division Operations (Mechanized and Armor)* and FM 17-95, *Cavalry Operations,* describes how these larger units fight. The Army Training and Evaluation Program (ARTEP) for the attack helicopter battalion is 17-385. The ARTEP for the air cavalry squadron is 17-205.

All Army units are organized under modified tables of organization and equipment (MTOE). Therefore, in order to know manpower and equipment authorizations for a specific unit, consult the authorization document (MTOE) for that unit. Because organization and equipment will vary from time to time and place to place, this manual will rely on the reader's understanding of his own equipment and organization to apply principles set forth herein.

STATEMENT

THE WORD "HE" IS INTENDED TO INCLUDE BOTH THE MASCULINE AND FEMININE GENDERS. ANY EXCEPTION TO THIS WILL BE SO NOTED.

FIELD MANUAL
NO. 17-47

HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, DC, 29 April 1977

AIR CAVALRY COMBAT BRIGADE

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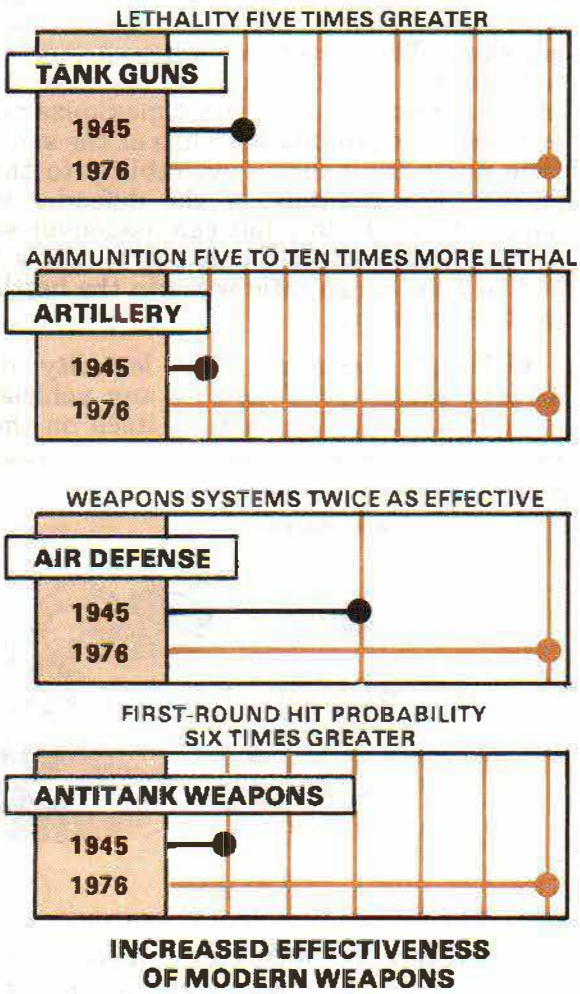
CHAPTER 1

THE MODERN BATTLEFIELD

Warfare has changed since World War II. The range, accuracy, and lethality of the modern tank gun make it at least five times as effective as the tank gun of World War II. The ground antitank guided missile (ATGM) has appeared on the battlefield in significant numbers; it is accurate and deadly up to a range of 3,000 meters. Even against rapidly moving targets, it can achieve a high percentage of first-round hits. Today's artillery ammunition is 5 to 10 times more lethal than that of World War II. Helicopters armed with ATGM are also common. Highly accurate, long-range, mobile air defense gun and missile systems have also appeared in great numbers to dominate the air above the battlefield. They are at least twice as effective as their predecessors of the 1940's.

CONTENTS

LONG-RANGE, HIGH-VELOCITY TANK CANNON AND LONG-RANGE ANTIARMOR MISSILE SYSTEMS DOMINATE THE MODERN BATTLEFIELD. *What can be seen can be hit—What can be hit can be killed.*



INCREASED EFFECTIVENESS OF MODERN WEAPONS

Unless suppressed or destroyed, long-range air defense gun and missile systems can dominate the air above the battlefield. They may limit forward fighting elements' effective close air support and force air cavalry and attack helicopter units to operate close to the terrain—in the same battle environment as frontline ground fighting units.

In order to fight and win while outnumbered, it is necessary to move rapidly to concentrate sufficient forces so that a favorable force ratio exists. Also, it is necessary to fight using terrain, overwatch, and suppression in such a way that exchange ratios of 6 to 1, or better, are achieved. The history of armored battles tells us that this can be done; but in order to do it, the commander must maximize his own weapons capabilities while at the same time minimizing their vulnerability to the enemy. For example, if the defender is outnumbered 10 to 1 but can maneuver so that he is outnumbered only 3 to 1, then a 4 or 5 to 1 exchange ratio will win the battle for the defender.

■ Range, accuracy, and lethality of modern weapons tell us that any vehicle, aircraft, or unit that exposes itself on the battlefield will be destroyed unless enemy weapons either have been—

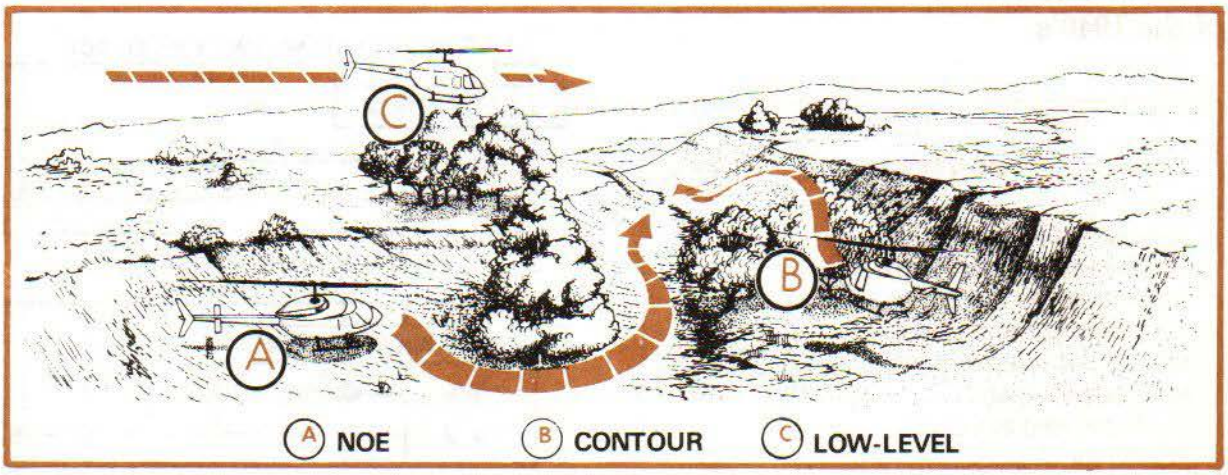
- Destroyed.
- Suppressed.
- Prevented from detecting and identifying the exposed element by effective use of smoke, darkness, bad weather, electronic countermeasures, or a combination of these and other target-obscuring methods.

Therefore, any element which operates on the battlefield *must* make maximum use of all available cover and concealment, moving on covered or concealed routes from one covered or concealed position to the next.

■ Attack helicopter units can fight and survive on the modern battlefield in spite of the increased range and lethality of modern weapons by using similar techniques that permit an armor or mechanized unit to survive:

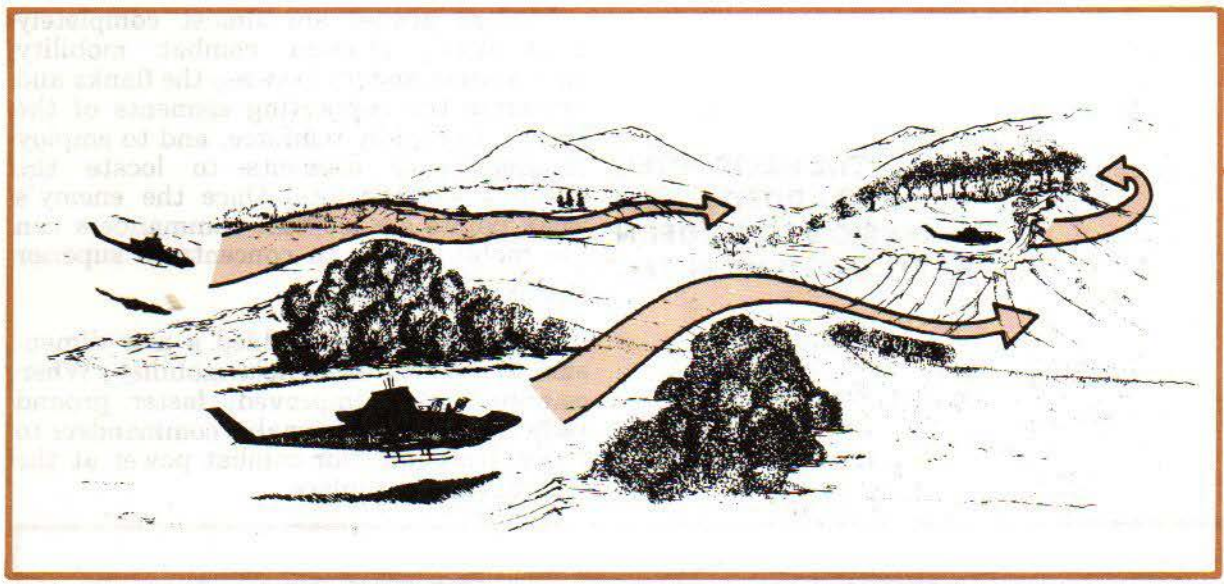
- Know the enemy and where he is located.
- Know and use the terrain.

Maximum use of terrain is as critical to aviation operations as it is to ground operations. *Terrain flying is the key to survival.*

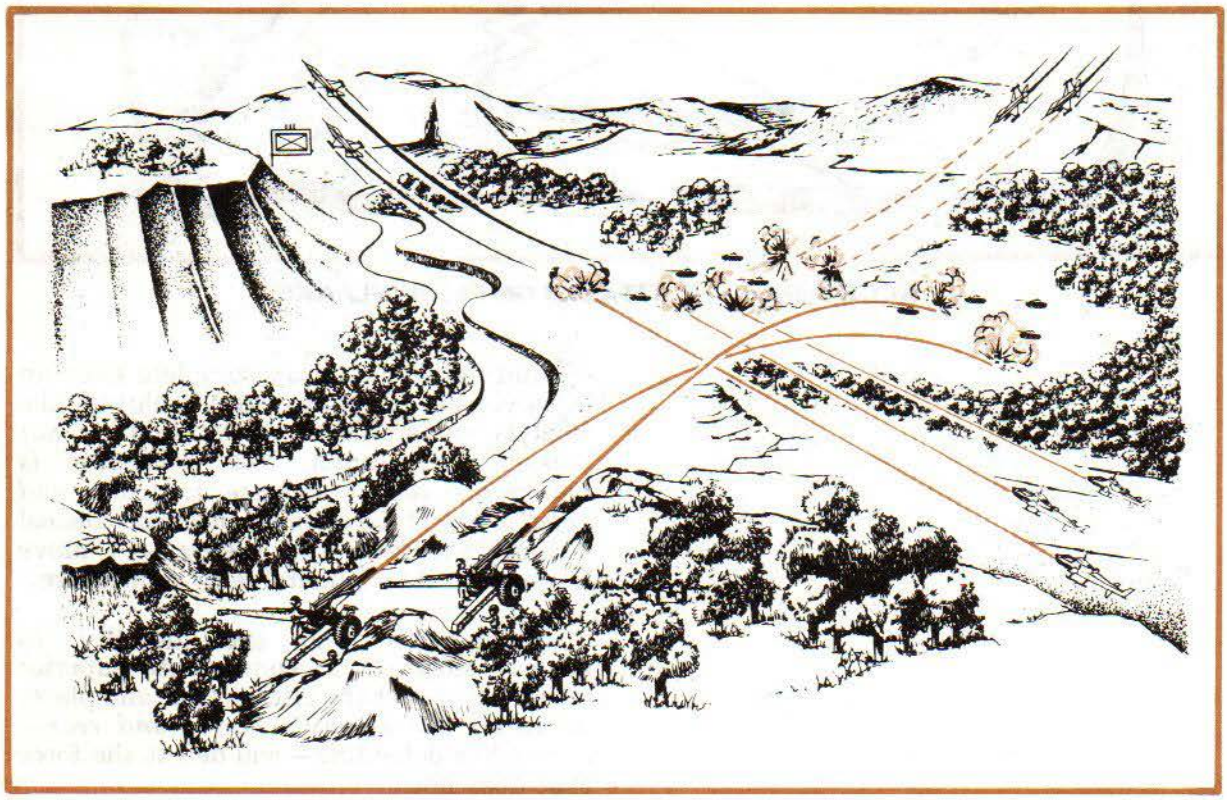


THE SPECIAL MODE OF FLIGHT USED, WHETHER NOE, CONTOUR OR LOW-LEVEL, WILL DEPEND ON THE MISSION AND THE THREAT

- Use overwatch techniques.



- Obscure, suppress, or destroy enemy air defense systems with smoke, high explosive ammunition, and electronic countermeasures.

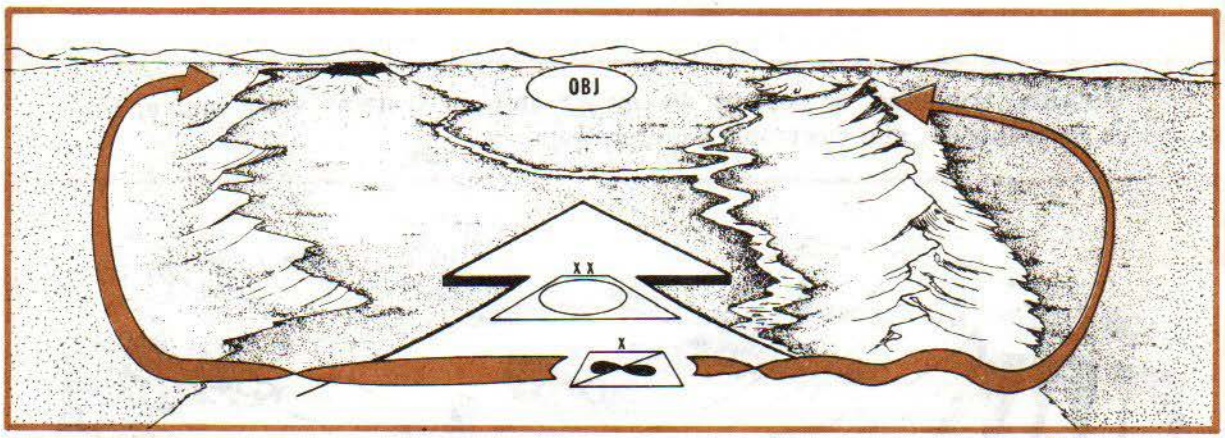


MOBILITY

THE HELICOPTER HAS ADDED A NEW DIMENSION TO MODERN BATTLEFIELD MOBILITY.

Modern armies are almost completely mechanized. Modern combat mobility allows commanders to sweep the flanks and penetrate the supporting elements of the enemy, to rapidly reinforce, and to employ reconnaissance elements to locate the enemy's weak points. Once the enemy's weak points are located, commanders can use mobile forces to concentrate superior combat power.

The helicopter has added a new dimension to modern battlefield mobility. When combined with improved, faster ground vehicles, helicopters enable commanders to concentrate superior combat power at the critical time and place.



ACCB CONDUCTS ATTACKS ON ENEMY FLANKS.

Mobility does not mean complete freedom of movement. If improperly employed, the tank is vulnerable to the ATGM. *If not masked by terrain, the helicopter is vulnerable to air defense weapons and small arms.* If the artillery does not conceal its location from the enemy and move frequently, it is vulnerable to counterfire.

Commanders who use mobility to achieve surprise, to concentrate superior combat power at the critical time and place, to *attack the enemy's flanks and rear*—even while defending—will defeat the force that does not.

■ Modern battlefield mobility enables the commander to—

• Conduct active intelligence operations to "see" the battlefield better than the enemy and to find enemy weak points or where he intends to conduct his main attack.

• Adjust the force ratio in his favor so that his unit has the best chance for success.

■ For example, in the attack, mobility enables the commander to—

• Move quickly to decisive points on the battlefield.

• Rapidly concentrate overwhelming combat power at the decisive point and time.

• Attack deep into the enemy rear to destroy his system of defense.

■ In the defense, mobility enables the commander to—

• Concentrate forces against an enemy attack at the critical times and places.

• Fight the enemy from positions prepared in depth, progressively weakening him; then, when the enemy's advantage has been reduced, quickly attack the enemy from reverse slopes, destroying his weakened forces, and prepare to defend again before the next echelon arrives.

• Force the enemy to fight a running battle; draw him out from under his air defense umbrella; and keep his artillery and air defense weapons moving.

FIGHTING AT NIGHT

Modern armies are able to effectively fight at night using sophisticated sighting and sensing equipment. A new range of tactical possibilities is opened up by new:

TANK SIGHTS
NIGHT VISION GOGGLES
ATGM SIGHTS
THERMAL IMAGERY DEVICES

Even with new night observation devices, most weapons are still less effective at night than in day.

Threat forces are skilled in night fighting. They use poor visibility afforded by darkness to continue pressing the attack. To do this they try to—

• Achieve surprise.

• Breach or bypass defensive positions or obstacles.

• Destroy and disrupt command, control, and support systems.

Defense against threat forces requires that the defender make maximum use of night-fighting equipment—especially passive night-viewing equipment. In so doing, the tactical advantages that normally lie with the defender can be retained.

With modern night vision equipment, it is possible to attack at night with more freedom of movement and fewer restrictive control measures than in the past. However, night offensive operations still require more planning and control measures than required in daytime. For example:

• Plan and rehearse during daylight hours to reduce confusion.

• Plan primary and alternate means of communication to insure command and control.

• Plan and coordinate suppressive fires.

The ACCB's fighting capability is somewhat limited by conditions of reduced visibility. Weather and darkness inhibit the ability of men and machines to acquire targets. Training with night vision devices will increase the brigade's night-fighting capabilities significantly. The ACCB must train to fight at night as in the day—that is, make full use of cover, concealment, and suppressive fires.

COMMAND AND CONTROL

Flexible, responsive, and reliable command and control systems are essential to successful employment of the ACCB as a combined arms force. They permit—

- Control of highly mobile, fast-moving, mechanized forces which must be massed to bring superior force to bear at the proper time and place.

- Direction and coordination of fires of many weapons ready to fire on preplanned targets as well as targets of opportunity in support of ACCB operations.

THE COMBAT POWER OF THE COMBINED ARMS TEAM CAN DEFEAT THE ENEMY ON THE HIGH THREAT BATTLEFIELD.

AIR OVER THE BATTLEFIELD

Threat forces are capable of mounting an air attack at a given time and place on the battlefield. As a result, forward elements of friendly forces may come under an intense air attack. The commander must include in his battle plans a scheme for countering threat air forces. The threat will include tactical fighter-bombers and attack helicopters. Both active and passive measures are required to defeat the enemy's air threat.

ELECTRONIC WARFARE

The enemy has a significant electronic warfare capability. This includes the ability to block radio transmissions during critical periods in the flight; to listen to transmissions to gain information; to give false instructions through imitative transmissions; and to locate our positions with direction-finding equipment.

The commander must be able to command and control the ACCB throughout the battle in spite of enemy efforts to disrupt communications. To do this, members of the ACCB must effectively counter enemy electronic warfare efforts against command and control systems by—

- Using prearranged signals and visual means whenever possible.
- Using radio only when necessary and then transmitting as quickly as possible.
- Planning an alternate means of control in case primary means are suppressed.

Some confusion in battle will always occur; however, if the commander has positive control and issues clear, concise orders, confusion and misunderstanding can be minimized.

NUCLEAR WARFARE

With the advance of nuclear technology, many armies are capable of employing nuclear weapons. As a result, our Army must be prepared to fight and win on the nuclear battlefield. The following factors should be considered when operating in a nuclear environment:

- The effects of nuclear weapons must be exploited by combat forces to be truly useful.
- Forces should not be concentrated until ready to mount an attack and should be dispersed again after the objective has been achieved.

CHEMICAL AND BIOLOGICAL WARFARE

The United States has renounced the use of biological agents and *will not* use chemical weapons *first.* However, other armies have these weapons and are prepared to use them. These weapons could severely reduce mobility and our ability to concentrate force—unless US soldiers understand the effects of such weapons and know how to fight in a chemical and biological environment. The force that can live in this environment and still move, use terrain and overwatch techniques, suppress and concentrate superior force will defeat the force that cannot.

PRIORITIES

The characteristics of modern battle are a formidable challenge to the ACCB. Members of the ACCB must understand the dynamics of modern battle. Priorities for success on the battlefield are:

- Detection and identification of the enemy at maximum possible distances.
- Battlefield movement only along covered and concealed avenues, making use of terrain to avoid or evade enemy long-range acquisition, observation, and fire.
- Suppressive fires delivered from overwatching elements to reduce the chance that maneuvering forces can be seen and destroyed by the enemy.
- Attacking and counterattacking on rear slopes to protect attacking forces from long-range observation and fire.
- Operating in conditions of reduced visibility thereby reducing the range and accuracy of enemy observation and fire.
- Control and distribution of fires to destroy targets rapidly and save ammunition to engage the next attacking echelon.
- Precision, discipline, speed, and security in the directing and reporting of the battle; winning the battle quickly, nullifying enemy countermeasures.
- Adequacy of ammunition and fuel; speed, responsiveness, and security of resupply systems.

CHAPTER 2

THE ENEMY IN MODERN BATTLE

The enemy—the "threat"—has a vast amount of manpower and a great variety of powerful weapons. He will try to overwhelm his opponents by massing large forces at critical times and places. Generally, he will be willing to suffer great losses to accomplish his mission.

In most areas of the world, *Threat forces* are mainly armored, with many tanks, armored infantry fighting vehicles, self-propelled artillery, self-propelled and rapidly launched tactical bridging, and supporting mobile equipment. They are equipped with a full arsenal of modern air defense weapons. This arsenal includes tactical aircraft, missiles, antiaircraft (AA) artillery, and vehicle-mounted machineguns.

Threat forces train extensively for operations on a nuclear battlefield, and they carry a complete array of individual and vehicular nuclear, biological, and chemical (NBC) protective gear and decontamination equipment. Most of their armored vehicles provide positive pressure protection for their crews. Further, threat forces conduct very effective electronic warfare (EW), including radio interception, direction-finding, jamming, and deception.

By reviewing threat equipment capabilities and tactical concepts, the soldier will gain a clear idea of how the US Army must fight modern battles.

CONTENTS

THE THREAT SOLDIER

The "threat soldier" is first a "field soldier." He spends most of each training day learning to live and fight in the field. For him, theory is no substitute for practice in field living and operations.

THREAT SOLDIERS ARE TOUGH, HIGHLY MOTIVATED AND WELL-TRAINED

Threat soldiers are often highly motivated, sometimes through fear of their leaders or political commanders, but often because of thorough and effective political indoctrination. The threat soldier in battle is tough and callous—a good fighter. He is indifferent to hardship, especially when he believes he is righteously defending his country against aggression.

THREAT ARMORED VEHICLES

The enemy's armored vehicles are formidable weapon systems with extremely lethal capabilities. However, like all other armored vehicles, they can be suppressed and destroyed. The use of smoke is an excellent obscuration technique, preventing threat weapons systems from visually acquiring targets. The enemy's ability to acquire targets is also degraded by artillery and small arms fire which makes threat armor operate with closed hatches.

THE ENEMY'S ARMORED VEHICLES ARE FORMIDABLE WEAPON SYSTEMS WITH EXTREMELY LETHAL CAPABILITIES

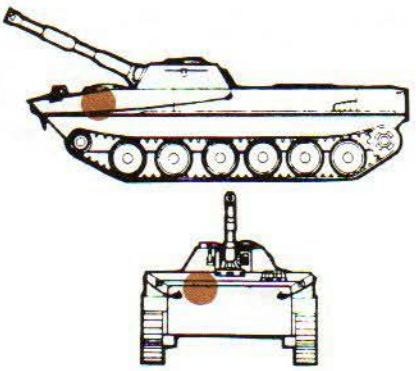
The enemy's armored vehicles—like ours—are more lightly armored on the sides, rear, and top than on the front. This difference in armor thickness plus the location of ammunition and fuel storage areas presents points of vulnerability. So to defeat threat armor, attack these points. The most vulnerable points for each threat armored vehicle are shown.

PT-76 SERIES

The PT-76 is a 14-ton amphibious reconnaissance tank with a twin water jet-propulsion system. Its chassis is used in over eight other vehicle series. The PT-76 is 7.6 meters (25 ft) long, including the gun tube; 3.1 meters (10 ft) wide; and 2.2 meters (7½ ft) high. The PT-76 is used for crossing water obstacles in the first wave of an attack and it is used for artillery support during the establishment of a beachhead.
Although the PT-76 is lightly armored and undergunned for a modern tank, its inherent amphibious capability outweighs these limitations. The cruising range is 250 kilometers.

Primary Weapon
76-mm, stabilized main gun firing kinetic energy (KE) armored personnel carrier (APC) and chemical energy high explosive antitank (HEAT) ammunition.
Its basic load is 40 rounds.
PT-76 Model 1 has a multi-slotted muzzle brake; Model 2 has a double baffle muzzle brake and a bore evacuator.

Secondary Armament
7.62-mm coaxially mounted machinegun. Its basic load is 1,000 rounds.



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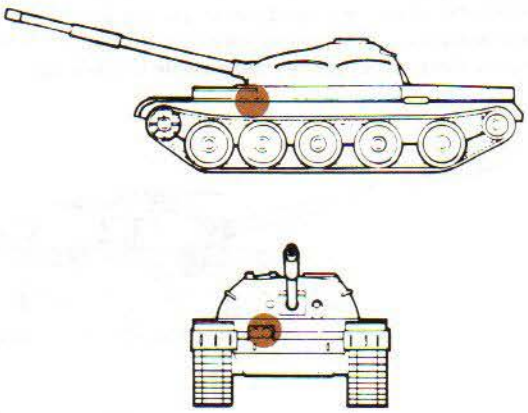
T-62 SERIES

The T-62 is replacing the T-55 tank in some threat armies. It is an improved tank; very similar to the T-55, but without a bow machinegun. The bore evacuator is located about one-third the barrel length from the muzzle. The T-62 does not mount an AA machinegun, but the T-62A—a newer version—does. This tank has night vision devices and/or sights for the gunner, commander, and driver. The T-62 has a crew of four; weighs 36.5 tons; and is 9.8 meters (32 ft) long; 3.3 meters (11 ft) wide; and almost 2.6 meters (8 ft) high. It has five pairs of road wheels with irregular spacing between the third and fourth and the fourth and fifth wheels.

Primary Weapon
115-mm smoothbore stabilized main gun, firing both kinetic energy high velocity armor-piercing, fin-stabilized discarding sabot (HVAPFSDS) and chemical energy HEAT ammunition.
Elevation, +17°; depression, -4°.
Basic load, 40 rounds.

Secondary Armament
7.62-mm machinegun mounted coaxially with the main gun.
Basic load 3,500 rounds.
The T-62A also mounts a 12.7-mm antiaircraft machinegun on top of the turret at the loader's station.



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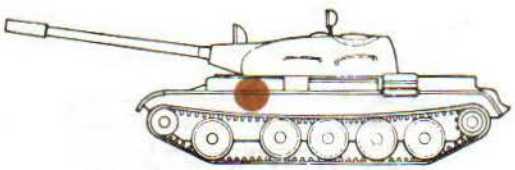
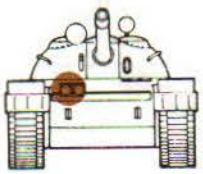
T-55 SERIES

The T-55 medium tank appears in all threat forces. It has a low, rounded turret shaped like the larger end of an egg, with a bore evacuator on the end of the main gun tube. The T-55 does not mount an AA machinegun atop the turret, as does the T-54. It has infrared night sights for gunner and commander, a night vision device for the driver, and onboard snorkeling equipment. The T-55 has a crew of four; weighs 36 tons; is about 9 meters (30 ft) long; 3.3 meters (11 ft) wide; and 2.4 meters (7½ft) high. It has five pairs of road wheels with a characteristic gap between the first and second wheels.





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Primary Weapon

100-mm, stabilized main gun, firing kinetic energy armor-piercing capped APC chemical energy high explosive antitank, and high explosive (HE) ammunition.

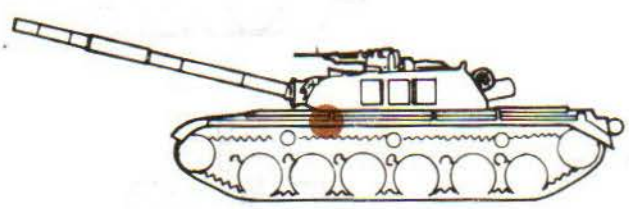
Elevation, +17°; depression, -4°.
Basic load, 43 rounds.

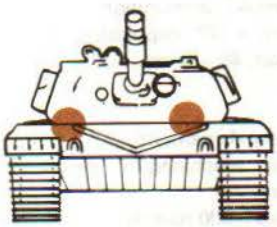
Secondary Armament

7.62-mm or 12.7-mm fixed machinegun mounted in the hull front (bow gun); 7.62-mm machinegun coaxially mounted with the main gun. (Not all T-55s have the fixed bow gun.)
Basic load, 3,500 rounds.

T-72 THREAT MAIN BATTLE TANK

The T-72 is replacing older tanks within some threat forces. It is an improved tank featuring a live track, complete with support rollers, center guides, end connectors, and probably torsion bar suspension. The glacis plate is gently sloping and has a "V"-shaped splash guard directly in front of the driver's position. It has external fuel cells down the left side of the tank, as earlier tanks had. It has three equal-sized storage boxes on the left side of the turret and two unequal-sized storages boxes on the right side of the turret. It features a turret roof-mounted 12.7-mm AA machinegun and a 7.62-mm coaxially mounted machinegun. The main gun is probably 115-mm and has a bore evacuator about one-third down the gun tube from the muzzle end. It has a crew of three and probably has an automatic loader. It weighs approximately 40 tons; is 7.4 meters long; 3.3 meters wide; and 2.46 meters high. It has night observation devices comparable to those on the T-62 series tanks.





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T-10 SERIES

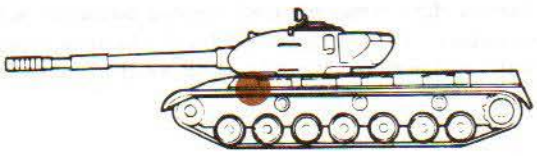
The T-10 heavy tank is rarely seen in threat force forward areas. This tank stays in the rear, and is used in counterattacks or with tank killer units. It has infrared sights or devices for gunner, commander, and driver; weighs 50 tons; has seven pairs of road wheels; and a snorkeling capability. Cruising range is 250 kilometers.

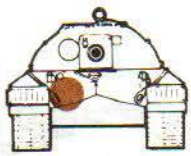
Primary Weapons

122-mm stabilized main gun, firing kinetic energy APC and chemical energy HEAT ammunition.
Elevation, +17°; depression, -3°.
Basic load, 30 rounds.

Secondary Armament

Two 12.7-mm machineguns, one for antiaircraft and another mounted coaxially with the main gun. T-10M, a new version, mounts 14.5-mm heavy machineguns in both positions.





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INFANTRY COMBAT VEHICLES

BMP SERIES

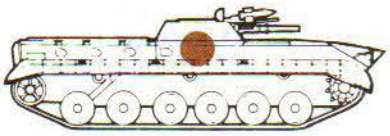
Threat forces have mounted their mechanized infantry in an armored fighting vehicle called a BMP. Its primary mission is to kill tanks. Although a light armored vehicle, the BMP combines the features of a light tank, antitank missile carrier, and armored personnel carrier. Like the PT-76, the BMP is amphibious; its chassis is similar to the PT-76; but it has a different water propulsion system. The power plant is mounted in the right front; troop access doors are in the rear. It has four firing ports on each side and one in the left rear door so the infantry can fire while moving. The BMP weighs 12.5 tons and is 6.6 meters (22 ft) long; 3 meters (10 ft) wide; and 2 meters (6½ ft) high. It has a crew of three and carries eight infantrymen who can fight effectively while mounted. A smaller, lighter version called the BMD is used by airborne units.

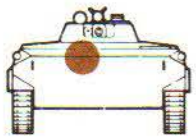
Primary Weapons

AT-3 SAGGER (wire-guided, antitank-guided missile). Maximum range, 3,000 meters.
Basic interior load, four missiles (an extra missile can be carried on the launch rail).
Has a 73-mm smoothbore main gun which fires a HEAT projectile capable of successfully attacking medium tanks up to 1,000 meters.
Elevation, +20°; depression, -5°.
Basic load, 40 rounds.
The 73-mm gun covers 500 to 800 meters dead space for SAGGERs.

Secondary Armament

7.62-mm coaxially mounted machinegun.
Basic load, 1,000 rounds.





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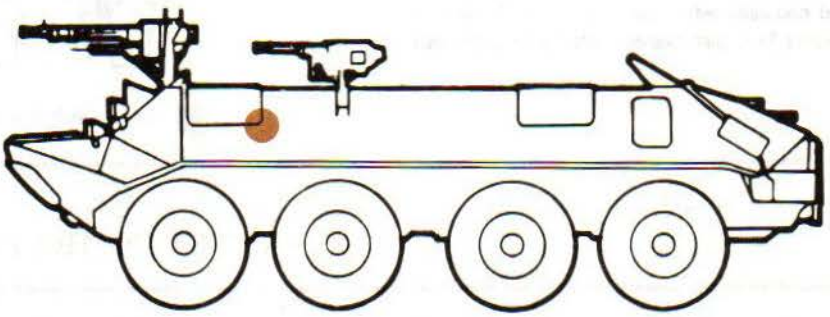
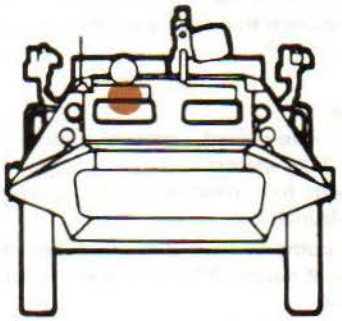
BTR SERIES

The standard threat wheeled armored personnel carrier is the eight-wheeled BTR-60P series, which has several variations. The open-topped BTR-60P is being replaced by the BTR-60PB shown below. It has a small covered turret with machineguns. The BTR-60PB weighs 10 tons; is amphibious; has a crew of two; and carries 14 infantrymen.



Primary Weapons
14.5-mm machinegun.
7.62-mm machinegun.



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AMPHIBIOUS SCOUT VEHICLES

BRDM SERIES

BRDM and BRDM-2 are used for reconnaissance, radiological/chemical monitoring, command, and as an antitank-guided missile launcher. The BRDM is a four-wheel drive, amphibious armored vehicle with two sets of belly wheels to help flotation and cross-country mobility. A small turret with a larger machinegun has been added to the BRDM-2. The BRDM has a crew of five; the BRDM-2, a crew of four. The BRDM weighs 5.5 tons; the BRDM-2 weighs 7 tons. Each model is designed for its specific mission.

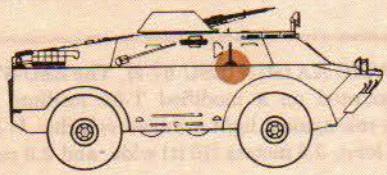
BRDM

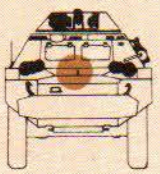
Primary Weapons

7.62-mm machineguns.
Elevation, + 23.5°; depression, -6°.
Basic load, 1,250 rounds.
Antitank-guided missile launcher—basic load, 14 rounds.

Secondary Armament
None.

BRDM-2

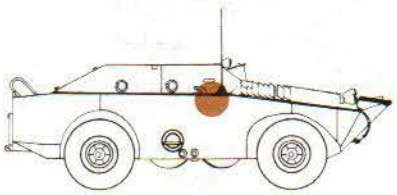




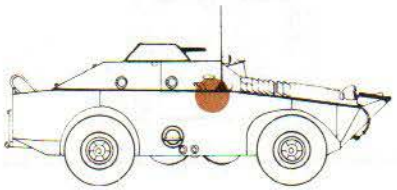
Primary Weapons

4.5-mm heavy machinegun.
Elevation, + 30°; depression, -50°.
Basic load, 500 rounds.
Antitank-guided missile launcher—basic load, 14 rounds.

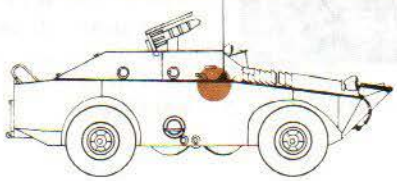
Secondary Armament
7.62-mm machinegun.
Basic load, 2,000 rounds.



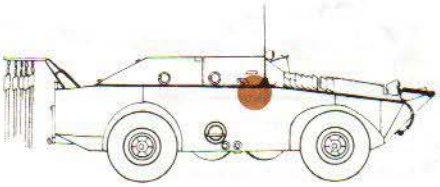
Reconnaissance



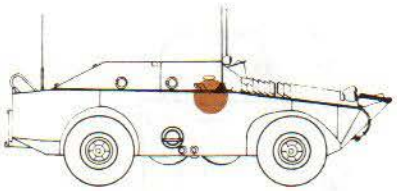
Antitank-Guided Missile Launcher



Radiological/Chemical



Command

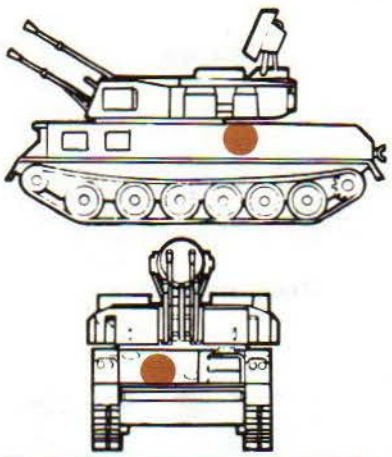


● = most vulnerable point

THREAT AIR DEFENSE ARTILLERY

ZSU-23-4

QUAD 23-MM, SELF-PROPELLED, AUTOMATIC AA GUN (ZSU-23-4). The ZSU-23-4 is one of the finest air defense weapons in the world; it can also be used in a ground-support role. Mounted on a modified PT-76 chassis, it has an on-carriage radar system. The vehicle weighs 14 tons; is 6.3 meters (20½ ft) long; 2.5 meters (9½ ft) wide; and 2.3 meters (7½ ft) high. The ZSU-23-4 has a crew of four and cruising range of 260 kilometers.



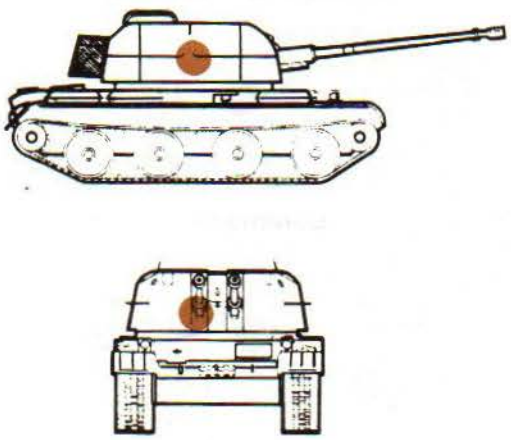
Primary Weapon
Four 23-mm automatic AA guns.
Elevation, +80°; depression, -7°.
Maximum sustained rate of fire, 600 rounds per minute per barrel.
Maximum effective range:
2,500 meters, without radar; 3,000 meters, with radar.

Secondary Armament
None.

● = most vulnerable point

ZSU-57-2

TWIN 57-MM SELF-PROPELLED AUTOMATIC AA GUN (ZSU-57-2). The ZSU-57-2 is a track-mounted, antiaircraft gun system mounted on a modified T-54 medium tank chassis. It may also appear in a ground-support role against light armored vehicles. It has a crew of six; weighs 28 tons; is 8.5 meters (28 ft) long, 3.3 meters (10 ft) wide, and 2.8 meters (9 ft) high. Cruising range is 400 kilometers.



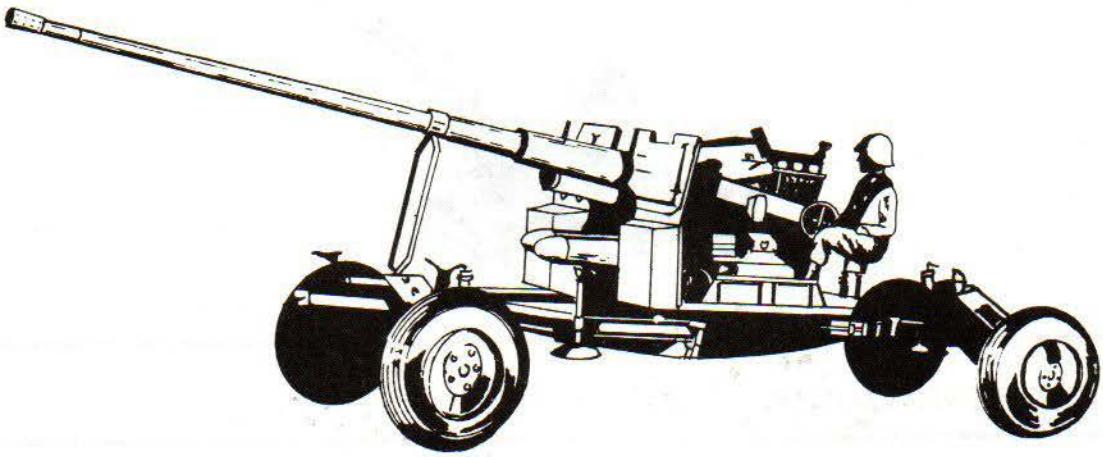
Primary Weapon
Two 57-mm AA guns.
Elevation, +85°; depression, -5°.
Basic load, 316 rounds.
Maximum rate of fire, 70 rounds per minute per barrel.
Maximum effective AA range, 4,000 meters.

Secondary Armament
None.

● = most vulnerable point

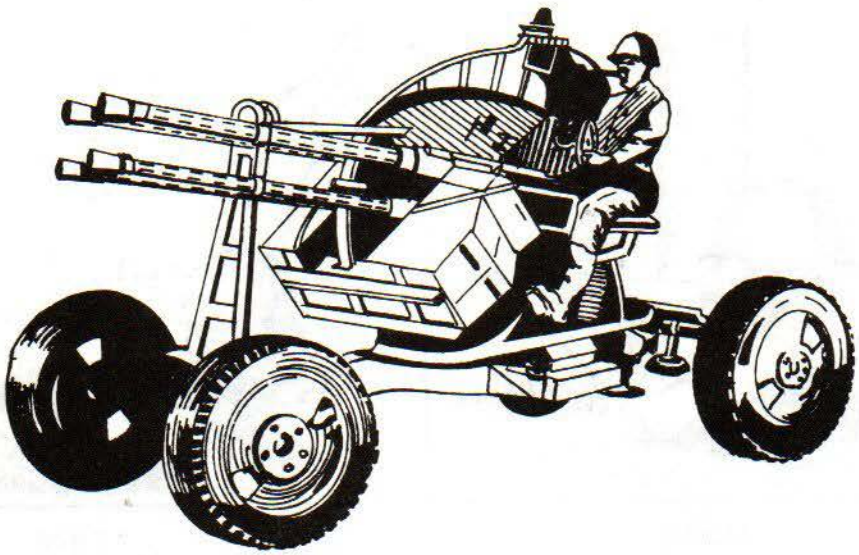
S-60

S-60, 57-MM ANTIAIRCRAFT GUN. This gun can be used against armored vehicles as well as low-flying aircraft. It has a maximum horizontal range of 12,000 meters and a tactical antiaircraft range of 6,000 meters with off-carriage and 4,000 meters with on-carriage fire control. It can be elevated from -72 mils to +1,500 mils; traversed 6,400 mils; and has a cyclic rate of fire of 105 to 120 rounds per minute. A twin version is mounted on the self-propelled ZSU-57-2.



ZPU-4

ZPU-4, 14.5-MM MACHINEGUN. The ZPU-4 is a towed, four-barrel, 14.5-mm machinegun that uses a four-wheeled carriage that must be lowered onto stabilizing jacks for firing. It has a range of 1.4 kilometers against aircraft and 2.5 kilometers against ground targets. This optically directed weapon has a rate of fire of 2,200 to 2,400 rounds per minute.



ZU-23

The ZU-23, 23-mm automatic antiaircraft gun is a light towed, automatic antiaircraft gun which is replacing the quad 14.5-mm ZPU-4. It is a fully automatic, gas-operated weapon with a maximum effective range against aerial targets of 2.5 kilometers. Maximum horizontal range is approximately 7 kilometers and the rate of fire is 2,000 rounds per minute.

THREAT INDIVIDUAL WEAPONS

AKMS AND PKM

The highly effective 7.62-mm AKMS assault rifle is the threat soldier's primary individual weapon. A new version of the AKM, it is equipped with a folding stock and uses a 30-round magazine. The AKMS and the PKM below are the firing port weapons for the BMP. The 7.62-mm PK family is the threat primary light machinegun. (It does not fire the same 7.62-mm round as the AKMS.) Belt-fed, its maximum effective range is 1,000 meters.

AKMS

PKM

ANTIAIRCRAFT MISSILES

Threat forces have developed a family of semi-mobile to mobile, crew-served, air defense missiles for tactical air defense of field armies.

SA-2 GUIDELINE

Each battalion (fire unit) contains six single SA-2 mobile missile launchers, a *FAN SONG* fire control radar, and loader vehicles. It is designed for a medium-to-high altitude coverage out to approximately 45 kilometers to a maximum ceiling of about 80,000 feet. GUIDELINE's mobility and low-to-medium altitude capabilities are limited.

SA-6 GAINFUL

The SA-6 is a low-to-medium altitude, surface-to-air guided missile with a ceiling of 40,000 feet and a range of approximately 35 kilometers. The missile is deployed as part of a battery containing one *STRAIGHT FLUSH* fire control radar vehicle, one loader vehicle, and several triple launcher vehicles. The launcher vehicles are tracked like all the vehicles in the battery, but use components of the *ZSU*-23-4 chassis. The launcher rails can be traversed 360 degrees.

SA-4 GANEF

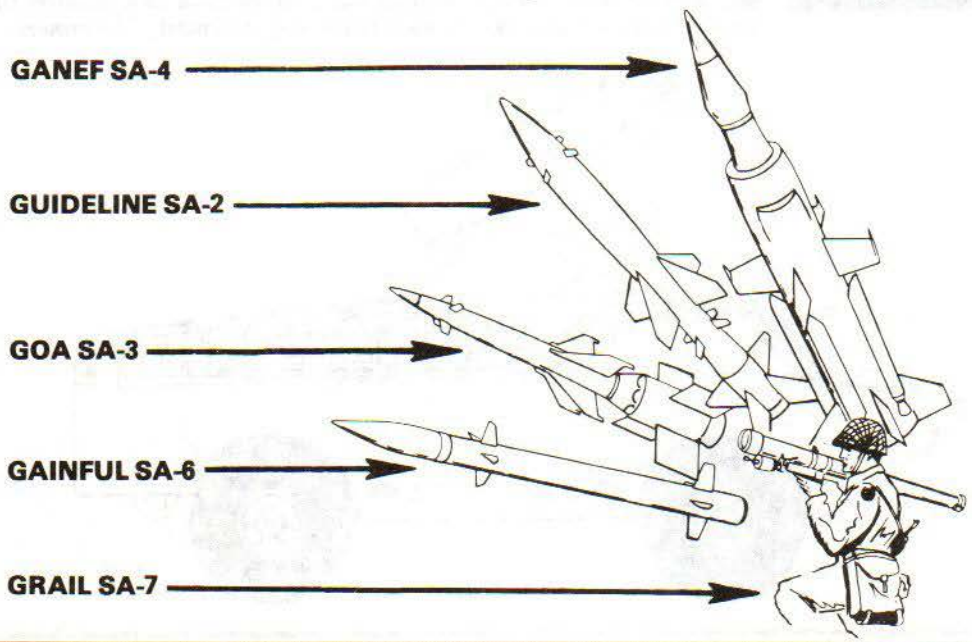
Each SA-4 battery has one *PAT HAND* fire control radar; loader vehicle; and three transporter, erector, launcher vehicles, capable of a 360-degree traverse. All vehicles are tracked. The missiles, which have a range of 70 kilometers and a ceiling of approximately 60,000 feet, are used against medium-to-high altitude targets.

SA-7 GRAIL

The SA-7 GRAIL is a man-portable, low-altitude, surface-to-air missile introduced in the late 1960's. It is a heat-seeking missile similar to the US Redeye. The SA-7 has a maximum range of approximately 3.5 kilometers and a maximum altitude of 10,000 feet. At least two versions of the SA-7 GRAIL exist.

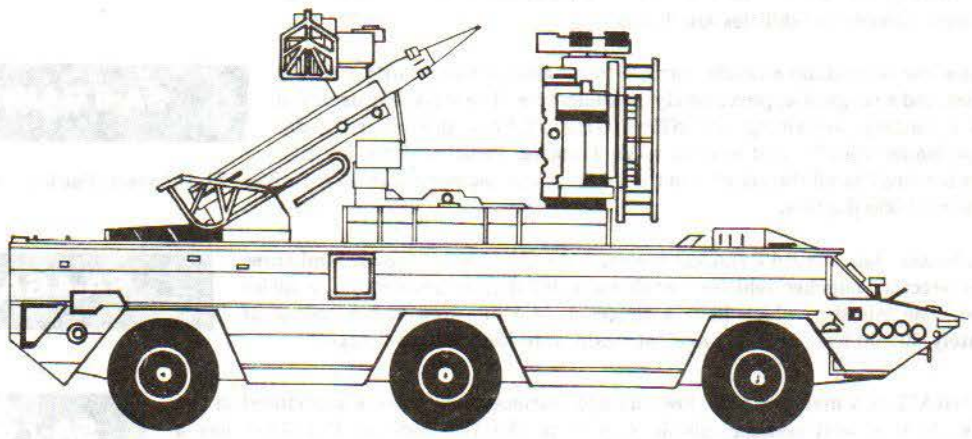
SA-3 GOA

The SA-3 is a two-stage, solid-fuel, medium-to-low altitude, surface-to-air guided missile with a slant range of 6 to 22 kilometers. The ready missiles are transported in tandem on a modified truck, which is also used to assist in loading them onto the launchers.



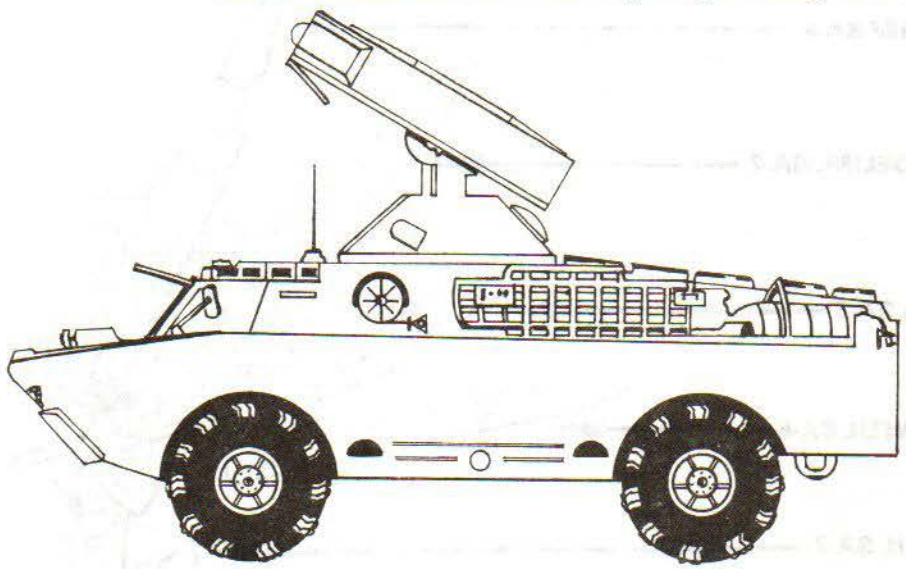
SA-8 GECKO

The SA-8 GECKO is a highly mobile, amphibious SAM system capable of rapid movement with ground forces. This three-axial amphibious vehicle carries four missiles. Each vehicle is equipped with an acquisition and tracking radar, plus two guidance radars. It also contains an electro-optical tracker—probably television. One carrier can launch two missiles at the same target, with each guided on a different frequency. The missile has a minimum effective altitude of 150 feet and a maximum altitude of about 20,000 feet. With a slant range of approximately 10 to 15 kilometers, the SA-8 can provide close support to armored and mechanized forces.



SA-9 GASKIN

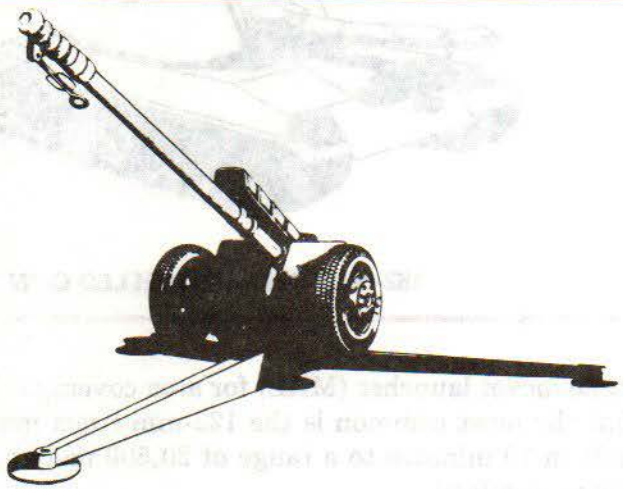
The SA-9 GASKIN is also a heat-seeking missile system similar to the SA-7, but is longer and heavier with a larger warhead and greater range. The missile is carried and launched from quadruple canister launchers mounted on a modified BRDM-2 armored reconnaissance car. Its slant range is approximately 7 kilometers.



THREAT ARTILLERY

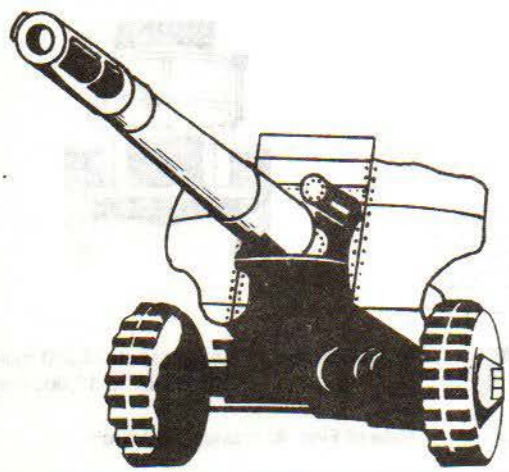
Employment of massive artillery fire has always characterized threat force doctrine. In line with threat emphasis on offensive striking power as the primary battlefield tactic, artillery is used to annihilate defensive positions to open the way for their rapid-moving armored and motorized units. Threat leaders require that their artillery pieces function as direct antiarmor; therefore, the threat artillery pieces have a lower trajectory than ours. As a result, it is more difficult for enemy artillery to hit terrain-masked positions than it is for our artillery. Threat artillery often will be positioned to place direct antitank fires on possible armor approaches as well as to provide indirect fires.

The most common field pieces are the 122-mm and 152-mm towed howitzers. The range of their largest towed howitzer, the 180-mm M1955 (S-23), is more than 29,000 meters.



122-MM TOWED HOWITZER

122-mm Howitzer D-30
Maximum Range: 15,300 meters
Rate of Fire: 7 to 8 rounds per minute

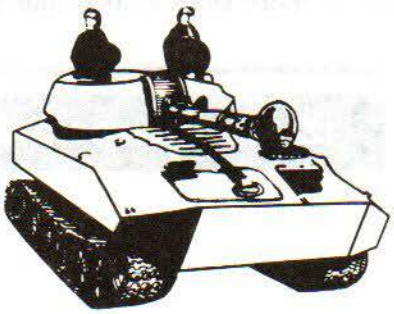


152-MM TOWED HOWITZER

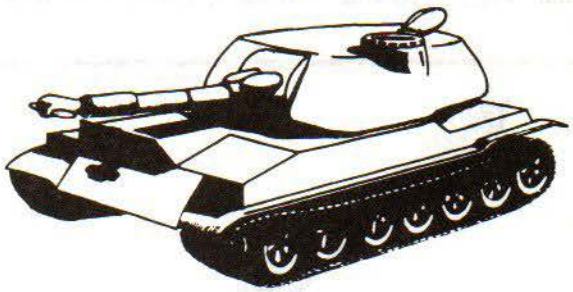
152-mm Gun Howitzer D-20
Maximum Range: 17,000 meters
Rate of Fire: 4 rounds per minute

Threat forces have recently been equipped with two new mobile field artillery pieces—the 122-mm and 152-mm, self-propelled (SP) guns. Not too much is known about the 152-mm SP. The 122-mm SP is mounted on a tracked carriage which resembles the hull of the BMP personnel carrier and resembles the suspension system of the PT-76 tank. The gun is mounted in a turret which has compartments and hatches for both gunner and commander.

122-MM AND 152-MM SP GUNS



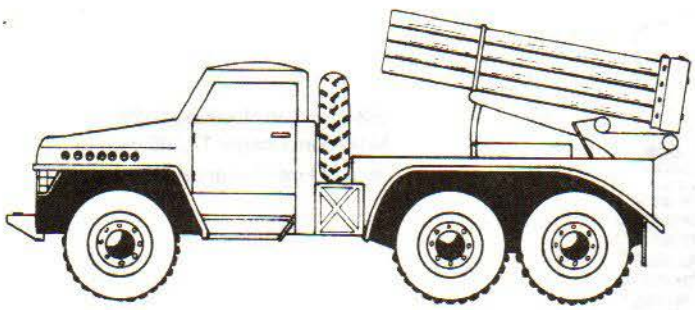
122-MM SELF-PROPELLED GUN



152-MM, SELF-PROPELLED GUN

Threat forces commonly use the multiple rocket launcher (MRL) for area coverage. These weapons are available in many sizes, but the most common is the 122-mm truck-mounted launcher BM-21 which can fire 40 rounds in 10 minutes to a range of 20,500 meters. This system requires approximately 10 minutes to reload.

122-MM ROCKET LAUNCHER BM-21



Maximum Range: Long rocket: 20,500 meters
Short rocket: 11,000 meters

Rate of Fire: 40 rounds per minute

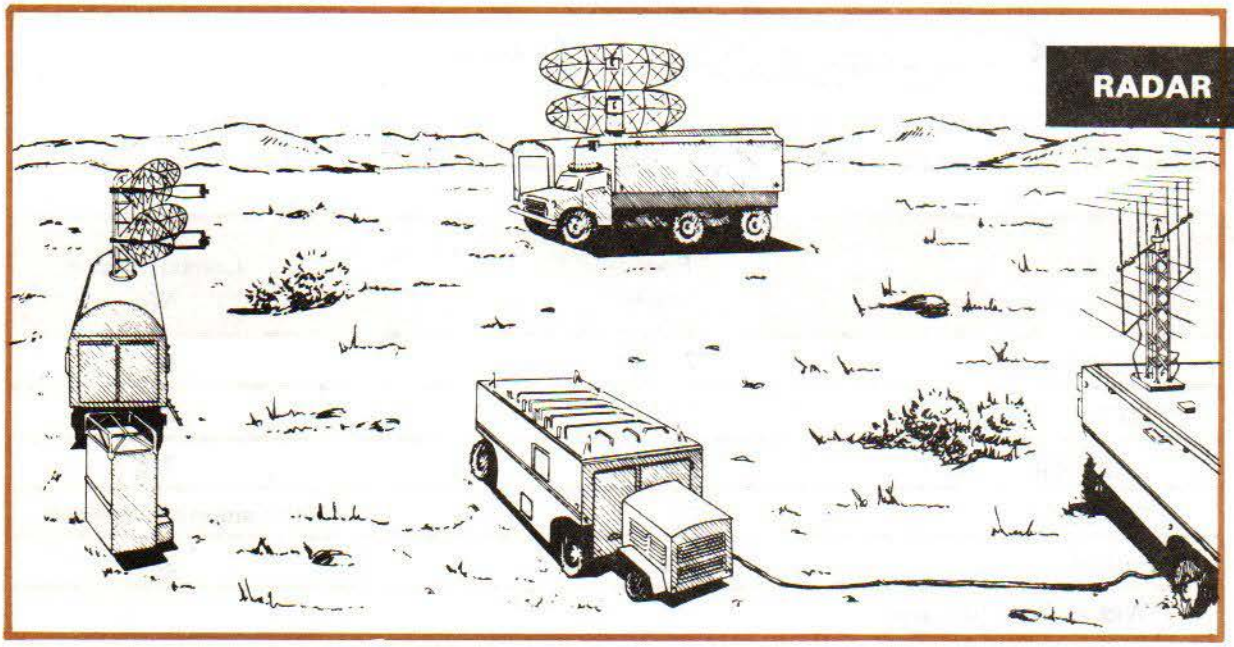
THREAT MORTARS

Threat force mortars have the same employment capabilities as ours and are designed similar to ours. However, it is hard to rapidly turn most of them over a wide traverse; yet they can manage small angle shifts (up to 6°) without moving the bipod. One of their most common mortars, the 120-mm, is used as the standard mortar for the motorized rifle battalion. It has a range of over 5,000 meters and is capable of firing 15 rounds per minute.

120-MM MORTAR M-43

THREAT RADAR

Threat armies are equipped with various types of radar. Threat radar systems cover combat surveillance, countermortar/counterbattery fire direction, early warning, height finding, acquisition, fire control, missile guidance, and meteorology.

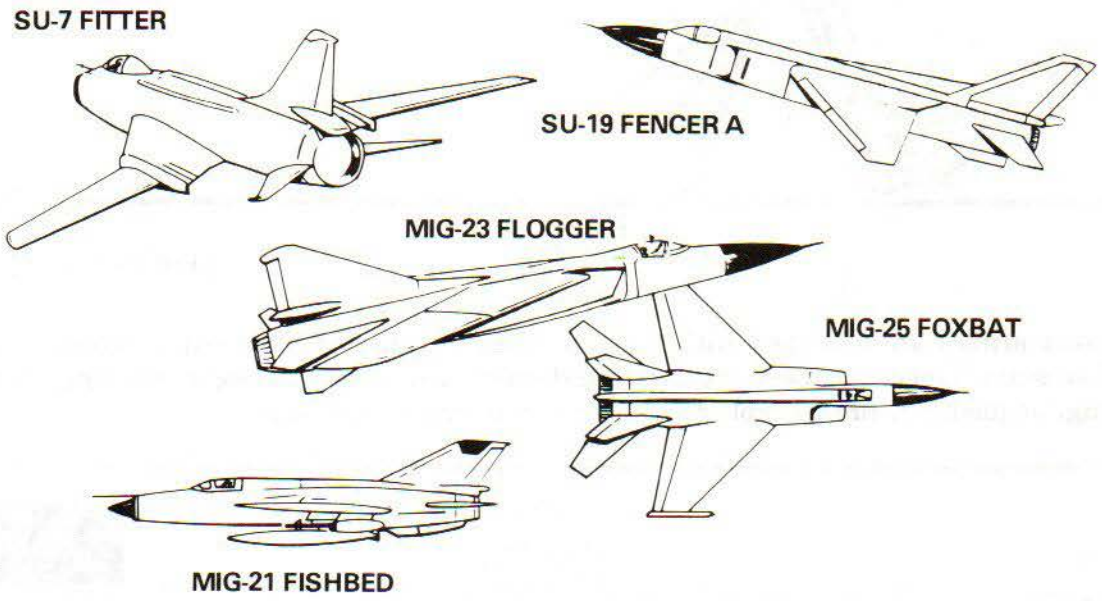


RADAR

THREAT AIRCRAFT

Unlike the USAF, threat tactical air support is controlled by ground force commanders. First, threat tactical air tries to gain air superiority. It then engages targets beyond artillery range, reinforces artillery fires, and attacks targets of opportunity. Usually threat artillery preparation includes coordinated tactical air sorties. Threat air support provides the ground force commander with a long-range extension of his artillery near the enemy's rear area.

TACTICAL AIR SUPPORT



	Speed Mach	Combat Radius NM*
FISHBED	2 (+)	540
FITTER	2 (-)	290
FLOGGER	2.3	710
FENCER	2 (+)	Information not available.
FOXBAT	2.8	325

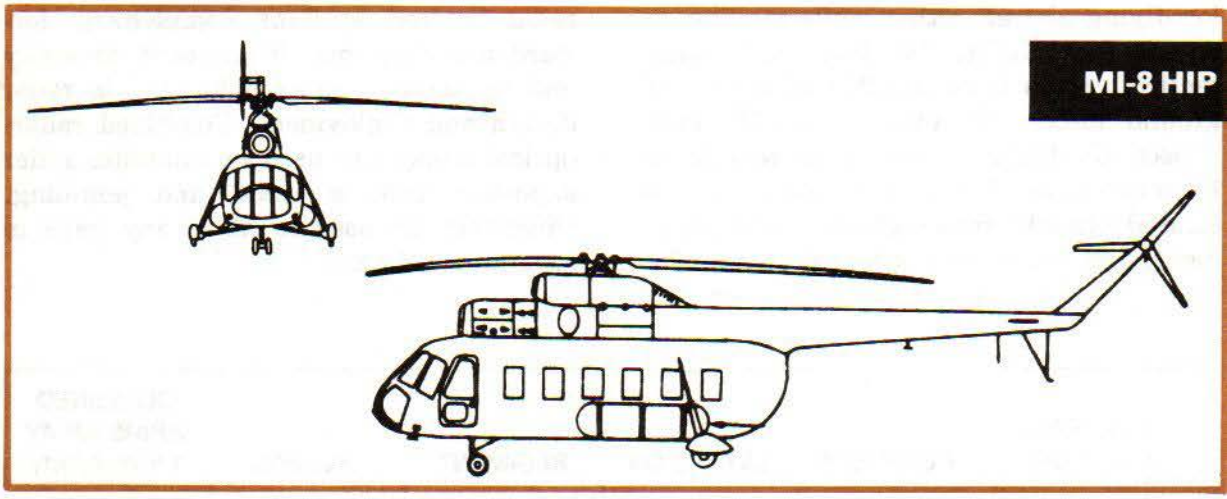
*With external fuel tanks.

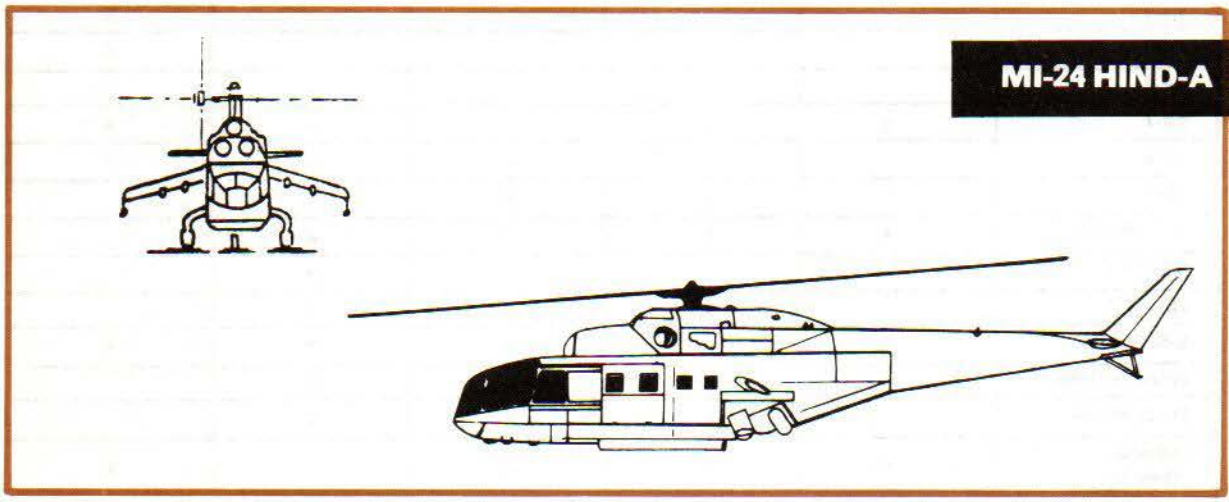
THREAT HELICOPTERS

Threat force doctrine concerning the use of helicopters is currently expanding. It is anticipated that in the future, threat forces will employ cargo, lift, and attack helicopters in greater number and for a wide variety of missions.

They have large heavy-lift helicopters for moving supplies and some troop-carrying aircraft for airmobile operations.

Threat forces are now deploying attack helicopters. The *HIND-A* mounts 57-mm rocket pods, a cannon in the nose, and four SWATTER radio-guided AT missiles on outboard rails on the wing stores. The *HIND-A* can carry between 8 and 12 troops in addition to its weapon load, and it has an automatic weapon in the chin turret (believed to be a 23-mm weapon). The *HIND-A* has an estimated cruising speed of 122 knots and a range of approximately 260 nautical miles.





THREAT WEAPONS SYSTEMS

Threat forces can be expected to use the basic principles of *mobility* and *mix*.

Except for individual infantry weapons, all other threat weapons are mounted on wheels or tracks. Anything that is too heavy to handle easily has been placed on a prime mover to provide mobility. Forward area gun/missile units are able to keep up with and maintain air defense coverage for the maneuver force. Highly mobile air defense systems follow directly behind the battle line of tanks ready to fire at helicopters. These are capable of firing at low-flying aircraft either while moving or during brief halts. Mobility of modern tactical radars is compatible with that of ground forces. An aviator should never expect air defense systems to remain in fixed positions. A gun or missile site, once located either by reconnaissance or engagement, will move. Any attempt to destroy the weapon must be made as soon as it is located.

Various types of weapons are integrated to complement the air defense weapons system. These threat weapons overlap to provide complete coverage of the battlefield. The capabilities of one system offset the limitations of another so that aircraft cannot defeat in detail any particular weapon system. Forward area guns are employed in combination with short-range air defense missiles to protect critical assets. The long-range and medium-range, radar-directed systems complement forward area systems. Equipment diversity and redundancy are emphasized in radar design and deployment. Combined radar-optical modes are used to minimize radar exposure, counter chaff, and jamming. Observers are used to fill in any gaps in radar surveillance.

WEAPONS SYSTEMS	COMPANY	BATTALION	REGIMENT	DIVISION	COMBINED ARMS ARMY TANK ARMY
SA-2					X
SA-3					X
SA-4					X
SA-6				X	X
SA-7	X	X	X	X	X
SA-8			X	X	X
SA-9		X	X	X	
12.7-MM MG	X	X	X	X	
ZSU-23-4		X	X	X	
ZSU-57-2		X	X	X	
S-60 57-MM			X	X	X
ZPU-4 14.5-MM		X	X	X	
ZU-23 23-MM		X	X	X	
Individual Weapons	X	X	X	X	X

AIR DEFENSE WEAPONS SYSTEMS DISTRIBUTION IN A TYPICAL THREAT ARMY.

THREAT WEAPONS DENSITY

■ A typical Threat tank battalion, reinforced by one motorized rifle company, may have the following weapons available:

- ●BMP -10
- ●SAGGER MISSILE - 50***
- ●RPG-7 - 9
- ●TANK - 31
- ●120MM MORTAR - NONE
- ●RIFLES AKM 7.62MM - 212
- ●LMG PK 7.62MM (BMP) - 20
- ●COAX MG 7.62MM (BMP & T62A) - 41
- ●HMG 12.7MM (T62A) - 31
- ●SA-7 - 12

- ●WITH THIS POSSIBLE SUPPORT FROM REGIMENT:
  - •1 OR MORE ZSU-23-4s
  - •3 OR MORE BRDMs WITH SAGGER
  - •122MM HOWITZERS - 6***
  - •1 OR MORE ROCKET LAUNCHER BATTERIES* (120MM, 40 ROUNDS)
- ●SA-7 - 12

■ A typical Threat motorized rifle battalion, reinforced by one tank company, may have the following weapons available:

- ●BMP - 32
- ●SAGGER MISSILE - 164***
- ●SPG-9 - 2
- ●RPG-7 - 27
- ●TANK - 13
- ●120MM MORTAR - 6
- ●RIFLES AKM 7.62MM - 356
- ●LMG PK 7.62MM (BMP) - 64
- ●COAX MG 7.62MM (BMP & T62A) - 45
- ●HMG 12.7MM (T62A) - 13
- ●SNIPER RIFLE SVD-7.62MM - 9
- ●SA-7 - 12

- ●WITH THIS POSSIBLE SUPPORT FROM REGIMENT:
  - •2 OR MORE ZSU-23-4s, LOW-LEVEL, SURFACE-TO-AIR MISSILES OR ZSU-57-2s
  - •1 OR MORE BRDMs WITH SAGGER
  - •122MM HOWITZERS** - 6
  - •1 OR MORE ROCKET LAUNCHER BATTERIES*
  - •SA-7 - 12

*Division support.

**Divisional or regimental support.

***One SAGGER Launcher and one 73mm Smooth Bore Gun with automatic loader mounted on each BMP. Each BMP carries five SAGGERs, one mounted and four in the basic load. There are also two man-pack launchers in the battalion, each with two missiles.

THREAT TACTICS

■ Threat military has emphasized attainment and retention of tactical air supremacy over the battlefield. Threat army air defense artillery (ADA) units are organic to regiment and division. Motorized rifle and tank division air defense regiments may be equipped with towed 57-mm S-60 and ZSU-57-2 air defense guns, respectively. These regiments are highly mobile and have excellent communication nets with fire control and radar equipment.

• The ZSU-23-4 and SA-9 organic to tank and motorized rifle regiments may be found as far forward as leading tank elements, integrated into combined arms formations. Forward combat elements—especially tanks and BMPs—can be expected to use their machineguns for air defense. Also, the man-portable, surface-to-air missile, SA-7, is employed well forward, to platoon level, in motorized rifle, tank, and reconnaissance units.

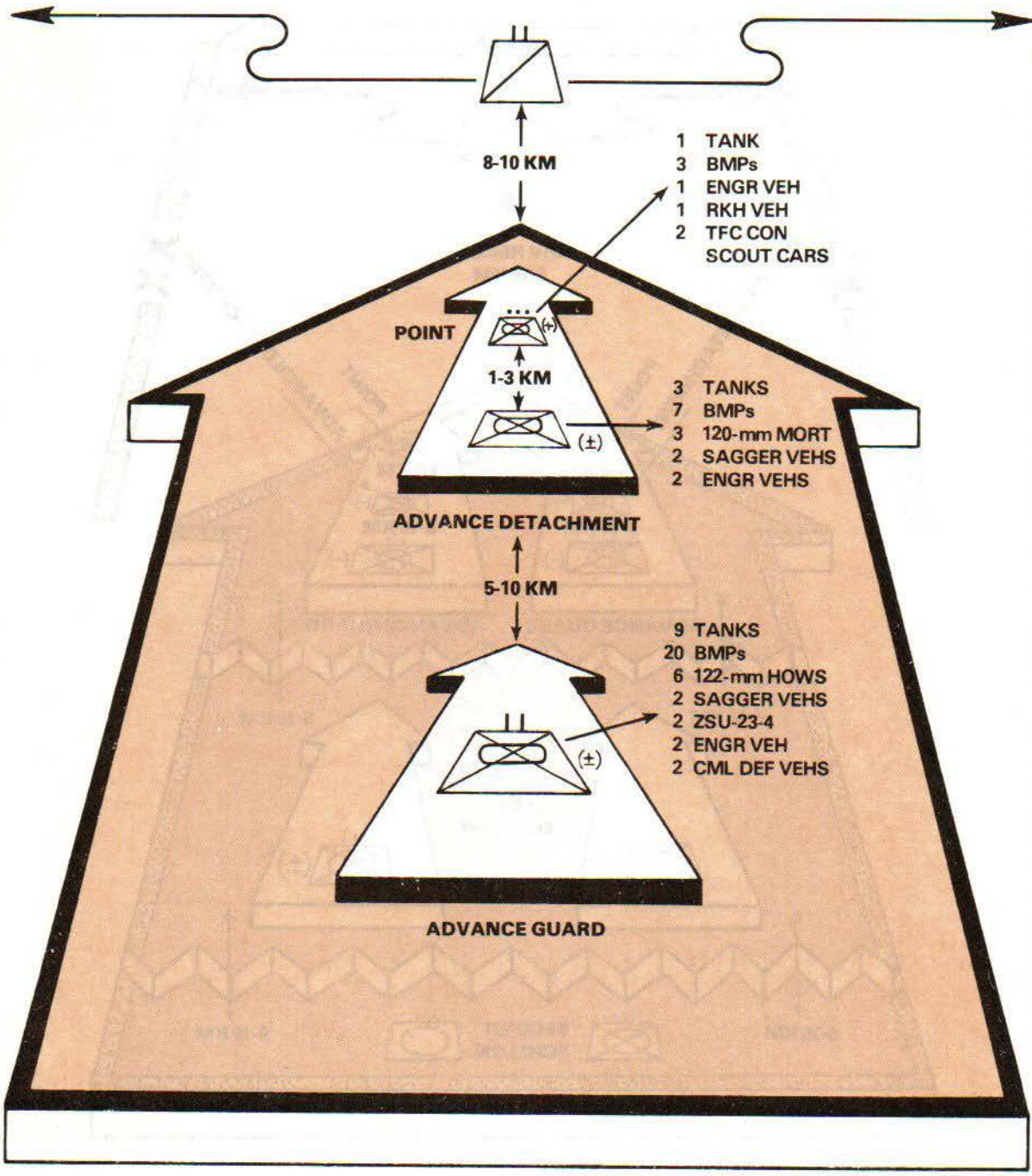
• In addition to weapons primarily designed for air defense, all combat units are trained to engage both high-performance aircraft and low-flying helicopters with small arms and machineguns.

■ Threat forces are organized as combined arms teams as low as regimental level. For example, motorized rifle regiments are organized with a tank battalion, three motorized rifle battalions, and an artillery battery. They also have an engineer company, a signal company, a reconnaissance company, a chemical section, an air defense battery, an antitank company, and a mortar company. Also found in the regiment are medical and transportation companies, traffic control, and service platoons.

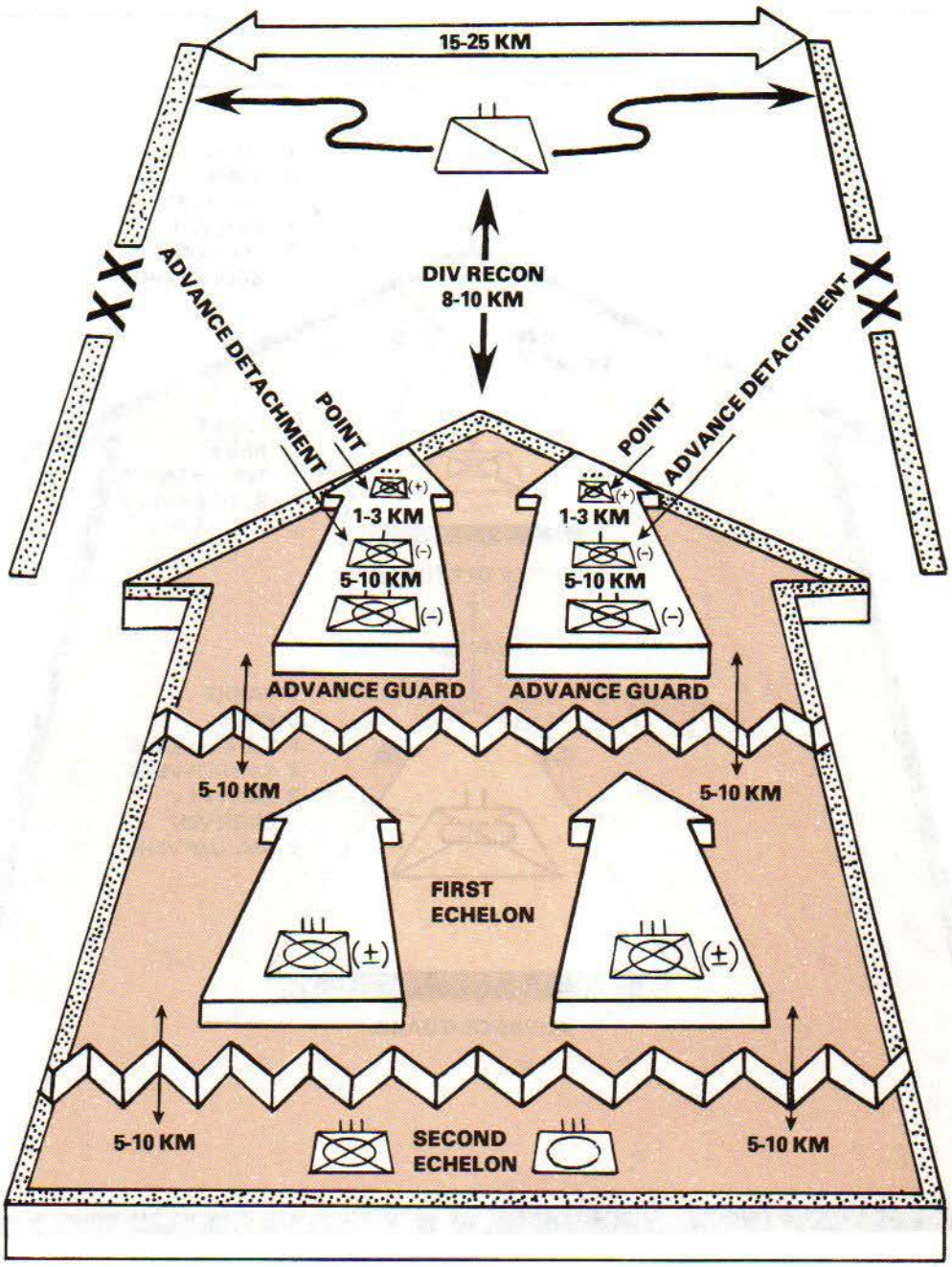
■ A typical battle disposition for a threat motorized rifle regiment is shown on the following pages. Reconnaissance units are used to find the limits of enemy defensive positions. Knowing these limits, the main body will bypass defensive positions and attack them from the flanks and rear. The regimental attack is organized in two echelons. In the first echelon are combat units responsible for accomplishing the primary mission. Second echelon forces follow the route of advance of first echelon forces, but have secondary or follow-up missions which may change as the tactical situation develops. Emphasis is on the combined arms team. Even motorized units depend on the maximum use of tanks. Threat forces use massive field artillery fires to support maneuver elements. Airbursts from threat field artillery fires can inhibit helicopter operations in forward areas. Within the regiment, ADA priority is assigned to defense of command posts and tank units.

• Threat forces employ air defense artillery to protect combat formations, installations, and troop movements from air attack. ADA weapons occupy carefully selected positions in order to ambush helicopters flying nap-of-the-earth (NOE). ADA weapons are used against ground targets only in self-defense. Fire support from adjacent ADA units is provided whenever practicable.

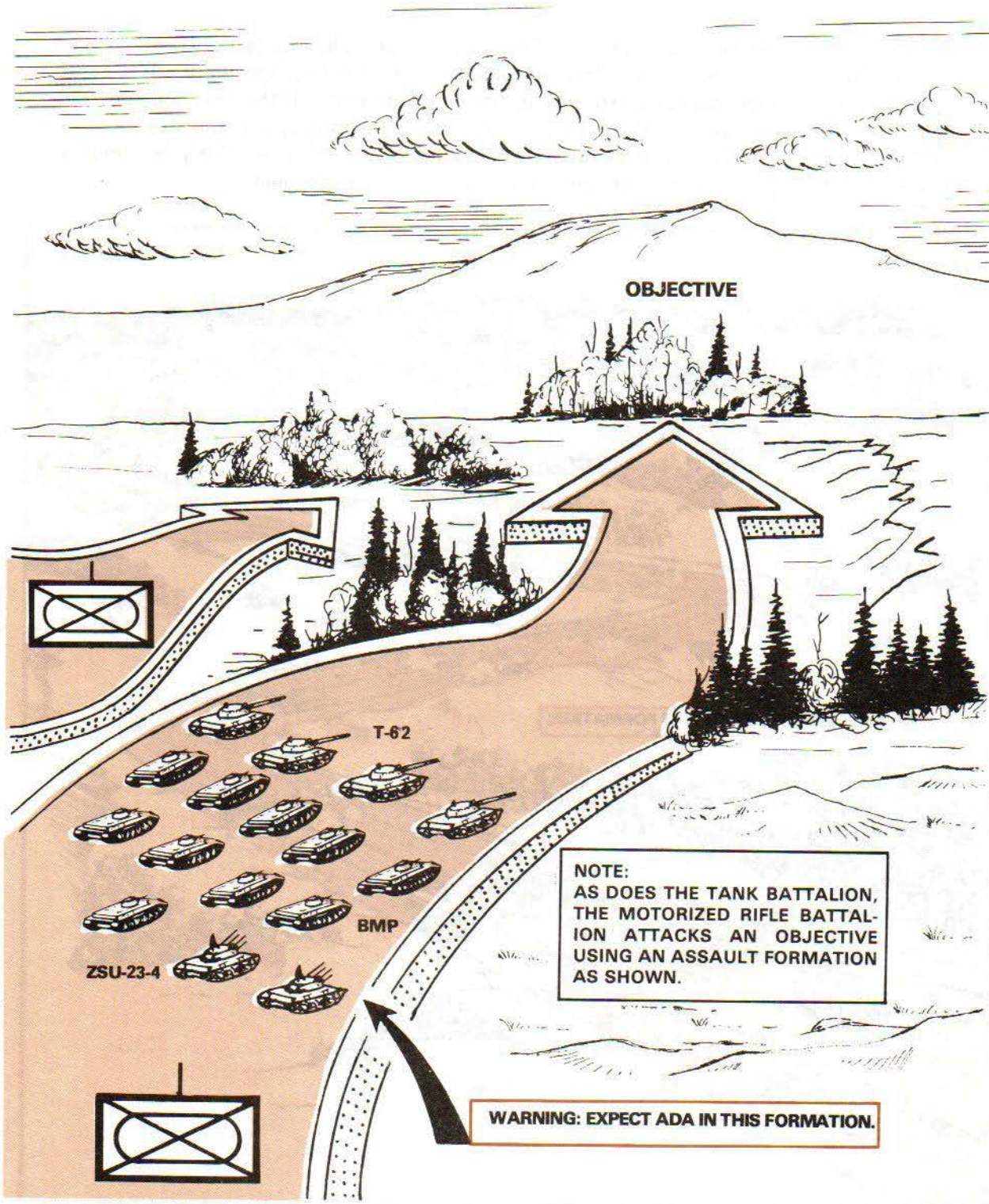
• Threat forces are trained to fight at night and during periods of reduced visibility. Basic tactics are the same under these conditions; however, objectives will not be as deep as when fighting in daylight hours and good weather.



WEAPONS AND VEHICLES IN AN ADVANCE GUARD OF A MOTORIZED RIFLE DIVISION

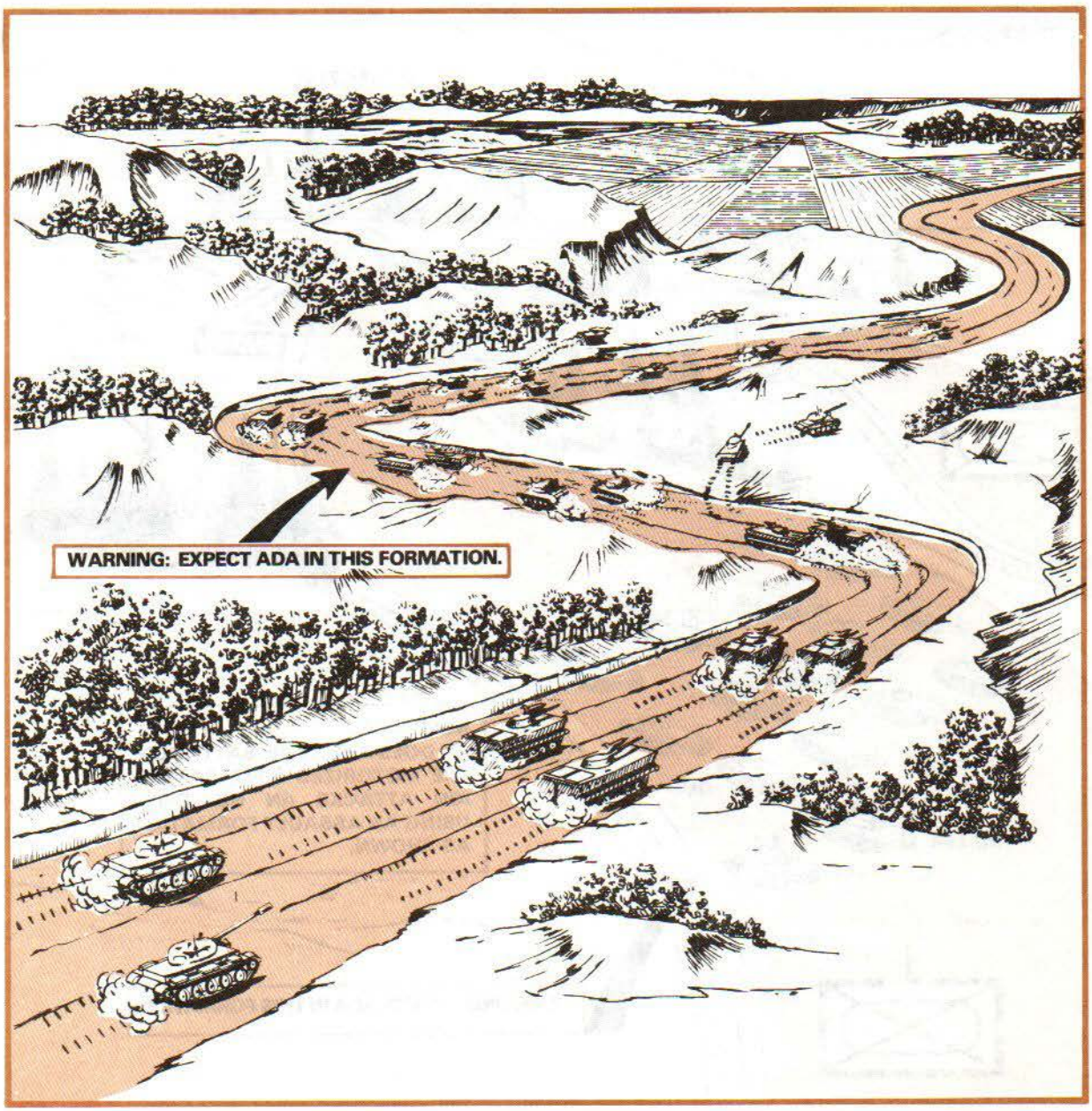


WHEN A MOTORIZED RIFLE DIVISION MOVES OVER MORE THAN ONE ROUTE, EACH FORWARD REGIMENT SENDS OUT ITS OWN ADVANCE GUARD.



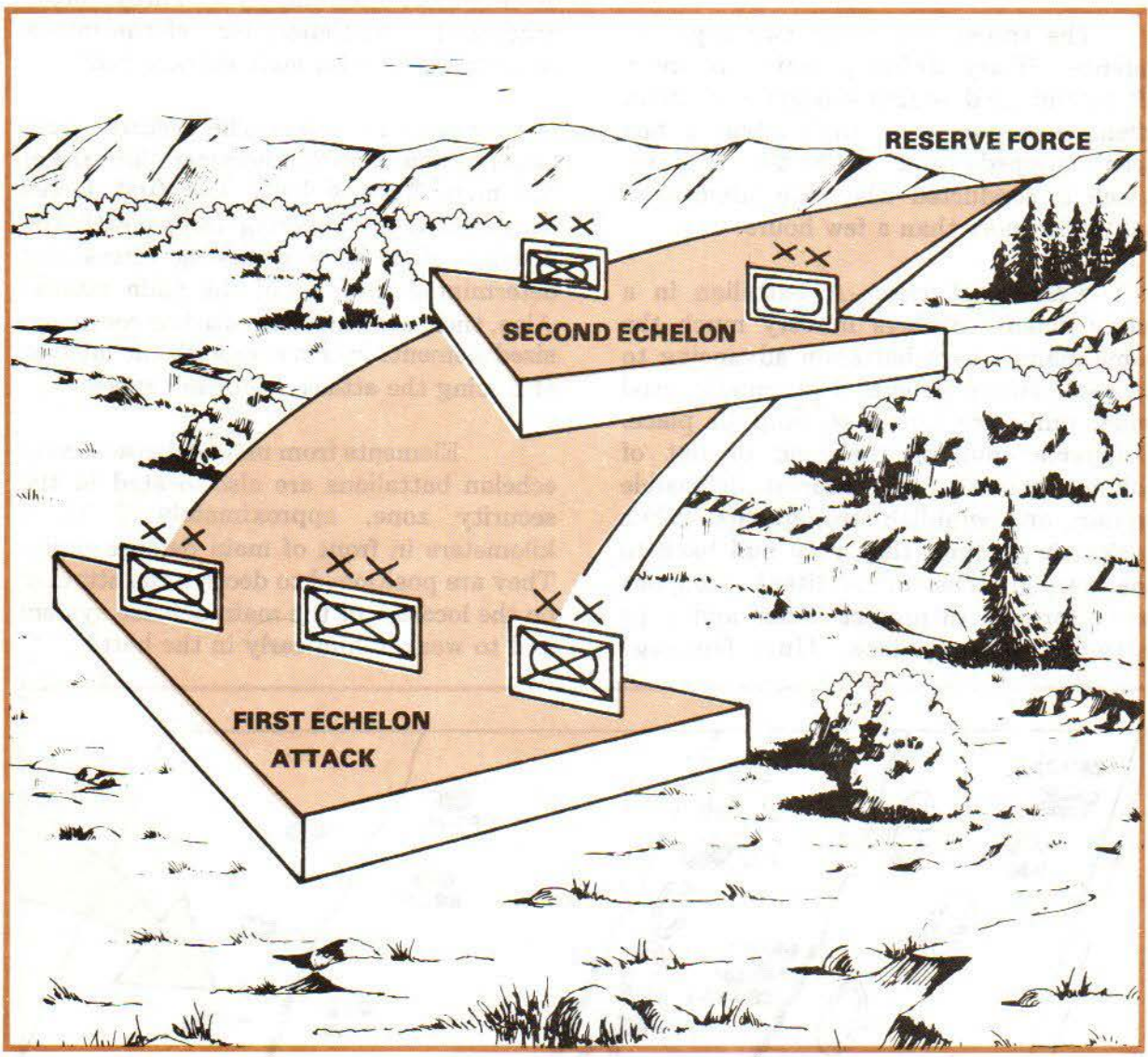
MOTORIZED RIFLE BATTALION ATTACKS

Motorized Rifle Regiment Second Echelon. The second echelon, usually a motorized rifle battalion, is employed in a follow-up role to maintain a high tempo of advance, to repel enemy counterattacks, and to exploit offensive successes of the first echelon. The march formation, direction of advance, and area of commitment are designed to support the attack of the first echelon. Air defense weapons will most likely be included in the formation. A schematic of the second echelon is shown below.



SECOND ECHELON OF A MOTORIZED RIFLE REGIMENT.

The tactic of using a second echelon is consistent throughout threat doctrine; therefore, even when talking of combined arms armies, there will still be a second echelon, as depicted below. The distance between first and second echelons depends on the tactical situation.



ECHELONS OF THE COMBINED ARMS ARMY IN THE ATTACK.

Motorized Rifle Regiment Reserve. The motorized rifle regiment normally maintains a tank battalion as a reserve force to exploit penetrations. It may be the organic tank battalion, but usually will be the tank battalion attached to the motorized rifle regiment from the motorized rifle division's tank regiment. The reserve will travel in the vicinity of the regimental command group.

■ Defense is only a temporary measure conducted while forces consolidate to continue an attack. It is conducted in depth from a series of strongpoints.

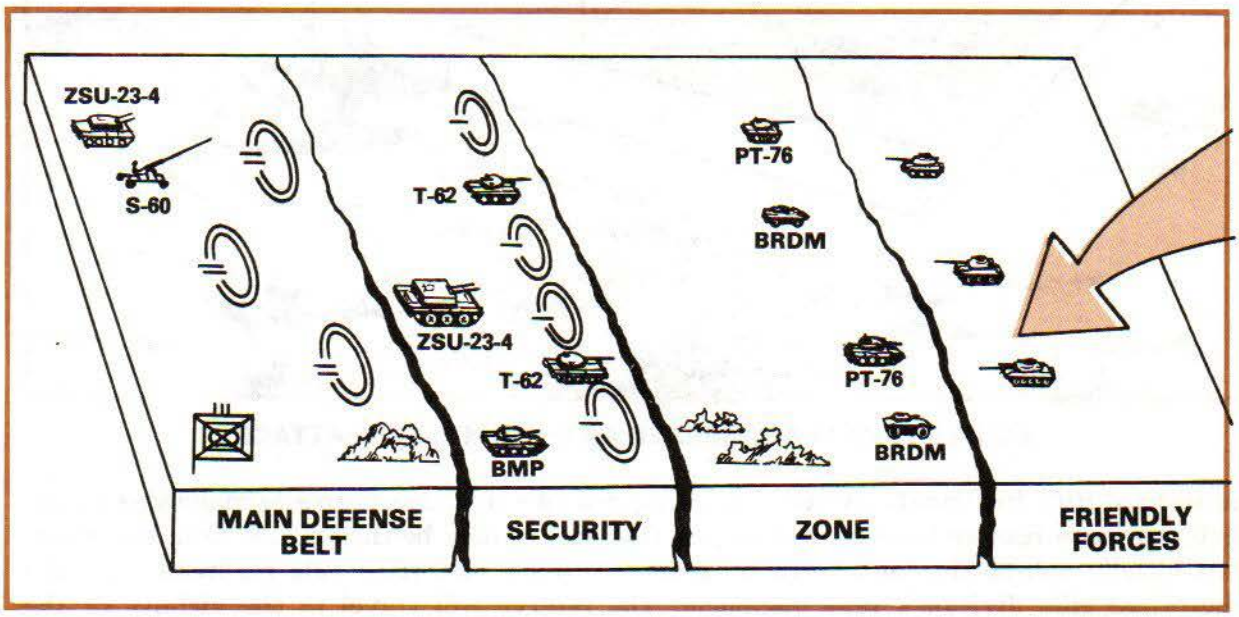
The threat recognizes two types of defense: *Hasty defense,* which is most often conducted by first echelon units in an offensive action when their advance has been stopped; and *deliberate defense,* which is conducted when the advance is halted for more than a few hours.

• *Hasty Defense*—A battalion in a hasty defense deploys in very much the same manner as a battalion advancing to contact. Hasty defense is normally used when units are forced to stop in place. Companies pull off the road or out of column, move to the nearest defensible terrain, and establish strongpoints. When tanks are leading, they may pull back to the second echelon. Antitank weapons move forward to protect flanks and gaps between strongpoints. Unit frontage remains the same as before halting—a battalion usually covers up to 3 kilometers.

• *Deliberate Defense*—This is the defense most often employed. Threat forces organize the battlefield for defense into a *security zone* and a *main defense belt.*

Security Zone—The *security zone* begins about 20 to 25 kilometers forward of the main defense belt. The first forces encountered are *covering troops* with the mission of locating attacking forces and determining the axis of the main attack. Also, there are battalion-sized or company-sized elements in this zone with the mission of forcing the attacker into kill zones.

Elements from main defense second echelon battalions are also located in the security zone, approximately 3 to 5 kilometers in front of main defense units. They are positioned to deceive the attacker on the location of the main defense system and to weaken him early in the battle.



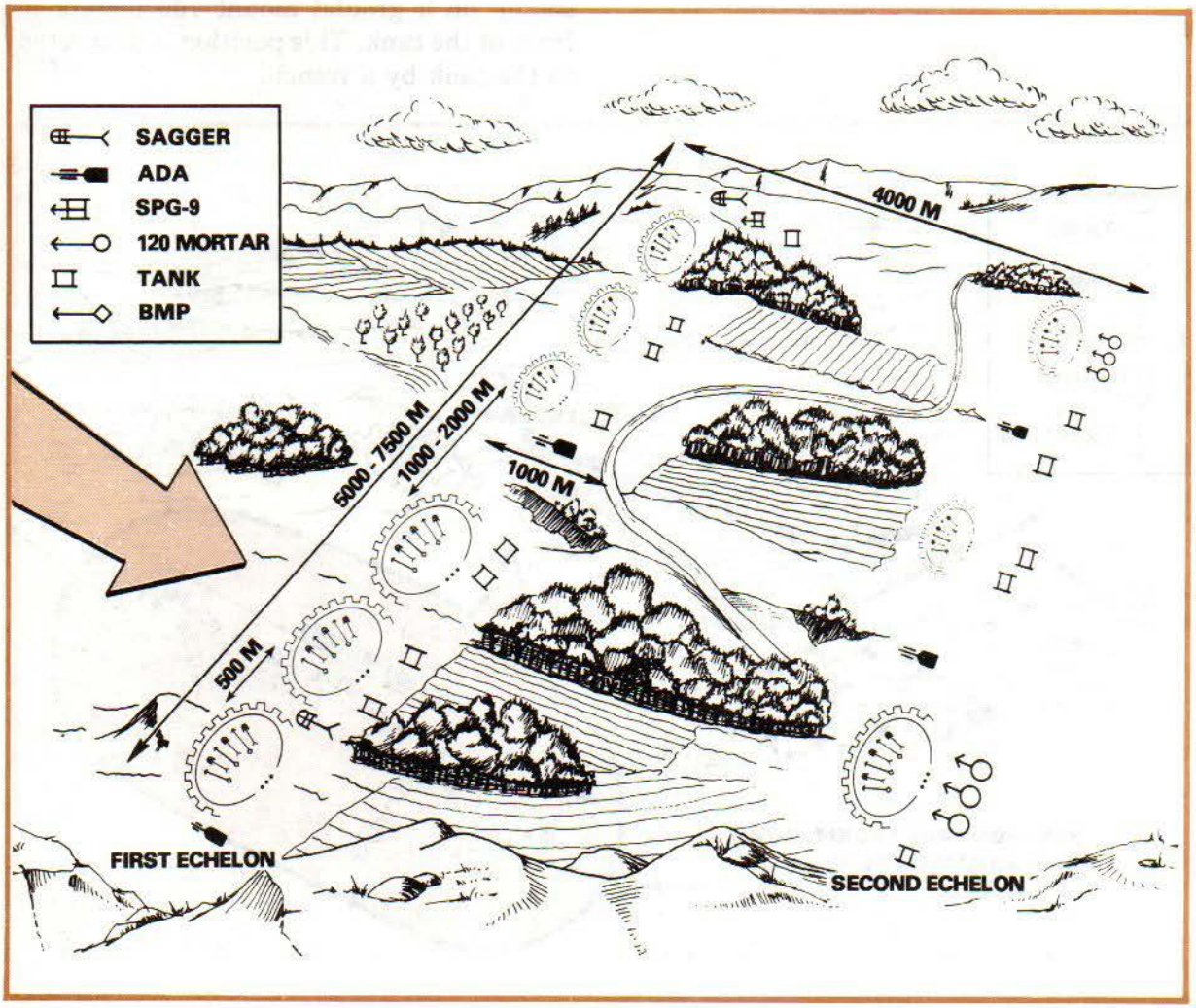
THREAT DEFENSE IN DEPTH.

Main Defense Belt—The *main defense belt* consists of battalion strongpoints on likely avenues of approach. Time permitting, engineers reinforce terrain with minefields and barriers. Fires are planned on avenues of approach, flanks, on and to the rear of all defensive positions. Defensive fires are provided by artillery, mortars, ATGMs, and by tanks used in an antitank role. There are two lines of defense within a battalion defensive position. A typical battalion defensive sector looks like this:

The first echelon of the battalion consists of two reinforced companies. These companies are deployed in platoon strongpoints as shown.

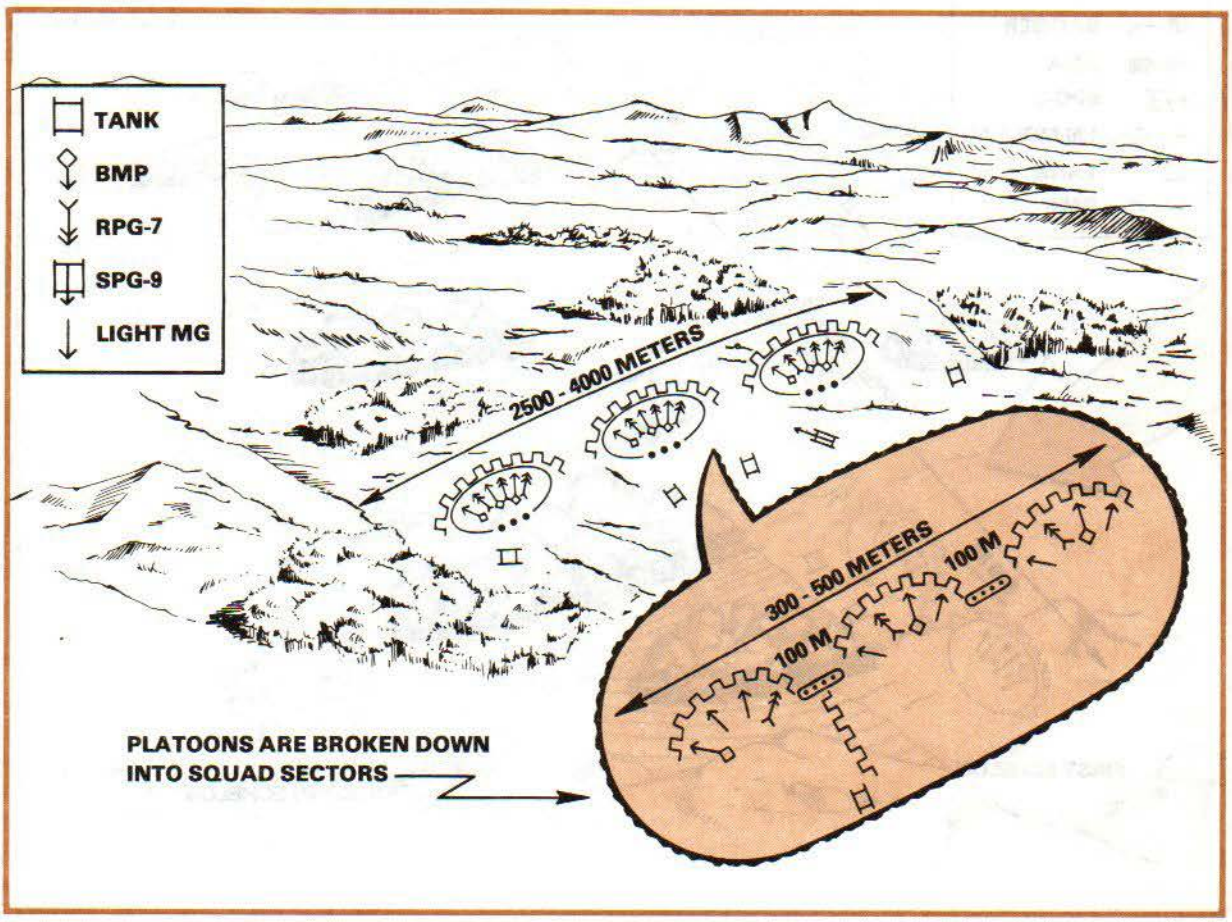
The second echelon is formed by the third company, spread across the battalion sector approximately 1 kilometer behind the first echelon companies.

If the sector is very wide or terrain is not suitable for organizing strongpoints in depth, the battalion will not use a second echelon.



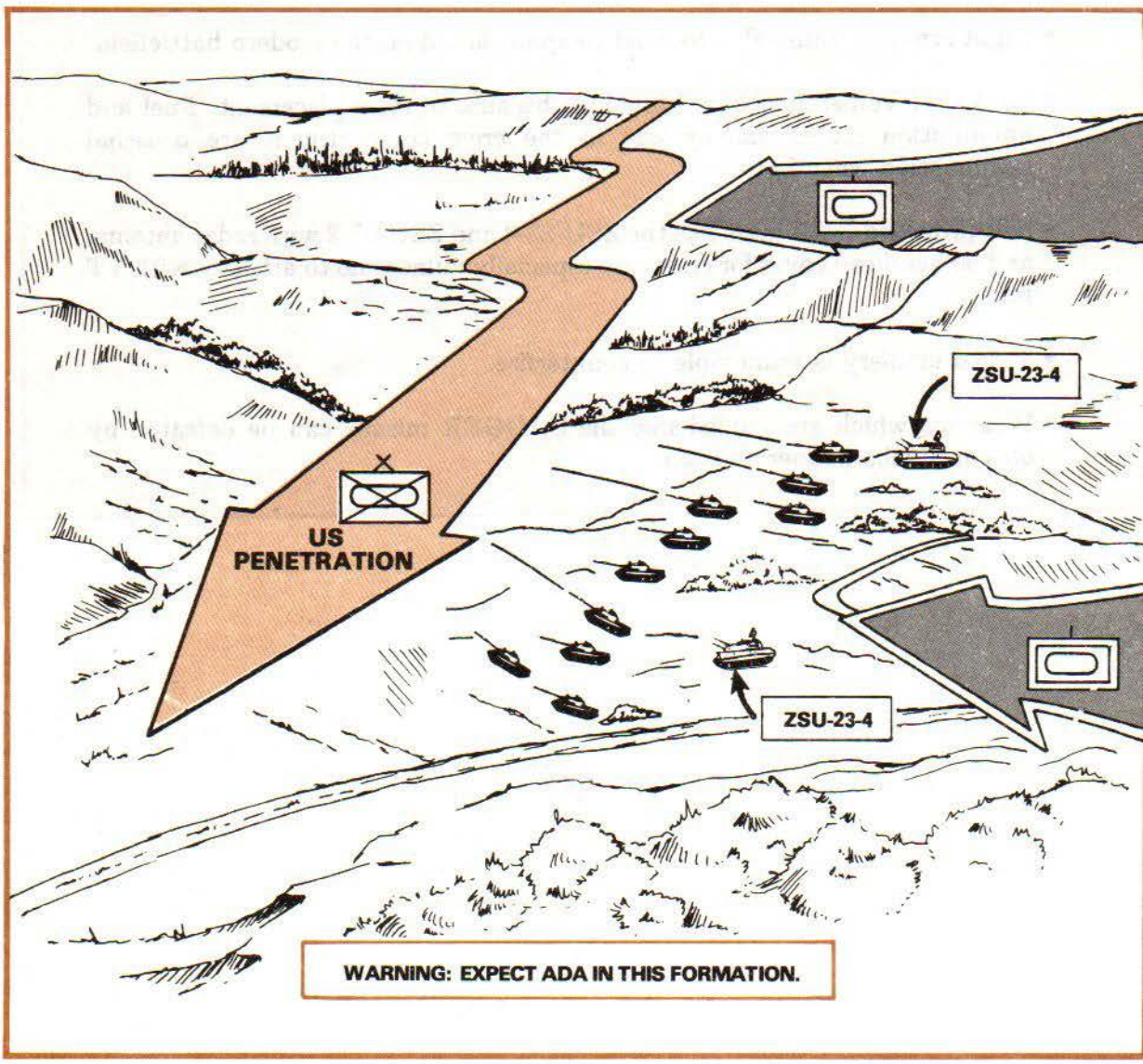
BATTALION MAIN DEFENSIVE BELT ORGANIZATION.

A company defensive position in a threat battalion strongpoint may be organized as shown below. In some instances, BMPs of forward platoons will be positioned with the rear platoon, providing overwatching fires. The infantry prepares two- and three-man defensive positions as quickly as possible. Communication trenches are dug between platoons and company headquarters. Alternate positions are prepared; BMPs and tanks are dug in, using unit resources (dozer blades and explosives). A machinegun manned by the driver may be set up on a ground mount 100 meters in front of the tank. This position is connected to the tank by a trench.



COMPANY DEFENSIVE ORGANIZATION.

Any penetration into the main defensive belt will be counterattacked by elements of the regimental tank battalion held in reserve for that purpose. The objective of the counterattack by the reserve is destruction of the enemy force. Priority for air defense may be assigned to the reserve. ADA will normally accompany the tank battalion in the counterattack.



PENETRATION OF THE THREAT MAIN DEFENSIVE BELT.

THREAT VULNERABILITIES

Although threat forces have one of the best-equipped and well-trained armies in the world, they can be defeated.

Every weapon and weapons system has weaknesses and vulnerabilities which can be exploited.

■ Vulnerabilities:

- Light armor is vulnerable to most weapons found on the modern battlefield.
- Tanks are vulnerable to multiple kills because of crew placement. Fuel and ammunition stored side-by-side in the crew compartment are a lethal combination when hit.
- Self-propelled ADA guns like the ZSU-23-4 and ZSU-57-2 with radar antenna and no overhead cover for crews are especially vulnerable to artillery with VT fuzes.
- Towed artillery is vulnerable to counterfire.
- Weapons which are guided like the SAGGER missile can be defeated by obscuring the gunner's vision.

CHAPTER 3

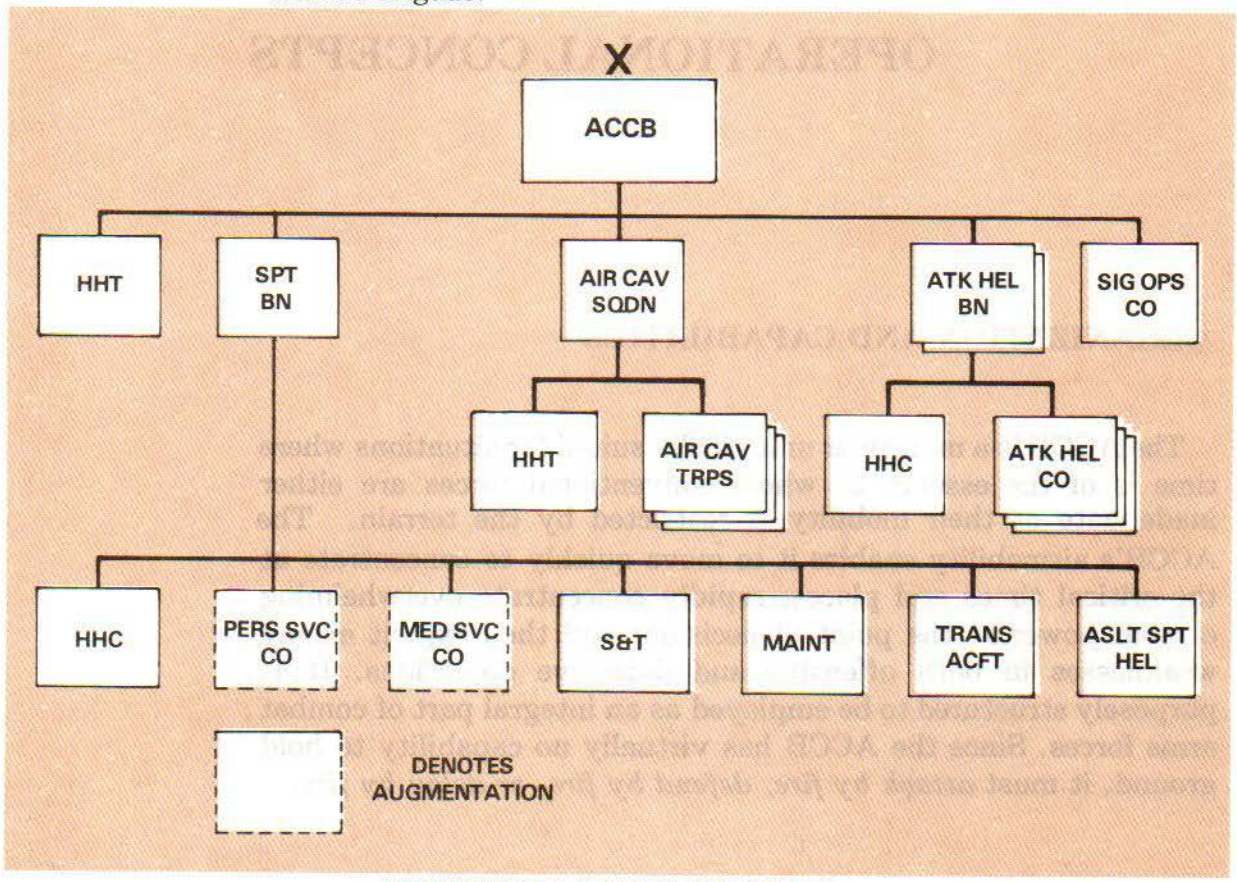
OPERATIONAL CONCEPTS

ORGANIZATION AND CAPABILITIES

The ACCB is a maneuver unit ideally suited for situations where time is of the essence or where conventional forces are either inadequate or their mobility is restricted by the terrain. The ACCB's airmobility enables it to move quickly to concentrate at the critical times and places; rapidly concentrate overwhelming combat power at the point of decision; and then exploit enemy weaknesses in both offensive and defensive operations. It is purposely structured to be employed as an integral part of combat arms forces. Since the ACCB has virtually no capability to hold ground, it must *attack by fire, defend by fire, or delay by fire.*

CONTENTS

The ACCB normally consists of a brigade headquarters and headquarters troop, two attack helicopter battalions, one air cavalry squadron (this squadron *does not* have a ground cavalry troop), a support battalion, and a signal operations company. Depending on the mission, the ACCB may be augmented with additional air cavalry and attack helicopter units. Table of Organization and Equipment 17-200 identifies manpower and equipment authorizations for the air cavalry combat brigade.



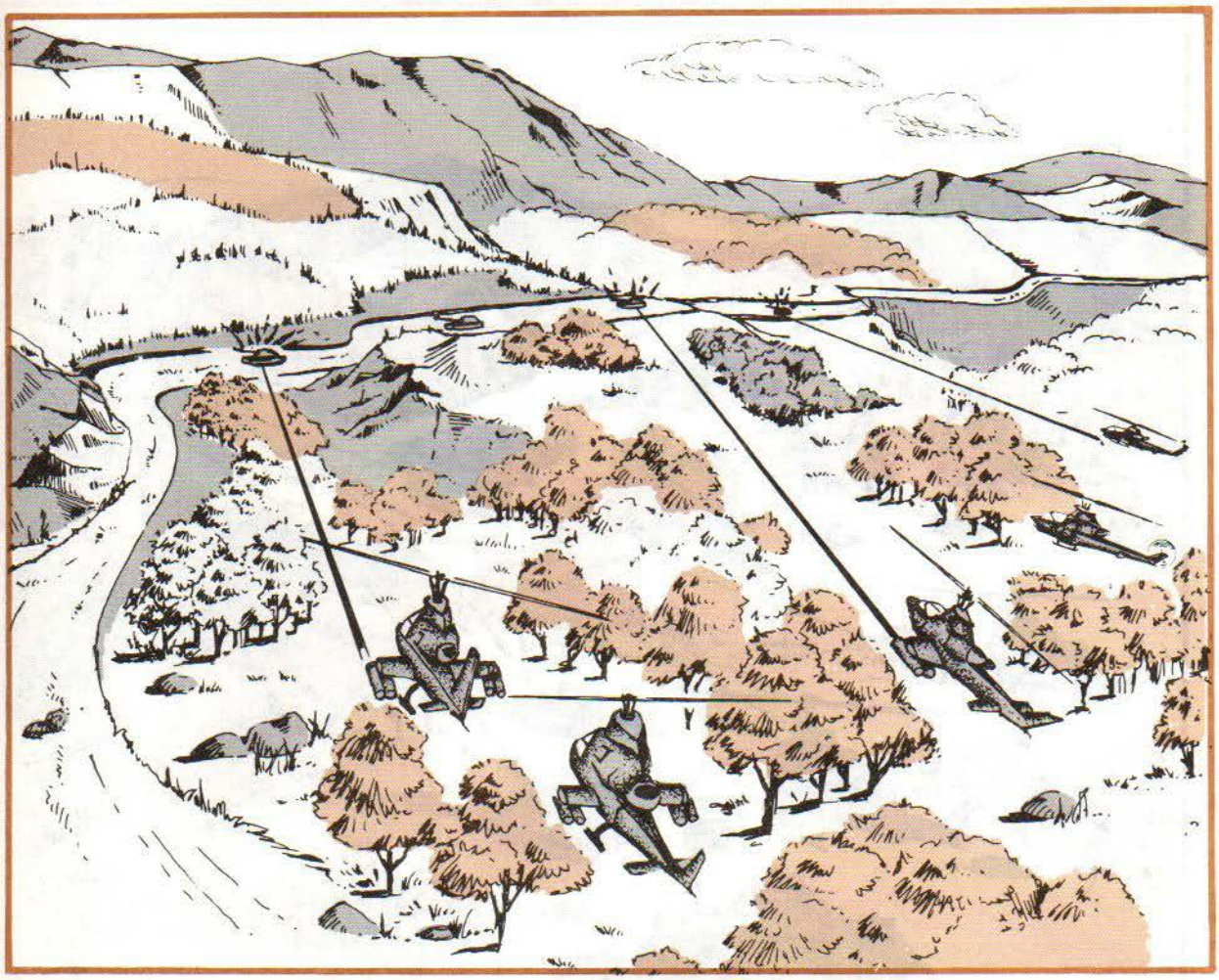
AIR CAVALRY COMBAT BRIGADE.

PRINCIPLES OF EMPLOYMENT

The following paragraphs contain a general discussion of the principles of employment for the ACCB that the commander must consider when planning and conducting tactical operations. These principles are proven concepts that must be understood in their entirety, but all are not necessarily applicable in every case. Their application must be carefully evaluated and tailored for each situation. By properly applying these principles, the ACCB can *attain optimum effectiveness, minimize vulnerability,* and *maximize survivability.*

■ The primary advantage the ACCB has over other maneuver forces is that it provides the ground commander an anti-armor weapon system that is completely airmobile and capable of rapidly moving about the battlefield to bring heavy firepower to bear on tanks and other armored vehicles. In offensive operations, the ACCB is employed primarily in the exploitation and the pursuit; in the defense, it is used primarily against the main attack and in counterattacking; in the delay, it is used to slow the enemy by conducting successive ambushes by fire. (Detailed information for each type of operation is discussed in succeeding chapters.)

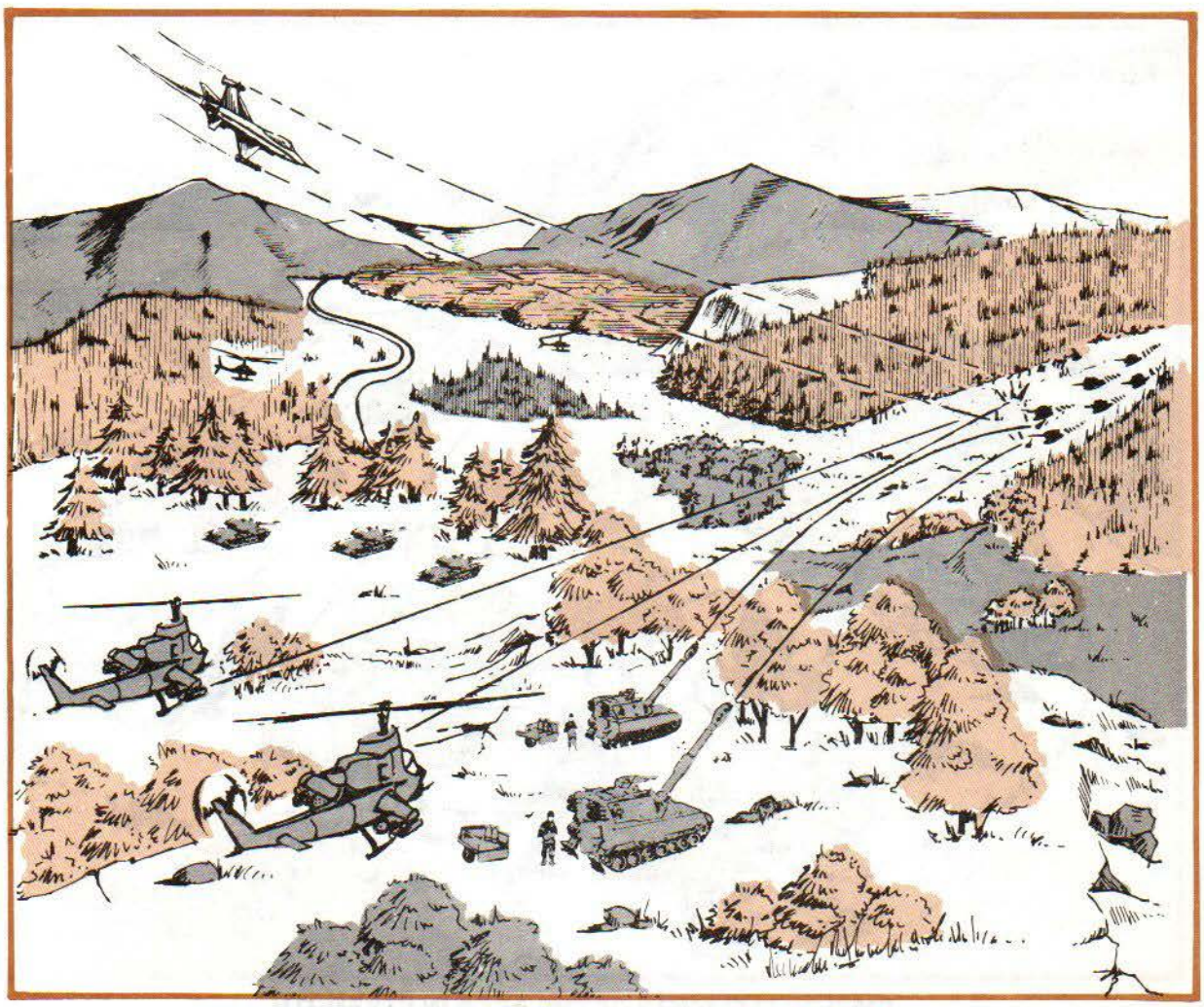
Elements of the ACCB should be employed in strength—not piecemeal. To insure adequate combat power, it is preferable to use attack helicopters in battalion strength. The smallest element of the ACCB to conduct a combat operation should be limited to a company. By employing the ACCB in strength, overwhelming combat power is brought to bear on the target with sufficient volume to destroy it in a short period of time.



EMPLOY ELEMENTS OF THE ACCB IN STRENGTH.

■ When employing elements of the ACCB with a ground force, do not fragment elements of an attack helicopter battalion between divisions. As a general rule, a complete battalion is placed under OPCON to a division. If necessary, complete companies of a battalion may be placed under OPCON to the divisional brigades. Placing individual attack helicopter companies under control of divisions or brigades of different divisions fragments the ACCB's combat capability, degrades its continuity of command, and degrades its capability to quickly reconstitute the brigade.

■ The ACCB cannot conduct sustained operations without augmentation from combat support and combat service support; therefore, it should be attached to a larger force which has its own support command for sustained operations. Additionally, the ACCB needs non-organic firepower provided by field artillery and USAF fighter-bombers to suppress enemy air defenses. Electronic countermeasures should also be provided.



THE ACCB FIGHTS AS PART OF THE COMBINED ARMS TEAM.

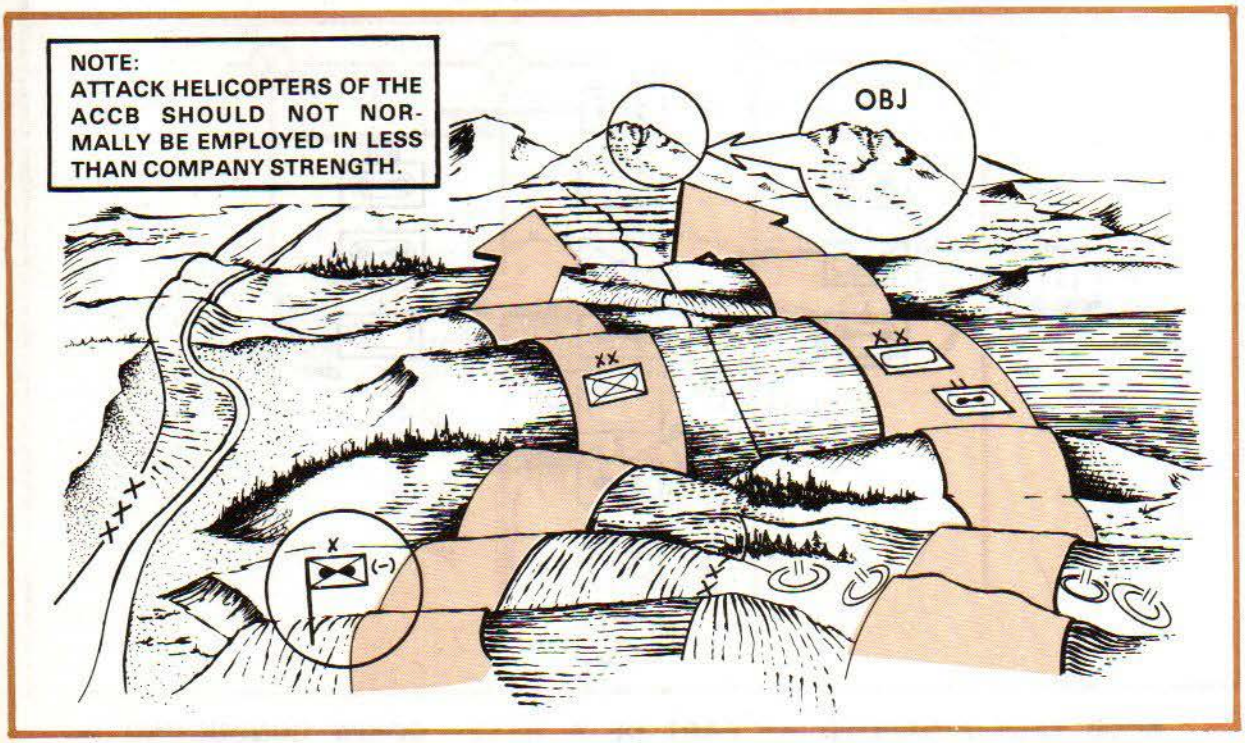
MULTIPLE EMPLOYMENT

■ Because units of the ACCB can quickly reconstitute, it can be assigned more than one mission during a single operation. This principle is referred to as *"multiple employment."* For example, when employed as the corps reserve, it can simultaneously reinforce ground combat units with all of—or some of—its battalion-sized units in one or more locations for a specified time or for a specific mission.

■ When planning an operation involving "multiple employment," the corps commander and the ACCB commander must establish an acceptable loss rate. Planning must be based on this loss rate to insure that the capability of the ACCB is not degraded to the point where future contingencies cannot be met.

Multiple employment permits:

- Maximum use of ACCB's combat power.
- Optimum use of ACCB's flexibility and mobility.
- Rapid reconstitution of the ACCB.

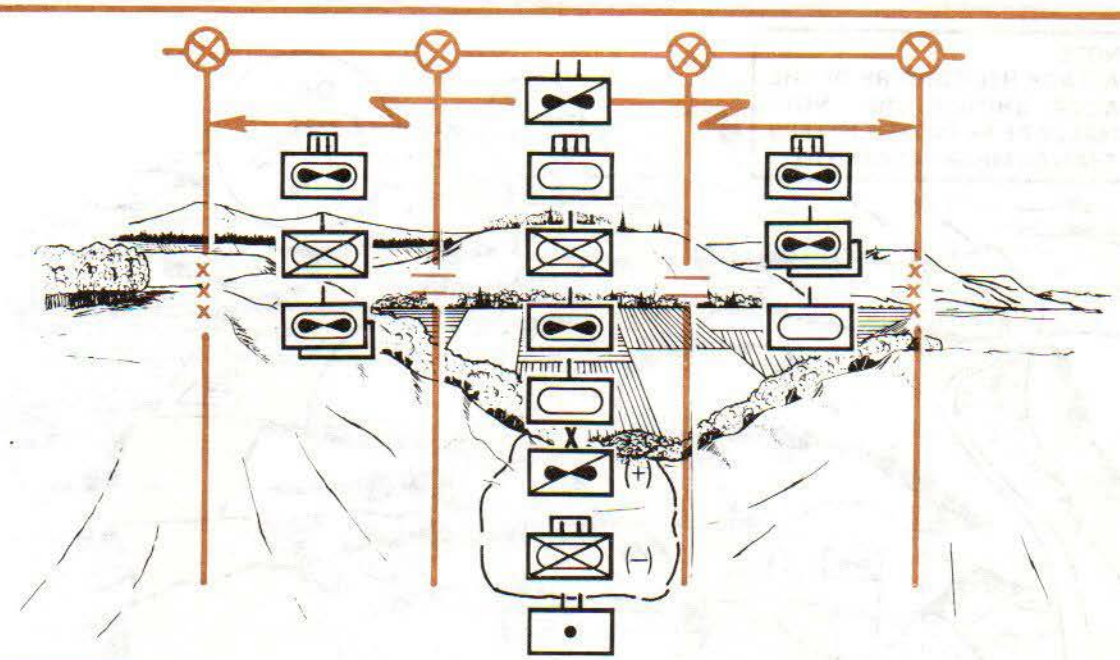


MULTIPLE EMPLOYMENT OF THE ACCB.

• The ACCB can be employed as a combined arms force with only minimum attachments of other units under its operational control (OPCON); or it can be under OPCON of a ground maneuver force. As a combined arms force, the ACCB is capable of accepting OPCON of armored cavalry, tank, air assault, and mechanized infantry task forces for short periods of time. For example, when operating over extended frontages or conducting a covering force operation, a combined arms task force and support units may be attached or be placed OPCON to the ACCB. Highly mobile ACCB elements can be used to locate and engage enemy main forces while at the same time the remainder of the force can cover other areas or prepare defensive positions to engage the advancing force.

• Generally, the mobility and flexibility of the ACCB should not be restricted by requiring the ACCB commander to control ground maneuver units. When this control prevents full exploitation of the ACCB's mobile reconnaissance and antiarmor firepower capability, the responsibility of controlling the ground unit should revert to the ground force commander. Thorough planning must be conducted prior to an operation to insure that the capabilities of the ACCB and support units are fully exploited.

For example, combined arms task forces and support units can be attached or be placed OPCON to the ACCB when operating over extended frontages. Highly mobile ACCB elements can be used to find and counter enemy main efforts, while at the same time the remainder of the force can adequately cover other areas. In security missions—covering force, flank security, security of areas where terrain inhibits ground mobility—the ACCB fulfills the classic economy of force cavalry role. Together with sufficient combined arms tasks forces, the ACCB can be a potent, highly mobile, extremely flexible security force.



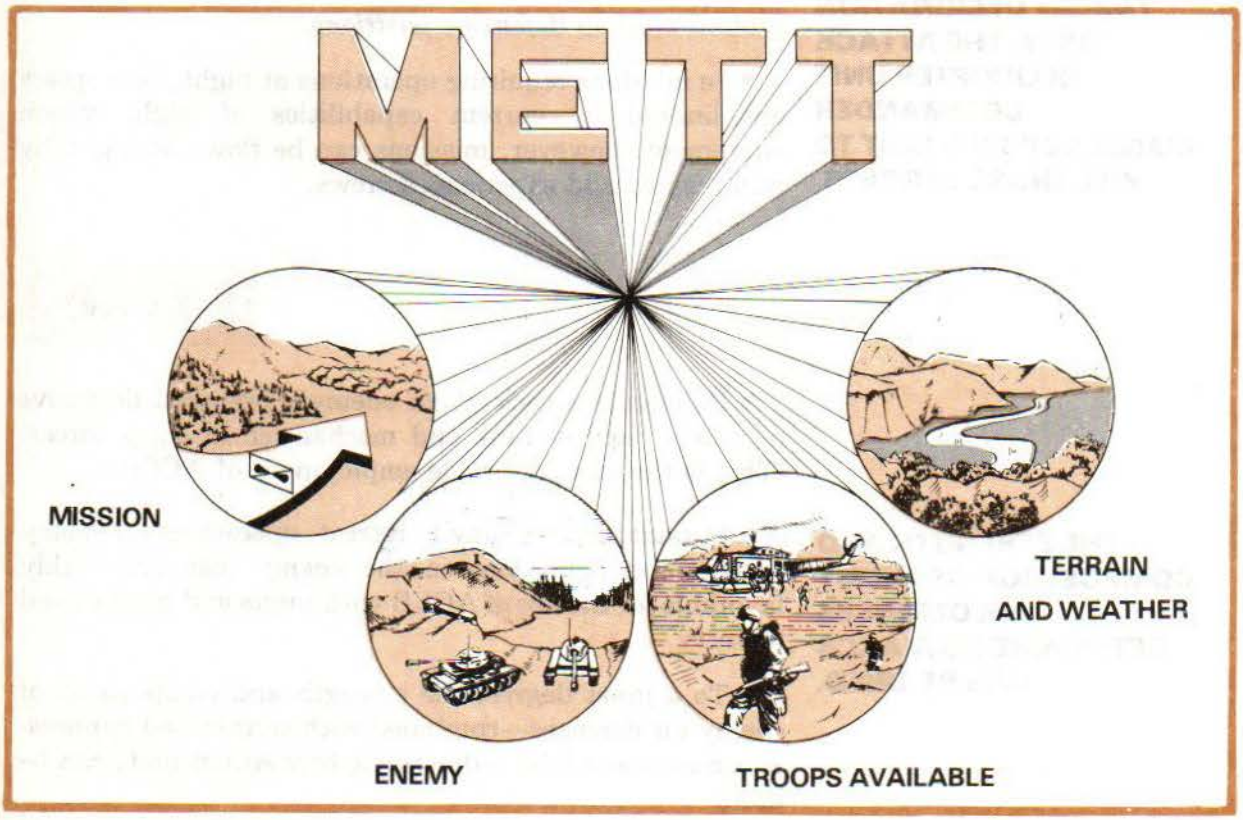
ACCB TASK-ORGANIZED AS PART OF A HEAVY CORPS CONDUCTING A COVERING FORCE OPERATION.

Airspace Management Elements (AME) are found at division and corps level. The ACCB must coordinate with the airspace management element within the corps tactical operations center and fly *"standard routes" when maneuvering behind a division's rear boundary. Forward of a division's rear boundary, ACCB aircraft will generally operate without restrictions below a specific altitude which will allow maximum freedom to maneuver. Conflicts in the division's area are generally avoided by passing information concerning major movements of aircraft or high concentrations of fire to the airspace management element within the division tactical operations center. This coordination will allow maximum freedom to maneuver. Control of aircraft will be governed by SOPs and other procedures to reduce reliance on communications and to reduce interference with combat operations.

*(See FM 1-60, *Airspace Management and Army Air Traffic in a Combat Zone*, and FM 100-42, *US Air Force/US Army Airspace Management in an Area of Operations*, for additional guidance.)

ORGANIZATION FOR COMBAT

Organization for combat is the grouping or tailoring of combat and combat support units to accomplish a specific mission. In addition to the principles of employment previously discussed, the ACCB commander determines the composition of his subordinate units based on his *mission*, the *enemy*, *troops available*, and the *terrain and weather (METT)*.



Mission

- Operations requiring rapid movement over extended frontages call for air and ground cavalry and attack helicopter units.

THE ACCB CANNOT HOLD TERRAIN LIKE GROUND MANEUVER FORCES.

- Rapid movement to concentrate forces to counter an enemy main attack, to operate on an enemy flank, or to exploit a break in an enemy defensive system requires air cavalry and ground cavalry, attack helicopter units, tanks, and mechanized infantry.

- Deliberate attack on a well-prepared enemy position may make use of attack helicopters to reinforce ground forces, but only with the aid of considerable suppression and careful planning.

THE GROUND COMMANDER IS RESPONSIBLE FOR TARGET DESIGNATION ONLY. THE ATTACK HELICOPTER UNIT COMMANDER MANEUVERS HIS UNIT TO KILL THOSE TARGETS.

- The ACCB can be used to *deny* terrain or avenues of approach to the enemy; it cannot *hold* terrain like ground maneuver forces. Elements of the ACCB may *reinforce ground units in defensive positions.*

- In missions requiring operations at night, helicopters are limited by current capabilities of night vision equipment; however, missions can be flown at night by well-trained and experienced crews.

Enemy

- Deliberate attack of an enemy's prepared defensive positions requires tank and mechanized infantry forces. (This is the least desirable employment of ACCB.)

THE STRENGTH AND COMPOSITION OF ENEMY AIR DEFENSES DETERMINE HOW ACCB CAN BE USED.

- Pursuit of the enemy in retreat, operations on enemy flanks, and operations in the enemy rear are highly favorable for the use of ACCB with tanks and mechanized infantry.

- To a great degree, the strength and composition of enemy air defenses—combined with terrain and suppressive means available—determine how ACCB units can be used.

Troops Available

- ACCB has a distinct mobility advantage over conventional ground forces.
- ACCB can employ its antiarmor point target weapons rapidly against multiple targets—either concentrated or on a wide front.
- ACCB can reinforce ground units in one location—or more; then reconstitute rapidly for further employment as a brigade.
- When the mission requires terrain to be secured and held and the mission clearly favors control of the operation by the ACCB commander, ground combat units should be placed OPCON to ACCB for short periods of time.

GROUND COMBAT UNITS CAN BE PLACED OPCON TO THE ACCB FOR SHORT PERIODS.

Terrain and Weather

- Terrain which affords good observation and long-range fields of fire favors the use of ACCB.
- Terrain obstacles which can be developed into positions to ambush the enemy also favor the employment of ACCB.
- Terrain which limits ground mobility, e.g., swamps, lava fills, deep escarpments, favors employment of ACCB.

THE ACCB CAN EFFECTIVELY COVER TERRAIN WHICH IS IMPASSABLE TO GROUND VEHICLES.

- Adverse weather which reduces visibility also reduces the effectiveness of helicopters; however, low ceilings with good visibility distinctly favor helicopter employment.
- Although flight may be possible under conditions of near-zero visibility, target acquisition is extremely difficult. The ability to fire at standoff ranges, which is essential to the survivability of attack helicopters, is lost.

TARGET ACQUISITION UNDER CONDITIONS OF NEAR-ZERO VISIBILITY IS EXTREMELY DIFFICULT.

- The fact that the presently available equipment restricts night operations must be considered when task-organizing for round-the-clock operations. However, the brigade's night-fighting capability will be significantly increased with the development of future generations of night vision devices.

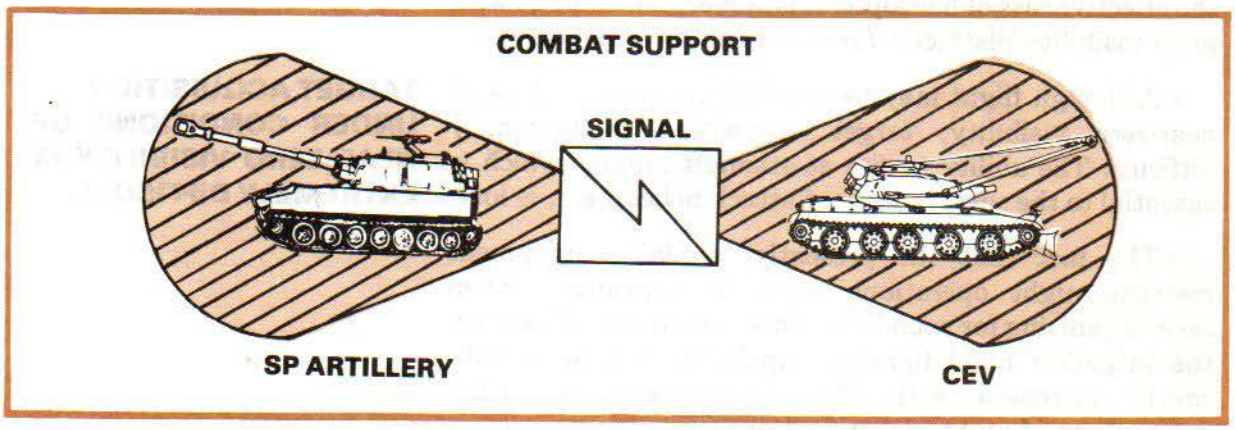
COMBAT SUPPORT

FIELD ARTILLERY AND TACTICAL AIR SUPPORT MUST BE DESIGNATED TO SUPPORT THE ACCB.

The ACCB requires field artillery and tactical air support as much as—or more than—armored or infantry brigades. When employed, the ACCB usually will be employed at a critical time and place. IT MOVES TO THE FIGHT. At the scene of the action, in-place field artillery units—corps or division artillery—must be designated to support the ACCB. Normally, one or more field artillery units must be given an on-order mission to support the ACCB when committed. Other artillery can be displaced to support the ACCB. While the ACCB does not have organic fire support assets, it does have fire support sections in each of its maneuver battalions and squadrons. It also has a fire support element in the brigade headquarters to serve as planners and coordinators and to provide interface with supporting units. (Combat support is discussed further in chapter 6.)

The brigade staff has an engineer officer to serve as a planner and to interface with corps or division engineer units supporting the ACCB. An equipment section is located within the supply and transport company of the ACCB support battalion. This equipment section has limited engineer equipment. (Its limitations are described in chapter 6.)

The brigade signal operations company provides internal communications. The communications-electronics (C-E) section of the brigade headquarters and headquarters troop has staff responsibility for all C-E matters within the brigade. A detailed discussion of a brigade C-E section's responsibilities is found in FM 11-50. The functions of the signal operations company are explained in chapter 6. The brigade communicates with adjacent and higher headquarters by organic FM radio and through communications terminals established in the brigade area by signal elements of higher headquarters.



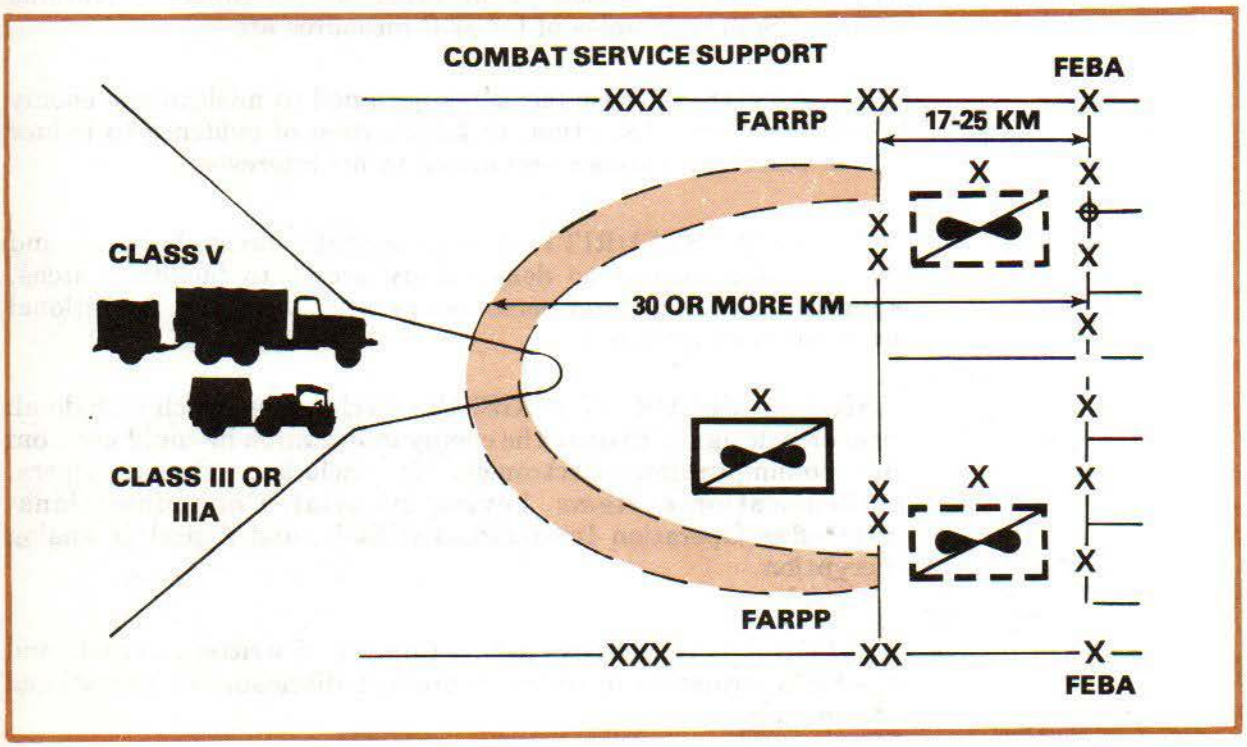
COMBAT SERVICE SUPPORT

THE ACCB MUST BE TIED INTO A COMBAT SERVICE SUPPORT SYSTEM FOR OPERATIONS OVER EXTENDED PERIODS.

The ACCB support battalion is organized to sustain the brigade for short periods of time. Considering the austere tooth-to-tail ratio, the brigade cannot sustain itself over extended periods; it *must* be tied into a combat service support system of larger units—either corps or division. The ACCB relies heavily on standard packages to augment units conducting independent missions. Medical, finance, military police, and personnel service units are examples of augmentation packages. Small medical and administrative sections are provided in the ACCB to interface with the corps support structure. (A more detailed discussion of combat service support can be found in chapter 7.)

The ACCB requires augmented combat support and combat service support for sustained operations. The ACCB cannot sustain itself for extended periods; therefore, it should be assigned or attached to a larger force which has its own support command.

Because of the large quantities of fuel and ammunition expended by ACCB helicopters, the ground commander must consider combat service support requirements to include locations of forward area rearm/refuel points (FARRP) when planning for ACCB helicopter employment.



OPERATIONS SECURITY

Throughout the planning, preparation, execution, termination, and post-operation phases of an operation, every effort must be made to maintain security of the operation. Operations security (OPSEC) is an integral part of planning and conducting unit training and day-to-day operations at all levels of command.

Unit S2s and S3s work together to develop OPSEC protective measures. The four logical steps in the OPSEC planning sequence are to—

- Determine enemy capabilities for obtaining information about the operations.

- Determine what information obtained by the enemy can compromise the operation and when he would need the information in order to react.

- Determine what actions taken by the brigade or its subordinate units prior to an operation, if known to and analyzed by the enemy, would provide him the information he needs.

- Determine what protective measures are necessary and where they must be implemented in order to maximize operations security. Some examples of OPSEC measures are—

DECEPTION—Those measures designed to mislead the enemy by manipulation, distortion, or falsification of evidence to induce him to react in a manner prejudicial to his interests.

PHYSICAL SECURITY—Use of security forces, barriers, and anti-intrusion devices to deny enemy access to facilities, areas, equipment, material, and personnel in order to protect operational information or activities.

SIGNAL SECURITY (SIGSEC)—Techniques which include all measures designed to deny the enemy information he could get from our communications-electronics. It includes: Codes, cipers, authentication systems, keying material, Communications-Electronics Operation Instructions (CEOI), and digital or analog encryption.

INFORMATION CONTROL—Control of written, verbal, and graphic information in order to prevent disclosure of operational information.

CHAPTER 4

OFFENSE

PURPOSE

Offensive operations are undertaken to:

- Destroy enemy forces.
- Secure key terrain.
- Deprive the enemy of resources, demoralize him, and destroy his will to continue the battle.
- Deceive and divert the enemy.
- Develop intelligence.

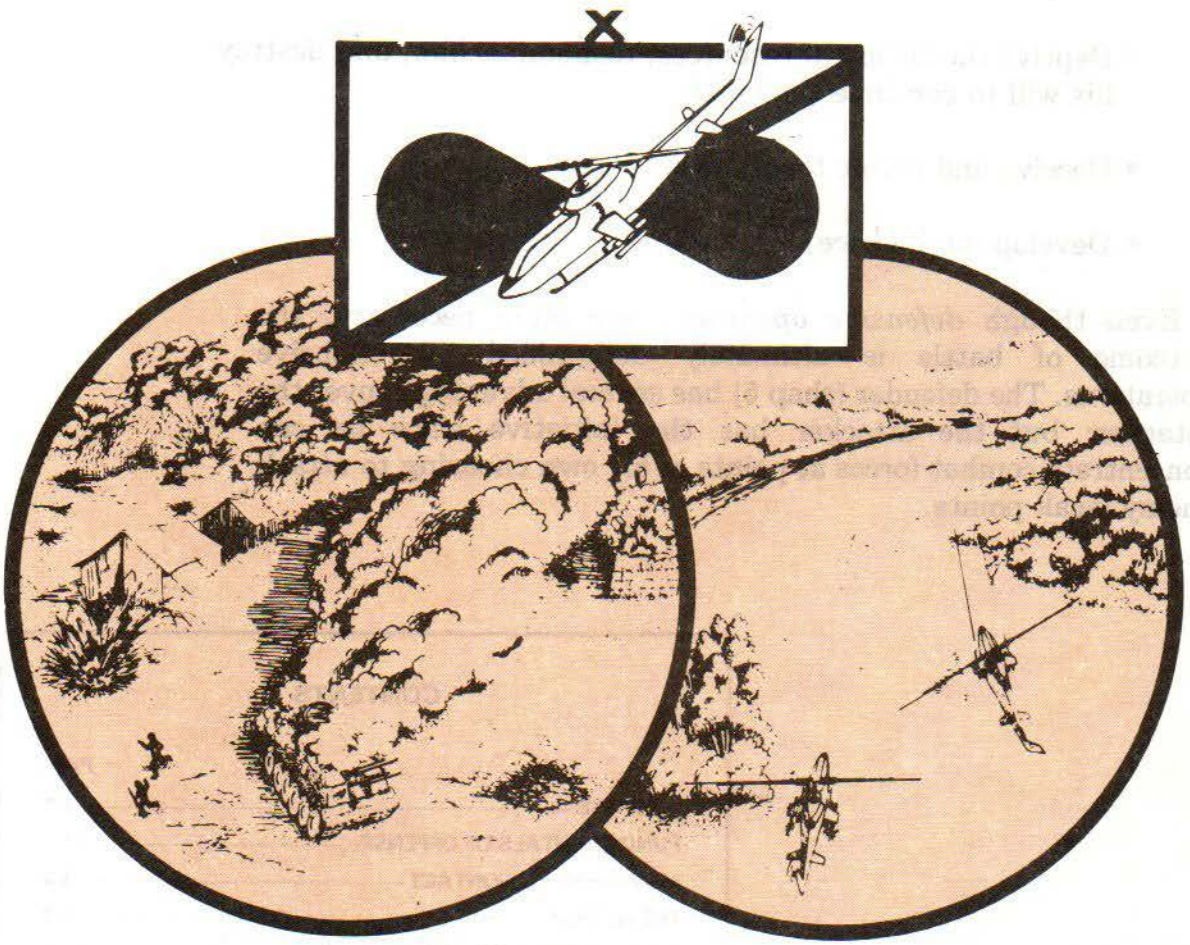
Even though *defensive operations* are often necessary, the outcome of battle is ultimately determined by offensive operations. The defender (chap 5) has several advantages over the attacker; but the attacker has the initiative since he can concentrate combat forces at points of his own choosing to attack enemy weak points.

CONTENTS

Regardless of the offensive mission assigned the ACCB, fundamentals of offense remain the same. The attacker concentrates overwhelming combat power at the decisive point and critical time to break through the enemy's defensive system and destroy his capability to fight.

In offensive operations, the ACCB is best suited for exploitation and pursuit operations as part of a combined arms force where the enemy is on the move.

The ACCB is not designed to secure terrain; its organic capability to do this is limited by its three aerorifle platoons located in the air cavalry squadron. However, with adequate augmentation, it can perform missions which require securing terrain for short periods of time. The ACCB can also dominate terrain and deny the enemy use of terrain by direct aerial fires for limited periods of time.



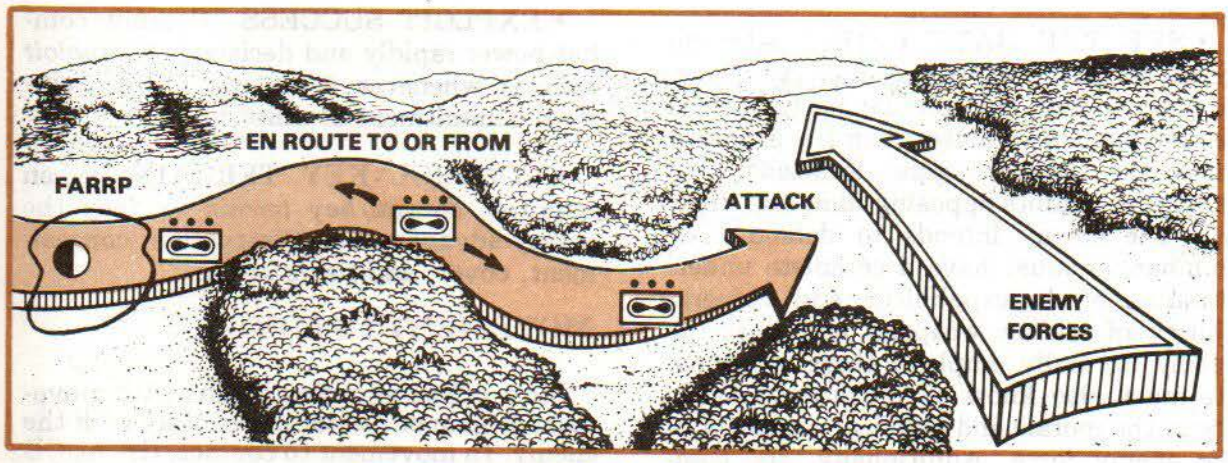
DESTROY THE ENEMY'S LIFELINE

BREAK THROUGH - DRIVE DEEP

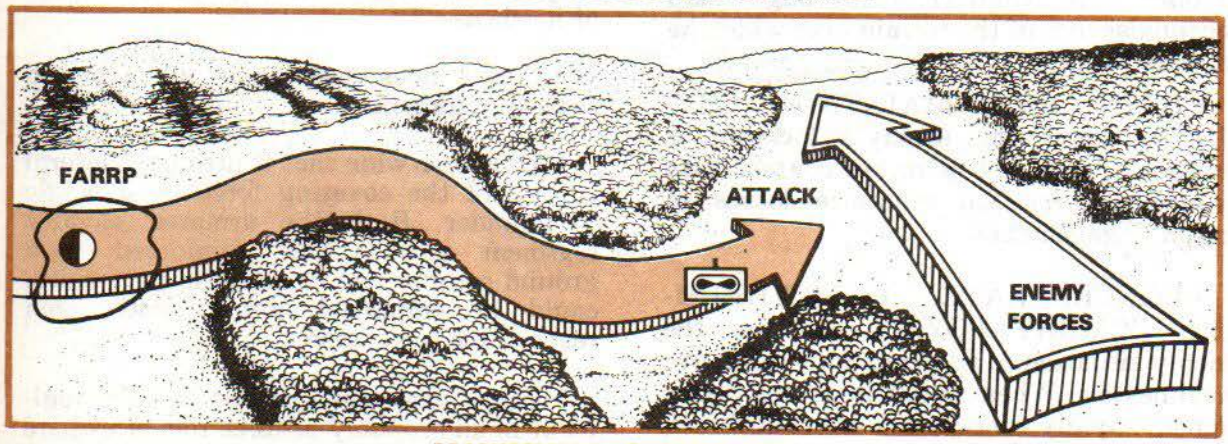
Using the ACCB in a reserve role for extended periods of time does not take full advantage of its capabilities. It can be employed in combined arms operations as part of the team. The ACCB can, for example, move rapidly to critical points on the battlefield; and where the enemy's defense has been ruptured, assist armor forces in the exploitation by attacking fleeing targets or engaging targets in the enemy's rear area.

When committed, the air cavalry squadron of the ACCB is employed to screen large areas and to locate the enemy, thus enabling the attack helicopter battalions to be committed at the proper time and place. Attack helicopters of the ACCB should be employed in sufficient number to achieve a tactical decision.

An attack helicopter company is normally the smallest element of a battalion to be committed against an enemy force. It may be employed to provide continuous pressure or to inflict maximum destruction in a short period of time. If employed to apply continuous pressure, one-third or one platoon of the company is always in contact while the other two platoons are rotated between the refuel and rearm point and the attack position. To achieve maximum destruction, the entire company is committed against an enemy force, thereby concentrating a high volume of antitank firepower for a short period of time.



CONTINUOUS PRESSURE (ONE-THIRD)



MAXIMUM DESTRUCTION

In the *initial onslaught,* and on other occasions, it may be desirable to mass all available attack helicopters to achieve shock and effectiveness. This option requires careful consideration by the commander since it may deny the use of these assets for a period of time while they replenish their fuel and ammunition. . . . It is simply a judgment factor which will be dictated by the battlefield situation.

When planning and conducting offensive operations as a part of the combined arms team, the ACCB commander should consider these principles:

• SEE THE BATTLEFIELD—Intelligence is essential to successful operations. In order to win, the commander must first *see the battlefield* better than the enemy—know the number, type, locations, and strengths of units opposing him; and know how the enemy intends to defend. The commander must have a complete understanding of the capabilities and vulnerabilities of enemy weapons and how the enemy normally employs these weapons. He must also know as much as possible about the morale and physical condition of the enemy force. Additionally, the commander must conduct a thorough map reconnaissance of the terrain over which he intends to fight.

• GAIN AND MAINTAIN CONTACT—When the enemy's location is uncertain, *gain and maintain contact with minimum forces* to minimize losses in initial engagements.

• CONCENTRATE OVERWHELMING COMBAT POWER—Analyze the enemy situation to determine his defensive weaknesses. When weaknesses are determined, rapidly *concentrate* forces to break through the enemy's defense.

• SUPPRESS THE ENEMY DEFENSIVE FIRES—Suppression, destruction, or disruption through supporting fires or early warning (EW) of enemy field artillery, air defense artillery, and other offensive fires degrade the enemy's ability to react and help gain and maintain the initiative.

• MAINTAIN THE MOMENTUM OF THE ATTACK—Advance rapidly, bypassing light enemy resistance; use indirect and direct fires to suppress while attack helicopters operating with tanks and mechanized infantry eliminate enemy resistance. Continue the attack day and night.

• EXPLOIT SUCCESS—Commit combat power rapidly and decisively to *exploit success* whenever it occurs; avoid piecemeal commitment of units.

• CONTROL KEY TERRAIN—When required, control *key terrain* to deny the enemy advantages in observation, concealment, cover, and fields of fire.

MOVEMENT TO CONTACT

Most offensive action begins with movement to gain or reestablish contact with the enemy. In movement to contact, the ACCB may be used as the covering force or as part of it when—

• Corps does not have an armored cavalry regiment.

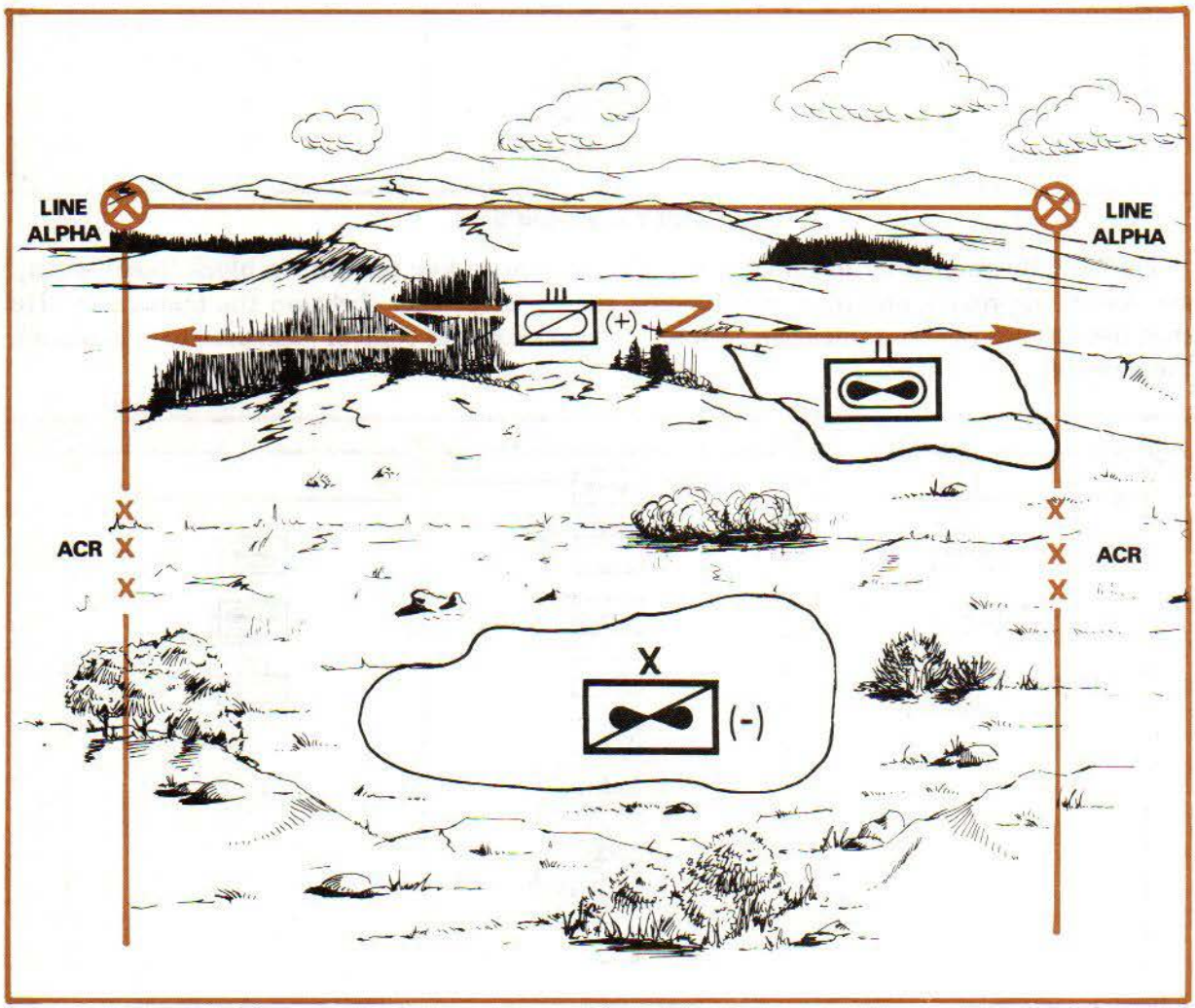
• Zone is so wide that it precludes lateral control of the covering force by a single commander. Both the armored cavalry regiment and ACCB, reinforced with ground combat and combat support units, could be employed abreast with each responsible for a zone.

• Corps uses the armored cavalry regiment in an economy-of-force role elsewhere on the battlefield.

The ACCB can be employed as part of a covering force under several options.

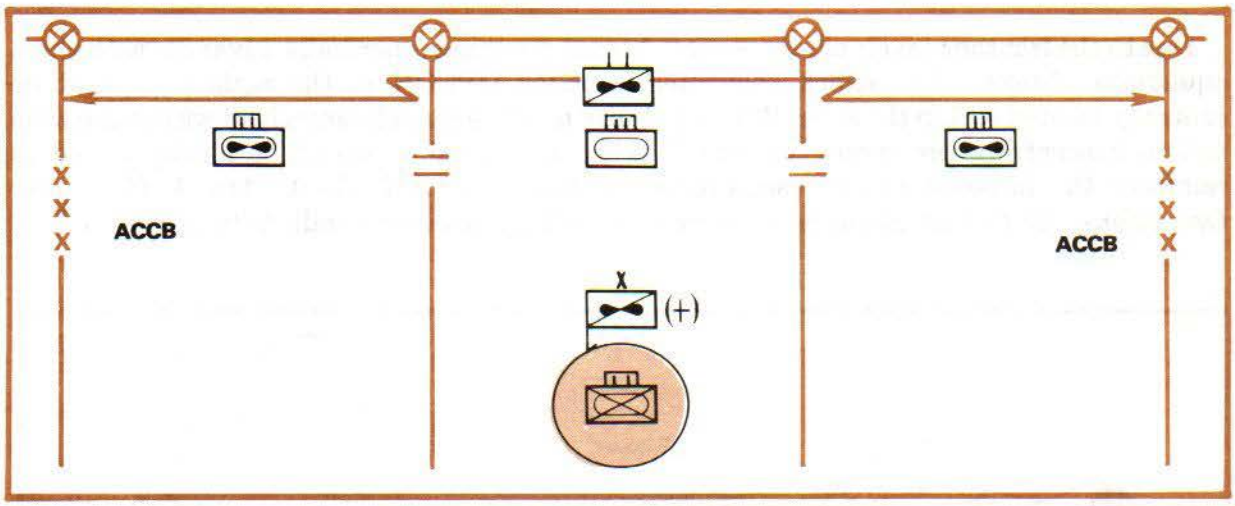
• One option is to use the tactic of *multiple employment,* placing an attack helicopter battalion OPCON to the armored cavalry regiment while the ACCB (-) is in corps reserve.

Due to the frontage involved, the armored cavalry regiment normally advances with three squadrons abreast. The attack helicopter battalion OPCON to the regiment would be centrally located within the zone. With its ability to move quickly anywhere within the zone and to concentrate firepower, the attack helicopter battalion would be ideally suited to reinforce the armored cavalry squadrons by fire. (See FM 17-50, *Attack Helicopter Operations,* for further discussions on how the battalion would conduct its mission.)



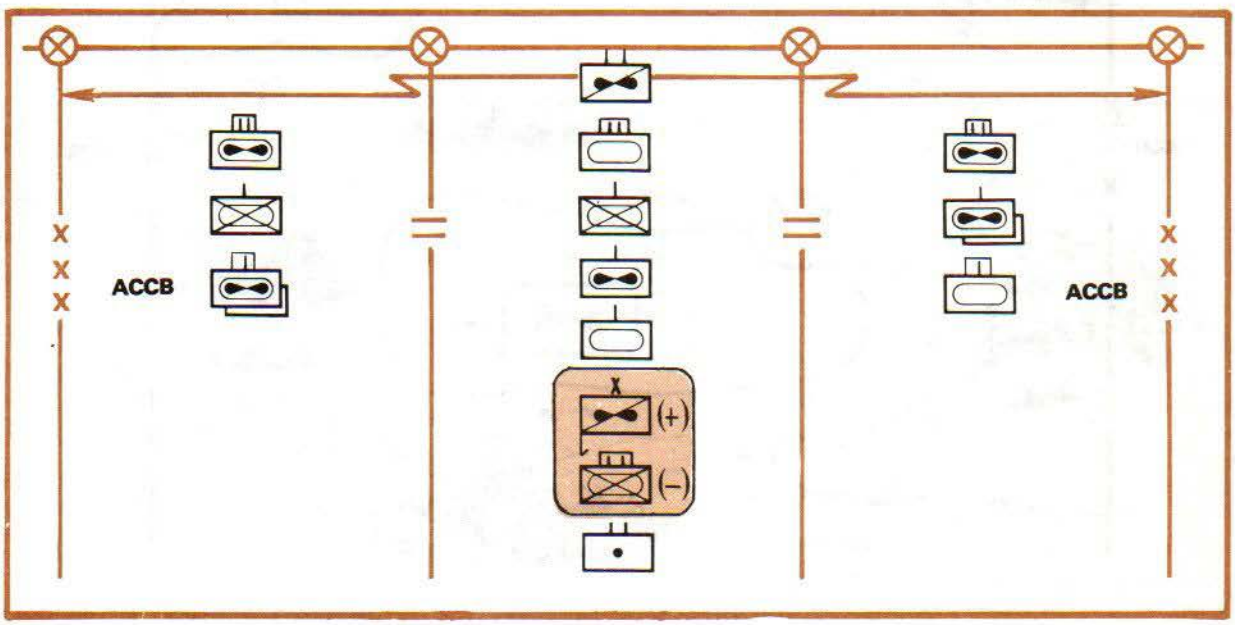
ACCB TASK-ORGANIZED IN THE MULTIPLE EMPLOYMENT ROLE.

• Another option is to assign the covering force mission to the ACCB since it moves faster and could probably make contact more quickly. In executing the mission, ground units (armored cavalry, tank, or mechanized infantry task forces or air assault forces) could be assigned the ACCB if a 24-hour operational capability is required.

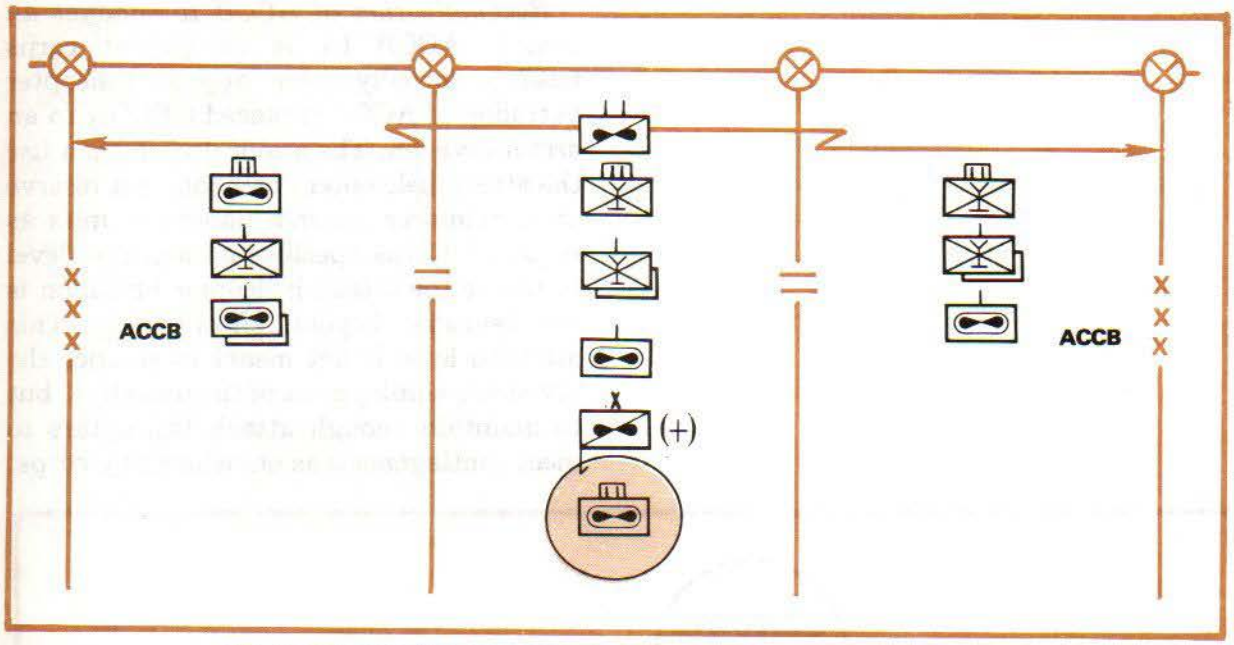


TANK TASK FORCE

The ACCB commander formulates his plan to control key terrain, to block likely enemy avenues of approach, and to contain enemy armor forces that threaten the main body. He then determines task organization, combat formations, and control measures to accomplish the mission.



THE ACCB TASK-ORGANIZED AS PART OF A HEAVY CORPS.



THE ACCB TASK-ORGANIZED AS PART OF A LIGHT CORPS.

THE ATTACK

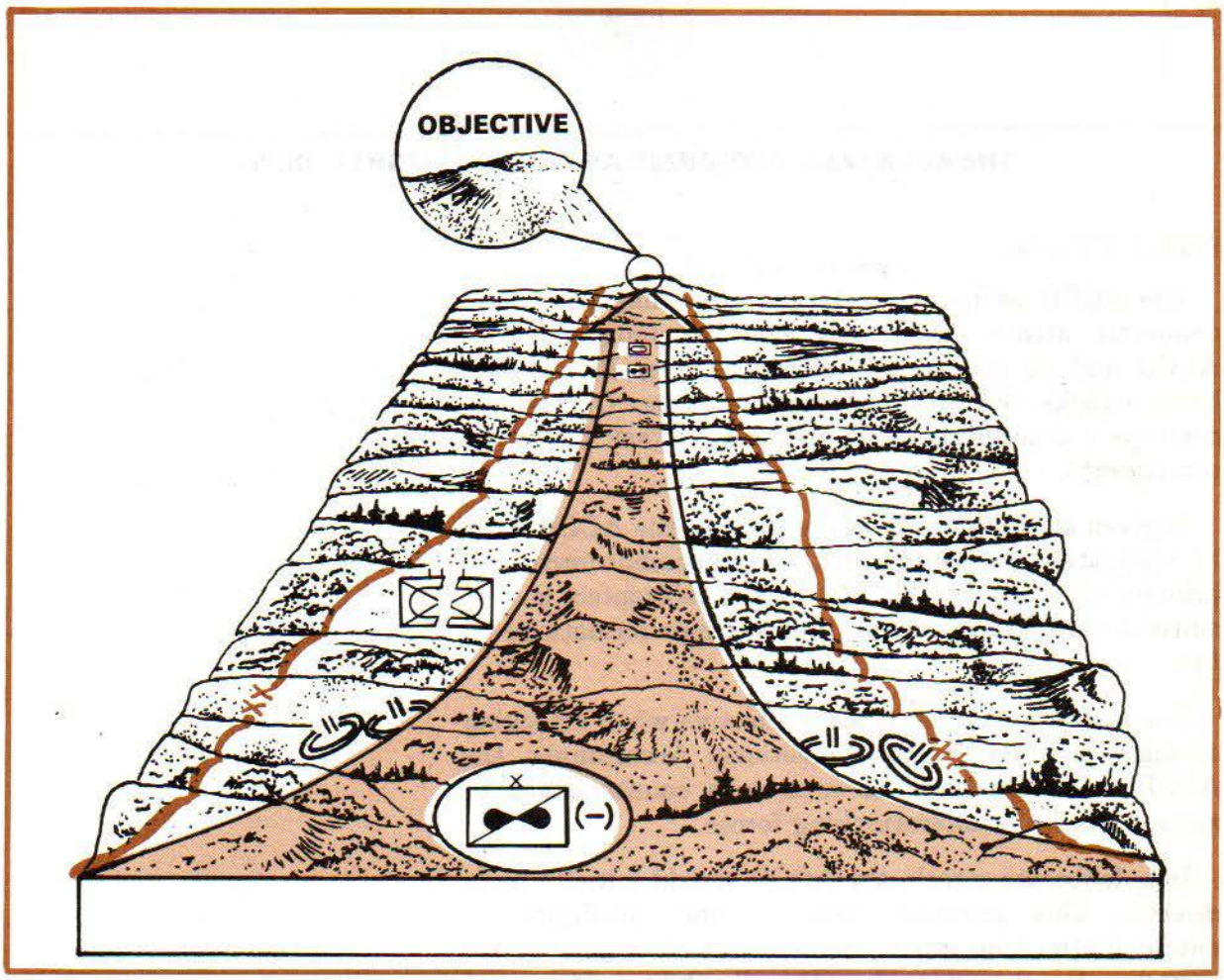
The ACCB as part of a larger force may conduct a deliberate attack, but rarely does so independently. ACCB and its subordinate elements normally conduct hasty attacks. (FM 17-50, *Attack Helicopter Operations,* contains a description of an attack by attack helicopter companies.)

If given the mission to secure terrain, the ACCB must be adequately augmented with ground combat forces. Its primary weapons system, the attack helicopter, is best suited for attacking moving enemy armor formations by fire.

The attack helicopter is least effective when attacking strongly fortified defensive positions. Accordingly, the ACCB will most often be used in a counterattack or against enemy counterattacking forces.

In a deliberate attack, the ACCB should initially be in reserve. This provides mobility and flexibility to reinforce attacking ground forces with all or part of the brigade. It also provides the flexibility for rapid commitment to an exploitation or pursuit.

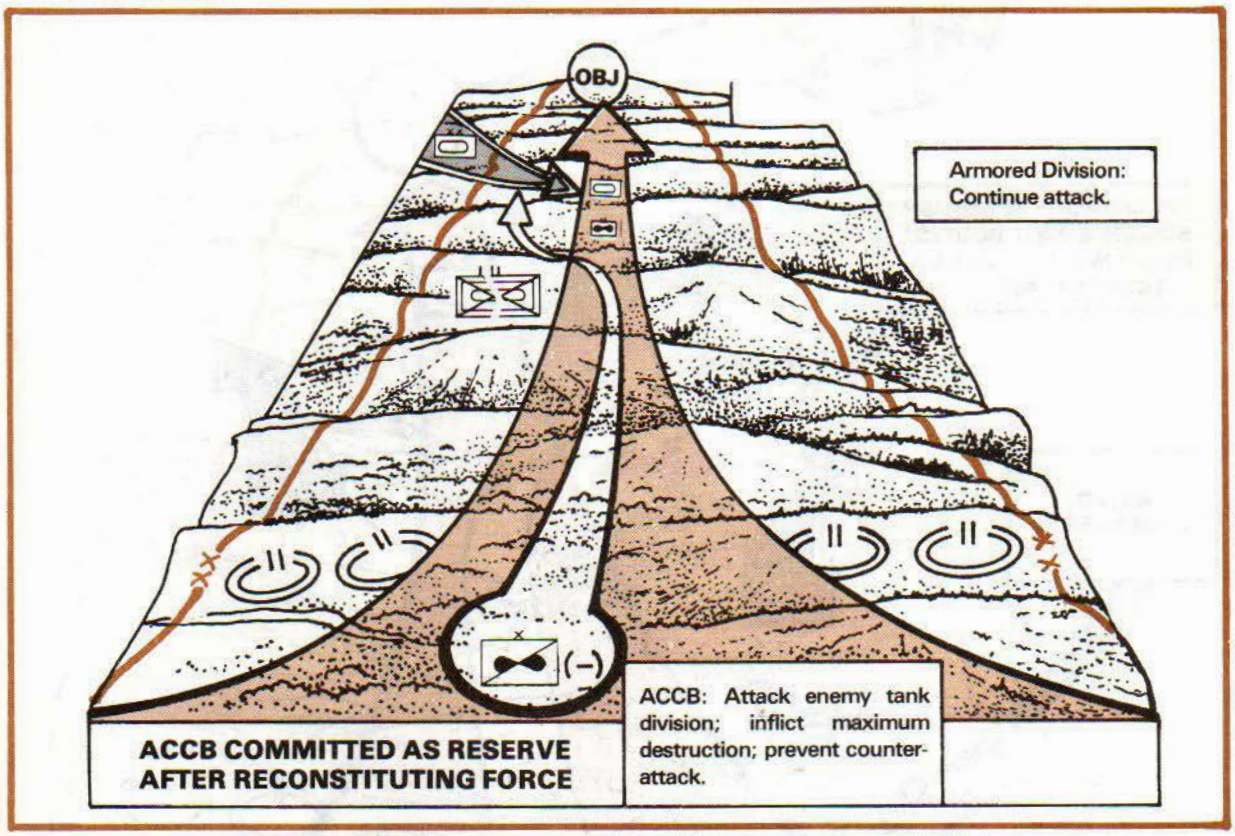
Reconstitution of ACCB to conduct an attack. ACCB (-) is designated corps reserve initially. An attack helicopter battalion of ACCB is placed OPCON to an armor division. The armor division can use the attack helicopter battalion as a reserve or to reinforce ground maneuver units as required. Corps specifies an attrition level to insure the attack helicopter battalion is not degraded beyond effectiveness. This attrition level is not meant to restrict the division's employment of the battalion, but to maintain enough attack helicopters to meet contingencies as envisioned by corps.



ACCB AS CORPS RESERVE. WILL BE COMMITTED TO THE ATTACK AS REQUIRED.

The armor division has completed the penetration and is moving rapidly to its assigned objective. The enemy commits a reserve tank division to counterattack the penetration. The corps commander reconstitutes the ACCB by ordering the armor division to release the attack helicopter battalion to ACCB.

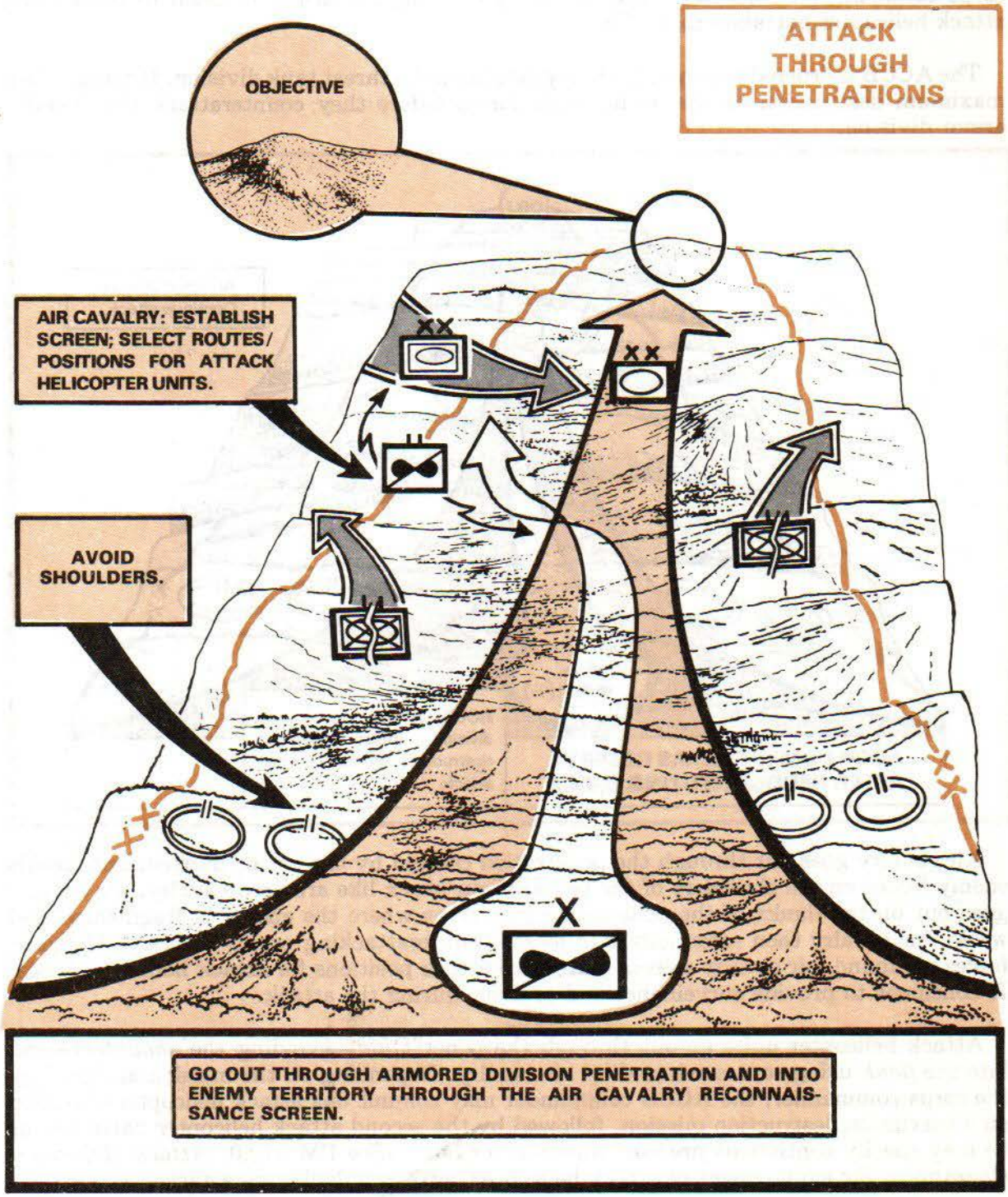
The ACCB is ordered to conduct a hasty attack on the threat tank division. It must inflict maximum destruction on the enemy tank forces before they counterattack the friendly armor division.



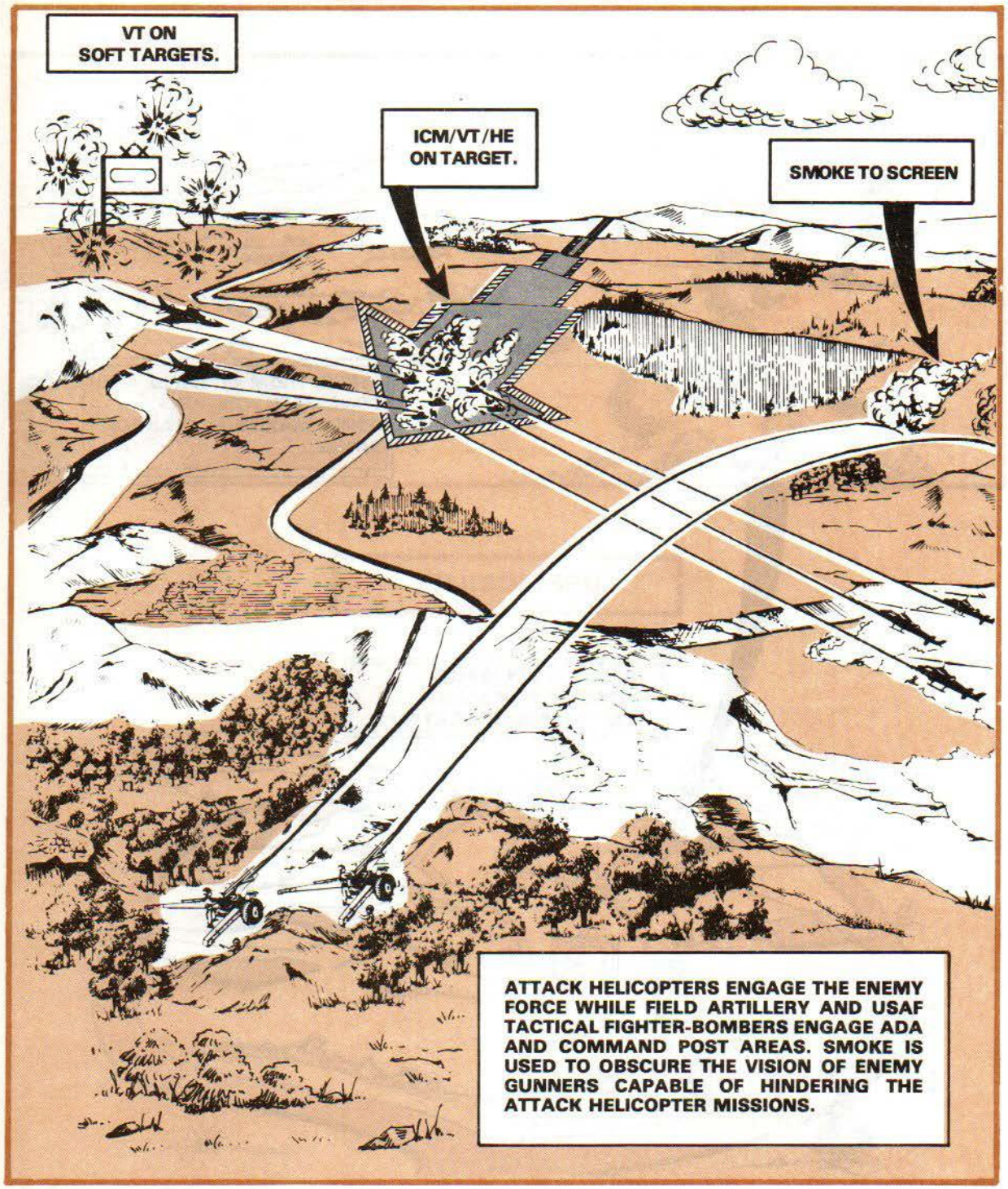
Air cavalry goes out through the penetration created by the armor division and avoids enemy forces on the shoulders of the penetration. Much like armored cavalry, air cavalry goes out on the flanks of the penetration into areas where the enemy is fragmented and weak. Air cavalry then reconnoiters to locate counterattacking enemy forces. Once these forces are found, air cavalry selects routes and attack positions for attack helicopter units. It continues to provide surveillance and security during the attack.

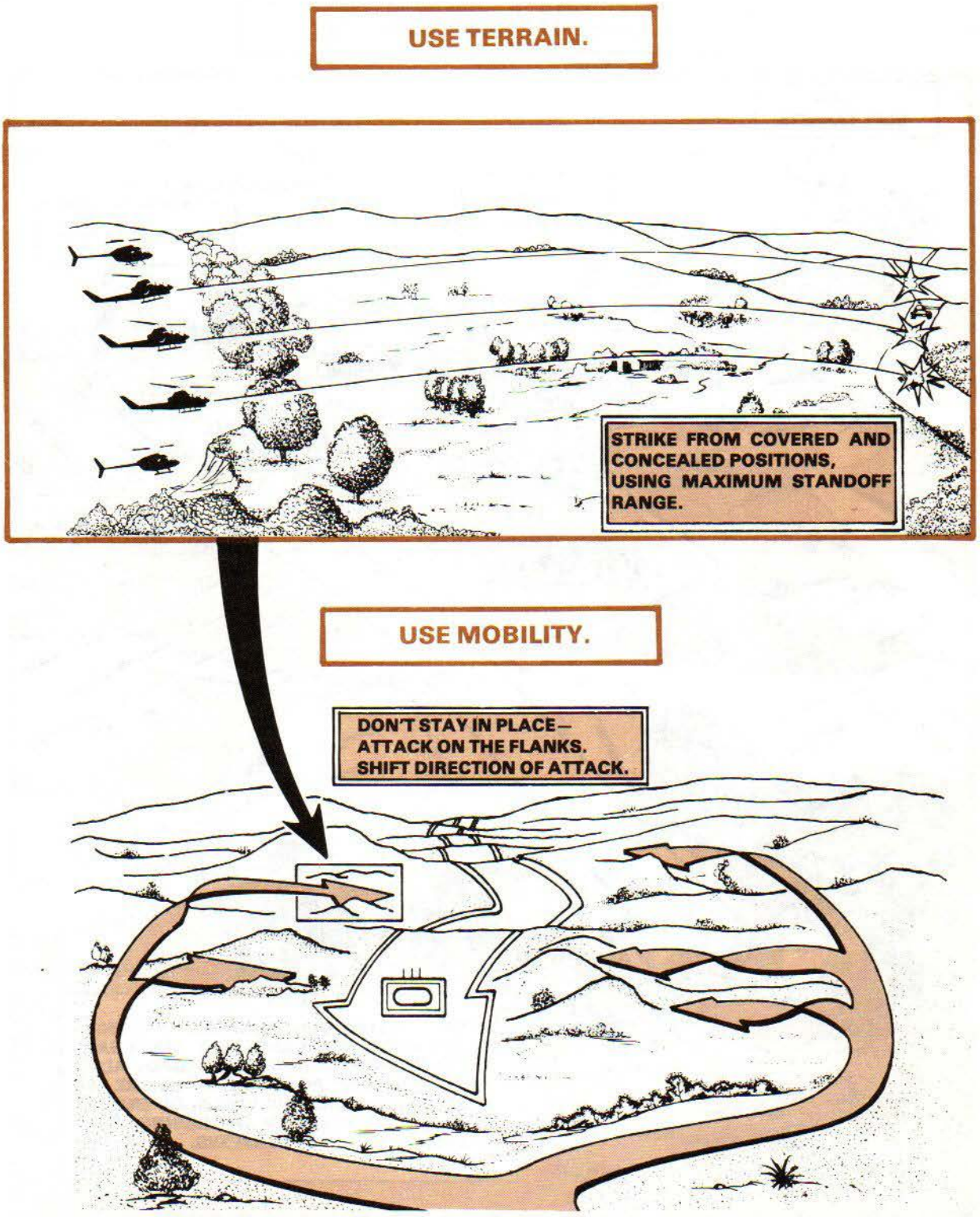
Attack helicopter units go out through the penetration—avoiding the *shoulders*—and into the *flank* using routes selected by air cavalry. Depending on the mission assigned by the corps commander, the ACCB commander may commit one attack helicopter battalion on a maximum destruction mission, followed by the second attack helicopter battalion, or he may specify continuous pressure missions for both. (See FM 17-50, *Attack Helicopter Operations,* for employment of attack helicopter units in a deliberate attack.)

TECHNIQUES ESSENTIAL TO SUCCESS

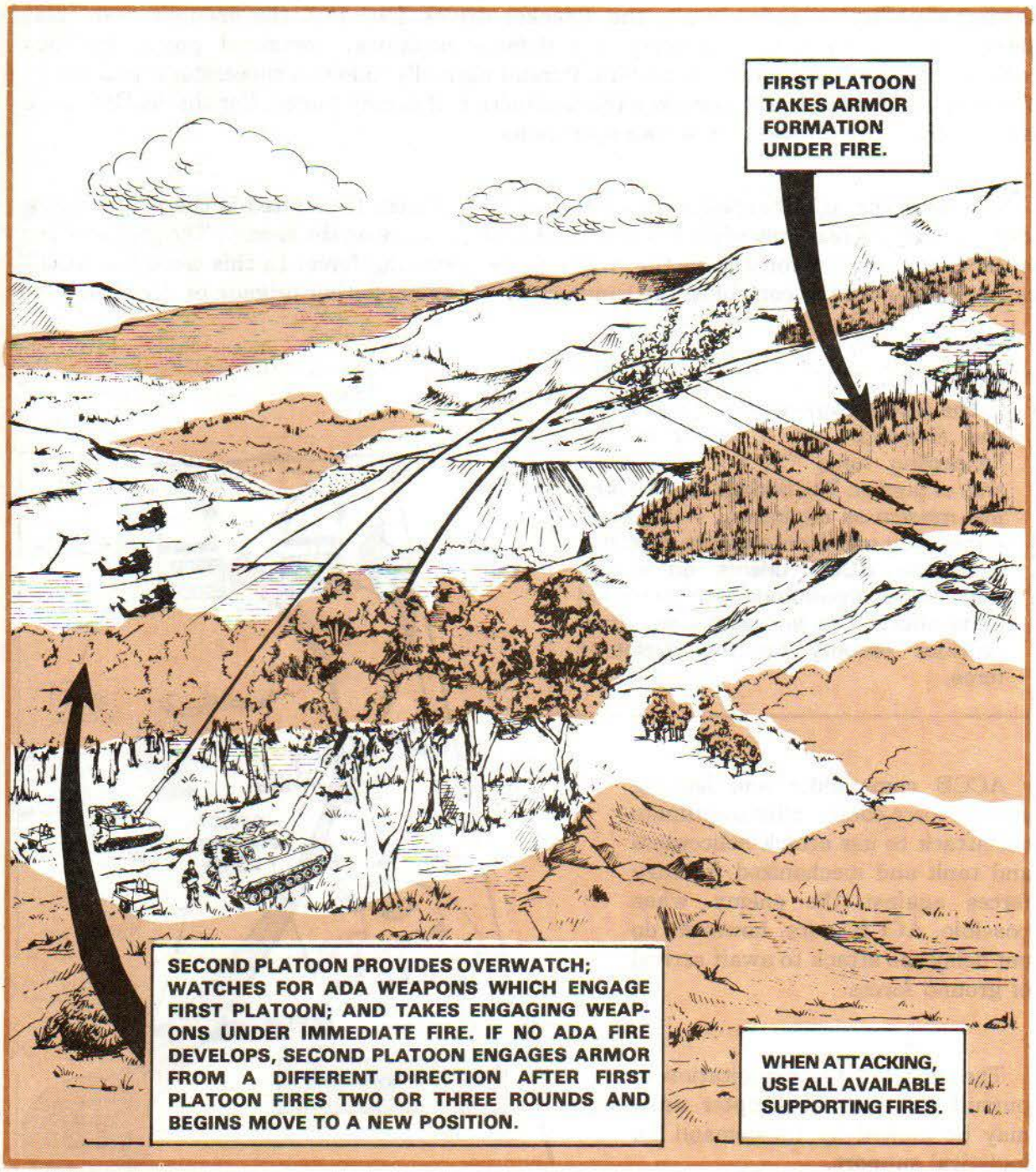


USE SUPPRESSIVE FIRES.




USE TERRAIN.
STRIKE FROM COVERED AND CONCEALED POSITIONS, USING MAXIMUM STANDOFF RANGE.
USE MOBILITY.
DON'T STAY IN PLACE— ATTACK ON THE FLANKS. SHIFT DIRECTION OF ATTACK.

USE OVERWATCH.



EXPLOITATION AND PURSUIT

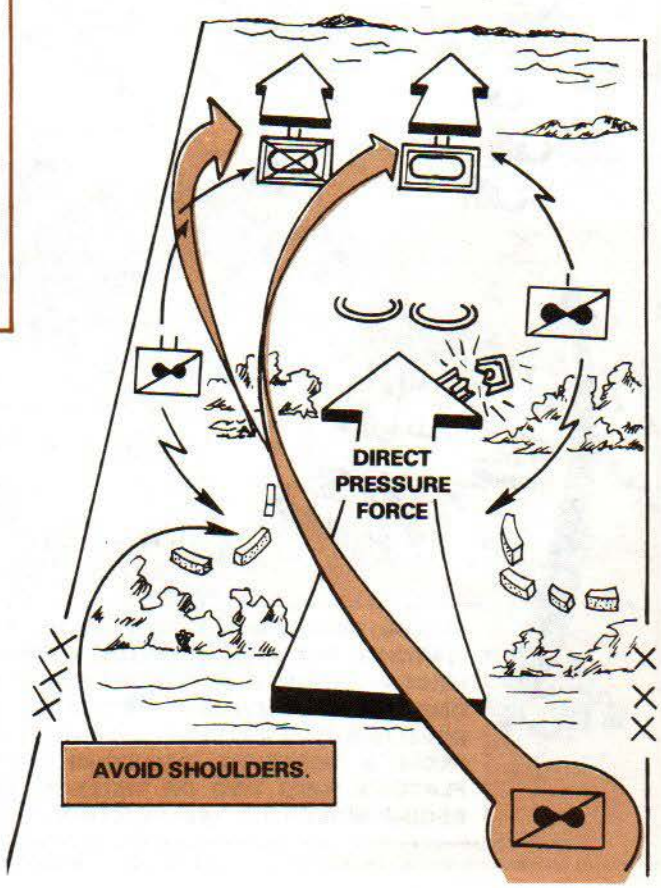
Exploitation and pursuit follow a breakthrough of the enemy's defensive positions. During exploitation and pursuit, the attacker drives deep into the enemy's rear area, destroying reserve forces, artillery, air defense positions, command posts, logistics complexes, and communications centers. Pursuit normally follows a successful exploitation. The purpose of pursuit is to complete the destruction of enemy forces. For the ACCB, there is little difference between these two operations.

Normally, the ACCB exploits the success of other forces. Illustrated is the ACCB going into the enemy's rear area while ground forces keep pressure on the enemy. The ground force is the direct pressure force while the ACCB is the encircling force. In this case, the ACCB can be put under the control of the commander of the exploiting brigade or division.

The ACCB's inherent *speed, mobility,* and *firepower* suit it ideally as the "encircling force" in an exploitation and/or pursuit. The brigade can conduct this mission as organized. The ground forces may orient on a terrain objective while the ACCB orients on enemy armor, thus maximizing the combined arms effort. The air cavalry squadron provides security for the exploiting force.

ACCB commander and leading ground force commander coordinate the attack to use attack helicopters and tank and mechanized infantry forces against the enemy when possible. ACCB units, however, do not delay the attack to await arrival of ground forces.

The depth of the exploitation or pursuit by attack helicopter units may be limited by its demand for logistical support.

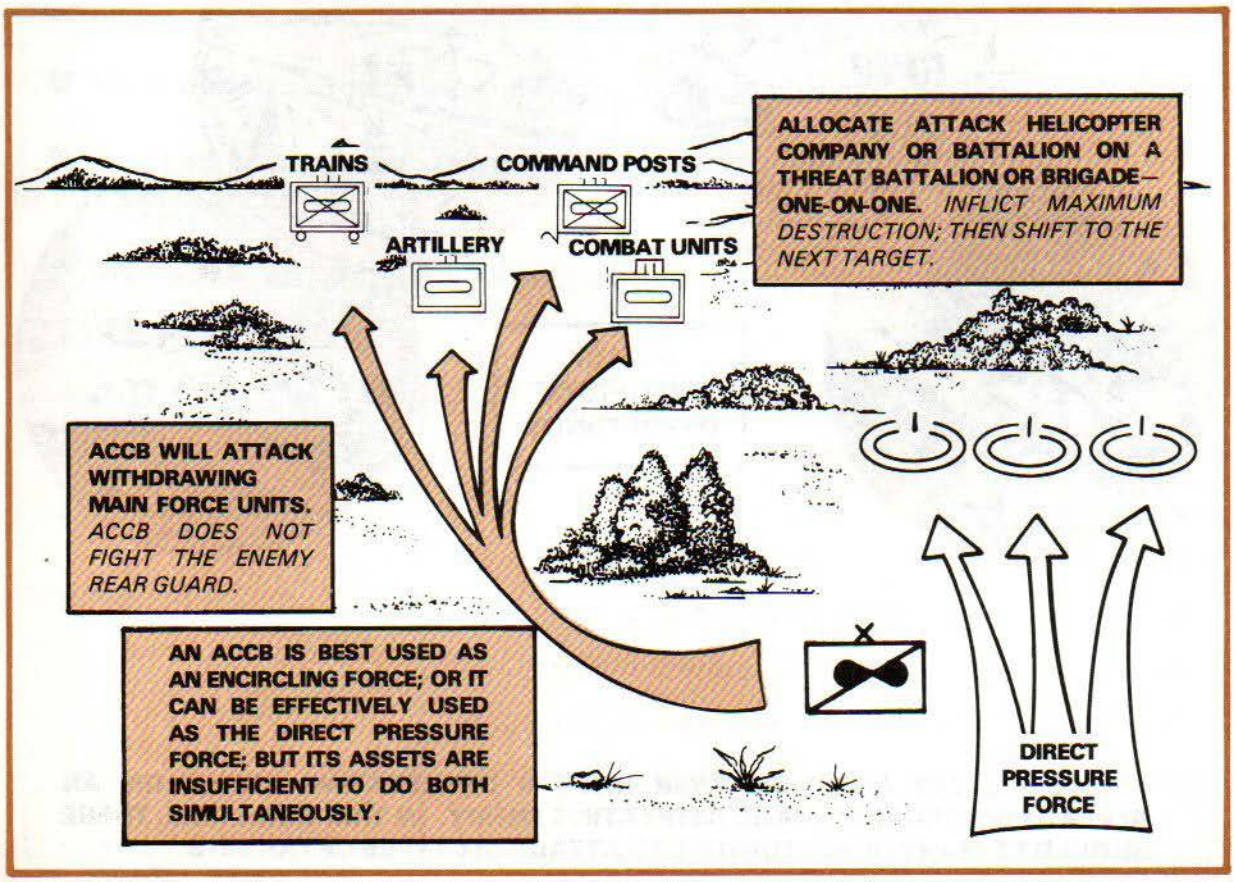


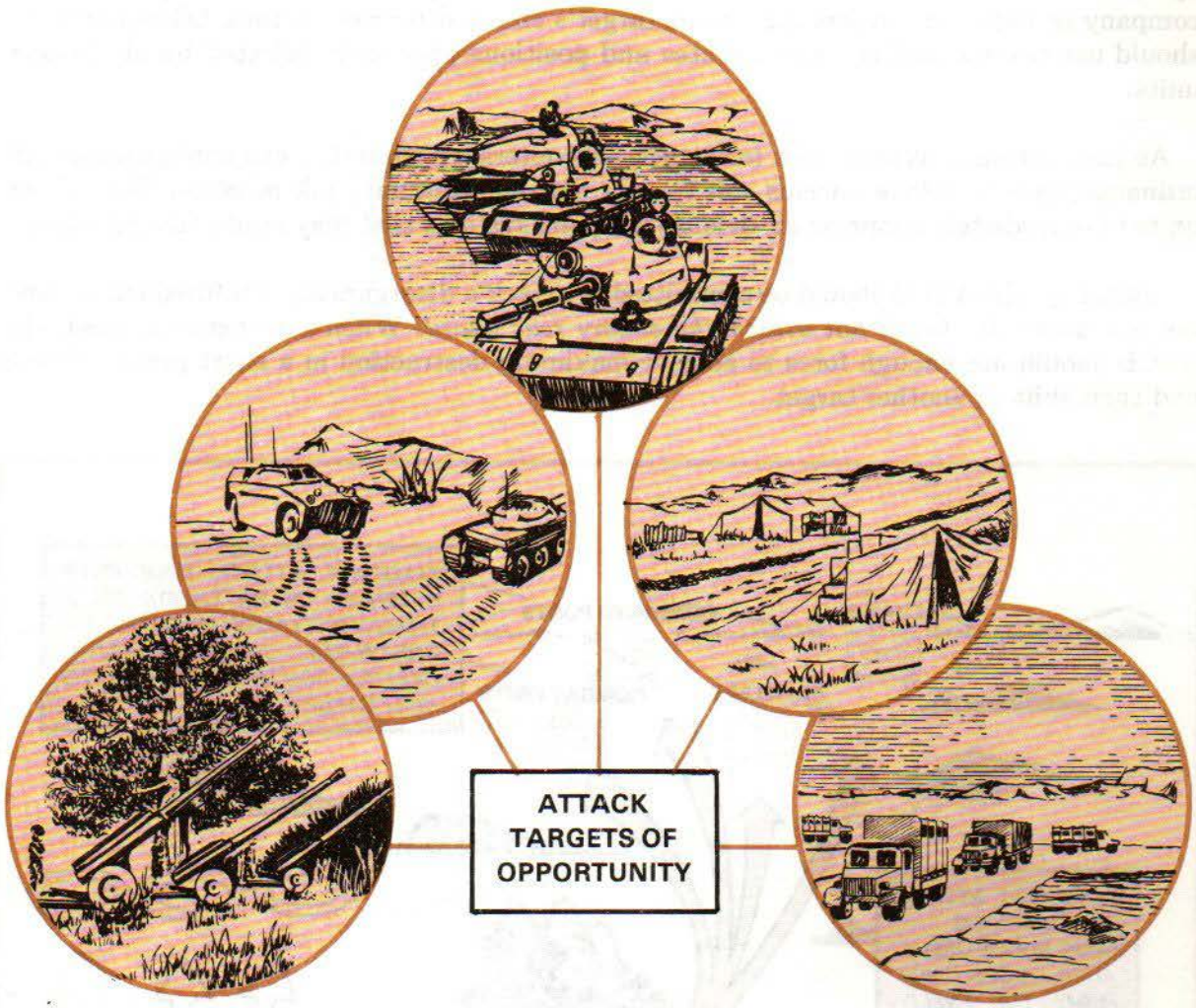
As in the deliberate attack, the air cavalry squadron goes out through the direct pressure force's penetration; then into the flank and rear areas, concentrating on withdrawing disorganized enemy forces. The squadron provides security for attack helicopter units.

The remaining brigade combat assets position themselves to react to enemy forces located by the air cavalry squadron. Attack helicopter units may be cycled into target areas by company or battalion, depending on the target's size and terrain. Attack helicopter units should use covered and concealed routes and positions previously selected by air cavalry units.

As time permits, certain units (or attack helicopters within units) can configure aircraft ordnance loads to attack various soft targets not requiring antitank missiles. This allows units to immediately suppress air defense weapons systems that may appear unexpectedly.

Routinely, the ACCB should be committed to attack a disorganized, confused enemy and his rear areas. It *should not attack the enemy rear guard.* When a target is located, the ACCB should use enough force to achieve maximum destruction in a short period of time and then shift to another target.





ACCB'S SPEED AND FIREPOWER HAVE A DEVASTATING EFFECT ON AN ALREADY DISORGANIZED AND RETREATING ENEMY. IN THIS SITUATION, THERE SHOULD BE MANY OPPORTUNITIES TO ATTACK ALL TYPES OF TARGETS.

CHAPTER 5

DEFENSE

PURPOSE

The ACCB will normally conduct defensive operations as a part of larger forces. These operations are undertaken primarily to cause an enemy attack to fail; however, defensive operations may also be undertaken to:

- Control, preserve, or protect terrain, installations, forces, facilities, or activities essential to the friendly force mission.
- Gain time to permit concentration or movement of forces elsewhere.
- Wear down the enemy as a prelude to attacking him.
- Force the enemy to mass so that he becomes more vulnerable to attack by friendly forces.
- Retain tactical, strategic, or political objectives.

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The defender has many advantages over the attacker. Among these is the opportunity to study the terrain thoroughly—analyze avenues of approach and select positions where the defender can maximize his weapons capabilities while minimizing his vulnerability to enemy observation and fire.

In fact, the defender has every advantage but one—he does not have the initiative. To gain the initiative, he must attack. Therefore, attack is a vital part of all defensive operations, and the ACCB is *attack-oriented.*

THE DEFENDER HAS EVERY ADVANTAGE BUT ONE—HE DOES NOT HAVE THE INITIATIVE

In the defense, as in offense, attack helicopters should be committed in large numbers; in the same general area; against the same attacking enemy; and from concealed firing positions.

The ACCB can concentrate firepower for short periods of time by committing an entire battalion against an enemy force; or the ACCB can apply continuous pressure by rotating companies, using the "one-third" rule.

Generally, the ACCB and its subordinate units may participate in three types of defensive operations as part of a combined arms team.

First as an active, aggressive defense conducted in considerable depth, using a wide variety of maneuver and fire schemes seeking to destroy an attacking enemy force.

Second as a terrain designated defense in which the mission of the defender is to retain or insure friendly control over specific terrain, installations, forces, facilities, or activities—usually requiring the defender to hold in a specified location or position.

Third as a time-specified defense designed to fight an enemy force, usually in a

specified locale for a specified time, so as to gain time for friendly forces to concentrate or move elsewhere on the battlefield—usually described as "*a delay.*"

Regardless of why the defense is undertaken, several fundamentals govern the conduct of defensive operations at all levels of tactical command. These fundamentals may apply somewhat differently at each level depending on available resources. These basic fundamentals are—

UNDERSTAND THE ENEMY—A clear understanding—of how the enemy organizes for an attack, how he employs his weapons, what tactics he uses, his strengths and weaknesses—is essential to insure success on the battlefield. We must *understand the enemy* before the battle starts! A force fighting *outnumbered* cannot afford to learn about the enemy after the battle has begun.

SEE THE BATTLEFIELD—The defender must conduct active intelligence operations to learn *where* and in *what strength* the enemy intends to concentrate his forces for an attack. Before initial contact, all available intelligence, air and ground surveillance, electronics, target acquisition, and night observation means are used in a coordinated effort to get as much information about the enemy as possible.

CONCENTRATE AT CRITICAL TIMES AND PLACES—As the enemy's main attack forms, the defender rapidly concentrates sufficient forces and fires to achieve—as a general rule—at least a 3-to-1 ratio in terms of combat power. If the enemy is too strong to defeat in the first engagement, the defense must be conducted in depth, forcing the enemy to fight a "running" battle. As the enemy presses the fight, the defender—engaging from subsequent positions—will continue to attrit the enemy force. The defender must control the force ratio so that as a rule of thumb "the enemy never outnumbers him by more than 3-to-1." With very heavy tactical air and field artillery support on very favorable terrain, it may be possible to defend at a numerical disadvantage of something like 5-to-1 for short periods of time.

FIGHT AS A COMBINED ARMS TEAM—To defeat a combined arms attack, the defender must use the proper combination of tanks and infantry, supported by field artillery, air defense artillery, engineers, and attack helicopters. When the threat is primarily from tanks and APCs, the defender should organize the defense around armor-defeating weapons (tanks, heavy and medium antitank/assault weapons, attack helicopters, and antitank mines). When the threat is primarily infantry, the defender should organize the defense around infantry-defeating weapons (machineguns, artillery, antipersonnel mines). The defender must be prepared to defend against both types of attack. Also, he must be prepared to simultaneously suppress enemy overwatch positions, tactical air, artillery, and air defense weapons.

EXPLOIT THE ADVANTAGES OF THE DEFENDER—The defender selects and fights from terrain-masked battle positions that protect him from enemy long-range frontal fire and observation. Each engagement must capitalize on the defender's advantages—choice terrain, surprise, mass, optimum ranges, and shooting first.

ATTACK HELICOPTER BATTLE POSITIONS

Attack helicopter battle positions are selected where enemy targets can be engaged at maximum effective range while providing covered and concealed positions from which to fire and move to subsequent firing positions. Battle positions should complement each other, allowing the enemy force to be engaged from several directions simultaneously. Battle positions for attack helicopter units may be specified by the ground commander or selected by the attack helicopter unit commander during reconnaissance or liasion. It is conceivable that the enemy force could be engaged simultaneously by *tank, TOW,* and *Dragon,* and *attack helicopters* each firing from different firing positions.

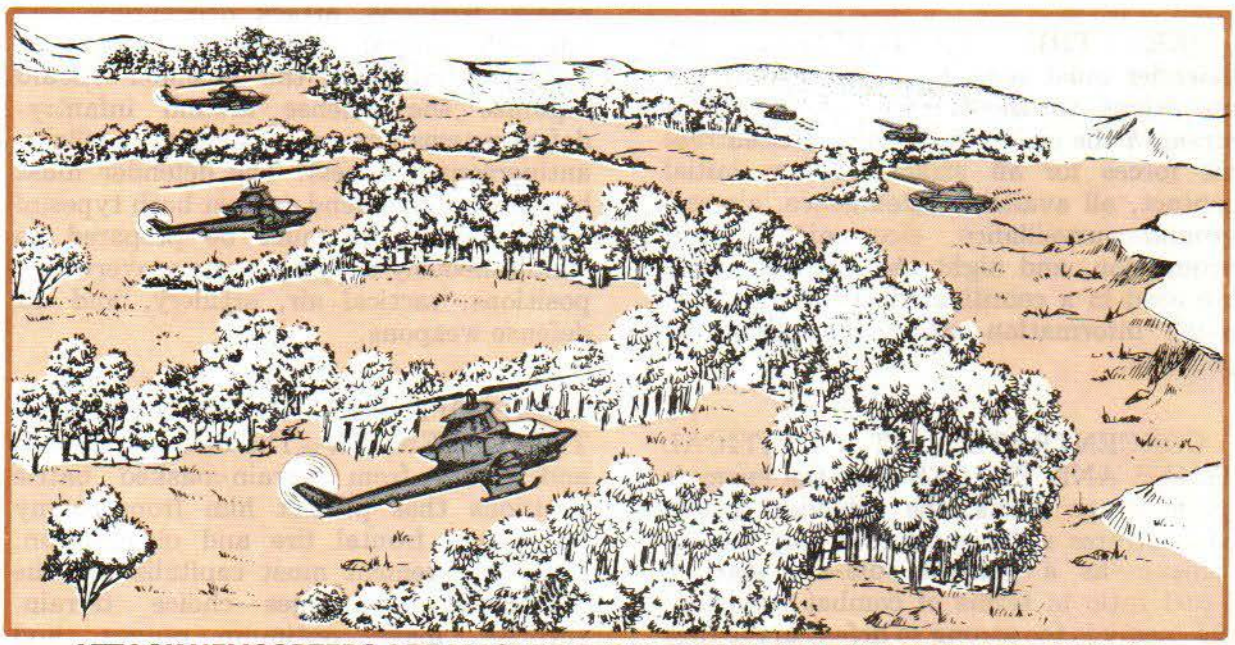
The amount of *time* available for planning and preparing for combat is critical. The brigade staff tries to give as much time as possible to battalions for planning and preparing. Battalions need time to reconnoiter the terrain and routes of withdrawal, choose and prepare firing positions, and develop fire plans.

Battle positions are located—

- Along avenues of approach where the enemy is vulnerable to massed fires.
- Where there is no cover and concealment for the enemy.
- Where natural or man-made obstacles restrict enemy movement.
- Where terrain does not give the enemy good overwatching positions.

Battle positions should provide—

- Frontal protection from enemy observation and fires.
- Delivery of fires at optimum ranges.
- Covered and concealed routes between attack positions.



ATTACK HELICOPTERS ARE MASKED FROM ENEMY OBSERVATION AND ENGAGE AT MAXIMUM STANDOFF RANGES.

ORGANIZING FOR DEFENSE

In the defense, corps and division commanders normally organize the battlefield into three areas: Covering force area, main battle area, and rear area.

■ *Covering Force Area.* The covering force has four basic tasks:

• Find the enemy and force him into revealing the strength, location, and general direction of his main attack.

• Deceive or prevent the enemy from determining the strength, dispositions, and locations of friendly forces, especially those in the main battle area.

• Divest the enemy of his air defense umbrella, or require him to displace his air defenses before attacking the main battle area.

• Gain time for the main body, enabling it to deploy, move, or prepare defenses within the main battle area.

Covering forces are normally composed of cavalry reinforced with artillery and aerial fires, and with task forces from the main battle area. The covering force makes contact as soon as the enemy enters the covering force area and tries to inflict enough destruction on him to strip away his reconnaissance screen, make him deploy, bring up his artillery, and organize a deliberate attack, thereby revealing his composition, strength, and intentions.

■ *Main Battle Area.* Behind the covering force is the area where the main defensive battle will be fought. Forces in this area fight the decisive battle to destroy the enemy.

• Initially main battle area forces are usually mechanized infantry (heavy), with more tank-heavy forces joining as the covering force fights back into main battle area positions.

• Reserves may be used in the main battle area to block penetrations, reinforce committed units, and conduct counterattacks. Normally, company teams will not hold out a reserve. Battalion task forces may hold out a light reserve, but will generally rely on forces momentarily uncommitted to act as a reserve.

ACCB SHOULD BE EMPLOYED AGAINST THE MAIN ENEMY ATTACK IN THE MAIN BATTLE AREA. IF USED IN THE COVERING FORCE AREA, ACCEPTABLE LOSS RATES FOR THE BRIGADE MUST BE ESTABLISHED.

• Once covering force area forces have joined the main battle area forces, brigades may then hold out up to a battalion in reserve and divisions, one, two, or infrequently, three battalions.

• In the defense, the ACCB is most often employed in corps reserve; however, its battalions and squadrons can and should be used to reinforce divisions using the techniques of "*multiple employment.*"

■ *Rear Area.* Division and corps logistics and communications centers are located in the rear area. In order to give continual direction and support to the covering force area and main battle area, the forces located in the rear area must avoid destruction by carefully applying all the principles of mobility, cover, and concealment. When available, attack helicopters can provide wide area surveillance of rear areas for additional security.

The ACCB is used in the *covering force area* to:

■ Reinforce ground forces.

■ Control part of the area.

■ Control the entire area when an armored cavalry regiment or other suitable control headquarters is not available.

The following situations describe ways the ACCB can be effectively used in the covering force area:

Situation 1—ACCB reinforcing an armored cavalry regiment in the covering force area.

• Several options are available in this situation:

Place one attack helicopter battalion under operational control of the armored cavalry regiment (ACR).

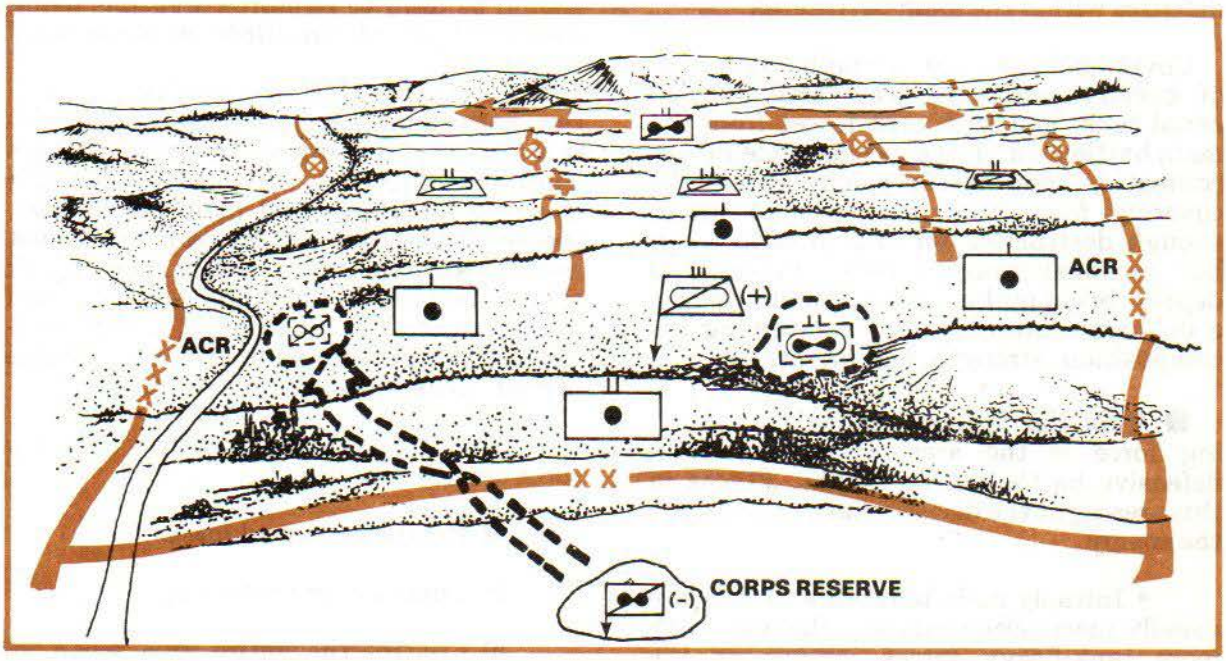
Place the air cavalry squadron and an attack helicopter battalion under operational control of the ACR, with ACCB (-) in reserve.

Place ACCB under operational control of the ACR.

Whenever two or more of ACCB's battalions/squadrons are needed to reinforce another unit, the brigade should control those units by moving a command post forward. This maintains unity of command and reduces the logistical burden on the armored cavalry regiment.

Attack helicopter battalions should at first be centrally located, ready to react anywhere in sector. As the enemy threat develops, attack helicopter units are committed to reinforce ground forces in order to quickly destroy the enemy force.

When the air cavalry squadron is under control of the armored cavalry regiment, at first it may screen forward of the covering force. When enemy contact is made, the squadron provides early warning; hands off the enemy targets to attack helicopters and ground forces; and directs long-range artillery and tactical air on the enemy. As the squadron withdraws through the covering force, it screens gaps in the covering force area or screens covering force flanks.



ACCB TASK ORGANIZATION CAN BE TAILORED IN ANY OF SEVERAL WAYS, DEPENDING ON THE MISSION.

Situation 2—ACCB controlling part of the covering force area.

If the covering force area is so wide that lateral control by the armored cavalry regiment is difficult, the ACCB can be assigned part of the covering force area.

When this is done, the ACCB should be reinforced with ground maneuver forces and augmented with field artillery units. Ground units may be task-organized with or without integrating attack helicopters. Careful analysis of METT will determine the best disposition of forces.

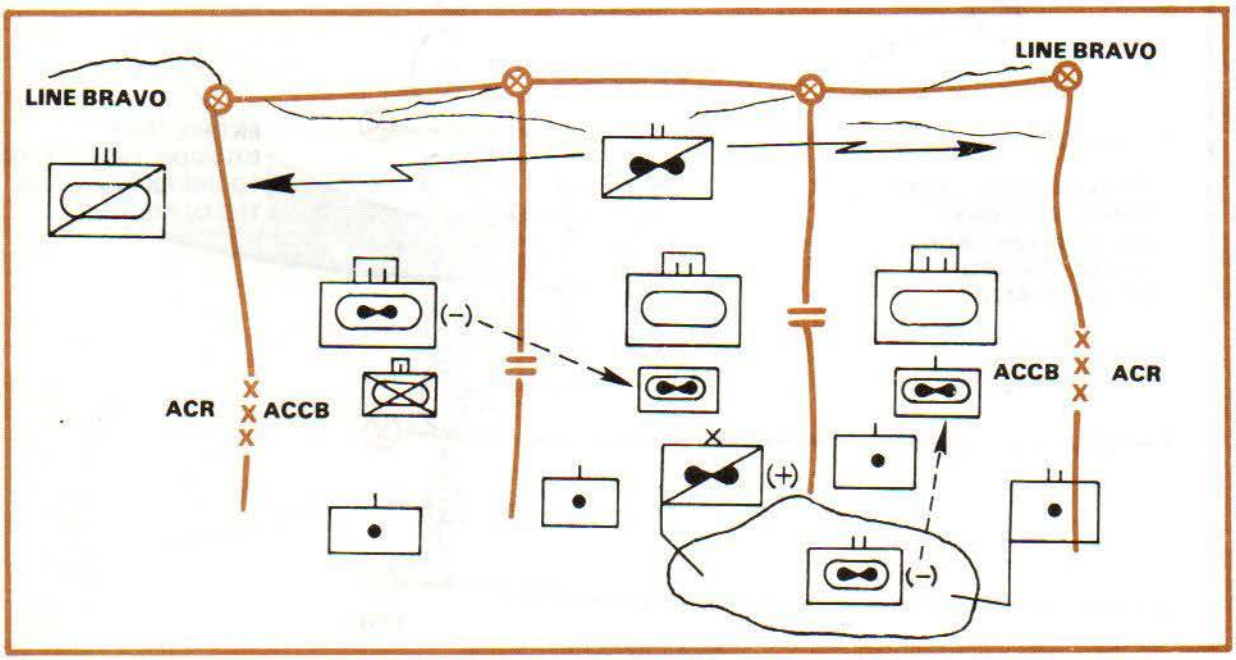
The air cavalry squadron screens to the front and flanks.

Attack helicopter battalions may be task-organized with ground forces. When this is the case, attack helicopter companies are kept in task force reserve and centrally located to respond anywhere in sector.

Ground forces may be task-organized and attack helicopter battalions centrally located to respond anywhere in sector.

In the absence of another suitable control headquarters, the ACCB may be ordered to control the entire covering force area. The ACCB headquarters is equipped to control this area. Ground units (tank or mechanized infantry forces, armored cavalry, or air assault forces) should be placed under operational control of the ACCB. Ground forces must be large enough to accomplish the covering force area mission at night and during other conditions of limited visibility when helicopter flight is restricted. Highly mobile field artillery in representative calibers and sufficient quantity must be provided to support the covering force.

Corps and ACCB commanders must decide the losses they will accept while the ACCB is used forward of the main battle area. This precludes unacceptable degradation of combat effectiveness.



ACCB SHOULD NOT BE ASSIGNED PART OF THE COVERING FORCE AREA WITHOUT REINFORCEMENT WITH GROUND MANEUVER UNITS AND AUGMENTATION WITH FIELD ARTILLERY UNITS.

EMPLOYMENT OF THE ACCB IN THE MAIN BATTLE AREA

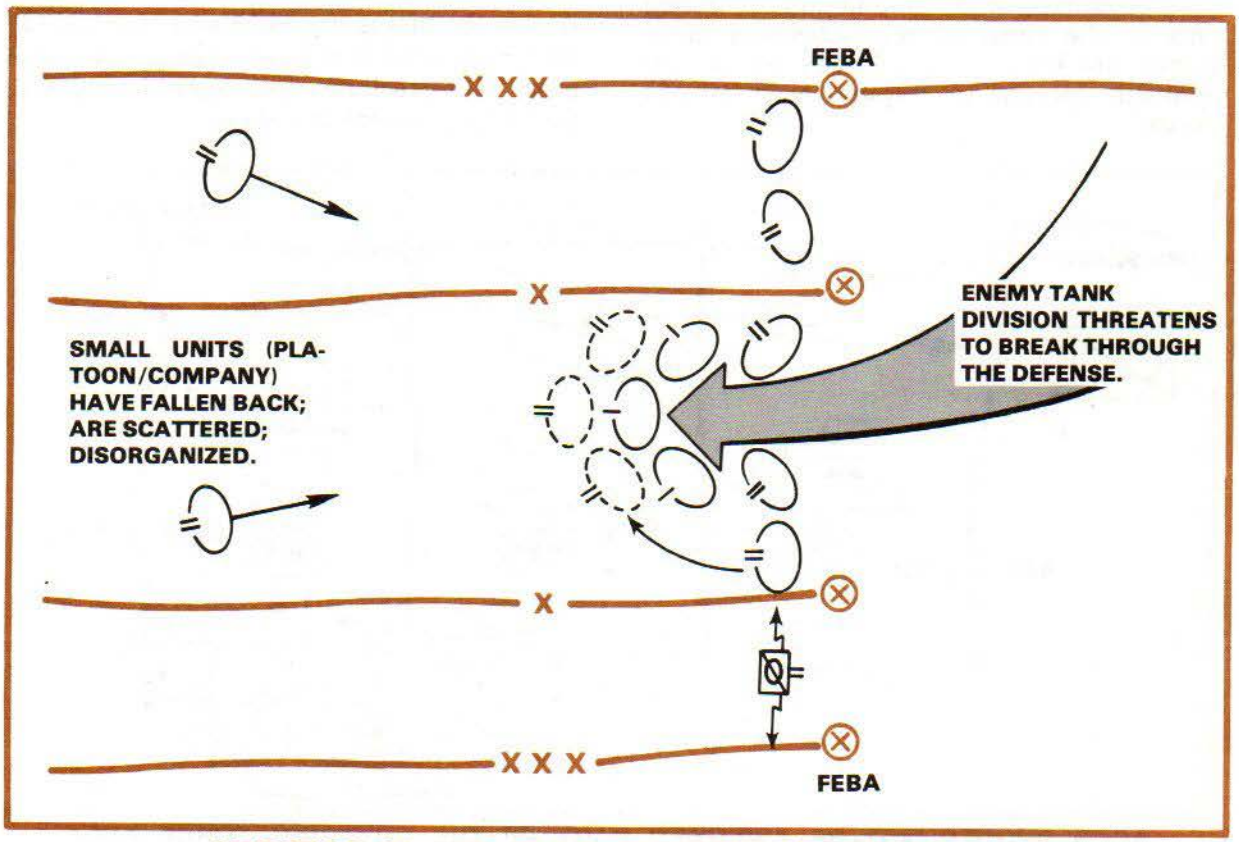
The decisive battle is fought in the main battle area. Tanks and mechanized infantry are positioned along enemy avenues of approach to destroy or contain the enemy or force him to withdraw. Defensive positions are organized in depth.

In the main battle area, the antitank destroying capability of attack helicopter battalions can be decisive at the critical point and time, while the air cavalry squadron is used to provide continuous reconnaissance along the front and flanks. Attack battalions should be located where they can quickly move into preselected firing positions when the main attack is identified.

Situation 1—ACCB employment in a critical defensive situation.

In this situation, the enemy has ruptured the defenses and is gaining momentum. The ground forces are scattered and disorganized.

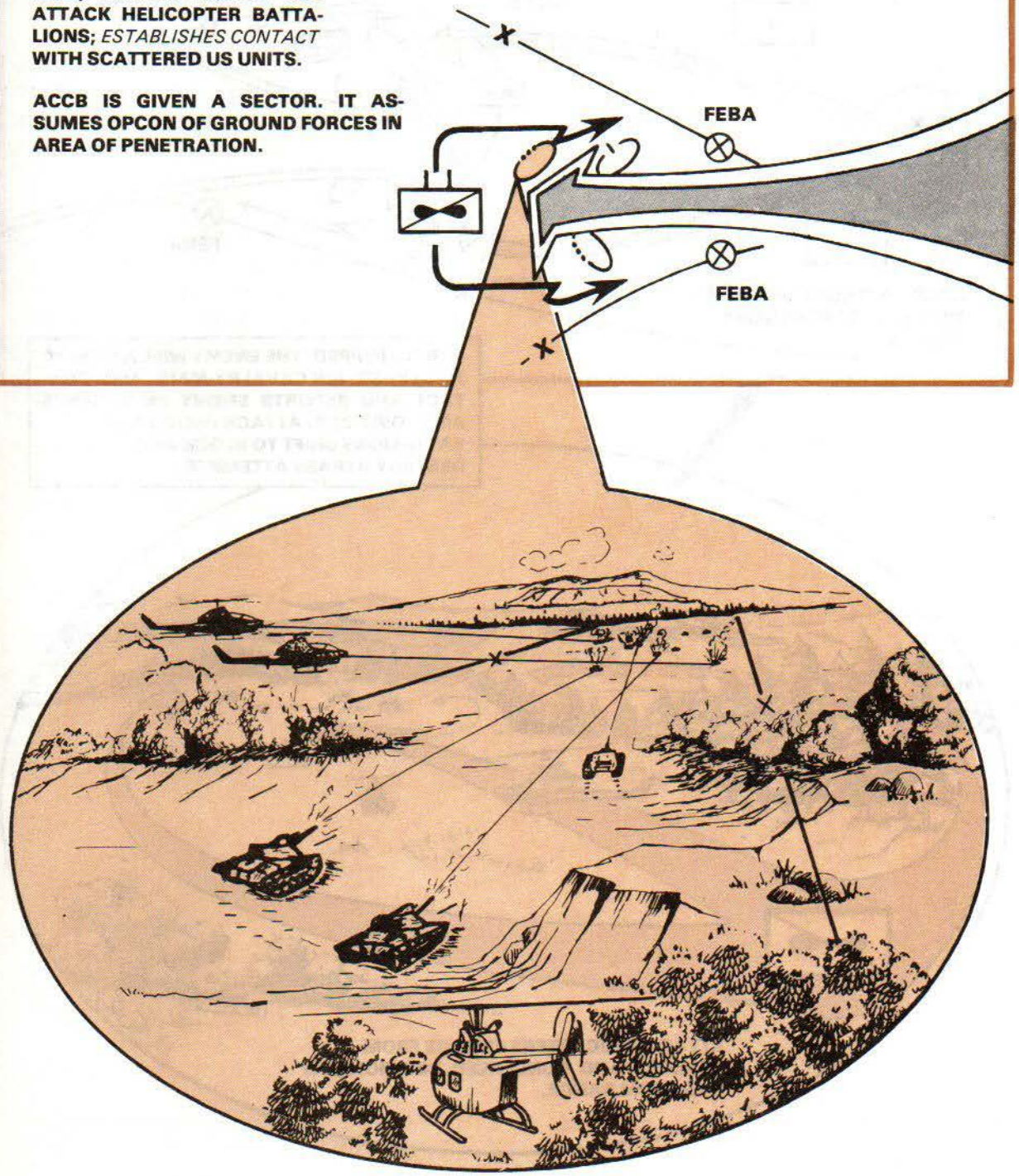
The ACCB is the only unit with the mobility to react to the situation. It is ordered to blunt the penetration. The ground brigade commander no longer has a viable defense, so the ACCB commander assumes OPCON of ground units around the penetration.

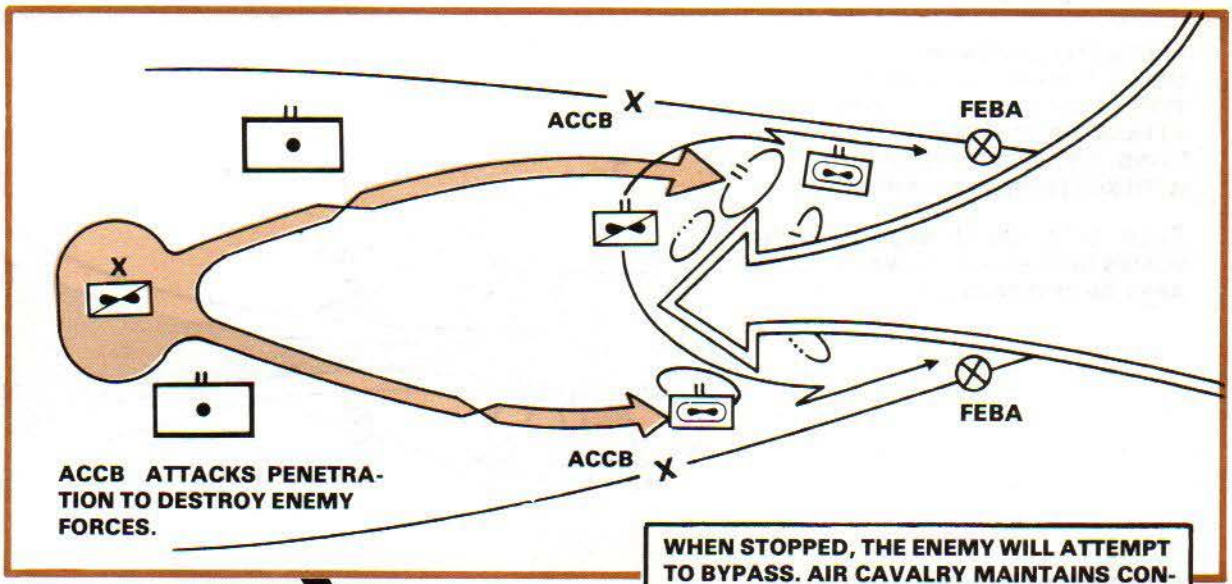


SITUATION CALLING FOR EMPLOYMENT OF THE ACCB IN THE MAIN BATTLE AREA.

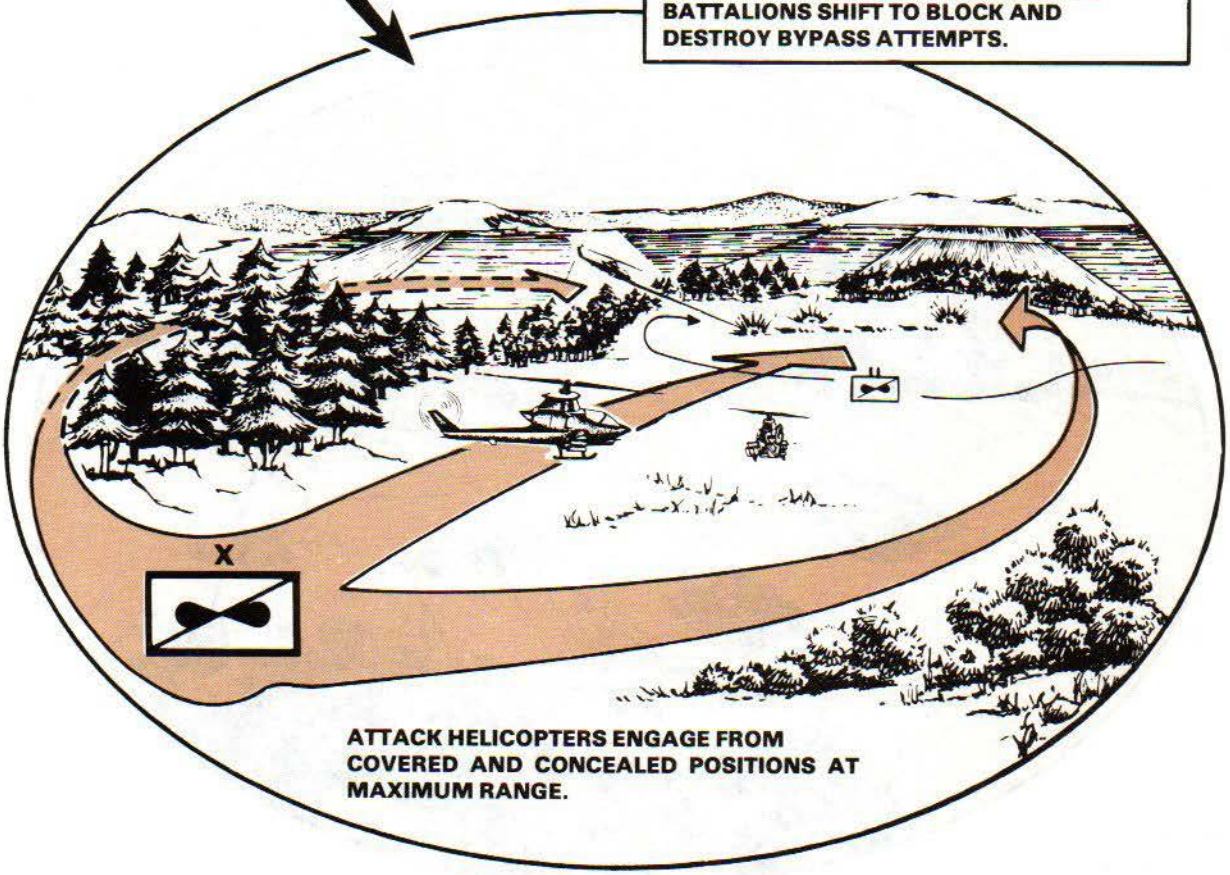
AIR CAVALRY LOCATES LIMITS/FLANKS OF PENETRATION; *SELECTS ROUTES* **FOR ATTACK HELICOPTER BATTALIONS;** *ESTABLISHES CONTACT* **WITH SCATTERED US UNITS.**

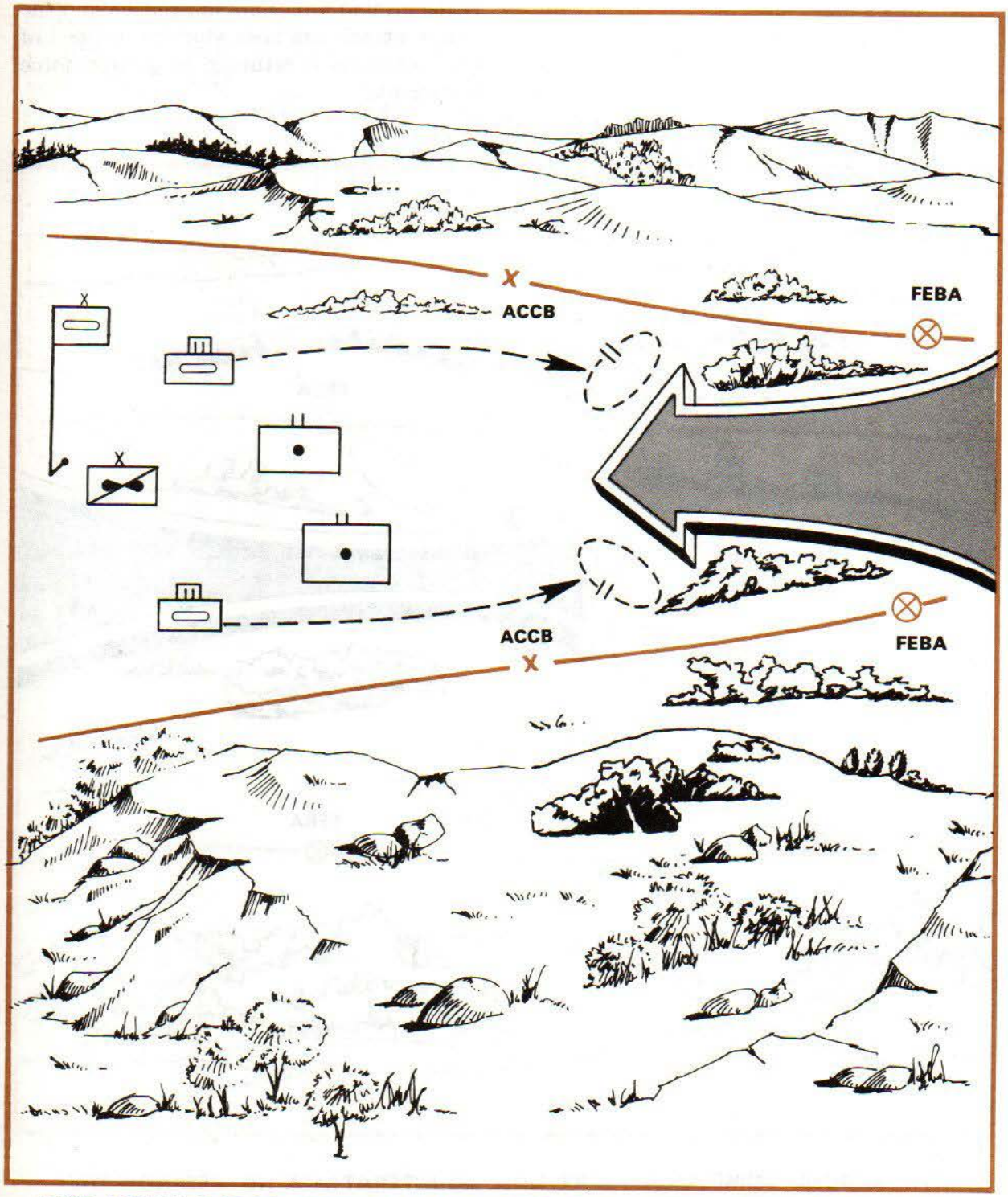
ACCB IS GIVEN A SECTOR. IT ASSUMES OPCON OF GROUND FORCES IN AREA OF PENETRATION.





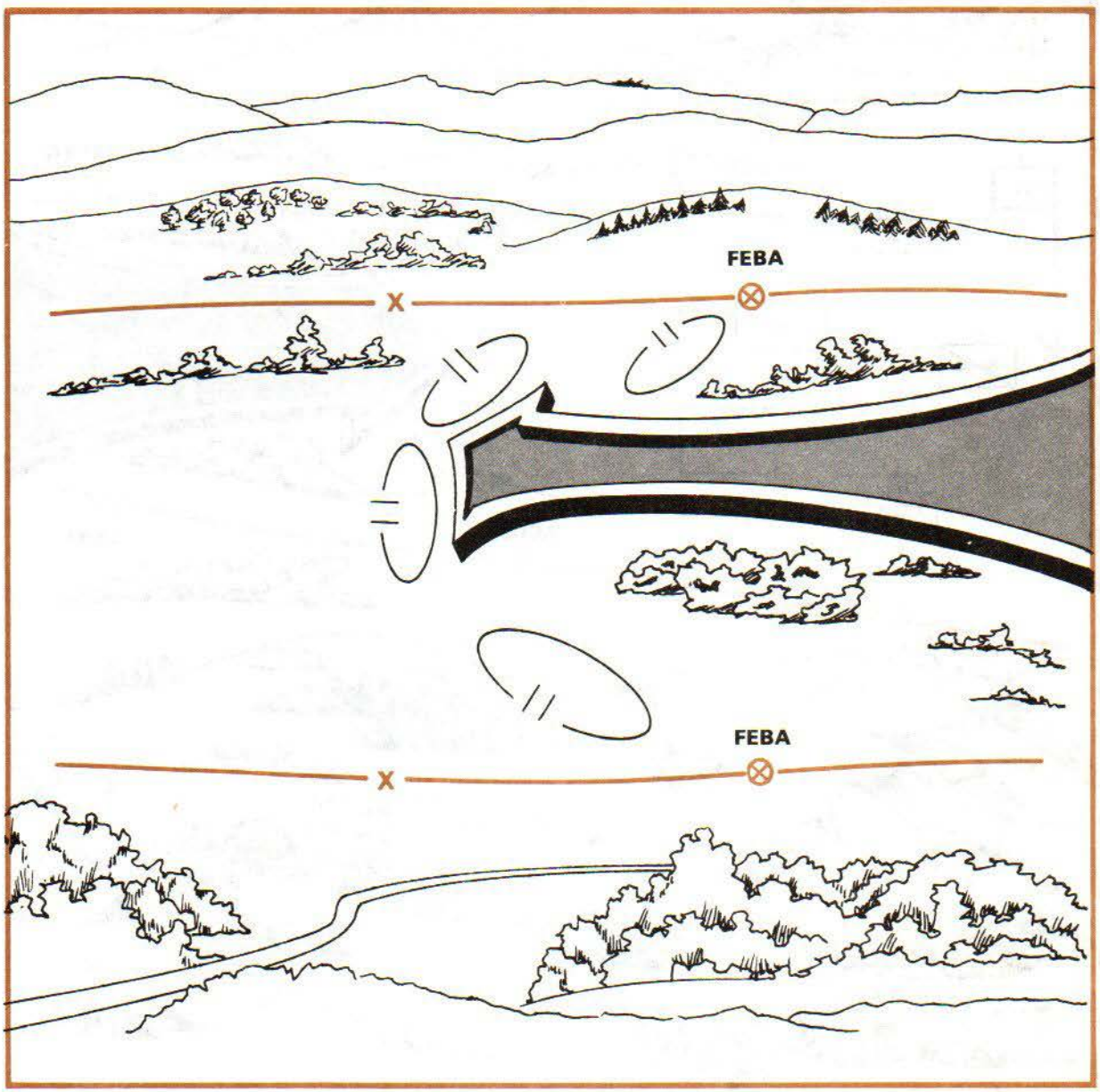
WHEN STOPPED, THE ENEMY WILL ATTEMPT TO BYPASS. AIR CAVALRY MAINTAINS CONTACT AND REPORTS ENEMY MOVEMENTS AND POSITIONS. ATTACK HELICOPTER BATTALIONS SHIFT TO BLOCK AND DESTROY BYPASS ATTEMPTS.





ACCB ASSUMES OPCON OF TWO TASK FORCES MOVING INTO BLOCKING POSITIONS.

When ground forces are in position and the enemy attack has been stopped, control of the battlefield is returned to ground force commander.

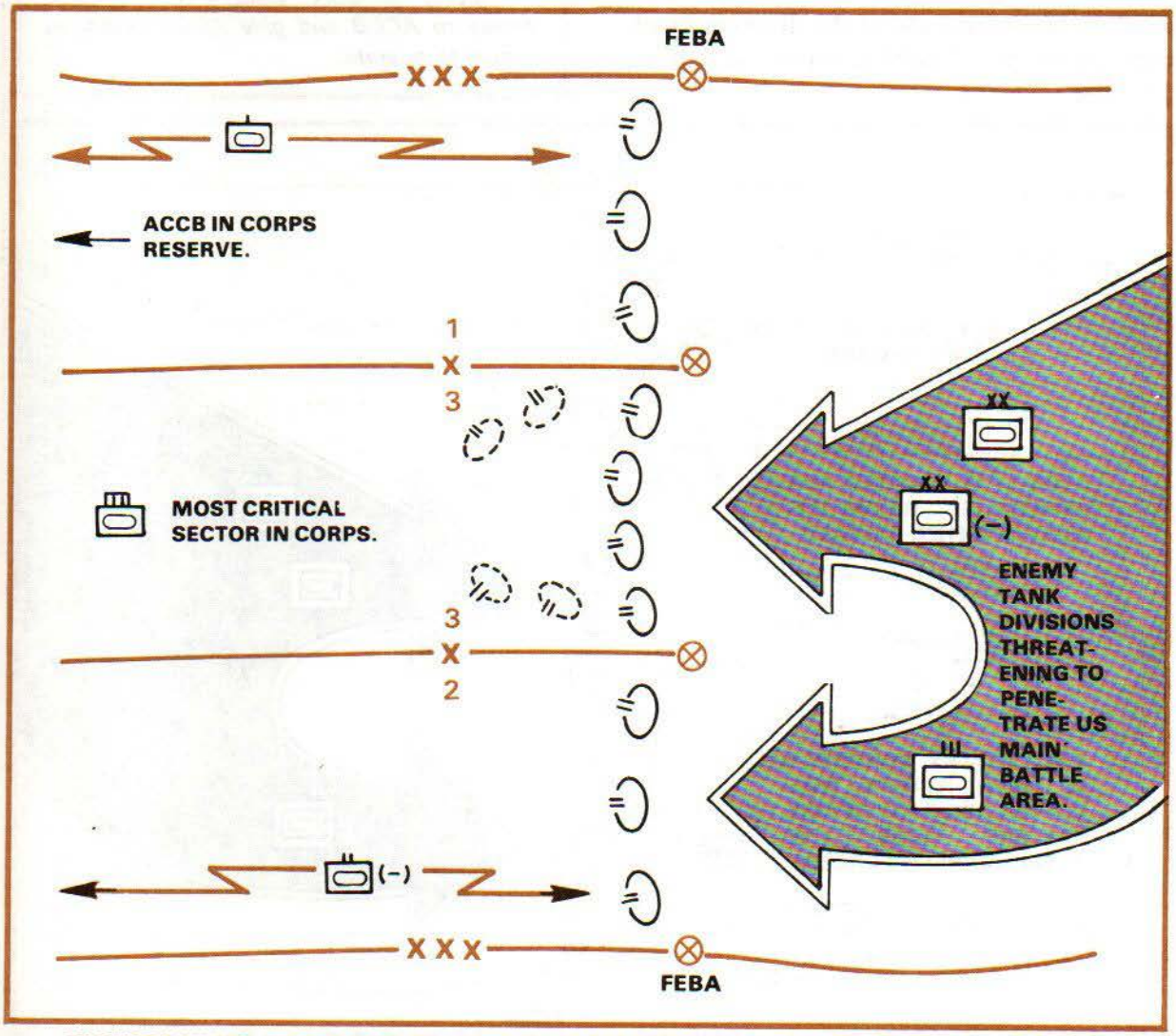


THE GROUND COMMANDER MAY NOW COUNTERATTACK TO DESTROY THE ENEMY AND RESTORE THE FEBA.

IF THE ACCB IS COMMITTED TO THE BATTLE WHERE THE GROUND FORCE COMMANDER HAS RETAINED A VIABLE DEFENSE, IT SHOULD BE PLACED UNDER OPCON OF THE GROUND FORCE COMMANDER TO PROVIDE CONTINUITY OF EFFORT AND EASE OF COMMAND AND CONTROL.

Situation 2—ACCB under OPCON of division commander. This situation depicts how the ACCB is integrated into the total effort.

A US division defending in the most critical sector in the corps is faced with the main attack of a threat tank army.



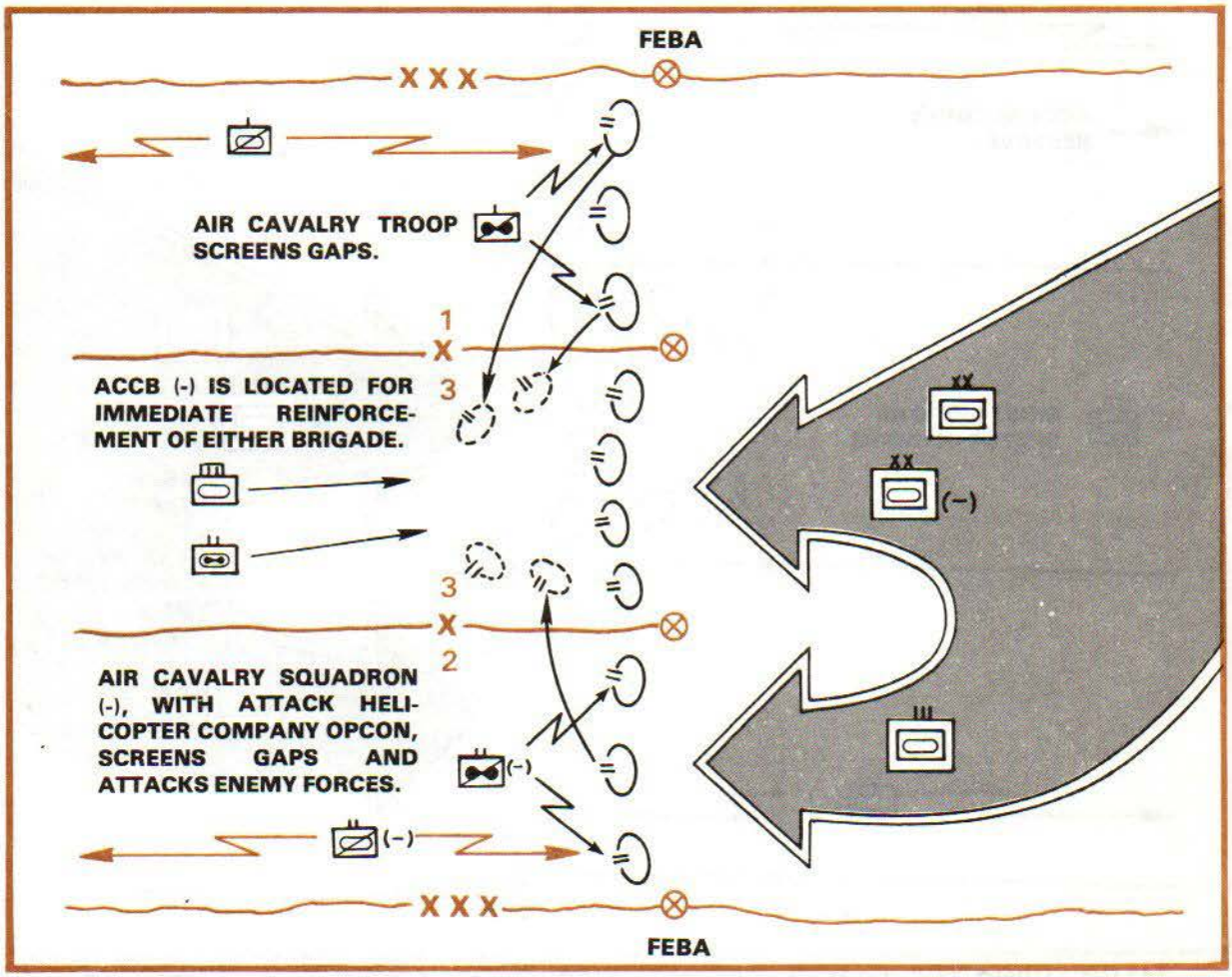
MAINTAINING THE ACCB IN RESERVE ALLOWS THE CORPS COMMANDER TO CONCENTRATE OVERWHELMING COMBAT POWER AT THE CRITICAL TIME AND PLACE.

The corps commander releases operational control of ACCB to the division commander, whereby the division commander directs ACCB commander to reinforce 3d brigade with one attack helicopter battalion and to use air cavalry to screen gaps in 1st and 2nd brigade sectors.

The division commander further directs the ACCB commander to be prepared to reinforce anywhere along the division front with the second attack helicopter battalion, on order.

At the same time, the division commander moves ground forces to concentrate in the threatened area by thinning in less threatened areas.

The command relationship between ACCB and the ground force depends upon the *stability* of the *battlefield. If defense is viable, OPCON ACCB to ground forces. If disrupted, OPCON disorganized ground forces to ACCB and give ACCB sector in which to operate.*



THE ACCB COMMANDER POSITIONS HIS FORCES TO FACILITATE TIMELY REACTION TO ANY AREA IN THE DIVISION SECTOR.

THE ACCB'S PARTICIPATION IN DELAY OPERATIONS

The ACCB participates in delay operations as part of a larger force.

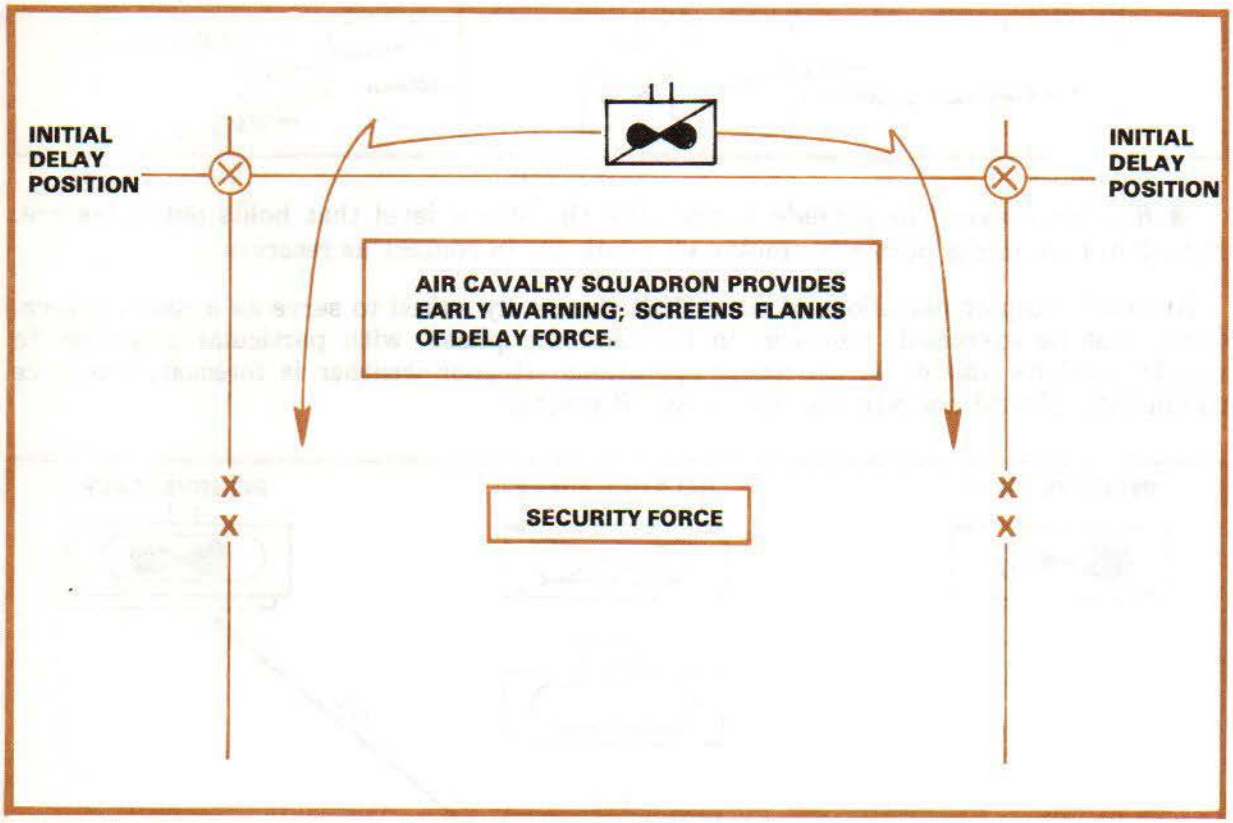
Maximum delay is accomplished by conducting a series of offensive and defensive actions designed to cause the enemy to deploy, reconnoiter, maneuver, and take other time-consuming evasive actions.

The capability of the ACCB to concentrate fires quickly at one or more areas on the battlefield forces the enemy to move cautiously and to keep his units well dispersed.

The delay force may be divided into three elements: *Security force, delaying force,* and *reserve force.*

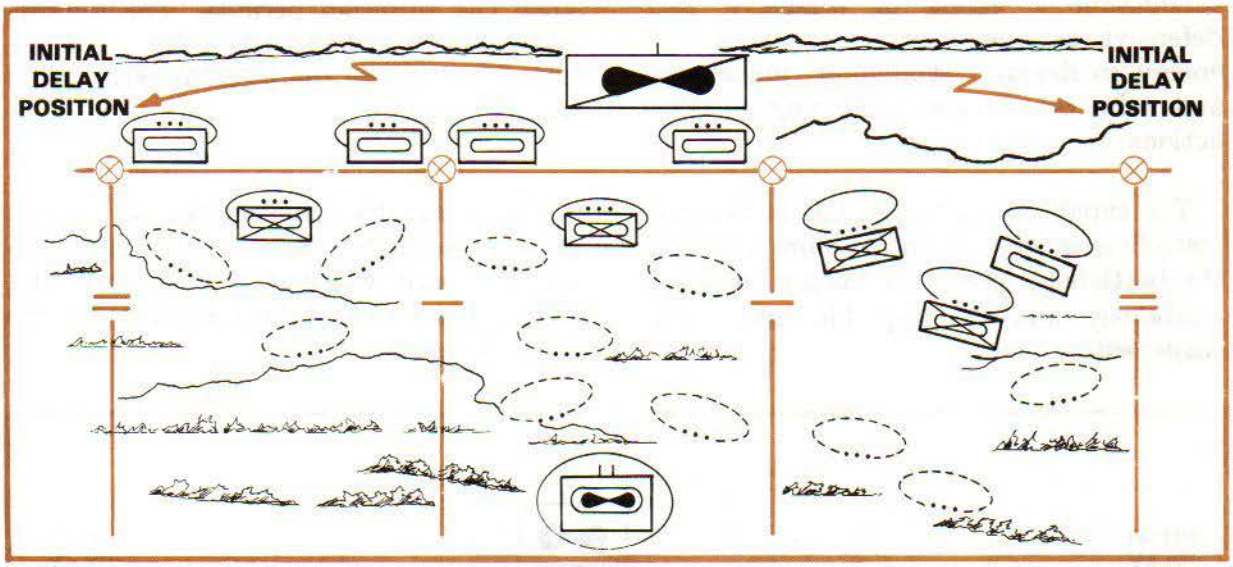
■ *Security Force:* A covering force or other security forces may be employed when the situation permits. The highest headquarters conducting the delaying actions prescribes the force to execute the security mission.

The air cavalry squadron can act as part of the security force. The squadron provides early warning of an approaching enemy and provides flank security for the delay force.



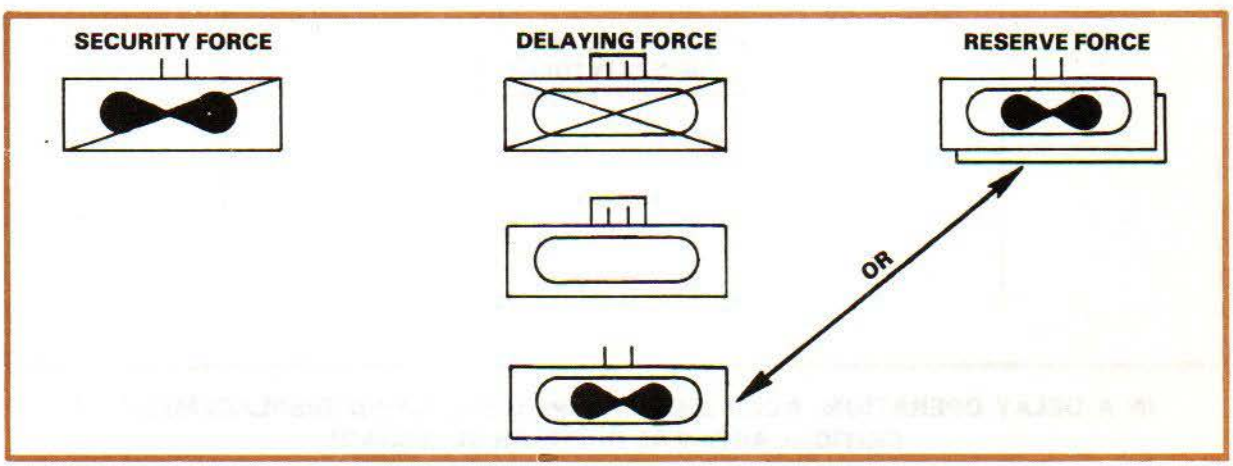
IN A DELAY OPERATION, ACCB MOBILITY PERMITS RAPID DISPLACEMENT TO CRITICAL AREAS AS OFTEN AS NECESSARY.

■ *Delaying Force:* The bulk of the force's combat power is normally in the delaying force. Delaying forces are concentrated on likely avenues of approach with forces deployed in width and depth for the purpose of forcing the enemy to deploy repeatedly. At the time the enemy force has been brought fully to bear, the delay force leaves; and the time-consuming process is repeated again at the next delay position.



■ *Reserve Force:* The brigade is normally the lowest level that holds out a reserve. Battalion task forces normally employ elements not in contact as reserves.

Attack helicopter battalions of the ACCB are ideally suited to serve as a reserve force. Care must be exercised, however, in the planning phase, with particular attention to weather and its impact on helicopter operations. If poor weather is forecast, the force commander should not rely heavily on ACCB assets.



CHAPTER 6

COMBAT SUPPORT

The ACCB has some organic combat support; however, additional combat support normally is required. Units of the USAF, field and air defense artillery, engineer, signal, military intelligence, and military police may be assigned to support the ACCB in an operation.

Non-organic combat support units in support of the ACCB are assigned in one of three ways:

- *Direct Support:* The supporting unit establishes liaison with the supported unit. The supported unit has priority on the efforts of the supporting unit. The supporting unit responds directly to requests of the supported unit.
- *General Support:* The supporting unit supports the supported force as a whole, responding to requests for support according to priorities established by the force commander.
- *Attachment:* The supporting unit provides its support exclusively to the supported unit as if it were organic to the unit. Attachment requires the supported unit to provide logistical support to the supporting unit.

CONTENTS

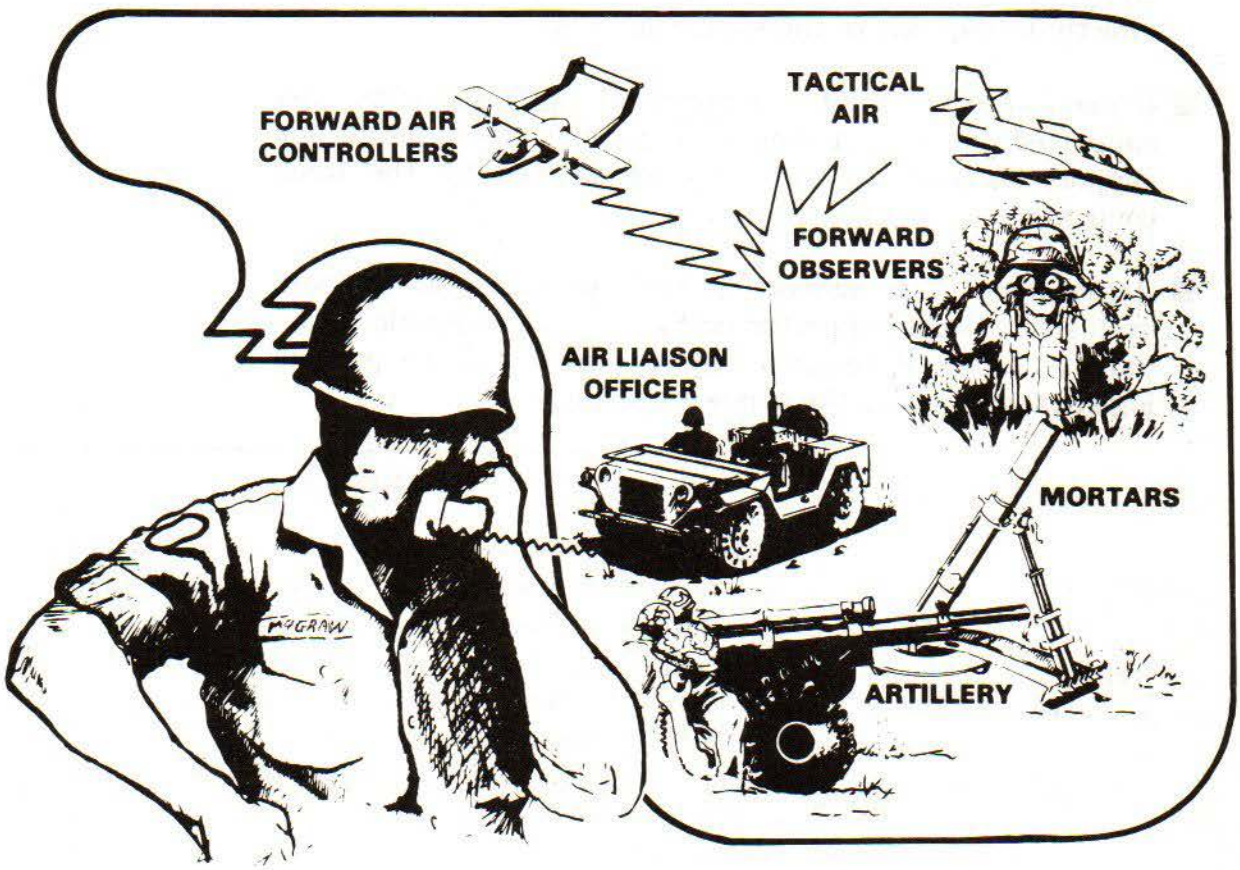
FIELD ARTILLERY FIRE SUPPORT

The ACCB requirement for field artillery supporting fires is essentially the same as that for ground maneuver units. Emphasis is placed on suppression of enemy air defense weapons.

The most common method of satisfying requirements for field artillery support will be to place a field artillery unit in direct support (DS) of the brigade. Under certain circumstances (e.g., during counterattack operations), the fires of a field artillery battalion in direct support of an ACCB may be reinforced by the fires of additional field artillery units. Field artillery units may be attached for limited periods to an ACCB when the brigade is operating as the covering force for the corps or division.

Two categories of field artillery suppressive fire are available to the brigade—*planned* fires and *immediate* fires.

Planned suppressive fires are sited against *known* or *likely* enemy locations and are called for when needed or fired on at a scheduled time. Planned targets also serve as reference points for shifting fires on to targets of opportunity that appear during the conduct of an operation.



FIRE SUPPORT OFFICER/COORDINATOR

Immediate suppressive fires are used against targets of opportunity and are called for when required, e.g., if the enemy air defense positions are detected along the route of flight. To answer calls for immediate suppressive fires, firing batteries from a direct support artillery battalion may be dedicated for short periods of time to air cavalry troops, attack helicopter companies, or leading company teams of ground maneuver elements, attached to the brigade. Batteries will be dedicated on a one-to-one basis for short periods of time. The brigade commander determines which elements may require dedicated support and coordinates support with the field artillery battalion commander. A dedicated battery provides an exclusive fire mission channel to answer calls for fire from the supported unit and monitors the supported unit's FM command net, following the operation and anticipation of fire support requirements. It is important to remember that while dedication increases responsiveness of field artillery support to a supported company or troop, it can degrade responsiveness to the brigade as a whole. The dedicated battery should be used only during the movement-to-contact phase of an offensive operation. The brigade commander must first decide if dedicated support is required; and then, how many batteries can be dedicated without seriously degrading the overall support to the brigade.

USAF TACTICAL AIR SUPPORT

■ Requirements for preplanned tactical air support are forwarded to higher headquarters through operations channels. Requests for immediate tactical air support are forwarded by the *tactical air control party* (*TACP*) to the *direct air support center* (*DASC*) collocated with the corps. Tactical air control parties are provided to brigade and battalions and may include *air liaison officers* (*ALO*) and *forward air controllers*(*FAC*). ALOs advise the commander on employment of tactical air; integrate tactical air support planning with ground force planning; and coordinate airstrikes with supporting Army fire support. The ALO, fire support coordinator, and unit commander are normally collocated, enabling them to travel together during operations.

■ FACs control airstrikes from either ground or airborne positions, depending upon the tactical requirement. For certain operations, both ground and airborne FACs will be employed. As a general rule, they will operate from an appropriate US Air Force fixed-wing aircraft when supporting helicopter operations. Although procedures will vary with the type of operations, airborne FACs will usually maintain a standoff position so as not to signal the position of the helicopter elements. The airborne forward air controller, from his standoff position, provides a communications link for the ALO in the command helicopter with the rear TACP or battalion command net. The FAC coordinates with the commander and the ALO prior to the mission to determine the escort pattern/position for airborne FAC and strike aircraft. Should the helicopter element come under enemy attack, the FAC will employ strike aircraft in accordance with prebriefed strike control procedures. In an emergency, aeroscouts may control airstrikes.

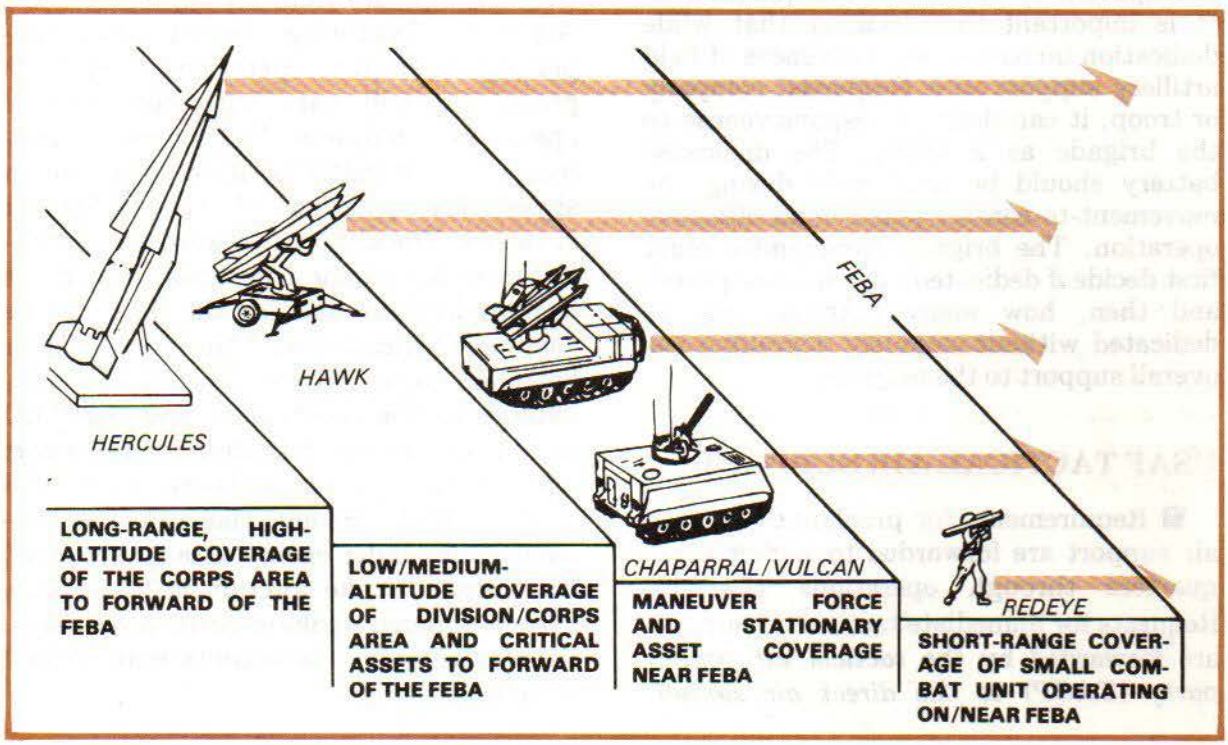
AIR DEFENSE ARTILLERY SUPPORT

The ACCB may not always receive dedicated air defense artillery support from corps or division assets. However, the ACCB normally will be under the umbrella of Hawk coverage. Therefore, the brigade, through the flight operations center (FOC), must *keep the supporting Hawk battalion advised of its plans.* Based on priorities of air defense assets established by the corps commander, an air defense battery from the corps Chaparral/Vulcan battalion may be assigned the mission of direct support of the brigade. The ACCB is most vulnerable in assembly areas. Because it constitutes a major portion of the corps reserve, the corps commander normally will provide dedicated ADA coverage for the brigade assembly areas.

When the brigade is attached to a division, a corps or divisional air defense battery may be placed in direct support of the brigade. When this is done, the direct support battery commander is the air defense officer for the brigade commander and advises the brigade commander on air defense matters.

The brigade commander establishes priorities for air defense of the brigade. The air defense direct support battery commander will position his weapons where he can best support the operation.

Redeye teams from the brigade headquarters and headquarters troop and the air cavalry squadron should be employed forward in preselected positions to provide active air defense. Local security will have to be provided from brigade assets for Redeye teams operating forward. FM 44-23, *Air Defense Artillery Employment—Redeye,* contains additional information on employment of Redeye teams.



THE AIR DEFENSE SYSTEM IS DESIGNED TO PROVIDE MUTUALLY SUPPORTING, OVERLAPPING COVERAGE OF THE BATTLEFIELD.

Air defense fires are controlled using hostile criteria and weapons control status established by higher headquarters. Air defense team or section leaders decide whether an aircraft is hostile by visual observation. Once identified as hostile, engagement is controlled by the weapons control status then in effect.

Subordinate units, including units exercising command control of air defense weapons, may impose a more restrictive status but cannot implement a less restrictive status. Weapons control status categories are:

- *Weapons Free*— May fire at aircraft not positively identified as friendly.
- *Weapons Tight*—Fire only at aircraft positively identified as hostile according to prevailing hostile criteria.
- *Weapons Hold*— Do not fire except in self-defense.

NAVAL GUNFIRE SUPPORT

US Navy guns are long-range artillery. When appropriate, naval gunfire may support an ACCB. When this is the case, special fire control parties of US Navy personnel provide ship-to-shore communications and forward observers to direct fire.

FIRE SUPPORT PLANNING

The brigade commander must insure that his scheme of maneuver and fire support plan are integrated. Fires are planned on sufficient targets to give good support to maneuver units. Adequate reference points are established to facilitate immediate fire on targets of opportunity. The ACCB is primarily concerned with fires to suppress or destroy enemy air defenses that prevent attack helicopters from employing their point target firepower.

Fire planning for the ACCB normally is accomplished by battalion, squadron, and brigade fire support officers (FSO). Battalion and squadron FSOs plan sufficient fires to support the operation and provide target lists to brigade FSO. The brigade FSO reviews squadron/battalion target lists; eliminates duplication; adds targets, as necessary; and coordinates requests for USAF tactical air support with the brigade assistant S3 air and USAF liaison officers.

When ground combat units are attached to the ACCB, fire planning begins with the forward observers and company team commanders. The forward observer develops the company team target list; then forwards it to the battalion task force FSO, after its approval by the team commander. The task force FSO consolidates company team target lists; adds targets, as necessary; and provides the list to the supporting field artillery battalion. The list is provided the brigade FSO. The brigade FSO then passes targets more appropriate for attack by another fire support means (USAF for example) to that particular agency, informing the affected FSO of his actions.

It is important to remember that too many targets in the fire plan can slow field artillery responsiveness. Three or four numbered targets in a 1-kilometer grid square may be too many in most situations.

FIRE SUPPORT COORDINATION

The brigade fire support section in the brigade headquarters and each battalion/squadron fire support section assist commanders in coordinating supporting fire. When a field artillery battalion is placed in direct support of the brigade, the direct support battalion commander is the fire support coordinator (FSCOORD) for the brigade. In the absence of the direct support battalion commander, the brigade fire support officer acts as the brigade FSCOORD. At battalion level and squadron level, the battalion/squadron fire support officer acts as the FSCOORD. At company level and troop level, the company/troop commander is the FSCOORD.

To provide for rapid coordination of fire support and to safeguard friendly troops, equipment, and installations, the FSCOORD uses various coordinating measures. Two of the coordinating measures common to ACCB operations are described below. FM 6-20, *Fire Support for Combined Arms Operations,* contains additional information about fire support coordinating measures.

RESTRICTIVE FIRE LINE (RFL)

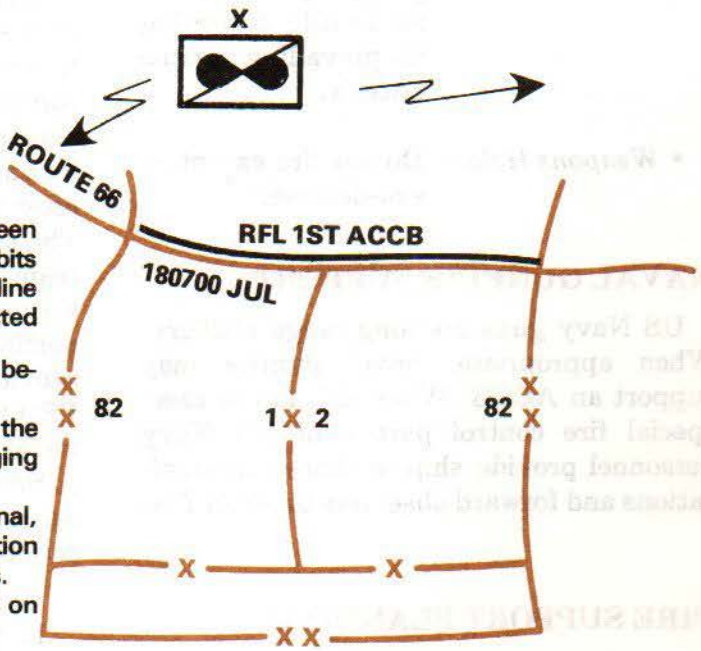
Definition: A line established between converging friendly forces which prohibits fires or effects from fires across the line without coordination with the affected force.

Purpose: To prevent interference between converging friendly forces.

Establishment: It is established by the common commander of the converging forces.

Applicability: Applies to conventional, improved conventional, special ammunition and their effects delivered by any means.

Location: The RFL should be located on identifiable terrain.



RESTRICTIVE FIRE AREA (RFA)

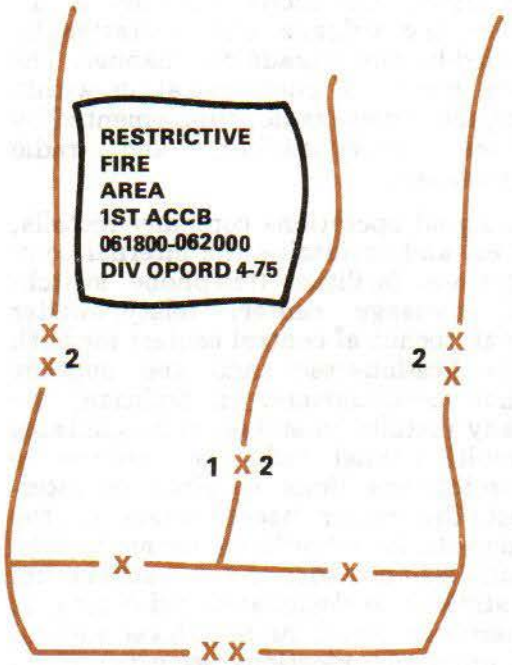
Definition: An area in which specific restrictions are imposed and into which fires in excess of those restrictions will not be delivered without coordination with establishing headquarters.

Purpose: To regulate fires into an area according to the stated restrictions.

Establishment: May be established by battalion or higher level.

Applicability: Applies to the specified delivery means and/or munitions and their effects.

Location: The restrictive fire area should be located on identifiable terrain, to facilitate recognition from the air.



When operating under corps control, the brigade fire support officer coordinates requests for additional fire support assets with the corps artillery commander. When attached to a division, requirements for fire support must be coordinated with the division artillery commander.

For a variety of reasons, attack helicopter units may not receive forward observers from supporting field artillery; therefore, *all aviators must be trained in the employment and adjustment of field artillery fires and hasty fire planning techniques.* When forward observers are employed with the ACCB, they should ride in aeroscout aircraft with elements in contact. Radio communication between the aircraft and supporting artillery may not be possible when flight is conducted at terrain flight altitude. As a result, the aircraft must be repositioned; therefore, observed fire may not be possible.

FIRE SUPPORT OFFICERS AT ALL LEVELS MUST PROVIDE UNIT COMMANDERS WITH THE FIRE DIRECTION FREQUENCIES OF SUPPORTING FIELD ARTILLERY UNITS.

SIGNAL SUPPORT

The signal operations company is organic to the brigade and operationally controlled by the brigade commander. The primary means of communication within the brigade is voice radio, supplemented by telephone, teletypewriter, and radio teletypewriter.

The signal operations company installs, operates, and maintains the internal communications facilities (telephone switchboard, message center, teletypewriter terminal, technical control center) for both brigade headquarters and the support battalion headquarters. In addition, the company installs, operates, and maintains the multi-channel radio or microwave communications links required to interconnect the major headquarters of the brigade with its subordinate elements. The company also provides and operates secure radio stations in designated radio nets. It also performs direct support level maintenance on communications security equipment for the brigade.

• *Company Headquarters* provides for command control and performs essential support functions common to all companies.

• *Command Operations Platoon* provides the brigade headquarters with a manual telephone central office and a local telephone distribution system, a security teletypewriter facility, a message center, radio-wire integration (RWI), multichannel terminals, and radio and radio teletypewriter (RATT) communications for the brigade headquarters. An aerial retransmission station can be provided, depending on availability of brigade aircraft.

• *Support Operations Platoon* provides the support battalion headquarters with a manual telephone central office and a local telephone distribution system; a secure teletypewriter terminal facility; a message center facility; and radio and RATT communications for the support battalion headquarters. Card data terminals are provided to support the logistical and administrative requirements of the ACCB to higher headquarters.

• *Communications Security (COMSEC) Logistics Section* provides direct support COMSEC logistics for the ACCB. The COMSEC logistics section function includes the acquisition, distribution, accounting, inventory control, new equipment introduction, maintenance, and maintenance support of communications security equipment for the brigade.

• *Air Weather Support Section*—when augmented with Air Force personnel and equipment—will provide weather forecasts, briefings, and observations for the brigade commander and staff.

NET / STATION	BDE COMD NET (FM VOICE)	BDE/OP/ INTEL NET (FM VOICE)	BDE/OP/ INTEL NET (RATT)	BDE ADMIN/LOG NET (FM VOICE)	BDE ADMIN/LOG NET (RATT)	BDE COMD NET (SSB VOICE)
ACCB HQ	VRC-46 (S) NCS	VRC-46 (S) NCS	GRC-142 (S) NCS			GRC-106 (S) NCS
SPT BN	+			VRC-46 (S) NCS	GRC-142 (S) NCS	GRC-106 (S)
AIR CAV SQDN	+	+	+	+	+	GRC-106 (+)
ATK HEL BN (2)	+	+	+	+	+	GRC-106 (+)

LEGEND: (S) *Provided by Sig Op Co*
(+) *Organic to using unit*

INTERNAL RADIO NETS

ENGINEER SUPPORT

The equipment section of the supply and transportation company located in the support battalion can prepare hasty helipads and forward area rearm/refuel points.

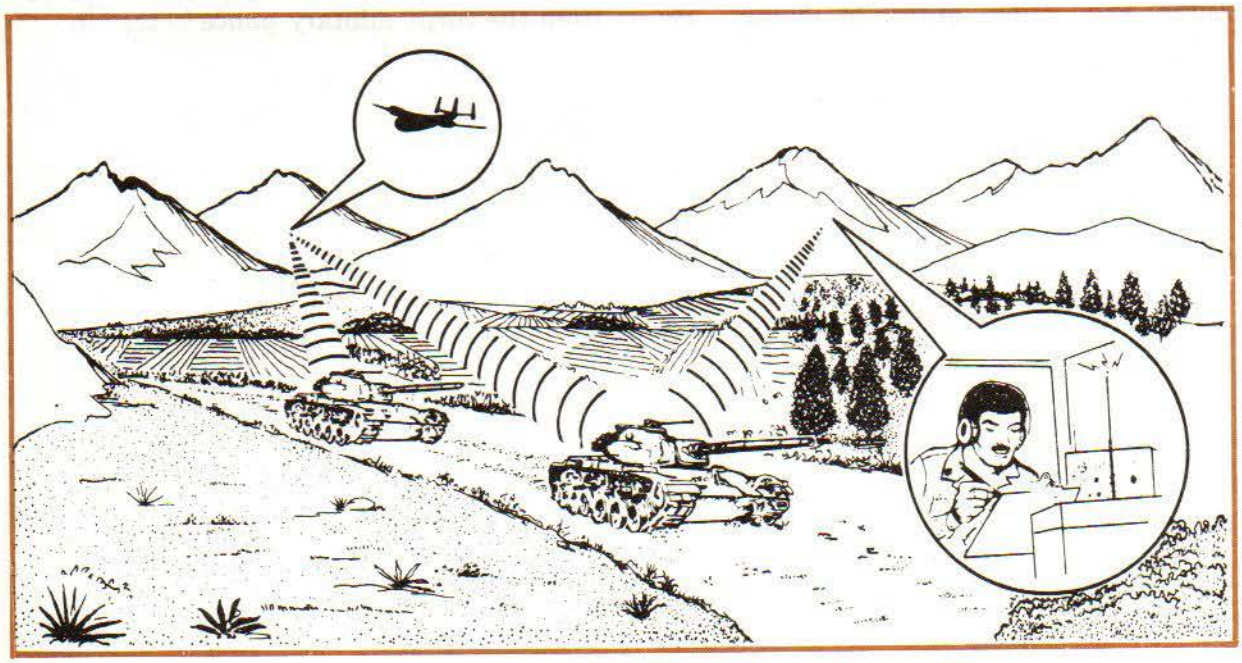
Engineer support may be required from corps or divisional assets. Operations requiring additional engineer support include:

- Support for forward area rearm/refuel points in excess of ACCB capability.
- Combat construction for long-term sustaining requirements.
- Development of engineer plan when ACCB serves as control headquarters for combined arms.

INTELLIGENCE

Intelligence is essential to successful combat operations. In order to win, the commander must *see the battlefield* better than the enemy. He must *know the enemy, the weather, and the terrain* better than ever before. Accurate intelligence will enable the commander to decide correctly *when, where,* and *how* best to concentrate his units and weapons systems.

The ACCB commander uses air cavalry to obtain information about the enemy and terrain and also provides this information to higher headquarters and supported units for production of intelligence. However, many of the intelligence requirements of the brigade are fulfilled from higher headquarters and supported units. A military intelligence detachment may be provided to the brigade. It has order-of-battle specialists, imagery interpretation, interrogator, and counterintelligence personnel. Organic aerial reconnaissance and surveillance capabilities of the ACCB can be supplemented by Army aviation units specifically equipped to provide photographic, infrared, and radar support.



REAL-TIME INTELLIGENCE IS PROVIDED BY ASA UNITS.

The ACCB S2 coordinates with US Air Force and supporting Army Security Agency (ASA) units to detect and locate enemy air defense (AD) weapons systems so that enemy AD weapons can be suppressed. Jamming assistance from Air Force and divisional electronic warfare units directed against enemy air defense system is planned for. The Air Force can also provide photographic support which can be integrated with engineer photogrammetric and topographic data to make detailed terrain analysis. Trained Air Force weather personnel are assigned to division and corps to provide accurate, current weather information.

Signals intelligence (SIGINT) and electronic warfare support is provided largely by division and corps military intelligence (MI) units. They have the means to exploit all known electromagnetic systems—radars, radios, homing beacons—during all-weather, day and night operations. SIGINT can identify and locate enemy transmitters and emitters and develop radar and radio order of battle. By identifying the type of emitter, MI specialists can further determine associated weapons systems. When integrated with intelligence from all sources, this information can provide a significant insight into composition, disposition, activities, and capabilities of the enemy force.

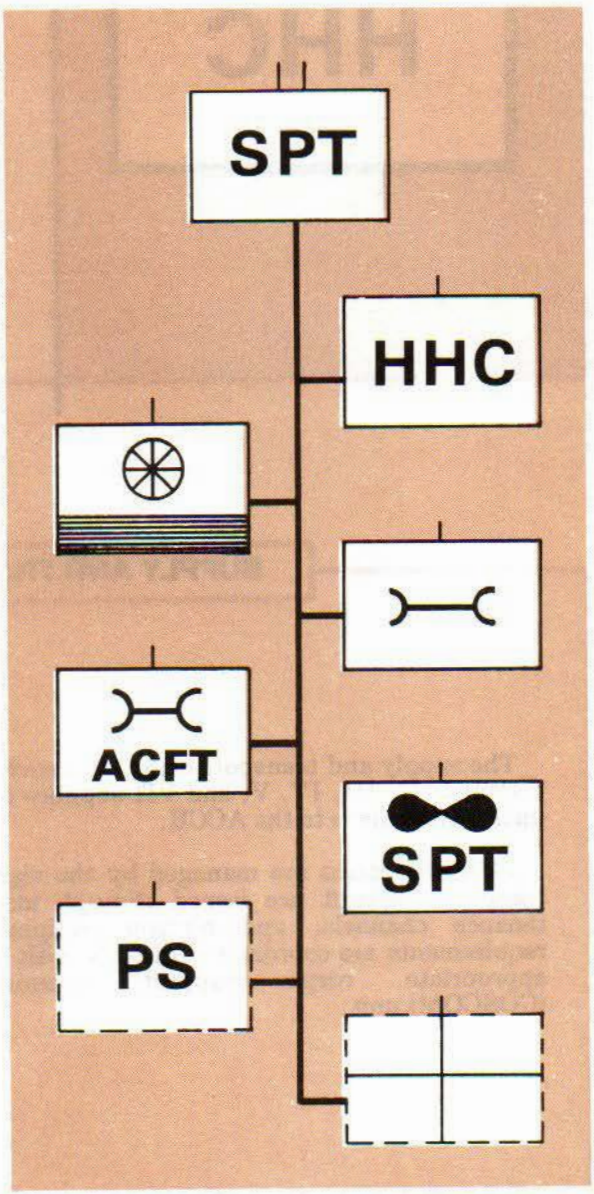
Intelligence collection requirements are expressed in terms of essential elements of information (EEI) and other intelligence requirements (OIR). Based on the mission and command guidance, the S2 recommends EEI and OIR. When approved by the commander, orders and requests are issued as necessary to collect information for intelligence production.

MILITARY POLICE SUPPORT

From time to time, the brigade may need military police support for the purpose of prisoner-of-war security, refugee control, and maintenance of law, order, and discipline in the combat zone. When needed, the brigade obtains this support from the corps military police battalion.

CHAPTER 7

COMBAT SERVICE SUPPORT OPERATIONS



SUPPORT BATTALION

Combat service support for the ACCB is provided primarily by the support battalion.

Administration and medical units are not organic to the battalion and must be provided either through augmentation or by non-brigade sources on an area basis.

CONTENTS

HEADQUARTERS AND HEADQUARTERS COMPANY

This company provides personnel and equipment to command and control the support battalion.

The company includes a brigade materiel management center (BMMC) which provides brigade-level supply, field services, maintenance and movement management.

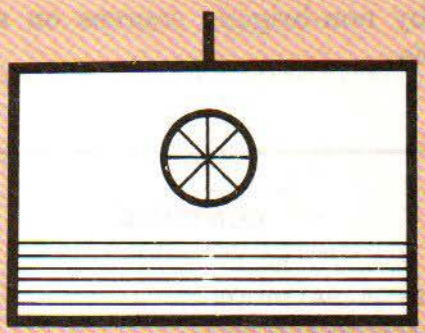
The company also provides personnel services, finance and Standard Installation/ Division Personnel System interface branches for limited administrative, personnel, and finance support.

The company plans, coordinates, and supervises area protection activities in its assigned areas of responsibility.

SUPPLY AND TRANSPORT COMPANY

The supply and transport company provides classes I, II, III, IV, V, and VII supplies and unclassified maps to the ACCB.

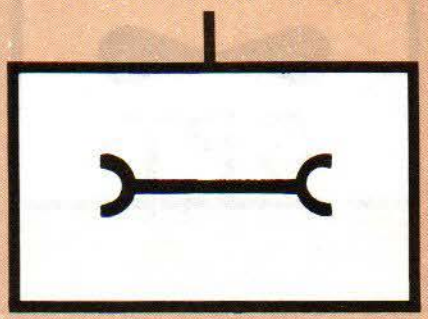
COMSEC items are managed by the signal company; aircraft are issued through maintenance channels; and airdrop equipment requirements are coordinated directly with the appropriate corps support command (COSCOM) unit.



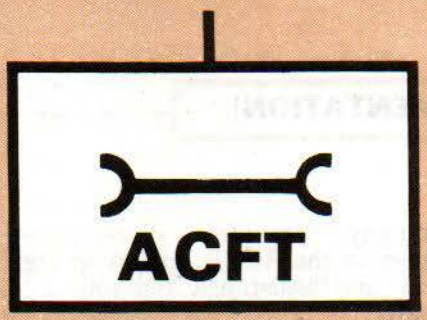
MAINTENANCE COMPANY

The maintenance company provides direct support maintenance and repair parts supply support to the ACCB except for medical, photographic, COMSEC, aircraft, avionics, aircraft armament, automatic data processing equipment (ADPE), electronic accounting machine (EAM), airdrop, and light textile items.

It also provides limited vehicle recovery to supported units; operates a direct exchange (DX) service; maintains operational readiness float; and provides technical assistance.



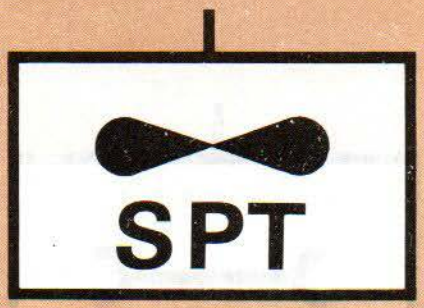
TRANSPORTATION AIRCRAFT MAINTENANCE COMPANY



The company provides aircraft direct support maintenance, including avionics and aircraft armament maintenance; and repair parts supply support for organic aircraft.

It also operates a quick supply store DX service for selected items; maintains an operational readiness float for selected items; and provides technical assistance.

ASSAULT SUPPORT HELICOPTER COMPANY



This company provides air transport for personnel, supplies, and equipment required to accomplish the combat service support mission.

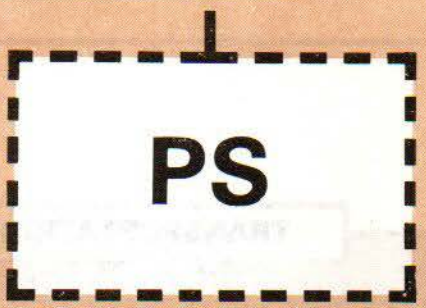
The primary role is logistical, but the unit may be used for aircraft recovery, to transport personnel, to provide aeromedical evacuation, and to supplement aeromedical evacuation capabilities when the ACCB is augmented with a medical company.

The company is authorized 16 CH-47 helicopters.

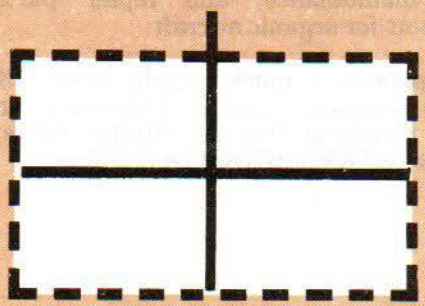
ADMINISTRATION COMPANY (AUGMENTATION)

This company provides legal, inspector general, adjutant general, finance, information, and replacement services for the brigade.

The unit also provides centralized personnel and administrative support, to include the Standard Installation/Division Personnel System and Joint Uniform Military Pay System (JUMPS)—Army interface.



MEDICAL COMPANY (AUGMENTATION)



This company provides division-level medical support to the ACCB, including staff medical advice and assistance and unit-level medical support.

This company also provides immediate battlefield aeromedical evacuation of patients.

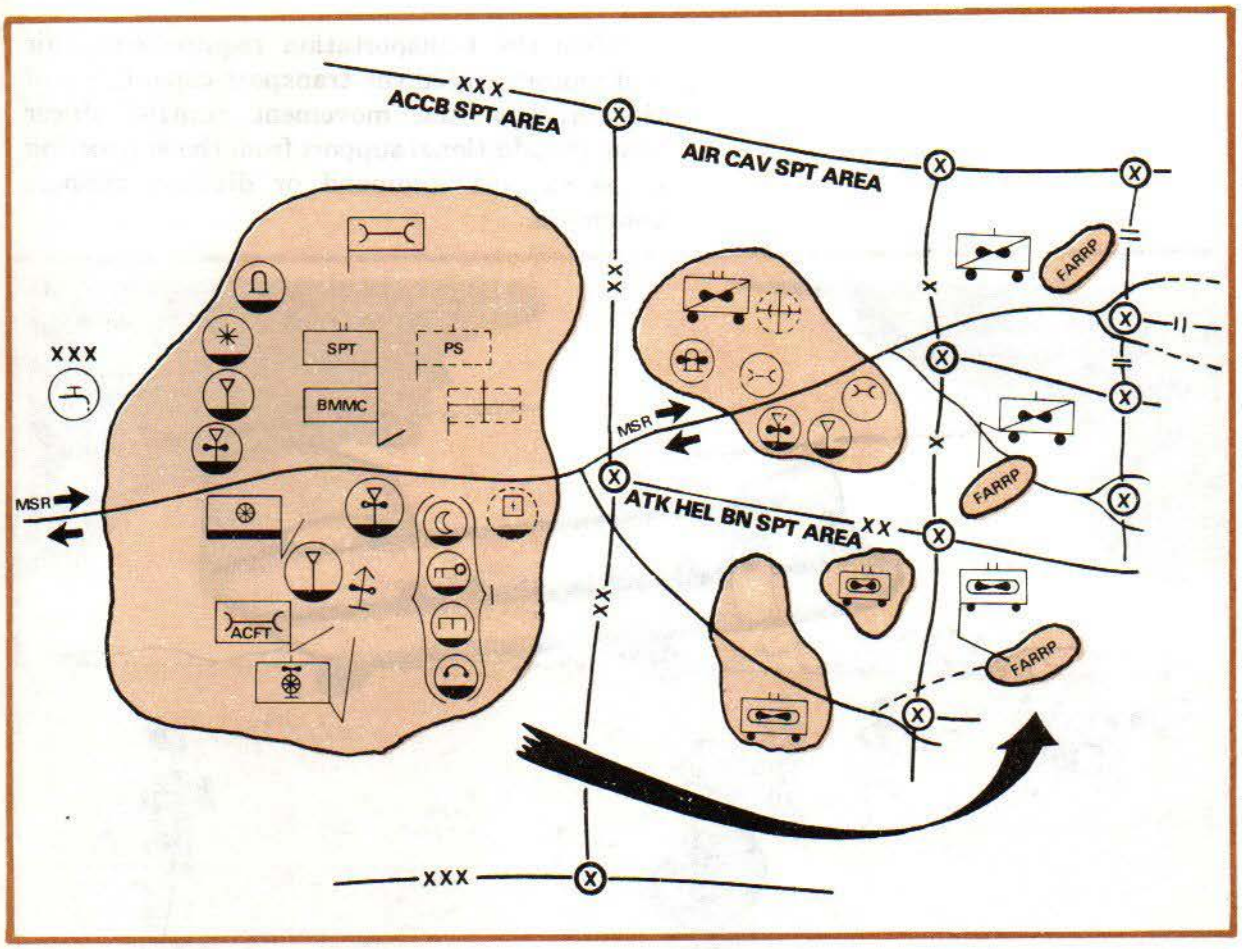
TRAINS OPERATIONS

■ Support battalion responsibility. The support battalion provides combat service support on a unit, area, or task basis, or in combinations thereof.

The command post of the support battalion, less those elements detached, is normally located in the brigade support area.

In fast-moving situations or widely dispersed actions, elements of the support battalion may operate forward of the brigade support area to insure continuing support.

Typical deployment of the brigade combat service support units might look like this:



Class II and class IV available at both the base area and airfield/heliport for unit distribution.

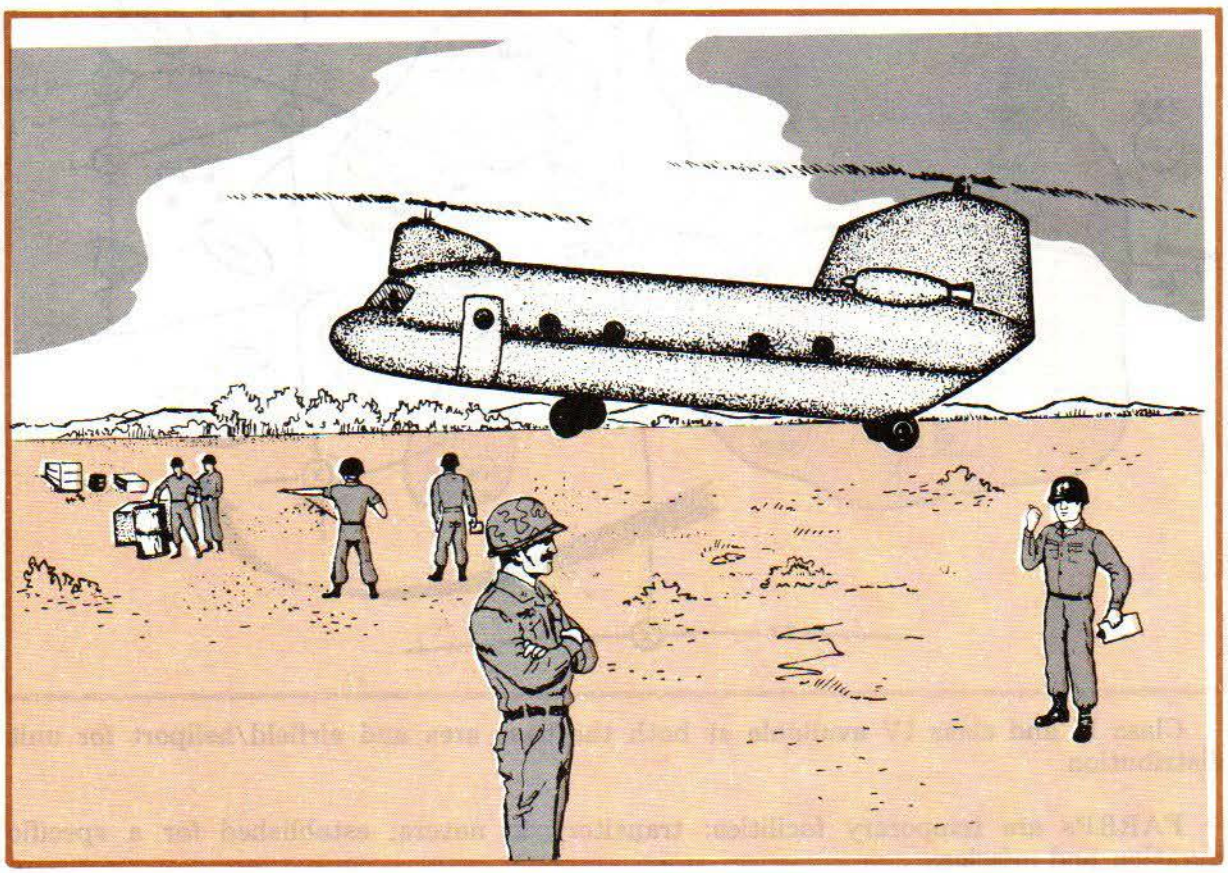
FARRPs are temporary facilities; transitory in nature; established for a specific duration and mission.

■ Air transport responsibility. The brigade employs air transport for combat, combat support, and combat service support operations.

The assault support helicopter company, CH-47, will be used primarily to perform combat service support missions.

The brigade S3 establishes priorities for the employment of the aircraft in coordination with the brigade S4 and the movement control officer from the support battalion.

When the transportation requirements (air and motor) exceed the transport capabilities of the brigade, the movement control officer requests additional support from the supporting corps support command or division support command.



REAR AREA PROTECTION

Individual units in the brigade support area provide their own local security and damage control.

The support battalion commander coordinates local security and damage control measures of all units located in the brigade support area.

Coordination for air defense support will be accomplished through the fire support element of brigade headquarters.

Organic small arms and automatic weapons are also used for local air defense protection of support battalion elements.

SUPPLY

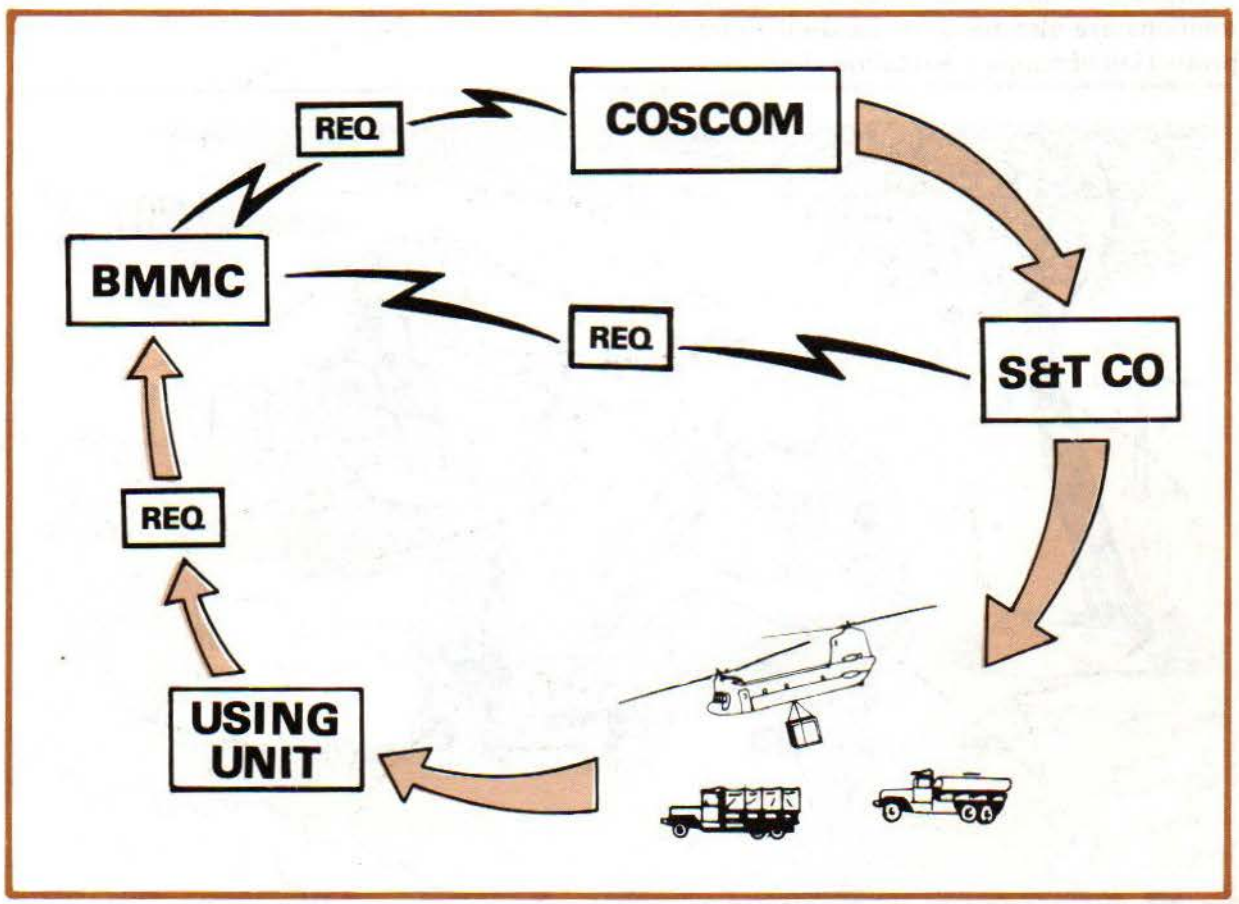
■ Distribution. Unit distribution is the primary method for distributing supplies to units of the brigade. Both air and ground means are used to deliver supplies. The supply sources may be in the brigade support area or the corps support area.

■ Requisitioning. Requisitioning is the normal method of obtaining nonscheduled classes II, IV, and VII supplies. Battalion S4s and supply officers of separate companies submit requests direct to the brigade materiel management center where they are processed for appropriate action.

The BMMC either directs the supply and transport company to make the required issue, or requisitions the items from the supporting COSCOM.

Requisitions for regulated and command-controlled items may be required to go through command channels at all levels for appropriate approval before issue is made.

Using units obtain scheduled items such as soap, paper, and cleaning materials merely by placing a demand on the distributing point that supports them.

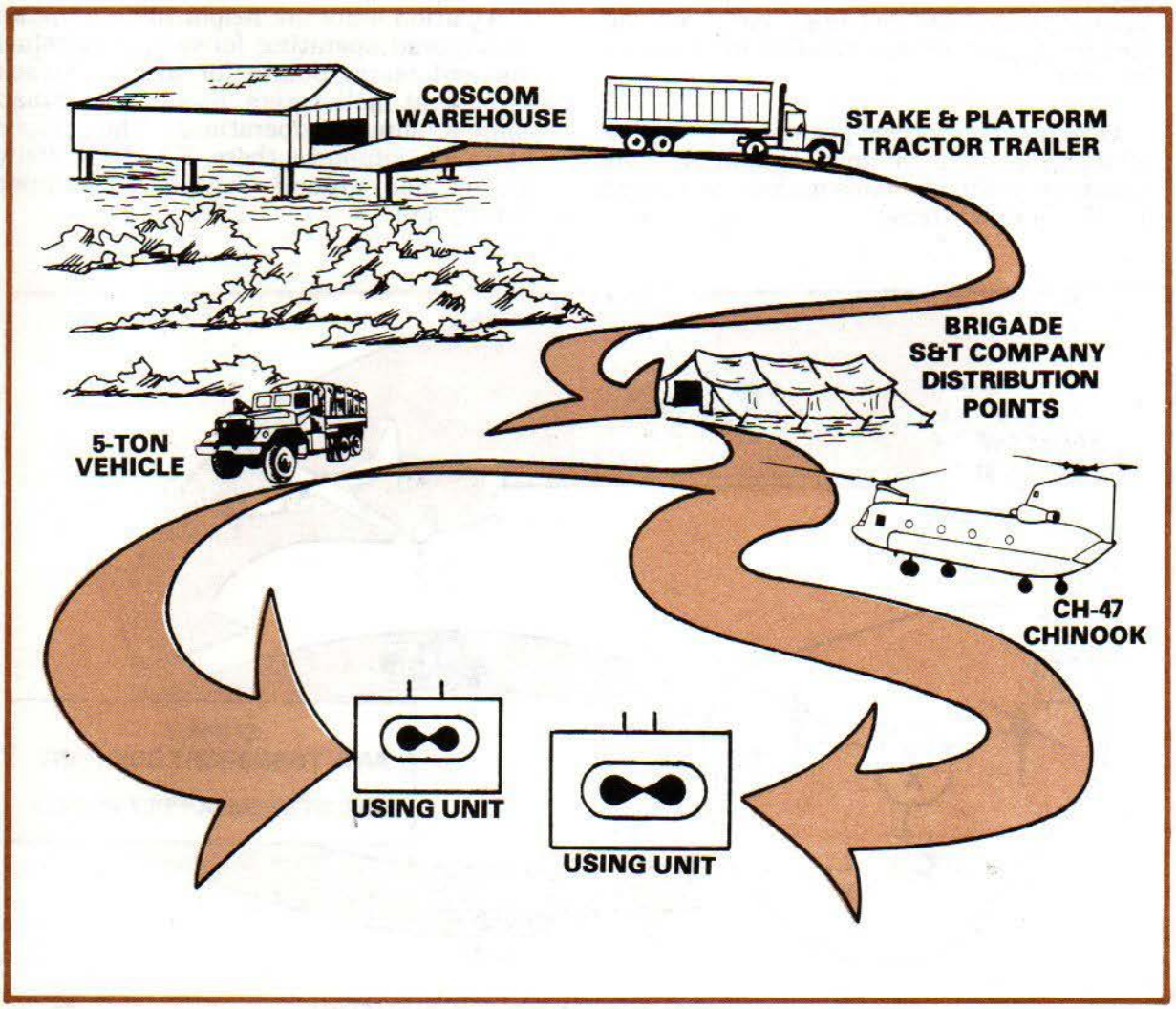


SUPPLY REQUISITION AND DISTRIBUTION CYCLE.

■ Supply Management. Supply management functions are performed by the BMMC.

• Class I. The class I supply element of the supply and transport (S&T) company procures and issues rations for the brigade, through supply point distribution. The company normally maintains a 2-day reserve of rations for the brigade.

• Classes II, IV, VII. These classes of supply are delivered to the brigade on an on-call, mark-for, or ship-to basis. All supplies in these classes (less COMSEC equipment, aircraft, and class IV operational project items) are handled by the support battalion. Ordinarily, items in these classes of supply are received in the brigade support area at the distributing point(s) operated by the supply and transport company. From there, they are delivered by brigade aircraft or surface transport to the battalions or companies. Reserves for these classes of supply are held in the brigade support area by the supply and transport company.



CLASSES II, IV, AND VII DISTRIBUTION

• Classes III and IIIA. Aviation fuels and fuels for ground equipment are supplied in bulk quantities through use of three fuel system supply points organic to the supply and transport company. These supply points use collapsible fabric tanks and filtering and dispensing equipment that can be moved by organic aircraft or surface transport.

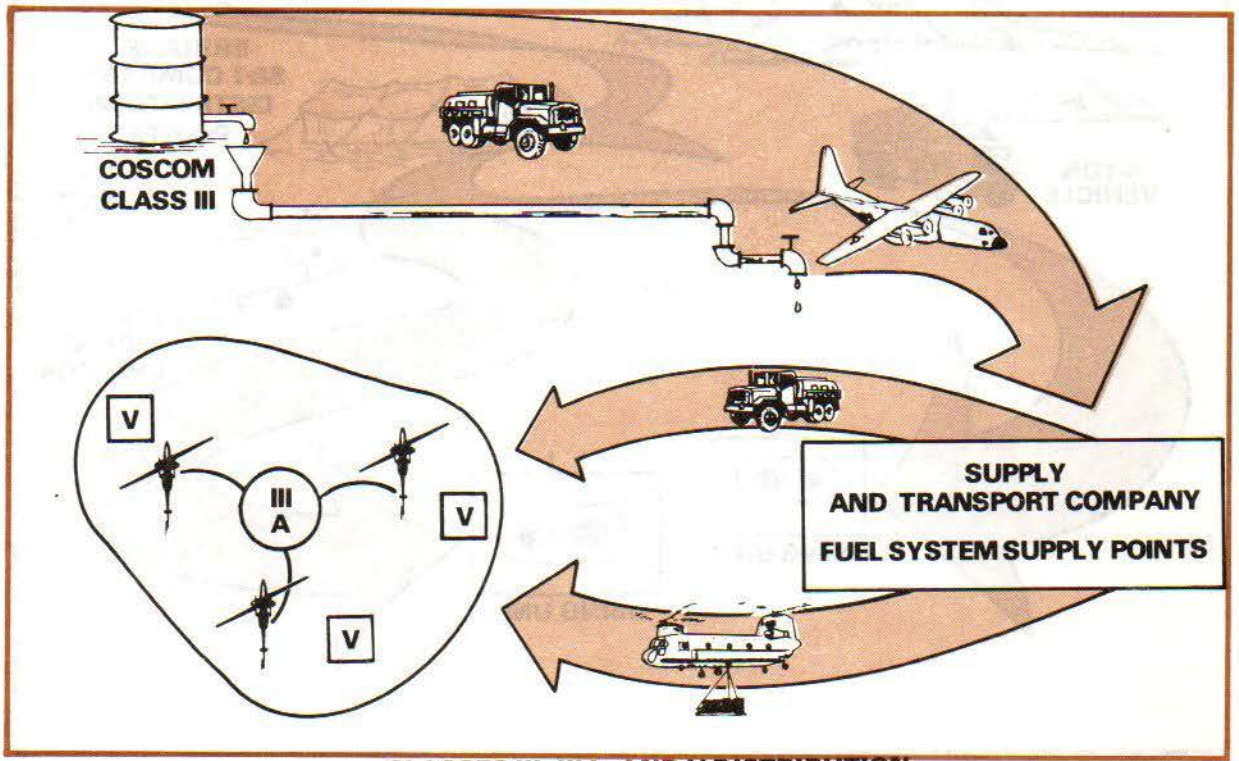
Fuels are not formally requisitioned. Aircraft and vehicles are refueled as needed. Major consumers must forecast their needs periodically to assist the BMMC in computing overall brigade requirements. Lubricants which are used in considerable quantities (e.g., motor oil and turbine engine oil) are handled in the same manner.

Greases and other packaged products which are used in small quantities are requisitioned in the same manner as classes II, IV, and VII items.

The support battalion receives bulk petroleum products by either a landline or airline of communication or a combination thereof. When the tactical posture permits, the supporting command delivers by motor transport tankers or by pipeline. When the tactical posture does not permit a landline of communication, bulk petroleum is delivered by an airline of communication to the support battalion area.

The brigade base distributing point provides for the receipt, temporary storage, and distribution of petroleum products to all petroleum consumers of the brigade.

Aviation units are responsible for establishing and operating forward area refueling and rearm points for utility, attack, and scout helicopters used for combat/combat support operations. The support battalion supports these FARRPs, using its organic ground vehicles or support helicopters.

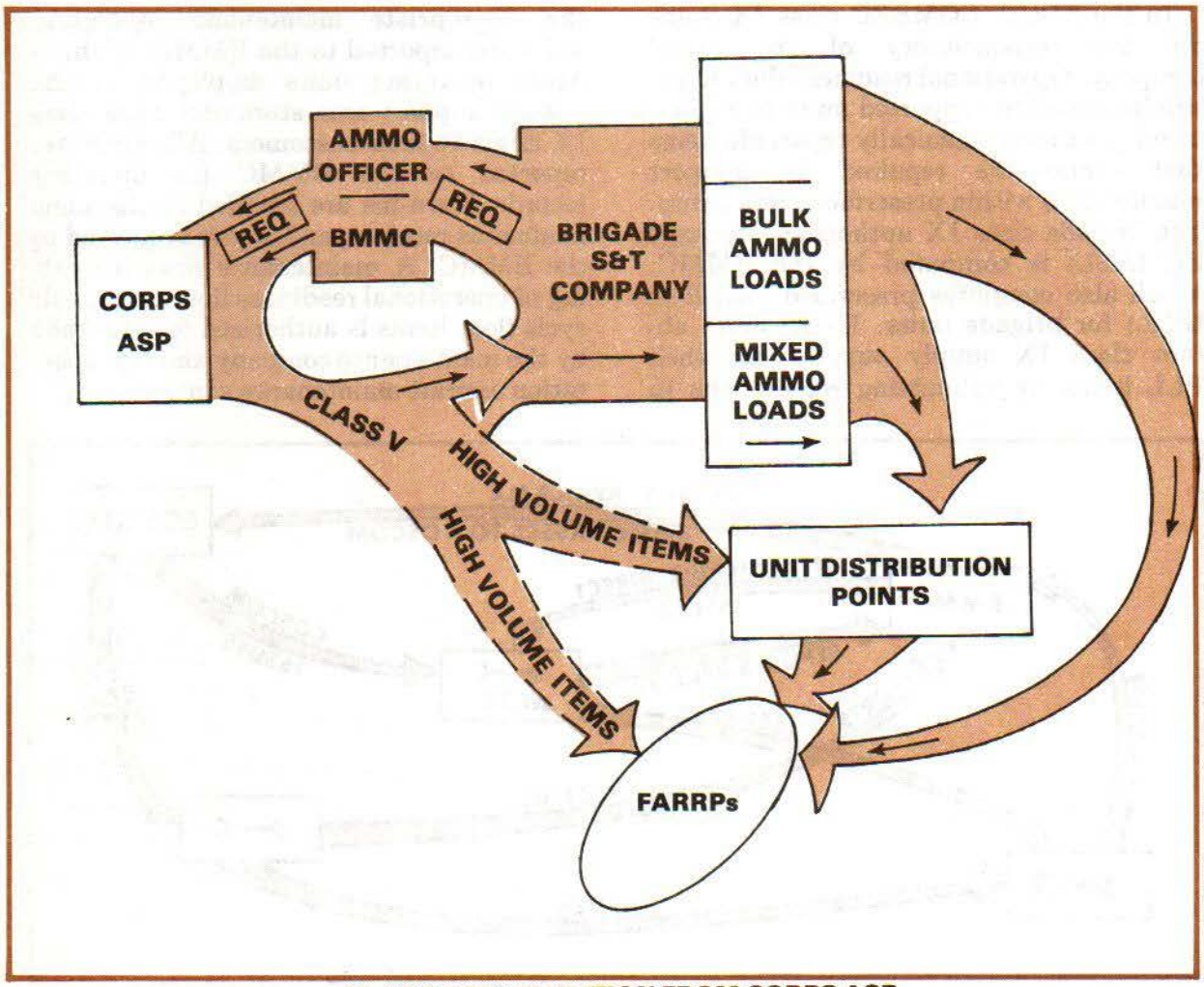


CLASSES III, IIIA, AND V DISTRIBUTION.

• Class V. Brigade class V requirements are placed on the designated corps ammunition supply point by the brigade ammunition officer located in the BMMC. The supply and transport company ammunition elements pick up palletized or container-packed loads by type ammunition and deliver them to the brigade ammunition distribution point, normally located in the brigade support area.

At this point, ammunition is broken down into balanced loads and transshipped to ammunition supply points or forward area refuel and rearm points located in the battalion/squadron area for distribution to users in accordance with their demands. High volume items may be delivered directly from corps sources to the distribution point or may be delivered directly to the FARRP of the requesting unit without breaking loads.

Stock control or supply management is handled by the ammunition element of the BMMC. Reserves for the entire brigade are kept in the brigade support area.



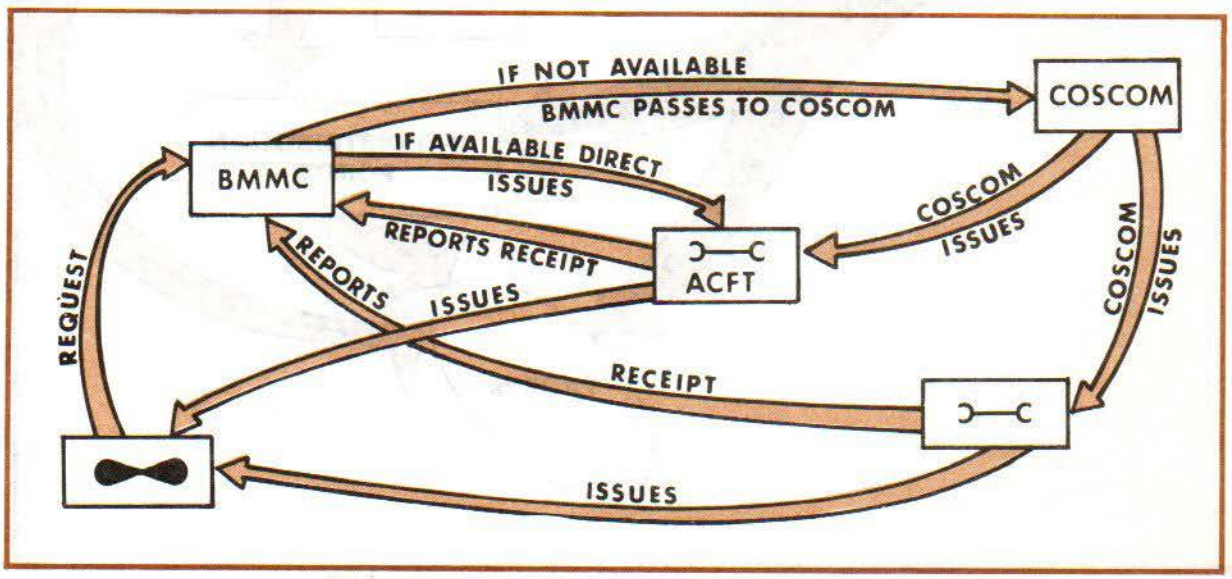
CLASS V DISTRIBUTION FROM CORPS ASP.

• Class VIII. Supply point distribution is made of class VIII supplies unless the brigade has been augmented with a medical company. When augmented, organic medical elements obtain class VIII supplies from the medical company.

• Class IX and operational readiness floats. Class IX supply is identified as repair parts (less medical-peculiar repair parts) and components to include kits, assemblies, and subassemblies, reparable and nonreparable, required for maintenance support of all equipment.

In the ACCB, COMSEC class IX items are the responsibility of the signal company. Operational readiness float items will be issued to supported units to replace unserviceable economically reparable items that cannot be repaired by support maintenance within prescribed time limits. The brigade class IX authorized stockage list (ASL) is computed by the BMMC, which also computes prescribed load lists (PLL) for brigade units. Using units obtain class IX supply support for their PLL items by submitting requisitions to the BMMC. Low-dollar-value common parts are obtained from repair parts "country stores" without formal requests. Direct exchange for unserviceable modules (assemblies, subassemblies, boards/cards or components) is handled on a one-for-one basis for modules specifically authorized for replacement by the supported unit.

The BMMC reviews requests and provides document control and supply management for the items requested. Supply management is accomplished by a combination of manual and machine methods. Class IX items are received by the appropriate maintenance operating units and reported to the BMMC. Maintenance operating units employed in the brigade support area store and issue class IX items to their customers. All issues are reported to the BMMC for updating records. Turn-ins are handled in the same manner as receipts, and are also reported to the BMMC. A maintenance float consisting of operational readiness float and repair cycle float items is authorized for stockage by the maintenance company and transportation aircraft maintenance company.



CLASS IX DISTRIBUTION SYSTEM.

• Maps. Unclassified maps are handled by the supply and transport company. The company receives maps for the brigade and distributes them to using units.

• Water supply points. The ACCB has no organic water production capability. Water supply points must be established and operated by corps engineer units. The support battalion designates water point locations, based on advice of the brigade engineer and location of corps or division water points; and provides administrative support to water point operating personnel. The support battalion has limited water transport capability and may need augmentation from corps units. Special requirements for aircraft wash facilities are coordinated through the brigade engineer.

SERVICES

■ Ground equipment maintenance:

• The maintenance company of the support battalion provides direct support maintenance and repair parts support to all elements of the ACCB, except for aircraft, medical, COMSEC, photographic, avionics, aircraft armament, ADPE, EAM, airdrop, and light textile items. It maintains an authorized stockage list of repair parts to support the prescribed load lists of supported units and its own requirements. It provides contact and technical assistance teams and evacuation assistance to supported units.

• Recovery and evacuation of ACCB ground equipment are accomplished by the use of maintenance collection points and, whenever possible, organic aircraft return it to the brigade support area. This includes items to be repaired and salvage items.

• Collection of salvage is not accomplished as a priority service. For this reason, material collection and classification points are established in the brigade support area only when the commander of the support battalion feels that the operations are stable enough to permit it.

■ Aircraft maintenance:

The ACCB employs two concepts for aircraft maintenance. The first is *integrated direct support maintenance* (IDSM). The second employs the *transportation aircraft maintenance company* in the role of providing direct support maintenence to operating (organizational) units without IDSM.

• Integrated direct support maintenance.

A direct support maintenance capability placed at the operating unit level is called integrated direct support maintenance. It combines the benefits gained by the collocation or attachment of direct support aircraft maintenance elements to aviation units and provides the aviation unit commander with more control of the DS maintenance performed on his aircraft. The air cavalry squadron and the attack helicopter battalions have an IDSM capability. IDSM does not include the maintenance of avionics or aircraft armament. These functions continue to be provided by the transportation aircraft maintenance company.

• Transportation aircraft maintenance company.

The transportation aircraft maintenance company provides 100 percent DS aircraft maintenance for those brigade aircraft not supported by IDSM and 40 percent backup direct support maintenance for units that do have an IDSM capability. In addition, it provides all direct support avionics and armament maintenance. It also performs repair parts supply mission for all units supported. The company performs "on-site" maintenance whenever feasible. It also is responsible for preparing non-IDSM supported aircraft for evacuation to the maintenance company area or to designated maintenance sites.

Operating units with an IDSM capability are structured to perform 60 percent of the direct support maintenance required on their organic aircraft. They concentrate their efforts on quick turn-around time repairs that will maintain a high aircraft availability rate. Aircraft requiring extensive repair, or requiring a more stable maintenance environment, are evacuated to the transportation aircraft maintenance company.

Aircraft maintenance requirements that exceed the capacity or capability of the ACCB will be reported to the applicable materiel management center for evacuation instructions to designated backup transportation aircraft maintenance companies. During periods of activity that exceed established flying hour programs, or in preparation for periods of expected excessive fly-time requirements, it can be anticipated that the ACCB's aircraft maintenance capacity will be exceeded. The BMMC must be aware of these peak load requirements and coordinate with the corps materiel management center for assistance as required.

■ Maintenance management. The maintenance management branch of the BMMC, in coordination with other brigade elements, allocates the maintenance resources of the support battalion to provide maximum continuous support of the brigade mission. Additional functions are:

- Recommend maintenance priorities; and, when they are approved, enforce them.

- Recommend composition of maintenance and operational readiness floats.

- Coordinate with the supply management branch on determining, maintaining, and updating PLLs and ASLs.

- Recommend practical limits for the workloads of maintenance units (including aviation units that have IDSM).

- Maintain liaison with the brigade's backup maintenance resources.

- Maintain data and provide reports, as necessary, to reflect the current operational readiness of brigade equipment.

- Plan for contingencies and special missions to insure continuous maintenance support.

- Recommend maximum acceptable loss rate.

■ Personnel and financial services support. Requirements for personnel actions, finance matters, and matters relating to SIDPERS will be forwarded to the appropriate branch of the headquarters company of the support battalion. The finance, personnel services, and SIDPERS interface branches can provide only limited support and must depend on the higher headquarters for support in these areas. However, when sufficient personnel and finance support are not available from the higher headquarters, the ACCB must be augmented by an administrative company.

■ Medical services support. The ACCB receives division-level medical support on an area basis from the medical assets supporting that force. Brigade units without organic medical support elements will normally receive unit-level support from the medical platoon of the support battalion. ACCB hospitalization, evacuation, dental, optical, preventive medicine, veterinary, medical laboratory, medical supply, and medical equipment repair support will be provided on an area basis. However, when division level medical support is not available on an area basis, the ACCB must be augmented by a medical company.

APPENDIX

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