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REGIMENTAL AVIATION SQUADRON

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REGIMENTAL AVIATION SQUADRON

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PREFACE

The regimental aviation squadron is one of the maneuver squadrons of the armored cavalry regiment. The RAS is uniquely combat-capable. It is terrain-independent and can maneuver in any direction with equal ease, extending the reconnaissance coverage of the ACR.

The RAS is a versatile organization that can conduct various combat operations to fulfill the tenets of air-land battle doctrine. Its capabilities allow it to protect and preserve the ACR by providing rapid, timely reconnaissance and quickly massing firepower anywhere on the battlefield.

This publication describes how the RAS will be organized and how it will fight on the air-land battlefield. It also describes the roles and responsibilities of the RAS as a member of the combined arms team. The operational concepts are based on established air-land battle doctrine in FM 100-5. The "Army of Excellence" J-series tables of organization and equipment are assumed. This publication is intended for commanders, staffs, and aircrews who supervise, employ, or work with armored cavalry regimental aviation assets in the Active Army and Army National Guard.

The proponent of this publication is HQ, TRADOC. Submit changes for improving this publication on DA Form 2028 (Recommended Changes to Publications and Blank Forms), and forward it to Commander, United States Army Aviation Center and Fort Rucker, ATTN: ATZQ-TDD, Fort Rucker, AL 36362-5000.

The provisions of this publication are the subject of international agreements:

STANAGs

2253 (QSTAG 174)	Roads and Road Structures
2355 (QSTAG 277)	Procedures for the Employment of Helicopters in the Antiarmor Role
3628 (QSTAG 691, Air Std 44/31)	Helicopter Tactical Refueling

Unless otherwise stated, whenever the masculine gender is used, both men and women are included.

This publication has been reviewed for operations security considerations.

INTRODUCTION

1-1. Mission

The RAS provides the ACR with combat aviation assets. It can independently perform all reconnaissance and screening missions. When task-organized with other elements of the ACR, the RAS can conduct guard and cover missions.

a. The RAS routinely performs reconnaissance missions—route, zone, and area—as part of its overall mission. It accomplishes most reconnaissance missions independent of ground maneuver forces. However, air and ground cavalry employed together will improve the quality of the reconnaissance effort.

b. The RAS can also perform screening missions independent of ground maneuver forces. However, to accomplish guard and cover missions successfully, the RAS must be task-organized with ground maneuver forces. These missions also will require fire support, combat support, and combat service support elements.

c. The maneuverability and flexibility of the RAS add enormously to the combat flexibility of the ACR commander. For example, if ground maneuver squadrons need additional firepower, the RAS commander can maneuver attack assets into position quickly. If the situation becomes more critical in another sector, he can maneuver his assets quickly to meet the new threat. Fighting the RAS as an integrated unit or task-organized with ground forces allows the ACR commander to influence the highly fluid battlefield quickly. Maintaining integrity allows the RAS commander to tailor the squadron and to rotate elements for Classes III and V.

1-2. Organization

a. The RAS is organic to each ACR. The ACR is a self-contained force from which the RAS can draw combat support and combat service support. Figure 1-1 shows the organization of the ACR.

b. The RAS consists of a headquarters and headquarters troop, an assault helicopter troop, two attack helicopter troops, and three air cavalry troops. Figure 1-2 shows the organization of the RAS.

3 EH-1s
27 OH-58s
26 AH-1Ss
18 UH-60s
74 TOTAL AIRCRAFT

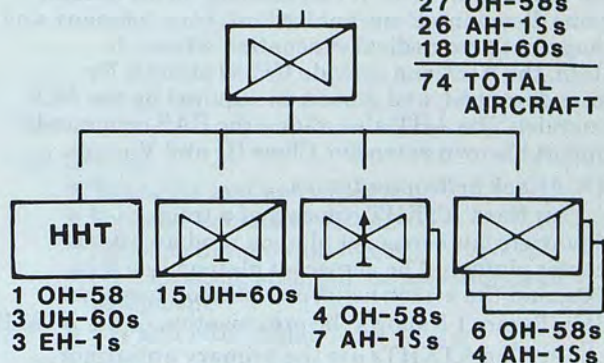


Figure 1-2. Organization of the RAS

(1) *Headquarters and headquarters troop.* The HHT provides command and control and staff planning for the squadron. All supply, mess, medical, and administrative functions, as well as AVUM and vehicle organizational maintenance, are performed in the HHT. A separate EW flight platoon provides the ACR's CEWI company its aerial SIGINT assets. Figure 1-3 shows the organization of the HHT.

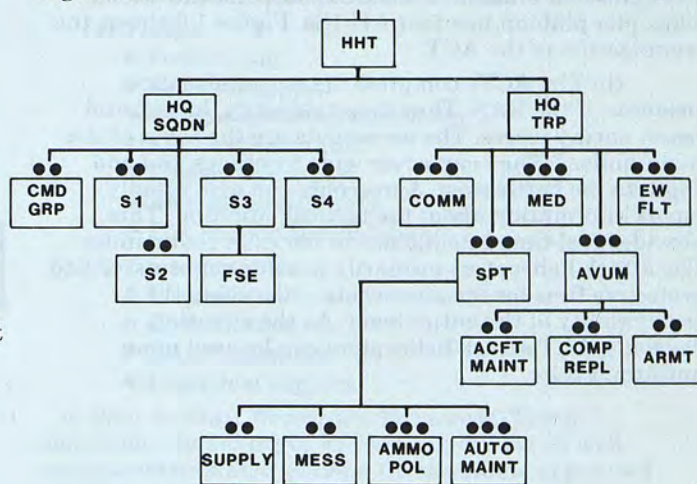


Figure 1-3. Organization of the HHT

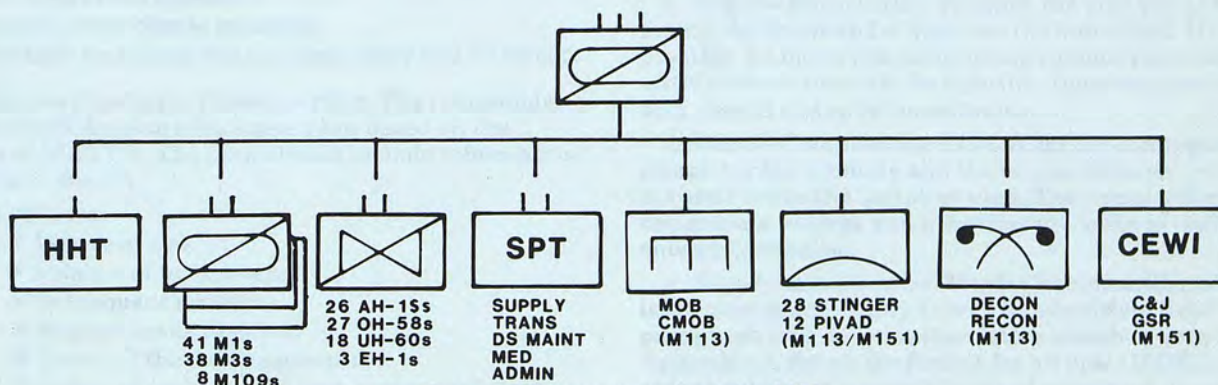


Figure 1-1. Organization of the ACR

(2) *Assault helicopter troop.*

(a) The AHT consists of a troop headquarters and three combat support aviation platoons. Each platoon has five UH-60s. Figure 1-4 shows the organization of the AHT.

(b) The AHT provides the RAS with combat support and moves troops, supplies, and equipment within the combat zone. It can conduct an air assault with one dismounted mechanized infantry company and can augment aeromedical evacuation efforts. In addition, the AHT can provide UH-60 aircraft for command, control, and liaison as required by the ACR commander. The AHT also allows the RAS commander to support his own extensive Class III and V needs.

(3) *Attack helicopter troops.*

(a) Each ATKHT consists of a troop headquarters, an aeroscout platoon, and an attack helicopter platoon. The aeroscout platoon has four OH-58s, and the attack helicopter platoon has seven AH-1Ss. Figure 1-5 shows the organization of the ATKHT.

(b) The ATKHTs are the primary antiarmor forces of the RAS. They can fix and destroy enemy penetrations, exploit success, and provide long-range direct antiarmor fires. Although the ATKHTs have fewer scouts than the ACTs, they can perform limited reconnaissance and screening missions, much like the ACTs can perform in the antitank role.

(4) *Air cavalry troops.*

(a) Each ACT consists of a troop headquarters, an aeroscout platoon, and an attack helicopter platoon. The aeroscout platoon has six OH-58s, and the attack helicopter platoon has four AH-1Ss. Figure 1-6 shows the organization of the ACT.

(b) The ACTs comprise the reconnaissance elements of the RAS. They detect, identify, locate, and report enemy forces. The aeroscouts are the "eyes of the commander." They can cover wide frontages and add depth to the battle area. Aeroscouts can also rapidly report information about the tactical situation. This provides real-time intelligence to the ACR commander. The attack helicopters primarily provide suppressive and protective fires for the aeroscouts, enhancing the survivability of the entire team. As the situation develops, ACT attack helicopters can be used in an antiarmor role.

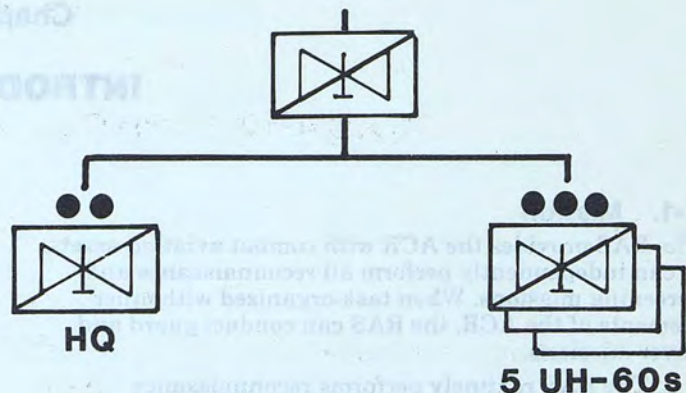


Figure 1-4. Organization of the AHT

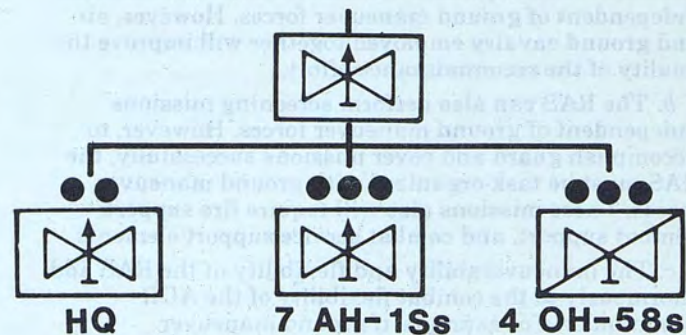


Figure 1-5. Organization of the ATKHT

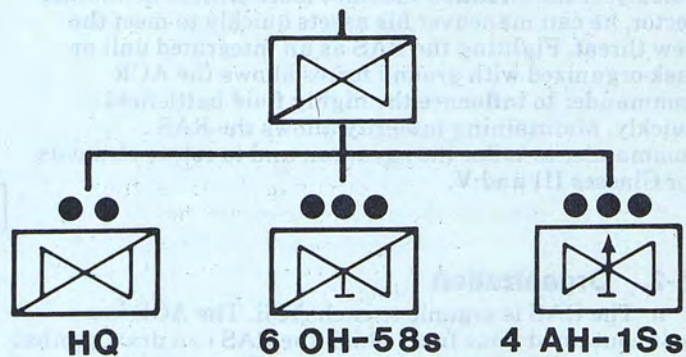


Figure 1-6. Organization of the ACT

COMMAND, CONTROL, AND COMMUNICATIONS

2-1. Squadron Commander

The commander is charged with the immediate direction of the squadron. However, personal responsibility does not imply that the commander must personally accomplish everything. The commander establishes unit direction and gives clear and concise guidance to his staff and subordinate commanders. They, in turn, are expected to use their initiative to accomplish the directed goal. The commander positions himself where he can best control his squadron through personal contact and communication links. The direction he provides his subordinates is based on the directives he receives from the ACR commander. The RAS commander must be able to react immediately to those directives. If his resources are depleted or his mission changes, the commander reorganizes to accomplish the assigned objectives. Teamwork, functional SOPs, and an understanding of the commander's intent help subordinates to translate a mission order into action quickly. Troop leading is an eight-step process by which the RAS commander develops and issues instructions to accomplish the mission. The process is an instructive—almost automatic—way of thinking.

a. Step 1—Receive the Mission. The RAS commander receives the mission as either an oral or a written OPOD or a FRAGO. After receiving the order, the commander analyzes the mission to ensure he understands what he has to do and then plans his time. As a rule, the squadron headquarters should use no more than one-third of the available time between receipt of the order and execution of the mission. The remaining two-thirds should be allocated to subordinate elements to use in planning their portions of the mission.

b. Step 2—Issue a Warning Order. After analyzing the mission, the RAS commander issues an oral warning order to his subordinate commanders. Appendix A shows the format example for an oral warning order. The warning order should include—

- A brief discussion of the situation.
- The time of the operation.
- Specific subordinate missions.
- The time and place the complete order will be issued.

c. Step 3—Develop a Tentative Plan. The commander and his staff develop a tentative plan based on the factors of METT-T. The plan should include information about each factor.

(1) Mission.

- Degree of risk.
- Scheme of maneuver.
- Subsequent missions.
- Implied tasks required.
- Intent of the ACR commander.
- Specified tasks for mission accomplishment.

(2) Enemy.

- Strengths and weaknesses.
- Probable courses of action.
- Location of follow-on forces.
- Size, location, strength, composition, and equipment.
- EW and NBC capabilities.

(3) Terrain.

- Obstacles.
- Light data.
- Key terrain.
- Weather forecast.
- Avenues of approach.
- Movement techniques.
- Cover and concealment.
- Battlefield obscuration.
- Airspace command and control.

(4) Troops.

- Positioning.
- Mutual support.
- Troop crew-endurance factors.
- Task-organization.
- Logistical support.
- Aircraft availability.
- Fire support availability.

(5) Time available.

- Preparation.
- Coordination.
- Reconnaissance.
- Logistical support.

d. Step 4—Start Necessary Movement. Troop movement should begin as soon as possible. A well-understood unit SOP permits these actions to proceed simultaneously. Movement SOPs are especially important. Each troop must be ready to move immediately after receiving a brief oral order.

e. Step 5—Reconnoiter. To make the best use of his forces, the commander must see the battlefield. If possible, he meets his subordinate commanders on the terrain where they will be fighting. However, time may only permit a map reconnaissance.

f. Step 6—Complete the Plan. After the commander completes his estimate and the reconnaissance, he and his staff refine the tentative plan. The commander reviews his concept and identifies the tasks to assign his subordinate units.

g. Step 7—Issue Orders. The RAS commander will issue most orders orally from a handwritten, five-paragraph field order outline and a sketch or an overlay. Appendix A shows the format for an oral OPOD. Each unit should have a standing list of personnel, an orders

group, who should be present when orders are issued. The squadron orders group consists of the squadron commander, squadron XO, coordinating staff officers, and troop commanders. The troop orders group consists of the troop commander, troop first sergeant, platoon leaders, troop safety officer, troop maintenance officer, pilots in command, and air mission commanders. If the unit is moving or is involved in an operation, the commander may issue orders over the radio or send the orders by messenger. He may also meet each subordinate commander in turn while operations continue.

h. Step 8—Supervise. Supervision must be continuous. Once the operation is underway, the commander, his staff, and subordinate commanders ensure that the plan is followed. As the situation develops, they issue FRAGOs to modify or refine the operation.

2-2. Commander's Estimate

The commander's estimate is a product of the commander's personal evaluation of how his units can best accomplish the mission. After receiving the mission (step 1 of the troop-leading process), the RAS commander issues his staff a warning order. Staff members update the commander on critical matters that pertain to their areas of responsibility. The commander then analyzes the mission to ensure all specified and implied tasks are identified. The restated mission becomes the basis of all commander and staff estimates. The mission statement is a clear and concise statement of the task(s) to be accomplished, and it becomes paragraph 2 (MISSION) of the OPORD.

2-3. Commander's Concept

Once the RAS commander has studied his mission and chosen a course of action, he issues a commander's concept to his staff. The concept specifies and assigns tasks and missions to subordinate units, task-organizes units as needed, sets priorities, and allocates support. The commander's decision concerning the tasks and missions for subordinate units must be communicated clearly and concisely. A mission order is usually used to issue the commander's concept. The order should—

- Clearly state the task to be accomplished.
- Allocate resources necessary to accomplish the task.
- Point out limits or controlling factors for coordinating the outcome.

2-4. Command and Control Fundamentals

The commander uses the command and control process to arrange his staff, equipment, communications, and procedures to direct combat operations. The commander must effectively assess a continuous flow of information, make timely decisions, and direct appropriate actions. An effective command and control system involves a relationship between organization, process, and facilities.

a. Command and Control Organization. This is how the commander has organized his staff and communications to accomplish the mission. It establishes the relationship, authority, and functional grouping of each staff section.

b. Command and Control Process. The commander and his staff use the command and control process to estimate the situation, develop the concept of operations, and execute the mission. Well-understood and well-executed SOPs ensure an orderly command and control process.

c. Command and Control Facilities. These facilities are the squadron CPs. They include the squadron's communications network.

2-5. Commander and His Staff

a. The commander operates forward where he can gain an immediate knowledge of the battle area and make timely decisions. Regardless of his location, the commander follows the enemy situation based on real-time information and communications with his subordinate commanders. In addition, the commander must monitor the tremendous logistical needs of his troops. Each OPORD establishes the succession of command and delegation of authority. If the commander is out of contact at a critical time or a quick decision is necessary, the senior officer present will make the decision. The commander should strive to ensure that subordinates thoroughly understand his intentions. He must also ensure that his staff has the latitude and flexibility to make decisions in response to rapidly changing situations on the battlefield.

b. The squadron staff assists the commander by dealing with routine matters. The coordinating staff, special staff, and subordinate commanders advise and assist the commander in planning and supervising operations. The coordinating staff consists of the XO, S1, S2, S3, S4, and command sergeant major. The special staff consists of the FSO, CE officer, flight surgeon, AVUM platoon leader, support platoon leader, flight safety technician, and chaplain.

c. Tactical needs dictate how the commander will use his staff. Each staff officer has a responsibility not only to assist the RAS commander but also to assist troop commanders in executing their missions. FM 101-5 describes the duties and responsibilities of each staff officer.

2-6. Command Posts

a. To direct the battle, the RAS commander organizes his headquarters by grouping staff sections or elements of sections within the headquarters. This organization permits staff members to acquire, consolidate, and coordinate critical information required to command and control combat operations.

b. The RAS commander will normally organize the command and control elements into a tactical CP, a main CP, an alternate CP, and an AA. The commander should establish successive locations for command and control posts in unit SOPs. Figure 2-1 shows the locations of CPs, FARPs, and FAAs.

(1) *Tactical command post.* The tactical CP is basically an extension of the main CP. The RAS does not have the equipment or personnel to operate the tactical CP on a continuous basis. One method for equipping the CP is to use the S3's tactical wheeled vehicle, the commander's OH-58 aircraft, or both. The tactical CP is employed when a critical operational phase is taking place that requires forward area battle control. It is normally operated by the squadron commander/S3 and necessary personnel from the S2 and fire support sections. It must be mobile so the RAS commander can command on the move. Since its normal mode of communication is FM-secure, the tactical CP must move to maintain communications with subordinate elements.

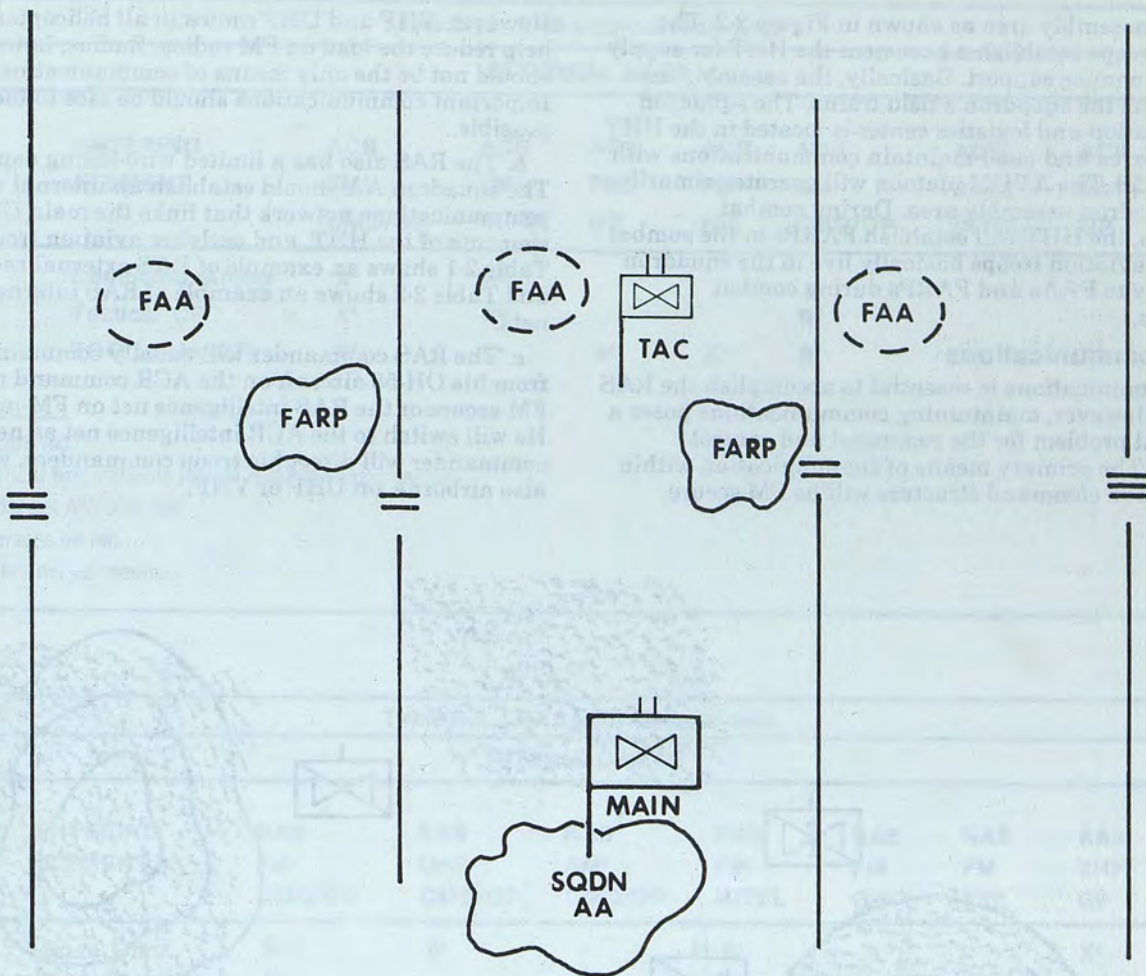


Figure 2-1. Locations of CPs, FARPs, and FAAs

The major individual responsibilities in the tactical CP are as follows:

- Control troop movement (S3).
- Update the enemy situation (S2).
- Coordinate fire support (FSO).
- Coordinate formation of the JATT (S3 section).
- Monitor and control movements of the squadron's FARPs (S3 section).
- Operate as the RAS NCS when the tactical CP is operational (S3 section).
- Issue oral OPORDs and FRAGOs (commander or S3).
- Maintain communications with the ACR tactical CP and the RAS main CP (NCS).
- Monitor combat operations (everyone).

(2) *Main command post.*

(a) The main CP is the RAS's primary command and control structure. It normally consists of the TOC and logistical, liaison, and support elements. The XO supervises the main CP, and the S3 supervises the TOC. When not at the tactical CP, the command group is normally at the main CP.

(b) The S3 selects the area where the main CP will be located. Usually, the area he selects is outside enemy artillery range. The HHT commander selects the exact location of the main CP and AA based on recommendations from the CE officer and AVUM platoon leader. The location of the main CP must facilitate good communications with regimental headquarters, subordinate troops, and supported units. It should be located near good vehicular routes and away from prominent terrain features that the enemy can use as reference points. Also, the electronic signature should be kept as small as possible. The TOC must be capable of operating continuously for extended periods.

(3) *Alternate command post.* The RAS may organize an alternate CP to ensure continuity of operations during displacements or cases of serious damage to the main CP. However, limited resources preclude the RAS from establishing a permanent alternate CP. The alternate CP could be the administration and logistics center, the tactical CP, or a subordinate troop headquarters. It can also be created from other HHT assets.

(4) *Assembly area.* The seven troops of the RAS are normally located near the main CP in a single, loosely

dispersed assembly area as shown in Figure 2-2. The aviation troops establish a base near the HHT for supply and maintenance support. Basically, the assembly area functions as the squadron's field trains. The squadron administration and logistics center is located in the HHT assembly area and must maintain communications with the main CP. The AVUM platoon will operate primarily in the squadron assembly area. During combat operations, the HHT will establish FARPs in the combat area. The aviation troops basically live in the squadron AA and fly to FAAs and FARPs during combat operations.

2-7. Communications

a. Communications is essential to accomplish the RAS mission. However, maintaining communications poses a significant problem for the command and control structure. The primary means of communication within the squadron command structure will be FM-secure.

However, VHF and UHF radios in all helicopters will help reduce the load on FM radios. Radios, however, should not be the only means of communication. Important communications should be face-to-face, if possible.

b. The RAS also has a limited wire-laying capability. The squadron AA should establish an internal wire communications network that links the main CP, elements of the HHT, and outlying aviation troops. Table 2-1 shows an example of RAS external radio nets, and Table 2-2 shows an example of RAS internal radio nets.

c. The RAS commander will usually communicate from his OH-58 aircraft on the ACR command net with FM-secure or the RAS intelligence net on FM-nonsecure. He will switch to the ACR intelligence net as needed. The commander will direct his troop commanders, who are also airborne, on UHF or VHF.

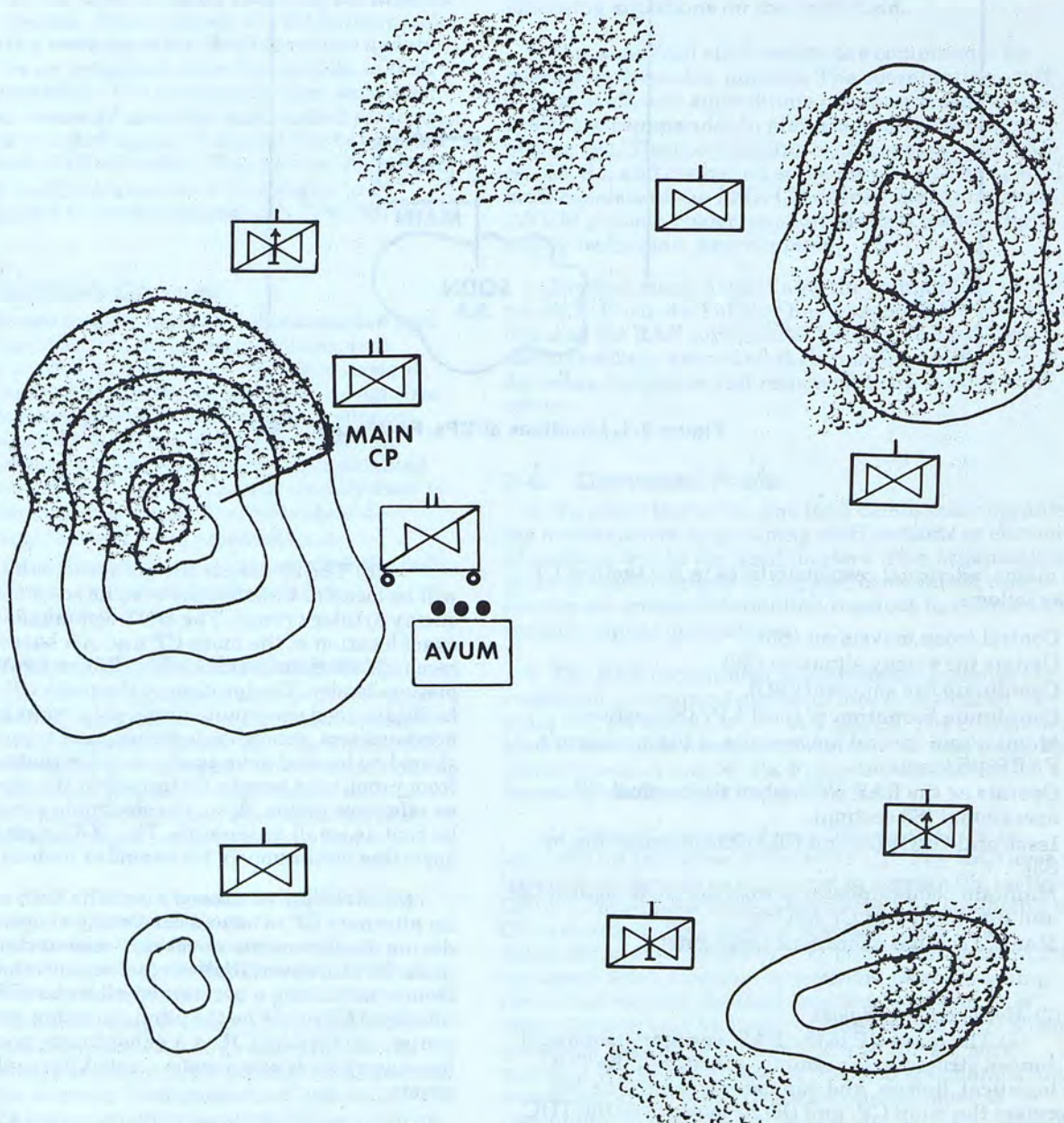


Figure 2-2. RAS in assembly area

Table 2-1. RAS external radio nets

EXTERNAL NETS							
ENTERING ELEMENT	ACR FM ¹ CMD/OP	ACR FM ¹ INTEL	ACR FM ¹ GP	ACR FM ² FSE	ACR AM ³ CMD/OP	ACR RATT INTEL	ACR RATT GP
Command Group	X ⁴	R ⁵					
Tactical CP	X ⁴	X ⁵			R ⁵		
TOC (main CP)	X ⁴	X ⁴	X ⁴	X ⁴	R ⁵	X ⁴	R ⁴

¹Secure net.
²Tactical fire, variable format message entry device.
³Radio set AN/GRC-106.
⁴Operates on net.
⁵Enters net as required.

Table 2-2. RAS internal radio nets

INTERNAL NETS							
ENTERING ELEMENT	RAS FM ¹ CMD/OP	RAS UHF CMD/OP	RAS AM ² CMD/OP	RAS FM INTEL	RAS FM GP	RAS FM FSE	RAS VHF GP
Sqdn Cmd ³	R ^{4,5}	X ⁶		X ⁶			X ⁶
Gnd Tac CP	X ⁶		X ⁶	X ⁶		X ⁶	
Tac CP ³	R ^{4,5}	X ⁶		X ⁶		R ⁴	X ⁶
Main CP	X ⁶	X ^{6,7}	X ⁶	X ⁶	X ⁶	X ⁶	
Sqdn XO	X ⁶				X ⁶		
HHT CP and Trains	X ⁶				X ⁶		
Trp Cmd ³	R ⁴	X ⁶		R ⁴	R ⁴	R ⁴	R ⁴
Trp CP and 1st SGT	M ⁸				R ⁴		

¹Secure net.
²Radio set AN/GRC-106.
³Airborne.
⁴Enters net as required.
⁵The RAS commander's OH-58 has only one secure FM radio that will be used on the ACR command net.
⁶Operates on net.
⁷Radio set AN/VRC-24, UHF, will allow the main CP to operate on the RAS command net.
⁸Monitors on auxiliary receiver.

2-8. Operations Security

a. Categories. The OPSEC concept includes all security measures that allow units to achieve and maintain surprise. OPSEC consists of physical security, information security, signal security, and deception and

countersurveillance activities. All four categories are interrelated. It is often appropriate to employ more than one program to counter a given threat. Signal security programs, such as EW and SIGINT, are primarily tailored to counter specific hostile intelligence efforts.

(1) *Physical security.* Physical security programs are general protective countermeasures. They can be used for protecting operational information or an activity by using security forces, barriers, and anti-intrusion devices. This denies or limits the enemy's access to CPs, FARPs, and AAs.

(2) *Information security.* This prevents the disclosure of operational information through written, oral, or graphic communications. Restrictions are placed on access to and the release of classified and unclassified information and documents to safeguard against unintentional release of data important to the enemy. Techniques include screening, covering, and protecting written, oral, and graphic information. They also include indoctrinating personnel or physically isolating them just before operations to help prevent oral disclosures.

(3) *Signal security.* This protects operational information by enforcing COMSEC procedures and electronic security techniques. COMSEC includes communication codes, secure voice equipment, and strict adherence to radiotelephone operator procedures. Electronic security includes maintaining radio silence and properly positioning radars and antennas.

(4) *Deception.* Deception encompasses those measures designed to mislead the enemy by manipulation, distortion, or falsification of evidence. The denial of information sought by enemy surveillance is closely related to deception. Countersurveillance includes camouflage pattern painting, smoke screens, camouflage netting, and natural materials that provide concealment. Examples of deception include tactical feints, demonstrations, and ruses as well as the use of dummy equipment or decoys.

b. Steps. OPSEC proceeds through three steps. These steps are analysis, countermeasures, and survey.

(1) *Step 1—analysis.* Analysis is part of the normal S2 staff work in planning each phase of an operation. It involves estimating hostile intelligence efforts and determining sensitive aspects of the operation and OPSEC vulnerabilities.

(2) *Step 2—countermeasures.* After the OPSEC analysis is complete, the next step is to plan and execute OPSEC countermeasures. Specific countermeasures are applied to the analytic results for maximum protection of the operation.

(3) *Step 3—survey.* The survey is conducted during OPSEC operations. Its purpose is to determine the effectiveness of the analysis and countermeasures of the four categories of OPSEC.

2-9. Continuous Operations

a. When kept intact, the RAS can support the ACR by continuous operations, whereas a single J-series ACT cannot effectively operate on a continuous basis. The RAS can support continuous operations by establishing troop rotations, task-organizing, and careful planning. To do this, the squadron commander designates stand-to times for each troop and monitors crew endurance. If needed at a critical time, all troops can be made ready for simultaneous operations.

b. Staff and TOC operations are another concern. A crew rotation cycle must be established and adhered to at all times. Because of increasing efforts for 24-hour operations, a day and night shift must be established. Each shift should be technically and tactically capable of orchestrating all combat, combat support, and combat service support assets available to defeat the enemy. The commander and S3 must train their personnel to make decisions in line with the ACR commander's intent. The commander and S3 will not be able to perform their duties on a 24-hour basis for an extended time; therefore, they must have a highly trained second team.

EMPLOYMENT

3-1. Task-Organization

The RAS commander will task-organize his aviation assets for employment as required for effective combat operations. The commander may be required to cross-level between ACTs and ATKHTs. This reorganization may occur if the availability of crews and aircraft is severely reduced in some troops because of combat losses, maintenance, or lack of rest. Each aircrew must possess the skills and understanding necessary to perform cavalry and attack missions. In the air cavalry and attack helicopter troops, the commander will command his unit from an OH-58 and will normally be well forward, located in a position where he will effectively control his unit and see the battlefield. The smaller troop gives the commander a more manageable force to personally control.

a. The ACT should sustain five scout and three attack helicopters, in a fully mission-capable status, for tactical planning purposes. Considering the factors of METT-T, the troop commander can organize his troops in several ways. He will normally maintain troop integrity to accomplish the assigned mission. Under most conditions, trips to the FARP will be controlled so that

only two or three aircraft are gone at any one time. This permits the troop to remain in the surveillance area for observation or reconnaissance on a continuous basis. The ACT will perform assigned missions as outlined in FM 1-116.

(1) When enemy contact is not likely, the ACT commander would use only his scouts, conserving his attack aircraft. He will conserve his attack helicopters by placing them in an FAA similar to the holding area for attack helicopter operations. However, the attack aircraft will be closer. They will be running and continuously repositioned to new FAAs so they can move rapidly to overwatch positions. During reconnaissance and security missions, the scouts will operate in pairs to enhance the survivability of the scout team. Single scout missions should be kept to a minimum. The commander will control rotation to the FARP. For instance, if one scout in a scout team needs fuel, the commander or an attack aircraft will reposition to relieve the scout. Then the scout will move rapidly to the FARP, taking another attack aircraft that was in the FAA. This will also allow the attack aircraft to rotate. Figure 3-1 shows the ACT when contact is not likely.

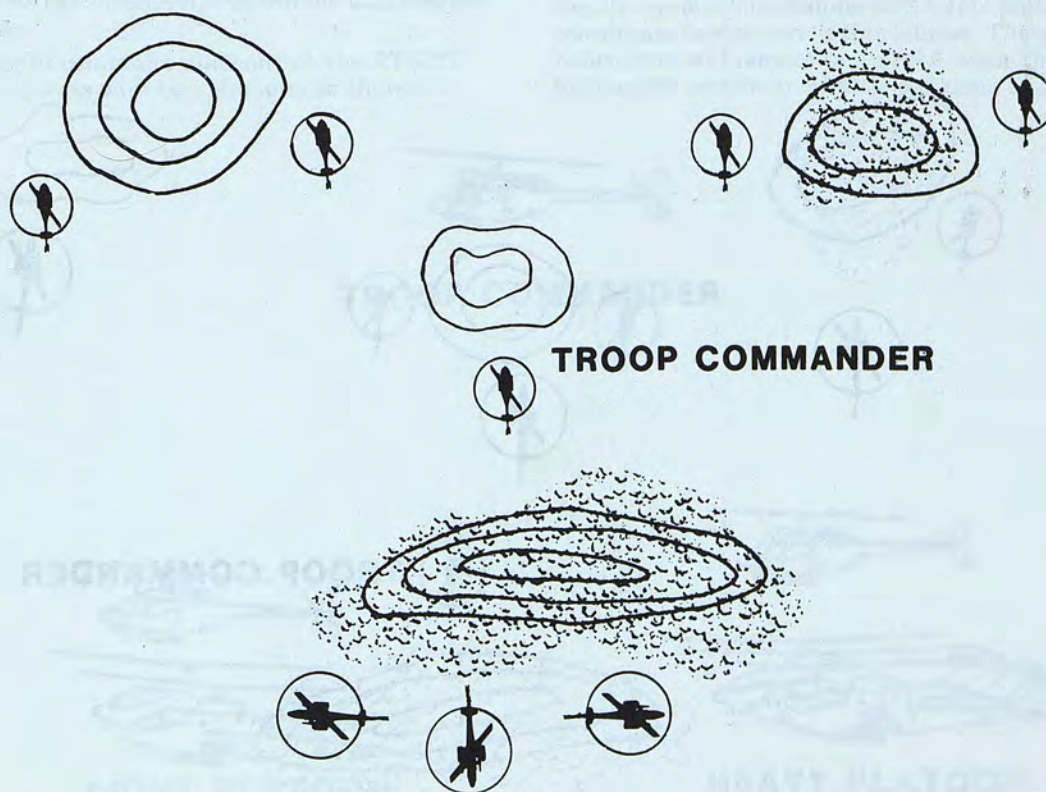


Figure 3-1. ACT with enemy contact unlikely

(2) If the enemy situation is unknown or contact is expected, the troop commander will organize scout-weapons teams. Several combinations can be used as depicted in Figures 3-2, 3-3, and 3-4. All three

combinations may be used during a mission, depending on FARP rotation, aircraft availability, movement techniques, and the enemy situation.

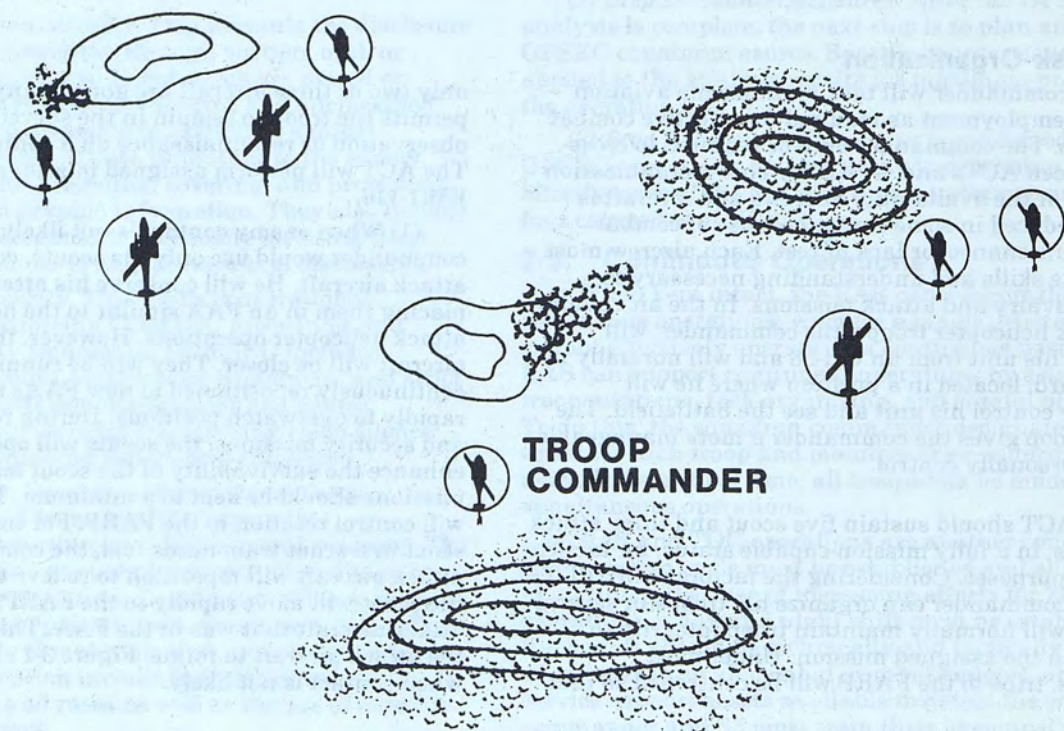


Figure 3-2. ACT with two scout-weapons teams

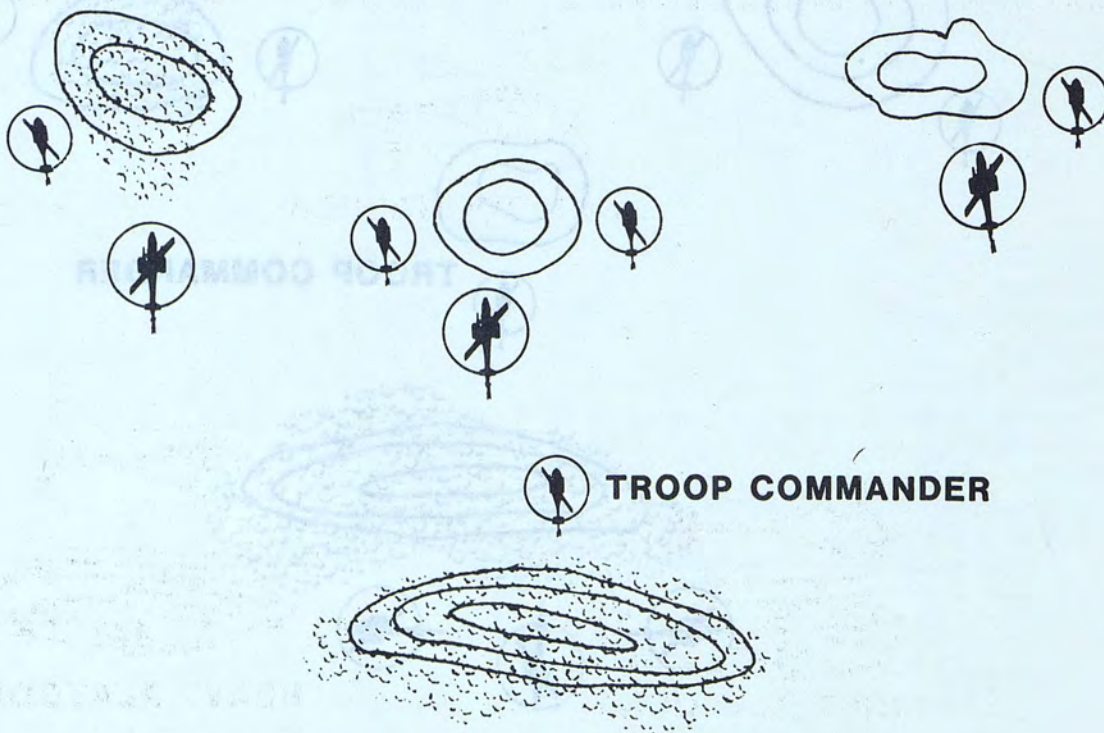


Figure 3-3. ACT with three scout-weapons teams

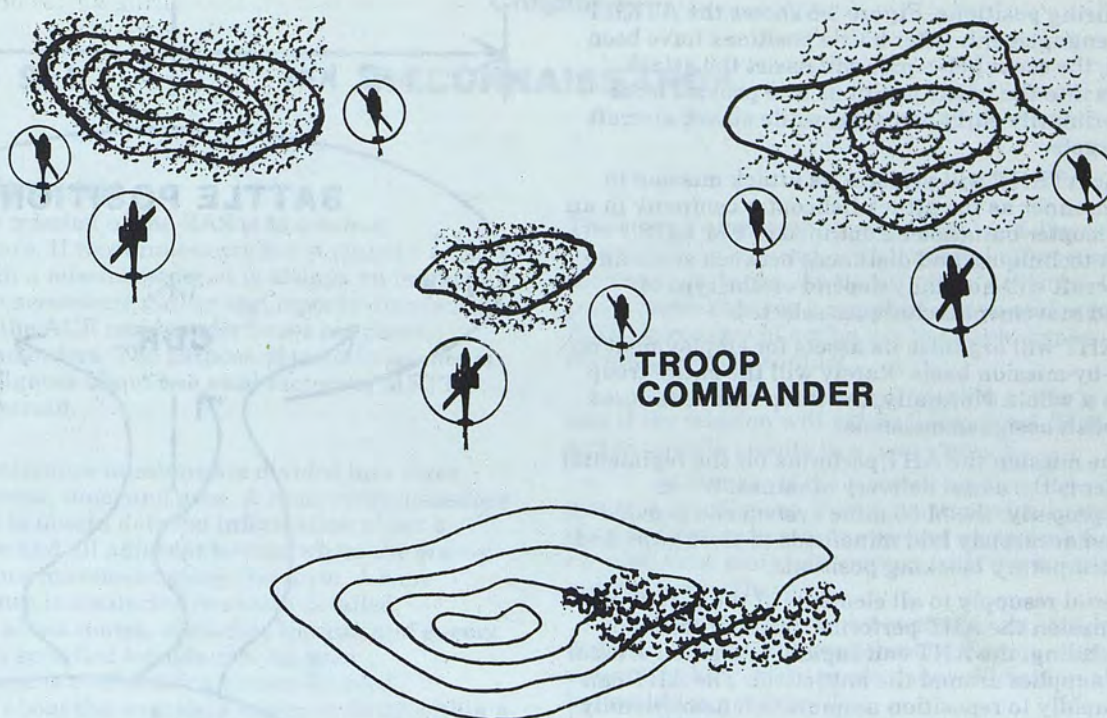


Figure 3-4. ACT with three scout-weapons teams with commander included in a team

b. For tactical planning purposes, the ATKHT should sustain three scout and five attack helicopters in a fully mission-capable status. Like the ACT commander, the ATKHT commander will command his troop from an OH-58 and will normally be well forward. He also will be located where he can effectively control his unit and see the battlefield.

(1) For ease of command and control, the ATKHT will normally operate with two platoons as shown in

Figure 3-5. Since the entire troop is employed, platoons will normally not be split for separate missions.

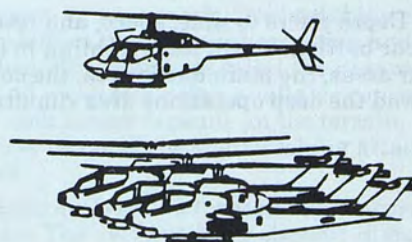
(2) Before engagement, the ATKHT commander or his representative will conduct final coordination with the air/ground commander or S3. It is preferred to coordinate face to face if time allows. The attack helicopters will remain in an FAA while the scout helicopters reconnoiter battle positions and identify



TROOP COMMANDER



LIGHT PLATOON



HEAVY PLATOON

Figure 3-5. ATKHT task-organized with two platoons

tentative firing positions. Figure 3-6 shows the ATKHT before an engagement. After battle positions have been confirmed, the scout helicopter will assist the attack helicopters into the battle positions and provide local security, primarily early warning, while attack aircraft engage targets.

(3) The ATKHT will perform its attack mission in the same manner as the attack helicopter company in an attack helicopter battalion as outlined in FM 1-112. Movement techniques and distances between scout and attack aircraft will normally depend on the type of terrain and movement techniques selected.

c. The AHT will organize its assets for employment on a mission-by-mission basis. Rarely will the entire troop operate as a whole. Normally, the troop will be tailored to accomplish assigned missions.

(1) One mission the AHT performs for the regimental commander is the aerial delivery of mines. When employed properly, the M-56 mine system can provide quickly and accurately laid minefields to close gaps and reinforce temporary blocking positions.

(2) Aerial resupply to all elements of the regiment is another mission the AHT performs. Using internal or external loading, the AHT can rapidly reposition critical classes of supplies around the battlefield. The AHT can respond rapidly to reposition ammunition near friendly positions. When required, the AHT can reposition dismounted ground forces to critical areas on the battlefield. These air assault operations will require task-organizing with scout and attack assets to provide reconnaissance and security for the assault forces. Additionally, it may be necessary to maneuver organic combat and combat support assets, such as engineer teams and NBC reconnaissance/survey teams, to support the regimental mission.

3-2. Air-Land Battle Concept

The air-land battle concept emphasizes a close working relationship between air and land forces to accomplish operational and tactical objectives. The tactical concept is based on seizing and retaining the initiative and employing aggressive offensive action to defeat enemy forces. The tenets of air-land battle doctrine are initiative, depth, agility, and synchronization. Commanders and aircrews need to understand these tenets as they apply to the RAS.

a. *Initiative.* Initiative is the ability to set the terms of battle by action. The initial encounter in the next war will probably be between air cavalry elements and enemy reconnaissance elements. Aggressive, independent actions on contact, to include accurate and timely reporting, will set the stage for subsequent actions. Initiative implies an offensive spirit in all actions.

b. *Depth.* Depth refers to time, space, and resources. The nonlinear battlefield will have fighting in division or corps rear areas, the main battle area, the covering force area, and the deep operations area simultaneously.

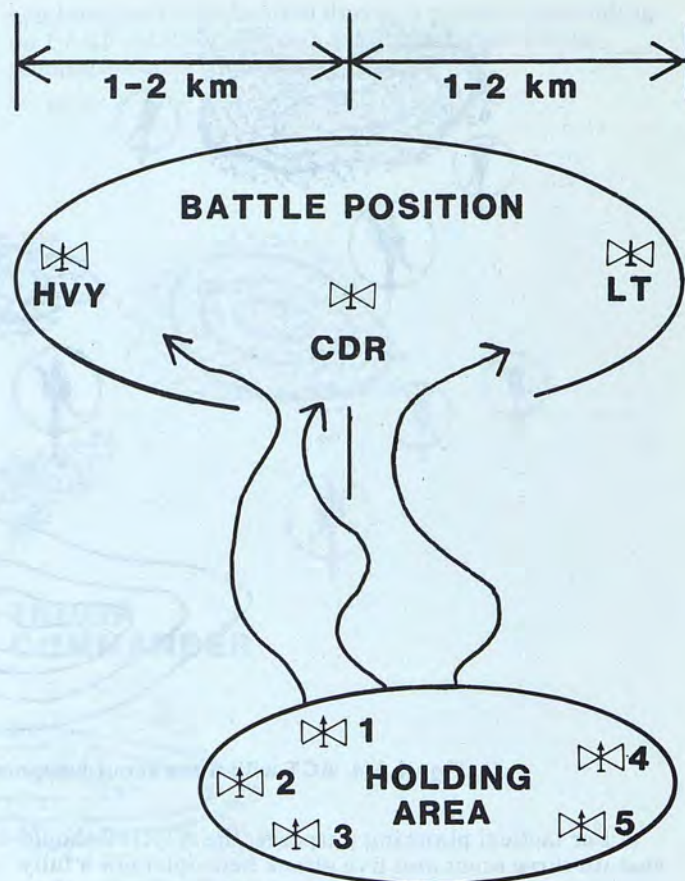


Figure 3-6. ATKHT before an engagement

The positioning of Classes III and V to support the covering force might require the use of division or corps rear areas. Depth implies staying power. It is accomplished by rotating resources to maintain a constant pressure on the enemy.

c. *Agility.* Agility involves acting faster than the enemy to exploit the enemy's weakness and disrupt its plans. By remaining flexible, reporting accurately, and using its mobility, the RAS can quickly influence the battle at the critical time and place. Well-understood, common tactical SOPs are indispensable in avoiding confusion that might arise from changes in missions. Agility also implies the ability to mass when the situation dictates.

d. *Synchronization.* Synchronization is the act of combining combat power at a decisive moment on the battlefield through the blending of intelligence information with fire support and maneuver. An often forgotten part of the synchronization of combat power is the finite planning required to orchestrate CAS into the scheme of maneuver. Ensuring that fire power and maneuver can be supported in the operational plan is a must on the air-land battlefield.

RECONNAISSANCE

4-1. Fundamentals

The primary mission of the RAS is to conduct reconnaissance. If reconnaissance is not stated specifically in a mission order, it is always an implied mission. The aeroscouts gather and report information upon which the ACR commander bases his plans, decisions, and orders. The purpose of reconnaissance is to gain intelligence about two vital factors of METT-T: enemy and terrain.

a. Reconnaissance missions are divided into three categories: route, zone, and area. A route reconnaissance is conducted to obtain detailed information about a specific route and all adjacent terrain where the enemy could influence movement along the route. A zone reconnaissance is conducted to obtain detailed information about routes, obstacles, terrain, and enemy forces within specified boundaries. An area reconnaissance is conducted to obtain detailed information about the terrain or enemy activity within a prescribed area such as a town or a ridgeline.

b. Reconnaissance is conducted according to specific fundamentals. These fundamentals are discussed below.

(1) *Orient on the location or movement of the reconnaissance objective.* The reconnoitering cavalry element maneuvers according to the location or the movement of the reconnaissance objective. The objective may be a terrain feature, a locality, or an enemy force.

(2) *Maximum reconnaissance power forward.* Cavalry deploys all its reconnaissance elements as far forward as possible. Scouts are never kept in reserve.

(3) *Report all information accurately and rapidly.* Information apparently unimportant to the observer may become valuable when used with other information compiled by the S2. For instance, knowing that an enemy force is not in one location is just as important as knowing it is in another location. Reconnaissance reports must be timely and describe what, when, how many, and what the enemy force is doing. This information should be passed in a standard format to the RAS S2. He, in turn, will compile similar reports and pass them to the ACR S2. Appendix B provides several examples of reports.

(4) *Retain freedom to maneuver.* Cavalry must move to survive. It obtains information by stealth when possible but fights as necessary to accomplish the mission. Overwatch, suppressive fire, cunning, and a constant awareness of the tactical situation to the flanks ensure mobility.

(5) *Gain and maintain enemy contact.* Contact reduces the enemy's ability to achieve surprise. Contact should be gained with the smallest element possible. Sometimes surveillance alone is sufficient; at other times, fire and maneuver is required. Contact is not voluntarily broken without orders.

(6) *Develop the situation rapidly.* When enemy contact is expected, reconnoitering cavalry moves by bounding overwatch and is ready for battle. When enemy contact is made, cavalry immediately deploys to cover, maintains observation, and reports the situation.

The enemy's strength, composition, and disposition must be quickly determined, with a special effort made to find the enemy's flanks. As the situation develops, the troop commander chooses a course of action and reports. Possible courses of action are to attack, bypass, or maintain enemy contact.

(a) Attack if sufficient combat power is available and if the mission will not be jeopardized. This course of action usually results in a hasty attack.

(b) Bypass if the mission requires it or if combat power is insufficient. Permission to bypass must be obtained before bypassing enemy units. In any case, the cavalry must maintain contact with the enemy until ordered to do otherwise.

(c) Maintain enemy contact if an attack will degrade mission accomplishment. Enemy contact is also maintained if combat power is insufficient to attack or if bypassing is not feasible.

4-2. Techniques

An ACT performs four basic tasks during a reconnaissance. These tasks consist of observation, movement, overwatch, and reporting.

a. *Observation.* Observation is continuous and is performed by all aircrews. Aircrews constantly apply the three basic visual search techniques: stationary, motive, and side-scan. Aerial observation is used to detect, identify, locate, and report matters of military significance. The aircrews use safe airspeeds and terrain flight techniques to observe larger areas than can be observed from the ground. All aircrews should seek to find and observe the enemy without being seen.

b. *Movement.* Troop movement is governed by the likelihood of enemy contact, available terrain, and responsive overwatch. The terrain flight modes—low-level, contour, and NOE—are used by individual aircrews. However, the troop moves using three movement techniques: traveling, traveling overwatch, and bounding overwatch.

(1) *Traveling.* Separate elements move at a constant speed in relatively secure areas. For example, using the traveling technique, elements can move from an assembly area to a holding area.

(2) *Traveling overwatch.* Lead elements move at a constant rate. Trail elements move to provide overwatch.

(3) *Bounding overwatch.* Overwatching elements occupy a position that offers observation and fields of fire. The bounding elements select the next overwatch position and move to it using available concealment. The length of each bound depends on the terrain, visibility, and effective range of the overwatching attack helicopters.

c. *Overwatch.* Overwatch entails both observation and suppression. The overwatching element in its stationary concealed position continues to observe the area as well as the moving or bounding element. In reality, the AH-1S with its superior optics can "see" the area better than the OH-58 that is bounding. Primarily, the overwatching element enhances the survivability of the

bounding element. The overwatching element alerts or warns the bounding element of an enemy sighting or suspicious terrain feature. If the enemy is contacted, the overwatching element assists the bounding element's deployment to cover by providing suppressive fire if needed. If enemy contact was accomplished by stealth, suppressive fire is unnecessary and would alert the enemy. Immediate actions should be completed. These actions include deploying to cover, maintaining contact, and quickly reporting information about the enemy's strength, composition, and disposition.

d. *Reporting.* Reports of direct visual observation are the most important and timely intelligence the commander can have. Therefore, reports must be accurate, concise, and timely. Reports of no enemy sightings are frequently just as important as actual enemy sightings. Standard reporting procedures save time, ensure completeness, and reduce confusion. Since radio is usually the primary communication means, leaders must stress proper radio discipline. An ACT in a target-rich environment can quickly overload a squadron intelligence net that is poorly organized and ill-disciplined. The standard five-line spot report is the primary reporting format. Appendix B shows an example of a spot report.

4-3. Missions

a. *Route Reconnaissance.* Normally the RAS will use its ACTs to perform route reconnaissance. When enemy contact is expected, an ACT should be assigned only one route to reconnoiter. Route reconnaissance may be oriented on a road, an axis, or a general direction of advance. A route reconnaissance mission may also obtain information about an enemy force moving along a specific route or locate sites for construction of obstacles.

(1) A route reconnaissance can be completed rapidly and thoroughly if air and armored cavalry elements work together. This can be done by—

- Temporarily placing the ACT under the control of an armored cavalry squadron.
- Temporarily reinforcing the ACT, under RAS control, with an armored cavalry platoon.
- Reconnoitering the ACT, under RAS control, to the front, flanks, or both of an armored cavalry squadron.

(2) The cavalry must have certain information before conducting a route reconnaissance. This information includes—

- The departure time.
- The enemy situation.
- Start and release points.
- The route to be reconnoitered.
- Appropriate control measures to be taken.
- When, where, and how the report is to be given.
- Actions to be taken when the mission is completed.
- Fire support, to include artillery frequency and call sign.
- The type of unit or vehicles that are expected to use the route.

(3) The route classification should furnish basic information. This information should include—

- Obstructions to traffic flow.
- Minimum traffic width (single-lane and multilane).
- Military load classification (bridge classification).
- Worst route type (all-weather, limited all-weather, and fair weather).

(4) A route reconnaissance not only determines a route's trafficability but also the likelihood that the enemy will use the adjacent terrain to influence movement on the route. Therefore, an ACT accomplishes a route reconnaissance in two phases. The first phase is to clear the adjacent terrain, which will allow relative freedom to classify the route. The second phase is to classify the route.

(a) An ACT conducting a route reconnaissance without ground reinforcements should task-organize into two teams. Each team should take a side of the route and reconnoiter the terrain out to the distance of enemy direct fire weapons. If the route is straight, neither team should cross over or fly down it until a buffer zone of about 4,000 meters is cleared on both sides, depending upon terrain. Figure 4-1 shows the ACT securing the adjacent terrain.

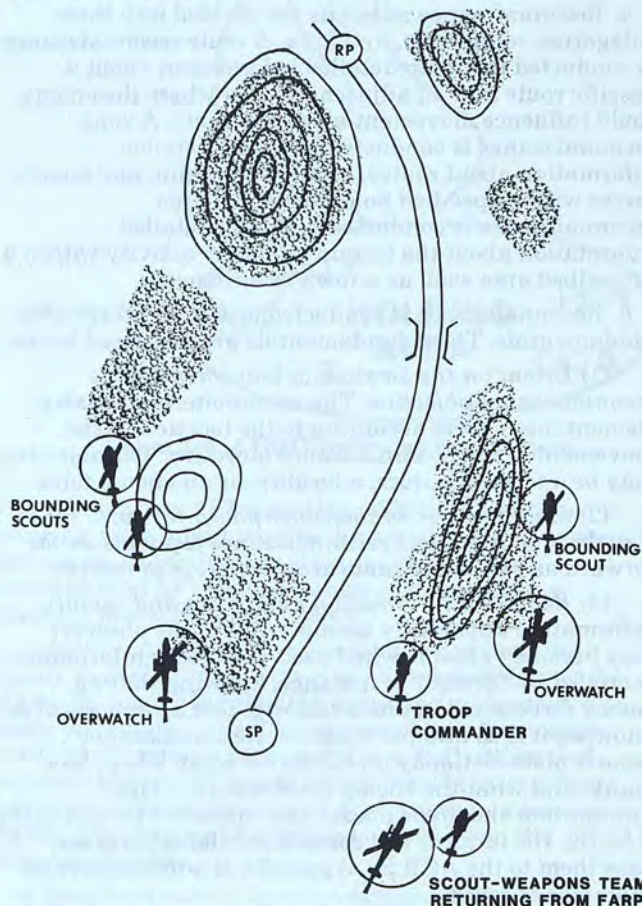


Figure 4-1. Route reconnaissance with ACT securing adjacent terrain

(b) After the terrain on either side of the route has been cleared, one team remains near the forward limits of the route or the release point. The other team backtracks to the buffer zone, enters, and reconnoiters the route by flying down one side and returning on the other side. The ACT does not have a ground reconnaissance element and is able to perform only a limited, detailed ground inspection of key features along the route. Figure 4-2 shows the ACT classifying the route.

(5) An ACT temporarily reinforced with an armored cavalry platoon is able to perform a detailed route reconnaissance rapidly. A reinforced ACT will use its

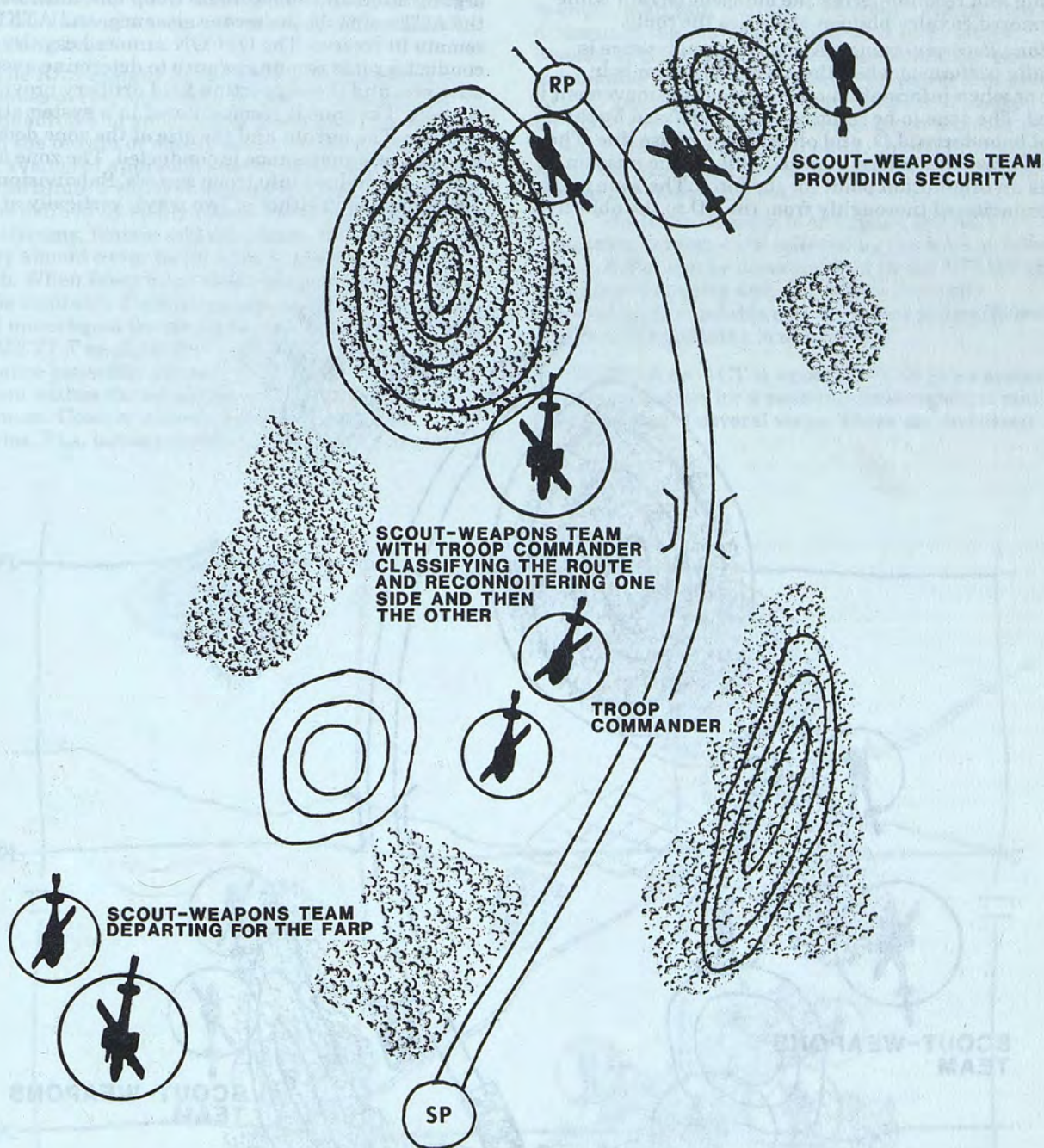


Figure 4-2. Route reconnaissance with ACT classifying the route

aircraft to reconnoiter the adjacent terrain and provide overwatch. While the armored cavalry platoon is classifying the route, the ACT will organize into three elements: one armored cavalry platoon and two scout-weapons teams. The armored cavalry platoon establishes communications on the ACT's secure FM

command net. Again, the operation is conducted in two phases. The scout-weapons teams lead out and reconnoiter the adjacent terrain to the front, flanks, and rear of the advancing armored cavalry platoon. The ACT provides early warning, uncovers ambushes, and provides overwatch. This security umbrella allows the

armored cavalry platoon relative freedom to concentrate on classifying the route. Figure 4-3 shows the scout-weapons team providing local security and early warning and reconnoitering the adjacent terrain while the armored cavalry platoon classifies the route.

b. Zone Reconnaissance. A zone reconnaissance is normally performed when the enemy situation is in doubt or when information on cross-country movement is desired. The zone to be reconnoitered is defined by the lateral boundaries, LD, and objective or phase line. The objective provides a termination point for the mission as well as an orientation point for the force. The zone must be reconnoitered thoroughly from the LD to the objective.

(1) As the ACR's fourth maneuver squadron, the RAS may conduct a zone reconnaissance for the regiment. The factors of METT-T determine task-organization and subordinate troop missions. Basically, the ACTs conduct the reconnaissance, and ATKHTs remain in reserve. The OPCON armored cavalry troops conduct a route reconnaissance to determine avenues of advance, and the supporting field artillery provides fire support. The zone is reconnoitered in a systematic manner. The terrain and the size of the zone determine how the reconnaissance is conducted. The zone usually will be subdivided into troop sectors. Subdivision may be accomplished in either of two ways: vertically or

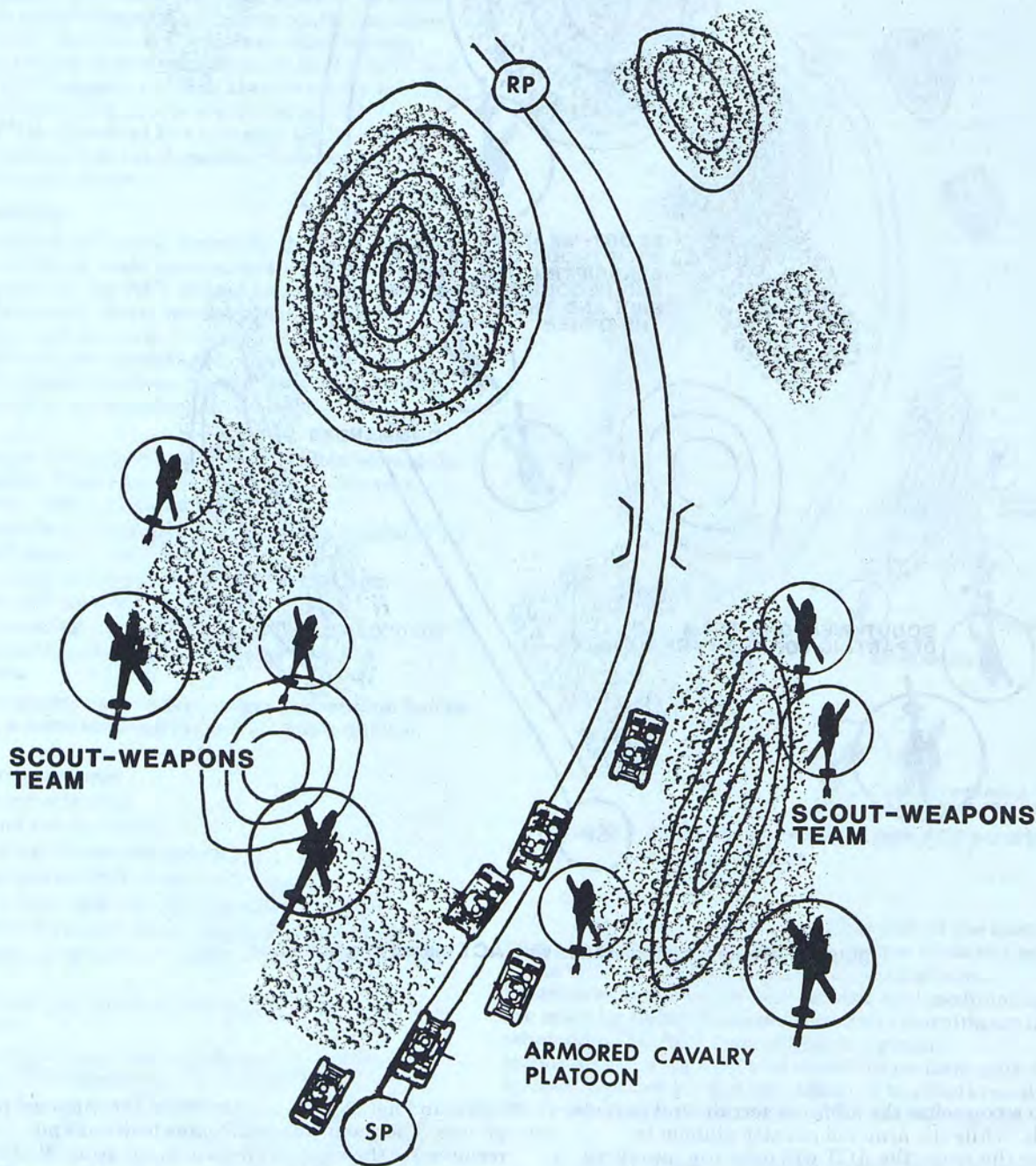


Figure 4-3. Route reconnaissance with ACT providing local security and ground cavalry classifying the route

horizontally into subsectors. When the zone is wide, deep, or both, it is divided into troop sectors horizontally by phase lines. When the zone is narrow or shallow, it is divided vertically by troop boundaries. Figure 4-4 shows the ACT conducting a zone reconnaissance forward of an advancing unit.

(2) The RAS assigns boundaries between troops to outline zones of responsibility. It must be prepared to adjust squadron and subordinate troop missions rapidly based on the terrain or enemy situation. Responsibility for each avenue of approach should be assigned to a troop to facilitate a rapid change in mission. Boundaries should be defined by easily recognizable terrain features, such as streams, fences, and ridgelines. However, a boundary should never be on a likely enemy avenue of approach. When troop boundaries are assigned, tasks should be equitably distributed among the troops. This does not mean equal frontages should be assigned, but a careful METT-T analysis is required to ensure all troops can advance generally abreast. Control measures must be uniform within the squadron and preferably across the regiment. Control measures include LDs, unit boundaries, PLs, battle positions, checkpoints, contact

points, and target reference points. All aircrews must have this information posted on their maps.

(a) When enemy contact is made, aircrews deploy to cover, maintain contact, and report. The commander determines the course of action; that is, to attack, bypass, or maintain contact. When attacking, the commander masses all available firepower and uses the ACT to guide the ATKHTs into position. If under OPCON, the armored cavalry troop can increase the closing power at a specified point. Indirect fire support increases freedom of aerial maneuver by suppressing or destroying enemy targets.

(b) If the decision is to bypass, the ACT maintains contact until relieved by the RAS or follow-on forces. Relief can be accomplished by an ATKHT or by an armored cavalry unit. Contact is normally maintained if available combat power is insufficient to attack or if bypassing is not feasible.

(3) When an ACT is under OPCON to an armored cavalry squadron for a zone reconnaissance, it may be used in either of several ways. These are discussed below.

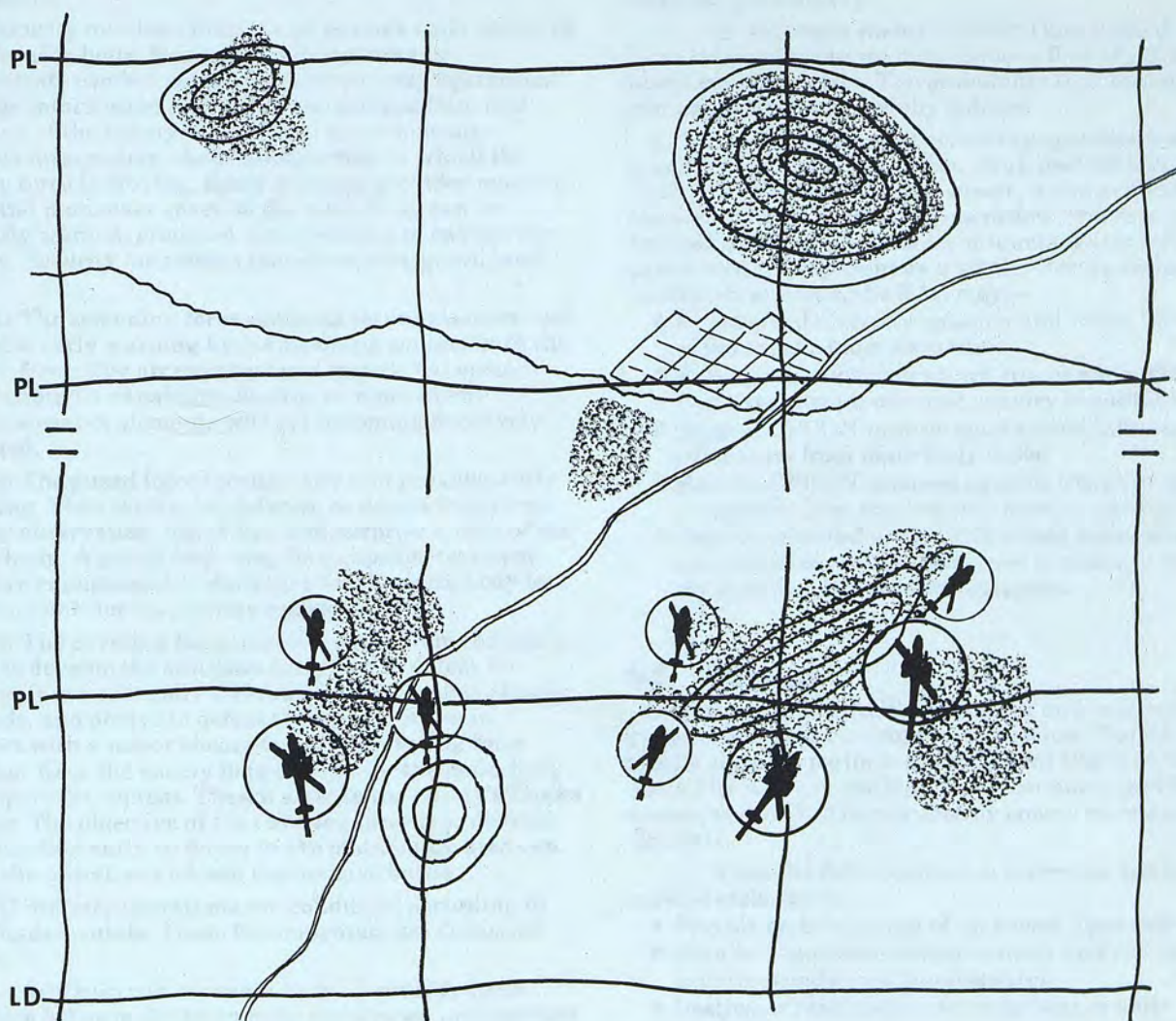


Figure 4-4. Zone reconnaissance with ACT forward of an advancing unit

(a) The ACT could conduct a zone reconnaissance of the entire squadron zone. It could leave the major route reconnaissance to the armored cavalry troops.

(b) If the zone is too large for one ACT or if the terrain and vegetation limit aerial observation, the ACT may conduct an area reconnaissance of key terrain features within the zone. This would enable the armored cavalry troops, with assistance from the ACTs, to conduct the detailed zone reconnaissance.

(c) Another way to use the ACT is for it to screen a flank, the rear, or the front of the armored cavalry troops. This provides early warning of enemy activities.

c. *Area Reconnaissance.* Because it can cover distances quickly, the RAS is ideally suited to perform

area reconnaissance. It can effectively gather information about one large area or easily cover several widely dispersed areas simultaneously. The RAS can conduct specific reconnaissance within friendly element boundaries or behind enemy lines. An area reconnaissance is conducted the same as a zone reconnaissance, except in the manner of movement to and from the area. The specific area to be reconnoitered is designated by a boundary line that completely encircles the area of interest. Primary and alternate routes to and from the reconnaissance objective are selected on the basis of security and speed. Enemy situations encountered en route are developed only enough to ensure reconnoitering elements can bypass to complete the mission. The attack troops can then be used to attack and fix the bypassed enemy forces.

SECURITY

5-1. Fundamentals

a. The RAS performs security missions for the ACR. It is used most often for screening or as a rapid reaction force. Initially, the RAS reconnoiters and screens for the regiment. After enemy contact, the RAS continues to screen the front, flanks, or rear. It can maintain contact with the main body and screen gaps to ensure that the armored cavalry is not infiltrated. Attack assets engage enemy forces with long-range fires while combat aviation assets provide rapid logistical support.

b. The flexibility and mobility of the RAS enhance its ability to take advantage of changing situations. The RAS is an excellent rapid reaction force. While the RAS rapidly masses to assist in destroying ground forces, the armored cavalry squadrons can concentrate and destroy the enemy.

c. Security missions protect and provide early warning for the main body, freeing main body units to concentrate combat power. Cavalry security operations provide information about the size, composition, and location of the enemy force. These operations also provide information about the direction in which the enemy force is moving. Early warning provides reaction time and maneuver space so the main body can be properly warned, prepared, and deployed to engage the enemy. Security operations include screen, guard, and cover.

(1) The screening force conducts reconnaissance and provides early warning by maintaining contact with the enemy force. The air cavalry must impede the enemy and, within its capability, destroy or repel enemy reconnaissance elements without becoming decisively engaged.

(2) The guard force reconnoiters and provides early warning. Then it attacks, defends, or delays to prevent enemy observation, direct fire, and surprise attack of the main body. A guard force may be compelled to accept decisive engagement to gain time for the main body to react or continue its primary mission.

(3) The covering force operates apart from the main body to develop the situation early and to defeat the enemy. It is a tactically self-contained force that attacks, defends, and delays to defeat the enemy. When in contact with a major enemy force, the covering force holds or fixes the enemy long enough for the main body to prepare for combat. Then it attacks the enemy's flanks or rear. The objective of the covering force is to develop the situation early so forces in the main battle area can seize the initiative and win the decisive battle.

(4) Security operations are conducted according to five fundamentals. These fundamentals are discussed below.

(a) *Orient on the main body.* A security force operates between the main body and known or suspected enemy units. The security force commander must know the scheme of maneuver for the main body so that he can maneuver his force between the main body and the enemy.

(b) *Perform continuous reconnaissance.* A security force performs continuous, aggressive reconnaissance to gain all possible information about the enemy and the terrain. The scouts provide real-time intelligence, answering two vital factors of METT-T: enemy and terrain.

(c) *Provide early and accurate warning.* Early warning allows the main body commander to retain the tactical initiative. It allows him to choose the time and place to concentrate his forces to defeat the enemy.

(d) *Provide reaction time and maneuver space.* A security force operates as far from the main body as possible, consistent with the factors of METT-T. It fights to ensure the main body has adequate time and space to respond to the enemy.

(e) *Maintain enemy contact.* Once gained, contact is maintained to ensure a continuous flow of information about enemy activity. The probability that the enemy can gain surprise is thereby reduced.

d. The RAS can conduct screening operations with organic aviation assets. When reinforced with armored cavalry and combat support assets, it can conduct a squadron guard or covering operation. The best or most favored use for the RAS is for it to retain unit integrity and screen the regiment as a whole. During regimental security operations, the RAS may—

- Be assigned a specific mission and retain all or most of the troops under its control.
- Release air cavalry or attack troops under OPCON to the regimental armored cavalry squadrons.
- Receive OPCON tank or mechanized infantry companies from main body units.
- Receive OPCON armored cavalry troops or tank companies from the armored cavalry squadrons.
- Receive attached or OPCON attack helicopter companies or assault helicopter companies from corps or division aviation brigades.

5-2. Missions

a. *Screening.* The ACR is designed and tailored to perform the corps covering force mission. The RAS is ideally suited to perform the screen for that covering force. The ACTs in the RAS can reconnoiter and find the enemy, and ATKHTs can destroy enemy reconnaissance elements.

(1) When the RAS conducts a screening mission, the implied tasks are to—

- Provide early warning of an enemy approach.
- Gain and maintain enemy contact and report enemy activity (conduct reconnaissance).
- Destroy or repel enemy reconnaissance units (conduct a hasty attack).
- Impede follow-on enemy forces (delay, buy time).
- Guide reaction forces (counterattack, retain the initiative).

(2) When the RAS conducts an aerial screen, planning considerations include the following:

- Movement plan.
- Troop sectors.
- Weather forecast.
- Initial screen line.
- Engineer obstacle plan.
- ACTs available for the screen.
- ATKHT holding areas for a hasty attack.
- Scheme of maneuver of units being screened.
- Screen rear boundary or battle handover line.
- Medical support and downed-aircrew procedures.
- Flight routes, air corridors, and air control points.
- Time screen established and duration of screen.
- Successive screen lines and other maneuver control measures.
- Location of CPs, observation posts, and engagement areas.
- Logistical plan (Classes I, III, IV, and IX) and FARP locations.
- Fire support plan, to include artillery and CAS.
- Responsibility for the area between the screening force and the screened force.

(3) An aerial screen for a stationary force is a series of successive screen lines. When establishing the initial screen line, the ACTs deploy and conduct a zone reconnaissance and enter the fire support nets. When the ACTs reach the general trace of the screen line, they reconnoiter and refine it. The aeroscouts locate and select positions that provide good observation and fields of fire. Once established on the initial screen line and no enemy contact is made, the air cavalry sections continue the zone reconnaissance forward but not beyond the fire support range. The screening force commander decides when to move from a screen line. The main body commander decides when to move rearward of the rear boundary line. A screen for a moving force depends on orientation; that is, front, flank, or rear.

(a) Screening the front of a moving force is conducted similarly to a zone reconnaissance. However, the screening force will not develop the detailed information required in a zone reconnaissance. It will locate and report forward enemy security elements and destroy them if possible.

(b) The flank screening force moves on a route parallel to the axis of the main body. It occupies a series of observation posts on a screen line. The most forward element is abreast the rear elements of the leading armored squadron in the main body. Movement along the screen line may be controlled using three methods. The first method is to have the entire aerial screen move forward continuously as shown in Figure 5-1. However, this is the least secure method. The second method is for the scout-weapons teams to move forward one at a time in an accordion-like manner as shown in Figure 5-2. The third method is for the scout-weapons teams to leapfrog from the rear to the front as shown in Figure 5-3. This is the most secure technique since it enables the teams to stay in an area longer and to become more familiar with the area.

(c) A rear screen of a moving force occupies preplanned successive screen lines the same as during a screen for a stationary unit. The force is not constantly moving rearward. The rear screening force establishes a screen line and maintains contact with the main body. It

moves rearward only when the distance between it and the main body makes mutual support difficult.

(4) The RAS can conduct an aerial screen to the front of the entire regiment. It should remain intact and screen to the front of the armored cavalry squadron's battle positions. The initial screen line should be within the indirect fire range of the supporting artillery. The RAS should receive priority of fires from the covering force artillery.

(5) When enemy contact is made beyond the screen line, the ACTs reconnoiter and report. Aeroscouts direct indirect fires and CAS, and the ATKHTs reposition to engage enemy concentrations. After enemy reconnaissance elements are destroyed, the RAS aggressively continues to impede the advance guard and

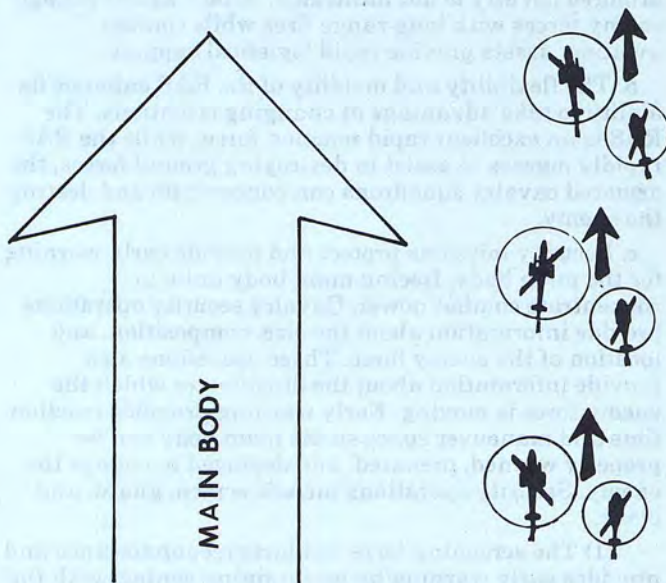


Figure 5-1. ACT moving forward continuously

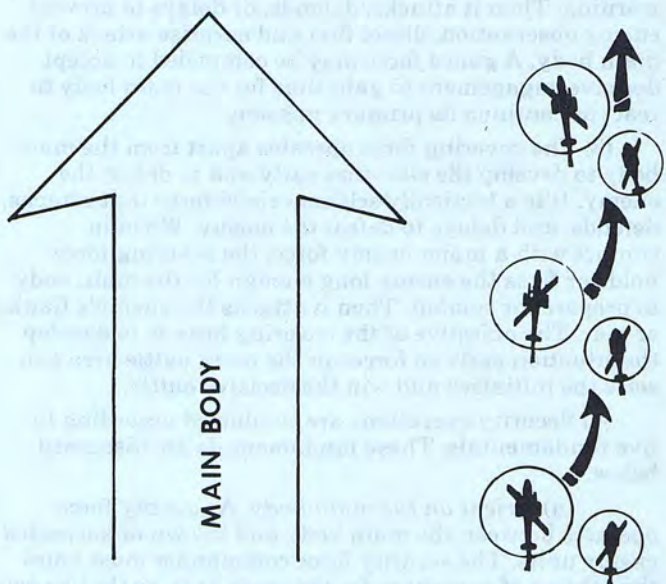


Figure 5-2. ACT moving forward in an accordion-like manner

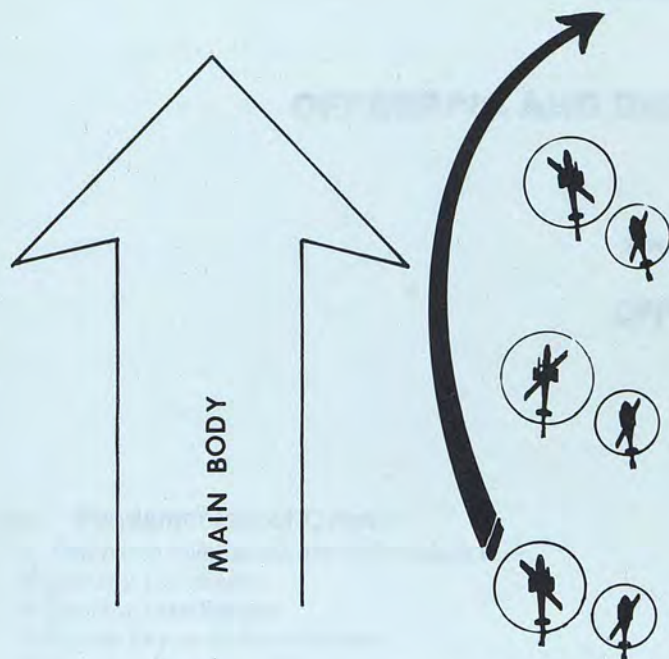


Figure 5-3. ACT leapfrogging from rear to front

initial echelons. Armored cavalry squadrons start engaging when the situation develops in their engaged areas. No formal battle handover occurs. As the battle intensifies, the RAS continues to fight. It screens gaps between squadrons, screens flanks, engages enemy concentrations and penetrations, and controls JAAT operations. It also can be used for aerial resupply and the enhancement of C² as well as other missions.

b. Guard. A guard force initially reconnoiters and accomplishes the tasks of a screening force. When enemy contact is made, the guard force attacks, defends, and delays up to the point where it may be forced to accept decisive engagement to protect the main body. The RAS can dominate terrain by fire but cannot hold terrain unless reinforced with ground maneuver units. A task-organized RAS tailored according to the factors of METT-T could accomplish a guard mission. As a rule, the regiment does not conduct guard operations. However, an armored cavalry squadron may receive a guard mission as part of the overall regimental covering force mission. The RAS can assist a regimental armored

cavalry squadron in conducting a guard mission by performing the following specific missions:

- An ACT performs an aerial screen for early warning.
- The ATKHTs reinforce to engage enemy concentrations.
- The RAS secures or clears the area between the guard force and the main body.
- The RAS conducts a hasty route reconnaissance of likely enemy avenues of approach.
- The ACT screens a less vulnerable sector while armored cavalry troops concentrate on the threatening avenues of approach.

c. Covering Force. The RAS cannot perform a covering force operation as a squadron mission with only organic aviation assets. However, the regimental covering force mission and its implied staying requirement do not lessen the importance of the RAS. The RAS will have two vital roles in the regiment's covering force mission.

(1) The RAS will initially perform an aerial screening mission for the entire covering force sector. It will provide early warning, direct indirect fires, and attack enemy reconnaissance elements. This mission should not be viewed as separate from the armored squadron battle with an abrupt linear handover of the fight. On the nonlinear battlefield, the RAS will continue attacking as the situation develops toward the armored cavalry squadrons.

(2) The RAS may become the ACR's highly mobile and lethal reserve. As the reserve, it can quickly move in any direction to provide reinforcement. Specific missions the RAS could perform as the covering force reserve would be to—

- Overwatch forward or rear passage of lines.
- Develop, coordinate, and control JAAT employment.
- Screen gaps between the armored cavalry squadrons.
- Have the ATKHTs reinforce with long-range fires into engagement areas.
- Maintain contact with the main body and clear the area between the covering force and the main body.
- Mass and attack a vulnerable enemy flank or conduct a counterattack so the regiment can retain the initiative.
- Conduct a hasty route reconnaissance of regimental march routes into the corps rear area after the covering force battle.
- Mass all available assets and temporarily assume responsibility for an armored cavalry squadron sector, allowing time for the armored cavalry squadron to regroup and maneuver to new battle positions.

OFFENSIVE AND DEFENSIVE OPERATIONS

Section I

OFFENSE

6-1. Fundamentals of Offense

- a. Offensive operations are undertaken to—
 - Destroy the enemy.
 - Develop intelligence.
 - Secure key or decisive terrain.
 - Deprive the enemy of resources.
 - Deceive and divert the enemy.
 - Hold the enemy in position.
- b. Air-land battle doctrine offensive fundamentals are to—
 - Concentrate combat power at the decisive time and place.
 - Surprise the enemy by striking at an unexpected time and place.
 - Use speed to keep the enemy off-balance and unable to recover.
 - Ensure plans are flexible, anticipate uncertainties, and exploit battlefield opportunities.
 - Execute offensive measures boldly.
- c. Units conducting an offensive operation must move fast. These units follow reconnaissance units or make successful probes through gaps in enemy defenses, shifting strength quickly to widen penetrations and reinforce success.

6-2. Forms of Maneuver

There are three basic offensive maneuvers. They are frontal attack, penetration, and envelopment.

a. Frontal Attack.

(1) The frontal attack—the least desirable maneuver—strikes the enemy across its entire front and is directed into the enemy's strength. Frontal attacks are used to—

- Deceive the enemy as to the location of the main attack (economy of force).
- Overrun and destroy a weak enemy (pursuit).
- Find and exploit an enemy weakness.
- Fix the enemy in position while another force maneuvers.
- Seize the initiative early and develop the situation.

(2) The RAS would rarely develop a frontal attack beyond an initial meeting engagement. The frontal attack may be used to find routes through the enemy, allowing attack assets to maneuver for the flanks. If a flank maneuver is impractical, attack assets could use standoff firepower to defeat the enemy.

b. *Penetration.* A penetration strikes the enemy at a narrow or weak point, ruptures it, widens the gap, and then attacks deep. A successful penetration depends on the ability of the attacker to mass combat power at a narrow point and move that combat power quickly through the gap. Once the gap is open, the RAS can exploit the penetration quickly and attack deep.

c. *Envelopment.* An envelopment avoids the strength of the enemy by maneuvering to attack the enemy's flanks or rear. An envelopment requires an assailable flank. This may be an open flank, a weakness, or a gap in the enemy line that permits the enveloping force to approach the objective. The RAS can provide overwatching fire while the armored maneuver force conducts the envelopment. The RAS can then maneuver elements rapidly to back up the armored enveloping force and extend the depth of the envelopment.

6-3. Conduct of Offensive Operations

The RAS participates as an active member of the regiment in five offensive operations. They are movement to contact, hasty attack, deliberate attack, exploitation, and pursuit.

a. Movement to Contact.

(1) A movement to contact occurs when the main body loses contact or initially establishes contact with an enemy force. It is conducted like a zone reconnaissance. However, the orientation is on rapid location of enemy forces, audacious development of the situation, and rapid destruction of the enemy. The movement to contact usually ends or evolves into another type of offensive operation. Using a minimum force to initially establish enemy contact will enable the bulk of the main body to maneuver.

(2) The RAS can participate in a regimental movement to contact in several ways. Keeping all troops under its control, the RAS can perform an aerial screen to the front of the advancing armored squadrons. If a flank is vulnerable, the ACTs can screen it. The factors of METT-T will control the RAS's ability to conduct both screens at once. The ATKHTs will remain as a highly responsive regimental reserve for the ACR commander to use wherever it is needed. The ATKHTs will continually reposition to react rapidly. The AHT will move supplies, primarily Classes III and V, from the forward area support team to the advancing armored cavalry squadron combat trains. The RAS can also employ OPCON attack or assault helicopter assets from

the corps. Figure 6-1 shows the RAS in a regimental movement-to-contact role.

b. Hasty Attack.

- (1) A hasty attack develops when—
 - The enemy counterattacks.
 - An opportunity changes the plan of a deliberate attack.
 - A deliberate attack is continued beyond the objective.
 - A movement to contact develops into a quick engagement (actions on contact).

(2) When contact is made, fire and maneuver is the immediate action. Fire and maneuver is an extension of bounding overwatch; the overwatching element provides suppressive fire while the bounding element maneuvers for a flank. In addition, the RAS may use the hasty attack when the ACT establishes contact. The ACT will deploy to cover, maintain contact, report, and develop the situation. While the ACT attempts to fix the enemy, an ATKHT will maneuver from a holding area to engage a flank as shown in Figure 6-2. In the hasty attack scenario, the ACT finds, reports, and then performs a target handover to an ATKHT; this is usually the normal course of action.

c. Deliberate Attack.

(1) A deliberate attack is planned and carefully coordinated on the basis of reconnaissance. It is usually conducted against a well-organized enemy defense when a hasty attack is impractical or has already failed. Thoroughly prepared deliberate attacks are characterized by—

- Detailed reconnaissance.
- High volume of fire support.

- Well-developed deception plans.
- Exploitation of electronic warfare.
- Extensive tactical planning and preparation of attacking forces.

(2) The deliberate attack plan consists of the scheme of maneuver to the objective and the direct and indirect fire support to support that scheme of maneuver. The plan must also address command and control and combat service support requirements.

(3) The deliberate attack plan delineates the who, what, when, where, and how for a specific course of action. The course of action may be to—

- Conduct reconnaissance before the attack.
- Provide security for the main body during the maneuver.
- Determine the method of attack at the objective.
- Consolidate and reorganize.
- Prepare the counterattack.
- Continue the attack.

(4) The RAS may assume several roles as the regiment prepares and conducts a deliberate attack. These roles may include—

- JAAT.
- Enhancement of C2.
- Flank screen for the maneuvering force.
- An area reconnaissance of the objective.
- Maneuvering to cut off enemy withdrawal.
- Massing of direct fires on the objective.
- Air assault force tailored for the mission.
- Augmentation of medical evacuation efforts.
- Route reconnaissance to select the axis of advance.
- Zone reconnaissance during advance of the main body.

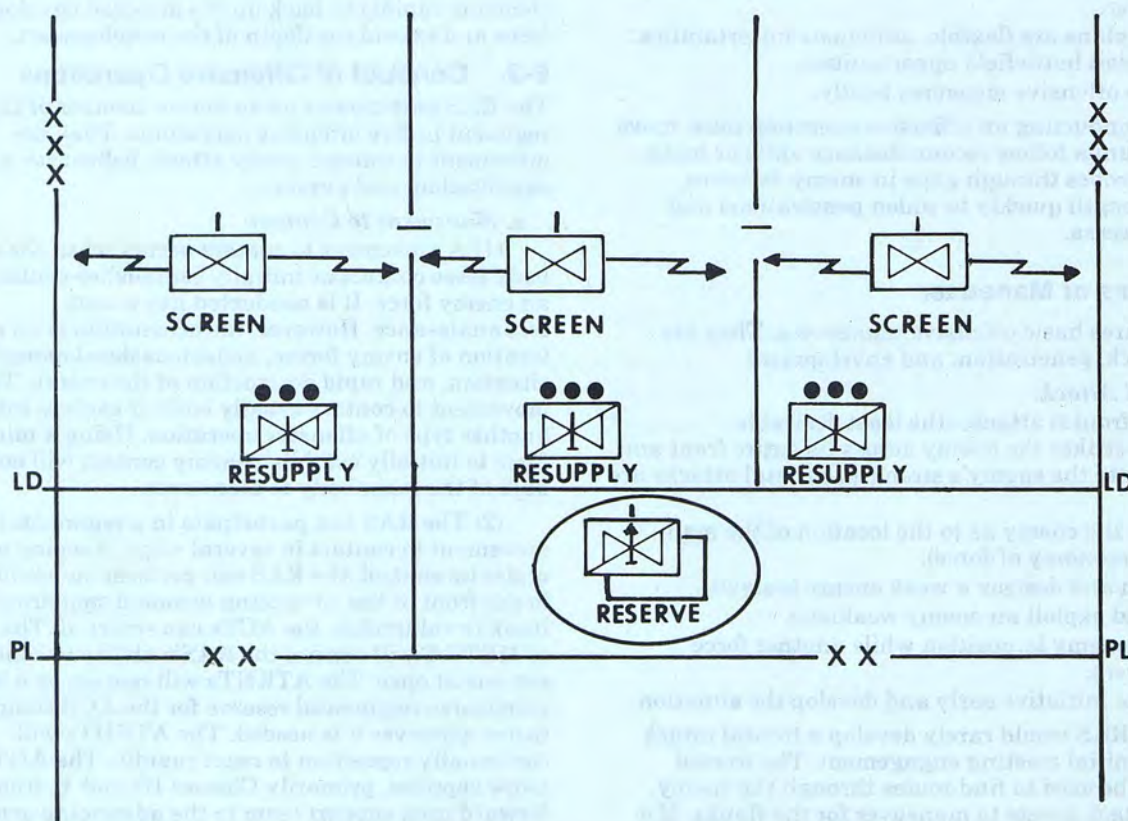


Figure 6-1. RAS in a regimental movement-to-contact role

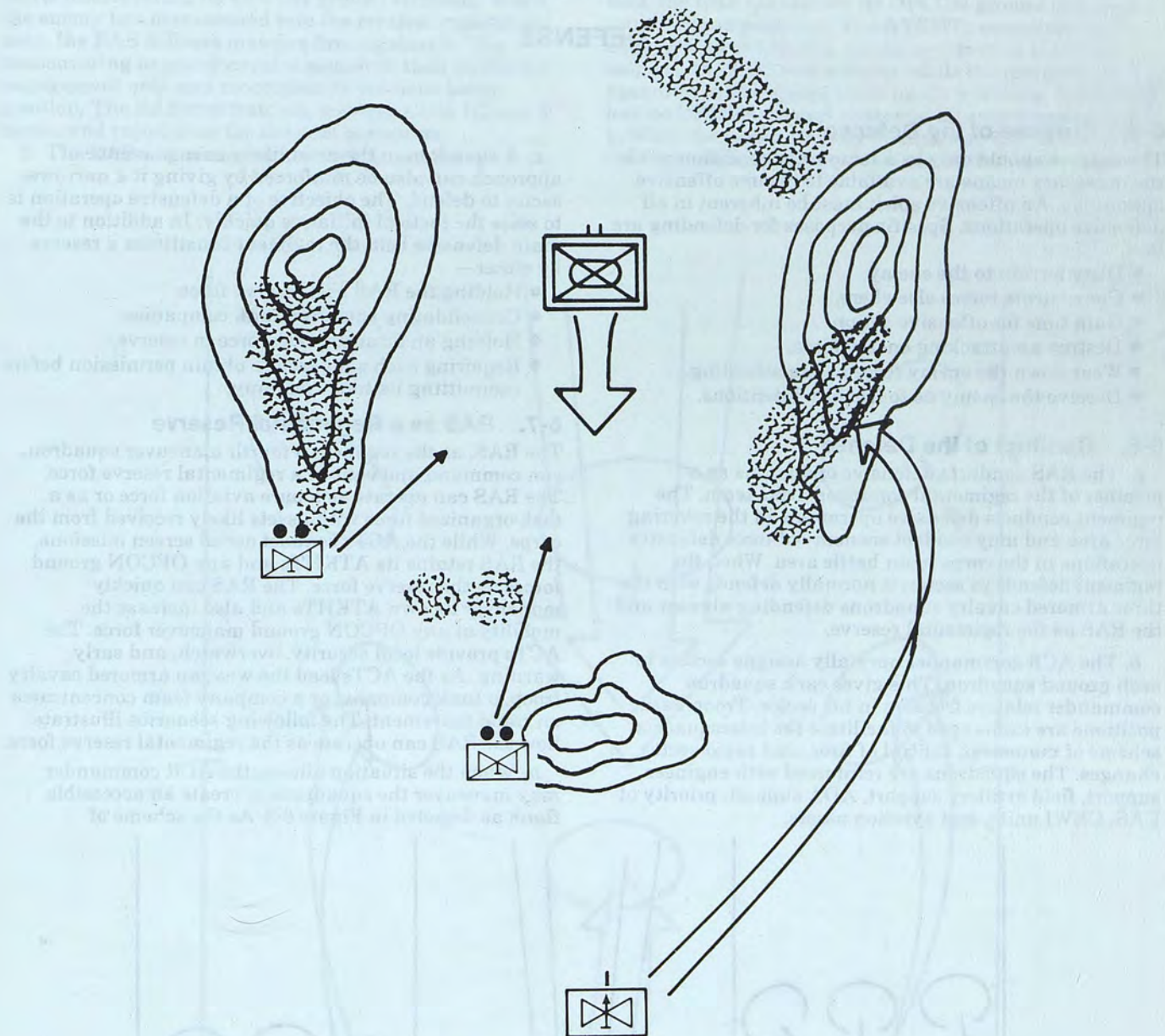


Figure 6-2. Hasty attack with the ACT overwatching and the ATKHT maneuvering

- Overwatch during consolidation, reorganization, or both.
- Aerial resupply during consolidation, reorganization, or both.
- Reserve force that is prepared to mass to engage an enemy counterattack.
- Reserve force that is prepared to continue the attack beyond the objective.

d. Exploitation and Pursuit.

(1) Exploitation is the swift, deep attack following a successful deliberate attack. The objective is the enemy's command and control structure, logistical base, reserves, and artillery. The purpose is to prevent the enemy from reorganizing an effective defense. Pursuit is the relentless destruction of an enemy force that is attempting to disengage because it has lost the ability to defend.

(2) The RAS is an ideal force to take advantage of the enemy situation during an exploitation or during the transition into pursuit. It can quickly maneuver to block the withdrawal of a retreating enemy force.

6-4. Employment Considerations for the RAS

The RAS can provide direct fires, control CAS assets, and airlift CSS assets in support of the ACR's mission. Troop-level organizations within the RAS accomplish these missions. The ACTs can advance aggressively to provide reconnaissance, conduct target handovers to other maneuver forces, and provide security to the forces through screening missions. The ATKHTs can destroy or fix bypassed enemy forces and deny the enemy key terrain. The AHT can maneuver air assault forces and resupply air and ground maneuver forces with Classes III and V.

Section II

DEFENSE

6-5. Purpose of the Defense

The defense should only be a temporary condition until the necessary means are available to resume offensive operations. An offensive spirit must be inherent in all defensive operations. Specific purposes for defending are to—

- Deny terrain to the enemy.
- Concentrate forces elsewhere.
- Gain time for offensive action.
- Destroy an attacking enemy force.
- Wear down the enemy force before attacking.
- Deceive the enemy as to friendly intentions.

6-6. Conduct of the Defense

a. The RAS conducts defensive operations as a member of the regimental combined arms team. The regiment conducts defensive operations in the covering force area and may conduct economy-of-force defensive operations in the corps main battle area. When the regiment defends in sector, it normally defends with the three armored cavalry squadrons defending abreast and the RAS as the regimental reserve.

b. The ACR commander normally assigns sectors to each ground squadron. This gives each squadron commander relative freedom in his sector. Troop battle positions are exchanged to facilitate the intersquadron scheme of maneuver, control of fires, and rapid sector changes. The squadrons are reinforced with engineer support, field artillery support, ADA support, priority of CAS, CEWI units, and aviation assets.

c. A squadron in the most likely enemy avenue of approach can also be reinforced by giving it a narrower sector to defend. The objective of a defensive operation is to seize the tactical initiative quickly. In addition to the main defensive belt, the regiment constitutes a reserve by either—

- Holding the RAS as a reserve force.
- Consolidating squadron tank companies.
- Holding an attached task force in reserve.
- Requiring each squadron to obtain permission before committing its tank company.

6-7. RAS as a Regimental Reserve

The RAS, as the regiment's fourth maneuver squadron, can command and control a regimental reserve force. The RAS can operate as a pure aviation force or as a task-organized force with assets likely received from the corps. While the ACTs conduct aerial screen missions, the RAS retains its ATKHTs and any OPCON ground forces as the reserve force. The RAS can quickly maneuver its own ATKHTs and also increase the mobility of any OPCON ground maneuver force. The ACTs provide local security, overwatch, and early warning. As the ACTs lead the way, an armored cavalry troop, a tank company, or a company team concentrates on rapid movement. The following scenarios illustrate how the RAS can operate as the regimental reserve force.

a. When the situation allows, the ACR commander may maneuver the squadrons to create an accessible flank as depicted in Figure 6-3. As the scheme of

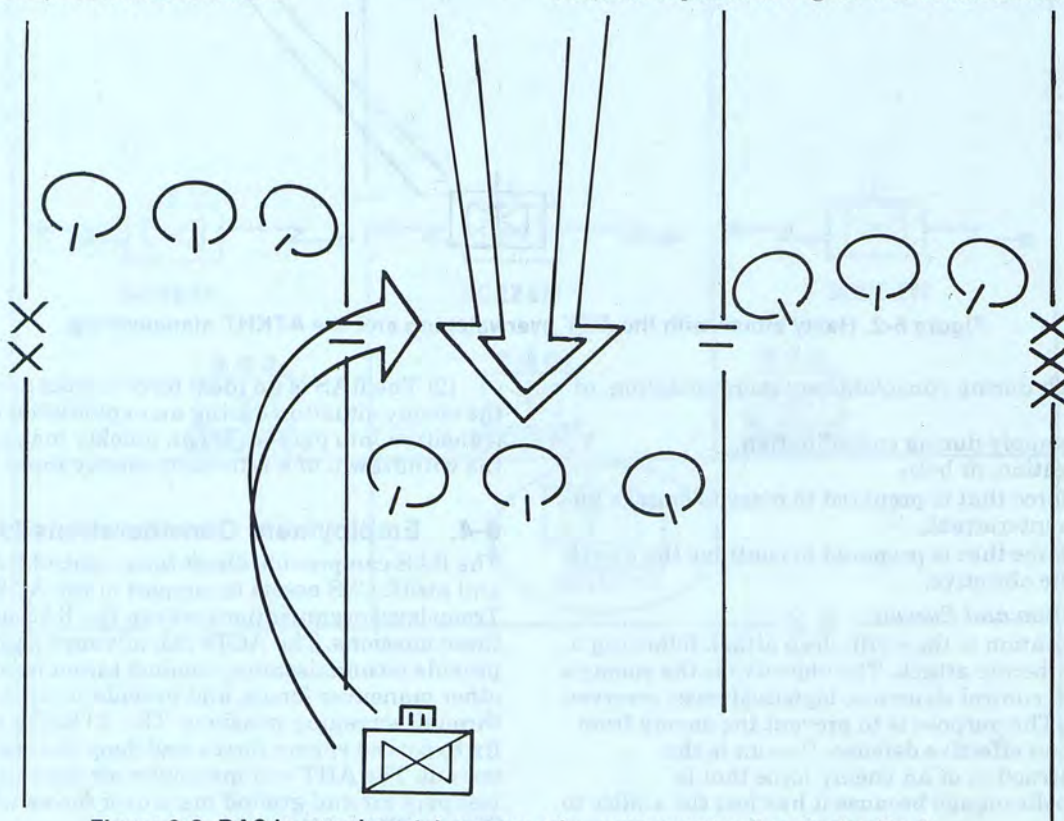


Figure 6-3. RAS in a regimental reserve role—maneuvering to attack a flank

maneuver develops, the RAS masses attack assets and starts maneuvering its OPCON ground elements. When the enemy has maneuvered into the created engagement area, the RAS delivers massive fires against it. The maneuvering armored cavalry squadron then clears the engagement area and reoccupies its previous battle position. The RAS overwatches, services Class III and V needs, and repositions for the next maneuver.

b. The RAS can maneuver to block an enemy

penetration as shown in Figure 6-4. Using an ACT to lead, the RAS maneuvers its OPCON ground elements into blocking positions. The ATKHTs maneuver to engage from the flanks. As the penetration is being stopped, the RAS overwatches while the armored cavalry squadron reestablishes troop battle positions. If the RAS has no OPCON ground elements, its attack assets mass to blunt the penetration by dominating key terrain and creating engagement areas on enemy concentrations.

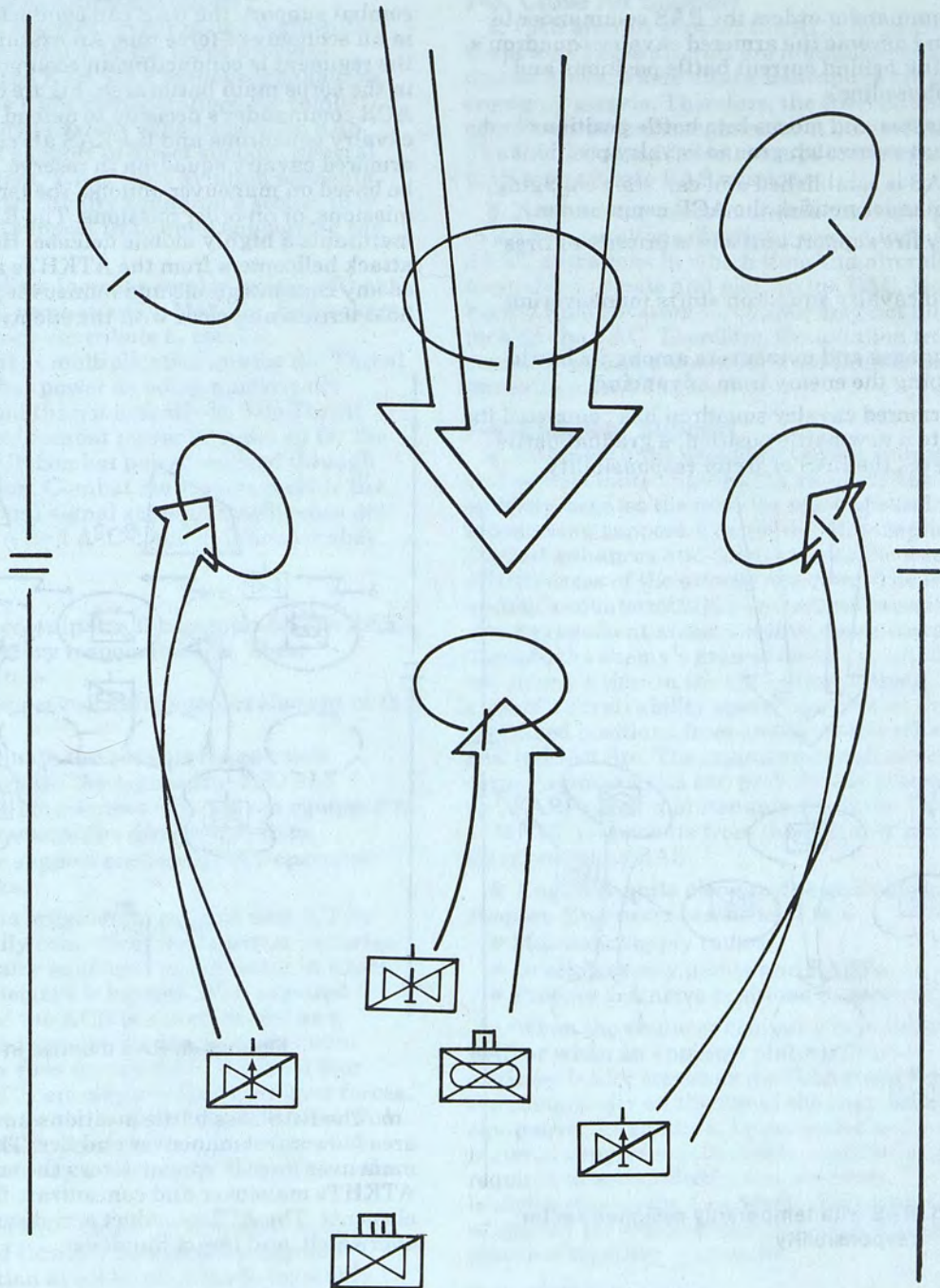


Figure 6-4. RAS in a regimental reserve role—maneuvering to block a penetration

c. In its reserve role, the RAS may also temporarily assume a sector of the battlefield as shown in Figure 6-5. In this situation, an armored cavalry squadron disengages from the enemy and repositions to subsequent battle positions. Normally, this is accomplished by the troops and platoons using fire and maneuver and bounding overwatch.

(1) The RAS assists in accomplishing the repositioning. The following sequential steps illustrate how this happens.

1. The ACR commander decides to maneuver a ground squadron to subsequent battle positions.
2. The ACR commander orders the RAS commander to mass forces and assume the armored cavalry squadron's sector, defending behind current battle positions and forward of a phase line.
3. The RAS masses and moves into battle positions and screen lines that overwatch ground cavalry positions.
4. Once the RAS is established and can start engaging, the RAS commander notifies the ACR commander.
5. The artillery fire support unit shifts priority of fires to the RAS.
6. The armored cavalry squadron starts maneuvering when ordered.
7. The RAS engages and maneuvers among its battle positions, keeping the enemy from advancing.
8. When the armored cavalry squadron has completed its maneuvering to a new battle position, a gradual battle handover relieves the RAS of sector responsibility.

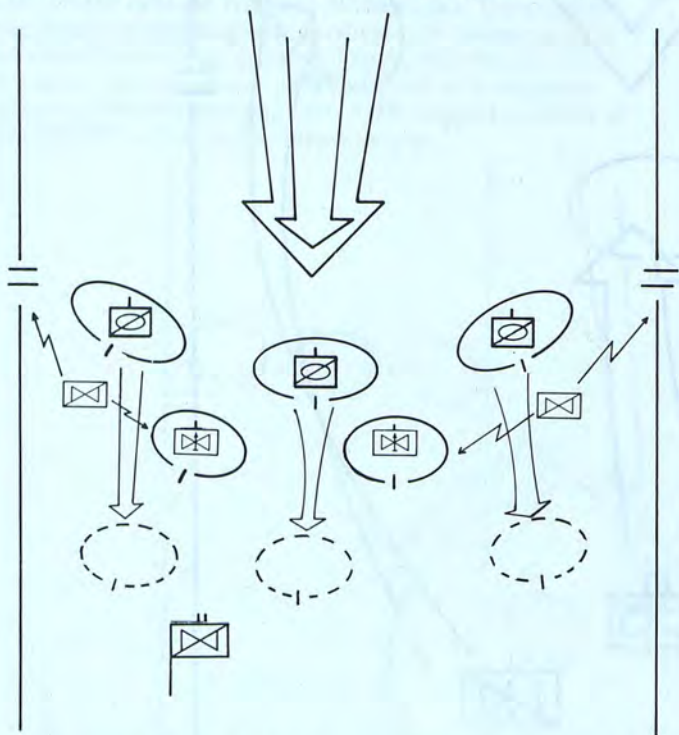


Figure 6-5. RAS with temporarily assigned sector responsibility

(2) The operation described in (1) above requires regimental orders and requires squadron commanders to talk directly with each other. The added dimension of the helicopter allows the RAS to maneuver above the armored cavalry squadron without interfering with the ground maneuver force. The RAS can also quickly establish contact with the ground squadron's direct support artillery. Since the attack helicopter uses direct fire weapons, few problems should arise in fire distribution.

6-8. RAS Defending in Sector

a. If task-organized with ground maneuver forces and combat support, the RAS can conduct a defense in sector in an economy-of-force role. An example may arise when the regiment is conducting an economy-of-force mission in the corps main battle area. Figure 6-6 illustrates the ACR commander's decision to defend with two armored cavalry squadrons and the RAS abreast with an armored cavalry squadron in reserve. This decision may be based on maneuver options, the terrain, be-prepared missions, or on-order missions. The RAS commander maintains a highly mobile defense. He can rapidly mass attack helicopters from the ATKHTs and ACTs on enemy concentrations and maneuver ground elements to hold terrain and close with the enemy.

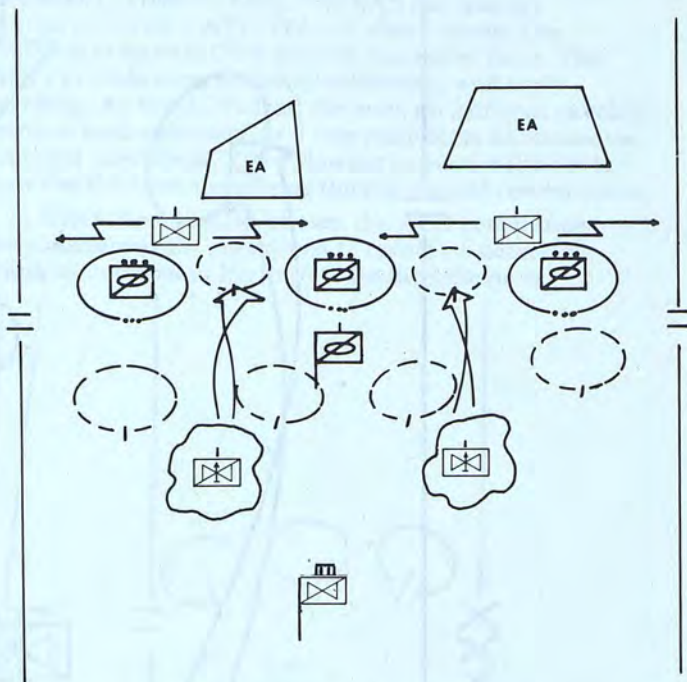


Figure 6-6. RAS defense in sector

b. The RAS uses battle positions and engagement areas to control maneuver and fire. The ground maneuver force is spread across the entire sector. The ATKHTs maneuver and concentrate fire with the ground elements. The ACTs conduct aerial screening, overwatch, and target handover.

COMBAT SUPPORT AND COMBAT SERVICE SUPPORT

Section I

COMBAT SUPPORT

7-1. Combat Support Considerations

a. The regimental support squadron, the regimental armored cavalry squadrons, or the corps provides combat support for the RAS. As a maneuver squadron, the RAS requires the same considerations for combat support as the armored cavalry squadrons. The RAS may receive combat support in direct support, general support, or attachment. When RAS aviation elements move into an armored cavalry squadron's sector, they may receive combat support from units supporting the ground squadron.

b. Combat multipliers increase combat power without requiring additional combat units. Mobility, technology, and resource efficiency contribute to combat multiplication. Combat multiplication causes the Threat to perceive US combat power as being numerically greater on the ground than it actually is. The Threat must increase its *real* combat power to make up for the *virtual* increase in US combat power realized through combat multiplication. Combat multipliers include fire, close air, engineer, and signal support; intelligence and EW operations; ADA and A²C²; and aviation combat support.

7-2. Fire Support

a. The RAS FSO coordinates fire support for the RAS and has several primary responsibilities. These responsibilities are to—

- Establish and supervise a fire support element in the RAS main CP.
- Plan and coordinate fire support request nets (quick-fire nets) with the regimental FSO and squadron FSOs for aircrews who are not equipped to operate in the tactical fire direction system.
- Prepare the fire support portion of RAS operation plans and orders.

b. The RAS has no organic fire support assets. Fire support will normally come from the howitzer batteries of the armored cavalry squadron in the sector in which the RAS aviation element is located. If an armored cavalry squadron of the ACR is not employed as a maneuver force, the organic howitzer battery would provide DS artillery fires for the RAS. When all four squadrons of the ACR are employed as maneuver forces, DS artillery support for the RAS will have to come from assets outside the ACR, possibly from the supported or adjacent division artillery unit or units from within the corps artillery.

c. The potential of fire support as a combat multiplier can only be realized through careful planning and thorough coordination at all levels. This is especially true of SEAD operations when the RAS FSO must continually plan to use all available assets in a fire support role to accomplish the mission. Coordinated SEAD operations will allow the troop commanders to protect their aviation assets and exploit the capabilities of the RAS.

7-3. Close Air Support

a. CAS aircraft support the ACR by providing massive firepower. These aircraft are normally employed in crucial areas, where attack helicopters are probably engaging targets. Therefore, the RAS S3 should closely coordinate with the regimental ALO or RAS ALO. The RAS S3 should also attempt to incorporate the use of CAS aircraft into RAS missions.

b. Aviation troop commanders must train their units in JAAT operations. Training should include preplanned JAAT operations in which time and aircraft are available to locate and pick up the FAC. However, the highly fluid covering force area may not allow time to pick up the FAC. Therefore, the aviation troop commander and aeroscouts must train to coordinate an immediate JAAT operation.

7-4. Engineer Support

a. Engineer units provide mobility, countermobility, and survivability engineering support. The RAS's air mobility negates the need for much ground mobility engineering support. Countermobility engineering support enhances and complements the weapon effectiveness of the attack helicopter. The engineer system's countermobility operations canalize the enemy into engagement areas. Further, these operations degrade the enemy's ground mobility, which increases the enemy's time in the engagement areas. The engineer system's survivability operations protect the RAS's semifixed positions from enemy observation and direct and indirect fire. The regimental engineer company or corps engineer units can provide this protection for the CP, FARPs, and maintenance facilities. Based on factors of METT-T, elements from the engineer company will be attached to the RAS.

b. Engineer units also provide general engineering support. Engineers can be used to—

- Maintain supply routes.
- Develop supply points and FARPs.
- Prepare defensive positions in assembly areas.

c. When the engineer company is in support of the RAS or when an engineer platoon provides support, the engineer leader serves as the RAS engineer. He advises the commander on the use of the engineers and their equipment. In addition, he estimates unit capabilities, materiel support requirements, and the length of time required to accomplish given missions. The engineer leader serves as the maneuver commander's single point of contact for engineer support. He should keep the platoons together, if possible.

7-5. Signal Support

Commanders continually stress dispersion, mobility, and flexibility in the employment of tactical units. To support these operational concepts, unit commanders must have a continuous, flexible, and mobile communications system. This system must provide the commander with

necessary command and control. The corps area communications system effectively satisfies this requirement.

a. The corps signal battalion provides communications to the regiment by establishing and operating the corps area communications systems. Each brigade-size headquarters is provided multichannel communications. Within the corps, communications are not limited to radio and wire but also include tactical satellite communications and area messenger service. The signal battalion performs ground photography for the corps, with augmentation and support from the division signal battalions.

b. The RAS internal net can be augmented for communications across wide frontages by using retransmission teams from supporting signal units. The aviation unit maintenance officer and other elements requiring external communication can use the regiment's links into the corps area communications system.

c. Each signal center provides facilities for communication. These facilities include a patching and switching central; a telecommunications center; wire sections; radio terminal equipment, AN/TRC-145; and FM and RATT radios.

(1) *Patching and switching central.* The patching and switching central provides patching and switchboard telephone service. This service is provided for the signal center, the supported installation or unit, and adjacent units.

(2) *Telecommunications center.* The telecommunications center facilities provide secure teletypewriter services. Any unit in the area may use these facilities. A messenger service is established at corps and division CPs and area signal centers. Except for flash incoming traffic, routine messenger service is provided by the subscribing units.

(3) *Wire sections.* One or more wire teams are provided at each signal center. These teams install and maintain the wire system connecting the installations of the signal center and the supported unit to the patching and switching center.

(4) *Radio terminal equipment, AN/TRC-145.* The AN/TRC-145, multichannel set, provides 12 or 24 channels of communication between command signal centers. The AN/TRC-145 is the major piece of communications equipment used within the area communications system. This equipment provides the facilities for the bulk of divisional communications.

(5) *FM and RATT radios.* The signal center may also operate or monitor designated FM and RATT stations. In addition, each signal center provides a radio-wire integration station. When units are operating beyond the range of FM radios, this facility may be used to establish and maintain FM communications. It can also be used by command and staff personnel operating from mobile CPs to contact corps units.

d. Command terminals at the regimental CP include one AN/TRC-145, radio terminal set, to interface into the corps multichannel system. The command terminals also have two AN/GRC-142s, RATT sets, to interface into the corps RATT nets.

(1) *Multichannel interface.* The regiment will interface with the corps multichannel system in the same manner as the major units. The regimental headquarters will receive one AN/TRC-145 plus crew and, if available, a second AN/TRC-145 plus crew from

the forward communications company. This will provide a 12-channel system linking the regiment main with the corps aviation brigade headquarters.

(2) *RATT interface.* The RAS headquarters requires the same RATT support from the regiment as the other squadron headquarters. The RAS signal platoon will provide two AN/GRC-142s plus crew. One will ensure the RAS entry into the regimental RATT intelligence net; the other will provide entry into the regimental RATT general-purpose net.

7-6. Intelligence Operations

Intelligence operations provide the RAS commander and staff the combat information and intelligence needed to plan and direct combat operations and protect the friendly force. The commander directs the system to respond to priority intelligence requirements. The RAS S2 and S3 coordinate and manage intelligence operations. Intelligence enables the commander to see the battlefield. This directly influences the effectiveness of maneuver and fire support and the protection of the force. Intelligence information graphically depicts the enemy, weather, and terrain in detail to support effective employment of all combat support assets in a time-sensitive manner.

a. The RAS S2 is the expert on the enemy, weather, and terrain. Graphics depicting accurate intelligence and sound assessments of the situation and target development reduce many of the battlefield uncertainties. The S2 uses the IPB process to analyze the enemy, weather, and terrain. Table 7-1 shows terrain and weather information obtained from the IPB process and how it influences or applies to the RAS. Direct support engineer topographic teams directed by the corps G2 provide terrain information. The weather team attached to the RAS provides weather information. The RAS has the ability to overcome terrain obstacles, but weather directly influences RAS operations. Face-to-face or desk-top analysis between the RAS battle staff and the weather team is critical. This is more critical to aviation maneuver forces than to any other force on the battlefield. By gainfully employing the weather team to support timely decision making, the RAS will reduce the uncertainties of planning combat operations.

b. The battlefield information control center operated by the RAS S2 will also provide a graphic display of doctrinal, situational, event, and division support templates. The decision support template is important because it translates intelligence estimates and the operations plan into graphic form. It is a key tool for the commander to use in exploiting assailable flanks of the enemy, selecting high-value targets for engagement, or interdicting critical points that will force the enemy to abandon a course of action.

c. Collection management by the S2 will be based on those intelligence requirements not answered through the IPB process. For the RAS to operate in a covering force, reconnaissance and surveillance planning must be thorough. Continuous updates in the plan are necessary. Because of the great distance influenced by the RAS, the S2 must continuously interface with the regiment's S2 and other intelligence support elements. This enables the S2 to predict the enemy's actions accurately in selected areas of interest. Reconnaissance and surveillance adjustments to those high-value targets will give the commander a time-phased picture of the battlefield; ultimately, this provides viable options for using critical assets in a time-sensitive manner.

Table 7-1. Information obtained from and applications of the IPB process

INFORMATION	APPLICATIONS
Terrain	
Combined Obstacles (Wet/Dry)	Friendly or Enemy Avenues of Approach
Soil	LZ/DZ Selection
Vegetation	Concealment of NOE Flight
LOS Analysis	EW, Communications, NOE Routes, and Surveillance
Obstacles to the NOE Flight	NOE Routes and Flight
Obstacles to LOCs	MSR Selection
Terrain-Influenced Wind Overlays	All Aviation and NBC Operations
Weather	
Cloud Coverage	Air Avenues and Acquisitions
Fog	Air Avenues, Fields of Fire, Radar Intervisibility, and LOS
Severe Weather	All Aviation and Ground Operations
Infrared Changeover	FLIR and Navigation Operations

7-7. Air Defense Artillery and Army Airspace Command and Control

a. The RAS may receive dedicated ADA support from the organic Stinger battery within the regiment based on the priorities established by the commander. Depending upon the ACR mission, additional ADA assets from the corps ADA brigade may also be available. When supporting the RAS, the ADA weapons normally available will be Vulcan (self-propelled), Stinger, and Chaparral (corps) or a composite of the systems.

b. The enemy air threat to friendly forces dictates certain combat imperatives. First, when dedicated ADA support is available, the RAS commander must

determine air defense priorities and continually reevaluate those priorities. Secondly, ADA systems/units alone cannot counter the enemy air threat. Force design constraints prevent certain areas or units from having dedicated ADA. An aggressive combined arms effort executed throughout the battlefield and at all command levels will destroy or significantly reduce the effects of the enemy air threat and will help preserve friendly initiative. The combined arms air defense must consist of available ADA weapons, ground-to-air capable weapons—for example, Bushmaster and TOW—massed small arms fires, and air-to-air combat operations. Using all aggressive means available, commanders must counter the enemy air threat before or after it becomes airborne. Finally, the RAS must diligently employ passive measures—such as the use of terrain, reduced signatures, and dispersion—to reduce exposure to the enemy air threat.

c. The A²C² procedures for the ACR are outlined in FC 100-1-103. The ACR commander, RAS commander, ACR S3, RAS S3, and ACR FSO and ALO will be involved in planning operation requirements and disseminating the theater-specific airspace command and control procedures for the area of operation in which the ACR is employed.

7-8. Aviation Combat Support

a. The RAS provides combat support by employing the EW platoon in the HHT and the AHT. The EW platoon's Quick-Fix EH-1H aircraft support the regiment's CEWI company. The HHT in the RAS maintains and supports the platoon; however, the CEWI company controls the mission.

b. The assault helicopter troop supports the ACR and the RAS. Its missions include—

- Limited air assault.
- Aerial mine delivery.
- Air movement of Classes III and V for the RAS.
- Augmentation of air medical evacuation from squadron aid stations and regimental aid stations.
- Air movement of supplies from the regimental support squadron forward to the armored cavalry squadrons and the RAS.

NOTE: The RAS does not have organic sling or rigging equipment or trained rigging personnel to support the entire regiment. Therefore, the regimental support squadron should provide the necessary equipment and personnel.

Section II

COMBAT SERVICE SUPPORT

7-9. Combat Service Support Considerations

a. CSS helps sustain combat operations by manning the force and maintaining weapon systems. It includes all classes of supply, personnel, and equipment maintenance. CSS internal to the RAS is consolidated in the HHT. Sections in the HHT provide all administrative, supply, mess, signal, medical, FARP, vehicle maintenance, and AVUM support. The aviation troops rely on the HHT for all service support.

b. While most of the CSS for the RAS will come from the support squadron, all aviation-related maintenance and POL will come directly from the COSCOM. The AVIM battalion in the COSCOM will provide AVIM

support to the RAS. Also, JP-4 is managed directly by the RAS S4 and FARP section leader.

7-10. Regimental Support Squadron

The support squadron supports the three ground squadrons and the RAS. This support squadron consists of a supply company, a maintenance company, and a medical company.

a. The supply company supports the regiment and attached units by providing Class I, II, III, IV, V, and VII supplies and by operating an ammunition transfer point. The supply company receives, stores, and

distributes supplies at forward distribution points to regimental field trains. In coordination with the regimental XO or S3, the support squadron commander determines the location of these forward distribution and service points. Supplies not handled by the company include aircraft, classified maps, and airdrop equipment. In most cases, the RAS will use organic transportation to draw supplies from the forward distribution points or receive supplies through a combination of supply point and unit distribution. The RAS S4 coordinates with the support squadron to establish an issue schedule for distribution of supplies. Repair parts, Class IX, are supplied by supply point or unit distribution from the maintenance company.

b. The maintenance company provides IDSM, repair parts, and area or backup IDSM support. The company also provides maintenance support teams to maintain equipment of the regiment. However, the company does not provide maintenance support for aircraft, aircraft armament, airdrop equipment, avionic equipment, chemical and medical equipment, electrical accounting machines, or light textiles. In addition, the maintenance company provides maintenance support for missile systems; however, it does not repair missiles. COSCOM maintenance elements provide backup support to the maintenance company.

c. The medical company furnishes health services on an area basis. The company establishes and operates a facility for emergency treatment, including limited surgical services. The company can also provide emergency dental services and interceptive mental health services. The ambulance platoon provides ground evacuation from aid stations of the RAS and other squadrons. The medical company is also responsible for Class VIII resupply to all organizations operating within the regiment's area of operation.

7-11. Aviation Maintenance Battalion

The AMB in the COSCOM furnishes AVIM-level support for RAS aircraft. The AMB is located in the corps storage area. It provides repair parts for all corps aircraft, avionic equipment, and aircraft armament systems. The AMB also furnishes direct exchange services and maintains the operationally ready floats for selected aviation items. It provides organic mobile maintenance support and contact teams for maintenance repair assistance, technical assistance, and aircraft recovery and evacuation. The AMB maintains the corps Class IX (air) authorized storage list under an automated system, including receipt, storage, and issue of repair parts.

7-12. CSS Planning

a. The RAS S1 and S4, under the direction of the RAS XO, have overall responsibility for CSS command and control. They operate from the main squadron assembly area. They process requests and reports received from the subordinate elements and forward the requests and reports to the appropriate support agency. This rear area element depends totally on information flow to support the logistical effort. The RAS XO will normally be at the RAS main CP. He directs the CSS planning effort, assisted by the S1 and S4 representatives who are also located at the main CP. From this location, the accessibility to the HHT elements and the aviation troop first sergeants greatly reduces the time required to prepare logistically supportable, tactical plans.

b. CSS plans must address critical factors for the RAS combat missions. Some of these CSS planning considerations are discussed below.

(1) Time is a critical factor when developing CSS plans. The length of time a unit expects to be in the current area of operation influences other areas of consideration. CSS plans must address the time required by the RAS XO and S4 to coordinate changes in supply requirements with all supporting agencies. The plans must also address the time required for supplies requested to be received at the requisition point. In addition, the time schedule used by the support squadron to request supplies must be outlined in the CSS plans. For example, rations requested today at noon are for meals to be consumed 24 hours away, starting at noon tomorrow.

(2) The need to balance increased movement of CSS assets against the capability to perform the mission must be addressed in the CSS plan. AVUM and AVIM elements should be moved as little as possible; only that portion which can easily be moved back should be moved forward. Another consideration is the availability of transportation assets. With organic assets, the unit can move a percentage of required Classes III and V to support current tactical missions and future be-prepared missions. Transportation assets will be required for movement of the remainder of the required Classes III and V.

(3) CSS plans must identify the locations aviation units will use for normal AVUM, crew management, and Class I activities. The location of inherent support for the RAS, including Class IX (air and ground), aircraft and ground IDSM, and Class III (packaged) must also be identified. Additionally, the location of CSS operators within the RAS who will be required to interface with support agencies must be identified. These supply operators include prescribed load list clerks for Class IX (air and ground); mess personnel for Class I; S4 supply clerks for Class III and V sections; and airfield service sections for Classes II, III, and V.

(4) The number and type of CSS units that are already in the area must be identified in the CSS plan. It must also be determined if the CSS units already in the area can support the RAS.

7-13. Unit Trains

a. RAS unit trains are centered around the field trains located in the squadron assembly area. CSS is managed by the squadron administration and logistics center, which is created by pooling S1 and S4 staff sections at the main CP. The field trains consist of the AVUM platoon, support platoon, communications section, and squadron aid station. The field trains operate from the HHT assembly area, and the aviation troops are at satellite locations nearby.

b. The three sections in the AVUM platoon operate in the assembly area. The aircraft maintenance and aircraft component repair sections establish work sites. The aircraft armament section not only establishes a work site but also works closely with the ammunition and POL section of the HHT in establishing FARPs. The AVUM platoon leader creates contact teams on an as-needed basis to assist the aviation troops. The AVUM platoon could receive augmentation from the AVIM battalion at the COSCOM. In any event, the AVUM platoon leader will establish contact with the AVIM battalion.

c. The squadron support platoon manages the squadron supply, mess, vehicle maintenance, and ammunition and POL sections. The squadron supply section is not just the HHT supply room; every routine supply action occurs there. The squadron wheeled-vehicle maintenance section has a major task in supporting more than 100 wheeled vehicles in the squadron. Vehicle maintenance contact teams will assist the aviation troops.

d. The squadron aid station will also be located in the HHT area. The medical evacuation platoon will establish routes to the aviation troops and the regimental aid station.

7-14. FARP Operations

a. The RAS ammunition and POL section has the resources to operate a Class III and V supply point and up to five FARPs. It will centrally manage all FARP operations in the RAS. FARPs should not be dedicated to a particular troop; rather they should be established throughout the battle area. This will allow all units to move freely to the nearest FARP. The ammunition and POL section leader closely monitors all FARP activities. The commander or his S3 controls aviation troop movements to the FARPs so that operations are not overloaded or congested.

b. The Class III and V supply point is near the squadron assembly area. The COSCOM will transport

supplies to the Class III and V supply point, or the ammunition and POL section will transport them from a railhead or drop point. The Class III and V supply point will maintain bulk Classes III and V. Empty FARP tankers and ammunition trucks will rotate with squadron reserve vehicles at the Class III and V supply point. Aircraft rearming and refueling points will be established; however, most aircraft will use the FARPs. The 500-gallon collapsible drums filled with JP-4 and cargo bags with palletized ammunition should be a reserve stockage at the Class III and V supply point. The drums, forward area refueling equipment, and palletized ammunition should be used to resupply an overloaded FARP rapidly.

c. The FARPs are located 18 to 25 kilometers from the forward line of own troops. Each FARP has one or two 2,500-gallon HEMTT tankers and one or two HEMTT ammunition cargo trucks. Armament personnel, fuel handlers, ammunition specialists, and heavy vehicle drivers operate the FARP. An aircraft maintenance contact team from the AVUM platoon may also operate from a FARP. The FARPs are characterized by rapid setup and displacement. FM 1-104 discusses procedures for simultaneous rearming and refueling. The factors of METT-T will influence how often a FARP is moved. These factors will also determine if troops will go to the Class III and V supply point for resupply or if supplies will be transported to the troops.

Appendix A

COMBAT ORDERS

The warning order, operation order, and debriefing formats shown in Tables A-1, A-2, and A-3, respectively, are oral examples. The formats are designed as checklists to be used by troop

commanders. Many items will not apply to all units, nor are the checklists all-encompassing. Commanders must continue to develop and publish an SOP based on their unit's mission.

Table A-1. Oral warning order

- 1. Warning Order**
- 2. Situation**
 - a. Brief statement about enemy situation, friendly situation, or both.
 - b. Attachments and detachments.
- 3. Mission (Who, What, When, Where, and Why)**
- 4. Coordinating Instructions**
 - a. Specific mission or tasks for platoons, sections, and teams.
 - b. Number of aircraft and crews required.
 - c. Aircraft load, ammunition, fuel, and cargo or passengers.
 - d. Special-mission equipment.
 - e. MOPP.
 - f. Earliest time of movement (crank-up and load-up).
 - g. Changes to SOP.
- 5. Specific Instructions**
 - a. Chain of command.
 - b. Weather (who gets).
 - c. Flight plan (who files and when).
 - d. Coordination, liaison, or special individual tasks.
- 6. Time and Place for Issuance of the OPORD**
 - a. Time is now _____.
 - b. What are your questions?

Table A-2. Oral operation order

References: Maps and charts.

TIME: _____.

Task-Organization: Aircraft-aircrew mix, PICs or air mission commanders, chalk number, and light or heavy team.

- 1. Situation**
 - a. Enemy forces. Strength, composition, disposition, location, previous actions, and probable courses of action.
 - b. Friendly forces.
 - (1) Higher.
 - (2) Adjacent.
 - (3) Supported.
 - (4) Supporting.
 - (5) Other aviation elements in area of operations.
 - c. Attachments and detachments.
 - d. Weather.
 - (1) Current weather and light data.
 - (2) Forecast weather.
 - (3) Special environmental considerations or hazards.
 - (4) Published weather minimums for operation.

Table A-2. Oral operation order (continued)

2. Mission (Who, What, When, Where, and Why)

3. Execution

- a. Concept of operation (overlay) (squadron commander's intent).
 - (1) Scheme of maneuver (ground and air).
 - (2) Fires and CAS.
 - (3) EW plan.
 - (4) Obstacle plan.
 - (5) Deception plan.
 - (6) Suppression of enemy air defenses.
- b. Specific instructions to subordinate units.
- c. Coordinating instructions.
 - (1) Essential elements of information.
 - (2) Actions on contact or rules of engagement.
 - (3) Times.
 - (a) Stand-to.
 - (b) Start.
 - (c) Communication.
 - (d) Lineup.
 - (e) Takeoff.
 - (f) On-station.
 - (g) Relief-on-station.
 - (4) Flight coordination.
 - (a) Air routes and corridors.
 - (b) Air control points, communication control points, rally points, and target index reference system.
 - (c) Holding areas, phase lines, and battle positions.
 - (d) Mode of flight, airspeed, and altitude.
 - (e) Movement technique or formation.
 - (f) Coordinating altitude and other airspace procedural control measures.
 - (g) Inadvertent IMC breakup procedures.
 - (h) Wire or bridge under flight.
 - (i) ATA procedures.
 - (j) Aircraft in-flight emergency procedures.
 - (k) Flight-following.
 - (l) Survival, evasion, resistance, and escape (pilot pickup points, signals, and times).
 - (m) ATA actions on contact procedures.
 - (5) Special-mission equipment.
 - (6) Aircraft load, ammunition, fuel, and cargo or passengers.
 - (7) MOPP.
 - (8) Time and place of debriefing.
 - (9) Inspections, rehearsals, or both.

Table A-2. Oral operation order (continued)

4. Service Support

a. Supply.

- (1) Class I.
- (2) Configuration of Class III and V resupply rates.
- (3) Location of FARPs (primary and alternate).
- (4) Class IX.
- (5) Other classes of supply.
- (6) Water point and trash point.

b. Services and transportation.

- (1) Location of AVUM platoon.
- (2) Contact teams.
- (3) Downed-aircraft recovery procedures.
- (4) Road march and convoy procedures.

c. Medical and personnel services.

- (1) Location of aid station.
- (2) Air-ground medical evacuation procedures.
- (3) Field sanitation.
- (4) Decontamination site.

5. Command and Signal

a. Command.

- (1) Chain of command.
- (2) PIC designation.
- (3) Locations of flight operations center and squadron CPs.
- (4) Proposed location for assembly area.

b. Signal.

- (1) CEOI in effect.
- (2) Secure radio codes.
- (3) IFF.
- (4) Laser codes.
- (5) Code words or passwords.
- (6) Send-a-message system.
- (7) MIJI and ECCM.
- (8) Lost communication procedures.
- (9) Tactical air and JAAT frequencies.
- (10) Tactical beacons and navigational aids.

Time is now

What are your questions?

Table A-3. Oral debriefing

1. Situation

a. Enemy situation encountered.

- (1) Size and type.
- (2) Location (grid).
- (3) Weapons and vehicles.
- (4) Enemy aircraft.
- (5) Enemy actions on contact.
- (6) NBC activity and indicators.
- (7) EW and OPSEC activities.
- (8) Supply and logistic capabilities noted.
- (9) Strengths and weaknesses noted.
- (10) BDA.

Table A-3. Oral debriefing (continued)

- b. Terrain.
- c. Friendly forces encountered.
 - (1) Size and type.
 - (2) Location (grid).
 - (3) USAF elements employed or encountered.
 - (4) Effectiveness of air strikes and CAS (BDA).
- d. Weather and light data (significant changes from initial briefing).
- 2. Mission**
 - a. Mission completed as briefed?
 - b. FRAGOs received.
- 3. Execution or Concept of Operation**
 - a. Maneuver (general overview).
 - (1) Routes flown.
 - (2) Movement techniques used.
 - (3) Control measures used.
 - (4) Times of departure and return.
 - (5) Map corrections.
 - b. Fires.
 - (1) Artillery missions called (unit employed).
 - (2) Preplanned targets used.
 - (3) Artillery effectiveness (BDA).
 - (4) Friendly ADA positions noted.
 - (5) Friendly ADA status (free, hold, or tight).
 - (6) Significant problems noted.
 - c. Flight coordination.
 - (1) NBC posture for mission.
 - (2) Essential elements of information noted.
 - (3) Friendly aircraft downed.
 - (4) Crews recovered or probable pilot pickup points.
- 4. Service Support**
 - a. FARPs used during the mission.
 - b. Status of FARPs in the area of operations, if known.
 - c. Class III consumed (gallons per FARP).
 - d. Class V consumed (by type of ammunition).
 - e. Mission status of aircraft.
 - f. Immediate maintenance requirements.
 - g. Status of recovery operations for downed aircraft.
 - h. Crew status (injuries and endurance).
 - i. Location of injured crew members.
- 5. Command and Signal**
 - a. Chain of command (location).
 - b. Locations of flight operations center and tactical operations center.
 - c. Aircraft and crew assignments.
 - d. Instructions for crews (premission planning).
- 6. Conclusions and Recommendations**

Appendix B

REPORTS

Aircrews in the RAS must be able to provide timely, concise reports. To save time, reduce confusion, and ensure completeness, reported information should be according to an established format. The information should be provided in the order that it appears on the format; if a particular item does not apply, it is simply

deleted. The spot report, crossing site report (ferry and ford), bridge report (overpass, culvert, or causeway), MIJI report, shelling report (NBC-1), and NBC-4 report (radiation dose rate) formats are shown in Figures B-1, B-2, B-3, B-4, B-5, and B-6, respectively. Refer to FM 101-5 for appropriate operational and administrative reports.

ALFA:	Who is observer or source?
BRAVO:	What? How many? How equipped? Where and when? Doing what? (If moving, give direction, speed, and altitude.)
CHARLIE:	What are you doing?

Figure B-1. Format of a spot report

ALFA:	Type and location.
BRAVO:	Length of crossing.
CHARLIE:	Usable width.
DELTA:	Current in meters per second.
ECHO:	Maximum depth in meters.
FOXTROT:	Bottom material and condition.
GOLF:	If ferry has existing equipment, capacity in tons.
HOTEL:	Slope of entry bank.
INDIA:	Slope of far bank.
JULIETT:	Other comments.

Figure B-2. Format of a crossing site report (ferry or ford)

ALFA:	Type and location.
BRAVO:	Overall length.
CHARLIE:	Width of roadway.
DELTA:	Height restriction.
ECHO:	Type of material.
FOXTROT:	Length of spans and number.
GOLF:	Computed class.
HOTEL:	Bypass (easy or difficult).

Figure B-3. Format of a bridge report (overpass, culvert, or causeway)

Line 1:	Type of report.
Line 2:	Affected station.
Line 3:	Location of station or grid coordinates.
Line 4:	Frequency or channel affected.
Line 5:	Type of equipment affected.
Line 6:	Type of emission or audio characteristics of interference.
Line 7:	Strength of interference.
Line 8:	Time interference started.
Line 9:	Effectiveness of interference.
Line 10:	Operator's name and rank.
Line 11:	Remarks.

NOTE: Send a MIJI report by secure means only.

Figure B-4. Format of a MIJI report

ALFA:	From (unit call sign) and type of report.
BRAVO:	Position of observer (grid coordinates in code).
CHARLIE:	Azimuth of flash, sound, or groove of shell (state which) or origin of flight path of missile.
DELTA:	Time from (date-time of attack).
ECHO:	Time to (for illumination time).
FOXTROT:	Area attacked (either azimuth and distance from observer in code or grid coordinates in the clear).
GOLF:	Number and nature of guns, mortars, aircraft, or other means of delivery, if known.
HOTEL:	Nature of fire.
INDIA:	Number and type of bombs, shells, rockets, and so on.
JULIETT:	Flash-to-bang time in seconds.
KILO:	If NBC-1, damage (in code) or crater diameter.

Figure B-5. Format of a shelling report (NBC-1)

- LIMA:** If NBC-1, fireball width (immediately after passage of shock wave). Do not report if data was obtained more than five minutes after detonation.
- MIKE:** If NBC-1, cloud height (state top or bottom) ten minutes after burst.
- NOVEMBER:** If NBC-1, cloud width ten minutes after burst.

NOTE: State units of measure used, such as meters and miles. For additional information, refer to FM 3-12, FM 1-102, and FM 34-3. As a minimum, an NBC-1 report requires lines B, C, D, H, J, and L or M.

Figure B-5. Format of a shelling report (NBC-1) (continued)

- QUEBEC:** Location of reading.
- ROMEO:** Dose rate (rads per hour). The words *initial, increasing, peak, or decreasing* may be added.
- SIERRA:** Date-time of reading (local or Zulu, state which).

NOTE: This format is used frequently to report dose-rate measurements after the initial use of nuclear weapons. Lines Q, R, and S may be repeated as often as necessary. Radiation dose-rates are measured in the open, 1 meter above the ground. If readings were taken elsewhere, specify in the message; for example, "In the center of a 4-foot foxhole with 6 inches of overhead." Other information may be included at the user's discretion.

Figure B-6. Format of an NBC-4 report (radiation dose rate)

GLOSSARY

A ² C ²	Army airspace command and control	EA	engagement area
AA	assembly area	ECCM	electronic counter-countermeasures
acft	aircraft	EH	electronic helicopter
ACR	armored cavalry regiment	EW	electronic warfare
ACT	air cavalry troop	FAA	forward assembly area
ADA	air defense artillery	FAC	forward air controller
admin	administration	FARP	forward arming and refueling point
AH	attack helicopter	FC	field circular
AHT	assault helicopter troop	FLIR	forward looking infrared
ALO	air liaison officer	flt	flight
AM	amplitude modulated	FM	frequency modulated; field manual
AMB	aviation maintenance battalion	FRAGO	fragmentary order
ammo	ammunition	FSE	fire support element
armt	armament	FSO	fire support officer
ATA	air to air		
ATKHT	attack helicopter troop	G2	Assistant Chief of Staff, G2 (Intelligence)
attn	attention	gnd	ground
auto	automotive	GP	general purpose
AVIM	aviation intermediate maintenance	grp	group
AVUM	aviation unit maintenance	GSR	ground surveillance radar
BDA	battle damage assessment		
C ²	command and control	HEMTT	heavy expanded mobility tactical truck
C&J	collecting and jamming	HHT	headquarters and headquarters troop
CAS	close air support	HQ	headquarters
cdr	commander	hvy	heavy
CE	Communications-Electronics		
CEOI	Communications-Electronics Operation Instructions	IDSM	intermediate direct support maintenance
CEWI	combat electronic warfare intelligence	IFF	identification, friend or foe (radar)
cmd	command	IMC	instrument meteorological conditions
cmob	countermobility	intel	intelligence
comm	communications	IPB	intelligence preparation of the battlefield
comp	component		
COMSEC	communications security	JAAT	joint air attack team
COSCOM	corps support command	km	kilometer(s)
CP	command post	LD	line of departure
CSS	combat service support	LOC	lines of communication (logistic routes)
DA	Department of the Army	LOS	line of sight
decon	decontamination	lt	light
DS	direct support	LZ	landing zone
DZ	dropping zone		

maint	maintenance	S1	Adjutant (US Army)
med	medical	S2	Intelligence Officer (US Army)
METT-T	mission, enemy, terrain, troops, and time available	S3	Operations & Training Officer (US Army)
MIJI	meaconing, intrusion, jamming, and interference	S4	Supply Officer (US Army)
mob	mobility	SEAD	suppression of enemy air defense
MOPP	mission-oriented protective posture	SGT	sergeant
MSR	main supply route	SIGINT	signals intelligence
		SOP	standing operating procedure
		SP	start point
NBC	nuclear, biological, chemical	spt	support
NCS	net control station	sqdn	squadron
no	number		
NOE	nap-of-the-earth	STANAG	Standardization Agreement
		std	standard
OH	observation helicopter	tac	tactical
op	operation	TOC	tactical operations center
OPCON	operational control	TOW	tube-launched, optically tracked, wire-guided missile
OPORD	operation order		
OPSEC	operations security	TRADOC	United States Army Training and Doctrine Command
		trans	transportation
pam	pamphlet	trp	troop
PIC	pilot in command	TT	training text
PIVAD	product improved Vulcan air defense		
PL	phase line	UH	utility helicopter
POL	petroleum, oils and lubricants	UHF	ultra high frequency
		US	United States (of America)
QSTAG	Quadripartite Standardization Agreement	USAARMS	United States Army Armor School
		USAAVNC	United States Army Aviation Center
		USACAC	United States Army Combined Arms Center
		USAF	United States Air Force
RAS	regimental aviation squadron		
RATT	radio teletypewriter	VHF	very high frequency
recon	reconnaissance		
repl	replacement	XO	executive officer
RP	release point		

REFERENCES

Section I

REQUIRED PUBLICATIONS

Required publications are sources that users must read in order to understand or to comply with this publication.

Field Manuals (FMs)

- 1-102 Army Aviation in an NBC Environment
- 1-104 Forward Arming and Refueling Points
- 1-112 Attack Helicopter Battalion
- 1-116 Air Cavalry Troop
- 3-12 Operational Aspects of Radiological Defense
- 34-3 Intelligence Analysis
- 100-5 Operations
- 101-5 Staff Organization and Operations

TRADOC Training Text (TRADOC TT)

- 17-50-3 Joint Air Attack Team (JAAT) Operations

NOTE: To obtain this TRADOC TT, write to the address below.

Commander
USAAVNC
ATTN: ATZQ-OSS-TS
Fort Rucker, AL 36362-5000

Department of the Army Form (DA Form)

- 2028 Recommended Changes to Publications and Blank Forms

Section II

RELATED PUBLICATIONS

Related publications are sources of additional information. They are not required in order to understand this publication.

Field Manuals (FMs)

- 1-100 Combat Aviation Operations
- 1-107 Air-to-Air Combat
- 1-111 Aviation Brigade
- 34-1 Intelligence and Electronic Warfare Operations
- 100-2-1 Soviet Army Operations and Tactics
- 100-2-2 Soviet Army Specialized Warfare and Rear Area Support
- 100-2-3 The Soviet Army Troops Organization and Equipment
- 101-5-1 Operational Terms and Symbols

Department of the Army Pamphlet (DA Pam)

- 310-1 Consolidated Index of Army Publications and Blank Forms

Standardization Agreements (STANAGs)

- 2253 (QSTAG 174)
Roads and Road Structures
- 2355 (QSTAG 277)
Procedures for the Employment of Helicopters in the Antiarmor Role
- 3628 (QSTAG 691, Air Std 44/31)
Helicopter Tactical Refueling

Section III

PROJECTED PUBLICATIONS

Projected publications are sources of additional information that are scheduled for printing but are not yet available. Upon print, they will be distributed automatically via pinpoint distribution. They may not be obtained from the United States Army Adjutant General Publications Center until indexed in DA Pam 310-1.

Field Manuals (FMs)

1-113	Assault Helicopter Battalion	1-140	Helicopter Gunnery
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Section IV

COMMAND

Command publications cannot be obtained through Armywide resupply channels. Determine availability by contacting the address shown. Field circulars expire three years from the date of publication, unless sooner rescinded.

Field Circulars (FCs)

17-97	Armored Cavalry Troop. March 1986. Commandant, USAARMS, ATTN: ATSB-CS, Fort Knox, KY 40121-5200.	100-1-103	Army Airspace Command and Control in a Combat Zone. January 1985. Commander, USACAC, ATTN: ATZL-SWA-DL, Fort Leavenworth, KS 66027-5300.
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By Order of the Secretary of the Army:

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